

UIC Permit Application - Form U200

Please review attached "Instructions for Completing UIC Permit Application – Form U200" before completing each item, or your application may be delayed. All sections must be completed.

1. Mark application status with an "X": New Temporary Renewal Major Mod Permit Transfer

2. Facility/Site Name: Soda Lake Geothermal
 Address or Location of Wells: 5500 Soda Lake Road, Fallon, NV 89406
 Legal Description of Location of Well(s): Township 20 N S, Range 28 E, Sec. 33, ¼ Sec. SW, ¼ Sec. NE
 Latitude ___ deg ___ min ___ sec Longitude ___ deg ___ min ___ sec Object: _____
 Well Site/Field Land Status: Private Public - Agency _____
 County Churchill For wells on one parcel, enter APN # 27-001-90395
 Current/Previous UIC permit # UNEV89037 Other NDEP Permits # _____

3. Number of Injection Wells requested for next 5 years: 1 Number of current Injection Wells: _____
 a. For projects with existing injection wells, attach a separate sheet with a list of each existing injection well with a name or description of well, location by Section T&R, depth, perforated or open interval, current well status.

4. Mark type of well applied for with an "X"; circle other types of existing/proposed injection wells at project.

Class 2 Wells: OIL and GAS PRODUCTION <input type="checkbox"/> Disposal <input type="checkbox"/> Enhanced Recovery <input type="checkbox"/> Storage
Class 3 Wells: <input type="checkbox"/> Solution Mining <input type="checkbox"/> In-Situ Prod. Uranium/Metals <input type="checkbox"/> Fossil Fuel Recovery <input type="checkbox"/> Other

Class 5 Wells: (also enter Class 5 "Subclass Code" here _____ see [BWPC Forms website](#) for list)

COMMERCIAL/INDUSTRIAL <input type="checkbox"/> Motor Vehicle Waste Disposal (floor drain or other drainage device) <input type="checkbox"/> Vehicle Washing (floor drain or other drainage device) <input type="checkbox"/> Contact/Non-contact <input type="checkbox"/> Industrial Process Water	GEOHERMAL REINJECTION <input type="checkbox"/> Energy production (25 or more megawatts) <input checked="" type="checkbox"/> Energy production (10 to less than 25 MW) <input type="checkbox"/> Energy production (less than 10 MW) <input type="checkbox"/> Direct Heat Reinjection (less than 250,000 gal/day) <input type="checkbox"/> Direct Heat Reinjection (250,000 gal/day or more)	RECHARGE <input type="checkbox"/> Aquifer Storage and Recovery <input type="checkbox"/> Aquifer Recharge <input type="checkbox"/> Mining Pit Dewatering <input type="checkbox"/> On-site Dewatering	REMEDICATION <input type="checkbox"/> Remediation
STORM WATER DRAINAGE <input type="checkbox"/> Commercial/Industrial Storm Water Drainage <input type="checkbox"/> Non-Commercial/Industrial Storm Water Drainage		SEPTIC <input type="checkbox"/> Large capacity septic systems (≥5,000 gal)	OTHER <input type="checkbox"/> Describe <hr/> <hr/> <hr/>

5. Based on 3 & 4 above, enter Application Fee Enclosed here: \$ 750
 (Appropriate fee must be submitted as described in NAC445A.872; fee schedule available at <http://ndep.nv.gov/bwpc/uicfees.pdf>)

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6. Well Owner Information			
Organization: AMOR IX, LLC		Contact person: Sheldon Byde	
Title: Permitting Manager	Phone: (801) 875-4200	Email: sheldon.byde@cyrqenergy.com	
Mailing Address, City, St & Zip Code: 15 W. South Temple, Suite 1900, Salt Lake City, Utah 84101-1573			
Billing Address? <input checked="" type="checkbox"/>			
7. Operator Information			
Organization: AMOR IX, LLC		Contact person(s): Greg Champneys	
Title: Plant Manager	Phone: (775) 262-3075	Email: greg.champneys@cyrqenergy.com	
Mailing Address, City, St & Zip Code: 5500 Soda Lake Road, Fallon, NV 89406			
Billing Address? <input type="checkbox"/>			
8. Property Owner Information			
If property owner is different from Well Owner or Operator, please include information here. See instructions for details.			
Name of owner: Truckee Irrigation District		Phone: (775)423-2141	
Mailing Address: P.O. Box 1356			
City: Fallon	State: NV	Zip Code: 89407-1356	
9. Billing Information, if different from address under Item 6 or 7 (Annual invoice will be mailed to this address or the entity checked above)			
Organization:		Email:	
Contact person:		Phone:	
Title:		Fax:	
Mailing Address, City, St & Zip Code:			
Federal Tax ID No.:			
10. Other Contact, if different from Contact under Item 7, 8, or 9			
Organization: AMOR IX, LLC		Email: joe.bannon@cyrqenergy.com	
Contact person: Joe Bannon, VP Environment & Land			
Phone, fax: (801) 875-4200			
Mailing Address, City, St & Zip Code: 15 W. South Temple, Suite 1900, Salt Lake City, Utah 84101-1573			

Identify from the names above:

Who owns the surface facilities related/connected to the injection well(s)? AMOR IX, LLC

Who operates these surface facilities? AMOR IX, LLC

NOTE: Correspondence shall be directed to the Owner/Operator of the injection well(s). In addition, major correspondence shall be sent to the property owner if the property owner is not the Owner/Operator of the injection well(s).

11. Financial Responsibility Information (see instructions for more details)


Proof of Financial Responsibility is required for all injection wells in Nevada. Provide a copy of the Affidavit of Intent to Abandon or proof of financial responsibility such as a surety bond or financial statement to verify that resources necessary to plug and abandon the well are available (pursuant to NAC 445A.871). Copies of bonds filed with BLM or Nevada Division of Minerals may be submitted as evidence. Evaluation will be made to determine if additional bonding is required. For mining permits, show proof that the Mining Reclamation Bond will cover plugging and abandonment costs.

Nevada UIC Permit Application – Form U200 (Cont.)

12. Certification by Owner/Operator

I certify under penalty of law that I have personally examined and am familiar with the information in this, and attached, document(s). I believe the information is true, accurate and complete, based on my inquiry of those individuals immediately responsible for obtaining the information. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(The owner/operator must sign this document: a private individual, a corporate officer, a general partner, a proprietor, a principal executive, or a ranking elected official.)

Name of Responsible Official Joe Bannon	Title VP, Environment & Land
Signature of Responsible Official 	Date 14 Nov 2024

Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by the provisions of NAC 445.131 to 445.354, inclusive, or by any permit, rule, regulation or order issued pursuant thereto or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NAC 445.131 to 445.354, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, is guilty of a gross misdemeanor and shall be punished by a fine of not more than \$10,000 or by imprisonment in the county jail for not more than 1 year, or by both fine and imprisonment.

**Nevada Division of Environmental Protection
Bureau of Water Pollution Control Attention: UIC Program
901 S. Stewart Street, Suite 4001
Carson City, NV 89701-5249**

Nevada UIC Permit Application – Form U200 (Cont.)

INSTRUCTIONS FOR COMPLETING UIC PERMIT APPLICATION Form U200:

This application form is the primary application form for UNEV and UIC general permit applications, and is required for all UIC permit application packages.

Please review attached “Instructions for Completing UIC Permit Application – Form U200” before completing each item, or your application may be delayed. All sections must be completed. If a section is not applicable, enter N/A.

1. **APPLICATION STATUS** – Pursuant to NAC 445A.902, mark with an “X” if the application is a new application, renewal application (due 180 days before permit expiration), major modification, or permit transfer (minor modification). Permit Transfer requests must have the Transfer form attached. All other requests for minor modifications do not require the UIC Permit Application form.
2. **FACILITY/SITE NAME & LEGAL DESCRIPTION** – Enter the Facility/Site name where the injection wells are located. Enter the address, or enter the physical description of the location of the injection wells if there is not an address.

Each UIC permit must contain a legal description of the well locations. Enter the legal description of the location for each injection well: Township(s), Range(s), Section(s), ¼ Section(s), and ¼ Section(s). (Valid Township Numbers are 1N through 48N and 1S through 35S; valid Range Numbers are 17 ½ E through 71E; valid Section Numbers are 01 through 36) For an Area Permit (more than one injection well under a permit), the applicant may request as many sections as necessary within their legal right – please attach a separate sheet listing all sections being requested and provide the location information in the same format. If multiple wells are in different sections, please list each injection well with information on separate sheet. This will be the allowed area for injection wells on the permit.

Enter the latitude/longitude for each injection well, use separate sheet if more than one well. If the well(s) are not constructed, give a general location (center of property) of the facility or major component of the facility. The Lat/Long for the injection well(s) shall be provided upon completion of the well. For drain field system, identify the location as the point where the field starts/piping enters the field. For latitude in Nevada, the degrees must be between 35 and 42. For longitude, the degrees must be between 114 and 120.

Enter the Well Site/Field Land Status. If the well is owned by a public agency (e.g. BLM, Forest Service, County, or State), enter the agency here and enter the district/local office contact information under #8.

Enter the County where each injection well will/could be located.

For applications where all of the injection wells are located on one parcel, enter the APN #.

Enter all current permit numbers including UIC permits, BWPC permits, and other NDEP permits. Attach a description of all permits except UIC permits.

3. **NUMBER OF INJECTION WELLS** – Indicate the maximum number of proposed injection wells for the life of the permit (5 years). The application fee will be based on the number of proposed injection wells for all permits except where the regulations stipulate a flat fee. Indicate the number of current injection wells. As of 2001, a subsurface fluid distribution system (aka leach or drain field is an injection well (per NAC445A.8355 and NAC445A.838).
4. **TYPE OF WELL** – Mark with an "X" the box that best describes the type of injection well for which the permit is requested. If none of the boxes apply, mark "Other" and explain in detail.

If a facility has multiple types of injection wells, please circle or list them all on the application.

Nevada UIC Permit Application – Form U200 (Cont.)

For Class 5 Wells, enter the Subclass Code (EPA Well Codes are listed on the *Subclasses of Class V Injection Wells* document on the website) to describe the type of injection well.

5. **APPLICATION FEE ENCLOSED** – All new, renewal, and Major Modification applications require a fee. Please make all checks to NDEP or the Nevada Division of Environmental Protection. See the UIC Fee Schedule for the appropriate fee which must be submitted as described in NAC 445A.872.
6. **DEFINITIONS (for Sections 6-10)**

Well Owner – legal owner (company or person) of the injection wells. The owner may or may not also own the facility, business and/or land where the injection wells are located.

Operator – company or person legally responsible for the overall operation of the facility/well, such as an oil company operating an injection well, or the responsible party (does not own the facility, business and/or land) of a corrective action site. Field operation personnel is not considered the “Operator” for an UIC permit application.

Other Contact – A contractor or consultant hired by the owner/operator to compile and submit technical information and/or operate an injection system/well.

WELL OWNER INFORMATION – Enter the legal owner (business or person) of the injection wells. A business name shall be a legal, active name registered with the Nevada Secretary of State, unless otherwise exempted by the regulations (please explain). All municipalities, utilities, etc. must be certified with the State of Nevada. For oil or geothermal wells, enter the name of the oil or geothermal field where the injection wells are located. Enter the Contact person(s) for this facility, their phone numbers, and street address. If this is also the Billing Address, place an “X” in the box.
7. **OPERATOR INFORMATION** - In the case where the property is owned by one or more entities but the facility is operated by another company (such as an oil company operating an injection well on public or private land), and the operator name and address are different than the property owner’s info in Section 8, **enter the legal entity or person’s name and address of the operator of the well/facility.**

If the operator of the well is the legal entity for the permit and well operation, and is different from the owner of the property, then the operator shall provide property owner information and indicate with a legal lease agreement the owner is aware of the injection well and operation of such well. The owner shall be notified of the permit application and issuance, and be made aware of the liabilities of the well and its use.
8. **PROPERTY OWNER INFORMATION** - **If the property owner is not the well owner, then the property owner information** (organization or private individual) **should be provided here or in an attachment if there are multiple owners.** For public land, enter the land management agency and the local/district office information. If a company, then enter a legal/corporate name (i.e., Acme Products, Inc.), contact information, and address of the owner of the company responsible for the facility’s activities. A company/corporation name shall be a legal, active name registered with the Nevada Secretary of State, unless otherwise exempted by the regulations (please explain). All municipalities, utilities, etc. must be certified by the State of Nevada. **Write “same” if the property owner is the operator under Section 7.**
9. **BILLING INFORMATION** – Provide the name and mailing address for all billing-related matters if different from the address for the Owner/Operator.
10. **OTHER CONTACT** - If a contractor/consultant is operating the injection system, the owner/operator shall indicate who the contractor is here and indicate there is a legally binding agreement to operate the system, and the owner/operator and the contractor are fully aware of all UIC rules and regulations. Note that all plans and specifications must be wet stamped by a State of Nevada registered Professional Engineer. If the owner/operator is planning to have the contractor/consultant submit and sign monitoring reports, a written Letter of Authorization to do so must be submitted with the application.

Nevada UIC Permit Application – Form U200 (Cont.)

NOTE: Correspondence shall be directed to the Owner/Operator of the injection well(s). In addition, major correspondence shall be sent to the property owner if the property owner is not the Owner/Operator of the injection well(s).

NOTE: The property owner is liable for the injection well if the business or facility owner/operator abandons the well.

11. **FINANCIAL RESPONSIBILITY INFORMATION** – Proof of Financial Responsibility is required for all injection wells in Nevada.

- **Class 2 Wells:** Provide proof of financial responsibility such as a surety bond to verify that resources necessary to plug and abandon the well are available (pursuant to NAC 445A.871). Copies of bonds filed with BLM or Nevada Department of Minerals may be submitted as evidence. Evaluation will be made to determine if additional bonding is required.
- **Class 5 Wells:** Provide a copy of the Division of Water Resources (DWR) Affidavit of Intent to Abandon or proof of financial responsibility such as a surety bond or financial statement to verify that resources necessary to plug and abandon the well are available (pursuant to NAC 445A.871). Copies of bonds filed with BLM or Nevada Department of Minerals may be submitted as evidence. Evaluation will be made to determine if additional bonding is required. For mining permits, show proof that the Mining Reclamation Bond will cover plugging and abandonment costs.

12. **OWNER/OPERATOR SIGNATURE** - An application submitted by a corporation must be signed by a principal executive officer of at least the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the activity described in the form originates. In the case of a partnership or a sole proprietorship, the application must be signed by a general partner or the proprietor, respectively. In the case of a municipal, state, federal or other public facility, the application must be signed by either a principal executive officer, ranking elected official or other duly authorized employee. This person will be the responsible party named in any violations noted by the Division.

Nevada UIC Application Form U202 – Attachments (Cont.)

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NOV 18 2024

NDEP/BWPC

Nevada Division of Environmental Protection
Bureau of Water Pollution Control
Underground Injection Control Program
901 S. Stewart St Ste 4001
Carson City Nevada 89701
Ph: 775-687-9418 Fx: 775-687-4684

UNEV Permit Application Form U202 APPLICATION ATTACHMENTS – Class 2, 3, or 5 Geothermal Wells

Attachments are required to be submitted with all UNEV permit applications. Be sure you choose the appropriate “Attachments” Form from the list below that applies to the type of well you will be using. Go to <http://ndep.nv.gov/bwpc/forms/html#uic> if you need to obtain one of these other forms.

- I. Form U201 – CLASS 5 (types not listed below)
- II. Form U202 – CLASS 2, CLASS 3, or CLASS 5 GEOTHERMAL
- III. Form U203 – CLASS 5 REMEDIATION or TRACER TESTING

IF APPLICATION IS FOR AN UIC GENERAL PERMIT, STOP HERE – do not provide the attachments below. Instead, attach the specific Notice of Intent (NOI) for that general permit.

Application Attachments for Class 2, 3 or Class 5 Geothermal Injection Wells

Read the instructions for preparing the attachments carefully and refer to the regulations (NAC 445A.867). The ability to process your application for a permit depends heavily on the completeness and accuracy of the attachments. Attachments shall be submitted with UIC permit applications for Class 2, 3, and 5 wells, including Oil and Natural Gas Production (disposal, enhanced recovery, and storage), Solution Mining (In-Situ Production for uranium and metals, and fossil fuel recovery, etc.), and geothermal pursuant to NAC 445A.867.

Please Note: the attachments list was updated in 2006, and are in a different order than in previous editions. Additionally, some attachments have been expanded for clarification, and permit renewal requirements have been added.

Attachments

- A. **MAPS OF WELLS/AREA AND AREA OF REVIEW (AOR)** - Submit the following maps:
 - a. Injection well map - a topographic map, extending at least one mile (see AOR Methods below) beyond the project/property boundaries, showing all existing and proposed injection well(s) or if locations of injection wells are not know – highlight the sections in the project area for which a permit is sought and the applicable area of review.

Please see Attachment A, Map A – Injection Well Map.

- b. Second map showing area of review, the map must show the following:

All wells and other relevant features including producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, mines (surface and subsurface), quarries, water wells, public water supply systems, and other pertinent surface features, including residences, roads, faults (if known or suspected), etc. The map must show all intake and discharge structures and all

Nevada UIC Application Form U202 – Attachments (Cont.)

hazardous waste, treatment, storage, or disposal facilities.

Please see Attachment A, Map B – UIC Area of Review (AOR) Map.

- c. Third map showing distribution system from producing wells – through surface facilities (e.g. processing units, treatment works, power plant, etc.) to injection wells; include pumps, valves, manifolds, all system monitoring points.

Please see Attachment A, Map C – Distribution System Map.

- d. Fourth map showing property boundaries and land ownership (public or private - include land owners name)

Please see Attachment A, Map D – Land and Lease Map.

AREA OF REVIEW METHODS - The area of review shall be a fixed radius of 1 mile from the well bore unless the use of an equation is approved in advance by the Director. If alternative method is pre-approved by the Director, give the method(s) and the calculations used to determine the size of the area of review (fixed radius or equation).

- B. **MAPS AND CROSS SECTIONS OF USDW's** - Submit geologic name and depth to bottom of all underground sources of drinking water which may be affected by the injection. Submit maps and cross sections indicating the vertical limits of all underground sources of drinking water within the area of review, their position relative to the injection formation and the direction of water movement, where known, in every underground source of drinking water which may be affected by the proposed injection. Include depth to groundwater, groundwater flow direction/rate, and hydraulic conductivity.

A baseline water analysis of the receiving groundwater (zone of injection) of the injection wells (not impacted by contamination) must be submitted with the application. The applicant may wish to provide more than one sample to adequately characterize the receiving groundwater for baseline purposes. It is the responsibility of the applicant to determine background water quality conditions (physical and chemical) in the region immediately surrounding the injection wells, and determine current baseline water quality in the ground/surface water above the injection zone(s) and of the receiving groundwater. Determination of baseline and background conditions may require multiple sampling points and/or dates. Keep in mind baselines values in the application may be reflected in permit limitations in the UIC permit, so the more background data an applicant uses, the better actual conditions will be represented.

The sample(s) must be analyzed for inorganics (UIC Extended Sample List 2), other relevant constituents may also be required, such as total petroleum hydrocarbons. This sampling must be completed for each new injection well constructed based on the zone of injection.

There are no changes to this Attachment from the 2018 renewal application for Soda Lake's existing UIC Permit UNEV89037. The baseline laboratory analysis of the receiving groundwater (zone of injection) was submitted with the original application.

Nevada UIC Application Form U202 – Attachments (Cont.)

- C. **MAPS AND CROSS SECTIONS OF GEOLOGIC STRUCTURE OF AREA** - Submit maps and cross sections detailing the geologic structure of the local area (including the lithology of the injection zone and confining intervals thickness, depths and fracture pressure) and generalized maps and cross sections illustrating the regional geologic setting.

There are no changes to this Attachment from the 2018 renewal application for Soda Lake's existing UIC Permit UNEV89037.

- D. **CORRECTIVE ACTION PLAN AND WELL DATA** - Submit a tabulation of data reasonably available from public records or otherwise known to the applicant on all wells within the area of review, including those in the map required in part B, which penetrates the proposed injection zone. Such data shall include the following:

A description of each well's type, construction, date drilled, location, depth, record of plugging and/or completion, and any additional information the Director may require. For Class 2 wells operating over the fracture pressure of the injection formation, all known wells within the area of review which penetrate formations affected by the increase in pressure. Include the corrective action proposed to be taken by the applicant under NAC 445A.899.

There are no changes to this Attachment from the 2018 renewal application for Soda Lake's existing UIC Permit UNEV89037.

- E. **FORMATION TESTING PROGRAM** - For Class 2 and geothermal Class 5 wells, the testing program must be designed to obtain data on fluid pressure, estimated fracture pressure, physical and chemical characteristics of the injection zone.

For Class 3 wells the program must be designed to obtain data on fluid pressure, fracture pressure, and physical and chemical characteristics of the formation fluids if the formation is naturally water bearing. Only fracture pressure is required if the formation is not water bearing.

There are no changes to this Attachment from the 2018 renewal application for Soda Lake's existing UIC Permit UNEV89037.

- F. **CONSTRUCTION PROCEDURES and DETAILS** - Discuss the injection well construction procedures to be utilized. This should include details of what type of rig will be used to drill well, the casing and cementing program, logging procedures, deviation checks, and the drilling, testing, cuttings and coring programs, proposed annulus fluid, and final completion details including liner hangers, tubing and packer configuration, etc. Submit preliminary schematic or other appropriate drawings of the surface and subsurface construction details of the well. As a reminder, mechanical integrity testing must be conducted during construction of wells – see Attachment H.

As part of injection well construction, a plan for cathodic protection of the casing string or tubing is required to be submitted. The cathodic protection shall show how steps will be taken to ensure casing/tubing does not corrode near surface or at depth. The well cellar(s) shall be designed to prevent water from collecting around the injection casing.. Also, describe how well construction will prevent casing corrosion at depth.

Also required with all applications is a schematic of the complete surface/subsurface conveyance system, including all process/treatment systems, additive ports, valves and gauges, pumps, etc.

See Attachment F.

Nevada UIC Application Form U202 – Attachments (Cont.)

- G. **INTERNAL and EXTERNAL MECHANICAL INTEGRITY** – Provide details on how MITs will be conducted on all injection wells during construction. An internal and external test must be conducted on each injection well. Usually, a casing pressure test is conducted on the intermediate or production casing string to show internal integrity; and a cement bond/variable density logs must be run to demonstrate external integrity. Other tests to show integrity must be pre-approved along with the drilling program. Results of any mechanical integrity testing shall be submitted, including description of test, date performed, and name of Division representative witnessing test.

The integrity of well 45A-33 was demonstrated with an MIT conducted on October 16, 2024. The MIT report and UIC Form U111 were submitted to NDEP via email on October 23, 2024, with original hardcopies mailed to NDEP's Carson City office.

- H. **INJECTION PROCEDURES** - Describe the proposed injection procedures including all pumps, water storage tanks, surge tanks, etc. Provide the make/model and operating parameters (e.g. maximum pump rate and pressure) of the injection pumps that will be used. For high volume injection wells, data on fracture pressure is required.

There are no changes to this Attachment from the 2018 renewal application for Soda Lake's existing UIC Permit UNEV89037.

- I. **OPERATING DATA** - Submit the following proposed operating data for each well (including all those to be covered by area permits): (1) average and maximum daily rate and volume of the fluids to be injected; (2) average and maximum injection pressure; (3) nature of annulus fluid, if used; and (4) source and analysis of the physical and chemical characteristics of the injection fluid. The chemical analysis shall be for the same parameters listed under Attachment A above. Other constituents may be required by UIC staff depending on the project.

See Attachment I.

- J. **CHANGES and FATE IN INJECTED FLUID** - Discuss expected changes in pressure, chemistry, native fluid displacement, potential for receiving aquifer degradation and direction of movement of injected fluid. Describe in detail what chemicals will be used for any purpose, including corrosion, scale inhibition, separation of oil/water, etc. Provide product sheets for each chemical.

There are no changes to this Attachment from the 2018 renewal application for Soda Lake's existing UIC Permit UNEV89037.

- K. **OPERATIONS AND MAINTENANCE (O&M) MANUAL: SAMPLING (QA/QC) & CONTINGENCY PLAN** – A basic O&M Manual shall be submitted as part of the UIC application package. The manual should include standard sampling and Quality Assurance/Quality Control (QA/QC) practices for field sampling; discussion of standard routine operating instructions and maintenance procedures (e.g. how and when activated carbon is changed out) Outline contingency plans to cope with all shut-ins or well failures, so as to prevent migration of fluids to the surface. The contingency plan should include provisions for reporting violations and a statement assuring injection will cease in the event of a well failure or if the receiving water is degraded.

While holding a separate UIC temporary permit, this well will be operated and maintained pursuant to Soda Lake's UIC O&M Manual under its current facility-wide UIC Permit UNEV89037.

- L. **MONITORING PROGRAM** - Discuss the planned monitoring program. This should be thorough, including maps showing the number and location of monitoring wells with depths and screened intervals as appropriate and a discussion of monitoring devices, sampling frequency, and parameters measured. If a manifold monitoring program is utilized, pursuant to CFR §146.23(b) (5), describe the program and compare it to individual well monitoring.

Nevada UIC Application Form U202 – Attachments (Cont.)

While holding a separate UIC temporary permit, this well will be incorporated into the monitoring protocol under Soda Lake's current facility-wide UIC Permit UNEV89037.

- M. **STIMULATION and/or AUGMENTATION PROGRAMS** - Outline and provide details on any proposed formation stimulation, aquifer augmentation and/or well stimulation programs. These should be listed in the O&M Manual and details provide on how they will be maintained and monitored.

There are no changes to this Attachment from the 2018 renewal application for Soda Lake's existing UIC Permit UNEV89037.

- N. **PLUGGING COST ESTIMATE AND PLAN** - Submit a current **Cost Estimate** and **Plan** to plug all wells once they become abandoned pursuant to NAC 445A.923 through 925. First: (1) describe the type, number, and placement (including the elevation of the top and bottom) of plugs to be used; (2) describe the type, grade, and quantity of cement to be used; and (3) describe the method to be used to place plugs, including the method used to place the well in a state of static equilibrium prior to placement of the plugs; Second, based on 1, 2, and 3 above, provide a cost estimate of materials, equipment and labor for plugging and abandonment of the well. Also for a Class 3 well that underlies or is in an exempted aquifer, demonstrate adequate protection of USDW's.

See Attachment N.

- O. **AQUIFER EXEMPTIONS** - If an aquifer exemption is requested, submit data necessary to demonstrate that the aquifer meets the following criteria: (1) does not serve as a source of drinking water; and (2) cannot now and will not in the future serve as a source of drinking water; or (3) the TDS content of the ground water is more than 10,000 mg/l and is not reasonably expected to supply a public water system. Data to demonstrate that the aquifer is expected to be mineral, hydrocarbon or geothermal producing, such as general description of the mining zone, analysis of the amenability of the mining zone to the proposed method, and timetable for proposed development must also be included. For additional information on aquifer exemptions, see NAC 445A.851.

There is no aquifer exemption requested.

- P. **DESCRIPTION OF BUSINESS** - Give a brief description of the nature of the business.

The Soda Lake Geothermal power plant is a binary geothermal plant in Fallon, Nevada. It generates renewable electricity sold to the University of Utah in Salt Lake City. By providing injection support to existing production wells, injection well 45A-33 will increase the reliability of the plant's service.

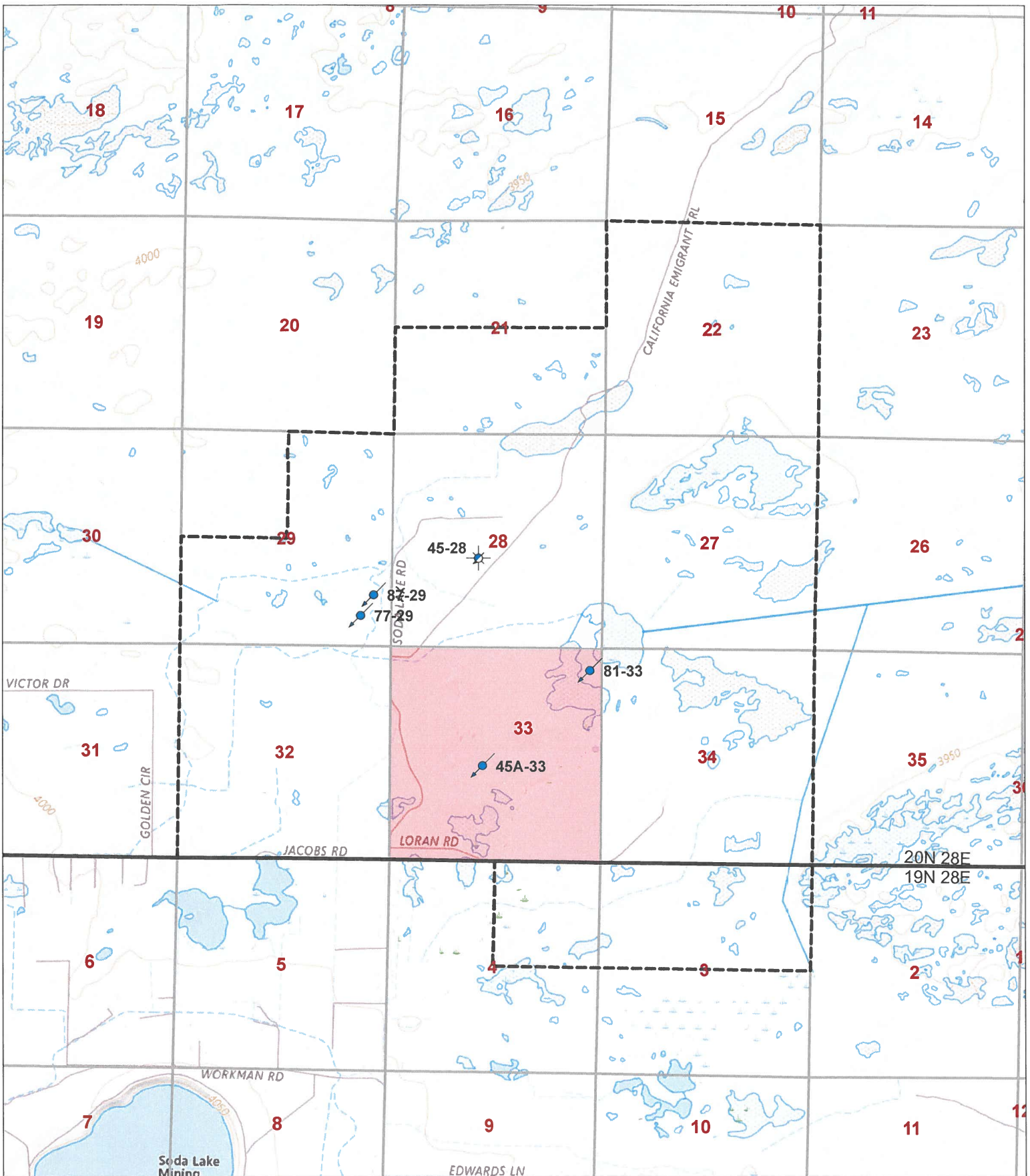
Attachment A

- **Map A - Injection Well Map**
- **Map B - UIC Area of Review (AOR) Map**
- **Map C - Distribution System Map**
- **Map D - Land and Lease Map**

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NDEP/BWPC








Cyro
Soda Lake
geothermal


ND 11.13.2024

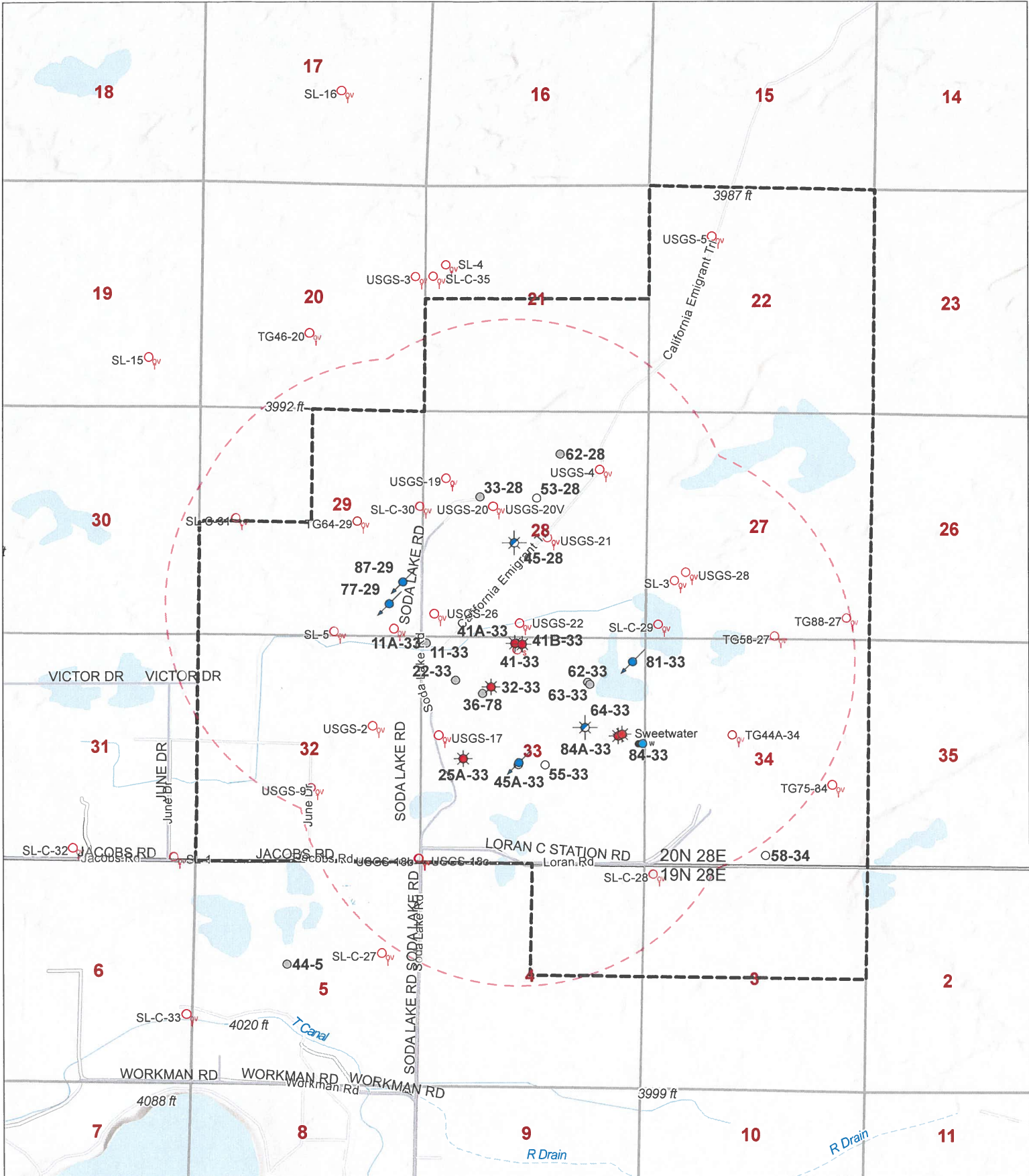
**Soda Lake Geothermal
Injection Well Map UIC
Form 202: Map A**

0 0.5 1 Miles



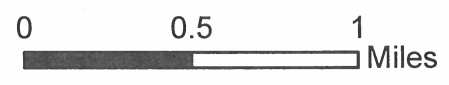
 Injection Well
  Soda Lake Unit
  UIC permit area






Cyro
Soda Lake
geothermal

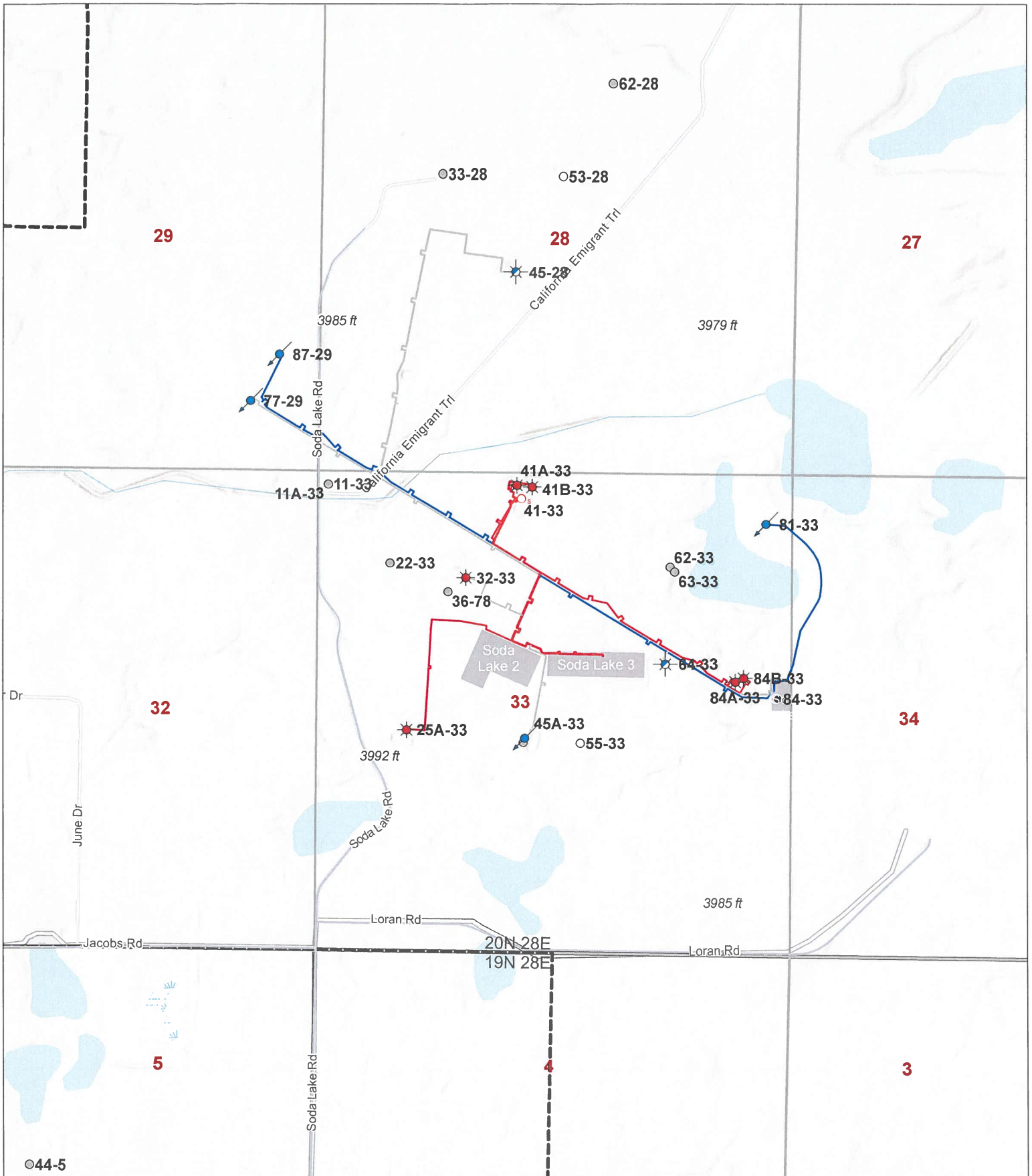
ND 11.14.2024



**Soda Lake Geothermal
UIC Area of Review (AOR) Map
UIC Form 202: Map B**

- AOR
- Soda Lake Unit
- Churchill Roads
- * production
- * injection
- _s steam production
- * idle producer
- * idle injector
- monitoring
- idle
- plugged and abandoned
- slimhole plugged
- _{qv} TG hole





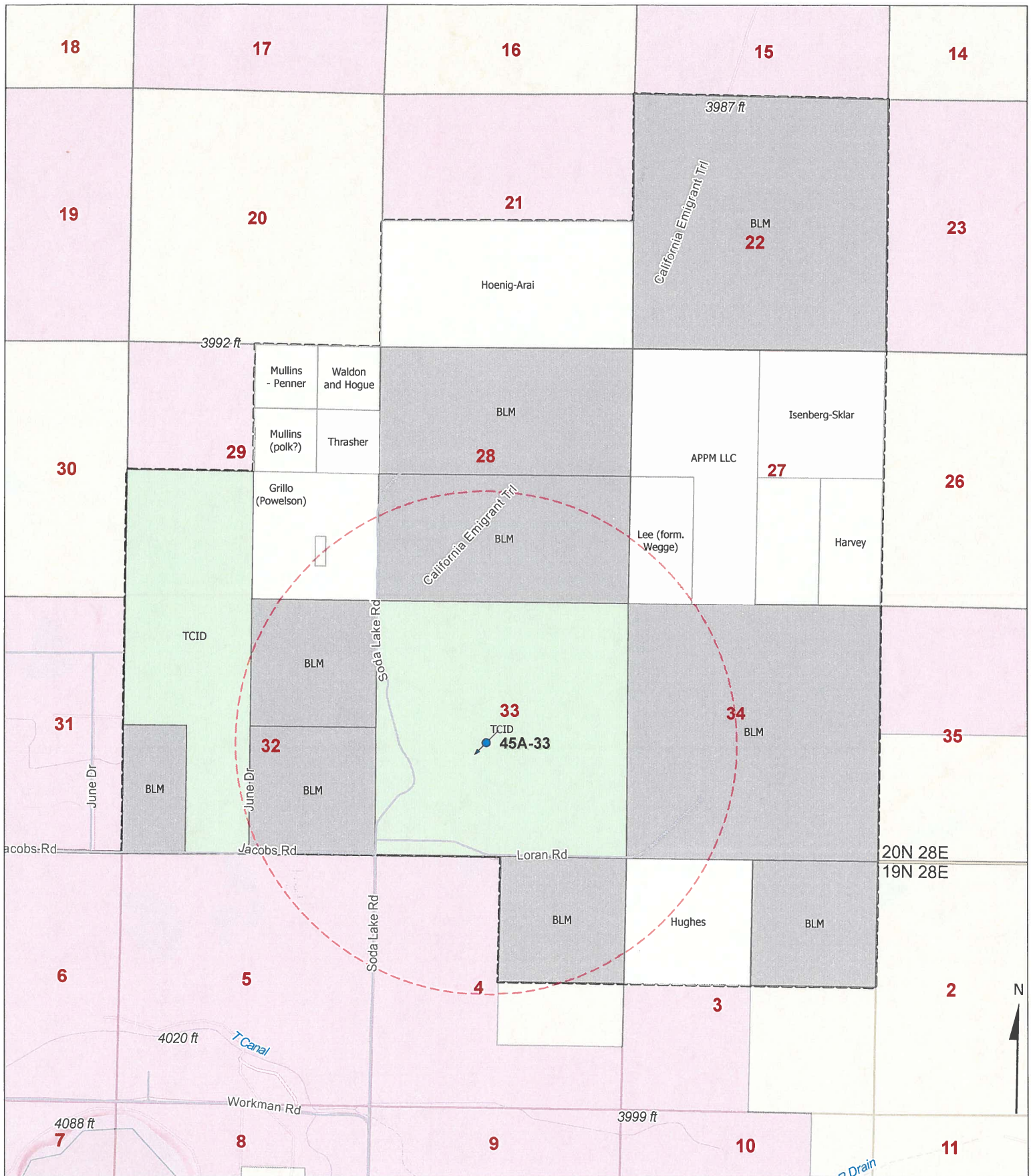
Cyrg
Soda Lake geothermal
ND 11.13.2024

0 0.25 0.5 Miles

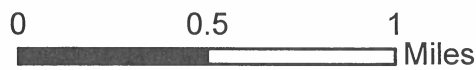
Soda Lake Geothermal Distribution System Map
UIC Form 202: Map C

Soda Lake Unit	idle producer	Power Plant
Churchill Roads	idle injector	Inactive Pipeline
production	P & A	Production Pipeline
injection	steam production	Injection Pipeline





ND 11.13.2024



**Soda Lake Geothermal
Land and Lease Map
UIC Form 202: Map D**

- Soda Lake Unit
- Churchill Roads
- Injection Well
- 45A_UIC_AOR

Leases

- BLM
- TCID
- Private

**Other
Ownership**

- BLM
- Private



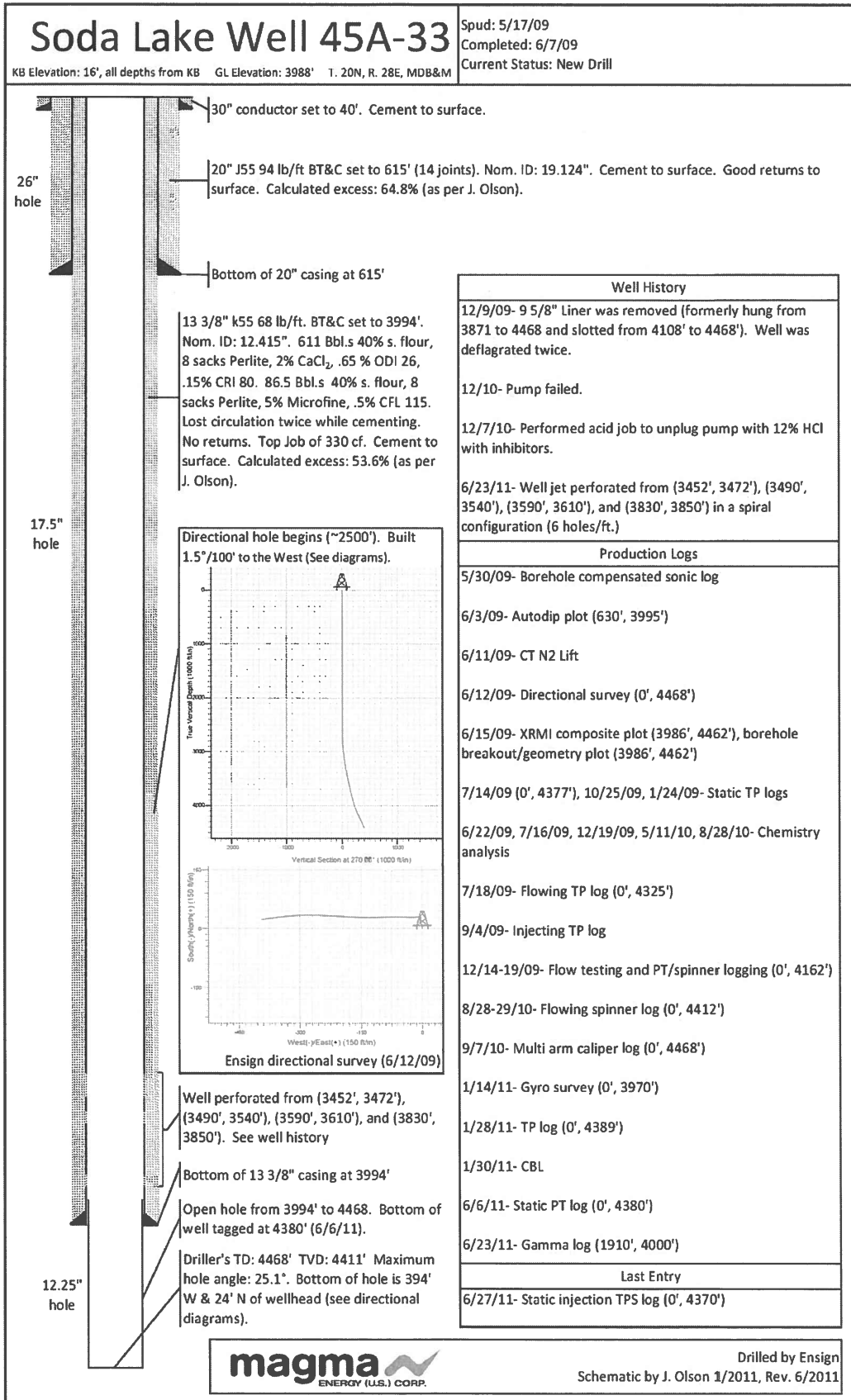
Attachment F

CONSTRUCTION PROCEDURES AND DETAILS

The table below includes as-built details of well 45A-33 along with details for the other Soda Lake injection wells permitted under UIC Permit UNEV89037. A well bore schematic of 45A-33 is provided on the following page.

AMOR IX Injection Well Details

Well ID	Armor IX Injection Wells				
	45-28	77-29	81-33	87-29	45A-33
Kelly Bushing (ft above the ground)	10	14	18	21	16
Conductor casing size (in) / set depth (ft)	30 / 70	20 / 40	30 / 78	30 / 481	30 / 40
Surface casing size (in) / set depth (ft)	13-3/8 / 321	13-3/8 / 1008	20 / 395	20 / 396	20 / 615
Production casing size (in) / set depth (ft)	9-5/8 / 1614	9-5/8 / 692	13-3/8 / 1904	13-3/8 / 1285	13-3/8 / 3994
Top/Bottom of slotted liner (ft)	1515 / 2373	NA	1785 / 3809	NA	NA
Top/Bottom of perforations (ft)	1635 / 1755	791 / 980	3375 / 3809	721 / 1285	3452 / 3850
Total depth of wellbore (ft)	4758	4306 - bridge plug @991' cement plug 1531-1694'	7350 -Hole bridged @5261', cement basket at 3340' and 3370'	1578	4468
Lined wellbore diameter (in)/Liner diameter (in)	Open hole 2375 – 4758' / 8 1/2" wellbore	No liner / 11" wellbore	12 1/4 / 9 5/8	No liner perforations	No liner / 12 1/4" wellbore
Status	Inactive	Active	Active	Active	Test
Reserve Pit Status	Open	Reclaimed	Open	Reclaimed	Open
Sec, Twp, Rng	28, 20N, 28E	29, 20N, 28E	33, 20N, 28E	29, 20N, 28E	33, 20N, 28E
Elevation (feet above the sea level)	3980	3990	3874	3983	3988
UTMe (m) zone 12 NAD 83	341161.7	340257.97	342011,4	340355.69	341195
UTMn (m) zone 12 NAD 83	4381460.16	4381025	4380602.94	4381180.6	4379864
Spud date	2/24/1991	12/11/1974	4/24/1991	2/28/1991	5/17/2009
Completion Date	3/21/1991	12/28/1974	5/24/1991	6/16/1991	6/7/2009
NDOM Permit Number	266	404	268	265	912
UIC Permit Number	UNEV 89037	UNEV 89037	UNEV 89037	UNEV 89037	
Max Injection Pressure in psig	509	253	596	190	1278



Attachment I

OPERATING DATA

Section 1 - Daily Average Rate and Total Volume of Injection Fluid

AMOR IX currently injects up to approximately 5,300 gallons (US) per minute (gpm) of spent geothermal water, equivalent to 7.6 million gallons (US) per day or approximately 93 million pounds-mass per day. The current permitted injection rate is 10,000 gpm on an annual average basis. The injection is currently divided between up to four injection wells located various distances from the production wells and the power plant, with the amount of fluid injected into each injection well dependent on that well's injectivity and reservoir management requirements. The current surface discharge of cooling tower blowdown to the infiltration basin is limited to 500 gpm on an average annual basis.

Section 2 - Average and Maximum Injection Pressure

The average permitted injection pressure is 524 psig. Currently, the maximum working injection pressure at the injection wells' wellheads is up to 200 psig. The table below indicates the maximum permitted injection pressure for each injection well and the normal operating range of well head pressure placed on each well.

Well ID	45-28	77-29	87-29	81-33	45A-33
Total Depth of Well Bore (feet)	4,758	4306	1,578	7350	4468
Depth of Production Casing (Feet)	0-1614	0-692	0-1285	0-1904	0-3994
Max Injection Pressure	509	253	190	596	1278
Normal Operating Pressure range	0 to 120 psig	0 to 120 psig	-5 to 15 psig	-10 to 10 psig	0 to 120 psig

Section 3 - Nature of Annulus Fluids

There are no annulus fluids since there is no annulus. Injection fluids are injected through the inside of the 9 5/8" or 13-3/8" casing and 7" or 9-5/8" liner.

Section 4 - Source and Analysis of Injection Fluids

Injection fluids are produced geothermal water used for power generation. AMOR IX has submitted certified laboratory analytical results from its spent geothermal water and cooling tower blowdown water to NDEP-UIC on a bi-annual basis since 1989, therefore none are attached here.