

## **NAC 507 DISSOLVED MINERAL RESOURCES GENERAL PROVISIONS**

**NAC 507.010 Definitions.** As used in this chapter, unless the context otherwise requires, the words and terms defined in NAC 507.012 to 507.085, inclusive, have the meanings ascribed to them in those sections.

**NAC 507.012 “Administrator” defined.** “Administrator” means the Administrator of the Division of Minerals.

**NAC 507.015 “Annular space” and “annulus” defined.** “Annular space” or “annulus” means the space between the walls of the hole as drilled and the casing, tubing or piping.

**NAC 507.020 “Aquifer” defined.** “Aquifer” means a geological formation or structure that transmits or stores water or both.

**NAC 507.025 “Artesian hole” defined.** “Artesian hole” means a hole tapping an aquifer underlying an impervious material in which the static water level in the hole stands above where it is first encountered in the aquifer.

**NAC 507.026 “Bentonite grout” defined.**

“Bentonite grout” means a commercially manufactured product consisting of sodium montmorillonite that, when mixed with water pursuant to the specifications recommended by the manufacturer, is specifically designed to seal and plug wells and boreholes and:

1. Consists of not more than 80 percent water and not less than 20 percent sodium bentonite by weight of water, except that additional additives may increase the solids ratio above and beyond the minimum 20 percent sodium bentonite;
2. Is easily hydrated when mixed with water in the ratio of 24 gallons for every 50-pound bag of bentonite grout;
3. Has hydraulic conductivity or permeability values of  $10^{-7}$  centimeters per second or less; and
4. Has a fluid weight of not less than 9.4 pounds per gallon.

**NAC 507.027 “Blowout” defined.** “Blowout” means an uncontrolled escape of fluids and gases from a dissolved mineral resource exploration borehole or well.

**NAC 507.028 “Blowout prevention equipment” defined.** “Blowout prevention equipment” means equipment attached to casing which is equipped with gates, rams or other packoff which can be closed around the drill pipe which completely closes the top of the casing.

**NAC 507.030 “Casing” defined.** “Casing” means the conduit required to prevent waste and contamination of the groundwater, the dissolved mineral resource, or both, and to hold the formation open during the construction or use of the dissolved mineral resource exploration well.

**NAC 507.031 “Cement grout” defined.** “Cement grout” means a mixture consisting of equal parts by volume of portland cement and sand, consisting of a grain size of not more than 2 millimeters, with not more than 6 gallons of water for each 94-pound bag (1 cubic foot) of cement. For example, one cubic yard of cement grout contains 12 bags of cement, 72 gallons of water and not more than 13 cubic feet of sand.

**NAC 507.033 “Commission” defined.** “Commission” means the Commission on Mineral Resources.

**NAC 507.035 “Concrete grout” defined.** “Concrete grout” means a mixture of portland cement, sand, ¼-inch minus aggregate and water which contains at least five bags of cement per cubic yard of concrete and not more than seven gallons of water per bag of cement (one cubic foot or 94 pounds).

**NAC 507.036** “Contaminant” defined. “Contaminant” has the meaning ascribed to it in NAC 534.094

**NAC 507.037** “Contamination” defined. “Contamination” has the meaning ascribed to it in NAC 534.095.

**NAC 507.038** “Dissolved mineral resource” defined. “Dissolved mineral resource” means all dissolved or entrained minerals that may be obtained from the naturally occurring liquid or brine in which they are found, including, without limitation, lithium. The term does not include a geothermal resource as defined in NRS 534A.010.

**NAC 507.039** “Dissolved mineral resource exploration borehole” defined. “Dissolved mineral resource exploration borehole” means a penetration in the ground that is made to sample or obtain water or chemical, geologic, geophysical or geotechnical information about a dissolved mineral resource and that shall not be pumped as a well. The term does not apply to existing boreholes drilled under the State Engineer’s regulations in NAC 534.4369.

**NAC 507.040** “Dissolved mineral resource exploration project” defined. “Dissolved mineral resource exploration project” means a project, which may consist of one or more dissolved mineral resource exploration wells or boreholes or both, that is conducted on:

1. Private land owned or controlled by a natural person or an exploration or mining company; or

2. Mining claims on public land that are identified in an approved notice or plan required pursuant to 43 C.F.R. §§ 3809.300 to 3809.336, inclusive, or 3809.400 to 3809.434, inclusive.

**NAC 507.041** “Dissolved mineral resource exploration well” defined. “Dissolved mineral resource exploration well” means a well drilled to measure, test or sample water, including, without limitation, pumping tests, to determine whether dissolved mineral resources are present in concentrations and volumes sufficient to justify production. The term does not include a well with a permit or certificate from the Division of Water Resources.

**NAC 507.042** “Division” defined. “Division” means the Division of Minerals of the Commission on Mineral Resources.

**NAC 507.045** “Driller” defined. “Driller” is defined as any person who drills a dissolved mineral resource exploration borehole or dissolved mineral resource exploration well and is licensed to drill wells pursuant to NRS 534.140.

**NAC 507.060** “Geothermal resource” defined. “Geothermal resource” has the meaning ascribed to it in NRS 534A.010.

**NAC 507.061** “Geothermal reservoir” defined. “Geothermal reservoir” means an aquifer or combination of aquifers or porous zones containing a geothermal resource.

**NAC 507.062** “Groundwater” defined. “Groundwater” means water below the surface of the land that is in a zone of saturation.

**NAC 507.063** “Neat cement” defined. “Neat cement” means a mixture of:

1. Water and cement in a ratio of not more than 5.2 gallons of water per bag of portland cement (1 cubic foot or 94 pounds); or

2. Clean water, cement and sodium bentonite in a ratio of not more than 7.8 gallons of water per 3.76 pounds of sodium bentonite by dry weight and one bag of portland cement (1 cubic foot or 94 pounds).

**NAC 507.065** “Operator” defined. “Operator” means a person, acting for himself or herself or as an agent for others, designated to the Division as the person or entity who has the primary responsibility for complying with the Division’s regulations.

**NAC 507.080 “Waste” defined.** “Waste” means allowing an artesian hole to discharge water unnecessarily above or below the surface of the ground so that the water is lost for beneficial use.

**NAC 507.090 Responsibilities of licensed water well driller at drilling site for borehole or well.** A well driller licensed by the State Engineer, pursuant to NRS 534.140:

1. Must be present at the drilling site when the drill rig is in operation and when any activity involving the construction or plugging of the borehole or well is conducted. If the licensed well driller leaves the drilling site, the drilling operation must be shut down until that licensed well driller or another licensed well driller returns to the site. If the Division determines that drilling operations occurred during any period in which a licensed well driller was not present at the drilling site, the Division may order the drilling operation to cease and conduct an investigation. The drilling operation may not recommence until the Division approves the drilling operation.
2. Shall ensure that the drilling of the borehole or well complies with:
  - (a) The terms and conditions of any notice of intent or permit issued by the Division; and
  - (b) The requirements of all other federal, state and local agencies which have jurisdiction over the land on which the borehole or well is to be drilled.
3. Shall carry the well driller's license card when he or she is present at the drilling site and produce the card when requested to do so by a representative of the Division.
4. Shall have in his or her possession at the drilling site a copy of the notice of intent to drill or permit approved by the Division and shall produce that documentation upon request by a representative of the Division.

## **DISSOLVED MINERAL RESOURCE EXPLORATION BOREHOLES**

**NAC 507.100 Notice of intent to drill: Submission; contents; correction; forms.**

1. A driller shall not commence drilling until after the driller or operator has submitted to the Division, on a form designated by the Division, a notice of intent to drill and received approval of the notice of intent from the Division.
2. The notice of intent to drill must be submitted at least 5 days before the anticipated date of commencement of drilling.
3. The notice of intent to drill submitted pursuant to subsection 1 must give the name of the person for whom the work is being performed, the approximate location of the borehole by public land survey, and the date on which the work is expected to commence. The notice of intent will include:
  - (a) The name and license number of the well driller;  
Land ownership, and, if applicable, the governmental agency project identification number (such as the Bureau of Land Management assigned Nevada Notice (NVN) number) and a copy of the Notice of Intent or approved Plan of Operations with maps of proposed borehole locations;
  - (b) For non-federal lands, a map of the proposed borehole locations; and
  - (c) Global positioning system coordinates which are either identified by latitude and longitude using decimal degrees or are identified using coordinates of the Universal Transverse Mercator system; and specify for each coordinate whether North American Datum of 1983 or the World Geodetic System of 1984 was used; and

(d) Drilling method, diameter and anticipated final depth.

4. If a driller or operator omits any of the information required by this section from the notice of intent to drill submitted to the Division pursuant to subsection 1, the Division may return the notice of intent to drill to the driller or operator for correction.

5. The Administrator shall provide written notice to the driller or operator if the notice of intent is denied with the reasons for denial.

6. A driller or operator may submit the notice of intent to drill required pursuant to subsection 1 to the Division in an electronic format if the Division approves this manner of submission for the driller or operator before the driller or operator submits the notice of intent to drill.

7. Notice of intent to drill forms will be available on the web site maintained by the Division.

8. The Division will post approved notice of intent forms on the Division web site as soon as practicable.

**NAC 507.110 Notice of intent to drill: Lapse; new notice.**

1. If the drilling described on a notice of intent to drill is not commenced within 60 days after the Division approves the notice of intent to drill, the notice of intent to drill lapses and a new notice of intent to drill must be approved by the Division before such activity may proceed.

2. The notice of intent to drill submitted pursuant to subsection 1 must be approved by the Division before drilling may begin.

**NAC 507.120 Limitations: Location and depth of, and sampling from, boreholes**

1. No dissolved mineral resource exploration borehole may be drilled within 250 feet of an existing oil, gas or geothermal well permitted by the Division or within 100 feet of an existing water well permitted by the Division of Water Resources.

2. No dissolved mineral resource exploration borehole, located within a boundary designated as an "Area with Limitations" as delineated on the map titled, "Oil, Gas, and Geothermal Resources and Groundwater Basins with High Temperature Gradients" on the web site maintained by the Division, may be drilled to a depth greater than 1,500 feet.

3. The temperature of the mud that is returned up the borehole must be monitored continuously by the operator during the drilling of the borehole whenever temperatures of the drilling fluids at the surface reach 125°F. The temperature must be recorded by the driller after each joint of pipe has been drilled.

4. Upon written application, the Administrator may grant an exception to the provisions of subsections 1 and 2. The Administrator may consider:

- (a) The topographic, hydrologic, and geologic characteristics of the area;
- (b) The protection of the environment;
- (c) Workplace safety; and
- (d) Any existing rights.

5. Dissolved mineral resource exploration boreholes may be sampled to obtain water or chemical, geologic, geophysical, or geotechnical information, but cannot be pumped as a well.

**NAC 507.130 Plugging of boreholes: Requirements, responsibility, reporting**

1. A dissolved mineral resource exploration borehole must be plugged by a licensed well driller within 60 days after it is drilled, unless an application for a permit is filed within the 60 days to complete as a dissolved mineral resource exploration well in accordance with NAC 507.140, NAC 507.150, and NAC 507.190.

2. If an application for a permit to complete a dissolved mineral resource exploration borehole as a dissolved mineral exploration well is denied, the borehole must be plugged within 30 days of the denial.

3. Any pipe or tubing used for ground control or sampling must be removed prior to plugging.

4. Except as provided in subsections 6 and 8, a dissolved mineral resource exploration borehole must be plugged:

(a) In the manner for plugging a dissolved mineral resource exploration well in NAC 507.240; or

(b) If the uppermost saturated groundwater stratum is above the bottom of the borehole:

(1) By placing concrete grout, cement grout, neat cement or bentonite grout by tremie pipe in an upward direction from the bottom of the borehole to within 20 feet of the surface and by placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface; or

(2) By placing bentonite chips specifically designed to be used to plug boreholes from the bottom of the borehole to within 20 feet of the surface and by placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface; or

(3) By placing any of the plugging materials described in this subsection from the total depth of the borehole to 50 feet above the uppermost saturated groundwater stratum and by placing concrete grout, cement grout, or neat cement from 20 feet below the surface to the surface.

5. If the concrete grout, cement grout, neat cement, bentonite grout or bentonite chips are not brought to within 20 feet of the surface pursuant to paragraph (b) of subsection 3, the person responsible for plugging the borehole shall:

(a) Measure the depth of the top of the lower plug with appropriate equipment after he or she has allowed sufficient time for the lower plug to set up;

(b) Continue to install concrete grout, cement grout, neat cement bentonite grout or bentonite chips until the top of the lower plug remains at least 50 feet above the top of the uppermost saturated groundwater stratum;

(c) Install uncontaminated fill material or one of the plugging materials described in this subsection from the top of the lower plug to within 20 feet of the surface; and

(d) Place concrete grout, cement grout or neat cement from 20 feet below the surface to the surface.

6. If the elevation of the bottom of the borehole is higher than the preexisting natural elevation of the uppermost saturated groundwater stratum, the borehole must be plugged by:

(a) Backfilling the borehole from the bottom of the borehole to within 20 feet of the surface with uncontaminated soil; and

(b) Placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface.

7. If bentonite chips or uncontaminated soil is placed in the borehole, they must be screened to eliminate the fines. Bentonite chips must be placed by tremie pipe.

8. If there is evidence that water-draining formations (lost circulation), or water-bearing formations of different water quality or hydraulic head were encountered during the original borehole construction and if bentonite chips or bentonite grout is used as the plugging material, the well driller must, in addition to the requirements of this section, place neat cement across the water-confining formations so that the plugging fluid penetrates the geologic formation to prevent the vertical movement of water. Any pipe or tubing that does not break free, and occludes the placement of neat cement across a confining formation, must be perforated so that the plugging fluid penetrates the annular space and the geologic formation in that interval to isolate formations and to protect the fluids in those formations from inter-zonal migration.

9. The owner and lessor of the land on which the borehole is located, the operator of the exploration project and the plugging contractor for the project are jointly and severally responsible for plugging the borehole pursuant to this chapter.

10. A plugging report must be filed with the Division, on a form designated by the Division, and signed by a licensed well driller documenting proper plugging of the borehole within 30 days of completion of the work.

11. The Division will post completed borehole plugging reports on the Division web site as soon as practicable.

#### **NAC 507.131 Completion of a dissolved mineral resource exploration borehole as a Well.**

1. A dissolved mineral resource exploration borehole may only be considered for completion as dissolved mineral resource exploration well if an application for a permit is filed within 60 days after the borehole is drilled in accordance with NAC 507.130.

2. An application to convert a dissolved mineral resource exploration borehole to a dissolved mineral resource exploration well shall be denied unless the application demonstrates that the resulting well meets the requirements of NAC 507.140 to 507.250 inclusive.

**NAC 507.135 Plugging of boreholes: Artesian conditions.** If an artesian condition is encountered in any dissolved mineral resource exploration borehole such that water is flowing at the surface, the artesian water strata must be contained pursuant to standard set in chapter 534 of NRS and chapter 534 of NAC and the borehole must be sealed by placing concrete grout, cement grout or neat cement by tremie pipe in an upward direction from the bottom of the borehole to the surface. The owner and the lessor or claimant of the land on which the borehole is located, the operator of the exploration project and the drilling contractor for the project shall take the necessary steps to prevent the loss of water above or below the surface and to prevent the vertical movement of water in the borehole.

### **DISSOLVED MINERAL RESOURCE EXPLORATION WELLS PERMITS, FEES AND OTHER REQUIREMENTS FOR DRILLING**

**NAC 507.140 Application for permit for exploration well.** An application for a permit to drill or operate an individual dissolved mineral resource exploration well must be submitted to the Division. The application must include:

1. A form, designated by the Division, completed and signed by the operator;

2. A statement of the purpose, diameter, design, and expected depth of the well;
3. A description of the materials of construction, including the type and anticipated length of casing, any equipment for the prevention of a blowout, required pursuant to NAC 507.200, and type of drilling rig which will be used. An applicant may propose the casing material to be used based on the depth, temperature and pressure anticipated in the well bore.
4. A plan for managing any fluids generated as part of drilling, testing or sampling, which must include, without limitation, a description of how the fluids will be managed in accordance with the requirements of chapter 445A of NRS and as required by the Division of Environmental Protection and volume estimates anticipated for testing or sampling;
5. A plan for preventing the migration of fluids between aquifers and the contamination of groundwater, which may include any reporting, lithologic information or analysis necessary to support the plan;
6. A plan for monitoring the well and a plan for plugging the well in accordance with NAC 507.240;
7. The name and address of the operator and drilling contractor;
8. A description of the location of the proposed well by the quarter-quarter section, section, township and range, and the groundwater basin name and number;
9. Global positioning system coordinates which are either identified by latitude and longitude using decimal degrees or are identified using coordinates of the Universal Transverse Mercator system; and specify for each coordinate whether North American Datum of 1983 or the World Geodetic System of 1984 was used;
10. For a well located on federal land, the governmental agency mining claim serial number and project identification number (such as the Bureau of Land Management assigned Nevada Notice (NVN) number) and a copy of the Notice of Intent or approved Plan of Operations with maps of proposed well locations;
11. For non-federal lands, a map of the proposed well locations;
12. For a well located on non-federal land, the name of the owner of the land or designated lot on which the well will be located;
13. For a well located on non-federal land, a bond in an amount determined by the Division to be necessary to properly plug the well in accordance with NAC 507.240;
  - (a) The operator shall provide a sufficient bond conditioned on the plugging of the well in accordance with [NAC 507.240](#). The bond must be submitted with the application for a permit to drill.
  - (b) A bond must be:
    - (1) Cash deposit;
    - (2) Issued by a surety authorized to do business in Nevada; or
    - (3) In the form of a savings certificate or time certificate of deposit which is:
      - (a) Issued by a bank operating in Nevada; and
      - (b) Payable to the State of Nevada.
    - (c) The bond required by this section must remain in effect until the Division has established the well is properly plugged.
14. An existing well drilled authorized by a mining and milling or other waiver, issued by the Division of Water Resources, can be permitted as a dissolved mineral resource exploration well only if the well meets the requirements of Chapter 507 of NRS and the provisions of this chapter. A well authorized under a mining and milling or other waiver by the Division of Water

Resources which has already pumped 5 acre-feet of water may not be permitted as a dissolved mineral resource exploration well;

15. For a well located on federal land, evidence of surety required by the federal land management agency for the amount of estimated cost necessary to properly plug the well in accordance with NAC 507.240. Evidence of surety not submitted with an application must be received and acknowledged by the Division prior to drilling of the well.

16. The Division shall approve or deny the application within 30 days of receipt, or within 30 days after a hearing held pursuant to NAC 507.600.

17. Construction or drilling of a dissolved mineral resource exploration well may not commence until the permit is issued by the Division.

18. The Division will post completed permit application forms for dissolved mineral resource wells on the Division web site.

19. The Division will transmit completed permit application forms for dissolved mineral resource wells to the Division of Water Resources.

20. The Division will post approved permits for dissolved mineral resource wells within 5 days of approval.

**NAC 507.150 Limitations: Location, depth and design of dissolved mineral resource exploration wells**

1. No dissolved mineral resource exploration well may be drilled within 100 feet of:

- (a) The boundary of any land not under lease, ownership, or control of the operator; or
- (b) An existing water well permitted by the Division of Water Resources.

2. No dissolved mineral resource exploration well may be drilled within 250 feet of an existing oil, gas or geothermal well permitted by the Division.

3. A dissolved mineral exploration well, located within a boundary designated as an “Area with Limitations” as delineated on the map titled, “Oil, Gas, and Geothermal Resources and Groundwater Basins with High Temperature Gradients” on the web site maintained by the Division, must:

(c) Not be drilled to a depth greater than 3,000 feet without the use of equipment for the prevention of a blowout meeting the requirements of NAC 507.200;

(d) Have the temperature of the mud that is returned up the hole monitored continuously by the operator during the drilling of the well whenever temperatures of the drilling fluids at the surface reach 125°F. The temperature must be recorded by the well driller after each joint of pipe has been drilled;

(e) Be designed, drilled and operated so as not to degrade an aquifer, or oil, gas or geothermal resource.

4. Upon written application, the Administrator may grant an exception to the provisions of subsections 1, 2 and 3. The Administrator may consider:

(f) The topographic, hydrologic, and geologic characteristics of the area and the characteristics of the reservoir;

(g) The protection of the environment;

(h) Workplace safety; and

(i) Any existing rights.



**NAC 507.160 Fees for permits for individual dissolved mineral resource exploration wells.** A person who files an application for a permit to drill an individual dissolved mineral resource exploration well shall pay to the Division a fee of \$1,000 per well.

**NAC 507.170 Expiration of permits.**

1 A permit to drill or operate an individual dissolved mineral resource exploration well expires 2 years after the date on which it was issued. The expiration may be extended one time by the Administrator for an additional 2 years if requested in writing by the operator, on a form designated by the Division, and the permit is determined to be in compliance with the regulations of this chapter.

2. An application for extension must be filed 60 days prior to the expiration of the permit.

**NAC 507.180 Assignment of permits.** A permit to drill or operate an individual dissolved mineral resource exploration well may be assigned, subject to the conditions of the permit, upon written approval of the Administrator.

**NAC 507.190 Construction of dissolved mineral resource exploration well: Prevention of contamination; requirements for casing.**

1. The licensed well driller shall take the precautions necessary to:

- (a) Isolate zones of varying water quality to prevent migration of fluids between aquifers.
- (b) Prevent contamination or waste of groundwater.

2. All wells must be constructed in such a manner as to minimize damage to the environment, ground and surface waters, property, and any known oil, gas, or geothermal resources.

3. The top of the casing must be at least 18 inches above the surface of the ground.

4. Surface casing must provide for control of formation fluids and protection of groundwater.

(a) Sufficient casing must be set to reach a depth below all known or reasonably estimated levels of good quality water to protect those aquifers and to prevent blowouts or uncontrolled flows;

(b) The surface casing must provide a minimum 2-inch annular space;

(c) There must be a minimum 50-foot surface seal using neat cement.

5. If an intermediate string of casing is used which does not extend to the surface, the top of this liner must overlap the bottom of the surface casing by at least 100 feet.

6. If thermoplastic casing is used:

(a) It must be clearly marked as well casing;

(b) It must comply with the standards adopted by ASTM International designated as ASTM F480-14 for polyvinyl chloride casing and F2686-14 for glass fiber reinforced casing, or the current designation at the time of installation, which are hereby incorporated by reference. A copy of the standards may be obtained by mail from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959, by telephone at (610) 832-9585 or at the Internet address <http://astm.org>, at a cost of \$65 and \$45, respectively.

(c) The differential pressures and temperatures that may occur during the installation of casing, the development of the well and the operation of the well must be considered by the well driller and the person responsible for designing the well.

(d) For polyvinyl chloride casing, the wall thickness must meet the following requirements and, in each instance, the standard dimension ratio is equal to the outside diameter divided by the wall thickness:

(1) For nominal diameters that are 6 inches or less, conform to a rating of schedule 40 or heavier.

(2) For nominal diameters that are more than 6 inches, conform to the ASTM standard dimension ratio of schedule 21 or heavier.

(e) The joint couplings shall form a watertight seal.

**NAC 507.200 Prevention of blowout; testing of equipment for prevention of blowout.**

1. Equipment for the prevention of a blowout is required on any well where temperatures may exceed 200° F.

2. An operator and a well driller shall take all precautions which are necessary to keep wells under control and operating safely at all times. Well control and wellhead assemblies used in any dissolved mineral resource exploration well must meet the minimum specifications for assemblies prescribed by the American Petroleum Institute in Standard 53, "Blowout Prevention Equipment Systems for Drilling Wells, Fourth Edition," or by its successor organization, or as may be prescribed by the Administrator.

3. Equipment for the prevention of a blowout, capable of shutting in the well during any operation, must be installed on the surface casing and maintained in good operating condition at all times. This equipment must have a rating for pressure greater than the maximum anticipated pressure at the wellhead.

4. An operator shall test the equipment for the prevention of a blowout under pressure.

5. The operator shall submit, on a form designated by the Division, the pressure data and supporting information for the equipment for the prevention of a blowout as soon as practicable after the conclusion of the test conducted pursuant to subsection 3. The well driller shall record the results of each test in the well log.

**NAC 507.210 Construction of dissolved mineral resource exploration well: Measures required if artesian condition is encountered.**

1. If an artesian condition is encountered in a well, such that water is flowing at the surface, the well driller shall ensure that an unperforated casing extends through the confining strata above the artesian zone. The annular space between the casing and the walls of the well bore must be sealed by placing neat cement, cement grout or bentonite chips by tremie pipe in an upward direction from the top of the artesian zone to the level necessary to prevent the leakage of artesian water above or below the surface.

2. Any flow of artesian water must be stopped completely using any necessary valves, plugs or other appliances to prevent or control the flow of water from the well and prevent the loss of groundwater above or below the ground surface before the drill rig is removed from the drill site.

**NAC 507.230 Operation of dissolved mineral resource exploration well: Reporting requirements.**

1. The operator of a dissolved mineral resource exploration well shall:
  - (a) Install a water meter capable of measuring the total withdrawal of water, resulting from the pumping for the purposes of testing and sampling, from the well;
  - (b) Maintain an accurate record of meter readings, including the serial number, and provide to the Division, on a form designated by the Division, a monthly reporting of meter serial number and readings from the well.
    - (1) A monthly report is required for each month, from commencement of drilling operations until the expiration of the permit, or until the well is plugged.
    - (2) A monthly report must be filed with the Division on or before the last day of the month following the month of reported meter readings.
  - (c) Ensure the total withdrawal of water from the dissolved mineral resource exploration project, as defined in NAC 507.040, does not exceed 5 acre-feet.
  - (d) Ensure that the project is in compliance with the appropriation requirements of chapters 533 and 534 of NRS before the project exceeds the threshold of 5 acre-feet.
2. The well driller shall:
  - (a) Keep a record of the depth, thickness and character of the different strata penetrated and the location of water-bearing strata; and
  - (b) Keep an accurate record of the work, including:
    - (1) A statement of the date of beginning work;
    - (2) The date of completion;
    - (3) The name of the well driller and the type of drilling machine used;
    - (4) The length, size and weight of the casing and how it is placed, including a description of any perforations;
    - (5) The size of the drilled hole;
    - (6) Identification of the water-bearing strata;
    - (7) The maximum temperature of the water in the well measured in degrees Fahrenheit;
    - (8) If a seal was installed, where sealed off and the type of seal;
  - (c) Furnish the information from the record of work to the Administrator on a Well Drillers Report designated by the Division for every well drilled within 30 days after the well is completed.
3. The Division will post on its web site a summary of monthly reports by project filed under subsection 1(b)(2) of this section.
4. The Division will post on its web site completed well drillers reports as soon as practicable.

**NAC 507.240 Plugging of dissolved mineral resource exploration wells: Requirements, responsibility, reporting.**

1. A dissolved mineral resource exploration well must be plugged by a licensed well driller prior to the expiration of the permit, unless a waiver or permit is issued by the State Engineer to change the status of the well.
2. A dissolved mineral resource exploration well must be plugged by placing neat cement, cement grout, or bentonite grout by tremie pipe in an upward direction from the bottom of the well to 100 feet above the uppermost perforated casing or to the surface of the well.
3. Cement plugs must be placed in the uncased portion of wells to protect all subsurface resources. These plugs must extend a minimum of 100 lineal feet above the producing formations and 100 lineal feet below the producing formations or to the total depth drilled,

whichever is less. Cement plugs must be placed to isolate formations and to protect the fluids in those formations from inter-zonal migration.

4. A well must be plugged pursuant to this section by removing the pump and any debris from the well bore with appropriate equipment.

5. The well driller may use uncontaminated fill from the top of the plug installed in accordance with Section 2 to within 20 feet of the surface of the well. The well driller shall place a surface plug in the well consisting of neat cement, cement grout or concrete grout from a depth of at least 20 feet to the surface of the well.

6. All casing strings must be cut off below ground level and the casing stub must be permanently capped.

7. The surface must be restored as near as practicable to its original condition.

8. If conditions are encountered which prevent compliance with this section, an alternative plugging plan must be submitted to and approved by the Division.

9. A plugging report must be filed on the form designated by the Division, available on the web site maintained by the Division, and signed by a licensed well driller documenting proper plugging of the well within 30 days of completion of the work.

10. The owner and lessor of the land on which the dissolved mineral resource exploration well is located, the operator of the exploration project and the plugging contractor for the project are jointly and severally responsible for plugging the well pursuant to this chapter.

11. The Division will post on its web site completed well plugging reports as soon as practicable.

#### **NAC 507.250 Modification, suspension or revocation of permit or approval.**

1. The permit or approval may be modified, suspended or revoked in whole or in part for any violation of Chapter 507 of NAC and may be grounds for an action for enforcement.

2. Any person who willfully violates any provision of this chapter or an order of the Division issued pursuant to this chapter is subject to a penalty of not more than \$1,000 for each act or violation and for each day that the violation continues.

### **RULES OF PRACTICE AND PROCEDURE**

#### **NAC 507.600 Notice of hearing; continuance.**

1. If the Administrator or the State Engineer determine that a public hearing is necessary for a full understanding of an application for a permit to drill a dissolved mineral resource exploration well, the rights involved therewith and to properly guard the public interest; they shall consult and determine whether a hearing will be held jointly or separately.

2. Notice of a hearing must be sent to the Applicant and all known parties at least 10 days before the date of hearing. The Notice of hearing shall notify the Applicant, the State Engineer, and the Administrator of the Division of Environmental Protection as to the subjects to be addressed in the hearing.

3. The Applicant or a party may request that additional issues be included by written motion filed at least 5 days before the date set for the hearing.

4. Upon request of a party to a hearing and for good cause shown, the hearing may be continued. A request to have the date of a hearing changed must be made to the Administrator or the State Engineer at least 5 days before the date set. Requests may be granted or denied at the discretion of the Administrator or the State Engineer.

5. The Administrator shall cause a notice of the hearing to be posted on the Division web site at the time the Notice of Hearing is issued.

**NAC 507.610 Docket; numbering of hearings.**

1. The Administrator shall maintain a docket, and all applications for hearings and all hearings must be docketed and given a number by the Division. A file carrying the number must be maintained by the Division.

2. The State Engineer may keep a duplicate file for each proceeding in which he or she is involved.

**NAC 507.620 Hearings informal; record; protests; preliminary procedure.**

1. Hearings must be conducted informally.

2. The practice in civil cases shall apply insofar as consistent with the informal and summary character of the proceedings.

3. Any opposition to the application must be reduced to writing and filed with the Division at least 5 days before the hearing.

**NAC 507.630 Order of proceedings.**

1. The Administrator or State Engineer shall open the hearing with a statement of the issues to be heard and recognizing the parties to the hearing.

2. The Applicant will be heard first unless the Administrator or State Engineer find good cause to hear from another party first.

3. Any party recognized by the Administrator or State Engineer shall be heard in the order designated at the hearing.

4. The parties will be allowed to make closing arguments before the matter is submitted. Before closing the hearing, the Administrator or the State Engineer may order or permit the presentation of briefs as determined by the Administrator or the State Engineer after he or she consults with the parties.

**NAC 507.640 Examination of witnesses.** A witness may be examined and cross-examined by not more than one representative of each party. The Administrator will designate the order of examination.

**NAC 507.650 Record of proceedings; cost of transcribing and reporting.** The record of the hearing must be made by a certified reporter, or in the absence of such a reporter, by a person designated by the Administrator. The cost of transcribing and reporting the hearing must be borne by the party designated by the Administrator or the State Engineer at the time of the hearing.

**NAC 507.680 Declaratory order or advisory opinion.**

1. Any person may petition the Commission in writing for a declaratory order or an advisory opinion on the applicability of any statutory provision, regulation or decision of the Administrator or Commission.

2. The Commission will issue a declaratory order or render an advisory opinion in writing within 90 days after its receipt of the petition.

**NAC 507.690 Petition for adoption, filing, amendment or repeal of regulation.**

1. A petition requesting the adoption, filing, amendment or repeal of a permanent regulation shall be deemed to be submitted to the Commission on the date of the meeting of the Commission for which the Commission gives notice pursuant to chapter 241 of NRS after the petition is received by the Commission.

2. Upon receipt of a petition requesting the adoption, filing, amendment or repeal of a permanent regulation, the Commission will refer the petition to the Division to obtain a recommendation whether to approve or deny the petition.

3. As soon as practicable after receiving a petition, but not later than 30 days after the date on which the petition is received by the Commission, the Division shall:

(a) Review the petition to determine whether there is legal authority for the proposed adoption, filing, amendment or repeal of the permanent regulation; and

(b) Forward to the Commission the petition and the recommendation of the Division whether to approve or deny the petition.

4. Within 30 days after a petition is submitted pursuant to subsection 2, the Commission will:

(a) Notify the petitioner in writing of its decision to deny the petition, including the reasons for the denial; or

(b) Initiate the regulation-making procedures set forth in chapter 233B of NRS, if the petition requests the adoption, filing, amendment or repeal of a permanent regulation.

5. A decision of the Commission to deny a petition is a final decision for the purposes of judicial review.