

Brine-hosted minerals development

Implementation of the *Mineral Resource Development Act*



Renewing Alberta's Mineral Future

Alberta has vast, untapped geological potential to meet the increasing demand for minerals – many of which are used worldwide to manufacture batteries, cell phones, energy storage cells, and other products.

Renewing Alberta's Mineral Future is a strategy and action plan designed to capitalize on our potential to become a preferred producer and supplier of metallic and industrial minerals and mineral products. It outlines a path to unlock Alberta's untapped mineral resource potential, helping to meet increasing demand while creating jobs and attracting investment.

Mineral Resource Development Act

The *Mineral Resource Development Act* was the first step in implementing the mineral strategy and action plan. The act established the Alberta Energy Regulator (AER) as the full life-cycle regulator for Alberta's mineral resources, and was passed in December 2021.

Alberta is taking a staged approach to implementing the regulatory framework for the *Mineral Resource Development Act*, by first developing regulations for minerals extracted from underground saltwater, known in the industry as brine-hosted minerals.

On March 1, 2023, the *Mineral Resource Development Act* came into effect for brine-hosted mineral development.

The next step of implementation will be amending regulations for the rock-hosted regulatory regime.

Brine-hosted minerals

Mineral exploration and development is changing rapidly, driven by innovative technologies and shifting societal demands. Technological advancements are spurring companies to look at extracting and producing minerals from primary sources, such as rock and deep saline brines, and other secondary sources.

Brine-hosted minerals, such as lithium, are extracted from deep saline groundwater, also known as brine, containing varying amounts of salt. This process uses drilling technologies that are familiar to most rural Albertans.

Regulations have been developed to:

- establish tenure for new and emerging technologies to develop brine-hosted minerals and update requirements for rock-hosted mineral tenure.
- enable the Alberta Energy Regulator to become the full lifecycle regulator for the province's brine-hosted mineral resources.

Regulations to modernize tenure for metallic and industrial minerals come into effect on January 1, 2023. The regulations establishing the AER as the full life-cycle regulator for brine-hosted minerals came into force on March 1, 2023.

These regulations encourage timely exploration and production, and position us to meet the increasing demand for minerals worldwide.



Information for landowners

Brine-hosted mineral development will be governed by similar processes as those used for oil and gas production.

An operator would need to have a privately negotiated surface lease agreement with the landowner or occupant. If an agreement cannot be reached, an application to the Land and Property Rights Tribunal for a Right of Entry Order under the *Surface Rights Act* to secure surface access for brine-hosted mineral resource exploration and production could be made. This is the same process with which landowners are familiar, used in oil and gas development for more than 80 years. In the case of brine-hosted mineral resource exploration, the Land and Property Rights Tribunal will determine on a case-by-case basis whether it has jurisdiction to grant right of entry.

Landowners/occupants are encouraged to consult with legal advisors in negotiating surface lease agreements for all resource development.



Reclamation

The *Mineral Resource Development Act* includes provisions on obligations on licensees and approval holders related to liability management and remedial action, as well as compliance, oversight and enforcement. The act provides the government and AER with authority (including regulation making and rule-making authority) regarding liability management related to mineral resource development activities throughout a project's lifecycle.

Government will continue to develop specific details of mineral liability management with respect to wells, facilities, and mines during the implementation.



Other information

Coal development is not part of the minerals strategy or impacted by these regulations, and is governed under existing processes of the Alberta Energy Regulator.

There is no change to the coal policy. The Ministerial Order and 1976 coal policy remains in place. Coal exploration and development activities in the Eastern Slopes continue to be restricted on all Category 2, 3 and 4 lands. These restrictions will remain in effect until land-use plans are completed, which will include comprehensive consultation with Albertans, Indigenous communities and others.

Alberta's current non-energy mineral production comes primarily from approximately 20 active quarries producing salt, silica sand, limestone and other industrial minerals. There is a small amount of gold production reported as a by-product of sand and gravel operations.