

Gypsum

Opportunities in Victoria

Victorian gypsum is commonly used as a soil additive to assist with crop fertiliser absorption, as well as a key ingredient in cement manufacturing.

These uses make it an important commodity for regional communities, especially with the increasing shift of business and population to country Victoria. North-western Victoria has excellent potential for large, high-grade gypsum deposits.

Geological setting

Gypsum is an evaporative mineral that forms when saline water evaporates. Pure gypsum is hydrous calcium sulphate ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$) or selenite in pure, crystalline form. Minerals commonly associated with gypsum include anhydrite, halite, calcite, dolomite, celestite and borates.

Over 80 identified occurrences are currently known in Victoria. They formed during the Quaternary Period with salinity introduced during numerous marine regressions and transgressions, followed by low rainfall and high evaporation during the last 10,000 years. Most gypsum deposits of commercial significance in Victoria are associated with evaporative lakes, commonly bounded by interdune swales.

Deposit types

Common gypsum deposit types in northwest Victoria include:

- *Crystalline / Rock gypsum* – typically as massive layers with calcium carbonate buried at shallow depths.
- *Seed gypsum* – small crystals like grains of wheat.
- *Dune / Copi* – weathered gypsum, commonly interbedded with other sedimentary deposits.
- *Spongy or cellular gypsum* – associated with lake beds.



Crystalline Gypsum, Victoria (Sherry / GSV)

Development opportunities

Most production by volume in Victoria to date has been utilised in cement manufacturing and agricultural soil conditioning. Crops that are heavily reliant on gypsum include grape vines, mushrooms, cereal crops, lucerne and grasses. Demand typically increases after periods of drought.

Potential exists for further development of Victoria's gypsum deposits that are suitable for applications such as:

- for wine making to assist in controlling the tartness of wine
- a food additive to increase calcium content
- a toothpaste additive
- pharmaceutical and medical applications (eg. casts)
- a water clarifier to settle solutes
- a filler in paper manufacture
- plaster board manufacture and high-quality building materials
- fluxes for titanium manufacture
- mine rehabilitation

Currently producing regions

- the area between Kerang and Swan Hill
- a broad band between Dimboola and Lake Albacutya
- the area between Murrayville and Underbool
- Raak Plain and the area to the north and east of Lake Timboram

Victoria is committed to economic development

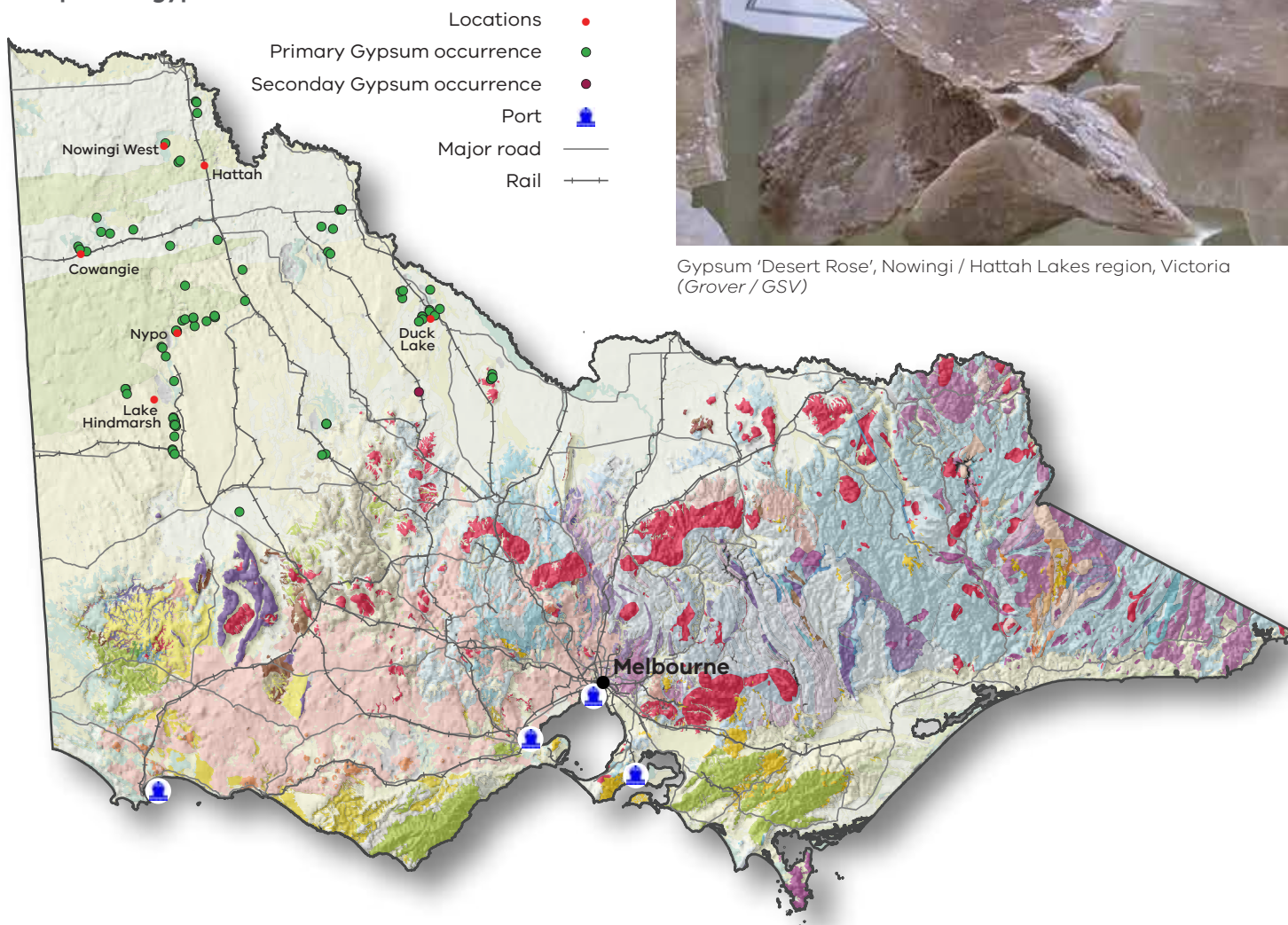
Victoria provides a positive business environment, efficient regulation and security of tenure for mineral explorers and investors.

To access more information about Victoria's minerals, visit: www.earthresources.vic.gov.au



Crystalline Gypsum veins in limestone, JanJuc, Victoria (Cayley / GSV)

Prospective gypsum areas



Gypsum 'Desert Rose', Nowingi / Hattah Lakes region, Victoria (Grover / GSV)

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