

Photo of the Totten Mine, in the Sudbury basin



Sudbury Concentrates

PGM-rich, complex concentrate.

- Sudbury concentrates are produced in our Sudbury Operations and are recognized for its PGM rich content.
- Sudbury Concentrate contains Palladium and Platinum and is a very unique concentrate that only a few mines in the world produce.

Typical analysis

Cu	27–34%
Au	3–7 g/dmt
Ag	70–110 g/dmt
Pt	2–9 g/dmt
Pd	4–13 g/dmt
S	33–36%
Fe	30–32%
Ni	0.4–0.9%
As	10–50 ppm
Bi	20–40 ppm
Cd	20–50 ppm
Pb	200–2,000 ppm
Sb	1–10 ppm
Se	100–150 ppm
Te	20–40 ppm
Zn	800–1,200 ppm

Vale's Sudbury Concentrates are produced in the Sudbury Basin, in Ontario, Canada, alongside other Sudbury nickel products.

For more information visit [vale.com](https://www.vale.com) or contact your regional sales representative.



Carbon intensity is 0.8 t CO₂e/t Cu, including scopes 1, 2, and 3 (upstream) emissions as of the most recent assessment year (2023)¹. Carbon intensity is reassessed on a regular basis.

Underground mine and mill; low grid emission factor (Ontario, Canada).

Disclaimer: The product descriptions and specifications contained in this document are made in accordance with our analyses and the methods used to produce Vale's copper products. While these descriptions and specifications are reflective of normal production lots, rather than each individual cargo, such descriptions and specifications shall in no event be deemed or interpreted as any representation, warranty or commitment by Vale in connection with Vale's copper products quality. Vale's copper products quality shall be determined only in accordance with the corresponding contract terms for each transaction agreed between Vale and Vale's customer and the quality related certificate issued under such contract.

¹Independent third-party limited assurance to the general principles of ISO 14064-3 has been provided by Intertek Health Sciences Inc. Emissions allocated by economic value.

Updated September 2024 © Vale Canada Limited

HS Code

- 26030010 – Copper ore and concentrates

Form

- Complex, PGM-rich copper concentrate
- Moisture/humidity level: 7–9%

Logistics

Produced in Sudbury and transported by truck directly to customers in North America or to Three Rivers Port for overseas shipping

- Voyage to Europe: ~3 weeks
- Voyage to Asia: ~6 weeks