

Air Quality Program: Sulphur Dioxide (SO₂)

Sulphur Dioxide (SO₂) is a colourless, reactive, gas which at high levels can adversely impact human health and the environment.

SO₂ is emitted by Teck Trail Operations as a by-product of processing mine concentrates, which contain sulphur, into metal and chemical products. SO₂ levels are not static and change throughout the day.

Those most sensitive to the effects of SO₂ include persons with chronic respiratory disease, especially persons with asthma.

Short-term exposures to elevated SO₂ levels can cause the air passages in the lungs to constrict or tighten, leading to breathing difficulties and tightening in the chest. Symptoms may worsen during vigorous exercise or hard physical labour.

GENERAL GUIDANCE FOR 1-HOUR SO₂ LEVELS

SO ₂ Levels	Consider taking the following action at these levels
0-35 ppb	None
36-184 ppb	Persons with chronic respiratory conditions such as asthma should consider reducing or rescheduling strenuous outdoor activities if experiencing symptoms. No effects are expected for the general population.
185+ ppb	Persons with chronic respiratory conditions such as asthma should reduce or reschedule strenuous activities outdoors. Others, especially children and the elderly should also consider avoiding outdoor physical exertion.

Benchmarks for short-term (1-hour) SO₂ levels in air have been developed by the Canadian and BC governments to guide collaborative action (among other objectives). Based on recent monitoring in Trail, SO₂ levels exceeded the benchmarks for ambient air quality set for 2020.

Still, **SO₂ levels in Trail continue to decline** with environmental improvements at Teck Trail Operations. Currently more than 99% of the sulphur is captured and converted to by-products, such as sulphuric acid and fertilizer. About 1% leaves the operation as emissions to air. The location of the smelter is in the heart of Trail, within a deep valley, and at times constrains dispersion of air emissions.

! YOU CAN CHECK CURRENT SO₂ LEVELS ONLINE.

Visit <https://www.env.gov.bc.ca/epd/bcairquality/readings/find-stations-map-SO2.html>

Residents who have concerns about air quality are encouraged to call the **Teck Community and Environment Feedback line at (250) 364-4817**, a phone line answered 24 hours a day.