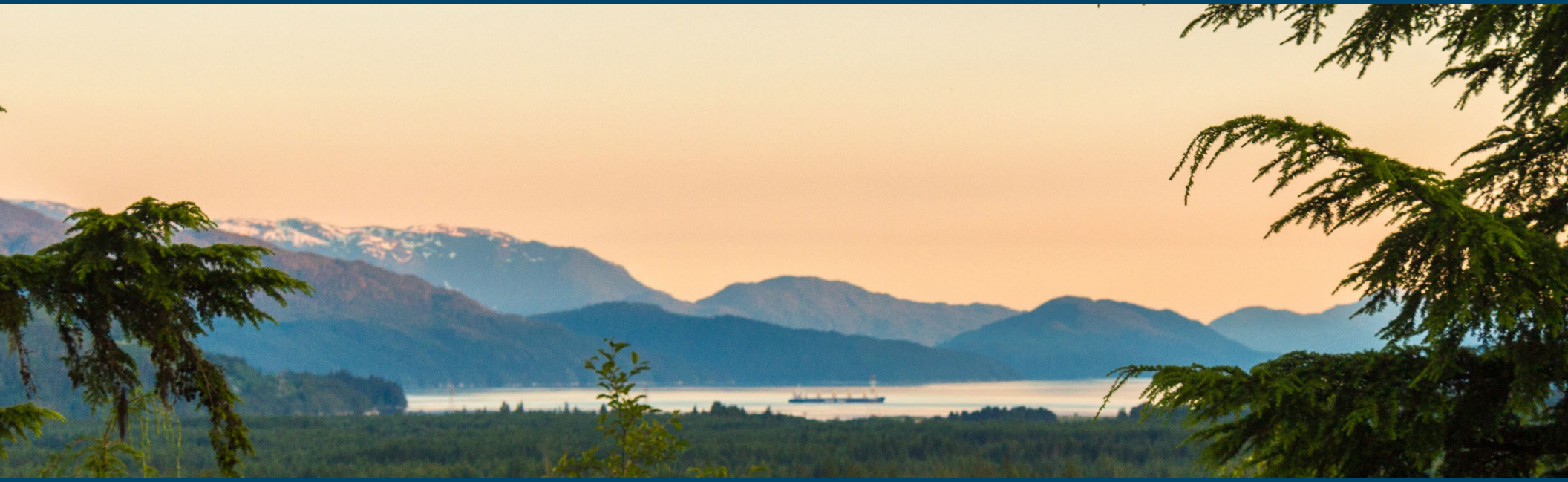
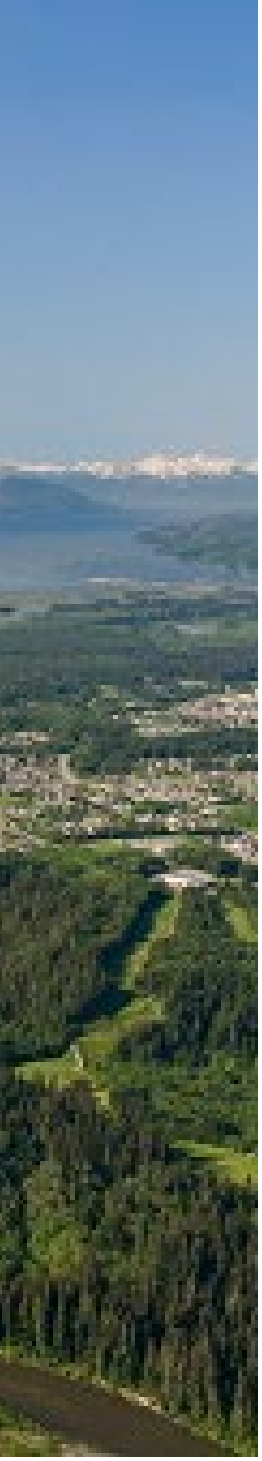
Roaming Air Monitoring Vehicle Kitimat, B.C. Deployment Report

July - October 2025



BRITISH COLUMBIA **ENERGY REGULATOR**



Contents

The British Columbia Energy Regulator (BCER) oversees the full life cycle of energy resource activities in B.C., from site planning to final restoration. Our role includes the regulation of natural gas, oil, hydrogen, ammonia, methanol and renewable energy sources such as geothermal, solar and wind power.

Our authority is established by way of the Energy Resource Activities Act (ERAA) and additional legislation related to heritage conservation, roads, land and water use, forestry, and other natural resources. We work to ensure industry compliance with provincial legislation to protect public safety and the environment, support reconciliation with Indigenous peoples, conserve energy resources and foster a sound economy and social well-being.

Vision

A resilient energy future where B.C.'s energy resource activities are safe, environmentally leading and socially responsible.

Mission

We regulate the life cycle of energy resource activities in B.C., from site planning to restoration, ensuring activities are undertaken in a manner that:

- Protects public safety and the environment.
- Supports reconciliation with Indigenous Peoples and the transition to low-carbon energy.
- Conserves energy resources.
- Fosters a sound economy and social well-being.

Values

Respect is our commitment to listen, accept and value diverse perspectives.

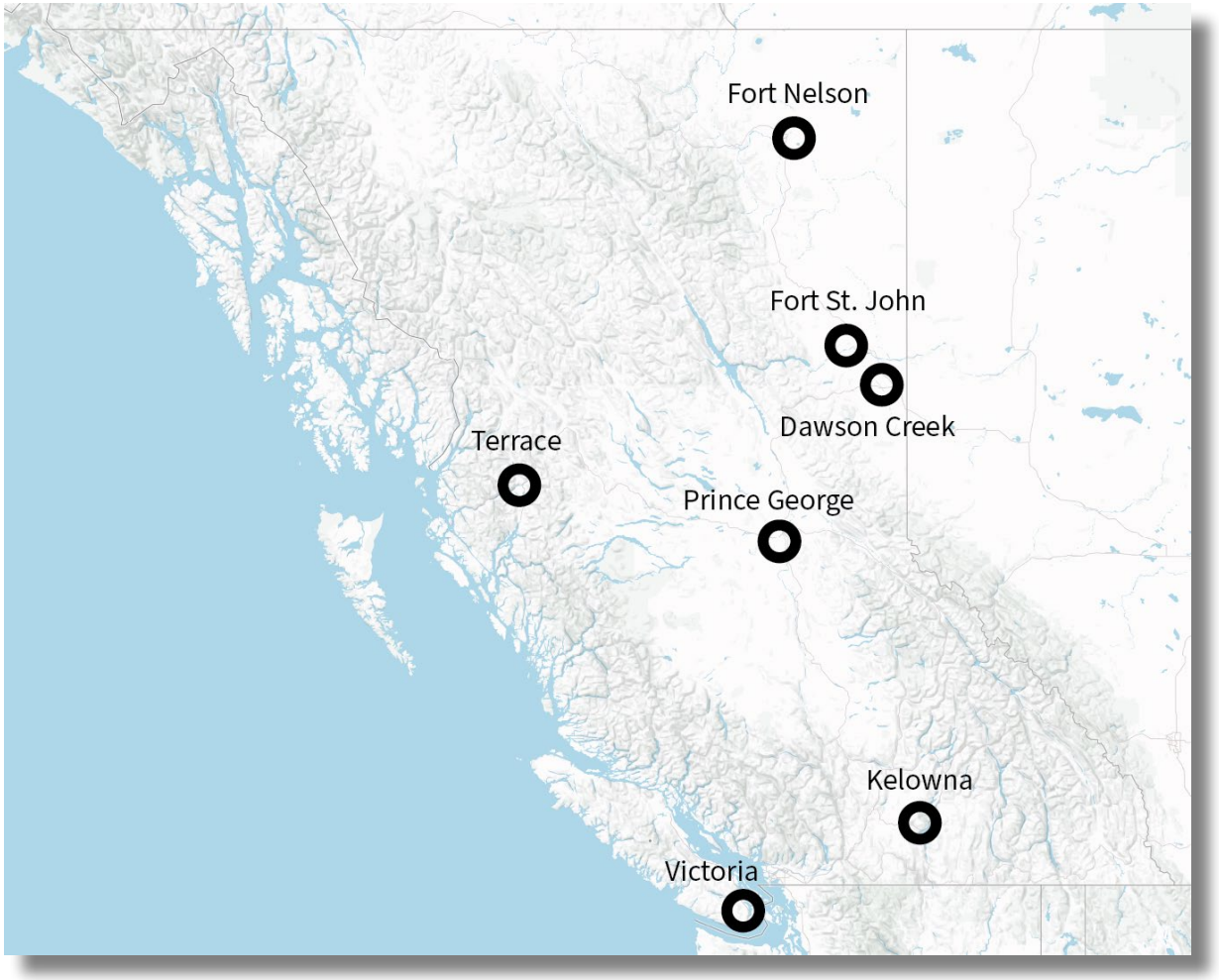
Integrity is our commitment to the principles of fairness, trust and accountability.

Transparency is our commitment to be open and provide clear information on decisions, operations and actions.

Innovation is our commitment to learn, adapt, act and grow.

Responsiveness is our commitment to listening and timely and meaningful action.

BC Energy Regulator Office Locations Throughout B.C.



Our employees work out of seven locations to ensure our presence near energy resource activities: Fort Nelson, Fort St. John, Dawson Creek, Terrace, Prince George, Kelowna and Victoria.

We acknowledge and respect the many First Nations, each with unique cultures, languages, legal traditions and relationships to the land and water, on whose territories the British Columbia Energy Regulator's work spans.

About the Air Monitoring Report

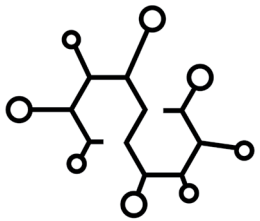
The purpose of this report is to transparently monitor, record, summarize and publish the results of air quality testing with the British Columbia Energy Regulator (BCER) Roaming Air Monitoring Vehicle (RAM) in Kitimat, B.C. that occurred between July and October 2025.

This report summarizes the one-hour continuous data from monitoring periods during the early operations and commissioning of the LNG Canada Facility.

Parameters

Parameters monitored can include continuous monitoring for:

- Ozone (O_3)
- Carbon Monoxide (CO)
- Nitrogen Oxide (NO)
- Nitrogen Dioxide (NO_2)
- Total Oxides of Nitrogen (NO_x)
- Sulphur Dioxide (SO_2)
- Hydrogen Sulfide (H_2S)
- Methane (CH_4)
- Non-Methane Hydrocarbons (NMHC)
- Particulate Matter less than 2.5 microns ($PM_{2.5}$)
- Optical Particulate Matter less than 2.5 microns (Opt $PM_{2.5}$)
- Wind Speed (WS)
- Wind Direction (WD)
- Ambient Temperature (AT)
- Relative Humidity (RH)
- Barometric Pressure (BP)



The Roaming Air Monitoring (RAM) Vehicle

The RAM is a specially designed van housing equipment for monitoring air pollutants that could be associated with resource development. It's capable of recording air quality levels while being driven or parked. It serves as a quick response unit for emergencies. However, it can also be used for other ambient monitoring deployments when it is not in emergency service.

What Can Ram Measure?

RAM Measures the following pollutants and atmospheric conditions:

Air Pollutants

- Hydrogen Sulphide (H_2S)
- Sulphur Dioxide (SO_2)
- Total Hydrocarbons
- Particulate Matters (PM)

Atmospheric Conditions

- Temperature
- Wind speed & direction
- Humidity

Monitoring Location Maps

For this summary, monitoring includes mobile measurements, hour-long daytime stationary measurements and overnight stationary measurements.

The following images include:

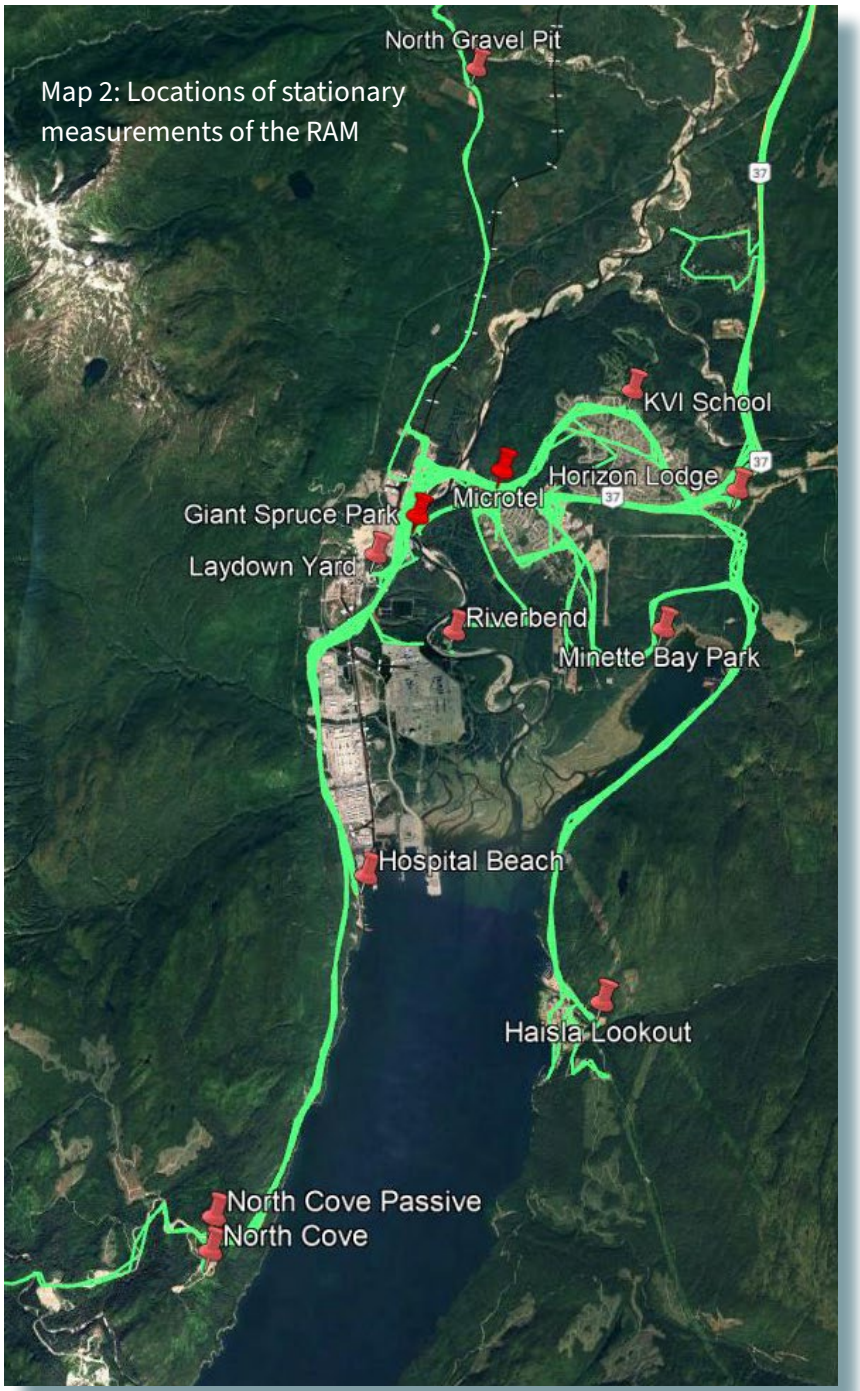
1. Locations of Air Quality Monitoring Stations (AQMS) in the Kitimat Area.

2. Locations of stationary measurements of the RAM.

3. GPS measurement track for the time period.

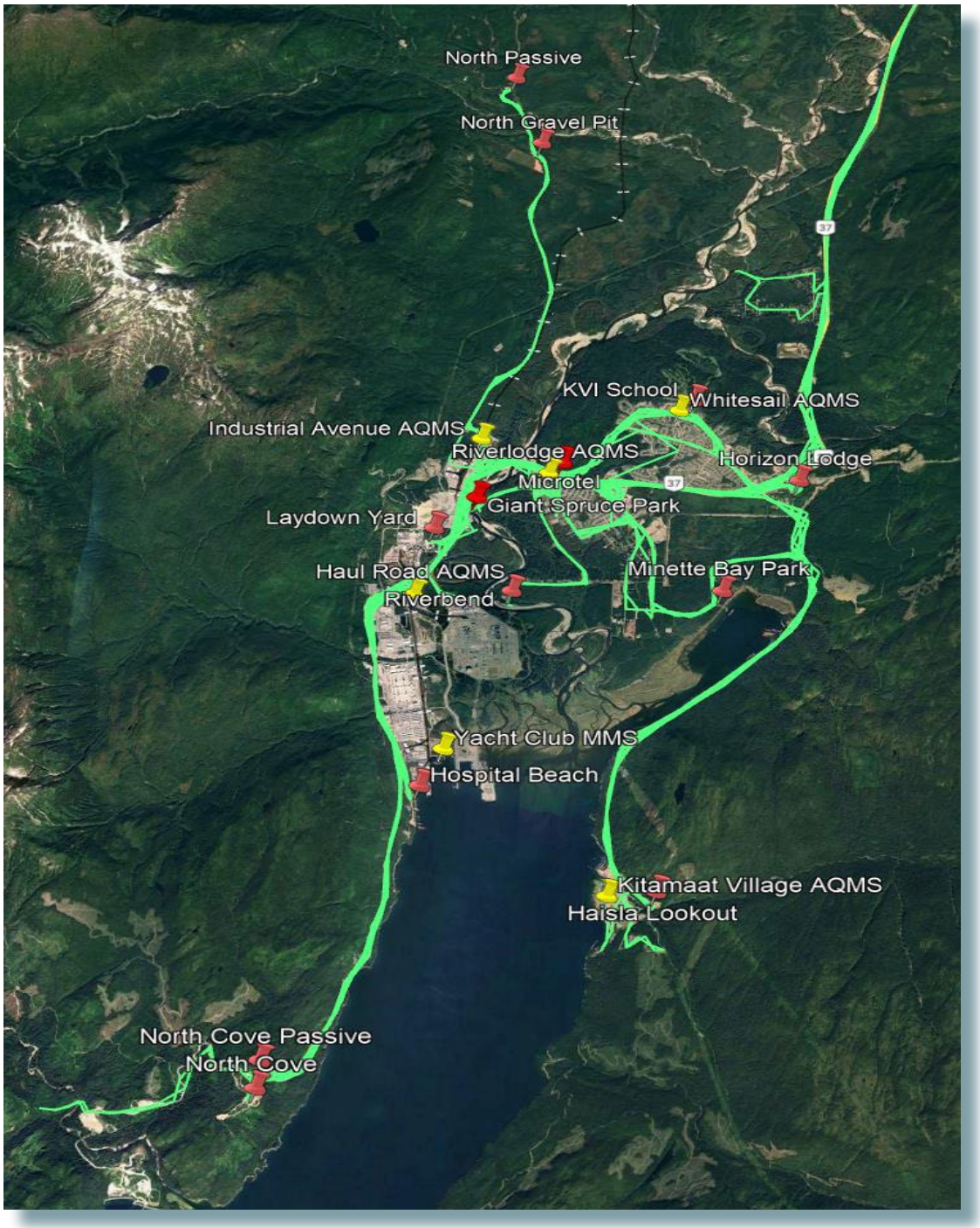
4. Combined AQMS, RAM Stationary Locations and GPS Track.

Map 1: Locations of Air Quality Monitoring Stations (AQMS) in the Kitimat Area



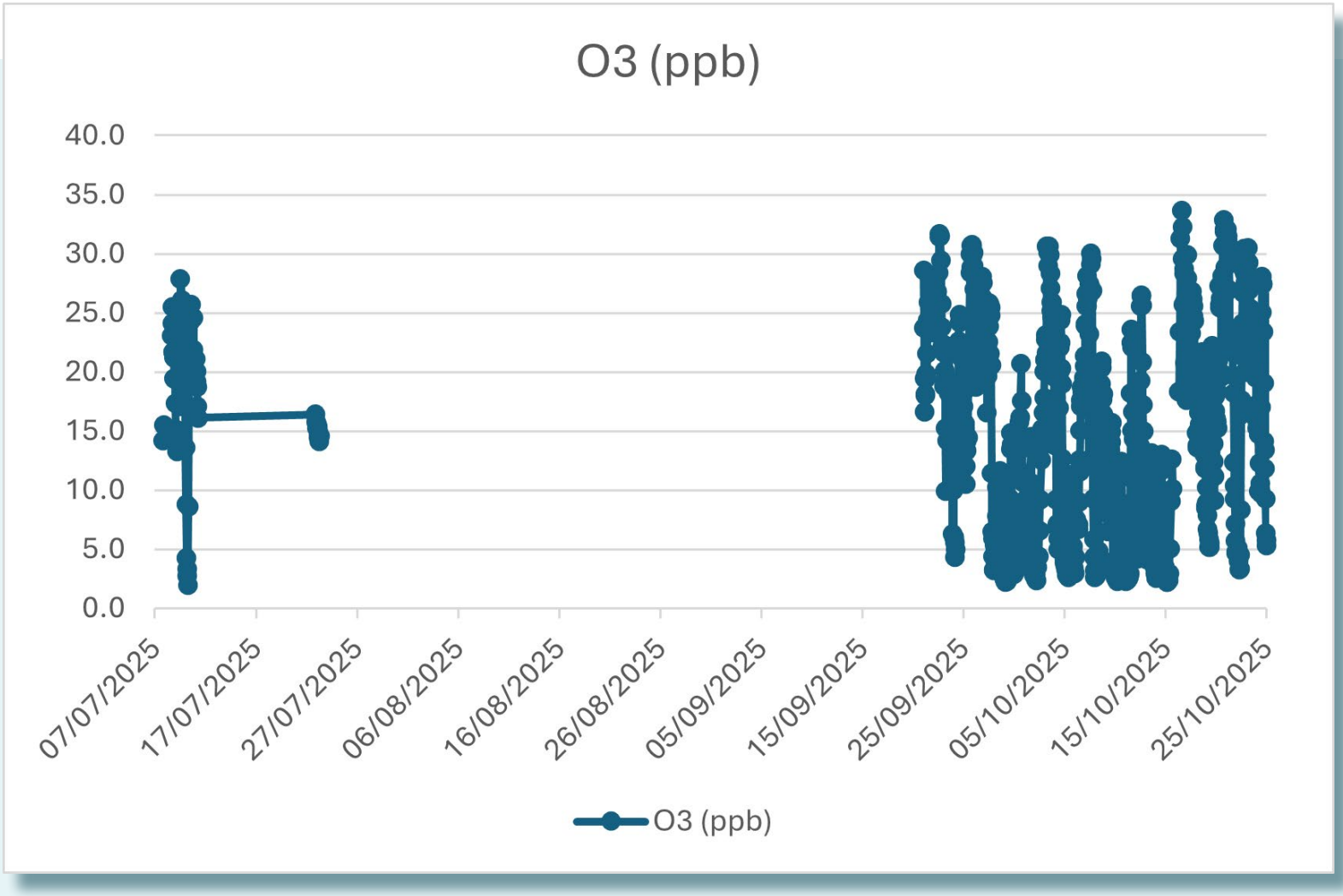
Map 2: Locations of stationary measurements of the RAM

Map 3: GPS Measurement track for the time period



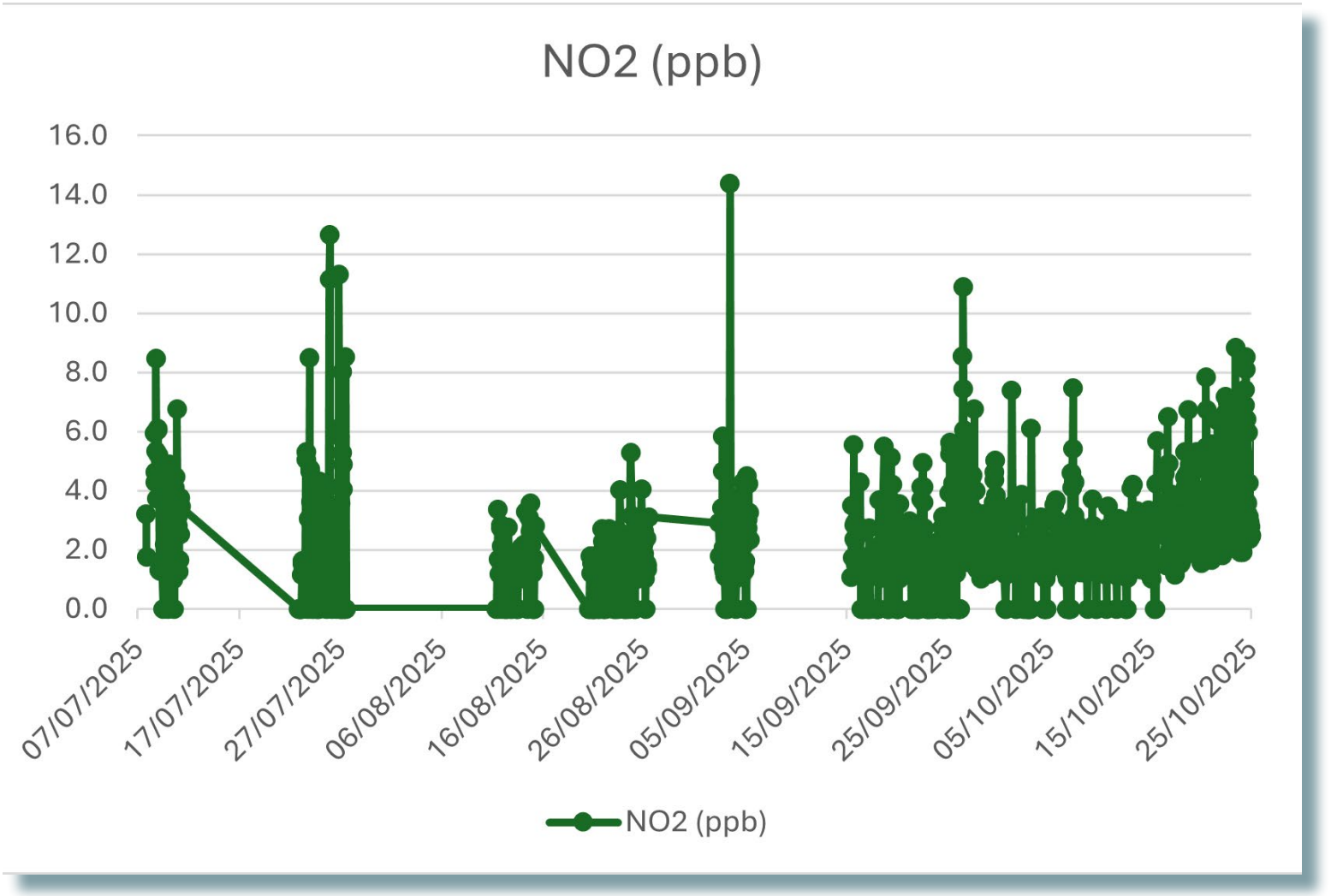
Map 4: Combined AQMS, RAM Stationary Locations and GPS Track

Data Graphs - Ozone (O_3)



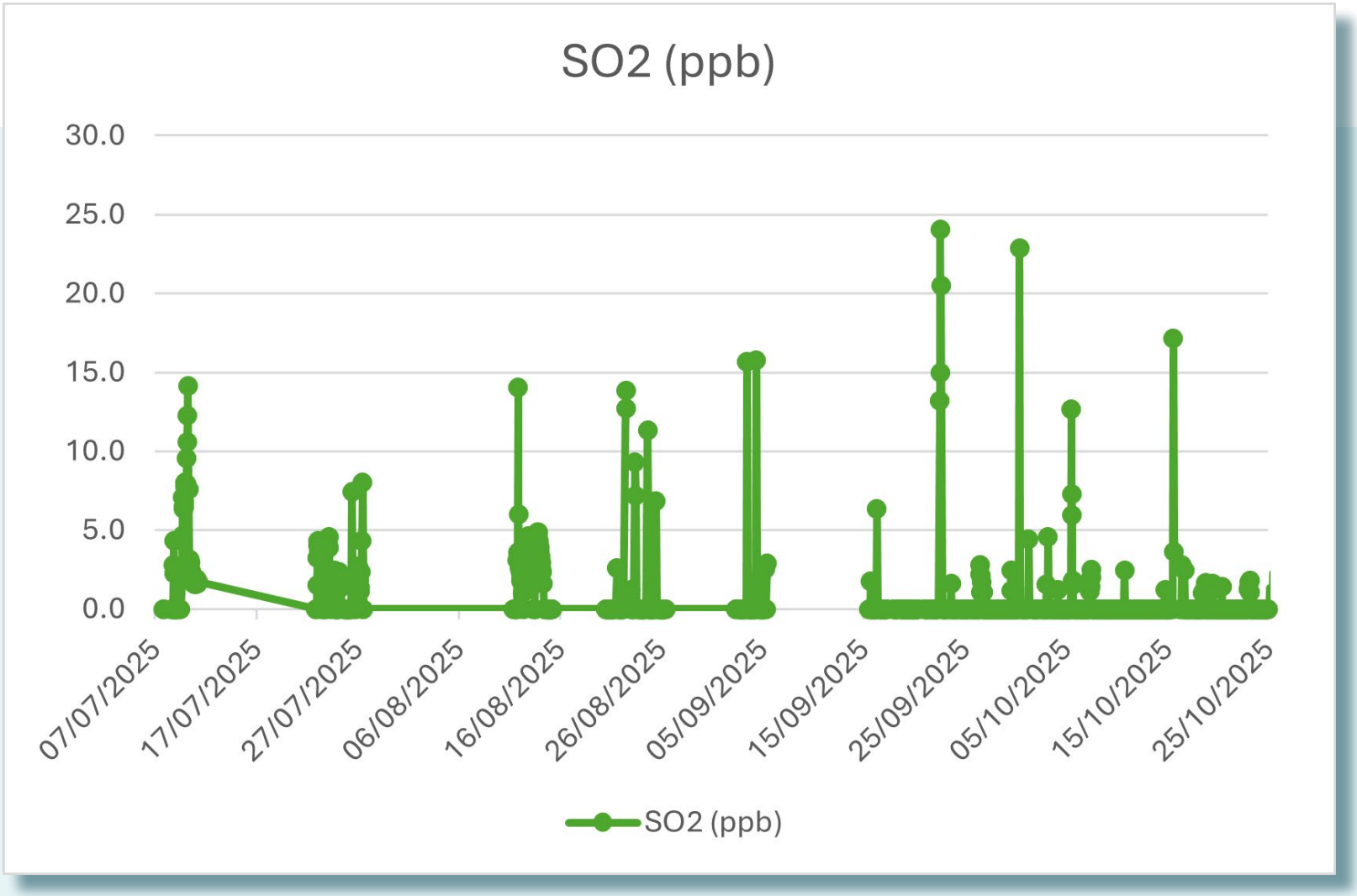
ppb = parts per billion

Data Graphs - Nitrogen Dioxide (NO_2)



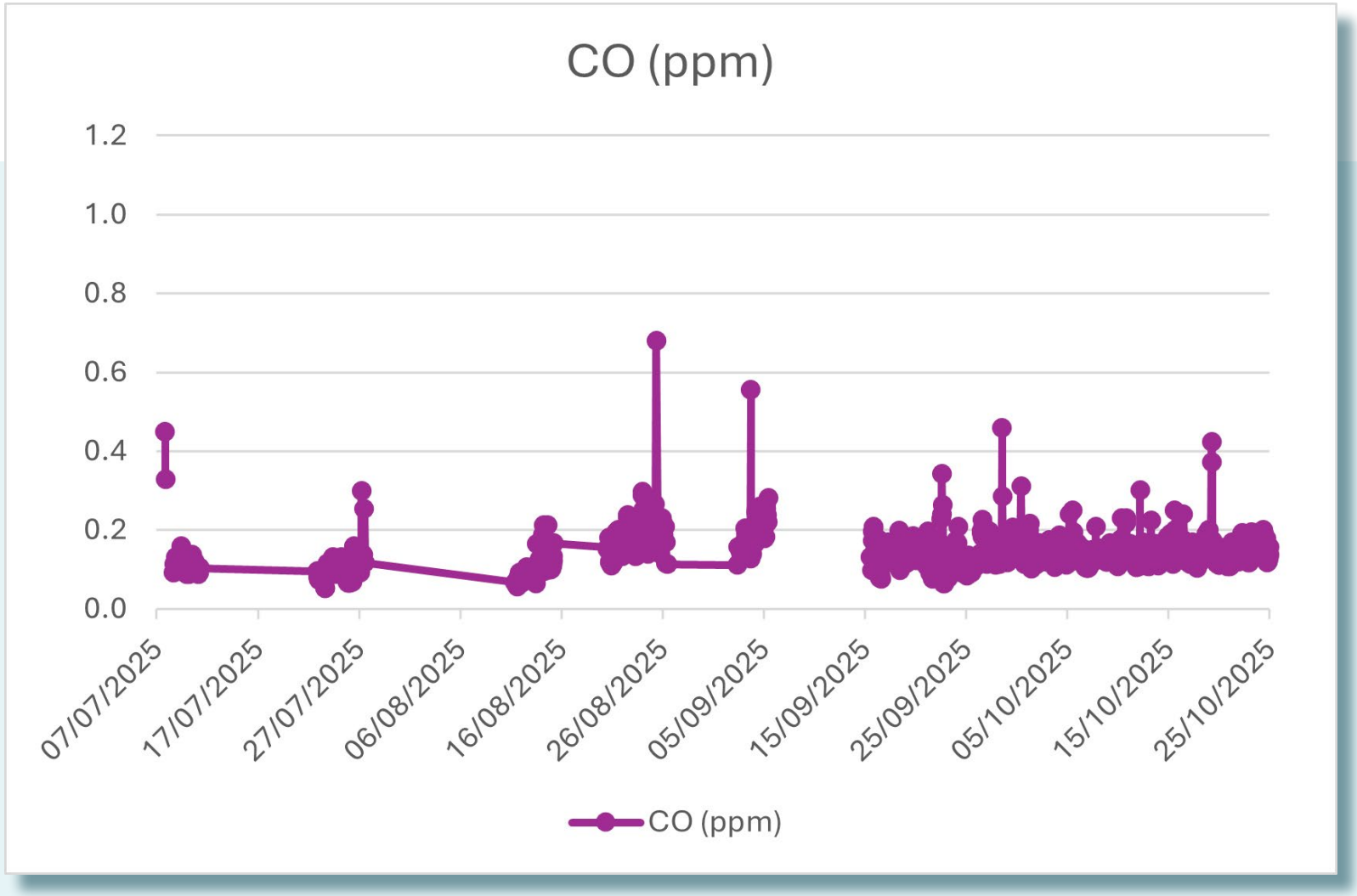
ppb = parts per billion

Data Graphs - Sulfur Dioxide (SO_2)



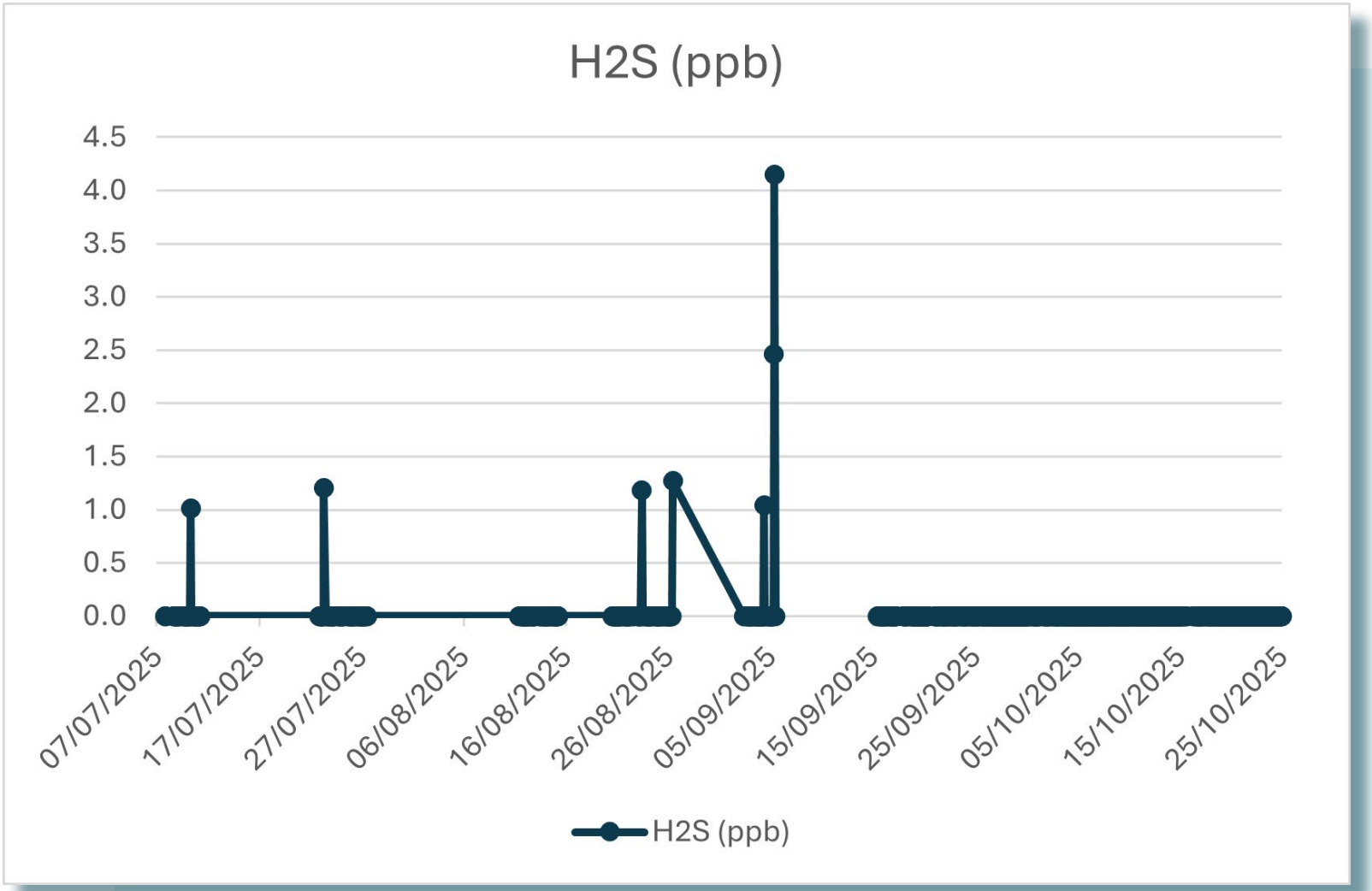
ppb = parts per billion

Data Graphs - Carbon Monoxide (CO)



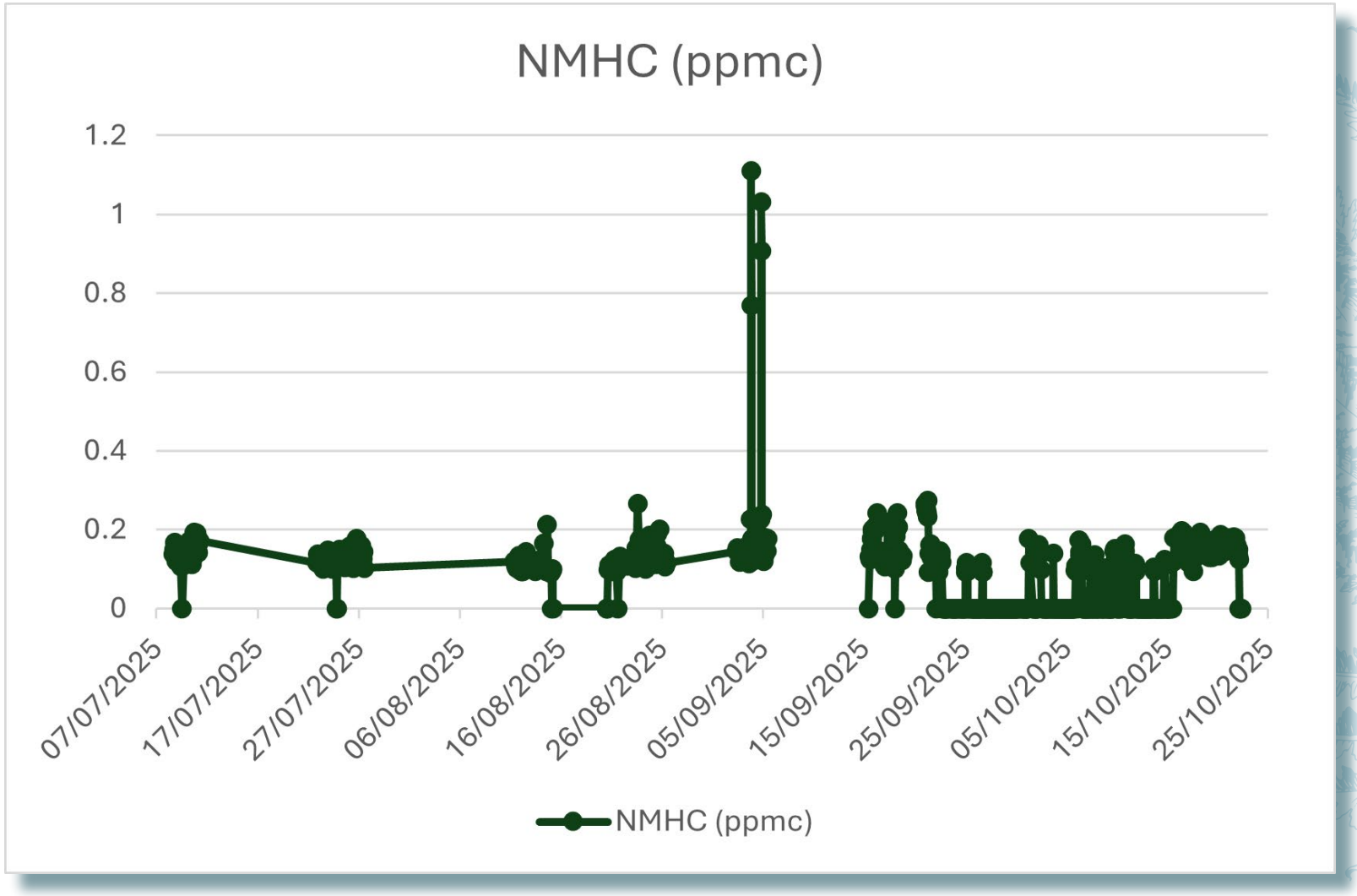
ppm = parts per million

Data Graphs - Hydrogen Sulfide (H_2S)



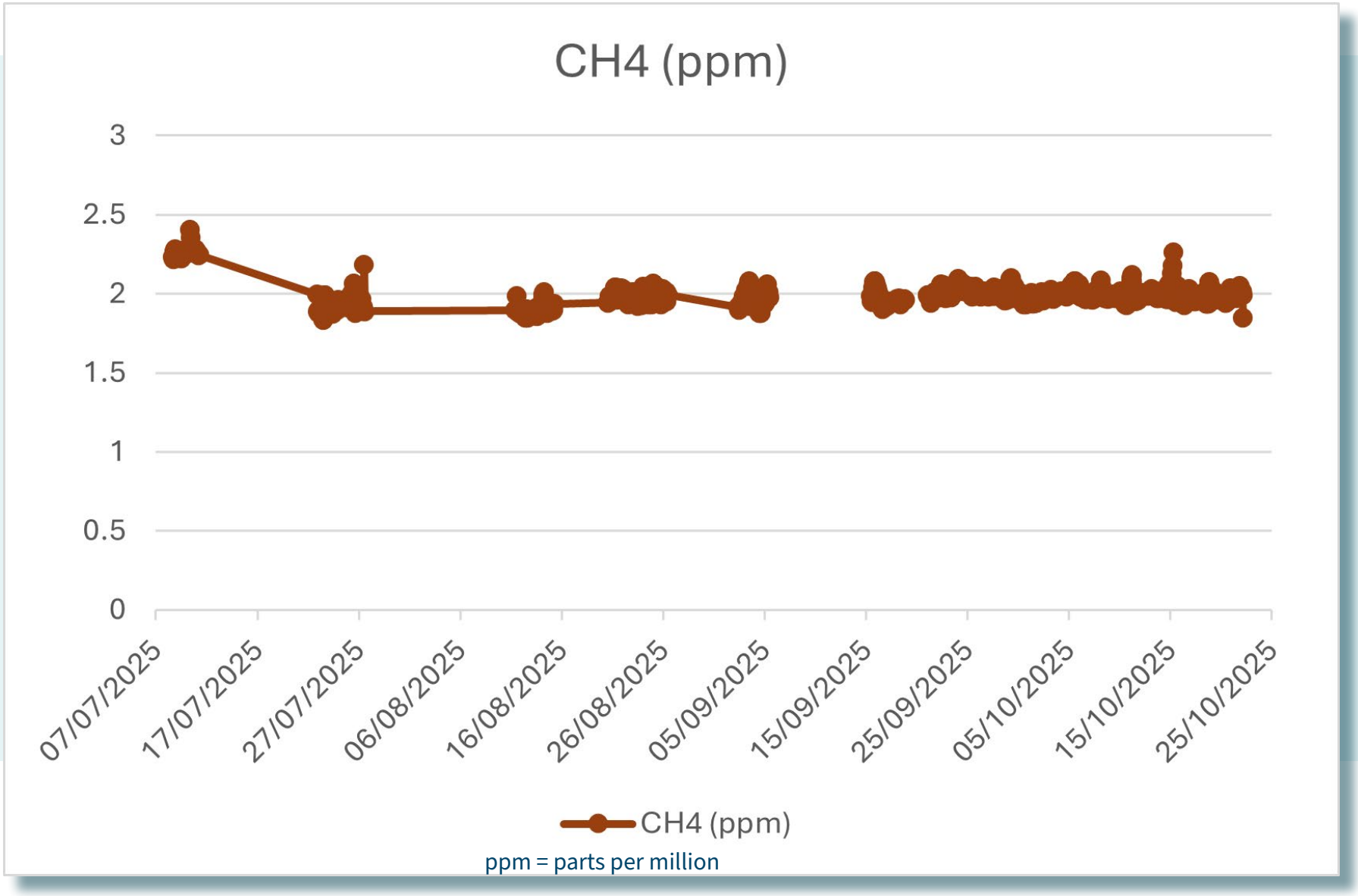
PPB = parts per billion

Data Graphs - Non-Methane Hydrocarbon (NMHC)



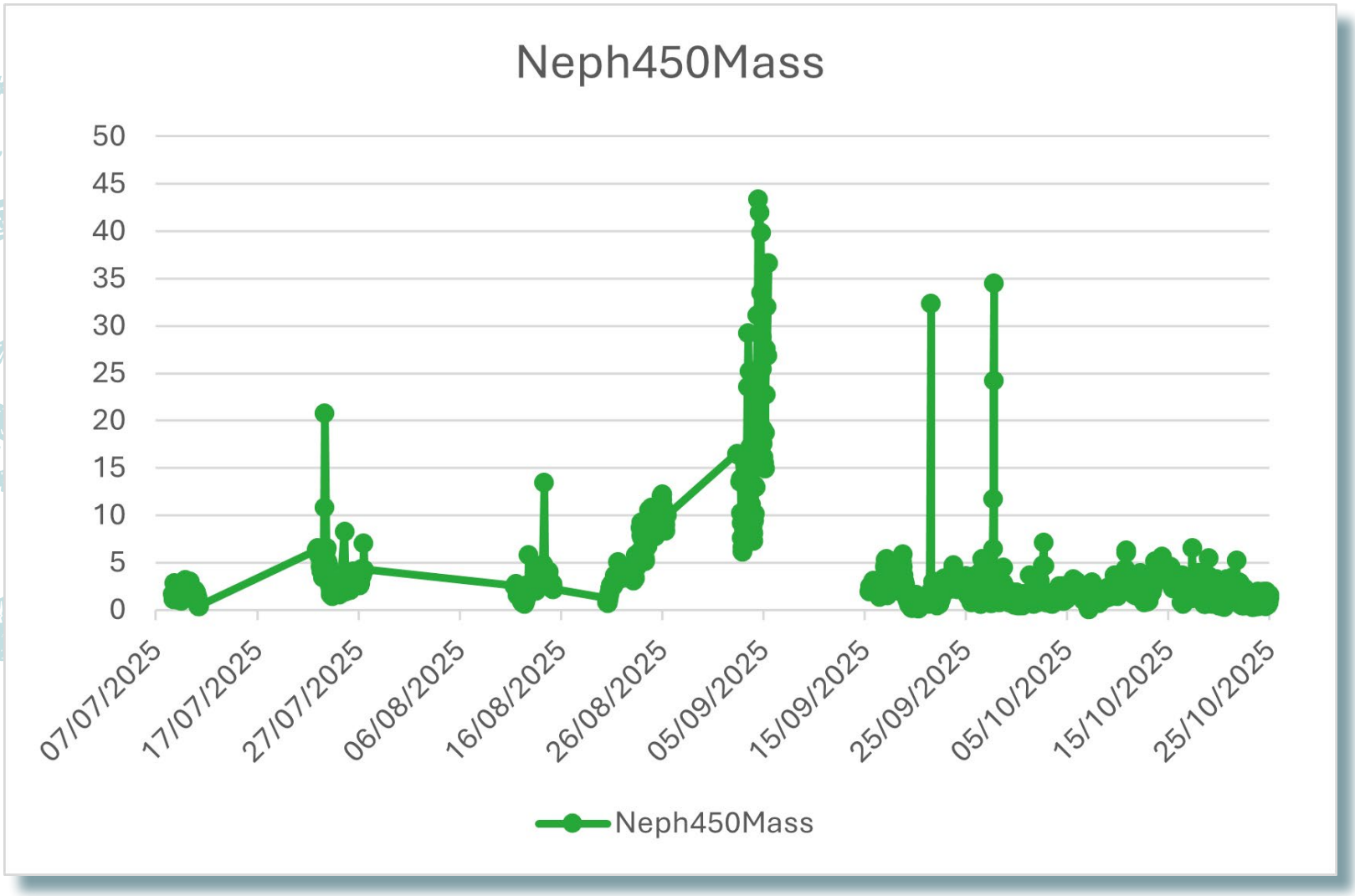
ppmc = parts per million combined

Data Graphs - Methane (CH_4)



ppm = parts per million

Data Graphs - Nephelometry (Neph PM2.5)



Nephelometry is a technique used to measure the concentration of particulate matter (PM) in the atmosphere, specifically PM2.5, which are particles that are 2.5 micrometers or smaller in diameter.

Summary

This summary contains a compilation of one-hour continuous monitoring data from the RAM deployment to the Kitimat Valley during July - October 2025. The full data set contains additional details including locations, wind direction, humidity and five-minute continuous monitoring data during mobile operation.

The full data set is available in CSV format and the hourly data is also provided in KMZ format so that it can be viewed in Google Earth. The data files can be found on the BCER Air Quality page.

The data set for the complete monitoring period may take a long time to load so the data has been broken down info file folders with shorter time periods for ease of viewing. The location of the highest measured values for each parameter are indicated on the map using stars for each of the weekly time periods.

Nitrogen Dioxide (NO_2)- Orange stars
Sulphur Dioxide (SO_2) - Green stars
Hydrogen Sulfide (H_2S) - Light Green stars
Carbon Monoxide (CO)- Lime Green stars
Particulate Matter less than 2.5 microns ($PM_{2.5}$) - Blue stars
Ozone (O_3) - Yellow stars
Methane (CH_4) - Light Blue stars
Non-Methane Hydrocarbons (NMHC) - Pink stars
BTEX * - Pink stars
Total Oxides of Nitrogen (NO_x) - Red stars

*BTEX is an acronym used in environmental science and toxicology to identify a group of four aromatic hydrocarbons: Benzene, Toluene, Ethylbenzene, and Xylenes.

The results of the BCER monitoring program are consistent with data collected by the existing air quality monitoring network in Kitimat. Data from the active air quality monitoring stations may be found on the ministry website: Latest air quality data - Province of British Columbia.

This report was published March 2026.

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