



Department of Environmental Conservation's Air Monitoring Program Community-Based Air Monitoring Project

2024-25 Winter Season Air Quality Report for Native Village of Tyonek, Tyonek Alaska

The QuantAQ MODULAIR™ sensor in Tyonek (100 A St, Tyonek, AK 99682) was installed on 11/20/2024.

The sensor measures for carbon monoxide (CO), ozone (O₃), nitrogen oxide (NO), nitrogen dioxide (NO₂), particulate matter (PM_{2.5} and PM₁₀), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

The sensor in Tyonek has run well since its installation in November of 2024. A significant windstorm on January 12th caused a power outage that lasted through midday on January 14th, with another brief outage January 15th -16th. The sensor resumed functioning as normal after the outages.

This data report covers the date range of November 20, 2024, to March 31, 2025.

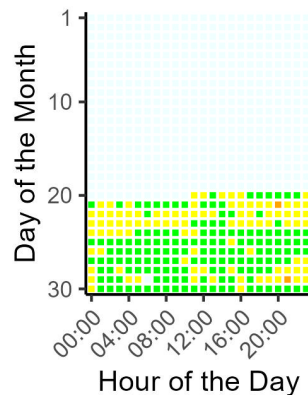


Daily PM_{2.5} Air Quality Index (AQI) for November 20, 2024 – March 31, 2025

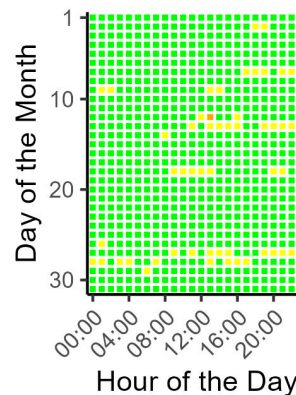
AQI



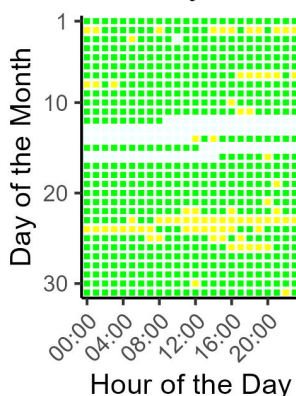
November



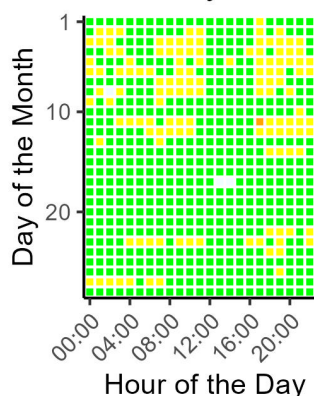
December



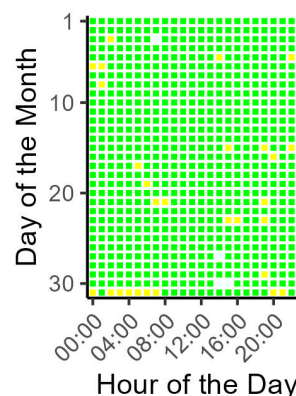
January



February

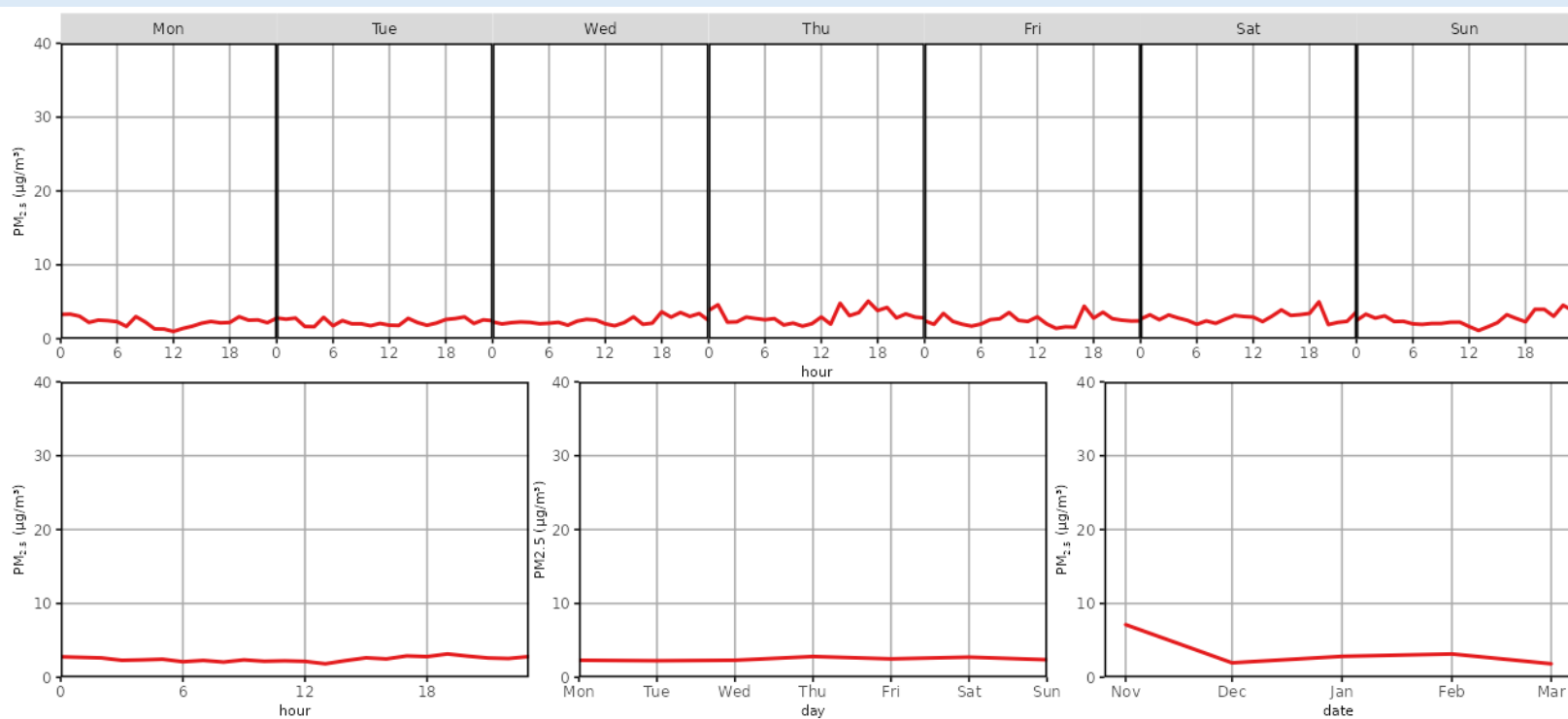


March



2024-25 Winter Season Air Quality Report for Native Village of Tyonek

Median PM_{2.5} Concentrations for November 20, 2024 – March 31, 2025



Descriptive Statistics of Air Pollutants*

Parameter	1-hr PM _{2.5} (µg/m ³)	24-hr PM _{2.5} (µg/m ³)	1-hr PM ₁₀ (µg/m ³)**	24-hr PM ₁₀ (µg/m ³)**	1-hr O ₃ (ppb)	1-hr NO ₂ (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min	0.09	0.77	0.00	0.71	7.80	4.61	1.38	0.27
Mean	4.44	4.40	11.53	10.61	32.70	18.51	3.21	0.34
1 st Max	48.80	15.46	514.00	131.46	65.40	34.25	40.51	1.30
2 nd Max	46.12	15.24	503.00	92.25	49.00	26.66	29.20	1.30

Data Discussion

Tyonek’s PM_{2.5} ambient air quality for the winter 2024-25 season fell mostly in the “good” range of the Air Quality Index (AQI; more information about AQI is provided on page 3), with several multi-day periods of “moderate” AQI levels in November, January, and February, and several hours of “unhealthy for sensitive groups” AQI levels in November, December, and January. Diurnal patterns show little variability of PM_{2.5} concentrations across different times of day or days of the week, with concentration levels peaking in November and February.

* These statistics are based on preliminary data readings and are intended to provide a brief overview of sensor activity. Finalized data may be obtained upon request and through our annual statistical reports. Data from the community sensor network is non-regulatory and not comparable to the EPA’s National Ambient Air Quality Standards (NAAQS; more information about the EPA NAAQS is provided on page 3).

** PM₁₀ particle sensors are influenced by weather events such as fog and snow due to hygroscopic effects, creating false maximum values that do not pose health risks.



Resources



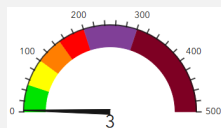
[Alaska Department of Environmental Conservation](#)



[EPA NAAQS Information](#)



[Air Quality Index \(AQI\) Basics](#)



[Real-Time AQI Data](#)



Data Access

To access historical data for your community's sensor, please email a request to: AMQA-Data-Request@alaska.gov . Data will be provided in Excel or .csv format.

Questions or Comments?

Please contact us!

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