Canadian Wildfire Smoke Particulate Matter Exceptional Event Demonstration

North Dakota May – September, 2023

DRAFT December 2024

Prepared by
North Dakota Department of Environmental Quality
Division of Air Quality

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EXECUTIVE SUMMARY

From mid-May through mid-September of 2023, smoke from wildfires across Canada directly affected the air quality in North Dakota. The 2023 Canadian wildfires produced particulate matter (PM) emissions that are outside the regulatory control and jurisdictional borders of the North Dakota Department of Environmental Quality (NDDEQ), which regulates air pollution on state land within the State of North Dakota.

The U.S. Environmental Protection Agency's (EPA) Treatment of Data Influenced by Exceptional Events (Exceptional Event Rule) (40 CFR § 50.14) details what air regulatory agencies are required to demonstrate to exclude exceptional event-related concentrations from regulatory determinations. The following components must be included in a demonstration:

A. A narrative conceptual model that describes the event causing the exceedance or violation and a discussion of how emissions from the event led to the exceedance or violation at the affected monitor(s). (See Section III.)
B. A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation. (See Section IV.)
C. Analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times. (See Section IV.)
D. A demonstration that the event was both not reasonably controllable and not reasonably preventable. (See Section V.)
E. A demonstration that the event was a human activity that is unlikely to recur at a location or was a natural event. (See Section VI.)
F. Documentation that the submitting air regulatory agency followed the public comment process. (See Section VII.)

This demonstration addresses all required components of a request to exclude exceptional event-related data, as detailed in 40 CFR § 50.14.

The North Dakota Department of Environmental Quality (NDDEQ) – Division of Air Quality (Division) is requesting exclusion of exceptional event concurred particulate matter ($PM_{2.5}$ and PM_{10}) data, recorded by various monitoring sites, from the data record due to a wildfire smoke exceptional event (Event) from mid-May through mid-September 2023.

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SECTION I. INTRODUCTION

I.1 Overview

The Exceptional Event Demonstration shows that all nine North Dakota air monitoring sites were impacted by smoke from wildfires across Canada from mid-May through late-September 2023, causing daily particulate matter (PM) concentrations to exceed the level of the 24-hour $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS) of 35 $\mu g/m^3$, new 2024 $PM_{2.5}$ Annual NAAQS of 9.0 $\mu g/m^3$, as well as the 24-hour PM_{10} NAAQS of 150 $\mu g/m^3$. The 2023 Canadian wildfires produced PM emissions that are outside the regulatory control and jurisdictional borders of the North Dakota Department of Environmental Quality (NDDEQ), which regulates air pollution on state land within the State of North Dakota.

This demonstration includes 55 dates at nine $PM_{2.5}$ monitors for a total of 239 $PM_{2.5}$ monitor event days and one date at three PM_{10} monitors for a total of three PM_{10} monitor event days. The daily PM event concentrations included in this demonstration are for the following timeframes and were the result of smoke impacts from Canadian wildfires, as described in this document.

May 16-18	June 27	July 14-16	August 28-Sept. 1
May 20-23	June 29-July 1	July 21-24	September 3-8
June 6	July 3	August 4-8	September 10
June 13-18	July 9	August 17-19	September 15-22

All North Dakota monitors have design values for 2020-2022 that are meeting the existing and new 2024 $PM_{2.5}$ annual NAAQS as well as the existing 24-hour $PM_{2.5}$ and 24-hour PM_{10} NAAQSs. Monitored data in 2023 exceeded the levels of the 24-hour $PM_{2.5}$ NAAQS, new 2024 $PM_{2.5}$ annual NAAQS, as well as the 24-hour PM_{10} NAAQS. More specifically in 2023, three of three PM_{10} monitors have 24-hour concentrations that are above the level of the 24-hour PM_{10} NAAQS; six of nine $PM_{2.5}$ monitors have annual mean concentrations that are above the level of the new 2024 $PM_{2.5}$ annual NAAQS; and nine of nine $PM_{2.5}$ monitors have 98^{th} percentile 24-hour concentrations that are equal to or above the level of the 24-hour $PM_{2.5}$ NAAQS. Furthermore, the 2023 monitored data impacted by Canadian wildfire smoke significantly increased the 2021-2023 design values for the $PM_{2.5}$ 24-hour NAAQS, $PM_{2.5}$ annual NAAQS, and PM_{10} 24-hour NAAQS. See Appendix A, Table B for 2021-2023 design value information for all North Dakota $PM_{2.5}$ and PM_{10} monitors for the $PM_{2.5}$ 24-hour NAAQS, $PM_{2.5}$ annual NAAQS, and PM_{10} 24-hour NAAQS.

The NDDEQ requests that the U.S. Environmental Protection Agency (EPA) concur with the exclusion from the data record the specified $PM_{2.5}$ (24-hour and annual) and PM_{10} (24-hour) Event concentrations in Table 1 as well as in Appendix A, Table A. The Event concentrations were all above the level of the EPA $PM_{2.5}$ Tier 1 thresholds for each site or above the level of the PM_{10} 24-hour NAAQS, were all influenced by smoke from Canadian wildfires included in this demonstration, and impact regulatory determinations concerning North Dakota's attainment of the NAAQS. The days and sites for which the NDDEQ is requesting concurrence were impacted by an Event consistent with EPA's definition of "unusual or naturally occurring events that can affect air quality but are not reasonably controllable using techniques that tribal, state, or local air agencies may implement in order to attain and maintain the [NAAQS]" (USEPA, 2020a).

Table 1. $PM_{2.5}$ (24-hour) and PM_{10} (24-hour) Event Concentrations

DATE	MONITOR NAME	$PM_{2.5}$ ($\mu g/m^3$)
05/16/2023	Fargo NW	26.2
05/17/2023	Painted Canyon (TRNP-SU)	150.9
	Lostwood NWR	210.6
	Bismarck Residential	195.2
	Fargo NW	47.6
	Lake Ilo NWR	232.4
	TRNP-NU	221.8
	Beulah North	210.3
	Hannover	235.0
	Ryder	201.9
05/18/2023	Painted Canyon (TRNP-SU)	46.3
	Lostwood NWR	28.3
	Bismarck Residential	56.4
	Fargo NW	88.2
	Lake Ilo NWR	41.9
	TRNP-NU	40.4
	Beulah North	45.4
	Hannover	66.9
	Ryder	31.6
05/20/2023	Lostwood NWR	25.7
	Lake Ilo NWR	21.8
05/21/2023	Painted Canyon (TRNP-SU)	32.9
	Lostwood NWR	23.7
	Bismarck Residential	20.5
	Lake Ilo NWR	37.0
	Beulah North	27.4
	Hannover	30.2
	Ryder	20.4
05/22/2023	Painted Canyon (TRNP-SU)	24.1
	Lostwood NWR	29.7
05/23/2023	Painted Canyon (TRNP-SU)	27.9
	Lostwood NWR	33.1
	Bismarck Residential	28.2
	Fargo NW	22.8
	Lake Ilo NWR	27.3
	TRNP-NU	24.3
	Beulah North	26.5
	Hannover	30.6
	Ryder	26.7
06/06/2023	Fargo NW	20.5
06/13/2023	Lostwood NWR	22.2
	Lake Ilo NWR	21.1
	Ryder	21.4
06/14/2023	Lostwood NWR	23.5
	Bismarck Residential	23.4
	Fargo NW	71.5

DATE	MONITOR NAME	$PM_{2.5}$ ($\mu g/m^3$)
06/15/2023	Bismarck Residential	57.1
	Fargo NW	22.9
	Hannover	33.1
	Ryder	26.1
06/16/2023	Lostwood NWR	24.1
	Fargo NW	20.2
	Lake Ilo NWR	24.1
	Ryder	20.1
6/17/2023	Lostwood NWR	20.1
	Bismarck Residential	23.9
	Fargo NW	22.8
	Hannover	21.5
	Ryder	20.8
06/18/2023	Fargo NW	21.2
06/27/2023	Bismarck Residential	21.2
	Fargo NW	30.2
06/29/2023	Lostwood NWR	35.9
	Ryder	26.6
06/30/2023	Lostwood NWR	39.4
	Fargo NW	21.2
	TRNP-NU	20.7
	Hannover	20.4
	Ryder	36.6
07/01/2023	Fargo NW	27.2
07/03/2023	Lostwood NWR	25.9
07/09/2023	Lostwood NWR	20.9
07/14/2023	Painted Canyon (TRNP-SU)	52.9
	Lostwood NWR	94.6
	Bismarck Residential	52.8
	Fargo NW	36.3
	Lake Ilo NWR	70.6
	TRNP-NU	67.4
	Beulah North	50.6
	Hannover	56.9
	Ryder	67.8
07/15/2023	Painted Canyon (TRNP-SU)	69.2
	Lostwood NWR	52.5
	Bismarck Residential	50.4
	Fargo NW	26.1
	Lake Ilo NWR	76.1
	TRNP-NU	79.8
	Beulah North	45.3
	Hannover	52.5
	Ryder	50.1

DATE	MONITOR NAME	$PM_{2.5}$ ($\mu g/m^3$)
07/16/2023	Painted Canyon (TRNP-SU)	46.9
	Lostwood NWR	21.5
	Bismarck Residential	33.9
	Lake Ilo NWR	38.9
	TRNP-NU	41.7
	Beulah North	29.8
	Hannover	35.1
	Ryder	29.4
07/21/2023	Lostwood NWR	20.9
07/22/2023	Lostwood NWR	29.8
	Bismarck Residential	24.4
	Lake Ilo NWR	21.6
	Hannover	22.3
	Ryder	28.3
07/23/2023	Fargo NW	27.5
07/24/2023	Fargo NW	33.7
08/04/2023	Bismarck Residential	22.5
	Fargo NW	39.0
08/05/2023	Bismarck Residential	25.9
	Fargo NW	21.4
08/06/2023	Lostwood NWR	40.4
	Bismarck Residential	21.3
	Ryder	31.5
08/07/2023	Lostwood NWR	72.1
	Bismarck Residential	36.9
	Fargo NW	22.6
	Lake Ilo NWR	34.8
	TRNP-NU	34.3
	Beulah North	34.5
	Hannover	55.8
	Ryder	72.1
08/08/2023	Lostwood NWR	30.3
08/17/2023	Bismarck Residential	21.9
	Fargo NW	30.9
08/18/2023	Lostwood NWR	22.6
	Fargo NW	22.2
	Lake Ilo NWR	27.4
	TRNP-NU	21.9
	Ryder	22.7
08/19/2023	Bismarck Residential	21.8
08/28/2023	Lostwood NWR	51.9
	Bismarck Residential	25.8
	Lake Ilo NWR	32.4
	TRNP-NU	30.3
	Beulah North	22.2
	Hannover	25.1
	Ryder	42.8

DATE	MONITOR NAME	$PM_{2.5}$ ($\mu g/m^3$)
08/29/2023	Painted Canyon (TRNP-SU)	33.4
	Lostwood NWR	70.4
	Bismarck Residential	66.3
	Fargo NW	42.5
	Lake Ilo NWR	56.2
	TRNP-NU	49.3
	Beulah North	54.5
	Hannover	63.2
	Ryder	68.3
08/30/2023	Painted Canyon (TRNP-SU)	33.2
	Lostwood NWR	59.2
	Bismarck Residential	55.9
	Fargo NW	33.8
	Lake Ilo NWR	54.9
	TRNP-NU	50.3
	Beulah North	47.4
	Hannover	55.9
	Ryder	53.0
08/31/2023	Fargo NW	22.2
09/01/2023	Lostwood NWR	34.0
	Bismarck Residential	22.4
	Lake Ilo NWR	24.6
	TRNP-NU	23.7
	Hannover	25.1
	Ryder	26.8
09/03/2023	Painted Canyon (TRNP-SU)	27.4
	Lostwood NWR	94.8
	Bismarck Residential	31.6
	Fargo NW	24.1
	Lake Ilo NWR	54.6
	TRNP-NU	38.1
	Beulah North	42.0
	Hannover	46.9
	Ryder	67.0
09/04/2023	Painted Canyon (TRNP-SU)	35.0
	Lostwood NWR	71.8
	Lake Ilo NWR	65.6
	TRNP-NU	58.5
	Beulah North	36.7
	Hannover	38.5
	Ryder	50.1

DATE	MONITOR NAME	$PM_{2.5}$ ($\mu g/m^3$)
09/05/2023	Painted Canyon (TRNP-SU)	79.1
	Lostwood NWR	66.5
	Bismarck Residential	87.5
	Fargo NW	55.1
	Lake Ilo NWR	88.0
	TRNP-NU	76.2
	Beulah North	68.4
	Hannover	86.4
	Ryder	72.0
09/06/2023	Painted Canyon (TRNP-SU)	52.0
	Lostwood NWR	32.4
	Bismarck Residential	46.3
	Fargo NW	33.7
	Lake Ilo NWR	48.1
	TRNP-NU	48.4
	Beulah North	29.5
	Hannover	40.5
	Ryder	40.8
09/07/2023	Painted Canyon (TRNP-SU)	34.2
	Lostwood NWR	55.7
	Bismarck Residential	50.5
	Fargo NW	31.5
	Lake Ilo NWR	41.6
	TRNP-NU	37.5
	Beulah North	37.7
	Hannover	45.0
	Ryder	43.1
09/08/2023	Bismarck Residential	32.2
	Fargo NW	23.9
	Hannover	24.3
	Ryder	24.9
09/10/2023	Fargo NW	20.3
09/15/2023	Lostwood NWR	70.6
	Bismarck Residential	66.4
	Fargo NW	34.7
	Lake Ilo NWR	34.6
	TRNP-NU	20.6
	Beulah North	48.7
	Hannover	64.7
	Ryder	66.4
09/16/2023	Lostwood NWR	25.2
	Bismarck Residential	62.7
	Fargo NW	23.8
	Lake Ilo NWR	53.1
	TRNP-NU	34.4
	Beulah North	41.6
	Hannover	51.3
	Ryder	25.3
09/17/2023	Lake Ilo NWR	22.0
09/18/2023	Bismarck Residential	22.0
09/19/2023	Lostwood NWR	40.9
	Ryder	21.9
09/20/2023	Bismarck Residential	46.5
	Fargo NW	36.5
	Lake Ilo NWR	24.4
	Beulah North	25.1
	Hannover	35.1
	Ryder	20.6
09/21/2023	Bismarck Residential	23.3
09/22/2023	Lostwood NWR	22.5
	Ryder	23.2

DATE	MONITOR NAME	PM_{10} ($\mu g/m^3$)
05/17/2023	Lostwood NWR	151
	Bismarck Residential	303
	Lake Ilo NWR	176

I.2 Clean Air Act Requirements

The EPA 1987 PM_{10} National Ambient Air Quality Standard (NAAQS) is a 24-hour standard of 150 $\mu g/m^3$. The 24-hour PM_{10} standard is met when the 24-hour average of 150 $\mu g/m^3$ is not exceeded more than once per year on average over three years (40 CFR § 50.6). The EPA 2024 $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS) has two components: an annual average standard of 9.0 $\mu g/m^3$ and a 24-hour average standard of 35 $\mu g/m^3$. The 24-hour $PM_{2.5}$ standard is met when the three-year average of the 98th percentile 24-hour concentrations is less than or equal to 35 $\mu g/m^3$ (40 CFR § 50.20). The annual $PM_{2.5}$ standard is met when the three-year annual arithmetic mean is less than or equal to 9.0 $\mu g/m^3$ (40 CFR § 50.20).

Promulgation of the new 2024 $PM_{2.5}$ annual NAAQS has triggered the state recommendation process to be followed by the EPA designation process. As part of these regulatory processes, the three-year design values to be relied upon for the $PM_{2.5}$ annual NAAQS state attainment recommendations (2021-2023) and EPA attainment designations (2022-2024), will be significantly increased as a result of monitored data directly affected by Canadian wildfire smoke in 2023. As such, the NDDEQ considers this Event to be of regulatory significance.

States are required to submit area recommendations by February 7, 2025. As part of this regulatory process, North Dakota is submitting this exceptional event demonstration to exclude Event concentration data from the 2021-2023 design value calculations that will be relied upon by the state in making its designation recommendation. In addition, North Dakota is submitting this exceptional event demonstration to exclude Event concentration data from the 2022-2024 design value calculations that will be relied upon by the EPA in making its attainment designations.

The Event concentrations will affect future year's design values, with the potential of future NAAQSs violations, which is also of regulatory significance because of the NDDEQ's reliance on ambient data to determine compliance with the NAAQS at state run air monitoring stations. Additionally, these data are used in NDDEQ's air pollution control permitting process as well as by the US EPA and third parties in evaluating North Dakota's air quality. These reasons demonstrate the need to accurately portray anthropogenic versus non-anthropogenic or "exceptional" air quality issues outside the regulatory control and jurisdictional borders of the NDDEQ to the public by means of excluding exceptional event concurred data from the data record.

North Dakota is submitting this exceptional event demonstration to exclude Event concentration data from the data record for the specified $PM_{2.5}$ (24-hour and annual) and PM_{10} (24-hour) Event concentrations in Table 1, which impact regulatory decisions about North Dakota's attainment of the NAAQS.

I.3 Exceptional Event Rule Requirements

EPA's Treatment of Data Influenced by Exceptional Events (Exceptional Event Rule) (81 Fed. Reg. 68,216) details what air agencies must demonstrate in order to exclude exceptional event-related concentrations from regulatory determinations. The following are requirements under 40 CFR § 50.14(c)(3)(iv)(A–E) and (c)(3)(v)(A):

A. A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s). (See Section III.)
B. A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation. (See Section IV.)
C. Analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times to support the requirement in paragraph (c)(3)(iv)(B) of this section. (See Section IV.)
D. A demonstration that the event was both not reasonably controllable and not reasonably preventable. (See Section V.)

E. A demonstration that the event was a human activity that is unlikely to recur at a location or was a natural event. (See Section VI.)
F. Documentation that the submitting air regulatory agency followed the public comment process. (See Section VII.)

The Exceptional Events Rule further provides that for wildfire exceptional events, the wildfire must occur predominantly on wildland.

> 40 CFR § 50.14(b)(4): Wildfires. The Administrator shall exclude data from use in determinations of exceedances and violations where a State demonstrates to the Administrator's satisfaction that emissions from wildfires caused a specific air pollution concentration in excess of one or more national ambient air quality standard at a particular air quality monitoring location and otherwise satisfies the requirements of this section. Provided the Administrator determines that there is no compelling evidence to the contrary in the record, the Administrator will determine every wildfire occurring predominantly on wildland to have met the requirements identified in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion.

The definition for "wildland" is provided in 40 CFR § 50.1(o). The term "wildland" issued in this document is consistent with this definition.

> 40 CFR § 50.1(o): Wildland means an area in which human activity and development are essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.

This demonstration addresses the above requirements in showing that the smoke from the 2023 Canadian wildfires caused the $PM_{2.5}$ and PM_{10} Event concentrations throughout North Dakota. In addition, the NDDEQ will provide a 30-day public comment period on this exceptional event demonstration from December 18, 2024, through January 17, 2025.

I.4 Canadian Wildfire Impacts on PM Design Values in North Dakota

The annual $PM_{2.5}$ design value (DV) is calculated using the 3-year average. More specifically, the annual $PM_{2.5}$ standard is met when the three-year annual arithmetic mean is less than or equal to 9.0 $\mu g/m^3$ (40 CFR § 50.20). North Dakota is submitting this exceptional event demonstration to exclude Event concentration data that cumulatively will be regulatorily significant to the new 2024 $PM_{2.5}$ annual NAAQS of 9.0 $\mu g/m^3$.

The 24-hour $PM_{2.5}$ design value (DV) is calculated using the 3-year average. More specifically, the 24-hour $PM_{2.5}$ standard is met when the three-year average of the 98^{th} percentile 24-hour concentrations is less than or equal to 35 $\mu g/m^3$ (40 CFR § 50.20). North Dakota is submitting this exceptional event demonstration to exclude Event concentration data that cumulatively will be regulatorily significant to the $PM_{2.5}$ 24-hour NAAQS of 35 $\mu g/m^3$.

The 24-hour PM_{10} design value (DV) is calculated using a 3-year period. More specifically, the 24-hour PM_{10} standard is met when the 24-hour average of 150 $\mu g/m^3$ is not exceeded more than once per year on average over three years (40 CFR § 50.6). North Dakota is submitting this exceptional event demonstration to exclude Event concentration data that cumulatively will be regulatorily significant to the PM_{10} 24-hour NAAQS of 150 $\mu g/m^3$.

I.5 Action Requested

This report meets all EPA documentation standards for Exceptional Events. (See Section I.3.) The NDDEQ considers these exceedances of the level of the PM NAAQSs to meet the criteria of regulatory significance. Pursuant to federal regulations, the NDDEQ requests EPA concurrence that the Particulate Matter Event concentrations in Table 1 were caused by an exceptional event and should be excluded from the data record for the $PM_{2.5}$ NAAQS (annual and 24-hour), PM_{10} NAAQS (24-hour), and any other applicable regulatory purposes (40 CFR § 50.14(b)).

A copy of the Raw Data Reports (AMP 350) from EPA's AQS system are included in Appendix F. The reports show the data included in this demonstration has the "rf" qualifier applied for "Fire-Canadian" where NDDEQ is requesting data exclusion. Note that without EPA concurrence, the data qualifier code is shown in lower case.

SECTION II. OVERVIEW OF NORTH DAKOTA AMBIENT AIR QUALITY MONITORING NETWORK

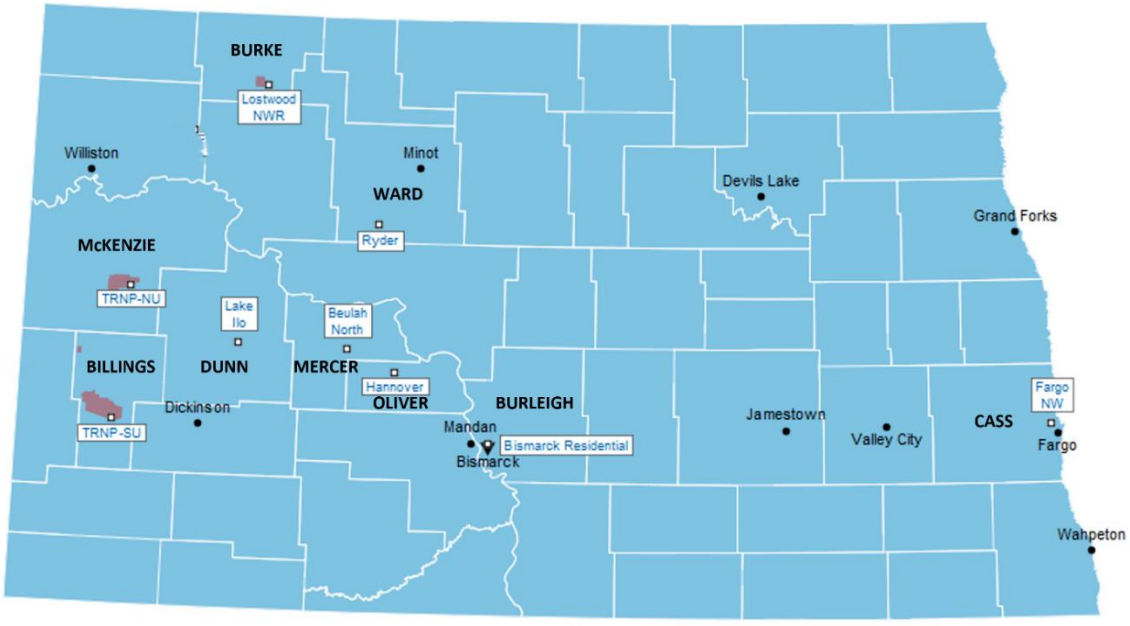
II.1 North Dakota Particulate Matter Ambient Air Quality Monitoring

The NDDEQ ambient particulate matter monitoring network is more robust than the minimum federal requirements. The NDDEQ operates eight continuous PM_{10} analyzer sites, nine Federal Equivalent Method (FEM) continuous $PM_{2.5}$ analyzer sites, and one Federal Reference Method (FRM) manual $PM_{2.5}$ sampler as well as one speciation sampler, both at the Bismarck site. Three of the eight PM_{10} analyzers (Bismarck, Lake Ilo NWR, and Lostwood NWR) are operated at standard temperature and pressure to be directly comparable to the PM_{10} NAAQS. The monitoring site locations appear as white labels in Figure 1.

More information about North Dakota's ambient monitoring network is available in the Annual Ambient Monitoring Report[1], which summarizes the ambient air quality data obtained from the network of air quality monitoring sites in North Dakota during the previous calendar year.

[1] *Annual Report – North Dakota Ambient Monitoring Network Plan/Assessment With Data Summary, 2024*, by the North Dakota Department of Environmental Quality, Division of Air Quality, Ambient Air Monitoring Program, available at https://deq.nd.gov/AQ/monitoring/.

Figure 1. North Dakota's Particulate Matter Ambient Air Monitoring 2023



II.2 $PM_{2.5}$ T640/T640X Federal Equivalent Method Monitor Data

A technical challenge is that despite receiving EPA's approval as a Federal Equivalent Method (FEM), the Teledyne T640/T640X continuous monitors consistently measure $PM_{2.5}$ levels about 20% higher than collocated filter-based Federal Reference Method (FRM) monitors.[2]

In the 2023 Annual Ambient Air Monitoring Data Certification letter[3] to U.S. EPA, North Dakota acknowledged EPA's implementation of an alignment algorithm to update previously collected $PM_{2.5}$ T640/T640X FEM monitor data in EPA's Air Quality System[4] (AQS). Within this demonstration as well as North Dakota's 2024 Ambient Monitoring Report, the $PM_{2.5}$ data at Lostwood NWR, Bismarck NCORE, Fargo NW, Lake Ilo, TRNP-NU, Beulah North, Hannover, and Ryder reflect the alignment algorithm developed by Teledyne and implemented in the Teledyne firmware update July of 2023, as well as implemented by EPA in AQS.

While the alignment algorithm resulted in an improvement in the T460/T640X FEM monitor bias compared to FRM monitors, it still does not adequately reduce the bias in the $PM_{2.5}$ concentrations. In fact, the bias is so significant that, for the new 2024 $PM_{2.5}$ Annual NAAQS the ongoing bias could lead to an area being improperly designated nonattainment based on T640/T640X FEM monitored data while the area would have been designated attainment based on FRM monitored concentrations.

[2] https://cleanairact.org/wp-content/uploads/2024/06/AAPCA-Article-EM-June-2024-Final_updated.pdf
[3] See Appendix B.
[4] Air Quality System (AQS) – U.S. EPA's computer database and information system of ambient air quality data.

Notwithstanding NDDEQ's ongoing concern regarding the T640/T640X FEM monitor bias, the NDDEQ requests that the EPA concur with the exclusion of $PM_{2.5}$ Event concentrations from the data record such that all sites in North Dakota will demonstrate attainment of both the $PM_{2.5}$ 24-hour and annual NAAQS.

SECTION III. NARRATIVE CONCEPTUAL MODEL

> **This section satisfies the following federal requirement:**
> A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s).
> 40 CFR § 50.14(c)(3)(iv)(A)

The Exceptional Event Rule requires that demonstrations include a narrative conceptual model describing the event. This section describes the 2023 Canadian wildfires that directly affected public health and impacted air quality across North Dakota. It also describes the general meteorological conditions that supported the transport of the wildfire smoke and its dispersion across the state. Particulate matter emissions from the wildfire smoke impacted all nine North Dakota air monitoring sites, causing daily air quality concentrations to exceed the level of the 24-hour $PM_{2.5}$ NAAQS, new 2024 $PM_{2.5}$ Annual NAAQS, as well as the 24-hour PM_{10} NAAQS. The daily concentrations were distinct high levels of monitored 24-hour concentrations when compared to historical 24-hour concentrations, which are demonstrably higher than normal (i.e., non-event) concentrations across the state.

III.1 2023 Canadian Wildfires and Smoke

The 2023 Canadian wildfires were well documented[5] and impacted much of the geography of North America, including much of the United States and North Dakota. Wildland fire experts have described Canada's 2023 fire season as record-breaking and shocking[6]. Over the course of a fire season that started very early[7] and ended late, blazes burned an estimated 18.4 million hectares[8] (71,043 square miles). For perspective, that is an area roughly the size of North Dakota. On average, just 2.5 million hectares[8] (9,653 square miles) burn in Canada annually. The total area that burned in 2023 amounted to 2½ times the previous record set in 1995 and more than six times the average over the past 10 years.[9]

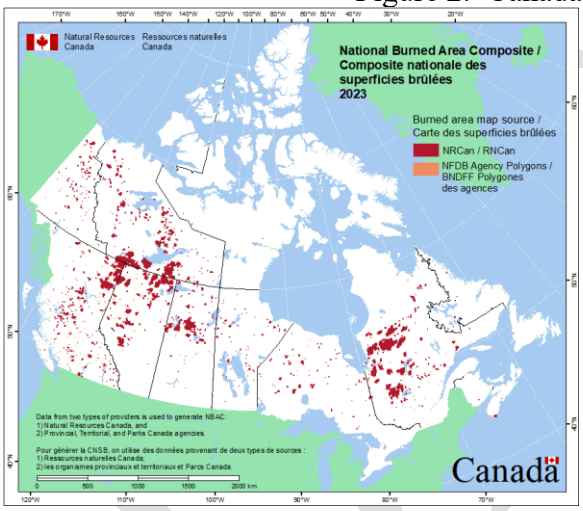
The Canadian Interagency Forest Fire Centre (CIFFC) establishes a National Preparedness Level[10] to describe the wildland fire situation and availability of firefighting resources in Canada. From May 11 through September 7, 2023, Canada was at a national preparedness level of 5, indicating

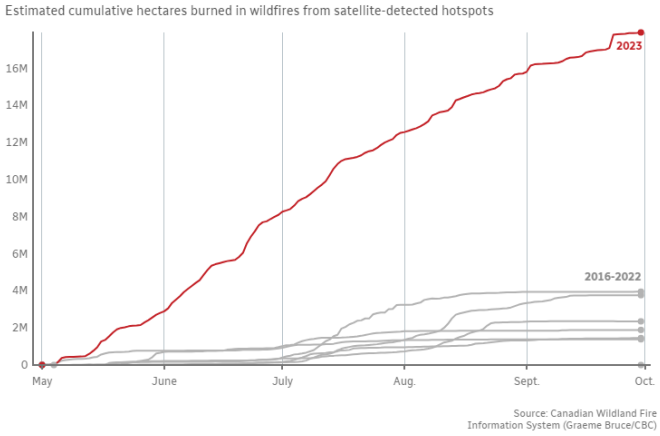
[5] https://ciffc.net/situation/archive/
[6] https://natural-resources.canada.ca/simply-science/canadas-record-breaking-wildfires-2023-fiery-wake-call/25303
[7] https://www.cnn.com/2023/06/10/us/canada-wildfire-season-us-impact-climate/index.html
[8] https://earthobservatory.nasa.gov/images/151985/tracking-canadas-extreme-2023-fire-season
[9] https://www.cbc.ca/news/climate/wildfire-season-2023-wrap-1.6999005
[10] https://ciffc.net/pdfs/nationalpreparedness-levels.pdf

wildland fire activity is significant within one or more jurisdictions, firefighters and equipment in every jurisdiction in Canada is put to use, and international help has been requested. The National Preparedness Level transitioned to level 4 on September 8 indicating wildland fire activity is significant within one or more jurisdictions and the demand for mobilization of firefighters and equipment from other jurisdictions is high. The National Preparedness Level was lowered to level 3 on September 27 indicating wildland fire activity is increased within one or more jurisdictions and the demand for mobilization of firefighters and equipment from other jurisdictions is moderate.

Many of Canada's 2023 wildfires, ignited by early summer lightning storms, burned for months in remote areas contributing to smoke that was transported across North America, including North Dakota. Lightning strikes accounted for 59% of the wildfire ignitions and 93% of the total area burned during the 2023 season.[11] The map[12] and graph[9] in Figure 2 illustrates the total wildland area burned in 2023.

Figure 2. Canada Total Area Burned 2023





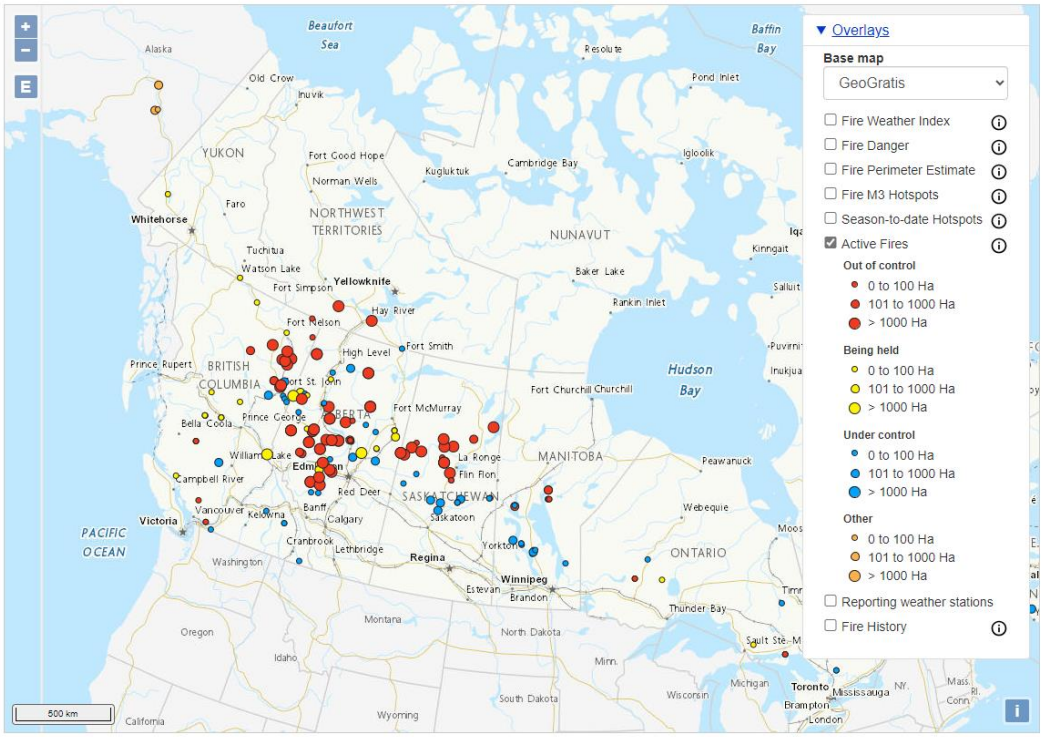
As illustrated by the Natural Resources Canada Interactive Maps[13] in Figures 3-7 and described in Canadian Wildland Fire Information System National Wildland Fire Situation Reports[14], many wildfires burned across Canada, with larger fires having burned uncontrolled for several weeks. For much of mid-May through mid-September, remote wildfires across Canada contributed to extremely dense smoke and particulate matter emissions that were transported across North America, including North Dakota. These fires had a significant impact on air quality and elevated PM monitored concentrations to levels significantly higher than normal across North Dakota. In fact, seven North Dakota counties (Billings, Burke, Burleigh, Dunn, Mercer, Oliver, and Ward)

[11] https://www.nature.com/articles/s41467-024-51154-7
[12] https://cwfis.cfs.nrcan.gc.ca/ha/nfdb?type=nbac&year=2023
[13] https://cwfis.cfs.nrcan.gc.ca/interactive-map
[14] https://cwfis.cfs.nrcan.gc.ca/report/archives

recorded air quality levels in the "Very Unhealthy" or "Hazardous" Air Quality Index (AQI) Categories for a full 24-hour period for the first time.[15]

The National Wildland Fire Situation Report[14] for May 17, 2023, stated that the number of fires was well above average for the time of year and nearly 16 times the average for area burned for the time of year. There were 458 net new fire starts, with 50 of those attributed to lightning reported over the previous week. From January 1 to May 17, 2023, there were 1,402 fires having burned 1,275,957 hectares. The 10-year average of cumulative area burned was 67,291 hectares for that same date range. Active fires as of May 17 included 58 Uncontrolled, 40 Being Held, 93 Controlled, and 15 with Modified Response. Priority fires were identified in Alberta, British Columbia, Saskatchewan, and Northwest Territories. See Figure 3.

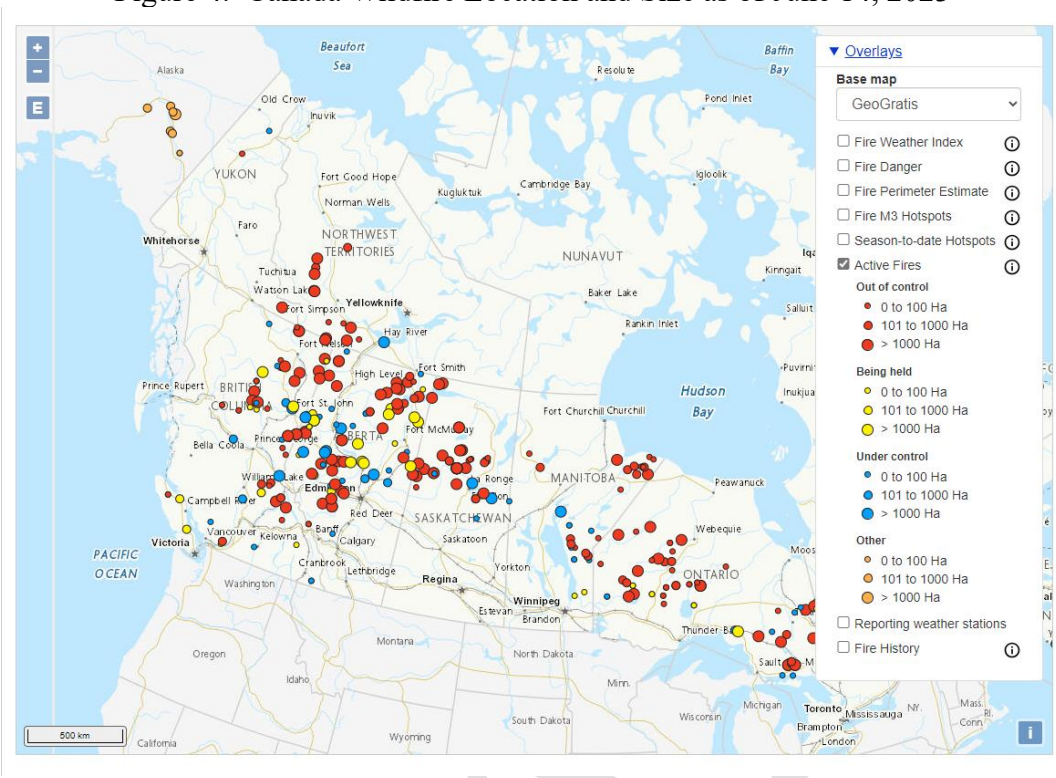
Figure 3. Canada Wildfire Location and Size as of May 17, 2023



The National Wildland Fire Situation Report[14] for June 14, 2023, stated that the number of fires and average for area burned were both well above average for the time of year. There were 313 net new fire starts, with 168 of those attributed to lightning reported over the previous week. From January 1 to June 14, 2023, there were 2,619 fires having burned 5,291,261 hectares. The 10-year average of cumulative area burned was 331,331 hectares for that same date range. Active fires as of June 14 included 130 Uncontrolled, 92 Being Held, 121 Controlled, and 42 with Modified Response. Priority fires were identified in Quebec, Saskatchewan, Alberta, British Columbia, and Northwest Territories. See Figure 4.

[15] https://www.cnn.com/2023/09/17/us/air-quality-wildfire-pollution-allergy-dg/index.html

Figure 4. Canada Wildfire Location and Size as of June 14, 2023



The National Wildland Fire Situation Report[14] for July 19, 2023, continued to state that the number of fires and average for area burned were both well above average for the time of year. There were 325 net new fire starts, with 263 of those attributed to lightning reported over the previous week. From January 1 to July 19, 2023, there were 4,285 fires having burned 10,971,638 hectares. The 10-year average of cumulative area burned was 1,484,165 hectares for that same date range. Active fires as of July 19 included 216 Uncontrolled, 92 Being Held, 193 Controlled, and 82 with Modified Response. Priority fires were identified in Yukon, British Columbia, Alberta, Northwest Territories, and Manitoba. See Figure 5.

The National Wildland Fire Situation Report[14] for August 16, 2023, continued to state that the number of fires and average for area burned were both well above average for the time of year. There were 162 net new fire starts, with 120 of those attributed to lightning reported over the previous week. From January 1 to August 16, 2023, there were 5,753 fires having burned 13,678,162 hectares. The 10-year average of cumulative area burned was 2,271,449 hectares for that same date range. Active fires as of August 16 included 220 Uncontrolled, 100 Being Held, 194 Controlled, and 119 with Modified Response. Priority fires were identified in British Columbia, Northwest Territories, and Yukon. See Figure 6.

Figure 5. Canada Wildfire Location and Size as of July 19, 2023

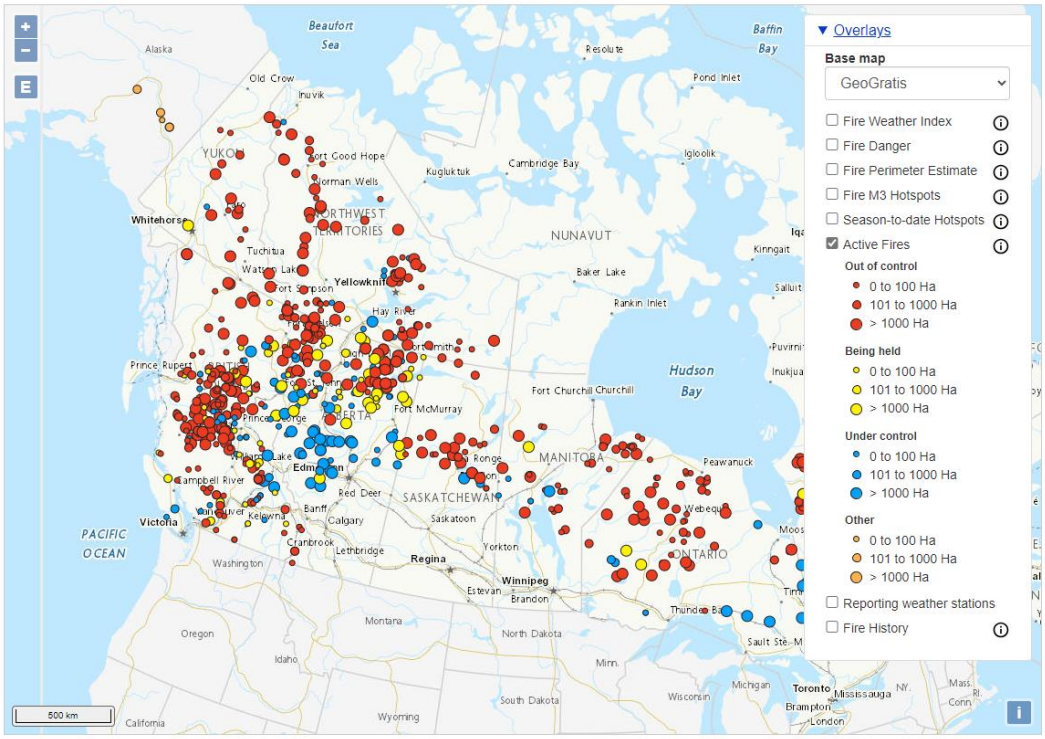
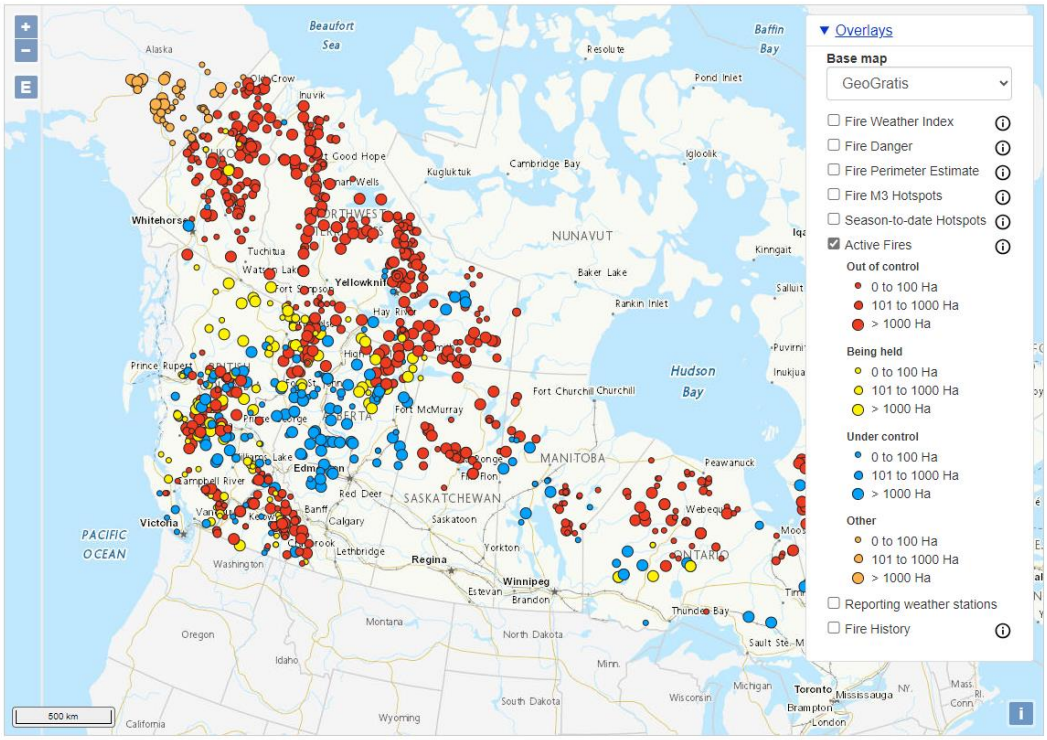
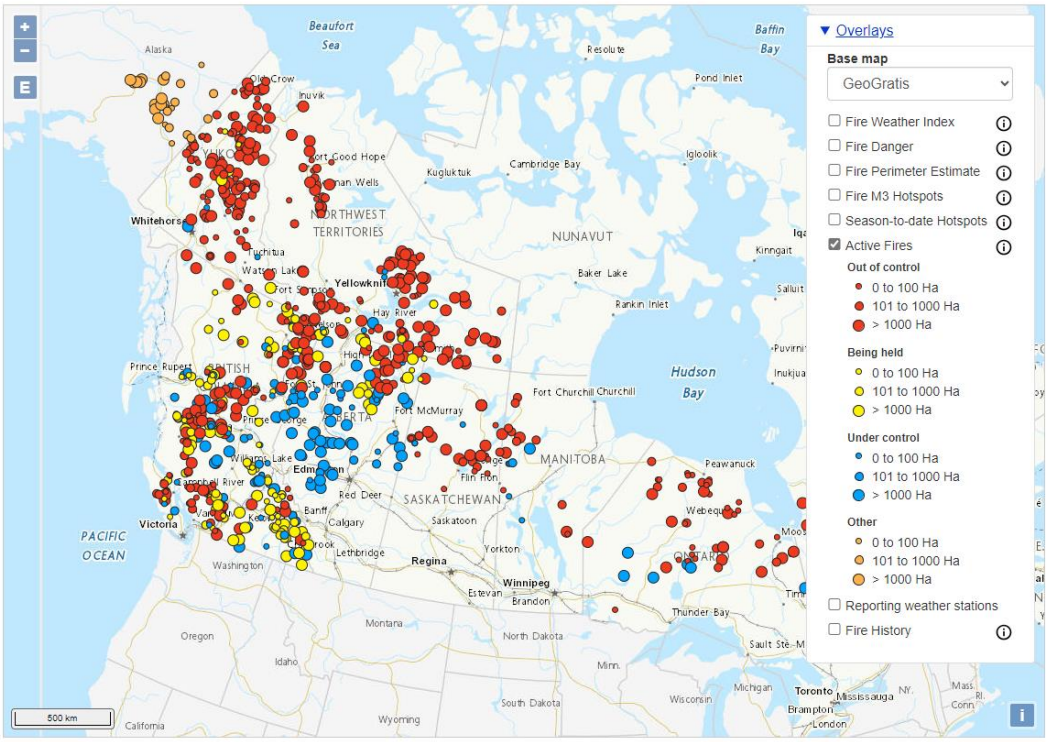


Figure 6. Canada Wildfire Location and Size as of August 16, 2023



The National Wildland Fire Situation Report[14] for September 22, 2023, continued to state that the number of fires and average for area burned were both well above average for the time of year. There were 123 net new fire starts reported over the previous week. From January 1 to September 22, 2023, there were 6,400 fires having burned 17,577,396 hectares. The 10-year average of cumulative area burned was 2,718,755 hectares for that same date range. Active fires as of September 22 included 229 Uncontrolled, 95 Being Held, 163 Controlled, and 113 with Modified Response. Priority fires were identified in British Columbia. See Figure 7.

Figure 7. Canada Wildfire Location and Size as of September 22, 2023



III.2 North Dakota Smoke Impacts

While the 2023 Canadian wildfire smoke impacts were regional in nature and observable throughout the state from mid-May through late September, it did not cause all monitors to continuously exceed the level of the PM NAAQS throughout the duration of the Event. Local, regional, and national news stories described how the Canadian wildfire smoke impacted air quality in North Dakota and much of the United States, as well as the potential negative health impacts from breathing the smoke laden air. Photographic evidence illustrating smoke impacts were also found in the news stories. Individuals, especially sensitive individuals with respiratory conditions, were advised to consider limiting prolonged outdoor exposure during smoky conditions. Select news stories are contained in Appendix C.

This demonstration includes 55 Event dates at nine $PM_{2.5}$ monitors, inclusive of one Event date at three PM_{10} monitors. For each Event date, the National Oceanic and Atmospheric Administration

(NOAA) Surface Analysis Weather Predictive Center[16] is used to illustrate the synoptic meteorology across North Dakota, the United States, and Canada. In addition, the NOAA Hazard Mapping System[17] (HMS) depicts the smoke plume intensity across North Dakota, the United States, and Canada. To accompany the images for each Event date, are verbal descriptions of the meteorological conditions[18] as well as the significant areas of smoke observed in satellite imagery[19].

The progression of images for 55 Event dates in Figures 8-62 demonstrate the general meteorological conditions that supported the transport of the wildfire smoke and show the smoke across North Dakota.

The levels of PM monitored concentrations in North Dakota are very unusual. The images in Appendix D show the distinct high levels of monitored 24-hour $PM_{2.5}$ concentrations, meaning they were 1.5 times the highest 98th percentile of data for the last five years. Additionally, the 24-hour PM_{10} concentrations were the highest Event concentrations in 2023 for Burke, Burleigh, and Dunn Counties as shown in the images in Appendix E. This demonstrates that the monitored PM concentrations are unmistakably higher than non-event concentrations.

III.2.1 May 2023

Canadian wildfire smoke impacts directly affecting air quality were observed in North Dakota from May 16 through May 27 and May 31.

Distinct high levels of 24-hour PM concentrations were monitored May 16-18. As a result of wildfire activity across northeastern British Columbia, the northern and central portions of Alberta, northern Saskatchewan, and the southeast Northwest Territories; a large area of smoke of varying density was visible on satellite extending east and southeastward across most of Manitoba and the northern plains. Within the large mass of smoke were thicker areas in portions of western Canada and the north central U.S.

Upper ridging over western Canada and deep troughing over eastern Canada into the Northeast promoted north to northwesterly flow over our region. Smoke infiltrated the northern plains and Upper Midwest for a lengthy period supported by the northwest flow regime aloft extending from the smoke's origin into our region. A weak upper flow pattern with deep layer ridging resided over the northern plains early May 16. Elevated smoke created hazy skies across much of the state with the thickest of this smoke remaining over the eastern half of the state. Smoke continued to stream in from the North covering the Red River Valley and settled due to the subsidence from surface

[16] National Oceanic and Atmospheric Administration, Surface Analysis Weather Predictive Center, accessed November 19, 2024, available at https://www.wpc.ncep.noaa.gov/archives/web_pages/sfc/sfc_archive.php

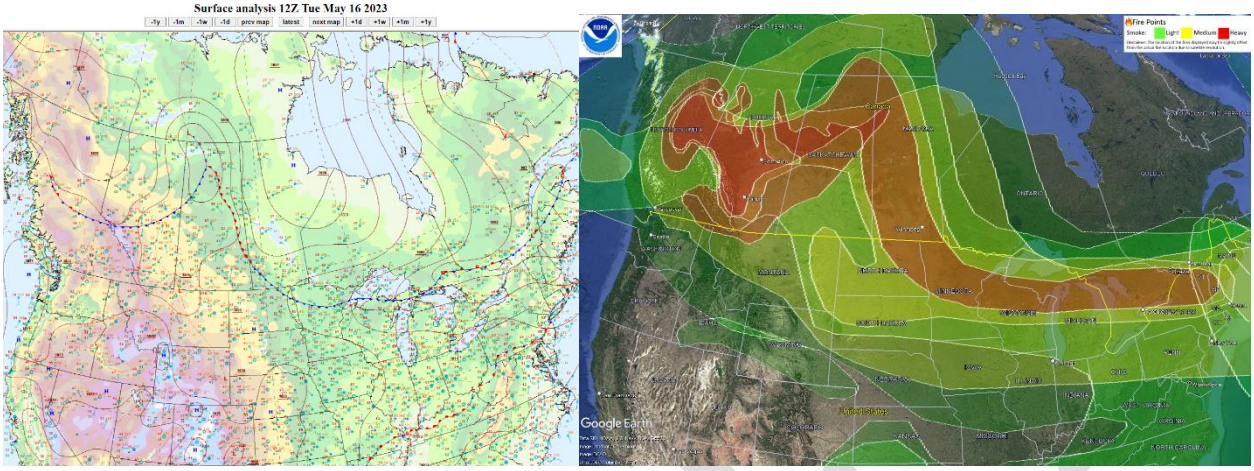
[17] National Oceanic and Atmospheric Administration, Hazard Mapping System, accessed November 20, 2024, available at https://www.ospo.noaa.gov/products/land/hms.html

[18] Area Forecast Discussions, May 16 – September 22, 2023, National Weather Service Weather Forecast Offices, Bismarck, North Dakota and Grand Forks, North Dakota.

[19] Satellite Smoke Text Product, May 16 – September 22, 2023, National Oceanic and Atmospheric Administration, Office of Satellite and Product Operations, available at https://www.ospo.noaa.gov/products/land/smoke/

high-pressure, degrading air quality. See Figure 8. On May 16, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 8. May 16, 2023 Surface Analysis and Smoke Layer



On May 17, 24-hour PM concentrations at all sites were over the level of the 24-hour $PM_{2.5}$ NAAQS, new 2024 $PM_{2.5}$ Annual NAAQS, as well as the 24-hour PM_{10} NAAQS. In addition, the 24-hour $PM_{2.5}$ concentrations were the highest Event concentrations in 2023 for Billings, Burke, Burleigh, Dunn, McKenzie, Mercer, Oliver, and Ward Counties. Furthermore, the 24-hour PM_{10} concentrations were the highest Event concentrations in 2023 for Burke, Burleigh, and Dunn Counties. Figure 9 and Images 1 and 2 illustrate dense smoke impacts across western and central North Dakota. The following was issued by the National Weather Service Bismarck, North Dakota Weather Forecast Office.

> *May 17 had the poorest air quality ever measured in North Dakota. During the morning hours a cold front entered northwestern North Dakota and progressed across the state through the remainder of the day. Behind the front, north to northwest winds ushered in dense smoke from Canadian wildfires. The smoke had been held aloft for a few days and was brought to the surface by the winds associated with the cold front. Visibility dropped abruptly to one-half mile or less across much of western and central North Dakota as the dense smoke moved in, with some locations recording visibilities less than one-quarter mile for a prolonged period of time. The Air Quality Index (AQI) pushed well into the hazardous category, which is the highest category, and begins at a $PM_{2.5}$ concentration of 250.5 $\mu g/m^3$. The highest hourly concentration reported was 1,041.1 $\mu g/m^3$ at Hannover in Oliver County, with most other reporting stations in western and central North Dakota registering maximum hourly values well over 700 $\mu g/m^3$. According to personnel at the North Dakota Department of Air Quality, this smoke produced the worst air quality conditions ever measured in the state. Conditions did improve some from northwest to southeast during the late day and evening, but visibility remained somewhat restricted by the smoke for a few days, and air quality was adversely affected. The event garnered significant media*

attention. The NWS office in Bismarck received numerous calls about the smoke from both the media and general public.[20]

Figure 9. May 17, 2023 Surface Analysis and Smoke Layer

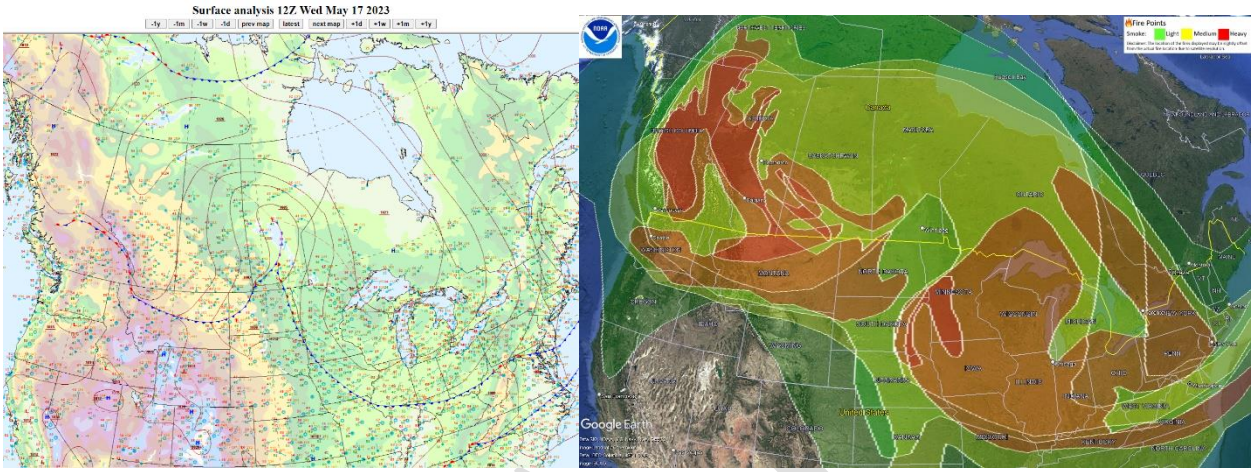


Image 1. May 17, 2023 North Dakota State Capitol Smoke Impact[21]

Smoky scene around the ND State Capitol (SkySpyPhotos.com)

[20] Storm Data and Unusual Weather Phenomena - May 17, 2023 0700 CST-2200CST - Dense Smoke, National Weather Service, Bismarck, North Dakota.

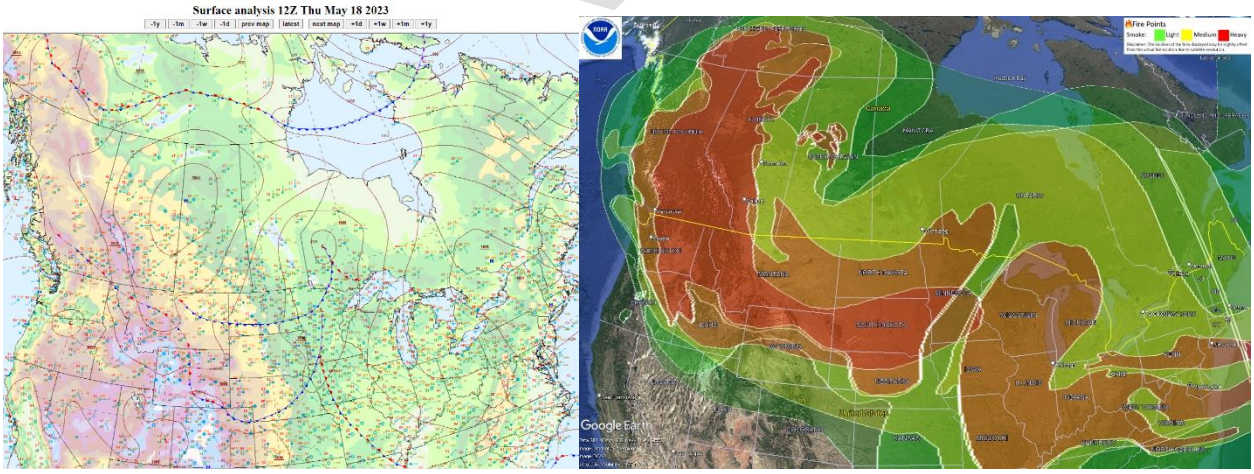
[21] https://www.kfyrtv.com/2023/05/17/department-environmental-quality-urges-caution-during-smoky-conditions/

Image 2. May 17, 2023 Western/Central North Dakota Smoke Impacts[21]

SkyWatch cameras across western/central ND showing the smoke (KFYR)

Smoke from southern Saskatchewan remained an issue as the low-pressure system passed directly over North Dakota May 18. While the secondary cold front advancing southward helped clear out the smoke from north to south, smoke was present across North Dakota at the surface before this as well as haze in the sky. See Figure 10. On May 18, 24-hour $PM_{2.5}$ concentrations at all sites were over the level of the 24-hour $PM_{2.5}$ NAAQS and new 2024 $PM_{2.5}$ Annual NAAQS. In addition, the May 18 24-hour $PM_{2.5}$ concentration was the highest Event concentrations in 2023 for Cass County.

Figure 10. May 18, 2023 Surface Analysis and Smoke Layer

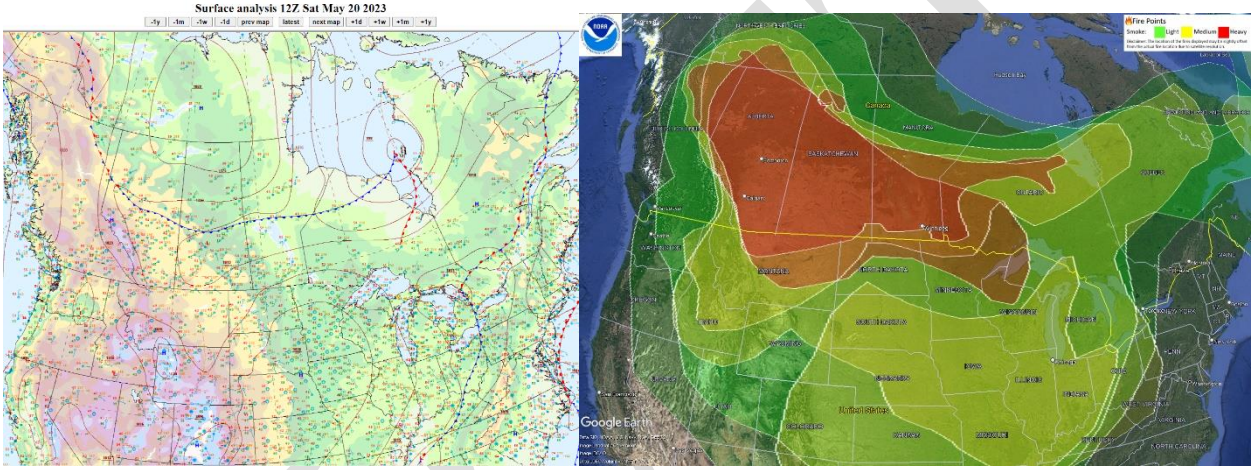


Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored May 20-23. An exceptionally large area of smoke of varying density from the large wildfires across northeastern British Columbia, central and northern Alberta, central and northern Saskatchewan, and the southern part

of the Northwest Territories, continued to expand across much of the U.S and Canada. On May 20, moderate density smoke was seen over multiple areas, with the largest area of moderate to thick smoke encompassing western and central Canada and the northern half of the U.S. On May 21 and 22, very thick smoke extended down into the U.S. over the northern plains. On May 23, moderate density smoke was visible on satellite over the northern plains of the U.S.

May 20 started off with high pressure to our southeast and an expansive upper-level ridge over the western U.S. A weak upper low moved down the eastern slope of the ridge along with a weak surface cold-front. Northwest winds behind this cold-front ushered in more near surface smoke with smoke impacting the northwestern corner of North Dakota. See Figure 11. On May 20, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Dunn Counties.

Figure 11. May 20, 2023 Surface Analysis and Smoke Layer



Smoke increased overnight and lingered through May 21 as northwestern flow aloft remained, having moved from the northwest into western and central North Dakota. At the surface, a weak and dry cold-front was located across northern North Dakota. An upper-level ridge across the Northern Rockies continued to bring subtle northwest flow into the northern plains. Therefore, elevated smoke continued to move through the region resulting in hazy skies. See Figure 12. On May 21, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, Dunn, Mercer, Oliver, Billings, and Burleigh Counties.

A broad upper-level ridge gradually transitioned from over central Montana in the early morning to the Montana/North Dakota border late May 22 and directly overhead overnight into May 23. With the area being under the influence of northwest flow aloft most of the day, North Dakota continued to see hazy sunshine from upper-level smoke as well as near surface smoke increasing across the west. See Figure 13. On May 22, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Billings Counties.

Figure 12. May 21, 2023 Surface Analysis and Smoke Layer

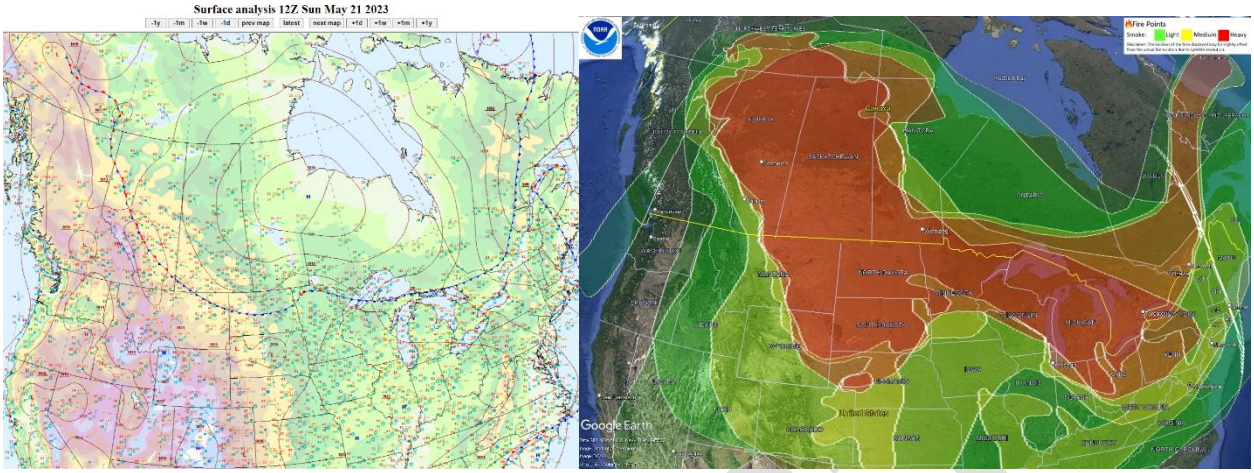
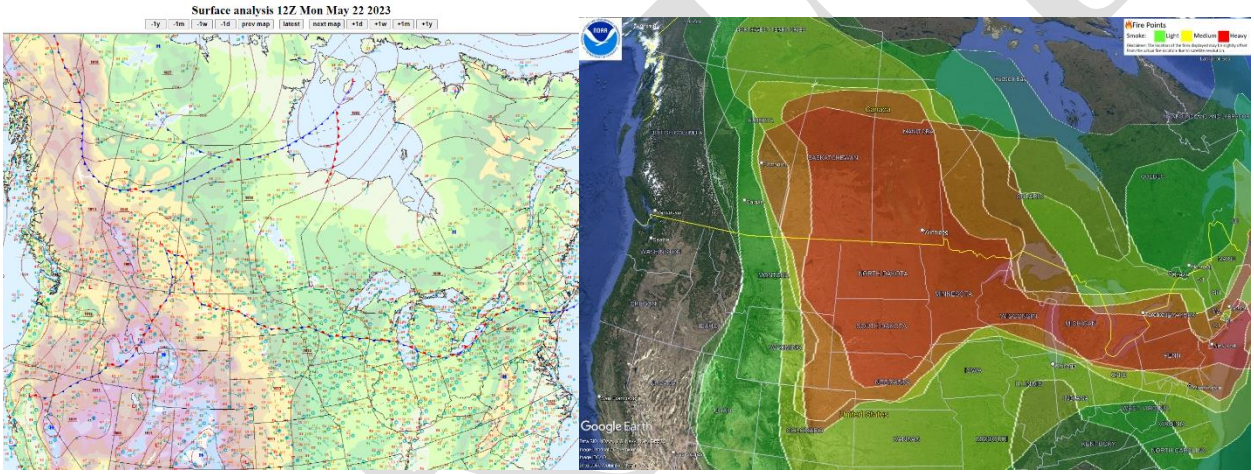
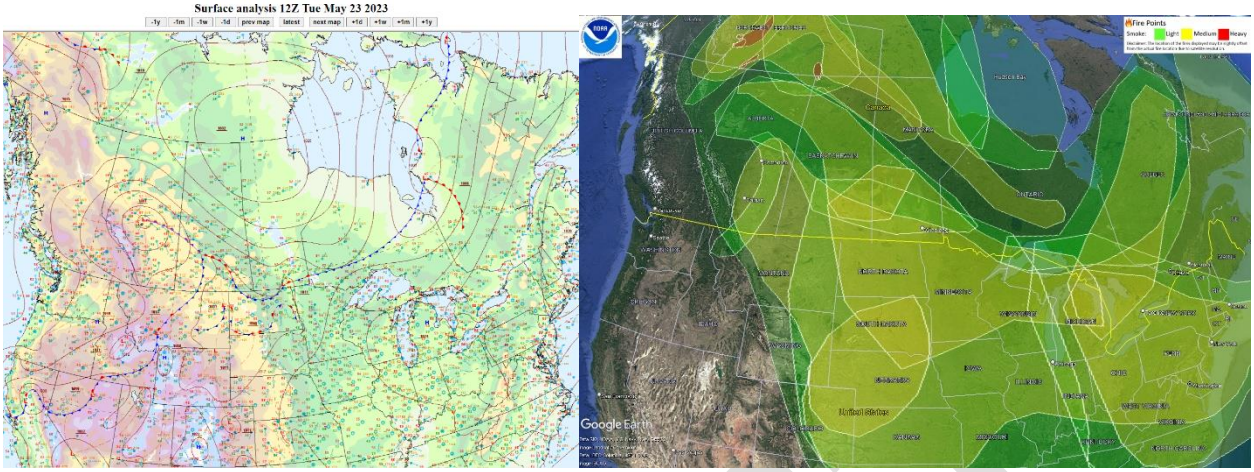


Figure 13. May 22, 2023 Surface Analysis and Smoke Layer



May 23 a double barrel upper low was located over the Pacific Northwest into the southern Canadian Prairies, with a ridge axis centered over the central U.S. At the surface, the center of a low was analyzed over west central South Dakota, while strong high pressure sat over northern Manitoba and Ontario. A back door cold front slid south through the day, meeting a weak warm front that had been drifting north from South Dakota. Smoke lingering in the mid to upper-levels was brought down to the surface behind the cold-front. See Figure 14. On May 23, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels.

Figure 14. May 23, 2023 Surface Analysis and Smoke Layer

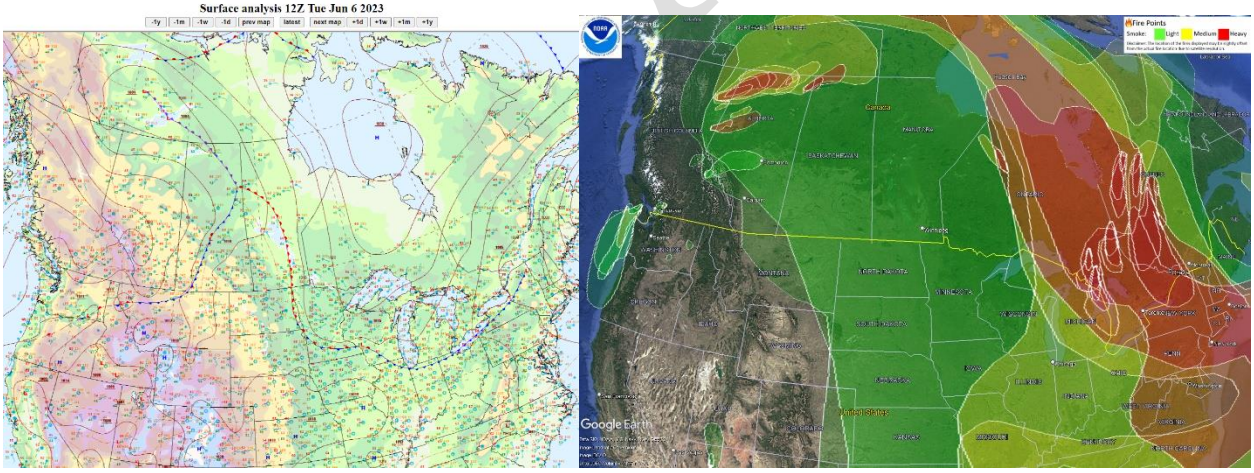


III.2.2 June 2023

Canadian wildfire smoke impacts directly affecting air quality were observed in North Dakota from June 3 through June 21 and June 24 through July 1.

Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on June 6. Wildfire activity in northern British Columbia and the Northwest Territories continued to produce high-density smoke that combined with high-density smoke from wildfire activity in southern Quebec. Light density smoke extended south and southwestward into portions of the midwestern U.S. June 6 smoke was carried into the region from east-southeast flow. See Figure 15. On June 6, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 15. June 6, 2023 Surface Analysis and Smoke Layer

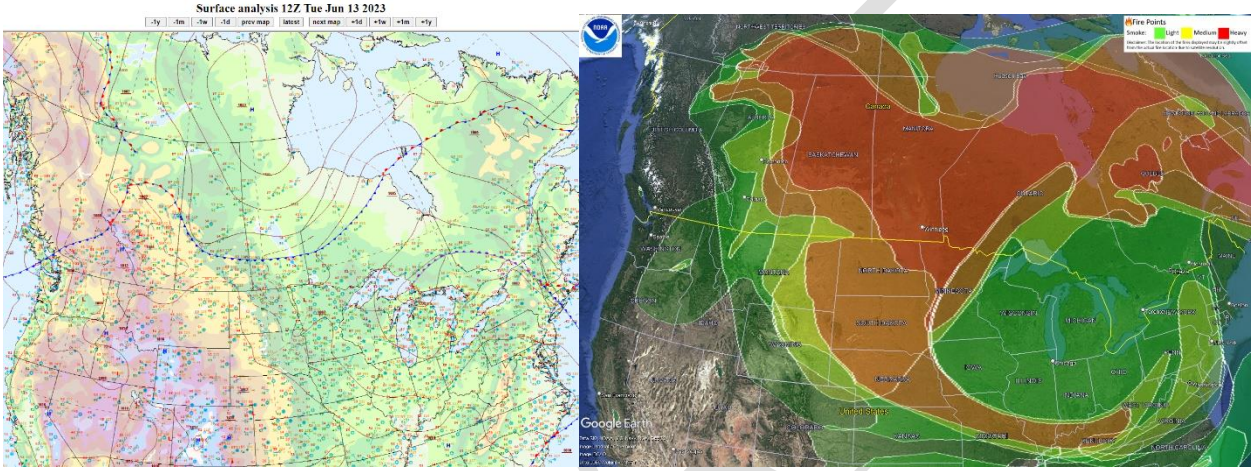


Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored June 13-18. Numerous large wildfires continued scattered across portions of the southern half of Canada from northern British Columbia and the southwestern part of the Northwest Territories eastward over the southern tier of Canadian provinces, including northern Alberta/Saskatchewan, western Ontario, and central Quebec. On June 13 and 14, moderate to thick density smoke spread to the south into the north central U.S. June 15 through June 17, bands of light to moderate to thick density smoke were

detected over most of the northern and central plains. On June 18, thinner density smoke from these fires covered the north central U.S.

June 13 the upper-level ridge and surface high weakened slightly throughout the day while a weak surface boundary moved south. The northeast winds from this weak boundary provided for smoke overspreading the region aloft and increasing smoke mixing to the surface. See Figure 16. On June 13, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, and Dunn Counties.

Figure 16. June 13, 2023 Surface Analysis and Smoke Layer



Wildfire smoke was reducing visibilities the morning of June 14 over areas of northern and eastern North Dakota. The smoke arrived with a wind shift that brought winds from the northeast. A nearly stationary boundary was in place mid-morning from just east of Williston down to west of Bismarck and that boundary seemed to be the main dividing line between near surface smoke and smoke aloft. Mid-afternoon, an upper-level ridge axis was located almost directly over central North Dakota. The ridge continued to slowly move east and amplify the rest of the day and overnight as a trough approached from the west. At the surface, a stationary front located over western North Dakota started to move east late in the afternoon as it transitioned to more of a warm frontal boundary. See Figure 17. On June 14, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Burleigh, and Cass Counties.

Early the morning of June 15, an upper-level trough was located over the Northern Rockies and high plains, with several embedded impulses rounding the base of the rotation. This circulation was in the process of closing off, contributing to the very slow eastward progression of the attendant surface low. The low gradually made its way east through the day. Smoke remained in the forecast through the afternoon in central and eastern North Dakota with conditions gradually improving through the day as a wind shift to easterly flow dispersed smoke. See Figure 18. On June 15, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Ward, Oliver, Burleigh, and Cass Counties.

Figure 17. June 14, 2023 Surface Analysis and Smoke Layer

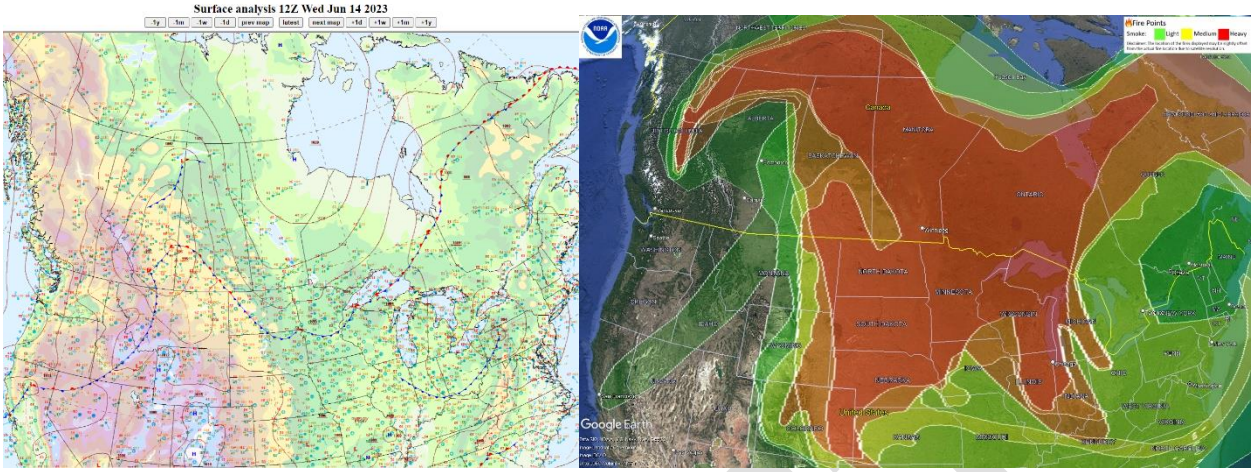
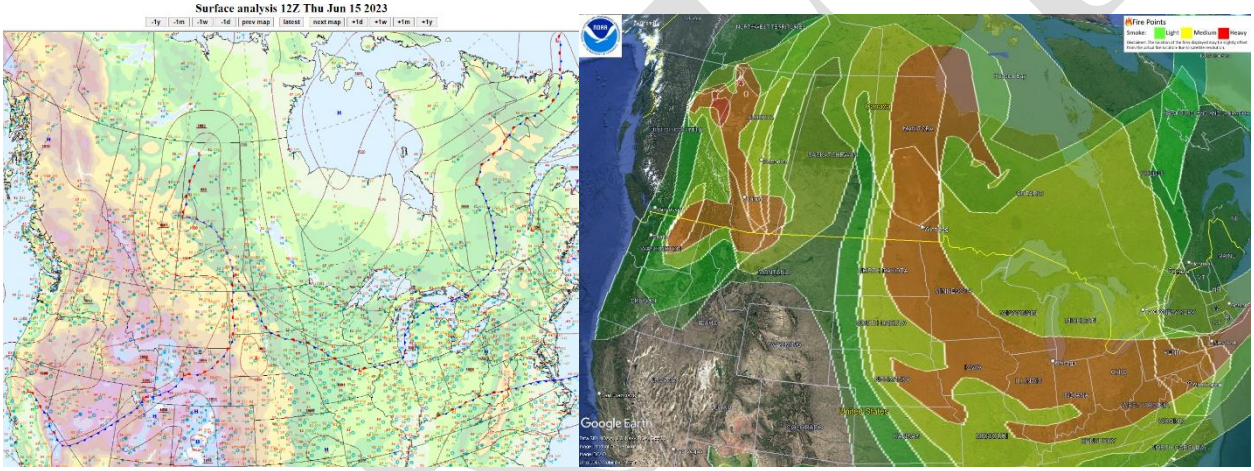
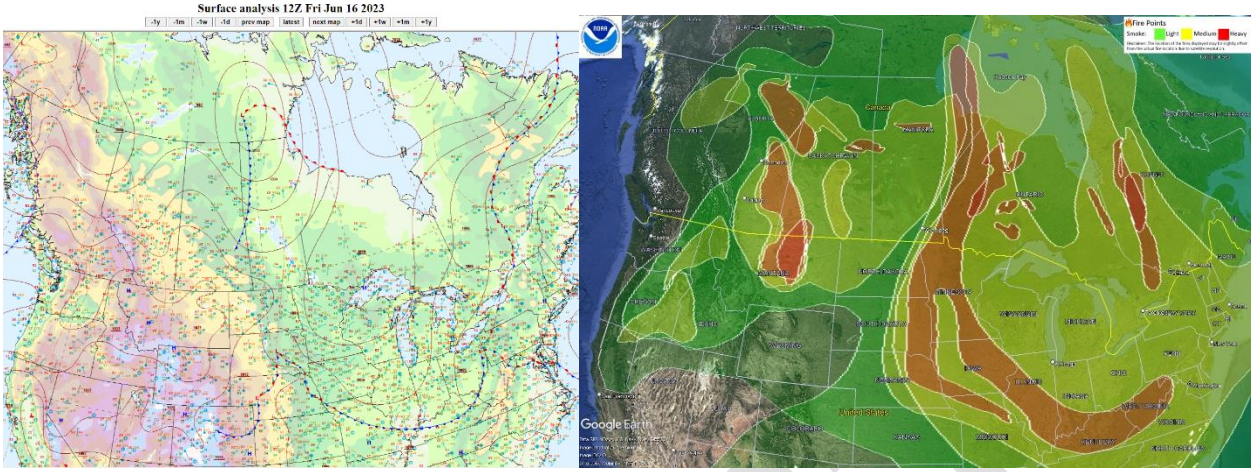


Figure 18. June 15, 2023 Surface Analysis and Smoke Layer



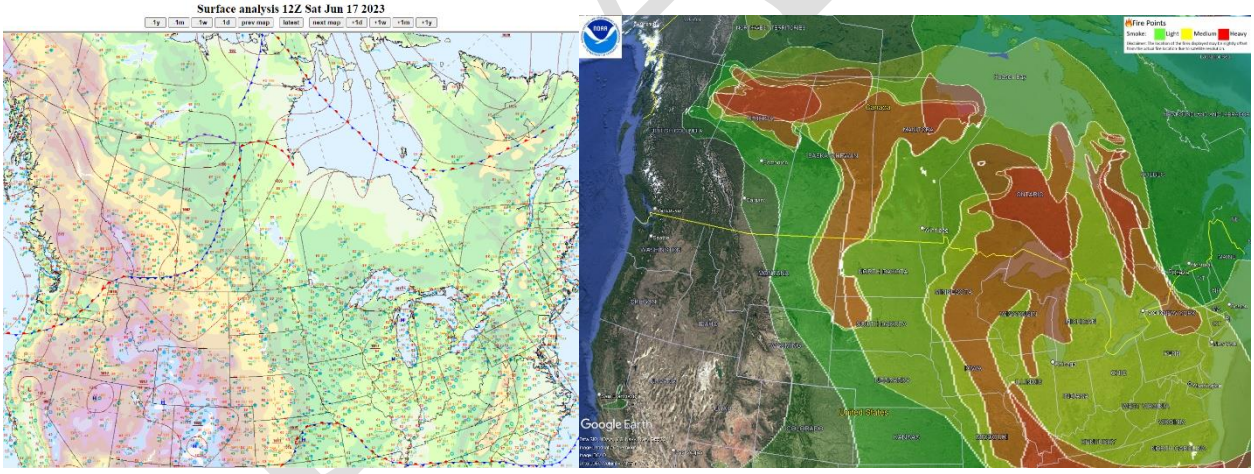
On June 16, there was southwest flow aloft with a shortwave ridge off to our east and a shortwave trough off to our west. At the surface, a very slow-moving cold front located near the central part of the state slowly pushed east. Immediately along the front. smoke mixed to the surface. Smoke improved as the cold front passed through. Some lingering smoke remained overnight. See Figure 19. On June 16, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, Dunn, and Cass Counties.

Figure 19. June 16, 2023 Surface Analysis and Smoke Layer



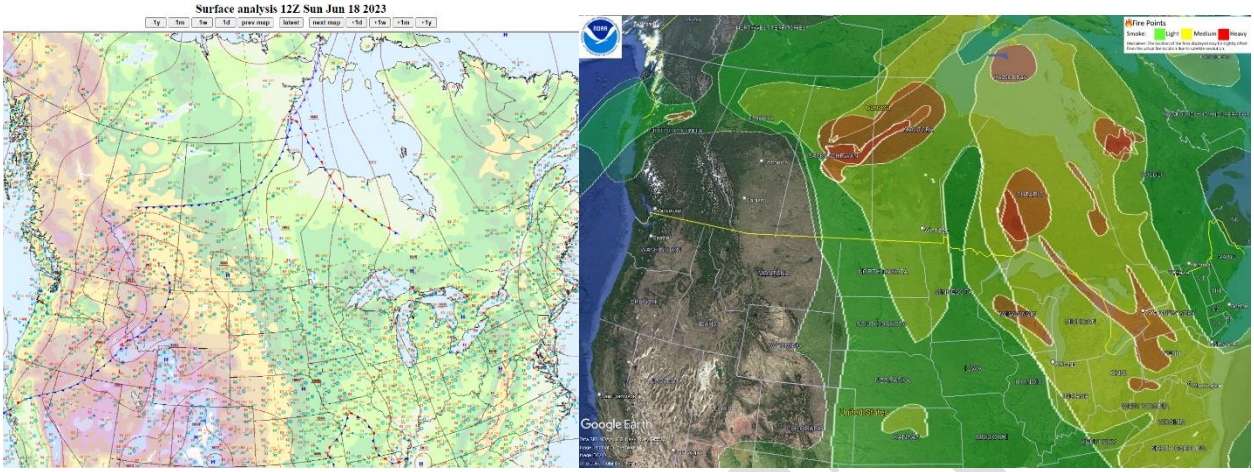
On June 17, an upper low was located over southwestern North Dakota in the morning and in the afternoon, a closed low was rotating through north central North Dakota embedded in a shallow shortwave trough. Zonal flow aloft was present upstream of the area as a more significant upper low was beginning to develop off the coast of British Columbia. A surface trough was analyzed just over the state line in eastern Montana. Some surface smoke continued to linger in areas of eastern and portions of central North Dakota. See Figure 20. On June 17, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, Oliver, Burleigh, and Cass Counties.

Figure 20. June 17, 2023 Surface Analysis and Smoke Layer



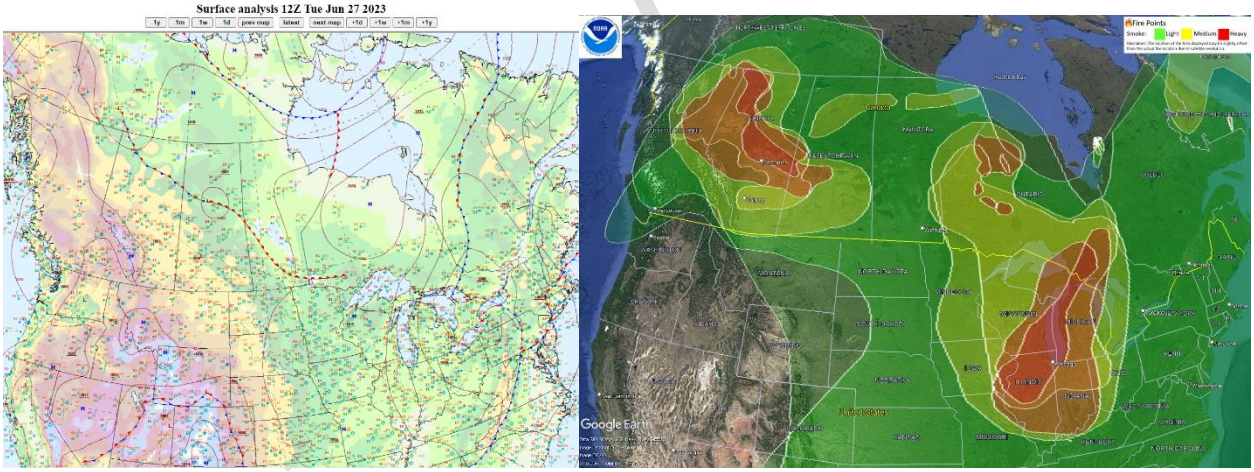
Transient meridional flow opened the door for a low-level thermal ridge to build across the plains June 18. The surface low pressure over eastern Montana tightened the surface pressure gradient ushering in breezy southerly flow that picked up in the far west and spread east through the afternoon. See Figure 21. On June 18, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 21. June 18, 2023 Surface Analysis and Smoke Layer



Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on June 27. The major wildfires across portions of Canada continue with a large area of smoke of varying densities over much of Canada and light density smoke extending to the south over the central U.S. The morning of June 27, the synoptic pattern was characterized by a large upper high over the south-central U.S., with a closed low over the Great Lakes and a secondary broad low over the Pacific Northwest. Mostly zonal flow was analyzed over the Dakotas, while at the surface a surface low was located in western and into north central North Dakota. A compact upper-level shortwave passed through the area in the afternoon and evening. See Figure 22. On June 27, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh and Cass Counties.

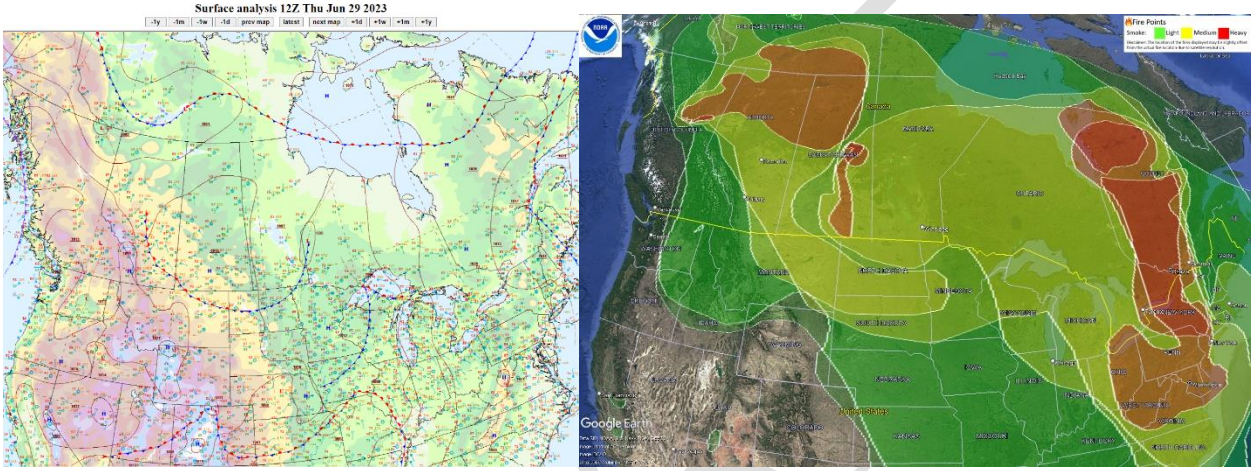
Figure 22. June 27, 2023 Surface Analysis and Smoke Layer



Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored June 29-July 1. The major wildfires across portions of Canada continued with a large area of smoke over much of Canada and extending to the south over the central U.S. On June 29 and 30, moderate density smoke engulfed most of Canada and parts of the northern U.S within the Dakotas. On July 1, thinner density smoke from these fires extended into portions of the Dakotas.

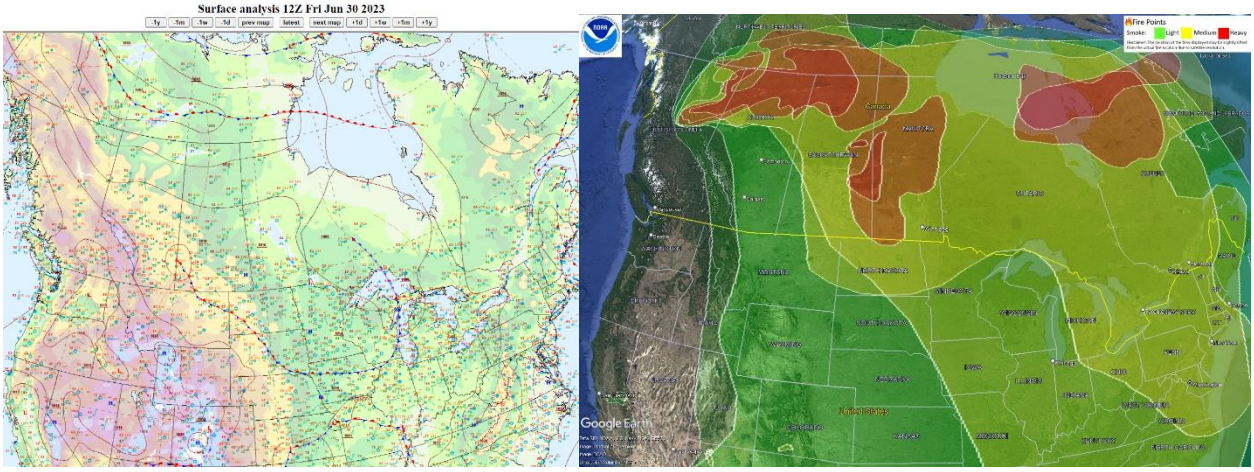
Early the morning of June 29, a positively tilted shortwave trough was placed over Manitoba, leading to northwest flow aloft over North Dakota. Upstream over the western U.S., split flow was beginning to develop, with the northern stream building into an upper ridge in the western Canadian Prairies. Surface high pressure was analyzed to our northwest in southern Saskatchewan, while a surface low was to our northeast in eastern Manitoba. A weak surface cold front extended west to northeast across northern North Dakota, attached to the surface low, that slowly moved south. See Figure 23. On June 29, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Ward Counties.

Figure 23. June 29, 2023 Surface Analysis and Smoke Layer



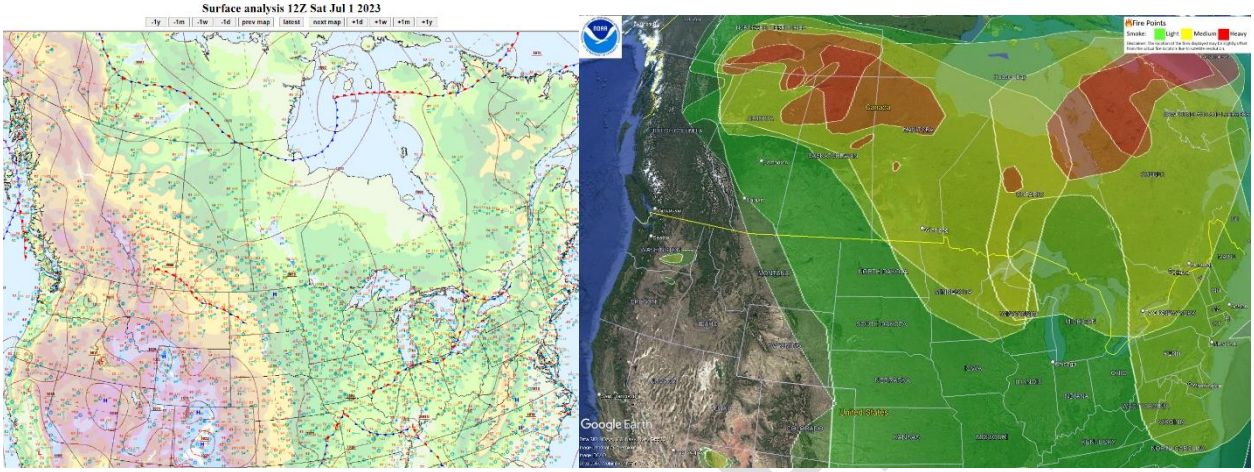
June 30 weak flow aloft kept winds light. The surface high exited to the east later in the day. In the evening a clipping surface low was near the U.S. / Canadian border. See Figure 24. On June 30, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Oliver, and Cass Counties.

Figure 24. June 30, 2023 Surface Analysis and Smoke Layer



On July 1, the ridge pushed east and brought the associated warm front into central to eastern North Dakota through the afternoon. See Figure 25. On July 1, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 25. July 1, 2023 Surface Analysis and Smoke Layer



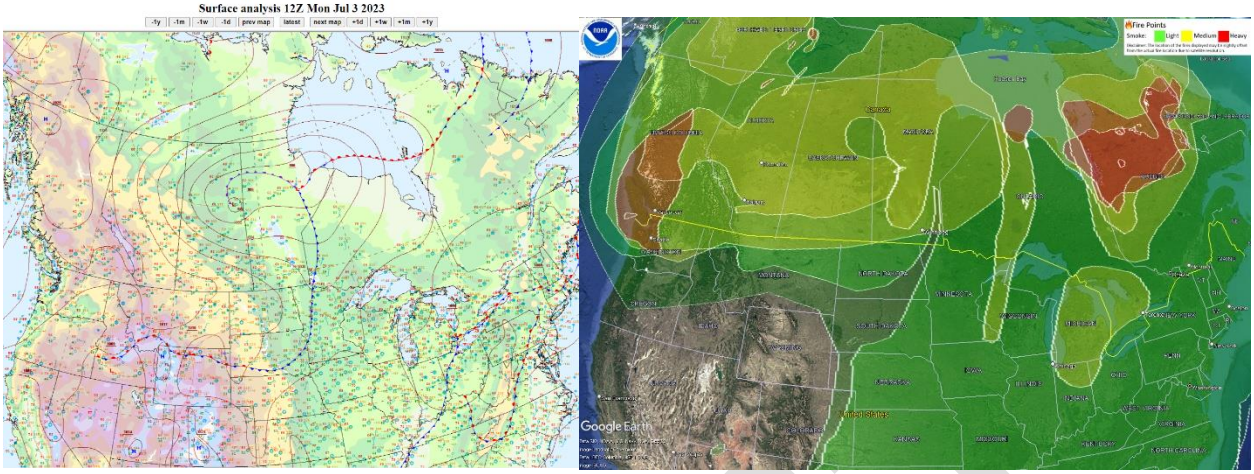
III.2.3 July 2023

Canadian wildfire smoke impacts directly affecting air quality were observed in North Dakota on July 3, July 7 through July 10, and July 13 through July 26.

Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on July 3. Wildfire activity persisted across Canada, continuing to feed an expansive area of varying density smoke with light density smoke extending to the south over the central U.S. July 3 in the upper levels, a longwave trough circulated over western and central Canada, down into the Pacific Northwest and northern plains regions of the United States. Some smoke was brought in behind the upper wave. At the surface, multiple fronts were analyzed over the region under this broad, nearly zonal flow aloft. While the main front remained in southern South Dakota, a secondary convergence zone sat across the North Dakota and South Dakota border, with strong convergence in far southwest North Dakota into South Dakota, and convergence gradually become more diffuse into south central North Dakota. See Figure 26. On July 3, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke County.

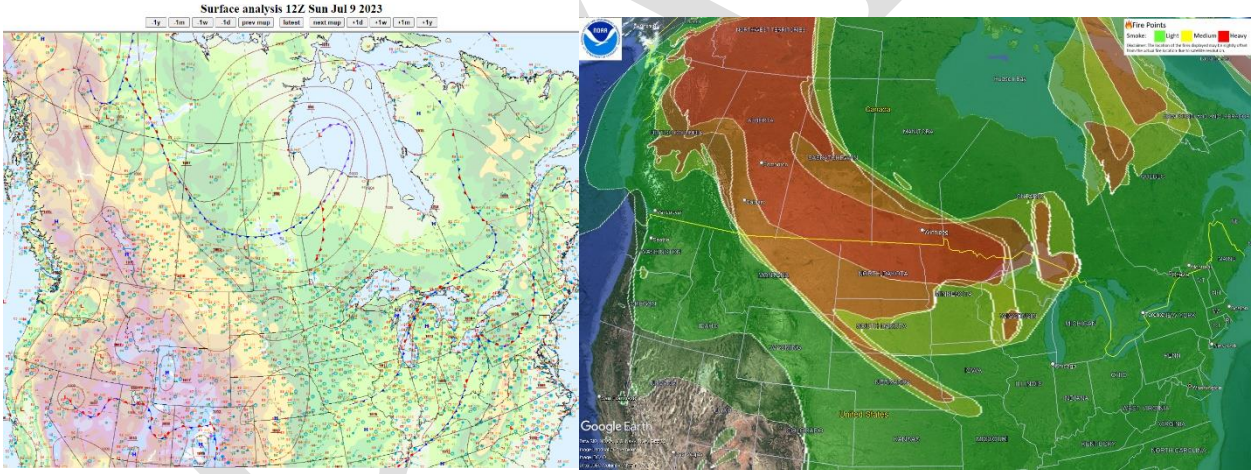
Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on July 9. Major wildfire activity continued in Canada scattered from the Yukon, Northwest Territories, and British Columbia and extending to the east and southeast across the southern tier of Canadian provinces to west central Quebec. The most numerous and concentrated areas of wildfires were over the northern half of British Columbia and Alberta, the southwest part of the Northwest Territories, and over west central Quebec. A very large mass of very thick smoke blanketed a significant part of northwestern and western Canada and extended from there to the southeast across south central Canada and over some of the north central U.S.

Figure 26. July 3, 2023 Surface Analysis and Smoke Layer



July 9, a large upper-level low dug into northern Manitoba as ridging built over the Rockies. This maintained a northwest flow pattern aloft over the northern plains with smoke caught in the flow. At the surface, a backdoor cold front began sliding in from the North Dakota/Manitoba border in the evening. See Figure 27. On July 9, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke County.

Figure 27. July 9, 2023 Surface Analysis and Smoke Layer

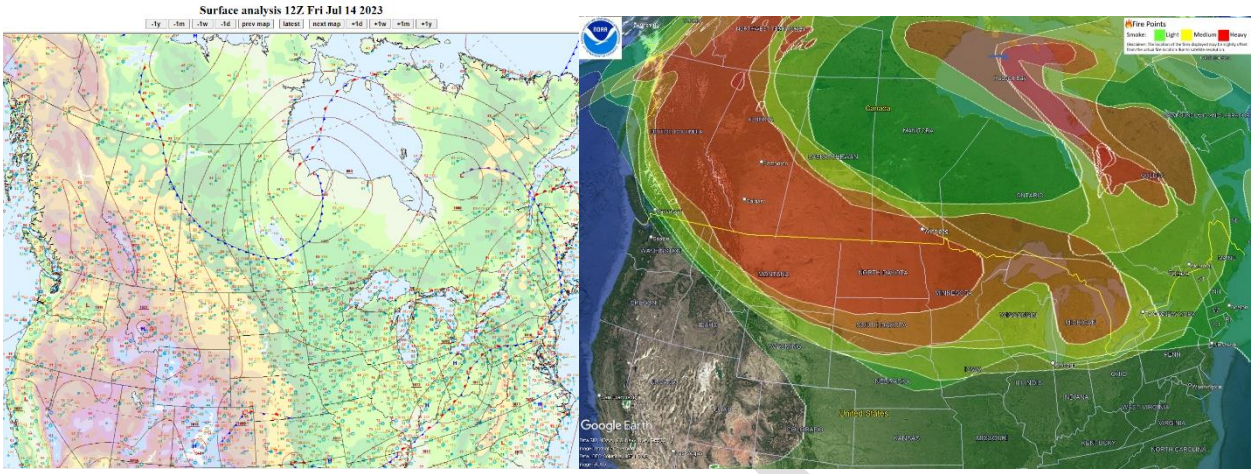


Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored July 14-16. Numerous major wildfires continued to burn, especially in portions of western and northwestern Canada as well as in southeastern Canada in western Quebec. On July 14, very thick density smoke was visible covering much of western and northwestern Canada and then extending south and east through southern Saskatchewan, southern Manitoba, Ontario and through the northern plains of the U.S. On July 15 and 16, the batch of thick smoke from the wildfire activity in western and northwestern Canada spread to the southeast and over much of the north central and central U.S.

The synoptic pattern was dominated by a nearly stationary deep upper low over northern Manitoba, with its associated surface low centered well to our northeast. A cold front was analyzed over southern Manitoba the morning of July 14 and moved through North Dakota later in the day

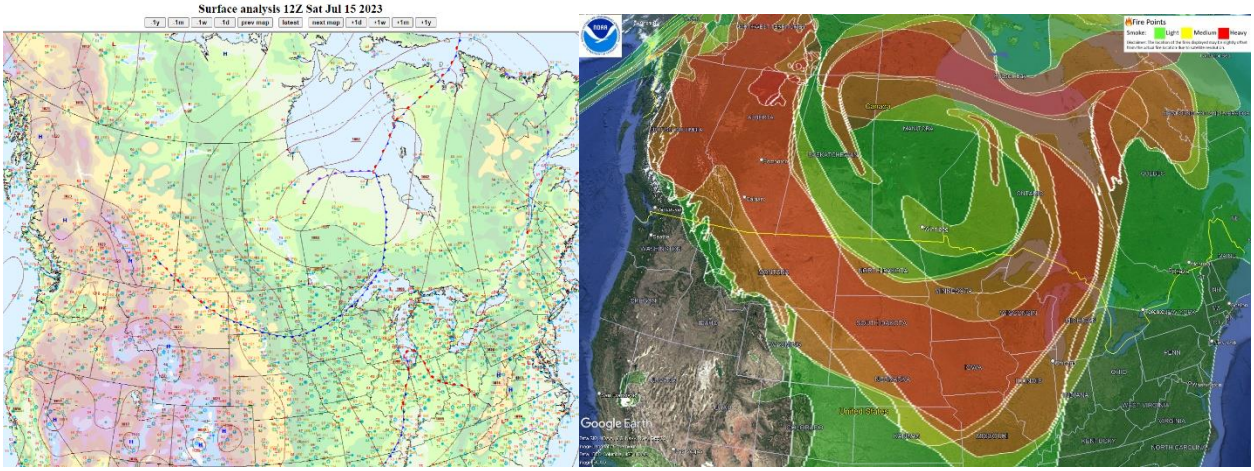
bringing some mixing of smoke down to the surface. The main forecast concern was near-surface smoke expanding south across all of North Dakota throughout the day and evening. See Figure 28. On July 14, 24-hour $PM_{2.5}$ concentrations at all sites were over the level of the 24-hour $PM_{2.5}$ NAAQS and new 2024 $PM_{2.5}$ Annual NAAQS.

Figure 28. July 14, 2023 Surface Analysis and Smoke Layer



Thick areas of smoke continued overnight and into July 15. Early the morning of July 15, a deep upper low was placed over northern Manitoba, with the main attendant surface low in a similar location. A secondary weak surface low was analyzed over northern Minnesota, with a cold front extending from this low through western and central North Dakota in the morning. In the post-frontal airmass, smoke conditions improved from north to south central through the morning and into the afternoon hours. However, another push of thicker near-surface smoke moved into western and parts of central North Dakota in the evening and continued through the night. Even for areas without near-surface smoke, skies were still hazy. See Figure 29. On July 15, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels.

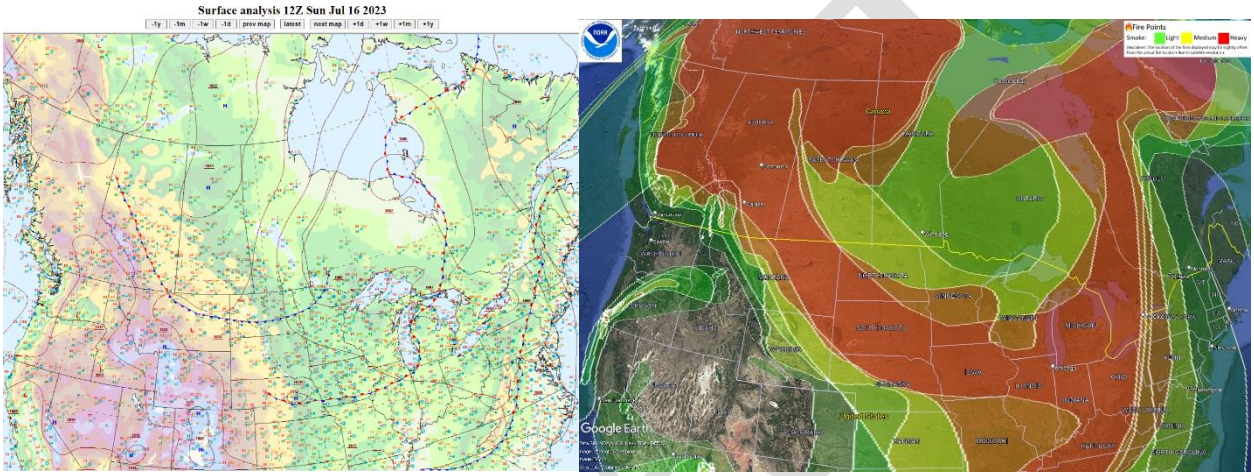
Figure 29. July 15, 2023 Surface Analysis and Smoke Layer



Western North Dakota had persistent smoke overnight into July 16. The upper low that had been dominating the synoptic pattern the past few days was located over southeast Manitoba and moved

southeast over the Great Lakes region through July 16. A surface low was nearly stacked with the upper low, and a weak cold front extended from the surface low back through the area in the morning. As the upper low moved, more of a northerly flow was brought to the area under a surface high pressure, which diminished the smoke from northeast to southwest during the day. However, smoke aloft continued for most of the area except for the far north central, so hazy skies continued through the day. The surface high settled in across the area the night of July 16 with resultant clear skies and light winds. See Figure 30. On July 16, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, Billings, and Burleigh Counties.

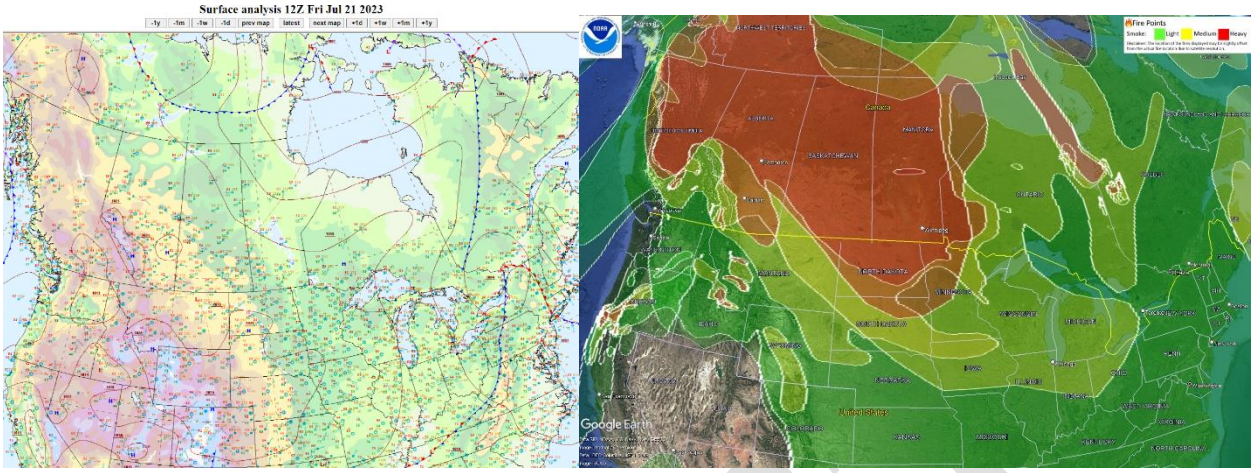
Figure 30. July 16, 2023 Surface Analysis and Smoke Layer



Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored July 21-24. The enormous area of smoke primarily from numerous wildfires in western and northwestern Canada continued to be visible covering virtually all of Canada and most of the U.S. On July 21 and 22, thick to very thick smoke covered a good portion of northwestern and central Canada with some moderate and thick smoke moving to the southeast and over the north central U.S. On July 23 and 24, within the larger area of varying density smoke, were batches of moderate to thick density smoke that covered much of northern Canada and extended southeast through central Canada and into the north central U.S.

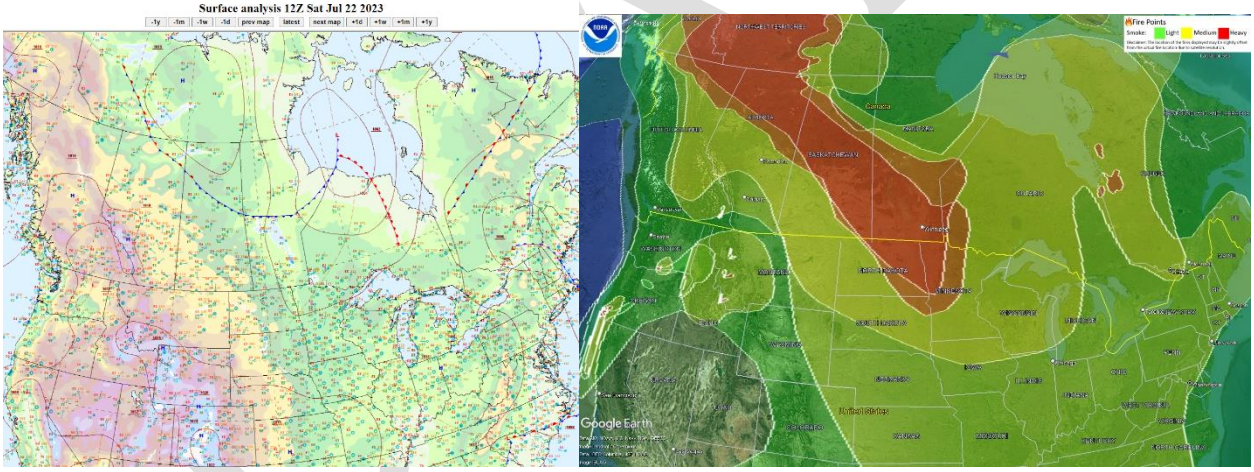
Northwest flow aloft with a mid-level shortwave moved from far south-central Canada and passed over North Dakota July 21 with surface high pressure over the northern plains. A thicker layer of smoke worked into the area and was forecast to continue filtering in through the weekend given the northwest flow aloft. See Figure 31. On July 21, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke County.

Figure 31. July 21, 2023 Surface Analysis and Smoke Layer



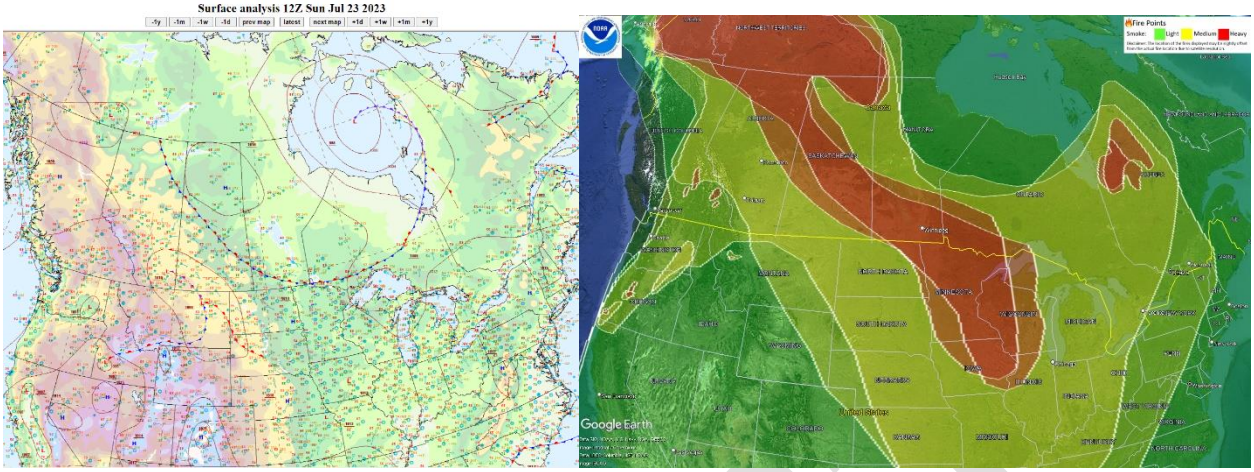
On July 22, northwest flow aloft continued across the northern plains with weak embedded energy. The upper-level ridge over the Rockies and Northern High Plains continued to build, with an eastward nudge. Skies appeared hazy in most locations with elevated smoke over the area. See Figure 32. On July 22, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, Dunn, Oliver, and Burleigh Counties.

Figure 32. July 22, 2023 Surface Analysis and Smoke Layer



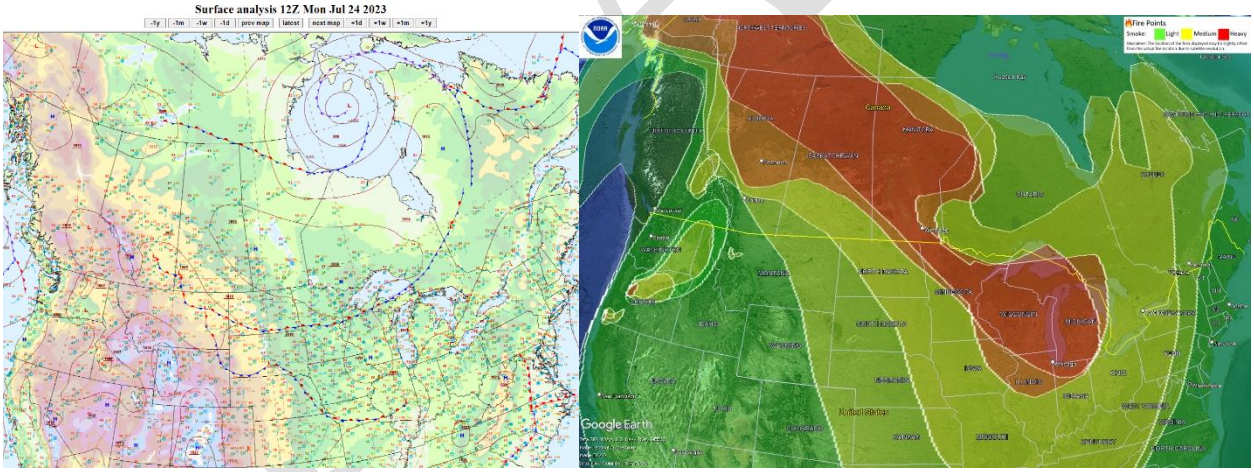
On July 23, a very warm low to mid-level air mass moved into the region from the southwest with a weak a cold front dropping south from Canada. A surface high propagated eastward and a broad area of surface low pressure gradually approached from Montana. Elevated smoke made skies appear hazy at times, at most locations. Additionally, surface smoke reducing visibility was forecast within the Red River Valley. See Figure 33. On July 23, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 33. July 23, 2023 Surface Analysis and Smoke Layer



Early the morning of July 24, an upper-level ridge axis sat just east of the Northern Rockies, placing North Dakota under northwest flow aloft. The upper-level ridge axis drifted toward the North Dakota/Montana border through the day and smoke aloft streamed in and surface smoke lingered. A mid-upper-level shortwave ejected off the Northern Rockies in the evening and made its way through the upper ridge over western North Dakota. Hazy conditions continued through July 24 before the ridge shifted east keeping smoke further toward the north and east. See Figure 34. On July 24, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 34. July 24, 2023 Surface Analysis and Smoke Layer



III.2.4 August 2023

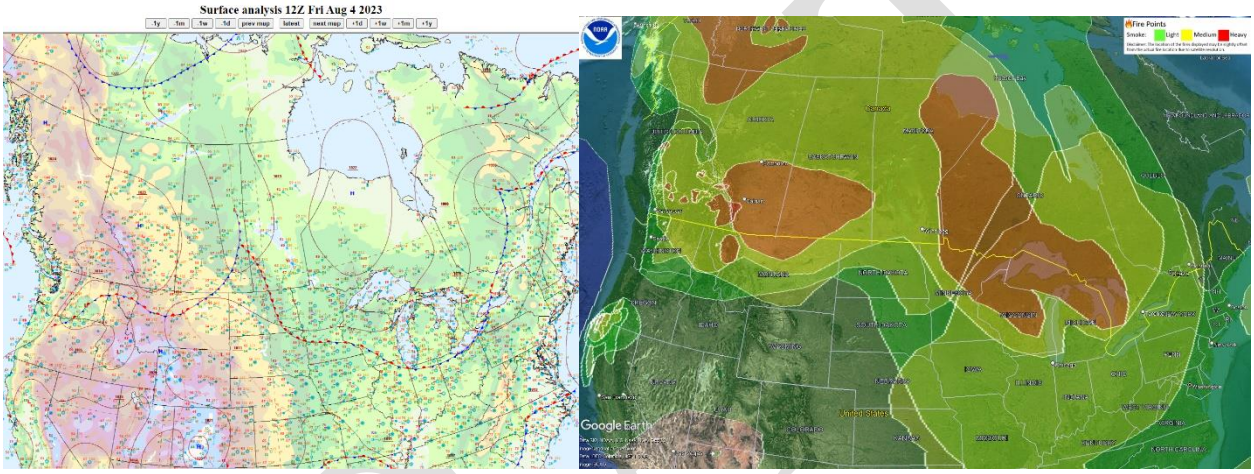
Canadian wildfire smoke impacts directly affecting air quality were observed in North Dakota on August 3 through August 9, August 17 through August 22, and August 25 through September 11.

Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored August 4-8. Major widespread wildfire activity continued especially across western and northwestern Canada along with central and east central Alaska. Another significant cluster of wildfires was present over west central Quebec. All of these wildfires were primarily responsible for a massive area of smoke that covered much of Canada, the northern half of Alaska, and a significant portion of the U.S. On

August 4 and 5, light to moderate smoke was seen through parts of the northern and central plains. August 6th through August 8th, more widespread areas of moderate to thick density smoke were noted across northwestern through south central Canada and a portion of the north central U.S.

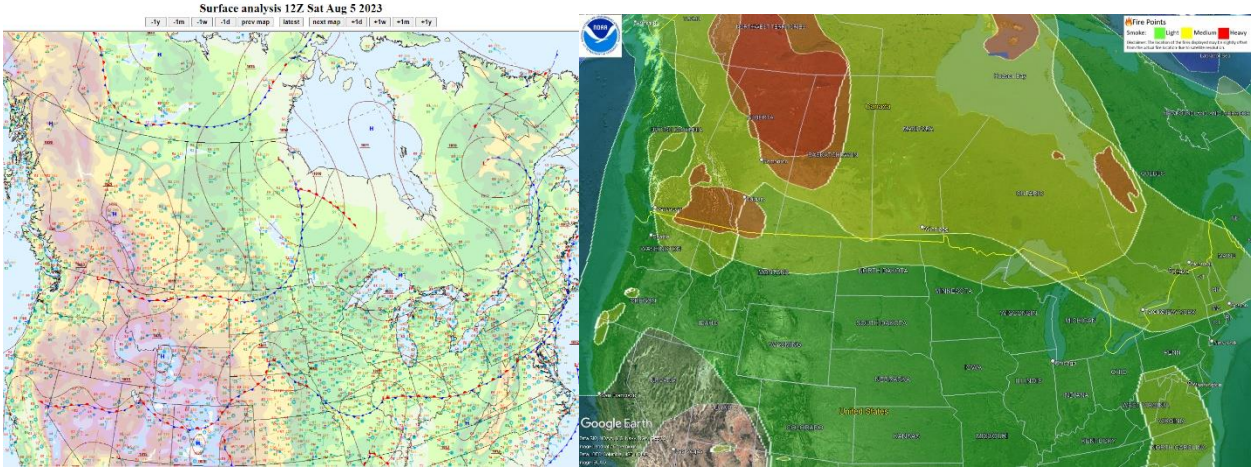
The August 4 surface analysis shown surface high pressure along the International Border, with a broad upper low lifting across the region while a surface low started to organize in South Dakota. As the strengthening surface low developed to our south, southeasterly flow developed centered over the Montana/Dakotas. Smoke was pushed westward by the easterly winds at low levels. See Figure 35. On August 4, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh and Cass Counties.

Figure 35. August 4, 2023 Surface Analysis and Smoke Layer



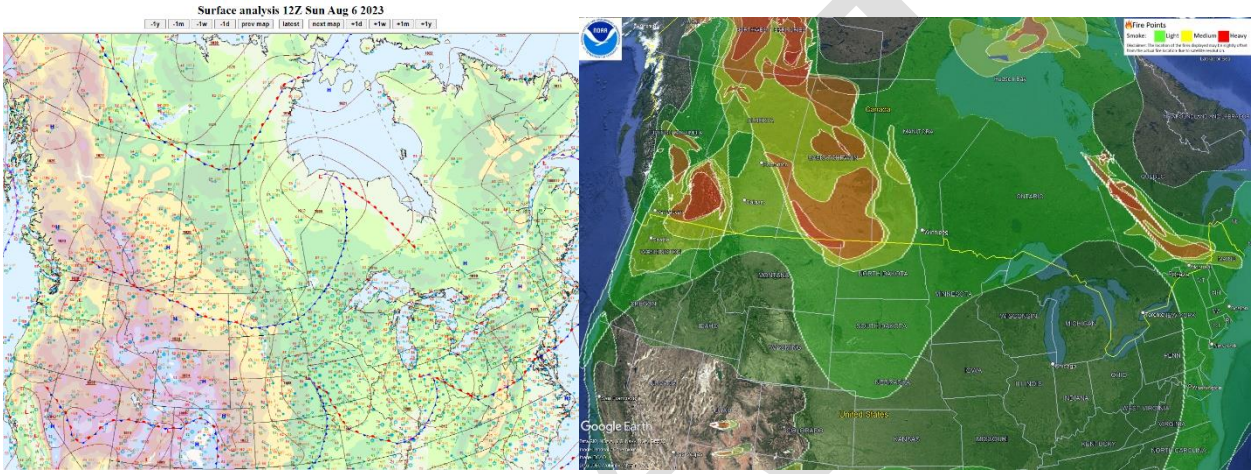
With little wind, smoke lingered overnight and on August 5, the stacked surface and upper-level lows continued to move to the east across the region and North Dakota remained within a broad upper-level trough. As the low slowly moved and broadened a bit, pushing eastward at night, winds were breezy with the pressure gradient force from the low. See Figure 36. On August 5, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh and Cass Counties.

Figure 36. August 5, 2023 Surface Analysis and Smoke Layer



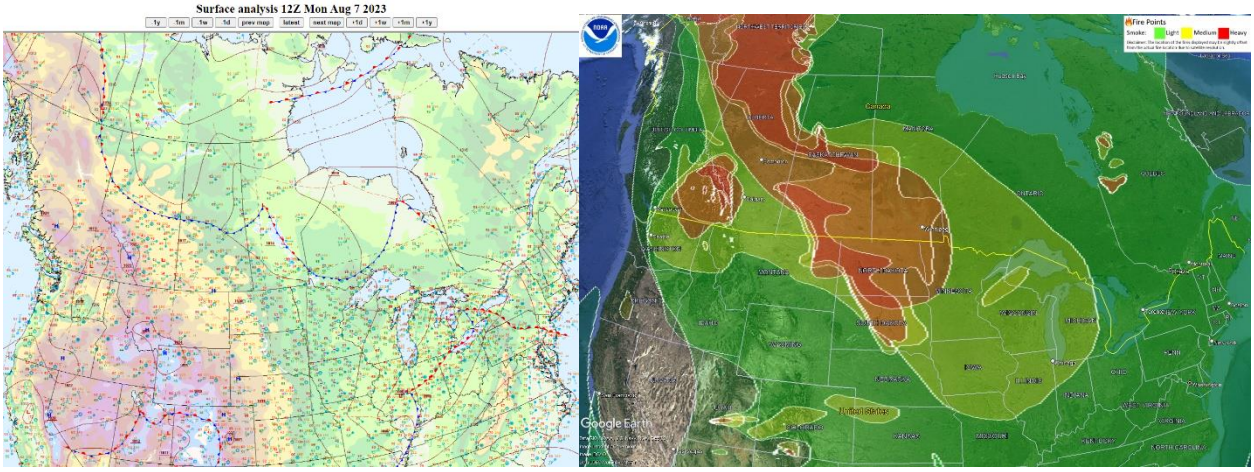
The surface low and upper-level wave continued to push southeast in the morning of August 6. In its wake was a weak deformation zone and to the west was a developing surface high under weak ridging. The northerly flow across the east increased winds at times, which were limited by the building ridge aloft. The surface high and mid-level ridge then took over and as the downstream low continued to drift south and east, the northern plains were placed under weak northwest flow aloft with ridging at the surface. A plume of smoke aloft spread over northwest North Dakota under weak northwest flow aloft, with some smoke making it to the surface. See Figure 37. On August 6, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, and Burleigh Counties.

Figure 37. August 6, 2023 Surface Analysis and Smoke Layer



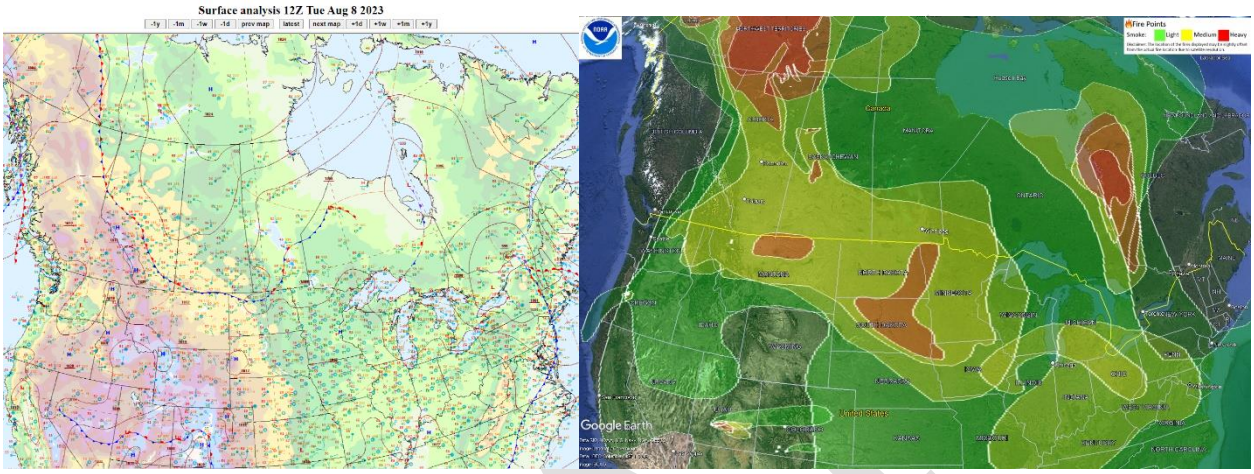
With no change in directional flow aloft, the smoke aloft and near surface lingered and continued to stream in, spreading further south and east. In the upper levels, weak northwest flow aloft featured several disorganized perturbations over the northern high plains the morning of August 7 and a slow-moving shortwave remained south and west of North Dakota throughout the day. See Figure 38. On August 7, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, Burleigh, and Cass Counties.

Figure 38. August 7, 2023 Surface Analysis and Smoke Layer



On August 8 a closed upper low moved southeast from central Saskatchewan to Ontario. An associated front slowly dropped south into northern North Dakota by the early afternoon, gradually moving into southern North Dakota through the evening. Upper-level analysis placed northwest but slightly cyclonic flow over North Dakota, with a few weak short waves noted in the flow. Some smoke was mixing down behind the frontal boundary. See Figure 39. On August 8, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke County.

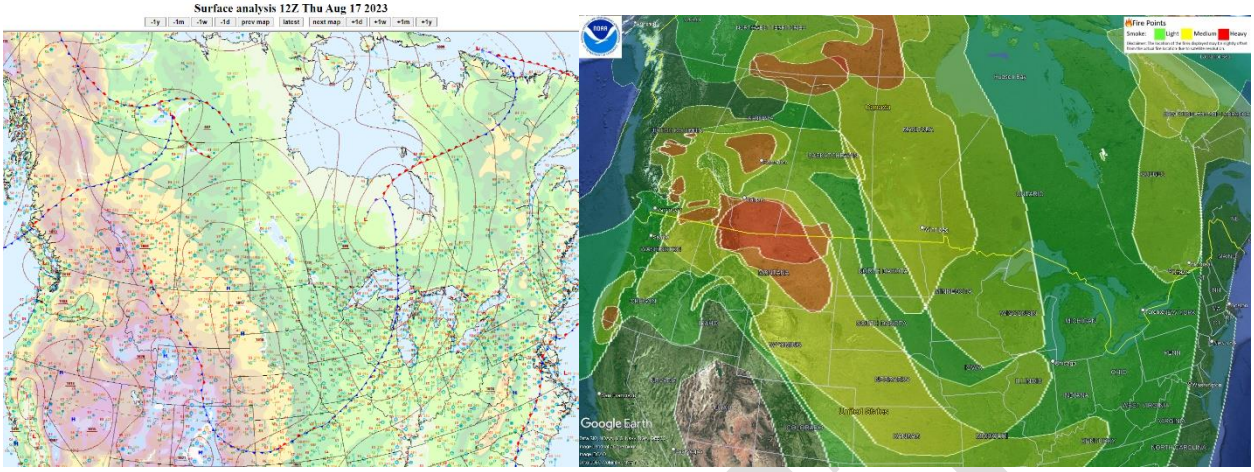
Figure 39. August 8, 2023 Surface Analysis and Smoke Layer



Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored August 17-19. The ongoing wildfire activity across eastern Alaska, western Canada, the Pacific Northwest and northern California continued to add to the large area of smoke that extended over a vast majority of North America. On August 17, the highest density smoke within this large area was roughly covering large portions of western Canada, extending east and southeast through central Canada and into the northern plains of the U.S. On August 18 and 19, the combination of the western Canadian wildfires and northwestern U.S. wildfires was responsible for very large coverage of moderate to thick density smoke that affected southern and central Canada as well as the north central U.S.

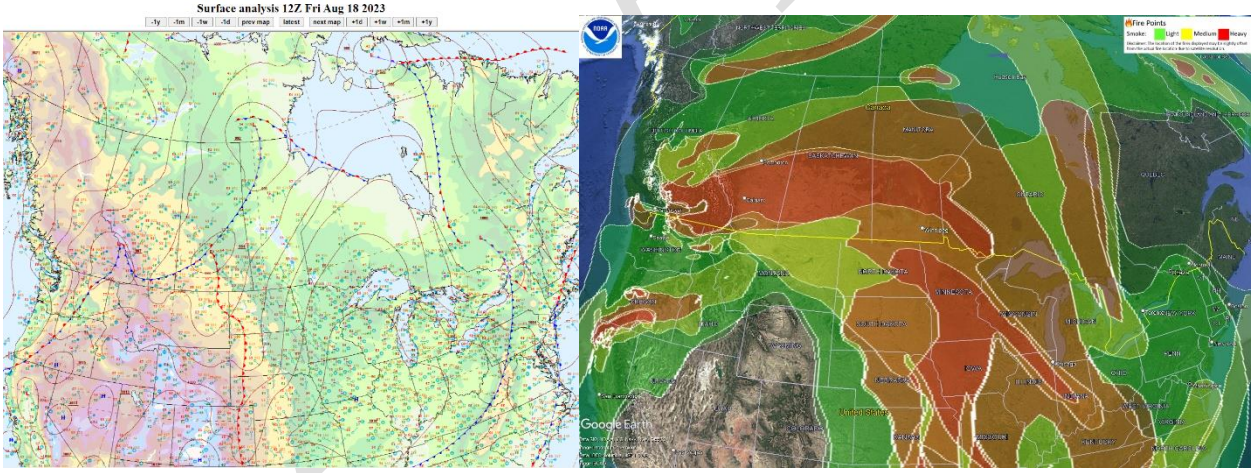
Ahead and along the cold front that passed through rather quickly on August 16, smoke aloft mixed down to the surface with strong post frontal winds and lingered. August 17 was a much calmer day with surface high pressure and northwest flow overhead. Satellite showed some upper-level smoke, and the forecast was for thicker smoke to spread across North Dakota in the afternoon and evening. In the afternoon, surface high pressure was sliding southeast across the northern plains under northwest anticyclonic flow aloft. The upstream upper-level ridge slowly shifted into the northern plains overnight and in response, a strong nocturnal low-level jet developed over western North Dakota and shifted eastward through the night. See Figure 40. On August 17, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh and Cass Counties.

Figure 40. August 17, 2023 Surface Analysis and Smoke Layer



The decoupling boundary layer trapped some smoke near the surface overnight August 17. The August 18 morning surface analysis showed the low over southeastern Alberta into southwest Saskatchewan with a trough dropping to the south/southeast and a high over the Midwest. Upper-level analysis placed broad ridging through the Great Plains. The thermal ridge passed over the area, as a lee trough entered the area. Behind the trough, winds developed a westerly component and promoted very strong boundary layer mixing and high-level smoke continued across much of the area with westerly flow aloft. See Figure 41. On August 18, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, and Cass Counties.

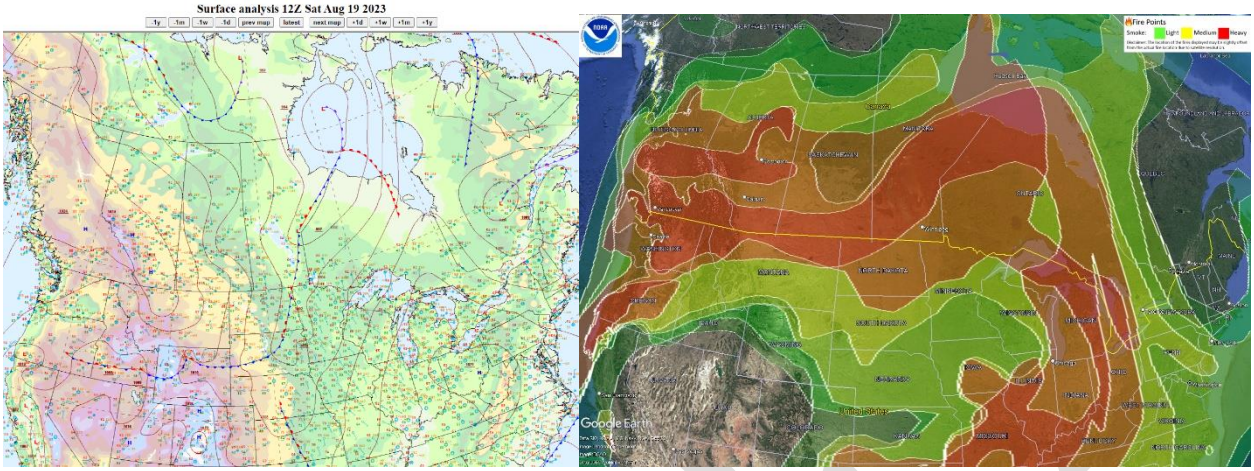
Figure 41. August 18, 2023 Surface Analysis and Smoke Layer



Smoke aloft became thicker overnight and into August 19. The August 19 morning surface analysis placed the low along the Manitoba/Ontario border, with the high over the Four Corners Region through the Rockies. The cold front affiliated with the surface low entered northwest North Dakota early morning and tracked southeast across the state through the morning. Upper-level analysis placed a broad high over the southern plains with a trough over the western U.S. and low off the California coast, resulting in west/southwest flow over North Dakota. Early afternoon satellite imagery continued to show a veil of smoke across much of the state. With the frontal passage, winds switched northwesterly with higher gusts behind the cold front. With the winds,

some smoke mixed down to the surface across the south. See Figure 42. On August 19, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh County.

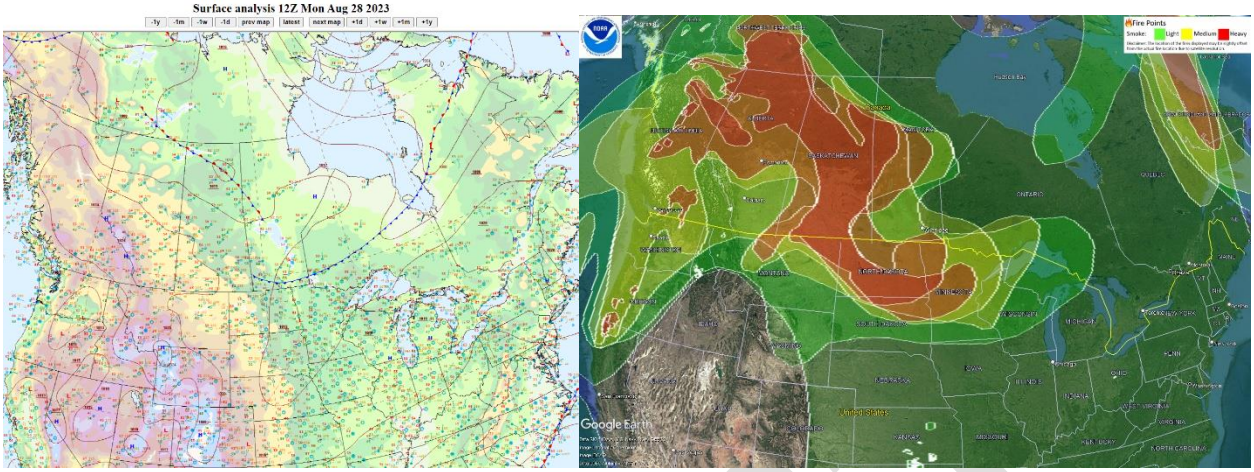
Figure 42. August 19, 2023 Surface Analysis and Smoke Layer



Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored August 28-September 1. Wildfire activity remained high in western Canada including central and southeastern British Columbia, northern Alberta, and southern Northwest Territories. On August 28 and 29, moderate to high smoke concentrations were observed extending from British Columbia and Northwest Territories east-southeastward across the Canadian Rockies into central Canada, then across the north central U.S. On August 30, smoke from wildfire activity covered much of Canada and the U.S. with a large area of moderate and dense smoke observed over central Canada extending southward over portions of the great plains. On August 31, moderate and light density smoke could be observed over most of Canada and the U.S., stretching south along the great plains. On September 1, smoke from the ongoing and persistent wildfire activity moved both south and eastward across the Prairie Provinces with moderate and light density smoke observed over the northern plains of the U.S.

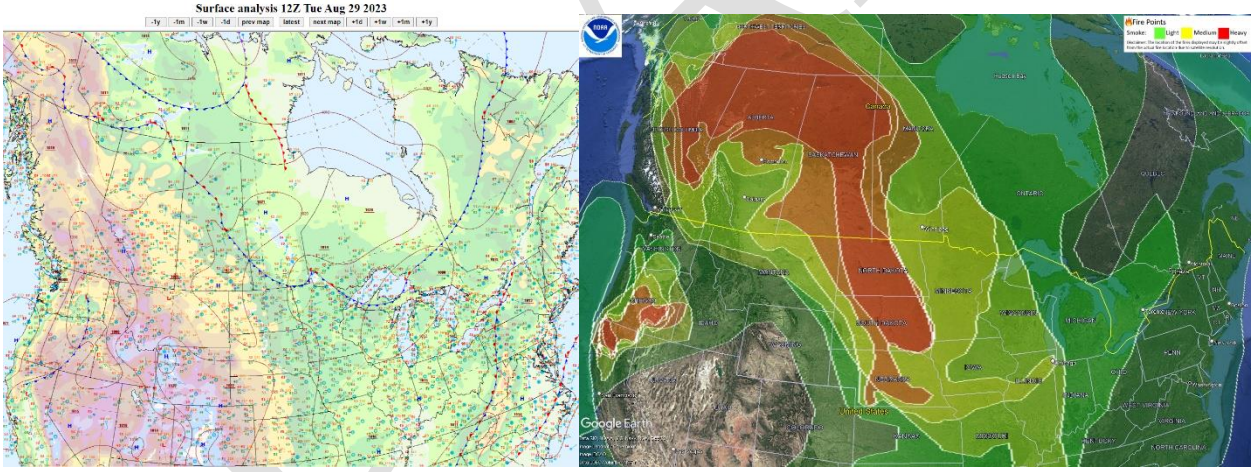
A weak northwest flow pattern persisted August 28 over the northern plains during the day and night as a shortwave trough digging into the western Great Lakes gave the region a glancing blow. Weak high pressure was situated over western and central North Dakota early afternoon. Aloft, thicker smoke moved down from Canada with the favorable upper-level flow and spread over the region from north to south. Near-surface smoke also drifted into northwest and north central North Dakota. See Figure 43. On August 28, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, and Burleigh Counties.

Figure 43. August 28, 2023 Surface Analysis and Smoke Layer



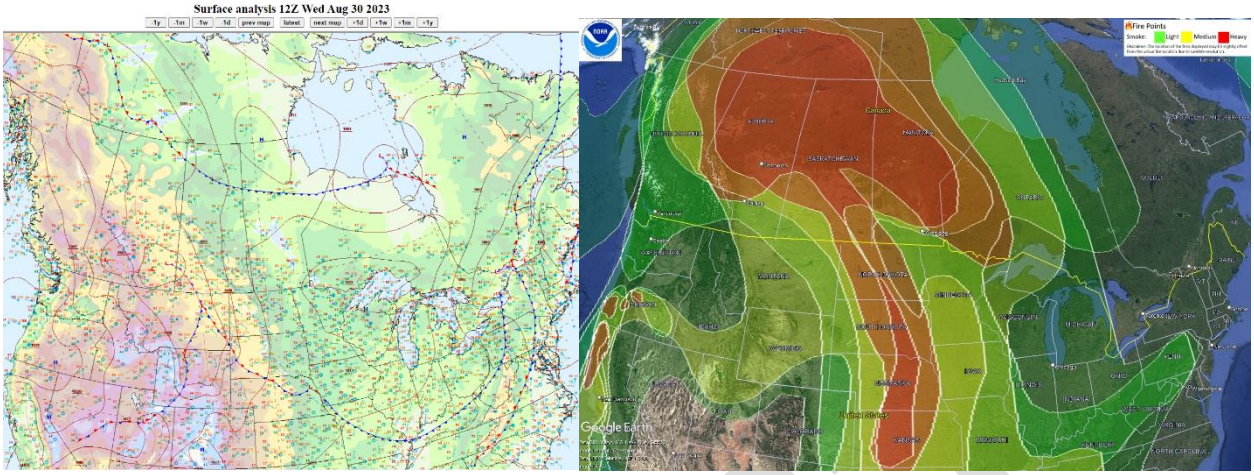
On August 29 at the upper levels, a highly amplified ridge located to our west, placed most of western and central North Dakota under the influence of almost northerly flow aloft. This flow orientation continued to bring smoke aloft down from Canada with some smoke continuing to make it all the way to the surface. The ridge axis made its way into western North Dakota by mid to late afternoon, and into central North Dakota by night. See Figure 44. On August 29, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels.

Figure 44. August 29, 2023 Surface Analysis and Smoke Layer



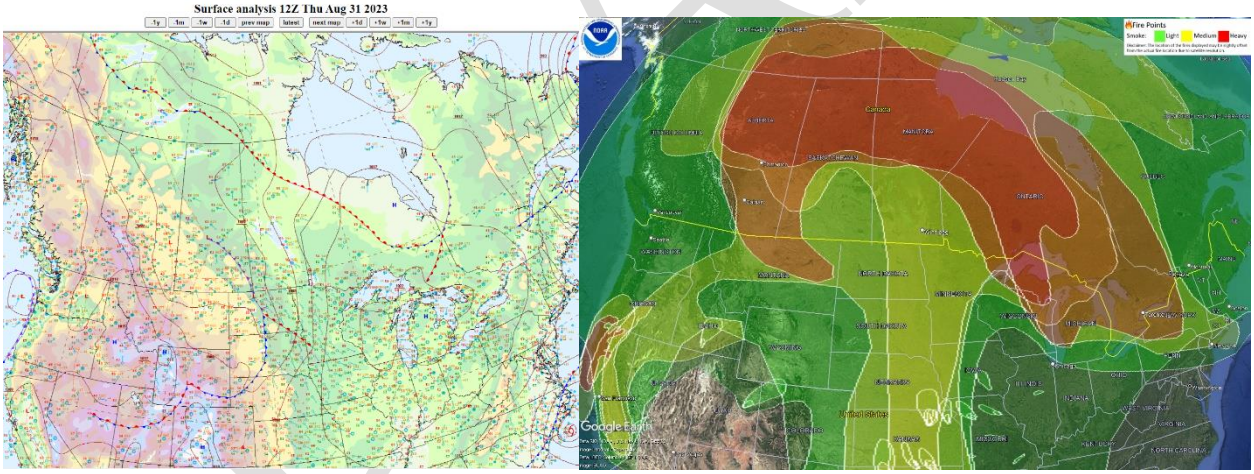
Smoke once again settled back in the morning of August 30 and continued through much of the day. In the early morning, a highly amplified upper-level ridge axis was centered over central North Dakota and moved east through the day, diminishing as it approached the Minnesota border by evening. By the afternoon hours, most of western and central North Dakota were under the influence of southwest flow aloft as a potent shortwave trough approached from the west. See Figure 45. On August 30, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels.

Figure 45. August 30, 2023 Surface Analysis and Smoke Layer



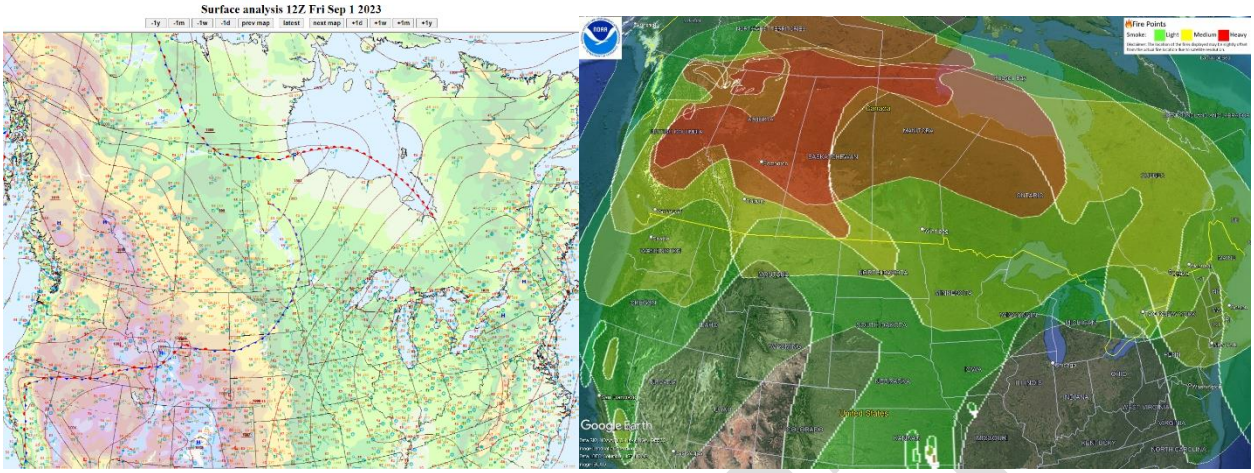
A compact shortwave trough continued to move through the northern plains early the morning of August 31 with a surface front located over central North Dakota. In the afternoon, an upper low continued to move across southern Saskatchewan. Wind speeds increased in the afternoon as stronger winds aloft mixed down to the surface leading to breezy winds across central and western North Dakota. Smoke lingered before diminishing from west to east. See Figure 46. On August 31, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 46. August 31, 2023 Surface Analysis and Smoke Layer



The upper low progressed eastward into Manitoba overnight with nearly zonal flow in place over western and central North Dakota in the early morning September 1. The upper low brought forth ridging that started to nudge in through the day. Weak surface high pressure built over North Dakota leading to light winds and clearer skies. Smoke aloft wrapped back around the upper low bringing back smoke aloft and near surface into the region again. See Figure 47. On September 1, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Oliver, and Burleigh Counties.

Figure 47. September 1, 2023 Surface Analysis and Smoke Layer



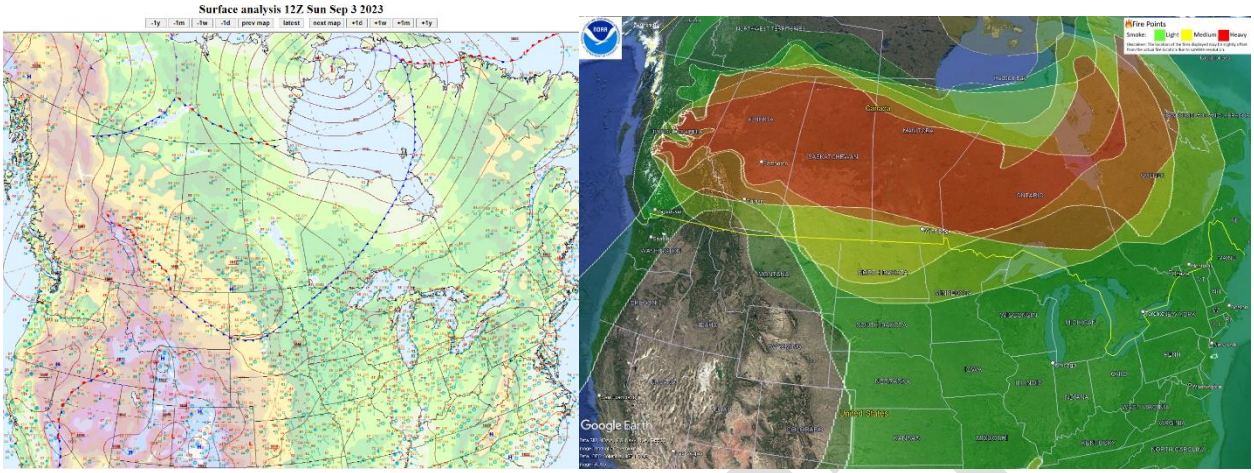
III.2.5 September 2023

Canadian wildfire smoke impacts directly affecting air quality continued to be observed in North Dakota from August 28 through September 11 and September 14 through September 22.

Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored September 3-8. The major outbreak of wildfires continued across portions of British Columbia, northern Alberta, and the southern part of the Northwest Territories, which had been the case for weeks with the resulting mass of smoke mainly attributed to these fires covering virtually all of Canada and the eastern two-thirds of the U.S. On September 3 and 4, a larger mass of thin to moderately dense smoke extended southward over the north central U.S. On September 5th through 7th, the wildfires produced a large area of thick to moderate density smoke extending further south into the northern and central plains of the U.S.

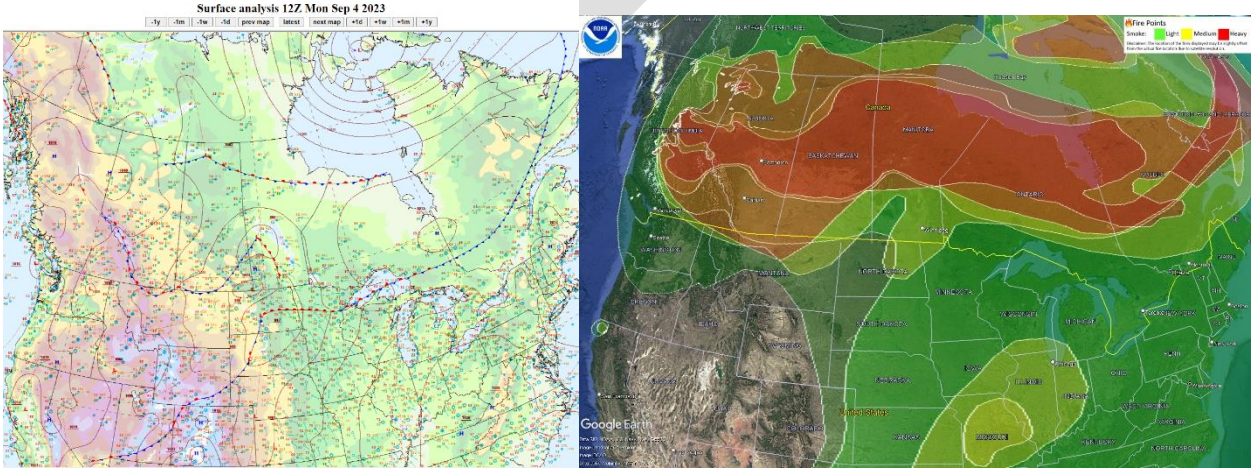
In the early morning of September 3, at the upper levels western and central North Dakota were situated under nearly zonal flow aloft with a broad low amplitude ridge to our west. At the surface, a weak and dry cold front continued to drift from north to south across the state in the morning, with winds briefly turning northerly behind it. This meant more areas of smoke filtered down into the area through the day. The densest smoke moved from southern Saskatchewan generally across the northern half of the state in the morning before making its way south in the afternoon. The low amplitude ridge made its way overhead and to the east through the day. See Figure 48. On September 3, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels.

Figure 48. September 3, 2023 Surface Analysis and Smoke Layer



Smoke lingered over much of the area through the night. Western and central North Dakota sat under the influence of southwest flow aloft with troughing to our west in the early morning of September 4. At the surface, one low was deepening over southern Saskatchewan and another over western South Dakota. A warm front extended in between these two lows, and it slowly moved east through the morning. By late afternoon and into the evening, a new surface low deepened near the western South Dakota/North Dakota border while the Saskatchewan low moved into southern Manitoba. A cold front extended southwest from the Manitoba low and moved into the western part of the state in the morning and into the central by afternoon before stalling out temporarily. Behind the advancing cold front, visibility notably dropped off along with air quality as the next batch of wildfire smoke made its way into the area. See Figure 49. On September 4, 24-hour $PM_{2.5}$ concentrations were over the level of the 24-hour $PM_{2.5}$ NAAQS and new 2024 $PM_{2.5}$ Annual NAAQS for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, and Billings Counties.

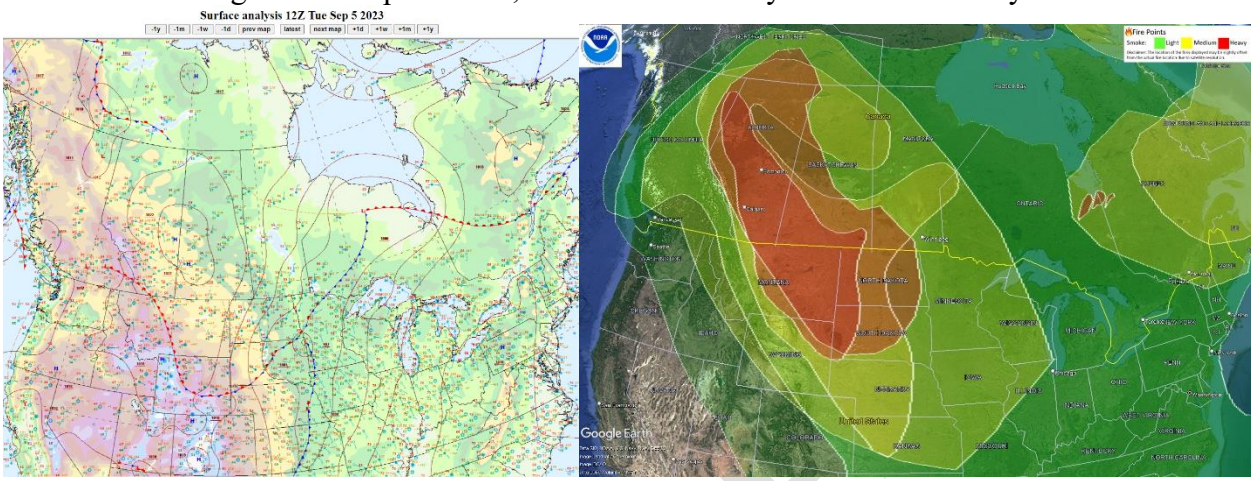
Figure 49. September 4, 2023 Surface Analysis and Smoke Layer



The surface low continued to push eastward September 5 while a cold front and upper-level trough slowly moved through the area. Breezy to windy northwest winds were found behind the cold front, which opened the door for wildfire smoke from Canada to return and spread southeast. At night, the upper-level wave moved out of the area, with a surface high pressure moving in, which

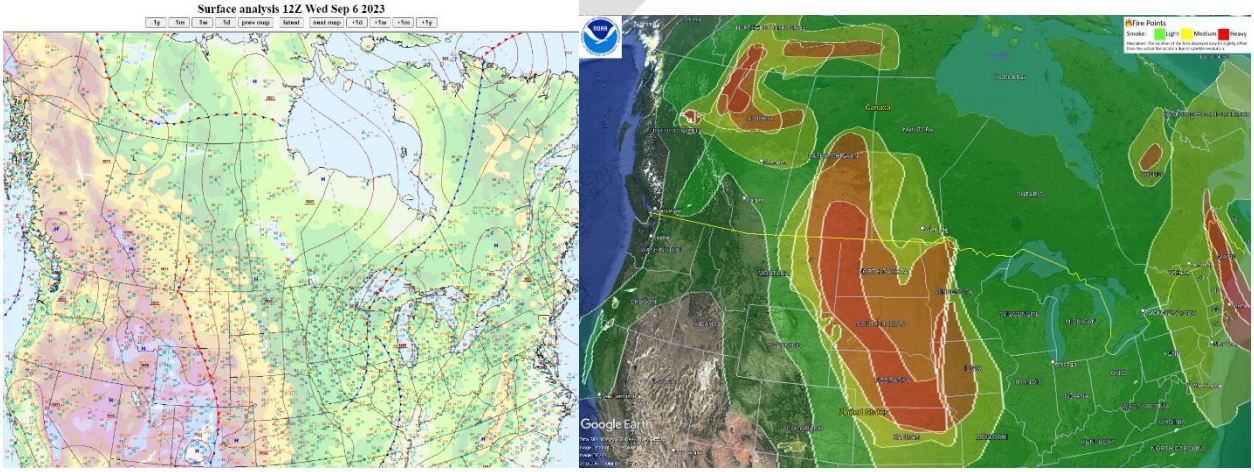
lessened the winds, but smoke lingered overnight. See Figure 50. On September 5, 24-hour $PM_{2.5}$ concentrations at all sites were over the level of the 24-hour $PM_{2.5}$ NAAQS and new 2024 $PM_{2.5}$ Annual NAAQS.

Figure 50. September 5, 2023 Surface Analysis and Smoke Layer



On September 6, surface high pressure was situated over the Plains states and northward into Manitoba. Weak upper level troughing over the Western U.S and Canada resulted in surface low pressure in the lee of the Rockies producing a southerly return flow over western and central North Dakota. Smoke at the surface and aloft remained over the area. Higher smoke concentrations that had moved south of the area, headed back due to the southerly return flow. Flow aloft from the northwest continued to bring smoke into eastern North Dakota that mixed down to the surface. See Figure 51. On September 6, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels.

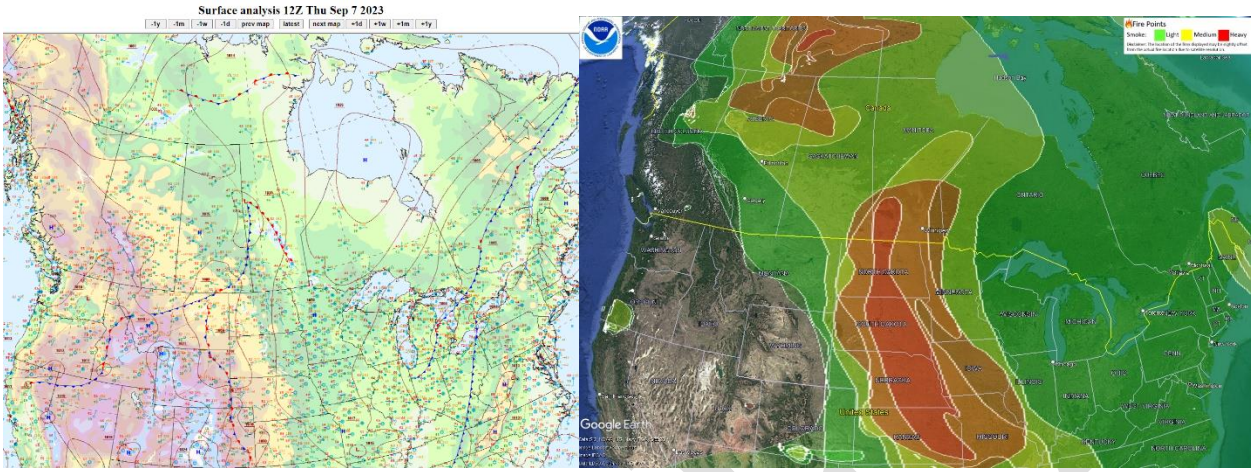
Figure 51. September 6, 2023 Surface Analysis and Smoke Layer



Smoke and haze remained over the area September 7. A surface warm front and cold front propagated eastward under mostly zonal flow across the west and into central North Dakota. In the afternoon and early evening, embedded shortwave energy in quasi-zonal flow aloft passed

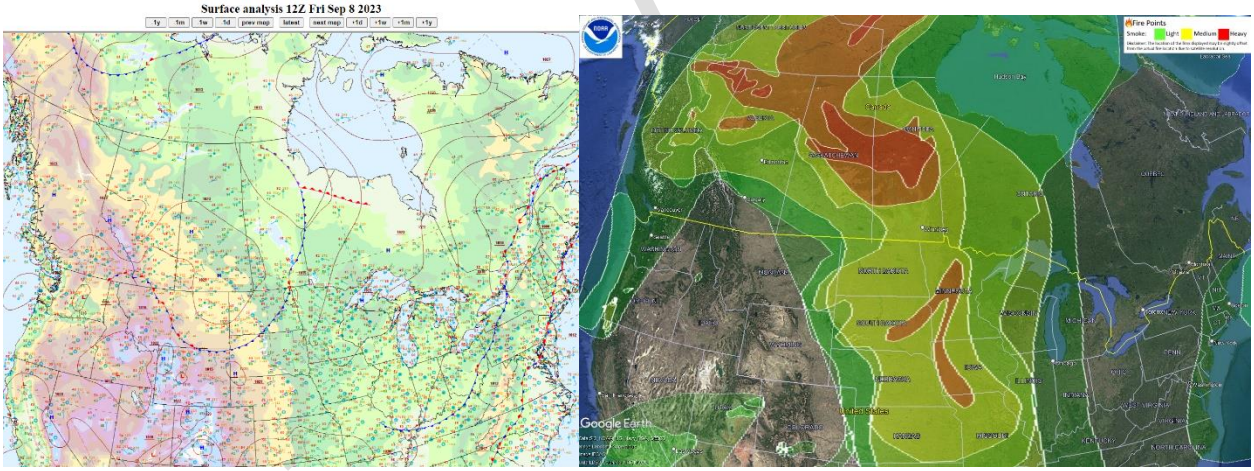
through the area. See Figure 52. On September 7, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels.

Figure 52. September 7, 2023 Surface Analysis and Smoke Layer



Some smoke lingered overnight into the morning of September 8. A surface high under weak ridging trapped smoke, which lingered through some central and eastern areas. An upper-level disturbance approached the area in the afternoon, organized over the night and moved through. Smoke mixed throughout the afternoon and by late afternoon, little near-surface smoke remained in the area. See Figure 53. On September 8, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Ward, Oliver, Burleigh, and Cass Counties.

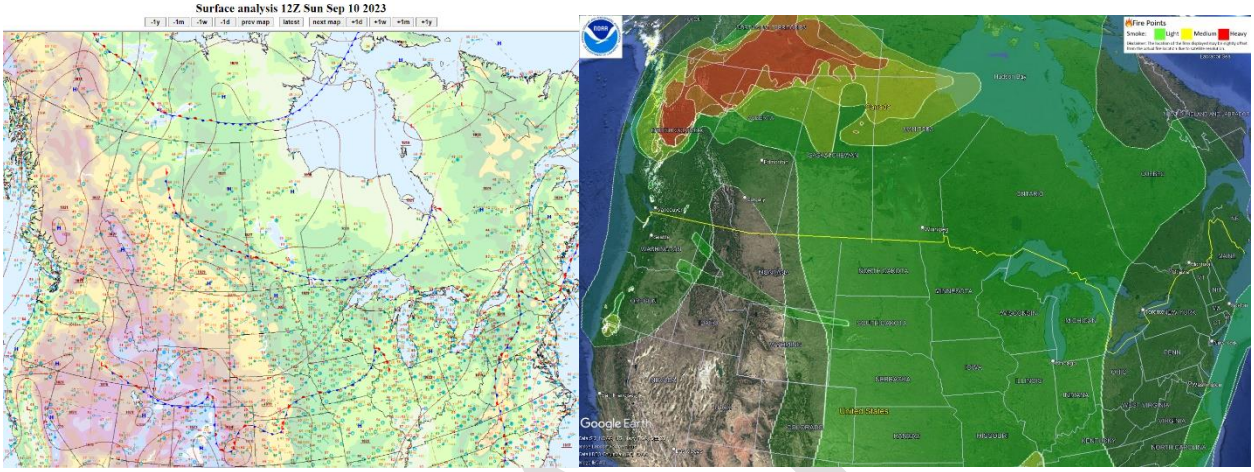
Figure 53. September 8, 2023 Surface Analysis and Smoke Layer



Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on September 10. Intense wildfire activity continued to be observed across British Columbia, northern Alberta, and southern Northwest Territories with light density smoke extended across most of Canada, as well as further to the south covering most of the U.S.

The influence of the upper trough to the northeast in northern Ontario and west-northwest flow locally kept stable conditions through the day September 10. In the afternoon, surface analysis indicated the center of the surface high over the Devils Lake Basin into the central Red River Valley with winds fairly weak around this high pressure. See Figure 54. On September 10, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

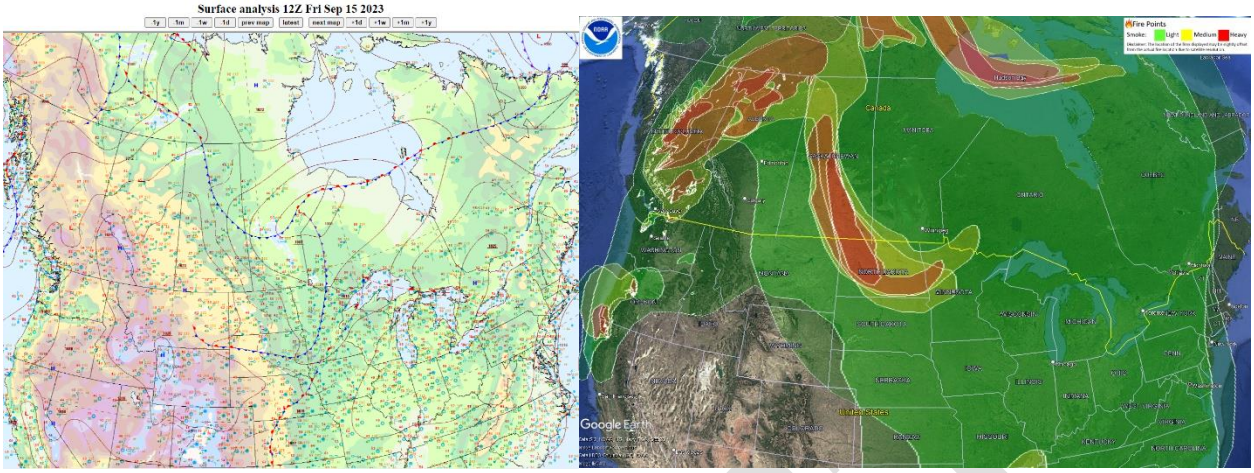
Figure 54. September 10, 2023 Surface Analysis and Smoke Layer



Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored September 15-22. The ongoing major wildfire situation continued across portions of western and northwestern Canada. On September 15, some of the thicker smoke wrapped to the south, southeast, and east around a low-pressure system with the smoke impacting south central Canada and the north central U.S. On September 16, gusty westerly winds from a low-pressure system moving through to the north of the ongoing major wildfires burning in western and northwestern Canada, caused a significant flare up of the wildfire activity. A smaller, separate swath of moderately dense to thick smoke was visible spreading to the south and southeast from Saskatchewan across the Dakotas, while thinner density smoke covered much of the remainder of the central U.S. Persistent and ongoing wildfire activity across western Canada continued to produce a large amount of moderate and high-density smoke that extended across much of northern Canada. September 17 through 22, a larger area of thin to moderate density smoke was observed over most of Canada and much of the central U.S.

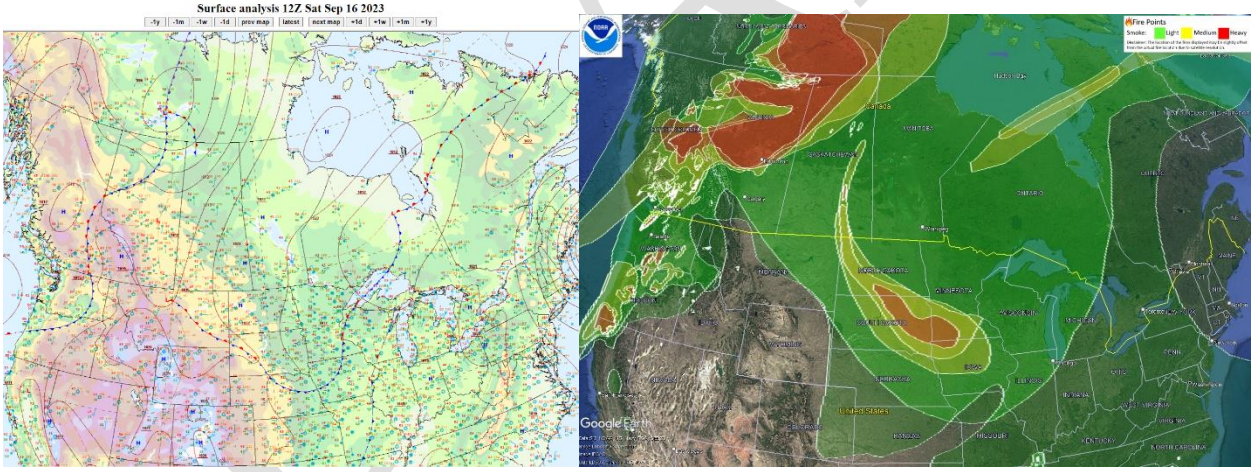
On September 14, a trailing cold frontal boundary brought visibility reducing, near-surface smoke from the northwest to the southeast. Northwest flow continued on September 15 while surface high pressure built over the forecast area behind an exiting, upper low over southern Manitoba and its associated frontal boundaries pushing through the state. The wildfire smoke continued to stream in from Canada, reducing visibilities with widespread smoke mixed to the surface. See Figure 55. On September 15, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, Burleigh, and Cass Counties.

Figure 55. September 15, 2023 Surface Analysis and Smoke Layer



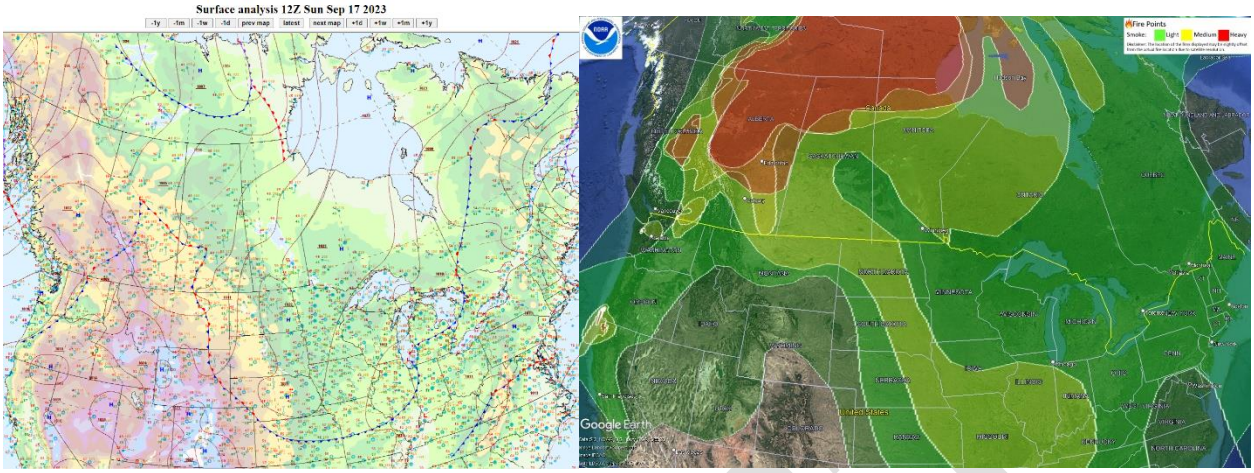
Smoke lingered through the night with northerly flow in place over our region. On September 16, a broad upper-level trough continued to swing eastward, thus opening the door for an upper-level ridge to move in from the Northern Rockies. Near surface smoke continued to linger across North Dakota as surface high pressure slowly moved over the region. See Figure 56. On September 16, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, Burleigh, and Cass Counties.

Figure 56. September 16, 2023 Surface Analysis and Smoke Layer



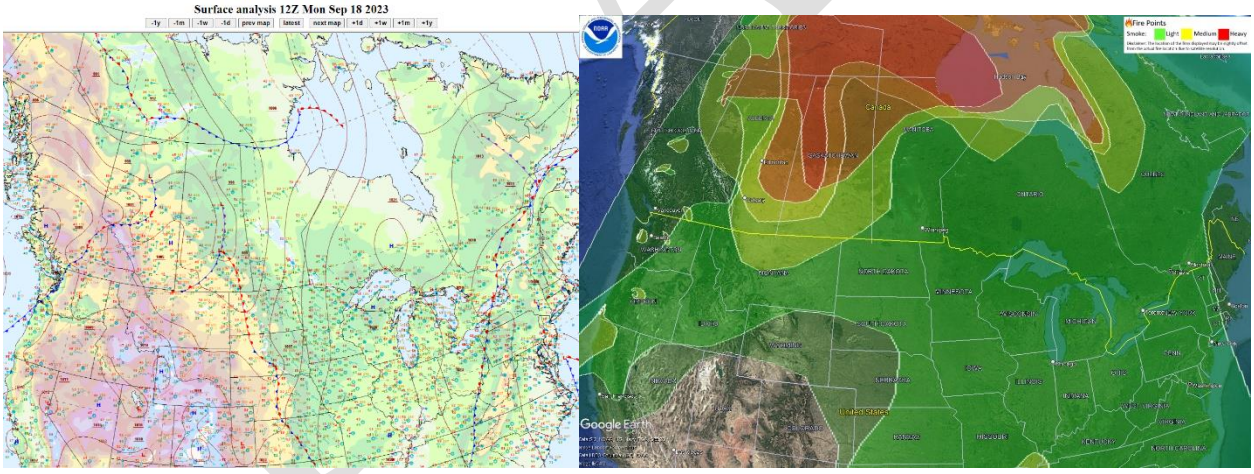
Patchy smoke lingered in some western portions of North Dakota as surface high pressure settled over the eastern half of North Dakota and slowly pushed off into western Minnesota as surface low pressure moved into northern Montana. This resulted in a north south pressure gradient across North Dakota on September 17. In the afternoon, a low amplitude ridge axis was located over western North Dakota that gradually flattened as it nudged east ahead of a weak shortwave. See Figure 57. On September 17, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Dunn County.

Figure 57. September 17, 2023 Surface Analysis and Smoke Layer



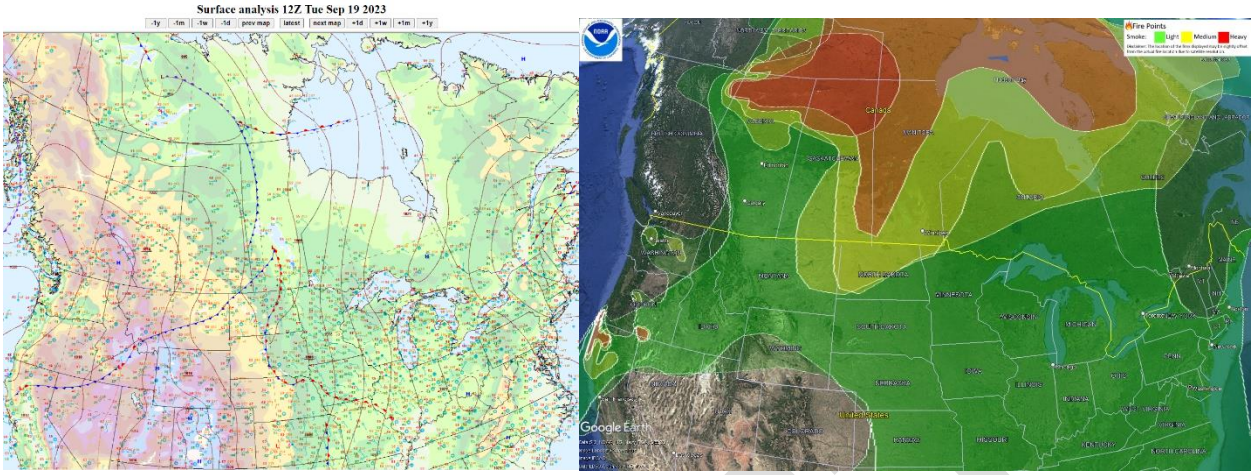
On September 18, surface low pressure was situated over southern Saskatchewan with a warm front extending south through western North Dakota that slowly moved east. Southerly surface flow was situated over the area ahead of the warm front as the upper wave associated with the surface low and warm front flattened the upper ridge over North Dakota. In the afternoon, the weak shortwave transitioned most of western and central North Dakota into near zonal flow aloft in between two amplitude ridges. See Figure 58. On September 18, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh County.

Figure 58. September 18, 2023 Surface Analysis and Smoke Layer



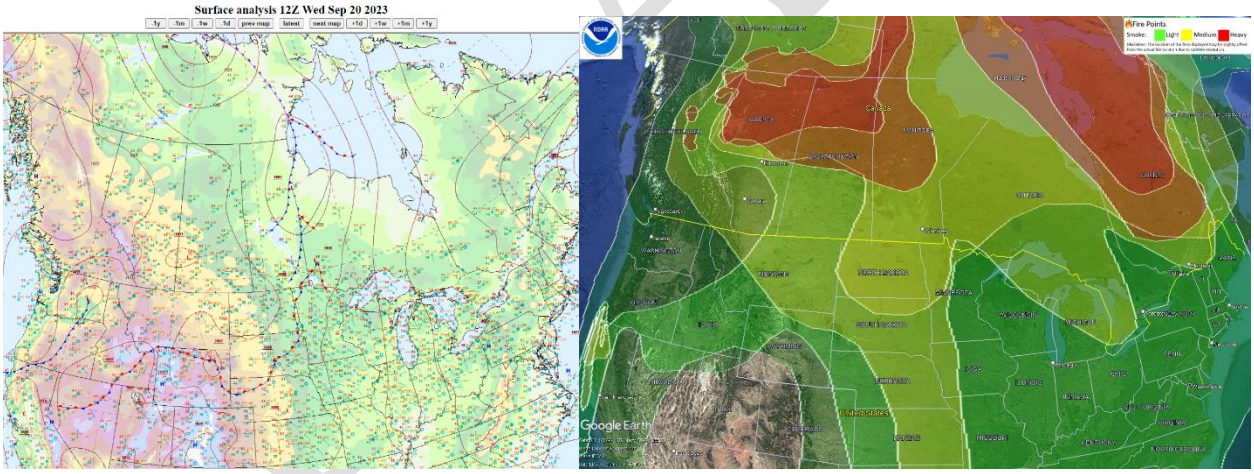
Overnight smoke moved into the northwest and continued to push across North Dakota on September 19. A weak, dry cold front crossed North Dakota from west to east bringing a wind shift and drier air into the region. Behind the front, winds shifted to the northwest and picked up as an increased surface pressure gradient moved through western North Dakota in the afternoon. A surface low passing north of the international border helped bring in smoke from Canada and the return of near surface smoke. Smoke continued moving from the northwest filtering across North Dakota later in the evening and overnight. See Figure 59. On September 19, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Ward Counties.

Figure 59. September 19, 2023 Surface Analysis and Smoke Layer



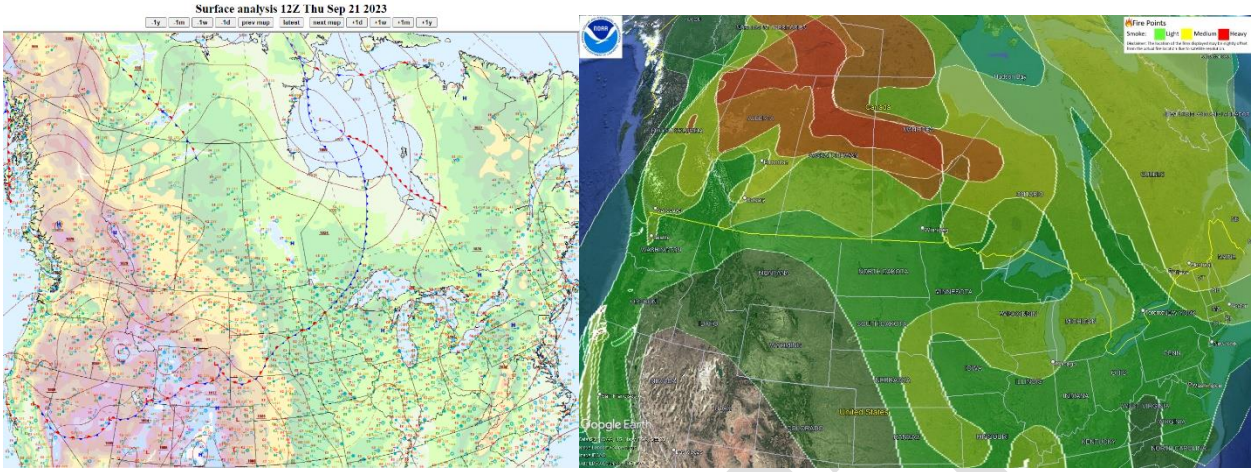
Overnight flow aloft transitioned to southwesterly as a large area of upper-level low pressure developed into the Pacific Northwest. Smoke lingered across the southern half of North Dakota September 20 and cleared as a disturbance moved across the region in the afternoon. A short-wave trough progressed from eastern Montana into western North Dakota early in the morning before weakening due to surface high pressure settling over southeast Saskatchewan. See Figure 60. On September 20, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Ward, Dunn, Mercer, Oliver, Burleigh, and Cass Counties.

Figure 60. September 20, 2023 Surface Analysis and Smoke Layer



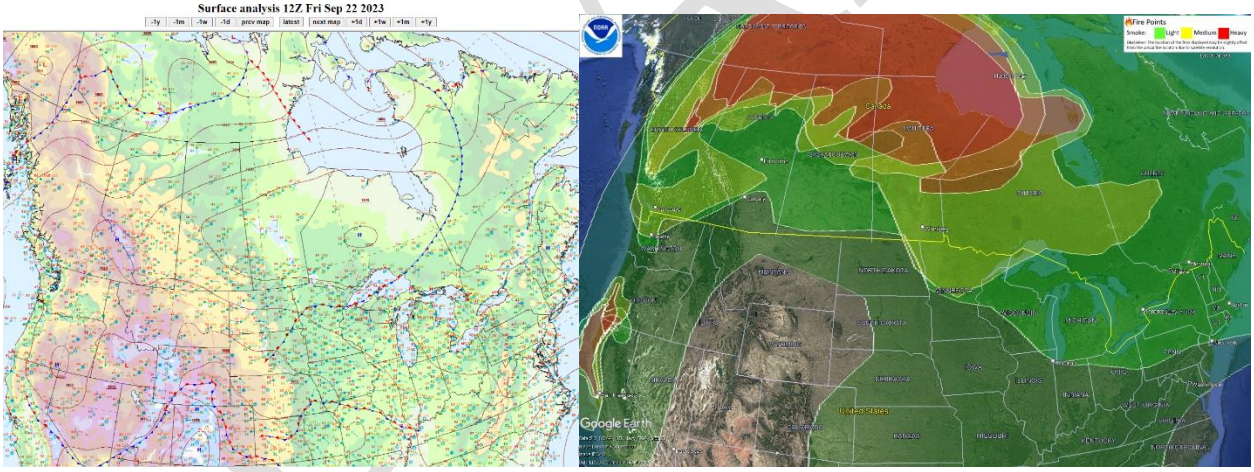
With the boundary lingering over the area and the decrease in mixing overnight, patchy smoke lingered across parts of the south into September 21. Early September 21, surface analysis placed the trough/boundary stretching from central South Dakota into north central Minnesota. Upper-level analysis placed a deep low near the Oregon/Idaho border, while split flow was noted over the Midwest. North Dakota remained under the influence of the northern stream with embedded waves moving through in weak southwesterly flow aloft. See Figure 61. On September 21, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh County.

Figure 61. September 21, 2023 Surface Analysis and Smoke Layer



The early morning surface analysis on September 22 placed a broad high over Ontario into southern Manitoba. Upper-level analysis placed a deep low near the Oregon/Idaho/Nevada border, with southwest flow over North Dakota. In addition, the upper low slowly made gradual eastward progression over the Rockies, with multiple short waves ejecting from the low continuing to pass over. See Figure 62. On September 22, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Ward Counties.

Figure 62. September 22, 2023 Surface Analysis and Smoke Layer



SECTION IV. CLEAR CAUSAL RELATIONSHIP

> **This section satisfies the following federal requirements:**
> The event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance(s) or violation(s).
> 40 CFR § 50.14(c)(3)(iv)(B)
>
> Analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site(s) at other times.
> 40 CFR § 50.14(c)(3)(iv)(c)

The EER requires that a clear causal relationship exists between the measured exceedances and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location. The analysis provided in this section is consistent with the clear causal relationship examples provided in the EER.

For $PM_{2.5}$ Event concentrations, this demonstration follows the process described in the U.S. EPA $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document[22]. It states:

> This document outlines a tiered approach for addressing the clear causal relationship element within a wildland fire $PM_{2.5}$ demonstration, recognizing that some causal relationships may be clearer and, therefore, require relatively fewer pieces of evidence to satisfy the rule requirements.

Tier 1 clear causal analyses are intended for wildland fire events with distinct high levels of monitored 24-hour $PM_{2.5}$ concentrations, when compared to historical 24-hour concentrations, that are substantially higher than non-event concentrations, thus requiring fewer pieces of evidence to establish a clear causal relationship. This demonstration is a Tier 1 clear causal analyses and includes clear evidence that the 2023 Canadian wildfire smoke was transported to the locations of the nine monitor sites in North Dakota.

In addition, this demonstration presents PM_{10} Event concentrations in the context of historical concentration fluctuations at each monitoring site and includes clear evidence that the 2023 Canadian wildfire smoke was transported to the location of the monitor sites in North Dakota.

North Dakota has an area of approximately 68,994 square miles (44.16 million acres). Of this total, 26.5 million acres is cropland, 10.98 million acres is pasture/rangeland, and 236,000 acres is woodland/forest with the five State forests comprising 13,300 acres. NDDEQ's Air Pollution Control Rules (North Dakota Administrative Code Chapter 33.1-15-04) govern prescribed burning on forest or rangelands for the management of the land and wildlife. In 2023, there was only a total of 19,033 acres of prescribed burning from 76 burns with an average of 250 acres/burn and

[22] U.S. EPA, $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document, April 2024, available at https://www.epa.gov/system/files/documents/2024-04/final-pm-fire-tiering-4-30-24.pdf

1.94 tons/acre fuel loading. The majority of prescribed burns are short in duration and accomplished in one burn day.

During the Event timeframe of mid-May through mid-September there was limited prescribed burning in North Dakota, as provided below.

- May 16-31: 9,472 total acres, 22 burns, 3 to 3,120 acres/burn, 1.9 tons/acre average fuel loading
- June: 2,125 total acres, 8 burns, 6 to 500 acres/burn, 2.2 tons/acre average fuel loading
- September: 241 total acres, 4 burns, 1 to 125 acres/burn, 4 tons/acre average fuel loading

Regulated prescribed burns during this Event did not impact the concentrations sufficiently to change the Causal Relationship.

IV.1 $PM_{2.5}$ Tiering Tool for Exceptional Event Analysis

Historically, the Division has not applied data qualifiers to the ambient monitoring data in AQS for instances of wildfire smoke impacts at the monitoring sites. As a result, the U.S. EPA $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document default methodology tiering thresholds for North Dakota are conservative. The U.S. EPA Exceptional Events Analysis and Visualization Tools, $PM_{2.5}$ Tiering Tool[23], was utilized by the Division for the tier threshold calculations to determine the site-level tiering thresholds at all nine monitoring sites for the months of May, June, July, August, and September. See Appendix D for $PM_{2.5}$ Tiering Tool Analyses.

The Division summarized and evaluated the site-level tiering thresholds at all nine monitoring sites and identified the maximum $PM_{2.5}$ Tier 1 threshold is 20.1 $\mu g/m^3$ at the Bismarck site. To ensure equity statewide, the Division held the Tier 1 threshold constant at 20.1 $\mu g/m^3$ for the Tier 1 clear causal analyses at all nine monitoring sites, ensuring additional conservatism. North Dakota's equitable methodology identified distinct high levels of monitored 24-hour $PM_{2.5}$ Event concentrations that are markedly higher than non-event concentrations on 55 dates at nine $PM_{2.5}$ monitors for a total of 239 $PM_{2.5}$ monitor Event days (See Table 1).

IV.2 PM_{10} Historic Fluctuations for Exceptional Event Analysis

This demonstration presents PM_{10} Event concentrations in the context of historical concentration fluctuations at each monitoring site. The U.S. EPA Exceptional Events Analysis and Visualization Tools and EPA AirData tools were used to analyze the PM_{10} Event impacts on May 17, 2023. Analyses for each site include:

- A single-year tile plot of daily AQI values[24] for 2023.
- A five-year tile plot of daily AQI values[25] for 2019-2023, which depicts the seasonal variation.

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[23] U.S. EPA, $PM_{2.5}$ Tiering Tool – for Exceptional Events Analysis, accessed October 28, 2024, available at https://www.epa.gov/air-quality-analysis/pm25-tiering-tool-exceptional-events-analysis

[24] U.S. EPA, Single-Year Tile Plot – for Exceptional Events Analysis, accessed November 19, 2024, available at https://www.epa.gov/air-quality-analysis/single-year-tile-plot-exceptional-events-analysis

[25] U.S. EPA, Multi-Year Tile Plot – for Exceptional Events Analysis, accessed November 27, 2024, available at https://www.epa.gov/air-quality-analysis/multiyear-tile-plot-exceptional-events-analysis

- A five-year plot of 24-hour average concentrations[26] for 2019-2023.
- The annual percentile ranking and five-year percentile ranking of each PM_{10} Event concentration.

See Appendix E for PM_{10} Historic Fluctuations for Exceptional Event Analyses.

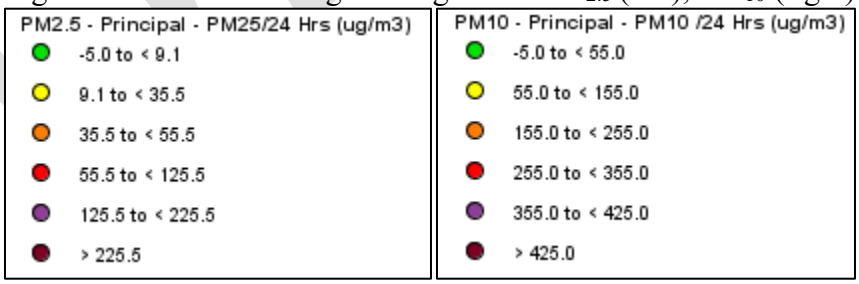
North Dakota's methodology identified distinct high levels of monitored 24-hour PM_{10} Event concentrations that are noticeably higher than non-event concentrations on one date (May 17, 2023) at three PM_{10} monitors for a total of three PM_{10} monitor Event days (See Table 1). In fact, the 24-hour PM_{10} Event concentrations were the highest concentrations recorded at each site in the past five years.

IV.3 Canadian Wildfire Smoke Impacts Particulate Matter Monitors

While the 2023 Canadian wildfire smoke impacts were regional in nature and observable throughout the state from mid-May through late September, it did not cause all monitors to continuously exceed the level of the PM NAAQS throughout the duration of the Event. This demonstration includes clear evidence that the 2023 Canadian wildfire smoke was transported on 55 dates to North Dakota, specifically the locations of the nine $PM_{2.5}$ monitor sites, inclusive of the three PM_{10} monitor sites.

For each Event date, the AirNow Navigator Data Fusion Tool with the Hazard Mapping System (HMS) Smoke[27] satellite overlay depicts the smoke plume as well as either the 24-hour $PM_{2.5}$ or 24-hour PM_{10} average monitored concentrations. The legend for the images shows the monitor colors representing the monitored concentration ranges. Note that the Bismarck $PM_{2.5}$ monitor location is not depicted on the images. The NDDEQ speculates this to be associated with the deletion of AQS primary monitor assignments[28] by EPA during EPA's implementation of the T640/T640X alignment algorithm in AQS.

Figure 63. AirNow Navigator Legends – $PM_{2.5}$ (left), PM_{10} (right)



[26] U.S. EPA, AirData - Concentration Plot, accessed December 9, 2024, available at https://www.epa.gov/outdoor-air-quality-data/air-data-concentration-plot

[27] U.S. EPA, AirNowTech Navigator, accessed November 19, 2024, available at https://www.airnowtech.org/

[28] See Appendix B - 2023 Annual Ambient Air Monitoring Data Certification.

The U.S. EPA Exceptional Events Analysis and Visualization Tools, Concentration Map[29], was utilized by the Division to map daily 24-hour $PM_{2.5}$ and daily 24-hour PM_{10} average monitored concentrations for each Event date. The legend for the images shows the monitor colors representing the Air Quality Index (AQI) categories and monitored concentration ranges.

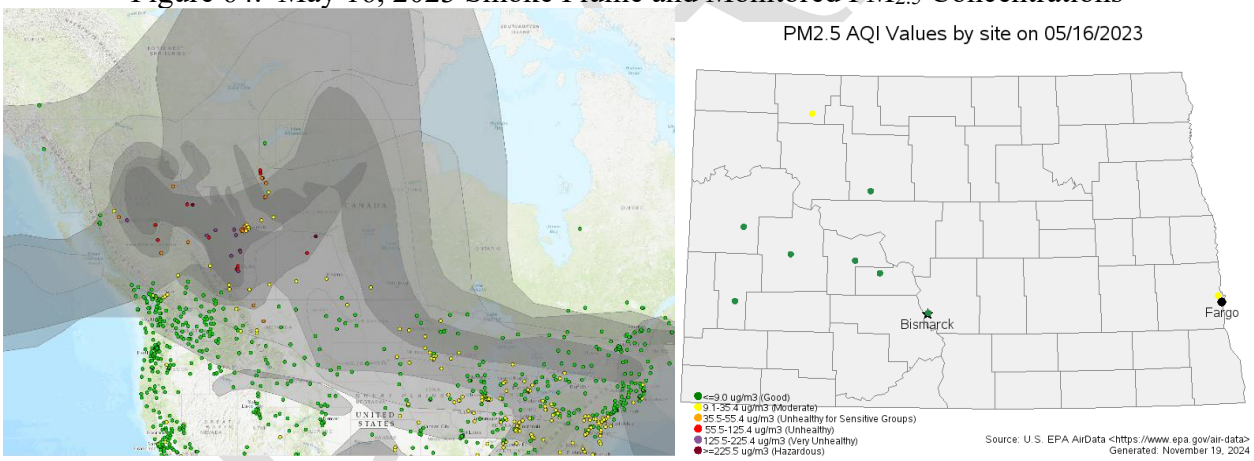
The progression of images for 55 Event dates in Figures 64 through 119 demonstrate that the 2023 Canadian wildfire smoke was transported to the locations of the nine monitor sites in North Dakota.

These levels of 24-hour $PM_{2.5}$ and 24-hour PM_{10} average monitored concentrations in North Dakota are very unusual. The images show the distinct high levels of monitored 24-hour $PM_{2.5}$ concentrations, meaning they were 1.5 times the highest 98th percentile of data for the last five years. The May 17, 2023 images shows the 24-hour PM_{10} concentrations, which were the highest concentrations in 2023 as well as in the past five years. This demonstrates that the monitored PM concentrations are unmistakably higher than non-event concentrations.

IV.3.1 May 2023

Canadian wildfire smoke impacts directly affecting air quality were observed in North Dakota from May 16 through May 27 and May 31. Distinct high levels of 24-hour PM concentrations were monitored on May 16-18 as well as May 20-23.

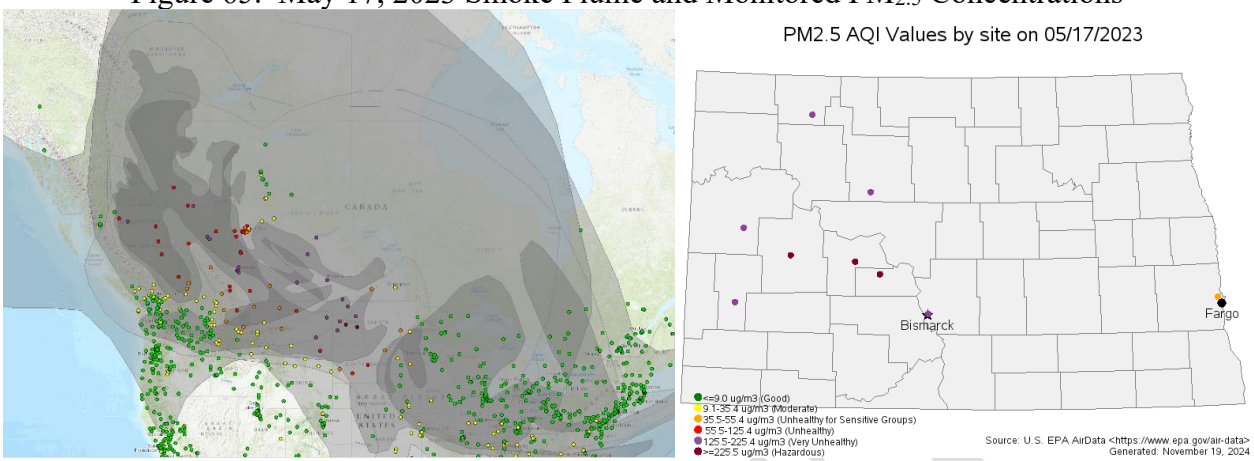
Figure 64. May 16, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On May 16, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

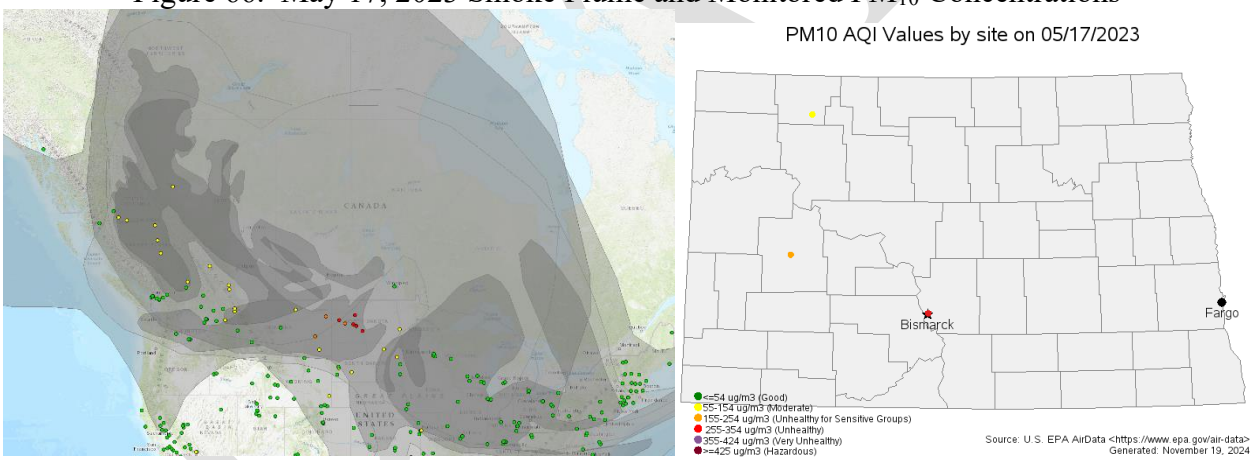
[29] U.S. EPA, Concentration Map – for Exceptional Events Analysis, accessed November 19, 2024, available at https://www.epa.gov/air-quality-analysis/concentration-map-exceptional-events-analysis

Figure 65. May 17, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



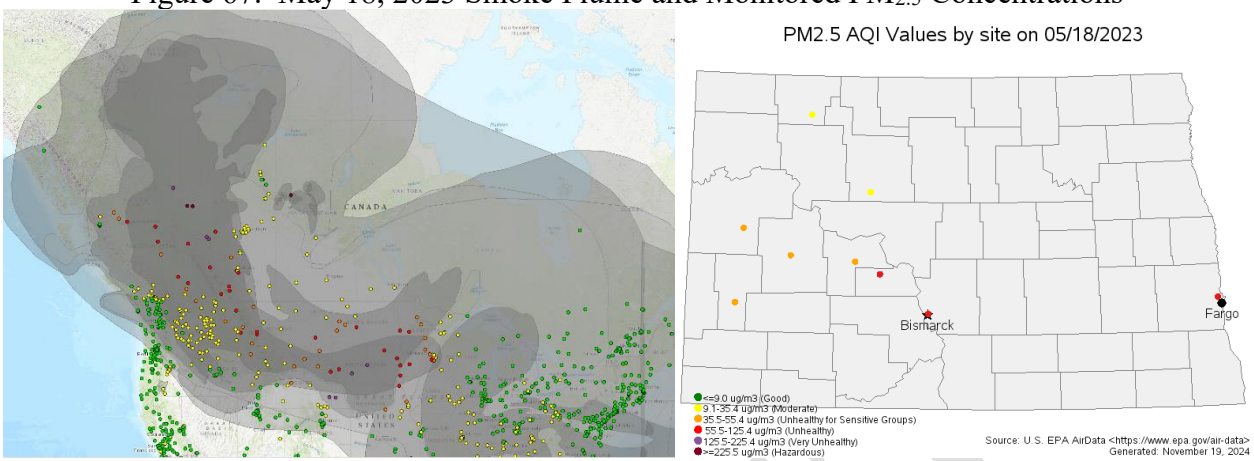
The smoke impacts on May 17 resulted in the poorest air quality ever monitored in North Dakota. On May 17, 24-hour PM concentrations at all sites were over the level of the 24-hour $PM_{2.5}$ NAAQS, new 2024 $PM_{2.5}$ Annual NAAQS, as well as the 24-hour PM_{10} NAAQS. The 24-hour $PM_{2.5}$ concentrations were the highest Event concentrations in 2023 for Billings, Burke, Burleigh, Dunn, McKenzie, Mercer, Oliver, and Ward Counties. Statewide $PM_{2.5}$ impacts ranged from Unhealthy for Sensitive Groups in Cass County to Very Unhealthy in Billings, Burke, Burleigh, McKenzie, Mercer, and Ward Counties to Hazardous in Dunn and Oliver Counties.

Figure 66. May 17, 2023 Smoke Plume and Monitored PM_{10} Concentrations



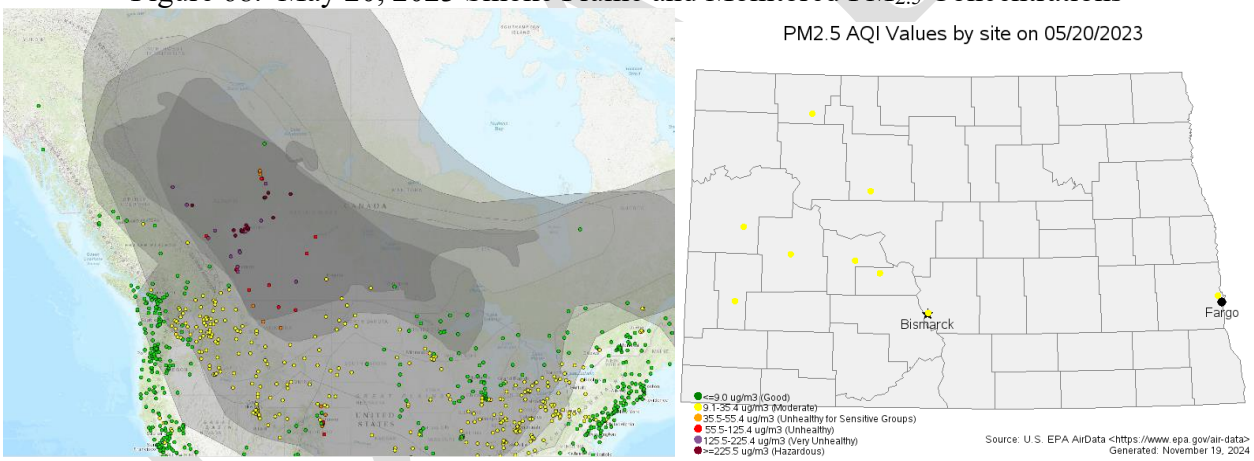
The 24-hour PM_{10} concentrations were the highest Event concentrations in 2023 for Burke, Burleigh, and Dunn Counties. Statewide PM_{10} impacts ranged from Moderate in Burke County to Unhealthy for Sensitive Groups in Dunn County, to Unhealthy in Burleigh County.

Figure 67. May 18, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



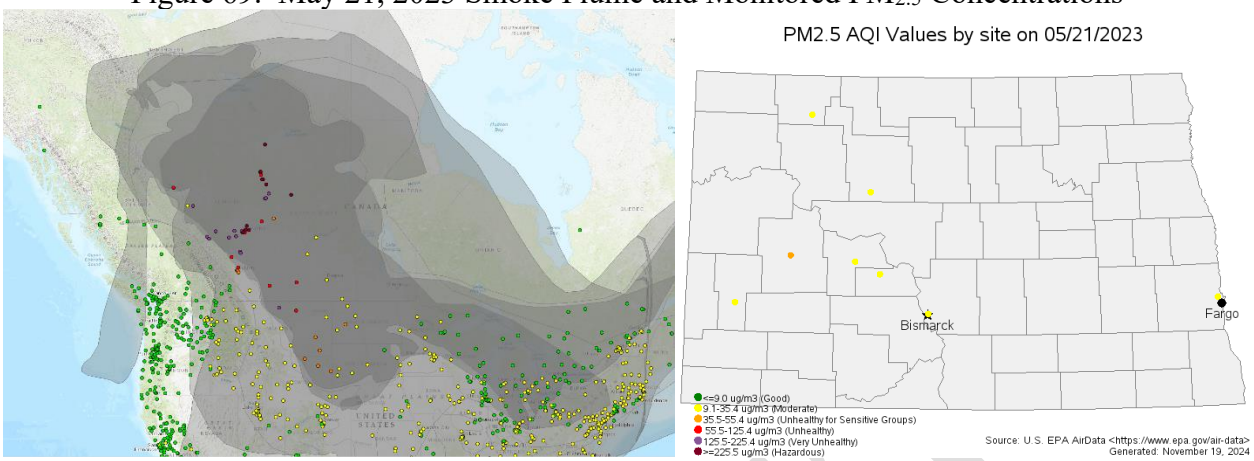
On May 18, 24-hour $PM_{2.5}$ concentrations at all sites were over the level of the 24-hour $PM_{2.5}$ NAAQS and new 2024 $PM_{2.5}$ Annual NAAQS. In addition, the May 18 24-hour $PM_{2.5}$ concentration was the highest Event concentrations in 2023 for Cass County. Statewide $PM_{2.5}$ impacts ranged from Moderate in Burke and Ward Counties to Unhealthy for Sensitive Groups in Billings, Dunn, McKenzie, and Mercer Counties to Unhealthy in Burleigh, Cass, and Oliver Counties.

Figure 68. May 20, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



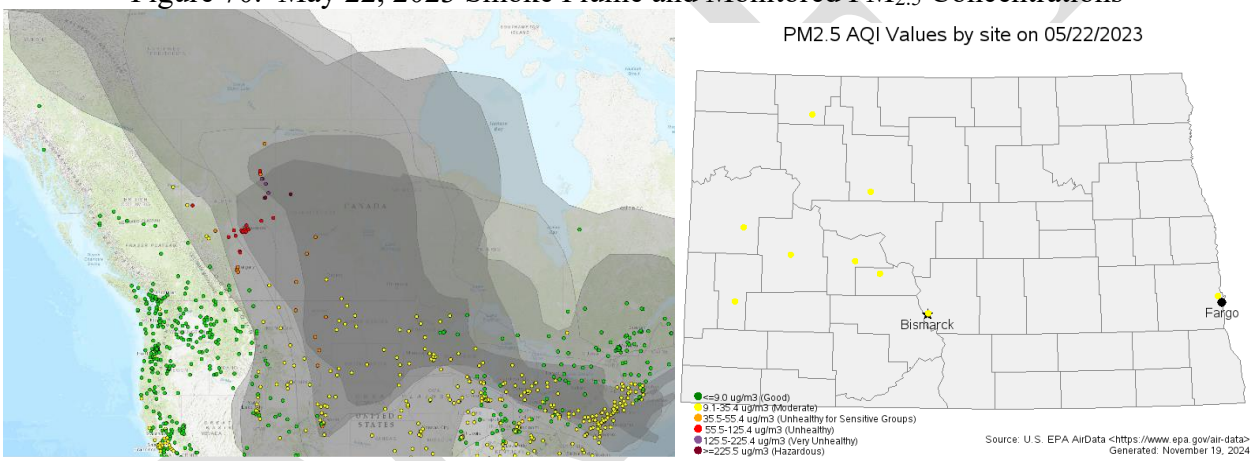
On May 20, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Dunn Counties.

Figure 69. May 21, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



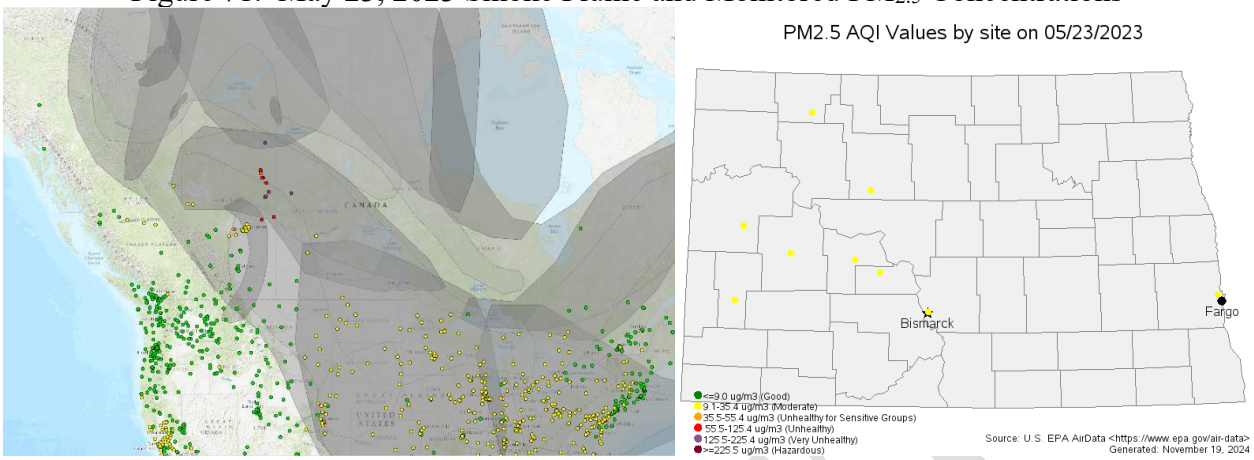
On May 21, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, Dunn, Mercer, Oliver, Billings, and Burleigh Counties.

Figure 70. May 22, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On May 22, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Billings Counties.

Figure 71. May 23, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations

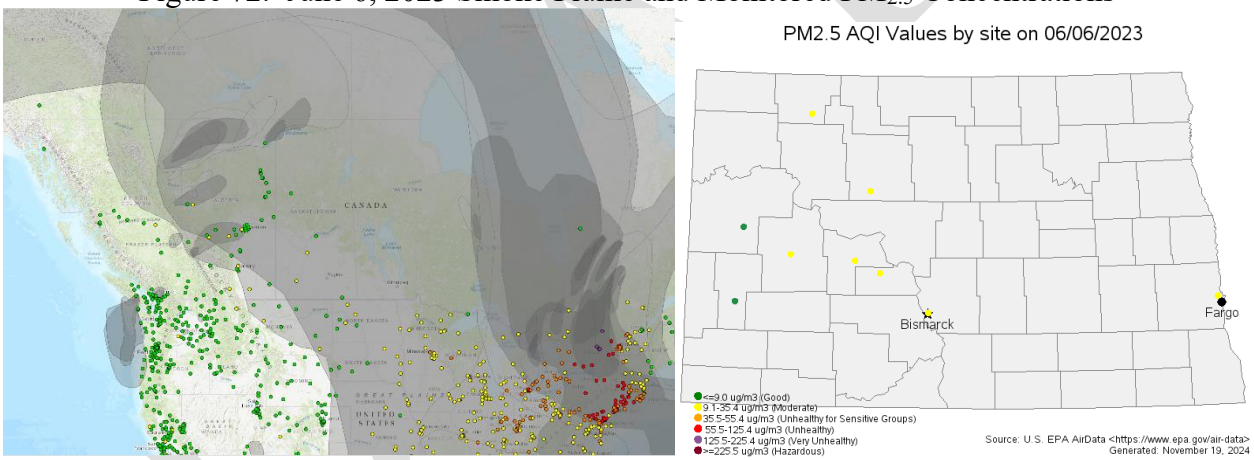


On May 23, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels.

IV.3.2 June 2023

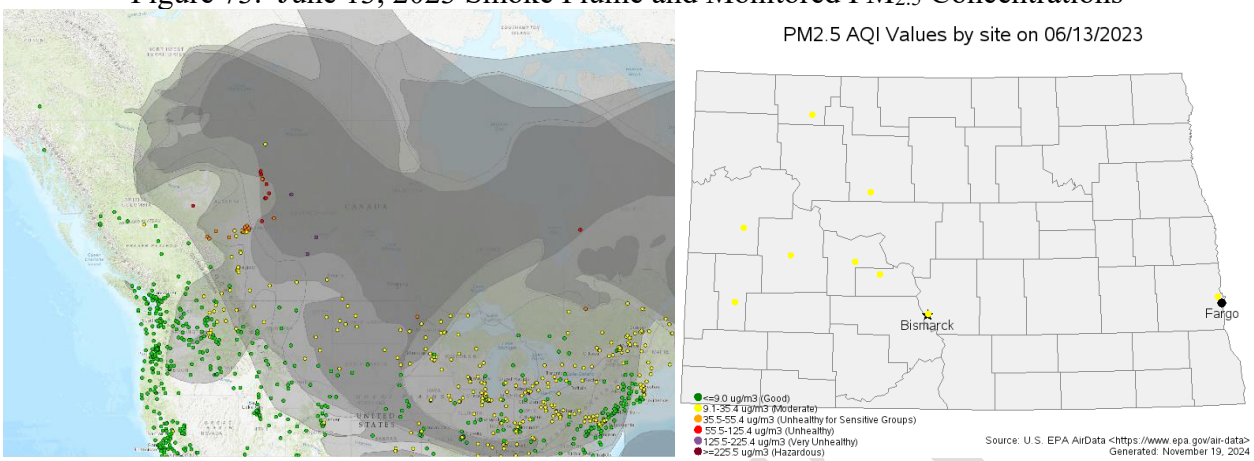
Canadian wildfire smoke impacts directly affecting air quality were observed in North Dakota from June 3 through June 21 and June 24 through July 1. Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on June 6, June 13-18, June 27 as well as June 29-July 1.

Figure 72. June 6, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



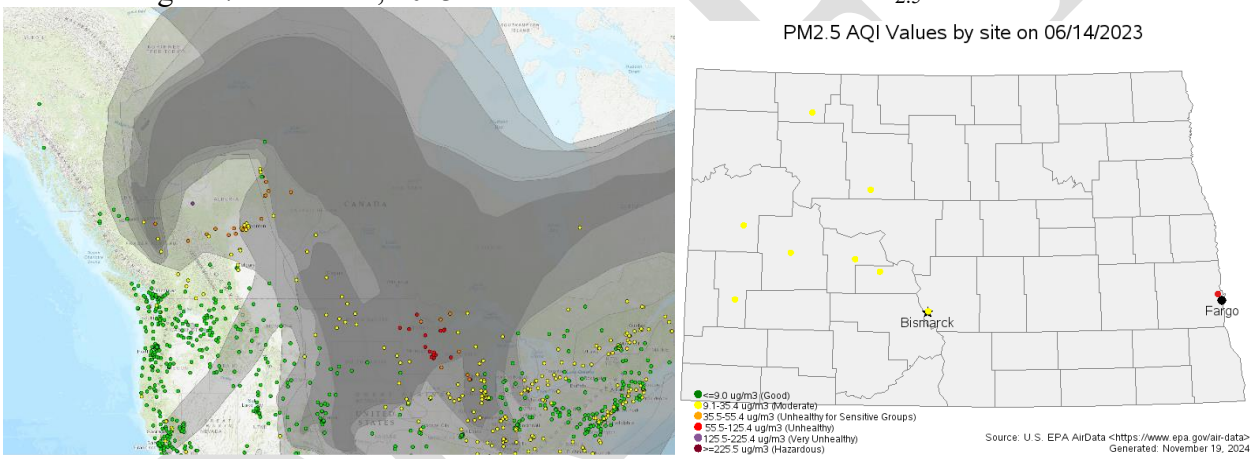
On June 6, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 73. June 13, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



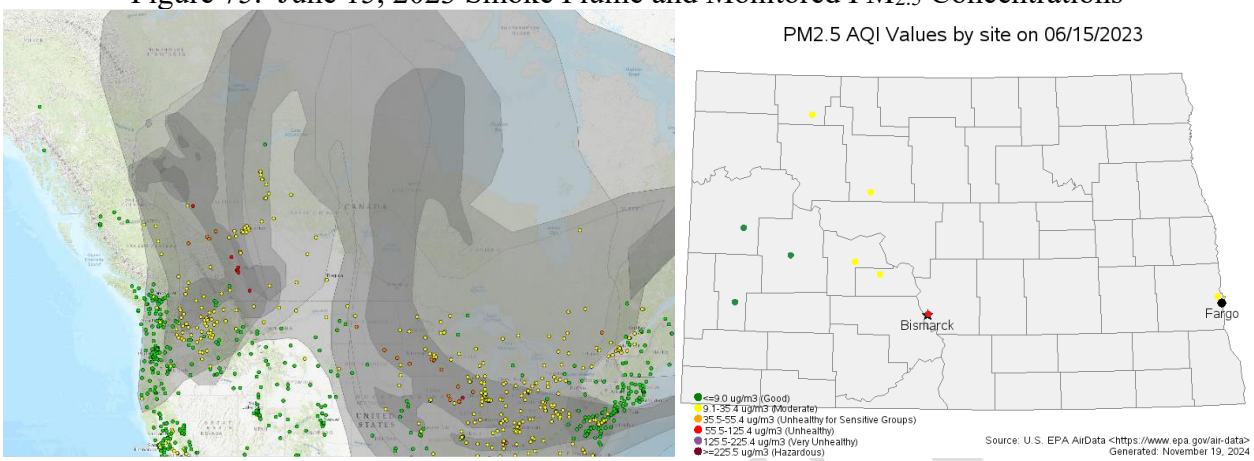
On June 13, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, and Dunn Counties.

Figure 74. June 14, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



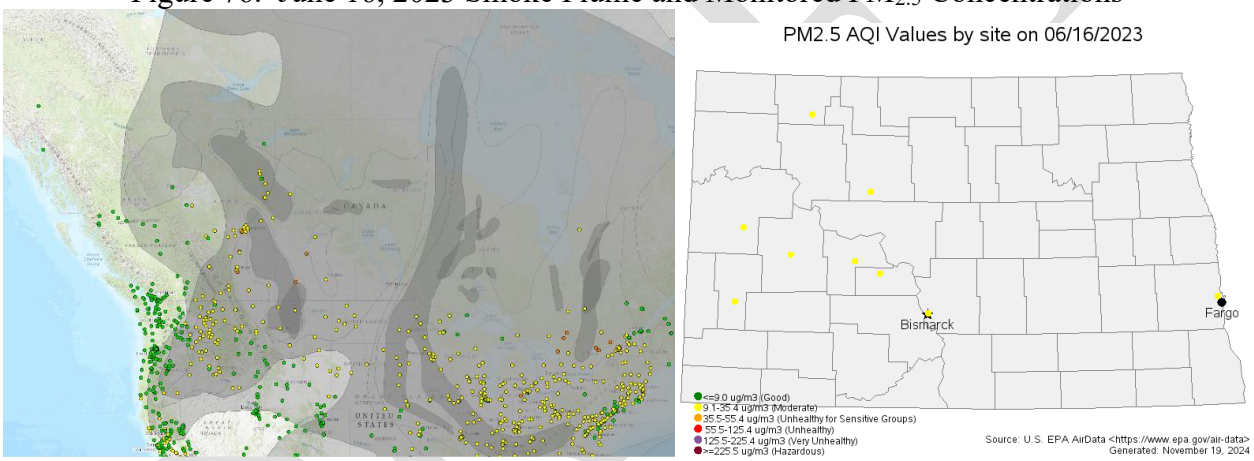
On June 14, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Burleigh, and Cass Counties. In addition, the June 14, 24-hour $PM_{2.5}$ concentration was the second highest Event concentrations in 2023 for Cass County.

Figure 75. June 15, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



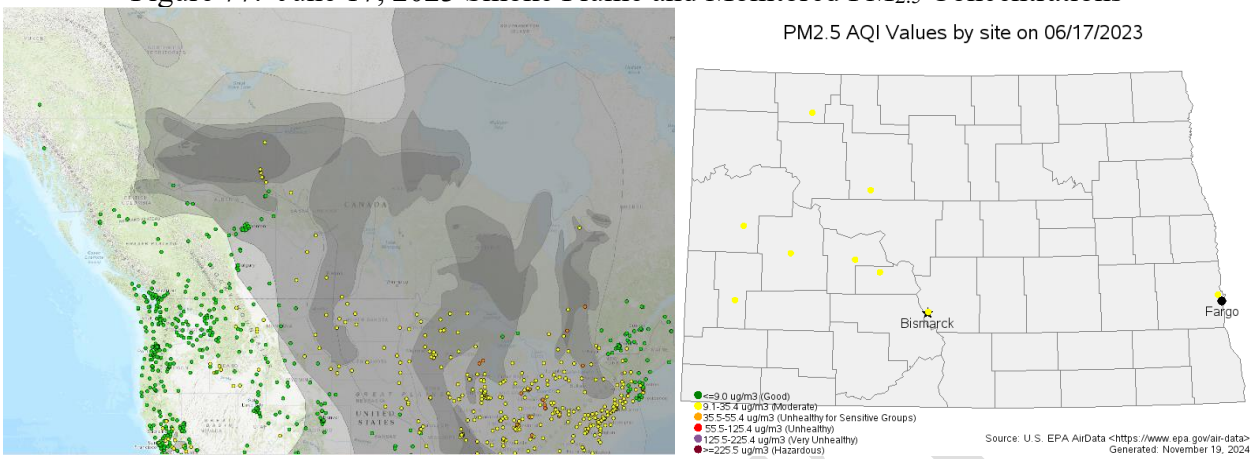
On June 15, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Ward, Oliver, Burleigh, and Cass Counties.

Figure 76. June 16, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



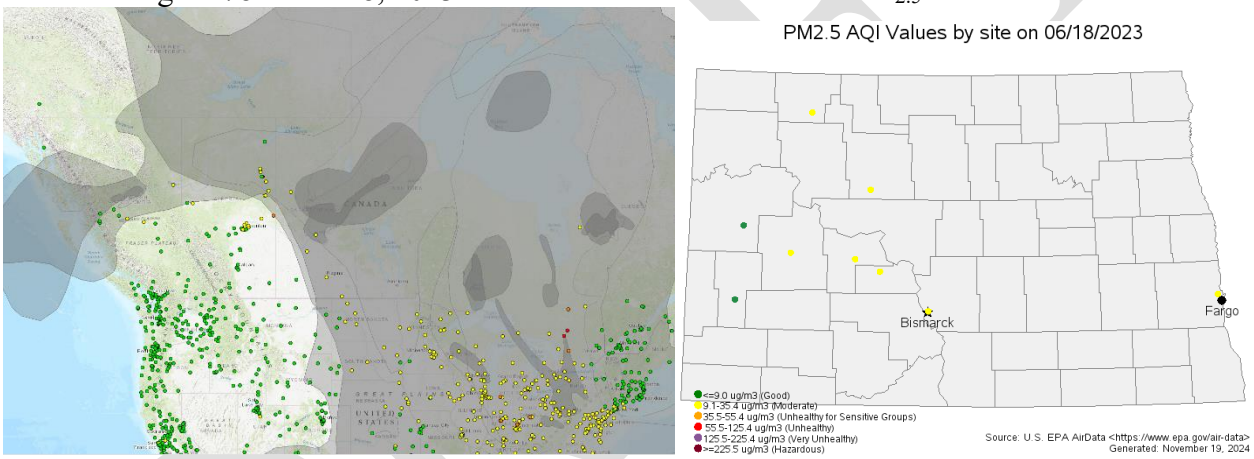
On June 16, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, Dunn, and Cass Counties.

Figure 77. June 17, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



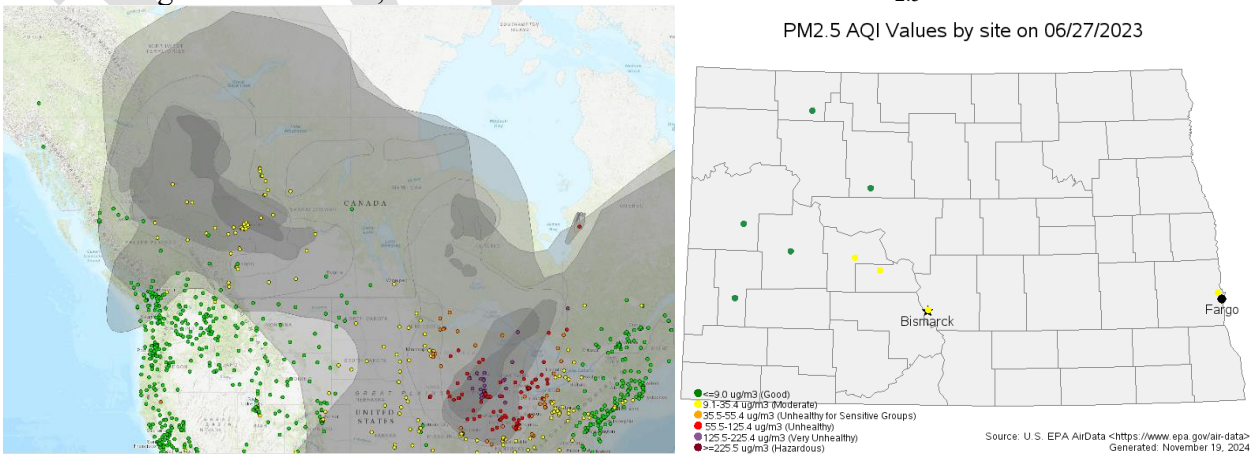
On June 17, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, Oliver, Burleigh, and Cass Counties.

Figure 78. June 18, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



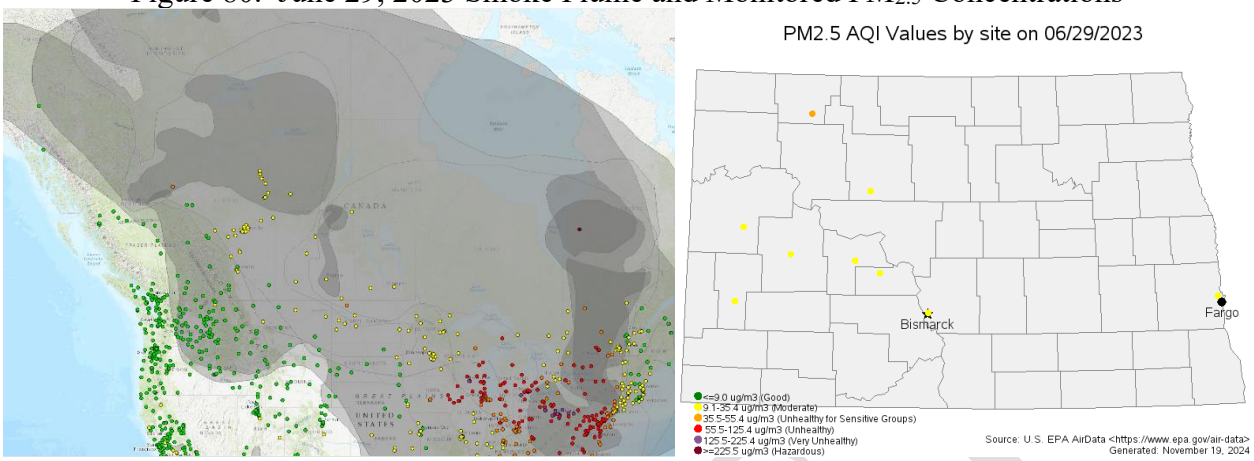
On June 18, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 79. June 27, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



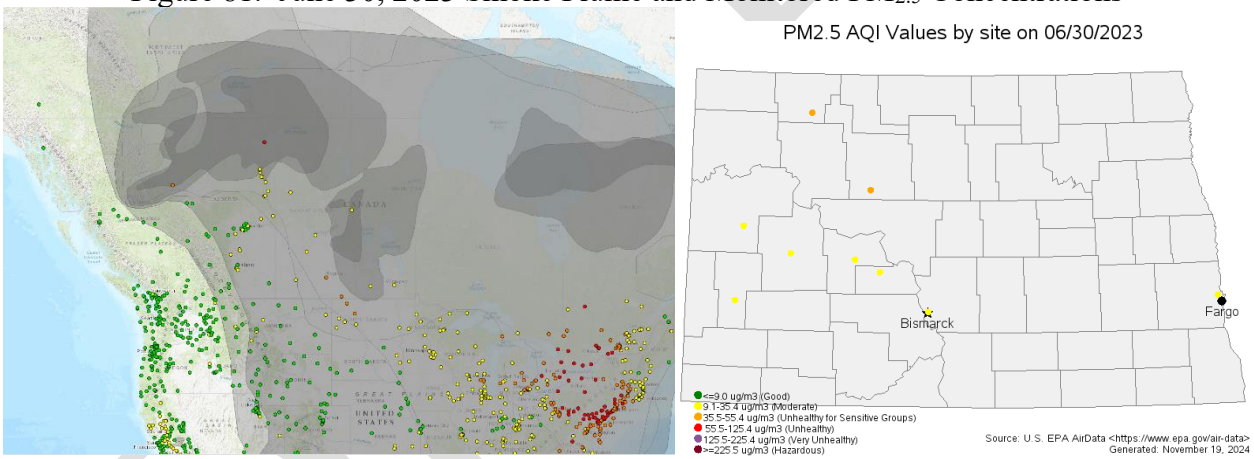
On June 27, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh and Cass Counties.

Figure 80. June 29, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



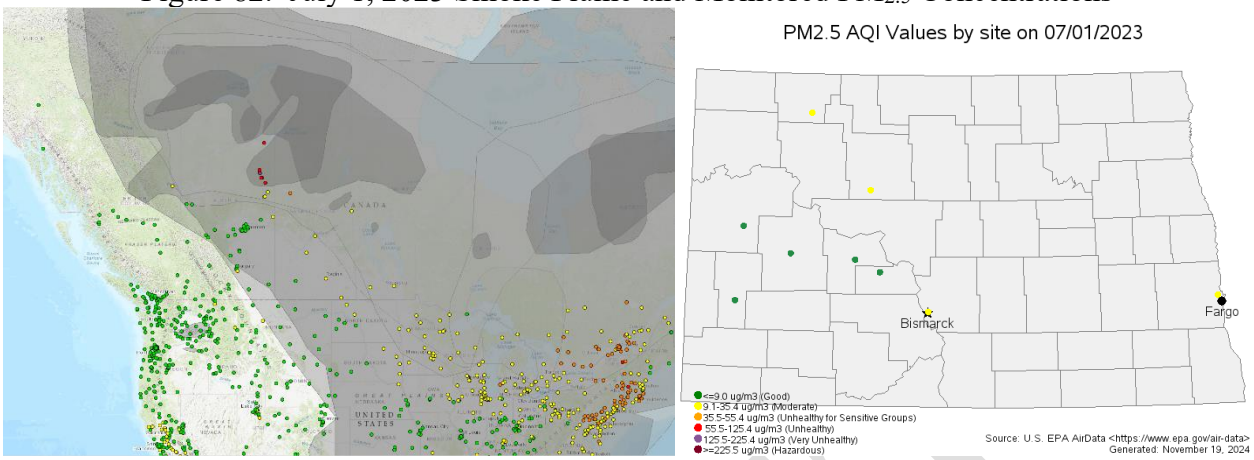
On June 29, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Ward Counties.

Figure 81. June 30, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On June 30, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Oliver, and Cass Counties.

Figure 82. July 1, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations

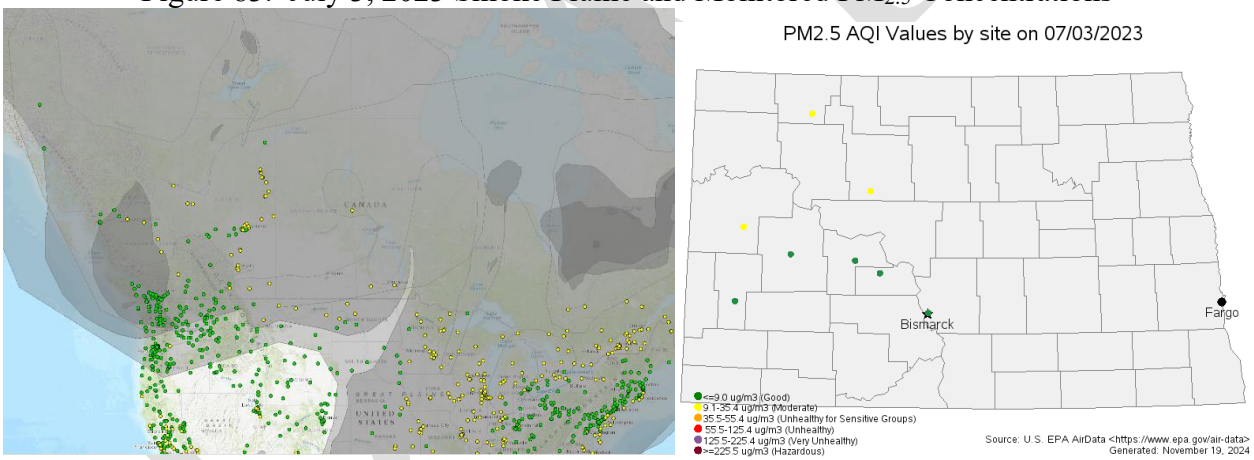


On July 1, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

IV.3.3 July 2023

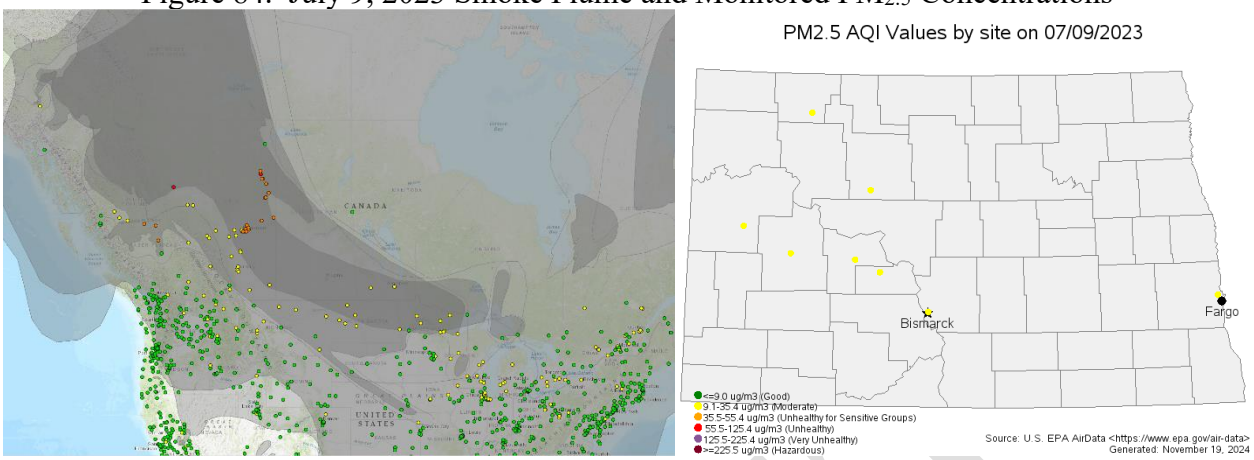
Canadian wildfire smoke impacts directly affecting air quality were observed in North Dakota on July 3, July 7 through July 10, and July 13 through July 26. Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on July 3, July 9, July 14-16, as well as July 21-24.

Figure 83. July 3, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



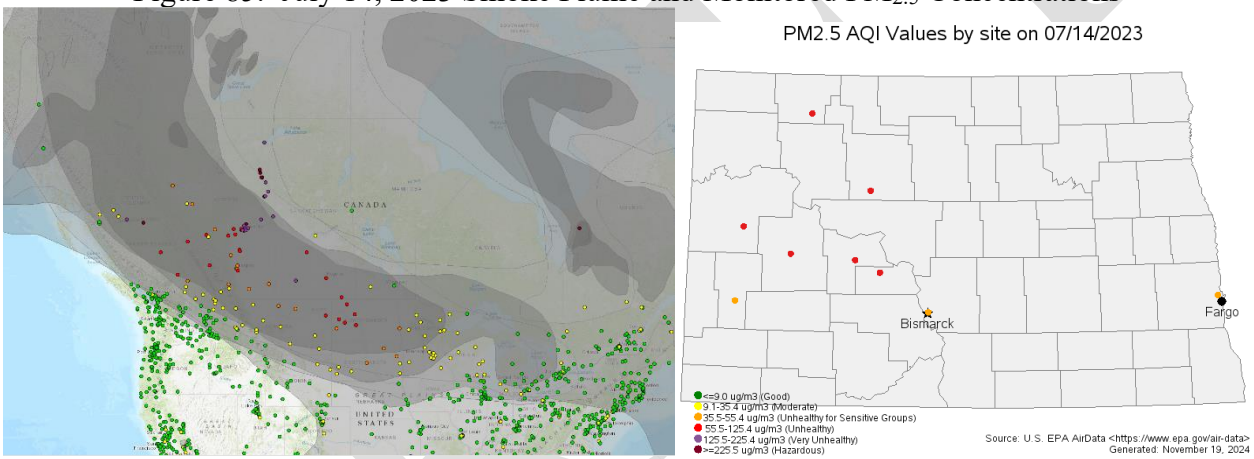
On July 3, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke County.

Figure 84. July 9, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



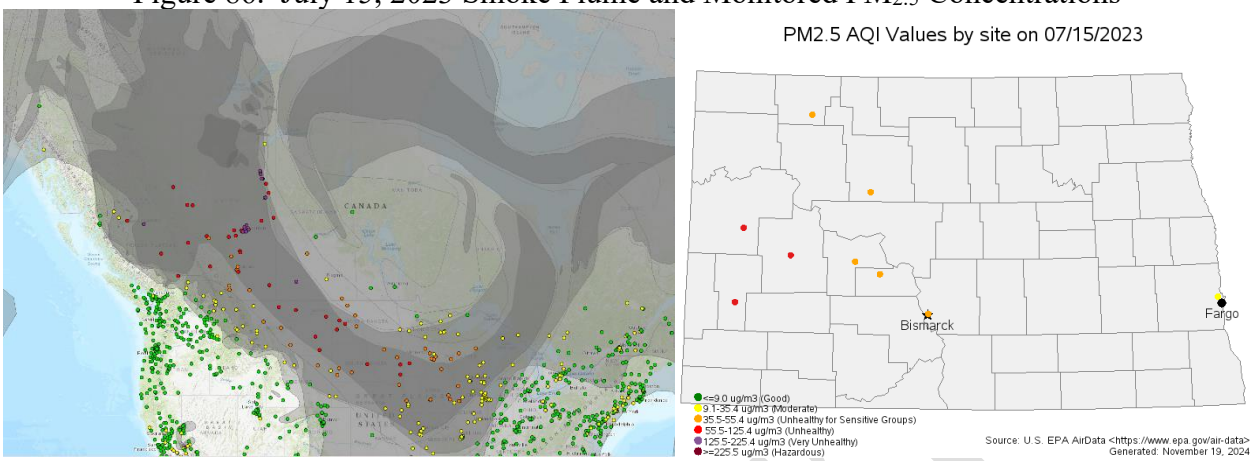
On July 9, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke County.

Figure 85. July 14, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



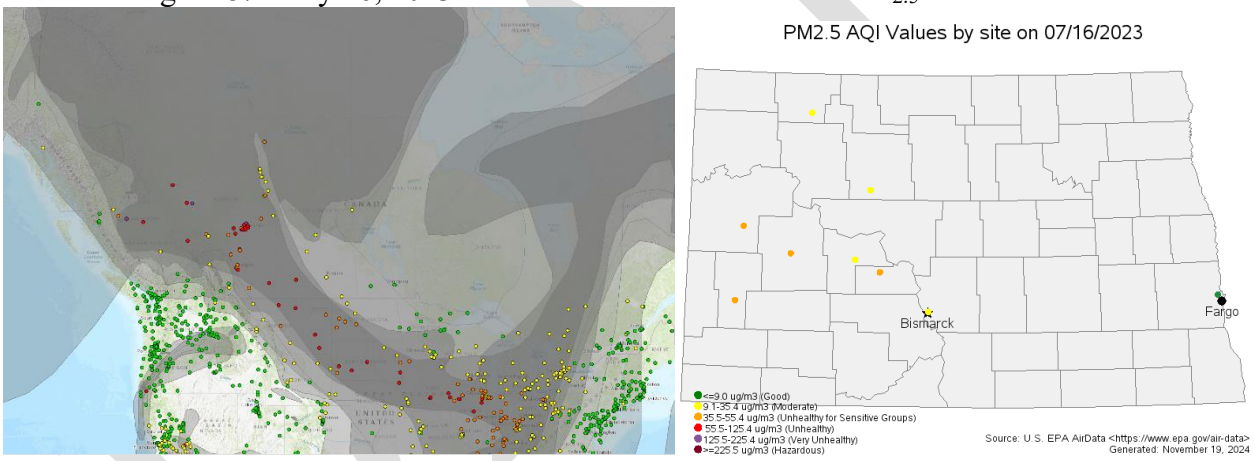
On July 14, 24-hour $PM_{2.5}$ concentrations at all sites were over the level of the 24-hour $PM_{2.5}$ NAAQS and new 2024 $PM_{2.5}$ Annual NAAQS. In addition, the July 14, 24-hour $PM_{2.5}$ concentrations were within the top 10 highest Event concentrations in 2023 for all sites. Statewide $PM_{2.5}$ impacts ranged from Unhealthy for Sensitive Groups in Billings, Burleigh, and Cass Counties to Unhealthy in Burke, Dunn, McKenzie, Mercer, Oliver, and Ward Counties.

Figure 86. July 15, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



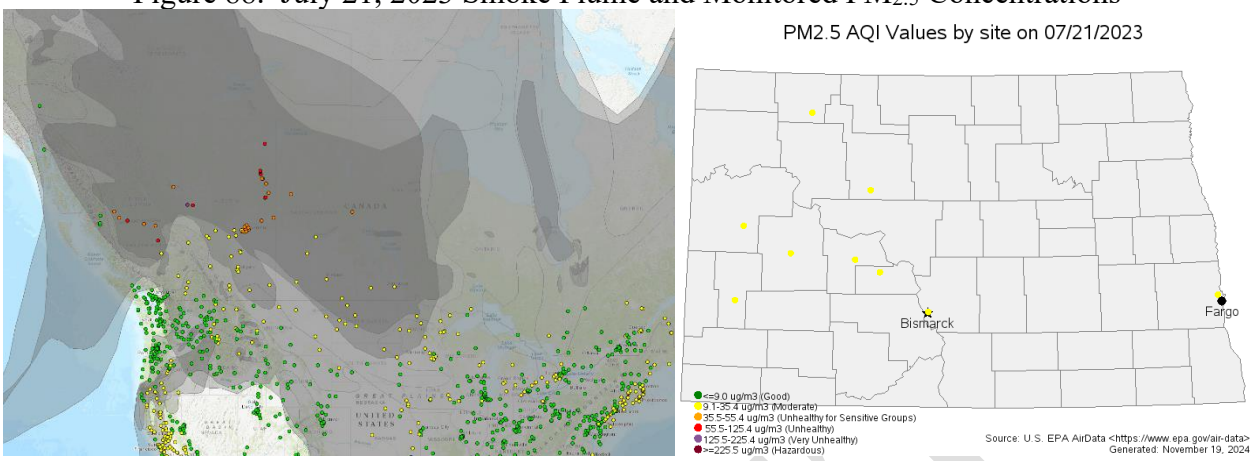
On July 15, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels. In addition, the July 15, 24-hour $PM_{2.5}$ concentration was the second highest Event concentrations in 2023 for McKenzie County. Statewide $PM_{2.5}$ impacts ranged from Moderate in Cass County to Unhealthy for Sensitive Groups in Burleigh, Burke, Mercer, Oliver, and Ward Counties to Unhealthy in Billings, Dunn, and McKenzie Counties.

Figure 87. July 16, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



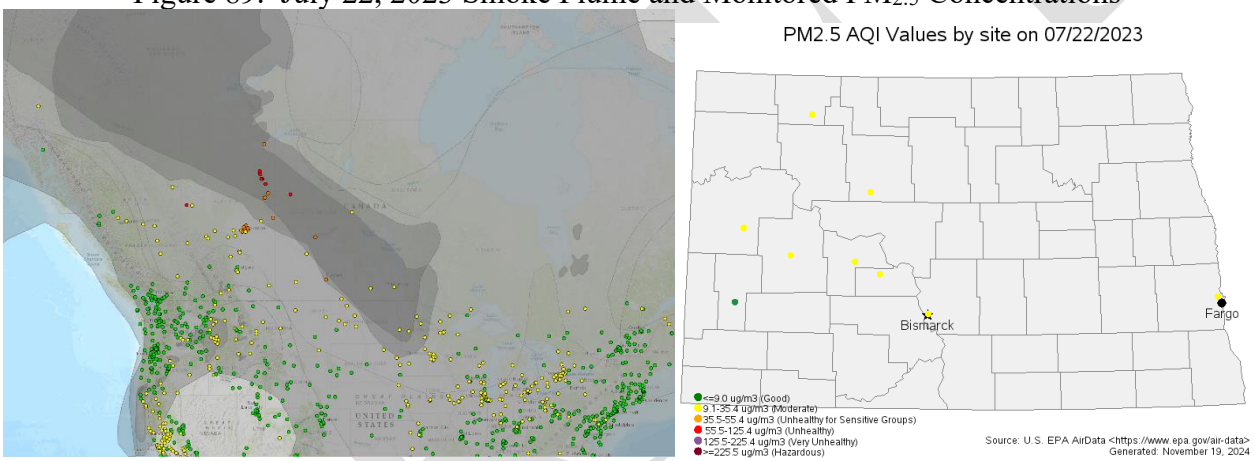
On July 16, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, Billings, and Burleigh Counties.

Figure 88. July 21, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



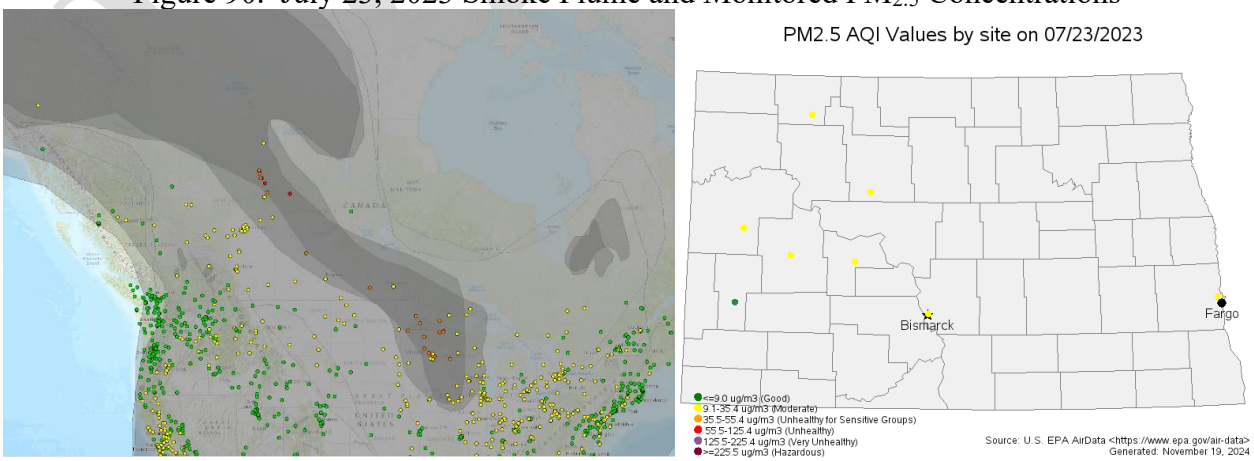
On July 21, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke County.

Figure 89. July 22, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



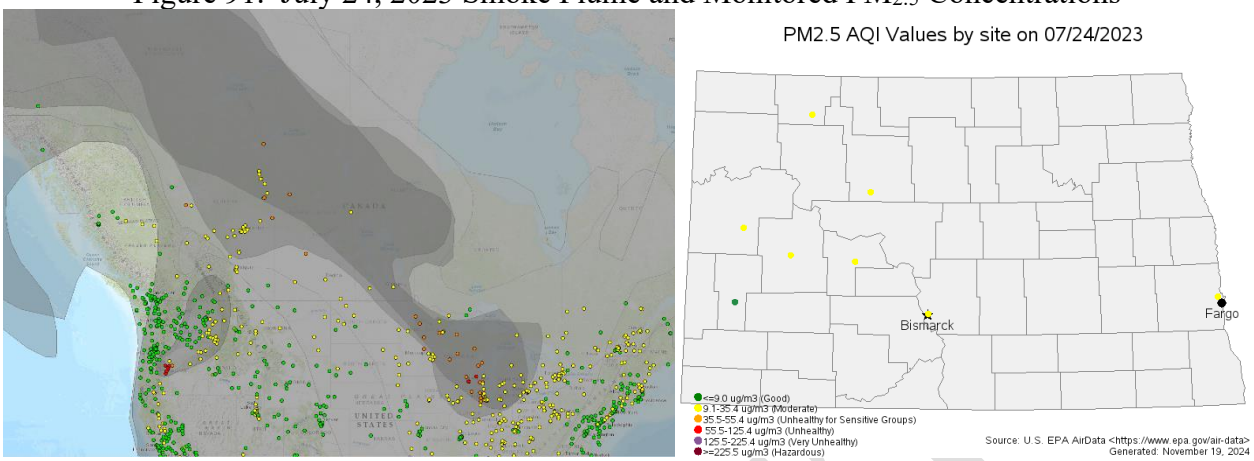
On July 22, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, Dunn, Oliver, and Burleigh Counties.

Figure 90. July 23, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On July 23, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 91. July 24, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations

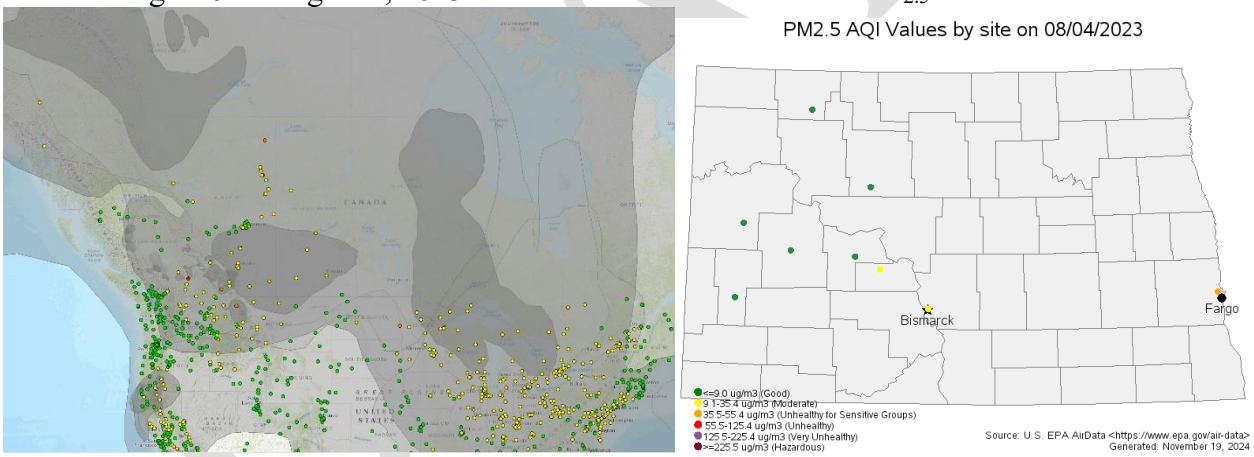


On July 24, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

IV.3.4 August 2023

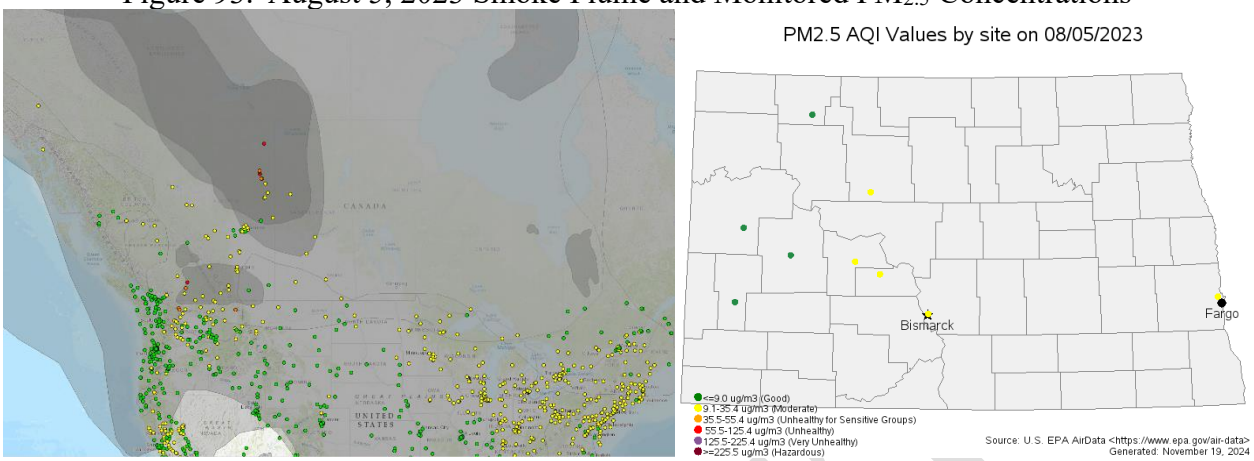
Canadian wildfire smoke impacts directly affecting air quality were observed in North Dakota on August 3 through August 9, August 17 through August 22, and August 25 through September 11. Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on August 4-8, August 17-19, as well as August 28-September 1.

Figure 92. August 4, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



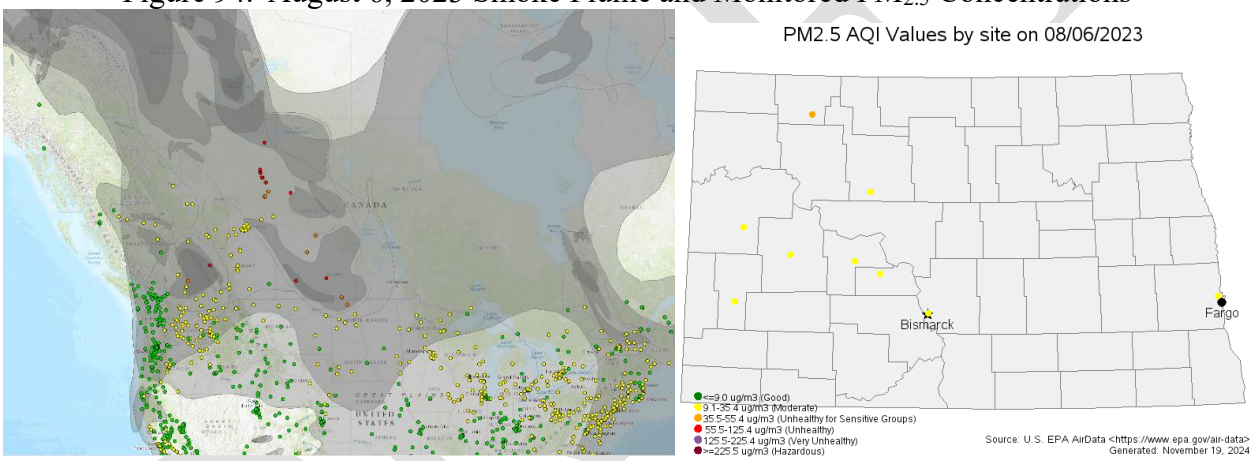
On August 4, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh and Cass Counties.

Figure 93. August 5, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



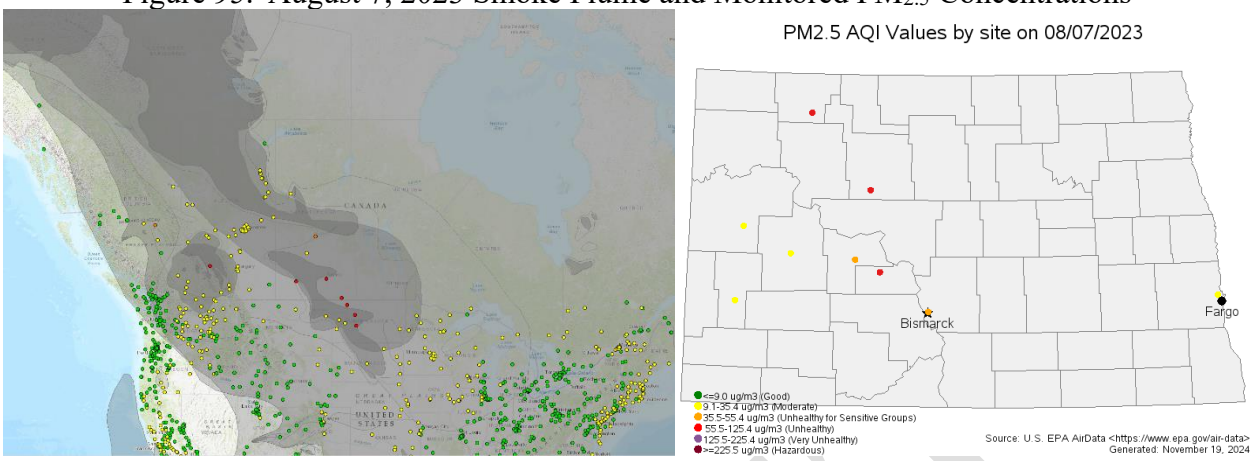
On August 5, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh and Cass Counties.

Figure 94. August 6, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



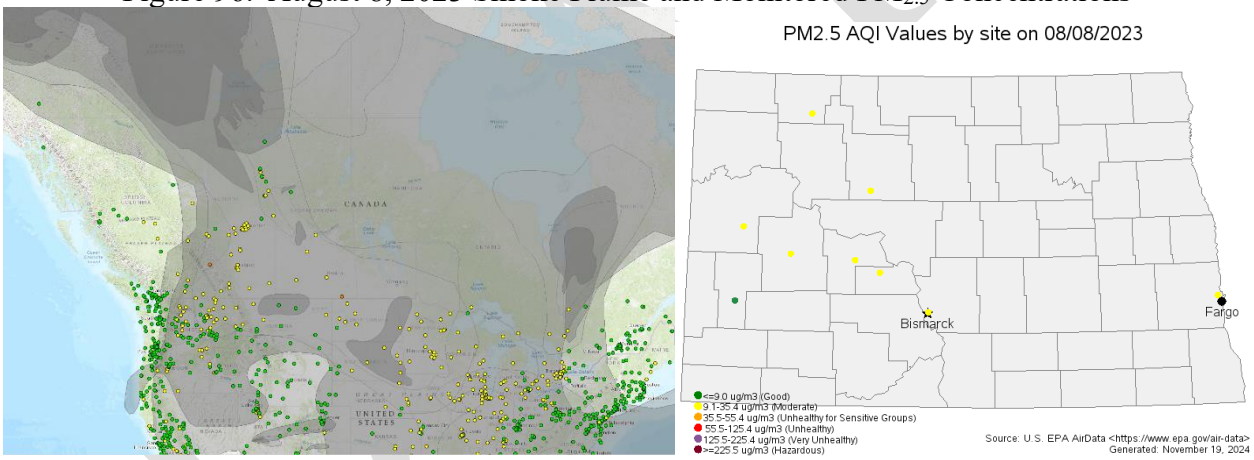
On August 6, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, and Burleigh Counties.

Figure 95. August 7, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



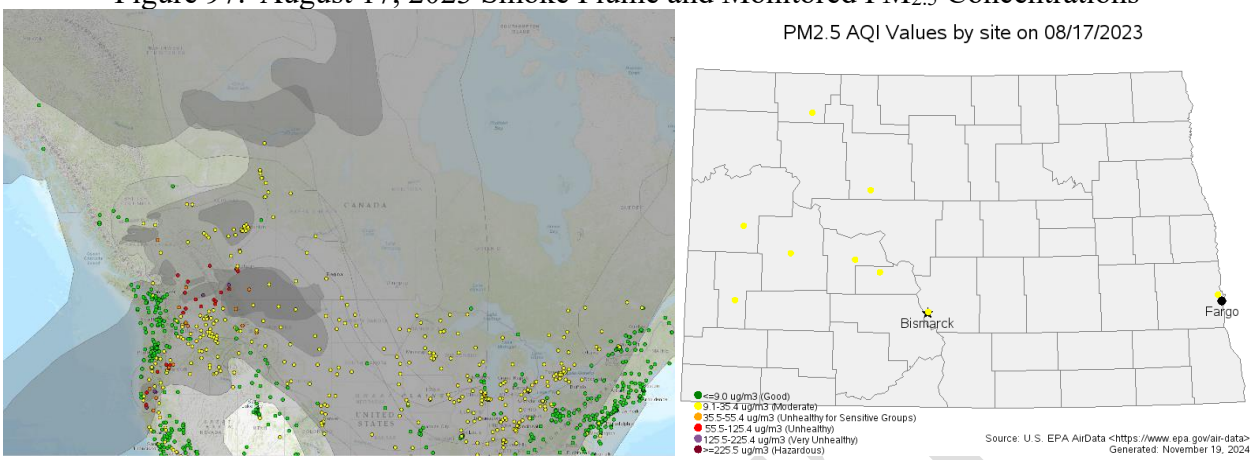
On August 7, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, Burleigh, and Cass Counties. In addition, the August 7, 24-hour $PM_{2.5}$ concentration was the second highest Event concentrations in 2023 for Ward County. Widespread $PM_{2.5}$ impacts ranged from Moderate in Cass, Dunn, and McKenzie Counties to Unhealthy for Sensitive Groups in Burleigh and Mercer Counties, to Unhealthy in Burke, Oliver, and Ward Counties.

Figure 96. August 8, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



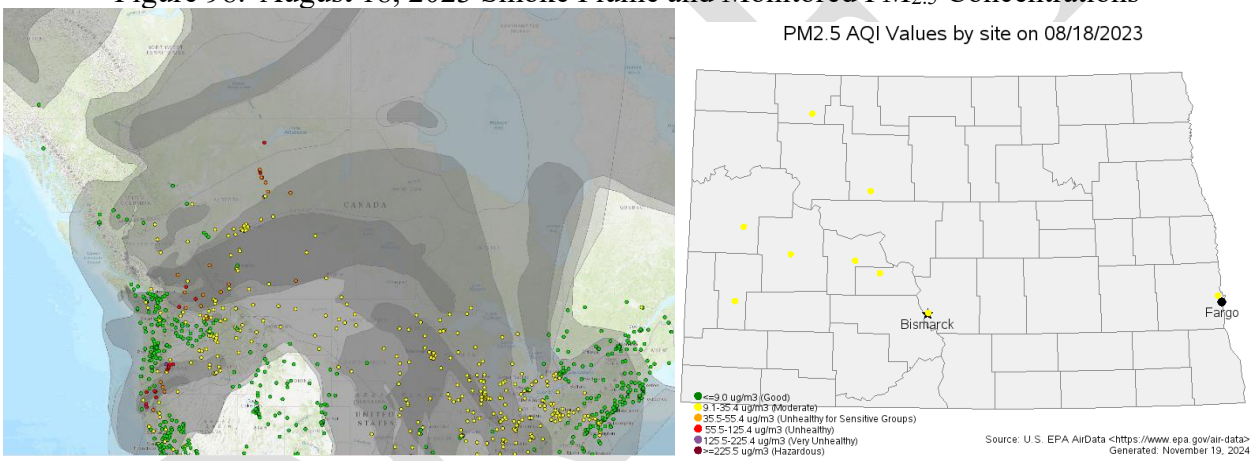
On August 8, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke County.

Figure 97. August 17, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



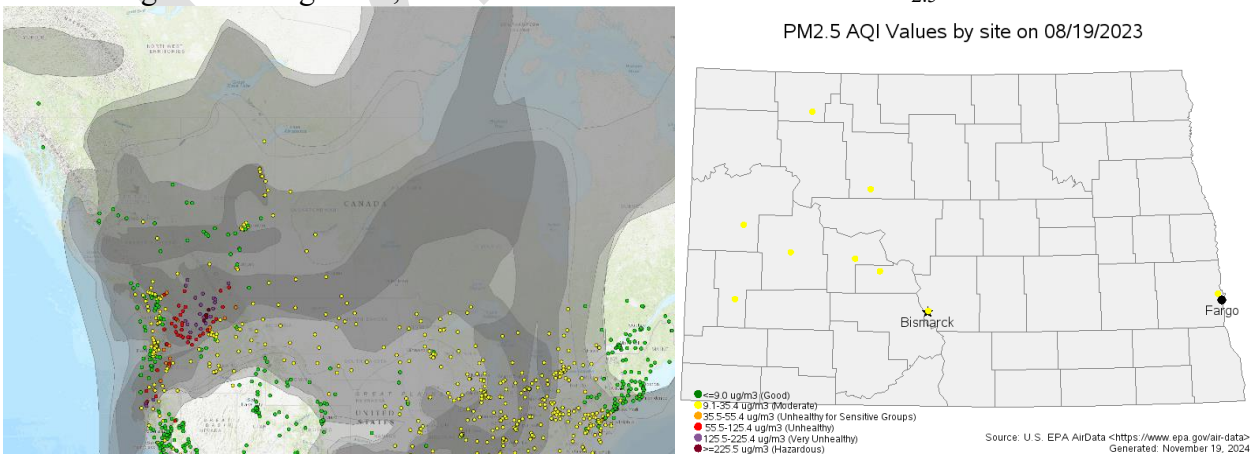
On August 17, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh and Cass Counties.

Figure 98. August 18, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



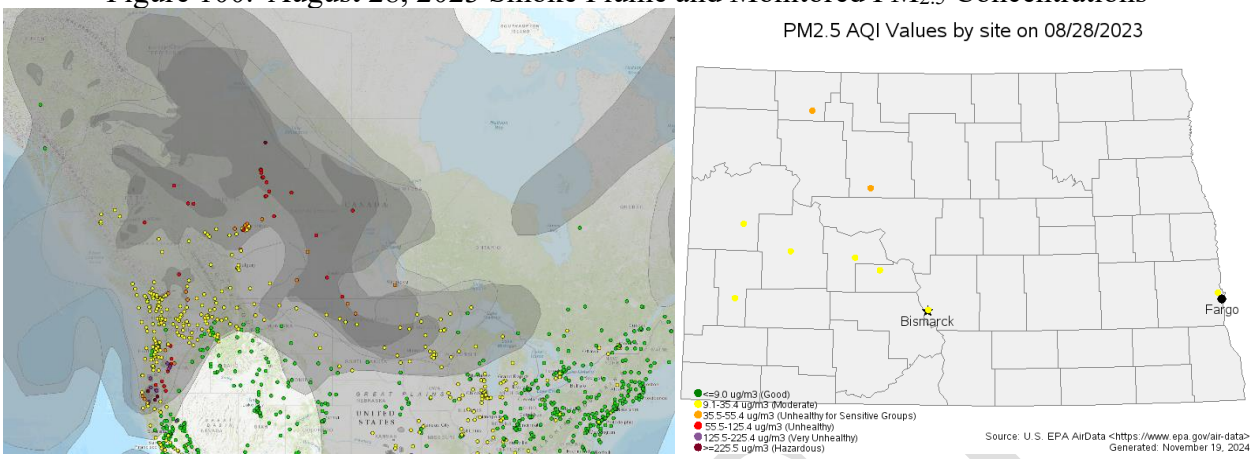
On August 18, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, and Cass Counties.

Figure 99. August 19, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



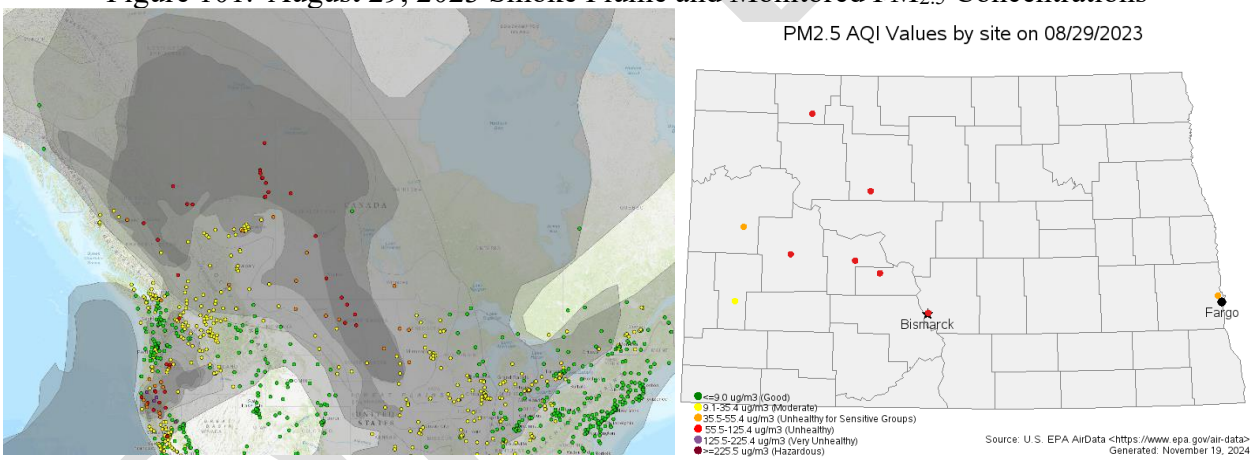
On August 19, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh County.

Figure 100. August 28, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



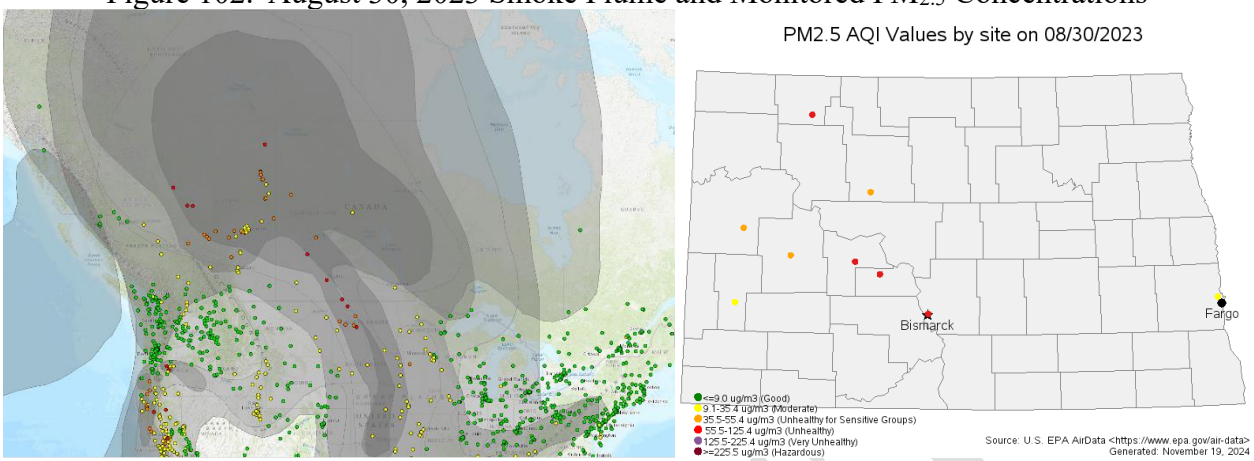
On August 28, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, and Burleigh Counties.

Figure 101. August 29, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



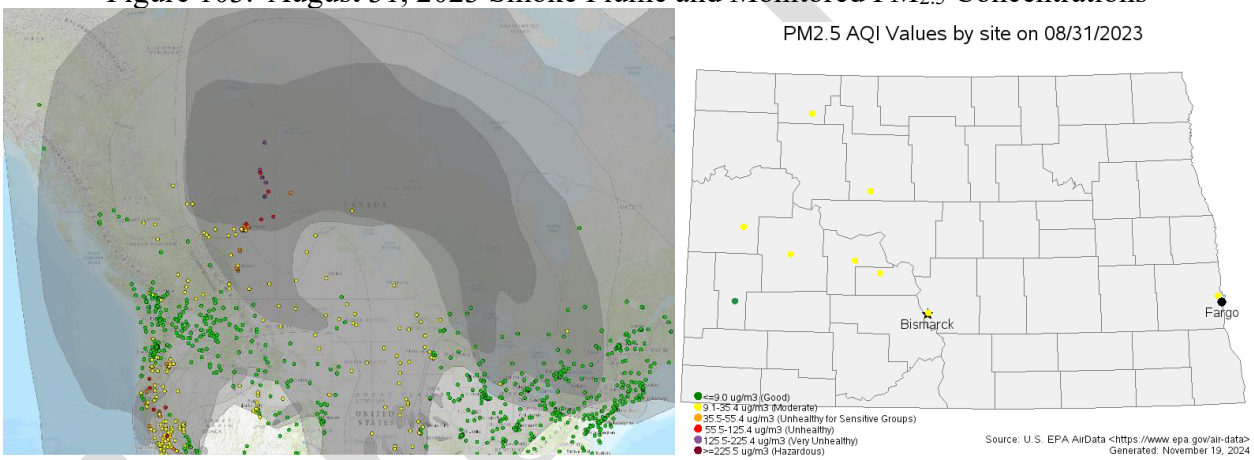
On August 29, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels. Statewide $PM_{2.5}$ impacts ranged from Moderate in Billings County to Unhealthy for Sensitive Groups in McKenzie and Cass Counties, to Unhealthy for Burke, Burleigh, Dunn, Mercer, Oliver, and Ward Counties.

Figure 102. August 30, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



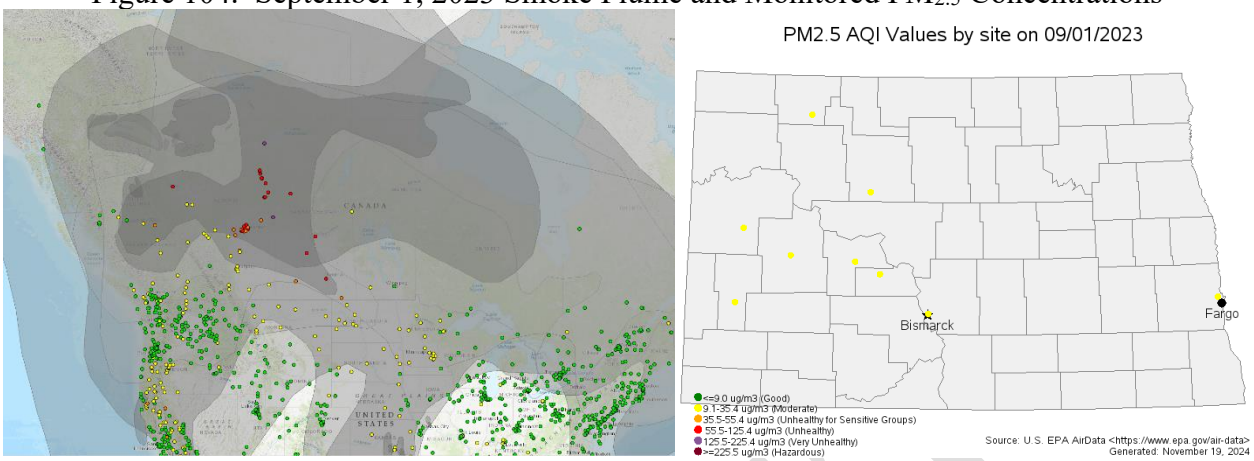
On August 30, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels. Statewide $PM_{2.5}$ impacts ranged from Moderate in Billings and Cass Counties to Unhealthy for Sensitive Groups in Dunn, McKenzie, and Ward Counties, to Unhealthy for Burke, Burleigh, Mercer, and Oliver Counties.

Figure 103. August 31, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On August 31, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 104. September 1, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations

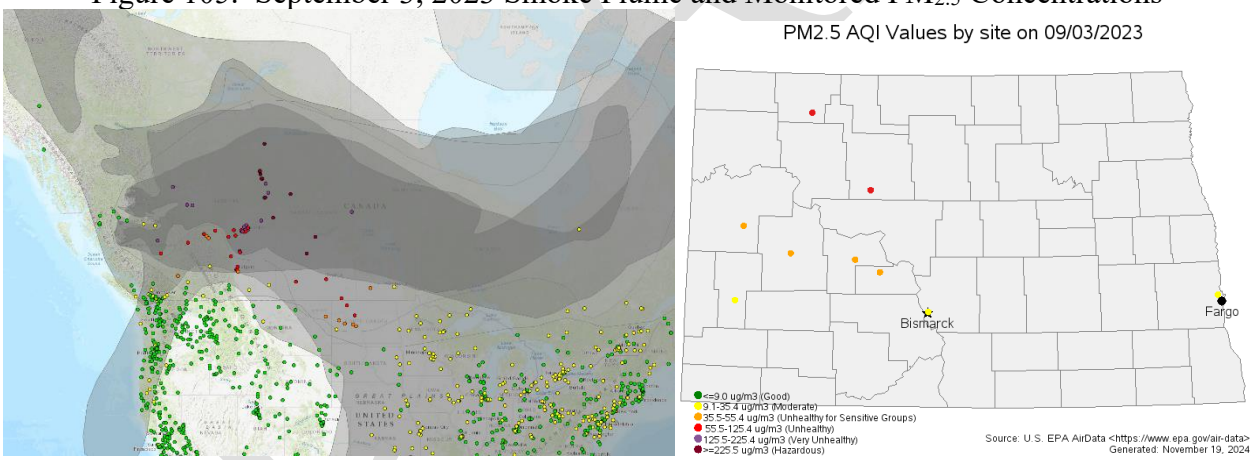


On September 1, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Oliver, and Burleigh Counties.

IV.3.5 September 2023

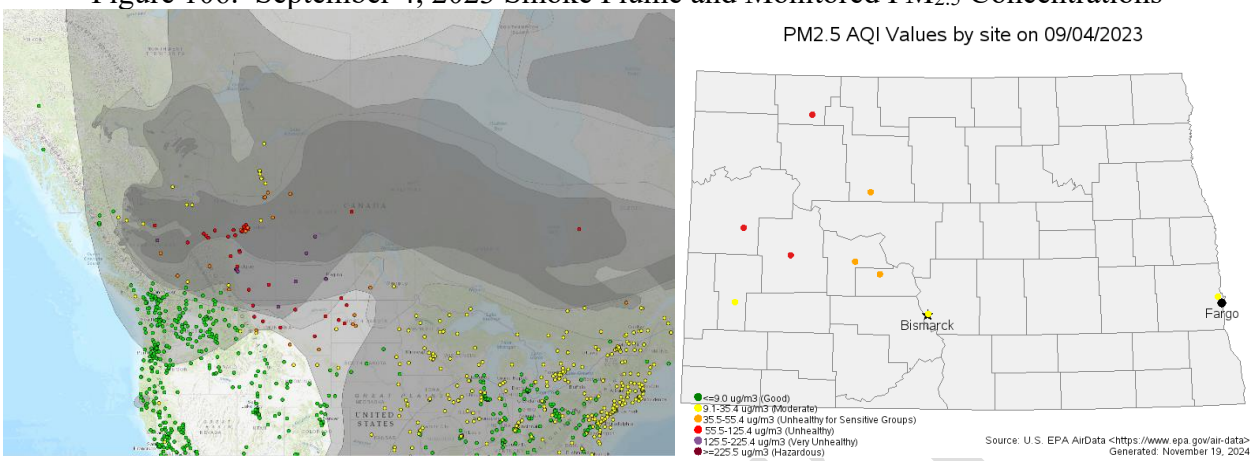
Canadian wildfire smoke impacts directly affecting air quality continued to be observed in North Dakota September 1 through September 11 and September 14 through September 22. Distinct high levels of 24-hour $PM_{2.5}$ concentrations were monitored on September 3-8, September 10, as well as September 15-22.

Figure 105. September 3, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On September 3, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels. In addition, the September 3, 24-hour $PM_{2.5}$ concentration was the second highest Event concentrations in 2023 for Burke County. Statewide $PM_{2.5}$ impacts ranged from Moderate in Billings, Burleigh, and Cass Counties to Unhealthy for Sensitive Groups in Dunn, McKenzie, Mercer, and Oliver Counties, to Unhealthy for Burke and Ward Counties.

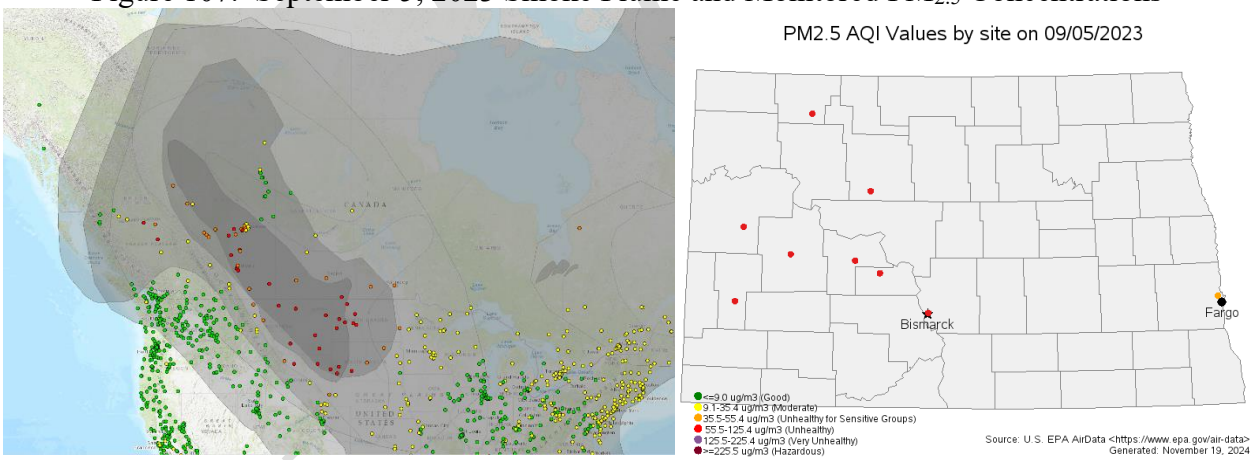
Figure 106. September 4, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On September 4, 24-hour $PM_{2.5}$ concentrations were over the level of the 24-hour $PM_{2.5}$ NAAQS and new 2024 $PM_{2.5}$ Annual NAAQS for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, and Billings Counties. Widespread $PM_{2.5}$ impacts ranged from Moderate in Billings County to Unhealthy for Sensitive Groups in Mercer, Oliver, and Ward Counties, to Unhealthy for Burke, Dunn, and McKenzie Counties.

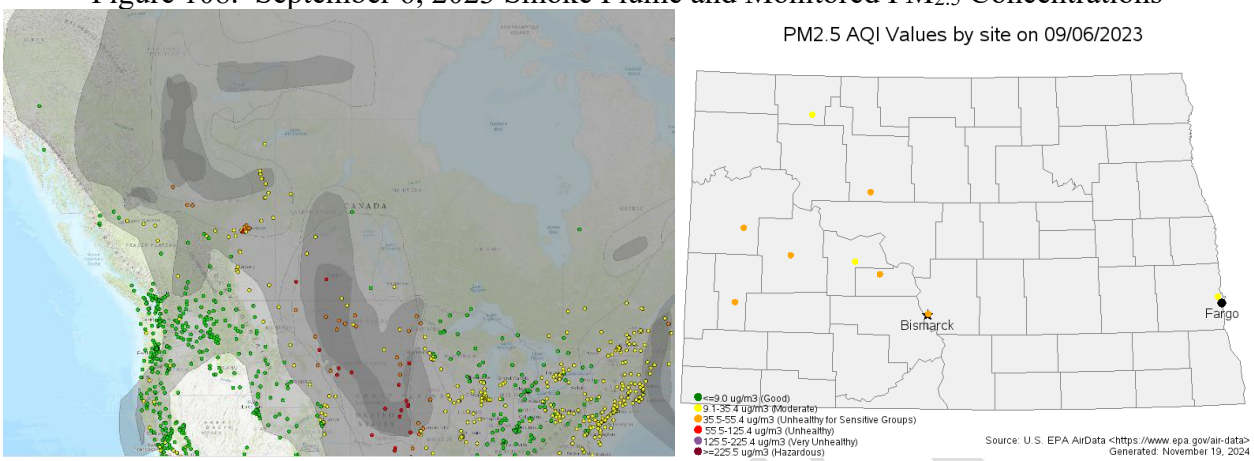
On September 5, 24-hour $PM_{2.5}$ concentrations at all sites were over the level of the 24-hour $PM_{2.5}$ NAAQS and new 2024 $PM_{2.5}$ Annual NAAQS. In addition, the September 5, 24-hour $PM_{2.5}$ concentrations were the second highest Event concentrations in 2023 for Billings, Burleigh, Dunn, Mercer, and Oliver Counties and third highest Event concentration in 2023 for Cass, McKenzie, and Ward Counties.

Figure 107. September 5, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



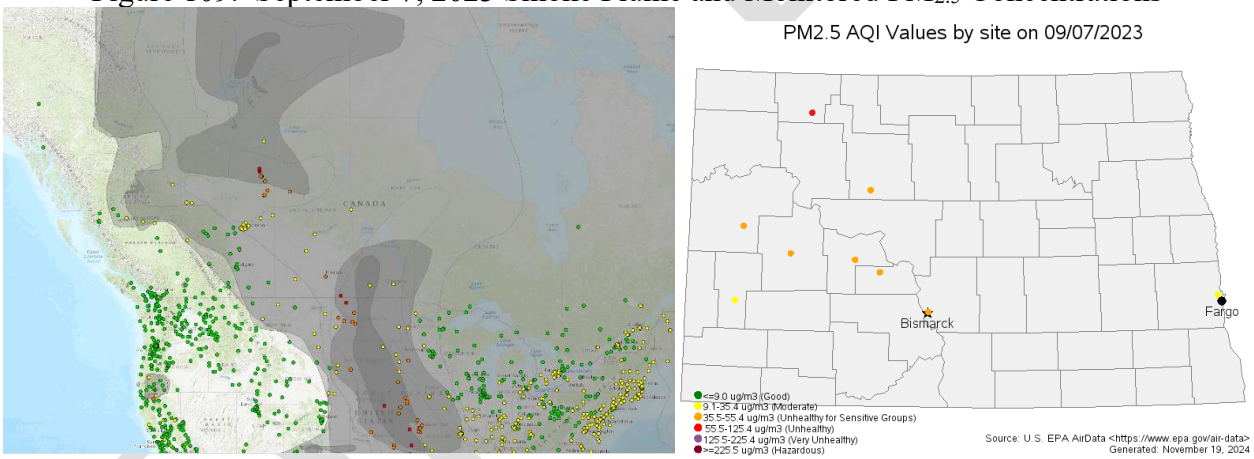
Statewide $PM_{2.5}$ impacts ranged from Unhealthy for Sensitive Groups in Cass County to Unhealthy in Billings, Burke, Burleigh, Dunn, McKenzie, Mercer, Oliver, and Ward Counties.

Figure 108. September 6, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



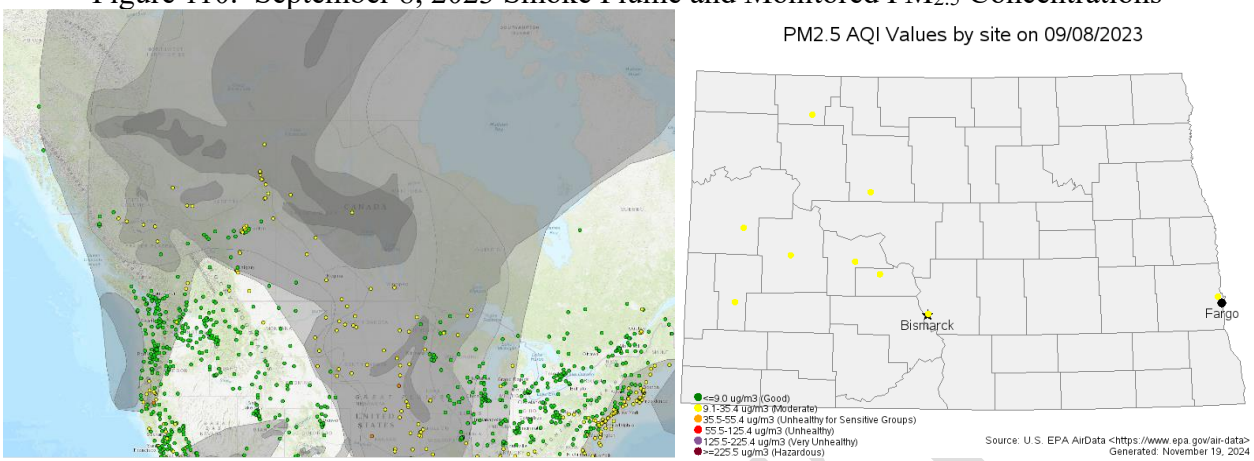
On September 6, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels. Statewide $PM_{2.5}$ impacts ranged from Moderate in Burke, Cass, and Mercer Counties to Unhealthy for Sensitive Groups in Billings, Burleigh, Dunn, McKenzie, Oliver, and Ward Counties.

Figure 109. September 7, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



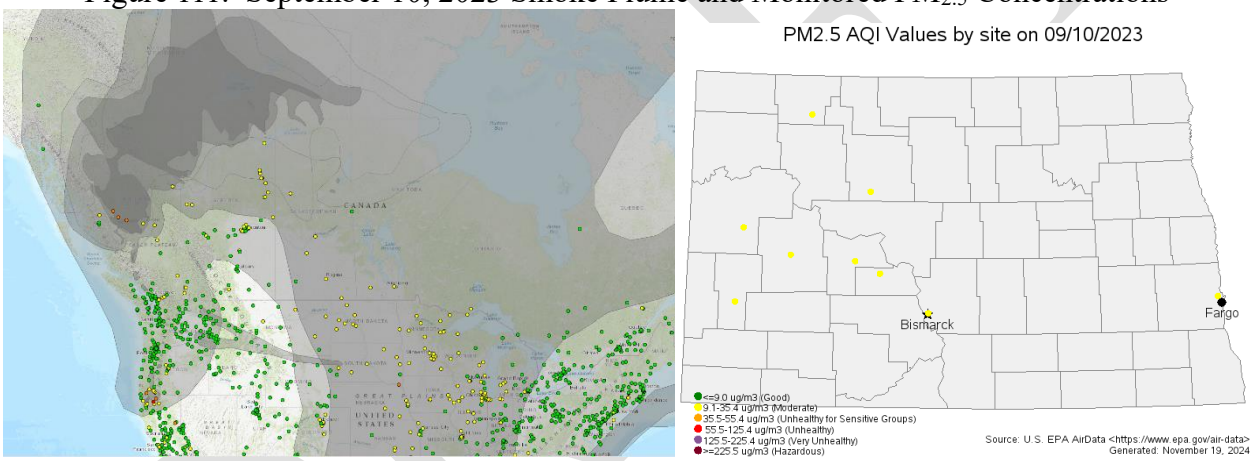
On September 7, 24-hour $PM_{2.5}$ concentrations at all sites were at distinct high levels. Statewide $PM_{2.5}$ impacts ranged from Moderate in Billings and Cass Counties to Unhealthy for Sensitive Groups in Burleigh, Dunn, McKenzie, Mercer, Oliver, and Ward Counties, to Unhealthy for Burke County.

Figure 110. September 8, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



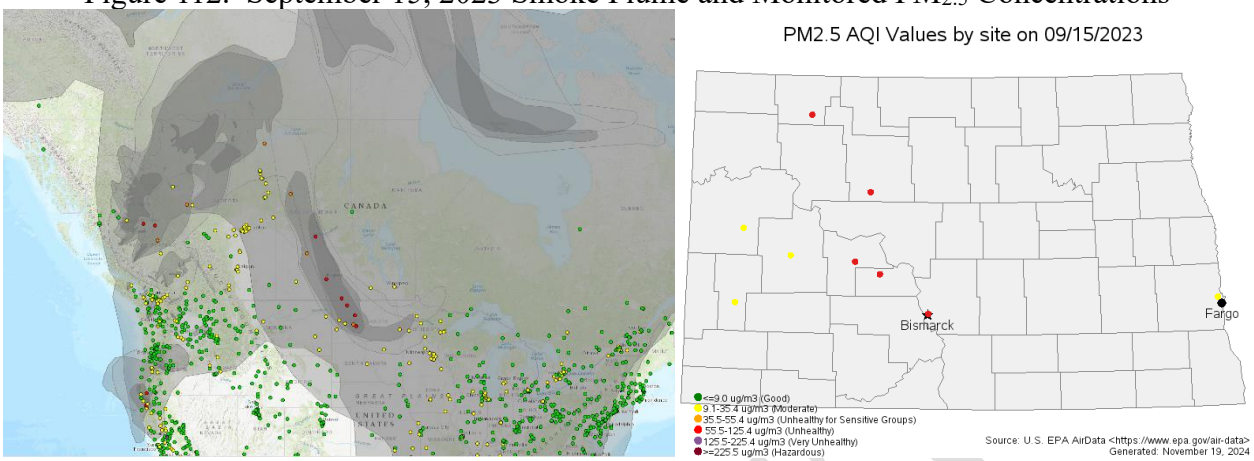
On September 8, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Ward, Oliver, Burleigh, and Cass Counties.

Figure 111. September 10, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



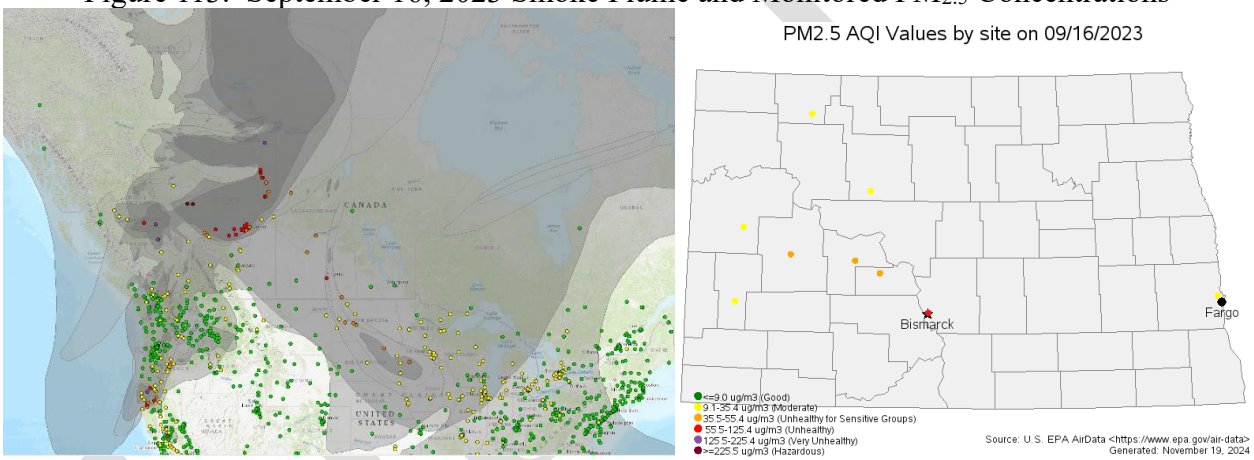
On September 10, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Cass County.

Figure 112. September 15, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



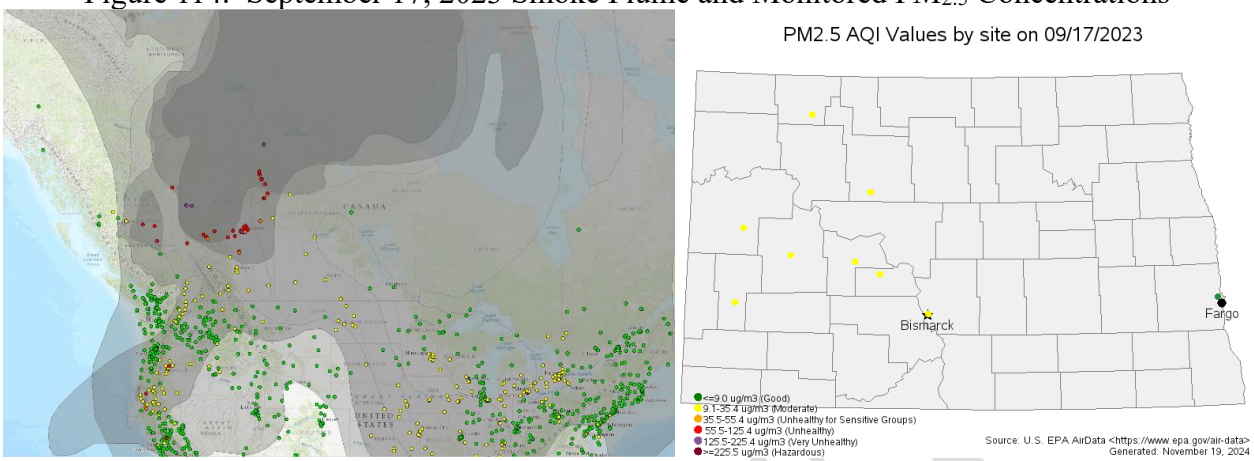
On September 15, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, Burleigh, and Cass Counties. Widespread $PM_{2.5}$ impacts ranged from Moderate in Cass, Dunn, and McKenzie Counties to Unhealthy in Burke, Burleigh, Mercer, Oliver, and Ward Counties.

Figure 113. September 16, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



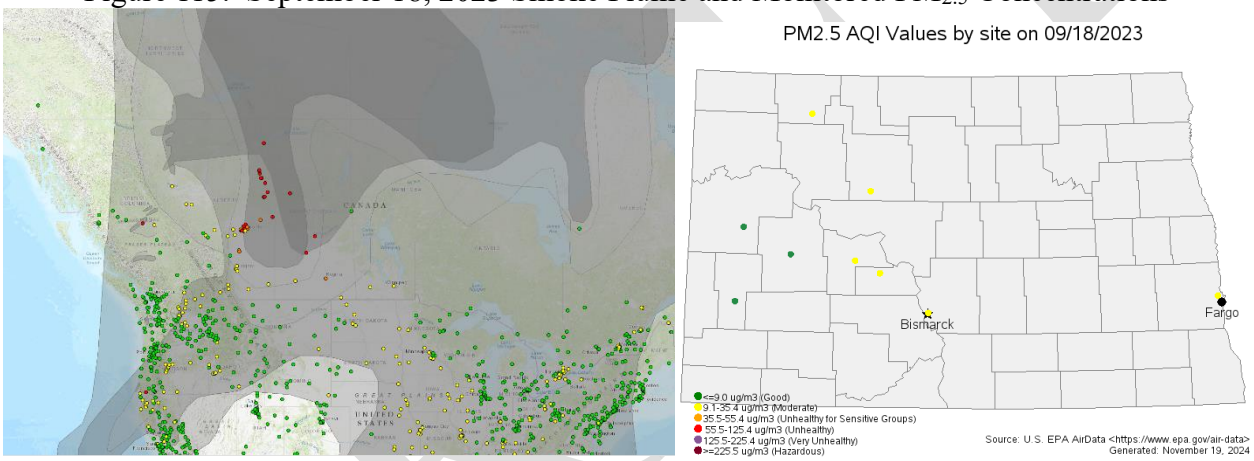
On September 16, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke, Ward, McKenzie, Dunn, Mercer, Oliver, Burleigh, and Cass Counties. Widespread $PM_{2.5}$ impacts ranged from Moderate in Burke, Cass, McKenzie, and Ward Counties to Unhealthy for Sensitive Groups in Dunn, Mercer, and Oliver Counties, to Unhealthy in Burleigh County.

Figure 114. September 17, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



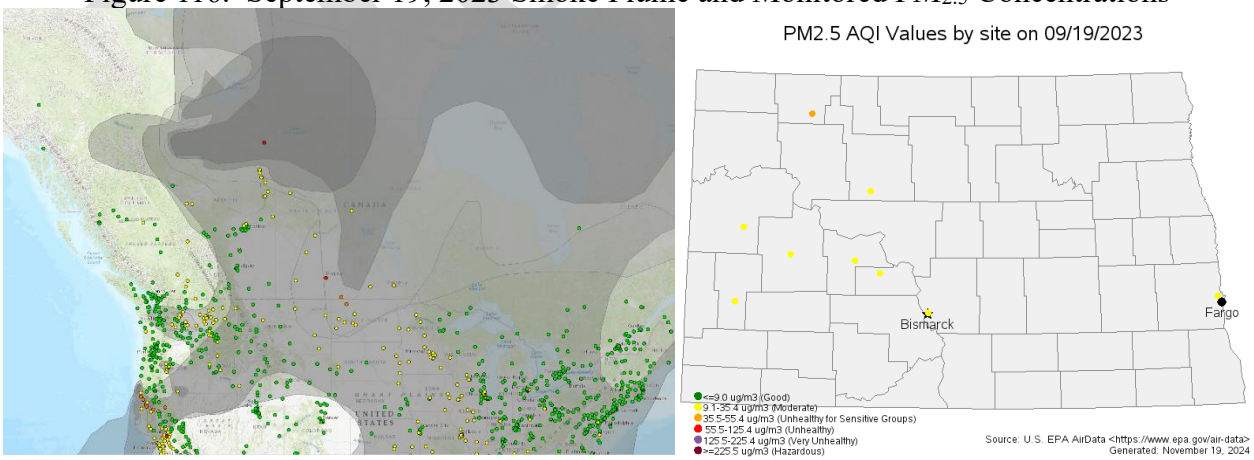
On September 17, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Dunn County.

Figure 115. September 18, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



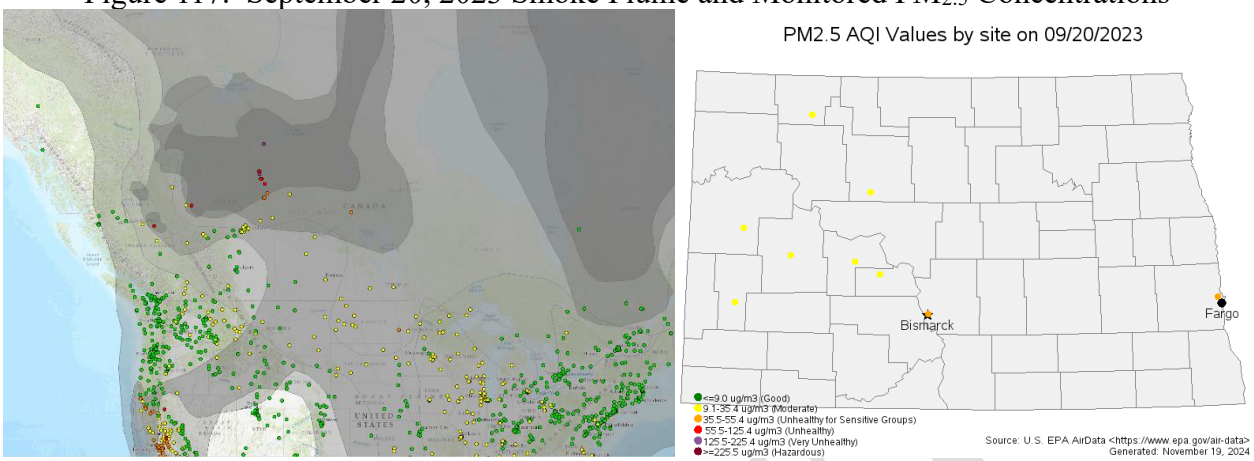
On September 18, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh County.

Figure 116. September 19, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



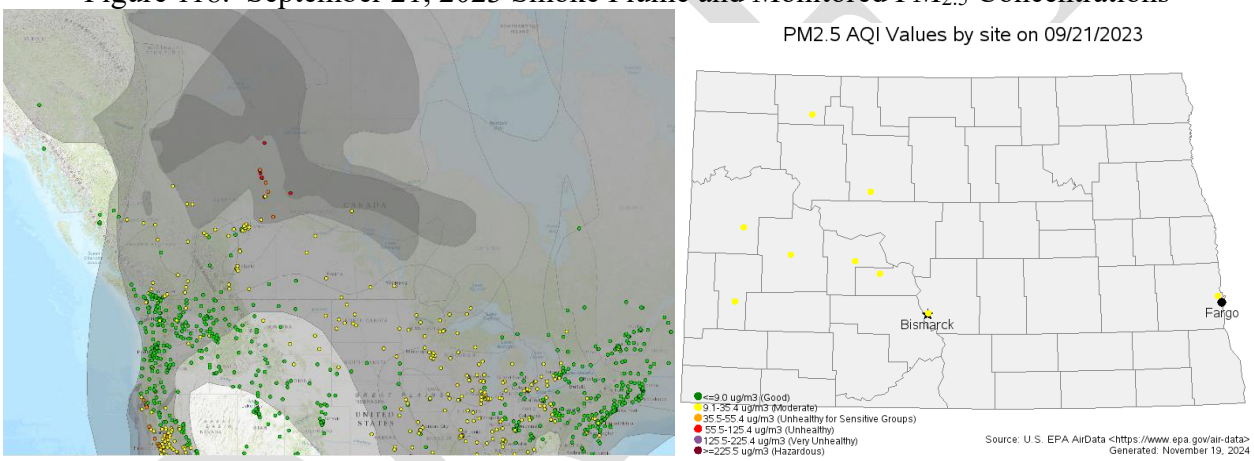
On September 19, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Ward Counties.

Figure 117. September 20, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



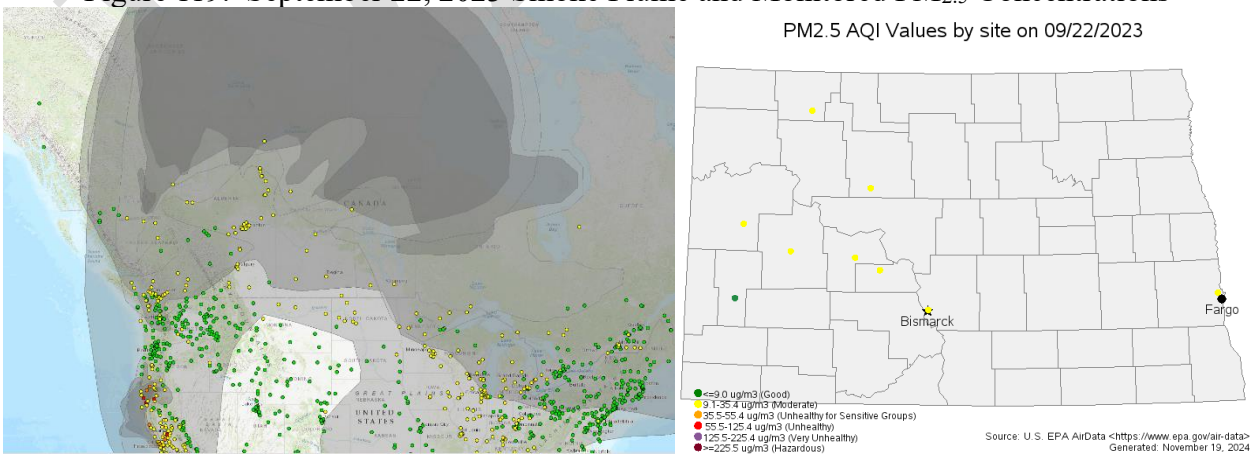
On September 20, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Ward, Dunn, Mercer, Oliver, Burleigh, and Cass Counties.

Figure 118. September 21, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On September 21, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burleigh County.

Figure 119. September 22, 2023 Smoke Plume and Monitored $PM_{2.5}$ Concentrations



On September 22, 24-hour $PM_{2.5}$ concentrations were at distinct high levels for Burke and Ward Counties.

IV.4 Clear Causal Conclusion

From mid-May through mid-September of 2023 a wildfire smoke exceptional event (Event) occurred when smoke from wildfires across Canada directly affected the air quality in North Dakota. The 2023 Canadian wildfires produced particulate matter ($PM_{2.5}$ and PM_{10}) outside the regulatory control and jurisdictional borders of the NDDEQ, which regulates air pollution on state land within the State of North Dakota. The resultant particulate matter concentrations at all nine North Dakota air monitoring sites (See Figure 1 and Table 1) were at distinct high levels, observably higher than non-event concentrations, and exceeded the level of the 24-hour $PM_{2.5}$ NAAQS, new 2024 $PM_{2.5}$ Annual NAAQS, as well as the 24-hour PM_{10} NAAQS. The information in Sections III and IV clearly demonstrates the meteorological conditions that supported the transport of the 2023 Canadian wildfire smoke across North Dakota and to the locations of the nine monitor sites. See Table 1 for the $PM_{2.5}$ and PM_{10} Event concentrations on 55 dates at nine $PM_{2.5}$ monitors for a total of 239 $PM_{2.5}$ monitor event days and one date at three PM_{10} monitors for a total of three PM_{10} monitor event days. The comparisons and analyses, provided in Section IV and Appendices D and E, support the NDDEQ's conclusion that the 2023 Canadian wildfire smoke affected air quality in such a way that there exists a clear causal relationship between the Event and the monitored particulate matter Event concentrations in Table 1 and thus satisfies the clear causal relationship criterion for treatment as an exceptional event.

SECTION V. NOT REASONABLY CONTROLLABLE AND NOT REASONABLE PREVENTABLE

This section satisfies the following federal requirements:

The event was both not reasonably controllable and not reasonably preventable.
40 CFR § 50.14(c)(3)(iv)(D)

The event was caused by a natural event.
40 CFR § 50.14(c)(3)(iv)(A) and 40 CFR § 50.1(j)

An exceptional event is one that is both not reasonably controllable and not reasonably preventable.
40 CFR § 50.14(b)(8)(vii) and 40 CFR § 50.14(b)(4)

The Exceptional Events Rule 40 CFR § 50.14(b)(8)(vii) provides that a state would not be required to provide case-specific justification to support the not reasonable controllable or preventable when the emissions-generating event was outside the State, as was the case with the Canadian wildfires. Specifically, 40 CFR § 50.14(b)(8)(vii) states:

> The Administrator shall not require a State to provide case-specific justification to support the not reasonably controllable or preventable criterion for emissions-generating activity that occurs outside of the State's jurisdictional boundaries within which the concentration at issue was monitored.

Therefore, it is NDDEQ's conclusion that emissions from the 2023 Canadian wildfires were not reasonably controllable or preventable by North Dakota and thus satisfies the criterion for treatment as an exceptional event.

SECTION VI. NATURAL EVENT OR HUMAN ACTIVITY UNLIKELY TO RECUR AT A PARTICULAR LOCATION

This section satisfies the following federal requirement:
A demonstration that the event was a human activity that is unlikely to recur at a location or was a natural event.
40 CFR § 50.14(c)(3)(iv)(E)

The Exceptional Event Rule requires a demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event.

The definition for natural event is provided in 40 CFR § 50.1(k).

> 40 CFR § 50.1(k): Natural event means an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role. For purposes of the definition of a natural event, anthropogenic sources that are reasonably controlled shall be considered to not play a direct role in causing emissions.

The definition for wildfire is provided in 40 CFR § 50.1(n).

> 40 CFR § 50.1(n): Wildfire is any fire started by an unplanned ignition caused by lightning; volcanoes; other acts of nature; unauthorized activity; or accidental, human-caused actions, or a prescribed fire that has developed into a wildfire. A wildfire that predominantly occurs on wildland is a natural event.

The definition for wildland is provided in 40 CFR § 50.1(o).

> 40 CFR § 50.1(o): Wildland means an area in which human activity and development are essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.

The interrelated nature of the definitions above makes clear that wildfire "is any fire started by an unplanned ignition" that "predominately occurs on wildland is a natural event". In the Exceptional Event Rule, EPA clarifies that an event could be considered a natural event by applying the reasonable interpretation that the anthropogenic source had "little" direct causal role. As stated in Sections III and IV, the origin and evolution of the 2023 Canadian wildfires occurred across Canada and as shown in Figure 2, the fires burned in remote areas. Canada is the third-most forested country in the world and much of these areas can be considered wildland where little human activity and development exist.

Based on the documentation provided in Sections III and IV of this demonstration, the event qualifies as a wildfire because unplanned ignitions such as lightning caused the majority of the unintended wildfires and area burned on wildland. The EPA generally considers the emissions of particulate matter ($PM_{2.5}$ and PM_{10}) from wildfires on wildland to meet the regulatory definition of a natural event at 40 CFR § 50.1(k), defined as one "in which human activity plays little or no direct causal role." The NDDEQ has shown that the wildfire event is a natural event and thus satisfies the criterion for treatment as an exceptional event.

SECTION VII. PUBLIC NOTIFICATION

This section satisfies the following federal requirements:
State public notification when an event occurs or is reasonably anticipated to occur, which may result in the exceedance of an applicable air quality standard.
40 CFR § 50.149(c)(1)(i)

Documentation that the State air regulatory agency followed the public comment process.
40 CFR § 50.14(c)(3)(v)(A)

Submit the public comments it received, as well as comment responses, along with the demonstration to the Administrator.
40 CFR § 50.14(c)(3)(v)(B-C)

VII.1 Public Outreach

The NDDEQ website homepage[30] displays current air quality conditions by providing the EPA AirNow animation of the Air Quality Index as well as links to learn more information. The NDDEQ website Air Quality Monitoring page[31] also displays current air quality conditions and a video prepared by KFYR-TV to explain the Air Quality Index, Wildfire Smoke Impacts, and Forecasting[32], as well as providing monitoring network information. Additionally, the NDDEQ website Wildfires and Air Quality page[33] provides further information specific to wildfire effects and North Dakota's air quality.

During the 2023 Canadian wildfire smoke event that impaired air quality in North Dakota, the NDDEQ and other federal government agencies notified the public of the dangers and potential health impacts of excessive smoke from the 2023 Canadian wildfires. Website publications included the NDDEQ issued Press Releases, National Weather Service forecasts, and the display of the Air Quality Index (AQI) by many weather websites. Many local news providers produced, broadcast, and published meteorological and smoke forecasts in addition to news stories related to the 2023 Canadian wildfire smoke. NDDEQ staff were also interviewed and featured in news stories related to the air quality impacts experienced in North Dakota as a result of the 2023 Canadian wildfire smoke. Individuals, especially sensitive individuals with respiratory conditions, were advised to consider limiting prolonged outdoor exposure during smoky conditions. NDDEQ Press Releases and select news stories are contained in Appendix C.

[30] https://deq.nd.gov/
[31] https://deq.nd.gov/AQ/monitoring/
[32] https://youtu.be/mVcrWFONERc
[33] https://deq.nd.gov/AQ/monitoring/Wildfire.aspx

VII.2 Notice and Opportunity for Comment

Before making final the Exceptional Event Demonstration, the NDDEQ must solicit public comment. The Exceptional Event Rule 40 CFR § 50.14(c)(3)(v)(A) provides for a 30-day comment period for the public as well as initial EPA review of the Exceptional Event Demonstration.

The NDDEQ's public notice of intent (NOI) and the Exceptional Event Demonstration will be available for review at NDDEQ's office and will be posted on the NDDEQ's Division of Air Quality website at https://deq.nd.gov/AQ/PublicCom.aspx. All comments submitted following the NOI instructions will be considered and included in the final Exceptional Event Demonstration, along with NDDEQ's comment responses.

SECTION VIII. CONCLUSION

This demonstration addresses all required components of a request to exclude exceptional event-related data, as detailed in 40 CFR § 50.14. The Event concentrations were all above the level of the EPA $PM_{2.5}$ Tier 1 thresholds for each site or above the level of the PM_{10} 24-hour NAAQS and were all influenced by smoke from the 2023 Canadian wildfires from mid-May through mid-September. The NDDEQ considers these exceedances of the level of the particulate matter ($PM_{2.5}$ and PM_{10}) NAAQSs to meet the criteria of regulatory significance as they impact regulatory determinations about North Dakota's attainment of the NAAQS. Pursuant to federal regulations, the NDDEQ requests EPA concurrence that the particulate matter ($PM_{2.5}$ and PM_{10}) Event concentrations in Table 1 were caused by an exceptional event and should be excluded from the data record for the $PM_{2.5}$ NAAQS (annual and 24-hour), PM_{10} NAAQS (24-hour), and any other applicable regulatory purposes (40 CFR § 50.14(b)). The days and sites for which the NDDEQ is requesting concurrence were impacted by an Event consistent with EPA's definition of "unusual or naturally occurring events that can affect air quality but are not reasonably controllable using techniques that tribal, state, or local air agencies may implement in order to attain and maintain the [NAAQS]" (USEPA, 2020a).

APPENDICES

Appendix A **Initial Notification of North Dakota 2023 $PM_{2.5}$ & PM_{10} Wildfire Exceptional Event**

Appendix B **2023 Annual Ambient Air Monitoring Data Certification (without attachments)**

Appendix C **NDDEQ Press Releases and News Stories**

Appendix D **$PM_{2.5}$ Tiering Tool Analyses**

Appendix E **PM_{10} Historic Fluctuation Analyses**

Appendix F **AMP350 Reports**

Appendix G **Public Comments**

Appendix A Initial Notification of North Dakota 2023 $PM_{2.5}$ & PM_{10} Wildfire Exceptional Event

NORTH Dakota | Environmental Quality
Be Legendary.™

November 6, 2024

Via EPA CDX S4EE: SPeCS for Exceptional Events

Ms. Adrienne Sandoval
Director Air and Radiation Division
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129

Re: Initial Notification of North Dakota 2023 $PM_{2.5}$ & PM_{10} Wildfire Exceptional Event

Dear Ms. Sandoval,

The North Dakota Department of Environmental Quality (NDDEQ) is submitting an initial notification of a wildfire smoke exceptional event (Event). The Event occurred from mid-May through late-September 2023 with smoke from wildfires across Canada having directly affected the air quality in North Dakota. The 2023 Canadian wildfires produced impacts that are outside the regulatory control and jurisdictional borders of the NDDEQ, which regulates air pollution on state land within the State of North Dakota. While the wildfire smoke impacts were regional in nature and observable throughout the state during the Event, it did not cause all monitors to continuously exceed the particulate matter (PM) National Ambient Air Quality Standard (NAAQS) throughout the duration of the Event.

Smoke from the 2023 Canadian wildfires impacted and resulted in recorded exceedances of the level of the 24-hour $PM_{2.5}$ NAAQS (35 $\mu g/m^3$), annual $PM_{2.5}$ NAAQS (9.0 $\mu g/m^3$), and 24-hour PM_{10} NAAQS (150 $\mu g/m^3$). The initial notification conservatively includes 55 dates at nine (9) $PM_{2.5}$ monitors for a total of 239 $PM_{2.5}$ monitor event days and one (1) date at three (3) PM_{10} monitors for a total of three (3) PM_{10} monitor event days. The Event concentrations were all above the level of the EPA $PM_{2.5}$ Tier 1 thresholds for each site as well as above the level of the PM_{10} 24-hour NAAQS. The NDDEQ – Division of Air Quality (Division) has evaluated the initial notification and circumstances surrounding the Event and represents that the Event should be evaluated by the US EPA Region 8 as a wildfire smoke exceptional event.

The NDDEQ is submitting an "Initial Notification of Exceptional Event" and applying the data qualifiers in EPA's Air Quality System (AQS) as per 40 CFR 50.14(c)(2)(i) as a result of elevated PM concentrations, which were all influenced by smoke from Canadian wildfires and impact regulatory decisions about North Dakota's attainment of the NAAQS. The NDDEQ requests that

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Director's Office 701-328-5150
Division of Air Quality 701-328-5188
Division of Municipal Facilities 701-328-5211
Division of Waste Management 701-328-5166
Division of Water Quality 701-328-5210
Division of Chemistry 701-328-6140 2635 East Main Ave Bismarck ND 58501

the Administrator determines this Event meets the provisions outlined in 40 CFR 50.14(a)(1)(A) as a regulatory determination to designate an area for the new 2024 $PM_{2.5}$ Annual NAAQS of 9.0 $\mu g/m^3$ as well as 40 CFR 50.14(a)(1)(F) as a regulatory determination made on a case-by-case basis.

Promulgation of the new 2024 $PM_{2.5}$ annual NAAQS has triggered the state recommendation process to be followed by the EPA designation process. As part of these regulatory processes, the three-year design values to be relied upon for the $PM_{2.5}$ annual NAAQS state attainment recommendations (2021-2023) and EPA attainment designations (2022-2024), will be significantly increased as a result of monitored data directly affected by Canadian wildfire smoke in 2023. As such, the NDDEQ considers this exceptional event to be of regulatory significance.

The elevated PM concentrations will affect future year's design values, with the potential of future NAAQSs violations, which is also of regulatory significance because of the NDDEQ's reliance on ambient data to determine compliance with the NAAQS at state run air monitoring stations. Additionally, these data are used in NDDEQ's air pollution control permitting process as well as by the US EPA and third parties in evaluating North Dakota's air quality. These reasons demonstrate the need to accurately portray anthropogenic versus non-anthropogenic or "exceptional" air quality issues to the public by means of excluding exceptional event concurred data from the data record.

The NDDEQ considers these exceedances of the level of the PM NAAQS to meet the criteria of regulatory significance and requests that the Administrator determines this Event meets the provisions outlined in 40 CFR 50.14(a)(1)(A) as well as 50.14(a)(1)(F) and agrees that the US EPA Region 8 will review a demonstration for this wildfire smoke exceptional event.

Please contact my staff with questions: Darla Potter, Environmental Engineer (701-328-5101, dpotter@nd.gov) or Ryan Mills, Ambient Air Monitoring Program Manager (701-328-5254, rmills@nd.gov).

Sincerely,

James L. Semerad
Director
Division of Air Quality

JLS/DJP:er
Enc:

Exceptional Event Initial Notification Summary Information

Submitting Agency: North Dakota Department of Environmental Quality – Division of Air Quality
Agency Contacts: Jim Semerad / Ryan Mills / Darla Potter
Date Submitted: 11/06/2024
Applicable NAAQS: $PM_{2.5}$ Annual (9 µg/m³); $PM_{2.5}$ 24-Hr (35 µg/m³); PM_{10} 24-Hr (150 µg/m³)
Affected Regulatory Decision[1]: 50.14(a)(1)(i) Options A and F – see cover letter
(for classification decisions, specify level of the classification with/without EE concurrence)
Area Name/Designation Status: North Dakota - Attainment/Unclassifiable
Design Value Period (list three-year period): 2021-2023
(where there are multiple relevant design value periods, summarize separately)
[1] designation, classification, attainment determination, attainment date extension, or finding of SIP inadequacy leading to SIP call

Note: The U.S. EPA Exceptional Events Analysis and Visualization Tools accessed at https://www.epa.gov/air-quality-analysis/exceptional-events-analysis-and-visualization-tools are the primary source of the following summary information.

A) Information specific to each flagged monitor day that may be submitted to EPA in support of the affected regulatory decision listed above

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	$PM_{2.5}$ Concentration[3] (µg/m³)	Notes (e.g. event name, links to other events)
05/16/2023	Wildfires	IF	38-017-1004 - POC23	Fargo NW	26.2	2023 Canadian Wildfire Smoke Exceptional Event
05/17/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	150.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	210.6	
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	195.2	
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	47.6	
	Wildfires	IF	38-025-0004 - POC23	Lake Ilo NWR	232.4	
	Wildfires	IF	38-053-0002 - POC23	TRNP-NU	221.8	
	Wildfires	IF	38-057-0004 - POC23	Beulah North	210.3	
	Wildfires	IF	38-065-0002 - POC23	Hannover	235.0	
	Wildfires	IF	38-101-0003 - POC23	Ryder	201.9	

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	$PM_{2.5}$ Concentration[3] ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
05/18/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	46.3	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	28.3	
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	56.4	
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	88.2	
	Wildfires	IF	38-025-0004 - POC23	Lake Ilo NWR	41.9	
	Wildfires	IF	38-053-0002 - POC23	TRNP-NU	40.4	
	Wildfires	IF	38-057-0004 - POC23	Beulah North	45.4	
	Wildfires	IF	38-065-0002 - POC23	Hannover	66.9	
	Wildfires	IF	38-101-0003 - POC23	Ryder	31.6	
05/20/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	25.7	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-025-0004 - POC23	Lake Ilo NWR	21.8	
05/21/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	32.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	23.7	
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	20.5	
	Wildfires	IF	38-025-0004 - POC23	Lake Ilo NWR	37.0	
	Wildfires	IF	38-057-0004 - POC23	Beulah North	27.4	
	Wildfires	IF	38-065-0002 - POC23	Hannover	30.2	
	Wildfires	IF	38-101-0003 - POC23	Ryder	20.4	
05/22/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	24.1	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	29.7	
05/23/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	27.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	33.1	
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	28.2	
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	22.8	
	Wildfires	IF	38-025-0004 - POC23	Lake Ilo NWR	27.3	
	Wildfires	IF	38-053-0002 - POC23	TRNP-NU	24.3	
	Wildfires	IF	38-057-0004 - POC23	Beulah North	26.5	
	Wildfires	IF	38-065-0002 - POC23	Hannover	30.6	
	Wildfires	IF	38-101-0003 - POC23	Ryder	26.7	
06/06/2023	Wildfires	IF	38-017-1004 - POC23	Fargo NW	20.5	2023 Canadian Wildfire Smoke Exceptional Event
06/13/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	22.2	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-025-0004 - POC23	Lake Ilo NWR	21.1	
	Wildfires	IF	38-101-0003 - POC23	Ryder	21.4	
06/14/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	23.5	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	23.4	
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	71.5	

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	$PM_{2.5}$ Concentration[3] ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
06/15/2023	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	57.1	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	22.9	
	Wildfires	IF	38-065-0002 - POC23	Hannover	33.1	
	Wildfires	IF	38-101-0003 - POC23	Ryder	26.1	
06/16/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	24.1	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	20.2	
	Wildfires	IF	38-025-0004 - POC23	Lake Ilo NWR	24.1	
	Wildfires	IF	38-101-0003 - POC23	Ryder	20.1	
6/17/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	20.1	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	23.9	
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	22.8	
	Wildfires	IF	38-065-0002 - POC23	Hannover	21.5	
	Wildfires	IF	38-101-0003 - POC23	Ryder	20.8	
06/18/2023	Wildfires	IF	38-017-1004 - POC23	Fargo NW	21.2	2023 Canadian Wildfire Smoke Exceptional Event
06/27/2023	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	21.2	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	30.2	
06/29/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	35.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-101-0003 - POC23	Ryder	26.6	
06/30/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	39.4	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	21.2	
	Wildfires	IF	38-053-0002 - POC23	TRNP-NU	20.7	
	Wildfires	IF	38-065-0002 - POC23	Hannover	20.4	
	Wildfires	IF	38-101-0003 - POC23	Ryder	36.6	
07/01/2023	Wildfires	IF	38-017-1004 - POC23	Fargo NW	27.2	2023 Canadian Wildfire Smoke Exceptional Event
07/03/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	25.9	2023 Canadian Wildfire Smoke Exceptional Event
07/09/2023	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	20.9	2023 Canadian Wildfire Smoke Exceptional Event
07/14/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	52.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	94.6	
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	52.8	
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	36.3	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	70.6	
	Wildfires	IF	38-053-0002 - POC23	TRNP-NU	67.4	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	50.6	
	Wildfires	IF	38-065-0002 - POC23	Hannover	56.9	
	Wildfires	IF	38-101-0003 - POC23	Ryder	67.8	

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	$PM_{2.5}$ Concentration[3] ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
07/15/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	69.2	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	52.5	
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	50.4	
	Wildfires	IF	38-017-1004 - POC23	Fargo NW	26.1	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	76.1	
	Wildfires	IF	38-053-0002 - POC23	TRNP-NU	79.8	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	45.3	
	Wildfires	IF	38-065-0002 - POC23	Hannover	52.5	
	Wildfires	IF	38-101-0003 - POC23	Ryder	50.1	
07/16/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	46.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC23	Lostwood NWR	21.5	
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	33.9	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	38.9	
	Wildfires	IF	38-053-0002 - POC23	TRNP-NU	41.7	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	29.8	
	Wildfires	IF	38-065-0002 - POC23	Hannover	35.1	
	Wildfires	IF	38-101-0003 - POC23	Ryder	29.4	
07/21/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	20.9	2023 Canadian Wildfire Smoke Exceptional Event
07/22/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	29.8	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	24.4	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	21.6	
	Wildfires	IF	38-065-0002 - POC23	Hannover	22.3	
	Wildfires	IF	38-101-0003 - POC23	Ryder	28.3	
07/23/2023	Wildfires	IF	38-017-1004 - POC23	Fargo NW	27.5	2023 Canadian Wildfire Smoke Exceptional Event
07/24/2023	Wildfires	IF	38-017-1004 - POC23	Fargo NW	33.7	2023 Canadian Wildfire Smoke Exceptional Event
08/04/2023	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	22.5	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	39.0	
08/05/2023	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	25.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	21.4	
08/06/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	40.4	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	21.3	
	Wildfires	IF	38-101-0003 - POC3	Ryder	31.5	

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	$PM_{2.5}$ Concentration[3] ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
08/07/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	72.1	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC23	Bismarck Residential	36.9	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	22.6	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	34.8	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	34.3	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	34.5	
	Wildfires	IF	38-065-0002 - POC3	Hannover	55.8	
	Wildfires	IF	38-101-0003 - POC3	Ryder	72.1	
08/08/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	30.3	2023 Canadian Wildfire Smoke Exceptional Event
08/17/2023	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	21.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	30.9	
08/18/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	22.6	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	22.2	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	27.4	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	21.9	
	Wildfires	IF	38-101-0003 - POC3	Ryder	22.7	
08/19/2023	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	21.8	2023 Canadian Wildfire Smoke Exceptional Event
08/28/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	51.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	25.8	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	32.4	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	30.3	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	22.2	
	Wildfires	IF	38-065-0002 - POC3	Hannover	25.1	
	Wildfires	IF	38-101-0003 - POC3	Ryder	42.8	
08/29/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	33.4	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	70.4	
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	66.3	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	42.5	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	56.2	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	49.3	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	54.5	
	Wildfires	IF	38-065-0002 - POC3	Hannover	63.2	
	Wildfires	IF	38-101-0003 - POC3	Ryder	68.3	

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	$PM_{2.5}$ Concentration[3] ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
08/30/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	33.2	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	59.2	
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	55.9	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	33.8	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	54.9	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	50.3	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	47.4	
	Wildfires	IF	38-065-0002 - POC3	Hannover	55.9	
	Wildfires	IF	38-101-0003 - POC3	Ryder	53.0	
08/31/2023	Wildfires	IF	38-017-1004 - POC3	Fargo NW	22.2	2023 Canadian Wildfire Smoke Exceptional Event
09/01/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	34.0	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	22.4	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	24.6	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	23.7	
	Wildfires	IF	38-065-0002 - POC3	Hannover	25.1	
	Wildfires	IF	38-101-0003 - POC3	Ryder	26.8	
09/03/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	27.4	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	94.8	
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	31.6	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	24.1	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	54.6	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	38.1	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	42.0	
	Wildfires	IF	38-065-0002 - POC3	Hannover	46.9	
	Wildfires	IF	38-101-0003 - POC3	Ryder	67.0	
09/04/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	35.0	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	71.8	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	65.6	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	58.5	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	36.7	
	Wildfires	IF	38-065-0002 - POC3	Hannover	38.5	
	Wildfires	IF	38-101-0003 - POC3	Ryder	50.1	

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	$PM_{2.5}$ Concentration[3] ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
09/05/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	79.1	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	66.5	
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	87.5	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	55.1	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	88.0	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	76.2	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	68.4	
	Wildfires	IF	38-065-0002 - POC3	Hannover	86.4	
	Wildfires	IF	38-101-0003 - POC3	Ryder	72.0	
09/06/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	52.0	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	32.4	
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	46.3	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	33.7	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	48.1	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	48.4	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	29.5	
	Wildfires	IF	38-065-0002 - POC3	Hannover	40.5	
	Wildfires	IF	38-101-0003 - POC3	Ryder	40.8	
09/07/2023	Wildfires	IF	38-007-0002 - POC3	Painted Canyon (TRNP-SU)	34.2	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	55.7	
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	50.5	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	31.5	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	41.6	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	37.5	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	37.7	
	Wildfires	IF	38-065-0002 - POC3	Hannover	45.0	
	Wildfires	IF	38-101-0003 - POC3	Ryder	43.1	
09/08/2023	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	32.2	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	23.9	
	Wildfires	IF	38-065-0002 - POC3	Hannover	24.3	
	Wildfires	IF	38-101-0003 - POC3	Ryder	24.9	
09/10/2023	Wildfires	IF	38-017-1004 - POC3	Fargo NW	20.3	2023 Canadian Wildfire Smoke Exceptional Event

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	$PM_{2.5}$ Concentration[3] ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
09/15/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	70.6	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	66.4	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	34.7	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	34.6	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	20.6	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	48.7	
	Wildfires	IF	38-065-0002 - POC3	Hannover	64.7	
	Wildfires	IF	38-101-0003 - POC3	Ryder	66.4	
09/16/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	25.2	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	62.7	
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	23.8	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	53.1	
	Wildfires	IF	38-053-0002 - POC3	TRNP-NU	34.4	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	41.6	
	Wildfires	IF	38-065-0002 - POC3	Hannover	51.3	
	Wildfires	IF	38-101-0003 - POC3	Ryder	25.3	
09/17/2023	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	22.0	2023 Canadian Wildfire Smoke Exceptional Event
09/18/2023	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	22.0	2023 Canadian Wildfire Smoke Exceptional Event
09/19/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	40.9	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-101-0003 - POC3	Ryder	21.9	
09/20/2023	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	46.5	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-017-1004 - POC3	Fargo NW	36.5	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	24.4	
	Wildfires	IF	38-057-0004 - POC3	Beulah North	25.1	
	Wildfires	IF	38-065-0002 - POC3	Hannover	35.1	
	Wildfires	IF	38-101-0003 - POC3	Ryder	20.6	
09/21/2023	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	23.3	2023 Canadian Wildfire Smoke Exceptional Event
09/22/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	22.5	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-101-0003 - POC3	Ryder	23.2	

Date of Event	Type of Event (high wind, volcano, wildfires, prescribed fire, other[2])	AQS Flag	Monitor (AQS ID and POC)	Monitor Name	PM_{10} Concentration ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
05/17/2023	Wildfires	IF	38-013-0004 - POC3	Lostwood NWR	151	2023 Canadian Wildfire Smoke Exceptional Event
	Wildfires	IF	38-015-0003 - POC3	Bismarck Residential	303	
	Wildfires	IF	38-025-0004 - POC3	Lake Ilo NWR	176	

[2] Provide additional information for types of event described as "other"

[3] $PM_{2.5}$ Concentrations are all above the level of the $PM_{2.5}$ Tier 1 Thresholds

B) Monitor Design Value Information

(listing of all monitors in the planning area, regardless of operating agency, and regardless of whether or not they are impacted by EEs)

Monitor (AQS ID)	**Design Value (<u>without</u> EPA concurrence on any of the events listed in table A above)**	**Design Value (<u>with</u> EPA concurrence on all events listed in table A above)**
Painted Canyon (TRNP-SU) (38-007-0002)	$PM_{2.5}$ Annual: 6.1 µg/m^3 $PM_{2.5}$ 24-Hour: 25 µg/m^3	$PM_{2.5}$ Annual: 5.5 µg/m^3 $PM_{2.5}$ 24-Hour: 19 µg/m^3
Lostwood NWR (38-013-0004)	$PM_{2.5}$ Annual: 7.6 µg/m^3 $PM_{2.5}$ 24-Hour: 39 µg/m^3	$PM_{2.5}$ Annual: 6.4 µg/m^3 $PM_{2.5}$ 24-Hour: 23 µg/m^3
Bismarck Residential (38-015-0003)	$PM_{2.5}$ Annual: 8.8 µg/m^3 $PM_{2.5}$ 24-Hour: 40 µg/m^3	$PM_{2.5}$ Annual: 7.8 µg/m^3 $PM_{2.5}$ 24-Hour: 28 µg/m^3
Fargo NW (38-017-1004)	$PM_{2.5}$ Annual: 9.2 µg/m^3 $PM_{2.5}$ 24-Hour: 39 µg/m^3	$PM_{2.5}$ Annual: 8.5 µg/m^3 $PM_{2.5}$ 24-Hour: 34 µg/m^3
Lake Ilo NWR (38-025-0004)	$PM_{2.5}$ Annual: 7.1 µg/m^3 $PM_{2.5}$ 24-Hour: 35 µg/m^3	$PM_{2.5}$ Annual: 6.1 µg/m^3 $PM_{2.5}$ 24-Hour: 23 µg/m^3
TRNP-NU (38-053-0002)	$PM_{2.5}$ Annual: 6.3 µg/m^3 $PM_{2.5}$ 24-Hour: 33 µg/m^3	$PM_{2.5}$ Annual: 5.5 µg/m^3 $PM_{2.5}$ 24-Hour: 22 µg/m^3
Beulah North (38-057-0004)	$PM_{2.5}$ Annual: 6.6 µg/m^3 $PM_{2.5}$ 24-Hour: 32 µg/m^3	$PM_{2.5}$ Annual: 5.9 µg/m^3 $PM_{2.5}$ 24-Hour: 22 µg/m^3
Hannover (38-065-0002)	$PM_{2.5}$ Annual: 8.0 µg/m^3 $PM_{2.5}$ 24-Hour: 39 µg/m^3	$PM_{2.5}$ Annual: 7.0 µg/m^3 $PM_{2.5}$ 24-Hour: 26 µg/m^3
Ryder (38-101-0003)	$PM_{2.5}$ Annual: 7.3 µg/m^3 $PM_{2.5}$ 24-Hour: 37 µg/m^3	$PM_{2.5}$ Annual: 6.2 µg/m^3 $PM_{2.5}$ 24-Hour: 25 µg/m^3
Lostwood NWR (38-013-0004)	PM_{10} 24-Hour: 0.0	PM_{10} 24-Hour: 0.0
Bismarck Residential (38-015-0003)	PM_{10} 24-Hour: 0.5	PM_{10} 24-Hour: 0.0
Lake Ilo NWR (38-025-0004)	PM_{10} 24-Hour: 0.3	PM_{10} 24-Hour: 0.0

C) Summary of Maximum Design Value (DV) Monitor Information (Effect of EPA Concurrence on Maximum Design Value Monitor Determination)
(Two highest values from Table B)

	Design Value	Monitor (AQS ID)	Comment
Maximum DV monitor <u>without</u> EPA concurrence on any of the events listed in table A above	9.2 µg/m^3	Fargo NW (38-017-1004)	$PM_{2.5}$ Annual
	8.8 µg/m^3	Bismarck Residential (38-015-0003)	
	40 µg/m^3	Bismarck Residential (38-015-0003)	$PM_{2.5}$ 24-Hour
	39 µg/m^3	Fargo NW (38-017-1004)	
	0.5	Bismarck Residential (38-015-0003)	PM_{10} 24-Hour
	0.3	Lake Ilo NWR (38-025-0004)	
	Design Value	**Monitor (AQS ID)**	**Comment**
Maximum DV monitor <u>with</u> EPA concurrence on all events listed in table A above	8.5 µg/m^3	Fargo NW (38-017-1004)	$PM_{2.5}$ Annual
	7.8 µg/m^3	Bismarck Residential (38-015-0003)	
	28 µg/m^3	Bismarck Residential (38-015-0003)	$PM_{2.5}$ 24-Hour
	34 µg/m^3	Fargo NW (38-017-1004)	
	0.0	Bismarck Residential (38-015-0003)	PM_{10} 24-Hour
	0.0	Lake Ilo NWR (38-025-0004)	

D) List of any monitors (AQS ID) within planning area with invalid design values (e.g. due to data incompleteness)

TRNP-NU (38-053-0002) $PM_{2.5}$, 2022 Q2
Bismarck Residential (38-015-0003) PM_{10}, 2023 Q3

Appendix B 2023 Annual Ambient Air Monitoring Data Certification (without attachments)

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September 9, 2024

Adrienne Sandoval
Air and Radiation Division Director
U.S. EPA Region 8
1595 Wynkoop Street, Mail Code 8ARD
Denver, CO 80202-1129

Re: 2023 Annual Ambient Air Monitoring Data Certification

Dear Adrienne Sandoval:

EPA, Region 8 has requested that North Dakota (Primary Quality Assurance Organization 0782) verify all ambient air monitoring data collected at State and Local Air Monitoring Stations (SLAMS) submitted to Air Quality System (AQS) by North Dakota, or for North Dakota.

I hereby certify that the ambient concentration and quality assurance data for the state are completely submitted to AQS, and the data are accurate to the best of my knowledge taking into consideration the required quality assurance findings. This is in accordance with 40 CFR 58 for the period of January 01, 2023, to December 31, 2023. Please find attached to this letter the AMP600 Certification Evaluation and Concurrence Report for 2023.

List of parameters to be certified for calendar year 2023.

Site	Site ID	SO_2	SO_2 5 min	NO_2	CO	Ozone	$PM_{2.5}$	PM_{10} STP	PM Coarse
Painted Canyon	38-007-0002	X	X	-	-	X	X	-	-
Lostwood NWR	38-013-0004	X	X	X	-	X	X*	X	-
Bismarck NCORE	38-015-0003	X	X	X	X	X	X*	X	X
Fargo NW	38-017-1004	X	X	X	-	X	X*	-	-
Lake Ilo	38-025-0004	X	X	X	-	X	X*	X	-
TRNP-NU	38-053-0002	X	X	X	-	X	X*	-	-
Beulah North	38-057-0004	X	X	X	-	X	X*	-	-
Hannover	38-065-0002	X	X	X	-	X	X*	-	-
Ryder	38-101-0003	X	X	X	-	X	X*	-	-
Hess NE	38-105-0106	X	X	-	-	-	-	-	-

* Certification is limited to $PM_{2.5}$ data collected and submitted to AQS by North Dakota.

4201 Normandy Street | Bismarck ND 58503-1324 | Fax 701-328-5200 | deq.nd.gov

Director's Office 701-328-5150
Division of Air Quality 701-328-5188
Division of Municipal Facilities 701-328-5211
Division of Waste Management 701-328-5166
Division of Water Quality 701-328-5210
Division of Chemistry 701-328-6140 2635 East Main Ave Bismarck ND 58501

Please note that North Dakota's 2023 Data Certification for $PM_{2.5}$ is limited to the data collected and submitted to AQS by North Dakota. North Dakota acknowledges, but does not certify, EPA's subsequent application of an equation developed by Teledyne to update previously collected $PM_{2.5}$ T640/T640X Federal Equivalent Method monitor data in EPA's AQS.

With EPA's finalization of the $PM_{2.5}$ Design Values through 2023 as of August 9, 2023, North Dakota's AQS review revealed critical issues for the 2023 Data Certification for $PM_{2.5}$ resulting from EPA's implementation of the T640/T640X alignment algorithm in AQS. Data collected and submitted to AQS by North Dakota for the T640/T640X source monitors in AQS has been deleted by EPA including, but not limited to, primary monitor assignments and quality assurance (QA) collocation data entries. Consequently, the attached AMP600 Data Certification Report generated in AQS, requires the following explanation for $PM_{2.5}$ Requirements not met for certification as a direct result of EPA's data manipulation in AQS.

1. Collocation designations in AQS for North Dakota's NCORE site at Bismarck (AQS Site ID 38-015-0003) were removed. Collocation requirements in AQS also affect all other $PM_{2.5}$ sites in the network.
2. QA/QC flow checks uploaded to AQS for $PM_{2.5}$ Method codes 2xx, and 6xx, were not transferred to the alignment 700 series dataset EPA created in AQS.
3. Changes in AQS to the Collocation and Primary monitor designations across multiple Monitoring Methods.
4. EPA's deletions within AQS have also affected calculated Design Values at collocated $PM_{2.5}$ sites (e.g., the NCORE site at Bismarck), due to the deletion of North Dakota submitted collocation dates within AQS.

Submittal of North Dakota's 2023 Annual Ambient Air Monitoring Data Certification was significantly delayed as a direct result of awaiting EPA's finalized $PM_{2.5}$ T640/T640X data alignment in addition to the directly related critical issues in AQS.

After detailed review of the alignment algorithm developed by Teledyne and implemented in the Teledyne firmware update, as well as implemented by EPA in AQS, North Dakota finds that the FEM bias compared to FRM still exists in the measured concentrations in North Dakota. Based on the poor performance of the Teledyne alignment algorithm (before and after the Teledyne firmware update), North Dakota believes that EPA needs to reanalyze the FEM/FRM co-located data and develop a new algorithm that better reduces the bias in the FEM concentrations compared to the co-located FRM concentrations, thereby ensuring more accurate and reliable $PM_{2.5}$ measurements.

North Dakota is making every effort to maintain air quality standards and stay in attainment for all pollutants. Ensuring the accuracy of $PM_{2.5}$ measurements is crucial for air quality management and protecting public health and North Dakota expects the same level of diligence from the EPA in ensuring that the $PM_{2.5}$ data is accurate and reliable.

If you have any questions concerning the materials provided or require additional information or clarification, please contact Ryan Mills of my staff at (701)328-5188.

Sincerely,

Jim Semerad
Director
Division of Air Quality

JLS/RDM:er
Enc:

Appendix C NDDEQ Press Releases and News Stories

NORTH Dakota | Environmental Quality
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NEWS RELEASE | **FOR IMMEDIATE RELEASE** | May 17, 2023

Department of Environmental Quality urges caution during smoky conditions

BISMARCK, N.D. – The North Dakota Department of Environmental Quality advises residents, especially those with respiratory conditions, to consider limiting prolonged outdoor activities while smoky conditions remain across the state. Wildfires in northwestern Canada are sending smoke across North Dakota.

Extremely small particles of ash and soot, or particulate matter, have been increasing over the last few hours across northwestern North Dakota. Particulate matter can irritate the respiratory system, especially for those who suffer from chronic obstructive pulmonary disease (COPD) or conditions such as asthma and allergies. Environmental Quality advises people with respiratory conditions, the elderly and young children to avoid prolonged outdoor exposure.

High particulate numbers, coupled with a weather front moving across the state today will push smoke into the state. People reacting to smoke to the extent that it affects breathing should seek immediate help from a medical provider.

Environmental Quality closely monitors its air sampling network across the state. At this time most of the smoke impact seems to be concentrated in the northwestern part of the state and moving southeast ahead of the weather front. If conditions in central and eastern North Dakota become unfavorable, the department will follow up with additional information.

For up-to-date information on the region's current air quality and respiratory protection tips during a smoke event, visit fire.airnow.gov. The AirNow mobile phone app, and many other weather apps, also include air quality information.

For more information, contact:
Ryan Mills
Division of Air Quality
918 East Divide Ave | Bismarck, ND 58501-1947
PHONE: 701-328-5188 | EMAIL: rmills@nd.gov

www.deq.nd.gov

NORTH Dakota | Environmental Quality
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NEWS RELEASE | **FOR IMMEDIATE RELEASE** | June 14, 2023

Department of Environmental Quality urges caution during smoky conditions

BISMARCK, N.D. – The North Dakota Department of Environmental Quality advises residents, especially those with respiratory conditions, to consider limiting prolonged outdoor activities while smoky conditions remain across northcentral and eastern North Dakota today. Wildfires in northwestern Canada are sending smoke across most of the state.

Environmental Quality closely monitors its air sampling network across the state. Particulate matter, or extremely small particles of ash and soot in the smoke, has been increasing overnight in northcentral and eastern North Dakota. High particulate numbers across the state, coupled with a weather front will push additional smoke across most of the state. Higher ground level impacts at this point seem to be concentrated in the northcentral and eastern portions of the state.

In general, Environmental Quality advises everyone to use common sense and avoid prolonged exposure outdoors. Particulate matter can irritate the respiratory system, especially for those who suffer from chronic obstructive pulmonary disease (COPD) or conditions such as asthma and allergies. Environmental Quality advises people with respiratory conditions, the elderly and young children to avoid prolonged outdoor exposure. People reacting to smoke to the extent that it affects breathing should seek immediate help from a medical provider. General health-related smoke questions can be directed to the Health and Human Services Operating Center at (701) 328-0707.

If you see or smell smoke, ways to protect your health include:

- Staying inside with windows and doors closed until smoke levels subside.
- Reducing outside physical activity.
- Setting air conditioning units and car vent systems to re-circulate to prevent outside air from moving inside.

What you should do depends on the air quality index and your personal health status. Due to the active wildfires and changing wind patterns, air quality can be variable and unpredictable. Air quality may improve at times or get worse very quickly.

For up-to-date information on the region's current air quality and respiratory protection tips during a smoke event, visit fire.airnow.gov. The AirNow mobile phone app, and many other weather apps, also include air quality information.

Additional Resources

- Air Quality Index: https://www.airnow.gov also check the AirNow Fire and smoke Map
- Air Quality Monitoring Information: https://deq.nd.gov/AQ/monitoring/
- General Smoke-related Health Questions: (701) 328-0707
- Weather Forecasting: https://graphical.weather.gov/sectors/northdakota.php
- Wildfire Smoke Prediction Patterns: https://firesmoke.ca/forecasts/current/
- *Questions about the continuation of outdoor activities, events, and sports practice should be directed to the local administrators in charge.*

For more information, contact:
Ryan Mills
Division of Air Quality
PHONE: 701-328-5188 | EMAIL: rmills@nd.gov | www.deq.nd.gov

NORTH Dakota | Environmental Quality
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NEWS | **FOR IMMEDIATE RELEASE** | June 30, 2023

Department of Environmental Quality urges caution during smoky conditions

BISMARCK, N.D. – The North Dakota Department of Environmental Quality advises residents, especially those with respiratory conditions, to consider limiting prolonged outdoor activities while smoky conditions remain across north central and eastern North Dakota today. Wildfires in northwestern Canada are sending smoke across most of the state.

Environmental Quality closely monitors its air sampling network across the state. Particulate matter, or tiny particles of ash and soot in the smoke, has been increasing overnight in northwest and central North Dakota. At this point, higher ground-level impacts seem to be concentrated in those portions of the state and will be moving east.

Environmental Quality advises everyone to use common sense and avoid prolonged exposure outdoors. Particulate matter can irritate the respiratory system, especially for those who suffer from chronic obstructive pulmonary disease (COPD) or conditions such as asthma and allergies. Environmental Quality advises people with respiratory conditions, the elderly and young children to avoid prolonged outdoor exposure. People reacting to smoke to the extent that it affects breathing should seek immediate help from a medical provider. Please direct general health-related smoke questions to the Health and Human Services Operating Center at (701) 328-0707.

If you see or smell smoke, ways to protect your health include:

- Staying inside with windows and doors closed until smoke levels subside.
- Reducing outside physical activity.
- Setting air conditioning units and car vent systems to re-circulate to prevent outside air from moving inside.

What you should do depends on the air quality index and your personal health status. Due to the active wildfires and changing wind patterns, air quality can be variable and unpredictable. Air quality may improve at times or get worse very quickly.

For up-to-date information on the region's current air quality and respiratory protection tips during a smoke event, visit fire.airnow.gov. The AirNow mobile phone app, and many other weather apps, also include air quality information.

Additional Resources

- Air Quality Index: https://www.airnow.gov also check the AirNow Fire and smoke Map
- Air Quality Monitoring Information: https://deq.nd.gov/AQ/monitoring/
- General Smoke-related Health Questions: (701) 328-0707
- Weather Forecasting: https://graphical.weather.gov/sectors/northdakota.php
- Wildfire Smoke Prediction Patterns: https://firesmoke.ca/forecasts/current/
- Tune into local media sources for updates in your area.
- *Questions about the continuation of outdoor activities, events, and sports practice should be directed to the local administrators in charge.*

For more information, contact:
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PHONE: 701-328-5188 | EMAIL: rmills@nd.gov | www.deq.nd.gov

NORTH Dakota | Environmental Quality
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NEWS | **FOR IMMEDIATE RELEASE** | Aug. 29, 2023

Department of Environmental Quality urges caution during smoky conditions

BISMARCK, N.D. – As Canadian wildfires continue to send smoke across the state, the North Dakota Department of Environmental Quality advises residents, especially those with respiratory conditions, to consider limiting prolonged outdoor activities. Continue to monitor the Air Quality Index (AQI) throughout the remainder of the week with the AirNow phone app and your local media stations.

Environmental Quality closely monitors its air sampling network across the state, which feeds monitoring data into AirNow so the public is informed and able to take any necessary precautions. For up-to-date information on the region's air quality and respiratory protection tips during a smoke event, visit fire.airnow.gov.

Currently, particulate matter, or tiny particles of ash and soot in the smoke, is pushing the AQI into unhealthy, very unhealthy, or even hazardous categories in parts of the state. The AQI color codes are:

- Red (Unhealthy) – Keep outdoor activities light and short. Go indoors if you have symptoms.
- Purple (Very Unhealthy) – limit all outdoor physical activity, and go indoors for cleaner air if you don't feel well.
- Maroon (Hazardous) – Avoid all outdoor physical activity. If you are hot, go someplace with air conditioning.

Environmental Quality advises everyone to use common sense when wildfire smoke adversely impacts air quality. People reacting to smoke to the extent that it affects breathing should seek immediate help from a medical provider. Please direct general health-related smoke questions to the Health and Human Services Operating Center at (701) 328-0707.

If you see or smell smoke, ways to protect your health include:

- Staying inside with windows and doors closed until smoke levels subside.
- Reducing outside physical activity.
- Setting air conditioning units and car vent systems to re-circulate to prevent outside air from moving inside.

What you should do depends on the air quality index and your personal health status. Due to the active wildfires and changing wind patterns, air quality can be variable and unpredictable. Air quality may improve at times or get worse very quickly.

Additional Resources

- Air Quality Index: https://www.airnow.gov also check the AirNow Fire and smoke Map
- Air Quality Monitoring Information: https://deq.nd.gov/AQ/monitoring/
- General Smoke-related Health Questions: (701) 328-0707
- Weather Forecasting: https://graphical.weather.gov/sectors/northdakota.php
- Wildfire Smoke Prediction Patterns: https://firesmoke.ca/forecasts/current/
- Tune into local media sources for updates in your area.
- *Questions about the continuation of outdoor activities, events, and sports practice should be directed to the local administrators in charge.*

For more information, contact:
Ryan Mills
Division of Air Quality
PHONE: 701-328-5188 | EMAIL: rmills@nd.gov | www.deq.nd.gov

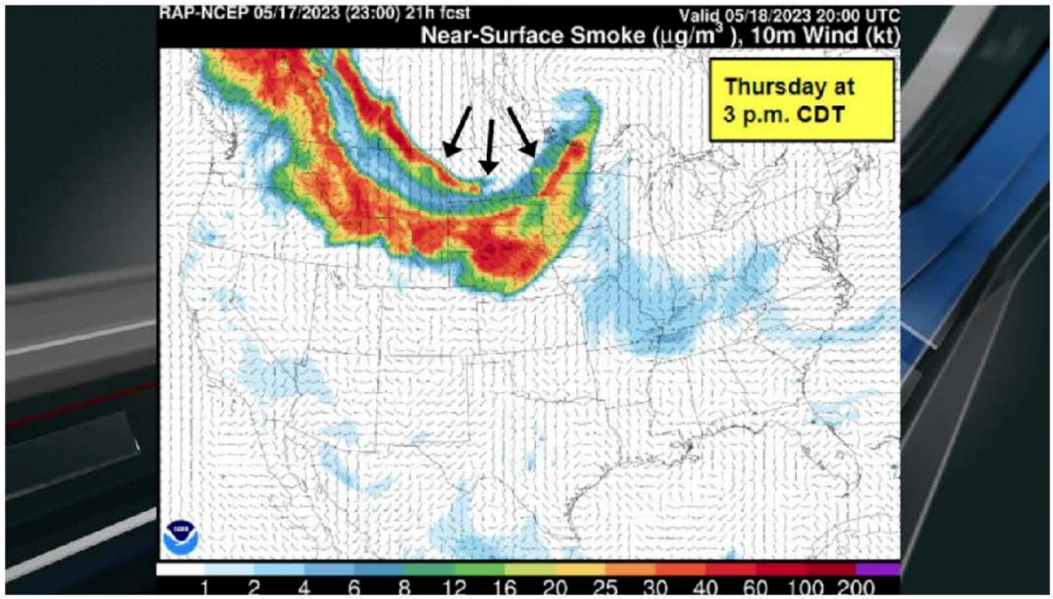
UPDATE: 'Hazardous' air quality reported; Department of Environmental Quality urges caution during smoky conditions

Smoky scene around the ND State Capitol (SkySpyPhotos.com)

By Brian Gray and Jacob Morse

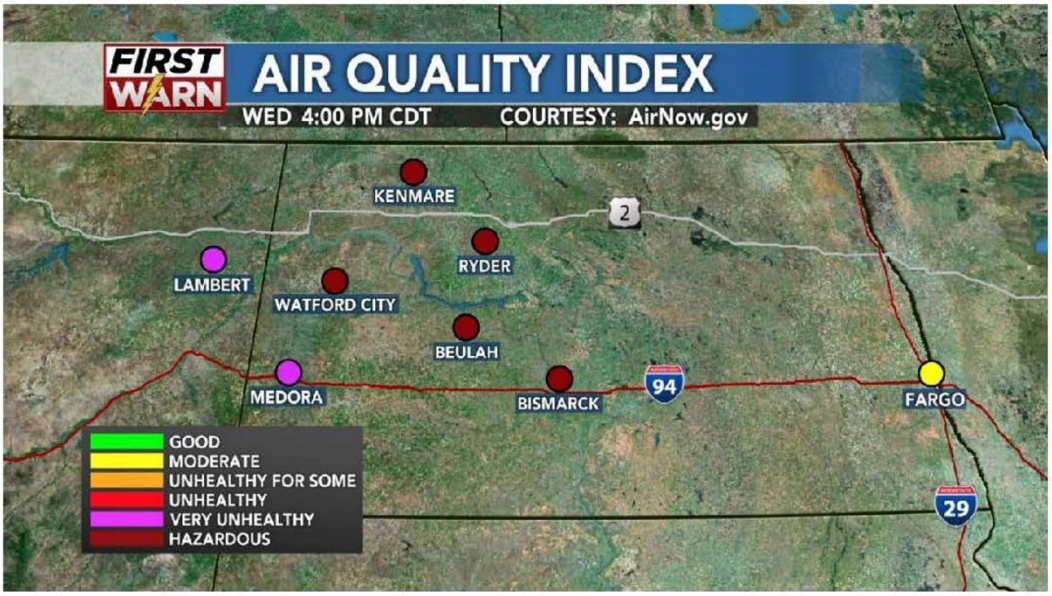
Published: May. 17, 2023 at 11:23 AM CDT

BISMARCK, ND (KFYR) - **UPDATE (5/17 at 8 p.m.):** Air quality sensors in western and central North Dakota are still reporting "very unhealthy" or "hazardous" air quality. The latest forecast models show that some of the near-surface smoke should slowly move out of North Dakota from north to south by Thursday afternoon.



Near-surface smoke forecast for Thursday at 3 p.m. CDT (KFYR)

UPDATE (5/17 at 4 p.m.): An air quality sensor near Bismarck reported an air quality index of 563, which is well into the "hazardous" category. A sensor in Beulah reported an air quality index of 659.



Air quality index map (KFYR)

UPDATE (5/17 at 2 p.m.): Numerous air quality sensors in western and central North Dakota are reporting "hazardous" conditions with air quality index levels of 300 or higher. At 12 p.m. CDT, Ryder was reporting an air quality index of 617, Watford City had a report of 551, and Kenmare reported an air quality index of 538.

According to fire.airnow.gov, when air quality is this bad, everyone should avoid all outdoor physical activity and if you are hot, go someplace with air conditioning. For sensitive groups (those with heart or lung disease, asthma, older adults, children, and pregnant people), the recommended actions are to stay indoors in a place with cleaner indoor air and keep activity levels light.

AQI Category and Color	Index Value	Description of Air Quality
Good Green	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Moderate Yellow	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups Orange	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Unhealthy Red	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy Purple	201 to 300	Health alert: The risk of health effects is increased for everyone.
Hazardous Maroon	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

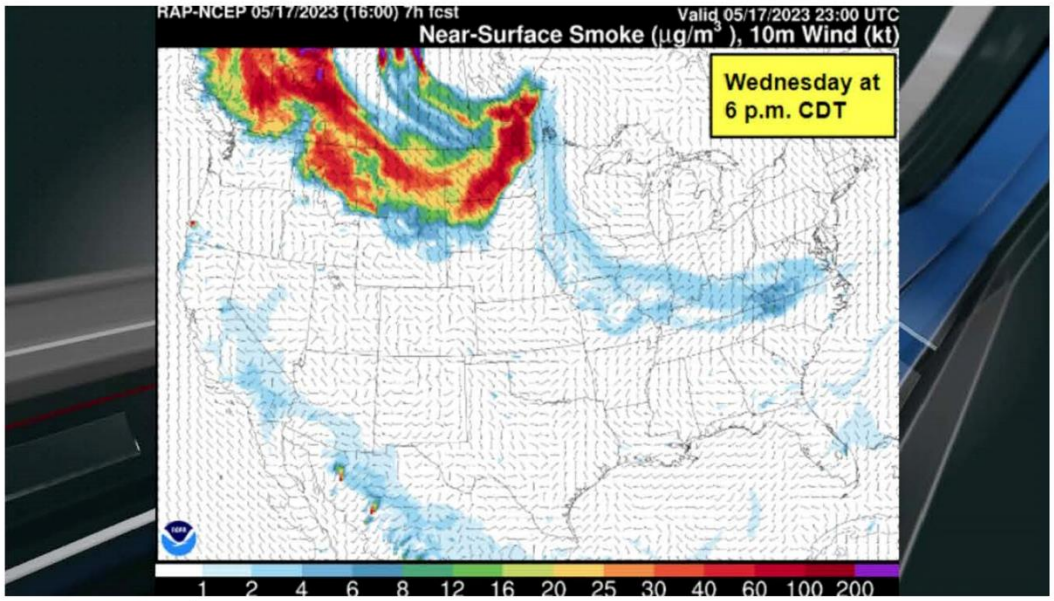
Air quality index levels chart (Environmental Protection Agency)

Index Value	Name	Color	Advisory
0 to 50	Good	Green	None
51 to 100	Moderate	Yellow	Unusually sensitive individuals should consider limiting prolonged outdoor exertion
101 to 150	Unhealthy for Sensitive Groups	Orange	Children, active adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion
151 to 200	Unhealthy	Red	Children, active adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else should limit prolonged outdoor exertion
201 to 300	Very Unhealthy	Purple	Children, active adults, and people with respiratory disease, such as asthma, should avoid outdoor exertion; everyone else should limit outdoor exertion
301-500	Hazardous	Maroon	Everyone should avoid all physical activity outdoors.

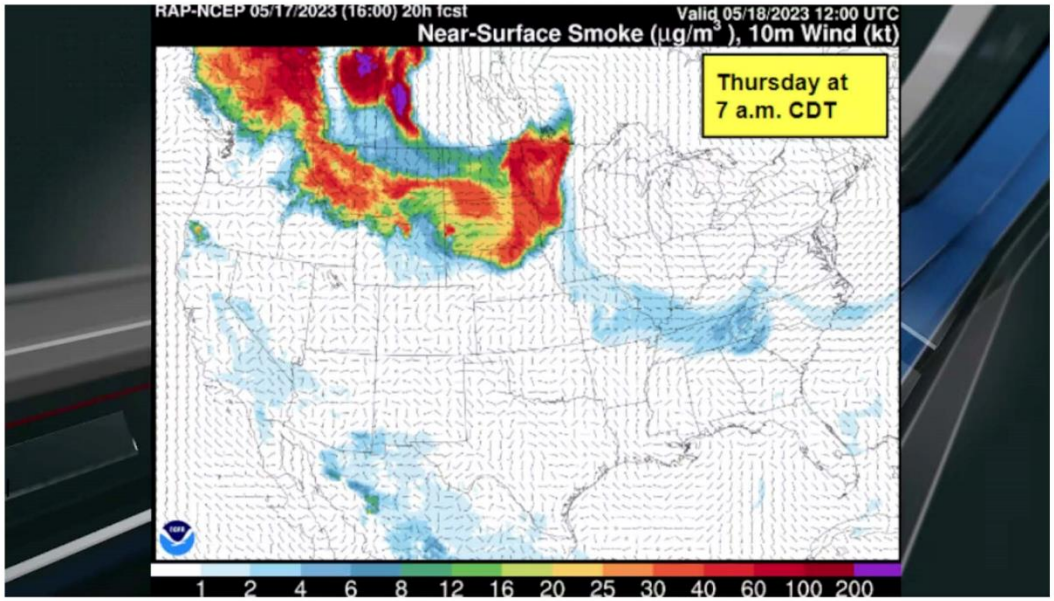
Air Quality Index Value and advisory recommendations (American Lung Association)

SkyWatch cameras across western/central ND showing the smoke (KFYR)

Smoke from wildfires that are burning in British Columbia, Alberta and Saskatchewan, Canada, is expected to linger through Wednesday night before improving for some on Thursday.



Near-surface smoke forecast for Wednesday at 6 p.m. CDT (KFYR)



Near-surface smoke forecast for Thursday at 7 a.m. CDT (KFYR)

ORIGINAL STORY (5/17/23 at 9 a.m.): Smoke from northwest Canadian wildfires is impacting air quality in the Peace Garden state Wednesday.

At around 9 a.m. CT, cities including Minot and Williston began experiencing smoky skies and reduced visibility.

The Department of Environmental Quality is advising people with respiratory issues in North Dakota cities, including Bismarck, to avoid going outdoors.

TOP STORIES

Canada wildfires bring 'hazardous' smoke into western North Dakota

A view of Minot May 17 from the KX weather cam
by: Keith Darnay
Posted: May 17, 2023 / 10:56 AM CDT
Updated: May 17, 2023 / 02:03 PM CDT

SHARE

(KXNET) — Heavy smoke from wildfires in western Canada is bringing dense smoke throughout western North Dakota, and along with it a "hazardous" air quality rating by federal measurements.

One North Dakota agency is advising people with respiratory issues to consider limiting outdoor activities in affected areas.

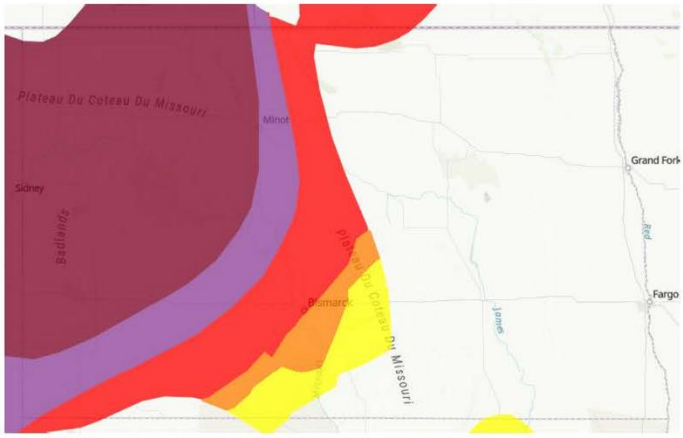
The National Weather Service office in Bismarck notes on its Facebook and web pages that the haze of Wednesday morning will increase as the smoke passes through Williston, Minot, Bismarck and other areas.


US 83 near Minot. (ND DOT Highway Cam)

Visibilities are expected to be reduced, with some places reducing to 1 mile or less. Some breezy winds are also expected behind this front.

Webcam image of wildfire smoke at Williston, ND.

One of the latest maps from AirNow, a federal government air quality monitoring service, shows air quality is dropping through western North Dakota. A large swath of purple, or "hazardous" air is hitting areas from Williston to Minot and Dickinson halfway to Bismarck, and all areas in between. Ahead of the spreading smoke are areas of "very unhealthy" (blue), "unhealthy" (red), "sensitive" (orange) and "moderate" (yellow) air quality conditions that are moving east through Bismarck.



The darker the color, the worse the air quality. Purple is the worst, labeled "hazardous."

The North Dakota Department of Environmental Quality advises residents, especially those with respiratory conditions, to consider limiting prolonged outdoor activities while smoky conditions remain across the state. For up-to-date information on the region's current air quality and respiratory protection tips during a smoke event, visit fire.airnow.gov.


Minot, as seen from the KX Weather Cam

Still hazy in Bismarck, conditions improving

Bismarck skycam haze (KFYR-TV)

By Joel Crane

Published: May. 18, 2023 at 12:16 PM CDT

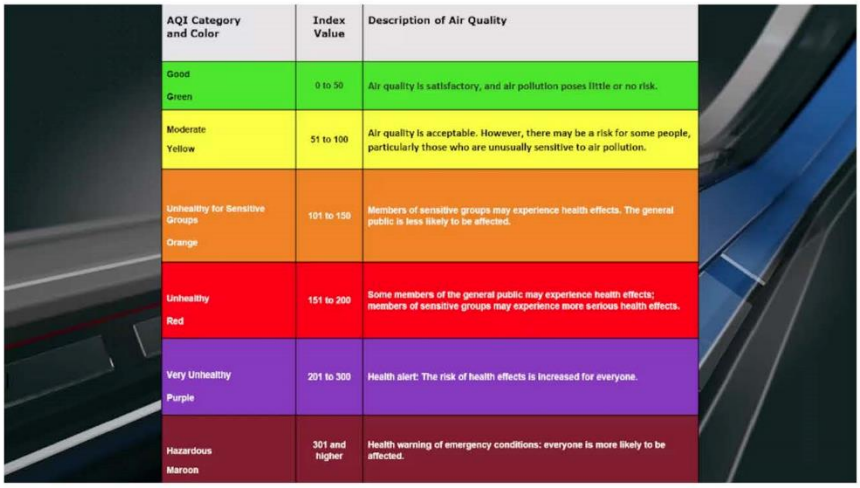
BISMARCK, N.D. (KFYR) - A hazy cloud still hangs over Bismarck. As of Thursday at 11:00 a.m., Bismarck's air quality is at 168, which is considered "unhealthy."

Bismarck's average air quality score is around 30. Wednesday, we hit a score of 986 at 4:00 p.m., but according to data from the Environmental Protection Agency, it's been gradually improving since then. However, since air quality forecasting can be a bit unpredictable, air quality could continue to fluctuate going forward.

Previous Coverage: North Dakota's worst day for air quality in a long time due to Canadian wildfires

Index Value	Name	Color	Advisory
0 to 50	Good	Green	None
51 to 100	Moderate	Yellow	Unusually sensitive individuals should consider limiting prolonged outdoor exertion
101 to 150	Unhealthy for Sensitive Groups	Orange	Children, active adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion
151 to 200	Unhealthy	Red	Children, active adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else should limit prolonged outdoor exertion
201 to 300	Very Unhealthy	Purple	Children, active adults, and people with respiratory disease, such as asthma, should avoid outdoor exertion; everyone else should limit outdoor exertion
301-500	Hazardous	Maroon	Everyone should avoid all physical activity outdoors.

Air Quality Index Value and advisory recommendations (KFYR)



AQI Category and Color	Index Value	Description of Air Quality
Good Green	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Moderate Yellow	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups Orange	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Unhealthy Red	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy Purple	201 to 300	Health alert: The risk of health effects is increased for everyone.
Hazardous Maroon	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

Air quality index levels chart (Environmental Protection Agency)

https://bismarcktribune.com/news/local/health/canadian-wildfire-smoke-returns-to-north-dakota-reducing-air-quality/article_00d8200c-0ac9-11ee-989b-5b40e01ae819.html

Canadian wildfire smoke returns to North Dakota, reducing air quality

BLAKE NICHOLSON
Jun 14, 2023

Walkers stroll around Tom O'Leary Golf Course in Bismarck on a hazy Wednesday.
DARREN GIBBINS, TRIBUNE

BLAKE NICHOLSON

Smoke from wildfires raging in Canada once again reduced air quality across North Dakota on Wednesday.

Hundreds of wildfires have burned across Canada this spring, scorching more than 12 million acres, prompting the evacuations of thousands of people and sending dense smoke across that country and the U.S., as far as the East Coast. Smoky skies were prevalent across North Dakota during parts of May, and smoke reduced visibility in several areas again Wednesday.

Much of the smoke was in higher elevations. Ground-level impacts were worst in the north central and eastern parts of North Dakota. Air quality in the Bottineau, Devils Lake, and Red River Valley regions was rated as "unhealthy" or "unhealthy for sensitive groups" at various times throughout the day, according to **AirNow**, a partnership of many federal and state agencies including the U.S. Environmental Protection Agency and the National Oceanic and Atmospheric Administration.

Air quality throughout western North Dakota including **Bismarck** was mostly rated "moderate."

"We may see some air quality issues over the next few days across the Upper Midwest, especially the eastern Dakotas through Minnesota and northern Wisconsin and upper Michigan due to some of the lower level smoke from numerous fires burning across northern and northwestern Ontario," **AccuWeather** Senior Meteorologist Brett Anderson said.

Nearly all of northern Minnesota was considered to have unhealthy air Wednesday, and that state's Pollution Control Agency issued an air quality alert for the region.

The smoke is expected to dissipate by Friday due to a combination of storms and shifting winds, according to AccuWeather. The **National Weather Service reports** that thunderstorms are expected Wednesday night across western North Dakota, while storms are possible Thursday for the rest of the state.

However, wildfires north of the border are expected to remain a problem in coming months, according to Natural Resources Canada.

"We are already seeing one of the worst wildfire seasons on record, and we must prepare for a long summer," Steven Guilbeault, Canada's minister of environment and climate change, said in a recent statement.

Smoky skies in North Dakota are likely to be an off-and-on issue in North Dakota, according to Ryan Mills, manager of ambient air monitoring for North Dakota's Department of Environmental Quality.

"It seems these fires are in areas not easily accessible for fire crews," he said. "One source even said that this may be a problem until the snow comes this fall. Only a guess at best; pray for some heavy rains in the short term."

DEQ advised residents -- especially the elderly, young children and people with respiratory conditions -- to consider limiting prolonged outdoor activities in smoky areas.

Extremely small particles of ash and soot, known as particulate matter, were increasing due to the smoke, according to DEQ. Particulate matter can irritate the respiratory system, especially for those who suffer from lung conditions or allergies.

People reacting to smoke to the extent that it affects breathing are advised to seek immediate help from a medical provider.

General health-related smoke questions can be directed to the state Health and Human Services Operating Center at 701-328-0707.

DEQ also offered these tips for dealing with the smoke:

- Stay inside with windows and doors closed until smoke levels subside.
- Reduce outside physical activity.
- Set air conditioning units and car vent systems to "recirculate" to prevent outside air from moving inside.

Information on wildfires and air quality is on the DEQ website, at **bit.ly/3OhrD7E**. The EPA's map of fire and smoke conditions is at **https://fire.airnow.gov/**. The AirNow mobile phone app, and many other weather apps, also include air quality information. Wildfire smoke pattern predictions can be found at **https://firesmoke.ca/forecasts/current/**.

Reach News Editor Blake Nicholson at 701-250-8266 or **blake.nicholson@bismarcktribune.com**.

By BLAKE NICHOLSON
Editor

Smoke Returns From Canadian Wildfires and Officials Recommend Limiting Time Outside

June 14, 2023 by Brian Barrett (https://www.kvrr.com/author/bbarrett/)

FARGO, N.D. (KVRR) — North Dakota Department of Environmental Quality is advising residents to consider limiting time outside while smoky conditions remain.

They advise people to protect their health and keep windows and doors closed until smoke levels subside.

Inhaling fine particles can cause a variety of health effects including respiratory irritation and shortness of breath. It can also worsen medical conditions like asthma and heart disease.

This has not been the worst wildfire smoke to impact the area, on May 16-18 this year, the state was covered with smoke.

“We had that huge one on the 16th,17th, and 18th, that covered the whole state and the department for twenty-five years now and I have never seen it that bad.” says Ryan Mills, North Dakota Department of Environmental Quality

Hazy conditions were seen across the valley Wednesday and unfortunately, we aren't expecting the smoke to move out anytime soon.

“We anticipate the smoke to remain across the region through the end of the week into the weekend. At some point early next week, we anticipate the skies will come clearer and the smoke will dissipate.” says Tommy Grafenauer, NWS Grand Forks

However, there is some good news as a cold front will swing through later this week and potentially push out some of the surface smoke.

“There is some uncertainty as to how much the smoke near the surface will remain, so there is going to be a cold front that works its way through later Thursday and into Friday, that may scour out some of the surface smoke, however the high-level smoke will remain.” says Grafenauer

He says wildfire smoke could continue on and off into July.

STATE NEWS

Canadian wildfire smoke makes North Dakota air quality in history's worst

by: Nai Remy
Posted: Jul 4, 2023 / 10:12 AM CDT
Updated: Jul 4, 2023 / 10:12 AM CDT

SHARE

NORTH DAKOTA (KXNET) — Summer is supposed to be a time when families get outside to play and clean up their yards, but this year, the sweet summer air has been everything but sweet.

"This has been the worst year for air quality," said Jim Semerad, the director of the North Dakota Department of Environmental Quality (NDDEQ).

But some hazardous fires up north are making life uncomfortable for many in North Dakota.

Semerad says that it's their job to ensure North Dakotans are aware of the air pollution in our state because this can affect all ages in a negative way.

"The key is that it can impact everybody differently, so know your own body, know how you're feeling, if you're out working hard, if you're running, if you're exercising, if you're working outside through excursion. You might be affected more than somebody who let's say is just sitting down," said Semerad

Semerad says it's not just adults who suffer from bad air quality, kids can be more at risk because they're often more active than adults because they have smaller bodies and smaller lungs.

"We've had some interesting calls let's say from directors or let's say children's softball or baseball tournaments, and those are really hard because when you have higher numbers you don't know how it's going to affect children," said Semerad

Although North Dakota has some of the cleanest air in the country, Semerad says the Canadian wildfires remind us of the power of mother nature and how quickly environmental conditions can shift, and why it's so important to continuously monitor the air.

"We take our clean air for granted and our clean water, but North Dakota continues to be one of the few states in the country that consistently meets clean air standards throughout the state," said Semerad

Semerad says that's a track record he hopes will make North Dakota families breathe easier.

According to the Clean Air Task Force, North Dakota children are more likely to suffer from asthma attacks throughout the summer months in these conditions.

So if the air quality drops, there's a lot you can do to prepare yourself as suggested by the REA website

If you see or smell smoke, some ways to protect your health include:

- Staying inside with windows and doors closed until smoke levels subside.
- Reducing outside physical activity.
- Setting air conditioning units and car vent systems to re-circulate in order to prevent outside air from moving inside.

The Division of Air Quality's goal is to protect the health of North Dakotans from the harmful effects of air pollution.

TOP STORIES

Most of western ND has "unhealthy" air quality due to Canadian wildfire smoke

An afternoon view of Bowman July 14. A thick haze obscures most of the view, smoke from the ongoing Canadian wildfires. (KX Cam)

by: Keith Darnay
Posted: Jul 14, 2023 / 02:49 PM CDT
Updated: Jul 14, 2023 / 02:50 PM CDT

SHARE

BISMARCK, ND (KXNET) — The same winds that helped push cloudy skies and rain out of western North Dakota have also blown in more smoke from the ongoing Canadian wildfires, raising the air quality levels to the "unhealthy" stage.

Hazy skies over Minot, July 14. (KX Cam).

Right now, the EPA sensors scattered around North Dakota are showing high levels of particulates in the air which, going by official AirNow fire and smoke website reports, puts the air people are breathing outside into the "unhealthy" category.

KX Weather Cams in Bismarck and Minot show the hazy skies blanketing the cities, as well as other communities throughout western North Dakota.

Haze around Bismarck, July 14. (KX Cam)

People who have breathing issues are advised to limit their outdoor activities and exposure.

The KX Weather Team notes gusty winds up to 30 miles per hour will help push out the smoke starting Saturday, meaning some relief should be coming by Sunday.

Canada's worst wildfire season ever contributing to smoke in ND, how we can use forecast models to predict it

By Jacob Morse

Published: Aug. 28, 2023 at 10:39 PM CDT

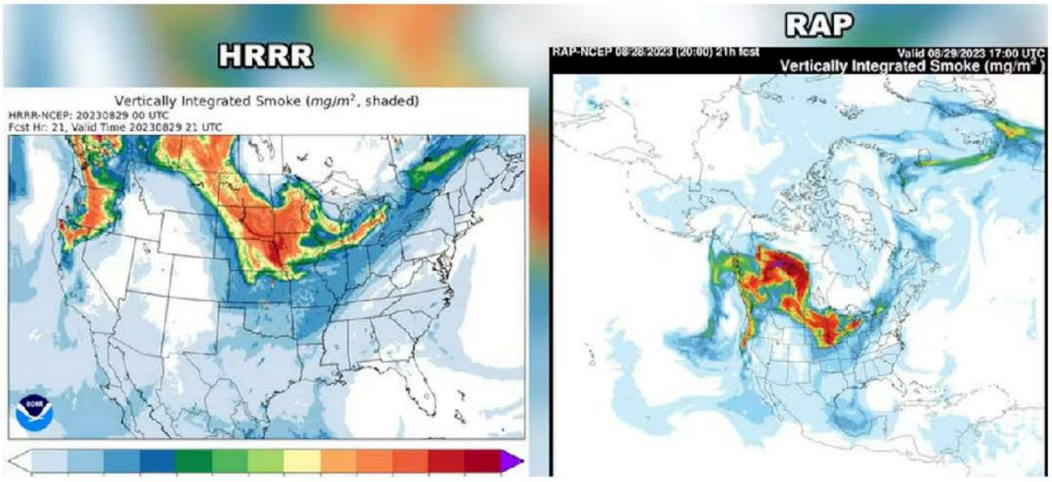
BISMARCK, N.D. (KFYR) - More than 600 wildfires are currently burning across Canada, with 226 of them uncontrolled. The smoke from those fires has been constantly filtering into North Dakota, impacting our air quality.

More than 38 million acres have burned across Canada this year, close to the entire size of the state of North Dakota. That's more than six times what's normal, leading to horrifying scenes in some communities.

Record-setting temperatures and dry vegetation have contributed to Canada's worst wildfire season ever, and the smoke from those fires has been picked up by winds and carried throughout the U.S. at times this summer, but especially in the Northern Plains.

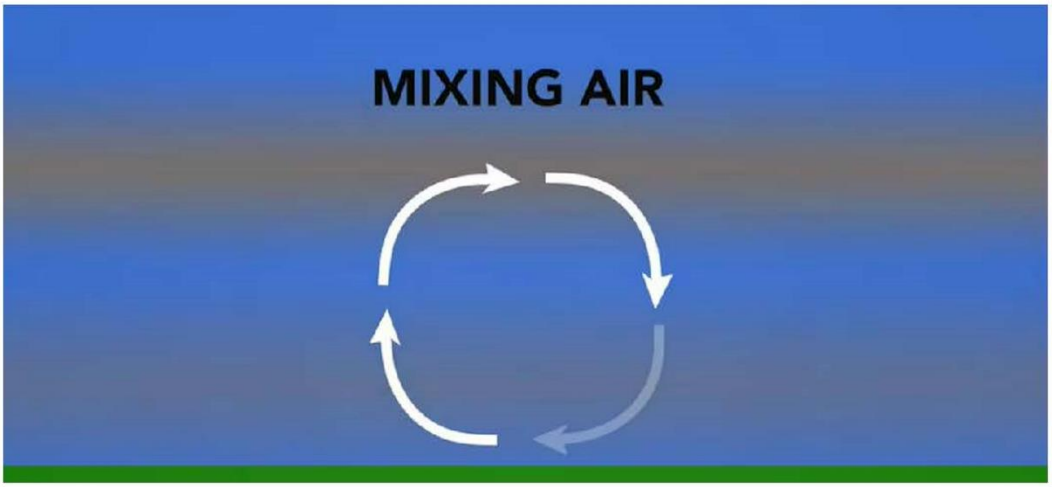
Forecasting where the smoke travels has been crucial in determining when our air quality will be impacted.

New weather satellites use thermal imagery to detect and track wildfires in real-time, as well as estimate how much smoke they are producing. Then two high-resolution weather models use this data and complex equations to give us an idea of where the particulate matter associated with smoke will travel within the next 48 hours.



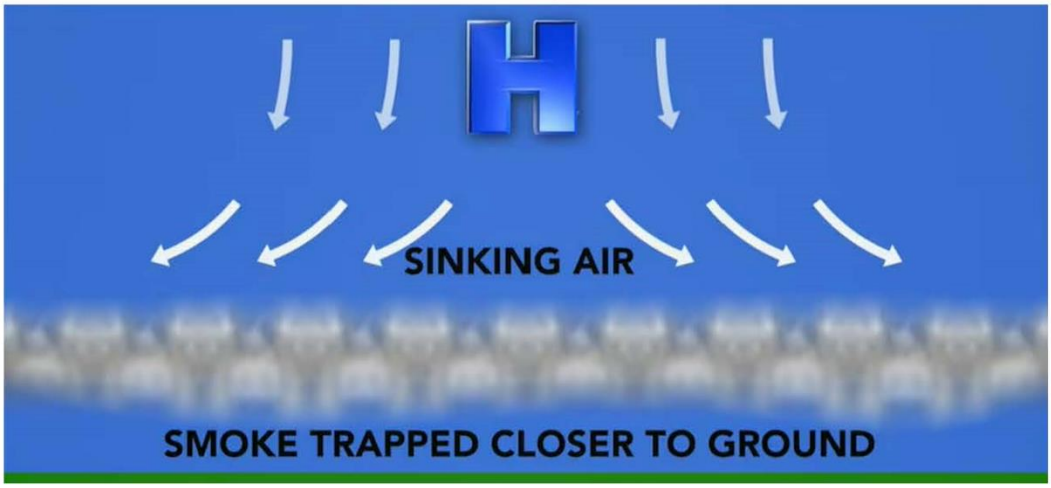
HRRR (3 km resolution across CONUS) and RAP (13.5 km resolution across North America) models are used to forecast smoke plumes from wildfires (KFYR)

"A lot of times, if we have a wind direction that's out of the north or northwest, that smoke has been moving into our area, say, behind cold fronts. So, the wind speed, the wind direction, both down here at the ground and all the way up through the jet stream level dictates a lot of where that smoke moves," said Chauncy Schultz, science and operations officer at the National Weather Service in Bismarck. "That's not the only thing, of course. Stability in the atmosphere, which literally just kind of defines how well the atmosphere is stirred up, if we can have up and downward vertical motions in the atmosphere. And that dictates a lot about whether or not the smoke reaches all the way down to the ground."



Mixing within the atmosphere can bring smoke from the upper levels down closer to the ground (KFYR)

High pressure can also keep smoke near the ground for longer.



Sinking air associated with high pressure can trap smoke closer to the ground (KFYR)

Having a better understanding of wildfire behavior, among other things, can help improve smoke model forecasting.

"Better improvements in the wind forecasts aloft would help, and especially better improved forecasts of the stability — how that smoke might be brought down to the ground. Because those are really sensitive in model forecasts, even high-resolution model forecasts struggle at times with stability near the ground," said Schultz.

This would ultimately give us a better idea of exactly when air quality will be at its worst.

When meteorologists can see smoke plumes on satellite imagery, that allows for even better short-term forecasting.

You can monitor smoke concentrations and air quality here.

Minot Daily News

Summer of smoke: ND counties reach hazardous air quality

Charles Crane/MDN The view of the coulee north of Jim Hill Middle School was obscured on May 17 as a massive plume of smoke from Canadian wildfires made its way across the United States, resulting in air quality in the purple level in a 24-hour period for the first time in Ward County.

Recently released data from the Environmental Protection Agency shows that 19 counties in 11 states, including seven from North Dakota, recorded air quality levels in the purple or *"very unhealthy"* range for a full 24-hour period for the first time this year.

The hazardous conditions have been attributed to widespread wildfires north of the border in Canada, which caused a massive plume of noxious smoke to slowly creep across the upper Midwest this summer.

When the resulting plume of smoke first descended upon the Peace Garden State in mid-May, North Dakota Department of Environmental Quality manager Ryan Mills said the data spat out by the state's environmental quality system were hitting numbers he had never seen before.

"On any given day in North Dakota, if you take industry out of the equation, we have great air quality. It's some of the cleanest in the nation." Mills said, *"I looked at those numbers and said, 'That can't be right.' "*

Mills and his team double checked their numbers and then reached out to park rangers to see if there was any local burning going on that they didn't know about. The rangers responded that the smoke was so thick they could barely see anything past their noses. Mills said that such air conditions have become more common in recent years as the Great White North serves as a tinderbox for conflagrations often beyond the control of Canadian authorities.

"Fires started kicking up in Canada there on May 17th to the 18th. It was the worst air quality this state has ever seen." Mills said, *"The only time we have issues is with wildfires – when things are outside of our control."*

Mills said the air conditions were not limited to Ward, Burke, Billings, Dunn, Mercer, Oliver and Burleigh Counties, as the smoke blanketed the entire state. Not every community in the state is able to record EPA air quality data, while the eight counties are home to monitoring stations and sensors which track air quality on the Bakken oil field, which he said is why they've been singled out in the data. Even then, most *"Purple monitor"* readings aren't always the most reliable as they are recorded by municipalities and citizens rather than stable agencies like the EPA.

"The caution is that they are not regulatory. They're more like a smoke detector. They'll tell you there is a fire, but they don't tell you how bad it actually is." Mills said, *"Another concern is the condition of the sensors. Typically, we only have to maintain or clean our sensors once a quarter. Now it's something we have to do every trip. It's been daunting."*

An aspect of the Canadian fires that differ from a prairie fire is the density of the trees and overgrowth, which can sometime reach as high as 30 feet. With all that extra fuel and heat, the smoke plume is lifted higher into the atmosphere, allowing it to be as well traveled as it has been this year. According to Mills, more than 90 million metric tons of carbon have been released into the atmosphere by the fires, which have burned 380,000 acres in Canada this summer alone.

"I know people are wondering 'Is this ever going to end?' That plume from May has traveled across the country and the Pacific Ocean all the way to Western Europe. The smoke has even reached the North Pole." Mills said, *"I get it, people are frustrated, but it's beyond our control. There's another front coming in, and cold fronts and other conditions bring them down to the ground."*

While Americans may be hoping for a respite with the end of summer, Mills said that a representative from the Canadian Forest Service expects the fires to continue burning, *"until the snow flies."*

Published September 20, 2023

Appendix D PM2.5 Tiering Tool Analyses

This $PM_{2.5}$ Tiering Tool Analyses follows the process described in the U.S. EPA $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document[34]. It states:

> This document outlines a tiered approach for addressing the clear causal relationship element within a wildland fire $PM_{2.5}$ demonstration, recognizing that some causal relationships may be clearer and, therefore, require relatively fewer pieces of evidence to satisfy the rule requirements.

Tier 1 clear causal analyses are intended for wildland fire events with distinct high levels of monitored 24-hour $PM_{2.5}$ concentrations, when compared to historical 24-hour concentrations. More specifically, the event concentrations were 1.5 times the highest 98th percentile of data for the last five years. This demonstrates that the monitored event concentrations are undeniably higher than non-event concentrations, thus requiring fewer pieces of evidence to establish a clear causal relationship.

Historically, the Division has not applied data qualifiers to the ambient monitoring data in AQS for instances of wildfire smoke impacts at the monitoring sites. As a result, the U.S. EPA $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document default methodology tiering thresholds for North Dakota are conservative.

The U.S. EPA Exceptional Events Analysis and Visualization Tools, $PM_{2.5}$ Tiering Tool[35], was utilized by the Division for the tier threshold calculations to determine the site-level tiering thresholds at all nine monitoring sites. Tier Thresholds in the $PM_{2.5}$ Tiering Tool are:

- Based on the most recent, complete 5-year period 2019-2023.
- Calculated at the site level. For identifying site-days to exclude from the tier threshold calculations, the tool considers the raw data record for all monitors at a site. If any hour of the day at any monitor at the site has an R (Request Exclusion) flag or a fire-related I (Informational) flag[36], then the tool excludes the site-level aggregated daily value from the tier threshold calculations. Fire-related I flags include IT (Wildfire - U.S.), IF (Fire - Canadian), IG (Fire - Mexico/Central America), IH (Fireworks), IM (Prescribed Fire), and IP (Structural Fire).
- The tier thresholds are based on the lesser value of either (a) the most recent 5-year month-specific 98th percentile for 24-hour $PM_{2.5}$ data, or (b) the minimum annual 98th percentile for 24-hour $PM_{2.5}$ data for the most recent 5-year period with all R flagged and fire-related I flagged days excluded.
- Tier 1 demonstrations are appropriate for 24-hour $PM_{2.5}$ greater than or equal to 1.5 times the threshold.

---

[34] U.S. EPA, $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document, April 2024, available at https://www.epa.gov/system/files/documents/2024-04/final-pm-fire-tiering-4-30-24.pdf

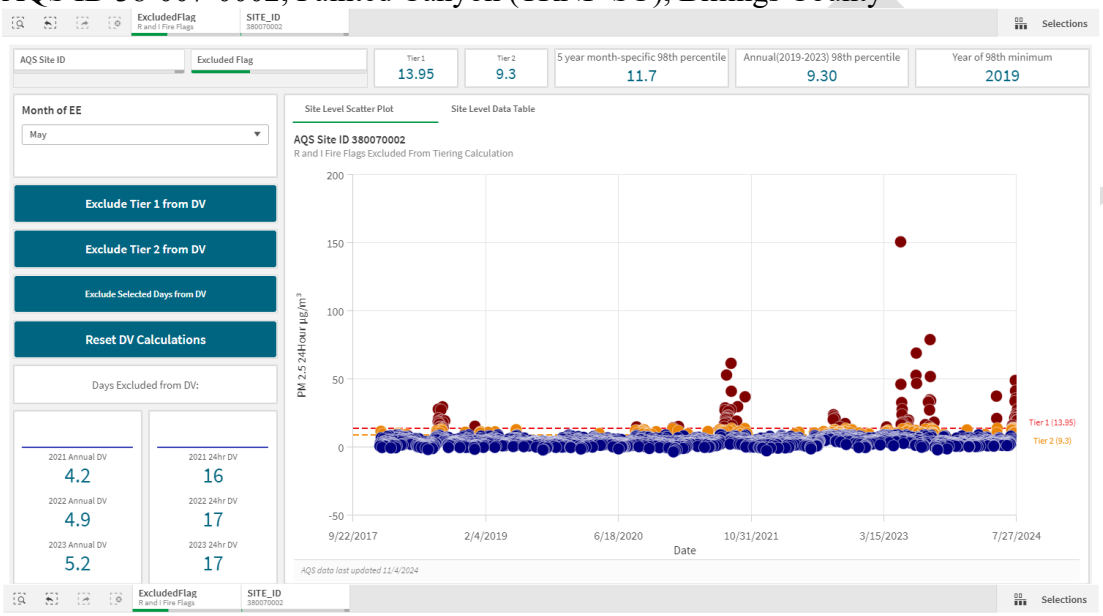
[35] U.S. EPA, $PM_{2.5}$ Tiering Tool – for Exceptional Events Analysis, accessed October 28, 2024, available at https://www.epa.gov/air-quality-analysis/pm25-tiering-tool-exceptional-events-analysis

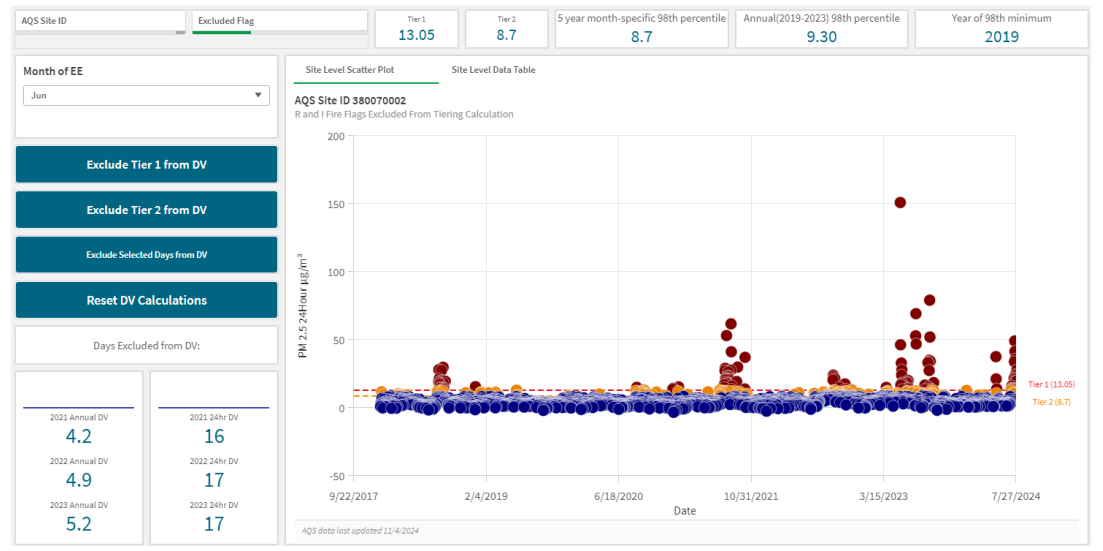
[36] In the context of the $PM_{2.5}$ Tiering Tool, "flagged data" are data in AQS that have been flagged by the State or local agency as having been impacted by any of the wildfire event types in AQS (e.g., IF, IG , IM , IT, RF, RG, RM, RP, RT).

- Tier 2 demonstrations are appropriate for 24-hour $PM_{2.5}$ greater than or equal to the threshold but less than 1.5 times the threshold.
- Tier 3 demonstrations are appropriate for 24-hour $PM_{2.5}$ less than the threshold.

The following images are the monitor site-level tiering graphs produced by the $PM_{2.5}$ Tiering Tool, which display the daily $PM_{2.5}$ concentrations along with tier levels. As smoke from wildfires across Canada directly affected the air quality in North Dakota from mid-May through mid-September of 2023, the $PM_{2.5}$ Tiering Tool was run at each monitor site for the months of May, June, July, August, and September.

AQS ID 38-007-0002, Painted Canyon (TRNP-SU), Billings County





ExcludedFlag
R and I Fire Flags
SITE_ID
380070002
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		13.95	9.3	27.2	9.30	2019

Month of EE
Jul

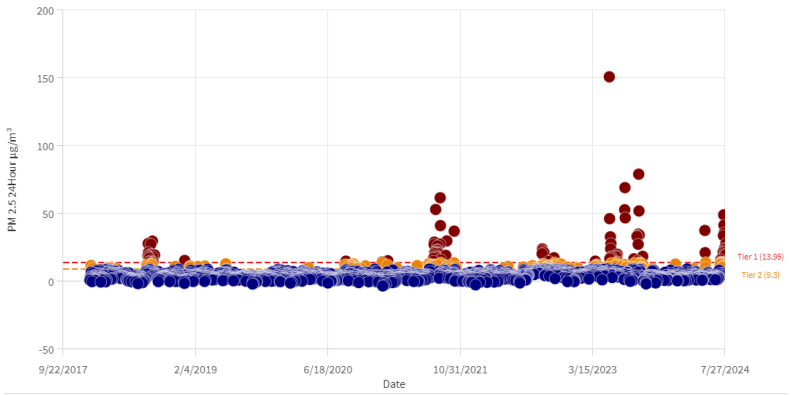
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.2	16
2022 Annual DV	2022 24hr DV
4.9	17
2023 Annual DV	2023 24hr DV
5.2	17

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380070002
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380070002
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		13.95	9.3	27.6	9.30	2019

Month of EE
Aug

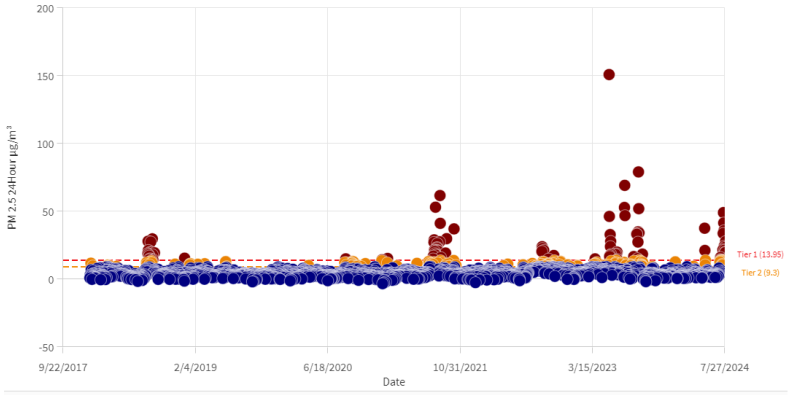
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.2	16
2022 Annual DV	2022 24hr DV
4.9	17
2023 Annual DV	2023 24hr DV
5.2	17

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380070002
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024
ExcludedFlag
R and I Fire Flags
SITE_ID
380070002
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		13.95	9.3	22.7	9.30	2019

Month of EE
Sep

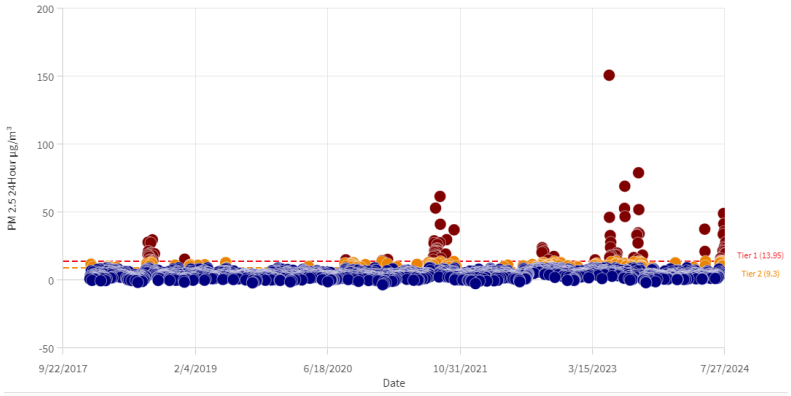
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.2	16
2022 Annual DV	2022 24hr DV
4.9	17
2023 Annual DV	2023 24hr DV
5.2	17

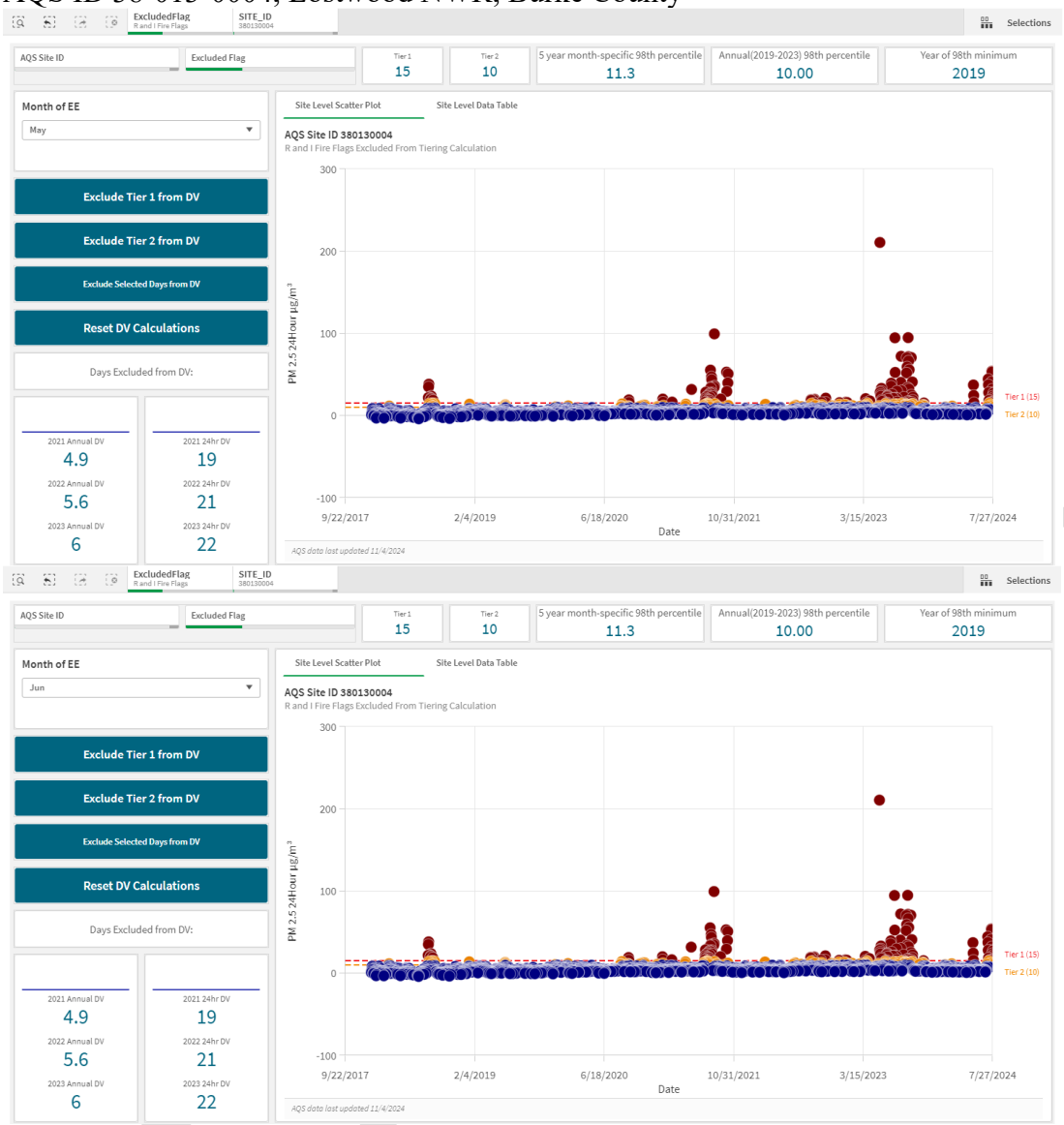
Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380070002
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

AQS ID 38-013-0004, Lostwood NWR, Burke County



ExcludedFlag
R and I Fire Flags
SITE_ID
380130004
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		15	10	23.6	10.00	2019

Month of EE
Jul

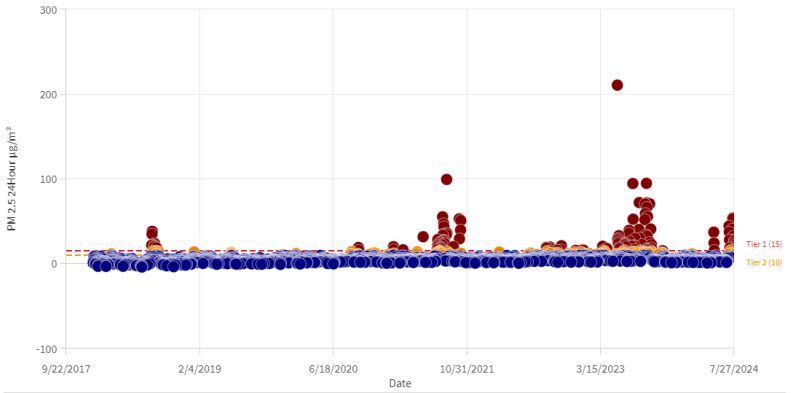
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.9	19
2022 Annual DV	2022 24hr DV
5.6	21
2023 Annual DV	2023 24hr DV
6	22

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380130004
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380070002
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		13.95	9.3	27.6	9.30	2019

Month of EE
Aug

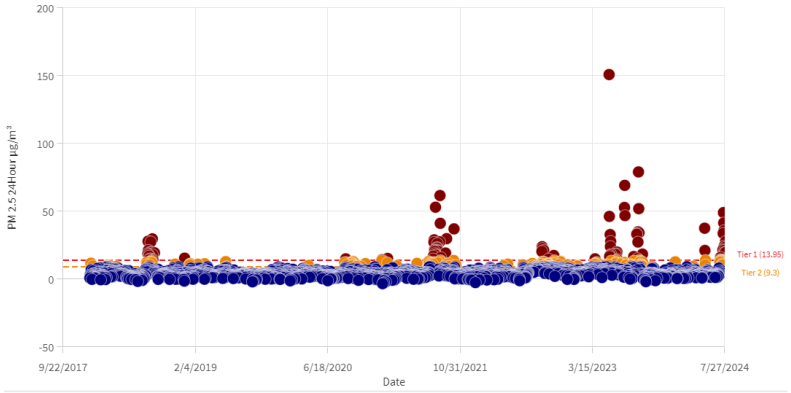
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.2	16
2022 Annual DV	2022 24hr DV
4.9	17
2023 Annual DV	2023 24hr DV
5.2	17

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380070002
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380130004
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		15	10	19.1	10.00	2019

Month of EE
Sep

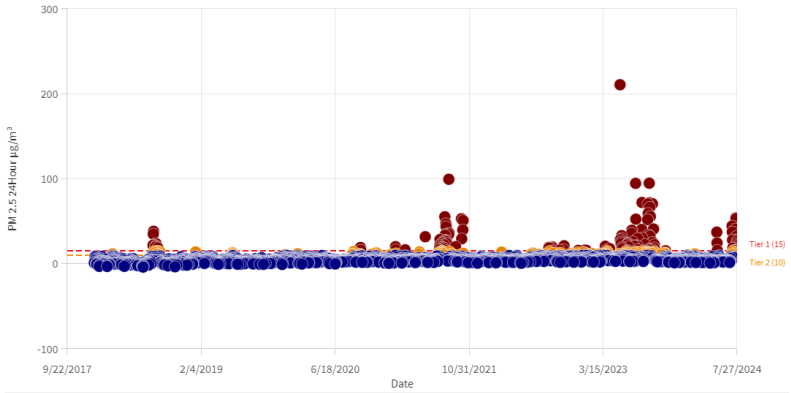
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.9	19
2022 Annual DV	2022 24hr DV
5.6	21
2023 Annual DV	2023 24hr DV
6	22

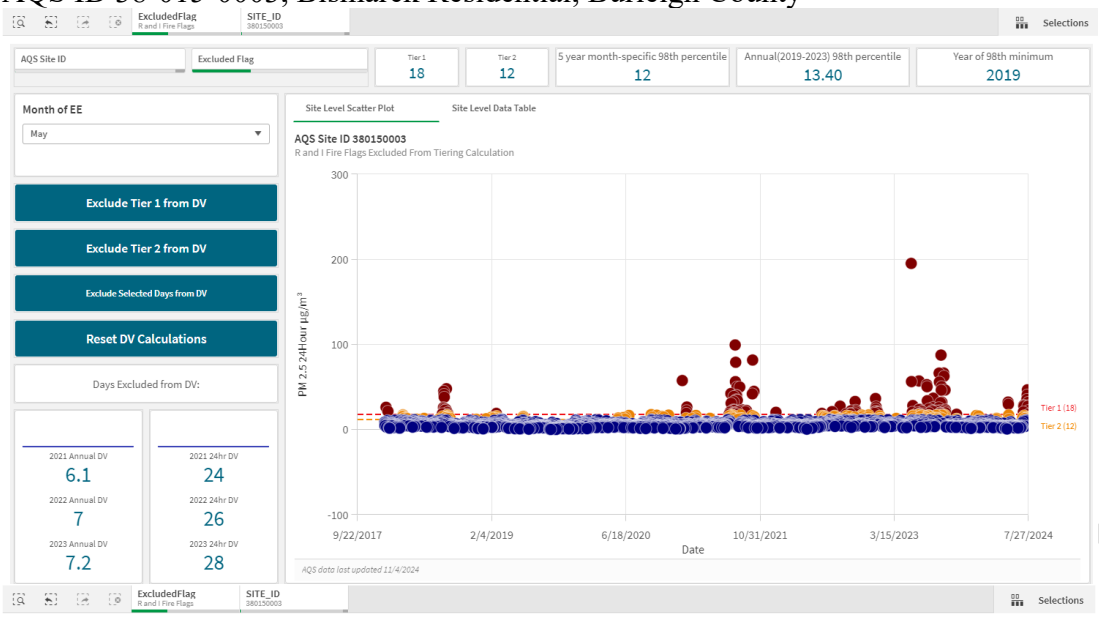
Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380130004
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

AQS ID 38-015-0003, Bismarck Residential, Burleigh County



ExcludedFlag
R and I Fire Flags
SITE_ID
380150003
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		20.1	13.4	39	13.40	2019

Month of EE: Jul

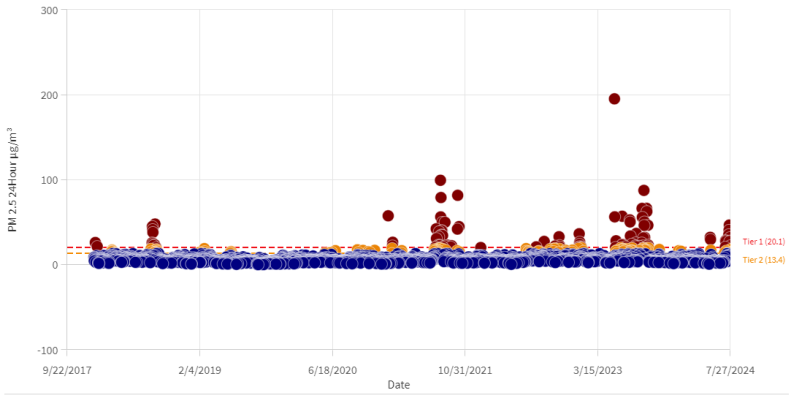
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
6.1	24
2022 Annual DV	2022 24hr DV
7	26
2023 Annual DV	2023 24hr DV
7.2	28

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380150003
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380150003
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		20.1	13.4	40.1	13.40	2019

Month of EE: Aug

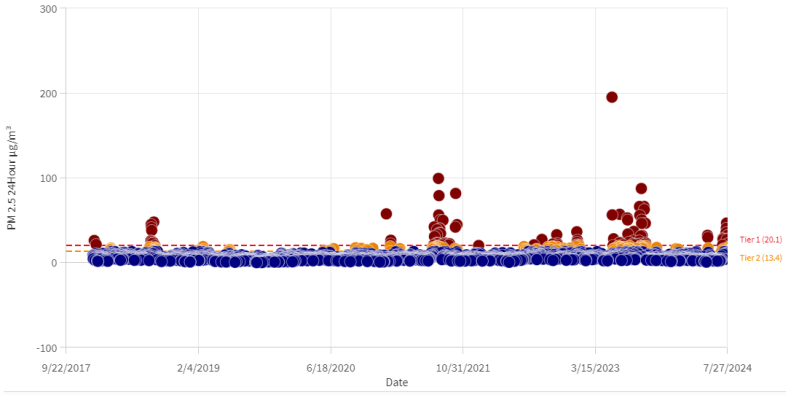
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
6.1	24
2022 Annual DV	2022 24hr DV
7	26
2023 Annual DV	2023 24hr DV
7.2	28

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380150003
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380150003
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		20.1	13.4	18.4	13.40	2019

Month of EE: Sep

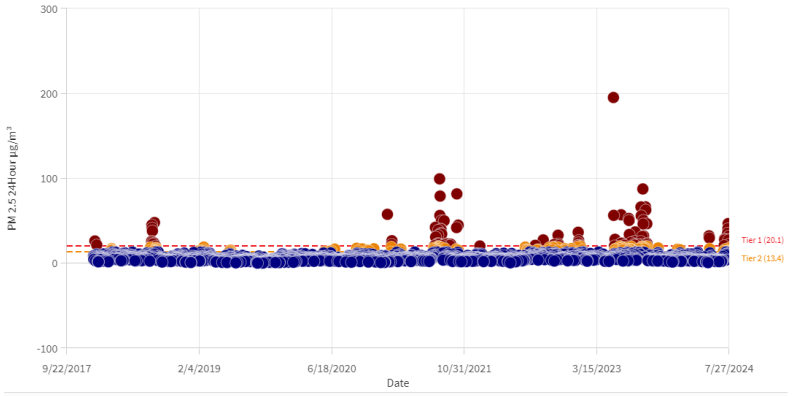
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
6.1	24
2022 Annual DV	2022 24hr DV
7	26
2023 Annual DV	2023 24hr DV
7.2	28

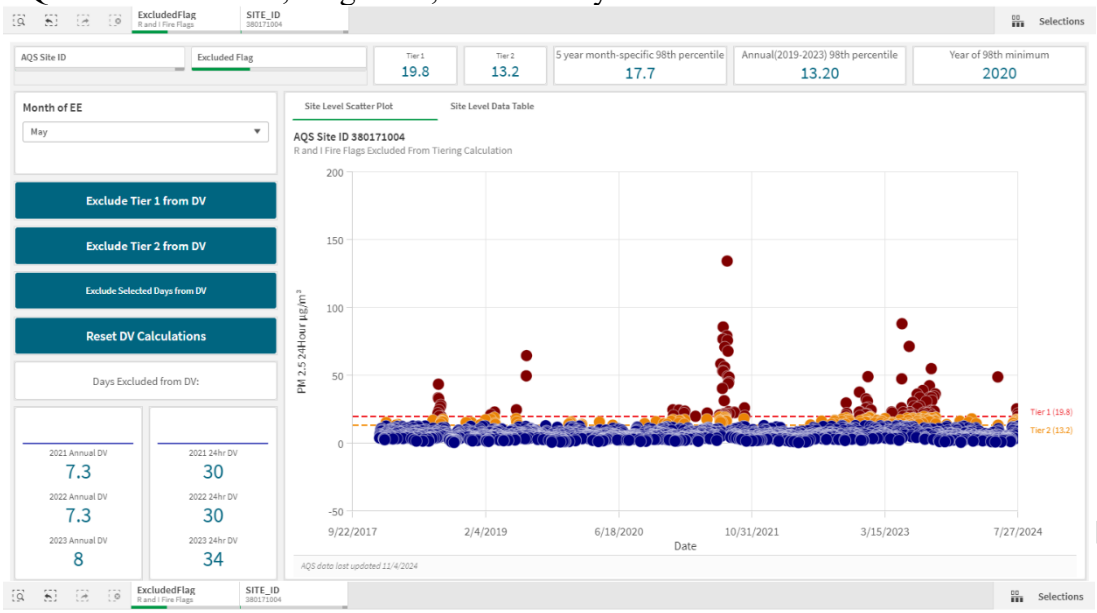
Site Level Scatter Plot | Site Level Data Table

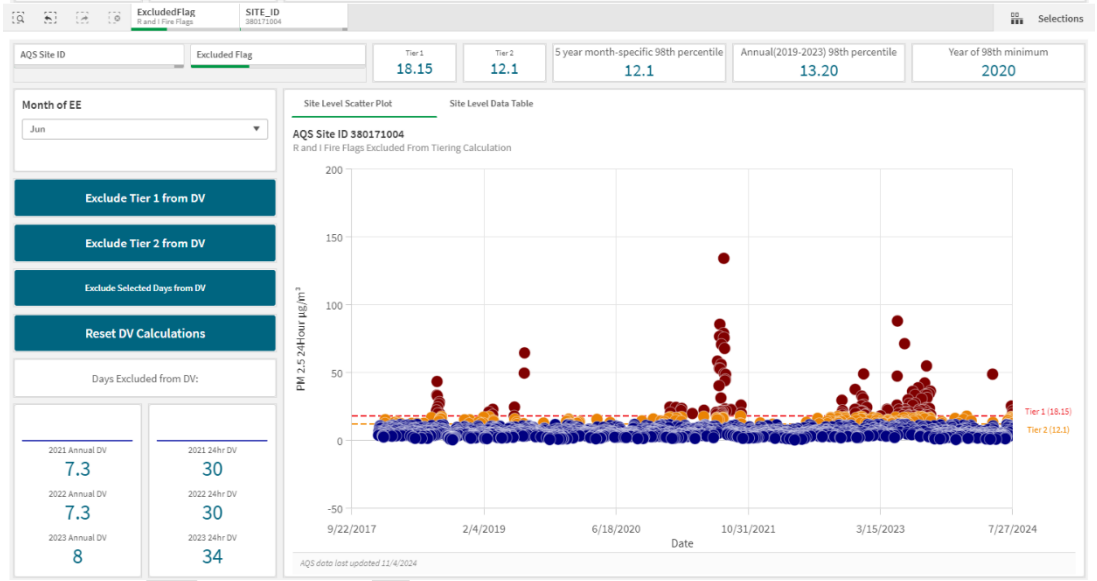
AQS Site ID 380150003
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

AQS ID 38-017-1004, Fargo NW, Cass County





ExcludedFlag
R and I Fire Flags
SITE_ID
380171004
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		19.8	13.2	79.2	13.20	2020

Month of EE: Jul

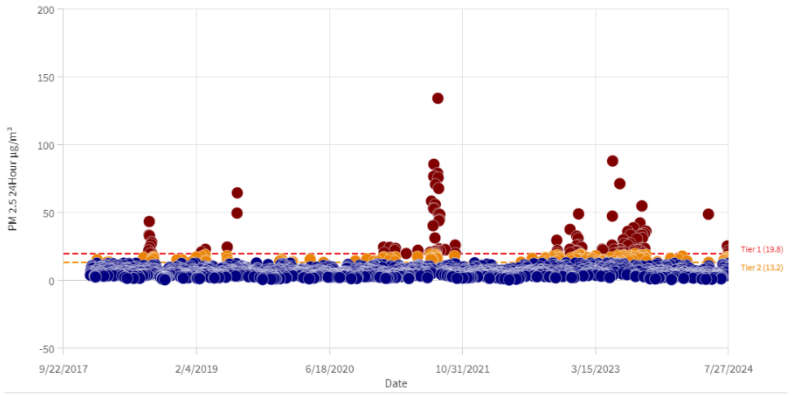
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV	2022 Annual DV	2022 24hr DV	2023 Annual DV	2023 24hr DV
7.3	30	7.3	30	8	34

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380171004
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380171004
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		19.8	13.2	45	13.20	2020

Month of EE: Aug

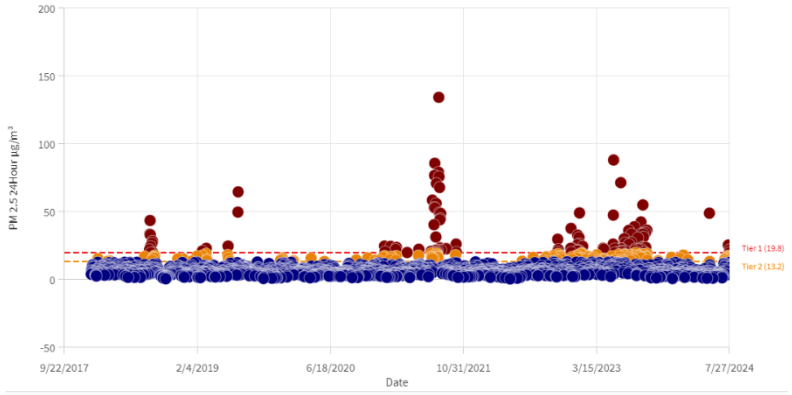
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV	2022 Annual DV	2022 24hr DV	2023 Annual DV	2023 24hr DV
7.3	30	7.3	30	8	34

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380171004
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380171004
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		19.8	13.2	14.6	13.20	2020

Month of EE: Sep

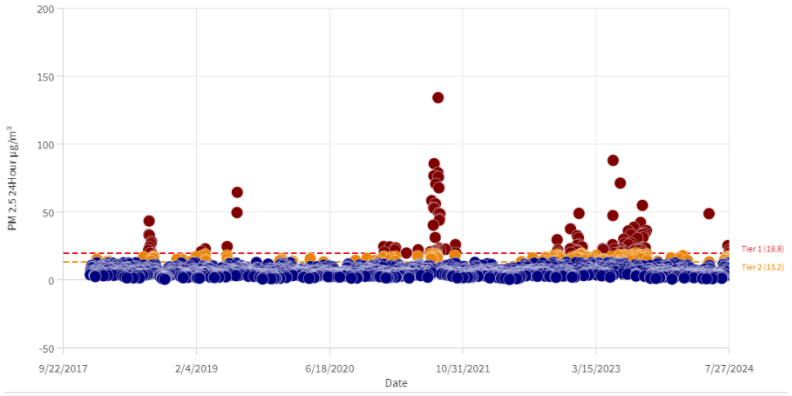
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV	2022 Annual DV	2022 24hr DV	2023 Annual DV	2023 24hr DV
7.3	30	7.3	30	8	34

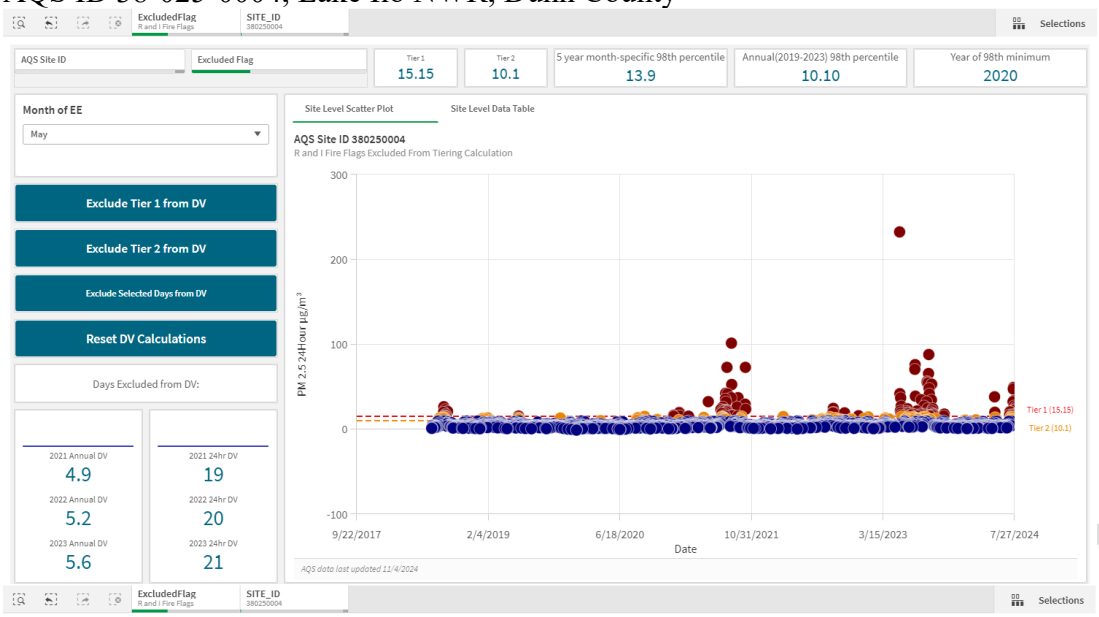
Site Level Scatter Plot | Site Level Data Table

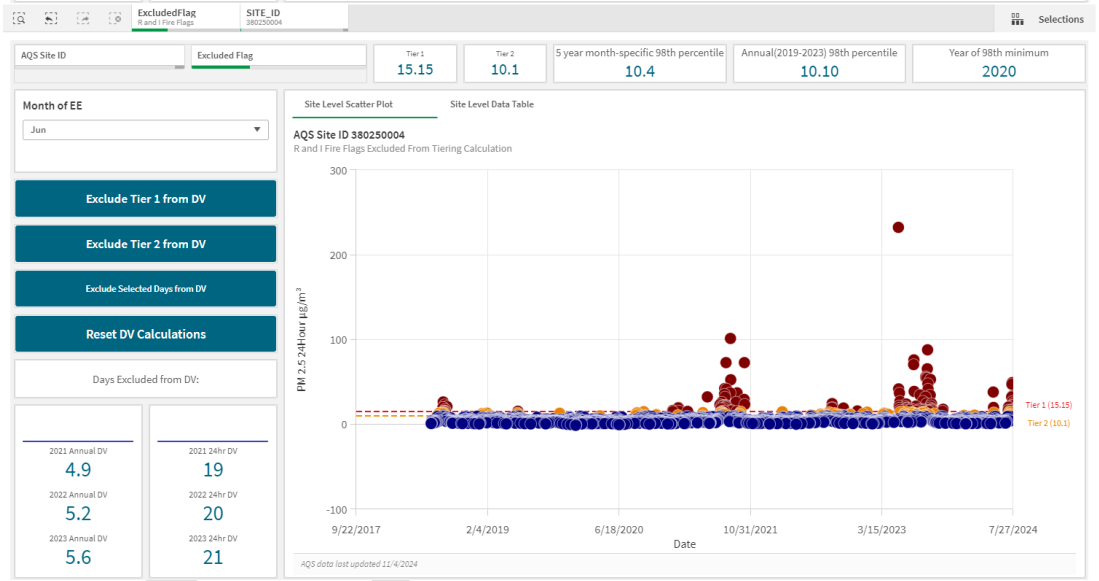
AQS Site ID 380171004
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

AQS ID 38-025-0004, Lake Ilo NWR, Dunn County





ExcludedFlag
R and I Fire Flags
SITE_ID
380250004
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		15.15	10.1	32.3	10.10	2020

Month of EE
Jul

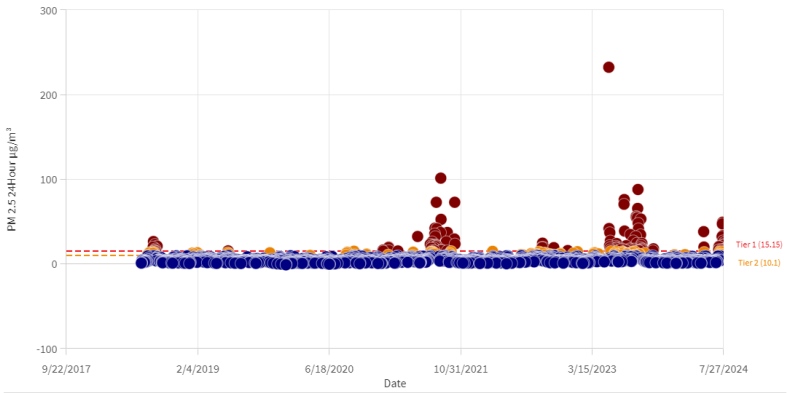
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.9	19
2022 Annual DV	2022 24hr DV
5.2	20
2023 Annual DV	2023 24hr DV
5.6	21

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380250004
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380250004
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		15.15	10.1	41.7	10.10	2020

Month of EE
Aug

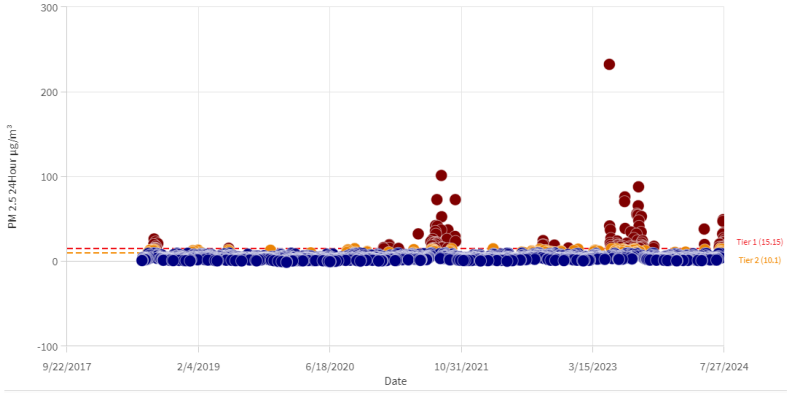
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.9	19
2022 Annual DV	2022 24hr DV
5.2	20
2023 Annual DV	2023 24hr DV
5.6	21

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380250004
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags
SITE_ID
380250004
Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		15.15	10.1	24.6	10.10	2020

Month of EE
Sep

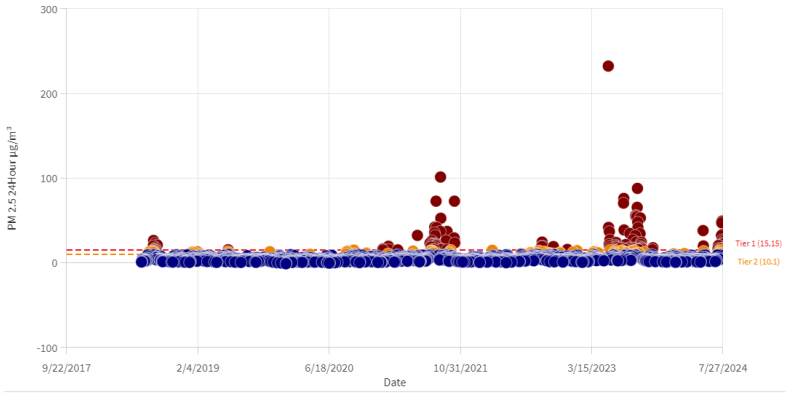
Exclude Tier 1 from DV
Exclude Tier 2 from DV
Exclude Selected Days from DV
Reset DV Calculations

Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.9	19
2022 Annual DV	2022 24hr DV
5.2	20
2023 Annual DV	2023 24hr DV
5.6	21

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380250004
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

AQS ID 38-053-0002, TRNP-NU, McKenzie County

ExcludedFlag
R and I Fire Flags

SITE_ID
380530002

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		15.45	10.3	32.9	10.30	2023

Month of EE

Jul

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

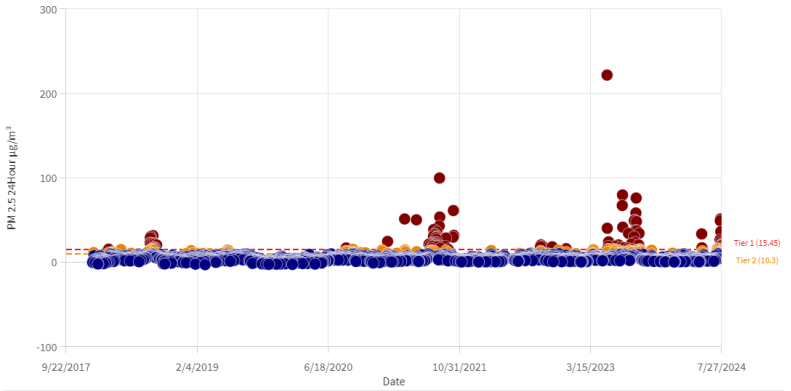
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.7	19
2022 Annual DV	2022 24hr DV
4.9	20
2023 Annual DV	2023 24hr DV
5.1	20

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380530002

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags

SITE_ID
380530002

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		15.45	10.3	43.1	10.30	2023

Month of EE

Aug

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

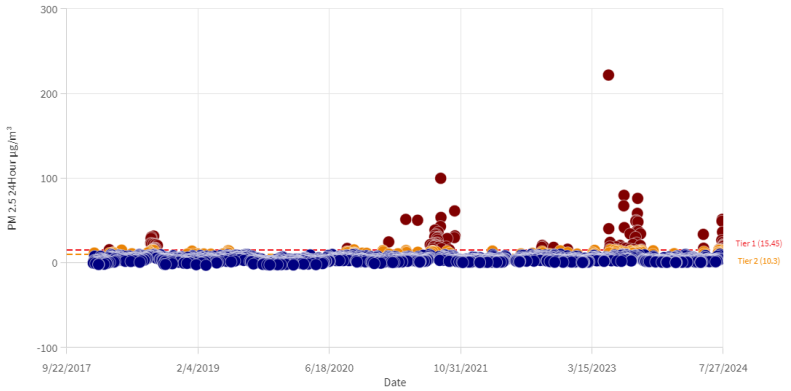
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.7	19
2022 Annual DV	2022 24hr DV
4.9	20
2023 Annual DV	2023 24hr DV
5.1	20

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380530002

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags

SITE_ID
380530002

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		15.45	10.3	19.1	10.30	2023

Month of EE

Sep

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

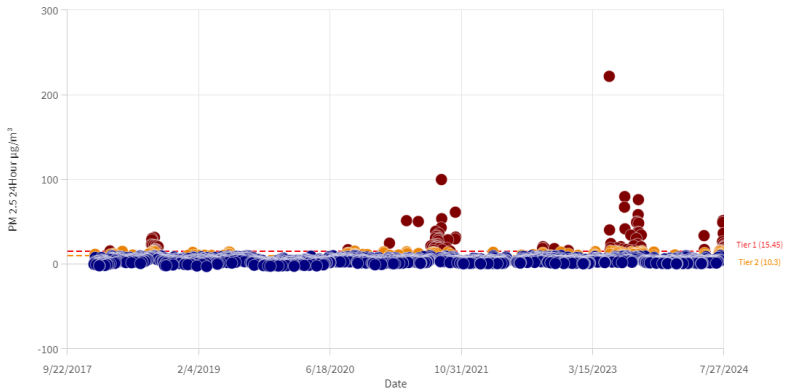
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
4.7	19
2022 Annual DV	2022 24hr DV
4.9	20
2023 Annual DV	2023 24hr DV
5.1	20

Site Level Scatter Plot | Site Level Data Table

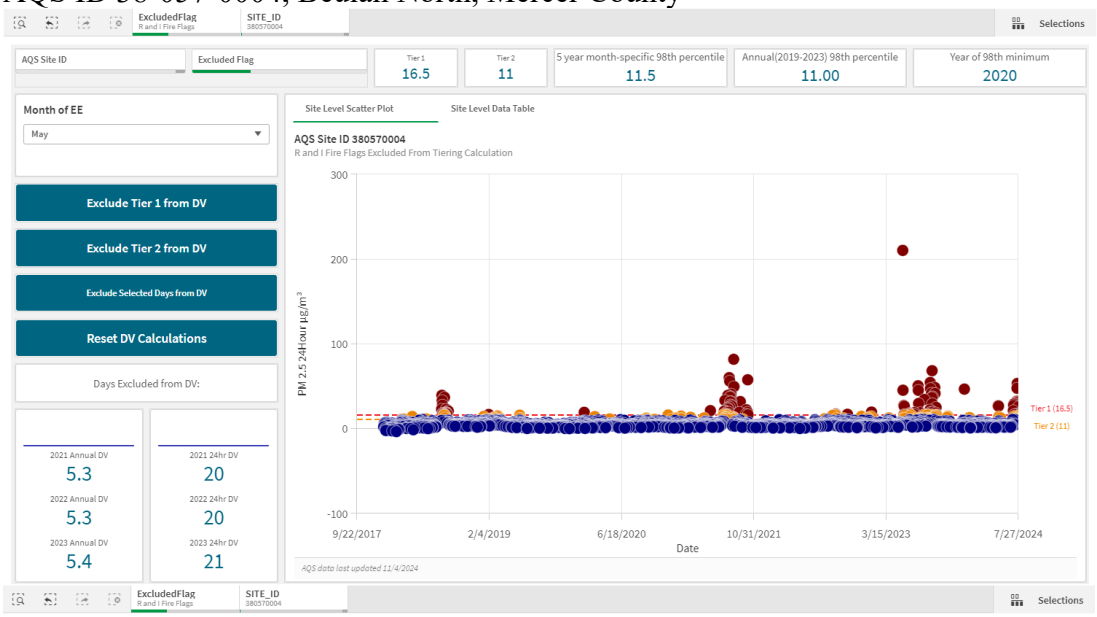
AQS Site ID 380530002

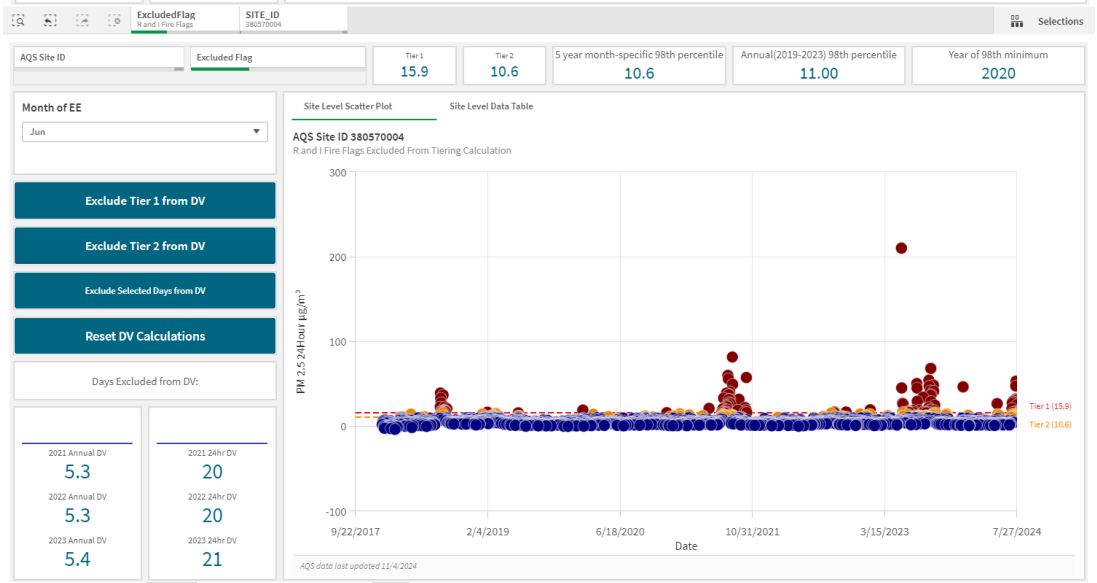
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

AQS ID 38-057-0004, Beulah North, Mercer County





ExcludedFlag
R and I Fire Flags

SITE_ID
380570004

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		16.5	11	33.3	11.00	2020

Month of EE

Jul

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

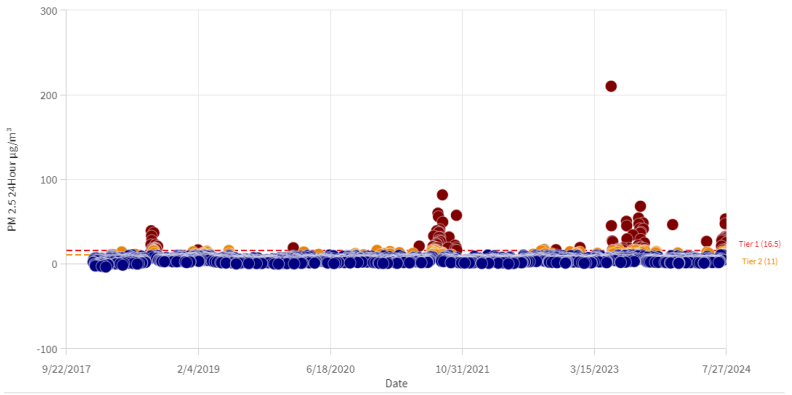
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.3	20
2022 Annual DV	2022 24hr DV
5.3	20
2023 Annual DV	2023 24hr DV
5.4	21

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380570004

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags

SITE_ID
380570004

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		16.5	11	40.9	11.00	2020

Month of EE

Aug

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

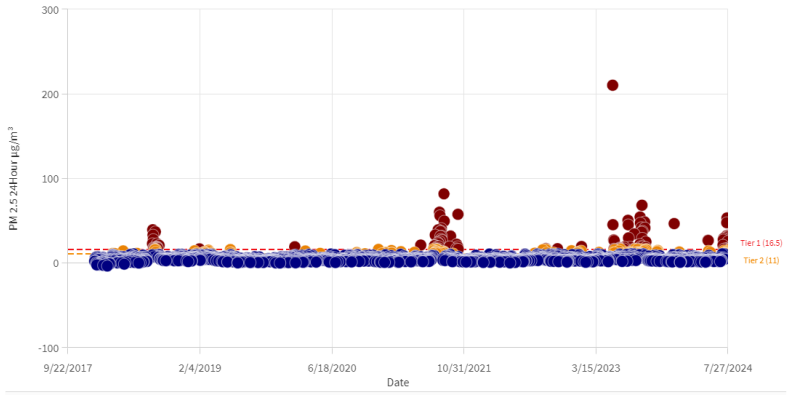
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.3	20
2022 Annual DV	2022 24hr DV
5.3	20
2023 Annual DV	2023 24hr DV
5.4	21

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380570004

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags

SITE_ID
380570004

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		16.5	11	17.2	11.00	2020

Month of EE

Sep

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

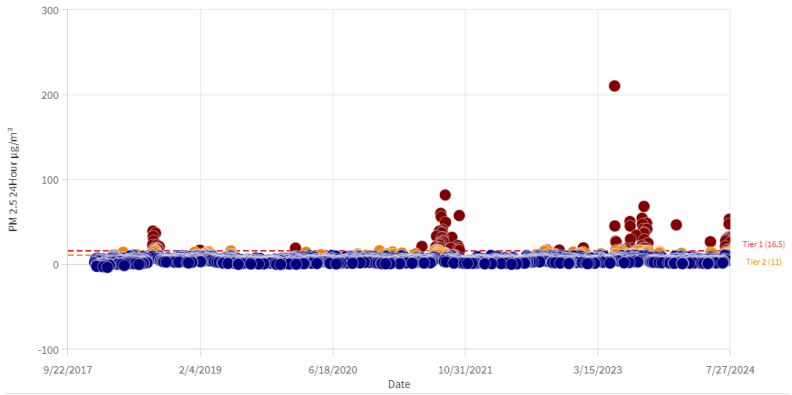
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.3	20
2022 Annual DV	2022 24hr DV
5.3	20
2023 Annual DV	2023 24hr DV
5.4	21

Site Level Scatter Plot | Site Level Data Table

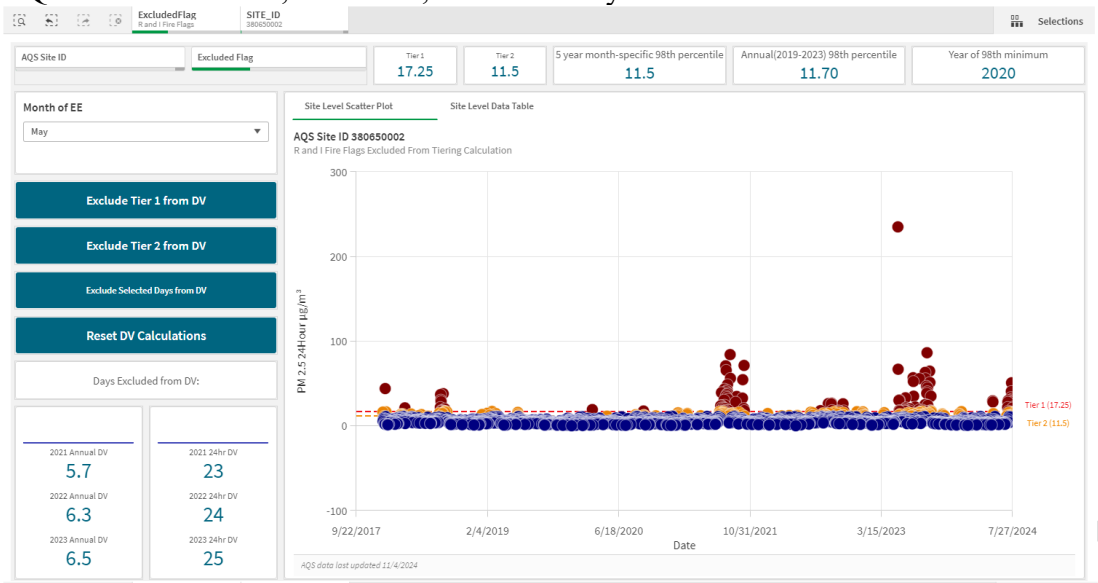
AQS Site ID 380570004

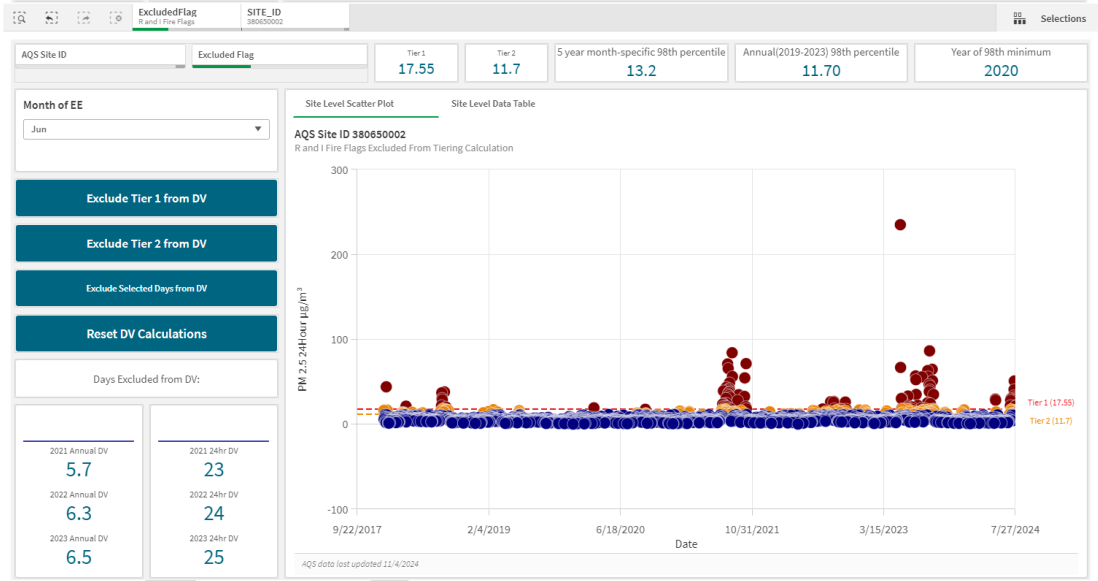
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

AQS ID 38-065-0002, Hannover, Oliver County





ExcludedFlag
R and I Fire Flags

SITE_ID
380650002

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		17.55	11.7	35.2	11.70	2020

Month of EE

Jul

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

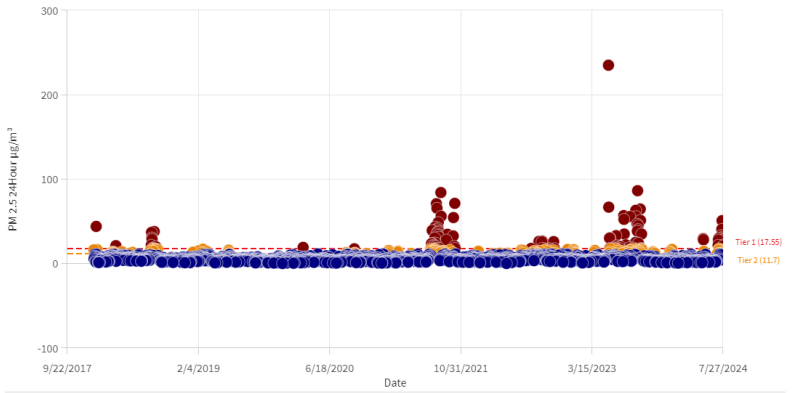
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.7	23
2022 Annual DV	**2022 24hr DV**
6.3	24
2023 Annual DV	**2023 24hr DV**
6.5	25

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380650002

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags

SITE_ID
380650002

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		17.55	11.7	56.2	11.70	2020

Month of EE

Aug

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

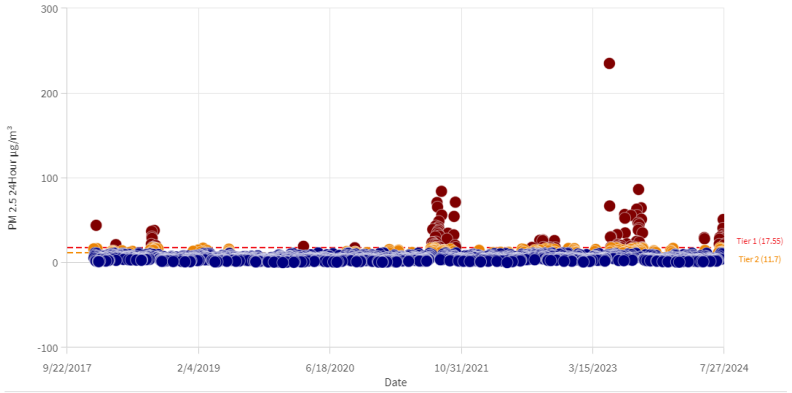
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.7	23
2022 Annual DV	**2022 24hr DV**
6.3	24
2023 Annual DV	**2023 24hr DV**
6.5	25

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 380650002

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags

SITE_ID
380650002

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		17.55	11.7	26.8	11.70	2020

Month of EE

Sep

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

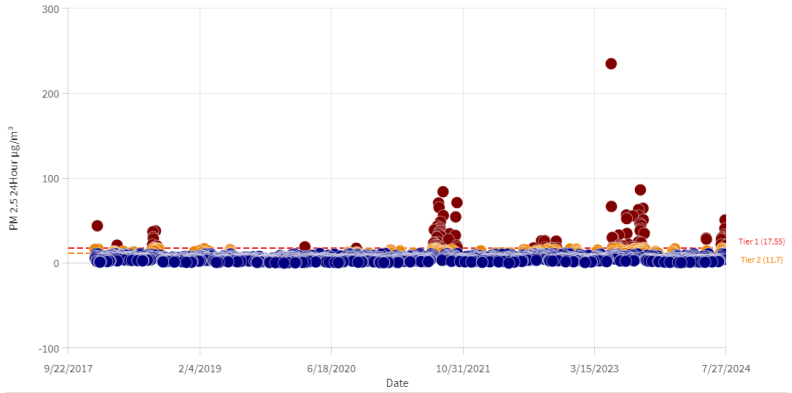
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.7	23
2022 Annual DV	**2022 24hr DV**
6.3	24
2023 Annual DV	**2023 24hr DV**
6.5	25

Site Level Scatter Plot | Site Level Data Table

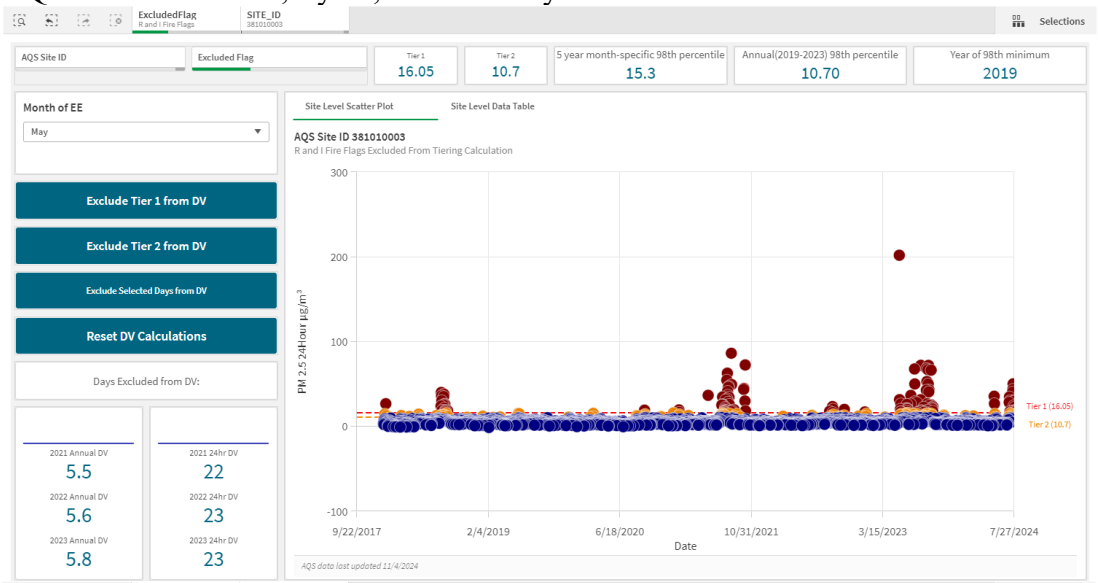
AQS Site ID 380650002

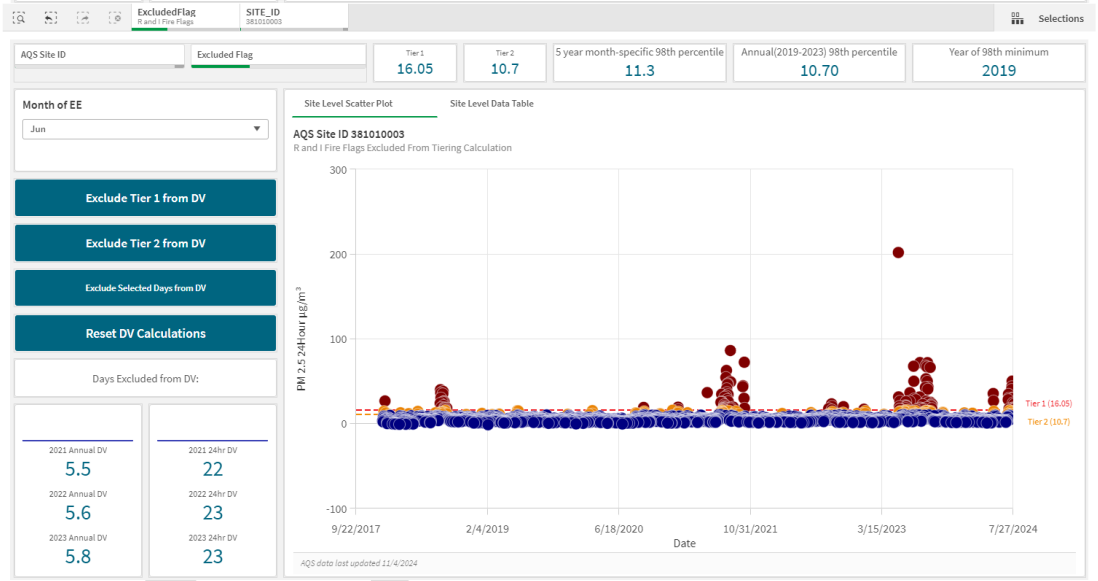
R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

AQS ID 38-101-0003, Ryder, Ward County





ExcludedFlag
R and I Fire Flags

SITE_ID
381010003

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		16.05	10.7	31.4	10.70	2019

Month of EE

Jul

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

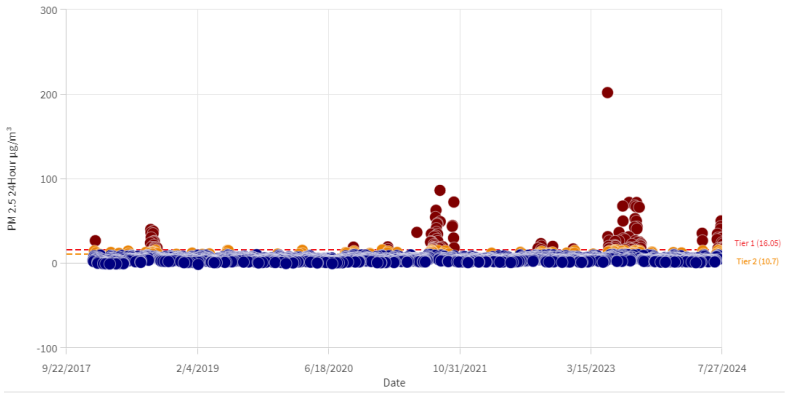
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.5	22
2022 Annual DV	2022 24hr DV
5.6	23
2023 Annual DV	2023 24hr DV
5.8	23

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 381010003

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags

SITE_ID
381010003

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		16.05	10.7	47.3	10.70	2019

Month of EE

Aug

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

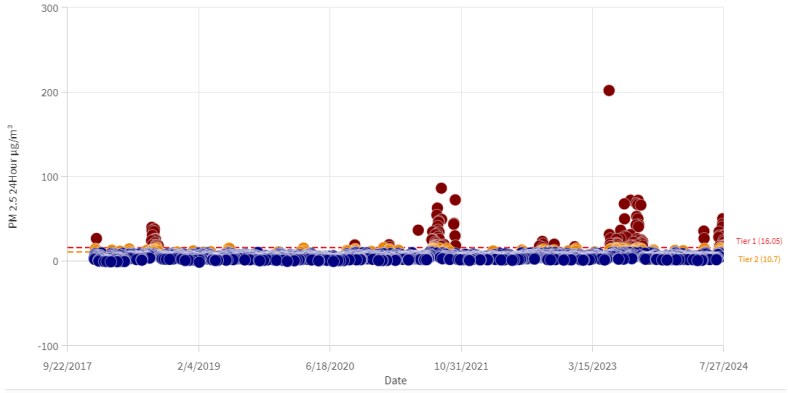
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.5	22
2022 Annual DV	2022 24hr DV
5.6	23
2023 Annual DV	2023 24hr DV
5.8	23

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 381010003

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

ExcludedFlag
R and I Fire Flags

SITE_ID
381010003

Selections

AQS Site ID	Excluded Flag	Tier 1	Tier 2	5 year month-specific 98th percentile	Annual(2019-2023) 98th percentile	Year of 98th minimum
		16.05	10.7	19.2	10.70	2019

Month of EE

Sep

Exclude Tier 1 from DV

Exclude Tier 2 from DV

Exclude Selected Days from DV

Reset DV Calculations

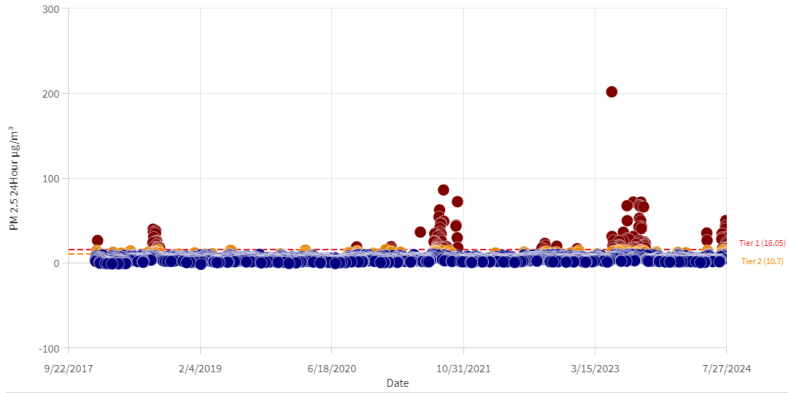
Days Excluded from DV:

2021 Annual DV	2021 24hr DV
5.5	22
2022 Annual DV	2022 24hr DV
5.6	23
2023 Annual DV	2023 24hr DV
5.8	23

Site Level Scatter Plot | Site Level Data Table

AQS Site ID 381010003

R and I Fire Flags Excluded From Tiering Calculation



AQS data last updated 11/4/2024

The Division summarized the site-level tiering thresholds at all nine monitoring sites for the months of May, June, July, August, and September. The Division evaluated the site-level tiering thresholds and identified the maximum $PM_{2.5}$ Tier 1 threshold is 20.1 µg/m^3 at the Bismarck site.

Monitor	County	$PM_{2.5}$ Tier 1 Threshold (µg/m^3)				
		May	June	July	August	September
Painted Canyon (TRNP-SU)	Billings	13.95	13.05	13.95	13.95	13.95
Lostwood NWR	Burke	15	15	15	15	15
Bismarck Residential	Burleigh	18	20.1	20.1	20.1	20.1
Fargo NW	Cass	19.8	18.15	19.8	19.8	19.8
Lake Ilo NWR	Dunn	15.15	15.15	15.15	15.15	15.15
TRNP-NU	McKenzie	15.45	15.45	15.45	15.45	15.45
Beulah North	Mercer	16.5	15.9	16.5	16.5	16.5
Hannover	Oliver	17.25	17.55	17.55	17.55	17.55
Ryder	Ward	16.05	16.05	16.05	16.05	16.05
North Dakota Maximum Tier 1 Threshold		**19.8**	**20.1**	**20.1**	**20.1**	**20.1**

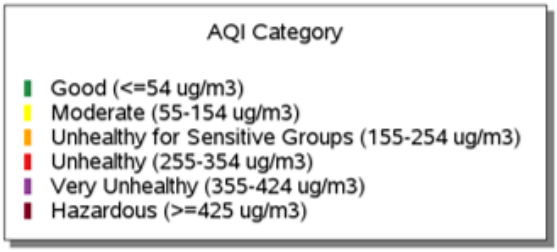
To ensure equity statewide, the Division held the Tier 1 threshold constant at 20.1 µg/m^3 for the Tier 1 clear causal analyses at all nine monitoring sites, ensuring additional conservatism. North Dakota's equitable methodology identified distinct high levels of monitored 24-hour $PM_{2.5}$ Event concentrations that are notably higher than non-event concentrations on 55 dates at nine $PM_{2.5}$ monitors for a total of 239 $PM_{2.5}$ monitor Event days.

Appendix E PM10 Historic Fluctuation Analyses

The U.S. EPA Exceptional Events Analysis and Visualization Tools and EPA AirData tools were used to analyze the PM_{10} Event impacts on May 17, 2023. Analyses for each site include:

- A single-year tile plot of daily AQI values[37] for 2023.
- A five-year tile plot of daily AQI values[38] for 2019-2023, which depicts the seasonal variation.
- A five-year plot of 24-hour average concentrations[39] for 2019-2023.
- The annual percentile ranking and five-year percentile ranking of each PM_{10} Event concentration.

The legend for the images shows the monitor colors representing the Air Quality Index (AQI) categories and PM_{10} monitored concentration ranges.

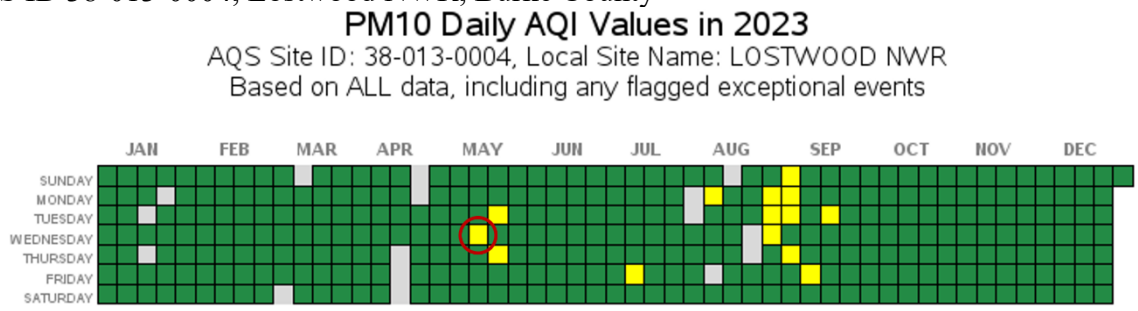


[37] U.S. EPA, Single-Year Tile Plot – for Exceptional Events Analysis, accessed November 19, 2024, available at https://www.epa.gov/air-quality-analysis/single-year-tile-plot-exceptional-events-analysis

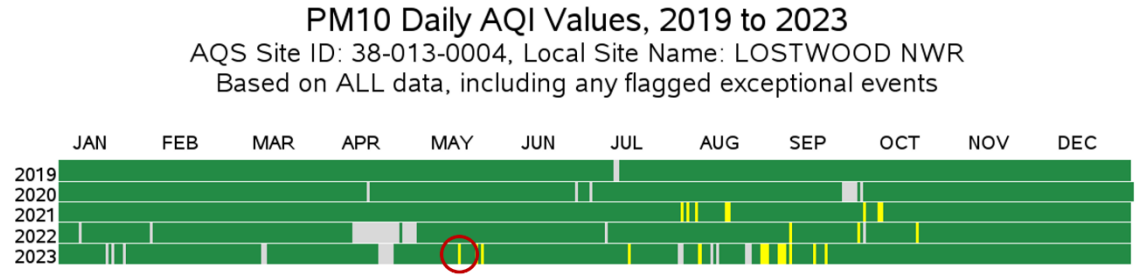
[38] U.S. EPA, Multi-Year Tile Plot – for Exceptional Events Analysis, accessed November 27, 2024, available at https://www.epa.gov/air-quality-analysis/multiyear-tile-plot-exceptional-events-analysis

[39] U.S. EPA, AirData - Concentration Plot, accessed December 9, 2024, available at https://www.epa.gov/outdoor-air-quality-data/air-data-concentration-plot

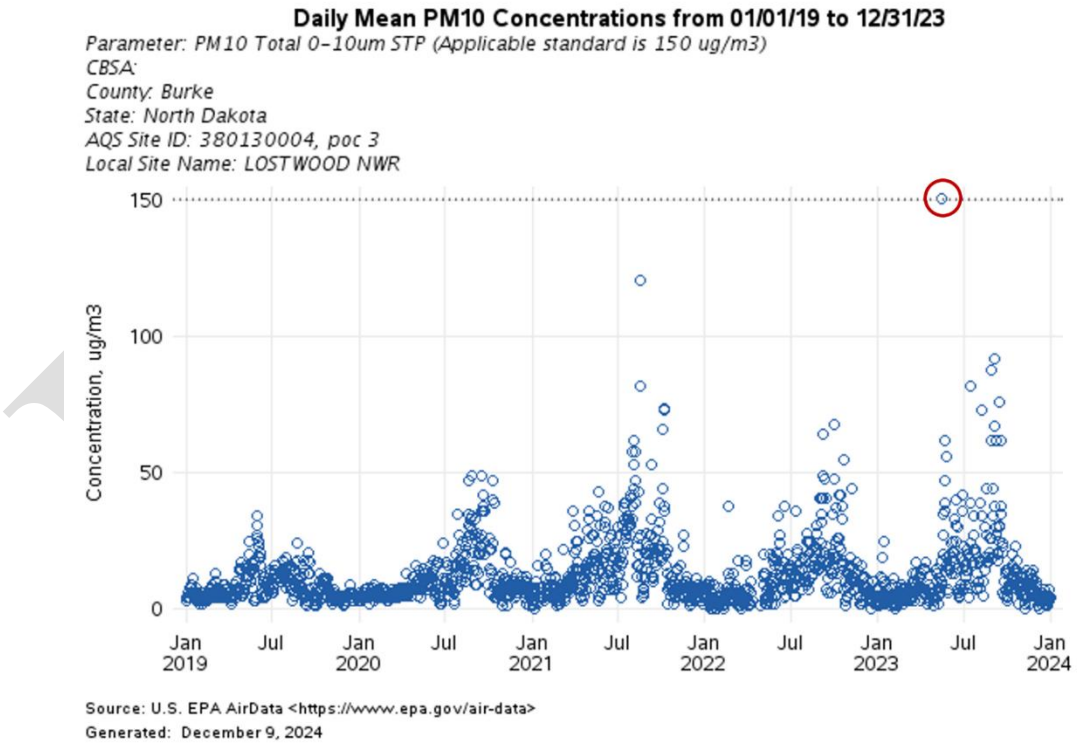
AQS ID 38-013-0004, Lostwood NWR, Burke County



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: November 19, 2024



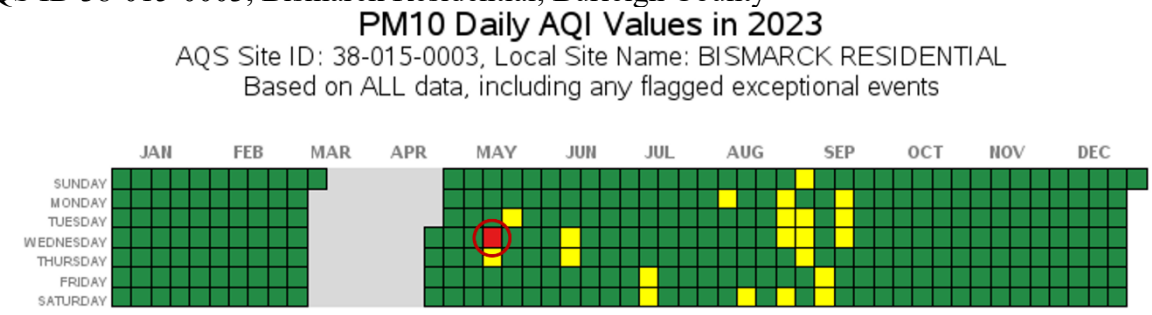
Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: November 27, 2024



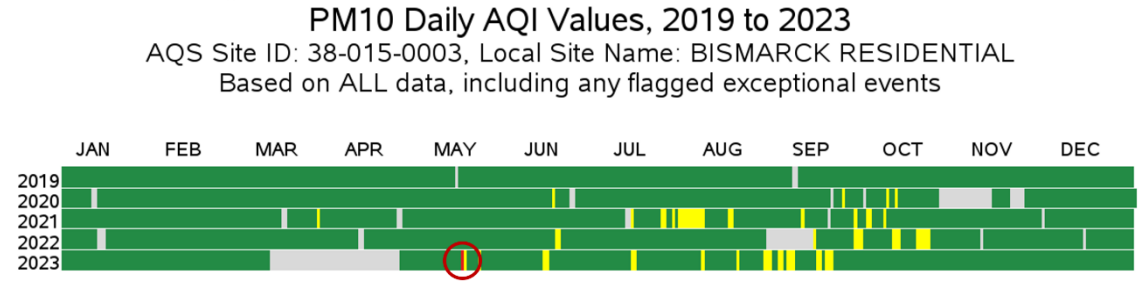
Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: December 9, 2024

Monitor	Date	PM_{10} ($\mu g/m^3$)	Annual (2023) Percentile Ranking	5-Year (2019-2023) Percentile Ranking
Lostwood NWR	5/17/2023	151	100%	100%

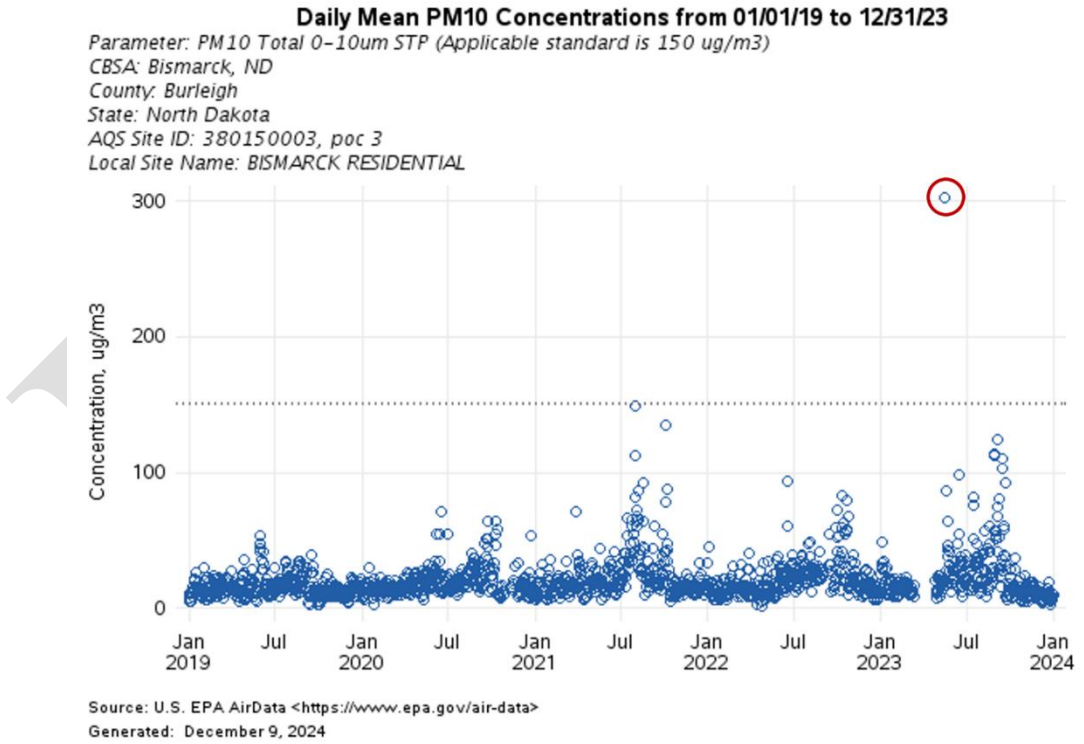
AQS ID 38-015-0003, Bismarck Residential, Burleigh County



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: November 19, 2024



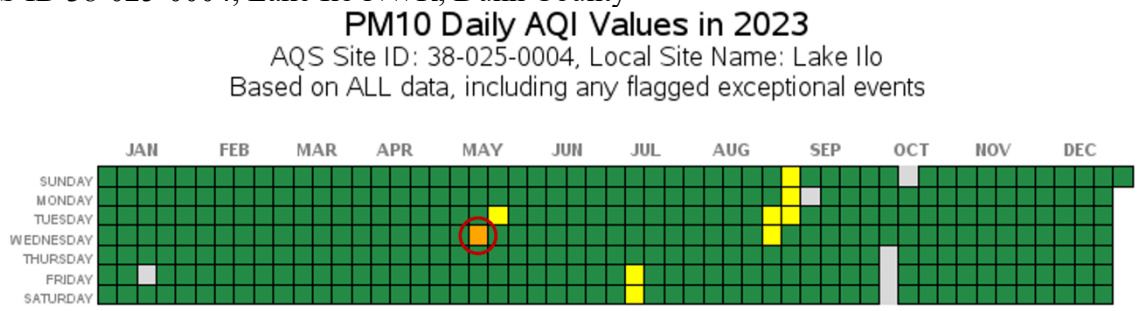
Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: November 27, 2024



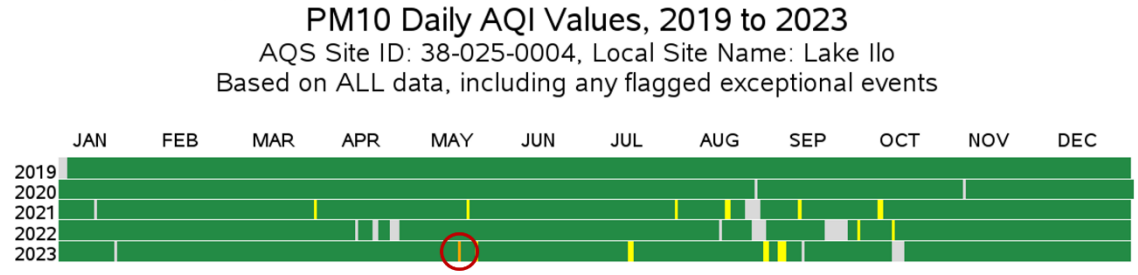
Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: December 9, 2024

Monitor	Date	PM_{10} ($\mu g/m^3$)	Annual (2023) Percentile Ranking	5-Year (2019-2023) Percentile Ranking
Bismarck Residential	5/17/2023	303	100%	100%

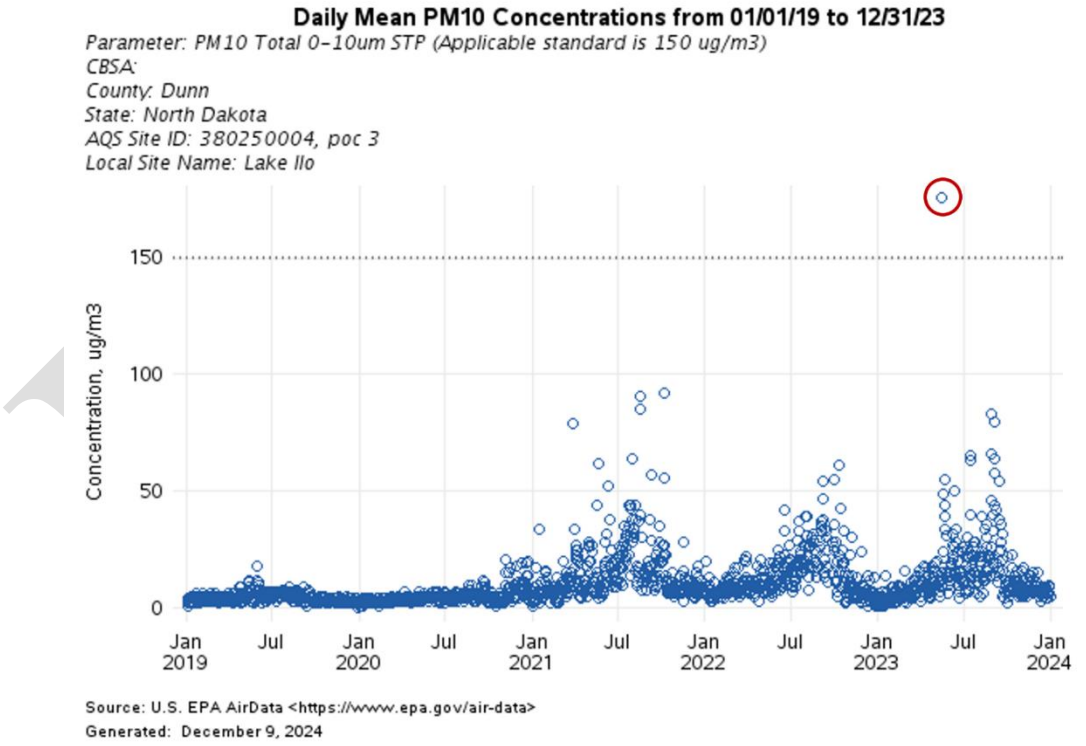
AQS ID 38-025-0004, Lake Ilo NWR, Dunn County



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: November 19, 2024



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: November 27, 2024



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: December 9, 2024

Monitor	Date	PM_{10} ($\mu g/m^3$)	Annual (2023) Percentile Ranking	5-Year (2019-2023) Percentile Ranking
Lake Ilo NWR	5/17/2023	176	100%	100%

Appendix F AMP350 Reports

Air Quality System Raw Data Reports (AMP350) that show the data that NDDEQ is requesting to be excluded from the data record has been flagged with Request Exclusion: Fire – Canadian, or "rf".

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

User ID: UKX RAW DATA REPORT

Report Request ID: 2244078 Report Code: AMP350 Dec. 9, 2024

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	38	007	0002	88101							
	38	013	0004	88101							
	38	015	0003	88101	3						
	38	015	0003	88101	23						
	38	017	1004	88101							
	38	025	0004	88101							
	38	053	0002	88101							
	38	057	0004	88101	3						
	38	057	0004	88101	23						
	38	065	0002	88101							
	38	101	0003	88101							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA	88101		

AGENCY SELECTIONS

North Dakota DEQ

SELECTED OPTIONS

Option Type	Option Value
INCLUDE NULLS	YES
DAILY STATISTICS	MEAN
UNITS	STANDARD
RAW DATA EVENTS	INCLUDE EVENTS
MERGE PDF FILES	YES
AGENCY ROLE	PQAO

SORT ORDER

Order	Column
1	STATE_CODE
2	COUNTY_CODE
3	SITE_ID
4	PARAMETER_CODE
5	POC

DATE CRITERIA

Start Date	End Date
2023 05 16	2023 09 22

APPLICABLE STANDARDS

Standard Description
PM25 Annual 2024

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-007-0002 POC: 3
COUNTY: (007) Billings
CITY: (00000) Not in a city
SITE ADDRESS: 13881 I94 EAST
SITE COMMENTS: NPS REQUESTED THE MONITORING BE TERMINATED MONITORING EQUIPMENT TO BE RETURNED TO
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 46.8943000009
LONGITUDE: -103.37853
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 832
PROBE HEIGHT: 5

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (170) Met One BAM-1020 Mass Monitor w/VS
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: 5

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	5.1	5.1	3.1	5.6	4.8	-.2	-1.2	11.9	9.8	6.5	8.8	8.7	8.3	8.0	4.9	4.7	4.3	2.0	1.3	3.7	5.3	7.2	9.3	7.3	24	5.60
17	5.3rf	8.0rf	6.4rf	8.6rf	5.4rf	2.8rf	5.0rf	4.3rf	257.4rf	363.5rf	286.0rf	348.3rf	480.3rf	477.3rf	348.3rf	169.4rf	85.9rf	106.6rf	86.7rf	62.4rf	56.8rf	103.8rf	178.7rf	164.5rf	24	150.90
18	150.7rf	154.7rf	124.1rf	100.0rf	96.4rf	81.6rf	75.8rf	61.4rf	49.0rf	42.4rf	28.9rf	26.1rf	26.1rf	23.6rf	23.3rf	17.1rf	14.3rf	11.8rf	9.6rf	7.5rf	1.5rf	-7.8rf	-7.3rf	2.0rf	24	46.37
19	9.2IF	12.8IF	11.0IF	18.2IF	16.2IF	16.6IF	13.6IF	17.9IF	15.7IF	21.4IF	25.2IF	33.6IF	34.8IF	29.3IF	26.3IF	24.5IF	19.1IF	17.9IF	14.7IF	11.9IF	9.4IF	4.8IF	-.1IF	-1.4IF	24	16.78
20	-1.1IF	-1.8IF	.0IF	4.7IF	7.5IF	10.6IF	9.6IF	17.5IF	36.6IF	25.4IF	16.2IF	13.6IF	17.7IF	13.0IF	13.7IF	12.8IF	18.3IF	22.7IF	19.0IF	25.6IF	22.4IF	36.2IF	37.5IF	44.5IF	24	17.59
21	43.2rf	41.5rf	42.7rf	41.7rf	48.5rf	49.2rf	46.2rf	45.6rf	41.9rf	50.0rf	41.3rf	28.0rf	27.9rf	29.5rf	20.7rf	25.5rf	23.1rf	22.8rf	22.5rf	19.8rf	19.5rf	21.2rf	18.9rf	19.7rf	24	32.95
22	12.2rf	13.3rf	11.5rf	13.4rf	11.0rf	11.1rf	AX	AX	17.9rf	9.1rf	11.6rf	21.4rf	28.7rf	32.2rf	37.4rf	41.4rf	41.0rf	40.3rf	37.4rf	36.5rf	27.7rf	30.7rf	25.3rf	21.1rf	22	24.19
23	24.0rf	26.2rf	26.6rf	24.7rf	23.9rf	20.2rf	20.8rf	18.8rf	27.1rf	27.9rf	23.3rf	24.8rf	30.2rf	30.4rf	33.2rf	35.7rf	34.5rf	33.2rf	34.2rf	32.4rf	32.1rf	27.8rf	31.7rf	28.1rf	24	27.99
24	27.6IF	28.2IF	25.3IF	25.6IF	26.5IF	22.4IF	25.8IF	21.2IF	17.1IF	16.4IF	21.8IF	22.5IF	18.9IF	16.4IF	14.8IF	15.4IF	15.3IF	10.2IF	10.0IF	10.5IF	12.3IF	11.0IF	12.8IF	13.1IF	24	18.38
25	15.2IF	13.2IF	11.7IF	18.8IF	16.4IF	14.9IF	11.9IF	15.1IF	11.9IF	14.8IF	17.0IF	13.8IF	14.0IF	12.2IF	13.8IF	13.2IF	8.5IF	11.8IF	16.1IF	16.5IF	13.3IF	10.6IF	8.2IF	10.6IF	24	13.48
26	6.6	5.4	6.4	4.4	8.5	9.4	8.3	7.0	5.5	7.4	6.5	6.2	6.1	3.9	5.0	5.3	2.8	2.4	4.8	3.6	5.2	6.9	5.3	4.0	24	5.70
27	5.0	8.5	11.3	7.4	6.4	10.3	6.0	.9	2.0	3.0	3.8	4.4	5.2	4.2	1.6	2.9	5.1	4.4	5.4	4.9	3.2	6.4	5.7	4.8	24	5.12
28	4.1	4.5	2.9	1.9	2.5	1.0	1.8	2.9	1.1	1.8	2.3	1.5	2.9	2.5	2.7	4.6	5.0	4.2	2.6	2.7	2.9	3.5	4.9	3.4	24	2.93
29	2.3	4.4	3.6	2.1	3.5	4.9	4.5	2.8	2.7	4.5	6.6	4.3	2.7	3.0	4.7	5.9	7.8	5.2	2.8	4.4	4.5	6.6	5.2	6.7	24	4.40
30	5.4	3.3	3.5	3.0	2.6	5.4	4.4	2.8	4.5	7.3	7.6	9.6	9.8	10.5	7.4	9.1	8.2	6.4	3.7	4.0	6.5	4.9	7.8	6.0	24	5.99
31	5.0	6.0	5.0	2.7	3.4	9.6	7.8	5.9	5.0	3.3	5.1	5.1	5.3	4.1	4.0	7.1	4.7	2.9	3.3	2.3	6.3	6.3	6.0	7.3	24	5.15
NO.:	16	16	16	16	16	16	15	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	150.7	154.7	124.1	100.0	96.4	81.6	75.8	61.4	257.4	363.5	286.0	348.3	480.3	477.3	348.3	169.4	85.9	106.6	86.7	62.4	56.8	103.8	178.7	164.5		
AVG:	19.99	20.83	18.44	17.68	17.72	16.86	16.02	15.73	31.58	37.79	32.00	35.74	44.93	43.76	35.11	24.66	18.62	19.05	17.13	15.54	14.31	17.51	21.87	21.36		

MONTHLY OBSERVATIONS: 382 MONTHLY MEAN: 23.97 MONTHLY MAX: 480.3

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-007-0002 POC: 3
COUNTY: (007) Billings
CITY: (00000) Not in a city
SITE ADDRESS: 13881 I94 EAST
SITE COMMENTS: NPS REQUESTED THE MONITORING BE TERMINATED MONITORING EQUIPMENT TO BE RETURNED TO
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 46.8943000009
LONGITUDE: -103.37853
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 832
PROBE HEIGHT: 5

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (170) Met One BAM-1020 Mass Monitor w/VS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: 5

HOUR DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	6.5	3.2	6.4	6.7	7.7	9.5	8.0	5.1	5.4	5.8	5.4	4.4	7.0	5.8	4.4	5.9	9.3	9.0	5.8	AV	AQ	15.3	5.6	2.5	22	6.58
2	.7	1.8	5.1	3.2	2.3	4.5	3.4	5.7	4.4	5.0	3.6	5.1	5.6	4.8	3.6	5.4	5.5	3.8	4.0	6.4	7.9	5.7	4.7	4.4	24	4.44
3	2.6	5.8	6.2	4.3	4.8	5.3	3.1	4.4	5.6	4.5	4.5	5.3	6.6	5.1	3.7	3.7	8.1	7.4	5.9	4.2	8.3	7.1	3.7	3.5	24	5.15
4	4.6	5.4	7.4	6.4	4.5	5.0	3.1	3.8	5.8	9.4	9.0	10.4	7.5	7.3	10.9	6.1	2.2	3.8	5.2	5.4	4.8	5.6	3.8	10.2	24	6.15
5	10.8	6.5	6.7	7.5	5.9	5.9	AZ	AX	AQ	1.2	4.3	5.1	6.0	9.7	9.1	7.0	7.5	5.9	8.4	6.7	5.4	9.8	7.2	6.5	21	6.81
6	10.5	8.9	8.1	10.3	7.8	6.5	6.1	7.7	8.2	9.1	7.7	8.8	11.6	9.2	8.7	9.2	9.0	6.5	9.0	7.8	7.1	5.9	7.8	8.4	24	8.33
7	10.1IF	8.2IF	12.4IF	8.9IF	7.5IF	7.2IF	6.5IF	10.5IF	8.4IF	10.2IF	7.7IF	11.7IF	12.4IF	8.6IF	7.2IF	5.4IF	5.9IF	10.7IF	7.4IF	14.9IF	9.2IF	8.9IF	10.1IF	10.5IF	24	9.19
8	8.3	8.8	7.5	6.5	5.5	9.4	6.7	8.6	10.9	9.9	7.6	10.3	7.3	4.5	6.5	8.7	11.6	12.3	10.1	7.9	6.1	9.6	7.5	7.1	24	8.30
9	7.1IF	6.9IF	7.1IF	6.5IF	6.7IF	6.5IF	14.9IF	12.9IF	18.3IF	14.0IF	28.3IF	22.0IF	19.9IF	21.0IF	14.8IF	9.4IF	4.3IF	3.1IF	10.1IF	6.6IF	4.6IF	3.7IF	7.2IF	19.6IF	24	11.48
10	23.6IF	21.6IF	AV	AV	AV	AV	AQ	36.8IF	43.1IF	28.1IF	17.1IF	20.0IF	18.7IF	13.3IF	15.4IF	14.3IF	12.5IF	13.2IF	15.6IF	9.1IF	14.3IF	10.7IF	10.8IF	10.2IF	19	18.34
11	9.0IF	11.8IF	13.9IF	8.8IF	9.3IF	10.8IF	21.0IF	27.0IF	25.7IF	15.5IF	11.7IF	13.2IF	10.0IF	6.9IF	6.1IF	8.4IF	10.2IF	10.8IF	9.4IF	9.8IF	11.6IF	10.2IF	12.4IF	10.0IF	24	12.23
12	7.6IF	8.9IF	8.8IF	10.5IF	7.3IF	5.8IF	12.8IF	18.6IF	15.8IF	12.5IF	16.6IF	11.2IF	12.6IF	18.9IF	15.9IF	11.6IF	11.6IF	7.3IF	11.2IF	14.6IF	12.7IF	14.0IF	15.1IF	12.5IF	24	12.27
13	10.4IF	12.1IF	13.3IF	13.4IF	13.2IF	13.3IF	10.4IF	12.9IF	12.3IF	11.1IF	12.4IF	16.9IF	15.1IF	13.4IF	12.7IF	15.2IF	13.3IF	15.6IF	13.5IF	16.7IF	15.7IF	19.3IF	16.0IF	16.9IF	24	13.96
14	27.0IF	25.3IF	24.3IF	23.4IF	22.1IF	22.8IF	22.0IF	21.9IF	19.3IF	18.4IF	18.4IF	18.9IF	16.7IF	15.8IF	11.3IF	15.1IF	15.6IF	20.0IF	20.8IF	21.0IF	17.4IF	15.4IF	9.2IF	7.7IF	24	18.74
15	8.6	5.8	3.9	6.1	5.4	3.7	7.4	4.8	1.6	1.9	3.0	6.1	6.4	5.7	5.6	7.8	6.2	3.8	6.1	7.2	8.0	6.0	9.4	11.7	24	5.93
16	15.5IF	18.1IF	19.7IF	13.6IF	15.4IF	22.2IF	21.6IF	22.9IF	29.0IF	24.7IF	23.1IF	34.1IF	23.8IF	23.5IF	19.2IF	22.8IF	17.7IF	14.9IF	17.9IF	13.2IF	16.5IF	19.9IF	17.5IF	13.8IF	24	20.03
17	13.4IF	12.0IF	11.2IF	14.9IF	13.0IF	17.0IF	13.8IF	21.9IF	20.3IF	17.7IF	20.2IF	18.2IF	18.1IF	20.5IF	15.0IF	14.7IF	11.2IF	14.1IF	10.5IF	9.4IF	11.0IF	12.8IF	9.2IF	10.1IF	24	14.59
18	9.9	11.2	8.0	7.4	6.2	8.1	8.5	8.4	7.4	9.1	10.1	8.1	8.3	9.2	7.1	8.1	7.3	7.0	8.1	9.7	10.0	7.5	6.1	4.5	24	8.14
19	5.6	5.7	3.0	3.4	2.0	1.7	2.9	3.2	2.4	.8	2.4	2.4	.5	1.6	4.6	7.0	4.4	1.6	.5	1.9	2.4	6.0	4.4	9.3	24	3.32
20	6.2	6.9	6.9	5.1	5.2	5.6	2.7	.1	2.4	5.7	5.3	6.3	4.3	6.4	5.2	5.1	6.0	8.8	7.2	3.8	3.8	4.7	3.0	5.1	24	5.08
21	4.1	2.4	4.6	2.6	4.2	4.5	2.2	5.5	AX	5.4	-3.2	9.7	7.4	2.9	3.2	8.8	6.2	.7	4.6	5.8	2.4	2.0	3.7	2.9	23	4.03
22	.3	-1.0	-.5	.3	2.0	.8	.1	8.3	11.8	11.7	7.0	3.5	3.3	5.4	7.9	6.6	5.7	5.7	4.5	3.0	3.4	5.7	9.0	7.5	24	4.67
23	6.1	4.4	3.8	5.3	7.9	6.4	4.4	8.1	7.5	6.7	4.9	2.4	-.5	-1.8	.2	1.4	2.3	1.6	2.9	5.1	5.4	5.7	3.7	2.5	24	4.02
24	3.4	1.6	1.7	5.9	4.3	.9	1.0	5.1	4.9	4.9	7.0	8.3	6.1	3.2	6.8	6.2	3.1	2.7	6.8	7.9	7.3	8.3	7.2	6.1	24	5.03
25	3.8	7.0	5.8	5.3	5.7	4.7	4.6	6.2	4.5	6.8	7.4	5.5	5.9	5.9	6.9	9.1	5.9	3.7	2.7	4.0	2.7	5.0	6.8	8.9	24	5.62
26	5.8	5.9	5.9	5.3	6.6	4.4	5.4	3.2	1.7	4.8	6.9	6.8	7.6	5.0	2.8	4.4	3.8	5.7	4.5	2.1	6.8	7.3	3.6	-.5	24	4.83
27	3.7	3.4	3.0	2.4	2.4	2.7	1.1	-.5	2.0	3.6	7.3	8.1	5.4	2.5	2.3	5.1	4.9	2.6	.5	3.8	5.6	4.9	1.0	4.2	24	3.42
28	5.6	2.6	3.5	6.2	3.6	3.1	1.6	-.1	2.9	2.7	2.8	3.5	5.1	4.5	8.4	6.2	4.1	5.4	5.0	4.1	5.5	6.9	7.2	10.3	24	4.61
29	7.6IF	9.0IF	6.9IF	5.3IF	5.9IF	8.8IF	6.7IF	7.0IF	8.4IF	16.5IF	12.2IF	17.3IF	14.9IF	14.9IF	14.0IF	15.7IF	18.0IF	14.5IF	10.1IF	14.5IF	15.7IF	10.8IF	14.1IF	13.9IF	24	11.78
30	12.0IF	14.4IF	14.5IF	9.4IF	12.4IF	12.9IF	13.7IF	20.3IF	12.9IF	16.7IF	8.8IF	8.2IF	13.3IF	7.8IF	9.4IF	AV	AQ	17.2IF	5.5IF	6.0IF	6.7IF	6.0IF	5.9IF	7.1IF	22	10.96
31																									0	
NO.:	30	30	29	29	29	29	28	29	28	30	30	30	30	30	30	29	29	30	30	29	29	30	30	30		
MAX:	27.0	25.3	24.3	23.4	22.1	22.8	22.0	36.8	43.1	28.1	28.3	34.1	23.8	23.5	19.2	22.8	18.0	20.0	20.8	21.0	17.4	19.9	17.5	19.6		
AVG:	8.35	8.15	7.90	7.41	7.13	7.59	7.70	10.36	10.82	9.81	9.32	10.39	9.56	8.72	8.30	8.77	8.05	7.98	7.79	8.02	8.22	8.69	7.76	8.25		

MONTHLY OBSERVATIONS: 707 MONTHLY MEAN: 8.54 MONTHLY MAX: 43.1

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-007-0002 POC: 3
COUNTY: (007) Billings
CITY: (00000) Not in a city
SITE ADDRESS: 13881 I94 EAST
SITE COMMENTS: NPS REQUESTED THE MONITORING BE TERMINATED MONITORING EQUIPMENT TO BE RETURNED TO
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 46.8943000009
LONGITUDE: -103.37853
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 832
PROBE HEIGHT: 5

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (170) Met One BAM-1020 Mass Monitor w/VS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: 5

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	8.0	8.4	9.9	6.7	6.7	6.9	7.3	8.4	7.9	7.9	7.8	8.4	11.6	6.7	6.5	6.7	9.3	7.6	6.4	5.7	6.0	6.8	5.8	3.0	24	7.35
2	3.6	7.5	7.9	6.7	6.9	6.8	2.3	3.0	4.5	5.4	6.8	5.7	6.0	4.8	5.7	5.6	6.4	9.0	6.6	5.3	5.1	4.8	4.1	4.6	24	5.63
3	6.6	8.2	6.3	6.6	6.2	6.5	7.2	6.5	6.6	3.5	1.1	5.4	6.6	4.6	7.0	5.7	3.3	3.2	2.9	3.2	6.9	4.2	1.7	9.6	24	5.40
4	9.2	6.2	6.2	6.9	6.4	3.4	4.7	20.0	23.2	18.8	5.2	5.6	4.0	1.5	2.0	2.7	6.3	4.9	2.0	7.6	5.9	.8	-5.7	-5.8	24	5.92
5	-2.9	-1.0	1.2	2.0	1.4	4.3	8.4	7.6	12.4	14.2	8.9	10.4	9.9	5.7	5.9	6.1	1.7	1.8	7.6	5.3	2.3	5.0	9.1	5.8	24	5.55
6	3.5	-1.5	-3.9	1.7	.3	-1.0	8.9	AX	AX	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	7	1.14
7	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	0	
8	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	0	
9	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	0	
10	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	AT	39.5IF	28.6IF	24.6IF	27.2IF	30.1IF	23.0IF	24.6IF	27.0IF	19.1IF	12.8IF	11.7IF	9.9IF	9.0IF	13	22.08
11	7.0	8.2	4.2	1.3	.1	.6	3.2	3.1	2.4	2.3	1.5	-.4	-2.8	-.8	2.3	2.9	1.7	-.1	-.1	4.1	4.9	5.1	2.2	-2.1	24	2.12
12	-3.3	-1.2	2.5	1.8	-1.1	-1.8	-1.6	1.5	1.9	1.1	1.8	2.8	4.0	2.8	2.6	1.4	.0	.3	.5	2.9	2.1	4.0	7.4	5.9	24	1.60
13	2.3IF	3.9IF	5.1IF	7.8IF	5.7IF	5.1IF	4.9IF	4.6IF	7.5IF	8.4IF	13.5IF	11.1IF	14.2IF	30.2IF	28.5IF	21.4IF	20.2IF	23.2IF	24.0IF	16.7IF	10.0IF	13.6IF	10.0IF	7.5IF	24	12.48
14	6.9rf	5.9rf	9.6rf	9.9rf	12.4rf	14.9rf	14.7rf	26.8rf	36.5rf	50.3rf	58.8rf	85.3rf	99.2rf	103.9rf	89.7rf	83.4rf	77.2rf	79.4rf	80.6rf	57.4rf	61.6rf	63.1rf	68.3rf	75.8rf	24	52.98
15	90.4rf	109.8rf	97.0rf	87.0rf	83.2rf	83.5rf	79.0rf	61.7rf	50.5rf	56.7rf	60.6rf	62.2rf	67.6rf	71.9rf	69.1rf	58.2rf	58.1rf	52.9rf	63.4rf	67.2rf	61.3rf	59.6rf	55.0rf	56.8rf	24	69.28
16	64.9rf	75.4rf	75.1rf	78.0rf	88.9rf	91.9rf	88.6rf	94.2rf	86.1rf	79.0rf	68.7rf	46.3rf	47.9rf	43.5rf	22.7rf	19.5rf	14.1rf	9.6rf	5.1rf	4.3rf	3.2rf	3.7rf	7.2rf	8.9rf	24	46.95
17	5.8	8.3	9.1	4.7	2.4	4.0	2.9	1.4	1.7	6.6	7.2	8.6	9.6	10.8	8.7	13.0	13.2	9.6	9.1	9.0	6.4	9.1	8.8	9.6	24	7.48
18	6.8	3.5	4.7	4.1	4.6	5.3	6.9	6.3	10.0	18.8	23.6	22.6	16.8	5.5	6.0	5.8	4.5	3.7	3.0	4.7	3.1	.8	3.2	5.2	24	7.48
19	3.5	1.0	3.3	5.6	7.6	5.9	AX	AT	16.7	9.3	4.4	-2.0	1.7	2.9	5.2	7.4	6.3	4.6	7.2	5.8	2.5	5.6	7.4	4.6	22	5.30
20	7.5IF	13.2IF	8.1IF	6.0IF	9.0IF	4.9IF	5.6IF	5.8IF	9.8IF	6.6IF	5.7IF	14.3IF	17.7IF	11.0IF	14.8IF	9.5IF	14.3IF	12.0IF	8.6IF	11.2IF	7.3IF	9.9IF	17.6IF	18.0IF	24	10.35
21	10.4IF	11.6IF	12.1IF	10.9IF	8.6IF	8.3IF	6.4IF	6.7IF	9.4IF	12.9IF	11.0IF	16.1IF	16.0IF	14.4IF	10.1IF	10.2IF	10.3IF	8.2IF	10.4IF	11.6IF	7.9IF	12.1IF	15.2IF	10.2IF	24	10.88
22	12.1	9.5	6.8	11.4	11.6	8.6	8.8	10.2	7.9	8.8	6.4	5.2	5.3	6.9	5.7	6.0	8.0	7.7	5.2	6.0	5.9	6.1	5.5	5.3	24	7.54
23	6.1	7.8	6.7	6.5	9.9	14.3	11.9	8.8	4.5	3.7	4.1	11.1	7.4	6.9	5.4	7.5	7.2	6.9	6.3	4.2	4.6	3.0	4.6	5.9	24	6.89
24	6.4	7.8	6.4	4.2	6.6	5.4	6.5	5.4	7.0	10.1	8.1	6.4	7.2	7.8	6.4	8.1	6.8	6.2	4.4	4.6	7.5	5.3	8.3	7.9	24	6.70
25	6.3	4.5	3.4	4.0	6.9	5.9	7.8	9.6	7.0	5.9	7.4	8.9	6.3	9.3	5.9	7.1	7.4	6.7	7.3	6.6	4.6	6.6	8.1	7.5	24	6.71
26	9.1	11.4	8.1	8.2	9.3	8.0	8.9	6.1	7.1	6.8	6.8	9.9	8.2	6.1	4.7	5.6	5.5	7.5	6.1	5.5	3.2	3.3	4.6	6.2	24	6.93
27	10.8	8.5	4.6	4.9	6.6	4.1	3.7	2.5	2.4	5.7	6.7	7.0	4.5	9.7	6.9	3.7	1.8	3.8	2.5	3.9	5.3	4.5	7.5	AV	23	5.29
28	AQ	8.3	10.9	8.5	5.7	2.0	.6	1.2	3.1	3.3	6.7	7.6	6.7	5.5	3.4	2.7	3.4	2.0	2.3	2.1	.5	3.6	6.6	3.1	23	4.34
29	5.5	4.9	1.4	-1.5	-.9	.7	.5	.8	2.0	6.4	5.9	3.1	9.7	11.3	15.8	9.9	5.3	6.6	5.7	.9	2.3	5.3	3.5	2.9	24	4.50
30	2.5	5.0	5.2	2.2	8.5	5.9	2.3	-.2	-2.9	-.6	.2	.6	1.0	6.6	5.6	5.4	6.8	3.6	2.5	1.4	-.7	.3	2.9	1.0	24	2.71
31	-1.4	-.8	-1.2	-1.7	-3.2	.3	2.7	AX	10.0	1.2	.0	4.0	2.7	2.3	2.2	1.0	1.9	2.8	2.7	2.0	.2	-.7	2.6	3.4	23	1.43
NO.:	26	27	27	27	27	27	26	24	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	26		
MAX:	90.4	109.8	97.0	87.0	88.9	91.9	88.6	94.2	86.1	79.0	68.7	85.3	99.2	103.9	89.7	83.4	77.2	79.4	80.6	67.2	61.6	63.1	68.3	75.8		
AVG:	11.06	12.38	11.51	10.90	11.49	11.29	11.66	12.58	12.89	13.58	13.03	15.03	15.47	15.42	13.93	12.84	12.00	11.42	11.46	10.31	8.99	9.53	10.42	10.38		

MONTHLY OBSERVATIONS: 639 MONTHLY MEAN: 12.06 MONTHLY MAX: 109.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-007-0002 POC: 3
COUNTY: (007) Billings
CITY: (00000) Not in a city
SITE ADDRESS: 13881 I94 EAST
SITE COMMENTS: NPS REQUESTED THE MONITORING BE TERMINATED MONITORING EQUIPMENT TO BE RETURNED TO
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 46.8943000009
LONGITUDE: -103.37853
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 832
PROBE HEIGHT: 5

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (170) Met One BAM-1020 Mass Monitor w/VS
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: 5

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	2.6	5.0	3.2	.2	.4	4.9	4.4	3.7	2.2	3.3	7.6	6.3	3.4	3.6	3.1	2.5	2.5	1.4	.8	1.4	3.7	4.1	1.9	.3	24	3.02
2	.0	.7	1.3	.2	-1.6	-.1	-.1	-1.2	-1.3	4.7	7.3	5.7	5.1	5.0	6.2	4.4	3.2	2.6	2.2	1.5	2.3	5.7	7.6	7.0	24	2.85
3	5.2	4.0	3.5	2.3	-.4	1.7	1.0	-.8	.1	4.6	7.3	6.0	5.9	2.7	-1.0	.9	2.2	-2.5	-2.9	3.6	.2	-1.1	-1.0	-5.0	24	1.52
4	-4.1	.4	.3	-3.0	-1.5	-.7	-.8	.2	-2.2	-4.9	-4.1	-2.9	-2.7	-1.6	-2.3	-1.5	1.6	4.5	6.5	5.0	5.5	5.8	2.4	3.8	24	.15
5	5.8	3.3	.0	.9	1.0	.2	-1.2	-1.7	1.0	.9	4.1	3.1	1.4	8.5	13.6	8.1	7.1	7.0	9.7	6.4	4.1	9.2	10.0	10.3	24	4.70
6	11.7IF	13.2IF	10.8IF	12.5IF	14.0IF	9.4IF	5.7IF	9.2IF	11.2IF	7.2IF	12.0IF	13.9IF	10.3IF	8.1IF	10.5IF	8.6IF	8.8IF	6.0IF	5.8IF	8.3IF	10.1IF	18.7IF	21.4IF	16.4IF	24	10.99
7	18.0IF	11.7IF	14.9IF	15.9IF	18.6IF	15.7IF	8.5IF	9.1IF	6.9IF	10.7IF	11.8IF	10.0IF	9.8IF	10.4IF	9.2IF	9.5IF	6.4IF	8.3IF	6.4IF	6.6IF	4.1IF	7.2IF	6.9IF	5.6IF	24	10.09
8	7.3	8.7	10.8	8.5	7.3	6.5	7.1	10.7	6.9	3.3	6.1	6.3	9.2	11.5	11.3	8.4	9.4	9.3	7.2	9.2	11.6	10.4	10.6	10.6	24	8.68
9	8.5IF	9.7IF	15.1IF	8.1IF	12.7IF	10.7IF	8.4IF	9.8IF	7.9IF	8.7IF	12.0IF	10.3IF	11.8IF	9.4IF	7.2IF	6.7IF	6.3IF	7.5IF	10.0IF	11.1IF	10.1IF	12.9IF	15.3IF	14.3IF	24	10.19
10	11.2	13.6	11.3	11.6	8.7	5.1	5.9	6.0	6.1	5.3	1.6	2.1	4.3	4.3	3.1	2.5	3.1	3.4	2.6	1.0	1.6	1.4	2.7	3.3	24	5.08
11	2.6	.7	1.6	2.9	4.5	5.2	3.7	1.5	3.4	2.6	.7	.3	1.1	2.6	.8	-.4	.1	-.7	-1.8	-3.1	-1.5	3.1	4.0	2.6	24	1.52
12	1.4	1.4	4.7	4.4	3.0	2.1	-.1	-1.1	-.4	2.8	3.8	1.5	.5	.6	1.5	1.0	.8	.0	-1.7	6.7	4.7	.2	2.4	3.9	24	1.84
13	2.4	.3	4.6	2.9	-.8	-.7	.0	-1.0	-3.3	-3.5	-1.1	-.9	.3	4.1	2.0	-1.3	-1.5	-.7	-2.6	-4.0	4.2	4.7	4.8	6.6	24	.65
14	4.2	2.6	3.4	.7	-2.9	-4.4	-2.4	AX	.9	-5.5	-2.6	5.9	10.7	9.0	5.0	3.5	4.6	3.6	3.5	3.6	3.3	3.9	5.3	6.2	23	2.70
15	5.0	3.9	5.7	7.7	6.0	4.6	3.4	3.0	2.0	6.6	5.7	2.9	1.4	1.9	1.5	2.1	4.2	2.4	5.2	4.6	5.0	3.8	.8	1.0	24	3.77
16	2.9	4.6	3.2	2.0	2.6	1.5	2.1	8.1	18.9	8.1	4.7	7.3	5.8	4.4	2.8	7.5	6.9	8.1	8.4	5.0	4.0	6.9	6.9	6.8	24	5.81
17	11.6IF	10.2IF	9.0IF	7.5IF	7.3IF	9.4IF	6.9IF	5.5IF	7.5IF	6.7IF	7.9IF	11.5IF	10.3IF	7.9IF	13.3IF	10.6IF	12.1IF	11.3IF	7.5IF	6.5IF	9.7IF	10.6IF	10.4IF	8.2IF	24	9.14
18	13.1IF	8.1IF	8.6IF	6.4IF	11.5IF	9.0IF	11.5IF	9.0IF	9.9IF	13.6IF	13.6IF	16.7IF	20.8IF	24.0IF	23.7IF	30.6IF	28.3IF	19.9IF	23.1IF	20.8IF	23.6IF	19.1IF	20.1IF	17.3IF	24	16.76
19	16.4IF	19.3IF	14.1IF	11.8IF	11.9IF	13.3IF	12.5IF	14.4IF	14.5IF	9.2IF	6.7IF	16.2IF	20.3IF	22.4IF	19.5IF	17.1IF	12.7IF	11.4IF	14.3IF	15.3IF	12.0IF	7.1IF	4.4IF	4.8IF	24	13.40
20	14.1IF	7.5IF	-2.7IF	-2.7IF	.9IF	1.3IF	14.9IF	6.5IF	16.5IF	8.6IF	17.2IF	16.5IF	14.7IF	17.1IF	22.8IF	17.2IF	9.5IF	11.4IF	11.0IF	11.7IF	9.5IF	8.0IF	8.7IF	6.1IF	24	10.26
21	8.1	14.0	10.2	9.1	6.5	5.7	2.2	4.0	9.5	10.5	13.3	13.0	8.3	7.6	6.6	3.5	8.4	14.9	12.8	9.3	8.3	5.5	4.6	2.8	24	8.28
22	1.3	4.3	3.5	4.0	1.8	.4	1.7	2.8	2.1	.4	4.0	7.6	8.2	6.9	6.5	4.6	3.2	4.6	6.1	3.9	1.1	2.1	4.1	3.2	24	3.68
23	1.4	-.1	-1.7	-.9	-1.8	-2.0	1.1	.5	-1.7	4.3	4.3	4.1	2.8	5.7	4.2	3.4	3.5	3.4	3.3	4.6	5.7	5.0	5.5	6.1	24	2.53
24	6.9	6.6	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	2	6.75
25	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
26	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
27	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
28	AQ	AQ	AQ	AQ	AQ	BA	BA	AX	AX	22.0IF	18.9IF	25.4IF	26.4IF	22.6IF	27.0IF	30.1IF	22.5IF	19.0IF	22.7IF	29.4IF	33.0IF	42.8IF	37.9IF	39.6IF	15	27.95
29	33.1rf	27.7rf	25.4rf	30.1rf	34.4rf	30.6rf	28.7rf	27.9rf	20.5rf	30.0rf	42.3rf	39.6rf	32.2rf	35.6rf	31.5rf	31.2rf	29.8rf	28.6rf	33.6rf	37.3rf	41.8rf	41.6rf	40.9rf	47.7rf	24	33.42
30	45.7rf	42.5rf	44.1rf	41.7rf	48.8rf	49.9rf	50.5rf	52.2rf	46.4rf	39.5rf	35.9rf	32.9rf	26.4rf	27.1rf	22.3rf	22.3rf	17.7rf	22.8rf	38.5rf	27.4rf	25.9rf	18.0rf	11.5rf	7.7rf	24	33.24
31	8.0	6.9	6.6	6.6	5.5	5.9	6.2	7.1	5.0	1.4	2.2	2.6	2.9	4.4	3.7	2.3	5.9	8.3	11.2	10.0	13.7	11.9	14.4	17.6	24	7.10
NO.:	27	27	26	26	26	26	26	25	26	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27		
MAX:	45.7	42.5	44.1	41.7	48.8	49.9	50.5	52.2	46.4	39.5	42.3	39.6	32.2	35.6	31.5	31.2	29.8	28.6	38.5	37.3	41.8	42.8	40.9	47.7		
AVG:	9.05	8.55	8.13	7.36	7.63	7.12	6.99	7.42	7.33	7.45	9.01	9.77	9.32	9.84	9.47	8.72	8.12	7.99	9.01	9.00	9.53	9.95	9.80	9.44		

MONTHLY OBSERVATIONS: 640 MONTHLY MEAN: 8.60 MONTHLY MAX: 52.2

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-007-0002 POC: 3
COUNTY: (007) Billings
CITY: (00000) Not in a city
SITE ADDRESS: 13881 I94 EAST
SITE COMMENTS: NPS REQUESTED THE MONITORING BE TERMINATED MONITORING EQUIPMENT TO BE RETURNED TO
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 46.8943000009
LONGITUDE: -103.37853
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 832
PROBE HEIGHT: 5

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (170) Met One BAM-1020 Mass Monitor w/VS
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: 5

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	14.2IF	15.8IF	13.0IF	10.6IF	11.7IF	15.8IF	13.1IF	9.3IF	17.0IF	13.4IF	20.3IF	19.7IF	12.9IF	15.8IF	10.9IF	13.0IF	12.9IF	12.4IF	16.3IF	15.3IF	20.5IF	24.2IF	21.7IF	16.0IF	24	15.24
2	14.9	21.5	14.1	13.7	10.5	10.8	10.0	13.3	7.7	7.6	8.8	8.2	8.6	6.9	5.6	8.1	6.6	5.1	3.0	3.1	2.5	1.9	2.2	2.7	24	8.23
3	3.3rf	4.5rf	3.3rf	.7rf	5.4rf	9.9rf	16.0rf	33.3rf	72.3rf	91.3rf	68.0rf	42.3rf	28.9rf	30.4rf	41.2rf	37.1rf	28.7rf	27.1rf	35.0rf	26.6rf	21.6rf	17.9rf	7.7rf	6.8rf	24	27.47
4	3.4rf	5.1rf	7.8rf	6.3rf	3.8rf	1.8rf	1.0rf	.0rf	3.7rf	5.8rf	4.6rf	4.7rf	-.3rf	-.2rf	4.2rf	3.9rf	1.7rf	41.8rf	107.7rf	148.4rf	142.0rf	118.3rf	113.8rf	112.9rf	24	35.09
5	120.2rf	109.0rf	96.0rf	95.9rf	100.7rf	108.7rf	103.8rf	95.9rf	103.2rf	111.4rf	105.5rf	97.9rf	86.7rf	79.8rf	73.5rf	65.2rf	65.7rf	53.9rf	50.9rf	52.3rf	43.2rf	32.7rf	22.4rf	23.9rf	24	79.10
6	16.4rf	25.1rf	29.9rf	25.4rf	22.9rf	24.4rf	34.4rf	55.9rf	69.6rf	79.4rf	80.5rf	77.6rf	71.3rf	68.8rf	64.6rf	61.6rf	61.7rf	53.8rf	56.5rf	58.0rf	49.9rf	51.8rf	54.5rf	54.1rf	24	52.00
7	57.9rf	59.2rf	57.2rf	55.1rf	55.8rf	54.5rf	54.3rf	55.0rf	62.5rf	54.6rf	53.2rf	50.1rf	40.1rf	37.4rf	15.0rf	8.7rf	3.3rf	26.3rf	-2.5rf	-1.5rf	3.3rf	4.3rf	7.2rf	10.2rf	24	34.22
8	16.1IF	19.0IF	20.9IF	18.1IF	14.7IF	17.4IF	15.2IF	19.5IF	21.3IF	26.9IF	24.8IF	26.4IF	20.8IF	19.5IF	9.1IF	13.5IF	7.9IF	.1IF	-2.5IF	6.9IF	5.6IF	4.4IF	4.7IF	5.4IF	24	13.99
9	4.4	5.1	5.8	4.9	11.8	10.6	8.1	7.6	9.1	10.5	10.1	7.7	12.1	9.2	7.1	4.6	6.7	6.7	6.4	10.8	15.1	10.9	14.1	14.3	24	8.90
10	13.7IF	13.7IF	13.1IF	17.4IF	9.7IF	7.5IF	8.4IF	11.2IF	18.0IF	15.9IF	12.1IF	15.0IF	14.6IF	11.1IF	12.7IF	11.9IF	14.1IF	12.3IF	12.1IF	11.9IF	16.1IF	12.8IF	12.0IF	7.3IF	24	12.69
11	7.2	7.1	6.5	6.5	5.9	5.4	6.9	7.5	AX	AQ	AQ	14.7	7.3	6.1	8.2	7.5	4.6	6.1	8.7	11.1	18.0	9.4	6.3	.4	21	7.69
12	.0	4.7	7.9	7.1	5.6	5.1	3.3	4.4	7.7	11.0	16.6	15.8	9.3	6.4	5.8	5.3	3.1	3.3	5.1	12.4	10.9	8.2	7.6	9.0	24	7.32
13	5.2	2.0	1.0	-.7	-2.1	-5.4	-7.9	-1.8	8.4	22.3	12.4	8.5	6.0	5.1	4.1	3.1	1.5	4.2	5.0	5.0	6.0	5.2	8.8	7.3	24	4.30
14	7.9IF	5.9IF	5.4IF	3.3IF	1.2IF	1.9IF	2.1IF	5.3IF	6.9IF	5.1IF	2.7IF	14.6IF	36.0IF	45.0IF	36.4IF	29.1IF	16.6IF	17.0IF	13.3IF	14.1IF	13.5IF	10.3IF	17.2IF	8.0IF	24	13.28
15	7.2IF	5.9IF	6.7IF	5.6IF	7.2IF	4.9IF	-.2IF	6.1IF	16.1IF	34.9IF	34.5IF	23.0IF	15.0IF	13.0IF	12.7IF	8.0IF	5.1IF	2.8IF	4.1IF	8.7IF	15.0IF	7.7IF	5.9IF	2.6IF	24	10.52
16	-.2IF	1.8IF	3.1IF	2.6IF	7.8IF	8.8IF	9.6IF	12.3IF	18.3IF	16.2IF	11.5IF	13.2IF	12.2IF	7.9IF	6.5IF	6.2IF	5.7IF	3.0IF	7.6IF	24.0IF	27.9IF	23.3IF	22.1IF	8.6IF	24	10.83
17	9.0IF	21.2IF	17.8IF	12.6IF	15.2IF	10.8IF	11.4IF	16.4IF	27.1IF	18.4IF	16.2IF	7.0IF	6.8IF	4.9IF	3.0IF	4.0IF	5.1IF	5.5IF	4.8IF	3.4IF	4.5IF	6.3IF	6.1IF	3.2IF	24	10.03
18	2.0	2.9	3.4	3.2	3.3	3.5	1.5	3.0	4.6	4.6	6.2	7.2	7.1	4.8	2.3	5.5	5.7	2.7	1.4	2.3	2.2	4.1	7.4	5.6	24	4.02
19	4.1IF	2.4IF	5.6IF	4.9IF	2.7IF	3.7IF	6.8IF	5.8IF	5.4IF	3.6IF	1.8IF	15.5IF	30.5IF	29.6IF	28.6IF	23.0IF	10.5IF	9.1IF	6.8IF	4.7IF	7.6IF	6.5IF	6.1IF	4.6IF	24	9.58
20	4.1IF	8.3IF	19.9IF	20.6IF	14.2IF	14.2IF	14.9IF	11.1IF	18.3IF	20.6IF	15.7IF	18.7IF	18.9IF	19.4IF	13.8IF	14.7IF	16.7IF	17.9IF	30.4IF	30.9IF	30.3IF	26.7IF	21.9IF	24.1IF	24	18.60
21	21.6IF	26.0IF	18.0IF	11.6IF	13.0IF	10.3IF	8.0IF	15.0IF	18.2IF	23.2IF	5.4IF	12.2IF	10.1IF	8.7IF	10.7IF	10.0IF	9.5IF	9.2IF	9.0IF	19.0IF	11.6IF	8.9IF	6.1IF	1.9IF	24	12.38
22	3.4	5.6	5.2	3.6	5.0	4.6	2.2	1.3	2.9	.8	2.0	6.2	6.3	4.0	3.6	3.5	3.1	4.7	3.0	6.2	5.8	3.2	1.2	.8	24	3.68
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	22	22	21	21	21	22	22	22	22	22	22	22	22	22	22	22	22	22		
MAX:	120.2	109.0	96.0	95.9	100.7	108.7	103.8	95.9	103.2	111.4	105.5	97.9	86.7	79.8	73.5	65.2	65.7	53.9	107.7	148.4	142.0	118.3	113.8	112.9		
AVG:	15.27	16.90	16.44	14.95	14.82	14.96	14.68	17.61	24.68	27.50	24.42	23.01	20.96	19.71	17.25	15.80	13.48	14.77	17.37	21.53	21.50	18.14	17.14	14.99		

MONTHLY OBSERVATIONS: 525 MONTHLY MEAN: 18.20 MONTHLY MAX: 148.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-013-0004 POC: 23
COUNTY: (013) Burke
CITY: (00000) Not in a city
SITE ADDRESS: 8315 HIGHWAY 8, KENMARE
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 48.6419300009
LONGITUDE: -102.4018
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 696
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	7.1	7.2	7.0	7.2	8.8	10.0	9.2	6.8	6.2	6.6	7.8	9.4	8.7	8.1	8.3	8.8	8.0	8.7	8.7	9.9	8.2	7.7	8.1	8.0	24	8.10
17	7.2rf	6.8rf	6.4rf	6.4rf	6.6rf	6.3rf	652.2rf	774.2rf	792.8rf	616.8rf	465.9rf	371.2rf	230.2rf	203.2rf	159.1rf	116.2rf	87.8rf	95.6rf	99.5rf	91.6rf	54.1rf	54.6rf	68.6rf	83.2rf	24	210.69
18	90.0rf	93.3rf	83.5rf	77.0rf	70.8rf	71.4rf	71.8rf	17.3rf	3.1rf	3.3rf	2.5rf	3.2rf	3.7rf	5.4rf	6.0rf	5.4rf	5.1rf	6.3rf	7.4rf	7.6rf	8.8rf	10.4rf	12.1rf	14.1rf	24	28.31
19	13.8IF	13.1IF	13.1IF	12.8IF	13.1IF	12.7IF	12.7IF	10.7IF	6.9IF	6.0IF	5.4IF	5.1IF	5.1IF	5.8IF	5.8IF	8.8IF	7.6IF	5.5IF	6.3IF	6.3IF	6.3IF	5.9IF	6.8IF	7.4IF	24	8.46
20	7.4rf	6.8rf	6.5rf	6.3rf	6.2rf	6.5rf	8.1rf	10.4rf	15.3rf	18.5rf	20.7rf	25.9rf	30.0rf	34.2rf	36.4rf	38.0rf	37.5rf	37.3rf	36.2rf	36.6rf	39.5rf	44.6rf	53.0rf	55.4rf	24	25.72
21	47.8rf	29.0rf	20.6rf	20.4rf	22.1rf	22.5rf	20.7rf	18.3rf	17.9rf	17.6rf	18.8rf	21.5rf	25.4rf	35.1rf	29.6rf	20.3rf	19.6rf	21.0rf	22.5rf	21.1rf	25.7rf	24.9rf	21.8rf	26.2rf	24	23.77
22	30.6rf	30.9rf	31.5rf	30.5rf	31.5rf	30.1rf	25.1rf	23.8rf	23.6rf	22.0rf	24.3rf	20.8rf	22.7rf	25.9rf	28.7rf	32.1rf	36.8rf	39.3rf	36.0rf	36.2rf	33.2rf	33.6rf	32.6rf	32.3rf	24	29.75
23	32.1rf	31.8rf	31.3rf	31.0rf	32.7rf	32.1rf	31.0rf	28.9rf	31.4rf	33.2rf	31.9rf	32.5rf	32.3rf	35.0rf	35.6rf	39.7rf	35.8rf	35.4rf	33.0rf	31.9rf	38.4rf	41.7rf	33.6rf	23.0rf	24	33.14
24	19.3IF	18.4IF	19.8IF	22.5IF	24.6IF	27.1IF	AX	AT	20.0IF	20.2IF	20.4IF	19.6IF	20.2IF	15.7IF	19.5IF	19.4IF	16.4IF	17.8IF	18.5IF	16.0IF	15.7IF	15.9IF	16.2IF	14.9IF	22	19.00
25	15.1IF	15.6IF	16.0IF	15.9IF	16.2IF	15.1IF	15.1IF	15.5IF	16.1IF	17.3IF	20.2IF	20.3IF	20.8IF	18.6IF	22.4IF	19.4IF	16.8IF	22.2IF	20.0IF	26.1IF	14.5IF	14.9IF	12.8IF	11.0IF	24	17.41
26	9.7IF	9.1IF	9.7IF	9.3IF	9.3IF	9.6IF	8.7IF	8.8IF	9.8IF	9.9IF	10.9IF	11.3IF	10.1IF	9.6IF	8.9IF	8.5IF	7.3IF	6.3IF	5.2IF	6.3IF	7.2IF	7.2IF	8.2IF	5.5IF	24	8.60
27	4.6IF	5.0IF	8.1IF	9.7IF	9.8IF	8.2IF	7.8IF	9.0IF	11.4IF	10.4IF	8.3IF	7.2IF	5.2IF	6.3IF	6.4IF	6.8IF	10.4IF	8.2IF	7.1IF	8.7IF	10.3IF	13.0IF	12.2IF	7.2IF	24	8.39
28	3.2	3.2	3.3	3.3	3.4	3.6	3.3	2.8	2.5	2.4	2.1	2.3	2.4	2.5	2.6	3.2	3.2	3.1	3.2	3.6	4.0	3.7	4.1	4.2	24	3.13
29	4.3	4.9	5.5	7.0	7.6	8.0	7.6	6.3	5.4	5.0	4.1	3.0	3.4	3.1	3.3	3.9	4.0	3.8	3.3	3.2	3.4	4.0	4.2	4.3	24	4.69
30	5.0	5.4	6.3	6.8	6.9	7.1	6.8	6.5	5.9	4.2	3.4	4.2	5.3	7.6	7.3	9.7	7.8	9.1	7.8	7.5	7.9	10.1	10.9	18.8	24	7.43
31	19.2IF	19.6IF	16.8IF	12.7IF	12.6IF	12.5IF	9.5IF	10.7IF	12.7IF	9.3IF	10.6IF	6.8IF	6.1IF	5.9IF	6.1IF	7.2IF	6.7IF	5.6IF	5.9IF	6.1IF	6.4IF	7.7IF	9.0IF	7.5IF	24	9.72
NO.:	16	16	16	16	16	16	15	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	90.0	93.3	83.5	77.0	70.8	71.4	652.2	774.2	792.8	616.8	465.9	371.2	230.2	203.2	159.1	116.2	87.8	95.6	99.5	91.6	54.1	54.6	68.6	83.2		
AVG:	19.78	18.76	17.84	17.43	17.64	17.68	59.31	63.33	61.31	50.17	41.08	35.27	26.98	26.38	24.13	21.71	19.43	20.33	20.04	19.92	17.73	18.74	19.64	20.19		

MONTHLY OBSERVATIONS: 382 MONTHLY MEAN: 27.94 MONTHLY MAX: 792.8

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

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LOCATION SETTING: RURAL

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UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 696
PROBE HEIGHT: 4

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MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

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UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	8.8	9.1	7.1	7.2	7.2	8.3	7.3	6.7	7.9	8.7	8.1	6.9	6.8	5.8	5.0	4.9	4.9	4.9	4.9	4.9	5.5	7.7	8.0	9.2	24	6.91
2	8.1	6.1	5.4	4.7	4.8	5.0	4.8	5.2	6.0	6.2	6.0	6.9	5.6	5.0	4.4	5.0	4.8	4.7	4.3	4.5	4.4	4.6	5.5	6.3	24	5.35
3	7.2	7.0	7.3	7.6	7.6	7.2	6.3	6.0	5.1	6.1	7.1	7.7	6.9	5.8	5.6	5.4	5.6	6.2	7.4	7.3	7.4	8.1	8.5	9.3	24	6.90
4	10.2	10.6	10.7	12.3	13.0	12.6	11.2	9.2	6.8	5.0	4.8	4.9	5.5	6.4	5.9	7.1	6.1	8.0	6.1	6.2	6.7	5.9	5.4	4.5	24	7.71
5	4.1	4.6	4.8	5.1	5.6	4.7	6.4	6.2	5.7	6.1	6.0	6.3	6.4	6.5	6.5	6.8	6.4	7.2	6.6	6.7	7.7	10.0	9.2	10.4	24	6.50
6	11.9IF	12.9IF	14.2IF	16.6IF	18.6IF	16.4IF	11.5IF	9.4IF	8.9IF	9.3IF	11.0IF	9.0IF	8.3IF	8.5IF	8.4IF	7.9IF	9.0IF	9.1IF	9.1IF	9.1IF	10.2IF	10.1IF	10.6IF	11.0IF	24	10.88
7	11.1IF	11.2IF	11.1IF	11.8IF	11.0IF	10.4IF	AZ	AX	8.4IF	7.8IF	7.6IF	7.7IF	7.8IF	7.7IF	7.5IF	8.1IF	8.7IF	8.0IF	9.4IF	8.9IF	9.0IF	9.5IF	10.0IF	12.7IF	22	9.34
8	12.5IF	11.2IF	12.3IF	12.0IF	12.7IF	14.8IF	12.9IF	11.8IF	15.9IF	18.0IF	16.5IF	16.9IF	15.5IF	14.7IF	13.1IF	12.6IF	11.0IF	9.0IF	6.7IF	5.5IF	5.6IF	6.5IF	7.2IF	7.4IF	24	11.76
9	7.3IF	9.0IF	10.3IF	11.3IF	8.2IF	10.0IF	10.0IF	11.3IF	12.0IF	12.6IF	9.3IF	6.9IF	6.5IF	5.6IF	9.4IF	15.2IF	19.4IF	22.3IF	27.4IF	29.9IF	31.2IF	24.1IF	17.2IF	17.4IF	24	14.33
10	21.7IF	23.5IF	24.9IF	24.7IF	25.0IF	24.8IF	23.5IF	19.1IF	17.9IF	19.0IF	18.9IF	18.9IF	17.8IF	13.1IF	10.9IF	10.7IF	9.3IF	7.7IF	5.8IF	4.4IF	4.8IF	5.2IF	5.8IF	5.8IF	24	15.13
11	5.4	5.4	5.8	5.8	5.9	5.4	6.2	6.0	5.5	5.1	5.2	5.4	5.4	5.3	5.4	5.2	5.6	5.9	5.8	5.6	5.4	5.7	6.3	6.7	24	5.64
12	7.6IF	8.4IF	8.4IF	8.2IF	8.6IF	8.5IF	8.5IF	8.1IF	10.3IF	11.0IF	11.5IF	12.6IF	13.0IF	14.0IF	15.1IF	15.4IF	15.7IF	14.6IF	15.2IF	15.0IF	15.6IF	16.1IF	17.9IF	20.7IF	24	12.50
13	19.5rf	18.4rf	18.0rf	18.0rf	17.3rf	17.5rf	17.0rf	16.9rf	15.3rf	10.9rf	16.6rf	34.1rf	45.6rf	32.8rf	26.1rf	23.8rf	23.6rf	23.7rf	21.8rf	21.9rf	22.5rf	23.6rf	23.6rf	25.2rf	24	22.24
14	29.3rf	28.2rf	27.1rf	24.4rf	24.3rf	26.0rf	23.0rf	18.2rf	14.3rf	11.2rf	10.8rf	10.1rf	13.7rf	18.7rf	16.8rf	16.2rf	22.2rf	20.7rf	18.6rf	20.3rf	31.1rf	41.4rf	46.4rf	51.5rf	24	23.52
15	44.7IF	28.6IF	30.0IF	29.9IF	35.8IF	34.4IF	18.5IF	19.9IF	23.0IF	10.2IF	7.0IF	5.8IF	4.4IF	3.7IF	3.5IF	3.2IF	2.7IF	3.1IF	4.2IF	7.3IF	7.6IF	13.5IF	14.3IF	15.7IF	24	15.46
16	15.5rf	16.4rf	19.0rf	24.9rf	24.8rf	25.5rf	25.2rf	20.9rf	17.1rf	18.6rf	22.2rf	21.1rf	20.4rf	25.7rf	28.1rf	29.6rf	31.1rf	30.2rf	28.5rf	28.3rf	28.4rf	27.2rf	27.1rf	24.7rf	24	24.19
17	26.7rf	25.1rf	29.8rf	32.2rf	31.3rf	29.0rf	27.0rf	23.4rf	20.8rf	20.2rf	17.3rf	17.4rf	16.5rf	17.7rf	16.7rf	16.6rf	16.3rf	19.3rf	20.0rf	17.1rf	12.2rf	9.4rf	9.8rf	12.3rf	24	20.17
18	10.7IF	11.8IF	11.3IF	12.3IF	11.0IF	10.8IF	9.3IF	10.2IF	11.0IF	12.4IF	11.5IF	11.2IF	11.1IF	9.8IF	8.5IF	6.8IF	7.8IF	7.6IF	7.9IF	9.3IF	10.6IF	10.7IF	11.8IF	12.6IF	24	10.33
19	7.1	5.9	5.4	4.2	4.4	4.6	4.0	2.8	2.6	2.4	2.6	2.1	2.6	2.4	1.9	2.0	2.6	2.1	2.6	2.8	2.7	3.3	4.0	4.1	24	3.38
20	2.8	4.6	5.9	3.9	4.6	5.0	7.2	AX	4.9	4.2	2.8	2.7	2.8	2.8	2.9	4.3	3.7	3.0	2.7	2.5	2.5	2.8	3.0	3.0	23	3.68
21	2.8	3.0	2.8	2.8	3.2	3.1	3.0	2.8	2.2	2.0	2.6	3.0	3.9	3.0	2.6	2.3	2.4	4.1	3.4	4.1	3.5	4.2	3.8	2.8	24	3.06
22	2.8	2.8	2.9	2.7	2.8	3.6	3.0	3.5	3.0	2.9	2.8	2.5	2.5	2.4	2.4	2.4	2.3	2.2	2.3	2.4	2.4	2.5	2.6	2.6	24	2.68
23	2.7	3.4	4.1	5.8	7.5	7.1	6.2	4.6	3.3	2.3	2.4	2.4	2.8	2.8	3.1	3.2	2.9	2.8	2.6	2.8	3.0	3.5	3.5	5.1	24	3.75
24	6.3	5.5	4.9	4.0	6.9	7.4	6.4	5.9	4.7	4.1	4.3	3.5	3.2	3.4	3.5	3.7	4.3	4.7	5.2	4.7	4.9	4.9	4.6	4.0	24	4.79
25	4.2	4.1	4.1	4.1	3.9	4.1	4.1	4.2	4.0	4.0	4.1	3.9	4.1	4.2	4.3	4.2	4.0	4.0	3.7	3.6	3.8	3.9	4.2	4.7	24	4.06
26	5.0	5.0	5.7	6.2	6.8	7.0	5.9	5.0	5.0	4.3	4.5	4.8	4.5	5.3	5.8	11.0	6.5	6.4	5.9	3.9	3.6	3.7	3.8	4.1	24	5.40
27	4.0	3.9	4.2	4.7	6.4	6.7	6.6	5.3	4.5	4.5	4.3	3.7	4.0	4.3	4.3	4.2	4.2	4.2	4.0	3.8	3.8	3.9	4.3	4.1	24	4.50
28	4.4IF	4.6IF	4.9IF	5.4IF	5.2IF	4.1IF	4.2IF	4.2IF	4.2IF	4.7IF	5.5IF	7.9IF	13.0IF	13.6IF	21.0IF	24.0IF	16.2IF	10.6IF	11.9IF	12.8IF	13.7IF	10.3IF	8.9IF	8.7IF	24	9.33
29	9.2rf	13.0rf	15.4rf	18.7rf	22.2rf	21.7rf	17.6rf	14.5rf	15.0rf	12.0rf	10.7rf	11.9rf	15.7rf	20.4rf	39.1rf	61.6rf	68.0rf	75.0rf	74.1rf	65.3rf	66.8rf	67.0rf	62.8rf	64.4rf	24	35.92
30	60.5rf	59.8rf	59.1rf	60.3rf	61.7rf	59.1rf	55.8rf	62.0rf	67.2rf	53.0rf	34.2rf	31.3rf	31.7rf	32.8rf	29.8rf	27.4rf	24.5rf	21.7rf	20.8rf	20.1rf	19.6rf	20.3rf	19.0rf	15.7rf	24	39.48
31																									0	
NO.:	30	30	30	30	30	30	29	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	60.5	59.8	59.1	60.3	61.7	59.1	55.8	62.0	67.2	53.0	34.2	34.1	45.6	32.8	39.1	61.6	68.0	75.0	74.1	65.3	66.8	67.0	62.8	64.4		
AVG:	12.47	12.10	12.56	13.06	13.61	13.49	12.16	11.55	11.08	9.96	9.27	9.65	10.27	10.14	10.59	11.69	11.73	11.77	11.63	11.37	11.87	12.32	12.30	12.89		

MONTHLY OBSERVATIONS: 717 MONTHLY MEAN: 11.65 MONTHLY MAX: 75.0

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

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PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	14.7IF	14.8IF	14.4IF	14.5IF	13.6IF	13.2IF	11.7IF	10.0IF	13.1IF	9.9IF	9.0IF	8.2IF	6.8IF	6.3IF	7.3IF	7.0IF	7.3IF	6.6IF	6.4IF	7.1IF	9.7IF	6.5IF	6.0IF	4.0IF	24	9.50
2	4.1	3.8	2.8	2.6	2.6	2.7	2.9	4.1	4.8	4.9	4.9	4.6	4.9	5.6	6.0	7.4	6.5	6.8	5.8	4.8	4.2	4.9	5.9	5.8	24	4.73
3	4.6rf	4.1rf	3.3rf	3.2rf	3.6rf	10.1rf	24.2rf	42.2rf	38.2rf	36.4rf	32.7rf	35.6rf	36.8rf	36.4rf	34.2rf	33.3rf	33.1rf	34.8rf	31.4rf	29.1rf	28.5rf	29.0rf	29.1rf	30.0rf	24	26.00
4	29.8	30.0	33.6	31.2	13.4	3.3	2.6	1.9	1.3	1.9	2.6	2.4	3.5	3.0	3.4	2.6	2.1	2.3	2.2	2.1	2.5	2.3	2.4	2.8	24	7.72
5	2.9	3.1	3.6	3.3	3.3	3.6	3.3	2.5	2.4	2.4	2.4	2.4	2.6	2.8	2.8	2.8	2.7	2.8	2.8	3.0	3.6	3.9	3.4	3.4	24	2.99
6	3.3	3.3	3.7	3.3	2.9	2.8	3.0	AX	4.3	4.8	5.9	5.8	5.5	5.5	5.8	6.0	5.9	6.0	5.9	5.8	6.2	6.3	7.9	7.9	23	5.12
7	7.6IF	7.9IF	8.8IF	9.5IF	10.5IF	10.9IF	10.2IF	9.5IF	9.2IF	8.9IF	7.4IF	7.4IF	7.8IF	7.6IF	8.2IF	8.1IF	9.5IF	8.7IF	8.1IF	7.6IF	6.5IF	7.2IF	6.9IF	5.4IF	24	8.31
8	5.0IF	5.4IF	5.1IF	5.4IF	5.8IF	6.1IF	7.3IF	7.3IF	7.6IF	10.1IF	11.2IF	14.1IF	15.2IF	16.2IF	16.8IF	14.1IF	11.3IF	10.5IF	10.3IF	12.1IF	12.1IF	12.5IF	12.2IF	11.6IF	24	10.22
9	11.7rf	11.4rf	11.5rf	11.7rf	11.7rf	11.9rf	12.2rf	12.5rf	13.3rf	14.2rf	15.5rf	15.7rf	15.1rf	14.3rf	16.3rf	20.1rf	23.9rf	34.8rf	35.4rf	33.9rf	36.8rf	39.7rf	38.9rf	39.6rf	24	20.92
10	42.4IF	43.7IF	43.2IF	39.6IF	24.3IF	21.8IF	13.4IF	7.2IF	5.9IF	6.7IF	8.4IF	9.8IF	9.9IF	8.1IF	7.0IF	5.4IF	4.5IF	4.7IF	4.1IF	4.1IF	3.8IF	3.9IF	4.0IF	3.7IF	24	13.73
11	3.5	3.3	3.0	3.1	2.5	2.7	2.7	2.8	2.8	3.3	3.3	2.8	3.2	3.2	3.2	3.0	3.3	3.5	3.2	3.1	2.8	2.5	2.2	2.4	24	2.98
12	2.4	2.4	2.5	2.5	2.4	2.7	3.1	4.6	5.4	5.8	5.4	5.5	5.3	6.3	5.7	4.8	5.2	5.2	5.4	5.9	6.3	7.0	6.2	6.1	24	4.75
13	5.9IF	5.8IF	6.1IF	6.2IF	6.6IF	6.8IF	6.2IF	5.4IF	5.4IF	5.8IF	6.2IF	6.5IF	12.3IF	13.2IF	13.8IF	13.5IF	15.7IF	18.6IF	26.1IF	23.6IF	22.7IF	22.8IF	23.1IF	24.5IF	24	12.62
14	25.2rf	33.8rf	49.7rf	62.1rf	74.3rf	86.0rf	96.4rf	106.2rf	112.7rf	106.7rf	90.1rf	84.7rf	83.1rf	106.9rf	115.1rf	101.8rf	115.0rf	110.9rf	120.8rf	151.4rf	137.8rf	89.6rf	113.8rf	96.7rf	24	94.62
15	67.8rf	48.5rf	35.9rf	35.3rf	34.0rf	21.1rf	18.6rf	14.3rf	9.9rf	9.0rf	9.1rf	7.9rf	6.3rf	6.1rf	5.8rf	10.4rf	34.1rf	123.6rf	130.3rf	135.9rf	141.2rf	131.9rf	121.2rf	102.8rf	24	52.54
16	87.8rf	84.3rf	79.4rf	65.5rf	45.9rf	33.3rf	24.7rf	17.9rf	10.9rf	9.2rf	8.5rf	5.9rf	5.0rf	5.0rf	4.6rf	4.6rf	3.9rf	3.7rf	3.3rf	2.7rf	2.8rf	2.8rf	2.9rf	2.9rf	24	21.56
17	2.8	2.8	2.8	2.8	2.7	2.5	2.6	2.5	3.3	3.0	3.1	3.1	2.8	3.2	3.3	3.8	4.4	4.7	5.7	4.9	3.3	3.3	3.6	3.5	24	3.35
18	3.7IF	3.9IF	4.1IF	4.3IF	4.5IF	4.6IF	4.8IF	4.8IF	5.2IF	6.8IF	8.0IF	12.6IF	15.2IF	17.8IF	14.5IF	7.1IF	7.6IF	7.7IF	7.4IF	6.1IF	4.1IF	3.8IF	10.4IF	20.6IF	24	7.90
19	20.7IF	19.4IF	17.2IF	13.0IF	11.6IF	11.5IF	AX	BA	10.5IF	7.8IF	6.3IF	5.0IF	5.5IF	5.8IF	5.0IF	5.2IF	5.9IF	7.5IF	9.1IF	10.7IF	14.9IF	14.5IF	13.9IF	14.5IF	22	10.70
20																									0	
21																									0	
22																									0	
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	19	19	19	19	19	19	18	17	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19		
MAX:	87.8	84.3	79.4	65.5	74.3	86.0	96.4	106.2	112.7	106.7	90.1	84.7	83.1	106.9	115.1	101.8	115.0	123.6	130.3	151.4	141.2	131.9	121.2	102.8		
AVG:	18.21	17.46	17.41	16.79	14.54	13.56	13.88	15.04	14.01	13.56	12.63	12.63	12.99	14.38	14.67	13.74	15.89	21.23	22.30	23.89	23.67	20.76	21.79	20.43		

MONTHLY OBSERVATIONS: 453 MONTHLY MEAN: 16.91 MONTHLY MAX: 151.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-013-0004 POC: 3
COUNTY: (013) Burke
CITY: (00000) Not in a city
SITE ADDRESS: 8315 HIGHWAY 8, KENMARE
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 48.6419300009
LONGITUDE: -102.4018
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 696
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	8.7	8.8	8.6	8.8	10.7	11.9	11.1	8.4	7.6	7.5	8.7	10.3	9.6	9.0	9.2	9.7	8.9	9.6	9.6	10.8	10.1	9.5	10.0	9.8	24	9.45
17	8.9IF	8.4IF	7.9IF	7.9IF	8.1IF	7.7IF	654.1IF	776.1IF	794.7IF	618.7IF	467.8IF	373.1IF	232.1IF	205.1IF	161.0IF	118.1IF	89.7IF	97.5IF	101.4IF	93.5IF	56.0IF	56.5IF	70.5IF	85.1IF	24	212.50
18	91.9IF	95.2IF	85.4IF	78.9IF	72.7IF	73.3IF	73.7IF	19.2IF	3.8IF	4.1IF	3.1IF	3.9IF	4.5IF	6.7IF	7.4IF	6.7IF	6.3IF	7.8IF	9.1IF	9.3IF	10.7IF	12.3IF	14.0IF	16.0IF	24	29.83
19	15.7IF	15.0IF	15.0IF	14.7IF	15.0IF	14.6IF	14.6IF	12.6IF	8.5IF	7.4IF	6.6IF	6.3IF	6.3IF	7.1IF	7.1IF	10.7IF	9.4IF	6.8IF	7.7IF	7.7IF	7.7IF	7.3IF	8.4IF	9.1IF	24	10.05
20	9.1IF	8.4IF	8.0IF	7.8IF	7.6IF	8.0IF	9.9IF	12.3IF	17.2IF	20.4IF	22.6IF	26.8IF	30.9IF	35.1IF	37.3IF	38.9IF	38.4IF	38.2IF	37.1IF	38.5IF	41.4IF	46.5IF	54.9IF	57.3IF	24	27.19
21	49.7IF	30.9IF	22.5IF	22.3IF	24.0IF	24.4IF	22.6IF	20.2IF	19.8IF	19.5IF	20.7IF	23.4IF	27.3IF	37.0IF	31.5IF	21.2IF	20.5IF	21.9IF	23.4IF	23.0IF	27.6IF	26.8IF	23.7IF	28.1IF	24	25.50
22	32.5IF	32.8IF	33.4IF	32.4IF	33.4IF	32.0IF	27.0IF	25.7IF	25.5IF	22.9IF	25.2IF	21.7IF	23.6IF	26.8IF	29.6IF	33.0IF	37.7IF	40.2IF	36.9IF	37.1IF	35.1IF	35.5IF	34.5IF	34.2IF	24	31.20
23	34.0IF	33.7IF	33.2IF	32.9IF	34.6IF	34.0IF	32.9IF	30.8IF	32.3IF	34.1IF	32.8IF	33.4IF	33.2IF	35.9IF	36.5IF	40.6IF	36.7IF	36.3IF	33.9IF	33.8IF	40.3IF	43.6IF	35.5IF	24.9IF	24	34.58
24	21.2IF	20.3IF	21.7IF	24.4IF	26.5IF	29.0IF	AX	AT	21.9IF	22.1IF	22.3IF	21.5IF	21.1IF	16.6IF	20.4IF	20.3IF	17.3IF	18.7IF	19.4IF	16.9IF	16.6IF	16.8IF	17.1IF	16.8IF	22	20.40
25	17.0IF	17.5IF	17.9IF	17.8IF	18.1IF	17.0IF	17.0IF	17.4IF	18.0IF	19.2IF	21.1IF	21.2IF	21.7IF	19.5IF	23.3IF	20.3IF	17.7IF	23.1IF	20.9IF	27.0IF	16.4IF	16.8IF	14.7IF	12.9IF	24	18.90
26	11.6IF	11.0IF	11.6IF	11.2IF	11.2IF	11.5IF	10.6IF	10.7IF	11.7IF	11.8IF	11.8IF	12.2IF	11.0IF	10.5IF	9.8IF	9.4IF	8.2IF	7.2IF	6.1IF	7.7IF	8.9IF	8.9IF	10.1IF	6.8IF	24	10.06
27	5.7IF	6.2IF	9.9IF	11.6IF	11.7IF	10.1IF	9.6IF	10.9IF	13.3IF	12.3IF	10.2IF	8.1IF	6.1IF	7.2IF	7.3IF	7.7IF	11.3IF	9.1IF	8.0IF	9.6IF	11.2IF	13.9IF	13.1IF	8.8IF	24	9.70
28	3.9	3.9	4.0	4.1	4.2	4.4	4.1	3.5	3.1	2.9	2.6	2.8	2.9	3.1	3.2	3.9	3.9	3.8	3.9	4.4	4.9	4.6	5.0	5.2	24	3.85
29	5.3	6.0	6.8	8.6	9.4	9.8	9.3	7.8	6.7	6.1	5.0	3.7	4.2	3.8	4.0	4.8	4.9	4.7	4.1	3.9	4.2	4.9	5.2	5.3	24	5.77
30	6.2	6.7	7.7	8.4	8.5	8.7	8.4	8.0	7.3	5.1	4.2	5.1	6.2	8.5	8.2	10.6	8.7	10.0	8.7	8.4	8.8	12.0	12.8	20.7	24	8.66
31	21.1IF	21.5IF	18.7IF	14.6IF	14.5IF	14.4IF	11.4IF	12.6IF	13.6IF	10.2IF	11.5IF	7.7IF	7.0IF	6.8IF	7.0IF	8.1IF	7.6IF	6.5IF	6.8IF	7.0IF	7.9IF	9.5IF	10.9IF	9.2IF	24	11.09
NO.:	16	16	16	16	16	16	15	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	91.9	95.2	85.4	78.9	72.7	73.3	654.1	776.1	794.7	618.7	467.8	373.1	232.1	205.1	161.0	118.1	89.7	97.5	101.4	93.5	56.0	56.5	70.5	85.1		
AVG:	21.41	20.39	19.52	19.15	19.39	19.43	61.09	65.08	62.81	51.52	42.26	36.33	27.98	27.42	25.18	22.75	20.45	21.34	21.06	21.16	19.24	20.34	21.28	21.89		

MONTHLY OBSERVATIONS: 382 MONTHLY MEAN: 29.34 MONTHLY MAX: 794.7

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-013-0004 POC: 3
COUNTY: (013) Burke
CITY: (00000) Not in a city
SITE ADDRESS: 8315 HIGHWAY 8, KENMARE
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 48.6419300009
LONGITUDE: -102.4018
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 696
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	10.7	11.0	8.7	8.9	8.9	10.2	9.0	8.2	9.7	9.6	9.0	7.8	7.7	6.7	5.9	5.8	5.8	5.8	5.8	5.8	6.4	8.6	8.9	10.1	24	8.13
2	9.0	7.5	6.7	5.8	5.9	6.2	5.9	6.4	6.9	7.1	6.9	7.8	6.5	5.9	5.3	5.9	5.7	5.6	5.2	5.5	5.4	5.7	6.8	7.7	24	6.39
3	8.8	8.6	9.0	9.3	9.4	8.8	7.7	6.9	6.0	7.0	8.0	8.6	7.8	6.7	6.5	6.3	6.5	7.1	8.3	8.2	8.3	9.0	9.4	10.2	24	8.02
4	11.1	11.5	12.6	14.2	14.9	14.5	12.1	10.1	7.7	5.9	5.7	5.8	6.4	7.3	6.8	8.0	7.0	8.9	7.0	7.1	7.6	6.8	6.3	5.4	24	8.78
5	5.0	5.6	5.7	6.3	6.9	5.8	7.3	7.1	6.6	7.0	6.9	7.2	7.3	7.4	7.4	7.7	7.3	8.1	7.5	7.6	8.6	10.9	10.1	11.3	24	7.44
6	12.8IF	13.8IF	15.1IF	18.5IF	20.5IF	18.3IF	13.4IF	10.3IF	9.8IF	10.2IF	11.9IF	9.9IF	9.2IF	9.4IF	9.3IF	8.8IF	9.9IF	10.0IF	10.0IF	10.0IF	11.1IF	11.0IF	11.5IF	11.9IF	24	11.94
7	12.0IF	12.1IF	12.0IF	12.7IF	12.9IF	12.3IF	AZ	AX	9.3IF	8.7IF	8.5IF	8.6IF	8.7IF	8.6IF	8.4IF	9.0IF	9.6IF	8.9IF	10.3IF	9.8IF	9.9IF	10.4IF	10.9IF	13.6IF	22	10.33
8	13.4IF	13.1IF	14.2IF	13.9IF	14.6IF	16.7IF	14.8IF	13.7IF	17.8IF	18.9IF	17.4IF	17.8IF	16.4IF	15.6IF	14.0IF	13.5IF	11.9IF	9.9IF	8.2IF	6.4IF	6.9IF	8.0IF	8.9IF	9.1IF	24	13.13
9	9.0IF	10.9IF	12.2IF	13.2IF	10.1IF	11.9IF	11.9IF	13.2IF	13.9IF	14.5IF	10.2IF	7.8IF	7.4IF	6.5IF	10.3IF	16.1IF	20.3IF	23.2IF	28.3IF	30.8IF	33.1IF	26.0IF	19.1IF	19.3IF	24	15.80
10	23.6IF	25.4IF	26.8IF	26.6IF	26.9IF	26.7IF	25.4IF	21.0IF	19.8IF	20.9IF	20.8IF	20.8IF	19.7IF	15.0IF	12.8IF	12.6IF	11.2IF	9.5IF	7.1IF	5.4IF	5.9IF	6.4IF	7.1IF	7.1IF	24	16.85
11	6.6	6.7	7.1	7.1	7.2	6.6	7.6	7.4	6.8	6.3	6.4	6.6	6.6	6.2	6.3	6.1	6.5	6.8	6.7	6.5	6.6	7.0	7.8	8.3	24	6.83
12	9.4IF	10.3IF	10.3IF	10.1IF	10.5IF	10.4IF	10.4IF	10.0IF	12.2IF	11.9IF	12.4IF	13.5IF	13.9IF	14.9IF	16.0IF	16.3IF	16.6IF	15.5IF	16.1IF	16.9IF	17.5IF	18.0IF	19.8IF	22.6IF	24	13.98
13	21.4IF	20.3IF	19.9IF	19.9IF	19.2IF	19.4IF	18.9IF	18.8IF	16.2IF	11.8IF	17.5IF	35.0IF	46.5IF	33.7IF	27.0IF	24.7IF	24.5IF	24.6IF	22.7IF	22.8IF	23.4IF	24.5IF	24.5IF	27.1IF	24	23.51
14	31.2IF	30.1IF	29.0IF	26.3IF	26.2IF	27.9IF	24.9IF	20.1IF	15.2IF	12.1IF	11.7IF	11.0IF	14.6IF	19.6IF	17.7IF	17.1IF	23.1IF	21.6IF	19.5IF	21.2IF	32.0IF	42.3IF	47.3IF	53.4IF	24	24.80
15	46.6IF	30.5IF	31.9IF	31.8IF	37.7IF	36.3IF	20.4IF	21.8IF	24.9IF	12.1IF	8.6IF	7.1IF	5.4IF	4.5IF	4.3IF	3.9IF	3.3IF	3.8IF	5.1IF	8.2IF	9.4IF	15.4IF	16.2IF	17.6IF	24	16.95
16	17.4IF	18.3IF	20.9IF	26.8IF	26.7IF	27.4IF	27.1IF	22.8IF	19.0IF	20.5IF	24.1IF	23.0IF	22.3IF	27.6IF	30.0IF	31.5IF	33.0IF	32.1IF	30.4IF	30.2IF	30.3IF	29.1IF	29.0IF	26.6IF	24	26.09
17	28.6IF	27.0IF	31.7IF	34.1IF	33.2IF	30.9IF	28.9IF	25.3IF	22.7IF	22.1IF	19.2IF	18.3IF	17.4IF	18.6IF	17.6IF	17.5IF	17.2IF	20.2IF	20.9IF	18.0IF	14.1IF	11.3IF	11.7IF	14.2IF	24	21.70
18	12.6IF	13.7IF	13.2IF	14.2IF	12.9IF	12.7IF	11.2IF	12.1IF	12.9IF	13.3IF	12.4IF	12.1IF	12.0IF	10.7IF	9.4IF	7.7IF	8.7IF	8.5IF	8.8IF	10.2IF	11.5IF	11.6IF	12.7IF	14.5IF	24	11.65
19	8.7	7.2	6.6	5.2	5.4	5.7	4.9	3.4	3.2	2.9	3.2	2.6	3.2	3.0	2.3	2.5	3.2	2.6	3.2	3.4	3.3	4.1	4.9	5.1	24	4.16
20	3.4	5.6	7.2	4.8	5.7	6.2	8.9	AX	6.0	5.2	3.5	3.3	3.4	3.5	3.6	5.2	4.6	3.7	3.3	3.1	3.1	3.5	3.7	3.7	23	4.53
21	3.4	3.7	3.4	3.5	3.9	3.8	3.7	3.4	2.7	2.5	3.2	3.7	4.8	3.7	3.2	2.8	2.9	5.1	4.2	5.0	4.3	5.2	4.7	3.5	24	3.76
22	3.5	3.5	3.6	3.3	3.4	4.4	3.7	4.3	3.7	3.6	3.4	3.1	3.1	2.9	3.0	2.9	2.8	2.7	2.8	2.9	3.0	3.1	3.2	3.2	24	3.30
23	3.3	4.2	5.1	7.1	9.2	8.7	7.6	5.6	4.0	2.8	3.0	2.9	3.4	3.5	3.8	3.9	3.6	3.4	3.2	3.4	3.7	4.3	4.3	6.3	24	4.60
24	7.7	6.8	6.0	4.9	8.5	9.1	7.9	7.2	5.8	5.1	5.3	4.3	3.9	4.2	4.3	4.6	5.2	5.6	6.1	5.8	6.0	6.0	5.6	4.9	24	5.87
25	5.2	5.1	5.0	5.1	4.8	5.0	5.0	5.2	4.9	4.9	5.0	4.8	5.0	5.1	5.2	5.1	4.9	4.9	4.6	4.4	4.7	4.8	5.2	5.8	24	4.99
26	6.2	6.2	7.0	7.6	8.4	8.6	7.2	6.1	5.9	5.2	5.4	5.7	5.4	6.2	6.7	11.9	7.4	7.3	7.2	4.8	4.4	4.6	4.7	5.0	24	6.46
27	4.9	4.8	5.2	5.8	7.9	8.3	8.1	6.5	5.5	5.5	5.3	4.6	4.9	5.2	5.2	5.1	5.1	5.1	4.9	4.7	4.7	4.8	5.2	5.1	24	5.52
28	5.4IF	5.7IF	6.0IF	6.6IF	6.4IF	5.1IF	5.2IF	5.2IF	5.1IF	5.6IF	6.4IF	8.8IF	13.9IF	14.5IF	21.9IF	24.9IF	17.1IF	11.5IF	12.8IF	13.7IF	14.6IF	12.2IF	10.8IF	10.6IF	24	10.42
29	11.1IF	14.9IF	17.3IF	20.6IF	24.1IF	23.6IF	19.5IF	16.4IF	16.9IF	13.9IF	12.6IF	12.8IF	16.6IF	21.3IF	40.0IF	62.5IF	68.9IF	75.9IF	75.0IF	66.2IF	67.7IF	68.9IF	64.7IF	66.3IF	24	37.40
30	62.4IF	61.7IF	61.0IF	62.2IF	63.6IF	61.0IF	57.7IF	63.9IF	68.1IF	53.9IF	35.1IF	32.2IF	32.6IF	33.7IF	30.7IF	28.3IF	25.4IF	22.6IF	21.7IF	21.0IF	20.5IF	21.2IF	19.9IF	17.6IF	24	40.75
31																									0	
NO.:	30	30	30	30	30	30	29	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	62.4	61.7	61.0	62.2	63.6	61.0	57.7	63.9	68.1	53.9	35.1	35.0	46.5	33.7	40.0	62.5	68.9	75.9	75.0	66.2	67.7	68.9	64.7	66.3		
AVG:	13.81	13.53	14.01	14.55	15.20	15.08	13.67	12.94	12.31	11.03	10.30	10.58	11.20	11.06	11.50	12.61	12.64	12.68	12.56	12.30	12.93	13.49	13.50	14.24		

MONTHLY OBSERVATIONS: 717 MONTHLY MEAN: 12.82 MONTHLY MAX: 75.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-013-0004 POC: 3
COUNTY: (013) Burke
CITY: (00000) Not in a city
SITE ADDRESS: 8315 HIGHWAY 8, KENMARE
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 48.6419300009
LONGITUDE: -102.4018
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 696
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: MULTIPLE METHODS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	16.6IF	16.7IF	16.3IF	16.4IF	15.5IF	15.1IF	13.6IF	11.9IF	14.0IF	10.8IF	9.9IF	9.1IF	7.7IF	7.2IF	8.2IF	7.9IF	8.2IF	7.5IF	7.3IF	8.0IF	10.6IF	7.4IF	6.9IF	4.9IF	24	10.74
2	5.0	4.7	3.5	3.2	3.2	3.3	3.6	5.0	5.7	5.8	5.8	5.5	5.8	6.5	6.9	8.3	7.4	7.7	6.7	5.7	5.1	6.0	7.2	7.1	24	5.61
3	5.7IF	5.0IF	4.1IF	3.9IF	4.4IF	12.0IF	26.1IF	44.1IF	40.1IF	38.3IF	34.6IF	37.5IF	38.7IF	38.3IF	36.1IF	35.2IF	35.0IF	35.7IF	33.3IF	31.0IF	30.4IF	30.9IF	31.0IF	31.9IF	24	27.64
4	31.7	31.9	35.5	33.1	15.3	4.1	3.2	2.3	1.6	2.3	3.2	3.0	4.3	3.7	4.2	3.2	2.6	2.8	2.7	2.6	3.1	2.8	2.9	3.4	24	8.56
5	3.6	3.8	4.4	4.1	4.1	4.4	4.0	3.1	3.0	3.0	3.0	3.0	3.2	3.4	3.4	3.4	3.3	3.5	3.5	3.7	4.4	4.8	4.2	4.2	24	3.69
6	4.1	4.1	4.6	4.1	3.6	3.4	3.7	AX	5.3	5.9	6.8	6.7	6.4	6.4	6.7	6.9	6.8	6.9	6.8	6.7	7.1	7.8	9.7	9.7	23	6.10
7	9.4IF	9.7IF	10.7IF	11.4IF	12.4IF	12.8IF	12.1IF	11.4IF	11.1IF	10.8IF	9.1IF	9.1IF	9.6IF	9.3IF	10.1IF	9.9IF	10.4IF	9.6IF	9.0IF	8.5IF	8.0IF	8.8IF	8.5IF	6.7IF	24	9.93
8	6.2IF	6.7IF	6.3IF	6.6IF	7.1IF	7.5IF	9.0IF	9.0IF	9.3IF	12.0IF	13.1IF	15.0IF	16.1IF	17.1IF	17.7IF	15.0IF	12.2IF	11.4IF	11.2IF	13.0IF	14.0IF	14.4IF	14.1IF	13.5IF	24	11.56
9	13.6IF	13.3IF	13.4IF	13.6IF	13.6IF	13.8IF	14.1IF	14.4IF	15.2IF	15.1IF	16.4IF	16.6IF	16.0IF	15.2IF	17.2IF	21.0IF	24.8IF	35.7IF	36.3IF	34.8IF	37.7IF	40.6IF	40.8IF	41.5IF	24	22.28
10	44.3IF	45.6IF	45.1IF	41.5IF	26.2IF	23.7IF	15.3IF	8.9IF	7.3IF	8.3IF	10.3IF	11.7IF	11.8IF	10.0IF	8.6IF	6.3IF	5.4IF	5.6IF	5.1IF	5.1IF	4.7IF	4.8IF	4.9IF	4.5IF	24	15.21
11	4.3	4.1	3.7	3.8	3.1	3.3	3.3	3.4	3.5	4.1	4.1	3.4	3.9	3.9	3.9	3.7	4.0	4.3	3.9	3.8	3.4	3.1	2.7	3.0	24	3.65
12	3.0	3.0	3.1	3.1	3.0	3.3	3.8	5.7	6.7	7.1	6.7	6.8	6.5	7.7	7.0	5.9	6.4	6.4	6.7	7.3	7.8	8.6	7.6	7.5	24	5.86
13	7.2IF	7.1IF	7.5IF	7.6IF	8.1IF	8.4IF	7.6IF	6.7IF	6.7IF	7.1IF	7.1IF	7.4IF	13.2IF	14.1IF	14.7IF	14.4IF	16.6IF	19.5IF	27.0IF	24.5IF	24.6IF	24.7IF	25.0IF	26.4IF	24	13.88
14	27.1IF	35.7IF	51.6IF	64.0IF	76.2IF	87.9IF	98.3IF	108.1IF	114.6IF	108.6IF	92.0IF	85.6IF	84.0IF	107.8IF	116.0IF	102.7IF	115.9IF	111.8IF	121.7IF	153.3IF	139.7IF	91.5IF	115.7IF	98.6IF	24	96.18
15	69.7IF	50.4IF	37.8IF	37.2IF	35.9IF	23.0IF	20.5IF	16.2IF	11.8IF	10.9IF	11.0IF	9.7IF	7.7IF	7.5IF	7.1IF	12.3IF	36.0IF	125.5IF	132.2IF	137.8IF	143.1IF	133.8IF	123.1IF	104.7IF	24	54.37
16	89.7IF	86.2IF	81.3IF	67.4IF	47.8IF	35.2IF	26.6IF	19.8IF	12.8IF	11.1IF	10.4IF	7.2IF	6.1IF	6.1IF	5.6IF	5.6IF	4.8IF	4.6IF	4.1IF	3.3IF	3.4IF	3.5IF	3.6IF	3.6IF	24	22.91
17	3.5	3.5	3.5	3.5	3.3	3.1	3.2	3.1	4.0	3.7	3.8	3.8	3.5	3.9	4.0	4.7	5.3	5.6	7.0	6.0	4.0	4.1	4.4	4.3	24	4.12
18	4.6IF	4.8IF	5.1IF	5.3IF	5.5IF	5.7IF	5.9IF	5.9IF	6.4IF	8.4IF	9.8IF	13.5IF	16.1IF	18.7IF	15.4IF	8.0IF	8.5IF	8.6IF	8.3IF	7.0IF	5.0IF	4.7IF	12.3IF	22.5IF	24	9.00
19	22.6IF	21.3IF	19.1IF	14.9IF	13.5IF	13.4IF	AX	BA	12.4IF	9.6IF	7.8IF	6.2IF	6.8IF	7.1IF	6.2IF	6.4IF	7.3IF	9.2IF	11.0IF	12.6IF	16.8IF	16.4IF	15.8IF	16.4IF	22	12.40
20	15.4IF	14.7IF	13.8IF	14.9IF	15.9IF	14.0IF	12.8IF	13.1IF	12.6IF	9.9IF	9.3IF	9.9IF	12.2IF	14.7IF	15.2IF	14.2IF	14.3IF	14.4IF	15.6IF	15.5IF	17.2IF	15.2IF	15.1IF	14.7IF	24	13.94
21	15.1rf	15.0rf	15.7rf	15.5rf	15.3rf	15.4rf	14.5rf	14.4rf	13.8rf	13.8rf	14.6rf	14.3rf	14.3rf	13.8rf	15.7rf	19.1rf	22.9rf	25.2rf	33.7rf	37.2rf	37.0rf	37.6rf	34.8rf	33.3rf	24	20.92
22	32.9rf	33.3rf	33.3rf	33.3rf	32.5rf	32.2rf	30.0rf	27.6rf	29.0rf	27.6rf	27.9rf	28.0rf	28.6rf	29.6rf	29.9rf	31.8rf	32.1rf	32.9rf	29.7rf	27.4rf	27.2rf	26.4rf	26.4rf	27.7rf	24	29.89
23	30.6IF	31.2IF	30.3IF	30.1IF	24.1IF	22.6IF	22.0IF	20.3IF	16.2IF	11.6IF	9.9IF	9.3IF	8.8IF	9.7IF	9.4IF	9.4IF	11.1IF	12.4IF	13.5IF	12.9IF	13.0IF	14.0IF	15.4IF	16.7IF	24	16.85
24	15.3IF	13.6IF	13.2IF	12.7IF	12.7IF	13.7IF	14.3IF	16.4IF	14.4IF	14.9IF	14.8IF	14.7IF	14.4IF	12.1IF	12.9IF	13.2IF	10.5IF	10.9IF	11.1IF	11.2IF	11.2IF	11.5IF	11.2IF	11.3IF	24	13.01
25	11.3IF	11.5IF	11.6IF	11.6IF	11.5IF	11.5IF	10.0IF	9.5IF	9.8IF	9.9IF	11.3IF	10.1IF	10.2IF	10.2IF	9.6IF	9.5IF	10.0IF	10.3IF	10.0IF	10.2IF	10.5IF	10.6IF	11.1IF	11.7IF	24	10.56
26	10.8	9.9	8.9	8.9	8.5	7.0	6.2	7.5	5.1	5.1	4.4	3.9	3.9	4.5	5.5	5.6	6.5	5.8	5.3	5.0	5.7	5.8	5.9	5.6	24	6.30
27	5.6	5.9	5.7	6.2	6.5	8.1	7.7	7.1	7.1	7.1	6.9	6.9	5.8	5.0	4.0	4.1	4.5	5.0	5.3	5.2	5.0	5.8	6.6	6.7	24	5.99
28	6.8	5.8	4.9	4.1	3.9	4.0	3.4	3.0	2.8	3.1	3.6	3.8	4.2	4.7	4.6	5.1	5.8	6.3	6.6	5.9	5.0	5.1	4.6	4.5	24	4.65
29	4.3	4.2	4.0	4.1	4.1	3.9	3.8	3.6	3.7	3.7	3.7	5.1	5.9	5.5	5.7	5.2	4.8	5.5	5.4	5.9	5.8	6.0	5.5	4.7	24	4.75
30	4.1	3.9	4.0	4.1	4.2	4.3	4.3	4.1	4.0	4.3	4.8	5.3	4.6	4.3	4.9	4.9	5.1	5.2	5.0	4.9	5.0	4.5	4.4	4.1	24	4.51
31	4.2	4.3	4.3	4.3	4.8	AZ	AX	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	BA	5	4.38
NO.:	31	31	31	31	31	30	29	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	89.7	86.2	81.3	67.4	76.2	87.9	98.3	108.1	114.6	108.6	92.0	85.6	84.0	107.8	116.0	102.7	115.9	125.5	132.2	153.3	143.1	133.8	123.1	104.7		
AVG:	17.04	16.48	16.33	15.95	14.38	14.00	13.89	14.49	13.67	13.13	12.54	12.40	12.68	13.60	13.88	13.43	14.95	18.53	19.50	20.53	20.52	18.71	19.38	18.51		

MONTHLY OBSERVATIONS: 722 MONTHLY MEAN: 15.78 MONTHLY MAX: 153.3

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-013-0004 POC: 3
COUNTY: (013) Burke
CITY: (00000) Not in a city
SITE ADDRESS: 8315 HIGHWAY 8, KENMARE
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 48.6419300009
LONGITUDE: -102.4018
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 696
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	BA	BA	BA	BA	BA	BA	BA	BA	AT	8.8	12.1	12.3	10.5	9.1	8.4	6.1	6.3	6.1	6.5	6.8	6.5	6.8	7.0	7.0	15	8.02
2	6.8	6.3	4.2	4.3	4.4	4.6	4.6	4.6	5.0	4.0	4.4	4.6	4.7	5.2	5.3	5.2	5.5	5.6	5.4	5.6	7.1	6.5	6.2	5.8	24	5.25
3	6.7	7.2	8.4	8.9	9.5	9.5	9.6	11.1	8.6	6.9	6.3	6.5	5.8	6.0	6.2	5.9	5.7	5.6	6.2	6.0	6.0	6.5	4.6	4.6	24	7.01
4	4.4	4.4	4.3	4.4	4.4	4.6	4.5	4.3	4.0	4.0	3.5	3.4	3.6	3.4	3.6	3.5	3.6	3.9	4.0	3.9	3.9	3.8	3.7	3.8	24	3.95
5	4.0	4.0	4.3	4.7	6.1	5.3	4.6	4.5	6.3	9.3	8.3	8.9	10.5	12.5	12.0	11.3	10.7	11.4	11.3	10.9	9.9	9.6	9.8	10.8	24	8.38
6	12.1rf	14.1rf	15.4rf	15.8rf	15.6rf	16.5rf	16.3rf	16.4rf	15.9rf	15.7rf	19.1rf	26.2rf	38.2rf	81.0rf	85.5rf	58.3rf	40.5rf	36.8rf	36.0rf	49.6rf	74.9rf	98.1rf	94.5rf	77.8rf	24	40.43
7	71.8rf	76.2rf	78.4rf	84.6rf	76.8rf	78.4rf	77.7rf	75.5rf	75.9rf	69.2rf	70.2rf	72.9rf	60.5rf	53.4rf	60.6rf	73.6rf	74.9rf	74.4rf	69.6rf	74.7rf	75.7rf	70.2rf	65.4rf	71.1rf	24	72.15
8	65.5rf	46.3rf	50.4rf	47.8rf	28.8rf	22.7rf	18.5rf	23.9rf	36.1rf	38.2rf	32.3rf	32.7rf	29.4rf	27.2rf	26.2rf	26.8rf	27.1rf	28.1rf	27.4rf	22.0rf	17.1rf	15.2rf	15.9rf	22.5rf	24	30.34
9	25.4IF	25.9IF	24.7IF	23.7IF	21.4IF	21.0IF	13.9IF	11.7IF	10.4IF	12.6IF	20.4IF	19.9IF	15.8IF	10.8IF	10.5IF	7.9IF	7.4IF	8.9IF	9.8IF	10.7IF	10.1IF	9.6IF	9.8IF	10.2IF	24	14.69
10	9.7	9.5	9.3	7.7	7.2	7.3	8.1	8.4	7.6	6.9	6.6	7.7	6.9	7.2	9.4	7.2	6.0	5.1	5.1	4.9	AV	AV	4.0	4.0	22	7.08
11	4.7	4.8	4.7	3.5	3.1	3.0	2.7	2.6	2.6	2.7	2.8	3.0	2.8	2.7	2.6	2.7	2.5	2.5	2.4	2.6	2.6	2.5	2.3	2.3	24	2.95
12	2.6	3.0	3.0	2.9	2.9	3.0	2.8	2.6	2.5	2.7	2.6	2.6	2.6	2.8	2.8	2.8	2.6	2.8	2.9	3.0	2.9	3.4	3.5	3.9	24	2.88
13	3.3	3.2	3.1	3.7	3.5	3.2	3.0	3.3	5.1	7.1	6.4	3.5	3.5	3.8	3.4	3.3	3.2	3.3	3.3	3.2	3.1	3.3	3.4	3.3	24	3.69
14	3.3	3.3	3.4	3.3	3.4	3.5	3.4	3.3	3.4	3.6	5.7	7.4	5.6	4.5	4.3	3.9	3.9	3.9	3.9	4.1	4.3	4.6	5.0	4.6	24	4.15
15	4.7	4.8	5.2	5.0	4.9	4.9	4.8	AX	5.1	4.5	4.0	4.1	3.9	4.0	4.0	4.4	4.2	4.3	5.0	9.1	10.5	7.7	4.8	4.5	23	5.15
16	4.6	4.6	4.3	4.2	4.0	6.6	24.0	10.2	6.4	6.1	8.4	8.9	9.2	9.1	8.9	8.4	8.1	8.3	7.8	7.1	6.2	6.6	6.9	7.5	24	7.77
17	12.0IF	14.3IF	14.8IF	20.0IF	19.0IF	18.1IF	13.6IF	11.5IF	17.8IF	27.2IF	20.7IF	14.7IF	13.0IF	12.6IF	12.3IF	12.1IF	12.7IF	13.7IF	13.8IF	14.3IF	13.9IF	14.2IF	14.5IF	15.5IF	24	15.26
18	16.1rf	15.3rf	14.5rf	14.4rf	13.7rf	13.7rf	14.0rf	13.6rf	14.2rf	14.4rf	15.4rf	18.6rf	23.4rf	27.3rf	40.4rf	34.0rf	30.8rf	29.6rf	28.8rf	30.4rf	29.6rf	31.2rf	31.1rf	29.6rf	24	22.67
19	26.6IF	25.8IF	24.8IF	18.5IF	16.5IF	14.8IF	20.2IF	17.4IF	16.9IF	16.6IF	9.7IF	6.8IF	7.3IF	7.6IF	7.6IF	7.9IF	7.9IF	8.6IF	9.4IF	10.0IF	9.2IF	9.5IF	9.4IF	9.7IF	24	13.28
20	10.1IF	10.1IF	10.3IF	10.1IF	10.0IF	10.0IF	10.9IF	11.1IF	10.7IF	11.0IF	11.9IF	12.9IF	13.8IF	14.0IF	13.8IF	14.2IF	12.5IF	12.7IF	12.1IF	12.5IF	11.8IF	10.5IF	10.7IF	10.4IF	24	11.59
21	11.8IF	11.1IF	11.8IF	14.2IF	11.5IF	12.0IF	14.7IF	11.8IF	9.5IF	9.9IF	10.4IF	11.1IF	11.2IF	11.2IF	12.0IF	12.2IF	12.2IF	12.3IF	13.0IF	13.1IF	12.9IF	13.9IF	14.9IF	15.2IF	24	12.25
22	14.0IF	15.1IF	15.9IF	14.3IF	13.6IF	12.8IF	10.0IF	8.4IF	8.4IF	9.7IF	10.2IF	10.2IF	8.4IF	8.2IF	8.2IF	7.4IF	7.9IF	12.8IF	14.2IF	15.5IF	14.7IF	14.7IF	14.6IF	11.9IF	24	11.71
23	9.1	8.4	7.2	4.1	3.8	3.9	4.0	3.9	3.9	5.0	7.9	12.3	19.2	22.8	17.3	12.4	10.9	5.0	5.7	4.5	4.1	5.1	3.9	4.0	24	7.85
24	4.3IF	3.7IF	3.6IF	3.4IF	3.8IF	4.2IF	6.6IF	6.8IF	7.9IF	AZ	14.3IF	13.4IF	12.0IF	12.2IF	13.8IF	13.0IF	12.5IF	11.8IF	13.1IF	13.3IF	12.2IF	13.4IF	13.8IF	14.1IF	23	9.88
25	14.3IF	12.8IF	11.7IF	15.9IF	17.6IF	21.0IF	24.0IF	24.2IF	22.1IF	19.3IF	17.5IF	9.6IF	6.1IF	5.3IF	6.1IF	7.2IF	7.7IF	7.7IF	8.4IF	8.6IF	8.6IF	9.5IF	10.8IF	13.0IF	24	12.88
26	14.7IF	15.3IF	13.1IF	12.1IF	11.8IF	12.0IF	11.9IF	13.4IF	17.3IF	15.6IF	14.6IF	15.3IF	15.1IF	14.8IF	13.3IF	13.3IF	12.7IF	12.5IF	12.5IF	13.4IF	13.4IF	13.3IF	15.1IF	15.5IF	24	13.83
27	15.5IF	15.2IF	14.8IF	14.6IF	13.7IF	12.6IF	12.1IF	11.6IF	12.2IF	11.9IF	12.3IF	12.8IF	13.6IF	13.2IF	13.9IF	12.9IF	9.8IF	11.3IF	13.3IF	13.9IF	14.0IF	14.8IF	15.3IF	16.7IF	24	13.42
28	19.6rf	24.1rf	24.1rf	24.8rf	25.0rf	24.7rf	26.7rf	31.5rf	41.3rf	62.6rf	105.1rf	91.5rf	87.4rf	67.7rf	54.8rf	52.5rf	54.1rf	58.4rf	55.9rf	55.6rf	55.4rf	57.4rf	67.2rf	80.1rf	24	51.98
29	84.0rf	83.9rf	90.8rf	93.0rf	94.9rf	97.7rf	AX	86.4rf	76.8rf	67.9rf	57.7rf	45.0rf	46.5rf	60.2rf	83.6rf	84.6rf	59.2rf	61.1rf	59.6rf	56.4rf	49.5rf	51.5rf	59.0rf	70.2rf	23	70.41
30	74.8rf	74.5rf	74.6rf	74.4rf	74.0rf	73.6rf	71.0rf	68.5rf	65.3rf	63.6rf	61.4rf	61.9rf	62.7rf	57.3rf	53.1rf	51.0rf	49.0rf	48.5rf	49.7rf	48.6rf	45.4rf	42.9rf	39.2rf	36.7rf	24	59.24
31	28.9IF	21.8IF	22.8IF	21.9IF	22.7IF	20.4IF	13.0IF	9.2IF	7.2IF	5.6IF	3.0IF	2.2IF	2.4IF	3.7IF	5.4IF	7.1IF	7.7IF	10.7IF	10.8IF	9.5IF	9.6IF	9.7IF	10.2IF	10.4IF	24	11.50
NO.:	30	30	30	30	30	30	29	29	30	30	31	31	31	31	31	31	31	31	31	31	30	31	31			
MAX:	84.0	83.9	90.8	93.0	94.9	97.7	77.7	86.4	76.8	69.2	105.1	91.5	87.4	81.0	85.5	84.6	74.9	74.4	69.6	74.7	75.7	98.1	94.5	80.1		
AVG:	19.51	18.97	19.26	19.34	18.25	18.19	15.56	17.64	17.55	18.09	18.88	18.16	17.92	18.74	19.65	18.49	16.77	17.02	17.00	17.54	18.17	18.87	18.60	19.25		

MONTHLY OBSERVATIONS: 730 MONTHLY MEAN: 18.23 MONTHLY MAX: 105.1

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-013-0004 POC: 3
COUNTY: (013) Burke
CITY: (00000) Not in a city
SITE ADDRESS: 8315 HIGHWAY 8, KENMARE
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 48.6419300009
LONGITUDE: -102.4018
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 696
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	9.0rf	11.1rf	22.3rf	29.8rf	32.1rf	34.5rf	35.5rf	36.8rf	40.6rf	44.1rf	51.0rf	55.6rf	48.2rf	41.0rf	36.3rf	33.2rf	32.5rf	33.7rf	33.2rf	33.9rf	33.2rf	32.3rf	29.8rf	28.4rf	24	34.09
2	27.9IF	26.0IF	23.8IF	22.1IF	21.7IF	22.6IF	22.7IF	21.2IF	18.6IF	14.5IF	13.6IF	13.3IF	11.6IF	11.3IF	10.8IF	11.1IF	11.2IF	10.5IF	10.2IF	11.4IF	13.1IF	12.8IF	16.2IF	40.4IF	24	17.44
3	87.4rf	119.4rf	131.4rf	144.4rf	157.2rf	151.3rf	147.5rf	150.3rf	155.3rf	136.8rf	113.4rf	87.1rf	71.5rf	57.7rf	55.3rf	52.6rf	53.0rf	55.6rf	55.7rf	58.7rf	63.7rf	62.8rf	56.6rf	51.6rf	24	94.85
4	44.3rf	39.9rf	35.4rf	29.1rf	19.9rf	13.5rf	11.4rf	11.0rf	13.2rf	13.7rf	10.9rf	10.7rf	8.7rf	6.9rf	8.9rf	141.4rf	180.4rf	181.0rf	154.1rf	154.8rf	170.5rf	170.2rf	152.9rf	142.4rf	24	71.88
5	123.3rf	131.5rf	138.6rf	153.7rf	159.2rf	156.7rf	146.2rf	142.5rf	123.8rf	102.4rf	69.1rf	40.5rf	23.3rf	12.2rf	7.6rf	6.5rf	6.8rf	7.1rf	7.2rf	7.4rf	8.0rf	7.8rf	7.8rf	8.0rf	24	66.55
6	9.4rf	13.3rf	12.8rf	21.3rf	26.6rf	30.9rf	32.6rf	32.7rf	28.6rf	25.6rf	17.4rf	25.4rf	30.8rf	36.9rf	36.9rf	39.0rf	40.9rf	40.0rf	41.0rf	43.3rf	45.3rf	49.7rf	48.6rf	49.7rf	24	32.45
7	53.7rf	59.7rf	62.1rf	66.0rf	69.5rf	69.6rf	68.5rf	69.0rf	67.6rf	68.5rf	66.5rf	62.4rf	64.1rf	66.3rf	63.5rf	49.9rf	37.7rf	35.2rf	35.8rf	40.7rf	42.4rf	50.6rf	42.8rf	26.1rf	24	55.76
8	22.7IF	23.7IF	25.0IF	25.3IF	25.0IF	22.0IF	21.1IF	19.7IF	19.2IF	15.8IF	15.7IF	14.6IF	13.7IF	13.0IF	12.8IF	11.9IF	10.8IF	10.9IF	10.3IF	10.4IF	15.5IF	15.3IF	14.5IF	14.2IF	24	16.80
9	14.7IF	15.2IF	14.0IF	14.0IF	14.9IF	13.0IF	13.1IF	12.7IF	12.2IF	11.1IF	10.8IF	11.0IF	11.3IF	11.5IF	12.0IF	14.0IF	14.1IF	10.8IF	13.5IF	13.7IF	14.6IF	12.0IF	11.9IF	11.5IF	24	12.82
10	11.5IF	11.4IF	11.6IF	11.4IF	11.7IF	11.2IF	11.2IF	11.4IF	12.9IF	11.4IF	12.6IF	13.4IF	13.2IF	13.2IF	12.7IF	11.5IF	11.9IF	12.8IF	13.4IF	14.0IF	13.3IF	13.5IF	12.8IF	13.4IF	24	12.39
11	14.2IF	14.5IF	14.4IF	13.0IF	10.9IF	10.4IF	11.2IF	13.4IF	13.8IF	AX	10.1IF	9.3IF	8.2IF	8.6IF	9.0IF	8.0IF	6.5IF	5.7IF	5.6IF	6.1IF	6.1IF	5.8IF	6.1IF	5.9IF	23	9.43
12	6.0	6.6	6.3	5.6	4.8	4.5	4.7	4.7	5.0	5.5	7.2	6.7	7.9	9.8	8.9	9.1	8.4	7.9	8.0	8.0	7.7	7.5	7.2	7.1	24	6.88
13	7.1	6.7	6.8	6.8	6.6	5.9	6.3	6.5	5.9	8.1	8.1	8.0	8.0	10.5	7.9	9.8	7.7	9.3	8.3	9.3	9.9	8.0	8.1	7.5	24	7.80
14	7.9IF	7.5IF	8.9IF	11.1IF	10.1IF	8.6IF	7.8IF	9.7IF	AV	36.9IF	AV	28.6IF	21.4IF	17.7IF	17.5IF	13.6IF	10.1IF	7.2IF	5.4IF	5.6IF	6.0IF	7.4IF	10.8IF	13.3IF	22	12.41
15	18.6rf	18.6rf	20.0rf	24.3rf	21.9rf	21.5rf	23.0rf	25.9rf	36.2rf	71.0rf	93.8rf	128.3rf	133.0rf	114.1rf	89.0rf	76.4rf	82.8rf	93.3rf	102.7rf	100.5rf	107.0rf	104.7rf	99.0rf	90.5rf	24	70.67
16	88.0rf	79.0rf	64.3rf	47.2rf	31.6rf	27.6rf	20.6rf	13.7rf	7.2rf	4.1rf	18.1rf	21.9rf	18.6rf	18.5rf	18.4rf	18.3rf	16.3rf	16.0rf	13.3rf	14.9rf	14.5rf	12.0rf	10.6rf	10.7rf	24	25.23
17	9.1IF	10.1IF	12.3IF	14.2IF	15.4IF	14.3IF	14.4IF	17.5IF	22.6IF	24.4IF	29.2IF	26.4IF	21.9IF	17.6IF	18.8IF	21.6IF	19.3IF	15.6IF	12.1IF	12.9IF	13.0IF	12.8IF	9.5IF	8.0IF	24	16.38
18	7.8IF	8.5IF	8.4IF	8.7IF	8.8IF	8.2IF	8.3IF	9.4IF	8.7IF	11.1IF	9.4IF	8.1IF	11.9IF	11.7IF	15.6IF	18.1IF	19.9IF	20.8IF	20.4IF	21.4IF	22.6IF	23.2IF	23.2IF	21.8IF	24	14.00
19	20.5rf	21.3rf	22.3rf	23.9rf	22.9rf	22.1rf	20.4rf	23.0rf	27.7rf	43.1rf	53.8rf	59.9rf	59.7rf	76.8rf	79.8rf	69.4rf	54.3rf	52.2rf	43.2rf	37.2rf	40.6rf	38.2rf	38.8rf	31.4rf	24	40.94
20	21.5IF	20.5IF	18.3IF	14.7IF	13.3IF	16.4IF	14.7IF	14.4IF	14.7IF	14.1IF	14.5IF	27.3IF	18.8IF	15.0IF	11.2IF	10.5IF	9.6IF	8.5IF	9.2IF	10.1IF	10.3IF	10.7IF	11.2IF	11.9IF	24	14.23
21	12.0IF	13.2IF	15.2IF	16.1IF	17.5IF	16.8IF	16.0IF	14.8IF	13.8IF	20.6IF	22.8IF	23.3IF	22.6IF	17.9IF	14.6IF	16.9IF	14.8IF	16.5IF	16.5IF	15.5IF	20.4IF	27.0IF	33.2IF	34.1IF	24	18.84
22	35.2rf	35.3rf	32.3rf	33.5rf	35.2rf	34.1rf	30.4rf	28.1rf	28.6rf	31.6rf	31.3rf	28.4rf	25.2rf	23.8rf	19.5rf	18.0rf	10.8rf	5.2rf	8.8rf	7.3rf	6.9rf	9.9rf	10.9rf	10.6rf	24	22.54
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	22	22	21	21	21	22	22	22	22	22	22	22	22	22	22	22	22	22		
MAX:	123.3	131.5	138.6	153.7	159.2	156.7	147.5	150.3	155.3	136.8	113.4	128.3	133.0	114.1	89.0	141.4	180.4	181.0	154.1	154.8	170.5	170.2	152.9	142.4		
AVG:	29.63	31.50	32.11	33.46	33.49	32.53	31.25	31.29	32.20	34.02	32.35	32.28	29.71	27.82	25.77	30.04	29.99	29.81	28.54	28.96	31.12	31.55	30.11	29.02		

MONTHLY OBSERVATIONS: 525 MONTHLY MEAN: 30.76 MONTHLY MAX: 181.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 23
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (738) Teledyne T640X at 16.67 LPM (Corre
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	5.4	4.9	4.6	4.6	4.7	5.3	6.7	6.0	6.3	6.2	5.5	5.7	6.7	6.8	6.9	7.1	7.4	7.7	6.7	6.1	6.4	7.6	7.3	6.7	24	6.22
17	5.6rf	5.8rf	5.6rf	6.1rf	5.5rf	5.4rf	5.2rf	6.5rf	5.4rf	4.8rf	4.5rf	5.7rf	201.2rf	912.0rf	837.8rf	541.1rf	392.2rf	513.0rf	414.6rf	165.0rf	155.3rf	153.5rf	165.1rf	168.6rf	24	195.23
18	167.8rf	149.0rf	159.9rf	138.2rf	125.4rf	116.3rf	103.9rf	84.7rf	73.1rf	49.8rf	49.2rf	41.8rf	34.0rf	6.5rf	7.3rf	5.6rf	5.6rf	6.0rf	7.0rf	6.7rf	5.4rf	4.1rf	3.4rf	3.5rf	24	56.43
19	3.7	4.6	5.0	5.9	6.6	7.6	9.0	10.2	8.6	6.6	4.3	4.1	3.7	3.7	3.7	3.7	3.5	3.6	3.4	3.7	5.1	5.9	6.3	4.6	24	5.30
20	4.1IF	4.1IF	4.8IF	4.2IF	4.3IF	4.5IF	5.0IF	5.4IF	4.9IF	4.6IF	5.4IF	7.4IF	11.2IF	13.6IF	15.8IF	16.7IF	18.2IF	18.3IF	18.6IF	19.3IF	18.8IF	17.5IF	18.9IF	20.9IF	24	11.10
21	21.1rf	18.9rf	19.4rf	19.5rf	21.0rf	23.5rf	24.4rf	28.3rf	27.4rf	22.7rf	21.3rf	19.8rf	18.9rf	18.0rf	18.7rf	19.3rf	20.2rf	22.5rf	22.1rf	22.1rf	20.1rf	15.9rf	14.4rf	13.8rf	24	20.55
22	12.6IF	13.9IF	14.4IF	12.2IF	12.0IF	12.9IF	13.6IF	14.7IF	13.0IF	12.4IF	13.9IF	13.9IF	14.7IF	16.1IF	16.6IF	17.0IF	16.6IF	15.8IF	16.6IF	19.3IF	20.5IF	22.7IF	22.9IF	21.1IF	24	15.81
23	20.3rf	19.9rf	20.7rf	23.3rf	25.0rf	27.7rf	29.7rf	30.4rf	31.5rf	34.8rf	30.8rf	27.1rf	26.1rf	28.0rf	29.3rf	30.1rf	31.4rf	33.0rf	32.7rf	31.1rf	32.0rf	31.6rf	29.1rf	21.4rf	24	28.21
24	17.8IF	28.3IF	23.2IF	19.4IF	17.8IF	17.6IF	18.5IF	16.5IF	14.9IF	15.4IF	14.7IF	13.7IF	13.5IF	14.1IF	14.7IF	15.1IF	15.7IF	15.7IF	15.6IF	15.1IF	15.1IF	16.2IF	16.8IF	15.8IF	24	16.72
25	16.0IF	16.6IF	16.1IF	15.7IF	15.9IF	15.2IF	14.9IF	AX	15.5IF	16.8IF	15.9IF	15.0IF	14.9IF	15.3IF	14.6IF	13.3IF	12.3IF	11.9IF	11.3IF	10.0IF	8.3IF	8.5IF	9.1IF	9.6IF	23	13.60
26	9.4IF	9.1IF	9.1IF	9.2IF	9.5IF	8.7IF	7.8IF	7.2IF	6.8IF	8.7IF	9.8IF	9.0IF	9.7IF	10.8IF	9.7IF	11.5IF	11.9IF	12.1IF	12.0IF	11.4IF	11.1IF	10.0IF	10.3IF	10.7IF	24	9.81
27	11.4IF	12.5IF	11.9IF	8.8IF	5.8IF	8.1IF	11.2IF	11.2IF	10.9IF	10.4IF	10.0IF	8.1IF	9.9IF	11.2IF	11.0IF	11.6IF	11.7IF	12.0IF	12.1IF	12.5IF	12.6IF	12.4IF	12.2IF	12.2IF	24	10.90
28	11.7IF	10.5IF	9.4IF	8.9IF	9.0IF	8.8IF	8.7IF	8.5IF	9.0IF	10.3IF	9.8IF	10.6IF	8.4IF	8.8IF	11.1IF	11.0IF	5.9IF	4.4IF	5.0IF	4.6IF	4.3IF	4.5IF	6.3IF	7.6IF	24	8.21
29	6.5	7.2	6.1	6.7	6.5	6.5	6.4	5.8	5.4	5.6	4.4	3.2	2.8	2.6	2.8	2.8	3.2	3.1	3.3	2.9	3.3	3.1	3.4	3.8	24	4.48
30	3.9	3.7	5.1	4.4	4.9	5.9	6.3	6.3	6.1	5.8	6.1	7.7	6.9	5.0	6.4	6.2	6.5	5.7	5.7	6.5	7.1	11.6	8.8	9.1	24	6.32
31	8.2	9.5	8.9	9.3	11.5	7.0	5.4	5.5	5.5	7.0	6.0	6.0	6.3	6.0	5.8	5.2	4.1	3.8	2.9	2.8	2.8	3.3	3.7	4.9	24	5.89
NO.:	16	16	16	16	16	16	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	167.8	149.0	159.9	138.2	125.4	116.3	103.9	84.7	73.1	49.8	49.2	41.8	201.2	912.0	837.8	541.1	392.2	513.0	414.6	165.0	155.3	153.5	165.1	168.6		
AVG:	20.34	19.91	20.26	18.53	17.84	17.56	17.29	16.48	15.27	13.87	13.23	12.43	24.31	67.41	63.26	44.83	35.40	43.04	36.85	21.19	20.51	20.53	21.13	20.89		

MONTHLY OBSERVATIONS: 383 MONTHLY MEAN: 25.96 MONTHLY MAX: 912.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 23
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (738) Teledyne T640X at 16.67 LPM (Corre
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	6.9	8.6	10.0	11.5	11.9	11.7	11.0	9.9	8.5	7.8	5.7	5.2	6.2	5.0	6.8	5.0	4.3	4.8	4.2	5.2	5.1	5.3	5.2	4.8	24	7.11
2	4.5	5.0	5.0	5.3	6.0	6.7	7.4	7.2	6.8	6.2	6.6	5.3	6.0	4.8	5.1	5.5	4.9	5.1	4.5	6.4	7.6	5.9	6.0	7.0	24	5.87
3	7.0IF	7.6IF	8.3IF	8.0IF	8.2IF	7.9IF	7.2IF	6.3IF	6.1IF	5.5IF	5.9IF	6.7IF	8.0IF	8.4IF	8.1IF	8.3IF	8.4IF	8.4IF	7.9IF	8.4IF	9.6IF	9.8IF	10.7IF	11.3IF	24	8.00
4	11.9IF	12.9IF	12.7IF	12.2IF	11.9IF	12.7IF	12.0IF	11.5IF	9.7IF	8.6IF	8.3IF	8.5IF	8.5IF	8.1IF	7.1IF	7.0IF	7.0IF	6.7IF	5.6IF	6.5IF	6.7IF	6.5IF	5.8IF	6.2IF	24	8.94
5	6.8IF	7.0IF	7.2IF	8.1IF	9.7IF	10.8IF	10.3IF	9.5IF	7.7IF	8.7IF	8.6IF	8.8IF	7.7IF	6.8IF	6.8IF	7.5IF	7.5IF	7.0IF	7.0IF	7.1IF	7.9IF	9.1IF	10.7IF	9.2IF	24	8.23
6	8.3IF	8.3IF	8.8IF	8.2IF	9.0IF	10.0IF	10.6IF	10.6IF	10.7IF	12.8IF	10.6IF	9.7IF	8.6IF	8.7IF	8.6IF	8.5IF	8.1IF	8.3IF	9.5IF	8.8IF	9.9IF	9.3IF	10.6IF	10.1IF	24	9.44
7	10.6IF	11.8IF	12.5IF	11.7IF	13.0IF	13.8IF	AZ	AX	13.7IF	14.5IF	11.2IF	9.0IF	9.3IF	9.0IF	7.9IF	8.3IF	8.3IF	8.4IF	7.3IF	7.4IF	10.1IF	10.8IF	10.5IF	11.2IF	22	10.47
8	12.0IF	12.2IF	12.3IF	13.2IF	15.3IF	14.4IF	15.3IF	13.7IF	13.2IF	12.7IF	12.0IF	11.8IF	11.3IF	11.0IF	10.9IF	10.7IF	8.7IF	5.1IF	6.7IF	6.8IF	6.4IF	7.5IF	9.3IF	9.7IF	24	10.93
9	9.3	7.8	7.0	6.6	6.7	7.6	7.8	11.0	10.2	8.5	8.1	7.9	7.5	6.8	6.6	5.0	5.4	5.9	5.5	5.4	6.4	6.0	5.7	8.1	24	7.20
10	19.7IF	15.6IF	17.9IF	20.0IF	23.6IF	24.0IF	24.3IF	24.6IF	24.4IF	25.6IF	25.7IF	24.7IF	21.5IF	20.5IF	19.6IF	16.2IF	12.5IF	14.4IF	13.3IF	14.4IF	16.1IF	19.3IF	20.5IF	18.9IF	24	19.89
11	14.9	8.9	6.7	6.1	5.5	5.6	5.7	5.9	5.9	5.3	5.1	5.7	6.0	5.9	6.8	6.5	6.8	6.8	6.8	6.4	6.6	6.5	6.7	7.1	24	6.68
12	6.8IF	6.7IF	6.9IF	7.2IF	8.4IF	9.3IF	10.8IF	10.2IF	9.1IF	10.0IF	12.0IF	12.2IF	12.6IF	13.0IF	13.1IF	13.6IF	14.5IF	15.8IF	14.8IF	15.5IF	17.9IF	19.8IF	17.9IF	18.5IF	24	12.36
13	17.9IF	17.9IF	18.5IF	18.1IF	17.3IF	18.3IF	18.3IF	17.7IF	18.4IF	20.1IF	17.4IF	16.2IF	18.0IF	19.3IF	19.5IF	17.0IF	16.1IF	17.8IF	16.8IF	17.5IF	18.9IF	15.5IF	13.1IF	12.6IF	24	17.43
14	11.2rf	11.0rf	10.7rf	10.5rf	10.2rf	10.7rf	10.9rf	10.8rf	10.5rf	12.2rf	11.9rf	11.8rf	13.6rf	15.6rf	15.6rf	14.8rf	15.0rf	16.2rf	59.9rf	62.8rf	58.7rf	54.8rf	51.5rf	50.9rf	24	23.41
15	46.3rf	44.8rf	43.8rf	49.0rf	66.7rf	76.3rf	81.2rf	83.7rf	81.4rf	72.6rf	65.7rf	60.4rf	59.7rf	60.1rf	58.7rf	59.7rf	63.1rf	61.9rf	63.0rf	55.2rf	47.8rf	34.2rf	16.3rf	18.8rf	24	57.10
16	7.9IF	5.9IF	5.9IF	4.4IF	10.4IF	13.8IF	15.0IF	15.4IF	15.9IF	17.3IF	18.4IF	22.0IF	22.5IF	23.5IF	25.1IF	23.3IF	23.6IF	24.8IF	24.5IF	23.9IF	23.3IF	24.3IF	23.9IF	25.1IF	24	18.34
17	28.4rf	26.5rf	26.0rf	25.3rf	26.5rf	25.2rf	24.5rf	23.7rf	24.2rf	26.0rf	26.4rf	23.8rf	19.9rf	19.6rf	21.7rf	22.0rf	21.7rf	21.8rf	22.4rf	23.1rf	23.8rf	26.4rf	22.9rf	22.2rf	24	23.92
18	22.5IF	22.5IF	22.7IF	23.1IF	23.9IF	24.0IF	23.8IF	23.6IF	23.1IF	20.5IF	19.0IF	15.5IF	12.4IF	10.6IF	12.3IF	12.8IF	12.6IF	11.5IF	13.6IF	16.3IF	18.2IF	18.3IF	17.8IF	16.9IF	24	18.23
19	16.8IF	17.7IF	17.9IF	19.0IF	18.0IF	18.2IF	AX	15.9IF	17.4IF	18.2IF	17.7IF	16.2IF	16.5IF	17.4IF	16.1IF	15.1IF	13.9IF	13.6IF	11.4IF	10.8IF	11.6IF	12.0IF	12.5IF	12.5IF	23	15.50
20	11.4	10.1	8.7	5.9	5.1	5.6	6.2	6.4	6.7	7.4	7.7	7.7	8.4	8.6	8.2	10.4	9.9	9.8	6.0	4.9	5.9	5.9	4.5	4.3	24	7.32
21	4.6	3.8	3.1	3.4	3.6	3.2	3.1	3.1	3.0	3.1	2.7	2.4	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.8	3.1	2.8	2.8	24	3.02
22	2.7	2.8	2.9	2.4	2.0	2.4	2.2	2.2	2.2	2.0	2.1	2.4	3.1	2.9	2.9	2.8	2.8	2.6	2.7	2.8	2.7	2.8	2.9	3.1	24	2.60
23	3.2	3.2	3.6	5.2	7.6	8.2	8.8	8.4	8.5	9.3	8.1	6.0	5.5	4.2	4.3	4.1	3.7	3.3	2.8	3.2	3.6	3.9	5.2	5.1	24	5.38
24	4.6IF	4.5IF	4.6IF	5.2IF	5.1IF	5.2IF	5.3IF	5.8IF	6.1IF	7.0IF	7.5IF	8.3IF	8.0IF	7.9IF	11.9IF	24.4IF	27.5IF	26.9IF	17.5IF	9.6IF	45.2IF	58.5IF	48.1IF	41.7IF	24	16.52
25	49.6IF	41.5IF	10.6IF	7.5IF	6.3IF	6.3IF	6.2IF	6.0IF	5.7IF	6.1IF	7.1IF	6.5IF	6.5IF	5.7IF	5.4IF	5.5IF	5.6IF	5.4IF	5.1IF	5.1IF	5.1IF	5.3IF	5.5IF	5.3IF	24	9.37
26	5.1IF	5.4IF	5.2IF	6.2IF	5.9IF	6.5IF	8.1IF	8.3IF	7.7IF	5.8IF	5.7IF	5.7IF	5.7IF	6.7IF	8.4IF	11.1IF	12.2IF	16.0IF	13.2IF	14.8IF	14.3IF	14.9IF	12.9IF	12.3IF	24	9.09
27	14.1rf	17.1rf	20.1rf	23.7rf	27.0rf	27.5rf	27.8rf	25.5rf	19.3rf	17.4rf	16.4rf	18.3rf	18.8rf	17.8rf	18.9rf	18.8rf	18.9rf	18.5rf	25.3rf	32.0rf	25.5rf	21.1rf	20.6rf	20.7rf	24	21.30
28	21.8IF	21.1IF	21.6IF	17.9IF	17.4IF	15.0IF	16.1IF	12.8IF	6.5IF	4.9IF	5.0IF	5.4IF	5.5IF	6.0IF	7.0IF	7.6IF	9.4IF	8.4IF	8.0IF	6.5IF	6.9IF	7.9IF	17.0IF	22.2IF	24	11.58
29	24.1IF	23.0IF	22.6IF	22.4IF	17.3IF	16.4IF	17.9IF	16.6IF	14.9IF	15.2IF	13.7IF	14.7IF	14.8IF	14.6IF	14.2IF	14.4IF	12.1IF	12.4IF	11.6IF	11.3IF	12.3IF	16.5IF	25.2IF	27.6IF	24	16.91
30	26.9IF	26.3IF	23.3IF	23.5IF	28.0IF	29.2IF	28.6IF	25.6IF	23.1IF	19.1IF	15.9IF	15.2IF	15.1IF	13.4IF	14.4IF	15.2IF	14.3IF	11.6IF	12.8IF	12.1IF	12.9IF	13.8IF	13.6IF	16.8IF	24	18.78
31																									0	
NO.:	30	30	30	30	30	30	28	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	49.6	44.8	43.8	49.0	66.7	76.3	81.2	83.7	81.4	72.6	65.7	60.4	59.7	60.1	58.7	59.7	63.1	61.9	63.0	62.8	58.7	58.5	51.5	50.9		
AVG:	14.59	13.92	12.90	13.03	14.25	14.88	15.23	14.89	14.02	13.68	12.94	12.47	12.33	12.16	12.49	12.79	12.72	12.73	13.75	13.76	14.99	15.17	14.53	14.77		

MONTHLY OBSERVATIONS: 717 MONTHLY MEAN: 13.70 MONTHLY MAX: 83.7

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 23
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (738) Teledyne T640X at 16.67 LPM (Corre
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	12.1IF	12.2IF	11.9IF	11.7IF	12.4IF	11.9IF	10.9IF	10.5IF	9.3IF	10.4IF	10.0IF	8.3IF	7.2IF	8.5IF	9.3IF	9.1IF	8.3IF	8.4IF	8.3IF	9.5IF	8.8IF	9.7IF	13.0IF	11.3IF	24	10.13
2	9.6	9.9	9.1	7.5	5.8	4.5	4.1	4.0	5.1	8.3	7.5	5.5	4.9	4.6	4.2	4.3	5.1	4.9	5.3	6.3	8.2	8.3	9.6	7.5	24	6.42
3	7.3	6.5	6.3	5.9	9.3	6.9	6.7	6.9	7.3	6.9	6.8	6.2	5.3	5.2	8.0	9.3	6.7	6.3	5.4	5.4	6.0	7.7	12.0	7.9	24	7.01
4	6.7IF	7.8IF	7.2IF	8.2IF	7.4IF	7.5IF	7.6IF	8.0IF	7.5IF	15.8IF	25.8IF	21.3IF	14.0IF	9.1IF	10.2IF	5.9IF	4.6IF	3.7IF	2.8IF	3.7IF	3.6IF	5.0IF	4.9IF	4.8IF	24	8.46
5	3.7	3.9	3.7	3.3	3.0	3.3	3.1	AX	3.2	3.0	3.3	3.7	3.6	3.0	3.2	3.0	3.0	2.9	3.0	3.2	4.2	5.4	6.6	7.2	23	3.72
6	7.0	5.2	3.3	2.7	2.5	2.9	2.8	2.9	2.8	3.3	4.6	4.4	4.1	4.6	4.4	4.5	4.2	4.5	4.9	5.4	5.5	5.7	5.6	5.2	24	4.29
7	5.1IF	5.3IF	5.1IF	5.0IF	5.0IF	5.3IF	5.6IF	6.0IF	6.3IF	6.7IF	7.1IF	8.5IF	13.7IF	19.0IF	13.7IF	13.6IF	16.4IF	11.0IF	7.3IF	6.5IF	8.7IF	7.6IF	7.2IF	7.2IF	24	8.45
8	7.1IF	6.9IF	6.7IF	8.4IF	8.0IF	7.5IF	7.5IF	7.8IF	9.5IF	11.1IF	13.7IF	13.6IF	15.1IF	16.8IF	16.9IF	17.6IF	17.8IF	18.3IF	18.8IF	18.7IF	15.6IF	15.9IF	16.8IF	16.5IF	24	13.03
9	16.2IF	15.3IF	13.3IF	12.2IF	11.2IF	10.8IF	10.2IF	9.7IF	8.9IF	8.2IF	7.9IF	8.4IF	9.9IF	11.5IF	13.2IF	13.7IF	13.9IF	15.7IF	14.9IF	13.9IF	12.9IF	13.5IF	14.7IF	15.3IF	24	12.31
10	15.3IF	14.5IF	13.7IF	14.1IF	14.6IF	21.4IF	23.2IF	24.0IF	22.7IF	19.3IF	20.2IF	20.9IF	22.5IF	24.1IF	21.9IF	21.2IF	16.6IF	11.7IF	7.1IF	6.1IF	4.8IF	4.6IF	3.7IF	3.7IF	24	15.50
11	3.7	3.7	3.5	3.4	3.3	3.7	3.3	3.6	2.8	2.5	2.5	2.5	2.5	2.5	2.7	2.8	2.7	2.5	2.2	2.4	2.4	2.8	3.0	3.3	24	2.93
12	3.4	3.7	3.8	4.1	4.2	4.6	4.7	4.9	5.1	5.2	5.1	4.3	4.9	5.0	4.7	4.6	5.4	6.6	11.1	12.1	7.6	7.7	8.4	8.2	24	5.81
13	11.3IF	12.2IF	11.3IF	11.7IF	11.7IF	11.2IF	8.5IF	7.1IF	7.5IF	9.0IF	8.5IF	8.0IF	7.5IF	9.2IF	13.5IF	18.5IF	24.0IF	22.3IF	24.7IF	26.3IF	25.9IF	21.6IF	17.8IF	17.8IF	24	14.46
14	18.1rf	18.4rf	18.2rf	19.6rf	23.2rf	25.2rf	27.6rf	30.7rf	36.4rf	45.9rf	73.3rf	101.8rf	111.8rf	54.5rf	47.1rf	53.2rf	58.3rf	54.1rf	57.0rf	64.0rf	74.4rf	80.4rf	84.4rf	89.8rf	24	52.81
15	104.1rf	119.4rf	113.7rf	108.5rf	104.1rf	98.4rf	85.1rf	73.5rf	51.8rf	23.7rf	19.2rf	22.4rf	19.0rf	19.7rf	25.3rf	32.9rf	38.2rf	33.4rf	20.3rf	14.7rf	16.2rf	20.4rf	20.9rf	25.0rf	24	50.41
16	48.7rf	75.2rf	84.8rf	86.7rf	91.8rf	93.9rf	95.0rf	85.7rf	52.8rf	24.9rf	11.8rf	7.3rf	6.6rf	6.8rf	7.1rf	6.5rf	5.2rf	4.5rf	3.8rf	3.1rf	2.9rf	3.3rf	3.1rf	2.8rf	24	33.93
17	2.8	2.9	3.1	3.2	3.3	3.8	4.1	4.6	3.5	5.2	3.3	3.3	3.0	3.2	3.3	3.3	3.1	3.2	3.7	4.0	4.1	4.1	4.2	4.1	24	3.60
18	3.8	4.1	4.1	4.6	4.6	5.3	4.6	5.0	4.8	5.2	6.6	7.4	8.9	9.8	11.5	15.1	16.6	16.9	17.0	14.7	12.2	12.2	14.6	14.3	24	9.33
19	12.6IF	10.0IF	8.6IF	6.6IF	7.9IF	8.7IF	AX	11.1IF	11.5IF	10.9IF	11.3IF	10.7IF	12.4IF	11.1IF	10.2IF	10.5IF	6.6IF	6.5IF	6.5IF	6.5IF	5.5IF	6.3IF	8.8IF	11.5IF	23	9.23
20	12.5IF	13.3IF	13.5IF	14.7IF	15.0IF	17.0IF	17.9IF	18.9IF	21.0IF	19.8IF	19.1IF	17.7IF	18.2IF	16.6IF	16.2IF	15.0IF	13.1IF	13.2IF	13.8IF	14.1IF	14.9IF	16.2IF	17.4IF	19.0IF	24	16.17
21	17.4IF	17.3IF	18.1IF	17.6IF	17.6IF	18.9IF	20.8IF	20.7IF	18.8IF	17.8IF	15.6IF	14.5IF	16.8IF	18.7IF	18.6IF	18.5IF	18.3IF	16.3IF	15.3IF	13.0IF	13.1IF	15.3IF	11.9IF	12.1IF	24	16.79
22	13.5rf	17.6rf	12.1rf	13.1rf	13.1rf	14.2rf	14.6rf	16.6rf	19.9rf	28.3rf	34.4rf	32.0rf	30.3rf	29.5rf	29.9rf	29.7rf	29.9rf	29.6rf	29.0rf	29.0rf	28.8rf	29.5rf	30.6rf	31.2rf	24	24.43
23	31.8IF	31.6IF	29.4IF	28.6IF	32.6IF	26.8IF	29.1IF	30.4IF	28.5IF	21.8IF	15.5IF	13.1IF	12.9IF	15.2IF	15.5IF	14.4IF	12.9IF	11.0IF	9.0IF	8.8IF	10.4IF	12.4IF	14.0IF	15.7IF	24	19.64
24	17.3IF	17.7IF	18.1IF	18.7IF	19.3IF	19.2IF	19.2IF	20.1IF	20.7IF	21.8IF	19.6IF	18.1IF	16.9IF	14.0IF	13.3IF	12.3IF	11.2IF	12.0IF	12.2IF	12.4IF	13.5IF	14.1IF	13.3IF	12.7IF	24	16.15
25	11.9IF	11.4IF	11.1IF	11.2IF	11.1IF	11.0IF	11.2IF	12.2IF	11.5IF	11.7IF	11.2IF	10.3IF	10.0IF	10.4IF	11.6IF	10.4IF	9.4IF	9.1IF	8.8IF	9.6IF	11.7IF	15.3IF	13.1IF	12.9IF	24	11.17
26	12.0IF	12.2IF	12.6IF	11.8IF	12.1IF	12.4IF	12.7IF	13.3IF	13.3IF	13.4IF	13.1IF	12.7IF	13.3IF	13.3IF	12.2IF	11.6IF	11.5IF	12.2IF	11.3IF	11.0IF	11.1IF	9.9IF	9.9IF	10.1IF	24	12.04
27	10.3IF	10.6IF	10.0IF	9.2IF	7.9IF	8.6IF	8.5IF	8.4IF	7.9IF	7.2IF	7.5IF	8.3IF	8.9IF	9.2IF	9.4IF	9.6IF	10.7IF	7.6IF	6.6IF	7.2IF	7.4IF	7.2IF	8.6IF	8.4IF	24	8.55
28	8.4	8.5	7.9	7.2	6.3	5.1	5.4	4.8	5.3	5.0	4.7	4.0	4.3	5.1	6.2	6.0	5.3	5.0	4.7	4.7	5.1	4.9	5.0	4.8	24	5.57
29	4.8	4.9	4.8	5.3	5.4	5.7	5.5	5.4	5.0	5.0	4.7	4.8	5.2	5.5	5.3	5.6	5.7	5.4	5.3	5.0	5.0	4.6	4.6	4.3	24	5.12
30	4.0	4.1	4.0	3.8	3.7	3.8	3.9	3.6	3.5	3.5	3.7	3.6	3.6	3.3	3.2	3.2	3.2	3.1	3.4	3.7	4.0	4.2	4.6	4.4	24	3.71
31	4.4	4.5	4.6	4.6	4.8	4.7	4.9	5.1	5.4	6.4	7.0	6.2	6.2	5.8	5.4	5.4	4.8	4.2	4.4	4.4	4.6	4.9	5.2	5.6	24	5.15
NO.:	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	104.1	119.4	113.7	108.5	104.1	98.4	95.0	85.7	52.8	45.9	73.3	101.8	111.8	54.5	47.1	53.2	58.3	54.1	57.0	64.0	74.4	80.4	84.4	89.8		
AVG:	14.42	15.83	15.41	15.26	15.55	15.62	15.61	15.52	13.54	12.49	13.05	13.35	13.66	12.09	12.17	12.62	12.67	11.81	11.22	11.27	11.58	12.28	12.82	13.05		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 13.45 MONTHLY MAX: 119.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 23
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (738) Teledyne T640X at 16.67 LPM (Corre
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	5.7	5.6	5.5	5.7	7.5	6.3	6.2	4.8	4.6	5.3	5.5	5.4	6.1	4.9	4.7	5.3	6.3	6.9	6.3	6.2	6.7	6.3	4.6	4.4	24	5.70
2	4.7	5.0	4.7	4.8	5.0	5.4	AX	5.2	4.5	4.5	4.5	4.3	4.3	4.2	4.3	4.4	4.6	4.8	4.6	4.5	4.4	4.9	5.4	5.3	23	4.71
3	5.2	5.4	5.3	5.6	6.3	6.9	8.2	7.2	7.6	6.7	7.1	7.2	7.6	8.7	8.8	8.9	8.9	8.7	8.5	7.9	6.9	6.5	8.9	9.9	24	7.45
4	10.7rf	11.2rf	11.4rf	12.1rf	13.3rf	14.2rf	11.2rf	10.7rf	18.1rf	20.2rf	27.8rf	30.4rf	26.8rf	28.6rf	29.9rf	30.1rf	24.8rf	24.0rf	27.4rf	24.5rf	27.6rf	29.6rf	39.2rf	38.5rf	24	22.60
5	34.7rf	33.5rf	33.6rf	34.9rf	36.9rf	37.4rf	35.9rf	35.0rf	32.6rf	30.1rf	26.6rf	26.9rf	26.8rf	27.2rf	24.8rf	25.4rf	20.6rf	13.1rf	15.0rf	15.5rf	12.3rf	14.5rf	15.5rf	14.9rf	24	25.99
6	13.7rf	14.3rf	11.7rf	10.9rf	12.0rf	12.4rf	13.3rf	14.1rf	15.2rf	16.8rf	15.1rf	17.1rf	21.8rf	22.5rf	23.2rf	27.2rf	25.3rf	25.7rf	25.7rf	29.4rf	33.8rf	35.9rf	36.7rf	37.7rf	24	21.31
7	32.5rf	33.1rf	31.5rf	30.1rf	31.5rf	36.5rf	42.5rf	56.5rf	57.2rf	64.2rf	70.0rf	46.3rf	38.8rf	35.8rf	36.1rf	37.3rf	35.0rf	31.9rf	32.8rf	30.2rf	21.6rf	18.3rf	19.0rf	17.9rf	24	36.94
8	16.2IF	15.7IF	14.5IF	13.4IF	13.1IF	13.2IF	13.4IF	12.8IF	12.2IF	13.2IF	12.8IF	12.8IF	13.0IF	13.0IF	14.8IF	15.2IF	14.9IF	11.6IF	13.0IF	13.3IF	14.3IF	16.1IF	15.5IF	15.3IF	24	13.89
9	13.0IF	15.1IF	14.4IF	13.0IF	13.5IF	14.3IF	15.4IF	AX	BA	11.4IF	11.8IF	13.2IF	13.7IF	13.9IF	13.9IF	11.5IF	11.2IF	12.1IF	19.6IF	17.5IF	10.7IF	9.2IF	8.2IF	11.0IF	22	13.07
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27																									0	
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29																									0	
30																									0	
31																									0	
NO.:	9	9	9	9	9	9	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9		
MAX:	34.7	33.5	33.6	34.9	36.9	37.4	42.5	56.5	57.2	64.2	70.0	46.3	38.8	35.8	36.1	37.3	35.0	31.9	32.8	30.2	33.8	35.9	39.2	38.5		
AVG:	15.16	15.43	14.73	14.50	15.46	16.29	18.26	18.29	19.00	19.16	20.13	18.18	17.66	17.64	17.83	18.37	16.84	15.42	16.99	16.56	15.37	15.70	17.00	17.21		

MONTHLY OBSERVATIONS: 213 MONTHLY MEAN: 16.94 MONTHLY MAX: 70.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 3
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (238) Teledyne T640X at 16.67 LPM Broadb
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	6.6	6.0	5.6	5.7	5.8	6.5	8.3	7.4	7.7	7.6	6.4	6.6	7.6	7.7	7.8	8.0	8.3	8.6	7.6	7.0	7.3	8.5	9.0	8.2	24	7.33
17	6.9IF	7.1IF	6.9IF	7.5IF	6.8IF	6.6IF	6.4IF	8.0IF	6.7IF	5.7IF	5.5IF	6.6IF	203.1IF	913.9IF	839.7IF	543.0IF	394.1IF	514.9IF	416.5IF	166.9IF	157.2IF	155.4IF	167.0IF	170.5IF	24	196.79
18	169.7IF	150.9IF	161.8IF	140.1IF	127.3IF	118.2IF	105.8IF	86.6IF	75.0IF	51.7IF	51.1IF	43.7IF	35.9IF	8.0IF	9.0IF	6.9IF	6.9IF	7.4IF	8.6IF	8.2IF	6.7IF	5.0IF	4.2IF	4.3IF	24	58.04
19	4.6	5.6	6.2	7.3	8.1	9.4	10.9	12.1	10.5	8.1	5.3	5.1	4.6	4.6	4.5	4.5	4.3	4.4	4.2	4.5	6.3	7.3	7.8	5.7	24	6.50
20	5.1IF	5.0IF	5.9IF	5.2IF	5.3IF	5.5IF	6.1IF	6.6IF	6.0IF	5.6IF	6.7IF	9.1IF	12.1IF	14.5IF	16.7IF	17.6IF	19.1IF	19.2IF	19.5IF	20.2IF	19.7IF	19.4IF	20.8IF	22.8IF	24	12.24
21	23.0IF	20.8IF	21.3IF	21.4IF	22.9IF	25.4IF	26.3IF	30.2IF	29.3IF	24.6IF	23.2IF	20.7IF	19.8IF	18.9IF	19.6IF	20.2IF	21.1IF	23.4IF	23.0IF	23.0IF	21.0IF	16.8IF	16.3IF	15.7IF	24	22.00
22	14.5IF	15.8IF	16.3IF	14.1IF	13.9IF	14.8IF	15.5IF	16.6IF	14.9IF	14.3IF	14.8IF	14.8IF	15.6IF	17.0IF	17.5IF	17.9IF	17.5IF	16.7IF	17.5IF	20.2IF	21.4IF	23.6IF	23.8IF	23.0IF	24	17.17
23	22.2IF	21.8IF	22.6IF	25.2IF	26.9IF	29.6IF	31.6IF	32.3IF	33.4IF	35.7IF	31.7IF	28.0IF	27.0IF	28.9IF	30.2IF	31.0IF	32.3IF	33.9IF	33.6IF	32.0IF	32.9IF	32.5IF	30.0IF	22.3IF	24	29.48
24	18.7IF	29.2IF	24.1IF	21.3IF	19.7IF	19.5IF	20.4IF	18.4IF	16.8IF	16.3IF	15.6IF	14.6IF	14.4IF	15.0IF	15.6IF	16.0IF	16.6IF	16.6IF	16.5IF	16.0IF	16.0IF	17.1IF	17.7IF	17.7IF	24	17.91
25	17.9IF	18.5IF	18.0IF	17.6IF	17.8IF	17.1IF	16.8IF	AX	17.4IF	17.7IF	16.8IF	15.9IF	15.8IF	16.2IF	15.5IF	14.2IF	13.2IF	12.8IF	12.2IF	10.9IF	9.2IF	9.4IF	10.0IF	10.5IF	23	14.84
26	11.3IF	11.0IF	11.0IF	11.1IF	11.4IF	10.6IF	9.6IF	8.9IF	8.4IF	9.6IF	10.7IF	9.9IF	10.6IF	11.7IF	10.6IF	12.4IF	12.8IF	13.0IF	12.9IF	12.3IF	12.0IF	10.9IF	11.2IF	11.6IF	24	11.06
27	13.3IF	14.4IF	13.8IF	10.7IF	7.1IF	9.9IF	13.1IF	13.1IF	12.8IF	12.3IF	10.9IF	9.0IF	10.8IF	12.1IF	11.9IF	12.5IF	12.6IF	12.9IF	13.0IF	13.4IF	13.5IF	13.3IF	13.1IF	13.1IF	24	12.19
28	12.6IF	12.4IF	11.3IF	10.8IF	10.9IF	10.7IF	10.6IF	10.4IF	10.9IF	11.2IF	10.7IF	11.5IF	9.3IF	9.7IF	12.0IF	11.9IF	7.2IF	5.3IF	5.9IF	5.5IF	5.3IF	5.5IF	7.8IF	9.4IF	24	9.53
29	8.0	8.8	7.5	8.3	8.0	8.0	7.9	7.1	6.6	6.9	5.3	3.9	3.4	3.2	3.4	3.4	3.9	3.8	4.0	3.6	4.0	3.8	4.2	4.7	24	5.49
30	4.8	4.5	6.3	5.4	6.0	7.2	7.8	7.7	7.5	7.1	7.0	8.6	7.8	5.9	7.3	7.1	7.4	6.6	6.6	7.4	8.0	12.5	9.7	10.0	24	7.34
31	10.1	11.4	10.8	11.2	13.4	8.6	6.7	6.8	6.4	7.9	6.9	6.9	7.2	6.9	7.1	6.4	5.0	4.7	3.6	3.5	3.5	4.1	4.5	6.0	24	7.07
NO.:	16	16	16	16	16	16	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	169.7	150.9	161.8	140.1	127.3	118.2	105.8	86.6	75.0	51.7	51.1	43.7	203.1	913.9	839.7	543.0	394.1	514.9	416.5	166.9	157.2	155.4	167.0	170.5		
AVG:	21.83	21.45	21.84	20.18	19.46	19.23	18.99	18.15	16.89	15.14	14.29	13.43	25.31	68.39	64.28	45.81	36.39	44.01	37.83	22.16	21.50	21.57	22.32	22.22		

MONTHLY OBSERVATIONS: 383 MONTHLY MEAN: 27.22 MONTHLY MAX: 913.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 3
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (238) Teledyne T640X at 16.67 LPM Broadb
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	8.5	10.5	11.9	13.4	13.8	13.6	12.9	11.8	10.4	8.7	6.6	6.1	7.1	5.9	7.7	5.9	5.2	5.7	5.1	6.1	6.0	6.2	6.1	5.7	24	8.37
2	5.4	6.1	6.2	6.5	7.4	8.2	9.1	8.9	7.7	7.1	7.5	6.2	6.9	5.7	6.0	6.4	5.8	6.0	5.4	7.3	8.5	6.8	6.9	7.9	24	6.91
3	8.6IF	9.4IF	10.2IF	9.8IF	10.1IF	9.7IF	8.8IF	7.7IF	7.0IF	6.4IF	6.8IF	7.6IF	8.9IF	9.3IF	9.0IF	9.2IF	9.3IF	9.3IF	8.8IF	9.3IF	10.5IF	10.7IF	11.6IF	12.2IF	24	9.18
4	12.8IF	13.8IF	13.6IF	13.1IF	13.8IF	14.6IF	13.9IF	12.4IF	10.6IF	9.5IF	9.2IF	9.4IF	9.4IF	9.0IF	8.0IF	7.9IF	7.9IF	7.6IF	6.5IF	7.4IF	7.6IF	7.4IF	6.7IF	7.1IF	24	9.97
5	7.7IF	8.6IF	8.8IF	10.0IF	11.6IF	12.7IF	12.2IF	10.4IF	8.6IF	9.6IF	9.5IF	9.7IF	8.6IF	7.7IF	7.7IF	8.4IF	8.4IF	7.9IF	7.9IF	8.0IF	8.8IF	10.0IF	11.6IF	10.1IF	24	9.35
6	9.2IF	9.2IF	9.7IF	10.1IF	10.9IF	11.9IF	12.5IF	11.5IF	11.6IF	13.7IF	11.5IF	10.6IF	9.5IF	9.6IF	9.5IF	9.4IF	9.0IF	9.2IF	10.4IF	9.7IF	10.8IF	10.2IF	11.5IF	11.0IF	24	10.51
7	11.5IF	12.7IF	13.4IF	12.6IF	13.9IF	14.7IF	AZ	AX	14.6IF	15.4IF	12.1IF	9.9IF	10.2IF	9.9IF	8.8IF	9.2IF	9.2IF	9.3IF	8.2IF	8.3IF	11.0IF	11.7IF	11.4IF	12.1IF	22	11.37
8	12.9IF	13.1IF	13.2IF	14.1IF	16.2IF	15.3IF	17.2IF	14.6IF	14.1IF	13.6IF	12.9IF	12.7IF	12.2IF	11.9IF	11.8IF	11.6IF	9.6IF	6.0IF	7.6IF	7.7IF	7.3IF	8.4IF	10.2IF	11.6IF	24	11.91
9	11.2	9.6	8.6	8.1	8.3	9.4	9.6	11.9	11.1	9.4	9.0	8.8	8.4	7.7	7.5	6.2	6.7	6.8	6.4	6.3	7.3	7.4	7.0	9.9	24	8.44
10	21.6IF	17.5IF	19.8IF	21.9IF	25.5IF	25.9IF	26.2IF	26.5IF	26.3IF	27.5IF	27.6IF	26.6IF	23.4IF	22.4IF	20.5IF	17.1IF	13.4IF	15.3IF	15.2IF	16.3IF	18.0IF	21.2IF	22.4IF	20.8IF	24	21.62
11	16.8	10.8	8.2	7.5	6.8	6.9	7.0	7.2	7.2	6.5	6.3	7.0	7.4	7.2	7.7	7.4	7.7	7.7	7.7	7.3	7.5	8.0	8.2	8.7	24	7.95
12	8.4IF	8.2IF	8.5IF	8.9IF	10.3IF	11.2IF	12.7IF	12.1IF	11.0IF	11.9IF	12.9IF	13.1IF	13.5IF	13.9IF	14.0IF	14.5IF	15.4IF	16.7IF	15.7IF	16.4IF	18.8IF	20.7IF	18.8IF	20.4IF	24	13.67
13	19.8IF	19.8IF	20.4IF	20.0IF	19.2IF	20.2IF	20.2IF	19.6IF	20.3IF	21.0IF	18.3IF	17.1IF	18.9IF	20.2IF	20.4IF	17.9IF	17.0IF	18.7IF	17.7IF	18.4IF	19.8IF	16.4IF	14.0IF	13.5IF	24	18.70
14	13.1IF	12.9IF	12.6IF	12.4IF	12.1IF	12.6IF	12.8IF	12.7IF	12.4IF	13.1IF	12.8IF	12.7IF	14.5IF	16.5IF	16.5IF	15.7IF	15.9IF	17.1IF	60.8IF	63.7IF	59.6IF	55.7IF	52.4IF	52.8IF	24	24.73
15	48.2IF	46.7IF	45.7IF	50.9IF	68.6IF	78.2IF	83.1IF	85.6IF	83.3IF	74.5IF	66.6IF	61.3IF	60.6IF	61.0IF	59.6IF	60.6IF	64.0IF	62.8IF	63.9IF	56.1IF	49.7IF	36.1IF	18.2IF	20.7IF	24	58.58
16	9.7IF	7.2IF	7.3IF	5.4IF	12.3IF	15.7IF	16.9IF	17.3IF	17.8IF	19.2IF	20.3IF	23.9IF	24.4IF	25.4IF	27.0IF	25.2IF	25.5IF	26.7IF	26.4IF	25.8IF	25.2IF	26.2IF	25.8IF	27.0IF	24	20.15
17	30.3IF	28.4IF	27.9IF	27.2IF	28.4IF	27.1IF	26.4IF	25.6IF	26.1IF	27.9IF	28.3IF	24.7IF	20.8IF	20.5IF	22.6IF	22.9IF	22.6IF	22.7IF	23.3IF	24.0IF	24.7IF	27.3IF	24.8IF	24.1IF	24	25.36
18	24.4IF	24.4IF	24.6IF	25.0IF	25.8IF	25.9IF	25.7IF	25.5IF	25.0IF	21.4IF	19.9IF	16.4IF	13.3IF	11.5IF	13.2IF	13.7IF	13.5IF	12.4IF	14.5IF	17.2IF	19.1IF	19.2IF	18.7IF	17.8IF	24	19.50
19	17.7IF	18.6IF	18.8IF	19.9IF	18.9IF	19.1IF	AX	17.8IF	18.3IF	19.1IF	18.6IF	17.1IF	17.4IF	18.3IF	17.0IF	16.0IF	14.8IF	14.5IF	12.3IF	11.7IF	12.5IF	12.9IF	13.4IF	13.4IF	23	16.44
20	12.3	11.0	9.6	6.8	6.0	6.5	7.1	7.3	7.6	8.3	8.6	8.6	9.3	9.5	9.1	11.3	10.8	10.7	6.9	5.8	6.8	6.8	5.4	5.2	24	8.22
21	5.6	4.7	3.8	4.2	4.4	3.9	3.8	3.8	3.7	3.8	3.3	3.0	3.5	3.5	3.5	3.3	3.3	3.3	3.3	3.2	3.5	3.8	3.5	3.5	24	3.72
22	3.3	3.4	3.6	2.9	2.4	3.0	2.7	2.7	2.7	2.4	2.6	2.9	3.8	3.6	3.6	3.4	3.4	3.2	3.3	3.4	3.3	3.5	3.6	3.8	24	3.19
23	3.9	3.9	4.4	6.4	9.3	10.1	10.7	10.3	10.4	11.2	9.9	7.4	6.8	5.2	5.3	5.0	4.6	4.0	3.4	3.9	4.4	4.8	6.4	6.3	24	6.58
24	5.6IF	5.5IF	5.7IF	6.4IF	6.3IF	6.4IF	6.5IF	7.1IF	7.5IF	8.6IF	9.2IF	10.2IF	9.8IF	9.7IF	13.8IF	26.3IF	29.4IF	28.8IF	19.4IF	11.5IF	47.1IF	60.4IF	50.0IF	43.6IF	24	18.12
25	51.5IF	43.4IF	12.5IF	9.2IF	7.7IF	7.7IF	7.6IF	7.4IF	7.0IF	7.5IF	8.0IF	7.4IF	7.4IF	6.6IF	6.3IF	6.4IF	6.5IF	6.3IF	6.0IF	6.0IF	6.0IF	6.2IF	6.4IF	6.5IF	24	10.56
26	6.3IF	6.7IF	6.4IF	7.6IF	7.3IF	8.0IF	9.9IF	10.2IF	9.5IF	6.7IF	6.6IF	6.6IF	6.6IF	7.6IF	9.3IF	12.0IF	13.1IF	16.9IF	14.1IF	15.7IF	15.2IF	15.8IF	13.8IF	14.2IF	24	10.25
27	16.0IF	19.0IF	22.0IF	25.6IF	28.9IF	29.4IF	29.7IF	27.4IF	21.2IF	18.3IF	17.3IF	19.2IF	19.7IF	18.7IF	19.8IF	19.7IF	19.8IF	19.4IF	26.2IF	32.9IF	26.4IF	23.0IF	22.5IF	22.6IF	24	22.70
28	23.7IF	23.0IF	23.5IF	19.8IF	19.3IF	16.9IF	18.0IF	14.7IF	8.0IF	5.8IF	5.9IF	6.3IF	6.4IF	6.9IF	7.9IF	8.5IF	10.3IF	9.3IF	8.9IF	7.4IF	7.8IF	8.8IF	17.9IF	23.1IF	24	12.84
29	26.0IF	24.9IF	24.5IF	24.3IF	19.2IF	18.3IF	19.9IF	18.5IF	16.8IF	16.1IF	14.6IF	15.6IF	15.7IF	15.5IF	15.1IF	15.3IF	13.0IF	13.3IF	12.5IF	12.2IF	13.2IF	17.4IF	26.1IF	28.5IF	24	18.18
30	28.8IF	28.2IF	25.2IF	25.4IF	29.9IF	31.1IF	30.5IF	27.5IF	24.0IF	20.0IF	16.8IF	16.1IF	16.0IF	14.3IF	15.3IF	16.1IF	15.2IF	12.5IF	13.7IF	13.0IF	13.8IF	14.7IF	15.5IF	18.7IF	24	20.10
31																									0	
NO.:	30	30	30	30	30	30	28	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	51.5	46.7	45.7	50.9	68.6	78.2	83.1	85.6	83.3	74.5	66.6	61.3	60.6	61.0	59.6	60.6	64.0	62.8	63.9	63.7	59.6	60.4	52.4	52.8		
AVG:	16.03	15.37	14.35	14.51	15.82	16.47	16.91	16.41	15.39	14.81	13.98	13.47	13.35	13.16	13.45	13.75	13.68	13.67	14.72	14.73	16.01	16.26	15.69	16.09		

MONTHLY OBSERVATIONS: 717 MONTHLY MEAN: 14.91 MONTHLY MAX: 85.6

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 3
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (238) Teledyne T640X at 16.67 LPM Broadb
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	14.0IF	14.1IF	13.8IF	13.6IF	14.3IF	13.8IF	12.8IF	12.4IF	11.2IF	11.3IF	10.9IF	9.2IF	8.1IF	9.4IF	10.2IF	10.0IF	9.2IF	9.3IF	9.2IF	10.4IF	9.7IF	10.6IF	13.9IF	12.2IF	24	11.40
2	10.5	10.8	10.0	8.4	6.7	5.4	5.0	4.9	6.0	9.2	8.4	6.4	5.8	5.5	5.1	5.2	6.0	5.8	6.2	7.2	9.1	9.2	10.5	8.4	24	7.32
3	8.2	8.0	7.7	7.3	11.2	8.5	8.3	8.5	9.0	8.5	8.4	7.1	6.2	6.1	8.9	11.2	8.3	7.8	6.6	6.7	7.4	9.5	13.9	9.7	24	8.46
4	8.2IF	9.6IF	8.9IF	10.1IF	9.1IF	9.2IF	9.3IF	9.8IF	9.2IF	17.7IF	27.7IF	23.2IF	15.9IF	11.0IF	12.1IF	7.2IF	5.7IF	4.6IF	3.4IF	4.5IF	4.4IF	6.1IF	6.0IF	5.9IF	24	9.95
5	4.6	4.8	4.5	4.0	3.7	4.0	3.8	AX	3.9	3.7	4.1	4.6	4.4	3.7	3.9	3.7	3.7	3.6	3.7	3.9	5.2	6.7	8.1	8.8	23	4.57
6	8.6	6.4	4.1	3.3	3.1	3.6	3.5	3.6	3.4	4.1	5.5	5.3	5.0	5.5	5.3	5.4	5.1	5.4	5.8	6.3	6.4	6.6	6.9	6.4	24	5.19
7	6.3IF	6.5IF	6.3IF	6.2IF	6.2IF	6.5IF	6.9IF	7.4IF	7.8IF	8.2IF	8.0IF	9.4IF	14.6IF	19.9IF	14.6IF	14.5IF	17.3IF	11.9IF	8.2IF	7.4IF	10.6IF	9.3IF	8.9IF	8.9IF	24	9.66
8	8.7IF	8.5IF	8.3IF	10.3IF	9.8IF	9.2IF	9.2IF	9.6IF	11.4IF	13.0IF	14.6IF	14.5IF	16.0IF	17.7IF	17.8IF	18.5IF	18.7IF	19.2IF	19.7IF	19.6IF	16.5IF	16.8IF	18.7IF	18.4IF	24	14.36
9	18.1IF	17.2IF	15.2IF	14.1IF	13.1IF	12.7IF	12.1IF	11.6IF	9.8IF	9.1IF	8.8IF	9.3IF	10.8IF	12.4IF	14.1IF	14.6IF	14.8IF	16.6IF	15.8IF	14.8IF	13.8IF	14.4IF	15.6IF	16.2IF	24	13.54
10	16.2IF	15.4IF	14.6IF	15.0IF	16.5IF	23.3IF	25.1IF	25.9IF	24.6IF	21.2IF	21.1IF	21.8IF	23.4IF	25.0IF	22.8IF	22.1IF	17.5IF	12.6IF	8.0IF	7.0IF	5.9IF	5.6IF	4.5IF	4.5IF	24	16.65
11	4.5	4.5	4.3	4.2	4.1	4.5	4.0	4.4	3.5	3.1	3.1	3.1	3.1	3.1	3.3	3.4	3.3	3.1	2.7	2.9	3.0	3.4	3.7	4.1	24	3.60
12	4.2	4.5	4.7	5.0	5.2	5.6	5.8	6.0	6.3	6.4	6.3	5.3	6.0	6.2	5.6	5.5	6.3	7.5	12.0	13.0	9.4	9.5	10.3	10.1	24	6.95
13	13.2IF	14.1IF	13.2IF	13.6IF	13.6IF	13.1IF	10.4IF	8.7IF	9.2IF	9.9IF	9.4IF	8.9IF	8.4IF	10.1IF	14.4IF	19.4IF	24.9IF	23.2IF	25.6IF	27.2IF	26.8IF	22.5IF	18.7IF	18.7IF	24	15.72
14	20.0IF	20.3IF	20.1IF	21.5IF	25.1IF	27.1IF	29.5IF	32.6IF	38.3IF	47.8IF	74.2IF	102.7IF	112.7IF	55.4IF	48.0IF	54.1IF	59.2IF	55.0IF	57.9IF	64.9IF	75.3IF	81.3IF	85.3IF	91.7IF	24	54.17
15	106.0IF	121.3IF	115.6IF	110.4IF	106.0IF	100.3IF	87.0IF	75.4IF	53.7IF	25.6IF	21.1IF	24.3IF	20.9IF	21.6IF	26.2IF	33.8IF	39.1IF	34.3IF	21.2IF	15.6IF	18.1IF	22.3IF	22.8IF	26.9IF	24	52.06
16	50.6IF	77.1IF	86.7IF	88.6IF	93.7IF	95.8IF	96.9IF	87.6IF	54.7IF	26.8IF	13.7IF	9.0IF	8.1IF	8.4IF	8.0IF	7.4IF	6.1IF	5.4IF	4.7IF	3.8IF	3.6IF	4.0IF	3.8IF	3.5IF	24	35.33
17	3.5	3.6	3.8	3.9	4.1	4.7	5.0	5.6	4.3	6.4	4.0	4.1	3.7	3.9	4.0	4.1	3.8	3.9	4.5	4.9	5.0	5.0	5.2	5.0	24	4.42
18	4.7	5.1	5.1	5.6	5.6	6.5	5.7	6.1	5.9	6.4	7.5	8.3	9.8	10.7	12.4	16.0	17.5	17.8	17.9	15.6	13.1	13.1	15.5	15.2	24	10.30
19	13.5IF	11.9IF	10.5IF	8.1IF	9.7IF	10.6IF	AX	13.0IF	13.4IF	12.8IF	12.2IF	11.6IF	13.3IF	12.0IF	11.1IF	11.4IF	7.5IF	7.4IF	7.4IF	7.4IF	6.8IF	7.8IF	10.7IF	13.4IF	23	10.59
20	14.4IF	15.2IF	15.4IF	16.6IF	16.9IF	18.9IF	19.8IF	20.8IF	22.9IF	21.7IF	20.0IF	18.6IF	19.1IF	17.5IF	17.1IF	15.9IF	14.0IF	14.1IF	14.7IF	15.0IF	15.8IF	17.1IF	18.3IF	20.9IF	24	17.53
21	19.3IF	19.2IF	20.0IF	19.5IF	19.5IF	20.8IF	22.7IF	22.6IF	20.7IF	18.7IF	16.5IF	15.4IF	17.7IF	19.6IF	19.5IF	19.4IF	19.2IF	17.2IF	16.2IF	13.9IF	14.0IF	16.2IF	12.8IF	13.0IF	24	18.07
22	14.4IF	19.5IF	14.0IF	15.0IF	15.0IF	16.1IF	16.5IF	18.5IF	20.8IF	29.2IF	35.3IF	32.9IF	31.2IF	30.4IF	30.8IF	30.6IF	30.8IF	30.5IF	29.9IF	29.9IF	29.7IF	30.4IF	31.5IF	32.1IF	24	25.63
23	33.7IF	33.5IF	31.3IF	30.5IF	34.5IF	28.7IF	31.0IF	32.3IF	29.4IF	22.7IF	16.4IF	14.0IF	13.8IF	16.1IF	16.4IF	15.3IF	13.8IF	11.9IF	9.9IF	9.7IF	11.3IF	13.3IF	14.9IF	16.6IF	24	20.88
24	18.2IF	18.6IF	20.0IF	20.6IF	21.2IF	21.1IF	21.1IF	22.0IF	21.6IF	22.7IF	20.5IF	19.0IF	17.8IF	14.9IF	14.2IF	13.2IF	12.1IF	12.9IF	13.1IF	13.3IF	14.4IF	15.0IF	14.2IF	13.6IF	24	17.30
25	12.8IF	12.3IF	12.0IF	12.1IF	12.0IF	11.9IF	12.1IF	13.1IF	12.4IF	12.6IF	12.1IF	11.2IF	10.9IF	11.3IF	12.5IF	11.3IF	10.3IF	10.0IF	9.7IF	10.5IF	12.6IF	16.2IF	14.0IF	13.8IF	24	12.07
26	12.9IF	13.1IF	13.5IF	12.7IF	13.0IF	13.3IF	13.6IF	14.2IF	14.2IF	14.3IF	14.0IF	13.6IF	14.2IF	14.2IF	13.1IF	12.5IF	12.4IF	13.1IF	12.2IF	11.9IF	12.0IF	10.8IF	10.8IF	11.0IF	24	12.94
27	11.2IF	11.5IF	10.9IF	11.1IF	9.7IF	9.5IF	10.4IF	9.3IF	8.8IF	8.1IF	8.4IF	9.2IF	9.8IF	10.1IF	10.3IF	10.5IF	11.6IF	8.5IF	7.5IF	8.1IF	8.3IF	8.1IF	9.5IF	9.3IF	24	9.57
28	9.3	9.4	8.8	8.9	7.7	6.3	6.7	5.9	6.5	6.1	5.6	4.9	5.2	6.0	7.1	6.9	6.2	5.9	5.6	5.6	6.0	6.0	6.1	5.9	24	6.61
29	5.9	6.0	5.9	6.5	6.6	7.0	6.8	6.6	6.2	6.1	5.8	5.7	6.1	6.4	6.2	6.5	6.6	6.3	6.2	5.9	5.9	5.7	5.7	5.3	24	6.16
30	4.9	5.0	4.9	4.7	4.5	4.7	4.8	4.4	4.3	4.3	4.6	4.4	4.4	4.1	3.9	3.9	3.9	3.8	4.2	4.6	4.9	5.1	5.7	5.4	24	4.56
31	5.4	5.5	5.6	5.7	5.9	5.8	6.0	6.3	6.6	7.3	7.9	7.1	7.1	6.7	6.3	6.3	5.7	5.1	5.3	5.3	5.5	5.8	6.1	6.5	24	6.12
NO.:	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	106.0	121.3	115.6	110.4	106.0	100.3	96.9	87.6	54.7	47.8	74.2	102.7	112.7	55.4	48.0	54.1	59.2	55.0	57.9	64.9	75.3	81.3	85.3	91.7		
AVG:	15.68	17.18	16.76	16.68	17.01	17.05	17.06	16.97	14.84	13.71	14.07	14.33	14.63	13.06	13.07	13.54	13.57	12.70	12.10	12.15	12.60	13.34	13.95	14.24		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 14.59 MONTHLY MAX: 121.3

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 3
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: MULTIPLE METHODS
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	6.6	6.5	6.4	6.6	8.4	7.2	7.1	5.7	5.5	6.2	6.4	6.3	7.0	5.8	5.6	6.2	7.2	7.8	7.2	7.1	7.6	7.8	5.6	5.4	24	6.63
2	5.8	6.1	5.8	5.9	6.2	6.6	AX	6.4	5.4	5.4	5.4	5.2	5.2	5.1	5.2	5.3	5.5	5.7	5.5	5.4	5.3	5.8	6.3	6.2	23	5.68
3	6.1	6.3	6.2	6.5	7.2	8.5	9.1	8.1	8.5	7.6	8.0	8.1	8.5	9.6	9.7	9.8	9.8	9.6	9.4	8.8	7.8	7.4	9.8	10.8	24	8.38
4	11.6IF	12.1IF	12.3IF	13.0IF	14.2IF	16.1IF	13.1IF	12.6IF	20.0IF	22.1IF	29.7IF	31.3IF	27.7IF	29.5IF	30.8IF	32.0IF	26.7IF	25.9IF	29.3IF	26.4IF	29.5IF	31.5IF	41.1IF	40.4IF	24	24.12
5	36.6IF	35.4IF	35.5IF	36.8IF	38.8IF	39.3IF	37.8IF	36.9IF	34.5IF	32.0IF	28.5IF	27.8IF	27.7IF	28.1IF	25.7IF	26.3IF	21.5IF	14.0IF	15.9IF	16.4IF	14.2IF	16.4IF	17.4IF	16.8IF	24	27.51
6	15.6IF	16.2IF	13.6IF	12.8IF	13.9IF	14.3IF	15.2IF	16.0IF	17.1IF	17.7IF	16.0IF	18.0IF	22.7IF	23.4IF	24.1IF	28.1IF	26.2IF	26.6IF	26.6IF	30.3IF	34.7IF	36.8IF	37.6IF	39.6IF	24	22.63
7	34.4IF	35.0IF	33.4IF	32.0IF	33.4IF	38.4IF	44.4IF	58.4IF	59.1IF	65.1IF	70.9IF	47.2IF	39.7IF	36.7IF	37.0IF	38.2IF	35.9IF	32.8IF	33.7IF	31.1IF	22.5IF	20.2IF	20.9IF	19.8IF	24	38.34
8	18.1IF	17.6IF	16.4IF	15.3IF	15.0IF	15.1IF	15.3IF	14.7IF	14.1IF	14.1IF	13.7IF	13.7IF	13.9IF	13.9IF	15.7IF	16.1IF	15.8IF	12.5IF	13.9IF	14.2IF	15.2IF	17.0IF	16.4IF	17.2IF	24	15.20
9	14.9IF	17.0IF	16.3IF	14.9IF	15.4IF	16.2IF	17.3IF	AX	BA	13.3IF	12.7IF	14.1IF	14.6IF	14.8IF	14.8IF	12.4IF	12.1IF	13.0IF	20.5IF	19.4IF	12.6IF	11.1IF	10.1IF	12.9IF	22	14.56
10	14.3IF	15.7IF	13.3IF	10.1IF	9.7IF	7.3IF	6.0IF	7.2IF	8.2IF	9.0IF	11.1IF	12.1IF	12.1IF	12.9IF	13.8IF	11.8IF	9.0IF	8.4IF	7.4IF	6.8IF	8.7IF	9.1IF	9.5IF	10.9IF	24	10.18
11	12.1	10.9	7.4	6.0	6.2	8.4	6.5	4.9	4.6	3.7	3.3	3.0	2.9	3.0	3.4	3.2	3.2	3.1	3.0	3.2	5.4	4.4	3.7	3.6	24	4.96
12	3.5	3.5	3.6	3.6	3.6	3.5	4.8	3.8	3.2	3.4	3.2	2.9	2.9	3.1	2.9	2.8	3.0	3.2	3.3	3.9	4.4	4.1	5.1	4.9	24	3.59
13	4.3	4.1	4.1	3.9	4.0	4.1	3.9	3.9	3.6	3.6	3.8	3.6	3.7	3.8	4.7	3.3	2.7	3.1	3.3	3.0	3.4	3.5	4.0	4.7	24	3.75
14	5.4	5.2	5.1	4.6	4.8	5.0	5.7	5.1	4.8	4.4	3.3	3.3	3.9	3.9	3.7	4.4	4.0	4.4	4.9	5.5	5.6	5.7	5.6	4.3	24	4.69
15	4.3	4.1	3.9	4.1	4.2	4.9	AX	6.5	5.9	5.8	5.8	5.7	5.7	5.2	4.8	4.5	4.6	4.5	4.4	4.7	5.3	5.0	5.6	5.0	23	4.98
16	5.3	5.1	5.1	4.8	4.8	4.9	5.5	5.4	6.3	20.9	17.9	12.3	9.7	7.6	8.8	9.8	9.1	8.6	9.4	10.5	9.6	8.6	8.7	7.8	24	8.60
17	6.9rf	6.8rf	7.2rf	8.0rf	12.5rf	19.2rf	23.2rf	23.1rf	26.0rf	34.0rf	37.3rf	35.6rf	34.4rf	29.9rf	25.1rf	22.1rf	21.2rf	20.9rf	21.1rf	23.1rf	24.4rf	23.0rf	22.1rf	20.5rf	24	21.98
18	20.8IF	21.1IF	19.6IF	18.6IF	18.6IF	18.7IF	18.6IF	18.3IF	16.6IF	16.5IF	15.5IF	14.9IF	14.4IF	14.5IF	14.9IF	14.9IF	14.5IF	14.6IF	15.3IF	15.6IF	16.0IF	16.0IF	16.7IF	17.8IF	24	16.79
19	17.4rf	17.2rf	21.2rf	27.6rf	29.9rf	33.0rf	30.1rf	26.6rf	23.3rf	22.5rf	21.0rf	27.9rf	20.5rf	29.5rf	40.0rf	37.3rf	25.5rf	12.2rf	9.9rf	10.0rf	10.8rf	10.0rf	10.2rf	10.6rf	24	21.84
20	10.6IF	10.2IF	11.1IF	11.3IF	12.0IF	11.9IF	11.3IF	10.5IF	10.8IF	11.1IF	12.2IF	18.0IF	20.4IF	20.6IF	15.2IF	17.7IF	15.6IF	16.4IF	15.1IF	13.9IF	13.2IF	13.4IF	13.1IF	14.3IF	24	13.75
21	13.6IF	12.7IF	14.2IF	16.6IF	13.6IF	12.5IF	11.0IF	10.7IF	10.7IF	10.2IF	10.3IF	11.4IF	11.5IF	13.7IF	14.4IF	15.2IF	14.3IF	14.2IF	14.9IF	15.0IF	13.5IF	12.1IF	11.9IF	13.0IF	24	12.97
22	13.2IF	13.2IF	14.5IF	20.2IF	22.6IF	18.6IF	15.2IF	12.8IF	10.2IF	9.7IF	10.6IF	12.3IF	12.9IF	13.5IF	11.0IF	10.5IF	11.2IF	10.5IF	9.9IF	9.1IF	9.4IF	9.2IF	9.2IF	9.3IF	24	12.45
23	8.6	10.2	10.5	10.6	9.0	6.1	4.5	4.4	4.8	5.5	6.9	6.9	6.9	5.8	6.4	7.6	8.2	6.8	5.0	4.5	4.9	5.4	5.7	5.9	24	6.71
24	5.8	6.3	7.2	7.2	6.7	6.9	7.7	7.5	6.9	6.9	8.4	8.3	8.2	6.2	5.3	5.4	6.0	5.9	5.0	3.8	3.1	3.0	3.5	3.7	24	6.04
25	3.6IF	3.9IF	3.9IF	4.6IF	6.2IF	8.3IF	11.0IF	12.8IF	13.4IF	14.3IF	17.1IF	20.5IF	18.7IF	17.5IF	15.7IF	14.8IF	9.0IF	7.8IF	8.2IF	8.2IF	8.6IF	8.6IF	8.7IF	10.4IF	24	10.66
26	12.3IF	16.8IF	17.9IF	16.4IF	16.0IF	15.6IF	13.2IF	10.9IF	12.5IF	14.5IF	14.2IF	15.9IF	21.5IF	23.1IF	23.3IF	25.7IF	25.7IF	24.2IF	22.3IF	20.7IF	15.7IF	12.1IF	10.5IF	9.8IF	24	17.12
27	9.7IF	9.9IF	10.4IF	10.4IF	10.8IF	11.0IF	11.0IF	10.7IF	10.2IF	11.2IF	11.7IF	11.6IF	11.4IF	10.4IF	8.5IF	10.1IF	10.5IF	9.7IF	10.7IF	11.1IF	12.0IF	13.7IF	12.8IF	13.1IF	24	10.94
28	13.3rf	13.0rf	13.0rf	13.5rf	13.1rf	13.6rf	14.1rf	14.3rf	14.4rf	15.5rf	15.2rf	20.1rf	29.8rf	35.6rf	37.8rf	40.9rf	38.5rf	38.6rf	39.8rf	38.5rf	37.5rf	36.4rf	36.2rf	38.7rf	24	25.89
29	39.6rf	39.3rf	39.4rf	40.1rf	44.1rf	46.9rf	AX	AX	67.9rf	77.5rf	79.2rf	75.1rf	60.7rf	56.6rf	68.0rf	79.3rf	86.4rf	84.6rf	83.1rf	81.7rf	78.3rf	76.6rf	76.7rf	77.9rf	22	66.32
30	80.6rf	78.0rf	77.1rf	75.3rf	66.2rf	56.7rf	48.1rf	45.2rf	43.6rf	48.4rf	54.3rf	58.7rf	63.7rf	64.0rf	58.8rf	55.7rf	52.0rf	50.5rf	50.5rf	46.6rf	42.8rf	38.4rf	41.3rf	46.9rf	24	55.98
31	44.4IF	44.8IF	43.6IF	43.0IF	40.5IF	42.3IF	45.8IF	29.6IF	10.1IF	9.7IF	9.0IF	6.2IF	5.2IF	5.3IF	5.7IF	6.7IF	7.5IF	6.4IF	6.2IF	7.4IF	8.5IF	9.5IF	9.7IF	8.8IF	24	19.00
NO.:	31	31	31	31	31	28	29	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	80.6	78.0	77.1	75.3	66.2	56.7	48.1	58.4	67.9	77.5	79.2	75.1	63.7	64.0	68.0	79.3	86.4	84.6	83.1	81.7	78.3	76.6	76.7	77.9		
AVG:	16.11	16.26	16.10	16.27	16.50	16.81	16.30	14.93	16.07	17.48	18.15	18.00	17.68	17.83	18.09	18.65	17.50	16.34	16.60	16.32	15.82	15.54	15.99	16.48		

MONTHLY OBSERVATIONS: 738 MONTHLY MEAN: 16.75 MONTHLY MAX: 86.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-015-0003 POC: 3
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (638) Teledyne T640X at 16.67 LPM w/Netw
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	7.8rf	8.1rf	8.3rf	8.2rf	8.6rf	8.9rf	9.6rf	9.2rf	13.0rf	17.1rf	23.6rf	33.8rf	33.1rf	30.1rf	31.4rf	31.5rf	30.3rf	31.5rf	32.0rf	32.4rf	31.2rf	33.1rf	32.4rf	32.8rf	24	22.42
2	34.0IF	33.5IF	33.4IF	31.4IF	31.5IF	31.6IF	30.7IF	28.0IF	23.5IF	22.3IF	20.1IF	18.5IF	17.2IF	12.6IF	9.7IF	8.1IF	5.0IF	6.8IF	10.4IF	11.5IF	12.7IF	12.1IF	13.6IF	11.6IF	24	19.58
3	10.0rf	9.9rf	9.8rf	10.5rf	11.1rf	12.8rf	17.8rf	38.9rf	60.5rf	76.6rf	67.6rf	62.7rf	61.3rf	53.9rf	46.4rf	37.8rf	28.0rf	30.4rf	25.3rf	17.9rf	17.9rf	18.5rf	17.5rf	17.0rf	24	31.67
4	17.4IF	16.3IF	15.4IF	14.7IF	12.8IF	11.2IF	11.9IF	14.9IF	14.6IF	14.6IF	15.1IF	15.5IF	17.2IF	18.6IF	15.9IF	17.7IF	19.7IF	18.6IF	17.1IF	AV	4.0IF	2.3IF	12.5IF	3.4IF	23	13.97
5	98.5rf	152.3rf	139.8rf	83.1rf	72.8rf	65.6rf	60.2rf	90.9rf	111.0rf	122.8rf	126.2rf	142.5rf	147.9rf	139.4rf	120.3rf	105.5rf	96.0rf	90.4rf	52.6rf	24.4rf	20.4rf	17.3rf	11.9rf	8.9rf	24	87.53
6	10.2rf	13.2rf	20.1rf	32.3rf	34.5rf	43.3rf	35.3rf	39.8rf	49.9rf	50.5rf	49.8rf	58.6rf	55.8rf	57.2rf	57.0rf	60.4rf	68.6rf	64.7rf	61.0rf	62.6rf	56.4rf	45.5rf	44.1rf	41.8rf	24	46.36
7	40.0rf	36.2rf	34.6rf	33.1rf	33.5rf	34.9rf	36.1rf	35.2rf	39.3rf	44.9rf	48.0rf	53.5rf	61.2rf	63.5rf	64.0rf	64.6rf	62.1rf	61.0rf	60.6rf	62.4rf	61.1rf	60.4rf	62.3rf	61.2rf	24	50.57
8	59.2rf	50.4rf	25.2rf	29.3rf	43.7rf	51.5rf	52.7rf	52.5rf	51.7rf	48.8rf	42.3rf	38.8rf	34.0rf	28.0rf	27.3rf	25.9rf	21.0rf	16.9rf	17.5rf	13.6rf	12.5rf	11.1rf	11.0rf	9.7rf	24	32.28
9	12.1IF	13.6IF	10.4IF	11.9IF	14.4IF	15.3IF	15.4IF	16.4IF	16.7IF	16.5IF	16.6IF	17.9IF	20.7IF	19.6IF	19.1IF	19.3IF	19.2IF	19.2IF	19.0IF	17.9IF	18.2IF	17.8IF	20.0IF	18.1IF	24	16.89
10	25.9IF	23.9IF	20.4IF	18.4IF	18.0IF	18.7IF	20.8IF	20.0IF	18.9IF	18.2IF	17.3IF	18.3IF	18.8IF	18.6IF	17.1IF	15.8IF	16.1IF	15.6IF	15.6IF	15.7IF	16.0IF	16.3IF	16.0IF	15.9IF	24	18.18
11	14.9IF	15.0IF	15.9IF	16.1IF	15.7IF	16.8IF	17.7IF	16.7IF	16.9IF	15.9IF	15.2IF	15.4IF	17.2IF	16.6IF	13.6IF	12.3IF	9.9IF	7.2IF	7.4IF	8.1IF	6.3IF	5.5IF	5.9IF	6.1IF	24	12.85
12	6.6	6.9	7.2	7.5	7.7	7.3	AX	7.5	6.7	6.7	6.8	6.3	6.3	6.3	6.6	7.3	7.6	7.6	7.9	8.2	7.5	7.1	6.3	5.8	23	7.03
13	5.2	4.6	4.3	4.4	4.5	4.8	6.0	6.3	6.0	6.1	6.8	7.7	8.6	8.7	8.0	8.4	9.1	9.2	9.5	10.7	11.7	10.1	9.7	10.0	24	7.52
14	8.5IF	7.8IF	9.3IF	5.6IF	5.2IF	6.2IF	6.6IF	6.1IF	6.7IF	6.4IF	5.3IF	5.9IF	6.0IF	5.6IF	7.6IF	13.7IF	29.9IF	73.7IF	66.1IF	42.3IF	23.1IF	16.6IF	22.6IF	17.9IF	24	16.86
15	13.6rf	13.7rf	11.1rf	13.1rf	13.1rf	13.8rf	15.7rf	16.3rf	15.8rf	18.8rf	34.5rf	49.9rf	50.3rf	57.1rf	81.6rf	88.8rf	95.6rf	136.6rf	146.6rf	146.1rf	144.7rf	134.7rf	142.3rf	140.8rf	24	66.44
16	138.1rf	135.0rf	135.4rf	135.5rf	131.6rf	128.0rf	129.2rf	119.3rf	84.2rf	53.2rf	29.6rf	31.8rf	32.5rf	33.0rf	27.5rf	27.7rf	28.0rf	23.6rf	17.7rf	14.4rf	13.5rf	14.7rf	12.3rf	9.6rf	24	62.73
17	7.5IF	6.5IF	6.0IF	5.4IF	5.6IF	4.9IF	4.9IF	5.7IF	9.8IF	21.2IF	31.5IF	34.7IF	38.2IF	32.7IF	25.9IF	26.1IF	24.6IF	21.8IF	20.0IF	18.8IF	27.3IF	34.3IF	32.3IF	31.8IF	24	19.90
18	32.2rf	32.4rf	33.4rf	34.1rf	34.8rf	35.1rf	35.1rf	35.8rf	34.7rf	31.9rf	25.2rf	19.3rf	13.9rf	11.3rf	9.8rf	8.1rf	15.3rf	8.1rf	10.9rf	10.8rf	13.7rf	14.8rf	14.0rf	14.0rf	24	22.03
19	9.8IF	9.5IF	8.4IF	9.2IF	9.2IF	8.3IF	9.7IF	10.2IF	12.2IF	9.2IF	10.7IF	8.4IF	6.8IF	6.5IF	7.2IF	5.6IF	7.5IF	20.7IF	32.7IF	39.0IF	41.9IF	42.1IF	41.4IF	47.6IF	24	17.24
20	50.4rf	52.2rf	51.9rf	50.1rf	44.6rf	42.4rf	39.6rf	33.9rf	30.5rf	30.3rf	43.2rf	48.5rf	51.6rf	53.1rf	46.5rf	45.8rf	48.1rf	48.8rf	48.4rf	52.3rf	53.4rf	55.0rf	53.5rf	43.0rf	24	46.55
21	33.8rf	48.1rf	48.3rf	45.3rf	40.2rf	29.1rf	24.8rf	35.0rf	37.0rf	31.5rf	25.8rf	22.1rf	17.7rf	11.6rf	11.6rf	12.0rf	11.8rf	11.2rf	8.2rf	7.9rf	7.0rf	6.4rf	12.5rf	20.3rf	24	23.30
22	22.1IF	23.2IF	25.4IF	24.7IF	21.9IF	21.0IF	18.5IF	19.4IF	20.4IF	17.5IF	14.9IF	13.7IF	12.7IF	19.4IF	22.2IF	22.4IF	24.1IF	24.4IF	23.3IF	22.5IF	17.7IF	15.4IF	14.5IF	12.3IF	24	19.73
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	21	22	22	22	22	22	22	22	22	22	22	22	22	21	22	22	22	22		
MAX:	138.1	152.3	139.8	135.5	131.6	128.0	129.2	119.3	111.0	122.8	126.2	142.5	147.9	139.4	120.3	105.5	96.0	136.6	146.6	146.1	144.7	134.7	142.3	140.8		
AVG:	29.90	32.38	30.64	28.36	27.95	27.80	28.49	29.91	30.91	30.95	30.73	32.90	33.14	31.97	30.74	30.22	30.80	34.00	32.26	30.45	28.10	26.87	27.66	26.35		

MONTHLY OBSERVATIONS: 526 MONTHLY MEAN: 30.15 MONTHLY MAX: 152.3

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-017-1004 POC: 23
COUNTY: (017) Cass
CITY: (00000) Not in a city
SITE ADDRESS: 4266 40TH AVE NORTH
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (130) METROPOLITAN FARGO-MOORHEAD
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.9337540009
LONGITUDE: -96.85535
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 275
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	20.9rf	21.3rf	9.5rf	8.6rf	8.4rf	10.9rf	8.8rf	AX	BA	BA	10.5rf	12.2rf	38.4rf	48.4rf	46.9rf	41.4rf	41.9rf	43.8rf	39.1rf	31.3rf	26.9rf	31.8rf	27.0rf	22.8rf	21	26.23
17	21.0rf	15.4rf	12.8rf	9.7rf	12.0rf	15.5rf	16.6rf	16.2rf	17.8rf	21.6rf	25.1rf	23.6rf	22.0rf	18.9rf	12.2rf	11.5rf	11.3rf	8.1rf	8.5rf	39.5rf	162.0rf	198.8rf	218.2rf	225.0rf	24	47.64
18	206.9rf	183.0rf	211.1rf	173.9rf	174.3rf	172.8rf	181.4rf	217.4rf	105.6rf	63.2rf	70.9rf	97.8rf	95.6rf	81.9rf	60.3rf	5.7rf	2.8rf	2.4rf	2.4rf	1.8rf	1.8rf	1.7rf	1.4rf	1.6rf	24	88.24
19	1.8	1.7	1.5	1.1	1.1	1.7	1.9	2.6	3.2	2.3	2.3	2.6	3.1	3.6	4.7	5.2	6.4	3.8	3.9	4.0	4.9	6.4	12.4	17.6	24	4.16
20	12.8IF	10.6IF	11.2IF	9.8IF	8.8IF	7.6IF	6.9IF	6.3IF	5.4IF	5.0IF	4.8IF	6.1IF	6.7IF	8.1IF	9.5IF	10.9IF	10.9IF	9.1IF	9.0IF	10.2IF	9.9IF	13.1IF	18.0IF	19.7IF	24	9.60
21	19.3IF	23.7IF	24.7IF	25.7IF	26.0IF	23.5IF	21.0IF	16.8IF	12.9IF	11.3IF	9.9IF	8.8IF	10.0IF	10.2IF	10.1IF	10.0IF	10.4IF	10.8IF	11.3IF	11.0IF	11.7IF	9.6IF	10.3IF	10.1IF	24	14.55
22	11.5IF	13.4IF	13.4IF	14.4IF	17.6IF	16.6IF	17.3IF	19.2IF	19.8IF	20.0IF	22.0IF	25.4IF	21.6IF	23.8IF	25.8IF	24.6IF	23.2IF	23.0IF	23.4IF	23.6IF	22.6IF	20.9IF	18.8IF	17.7IF	24	19.98
23	21.8rf	18.2rf	16.2rf	16.4rf	17.2rf	17.6rf	18.3rf	19.1rf	21.3rf	19.9rf	18.6rf	17.4rf	21.0rf	24.7rf	28.6rf	28.5rf	30.9rf	36.1rf	31.4rf	29.9rf	29.4rf	24.9rf	22.3rf	17.8rf	24	22.81
24	19.7IF	16.6IF	14.8IF	16.8IF	18.3IF	16.4IF	13.5IF	12.9IF	14.4IF	13.8IF	12.2IF	11.1IF	10.8IF	11.2IF	9.6IF	9.1IF	9.0IF	9.3IF	8.1IF	15.4IF	7.2IF	7.4IF	6.7IF	5.9IF	24	12.09
25	5.6IF	5.1IF	5.4IF	5.8IF	6.3IF	6.3IF	6.6IF	8.0IF	10.4IF	12.1IF	12.3IF	12.7IF	13.3IF	13.3IF	14.2IF	14.4IF	14.5IF	14.3IF	13.2IF	13.6IF	13.2IF	12.9IF	13.3IF	12.9IF	24	10.82
26	13.0IF	11.7IF	11.9IF	11.7IF	11.2IF	10.9IF	11.3IF	11.7IF	12.5IF	13.0IF	14.0IF	12.9IF	13.3IF	12.9IF	13.4IF	13.8IF	13.2IF	13.1IF	12.6IF	12.5IF	12.2IF	14.2IF	10.4IF	9.0IF	24	12.35
27	8.3	7.6	7.2	7.2	7.3	7.2	6.9	6.2	6.1	7.2	7.8	8.1	8.2	8.5	8.8	8.2	7.8	7.2	6.6	5.7	6.1	6.9	7.4	6.7	24	7.30
28	7.1	6.7	6.3	6.4	6.3	6.1	6.1	6.3	6.5	6.3	5.7	5.3	5.5	5.4	5.8	5.9	6.6	6.8	5.9	6.5	6.8	6.7	7.1	7.4	24	6.31
29	7.2IF	6.3IF	6.0IF	6.3IF	6.4IF	6.7IF	6.8IF	8.8IF	10.9IF	12.5IF	13.0IF	15.0IF	13.9IF	9.6IF	5.9IF	4.3IF	4.5IF	5.0IF	5.3IF	6.7IF	11.0IF	12.0IF	13.2IF	8.5IF	24	8.58
30	8.5IF	10.1IF	10.7IF	9.7IF	10.2IF	9.9IF	10.4IF	11.8IF	11.1IF	7.9IF	7.0IF	7.7IF	7.3IF	5.6IF	3.8IF	3.8IF	4.5IF	5.6IF	5.4IF	6.1IF	9.7IF	15.5IF	18.3IF	24.8IF	24	9.39
31	18.7IF	13.2IF	11.6IF	11.8IF	16.8IF	24.0IF	25.7IF	26.9IF	22.7IF	AX	10.0IF	.4IF	7.6IF	5.7IF	5.9IF	7.8IF	7.5IF	7.0IF	4.5IF	6.1IF	7.0IF	7.9IF	6.6IF	6.8IF	23	11.40
NO.:	16	16	16	16	16	16	16	15	15	14	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	206.9	183.0	211.1	173.9	174.3	172.8	181.4	217.4	105.6	63.2	70.9	97.8	95.6	81.9	60.3	41.4	41.9	43.8	39.1	39.5	162.0	198.8	218.2	225.0		
AVG:	25.26	22.79	23.39	20.96	21.76	22.11	22.47	26.01	18.71	15.44	15.38	16.69	18.64	18.24	16.59	12.82	12.84	12.84	11.91	13.99	21.40	24.42	25.71	25.89		

MONTHLY OBSERVATIONS: 380 MONTHLY MEAN: 19.43 MONTHLY MAX: 225.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-017-1004 POC: 23
COUNTY: (017) Cass
CITY: (00000) Not in a city
SITE ADDRESS: 4266 40TH AVE NORTH
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (130) METROPOLITAN FARGO-MOORHEAD
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.9337540009
LONGITUDE: -96.85535
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 275
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	5.4	5.2	5.1	5.5	5.6	6.0	7.4	10.0	9.7	8.5	8.1	7.4	5.8	5.3	5.2	6.6	5.6	4.9	5.8	5.8	6.0	6.1	7.4	8.5	24	6.54
2	9.8IF	9.4IF	9.3IF	9.8IF	10.6IF	10.0IF	9.6IF	9.7IF	10.2IF	10.7IF	10.8IF	9.4IF	9.3IF	9.0IF	7.7IF	6.7IF	7.5IF	7.8IF	7.0IF	8.1IF	9.3IF	6.9IF	11.0IF	11.8IF	24	9.23
3	10.9IF	11.6IF	12.1IF	13.4IF	13.9IF	14.6IF	13.7IF	12.7IF	12.7IF	12.5IF	11.8IF	11.3IF	12.1IF	12.1IF	11.6IF	11.0IF	11.2IF	10.3IF	10.5IF	10.1IF	12.2IF	15.1IF	15.8IF	14.9IF	24	12.42
4	14.8IF	13.8IF	13.0IF	14.4IF	15.5IF	15.8IF	15.0IF	15.1IF	15.2IF	13.4IF	13.0IF	12.4IF	12.3IF	10.8IF	10.5IF	10.9IF	10.7IF	10.0IF	7.5IF	8.0IF	7.2IF	9.6IF	8.1IF	7.3IF	24	11.85
5	7.6IF	7.4IF	8.3IF	8.6IF	8.1IF	7.3IF	9.2IF	12.0IF	11.2IF	12.9IF	14.2IF	16.0IF	18.4IF	17.3IF	17.2IF	16.5IF	15.4IF	11.4IF	11.8IF	11.9IF	11.8IF	12.5IF	14.3IF	16.7IF	24	12.42
6	17.8rf	18.1rf	20.7rf	23.8rf	25.0rf	25.2rf	23.0rf	25.9rf	28.5rf	27.9rf	25.1rf	21.6rf	19.8rf	18.9rf	17.7rf	17.9rf	16.6rf	15.1rf	13.9rf	14.2rf	15.4rf	20.4rf	20.6rf	20.1rf	24	20.55
7	20.6IF	21.1IF	21.3IF	19.6IF	24.1IF	23.7IF	21.9IF	22.1IF	20.3IF	18.1IF	17.1IF	16.3IF	14.9IF	14.1IF	14.5IF	15.9IF	19.7IF	21.7IF	20.4IF	17.6IF	16.8IF	16.6IF	15.3IF	14.6IF	24	18.68
8	13.2IF	12.5IF	12.1IF	11.2IF	9.8IF	8.8IF	9.0IF	10.4IF	12.0IF	13.1IF	13.2IF	13.2IF	13.2IF	13.2IF	13.4IF	13.6IF	13.1IF	13.4IF	11.9IF	11.7IF	13.6IF	14.5IF	14.8IF	14.5IF	24	12.48
9	14.3IF	14.6IF	15.8IF	14.5IF	14.9IF	15.7IF	17.1IF	18.6IF	19.3IF	19.6IF	16.1IF	13.1IF	12.2IF	11.8IF	11.2IF	10.8IF	9.9IF	8.6IF	8.6IF	9.5IF	9.9IF	11.4IF	12.1IF	11.8IF	24	13.39
10	11.9IF	14.3IF	14.9IF	15.1IF	15.5IF	16.5IF	17.2IF	22.0IF	23.7IF	23.5IF	22.7IF	22.5IF	20.0IF	20.1IF	20.6IF	20.5IF	20.3IF	20.2IF	18.6IF	15.7IF	11.0IF	7.2IF	6.4IF	5.9IF	24	16.93
11	5.2IF	5.7IF	6.1IF	6.4IF	6.6IF	6.6IF	7.2IF	8.5IF	8.6IF	6.1IF	5.9IF	5.7IF	6.5IF	6.3IF	6.5IF	7.9IF	10.8IF	10.0IF	10.1IF	9.5IF	10.0IF	10.9IF	10.7IF	13.3IF	24	7.96
12	21.8IF	15.8IF	14.8IF	15.7IF	16.6IF	18.7IF	17.9IF	12.7IF	9.2IF	7.3IF	9.8IF	9.1IF	8.0IF	7.8IF	7.9IF	8.4IF	7.9IF	7.1IF	8.3IF	7.8IF	12.3IF	14.1IF	13.9IF	13.7IF	24	11.94
13	10.0IF	9.7IF	11.4IF	12.6IF	14.4IF	16.0IF	19.4IF	16.3IF	13.8IF	13.1IF	9.8IF	9.0IF	9.6IF	10.0IF	9.6IF	11.3IF	12.1IF	14.0IF	16.7IF	19.1IF	23.5IF	27.4IF	25.5IF	24.2IF	24	14.94
14	30.6rf	28.8rf	29.2rf	33.3rf	34.6rf	43.0rf	AZ	AX	AQ	AQ	AQ	AQ	132.4rf	136.1rf	118.6rf	114.5rf	99.9rf	92.9rf	87.2rf	86.8rf	83.4rf	73.0rf	41.7rf	21.9rf	18	71.55
15	15.9rf	16.1rf	18.2rf	16.6rf	15.6rf	16.6rf	17.7rf	19.4rf	22.9rf	27.1rf	28.1rf	26.8rf	26.9rf	27.4rf	28.7rf	27.6rf	25.3rf	23.6rf	26.1rf	26.8rf	23.4rf	23.7rf	25.0rf	25.8rf	24	22.97
16	25.9rf	23.3rf	21.6rf	20.0rf	17.4rf	15.1rf	15.4rf	15.8rf	16.2rf	16.3rf	16.2rf	18.2rf	19.3rf	20.6rf	21.8rf	20.9rf	21.3rf	22.0rf	21.9rf	22.1rf	22.6rf	23.2rf	24.0rf	25.3rf	24	20.27
17	23.3rf	24.5rf	24.5rf	23.1rf	22.8rf	23.4rf	24.5rf	25.8rf	24.4rf	25.1rf	26.8rf	25.9rf	27.1rf	24.4rf	23.8rf	22.3rf	23.6rf	22.2rf	21.4rf	17.0rf	17.0rf	19.2rf	18.8rf	17.5rf	24	22.85
18	21.2rf	23.2rf	23.3rf	25.2rf	26.4rf	25.3rf	24.6rf	25.0rf	26.1rf	24.3rf	25.4rf	24.4rf	24.0rf	22.9rf	21.8rf	20.8rf	20.3rf	17.5rf	11.6rf	12.8rf	13.3rf	14.4rf	16.6rf	19.6rf	24	21.25
19	17.2IF	12.7IF	11.1IF	10.8IF	11.3IF	12.3IF	11.4IF	12.7IF	13.8IF	14.2IF	13.4IF	13.4IF	13.5IF	12.1IF	10.3IF	9.1IF	9.0IF	11.3IF	12.7IF	12.9IF	12.5IF	12.0IF	11.0IF	10.7IF	24	12.14
20	11.1IF	10.9IF	10.8IF	11.0IF	10.7IF	10.9IF	11.4IF	11.2IF	10.9IF	11.2IF	10.7IF	10.6IF	10.9IF	10.7IF	10.8IF	9.7IF	9.7IF	11.1IF	11.6IF	13.5IF	15.4IF	17.2IF	18.2IF	17.8IF	24	12.00
21	17.1IF	17.2IF	17.8IF	18.1IF	18.1IF	19.1IF	19.0IF	20.1IF	21.1IF	20.0IF	18.0IF	16.4IF	15.8IF	11.5IF	8.9IF	7.0IF	9.4IF	6.4IF	11.0IF	11.4IF	7.8IF	6.1IF	6.2IF	6.0IF	24	13.73
22	5.6IF	7.1IF	8.5IF	14.0IF	20.6IF	21.9IF	22.5IF	22.6IF	12.9IF	4.8IF	4.0IF	3.3IF	3.4IF	3.9IF	4.1IF	4.1IF	3.8IF	3.7IF	4.4IF	4.8IF	4.3IF	4.7IF	6.5IF	8.1IF	24	8.48
23	6.6IF	4.9IF	4.3IF	4.5IF	4.6IF	4.5IF	5.1IF	5.0IF	5.0IF	5.0IF	4.8IF	5.3IF	5.4IF	5.1IF	4.1IF	3.7IF	3.4IF	4.5IF	5.5IF	5.9IF	4.6IF	5.0IF	5.3IF	5.8IF	24	4.91
24	6.5	7.6	8.4	8.8	10.0	10.6	10.0	8.3	8.3	8.6	8.0	9.2	10.7	7.9	2.6	2.7	1.9	2.0	2.2	2.5	2.6	3.5	3.9	3.2	24	6.25
25	3.1IF	2.8IF	3.6IF	25.8IF	28.5IF	24.5IF	18.1IF	16.6IF	15.9IF	9.2IF	10.0IF	11.4IF	13.1IF	11.8IF	19.6IF	21.5IF	25.2IF	29.4IF	23.2IF	20.0IF	17.3IF	17.9IF	19.9IF	23.9IF	24	17.18
26	26.6IF	27.6IF	24.2IF	23.2IF	25.0IF	25.0IF	23.9IF	25.0IF	26.6IF	AX	12.7IF	4.2IF	20.4IF	16.0IF	14.0IF	12.9IF	12.5IF	13.3IF	12.9IF	12.9IF	13.5IF	14.6IF	14.5IF	17.2IF	23	18.20
27	15.3rf	14.0rf	13.8rf	13.9rf	14.5rf	15.2rf	18.5rf	22.0rf	25.9rf	30.8rf	36.2rf	35.6rf	37.0rf	39.3rf	40.7rf	40.9rf	39.9rf	42.3rf	44.2rf	43.1rf	40.3rf	34.5rf	34.5rf	34.7rf	24	30.30
28	29.7IF	21.8IF	21.8IF	20.1IF	19.5IF	18.8IF	19.8IF	20.1IF	17.5IF	18.3IF	16.0IF	19.5IF	21.7IF	19.8IF	19.4IF	18.2IF	15.6IF	14.3IF	12.7IF	12.0IF	14.8IF	20.6IF	20.8IF	14.8IF	24	18.65
29	13.2IF	10.2IF	7.9IF	7.9IF	8.5IF	8.3IF	8.0IF	10.2IF	10.8IF	11.4IF	13.1IF	11.0IF	11.0IF	15.4IF	22.8IF	16.1IF	14.5IF	13.2IF	13.1IF	13.1IF	15.0IF	15.5IF	15.8IF	13.9IF	24	12.50
30	13.2rf	12.3rf	12.6rf	14.3rf	16.9rf	19.2rf	19.5rf	24.7rf	23.6rf	22.8rf	21.5rf	18.5rf	15.3rf	13.4rf	11.7rf	17.6rf	21.5rf	24.2rf	28.1rf	30.3rf	29.9rf	30.7rf	33.5rf	34.9rf	24	21.26
31																									0	
NO.:	30	30	30	30	30	30	29	29	29	28	29	29	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	30.6	28.8	29.2	33.3	34.6	43.0	24.6	25.9	28.5	30.8	36.2	35.6	132.4	136.1	118.6	114.5	99.9	92.9	87.2	86.8	83.4	73.0	41.7	34.9		
AVG:	14.85	14.14	14.22	15.37	16.19	16.62	15.76	16.57	16.42	15.56	15.26	14.51	19.00	18.50	17.91	17.59	17.25	16.95	16.70	16.56	16.56	16.95	16.40	15.95		

MONTHLY OBSERVATIONS: 713 MONTHLY MEAN: 16.33 MONTHLY MAX: 136.1

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-017-1004 POC: 23
COUNTY: (017) Cass
CITY: (00000) Not in a city
SITE ADDRESS: 4266 40TH AVE NORTH
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (130) METROPOLITAN FARGO-MOORHEAD
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.9337540009
LONGITUDE: -96.85535
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 275
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	38.5rf	39.0rf	39.5rf	41.6rf	39.1rf	37.2rf	34.7rf	30.2rf	27.7rf	26.5rf	24.6rf	22.8rf	20.2rf	18.2rf	19.1rf	20.1rf	20.1rf	19.7rf	20.0rf	20.7rf	21.9rf	24.1rf	25.2rf	23.6rf	24	27.26
2	22.7	22.2	21.5	20.2	19.0	18.2	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	6	20.63
3	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
4	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
5	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
6	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
7	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
8	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	BA	3.1	3.2	3.4	4.1	4.9	5.2	5.9	7.2	8.4	9.1	8.4	7.6	7.3	13	5.98
9	7.4IF	7.4IF	7.5IF	7.2IF	6.7IF	6.6IF	6.3IF	6.3IF	6.9IF	7.6IF	8.6IF	9.1IF	10.6IF	12.1IF	12.8IF	13.3IF	15.8IF	14.8IF	13.8IF	13.8IF	11.9IF	10.3IF	10.1IF	10.7IF	24	9.90
10	13.0IF	23.6IF	26.1IF	25.8IF	25.5IF	23.8IF	19.1IF	12.1IF	5.9IF	4.6IF	4.2IF	4.1IF	5.6IF	5.6IF	7.4IF	8.1IF	6.1IF	5.6IF	4.4IF	3.0IF	3.2IF	3.4IF	3.1IF	2.8IF	24	10.25
11	3.3	3.0	3.5	2.6	6.7	3.7	7.8	3.4	3.6	5.2	3.7	4.3	4.9	4.8	5.0	5.5	4.6	4.3	4.2	4.1	4.1	4.1	5.3	4.6	24	4.43
12	4.4	4.3	4.4	4.4	5.0	5.4	5.5	6.7	5.9	7.0	7.2	6.3	5.3	4.5	4.6	5.0	4.9	4.4	5.0	5.7	5.4	5.9	7.5	7.0	24	5.49
13	7.2IF	8.2IF	6.8IF	6.2IF	6.3IF	6.7IF	5.9IF	6.7IF	AX	AX	7.4IF	7.0IF	6.8IF	6.6IF	6.9IF	13.0IF	14.8IF	12.0IF	10.1IF	9.1IF	9.6IF	12.0IF	11.4IF	13.5IF	22	8.83
14	16.1rf	17.5rf	16.1rf	15.4rf	20.7rf	17.6rf	18.8rf	20.7rf	24.2rf	27.5rf	34.8rf	51.1rf	47.5rf	40.1rf	35.1rf	41.7rf	48.1rf	41.8rf	35.4rf	39.3rf	47.9rf	52.9rf	74.5rf	87.1rf	24	36.33
15	88.5rf	86.1rf	79.6rf	72.6rf	70.6rf	59.6rf	41.9rf	23.4rf	11.3rf	7.7rf	5.5rf	6.7rf	8.5rf	6.8rf	6.4rf	6.1rf	6.2rf	5.3rf	5.0rf	5.6rf	5.7rf	6.2rf	6.7rf	6.7rf	24	26.20
16	7.1	7.8	7.6	11.2	29.6	35.6	17.6	4.1	3.4	2.0	1.7	1.5	1.4	1.4	1.5	2.3	3.3	4.3	6.0	5.4	6.1	4.9	4.4	5.2	24	7.31
17	5.8IF	6.3IF	6.4IF	6.2IF	6.5IF	7.4IF	9.1IF	9.7IF	10.7IF	12.9IF	14.5IF	12.9IF	13.2IF	12.8IF	15.5IF	14.7IF	14.5IF	17.3IF	26.9IF	33.2IF	34.4IF	35.0IF	35.8IF	34.5IF	24	16.51
18	36.0IF	33.5IF	33.0IF	34.1IF	33.8IF	33.6IF	21.5IF	15.7IF	14.4IF	14.9IF	17.7IF	15.9IF	10.9IF	11.4IF	11.4IF	11.7IF	12.5IF	12.2IF	12.3IF	11.7IF	11.9IF	11.8IF	8.8IF	8.0IF	24	18.28
19	8.2IF	7.3IF	7.2IF	6.4IF	5.9IF	6.9IF	7.9IF	11.6IF	10.4IF	10.0IF	11.3IF	14.9IF	13.5IF	10.0IF	10.3IF	11.4IF	10.7IF	7.4IF	7.0IF	4.7IF	4.6IF	4.9IF	4.5IF	5.6IF	24	8.44
20	8.6IF	10.8IF	12.6IF	14.7IF	15.7IF	15.3IF	14.3IF	13.0IF	11.5IF	11.9IF	12.9IF	12.5IF	11.9IF	12.6IF	13.2IF	13.6IF	14.4IF	14.9IF	14.1IF	13.4IF	14.0IF	22.4IF	19.8IF	17.9IF	24	14.00
21	15.5IF	14.5IF	16.1IF	14.9IF	13.2IF	13.8IF	15.2IF	14.6IF	15.0IF	16.4IF	14.5IF	13.0IF	14.5IF	15.5IF	16.7IF	17.7IF	17.3IF	13.4IF	14.0IF	16.4IF	17.6IF	18.2IF	17.1IF	16.0IF	24	15.46
22	15.4IF	15.9IF	15.5IF	15.8IF	15.4IF	16.0IF	15.8IF	16.1IF	18.0IF	18.9IF	20.7IF	21.3IF	17.8IF	12.8IF	14.7IF	20.7IF	25.2IF	21.3IF	16.1IF	19.2IF	21.7IF	25.3IF	21.3IF	20.2IF	24	18.38
23	21.5rf	21.9rf	23.5rf	21.8rf	21.4rf	21.1rf	19.0rf	19.0rf	21.0rf	24.5rf	25.2rf	27.3rf	28.2rf	27.6rf	27.6rf	24.9rf	24.6rf	23.6rf	28.8rf	35.6rf	38.2rf	42.0rf	45.5rf	46.6rf	24	27.52
24	46.0rf	45.4rf	44.2rf	43.3rf	43.6rf	42.1rf	41.3rf	40.4rf	41.9rf	39.4rf	33.7rf	30.6rf	27.5rf	27.7rf	26.4rf	25.7rf	25.9rf	25.6rf	25.6rf	26.0rf	26.9rf	26.8rf	27.1rf	27.9rf	24	33.79
25	28.3IF	25.8IF	25.0IF	25.6IF	23.2IF	23.7IF	27.5IF	26.5IF	23.5IF	18.3IF	15.5IF	14.3IF	13.1IF	11.8IF	11.0IF	11.2IF	10.5IF	10.4IF	11.5IF	12.0IF	11.0IF	6.8IF	5.4IF	6.5IF	24	16.60
26	5.5	3.7	4.3	4.8	4.8	4.7	3.6	AX	BA	5.8	6.4	7.2	7.4	7.8	8.3	7.9	8.3	8.9	9.4	9.1	9.6	9.2	8.6	8.2	22	6.98
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	20	20	20	20	20	20	19	18	17	18	19	20	20	20	20	20	20	20	20	20	20	20	20	20		
MAX:	88.5	86.1	79.6	72.6	70.6	59.6	41.9	40.4	41.9	39.4	34.8	51.1	47.5	40.1	35.1	41.7	48.1	41.8	35.4	39.3	47.9	52.9	74.5	87.1		
AVG:	19.95	20.21	20.02	19.74	20.64	19.95	17.52	15.57	15.02	14.51	14.22	14.30	13.60	12.68	12.90	13.98	14.65	13.66	13.84	14.82	15.74	16.73	17.49	18.00		

MONTHLY OBSERVATIONS: 471 MONTHLY MEAN: 16.26 MONTHLY MAX: 88.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-017-1004 POC: 3
COUNTY: (017) Cass
CITY: (00000) Not in a city
SITE ADDRESS: 4266 40TH AVE NORTH
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (130) METROPOLITAN FARGO-MOORHEAD
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.9337540009
LONGITUDE: -96.85535
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 275
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	22.8IF	23.2IF	11.4IF	10.5IF	10.3IF	12.8IF	10.7IF	AX	BA	BA	11.4IF	13.1IF	39.3IF	49.3IF	47.8IF	42.3IF	42.8IF	44.7IF	40.0IF	32.2IF	27.8IF	33.7IF	28.9IF	24.7IF	21	27.60
17	22.9IF	17.3IF	14.7IF	11.6IF	13.9IF	17.4IF	18.5IF	18.1IF	19.7IF	23.5IF	26.0IF	24.5IF	22.9IF	19.8IF	13.1IF	12.4IF	12.2IF	9.0IF	9.4IF	41.4IF	163.9IF	200.7IF	220.1IF	226.9IF	24	49.16
18	208.8IF	184.9IF	213.0IF	175.8IF	176.2IF	174.7IF	183.3IF	219.3IF	107.5IF	65.1IF	72.8IF	99.7IF	97.5IF	83.8IF	62.2IF	7.0IF	3.5IF	3.0IF	2.9IF	2.2IF	2.2IF	2.1IF	1.7IF	2.0IF	24	89.63
19	2.2	2.1	1.8	1.4	1.4	2.1	2.3	3.2	3.9	2.8	2.8	3.2	3.8	4.4	5.8	6.4	7.9	4.7	4.8	4.9	6.0	7.9	14.3	19.5	24	4.98
20	14.7IF	12.5IF	13.1IF	11.7IF	10.7IF	9.4IF	8.5IF	7.8IF	6.7IF	6.2IF	5.9IF	7.5IF	8.2IF	9.0IF	10.4IF	11.8IF	11.8IF	10.0IF	9.9IF	11.1IF	10.8IF	15.0IF	19.9IF	21.6IF	24	11.01
21	21.2IF	25.6IF	26.6IF	27.6IF	27.9IF	25.4IF	22.9IF	18.7IF	14.8IF	12.2IF	10.8IF	9.7IF	10.9IF	11.1IF	11.0IF	10.9IF	11.3IF	11.7IF	12.2IF	11.9IF	12.6IF	10.5IF	11.2IF	12.0IF	24	15.86
22	13.4IF	15.3IF	15.3IF	16.3IF	19.5IF	18.5IF	19.2IF	21.1IF	21.7IF	20.9IF	22.9IF	26.3IF	22.5IF	24.7IF	26.7IF	25.5IF	24.1IF	23.9IF	24.3IF	24.5IF	23.5IF	21.8IF	19.7IF	18.6IF	24	21.26
23	22.7IF	19.1IF	18.1IF	18.3IF	19.1IF	19.5IF	20.2IF	21.0IF	22.2IF	20.8IF	19.5IF	18.3IF	21.9IF	25.6IF	29.5IF	29.4IF	31.8IF	37.0IF	32.3IF	30.8IF	30.3IF	25.8IF	24.2IF	19.7IF	24	24.05
24	21.6IF	18.5IF	16.7IF	18.7IF	20.2IF	18.3IF	15.4IF	14.8IF	16.3IF	15.7IF	14.1IF	13.0IF	12.7IF	13.1IF	11.5IF	11.0IF	10.9IF	11.2IF	9.9IF	17.3IF	8.9IF	9.1IF	8.3IF	7.3IF	24	13.94
25	6.9IF	6.3IF	6.7IF	7.1IF	7.7IF	7.7IF	8.1IF	9.8IF	12.3IF	13.0IF	13.2IF	13.6IF	14.2IF	14.2IF	15.1IF	15.3IF	15.4IF	15.2IF	14.1IF	14.5IF	14.1IF	13.8IF	14.2IF	13.8IF	24	11.93
26	13.9IF	13.6IF	13.8IF	13.6IF	13.1IF	12.8IF	13.2IF	13.6IF	13.4IF	13.9IF	14.9IF	13.8IF	14.2IF	13.8IF	14.3IF	14.7IF	14.1IF	14.0IF	13.5IF	13.4IF	13.1IF	15.1IF	11.3IF	10.9IF	24	13.58
27	10.2	9.4	8.9	8.9	9.0	8.8	8.5	7.6	7.0	8.1	8.7	9.0	9.1	9.4	9.7	9.1	8.7	8.1	7.5	6.6	7.0	7.8	8.3	8.2	24	8.48
28	8.7	8.3	7.7	7.9	7.8	7.5	7.5	7.7	7.4	7.2	6.6	6.2	6.4	6.3	6.7	6.8	7.5	7.7	6.8	7.4	7.7	7.6	8.0	8.3	24	7.40
29	8.1IF	7.8IF	7.4IF	7.7IF	7.9IF	8.2IF	8.4IF	9.7IF	11.8IF	13.4IF	13.9IF	15.9IF	14.8IF	10.5IF	6.8IF	5.2IF	5.4IF	5.9IF	6.2IF	7.6IF	11.9IF	12.9IF	14.1IF	10.4IF	24	9.66
30	10.4IF	12.0IF	12.6IF	11.6IF	12.1IF	11.8IF	12.3IF	12.7IF	12.0IF	8.8IF	7.9IF	8.6IF	8.2IF	6.5IF	4.7IF	4.7IF	5.4IF	6.5IF	6.3IF	7.0IF	10.6IF	16.4IF	19.2IF	25.7IF	24	10.58
31	20.6IF	15.1IF	13.5IF	13.7IF	18.7IF	25.9IF	27.6IF	27.8IF	23.6IF	AX	10.9IF	.5IF	8.5IF	6.6IF	6.8IF	8.7IF	8.4IF	7.9IF	5.4IF	7.0IF	7.9IF	8.8IF	7.5IF	7.7IF	23	12.57
NO.:	16	16	16	16	16	16	16	15	15	14	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	208.8	184.9	213.0	175.8	176.2	174.7	183.3	219.3	107.5	65.1	72.8	99.7	97.5	83.8	62.2	42.3	42.8	44.7	40.0	41.4	163.9	200.7	220.1	226.9		
AVG:	26.82	24.44	25.08	22.65	23.47	23.80	24.16	27.53	20.02	16.54	16.39	17.68	19.69	19.26	17.63	13.83	13.83	13.78	12.84	14.99	22.39	25.56	26.93	27.33		

MONTHLY OBSERVATIONS: 380 MONTHLY MEAN: 20.70 MONTHLY MAX: 226.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-017-1004 POC: 3
COUNTY: (017) Cass
CITY: (00000) Not in a city
SITE ADDRESS: 4266 40TH AVE NORTH
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (130) METROPOLITAN FARGO-MOORHEAD
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.9337540009
LONGITUDE: -96.85535
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 275
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	6.7	6.4	6.3	6.8	6.9	7.4	9.1	10.9	10.6	9.4	9.0	8.3	6.7	6.2	6.1	7.5	6.5	5.8	6.7	6.7	6.9	7.0	8.3	9.4	24	7.57
2	10.7IF	10.3IF	10.2IF	10.7IF	11.5IF	10.9IF	10.5IF	10.6IF	11.1IF	11.6IF	11.7IF	10.3IF	10.2IF	9.9IF	8.6IF	7.6IF	8.4IF	8.7IF	7.9IF	9.0IF	10.2IF	7.8IF	11.9IF	12.7IF	24	10.13
3	11.8IF	12.5IF	13.0IF	14.3IF	14.8IF	15.5IF	14.6IF	13.6IF	13.6IF	13.4IF	12.7IF	12.2IF	13.0IF	13.0IF	12.5IF	11.9IF	12.1IF	11.2IF	11.4IF	11.0IF	13.1IF	16.0IF	16.7IF	15.8IF	24	13.32
4	15.7IF	14.7IF	13.9IF	15.3IF	16.4IF	16.7IF	15.9IF	16.0IF	16.1IF	14.3IF	13.9IF	13.3IF	13.2IF	11.7IF	11.4IF	11.8IF	11.6IF	10.9IF	8.4IF	8.9IF	8.1IF	10.5IF	9.0IF	8.2IF	24	12.75
5	8.5IF	8.3IF	9.2IF	10.5IF	9.9IF	9.0IF	10.1IF	12.9IF	12.1IF	13.8IF	15.1IF	16.9IF	19.3IF	18.2IF	18.1IF	17.4IF	16.3IF	12.3IF	12.7IF	12.8IF	12.7IF	13.4IF	15.2IF	17.6IF	24	13.43
6	18.7IF	19.0IF	21.6IF	24.7IF	25.9IF	26.1IF	23.9IF	26.8IF	29.4IF	28.8IF	26.0IF	22.5IF	20.7IF	19.8IF	18.6IF	18.8IF	17.5IF	16.0IF	14.8IF	15.1IF	16.3IF	21.3IF	21.5IF	21.0IF	24	21.45
7	21.5IF	22.0IF	22.2IF	20.5IF	26.0IF	25.6IF	23.8IF	23.0IF	21.2IF	19.0IF	18.0IF	17.2IF	15.8IF	15.0IF	15.4IF	16.8IF	20.6IF	22.6IF	21.3IF	18.5IF	17.7IF	17.5IF	17.2IF	16.5IF	24	19.79
8	15.1IF	14.4IF	14.0IF	13.1IF	11.7IF	10.7IF	10.9IF	12.3IF	13.9IF	14.0IF	14.1IF	14.1IF	14.1IF	14.1IF	14.3IF	14.5IF	14.0IF	14.3IF	12.8IF	12.6IF	14.5IF	15.4IF	15.7IF	15.4IF	24	13.75
9	15.2IF	15.5IF	16.7IF	16.4IF	16.8IF	17.6IF	18.0IF	19.5IF	20.2IF	20.5IF	17.0IF	14.0IF	13.1IF	12.7IF	12.1IF	11.7IF	10.8IF	9.5IF	9.5IF	10.4IF	10.8IF	12.3IF	13.0IF	13.7IF	24	14.46
10	13.8IF	16.2IF	16.8IF	17.0IF	17.4IF	18.4IF	19.1IF	23.9IF	25.6IF	25.4IF	24.6IF	23.4IF	20.9IF	21.0IF	21.5IF	21.4IF	21.2IF	21.1IF	19.5IF	17.6IF	12.9IF	8.9IF	7.9IF	7.2IF	24	18.45
11	6.4IF	7.0IF	7.5IF	7.9IF	8.1IF	8.1IF	8.9IF	10.4IF	10.5IF	7.5IF	7.2IF	7.0IF	7.4IF	7.2IF	7.4IF	8.8IF	11.7IF	10.9IF	11.0IF	10.4IF	10.9IF	12.8IF	12.6IF	15.2IF	24	9.28
12	23.7IF	17.7IF	16.7IF	17.6IF	18.5IF	20.6IF	19.8IF	14.6IF	10.1IF	8.2IF	10.7IF	10.0IF	8.9IF	8.7IF	8.8IF	9.3IF	8.8IF	8.0IF	9.2IF	8.7IF	13.2IF	15.0IF	14.8IF	15.6IF	24	13.22
13	11.9IF	11.6IF	13.3IF	14.5IF	16.3IF	17.9IF	21.3IF	18.2IF	14.7IF	14.0IF	10.7IF	9.9IF	10.5IF	10.9IF	10.5IF	12.2IF	13.0IF	14.9IF	17.6IF	20.0IF	24.4IF	28.3IF	26.4IF	25.1IF	24	16.17
14	31.5IF	30.7IF	31.1IF	35.2IF	36.5IF	44.9IF	AZ	AX	AQ	AQ	AQ	AQ	133.3IF	137.0IF	119.5IF	115.4IF	100.8IF	93.8IF	88.1IF	87.7IF	84.3IF	73.9IF	43.6IF	23.8IF	18	72.84
15	17.8IF	18.0IF	20.1IF	18.5IF	17.5IF	18.5IF	19.6IF	21.3IF	24.8IF	29.0IF	29.0IF	27.7IF	27.8IF	28.3IF	29.6IF	28.5IF	26.2IF	24.5IF	27.0IF	27.7IF	25.3IF	25.6IF	26.9IF	27.7IF	24	24.45
16	27.8IF	25.2IF	23.5IF	21.9IF	19.3IF	17.0IF	17.3IF	17.7IF	18.1IF	18.2IF	18.1IF	19.1IF	20.2IF	21.5IF	22.7IF	21.8IF	22.2IF	22.9IF	22.8IF	23.0IF	23.5IF	24.1IF	24.9IF	26.2IF	24	21.63
17	25.2IF	26.4IF	26.4IF	25.0IF	24.7IF	25.3IF	26.4IF	26.7IF	25.3IF	26.0IF	27.7IF	26.8IF	28.0IF	25.3IF	24.7IF	23.2IF	24.5IF	23.1IF	22.3IF	17.9IF	17.9IF	20.1IF	20.7IF	19.4IF	24	24.13
18	23.1IF	25.1IF	25.2IF	27.1IF	28.3IF	27.2IF	26.5IF	26.9IF	27.0IF	25.2IF	26.3IF	25.3IF	24.9IF	23.8IF	22.7IF	21.7IF	21.2IF	18.4IF	12.5IF	13.7IF	14.2IF	15.3IF	17.5IF	20.5IF	24	22.48
19	18.1IF	14.6IF	13.0IF	12.7IF	13.2IF	14.2IF	13.3IF	13.6IF	14.7IF	15.1IF	14.3IF	14.3IF	14.4IF	13.0IF	11.2IF	10.0IF	9.9IF	12.2IF	13.6IF	13.8IF	13.4IF	12.9IF	11.9IF	11.6IF	24	13.29
20	12.0IF	11.8IF	11.7IF	11.9IF	11.6IF	11.8IF	12.3IF	12.1IF	11.8IF	12.1IF	11.6IF	11.5IF	11.8IF	11.6IF	11.7IF	10.6IF	10.6IF	12.0IF	12.5IF	14.4IF	16.3IF	18.1IF	19.1IF	18.7IF	24	12.90
21	18.0IF	18.1IF	18.7IF	19.0IF	19.0IF	20.0IF	19.9IF	21.0IF	22.0IF	20.9IF	18.9IF	17.3IF	16.7IF	12.4IF	9.8IF	7.9IF	10.3IF	7.3IF	11.9IF	12.3IF	8.7IF	7.0IF	7.1IF	6.9IF	24	14.63
22	6.5IF	8.0IF	10.4IF	15.9IF	21.5IF	22.8IF	23.4IF	23.5IF	13.8IF	5.7IF	4.9IF	4.1IF	4.2IF	4.8IF	5.0IF	5.0IF	4.7IF	4.5IF	5.3IF	5.7IF	5.3IF	5.8IF	8.0IF	10.0IF	24	9.53
23	8.1IF	6.0IF	5.3IF	5.5IF	5.7IF	5.5IF	6.3IF	6.1IF	6.2IF	6.1IF	5.9IF	6.2IF	6.7IF	6.3IF	5.1IF	4.5IF	4.2IF	5.5IF	6.8IF	7.2IF	5.7IF	6.2IF	6.5IF	7.1IF	24	6.03
24	8.0	9.4	10.3	10.7	11.9	12.5	11.9	10.2	10.2	10.5	9.8	11.1	12.6	8.8	3.2	3.3	2.3	2.4	2.7	3.1	3.2	4.3	4.8	3.9	24	7.55
25	3.8IF	3.5IF	4.4IF	27.7IF	30.4IF	26.4IF	20.0IF	18.5IF	17.8IF	11.1IF	11.9IF	13.3IF	15.0IF	13.7IF	21.5IF	22.4IF	26.1IF	30.3IF	24.1IF	21.9IF	19.2IF	19.8IF	21.8IF	25.8IF	24	18.77
26	28.5IF	29.5IF	26.1IF	25.1IF	26.9IF	26.9IF	25.8IF	26.9IF	27.5IF	AX	13.6IF	5.1IF	21.3IF	16.9IF	14.9IF	13.8IF	13.4IF	14.2IF	13.8IF	13.8IF	14.4IF	15.5IF	15.4IF	18.1IF	23	19.45
27	16.2IF	15.9IF	15.7IF	15.8IF	16.4IF	17.1IF	20.4IF	23.9IF	26.8IF	31.7IF	37.1IF	36.5IF	37.9IF	40.2IF	41.6IF	41.8IF	40.8IF	43.2IF	45.1IF	44.0IF	41.2IF	35.4IF	35.4IF	35.6IF	24	31.49
28	30.6IF	23.7IF	23.7IF	22.0IF	21.4IF	20.7IF	21.7IF	22.0IF	19.4IF	20.2IF	17.9IF	20.4IF	22.6IF	20.7IF	20.3IF	19.1IF	16.5IF	15.2IF	13.6IF	12.9IF	15.7IF	21.5IF	21.7IF	15.7IF	24	19.97
29	15.1IF	12.1IF	9.7IF	9.7IF	10.4IF	10.2IF	9.8IF	11.1IF	11.7IF	12.3IF	14.0IF	11.9IF	11.9IF	16.3IF	23.7IF	17.0IF	15.4IF	14.1IF	14.0IF	15.9IF	16.4IF	16.7IF	15.8IF	24	13.72
30	15.1IF	14.2IF	14.5IF	16.2IF	18.8IF	21.1IF	21.4IF	25.6IF	24.5IF	23.7IF	22.4IF	19.4IF	16.2IF	14.3IF	12.6IF	18.5IF	22.4IF	25.1IF	29.0IF	31.2IF	30.8IF	31.6IF	34.4IF	35.8IF	24	22.45
31																									0	
NO.:	30	30	30	30	30	30	29	29	29	28	29	29	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	31.5	30.7	31.1	35.2	36.5	44.9	26.5	26.9	29.4	31.7	37.1	36.5	133.3	137.0	119.5	115.4	100.8	93.8	88.1	87.7	84.3	73.9	43.6	35.8		
AVG:	16.17	15.59	15.71	16.97	17.79	18.22	17.31	17.92	17.61	16.70	16.35	15.49	19.98	19.44	18.84	18.47	18.13	17.83	17.60	17.53	17.56	17.99	17.55	17.20		

MONTHLY OBSERVATIONS: 713 MONTHLY MEAN: 17.50 MONTHLY MAX: 137.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 38-017-1004 POC: 3
COUNTY: (017) Cass
CITY: (00000) Not in a city
SITE ADDRESS: 4266 40TH AVE NORTH
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (130) METROPOLITAN FARGO-MOORHEAD
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: SUBURBAN

LATITUDE: 46.9337540009
LONGITUDE: -96.85535
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 275
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: MULTIPLE METHODS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	39.4IF	40.9IF	41.4IF	43.5IF	41.0IF	39.1IF	35.6IF	31.1IF	28.6IF	27.4IF	25.5IF	23.7IF	21.1IF	19.1IF	20.0IF	21.0IF	21.0IF	20.6IF	20.9IF	21.6IF	22.8IF	25.0IF	26.1IF	24.5IF	24	28.37
2	23.6	23.1	23.4	22.1	20.9	20.1	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	6	22.20
3	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
4	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
5	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
6	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
7	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
8	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	BA	3.8	3.9	4.2	5.0	5.8	6.1	6.8	8.1	9.3	10.0	10.3	9.3	9.0	13	7.05
9	9.1IF	9.1IF	9.2IF	8.8IF	8.3IF	8.1IF	7.7IF	7.7IF	7.8IF	8.5IF	9.5IF	10.0IF	11.5IF	13.0IF	13.7IF	14.2IF	16.7IF	15.7IF	14.7IF	14.7IF	12.8IF	11.2IF	11.0IF	11.6IF	24	11.03
10	13.9IF	25.5IF	28.0IF	27.7IF	27.4IF	25.7IF	21.0IF	14.0IF	7.3IF	5.6IF	5.2IF	5.1IF	6.5IF	6.5IF	8.3IF	9.0IF	7.0IF	6.5IF	5.3IF	3.7IF	3.9IF	4.2IF	3.8IF	3.5IF	24	11.44
11	4.0	3.7	4.3	3.2	8.2	4.5	9.6	4.2	4.4	6.4	4.5	5.3	6.0	5.9	6.2	6.8	5.6	5.3	5.2	5.1	5.0	5.1	6.5	5.7	24	5.45
12	5.4	5.3	5.4	5.4	6.2	6.6	6.8	8.2	7.2	8.6	8.9	7.7	6.2	5.4	5.5	5.9	5.8	5.3	5.9	6.6	6.6	7.2	9.2	8.6	24	6.66
13	8.9IF	10.1IF	8.4IF	7.6IF	7.7IF	8.2IF	7.2IF	8.2IF	AX	AX	8.3IF	7.9IF	7.7IF	7.5IF	7.8IF	13.9IF	15.7IF	12.9IF	11.0IF	10.0IF	10.5IF	12.9IF	13.3IF	15.4IF	22	10.05
14	18.0IF	19.4IF	18.0IF	17.3IF	22.6IF	19.5IF	20.7IF	22.6IF	26.1IF	28.4IF	35.7IF	52.0IF	48.4IF	41.0IF	36.0IF	42.6IF	49.0IF	42.7IF	36.3IF	40.2IF	48.8IF	53.8IF	76.4IF	89.0IF	24	37.69
15	90.4IF	88.0IF	81.5IF	74.5IF	72.5IF	61.5IF	43.8IF	25.3IF	13.2IF	9.5IF	6.8IF	8.2IF	9.4IF	7.7IF	7.3IF	7.0IF	7.1IF	6.2IF	5.9IF	6.5IF	7.0IF	7.6IF	8.3IF	8.3IF	24	27.65
16	8.7	9.6	9.4	13.1	31.5	37.5	19.5	5.0	4.2	2.5	2.1	1.8	1.7	1.7	1.9	2.8	4.0	5.2	7.4	6.7	7.5	6.0	5.4	6.4	24	8.40
17	7.1IF	7.7IF	7.9IF	7.6IF	8.0IF	9.1IF	11.0IF	11.6IF	12.6IF	14.8IF	16.4IF	14.8IF	14.1IF	13.7IF	16.4IF	15.6IF	15.4IF	18.2IF	27.8IF	34.1IF	36.3IF	36.9IF	37.7IF	36.4IF	24	17.97
18	37.9IF	35.4IF	34.9IF	36.0IF	35.7IF	35.5IF	23.4IF	17.6IF	16.3IF	15.8IF	18.6IF	16.8IF	11.8IF	12.3IF	12.3IF	12.6IF	13.4IF	13.1IF	13.2IF	12.6IF	12.8IF	12.7IF	9.7IF	8.9IF	24	19.55
19	9.1IF	9.0IF	8.9IF	7.9IF	7.3IF	8.5IF	9.7IF	13.5IF	11.3IF	10.9IF	12.2IF	15.8IF	14.4IF	10.9IF	11.2IF	12.3IF	11.6IF	8.3IF	7.9IF	5.6IF	5.6IF	6.0IF	5.5IF	6.9IF	24	9.60
20	10.5IF	12.7IF	14.5IF	16.6IF	17.6IF	17.2IF	16.2IF	14.9IF	13.4IF	12.8IF	13.8IF	13.4IF	12.8IF	13.5IF	14.1IF	14.5IF	15.3IF	15.8IF	15.0IF	14.3IF	14.9IF	23.3IF	21.7IF	19.8IF	24	15.36
21	17.4IF	16.4IF	18.0IF	16.8IF	15.1IF	15.7IF	17.1IF	16.5IF	15.9IF	17.3IF	15.4IF	13.9IF	15.4IF	16.4IF	17.6IF	18.6IF	18.2IF	14.3IF	14.9IF	17.3IF	18.5IF	19.1IF	19.0IF	17.9IF	24	16.78
22	17.3IF	17.8IF	17.4IF	17.7IF	17.3IF	17.9IF	17.7IF	18.0IF	18.9IF	19.8IF	21.6IF	22.2IF	18.7IF	13.7IF	15.6IF	21.6IF	26.1IF	22.2IF	17.0IF	20.1IF	22.6IF	26.2IF	23.2IF	22.1IF	24	19.70
23	23.4IF	23.8IF	25.4IF	23.7IF	23.3IF	23.0IF	20.9IF	20.9IF	21.9IF	25.4IF	26.1IF	28.2IF	29.1IF	28.5IF	28.5IF	25.8IF	25.5IF	24.5IF	29.7IF	36.5IF	39.1IF	42.9IF	46.4IF	47.5IF	24	28.75
24	46.9IF	46.3IF	46.1IF	45.2IF	45.5IF	44.0IF	42.2IF	41.3IF	42.8IF	40.3IF	34.6IF	31.5IF	28.4IF	28.6IF	27.3IF	26.6IF	26.8IF	26.5IF	26.5IF	26.9IF	27.8IF	27.7IF	28.0IF	28.8IF	24	34.86
25	29.2IF	26.7IF	25.9IF	26.5IF	25.1IF	25.6IF	28.4IF	27.4IF	24.4IF	19.2IF	16.4IF	15.2IF	14.0IF	12.7IF	11.9IF	12.1IF	11.4IF	11.3IF	12.4IF	12.9IF	11.9IF	7.7IF	6.3IF	7.4IF	24	17.58
26	6.4	4.5	5.2	5.7	5.7	5.6	4.4	AX	BA	6.7	7.3	8.1	8.3	8.7	9.2	8.8	9.2	9.8	10.3	10.0	10.5	10.1	9.5	9.1	22	7.87
27	8.0	6.8	6.7	7.1	7.0	7.0	9.9	7.3	7.4	8.0	8.4	7.7	7.5	7.7	8.0	7.5	7.7	7.4	7.1	7.4	8.5	7.7	6.3	5.4	24	7.48
28	4.9	4.7	4.4	4.4	7.5	7.9	9.9	6.7	6.7	7.5	7.3	7.2	7.8	6.6	6.5	6.4	5.4	6.0	5.2	4.7	4.1	3.8	3.8	3.7	24	5.96
29	3.6	3.7	3.7	3.5	3.5	3.6	AV	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	6	3.60
30	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
31	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
NO.:	23	23	23	23	23	23	21	20	19	20	21	22	22	22	22	22	22	22	22	22	22	22	22	22		
MAX:	90.4	88.0	81.5	74.5	72.5	61.5	43.8	41.3	42.8	40.3	35.7	52.0	48.4	41.0	36.0	42.6	49.0	42.7	36.3	40.2	48.8	53.8	76.4	89.0		
AVG:	19.27	19.57	19.48	19.21	20.21	19.63	18.22	16.10	15.28	14.77	14.50	14.56	13.85	12.97	13.20	14.15	14.73	13.85	13.99	14.85	15.80	16.70	17.56	18.00		

MONTHLY OBSERVATIONS: 525 MONTHLY MEAN: 16.32 MONTHLY MAX: 90.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-017-1004 POC: 3
COUNTY: (017) Cass
CITY: (00000) Not in a city
SITE ADDRESS: 4266 40TH AVE NORTH
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (130) METROPOLITAN FARGO-MOORHEAD
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.9337540009
LONGITUDE: -96.85535
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 275
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	HOUR 0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AV	8.8	7.5	6.3	5.9	5.2	5.0	5.4	6.4	7.0	6.0	4.8	3.8	4.2	4.6	4.8	15	5.71
2	4.6	4.7	4.8	4.7	5.4	6.6	AV	6.7	6.9	6.6	6.0	6.1	5.8	5.6	6.2	6.5	7.3	6.2	7.5	8.8	10.2	8.2	7.8	7.0	23	6.53
3	7.5IF	10.1IF	12.0IF	11.8IF	12.3IF	14.9IF	16.4IF	12.7IF	12.7IF	9.0IF	8.6IF	8.6IF	7.5IF	8.6IF	9.0IF	9.4IF	10.9IF	11.8IF	14.1IF	21.0IF	25.3IF	31.0IF	34.0IF	33.9IF	24	14.71
4	33.5rf	33.1rf	34.0rf	35.3rf	37.5rf	41.8rf	44.8rf	40.9rf	38.4rf	40.0rf	40.3rf	39.0rf	37.5rf	36.1rf	44.9rf	47.0rf	40.6rf	37.7rf	38.7rf	39.8rf	40.7rf	39.8rf	39.1rf	37.1rf	24	39.07
5	34.0rf	30.5rf	29.4rf	27.7rf	26.2rf	25.3rf	25.6rf	24.4rf	22.9rf	22.9rf	23.4rf	23.5rf	23.0rf	23.7rf	22.8rf	22.0rf	18.1rf	13.7rf	10.1rf	17.6rf	7.9rf	9.1rf	15.0rf	16.1rf	24	21.45
6	14.6IF	12.9IF	13.7IF	13.7IF	14.9IF	18.2IF	19.6IF	20.0IF	19.1IF	16.9IF	17.2IF	17.4IF	15.9IF	18.9IF	21.5IF	22.9IF	18.3IF	15.0IF	18.4IF	21.9IF	20.7IF	17.6IF	17.1IF	17.1IF	24	17.65
7	17.1rf	17.6rf	17.8rf	18.0rf	18.3rf	18.0rf	18.9rf	19.3rf	19.8rf	20.5rf	19.5rf	20.0rf	20.3rf	20.4rf	23.6rf	24.0rf	22.8rf	22.3rf	24.6rf	27.6rf	28.5rf	32.9rf	35.8rf	35.2rf	24	22.62
8	35.6IF	34.5IF	31.7IF	31.2IF	31.8IF	31.3IF	31.8IF	29.1IF	AX	AX	17.7IF	15.3IF	14.3IF	11.8IF	11.0IF	11.5IF	14.2IF	16.5IF	14.9IF	10.3IF	10.5IF	9.4IF	10.1IF	9.8IF	22	19.74
9	10.1IF	11.7IF	11.3IF	10.3IF	11.1IF	14.8IF	14.0IF	11.7IF	13.6IF	13.2IF	13.0IF	16.2IF	16.8IF	15.4IF	14.4IF	15.1IF	14.6IF	12.6IF	7.8IF	5.5IF	5.4IF	5.0IF	4.8IF	4.9IF	24	11.39
10	5.0	4.8	4.6	4.7	4.8	9.3	4.1	3.9	3.5	3.2	2.9	3.0	3.7	4.3	4.1	3.9	4.1	4.3	4.8	4.7	4.9	4.6	4.7	7.8	24	4.57
11	10.5	6.2	5.3	6.6	4.8	3.5	4.1	4.0	6.2	5.3	5.6	6.8	3.6	3.4	4.1	4.3	3.4	2.7	2.5	2.9	3.6	2.9	3.1	4.8	24	4.59
12	5.3	3.9	3.3	3.2	3.2	2.9	2.9	2.9	2.9	2.6	2.4	2.3	2.2	2.3	2.5	2.6	2.2	2.1	2.5	3.8	3.7	4.0	4.3	4.4	24	3.10
13	5.0	6.4	7.2	5.8	5.9	5.4	5.2	5.0	4.7	4.4	4.7	4.4	3.6	3.3	3.4	3.6	3.3	2.4	2.5	2.3	2.8	3.9	3.8	4.4	24	4.31
14	5.4	6.7	5.7	2.7	2.7	2.9	3.0	4.1	4.0	4.1	3.5	3.5	3.6	3.6	3.5	3.2	2.9	2.8	3.0	3.4	3.6	3.8	3.7	3.3	24	3.70
15	3.1	3.0	2.9	2.9	3.0	3.1	3.2	3.4	4.2	3.5	3.7	3.5	3.9	4.2	4.5	4.9	4.9	5.5	6.3	5.6	5.4	4.2	3.9	3.8	24	4.03
16	3.7	3.7	3.6	3.9	4.2	4.4	4.7	5.3	4.9	5.0	5.3	5.0	8.4	10.8	18.1	17.1	10.9	9.7	8.8	7.7	7.0	6.0	6.5	8.7	24	7.23
17	10.4rf	15.5rf	20.8rf	23.5rf	26.0rf	27.9rf	31.9rf	31.8rf	33.6rf	36.1rf	35.8rf	36.0rf	36.4rf	35.1rf	34.5rf	34.2rf	35.9rf	35.0rf	32.7rf	33.8rf	33.7rf	33.9rf	33.7rf	33.4rf	24	30.90
18	32.2rf	31.0rf	29.8rf	28.7rf	27.8rf	26.4rf	26.8rf	26.7rf	26.7rf	26.4rf	23.9rf	21.7rf	20.5rf	19.4rf	18.8rf	17.6rf	16.8rf	16.0rf	15.8rf	16.6rf	17.1rf	16.4rf	16.2rf	15.7rf	24	22.29
19	15.0IF	15.2IF	14.7IF	14.3IF	13.4IF	13.3IF	13.6IF	14.4IF	13.7IF	13.7IF	13.9IF	15.3IF	21.5IF	20.7IF	22.0IF	23.3IF	21.2IF	26.8IF	40.1IF	28.9IF	17.5IF	10.7IF	10.6IF	9.9IF	24	17.65
20	9.0IF	8.7IF	9.7IF	12.1IF	14.0IF	15.0IF	14.9IF	15.2IF	15.2IF	14.8IF	13.2IF	12.1IF	12.0IF	12.2IF	11.1IF	8.5IF	8.6IF	9.2IF	6.9IF	7.4IF	7.0IF	6.7IF	7.3IF	7.1IF	24	10.75
21	6.8IF	6.7IF	6.6IF	6.4IF	6.5IF	6.7IF	7.3IF	8.4IF	9.0IF	9.7IF	10.1IF	11.0IF	11.4IF	12.1IF	11.3IF	11.8IF	13.1IF	14.7IF	12.6IF	11.8IF	11.1IF	11.4IF	11.1IF	12.2IF	24	9.99
22	16.3IF	16.9IF	17.1IF	17.1IF	18.1IF	16.8IF	AX	AX	17.5IF	19.2IF	17.5IF	18.2IF	18.4IF	17.9IF	17.7IF	17.0IF	17.5IF	21.8IF	18.5IF	16.6IF	17.7IF	16.8IF	13.6IF	10.5IF	22	17.21
23	7.7	6.2	4.9	5.2	6.0	6.5	6.0	6.0	6.1	4.4	5.6	9.6	8.5	8.5	8.7	9.0	7.7	9.5	9.9	9.1	9.9	8.3	7.5	8.3	24	7.46
24	9.1	7.7	7.0	6.0	6.4	6.7	6.9	5.1	5.2	6.7	6.5	5.2	5.8	5.6	5.6	5.4	5.9	6.0	7.7	10.1	9.7	10.1	9.0	9.7	24	7.05
25	8.0	6.3	5.8	5.6	6.7	6.1	7.0	8.2	7.8	9.5	10.7	13.8	16.0	18.1	19.0	12.2	9.2	7.4	7.2	6.2	5.5	4.9	5.4	5.8	24	8.85
26	5.7	6.4	7.6	11.6	12.3	12.6	12.1	10.8	9.6	5.7	4.9	4.5	4.6	3.9	3.9	4.0	4.5	5.8	6.3	8.4	9.3	10.4	8.9	9.5	24	7.64
27	13.4	5.4	4.9	4.9	5.0	5.0	4.9	4.8	5.1	5.7	6.3	6.7	7.8	9.5	9.8	9.4	8.4	8.1	8.6	8.9	8.0	6.8	6.8	6.5	24	7.11
28	6.2IF	6.3IF	6.6IF	6.6IF	6.7IF	7.5IF	8.0IF	12.1IF	13.1IF	14.1IF	14.8IF	16.3IF	17.1IF	20.3IF	21.2IF	22.2IF	21.0IF	21.2IF	18.7IF	21.1IF	25.6IF	26.2IF	27.3IF	26.7IF	24	16.12
29	24.2rf	23.8rf	22.9rf	21.8rf	20.1rf	19.9rf	21.1rf	27.0rf	44.8rf	54.0rf	64.4rf	79.5rf	72.6rf	51.9rf	44.3rf	40.6rf	39.9rf	48.5rf	48.8rf	52.6rf	50.9rf	51.3rf	47.8rf	47.5rf	24	42.51
30	47.3rf	46.2rf	46.3rf	45.0rf	44.3rf	42.7rf	34.0rf	30.4rf	AZ	29.0rf	30.6rf	32.7rf	34.9rf	32.8rf	30.7rf	28.7rf	26.8rf	26.2rf	25.0rf	28.6rf	33.5rf	32.5rf	27.8rf	22.1rf	23	33.83
31	21.4rf	22.7rf	22.4rf	23.9rf	25.0rf	25.4rf	25.1rf	24.4rf	24.1rf	24.5rf	23.2rf	24.4rf	24.0rf	22.6rf	21.0rf	20.1rf	19.5rf	19.3rf	18.6rf	19.9rf	21.3rf	20.6rf	20.7rf	20.3rf	24	22.27
NO.:	30	30	30	30	30	30	28	29	28	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	47.3	46.2	46.3	45.0	44.3	42.7	44.8	40.9	44.8	54.0	64.4	79.5	72.6	51.9	44.9	47.0	40.6	48.5	48.8	52.6	50.9	51.3	47.8	47.5		
AVG:	14.26	13.83	13.81	13.84	14.15	14.70	14.93	14.44	14.12	14.65	14.93	15.74	15.73	15.10	15.43	15.08	14.22	14.45	14.51	15.09	14.90	14.63	14.58	14.46		

MONTHLY OBSERVATIONS: 729 MONTHLY MEAN: 14.65 MONTHLY MAX: 79.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-017-1004 POC: 3
COUNTY: (017) Cass
CITY: (00000) Not in a city
SITE ADDRESS: 4266 40TH AVE NORTH
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (130) METROPOLITAN FARGO-MOORHEAD
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.9337540009
LONGITUDE: -96.85535
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 275
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	19.7IF	19.1IF	17.8IF	17.0IF	16.5IF	16.1IF	15.5IF	15.2IF	17.0IF	16.7IF	16.6IF	16.1IF	15.4IF	16.2IF	16.7IF	18.0IF	19.3IF	20.9IF	22.6IF	24.6IF	26.4IF	22.6IF	22.6IF	22.4IF	24	18.79
2	21.1IF	19.4IF	19.1IF	19.3IF	17.5IF	16.6IF	16.0IF	16.9IF	17.0IF	16.2IF	15.4IF	14.8IF	14.9IF	14.8IF	14.9IF	15.0IF	14.9IF	14.4IF	15.2IF	15.5IF	15.9IF	15.6IF	16.1IF	16.2IF	24	16.36
3	16.1rf	14.8rf	14.3rf	13.6rf	12.2rf	11.7rf	11.2rf	12.4rf	16.5rf	18.5rf	19.9rf	20.9rf	24.6rf	35.2rf	37.1rf	37.2rf	33.3rf	33.1rf	34.8rf	36.0rf	34.9rf	35.1rf	29.3rf	26.9rf	24	24.15
4	24.2IF	18.1IF	13.5IF	12.7IF	12.2IF	12.6IF	14.0IF	12.6IF	12.5IF	11.8IF	11.2IF	9.5IF	8.0IF	7.3IF	6.8IF	6.9IF	6.7IF	6.3IF	7.5IF	9.1IF	8.1IF	8.7IF	10.2IF	11.2IF	24	10.90
5	17.1rf	6.7rf	3.2rf	2.6rf	2.5rf	3.3rf	10.0rf	20.6rf	20.9rf	32.8rf	45.7rf	64.7rf	72.9rf	66.6rf	66.6rf	70.9rf	88.2rf	108.7rf	110.7rf	107.8rf	105.7rf	102.1rf	99.9rf	93.1rf	24	55.14
6	70.1rf	56.5rf	50.2rf	44.9rf	33.3rf	26.2rf	25.5rf	AX	BA	BA	33.8rf	32.6rf	30.1rf	30.4rf	31.4rf	28.7rf	26.6rf	25.0rf	24.1rf	26.1rf	26.3rf	26.5rf	27.4rf	32.2rf	21	33.71
7	36.6rf	41.6rf	44.7rf	46.0rf	43.4rf	43.9rf	43.1rf	41.2rf	36.7rf	35.6rf	37.8rf	36.2rf	31.8rf	26.9rf	25.6rf	23.6rf	23.0rf	22.1rf	21.6rf	25.2rf	20.3rf	18.4rf	15.5rf	15.4rf	24	31.51
8	14.7rf	15.4rf	15.2rf	13.6rf	12.5rf	10.4rf	8.5rf	9.0rf	15.1rf	22.7rf	29.9rf	32.7rf	36.5rf	37.1rf	36.6rf	36.4rf	37.7rf	36.5rf	30.1rf	29.5rf	27.6rf	22.7rf	22.2rf	21.3rf	24	23.91
9	21.7IF	19.8IF	18.6IF	18.5IF	19.3IF	19.9IF	22.1IF	21.9IF	20.9IF	20.1IF	19.3IF	18.0IF	16.9IF	15.8IF	16.1IF	16.1IF	14.9IF	15.3IF	16.3IF	16.9IF	17.6IF	19.6IF	20.8IF	19.0IF	24	18.56
10	21.2rf	22.7rf	23.1rf	22.4rf	22.2rf	22.2rf	22.2rf	22.6rf	22.4rf	22.0rf	21.0rf	21.5rf	19.6rf	18.5rf	17.6rf	16.3rf	15.8rf	16.6rf	17.4rf	17.4rf	19.4rf	21.6rf	21.6rf	20.0rf	24	20.30
11	19.0IF	18.5IF	16.3IF	14.9IF	14.3IF	14.9IF	17.4IF	15.4IF	11.7IF	14.9IF	9.6IF	6.3IF	6.7IF	6.1IF	6.1IF	5.4IF	5.0IF	6.1IF	7.0IF	7.6IF	7.7IF	7.2IF	6.5IF	5.8IF	24	10.43
12	5.5	5.2	5.0	3.9	3.2	3.3	8.9	6.9	3.6	5.1	4.3	3.6	3.7	3.9	4.2	4.0	4.2	4.2	4.2	5.2	7.6	20.4	7.9	5.2	24	5.55
13	1.8	1.3	1.0	1.1	1.3	1.6	2.2	2.6	3.6	3.2	3.2	3.0	3.3	3.7	3.7	3.9	4.3	4.4	4.6	4.3	3.6	3.5	3.3	3.3	24	2.99
14	3.3	3.6	3.5	3.7	4.1	5.1	6.2	7.2	7.3	7.9	8.0	7.8	7.9	8.3	8.4	8.4	8.1	8.4	8.8	10.8	11.0	10.5	8.8	8.0	24	7.30
15	10.8rf	12.0rf	14.6rf	13.7rf	13.7rf	13.0rf	10.5rf	10.9rf	14.6rf	22.8rf	27.7rf	28.5rf	26.3rf	22.7rf	20.0rf	23.3rf	27.2rf	27.7rf	28.8rf	38.1rf	93.2rf	111.3rf	115.5rf	106.8rf	24	34.74
16	97.1rf	93.8rf	82.6rf	64.3rf	54.3rf	48.1rf	37.0rf	24.7rf	17.1rf	4.0rf	3.2rf	4.1rf	3.2rf	2.8rf	2.4rf	2.6rf	2.9rf	3.2rf	3.0rf	4.1rf	4.8rf	5.0rf	4.6rf	3.2rf	24	23.84
17	3.2	3.2	3.7	3.9	3.2	3.1	3.3	1.9	3.1	6.2	6.9	5.3	4.9	4.2	4.0	3.7	3.5	3.3	3.8	5.9	5.9	5.1	5.0	4.5	24	4.20
18	4.0IF	3.8IF	3.8IF	4.2IF	4.9IF	5.3IF	5.2IF	5.1IF	5.0IF	8.1IF	18.3IF	24.1IF	26.5IF	26.9IF	25.8IF	25.2IF	27.1IF	29.8IF	30.6IF	27.4IF	24.6IF	22.9IF	20.5IF	16.8IF	24	16.50
19	12.1IF	9.8IF	9.9IF	11.1IF	12.4IF	13.5IF	14.6IF	AX	16.5IF	18.6IF	18.6IF	17.6IF	18.3IF	17.8IF	16.3IF	15.7IF	17.5IF	15.8IF	17.1IF	22.3IF	31.3IF	22.4IF	22.0IF	21.3IF	23	17.07
20	18.6rf	18.4rf	18.9rf	23.3rf	40.1rf	42.8rf	43.5rf	51.8rf	51.9rf	46.6rf	45.1rf	39.4rf	34.8rf	32.5rf	31.4rf	29.1rf	28.2rf	33.8rf	37.9rf	40.5rf	43.4rf	45.5rf	43.7rf	36.7rf	24	36.58
21	35.1IF	35.4IF	31.0IF	26.6IF	17.4IF	14.6IF	10.9IF	12.3IF	15.5IF	26.1IF	21.2IF	16.4IF	12.6IF	10.1IF	8.7IF	11.3IF	21.9IF	22.8IF	19.6IF	16.8IF	17.5IF	18.1IF	18.8IF	19.3IF	24	19.17
22	18.8IF	18.6IF	18.2IF	17.8IF	17.6IF	19.2IF	17.8IF	19.1IF	21.7IF	19.4IF	15.3IF	14.7IF	13.9IF	10.6IF	11.1IF	10.7IF	10.7IF	10.9IF	10.5IF	11.0IF	10.7IF	10.0IF	9.1IF	8.4IF	24	14.41
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	22	20	21	21	22	22	22	22	22	22	22	22	22	22	22	22	22	22		
MAX:	97.1	93.8	82.6	64.3	54.3	48.1	43.5	51.8	51.9	46.6	45.7	64.7	72.9	66.6	66.6	70.9	88.2	108.7	110.7	107.8	105.7	111.3	115.5	106.8		
AVG:	22.35	20.80	19.46	18.14	17.19	16.70	16.62	16.52	16.70	18.06	19.64	19.90	19.67	19.02	18.70	18.75	20.05	21.33	21.65	22.82	25.61	26.13	25.06	23.50		

MONTHLY OBSERVATIONS: 524 MONTHLY MEAN: 20.21 MONTHLY MAX: 115.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-025-0004 POC: 23
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	AN	AN	AN	BA	AT	6.1	5.0	5.3	5.2	4.8	4.8	4.8	5.2	5.1	4.8	4.6	4.8	4.7	4.9	4.8	5.1	4.8	5.6	5.2	19	5.03
17	5.2rf	4.5rf	4.6rf	4.1rf	4.3rf	4.6rf	8.0rf	372.7rf	581.7rf	529.6rf	704.3rf	742.0rf	563.0rf	341.5rf	144.1rf	169.4rf	131.8rf	108.0rf	173.7rf	204.2rf	200.4rf	194.9rf	193.0rf	188.4rf	24	232.42
18	174.0rf	165.8rf	112.1rf	90.0rf	83.9rf	74.4rf	51.0rf	38.4rf	32.0rf	38.8rf	26.5rf	13.3rf	7.1rf	6.7rf	5.3rf	5.3rf	5.5rf	9.5rf	10.0rf	11.0rf	11.5rf	11.7rf	12.0rf	12.0rf	24	41.99
19	12.8	11.4	11.5	12.2	13.4	12.1	13.3	6.7	5.4	5.4	5.0	4.7	4.4	4.1	3.9	4.1	4.1	3.8	4.4	4.6	4.9	4.8	4.8	4.6	24	6.93
20	4.5rf	4.5rf	4.6rf	5.1rf	4.4rf	4.8rf	5.5rf	7.9rf	13.3rf	17.6rf	19.3rf	19.3rf	17.3rf	15.8rf	16.6rf	17.8rf	17.8rf	21.1rf	27.4rf	29.2rf	78.1rf	61.0rf	55.4rf	55.8rf	24	21.84
21	58.2rf	62.0rf	64.8rf	64.2rf	68.5rf	67.8rf	67.6rf	66.7rf	52.1rf	37.5rf	33.3rf	27.7rf	25.7rf	24.2rf	19.1rf	18.4rf	17.2rf	15.0rf	15.5rf	15.5rf	16.6rf	17.0rf	17.4rf	17.2rf	24	37.05
22	17.7IF	18.5IF	18.7IF	18.2IF	18.0IF	17.4IF	15.7IF	13.6IF	14.2IF	13.1IF	13.2IF	18.6IF	19.9IF	19.0IF	21.0IF	24.1IF	24.5IF	23.3IF	21.9IF	21.9IF	22.3IF	22.2IF	23.0IF	23.5IF	24	19.31
23	23.8rf	24.1rf	25.2rf	25.4rf	24.8rf	24.9rf	24.1rf	26.1rf	25.7rf	30.3rf	26.5rf	23.1rf	22.9rf	26.5rf	32.4rf	34.2rf	33.8rf	34.9rf	35.9rf	36.2rf	27.8rf	25.8rf	22.3rf	19.7rf	24	27.35
24	19.2IF	18.5IF	18.5IF	19.6IF	19.2IF	19.1IF	20.6IF	19.2IF	16.5IF	17.0IF	16.4IF	16.7IF	16.3IF	16.9IF	16.5IF	14.7IF	13.0IF	15.2IF	15.4IF	15.5IF	14.8IF	15.5IF	16.1IF	13.8IF	24	16.84
25	14.6IF	14.2IF	14.1IF	14.6IF	14.9IF	15.1IF	15.6IF	16.1IF	15.7IF	15.5IF	17.1IF	17.1IF	18.0IF	16.7IF	16.8IF	15.9IF	15.7IF	15.2IF	14.5IF	14.6IF	13.9IF	13.0IF	11.1IF	9.8IF	24	14.99
26	8.6	9.0	9.7	10.1	10.0	9.2	9.6	9.3	8.5	7.1	5.4	5.0	5.7	5.8	6.2	5.8	4.3	3.5	3.4	3.6	2.8	2.5	2.5	2.4	24	6.25
27	4.5	6.5	7.5	8.6	10.0	10.9	10.3	8.8	8.3	5.4	4.3	5.0	4.0	5.6	4.8	5.2	6.9	5.9	8.3	4.3	3.9	3.3	2.8	2.8	24	6.16
28	2.8	2.7	2.8	2.8	2.7	2.7	2.5	2.4	2.8	3.3	3.5	3.9	4.2	3.5	3.1	3.6	3.3	3.6	3.5	3.5	3.7	4.3	5.1	5.7	24	3.42
29	5.0	6.2	7.8	7.6	6.8	5.4	3.3	2.9	2.8	2.7	2.6	2.8	3.6	3.0	2.9	3.3	2.9	3.4	3.5	3.4	2.8	2.8	3.1	3.7	24	3.93
30	3.9	3.8	3.9	4.3	4.7	5.4	AX	7.0	6.6	5.8	4.8	5.3	7.0	8.2	7.9	7.7	7.6	7.5	7.3	7.8	8.4	8.1	8.1	9.0	23	6.53
31	8.2	7.6	8.5	8.1	8.0	6.7	7.0	7.0	5.1	4.4	4.3	5.6	5.4	4.8	5.8	5.5	4.0	4.9	3.6	5.0	6.4	7.1	7.9	7.6	24	6.19
NO.:	15	15	15	15	15	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	174.0	165.8	112.1	90.0	83.9	74.4	67.6	372.7	581.7	529.6	704.3	742.0	563.0	341.5	144.1	169.4	131.8	108.0	173.7	204.2	200.4	194.9	193.0	188.4		
AVG:	24.20	23.95	20.95	19.66	19.57	17.91	17.27	38.13	49.74	46.14	55.71	57.18	45.61	31.71	19.45	21.23	18.58	17.47	22.08	24.07	26.46	24.93	24.39	23.83		

MONTHLY OBSERVATIONS: 378 MONTHLY MEAN: 28.88 MONTHLY MAX: 742.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-025-0004 POC: 23
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	7.4	7.5	7.4	7.6	8.0	7.7	8.3	7.6	5.5	4.8	4.6	4.4	4.1	4.3	3.7	3.5	3.4	3.7	3.8	4.7	4.0	3.2	3.4	3.6	24	5.26
2	3.3	3.5	3.9	4.2	4.6	5.4	6.3	6.6	5.1	4.4	3.8	3.9	3.9	4.2	3.9	3.8	3.6	3.6	4.1	4.4	4.8	5.1	5.1	5.1	24	4.44
3	5.0	5.0	5.5	6.0	5.9	5.8	6.4	6.4	6.5	6.7	5.4	4.5	6.0	6.1	6.4	6.5	7.1	5.7	4.2	4.5	5.0	5.3	5.7	6.1	24	5.74
4	6.4	6.9	7.6	8.9	8.4	8.7	8.1	5.6	5.3	4.4	5.0	6.1	5.9	5.0	6.1	6.3	7.5	8.6	6.8	6.4	6.9	7.1	6.4	6.3	24	6.70
5	6.1IF	6.2IF	6.9IF	8.4IF	8.5IF	8.2IF	8.8IF	7.6IF	7.0IF	7.2IF	7.7IF	8.2IF	7.4IF	7.2IF	7.2IF	6.8IF	6.8IF	6.2IF	6.9IF	6.9IF	7.7IF	8.8IF	8.3IF	8.5IF	24	7.48
6	9.1IF	9.4IF	11.2IF	12.6IF	13.2IF	11.6IF	11.4IF	9.9IF	9.3IF	9.5IF	9.1IF	8.8IF	8.0IF	7.9IF	8.1IF	8.2IF	7.8IF	7.5IF	8.3IF	7.8IF	9.3IF	9.4IF	9.9IF	12.4IF	24	9.57
7	14.6IF	17.8IF	17.5IF	19.8IF	24.6IF	20.7IF	13.3IF	9.7IF	10.6IF	9.9IF	8.5IF	7.3IF	7.3IF	7.9IF	7.9IF	7.5IF	7.5IF	7.8IF	9.9IF	9.6IF	9.5IF	10.5IF	10.5IF	12.1IF	24	11.76
8	11.6IF	12.6IF	13.1IF	14.2IF	14.4IF	13.8IF	12.1IF	10.4IF	11.3IF	10.3IF	11.3IF	11.6IF	9.5IF	9.1IF	9.3IF	8.3IF	7.4IF	8.6IF	8.6IF	8.5IF	7.5IF	5.2IF	5.8IF	8.8IF	24	10.14
9	11.8IF	11.2IF	13.3IF	11.9IF	12.9IF	15.0IF	15.6IF	15.1IF	14.3IF	9.4IF	9.3IF	9.5IF	10.6IF	9.6IF	6.2IF	8.3IF	6.1IF	5.9IF	7.4IF	10.4IF	18.5IF	24.0IF	28.2IF	26.5IF	24	12.96
10	19.6IF	18.5IF	20.0IF	21.8IF	22.9IF	23.6IF	23.0IF	23.2IF	22.0IF	22.3IF	21.0IF	19.7IF	18.6IF	18.8IF	18.4IF	15.8IF	13.0IF	8.8IF	7.5IF	7.7IF	9.0IF	11.1IF	10.9IF	10.9IF	24	17.00
11	11.2IF	8.6IF	10.6IF	11.2IF	10.7IF	10.0IF	11.6IF	9.0IF	6.0IF	5.7IF	5.7IF	6.1IF	6.1IF	5.8IF	6.6IF	7.5IF	8.0IF	8.7IF	9.2IF	11.6IF	7.9IF	7.6IF	8.7IF	8.7IF	24	8.45
12	11.1IF	10.8IF	11.2IF	12.6IF	12.2IF	11.3IF	AZ	AX	13.6IF	12.6IF	13.4IF	15.1IF	16.8IF	16.8IF	16.1IF	16.8IF	15.1IF	15.9IF	16.5IF	16.2IF	16.2IF	17.3IF	22.5IF	21.6IF	22	15.08
13	17.1rf	18.3rf	19.4rf	18.5rf	16.8rf	26.4rf	16.2rf	18.8rf	18.1rf	17.2rf	17.1rf	15.6rf	15.7rf	18.9rf	18.5rf	20.8rf	18.4rf	26.4rf	36.2rf	32.6rf	28.8rf	25.2rf	23.8rf	23.8rf	24	21.19
14	23.4IF	24.8IF	26.1IF	26.3IF	25.0IF	24.8IF	23.2IF	19.9IF	15.9IF	15.1IF	15.1IF	14.3IF	13.3IF	15.1IF	17.0IF	20.8IF	20.0IF	18.4IF	18.7IF	17.6IF	17.3IF	17.6IF	16.9IF	4.5IF	24	18.80
15	3.7	3.7	5.4	7.5	5.0	4.4	3.3	3.2	3.5	3.4	3.5	3.3	3.2	3.7	5.0	5.2	5.4	5.0	5.0	5.5	4.6	4.4	5.0	14.1	24	4.83
16	17.3rf	17.3rf	17.9rf	18.6rf	20.9rf	23.5rf	26.0rf	25.7rf	23.1rf	23.9rf	23.2rf	21.7rf	23.3rf	23.2rf	26.1rf	28.0rf	28.3rf	27.9rf	27.1rf	27.3rf	27.0rf	26.4rf	27.1rf	28.2rf	24	24.13
17	27.5IF	25.3IF	24.4IF	23.9IF	20.0IF	17.6IF	18.5IF	19.2IF	20.9IF	21.3IF	20.4IF	19.0IF	21.3IF	21.0IF	21.7IF	20.8IF	18.5IF	18.1IF	17.9IF	14.5IF	14.5IF	14.4IF	14.2IF	14.5IF	24	19.56
18	14.3IF	15.9IF	17.2IF	16.1IF	12.8IF	12.6IF	13.1IF	12.1IF	12.0IF	9.1IF	7.1IF	8.1IF	8.5IF	10.3IF	10.3IF	8.7IF	8.0IF	8.3IF	11.5IF	11.3IF	11.6IF	11.4IF	7.6IF	5.2IF	24	10.96
19	4.2	3.3	2.9	2.8	3.1	3.2	3.1	2.8	2.7	2.8	2.8	3.1	3.2	2.8	3.4	2.8	2.8	3.3	3.6	3.7	6.1	5.2	3.6	3.2	24	3.35
20	3.0	3.9	4.6	3.6	3.5	3.7	4.5	5.1	5.9	8.3	9.5	7.5	7.5	7.3	4.6	3.8	4.0	4.0	3.4	4.3	5.3	3.3	3.9	3.2	24	4.90
21	2.7	2.6	2.6	2.7	2.7	2.5	2.2	2.4	2.5	2.8	3.0	2.5	2.8	2.9	2.8	3.5	2.8	2.8	3.2	3.0	2.7	2.9	3.3	2.8	24	2.78
22	2.6	2.6	2.6	2.4	2.5	2.5	2.4	2.4	AZ	2.5	2.6	2.5	2.2	2.0	2.2	2.3	2.4	2.3	2.4	2.1	2.4	2.8	3.1	3.7	23	2.50
23	4.6	5.0	5.6	5.3	5.7	5.4	5.0	4.3	5.3	3.7	5.9	6.6	7.9	3.6	4.6	3.9	5.4	13.4	8.8	4.1	3.5	2.9	2.6	2.7	24	5.24
24	2.9	3.7	5.2	6.0	8.3	6.5	4.7	4.9	6.3	6.3	5.0	4.4	4.4	4.1	3.8	3.7	3.8	3.7	4.0	4.2	4.6	4.6	4.8	4.8	24	4.78
25	4.6	4.5	4.7	4.6	4.5	4.3	4.5	4.6	4.3	4.3	4.1	4.3	4.6	4.4	4.4	4.5	4.3	4.5	4.8	6.3	5.6	7.4	8.1	8.7	24	5.04
26	11.5	8.2	7.0	8.8	AX	8.2	6.2	4.7	4.5	4.3	4.2	4.2	3.9	3.9	4.1	4.0	3.9	4.5	4.3	4.5	3.4	3.4	3.7	3.7	23	5.18
27	4.1	4.5	4.7	5.3	4.4	3.6	3.7	3.3	3.3	3.5	3.7	3.6	3.5	3.6	3.7	4.0	3.7	4.6	3.5	3.7	3.7	3.9	4.0	5.4	24	3.96
28	5.4	4.5	4.3	4.2	4.2	4.1	3.9	3.9	3.9	4.0	4.2	5.1	6.9	8.5	7.9	8.0	12.5	12.9	11.3	8.9	6.7	7.6	7.6	9.0	24	6.65
29	10.7IF	13.4IF	13.3IF	15.2IF	14.9IF	14.1IF	12.2IF	12.7IF	12.6IF	12.2IF	12.2IF	11.8IF	13.0IF	14.0IF	13.6IF	13.4IF	12.6IF	11.7IF	17.6IF	24.0IF	27.0IF	30.6IF	33.8IF	40.3IF	24	16.95
30	39.5IF	40.5IF	38.3IF	39.6IF	40.2IF	41.4IF	32.8IF	20.2IF	16.6IF	15.5IF	15.3IF	13.7IF	12.7IF	13.0IF	10.5IF	10.4IF	9.7IF	8.3IF	7.0IF	6.4IF	4.0IF	5.0IF	4.4IF	5.4IF	24	18.77
31																									0	
NO.:	30	30	30	30	29	30	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	39.5	40.5	38.3	39.6	40.2	41.4	32.8	25.7	23.1	23.9	23.2	21.7	23.3	23.2	26.1	28.0	28.3	27.9	36.2	32.6	28.8	30.6	33.8	40.3		
AVG:	10.54	10.67	11.15	11.69	11.75	11.69	10.70	9.70	9.58	8.91	8.79	8.55	8.74	8.83	8.80	8.93	8.66	9.04	9.45	9.42	9.50	9.79	10.10	10.46		

MONTHLY OBSERVATIONS: 716 MONTHLY MEAN: 9.81 MONTHLY MAX: 41.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-025-0004 POC: 23
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	5.9	5.7	6.2	6.3	6.2	5.9	6.8	8.2	8.0	8.1	7.8	7.2	6.9	7.0	7.5	7.2	6.5	6.4	8.6	6.0	5.9	6.0	7.2	5.7	24	6.80
2	4.9	4.2	4.8	5.2	6.2	6.5	5.0	4.1	4.0	4.2	4.3	4.3	4.8	5.6	6.8	7.0	7.3	8.3	8.5	6.9	6.7	6.7	8.7	8.5	24	5.98
3	8.4	8.1	7.3	5.8	4.6	4.3	4.5	3.3	3.2	7.5	8.5	6.6	5.6	6.3	5.8	5.6	5.2	6.0	4.3	5.0	5.1	7.8	14.0	10.2	24	6.38
4	10.1	10.6	11.8	13.3	14.2	19.3	22.6	16.5	8.4	6.2	6.3	4.7	2.8	1.5	1.1	1.2	1.0	1.3	1.8	2.7	2.8	3.7	5.3	3.8	24	7.21
5	2.8	2.8	2.9	2.8	2.6	2.5	2.9	2.9	2.4	2.5	2.5	2.5	2.6	2.8	2.8	2.8	2.8	2.8	2.8	2.9	3.2	2.8	2.8	2.9	24	2.75
6	3.1	2.5	2.7	2.5	2.8	3.7	4.5	5.4	6.6	5.5	4.7	4.3	4.2	4.5	5.0	5.4	5.5	6.4	7.7	6.6	6.6	6.7	7.2	8.1	24	5.09
7	7.5IF	7.3IF	7.3IF	7.5IF	7.7IF	8.0IF	10.2IF	11.6IF	11.4IF	12.1IF	12.3IF	13.0IF	14.5IF	13.8IF	12.7IF	10.8IF	9.4IF	9.5IF	10.3IF	10.7IF	12.0IF	12.2IF	13.0IF	12.2IF	24	10.71
8	13.8IF	16.9IF	14.4IF	12.1IF	12.5IF	12.9IF	16.1IF	13.6IF	13.9IF	14.1IF	15.8IF	18.1IF	18.7IF	18.3IF	16.4IF	15.0IF	15.8IF	13.8IF	13.3IF	12.0IF	12.6IF	12.6IF	15.7IF	13.1IF	24	14.65
9	13.0IF	11.8IF	10.9IF	10.3IF	9.7IF	8.4IF	7.4IF	7.3IF	8.3IF	9.7IF	11.1IF	12.3IF	13.4IF	15.0IF	16.9IF	17.9IF	17.5IF	17.4IF	15.3IF	15.2IF	15.3IF	15.1IF	14.8IF	15.7IF	24	12.90
10	14.3IF	14.8IF	16.7IF	22.9IF	28.6IF	AX	BA	20.0IF	24.1IF	23.1IF	25.5IF	29.4IF	30.6IF	30.9IF	25.7IF	19.8IF	14.9IF	9.8IF	7.5IF	8.0IF	5.7IF	4.6IF	4.0IF	4.1IF	22	17.50
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16																									0	
17																									0	
18																									0	
19																									0	
20																									0	
21																									0	
22																									0	
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	10	10	10	10	10	9	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
MAX:	14.3	16.9	16.7	22.9	28.6	19.3	22.6	20.0	24.1	23.1	25.5	29.4	30.6	30.9	25.7	19.8	17.5	17.4	15.3	15.2	15.3	15.1	15.7	15.7		
AVG:	8.38	8.47	8.50	8.87	9.51	7.94	8.89	9.29	9.03	9.30	9.88	10.24	10.41	10.57	10.07	9.27	8.59	8.17	8.01	7.60	7.59	7.82	9.27	8.43		

MONTHLY OBSERVATIONS: 238 MONTHLY MEAN: 8.93 MONTHLY MAX: 30.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 38-025-0004 POC: 3
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	AN	AN	AN	BA	AT	7.5	6.1	6.5	6.1	5.7	5.7	5.7	6.1	6.0	5.7	5.5	5.7	5.6	5.8	5.7	6.0	5.9	6.9	6.4	19	6.03
17	6.4IF	5.5IF	5.7IF	5.1IF	5.3IF	5.6IF	9.8IF	374.6IF	583.6IF	531.5IF	706.2IF	743.9IF	564.9IF	343.4IF	146.0IF	171.3IF	133.7IF	109.9IF	175.6IF	206.1IF	202.3IF	196.8IF	194.9IF	190.3IF	24	234.10
18	175.9IF	167.7IF	114.0IF	91.9IF	85.8IF	76.3IF	52.9IF	40.3IF	33.9IF	40.7IF	28.4IF	15.2IF	8.7IF	8.2IF	6.5IF	6.5IF	6.8IF	11.4IF	11.9IF	12.9IF	13.4IF	13.6IF	13.9IF	13.9IF	24	43.78
19	14.7	13.3	13.4	14.1	15.3	14.0	15.2	8.2	6.6	6.7	6.2	5.8	5.4	5.0	4.8	5.1	5.0	4.7	5.4	5.6	6.0	5.9	5.9	5.7	24	8.25
20	5.5IF	5.5IF	5.6IF	6.3IF	5.4IF	5.9IF	6.8IF	9.7IF	15.2IF	18.5IF	20.2IF	20.2IF	18.2IF	16.7IF	17.5IF	18.7IF	18.7IF	22.0IF	28.3IF	30.1IF	80.0IF	62.9IF	57.3IF	57.7IF	24	23.04
21	60.1IF	63.9IF	66.7IF	66.1IF	70.4IF	69.7IF	69.5IF	68.6IF	54.0IF	39.4IF	34.2IF	28.6IF	26.6IF	25.1IF	20.0IF	19.3IF	18.1IF	15.9IF	16.4IF	17.4IF	18.5IF	18.9IF	19.3IF	19.1IF	24	38.58
22	19.6IF	20.4IF	20.6IF	20.1IF	19.9IF	19.3IF	17.6IF	15.5IF	15.1IF	14.0IF	14.1IF	19.5IF	20.8IF	19.9IF	21.9IF	25.0IF	25.4IF	24.2IF	22.8IF	22.8IF	23.2IF	24.1IF	24.9IF	25.4IF	24	20.67
23	25.7IF	26.0IF	27.1IF	27.3IF	26.7IF	26.8IF	26.0IF	27.0IF	26.6IF	31.2IF	27.4IF	24.0IF	23.8IF	27.4IF	33.3IF	35.1IF	34.7IF	35.8IF	36.8IF	37.1IF	28.7IF	26.7IF	23.2IF	21.6IF	24	28.58
24	21.1IF	20.4IF	20.4IF	21.5IF	21.1IF	21.0IF	22.5IF	21.1IF	17.4IF	17.9IF	17.3IF	17.6IF	17.2IF	17.8IF	17.4IF	15.6IF	13.9IF	16.1IF	16.3IF	16.4IF	15.7IF	16.4IF	17.0IF	15.7IF	24	18.12
25	16.5IF	16.1IF	16.0IF	16.5IF	16.8IF	17.0IF	17.5IF	17.0IF	16.6IF	16.4IF	18.0IF	18.0IF	18.9IF	17.6IF	17.7IF	16.8IF	16.6IF	16.1IF	15.4IF	15.5IF	14.8IF	13.9IF	12.0IF	11.7IF	24	16.23
26	10.5	10.9	11.6	12.0	11.9	11.1	11.5	11.2	9.4	8.0	6.3	5.9	6.6	6.7	7.1	6.7	5.3	4.3	4.2	4.4	3.4	3.1	3.1	2.9	24	7.42
27	5.5	8.0	9.2	10.5	11.9	12.8	12.2	10.7	9.2	6.3	5.2	5.9	4.9	6.5	5.7	6.1	7.8	6.8	9.2	5.3	4.8	4.0	3.4	3.4	24	7.30
28	3.5	3.3	3.4	3.5	3.3	3.3	3.1	3.0	3.5	4.1	4.3	4.8	5.1	4.3	3.8	4.4	4.1	4.4	4.3	4.3	4.5	5.3	6.3	7.0	24	4.20
29	6.1	7.6	9.6	9.4	8.4	6.6	4.1	3.6	3.5	3.3	3.2	3.4	4.4	3.7	3.6	4.0	3.6	4.2	4.3	4.2	3.4	3.5	3.8	4.5	24	4.83
30	4.8	4.7	4.8	5.3	5.8	6.6	AX	7.9	7.5	6.7	5.7	6.2	7.9	9.1	8.8	8.6	8.5	8.4	8.2	8.7	9.3	9.0	10.0	10.9	23	7.54
31	10.1	9.3	10.4	10.0	9.8	8.3	8.6	8.6	6.0	5.3	5.2	6.5	6.3	5.7	6.7	6.4	4.9	5.8	4.4	5.9	7.9	8.7	9.7	9.3	24	7.49
NO.:	15	15	15	15	15	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
MAX:	175.9	167.7	114.0	91.9	85.8	76.3	69.5	374.6	583.6	531.5	706.2	743.9	564.9	343.4	146.0	171.3	133.7	109.9	175.6	206.1	202.3	196.8	194.9	190.3		
AVG:	25.73	25.51	22.57	21.31	21.19	19.49	18.89	39.59	50.89	47.23	56.73	58.20	46.61	32.69	20.41	22.19	19.55	18.48	23.08	25.15	27.62	26.17	25.73	25.34		

MONTHLY OBSERVATIONS: 378 MONTHLY MEAN: 30.13 MONTHLY MAX: 743.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-025-0004 POC: 3
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	9.1	9.2	9.1	9.4	9.8	9.5	10.2	9.3	6.4	5.7	5.5	5.3	5.0	5.2	4.5	4.3	4.2	4.5	4.7	5.6	4.9	3.9	4.2	4.4	24	6.41
2	4.0	4.3	4.8	5.2	5.6	6.7	7.7	7.5	6.0	5.3	4.7	4.8	4.8	5.1	4.8	4.7	4.4	4.4	5.0	5.3	5.7	6.0	6.3	6.3	24	5.39
3	6.1	6.2	6.8	7.4	7.3	7.1	7.3	7.3	7.4	7.6	6.3	5.4	6.9	7.0	7.3	7.4	8.0	6.6	5.1	5.4	5.9	6.2	6.6	7.0	24	6.73
4	7.9	8.5	9.3	10.8	10.3	10.6	9.0	6.5	6.2	5.3	5.9	7.0	6.8	5.9	7.0	7.2	8.4	9.5	7.7	7.3	7.8	8.0	7.3	7.7	24	7.83
5	7.5IF	7.6IF	8.5IF	10.3IF	10.4IF	10.1IF	9.7IF	8.5IF	7.9IF	8.1IF	8.6IF	9.1IF	8.3IF	8.1IF	8.1IF	7.7IF	7.7IF	7.1IF	7.8IF	7.8IF	8.6IF	9.7IF	9.2IF	9.4IF	24	8.58
6	10.0IF	11.3IF	13.1IF	14.5IF	15.1IF	13.5IF	12.3IF	10.8IF	10.2IF	10.4IF	10.0IF	9.7IF	8.9IF	8.8IF	9.0IF	9.1IF	8.7IF	8.4IF	9.2IF	8.7IF	10.2IF	10.3IF	10.8IF	13.3IF	24	10.68
7	15.5IF	18.7IF	19.4IF	21.7IF	26.5IF	22.6IF	14.2IF	10.6IF	11.5IF	10.8IF	9.4IF	8.2IF	8.2IF	8.8IF	8.8IF	8.4IF	8.4IF	8.7IF	10.8IF	10.5IF	10.4IF	11.4IF	11.4IF	13.0IF	24	12.83
8	12.5IF	13.5IF	15.0IF	16.1IF	16.3IF	15.7IF	13.0IF	11.3IF	12.2IF	11.2IF	12.2IF	12.5IF	10.4IF	10.0IF	10.2IF	9.2IF	8.3IF	9.5IF	9.5IF	9.4IF	8.4IF	6.1IF	6.7IF	9.7IF	24	11.20
9	12.7IF	13.1IF	15.2IF	13.8IF	14.8IF	16.9IF	17.5IF	17.0IF	15.2IF	10.3IF	10.2IF	10.4IF	11.5IF	10.5IF	7.1IF	9.2IF	7.0IF	6.8IF	8.3IF	11.3IF	19.4IF	24.9IF	30.1IF	28.4IF	24	14.23
10	21.5IF	20.4IF	21.9IF	23.7IF	24.8IF	25.5IF	24.9IF	25.1IF	23.9IF	24.2IF	22.9IF	21.6IF	20.5IF	19.7IF	19.3IF	16.7IF	13.9IF	9.7IF	9.2IF	9.5IF	10.9IF	13.0IF	12.8IF	12.8IF	24	18.68
11	13.1IF	10.5IF	12.5IF	13.1IF	12.6IF	11.9IF	13.5IF	10.9IF	7.4IF	7.0IF	7.0IF	7.0IF	7.0IF	6.7IF	7.5IF	8.4IF	8.9IF	9.6IF	10.1IF	12.5IF	9.7IF	9.3IF	10.6IF	10.6IF	24	9.89
12	13.0IF	12.7IF	13.1IF	14.5IF	14.1IF	13.2IF	AZ	AX	14.5IF	13.5IF	14.3IF	16.0IF	17.7IF	17.7IF	17.0IF	17.7IF	16.0IF	16.8IF	17.4IF	17.1IF	17.1IF	19.2IF	24.4IF	23.5IF	22	16.39
13	19.0IF	20.2IF	21.3IF	20.4IF	18.7IF	28.3IF	18.1IF	19.7IF	19.0IF	18.1IF	18.0IF	16.5IF	16.6IF	19.8IF	19.4IF	21.7IF	19.3IF	27.3IF	37.1IF	33.5IF	29.7IF	26.1IF	25.7IF	25.7IF	24	22.47
14	25.3IF	26.7IF	28.0IF	28.2IF	26.9IF	26.7IF	25.1IF	21.8IF	16.8IF	16.0IF	16.0IF	15.2IF	14.2IF	16.0IF	17.9IF	21.7IF	20.9IF	19.3IF	19.6IF	18.5IF	18.2IF	18.5IF	17.8IF	5.5IF	24	20.03
15	4.5	4.5	6.6	9.2	6.2	5.4	4.1	3.9	4.3	4.2	4.3	4.0	3.9	4.6	5.9	6.1	6.3	6.1	6.1	6.8	5.6	5.4	6.2	16.0	24	5.84
16	19.2IF	19.2IF	19.8IF	20.5IF	22.8IF	25.4IF	27.9IF	27.6IF	25.0IF	25.8IF	25.1IF	23.6IF	25.2IF	25.1IF	28.0IF	28.9IF	29.2IF	28.8IF	28.0IF	29.2IF	28.9IF	28.3IF	29.0IF	30.1IF	24	25.86
17	29.4IF	27.2IF	26.3IF	25.8IF	21.9IF	19.5IF	20.4IF	21.1IF	21.8IF	22.2IF	21.3IF	19.9IF	22.2IF	21.9IF	22.6IF	21.7IF	19.4IF	19.0IF	18.8IF	15.4IF	15.4IF	16.3IF	16.1IF	16.4IF	24	20.92
18	16.2IF	17.8IF	19.1IF	18.0IF	14.7IF	14.5IF	15.0IF	13.0IF	12.9IF	10.0IF	8.0IF	9.0IF	9.4IF	11.2IF	11.2IF	9.6IF	8.9IF	9.2IF	12.4IF	12.2IF	12.5IF	12.3IF	8.5IF	6.4IF	24	12.17
19	5.2	4.1	3.6	3.4	3.8	3.9	3.8	3.5	3.3	3.5	3.5	3.8	3.9	3.5	4.2	3.4	3.5	4.0	4.4	4.5	7.0	6.1	4.4	3.9	24	4.09
20	3.7	4.8	5.6	4.4	4.3	4.6	5.5	6.0	6.8	9.2	10.4	8.4	8.4	8.2	5.5	4.7	4.9	4.9	4.2	5.2	6.2	4.1	4.8	3.9	24	5.78
21	3.3	3.2	3.2	3.3	3.3	3.1	2.7	3.0	3.1	3.5	3.7	3.1	3.4	3.6	3.5	4.3	3.4	3.4	3.9	3.7	3.3	3.6	4.0	3.4	24	3.42
22	3.2	3.2	3.2	3.0	3.1	3.1	2.9	2.9	AZ	3.1	3.2	3.1	2.7	2.5	2.7	2.8	3.0	2.8	2.9	2.6	2.9	3.4	3.8	4.6	23	3.07
23	5.6	6.2	6.9	6.5	7.0	6.7	6.1	5.3	6.5	4.6	7.3	8.1	9.7	4.4	5.6	4.8	6.6	15.3	10.7	5.0	4.3	3.6	3.2	3.3	24	6.39
24	3.6	4.5	6.4	7.4	10.2	8.0	5.8	6.0	7.8	7.8	6.1	5.4	5.3	5.0	4.7	4.6	4.7	4.5	4.9	5.2	5.6	5.6	5.9	5.9	24	5.87
25	5.6	5.5	5.8	5.6	5.5	5.3	5.5	5.5	5.2	5.2	5.0	5.2	5.5	5.3	5.3	5.4	5.2	5.4	5.7	7.2	6.5	8.3	10.0	10.6	24	6.05
26	13.4	10.1	8.6	10.7	AX	10.1	7.6	5.6	5.4	5.2	5.1	5.1	4.8	4.8	5.0	4.9	4.8	5.4	5.2	5.4	4.2	4.2	4.5	4.6	23	6.29
27	5.1	5.5	5.8	6.5	5.4	4.4	4.5	4.1	4.0	4.3	4.5	4.4	4.3	4.4	4.6	4.9	4.6	5.5	4.3	4.6	4.6	4.8	4.9	6.7	24	4.86
28	6.6	5.5	5.3	5.2	5.2	5.0	4.8	4.8	4.8	4.9	5.1	6.0	7.8	9.4	8.8	8.9	13.4	13.8	12.2	9.8	7.6	8.5	9.4	10.9	24	7.65
29	12.6IF	15.3IF	15.2IF	17.1IF	16.8IF	16.0IF	14.1IF	13.6IF	13.5IF	13.1IF	13.1IF	12.7IF	13.9IF	14.9IF	14.5IF	14.3IF	13.5IF	12.6IF	18.5IF	24.9IF	27.9IF	32.5IF	35.7IF	42.2IF	24	18.27
30	41.4IF	42.4IF	40.2IF	41.5IF	42.1IF	43.3IF	34.7IF	21.1IF	17.5IF	16.4IF	16.2IF	14.6IF	13.6IF	13.9IF	11.4IF	11.3IF	10.6IF	9.2IF	7.9IF	7.3IF	4.9IF	5.9IF	5.4IF	6.6IF	24	19.98
31																									0	
NO.:	30	30	30	30	29	30	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	41.4	42.4	40.2	41.5	42.1	43.3	34.7	27.6	25.0	25.8	25.1	23.6	25.2	25.1	28.0	28.9	29.2	28.8	37.1	33.5	29.7	32.5	35.7	42.2		
AVG:	11.86	12.06	12.65	13.24	13.29	13.22	12.00	10.80	10.57	9.88	9.76	9.50	9.69	9.73	9.71	9.80	9.54	9.94	10.39	10.38	10.48	10.85	11.32	11.76		

MONTHLY OBSERVATIONS: 716 MONTHLY MEAN: 10.93 MONTHLY MAX: 43.3

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-025-0004 POC: 3
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: MULTIPLE METHODS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

HOUR DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	7.3	7.0	7.6	7.7	7.6	7.3	7.7	9.1	8.9	9.0	8.7	8.1	7.8	7.9	8.4	8.1	7.4	7.3	9.5	6.9	6.8	6.9	8.1	6.6	24	7.82
2	5.8	5.1	5.7	6.1	7.6	7.4	5.9	5.0	4.9	5.1	5.2	5.2	5.7	6.5	7.7	7.9	8.2	9.2	9.4	7.8	7.6	7.6	10.6	10.4	24	6.98
3	10.3	9.9	9.0	7.1	5.7	5.3	5.5	4.1	3.9	9.2	10.4	8.1	6.9	7.8	6.7	6.5	6.1	6.9	5.2	6.2	6.3	9.6	15.9	12.1	24	7.70
4	12.0	12.5	13.7	15.2	16.1	21.2	24.5	18.4	10.3	7.6	7.7	5.8	3.4	1.9	1.4	1.5	1.2	1.6	2.2	3.3	3.5	4.6	6.5	4.7	24	8.37
5	3.5	3.4	3.6	3.4	3.2	3.1	3.6	3.6	3.0	3.1	3.1	3.1	3.2	3.5	3.4	3.4	3.4	3.5	3.4	3.6	3.9	3.4	3.5	3.6	24	3.40
6	3.8	3.1	3.3	3.1	3.4	4.5	5.5	6.7	7.5	6.4	5.6	5.2	5.1	5.4	5.9	6.3	6.4	7.3	8.6	7.5	7.5	8.3	8.8	10.0	24	6.05
7	9.2IF	9.0IF	9.0IF	9.2IF	9.5IF	9.8IF	12.1IF	13.5IF	13.3IF	13.0IF	13.2IF	13.9IF	15.4IF	14.7IF	13.6IF	11.7IF	10.3IF	10.4IF	11.2IF	11.6IF	13.9IF	14.1IF	14.9IF	14.1IF	24	12.11
8	15.7IF	18.8IF	16.3IF	14.0IF	14.4IF	14.8IF	18.0IF	14.5IF	14.8IF	15.0IF	16.7IF	19.0IF	19.6IF	19.2IF	17.3IF	15.9IF	16.7IF	14.7IF	14.2IF	13.9IF	14.5IF	14.5IF	17.6IF	15.0IF	24	16.05
9	14.9IF	13.7IF	12.8IF	12.2IF	11.6IF	10.3IF	9.1IF	8.2IF	9.2IF	10.6IF	12.0IF	13.2IF	14.3IF	15.9IF	17.8IF	18.8IF	18.4IF	18.3IF	16.2IF	16.1IF	16.2IF	16.0IF	15.7IF	16.6IF	24	14.09
10	16.2IF	16.7IF	18.6IF	24.8IF	30.5IF	AX	BA	21.9IF	25.0IF	24.0IF	26.4IF	30.3IF	31.5IF	31.8IF	26.6IF	20.7IF	15.8IF	10.7IF	8.4IF	8.9IF	7.0IF	5.7IF	4.9IF	5.1IF	22	18.70
11	5.1	4.8	4.4	3.9	3.7	3.7	3.6	3.4	3.2	3.0	3.0	3.3	3.2	3.0	3.0	3.0	2.8	2.6	2.6	2.6	2.7	2.7	2.6	2.7	24	3.28
12	2.6	2.8	2.8	2.7	3.7	4.5	5.3	4.5	4.3	4.1	4.2	4.7	4.8	5.0	5.4	5.3	5.3	5.6	5.8	6.1	5.7	5.6	5.7	5.8	24	4.68
13	6.0IF	6.1IF	6.2IF	6.0IF	8.3IF	10.2IF	10.5IF	8.5IF	6.3IF	6.9IF	8.4IF	13.8IF	18.7IF	23.8IF	23.7IF	23.3IF	18.1IF	16.8IF	16.8IF	17.1IF	17.5IF	15.0IF	17.5IF	20.0IF	24	13.56
14	17.8rf	19.8rf	23.4rf	25.4rf	28.7rf	31.2rf	43.2rf	59.2rf	83.7rf	93.2rf	61.2rf	60.2rf	70.3rf	76.6rf	92.3rf	101.9rf	104.4rf	95.6rf	92.9rf	96.6rf	93.3rf	114.0rf	111.9rf	99.1rf	24	70.66
15	113.1rf	128.3rf	128.0rf	123.0rf	97.0rf	84.0rf	82.6rf	55.6rf	41.9rf	40.2rf	50.4rf	68.5rf	73.8rf	73.7rf	72.8rf	46.1rf	37.0rf	52.3rf	64.2rf	72.1rf	71.0rf	77.3rf	87.7rf	86.7rf	24	76.14
16	87.4rf	92.4rf	101.1rf	111.2rf	115.8rf	113.1rf	104.8rf	62.1rf	23.7rf	15.3rf	11.7rf	10.0rf	9.0rf	6.9rf	7.8rf	7.2rf	6.5rf	7.0rf	5.9rf	6.2rf	6.1rf	7.1rf	8.5rf	8.3rf	24	38.96
17	8.1	10.5	9.5	6.2	6.3	6.2	5.0	4.1	3.2	4.3	6.7	7.6	7.4	6.7	6.7	7.5	7.7	7.5	6.6	6.5	6.1	5.9	6.1	6.1	24	6.60
18	6.0IF	5.6IF	5.5IF	5.6IF	5.7IF	5.1IF	5.6IF	6.8IF	10.2IF	17.8IF	22.6IF	24.6IF	23.0IF	17.0IF	9.8IF	6.4IF	5.4IF	4.4IF	4.6IF	5.2IF	5.2IF	5.1IF	5.2IF	5.3IF	24	9.07
19	6.1IF	7.2IF	10.3IF	11.6IF	11.0IF	11.2IF	13.1IF	11.0IF	9.5IF	11.1IF	10.8IF	10.1IF	9.9IF	7.4IF	7.1IF	6.7IF	7.2IF	8.2IF	8.0IF	8.1IF	7.7IF	9.1IF	8.8IF	8.5IF	24	9.15
20	9.0IF	9.4IF	10.4IF	11.2IF	12.0IF	11.5IF	12.9IF	14.7IF	15.8IF	15.1IF	13.9IF	14.3IF	14.9IF	14.5IF	13.4IF	12.5IF	12.4IF	12.2IF	11.7IF	12.0IF	12.7IF	13.1IF	16.5IF	15.4IF	24	12.98
21	14.1IF	14.8IF	14.8IF	19.9IF	22.7IF	19.2IF	17.8IF	17.1IF	14.6IF	14.8IF	15.5IF	15.8IF	15.2IF	14.7IF	13.8IF	14.0IF	13.8IF	12.1IF	12.6IF	15.1IF	21.0IF	17.2IF	14.4IF	14.9IF	24	15.83
22	16.0rf	17.6rf	18.7rf	18.4rf	18.0rf	17.5rf	18.5rf	18.4rf	19.3rf	21.2rf	22.3rf	23.0rf	23.6rf	22.8rf	23.0rf	21.7rf	21.7rf	22.0rf	24.7rf	25.8rf	26.0rf	26.4rf	26.0rf	26.1rf	24	21.61
23	26.6IF	21.2IF	18.2IF	19.1IF	19.2IF	17.9IF	17.6IF	14.7IF	10.8IF	8.3IF	6.7IF	6.1IF	5.0IF	5.3IF	7.0IF	7.4IF	7.5IF	7.3IF	9.5IF	9.9IF	9.9IF	9.8IF	10.2IF	9.3IF	24	11.85
24	9.3IF	9.5IF	10.1IF	11.0IF	AX	11.9IF	14.5IF	15.0IF	15.3IF	15.4IF	15.0IF	13.1IF	12.5IF	12.4IF	12.6IF	13.0IF	13.0IF	12.4IF	11.2IF	11.1IF	11.1IF	11.2IF	11.3IF	10.6IF	23	12.28
25	10.9IF	10.7IF	10.5IF	6.4IF	7.2IF	9.1IF	9.3IF	9.0IF	9.1IF	9.3IF	8.7IF	9.1IF	9.3IF	10.0IF	9.5IF	8.9IF	10.2IF	10.0IF	10.7IF	11.0IF	10.9IF	12.0IF	12.1IF	11.7IF	24	9.82
26	11.3IF	11.0IF	10.7IF	11.0IF	10.7IF	13.3IF	12.8IF	11.0IF	10.3IF	8.5IF	8.7IF	7.3IF	6.3IF	7.3IF	7.7IF	7.6IF	7.4IF	7.3IF	9.6IF	10.6IF	9.8IF	10.1IF	9.7IF	10.6IF	24	9.61
27	11.3	10.1	8.5	6.8	6.6	6.9	6.8	7.3	7.8	8.1	8.4	8.1	6.9	5.6	5.5	5.5	5.6	5.8	6.5	7.9	7.0	7.2	7.4	5.7	24	7.22
28	5.2	5.1	5.8	5.2	5.3	5.3	5.5	5.8	5.8	5.8	5.6	5.1	4.5	4.5	4.5	4.6	4.6	4.5	4.2	4.2	4.4	4.5	4.6	4.8	24	4.98
29	4.6	5.0	4.8	4.9	4.7	4.7	5.0	5.1	5.6	5.7	6.0	7.3	7.1	6.3	6.2	5.8	5.8	5.6	5.4	5.3	5.3	5.2	5.1	4.8	24	5.47
30	5.2	5.0	5.1	5.2	4.8	4.5	5.4	4.2	3.8	3.6	3.1	3.3	3.5	3.4	3.6	3.5	3.6	3.7	3.5	3.2	3.2	3.6	3.9	3.9	24	3.99
31	3.9	3.8	3.8	4.0	4.1	4.2	4.5	5.1	5.4	6.1	6.2	6.7	7.1	7.5	7.2	7.2	7.2	6.6	5.6	5.5	4.9	5.1	5.1	5.1	24	5.50
NO.:	31	31	31	31	30	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	113.1	128.3	128.0	123.0	115.8	113.1	104.8	62.1	83.7	93.2	61.2	68.5	73.8	76.6	92.3	101.9	104.4	95.6	92.9	96.6	93.3	114.0	111.9	99.1		
AVG:	15.43	16.13	16.52	16.82	16.84	15.96	16.54	14.44	13.24	13.57	13.16	14.00	14.48	14.48	14.56	13.55	12.94	12.88	13.25	13.80	13.83	14.77	15.70	14.95		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 14.65 MONTHLY MAX: 128.3

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-025-0004 POC: 3
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	5.1	4.5	4.7	5.1	5.3	4.4	5.3	5.1	5.1	4.7	4.5	5.0	5.2	5.8	6.2	5.6	5.7	8.6	5.5	5.5	4.8	4.4	5.1	5.6	24	5.28
2	5.4	4.9	4.1	4.0	4.1	4.4	4.3	4.3	4.6	5.3	5.6	5.9	5.7	5.6	5.7	5.0	4.9	5.0	4.8	4.7	4.6	4.8	5.0	5.4	24	4.92
3	5.6	5.8	5.7	6.6	6.1	6.1	5.8	5.3	4.7	4.6	5.0	5.3	6.6	6.4	AV	AV	AV	AV	4.5	3.9	3.9	4.0	4.1	3.7	20	5.19
4	4.2	4.5	4.6	3.9	4.0	3.9	4.7	4.1	4.6	4.5	5.3	4.2	4.3	4.8	5.7	5.5	5.2	5.1	8.2	10.1	10.6	11.2	7.4	6.1	24	5.70
5	5.9	5.9	6.1	5.9	5.5	4.8	4.6	6.2	8.0	7.5	7.9	7.8	10.4	10.7	9.8	10.1	10.7	11.2	11.4	13.2	13.6	13.7	12.4	12.3	24	8.98
6	12.0IF	11.4IF	11.2IF	11.3IF	10.9IF	10.7IF	11.1IF	12.9IF	15.3IF	15.7IF	15.5IF	15.8IF	14.9IF	15.8IF	17.3IF	16.9IF	17.8IF	23.8IF	26.5IF	28.8IF	30.0IF	29.9IF	30.3IF	32.9IF	24	18.28
7	32.6rf	36.7rf	43.3rf	51.8rf	54.0rf	72.0rf	72.2rf	77.2rf	60.9rf	34.6rf	29.1rf	28.5rf	32.6rf	29.1rf	29.8rf	28.5rf	27.0rf	17.7rf	15.1rf	15.4rf	12.8rf	11.7rf	12.3rf	11.4rf	24	34.85
8	9.5IF	9.2IF	9.3IF	10.3IF	AX	11.7IF	11.9IF	12.6IF	12.3IF	10.6IF	11.3IF	11.9IF	17.2IF	22.0IF	21.6IF	20.5IF	19.4IF	18.9IF	18.0IF	17.5IF	10.8IF	6.4IF	8.2IF	8.3IF	23	13.45
9	10.7IF	11.9IF	16.8IF	15.9IF	16.2IF	15.9IF	15.8IF	16.8IF	20.3IF	18.3IF	19.5IF	24.7IF	21.7IF	17.9IF	17.7IF	18.7IF	20.3IF	21.5IF	16.8IF	17.9IF	18.1IF	14.0IF	13.0IF	13.0IF	24	17.23
10	13.9	13.5	13.2	14.2	14.9	15.1	15.3	16.5	15.9	15.4	10.7	5.5	5.1	4.3	4.3	4.0	3.5	3.9	3.3	3.3	3.5	3.5	3.3	4.8	24	8.79
11	3.5	3.8	3.6	3.6	3.8	3.9	3.5	2.9	2.4	2.7	2.9	2.6	2.7	2.7	2.6	2.4	2.5	2.4	2.3	2.7	3.1	4.1	3.7	3.6	24	3.08
12	3.4	3.7	3.8	3.5	3.8	3.5	3.4	3.0	2.9	2.6	2.6	2.8	3.0	3.0	2.8	2.9	3.0	3.3	3.1	3.6	3.7	3.5	3.4	3.5	24	3.24
13	3.4	3.6	2.3	2.5	1.9	1.9	2.7	2.6	2.7	2.9	3.3	4.1	4.3	3.9	3.7	2.8	3.2	3.5	3.3	3.8	4.0	4.2	4.4	4.5	24	3.31
14	4.9	4.6	4.6	4.5	4.2	4.2	3.9	3.6	3.3	3.7	6.2	8.5	8.9	8.4	7.9	7.4	6.5	5.9	6.5	6.8	6.8	6.2	6.0	6.1	24	5.82
15	6.3	6.4	6.1	6.2	6.0	5.4	5.4	5.2	4.7	4.2	4.0	3.8	3.6	3.5	3.7	3.7	3.8	3.9	3.9	5.8	7.4	6.6	5.4	5.0	24	5.00
16	4.5	4.4	4.1	4.1	4.2	4.5	13.2	22.8	11.3	6.7	6.5	7.1	8.4	8.6	7.4	6.9	7.5	8.2	8.7	11.4	13.0	13.4	12.7	12.6	24	8.84
17	11.4IF	11.4IF	10.9IF	10.7IF	11.8IF	12.5IF	11.8IF	11.4IF	13.9IF	12.2IF	12.7IF	14.2IF	15.6IF	16.9IF	15.7IF	14.9IF	14.3IF	14.8IF	15.0IF	14.5IF	14.0IF	13.4IF	13.1IF	12.6IF	24	13.32
18	12.7rf	13.1rf	13.2rf	13.4rf	13.6rf	13.4rf	13.4rf	13.7rf	14.7rf	16.6rf	17.9rf	19.0rf	22.9rf	40.0rf	42.4rf	52.4rf	48.2rf	37.6rf	37.4rf	38.5rf	38.1rf	41.7rf	42.6rf	42.6rf	24	27.46
19	36.2IF	29.4IF	23.8IF	20.6IF	20.9IF	19.8IF	21.6IF	18.6IF	17.0IF	21.4IF	24.4IF	24.3IF	19.8IF	12.2IF	9.0IF	10.6IF	9.6IF	8.6IF	8.3IF	8.3IF	8.1IF	8.5IF	8.6IF	8.9IF	24	16.60
20	9.1IF	9.4IF	9.8IF	9.9IF	9.7IF	9.2IF	10.1IF	11.2IF	11.6IF	12.2IF	12.8IF	13.7IF	13.5IF	15.5IF	17.5IF	23.1IF	24.3IF	24.6IF	22.6IF	22.1IF	21.0IF	15.7IF	15.7IF	15.0IF	24	14.97
21	19.2IF	23.3IF	19.6IF	15.3IF	14.5IF	AX	14.7IF	13.9IF	13.6IF	12.3IF	9.7IF	9.6IF	11.4IF	15.5IF	28.9IF	41.8IF	20.1IF	23.9IF	21.3IF	16.0IF	16.7IF	16.4IF	16.1IF	16.2IF	23	17.83
22	15.0IF	16.0IF	12.6IF	11.6IF	14.1IF	14.4IF	14.5IF	11.8IF	10.1IF	7.8IF	8.8IF	9.4IF	9.3IF	9.5IF	10.4IF	10.7IF	10.0IF	9.2IF	8.7IF	8.2IF	8.6IF	9.2IF	10.7IF	9.6IF	24	10.84
23	8.5	5.4	5.9	8.3	11.0	14.1	12.0	11.3	12.8	11.0	8.9	8.8	7.3	5.6	3.7	4.6	5.1	5.0	4.8	5.5	7.0	7.8	8.0	7.7	24	7.92
24	8.5	8.5	8.5	9.1	9.0	8.0	9.3	8.7	7.0	5.9	5.6	4.8	5.0	5.3	4.8	4.8	3.8	4.0	3.9	4.2	4.1	5.0	5.2	11.7	24	6.45
25	15.5IF	18.0IF	16.9IF	16.5IF	16.2IF	18.6IF	21.1IF	23.2IF	23.8IF	18.3IF	14.2IF	13.7IF	14.5IF	16.7IF	18.9IF	18.7IF	14.3IF	7.8IF	6.4IF	6.4IF	6.7IF	6.7IF	7.1IF	7.6IF	24	14.49
26	7.7IF	8.0IF	5.7IF	7.4IF	7.7IF	7.7IF	7.4IF	9.4IF	11.9IF	11.3IF	12.0IF	11.6IF	11.2IF	11.3IF	11.4IF	11.6IF	11.5IF	11.4IF	11.1IF	11.4IF	11.6IF	12.8IF	12.7IF	11.9IF	24	10.32
27	11.3IF	11.3IF	11.1IF	10.8IF	11.0IF	11.2IF	11.7IF	10.9IF	10.7IF	11.5IF	11.5IF	11.4IF	9.7IF	9.2IF	10.0IF	10.5IF	9.2IF	9.4IF	10.4IF	10.2IF	10.4IF	11.3IF	11.3IF	10.9IF	24	10.70
28	11.2rf	11.9rf	12.6rf	13.8rf	14.4rf	14.7rf	15.2rf	13.9rf	17.1rf	17.0rf	23.3rf	27.1rf	29.9rf	32.9rf	39.6rf	46.4rf	46.5rf	49.7rf	53.1rf	58.3rf	58.8rf	58.8rf	57.2rf	55.5rf	24	32.45
29	51.9rf	48.3rf	48.0rf	50.5rf	55.6rf	59.4rf	56.8rf	49.6rf	59.2rf	78.1rf	72.4rf	61.4rf	49.9rf	50.9rf	56.4rf	56.4rf	54.0rf	52.9rf	52.2rf	49.9rf	52.3rf	57.4rf	61.7rf	65.8rf	24	56.29
30	68.9rf	71.0rf	71.3rf	70.3rf	70.4rf	68.3rf	64.2rf	64.5rf	66.5rf	68.5rf	64.9rf	58.7rf	55.4rf	50.4rf	46.4rf	45.1rf	44.7rf	47.0rf	46.7rf	46.3rf	44.8rf	41.4rf	34.1rf	9.1rf	24	54.95
31	9.4IF	9.1IF	9.0IF	9.3IF	9.1IF	8.1IF	7.1IF	6.8IF	6.5IF	5.5IF	3.4IF	3.4IF	5.0IF	6.7IF	8.1IF	8.7IF	10.5IF	13.8IF	14.3IF	13.6IF	13.8IF	14.2IF	14.6IF	14.8IF	24	9.37
NO.:	31	31	31	31	30	30	31	31	31	31	31	31	31	31	30	30	30	30	31	31	31	31	31	31		
MAX:	68.9	71.0	71.3	70.3	70.4	72.0	72.2	77.2	66.5	78.1	72.4	61.4	55.4	50.9	56.4	56.4	54.0	52.9	53.1	58.3	58.8	58.8	61.7	65.8		
AVG:	13.79	13.84	13.63	13.90	14.46	15.06	15.29	15.48	15.34	14.63	14.27	14.02	14.03	14.55	15.65	16.71	15.57	15.42	14.78	15.09	15.05	14.90	14.69	14.15		

MONTHLY OBSERVATIONS: 738 MONTHLY MEAN: 14.76 MONTHLY MAX: 78.1

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-025-0004 POC: 3
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	15.8rf	16.9rf	18.2rf	19.0rf	20.7rf	22.6rf	24.5rf	29.3rf	33.6rf	38.0rf	35.7rf	29.0rf	25.6rf	21.3rf	21.0rf	20.4rf	20.4rf	21.7rf	23.2rf	25.2rf	26.0rf	28.1rf	28.1rf	27.8rf	24	24.67
2	27.5IF	26.2IF	27.7IF	26.9IF	27.5IF	27.2IF	24.4IF	24.9IF	21.0IF	18.3IF	15.5IF	15.2IF	12.9IF	10.6IF	10.2IF	9.5IF	9.5IF	9.2IF	7.9IF	8.2IF	8.0IF	8.4IF	11.3IF	10.6IF	24	16.61
3	12.0rf	13.5rf	18.8rf	25.7rf	37.1rf	34.9rf	39.4rf	56.1rf	101.7rf	109.6rf	103.7rf	86.6rf	76.0rf	72.3rf	75.4rf	72.7rf	64.8rf	58.3rf	55.7rf	52.4rf	41.5rf	37.1rf	38.3rf	28.2rf	24	54.66
4	20.7rf	18.6rf	19.9rf	29.2rf	27.1rf	25.1rf	27.3rf	25.6rf	20.1rf	20.0rf	18.2rf	13.7rf	9.7rf	8.0rf	7.0rf	6.4rf	80.1rf	184.7rf	209.4rf	174.9rf	150.7rf	140.5rf	168.9rf	169.2rf	24	65.63
5	116.6rf	116.1rf	112.4rf	122.0rf	141.5rf	147.1rf	152.6rf	151.2rf	149.4rf	147.7rf	140.6rf	118.7rf	85.1rf	51.7rf	48.4rf	39.4rf	39.6rf	31.5rf	30.6rf	31.4rf	34.6rf	36.7rf	34.6rf	34.8rf	24	88.10
6	31.1rf	31.2rf	30.1rf	29.7rf	29.4rf	26.3rf	22.4rf	AX	23.4rf	29.6rf	50.2rf	60.1rf	61.8rf	60.2rf	59.0rf	59.9rf	59.2rf	52.6rf	49.9rf	56.7rf	65.1rf	72.7rf	73.7rf	73.8rf	23	48.18
7	75.3rf	77.9rf	76.7rf	72.5rf	68.8rf	62.7rf	56.1rf	51.1rf	52.5rf	55.5rf	57.8rf	57.1rf	55.5rf	48.8rf	26.1rf	16.7rf	6.1rf	6.8rf	5.0rf	4.9rf	5.6rf	10.1rf	19.6rf	29.3rf	24	41.60
8	26.2IF	26.5IF	27.2IF	25.8IF	25.6IF	26.3IF	25.6IF	26.9IF	25.0IF	21.1IF	15.9IF	14.2IF	13.2IF	10.4IF	8.5IF	6.5IF	6.4IF	5.5IF	7.7IF	8.2IF	6.7IF	7.3IF	8.4IF	9.3IF	24	16.02
9	10.0IF	9.8IF	13.4IF	13.1IF	11.8IF	11.9IF	10.2IF	10.1IF	10.5IF	11.8IF	11.2IF	10.9IF	9.8IF	9.1IF	10.0IF	10.0IF	12.6IF	12.6IF	12.0IF	12.5IF	12.9IF	13.4IF	13.8IF	16.1IF	24	11.65
10	16.8IF	15.8IF	16.2IF	16.7IF	15.7IF	17.0IF	16.7IF	16.8IF	16.3IF	13.9IF	15.1IF	14.9IF	15.2IF	15.8IF	15.8IF	15.6IF	15.6IF	14.7IF	14.7IF	14.1IF	14.8IF	16.0IF	15.4IF	16.3IF	24	15.66
11	16.5IF	14.5IF	13.6IF	14.2IF	13.7IF	13.2IF	12.2IF	11.3IF	11.1IF	11.7IF	12.8IF	13.6IF	13.9IF	13.2IF	12.1IF	AV	AV	AV	AV	8.1IF	7.7IF	6.5IF	6.0IF	6.1IF	20	11.60
12	6.2	6.2	7.4	7.6	7.4	7.6	7.9	7.8	7.3	6.9	7.3	7.6	8.9	9.2	9.1	8.6	8.5	8.0	8.1	8.2	7.8	7.7	7.4	7.0	24	7.74
13	6.4	6.2	6.0	5.8	5.7	5.1	4.7	4.9	5.4	5.7	6.3	6.8	7.1	7.1	7.2	7.3	7.1	7.2	7.7	7.5	8.4	8.5	6.3	4.9	24	6.47
14	4.5IF	4.3IF	4.2IF	4.4IF	5.1IF	6.3IF	7.8IF	8.2IF	12.0IF	22.8IF	43.4IF	66.8IF	65.0IF	36.0IF	25.6IF	21.1IF	18.3IF	17.9IF	18.6IF	17.1IF	16.3IF	16.5IF	14.9IF	11.9IF	24	19.54
15	9.5rf	9.7rf	10.6rf	10.8rf	11.3rf	14.8rf	24.6rf	39.4rf	61.2rf	82.2rf	69.6rf	49.9rf	40.5rf	43.7rf	46.2rf	40.0rf	33.7rf	30.8rf	32.1rf	37.1rf	35.9rf	33.3rf	33.1rf	32.7rf	24	34.70
16	37.9rf	45.2rf	48.2rf	51.4rf	66.3rf	66.4rf	79.6rf	84.1rf	78.7rf	80.5rf	72.2rf	58.8rf	48.9rf	46.6rf	43.7rf	39.6rf	38.2rf	43.1rf	47.2rf	45.8rf	37.2rf	37.3rf	39.8rf	37.7rf	24	53.10
17	32.7rf	32.8rf	35.8rf	38.6rf	37.4rf	34.8rf	31.7rf	45.7rf	42.6rf	36.3rf	30.7rf	22.5rf	14.3rf	8.2rf	7.3rf	7.9rf	8.0rf	7.9rf	8.3rf	8.4rf	9.1rf	9.4rf	9.5rf	9.5rf	24	22.06
18	9.6	9.0	8.1	7.2	6.8	6.0	5.3	6.3	8.6	9.8	7.5	6.6	6.1	6.0	5.6	5.4	5.2	5.2	6.2	6.0	6.6	13.8	9.8	8.4	24	7.30
19	6.0IF	5.7IF	6.9IF	5.6IF	6.1IF	6.5IF	6.0IF	6.0IF	7.3IF	5.8IF	5.0IF	6.2IF	22.5IF	41.7IF	40.8IF	31.6IF	28.3IF	27.6IF	28.0IF	18.5IF	15.3IF	18.0IF	22.7IF	25.2IF	24	16.39
20	30.9rf	34.2rf	38.0rf	40.0rf	39.6rf	34.9rf	27.5rf	22.7rf	20.4rf	17.8rf	16.8rf	18.3rf	20.7rf	21.2rf	21.8rf	21.5rf	22.6rf	18.8rf	16.9rf	20.2rf	22.1rf	23.4rf	21.2rf	15.1rf	24	24.44
21	13.8IF	15.7IF	16.2IF	15.4IF	17.6IF	25.6IF	34.8IF	30.4IF	AZ	AX	15.2IF	15.7IF	17.2IF	19.0IF	19.5IF	19.2IF	18.2IF	17.7IF	16.0IF	16.3IF	15.5IF	13.1IF	13.8IF	14.0IF	22	18.18
22	16.6IF	14.1IF	14.1IF	15.2IF	21.9IF	20.1IF	16.9IF	19.0IF	19.6IF	22.0IF	17.6IF	18.4IF	24.3IF	25.1IF	23.8IF	22.2IF	15.0IF	17.7IF	16.1IF	14.6IF	11.4IF	8.3IF	10.3IF	10.6IF	24	17.29
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	22	21	21	21	22	22	22	22	22	21	21	21	21	22	22	22	22	22		
MAX:	116.6	116.1	112.4	122.0	141.5	147.1	152.6	151.2	149.4	147.7	140.6	118.7	85.1	72.3	75.4	72.7	80.1	184.7	209.4	174.9	150.7	140.5	168.9	169.2		
AVG:	24.66	25.00	25.90	27.13	29.28	29.20	29.92	32.28	34.65	36.52	34.92	32.35	29.74	26.60	24.73	22.93	24.64	28.55	29.59	27.10	25.42	25.73	27.59	27.20		

MONTHLY OBSERVATIONS: 521 MONTHLY MEAN: 28.38 MONTHLY MAX: 209.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-053-0002 POC: 23
COUNTY: (053) McKenzie
CITY: (00000) Not in a city
SITE ADDRESS: 229 SERVICE RD., WATFORD CITY
SITE COMMENTS: LOCATED IN THE THOEDORE ROOSEVELT NATIONAL PARK APPROXIMATELY 10 KM INSIDE THE PAF
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.5812
LONGITUDE: -103.2995
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 624
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	4.1	3.9	3.9	3.6	3.3	3.3	3.5	4.2	4.5	4.6	4.0	4.1	4.1	4.0	4.1	4.1	4.3	4.2	3.9	3.8	4.2	4.2	4.4	4.6	24	4.04
17	4.3rf	4.0rf	3.9rf	3.8rf	3.8rf	3.9rf	151.4rf	587.5rf	502.2rf	566.8rf	632.9rf	543.2rf	465.2rf	240.0rf	134.7rf	203.7rf	110.5rf	141.1rf	162.4rf	191.5rf	186.7rf	168.1rf	157.3rf	156.4rf	24	221.89
18	156.8rf	157.8rf	148.2rf	87.6rf	64.1rf	51.9rf	41.8rf	42.8rf	39.3rf	39.3rf	33.7rf	14.7rf	8.9rf	7.0rf	5.0rf	3.5rf	3.3rf	4.0rf	8.1rf	9.7rf	10.3rf	10.5rf	10.5rf	11.3rf	24	40.42
19	12.1IF	13.0IF	13.4IF	11.6IF	14.3IF	13.3IF	14.1IF	15.8IF	13.9IF	9.2IF	7.0IF	7.4IF	9.3IF	10.2IF	11.6IF	11.5IF	11.9IF	12.1IF	16.3IF	18.5IF	16.1IF	10.9IF	5.6IF	4.7IF	24	11.83
20	4.2IF	4.1IF	4.3IF	5.0IF	5.3IF	6.1IF	7.0IF	9.3IF	13.7IF	14.9IF	16.7IF	17.9IF	19.5IF	20.8IF	21.5IF	27.7IF	30.0IF	32.3IF	28.0IF	28.9IF	AV	AV	AV	AV	20	15.86
21	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	26.2	23.1	22.4	22.7	19.1	15.9	14.1	14.0	14.4	14.8	10	18.67
22	14.8IF	14.2IF	14.8IF	14.5IF	15.2IF	14.9IF	AX	BA	10.5IF	11.8IF	13.0IF	15.9IF	18.4IF	19.8IF	21.6IF	25.9IF	28.7IF	30.0IF	30.0IF	24.7IF	22.9IF	20.4IF	19.6IF	18.8IF	22	19.11
23	20.0rf	19.5rf	19.6rf	20.3rf	20.9rf	20.9rf	20.1rf	21.4rf	29.9rf	30.5rf	26.5rf	29.4rf	26.3rf	24.0rf	24.7rf	23.7rf	24.8rf	26.2rf	26.7rf	28.5rf	31.4rf	26.3rf	21.2rf	20.8rf	24	24.32
24	20.6IF	17.8IF	17.7IF	17.6IF	17.2IF	16.7IF	16.3IF	17.1IF	17.4IF	17.2IF	15.9IF	15.5IF	15.4IF	19.5IF	16.9IF	16.8IF	14.3IF	13.3IF	11.4IF	10.7IF	10.0IF	10.7IF	11.8IF	12.5IF	24	15.43
25	12.8IF	12.8IF	12.5IF	11.4IF	11.8IF	11.6IF	11.3IF	11.4IF	12.6IF	12.6IF	13.1IF	12.8IF	12.8IF	12.1IF	11.4IF	11.9IF	12.4IF	11.6IF	11.2IF	11.2IF	10.9IF	10.6IF	11.0IF	11.3IF	24	11.88
26	10.9	11.1	9.3	7.2	6.4	5.9	5.9	5.6	5.7	6.5	6.4	6.2	5.4	5.4	5.3	5.2	5.2	5.8	5.4	4.1	3.3	3.0	3.1	2.5	24	5.87
27	2.9	2.8	3.0	3.3	3.4	4.1	5.5	6.5	3.7	2.6	2.2	2.4	2.8	3.1	2.5	3.3	3.7	3.4	3.6	3.7	4.2	3.3	2.8	2.6	24	3.39
28	2.5	2.4	2.5	2.5	2.6	2.7	2.6	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.5	2.7	3.0	2.7	2.5	2.6	2.6	2.7	2.8	2.8	24	2.57
29	2.8	2.9	3.0	3.0	2.9	2.8	2.6	2.6	2.7	2.2	2.1	2.2	2.4	2.6	2.6	2.5	3.3	4.9	4.0	3.2	2.6	2.8	2.7	3.0	24	2.85
30	3.3	2.4	3.3	3.3	2.9	3.0	3.7	4.6	5.1	6.1	5.3	5.3	6.5	7.3	6.9	6.5	6.4	6.2	5.8	5.6	5.9	6.3	6.0	6.1	24	5.16
31	6.5	6.3	6.0	6.3	6.3	5.8	5.9	5.9	5.0	4.3	3.5	3.2	3.7	4.3	4.9	4.7	4.9	3.9	3.5	3.3	4.1	3.8	4.4	5.1	24	4.82
NO.:	15	15	15	15	15	15	14	14	15	15	15	15	15	15	16	16	16	16	16	16	15	15	15	15		
MAX:	156.8	157.8	148.2	87.6	64.1	51.9	151.4	587.5	502.2	566.8	632.9	543.2	465.2	240.0	134.7	203.7	110.5	141.1	162.4	191.5	186.7	168.1	157.3	156.4		
AVG:	18.57	18.33	17.69	13.40	12.03	11.13	20.84	52.66	44.58	48.73	52.31	45.51	40.21	25.49	18.90	23.55	18.07	20.28	21.37	22.87	21.95	19.84	18.51	18.49		

MONTHLY OBSERVATIONS: 364 MONTHLY MEAN: 25.91 MONTHLY MAX: 632.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-053-0002 POC: 23
COUNTY: (053) McKenzie
CITY: (00000) Not in a city
SITE ADDRESS: 229 SERVICE RD., WATFORD CITY
SITE COMMENTS: LOCATED IN THE THOEDORE ROOSEVELT NATIONAL PARK APPROXIMATELY 10 KM INSIDE THE PAF
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.5812
LONGITUDE: -103.2995
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 624
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	4.9	4.6	3.8	3.7	3.9	4.1	4.1	4.0	3.8	3.7	3.7	3.9	3.5	3.6	3.5	3.6	3.6	3.1	3.2	3.3	3.3	3.4	3.3	3.1	24	3.70
2	2.9	2.9	2.9	3.0	3.2	3.2	3.2	3.3	3.8	4.2	4.4	4.2	3.7	3.3	2.9	3.2	3.3	3.3	3.5	3.6	3.4	3.5	3.7	4.1	24	3.45
3	4.4	4.3	4.5	4.4	4.3	4.3	4.1	4.6	5.0	5.5	5.6	5.4	5.0	4.1	3.7	4.5	4.7	4.8	4.7	3.8	3.6	3.3	3.4	3.7	24	4.40
4	3.9	4.1	4.3	4.5	4.6	4.9	5.0	4.9	4.5	4.2	4.1	4.5	4.8	4.6	4.5	4.8	5.2	5.1	5.2	4.7	4.5	4.6	5.5	5.1	24	4.67
5	5.5	5.4	5.4	5.4	5.9	6.7	AZ	AX	5.3	5.7	6.4	6.7	6.7	6.4	6.2	5.9	5.9	5.7	5.6	5.6	5.8	5.9	6.4	6.4	22	5.95
6	6.6	7.2	6.8	7.6	7.5	8.0	7.9	7.7	7.6	7.5	7.2	6.9	7.3	7.6	7.3	6.9	5.9	6.0	6.5	6.6	8.0	6.9	7.2	6.5	24	7.13
7	6.7	7.1	7.1	7.2	7.6	7.1	8.1	9.9	9.1	8.0	7.5	7.0	6.0	6.3	6.5	6.5	6.8	6.8	6.6	7.2	8.6	11.8	8.3	8.6	24	7.60
8	8.5IF	7.7IF	7.3IF	7.6IF	7.6IF	8.1IF	8.1IF	8.2IF	8.6IF	9.7IF	9.6IF	9.4IF	8.6IF	7.8IF	7.3IF	9.1IF	9.4IF	8.6IF	8.2IF	8.8IF	8.1IF	7.9IF	6.6IF	5.9IF	24	8.20
9	5.0IF	5.6IF	7.4IF	7.9IF	9.3IF	8.7IF	9.9IF	9.8IF	8.2IF	7.6IF	6.5IF	6.5IF	6.6IF	6.3IF	6.9IF	6.8IF	6.1IF	6.0IF	5.3IF	6.6IF	13.6IF	18.1IF	22.7IF	23.9IF	24	9.22
10	24.4IF	19.2IF	16.1IF	16.3IF	17.5IF	18.6IF	19.6IF	19.7IF	18.9IF	17.8IF	16.2IF	16.2IF	15.9IF	16.4IF	16.1IF	15.5IF	15.8IF	14.0IF	11.7IF	10.2IF	8.1IF	7.4IF	7.5IF	7.2IF	24	15.26
11	7.2	7.2	6.9	6.3	5.9	5.9	6.8	7.4	8.9	8.7	7.2	6.9	5.8	5.5	5.4	6.2	7.0	7.7	8.2	8.3	8.3	8.6	8.1	8.2	24	7.19
12	8.0IF	7.6IF	6.8IF	7.0IF	7.3IF	7.7IF	8.1IF	8.1IF	8.7IF	10.1IF	11.2IF	13.6IF	13.5IF	15.2IF	15.7IF	14.1IF	13.3IF	14.2IF	14.2IF	13.9IF	13.1IF	13.2IF	13.3IF	13.0IF	24	11.29
13	12.9IF	12.9IF	12.6IF	9.1IF	11.5IF	12.0IF	12.3IF	13.0IF	12.5IF	12.5IF	13.1IF	13.0IF	12.8IF	12.9IF	13.9IF	14.8IF	15.0IF	15.0IF	15.2IF	15.7IF	15.5IF	14.3IF	13.2IF	13.0IF	24	13.28
14	12.4IF	13.2IF	16.2IF	18.5IF	20.2IF	18.6IF	20.1IF	17.0IF	15.1IF	15.9IF	14.4IF	13.2IF	15.0IF	16.0IF	17.8IF	17.6IF	19.9IF	18.2IF	17.3IF	17.7IF	17.8IF	15.6IF	6.7IF	3.0IF	24	15.73
15	2.5	2.4	2.4	2.6	2.7	2.8	3.0	2.9	2.5	3.6	3.2	3.3	3.3	3.1	2.9	2.8	3.6	4.6	7.0	6.5	11.5	12.2	13.6	16.0	24	5.04
16	17.1IF	16.7IF	17.3IF	16.9IF	18.0IF	22.1IF	23.3IF	24.7IF	23.5IF	23.1IF	22.1IF	23.4IF	22.8IF	24.4IF	26.1IF	23.4IF	20.3IF	17.5IF	15.8IF	13.1IF	12.0IF	12.2IF	12.0IF	12.5IF	24	19.18
17	13.3IF	12.8IF	13.2IF	15.0IF	14.1IF	15.5IF	15.9IF	15.3IF	16.4IF	17.4IF	16.7IF	15.7IF	15.5IF	17.6IF	17.4IF	15.8IF	16.8IF	15.3IF	10.9IF	10.4IF	10.5IF	8.3IF	8.1IF	8.2IF	24	14.00
18	8.1	8.1	8.2	8.2	8.1	8.7	10.0	9.7	10.7	9.3	7.0	6.7	6.0	6.0	7.0	7.5	6.7	6.1	6.3	5.4	5.4	6.3	4.5	3.5	24	7.23
19	3.3	2.8	3.0	2.8	2.7	AX	BA	1.5	1.6	1.7	1.7	1.6	1.6	1.7	2.0	2.0	2.0	1.9	2.0	2.2	2.4	3.3	3.8	3.1	22	2.30
20	2.9	2.8	2.8	2.8	3.0	2.9	2.9	2.5	2.8	3.3	3.8	4.5	4.3	4.4	4.6	3.3	2.9	3.9	6.6	3.1	2.4	2.2	3.0	2.4	24	3.34
21	2.3	2.3	2.2	2.3	2.3	2.4	2.5	2.8	2.7	2.4	2.0	1.8	2.1	2.0	1.7	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	15	2.25
22	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
23	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
24	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
25	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
26	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	BA	3.3	3.3	3.1	3.3	3.6	3.7	3.7	3.6	3.5	3.7	4.8	4.6	4.7	3.8	4.0	15	3.78
27	3.6	3.4	3.7	4.0	4.1	4.1	3.9	3.6	3.3	3.2	3.2	3.0	3.0	3.1	3.2	3.1	3.3	3.5	3.4	3.3	3.3	3.5	3.6	3.7	24	3.46
28	3.7IF	3.5IF	3.7IF	3.8IF	3.7IF	3.5IF	3.7IF	3.7IF	3.7IF	3.7IF	3.8IF	3.8IF	3.7IF	5.2IF	10.5IF	13.9IF	19.4IF	27.5IF	25.0IF	25.0IF	24.0IF	23.0IF	21.0IF	19.0IF	24	10.90
29	17.5IF	16.3IF	14.3IF	13.7IF	10.9IF	10.6IF	10.4IF	11.1IF	AZ	10.7IF	11.0IF	11.2IF	11.5IF	12.3IF	12.4IF	12.1IF	12.3IF	12.2IF	12.1IF	13.0IF	20.8IF	23.4IF	24.9IF	28.3IF	23	14.48
30	33.3rf	40.1rf	41.9rf	42.4rf	43.1rf	45.9rf	43.8rf	32.7rf	15.3rf	12.0rf	10.8rf	9.5rf	10.7rf	12.5rf	12.2rf	12.6rf	12.5rf	10.7rf	12.0rf	10.3rf	8.5rf	9.0rf	7.8rf	7.6rf	24	20.72
31																									0	
NO.:	25	25	25	25	25	24	23	24	24	26	26	26	26	26	26	25	25	25	25	25	25	25	25	25		
MAX:	33.3	40.1	41.9	42.4	43.1	45.9	43.8	32.7	23.5	23.1	22.1	23.4	22.8	24.4	26.1	23.4	20.3	27.5	25.0	25.0	24.0	23.4	24.9	28.3		
AVG:	8.84	8.81	8.83	8.92	9.16	9.85	10.29	9.50	8.44	8.26	7.91	7.88	7.81	8.15	8.52	8.79	9.01	9.01	8.81	8.52	9.08	9.30	8.88	8.80		

MONTHLY OBSERVATIONS: 601 MONTHLY MEAN: 8.79 MONTHLY MAX: 45.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-053-0002 POC: 23
COUNTY: (053) McKenzie
CITY: (00000) Not in a city
SITE ADDRESS: 229 SERVICE RD., WATFORD CITY
SITE COMMENTS: LOCATED IN THE THOEDORE ROOSEVELT NATIONAL PARK APPROXIMATELY 10 KM INSIDE THE PAR
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.5812
LONGITUDE: -103.2995
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 624
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	7.7	7.4	7.6	7.1	7.2	7.0	6.7	6.7	7.7	8.0	7.3	6.5	6.7	6.9	6.4	5.9	5.3	5.0	5.4	5.1	5.6	5.5	5.4	5.6	24	6.49
2	5.6	5.5	5.1	5.0	5.0	4.9	4.6	3.7	3.6	3.7	3.8	4.6	5.9	6.9	7.2	6.3	6.7	7.2	6.8	5.6	5.0	4.8	4.6	4.6	24	5.28
3	4.6IF	4.8IF	4.7IF	4.7IF	4.1IF	4.1IF	4.0IF	3.9IF	4.3IF	7.1IF	8.1IF	7.7IF	5.9IF	6.1IF	13.2IF	10.6IF	12.2IF	13.4IF	14.2IF	14.4IF	14.9IF	15.0IF	16.1IF	16.0IF	24	8.92
4	15.9	15.1	15.0	14.3	13.8	14.7	20.2	16.5	5.3	4.5	4.1	3.4	1.7	.8	.8	.9	.9	1.1	1.3	1.3	1.3	1.5	1.5	1.5	24	6.56
5	1.7	1.5	1.2	1.1	1.0	1.2	1.6	AX	BA	BA	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.3	2.2	2.4	2.4	2.7	2.8	2.3	21	1.92
6	2.0	2.1	2.0	2.3	2.7	3.1	3.3	4.3	5.1	5.9	5.5	4.6	4.3	4.3	4.4	4.6	4.9	4.8	6.0	5.9	5.7	6.1	5.8	5.6	24	4.39
7	5.7IF	5.9IF	6.0IF	6.0IF	6.1IF	6.0IF	6.0IF	7.5IF	9.0IF	11.4IF	13.7IF	15.1IF	15.4IF	13.0IF	12.7IF	10.9IF	9.5IF	9.7IF	10.4IF	10.2IF	10.5IF	9.7IF	9.4IF	9.4IF	24	9.55
8	9.1IF	9.3IF	9.1IF	9.0IF	9.2IF	9.2IF	9.4IF	10.4IF	11.9IF	12.2IF	12.2IF	13.5IF	15.4IF	15.6IF	15.8IF	16.8IF	15.4IF	10.4IF	7.5IF	7.4IF	7.1IF	6.7IF	7.0IF	7.1IF	24	10.70
9	7.5IF	7.8IF	8.9IF	9.3IF	8.6IF	8.0IF	7.6IF	7.7IF	7.4IF	8.0IF	9.2IF	9.6IF	10.3IF	10.3IF	11.6IF	13.6IF	13.2IF	13.3IF	12.1IF	12.2IF	10.9IF	10.8IF	10.5IF	9.6IF	24	9.92
10	9.8IF	10.2IF	11.1IF	12.2IF	13.5IF	13.6IF	14.3IF	24.8IF	28.6IF	26.9IF	28.6IF	30.9IF	34.9IF	33.1IF	28.6IF	25.2IF	21.3IF	16.0IF	13.4IF	9.7IF	7.7IF	7.3IF	5.0IF	4.2IF	24	17.95
11	3.9	3.9	3.7	3.7	4.0	3.7	3.6	3.4	3.0	2.7	3.1	3.5	3.4	3.4	3.4	3.3	3.0	2.9	2.9	2.8	2.6	2.5	2.6	2.7	24	3.24
12	2.8	2.8	2.7	2.8	2.9	2.8	2.9	3.0	3.3	4.0	4.6	4.1	4.1	4.7	4.7	4.6	4.5	4.4	4.5	4.6	4.7	4.7	4.9	5.0	24	3.92
13	5.0IF	5.3IF	5.4IF	5.4IF	5.4IF	5.3IF	6.1IF	6.8IF	6.1IF	5.2IF	6.2IF	10.5IF	16.5IF	20.5IF	22.2IF	20.8IF	15.4IF	15.0IF	14.4IF	14.8IF	17.1IF	26.1IF	26.8IF	23.0IF	24	12.72
14	18.4rf	18.9rf	25.7rf	26.9rf	29.3rf	30.7rf	39.1rf	52.0rf	66.5rf	83.2rf	82.2rf	72.9rf	75.1rf	91.1rf	94.1rf	104.3rf	105.2rf	79.7rf	80.6rf	98.1rf	110.5rf	80.2rf	73.4rf	80.6rf	24	67.45
15	123.2rf	126.9rf	120.3rf	113.0rf	104.9rf	95.3rf	94.0rf	82.5rf	57.1rf	55.1rf	55.4rf	61.5rf	71.4rf	70.1rf	68.6rf	59.5rf	54.8rf	64.6rf	68.9rf	66.8rf	66.2rf	75.5rf	79.6rf	81.3rf	24	79.85
16	84.5rf	96.7rf	101.6rf	101.4rf	103.7rf	104.4rf	108.0rf	109.0rf	83.1rf	22.1rf	11.6rf	8.4rf	6.2rf	5.5rf	5.5rf	5.8rf	5.6rf	5.8rf	6.0rf	5.3rf	5.0rf	5.2rf	5.2rf	5.2rf	24	41.70
17	5.4	5.4	5.5	5.3	6.0	6.2	6.2	4.9	4.1	4.4	6.7	6.9	6.9	6.9	7.0	8.7	9.6	9.5	9.6	10.1	7.9	6.6	6.7	6.0	24	6.77
18	5.9	5.8	5.9	6.1	6.4	6.7	AX	7.2	12.3	16.8	21.0	19.6	17.2	9.0	5.8	4.1	3.3	3.1	3.1	2.6	2.6	2.7	2.6	2.8	23	7.50
19																									0	
20																									0	
21																									0	
22																									0	
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	18	18	18	18	18	18	17	17	17	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18		
MAX:	123.2	126.9	120.3	113.0	104.9	104.4	108.0	109.0	83.1	83.2	82.2	72.9	75.1	91.1	94.1	104.3	105.2	79.7	80.6	98.1	110.5	80.2	79.6	81.3		
AVG:	17.71	18.63	18.97	18.64	18.54	18.16	19.86	20.84	18.73	16.54	15.84	15.84	16.84	17.23	17.44	17.11	16.28	14.90	14.96	15.52	15.98	15.20	14.99	15.14		

MONTHLY OBSERVATIONS: 428 MONTHLY MEAN: 17.06 MONTHLY MAX: 126.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-053-0002 POC: 3
COUNTY: (053) McKenzie
CITY: (00000) Not in a city
SITE ADDRESS: 229 SERVICE RD., WATFORD CITY
SITE COMMENTS: LOCATED IN THE THOEDORE ROOSEVELT NATIONAL PARK APPROXIMATELY 10 KM INSIDE THE PAR
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.5812
LONGITUDE: -103.2995
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 624
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	5.1	4.8	4.8	4.4	4.1	4.1	4.3	5.2	5.5	5.5	4.9	5.0	5.0	4.9	5.0	5.0	5.2	5.1	4.8	4.7	5.1	5.2	5.4	5.6	24	4.95
17	5.3IF	4.9IF	4.8IF	4.7IF	4.7IF	4.8IF	153.3IF	589.4IF	504.1IF	568.7IF	634.8IF	545.1IF	467.1IF	241.9IF	136.6IF	205.6IF	112.4IF	143.0IF	164.3IF	193.4IF	188.6IF	170.0IF	159.2IF	158.3IF	24	223.54
18	158.7IF	159.7IF	150.1IF	89.5IF	66.0IF	53.8IF	43.7IF	44.7IF	41.2IF	41.2IF	35.6IF	16.6IF	10.8IF	8.6IF	6.1IF	4.3IF	4.1IF	4.9IF	10.0IF	11.6IF	12.2IF	12.4IF	12.4IF	13.2IF	24	42.14
19	14.0IF	14.9IF	15.3IF	13.5IF	16.2IF	15.2IF	16.0IF	17.7IF	15.8IF	11.1IF	8.6IF	9.1IF	11.2IF	12.1IF	13.5IF	13.4IF	13.8IF	14.0IF	18.2IF	20.4IF	18.0IF	12.8IF	6.9IF	5.8IF	24	13.65
20	5.2IF	5.0IF	5.3IF	6.2IF	6.5IF	7.5IF	8.6IF	11.2IF	15.6IF	16.8IF	17.6IF	18.8IF	20.4IF	21.7IF	22.4IF	28.6IF	30.9IF	33.2IF	28.9IF	29.8IF	AV	AV	AV	AV	20	17.01
21	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	AV	27.1	24.0	23.3	23.6	20.0	16.8	16.0	15.9	16.3	16.7	10	19.97
22	16.7IF	16.1IF	16.7IF	16.4IF	17.1IF	16.8IF	AX	BA	12.4IF	12.7IF	13.9IF	16.8IF	19.3IF	20.7IF	22.5IF	26.8IF	29.6IF	30.9IF	30.9IF	25.6IF	23.8IF	21.3IF	20.5IF	20.7IF	22	20.37
23	21.9IF	21.4IF	21.5IF	22.2IF	22.8IF	22.8IF	22.0IF	23.3IF	31.8IF	31.4IF	27.4IF	30.3IF	27.2IF	24.9IF	25.6IF	24.6IF	25.7IF	27.1IF	27.6IF	29.4IF	32.3IF	27.2IF	22.1IF	21.7IF	24	25.59
24	21.5IF	19.7IF	19.6IF	19.5IF	19.1IF	18.6IF	18.2IF	19.0IF	19.3IF	18.1IF	16.8IF	16.4IF	16.3IF	20.4IF	17.8IF	17.7IF	15.2IF	14.2IF	12.3IF	11.6IF	10.9IF	11.6IF	12.7IF	13.4IF	24	16.66
25	13.7IF	13.7IF	13.4IF	13.3IF	13.7IF	13.5IF	13.2IF	13.3IF	13.5IF	13.5IF	14.0IF	13.7IF	13.7IF	13.0IF	12.3IF	12.8IF	13.3IF	12.5IF	12.1IF	12.1IF	11.8IF	12.5IF	12.9IF	13.2IF	24	13.11
26	12.8	13.0	11.2	8.9	7.9	7.2	7.2	6.9	7.0	7.4	7.3	7.1	6.3	6.3	6.2	6.1	6.1	7.1	6.6	5.1	4.0	3.7	3.8	3.1	24	7.01
27	3.6	3.5	3.7	4.0	4.2	5.0	6.8	8.0	4.6	3.2	2.7	3.0	3.4	3.8	3.1	4.1	4.5	4.2	4.4	4.5	5.1	4.1	3.4	3.2	24	4.17
28	3.1	2.9	3.1	3.1	3.2	3.3	3.2	3.1	3.1	3.0	3.0	3.0	2.9	2.8	3.1	3.3	3.7	3.3	3.1	3.2	3.2	3.3	3.5	3.5	24	3.17
29	3.5	3.6	3.7	3.7	3.6	3.5	3.2	3.2	3.3	2.7	2.6	2.7	3.0	3.2	3.2	3.1	4.0	6.0	4.9	3.9	3.2	3.5	3.3	3.7	24	3.51
30	4.0	2.9	4.0	4.1	3.6	3.7	4.6	5.6	6.3	7.0	6.2	6.2	7.4	8.2	7.8	7.4	7.3	7.1	6.7	6.5	6.8	7.2	7.4	7.5	24	6.06
31	8.0	7.7	7.4	7.7	7.7	7.1	7.3	7.3	5.9	5.2	4.3	3.9	4.6	5.2	5.8	5.6	5.8	4.8	4.3	4.0	5.0	4.7	5.4	6.3	24	5.88
NO.:	15	15	15	15	15	15	14	14	15	15	15	15	15	15	16	16	16	16	16	16	15	15	15	15		
MAX:	158.7	159.7	150.1	89.5	66.0	53.8	153.3	589.4	504.1	568.7	634.8	545.1	467.1	241.9	136.6	205.6	112.4	143.0	164.3	193.4	188.6	170.0	159.2	158.3		
AVG:	19.81	19.59	18.97	14.75	13.36	12.46	22.26	54.14	45.96	49.83	53.31	46.51	41.24	26.51	19.88	24.53	19.06	21.31	22.44	23.91	23.07	21.03	19.68	19.73		

MONTHLY OBSERVATIONS: 364 MONTHLY MEAN: 27.07 MONTHLY MAX: 634.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-053-0002 POC: 3
COUNTY: (053) McKenzie
CITY: (00000) Not in a city
SITE ADDRESS: 229 SERVICE RD., WATFORD CITY
SITE COMMENTS: LOCATED IN THE THOEDORE ROOSEVELT NATIONAL PARK APPROXIMATELY 10 KM INSIDE THE PAF
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.5812
LONGITUDE: -103.2995
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 624
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	6.0	5.7	4.7	4.5	4.8	5.0	5.1	4.9	4.7	4.6	4.6	4.8	4.3	4.4	4.3	4.4	4.4	3.8	3.9	4.0	4.1	4.2	4.0	3.8	24	4.54
2	3.6	3.6	3.6	3.7	3.9	3.9	3.9	4.0	4.7	5.1	5.3	5.1	4.5	4.1	3.6	3.9	4.1	4.1	4.3	4.4	4.2	4.3	4.5	5.0	24	4.23
3	5.3	5.2	5.4	5.4	5.3	5.3	5.0	5.5	5.9	6.4	6.5	6.3	5.9	5.0	4.6	5.4	5.6	5.7	5.6	4.7	4.4	4.1	4.2	4.5	24	5.30
4	4.8	5.1	5.3	5.5	5.7	6.0	6.2	5.8	5.4	5.1	5.0	5.4	5.7	5.5	5.4	5.7	6.1	6.0	6.1	5.6	5.4	5.5	6.4	6.0	24	5.61
5	6.4	6.3	6.3	6.6	7.3	8.2	AZ	AX	6.2	6.6	7.3	7.6	7.6	7.3	7.1	6.8	6.8	6.6	6.5	6.5	6.7	6.8	7.3	7.3	22	6.91
6	7.5	8.1	8.4	9.3	9.2	9.8	9.7	8.6	8.5	8.4	8.1	7.8	8.2	8.5	8.2	7.8	6.8	6.9	7.4	7.5	8.9	7.8	8.1	8.0	24	8.23
7	8.2	8.7	8.7	8.8	9.4	8.7	9.9	10.8	10.0	8.9	8.4	7.9	6.9	7.2	7.4	7.4	7.7	7.7	7.5	8.1	9.5	12.7	9.2	9.5	24	8.72
8	9.4IF	8.6IF	9.0IF	9.3IF	9.3IF	9.9IF	10.0IF	10.1IF	9.5IF	10.6IF	10.5IF	10.3IF	9.5IF	8.7IF	8.2IF	10.0IF	10.3IF	9.5IF	9.1IF	9.7IF	9.0IF	8.8IF	7.5IF	6.8IF	24	9.32
9	6.1IF	6.9IF	9.1IF	9.7IF	11.2IF	10.6IF	11.8IF	11.7IF	10.1IF	8.5IF	7.4IF	7.4IF	7.5IF	7.2IF	7.8IF	7.7IF	7.0IF	6.9IF	6.2IF	7.5IF	14.5IF	19.0IF	23.6IF	25.8IF	24	10.47
10	26.3IF	21.1IF	18.0IF	18.2IF	19.4IF	20.5IF	21.5IF	21.6IF	20.8IF	19.7IF	18.1IF	18.1IF	17.8IF	17.3IF	17.0IF	16.4IF	16.7IF	14.9IF	12.6IF	11.1IF	10.0IF	9.1IF	9.2IF	8.9IF	24	16.85
11	8.8	8.8	8.5	7.7	7.3	7.3	8.4	9.1	10.8	10.6	8.8	7.8	6.7	6.4	6.3	7.1	7.9	8.6	9.1	9.2	9.2	10.5	10.0	10.1	24	8.54
12	9.8IF	9.4IF	8.4IF	8.6IF	9.0IF	9.5IF	9.9IF	10.0IF	10.6IF	11.0IF	12.1IF	14.5IF	14.4IF	16.1IF	16.6IF	15.0IF	14.2IF	15.1IF	15.1IF	14.8IF	15.0IF	15.1IF	15.2IF	14.9IF	24	12.68
13	14.8IF	14.8IF	14.5IF	11.0IF	13.4IF	13.9IF	14.2IF	14.9IF	14.4IF	13.4IF	14.0IF	13.9IF	13.7IF	13.8IF	14.8IF	15.7IF	15.9IF	15.9IF	16.1IF	16.6IF	16.4IF	15.2IF	15.1IF	14.9IF	24	14.64
14	14.3IF	15.1IF	18.1IF	20.4IF	22.1IF	20.5IF	22.0IF	18.9IF	16.0IF	16.8IF	15.3IF	14.1IF	15.9IF	16.9IF	18.7IF	18.5IF	20.8IF	19.1IF	18.2IF	18.6IF	18.7IF	16.5IF	7.6IF	3.7IF	24	16.95
15	3.1	3.0	3.0	3.2	3.3	3.4	3.7	3.6	3.1	4.4	3.9	4.0	4.0	3.8	3.6	3.4	4.4	5.5	7.9	7.4	12.4	14.1	15.5	17.9	24	5.90
16	19.0IF	18.6IF	19.2IF	18.8IF	19.9IF	24.0IF	25.2IF	26.6IF	25.4IF	25.0IF	24.0IF	25.3IF	24.7IF	26.3IF	27.0IF	24.3IF	21.2IF	18.4IF	16.7IF	14.0IF	13.9IF	14.1IF	13.9IF	14.4IF	24	20.83
17	15.2IF	14.7IF	15.1IF	16.9IF	16.0IF	17.4IF	17.8IF	17.2IF	18.3IF	18.3IF	17.6IF	16.6IF	16.4IF	18.5IF	18.3IF	16.7IF	17.7IF	16.2IF	11.8IF	11.3IF	11.4IF	10.2IF	10.0IF	10.1IF	24	15.40
18	9.9	9.9	10.1	10.1	10.0	10.6	11.9	11.6	11.6	10.2	7.9	7.6	6.9	6.9	7.9	8.4	7.6	7.0	7.2	6.3	6.3	7.2	5.5	4.3	24	8.45
19	4.0	3.5	3.7	3.4	3.3	AX	BA	1.9	2.0	2.1	2.1	2.0	2.0	2.1	2.4	2.4	2.5	2.3	2.4	2.7	2.9	4.0	4.7	3.8	22	2.83
20	3.6	3.5	3.4	3.4	3.7	3.6	3.6	3.1	3.5	4.0	4.7	5.4	5.2	5.3	5.5	4.0	3.6	4.8	7.5	3.8	2.9	2.7	3.7	3.0	24	4.06
21	2.8	2.8	2.7	2.8	2.8	2.9	3.1	3.4	3.3	3.0	2.5	2.2	2.6	2.5	2.1	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	15	2.77
22	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
23	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
24	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
25	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
26	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	BA	4.0	4.0	3.8	4.0	4.4	4.6	4.5	4.4	4.3	4.5	5.7	5.5	5.8	4.7	4.9	15	4.61
27	4.4	4.2	4.5	4.9	5.0	5.0	4.8	4.4	4.1	3.9	3.9	3.7	3.7	3.8	3.9	3.8	4.0	4.3	4.2	4.1	4.1	4.3	4.4	4.6	24	4.25
28	4.5IF	4.3IF	4.5IF	4.7IF	4.5IF	4.3IF	4.5IF	4.6IF	4.5IF	4.5IF	4.7IF	4.7IF	4.6IF	6.1IF	11.4IF	14.8IF	20.3IF	28.4IF	25.9IF	25.9IF	24.9IF	23.9IF	21.9IF	20.9IF	24	11.80
29	19.4IF	18.2IF	16.2IF	15.6IF	12.8IF	12.5IF	12.3IF	13.0IF	AZ	11.6IF	11.9IF	12.1IF	12.4IF	13.2IF	13.3IF	13.0IF	13.2IF	13.1IF	13.0IF	13.9IF	21.7IF	24.3IF	25.8IF	30.2IF	23	15.77
30	35.2IF	42.0IF	43.8IF	44.3IF	45.0IF	47.8IF	45.7IF	33.6IF	16.2IF	12.9IF	11.7IF	10.4IF	11.6IF	13.4IF	13.1IF	13.5IF	13.4IF	11.6IF	12.9IF	11.2IF	9.4IF	9.9IF	9.6IF	9.3IF	24	21.98
31																									0	
NO.:	25	25	25	25	25	24	23	24	24	26	26	26	26	26	26	25	25	25	25	25	25	25	25	25		
MAX:	35.2	42.0	43.8	44.3	45.0	47.8	45.7	33.6	25.4	25.0	24.0	25.3	24.7	26.3	27.0	24.3	21.2	28.4	25.9	25.9	24.9	24.3	25.8	30.2		
AVG:	10.10	10.08	10.17	10.27	10.54	11.28	11.75	10.79	9.57	9.22	8.86	8.80	8.72	9.03	9.35	9.62	9.86	9.87	9.67	9.38	10.06	10.40	10.06	10.10		

MONTHLY OBSERVATIONS: 601 MONTHLY MEAN: 9.88 MONTHLY MAX: 47.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-053-0002 POC: 3
COUNTY: (053) McKenzie
CITY: (00000) Not in a city
SITE ADDRESS: 229 SERVICE RD., WATFORD CITY
SITE COMMENTS: LOCATED IN THE THOEDORE ROOSEVELT NATIONAL PARK APPROXIMATELY 10 KM INSIDE THE PAF
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.5812
LONGITUDE: -103.2995
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 624
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: MULTIPLE METHODS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	9.5	9.1	9.4	8.7	8.9	8.6	8.3	8.2	8.6	8.9	8.2	7.4	7.6	7.8	7.3	6.8	6.2	5.9	6.3	6.0	6.5	6.4	6.3	6.5	24	7.64
2	6.5	6.4	6.0	6.2	6.2	6.0	5.7	4.5	4.4	4.6	4.7	5.5	6.8	7.8	8.1	7.2	7.6	8.1	7.7	6.5	5.9	5.7	5.7	5.6	24	6.23
3	5.7IF	5.9IF	5.8IF	5.8IF	5.0IF	5.1IF	4.9IF	4.8IF	5.3IF	8.7IF	9.9IF	9.5IF	7.3IF	7.5IF	15.1IF	12.5IF	13.1IF	14.3IF	15.1IF	15.3IF	16.8IF	16.9IF	18.0IF	17.9IF	24	10.26
4	17.8	17.0	16.9	16.2	15.7	16.6	22.1	18.4	6.5	5.5	5.0	4.2	2.1	1.0	1.0	1.1	1.1	1.3	1.6	1.6	1.6	1.8	1.8	1.9	24	7.49
5	2.1	1.8	1.5	1.4	1.2	1.5	2.0	AX	BA	BA	2.3	2.3	2.3	2.5	2.5	2.6	2.7	2.8	2.7	2.9	3.0	3.3	3.5	2.8	21	2.37
6	2.5	2.6	2.5	2.8	3.3	3.8	4.1	5.3	6.0	6.8	6.4	5.5	5.2	5.2	5.3	5.5	5.8	5.7	6.9	6.8	6.6	7.0	7.1	6.9	24	5.23
7	7.0IF	7.3IF	7.4IF	7.4IF	7.5IF	7.4IF	7.4IF	9.2IF	10.9IF	12.3IF	14.6IF	16.0IF	16.3IF	13.9IF	13.6IF	11.8IF	10.4IF	10.6IF	11.3IF	11.1IF	11.4IF	11.6IF	11.3IF	11.3IF	24	10.79
8	11.0IF	11.2IF	11.0IF	10.9IF	11.1IF	11.1IF	11.3IF	12.3IF	12.8IF	13.1IF	13.1IF	14.4IF	16.3IF	16.5IF	16.7IF	17.7IF	16.3IF	11.3IF	8.4IF	8.3IF	8.0IF	8.3IF	8.6IF	8.7IF	24	12.02
9	9.2IF	9.6IF	10.8IF	11.2IF	10.5IF	9.8IF	9.4IF	8.6IF	8.3IF	8.9IF	10.1IF	10.5IF	11.2IF	11.2IF	12.5IF	14.5IF	14.1IF	14.2IF	13.0IF	13.1IF	11.8IF	11.7IF	11.4IF	11.5IF	24	11.13
10	11.7IF	12.1IF	13.0IF	14.1IF	15.4IF	15.5IF	16.2IF	26.7IF	30.5IF	27.8IF	29.5IF	31.8IF	35.8IF	34.0IF	29.5IF	26.1IF	22.2IF	16.9IF	14.3IF	10.6IF	8.6IF	8.2IF	6.2IF	5.2IF	24	19.25
11	4.8	4.8	4.6	4.5	4.9	4.5	4.4	4.2	3.7	3.3	3.8	4.3	4.2	4.2	4.2	4.1	3.7	3.6	3.6	3.4	3.2	3.1	3.2	3.3	24	3.98
12	3.4	3.4	3.3	3.4	3.6	3.5	3.6	3.7	4.1	4.9	5.7	5.1	5.1	5.6	5.6	5.5	5.4	5.3	5.4	5.5	5.6	5.8	6.0	6.2	24	4.78
13	6.2IF	6.5IF	6.7IF	6.6IF	6.7IF	6.5IF	7.5IF	8.4IF	7.0IF	6.1IF	7.1IF	11.4IF	17.4IF	21.4IF	23.1IF	21.7IF	16.3IF	15.9IF	15.3IF	15.7IF	18.0IF	28.0IF	28.7IF	24.9IF	24	13.88
14	20.3IF	20.8IF	27.6IF	28.8IF	31.2IF	32.6IF	41.0IF	53.9IF	68.4IF	85.1IF	83.1IF	73.8IF	76.0IF	92.0IF	95.0IF	105.2IF	106.1IF	80.6IF	81.5IF	99.0IF	111.4IF	82.1IF	75.3IF	82.5IF	24	68.89
15	125.1IF	128.8IF	122.2IF	114.9IF	106.8IF	97.2IF	95.9IF	84.4IF	59.0IF	57.0IF	57.3IF	63.4IF	73.3IF	71.0IF	69.5IF	60.4IF	55.7IF	65.5IF	69.8IF	67.7IF	68.1IF	77.4IF	81.5IF	83.2IF	24	81.46
16	86.4IF	98.6IF	103.5IF	103.3IF	105.6IF	106.3IF	109.9IF	110.9IF	85.0IF	24.0IF	13.5IF	9.3IF	7.1IF	6.4IF	6.4IF	6.7IF	6.5IF	6.7IF	6.9IF	6.2IF	6.1IF	6.4IF	6.4IF	6.4IF	24	43.10
17	6.7	6.7	6.8	6.5	7.4	7.6	7.6	6.0	5.0	5.4	7.6	7.8	7.8	7.8	7.9	9.6	10.5	10.4	10.5	11.0	8.8	7.5	7.6	7.4	24	7.83
18	7.2	7.1	7.3	7.5	7.9	8.3	AX	8.9	13.2	17.7	21.9	20.5	18.1	9.9	6.7	5.0	4.0	3.8	3.8	3.2	3.2	3.3	3.2	3.4	23	8.48
19	4.0	5.1	9.3	10.8	9.9	9.7	10.9	9.8	8.7	9.5	9.9	9.4	8.9	8.3	7.8	7.3	7.1	6.8	6.3	7.7	9.2	8.9	8.9	8.7	24	8.45
20	8.7IF	8.7IF	8.9IF	8.8IF	9.0IF	7.8IF	9.6IF	10.6IF	11.6IF	11.9IF	11.5IF	11.9IF	12.2IF	12.4IF	13.1IF	12.5IF	12.0IF	11.8IF	11.8IF	11.5IF	11.2IF	10.7IF	10.5IF	10.4IF	24	10.80
21	10.5IF	10.5IF	10.8IF	10.6IF	10.7IF	10.5IF	10.6IF	11.8IF	11.6IF	12.0IF	11.7IF	12.8IF	12.7IF	12.5IF	12.7IF	12.1IF	11.7IF	11.8IF	13.1IF	14.6IF	15.1IF	15.0IF	14.7IF	14.9IF	24	12.29
22	15.7IF	15.8IF	16.2IF	16.9IF	17.3IF	17.3IF	16.2IF	17.2IF	17.6IF	17.5IF	16.1IF	17.8IF	18.9IF	18.1IF	17.0IF	15.1IF	15.6IF	15.7IF	16.6IF	17.3IF	17.2IF	18.7IF	21.8IF	22.8IF	24	17.35
23	21.7IF	19.5IF	12.7IF	15.1IF	14.0IF	15.0IF	12.4IF	12.9IF	10.5IF	7.9IF	5.5IF	5.1IF	4.7IF	4.9IF	5.4IF	6.1IF	6.6IF	7.0IF	6.6IF	6.9IF	7.3IF	8.2IF	8.4IF	8.2IF	24	9.69
24	7.9IF	8.4IF	9.2IF	9.7IF	9.6IF	9.4IF	10.0IF	10.8IF	11.3IF	11.1IF	10.8IF	10.7IF	10.5IF	10.3IF	9.0IF	9.5IF	9.6IF	9.8IF	9.8IF	9.2IF	9.3IF	9.5IF	9.2IF	9.0IF	24	9.73
25	8.7	9.0	9.4	9.0	8.5	8.2	8.3	8.4	8.0	7.2	7.0	7.3	8.1	7.8	6.7	8.2	8.6	8.4	8.8	9.1	8.7	8.6	8.5	7.7	24	8.26
26	7.5	7.9	8.1	8.4	8.4	8.3	8.6	9.3	8.6	6.7	5.6	4.5	5.2	4.8	5.2	5.3	6.2	7.2	7.3	6.9	6.7	6.8	6.7	6.4	24	6.94
27	6.3	6.9	7.0	6.1	5.8	5.8	6.0	6.1	6.4	6.2	6.4	6.4	5.9	5.1	4.4	4.1	3.4	3.8	3.8	3.7	3.7	4.2	5.2	4.8	24	5.31
28	5.1	5.6	5.5	5.3	5.3	5.1	5.2	5.3	5.7	5.6	4.9	4.9	4.5	4.2	4.3	4.2	4.3	4.3	4.1	4.1	4.3	4.1	4.3	4.0	24	4.76
29	4.0	4.0	4.1	4.1	4.2	4.5	4.6	4.5	4.5	4.8	5.0	5.1	5.4	5.9	6.0	5.9	5.7	5.5	5.4	5.1	5.3	5.7	5.6	5.2	24	5.00
30	5.1	4.9	4.7	4.7	4.2	4.1	4.3	4.6	4.4	4.1	4.2	3.8	3.7	3.4	3.2	3.2	3.3	3.6	3.4	3.7	3.4	3.2	3.0	3.3	24	3.90
31	3.5	3.4	3.4	3.5	3.1	2.8	3.0	3.3	3.9	4.8	5.6	6.0	5.5	5.4	5.6	5.7	5.3	5.1	5.2	5.6	5.7	5.2	4.9	4.6	24	4.59
NO.:	31	31	31	31	31	30	30	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	125.1	128.8	122.2	114.9	106.8	106.3	109.9	110.9	85.0	85.1	83.1	73.8	76.0	92.0	95.0	105.2	106.1	80.6	81.5	99.0	111.4	82.1	81.5	83.2		
AVG:	14.57	15.14	15.34	15.26	15.13	14.85	15.70	16.43	15.05	13.65	13.16	13.17	13.75	13.83	13.88	13.65	13.13	12.38	12.46	12.88	13.28	13.01	13.02	13.08		

MONTHLY OBSERVATIONS: 740 MONTHLY MEAN: 13.99 MONTHLY MAX: 128.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-053-0002 POC: 3
COUNTY: (053) McKenzie
CITY: (00000) Not in a city
SITE ADDRESS: 229 SERVICE RD., WATFORD CITY
SITE COMMENTS: LOCATED IN THE THOEDORE ROOSEVELT NATIONAL PARK APPROXIMATELY 10 KM INSIDE THE PAF
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.5812
LONGITUDE: -103.2995
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 624
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	4.3	3.8	4.0	4.4	4.3	4.3	4.3	4.6	4.1	3.7	3.5	3.9	4.8	5.1	4.9	5.3	5.4	8.3	7.5	7.1	5.8	3.9	4.7	3.8	24	4.83
2	4.5	5.1	5.1	4.3	3.8	3.9	3.9	AX	3.9	4.3	4.7	4.8	4.9	4.9	5.1	5.2	5.0	4.9	5.0	4.4	3.9	4.0	4.2	4.2	23	4.52
3	4.3	4.4	4.4	4.4	4.7	5.1	5.8	5.6	4.4	4.7	4.7	4.7	4.6	5.0	5.0	5.1	5.4	4.5	4.0	3.9	3.3	3.1	2.8	3.4	24	4.47
4	3.8	3.8	3.9	4.1	4.2	3.9	3.6	3.3	3.6	3.5	4.3	4.0	3.6	3.5	3.7	4.1	4.3	4.5	4.9	4.7	4.7	5.0	5.8	6.4	24	4.22
5	6.4	5.3	4.7	4.5	4.7	5.1	5.2	5.3	4.9	4.4	3.9	4.2	8.8	11.5	12.5	13.8	14.2	14.3	13.6	12.3	11.4	10.7	10.7	10.9	24	8.47
6	11.2IF	11.0IF	11.2IF	11.5IF	11.7IF	11.4IF	11.4IF	11.9IF	12.5IF	12.9IF	12.8IF	12.7IF	12.4IF	12.4IF	11.7IF	12.0IF	15.7IF	16.4IF	20.6IF	27.8IF	28.4IF	29.7IF	31.9IF	34.9IF	24	16.50
7	35.7rf	40.5rf	43.1rf	46.0rf	46.2rf	48.2rf	50.4rf	53.0rf	52.9rf	52.3rf	45.0rf	38.0rf	53.0rf	38.3rf	30.7rf	25.0rf	24.1rf	22.2rf	21.4rf	15.4rf	11.8rf	10.5rf	10.5rf	10.9rf	24	34.38
8	12.3IF	12.1IF	10.2IF	8.7IF	8.3IF	8.5IF	8.4IF	9.4IF	9.7IF	9.7IF	13.2IF	18.1IF	20.7IF	20.9IF	19.0IF	15.8IF	14.4IF	14.3IF	13.7IF	14.6IF	13.6IF	12.7IF	11.7IF	10.8IF	24	12.95
9	11.1IF	10.9IF	10.6IF	10.4IF	10.2IF	10.6IF	11.4IF	11.7IF	14.7IF	16.1IF	15.5IF	16.7IF	15.9IF	15.2IF	14.7IF	15.4IF	16.4IF	17.7IF	20.0IF	21.0IF	18.4IF	14.8IF	12.9IF	12.4IF	24	14.36
10	14.1	14.2	14.2	14.6	15.9	15.0	13.7	14.0	13.5	13.0	10.2	5.5	4.1	4.1	3.8	3.6	3.8	3.1	2.7	2.8	2.9	2.8	2.8	2.9	24	8.22
11	3.0	3.0	3.2	3.3	3.2	3.3	3.0	2.3	2.1	2.0	2.2	1.9	2.0	1.9	1.8	1.7	1.8	1.7	1.6	1.8	2.4	2.8	2.7	2.5	24	2.38
12	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.9	2.8	2.4	2.4	2.6	2.6	2.6	2.7	2.7	2.6	2.7	2.7	2.5	2.8	2.7	2.8	3.1	24	2.68
13	3.0	2.5	2.3	2.3	2.6	2.5	2.3	2.5	2.6	2.9	3.4	3.5	3.2	3.0	2.9	2.8	2.9	2.8	2.7	2.7	2.7	2.9	2.9	3.0	24	2.79
14	3.0	3.1	3.0	3.3	3.3	3.0	3.1	AX	3.8	3.8	4.8	6.1	6.1	5.6	5.4	5.0	4.5	4.4	4.1	3.9	3.8	4.0	4.3	4.3	23	4.16
15	4.2	4.4	4.6	4.7	4.7	4.9	4.9	4.9	4.5	3.7	3.5	3.3	3.2	3.2	3.2	3.0	2.9	3.2	3.2	3.0	2.9	3.3	3.4	3.5	24	3.76
16	3.4	3.2	3.2	3.2	3.3	3.4	4.8	21.2	12.6	6.5	5.4	6.1	6.8	7.7	6.3	5.6	5.5	6.3	7.3	8.2	9.4	10.7	11.8	11.8	24	7.24
17	11.2IF	10.8IF	10.4IF	10.4IF	9.8IF	9.8IF	9.1IF	9.9IF	9.8IF	9.5IF	11.0IF	12.8IF	14.1IF	13.6IF	12.7IF	12.0IF	11.8IF	11.5IF	11.9IF	12.6IF	12.8IF	12.5IF	12.3IF	12.0IF	24	11.43
18	11.8rf	11.6rf	11.4rf	10.7rf	11.0rf	10.9rf	11.4rf	12.2rf	12.7rf	13.4rf	15.6rf	21.0rf	31.5rf	43.5rf	52.3rf	40.0rf	34.0rf	28.4rf	27.1rf	25.7rf	25.5rf	25.0rf	24.0rf	16.8rf	24	21.98
19	15.7IF	14.9IF	15.2IF	18.0IF	19.8IF	16.9IF	15.3IF	14.7IF	14.6IF	15.7IF	17.7IF	15.5IF	14.9IF	7.3IF	7.2IF	7.6IF	6.6IF	7.1IF	7.3IF	7.3IF	6.7IF	7.0IF	7.1IF	7.2IF	24	11.97
20	7.3IF	7.2IF	7.8IF	8.0IF	7.8IF	8.2IF	8.4IF	8.1IF	7.6IF	10.2IF	14.5IF	14.8IF	12.3IF	16.4IF	16.8IF	19.8IF	17.6IF	15.6IF	15.5IF	15.4IF	17.9IF	17.2IF	18.1IF	17.4IF	24	12.91
21	15.0IF	13.7IF	15.7IF	21.0IF	21.5IF	22.1IF	21.3IF	17.8IF	20.8IF	18.3IF	12.5IF	11.6IF	9.9IF	8.2IF	7.1IF	8.8IF	10.4IF	13.7IF	24.0IF	27.1IF	18.5IF	17.5IF	11.2IF	12.5IF	24	15.84
22	12.4	10.4	9.9	9.5	7.6	7.6	7.1	6.9	7.6	8.1	8.3	8.8	9.0	8.4	7.5	6.3	6.1	6.3	7.5	7.8	7.9	7.9	8.0	8.0	24	8.12
23	6.7	3.7	3.7	3.7	4.0	4.3	5.9	8.6	12.9	7.9	7.6	7.6	6.1	4.2	3.7	4.3	4.2	4.1	5.7	6.1	7.6	7.5	7.1	6.9	24	6.00
24	6.5	6.7	6.9	6.2	5.7	6.6	6.2	6.6	7.8	7.1	6.7	6.6	5.9	5.6	7.1	10.5	11.5	13.9	13.0	12.6	11.8	11.4	11.7	11.8	24	8.60
25	12.0IF	13.1IF	13.6IF	13.0IF	13.8IF	17.7IF	19.1IF	18.5IF	18.4IF	15.4IF	12.9IF	10.0IF	10.2IF	8.8IF	9.3IF	10.5IF	12.2IF	13.3IF	14.5IF	9.1IF	6.2IF	5.8IF	6.0IF	5.9IF	24	12.05
26	5.9	6.1	6.1	6.3	6.6	6.7	6.9	7.5	7.9	8.8	9.7	9.7	9.7	9.9	9.9	10.3	10.2	10.0	10.3	10.7	10.9	11.0	11.3	11.4	24	8.91
27	10.5IF	10.3IF	10.3IF	10.3IF	10.3IF	10.1IF	9.7IF	10.0IF	10.1IF	9.7IF	10.0IF	9.7IF	8.3IF	7.1IF	7.4IF	7.8IF	8.2IF	8.9IF	9.2IF	9.5IF	9.3IF	8.4IF	8.5IF	8.5IF	24	9.25
28	8.7rf	9.0rf	9.3rf	9.3rf	9.3rf	AX	AT	11.0rf	11.3rf	17.0rf	23.1rf	24.0rf	29.0rf	35.1rf	45.7rf	47.2rf	50.7rf	50.9rf	48.7rf	47.5rf	46.6rf	44.8rf	44.6rf	44.8rf	22	30.35
29	45.5rf	45.7rf	46.0rf	45.1rf	44.5rf	45.3rf	44.7rf	43.4rf	44.3rf	46.1rf	50.9rf	62.6rf	50.3rf	47.6rf	48.9rf	50.8rf	54.9rf	57.2rf	55.6rf	54.8rf	50.4rf	50.7rf	48.8rf	51.4rf	24	49.40
30	55.2rf	55.2rf	58.2rf	61.3rf	64.5rf	65.9rf	69.3rf	70.4rf	70.4rf	64.0rf	60.8rf	53.7rf	51.9rf	51.6rf	47.5rf	41.6rf	40.3rf	38.8rf	38.3rf	42.4rf	45.9rf	44.0rf	9.2rf	8.8rf	24	50.38
31	9.1IF	9.5IF	9.3IF	9.2IF	8.8IF	8.5IF	7.6IF	6.4IF	6.0IF	5.2IF	3.5IF	3.3IF	4.7IF	7.2IF	9.5IF	14.0IF	14.1IF	14.4IF	16.5IF	20.5IF	23.7IF	23.7IF	23.0IF	22.7IF	24	11.68
NO.:	31	31	31	31	31	30	30	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	55.2	55.2	58.2	61.3	64.5	65.9	69.3	70.4	70.4	64.0	60.8	62.6	53.0	51.6	52.3	50.8	54.9	57.2	55.6	54.8	50.4	50.7	48.8	51.4		
AVG:	11.63	11.55	11.75	12.08	12.22	12.55	12.70	13.95	13.38	12.98	13.04	13.15	13.69	13.53	13.74	13.47	13.60	13.72	14.20	14.36	13.87	13.48	12.15	12.09		

MONTHLY OBSERVATIONS: 740 MONTHLY MEAN: 13.04 MONTHLY MAX: 70.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-053-0002 POC: 3
COUNTY: (053) McKenzie
CITY: (00000) Not in a city
SITE ADDRESS: 229 SERVICE RD., WATFORD CITY
SITE COMMENTS: LOCATED IN THE THOEDORE ROOSEVELT NATIONAL PARK APPROXIMATELY 10 KM INSIDE THE PAF
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.5812
LONGITUDE: -103.2995
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 624
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	22.2rf	22.1rf	22.9rf	23.6rf	24.2rf	24.6rf	25.0rf	25.5rf	30.0rf	36.2rf	37.2rf	34.1rf	29.6rf	26.6rf	21.0rf	18.0rf	15.9rf	16.0rf	16.9rf	16.8rf	18.1rf	20.8rf	21.5rf	21.4rf	24	23.76
2	21.3IF	22.2IF	22.7IF	24.0IF	24.3IF	23.4IF	20.8IF	17.8IF	16.0IF	14.4IF	13.4IF	12.6IF	12.5IF	10.2IF	9.3IF	9.5IF	8.1IF	7.9IF	8.3IF	9.3IF	9.3IF	9.2IF	8.3IF	8.0IF	24	14.28
3	7.1rf	6.9rf	6.7rf	6.5rf	6.3rf	6.7rf	7.7rf	11.1rf	19.5rf	74.9rf	85.3rf	74.3rf	74.4rf	61.1rf	54.4rf	54.9rf	53.5rf	52.7rf	49.0rf	48.7rf	50.1rf	49.5rf	37.2rf	17.1rf	24	38.15
4	15.1rf	25.8rf	13.7rf	12.0rf	11.4rf	12.8rf	22.8rf	21.3rf	12.2rf	10.5rf	11.6rf	8.2rf	4.7rf	3.6rf	3.3rf	24.2rf	151.1rf	172.8rf	176.9rf	146.3rf	134.3rf	140.2rf	141.3rf	129.5rf	24	58.57
5	111.0rf	109.3rf	119.8rf	128.9rf	131.0rf	129.3rf	128.8rf	124.0rf	120.7rf	114.4rf	107.9rf	87.9rf	63.7rf	48.8rf	47.0rf	41.8rf	34.2rf	33.3rf	30.7rf	22.3rf	23.2rf	24.3rf	24.5rf	23.8rf	24	76.28
6	23.6rf	23.3rf	23.9rf	25.8rf	23.9rf	23.5rf	22.7rf	19.8rf	18.7rf	34.7rf	65.5rf	73.2rf	75.0rf	71.8rf	70.5rf	68.8rf	67.8rf	66.4rf	65.2rf	63.6rf	60.7rf	57.4rf	57.7rf	59.2rf	24	48.45
7	60.6rf	62.2rf	63.6rf	63.3rf	64.4rf	66.0rf	66.6rf	65.8rf	63.1rf	60.1rf	57.6rf	54.0rf	39.8rf	24.2rf	12.5rf	5.7rf	4.1rf	3.3rf	3.6rf	4.4rf	5.8rf	9.9rf	18.3rf	22.1rf	24	37.54
8	22.5IF	21.8IF	21.2IF	19.8IF	17.6IF	17.4IF	17.9IF	16.9IF	17.2IF	18.4IF	14.0IF	11.5IF	10.6IF	10.2IF	10.3IF	7.5IF	8.8IF	8.9IF	7.3IF	4.9IF	4.3IF	4.8IF	5.0IF	5.5IF	24	12.68
9	5.8	6.1	5.9	6.6	6.9	7.4	7.9	7.5	6.8	6.4	7.1	8.1	7.5	7.3	7.0	7.0	7.1	6.7	7.0	6.8	7.0	7.3	7.7	7.9	24	7.03
10	9.2IF	12.2IF	12.5IF	12.3IF	12.6IF	12.9IF	12.8IF	13.0IF	12.6IF	12.4IF	11.1IF	11.4IF	12.0IF	12.3IF	12.3IF	12.5IF	12.1IF	12.0IF	11.8IF	11.7IF	11.6IF	11.8IF	11.8IF	12.1IF	24	12.04
11	11.5IF	11.7IF	11.8IF	11.7IF	11.4IF	10.9IF	AZ	AX	11.4IF	9.8IF	9.6IF	10.1IF	9.7IF	9.5IF	9.0IF	8.5IF	8.0IF	7.9IF	7.8IF	8.0IF	7.7IF	6.8IF	6.4IF	6.3IF	22	9.34
12	5.8	5.8	6.0	6.2	6.2	6.3	6.7	6.7	6.6	6.9	7.0	7.2	7.2	6.8	6.3	6.4	6.5	6.8	7.0	7.1	6.6	6.5	6.3	6.2	24	6.55
13	6.1	6.0	5.9	5.8	5.3	4.9	4.6	4.6	4.5	4.8	4.9	5.3	5.1	5.1	5.2	5.2	5.4	5.5	5.2	5.8	5.7	5.6	4.9	3.8	24	5.22
14	3.8IF	3.5IF	3.8IF	4.0IF	4.2IF	5.5IF	6.9IF	6.5IF	5.9IF	6.7IF	15.4IF	32.2IF	42.0IF	32.0IF	21.3IF	17.8IF	14.3IF	13.3IF	15.3IF	13.3IF	10.4IF	9.2IF	8.3IF	8.2IF	24	12.66
15	7.7rf	7.2rf	7.5rf	7.4rf	7.6rf	8.2rf	9.3rf	9.1rf	14.5rf	26.0rf	51.9rf	52.2rf	31.1rf	26.2rf	29.6rf	30.3rf	27.5rf	23.1rf	21.5rf	20.0rf	19.1rf	18.4rf	19.3rf	21.6rf	24	20.68
16	25.2rf	29.5rf	29.3rf	31.1rf	31.3rf	31.5rf	34.1rf	39.2rf	41.7rf	52.7rf	65.4rf	43.1rf	31.4rf	27.4rf	24.1rf	26.6rf	27.1rf	29.6rf	31.7rf	31.8rf	31.1rf	34.3rf	38.2rf	40.2rf	24	34.48
17	40.2IF	39.9IF	39.0IF	35.8IF	32.2IF	26.4IF	23.5IF	20.3IF	18.5IF	14.3IF	10.8IF	9.3IF	6.2IF	5.5IF	4.5IF	3.7IF	3.3IF	3.4IF	3.3IF	3.3IF	3.5IF	4.0IF	4.1IF	4.2IF	24	14.97
18	4.4	4.9	5.5	5.2	5.4	5.3	4.9	4.8	5.7	6.7	6.7	5.9	4.9	4.1	4.1	3.9	3.7	3.7	4.0	4.1	4.3	4.4	4.4	4.1	24	4.80
19	4.3IF	4.1IF	4.0IF	4.2IF	4.1IF	4.0IF	4.0IF	4.1IF	4.1IF	4.6IF	4.0IF	9.0IF	39.5IF	36.4IF	37.1IF	25.7IF	22.7IF	21.6IF	13.8IF	9.2IF	8.9IF	17.3IF	17.5IF	17.6IF	24	13.41
20	18.4IF	19.4IF	20.2IF	20.9IF	21.3IF	21.7IF	23.8IF	25.0IF	24.5IF	21.8IF	20.4IF	14.8IF	11.1IF	9.4IF	8.4IF	8.6IF	8.2IF	11.1IF	10.4IF	11.0IF	11.6IF	11.2IF	11.4IF	10.8IF	24	15.64
21	11.2IF	10.8IF	10.3IF	10.2IF	9.6IF	11.4IF	16.7IF	23.0IF	23.1IF	20.3IF	17.4IF	16.4IF	14.9IF	14.4IF	13.3IF	13.1IF	13.8IF	12.8IF	11.6IF	14.3IF	16.9IF	16.1IF	12.8IF	12.3IF	24	14.45
22	10.9IF	10.5IF	12.6IF	13.1IF	13.7IF	12.2IF	12.6IF	21.5IF	17.6IF	15.1IF	15.1IF	15.8IF	13.6IF	10.4IF	12.8IF	9.4IF	7.5IF	11.5IF	12.2IF	10.7IF	11.6IF	12.9IF	7.6IF	6.7IF	24	12.40
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	21	21	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22		
MAX:	111.0	109.3	119.8	128.9	131.0	129.3	128.8	124.0	120.7	114.4	107.9	87.9	75.0	71.8	70.5	68.8	151.1	172.8	176.9	146.3	134.3	140.2	141.3	129.5		
AVG:	20.36	21.15	21.31	21.75	21.59	21.47	22.86	23.21	22.50	26.00	29.06	27.12	24.84	21.06	19.24	18.60	23.21	24.10	23.66	21.52	20.99	21.90	21.57	20.39		

MONTHLY OBSERVATIONS: 526 MONTHLY MEAN: 22.48 MONTHLY MAX: 176.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-057-0004 POC: 23
COUNTY: (057) Mercer
CITY: (00000) Not in a city
SITE ADDRESS: 6024 HIGHWAY 200
SITE COMMENTS:
MONITOR COMMENTS: *

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.2986110009
LONGITUDE: -101.766944
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 630
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	HOUR 0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	4.2	4.2	3.8	3.8	4.0	4.2	4.2	AX	4.3	4.3	4.4	4.5	4.8	4.7	4.9	5.0	4.8	4.3	4.0	4.1	6.6	5.2	5.0	4.6	23	4.52
17	4.3rf	4.4rf	4.1rf	3.9rf	3.7rf	3.8rf	3.8rf	3.8rf	3.8rf	151.5rf	549.6rf	727.1rf	796.8rf	539.8rf	580.6rf	438.9rf	161.9rf	142.8rf	150.9rf	147.9rf	182.9rf	152.1rf	142.9rf	146.4rf	24	210.32
18	154.1rf	158.5rf	133.8rf	93.1rf	84.9rf	91.4rf	80.7rf	60.0rf	44.8rf	44.5rf	48.3rf	26.5rf	7.0rf	6.4rf	4.5rf	4.1rf	4.8rf	6.6rf	7.1rf	7.0rf	4.7rf	4.3rf	5.7rf	7.6rf	24	45.43
19	6.5	6.2	6.9	8.2	11.0	11.8	11.8	9.3	6.0	4.1	3.9	4.6	4.6	3.9	3.7	3.7	3.4	3.4	4.0	3.8	4.4	7.0	5.6	4.1	24	5.91
20	3.9IF	3.8IF	3.9IF	3.8IF	3.7IF	3.7IF	3.7IF	3.7IF	5.1IF	7.9IF	11.7IF	14.9IF	16.8IF	15.9IF	15.1IF	15.3IF	14.6IF	13.6IF	14.2IF	16.6IF	14.9IF	16.9IF	26.8IF	48.0IF	24	12.44
21	48.8rf	50.5rf	51.4rf	55.0rf	57.5rf	55.6rf	47.9rf	37.5rf	20.7rf	16.0rf	15.3rf	14.2rf	14.6rf	15.8rf	14.8rf	14.3rf	14.7rf	15.1rf	16.8rf	18.9rf	15.4rf	17.4rf	15.0rf	15.8rf	24	27.46
22	17.9IF	16.1IF	15.8IF	16.0IF	15.6IF	14.4IF	12.7IF	11.8IF	10.7IF	9.6IF	8.8IF	11.3IF	14.1IF	17.7IF	23.0IF	24.0IF	22.3IF	20.6IF	20.2IF	20.7IF	20.7IF	19.7IF	19.5IF	19.5IF	24	16.78
23	19.1rf	20.4rf	19.3rf	19.3rf	19.8rf	20.9rf	23.8rf	21.1rf	22.4rf	22.2rf	23.6rf	23.8rf	28.8rf	33.0rf	33.6rf	37.7rf	36.8rf	37.7rf	42.8rf	36.5rf	29.4rf	24.5rf	21.5rf	18.7rf	24	26.53
24	17.3IF	17.0IF	17.6IF	18.4IF	20.6IF	22.5IF	23.0IF	23.0IF	20.3IF	15.3IF	14.0IF	13.0IF	12.6IF	13.2IF	13.4IF	14.0IF	14.2IF	12.2IF	11.6IF	12.7IF	14.9IF	13.3IF	14.0IF	13.4IF	24	15.90
25	13.1IF	13.6IF	13.6IF	13.6IF	13.5IF	13.9IF	14.0IF	14.3IF	13.8IF	14.9IF	14.7IF	12.8IF	11.7IF	11.2IF	11.7IF	12.1IF	13.2IF	12.6IF	11.3IF	10.6IF	11.1IF	9.9IF	9.1IF	6.6IF	24	12.37
26	7.1	7.5	7.5	7.4	7.6	8.0	8.1	6.8	5.9	5.5	5.5	5.4	5.0	5.1	5.1	5.1	5.3	6.3	6.9	7.3	5.2	3.7	3.4	3.5	24	6.01
27	4.0IF	6.4IF	8.1IF	10.1IF	7.2IF	4.5IF	5.5IF	8.1IF	10.0IF	10.7IF	9.5IF	10.0IF	7.4IF	6.0IF	5.8IF	5.9IF	7.3IF	9.1IF	9.0IF	9.1IF	9.4IF	9.5IF	8.2IF	3.5IF	24	7.68
28	4.3	7.2	10.0	10.2	5.7	7.3	4.0	3.3	3.2	3.3	2.8	2.4	2.7	3.4	4.7	3.9	4.1	3.9	3.8	4.7	5.4	5.2	5.2	5.5	24	4.84
29	6.1	6.7	6.5	6.3	6.7	6.0	9.6	10.4	6.8	4.9	2.4	2.4	2.4	2.4	3.0	3.1	3.1	2.5	2.4	2.4	2.5	2.8	2.8	2.2	24	4.43
30	2.1	2.2	2.5	2.9	3.6	4.6	5.0	4.6	5.1	5.9	6.3	5.0	3.8	3.9	4.0	5.6	5.4	5.8	5.7	6.2	6.5	6.3	6.6	6.8	24	4.85
31	7.0	8.5	9.7	10.8	AX	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	4	9.00
NO.:	16	16	16	16	15	15	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15		
MAX:	154.1	158.5	133.8	93.1	84.9	91.4	80.7	60.0	44.8	151.5	549.6	727.1	796.8	539.8	580.6	438.9	161.9	142.8	150.9	147.9	182.9	152.1	142.9	146.4		
AVG:	19.99	20.83	19.66	17.68	17.67	18.17	17.19	15.55	12.19	21.37	48.05	58.53	62.21	45.49	48.53	39.51	21.06	19.77	20.71	20.57	22.27	19.85	19.42	20.41		

MONTHLY OBSERVATIONS: 363 MONTHLY MEAN: 26.89 MONTHLY MAX: 796.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-057-0004 POC: 23
COUNTY: (057) Mercer
CITY: (00000) Not in a city
SITE ADDRESS: 6024 HIGHWAY 200
SITE COMMENTS:
MONITOR COMMENTS: *

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.2986110009
LONGITUDE: -101.766944
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 630
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
2	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
3	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
4	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
5	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	BA	6.0	6.6	6.3	6.0	4	6.23
6	5.8IF	5.8IF	6.2IF	6.4IF	6.7IF	7.0IF	7.4IF	7.6IF	7.6IF	7.6IF	7.8IF	7.7IF	7.6IF	7.5IF	7.0IF	6.8IF	6.7IF	6.5IF	6.3IF	6.7IF	6.9IF	7.7IF	8.8IF	8.3IF	24	7.10
7	7.6IF	7.6IF	7.6IF	7.2IF	7.3IF	7.8IF	7.3IF	7.5IF	7.3IF	6.7IF	7.3IF	6.9IF	11.9IF	7.2IF	7.3IF	7.1IF	7.2IF	7.0IF	6.9IF	7.0IF	9.4IF	8.1IF	9.2IF	9.0IF	24	7.73
8	8.1IF	8.2IF	8.6IF	8.0IF	8.4IF	8.8IF	8.4IF	9.7IF	9.5IF	9.7IF	9.6IF	8.8IF	9.5IF	9.8IF	8.1IF	6.2IF	6.5IF	5.8IF	3.3IF	3.9IF	3.6IF	4.7IF	5.1IF	5.6IF	24	7.41
9	5.6IF	5.4IF	5.9IF	6.1IF	7.7IF	7.2IF	6.7IF	6.9IF	6.8IF	6.6IF	7.1IF	6.9IF	7.0IF	5.9IF	6.0IF	6.5IF	7.5IF	9.3IF	6.3IF	6.0IF	12.6IF	21.3IF	24.9IF	21.2IF	24	8.89
10	15.6IF	15.7IF	17.1IF	18.0IF	19.1IF	20.0IF	20.7IF	19.8IF	18.9IF	19.3IF	18.4IF	16.5IF	16.9IF	16.7IF	14.3IF	12.2IF	7.0IF	6.7IF	9.0IF	10.5IF	8.1IF	6.8IF	8.6IF	8.5IF	24	14.35
11	8.4IF	7.1IF	6.7IF	6.4IF	6.8IF	9.3IF	8.7IF	8.6IF	10.3IF	9.1IF	4.8IF	4.9IF	5.2IF	5.4IF	5.9IF	6.8IF	7.3IF	7.8IF	8.0IF	7.2IF	7.3IF	6.9IF	7.1IF	6.8IF	24	7.20
12	6.1IF	6.3IF	6.6IF	6.9IF	7.3IF	7.6IF	7.6IF	7.6IF	8.1IF	9.8IF	10.2IF	10.2IF	11.4IF	12.5IF	12.6IF	12.6IF	12.7IF	13.7IF	13.4IF	12.7IF	13.7IF	14.8IF	14.7IF	14.8IF	24	10.58
13	14.6IF	14.6IF	14.4IF	15.0IF	15.9IF	16.4IF	AZ	AX	14.8IF	14.3IF	15.6IF	13.7IF	15.0IF	20.5IF	28.7IF	25.7IF	26.7IF	20.2IF	19.1IF	21.7IF	21.8IF	18.4IF	15.7IF	15.7IF	22	18.11
14	14.7IF	13.6IF	11.8IF	12.0IF	11.9IF	13.0IF	14.3IF	11.1IF	9.5IF	10.6IF	12.7IF	13.4IF	13.3IF	13.4IF	13.0IF	12.5IF	13.8IF	14.2IF	13.7IF	13.5IF	33.7IF	44.3IF	44.5IF	40.1IF	24	17.44
15	38.1IF	35.1IF	32.9IF	31.3IF	20.6IF	7.0IF	4.7IF	17.5IF	27.9IF	32.8IF	38.2IF	27.3IF	12.0IF	11.4IF	8.9IF	9.8IF	9.1IF	6.0IF	5.7IF	5.4IF	5.4IF	4.2IF	3.7IF	4.4IF	24	16.64
16	4.9IF	5.9IF	11.6IF	12.1IF	12.4IF	13.8IF	17.2IF	18.8IF	21.4IF	22.2IF	20.4IF	18.4IF	17.7IF	16.3IF	19.2IF	17.2IF	18.4IF	18.0IF	17.9IF	17.6IF	17.9IF	18.0IF	18.3IF	18.2IF	24	16.41
17	17.9IF	16.1IF	15.5IF	16.1IF	16.4IF	16.3IF	17.2IF	18.3IF	16.3IF	16.5IF	15.4IF	14.4IF	14.8IF	17.7IF	16.3IF	18.0IF	22.5IF	20.5IF	19.0IF	18.3IF	18.4IF	19.4IF	19.0IF	18.0IF	24	17.43
18	17.1IF	17.0IF	16.5IF	16.4IF	14.2IF	12.2IF	10.4IF	9.8IF	9.6IF	9.5IF	10.2IF	8.5IF	7.1IF	6.5IF	8.4IF	9.9IF	10.2IF	11.3IF	10.9IF	10.5IF	11.0IF	11.7IF	13.4IF	13.2IF	24	11.48
19	13.7	13.1	13.1	9.9	6.5	5.6	5.9	5.2	4.0	3.5	3.7	4.4	5.2	5.9	6.9	7.7	6.8	6.8	9.7	9.6	8.7	6.9	6.8	7.2	24	7.37
20	6.1	5.9	6.3	6.5	8.3	6.6	5.0	6.7	7.5	8.8	9.0	9.0	8.4	9.0	8.7	7.7	6.3	6.1	5.2	4.9	4.5	3.5	2.7	2.7	24	6.48
21	3.1	4.0	2.8	2.4	2.7	2.6	2.6	2.9	2.8	2.6	2.4	2.4	2.8	2.4	2.4	2.5	3.2	3.5	2.4	2.6	2.5	2.7	2.8	2.8	24	2.75
22	3.0	2.8	2.4	2.2	2.1	2.4	2.3	2.2	2.2	2.1	2.0	4.0	1.9	1.7	1.5	1.4	1.5	1.6	1.5	1.5	2.0	1.6	1.7	1.9	24	2.06
23	2.0	2.3	3.2	2.9	2.8	3.2	3.4	3.1	2.7	2.5	2.8	3.3	4.1	3.0	2.7	2.4	2.5	2.5	2.4	2.3	2.2	2.4	2.1	2.4	24	2.72
24	2.7	2.9	3.9	5.0	6.4	5.5	4.3	4.3	4.3	4.3	4.3	4.3	4.1	3.9	4.8	4.7	4.1	4.1	3.7	3.8	3.7	3.7	4.1	4.6	24	4.23
25	4.7	4.7	4.5	4.7	5.4	4.6	4.1	4.9	5.7	5.6	4.1	3.8	4.0	4.1	4.0	4.1	4.0	3.8	4.0	3.8	4.1	4.5	4.6	4.6	24	4.43
26	4.6	4.4	4.5	4.5	4.6	4.5	4.1	4.1	4.1	3.7	3.7	3.7	3.6	3.5	3.8	3.7	3.8	3.9	4.2	4.8	6.7	9.0	11.2		24	4.68
27	12.9IF	12.4IF	13.3IF	AX	11.6IF	5.6IF	4.6IF	7.6IF	8.0IF	7.7IF	9.1IF	8.9IF	7.9IF	7.3IF	7.2IF	6.6IF	7.9IF	9.6IF	9.6IF	11.1IF	7.6IF	4.1IF	3.5IF	3.6IF	23	8.16
28	5.1	6.1	5.2	5.0	4.5	3.8	3.7	3.8	4.8	4.4	4.0	3.5	3.6	4.0	6.3	6.9	6.0	6.3	6.5	10.7	14.5	14.9	11.1	11.7	24	6.52
29	13.2IF	13.2IF	12.2IF	13.4IF	12.0IF	10.9IF	10.8IF	17.8IF	17.9IF	17.7IF	16.7IF	16.3IF	11.5IF	11.7IF	11.2IF	11.1IF	8.9IF	8.7IF	11.7IF	20.5IF	25.0IF	34.5IF	41.3IF	39.2IF	24	16.98
30	34.4IF	33.1IF	33.0IF	33.4IF	34.4IF	32.2IF	30.1IF	31.5IF	28.8IF	24.3IF	16.9IF	12.7IF	11.6IF	12.0IF	12.7IF	12.6IF	9.8IF	6.7IF	8.3IF	7.3IF	7.7IF	7.8IF	8.3IF	7.9IF	24	19.06
31																									0	
NO.:	25	25	25	24	25	25	24	24	25	25	25	25	25	25	25	25	25	25	25	25	26	26	26	26		
MAX:	38.1	35.1	33.0	33.4	34.4	32.2	30.1	31.5	28.8	32.8	38.2	27.3	17.7	20.5	28.7	25.7	26.7	20.5	19.1	21.7	33.7	44.3	44.5	40.1		
AVG:	10.80	10.53	10.63	10.49	10.24	9.36	8.81	9.89	10.43	10.48	10.26	9.36	8.73	8.78	9.10	8.91	8.81	8.42	8.34	8.93	10.12	11.01	11.43	11.14		

MONTHLY OBSERVATIONS: 601 MONTHLY MEAN: 9.80 MONTHLY MAX: 44.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-057-0004 POC: 23
COUNTY: (057) Mercer
CITY: (00000) Not in a city
SITE ADDRESS: 6024 HIGHWAY 200
SITE COMMENTS:
MONITOR COMMENTS: *

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.2986110009
LONGITUDE: -101.766944
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 630
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	6.9	6.5	6.7	7.0	7.4	6.8	6.4	6.7	6.5	6.7	7.2	6.3	6.2	6.6	6.9	5.9	5.9	5.4	5.1	5.1	5.5	5.6	5.8	6.1	24	6.30
2	6.4	4.8	2.6	3.9	5.0	5.0	4.2	3.9	5.3	4.2	3.6	3.5	3.7	4.1	3.7	3.9	4.7	5.2	6.8	6.9	7.0	5.9	5.8	5.3	24	4.81
3	5.3	5.0	5.0	5.2	5.3	4.8	4.0	4.1	4.0	3.4	4.8	9.4	7.1	5.9	6.3	7.9	5.0	4.2	3.3	4.5	3.5	4.1	3.5	4.1	24	4.99
4	3.7	3.7	4.1	4.1	4.2	4.6	7.2	17.8	12.0	10.0	6.3	4.6	5.0	3.9	2.8	2.4	1.4	1.8	1.9	1.8	1.9	1.9	2.2	2.4	24	4.65
5	2.8	2.7	3.3	3.7	3.6	3.7	4.0	4.1	3.7	2.8	3.5	2.6	2.8	3.0	2.9	3.1	2.7	2.8	2.6	2.4	3.0	2.8	2.5	2.6	24	3.07
6	2.5	2.1	2.0	2.0	2.0	1.9	2.4	2.0	3.2	4.1	4.4	3.7	3.7	3.7	3.6	3.5	3.5	3.7	3.7	4.5	5.2	5.5	5.8	6.0	24	3.53
7	5.4IF	5.3IF	5.3IF	5.3IF	5.5IF	6.5IF	6.1IF	6.8IF	7.6IF	8.8IF	8.9IF	9.5IF	9.4IF	11.9IF	11.6IF	10.6IF	6.0IF	5.5IF	5.8IF	7.7IF	7.4IF	6.8IF	7.2IF	6.3IF	24	7.38
8	6.3IF	6.8IF	6.7IF	6.9IF	7.0IF	6.9IF	6.6IF	6.9IF	8.6IF	10.2IF	10.6IF	11.2IF	11.4IF	13.8IF	14.6IF	14.1IF	14.4IF	13.9IF	12.2IF	10.4IF	11.0IF	11.5IF	11.4IF	11.3IF	24	10.20
9	11.7IF	10.8IF	10.8IF	10.6IF	10.0IF	9.3IF	8.2IF	7.6IF	6.8IF	6.9IF	8.1IF	10.1IF	10.5IF	11.3IF	12.0IF	12.7IF	14.5IF	14.8IF	15.0IF	14.0IF	14.5IF	14.8IF	14.0IF	13.8IF	24	11.37
10	14.3IF	16.2IF	14.4IF	14.6IF	23.1IF	21.8IF	16.0IF	14.6IF	14.6IF	15.3IF	17.0IF	18.4IF	21.7IF	15.3IF	14.6IF	11.7IF	8.5IF	6.8IF	6.4IF	5.4IF	4.5IF	4.1IF	4.4IF	4.1IF	24	12.83
11	3.9	3.8	3.7	3.5	3.3	AX	BA	2.5	2.4	AV	2.0	2.1	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.8	1.9	1.6	1.7	1.7	21	2.38
12																									0	
13																									0	
14																									0	
15																									0	
16																									0	
17																									0	
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26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	11	11	11	11	11	10	10	11	11	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11		
MAX:	14.3	16.2	14.4	14.6	23.1	21.8	16.0	17.8	14.6	15.3	17.0	18.4	21.7	15.3	14.6	14.1	14.5	14.8	15.0	14.0	14.5	14.8	14.0	13.8		
AVG:	6.29	6.15	5.87	6.07	6.95	7.13	6.51	7.00	6.79	7.24	6.95	7.40	7.61	7.42	7.36	7.07	6.24	6.00	5.88	5.86	5.95	5.87	5.85	5.79		

MONTHLY OBSERVATIONS: 261 MONTHLY MEAN: 6.55 MONTHLY MAX: 23.1

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-057-0004 POC: 3
COUNTY: (057) Mercer
CITY: (00000) Not in a city
SITE ADDRESS: 6024 HIGHWAY 200
SITE COMMENTS:
MONITOR COMMENTS: *

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.2986110009
LONGITUDE: -101.766944
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 630
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	5.2	5.2	4.7	4.7	4.9	5.2	5.2	AX	5.3	5.3	5.4	5.4	5.7	5.6	5.8	5.9	5.7	5.2	4.9	5.0	8.1	6.4	6.2	5.6	23	5.50
17	5.3IF	5.4IF	5.1IF	4.8IF	4.6IF	4.7IF	4.7IF	4.7IF	4.7IF	153.4IF	551.5IF	729.0IF	798.7IF	541.7IF	582.5IF	440.8IF	163.8IF	144.7IF	152.8IF	149.8IF	184.8IF	154.0IF	144.8IF	148.3IF	24	211.86
18	156.0IF	160.4IF	135.7IF	95.0IF	86.8IF	93.3IF	82.6IF	61.9IF	46.7IF	46.4IF	50.2IF	28.4IF	8.6IF	7.9IF	5.5IF	5.0IF	5.9IF	8.1IF	8.7IF	8.6IF	5.8IF	5.3IF	7.0IF	9.4IF	24	47.05
19	8.0	7.6	8.5	10.1	12.9	13.7	13.7	11.2	7.4	5.1	4.8	5.7	5.7	4.8	4.6	4.6	4.2	4.2	4.9	4.7	5.4	8.6	6.9	5.1	24	7.18
20	4.8IF	4.7IF	4.8IF	4.7IF	4.5IF	4.5IF	4.6IF	4.6IF	6.3IF	9.7IF	13.6IF	16.8IF	17.7IF	16.8IF	16.0IF	16.2IF	15.5IF	14.5IF	15.1IF	17.5IF	16.8IF	18.8IF	28.7IF	49.9IF	24	13.63
21	50.7IF	52.4IF	53.3IF	56.9IF	59.4IF	57.5IF	49.8IF	39.4IF	22.6IF	17.9IF	17.2IF	16.1IF	16.5IF	16.7IF	15.7IF	15.2IF	15.6IF	16.0IF	18.7IF	20.8IF	17.3IF	19.3IF	16.9IF	17.7IF	24	29.15
22	19.8IF	18.0IF	17.7IF	17.9IF	17.5IF	16.3IF	14.6IF	13.7IF	12.6IF	11.5IF	9.7IF	12.2IF	15.0IF	18.6IF	23.9IF	24.9IF	23.2IF	21.5IF	21.1IF	21.6IF	21.6IF	21.6IF	21.4IF	21.4IF	24	18.22
23	21.0IF	22.3IF	21.2IF	21.2IF	21.7IF	22.8IF	25.7IF	23.0IF	24.3IF	23.1IF	24.5IF	24.7IF	29.7IF	33.9IF	34.5IF	38.6IF	37.7IF	38.6IF	43.7IF	37.4IF	30.3IF	25.4IF	23.4IF	20.6IF	24	27.89
24	19.2IF	18.9IF	19.5IF	20.3IF	22.5IF	24.4IF	24.9IF	24.9IF	22.2IF	16.2IF	14.9IF	13.9IF	13.5IF	14.1IF	14.3IF	14.9IF	15.1IF	13.1IF	12.5IF	13.6IF	15.8IF	15.2IF	15.9IF	15.3IF	24	17.30
25	15.0IF	15.5IF	15.5IF	15.5IF	15.4IF	15.8IF	15.9IF	16.2IF	15.7IF	15.8IF	15.6IF	13.7IF	12.6IF	12.1IF	12.6IF	13.0IF	14.1IF	13.5IF	12.2IF	11.5IF	12.0IF	11.8IF	11.0IF	8.1IF	24	13.75
26	8.7	9.2	9.2	9.1	9.4	9.8	10.0	8.4	7.3	6.8	6.4	6.3	5.9	6.0	6.0	6.0	6.2	7.2	7.8	8.2	6.1	4.6	4.2	4.3	24	7.21
27	4.9IF	7.9IF	10.0IF	12.0IF	8.9IF	5.5IF	6.8IF	10.0IF	11.9IF	12.6IF	11.4IF	10.9IF	8.3IF	6.9IF	6.7IF	6.8IF	8.2IF	10.0IF	9.9IF	10.0IF	10.3IF	10.4IF	10.1IF	4.3IF	24	8.95
28	5.3	8.9	11.9	12.1	7.0	9.0	4.9	4.0	3.9	4.1	3.4	2.9	3.3	4.2	5.6	4.8	5.1	4.8	4.7	5.8	6.6	6.4	6.4	6.8	24	5.91
29	7.5	8.3	8.0	7.7	8.3	7.4	11.5	12.3	8.4	6.0	3.0	3.0	3.0	2.9	3.7	3.8	3.8	3.1	2.9	3.0	3.1	3.4	3.4	2.7	24	5.43
30	2.6	2.7	3.1	3.6	4.4	5.7	6.2	5.7	6.3	7.3	7.7	5.9	4.7	4.8	4.9	6.5	6.3	6.7	6.6	7.1	7.4	7.8	8.1	8.4	24	5.85
31	8.6	10.4	11.6	12.7	AX	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	4	10.83
NO.:	16	16	16	16	15	15	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15		
MAX:	156.0	160.4	135.7	95.0	86.8	93.3	82.6	61.9	46.7	153.4	551.5	729.0	798.7	541.7	582.5	440.8	163.8	144.7	152.8	149.8	184.8	154.0	144.8	148.3		
AVG:	21.41	22.36	21.24	19.27	19.21	19.71	18.74	17.14	13.71	22.75	49.29	59.66	63.26	46.47	49.49	40.47	22.03	20.75	21.77	21.64	23.43	21.27	20.96	21.86		

MONTHLY OBSERVATIONS: 363 MONTHLY MEAN: 28.20 MONTHLY MAX: 798.7

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-057-0004 POC: 3
COUNTY: (057) Mercer
CITY: (00000) Not in a city
SITE ADDRESS: 6024 HIGHWAY 200
SITE COMMENTS:
MONITOR COMMENTS: *

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.2986110009
LONGITUDE: -101.766944
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 630
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
2	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
3	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
4	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
5	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	BA	6.9	7.5	7.2	6.9	4	7.13
6	7.1IF	7.1IF	7.6IF	7.9IF	8.3IF	8.6IF	9.1IF	9.3IF	8.5IF	8.5IF	8.7IF	8.6IF	8.5IF	8.4IF	7.9IF	7.7IF	7.6IF	7.4IF	7.2IF	7.6IF	7.8IF	8.6IF	9.7IF	9.2IF	24	8.20
7	8.5IF	8.5IF	8.5IF	8.9IF	9.0IF	9.6IF	9.0IF	8.4IF	8.2IF	7.6IF	8.2IF	7.8IF	12.8IF	8.1IF	8.2IF	8.0IF	8.1IF	7.9IF	7.8IF	7.9IF	10.3IF	9.0IF	10.1IF	9.9IF	24	8.76
8	9.0IF	9.1IF	9.5IF	9.8IF	10.3IF	10.7IF	10.3IF	10.6IF	10.4IF	10.6IF	10.5IF	9.7IF	10.4IF	10.7IF	9.0IF	7.1IF	7.4IF	6.7IF	4.1IF	4.8IF	4.4IF	5.8IF	6.3IF	6.9IF	24	8.50
9	6.9IF	6.7IF	7.2IF	7.5IF	9.5IF	8.8IF	8.2IF	8.5IF	8.4IF	8.1IF	8.0IF	7.8IF	7.9IF	6.8IF	6.9IF	7.4IF	8.4IF	10.2IF	7.8IF	7.4IF	13.5IF	23.2IF	26.8IF	23.1IF	24	10.21
10	17.5IF	17.6IF	19.0IF	19.9IF	21.0IF	21.9IF	22.6IF	21.7IF	20.8IF	21.2IF	20.3IF	18.4IF	18.8IF	18.6IF	16.2IF	14.1IF	8.6IF	8.2IF	10.9IF	12.4IF	9.9IF	8.4IF	10.5IF	10.4IF	24	16.20
11	10.3IF	8.7IF	8.2IF	7.9IF	8.4IF	11.2IF	10.6IF	10.5IF	12.2IF	11.0IF	5.9IF	6.0IF	6.4IF	6.6IF	7.3IF	7.7IF	8.2IF	8.7IF	8.9IF	8.9IF	9.0IF	8.5IF	8.7IF	8.4IF	24	8.68
12	7.5IF	7.8IF	8.1IF	8.5IF	9.0IF	9.3IF	9.3IF	9.3IF	9.9IF	11.7IF	12.1IF	12.1IF	12.3IF	13.4IF	13.5IF	13.5IF	13.6IF	14.6IF	14.3IF	13.6IF	14.6IF	15.7IF	16.6IF	16.7IF	24	11.96
13	16.5IF	16.5IF	16.3IF	16.9IF	17.8IF	18.3IF	AZ	AX	16.7IF	16.2IF	16.5IF	14.6IF	15.9IF	21.4IF	29.6IF	26.6IF	27.6IF	21.1IF	20.0IF	22.6IF	22.7IF	19.3IF	17.6IF	17.6IF	22	19.47
14	16.6IF	15.5IF	13.7IF	13.9IF	13.8IF	14.9IF	16.2IF	13.0IF	11.4IF	11.5IF	13.6IF	14.3IF	14.2IF	14.3IF	13.9IF	13.4IF	14.7IF	15.1IF	14.6IF	14.4IF	34.6IF	45.2IF	46.4IF	42.0IF	24	18.80
15	40.0IF	37.0IF	34.8IF	33.2IF	22.5IF	8.6IF	5.8IF	19.4IF	29.8IF	34.7IF	40.1IF	29.2IF	13.9IF	13.3IF	10.8IF	11.7IF	11.0IF	7.4IF	7.0IF	6.6IF	6.6IF	5.2IF	4.6IF	5.4IF	24	18.28
16	6.0IF	7.2IF	13.5IF	14.0IF	14.3IF	15.7IF	19.1IF	20.7IF	23.3IF	24.1IF	22.3IF	20.3IF	19.6IF	18.2IF	21.1IF	19.1IF	20.3IF	19.9IF	19.8IF	19.5IF	19.8IF	19.9IF	20.2IF	20.1IF	24	18.25
17	19.8IF	18.0IF	17.4IF	18.0IF	18.3IF	18.2IF	19.1IF	20.2IF	18.2IF	18.4IF	17.3IF	16.3IF	16.7IF	18.6IF	17.2IF	18.9IF	23.4IF	21.4IF	19.9IF	19.2IF	20.3IF	21.3IF	20.9IF	19.9IF	24	19.04
18	19.0IF	18.9IF	18.4IF	18.3IF	16.1IF	14.1IF	12.3IF	11.7IF	11.5IF	11.4IF	11.1IF	9.4IF	8.0IF	7.4IF	9.3IF	10.8IF	11.1IF	12.2IF	11.8IF	11.4IF	11.9IF	12.6IF	14.3IF	15.1IF	24	12.84
19	15.6	15.0	15.0	11.8	8.0	6.9	7.3	6.4	4.9	4.3	4.6	5.3	6.1	6.8	7.8	8.6	7.7	7.7	10.6	10.5	9.6	8.5	8.4	8.8	24	8.59
20	7.5	7.3	7.7	8.0	10.2	8.1	6.1	8.2	9.2	9.7	9.9	9.9	9.3	9.9	9.6	8.6	7.2	7.0	6.1	5.8	5.4	4.3	3.3	3.3	24	7.57
21	3.8	4.9	3.4	3.0	3.3	3.2	3.2	3.6	3.5	3.2	2.9	3.0	3.4	3.0	3.0	3.1	3.9	4.3	2.9	3.2	3.1	3.3	3.4	3.4	24	3.38
22	3.7	3.4	2.9	2.7	2.6	2.9	2.8	2.7	2.7	2.6	2.5	4.9	2.3	2.1	1.9	1.7	1.8	2.0	1.9	1.8	2.5	2.0	2.1	2.3	24	2.53
23	2.5	2.8	3.9	3.6	3.4	3.9	4.2	3.8	3.3	3.1	3.4	4.1	5.1	3.7	3.3	3.0	3.1	3.1	3.0	2.8	2.7	2.9	2.6	3.0	24	3.35
24	3.3	3.6	4.8	6.1	7.9	6.8	5.3	5.3	5.3	5.3	5.3	5.3	5.1	4.8	5.9	5.8	5.0	5.0	4.6	4.7	4.5	4.6	5.0	5.7	24	5.21
25	5.8	5.8	5.5	5.8	6.6	5.6	5.0	6.0	7.0	6.9	5.1	4.7	4.9	5.0	4.9	5.0	4.9	4.7	4.9	4.7	5.0	5.4	5.6	5.7	24	5.44
26	5.6	5.4	5.5	5.5	5.6	5.5	5.0	5.1	5.1	4.5	4.5	4.6	4.5	4.4	4.3	4.7	4.6	4.7	4.8	5.1	5.9	8.3	10.9	13.1	24	5.72
27	14.8IF	14.3IF	15.2IF	AX	13.5IF	6.9IF	5.7IF	9.4IF	9.8IF	9.5IF	10.0IF	9.8IF	8.8IF	8.2IF	8.1IF	7.5IF	8.8IF	10.5IF	10.5IF	12.0IF	9.3IF	5.1IF	4.3IF	4.4IF	23	9.41
28	6.3	7.5	6.4	6.1	5.5	4.7	4.6	4.7	5.9	5.4	4.9	4.3	4.4	4.9	7.2	8.5	7.4	7.2	7.4	12.6	16.4	16.8	13.0	13.6	24	7.74
29	15.1IF	15.1IF	14.1IF	15.3IF	13.9IF	12.8IF	12.7IF	19.7IF	19.8IF	19.6IF	18.6IF	17.2IF	12.4IF	12.6IF	12.1IF	12.0IF	9.8IF	9.6IF	12.6IF	21.4IF	25.9IF	36.4IF	43.2IF	41.1IF	24	18.46
30	36.3IF	35.0IF	34.9IF	35.3IF	36.3IF	34.1IF	32.0IF	33.4IF	30.7IF	25.2IF	17.8IF	13.6IF	12.5IF	12.9IF	13.6IF	13.5IF	10.7IF	8.3IF	9.2IF	9.0IF	9.5IF	9.6IF	10.2IF	9.7IF	24	20.55
31																									0	
NO.:	25	25	25	24	25	25	24	24	25	25	25	25	25	25	25	25	25	25	25	25	26	26	26	26		
MAX:	40.0	37.0	34.9	35.3	36.3	34.1	32.0	33.4	30.7	34.7	40.1	29.2	19.6	21.4	29.6	26.6	27.6	21.4	20.0	22.6	34.6	45.2	46.4	42.0		
AVG:	12.20	11.95	12.06	12.00	11.80	10.85	10.23	11.32	11.86	11.77	11.36	10.45	9.77	9.76	10.10	9.92	9.80	9.40	9.30	10.00	11.23	12.21	12.77	12.53		

MONTHLY OBSERVATIONS: 601 MONTHLY MEAN: 11.03 MONTHLY MAX: 46.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 38-057-0004 POC: 3
COUNTY: (057) Mercer
CITY: (00000) Not in a city
SITE ADDRESS: 6024 HIGHWAY 200
SITE COMMENTS:
MONITOR COMMENTS: *

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

LATITUDE: 47.2986110009
LONGITUDE: -101.766944
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 630
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: MULTIPLE METHODS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	8.5	8.0	8.2	8.6	9.1	8.4	7.9	8.2	8.0	8.3	8.1	7.2	7.1	7.5	7.8	6.8	6.8	6.3	6.0	6.0	6.4	6.5	6.7	7.0	24	7.48
2	7.3	5.7	3.2	4.8	6.1	6.2	5.2	4.8	6.2	5.1	4.4	4.3	4.6	5.0	4.5	4.8	5.6	6.1	7.7	7.8	7.9	7.3	7.1	6.5	24	5.76
3	6.5	6.1	6.2	6.4	6.5	5.9	4.9	5.1	4.9	4.2	5.9	11.3	8.7	7.3	7.7	9.7	6.1	5.2	4.0	5.5	4.3	5.1	4.3	5.0	24	6.12
4	4.6	4.6	5.1	5.1	5.2	5.6	8.9	19.7	13.9	11.9	7.8	5.7	6.2	4.8	3.5	3.0	1.7	2.2	2.3	2.2	2.3	2.3	2.7	2.9	24	5.59
5	3.4	3.3	4.0	4.6	4.4	4.5	4.9	5.1	4.5	3.4	4.3	3.2	3.4	3.7	3.6	3.8	3.3	3.5	3.2	3.0	3.7	3.4	3.1	3.2	24	3.77
6	3.1	2.6	2.5	2.5	2.4	2.3	2.9	2.4	3.9	5.1	5.4	4.6	4.5	4.5	4.4	4.3	4.3	4.5	4.6	5.4	6.4	6.8	7.1	7.4	24	4.33
7	6.7IF	6.5IF	6.5IF	6.5IF	6.8IF	8.0IF	7.5IF	8.4IF	9.4IF	10.7IF	10.8IF	11.4IF	11.3IF	12.8IF	12.5IF	11.5IF	6.9IF	6.4IF	7.1IF	9.5IF	9.1IF	8.4IF	8.8IF	7.7IF	24	8.80
8	7.7IF	8.4IF	8.3IF	8.5IF	8.6IF	8.5IF	8.1IF	8.5IF	10.5IF	12.1IF	12.5IF	12.1IF	12.3IF	14.7IF	15.5IF	15.0IF	15.3IF	14.8IF	14.1IF	12.3IF	12.9IF	13.4IF	13.3IF	13.2IF	24	11.69
9	13.6IF	12.7IF	12.7IF	12.5IF	11.9IF	11.2IF	10.1IF	9.3IF	8.4IF	7.8IF	9.0IF	11.0IF	11.4IF	12.2IF	12.9IF	13.6IF	15.4IF	15.7IF	15.9IF	14.9IF	15.4IF	15.7IF	14.9IF	14.7IF	24	12.62
10	15.2IF	17.1IF	16.3IF	16.5IF	25.0IF	23.7IF	17.9IF	16.5IF	16.5IF	17.2IF	18.9IF	20.3IF	22.6IF	16.2IF	15.5IF	12.6IF	9.4IF	7.7IF	7.9IF	6.6IF	5.5IF	5.0IF	5.4IF	5.1IF	24	14.19
11	4.8	4.7	4.6	4.3	4.1	AX	BA	3.1	3.0	AV	2.5	2.6	2.7	2.6	2.5	2.5	2.4	2.3	2.3	2.2	2.3	2.0	2.1	2.1	21	2.94
12	2.3	2.2	2.5	2.6	2.7	2.6	2.8	3.0	3.9	5.4	8.0	6.2	4.9	3.9	14.1	5.5	5.3	5.2	4.8	4.8	4.7	4.5	4.6	4.8	24	4.64
13	5.5IF	5.4IF	5.3IF	5.4IF	5.6IF	5.5IF	5.4IF	7.2IF	7.6IF	5.8IF	5.1IF	5.8IF	8.8IF	10.7IF	17.0IF	20.2IF	19.4IF	21.5IF	15.5IF	12.3IF	12.1IF	13.0IF	13.1IF	14.0IF	24	10.30
14	14.8rf	16.4rf	20.1rf	16.8rf	17.8rf	24.8rf	33.6rf	30.5rf	38.6rf	53.9rf	91.3rf	57.7rf	35.9rf	48.2rf	45.0rf	42.3rf	56.5rf	79.6rf	66.6rf	64.3rf	65.7rf	69.8rf	99.1rf	125.4rf	24	50.61
15	129.8rf	113.5rf	94.5rf	73.9rf	79.6rf	75.7rf	74.9rf	57.7rf	24.0rf	15.3rf	14.1rf	16.6rf	20.4rf	24.6rf	33.5rf	31.9rf	21.4rf	12.7rf	15.1rf	20.7rf	26.0rf	33.4rf	34.0rf	45.2rf	24	45.35
16	64.9rf	73.9rf	75.4rf	79.7rf	82.9rf	82.7rf	77.7rf	48.8rf	24.1rf	19.7rf	9.9rf	7.3rf	5.8rf	5.9rf	5.6rf	6.0rf	6.4rf	6.0rf	4.3rf	4.7rf	7.5rf	11.0rf	3.0rf	2.8rf	24	29.83
17	3.0	2.9	3.1	2.9	3.0	3.4	3.4	3.1	2.9	4.1	3.2	3.9	3.9	3.9	3.9	4.5	5.0	5.4	5.3	4.9	6.4	4.0	4.0	4.5	24	3.94
18	4.3	3.9	3.5	3.6	3.6	3.6	3.5	4.0	4.9	5.8	6.9	9.6	11.5	14.0	15.0	15.2	15.4	10.6	6.4	6.1	6.5	7.4	7.7	6.7	24	7.49
19	5.6	5.7	5.4	5.8	6.4	7.4	9.5	9.6	10.6	9.3	9.9	9.0	8.8	8.5	6.2	4.4	5.1	6.0	5.5	6.2	6.4	6.8	8.2	9.4	24	7.32
20	10.5IF	12.2IF	11.5IF	12.9IF	12.0IF	12.1IF	10.2IF	11.1IF	13.6IF	26.0IF	14.9IF	13.8IF	13.1IF	10.7IF	8.6IF	8.3IF	8.6IF	9.5IF	10.9IF	14.4IF	13.7IF	11.3IF	11.5IF	11.6IF	24	12.21
21	12.9IF	13.7IF	14.1IF	13.2IF	13.8IF	12.6IF	11.9IF	11.8IF	12.7IF	13.5IF	12.3IF	12.9IF	13.4IF	13.4IF	13.2IF	13.1IF	11.0IF	8.3IF	8.7IF	9.6IF	8.9IF	8.2IF	8.6IF	8.7IF	24	11.69
22	8.9IF	10.3IF	11.1IF	11.3IF	12.0IF	12.0IF	12.0IF	12.3IF	17.5IF	18.7IF	24.1IF	25.7IF	25.2IF	23.6IF	22.9IF	22.2IF	22.5IF	21.6IF	22.2IF	23.5IF	23.9IF	25.3IF	24.4IF	23.4IF	24	19.03
23	23.1IF	23.1IF	22.9IF	22.6IF	21.5IF	20.1IF	19.5IF	16.7IF	14.8IF	13.7IF	10.8IF	7.2IF	6.4IF	6.2IF	6.7IF	7.9IF	8.4IF	8.5IF	8.5IF	8.5IF	7.8IF	8.0IF	7.7IF	7.8IF	24	12.85
24	9.3IF	10.5IF	11.1IF	9.7IF	10.9IF	11.3IF	11.7IF	13.8IF	14.7IF	14.8IF	12.9IF	10.9IF	10.1IF	10.8IF	10.2IF	10.0IF	9.7IF	9.9IF	9.7IF	9.7IF	9.8IF	9.2IF	9.3IF	9.8IF	24	10.83
25	10.3IF	9.6IF	9.2IF	9.5IF	9.5IF	9.4IF	9.5IF	9.4IF	8.9IF	8.9IF	9.3IF	8.2IF	7.6IF	7.9IF	6.6IF	9.1IF	8.7IF	7.6IF	7.9IF	8.8IF	11.2IF	9.0IF	9.1IF	9.5IF	24	8.95
26	9.4IF	9.2IF	9.0IF	8.8IF	8.7IF	AX	9.4IF	10.3IF	11.2IF	10.2IF	9.2IF	7.6IF	6.9IF	7.1IF	6.8IF	6.8IF	6.7IF	6.5IF	8.4IF	11.4IF	9.2IF	6.6IF	6.5IF	6.9IF	23	8.38
27	9.8	9.2	8.0	6.0	5.8	5.5	5.5	5.5	8.6	7.4	7.5	7.2	7.3	7.0	6.0	4.9	3.2	3.6	3.6	4.2	5.0	4.3	5.2	6.2	24	6.10
28	5.8	5.0	4.6	4.9	4.7	5.6	5.0	5.1	5.3	5.7	5.8	5.6	5.5	4.2	3.7	3.9	3.7	3.7	3.7	3.6	4.0	3.9	3.9	4.0	24	4.62
29	4.1	4.0	4.0	4.2	4.4	4.5	4.6	5.8	5.0	4.8	4.8	5.3	4.9	5.0	5.2	5.0	4.6	4.3	4.2	4.6	5.1	4.9	4.5	4.0	24	4.66
30	4.2	4.0	3.7	3.7	3.6	3.7	3.4	3.2	3.4	3.3	3.4	3.3	3.3	3.1	3.2	2.8	2.6	2.6	2.7	2.8	2.9	3.0	3.4	3.4	24	3.28
31	3.4	3.3	3.3	3.5	3.7	4.0	3.9	4.0	4.2	4.3	4.7	5.2	5.7	6.1	6.2	6.1	6.9	5.4	4.7	4.5	4.4	4.9	4.1	3.5	24	4.58
NO.:	31	31	31	31	31	29	30	31	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	129.8	113.5	94.5	79.7	82.9	82.7	77.7	57.7	38.6	53.9	91.3	57.7	35.9	48.2	45.0	42.3	56.5	79.6	66.6	64.3	65.7	69.8	99.1	125.4		
AVG:	13.65	13.47	12.90	12.30	12.98	13.48	13.19	11.74	10.51	11.21	11.54	10.41	9.81	10.20	10.65	10.25	9.95	10.10	9.48	9.84	10.24	10.46	11.21	12.46		

MONTHLY OBSERVATIONS: 740 MONTHLY MEAN: 11.33 MONTHLY MAX: 129.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-057-0004 POC: 3
COUNTY: (057) Mercer
CITY: (00000) Not in a city
SITE ADDRESS: 6024 HIGHWAY 200
SITE COMMENTS:
MONITOR COMMENTS: *

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.2986110009
LONGITUDE: -101.766944
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 630
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	3.5	3.8	4.1	4.1	4.0	4.2	4.3	4.3	4.6	5.1	5.5	5.2	5.4	5.2	5.4	5.1	4.7	4.3	5.9	6.3	6.1	4.2	4.0	4.9	24	4.76
2	4.5	3.6	3.0	3.2	3.4	4.0	3.9	4.1	5.0	5.9	5.0	4.3	4.5	3.7	3.7	4.1	4.4	4.7	4.6	4.6	5.0	6.3	6.0	5.2	24	4.45
3	4.9	5.0	5.5	5.6	6.0	6.2	5.9	5.2	4.8	4.2	4.0	3.4	3.7	4.1	5.9	5.8	5.7	6.3	6.5	6.5	5.1	4.6	4.6	4.5	24	5.17
4	4.1	3.9	4.1	4.3	4.0	4.5	4.4	5.5	6.5	5.3	4.7	4.9	6.8	9.8	9.7	5.8	4.9	5.9	8.1	7.8	9.8	13.1	20.1	16.2	24	7.26
5	7.5IF	14.0IF	15.0IF	9.5IF	6.2IF	5.1IF	4.6IF	4.5IF	6.7IF	10.1IF	13.9IF	15.4IF	17.5IF	14.4IF	11.4IF	10.9IF	11.8IF	13.6IF	12.0IF	12.6IF	12.5IF	11.5IF	10.6IF	9.6IF	24	10.87
6	8.6IF	7.9IF	8.0IF	8.4IF	9.0IF	10.3IF	11.4IF	12.3IF	12.7IF	12.6IF	14.5IF	15.9IF	15.6IF	14.5IF	14.3IF	14.5IF	15.9IF	18.8IF	23.2IF	24.3IF	25.0IF	28.0IF	36.4IF	38.7IF	24	16.70
7	37.9rf	39.3rf	28.8rf	31.9rf	34.5rf	38.3rf	AX	33.5rf	35.0rf	57.3rf	73.8rf	53.6rf	34.8rf	33.9rf	35.7rf	38.0rf	39.2rf	33.7rf	31.1rf	28.1rf	16.4rf	14.1rf	13.4rf	13.4rf	23	34.60
8	13.0IF	11.8IF	11.1IF	10.4IF	10.2IF	9.7IF	9.0IF	9.1IF	9.7IF	10.8IF	9.9IF	9.4IF	9.4IF	11.0IF	13.5IF	17.6IF	15.6IF	13.4IF	13.7IF	13.4IF	13.7IF	14.5IF	15.8IF	12.3IF	24	12.00
9	16.8IF	17.6IF	16.7IF	14.2IF	14.2IF	16.5IF	17.6IF	17.9IF	18.5IF	18.9IF	19.3IF	17.5IF	16.7IF	18.8IF	19.9IF	20.2IF	20.0IF	19.3IF	16.2IF	15.4IF	13.5IF	11.4IF	9.0IF	9.0IF	24	16.46
10	9.1	8.9	9.7	9.9	9.7	9.5	9.6	9.8	9.6	9.4	10.4	11.8	14.3	9.7	7.5	5.5	4.0	3.7	3.6	3.7	3.7	3.8	4.1	4.9	24	7.75
11	5.1	5.1	3.9	3.7	5.4	4.0	3.9	4.0	2.8	2.4	2.1	2.3	2.6	2.5	2.5	2.5	2.4	2.5	2.3	2.4	2.7	3.1	3.2	3.7	24	3.21
12	3.6	3.1	3.3	3.1	3.0	3.1	2.9	3.2	2.8	3.5	2.6	2.3	2.4	2.7	2.9	2.7	2.6	3.0	5.1	4.8	3.5	3.5	3.8	3.5	24	3.21
13	3.3	3.2	3.1	3.4	3.0	2.7	2.7	2.7	2.0	2.4	2.5	2.5	2.5	3.1	3.6	3.4	3.5	3.7	3.4	3.7	3.8	3.9	3.7	3.6	24	3.14
14	3.6	3.7	3.7	3.9	3.8	3.8	3.7	3.9	4.1	4.1	4.0	4.0	4.2	4.8	6.6	7.4	7.6	7.4	6.7	6.7	7.0	7.1	6.8	6.8	24	5.23
15	6.7	6.6	6.6	6.4	6.1	6.0	5.9	5.8	5.3	5.3	4.9	4.8	4.2	3.8	3.3	3.2	3.5	3.3	3.4	5.3	6.2	4.7	3.7	3.7	24	4.95
16	3.5	3.3	3.3	3.5	3.4	3.6	3.6	5.6	22.9	13.4	7.9	6.1	6.2	7.0	7.6	6.8	7.0	7.0	8.1	7.8	7.7	8.5	7.5	6.4	24	6.99
17	6.4IF	8.7IF	10.4IF	12.4IF	9.9IF	7.8IF	7.8IF	8.3IF	12.3IF	21.0IF	24.7IF	18.7IF	11.8IF	9.0IF	9.2IF	10.0IF	11.3IF	12.8IF	13.1IF	14.8IF	16.5IF	17.4IF	15.5IF	13.5IF	24	12.64
18	12.6IF	12.1IF	12.1IF	12.4IF	12.7IF	13.1IF	13.2IF	13.0IF	12.7IF	13.5IF	13.8IF	13.8IF	14.4IF	14.9IF	16.0IF	17.2IF	16.6IF	18.2IF	41.7IF	23.4IF	20.6IF	21.7IF	23.6IF	23.3IF	24	16.94
19	25.4IF	31.5IF	34.4IF	31.1IF	22.6IF	20.1IF	17.9IF	15.7IF	14.9IF	19.1IF	17.4IF	19.7IF	19.0IF	16.2IF	9.2IF	6.9IF	8.2IF	8.2IF	7.5IF	8.6IF	7.9IF	9.8IF	7.9IF	8.5IF	24	16.15
20	8.8IF	8.6IF	8.1IF	7.7IF	7.9IF	7.9IF	8.6IF	9.5IF	10.0IF	10.0IF	9.1IF	8.2IF	8.5IF	8.8IF	10.7IF	15.7IF	17.8IF	21.6IF	24.5IF	18.7IF	14.3IF	12.6IF	14.6IF	17.2IF	24	12.06
21	20.5IF	17.5IF	12.9IF	11.3IF	10.3IF	9.7IF	10.5IF	10.0IF	8.8IF	8.4IF	8.5IF	7.6IF	8.3IF	11.4IF	10.8IF	11.8IF	11.0IF	12.4IF	11.6IF	11.3IF	10.4IF	10.4IF	10.3IF	10.2IF	24	11.08
22	9.9IF	9.5IF	10.1IF	10.1IF	10.8IF	AX	9.6IF	8.0IF	9.4IF	11.2IF	12.1IF	8.9IF	9.5IF	22.7IF	19.3IF	18.9IF	16.8IF	12.7IF	18.8IF	19.3IF	16.2IF	10.4IF	9.2IF	9.8IF	23	12.75
23	9.4	5.7	6.0	9.2	7.5	7.9	8.3	6.9	7.4	10.0	8.3	7.3	7.2	7.2	7.1	6.0	5.7	4.4	3.3	4.4	4.6	5.0	4.7	4.3	24	6.58
24	4.7	4.6	4.6	4.7	4.9	5.2	5.1	6.1	7.4	8.9	6.9	6.4	4.6	4.9	5.0	4.7	6.0	5.8	4.6	4.4	4.4	5.2	4.8	4.6	24	5.35
25	5.2IF	5.2IF	7.1IF	12.0IF	14.2IF	13.1IF	12.6IF	12.3IF	12.2IF	14.0IF	16.5IF	17.6IF	15.6IF	16.0IF	14.4IF	8.5IF	5.9IF	5.5IF	5.2IF	5.8IF	5.6IF	6.3IF	6.7IF	6.9IF	24	10.18
26	6.4IF	7.1IF	7.7IF	9.2IF	9.7IF	10.6IF	11.2IF	11.8IF	11.3IF	11.2IF	13.4IF	14.2IF	13.4IF	12.2IF	12.2IF	11.5IF	11.9IF	12.2IF	13.0IF	13.5IF	13.6IF	13.6IF	10.6IF	9.0IF	24	11.27
27	8.7IF	8.5IF	8.1IF	8.0IF	8.1IF	8.2IF	8.5IF	8.7IF	9.7IF	10.7IF	10.5IF	9.0IF	9.4IF	10.0IF	9.5IF	8.4IF	10.0IF	10.0IF	11.4IF	11.9IF	12.8IF	12.9IF	13.3IF	12.1IF	24	9.93
28	11.7rf	10.7rf	9.9rf	11.4rf	12.9rf	10.7rf	10.8rf	11.0rf	12.0rf	16.3rf	20.4rf	24.0rf	30.4rf	30.8rf	32.4rf	30.3rf	30.4rf	28.8rf	33.4rf	32.8rf	31.2rf	30.6rf	29.5rf	30.5rf	24	22.20
29	32.8rf	34.0rf	34.6rf	37.9rf	38.1rf	38.9rf	41.9rf	40.1rf	42.2rf	57.6rf	75.6rf	81.1rf	89.2rf	62.2rf	55.6rf	55.8rf	53.8rf	47.9rf	58.2rf	71.5rf	68.7rf	63.4rf	64.1rf	64.5rf	24	54.57
30	60.7rf	58.9rf	58.6rf	57.8rf	57.9rf	56.6rf	55.3rf	49.7rf	45.4rf	45.5rf	46.3rf	48.4rf	47.8rf	48.8rf	46.9rf	44.6rf	42.1rf	41.5rf	39.8rf	40.4rf	39.9rf	36.7rf	33.7rf	34.4rf	24	47.40
31	33.0IF	31.9IF	31.4IF	31.5IF	14.5IF	7.8IF	7.8IF	7.2IF	7.0IF	6.9IF	6.2IF	4.5IF	4.3IF	4.2IF	4.1IF	4.7IF	6.0IF	7.0IF	8.5IF	10.9IF	10.0IF	9.3IF	9.7IF	10.5IF	24	11.62
NO.:	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	60.7	58.9	58.6	57.8	57.9	56.6	55.3	49.7	45.4	57.6	75.6	81.1	89.2	62.2	55.6	55.8	53.8	47.9	58.2	71.5	68.7	63.4	64.1	64.5		
AVG:	12.64	12.75	12.45	12.65	11.87	11.64	10.75	11.28	12.12	14.03	15.31	14.61	14.33	13.82	13.42	13.18	13.11	12.89	14.47	14.36	13.50	13.15	13.25	13.09		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 13.12 MONTHLY MAX: 89.2

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-057-0004 POC: 3
COUNTY: (057) Mercer
CITY: (00000) Not in a city
SITE ADDRESS: 6024 HIGHWAY 200
SITE COMMENTS:
MONITOR COMMENTS: *

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.2986110009
LONGITUDE: -101.766944
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 630
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	11.5IF	11.5IF	11.0IF	11.3IF	12.1IF	12.9IF	14.3IF	14.1IF	17.2IF	23.8IF	29.0IF	28.6IF	28.3IF	23.2IF	21.6IF	20.7IF	18.8IF	19.9IF	21.8IF	22.1IF	23.8IF	24.3IF	25.2IF	24.3IF	24	19.64
2	26.2IF	25.2IF	24.5IF	23.9IF	24.0IF	24.5IF	23.6IF	23.1IF	21.0IF	18.3IF	16.7IF	15.3IF	14.4IF	12.2IF	10.4IF	9.4IF	10.4IF	9.5IF	10.1IF	9.6IF	10.1IF	9.3IF	9.3IF	9.0IF	24	16.25
3	8.7rf	9.0rf	10.1rf	15.9rf	31.2rf	36.5rf	37.4rf	42.0rf	66.6rf	83.0rf	84.2rf	71.3rf	64.2rf	56.6rf	51.1rf	54.1rf	59.2rf	48.3rf	35.3rf	34.3rf	37.5rf	34.9rf	22.6rf	15.5rf	24	42.06
4	12.9rf	12.3rf	11.8rf	11.2rf	11.4rf	14.3rf	18.1rf	20.4rf	18.7rf	17.5rf	17.6rf	16.4rf	16.5rf	15.4rf	13.4rf	9.2rf	9.4rf	7.5rf	21.5rf	110.7rf	132.3rf	114.9rf	129.6rf	120.1rf	24	36.80
5	116.3rf	103.1rf	117.0rf	107.7rf	90.6rf	98.1rf	106.5rf	AX	116.2rf	125.1rf	120.1rf	113.3rf	101.4rf	89.4rf	47.5rf	29.5rf	19.9rf	15.4rf	11.4rf	10.4rf	8.9rf	8.6rf	8.4rf	10.6rf	23	68.50
6	11.0rf	10.0rf	11.1rf	11.7rf	10.9rf	11.9rf	10.6rf	12.3rf	25.3rf	35.6rf	34.4rf	23.9rf	22.6rf	29.1rf	34.9rf	38.8rf	41.3rf	44.2rf	48.0rf	50.1rf	46.4rf	46.7rf	49.1rf	50.1rf	24	29.58
7	49.7rf	47.0rf	45.6rf	43.0rf	41.3rf	37.6rf	36.5rf	34.7rf	33.3rf	36.7rf	38.3rf	39.4rf	41.2rf	41.8rf	42.1rf	40.4rf	39.9rf	40.1rf	39.6rf	40.9rf	41.6rf	36.3rf	11.5rf	8.3rf	24	37.78
8	18.5IF	29.6IF	26.7IF	25.7IF	30.7IF	31.9IF	27.3IF	26.2IF	27.4IF	29.3IF	24.6IF	19.3IF	18.4IF	17.5IF	15.0IF	11.4IF	10.8IF	11.9IF	10.1IF	11.1IF	11.2IF	11.1IF	11.2IF	11.2IF	24	19.50
9	11.5IF	11.6IF	11.0IF	10.6IF	9.0IF	9.1IF	9.4IF	9.5IF	9.7IF	9.6IF	10.1IF	10.7IF	10.4IF	10.0IF	10.9IF	11.5IF	10.7IF	11.0IF	11.2IF	10.4IF	11.4IF	12.9IF	14.0IF	14.6IF	24	10.87
10	14.8IF	15.0IF	14.7IF	14.4IF	14.5IF	14.2IF	14.4IF	14.0IF	14.1IF	14.1IF	13.4IF	13.5IF	13.7IF	13.3IF	13.3IF	13.5IF	12.9IF	12.5IF	13.0IF	12.9IF	13.1IF	12.3IF	12.5IF	12.9IF	24	13.63
11	13.0IF	13.3IF	13.3IF	13.2IF	13.1IF	13.6IF	13.6IF	12.9IF	12.5IF	13.0IF	12.3IF	11.8IF	12.7IF	12.5IF	12.8IF	11.7IF	12.4IF	7.7IF	6.9IF	6.0IF	5.3IF	4.9IF	4.7IF	5.0IF	24	10.76
12	4.8	5.0	5.4	5.2	5.6	4.9	4.5	4.2	5.3	5.7	5.8	6.3	6.8	6.9	7.4	7.7	7.3	7.1	7.0	7.0	6.8	6.6	6.2	5.5	24	6.04
13	5.4	5.0	4.6	4.2	3.8	3.8	3.9	4.0	4.4	4.9	5.6	6.2	6.2	6.0	6.2	6.3	6.4	6.7	7.5	8.1	8.3	8.3	7.5	7.9	24	5.88
14	7.8IF	4.3IF	2.8IF	2.9IF	3.5IF	3.9IF	3.9IF	4.5IF	6.4IF	5.8IF	6.5IF	7.9IF	24.7IF	50.2IF	59.6IF	44.1IF	19.2IF	16.7IF	14.1IF	12.8IF	12.5IF	13.9IF	14.0IF	12.7IF	24	14.78
15	12.2rf	11.0rf	9.4rf	10.3rf	9.9rf	12.1rf	12.1rf	12.5rf	15.5rf	26.7rf	46.7rf	51.9rf	72.4rf	63.0rf	74.7rf	92.9rf	80.6rf	74.8rf	70.8rf	81.5rf	88.3rf	84.7rf	80.7rf	75.9rf	24	48.78
16	68.7rf	70.2rf	70.3rf	72.0rf	70.8rf	65.8rf	68.8rf	63.3rf	60.0rf	39.6rf	27.1rf	29.3rf	37.9rf	30.0rf	26.3rf	24.6rf	25.7rf	23.8rf	22.8rf	21.7rf	21.3rf	20.7rf	20.6rf	18.1rf	24	41.64
17	16.2IF	15.6IF	11.5IF	9.7IF	10.7IF	13.3IF	15.8IF	18.6IF	22.8IF	30.8IF	25.4IF	24.8IF	21.5IF	16.1IF	14.2IF	16.4IF	14.4IF	12.3IF	12.6IF	11.3IF	11.3IF	13.1IF	12.0IF	13.7IF	24	16.00
18	15.7IF	16.1IF	16.2IF	15.7IF	14.4IF	14.7IF	14.6IF	12.2IF	10.1IF	7.0IF	6.9IF	6.5IF	6.7IF	5.6IF	5.5IF	5.4IF	5.1IF	4.9IF	7.9IF	5.6IF	6.4IF	7.3IF	7.4IF	7.6IF	24	9.40
19	7.9IF	7.3IF	6.7IF	6.4IF	6.5IF	6.0IF	6.4IF	6.4IF	AZ	AX	5.3IF	5.2IF	4.2IF	4.7IF	6.1IF	22.0IF	36.8IF	35.3IF	35.9IF	35.4IF	41.5IF	42.2IF	41.9IF	39.9IF	22	18.64
20	38.4rf	36.3rf	34.5rf	32.7rf	31.1rf	25.8rf	20.9rf	18.7rf	16.6rf	17.1rf	17.2rf	23.5rf	24.8rf	25.7rf	20.0rf	21.2rf	26.2rf	27.0rf	27.1rf	32.4rf	23.9rf	23.1rf	22.1rf	17.9rf	24	25.18
21	11.4IF	12.3IF	20.0IF	24.8IF	25.1IF	23.9IF	22.1IF	21.6IF	21.9IF	21.2IF	19.7IF	18.9IF	15.2IF	13.2IF	13.7IF	15.1IF	9.8IF	6.3IF	4.9IF	6.6IF	7.8IF	8.5IF	14.6IF	13.0IF	24	15.48
22	13.4IF	15.4IF	21.2IF	22.5IF	19.6IF	21.5IF	19.2IF	17.8IF	17.2IF	19.6IF	20.9IF	17.5IF	18.0IF	19.7IF	19.4IF	13.3IF	17.6IF	15.9IF	13.9IF	11.5IF	8.4IF	9.2IF	11.1IF	9.3IF	24	16.38
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	22	21	21	21	22	22	22	22	22	22	22	22	22	22	22	22	22	22		
MAX:	116.3	103.1	117.0	107.7	90.6	98.1	106.5	63.3	116.2	125.1	120.1	113.3	101.4	89.4	74.7	92.9	80.6	74.8	70.8	110.7	132.3	114.9	129.6	120.1		
AVG:	22.55	22.10	22.70	22.50	22.26	22.74	22.90	18.71	25.82	27.83	26.72	25.52	26.46	25.55	23.91	23.60	22.49	20.85	20.61	25.11	26.28	25.17	24.37	22.87		

MONTHLY OBSERVATIONS: 525 MONTHLY MEAN: 23.73 MONTHLY MAX: 132.3

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-065-0002 POC: 23
COUNTY: (065) Oliver
CITY: (00000) Not in a city
SITE ADDRESS: 1575 HIGHWAY 31
SITE COMMENTS: *
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.1858330009
LONGITUDE: -101.428056
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 697
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	3.9	3.9	4.3	4.6	4.6	4.9	5.4	5.5	5.2	5.0	5.2	5.9	6.6	7.2	7.4	6.8	6.3	5.9	5.6	6.2	6.4	6.7	6.9	7.4	24	5.74
17	6.5rf	5.5rf	5.3rf	4.9rf	4.6rf	4.7rf	4.7rf	4.6rf	4.6rf	4.8rf	153.5rf	650.7rf	1039.rf	887.0rf	524.2rf	636.3rf	429.4rf	173.5rf	167.5rf	183.6rf	182.9rf	203.4rf	181.6rf	177.6rf	24	235.02
18	169.8rf	166.9rf	189.3rf	163.3rf	114.9rf	113.4rf	103.4rf	98.6rf	64.6rf	49.3rf	55.3rf	AV	AV	AV	AV	4.1rf	.0rf	4.2rf	9.6rf	7.6rf	5.3rf	5.8rf	6.3rf	6.3rf	20	66.90
19	6.3IF	7.0IF	7.6IF	8.3IF	9.6IF	10.6IF	11.9IF	12.1IF	8.7IF	5.0IF	4.9IF	4.2IF	4.2IF	5.0IF	5.8IF	5.1IF	6.8IF	11.1IF	13.4IF	12.3IF	5.7IF	5.3IF	5.7IF	5.9IF	24	7.60
20	4.5IF	4.4IF	4.1IF	4.3IF	4.2IF	4.1IF	4.2IF	4.6IF	4.7IF	7.5IF	10.5IF	15.0IF	19.5IF	18.8IF	17.8IF	16.8IF	17.7IF	18.0IF	17.3IF	21.0IF	17.9IF	17.6IF	17.3IF	29.5IF	24	12.55
21	48.2rf	54.8rf	58.3rf	61.4rf	61.9rf	53.9rf	33.6rf	34.6rf	22.5rf	19.5rf	20.7rf	21.9rf	20.3rf	18.7rf	18.9rf	18.6rf	18.3rf	18.3rf	18.9rf	18.8rf	20.7rf	19.2rf	19.8rf	23.0rf	24	30.20
22	21.6IF	20.1IF	18.5IF	17.4IF	16.5IF	14.9IF	13.4IF	12.5IF	11.7IF	12.1IF	12.7IF	13.9IF	15.5IF	16.5IF	19.2IF	20.8IF	21.5IF	23.5IF	22.7IF	21.0IF	22.3IF	23.0IF	23.0IF	25.4IF	24	18.32
23	25.0rf	22.4rf	21.1rf	20.0rf	21.6rf	20.6rf	AX	AT	AQ	AQ	AQ	27.8rf	31.3rf	41.1rf	44.7rf	43.1rf	41.4rf	41.0rf	39.8rf	38.0rf	31.6rf	25.2rf	25.0rf	22.4rf	19	30.69
24	21.2IF	20.6IF	21.1IF	21.6IF	24.1IF	24.4IF	21.8IF	18.7IF	18.1IF	15.7IF	15.4IF	14.0IF	13.5IF	13.2IF	15.5IF	16.3IF	16.3IF	15.8IF	14.1IF	16.1IF	16.9IF	16.5IF	15.3IF	15.2IF	24	17.56
25	15.6IF	16.6IF	16.5IF	16.7IF	16.6IF	16.2IF	15.8IF	16.0IF	15.3IF	15.2IF	14.2IF	13.8IF	13.0IF	13.3IF	13.2IF	14.4IF	14.6IF	13.2IF	11.7IF	11.7IF	12.2IF	9.6IF	8.3IF	7.6IF	24	13.80
26	8.5IF	9.0IF	8.7IF	9.2IF	9.0IF	8.8IF	7.7IF	6.3IF	5.9IF	6.1IF	6.4IF	6.1IF	6.2IF	5.6IF	6.2IF	6.3IF	7.3IF	8.3IF	9.4IF	8.5IF	7.3IF	5.4IF	4.8IF	6.7IF	24	7.24
27	9.1IF	9.8IF	12.0IF	9.4IF	4.4IF	3.8IF	6.6IF	10.6IF	11.8IF	12.7IF	12.2IF	10.6IF	8.2IF	7.1IF	8.7IF	10.6IF	10.2IF	10.3IF	10.6IF	10.8IF	11.5IF	12.5IF	12.3IF	12.3IF	24	9.92
28	11.0IF	11.2IF	10.8IF	10.3IF	10.4IF	9.4IF	7.2IF	5.0IF	4.8IF	6.9IF	5.1IF	7.7IF	8.6IF	9.2IF	10.9IF	9.1IF	5.7IF	4.1IF	3.5IF	5.0IF	5.7IF	6.9IF	8.3IF	8.4IF	24	7.72
29	9.7	11.0	13.4	10.6	10.4	8.7	10.6	9.4	8.1	5.1	3.2	2.7	2.7	2.5	3.1	3.4	2.8	2.6	2.5	2.6	2.5	2.6	2.8	2.8	24	5.66
30	2.4	2.3	2.8	3.1	3.7	4.7	4.9	4.6	5.3	6.4	8.5	8.6	7.5	5.4	3.4	4.4	6.2	6.6	6.5	6.5	7.0	7.8	8.8	9.7	24	5.71
31	10.7	11.7	12.9	12.5	11.2	12.2	7.2	7.9	4.6	4.3	6.8	6.7	5.5	6.5	7.3	7.6	6.1	5.5	3.4	3.0	2.5	2.4	2.9	3.3	24	6.86
NO.:	16	16	16	16	16	16	15	15	15	15	15	15	15	15	15	16	16	16	16	16	16	16	16	16		
MAX:	169.8	166.9	189.3	163.3	114.9	113.4	103.4	98.6	64.6	49.3	153.5	650.7	1039.	887.0	524.2	636.3	429.4	173.5	167.5	183.6	182.9	203.4	181.6	177.6		
AVG:	23.38	23.58	25.42	23.60	20.48	19.71	17.23	16.73	13.06	11.71	22.31	53.97	80.11	70.47	47.09	51.48	38.16	22.62	22.28	23.29	22.40	23.12	21.82	22.72		

MONTHLY OBSERVATIONS: 375 MONTHLY MEAN: 29.69 MONTHLY MAX: 1039.1

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 38-065-0002 POC: 23
COUNTY: (065) Oliver
CITY: (00000) Not in a city
SITE ADDRESS: 1575 HIGHWAY 31
SITE COMMENTS: *
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

LATITUDE: 47.1858330009
LONGITUDE: -101.428056
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 697
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	3.5	4.2	5.6	7.0	8.6	8.5	9.0	8.6	7.6	6.9	5.6	5.3	4.6	3.7	3.4	3.3	3.3	3.3	4.2	4.6	4.3	4.8	4.9	5.3	24	5.42
2	5.3	4.8	4.8	5.0	5.5	5.7	6.2	5.9	6.1	5.2	4.9	4.9	4.4	3.8	4.1	4.2	4.4	4.3	4.4	4.9	4.7	4.9	4.7	4.7	24	4.91
3	6.0	5.1	6.1	7.3	8.1	8.6	8.2	7.2	6.7	5.3	5.2	5.6	6.2	7.2	7.7	8.0	8.3	8.5	8.8	8.8	9.0	9.4	9.5	9.1	24	7.50
4	10.4IF	11.7IF	11.9IF	13.4IF	11.8IF	10.8IF	10.6IF	9.6IF	7.6IF	6.4IF	7.0IF	7.4IF	8.0IF	7.9IF	7.8IF	7.3IF	6.6IF	6.8IF	6.1IF	5.3IF	3.3IF	4.0IF	4.8IF	5.4IF	24	8.00
5	6.4IF	7.6IF	7.7IF	11.1IF	10.2IF	10.2IF	9.2IF	7.8IF	7.2IF	7.4IF	7.5IF	7.9IF	8.1IF	7.9IF	7.0IF	6.8IF	6.7IF	6.5IF	6.7IF	7.3IF	7.2IF	7.5IF	8.3IF	9.1IF	24	7.89
6	9.9IF	10.9IF	10.3IF	10.9IF	11.6IF	12.4IF	AZ	AX	AQ	AQ	AQ	AQ	1.1IF	8.2IF	8.0IF	7.9IF	8.2IF	8.0IF	7.8IF	8.3IF	8.8IF	9.5IF	9.1IF	9.3IF	18	8.90
7	9.5IF	10.0IF	10.9IF	12.0IF	11.7IF	10.9IF	9.9IF	10.2IF	10.2IF	9.5IF	9.0IF	8.5IF	8.6IF	8.3IF	8.3IF	8.4IF	8.3IF	8.1IF	7.7IF	7.7IF	9.0IF	10.6IF	11.2IF	9.6IF	24	9.50
8	10.4IF	10.3IF	10.9IF	11.9IF	13.6IF	13.0IF	11.2IF	10.2IF	10.6IF	10.6IF	10.8IF	10.9IF	10.9IF	10.0IF	10.2IF	8.3IF	8.6IF	3.9IF	4.1IF	5.7IF	6.1IF	6.5IF	8.3IF	8.4IF	24	9.39
9	9.7IF	11.8IF	12.7IF	13.1IF	11.2IF	10.0IF	8.2IF	10.9IF	10.0IF	10.5IF	11.7IF	10.1IF	7.7IF	7.4IF	6.7IF	4.7IF	5.8IF	5.4IF	7.1IF	10.2IF	11.6IF	9.2IF	25.0IF	28.4IF	24	10.80
10	19.5IF	18.5IF	20.9IF	22.1IF	22.7IF	23.8IF	24.3IF	24.0IF	23.1IF	23.7IF	23.1IF	21.5IF	20.5IF	19.5IF	17.3IF	12.6IF	7.7IF	10.3IF	13.3IF	12.8IF	10.9IF	11.3IF	12.8IF	14.7IF	24	17.95
11	16.6IF	15.4IF	14.3IF	12.4IF	12.1IF	9.7IF	8.2IF	5.9IF	5.3IF	5.0IF	5.0IF	5.1IF	5.8IF	6.8IF	6.9IF	7.1IF	7.4IF	7.9IF	8.2IF	8.0IF	7.0IF	7.2IF	7.5IF	7.3IF	24	8.42
12	7.6IF	7.6IF	7.2IF	7.2IF	7.9IF	8.3IF	8.9IF	9.4IF	10.8IF	11.0IF	11.0IF	12.1IF	13.8IF	14.9IF	16.1IF	16.0IF	14.9IF	14.4IF	14.4IF	15.7IF	15.6IF	15.1IF	15.6IF	16.0IF	24	12.15
13	15.1IF	15.4IF	15.2IF	15.2IF	16.1IF	15.3IF	15.4IF	16.7IF	17.4IF	18.0IF	15.9IF	16.0IF	17.3IF	20.0IF	25.5IF	21.1IF	19.2IF	19.4IF	21.4IF	21.1IF	19.3IF	17.8IF	12.5IF	14.1IF	24	17.52
14	13.7IF	13.4IF	12.9IF	11.9IF	11.2IF	10.6IF	10.3IF	9.3IF	11.0IF	12.7IF	13.8IF	14.8IF	14.8IF	14.8IF	15.0IF	14.8IF	15.1IF	15.1IF	14.2IF	34.6IF	45.3IF	46.7IF	48.3IF	49.2IF	24	19.73
15	50.6rf	44.6rf	43.3rf	41.2rf	41.8rf	41.9rf	37.4rf	43.9rf	46.5rf	33.9rf	61.8rf	72.8rf	64.8rf	43.8rf	37.8rf	18.7rf	14.5rf	13.3rf	12.7rf	10.1rf	7.2rf	6.0rf	4.2rf	4.0rf	24	33.20
16	4.3IF	4.9IF	11.1IF	16.0IF	15.8IF	15.2IF	15.2IF	16.3IF	22.1IF	23.3IF	24.0IF	24.4IF	24.0IF	20.7IF	19.8IF	17.8IF	18.6IF	18.6IF	19.5IF	20.0IF	19.6IF	19.7IF	20.2IF	20.4IF	24	17.98
17	21.7rf	19.4rf	19.4rf	21.1rf	22.0rf	22.2rf	22.4rf	20.7rf	18.6rf	19.5rf	18.4rf	18.2rf	18.0rf	19.7rf	20.9rf	19.7rf	23.4rf	25.1rf	23.7rf	25.0rf	25.0rf	24.1rf	23.9rf	24.1rf	24	21.51
18	23.6IF	23.7IF	19.2IF	16.0IF	17.1IF	14.5IF	11.8IF	11.1IF	12.1IF	13.5IF	12.6IF	10.6IF	8.9IF	9.3IF	10.8IF	12.0IF	13.1IF	13.8IF	12.6IF	12.5IF	14.2IF	16.1IF	17.0IF	17.7IF	24	14.33
19	17.5IF	16.5IF	16.3IF	16.2IF	12.5IF	8.7IF	8.5IF	9.1IF	10.7IF	10.9IF	9.6IF	10.3IF	13.0IF	14.4IF	12.9IF	9.9IF	10.6IF	12.0IF	12.1IF	11.8IF	11.0IF	10.8IF	9.7IF	10.7IF	24	11.90
20	10.0IF	10.3IF	8.9IF	10.2IF	9.0IF	6.9IF	9.1IF	9.7IF	9.0IF	8.5IF	7.9IF	8.9IF	9.8IF	9.1IF	9.4IF	9.6IF	10.4IF	9.6IF	8.6IF	5.8IF	3.3IF	5.8IF	4.3IF	3.1IF	24	8.22
21	2.7	3.5	3.7	2.9	AX	2.7	2.8	2.8	2.7	2.8	2.5	2.5	2.6	2.6	2.8	2.7	2.6	2.7	2.5	2.8	2.6	2.8	2.7	3.1	23	2.79
22	3.7	3.9	2.8	2.6	2.9	2.8	3.0	3.7	5.0	5.4	5.4	4.8	2.8	2.1	1.8	1.5	1.7	1.5	2.2	2.0	1.8	2.2	2.4	2.7	24	2.95
23	2.8	3.5	3.3	4.1	5.0	4.5	4.5	4.8	4.4	5.0	4.8	3.9	3.4	3.5	3.3	3.3	2.8	2.8	2.4	2.3	2.5	2.7	3.3	3.3	24	3.59
24	3.0	3.3	4.1	6.3	9.3	7.7	5.4	5.8	7.1	6.2	6.5	5.9	5.3	5.7	7.6	13.2	10.8	5.4	4.4	4.5	4.6	4.7	4.6	4.8	24	6.09
25	5.3	5.4	5.4	5.6	5.8	5.4	5.4	5.0	4.8	5.0	5.6	5.2	5.0	4.9	4.7	4.6	4.6	4.8	4.8	4.7	5.1	4.7	4.8	4.7	24	5.05
26	4.8	4.8	5.2	5.1	5.0	5.0	4.8	5.0	4.8	4.6	4.7	4.6	4.7	4.9	4.8	4.9	5.1	5.3	5.5	5.8	8.7	11.0	12.1	12.2	24	5.98
27	12.1IF	14.1IF	16.7IF	16.8IF	13.9IF	13.1IF	16.5IF	17.8IF	15.1IF	16.2IF	18.0IF	18.2IF	17.1IF	16.4IF	15.2IF	15.1IF	14.9IF	13.9IF	13.0IF	16.5IF	AV	AQ	AQ	AQ	20	15.53
28	3.9IF	5.4IF	7.2IF	6.7IF	5.4IF	5.0IF	4.6IF	4.7IF	5.0IF	5.4IF	5.4IF	6.6IF	4.8IF	5.8IF	9.2IF	8.7IF	6.8IF	6.8IF	7.0IF	6.9IF	18.9IF	24.2IF	24.2IF	22.1IF	24	8.78
29	19.0IF	14.5IF	11.3IF	14.5IF	17.3IF	15.7IF	14.5IF	16.8IF	20.3IF	22.2IF	19.1IF	18.3IF	17.8IF	14.2IF	10.8IF	11.6IF	11.5IF	10.0IF	10.8IF	14.7IF	20.4IF	35.0IF	34.8IF	38.5IF	24	18.07
30	35.7rf	34.1rf	29.2rf	32.6rf	33.4rf	33.4rf	32.2rf	30.1rf	32.3rf	28.0rf	20.0rf	16.1rf	14.4rf	13.8rf	14.0rf	14.6rf	14.8rf	8.4rf	8.3rf	8.6rf	9.2rf	10.0rf	9.6rf	8.4rf	24	20.47
31																									0	
NO.:	30	30	30	30	29	30	29	29	29	29	29	29	30	30	30	30	30	30	30	30	29	29	29	29		
MAX:	50.6	44.6	43.3	41.2	41.8	41.9	37.4	43.9	46.5	33.9	61.8	72.8	64.8	43.8	37.8	21.1	23.4	25.1	23.7	34.6	45.3	46.7	48.3	49.2		
AVG:	12.14	11.95	11.95	12.61	13.05	12.08	11.64	11.83	12.21	11.81	12.30	12.46	11.61	11.04	10.99	9.95	9.69	9.20	9.28	10.30	10.90	11.87	12.42	12.77		

MONTHLY OBSERVATIONS: 709 MONTHLY MEAN: 11.49 MONTHLY MAX: 72.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-065-0002 POC: 23
COUNTY: (065) Oliver
CITY: (00000) Not in a city
SITE ADDRESS: 1575 HIGHWAY 31
SITE COMMENTS: *
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.1858330009
LONGITUDE: -101.428056
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 697
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	8.1IF	8.3IF	7.7IF	8.5IF	8.1IF	9.2IF	8.6IF	7.4IF	8.9IF	8.2IF	9.2IF	8.8IF	7.9IF	8.1IF	8.1IF	8.1IF	7.5IF	7.1IF	6.7IF	6.7IF	6.6IF	7.1IF	7.6IF	7.3IF	24	7.91
2	7.7	7.0	3.9	4.5	7.2	8.0	7.2	5.0	6.2	6.3	4.9	4.2	4.3	4.4	4.8	4.5	4.8	5.4	6.9	7.9	7.7	8.1	6.7	5.9	24	5.98
3	5.7	5.8	5.5	5.4	5.7	6.0	5.8	5.2	4.8	4.9	4.1	7.9	13.3	8.0	5.1	3.8	3.1	3.3	3.7	3.7	5.1	4.2	6.3	6.3	24	5.53
4	6.5	5.5	5.8	5.8	5.6	5.4	6.3	14.6	22.6	14.9	7.2	6.1	5.6	5.0	3.6	2.9	1.6	1.8	2.7	1.8	2.3	2.4	2.5	2.5	24	5.88
5	2.6	3.0	2.7	3.0	3.5	3.4	3.7	4.1	AX	3.3	2.8	2.5	2.6	2.7	2.7	2.7	2.7	3.3	3.9	2.9	3.4	3.3	3.1	2.8	23	3.07
6	2.7	2.4	2.3	2.2	2.1	2.0	2.0	2.4	3.4	4.8	5.4	4.7	4.0	4.2	3.9	4.0	4.1	4.1	4.5	4.8	5.0	5.9	5.8	6.2	24	3.87
7	5.9IF	5.4IF	5.3IF	5.3IF	5.7IF	6.6IF	7.6IF	6.9IF	7.0IF	7.3IF	9.9IF	10.9IF	10.8IF	10.5IF	14.2IF	12.2IF	7.7IF	6.8IF	7.0IF	6.5IF	6.7IF	6.6IF	6.7IF	6.9IF	24	7.77
8	7.2IF	6.8IF	6.4IF	6.7IF	6.7IF	6.9IF	7.2IF	7.6IF	12.0IF	13.0IF	13.7IF	13.5IF	13.7IF	15.7IF	17.1IF	17.3IF	16.9IF	16.1IF	14.9IF	11.4IF	12.8IF	13.1IF	13.4IF	12.7IF	24	11.78
9	12.4IF	12.2IF	11.0IF	10.4IF	9.6IF	9.3IF	8.6IF	7.7IF	7.8IF	7.8IF	8.4IF	9.9IF	12.6IF	12.8IF	13.6IF	14.2IF	15.4IF	16.4IF	16.4IF	15.8IF	16.4IF	15.1IF	14.8IF	14.6IF	24	12.22
10	14.3IF	17.5IF	21.0IF	21.5IF	21.4IF	23.6IF	19.9IF	18.9IF	18.8IF	18.5IF	19.1IF	20.6IF	24.0IF	19.9IF	16.3IF	13.2IF	10.2IF	8.4IF	6.9IF	5.9IF	5.0IF	4.1IF	3.7IF	3.4IF	24	14.84
11	3.4	3.6	3.3	3.1	3.0	3.0	3.3	2.9	2.8	AV	.7	.0	.8	2.8	2.8	2.5	2.4	2.4	2.3	2.3	2.1	2.2	2.4	2.5	23	2.46
12	2.8	2.9	3.0	3.2	3.3	3.6	3.7	4.2	4.9	5.0	5.3	5.2	5.9	6.2	5.0	7.8	8.0	5.3	5.5	5.0	5.8	5.9	5.9	6.3	24	4.99
13	6.3IF	6.3IF	6.6IF	6.8IF	7.9IF	6.8IF	7.3IF	8.6IF	8.7IF	9.6IF	6.2IF	5.8IF	8.8IF	10.1IF	13.7IF	19.9IF	23.0IF	24.1IF	23.5IF	16.2IF	13.4IF	13.7IF	16.0IF	16.0IF	24	11.89
14	17.6rf	18.1rf	22.5rf	21.6rf	23.6rf	25.6rf	36.4rf	44.7rf	55.2rf	65.7rf	81.8rf	93.6rf	53.8rf	48.3rf	57.7rf	54.5rf	52.7rf	64.5rf	79.4rf	67.8rf	77.9rf	84.1rf	93.1rf	127.0rf	24	56.97
15	142.5rf	141.9rf	121.5rf	96.0rf	91.9rf	82.7rf	74.9rf	80.7rf	56.9rf	31.5rf	15.9rf	15.6rf	19.2rf	25.1rf	31.9rf	35.2rf	25.4rf	15.7rf	12.5rf	17.8rf	24.4rf	27.5rf	30.0rf	44.2rf	24	52.54
16	76.9rf	86.4rf	86.2rf	90.8rf	95.0rf	97.3rf	94.6rf	69.6rf	49.8rf	23.4rf	13.7rf	7.2rf	6.2rf	6.3rf	5.7rf	5.4rf	5.1rf	3.8rf	3.7rf	4.0rf	3.6rf	3.5rf	3.3rf	2.9rf	24	35.18
17	2.8	2.8	2.7	2.6	2.7	2.7	2.7	2.8	2.9	3.4	3.3	3.8	4.1	3.7	3.5	3.8	4.2	4.6	4.1	4.6	4.8	4.4	4.3	4.7	24	3.58
18	4.2	3.5	3.4	3.6	3.7	3.7	3.7	AX	4.8	5.7	6.9	8.3	12.0	15.1	16.3	14.5	16.1	14.4	9.2	7.0	7.0	7.2	6.4	5.8	23	7.93
19	5.2IF	6.2IF	8.0IF	8.4IF	10.9IF	10.0IF	10.5IF	10.3IF	11.6IF	10.7IF	9.7IF	11.3IF	10.3IF	9.8IF	8.7IF	4.9IF	5.3IF	5.6IF	5.9IF	6.0IF	6.3IF	7.8IF	9.0IF	10.3IF	24	8.45
20	11.6IF	13.1IF	14.0IF	15.7IF	15.7IF	16.3IF	16.2IF	17.0IF	19.0IF	18.9IF	16.7IF	15.9IF	14.9IF	14.1IF	12.6IF	11.0IF	10.3IF	9.5IF	9.2IF	9.4IF	9.9IF	9.7IF	9.9IF	10.0IF	24	13.36
21	10.2IF	10.7IF	13.5IF	16.3IF	18.0IF	18.0IF	14.5IF	13.6IF	14.6IF	14.4IF	13.9IF	14.9IF	15.8IF	16.8IF	16.4IF	15.7IF	15.0IF	6.7IF	7.3IF	8.1IF	10.8IF	13.0IF	13.3IF	12.7IF	24	13.51
22	13.0rf	14.2rf	14.8rf	18.4rf	17.6rf	14.7rf	18.6rf	18.0rf	15.6rf	25.6rf	30.1rf	30.1rf	29.3rf	28.5rf	27.6rf	26.5rf	26.5rf	27.0rf	27.8rf	AQ	AQ	AQ	AQ	AQ	19	22.31
23	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
24	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
25	AQ	AQ	AQ	AQ	AQ	AQ	BA	BA	BA	BA	BA	BA	9.1	9.3	9.6	7.9	9.2	9.1	7.7	8.1	8.5	9.0	9.0	9.4	12	8.83
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	22	21	21	21	22	22	23	23	23	23	23	23	23	22	22	22	22	22		
MAX:	142.5	141.9	121.5	96.0	95.0	97.3	94.6	80.7	56.9	65.7	81.8	93.6	53.8	48.3	57.7	54.5	52.7	64.5	79.4	67.8	77.9	84.1	93.1	127.0		
AVG:	16.80	17.44	16.87	16.35	16.77	16.58	16.51	16.77	16.11	14.42	13.13	13.67	12.57	12.50	13.08	12.72	12.05	11.54	11.81	10.17	11.16	11.72	12.42	14.56		

MONTHLY OBSERVATIONS: 532 MONTHLY MEAN: 14.04 MONTHLY MAX: 142.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-065-0002 POC: 3
COUNTY: (065) Oliver
CITY: (00000) Not in a city
SITE ADDRESS: 1575 HIGHWAY 31
SITE COMMENTS: *
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.1858330009
LONGITUDE: -101.428056
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 697
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	HOUR 0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	4.8	4.8	5.3	5.7	5.6	6.0	6.7	6.8	6.4	6.2	6.1	6.8	7.5	8.1	8.3	7.7	7.2	6.8	6.5	7.1	7.3	8.3	8.5	9.1	24	6.82
17	8.0IF	6.8IF	6.5IF	6.0IF	5.7IF	5.8IF	5.8IF	5.7IF	5.7IF	5.9IF	155.4IF	652.6IF	1041.IF	888.9IF	526.1IF	638.2IF	431.3IF	175.4IF	169.4IF	185.5IF	184.8IF	205.3IF	183.5IF	179.5IF	24	236.62
18	171.7IF	168.8IF	191.2IF	165.2IF	116.8IF	115.3IF	105.3IF	100.5IF	66.5IF	51.2IF	57.2IF	AV	AV	AV	AV	5.1IF	.0IF	5.2IF	11.5IF	9.4IF	6.5IF	7.1IF	7.8IF	7.7IF	20	68.50
19	7.8IF	8.6IF	9.4IF	10.2IF	11.5IF	12.5IF	13.8IF	14.0IF	10.6IF	6.1IF	6.0IF	5.2IF	5.2IF	6.2IF	7.1IF	6.3IF	8.4IF	13.0IF	15.3IF	14.2IF	7.0IF	6.5IF	7.0IF	7.2IF	24	9.13
20	5.5IF	5.4IF	5.1IF	5.3IF	5.2IF	5.0IF	5.2IF	5.7IF	5.8IF	9.2IF	12.4IF	16.9IF	20.4IF	19.7IF	18.7IF	17.7IF	18.6IF	18.9IF	18.2IF	21.9IF	18.8IF	18.5IF	18.2IF	31.4IF	24	13.65
21	50.1IF	56.7IF	60.2IF	63.3IF	63.8IF	55.8IF	35.5IF	36.5IF	24.4IF	21.4IF	22.6IF	23.8IF	21.2IF	19.6IF	19.8IF	19.5IF	19.2IF	19.2IF	19.8IF	19.7IF	21.6IF	21.1IF	21.7IF	24.9IF	24	31.73
22	23.5IF	22.0IF	20.4IF	19.3IF	18.4IF	16.8IF	15.3IF	14.4IF	13.6IF	13.0IF	13.6IF	14.8IF	16.4IF	17.4IF	20.1IF	21.7IF	22.4IF	24.4IF	23.6IF	21.9IF	23.2IF	23.9IF	24.9IF	26.3IF	24	19.64
23	25.9IF	24.3IF	22.0IF	20.9IF	22.5IF	22.5IF	AX	AT	AQ	AQ	AQ	28.7IF	32.2IF	42.0IF	45.6IF	44.0IF	42.3IF	41.9IF	40.7IF	38.9IF	32.5IF	26.1IF	25.9IF	24.3IF	19	31.75
24	23.1IF	22.5IF	23.0IF	23.5IF	26.0IF	26.3IF	23.7IF	20.6IF	19.0IF	16.6IF	16.3IF	14.9IF	14.4IF	14.1IF	16.4IF	17.2IF	17.2IF	16.7IF	15.0IF	17.0IF	17.8IF	18.4IF	17.2IF	17.1IF	24	18.92
25	17.5IF	18.5IF	18.4IF	18.6IF	18.5IF	18.1IF	17.7IF	17.9IF	17.2IF	16.1IF	15.1IF	14.7IF	13.9IF	14.2IF	14.1IF	15.3IF	15.5IF	14.1IF	12.6IF	12.6IF	13.1IF	10.5IF	9.2IF	9.3IF	24	15.11
26	10.4IF	10.9IF	10.6IF	11.1IF	10.9IF	10.7IF	9.5IF	7.8IF	7.3IF	7.0IF	7.3IF	7.0IF	7.1IF	6.5IF	7.1IF	7.2IF	8.2IF	9.2IF	10.3IF	9.4IF	8.2IF	6.6IF	5.9IF	8.2IF	24	8.52
27	11.0IF	11.7IF	13.9IF	11.3IF	5.4IF	4.7IF	8.1IF	12.5IF	13.7IF	13.6IF	13.1IF	11.5IF	9.1IF	8.0IF	9.6IF	11.5IF	11.1IF	11.2IF	11.5IF	11.7IF	12.4IF	13.4IF	13.2IF	13.2IF	24	11.10
28	12.9IF	13.1IF	12.7IF	12.2IF	12.3IF	11.3IF	8.8IF	6.1IF	5.9IF	7.8IF	6.0IF	8.6IF	9.5IF	10.1IF	11.8IF	10.0IF	7.0IF	5.1IF	4.3IF	6.2IF	7.0IF	8.5IF	10.2IF	10.3IF	24	9.07
29	11.6	12.9	15.3	12.5	12.3	10.6	12.5	11.3	10.0	6.0	3.9	3.3	3.3	3.1	3.8	4.2	3.4	3.2	3.1	3.2	3.1	3.2	3.5	3.4	24	6.78
30	2.9	2.8	3.4	3.8	4.6	5.8	6.0	5.7	6.5	7.9	9.4	9.5	8.4	6.3	4.2	5.3	7.1	7.5	7.4	7.4	7.9	8.7	10.7	11.6	24	6.70
31	12.6	13.6	14.8	14.4	13.1	14.1	8.9	9.7	5.6	5.3	7.7	8.2	6.4	7.4	8.2	8.5	7.0	6.4	4.2	3.7	3.1	2.9	3.6	4.1	24	8.06
NO.:	16	16	16	16	16	16	15	15	15	15	15	15	15	15	15	16	16	16	16	16	16	16	16	16		
MAX:	171.7	168.8	191.2	165.2	116.8	115.3	105.3	100.5	66.5	51.2	155.4	652.6	1041.0	888.9	526.1	638.2	431.3	175.4	169.4	185.5	184.8	205.3	183.5	179.5		
AVG:	24.96	25.21	27.01	25.21	22.04	21.33	18.85	18.35	14.55	12.89	23.47	55.10	81.07	71.44	48.06	52.46	39.12	23.64	23.34	24.36	23.39	24.31	23.19	24.23		

MONTHLY OBSERVATIONS: 375 MONTHLY MEAN: 30.98 MONTHLY MAX: 1041.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-065-0002 POC: 3
COUNTY: (065) Oliver
CITY: (00000) Not in a city
SITE ADDRESS: 1575 HIGHWAY 31
SITE COMMENTS: *
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.1858330009
LONGITUDE: -101.428056
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 697
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

HOUR DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	4.3	5.2	6.9	8.6	10.5	10.4	10.9	10.5	9.4	7.8	6.5	6.2	5.5	4.5	4.2	4.1	4.1	4.1	5.1	5.5	5.2	5.7	5.8	6.2	24	6.55
2	6.2	5.9	5.9	6.2	6.8	7.0	7.6	7.3	7.0	6.1	5.8	5.8	5.3	4.7	5.0	5.1	5.3	5.2	5.3	5.8	5.6	5.8	5.6	5.8	24	5.92
3	6.9	6.3	7.5	9.0	10.0	10.5	10.1	8.9	7.6	6.2	6.1	6.5	7.1	8.1	8.6	8.9	9.2	9.4	9.7	9.7	9.9	10.3	10.4	10.0	24	8.62
4	11.3IF	12.6IF	13.8IF	14.3IF	13.7IF	12.7IF	11.5IF	10.5IF	8.5IF	7.3IF	7.9IF	8.3IF	8.9IF	8.8IF	8.7IF	8.2IF	7.5IF	7.7IF	7.0IF	6.2IF	4.0IF	4.9IF	5.9IF	6.6IF	24	9.03
5	7.9IF	9.3IF	9.5IF	13.0IF	12.1IF	12.1IF	11.1IF	9.6IF	8.1IF	8.3IF	8.4IF	8.8IF	9.0IF	8.8IF	7.9IF	7.7IF	7.6IF	7.4IF	7.6IF	8.2IF	8.1IF	8.4IF	9.2IF	10.0IF	24	9.09
6	10.8IF	11.8IF	12.2IF	12.8IF	13.5IF	14.3IF	AZ	AX	AQ	AQ	AQ	AQ	1.4IF	9.1IF	8.9IF	8.8IF	9.1IF	8.9IF	8.7IF	9.2IF	9.7IF	10.4IF	10.0IF	10.2IF	18	9.99
7	10.4IF	10.9IF	11.8IF	12.9IF	12.6IF	11.8IF	10.8IF	11.1IF	11.1IF	10.4IF	9.9IF	9.4IF	9.5IF	9.2IF	9.2IF	9.3IF	9.2IF	9.0IF	8.6IF	8.6IF	9.9IF	11.5IF	12.1IF	10.5IF	24	10.40
8	11.3IF	11.2IF	11.8IF	12.8IF	14.5IF	13.9IF	12.1IF	11.1IF	11.5IF	11.5IF	11.7IF	11.8IF	11.8IF	10.9IF	11.1IF	9.2IF	9.5IF	4.8IF	5.0IF	6.6IF	7.0IF	7.4IF	9.2IF	10.3IF	24	10.33
9	11.6IF	13.7IF	14.6IF	15.0IF	13.1IF	11.9IF	10.1IF	12.8IF	11.9IF	11.4IF	12.6IF	11.0IF	8.6IF	8.3IF	7.6IF	5.6IF	6.7IF	6.3IF	8.0IF	11.1IF	13.5IF	11.1IF	26.9IF	30.3IF	24	12.24
10	21.4IF	20.4IF	22.8IF	24.0IF	24.6IF	25.7IF	26.2IF	25.9IF	25.0IF	25.6IF	25.0IF	23.4IF	22.4IF	21.4IF	19.2IF	14.5IF	9.5IF	12.2IF	15.2IF	14.7IF	12.8IF	13.2IF	14.7IF	16.6IF	24	19.85
11	18.5IF	17.3IF	16.2IF	14.3IF	14.0IF	11.6IF	10.1IF	7.2IF	6.5IF	6.2IF	6.2IF	6.3IF	7.1IF	7.7IF	7.8IF	8.0IF	8.3IF	8.8IF	9.1IF	8.9IF	8.6IF	8.9IF	9.2IF	9.0IF	24	9.83
12	9.3IF	9.3IF	8.8IF	8.9IF	9.7IF	10.2IF	10.8IF	11.3IF	12.7IF	12.9IF	11.9IF	13.0IF	14.7IF	15.8IF	17.0IF	16.9IF	15.8IF	15.3IF	15.3IF	16.6IF	16.5IF	16.0IF	16.5IF	16.9IF	24	13.42
13	17.0IF	17.3IF	17.1IF	17.1IF	18.0IF	17.2IF	17.3IF	18.6IF	18.3IF	18.9IF	16.8IF	16.9IF	18.2IF	20.9IF	26.4IF	22.0IF	20.1IF	20.3IF	22.3IF	22.0IF	20.2IF	18.7IF	13.4IF	15.0IF	24	18.75
14	14.6IF	15.3IF	14.8IF	13.8IF	13.1IF	12.5IF	12.2IF	11.2IF	11.9IF	13.6IF	14.7IF	15.7IF	15.7IF	15.7IF	15.9IF	15.7IF	16.0IF	16.0IF	15.1IF	35.5IF	46.2IF	47.6IF	49.2IF	51.1IF	24	20.96
15	52.5IF	46.5IF	45.2IF	43.1IF	43.7IF	43.8IF	39.3IF	45.8IF	48.4IF	35.8IF	63.7IF	73.7IF	65.7IF	44.7IF	38.7IF	20.6IF	16.4IF	15.2IF	14.6IF	12.0IF	8.8IF	7.4IF	5.2IF	4.9IF	24	34.82
16	5.3IF	6.0IF	13.0IF	17.9IF	17.7IF	17.1IF	17.1IF	18.2IF	24.0IF	25.2IF	25.9IF	26.3IF	25.9IF	22.6IF	21.7IF	19.7IF	20.5IF	20.5IF	21.4IF	21.9IF	21.5IF	21.6IF	22.1IF	22.3IF	24	19.81
17	23.6IF	21.3IF	21.3IF	23.0IF	23.9IF	24.1IF	24.3IF	22.6IF	20.5IF	21.4IF	20.3IF	19.1IF	18.9IF	20.6IF	21.8IF	20.6IF	24.3IF	26.0IF	24.6IF	25.9IF	26.9IF	26.0IF	25.8IF	26.0IF	24	23.03
18	25.5IF	25.6IF	21.1IF	17.9IF	19.0IF	16.4IF	13.7IF	13.0IF	13.0IF	14.4IF	13.5IF	11.5IF	9.8IF	10.2IF	11.7IF	12.9IF	14.0IF	14.7IF	13.5IF	13.4IF	15.1IF	17.0IF	17.9IF	18.6IF	24	15.56
19	18.4IF	18.4IF	18.2IF	18.1IF	14.4IF	10.6IF	10.4IF	10.0IF	12.6IF	11.8IF	10.5IF	11.2IF	13.9IF	15.3IF	13.8IF	10.8IF	11.5IF	12.9IF	13.0IF	12.7IF	11.9IF	11.7IF	10.6IF	11.6IF	24	13.10
20	10.9IF	11.2IF	10.8IF	11.1IF	10.9IF	7.8IF	10.0IF	10.6IF	9.9IF	9.4IF	8.8IF	9.8IF	10.7IF	10.0IF	10.3IF	10.5IF	11.3IF	10.5IF	9.5IF	6.7IF	4.0IF	6.7IF	5.2IF	3.8IF	24	9.18
21	3.3	4.3	4.5	3.6	AX	3.3	3.5	3.5	3.3	3.5	3.1	3.1	3.2	3.2	3.4	3.3	3.2	3.3	3.1	3.5	3.2	3.4	3.3	3.8	23	3.43
22	4.6	4.8	3.4	3.2	3.6	3.5	3.7	4.6	6.2	6.7	6.7	5.9	3.5	2.6	2.2	1.9	2.1	1.9	2.7	2.4	2.2	2.7	3.0	3.3	24	3.64
23	3.5	4.3	4.1	5.1	6.1	5.5	5.5	5.9	5.4	6.2	5.9	4.8	4.2	4.3	4.0	4.1	3.4	3.5	3.0	2.8	3.1	3.3	4.1	4.0	24	4.42
24	3.7	4.0	5.1	7.7	11.2	9.5	6.6	7.1	8.7	7.6	8.0	7.2	6.5	7.0	9.4	15.1	12.7	6.7	5.4	5.5	5.7	5.8	5.7	5.9	24	7.41
25	6.5	6.7	6.6	6.9	7.1	6.7	6.7	6.1	5.9	6.2	6.5	6.1	5.9	5.8	5.6	5.5	5.5	5.7	5.7	5.6	6.0	5.6	5.7	5.6	24	6.09
26	5.7	5.9	6.4	6.3	6.2	6.2	5.9	6.1	5.7	5.5	5.6	5.5	5.6	5.8	5.7	5.8	6.0	6.2	6.4	6.7	9.6	12.9	14.0	14.1	24	7.08
27	14.0IF	16.0IF	18.6IF	18.7IF	15.8IF	15.0IF	18.4IF	19.7IF	17.0IF	18.1IF	18.9IF	19.1IF	18.0IF	17.3IF	16.1IF	16.0IF	15.8IF	14.8IF	13.9IF	17.4IF	AV	AQ	AQ	AQ	20	16.93
28	4.8IF	6.7IF	8.9IF	8.2IF	6.7IF	6.1IF	5.7IF	5.8IF	6.1IF	6.3IF	6.3IF	7.5IF	5.7IF	6.7IF	11.1IF	10.6IF	7.7IF	7.7IF	7.9IF	7.8IF	19.8IF	25.1IF	26.1IF	24.0IF	24	9.97
29	20.9IF	16.4IF	13.2IF	16.4IF	19.2IF	17.6IF	16.4IF	18.7IF	22.2IF	24.1IF	20.0IF	19.2IF	18.7IF	15.1IF	11.7IF	12.5IF	12.4IF	10.9IF	11.7IF	15.6IF	21.3IF	35.9IF	35.7IF	39.4IF	24	19.38
30	37.6IF	36.0IF	30.1IF	34.5IF	35.3IF	35.3IF	34.1IF	32.0IF	33.2IF	28.9IF	20.9IF	17.0IF	15.3IF	14.7IF	14.9IF	15.5IF	15.7IF	9.3IF	9.2IF	9.5IF	10.1IF	11.9IF	11.5IF	10.3IF	24	21.78
31																									0	
NO.:	30	30	30	30	29	30	29	29	29	29	29	29	30	30	30	30	30	30	30	30	29	29	29	29		
MAX:	52.5	46.5	45.2	43.1	43.7	43.8	39.3	45.8	48.4	35.8	63.7	73.7	65.7	44.7	38.7	22.0	24.3	26.0	24.6	35.5	46.2	47.6	49.2	51.1		
AVG:	13.41	13.35	13.47	14.15	14.72	13.68	13.18	13.30	13.50	13.01	13.38	13.45	12.56	11.99	11.99	10.98	10.68	10.17	10.25	11.27	11.94	13.00	13.59	14.00		

MONTHLY OBSERVATIONS: 709 MONTHLY MEAN: 12.70 MONTHLY MAX: 73.7

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-065-0002 POC: 3
COUNTY: (065) Oliver
CITY: (00000) Not in a city
SITE ADDRESS: 1575 HIGHWAY 31
SITE COMMENTS: *
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.1858330009
LONGITUDE: -101.428056
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 697
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: MULTIPLE METHODS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	9.0IF	9.2IF	9.5IF	10.4IF	9.9IF	11.1IF	10.5IF	9.1IF	9.8IF	9.1IF	10.1IF	9.7IF	8.8IF	9.0IF	9.0IF	9.0IF	8.4IF	8.0IF	7.6IF	7.6IF	7.5IF	8.0IF	8.5IF	8.2IF	24	9.04
2	8.6	7.9	4.8	5.4	8.8	8.9	8.1	5.9	7.1	7.2	5.8	5.1	5.2	5.3	5.7	5.4	5.7	6.3	7.8	8.8	8.6	9.0	8.3	7.2	24	6.95
3	7.0	7.1	6.8	6.7	7.0	7.4	7.1	6.4	5.9	6.0	5.0	9.7	15.2	9.8	6.3	4.7	3.8	4.0	4.6	4.5	6.3	5.2	7.7	7.7	24	6.75
4	8.0	6.8	7.1	7.1	6.9	6.7	7.7	16.5	24.5	16.8	8.9	7.5	6.9	6.1	4.4	3.6	2.0	2.2	3.3	2.2	2.8	3.0	3.1	3.1	24	6.97
5	3.2	3.7	3.3	3.7	4.3	4.2	4.6	5.0	AX	4.1	3.5	3.1	3.2	3.3	3.3	3.3	3.3	4.0	4.8	3.6	4.2	4.1	3.8	3.5	23	3.79
6	3.3	3.0	2.8	2.7	2.6	2.5	2.5	2.9	4.2	5.9	6.3	5.6	4.9	5.1	4.8	4.9	5.0	5.0	5.4	5.7	6.2	7.3	7.1	7.6	24	4.72
7	7.2IF	6.6IF	6.5IF	6.5IF	7.0IF	8.1IF	9.4IF	8.5IF	8.6IF	9.0IF	11.8IF	12.8IF	11.7IF	11.4IF	15.1IF	13.1IF	8.6IF	7.7IF	7.9IF	8.0IF	8.2IF	8.1IF	8.2IF	8.5IF	24	9.10
8	8.9IF	8.4IF	7.9IF	8.2IF	8.3IF	8.5IF	8.8IF	9.3IF	13.9IF	14.9IF	14.6IF	14.4IF	14.6IF	16.6IF	18.0IF	18.2IF	17.8IF	17.0IF	15.8IF	13.3IF	14.7IF	15.0IF	15.3IF	14.6IF	24	13.21
9	14.3IF	14.1IF	12.9IF	12.3IF	11.5IF	11.2IF	10.5IF	9.5IF	8.7IF	8.7IF	9.3IF	10.8IF	13.5IF	13.7IF	14.5IF	15.1IF	16.3IF	17.3IF	17.3IF	16.7IF	17.3IF	16.0IF	15.7IF	15.5IF	24	13.45
10	15.2IF	18.4IF	21.9IF	22.4IF	23.3IF	25.5IF	21.8IF	20.8IF	20.7IF	20.4IF	21.0IF	21.5IF	24.9IF	20.8IF	17.2IF	14.1IF	11.1IF	9.3IF	7.8IF	7.2IF	6.1IF	5.1IF	4.6IF	4.2IF	24	16.05
11	4.2	4.4	4.1	3.8	3.7	3.7	4.0	3.6	3.4	AV	.9	.0	1.0	3.4	3.4	3.1	3.0	2.9	2.8	2.8	2.6	2.7	2.9	3.1	23	3.02
12	3.4	3.6	3.7	3.9	4.0	4.4	4.6	5.2	6.0	6.1	6.5	6.4	7.3	7.6	6.1	9.6	9.8	6.2	6.4	6.2	7.1	7.2	7.3	7.8	24	6.10
13	7.8IF	7.7IF	8.1IF	8.4IF	9.7IF	8.4IF	9.0IF	10.5IF	10.6IF	10.5IF	7.1IF	6.7IF	9.7IF	11.0IF	14.6IF	20.8IF	23.9IF	25.0IF	24.4IF	17.1IF	14.3IF	14.6IF	16.9IF	16.9IF	24	13.07
14	19.5IF	20.0IF	24.4IF	23.5IF	25.5IF	27.5IF	38.3IF	46.6IF	57.1IF	67.6IF	83.7IF	94.5IF	54.7IF	49.2IF	58.6IF	55.4IF	53.6IF	65.4IF	80.3IF	68.7IF	78.8IF	85.0IF	95.0IF	128.9IF	24	58.41
15	144.4IF	143.8IF	123.4IF	97.9IF	93.8IF	84.6IF	76.8IF	82.6IF	58.8IF	33.4IF	17.8IF	17.5IF	21.1IF	27.0IF	33.8IF	37.1IF	27.3IF	16.6IF	13.4IF	19.7IF	26.3IF	29.4IF	31.9IF	46.1IF	24	54.35
16	78.8IF	88.3IF	88.1IF	92.7IF	96.9IF	99.2IF	96.5IF	71.5IF	51.7IF	25.3IF	15.6IF	8.9IF	7.6IF	7.7IF	7.0IF	6.7IF	6.3IF	4.7IF	4.6IF	4.9IF	4.4IF	4.3IF	4.0IF	3.6IF	24	36.64
17	3.4	3.4	3.3	3.2	3.3	3.3	3.3	3.4	3.6	4.2	4.1	4.7	5.1	4.6	4.3	4.7	5.1	5.5	5.0	5.7	5.9	5.4	5.3	5.8	24	4.40
18	5.2	4.3	4.2	4.4	4.5	4.5	4.6	AX	5.9	7.0	7.8	9.2	12.9	16.0	17.2	15.4	17.0	15.3	10.1	7.9	7.9	8.1	7.3	6.7	23	8.84
19	6.1IF	7.6IF	9.8IF	10.3IF	12.8IF	11.9IF	12.4IF	12.2IF	13.5IF	12.6IF	11.6IF	12.2IF	11.2IF	10.7IF	9.6IF	5.8IF	6.2IF	6.5IF	6.8IF	6.9IF	7.7IF	9.6IF	10.9IF	12.2IF	24	9.88
20	13.5IF	15.0IF	15.9IF	17.6IF	17.6IF	18.2IF	18.1IF	18.9IF	20.9IF	20.8IF	18.6IF	16.8IF	15.8IF	15.0IF	13.5IF	11.9IF	11.2IF	10.4IF	10.1IF	10.3IF	10.8IF	10.6IF	10.8IF	10.9IF	24	14.72
21	11.1IF	11.6IF	15.4IF	18.2IF	19.9IF	19.9IF	16.4IF	15.5IF	15.5IF	15.3IF	14.8IF	15.8IF	16.7IF	17.7IF	17.3IF	16.6IF	15.9IF	7.6IF	8.2IF	9.0IF	11.7IF	13.9IF	14.2IF	13.6IF	24	14.66
22	13.9IF	15.1IF	15.7IF	19.3IF	18.5IF	16.6IF	19.5IF	18.9IF	17.5IF	26.5IF	31.0IF	31.0IF	30.2IF	29.4IF	28.5IF	27.4IF	27.4IF	27.9IF	28.7IF	AQ	AQ	AQ	AQ	AQ	19	23.32
23	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
24	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	AQ	0	
25	AQ	AQ	AQ	AQ	AQ	AQ	BA	BA	BA	BA	BA	BA	10.0	10.2	10.5	8.8	10.1	10.0	8.6	9.0	9.4	9.9	9.9	10.3	12	9.73
26	10.3IF	10.6IF	11.4IF	11.2IF	11.5IF	11.8IF	11.4IF	11.8IF	13.0IF	13.2IF	13.6IF	12.0IF	11.7IF	10.4IF	9.2IF	7.7IF	7.8IF	7.6IF	7.6IF	7.7IF	7.8IF	7.9IF	7.9IF	8.4IF	24	10.15
27	8.7	7.9	8.0	8.1	6.7	6.3	6.4	6.4	6.8	7.4	8.4	8.8	8.4	8.8	8.2	6.7	3.9	3.3	3.3	3.6	4.0	5.8	7.2	7.2	24	6.68
28	6.4	6.5	6.2	5.6	5.0	4.9	5.3	5.4	5.6	6.1	7.0	6.5	6.3	5.3	4.7	4.9	4.9	3.9	4.0	4.1	4.0	4.1	4.2	4.3	24	5.22
29	4.4	4.5	4.5	4.6	4.8	4.1	5.5	5.9	5.5	5.7	5.1	5.1	5.7	6.4	6.4	6.5	6.5	6.4	6.2	5.7	5.8	4.5	4.5	4.7	24	5.38
30	4.6	4.4	4.1	3.9	3.7	4.0	3.7	3.5	3.5	3.4	3.5	3.5	3.7	3.9	3.4	3.2	3.2	3.1	3.2	3.2	3.6	3.9	3.9	4.1	24	3.68
31	4.1	4.1	4.3	4.3	4.3	4.5	4.4	4.6	4.9	5.0	5.6	6.5	AX	7.1	7.0	6.1	6.0	5.8	4.9	4.9	5.2	6.0	4.9	4.5	23	5.17
NO.:	28	28	28	28	28	28	28	27	27	27	28	28	28	29	29	29	29	28	28	28	28	28	28	28		
MAX:	144.4	143.8	123.4	97.9	96.9	99.2	96.5	82.6	58.8	67.6	83.7	94.5	54.7	49.2	58.6	55.4	53.6	65.4	80.3	68.7	78.8	85.0	95.0	128.9		
AVG:	15.52	16.00	15.65	15.23	15.56	15.43	15.40	15.57	15.08	13.79	12.82	13.08	12.43	12.16	12.47	12.06	11.42	10.86	11.07	9.82	10.69	11.20	11.83	13.54		

MONTHLY OBSERVATIONS: 675 MONTHLY MEAN: 13.26 MONTHLY MAX: 144.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-065-0002 POC: 3
COUNTY: (065) Oliver
CITY: (00000) Not in a city
SITE ADDRESS: 1575 HIGHWAY 31
SITE COMMENTS: *
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.1858330009
LONGITUDE: -101.428056
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 697
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	4.7	5.0	5.2	5.2	5.5	5.7	6.1	5.7	5.0	5.3	5.8	6.5	5.9	5.1	5.0	4.7	4.6	4.5	5.2	6.6	7.5	6.5	5.8	5.7	24	5.53
2	4.2	3.6	3.4	3.3	3.9	4.1	3.8	4.6	5.4	5.4	6.0	4.5	4.3	5.4	5.2	5.0	5.4	5.6	6.0	5.7	5.6	5.8	5.4	4.8	24	4.85
3	4.9	4.9	4.8	4.7	5.0	5.6	6.0	4.9	4.7	4.3	4.0	4.0	4.9	6.4	6.5	7.0	7.1	7.1	7.1	7.5	7.6	6.0	4.7	5.3	24	5.63
4	5.7IF	4.1IF	3.9IF	4.3IF	5.3IF	5.0IF	4.6IF	4.0IF	6.9IF	7.2IF	6.1IF	8.5IF	12.4IF	13.9IF	9.4IF	9.1IF	10.4IF	15.9IF	15.7IF	18.6IF	25.6IF	32.8IF	33.5IF	36.5IF	24	12.48
5	34.2IF	36.2IF	33.7IF	25.9IF	18.5IF	12.2IF	7.8IF	5.6IF	6.1IF	6.9IF	8.8IF	9.7IF	11.6IF	15.1IF	15.0IF	17.7IF	14.9IF	12.5IF	14.4IF	15.8IF	16.9IF	16.4IF	15.0IF	14.7IF	24	16.07
6	12.2IF	9.8IF	9.8IF	9.9IF	10.7IF	11.5IF	13.8IF	14.6IF	14.7IF	14.6IF	17.4IF	21.0IF	20.2IF	19.7IF	19.0IF	19.4IF	19.2IF	19.6IF	24.2IF	27.2IF	29.7IF	31.3IF	34.4IF	38.4IF	24	19.26
7	54.4rf	74.1rf	88.6rf	82.5rf	74.1rf	89.0rf	88.0rf	84.5rf	79.5rf	77.9rf	81.8rf	55.2rf	52.5rf	43.6rf	39.9rf	38.2rf	43.1rf	43.0rf	33.9rf	27.4rf	27.8rf	26.5rf	19.5rf	16.0rf	24	55.88
8	15.0IF	13.1IF	12.1IF	11.2IF	11.2IF	11.0IF	10.9IF	11.1IF	11.8IF	12.5IF	12.0IF	11.4IF	12.6IF	13.6IF	13.4IF	12.0IF	13.6IF	15.1IF	16.9IF	17.4IF	18.1IF	17.9IF	19.5IF	13.1IF	24	13.60
9	9.0IF	8.1IF	12.5IF	11.8IF	11.8IF	15.3IF	11.8IF	11.1IF	16.8IF	16.9IF	20.8IF	19.6IF	17.0IF	18.9IF	21.6IF	22.4IF	23.1IF	23.7IF	18.1IF	18.0IF	15.1IF	11.4IF	11.0IF	11.1IF	24	15.70
10	11.7IF	13.3IF	13.2IF	11.6IF	10.5IF	11.7IF	11.0IF	8.3IF	8.0IF	9.4IF	10.9IF	13.3IF	19.5IF	19.6IF	11.1IF	9.0IF	6.8IF	5.3IF	4.1IF	4.0IF	4.0IF	4.2IF	4.8IF	5.1IF	24	9.60
11	6.2	5.9	5.8	6.1	5.4	5.8	5.3	4.2	3.4	2.6	2.5	2.4	2.9	3.0	2.8	2.7	2.6	2.5	2.4	2.4	3.1	3.0	2.9	2.9	24	3.70
12	3.0	2.9	2.8	2.9	3.0	3.1	3.0	2.9	2.9	2.8	2.5	2.4	2.5	2.6	2.7	2.8	2.8	3.0	3.0	3.5	3.2	3.2	3.4	3.8	24	2.95
13	4.7	4.3	3.6	3.7	4.0	4.2	3.5	3.3	3.9	3.6	3.8	4.5	4.8	4.3	4.5	5.4	4.8	4.3	3.9	4.1	4.8	5.0	4.6	4.3	24	4.25
14	4.1	4.3	4.3	4.3	4.2	4.2	4.4	4.5	4.2	3.9	3.7	3.5	5.6	7.7	5.6	5.6	7.4	8.7	9.3	9.3	9.1	8.9	7.9	7.8	24	5.94
15	7.1	6.2	6.4	6.5	6.4	5.9	AX	5.6	5.7	5.7	5.5	5.2	4.8	4.3	4.0	4.2	4.1	4.1	4.0	4.2	4.5	4.8	4.4	4.0	23	5.11
16	3.9	4.0	3.9	3.8	3.8	3.9	4.4	4.9	18.9	21.6	11.8	7.3	6.8	7.7	8.7	8.0	7.7	7.3	8.9	8.4	7.5	8.0	7.9	7.0	24	7.75
17	6.5IF	7.5IF	11.9IF	14.9IF	17.5IF	14.4IF	12.3IF	10.2IF	18.0IF	30.7IF	34.3IF	28.0IF	22.2IF	15.9IF	13.8IF	13.0IF	13.4IF	15.1IF	16.6IF	18.3IF	18.1IF	18.2IF	19.1IF	17.3IF	24	16.97
18	16.6IF	15.9IF	15.9IF	16.5IF	16.3IF	15.9IF	15.8IF	15.8IF	14.7IF	15.5IF	15.4IF	15.3IF	15.8IF	15.7IF	16.0IF	16.2IF	16.2IF	17.3IF	19.3IF	20.8IF	20.6IF	20.6IF	21.5IF	17.5IF	24	16.96
19	16.6IF	21.0IF	31.9IF	37.1IF	32.0IF	27.4IF	23.9IF	21.6IF	18.8IF	20.5IF	21.0IF	19.8IF	26.6IF	23.8IF	15.1IF	10.0IF	9.5IF	10.9IF	8.7IF	11.7IF	9.1IF	9.4IF	10.1IF	10.2IF	24	18.61
20	10.5IF	11.1IF	10.7IF	10.0IF	10.5IF	10.5IF	10.6IF	11.2IF	11.8IF	11.1IF	10.1IF	10.0IF	10.4IF	12.6IF	16.5IF	21.3IF	21.5IF	16.8IF	15.4IF	15.7IF	14.1IF	18.2IF	16.9IF	15.5IF	24	13.46
21	16.2IF	13.6IF	13.6IF	14.3IF	15.7IF	14.3IF	12.8IF	10.8IF	10.3IF	10.4IF	8.4IF	7.8IF	11.1IF	12.4IF	14.0IF	13.5IF	13.5IF	14.3IF	14.1IF	14.5IF	13.0IF	13.3IF	12.7IF	12.1IF	24	12.78
22	12.6IF	12.6IF	14.5IF	17.5IF	15.3IF	10.3IF	8.2IF	9.5IF	11.8IF	11.2IF	11.1IF	9.5IF	13.2IF	15.7IF	12.4IF	12.7IF	13.8IF	13.5IF	13.9IF	10.3IF	9.5IF	11.1IF	12.5IF	6.5IF	24	12.05
23	5.4	4.3	3.8	4.1	3.8	6.8	4.9	5.4	8.2	7.1	6.9	7.7	7.8	8.7	8.7	7.6	5.6	6.0	4.6	3.7	4.7	5.8	6.4	5.6	24	5.98
24	5.2	5.2	5.1	5.7	5.8	5.8	6.0	6.4	6.7	7.5	7.9	7.3	6.4	6.3	5.6	4.7	6.0	5.8	3.5	3.0	3.4	4.3	4.8	4.6	24	5.54
25	4.0	4.8	6.2	9.5	12.6	15.0	15.2	14.7	14.4	13.6	16.7	19.4	18.2	17.0	16.2	8.9	6.6	5.9	6.4	7.1	7.5	7.7	7.9	8.5	24	11.00
26	9.4IF	10.2IF	13.7IF	13.6IF	13.3IF	13.1IF	10.2IF	11.6IF	13.0IF	14.2IF	14.3IF	16.4IF	16.9IF	17.4IF	17.0IF	15.8IF	15.9IF	15.5IF	16.5IF	17.4IF	16.6IF	13.0IF	11.4IF	10.1IF	24	14.02
27	9.6IF	9.2IF	9.4IF	10.1IF	10.5IF	10.7IF	10.7IF	10.6IF	11.1IF	11.5IF	11.0IF	11.0IF	10.1IF	10.8IF	11.3IF	8.9IF	9.8IF	10.1IF	11.9IF	12.2IF	13.0IF	14.1IF	13.0IF	13.1IF	24	10.99
28	14.0rf	13.2rf	12.6rf	12.5rf	12.4rf	12.5rf	13.1rf	15.4rf	14.3rf	15.0rf	20.5rf	24.9rf	33.8rf	34.3rf	35.2rf	37.0rf	32.1rf	31.3rf	32.5rf	34.5rf	36.8rf	35.1rf	36.1rf	44.2rf	24	25.14
29	38.3rf	41.9rf	45.9rf	49.0rf	55.3rf	AX	BA	BA	67.6rf	82.1rf	78.5rf	67.4rf	65.6rf	60.3rf	50.9rf	52.8rf	56.7rf	65.1rf	74.9rf	74.5rf	78.0rf	76.2rf	74.2rf	73.7rf	21	63.28
30	74.8rf	75.3rf	74.6rf	75.0rf	72.8rf	64.4rf	53.5rf	AV	48.8rf	51.2rf	50.8rf	56.0rf	58.5rf	59.0rf	59.0rf	54.2rf	52.7rf	49.7rf	48.3rf	48.1rf	45.7rf	40.8rf	35.8rf	37.5rf	23	55.93
31	40.4IF	39.3IF	38.4IF	39.1IF	39.5IF	23.6IF	9.3IF	8.1IF	7.1IF	6.8IF	7.3IF	5.1IF	4.5IF	5.4IF	5.5IF	5.0IF	5.6IF	6.8IF	8.1IF	8.6IF	9.3IF	9.9IF	10.5IF	11.1IF	24	14.76
NO.:	31	31	31	31	31	30	29	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	74.8	75.3	88.6	82.5	74.1	89.0	88.0	84.5	79.5	82.1	81.8	67.4	65.6	60.3	59.0	54.2	56.7	65.1	74.9	74.5	78.0	76.2	74.2	73.7		
AVG:	15.00	15.64	16.85	16.99	16.66	14.76	13.48	11.42	15.31	16.42	16.70	15.63	16.43	16.33	15.21	14.67	14.73	15.04	15.22	15.50	15.79	15.79	15.41	15.10		

MONTHLY OBSERVATIONS: 739 MONTHLY MEAN: 15.44 MONTHLY MAX: 89.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-065-0002 POC: 3
COUNTY: (065) Oliver
CITY: (00000) Not in a city
SITE ADDRESS: 1575 HIGHWAY 31
SITE COMMENTS: *
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.1858330009
LONGITUDE: -101.428056
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 697
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	11.2rf	12.7rf	14.0rf	15.1rf	15.9rf	17.1rf	17.2rf	18.8rf	24.1rf	30.7rf	34.7rf	38.1rf	37.9rf	33.0rf	30.7rf	29.4rf	27.2rf	26.4rf	24.0rf	25.0rf	29.2rf	31.5rf	29.6rf	30.9rf	24	25.18
2	29.5IF	29.4IF	29.2IF	29.5IF	29.0IF	27.3IF	24.7IF	21.9IF	22.1IF	19.2IF	17.3IF	15.8IF	15.3IF	13.0IF	9.3IF	9.3IF	8.9IF	10.2IF	9.6IF	9.4IF	10.1IF	9.5IF	8.6IF	7.8IF	24	17.33
3	8.2rf	9.3rf	11.3rf	16.2rf	42.5rf	55.4rf	61.0rf	46.9rf	66.0rf	90.1rf	96.1rf	92.8rf	73.6rf	70.0rf	71.5rf	69.5rf	51.1rf	37.5rf	34.2rf	31.5rf	29.6rf	26.2rf	18.8rf	16.3rf	24	46.90
4	15.9rf	16.2rf	15.6rf	14.8rf	14.4rf	14.2rf	14.6rf	18.8rf	21.1rf	22.9rf	23.7rf	22.5rf	18.7rf	17.1rf	13.7rf	12.7rf	11.5rf	11.9rf	10.9rf	AV	114.8rf	139.5rf	150.9rf	171.2rf	23	38.59
5	161.9rf	108.6rf	113.9rf	131.4rf	131.4rf	113.2rf	120.1rf	128.4rf	134.3rf	138.5rf	143.7rf	140.0rf	124.4rf	110.4rf	102.8rf	55.2rf	31.2rf	25.8rf	14.7rf	11.3rf	10.8rf	8.2rf	7.6rf	7.4rf	24	86.47
6	7.6rf	7.7rf	8.9rf	11.6rf	20.4rf	32.9rf	22.0rf	31.4rf	44.3rf	54.3rf	57.2rf	46.4rf	46.3rf	46.3rf	50.7rf	52.4rf	48.7rf	50.3rf	50.7rf	52.6rf	56.2rf	57.4rf	57.9rf	58.0rf	24	40.51
7	56.2rf	51.6rf	48.2rf	45.2rf	44.0rf	43.4rf	41.4rf	38.1rf	33.6rf	35.8rf	46.8rf	48.1rf	47.9rf	50.6rf	52.7rf	52.8rf	51.3rf	50.1rf	50.6rf	50.7rf	50.6rf	48.4rf	30.5rf	13.7rf	24	45.10
8	13.2rf	22.5rf	33.9rf	42.3rf	44.5rf	45.8rf	46.5rf	42.3rf	39.5rf	36.1rf	33.3rf	27.2rf	26.5rf	20.6rf	14.2rf	10.0rf	8.7rf	8.4rf	9.1rf	10.4rf	11.3rf	12.0rf	12.3rf	12.9rf	24	24.31
9	13.5IF	12.9IF	12.6IF	12.4IF	12.8IF	12.3IF	12.2IF	12.5IF	12.5IF	12.3IF	12.3IF	13.9IF	15.1IF	15.1IF	14.3IF	14.3IF	14.3IF	14.6IF	15.2IF	15.6IF	16.4IF	17.0IF	17.7IF	18.0IF	24	14.16
10	17.3IF	16.3IF	15.5IF	15.2IF	15.7IF	15.7IF	16.3IF	16.4IF	15.4IF	14.8IF	15.9IF	16.4IF	15.6IF	16.1IF	15.1IF	14.8IF	15.3IF	15.0IF	14.7IF	14.7IF	13.8IF	14.5IF	15.1IF	14.5IF	24	15.42
11	14.3	14.5	14.4	14.7	15.0	14.6	13.8	13.2	13.8	15.7	14.6	13.9	13.9	15.2	14.2	13.1	10.1	7.5	7.4	6.7	5.1	5.3	5.2	5.4	24	11.73
12	6.1	6.6	6.6	6.6	6.7	5.0	AZ	AX	7.5	8.2	7.4	7.4	7.3	7.7	7.5	7.5	7.6	7.6	7.6	8.0	7.3	7.8	7.5	6.6	22	7.19
13	6.1	5.5	4.9	4.4	4.2	4.2	4.5	4.7	5.7	6.4	6.4	6.8	6.7	7.1	7.4	7.5	7.4	7.9	8.7	9.1	8.2	7.9	8.2	8.9	24	6.62
14	9.2IF	6.4IF	3.9IF	3.5IF	3.3IF	3.4IF	3.7IF	4.5IF	5.2IF	5.7IF	5.5IF	6.2IF	9.3IF	33.2IF	54.3IF	66.4IF	32.9IF	15.6IF	15.3IF	12.8IF	12.1IF	13.6IF	13.9IF	13.1IF	24	14.71
15	12.9rf	12.8rf	12.5rf	11.7rf	13.2rf	12.5rf	13.4rf	15.9rf	17.5rf	26.8rf	40.7rf	54.4rf	74.7rf	91.0rf	88.0rf	120.0rf	122.6rf	116.0rf	121.4rf	117.8rf	117.2rf	118.3rf	110.7rf	112.9rf	24	64.79
16	114.9rf	108.1rf	96.1rf	90.0rf	89.7rf	77.3rf	66.6rf	81.4rf	65.1rf	48.6rf	25.7rf	34.3rf	41.6rf	39.6rf	34.2rf	30.7rf	29.3rf	26.6rf	24.5rf	22.8rf	22.4rf	21.5rf	22.7rf	19.0rf	24	51.36
17	14.1IF	10.6IF	10.0IF	9.2IF	9.0IF	9.5IF	10.6IF	13.9IF	27.0IF	31.7IF	32.7IF	31.2IF	24.5IF	22.0IF	20.7IF	17.3IF	17.9IF	17.5IF	14.8IF	18.1IF	16.7IF	13.2IF	15.8IF	18.2IF	24	17.76
18	20.9IF	22.5IF	23.6IF	23.9IF	24.2IF	23.8IF	23.2IF	21.5IF	17.6IF	9.3IF	7.6IF	7.6IF	7.7IF	7.4IF	6.3IF	6.1IF	6.0IF	6.2IF	6.7IF	6.5IF	6.5IF	6.5IF	6.6IF	6.2IF	24	12.68
19	5.7IF	6.0IF	5.4IF	5.3IF	5.1IF	5.2IF	4.9IF	5.2IF	5.5IF	7.2IF	6.1IF	5.9IF	5.8IF	5.1IF	5.3IF	12.1IF	32.4IF	38.8IF	40.4IF	39.9IF	42.0IF	47.4IF	49.9IF	49.0IF	24	18.15
20	47.6rf	45.8rf	44.5rf	43.5rf	41.8rf	39.9rf	36.8rf	29.9rf	22.4rf	22.2rf	28.4rf	28.8rf	39.1rf	45.6rf	43.0rf	51.3rf	34.2rf	38.7rf	41.1rf	39.0rf	25.3rf	25.5rf	19.5rf	10.8rf	24	35.20
21	15.3IF	18.9IF	18.6IF	22.4IF	23.7IF	27.1IF	30.9IF	32.0IF	27.7IF	22.7IF	21.8IF	17.3IF	15.2IF	14.4IF	15.1IF	10.0IF	7.9IF	5.9IF	5.5IF	5.8IF	7.6IF	6.9IF	6.9IF	13.8IF	24	16.39
22	17.2IF	19.8IF	27.1IF	19.3IF	18.9IF	17.9IF	15.2IF	16.1IF	14.2IF	19.8IF	22.1IF	20.4IF	22.8IF	16.9IF	11.4IF	15.8IF	20.3IF	19.7IF	17.9IF	12.7IF	9.9IF	13.9IF	12.4IF	8.8IF	24	17.10
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	21	21	22	22	22	22	22	22	22	22	22	22	22	21	22	22	22	22		
MAX:	161.9	108.6	113.9	131.4	131.4	113.2	120.1	128.4	134.3	138.5	143.7	140.0	124.4	110.4	102.8	120.0	122.6	116.0	121.4	117.8	117.2	139.5	150.9	171.2		
AVG:	28.13	25.67	25.94	26.74	28.43	28.08	28.55	29.23	29.19	30.86	31.82	31.61	31.36	31.70	31.02	30.83	27.13	25.37	24.77	24.78	28.32	29.64	28.56	28.34		

MONTHLY OBSERVATIONS: 525 MONTHLY MEAN: 28.59 MONTHLY MAX: 171.2

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-101-0003 POC: 23
COUNTY: (101) Ward
CITY: (00000) Not in a city
SITE ADDRESS: 184th Street SW Ryder
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.9408610009
LONGITUDE: -101.571583
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 639
PROBE HEIGHT: 4

SUPPORT AGENCY: (301) Three Affiliated Tribes of Fort Berthold Reservation, ND
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	5.9	5.8	5.1	4.7	4.6	4.4	4.6	4.4	4.3	4.6	6.1	7.0	7.5	7.9	7.4	6.8	8.5	7.0	8.8	9.9	8.8	7.9	10.3	AV	23	6.62
17	7.2rf	6.4rf	5.9rf	5.6rf	5.4rf	5.4rf	5.6rf	6.1rf	307.4rf	742.3rf	900.8rf	618.9rf	515.7rf	527.3rf	248.6rf	159.5rf	153.7rf	97.7rf	89.3rf	69.4rf	86.6rf	119.3rf	82.5rf	80.2rf	24	201.95
18	87.3rf	86.5rf	87.2rf	94.6rf	100.0rf	81.1rf	49.3rf	45.6rf	44.0rf	26.9rf	3.5rf	3.7rf	3.5rf	4.0rf	3.6rf	4.5rf	4.4rf	3.6rf	3.5rf	4.9rf	3.8	3.9	4.1	6.3	24	31.66
19	8.7	9.8	11.0	11.7	11.5	10.5	9.4	7.6	4.9	4.0	3.9	4.2	4.1	3.9	4.0	4.2	4.8	4.1	4.7	4.4	4.8	6.3	6.3	7.6	24	6.52
20	5.3IF	5.4IF	5.3IF	4.9IF	4.8IF	4.9IF	4.6IF	4.8IF	7.1IF	11.5IF	12.6IF	14.2IF	21.3IF	17.9IF	17.7IF	16.7IF	17.9IF	20.2IF	22.9IF	26.1IF	20.3IF	20.9IF	19.7IF	18.8IF	24	13.58
21	21.9rf	35.9rf	38.3rf	22.8rf	28.8rf	35.0rf	32.0rf	23.1rf	21.2rf	18.6rf	17.0rf	16.6rf	15.8rf	14.6rf	15.3rf	14.8rf	15.3rf	17.1rf	17.1rf	15.5rf	14.4rf	14.1rf	13.2rf	13.5rf	24	20.50
22	13.8IF	14.2IF	14.6IF	15.6IF	14.8IF	14.4IF	13.8IF	14.2IF	12.2IF	11.2IF	10.3IF	12.1IF	14.2IF	16.6IF	19.9IF	21.6IF	21.1IF	22.0IF	21.3IF	23.0IF	23.5IF	24.3IF	24.8IF	23.4IF	24	17.37
23	24.7rf	26.1rf	25.2rf	25.1rf	27.0rf	28.3rf	26.6rf	28.0rf	26.9rf	26.7rf	24.3rf	24.4rf	27.1rf	30.2rf	32.2rf	31.3rf	34.6rf	30.9rf	27.5rf	27.3rf	24.3rf	23.3rf	20.3rf	19.6rf	24	26.75
24	18.2IF	17.2IF	17.8IF	19.3IF	21.3IF	22.0IF	21.6IF	22.1IF	21.8IF	19.6IF	16.6IF	14.9IF	16.0IF	14.9IF	14.7IF	13.8IF	16.2IF	16.0IF	16.1IF	15.7IF	16.2IF	16.1IF	15.7IF	15.6IF	24	17.48
25	16.2IF	16.8IF	15.7IF	16.1IF	16.4IF	16.9IF	16.8IF	16.5IF	16.2IF	15.4IF	13.5IF	13.6IF	13.8IF	13.8IF	13.8IF	13.4IF	14.2IF	15.2IF	14.5IF	13.2IF	12.9IF	13.8IF	12.9IF	10.6IF	24	14.68
26	8.6	8.3	8.7	9.1	9.1	9.7	9.8	8.8	7.8	8.4	7.1	6.3	6.9	8.0	6.0	6.0	6.1	6.4	6.5	6.9	6.7	6.7	6.5	4.5	24	7.45
27	3.9IF	4.4IF	6.2IF	11.7IF	12.5IF	12.2IF	8.7IF	6.9IF	8.5IF	9.9IF	11.5IF	12.6IF	12.7IF	12.0IF	9.3IF	8.5IF	8.3IF	11.0IF	11.2IF	11.6IF	12.2IF	12.7IF	13.0IF	11.9IF	24	10.14
28	12.1	12.5	11.6	11.4	11.5	11.8	11.6	10.3	7.8	5.4	3.9	3.3	2.9	4.1	5.4	5.5	4.8	3.7	4.6	4.6	4.0	4.2	5.1	6.3	24	7.02
29	7.4	11.0	11.6	12.0	11.5	10.9	10.0	7.0	4.6	3.4	3.2	3.7	3.7	3.1	2.9	3.0	3.7	3.7	3.7	3.5	3.5	3.6	4.2	4.6	24	5.81
30	4.4	4.0	4.5	4.3	4.2	4.6	4.6	AX	5.8	6.3	7.6	8.1	10.2	6.5	4.8	5.1	5.9	5.8	8.0	8.2	8.5	7.8	8.0	8.2	23	6.32
31	9.3IF	11.0IF	13.3IF	15.1IF	17.2IF	17.2IF	15.3IF	13.8IF	10.2IF	5.4IF	3.9IF	3.4IF	4.4IF	8.0IF	6.2IF	4.3IF	6.1IF	6.4IF	6.4IF	5.1IF	5.7IF	6.3IF	7.3IF	10.1IF	24	8.81
NO.:	16	16	16	16	16	16	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	15		
MAX:	87.3	86.5	87.2	94.6	100.0	81.1	49.3	45.6	307.4	742.3	900.8	618.9	515.7	527.3	248.6	159.5	153.7	97.7	89.3	69.4	86.6	119.3	82.5	80.2		
AVG:	15.93	17.21	17.63	17.75	18.79	18.08	15.27	14.61	31.92	57.48	65.36	47.94	42.49	43.30	25.74	19.94	20.35	16.93	16.63	15.58	16.01	18.20	15.87	16.08		

MONTHLY OBSERVATIONS: 382 MONTHLY MEAN: 25.26 MONTHLY MAX: 900.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 38-101-0003 POC: 23
COUNTY: (101) Ward
CITY: (00000) Not in a city
SITE ADDRESS: 184th Street SW Ryder
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

LATITUDE: 47.9408610009
LONGITUDE: -101.571583
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 639
PROBE HEIGHT: 4

SUPPORT AGENCY: (301) Three Affiliated Tribes of Fort Berthold Reservation, ND
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	11.5	10.6	10.9	10.5	10.3	9.8	7.9	6.8	8.2	8.5	8.1	6.2	5.2	4.7	4.9	4.8	4.0	3.9	3.5	5.5	5.5	5.0	5.0	4.9	24	6.93
2	5.1	5.3	5.1	5.2	5.6	5.0	5.8	5.5	7.0	6.6	6.0	4.4	4.5	4.4	5.2	4.7	4.7	4.9	4.8	5.5	5.8	6.2	6.4	7.2	24	5.45
3	7.4IF	7.2IF	6.9IF	6.7IF	7.6IF	7.7IF	7.2IF	7.4IF	7.5IF	8.2IF	8.7IF	6.4IF	5.8IF	6.3IF	7.3IF	10.1IF	7.7IF	8.9IF	8.3IF	8.2IF	11.3IF	11.5IF	12.3IF	10.4IF	24	8.21
4	10.1IF	8.2IF	8.5IF	10.5IF	11.0IF	10.9IF	12.0IF	11.5IF	14.3IF	8.9IF	8.9IF	9.3IF	8.1IF	7.4IF	7.9IF	8.4IF	7.9IF	8.0IF	7.3IF	7.9IF	6.7IF	4.8IF	3.3IF	2.8IF	24	8.53
5	3.7	5.8	7.5	8.6	9.0	8.5	7.5	7.1	6.7	6.8	6.9	6.4	6.1	6.7	6.7	6.9	7.6	7.2	7.8	7.6	11.7	9.7	10.0	9.9	24	7.60
6	10.2IF	10.8IF	13.9IF	13.6IF	14.3IF	15.3IF	12.5IF	AV	17.0IF	12.9IF	11.6IF	9.9IF	11.7IF	12.1IF	11.7IF	10.4IF	11.4IF	10.7IF	8.3IF	18.1IF	10.7IF	9.7IF	9.3IF	9.0IF	23	11.96
7	10.8IF	12.2IF	12.6IF	13.5IF	13.4IF	14.4IF	12.0IF	10.8IF	9.4IF	8.6IF	7.9IF	8.1IF	7.9IF	8.1IF	7.7IF	8.1IF	7.7IF	7.4IF	7.9IF	9.7IF	15.9IF	11.6IF	10.4IF	10.0IF	24	10.25
8	10.5IF	11.6IF	13.0IF	12.6IF	14.5IF	12.9IF	13.4IF	14.3IF	13.5IF	14.8IF	13.8IF	13.1IF	15.2IF	14.8IF	6.6IF	5.7IF	6.4IF	5.8IF	7.3IF	11.1IF	8.2IF	6.0IF	5.8IF	5.6IF	24	10.69
9	6.3IF	8.3IF	9.3IF	11.5IF	13.5IF	13.6IF	9.9IF	12.8IF	14.1IF	14.7IF	14.4IF	12.6IF	11.0IF	10.0IF	10.8IF	8.2IF	9.4IF	12.7IF	15.9IF	21.6IF	28.3IF	29.9IF	25.2IF	18.4IF	24	14.27
10	19.8IF	22.2IF	23.3IF	24.3IF	25.2IF	24.9IF	24.4IF	22.1IF	19.9IF	18.5IF	18.4IF	18.9IF	18.1IF	15.8IF	12.3IF	8.6IF	7.8IF	7.2IF	5.9IF	4.7IF	5.4IF	6.2IF	5.5IF	5.4IF	24	15.20
11	5.6	5.5	5.6	5.9	6.3	6.5	6.4	5.6	5.1	5.3	5.4	5.5	5.8	6.3	6.6	7.1	7.1	7.5	8.2	8.2	9.0	7.6	7.9	7.4	24	6.56
12	7.8IF	8.1IF	AV	8.8IF	9.4IF	9.3IF	10.1IF	9.4IF	AZ	AX	11.9IF	13.0IF	13.1IF	15.0IF	15.0IF	15.9IF	17.3IF	16.2IF	16.1IF	16.4IF	18.8IF	17.4IF	19.4IF	18.5IF	21	13.66
13	18.1rf	17.9rf	18.1rf	18.3rf	18.5rf	18.5rf	18.2rf	19.7rf	18.7rf	16.3rf	16.7rf	18.3rf	17.5rf	20.7rf	20.3rf	21.4rf	25.6rf	23.9rf	28.9rf	39.8rf	29.5rf	23.8rf	23.9rf	21.5rf	24	21.42
14	20.4IF	16.6IF	15.4IF	14.4IF	13.5IF	13.0IF	12.3IF	12.9IF	14.6IF	13.0IF	10.9IF	10.0IF	12.9IF	13.8IF	15.4IF	18.8IF	18.9IF	18.8IF	24.9IF	30.1IF	30.1IF	28.2IF	27.3IF	28.7IF	24	18.12
15	42.1rf	52.6rf	53.7rf	51.2rf	55.0rf	58.3rf	53.2rf	49.0rf	30.6rf	25.1rf	24.1rf	18.9rf	19.5rf	16.1rf	13.5rf	11.9rf	8.4rf	6.5rf	6.4rf	5.9rf	6.5rf	6.9rf	6.2rf	5.6rf	24	26.13
16	9.1rf	16.0rf	15.6rf	15.8rf	16.8rf	17.9rf	21.4rf	23.5rf	21.0rf	19.1rf	16.7rf	20.6rf	18.2rf	20.8rf	25.3rf	25.3rf	22.0rf	19.4rf	22.1rf	22.5rf	24.1rf	23.5rf	22.8rf	23.0rf	24	20.10
17	24.0rf	22.9rf	22.4rf	22.8rf	22.3rf	22.7rf	22.7rf	22.1rf	21.4rf	20.6rf	20.3rf	19.5rf	18.8rf	18.7rf	17.7rf	18.5rf	19.6rf	19.1rf	18.8rf	19.5rf	19.3rf	20.3rf	23.0rf	24.1rf	24	20.88
18	23.8IF	23.5IF	22.9IF	22.8IF	23.4IF	23.4IF	23.8IF	19.3IF	15.6IF	14.5IF	14.3IF	14.2IF	12.2IF	10.6IF	10.3IF	9.7IF	9.2IF	9.8IF	11.0IF	11.5IF	10.6IF	12.9IF	16.4IF	16.9IF	24	15.94
19	17.1IF	17.6IF	16.2IF	16.1IF	9.7IF	5.0IF	5.6IF	5.2IF	4.4IF	4.2IF	4.6IF	5.4IF	5.3IF	8.3IF	9.3IF	9.0IF	7.3IF	7.2IF	7.1IF	5.2IF	5.1IF	7.4IF	9.9IF	10.1IF	24	8.43
20	6.1	5.0	5.9	5.7	7.2	8.2	8.4	7.8	9.5	10.2	11.2	9.4	10.0	7.9	6.4	6.9	6.3	4.9	4.1	3.8	3.6	3.1	2.8	2.8	24	6.55
21	3.3	3.7	2.8	2.6	2.6	2.7	2.7	2.8	3.2	2.9	2.8	2.4	2.3	2.8	2.5	2.6	4.5	3.0	2.6	3.1	3.8	3.9	2.9	2.6	24	2.96
22	4.4	3.3	2.9	3.1	2.8	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.1	2.1	2.1	2.0	2.0	2.0	2.2	2.4	2.3	2.4	2.5	24	2.50
23	2.8	2.9	3.5	4.0	4.6	4.6	3.7	3.0	2.4	3.2	4.3	4.1	4.2	3.4	2.8	2.7	2.7	2.8	2.4	2.8	2.8	2.9	3.1	3.5	24	3.30
24	4.0	5.1	7.1	7.7	8.5	9.8	9.0	8.3	6.7	5.1	4.5	4.1	4.3	4.6	4.9	5.3	4.7	4.5	4.4	4.6	4.9	4.6	5.4	6.1	24	5.76
25	5.8	5.5	5.4	5.2	5.0	5.0	4.7	4.6	4.9	4.8	4.9	4.5	4.3	4.0	4.2	4.2	4.6	4.6	4.5	4.8	4.9	4.8	5.7	5.6	24	4.85
26	5.9	5.5	5.3	5.4	7.2	9.6	7.1	5.1	4.8	4.6	4.6	4.5	4.4	4.2	5.3	6.2	5.8	5.0	4.8	4.6	7.8	5.9	6.0	7.2	24	5.70
27	9.8IF	10.3IF	12.3IF	14.3IF	15.1IF	15.3IF	12.8IF	AX	9.1IF	5.5IF	3.7IF	3.5IF	3.6IF	3.7IF	3.8IF	3.7IF	3.6IF	4.4IF	3.7IF	3.7IF	14.0IF	10.3IF	6.0IF	5.0IF	23	7.70
28	4.6IF	4.6IF	4.3IF	4.6IF	5.9IF	6.8IF	7.1IF	5.9IF	5.1IF	5.0IF	4.8IF	4.4IF	5.0IF	6.0IF	9.1IF	11.1IF	16.8IF	31.8IF	15.5IF	14.8IF	14.4IF	15.2IF	17.3IF	14.9IF	24	9.79
29	13.6rf	13.2rf	11.9rf	12.7rf	13.6rf	16.2rf	18.1rf	32.6rf	31.5rf	18.0rf	14.4rf	12.6rf	11.5rf	12.3rf	12.3rf	15.7rf	22.2rf	47.4rf	53.6rf	47.4rf	42.6rf	47.7rf	54.4rf	63.5rf	24	26.63
30	67.6rf	65.9rf	60.2rf	65.8rf	64.9rf	64.4rf	62.6rf	52.2rf	33.6rf	27.5rf	32.4rf	31.6rf	26.7rf	26.2rf	26.9rf	27.4rf	26.5rf	23.0rf	22.1rf	21.1rf	12.5rf	12.0rf	12.4rf	13.2rf	24	36.61
31																									0	
NO.:	30	30	29	30	30	30	30	28	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	67.6	65.9	60.2	65.8	64.9	64.4	62.6	52.2	33.6	27.5	32.4	31.6	26.7	26.2	26.9	27.4	26.5	47.4	53.6	47.4	42.6	47.7	54.4	63.5		
AVG:	13.04	13.60	13.88	14.14	14.56	14.75	14.16	13.92	12.49	10.89	10.65	10.14	9.85	9.93	9.83	10.05	10.32	11.28	11.34	12.40	12.54	12.04	12.28	12.21		

MONTHLY OBSERVATIONS: 715 MONTHLY MEAN: 12.09 MONTHLY MAX: 67.6

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-101-0003 POC: 23
COUNTY: (101) Ward
CITY: (00000) Not in a city
SITE ADDRESS: 184th Street SW Ryder
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.9408610009
LONGITUDE: -101.571583
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 639
PROBE HEIGHT: 4

SUPPORT AGENCY: (301) Three Affiliated Tribes of Fort Berthold Reservation, ND
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	12.4IF	11.6IF	11.4IF	12.1IF	11.1IF	9.3IF	8.4IF	8.2IF	8.6IF	7.7IF	9.0IF	8.6IF	7.3IF	6.1IF	6.2IF	7.0IF	7.2IF	7.6IF	6.9IF	7.0IF	6.3IF	7.4IF	6.7IF	6.3IF	24	8.35
2	7.0	5.1	4.0	3.7	3.7	3.7	3.9	3.9	4.4	5.6	4.6	4.5	4.4	4.4	4.0	4.6	5.4	7.0	6.9	6.3	5.8	5.1	5.2	5.1	24	4.93
3	5.1IF	4.9IF	4.9IF	4.7IF	4.4IF	4.7IF	4.2IF	4.0IF	5.6IF	16.4IF	26.4IF	22.2IF	11.2IF	11.8IF	12.4IF	17.8IF	15.8IF	13.0IF	15.1IF	16.9IF	15.5IF	15.1IF	14.7IF	15.0IF	24	11.74
4	18.4IF	20.0IF	21.8IF	20.8IF	21.1IF	22.8IF	23.4IF	13.0IF	3.1IF	1.5IF	1.6IF	1.7IF	2.0IF	1.9IF	2.9IF	2.9IF	3.0IF	2.8IF	2.9IF	2.2IF	2.3IF	2.2IF	2.7IF	2.7IF	24	8.32
5	2.8	2.8	2.8	3.4	4.4	4.5	4.0	3.3	2.6	2.4	2.6	2.5	2.7	2.5	2.6	2.6	2.8	2.8	2.9	2.8	4.2	3.9	3.2	3.0	24	3.09
6	2.8	2.5	2.5	2.5	2.4	2.4	2.2	2.8	3.5	4.5	5.9	4.9	4.8	4.7	5.2	4.7	4.5	4.7	4.3	4.4	5.0	5.0	5.4	5.6	24	4.05
7	5.9	5.6	6.0	6.6	8.0	9.4	8.7	8.4	8.6	8.1	6.7	6.6	6.8	6.6	5.9	7.0	6.9	6.9	7.1	6.7	7.9	7.2	5.9	6.3	24	7.08
8	5.9IF	5.8IF	5.7IF	6.0IF	6.1IF	5.9IF	6.1IF	7.0IF	11.4IF	9.8IF	9.8IF	11.1IF	11.8IF	13.8IF	16.2IF	16.2IF	16.2IF	11.8IF	8.6IF	6.7IF	7.0IF	8.6IF	9.9IF	10.9IF	24	9.51
9	11.6IF	11.5IF	11.1IF	11.7IF	11.9IF	11.6IF	10.3IF	9.8IF	10.7IF	10.8IF	11.0IF	11.9IF	12.1IF	12.0IF	11.9IF	12.6IF	13.4IF	14.2IF	19.2IF	20.5IF	20.7IF	21.7IF	23.8IF	25.9IF	24	14.25
10	25.1IF	29.9IF	31.0IF	16.7IF	14.3IF	13.2IF	10.8IF	9.1IF	9.2IF	9.4IF	8.7IF	7.7IF	6.7IF	6.8IF	7.3IF	7.2IF	5.7IF	4.9IF	3.8IF	3.7IF	4.2IF	5.4IF	4.1IF	3.7IF	24	10.36
11	3.3	3.2	2.8	2.7	2.5	2.5	2.5	2.2	2.2	2.3	2.4	2.6	3.0	3.1	2.8	2.3	2.4	2.1	2.4	2.2	2.0	2.0	2.0	2.0	24	2.48
12	2.2	2.4	2.5	2.9	AV	3.0	AQ	3.7	AX	5.9	5.3	5.2	5.5	6.7	5.1	4.7	5.2	4.8	4.7	4.8	5.1	6.0	6.3	6.7	21	4.70
13	7.2IF	7.5IF	6.5IF	6.3IF	6.9IF	9.8IF	12.2IF	7.8IF	5.7IF	5.8IF	5.8IF	5.5IF	9.8IF	12.1IF	12.5IF	13.7IF	11.8IF	12.9IF	13.6IF	16.4IF	17.9IF	21.9IF	22.1IF	20.4IF	24	11.34
14	18.1rf	19.3rf	20.5rf	25.6rf	30.6rf	39.4rf	46.5rf	55.6rf	67.8rf	79.6rf	91.2rf	66.1rf	55.1rf	64.7rf	70.5rf	72.8rf	81.9rf	92.2rf	89.3rf	101.3rf	108.0rf	118.0rf	118.2rf	97.1rf	24	67.89
15	80.9rf	80.8rf	82.6rf	72.3rf	65.3rf	62.0rf	45.0rf	26.7rf	17.9rf	10.6rf	7.4rf	7.6rf	6.2rf	5.9rf	5.7rf	5.2rf	5.4rf	11.8rf	52.4rf	102.9rf	109.1rf	115.6rf	112.6rf	112.6rf	24	50.19
16	107.8rf	100.5rf	101.2rf	94.8rf	89.4rf	74.1rf	48.3rf	17.1rf	11.9rf	7.0rf	8.1rf	6.8rf	4.3rf	3.9rf	3.3rf	3.5rf	3.7rf	3.3rf	2.9rf	2.7rf	2.5rf	2.8rf	2.8rf	3.1rf	24	29.41
17	2.9	2.8	2.7	2.8	2.8	3.0	3.3	2.7	2.8	2.9	4.1	2.8	2.8	2.9	3.2	3.3	3.0	3.0	3.3	3.3	3.5	3.6	3.7	3.7	24	3.12
18	4.0	4.0	4.2	4.0	3.7	3.7	3.7	3.9	4.6	5.4	6.6	8.1	11.9	13.2	15.4	17.3	13.6	8.8	6.1	7.9	7.7	6.9	5.7	4.9	24	7.30
19	5.3IF	8.1IF	11.5IF	13.0IF	11.9IF	11.2IF	10.7IF	10.7IF	11.1IF	10.5IF	9.1IF	7.7IF	5.0IF	5.4IF	5.9IF	6.0IF	5.0IF	5.6IF	6.5IF	8.9IF	11.1IF	11.5IF	13.0IF	13.9IF	24	9.11
20	14.5IF	15.2IF	14.6IF	13.2IF	15.2IF	15.8IF	14.8IF	13.7IF	12.4IF	13.8IF	10.0IF	10.6IF	9.1IF	10.2IF	11.3IF	11.2IF	12.5IF	10.4IF	9.7IF	10.2IF	14.0IF	11.5IF	11.5IF	11.5IF	24	12.37
21	11.6IF	10.7IF	10.2IF	9.8IF	9.4IF	10.1IF	9.9IF	9.7IF	11.5IF	11.8IF	13.3IF	13.1IF	13.5IF	14.4IF	14.7IF	14.9IF	14.3IF	14.9IF	15.5IF	19.0IF	22.0IF	24.9IF	30.0IF	32.3IF	24	15.06
22	29.4rf	26.6rf	30.1rf	30.5rf	29.4rf	30.1rf	29.7rf	29.4rf	27.5rf	26.2rf	25.7rf	26.8rf	26.4rf	26.6rf	26.5rf	26.9rf	26.5rf	26.7rf	26.4rf	27.7rf	30.5rf	31.7rf	31.7rf	30.9rf	24	28.33
23	31.6IF	32.2IF	32.3IF	26.6IF	23.8IF	22.7IF	19.5IF	17.2IF	19.3IF	18.8IF	15.2IF	11.9IF	9.6IF	8.7IF	8.8IF	8.7IF	8.9IF	10.0IF	10.2IF	12.4IF	12.7IF	12.4IF	12.5IF	12.2IF	24	16.59
24	13.4IF	13.4IF	12.9IF	12.6IF	12.9IF	12.4IF	12.5IF	AX	BA	BA	13.4IF	12.2IF	12.2IF	11.4IF	11.2IF	11.1IF	10.0IF	9.6IF	10.1IF	9.4IF	8.9IF	9.7IF	9.8IF	10.1IF	21	11.39
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	24	24	24	24	23	24	23	23	22	23	24	24	24	24	24	24	24	24	24	24	24	24	24	24		
MAX:	107.8	100.5	101.2	94.8	89.4	74.1	48.3	55.6	67.8	79.6	91.2	66.1	55.1	64.7	70.5	72.8	81.9	92.2	89.3	102.9	109.1	118.0	118.2	112.6		
AVG:	17.88	17.77	18.16	16.89	17.01	16.14	14.81	11.73	11.93	12.03	12.66	11.20	10.18	10.83	11.31	11.84	11.88	12.16	13.78	16.93	18.08	19.17	19.31	18.58		

MONTHLY OBSERVATIONS: 570 MONTHLY MEAN: 14.69 MONTHLY MAX: 118.2

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-101-0003 POC: 3
COUNTY: (101) Ward
CITY: (00000) Not in a city
SITE ADDRESS: 184th Street SW Ryder
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.9408610009
LONGITUDE: -101.571583
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 639
PROBE HEIGHT: 4

SUPPORT AGENCY: (301) Three Affiliated Tribes of Fort Berthold Reservation, ND
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
9																									0	
10																									0	
11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16	7.2	7.1	6.3	5.8	5.7	5.4	5.7	5.4	5.3	5.5	7.0	7.9	8.4	8.8	8.3	7.7	9.4	7.9	9.7	10.8	9.7	8.8	12.2	AV	23	7.65
17	8.9IF	7.9IF	7.2IF	6.9IF	6.7IF	6.6IF	6.9IF	7.5IF	309.3IF	744.2IF	902.7IF	620.8IF	517.6IF	529.2IF	250.5IF	161.4IF	155.6IF	99.6IF	91.2IF	71.3IF	88.5IF	121.2IF	84.4IF	82.1IF	24	203.68
18	89.2IF	88.4IF	89.1IF	96.5IF	101.9IF	83.0IF	51.2IF	47.5IF	45.9IF	28.8IF	4.3IF	4.5IF	4.3IF	4.9IF	4.4IF	5.5IF	5.4IF	4.4IF	4.3IF	6.0IF	4.7	4.8	5.0	7.8	24	32.99
19	10.6	11.7	12.9	13.6	13.4	12.4	11.3	9.4	6.0	4.9	4.8	5.2	5.0	4.8	4.9	5.2	5.9	5.0	5.8	5.4	5.9	7.8	7.7	9.3	24	7.87
20	6.5IF	6.6IF	6.5IF	6.0IF	5.9IF	6.0IF	5.7IF	5.9IF	8.7IF	13.4IF	14.5IF	16.1IF	22.2IF	18.8IF	18.6IF	17.6IF	18.8IF	21.1IF	23.8IF	27.0IF	21.2IF	21.8IF	21.6IF	20.7IF	24	14.79
21	23.8IF	37.8IF	40.2IF	24.7IF	30.7IF	36.9IF	33.9IF	25.0IF	23.1IF	20.5IF	18.9IF	18.5IF	17.7IF	16.5IF	16.2IF	15.7IF	16.2IF	18.0IF	18.0IF	17.4IF	16.3IF	16.0IF	15.1IF	15.4IF	24	22.19
22	15.7IF	16.1IF	16.5IF	17.5IF	16.7IF	16.3IF	15.7IF	16.1IF	14.1IF	12.1IF	11.2IF	13.0IF	15.1IF	17.5IF	20.8IF	22.5IF	22.0IF	22.9IF	22.2IF	23.9IF	24.4IF	25.2IF	26.7IF	25.3IF	24	18.73
23	26.6IF	28.0IF	27.1IF	27.0IF	28.9IF	30.2IF	28.5IF	29.9IF	27.8IF	27.6IF	25.2IF	25.3IF	28.0IF	31.1IF	33.1IF	32.2IF	35.5IF	31.8IF	28.4IF	28.2IF	25.2IF	24.2IF	22.2IF	21.5IF	24	28.06
24	20.1IF	19.1IF	19.7IF	21.2IF	23.2IF	23.9IF	23.5IF	24.0IF	23.7IF	20.5IF	17.5IF	15.8IF	16.9IF	15.8IF	15.6IF	14.7IF	17.1IF	16.9IF	17.0IF	16.6IF	17.1IF	17.0IF	17.6IF	17.5IF	24	18.83
25	18.1IF	18.7IF	17.6IF	18.0IF	18.3IF	18.8IF	18.7IF	18.4IF	18.1IF	16.3IF	14.4IF	14.5IF	14.7IF	14.7IF	14.7IF	14.3IF	15.1IF	16.1IF	15.4IF	14.1IF	13.8IF	14.7IF	13.8IF	12.5IF	24	15.99
26	10.5	10.2	10.6	11.0	11.0	11.6	11.7	10.7	9.6	9.3	8.0	7.2	7.8	8.9	6.9	6.9	7.0	7.3	7.4	8.5	8.2	8.2	8.0	5.5	24	8.83
27	4.8IF	5.4IF	7.6IF	13.6IF	14.4IF	14.1IF	10.6IF	8.5IF	10.4IF	11.8IF	12.4IF	13.5IF	13.6IF	12.9IF	10.2IF	9.4IF	9.2IF	11.9IF	12.1IF	12.5IF	13.1IF	13.6IF	13.9IF	13.8IF	24	11.39
28	14.0	14.4	13.5	13.3	13.4	13.7	13.5	12.2	9.6	6.3	4.8	4.1	3.6	5.0	6.3	6.4	5.7	4.5	5.6	5.7	4.9	5.2	6.3	7.8	24	8.33
29	9.1	12.9	13.5	13.9	13.4	12.8	11.9	8.6	5.6	4.2	3.9	4.6	4.6	3.8	3.6	3.7	4.6	4.5	4.5	4.3	4.3	4.4	5.2	5.6	24	6.98
30	5.4	4.9	5.5	5.3	5.2	5.6	5.6	AX	7.1	7.8	8.5	9.0	11.1	7.4	5.7	6.0	6.8	6.7	8.9	9.1	9.4	9.6	9.8	10.1	23	7.41
31	11.2IF	12.9IF	15.2IF	17.0IF	19.1IF	19.1IF	17.2IF	15.7IF	11.1IF	6.3IF	4.8IF	4.2IF	5.3IF	8.9IF	7.1IF	5.2IF	7.0IF	7.3IF	7.3IF	6.3IF	7.0IF	7.8IF	9.0IF	12.0IF	24	10.17
NO.:	16	16	16	16	16	16	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	15		
MAX:	89.2	88.4	89.1	96.5	101.9	83.0	51.2	47.5	309.3	744.2	902.7	620.8	517.6	529.2	250.5	161.4	155.6	99.6	91.2	71.3	88.5	121.2	84.4	82.1		
AVG:	17.61	18.88	19.31	19.46	20.49	19.78	16.98	16.32	33.46	58.72	66.43	49.01	43.49	44.31	26.68	20.90	21.33	17.87	17.60	16.69	17.11	19.39	17.41	17.79		

MONTHLY OBSERVATIONS: 382 MONTHLY MEAN: 26.59 MONTHLY MAX: 902.7

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-101-0003 POC: 3
COUNTY: (101) Ward
CITY: (00000) Not in a city
SITE ADDRESS: 184th Street SW Ryder
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.9408610009
LONGITUDE: -101.571583
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 639
PROBE HEIGHT: 4

SUPPORT AGENCY: (301) Three Affiliated Tribes of Fort Berthold Reservation, ND
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (236) Teledyne T640 at 5.0 LPM Broadband
PQAO: (0782) North Dakota DEQ

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	13.4	12.5	12.8	12.4	12.2	11.7	9.7	8.4	10.1	9.4	9.0	7.1	6.1	5.6	5.8	5.7	4.9	4.8	4.3	6.4	6.4	5.9	5.9	5.8	24	8.18
2	6.0	6.5	6.3	6.4	6.9	6.2	7.1	6.8	7.9	7.5	6.9	5.3	5.4	5.3	6.1	5.6	5.6	5.8	5.7	6.4	6.7	7.1	7.3	8.9	24	6.49
3	8.3IF	8.9IF	8.5IF	8.2IF	9.3IF	9.5IF	8.9IF	8.3IF	8.4IF	9.1IF	9.6IF	7.3IF	6.7IF	7.2IF	8.2IF	11.0IF	8.6IF	9.8IF	9.2IF	9.1IF	12.2IF	12.4IF	13.2IF	11.3IF	24	9.30
4	11.0IF	9.1IF	9.4IF	11.4IF	12.9IF	12.8IF	12.9IF	12.4IF	15.2IF	9.8IF	9.8IF	10.2IF	9.0IF	8.3IF	8.8IF	9.3IF	8.8IF	8.9IF	8.2IF	8.8IF	8.3IF	5.9IF	4.0IF	3.5IF	24	9.53
5	4.5	7.1	9.2	10.5	10.9	10.4	8.4	8.0	7.6	7.7	7.8	7.3	7.0	7.6	7.6	7.8	8.5	8.1	8.7	8.5	12.6	10.6	10.9	10.8	24	8.67
6	11.1IF	11.7IF	14.8IF	15.5IF	16.2IF	17.2IF	14.4IF	AV	17.9IF	13.8IF	12.5IF	10.8IF	12.6IF	13.0IF	12.6IF	11.3IF	12.3IF	11.6IF	9.2IF	19.0IF	11.6IF	10.6IF	10.2IF	9.9IF	23	13.03
7	11.7IF	13.1IF	13.5IF	14.4IF	14.3IF	15.3IF	12.9IF	11.7IF	10.3IF	9.5IF	8.8IF	9.0IF	8.8IF	9.0IF	8.6IF	9.0IF	8.6IF	8.3IF	8.8IF	10.6IF	16.8IF	12.5IF	11.3IF	10.9IF	24	11.15
8	11.4IF	12.5IF	13.9IF	13.5IF	15.4IF	14.8IF	14.3IF	15.2IF	14.4IF	15.7IF	14.7IF	14.0IF	16.1IF	15.7IF	8.1IF	6.6IF	7.3IF	6.7IF	8.2IF	12.0IF	9.1IF	7.4IF	7.1IF	6.9IF	24	11.71
9	7.8IF	10.2IF	11.2IF	13.4IF	15.4IF	15.5IF	11.8IF	14.7IF	16.0IF	15.6IF	15.3IF	13.5IF	11.9IF	10.9IF	11.7IF	9.1IF	10.3IF	13.6IF	16.8IF	22.5IF	29.2IF	31.8IF	27.1IF	20.3IF	24	15.65
10	21.7IF	24.1IF	25.2IF	26.2IF	27.1IF	26.8IF	26.3IF	24.0IF	21.8IF	20.4IF	20.3IF	20.8IF	20.0IF	17.7IF	14.2IF	10.5IF	9.6IF	8.9IF	7.3IF	5.8IF	6.7IF	7.6IF	6.8IF	6.6IF	24	16.93
11	6.9	6.8	6.9	7.2	7.7	8.0	7.9	6.9	6.3	6.5	6.6	6.8	7.1	7.2	7.5	8.0	8.0	8.4	9.1	9.1	9.9	9.4	9.7	9.1	24	7.79
12	9.6IF	10.0IF	AV	10.7IF	11.3IF	11.2IF	12.0IF	11.3IF	AZ	AX	12.8IF	13.9IF	14.0IF	15.9IF	15.9IF	16.8IF	18.2IF	17.1IF	17.0IF	17.3IF	19.7IF	19.3IF	21.3IF	20.4IF	21	15.03
13	20.0IF	19.8IF	20.0IF	20.2IF	20.4IF	20.4IF	20.1IF	21.6IF	20.6IF	17.2IF	17.6IF	19.2IF	18.4IF	21.6IF	21.2IF	22.3IF	26.5IF	24.8IF	29.8IF	40.7IF	30.4IF	24.7IF	24.8IF	22.4IF	24	22.70
14	21.3IF	17.5IF	16.3IF	16.3IF	15.4IF	14.9IF	14.2IF	14.8IF	15.5IF	13.9IF	11.8IF	10.9IF	13.8IF	14.7IF	16.3IF	19.7IF	19.8IF	19.7IF	25.8IF	31.0IF	31.0IF	29.1IF	28.2IF	30.6IF	24	19.27
15	44.0IF	54.5IF	55.6IF	53.1IF	56.9IF	60.2IF	55.1IF	50.9IF	32.5IF	27.0IF	26.0IF	20.8IF	21.4IF	18.0IF	15.4IF	13.8IF	10.3IF	8.0IF	7.9IF	7.3IF	8.0IF	8.5IF	7.6IF	6.9IF	24	27.90
16	11.0IF	17.9IF	17.5IF	17.7IF	18.7IF	19.8IF	23.3IF	25.4IF	22.9IF	21.0IF	18.6IF	22.5IF	20.1IF	22.7IF	27.2IF	27.2IF	23.9IF	21.3IF	24.0IF	24.4IF	26.0IF	25.4IF	24.7IF	24.9IF	24	22.00
17	25.9IF	24.8IF	24.3IF	24.7IF	24.2IF	24.6IF	24.6IF	24.0IF	23.3IF	22.5IF	21.2IF	20.4IF	19.7IF	19.6IF	18.6IF	19.4IF	20.5IF	20.0IF	19.7IF	20.4IF	21.2IF	22.2IF	24.9IF	26.0IF	24	22.36
18	25.7IF	25.4IF	24.8IF	24.7IF	25.3IF	25.3IF	25.7IF	21.2IF	16.5IF	15.4IF	15.2IF	15.1IF	13.1IF	11.5IF	11.2IF	10.6IF	10.1IF	10.7IF	11.9IF	12.4IF	11.5IF	13.8IF	17.3IF	17.8IF	24	17.18
19	18.0IF	18.5IF	18.1IF	18.0IF	11.6IF	6.2IF	6.9IF	6.4IF	5.4IF	5.2IF	5.5IF	6.3IF	6.2IF	9.2IF	10.2IF	9.9IF	8.2IF	8.1IF	8.0IF	6.1IF	6.0IF	9.1IF	10.8IF	11.0IF	24	9.54
20	7.5	6.1	7.3	7.0	8.8	10.1	10.3	9.6	11.4	12.1	12.1	10.3	10.9	8.8	7.3	7.8	7.2	5.8	5.0	4.7	4.4	3.8	3.4	3.5	24	7.72
21	4.0	4.5	3.4	3.2	3.2	3.3	3.3	3.5	3.9	3.6	3.5	2.9	2.8	3.4	3.1	3.2	5.5	3.7	3.2	3.8	4.7	4.8	3.6	3.2	24	3.64
22	5.4	4.1	3.6	3.8	3.5	3.0	2.9	3.0	3.0	3.1	2.9	2.9	2.9	2.6	2.6	2.6	2.5	2.4	2.5	2.7	2.9	2.8	2.9	3.1	24	3.07
23	3.4	3.6	4.3	4.9	5.7	5.7	4.6	3.7	3.0	3.9	5.3	5.0	5.2	4.2	3.4	3.3	3.3	3.4	3.0	3.4	3.5	3.6	3.8	4.3	24	4.06
24	4.9	6.3	8.7	9.5	10.4	11.7	10.9	10.2	8.3	6.3	5.5	5.1	5.3	5.6	6.0	6.2	5.8	5.5	5.4	5.7	6.0	5.7	6.6	7.5	24	7.05
25	7.1	6.8	6.6	6.4	6.2	6.1	5.8	5.7	6.0	5.9	5.8	5.4	5.2	4.9	5.1	5.1	5.5	5.5	5.4	5.7	5.8	5.7	7.0	6.9	24	5.90
26	7.2	6.8	6.5	6.7	8.8	11.5	8.7	6.3	5.7	5.5	5.5	5.4	5.3	5.1	6.2	7.1	6.7	5.9	5.7	5.5	8.7	6.8	7.4	8.9	24	6.83
27	11.7IF	12.2IF	14.2IF	16.2IF	17.0IF	17.2IF	14.7IF	AX	11.0IF	6.8IF	4.6IF	4.3IF	4.4IF	4.5IF	4.7IF	4.5IF	4.4IF	5.3IF	4.5IF	4.5IF	14.9IF	12.2IF	7.4IF	6.2IF	23	9.02
28	5.6IF	5.6IF	5.3IF	5.6IF	7.3IF	8.4IF	8.7IF	7.3IF	6.0IF	5.9IF	5.7IF	5.3IF	5.9IF	6.9IF	10.0IF	12.0IF	17.7IF	32.7IF	16.4IF	15.7IF	15.3IF	16.1IF	18.2IF	16.8IF	24	10.85
29	15.5IF	15.1IF	13.8IF	14.6IF	15.5IF	18.1IF	20.0IF	34.5IF	33.4IF	19.9IF	15.3IF	13.5IF	12.4IF	13.2IF	13.2IF	16.6IF	23.1IF	48.3IF	54.5IF	48.3IF	43.5IF	48.6IF	55.3IF	65.4IF	24	27.98
30	69.5IF	67.8IF	62.1IF	67.7IF	66.8IF	66.3IF	64.5IF	54.1IF	34.5IF	28.4IF	33.3IF	32.5IF	27.6IF	27.1IF	27.8IF	28.3IF	27.4IF	23.9IF	23.0IF	22.0IF	13.4IF	12.9IF	13.3IF	14.1IF	24	37.85
31																									0	
NO.:	30	30	29	30	30	30	30	28	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	69.5	67.8	62.1	67.7	66.8	66.3	64.5	54.1	34.5	28.4	33.3	32.5	27.6	27.1	27.8	28.3	27.4	48.3	54.5	48.3	43.5	48.6	55.3	65.4		
AVG:	14.37	14.99	15.31	15.67	16.18	16.41	15.70	15.35	13.75	12.02	11.65	11.13	10.84	10.90	10.82	11.01	11.30	12.23	12.27	13.33	13.55	13.21	13.40	13.46		

MONTHLY OBSERVATIONS: 715 MONTHLY MEAN: 13.28 MONTHLY MAX: 69.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 38-101-0003 POC: 3
COUNTY: (101) Ward
CITY: (00000) Not in a city
SITE ADDRESS: 184th Street SW Ryder
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

LATITUDE: 47.9408610009
LONGITUDE: -101.571583
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 639
PROBE HEIGHT: 4

SUPPORT AGENCY: (301) Three Affiliated Tribes of Fort Berthold Reservation, ND
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: MULTIPLE METHODS
PQAO: (0782) North Dakota DEQ

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

HOUR DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	13.3IF	13.5IF	13.3IF	14.0IF	13.0IF	11.2IF	10.3IF	9.1IF	9.5IF	8.6IF	9.9IF	9.5IF	8.2IF	7.0IF	7.1IF	7.9IF	8.1IF	8.5IF	7.8IF	7.9IF	7.2IF	8.3IF	7.6IF	7.2IF	24	9.50
2	7.9	6.0	4.9	4.5	4.5	4.6	4.8	4.8	5.3	6.5	5.5	5.4	5.3	5.3	4.9	5.5	6.3	7.9	7.8	7.2	6.7	6.3	6.4	6.3	24	5.86
3	6.3IF	6.0IF	6.0IF	5.8IF	5.4IF	5.8IF	5.2IF	4.9IF	6.9IF	18.3IF	28.3IF	24.1IF	13.1IF	13.7IF	14.3IF	19.7IF	17.7IF	14.9IF	17.0IF	18.8IF	17.4IF	17.0IF	16.6IF	16.9IF	24	13.34
4	20.3IF	21.9IF	23.7IF	22.7IF	23.0IF	24.7IF	25.3IF	14.9IF	3.8IF	1.8IF	2.0IF	2.1IF	2.4IF	2.3IF	3.6IF	3.6IF	3.7IF	3.5IF	3.6IF	2.7IF	2.8IF	2.7IF	3.3IF	3.3IF	24	9.32
5	3.5	3.5	3.4	4.2	5.4	5.5	4.9	4.1	3.2	3.0	3.2	3.1	3.3	3.1	3.2	3.2	3.5	3.5	3.6	3.5	5.2	4.8	3.9	3.7	24	3.81
6	3.4	3.1	3.1	3.1	3.0	2.9	2.7	3.5	4.3	5.5	6.8	5.8	5.7	5.6	6.1	5.6	5.4	5.6	5.2	5.3	5.9	6.1	6.6	6.9	24	4.88
7	7.2	6.9	7.4	8.1	9.8	11.3	10.6	10.3	10.5	10.0	8.2	8.1	7.7	7.5	6.8	7.9	7.8	7.8	8.0	8.2	9.7	8.9	7.3	7.7	24	8.49
8	7.3IF	7.1IF	7.0IF	7.4IF	7.5IF	7.3IF	7.5IF	8.6IF	13.3IF	11.7IF	11.7IF	12.0IF	12.7IF	14.7IF	17.1IF	17.1IF	17.1IF	12.7IF	9.5IF	8.3IF	8.6IF	10.5IF	11.8IF	12.8IF	24	10.89
9	13.5IF	13.4IF	13.0IF	13.6IF	13.8IF	13.5IF	12.2IF	11.7IF	11.6IF	11.7IF	11.9IF	12.8IF	13.0IF	12.9IF	12.8IF	13.5IF	14.3IF	15.1IF	20.1IF	21.4IF	21.6IF	22.6IF	24.7IF	26.8IF	24	15.48
10	26.0IF	31.8IF	32.9IF	18.6IF	16.2IF	15.1IF	12.7IF	11.0IF	11.1IF	11.3IF	10.6IF	9.5IF	8.2IF	7.7IF	8.2IF	8.1IF	6.6IF	5.8IF	4.7IF	4.5IF	5.2IF	6.6IF	5.1IF	4.6IF	24	11.75
11	4.1	3.9	3.4	3.3	3.1	3.1	3.1	2.7	2.7	2.8	3.0	3.2	3.7	3.8	3.4	2.8	3.0	2.6	2.9	2.7	2.5	2.4	2.4	2.4	24	3.04
12	2.7	2.9	3.1	3.6	AV	3.7	AQ	4.6	AX	7.2	6.5	6.4	6.8	8.3	6.3	5.8	6.4	5.9	5.8	5.9	6.3	7.4	7.7	8.3	21	5.79
13	8.8IF	9.2IF	8.0IF	7.8IF	8.5IF	11.7IF	14.1IF	9.6IF	7.0IF	6.7IF	6.7IF	6.4IF	10.7IF	13.0IF	13.4IF	14.6IF	12.7IF	13.8IF	14.5IF	17.3IF	18.8IF	22.8IF	24.0IF	22.3IF	24	12.60
14	20.0IF	21.2IF	22.4IF	27.5IF	32.5IF	41.3IF	48.4IF	57.5IF	69.7IF	81.5IF	92.1IF	67.0IF	56.0IF	65.6IF	71.4IF	73.7IF	82.8IF	93.1IF	90.2IF	102.2IF	109.9IF	119.9IF	120.1IF	99.0IF	24	69.38
15	82.8IF	82.7IF	84.5IF	74.2IF	67.2IF	63.9IF	46.9IF	28.6IF	19.8IF	12.5IF	9.1IF	9.3IF	7.6IF	7.3IF	7.0IF	6.4IF	6.3IF	12.7IF	54.3IF	104.8IF	111.0IF	117.5IF	114.5IF	114.5IF	24	51.89
16	109.7IF	102.4IF	103.1IF	96.7IF	91.3IF	76.0IF	50.2IF	19.0IF	13.8IF	8.6IF	9.9IF	8.4IF	5.3IF	4.8IF	4.1IF	4.3IF	4.5IF	4.1IF	3.6IF	3.3IF	3.1IF	3.5IF	3.4IF	3.8IF	24	30.70
17	3.6	3.4	3.3	3.4	3.4	3.7	4.0	3.3	3.4	3.6	5.1	3.4	3.5	3.6	3.9	4.1	3.7	3.7	4.0	4.1	4.3	4.4	4.6	4.6	24	3.84
18	4.9	4.9	5.2	4.9	4.6	4.6	4.6	4.8	5.6	6.6	7.5	9.0	12.8	14.1	16.3	18.2	14.5	9.7	7.0	8.8	8.6	7.8	6.6	6.0	24	8.23
19	6.5IF	9.9IF	13.4IF	14.9IF	13.8IF	13.1IF	12.6IF	12.6IF	13.0IF	12.4IF	11.0IF	9.5IF	6.2IF	6.7IF	7.3IF	7.4IF	6.2IF	6.5IF	8.0IF	10.8IF	13.0IF	13.4IF	14.9IF	15.8IF	24	10.79
20	16.4IF	17.1IF	16.5IF	15.1IF	17.1IF	17.7IF	16.7IF	15.6IF	14.3IF	15.7IF	10.9IF	11.5IF	10.0IF	11.1IF	12.2IF	12.1IF	13.4IF	11.3IF	10.6IF	11.1IF	14.9IF	12.4IF	13.4IF	13.4IF	24	13.77
21	13.5IF	12.6IF	12.1IF	11.7IF	11.3IF	12.0IF	11.8IF	11.6IF	12.4IF	12.7IF	14.2IF	14.0IF	14.4IF	15.3IF	15.6IF	15.8IF	15.2IF	15.8IF	16.4IF	19.9IF	22.9IF	25.8IF	30.9IF	33.2IF	24	16.30
22	31.3IF	28.5IF	32.0IF	32.4IF	31.3IF	32.0IF	31.6IF	31.3IF	28.4IF	27.1IF	26.6IF	27.7IF	27.3IF	27.5IF	27.4IF	27.8IF	27.4IF	27.6IF	27.3IF	28.6IF	31.4IF	32.6IF	32.6IF	32.8IF	24	29.60
23	33.5IF	34.1IF	34.2IF	28.5IF	25.7IF	24.6IF	21.4IF	19.1IF	21.2IF	19.7IF	16.1IF	12.8IF	10.5IF	9.6IF	9.7IF	9.6IF	9.8IF	10.9IF	11.1IF	13.3IF	13.6IF	13.3IF	13.4IF	13.1IF	24	17.87
24	14.3IF	14.3IF	13.8IF	13.5IF	13.8IF	14.3IF	14.4IF	AX	BA	BA	14.3IF	13.1IF	13.1IF	12.3IF	12.1IF	12.0IF	10.9IF	10.5IF	11.0IF	10.3IF	9.8IF	10.6IF	10.7IF	11.0IF	21	12.39
25	11.5IF	12.2IF	11.6IF	10.6IF	10.7IF	10.4IF	10.5IF	10.7IF	10.4IF	11.2IF	10.2IF	10.3IF	10.5IF	10.6IF	10.4IF	9.7IF	9.6IF	9.9IF	9.6IF	9.1IF	10.1IF	10.3IF	11.1IF	11.5IF	24	10.53
26	11.3	11.5	11.3	11.3	11.4	11.5	11.5	11.4	8.8	7.0	6.3	6.0	6.0	5.5	4.8	5.8	6.1	6.5	6.6	6.5	6.7	7.4	7.0	7.1	24	8.14
27	7.7	5.9	5.6	5.4	5.5	5.4	5.4	7.7	6.3	6.2	6.1	6.4	6.8	6.9	6.1	5.8	5.5	5.5	6.4	6.3	5.5	5.7	5.2	4.9	24	6.01
28	4.8	5.2	5.3	5.1	5.0	4.8	4.3	4.4	4.3	3.9	3.7	4.1	3.9	4.1	4.1	4.2	4.2	4.1	4.0	3.9	4.2	4.5	4.8	4.9	24	4.41
29	4.6	4.2	3.9	3.7	3.5	3.5	3.6	3.8	4.0	4.2	4.2	4.4	5.5	5.1	4.7	4.9	5.7	5.5	5.5	4.6	3.7	3.4	3.4	3.5	24	4.30
30	3.9	4.0	3.9	3.8	3.9	3.8	3.7	3.5	4.0	4.3	4.3	4.1	3.9	3.9	3.7	3.5	3.5	3.5	3.6	3.6	3.8	3.8	4.0	4.0	24	3.83
31	4.1	4.1	4.0	3.9	4.0	3.9	4.2	4.1	4.0	4.3	5.3	5.7	6.6	6.6	6.6	7.2	7.9	7.7	8.1	8.2	7.9	7.1	5.9	5.8	24	5.72
NO.:	31	31	31	31	30	31	30	30	29	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	109.7	102.4	103.1	96.7	91.3	76.0	50.2	57.5	69.7	81.5	92.1	67.0	56.0	65.6	71.4	73.7	82.8	93.1	90.2	104.8	111.0	119.9	120.1	114.5		
AVG:	16.41	16.37	16.62	15.59	15.64	15.06	13.97	11.63	11.47	11.55	11.97	10.81	10.02	10.50	10.79	11.22	11.28	11.49	12.83	15.26	16.20	17.09	17.22	16.71		

MONTHLY OBSERVATIONS: 738 MONTHLY MEAN: 13.66 MONTHLY MAX: 120.1

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 38-101-0003 POC: 3
COUNTY: (101) Ward
CITY: (00000) Not in a city
SITE ADDRESS: 184th Street SW Ryder
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

CAS NUMBER:
LATITUDE: 47.9408610009
LONGITUDE: -101.571583
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 639
PROBE HEIGHT: 4

SUPPORT AGENCY: (301) Three Affiliated Tribes of Fort Berthold Reservation, ND
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	5.1	5.9	6.4	6.1	6.0	5.8	5.4	5.1	5.9	6.9	7.4	7.5	7.4	7.3	7.4	7.3	7.4	8.2	7.9	7.1	5.4	4.0	4.3	4.8	24	6.33
2	5.6	6.2	6.5	5.8	7.0	7.1	7.4	5.5	4.4	3.8	4.3	4.7	4.8	5.0	5.4	5.4	5.1	5.3	5.6	5.5	5.0	5.0	4.8	4.7	24	5.41
3	4.8	5.0	4.8	4.9	4.9	5.2	5.6	6.2	6.2	4.5	4.3	4.1	3.8	3.7	4.6	5.3	5.3	5.3	5.7	6.2	7.3	5.5	4.2	3.8	24	5.05
4	3.8	4.0	4.8	5.4	5.3	5.5	5.1	5.2	5.0	4.6	5.1	9.8	12.1	8.5	5.5	8.1	15.9	13.2	13.0	7.3	6.7	6.3	6.1	6.1	24	7.18
5	5.9IF	5.4IF	4.5IF	4.5IF	5.1IF	5.2IF	8.7IF	13.0IF	14.3IF	13.6IF	14.2IF	14.2IF	14.4IF	13.1IF	12.5IF	12.3IF	12.5IF	12.3IF	12.3IF	12.0IF	11.8IF	9.6IF	8.4IF	8.1IF	24	10.33
6	8.4rf	9.4rf	11.3rf	13.7rf	15.1rf	15.3rf	15.4rf	15.1rf	14.2rf	18.7rf	21.2rf	17.6rf	19.6rf	25.0rf	30.7rf	28.9rf	35.1rf	47.9rf	59.9rf	49.3rf	51.4rf	63.5rf	86.5rf	84.6rf	24	31.58
7	87.5rf	91.8rf	95.6rf	98.7rf	102.2rf	105.0rf	AX	AX	77.1rf	64.3rf	61.9rf	67.8rf	63.1rf	62.7rf	73.0rf	73.0rf	66.5rf	57.7rf	57.5rf	62.6rf	71.0rf	54.0rf	48.5rf	46.0rf	22	72.16
8	31.4IF	22.9IF	18.1IF	14.9IF	13.1IF	11.6IF	10.5IF	9.8IF	9.8IF	12.7IF	18.6IF	17.6IF	16.0IF	16.7IF	20.2IF	21.7IF	24.4IF	26.3IF	26.4IF	26.1IF	27.3IF	21.5IF	16.1IF	18.8IF	24	18.85
9	18.8IF	20.6IF	20.7IF	22.6IF	23.4IF	24.0IF	23.2IF	22.8IF	24.7IF	24.2IF	22.7IF	23.1IF	23.0IF	21.6IF	18.9IF	14.8IF	15.2IF	12.1IF	9.8IF	9.7IF	9.1IF	7.9IF	7.6IF	8.7IF	24	17.88
10	7.8	6.5	6.4	6.7	6.9	7.0	6.6	7.1	7.7	7.0	7.0	8.2	11.6	12.2	9.8	8.6	7.2	6.3	5.5	5.8	5.3	4.9	3.4	3.3	24	7.03
11	3.6	3.4	3.9	4.2	4.5	4.7	4.3	3.3	2.7	2.6	2.7	3.2	3.0	2.9	2.7	2.7	2.7	2.9	2.8	2.5	2.5	3.0	2.7	2.9	24	3.18
12	2.9	2.9	2.9	3.2	3.2	3.8	4.1	3.2	2.7	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.6	2.9	3.0	3.5	3.9	3.2	3.3	3.3	24	3.05
13	3.2	4.1	4.1	3.7	3.4	4.1	4.1	4.1	4.6	4.6	4.8	5.2	6.6	6.4	5.1	3.9	3.1	3.0	3.0	3.1	3.1	3.1	3.3	3.4	24	4.05
14	3.4	3.5	3.6	3.8	4.1	4.6	4.5	4.1	3.5	3.5	3.5	4.3	4.6	6.1	7.9	7.9	7.2	6.5	6.3	6.6	6.6	6.5	6.5	6.4	24	5.23
15	6.8	7.0	6.5	6.3	6.3	6.0	6.0	5.5	5.1	4.6	4.0	4.0	3.7	3.8	3.9	3.8	3.8	3.6	4.1	4.8	4.4	4.3	5.1	4.7	24	4.92
16	4.2	3.9	3.8	4.0	3.9	4.0	4.3	20.5	19.2	11.4	6.3	8.8	9.9	9.2	8.8	9.0	9.4	11.0	9.9	7.8	8.5	7.5	6.1	6.4	24	8.24
17	7.7IF	9.2IF	9.2IF	9.8IF	11.4IF	11.6IF	15.6IF	18.9IF	25.3IF	34.4IF	33.7IF	28.0IF	23.8IF	21.6IF	15.6IF	14.2IF	12.7IF	12.8IF	11.7IF	12.3IF	13.7IF	15.4IF	16.9IF	17.3IF	24	16.78
18	17.5rf	16.3rf	16.2rf	15.8rf	15.5rf	16.0rf	15.4rf	15.0rf	14.8rf	18.4rf	16.1rf	16.7rf	16.4rf	17.7rf	18.4rf	17.7rf	18.8rf	23.8rf	45.7rf	53.9rf	55.1rf	32.6rf	27.3rf	26.0rf	24	22.80
19	26.8IF	26.4IF	25.9IF	24.3IF	24.9IF	23.0IF	17.8IF	15.1IF	24.2IF	16.3IF	20.9IF	18.5IF	14.4IF	10.8IF	8.1IF	9.6IF	7.2IF	7.7IF	8.7IF	31.8IF	20.6IF	19.4IF	15.2IF	12.9IF	24	17.94
20	9.2IF	9.4IF	9.3IF	9.5IF	9.5IF	9.6IF	9.8IF	11.1IF	11.8IF	12.3IF	12.2IF	11.6IF	10.9IF	11.7IF	12.2IF	12.8IF	12.3IF	12.5IF	12.4IF	11.4IF	10.7IF	10.4IF	11.9IF	16.0IF	24	11.27
21	12.4IF	10.3IF	11.1IF	12.2IF	13.6IF	13.5IF	11.5IF	AX	AX	10.5IF	10.5IF	10.7IF	10.5IF	10.5IF	10.3IF	10.4IF	10.2IF	10.7IF	12.2IF	12.7IF	12.7IF	11.0IF	11.6IF	11.6IF	22	11.40
22	11.6IF	11.5IF	11.5IF	12.6IF	10.9IF	9.3IF	9.1IF	10.6IF	12.4IF	11.7IF	13.5IF	16.7IF	17.5IF	16.4IF	15.3IF	15.1IF	14.3IF	14.0IF	13.3IF	13.7IF	12.3IF	10.0IF	11.4IF	10.4IF	24	12.71
23	8.3	7.6	7.0	7.1	6.1	6.1	6.7	4.8	5.4	6.1	10.7	12.6	12.8	10.6	8.2	8.8	8.8	8.7	8.1	5.6	2.8	2.8	3.2	3.4	24	7.18
24	4.3	3.9	4.2	4.3	4.1	3.9	3.4	3.4	6.3	7.7	6.5	6.1	6.0	5.9	4.3	4.4	6.4	5.9	4.8	5.3	4.3	5.0	6.9	8.2	24	5.23
25	5.0IF	5.8IF	8.7IF	11.9IF	14.0IF	13.1IF	12.7IF	13.9IF	15.7IF	14.6IF	15.3IF	16.6IF	8.4IF	6.4IF	5.7IF	5.9IF	6.2IF	6.9IF	7.3IF	7.1IF	8.5IF	9.0IF	8.9IF	11.0IF	24	9.94
26	10.4IF	12.7IF	12.9IF	12.1IF	11.5IF	11.3IF	10.0IF	9.2IF	12.0IF	14.4IF	16.1IF	18.1IF	20.2IF	19.0IF	17.2IF	16.7IF	16.4IF	15.8IF	16.4IF	17.8IF	18.1IF	17.7IF	16.5IF	13.6IF	24	14.84
27	11.3IF	10.1IF	9.8IF	9.3IF	9.6IF	9.7IF	9.7IF	10.0IF	10.9IF	11.6IF	11.8IF	12.0IF	12.0IF	12.0IF	11.9IF	13.1IF	12.6IF	13.0IF	23.1IF	14.0IF	14.3IF	13.5IF	14.6IF	13.2IF	24	12.21
28	13.1rf	12.4rf	12.9rf	13.3rf	13.8rf	15.1rf	17.7rf	17.6rf	22.3rf	30.5rf	54.7rf	63.7rf	62.2rf	59.0rf	62.4rf	67.8rf	55.4rf	55.3rf	56.5rf	58.7rf	61.5rf	65.6rf	69.0rf	67.3rf	24	42.83
29	65.5rf	62.8rf	62.7rf	64.1rf	69.0rf	72.3rf	80.6rf	81.0rf	83.0rf	77.1rf	74.0rf	65.4rf	53.4rf	64.0rf	71.9rf	68.7rf	60.2rf	63.9rf	62.4rf	64.4rf	64.9rf	64.8rf	70.4rf	74.0rf	24	68.35
30	73.4rf	70.8rf	67.6rf	68.4rf	66.1rf	61.5rf	58.9rf	53.4rf	48.7rf	49.5rf	51.9rf	53.9rf	56.0rf	53.9rf	52.6rf	49.9rf	50.4rf	49.4rf	48.3rf	44.0rf	39.4rf	36.2rf	33.9rf	36.1rf	24	53.09
31	35.6IF	34.3IF	32.7IF	32.5IF	33.2IF	28.7IF	15.1IF	9.6IF	7.2IF	6.2IF	5.9IF	4.2IF	3.6IF	3.1IF	3.2IF	4.4IF	6.0IF	9.2IF	11.3IF	11.3IF	12.0IF	13.6IF	14.7IF	15.9IF	24	14.73
NO.:	31	31	31	31	31	31	30	29	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	87.5	91.8	95.6	98.7	102.2	105.0	80.6	81.0	83.0	77.1	74.0	67.8	63.1	64.0	73.0	73.0	66.5	63.9	62.4	64.4	71.0	65.6	86.5	84.6		
AVG:	16.62	16.32	16.31	16.64	17.02	16.89	13.64	13.93	16.90	16.48	17.56	17.98	17.24	17.08	17.30	17.25	16.82	17.23	18.55	18.84	18.72	17.32	17.72	17.84		

MONTHLY OBSERVATIONS: 740 MONTHLY MEAN: 17.02 MONTHLY MAX: 105.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 38-101-0003 POC: 3
COUNTY: (101) Ward
CITY: (00000) Not in a city
SITE ADDRESS: 184th Street SW Ryder
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

LATITUDE: 47.9408610009
LONGITUDE: -101.571583
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 639
PROBE HEIGHT: 4

SUPPORT AGENCY: (301) Three Affiliated Tribes of Fort Berthold Reservation, ND
MONITOR TYPE: SPM
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0782) North Dakota DEQ

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1	17.5rf	18.5rf	19.1rf	19.8rf	20.9rf	21.3rf	22.4rf	23.5rf	30.0rf	35.7rf	35.1rf	35.9rf	36.4rf	33.1rf	32.9rf	28.7rf	28.4rf	26.5rf	28.3rf	27.1rf	27.1rf	25.6rf	26.1rf	25.3rf	24	26.88
2	25.0IF	27.3IF	29.2IF	29.3IF	27.2IF	27.0IF	26.6IF	26.4IF	23.5IF	19.5IF	16.5IF	16.0IF	14.9IF	15.1IF	14.7IF	14.6IF	12.9IF	11.3IF	9.9IF	19.5IF	20.3IF	13.1IF	12.4IF	13.0IF	24	19.38
3	12.5rf	23.7rf	33.4rf	39.2rf	50.8rf	75.6rf	102.8rf	111.0rf	119.1rf	127.8rf	123.3rf	105.2rf	80.9rf	61.7rf	59.5rf	57.1rf	64.3rf	61.8rf	57.9rf	58.8rf	49.6rf	50.3rf	46.4rf	35.4rf	24	67.00
4	27.3rf	22.9rf	19.5rf	18.9rf	20.9rf	22.4rf	21.7rf	19.3rf	19.1rf	20.9rf	20.5rf	15.9rf	13.7rf	11.7rf	9.4rf	9.4rf	5.8rf	17.4rf	113.8rf	139.9rf	139.7rf	164.5rf	168.4rf	160.3rf	24	50.14
5	155.7rf	143.5rf	122.2rf	101.0rf	112.7rf	124.2rf	128.5rf	138.7rf	139.1rf	134.2rf	114.8rf	91.7rf	78.3rf	47.2rf	26.2rf	13.2rf	8.7rf	8.4rf	7.7rf	7.0rf	5.6rf	5.6rf	6.3rf	7.7rf	24	72.01
6	10.2rf	14.6rf	13.2rf	20.5rf	33.7rf	47.0rf	56.0rf	52.6rf	46.6rf	51.1rf	47.0rf	40.3rf	32.3rf	32.9rf	44.2rf	51.9rf	51.2rf	47.3rf	45.6rf	51.1rf	53.1rf	52.7rf	46.8rf	39.1rf	24	40.88
7	37.9rf	40.9rf	42.5rf	44.3rf	43.3rf	42.0rf	42.4rf	AX	40.4rf	44.0rf	47.1rf	51.9rf	53.0rf	48.3rf	48.6rf	50.0rf	47.6rf	50.0rf	51.9rf	49.2rf	51.0rf	34.0rf	13.1rf	18.8rf	23	43.14
8	34.3rf	48.1rf	51.2rf	50.0rf	49.2rf	39.4rf	28.5rf	20.7rf	18.8rf	20.2rf	16.0rf	13.5rf	12.1rf	14.9rf	13.5rf	14.0rf	13.2rf	13.6rf	45.2rf	22.3rf	14.4rf	14.3rf	15.4rf	15.5rf	24	24.93
9	14.6IF	15.2IF	15.9IF	14.7IF	14.6IF	14.5IF	14.4IF	13.5IF	12.3IF	11.5IF	10.8IF	12.5IF	13.8IF	14.0IF	14.3IF	14.2IF	14.7IF	15.7IF	16.8IF	25.2IF	16.7IF	18.6IF	15.2IF	15.2IF	24	14.95
10	15.7IF	15.7IF	14.7IF	14.7IF	15.1IF	15.3IF	15.2IF	14.3IF	13.4IF	13.6IF	14.2IF	14.6IF	14.8IF	15.8IF	15.6IF	15.9IF	17.2IF	13.6IF	14.6IF	18.0IF	15.2IF	15.2IF	14.7IF	14.7IF	24	15.08
11	15.8IF	15.5IF	15.4IF	15.6IF	16.2IF	15.8IF	15.7IF	15.8IF	13.0IF	9.1IF	9.4IF	9.9IF	8.4IF	9.2IF	9.4IF	8.4IF	6.1IF	5.0IF	5.0IF	5.6IF	5.9IF	5.7IF	5.6IF	5.8IF	24	10.30
12	5.9	6.0	5.7	4.6	4.4	4.8	4.5	4.9	4.7	5.1	5.5	6.0	6.7	7.2	7.6	7.5	7.5	7.2	7.1	8.0	7.5	6.7	6.2	6.1	24	6.14
13	5.6	5.4	5.0	4.5	4.2	4.1	4.3	4.3	4.9	6.1	6.8	7.4	7.8	7.4	7.2	7.3	7.3	8.2	7.5	7.7	11.2	8.7	8.3	8.9	24	6.67
14	8.7IF	4.5IF	2.8IF	2.7IF	2.9IF	3.5IF	4.7IF	7.7IF	6.9IF	6.5IF	7.7IF	16.7IF	62.2IF	55.2IF	17.6IF	12.1IF	13.2IF	14.6IF	11.6IF	12.2IF	11.6IF	10.3IF	10.3IF	10.7IF	24	13.20
15	9.4rf	10.6rf	12.7rf	15.3rf	17.2rf	21.1rf	21.4rf	20.3rf	24.8rf	38.7rf	53.2rf	78.4rf	121.6rf	156.8rf	148.6rf	128.7rf	105.7rf	85.7rf	83.7rf	90.0rf	89.1rf	89.3rf	89.1rf	83.3rf	24	66.45
16	76.5rf	73.4rf	66.8rf	61.7rf	59.6rf	51.8rf	25.4rf	16.4rf	12.7rf	6.1rf	4.1rf	8.2rf	13.7rf	13.0rf	14.3rf	14.8rf	14.9rf	14.8rf	12.8rf	18.5rf	11.1rf	7.3rf	5.5rf	5.8rf	24	25.38
17	6.4IF	6.4IF	6.1IF	5.6IF	5.7IF	6.1IF	6.8IF	7.8IF	12.4IF	22.8IF	26.0IF	26.7IF	23.7IF	21.9IF	18.9IF	18.5IF	15.7IF	16.6IF	16.8IF	16.9IF	17.9IF	17.5IF	16.1IF	14.0IF	24	14.72
18	14.9IF	16.5IF	18.0IF	18.8IF	20.6IF	22.1IF	AZ	AX	18.2IF	11.8IF	9.3IF	8.0IF	6.9IF	6.1IF	6.6IF	9.7IF	18.2IF	13.1IF	12.1IF	15.2IF	13.4IF	10.5IF	9.4IF	8.0IF	22	13.06
19	7.7rf	7.8rf	7.6rf	7.3rf	6.9rf	7.1rf	7.4rf	7.7rf	6.9rf	7.9rf	10.9rf	14.8rf	13.2rf	5.2rf	5.3rf	10.4rf	37.3rf	59.4rf	64.7rf	55.5rf	50.3rf	46.3rf	39.4rf	39.6rf	24	21.94
20	38.1rf	39.1rf	40.5rf	37.5rf	31.4rf	30.0rf	24.4rf	20.8rf	16.0rf	14.4rf	19.0rf	20.1rf	22.5rf	18.8rf	6.3rf	5.7rf	10.6rf	16.4rf	11.5rf	10.3rf	13.4rf	18.8rf	15.7rf	13.6rf	24	20.62
21	13.2IF	11.8IF	10.3IF	10.7IF	11.6IF	13.1IF	14.8IF	15.5IF	21.9IF	24.4IF	19.8IF	16.7IF	17.4IF	17.3IF	16.7IF	19.3IF	22.8IF	18.1IF	16.9IF	19.3IF	20.9IF	21.9IF	27.6IF	30.0IF	24	18.00
22	34.3rf	40.1rf	36.8rf	37.9rf	36.4rf	37.2rf	31.0rf	26.7rf	23.3rf	22.4rf	25.2rf	28.1rf	30.4rf	28.8rf	21.9rf	15.5rf	14.3rf	14.3rf	12.4rf	11.6rf	11.4rf	10.2rf	4.6rf	3.4rf	24	23.26
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	22	22	22	22	22	22	21	20	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22		
MAX:	155.7	143.5	122.2	101.0	112.7	124.2	128.5	138.7	139.1	134.2	123.3	105.2	121.6	156.8	148.6	128.7	105.7	85.7	113.8	139.9	139.7	164.5	168.4	160.3		
AVG:	26.69	27.61	26.75	26.12	27.52	29.34	29.47	28.40	28.55	29.72	29.19	29.02	31.12	29.16	25.42	23.95	24.44	24.50	29.72	31.31	29.84	29.41	27.39	26.10		

MONTHLY OBSERVATIONS: 525 MONTHLY MEAN: 27.94 MONTHLY MAX: 168.4

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

QUALIFIER CODES:

Qualifier Code	Qualifier Description	Qualifier Type
AN	Machine Malfunction.	NULL
AQ	Collection Error.	NULL
AT	Calibration.	NULL
AV	Power Failure.	NULL
AX	Precision Check.	NULL
AZ	Q C Audit.	NULL
BA	Maintenance/Routine Repairs.	NULL
IF	Fire - Canadian.	INFORM
rf	Fire - Canadian.	REQEXC

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional concurrence are shown in lower case.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

User ID: UKX

RAW DATA REPORT

Report Request ID: 2244086 Report Code: AMP350 Dec. 9, 2024

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	38	013	0004	81102							
	38	015	0003	81102							
	38	025	0004	81102							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA	81102		

AGENCY SELECTIONS

North Dakota DEQ

SELECTED OPTIONS

Option Type	Option Value
INCLUDE NULLS	YES
DAILY STATISTICS	MEAN
UNITS	STANDARD
RAW DATA EVENTS	INCLUDE EVENTS
MERGE PDF FILES	YES
AGENCY ROLE	PQAO

SORT ORDER

Order	Column
1	STATE_CODE
2	COUNTY_CODE
3	SITE_ID
4	PARAMETER_CODE
5	POC

DATE CRITERIA

Start Date	End Date
2023 05 17	2023 05 17

APPLICABLE STANDARDS

Standard Description
PM10 24-hour 2006

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(81102) PM10 Total 0-10um STP

CAS NUMBER:

SITE ID: 38-013-0004 POC: 3
COUNTY: (013) Burke
CITY: (00000) Not in a city
SITE ADDRESS: 8315 HIGHWAY 8, KENMARE
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

LATITUDE: 48.6419300009
LONGITUDE: -102.4018
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 696
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (122) INSTRUMENT MET ONE 4 MODELS BETA A
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (25 C)
MIN DETECTABLE: 4

DAY	HOUR 0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
8																									0	
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11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16																									0	
17	29rf	14rf	17rf	19rf	14rf	13rf	31rf	503rf	502rf	501rf	428rf	322rf	249rf	165rf	158rf	126rf	96rf	67rf	72rf	78rf	74rf	51rf	52rf	59rf	24	151.7
18																									0	
19																									0	
20																									0	
21																									0	
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27																									0	
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29																									0	
30																									0	
31																									0	
NO.:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
MAX:	29.	14.	17.	19.	14.	13.	31.	503.	502.	501.	428.	322.	249.	165.	158.	126.	96.	67.	72.	78.	74.	51.	52.	59.		
AVG:	29.0	14.0	17.0	19.0	14.0	13.0	31.0	503.0	502.0	501.0	428.0	322.0	249.0	165.0	158.0	126.0	96.0	67.0	72.0	78.0	74.0	51.0	52.0	59.0		

MONTHLY OBSERVATIONS: 24 MONTHLY MEAN: 151.7 MONTHLY MAX: 503.

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(81102) PM10 Total 0-10um STP

CAS NUMBER:

SITE ID: 38-015-0003 POC: 3
COUNTY: (015) Burleigh
CITY: (07200) Bismarck
SITE ADDRESS: 1810 N 16TH STREET
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (1010) BISMARCK, ND
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

LATITUDE: 46.8254250009
LONGITUDE: -100.76821
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 580
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (239) Teledyne API T640X at 16.67 LPM Br
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (25 C)
MIN DETECTABLE: .1

DAY	HOUR 0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
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11																									0	
12																									0	
13																									0	
14																									0	
15																									0	
16																									0	
17	17.5rf	16.6rf	18.2rf	18.6rf	17.5rf	18.2rf	20.0rf	47.5rf	36.1rf	20.2rf	20.0rf	31.1rf	339.0rf	1491.rf	1342.rf	820.3rf	550.9rf	760.5rf	617.5rf	221.2rf	205.6rf	204.5rf	221.0rf	228.3rf	24	303.50
18																									0	
19																									0	
20																									0	
21																									0	
22																									0	
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26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
MAX:	17.5	16.6	18.2	18.6	17.5	18.2	20.0	47.5	36.1	20.2	20.0	31.1	339.0	1491.	1342.	820.3	550.9	760.5	617.5	221.2	205.6	204.5	221.0	228.3		
AVG:	17.50	16.60	18.20	18.60	17.50	18.20	20.00	47.50	36.10	20.20	20.00	31.10	339.00	1491.5	1342.2	820.30	550.90	760.50	617.50	221.20	205.60	204.50	221.00	228.30		

MONTHLY OBSERVATIONS: 24 MONTHLY MEAN: 303.50 MONTHLY MAX: 1491.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(81102) PM10 Total 0-10um STP

CAS NUMBER:

SITE ID: 38-025-0004 POC: 3
COUNTY: (025) Dunn
CITY: (20940) Dunn Center
SITE ADDRESS: 5th Street South West Dunn Center
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (38) North Dakota
AQCR: (172) NORTH DAKOTA
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: AGRICULTURAL
LOCATION SETTING: RURAL

LATITUDE: 47.3424230009
LONGITUDE: -102.645864
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 683.66
PROBE HEIGHT: 4

SUPPORT AGENCY: (0782) North Dakota DEQ
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (122) INSTRUMENT MET ONE 4 MODELS BETA A
PQAO: (0782) North Dakota DEQ

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (25 C)
MIN DETECTABLE: 4

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MEAN
1																									0	
2																									0	
3																									0	
4																									0	
5																									0	
6																									0	
7																									0	
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12																									0	
13																									0	
14																									0	
15																									0	
16																									0	
17	16rf	15rf	8rf	17rf	12rf	13rf	19rf	27rf	378rf	468rf	387rf	505rf	507rf	425rf	247rf	111rf	143rf	111rf	88rf	142rf	160rf	154rf	148rf	146rf	24	177.0
18																									0	
19																									0	
20																									0	
21																									0	
22																									0	
23																									0	
24																									0	
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26																									0	
27																									0	
28																									0	
29																									0	
30																									0	
31																									0	
NO.:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
MAX:	16.	15.	8.	17.	12.	13.	19.	27.	378.	468.	387.	505.	507.	425.	247.	111.	143.	111.	88.	142.	160.	154.	148.	146.		
AVG:	16.0	15.0	8.0	17.0	12.0	13.0	19.0	27.0	378.0	468.0	387.0	505.0	507.0	425.0	247.0	111.0	143.0	111.0	88.0	142.0	160.0	154.0	148.0	146.0		

MONTHLY OBSERVATIONS: 24 MONTHLY MEAN: 177.0 MONTHLY MAX: 507.

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

QUALIFIER CODES:

Qualifier Code	Qualifier Description	Qualifier Type
rf	Fire - Canadian.	REQEXC

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional concurrence are shown in lower case.

Appendix G Public Comments

This report is subject to 30 days of public comment before finalization. This appendix will be populated with applicable public comments along with comment responses before finalization.