2023 Q1 (January-March)
Air Quality Monitoring Results

FORT AIR PARTNERSHIP
We Monitor the Air You Breathe

Air Quality Health Index (AQHI) Ratings
The AQHI is calculated by the Government of Alberta using data collected at FAP air monitoring stations. The AQHI is a measure of air quality as it pertains to human health.

AQHI levels are low, moderate, high or very high. Risk to health increases as the index level rises.

Visit our Alberta Quality Health Index more information. Seven of FAP's 10 continuous air monitoring stations monitor substances whereby the AQHI can be calculated.

FAP – 2023 Q1		Risk Level (% of time in each)			
Station Name	**Hours Monitored**	**Low**	**Moderate**	**High**	**Very High**
Bruderheim	2105	83.85%	15.30%	0.71%	0.14%
Elk Island	2118	88.53%	10.34%	1.13%	0.00%
Fort	2052	55.36%	42.79%	1.85%	0.00%
Gibbons	2104	77.95%	21.39%	0.67%	0.00%
Lamont	2083	88.43%	10.99%	0.58%	0.00%
Redwater	2073	85.34%	14.47%	0.19%	0.00%
Newbrook*	181	71.82%	28.18%	0.00%	0.00%
Total hours	**12716**	**10157**	**2449**	**107**	**3**

***The Keith Purves Portable station was installed near Newbrook and began reporting the AQHI in late March.

Hours with a High or Very High Risk AQHI Rating

FAP Continuous Air Quality Monitoring Station																
Event Dates	**Bruderheim**		**Elk Island**		**Fort Sask.**		**Gibbons**		**Lamont**		**Redwater**		**Newbrook**		**Total Hours**	**Attributed Cause**
	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk		
Jan 1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	**1**	Wintertime inversion
Jan 4	-	-	1	-	-	-	-	-	-	-	-	-	-	-	**1**	Wintertime inversion
Jan 9 10,11	15	3	21	0	23	-	5	-	12	-	-	-	-	-	**79**	Wintertime inversion
Jan 15	-	-	-	-	-	-	1	-	-	-	-	-	-	-	**1**	Wintertime inversion
Mar19 ,20,21	-	-	2	0	14	-	8	-	-	-	4	-	-	-	**28**	Wintertime inversion
Total Hours	15	3	24	0	38	0	14	0	12	0	4	0	0	0	**110**	

Summary of Exceedances

There were 59 exceedances of the 1-hr, 30 exceedances of the 24-hour and six (6) exceedances of the three-day objective in the first three months of 2023.

One Hour Exceedances			
Parameter	**Exceedances**	**Date**	**Attributed Cause**
$PM_{2.5}$	1	January 4	Wintertime inversion
Ethylene	1	January 9	Industry coupled with wintertime inversion
$PM_{2.5}$	47	January 9-11	Wintertime inversion
$PM_{2.5}$	1	January 15	Wintertime inversion
Ozone	9	March 20	Regional met conditions

24-Hour Exceedances			
Parameter	**Exceedances**	**Date**	**Attributed Cause**
$PM_{2.5}$	1	January 4	Wintertime inversion
$PM_{2.5}$	20	January 8-11	Wintertime inversion
$PM_{2.5}$	4	January 14-15	Wintertime inversion
$PM_{2.5}$	5	March 20	Wintertime inversion

3-Day Exceedances			
Parameter	**Exceedances**	**Date**	**Attributed Cause**
Ethylene	2	January 7-9	Industry coupled with wintertime inversion
Ethylene	2	January 8-10	Industry coupled with wintertime inversion
Ethylene	2	January 9-11	Industry coupled with wintertime inversion
Ethylene	1	January 10-12	Industry coupled with wintertime inversion