2019 Q1 (January-March)
Air 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 describes the level of health risk associated with AQHI levels. The levels are low, moderate, high or very high. The higher the index, the greater the health risk. Go to our website's AQHI page for more information. Seven of FAP's nine continuous air monitoring stations monitor substances whereby the AQHI can be calculated.

Q1 - 2019		Risk Level (% of time in each)			
Station Name	**Hours Monitored**	**Low**	**Moderate**	**High**	**Very High**
Bruderheim	2,092	86.28%	13.00%	0.78%	-
Elk Island	2,034	87.61%	11.21%	1.18%	-
Fort Saskatchewan	1,999	73.64%	25.96%	0.40%	-
Gibbons	1,991	81.32%	18.18%	0.50%	-
Lamont County	2,131	89.11%	10.79%	0.09%	-
Redwater	2,016	84.33%	15.67%	-	-
Portable at Bon Accord*	1,368	85.93%	13.56%	0.51%	-
Total hours	**12,263**	**10,277**	**1,927**	**66**	**0**

**The portable station ended operations in Bon Accord on February 27 in preparation for a move to the Village of Chipman.*

Hours with a High or Very High Risk AQHI Rating

This table shows the number of hours of high or very high AQHI rating during Q1 of 2019, when they occurred and the likely cause.

Fort Air Partnership Continuous Air Quality Monitoring Station																
Event Dates	**Bruderheim**		**Elk Island**		**Fort Sask.**		**Gibbons**		**Lamont County**		**Redwater**		**Bon Accord**		**Total Hours**	**Event 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 13,14	10	-	16	-	-	-	-	-	-	-	-	-	-	-	**26**	Wintertime Inversion
Feb 9,10	-	-	1	-	-	-	2	-	2	-	-	-	-	-	**5**	Multiple sources plus inversion conditions
Feb 14		-	-	-	-	-	8	-	-	-	-	-	**7**	-	**15**	
Feb 27			3		-	-	-	-	-	-	-	-	-	-	**3**	Local influence very near station
Mar 20	5	-	4	-	-	-	-	-	-	-	-	-	-	-	**9**	Wintertime Inversion
Mar 21	-	-	-	-	6	-	-	-	-	-	-	-	-	-	**6**	
Mar 22	-	-	-	-	1	-	-	-	-	-	-	-	-	-	**1**	
Mar 23	-	-	-	-	1	-	-	-	-	-	-	-	-	-	**1**	
Total Hours	**15**	**-**	**24**	**-**	**8**	**-**	**10**	**-**	**2**	**-**	**-**	**-**	**7**	**-**	**66**	

Summary of Exceedances

Air quality measurements are compared hourly to the Alberta Ambient Air Quality Objectives (AAAQO). Any exceedance of an AAAQO is reported to the Alberta Government and the cause of the exceedance investigated.

One Hour Exceedances			
Parameter	**Exceedances**	**Date**	**Attributed Cause**
Respirable Particulate $PM_{2.5}$	2	February 9	Wintertime inversion
	1	February 10	Multiple sources plus inversion conditions
	1	February 13	
	12	February 14	
	2	March 21	Wintertime inversion
	1	March 23	
Total	**19**		

24 Hour Exceedances			
Parameter	**Exceedances**	**Date**	**Attributed Cause**
Respirable Particulate $PM_{2.5}$	7	January 13	Wintertime inversion
	1	February 13	Multiple sources plus inversion conditions
	3	February 14	
	4	March 21	Wintertime inversion
	4	March 22	
	1	March 23	
Total	**20**		