

# Air Monitoring Summary Tables

The tables below summarize preliminary air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

**Project Name:** Morris Industrial Fire Site  
**Date/Time:** 05/16/2022 05:55 to 05/20/2022 16:42

Northeast Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level <sup>1</sup>	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153912)	PM <sub>2.5</sub> (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>	Yes (see comment 2)	0.000 to 0.056	0.012
	PM <sub>10</sub> (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>	Yes (see comment 2)	0.000 to 0.056	0.013
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H <sub>2</sub> S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Northwest Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level <sup>1</sup>	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153917)	PM <sub>2.5</sub> (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>	Yes (see comment 2)	0.000 to 0.060	0.019
	PM <sub>10</sub> (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>	Yes (see comment 2)	0.000 to 0.061	0.021
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H <sub>2</sub> S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	Yes	0.0 to 0.4	0.0

Southeast Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level <sup>1</sup>	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153910)	PM <sub>2.5</sub> (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>	Yes (see comment 2)	0.002 to 0.063	0.013
	PM <sub>10</sub> (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>	Yes (see comment 2)	0.003 to 0.063	0.014
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 3.0	0.1
	H <sub>2</sub> S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Notes: See last page.

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Southwest Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level <sup>1</sup>	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533154003)	PM <sub>2.5</sub> (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>	Yes (see comment 2)	0.001 to 0.060	0.013
	PM <sub>10</sub> (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>	Yes (see comment 2)	0.001 to 0.060	0.014
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 1.4	0.0
	H <sub>2</sub> S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	Yes (see comment 3)	0.0 to 0.8	0.1

Comments
Air monitoring measurements have been averaged over a 1-hour time period and summarized above.
Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
1 - Morris Industrial Fire Public Health Screening Levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).
2 - PM <sub>2.5</sub> and PM <sub>10</sub> 1-hour TWAs were greater than the Action Level at multiple stations throughout the week. Visible dust originating from gravel stockpiles located directly south of the Northeast Station was observed and noted in the field log book during these periods. Upwind/off-site elevated levels PM <sub>2.5</sub> and PM <sub>10</sub> impacted downwind air monitoring stations.
3 - HF measurements were between 0.7 ppm and 0.8 ppm from 7:07 to 14:04 on 5/18/2022 at the Southwest Station. During this period, site activities included sorting alkaline batteries along the east/northeast side of the interior of the building. The air monitoring instrument within the building measuring HF, a Single Point Monitor (SPM) Flex, recorded a maximum HF measurement of 0.07 ppm during this period. According to the manufacturer, the operating range of the AreaRAE Pro is 0% to 95% relative humidity (non-condensing). Relative humidity was greater than 95% for the majority of this period.
<b>Notes:</b> °F - Degrees Fahrenheit CO - Carbon Monoxide ERRS - Emergency and Rapid Response Services H <sub>2</sub> S - Hydrogen Sulfide HF - Hydrogen Fluoride LEL - Lower Explosive Limit mg/m <sup>3</sup> - Milligrams per cubic meter PM <sub>2.5</sub> - Particles that are 2.5 micrometers and smaller PM <sub>10</sub> - Particles that are 10 micrometers and smaller ppm - Parts per million S/N - Serial number VOC - Volatile organic compounds

## Air Quality Index Categories and Recommendations

Air Quality Index Category	24-Hour Avg. PM2.5 Concentrations (ug/m3)	24-Hour Avg. PM10 Concentrations (ug/m3)	Recommended Actions
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: <b>Consider reducing</b> prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: <b>Reduce</b> prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: <b>Avoid</b> prolonged or heavy exertion.  Everyone else should <b>reduce</b> prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: <b>Avoid all physical activity outdoors.</b>  Everyone else should <b>avoid</b> prolonged or heavy exertion.
Hazardous	250.5 to 500.4	<b>425 to 605</b>	<b>Everyone should avoid all physical activity outdoors.</b>  People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour PM<sub>2.5</sub> Concentration in 2020: 19.9 ug/m3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated PM<sub>2.5</sub> and PM<sub>10</sub> concentrations may represent other sources.

You can access daily average PM2.5 data for fixed monitoring locations here:

<http://www.epa.state.il.us/air/pm25/index.html>. Yesterday's average is available and it looks like you can access data for the trailing 12 months.

You can also get there by visiting the landing page for the Air Quality Index, Ozone, and PM Data:

<https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx>.