

BEFORE - particle counts per cubic meter and analysis				
Location	≥0.5 µm	≥5.0 µm	Time	IAQ Level
Living Room	10489045	56890	1m, 0s	8.5
Back Right Room (closest to Street)	53912014	2046289	1m, 0s	10
Kids Room Right of Stairs	30943462	723674	1m, 0s	9.5
Room to left farthest from Stairs	22132155	17809	1m, 0s	9.5
Outdoors	11289399	491	1m, 0s	8.5

AFTER - particle counts per cubic meter and analysis						
Location	≥0.5 µm	Reduction	≥5.0 µm	Reduction	Time	IAQ Level
Living Room	6269611	67%	13780	313%	1m, 0s	8
Back Right Room (closest to Street)	4921201	996%	8127	25079%	1m, 0s	7.5
Kids Room Right of Stairs	1992932	1453%	13074	5435%	1m, 0s	8
Room to left farthest from Stairs	1684098	1214%	15901	2653%	1m, 0s	8
Outdoors	27742402	-59%	49116	37%	1m, 0s	8.5

Guide to Levels

Each room is given an air quality level that combines coarse and fine particles. Air quality as reported by IAQ Analytics refers only to coarse and to some extent fine particles, not to other air quality parameters. IAQ Analytics air quality levels are interpreted as follows:

IAQ Level	Meaning	Description	Interpretation
Level 11.5	Fail 11.5	Ultra-High Range Fail	Level 11.5 indicates an environment which requires much improvement, including air quality improvement. Further investigation into source contamination is required.
Level 11	Fail 11	Extremely High Range Fail	Level 11 indicates an environment which requires much improvement, including air quality improvement. Further investigation into source contamination is required.
Level 10.5	Fail 10.5	Very High Range Fail	Level 10.5 indicates an environment which requires much improvement, including air quality improvement. Further investigation into source contamination is required.
Level 10	Fail 10	High Range Fail	Level 10 air quality requires improvement. Further investigation into source contamination is required.
Level 9.5	Fail 9.5	Fail	Level 9.5 air quality requires improvement. Further investigation into source contamination is required.
Level 9	Alert 9	Alert. Conditional Status, Upper Range.	Level 9 counts indicate elevated levels of contaminant particles, which may include any of:

			<p>dust, liquid microdroplets, pollens, possible indoor amplification of moulds, etc., though also may not be limited to these. Further investigation of potential contamination sources is required. The results reported may be affected by the degree of ventilation to outdoors, or by recent housekeeping, human activity, or work activity. Conditional means that contaminant levels can be interpreted based also on other indicators at the site, in addition to particle counts.</p>
Level 8.5	Conditional 8.5	Conditional Lower Range.	<p>Level 8.5, these counts may indicate elevated levels of contaminant particles, which may include any of: dust, liquid microdroplets, pollens, possible indoor amplification, etc., though also may not be limited to these. Further investigation of potential contamination sources may be required. Level 8.5 may be encountered in enclosed spaces. The results reported may be affected by the degree of ventilation to outdoors, or by recent housekeeping, human activity, or work activity. Conditional means that contaminant levels can be interpreted based also on other indicators at the site, in addition to particle counts.</p>
Level 8	Pass 8	Pass	<p>Level 8, particle counts are within the acceptable range.</p>
Level 7.5	Still 7.5	Low counts.	<p>Level 7.5, particles counts are in the lower range. Mechanically generated or windblown particles are</p>

at low levels, as these settle out in relatively still environments.

In cases of remediation involving before-and-after samples, a report gives the % reduction after, as well as assigning levels. Levels are based on Published Standards, referenced in the back of the report, and from actual remediation data. Note: IAQ Analytics reports are intended only for "In Operation" (In Use) environments.

Temperature and humidity

CSA Standard CAN/CSA Z412-00 (R2011) - "Office Ergonomics" gives acceptable ranges of temperature and relative humidity for offices in Canada. These values are the same as recommended by the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standard 55 - 2010 "Thermal Environmental Conditions for Human Occupancy". The recommended temperature ranges have been found to meet the needs of at least 80% of individuals. Some people may feel uncomfortable even if these values are met. Additional measures may be required.

Temperature / Humidity Ranges for Comfort

*Source: Adapted from **ASHRAE 55-2010***

The USEPA recommends that humidity levels be kept between 30-60% to decrease fungal growth. IAQ Analytics recommends optimal humidity to be 45-55%. High levels of humidity can contribute to fungal growth, whilst low humidity can tend to contribute to dry skin conditions.

Conditions	Relative Humidity	Acceptable Operating Temperatures	
		°C	°F
Summer (light clothing)	If 30%, then	24.5 - 28	76 - 82
	If 60%, then	23 - 25.5	74 - 78
Winter (warm clothing)	If 30%, then	20.5 - 25.5	69 - 78
	If 60%, then	20 - 24	68 - 75

IAQ Analytics recommends that, if your temperature or humidity readings fall outside of the levels recommended, you contact your professional to discuss the appropriate measures to correct this issue/s.

Temperature and Humidity Report

Location	°C	°F	Humidity %	°C (A)	°F (A)	Humidity % (A)
Living Room	8	47	34.30%	10	49	84.00%
Back Right Room (closest to Street)	7	45	37.00%	11	51	88.00%
Kids Room Right of Stairs	7	45	38.10%	12	53	84.70%
Room to left farthest from Stairs	7	44	38.50%	12	54	83.20%
Outdoors	10	51	23.40%	12	54	66.80%

Area	Data			
Living Room	1 μm : 4797	10 μm : 86	2.5 μm : 702	0.3 μm : 118217
		0.5 μm : 29684	5 μm : 161	

After treatment:

Area	Data			
Living Room	1 μm : 19118	10 μm : 11	2.5 μm : 200	0.3 μm : 87222
		0.5 μm : 17743	5 μm : 39	

Room: Back Right Room (closest to Street) (indoor)

Samples: 1, sample duration: 1m, 0s.

Before treatment:

Area	Data		
Back Right Room (closest to Street)	1 μm : 47070	10 μm : 3553	2.5 μm : 16044
	0.3 μm : 476345	0.5 μm : 152571	5 μm : 5791

After treatment:

Area	Data		
Back Right Room (closest to Street)	1 μm : 1390	10 μm : 13	2.5 μm : 133
	0.3 μm : 66148	0.5 μm : 1527	5 μm : 23

Room: Kids Room Right of Stairs (indoor)

Samples: 1, sample duration: 1m, 0s.

Before treatment:

Area	Data		
Kids Room Right of Stairs	1 μm : 24884	10 μm : 1185	2.5 μm : 6801
	0.3 μm : 223530	0.5 μm : 87570	5 μm : 2048

After treatment:

Area	Data			
Kids Room Right of Stairs	1 μm : 891	10 μm : 25	2.5 μm : 129	0.3 μm : 24999
		0.5 μm : 5640	5 μm : 37	

Room: Room to left farthest from Stairs (indoor)

Samples: 1, sample duration: 1m, 0s.

Before treatment:

Area	Data		
Room to left farthest from Stairs	1 μm : 16701	10 μm : 669	2.5 μm : 4239
	0.3 μm : 166212	0.5 μm : 62634	5 μm : 1239

After treatment:

Area	Data			
Room to left farthest from Stairs	1 μm : 695	10 μm : 24	2.5 μm : 128	0.3 μm : 19626
		0.5 μm : 4766	5 μm : 5	

Room: Outdoors (outdoor)

Samples: 1, sample duration: 1m, 0s.

Before treatment:

Area	Data			
Outdoors	1 μm : 4505	10 μm : 117	2.5 μm : 668	0.3 μm : 129071
		0.5 μm : 31949	5 μm : 191	

After treatment:

Area	Data			
Outdoors	1 μm : 9882	10 μm : 56	2.5 μm : 95	0.3 μm : 288941
		0.5 μm : 78511	5 μm : 139	