



Issued
June
2021

Auckland Air Quality Report

Research and
Evaluation Unit

RIMU



Data tables and graphics

Introduction:

This is the second edition of the 2021 air quality monthly report including data tables and graphics. This report has three sections: Sections A and B present a general overview of air quality status in the Auckland region based on the data collected from the active monitoring sites. Section C focuses on one monitoring site – for this edition, the spotlight is on Customs Street.

Read the [frequently asked questions](#) about the air quality monitoring in the Auckland region.

For more information or questions, please send inquiries to environmentaldata@aucklandcouncil.govt.nz

Section A – Data tables

Table 1. Summary information about Auckland’s air quality monitoring programme – January to May 2021

Number of active monitoring sites	10
Location of monitoring sites	Queen St, Customs St, Khyber Pass Rd, Penrose, Henderson, Takapuna, Glen Eden, Pakuranga, Papatoetoe, and Patumahoe
Standard contaminants monitored	PM ₁₀ (fine particles < 10 microns in diameter), carbon monoxide (CO), nitrogen dioxide (NO ₂), ozone (O ₃), and sulphur dioxide (SO ₂)
Other key contaminants monitored	PM _{2.5} (fine particles < 2.5 microns in diameter), and black carbon
Number of exceedances in 2021 (National Environmental Standards for Air Quality) NES	0
Number of exceedances (Auckland Ambient Air Quality Targets)	0
Maximum PM ₁₀ 24-hour mean (Jan - May)	29.5 µg m ⁻³ (59% of NES) ↔ recorded at Takapuna on 27 Jan 2021
Maximum PM _{2.5} 24-hour mean (Jan - May)	23.1 µg m ⁻³ (92% of Auckland target) ↔ recorded at Glen Eden on 28 May 2021
Maximum NO ₂ 1-hour mean (Jan - May)	200 µg m ⁻³ (100% of NES) ↔ recorded at Customs St on 15 Mar 2021
Maximum SO ₂ 1-hour mean (Jan - May)	19 µg m ⁻³ (5% of NES) ↔ recorded at Penrose on 24 May 2021
Maximum O ₃ 1-hour mean (Jan - May)	68 µg m ⁻³ (45% of NES) ↔ recorded at Patumahoe on 21 Feb 2021
Maximum CO running 8-hour mean (Jan - May)	Approximately 1 mg m ⁻³ (10% of NES) ↔ recorded at Khyber Pass Rd in Jan 2021

Table 2. General trends of the key contaminants monitored for the last 5, 17 and 29 months.

Notes

PM₁₀ is monitored at Glen Eden, Henderson, Khyber Pass Rd, Pakuranga, Papatoetoe, Patumahoe, Penrose, Takapuna, and Queen St.

PM_{2.5} is monitored at Customs St, Glen Eden, Pakuranga, Patumahoe, Penrose, Takapuna, and Queen St.




NO₂ is monitored at Customs St, Glen Eden, Henderson, Khyber Pass Rd, Pakuranga, Patumahoe, Penrose, Takapuna, and Queen St.















































































































Black carbon is monitored at Customs St, and Henderson.

CO is monitored at Khyber Pass Rd.

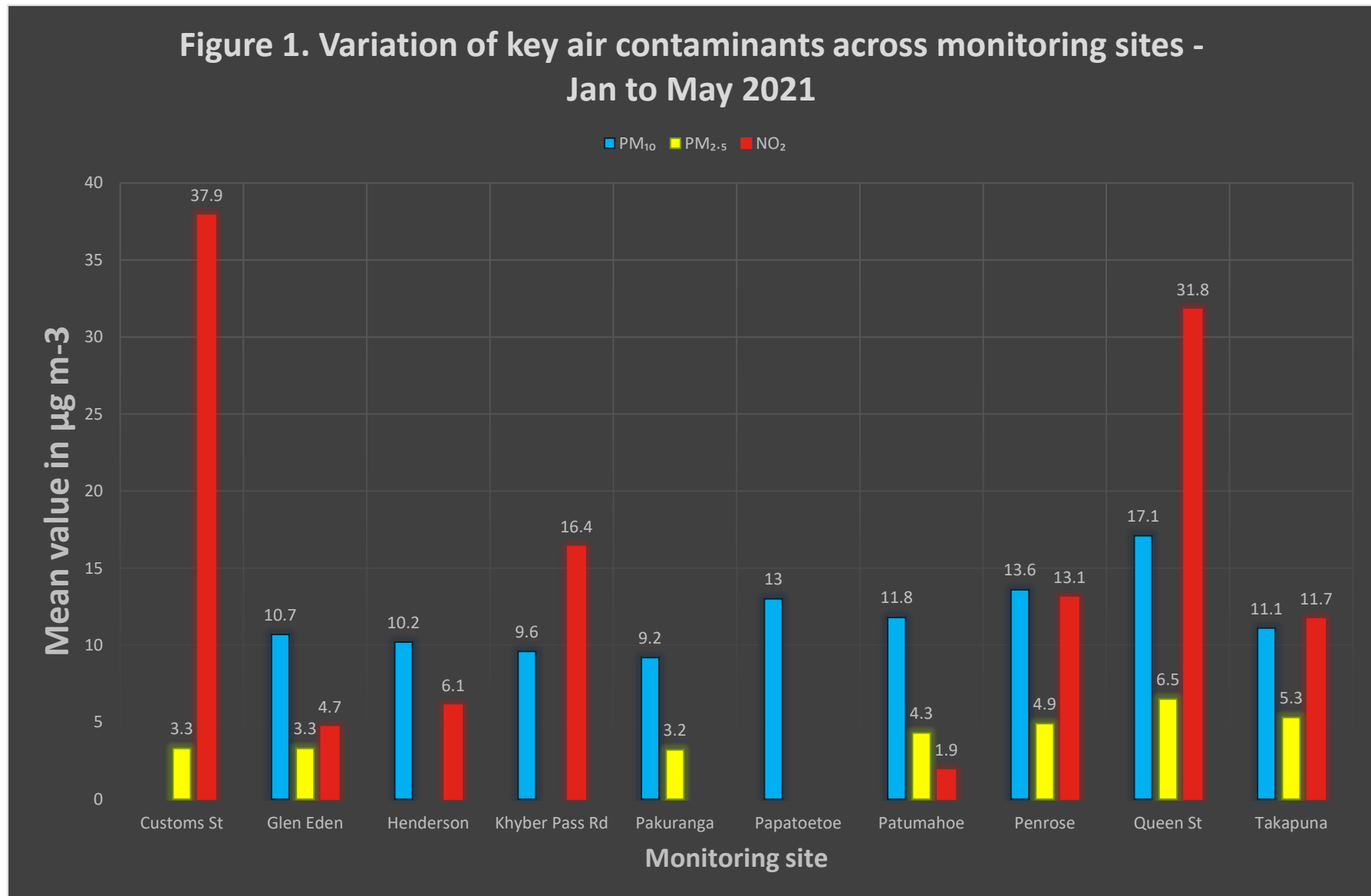
Ozone is monitored at Patumahoe.

SO₂ is monitored at Customs St, and Penrose.

 indicates an upward trend  indicates a downward trend.  indicates no trend. n/a implies not applicable.

Site	PM ₁₀			PM _{2.5}			NO ₂			Black carbon			Ozone			CO			SO ₂			Air Quality Index(AQI)			Site			
	Last 5 months	Last 17 months	Last 29 months	Last 5 months	Last 17 months	Last 29 months	Last 5 months	Last 17 months	Last 29 months	Last 5 months	Last 17 months	Last 29 months	Last 5 months	Last 17 months	Last 29 months	Last 5 months	Last 17 months	Last 29 months	Last 5 months	Last 17 months	Last 29 months	Last 5 months	Last 17 months	Last 29 months				
Customs Street	n/a	n/a	n/a			n/a			n/a			n/a	n/a	n/a	n/a	n/a	n/a	n/a			n/a	n/a	n/a	n/a	Customs Street			
Glen Eden										n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				Glen Eden
Henderson				n/a	n/a	n/a							n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				Henderson
Khyber Pass Road				n/a	n/a	n/a				n/a	n/a	n/a	n/a	n/a	n/a				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Khyber Pass Road
Pakuranga							n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				Pakuranga
Papatoetoe				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Papatoetoe
Patumahoe										n/a	n/a	n/a				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				Patumahoe
Penrose										n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a										Penrose
Takapuna										n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				Takapuna
Queen Street										n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				Queen Street

Section B. Key air contaminants across the 10 air monitoring sites



Section C. Focus on a monitoring site: Customs Street

Figure 2. NO₂ trend for Customs St - Jan 2020 to May 2021

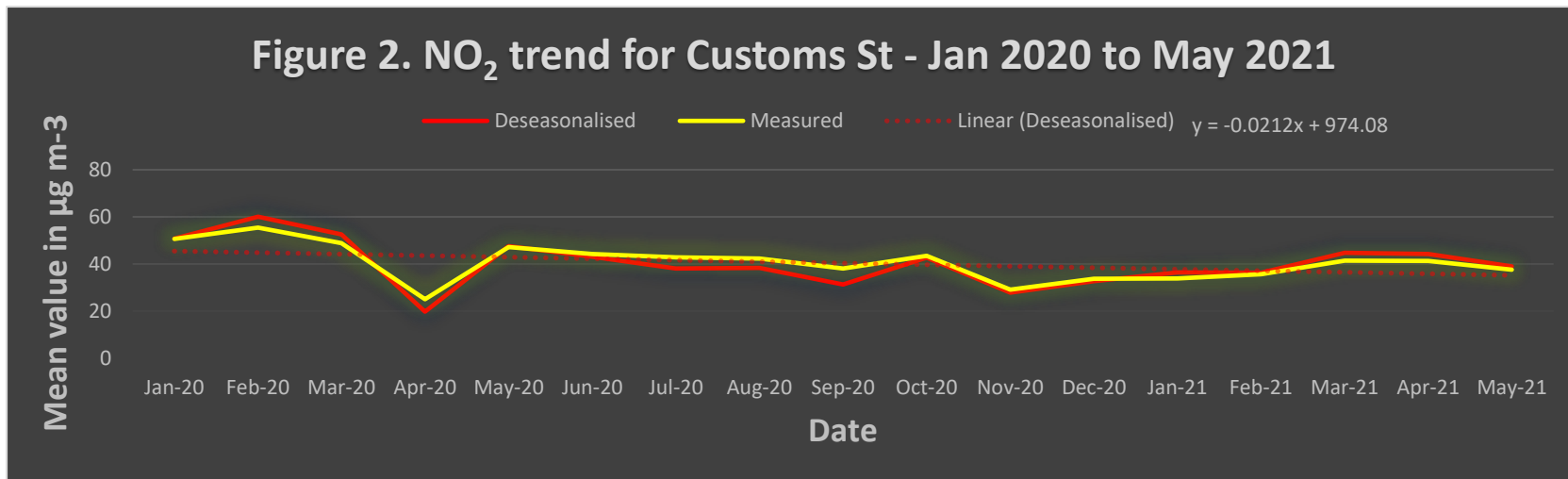


Figure 3. SO₂ trend for Customs St - Jan 2020 to May 2021

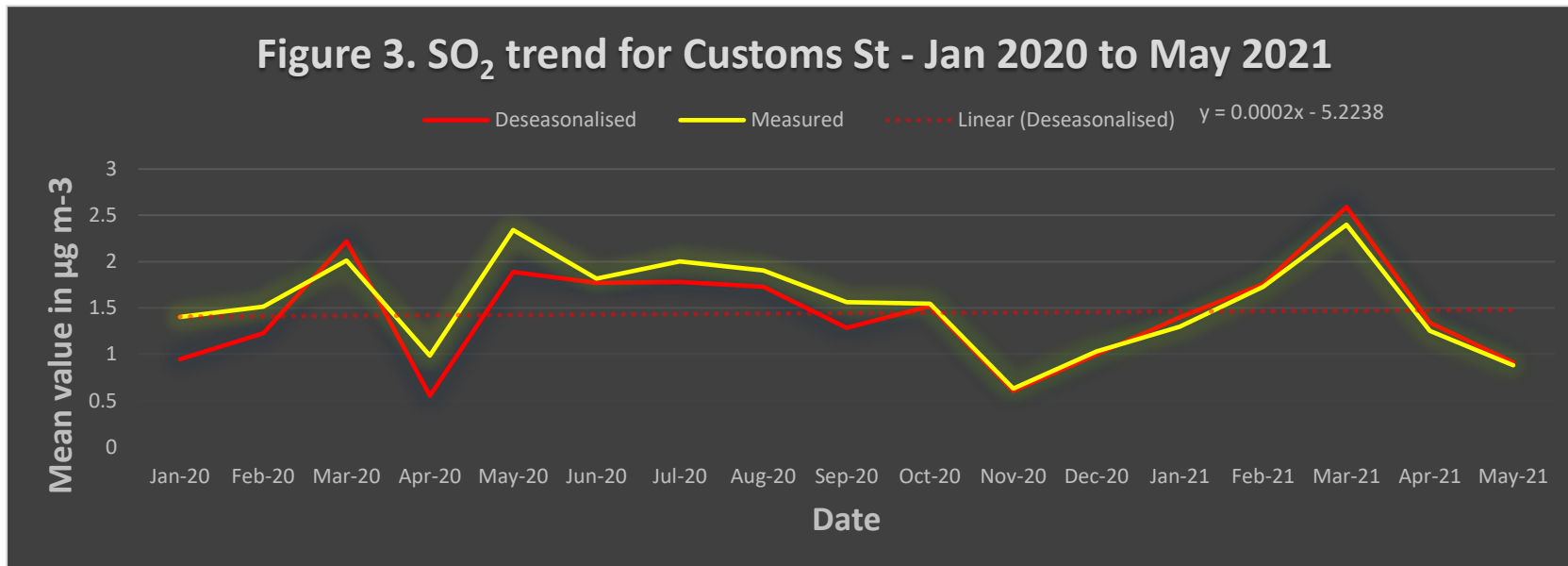


Figure 4. PM_{2.5} trend for Customs St - Jan 2020 to May 2021

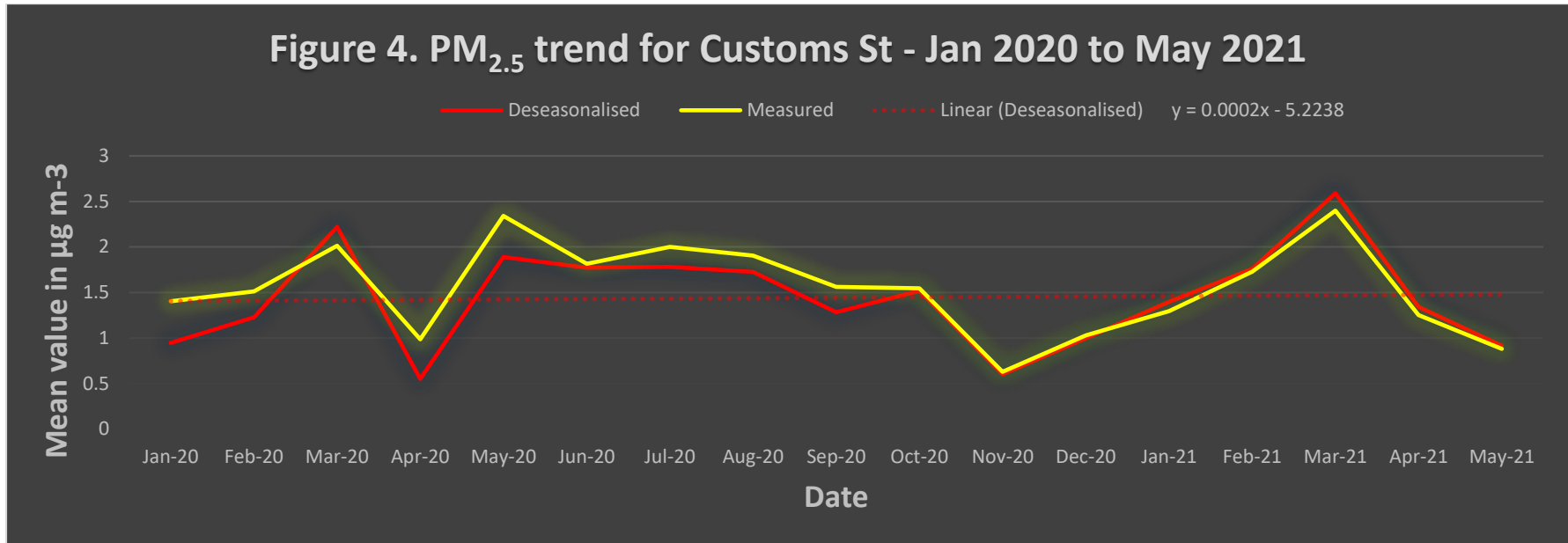


Figure 5. Black carbon trend for Customs St - Jan 2020 to May 2021

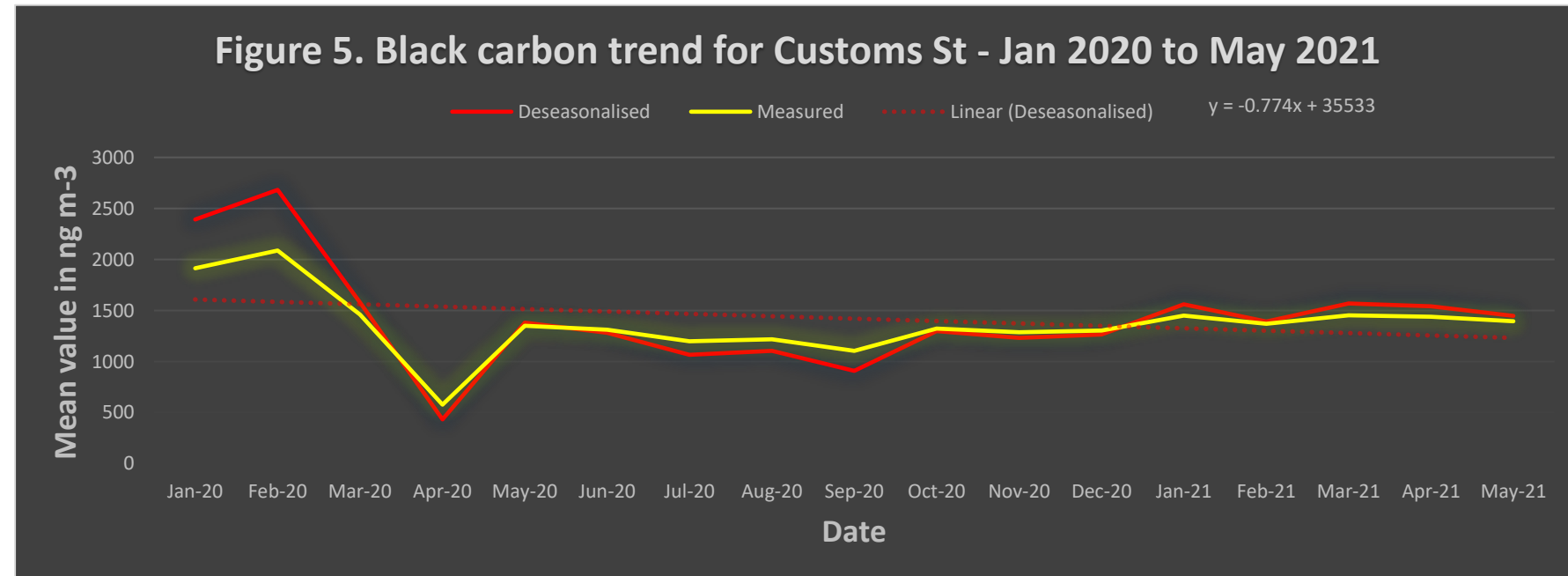


Figure 6. Customs St NO₂ (Jan to May 2021): compared to a rural site: variation across day type

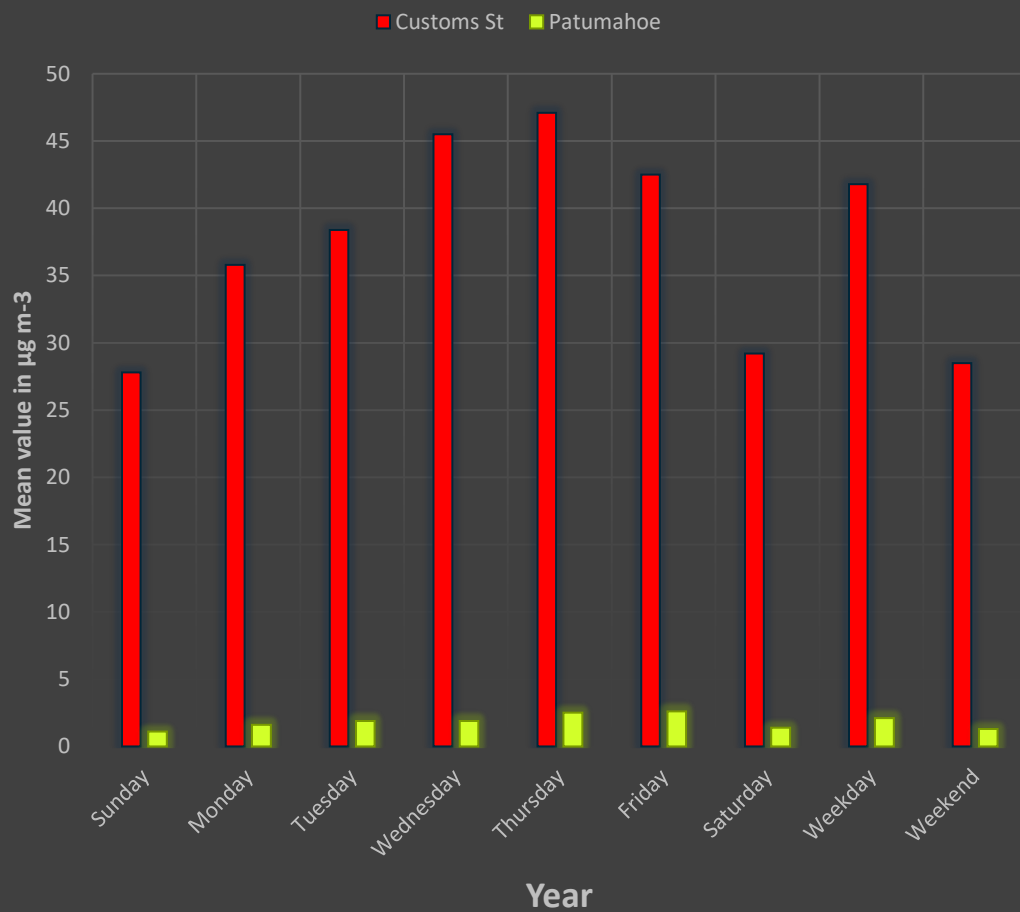


Figure 7. Customs St PM_{2.5} (Jan to May 2021): compared to a rural site variation across day type

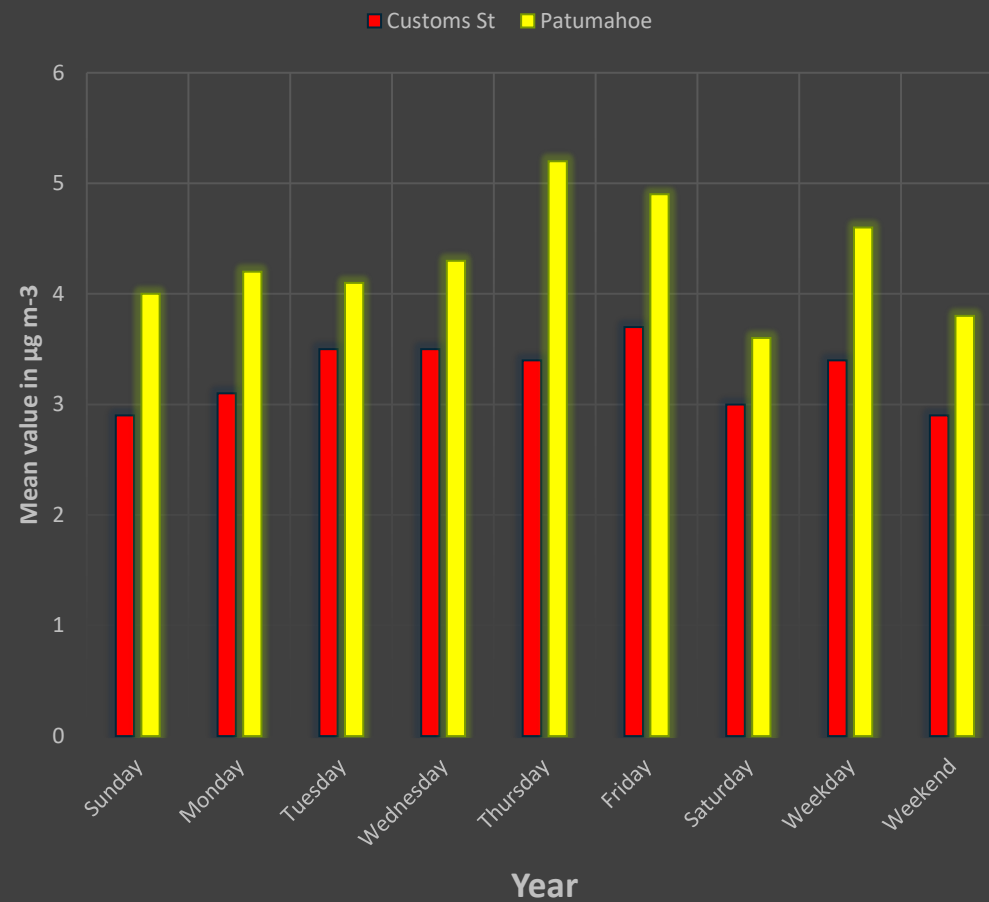


Figure 8. Customs St Black Carbon (Jan to May 2021) compared to Henderson: variation across day type

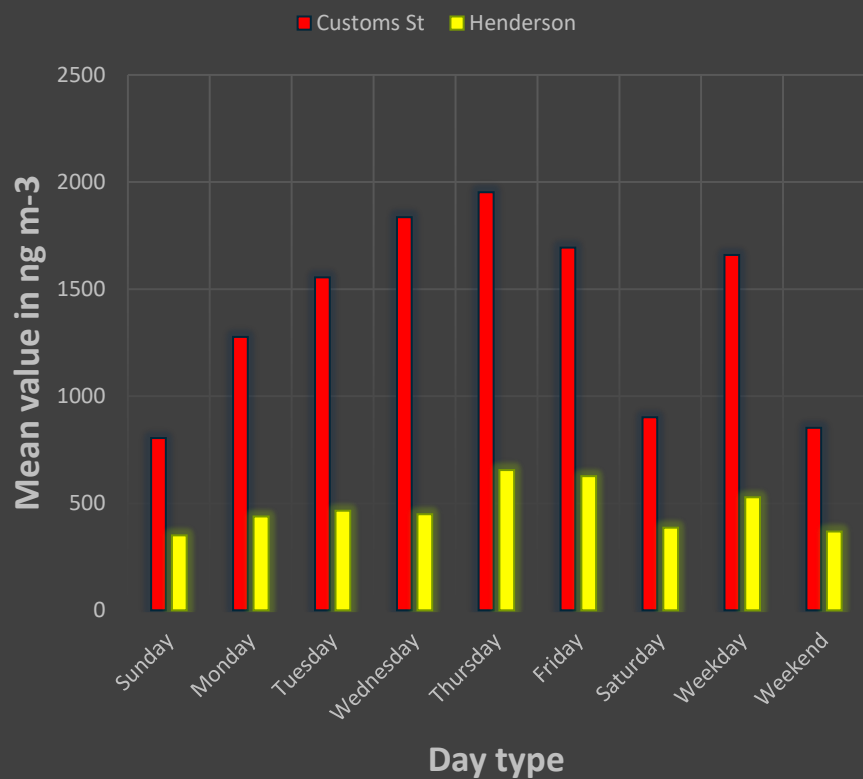
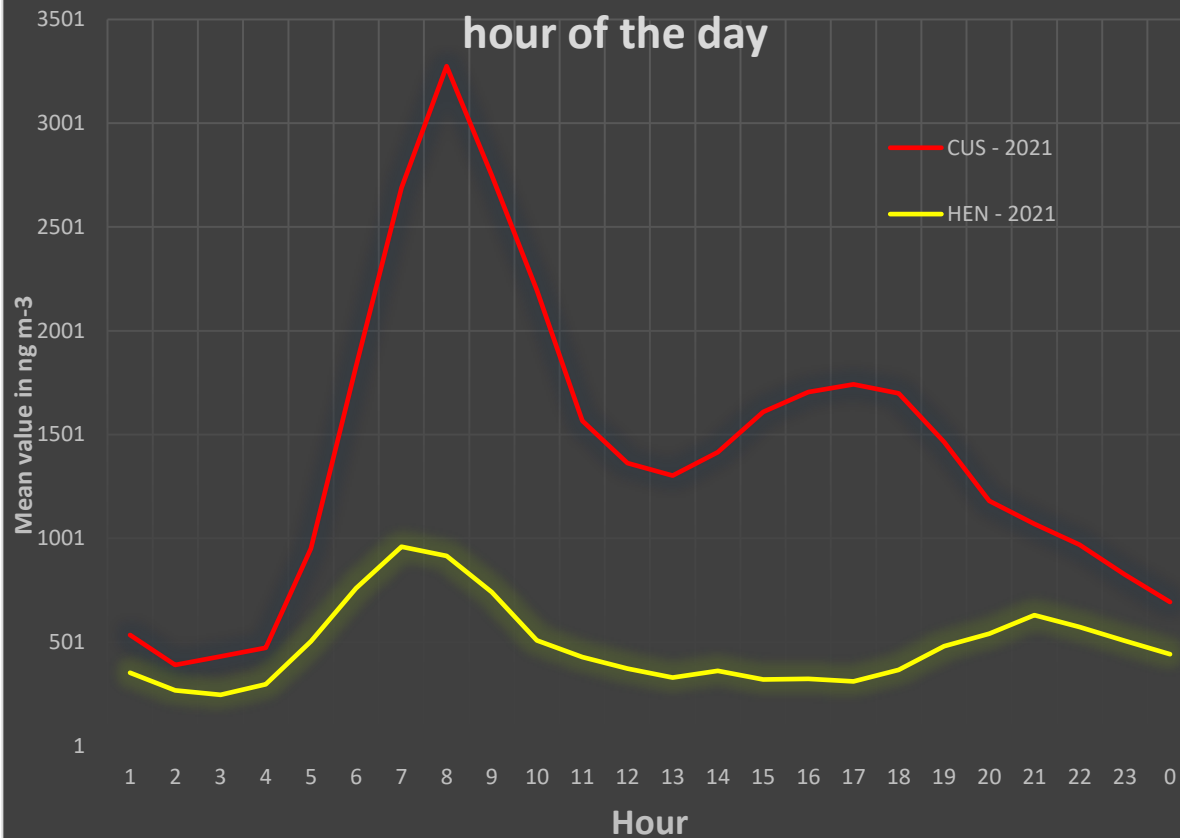


Figure 9. Customs St and Henderson; Black carbon (Jan to May 2021): variation across the hour of the day



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