

Clem7 In-tunnel Air Quality

Monthly Air Monitoring Trend Report – February 2025

The table below sets out the in-tunnel air quality criteria for the Clem7 tunnel as set out in the Coordinator General's Report. Visibility, Carbon monoxide, and Nitrogen Dioxide data recorded for the period between 1st February 2025 and 28th February 2025 are presented in Figures 1 to 6 for the Northbound and Southbound Clem7 tubes. Note: Data confirmed as impacted by maintenance activity or sensor faults have been invalidated and removed from the reported data set.

No results were observed above the assigned in-tunnel air quality criteria for the reporting period.

Table 1: In-tunnel air quality criteria

Parameter	Criteria
Carbon monoxide (CO)	70 ppm generally 90 ppm in peak traffic congestion
Nitrogen dioxide (NO ₂)	1 ppm (average)
Visibility coefficient (K)	0.005 m ⁻¹ for free flowing traffic (greater than 50km/hr) 0.007 m ⁻¹ otherwise

Notes:

1. Monitoring and measuring protocols for each criteria as set out in the PIARC guidelines, as current 2019.
2. Tunnel sensor average concentrations reported for Carbon Monoxide and Nitrogen Dioxide.
3. Peak traffic congestion occurs when traffic flows are less than 10 km/h.
4. Visibility coefficient (K-value) may fluctuate with peak conditions.

Visibility

Figure 1: In-tunnel visibility extinction coefficient – Northbound (15 minute averaged data)

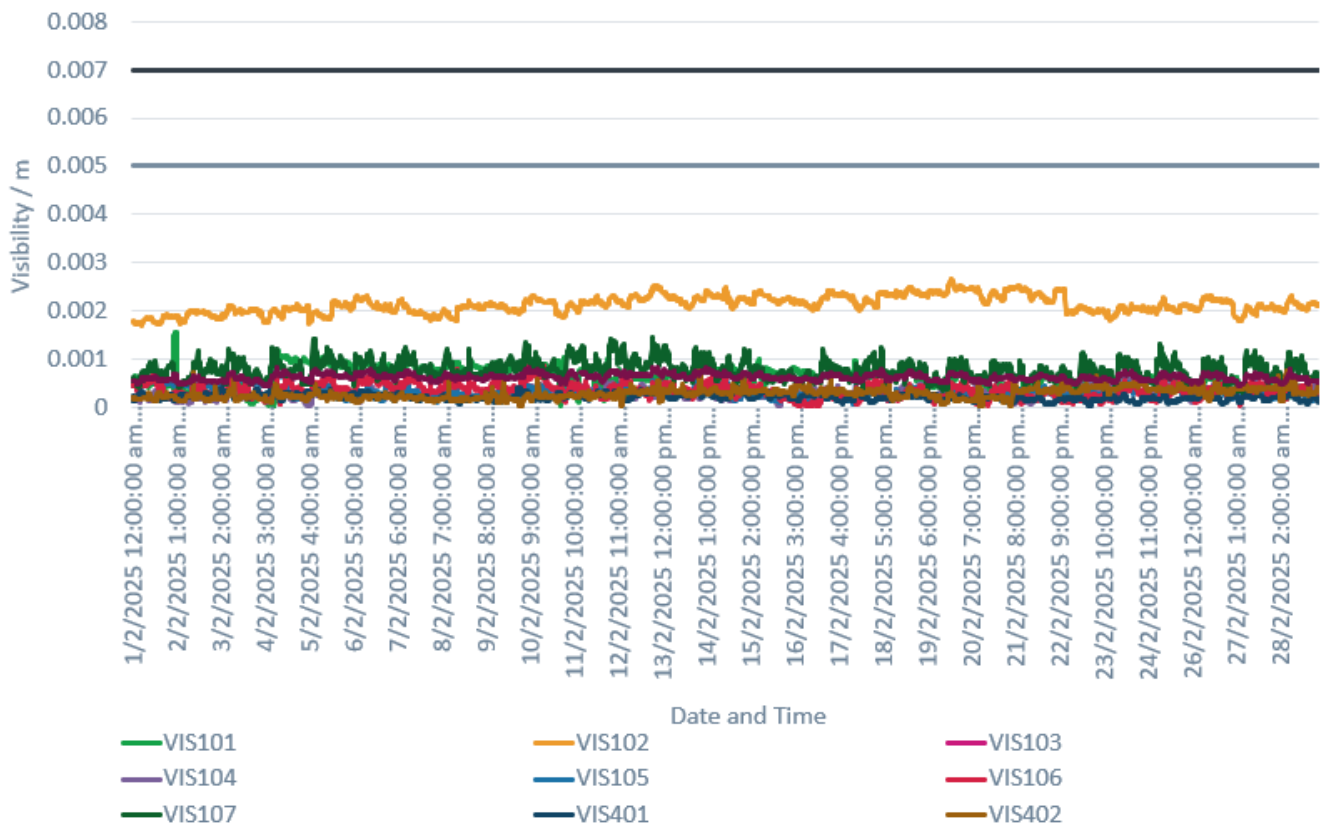
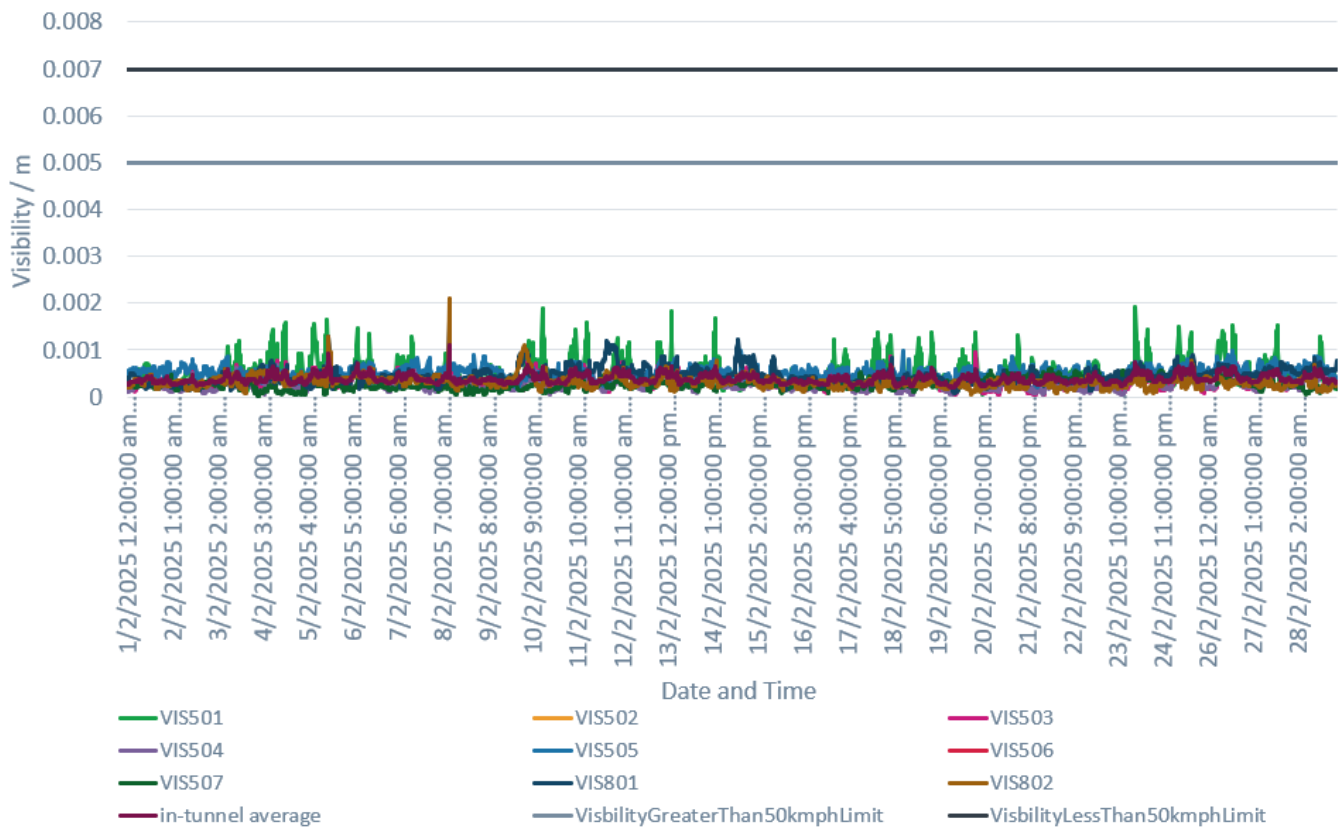


Figure 2: In-tunnel visibility extinction coefficient – Southbound (15 minute averaged data)



Carbon Monoxide

Figure 3: In-tunnel carbon monoxide (CO) concentrations – Northbound (15 minute averaged data)

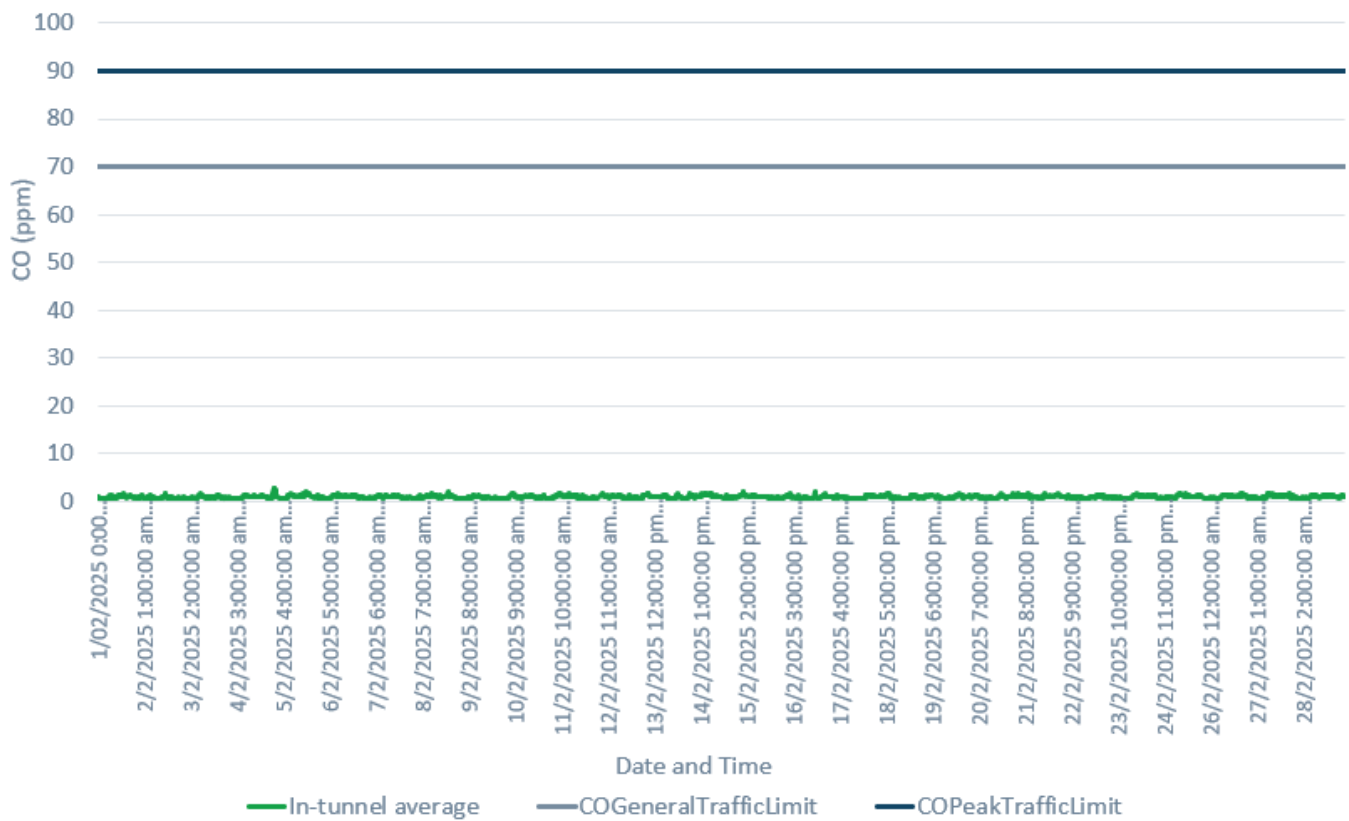
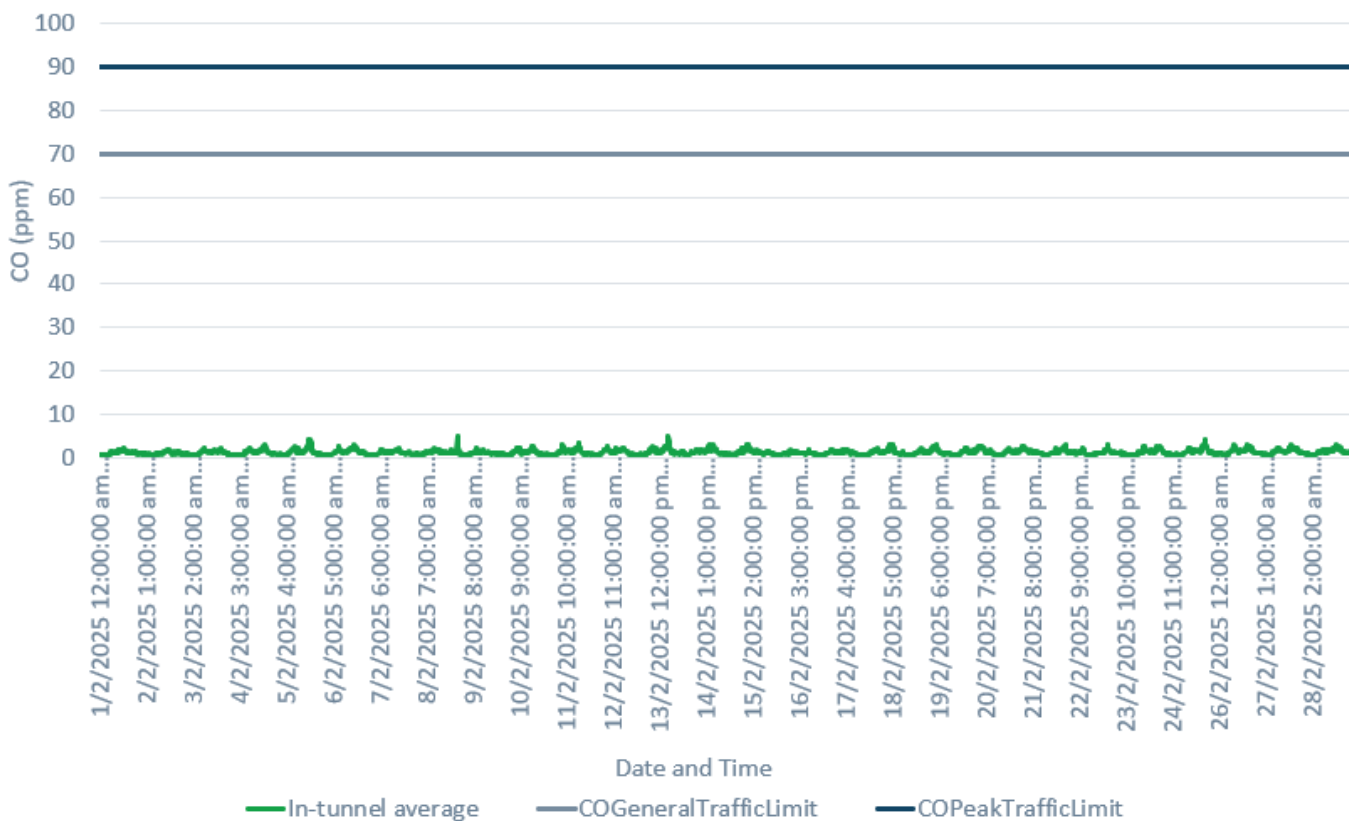


Figure 4: In-tunnel carbon monoxide (CO) concentrations – Southbound (15 minute averaged data)



Nitrogen dioxide

Figure 5: In-tunnel nitrogen dioxide (NO₂) concentrations – Northbound (15 minute averaged data)

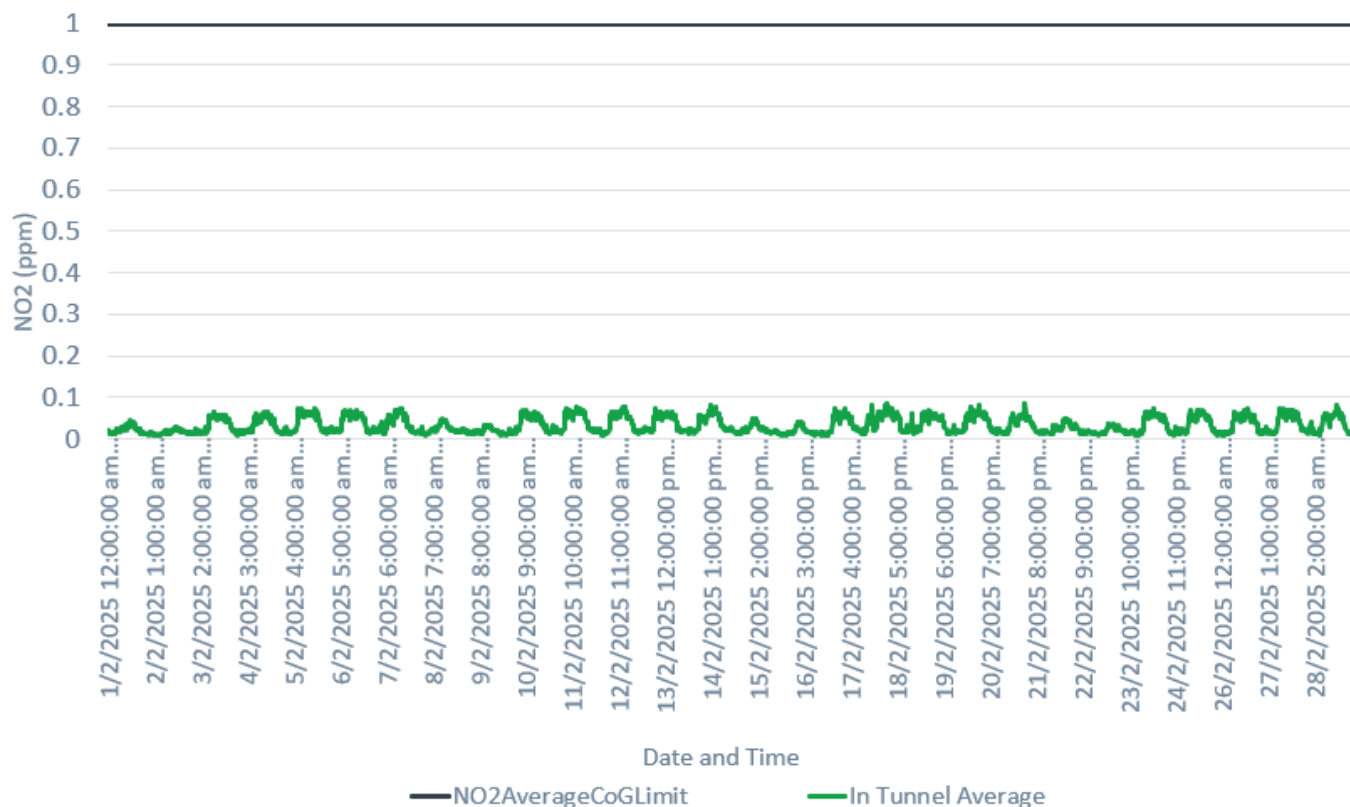


Figure 6: In-tunnel nitrogen dioxide (NO₂) concentrations – Southbound (15 minute averaged data)

