

# CLEM7 in-tunnel air quality

## Monthly trend report – April 2019

The table below sets out the in-tunnel air quality criteria for the Clem 7 tunnel as set out in the Coordinator General's Report.

- For the month of April 2019 no notable trends have emerged.

Table 1: In-tunnel air quality criteria

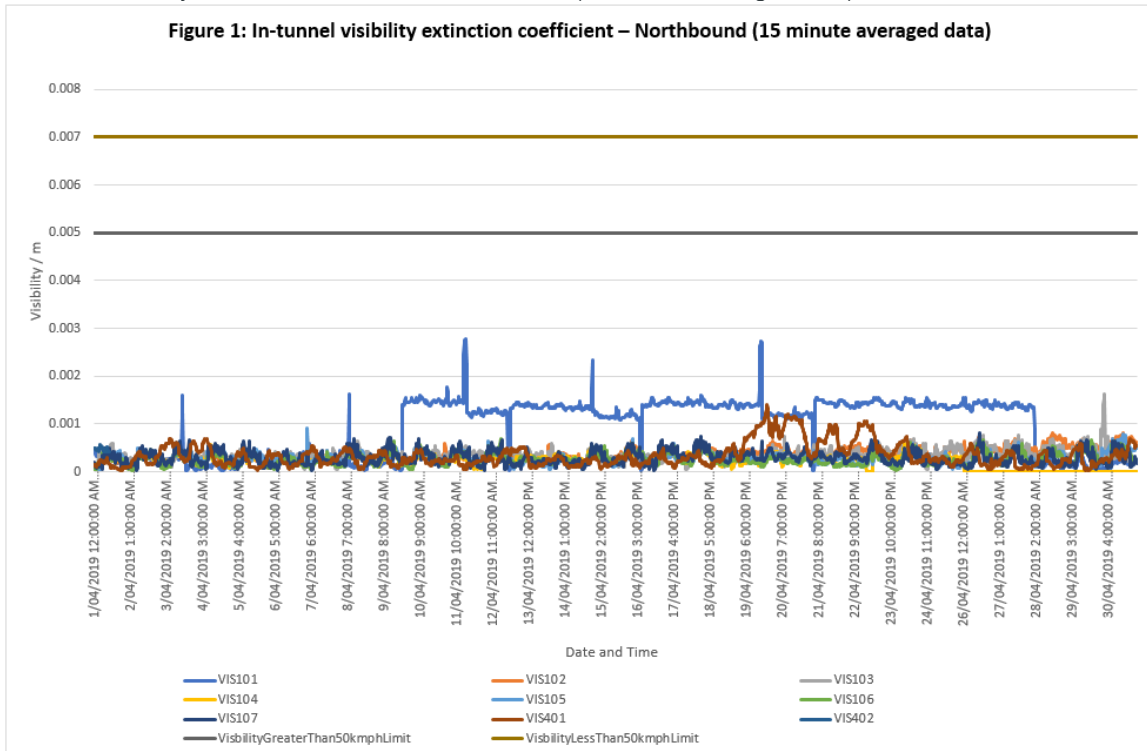
Parameter	Criteria
Carbon monoxide (CO)	70 ppm generally 90 ppm in peak traffic congestion
Nitrogen dioxide (NO <sub>2</sub> )	1 ppm (average)
Visibility coefficient (K)	0.005 m <sup>-1</sup> for free flowing traffic (greater than 50km/hr) 0.007 m <sup>-1</sup> otherwise

Notes:

1. Monitoring and measuring protocols for each criteria as set out in the PIARC guidelines, as current December 2012.
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.

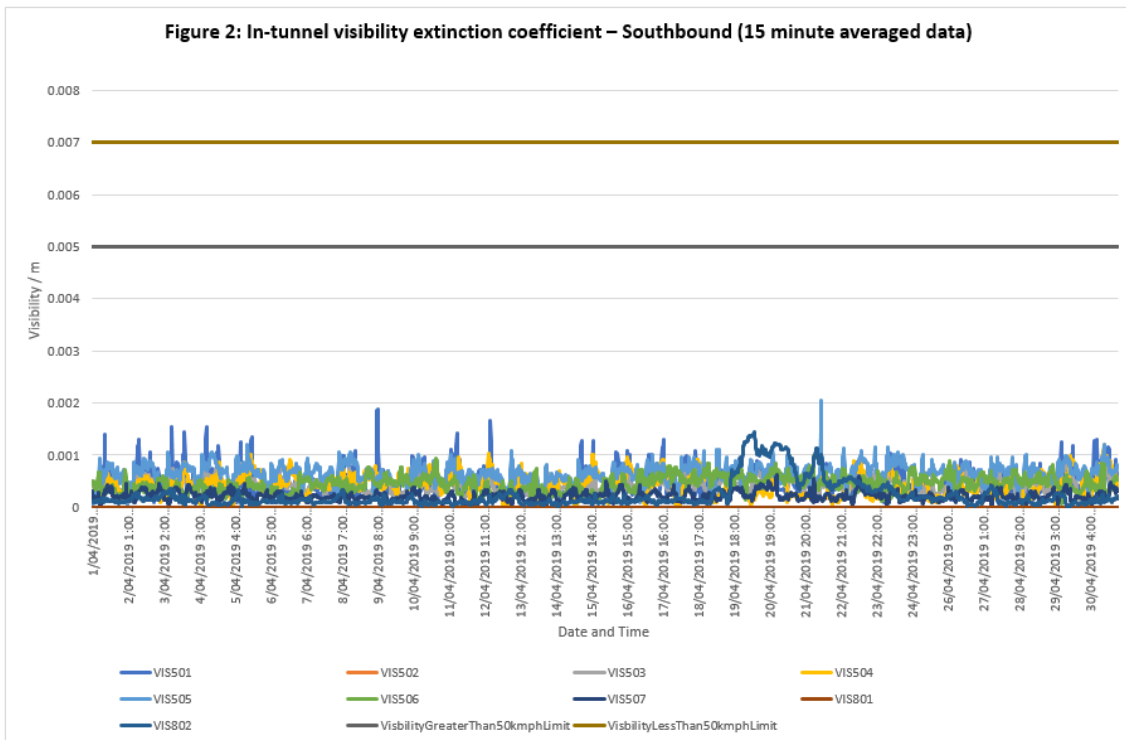
Visibility

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



S0101 – Elevated baseline readings observed during early April and investigated during April maintenance closure.

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



S0502: Sensor Not Powered due to ongoing fault with flash card.  
 S0801: Sensor Not Powered due to ongoing fault.

## Carbon monoxide

Figure 3: In-tunnel Carbon Monoxide (CO) Concentrations - Northbound (15 minute averaged data)

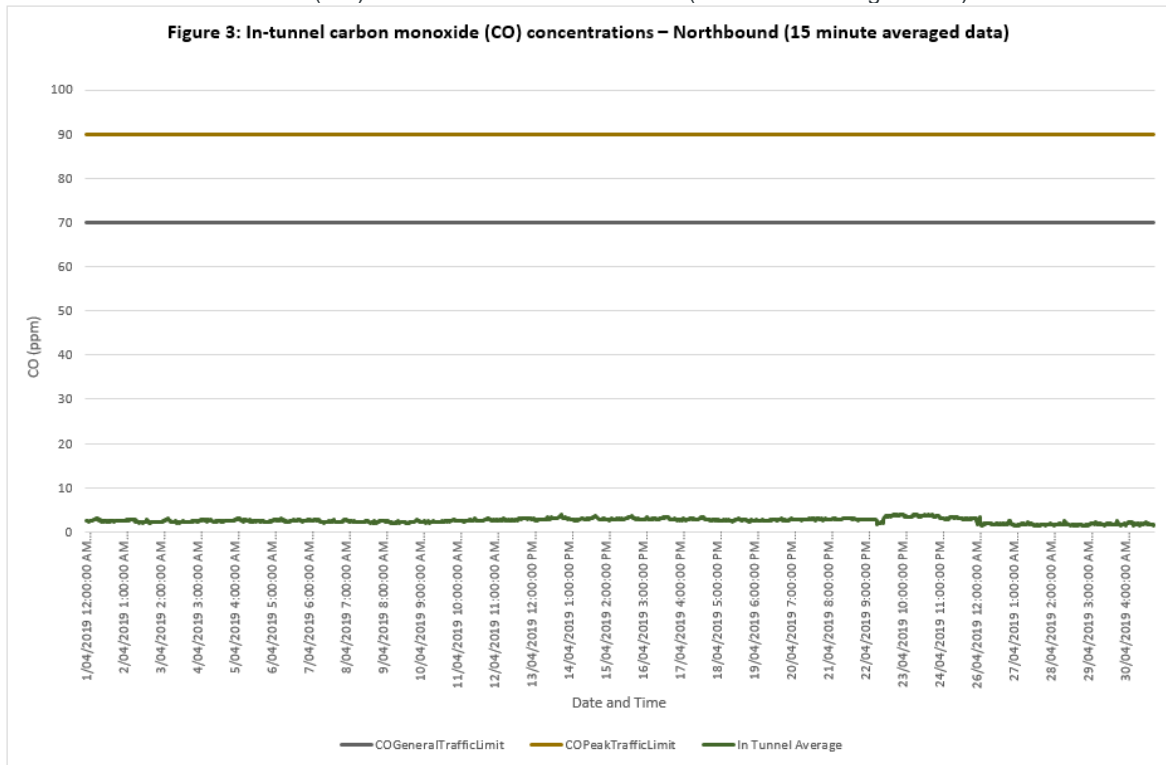
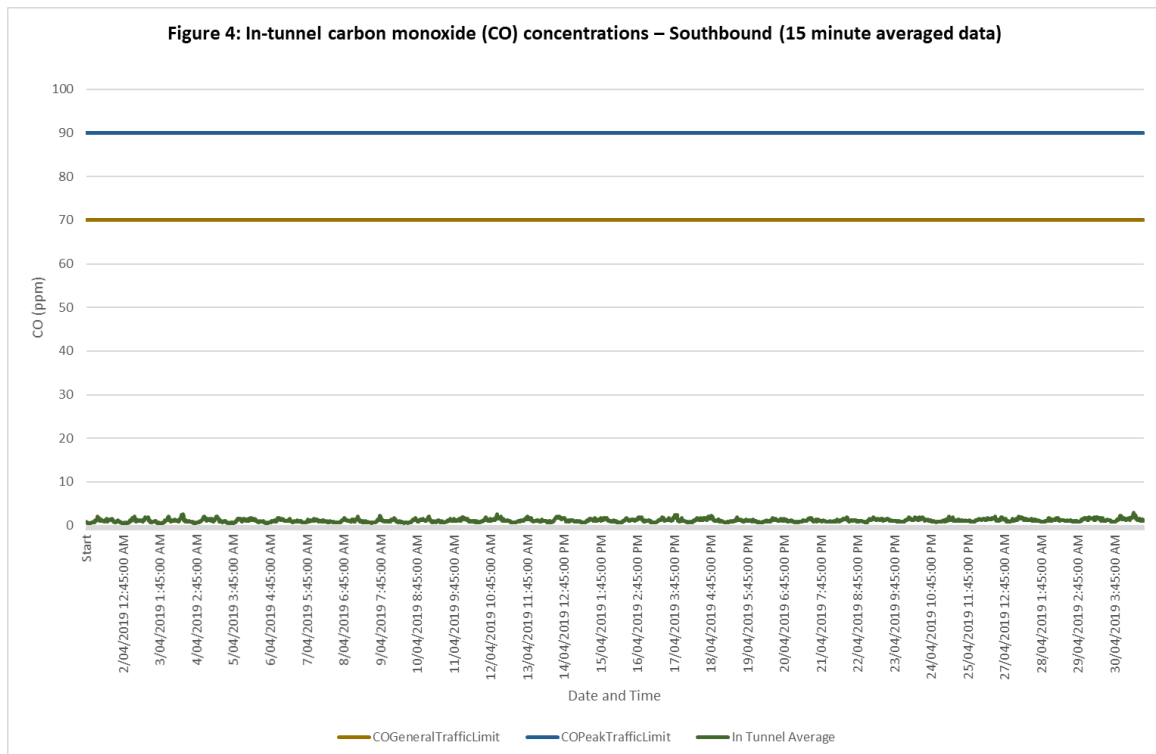


Figure 4: In-tunnel Carbon Monoxide (CO) Concentrations - Southbound (15 minute averaged data)



S0502: Sensor Not Powered due to ongoing fault with flash card.  
 S0801: Sensor Not Powered due to ongoing fault.

## Nitrogen dioxide

Figure 5: In-tunnel Nitrogen Dioxide (NO<sub>2</sub>) Concentrations - Northbound (15 minute averaged data)

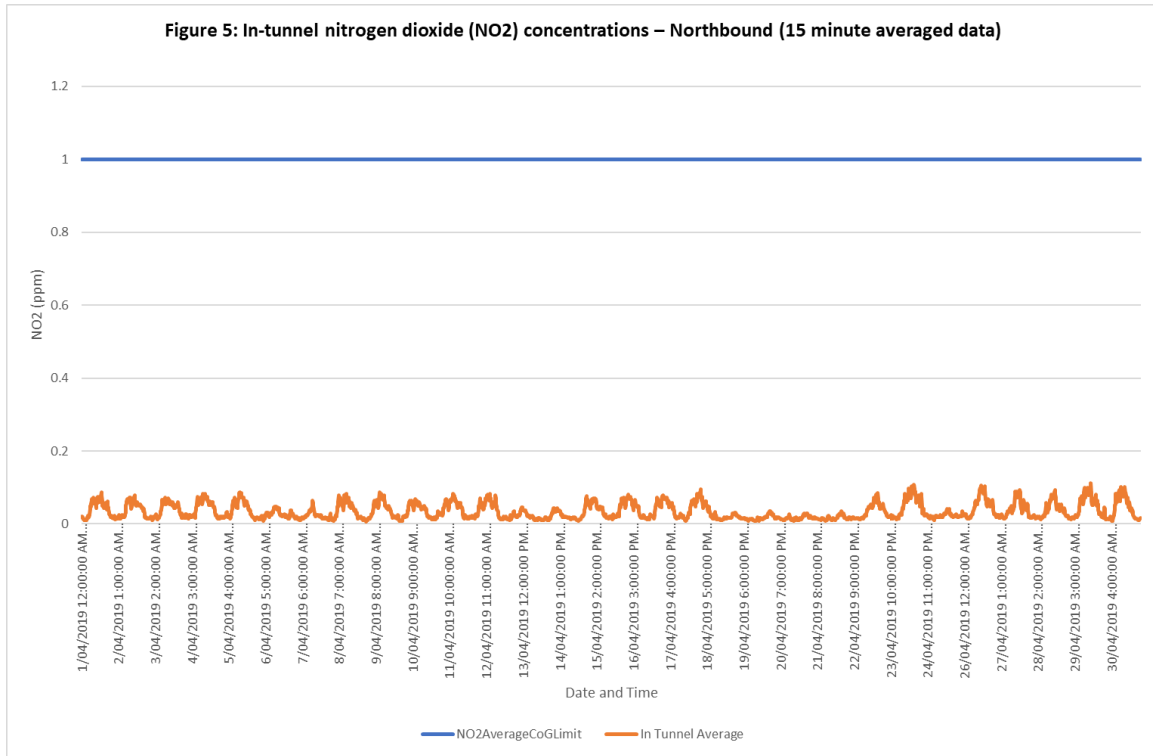
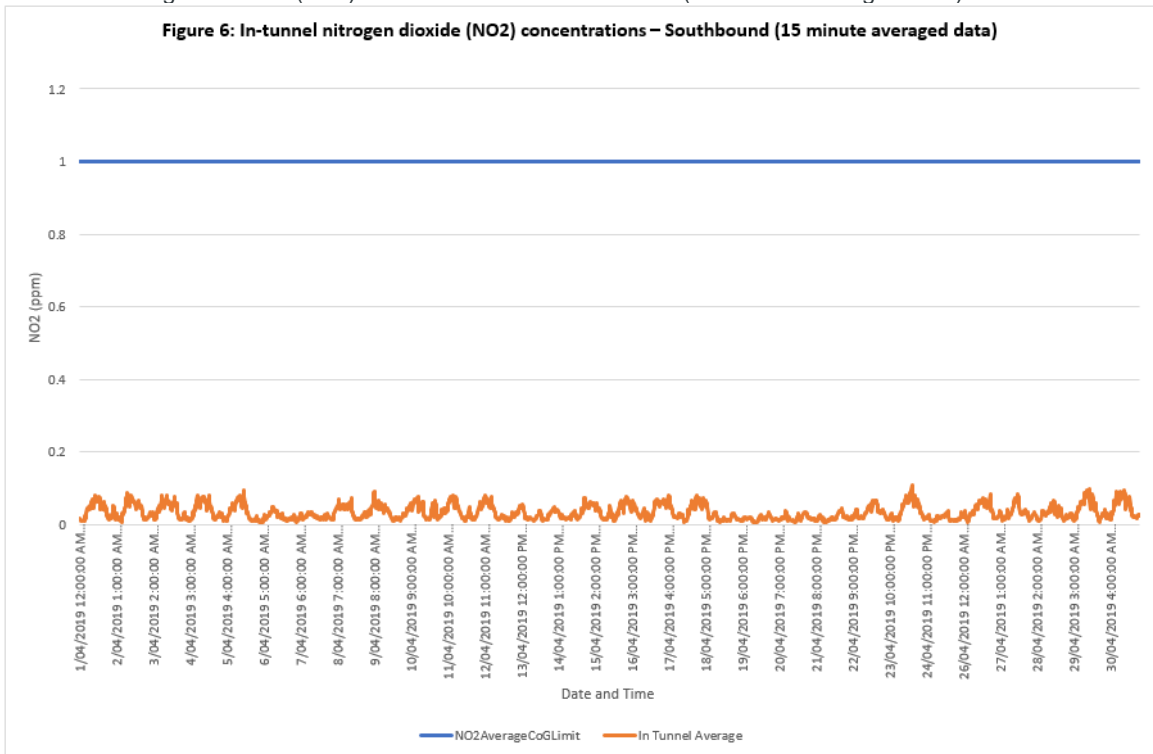


Figure 6: In-tunnel Nitrogen Dioxide (NO<sub>2</sub>) Concentrations - Southbound (15 minute averaged data)



S0502: Sensor Not Powered due to ongoing fault with flash card.  
S0801: Sensor Not Powered due to ongoing fault.