

# CLEM7 in-tunnel air quality

## Monthly trend report – September 2018

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 September 2018 no notable trends have emerged.

Table 1: In-tunnel air quality criteria

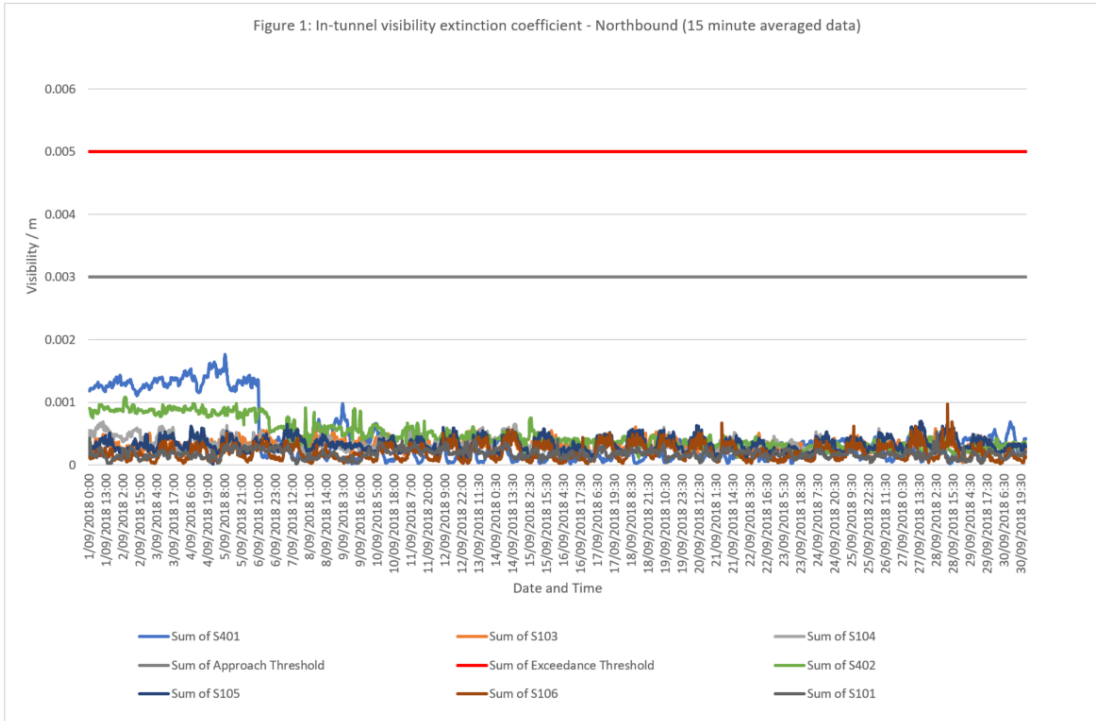
Parameter	Criteria
Carbon monoxide (CO)	70 ppm generally 90 ppm in peak traffic congestion
Nitrogen dioxide (NO <sub>2</sub> )	1 ppm (average)
Visibility coefficient (K)	0.005 m <sup>-1</sup> for free flowing traffic (greater than 50km/hr) 0.007 m <sup>-1</sup> otherwise

Notes:

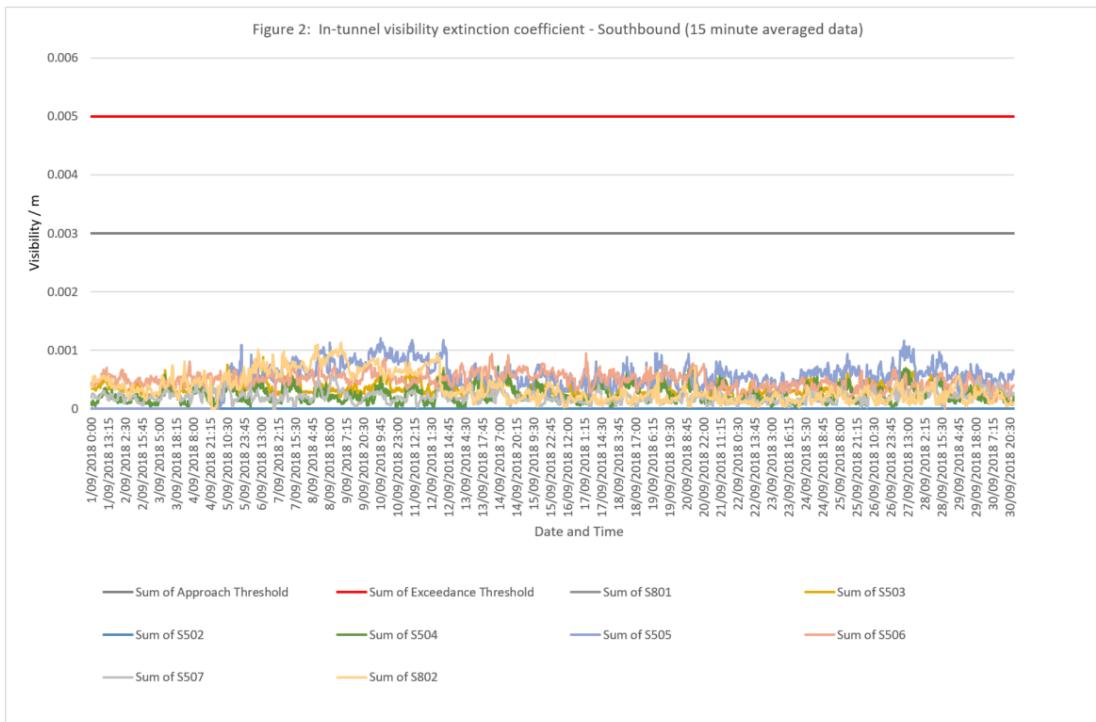
1. Monitoring and measuring protocols for each criteria as set out in the PIARC guidelines, as current December 2009.
2. Peak traffic congestion occurs when traffic flows are less than 10 km/h.
3. Visibility coefficient (K-value) may fluctuate with peak conditions.

CLEM7 IN-TUNNEL AIR QUALITY

Visibility



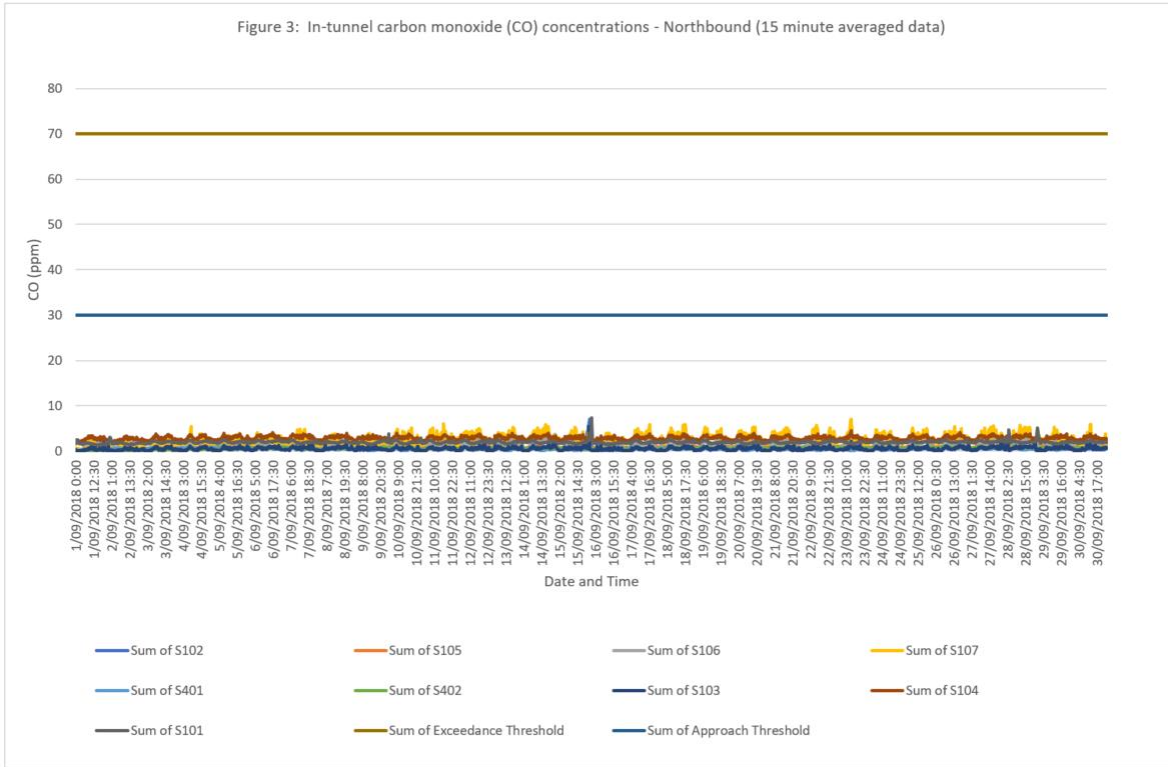
S402 Due to high baseline, sensor was removed from the tunnel for refurbishment and re-installed in early September during tunnel closure.  
 S401 Displayed erratic reading first week after September shutdown maintenance, however returned to normal operation.  
 S102 Sensor adjusted during first week after September 2018 shutdown. Data displaying erratic readings has been invalidated due to instrument fault.  
 S107 Sensor adjusted during September 2018 shutdown. Data displaying erratic readings has been invalidated due to instrument fault.



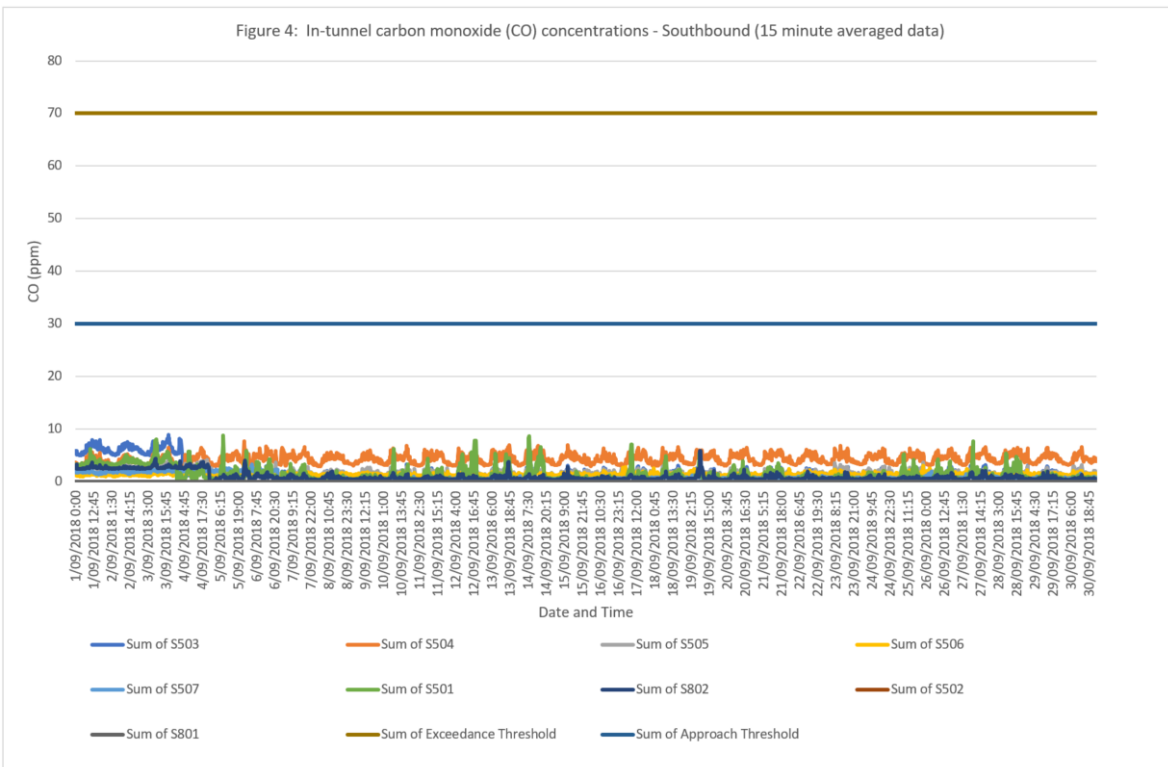
S505 repaired during September closure. Returned to normal operation from early September.  
 S501 Sensor repaired during tunnel closure, however displaying erratic readings. Data has been invalidated for September due to instrument fault.  
 S502 and S801 reinstalled in tunnel during September shutdown, however further issues. No data available. To be repaired during November shutdown.

CLEM7 IN-TUNNEL AIR QUALITY

Carbon monoxide



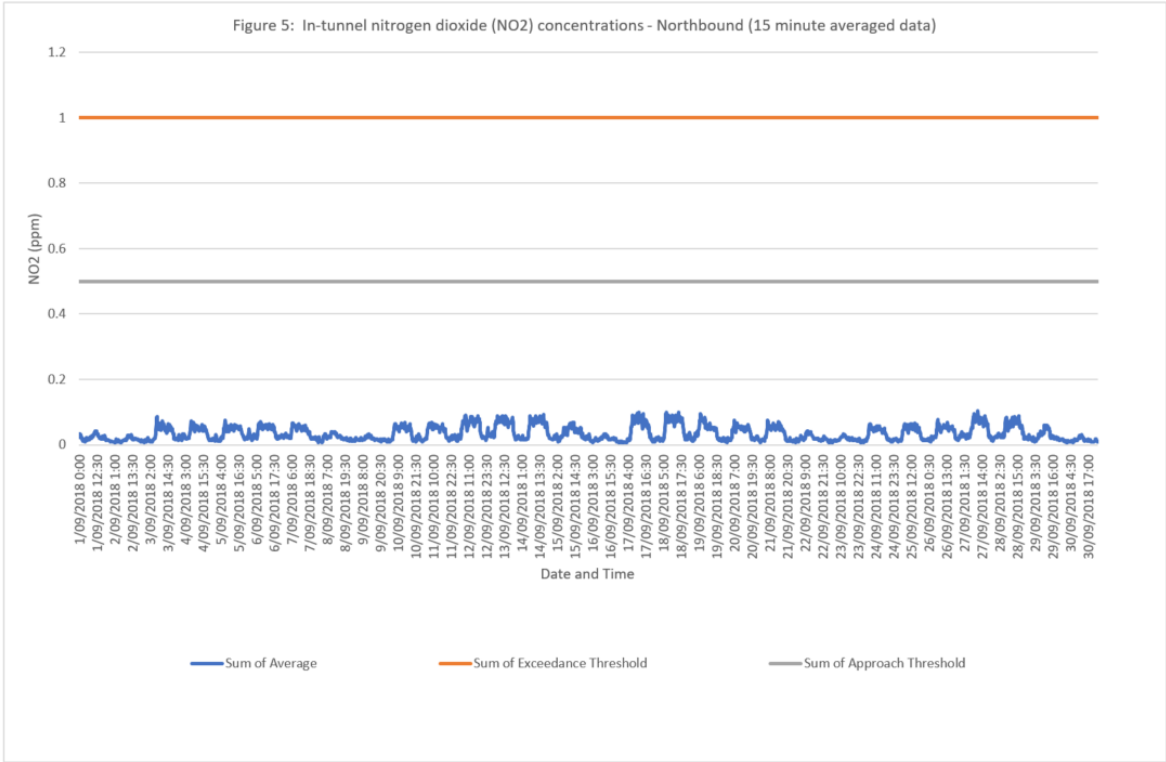
No comments.



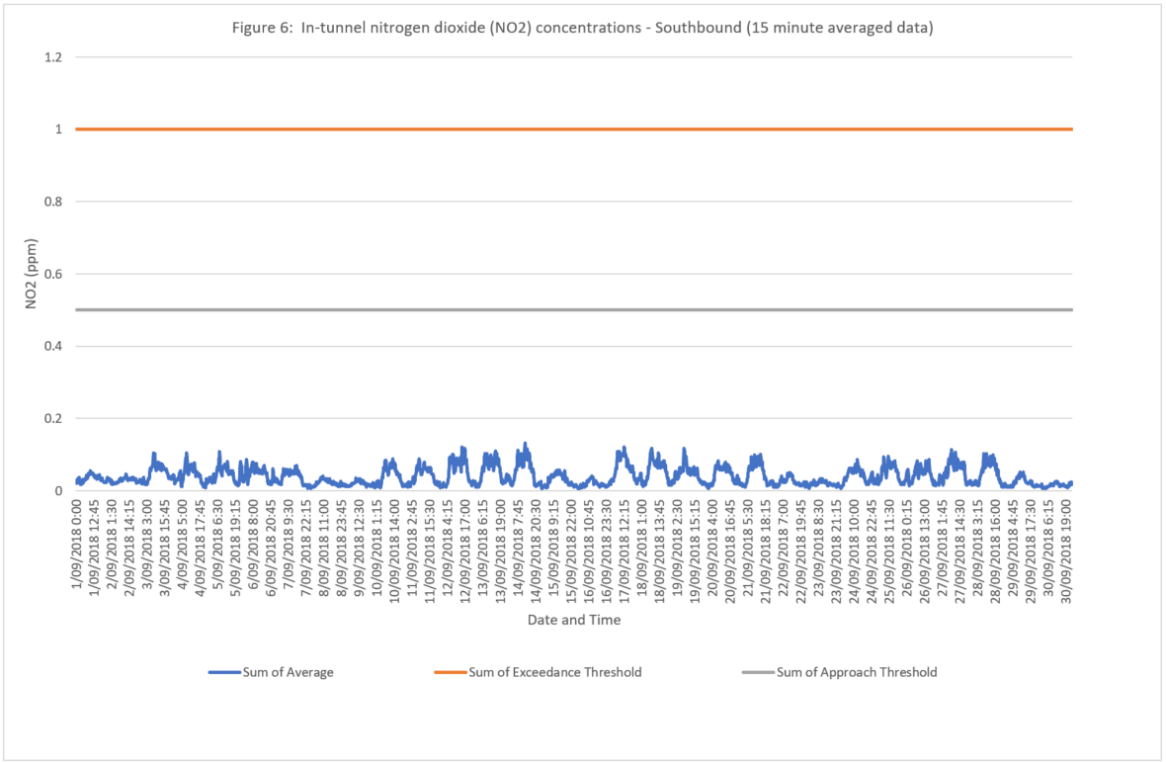
S504 displaying high baselines. Corrective maintenance performed during October tunnel closure.  
 S502 and S801 Instruments were re-installed in early September 2018 during tunnel closure.  
 S802 and S503 displaying high baselines, adjusted during September tunnel closure.

CLEM7 IN-TUNNEL AIR QUALITY

Nitrogen dioxide



S402 Sensor was re-installed in early September during tunnel closure.



S502 and S801 removed from tunnel for refurbishment and re-installed in early September during tunnel closure. Further issues. To be completed during November shutdown. S501 Corrective maintenance was performed in early September at tunnel closure. Sensor displaying high baseline to be investigated during November shutdown. S506 Sensor displaying high baseline to be investigated during November shutdown.