

# Clem7 in-tunnel air quality

## Monthly trend report – April

The purpose of this report is to provide a monthly summary for in-tunnel air quality criteria for the Clem7 tunnel as required under Appendix 1 Schedule 3 Condition 17(g) of the Coordinator-General's (CoG) report.

The below table details the In-Tunnel CoG requirements for the Clem7 tunnel.

Carbon monoxide (CO)	70 ppm at peak
Nitrogen dioxide (NO <sub>2</sub> )	1 ppm (average)
Visibility	0.005 m <sup>-1</sup>

**Note:** monitoring and measuring protocols for each goal are set out in the PIARC guidelines.

**Source:** PIARC Guidelines

This report provides a summary of the following items:

- Visibility
  - 15 minute averaged values for each sensor in each tube over the course of the month is presented in figures 1 and 2.
- CO (Carbon Monoxide)
  - 15 minute averaged data based on all sensors in each tube, is presented as one value for each 15 minute interval based on all sensors in that tube, in figures 3 and 4.
- NO<sub>2</sub> (Nitrogen Dioxide)
  - 15 minute averaged data based on all sensors in each tube, is presented as one value for each 15 minute interval based on all sensors in that tube, in figures 5 and 6.

For the month of April 2018, no notable trends have emerged. It was noted in relation to the Northbound Visibility monitoring (figure 1), that sensor 401 recorded levels noticeably higher than those of the other sensors in that tube during the period of 17/4/18 to 23/4/18. Review of operational logs for this period did not identify any factors that could be the cause of this observed pattern. Following the 23<sup>rd</sup> of April, readings returned to be consistent with the other visibility sensors in the tube.

## Visibility

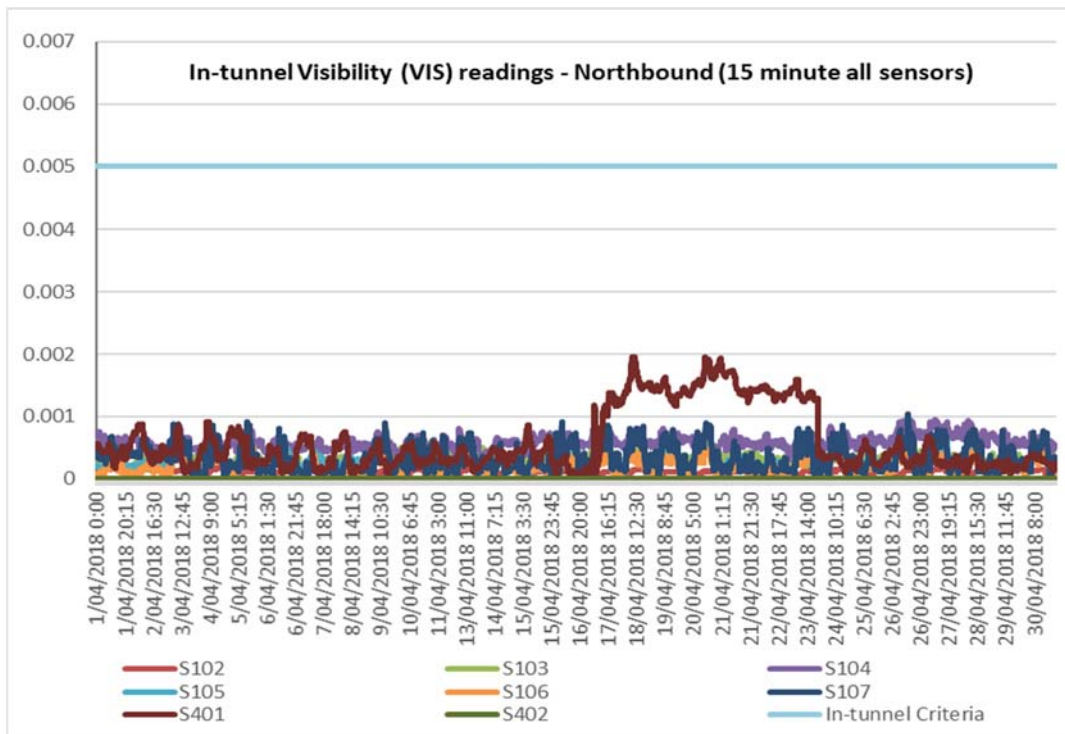


Figure 1 Northbound in-tunnel visibility

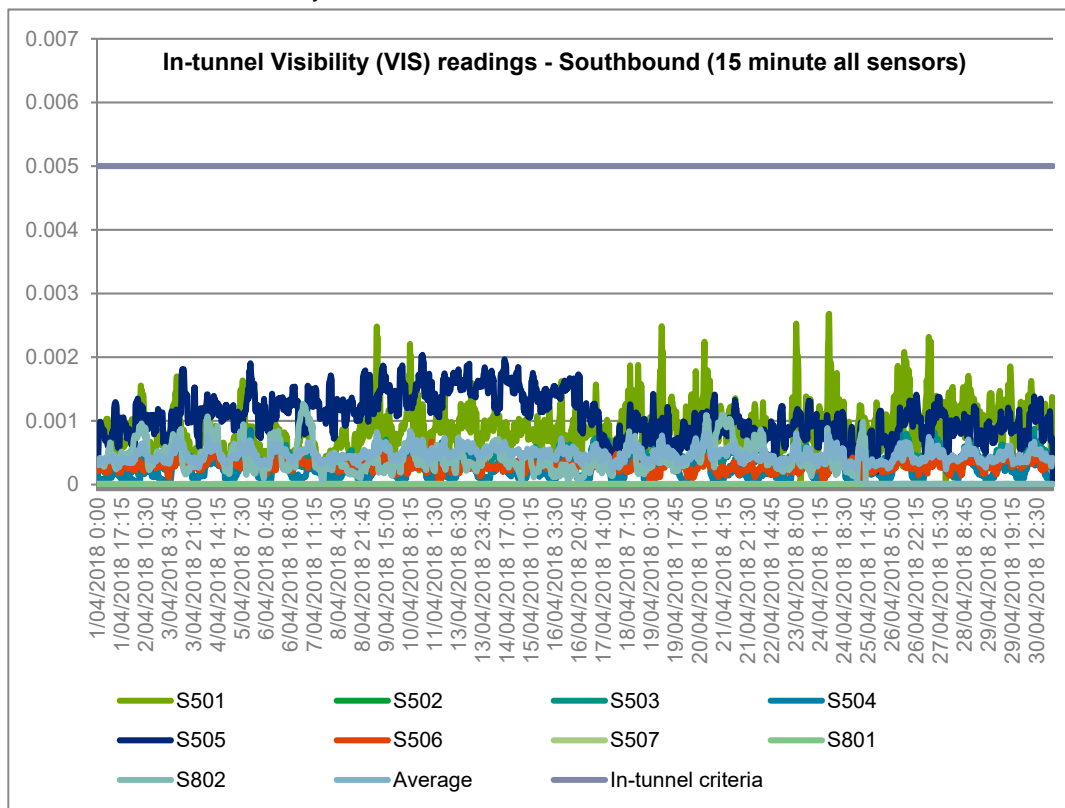


Figure 2 Southbound in-tunnel visibility

## Carbon monoxide

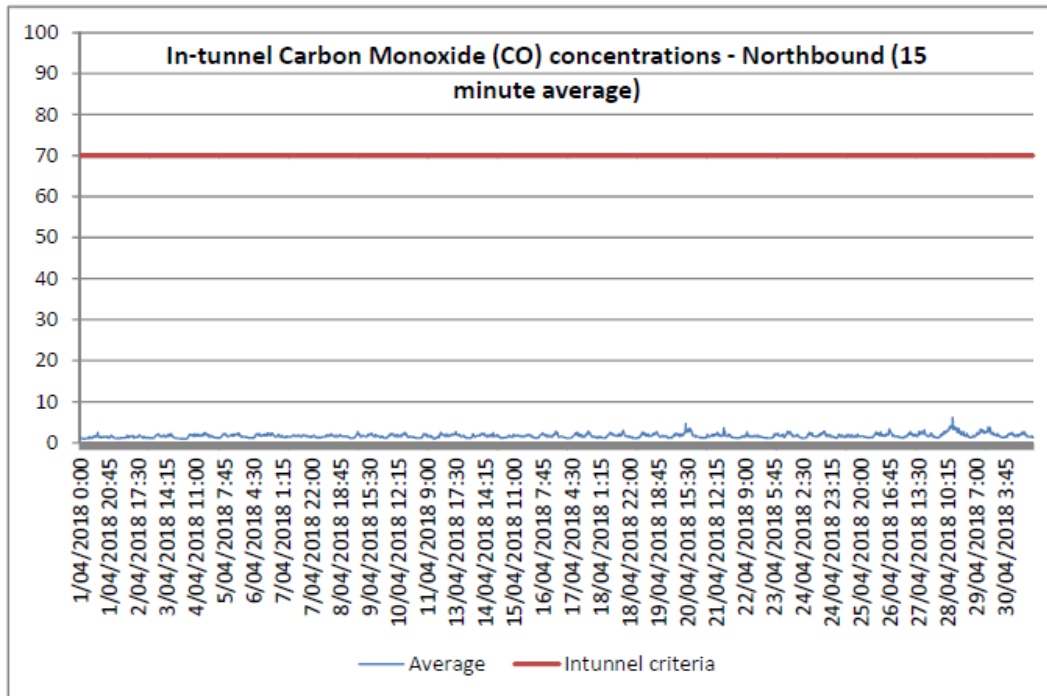


Figure 3 Northbound in-tunnel Carbon Monoxide

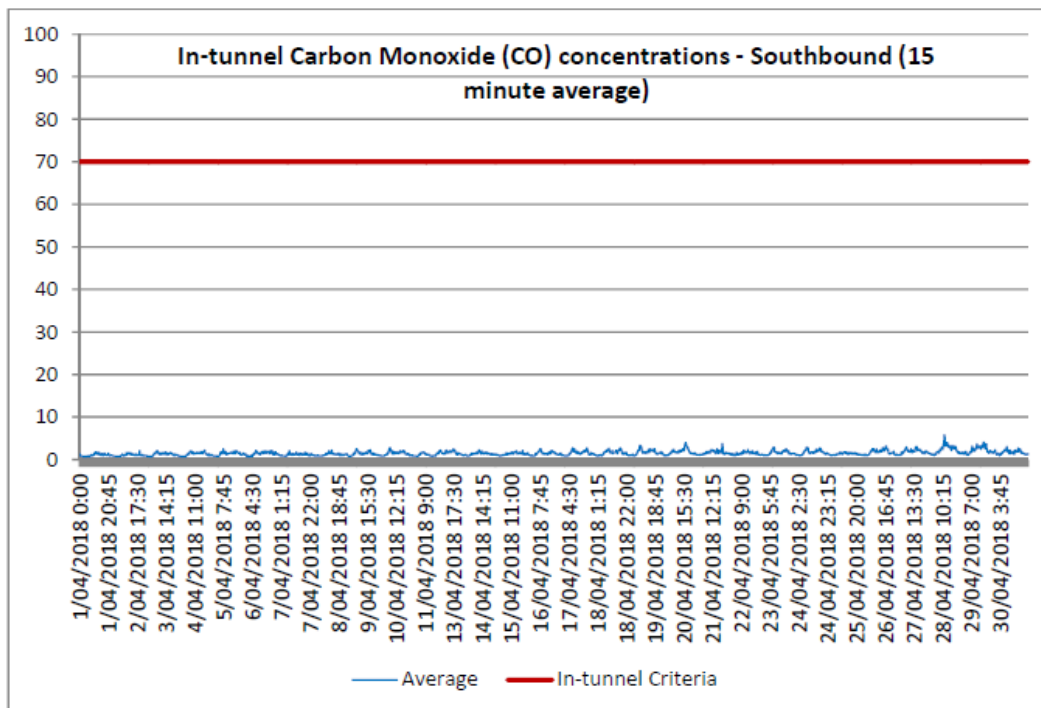


Figure 4 Southbound in-tunnel Carbon Monoxide

## Nitrogen Dioxide

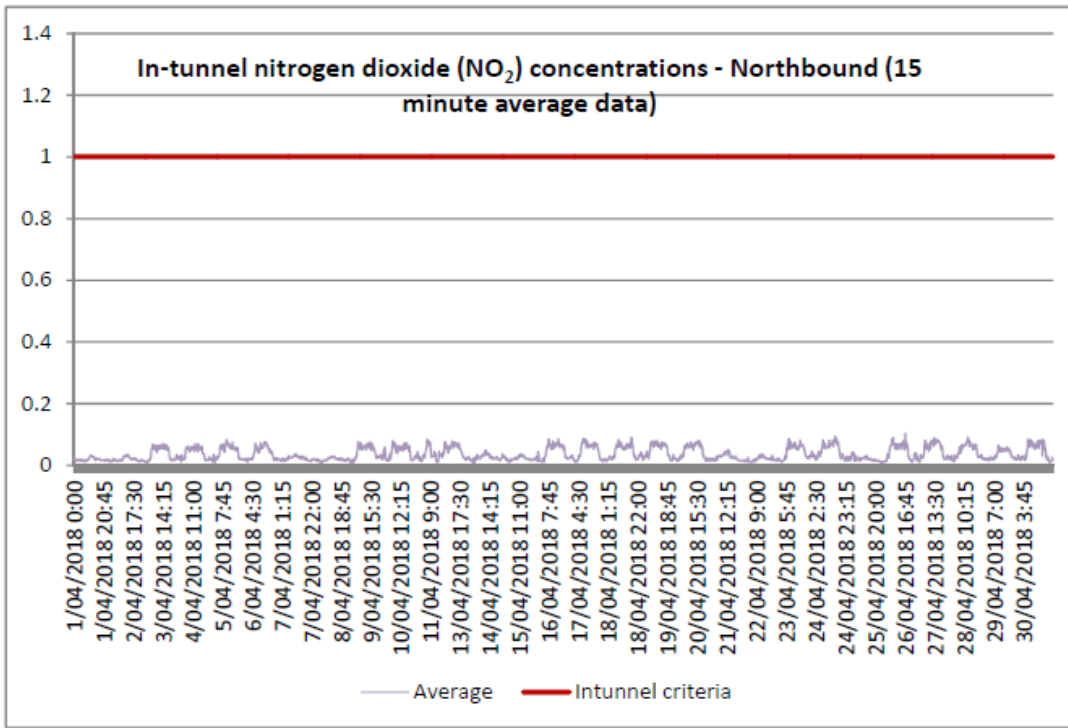


Figure 5 Northbound in-tunnel Nitrogen Dioxide

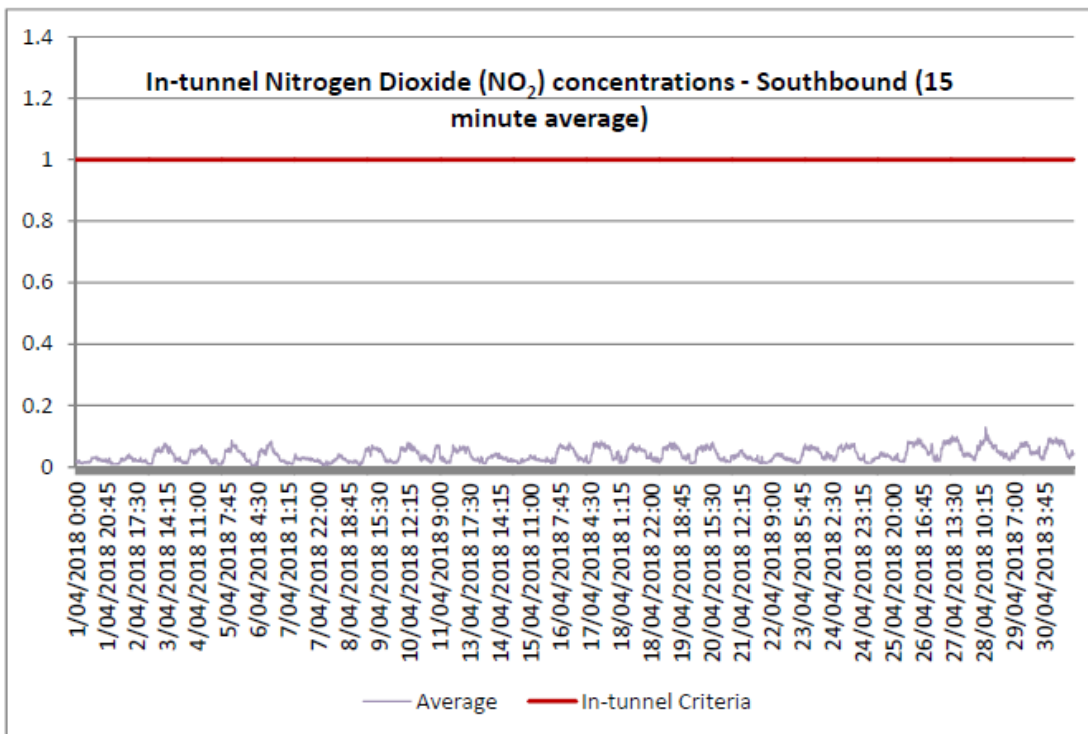


Figure 6 Southbound in-tunnel Nitrogen Dioxide