

Air Quality and Dust Monitoring Monthly Report – May 2019

Birmingham City Council



Department for Transport

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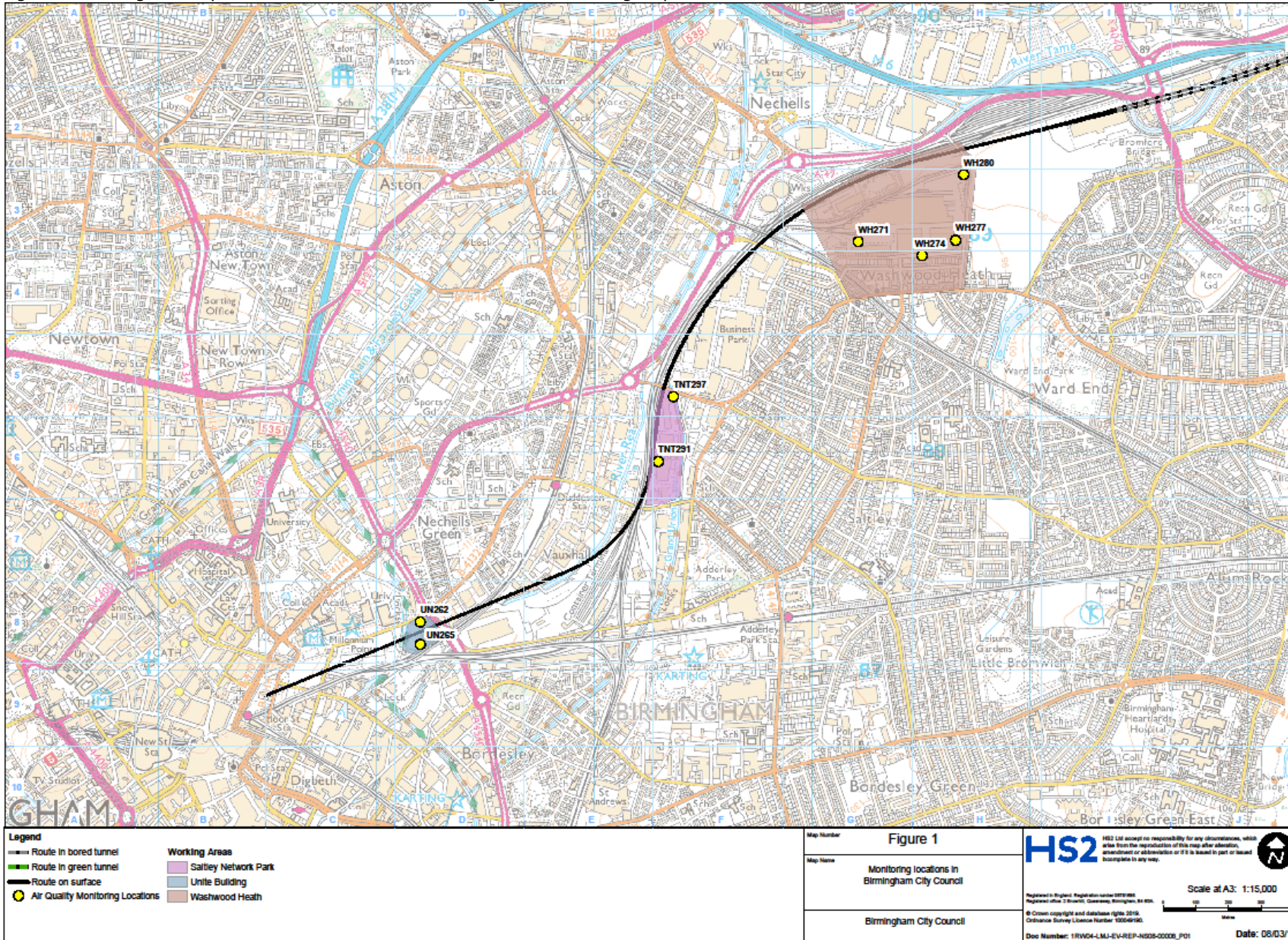
Monthly Summary

- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High-Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of dust monitoring undertaken within Birmingham City Council (BCC) during May 2019.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with dust monitoring locations for May 2019.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report monthly available from www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2, which highlights the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.
- 1.1.4 The current phase of works commenced in BCC during September 2018 at the Washwood Heath Site, and in December 2018 at the Unite Building Site and Saltley Network Park Site, and will continue to run into 2019. Following completion of the demolition works at the UK Mail Site in September 2018, the dust monitoring was decommissioned (monitoring ID: HS21UKM262 and HS22UKM265).
- 1.1.5 The current worksites (Washwood Heath, Saltley and Unite), as presented in Appendix A, Figure 1, include demolition of the existing buildings. The majority of the buildings to be demolished are constructed of metal cladding and brick, and with steel structures at Unite. Crushing of the material will take place at Washwood Heath and Unite, however there will be no works taking place below slab level. There will be no crushing at Saltley Network Park.
- 1.1.6 Eight (8) dust monitors (DM11s) were installed for the current phase of work, of which, four (4) were installed at the Washwood Heath site, two (2) at the Unite Building Site, and two (2) dust monitors at the Saltley Network Park Site. The demolition and pre-demolition works are underway at these sites. The sites were previously classified with a high dust risk rating (Washwood Heath) and a medium to high dust risk rating (Saltley and Unite). Works at the Saltley Network Site finished at the end of May 2019, and the dust risk at the Site was re-assessed with the outcome being the risk had reduced sufficiently for the monitoring to be ceased at the Site. Therefore, from June onwards, monitoring will continue at Washwood Heath and Unite Sites only.
- 1.1.7 Dust monitoring locations and results for May 2019 are presented in Appendix B, Table 1 together with line charts for May from each dust monitor.

- 1.1.8 The trigger level of $190 \mu\text{g}/\text{m}^3$, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – October 2018*' has been applied.
- 1.1.9 Data capture for May monitoring data was below 90% for monitors 271 (Washwood Heath 3), 274 (Washwood Heath 4), and 280 (Washwood Heath 6). Problems with power supply at Washwood Heath 4 and 6 has been determined as the cause of this loss of data. The monitoring site at Washwood Heath 3 has been experiencing ongoing telemetry issues, and data loss is not attributable to faults with the device, as the location is considered to be a localised 3G black spot. In addition, the monitor appears to have been vandalised at some point during the month with the wind shield being removed from the device. Results at this monitor from the 16/05/2019 and for the remainder of May 2019 are therefore considered invalid. An investigation at Washwood Heath 4, has shown a modem fault as the potential reason for data loss at this monitor during May. This is currently being investigated further. An investigation into the poor data capture at Washwood Heath 6 suggests that there are modem/SIM issues at the Site. The Service provider for the monitor has been contacted and has been informed that the SIM at the instrument has been cancelled on two occasions and therefore the device has not been sending the data. Monitors 277, 262, 265, 291, and 297 all showed a data capture of greater than 90%.
- 1.1.10 No complaints were received relating to air quality and dust during this monitoring period (May 2019).

Appendix A – Worksite and Dust Monitoring Locations

Figure 1: Birmingham City Council Worksites and Monitoring locations during May 2019



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and May 2019 Results

Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	Data capture rate (%)
HS2 3 WH 271	410698,289273	Monitor secured on a stand	High	Yes	N/A	22.4	0.2	168.0	0	39.5
HS2 4WH 274	410661,288971	Monitor secured on a stand	High	Yes	N/A	12.6	3.1	33.9	0	84.1
HS2 5WH 277	410508,288901	Monitor secured on a stand	High	Yes	N/A	14.6	7.7	40.8	0	100.0
HS2 6WH 280	410214,288965	Monitor secured on a stand	High	Yes	N/A	13.4	9.3	60.1	0	23.7
HS2 1 UNITE 262	408204,287222	Monitor secured on a stand	Medium to High	Yes	N/A	11.3	6.7	43.2	0	100.0
HS2 2 UNITE 265	408203,287119	Monitor secured on a stand	Medium to High	Yes	N/A	11.9	3.9	47.5	0	100.0
HS2 7 TNT 291	409365,288254	Monitor secured on a stand	Medium to High	Yes	N/A	13.5	7.0	118.1	0	100.0
HS2 9 TNT 297	409296,287957	Monitor secured on a stand	Medium to High	Yes	N/A	13.5	7.1	135.8	0	100.0

Figure 1: Construction dust hourly mean indicative PM₁₀ concentration for WSP HS2 3WH 271 (May 2019)

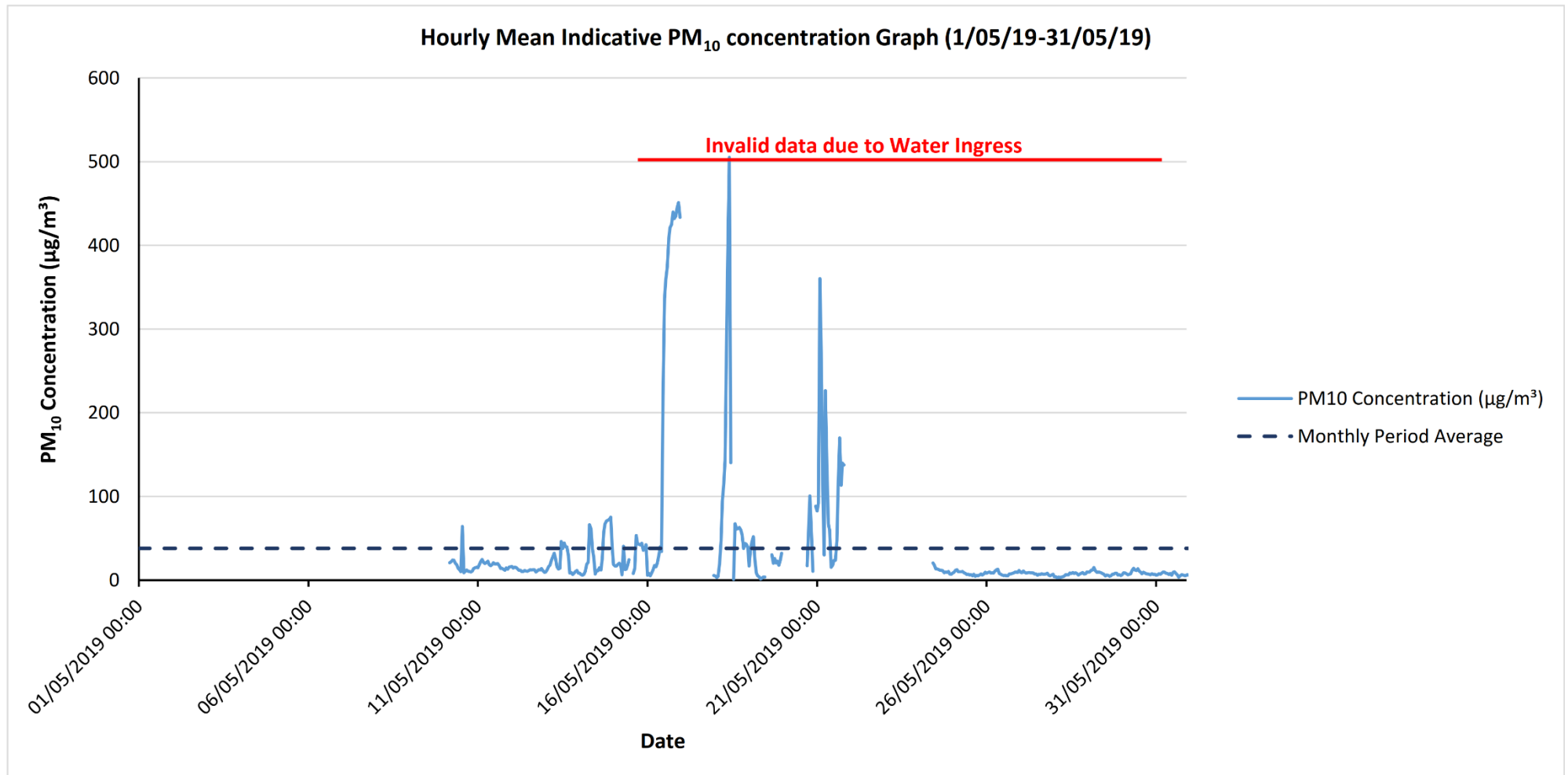


Figure 2: Construction dust hourly mean indicative PM₁₀ concentration for WSP HS2 4WH 274 (May 2019)

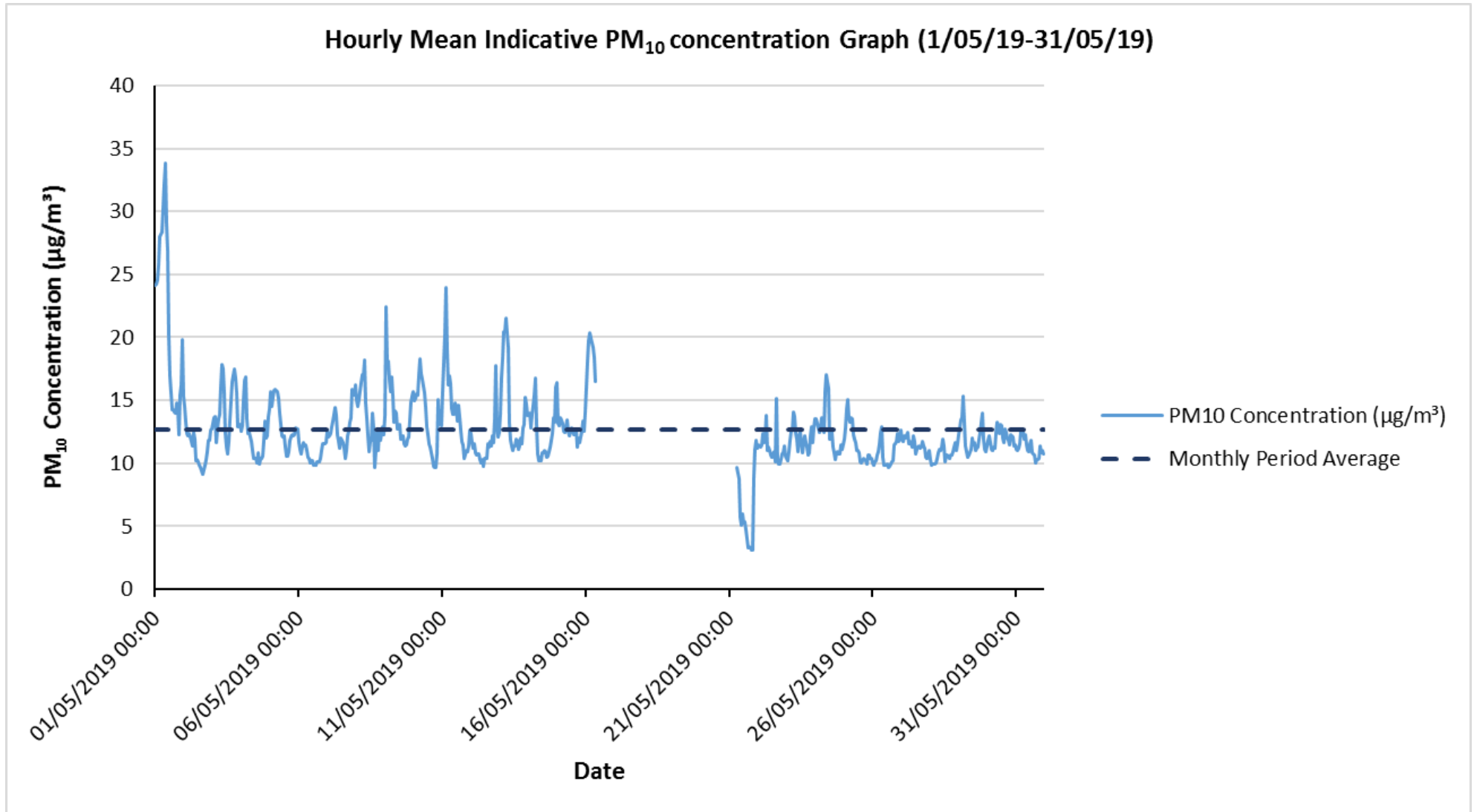


Figure 3: Construction dust hourly mean indicative PM₁₀ concentration for WSP HS2 5WH 277 (May 2019)

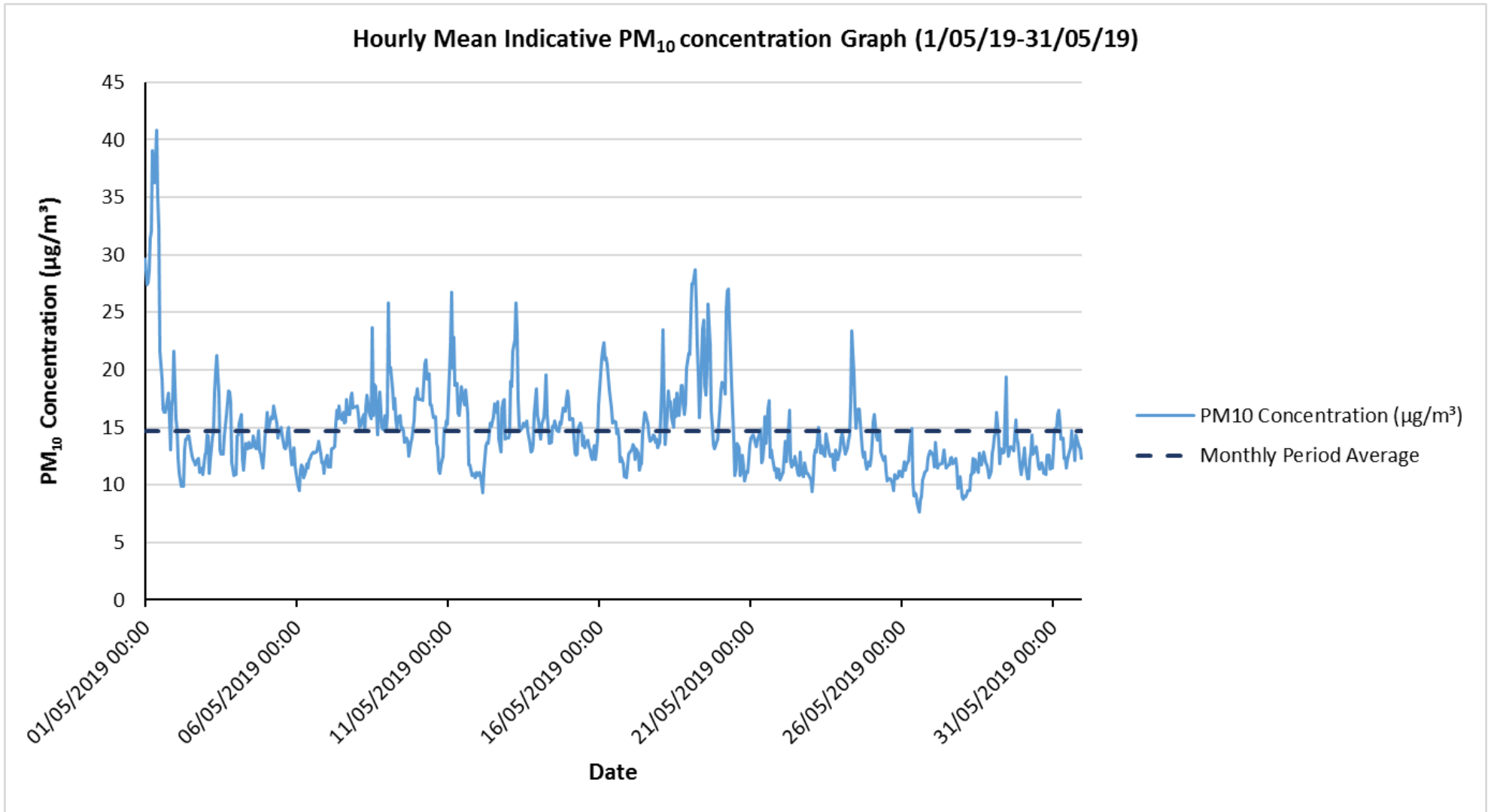


Figure 4: Construction dust hourly mean indicative PM₁₀ concentration for WSP HS2 6WH 280 (May 2019)

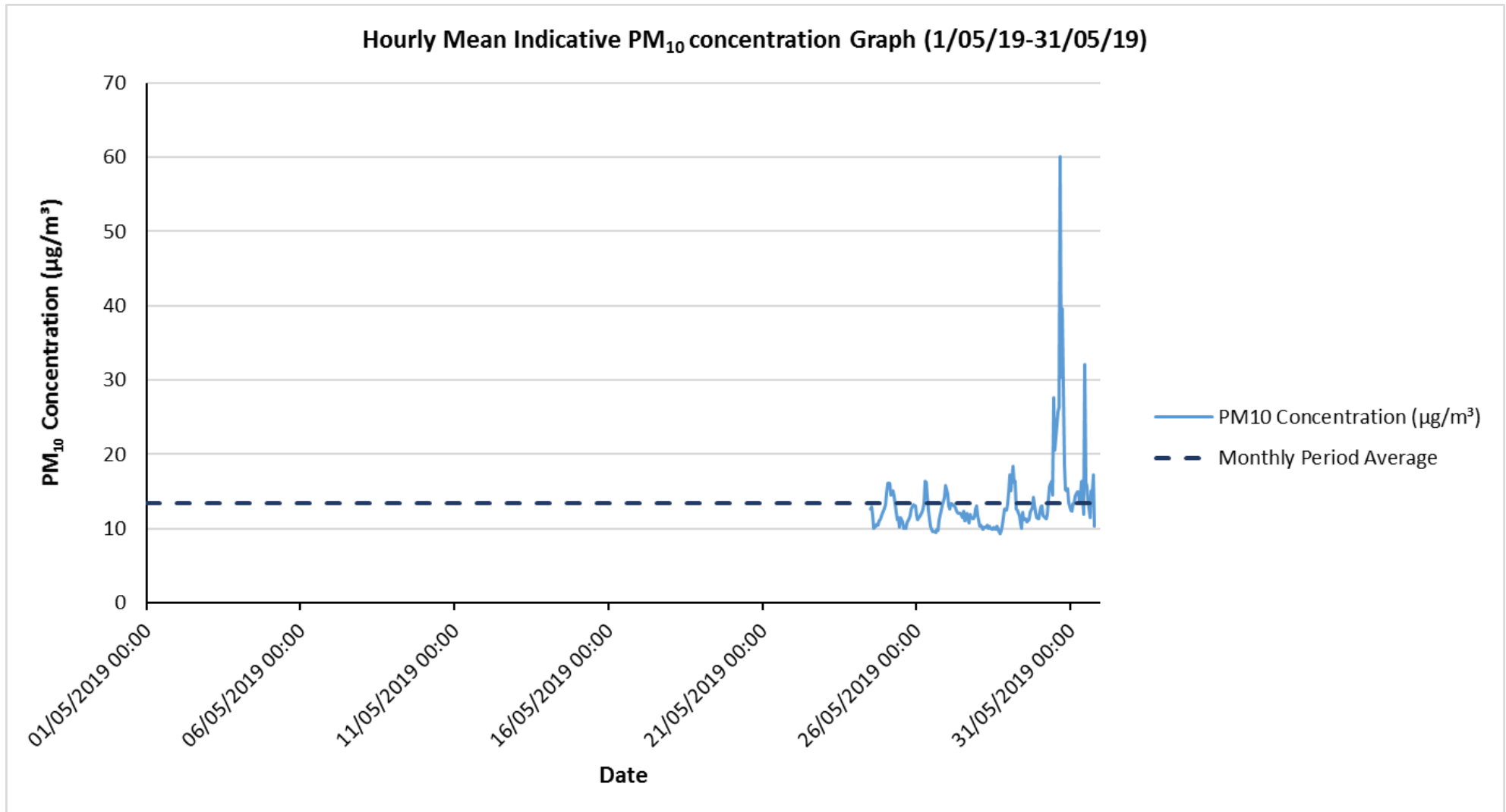


Figure 5: Construction dust hourly mean indicative PM₁₀ concentration for WSP HS2 1 UNITE 262 (May 2019)

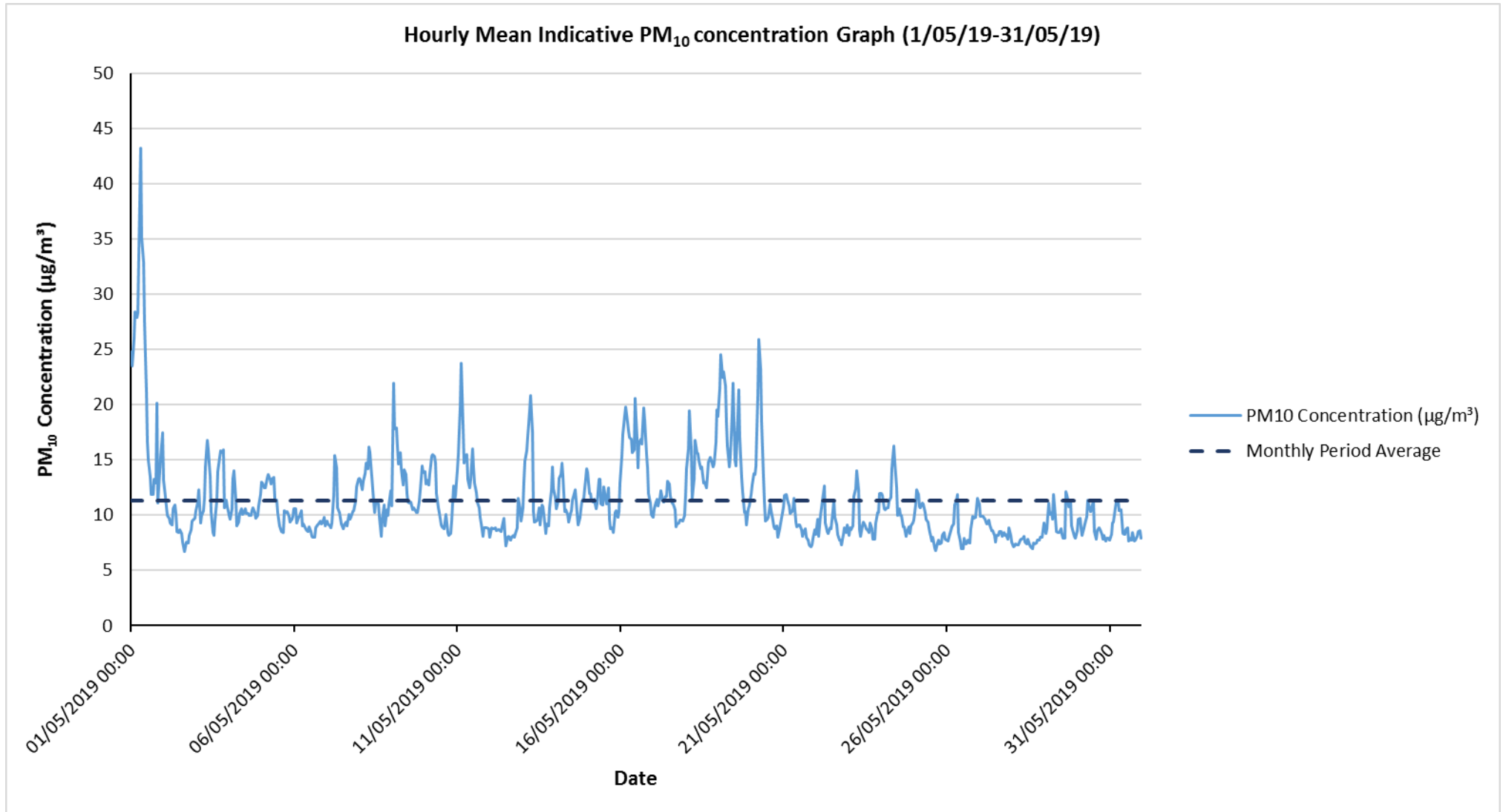


Figure 6: Construction dust hourly mean indicative PM₁₀ concentration for WSP HS2 2 UNITE 265 (May 2019)

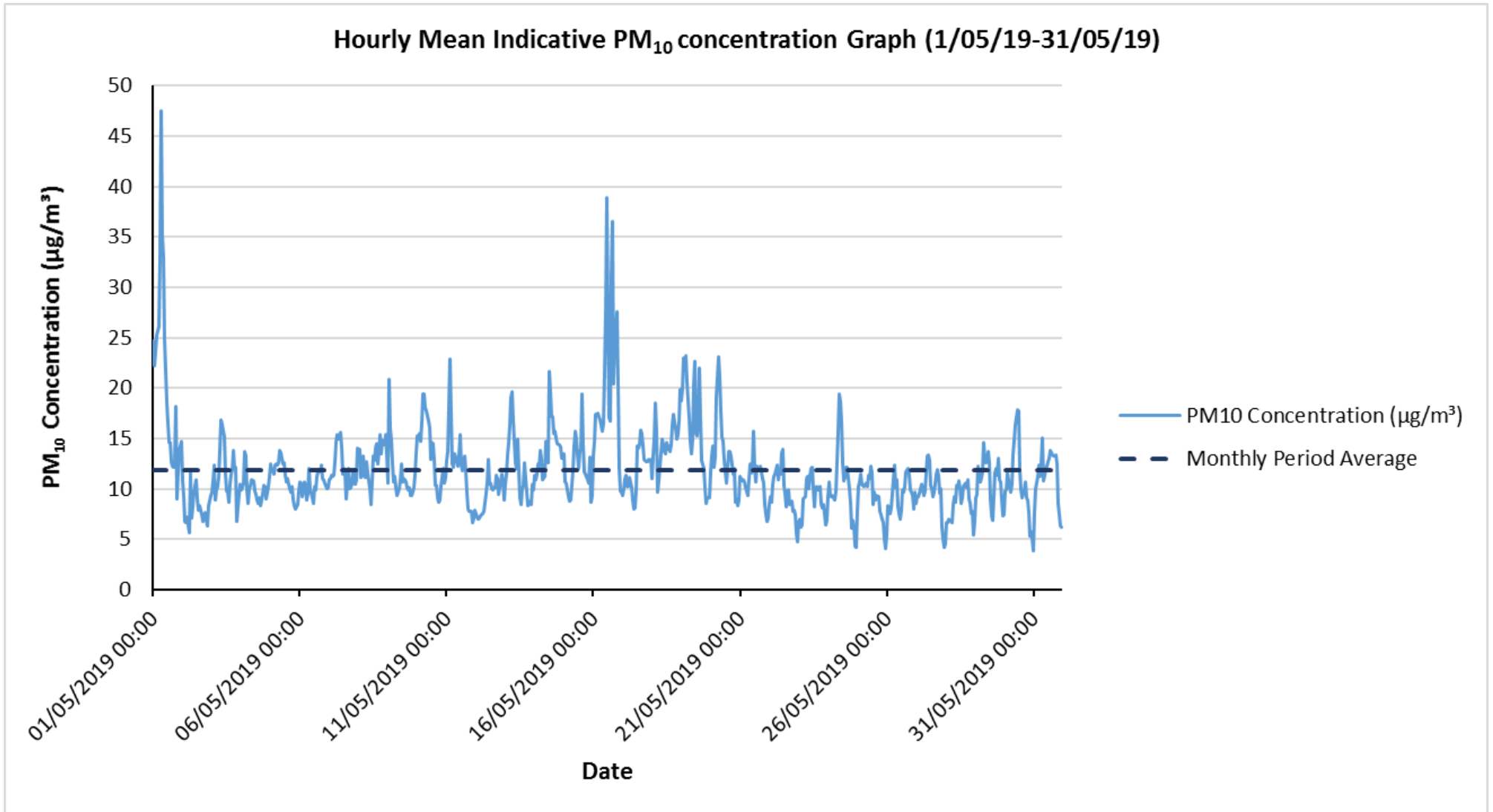


Figure 7: Construction dust hourly mean indicative PM₁₀ concentration for WSP HS2 7 TNT 291 (May 2019)

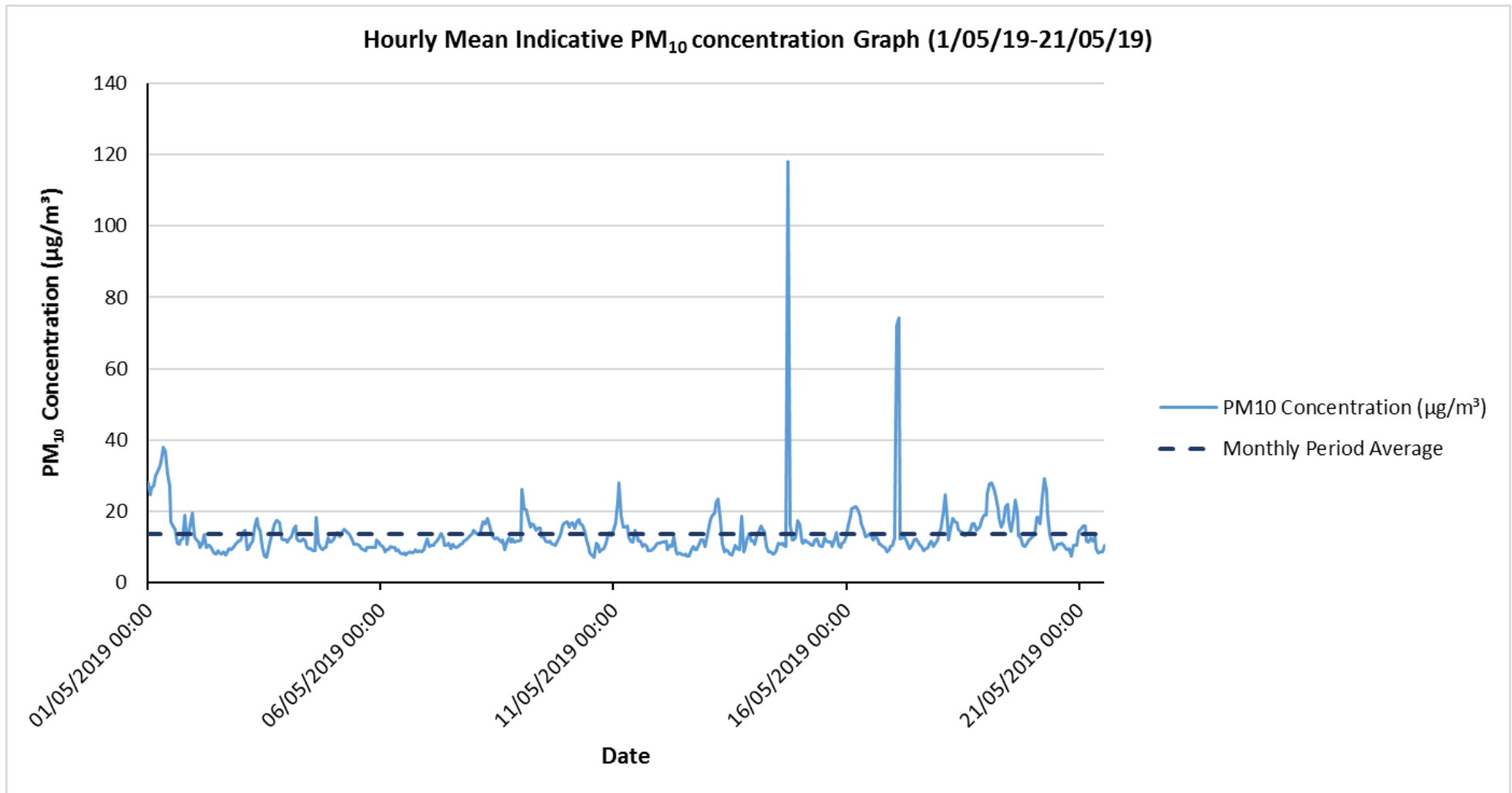


Figure 8: Construction dust hourly mean indicative PM₁₀ concentration for WSP HS2 9TNT 297 (May 2019)

