

Air Quality and Dust Monitoring Monthly Report – May 2019

London Borough of Ealing



SKANSKA



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 air quality and dust monitoring undertaken in the London Borough of Ealing (LBE) during April 2019 and May 2019 respectively.
- 1.1.2 Figure 1 and Figure 2 in Appendix A indicate the current work sites together with air quality and dust monitoring locations.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report 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 within the LBE during April 2018 and are expected to be completed by July 2019. The current worksites, as presented in Appendix A, Figure 1 and Figure 2, include:
- Demolition of buildings on Victoria Road, worksite ref. S002-WS01;
 - Soft strip and demolition of buildings on Atlas Road, worksite ref. S001-WS05;
 - Demolition works at Willesden Euro Terminal, worksite ref. S001-WS03;
 - Demolition and groundworks at Old Oak Common Depot (located in the London Borough of Hammersmith and Fulham), worksite ref. S004-WS01, anticipated to be completed in December 2019; and
 - Soft Strip at Mandeville Road Pumping Station, worksite ref. S002-WS02.
- 1.1.5 Nine (9) dust monitors were installed around worksites, where works are underway. These sites returned a medium or high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor.
- 1.1.7 The trigger level of 190 µg/m³, 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.
- 1.1.8 There were two (2) exceedances of the dust trigger level recorded during the month of May 2019. Exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.

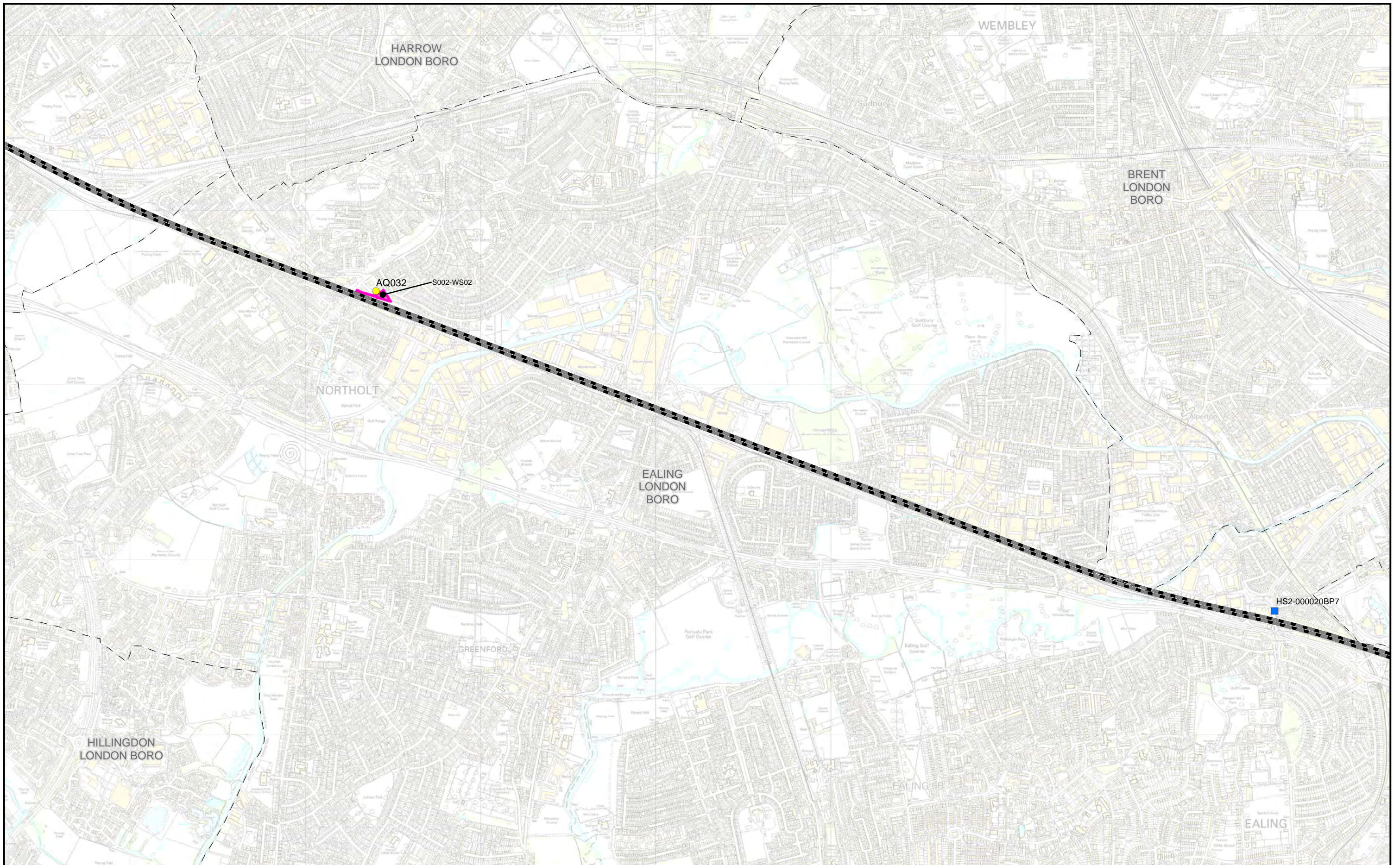
- 1.1.9 Data capture for AQ025 was 69.4% for the month of May 2019. This was as a result of the monitor pump failing. This was replaced, but during the downtime, no hard demolition works were underway and should any exceedances have been created by the site activities, this would have been picked up by AQ037.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) was undertaken at six (6) locations in April 2019, around highways within the LBE as part of the management of air quality where significant effects may occur as a result the scheme.
- 1.1.11 Diffusion tube monitoring results were provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values were recorded during the monitoring period.
- 1.1.12 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2019 running mean.
- 1.1.13 Table 1 provides a summary of the complaint information related to dust or air quality received during the reporting period, together with the findings of any related investigations.

Table 1: Summary of complaints received during May 2019 in LBE

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
AQComp07	S002-WS01	A large volume of dust, as a result of the concrete crushing operations works on Victoria Road site, is affecting neighbouring property on Victoria Road (10/05/2019).	Following receipt of the complaint, works were stopped and the dust suppression methodology reviewed and revised to ensure all potential dust impacts were mitigated, before resuming activities.
AQComp08	S004-WS01	Complaint was received from resident of Wells House Road regarding impacts of noise, vibration and dust on local residents of works at OOC and surrounding sites (14/05/2019).	The resident was provided with an explanation summarising the methods being implemented to mitigate impacts in line with the Code of Construction Practise.
AQComp09	S001 -WS05	Rubble mound from the demolished Rowan House causing additional dust in the air throughout May 2019.	The site team reviewed dust suppression methodology for the location, and ensured suitable suppression was in place to minimise any associated dust impacts.

Appendix A – Worksites and Monitoring Locations

Figure 1 and 2: Worksites and monitoring locations within the LBE



Legend

- District/Borough boundary
- Route in tunnel
- Route on surface
- HS2 Chainage Markers

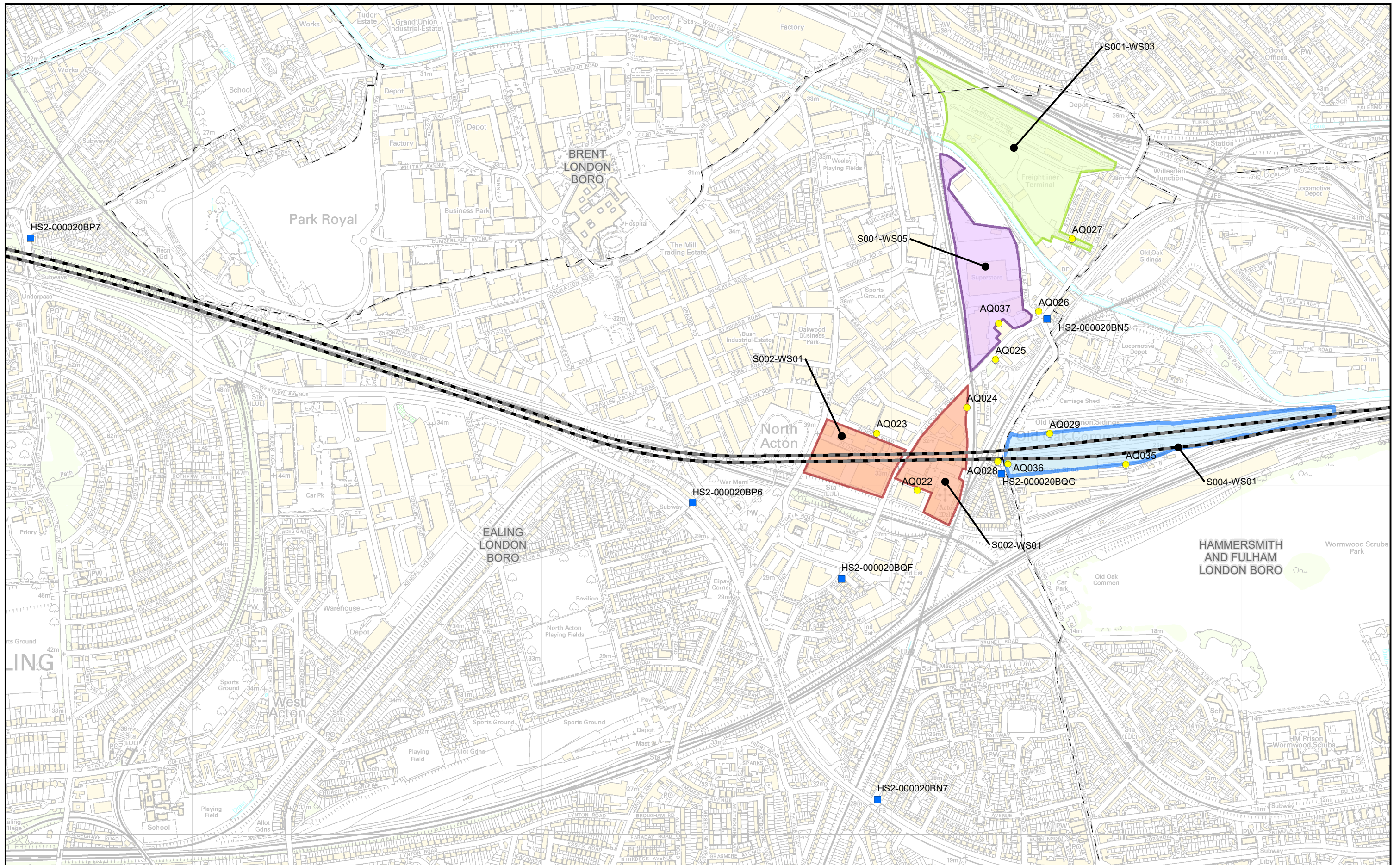
- Diffusion tube monitoring location
- Mandeville Road Pumping Station
- Dust monitoring location

Figure Number
Figure Name Worksites and Monitoring locations in LBE (sheet 1)
London Borough of Ealing

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- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - Dust monitoring location
 - Willesden Euro worksite
 - Victoria Road worksite
 - Old Oak Common worksite
 - Atlas Road worksite

Figure Number
HS2-000020BP7
HS2-000020BP6
HS2-000020BQF
HS2-000020BN7
HS2-000020BN5
HS2-000020BQG

Figure Name
Worksites and Monitoring locations in LBE (sheet 2)

London Borough of Ealing

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Appendix B – Dust Monitoring Results

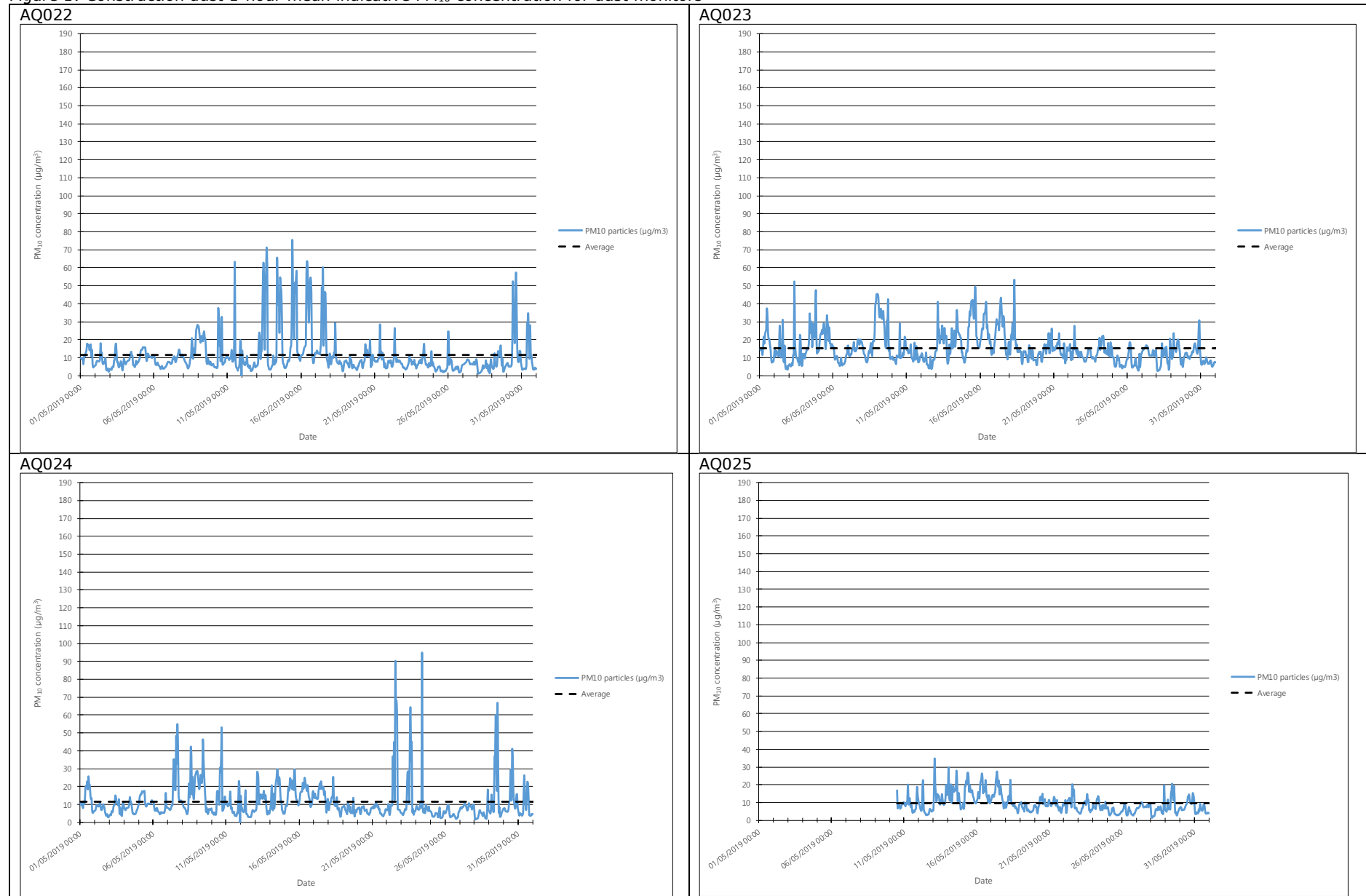
Table 1: Dust monitoring locations and May 2019 Results

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 (%)
AQ022	521072, 181985	Boden House	H	Yes	N	11.3	1.3	75.4	0	99.9
AQ023	520956, 182149	School Road	H	Yes	N	15.1	2.4	53.3	0	100.0
AQ024	521214, 182223	Braitrim House	H	Yes	Y	11.5	1.6	95.0	0	99.9
AQ025	521295, 182360	Victoria Road	H	Yes	N	9.4	1.4	35.0	0	69.4
AQ026	521419, 182497	Old Oak Lane	H	Yes	N	10.2	1.2	41.1	0	100.0
AQ027	521515, 182706	Stephenson Street	H	Yes	N	12.1	1.5	63.3	0	100.0
AQ028	521302, 182067	Wells House Road	H	Yes	N	18.7	1.6	279.2	2	100.0
AQ032	513402, 184536	Badminton Close	M	Yes	N	7.5	1.1	26.9	0	98.3
AQ037	521304, 182464	Atlas Road	H	Yes	N	8.0	1.2	51.6	0	99.9

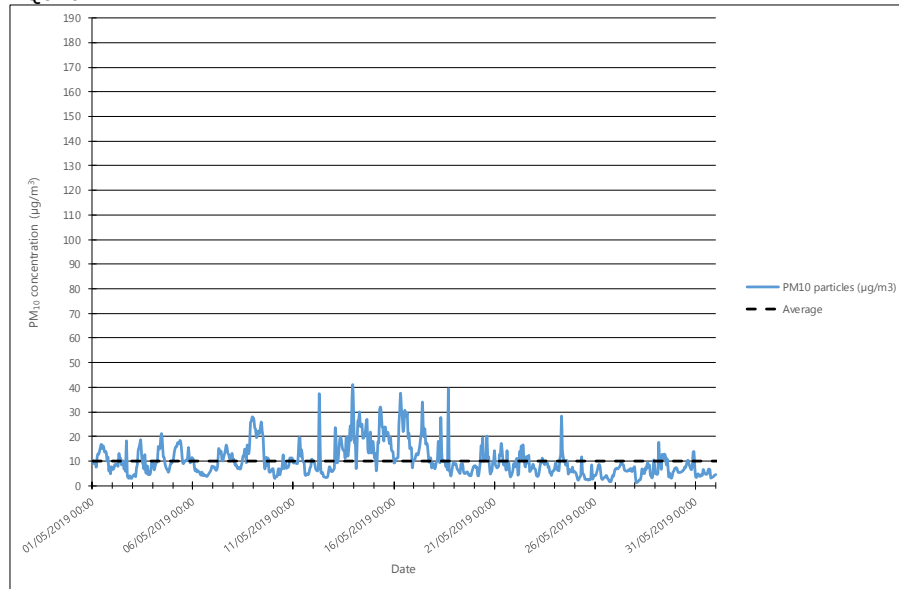
Table 2: Summary of exceedances of trigger level in May 2019

Period exceeding trigger level	Worksite reference	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
10/05/2019 11:01-13:00 (2x exceedances)	S004-WS01	AQ028	n/a	The trigger was not associated with dust from HS2 works. The monitor had just been serviced and trigger was considered to be caused by loose debris in the inlet tube following the service.	N/A

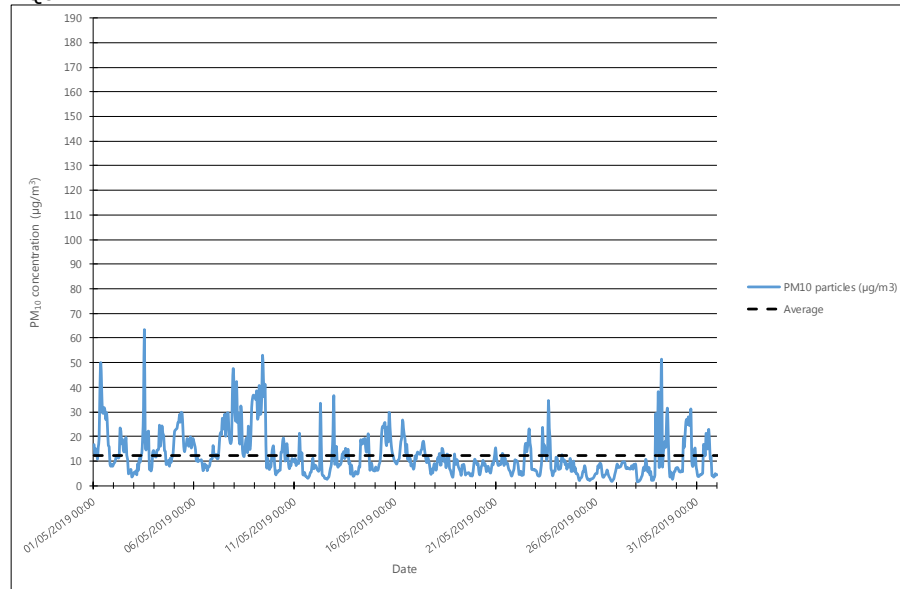
Figure 1: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors



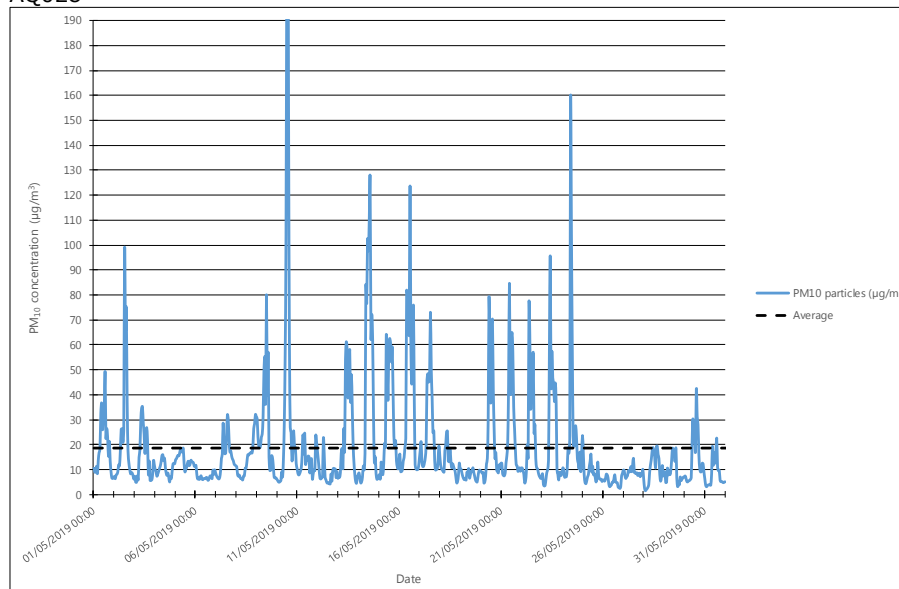
AQ026



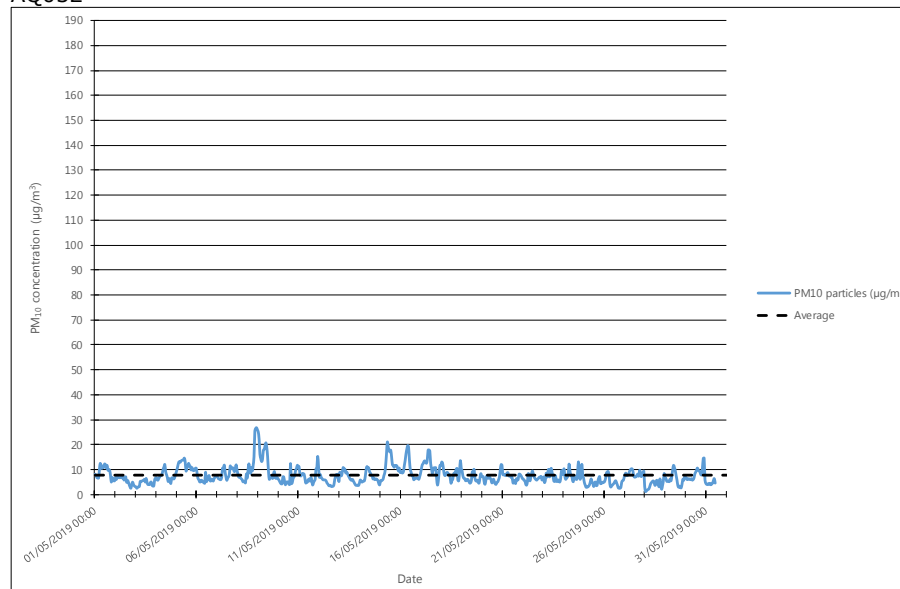
AQ027



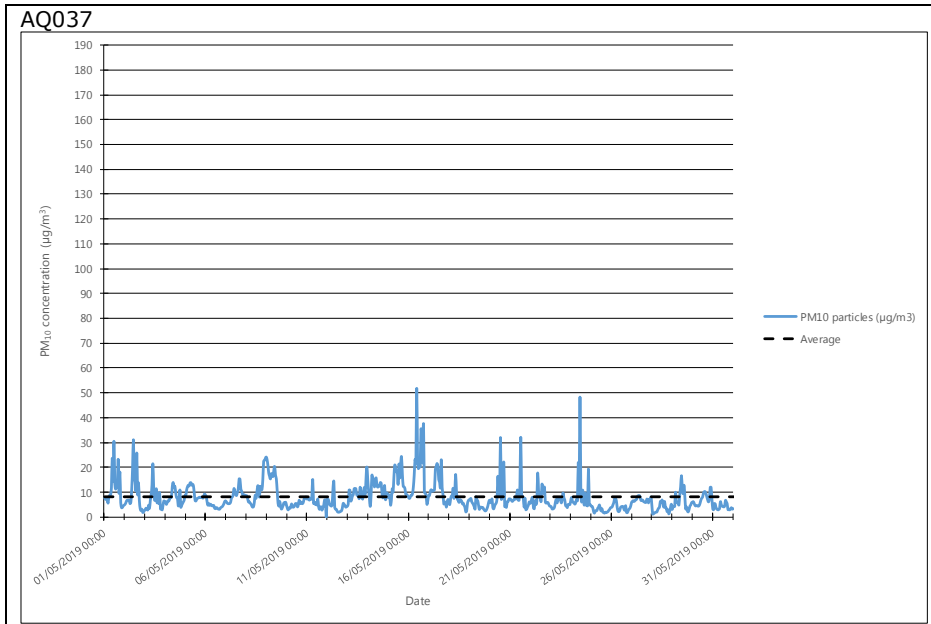
AQ028



AQ032



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Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2019 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BN5	Sign post on Victoria Road	521443, 182477	63	64	Tube missing	54									61
HS2-000020BN7	The Approach street sign	520959, 181102	75	77	66	47									66
HS2-000020BQF	Conway Drive sign post	520856, 181733	69	68	61	59									64
HS2-000020BQG	Lamp post outside No 1. Wells House Road on Old Oak Common Lane	521312, 182033	69	63	60	49									60
HS2-000020BP6	Triplicate site next to the Ealing, Western Avenue Acton roadside automatic monitoring station	520430, 181950	68	64	54	45									58
HS2-000020BP7	Triplicate site next to the Ealing, Hangar Lane Gyrotary roadside automatic monitoring station	518537, 182708	83	80	74	49									72

¹ Note: to aid interpretation and conform with best practice, the monthly measurements in this table are reported rounded to the nearest whole number. The annual mean presented here is calculated based on laboratory data to 4 significant figures, rounded to a whole number, and therefore may differ slightly to a mean derived from averaging the rounded monthly measurements in the table.