

Air Quality and Dust Monitoring Monthly Report – May 2019

**London Borough of Hammersmith and
Fulham**



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 Hammersmith and Fulham (LBHF) 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 LBHF during May 2018, and are expected to be completed by December 2019. The current worksite, as presented in Appendix A, Figure 1, includes:
- Demolition and groundworks at Old Oak Common Depot, worksite ref. S004-WS01.
- 1.1.5 Four (4) dust monitors were installed around the worksite, where pre-demolition works are underway. This site returned a 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 in Figure 3.
- 1.1.7 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.
- 1.1.8 There were four (4) exceedances of the dust trigger level 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 AQ035 was 64.4% for the month of May 2019. This was as a result of a problematic power supply which has now been rectified.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO_2) was undertaken at seven (7) locations in April 2019, around highways within the LBHF as part of the management of air quality where significant effects may occur as a result the scheme.

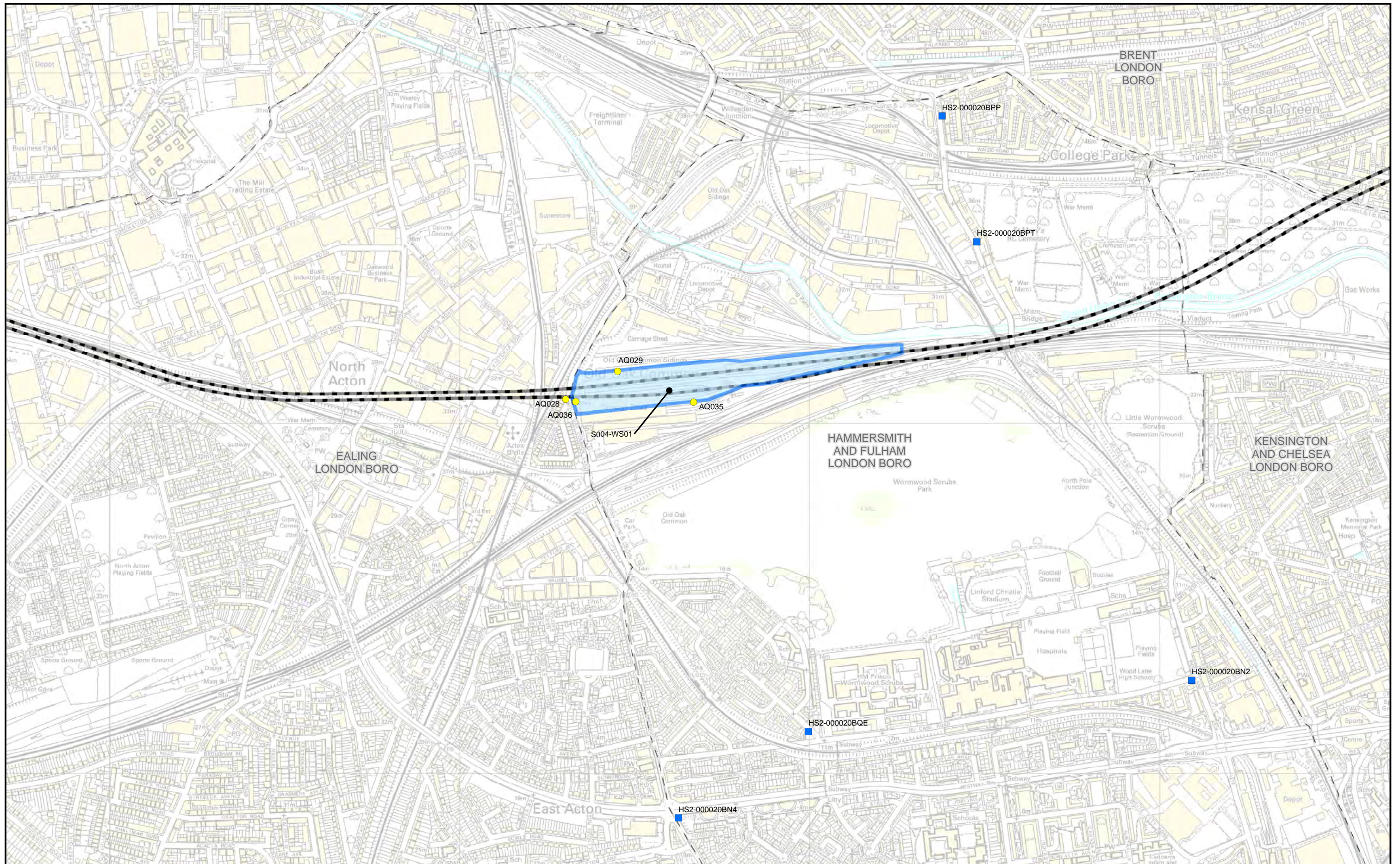
- 1.1.11 Diffusion tube monitoring results were provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values 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 LBHF

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
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.


Appendix A – Worksites and Monitoring Locations


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




Legend	
	Route in tunnel
	Route on surface
	Dust monitoring location
	Diffusion tube monitoring location
	Old Oak Common worksite

Figure Number	
Figure Name	Worksites and Monitoring locations in LBHF (sheet 1)
London Borough of Hammersmith and Fulham	

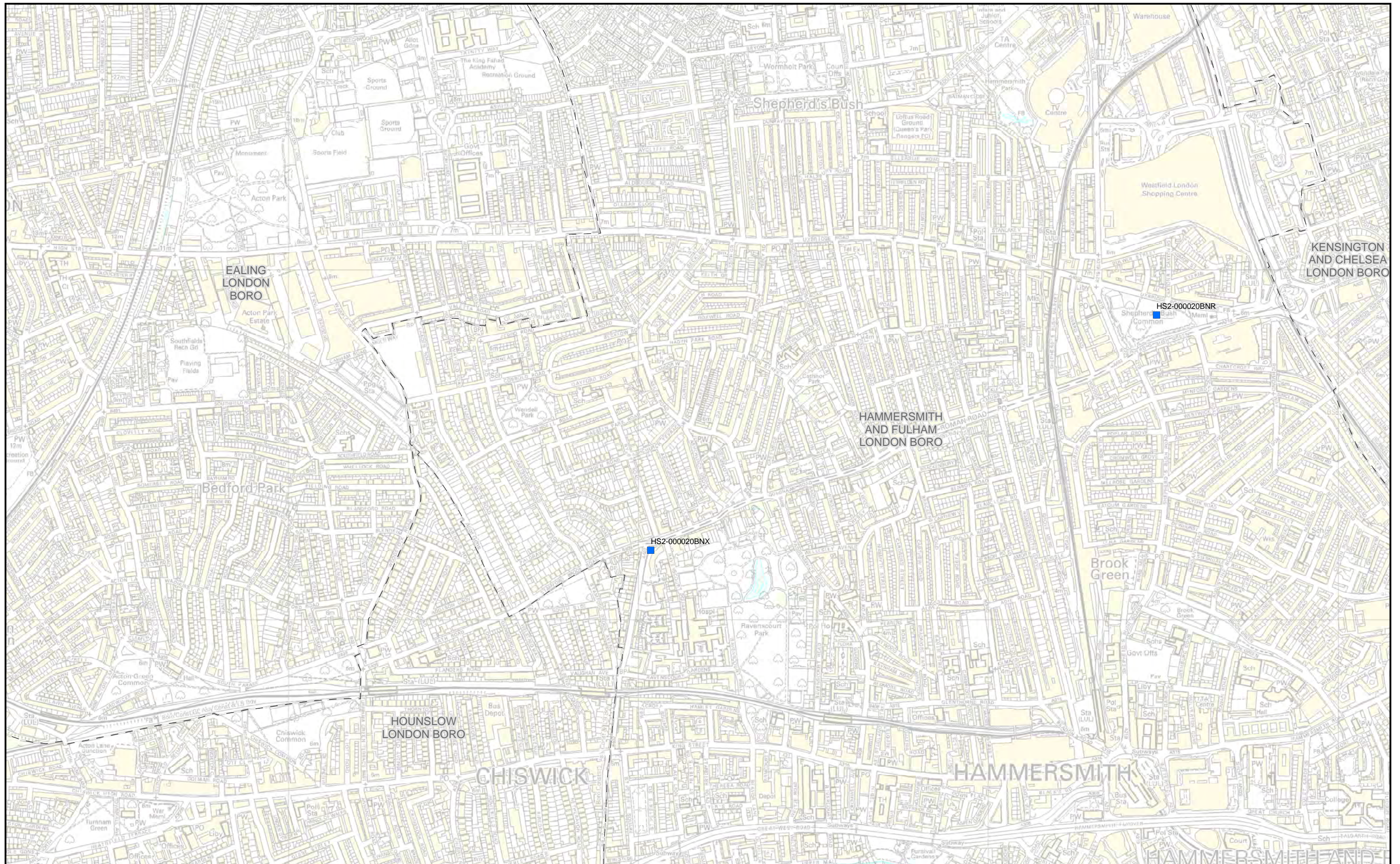

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- Legend**
-  Route in tunnel
 -  Route on surface
 -  Diffusion tube monitoring location

Figure Number


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

London Borough of Hammersmith and Fulham

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Appendix B – Dust Monitoring Results

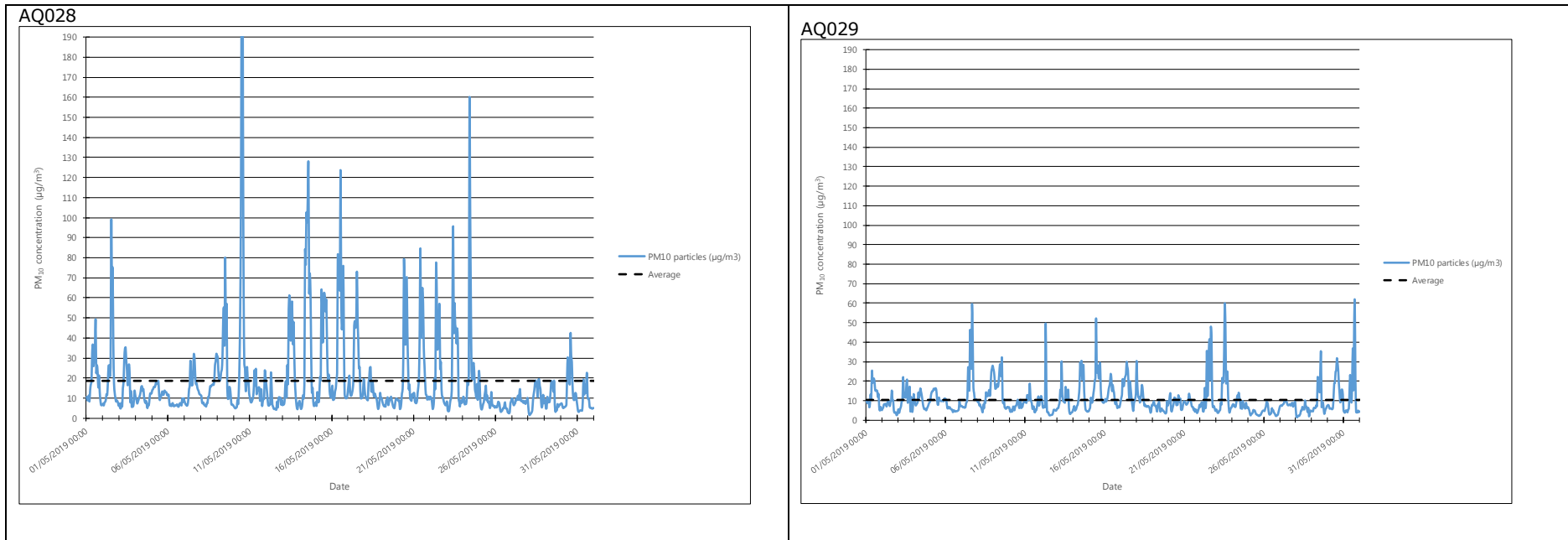
Table 1: Dust monitoring locations and May 2019 Results

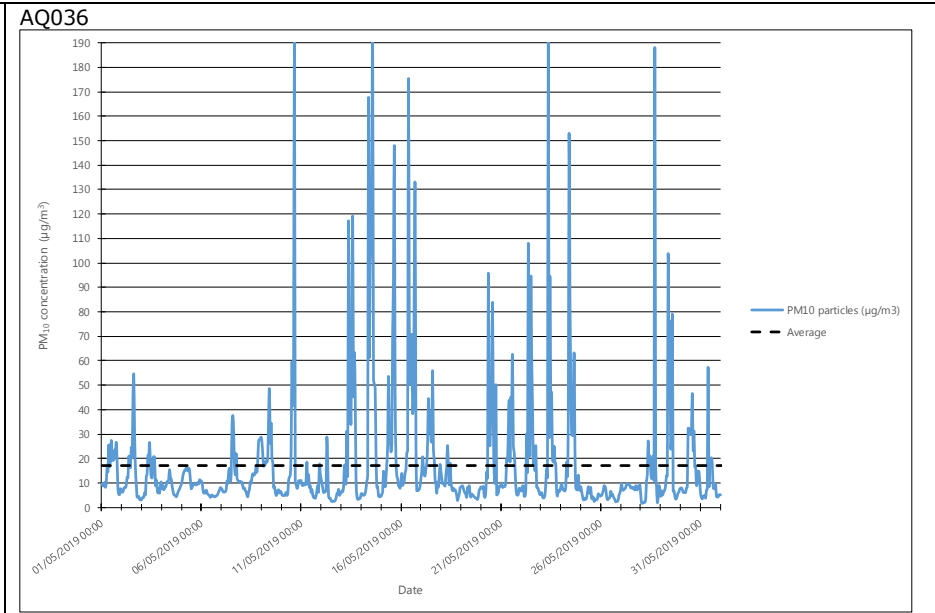
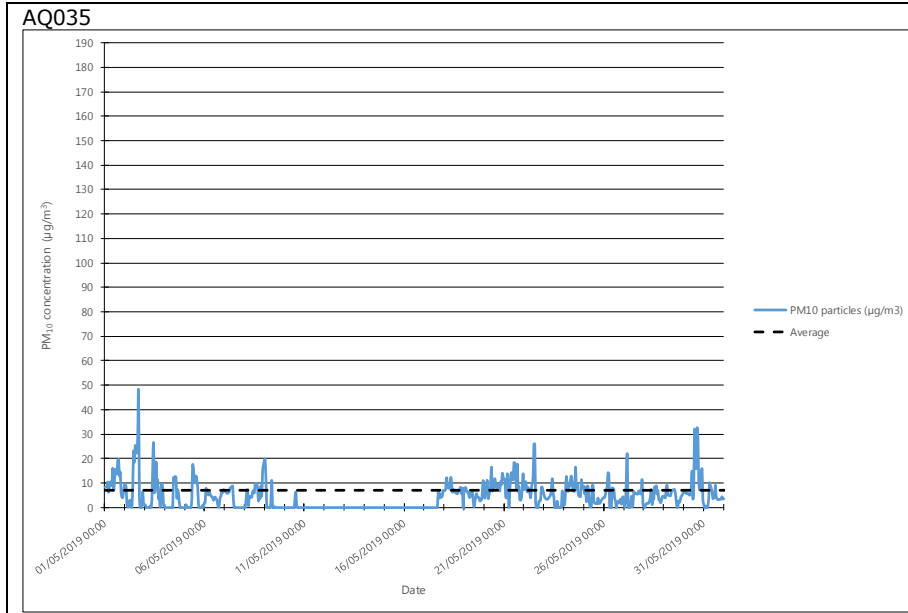
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	1-hour data capture (%)
AQ028	521302, 182067	Wells House Road	H	Yes	N	18.7	1.6	279.2	2	100.0
AQ029	521451, 182148	Old Oak Common	H	Yes	N	10.4	1.3	61.2	0	100.0
AQ035	521668, 182060	Old Oak Common	H	Yes	N	7.0	0.1	48.1	0	64.4
AQ036	521331, 182061	Old Oak Common	H	Yes	N	17.0	1.6	194.5	2	100.0

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	These triggers were not associated with dust from HS2 works. The monitor had just been serviced and the trigger was considered to be caused by loose debris in the inlet tube following the service.	n/a
10/05/2019 15:01-16:00	S004-WS01	AQ036	n/a		
23/05/2019 08:01-09:00	S004-WS01	AQ036	n/a	No obvious activities was identified as the cause of the trigger. It was considered to be attributable to dust being suspended as a result of vehicles driving along the site haul road.	The road sweeper was deployed in response to the trigger and the times between the dust suppression bowser being deployed along the haul road was reduced.

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





Appendix C – Air Quality Monitoring Results

Table 2: 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
HS2-000020BN2	Lamp post on Du Cane Road	523092, 181264	53	61	52	41									52
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	52	56	47	58									53
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	52	50	42	43									47
HS2-000020BNX	Signpost on A402 Goldhawk Road	522035, 179199	48	45	36	42									42
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	60	64	46	44									54
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	49	65	53	55									56
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	No data	43	32	35									36

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.