

Air Quality and Dust Monitoring Monthly Report – April 2019

London Borough of Camden



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 Camden (LBC) during March 2019 and April 2019 respectively.
- 1.1.2 Figure 1 to Figure 3 in Appendix A indicate the current worksites 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 LBC during December 2017 and are expected to be completed by December 2019. The current worksites, include:
- Demolition of former accommodation block and train maintenance shed, at the DB Cargo shed is now complete. Site office and welfare on the adjacent former Addison Lee compound on Granby Terrace, worksite ref. S001-WS01.
 - Archaeological dig at St James' Gardens and construction of an enclosure over the entire works site; worksite ref. S003-WS01.
 - Demolition at:
 - The IBIS Hotel, 3 Cardington Street, worksite ref. S003-WS05
 - National Temperance Hospital, Insull Wing, worksite ref. S003-WS02; and
 - 1-3 Cobourg Street, worksite ref. S003-WS05.
 - 132 – 140 Hampstead Road and Petrol Station, worksite ref: S001-WS02;
 - Thistle Hotel, Cardington Street, worksite ref. S003-WS04; and
 - Some of Euston Street, worksite ref. S003-WS07.
 - Securing of site and pre-demolition surveys at the Regents Park Estate worksite ref. S001-WS07.
 - Pre-demolition surveys and internal soft-strip at:
 - Walkden House, 67-75 & 77-79 Euston Street, worksite ref. S003-WS03;
 - Euston Street, Melton Street, Drummond Street block, worksite ref. S003-WS07; and
 - One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street, worksite ref. S003-WS09.
 - National Temperance Hospital, Site Office and Welfare 110-122 Hampstead Road and community garden, worksite ref. S003-WS06.
 - Taxi rank in Euston Square Gardens complete, worksite ref. S003-WS08.
 - Thames Water Compound, worksite ref. S001-WS05.
-

- Vehicle Holding Area, worksite ref. S001-WS04 (yet to be established).
- 1.1.5 Nineteen (19) dust monitors are installed around worksites, where demolition and pre-demolition 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 in Figure 4.
- 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 eight (8) exceedances of the dust trigger level recorded during the month of April 2019. Exceedances are presented in Appendix B, Table 2 and Table 3. All other results were in line with expected ranges.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO_2) was undertaken at sixty-five (65) locations in March 2019, around highways within the LBC as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.10 Diffusion tube monitoring results are 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.
- 1.1.11 NO_2 monitoring locations and results are presented in Appendix C, Table 4, together with the 2019 running mean.
- 1.1.12 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.

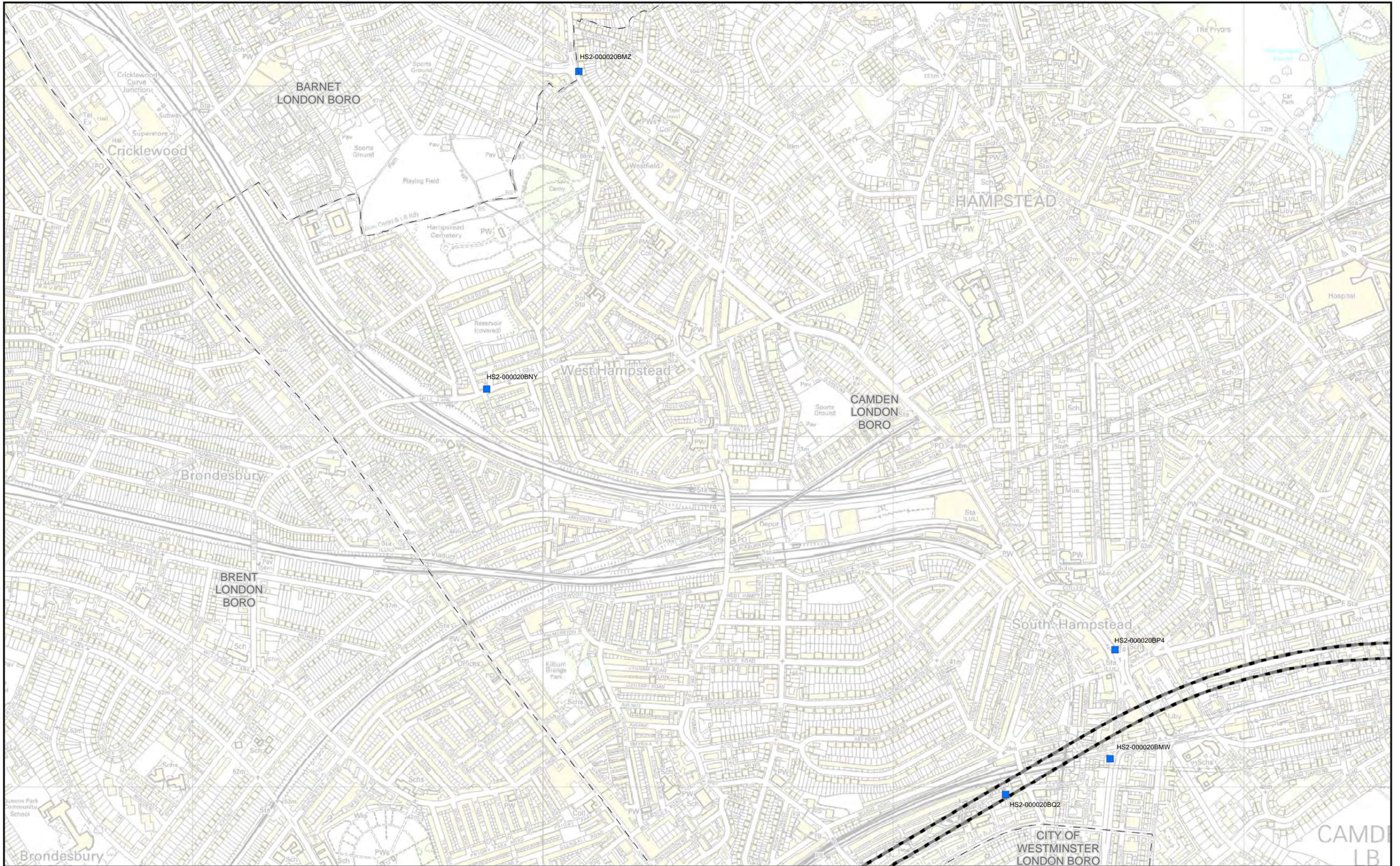
Table 1: Summary of complaints received during February 2019 in LBC

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-19-01973-C	S001-WS01	A complaint was received on 11/04/2019 relating to idling vehicles in Harrington Square and the associated concerns regarding air quality.	All complaints were advised that HS2 have committed to implementing the mitigation measures set out in the CoCP across all sites. In addition to this, HS2 have set strict vehicle and plant emission standards which are implemented across all HS2 works (including utilities). Full monitoring results will be presented and compared with baseline and
HS2-19-02021-C	S001-WS01	A complaint was received on 15/04/2019 relating to air	

		quality issues associated with a generator.	modelled predicted emissions within the Annual Report.
AQComp01-0419	S001-WS01	A complaint was received on 11/04/2019 by HS2 utility works at Gloucester Gate relating to traffic build up and the associated concerns around air quality. It was requested that diversion signage be reinstated.	
HS2-19-02024-C	S001-WS01	A complaint was received on 15/04/2019 relating to dust emissions associated with HS2 works.	The complaint was advised that the mitigation measures set out in the CoCP are applied to all HS2 sites. In the event that a dust monitor trigger alert is received, the actions set out in the CoCP will be followed.

Appendix A – Worksites and Monitoring Locations

Figure 1 to 3: Worksites and monitoring locations within the LBC



Legend

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

Figure Number

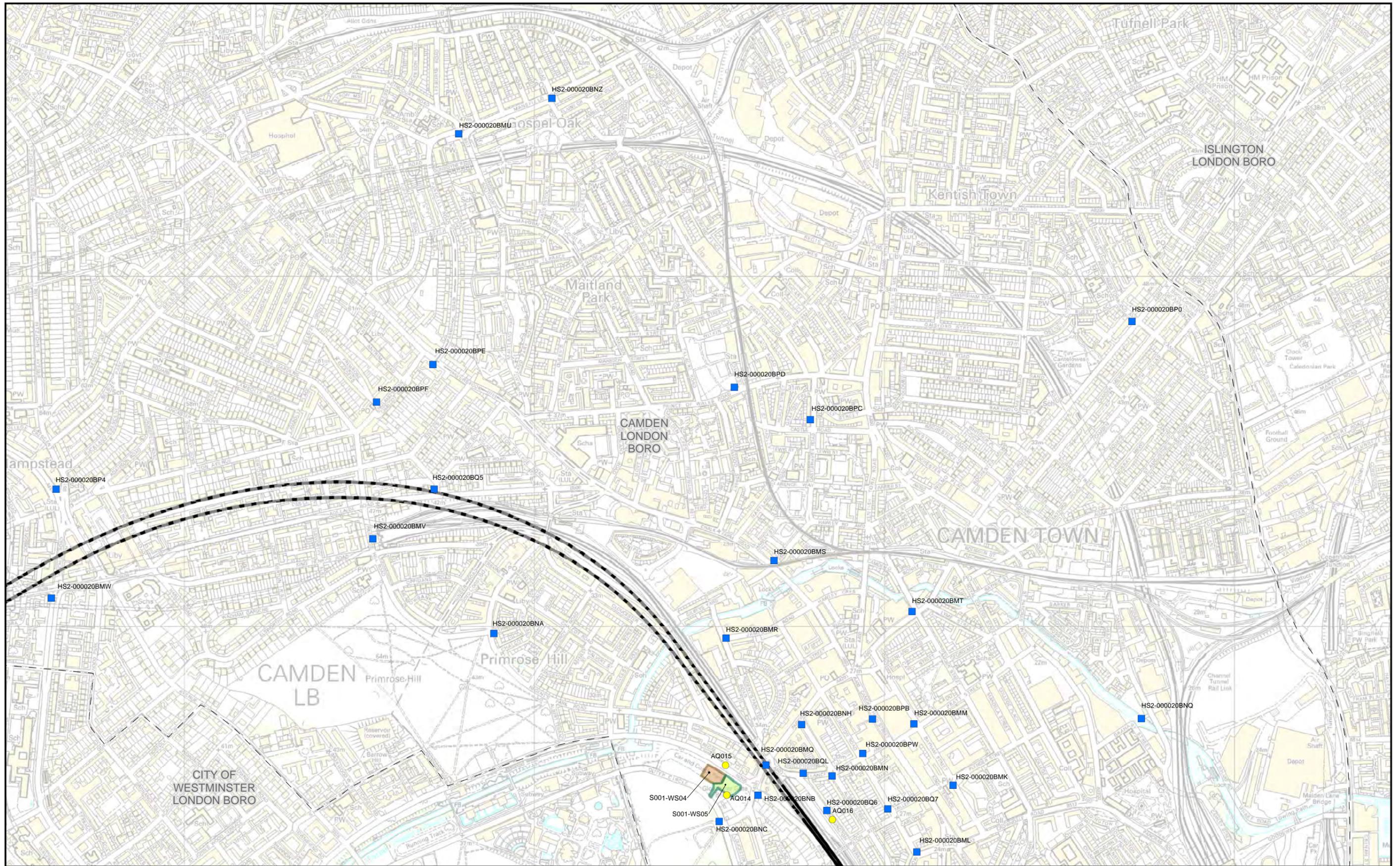
Figure Name
Worksites and Monitoring locations in LBC

London Borough of Camden

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- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - Dust monitoring location
 - Vehicle Holding Area
 - Thames Water Compound

Figure Number

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

London Borough of Camden

Figure Number

Figure Name

Worksites and Monitoring locations in LBC (sheet 2)

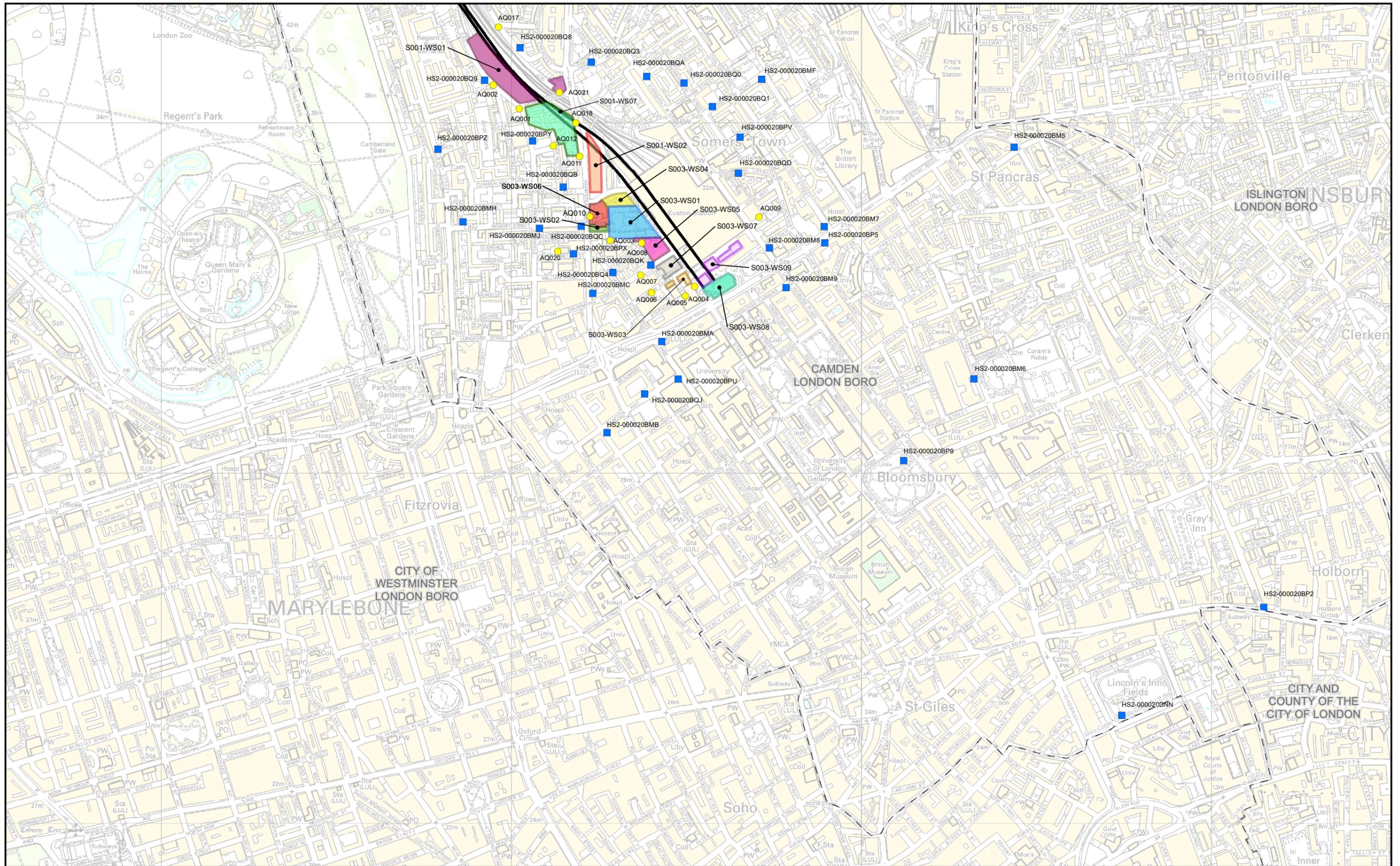
London Borough of Camden

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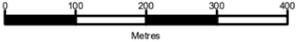
- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - Dust monitoring location
 - DB Cargo Shed and Compound worksite
 - St. James' Gardens worksite
 - National Temperance Hospital worksite
 - Ibis Hotel, 3 Cardington Street & 1-3 Cobourg Street
 - National Temperance Hospital, Insull Wing
 - Walkden House, 65-75 & 77-79 Euston Street
 - Thistle Hotel, Cardington Street
 - Euston Street, Melton Street, Drummond Street block
 - Euston Square Gardens
 - One Euston Square, 40 Melton Street and Gran Thorton House, 22 Melton Street
 - 132 and 140 Hampstead Road and Petrol Station
 - Regents Park Estate

Figure Number
 Figure Name
Worksites and Monitoring locations in LBC
 (sheet 3)

London Borough of Camden


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 0 100 200 300 400 Metres

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Appendix B – Dust Monitoring Results

Table 2: Dust monitoring locations and April 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 (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	H	Yes	N	17.4	1.9	82.3	0	100.0
AQ002	528947, 183107	Park Village East	H	Yes	N	15.5	1.9	61.0	0	100.0
AQ003	529282, 182663	St James Gardens	M	Yes	N	14.6	1.9	56.9	0	93.9
AQ004	529523, 182533	Melton Street	H	Yes	N	12.7	1.7	46.4	0	100.0
AQ005	529496, 182505	Stephenson Way	H	Yes	N	16.0	1.8	113.5	0	100.0
AQ006	529399, 182514	Euston Street	H	Yes	N	26.6	2.7	391.8	4	100.0
AQ007	529369, 182564	Drummond Street	H	Yes	N	15.9	2.1	90.9	0	100.0
AQ008	529369, 182648	Cobourg Street	H	Yes	N	21.0	1.9	570.8	2	95.3
AQ009	529707, 182730	Lancing Street	H	Yes	N	16.6	2.2	60.6	0	100.0
AQ010	529223, 182732	Hampstead Road South	H	Yes	N	23.1	3.5	190.7	1	100.0
AQ011	529195, 182904	Hampstead Road	H	Yes	N	24.3	3.5	93.4	0	100.0

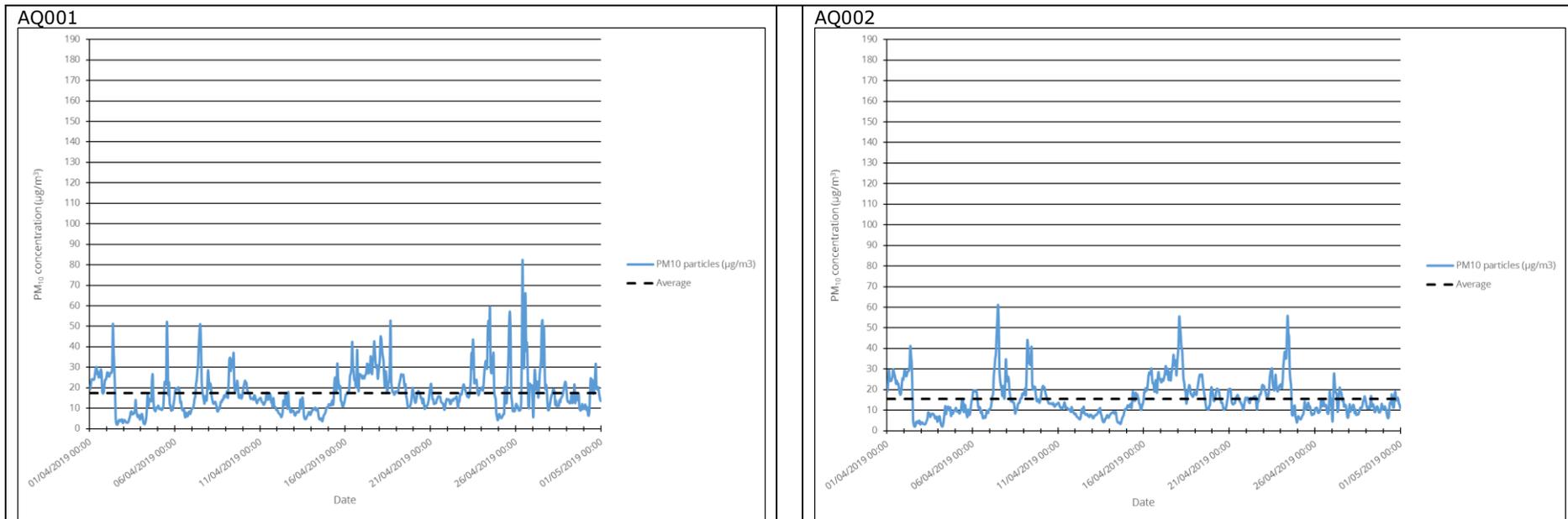
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	1-hour data capture (%)
AQ012	529119, 182934	Mackworth Street	H	Yes	N	18.0	2.0	64.2	0	100.0
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	13.0	1.6	372.8	1	100.0
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	13.4	2.6	48.9	0	100.0
AQ016	528851, 183448	Mornington Terrace North	H	Yes	N	10.1	1.4	42.3	0	100.0
AQ017	528963, 183274	Mornington Terrace South	H	Yes	N	11.7	1.7	45.3	0	100.0
AQ018	529184, 182999	Hampstead Road North	H	Yes	N	18.5	3.0	60.2	0	100.0
AQ020	529132, 182633	Netley School	n/a	Yes	N	13.8	2.1	46.8	0	55.8
AQ021	529127, 183116	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	H	Yes	N	17.0	2.4	165.7	0	100.0

Table 3: Summary of exceedances of trigger level in April 2019

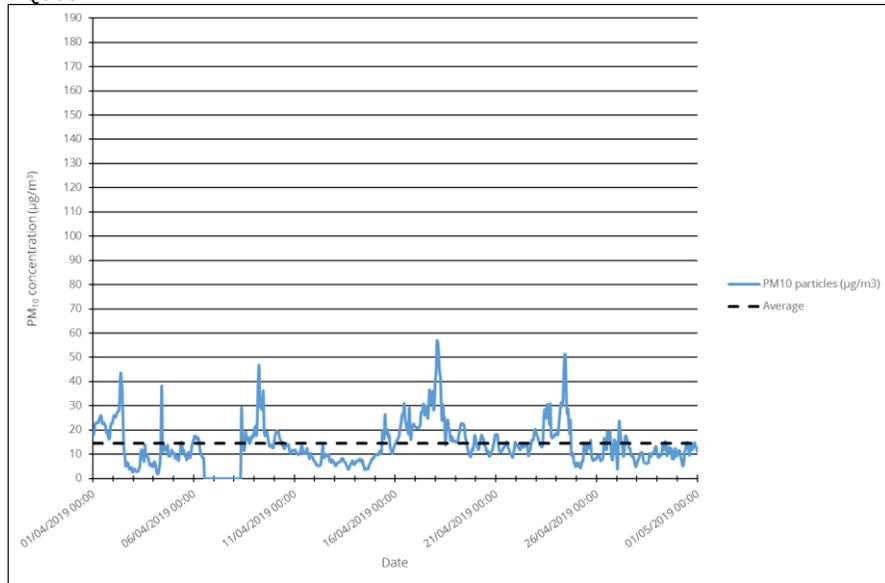
Period exceeding trigger level	Worksite reference	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
09/04/2019 15:01-16:00	S003-WS03	AQ006	n/a	The isolated triggers are considered to be associated with the demolition of the former Cottage Hotel which is within close proximity to this dust monitor. Demolition of the cottage hotel was being undertaken over a number of weeks and dust suppression was applied in accordance with the HS2 CoCP. These isolated triggers were investigated each time and the site team reported that they were suitably applying dust suppression for the operations.	Additional dust suppression was provided in response to the initial trigger and kept under review throughout the works.
12/04/2019 09:01-10:00	S003-WS03	AQ006	n/a		
12/04/2019 11:01-12:00	S003-WS03	AQ006	n/a		
16/04/2019 11:01-12:00	S003-WS03	AQ006	n/a		
04/04/2019 09:01-10:00	S003-WS05	AQ008	n/a	The trigger was associated with a fire at a nearby property opposite the site, and not considered to be associated with HS2 works.	n/a
26/04/2019 12:01-13:00	S003-WS05	AQ008	n/a	At the time of the trigger, dust suppression was observed to be effective at the former IBIS building and in accordance with the HS2 CoCP. Activities that were underway were at a distance from the monitor. Trigger considered to be associated with activities at a 3 rd party property and not associated with HS2 works.	n/a
16/04/2019 14:01-15:00	S003-WS06	AQ010	n/a	It was considered this trigger was associated with striking of the scaffold and sheeting in the south east corner of the former UCL site on Hampstead Road. Demolition works had been underway on site for many weeks but were not occurring at the time of the trigger.	The team were briefed about the need to continue to be vigilant regarding dust suppression across the works including the damping down of future scaffolding.

13/04/2019 11:01-12:00	S001-WS05	AQ014	n/a	No HS2 works occurring at the time of the trigger. It was considered that the trigger was associated with the compound being swept and as a result of the excessive Plane Tree pollen which had covered the floor area near the monitor.	n/a
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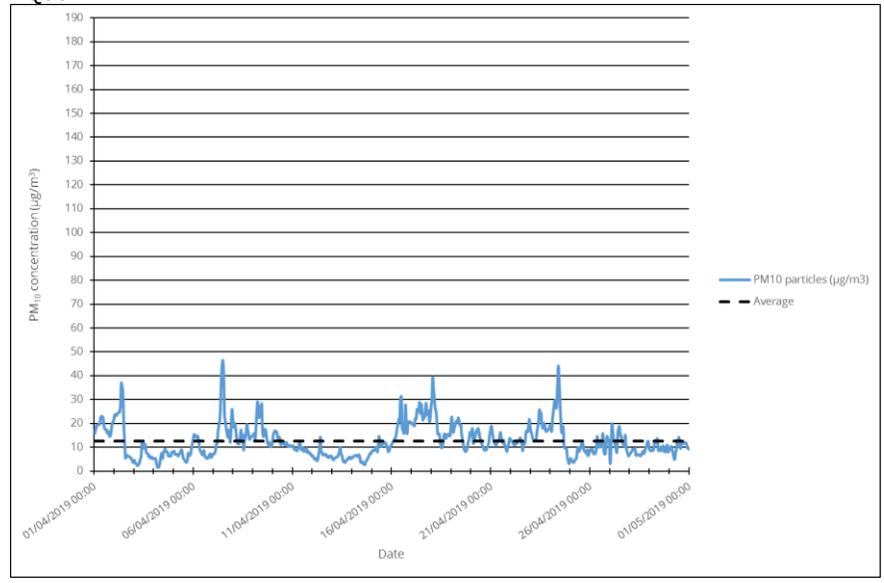
Figure 4: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors



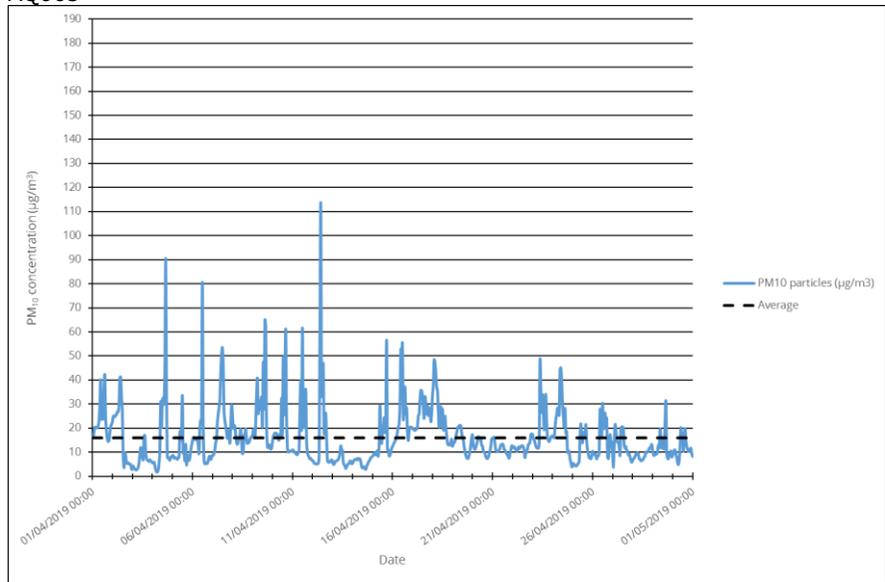
AQ003



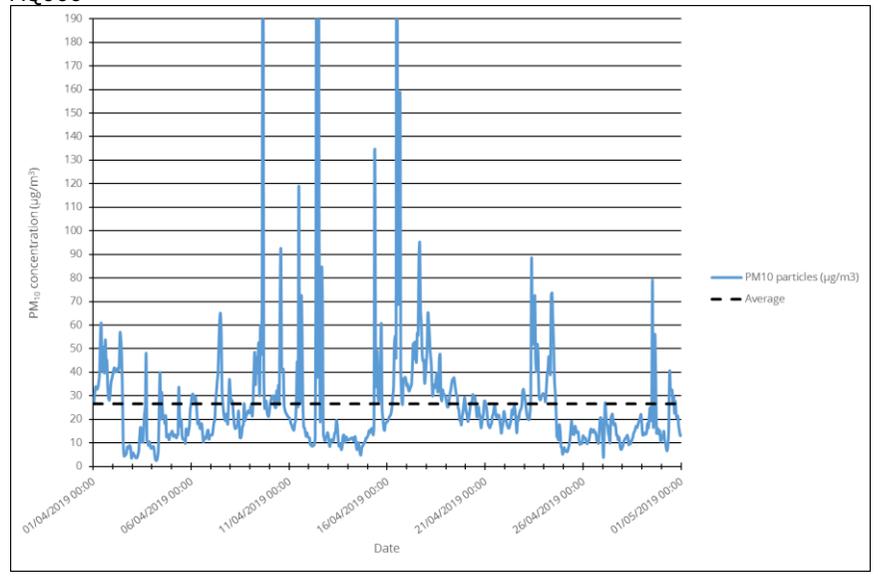
AQ004

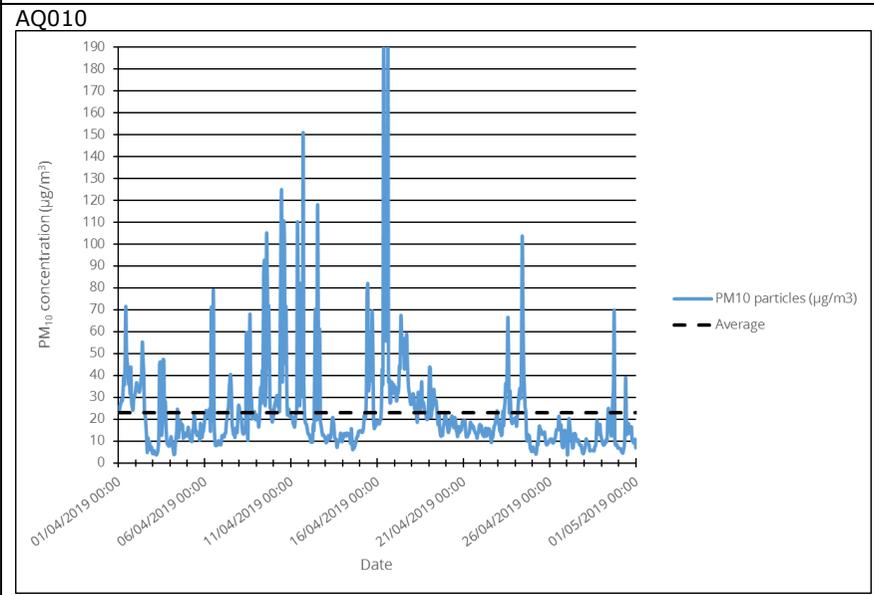
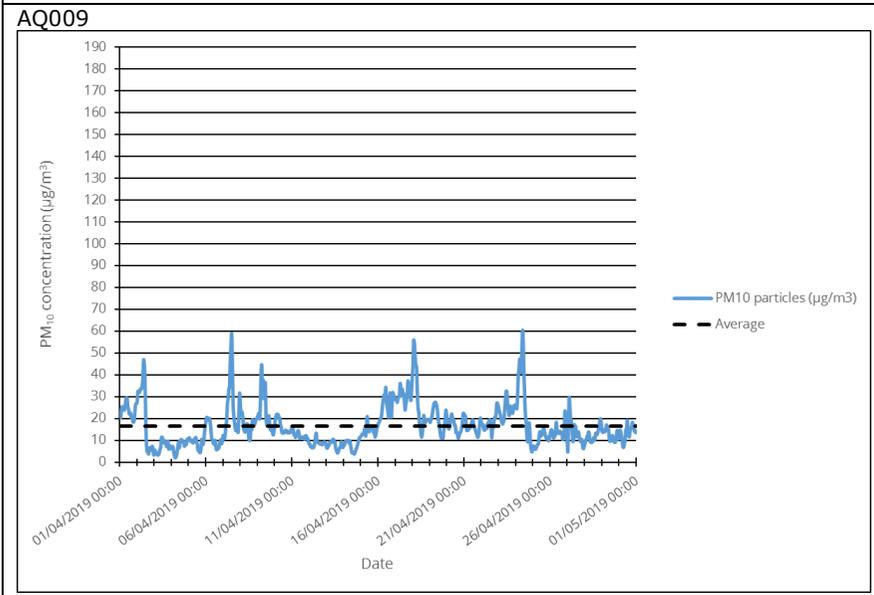
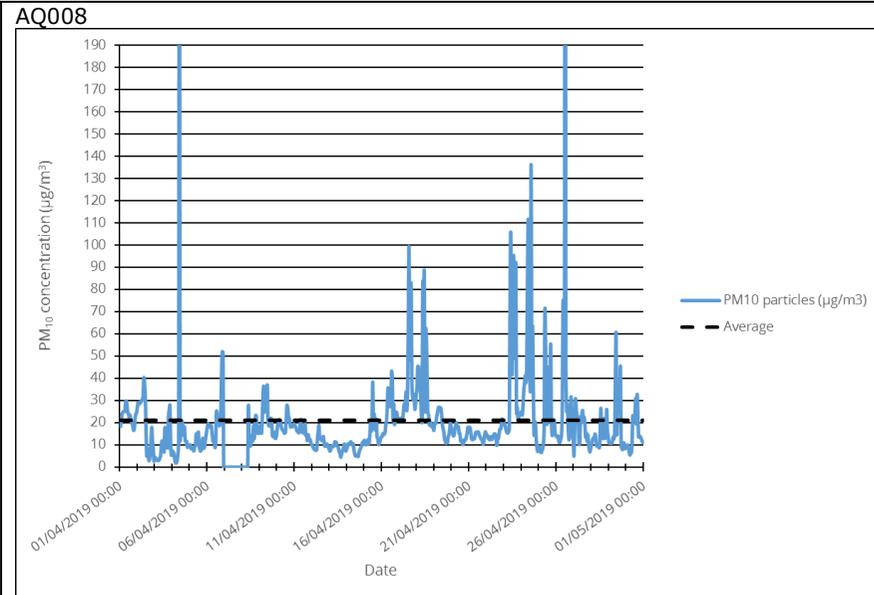
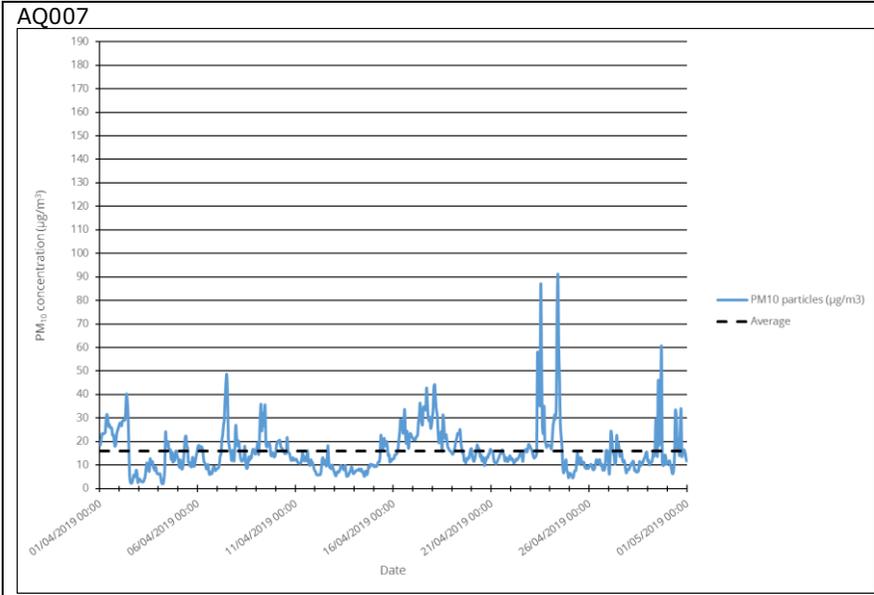


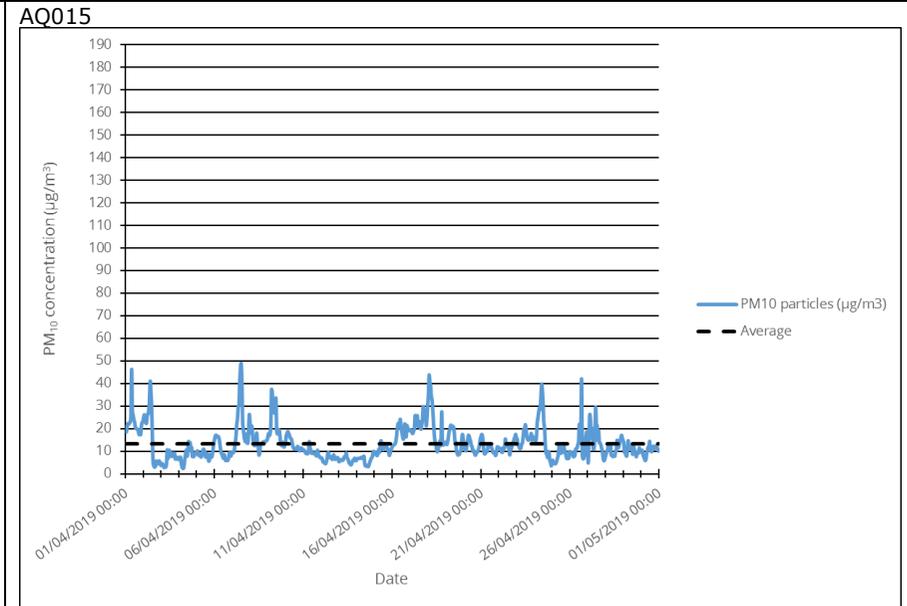
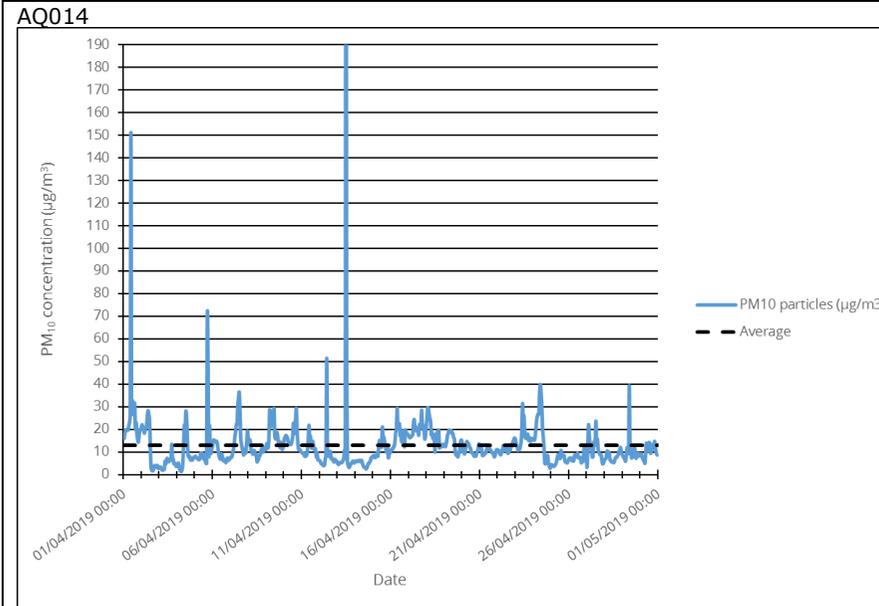
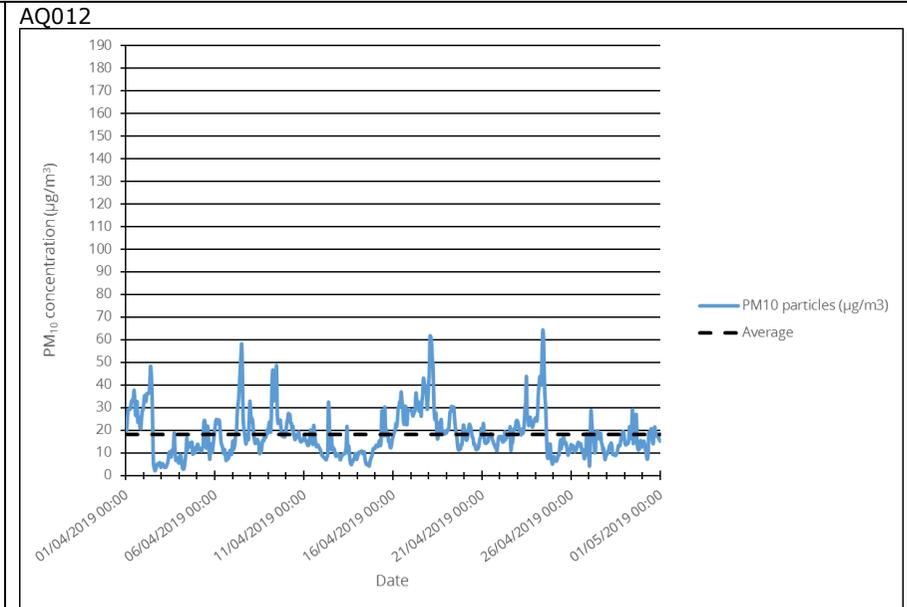
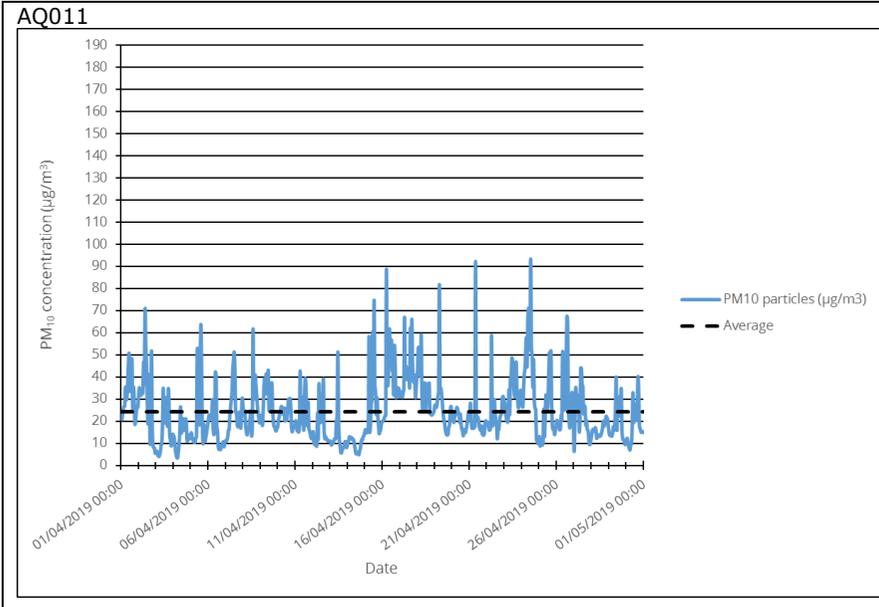
AQ005

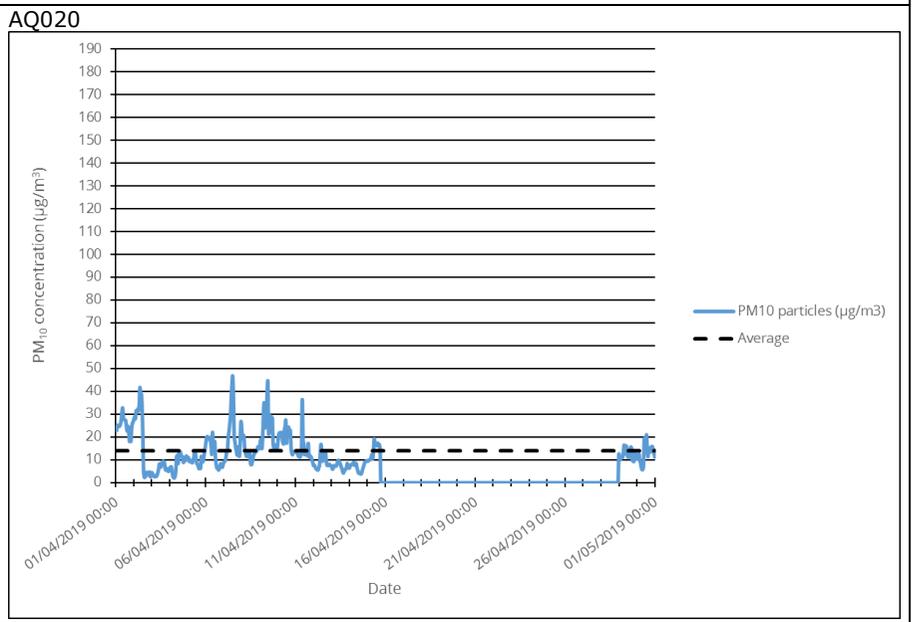
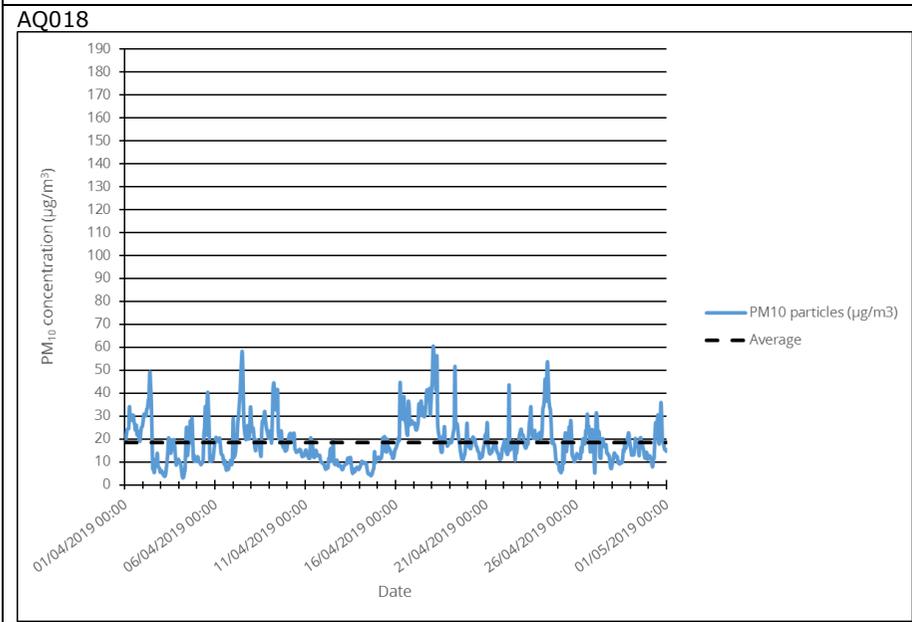
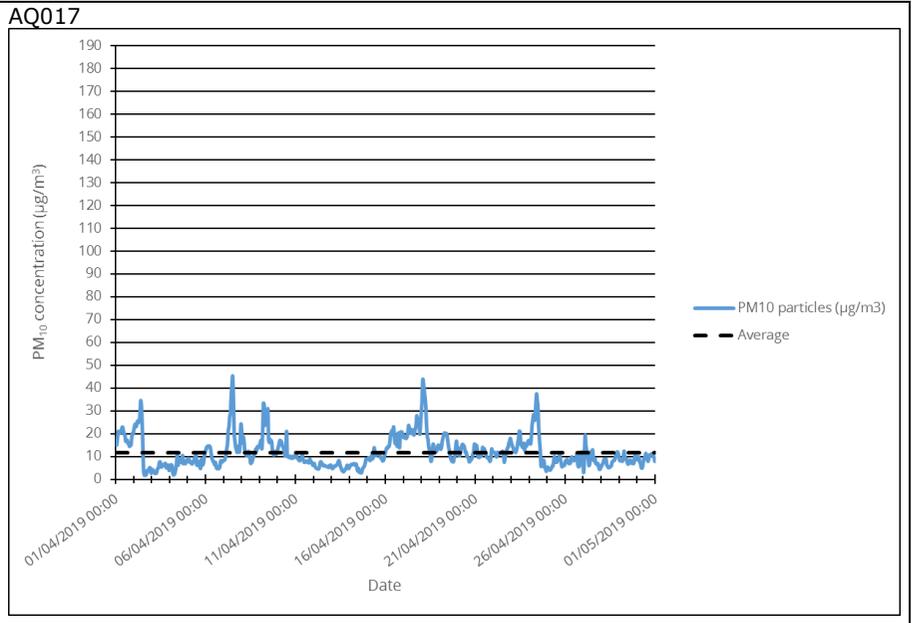
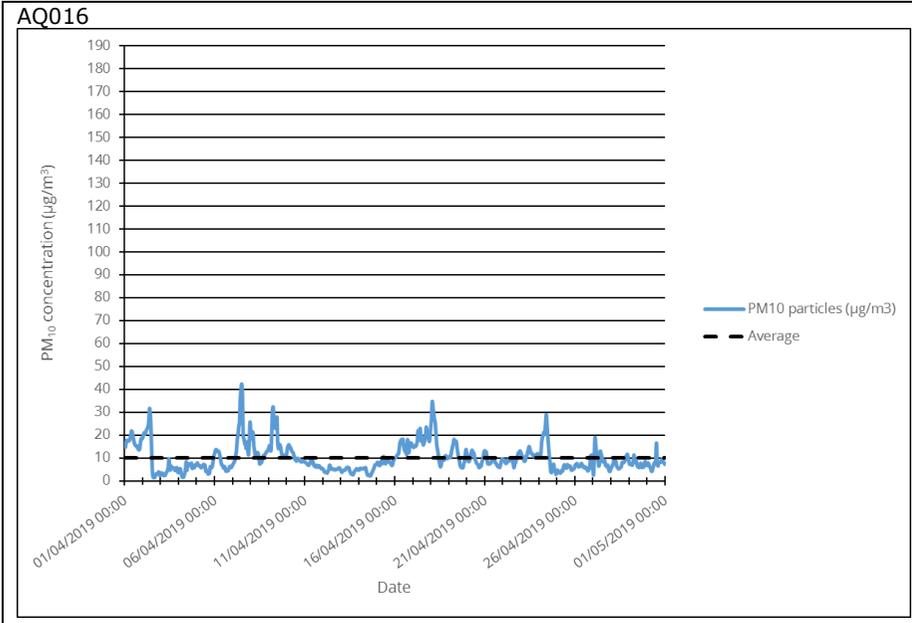


AQ006

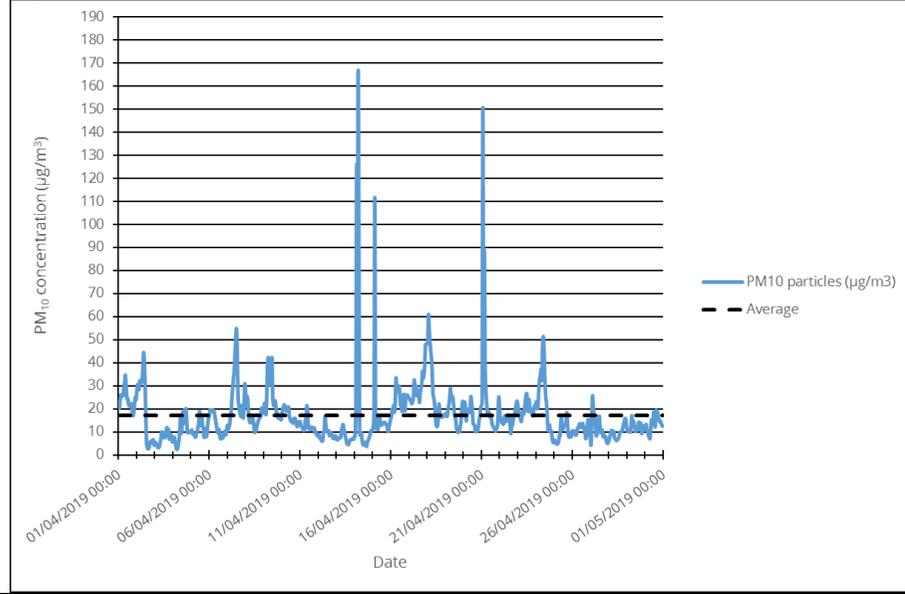








AQ021



Appendix C – Air Quality Monitoring Results

Table 4: 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
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	58	64	46										56
HS2-000020BM6	Brunswick Square	530321, 182268	51	63	49										55
HS2-000020BM7	Chalton Street	529894, 182702	63	83	66										71
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	63	72	66										67
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	47	63	56										55
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	51	76	63										63
HS2-000020BMB	Whitfield Street	529273, 182114	49	58	43										50
HS2-000020BMC	Hampstead Road	529232, 182511	53	84	71										69
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	39	47	Tube missing										43
HS2-000020BMH	Nash Street	528861, 182717	43	51	35										43
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	43	37										39

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.

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	66	68	55										63
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	47	44	38										43
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	52	75	62										63
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	43	53	43										47
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	50	57	43										50
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	44	49	41										44
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	59	52	50										54
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	57	57	55										56
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	47	51	39										45
HS2-000020BMV	Primrose Hill Road	527538, 184250	46	45	38										43
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	61	59	55										58
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	87	92	87										89

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	45	48	30										41
HS2-000020BNB	Junction of Gloucester Gate Bridge and Park Village East	528639, 183518	53	45	41										46
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	35	36	24										32
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	43	53	37										45
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	50	Tube missing	Tube missing										50
HS2-000020BNQ	Camley Street	529735, 183737	50	49	Tube missing										49
HS2-000020BNI	Junction of Mill Lane and Hillfield Road	524839, 185136	53	50	44										49
HS2-000020BNZ	Mansfield Road	528050, 185508	24	44	34										34
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	52	70	56										59
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	65	52	49										55
HS2-000020BPB	Camden High Street	528966, 183735	65	81	75										74
HS2-000020BPC	Castlehaven Road	528788, 184591	45	47	40										44
HS2-000020BPD	Prince of Wales Road	528571, 184683	35	43	37										38

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BPE	Haverstock Hill	527710, 184749	54	62	53										56
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	44	52	41										45
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	54	60	56										57
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	48	51	44										48
HS2-000020BPX	Netley Street	529177, 182625	43	50	40										44
HS2-000020BPY	Stanhope Street	529060, 182947	34	46	32										37
HS2-000020BPZ	Albany Street	528790, 182923	44	57	42										48
HS2-000020BQ0	Werrington Street	529493, 183113	43	Tube missing	39										41
HS2-000020BQ1	Polygon Road	529574, 183045	41	46	37										41
HS2-000020BQ2	Alexandra Place	526320, 183980	42	Tube missing	30										36
HS2-000020BQ3	Harrington Square	529228, 183172	46	60	45										50
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	51	54	41										49
HS2-000020BQ5	Adelaide Road	527713, 184392	50	54	43										49
HS2-000020BQ6	Mornington Terrace	528836, 183474	45	46	35										42
HS2-000020BQ7	Arlington Road	529009, 183479	43	40	37										40

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BQ8	Clarkson Row	529024, 183213	42	45	34										40
HS2-000020BQ9	Park Village East	528923, 183121	40	44	Tube missing										42
HS2-000020BQA	Eversholt Street	529386, 183132	57	67	56										60
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	42	43	32										39
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	49	48	42										46
HS2-000020BQD	Drummond Crescent	529648, 182856	50	51	45										48
HS2-000020BQJ	Grafton Way	529380, 182225	64	70	59										64
HS2-000020BQL	Delancey Street	528768, 183581	58	57	47										54
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	46	42	36										41
HS2-000020BQS	Opposite Maria fidelis school on Pheonix Road	529670, 182982	43	43	37										41
HS2-000020BQT	Drummond Street	529385, 182581	52	51	43										49
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	64	Tubes missing	Tubes missing										64

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	Tubes missing	81	69										75
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	55	47	38										47