

## **Air Quality and Dust Monitoring Monthly Report – February 2019**

**London Borough of Camden**



**SKANSKA**



## Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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A report prepared by Costain Skanska on behalf of HS2 Ltd.

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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 January 2019 and February 2019 respectively.
- 1.1.2 Figures 1 to 3 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](http://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 July 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, 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;
  - 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 construction in Euston Square Gardens now complete, worksite ref. S003-WS08.
  - Thames Water Compound, worksite ref. S001-WS05.
  - Vehicle Holding Area, worksite ref. S001-WS04 (yet to be established).

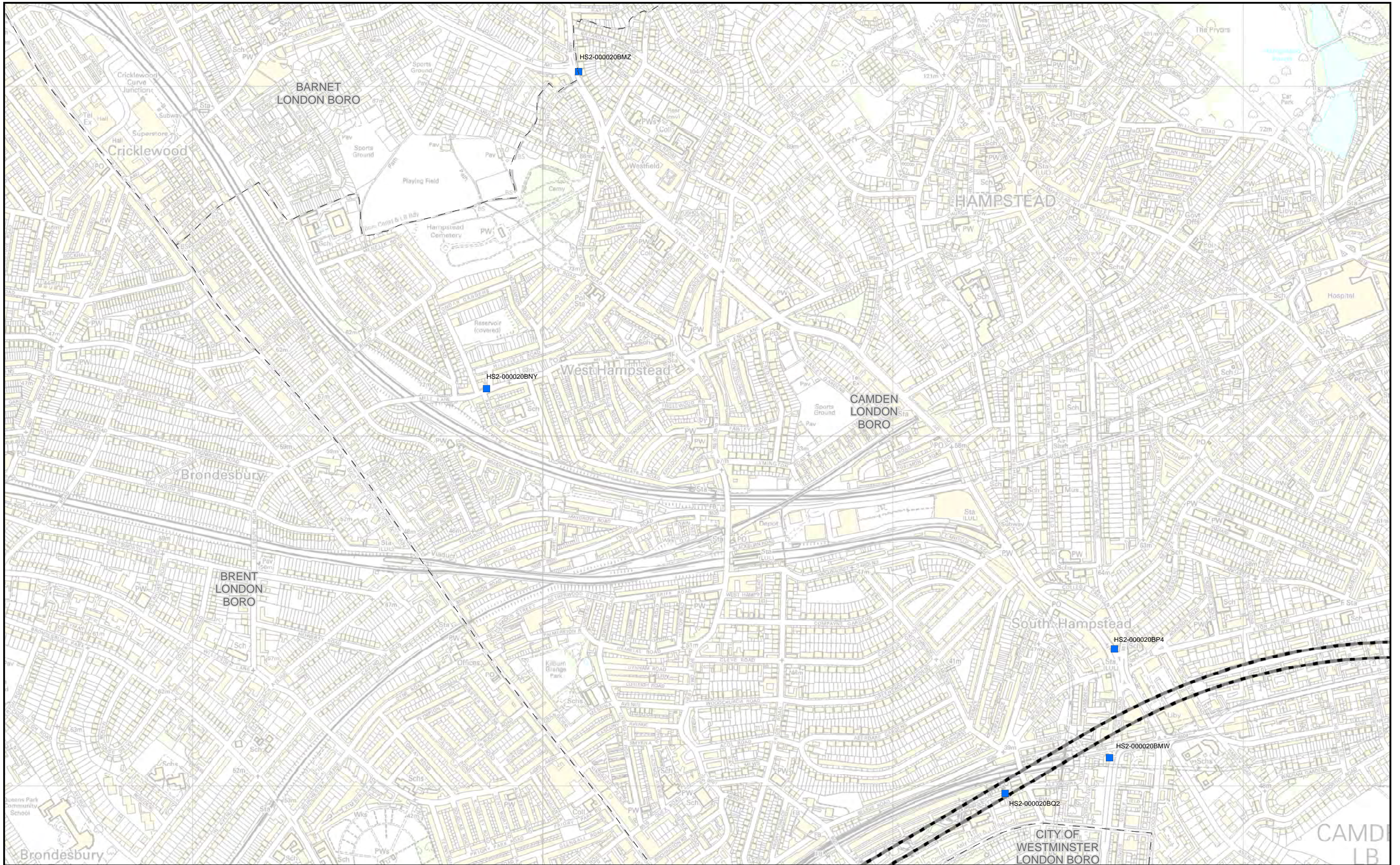
- 1.1.5 Nineteen (19) dust monitors are installed around worksites, where demolition and pre-demolition works are underway. These sites returned a medium or high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 2, together with line charts of monthly data from each dust monitor in Figure 4.
- 1.1.7 There were six (6) exceedances of the dust trigger level recorded during the month of February 2019. Exceedances are presented in Appendix B, Table 3S. All other results were in line with the expected ranges.
- 1.1.8 Diffusion tube monitoring of Nitrogen Dioxide (NO<sub>2</sub>) was undertaken at sixty-five (65) locations in January 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.
- 1.1.9 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.
- 1.1.10 NO<sub>2</sub> monitoring locations and results are presented in Appendix C, Table Table 1: , together with the 2019 running mean.
- 1.1.11 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
CPA-000712	S001-WS04 and S001-WS05	A complaint was received on 11/02/2019 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.	The complainant was informed that the diversion signage had been removed by agreement with the local authority and that TfL are closely monitoring the phasing of lights to avoid traffic build up.

# Appendix A – Worksites and Monitoring Locations

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



**Legend**

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

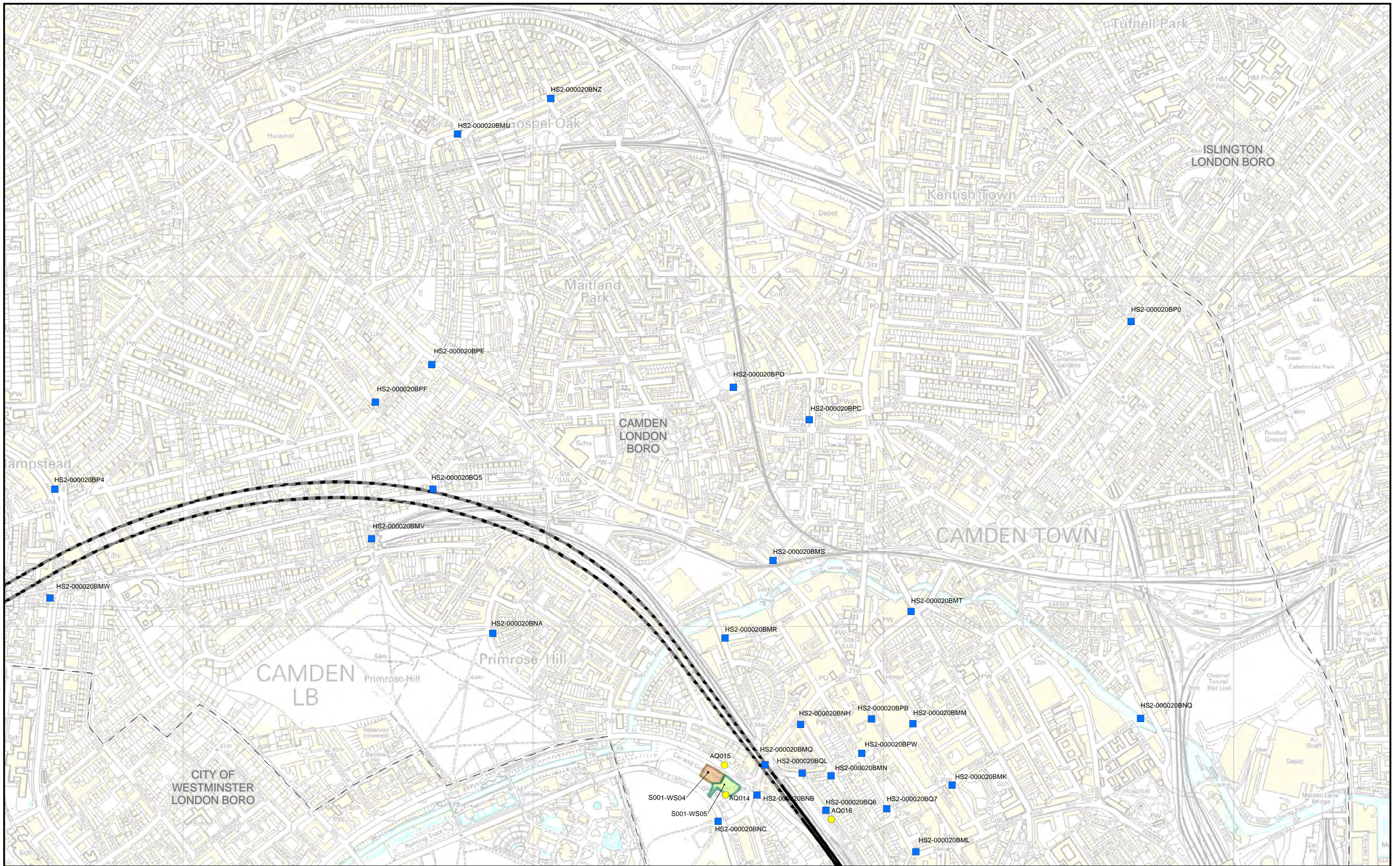
Figure Number
Figure Name
<b>Worksites and Monitoring locations in LBC</b>
London Borough of Camden

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Scale at A3: 10,000

Metres

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Map Number: 1EW02-CSJ-EV-REP-S000-000017\_appAFig1.pdf **Date: 13/07/18**



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

Figure Number

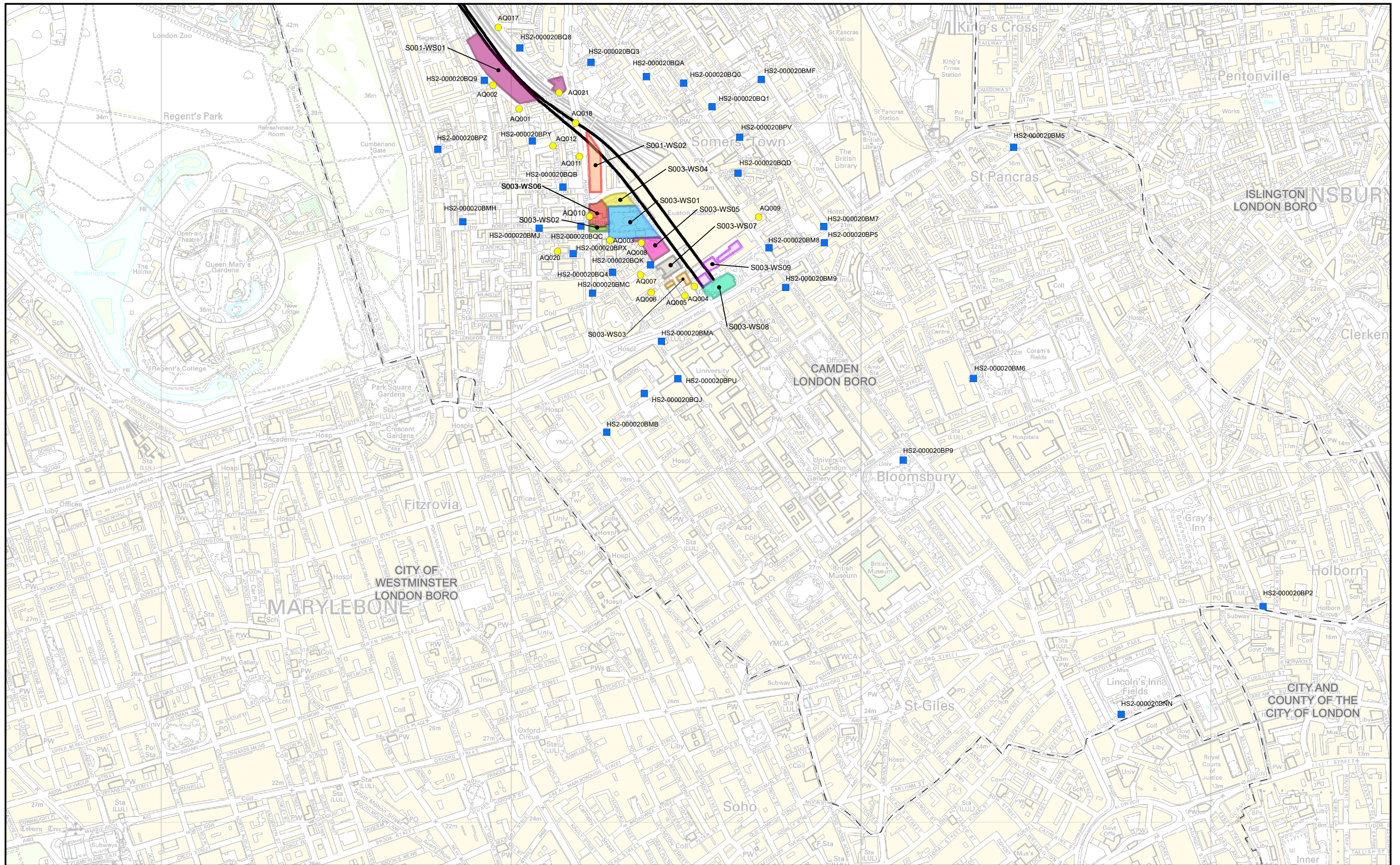
Figure Name  
**Worksites and Monitoring locations in LBC**  
 (sheet 2)

London Borough of Camden

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 Map Number: 1EW02-CSJ-EV-REP-S000-000017\_appAFig1.pdf Date: 13/07/18



- 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 Melston Street and Gran Thortorn House, 22 Melston Street
  - 132 and 140 Hampstead Road and Petrol Station

Figure Number

Figure Name

**Worksites and Monitoring locations in LBC**  
(sheet 3)

London Borough of Camden

Scale at A3: 10,000

0 100 200 300 400  
Metres

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## Appendix B – Dust Monitoring Results

Table 2: Dust monitoring locations and February 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 <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1- hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	1-hour data capture (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	H	Yes	N	17.6	0.7	499.5	4	99.9
AQ002	528947, 183107	Park Village East	H	Yes	N	13.5	0.9	44.7	0	100.0
AQ003	529282, 182663	St James Gardens	M	Yes	N	15.1	1.1	48.0	0	100.0
AQ004	529523, 182533	Melton Street	H	Yes	N	12.8	1.3	36.4	0	100.0
AQ005	529496, 182505	Stephenson Way	H	Yes	N	15.5	1.6	122.5	0	96.1
AQ006	529399, 182514	Euston Street	H	Yes	N	18.4	1.4	79.6	0	100.0
AQ007	529369, 182564	Drummond Street	H	Yes	N	14.5	0.9	56.4	0	100.0
AQ008	529369, 182648	Cobourg Street	H	Yes	Y	18.5	0.7	582.7	2	94.8
AQ009	529707, 182730	Lancing Street	H	Yes	N	14.6	1.4	40.5	0	100.0
AQ010	529223, 182732	Hampstead Road South	H	Yes	N	18.0	1.0	66.1	0	99.9
AQ011	529195, 182904	Hampstead Road	H	Yes	N	20.8	1.6	127.0	0	99.9
AQ012	529119, 182934	Mackworth Street	H	Yes	N	14.9	0.7	81.1	0	100.0

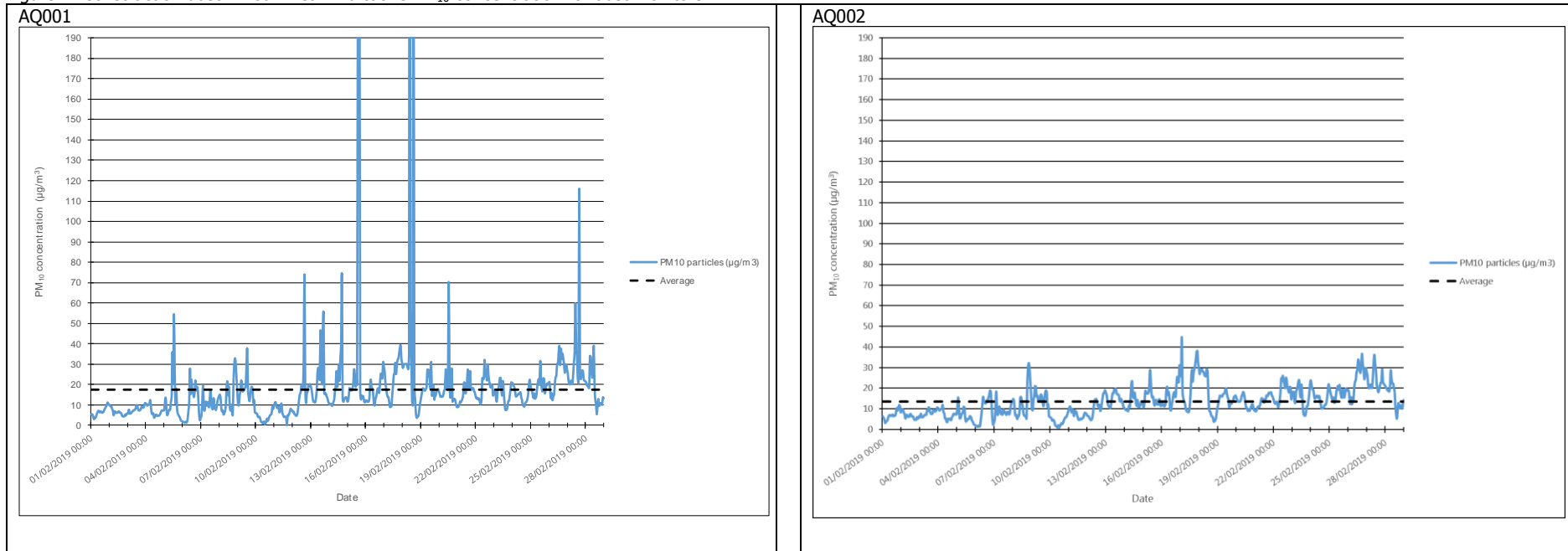
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1- hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	1-hour data capture (%)
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	11.7	0.5	32.9	0	100.0
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	14.1	1.0	44.6	0	99.9
AQ016	528851, 183448	Mornington Terrace North	H	Yes	N	10.4	0.4	54.2	0	100.0
AQ017	528963, 183274	Mornington Terrace South	H	Yes	N	11.5	0.4	34.6	0	99.9
AQ018	529184, 182999	Hampstead Road North	H	Yes	N	16.5	0.4	57.5	0	100.0
AQ020	529132, 182633	Netley School	n/a	Yes	N	14.8	0.8	43.1	0	100.0
AQ021	529127, 183116	Site compound at the Junction of Hampstead Road & Granby Terrae Bridge.	H	Yes	N	16.9	1.5	45.2	0	100.0

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

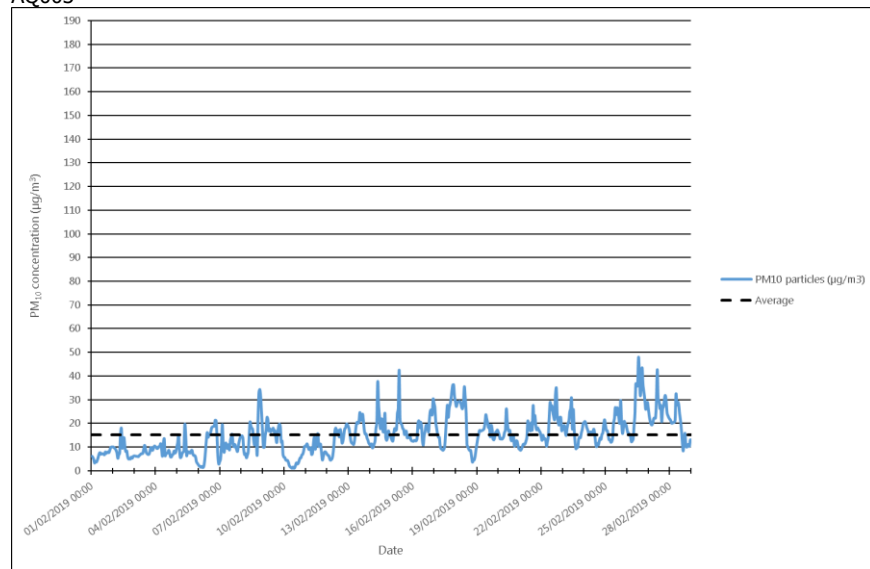
Period exceeding trigger level	Worksite reference	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
15/02/2019 13:01 – 15/02/2019 14:00	S001-WS01	AQ001	n/a	<p>HS2 utilities trench works were being undertaken directly beneath the dust monitor located on the street lighting column at the junction between Granby Terrace and Park Village East (less than 3-4 metres away). Dust, and potentially exhaust fumes, from a volumetric concrete mix and pour vehicle were the cause of the triggers during two isolated concrete pours.</p> <p>Appropriate dust suppression was applied during the works in line with the CoCP and good practice measures however the extremely close proximity of the works to the monitor resulted in the trigger alerts.</p>	<p>Appropriate dust suppression to be maintained during utilities works.</p>
15/02/2019 15:01 – 15/02/2019 16:00	S001-WS01	AQ001	n/a		
18/02/2019 09:01 – 18/02/2019 10:00	S001-WS01	AQ001	n/a		
18/02/2019 14:01 – 18/02/2019 15:00	S001-WS01	AQ001	n/a		

<p>14/02/2019 16:01 – 14/02/2019 17:00</p>	<p>S003-WS05</p>	<p>AQ008</p>	<p>n/a</p>	<p>During investigations, no clear reason for the trigger was found.                  Site works had finished at the time of the trigger and no activities resulting in dust were being undertaken. Monitoring data had shown no elevated levels throughout the week despite sustained demolition activities on the former IBIS building. Effective dust suppression measures and building sheeting were in place.</p>	<p>Dust control measures (dust suppression and sheeting) to continue to be maintained during demolition works.</p>
<p>15/02/2019 09:01 – 15/02/2019 10:00</p>	<p>S003-WS05</p>	<p>AQ008</p>	<p>n/a</p>	<p>During investigations, no clear reason for the trigger was found.                  At the time of trigger, dust suppression was observed to be effective and the former IBIS building sheeted during demolition activities. Debris in the inlet tube following the monitor' service two days prior may have been the reason for these two isolated triggers on consecutive days.</p>	<p>Dust control measures (dust suppression and sheeting) to continue to be maintained during demolition works.                  Subsequent service of the monitor if further triggers arise with no reason.</p>

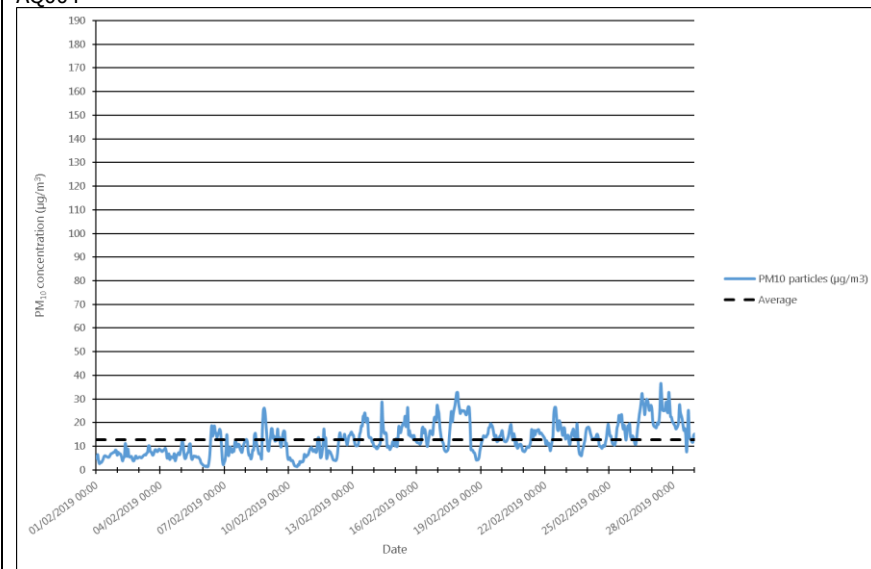
Figure 2: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for dust monitors



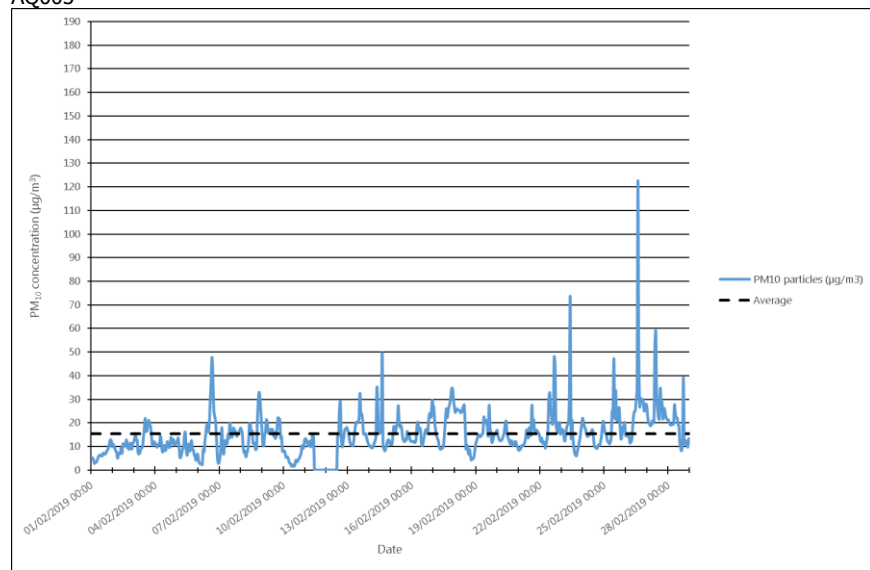
AQ003



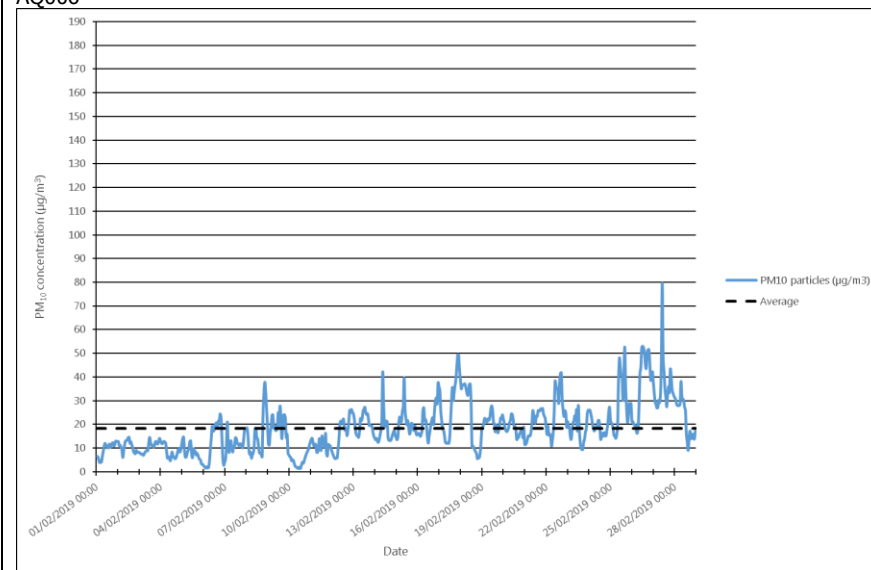
AQ004

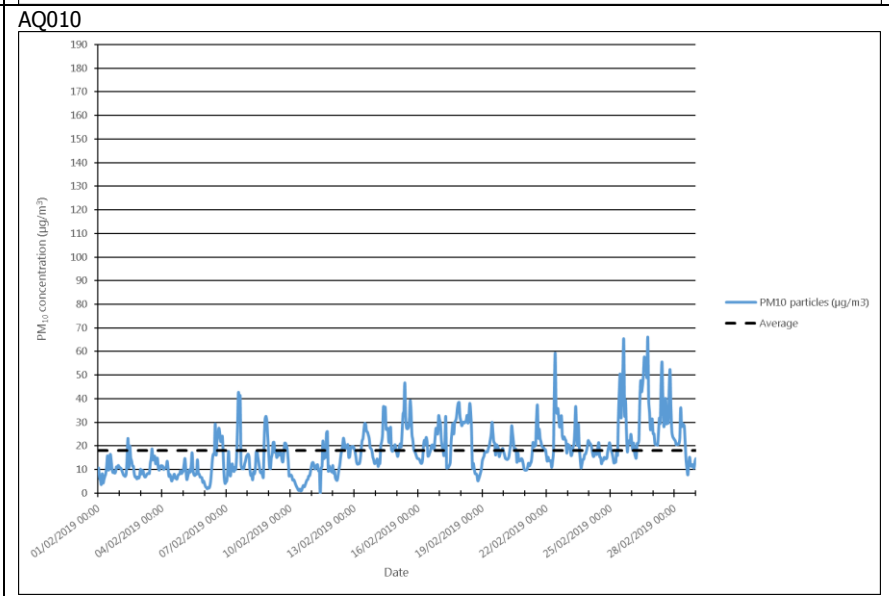
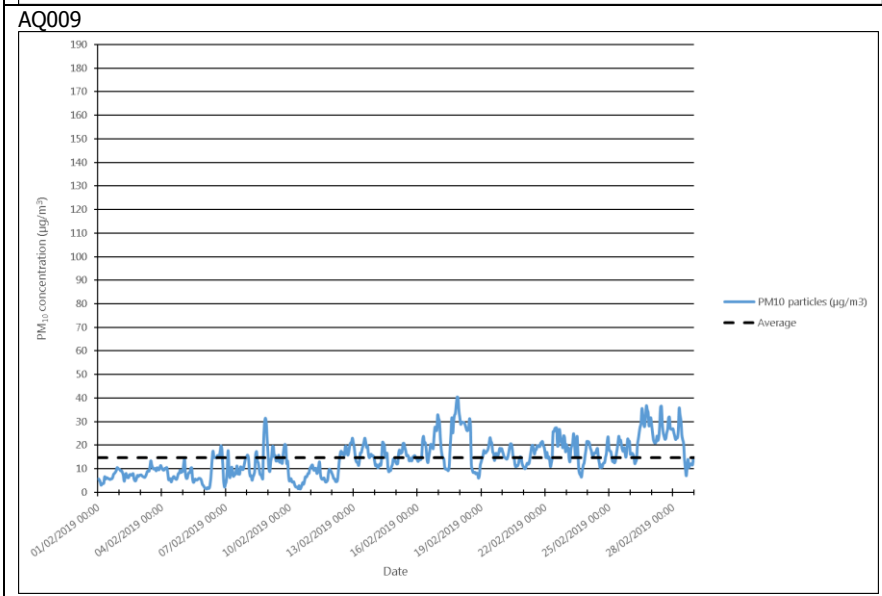
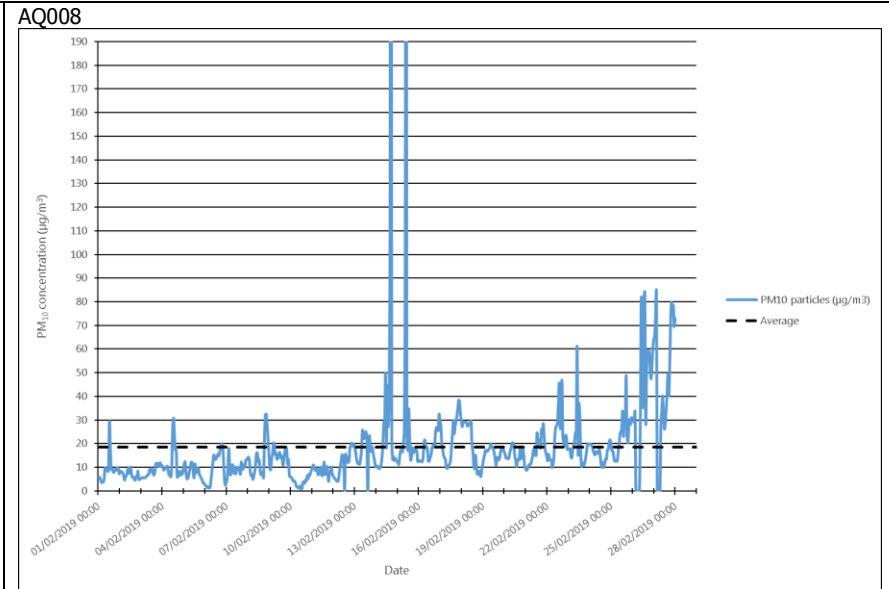
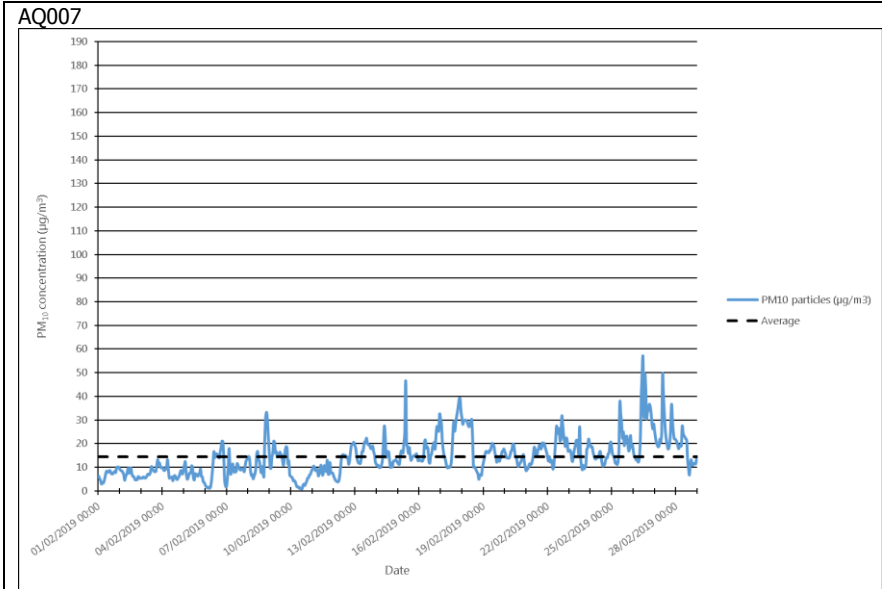


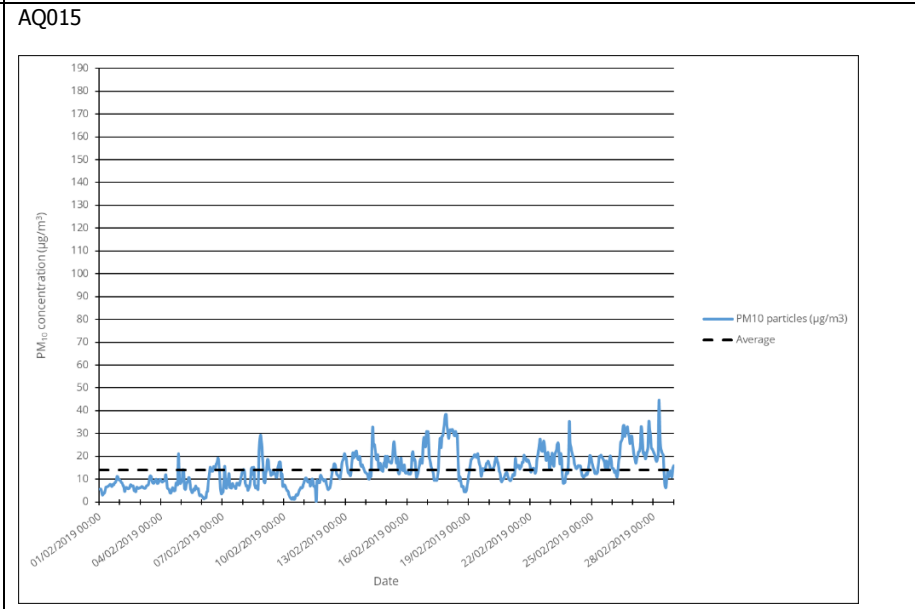
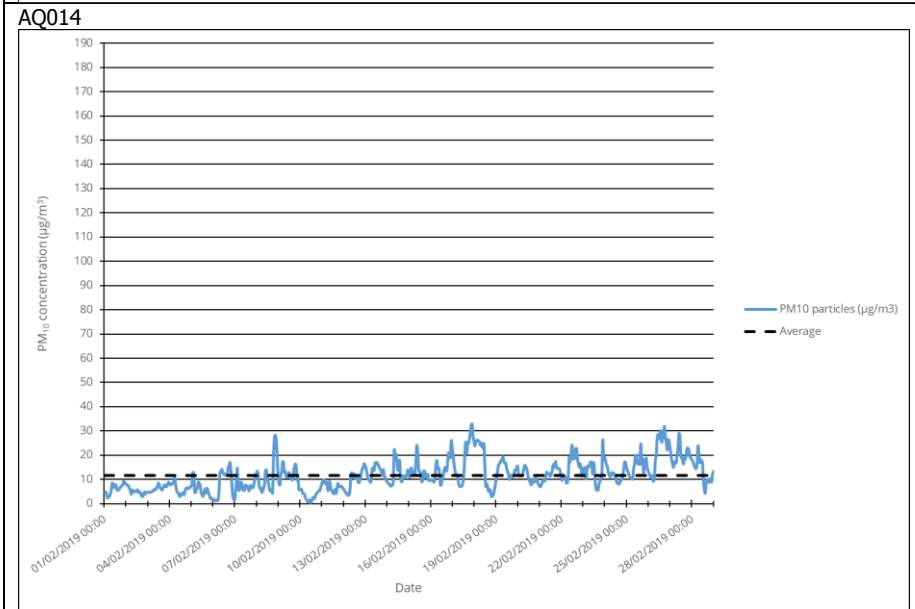
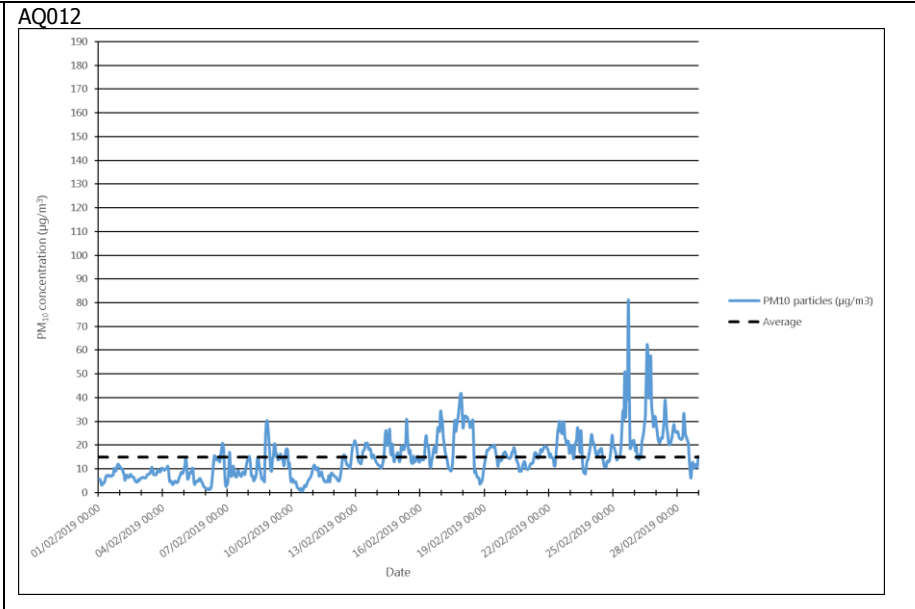
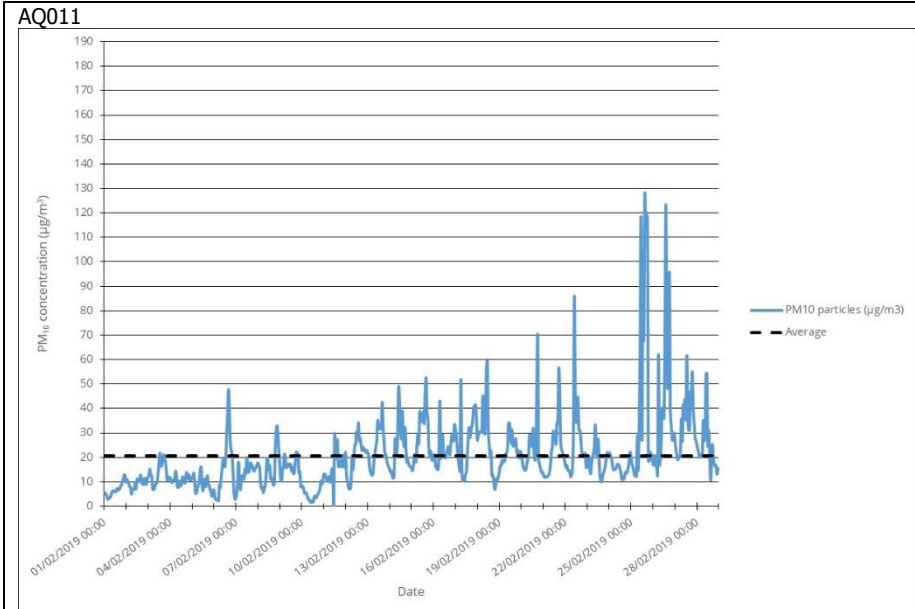
AQ005



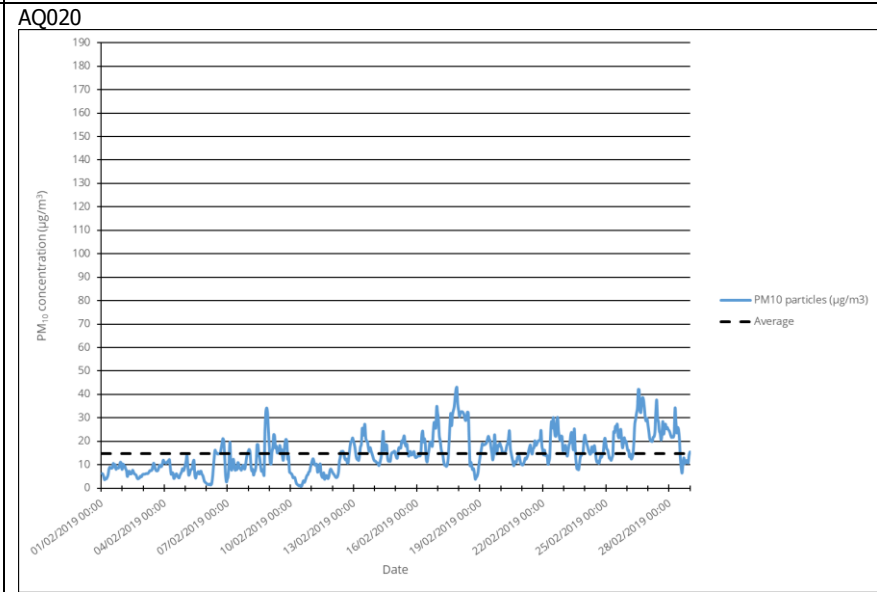
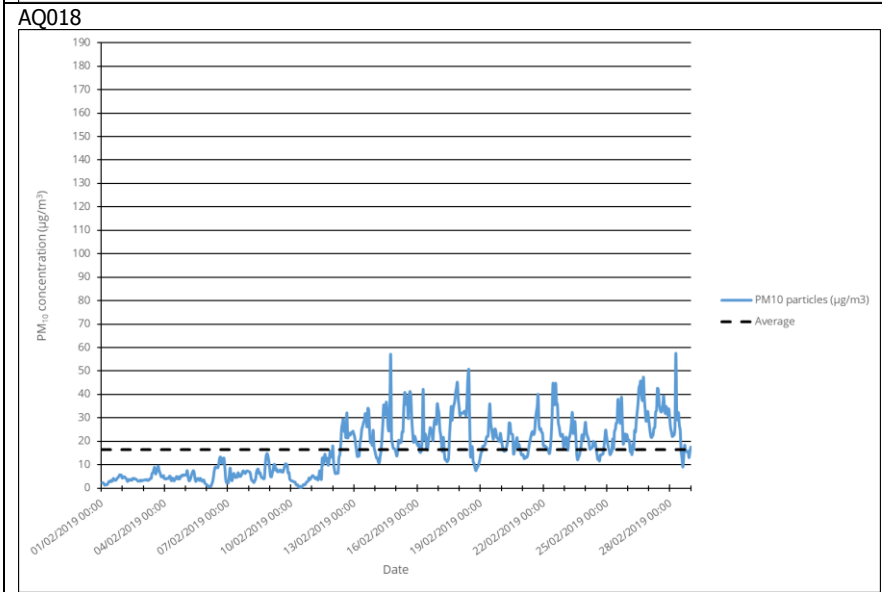
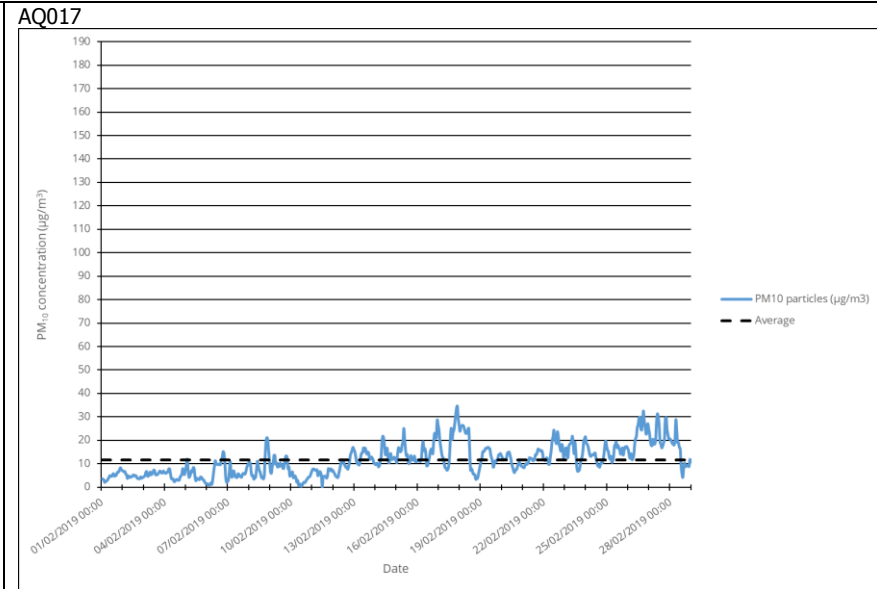
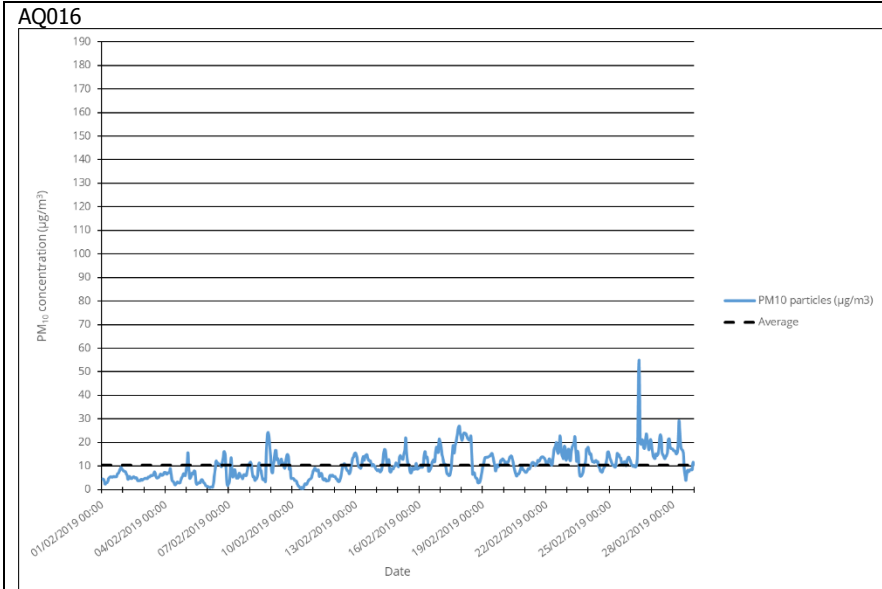
AQ006

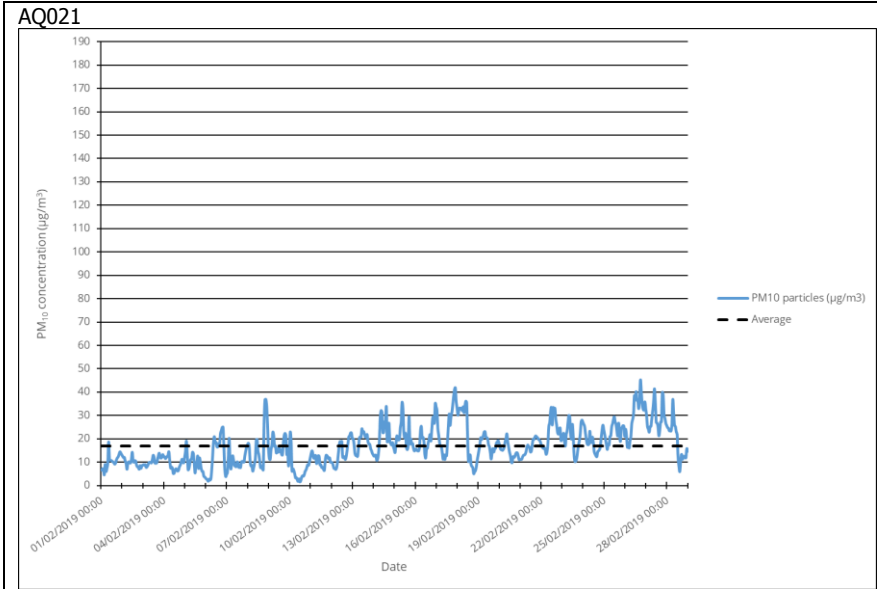












## Appendix C – Air Quality Monitoring Results

Table 1: NO<sub>2</sub> monitoring locations around highways, NO<sub>2</sub> concentrations and monthly monitoring results with running mean for 2019 (µg/m<sup>3</sup>)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>1</sup>
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	58												58
HS2-000020BM6	Brunswick Square	530321, 182268	51												51
HS2-000020BM7	Chalton Street	529894, 182702	63												63
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	63												63
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	47												47
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	51												51
HS2-000020BMB	Whitfield Street	529273, 182114	49												49
HS2-000020BMC	Hampstead Road	529232, 182511	53												53
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	39												39
HS2-000020BMH	Nash Street	528861, 182717	43												43
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39												39

<sup>1</sup> 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 <sup>1</sup>
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	66												66
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	47												47
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	52												52
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	43												43
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	50												50
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	44												44
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	59												59
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	57												57
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	47												47
HS2-000020BMV	Primrose Hill Road	527538, 184250	46												46
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	61												61
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	87												87

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>1</sup>
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	45												45
HS2-000020BNB	Junction of Gloucester Gate Bridge and Park Village East	528639, 183518	53												53
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	35												35
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	43												43
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	50												50
HS2-000020BNQ	Camley Street	529735, 183737	50												50
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	53												53
HS2-000020BNZ	Mansfield Road	528050, 185508	24												24
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	52												52
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	65												65
HS2-000020BPB	Camden High Street	528966, 183735	65												65
HS2-000020BPC	Castlehaven Road	528788, 184591	45												45
HS2-000020BPD	Prince of Wales Road	528571, 184683	35												35
HS2-000020BPE	Haverstock Hill	527710, 184749	54												54

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>1</sup>
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	44												44
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	54												54
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	48												48
HS2-000020BPX	Netley Street	529177, 182625	43												43
HS2-000020BPY	Stanhope Street	529060, 182947	34												34
HS2-000020BPZ	Albany Street	528790, 182923	44												44
HS2-000020BQ0	Werrington Street	529493, 183113	43												43
HS2-000020BQ1	Polygon Road	529574, 183045	41												41
HS2-000020BQ2	Alexandra Place	526320, 183980	42												42
HS2-000020BQ3	Harrington Square	529228, 183172	46												46
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	51												51
HS2-000020BQ5	Adelaide Road	527713, 184392	50												50
HS2-000020BQ6	Mornington Terrace	528836, 183474	45												45
HS2-000020BQ7	Arlington Road	529009, 183479	43												43
HS2-000020BQ8	Clarkson Row	529024, 183213	42												42
HS2-000020BQ9	Park Village East	528923, 183121	40												40

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>1</sup>
HS2-000020BQA	Eversholt Street	529386, 183132	57												57
HS2-000020BQB	Junction of Harrington Street and Vardell Street	529147, 182816	42												42
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	49												49
HS2-000020BQD	Drummond Crescent	529648, 182856	50												50
HS2-000020BQJ	Grafton Way	529380, 182225	64												64
HS2-000020BQL	Delancey Street	528768, 183581	58												58
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	46												46
HS2-000020BQS	Opposite Maria fidelis school on Pheonix Road	529670, 182982	43												43
HS2-000020BQT	Drummond Street	529385, 182581	52												52
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	64												64
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	Tubes missing												
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	55												55