

Air Quality and Dust Monitoring Monthly Report – January 2020

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 December 2019 and January 2020 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 enabling works commenced within the LBC during December 2017 and is expected to be completed by October 2020. The next concurrent phase of construction works commenced in November 2019 and is expected to be completed by 2025. The current, completed and planned worksites, include:

Current & Planned -

- Site office and welfare on the adjacent former Addison Lee compound on Granby Terrace, worksite ref. S001-WS01.
- Archaeological dig at St James' Gardens, groundworks and materials management; worksite ref. S003-WS01.
- Demolition, materials management and groundworks at:
 - IBIS Hotel, 3 Cardington Street, worksite ref. S003-WS05;
 - Thistle Hotel, Cardington Street, worksite ref. S003-WS04;
 - Cobourg Street / Euston Street, worksite ref. S003-WS05;
 - Regents Park Estate worksite ref. S001-WS07;
 - Walkden House, 67-75 & 77-79 Euston Street, worksite ref. S003-WS03;
 - One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street, worksite ref. S003-WS09; and
 - 132 – 140 Hampstead Road and Petrol Station, worksite ref. S001-WS02.
- National Temperance Hospital, Site Office and Welfare 110-122 Hampstead Road and community garden, worksite ref. S003-WS06 and S003-WS02.
- Thames Water Compound, worksite ref. S001-WS05.
- Vehicle Holding Area, worksite ref. S001-WS04 (yet to be established).
- Euston Approaches mobilisation and site set up and crushing and storage of spoil (on the former DB Cargo site), worksite ref. S001-WS01.

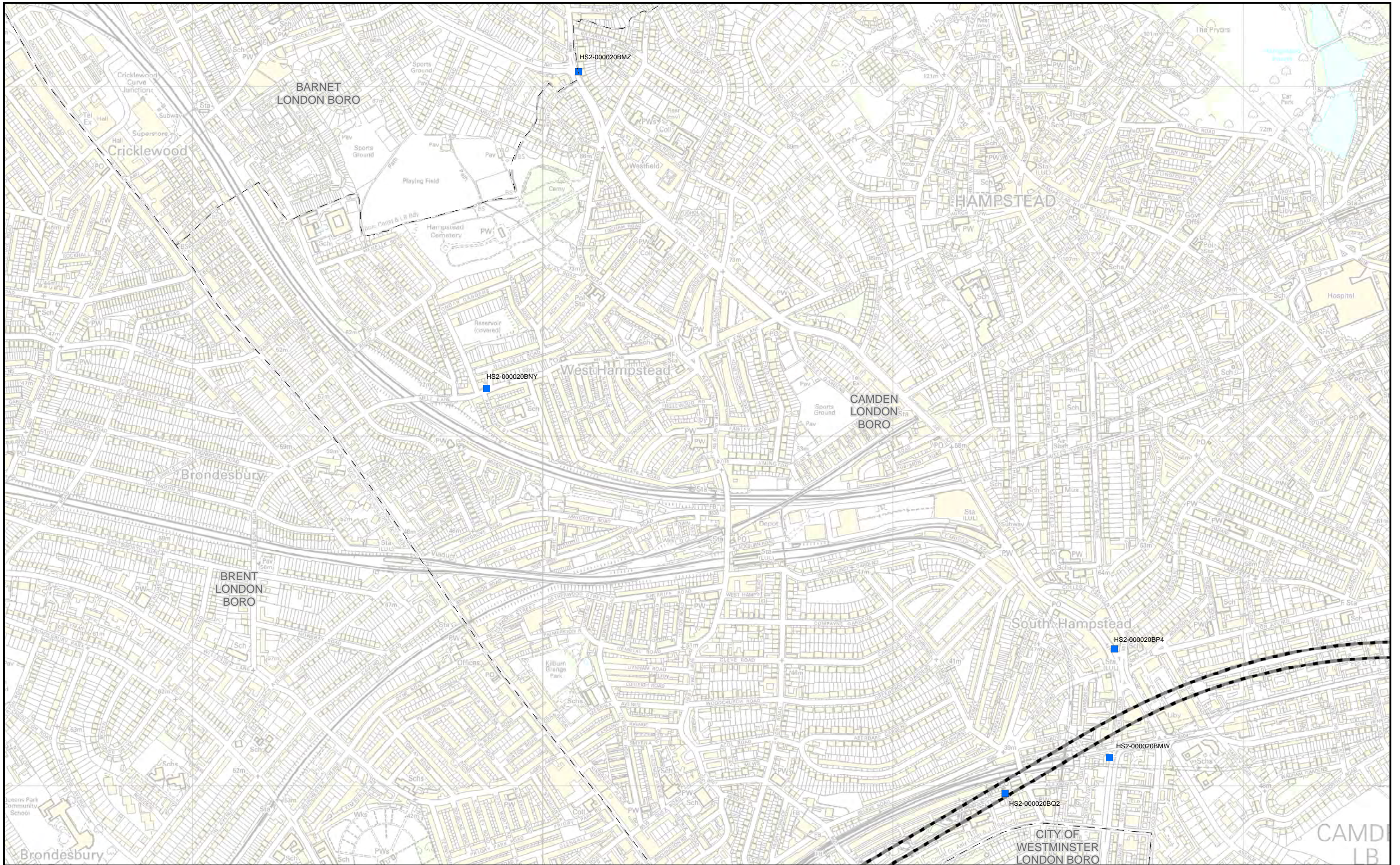
Complete -

- Taxi rank in Euston Square Gardens, worksite ref. S003-WS08.

- 1.1.5 Twenty (20) dust monitors are installed around worksites, where demolition, groundworks and materials management activities 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. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigation.
- 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 two (2) dust trigger alerts recorded during the monitoring period (January 2020). Exceedances are presented in Appendix B, Table 2. 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 December 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 3, together with the 2019 running mean.

Appendix A – Worksites and Monitoring Locations

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



Legend

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

Figure Number

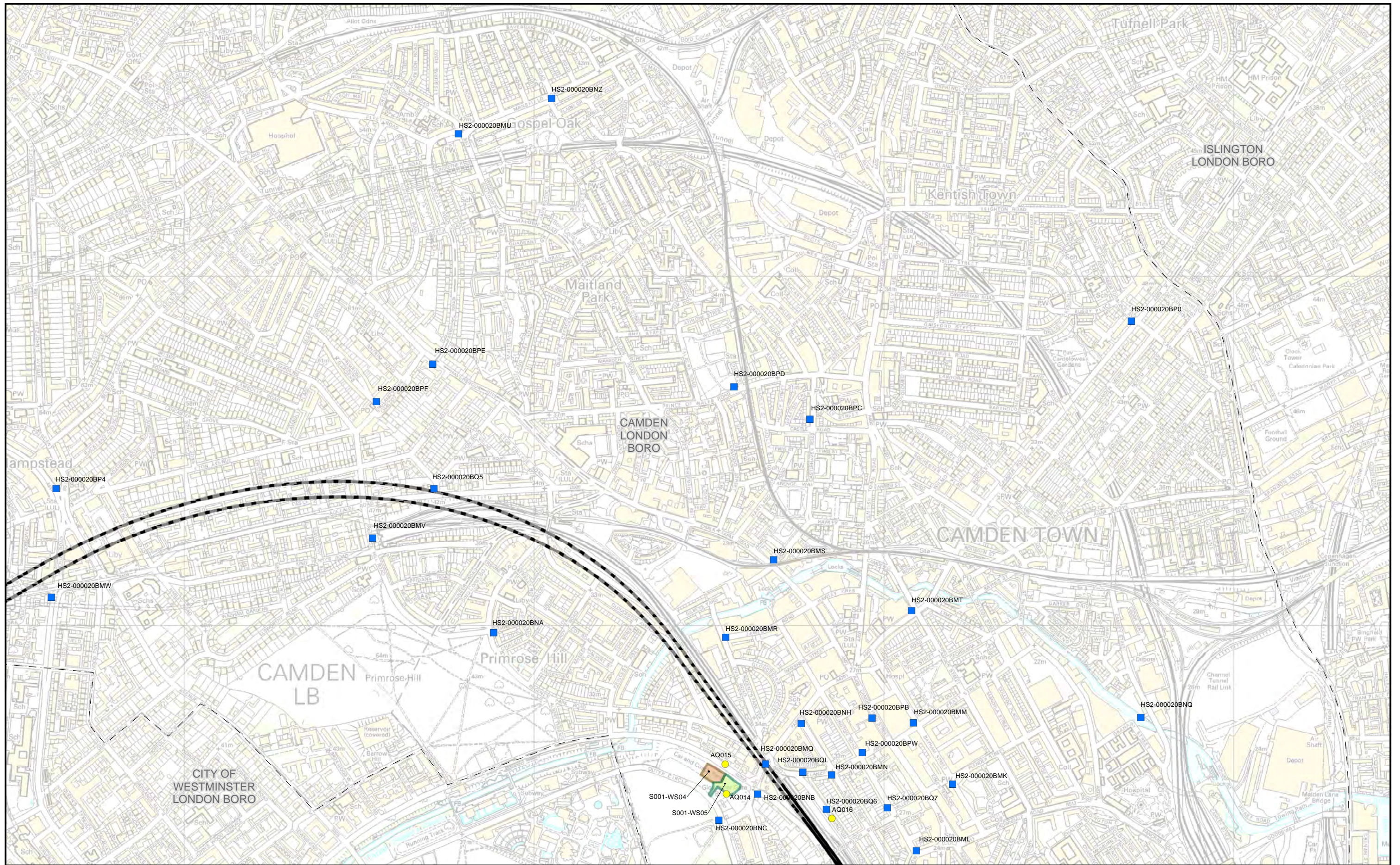
Figure Name
Worksites and Monitoring locations in LBC

London Borough of Camden

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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

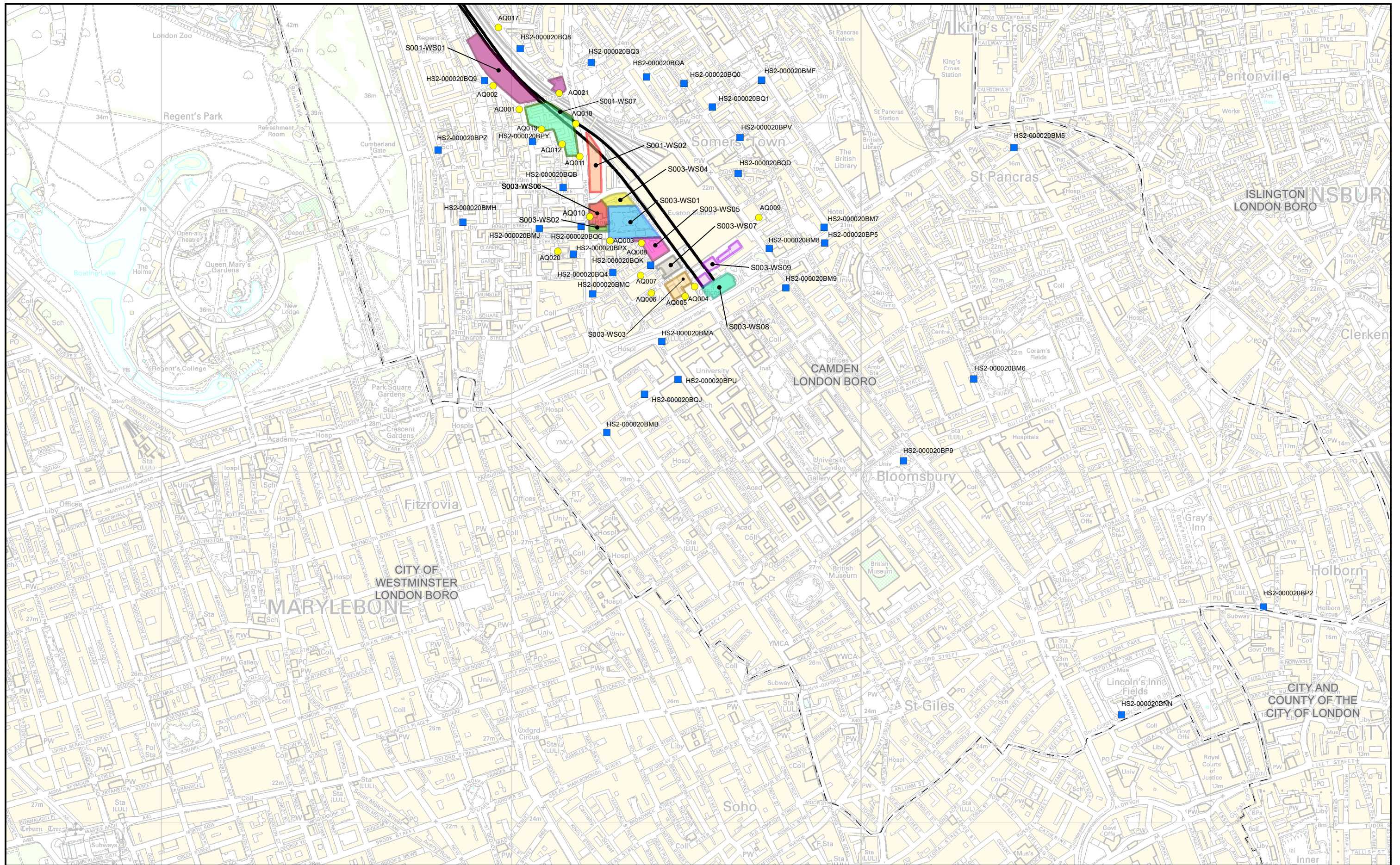
Figure Number
Figure Name
Worksites and Monitoring locations in LBC (sheet 2)
London Borough of Camden

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Scale at A3: 10,000

Metres

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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, Wolfson 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 Thorton House, 22 Melston 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

Scale at A3: 10,000

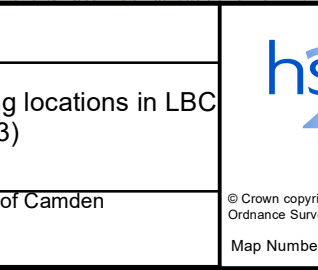
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Appendix B – Dust Monitoring Results

Table1: Dust monitoring locations and January 2020 Results

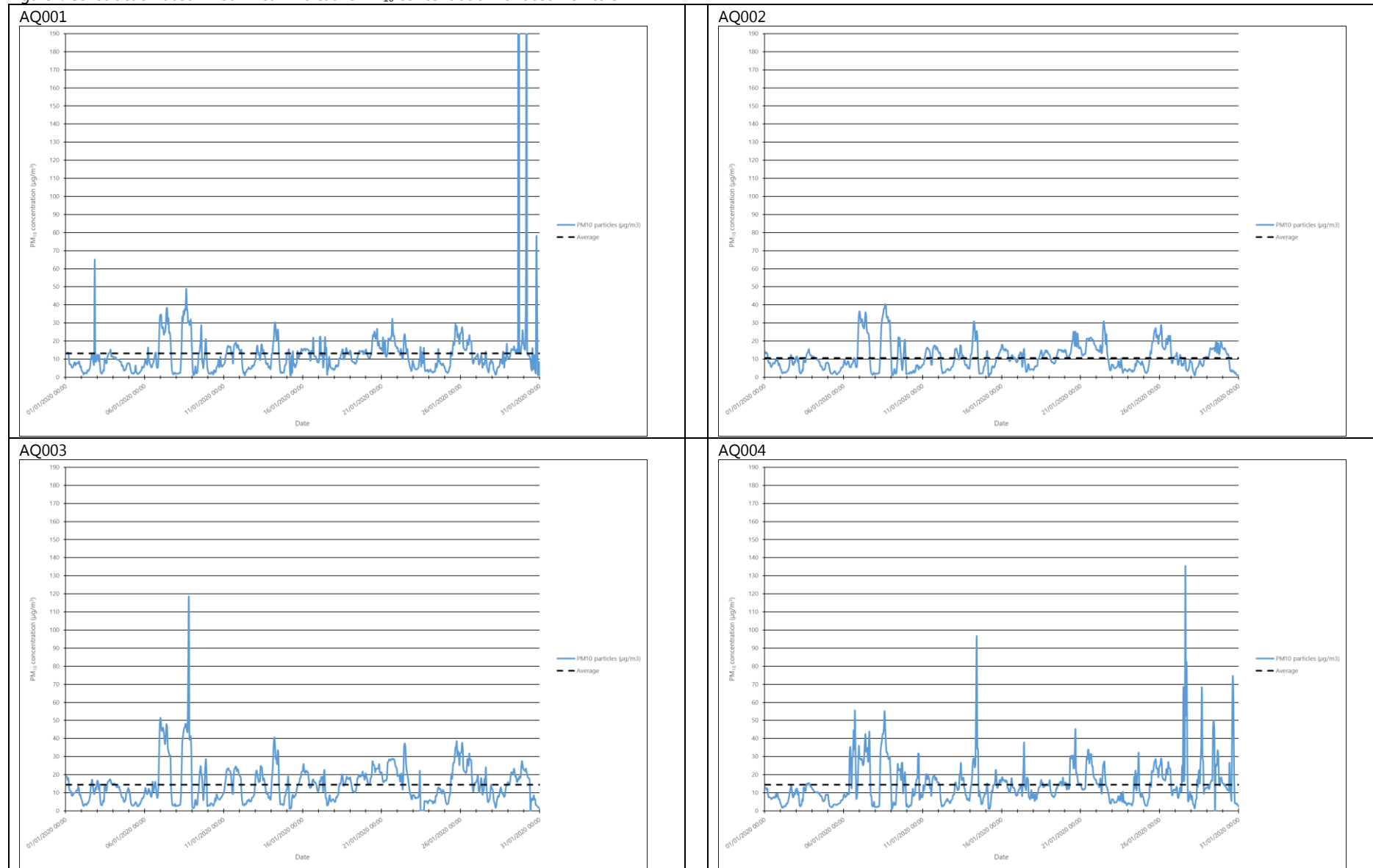
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	H	Yes	N	13.2	0.7	1,132.9* (please see Table 2 for details)	2	100.0
AQ002	528945, 183105	Park Village East	H	Yes	N	10.6	0.5	40.4	0	100.0
AQ003	529279, 182698	St James Gardens	M	Yes	N	14.5	0.8	117.9	0	98.9
AQ004	529523, 182533	Melton Street	H	Yes	N	14.4	1.0	135.2	0	99.9
AQ005	529496, 182505	Stephenson Way	H	Yes	N	13.1	0.8	67.2	0	100.0
AQ006	529399, 182514	Euston Street	H	Yes	N	10.7	0.6	40.5	0	99.9
AQ007	529369, 182564	Drummond Street	H	Yes	N	11.2	0.6	51.8	0	99.9
AQ008	529372, 182657	Cobourg Street	H	Yes	N	13.5	0.7	91.6	0	99.1
AQ009	529707, 182730	Lancing Street	H	Yes	N	16.3	0.7	54.9	0	100.0
AQ010	529223, 182732	Hampstead Road South	H	Yes	N	11.0	0.8	39.3	0	100.0
AQ011	529193, 182921	Hampstead Road	H	Yes	N	15.2	1.2	82.3	0	100.0

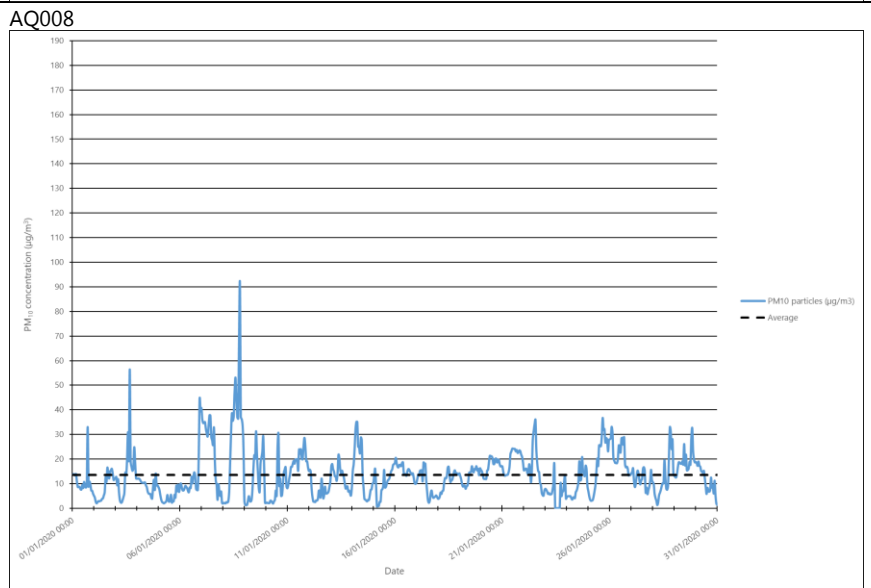
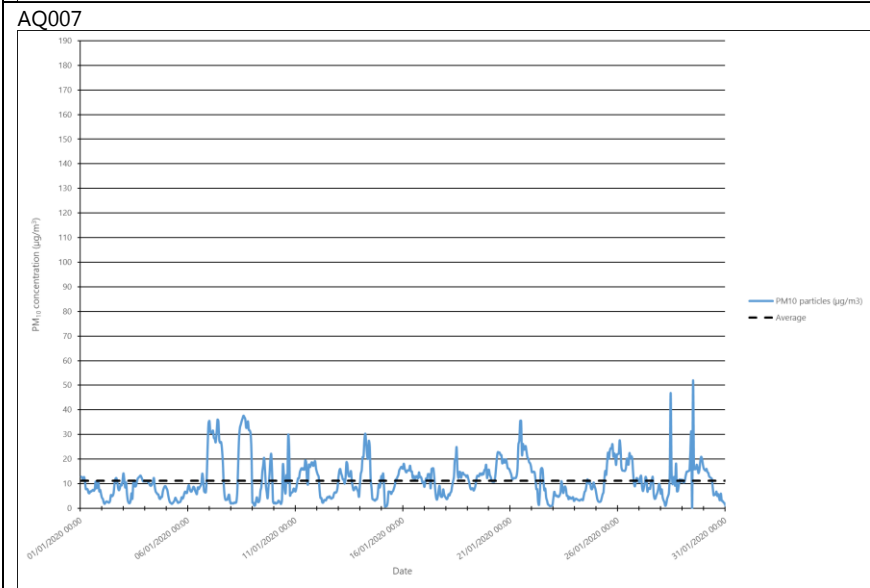
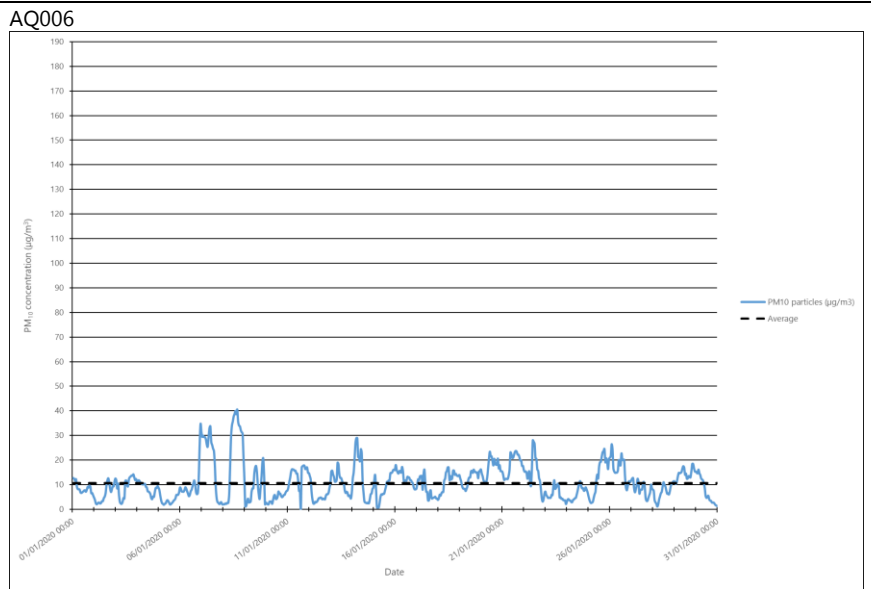
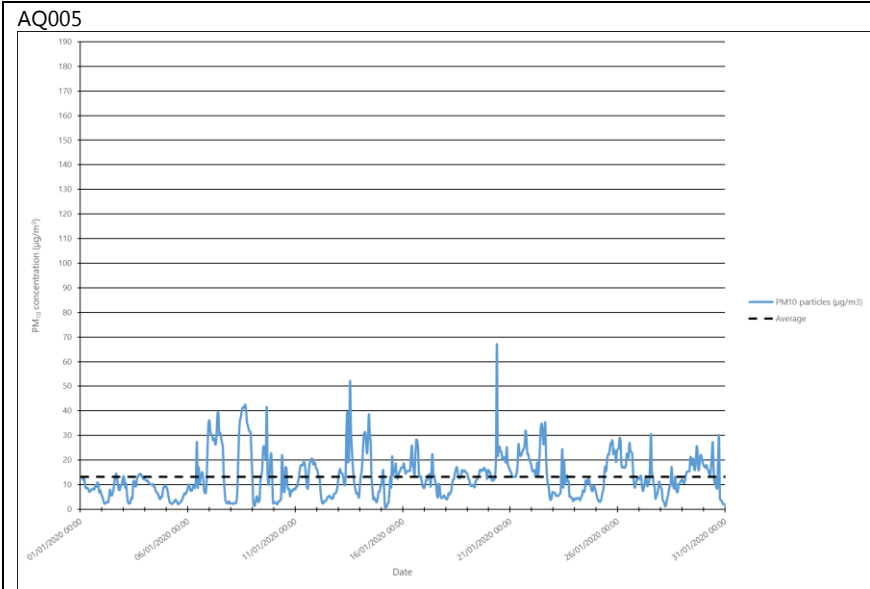
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ012	529145, 182941	Rear of Coniston House	H	Yes	N	12.2	0.6	63.0	0	90.1
AQ013	529086, 182983	Regents Park Estate	H	Yes	N	19.8	1.0	140.9	0	99.1
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	8.9	0.5	33.4	0	100.0
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	9.9	0.4	57.3	0	99.9
AQ016	528840, 183466	Mornington Terrace North	H	Yes	N	9.5	0.4	38.2	0	100.0
AQ017	528963, 183274	Mornington Terrace South	H	Yes	N	10.3	0.4	40.3	0	99.9
AQ018	529184, 182999	Hampstead Road North	H	Yes	N	14.9	0.7	118.3	0	99.9
AQ020	529109, 182605	Netley School	n/a	Yes	N	12.0	0.7	40.8	0	100.0
AQ021	529136, 183086	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	H	Yes	N	14.0	1.0	58.6	0	99.2

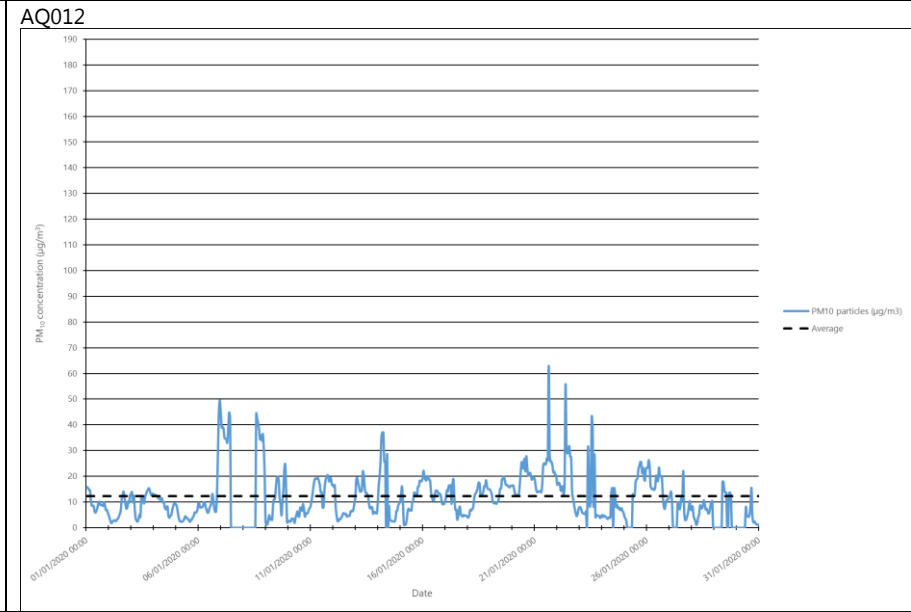
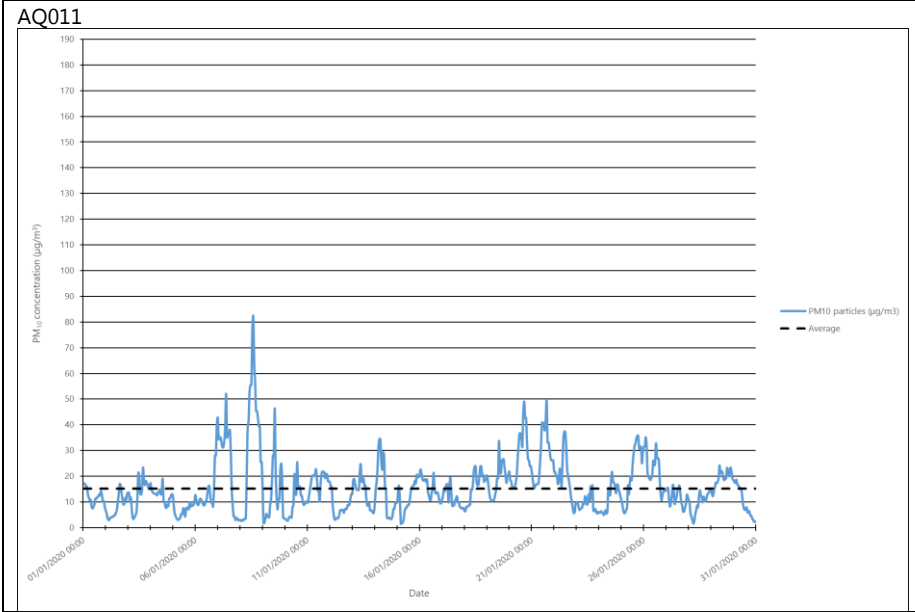
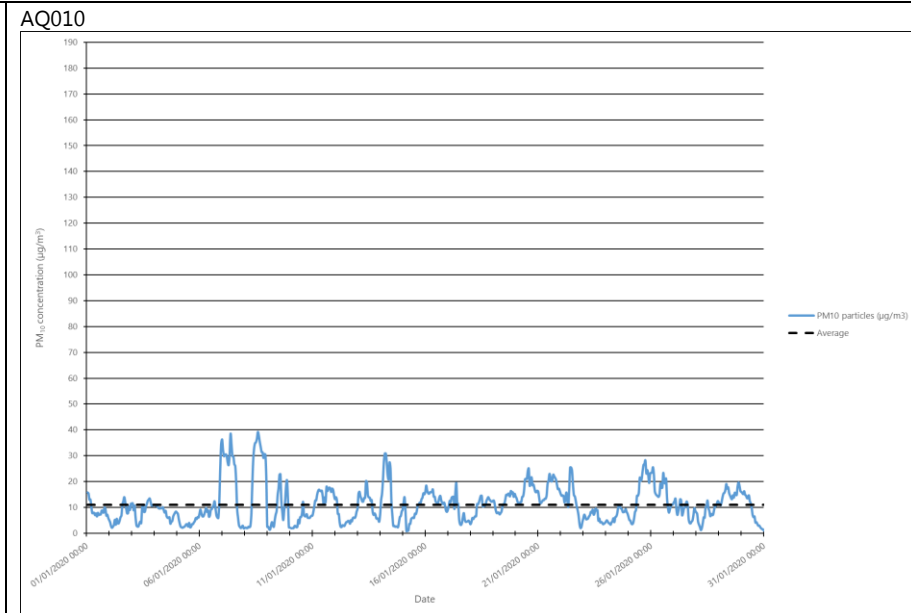
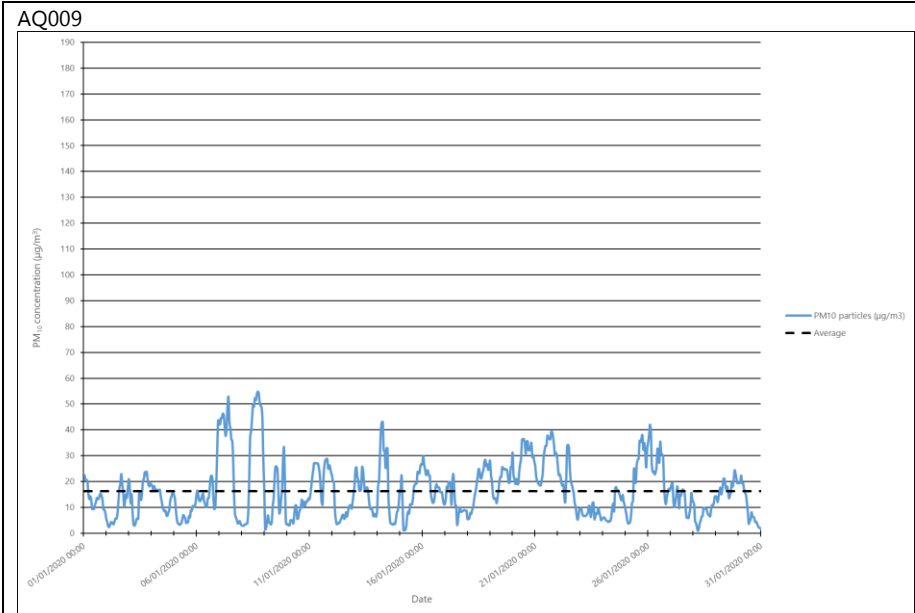
Table2: Summary of exceedances of trigger level in January 2020

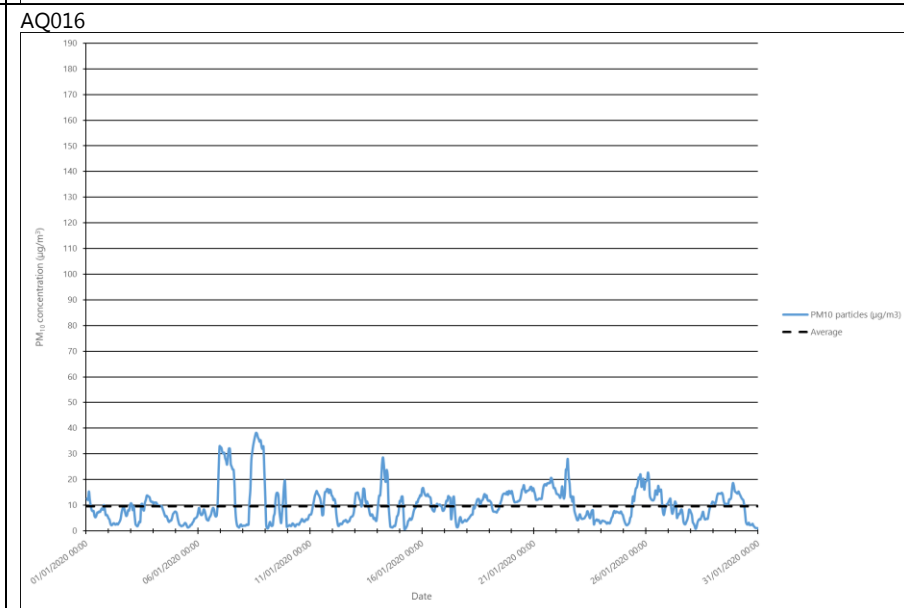
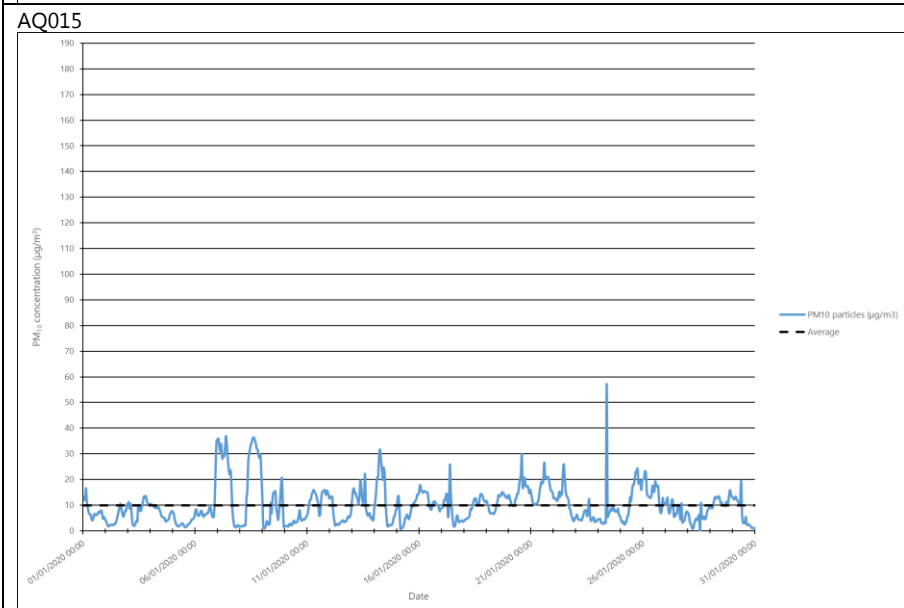
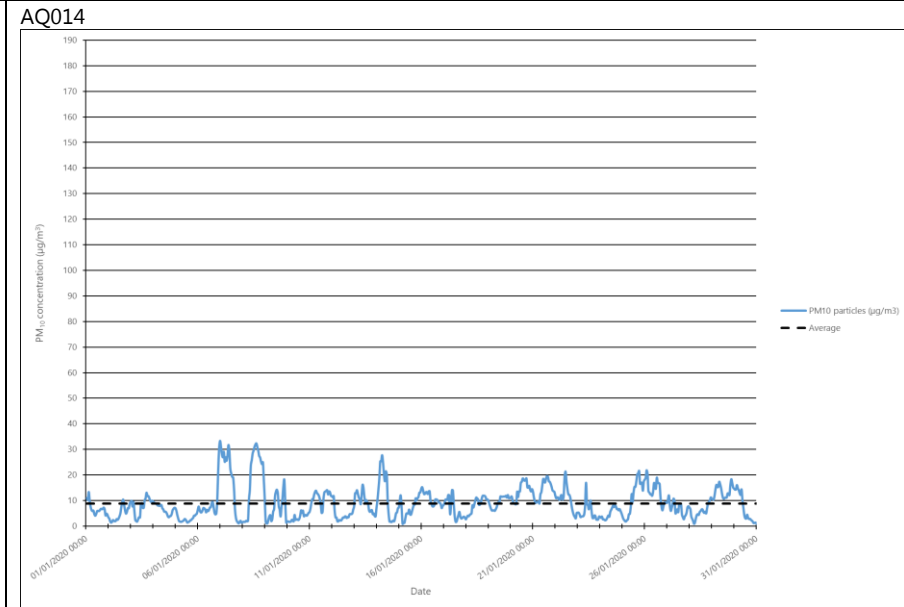
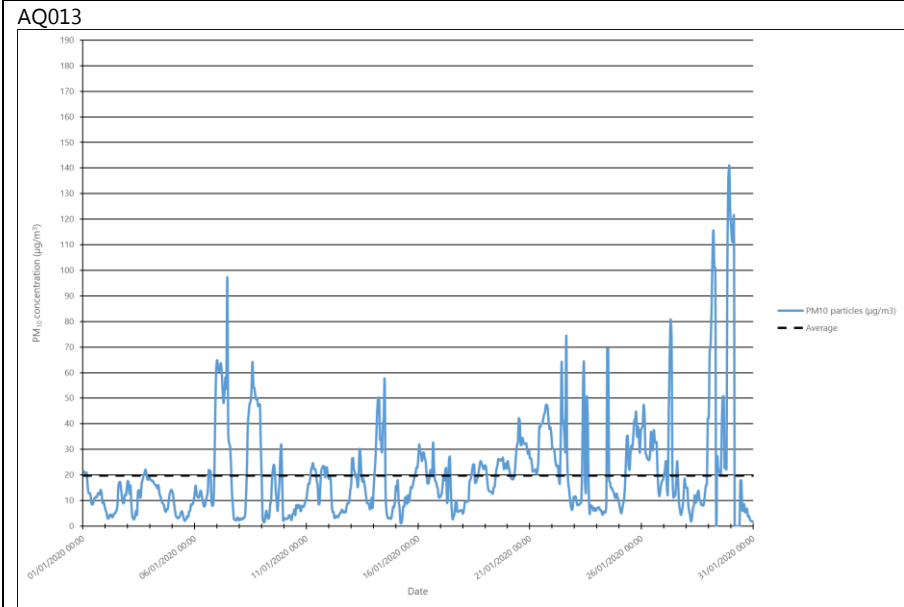
Period exceeding trigger level	Worksite reference	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
29/01/2020 15:01 – 16:00	S001-WS01	AQ001	n/a	No works in progress in the vicinity of the monitor at the time of the first trigger and the nearest other monitor to the site did not record any elevated levels at the time. The second trigger, received during the early hours of the morning and subsequent triggers in February when no works were in progress confirmed suspicions that the heater on the monitor's inlet was not working.	The monitor has been subsequently repaired.
30/01/2020 03:01 – 04:00	S001-WS01	AQ001	n/a		

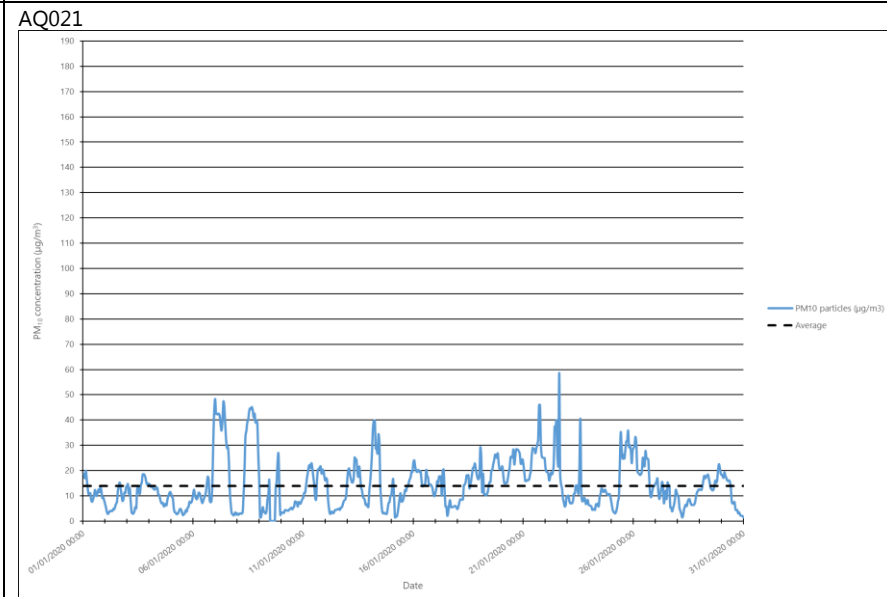
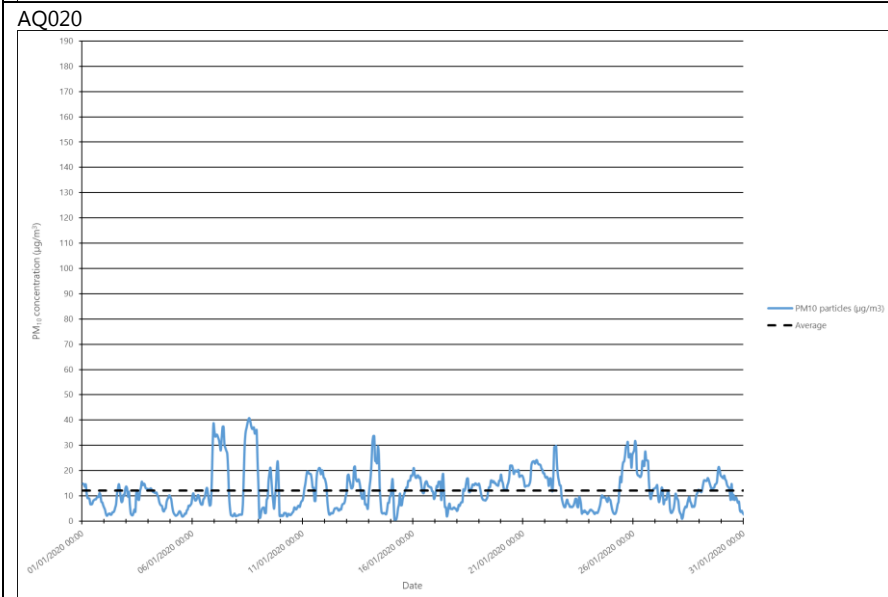
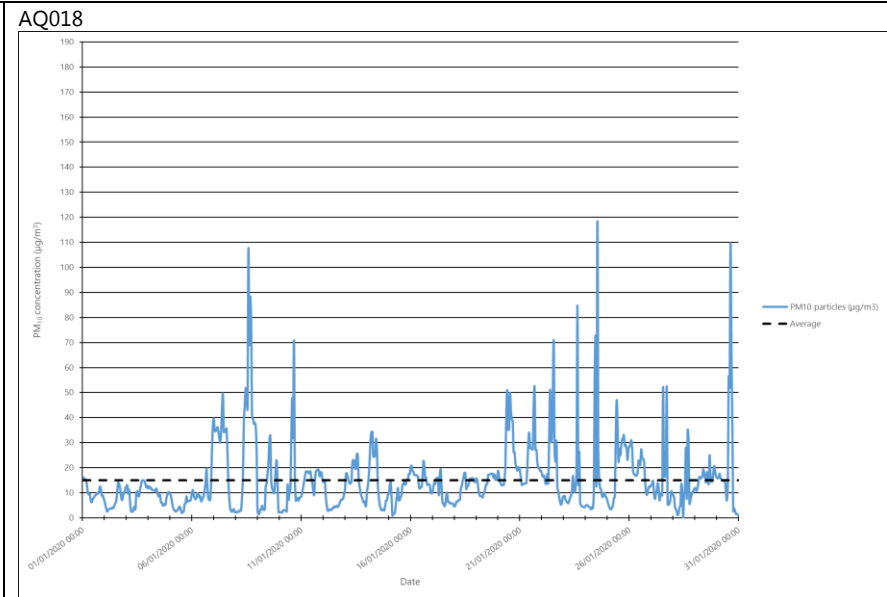
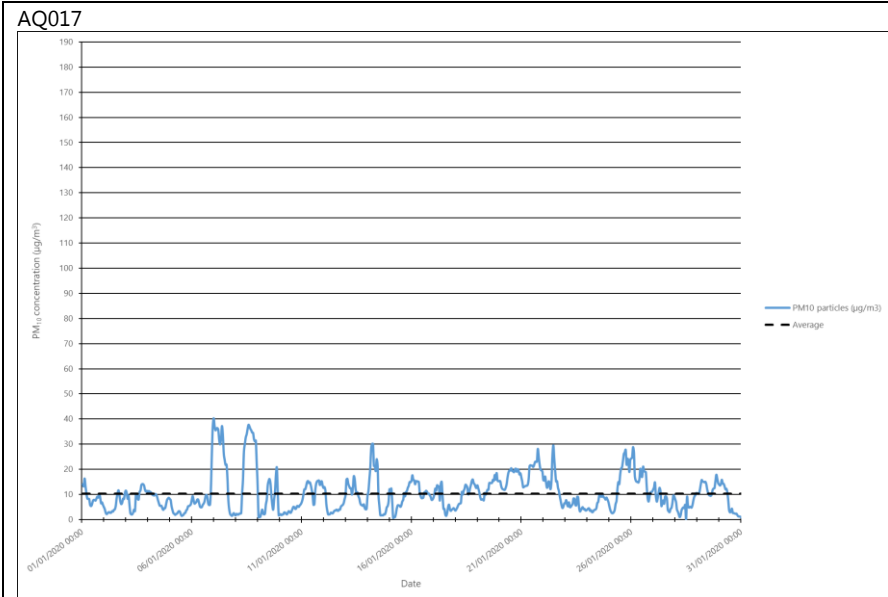
Figure4: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors











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 ¹	Mean ²
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	58	64	46	53	49	43	46	39	46	44	49	42	48
HS2-000020BM6	Brunswick Square	530321, 182268	51	63	49	42	35	36	39	38	39	33	45	41	43
HS2-000020BM7	Chalton Street	529894, 182702	63	83	66	72	Tube missing	Tube missing	Tube missing	Tube missing	52	Tube missing	59	59	65
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	63	72	66	75	61	53	52	59	60	45	59	48	59
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	47	63	56	59	56	48	49	46	49	43	56	50	52
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	51	76	63	56	46	52	50	Tube missing	54	45	57	46	54
HS2-000020BMB	Whitfield Street	529273, 182114	49	58	43	48	33	33	33	36	37	42	66	42	43
HS2-000020BMC	Hampstead Road	529232, 182511	53	84	71	74	62	61	61	70	65	61	72	45	65
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	39	47	Tube missing	40	27	29	26	27	32	32	41	27	33
HS2-000020BMH	Nash Street	528861, 182717	43	51	35	37	30	28	29	33	35	34	44	34	36
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	43	37	30	28	31	27	31	38	37	46	31	35

¹ Note: several diffusion tubes from the December 2019 batch were incorrectly prepared by the laboratory and could not be accurately analysed. Where this is the case, 'No data' is displayed.

² 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 ¹	Mean ²
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	66	68	55	50	39	40	44	47	51	42	57	51	51
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	47	44	38	41	26	27	29	30	36	32	34	39	35
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	52	75	62	47	49	47	52	57	56	53	53	46	54
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	43	53	43	40	36	33	34	37	37	32	44	35	39
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	50	57	43	58	45	46	44	41	47	46	51	38	47
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	44	49	41	41	30	Tube missing	28	30	35	27	46	No data	37
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	59	52	50	52	47	45	50	45	47	49	53	44	49
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	57	57	55	55	46	43	45	42	50	46	55	51	50
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	47	51	39	43	28	Tube missing	34	36	41	35	46	35	40
HS2-000020BMV	Primrose Hill Road	527538, 184250	46	45	38	No data	29	22	30	32	34	34	44	36	36
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	61	59	55	60	47	50	Tube missing	Tube missing	47	Tube missing	53	Tube missing	54
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	87	92	87	90	73	74	75	74	74	73	87	66	79
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	45	48	30	27	25	28	27	30	33	28	41	36	33

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec ¹	Mean ²
HS2-000020BNB	Junction of Gloucester Gate Bridge and Park Village East	528639, 183518	53	45	41	37	Tube missing	Tube missing	Tube missing	Tube missing	Tube missing	No data	No data	No data	44
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	35	36	24	33	21	25	Tube missing	Tube missing	31	30	39	26	30
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	43	53	37	41	30	34	33	34	39	42	45	37	39
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	50	Tube missing	Tube missing	35	29	Tube missing	27	34	37	37	43	36	37
HS2-000020BNQ	Camley Street	529735, 183737	50	49	Tube missing	Tube missing	19	29	27	Tube missing	35	32	37	No data	35
HS2-000020BNI	Junction of Mill Lane and Hillfield Road	524839, 185136	53	50	44	38	34	36	33	37	42	40	52	39	41
HS2-000020BNZ	Mansfield Road	528050, 185508	24	44	34	30	Tube missing	29	27	32	34	34	42	38	33
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	52	70	56	54	46	54	45	47	63	45	60	50	53
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	65	52	49	48	43	43	41	38	51	41	48	36	46
HS2-000020BPB	Camden High Street	528966, 183735	65	81	75	58	63	61	57	60	58	56	69	59	63
HS2-000020BPC	Castlehaven Road	528788, 184591	45	47	40	33	31	32	28	30	37	36	47	44	38
HS2-000020BPD	Prince of Wales Road	528571, 184683	35	43	37	28	28	25	23	24	30	32	41	35	32
HS2-000020BPE	Haverstock Hill	527710, 184749	54	62	53	37	Tube missing	37	36	38	38	40	44	49	44
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	44	52	41	35	32	31	29	31	35	38	42	38	37
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	54	60	56	50	Tube missing	42	51	43	48	41	57	50	50

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec ¹	Mean ²
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	48	51	44	44	40	39	38	36	42	40	47	40	42
HS2-000020BPX	Netley Street	529177, 182625	43	50	40	48	32	36	29	29	38	36	47	Tube missing	39
HS2-000020BPY	Stanhope Street	529060, 182947	34	46	32	36	24	24	Tube missing	24	32	36	44	39	34
HS2-000020BPZ	Albany Street	528790, 182923	44	57	42	43	34	34	32	31	43	38	48	40	41
HS2-000020BQ0	Werrington Street	529493, 183113	43	Tube missing	39	39	26	28	25	27	35	35	44	37	34
HS2-000020BQ1	Polygon Road	529574, 183045	41	46	37	34	Tube missing	28	Tube missing	28	33	No data	44	43	37
HS2-000020BQ2	Alexandra Place	526320, 183980	42	Tube missing	30	39	25	Tube missing	24	26	31	35	39	No data	32
HS2-000020BQ3	Harrington Square	529228, 183172	46	60	45	48	40	42	40	38	45	48	55	46	46
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	51	54	41	44	23	33	30	30	37	37	45	43	39
HS2-000020BQ5	Adelaide Road	527713, 184392	50	54	43	41	32	30	35	34	33	39	43	41	40
HS2-000020BQ6	Mornington Terrace	528836, 183474	45	46	35	34	28	27	25	27	31	34	37	38	34
HS2-000020BQ7	Arlington Road	529009, 183479	43	40	37	33	28	24	26	28	Tube missing	28	45	38	34
HS2-000020BQ8	Clarkson Row	529024, 183213	42	45	34	36	26	27	24	27	32	36	39	37	34
HS2-000020BQ9	Park Village East	528923, 183121	40	44	Tube missing	Tube missing	24	24	22	26	33	31	43	32	32
HS2-000020BQA	Eversholt Street	529386, 183132	57	67	56	49	46	Tube missing	44	42	50	53	Tube missing	53	52
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	42	43	32	40	26	26	24	25	33	37	45	Tube missing	34

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec ¹	Mean ²
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	49	48	42	56	33	37	34	30	37	38	49	42	41
HS2-000020BQD	Drummond Crescent	529648, 182856	50	51	45	44	33	34	33	38	41	39	47	43	41
HS2-000020BQJ	Grafton Way	529380, 182225	64	70	59	56	51	62	57	53	64	58	66	61	60
HS2-000020BQL	Delancey Street	528768, 183581	58	57	47	51	45	39	43	35	50	46	55	41	47
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	46	42	36	34	26	Tube missing	25	24	33	32	47	32	34
HS2-000020BQS	Opposite Maria fidelis school on Pheonix Road	529670, 182982	43	43	37	41	Tube missing	34	26	27	Tube missing	38	37	Tube missing	36
HS2-000020BQT	Drummond Street	529385, 182581	52	51	43	47	31	37	31	31	39	44	51	43	42
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	64	Tubes missing	Tubes missing	Tubes missing	46	53	45	Tubes missing	56	49	59	16	48
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	Tubes missing	81	69	78	63	77	61	66	78	69	69	58	70
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	55	47	38	38	36	32	30	26	36	37	42	40	38