

Air Quality and Dust Monitoring Monthly Report – May 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 April and May 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.

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 and planned worksites, include:

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

- 1.1.4 Twenty (20) dust monitors are installed around worksites, where demolition, groundworks and materials management are underway. These sites returned a medium or high dust risk rating.
- 1.1.5 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. 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.

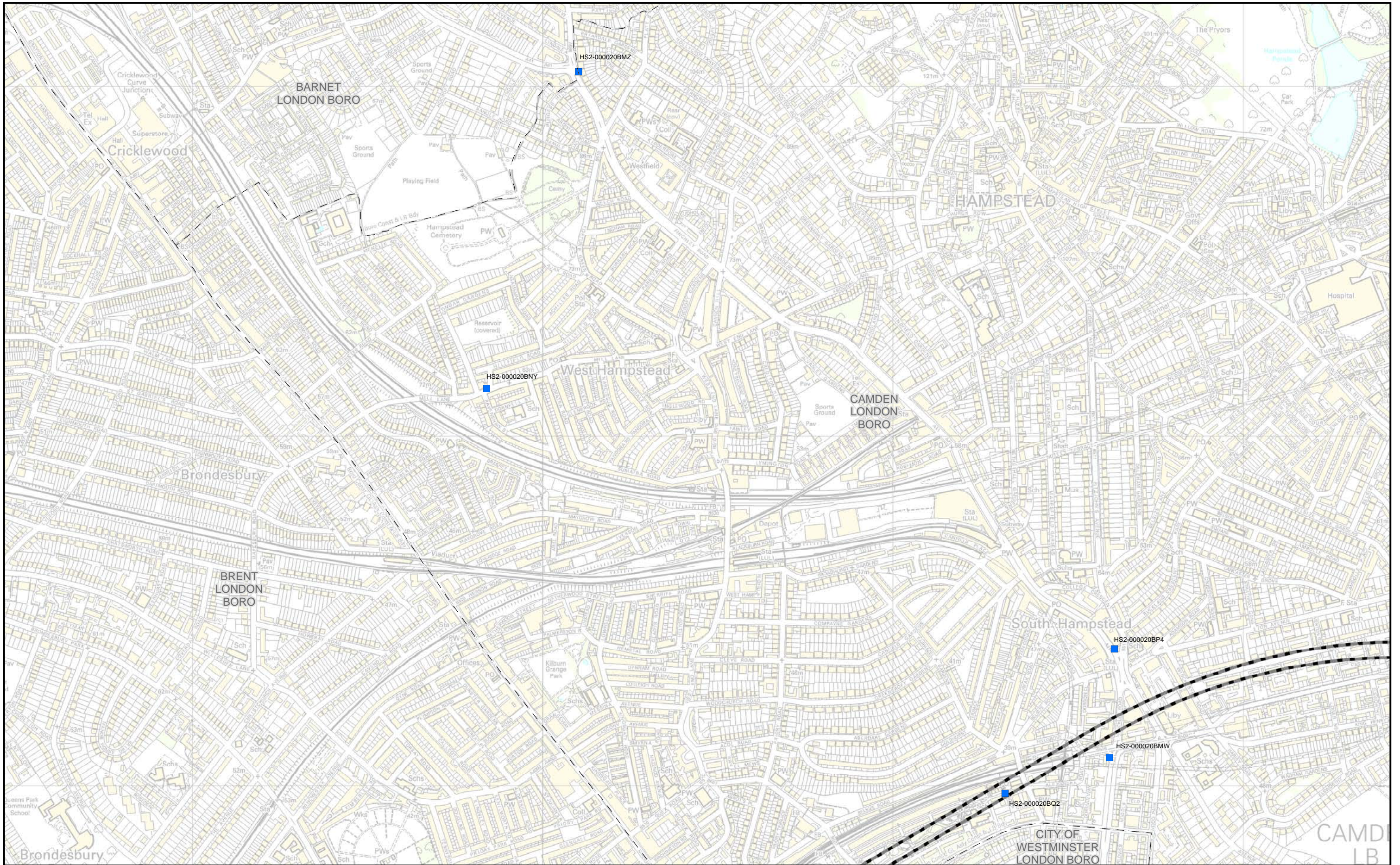
- 1.1.6 The trigger level for PM₁₀ concentrations of 190 µg/m³, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – (October 2018)*' has been applied.
- 1.1.7 There were eight (8) dust trigger alerts recorded during the monitoring period (May 2020). Exceedances are presented in Appendix B, Table 3. All other results were in line with expected ranges.
- 1.1.8 Data capture for monitors AQ012, AQ013, AQ017 and AQ021 was below 90% for the month of May 2020. For monitors AQ012 and AQ013 this was due intermittent and regular interruptions with the power supply on the site. For AQ017 and AQ021 this was due to technical faults with the monitors. Due to the COVID-19 pandemic and government lockdown it was not possible to visit and determine the cause of the faults or to conduct maintenance and repair work.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at sixty-four (64) locations around highways within the LBC as part of the management of air quality where significant effects may occur as a result of the scheme. Due to the Covid-19 pandemic and government lockdown it was not possible to conduct diffusion tube air quality monitoring in April 2020.
- 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.
- 1.1.11 NO₂ monitoring locations and results are presented in Appendix C, Table 4, together with the 2020 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 June 2020 in LBC

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-20-40064-C	-	On the 21/05/2020 dust was reported as coming from the works around Eskdale.	The concerns were raised with the site team and a response was provided highlighting out the mitigation measures HS2 has committed to across sites.

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

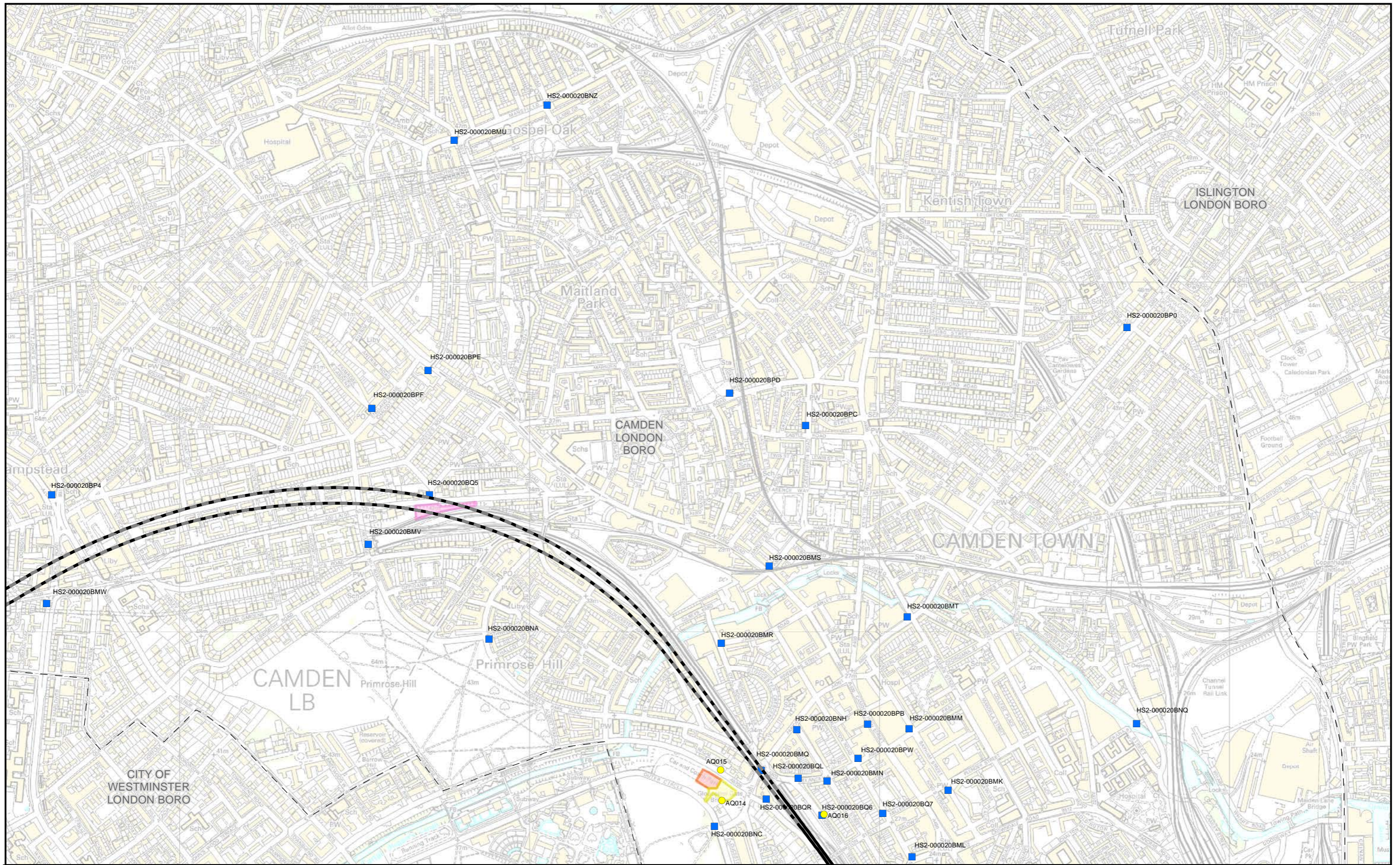
London Borough of Camden

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



Legend

Route in tunnel	Vehicle Holding area
Route on surface	Thames Water Compound
Diffusion tube monitoring location	Adelaide Road Vent Shaft
Dust monitoring location	

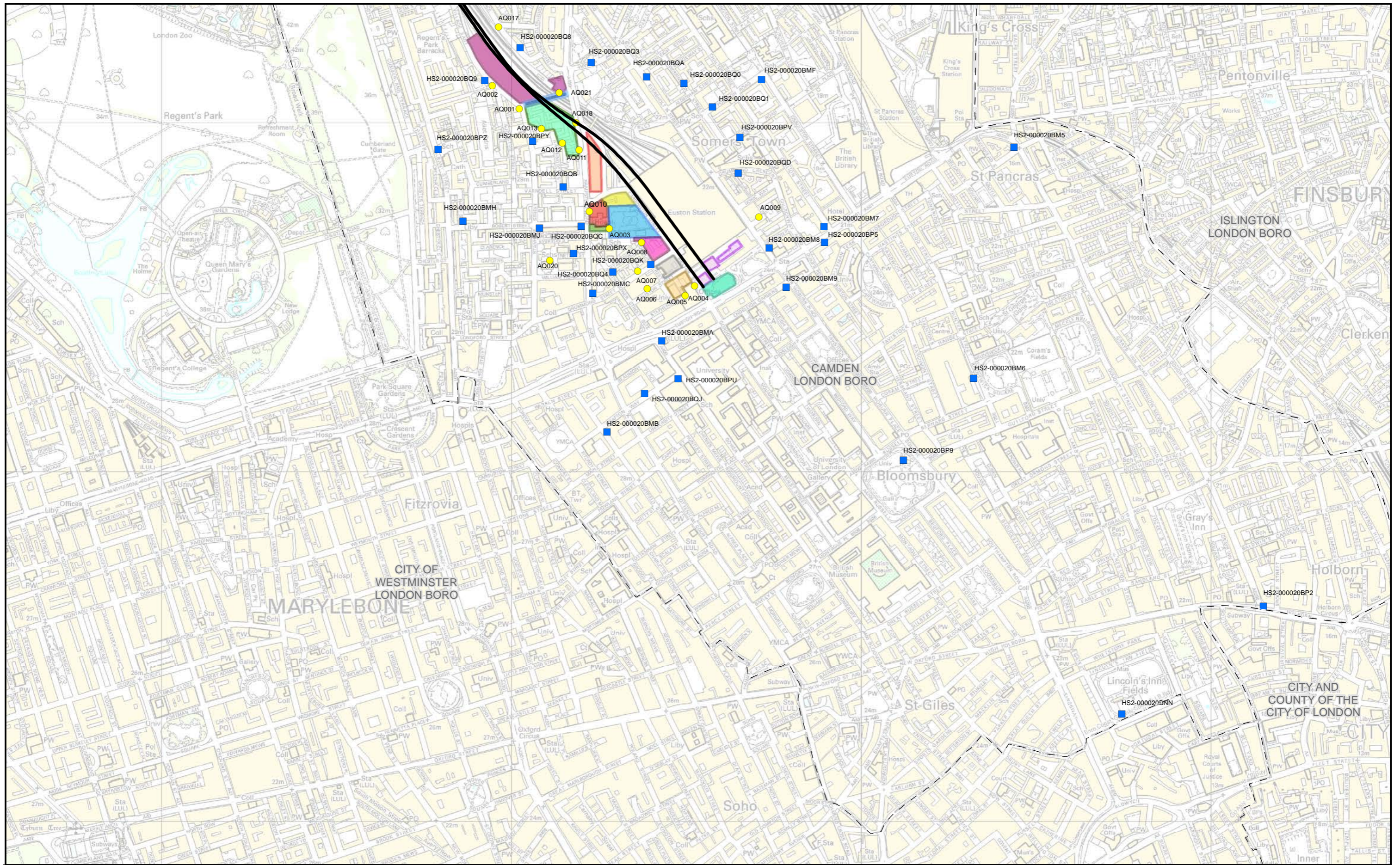
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Figure Name	Worksites and Monitoring locations in LBC (sheet 2)
London Borough of Camden	

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Metres



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

Figure Number	
Figure Name	Worksites and Monitoring locations in LBC (sheet 3)
London Borough of Camden	

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Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and May 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	25.2	4.4	125.0	0	100.0
AQ002	528945, 183105	Park Village East	H	Yes	N	10.8	2.5	42.8	0	100.0
AQ003	529279, 182698	St James' Gardens	M	Yes	N	16.4	3.1	94.1	0	100.0
AQ004	529523, 182533	Melton Street	H	Yes	N	21.2	3.2	307.2	2	100.0
AQ005	529496, 182505	Stephenson Way	H	Yes	N	21.7	4.3	853.3	6	100.0
AQ006	529399, 182514	Euston Street	H	Yes	N	10.8	2.3	69.3	0	99.9
AQ007	529369, 182564	Drummond Street	H	Yes	N	10.2	2.6	74.3	0	99.9
AQ008	529372, 182657	Cobourg Street	H	Yes	N	16.2	3.3	126.0	0	100.0
AQ009	529707, 182730	Lancing Street	H	Yes	N	6.0	2.0	22.1	0	100.0
AQ010	529223, 182732	Hampstead Road South	H	Yes	N	12.9	3.5	66.4	0	100.0
AQ011	529193, 182921	Hampstead Road	H	Yes	N	14.1	4.1	149.6	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	10.3	2.6	45.8	0	38.8
AQ013	529086, 182983	Regents Park Estate	H	Yes	N	21.4	4.8	70.7	0	46.8
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	10.1	2.4	52.1	0	100.0
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	6.7	1.7	30.4	0	100.0
AQ016	528840, 183466	Mornington Terrace North	H	Yes	N	7.5	1.7	31.8	0	100.0
AQ017	528963, 183274	Mornington Terrace South	H	Yes	N	8.7	2.5	29.7	0	56.3
AQ018	529184, 182999	Hampstead Road North	H	Yes	N	12.5	2.9	142.7	0	100.0
AQ020	529109, 182605	Netley School	n/a	Yes	N	9.8	2.3	38.4	0	100.0
AQ021	529136, 183086	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	H	Yes	N	10.7	2.9	48.9	0	75.8

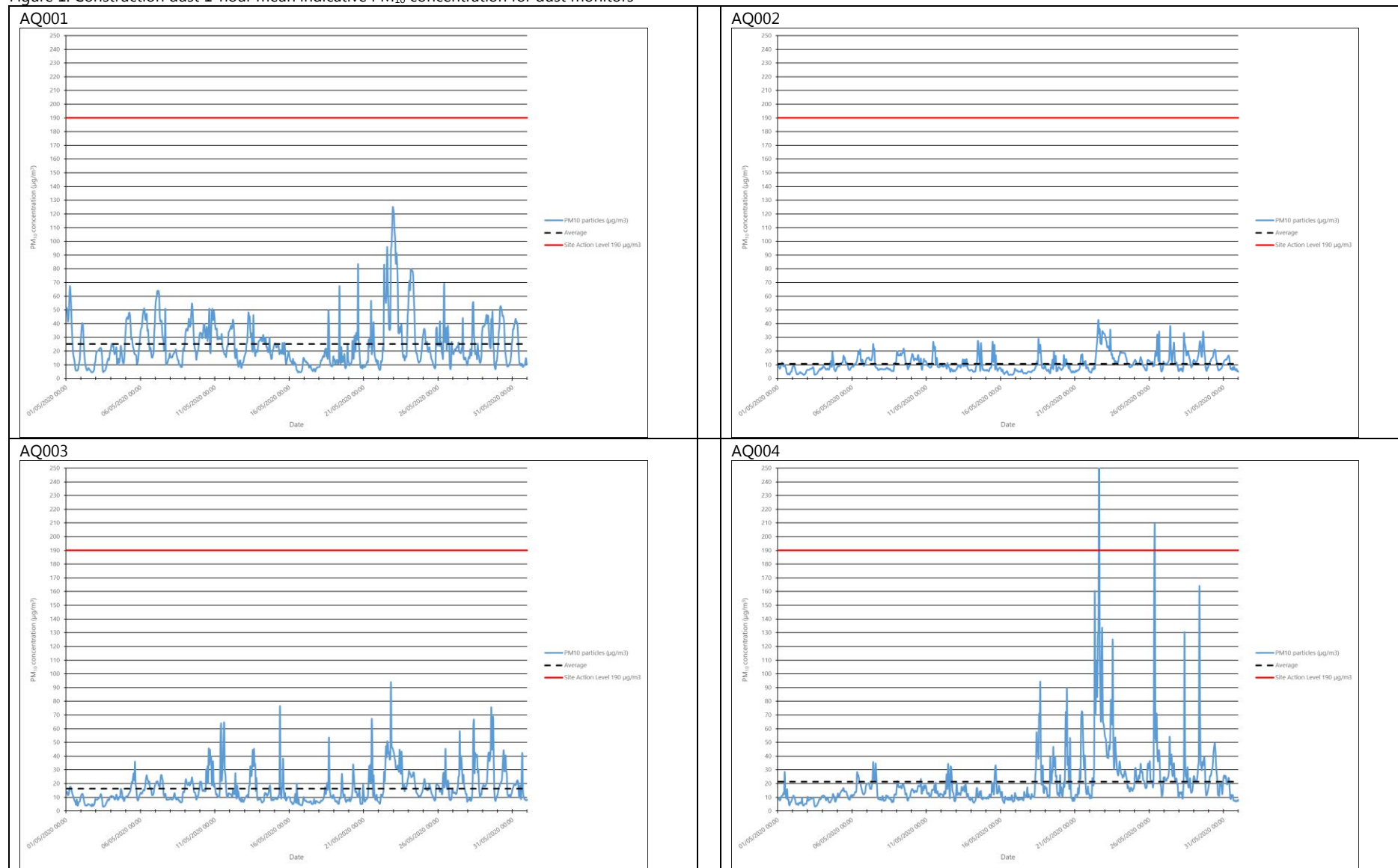
Table 2: Summary of exceedances of trigger level in May 2020

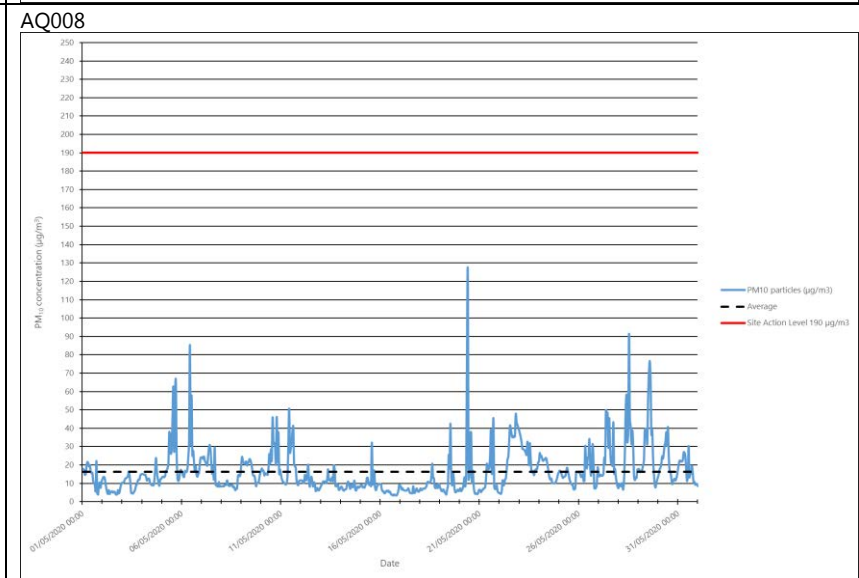
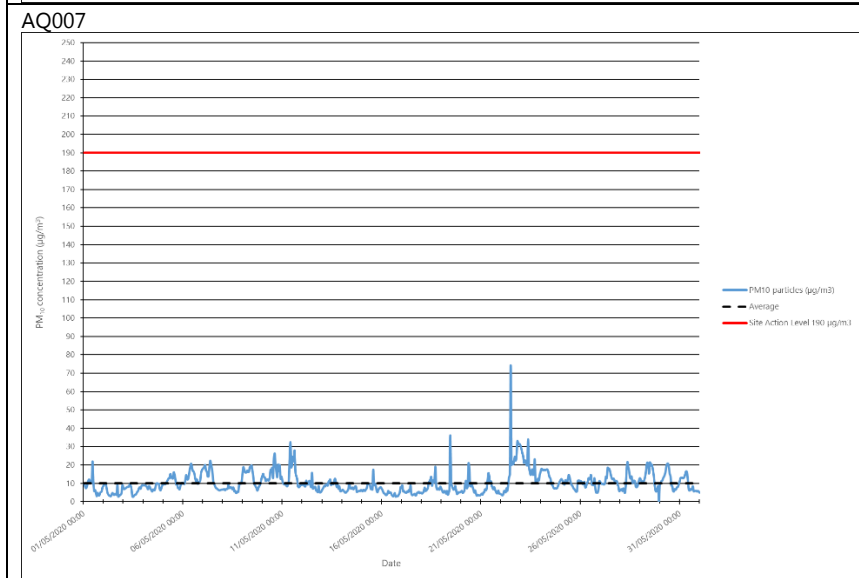
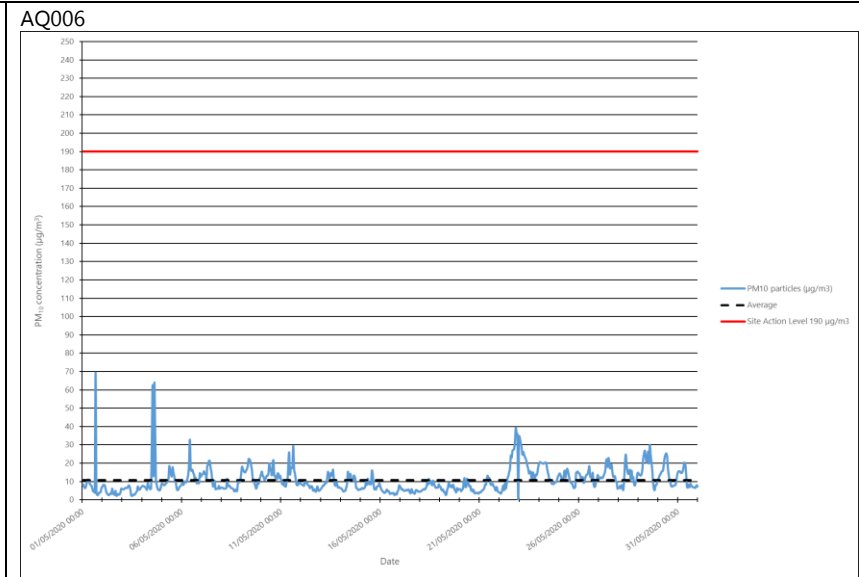
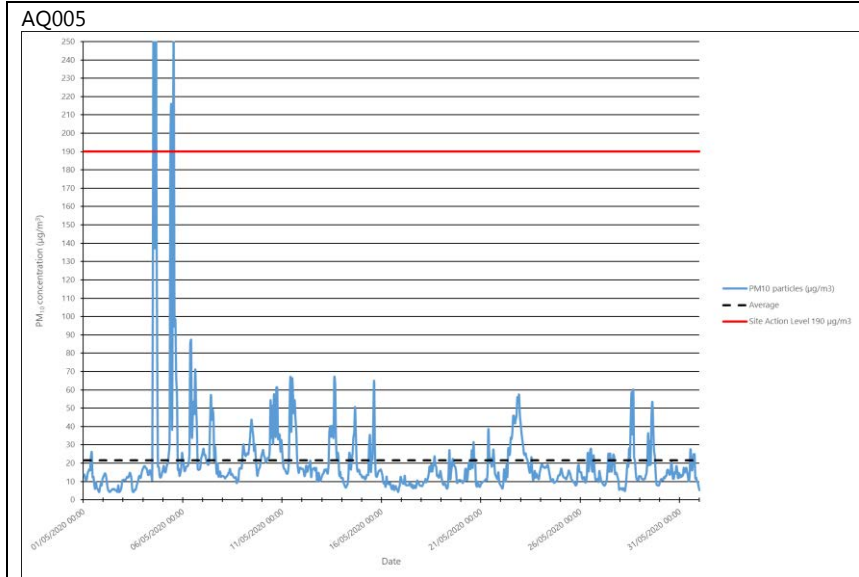
Period exceeding trigger level	Worksite	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
22/05/2020 14:01 – 15:00	One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street	AQ004	n/a	<p>At the time of the trigger alert breakout of the 1st floor slab at One Euston Square was underway. On the 1st photograph attached of these works (Euston Square 220520 1451), albeit difficult to see, each machine has an operative applying suitable dust suppression. The works are also contained within scaffolding, acoustic panelling and Monoflex. In addition, these works are approximately 70 m away from AQ004, so it is considered unlikely that these works are the source of the trigger.</p> <p>Materials sorting (see 2nd photo – Melton Street 220520 1515) was not being carried out at the time on the footprint of the former Grant Thornton House, which is closer to the monitor on Melton Street. There were also no activities / works on the site loading bay / entrance area Melon Street itself.</p> <p>We cannot rule out windblown dust from the loading bay area as the wind in that location had increased during the afternoon. However, it is understood that 3rd party works are underway on the building facade adjacent to the dust monitoring location. However, on investigation it is not possible to determine if these works were the cause or a contributor to the trigger.</p>	<p>As a precaution dust suppression was deployed around the site entrance / loading area, which is also regularly swept by a dedicated road sweeper. In addition, being mindful of the recent spate of continued dry warm weather we have been experiencing and anticipated to continue in the days ahead, the site teams across CSJV sites were re-briefed this morning on the importance of good dust suppression and the absolute need to remain vigilant about dust arising from site operations.</p>
26/05/2020 08:01 – 09:00	One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street	AQ004	n/a	<p>At the time of the trigger alert, breakout of the 1st floor slab at One Euston Square had been underway since a little after 08:00 a.m. The works are contained within scaffolding, acoustic panelling and Monoflex and each breaker has an operative applying dust suppression. In addition, these works are approximately 70 m away from AQ004, so it is considered unlikely</p>	<p>Dust suppression was maintained on all site activities which also includes a regular dedicated road sweeper across the area.</p>

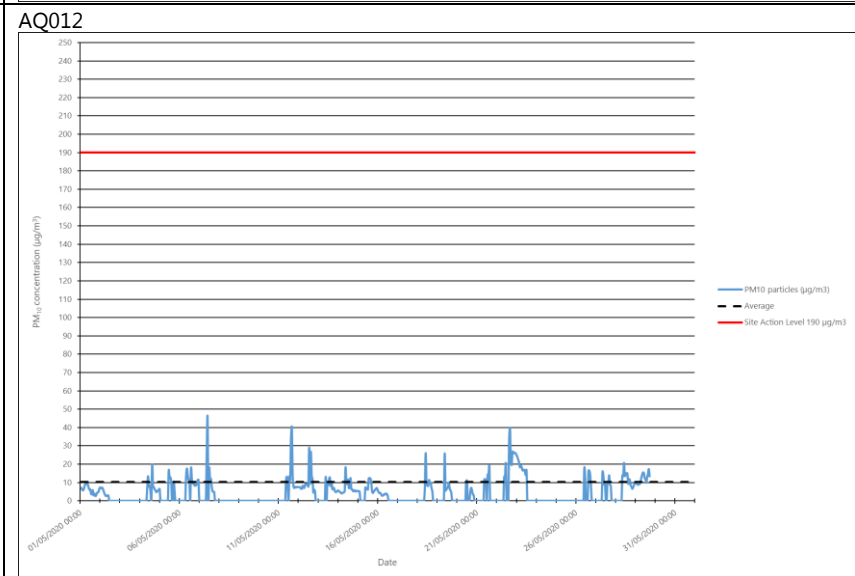
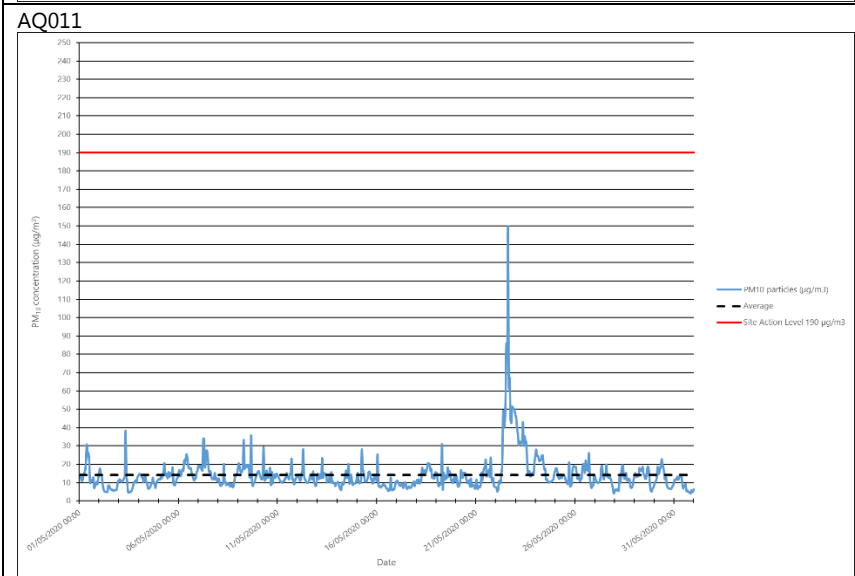
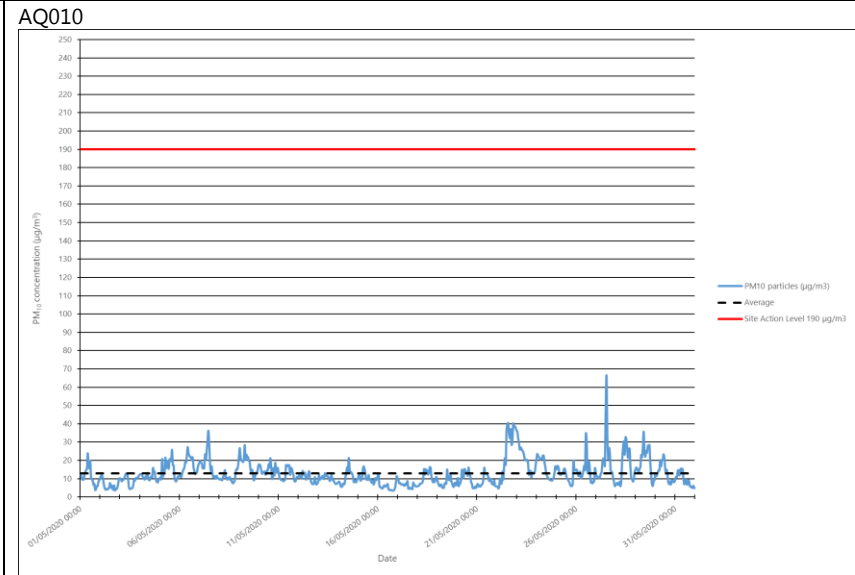
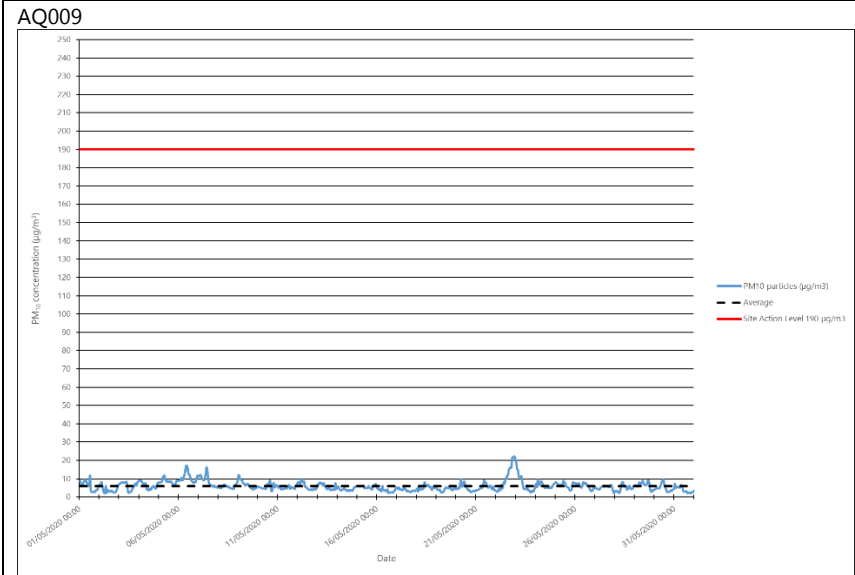
				<p>that these works are the source of the trigger alert.</p> <p>Dust levels had already started increasing during the preceding hour prior to any works commencing on site i.e. between 07:00-08:00 the monitored level was 168.7 µg/m³ from a previous steady level below 40 µg/m³ – during which time there were no site activities underway.</p> <p>There were no other activities / works on the site loading bay / entrance area on Melton Street itself, the weather was not windy this morning, therefore the trigger is unlikely to be attributable to windblown dust from the site.</p> <p>However, as advised last week it is understood 3rd party works are underway on the building facade adjacent to the dust monitoring location, but it is not possible to determine if these works were the cause or a contributor to the trigger.</p>	
04/05/2020 12:01 – 13:00	Walkden House, Wolfson House, 65-75 & 77-79 Euston Street	AQ005	n/a	At the time of the trigger alerts demolition work (munching activity) was being undertaken in the footprint of the former Wolfson House building.	Works were paused each time and the dust suppression was reviewed on each occasion and repositioned as a precautionary approach and works restarted.
04/05/2020 14:01 – 16:00 (x2)	Walkden House, Wolfson House, 65-75 & 77-79 Euston Street	AQ005	n/a	<p>Suitable dust suppression was in operation during the works and there were no obvious dust emissions from the activities taking place, or as a notable cause for the trigger.</p> <p>There were no HS2 utilities works underway along Stephenson Way at the time or any other 3rd party works.</p>	
05/05/2020 08:01 – 10:00 (x2)	Walkden House, Wolfson House, 65-75 & 77-79 Euston Street	AQ005	n/a	At the time of the trigger demolition work (munching activity), as done yesterday, were continuing to take place in the footprint of the former Wolfson House building.	Works were paused and the dust suppression was reviewed before works restarted.
05/05/2020 12:01 – 13:00		AQ005	n/a		

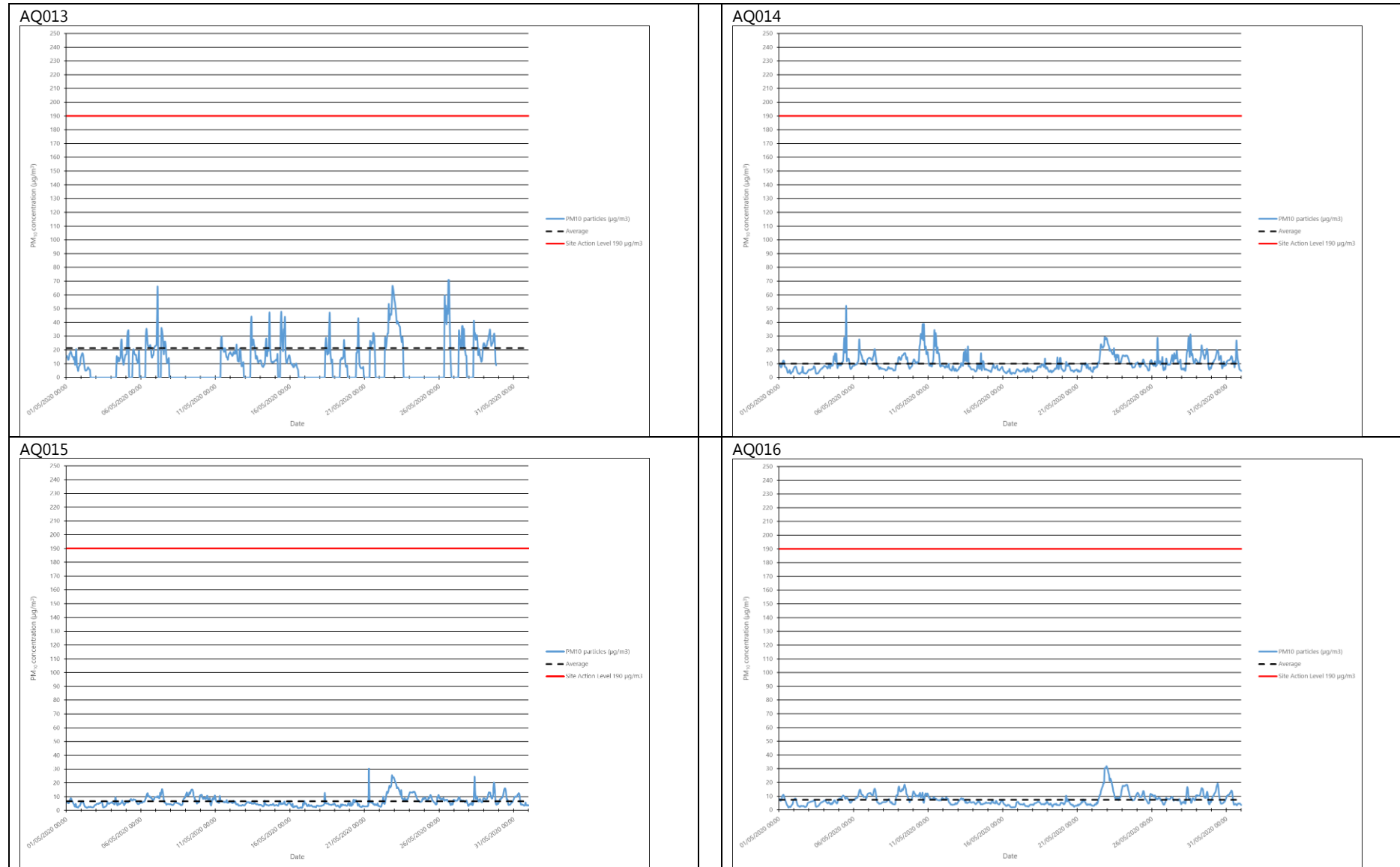
	Walkden House, Wolfson House, 65-75 & 77-79 Euston Street			<p>Site teams were briefed at the start of shift and reminded about the importance of ensuring the management of dust. Suitable dust suppression was in operation during the works and there were no obvious dust emissions from the activity or notable cause for the trigger.</p> <p>As noted above, there were no HS2 utilities works underway along Stephenson Way at the time or any 3rd party works.</p>	
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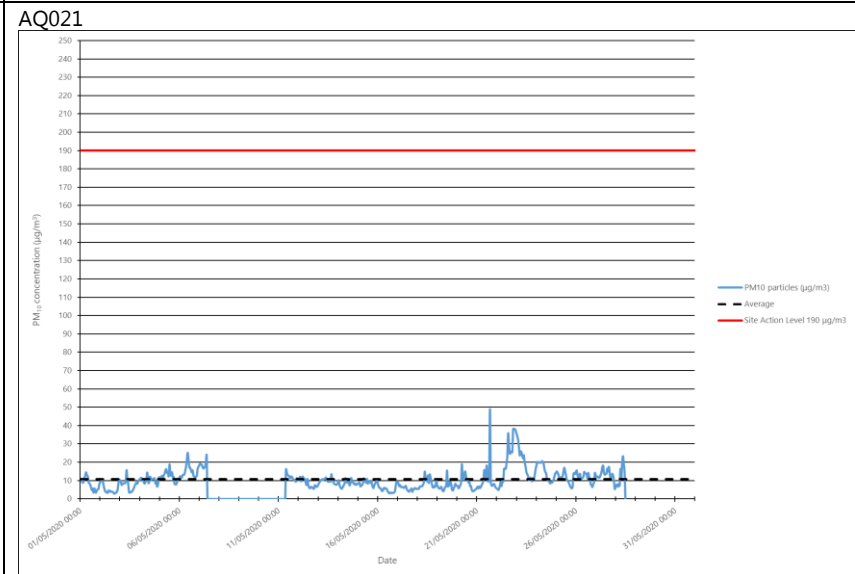
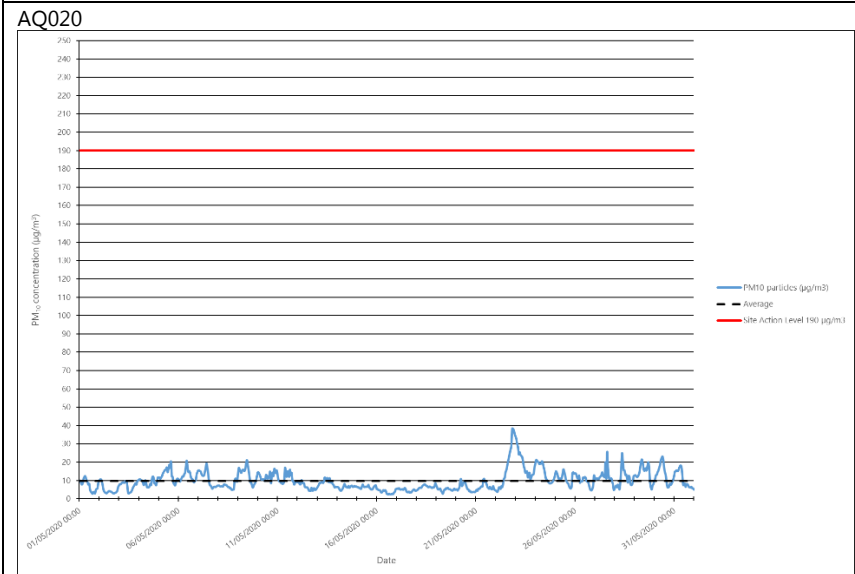
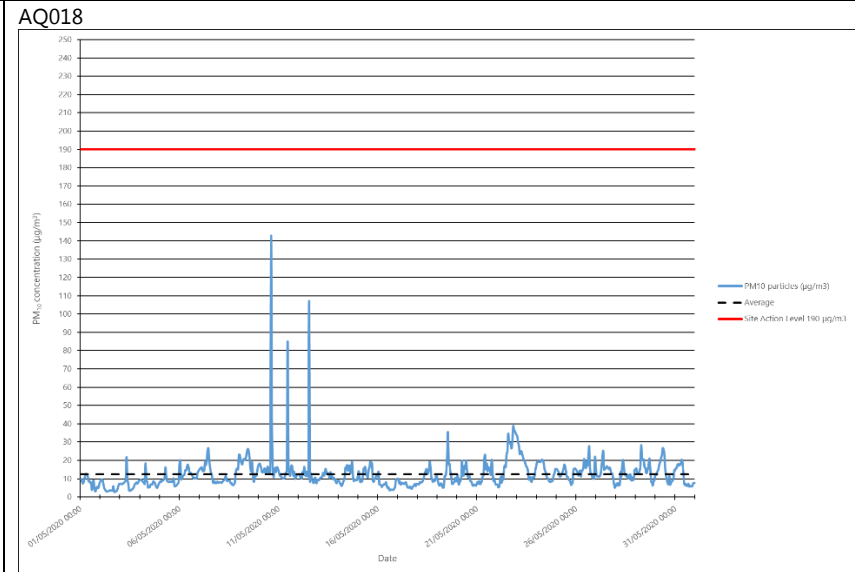
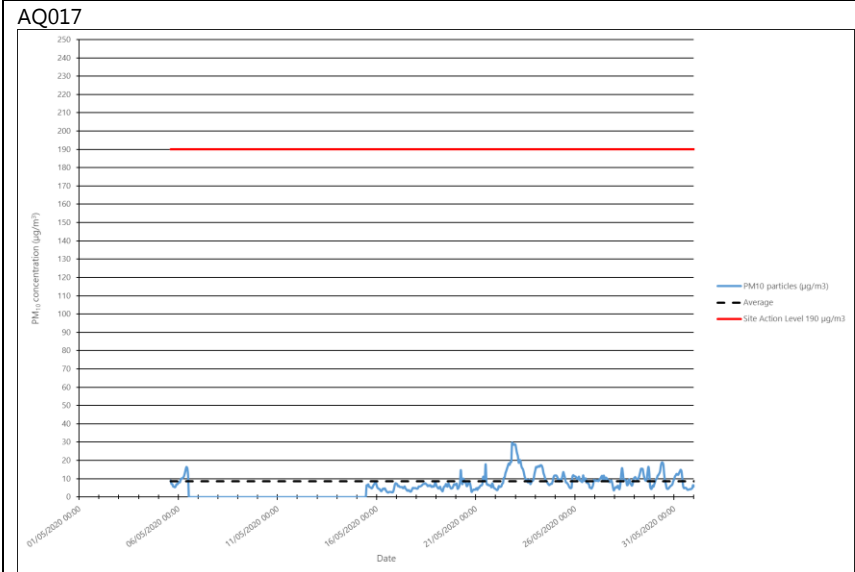
Figure 1: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors











Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2020 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr ¹	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	56	51	No data										53
HS2-000020BM6	Brunswick Square	530321, 182268	55	57	No data										56
HS2-000020BM7	Chalton Street	529894, 182702	66	65	No data										65
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	57	57	No data										57
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	56	58	No data										57
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	59	54	No data										57
HS2-000020BMB	Whitfield Street	529273, 182114	45	43	No data										44
HS2-000020BMC	Hampstead Road	529232, 182511	58	53	No data										56
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	38	Tube missing	No data										38
HS2-000020BMH	Nash Street	528861, 182717	44	37	No data										40
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	33	No data										36

¹ Note: Due to the COVID-19 pandemic and government lockdown it was not possible to conduct diffusion tube air quality monitoring in March and April 2020.

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 ¹	Apr ¹	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	56	49	No data										53
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	44	38	No data										41
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	62	58	No data										60
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	45	41	No data										43
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	51	43	No data										47
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	42	36	No data										39
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	52	50	No data										51
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	51	43	No data										47
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	45	No data											45
HS2-000020BMV	Primrose Hill Road	527538, 184250	44	38	No data										41
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	Tube missing		No data										
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	82	61	No data										72
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	42	30	No data										36
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	33	25	No data										29

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr ¹	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	46	35	No data										40
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	41	41	No data										41
HS2-000020BNQ	Camley Street	529735, 183737	Tube missing	31	No data										31
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	45	41	No data										43
HS2-000020BNZ	Mansfield Road	528050, 185508	40	33	No data										37
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	58	51	No data										55
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	48	45	No data										46
HS2-000020BPB	Camden High Street	528966, 183735	65	54	No data										59
HS2-000020BPC	Castlehaven Road	528788, 184591	43	36	No data										40
HS2-000020BPD	Prince of Wales Road	528571, 184683	39	27	No data										33
HS2-000020BPE	Haverstock Hill	527710, 184749	52	41	No data										46
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	47	33	No data										40
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	56	50	No data										53
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	50	37	No data										44
HS2-000020BPX	Netley Street	529177, 182625	34	28	No data										31
HS2-000020BPY	Stanhope Street	529060, 182947	40	29	No data										34

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr ¹	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BPZ	Albany Street	528790, 182923	44	36	No data										40
HS2-000020BQ0	Werrington Street	529493, 183113	42	36	No data										39
HS2-000020BQ1	Polygon Road	529574, 183045	44	35	No data										40
HS2-000020BQ2	Alexandra Place	526320, 183980	39	31	No data										35
HS2-000020BQ3	Harrington Square	529228, 183172	50	38	No data										44
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	44	36	No data										40
HS2-000020BQ5	Adelaide Road	527713, 184392	Tube missing	40	No data										40
HS2-000020BQ6	Mornington Terrace	528836, 183474	39	30	No data										34
HS2-000020BQ7	Arlington Road	529009, 183479	40	33	No data										37
HS2-000020BQ8	Clarkson Row	529024, 183213	39	31	No data										35
HS2-000020BQ9	Park Village East	528923, 183121	37	29	No data										33
HS2-000020BQA	Eversholt Street	529386, 183132	60	48	No data										54
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	41	30	No data										36
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	47	37	No data										42
HS2-000020BQD	Drummond Crescent	529648, 182856	Tube missing	42	No data										42
HS2-000020BQJ	Grafton Way	529380, 182225	55	54	No data										54
HS2-000020BQL	Delancey Street	528768, 183581	44	No data	No data										44

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr ¹	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	37	33	No data										35
HS2-000020BQS	Opposite Maria fidelis school on Pheonix Road	529670, 182982	40	36	No data										38
HS2-000020BQT	Drummond Street	529385, 182581	47	35	No data										41
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	54	Tubes missing	No data										54
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	69	67	No data										68
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	44	43	No data										44