

Report

with respect to

AQ Mesh pod

Particulate Matter Study

The Preesall and Knott End against the quarry group have commissioned an air quality pod from a company known as AQ Mesh. This "pod" measures particulate matter concentrations over a 24 hour period for however long the pod is in place. The pod used measures both PM10 concentrations and PM2.5 concentrations. It is the PM2.5 measurements which are of most concern here as they are the greatest threat to human health, and they are the pollutants referred to in the latest "Air Quality Strategy: framework for Local Authority Delivery, updated 25/08/23" to which I will refer later in my report.

The pod was in place and readings taken over a 3 week period, from 19/9/23 - 12/10/23.

From these dates you will realise that we were in the Autumn months, and indeed, the weather did take a turn for the worst, rain, rain and more rain. This timing and weather conditions were obviously of the type to suppress particulate matter in the atmosphere, but this timing was beyond control of the group due to the timing of the application, so the readings had to be taken at this time.

The pod was situated at the back of Bourbles Farm garden, capturing westerly winds. It was at the centre of the proposed quarry development and could quite easily be classed as "in the middle of nowhere" at the moment.

I did indeed expect the readings to be extremely low for PM2.5

However, at the end of the recording period when I examined the data, I found this NOT to be the case!

Please refer to attachment 1 (AQ Mesh location data) for a table of results found for PM 2.5, and to attachment 2 for this table in graphical form.

There were many "little peaks", many of the higher than the figure quoted by the developers as their predicted level of PM 2.5 when the quarry would be in full operation, namely 6.18ug/m3.

The applicants state in their report that the baseline level for PM2.5 is 5.68ug/m3. The table of results (attachment 1 AQ Mesh location data) clearly shows that even in Autumnal conditions the ACTUAL average baseline recorded by the pod is 6.48ug/m3!

This is significantly higher than the figures the developers quote, and is also higher than the figure they predict for when the quarry is fully operational!

If you look to screenshots attached above which are of some of the periods of interest referred to as "little peaks" you can examine more closely some of these events (again paying particular attention to PM 2.5 levels)

The biggest peaks were displayed on 10 October 2023 (jpeg 41 and 43 above).

One of these peaks was at 3 am (peak of 16.2 ug/m3 for PM2.5) nobody has any idea what caused this.

The other peak at 8am (peak of 25.73ug/m3 for PM2.5) was possibly caused by the movements of approximately 3 small agricultural vehicles (quad bikes and similar) setting up duck pens, as witnessed by a resident at Bourbles Farm. This activity was seen from her bedroom window.

What is very clear here is that the figures produced by the developers are NOT correct for the baseline reading and their predicted figure for if the quarry was fully operational must be regarded as pure fantasy.

I would now like to bring your attention to attachment 3 "Air Quality Strategy : Framework for Local Authority Delivery, updated 25/08/23.

In this document 2 LEGALLY BINDING PM 2.5 targets have been set, each with an interim target.

This new target is 10 ug/ m3 for PM 2.5 (please note these are not to be regarded as safe levels) and from the figures I have shown above, in wet Autumnal weather the figures RECORDED, not predicted went higher than that target value on many occasions!

I believe that this application should be rejected due to its figures being flawed and that it is totally out of line with the latest Air Quality Strategy.

On a final note, I will quote an extract from the latest "Air Quality Strategy" which states that :- "Action for Local Partners : 4

All local authorities should support the delivery of national PM 2.5 targets by taking action to reduce emissions from sources within their control.

If the government considers local action has not gone far enough, we will consider introducing a statutory duty on local authorities".

Cllr Collette Rushforth (BSc Hons).

POD Serial No.	Location Name	Project Time (Interval start) (UTC0)	Project Time (Interval end) (UTC0)	Particle Protocol Version	PM State	PM2.5 PreScaled $\mu\text{g}/\text{m}^3$	PM2.5 Scaled $\mu\text{g}/\text{m}^3$	PM10 PreScaled $\mu\text{g}/\text{m}^3$	PM10 Scaled $\mu\text{g}/\text{m}^3$	Humidity %RH	Temperature C
2451030	2451030	19/Sep/2023 13:00:00	19/Sep/2023 14:00:00	v3.0	OK	6.79	6.79	13.53	13.53	78.53	18.48
2451030	2451030	19/Sep/2023 14:00:00	19/Sep/2023 15:00:00	v3.0	OK	7.28	7.28	14.67	14.67	81.43	17.6
2451030	2451030	19/Sep/2023 15:00:00	19/Sep/2023 16:00:00	v3.0	OK	7.16	7.16	14.21	14.21	81.68	17.53
2451030	2451030	19/Sep/2023 16:00:00	19/Sep/2023 17:00:00	v3.0	OK	7.4	7.4	15.02	15.02	81.28	17.75
2451030	2451030	19/Sep/2023 17:00:00	19/Sep/2023 18:00:00	v3.0	OK	7.03	7.03	13.83	13.83	80.08	17.9
2451030	2451030	19/Sep/2023 18:00:00	19/Sep/2023 19:00:00	v3.0	OK	6.92	6.92	13.8	13.8	79.65	17.9
2451030	2451030	19/Sep/2023 19:00:00	19/Sep/2023 20:00:00	v3.0	OK	6.75	6.75	13.32	13.32	79.25	18
2451030	2451030	19/Sep/2023 20:00:00	19/Sep/2023 21:00:00	v3.0	OK	6.67	6.67	12.79	12.79	79.33	18.1
2451030	2451030	19/Sep/2023 21:00:00	19/Sep/2023 22:00:00	v3.0	OK	6.01	6.01	11.4	11.4	79.25	18.18
2451030	2451030	19/Sep/2023 22:00:00	19/Sep/2023 23:00:00	v3.0	OK	5.86	5.86	11.23	11.23	78.9	18.05
2451030	2451030	19/Sep/2023 23:00:00	20/Sep/2023 00:00:00	v3.0	OK	6.11	6.11	11.58	11.58	77.88	18.23
2451030	2451030	20/Sep/2023 00:00:00	20/Sep/2023 01:00:00	v3.0	OK	5.8	5.8	10.72	10.72	76.88	18.25
2451030	2451030	20/Sep/2023 01:00:00	20/Sep/2023 02:00:00	v3.0	OK	5.06	5.06	9.39	9.39	76.53	18.15
2451030	2451030	20/Sep/2023 02:00:00	20/Sep/2023 03:00:00	v3.0	OK	5.4	5.4	9.68	9.68	78.05	18.03
2451030	2451030	20/Sep/2023 03:00:00	20/Sep/2023 04:00:00	v3.0	OK	4.9	4.9	8.76	8.76	81.38	16.93
2451030	2451030	20/Sep/2023 04:00:00	20/Sep/2023 05:00:00	v3.0	OK	4.68	4.68	8.29	8.29	83.25	16.38
2451030	2451030	20/Sep/2023 05:00:00	20/Sep/2023 06:00:00	v3.0	OK	4.64	4.64	8.21	8.21	84.25	16.28
2451030	2451030	20/Sep/2023 06:00:00	20/Sep/2023 07:00:00	v3.0	OK	4.67	4.67	8.23	8.23	84.7	16.35
2451030	2451030	20/Sep/2023 07:00:00	20/Sep/2023 08:00:00	v3.0	OK	4.82	4.82	8.39	8.39	85.15	16.3
2451030	2451030	20/Sep/2023 08:00:00	20/Sep/2023 09:00:00	v3.0	OK	4.61	4.61	8.11	8.11	85.73	16.33
2451030	2451030	20/Sep/2023 09:00:00	20/Sep/2023 10:00:00	v3.0	OK	4.8	4.8	8.58	8.58	85.73	16.55
2451030	2451030	20/Sep/2023 10:00:00	20/Sep/2023 11:00:00	v3.0	OK	5.56	5.56	10.83	10.83	84.18	15.75
2451030	2451030	20/Sep/2023 11:00:00	20/Sep/2023 12:00:00	v3.0	OK	5.34	5.34	10.39	10.39	83.03	15.68
2451030	2451030	20/Sep/2023 12:00:00	20/Sep/2023 13:00:00	v3.0	OK	5.17	5.17	9.78	9.78	79.28	16.68
2451030	2451030	20/Sep/2023 13:00:00	20/Sep/2023 14:00:00	v3.0	OK	5.14	5.14	9.8	9.8	77.23	17.5
2451030	2451030	20/Sep/2023 14:00:00	20/Sep/2023 15:00:00	v3.0	OK	5.1	5.1	9.77	9.77	75.08	18.23
2451030	2451030	20/Sep/2023 15:00:00	20/Sep/2023 16:00:00	v3.0	OK	5.06	5.06	9.39	9.39	73.4	18.3
2451030	2451030	20/Sep/2023 16:00:00	20/Sep/2023 17:00:00	v3.0	OK	5.04	5.04	9.34	9.34	72.53	17.83
2451030	2451030	20/Sep/2023 17:00:00	20/Sep/2023 18:00:00	v3.0	OK	5.03	5.03	9.32	9.32	72.98	16.43
2451030	2451030	20/Sep/2023 18:00:00	20/Sep/2023 19:00:00	v3.0	OK	5.24	5.24	9.92	9.92	75.48	15.45
2451030	2451030	20/Sep/2023 19:00:00	20/Sep/2023 20:00:00	v3.0	OK	5.3	5.3	9.83	9.83	76.15	14.98
2451030	2451030	20/Sep/2023 20:00:00	20/Sep/2023 21:00:00	v3.0	OK	5.36	5.36	10.24	10.24	77.43	14.48
2451030	2451030	20/Sep/2023 21:00:00	20/Sep/2023 22:00:00	v3.0	OK	5.03	5.03	9.16	9.16	78.93	13.65
2451030	2451030	20/Sep/2023 22:00:00	21/Sep/2023 00:00:00	v3.0	OK	4.79	4.79	8.65	8.65	81.58	12.63
2451030	2451030	20/Sep/2023 23:00:00	21/Sep/2023 01:00:00	v3.0	OK	4.82	4.82	8.61	8.61	82.73	12.03
2451030	2451030	21/Sep/2023 00:00:00	21/Sep/2023 01:00:00	v3.0	OK	4.76	4.76	8.47	8.47	80.68	12.55
2451030	2451030	21/Sep/2023 01:00:00	21/Sep/2023 02:00:00	v3.0	OK	4.75	4.75	8.58	8.58	78.23	13
2451030	2451030	21/Sep/2023 02:00:00	21/Sep/2023 03:00:00	v3.0	OK	4.71	4.71	8.56	8.56	77.55	13.08
2451030	2451030	21/Sep/2023 03:00:00	21/Sep/2023 04:00:00	v3.0	OK	4.68	4.68	8.35	8.35	77.73	13.13
2451030	2451030	21/Sep/2023 04:00:00	21/Sep/2023 05:00:00	v3.0	OK	4.75	4.75	8.44	8.44	78.63	12.63
2451030	2451030	21/Sep/2023 05:00:00	21/Sep/2023 06:00:00	v3.0	OK	4.83	4.83	8.57	8.57	80.18	12.15
2451030	2451030	21/Sep/2023 06:00:00	21/Sep/2023 07:00:00	v3.0	OK	4.89	4.89	8.72	8.72	81.08	11.33
2451030	2451030	21/Sep/2023 07:00:00	21/Sep/2023 08:00:00	v3.0	OK	5.02	5.02	8.96	8.96	82.1	12.35
2451030	2451030	21/Sep/2023 08:00:00	21/Sep/2023 09:00:00	v3.0	OK	5.1	5.1	9.13	9.13	79.88	14.48
2451030	2451030	21/Sep/2023 09:00:00	21/Sep/2023 10:00:00	v3.0	OK	5.12	5.12	9.1	9.1	77.2	16
2451030	2451030	21/Sep/2023 10:00:00	21/Sep/2023 11:00:00	v3.0	OK	4.68	4.68	8.37	8.37	74.35	16.13
2451030	2451030	21/Sep/2023 11:00:00	21/Sep/2023 12:00:00	v3.0	OK	4.63	4.63	8.24	8.24	73.95	16.03
2451030	2451030	21/Sep/2023 12:00:00	21/Sep/2023 13:00:00	v3.0	OK	4.66	4.66	8.29	8.29	70.38	17.18
2451030	2451030	21/Sep/2023 13:00:00	21/Sep/2023 14:00:00	v3.0	OK	4.58	4.58	8.1	8.1	70.1	17.05
2451030	2451030	21/Sep/2023 14:00:00	21/Sep/2023 15:00:00	v3.0	OK	4.62	4.62	8.23	8.23	69.88	17.28
2451030	2451030	21/Sep/2023 15:00:00	21/Sep/2023 16:00:00	v3.0	OK	4.72	4.72	8.39	8.39	69.15	17.43
2451030	2451030	21/Sep/2023 16:00:00	21/Sep/2023 17:00:00	v3.0	OK	4.71	4.71	8.34	8.34	68.4	16.88
2451030	2451030	21/Sep/2023 17:00:00	21/Sep/2023 18:00:00	v3.0	OK	4.68	4.68	8.35	8.35	68.45	15.73
2451030	2451030	21/Sep/2023 18:00:00	21/Sep/2023 19:00:00	v3.0	OK	4.72	4.72	8.4	8.4	71.33	13.65
2451030	2451030	21/Sep/2023 19:00:00	21/Sep/2023 20:00:00	v3.0	OK	5.21	5.21	9	9	74.08	12.25

2451030	21/Sep/2023 20:00:00	21/Sep/2023 21:00:00	OK	5.45	5.45	9.34	9.34	75.83	10.63
2451030	21/Sep/2023 21:00:00	21/Sep/2023 22:00:00	OK	11.1	11.1	15.42	15.42	79.88	9.5
2451030	21/Sep/2023 22:00:00	21/Sep/2023 23:00:00	OK	9.89	9.89	14.67	14.67	81.68	8.58
2451030	21/Sep/2023 23:00:00	22/Sep/2023 00:00:00	OK	6.67	6.67	11.11	11.11	81.95	9.35
2451030	22/Sep/2023 00:00:00	22/Sep/2023 01:00:00	OK	6.39	6.39	10.31	10.31	83.3	9.28
2451030	22/Sep/2023 01:00:00	22/Sep/2023 02:00:00	OK	4.88	4.88	8.79	8.79	83.95	11.05
2451030	22/Sep/2023 02:00:00	22/Sep/2023 03:00:00	OK	4.76	4.76	8.57	8.57	83.05	11.13
2451030	22/Sep/2023 03:00:00	22/Sep/2023 04:00:00	OK	4.85	4.85	8.56	8.56	84.63	11.05
2451030	22/Sep/2023 04:00:00	22/Sep/2023 05:00:00	OK	4.85	4.85	8.46	8.46	84.53	10.78
2451030	22/Sep/2023 05:00:00	22/Sep/2023 06:00:00	OK	5.49	5.49	9.34	9.34	85.38	10.4
2451030	22/Sep/2023 06:00:00	22/Sep/2023 07:00:00	OK	5.48	5.48	9.28	9.28	86.1	10.43
2451030	22/Sep/2023 07:00:00	22/Sep/2023 08:00:00	OK	4.94	4.94	8.64	8.64	85.65	11.7
2451030	22/Sep/2023 08:00:00	22/Sep/2023 09:00:00	OK	4.74	4.74	8.56	8.56	83.93	12.8
2451030	22/Sep/2023 09:00:00	22/Sep/2023 10:00:00	OK	4.73	4.73	8.44	8.44	83.63	13.3
2451030	22/Sep/2023 10:00:00	22/Sep/2023 11:00:00	OK	4.7	4.7	8.3	8.3	85.05	12.9
2451030	22/Sep/2023 11:00:00	22/Sep/2023 12:00:00	OK	4.73	4.73	8.71	8.71	84.65	13.78
2451030	22/Sep/2023 12:00:00	22/Sep/2023 13:00:00	OK	4.65	4.65	8.52	8.52	84.7	13.45
2451030	22/Sep/2023 13:00:00	22/Sep/2023 14:00:00	OK	4.66	4.66	8.46	8.46	85.28	13.73
2451030	22/Sep/2023 14:00:00	22/Sep/2023 15:00:00	OK	4.74	4.74	8.81	8.81	83.23	14.53
2451030	22/Sep/2023 15:00:00	22/Sep/2023 16:00:00	OK	4.86	4.86	9.12	9.12	80.18	14.55
2451030	22/Sep/2023 16:00:00	22/Sep/2023 17:00:00	OK	4.85	4.85	8.96	8.96	79.78	14.33
2451030	22/Sep/2023 17:00:00	22/Sep/2023 18:00:00	OK	4.85	4.85	9.02	9.02	80.13	14.2
2451030	22/Sep/2023 18:00:00	22/Sep/2023 19:00:00	OK	4.8	4.8	8.79	8.79	81.8	13.55
2451030	22/Sep/2023 19:00:00	22/Sep/2023 20:00:00	OK	4.86	4.86	8.95	8.95	84.15	13.13
2451030	22/Sep/2023 20:00:00	22/Sep/2023 21:00:00	OK	4.92	4.92	9.09	9.09	82.53	13.13
2451030	22/Sep/2023 21:00:00	22/Sep/2023 22:00:00	OK	4.95	4.95	9.28	9.28	83.43	12.83
2451030	22/Sep/2023 22:00:00	22/Sep/2023 23:00:00	OK	4.98	4.98	9.32	9.32	83.68	12.98
2451030	23/Sep/2023 00:00:00	23/Sep/2023 01:00:00	OK	4.95	4.95	9.32	9.32	83.35	12.63
2451030	23/Sep/2023 01:00:00	23/Sep/2023 02:00:00	OK	4.71	4.71	8.58	8.58	83.75	12.23
2451030	23/Sep/2023 02:00:00	23/Sep/2023 03:00:00	OK	4.74	4.74	8.62	8.62	83.33	12.15
2451030	23/Sep/2023 03:00:00	23/Sep/2023 04:00:00	OK	4.75	4.75	8.51	8.51	82.95	11.95
2451030	23/Sep/2023 04:00:00	23/Sep/2023 05:00:00	OK	4.77	4.77	8.78	8.78	82.65	12.15
2451030	23/Sep/2023 05:00:00	23/Sep/2023 06:00:00	OK	5.1	5.1	9.2	9.2	81.83	11.55
2451030	23/Sep/2023 06:00:00	23/Sep/2023 07:00:00	OK	4.83	4.83	8.87	8.87	83.28	10.35
2451030	23/Sep/2023 07:00:00	23/Sep/2023 08:00:00	OK	4.81	4.81	8.65	8.65	84.18	10.95
2451030	23/Sep/2023 08:00:00	23/Sep/2023 09:00:00	OK	5.19	5.19	9.18	9.18	82.88	11.83
2451030	23/Sep/2023 09:00:00	23/Sep/2023 10:00:00	OK	5.06	5.06	8.93	8.93	81.68	12.43
2451030	23/Sep/2023 10:00:00	23/Sep/2023 11:00:00	OK	4.86	4.86	8.67	8.67	81.15	13.23
2451030	23/Sep/2023 11:00:00	23/Sep/2023 12:00:00	OK	4.85	4.85	8.58	8.58	76.58	14.65
2451030	23/Sep/2023 12:00:00	23/Sep/2023 13:00:00	OK	5.12	5.12	9.09	9.09	73.3	15.15
2451030	23/Sep/2023 13:00:00	23/Sep/2023 14:00:00	OK	5.31	5.31	9.26	9.26	71.28	15.28
2451030	23/Sep/2023 14:00:00	23/Sep/2023 15:00:00	OK	5.26	5.26	9.33	9.33	71.13	16.13
2451030	23/Sep/2023 15:00:00	23/Sep/2023 16:00:00	OK	5.18	5.18	9.16	9.16	68.85	17.1
2451030	23/Sep/2023 16:00:00	23/Sep/2023 17:00:00	OK	5.35	5.35	9.18	9.18	70	16.45
2451030	23/Sep/2023 17:00:00	23/Sep/2023 18:00:00	OK	5.78	5.78	10.08	10.08	68.68	16.2
2451030	23/Sep/2023 18:00:00	23/Sep/2023 19:00:00	OK	5.77	5.77	9.76	9.76	70.35	14.83
2451030	23/Sep/2023 19:00:00	23/Sep/2023 20:00:00	OK	5.92	5.92	9.92	9.92	72.45	13
2451030	23/Sep/2023 20:00:00	23/Sep/2023 21:00:00	OK	6.79	6.79	11.19	11.19	76.55	11.9
2451030	23/Sep/2023 21:00:00	23/Sep/2023 22:00:00	OK	6.81	6.81	10.97	10.97	77.18	12.25
2451030	23/Sep/2023 22:00:00	23/Sep/2023 23:00:00	OK	6.78	6.78	11.03	11.03	75.25	13.03
2451030	23/Sep/2023 23:00:00	24/Sep/2023 00:00:00	OK	6.45	6.45	10.71	10.71	77.63	12.68
2451030	24/Sep/2023 00:00:00	24/Sep/2023 01:00:00	OK	6.26	6.26	10.53	10.53	81.45	12.28
2451030	24/Sep/2023 01:00:00	24/Sep/2023 02:00:00	OK	6.28	6.28	10.48	10.48	81.73	12.73
2451030	24/Sep/2023 02:00:00	24/Sep/2023 03:00:00	OK	6.24	6.24	10.56	10.56	82.08	12.9
2451030	24/Sep/2023 03:00:00	24/Sep/2023 04:00:00	OK	6.22	6.22	10.46	10.46	82.25	13.3
2451030	24/Sep/2023 04:00:00	24/Sep/2023 05:00:00	OK	5.98	5.98	9.94	9.94	82.63	13.7
2451030	24/Sep/2023 05:00:00	24/Sep/2023 06:00:00	OK	5.73	5.73	9.44	9.44	83.23	13.95

2451030	24/Sep/2023 05:00:00	24/Sep/2023 06:00:00	v3.0	OK	5.84	5.84	5.84	9.6	9.6	84.03	14.1
2451030	24/Sep/2023 06:00:00	24/Sep/2023 07:00:00	v3.0	OK	5.71	5.71	5.71	9.19	9.19	84.68	14.55
2451030	24/Sep/2023 07:00:00	24/Sep/2023 08:00:00	v3.0	OK	5.11	5.11	5.11	8.51	8.51	84.68	15.5
2451030	24/Sep/2023 08:00:00	24/Sep/2023 09:00:00	v3.0	OK	4.76	4.76	4.76	8.22	8.22	83.88	16.68
2451030	24/Sep/2023 09:00:00	24/Sep/2023 10:00:00	v3.0	OK	4.82	4.82	4.82	8.25	8.25	83.3	17.7
2451030	24/Sep/2023 10:00:00	24/Sep/2023 11:00:00	v3.0	OK	4.87	4.87	4.87	8.35	8.35	82.45	18.55
2451030	24/Sep/2023 11:00:00	24/Sep/2023 12:00:00	v3.0	OK	4.63	4.63	4.63	8.13	8.13	83.15	18.5
2451030	24/Sep/2023 12:00:00	24/Sep/2023 13:00:00	v3.0	OK	4.92	4.92	4.92	8.48	8.48	84.08	18.15
2451030	24/Sep/2023 13:00:00	24/Sep/2023 14:00:00	v3.0	OK	5.14	5.14	5.14	8.9	8.9	85.48	17.8
2451030	24/Sep/2023 14:00:00	24/Sep/2023 15:00:00	v3.0	OK	4.95	4.95	4.95	8.68	8.68	84.28	18
2451030	24/Sep/2023 15:00:00	24/Sep/2023 16:00:00	v3.0	OK	5.02	5.02	5.02	8.79	8.79	82.15	18.25
2451030	24/Sep/2023 16:00:00	24/Sep/2023 17:00:00	v3.0	OK	5.11	5.11	5.11	8.93	8.93	77.78	18.63
2451030	24/Sep/2023 17:00:00	24/Sep/2023 18:00:00	v3.0	OK	5.3	5.3	5.3	9.19	9.19	75.8	18.58
2451030	24/Sep/2023 18:00:00	24/Sep/2023 19:00:00	v3.0	OK	5.48	5.48	5.48	9.57	9.57	79.53	17.28
2451030	24/Sep/2023 19:00:00	24/Sep/2023 20:00:00	v3.0	OK	5.59	5.59	5.59	9.69	9.69	80.2	17.25
2451030	24/Sep/2023 20:00:00	24/Sep/2023 21:00:00	v3.0	OK	5.56	5.56	5.56	9.66	9.66	80.58	17.4
2451030	24/Sep/2023 21:00:00	24/Sep/2023 22:00:00	v3.0	OK	5.34	5.34	5.34	9.33	9.33	83.5	16.75
2451030	24/Sep/2023 22:00:00	24/Sep/2023 23:00:00	v3.0	OK	5.83	5.83	5.83	10.83	10.83	83.7	16.48
2451030	24/Sep/2023 23:00:00	25/Sep/2023 00:00:00	v3.0	OK	6.36	6.36	6.36	11.9	11.9	81.55	16.23
2451030	25/Sep/2023 00:00:00	25/Sep/2023 01:00:00	v3.0	OK	6.93	6.93	6.93	12.9	12.9	81.63	15.93
2451030	25/Sep/2023 01:00:00	25/Sep/2023 02:00:00	v3.0	OK	6.7	6.7	6.7	12.76	12.76	81.58	15.65
2451030	25/Sep/2023 02:00:00	25/Sep/2023 03:00:00	v3.0	OK	6.28	6.28	6.28	11.36	11.36	82.1	15.13
2451030	25/Sep/2023 03:00:00	25/Sep/2023 04:00:00	v3.0	OK	6.06	6.06	6.06	11.01	11.01	82.58	14.73
2451030	25/Sep/2023 04:00:00	25/Sep/2023 05:00:00	v3.0	OK	5.92	5.92	5.92	10.66	10.66	82.73	14.4
2451030	25/Sep/2023 05:00:00	25/Sep/2023 06:00:00	v3.0	OK	5.82	5.82	5.82	10.6	10.6	82.83	13.93
2451030	25/Sep/2023 06:00:00	25/Sep/2023 07:00:00	v3.0	OK	5.97	5.97	5.97	10.84	10.84	84.2	13.75
2451030	25/Sep/2023 07:00:00	25/Sep/2023 08:00:00	v3.0	OK	5.99	5.99	5.99	11.02	11.02	83.43	14.95
2451030	25/Sep/2023 08:00:00	25/Sep/2023 09:00:00	v3.0	OK	6.12	6.12	6.12	11.76	11.76	80.85	16.73
2451030	25/Sep/2023 09:00:00	25/Sep/2023 10:00:00	v3.0	OK	6.06	6.06	6.06	11.33	11.33	78.08	17.98
2451030	25/Sep/2023 10:00:00	25/Sep/2023 11:00:00	v3.0	OK	6.35	6.35	6.35	12.86	12.86	77.48	18.15
2451030	25/Sep/2023 11:00:00	25/Sep/2023 12:00:00	v3.0	OK	6.55	6.55	6.55	12.8	12.8	75.4	19.08
2451030	25/Sep/2023 12:00:00	25/Sep/2023 13:00:00	v3.0	OK	6.63	6.63	6.63	12.87	12.87	74.78	19.23
2451030	25/Sep/2023 13:00:00	25/Sep/2023 14:00:00	v3.0	OK	6.56	6.56	6.56	13.07	13.07	73.08	19.5
2451030	25/Sep/2023 14:00:00	25/Sep/2023 15:00:00	v3.0	OK	6.67	6.67	6.67	13.42	13.42	74.35	19.03
2451030	25/Sep/2023 15:00:00	25/Sep/2023 16:00:00	v3.0	OK	6.56	6.56	6.56	12.69	12.69	74.08	18.8
2451030	25/Sep/2023 16:00:00	25/Sep/2023 17:00:00	v3.0	OK	6.24	6.24	6.24	12	12	72.98	18.33
2451030	25/Sep/2023 17:00:00	25/Sep/2023 18:00:00	v3.0	OK	6.16	6.16	6.16	11.66	11.66	71.75	17.88
2451030	25/Sep/2023 18:00:00	25/Sep/2023 19:00:00	v3.0	OK	6.41	6.41	6.41	12.24	12.24	73.7	16.25
2451030	25/Sep/2023 19:00:00	25/Sep/2023 20:00:00	v3.0	OK	6.61	6.61	6.61	12.57	12.57	75.85	15.13
2451030	25/Sep/2023 20:00:00	25/Sep/2023 21:00:00	v3.0	OK	6.9	6.9	6.9	12.87	12.87	78.03	14.05
2451030	25/Sep/2023 21:00:00	25/Sep/2023 22:00:00	v3.0	OK	6.85	6.85	6.85	12.54	12.54	80.63	13.1
2451030	25/Sep/2023 22:00:00	26/Sep/2023 00:00:00	v3.0	OK	6.91	6.91	6.91	12.69	12.69	81.65	12.6
2451030	25/Sep/2023 23:00:00	26/Sep/2023 01:00:00	v3.0	OK	6.86	6.86	6.86	12.47	12.47	82.85	12.18
2451030	26/Sep/2023 00:00:00	26/Sep/2023 01:00:00	v3.0	OK	9.42	9.42	9.42	15.97	15.97	83.2	12.08
2451030	26/Sep/2023 01:00:00	26/Sep/2023 02:00:00	v3.0	OK	7.03	7.03	7.03	12.44	12.44	83.73	11.65
2451030	26/Sep/2023 02:00:00	26/Sep/2023 03:00:00	v3.0	OK	6.66	6.66	6.66	11.95	11.95	84.75	11.35
2451030	26/Sep/2023 03:00:00	26/Sep/2023 04:00:00	v3.0	OK	6.74	6.74	6.74	11.99	11.99	85.23	11.6
2451030	26/Sep/2023 04:00:00	26/Sep/2023 05:00:00	v3.0	OK	7.05	7.05	7.05	12.49	12.49	85.45	11.68
2451030	26/Sep/2023 05:00:00	26/Sep/2023 06:00:00	v3.0	OK	7.24	7.24	7.24	12.74	12.74	86.48	11.85
2451030	26/Sep/2023 06:00:00	26/Sep/2023 07:00:00	v3.0	OK	7.45	7.45	7.45	12.94	12.94	86.58	12.55
2451030	26/Sep/2023 07:00:00	26/Sep/2023 08:00:00	v3.0	OK	7.02	7.02	7.02	12.26	12.26	86.23	13.2
2451030	26/Sep/2023 08:00:00	26/Sep/2023 09:00:00	v3.0	OK	7.04	7.04	7.04	12.39	12.39	86.05	14.2
2451030	26/Sep/2023 09:00:00	26/Sep/2023 10:00:00	v3.0	OK	6.5	6.5	6.5	11.75	11.75	83.28	16.1
2451030	26/Sep/2023 10:00:00	26/Sep/2023 11:00:00	v3.0	OK	6.43	6.43	6.43	11.32	11.32	82.6	15.83
2451030	26/Sep/2023 11:00:00	26/Sep/2023 12:00:00	v3.0	OK	6.36	6.36	6.36	11.09	11.09	83.68	16.7
2451030	26/Sep/2023 12:00:00	26/Sep/2023 13:00:00	v3.0	OK	5.84	5.84	5.84	10.13	10.13	77.3	19.63
2451030	26/Sep/2023 13:00:00	26/Sep/2023 14:00:00	v3.0	OK	5.37	5.37	5.37	9.65	9.65	78.58	18.45

2451030	26/Sep/2023 14:00:00	26/Sep/2023 15:00:00	v3.0	OK	5.59	5.59	10.47	10.47	10.47	76.13	18.83
2451030	26/Sep/2023 15:00:00	26/Sep/2023 16:00:00	v3.0	OK	5.53	5.53	10.3	10.3	10.3	73.8	19.03
2451030	26/Sep/2023 16:00:00	26/Sep/2023 17:00:00	v3.0	OK	5.84	5.84	11.37	11.37	11.37	73.83	18.25
2451030	26/Sep/2023 17:00:00	26/Sep/2023 18:00:00	v3.0	OK	6.02	6.02	11.53	11.53	11.53	74.6	17.28
2451030	26/Sep/2023 18:00:00	26/Sep/2023 19:00:00	v3.0	OK	6.13	6.13	11.33	11.33	11.33	75.4	16.33
2451030	26/Sep/2023 19:00:00	26/Sep/2023 20:00:00	v3.0	OK	5.9	5.9	11.26	11.26	11.26	77.2	15.9
2451030	26/Sep/2023 20:00:00	26/Sep/2023 21:00:00	v3.0	OK	5.75	5.75	10.85	10.85	10.85	77.68	15.68
2451030	26/Sep/2023 21:00:00	26/Sep/2023 22:00:00	v3.0	OK	5.65	5.65	10.87	10.87	10.87	77.95	15.75
2451030	26/Sep/2023 22:00:00	26/Sep/2023 23:00:00	v3.0	OK	5.25	5.25	10.05	10.05	10.05	78.53	15.6
2451030	26/Sep/2023 23:00:00	27/Sep/2023 00:00:00	v3.0	OK	4.99	4.99	9.45	9.45	9.45	78.8	15.3
2451030	27/Sep/2023 00:00:00	27/Sep/2023 01:00:00	v3.0	OK	4.85	4.85	8.72	8.72	8.72	79.93	14.7
2451030	27/Sep/2023 01:00:00	27/Sep/2023 02:00:00	v3.0	OK	5.3	5.3	9.68	9.68	9.68	81.6	14.05
2451030	27/Sep/2023 02:00:00	27/Sep/2023 03:00:00	v3.0	OK	5.61	5.61	10.02	10.02	10.02	82.03	13.1
2451030	27/Sep/2023 03:00:00	27/Sep/2023 04:00:00	v3.0	OK	5.59	5.59	9.94	9.94	9.94	82.58	12.2
2451030	27/Sep/2023 04:00:00	27/Sep/2023 05:00:00	v3.0	OK	5.83	5.83	10.46	10.46	10.46	84.58	11.3
2451030	27/Sep/2023 05:00:00	27/Sep/2023 06:00:00	v3.0	OK	6.8	6.8	11.45	11.45	11.45	85.03	10.98
2451030	27/Sep/2023 06:00:00	27/Sep/2023 07:00:00	v3.0	OK	5.94	5.94	10.54	10.54	10.54	86.35	11.13
2451030	27/Sep/2023 07:00:00	27/Sep/2023 08:00:00	v3.0	OK	5.99	5.99	11.08	11.08	11.08	87.5	12.33
2451030	27/Sep/2023 08:00:00	27/Sep/2023 09:00:00	v3.0	OK	5.9	5.9	10.58	10.58	10.58	84.35	13.5
2451030	27/Sep/2023 09:00:00	27/Sep/2023 10:00:00	v3.0	OK	5.8	5.8	10.45	10.45	10.45	81.73	14.65
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2451030	27/Sep/2023 11:00:00	27/Sep/2023 12:00:00	v3.0	OK	5.87	5.87	10.22	10.22	10.22	83.13	14.45
2451030	27/Sep/2023 12:00:00	27/Sep/2023 13:00:00	v3.0	OK	6.29	6.29	10.8	10.8	10.8	85.88	14.53
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2451030	27/Sep/2023 14:00:00	27/Sep/2023 15:00:00	v3.0	OK	7.93	7.93	12.49	12.49	12.49	86.7	15.73
2451030	27/Sep/2023 15:00:00	27/Sep/2023 16:00:00	v3.0	OK	6.92	6.92	11.05	11.05	11.05	86	16.65
2451030	27/Sep/2023 16:00:00	27/Sep/2023 17:00:00	v3.0	OK	5.77	5.77	9.57	9.57	9.57	82.2	17.8
2451030	27/Sep/2023 17:00:00	27/Sep/2023 18:00:00	v3.0	OK	5.76	5.76	9.53	9.53	9.53	79.98	18.33
2451030	27/Sep/2023 18:00:00	27/Sep/2023 19:00:00	v3.0	OK	5.52	5.52	9.56	9.56	9.56	78.4	18.13
2451030	27/Sep/2023 19:00:00	27/Sep/2023 20:00:00	v3.0	OK	5.43	5.43	9.8	9.8	9.8	79.2	16.98
2451030	27/Sep/2023 20:00:00	27/Sep/2023 21:00:00	v3.0	OK	5.13	5.13	9.47	9.47	9.47	80.35	16.58
2451030	27/Sep/2023 21:00:00	27/Sep/2023 22:00:00	v3.0	OK	5.21	5.21	10.06	10.06	10.06	84.43	15.6
2451030	27/Sep/2023 22:00:00	27/Sep/2023 23:00:00	v3.0	OK	6.45	6.45	13.24	13.24	13.24	85	15.95
2451030	27/Sep/2023 23:00:00	28/Sep/2023 00:00:00	v3.0	OK	7.06	7.06	14.37	14.37	14.37	83.48	16.55
2451030	28/Sep/2023 00:00:00	28/Sep/2023 01:00:00	v3.0	OK	6.98	6.98	14.11	14.11	14.11	83.05	16.78
2451030	28/Sep/2023 01:00:00	28/Sep/2023 02:00:00	v3.0	OK	5.87	5.87	11.53	11.53	11.53	82.4	16.85
2451030	28/Sep/2023 02:00:00	28/Sep/2023 03:00:00	v3.0	OK	5.47	5.47	10.73	10.73	10.73	82.2	16.38
2451030	28/Sep/2023 03:00:00	28/Sep/2023 04:00:00	v3.0	OK	5.34	5.34	10.45	10.45	10.45	82	15.78
2451030	28/Sep/2023 04:00:00	28/Sep/2023 05:00:00	v3.0	OK	5.17	5.17	9.84	9.84	9.84	80.5	15.68
2451030	28/Sep/2023 05:00:00	28/Sep/2023 06:00:00	v3.0	OK	5.12	5.12	9.7	9.7	9.7	82.2	15.08
2451030	28/Sep/2023 06:00:00	28/Sep/2023 07:00:00	v3.0	OK	5.52	5.52	10.75	10.75	10.75	84.53	14.73
2451030	28/Sep/2023 07:00:00	28/Sep/2023 08:00:00	v3.0	OK	5.31	5.31	10.25	10.25	10.25	82.85	15.08
2451030	28/Sep/2023 08:00:00	28/Sep/2023 09:00:00	v3.0	OK	5.53	5.53	10.52	10.52	10.52	80.78	15.28
2451030	28/Sep/2023 09:00:00	28/Sep/2023 10:00:00	v3.0	OK	6.23	6.23	11.82	11.82	11.82	79.88	15.53
2451030	28/Sep/2023 10:00:00	28/Sep/2023 11:00:00	v3.0	OK	6.24	6.24	11.51	11.51	11.51	78.98	15.8
2451030	28/Sep/2023 11:00:00	28/Sep/2023 12:00:00	v3.0	OK	6.23	6.23	11.45	11.45	11.45	79.55	15.8
2451030	28/Sep/2023 12:00:00	28/Sep/2023 13:00:00	v3.0	OK	6.39	6.39	11.4	11.4	11.4	77.45	16.53
2451030	28/Sep/2023 13:00:00	28/Sep/2023 14:00:00	v3.0	OK	6.55	6.55	11.72	11.72	11.72	77.15	16.18
2451030	28/Sep/2023 14:00:00	28/Sep/2023 15:00:00	v3.0	OK	6.62	6.62	11.71	11.71	11.71	78.93	15.43
2451030	28/Sep/2023 15:00:00	28/Sep/2023 16:00:00	v3.0	OK	6.79	6.79	12.02	12.02	12.02	80.53	15.38
2451030	28/Sep/2023 16:00:00	28/Sep/2023 17:00:00	v3.0	OK	7.36	7.36	12.5	12.5	12.5	80.68	15.6
2451030	28/Sep/2023 17:00:00	28/Sep/2023 18:00:00	v3.0	OK	7.16	7.16	12.47	12.47	12.47	80.5	15.45
2451030	28/Sep/2023 18:00:00	28/Sep/2023 19:00:00	v3.0	OK	6.75	6.75	11.75	11.75	11.75	79.78	15.15
2451030	28/Sep/2023 19:00:00	28/Sep/2023 20:00:00	v3.0	OK	7.34	7.34	12.5	12.5	12.5	81.33	14.55
2451030	28/Sep/2023 20:00:00	28/Sep/2023 21:00:00	v3.0	OK	7.43	7.43	12.73	12.73	12.73	83.5	14.15
2451030	28/Sep/2023 21:00:00	28/Sep/2023 22:00:00	v3.0	OK	8.26	8.26	13.96	13.96	13.96	85.4	13.9
2451030	28/Sep/2023 22:00:00	28/Sep/2023 23:00:00	v3.0	OK	7.68	7.68	12.55	12.55	12.55	86.15	13.8

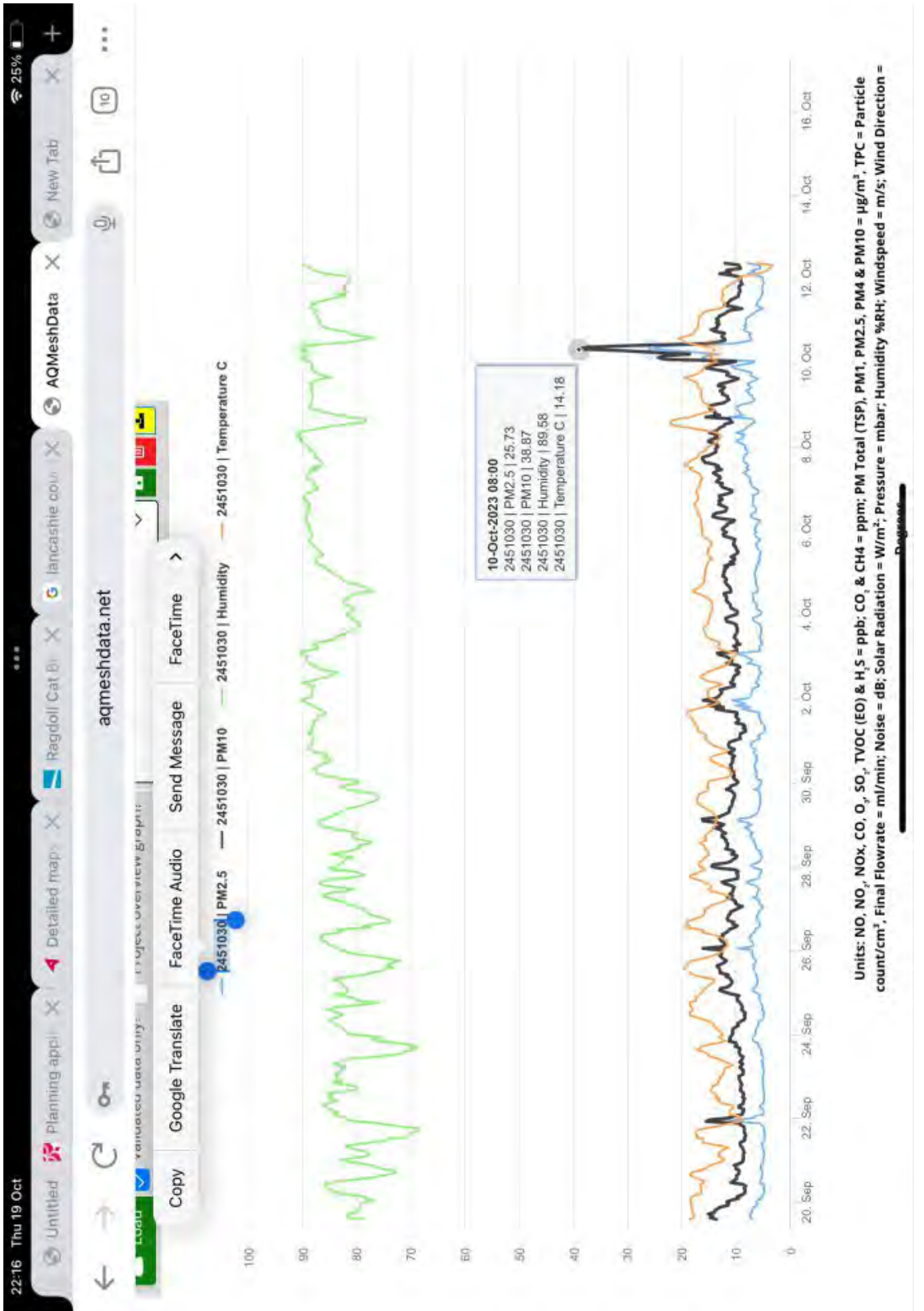
2451030	28/Sep/2023 23:00:00	29/Sep/2023 00:00:00	v3.0	OK	6.95	6.95	12.12	12.12	12.12	86.48	13.8
2451030	29/Sep/2023 00:00:00	29/Sep/2023 01:00:00	v3.0	OK	7.87	7.87	13.44	13.44	13.44	86.8	13.63
2451030	29/Sep/2023 01:00:00	29/Sep/2023 02:00:00	v3.0	OK	9.38	9.38	15.94	15.94	15.94	86.98	13.5
2451030	29/Sep/2023 02:00:00	29/Sep/2023 03:00:00	v3.0	OK	9.45	9.45	16.12	16.12	16.12	85.65	13.4
2451030	29/Sep/2023 03:00:00	29/Sep/2023 04:00:00	v3.0	OK	7.19	7.19	13.14	13.14	13.14	84.83	13.55
2451030	29/Sep/2023 04:00:00	29/Sep/2023 05:00:00	v3.0	OK	6.61	6.61	12.5	12.5	12.5	84.38	13.75
2451030	29/Sep/2023 05:00:00	29/Sep/2023 06:00:00	v3.0	OK	6.16	6.16	11.69	11.69	11.69	83.43	14.1
2451030	29/Sep/2023 06:00:00	29/Sep/2023 07:00:00	v3.0	OK	5.83	5.83	11.19	11.19	11.19	82.85	14.3
2451030	29/Sep/2023 07:00:00	29/Sep/2023 08:00:00	v3.0	OK	5.72	5.72	11.06	11.06	11.06	82.25	14.7
2451030	29/Sep/2023 08:00:00	29/Sep/2023 09:00:00	v3.0	OK	5.66	5.66	11.19	11.19	11.19	81.68	15.28
2451030	29/Sep/2023 09:00:00	29/Sep/2023 10:00:00	v3.0	OK	5.53	5.53	10.82	10.82	10.82	79.9	16.13
2451030	29/Sep/2023 10:00:00	29/Sep/2023 11:00:00	v3.0	OK	5.45	5.45	10.64	10.64	10.64	78.85	16.48
2451030	29/Sep/2023 11:00:00	29/Sep/2023 12:00:00	v3.0	OK	5.4	5.4	10.56	10.56	10.56	77.88	16.83
2451030	29/Sep/2023 12:00:00	29/Sep/2023 13:00:00	v3.0	OK	5.42	5.42	10.62	10.62	10.62	76.68	17.1
2451030	29/Sep/2023 13:00:00	29/Sep/2023 14:00:00	v3.0	OK	5.42	5.42	10.4	10.4	10.4	76.2	17.03
2451030	29/Sep/2023 14:00:00	29/Sep/2023 15:00:00	v3.0	OK	5.42	5.42	10.32	10.32	10.32	75.7	17.18
2451030	29/Sep/2023 15:00:00	29/Sep/2023 16:00:00	v3.0	OK	5.37	5.37	10.12	10.12	10.12	76.1	16.8
2451030	29/Sep/2023 16:00:00	29/Sep/2023 17:00:00	v3.0	OK	5.36	5.36	10.16	10.16	10.16	76.45	16.85
2451030	29/Sep/2023 17:00:00	29/Sep/2023 18:00:00	v3.0	OK	5.58	5.58	10.39	10.39	10.39	76.93	16.05
2451030	29/Sep/2023 18:00:00	29/Sep/2023 19:00:00	v3.0	OK	5.66	5.66	10.64	10.64	10.64	80	15.3
2451030	29/Sep/2023 19:00:00	29/Sep/2023 20:00:00	v3.0	OK	6.54	6.54	11.68	11.68	11.68	81.6	15.05
2451030	29/Sep/2023 20:00:00	29/Sep/2023 21:00:00	v3.0	OK	5.73	5.73	10.9	10.9	10.9	82.25	15.15
2451030	29/Sep/2023 21:00:00	29/Sep/2023 22:00:00	v3.0	OK	5.65	5.65	10.78	10.78	10.78	82.93	15.05
2451030	29/Sep/2023 22:00:00	29/Sep/2023 23:00:00	v3.0	OK	5.29	5.29	9.82	9.82	9.82	80.93	15.05
2451030	29/Sep/2023 23:00:00	30/Sep/2023 00:00:00	v3.0	OK	5.25	5.25	9.5	9.5	9.5	79.48	15.05
2451030	30/Sep/2023 00:00:00	30/Sep/2023 01:00:00	v3.0	OK	5.23	5.23	9.71	9.71	9.71	79.83	14.65
2451030	30/Sep/2023 01:00:00	30/Sep/2023 02:00:00	v3.0	OK	5.93	5.93	10.24	10.24	10.24	81.9	12.9
2451030	30/Sep/2023 02:00:00	30/Sep/2023 03:00:00	v3.0	OK	6.08	6.08	10.43	10.43	10.43	84.6	11.38
2451030	30/Sep/2023 03:00:00	30/Sep/2023 04:00:00	v3.0	OK	6.04	6.04	10.21	10.21	10.21	86.13	10.78
2451030	30/Sep/2023 04:00:00	30/Sep/2023 05:00:00	v3.0	OK	6.5	6.5	10.73	10.73	10.73	87.33	10.6
2451030	30/Sep/2023 05:00:00	30/Sep/2023 06:00:00	v3.0	OK	6.02	6.02	10.29	10.29	10.29	87.38	11.03
2451030	30/Sep/2023 06:00:00	30/Sep/2023 07:00:00	v3.0	OK	6.43	6.43	10.88	10.88	10.88	87.28	11
2451030	30/Sep/2023 07:00:00	30/Sep/2023 08:00:00	v3.0	OK	6.23	6.23	10.67	10.67	10.67	87.78	11.25
2451030	30/Sep/2023 08:00:00	30/Sep/2023 09:00:00	v3.0	OK	6.42	6.42	10.74	10.74	10.74	87.4	11.95
2451030	30/Sep/2023 09:00:00	30/Sep/2023 10:00:00	v3.0	OK	6.52	6.52	10.95	10.95	10.95	86.45	12.85
2451030	30/Sep/2023 10:00:00	30/Sep/2023 11:00:00	v3.0	OK	6.34	6.34	10.6	10.6	10.6	85.8	13.6
2451030	30/Sep/2023 11:00:00	30/Sep/2023 12:00:00	v3.0	OK	6.09	6.09	10.59	10.59	10.59	84.75	14.23
2451030	30/Sep/2023 12:00:00	30/Sep/2023 13:00:00	v3.0	OK	6.07	6.07	10.39	10.39	10.39	84.88	14.55
2451030	30/Sep/2023 13:00:00	30/Sep/2023 14:00:00	v3.0	OK	6.12	6.12	10.53	10.53	10.53	85.9	14.58
2451030	30/Sep/2023 14:00:00	30/Sep/2023 15:00:00	v3.0	OK	6.02	6.02	10.17	10.17	10.17	85.28	14.28
2451030	30/Sep/2023 15:00:00	30/Sep/2023 16:00:00	v3.0	OK	6.36	6.36	10.66	10.66	10.66	85.23	12.93
2451030	30/Sep/2023 16:00:00	30/Sep/2023 17:00:00	v3.0	OK	6.67	6.67	11.2	11.2	11.2	87.3	11.8
2451030	30/Sep/2023 17:00:00	30/Sep/2023 18:00:00	v3.0	OK	6.28	6.28	10.43	10.43	10.43	88.18	11.55
2451030	30/Sep/2023 18:00:00	30/Sep/2023 19:00:00	v3.0	OK	6.31	6.31	10.2	10.2	10.2	88.65	12.1
2451030	30/Sep/2023 19:00:00	30/Sep/2023 20:00:00	v3.0	OK	7.01	7.01	11.18	11.18	11.18	89	13.13
2451030	30/Sep/2023 20:00:00	30/Sep/2023 21:00:00	v3.0	OK	7.17	7.17	11.24	11.24	11.24	88.48	13.9
2451030	30/Sep/2023 21:00:00	30/Sep/2023 22:00:00	v3.0	OK	7.05	7.05	11.28	11.28	11.28	88.03	14.45
2451030	30/Sep/2023 22:00:00	30/Sep/2023 23:00:00	v3.0	OK	6.9	6.9	11.03	11.03	11.03	88.08	14.75
2451030	30/Sep/2023 23:00:00	01/Oct/2023 00:00:00	v3.0	OK	6.33	6.33	10.21	10.21	10.21	88.05	15.15
2451030	01/Oct/2023 00:00:00	01/Oct/2023 01:00:00	v3.0	OK	5.5	5.5	9.05	9.05	9.05	87.8	15.58
2451030	01/Oct/2023 01:00:00	01/Oct/2023 02:00:00	v3.0	OK	5.66	5.66	9.2	9.2	9.2	87.85	15.58
2451030	01/Oct/2023 02:00:00	01/Oct/2023 03:00:00	v3.0	OK	5.69	5.69	9.14	9.14	9.14	88.03	15.4
2451030	01/Oct/2023 03:00:00	01/Oct/2023 04:00:00	v3.0	OK	5.09	5.09	9.07	9.07	9.07	88.73	15.9
2451030	01/Oct/2023 04:00:00	01/Oct/2023 05:00:00	v3.0	OK	4.56	4.56	8.21	8.21	8.21	88.38	16.65
2451030	01/Oct/2023 05:00:00	01/Oct/2023 06:00:00	v3.0	OK	4.49	4.49	8.09	8.09	8.09	88.15	16.98
2451030	01/Oct/2023 06:00:00	01/Oct/2023 07:00:00	v3.0	OK	4.64	4.64	8.54	8.54	8.54	87.95	16.95
2451030	01/Oct/2023 07:00:00	01/Oct/2023 08:00:00	v3.0	OK	4.63	4.63	8.22	8.22	8.22	88.25	16.95

2451030	03/Oct/2023 17:00:00	03/Oct/2023 18:00:00	v3.0	OK	5.42	5.42	9.81	9.81	79.3	15.25
2451030	03/Oct/2023 18:00:00	03/Oct/2023 19:00:00	v3.0	OK	5.77	5.77	10.26	10.26	79.48	15
2451030	03/Oct/2023 19:00:00	03/Oct/2023 20:00:00	v3.0	OK	6.44	6.44	11.57	11.57	79.95	15
2451030	03/Oct/2023 20:00:00	03/Oct/2023 21:00:00	v3.0	OK	6.68	6.68	11.75	11.75	80.55	14.88
2451030	03/Oct/2023 21:00:00	03/Oct/2023 22:00:00	v3.0	OK	6.83	6.83	11.76	11.76	80.68	14.78
2451030	03/Oct/2023 22:00:00	03/Oct/2023 23:00:00	v3.0	OK	6.02	6.02	10.96	10.96	81.35	14.75
2451030	03/Oct/2023 23:00:00	04/Oct/2023 00:00:00	v3.0	OK	5.33	5.33	9.83	9.83	81.88	14.6
2451030	04/Oct/2023 00:00:00	04/Oct/2023 01:00:00	v3.0	OK	5.23	5.23	9.59	9.59	81	14.6
2451030	04/Oct/2023 01:00:00	04/Oct/2023 02:00:00	v3.0	OK	5.27	5.27	9.67	9.67	80.73	14.3
2451030	04/Oct/2023 02:00:00	04/Oct/2023 03:00:00	v3.0	OK	5.9	5.9	10.34	10.34	80.25	14.2
2451030	04/Oct/2023 03:00:00	04/Oct/2023 04:00:00	v3.0	OK	6.13	6.13	10.87	10.87	80.3	14.23
2451030	04/Oct/2023 04:00:00	04/Oct/2023 05:00:00	v3.0	OK	6.07	6.07	10.9	10.9	81.33	14.23
2451030	04/Oct/2023 05:00:00	04/Oct/2023 06:00:00	v3.0	OK	6.06	6.06	11.01	11.01	82.23	14.23
2451030	04/Oct/2023 06:00:00	04/Oct/2023 07:00:00	v3.0	OK	6.38	6.38	11.32	11.32	82.5	14.38
2451030	04/Oct/2023 07:00:00	04/Oct/2023 08:00:00	v3.0	OK	6.83	6.83	11.7	11.7	82.53	14.58
2451030	04/Oct/2023 08:00:00	04/Oct/2023 09:00:00	v3.0	OK	6.59	6.59	11.64	11.64	81.48	15.1
2451030	04/Oct/2023 09:00:00	04/Oct/2023 10:00:00	v3.0	OK	6.72	6.72	11.62	11.62	81.03	15.45
2451030	04/Oct/2023 10:00:00	04/Oct/2023 11:00:00	v3.0	OK	6.82	6.82	11.94	11.94	80.85	15.95
2451030	04/Oct/2023 11:00:00	04/Oct/2023 12:00:00	v3.0	OK	6.77	6.77	12.12	12.12	80.33	16.88
2451030	04/Oct/2023 12:00:00	04/Oct/2023 13:00:00	v3.0	OK	5.94	5.94	10.82	10.82	77.08	17.8
2451030	04/Oct/2023 13:00:00	04/Oct/2023 14:00:00	v3.0	OK	5.83	5.83	10.85	10.85	77.18	17.7
2451030	04/Oct/2023 14:00:00	04/Oct/2023 15:00:00	v3.0	OK	5.88	5.88	10.95	10.95	77.75	17.03
2451030	04/Oct/2023 15:00:00	04/Oct/2023 16:00:00	v3.0	OK	6.08	6.08	11.16	11.16	78.85	16.48
2451030	04/Oct/2023 16:00:00	04/Oct/2023 17:00:00	v3.0	OK	6.12	6.12	11.52	11.52	79.35	16.38
2451030	04/Oct/2023 17:00:00	04/Oct/2023 18:00:00	v3.0	OK	6.2	6.2	11.77	11.77	81.05	15.78
2451030	04/Oct/2023 18:00:00	04/Oct/2023 19:00:00	v3.0	OK	6.32	6.32	11.95	11.95	82.3	15.6
2451030	04/Oct/2023 19:00:00	04/Oct/2023 20:00:00	v3.0	OK	6.21	6.21	11.64	11.64	82.45	15.75
2451030	04/Oct/2023 20:00:00	04/Oct/2023 21:00:00	v3.0	OK	6.32	6.32	11.78	11.78	82.78	15.75
2451030	04/Oct/2023 21:00:00	04/Oct/2023 22:00:00	v3.0	OK	6.38	6.38	12.37	12.37	83.38	15.63
2451030	04/Oct/2023 22:00:00	04/Oct/2023 23:00:00	v3.0	OK	6.48	6.48	12.11	12.11	84.03	15.6
2451030	05/Oct/2023 00:00:00	05/Oct/2023 00:00:00	v3.0	OK	6.4	6.4	12.18	12.18	84.43	15.55
2451030	05/Oct/2023 00:00:00	05/Oct/2023 01:00:00	v3.0	OK	6.27	6.27	11.93	11.93	84.7	15.58
2451030	05/Oct/2023 01:00:00	05/Oct/2023 02:00:00	v3.0	OK	6.19	6.19	12.07	12.07	85.38	15.55
2451030	05/Oct/2023 02:00:00	05/Oct/2023 03:00:00	v3.0	OK	6.05	6.05	11.47	11.47	85.73	15.43
2451030	05/Oct/2023 03:00:00	05/Oct/2023 04:00:00	v3.0	OK	6.19	6.19	11.99	11.99	86.35	15.35
2451030	05/Oct/2023 04:00:00	05/Oct/2023 05:00:00	v3.0	OK	5.55	5.55	10.29	10.29	86.93	15.13
2451030	05/Oct/2023 05:00:00	05/Oct/2023 06:00:00	v3.0	OK	5.86	5.86	10.96	10.96	87.53	15.05
2451030	05/Oct/2023 06:00:00	05/Oct/2023 07:00:00	v3.0	OK	5.5	5.5	10.25	10.25	87.23	14.78
2451030	05/Oct/2023 07:00:00	05/Oct/2023 08:00:00	v3.0	OK	5.46	5.46	10.07	10.07	87.58	14.18
2451030	05/Oct/2023 08:00:00	05/Oct/2023 09:00:00	v3.0	OK	5.68	5.68	10.8	10.8	87.25	14.8
2451030	05/Oct/2023 09:00:00	05/Oct/2023 10:00:00	v3.0	OK	5.49	5.49	10.2	10.2	85.98	15
2451030	05/Oct/2023 10:00:00	05/Oct/2023 11:00:00	v3.0	OK	5.33	5.33	9.69	9.69	86.45	15.23
2451030	05/Oct/2023 11:00:00	05/Oct/2023 12:00:00	v3.0	OK	5.38	5.38	9.51	9.51	86.6	15.1
2451030	05/Oct/2023 12:00:00	05/Oct/2023 13:00:00	v3.0	OK	5.7	5.7	9.78	9.78	87.13	15.03
2451030	05/Oct/2023 13:00:00	05/Oct/2023 14:00:00	v3.0	OK	5.92	5.92	9.86	9.86	87.48	14.88
2451030	05/Oct/2023 14:00:00	05/Oct/2023 15:00:00	v3.0	OK	6.06	6.06	10.05	10.05	87.83	14.6
2451030	05/Oct/2023 15:00:00	05/Oct/2023 16:00:00	v3.0	OK	6.21	6.21	10.37	10.37	88	14.48
2451030	05/Oct/2023 16:00:00	05/Oct/2023 17:00:00	v3.0	OK	6.02	6.02	10.32	10.32	88.33	14.4
2451030	05/Oct/2023 17:00:00	05/Oct/2023 18:00:00	v3.0	OK	5.66	5.66	10.17	10.17	88.68	14.65
2451030	05/Oct/2023 18:00:00	05/Oct/2023 19:00:00	v3.0	OK	5.39	5.39	10.06	10.06	88.55	15.08
2451030	05/Oct/2023 19:00:00	05/Oct/2023 20:00:00	v3.0	OK	5.88	5.88	11.02	11.02	88.58	15.53
2451030	05/Oct/2023 20:00:00	05/Oct/2023 21:00:00	v3.0	OK	6.33	6.33	12.14	12.14	88.18	16
2451030	05/Oct/2023 21:00:00	05/Oct/2023 22:00:00	v3.0	OK	6.45	6.45	12.27	12.27	87.93	16.18
2451030	05/Oct/2023 22:00:00	05/Oct/2023 23:00:00	v3.0	OK	6.11	6.11	11.66	11.66	88.03	16.18
2451030	05/Oct/2023 23:00:00	06/Oct/2023 00:00:00	v3.0	OK	6.29	6.29	12.17	12.17	88.48	16.03
2451030	06/Oct/2023 00:00:00	06/Oct/2023 01:00:00	v3.0	OK	6.48	6.48	12.44	12.44	88.58	16.1
2451030	06/Oct/2023 01:00:00	06/Oct/2023 02:00:00	v3.0	OK	6.33	6.33	12.07	12.07	88.65	16.2

2451030	06/Oct/2023 02:00:00	06/Oct/2023 03:00:00	v3.0	OK	6.03	6.03	11.57	11.57	88.73	16.23
2451030	06/Oct/2023 03:00:00	06/Oct/2023 04:00:00	v3.0	OK	5.95	5.95	11.46	11.46	88.78	16.3
2451030	06/Oct/2023 04:00:00	06/Oct/2023 05:00:00	v3.0	OK	5.54	5.54	10.45	10.45	89.05	16.3
2451030	06/Oct/2023 05:00:00	06/Oct/2023 06:00:00	v3.0	OK	5.46	5.46	10.2	10.2	89.33	16.3
2451030	06/Oct/2023 06:00:00	06/Oct/2023 07:00:00	v3.0	OK	6.63	6.63	12.89	12.89	89.28	16.4
2451030	06/Oct/2023 07:00:00	06/Oct/2023 08:00:00	v3.0	OK	7.11	7.11	14.17	14.17	89.3	16.48
2451030	06/Oct/2023 08:00:00	06/Oct/2023 09:00:00	v3.0	OK	7.14	7.14	14.09	14.09	89.2	16.65
2451030	06/Oct/2023 09:00:00	06/Oct/2023 10:00:00	v3.0	OK	6.75	6.75	13.56	13.56	88.78	16.93
2451030	06/Oct/2023 10:00:00	06/Oct/2023 11:00:00	v3.0	OK	6.27	6.27	11.86	11.86	88.93	16.93
2451030	06/Oct/2023 11:00:00	06/Oct/2023 12:00:00	v3.0	OK	6.16	6.16	11.69	11.69	88.83	17
2451030	06/Oct/2023 12:00:00	06/Oct/2023 13:00:00	v3.0	OK	6.15	6.15	11.54	11.54	88.6	17.3
2451030	06/Oct/2023 13:00:00	06/Oct/2023 14:00:00	v3.0	OK	6.55	6.55	12.24	12.24	88.55	17.4
2451030	06/Oct/2023 14:00:00	06/Oct/2023 15:00:00	v3.0	OK	6.92	6.92	13.11	13.11	88.63	17.53
2451030	06/Oct/2023 15:00:00	06/Oct/2023 16:00:00	v3.0	OK	6.78	6.78	12.8	12.8	88.63	17.4
2451030	06/Oct/2023 16:00:00	06/Oct/2023 17:00:00	v3.0	OK	6.8	6.8	13.06	13.06	89.3	17.08
2451030	06/Oct/2023 17:00:00	06/Oct/2023 18:00:00	v3.0	OK	6.63	6.63	12.4	12.4	89.6	16.85
2451030	06/Oct/2023 18:00:00	06/Oct/2023 19:00:00	v3.0	OK	6.78	6.78	12.93	12.93	89.63	16.9
2451030	06/Oct/2023 19:00:00	06/Oct/2023 20:00:00	v3.0	OK	6.76	6.76	12.97	12.97	89.6	16.83
2451030	06/Oct/2023 20:00:00	06/Oct/2023 21:00:00	v3.0	OK	6.01	6.01	11.54	11.54	89.13	17.05
2451030	06/Oct/2023 21:00:00	06/Oct/2023 22:00:00	v3.0	OK	5.72	5.72	10.71	10.71	88.2	17.28
2451030	06/Oct/2023 22:00:00	06/Oct/2023 23:00:00	v3.0	OK	5.79	5.79	10.62	10.62	87.73	17.13
2451030	06/Oct/2023 23:00:00	07/Oct/2023 00:00:00	v3.0	OK	6.28	6.28	11.58	11.58	86.88	17.03
2451030	07/Oct/2023 00:00:00	07/Oct/2023 01:00:00	v3.0	OK	6.87	6.87	12.46	12.46	87.15	16.68
2451030	07/Oct/2023 01:00:00	07/Oct/2023 02:00:00	v3.0	OK	7.04	7.04	12.74	12.74	87.8	16.5
2451030	07/Oct/2023 02:00:00	07/Oct/2023 03:00:00	v3.0	OK	7.03	7.03	12.4	12.4	87.7	16.55
2451030	07/Oct/2023 03:00:00	07/Oct/2023 04:00:00	v3.0	OK	7.33	7.33	13.51	13.51	87.95	16.45
2451030	07/Oct/2023 04:00:00	07/Oct/2023 05:00:00	v3.0	OK	7.35	7.35	13.24	13.24	88.53	16.25
2451030	07/Oct/2023 05:00:00	07/Oct/2023 06:00:00	v3.0	OK	7.22	7.22	12.81	12.81	89.08	16.1
2451030	07/Oct/2023 06:00:00	07/Oct/2023 07:00:00	v3.0	OK	7.54	7.54	12.87	12.87	89.03	16.35
2451030	07/Oct/2023 07:00:00	07/Oct/2023 08:00:00	v3.0	OK	7.92	7.92	13.57	13.57	88.23	17.95
2451030	07/Oct/2023 08:00:00	07/Oct/2023 09:00:00	v3.0	OK	8.44	8.44	14.07	14.07	88.7	16.75
2451030	07/Oct/2023 09:00:00	07/Oct/2023 10:00:00	v3.0	OK	8.08	8.08	13.53	13.53	88.48	17.65
2451030	07/Oct/2023 10:00:00	07/Oct/2023 11:00:00	v3.0	OK	7.54	7.54	12.51	12.51	86.93	18.3
2451030	07/Oct/2023 11:00:00	07/Oct/2023 12:00:00	v3.0	OK	8.02	8.02	13.57	13.57	88.23	17.95
2451030	07/Oct/2023 12:00:00	07/Oct/2023 13:00:00	v3.0	OK	7.59	7.59	13.1	13.1	87	19.5
2451030	07/Oct/2023 13:00:00	07/Oct/2023 14:00:00	v3.0	OK	7.75	7.75	13.92	13.92	85.98	19.45
2451030	07/Oct/2023 14:00:00	07/Oct/2023 15:00:00	v3.0	OK	8.27	8.27	15.61	15.61	86.1	18.63
2451030	07/Oct/2023 15:00:00	07/Oct/2023 16:00:00	v3.0	OK	8.59	8.59	15.82	15.82	86.65	18.18
2451030	07/Oct/2023 16:00:00	07/Oct/2023 17:00:00	v3.0	OK	8.49	8.49	16.11	16.11	87	17.58
2451030	07/Oct/2023 17:00:00	07/Oct/2023 18:00:00	v3.0	OK	8.46	8.46	16.03	16.03	87.53	16.95
2451030	07/Oct/2023 18:00:00	07/Oct/2023 19:00:00	v3.0	OK	8.27	8.27	14.9	14.9	87.58	16.8
2451030	07/Oct/2023 19:00:00	07/Oct/2023 20:00:00	v3.0	OK	7.9	7.9	14.26	14.26	87.5	16.78
2451030	07/Oct/2023 20:00:00	07/Oct/2023 21:00:00	v3.0	OK	7.69	7.69	13.58	13.58	87.6	16.18
2451030	07/Oct/2023 21:00:00	07/Oct/2023 22:00:00	v3.0	OK	7.86	7.86	13.6	13.6	88.33	15.45
2451030	07/Oct/2023 22:00:00	07/Oct/2023 23:00:00	v3.0	OK	8.21	8.21	13.68	13.68	88.55	15.5
2451030	07/Oct/2023 23:00:00	08/Oct/2023 00:00:00	v3.0	OK	8.13	8.13	13.23	13.23	88.7	15.05
2451030	08/Oct/2023 00:00:00	08/Oct/2023 01:00:00	v3.0	OK	8.29	8.29	13.34	13.34	88.98	14.4
2451030	08/Oct/2023 01:00:00	08/Oct/2023 02:00:00	v3.0	OK	9.07	9.07	14.13	14.13	89.4	13.55
2451030	08/Oct/2023 02:00:00	08/Oct/2023 03:00:00	v3.0	OK	9.75	9.75	15.03	15.03	90.25	13.23
2451030	08/Oct/2023 03:00:00	08/Oct/2023 04:00:00	v3.0	OK	9.49	9.49	14.66	14.66	90.3	13.18
2451030	08/Oct/2023 04:00:00	08/Oct/2023 05:00:00	v3.0	OK	8.62	8.62	13.3	13.3	90.05	12.73
2451030	08/Oct/2023 05:00:00	08/Oct/2023 06:00:00	v3.0	OK	8.82	8.82	13.74	13.74	90.98	12.6
2451030	08/Oct/2023 06:00:00	08/Oct/2023 07:00:00	v3.0	OK	8.28	8.28	13.18	13.18	90.25	13.08
2451030	08/Oct/2023 07:00:00	08/Oct/2023 08:00:00	v3.0	OK	9.85	9.85	14.78	14.78	90.55	13.4
2451030	08/Oct/2023 08:00:00	08/Oct/2023 09:00:00	v3.0	OK	8.9	8.9	13.57	13.57	89.85	14.6
2451030	08/Oct/2023 09:00:00	08/Oct/2023 10:00:00	v3.0	OK	8.16	8.16	13.21	13.21	87.5	16.95
2451030	08/Oct/2023 10:00:00	08/Oct/2023 11:00:00	v3.0	OK	7.93	7.93	12.81	12.81	86.1	18.83

2451030	08/Oct/2023 11:00:00	08/Oct/2023 12:00:00	v3.0	OK	7.47	7.47	7.47	12.09	12.09	83.7	21.03
2451030	08/Oct/2023 12:00:00	08/Oct/2023 13:00:00	v3.0	OK	7.13	7.13	7.13	11.87	11.87	81.53	22.05
2451030	08/Oct/2023 13:00:00	08/Oct/2023 14:00:00	v3.0	OK	6.36	6.36	6.36	10.56	10.56	78.35	21.83
2451030	08/Oct/2023 14:00:00	08/Oct/2023 15:00:00	v3.0	OK	6.62	6.62	6.62	10.9	10.9	78.05	21.7
2451030	08/Oct/2023 15:00:00	08/Oct/2023 16:00:00	v3.0	OK	6.73	6.73	6.73	11.02	11.02	78.13	20.5
2451030	08/Oct/2023 16:00:00	08/Oct/2023 17:00:00	v3.0	OK	11.08	11.08	11.08	15.48	15.48	81.4	18.23
2451030	08/Oct/2023 17:00:00	08/Oct/2023 18:00:00	v3.0	OK	8.51	8.51	8.51	12.91	12.91	82.8	17.35
2451030	08/Oct/2023 18:00:00	08/Oct/2023 19:00:00	v3.0	OK	9.1	9.1	9.1	13.82	13.82	84.65	16.23
2451030	08/Oct/2023 19:00:00	08/Oct/2023 20:00:00	v3.0	OK	9.23	9.23	9.23	13.78	13.78	85.98	14.95
2451030	08/Oct/2023 20:00:00	08/Oct/2023 21:00:00	v3.0	OK	9.6	9.6	9.6	14.24	14.24	87.15	13.85
2451030	08/Oct/2023 21:00:00	08/Oct/2023 22:00:00	v3.0	OK	9.83	9.83	9.83	14.8	14.8	88.78	14
2451030	08/Oct/2023 22:00:00	08/Oct/2023 23:00:00	v3.0	OK	9.69	9.69	9.69	14.78	14.78	88.28	15.05
2451030	08/Oct/2023 23:00:00	09/Oct/2023 00:00:00	v3.0	OK	9.1	9.1	9.1	14.16	14.16	88.4	14.9
2451030	09/Oct/2023 00:00:00	09/Oct/2023 01:00:00	v3.0	OK	7.4	7.4	7.4	12.26	12.26	88.3	15.8
2451030	09/Oct/2023 01:00:00	09/Oct/2023 02:00:00	v3.0	OK	6.73	6.73	6.73	11.66	11.66	88.15	15.95
2451030	09/Oct/2023 02:00:00	09/Oct/2023 03:00:00	v3.0	OK	6.51	6.51	6.51	11.17	11.17	88.05	16.1
2451030	09/Oct/2023 03:00:00	09/Oct/2023 04:00:00	v3.0	OK	6.92	6.92	6.92	11.48	11.48	87.95	16.25
2451030	09/Oct/2023 04:00:00	09/Oct/2023 05:00:00	v3.0	OK	6.82	6.82	6.82	11.5	11.5	88	16.28
2451030	09/Oct/2023 05:00:00	09/Oct/2023 06:00:00	v3.0	OK	7.43	7.43	7.43	12.4	12.4	88.03	16.3
2451030	09/Oct/2023 06:00:00	09/Oct/2023 07:00:00	v3.0	OK	7.46	7.46	7.46	12.32	12.32	88.08	16.28
2451030	09/Oct/2023 07:00:00	09/Oct/2023 08:00:00	v3.0	OK	8.06	8.06	8.06	12.82	12.82	88.28	16.25
2451030	09/Oct/2023 08:00:00	09/Oct/2023 09:00:00	v3.0	OK	7.48	7.48	7.48	12.29	12.29	88.35	16.43
2451030	09/Oct/2023 09:00:00	09/Oct/2023 10:00:00	v3.0	OK	7.1	7.1	7.1	11.94	11.94	88.05	16.8
2451030	09/Oct/2023 10:00:00	09/Oct/2023 11:00:00	v3.0	OK	7.53	7.53	7.53	13.19	13.19	88.05	16.9
2451030	09/Oct/2023 11:00:00	09/Oct/2023 12:00:00	v3.0	OK	7.78	7.78	7.78	12.78	12.78	88.48	16.85
2451030	09/Oct/2023 12:00:00	09/Oct/2023 13:00:00	v3.0	OK	7.05	7.05	7.05	11.34	11.34	87.75	17.4
2451030	09/Oct/2023 13:00:00	09/Oct/2023 14:00:00	v3.0	OK	6.33	6.33	6.33	10.33	10.33	87.38	18
2451030	09/Oct/2023 14:00:00	09/Oct/2023 15:00:00	v3.0	OK	5.77	5.77	5.77	9.43	9.43	85.98	19.4
2451030	09/Oct/2023 15:00:00	09/Oct/2023 16:00:00	v3.0	OK	6.73	6.73	6.73	10.72	10.72	84.6	19.3
2451030	09/Oct/2023 16:00:00	09/Oct/2023 17:00:00	v3.0	OK	7.32	7.32	7.32	11.58	11.58	86.4	17.53
2451030	09/Oct/2023 17:00:00	09/Oct/2023 18:00:00	v3.0	OK	7	7	7	11.28	11.28	87.05	16.8
2451030	09/Oct/2023 18:00:00	09/Oct/2023 19:00:00	v3.0	OK	7.61	7.61	7.61	11.67	11.67	87.58	16.35
2451030	09/Oct/2023 19:00:00	09/Oct/2023 20:00:00	v3.0	OK	8.9	8.9	8.9	13.41	13.41	87.9	16.05
2451030	09/Oct/2023 20:00:00	09/Oct/2023 21:00:00	v3.0	OK	10.19	10.19	10.19	15.29	15.29	88.33	15.88
2451030	09/Oct/2023 21:00:00	09/Oct/2023 22:00:00	v3.0	OK	10.69	10.69	10.69	15.48	15.48	88.15	15.68
2451030	09/Oct/2023 22:00:00	09/Oct/2023 23:00:00	v3.0	OK	8.87	8.87	8.87	13.49	13.49	87.98	14.95
2451030	09/Oct/2023 23:00:00	10/Oct/2023 00:00:00	v3.0	OK	6.69	6.69	6.69	10.89	10.89	88.4	14.08
2451030	10/Oct/2023 00:00:00	10/Oct/2023 01:00:00	v3.0	OK	6.47	6.47	6.47	9.9	9.9	88.65	13.55
2451030	10/Oct/2023 01:00:00	10/Oct/2023 02:00:00	v3.0	OK	15.34	15.34	15.34	23.06	23.06	90	13.83
2451030	10/Oct/2023 02:00:00	10/Oct/2023 03:00:00	v3.0	OK	16.12	16.12	16.12	24.19	24.19	89.15	14.4
2451030	10/Oct/2023 03:00:00	10/Oct/2023 04:00:00	v3.0	OK	15.3	15.3	15.3	23.14	23.14	89	14.3
2451030	10/Oct/2023 04:00:00	10/Oct/2023 05:00:00	v3.0	OK	12.92	12.92	12.92	18.47	18.47	89.33	14.13
2451030	10/Oct/2023 05:00:00	10/Oct/2023 06:00:00	v3.0	OK	17.38	17.38	17.38	25.15	25.15	89.63	14.2
2451030	10/Oct/2023 06:00:00	10/Oct/2023 07:00:00	v3.0	OK	21.02	21.02	21.02	30.93	30.93	89.23	14.23
2451030	10/Oct/2023 07:00:00	10/Oct/2023 08:00:00	v3.0	OK	25.73	25.73	25.73	38.87	38.87	89.58	14.18
2451030	10/Oct/2023 08:00:00	10/Oct/2023 09:00:00	v3.0	OK	24.95	24.95	24.95	37.4	37.4	90.08	14.6
2451030	10/Oct/2023 09:00:00	10/Oct/2023 10:00:00	v3.0	OK	19.54	19.54	19.54	28.34	28.34	88.68	16.68
2451030	10/Oct/2023 10:00:00	10/Oct/2023 11:00:00	v3.0	OK	10.45	10.45	10.45	15.44	15.44	84.73	18.2
2451030	10/Oct/2023 11:00:00	10/Oct/2023 12:00:00	v3.0	OK	8.44	8.44	8.44	13.19	13.19	80.58	19.38
2451030	10/Oct/2023 12:00:00	10/Oct/2023 13:00:00	v3.0	OK	7.02	7.02	7.02	11.86	11.86	79.1	19.88
2451030	10/Oct/2023 13:00:00	10/Oct/2023 14:00:00	v3.0	OK	7.06	7.06	7.06	12.07	12.07	76.83	20.5
2451030	10/Oct/2023 14:00:00	10/Oct/2023 15:00:00	v3.0	OK	7.34	7.34	7.34	12.51	12.51	77.93	19.48
2451030	10/Oct/2023 15:00:00	10/Oct/2023 16:00:00	v3.0	OK	7.46	7.46	7.46	12.35	12.35	80.8	17.95
2451030	10/Oct/2023 16:00:00	10/Oct/2023 17:00:00	v3.0	OK	7.16	7.16	7.16	12.03	12.03	81.05	17.78
2451030	10/Oct/2023 17:00:00	10/Oct/2023 18:00:00	v3.0	OK	8.08	8.08	8.08	13.73	13.73	82.2	17.55
2451030	10/Oct/2023 18:00:00	10/Oct/2023 19:00:00	v3.0	OK	8.5	8.5	8.5	14.46	14.46	84.1	17.23
2451030	10/Oct/2023 19:00:00	10/Oct/2023 20:00:00	v3.0	OK	8.01	8.01	8.01	13.39	13.39	85.58	17.1

2451030	10/Oct/2023 20:00:00	10/Oct/2023 21:00:00	v3.0	OK	8.38	8.38	13.4	13.4	86.28	16.9
2451030	10/Oct/2023 21:00:00	10/Oct/2023 22:00:00	v3.0	OK	8.03	8.03	13	13	86.63	16.85
2451030	10/Oct/2023 22:00:00	10/Oct/2023 23:00:00	v3.0	OK	8.09	8.09	13.5	13.5	86.75	16.8
2451030	10/Oct/2023 23:00:00	11/Oct/2023 00:00:00	v3.0	OK	8.08	8.08	13.11	13.11	86.85	16.78
2451030	11/Oct/2023 00:00:00	11/Oct/2023 01:00:00	v3.0	OK	8.07	8.07	13.48	13.48	86.85	16.8
2451030	11/Oct/2023 01:00:00	11/Oct/2023 02:00:00	v3.0	OK	7.69	7.69	13.16	13.16	86.88	16.75
2451030	11/Oct/2023 02:00:00	11/Oct/2023 03:00:00	v3.0	OK	7.21	7.21	12.83	12.83	87.18	16.35
2451030	11/Oct/2023 03:00:00	11/Oct/2023 04:00:00	v3.0	OK	6.74	6.74	11.97	11.97	87.53	16.03
2451030	11/Oct/2023 04:00:00	11/Oct/2023 05:00:00	v3.0	OK	6.29	6.29	11.63	11.63	87.6	15.83
2451030	11/Oct/2023 05:00:00	11/Oct/2023 06:00:00	v3.0	OK	5.95	5.95	11.05	11.05	87.7	15.7
2451030	11/Oct/2023 06:00:00	11/Oct/2023 07:00:00	v3.0	OK	4.83	4.83	8.8	8.8	88.03	13.05
2451030	11/Oct/2023 07:00:00	11/Oct/2023 08:00:00	v3.0	OK	5.54	5.54	10.31	10.31	88.58	12.13
2451030	11/Oct/2023 08:00:00	11/Oct/2023 09:00:00	v3.0	OK	6.22	6.22	12.05	12.05	88.18	11.83
2451030	11/Oct/2023 09:00:00	11/Oct/2023 10:00:00	v3.0	OK	6.01	6.01	11.42	11.42	87.35	11.93
2451030	11/Oct/2023 10:00:00	11/Oct/2023 11:00:00	v3.0	OK	5.79	5.79	11.16	11.16	87.08	12.1
2451030	11/Oct/2023 11:00:00	11/Oct/2023 12:00:00	v3.0	OK	5.65	5.65	10.85	10.85	85.35	12.48
2451030	11/Oct/2023 12:00:00	11/Oct/2023 13:00:00	v3.0	OK	5.4	5.4	10.12	10.12	84.33	12.53
2451030	11/Oct/2023 13:00:00	11/Oct/2023 14:00:00	v3.0	OK	5.15	5.15	9.48	9.48	82.2	12.45
2451030	11/Oct/2023 14:00:00	11/Oct/2023 15:00:00	v3.0	OK	5.08	5.08	9.41	9.41	83.6	12.15
2451030	11/Oct/2023 15:00:00	11/Oct/2023 16:00:00	v3.0	OK	4.99	4.99	9.36	9.36	81.55	12.4
2451030	11/Oct/2023 16:00:00	11/Oct/2023 17:00:00	v3.0	OK	4.97	4.97	9.1	9.1	81.68	12.48
2451030	11/Oct/2023 17:00:00	11/Oct/2023 18:00:00	v3.0	OK	4.99	4.99	9.21	9.21	82.23	12.23
2451030	11/Oct/2023 18:00:00	11/Oct/2023 19:00:00	v3.0	OK	5.12	5.12	9.35	9.35	82	11.75
2451030	11/Oct/2023 19:00:00	11/Oct/2023 20:00:00	v3.0	OK	4.94	4.94	9.29	9.29	82.18	11.3
2451030	11/Oct/2023 20:00:00	11/Oct/2023 21:00:00	v3.0	OK	4.78	4.78	8.74	8.74	81.78	10.9
2451030	11/Oct/2023 21:00:00	11/Oct/2023 22:00:00	v3.0	OK	4.84	4.84	8.92	8.92	81.45	10.33
2451030	11/Oct/2023 22:00:00	11/Oct/2023 23:00:00	v3.0	OK	4.89	4.89	9.01	9.01	81.2	9.7
2451030	11/Oct/2023 23:00:00	12/Oct/2023 00:00:00	v3.0	OK	4.95	4.95	9.17	9.17	80.85	9.1
2451030	12/Oct/2023 00:00:00	12/Oct/2023 01:00:00	v3.0	OK	4.98	4.98	8.96	8.96	81.08	9.33
2451030	12/Oct/2023 01:00:00	12/Oct/2023 02:00:00	v3.0	OK	6.15	6.15	10.49	10.49	82.83	7.85
2451030	12/Oct/2023 02:00:00	12/Oct/2023 03:00:00	v3.0	OK	7.65	7.65	12.91	12.91	85.55	5.78
2451030	12/Oct/2023 03:00:00	12/Oct/2023 04:00:00	v3.0	OK	6.49	6.49	10.93	10.93	87.05	4.75
2451030	12/Oct/2023 04:00:00	12/Oct/2023 05:00:00	v3.0	OK	6.99	6.99	11.63	11.63	87.9	4.13
2451030	12/Oct/2023 05:00:00	12/Oct/2023 06:00:00	v3.0	OK	5.34	5.34	9.06	9.06	88.3	3.53
2451030	12/Oct/2023 06:00:00	12/Oct/2023 07:00:00	v3.0	OK	5.48	5.48	9.24	9.24	88.63	3.25
2451030	12/Oct/2023 07:00:00	12/Oct/2023 08:00:00	v3.0	OK	5.54	5.54	9.38	9.38	89.7	3.15
2451030	12/Oct/2023 08:00:00	12/Oct/2023 09:00:00	v3.0	OK	7.81	7.81	11.94	11.94	89.7	6.15



From Air Quality Strategy: framework for Local Authority delivery updated 25/08/23

3.2 Local action to reduce PM2.5

As well as meeting local objectives, local authorities play a role in contributing to national targets. The government recognises that as a regional pollutant, many of the sources of PM2.5 are outside of local authority control. However, there are sources of PM2.5 over which local authorities do have control. Therefore, while PM2.5 is not currently part of the Local Air Quality Management framework, the government still expects all local authorities to effectively use their powers to reduce PM2.5 emissions from the sources which are within their control.

We have set 2 new legally binding PM2.5 targets, each with an interim target:

- 10 $\mu\text{g}/\text{m}^3$ annual mean concentration PM2.5 nationwide by 2040, with an interim target of 12 $\mu\text{g}/\text{m}^3$ by January 2028
- 35% reduction in average population exposure by 2040, with an interim target of a 22% reduction by January 2028, both compared to a 2018 baseline

Our annual mean concentration target will drive action in the worst-polluted areas. Our population exposure reduction target requires concentrations be driven down everywhere, including where they are already below 10 $\mu\text{g}/\text{m}^3$. As a regional pollutant, PM2.5 also travels long distances and increases background levels across a wide area. It is therefore important that all local authorities across England act and can collaborate accordingly.

We have been clear in guidance to local authorities since 2016 that we expect local authorities to use their powers to reduce PM2.5. We still have not seen sufficient action from the majority of local authorities. In light of the new targets, if we consider further action to be insufficient, we will consult on introducing a standalone legal duty on local authorities to take action to reduce PM2.5 emissions.

Actions for local partners: 4

- All local authorities should support the delivery of national PM2.5 targets by taking action to reduce emissions from sources within their control.

If the government considers local action has not gone far enough, we will consider introducing a statutory duty on local authorities.

