

Permit Number: EPR/BU5453IY
Operator: AGC Chemicals Europe Limited
Facility: AGC Chemicals Europe, Hillhouse

Form Number: Air 1 / 2017: Particulate matter

Form Number: Air 2 / 2017: Total Organic Carbon (TOC)

Form Number: Air 3 / 2017: Hydrogen Chloride

Form Number: Air 4 / 2017: Hydrogen Fluoride

Form Number: Air 5 / 2017: Carbon Monoxide

Form Number: Air 6 / 2017: Oxides of Nitrogen

Form Number: Air 9 / 2017: Sulphur Dioxide

During Q1 the Thermal Oxidiser was predominantly online with liquid and gaseous waste stream from the Waste Acid Stack (WAS) the Low Boiler Stack (LBS) gaseous waste stream was reintroduced from mid March.
From the 27/01/24 to 01/03/24 the Thermal Oxidiser was offline for planned maintenance with only one reportable day during this period.

Thermal Treatment Plant 2024 Q1 periodic monitoring was planned to be undertaken on from 25-27th March (with the QAL2 monitoring was due to be undertaken following this 28th March and 2-3rd April). However, due to a blockage on 27th March AGCCE stopped sending waste to the Thermal Oxidiser from 09:45 – 17:00 on this day hence could not undertake the last day of the quarterly monitoring as planned. QAL2 monitoring was prioritised (and completed) with all waste streams online. The stacks emission monitoring team planned to return at the earliest opportunity to collect a sample for PAH analysis, this was completed on 10th April 2024. The missed Q1 PAH monitoring was reported to the Environment Agency on 18/04/2024. PAH results are included in this report.

There was one exceedance for dust (1/2 hour average and daily average) on 12/03/2024 which was reported to the Environment Agency on 18/04/2024.

See CEMS data below for quarterly reporting on Form Numbers identified above.

Signed*: [REDACTED]

Date: 26/04/2024

(*authorised to sign as representative of AGC Chemicals Europe Limited)

Reporting of Continuously Monitored Emissions to Air for NO_x, Emission Point A14 - TTP for Jan, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

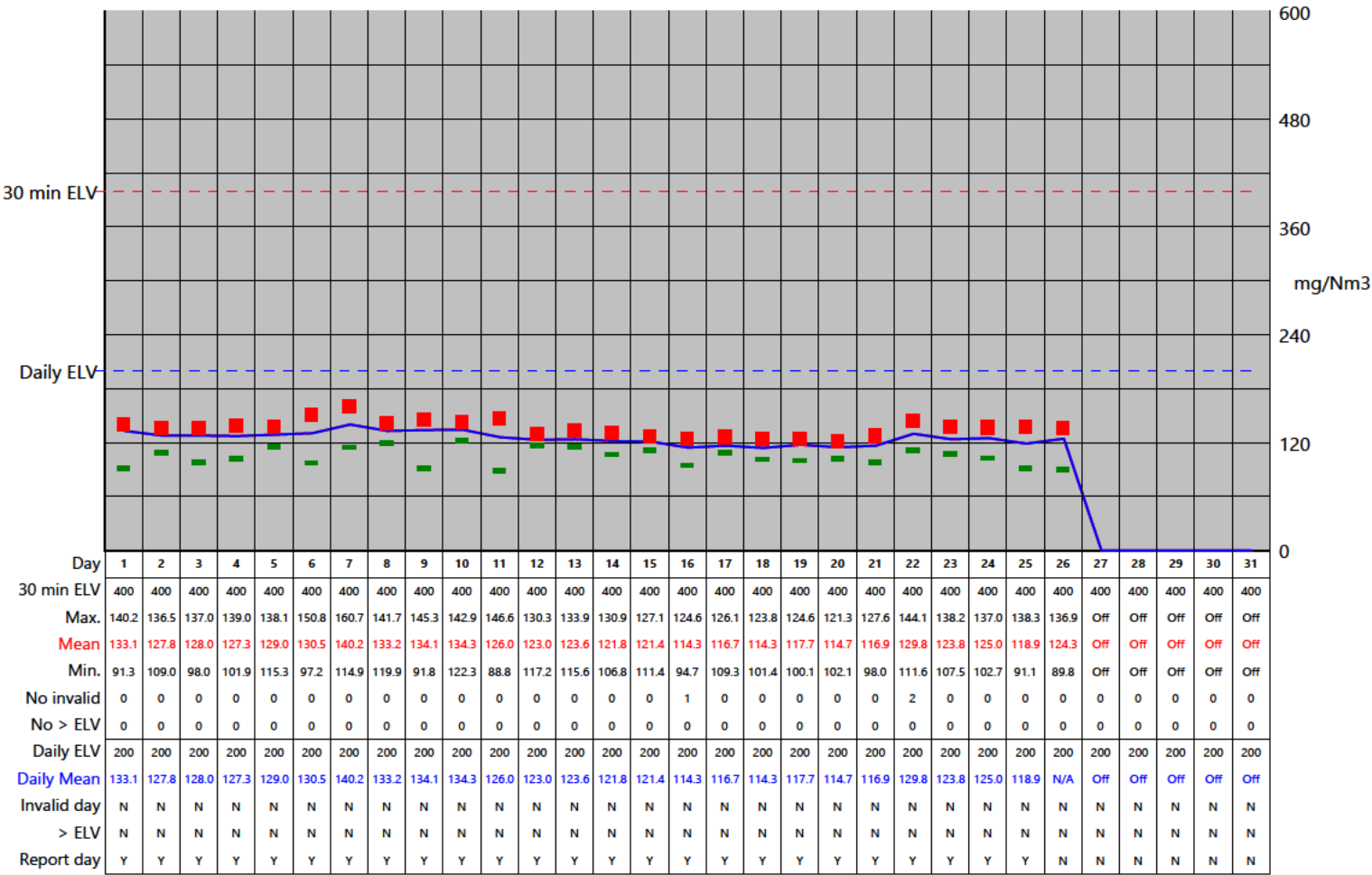
Max. 30 min average

Min. 30 min average

Daily mean

95th Percentile = 141.1
No. of valid averages = 1229

Month summary	
30 min ELV	
Monthly max.	160.7
Monthly mean	125.0
Monthly min.	88.8
Total invalid	3
Sum > ELV	0
Daily ELV	
Monthly max	140.2
No. invalid days	0
No. > ELV	0
No. report days	25



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for CO, Emission Point A14 - TTP for Jan, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

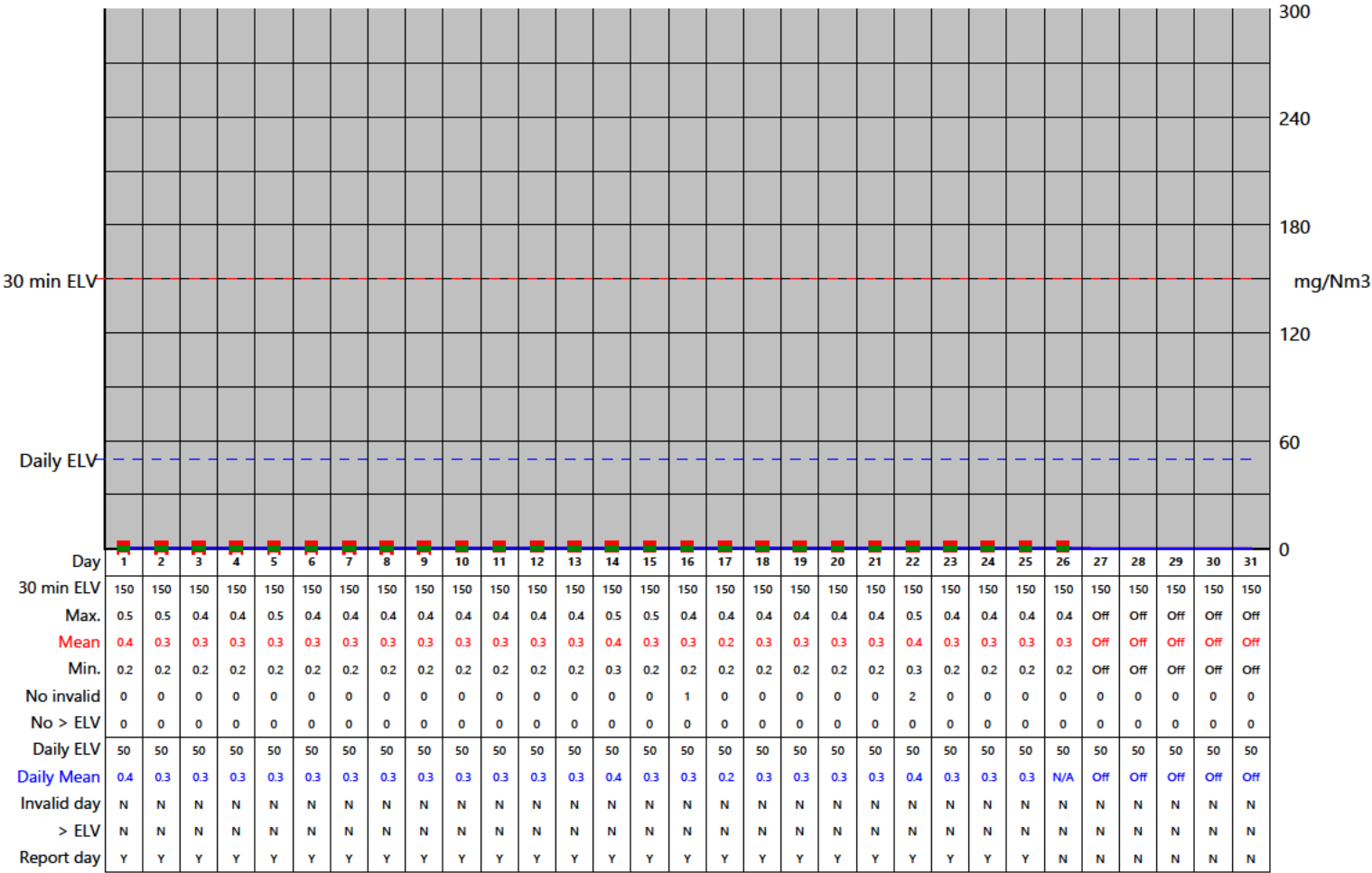
Min. 30 min average

Daily mean

95th Percentile = 0.4

No. of valid averages = 1229

Month summary	
30 min ELV	
Monthly max.	0.5
Monthly mean	0.3
Monthly min.	0.2
Total invalid	3
Sum > ELV	0
Daily ELV	
Monthly max	0.4
No. invalid days	0
No. > ELV	0
No. report days	25



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for SO₂ , Emission Point A14 - TTP for Jan, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

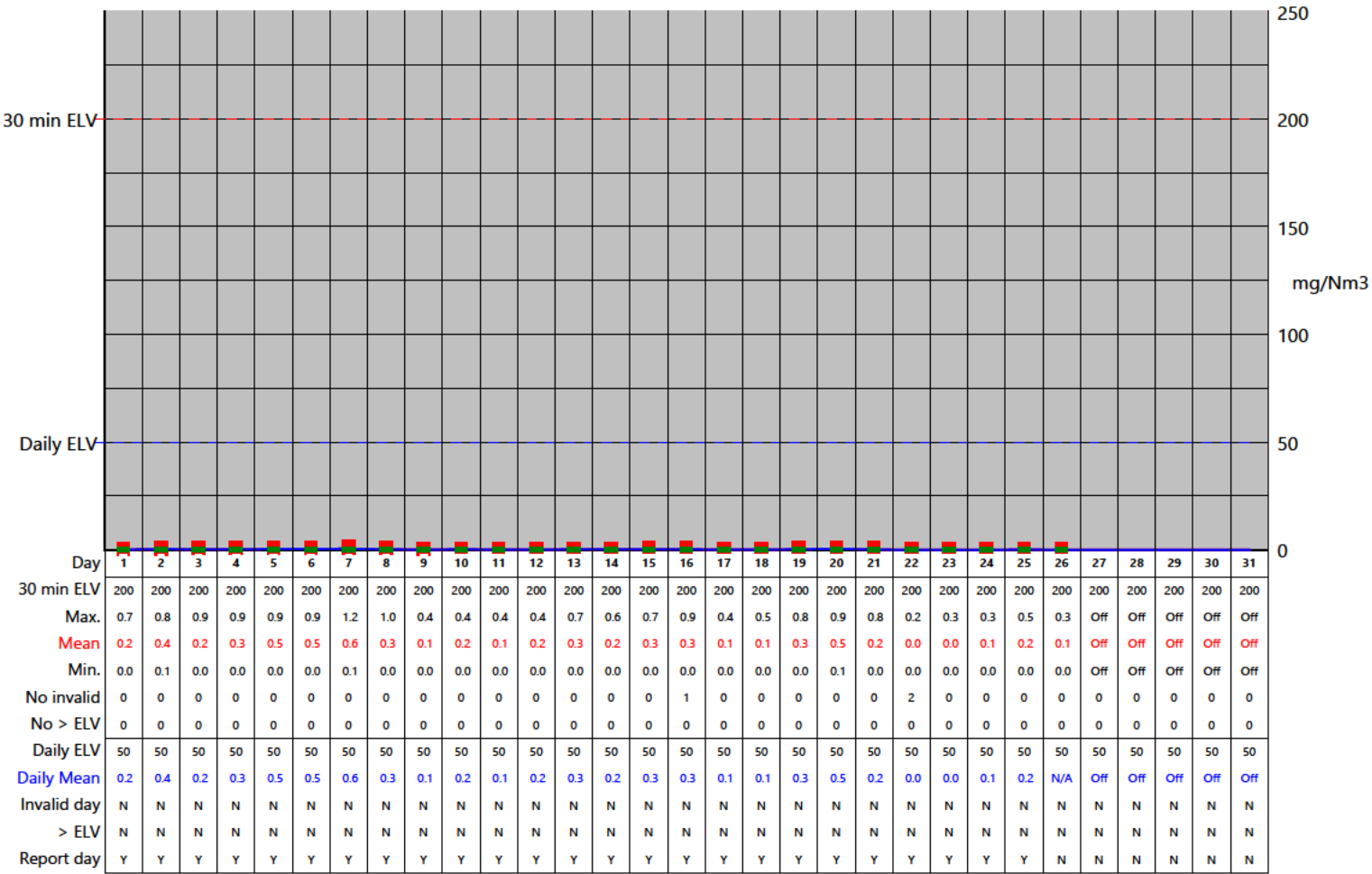
Min. 30 min average

Daily mean

95th Percentile = 0.7

No. of valid averages = 1229

Month summary	
30 min ELV	
Monthly max.	1.2
Monthly mean	0.2
Monthly min.	0.0
Total invalid	3
Sum > ELV	0
Daily ELV	
Monthly max	0.6
No. invalid days	0
No. > ELV	0
No. report days	25



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for HCl, Emission Point A14 - TTP for Jan, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

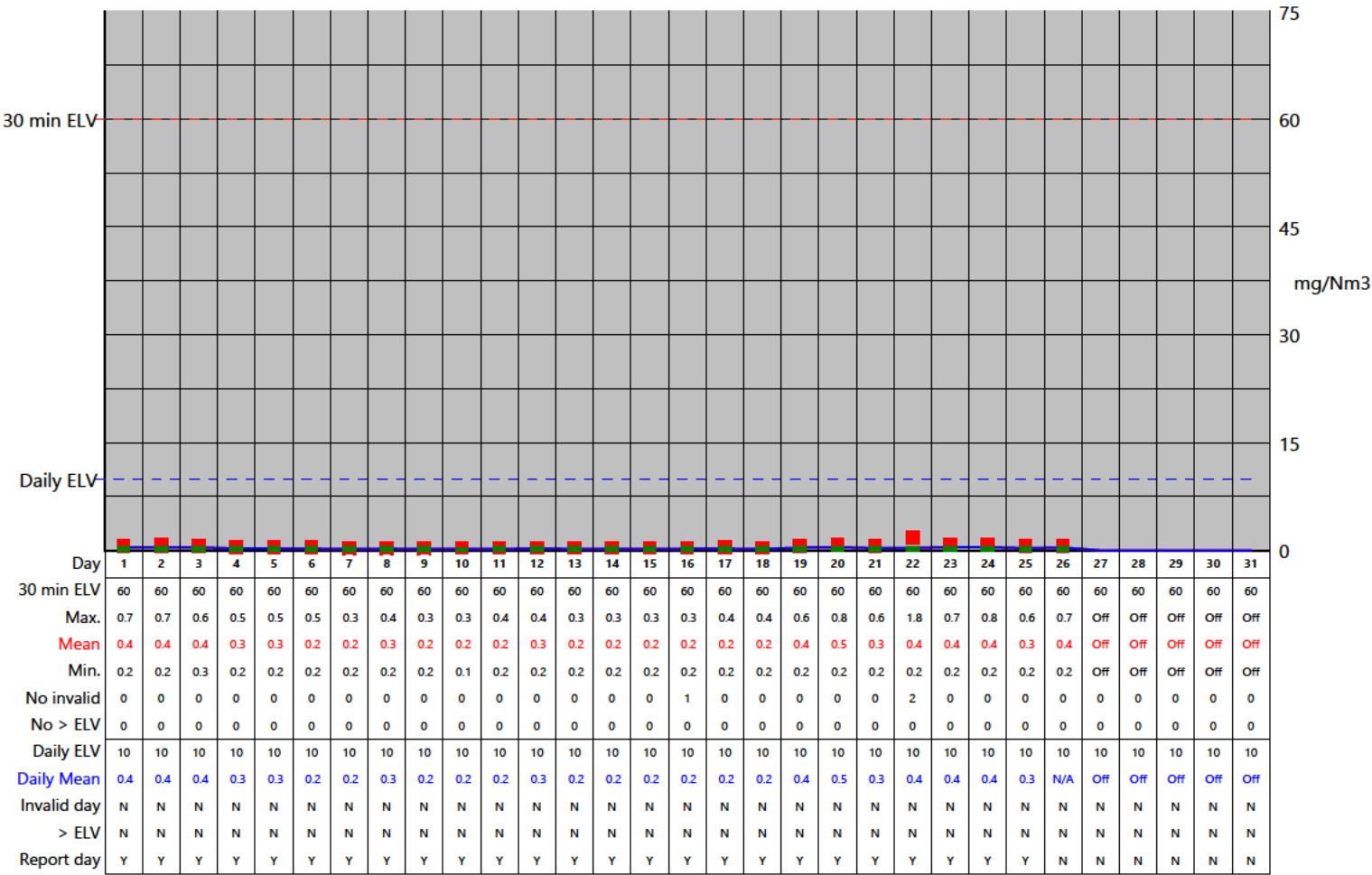
Min. 30 min average

Daily mean

95th Percentile = 0.6

No. of valid averages = 1229

Month summary	
30 min ELV	
Monthly max.	1.8
Monthly mean	0.3
Monthly min.	0.1
Total invalid	3
Sum > ELV	0
Daily ELV	
Monthly max	0.5
No. invalid days	0
No. > ELV	0
No. report days	25



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for TOC, Emission Point A14 - TTP for Jan, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

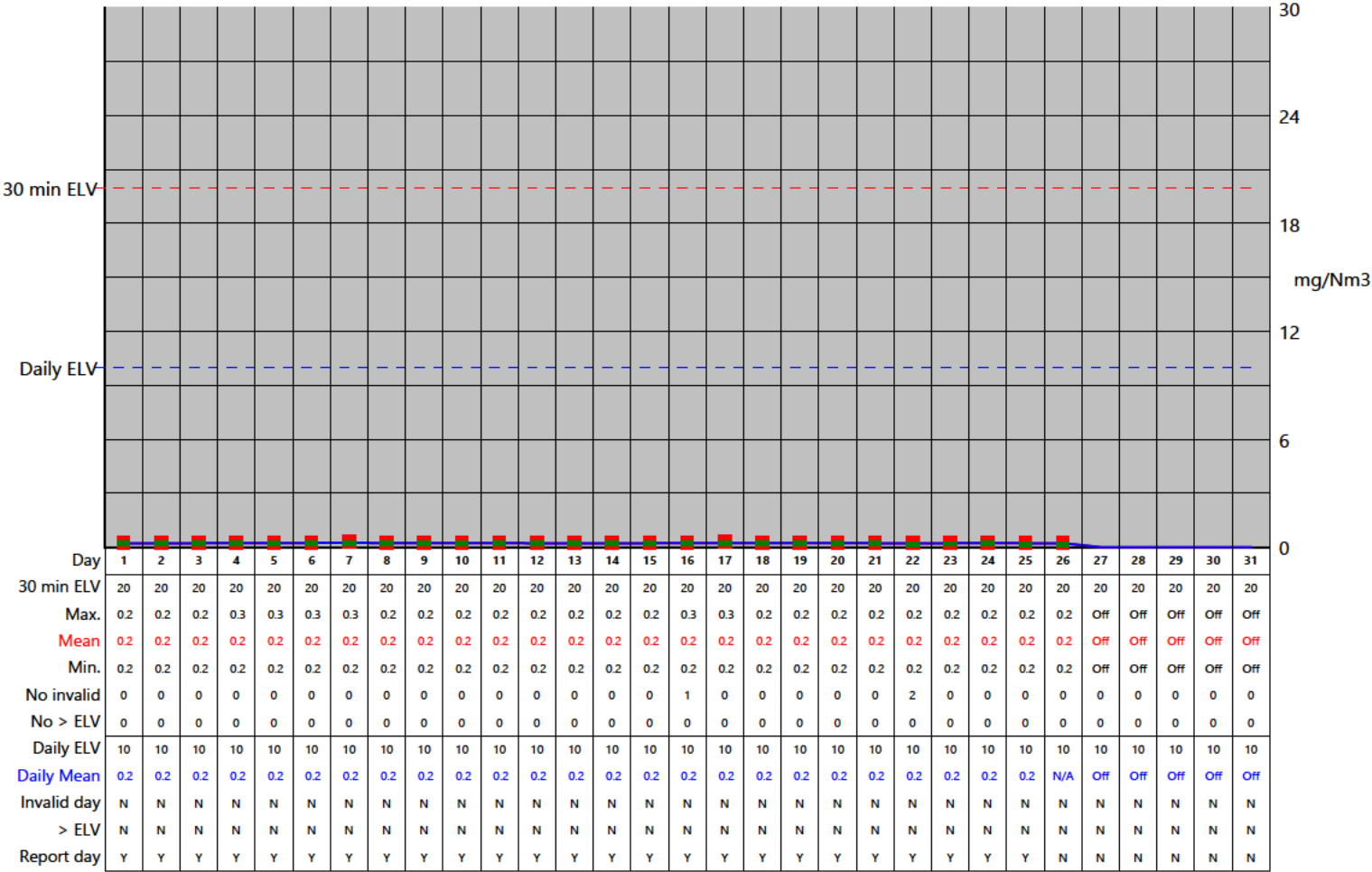
Min. 30 min average

Daily mean

95th Percentile = 0.2

No. of valid averages = 1229

Month summary	
30 min ELV	
Monthly max.	0.3
Monthly mean	0.2
Monthly min.	0.2
Total invalid	3
Sum > ELV	0
Daily ELV	
Monthly max	0.2
No. invalid days	0
No. > ELV	0
No. report days	25



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for HF, Emission Point A14 - TTP for Jan, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

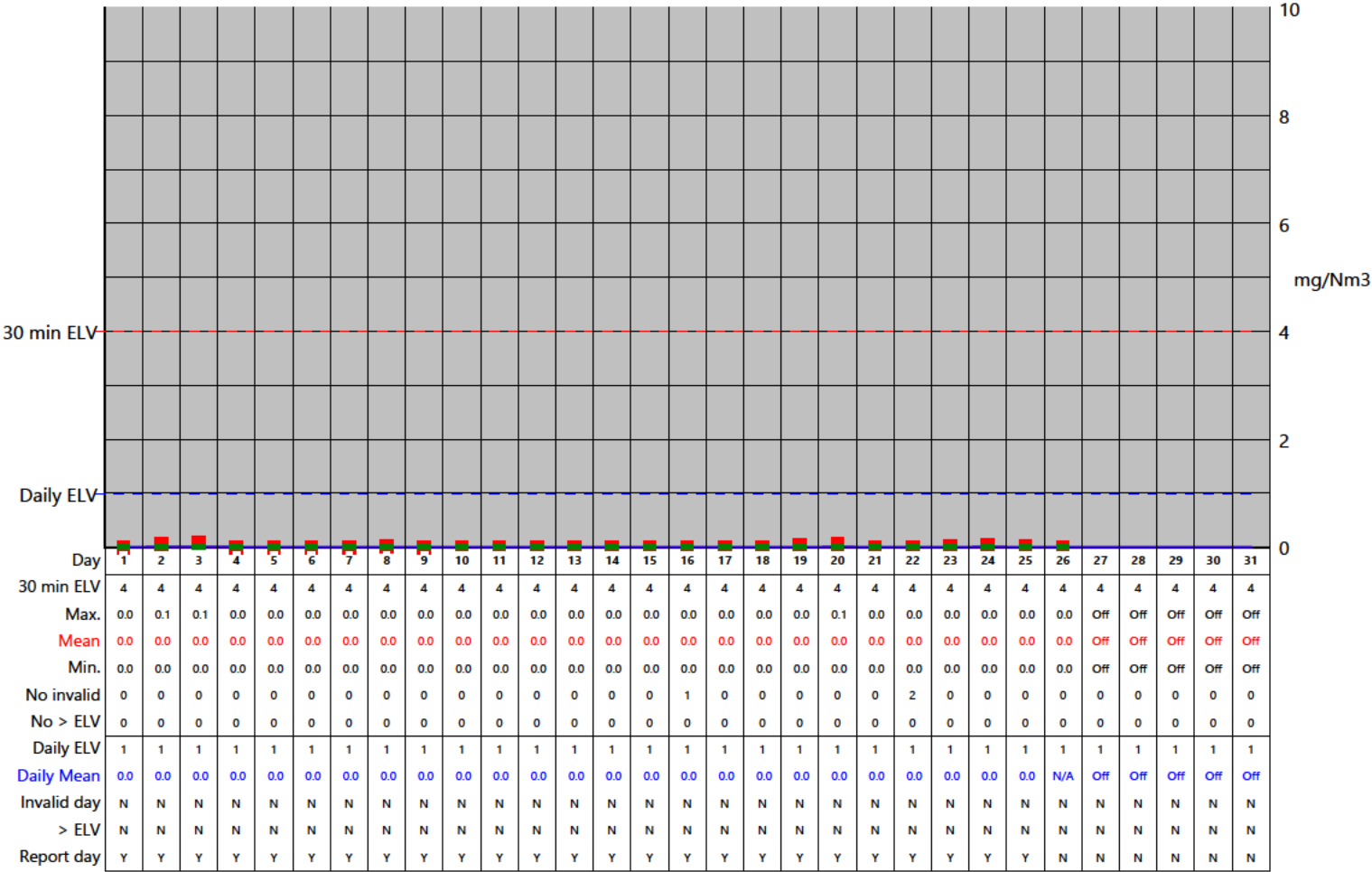
Max. 30 min average

Min. 30 min average

Daily mean

95th Percentile = 0.0
No. of valid averages = 1229

Month summary	
30 min ELV	
Monthly max.	0.1
Monthly mean	0.0
Monthly min.	0.0
Total invalid	3
Sum > ELV	0
Daily ELV	
Monthly max	0.0
No. invalid days	0
No. > ELV	0
No. report days	25



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for Dust, Emission Point A14 - TTP for Jan, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

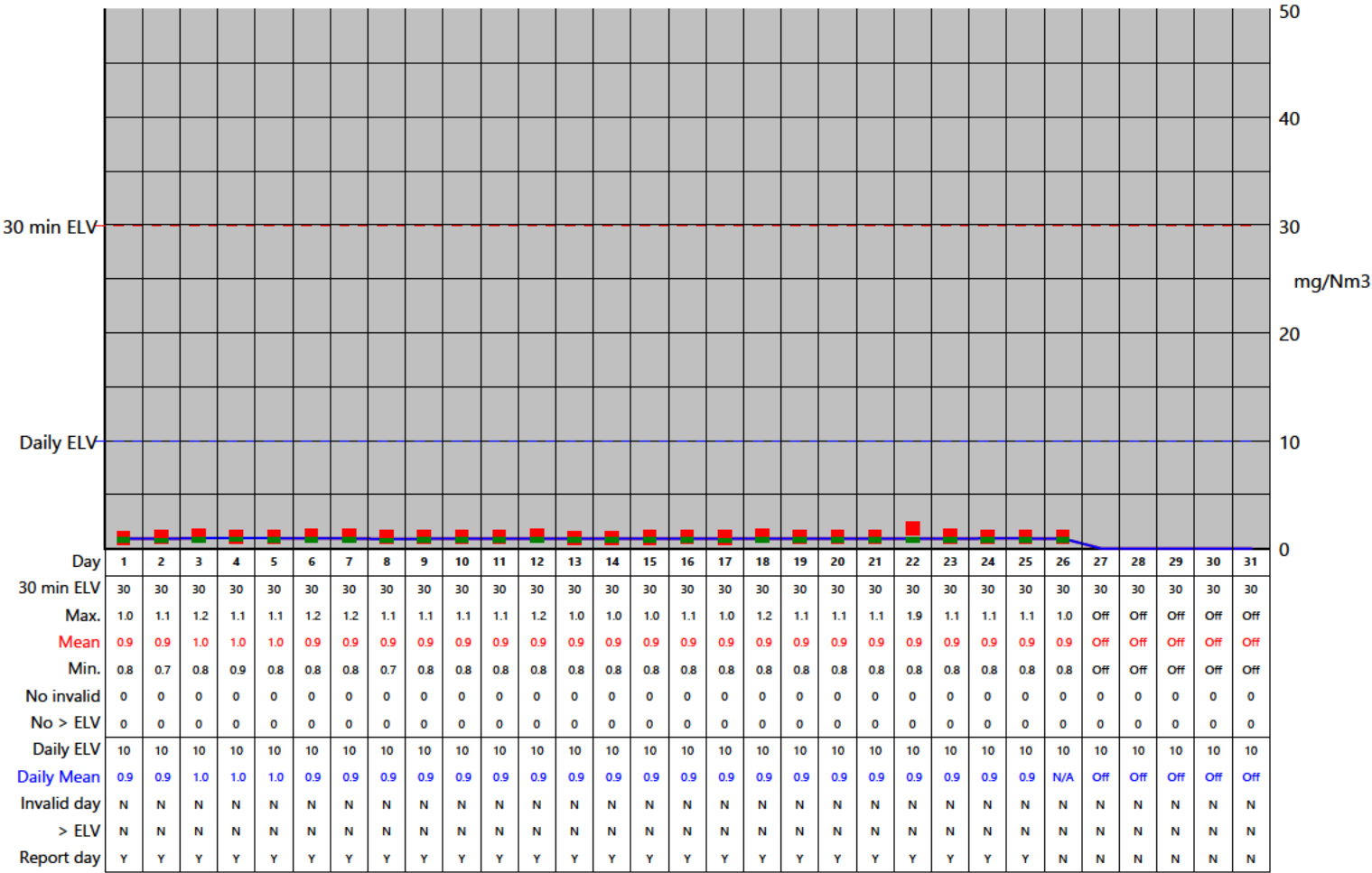
Min. 30 min average

Daily mean

95th Percentile = 1.0

No. of valid averages = 1232

Month summary	
30 min ELV	
Monthly max.	1.9
Monthly mean	0.9
Monthly min.	0.7
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	1.0
No. invalid days	0
No. > ELV	0
No. report days	25



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for NO_x , Emission Point A14 - TTP for Feb, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

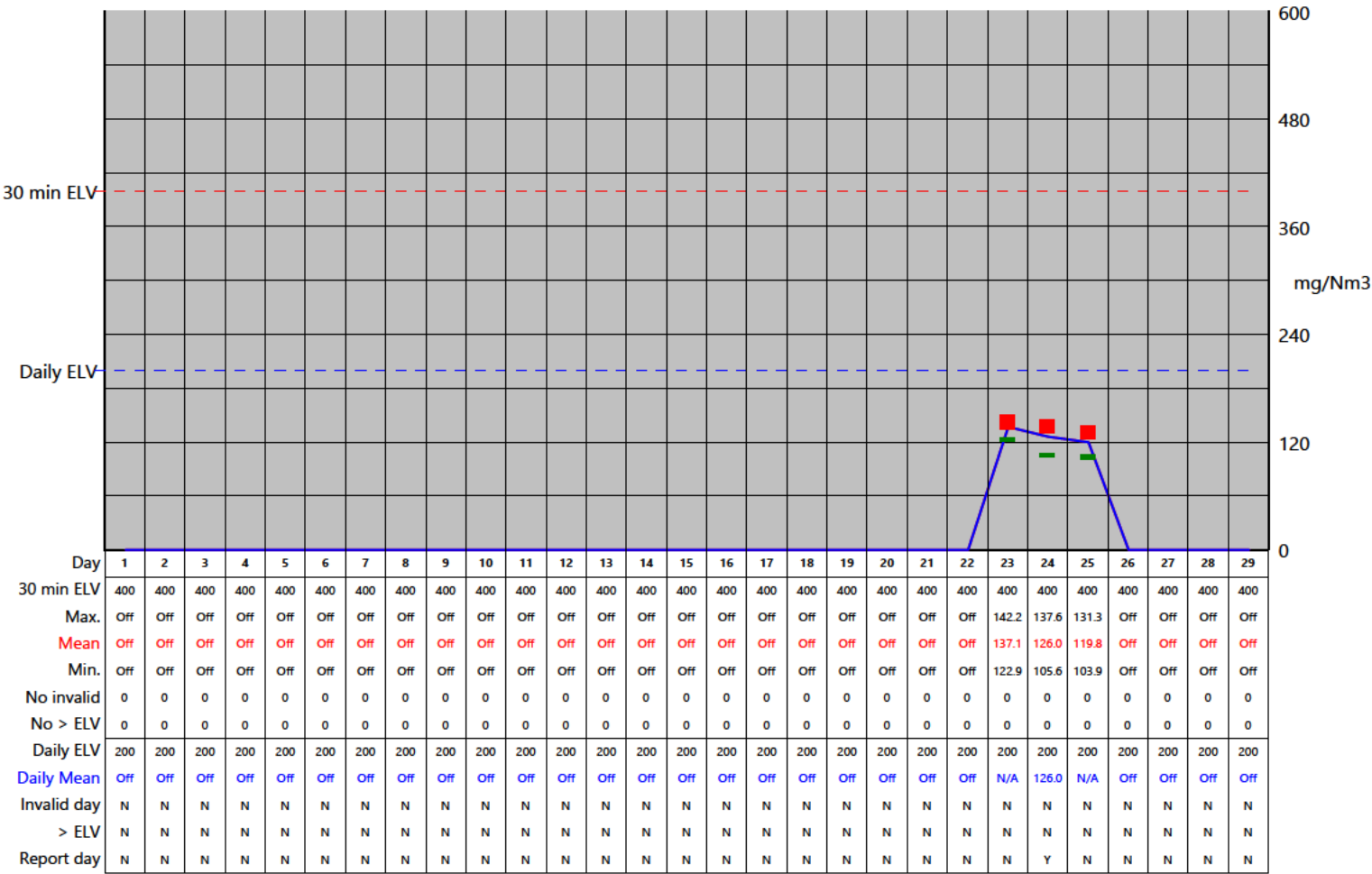
Min. 30 min average

Daily mean

95th Percentile = 139.7

No. of valid averages = 102

Month summary	
30 min ELV	
Monthly max.	142.2
Monthly mean	126.9
Monthly min.	103.9
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	126.0
No. invalid days	0
No. > ELV	0
No. report days	1



Data is as processed without repairs.

Signature

Authorised Representative

Date 17/04/2024

Reporting of Continuously Monitored Emissions to Air for CO, Emission Point A14 - TTP for Feb, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

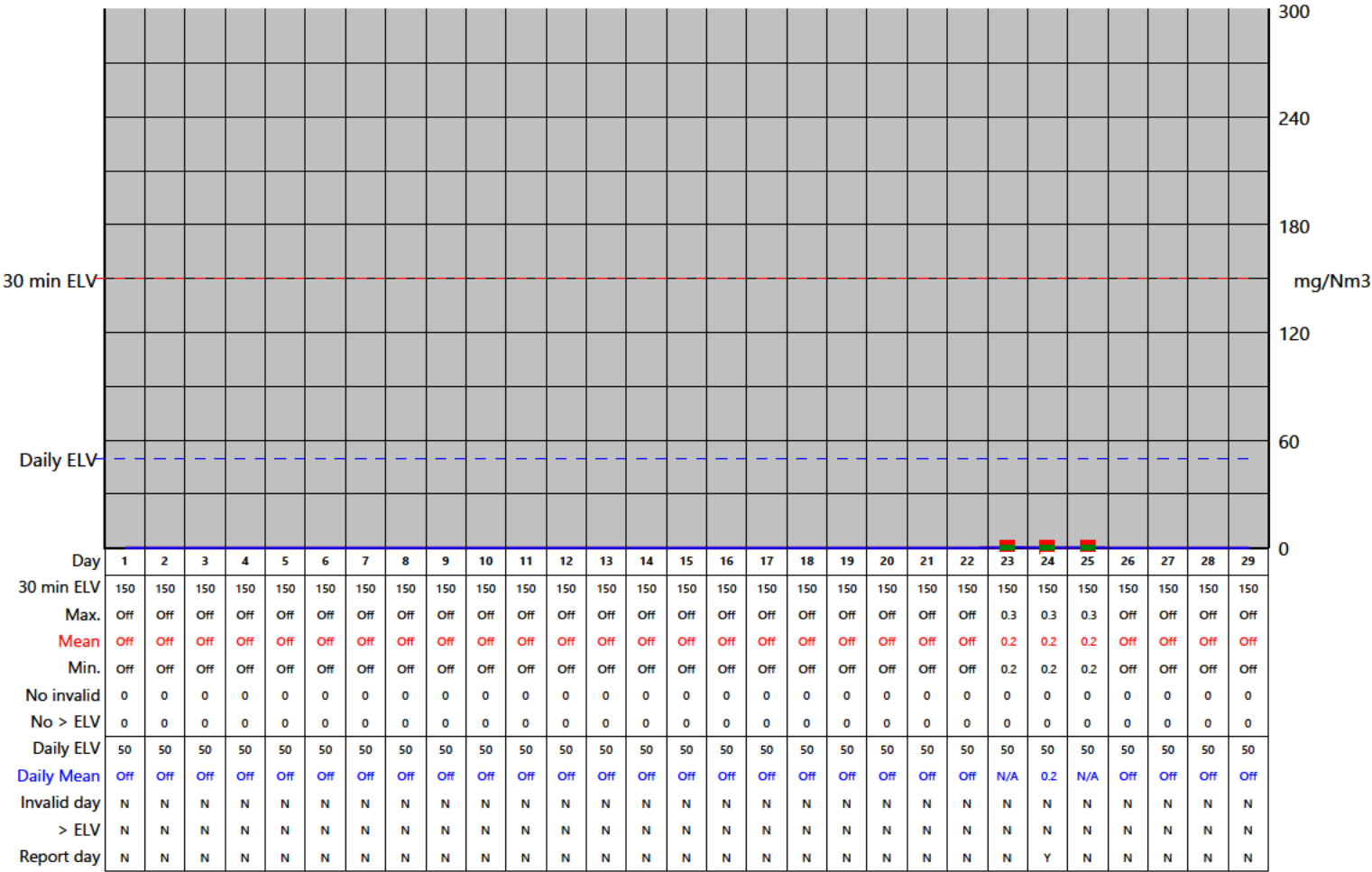
Min. 30 min average

Daily mean

95th Percentile = 0.3

No. of valid averages = 102

Month summary	
30 min ELV	
Monthly max.	0.3
Monthly mean	0.2
Monthly min.	0.2
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	0.2
No. invalid days	0
No. > ELV	0
No. report days	1



Data is as processed without repairs.

Signature

Authorised Representative

Date 17/04/2024

Reporting of Continuously Monitored Emissions to Air for SO₂ , Emission Point A14 - TTP for Feb, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

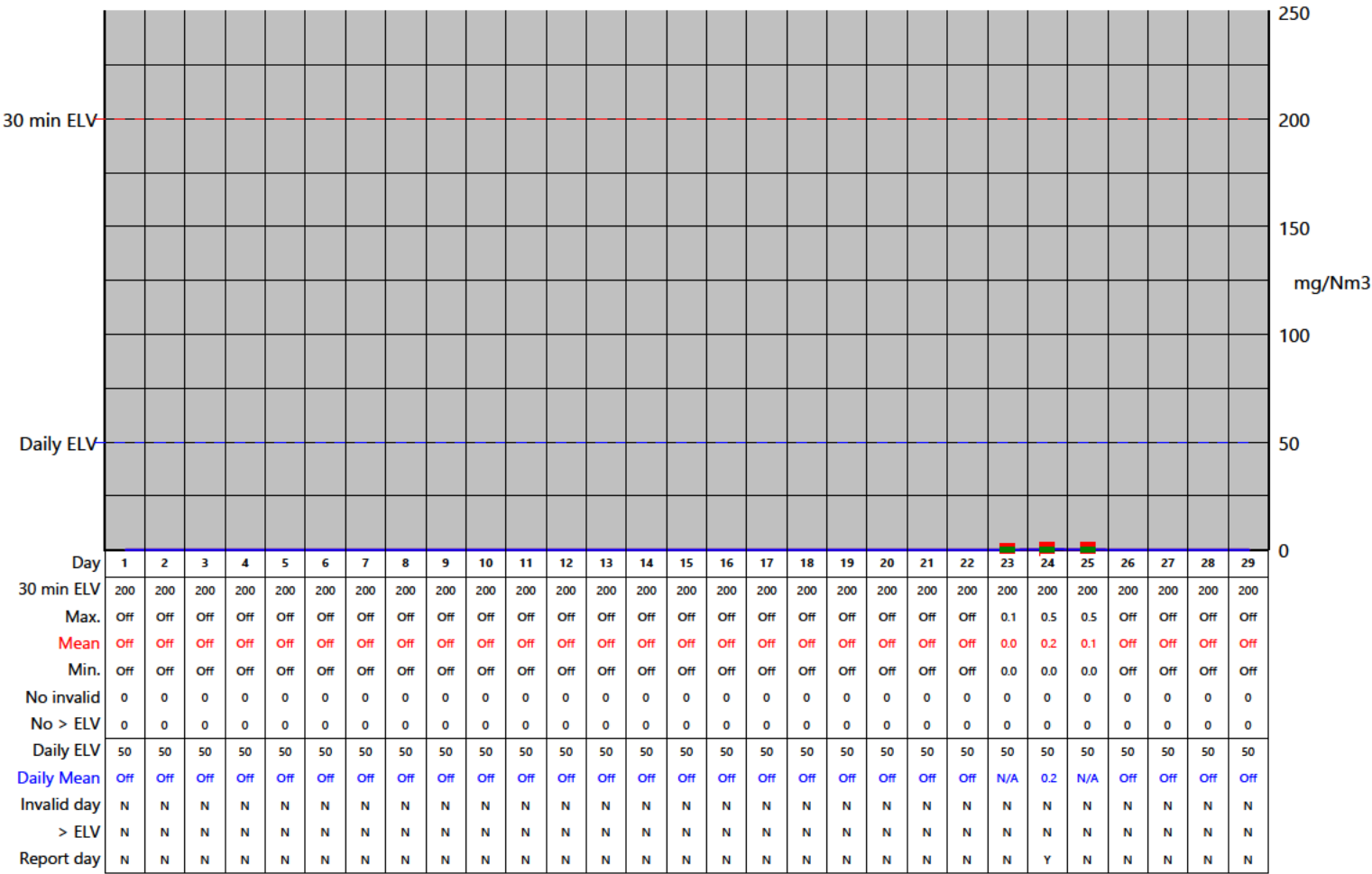
Min. 30 min average

Daily mean

95th Percentile = 0.4

No. of valid averages = 102

Month summary	
30 min ELV	
Monthly max.	0.5
Monthly mean	0.1
Monthly min.	0.0
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	0.2
No. invalid days	0
No. > ELV	0
No. report days	1



Data is as processed without repairs.

Signature

Authorised Representative

Date 17/04/2024

Reporting of Continuously Monitored Emissions to Air for HCl, Emission Point A14 - TTP for Feb, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

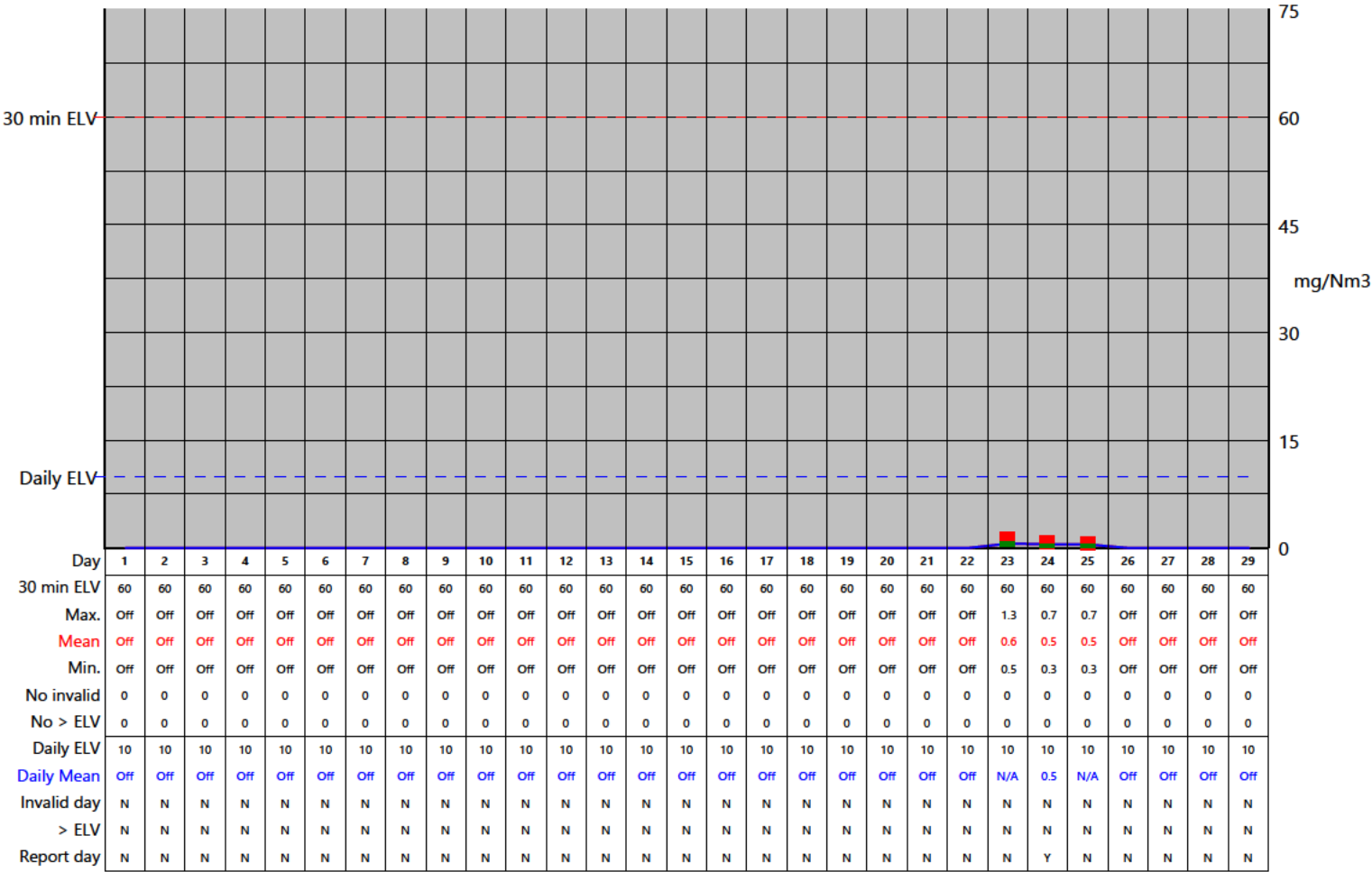
Min. 30 min average

Daily mean

95th Percentile = 0.7

No. of valid averages = 102

Month summary	
30 min ELV	
Monthly max.	1.3
Monthly mean	0.5
Monthly min.	0.3
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	0.5
No. invalid days	0
No. > ELV	0
No. report days	1



Data is as processed without repairs.

Signature

Authorised Representative

Date 17/04/2024

Reporting of Continuously Monitored Emissions to Air for TOC, Emission Point A14 - TTP for Feb, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

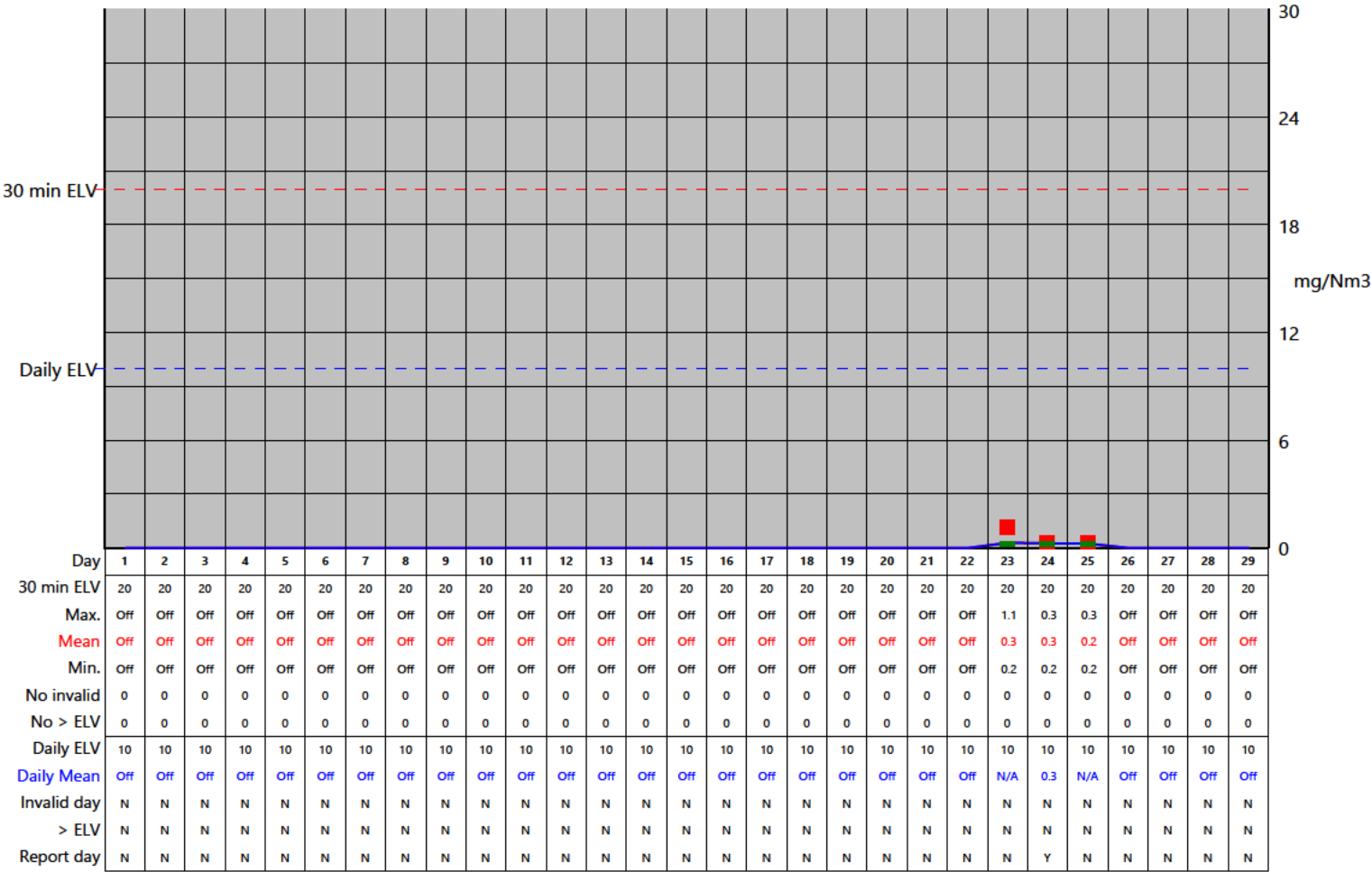
Min. 30 min average

Daily mean

95th Percentile = 0.3

No. of valid averages = 102

Month summary	
30 min ELV	
Monthly max.	1.1
Monthly mean	0.3
Monthly min.	0.2
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	0.3
No. invalid days	0
No. > ELV	0
No. report days	1



Data is as processed without repairs.

Signature

Authorised Representative

Date 17/04/2024

Reporting of Continuously Monitored Emissions to Air for HF, Emission Point A14 - TTP for Feb, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

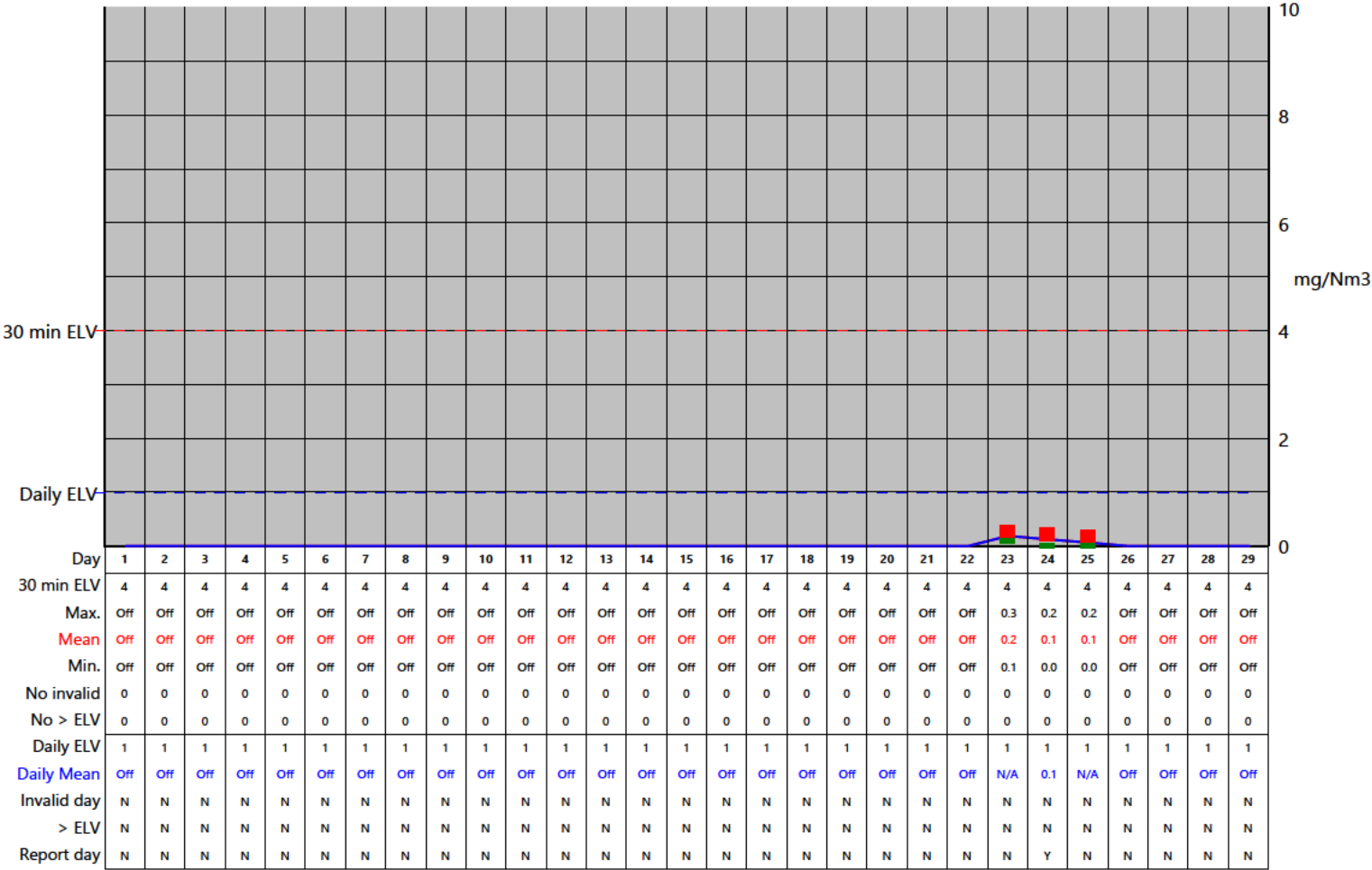
Min. 30 min average

Daily mean

95th Percentile = 0.2

No. of valid averages = 102

Month summary	
30 min ELV	
Monthly max.	0.3
Monthly mean	0.1
Monthly min.	0.0
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	0.1
No. invalid days	0
No. > ELV	0
No. report days	1



Data is as processed without repairs.

Signature

Authorised Representative

Date 17/04/2024

Reporting of Continuously Monitored Emissions to Air for Dust, Emission Point A14 - TTP for Feb, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

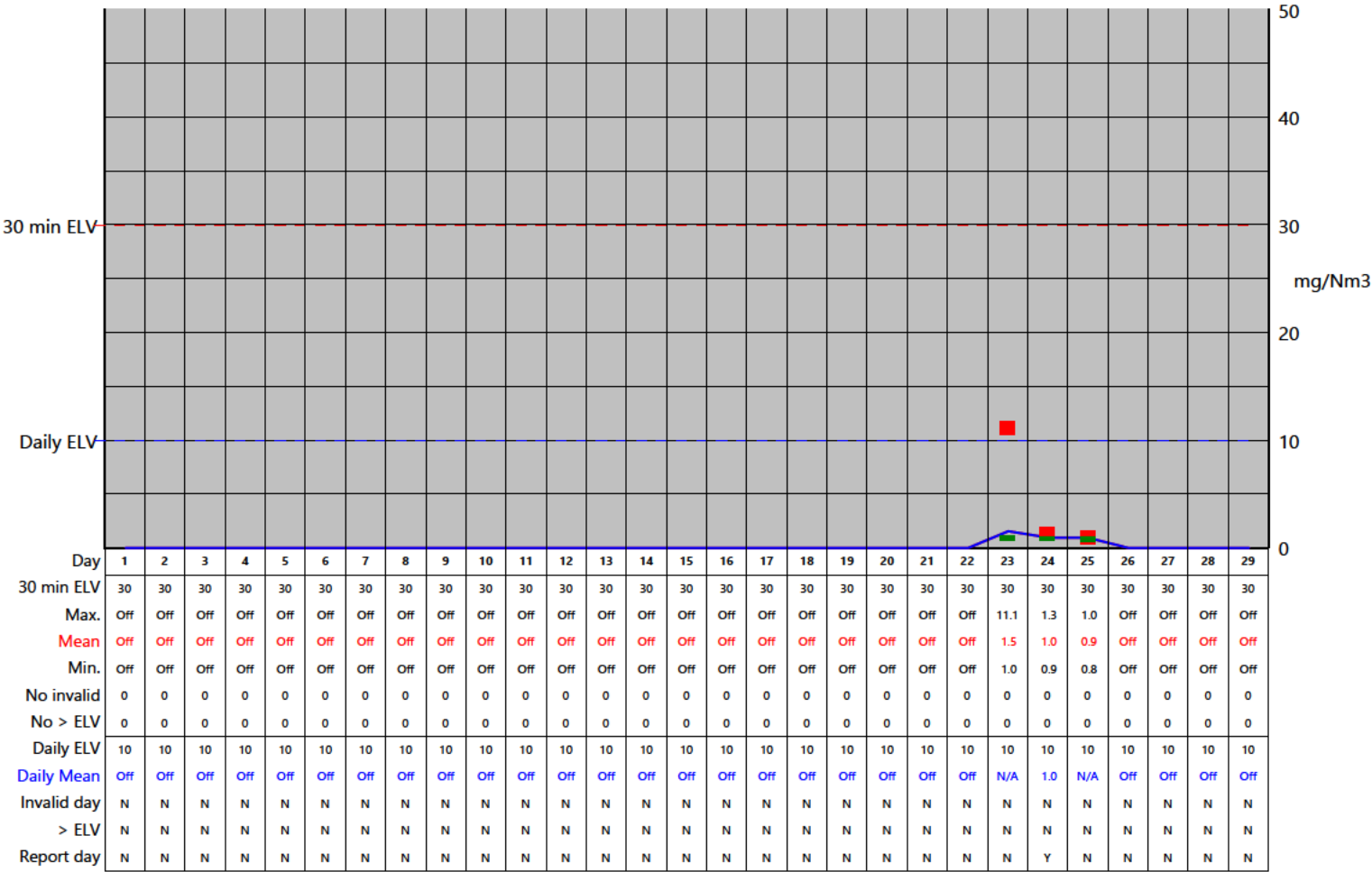
Min. 30 min average

Daily mean

95th Percentile = 1.3

No. of valid averages = 102

Month summary	
30 min ELV	
Monthly max.	11.1
Monthly mean	1.1
Monthly min.	0.8
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	1.0
No. invalid days	0
No. > ELV	0
No. report days	1



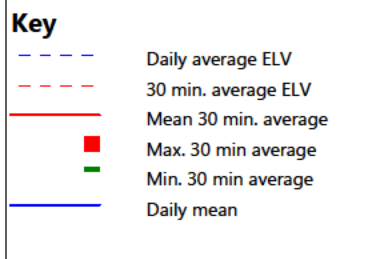
Data is as processed without repairs.

Signature

Authorised Representative

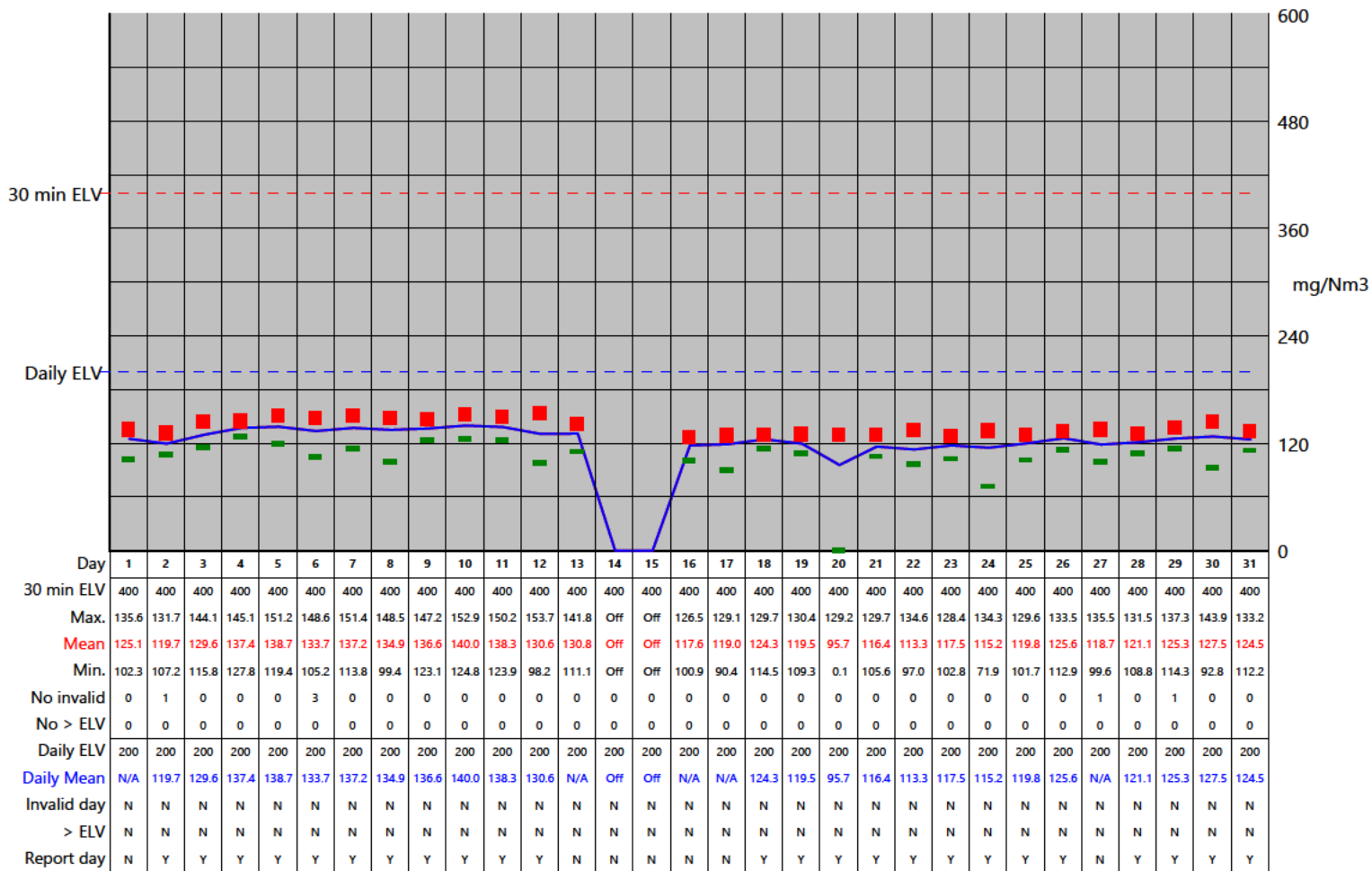
Date 17/04/2024

Reporting of Continuously Monitored Emissions to Air for NO_x, Emission Point A14 - TTP for Mar, 2024



95th Percentile = 145.0
No. of valid averages = 1286

Month summary	
30 min ELV	
Monthly max.	153.7
Monthly mean	125.5
Monthly min.	0.1
Total invalid	6
Sum > ELV	0
Daily ELV	
Monthly max	140.0
No. invalid days	0
No. > ELV	0
No. report days	24



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for CO, Emission Point A14 - TTP for Mar, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

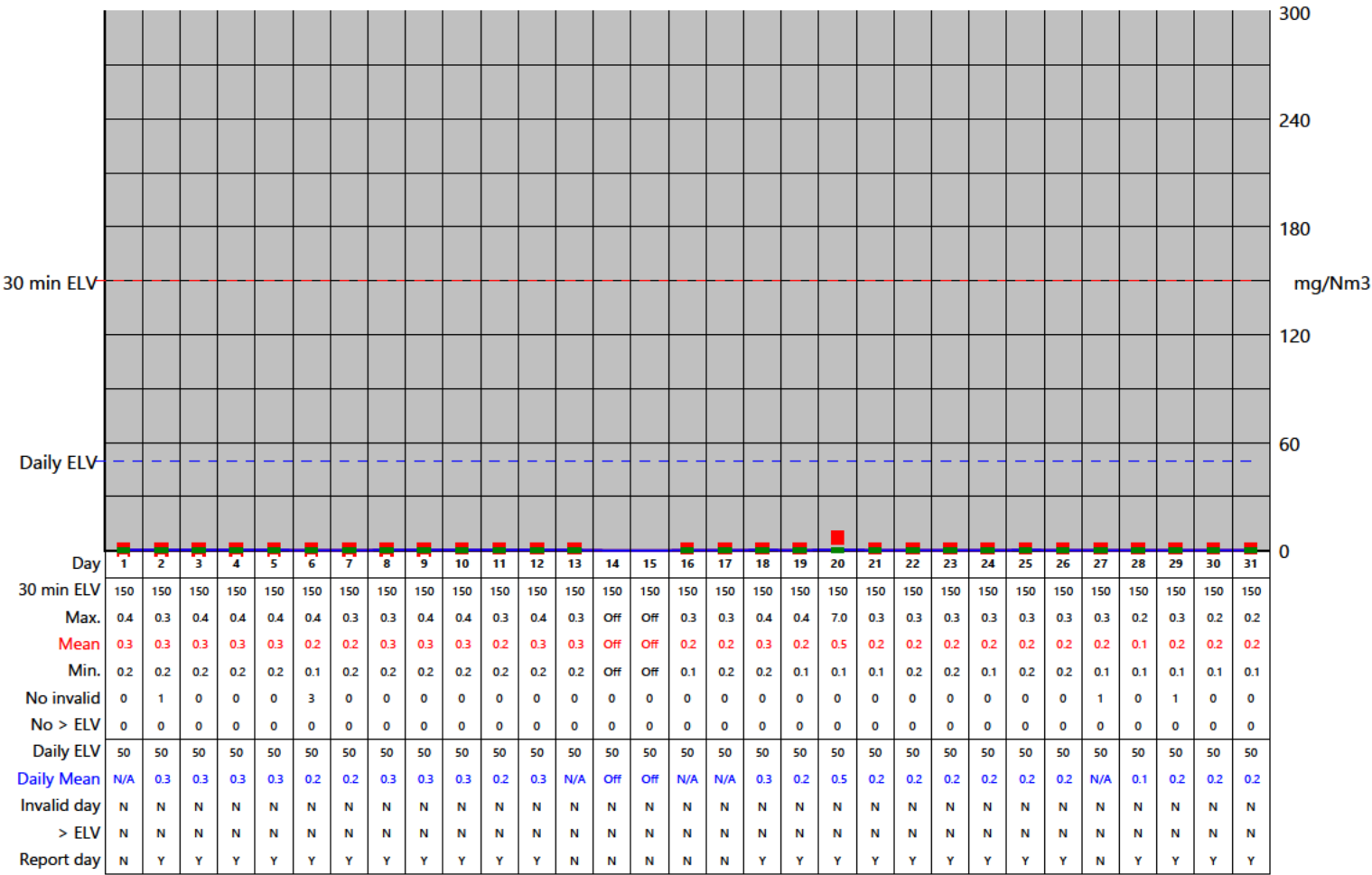
Min. 30 min average

Daily mean

95th Percentile = 0.3

No. of valid averages = 1286

Month summary	
30 min ELV	
Monthly max.	7.0
Monthly mean	0.2
Monthly min.	0.1
Total invalid	6
Sum > ELV	0
Daily ELV	
Monthly max	0.5
No. invalid days	0
No. > ELV	0
No. report days	24



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for SO₂ , Emission Point A14 - TTP for Mar, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

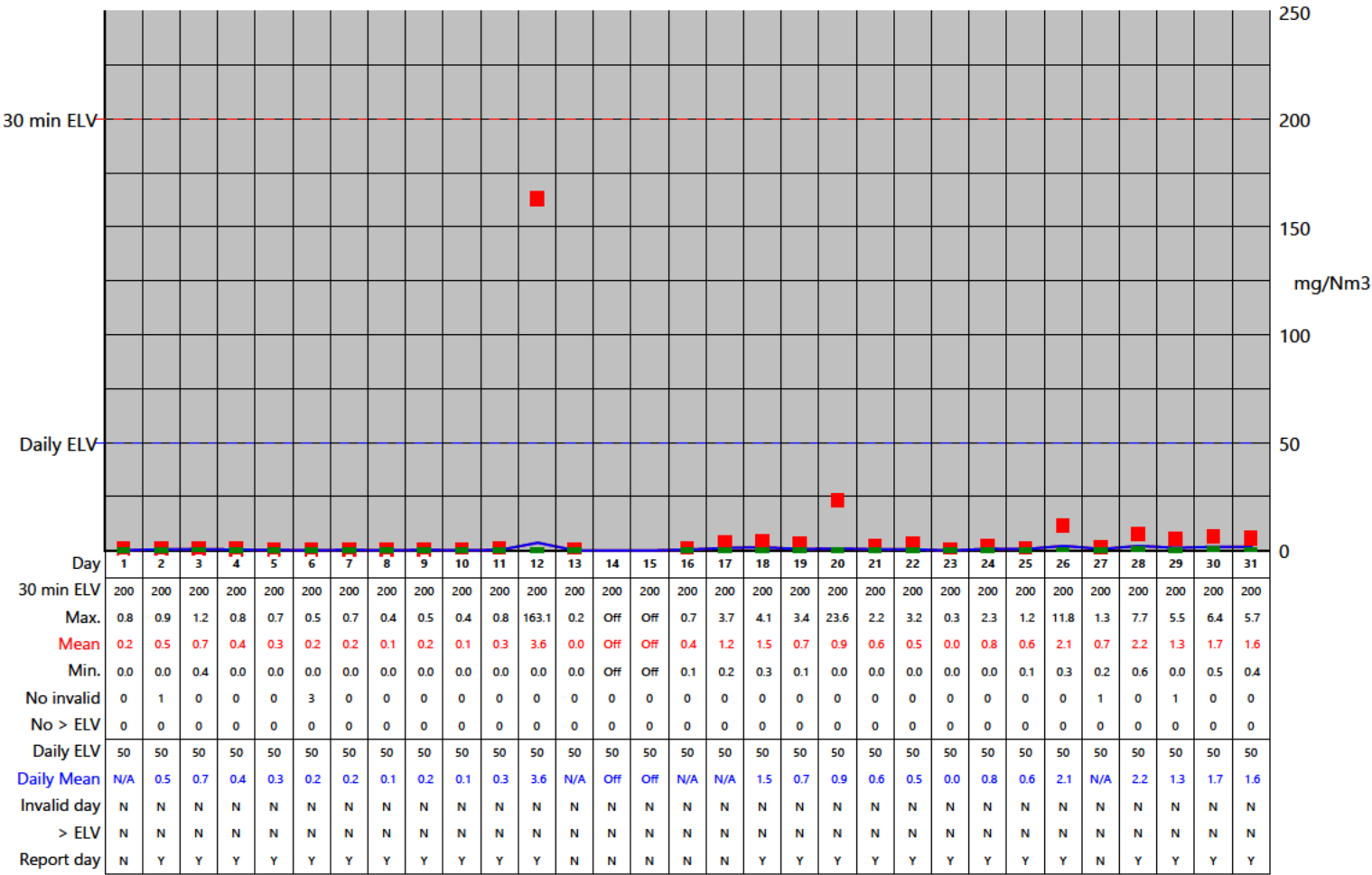
Max. 30 min average

Min. 30 min average

Daily mean

95th Percentile = 2.1
No. of valid averages = 1286

Month summary	
30 min ELV	
Monthly max.	163.1
Monthly mean	0.8
Monthly min.	0.0
Total invalid	6
Sum > ELV	0
Daily ELV	
Monthly max	3.6
No. invalid days	0
No. > ELV	0
No. report days	24



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for HCl, Emission Point A14 - TTP for Mar, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

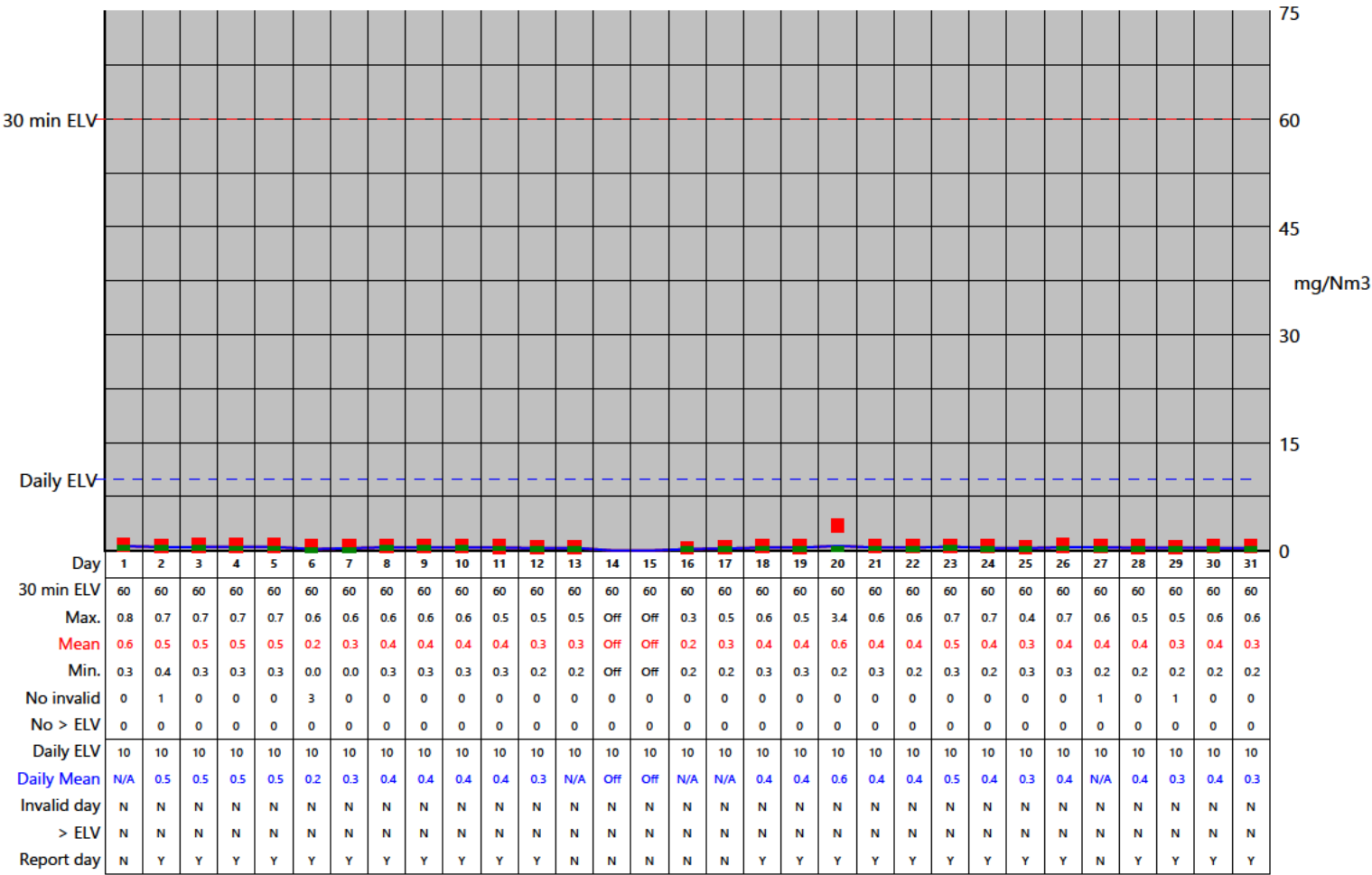
Min. 30 min average

Daily mean

95th Percentile = 0.6

No. of valid averages = 1286

Month summary	
30 min ELV	
Monthly max.	3.4
Monthly mean	0.4
Monthly min.	0.0
Total invalid	6
Sum > ELV	0
Daily ELV	
Monthly max	0.6
No. invalid days	0
No. > ELV	0
No. report days	24



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for TOC, Emission Point A14 - TTP for Mar, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

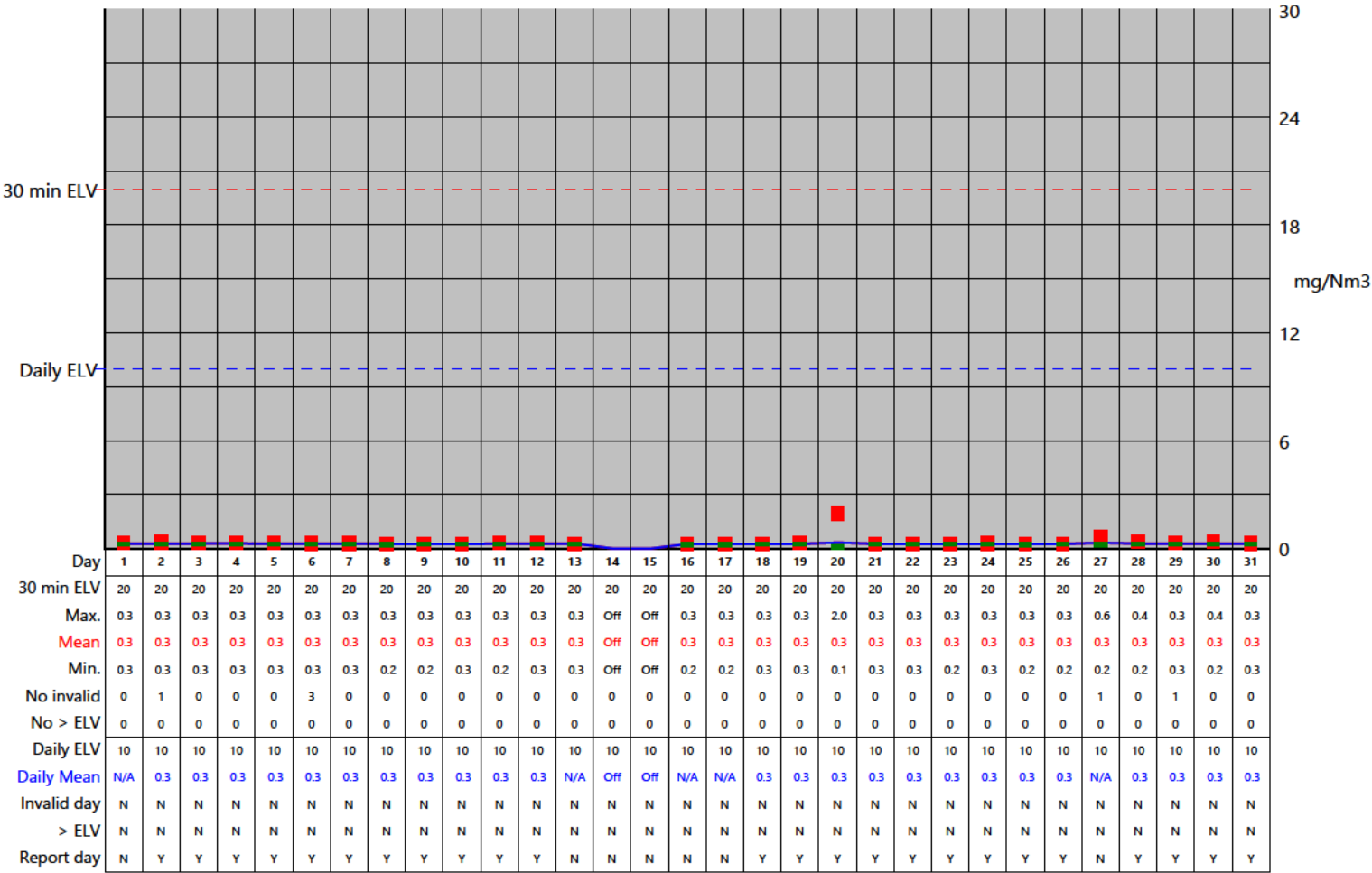
Min. 30 min average

Daily mean

95th Percentile = 0.3

No. of valid averages = 1286

Month summary	
30 min ELV	
Monthly max.	2.0
Monthly mean	0.3
Monthly min.	0.1
Total invalid	6
Sum > ELV	0
Daily ELV	
Monthly max	0.3
No. invalid days	0
No. > ELV	0
No. report days	24



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for HF, Emission Point A14 - TTP for Mar, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

Max. 30 min average

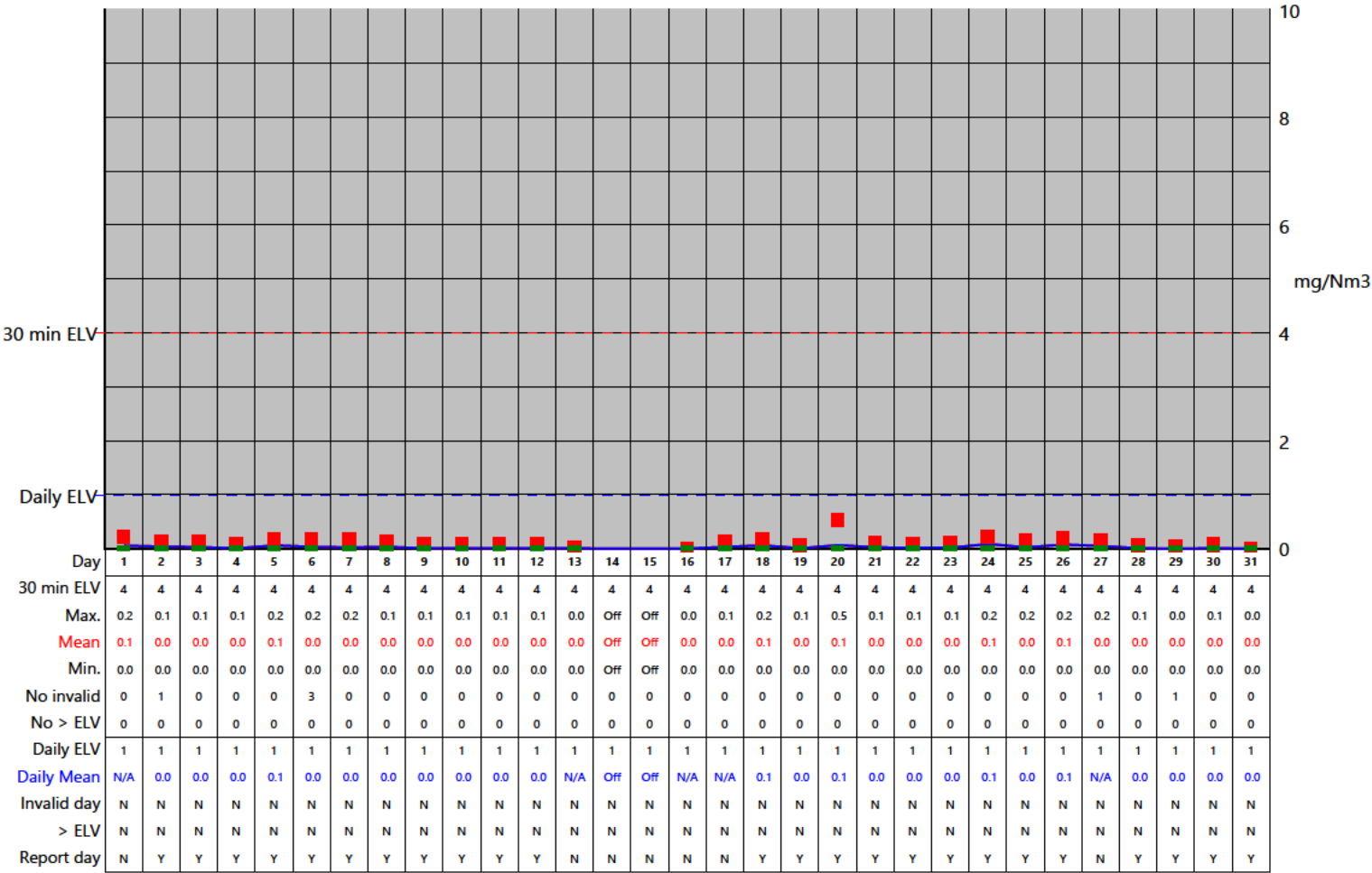
Min. 30 min average

Daily mean

95th Percentile = 0.1

No. of valid averages = 1286

Month summary	
30 min ELV	
Monthly max.	0.5
Monthly mean	0.0
Monthly min.	0.0
Total invalid	6
Sum > ELV	0
Daily ELV	
Monthly max	0.1
No. invalid days	0
No. > ELV	0
No. report days	24



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Reporting of Continuously Monitored Emissions to Air for Dust, Emission Point A14 - TTP for Mar, 2024

Key

Daily average ELV

30 min. average ELV

Mean 30 min. average

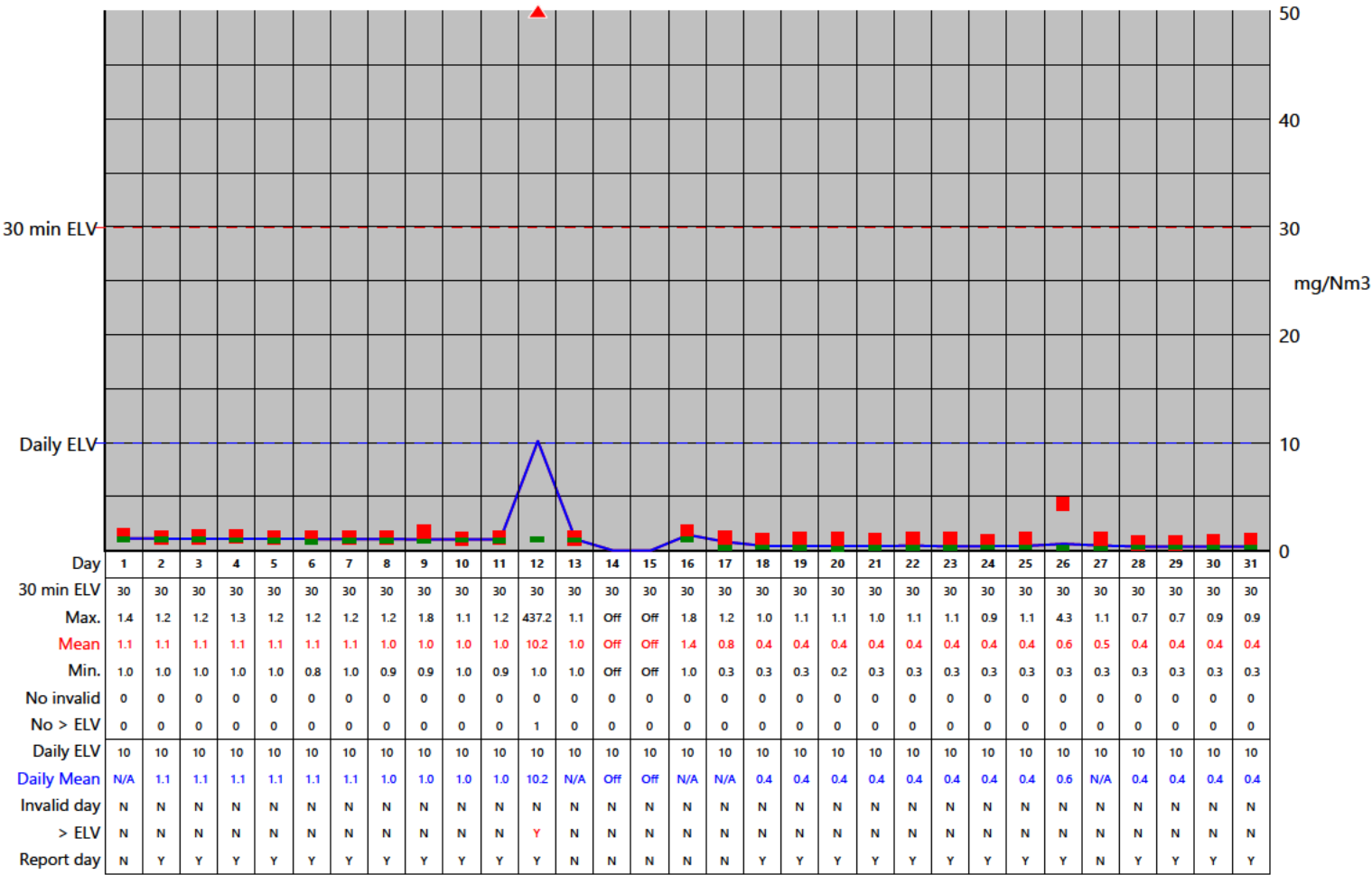
Max. 30 min average

Min. 30 min average

Daily mean

95th Percentile = 1.2
No. of valid averages = 1292

Month summary	
30 min ELV	
Monthly max.	437.2
Monthly mean	1.1
Monthly min.	0.2
Total invalid	0
Sum > ELV	1
Daily ELV	
Monthly max	10.2
No. invalid days	0
No. > ELV	1
No. report days	24



Data is as processed without repairs.

Signature

Authorised Representative

Date

17/04/2024

Permit Number: EPR/BU5453IY
 Operator: AGC Chemicals Europe Limited
 Facility: AGC Chemicals Europe, Hillhouse

Form Number: Air 7 / 2017

A14 - Reporting of periodically monitored emissions to air for the period from ...January 2024... to ...March 2024...

Emission Point	Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method	Result Date and Time [2]	Uncertainty [3]	Comments
A14	Total Organic Carbon	No limit applies	Tonnes annually		Calculation	-		To be calculated at end of 2024, note, calculated as 630g for 2023. CEMS annual mass release data is not released to this resolution.
A14	Sulphur dioxide	100 mg/m ³	Periodic over minimum 1-hour period	0.17 mg/m ³	BS EN 14791	28/03/2024 09:11-10:11	0.01 mg/m ³	
A14	Cadmium & thallium and their compounds (total)	0.05 mg/m ³	Periodic over minimum 30 minute, maximum 8 hour period	0.002 mg/m ³	BS EN 14385	26/03/2024 16:04-16:34	0.0004 mg/m ³	
A14	Mercury and its compounds	0.05 mg/m ³	Periodic over minimum 30 minute, maximum 8 hour period	0.0009 mg/m ³	BS EN 13211	03/04/2024 13:12-13:42	0.0002 mg/m ³	
A14	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m ³	Periodic over minimum 30 minute, maximum 8 hour period	0.02 mg/m ³	BS EN 14385	26/03/2024 16:04-16:34	0.004 mg/m ³	
A14	Dioxins / Furans (I-TEQ)	0.1 ng/m ³	Periodic over minimum 6 hour, maximum 8 hour period	0.003 ng/m ³	BS EN 1948 Parts 1, 2 and 3	26/03/2024 09:26-15:26	0.001 ng/m ³	
A14	Dioxins / furans (WHO-TEQ Humans / Mammals)	No limit applies	Periodic over minimum 6 hour, maximum 8 hour period	0.003 ng/m ³	BS EN 1948 Parts 1, 2 and 3	26/03/2024 09:26-15:26	0.001 ng/m ³	
A14	Dioxins / furans (WHO-TEQ Fish)	No limit applies	Periodic over minimum 6 hour, maximum 8 hour period	0.004 ng/m ³	BS EN 1948 Parts 1, 2 and 3	26/03/2024 09:26-15:26	0.001 ng/m ³	
A14	Dioxins / furans (WHO-TEQ Birds)	No limit applies	Periodic over minimum 6 hour, maximum 8 hour period	0.008 ng/m ³	BS EN 1948 Parts 1, 2 and 3	26/03/2024 09:26-15:26	0.001 ng/m ³	
A14	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	No limit applies	Periodic over minimum 6 hour, maximum 8 hour period	0.000320 ng/m ³	BS EN/TS 1948-4	26/03/2024 09:26-15:26	0.000066 ng/m ³	
A14	Dioxin-like PCBs (WHO-TEQ Fish)	No limit applies	Periodic over minimum 6 hour, maximum 8 hour period	0.000015 ng/m ³	BS EN/TS 1948-4	26/03/2024 09:26-15:26	0.000003 ng/m ³	
A14	Dioxin-like PCBs (WHO-TEQ Birds)	No limit applies	Periodic over minimum 6 hour, maximum 8 hour period	0.000732 ng/m ³	BS EN/TS 1948-4	26/03/2024 09:26-15:26	0.000152 ng/m ³	

Emission Point	Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method	Result Date and Time [2]	Uncertainty [3]	Comments
A14	Specific individual poly-cyclic aromatic hydrocarbons (PAHs)							
A14	Total	No limit applies	Periodic over minimum 6 hour, maximum 8 hour period	<0.2 µg/m ³	BS ISO 11338 Parts 1 and 2	10/04/2024 10:06-16:06	0.04 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Anthanthrene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Benzo[a]anthracene	No limit applies		0.004 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Benzo[b]fluoranthene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Benzo[k]fluoranthene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Benzo[b]naptho(2,1-d)thiophene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Benzo[c]phenanthrene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Benzo[ghi]perylene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Benzo[a]pyrene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Cholanthrene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Chrysene	No limit applies		0.006 µg/m ³		10/04/2024 10:06-16:06	0.0001 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Cyclopenta(c,d)pyrene	No limit applies		0.002 µg/m ³		10/04/2024 10:06-16:06	0.0004 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Dibenzo[ah]anthracene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Dibenzo[a,i]pyrene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Fluoranthene	No limit applies		0.05 µg/m ³		10/04/2024 10:06-16:06	0.01 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Indo[1,2,3-cd]pyrene	No limit applies		<0.001 µg/m ³		10/04/2024 10:06-16:06	0.0003 µg/m ³	Sample taken for analysis 10 th April 2024
A14	Naphthalene	No limit applies		0.09 µg/m ³		10/04/2024 10:06-16:06	0.02 µg/m ³	Sample taken for analysis 10 th April 2024

- [1] For dioxins and dioxin-like PCBs, the result are to be reported as a range based on: All congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum
- [2] The date and time of the sample that produced the result is given.
- [3] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed*: [REDACTED]

Date: 26/04/2024

(*authorised to sign as representative of AGC Chemicals Europe Limited)