



**BIOLOGICAL HEALTH RISKS  
QUALITY OF LABORATORIES**

**EXTERNAL QUALITY ASSESSMENT\***

**DEFINITIVE ANNUAL REPORT**

**Trace elements**

**2024**

\* RD 03/12/1999

**Sciensano/Trace elements/15**

Biological health risks  
Quality of laboratories  
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A draft version of this report was submitted to the experts on 20/02/2025.

The experts were invited to send their comments via e-mail.

This report was discussed at the meeting of the Committee of experts on 12/03/2025.

Authorisation to release report: By [Bernard China](#), scheme coordinator, on 14/03/2025.

All the reports are also available on our webpage:

- NL: <https://www.sciensano.be/nl/kwaliteit-van-laboratoria>
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## STATISTICS

Participants at these surveys were originated from Belgium, France, Italy, Spain, the Netherlands and Australia. In order to evaluate the Belgian labs, the results of all the participants were considered and the following statistics were performed.

The target value is the median per method ( $M_m$ ) if  $N_m \geq 6$  or the global median ( $M_g$ ) when  $N_m < 6$  and  $N_g \geq 6$ . If  $N_g < 6$ , no evaluation was possible.

For a specific element and a particular sample,  $M_m$  is the median of the participants using the same method and  $M_g$  is the median of all the participants. In the same way,  $N_m$  is the number of encoded results per method and  $N_g$  is the number of encoded.

The spread of the data was estimated using a robust standard deviation ( $SD$ ):  $SD = (P_{75} - P_{25})/1.349$

For a specific element and a particular sample,  $SD_m$  is the standard deviation of the encoded results per method and  $SD_g$  is the standard deviation of all encoded results.

In individual reports, your Z score was calculated per element and per sample.

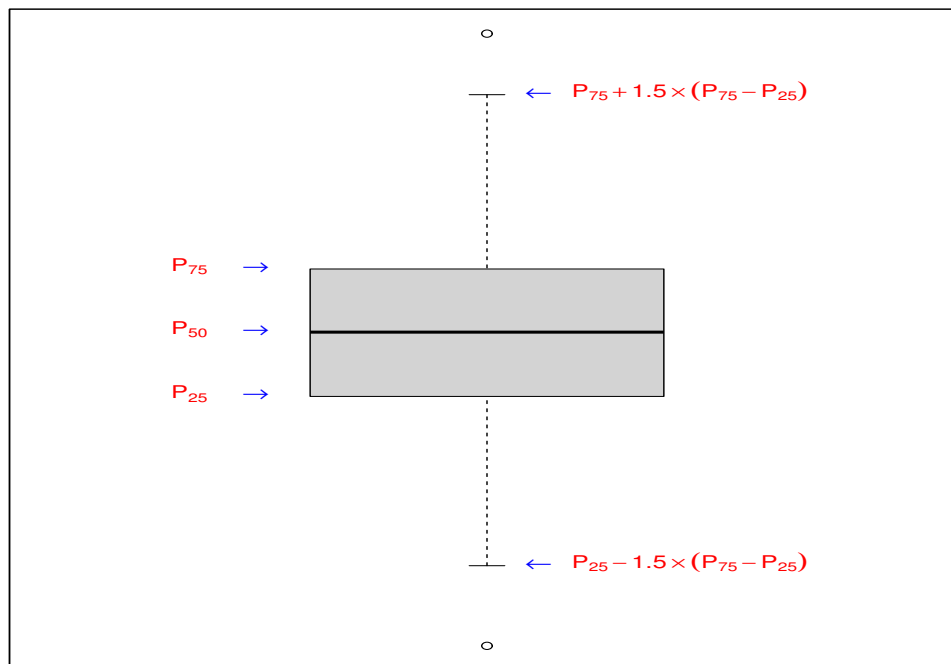
$$Z = \begin{cases} (R - M_m)/SD_m & \text{when } N_m \geq 6 \\ (R - M_g)/SD_g & \text{when } N_m < 6 \text{ and } N_g \geq 6 \end{cases}$$

Where, R is your result.

When  $|Z| > 3$  the result was considered as an outlier.

## GRAPHICAL REPRESENTATION

For a specific element and a particular sample, The box plot includes all the results for all the labs (Belgian and non Belgian). The results of the Belgian labs are indicated by method (using a colour code) on the graph.



- a rectangle that ranges from the percentile 25 ( $P_{25}$ ) to the percentile 75 ( $P_{75}$ )
- a central line that shows the median of the results ( $P_{50}$ )
- a lower limit corresponding to  $P_{25} - 1.5 * (P_{75} - P_{25})$
- an upper limit corresponding to  $P_{75} + 1.5 * (P_{75} - P_{25})$

## ABBREVIATIONS

We use the following abbreviations throughout the report:

- ETAAS: Electro thermal Atomic Absorption Spectrometry
- FAAS : Flame Atomic Absorption Spectrometry
- GA: All results for all methods
- ICP-MS : Inductively Coupled Plasma Mass Spectrometry
- MA: All results per method
- N: Number of results for all participants from all countries
- NBE : Number of results from Belgian labs eventually followed by a number in brackets referring to the number of labs evaluated using global statistics
- NC: Number of citations ( $|Z| > 3$ )
- NE: Number of not evaluated results
- NG: Number of good answers ( $|Z| \leq 3$ )
- SD: Standard deviation

## THE SAMPLES AND THE DATA PROCESSING

24 samples per matrix (Serum, whole blood, urine) were sent to the lab under dry ice.

The samples were purchased by SKML, Winterwijk, Netherlands.

Two samples must be analyzed per month from April 2024 to March 2025. The results were encoded via the web page: [www.trace-elements.eu](http://www.trace-elements.eu).

The laboratories obtained from this site an individual report, a monthly report and an annual report.

Sciensano produced this global annual report.

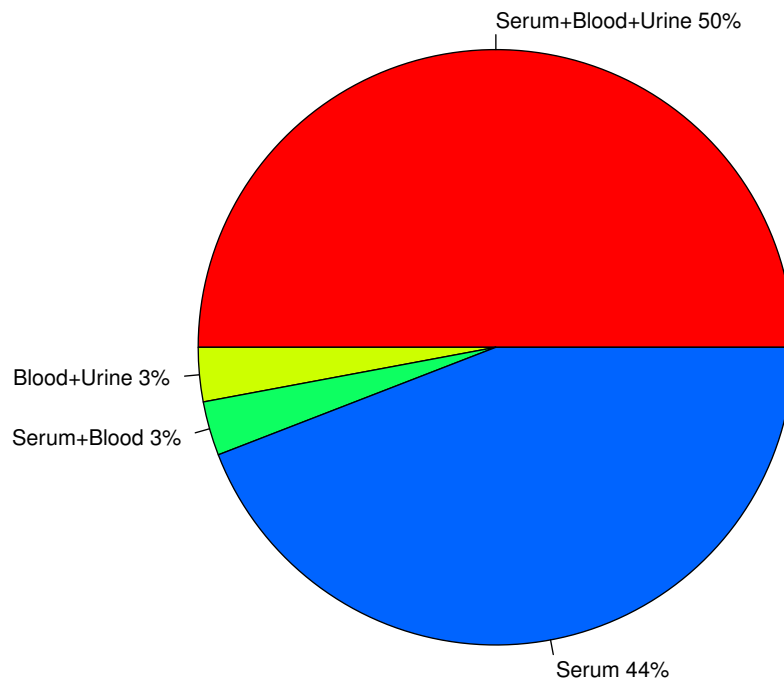
Pay attention that in this report, the sample numbers 2024.01 to 2024.24 correspond to the samples from January (1 and 2) to December (23 and 24) which is different from the SKML identification. (see correspondence table here after).

Month	SKML ID (on tubes)	ID in the present report
January	2023.19	2024.01
January	2023.20	2024.02
February	2023.21	2024.03
February	2023.22	2024.04
March	2023.23	2024.05
March	2023.24	2024.06
April	2024.01	2024.07
April	2024.02	2024.08
May	2024.03	2024.09
May	2024.04	2024.10
June	2024.05	2024.11
June	2024.06	2024.12
July	2024.07	2024.13
July	2024.08	2024.14
August	2024.09	2024.15
August	2024.10	2024.16
September	2024.11	2024.17
September	2024.12	2024.18
October	2024.13	2024.19
October	2024.14	2024.20
November	2024.15	2024.21
November	2024.16	2024.22
December	2024.17	2024.23
December	2024.18	2024.24

## PARTICIPATION

- 166 participants from 6 countries, 34 of which are belgian, participated to the EQA
- 17 belgian laboratories for serum, blood and urine
- 1 belgian laboratory for blood and urine
- 1 belgian laboratory for serum and blood
- 15 belgian laboratories for serum alone

**Repartition (%) of the belgian participants according to the matrix analysed**



# 1 TRACE ELEMENTS IN URINE

## 1.1 PARTICIPATION

18 laboratories participated to the EQA for urine matrix.

Parameter	N labs	Recorded results	Expected number of results	percentage of
Al	4	84	96	87.5 %
As	7	148	168	88.1 %
Be	2	46	48	95.8 %
Cd	9	191	216	88.4 %
Co	9	192	216	88.9 %
Cr	9	191	216	88.4 %
Cu	9	207	216	95.8 %
Hg	6	112	144	77.8 %
I	7	155	168	92.3 %
Mg	7	140	168	83.3 %
Mn	9	192	216	88.9 %
Ni	9	189	216	87.5 %
Pb	10	215	240	89.6 %
Sb	4	94	96	97.9 %
Se	8	171	192	89.1 %
Tl	7	127	168	75.6 %
V	5	106	120	88.3 %
Zn	10	230	240	95.8 %
Total		2790	3144	88.74

## 1.2 GLOBAL RESULTS

STAT	Element	Total number of results	Number of evaluated results	Number of Z citations	% citations
MA	Al	84	84	5	6
MA	As	148	148	3	2
MA	Be	46	46	0	0
MA	Cd	191	167	0	0
MA+GA	Cd	191	191 (+24)	17 (+17)	8.9
MA	Co	192	168	7	4.2
MA+GA	Co	192	192 (+24)	19 (+12)	9.9
MA	Cr	191	171	10	5.8
MA+GA	Cr	191	191 (+20)	19 (+9)	9.9
MA	Cu	207	207	6	2.9
MA	Hg	112	98	0	0
MA+GA	Hg	112	112 (+14)	2 (+2)	1.8
MA	I	155	131	9	6.9
MA+GA	I	155	155 (+24)	19 (+10)	12.3
MA	Mg	140	84	6	7.1
MA+GA	Mg	140	140 (+56)	7 (+1)	5
MA	Mn	192	168	5	3
MA+GA	Mn	192	192 (+24)	21 (+16)	10.9
MA	Ni	189	165	7	4.2
MA+GA	Ni	189	189 (+24)	18 (+11)	9.5
MA	Pb	215	193	18	9.3
MA+GA	Pb	215	215 (+22)	34 (+16)	15.8
MA	Sb	94	94	3	3.2
MA	Se	171	171	5	2.9
MA	Tl	127	127	14	11
MA	V	106	106	0	0
MA	Zn	230	230	13	5.7
Total	MA+GA	2790	2790	205	7.3

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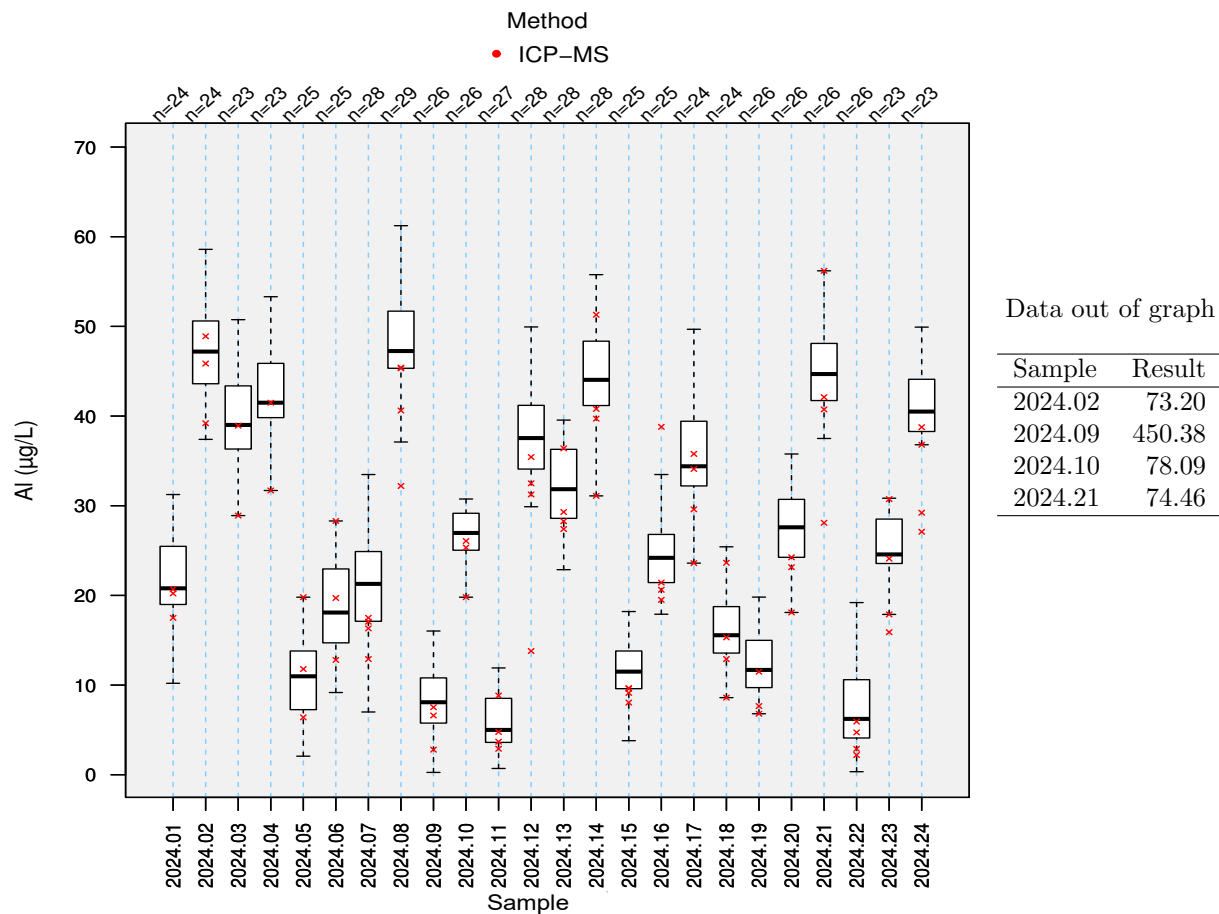


STAT	Element	Total number of results	Number of evaluated results	Number of Z citations	% citations
	MA	2790	2558	111	4.3

### 1.3 RESULTS PER ELEMENT

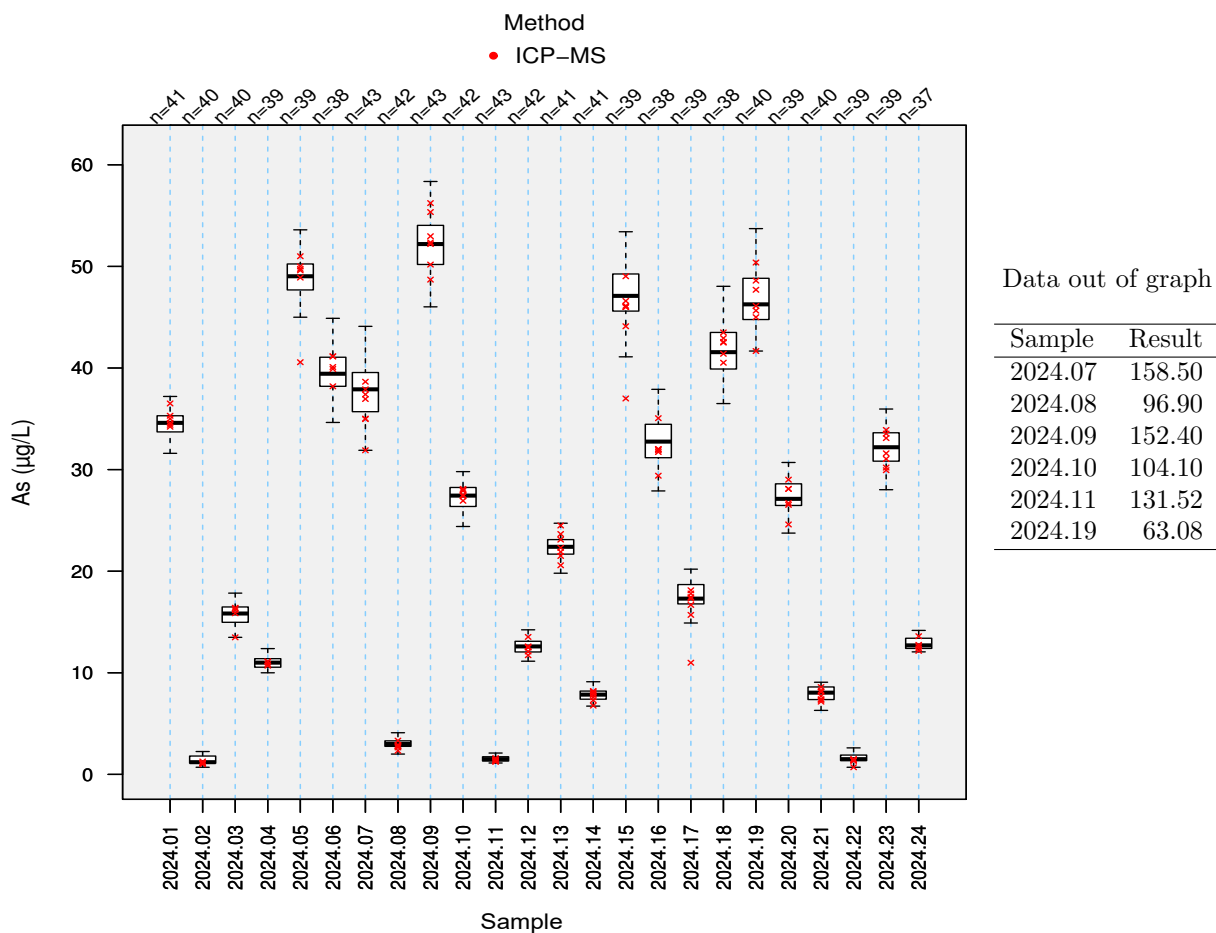
#### 1.3.1 Al

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	20.74	5.18	22	3	3	0	0
2024.02	ICP-MS	47.19	5.21	22	3	3	0	0
2024.03	ICP-MS	39.1	4.03	21	2	2	0	0
2024.04	ICP-MS	41.49	4.6	21	2	2	0	0
2024.05	ICP-MS	10.95	5	23	3	3	0	0
2024.06	ICP-MS	18.09	6.66	23	3	3	0	0
2024.07	ICP-MS	21.24	5.76	27	4	4	0	0
2024.08	ICP-MS	46.9	3.64	28	4	3	1	0
2024.09	ICP-MS	7.88	3.54	25	3	3	0	0
2024.10	ICP-MS	26.93	3.01	25	3	3	0	0
2024.11	ICP-MS	5.2	3.67	26	4	4	0	0
2024.12	ICP-MS	37.53	5.27	27	4	3	1	0
2024.13	ICP-MS	31.83	4.79	27	4	4	0	0
2024.14	ICP-MS	43.68	4.94	27	4	4	0	0
2024.15	ICP-MS	11.02	2.89	24	4	4	0	0
2024.16	ICP-MS	23.75	4.45	24	4	3	1	0
2024.17	ICP-MS	34.4	4.24	23	4	4	0	0
2024.18	ICP-MS	15.32	3.35	23	4	4	0	0
2024.19	ICP-MS	11.66	3.38	25	3	3	0	0
2024.20	ICP-MS	27	4.44	25	3	3	0	0
2024.21	ICP-MS	44.55	4.72	25	4	3	1	0
2024.22	ICP-MS	6.2	4.82	25	4	4	0	0
2024.23	ICP-MS	24.45	3.13	22	4	4	0	0
2024.24	ICP-MS	40.4	3.93	22	4	3	1	0



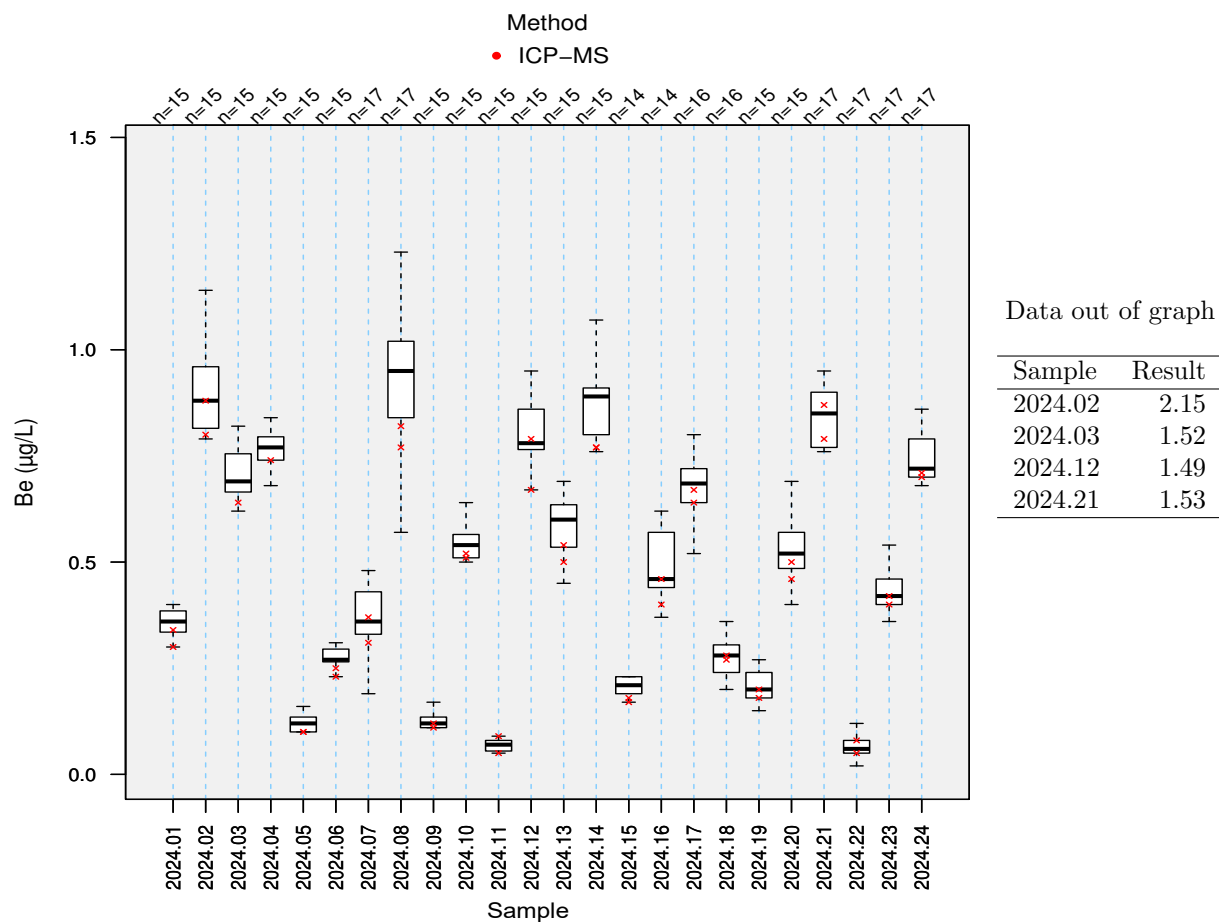
1.3.2 As

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	34.6	1.17	39	6	6	0	0
2024.02	ICP-MS	1.23	0.52	38	5	5	0	0
2024.03	ICP-MS	15.84	1.11	38	5	5	0	0
2024.04	ICP-MS	11	0.59	37	4	4	0	0
2024.05	ICP-MS	49.21	1.84	37	6	5	1	0
2024.06	ICP-MS	39.44	2.13	36	5	5	0	0
2024.07	ICP-MS	37.97	2.68	42	7	7	0	0
2024.08	ICP-MS	3	0.36	41	6	6	0	0
2024.09	ICP-MS	52.25	2.83	42	7	7	0	0
2024.10	ICP-MS	27.38	1.28	41	6	6	0	0
2024.11	ICP-MS	1.5	0.32	42	7	7	0	0
2024.12	ICP-MS	12.6	0.74	41	6	6	0	0
2024.13	ICP-MS	22.43	1.08	40	7	7	0	0
2024.14	ICP-MS	7.86	0.59	40	7	7	0	0
2024.15	ICP-MS	46.85	2.72	38	7	6	1	0
2024.16	ICP-MS	32.47	2.21	37	6	6	0	0
2024.17	ICP-MS	17.26	1.43	38	7	6	1	0
2024.18	ICP-MS	41.43	2.63	37	6	6	0	0
2024.19	ICP-MS	46.38	2.8	39	7	7	0	0
2024.20	ICP-MS	27.2	1.58	38	6	6	0	0
2024.21	ICP-MS	8.05	0.78	39	7	7	0	0
2024.22	ICP-MS	1.5	0.43	38	6	6	0	0
2024.23	ICP-MS	32.14	2.12	38	7	7	0	0
2024.24	ICP-MS	12.65	0.54	36	5	5	0	0



1.3.3 Be

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	0.36	0.04	15	2	2	0	0
2024.02	ICP-MS	0.88	0.11	15	2	2	0	0
2024.03	ICP-MS	0.69	0.07	15	1	1	0	0
2024.04	ICP-MS	0.77	0.04	15	1	1	0	0
2024.05	ICP-MS	0.12	0.03	15	2	2	0	0
2024.06	ICP-MS	0.27	0.02	15	2	2	0	0
2024.07	ICP-MS	0.36	0.07	17	2	2	0	0
2024.08	ICP-MS	0.95	0.13	17	2	2	0	0
2024.09	ICP-MS	0.12	0.02	15	2	2	0	0
2024.10	ICP-MS	0.54	0.04	15	2	2	0	0
2024.11	ICP-MS	0.07	0.02	15	2	2	0	0
2024.12	ICP-MS	0.78	0.07	15	2	2	0	0
2024.13	ICP-MS	0.6	0.07	15	2	2	0	0
2024.14	ICP-MS	0.89	0.08	15	2	2	0	0
2024.15	ICP-MS	0.21	0.03	14	2	2	0	0
2024.16	ICP-MS	0.46	0.09	14	2	2	0	0
2024.17	ICP-MS	0.69	0.06	16	2	2	0	0
2024.18	ICP-MS	0.28	0.05	16	2	2	0	0
2024.19	ICP-MS	0.2	0.04	15	2	2	0	0
2024.20	ICP-MS	0.52	0.06	15	2	2	0	0
2024.21	ICP-MS	0.85	0.1	17	2	2	0	0
2024.22	ICP-MS	0.06	0.02	17	2	2	0	0
2024.23	ICP-MS	0.42	0.04	17	2	2	0	0
2024.24	ICP-MS	0.72	0.07	17	2	2	0	0

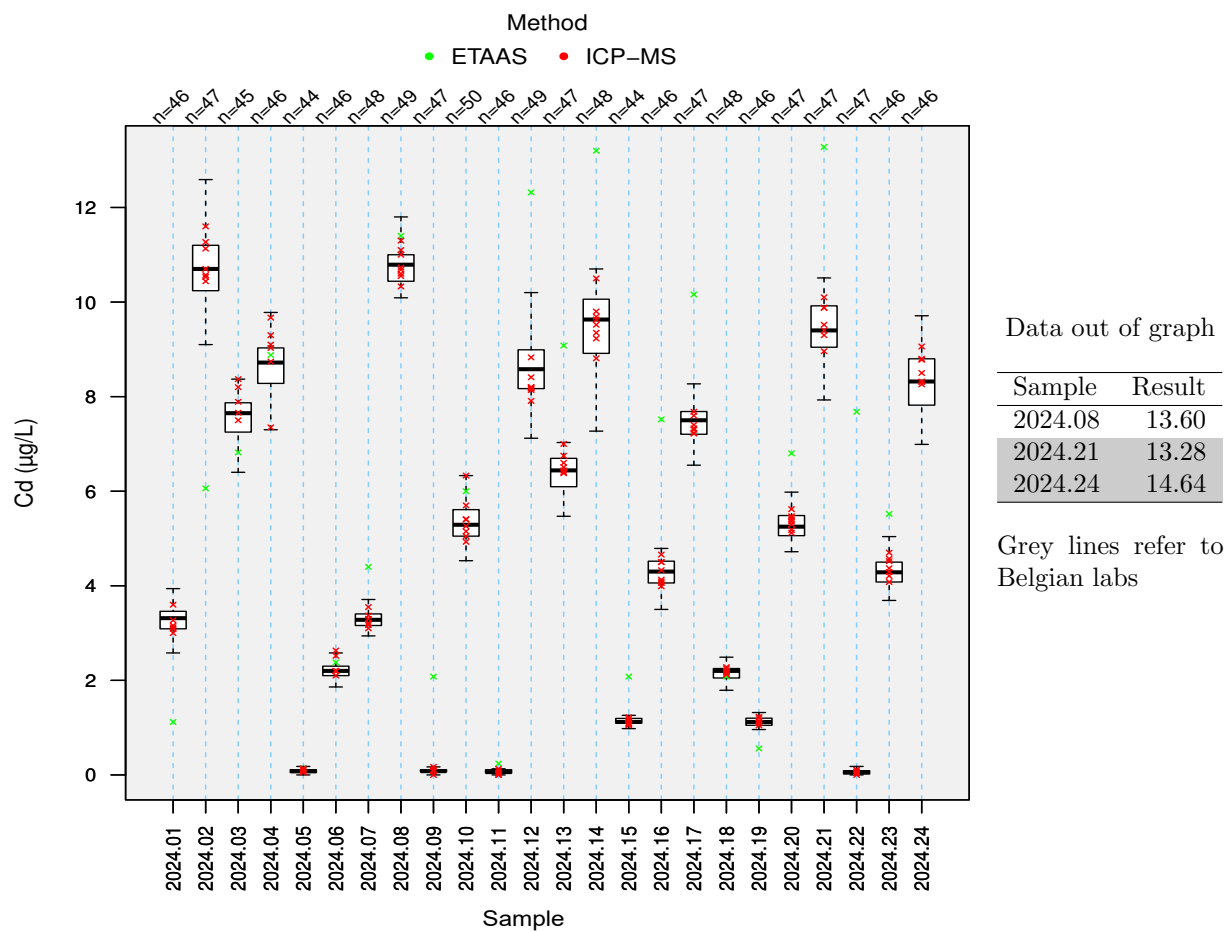


## 1.3.4 Cd

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	3.15	0.9	3	1	0	0	1
2024.01	ICP-MS	3.34	0.26	43	6	6	0	0
2024.01	Global	3.32	0.27	46	7	6	1	0
2024.02	ETAAS	10.23	1.79	3	1	0	0	1
2024.02	ICP-MS	10.74	0.68	44	7	7	0	0
2024.02	Global	10.7	0.71	47	8	7	1	0
2024.03	ETAAS	7.76	0.36	3	1	0	0	1
2024.03	ICP-MS	7.64	0.46	42	5	5	0	0
2024.03	Global	7.65	0.46	45	6	6	0	0
2024.04	ETAAS	8.88	0.58	3	1	0	0	1
2024.04	ICP-MS	8.71	0.51	43	6	6	0	0
2024.04	Global	8.72	0.53	46	7	7	0	0
2024.05	ETAAS	0	0.05	3	1	0	0	1
2024.05	ICP-MS	0.08	0.04	41	5	5	0	0
2024.05	Global	0.08	0.04	44	6	6	0	0
2024.06	ETAAS	2.25	0.07	3	1	0	0	1
2024.06	ICP-MS	2.2	0.15	43	7	7	0	0
2024.06	Global	2.2	0.15	46	8	8	0	0
2024.07	ETAAS	3.99	0.3	2	1	0	0	1
2024.07	ICP-MS	3.26	0.16	46	7	7	0	0
2024.07	Global	3.28	0.18	48	8	7	1	0
2024.08	ETAAS	11.14	0.19	2	1	0	0	1
2024.08	ICP-MS	10.73	0.42	47	8	8	0	0
2024.08	Global	10.79	0.42	49	9	9	0	0
2024.09	ETAAS	1.14	0.7	2	1	0	0	1
2024.09	ICP-MS	0.08	0.04	45	6	6	0	0
2024.09	Global	0.08	0.03	47	7	6	1	0
2024.10	ETAAS	5.78	0.16	2	1	0	0	1
2024.10	ICP-MS	5.28	0.42	48	8	8	0	0
2024.10	Global	5.29	0.41	50	9	9	0	0
2024.11	ETAAS	0.24	0	2	1	0	0	1
2024.11	ICP-MS	0.06	0.04	44	6	6	0	0
2024.11	Global	0.06	0.05	46	7	6	1	0
2024.12	ETAAS	10.25	1.53	2	1	0	0	1
2024.12	ICP-MS	8.58	0.57	47	8	8	0	0
2024.12	Global	8.58	0.61	49	9	8	1	0
2024.13	ETAAS	7.36	1.28	2	1	0	0	1
2024.13	ICP-MS	6.44	0.44	45	7	7	0	0
2024.13	Global	6.44	0.44	47	8	7	1	0
2024.14	ETAAS	10.78	1.79	2	1	0	0	1
2024.14	ICP-MS	9.63	0.77	46	8	8	0	0
2024.14	Global	9.63	0.82	48	9	8	1	0
2024.15	ETAAS	1.64	0.33	2	1	0	0	1
2024.15	ICP-MS	1.12	0.07	42	7	7	0	0
2024.15	Global	1.12	0.07	44	8	7	1	0
2024.16	ETAAS	5.76	1.3	2	1	0	0	1
2024.16	ICP-MS	4.3	0.31	44	8	8	0	0
2024.16	Global	4.3	0.33	46	9	8	1	0
2024.17	ETAAS	8.23	1.43	2	1	0	0	1
2024.17	ICP-MS	7.5	0.34	45	7	7	0	0
2024.17	Global	7.5	0.36	47	8	7	1	0
2024.18	ETAAS	2.04	0.03	2	1	0	0	1
2024.18	ICP-MS	2.2	0.12	46	8	8	0	0
2024.18	Global	2.2	0.14	48	9	9	0	0
2024.19	ETAAS	0.93	0.27	2	1	0	0	1
2024.19	ICP-MS	1.12	0.11	44	7	7	0	0
2024.19	Global	1.12	0.11	46	8	7	1	0
2024.20	ETAAS	6.07	0.54	2	1	0	0	1
2024.20	ICP-MS	5.24	0.3	45	8	8	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.20	Global	5.25	0.32	47	9	8	1	0
2024.21	ETAAS	11.2	1.55	2	1	0	0	1
2024.21	ICP-MS	9.4	0.65	45	7	7	0	0
2024.21	Global	9.4	0.65	47	8	7	1	0
2024.22	ETAAS	3.84	2.85	2	1	0	0	1
2024.22	ICP-MS	0.06	0.04	45	7	7	0	0
2024.22	Global	0.06	0.05	47	8	7	1	0
2024.23	ETAAS	4.74	0.58	2	1	0	0	1
2024.23	ICP-MS	4.28	0.27	44	7	7	0	0
2024.23	Global	4.28	0.3	46	8	7	1	0
2024.24	ETAAS	11.22	2.53	2	1	0	0	1
2024.24	ICP-MS	8.32	0.67	44	7	7	0	0
2024.24	Global	8.32	0.71	46	8	7	1	0

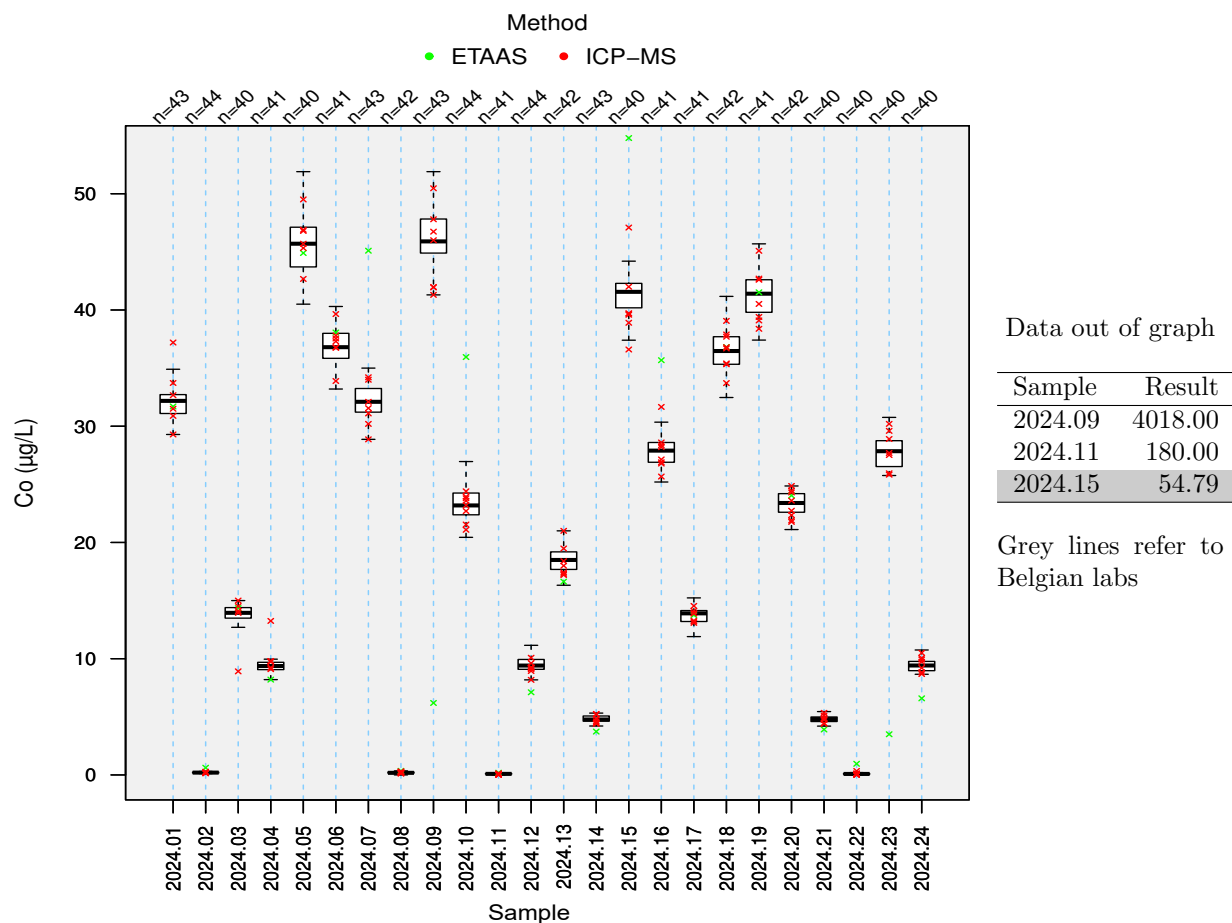


## 1.3.5 Co

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	31.7	3.47	3	1	0	0	1
2024.01	ICP-MS	32.19	1.37	40	6	5	1	0
2024.01	Global	32.18	1.2	43	7	6	1	0
2024.02	ETAAS	0.56	0.23	3	1	0	0	1
2024.02	ICP-MS	0.2	0.06	41	7	7	0	0
2024.02	Global	0.2	0.07	44	8	7	1	0
2024.03	ETAAS	13.89	0.34	2	1	0	0	1
2024.03	ICP-MS	13.95	0.61	38	5	4	1	0
2024.03	Global	13.95	0.64	40	6	5	1	0
2024.04	ETAAS	8.66	0.34	2	1	0	0	1
2024.04	ICP-MS	9.42	0.46	39	6	5	1	0
2024.04	Global	9.37	0.47	41	7	6	1	0
2024.05	ETAAS	44.2	0.52	2	1	0	0	1
2024.05	ICP-MS	45.73	2.41	38	6	6	0	0
2024.05	Global	45.7	2.52	40	7	7	0	0
2024.06	ETAAS	37.03	0.76	2	1	0	0	1
2024.06	ICP-MS	36.8	1.53	39	7	7	0	0
2024.06	Global	36.8	1.59	41	8	8	0	0
2024.07	ETAAS	45.1	0	1	1	0	0	1
2024.07	ICP-MS	32.06	1.37	42	7	7	0	0
2024.07	Global	32.1	1.51	43	8	7	1	0
2024.08	ETAAS	0.35	0	1	1	0	0	1
2024.08	ICP-MS	0.18	0.07	41	7	7	0	0
2024.08	Global	0.18	0.07	42	8	8	0	0
2024.09	ETAAS	6.19	0	1	1	0	0	1
2024.09	ICP-MS	45.95	2.16	42	7	7	0	0
2024.09	Global	45.9	2.17	43	8	7	1	0
2024.10	ETAAS	35.95	0	1	1	0	0	1
2024.10	ICP-MS	23.17	1.22	43	8	8	0	0
2024.10	Global	23.19	1.3	44	9	8	1	0
2024.11	ETAAS	0.19	0	1	1	0	0	1
2024.11	ICP-MS	0.09	0.04	40	6	6	0	0
2024.11	Global	0.09	0.04	41	7	7	0	0
2024.12	ETAAS	7.11	0	1	1	0	0	1
2024.12	ICP-MS	9.43	0.61	43	8	8	0	0
2024.12	Global	9.41	0.6	44	9	8	1	0
2024.13	ETAAS	16.63	0	1	1	0	0	1
2024.13	ICP-MS	18.5	0.88	41	7	7	0	0
2024.13	Global	18.49	1.04	42	8	8	0	0
2024.14	ETAAS	3.73	0	1	1	0	0	1
2024.14	ICP-MS	4.78	0.32	42	8	8	0	0
2024.14	Global	4.77	0.33	43	9	8	1	0
2024.15	ETAAS	54.79	0	1	1	0	0	1
2024.15	ICP-MS	41.55	1.52	39	7	5	2	0
2024.15	Global	41.56	1.45	40	8	5	3	0
2024.16	ETAAS	35.68	0	1	1	0	0	1
2024.16	ICP-MS	27.89	1.19	40	8	7	1	0
2024.16	Global	27.9	1.26	41	9	8	1	0
2024.17	ETAAS	13.75	0	1	1	0	0	1
2024.17	ICP-MS	13.9	0.73	40	7	7	0	0
2024.17	Global	13.9	0.7	41	8	8	0	0
2024.18	ETAAS	36.81	0	1	1	0	0	1
2024.18	ICP-MS	36.4	1.76	41	8	8	0	0
2024.18	Global	36.47	1.69	42	9	9	0	0
2024.19	ETAAS	41.52	0	1	1	0	0	1
2024.19	ICP-MS	41.34	2.1	40	7	7	0	0
2024.19	Global	41.4	2.08	41	8	8	0	0
2024.20	ETAAS	24.04	0	1	1	0	0	1
2024.20	ICP-MS	23.39	1.19	41	8	8	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.20	Global	23.4	1.14	42	9	9	0	0
2024.21	ETAAS	3.91	0	1	1	0	0	1
2024.21	ICP-MS	4.81	0.26	39	7	7	0	0
2024.21	Global	4.8	0.28	40	8	7	1	0
2024.22	ETAAS	0.96	0	1	1	0	0	1
2024.22	ICP-MS	0.08	0.04	39	7	6	1	0
2024.22	Global	0.08	0.05	40	8	6	2	0
2024.23	ETAAS	3.5	0	1	1	0	0	1
2024.23	ICP-MS	28	1.55	39	7	7	0	0
2024.23	Global	27.85	1.59	40	8	7	1	0
2024.24	ETAAS	6.59	0	1	1	0	0	1
2024.24	ICP-MS	9.43	0.57	39	7	7	0	0
2024.24	Global	9.41	0.57	40	8	7	1	0





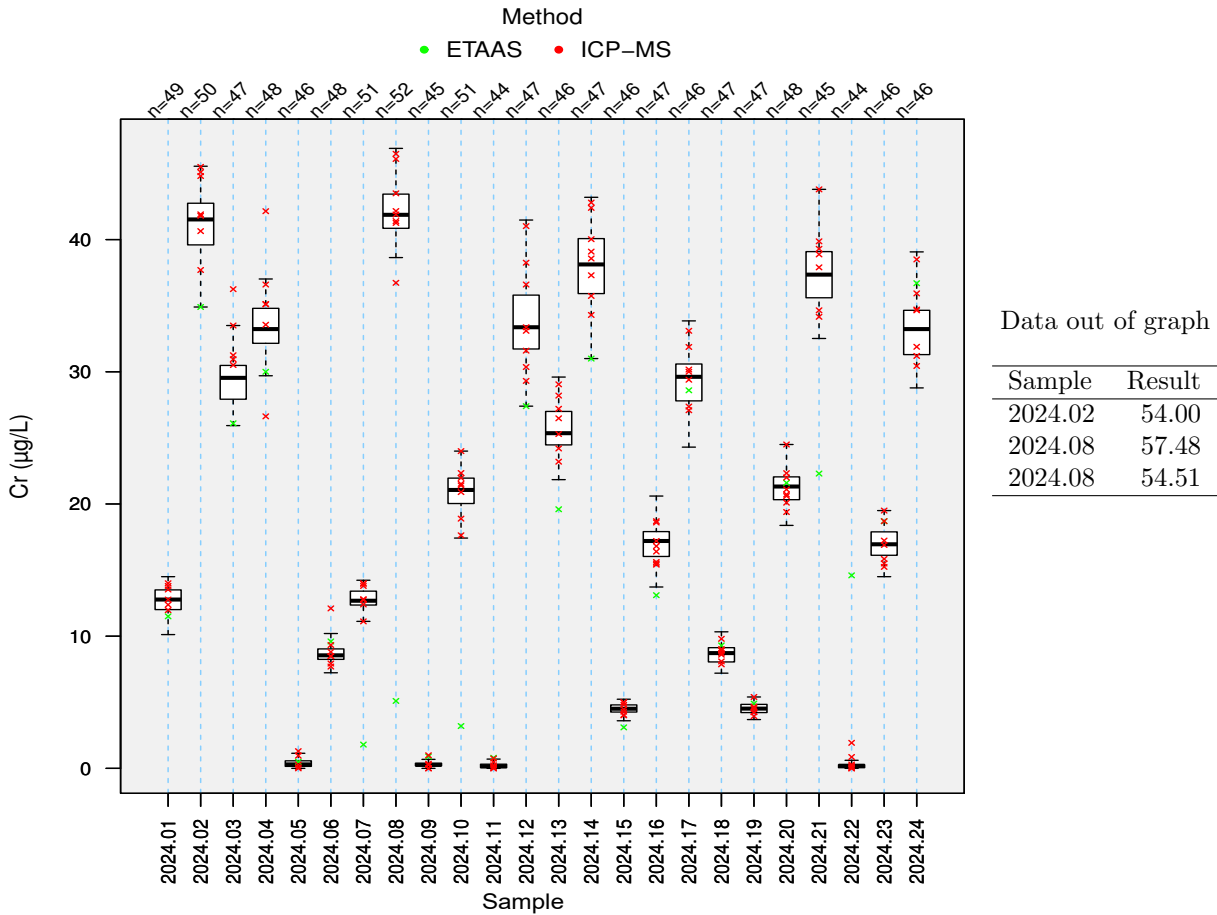
## 1.3.6 Cr

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	12.21	0.8	6	1	1	0	0
2024.01	ICP-MS	12.91	0.98	43	6	6	0	0
2024.02	ETAAS	39.93	1.24	6	1	0	1	0
2024.02	ICP-MS	41.7	2.24	44	7	7	0	0
2024.03	ETAAS	28.99	2.06	6	1	1	0	0
2024.03	ICP-MS	29.54	1.91	41	5	4	1	0
2024.04	ETAAS	31.78	2.44	6	1	1	0	0
2024.04	ICP-MS	33.3	1.75	42	6	4	2	0
2024.05	ETAAS	0.36	0.3	5	1	0	0	1
2024.05	ICP-MS	0.29	0.3	41	5	4	1	0
2024.05	Global	0.3	0.3	46	6	5	1	0
2024.06	ETAAS	8.56	0.27	5	1	0	0	1
2024.06	ICP-MS	8.54	0.59	43	7	6	1	0
2024.06	Global	8.55	0.57	48	8	7	1	0
2024.07	ETAAS	12.23	2.46	4	1	0	0	1
2024.07	ICP-MS	12.69	0.76	47	7	7	0	0
2024.07	Global	12.68	0.78	51	8	7	1	0
2024.08	ETAAS	40.36	8.07	4	1	0	0	1
2024.08	ICP-MS	41.92	1.82	48	8	8	0	0
2024.08	Global	41.88	1.9	52	9	8	1	0
2024.09	ETAAS	0.68	0.27	3	1	0	0	1
2024.09	ICP-MS	0.26	0.13	42	6	5	1	0
2024.09	Global	0.26	0.15	45	7	5	2	0
2024.10	ETAAS	14.59	8.9	4	1	0	0	1
2024.10	ICP-MS	21.17	1.2	47	8	8	0	0
2024.10	Global	21.06	1.42	51	9	8	1	0
2024.11	ETAAS	0.26	0.3	3	1	0	0	1
2024.11	ICP-MS	0.16	0.19	41	6	5	1	0
2024.11	Global	0.16	0.19	44	7	5	2	0
2024.12	ETAAS	30.37	1.59	3	1	0	0	1
2024.12	ICP-MS	33.62	2.84	44	8	8	0	0
2024.12	Global	33.37	3.02	47	9	9	0	0
2024.13	ETAAS	24.53	2.02	3	1	0	0	1
2024.13	ICP-MS	25.48	1.91	43	7	7	0	0
2024.13	Global	25.36	1.84	46	8	7	1	0
2024.14	ETAAS	35.79	2.37	3	1	0	0	1
2024.14	ICP-MS	38.5	2.93	44	8	8	0	0
2024.14	Global	38.12	3.08	47	9	9	0	0
2024.15	ETAAS	3.81	0.33	3	1	0	0	1
2024.15	ICP-MS	4.55	0.35	43	7	7	0	0
2024.15	Global	4.51	0.38	46	8	7	1	0
2024.16	ETAAS	16.02	1.5	3	1	0	0	1
2024.16	ICP-MS	17.25	1.37	44	8	8	0	0
2024.16	Global	17.2	1.39	47	9	9	0	0
2024.17	ETAAS	27.8	1	3	1	0	0	1
2024.17	ICP-MS	29.8	1.89	43	7	7	0	0
2024.17	Global	29.62	2.05	46	8	8	0	0
2024.18	ETAAS	7.9	0.55	3	1	0	0	1
2024.18	ICP-MS	8.73	0.65	44	8	8	0	0
2024.18	Global	8.72	0.8	47	9	9	0	0
2024.19	ETAAS	4.37	0.37	3	1	0	0	1
2024.19	ICP-MS	4.54	0.44	44	7	7	0	0
2024.19	Global	4.52	0.46	47	8	8	0	0
2024.20	ETAAS	19.08	0.94	3	1	0	0	1
2024.20	ICP-MS	21.32	1.11	45	8	8	0	0
2024.20	Global	21.32	1.2	48	9	9	0	0
2024.21	ETAAS	29.43	5.29	2	1	0	0	1
2024.21	ICP-MS	37.44	2.61	43	7	7	0	0
2024.21	Global	37.35	2.59	45	8	7	1	0

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1. TRACE ELEMENTS IN URINE

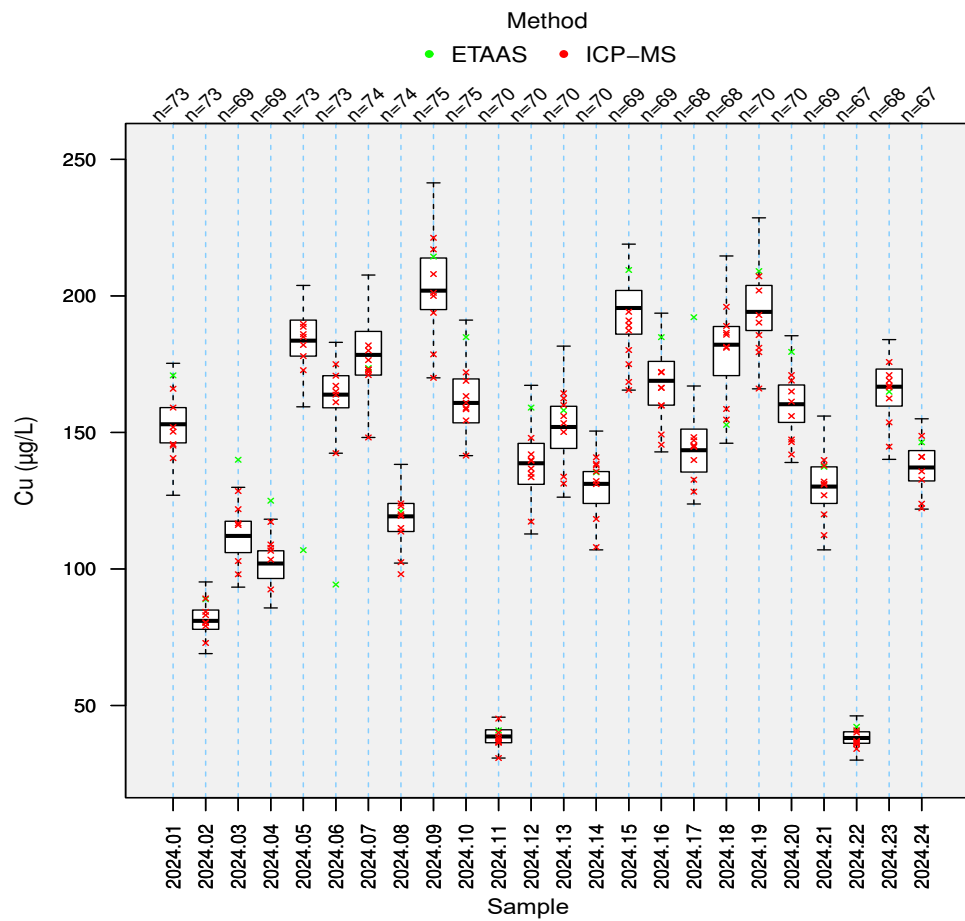
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.22	ETAAS	7.35	5.37	2	1	0	0	1
2024.22	ICP-MS	0.2	0.16	42	7	5	2	0
2024.22	Global	0.2	0.16	44	8	5	3	0
2024.23	ETAAS	16.19	1.17	3	1	0	0	1
2024.23	ICP-MS	17	1.21	43	7	7	0	0
2024.23	Global	16.95	1.27	46	8	8	0	0
2024.24	ETAAS	34.57	2.27	3	1	0	0	1
2024.24	ICP-MS	33.2	2.31	43	7	7	0	0
2024.24	Global	33.23	2.46	46	8	8	0	0



## 1.3.7 Cu

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	144.57	17.44	12	1	1	0	0
2024.01	ICP-MS	152.81	8.78	54	7	7	0	0
2024.02	ETAAS	78.75	8.88	12	1	1	0	0
2024.02	ICP-MS	81.25	4.09	54	7	7	0	0
2024.03	ETAAS	107.32	12.42	10	1	1	0	0
2024.03	ICP-MS	112.59	8.51	53	6	6	0	0
2024.04	ETAAS	98.08	9.93	10	1	1	0	0
2024.04	ICP-MS	103.43	7.44	53	6	6	0	0
2024.05	ETAAS	181.67	14.43	12	1	0	1	0
2024.05	ICP-MS	183.31	6.82	54	7	7	0	0
2024.06	ETAAS	163.87	11.48	12	1	0	1	0
2024.06	ICP-MS	163.83	5.4	54	7	6	1	0
2024.07	ETAAS	162.92	11.71	9	1	1	0	0
2024.07	ICP-MS	179.07	10.39	59	8	8	0	0
2024.08	ETAAS	111.3	7.53	9	1	1	0	0
2024.08	ICP-MS	119.4	7.34	59	8	8	0	0
2024.09	ETAAS	193.48	17.24	10	1	1	0	0
2024.09	ICP-MS	201.93	11.97	59	8	8	0	0
2024.10	ETAAS	153.52	10.47	10	1	1	0	0
2024.10	ICP-MS	160.81	10.66	59	8	8	0	0
2024.11	ETAAS	38.17	3.53	8	1	1	0	0
2024.11	ICP-MS	38.58	3.11	56	8	8	0	0
2024.12	ETAAS	137.22	6.68	8	1	0	1	0
2024.12	ICP-MS	137.48	11.89	56	8	8	0	0
2024.13	ETAAS	146.34	3.45	8	1	0	1	0
2024.13	ICP-MS	153.04	11.75	57	8	8	0	0
2024.14	ETAAS	124.03	4.08	8	1	1	0	0
2024.14	ICP-MS	131.45	8.13	57	8	8	0	0
2024.15	ETAAS	191.1	12.34	9	1	1	0	0
2024.15	ICP-MS	195.24	10.97	54	8	8	0	0
2024.16	ETAAS	160	11.05	9	1	1	0	0
2024.16	ICP-MS	169.23	10.94	54	8	8	0	0
2024.17	ETAAS	137.75	11.16	8	1	0	1	0
2024.17	ICP-MS	143.49	10.22	54	8	8	0	0
2024.18	ETAAS	166.3	18.57	8	1	1	0	0
2024.18	ICP-MS	182.25	11.34	54	8	8	0	0
2024.19	ETAAS	197.49	14.73	9	1	1	0	0
2024.19	ICP-MS	193	10.91	55	8	8	0	0
2024.20	ETAAS	157	11.76	9	1	1	0	0
2024.20	ICP-MS	159	8.31	55	8	8	0	0
2024.21	ETAAS	126.55	6.22	8	1	1	0	0
2024.21	ICP-MS	130	10.1	55	8	8	0	0
2024.22	ETAAS	37.47	3.86	8	1	1	0	0
2024.22	ICP-MS	38.1	2.82	54	8	8	0	0
2024.23	ETAAS	164.9	8.95	9	1	1	0	0
2024.23	ICP-MS	166	8.56	53	8	8	0	0
2024.24	ETAAS	134.62	9.49	9	1	1	0	0
2024.24	ICP-MS	135.79	7.83	52	7	7	0	0

1. TRACE ELEMENTS IN URINE

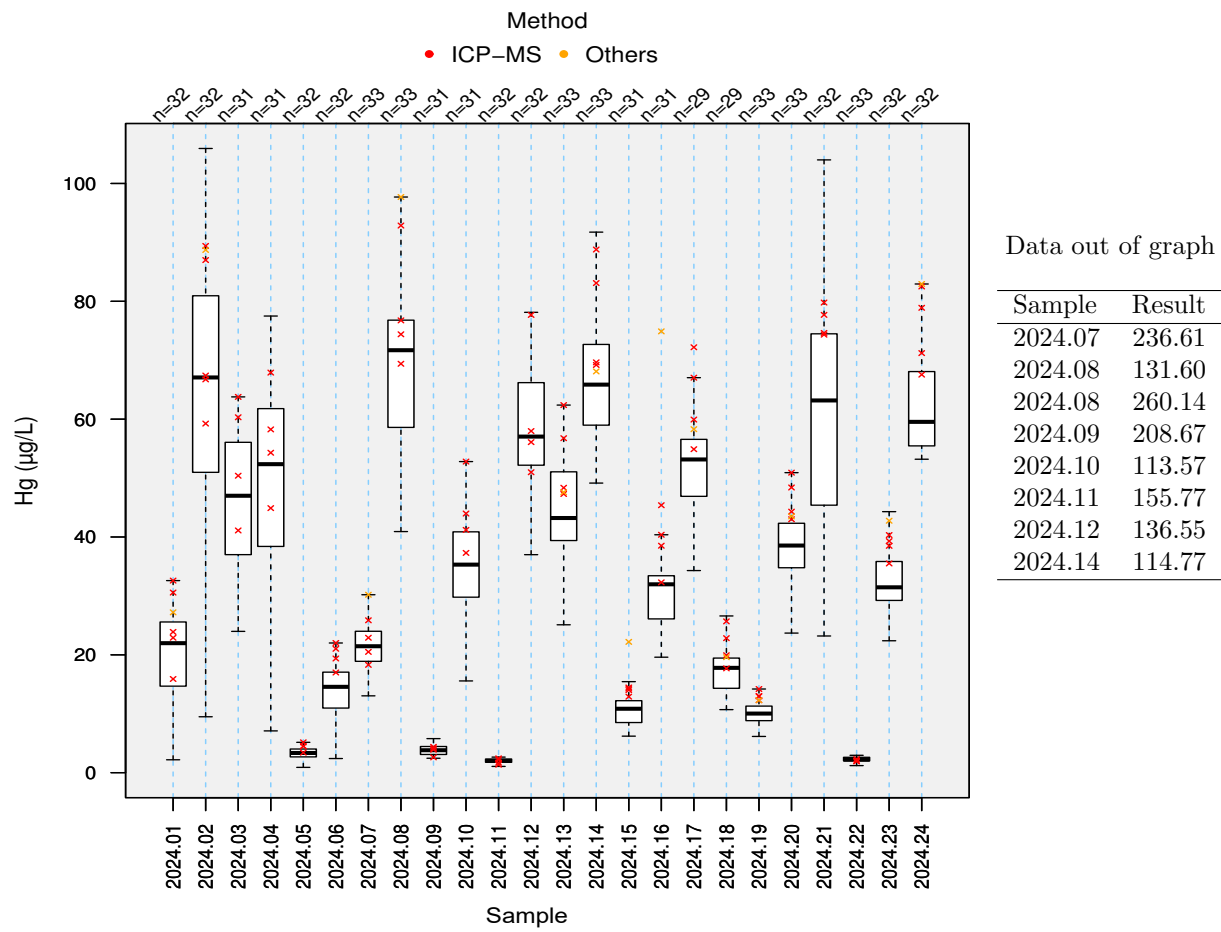


Data out of graph

Sample	Result
2024.01	3.51
2024.02	18.20
2024.03	2.70
2024.05	275.59
2024.05	256.54
2024.05	1723.00
2024.09	279.00
2024.15	380.00
2024.16	456.00
2024.19	255.00
2024.21	7512.05
2024.21	1428.12
2024.22	2381.25
2024.22	9.53
2024.22	22.60

## 1.3.8 Hg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	22.98	7.55	28	5	5	0	0
2024.01	Others	23.92	2.44	2	1	0	0	1
2024.01	Global	21.98	7.55	32	6	6	0	0
2024.02	ICP-MS	65.97	19.98	28	5	5	0	0
2024.02	Others	79.84	6.58	2	1	0	0	1
2024.02	Global	67.08	19.95	32	6	6	0	0
2024.03	ICP-MS	47.94	18.03	27	4	4	0	0
2024.04	ICP-MS	53.36	19.86	27	4	4	0	0
2024.05	ICP-MS	3.46	0.98	28	4	4	0	0
2024.06	ICP-MS	14.57	4.33	28	4	4	0	0
2024.07	ICP-MS	21.26	4.03	30	4	4	0	0
2024.07	Others	30.2	0	1	1	0	0	1
2024.07	Global	21.46	3.78	33	5	5	0	0
2024.08	ICP-MS	69.7	14.05	30	4	4	0	0
2024.08	Others	97.7	0	1	1	0	0	1
2024.08	Global	71.7	13.49	33	5	5	0	0
2024.09	ICP-MS	3.69	1.02	29	4	4	0	0
2024.10	ICP-MS	35.04	7.73	29	4	4	0	0
2024.11	ICP-MS	2.01	0.36	29	4	4	0	0
2024.12	ICP-MS	56.1	11.79	29	4	4	0	0
2024.13	ICP-MS	42.22	9.13	28	4	4	0	0
2024.13	Others	45.13	1.83	2	1	0	0	1
2024.13	Global	43.22	8.64	33	5	5	0	0
2024.14	ICP-MS	65.19	11.52	28	4	4	0	0
2024.14	Others	66.6	1.11	2	1	0	0	1
2024.14	Global	65.86	10.16	33	5	5	0	0
2024.15	ICP-MS	10.85	2.81	27	4	4	0	0
2024.15	Others	16.36	4.33	2	1	0	0	1
2024.15	Global	10.85	2.75	31	5	4	1	0
2024.16	ICP-MS	31.97	5.77	27	4	4	0	0
2024.16	Others	52.41	16.67	2	1	0	0	1
2024.16	Global	31.97	5.43	31	5	4	1	0
2024.17	ICP-MS	53.16	6.4	25	4	4	0	0
2024.17	Others	51.23	5.24	2	1	0	0	1
2024.17	Global	53.16	7.17	29	5	5	0	0
2024.18	ICP-MS	17.7	3.8	25	4	4	0	0
2024.18	Others	18.98	0.46	2	1	0	0	1
2024.18	Global	17.79	3.8	29	5	5	0	0
2024.19	ICP-MS	10.03	1.63	29	4	4	0	0
2024.19	Others	11.83	0.35	2	1	0	0	1
2024.19	Global	10.03	1.83	33	5	5	0	0
2024.20	ICP-MS	38.55	5.29	29	4	4	0	0
2024.20	Others	41.04	1.82	2	1	0	0	1
2024.20	Global	38.55	5.6	33	5	5	0	0
2024.21	ICP-MS	62.79	20.38	29	4	4	0	0
2024.22	ICP-MS	2.21	0.45	30	4	4	0	0
2024.23	ICP-MS	31.9	4.66	27	4	4	0	0
2024.23	Others	36.89	4.35	2	1	0	0	1
2024.23	Global	31.46	4.71	32	5	5	0	0
2024.24	ICP-MS	59.58	9.22	27	4	4	0	0
2024.24	Others	69.24	10.16	2	1	0	0	1
2024.24	Global	59.54	9.13	32	5	5	0	0

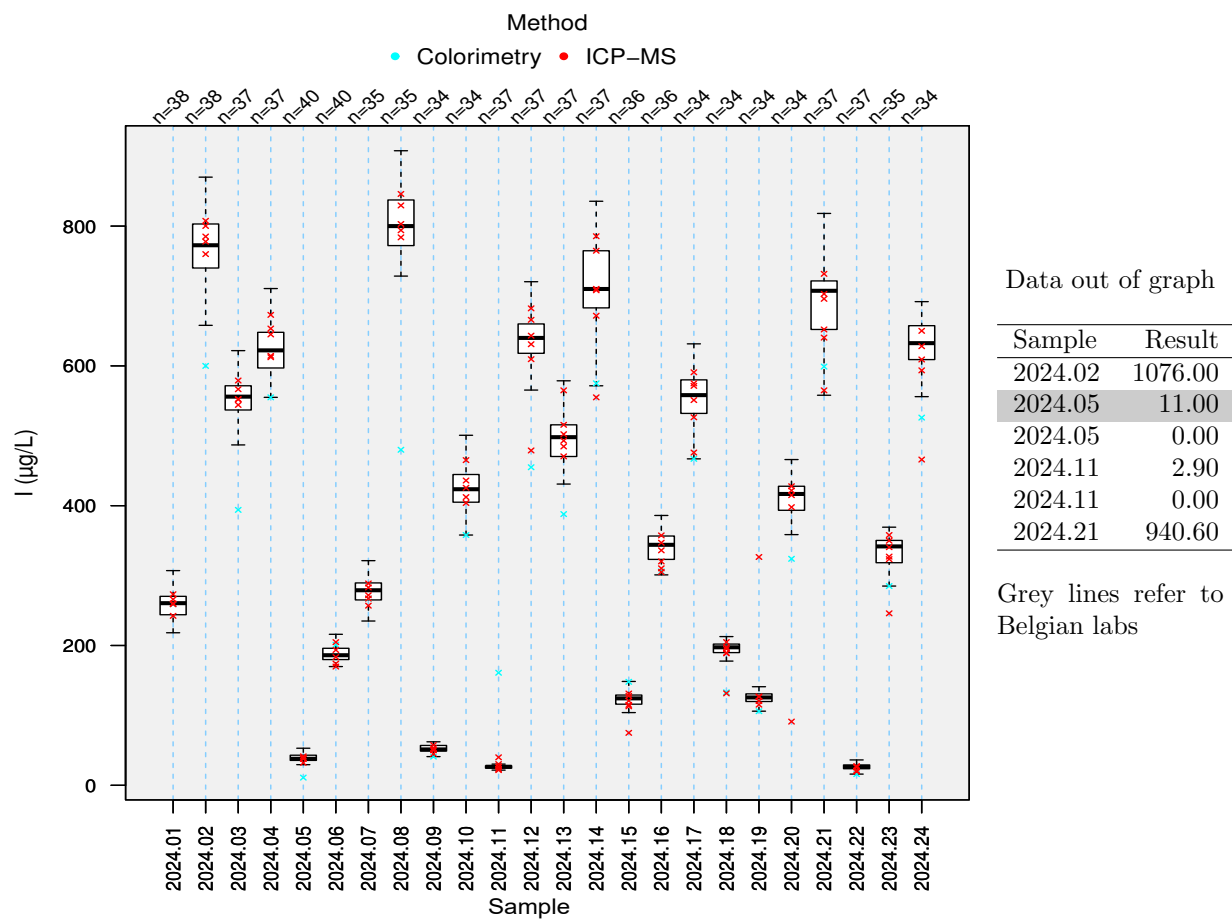


## 1.3.9 I

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	Colorimetry	278	14.08	2	1	0	0	1
2024.01	ICP-MS	261	19.61	35	5	5	0	0
2024.01	Global	260.52	18.79	38	6	6	0	0
2024.02	Colorimetry	838	176.43	2	1	0	0	1
2024.02	ICP-MS	771.17	44.92	35	5	5	0	0
2024.02	Global	772.58	45.81	38	6	5	1	0
2024.03	Colorimetry	486.5	68.57	2	1	0	0	1
2024.03	ICP-MS	556.74	24.97	34	5	5	0	0
2024.03	Global	556	25.69	37	6	5	1	0
2024.04	Colorimetry	573	13.34	2	1	0	0	1
2024.04	ICP-MS	627.92	31.23	34	5	5	0	0
2024.04	Global	622.2	37.81	37	6	6	0	0
2024.05	Colorimetry	23.5	9.27	2	1	0	0	1
2024.05	ICP-MS	38	4.89	37	5	5	0	0
2024.05	Global	37.92	5.34	40	6	5	1	0
2024.06	Colorimetry	194.5	4.82	2	1	0	0	1
2024.06	ICP-MS	186	11.44	37	5	5	0	0
2024.06	Global	186.07	11.7	40	6	6	0	0
2024.07	Colorimetry	309	31.13	2	1	0	0	1
2024.07	ICP-MS	278.79	17.74	32	5	5	0	0
2024.07	Global	279	18.04	35	6	6	0	0
2024.08	Colorimetry	638	117.13	2	1	0	0	1
2024.08	ICP-MS	801	46.87	32	5	5	0	0
2024.08	Global	800	48.39	35	6	5	1	0
2024.09	Colorimetry	41	0	1	1	0	0	1
2024.09	ICP-MS	51.3	4.28	32	5	5	0	0
2024.09	Global	51.3	5.36	34	6	6	0	0
2024.10	Colorimetry	358	0	1	1	0	0	1
2024.10	ICP-MS	423.52	26.51	32	5	5	0	0
2024.10	Global	423.52	28.38	34	6	6	0	0
2024.11	Colorimetry	94	49.67	2	1	0	0	1
2024.11	ICP-MS	26.46	2.45	34	6	5	1	0
2024.11	Global	26.53	2.54	37	7	5	2	0
2024.12	Colorimetry	552.5	72.28	2	1	0	0	1
2024.12	ICP-MS	640.5	30.87	34	6	5	1	0
2024.12	Global	640	31.14	37	7	5	2	0
2024.13	Colorimetry	425	27.43	2	1	0	0	1
2024.13	ICP-MS	500.06	34.68	34	6	6	0	0
2024.13	Global	498	33.6	37	7	6	1	0
2024.14	Colorimetry	629.5	40.4	2	1	0	0	1
2024.14	ICP-MS	710.1	59.58	34	6	6	0	0
2024.14	Global	710	60.56	37	7	7	0	0
2024.15	Colorimetry	132.5	11.49	2	1	0	0	1
2024.15	ICP-MS	124.66	7.29	33	6	5	1	0
2024.15	Global	124.33	8.86	36	7	6	1	0
2024.16	Colorimetry	323.5	12.97	2	1	0	0	1
2024.16	ICP-MS	348	22.21	33	6	6	0	0
2024.16	Global	344	23.41	36	7	7	0	0
2024.17	Colorimetry	497	22.24	2	1	0	0	1
2024.17	ICP-MS	559.86	24.23	31	6	5	1	0
2024.17	Global	558.15	34.29	34	7	7	0	0
2024.18	Colorimetry	165	23.72	2	1	0	0	1
2024.18	ICP-MS	198	8.77	31	6	5	1	0
2024.18	Global	197.39	8.84	34	7	5	2	0
2024.19	Colorimetry	102	2.97	2	1	0	0	1
2024.19	ICP-MS	126.27	7.57	31	5	4	1	0
2024.19	Global	125.66	7.73	34	6	5	1	0
2024.20	Colorimetry	360.5	27.06	2	1	0	0	1
2024.20	ICP-MS	419.14	24.43	31	5	4	1	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.20	Global	416.76	25.06	34	6	4	2	0
2024.21	Colorimetry	655.5	41.88	2	1	0	0	1
2024.21	ICP-MS	708.22	47.72	34	6	6	0	0
2024.21	Global	707.44	51.49	37	7	7	0	0
2024.22	Colorimetry	38	16.31	2	1	0	0	1
2024.22	ICP-MS	26.07	3.74	34	6	6	0	0
2024.22	Global	26.14	3.99	37	7	7	0	0
2024.23	Colorimetry	326	30.39	2	1	0	0	1
2024.23	ICP-MS	341.8	20.57	32	6	5	1	0
2024.23	Global	341.72	23.63	35	7	6	1	0
2024.24	Colorimetry	601	55.6	2	1	0	0	1
2024.24	ICP-MS	634	31.94	31	5	4	1	0
2024.24	Global	632.54	34.73	34	6	4	2	0



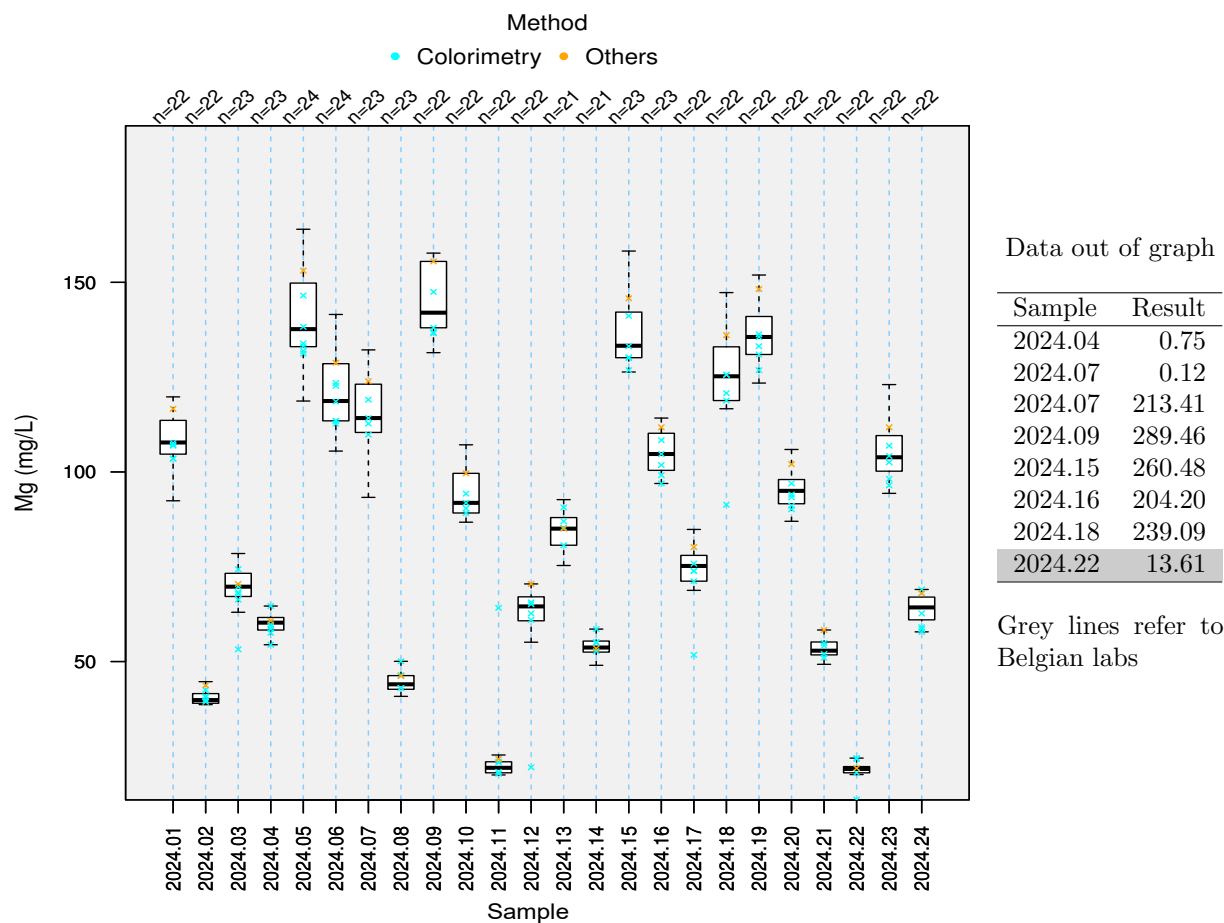


## 1.3.10 Mg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	Colorimetry	107.04	2.34	6	5	5	0	0
2024.01	Others	116.64	0	1	1	0	0	1
2024.01	Global	107.77	5.8	22	6	6	0	0
2024.02	Colorimetry	40.7	1.24	6	5	5	0	0
2024.02	Others	43.74	0	1	1	0	0	1
2024.02	Global	39.84	1.82	22	6	6	0	0
2024.03	Colorimetry	68.28	2.63	7	6	5	1	0
2024.03	Others	70.47	0	1	1	0	0	1
2024.03	Global	69.74	4.52	23	7	6	1	0
2024.04	Colorimetry	59.29	1.75	7	6	5	1	0
2024.04	Others	60.75	0	1	1	0	0	1
2024.04	Global	60.26	2.45	23	7	7	0	0
2024.05	Colorimetry	133.89	7.3	7	6	6	0	0
2024.05	Others	153.09	0	1	1	0	0	1
2024.05	Global	137.66	11.17	24	7	7	0	0
2024.06	Colorimetry	118.58	7.12	7	6	6	0	0
2024.06	Others	128.79	0	1	1	0	0	1
2024.06	Global	118.7	11.08	24	7	7	0	0
2024.07	Colorimetry	114.21	4.69	5	4	0	0	4
2024.07	Others	123.93	0	1	1	0	0	1
2024.07	Global	114.21	9.43	23	5	5	0	0
2024.08	Colorimetry	46.41	3.48	5	4	0	0	4
2024.08	Others	46.17	0	1	1	0	0	1
2024.08	Global	44	2.67	23	5	5	0	0
2024.09	Colorimetry	138.02	7.92	5	4	0	0	4
2024.09	Others	155.52	0	1	1	0	0	1
2024.09	Global	142	11.3	22	5	5	0	0
2024.10	Colorimetry	91.85	2.88	5	4	0	0	4
2024.10	Others	99.63	0	1	1	0	0	1
2024.10	Global	91.85	7.46	22	5	5	0	0
2024.11	Colorimetry	22.61	1.75	6	5	4	1	0
2024.11	Others	24.3	0	1	1	0	0	1
2024.11	Global	21.98	2.09	22	6	5	1	0
2024.12	Colorimetry	63.91	3.01	6	5	4	1	0
2024.12	Others	70.47	0	1	1	0	0	1
2024.12	Global	64.54	4.37	22	6	5	1	0
2024.13	Colorimetry	85.29	4.68	5	4	0	0	4
2024.13	Others	85.05	0	1	1	0	0	1
2024.13	Global	85.05	5.4	21	5	5	0	0
2024.14	Colorimetry	55.16	1.17	5	4	0	0	4
2024.14	Others	53.46	0	1	1	0	0	1
2024.14	Global	53.7	2.16	21	5	5	0	0
2024.15	Colorimetry	131.7	6.75	6	5	5	0	0
2024.15	Others	145.8	0	1	1	0	0	1
2024.15	Global	133.28	8.91	23	6	6	0	0
2024.16	Colorimetry	103.28	5.68	6	5	5	0	0
2024.16	Others	111.78	0	1	1	0	0	1
2024.16	Global	104.73	7.25	23	6	6	0	0
2024.17	Colorimetry	73.87	2.57	6	5	4	1	0
2024.17	Others	80.19	0	1	1	0	0	1
2024.17	Global	75.21	5.04	22	6	5	1	0
2024.18	Colorimetry	119.8	5.21	6	5	4	1	0
2024.18	Others	136.08	0	1	1	0	0	1
2024.18	Global	125.22	9.95	22	6	5	1	0
2024.19	Colorimetry	134.38	3.42	6	5	5	0	0
2024.19	Others	148.23	0	1	1	0	0	1
2024.19	Global	135.59	6.88	22	6	6	0	0
2024.20	Colorimetry	93.68	3.38	6	5	5	0	0
2024.20	Others	102.06	0	1	1	0	0	1

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.20	Global	95.02	4.43	22	6	6	0	0
2024.21	Colorimetry	54.19	2.16	5	4	0	0	4
2024.21	Others	58.32	0	1	1	0	0	1
2024.21	Global	52.86	2.45	22	5	5	0	0
2024.22	Colorimetry	22.3	2.7	5	4	0	0	4
2024.22	Others	21.87	0	1	1	0	0	1
2024.22	Global	21.69	1.11	22	5	4	1	0
2024.23	Colorimetry	103.38	5.17	6	5	5	0	0
2024.23	Others	111.78	0	1	1	0	0	1
2024.23	Global	103.87	6.76	22	6	6	0	0
2024.24	Colorimetry	60.87	5.87	6	5	5	0	0
2024.24	Others	68.04	0	1	1	0	0	1
2024.24	Global	64.28	4.2	22	6	6	0	0

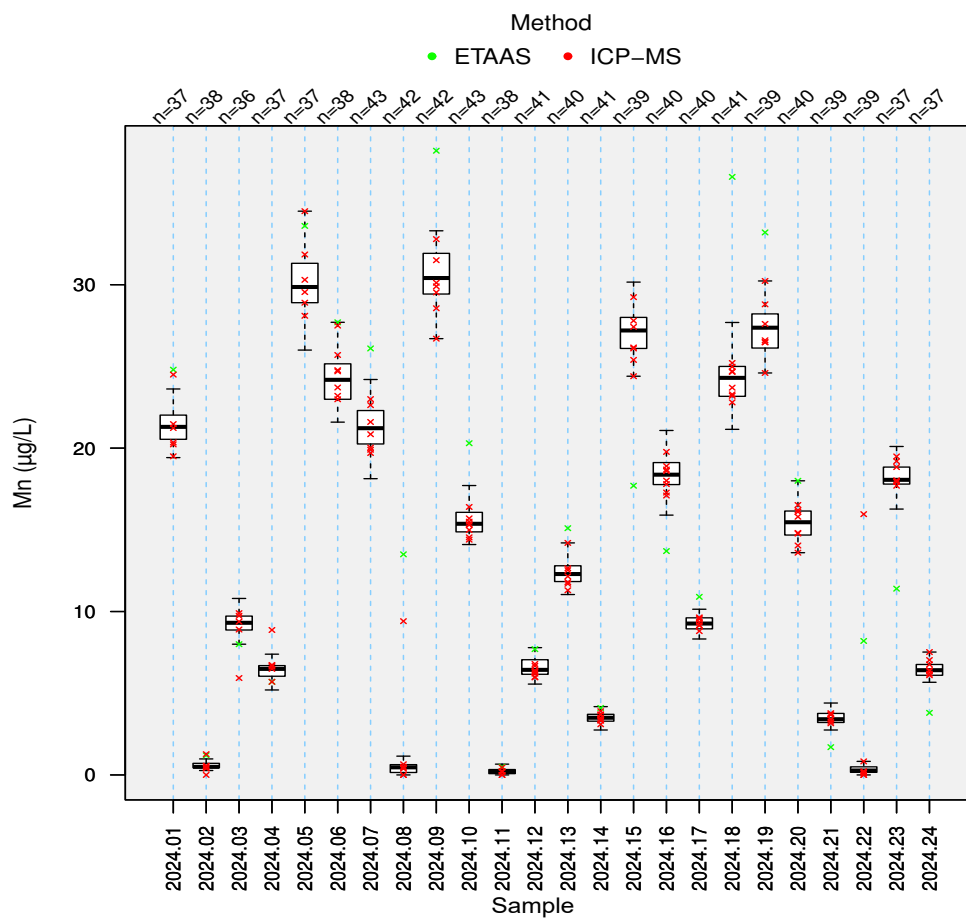


## 1.3.11 Mn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	24.8	0	1	1	0	0	1
2024.01	ICP-MS	21.28	1.1	36	6	6	0	0
2024.01	Global	21.3	1.1	37	7	6	1	0
2024.02	ETAAS	1.2	0	1	1	0	0	1
2024.02	ICP-MS	0.49	0.2	37	7	6	1	0
2024.02	Global	0.5	0.2	38	8	6	2	0
2024.03	ETAAS	5.04	2.19	2	1	0	0	1
2024.03	ICP-MS	9.35	0.62	34	5	4	1	0
2024.03	Global	9.31	0.62	36	6	5	1	0
2024.04	ETAAS	3.56	1.58	2	1	0	0	1
2024.04	ICP-MS	6.54	0.46	35	6	5	1	0
2024.04	Global	6.49	0.48	37	7	6	1	0
2024.05	ETAAS	21.75	8.79	2	1	0	0	1
2024.05	ICP-MS	29.86	1.7	35	6	6	0	0
2024.05	Global	29.86	1.79	37	7	7	0	0
2024.06	ETAAS	14.01	10.14	2	1	0	0	1
2024.06	ICP-MS	24.18	1.28	36	7	7	0	0
2024.06	Global	24.18	1.5	38	8	8	0	0
2024.07	ETAAS	13.35	9.45	2	1	0	0	1
2024.07	ICP-MS	21.27	1.5	40	7	7	0	0
2024.07	Global	21.22	1.52	43	8	7	1	0
2024.08	ETAAS	6.78	4.99	2	1	0	0	1
2024.08	ICP-MS	0.44	0.32	39	7	6	1	0
2024.08	Global	0.46	0.34	42	8	6	2	0
2024.09	ETAAS	38.2	0	1	1	0	0	1
2024.09	ICP-MS	30.41	1.79	40	7	7	0	0
2024.09	Global	30.41	1.79	42	8	7	1	0
2024.10	ETAAS	20.3	0	1	1	0	0	1
2024.10	ICP-MS	15.35	0.82	41	8	8	0	0
2024.10	Global	15.37	0.89	43	9	8	1	0
2024.11	ETAAS	0.5	0	1	1	0	0	1
2024.11	ICP-MS	0.21	0.19	36	6	6	0	0
2024.11	Global	0.22	0.18	38	7	7	0	0
2024.12	ETAAS	7.7	0	1	1	0	0	1
2024.12	ICP-MS	6.43	0.58	39	8	8	0	0
2024.12	Global	6.43	0.66	41	9	9	0	0
2024.13	ETAAS	9.19	4.38	2	1	0	0	1
2024.13	ICP-MS	12.28	0.69	37	7	7	0	0
2024.13	Global	12.3	0.7	40	8	7	1	0
2024.14	ETAAS	2.64	1.08	2	1	0	0	1
2024.14	ICP-MS	3.5	0.31	38	8	8	0	0
2024.14	Global	3.5	0.31	41	9	9	0	0
2024.15	ETAAS	15.2	1.86	2	1	0	0	1
2024.15	ICP-MS	27.25	1.41	36	7	7	0	0
2024.15	Global	27.2	1.41	39	8	7	1	0
2024.16	ETAAS	10.97	2.02	2	1	0	0	1
2024.16	ICP-MS	18.4	0.95	37	8	8	0	0
2024.16	Global	18.38	0.92	40	9	8	1	0
2024.17	ETAAS	6.61	3.18	2	1	0	0	1
2024.17	ICP-MS	9.3	0.45	37	7	7	0	0
2024.17	Global	9.27	0.48	40	8	7	1	0
2024.18	ETAAS	21.28	11.36	2	1	0	0	1
2024.18	ICP-MS	24.06	1.35	38	8	8	0	0
2024.18	Global	24.3	1.36	41	9	8	1	0
2024.19	ETAAS	33.2	0	1	1	0	0	1
2024.19	ICP-MS	27.33	1.53	37	7	7	0	0
2024.19	Global	27.37	1.55	39	8	7	1	0
2024.20	ETAAS	18	0	1	1	0	0	1
2024.20	ICP-MS	15.46	1.06	38	8	8	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.20	Global	15.46	1.07	40	9	9	0	0
2024.21	ETAAS	1.7	0	1	1	0	0	1
2024.21	ICP-MS	3.45	0.42	37	7	7	0	0
2024.21	Global	3.41	0.41	39	8	7	1	0
2024.22	ETAAS	8.2	0	1	1	0	0	1
2024.22	ICP-MS	0.25	0.24	37	7	6	1	0
2024.22	Global	0.27	0.25	39	8	6	2	0
2024.23	ETAAS	11.4	0	1	1	0	0	1
2024.23	ICP-MS	18.06	0.81	35	7	7	0	0
2024.23	Global	18.06	0.77	37	8	7	1	0
2024.24	ETAAS	3.8	0	1	1	0	0	1
2024.24	ICP-MS	6.41	0.57	35	7	7	0	0
2024.24	Global	6.41	0.49	37	8	7	1	0

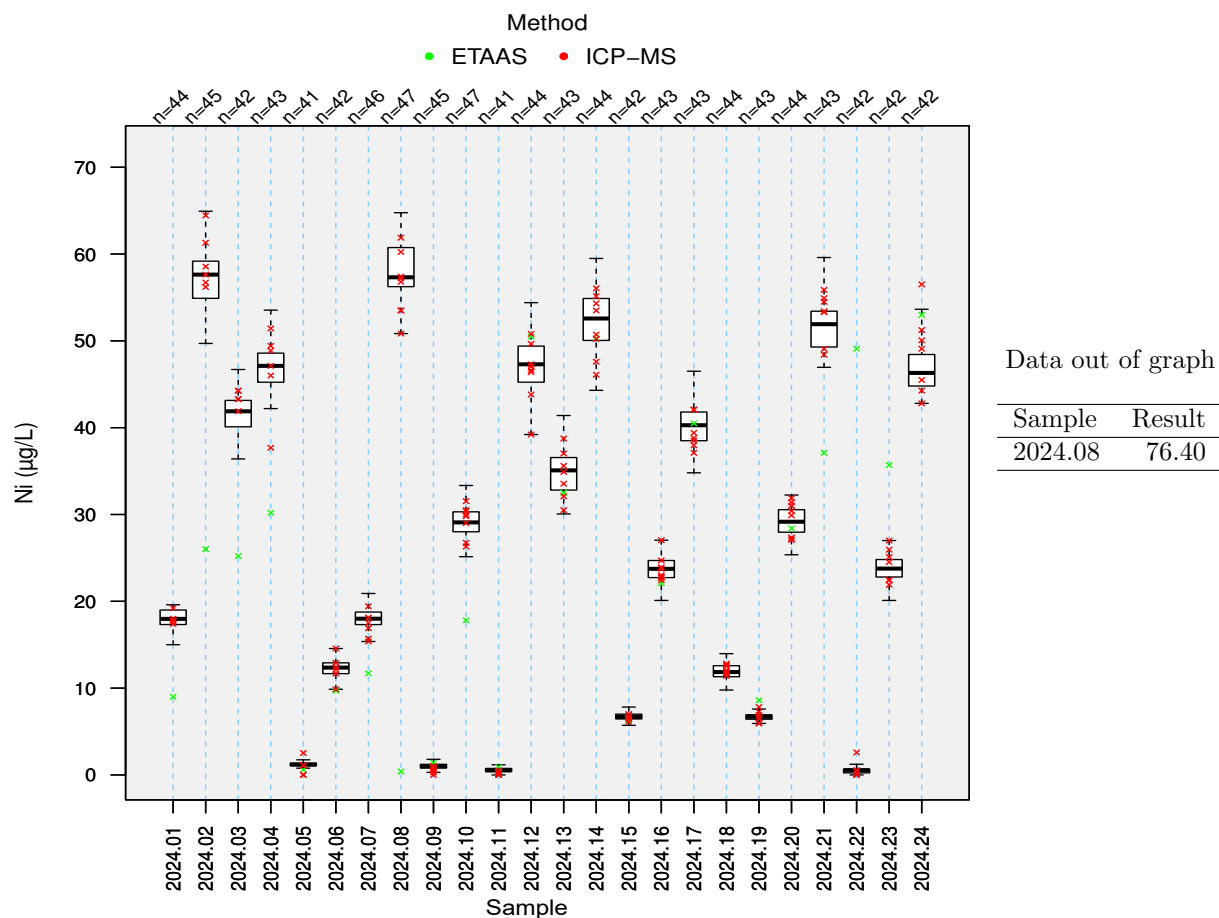


## 1.3.12 Ni

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	15	3.3	3	1	0	0	1
2024.01	ICP-MS	18.1	1.14	41	5	5	0	0
2024.01	Global	17.98	1.17	44	6	5	1	0
2024.02	ETAAS	26	21.32	3	1	0	0	1
2024.02	ICP-MS	57.67	2.26	42	6	6	0	0
2024.02	Global	57.63	3.17	45	7	6	1	0
2024.03	ETAAS	32.03	5.07	2	1	0	0	1
2024.03	ICP-MS	41.94	2.04	40	5	5	0	0
2024.03	Global	41.88	2.16	42	6	5	1	0
2024.04	ETAAS	37.79	5.63	2	1	0	0	1
2024.04	ICP-MS	47.2	2.58	41	6	5	1	0
2024.04	Global	47.12	2.48	43	7	5	2	0
2024.05	ETAAS	0.8	0.15	2	1	0	0	1
2024.05	ICP-MS	1.21	0.21	39	5	2	3	0
2024.05	Global	1.2	0.21	41	6	3	3	0
2024.06	ETAAS	10.87	0.87	2	1	0	0	1
2024.06	ICP-MS	12.43	0.95	40	6	6	0	0
2024.06	Global	12.37	0.9	42	7	7	0	0
2024.07	ETAAS	11.7	0	1	1	0	0	1
2024.07	ICP-MS	18.05	0.96	44	7	7	0	0
2024.07	Global	17.99	1.04	46	8	7	1	0
2024.08	ETAAS	0.4	0	1	1	0	0	1
2024.08	ICP-MS	57.32	3.47	45	8	8	0	0
2024.08	Global	57.32	3.34	47	9	8	1	0
2024.09	ETAAS	1.4	0	1	1	0	0	1
2024.09	ICP-MS	0.96	0.31	43	7	6	1	0
2024.09	Global	0.96	0.3	45	8	7	1	0
2024.10	ETAAS	17.8	0	1	1	0	0	1
2024.10	ICP-MS	29.09	1.74	45	8	8	0	0
2024.10	Global	29.09	1.7	47	9	8	1	0
2024.11	ETAAS	0.9	0	1	1	0	0	1
2024.11	ICP-MS	0.51	0.23	39	6	6	0	0
2024.11	Global	0.52	0.25	41	7	7	0	0
2024.12	ETAAS	50.5	0	1	1	0	0	1
2024.12	ICP-MS	47.3	2.72	42	8	8	0	0
2024.12	Global	47.3	2.97	44	9	9	0	0
2024.13	ETAAS	32.5	0	1	1	0	0	1
2024.13	ICP-MS	35.08	2.54	41	7	7	0	0
2024.13	Global	35.08	2.78	43	8	8	0	0
2024.14	ETAAS	50.3	0	1	1	0	0	1
2024.14	ICP-MS	52.58	3.5	42	8	8	0	0
2024.14	Global	52.58	3.5	44	9	9	0	0
2024.15	ETAAS	6.3	0	1	1	0	0	1
2024.15	ICP-MS	6.69	0.4	40	7	7	0	0
2024.15	Global	6.69	0.4	42	8	8	0	0
2024.16	ETAAS	22.1	0	1	1	0	0	1
2024.16	ICP-MS	23.92	1.41	41	8	8	0	0
2024.16	Global	23.74	1.46	43	9	9	0	0
2024.17	ETAAS	40.5	0	1	1	0	0	1
2024.17	ICP-MS	39.92	2.45	41	7	7	0	0
2024.17	Global	40.28	2.45	43	8	8	0	0
2024.18	ETAAS	11.8	0	1	1	0	0	1
2024.18	ICP-MS	11.85	0.95	42	8	8	0	0
2024.18	Global	11.85	0.92	44	9	9	0	0
2024.19	ETAAS	8.6	0	1	1	0	0	1
2024.19	ICP-MS	6.69	0.38	41	7	7	0	0
2024.19	Global	6.7	0.38	43	8	7	1	0
2024.20	ETAAS	28.4	0	1	1	0	0	1
2024.20	ICP-MS	29.3	2.02	42	8	8	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.20	Global	29.16	1.82	44	9	9	0	0
2024.21	ETAAS	37.1	0	1	1	0	0	1
2024.21	ICP-MS	51.96	3	41	7	7	0	0
2024.21	Global	51.92	3.06	43	8	7	1	0
2024.22	ETAAS	49.1	0	1	1	0	0	1
2024.22	ICP-MS	0.55	0.25	40	7	6	1	0
2024.22	Global	0.55	0.29	42	8	6	2	0
2024.23	ETAAS	35.7	0	1	1	0	0	1
2024.23	ICP-MS	23.77	1.5	40	7	7	0	0
2024.23	Global	23.77	1.48	42	8	7	1	0
2024.24	ETAAS	53	0	1	1	0	0	1
2024.24	ICP-MS	46.12	2.63	40	7	6	1	0
2024.24	Global	46.3	2.62	42	8	7	1	0

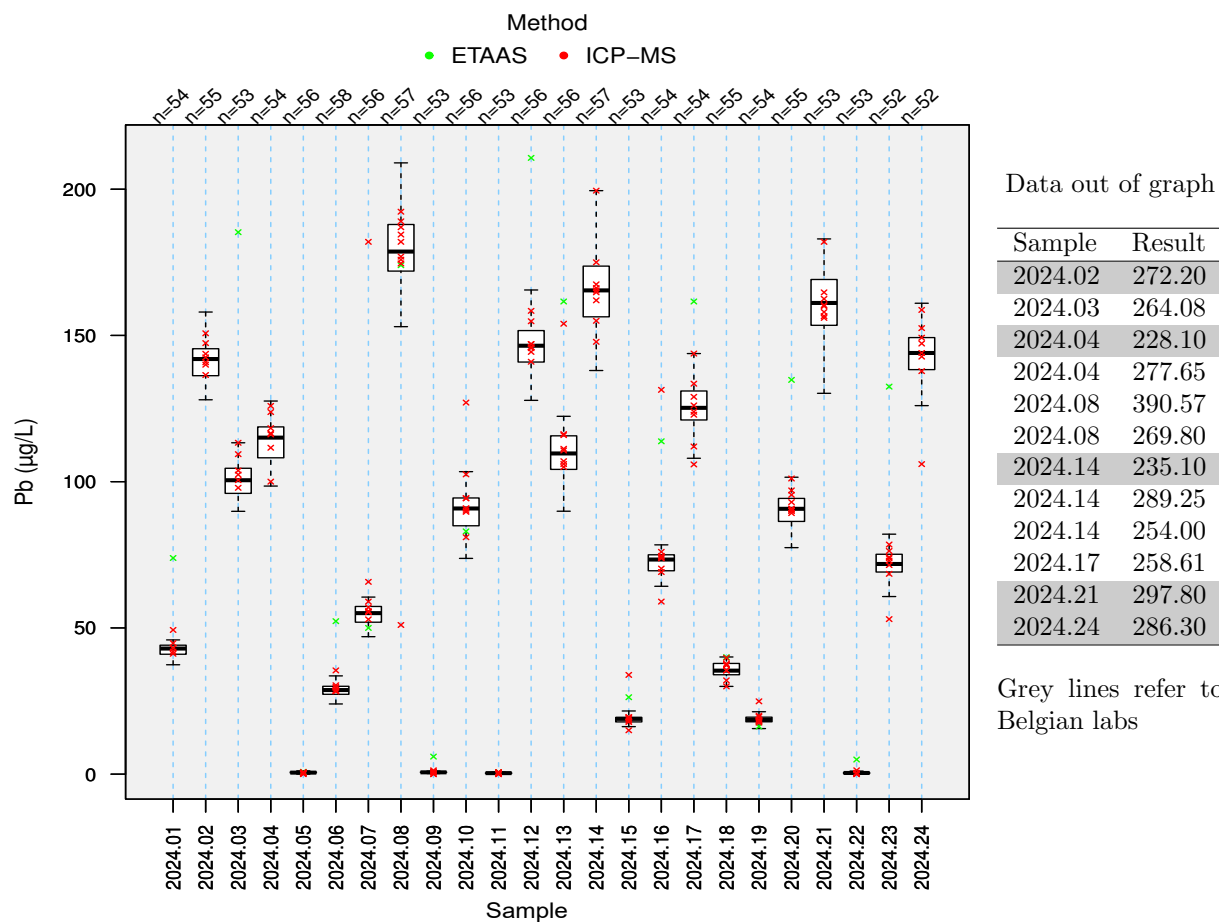


## 1.3.13 Pb

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	44.04	8.01	4	1	0	0	1
2024.01	ICP-MS	42.94	2.1	50	6	5	1	0
2024.01	Global	42.94	2.23	54	7	6	1	0
2024.02	ETAAS	139.15	27.19	4	1	0	0	1
2024.02	ICP-MS	142.14	6.83	51	7	7	0	0
2024.02	Global	141.93	6.83	55	8	7	1	0
2024.03	ETAAS	105	60.64	5	1	0	0	1
2024.03	ICP-MS	99.47	6.01	48	6	6	0	0
2024.03	Global	100.49	6.36	53	7	6	1	0
2024.04	ETAAS	122	83.03	5	1	0	0	1
2024.04	ICP-MS	114.21	7.41	49	7	7	0	0
2024.04	Global	115.06	7.62	54	8	7	1	0
2024.05	ETAAS	1.15	0.97	6	1	1	0	0
2024.05	ICP-MS	0.5	0.14	50	7	6	1	0
2024.06	ETAAS	29.22	11.32	7	1	1	0	0
2024.06	ICP-MS	28.71	2	51	8	7	1	0
2024.07	ETAAS	51.18	2.39	4	1	0	0	1
2024.07	ICP-MS	55.4	3.77	52	8	7	1	0
2024.07	Global	55.05	3.87	56	9	8	1	0
2024.08	ETAAS	180.7	48.14	4	1	0	0	1
2024.08	ICP-MS	178.67	11.81	53	9	8	1	0
2024.08	Global	178.67	11.81	57	10	9	1	0
2024.09	ETAAS	1.65	1.67	3	1	0	0	1
2024.09	ICP-MS	0.62	0.15	50	8	5	3	0
2024.09	Global	0.62	0.16	53	9	5	4	0
2024.10	ETAAS	98.5	13.55	4	1	0	0	1
2024.10	ICP-MS	90.44	6.7	52	9	8	1	0
2024.10	Global	90.83	7.01	56	10	9	1	0
2024.11	ETAAS	0.7	0.56	3	1	0	0	1
2024.11	ICP-MS	0.35	0.15	50	7	7	0	0
2024.11	Global	0.35	0.18	53	8	8	0	0
2024.12	ETAAS	177	17.75	3	1	0	0	1
2024.12	ICP-MS	146	6.08	53	9	9	0	0
2024.12	Global	146.48	7.79	56	10	9	1	0
2024.13	ETAAS	138.3	45.15	4	1	0	0	1
2024.13	ICP-MS	108.83	9.06	52	8	7	1	0
2024.13	Global	109.65	8.42	56	9	7	2	0
2024.14	ETAAS	244.55	33.76	4	1	0	0	1
2024.14	ICP-MS	165.03	12.6	53	9	9	0	0
2024.14	Global	165.4	12.85	57	10	9	1	0
2024.15	ETAAS	23.95	4.51	4	1	0	0	1
2024.15	ICP-MS	18.86	1.11	49	8	6	2	0
2024.15	Global	18.9	1.14	53	9	6	3	0
2024.16	ETAAS	94.4	46.08	4	1	0	0	1
2024.16	ICP-MS	73.06	3.72	50	9	7	2	0
2024.16	Global	73.38	3.94	54	10	7	3	0
2024.17	ETAAS	146.3	42.42	4	1	0	0	1
2024.17	ICP-MS	124.68	6.95	50	8	8	0	0
2024.17	Global	125.24	7.22	54	9	8	1	0
2024.18	ETAAS	39.09	3.04	4	1	0	0	1
2024.18	ICP-MS	35.29	2.71	51	9	9	0	0
2024.18	Global	35.39	2.87	55	10	10	0	0
2024.19	ETAAS	18.11	2.87	4	1	0	0	1
2024.19	ICP-MS	18.55	1.07	50	8	7	1	0
2024.19	Global	18.55	1.15	54	9	8	1	0
2024.20	ETAAS	115.07	34.07	4	1	0	0	1
2024.20	ICP-MS	90.7	4.85	51	9	9	0	0
2024.20	Global	90.72	5.83	55	10	9	1	0
2024.21	ETAAS	183	58.38	3	1	0	0	1

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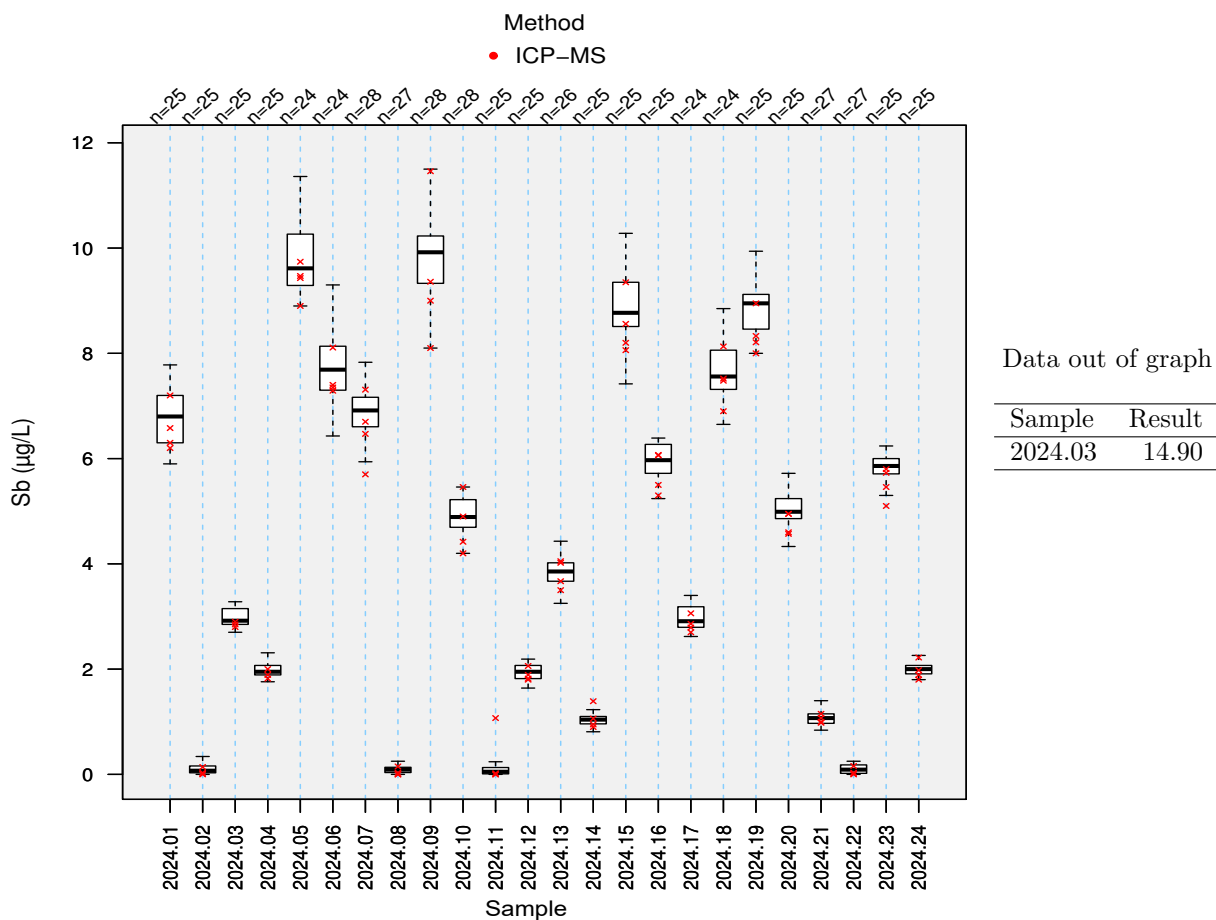
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.21	ICP-MS	161.05	11.27	50	8	8	0	0
2024.21	Global	161.1	11.62	53	9	8	1	0
2024.22	ETAAS	1.5	1.85	3	1	0	0	1
2024.22	ICP-MS	0.38	0.22	50	8	7	1	0
2024.22	Global	0.4	0.27	53	9	7	2	0
2024.23	ETAAS	76.16	12.26	4	1	0	0	1
2024.23	ICP-MS	71.81	4.25	48	8	7	1	0
2024.23	Global	71.86	4.31	52	9	7	2	0
2024.24	ETAAS	153.75	35.17	4	1	0	0	1
2024.24	ICP-MS	143.38	8.33	48	8	7	1	0
2024.24	Global	144	7.99	52	9	7	2	0





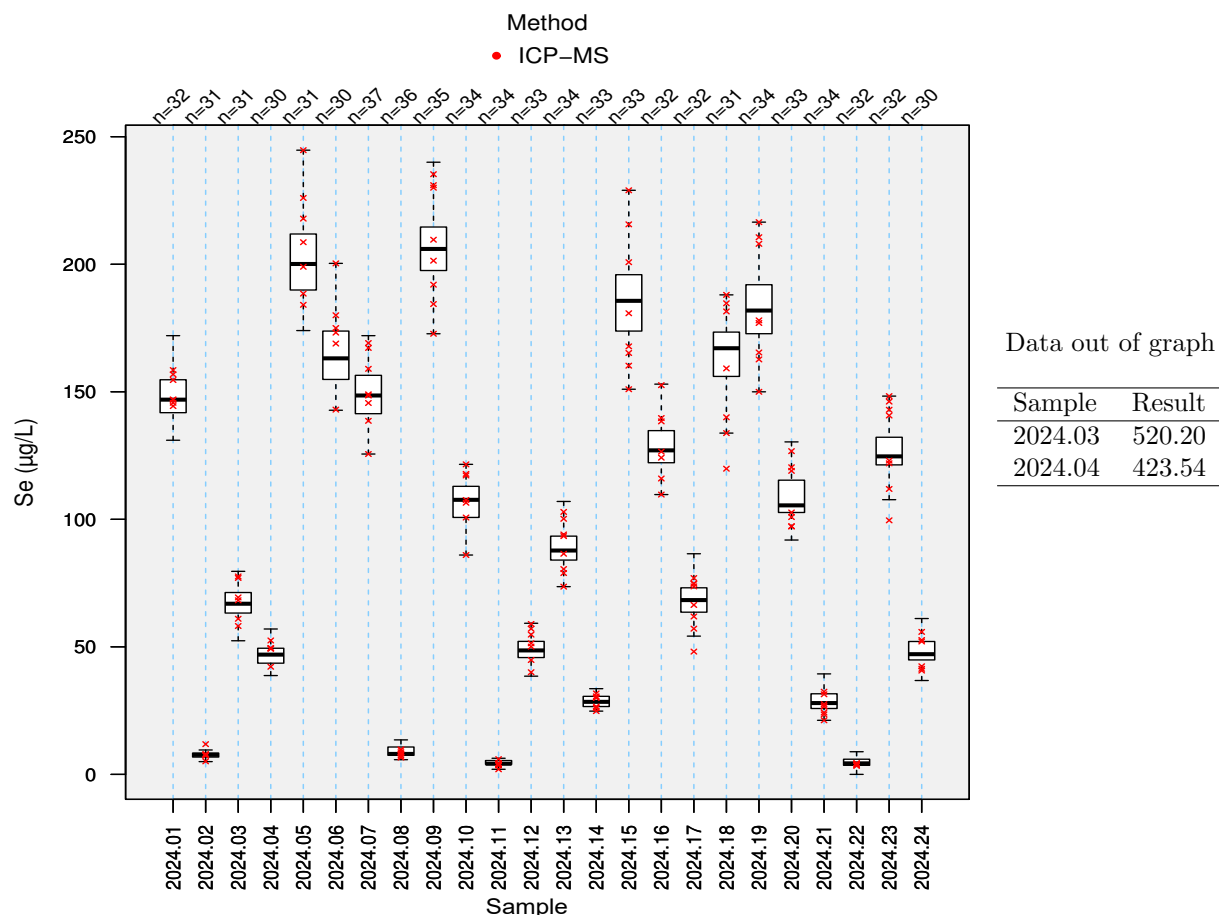
1.3.14 Sb

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	6.8	0.61	24	4	4	0	0
2024.02	ICP-MS	0.09	0.11	24	4	4	0	0
2024.03	ICP-MS	2.92	0.2	24	3	3	0	0
2024.04	ICP-MS	1.94	0.14	24	3	3	0	0
2024.05	ICP-MS	9.61	0.6	23	4	4	0	0
2024.06	ICP-MS	7.71	0.6	23	4	4	0	0
2024.07	ICP-MS	6.91	0.42	27	4	4	0	0
2024.08	ICP-MS	0.09	0.06	26	4	4	0	0
2024.09	ICP-MS	9.91	0.67	27	4	4	0	0
2024.10	ICP-MS	4.89	0.37	27	4	4	0	0
2024.11	ICP-MS	0.06	0.09	24	4	3	1	0
2024.12	ICP-MS	1.96	0.16	24	4	4	0	0
2024.13	ICP-MS	3.86	0.25	25	4	4	0	0
2024.14	ICP-MS	1.05	0.1	24	4	3	1	0
2024.15	ICP-MS	8.77	0.61	24	4	4	0	0
2024.16	ICP-MS	5.97	0.4	24	4	4	0	0
2024.17	ICP-MS	2.92	0.27	23	4	4	0	0
2024.18	ICP-MS	7.6	0.51	23	4	4	0	0
2024.19	ICP-MS	8.92	0.47	24	4	4	0	0
2024.20	ICP-MS	4.98	0.23	24	4	4	0	0
2024.21	ICP-MS	1.06	0.13	26	4	4	0	0
2024.22	ICP-MS	0.08	0.13	26	4	4	0	0
2024.23	ICP-MS	5.86	0.24	24	4	3	1	0
2024.24	ICP-MS	2	0.12	24	4	4	0	0



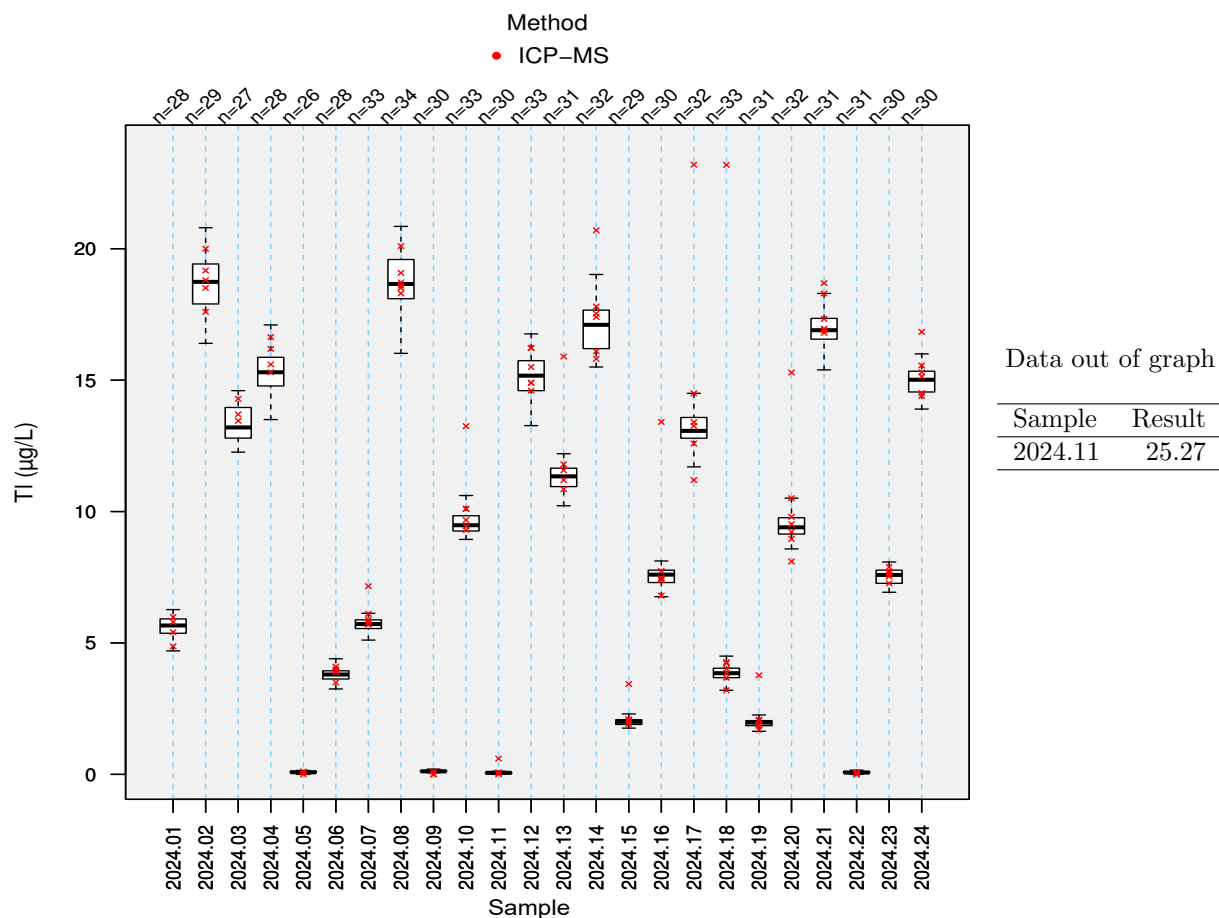
1.3.15 Se

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	146.92	9.38	32	7	7	0	0
2024.02	ICP-MS	7.67	1.16	31	6	5	1	0
2024.03	ICP-MS	66.9	5.97	31	6	6	0	0
2024.04	ICP-MS	46.95	4.07	30	5	5	0	0
2024.05	ICP-MS	200.1	16.28	31	7	7	0	0
2024.06	ICP-MS	163.11	13.73	30	6	6	0	0
2024.07	ICP-MS	148.54	11.15	37	8	8	0	0
2024.08	ICP-MS	8.03	2.24	36	7	7	0	0
2024.09	ICP-MS	206	12.64	35	8	8	0	0
2024.10	ICP-MS	107.64	8.38	34	7	7	0	0
2024.11	ICP-MS	4.16	1.05	34	8	8	0	0
2024.12	ICP-MS	48.6	4.7	33	7	7	0	0
2024.13	ICP-MS	87.76	6.58	34	8	8	0	0
2024.14	ICP-MS	28.44	2.97	33	8	8	0	0
2024.15	ICP-MS	185.65	16.38	33	8	8	0	0
2024.16	ICP-MS	127.03	7.59	32	7	6	1	0
2024.17	ICP-MS	68.34	6.73	32	8	8	0	0
2024.18	ICP-MS	167.07	12.88	31	7	6	1	0
2024.19	ICP-MS	181.85	14.16	34	8	8	0	0
2024.20	ICP-MS	105.47	9.38	33	7	7	0	0
2024.21	ICP-MS	27.96	4.2	34	8	8	0	0
2024.22	ICP-MS	4.32	1.62	32	6	6	0	0
2024.23	ICP-MS	124.67	7.22	32	8	6	2	0
2024.24	ICP-MS	47.12	4.88	30	6	6	0	0



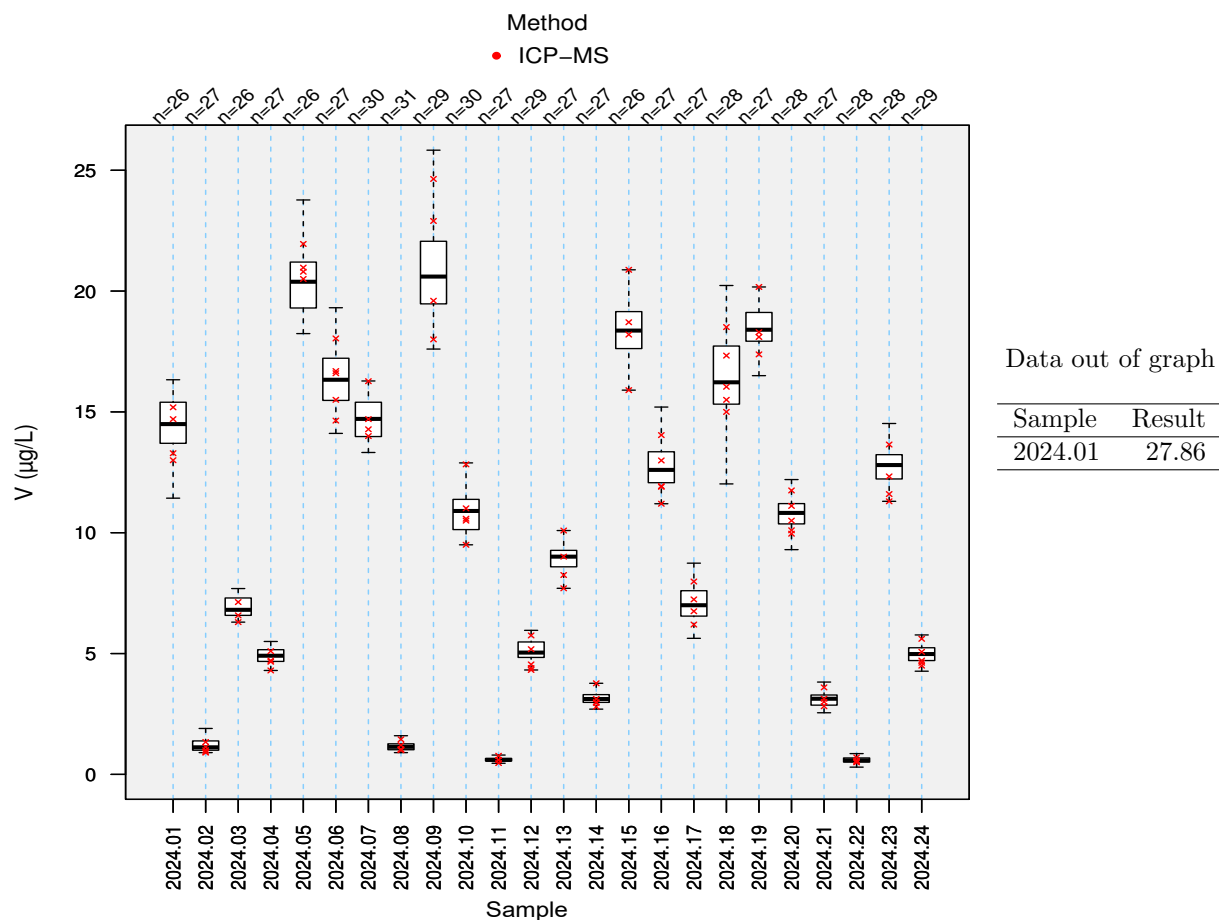
1.3.16 Tl

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	5.66	0.38	28	4	4	0	0
2024.02	ICP-MS	18.74	1.13	29	5	5	0	0
2024.03	ICP-MS	13.2	0.86	27	3	3	0	0
2024.04	ICP-MS	15.3	0.77	28	4	4	0	0
2024.05	ICP-MS	0.08	0.03	26	3	3	0	0
2024.06	ICP-MS	3.8	0.21	28	5	5	0	0
2024.07	ICP-MS	5.72	0.21	32	5	4	1	0
2024.08	ICP-MS	18.6	0.98	33	6	6	0	0
2024.09	ICP-MS	0.11	0.04	29	4	4	0	0
2024.10	ICP-MS	9.47	0.45	32	6	5	1	0
2024.11	ICP-MS	0.06	0.04	29	4	3	1	0
2024.12	ICP-MS	15.15	0.84	32	6	6	0	0
2024.13	ICP-MS	11.29	0.49	30	5	4	1	0
2024.14	ICP-MS	17.1	0.97	31	6	5	1	0
2024.15	ICP-MS	2	0.14	28	5	4	1	0
2024.16	ICP-MS	7.6	0.35	29	6	5	1	0
2024.17	ICP-MS	13.07	0.49	32	6	4	2	0
2024.18	ICP-MS	3.85	0.27	33	7	6	1	0
2024.19	ICP-MS	1.98	0.14	30	6	5	1	0
2024.20	ICP-MS	9.4	0.46	31	7	6	1	0
2024.21	ICP-MS	16.9	0.55	30	6	5	1	0
2024.22	ICP-MS	0.07	0.04	30	6	6	0	0
2024.23	ICP-MS	7.58	0.35	29	6	6	0	0
2024.24	ICP-MS	14.93	0.58	29	6	5	1	0



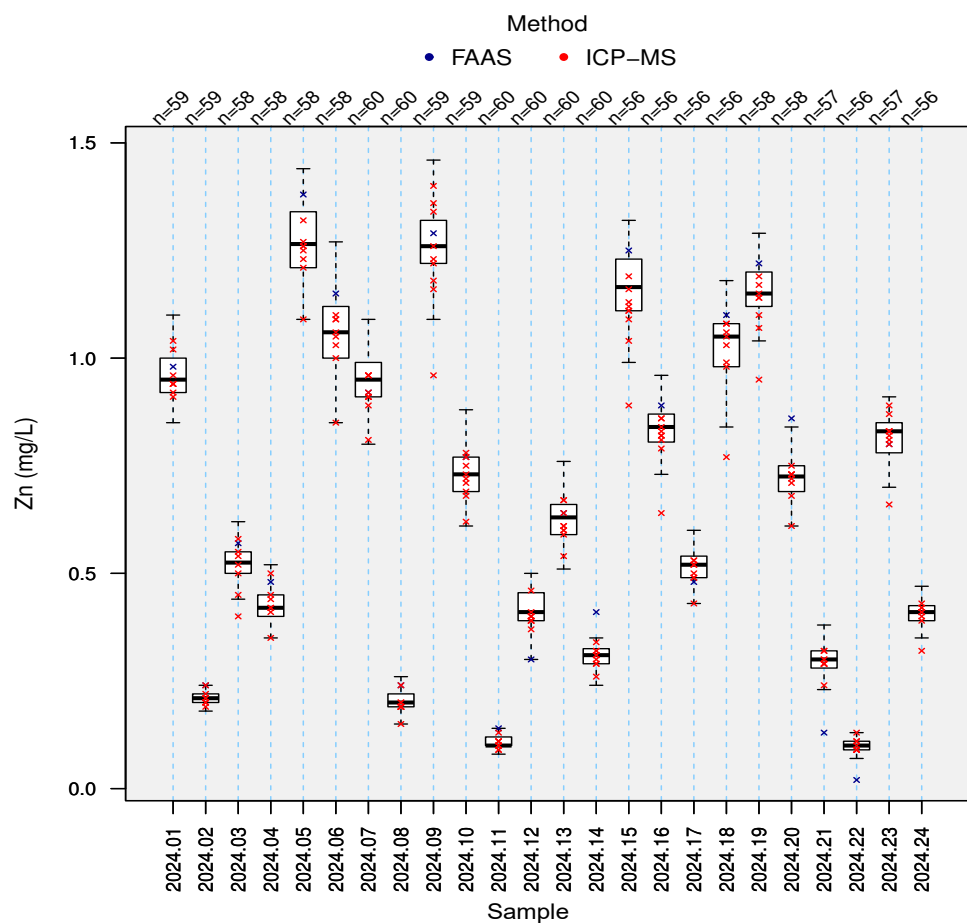
1.3.17 V

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	14.5	1.23	26	4	4	0	0
2024.02	ICP-MS	1.12	0.29	27	5	5	0	0
2024.03	ICP-MS	6.81	0.5	26	3	3	0	0
2024.04	ICP-MS	4.91	0.36	27	4	4	0	0
2024.05	ICP-MS	20.38	1.38	26	4	4	0	0
2024.06	ICP-MS	16.33	1.29	27	5	5	0	0
2024.07	ICP-MS	14.71	1.03	30	4	4	0	0
2024.08	ICP-MS	1.14	0.18	31	5	5	0	0
2024.09	ICP-MS	20.6	1.92	29	4	4	0	0
2024.10	ICP-MS	10.9	0.9	30	5	5	0	0
2024.11	ICP-MS	0.6	0.08	27	4	4	0	0
2024.12	ICP-MS	5.04	0.47	29	5	5	0	0
2024.13	ICP-MS	9.01	0.5	27	4	4	0	0
2024.14	ICP-MS	3.12	0.24	27	5	5	0	0
2024.15	ICP-MS	18.37	0.98	26	4	4	0	0
2024.16	ICP-MS	12.6	0.95	27	5	5	0	0
2024.17	ICP-MS	7	0.78	27	4	4	0	0
2024.18	ICP-MS	16.23	1.74	28	5	5	0	0
2024.19	ICP-MS	18.4	0.88	27	4	4	0	0
2024.20	ICP-MS	10.82	0.57	28	5	5	0	0
2024.21	ICP-MS	3.13	0.31	27	4	4	0	0
2024.22	ICP-MS	0.58	0.12	28	5	5	0	0
2024.23	ICP-MS	12.8	0.73	28	4	4	0	0
2024.24	ICP-MS	4.98	0.39	29	5	5	0	0



## 1.3.18 Zn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	FAAS	0.98	0.04	8	1	1	0	0
2024.01	ICP-MS	0.95	0.06	48	8	8	0	0
2024.02	FAAS	0.22	0.02	8	1	1	0	0
2024.02	ICP-MS	0.21	0.01	48	8	8	0	0
2024.03	FAAS	0.58	0.08	8	1	1	0	0
2024.03	ICP-MS	0.52	0.04	47	7	7	0	0
2024.04	FAAS	0.44	0.06	8	1	1	0	0
2024.04	ICP-MS	0.42	0.03	47	7	7	0	0
2024.05	FAAS	1.34	0.07	8	1	1	0	0
2024.05	ICP-MS	1.26	0.09	47	8	8	0	0
2024.06	FAAS	1.1	0.06	8	1	1	0	0
2024.06	ICP-MS	1.06	0.08	47	8	8	0	0
2024.07	FAAS	0.99	0.09	9	1	1	0	0
2024.07	ICP-MS	0.95	0.04	50	9	8	1	0
2024.08	FAAS	0.22	0.03	9	1	1	0	0
2024.08	ICP-MS	0.2	0.01	50	9	7	2	0
2024.09	FAAS	1.37	0.09	9	1	1	0	0
2024.09	ICP-MS	1.25	0.09	49	9	8	1	0
2024.10	FAAS	0.78	0.06	9	1	1	0	0
2024.10	ICP-MS	0.72	0.04	49	9	9	0	0
2024.11	FAAS	0.16	0.07	9	1	1	0	0
2024.11	ICP-MS	0.1	0.01	50	9	9	0	0
2024.12	FAAS	0.47	0.06	9	1	1	0	0
2024.12	ICP-MS	0.41	0.04	50	9	9	0	0
2024.13	FAAS	0.7	0.07	9	1	1	0	0
2024.13	ICP-MS	0.61	0.04	50	9	9	0	0
2024.14	FAAS	0.38	0.07	9	1	1	0	0
2024.14	ICP-MS	0.3	0.02	50	9	9	0	0
2024.15	FAAS	1.28	0.04	8	1	1	0	0
2024.15	ICP-MS	1.16	0.07	47	9	8	1	0
2024.16	FAAS	0.88	0.06	8	1	1	0	0
2024.16	ICP-MS	0.84	0.05	47	9	8	1	0
2024.17	FAAS	0.56	0.07	9	1	1	0	0
2024.17	ICP-MS	0.52	0.03	46	9	8	1	0
2024.18	FAAS	1.11	0.04	9	1	1	0	0
2024.18	ICP-MS	1.03	0.07	46	9	7	2	0
2024.19	FAAS	1.22	0.09	9	1	1	0	0
2024.19	ICP-MS	1.15	0.07	48	9	8	1	0
2024.20	FAAS	0.81	0.07	9	1	1	0	0
2024.20	ICP-MS	0.72	0.04	48	9	8	1	0
2024.21	FAAS	0.32	0.1	9	1	1	0	0
2024.21	ICP-MS	0.3	0.02	47	9	9	0	0
2024.22	FAAS	0.12	0.06	9	1	1	0	0
2024.22	ICP-MS	0.1	0.01	46	8	8	0	0
2024.23	FAAS	0.85	0.04	9	1	1	0	0
2024.23	ICP-MS	0.83	0.05	47	9	8	1	0
2024.24	FAAS	0.41	0.01	9	1	1	0	0
2024.24	ICP-MS	0.41	0.02	46	8	7	1	0



Data out of graph

Sample	Result
2024.01	10.57
2024.02	22.46
2024.03	8.00
2024.04	9.17
2024.05	387.00
2024.06	1618.00
2024.07	928.00
2024.08	194.00
2024.09	1410.00
2024.09	1.83
2024.10	545.00
2024.11	0.00
2024.11	0.00
2024.12	4.86
2024.17	502.52
2024.18	1032.75
2024.18	1334.00
2024.19	1.50
2024.19	1117.06
2024.19	101.00
2024.20	72.47
2024.22	0.02
2024.22	0.00
2024.24	5.21

Grey lines refer to Belgian labs

## 2 TRACE ELEMENTS IN SERUM

### 2.1 PARTICIPATION

33 laboratories participated to the EQA for serum matrix.

Parameter	N labs	Recorded results	Expected number of results	percentage
Al	8	178	192	92.7 %
Co	7	157	168	93.5 %
Cr	7	159	168	94.6 %
Cu	28	595	672	88.5 %
Li	8	148	192	77.1 %
Mg	6	110	144	76.4 %
Mo	4	94	96	97.9 %
Se	15	339	360	94.2 %
Tl	1	22	24	91.7 %
Zn	30	639	720	88.8 %
Total		2441	2736	89.22

### 2.2 GLOBAL RESULTS

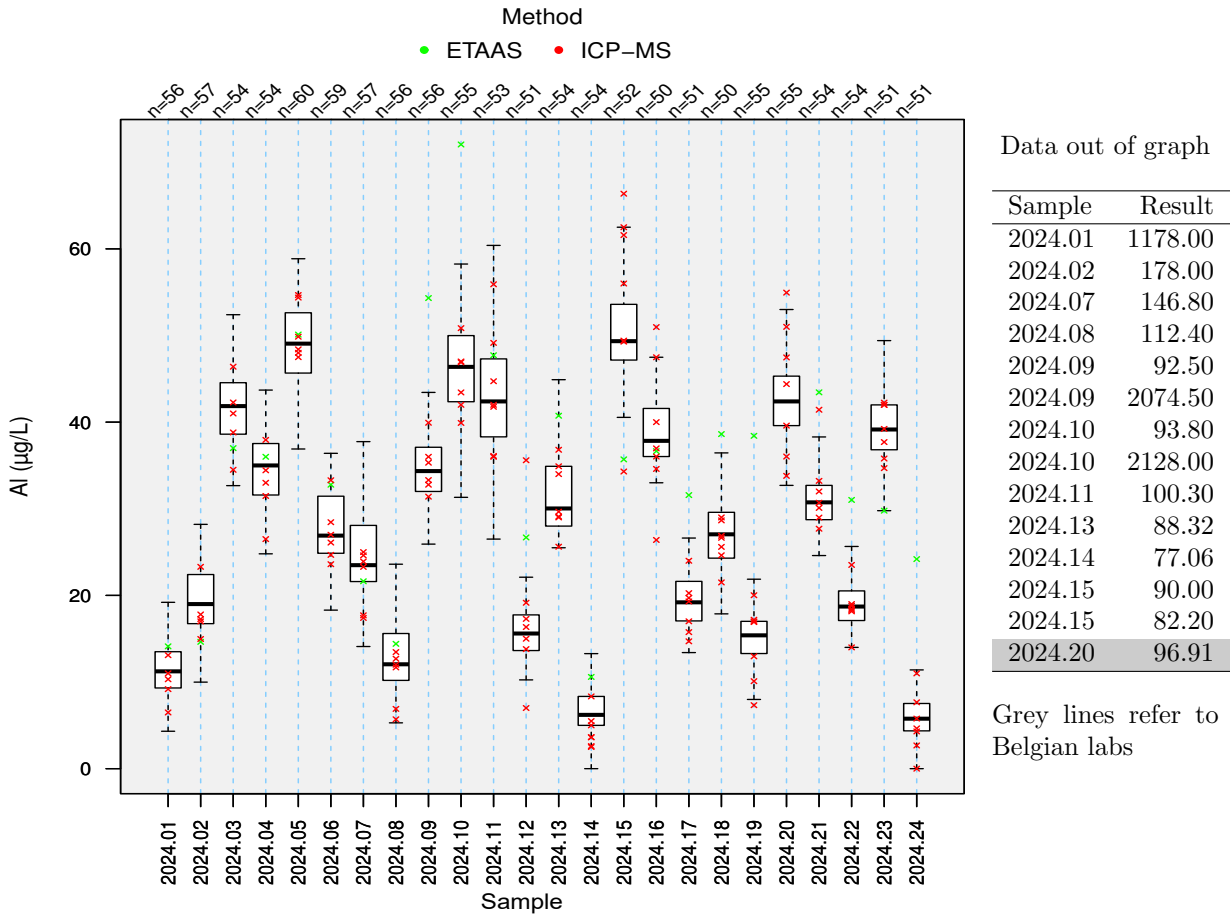
STAT	Element	Total number of results	Number of evaluated results	Number of Z citations	% citations
MA	Al	178	171	10	5.8
MA+GA	Al	178	178 (+7)	14 (+4)	7.9
MA	Co	157	157	11	7
MA	Cr	159	159	7	4.4
MA	Cu	595	549	30	5.5
MA+GA	Cu	595	595 (+46)	36 (+6)	6
MA	Li	148	126	7	5.6
MA+GA	Li	148	148 (+22)	9 (+2)	6.1
MA	Mg	110	110	2	1.8
MA	Mo	94	94	8	8.5
MA	Se	339	339	16	4.7
MA	Tl	22	22	7	31.8
MA	Zn	639	629	38	6
MA+GA	Zn	639	639 (+10)	42 (+4)	6.6
Total	MA+GA	2441	2441	152	6.2
	MA	2441	2356	136	5.8

## 2.3 RESULTS PER ELEMENT

## 2.3.1 Al

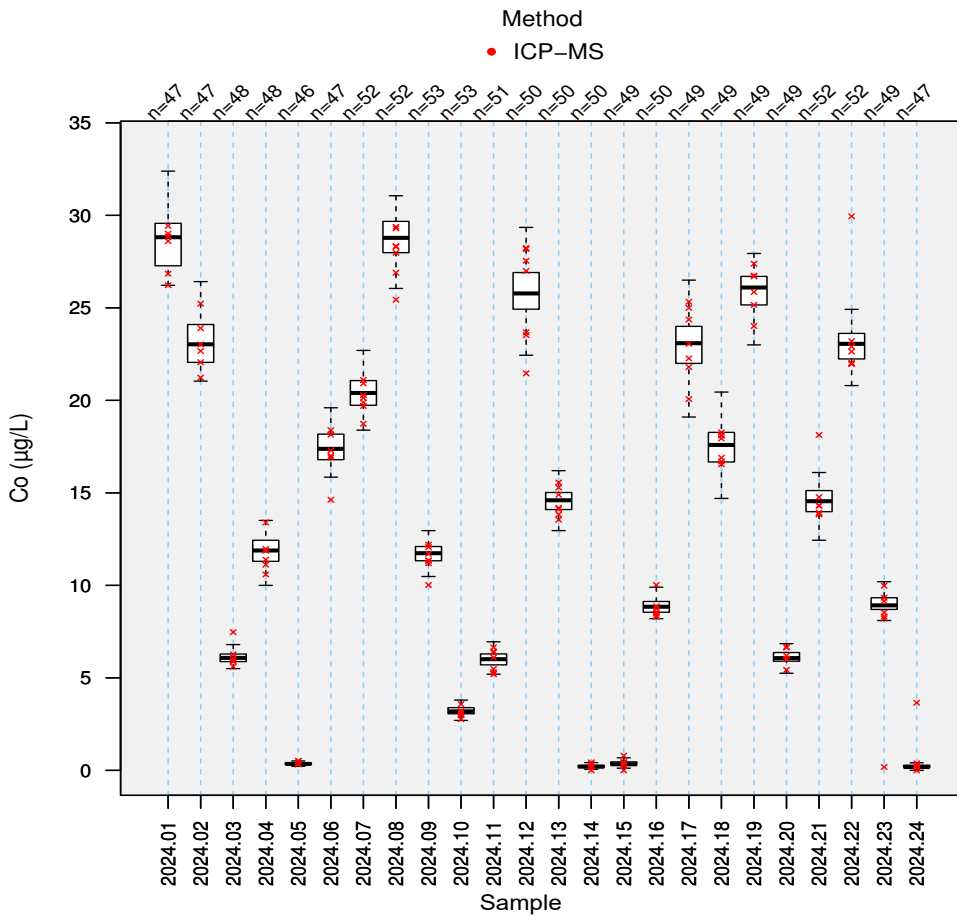
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	12.15	2.34	11	1	1	0	0
2024.01	ICP-MS	11	3.25	43	5	5	0	0
2024.02	ETAAS	19.3	2.24	11	1	1	0	0
2024.02	ICP-MS	18.9	4.3	44	5	5	0	0
2024.03	ETAAS	38.4	3.93	10	1	1	0	0
2024.03	ICP-MS	42.27	3.68	43	5	5	0	0
2024.04	ETAAS	33.85	4.98	10	1	1	0	0
2024.04	ICP-MS	35	4	43	5	5	0	0
2024.05	ETAAS	45.63	6.43	11	1	1	0	0
2024.05	ICP-MS	49.68	4.64	47	6	6	0	0
2024.06	ETAAS	25.8	1.91	11	1	0	1	0
2024.06	ICP-MS	27	5.38	46	6	6	0	0
2024.07	ETAAS	27.08	3.78	6	1	1	0	0
2024.07	ICP-MS	23.39	4.46	50	6	6	0	0
2024.08	ETAAS	14.86	1.81	6	1	1	0	0
2024.08	ICP-MS	11.8	4.23	49	6	6	0	0
2024.09	ETAAS	38.07	5.6	7	1	1	0	0
2024.09	ICP-MS	34.35	2.98	48	6	6	0	0
2024.10	ETAAS	52.7	8.48	7	1	1	0	0
2024.10	ICP-MS	46.3	4.97	47	6	6	0	0
2024.11	ETAAS	44.22	3.35	5	1	0	0	1
2024.11	ICP-MS	42.18	6.58	47	7	7	0	0
2024.11	Global	42.39	6.67	53	8	8	0	0
2024.12	ETAAS	17.47	1.8	5	1	0	0	1
2024.12	ICP-MS	15.6	3.19	45	7	6	1	0
2024.12	Global	15.6	3.05	51	8	6	2	0
2024.13	ETAAS	34.42	4.05	6	1	1	0	0
2024.13	ICP-MS	29.66	4.76	47	7	7	0	0
2024.14	ETAAS	8.05	1.18	6	1	1	0	0
2024.14	ICP-MS	6.1	2.46	47	7	7	0	0
2024.15	ETAAS	50.36	5.25	6	1	1	0	0
2024.15	ICP-MS	49.4	4.34	45	7	4	3	0
2024.16	ETAAS	42.39	4.22	5	1	0	0	1
2024.16	ICP-MS	37.84	3.81	44	7	6	1	0
2024.16	Global	37.84	3.98	50	8	7	1	0
2024.17	ETAAS	21.28	3.29	7	1	0	1	0
2024.17	ICP-MS	18.9	3.25	43	7	7	0	0
2024.18	ETAAS	29.9	5.4	7	1	1	0	0
2024.18	ICP-MS	26.94	3.63	42	7	7	0	0
2024.19	ETAAS	17.3	0.74	6	1	0	1	0
2024.19	ICP-MS	15.05	3.02	48	7	7	0	0
2024.20	ETAAS	47.58	4.9	6	1	0	1	0
2024.20	ICP-MS	42.1	4.67	48	7	7	0	0
2024.21	ETAAS	33.58	3.85	5	1	0	0	1
2024.21	ICP-MS	30.3	2.77	48	7	6	1	0
2024.21	Global	30.74	2.84	54	8	6	2	0
2024.22	ETAAS	19.96	2.31	5	1	0	0	1
2024.22	ICP-MS	18.59	2.38	48	7	7	0	0
2024.22	Global	18.72	2.38	54	8	7	1	0
2024.23	ETAAS	36.72	0.67	5	1	0	0	1
2024.23	ICP-MS	39.42	3.71	45	7	7	0	0
2024.23	Global	39.15	3.84	51	8	8	0	0
2024.24	ETAAS	6.6	1.53	5	1	0	0	1
2024.24	ICP-MS	5.7	2.41	45	7	7	0	0
2024.24	Global	5.77	2.34	51	8	7	1	0





2.3.2 Co

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	28.82	1.43	43	6	6	0	0
2024.02	ICP-MS	23.03	1.5	43	6	6	0	0
2024.03	ICP-MS	6.08	0.27	44	6	5	1	0
2024.04	ICP-MS	11.88	0.82	44	6	6	0	0
2024.05	ICP-MS	0.35	0.05	42	5	3	2	0
2024.06	ICP-MS	17.56	1.02	43	6	6	0	0
2024.07	ICP-MS	20.31	0.95	48	7	7	0	0
2024.08	ICP-MS	28.73	1.14	48	7	7	0	0
2024.09	ICP-MS	11.71	0.6	49	7	7	0	0
2024.10	ICP-MS	3.15	0.21	49	7	7	0	0
2024.11	ICP-MS	6.01	0.52	47	7	7	0	0
2024.12	ICP-MS	25.75	1.77	46	7	7	0	0
2024.13	ICP-MS	14.6	0.66	46	7	7	0	0
2024.14	ICP-MS	0.2	0.07	46	7	6	1	0
2024.15	ICP-MS	0.33	0.12	45	6	5	1	0
2024.16	ICP-MS	8.84	0.42	46	7	7	0	0
2024.17	ICP-MS	23.09	1.41	45	7	7	0	0
2024.18	ICP-MS	17.62	1.08	45	7	7	0	0
2024.19	ICP-MS	26.2	1.1	45	6	6	0	0
2024.20	ICP-MS	6.04	0.3	45	6	6	0	0
2024.21	ICP-MS	14.55	0.81	48	7	6	1	0
2024.22	ICP-MS	23.01	1.05	48	7	6	1	0
2024.23	ICP-MS	8.9	0.5	45	7	6	1	0
2024.24	ICP-MS	0.18	0.04	43	6	3	3	0

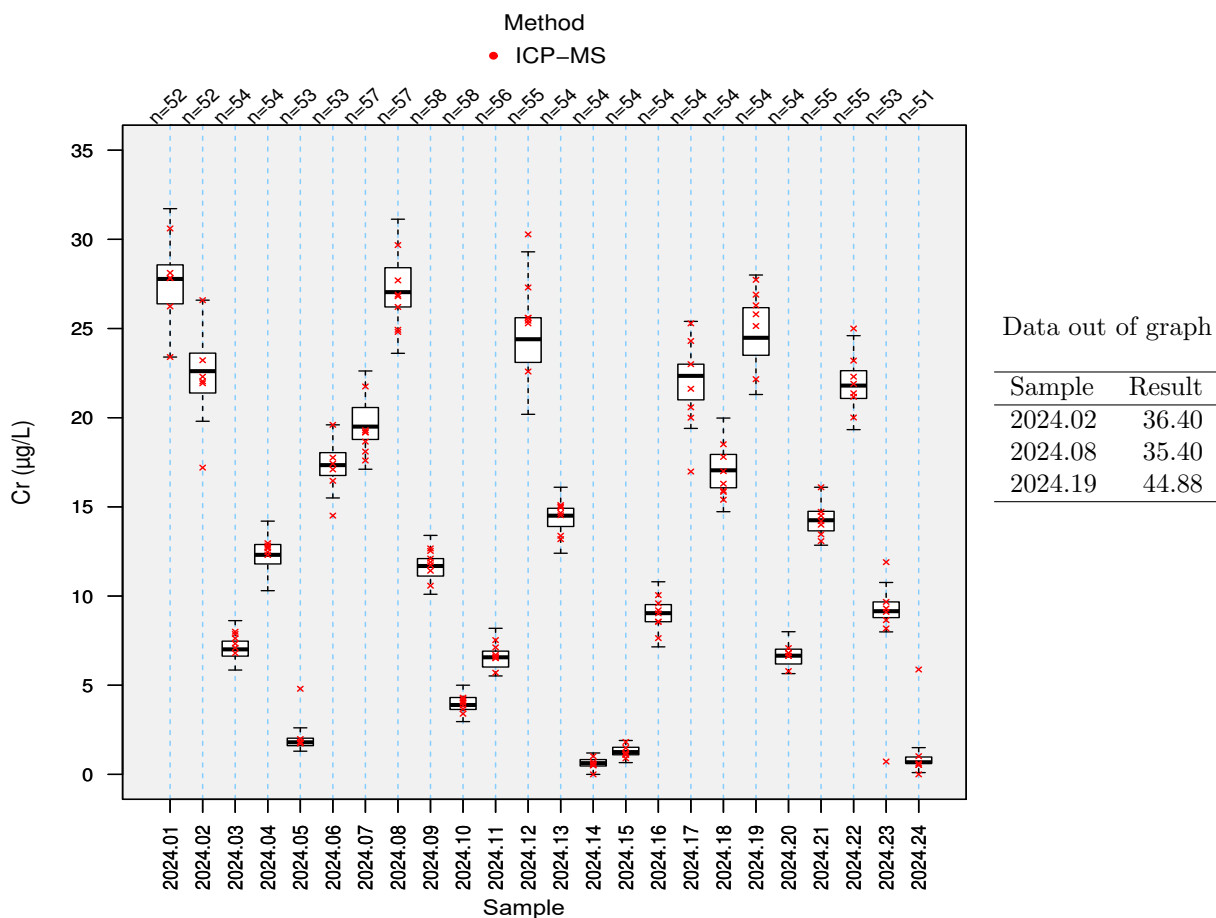


Data out of graph

Sample	Result
2024.08	37.60
2024.08	36.10
2024.19	36.29

2.3.3 Cr

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	27.86	2.17	44	6	6	0	0
2024.02	ICP-MS	22.66	1.79	44	6	5	1	0
2024.03	ICP-MS	7.14	0.57	46	6	6	0	0
2024.04	ICP-MS	12.41	0.77	46	6	6	0	0
2024.05	ICP-MS	1.82	0.4	45	6	5	1	0
2024.06	ICP-MS	17.6	0.82	45	6	5	1	0
2024.07	ICP-MS	19.51	1.5	50	7	7	0	0
2024.08	ICP-MS	27.04	1.81	50	7	7	0	0
2024.09	ICP-MS	11.65	0.85	51	7	7	0	0
2024.10	ICP-MS	3.93	0.54	51	7	7	0	0
2024.11	ICP-MS	6.6	0.69	49	7	7	0	0
2024.12	ICP-MS	24.66	2.44	48	7	7	0	0
2024.13	ICP-MS	14.51	0.79	47	7	7	0	0
2024.14	ICP-MS	0.63	0.24	47	7	7	0	0
2024.15	ICP-MS	1.26	0.34	47	7	7	0	0
2024.16	ICP-MS	9.08	0.81	47	7	7	0	0
2024.17	ICP-MS	22.52	1.3	47	7	6	1	0
2024.18	ICP-MS	17.2	1.42	47	7	7	0	0
2024.19	ICP-MS	24.66	2.14	48	6	6	0	0
2024.20	ICP-MS	6.68	0.62	48	6	6	0	0
2024.21	ICP-MS	14.28	0.81	50	7	7	0	0
2024.22	ICP-MS	21.84	1.31	50	7	7	0	0
2024.23	ICP-MS	9.2	0.74	47	7	5	2	0
2024.24	ICP-MS	0.69	0.3	45	6	5	1	0



## 2.3.4 Cu

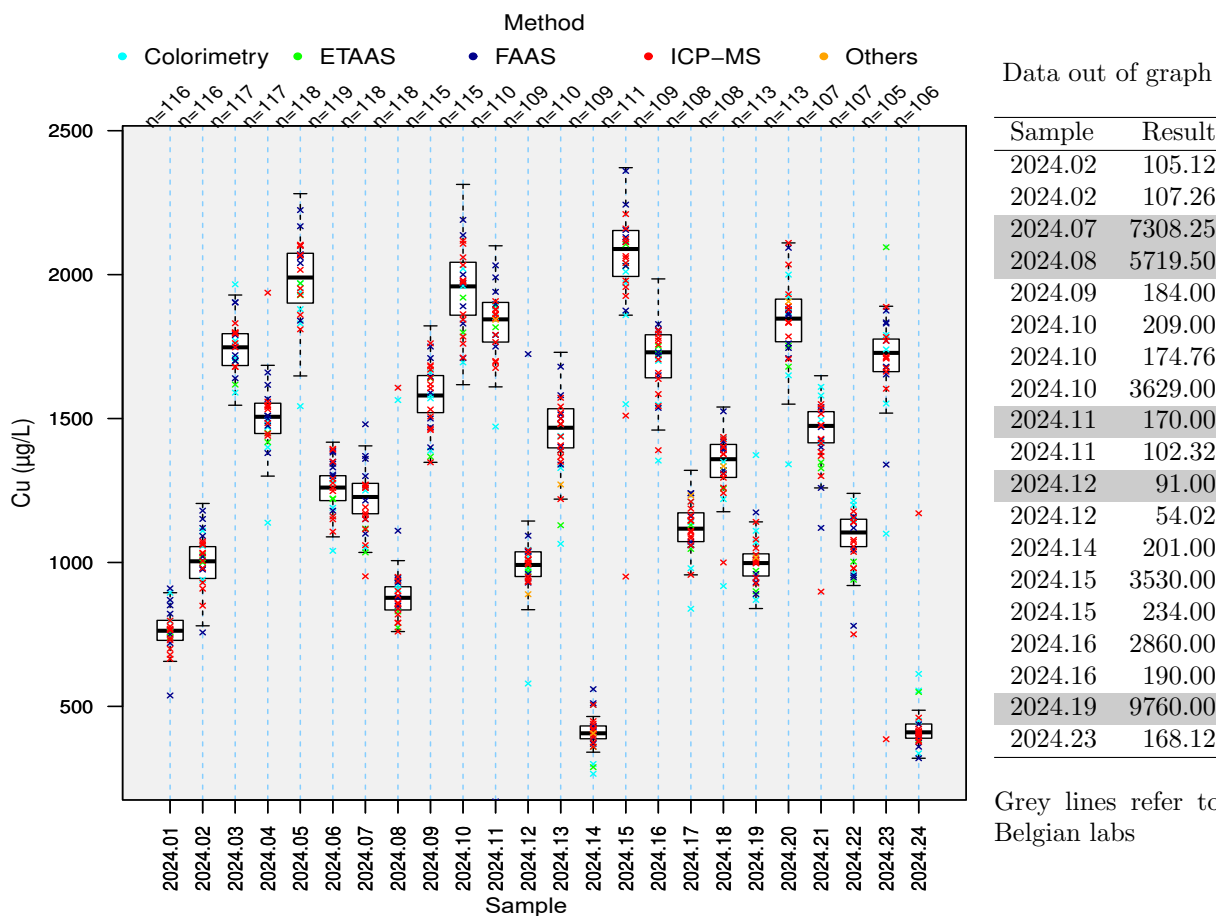
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	Colorimetry	694	96.8	7	3	3	0	0
2024.01	ETAAS	762.6	29.34	8	2	2	0	0
2024.01	FAAS	781.67	54.11	35	8	7	1	0
2024.01	ICP-MS	761.3	43.54	60	10	10	0	0
2024.02	Colorimetry	870	184.6	7	3	3	0	0
2024.02	ETAAS	1020.26	38.79	8	2	2	0	0
2024.02	FAAS	1020	52.7	35	8	6	2	0
2024.02	ICP-MS	1004.09	84.78	60	10	10	0	0
2024.03	Colorimetry	1710	94.35	9	4	4	0	0
2024.03	ETAAS	1692.04	96.23	8	2	2	0	0
2024.03	FAAS	1738	78.52	33	8	8	0	0
2024.03	ICP-MS	1753.98	77.06	61	9	9	0	0
2024.04	Colorimetry	1460	68.25	9	4	3	1	0
2024.04	ETAAS	1502.96	151.18	8	2	2	0	0
2024.04	FAAS	1506	76.35	33	8	8	0	0
2024.04	ICP-MS	1506.14	67.39	61	9	8	1	0
2024.05	Colorimetry	1880	216.46	9	5	5	0	0
2024.05	ETAAS	1962	60.21	7	2	2	0	0
2024.05	FAAS	2061.5	119.72	34	8	8	0	0
2024.05	ICP-MS	1991.02	111.24	62	10	10	0	0
2024.06	Colorimetry	1178.45	97.35	10	5	5	0	0
2024.06	ETAAS	1222.3	41.65	7	2	2	0	0
2024.06	FAAS	1297.26	72.81	34	8	8	0	0
2024.06	ICP-MS	1255	54.03	62	10	10	0	0
2024.07	Colorimetry	1198	74.06	9	4	4	0	0
2024.07	ETAAS	1162.72	89.78	4	2	0	0	2
2024.07	FAAS	1260	88.96	33	7	7	0	0
2024.07	ICP-MS	1226.52	72.82	67	12	11	1	0
2024.07	Others	7308.25	0	1	1	0	0	1
2024.07	Global	1227.47	77.9	118	26	23	3	0
2024.08	Colorimetry	907	75.89	9	4	3	1	0
2024.08	ETAAS	828.18	17.08	4	2	0	0	2
2024.08	FAAS	900	43.37	33	7	6	1	0
2024.08	ICP-MS	871	49.84	67	12	11	1	0
2024.08	Others	5719.5	0	1	1	0	0	1
2024.08	Global	877.21	59.12	118	26	22	4	0
2024.09	Colorimetry	1550.62	109.48	9	4	4	0	0
2024.09	ETAAS	1550.07	99.39	4	2	0	0	2
2024.09	FAAS	1633.5	143.81	32	7	7	0	0
2024.09	ICP-MS	1574.77	84.98	66	12	12	0	0
2024.09	Global	1580	95.43	115	25	25	0	0
2024.10	Colorimetry	1903	130.42	9	4	4	0	0
2024.10	ETAAS	1900.54	55.37	4	2	0	0	2
2024.10	FAAS	1990	169.8	32	7	7	0	0
2024.10	ICP-MS	1952.53	101.62	66	12	12	0	0
2024.10	Global	1959	136.3	115	25	25	0	0
2024.11	Colorimetry	1790	165.31	9	5	5	0	0
2024.11	ETAAS	1829.97	34.33	4	2	0	0	2
2024.11	FAAS	1904.5	103.16	30	7	6	1	0
2024.11	ICP-MS	1837.17	93.03	62	12	12	0	0
2024.11	Others	1842.95	0	1	1	0	0	1
2024.11	Global	1844.47	99.15	110	27	25	2	0
2024.12	Colorimetry	930	151.23	9	5	5	0	0
2024.12	ETAAS	985.75	15.07	4	2	0	0	2
2024.12	FAAS	1038.57	76.37	30	7	5	2	0
2024.12	ICP-MS	972.32	49.76	61	12	12	0	0
2024.12	Others	889.7	0	1	1	0	0	1
2024.12	Global	991.38	63.61	109	27	24	3	0
2024.13	Colorimetry	1372.9	191.7	7	4	4	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.13	ETAAS	1394.05	88.01	4	2	0	0	2
2024.13	FAAS	1472.75	104.62	31	7	7	0	0
2024.13	ICP-MS	1476.9	90.77	63	12	12	0	0
2024.13	Others	1271	0	1	1	0	0	1
2024.13	Global	1468.01	100.13	110	26	24	2	0
2024.14	Colorimetry	359	84.79	7	4	4	0	0
2024.14	ETAAS	370.65	36.68	4	2	0	0	2
2024.14	FAAS	427.98	40.75	30	7	6	1	0
2024.14	ICP-MS	403	27.56	63	12	11	1	0
2024.14	Others	406.72	0	1	1	0	0	1
2024.14	Global	406.72	32.97	109	26	21	5	0
2024.15	Colorimetry	1943.43	88.96	9	5	4	1	0
2024.15	ETAAS	2120.24	46.56	4	2	0	0	2
2024.15	FAAS	2114	104.18	31	7	7	0	0
2024.15	ICP-MS	2064.2	110.04	63	12	10	2	0
2024.15	Global	2088.8	118.25	111	26	23	3	0
2024.16	Colorimetry	1700	200.15	9	5	5	0	0
2024.16	ETAAS	1762.28	24.21	4	2	0	0	2
2024.16	FAAS	1745.27	98.61	30	7	7	0	0
2024.16	ICP-MS	1732.46	113.04	62	11	10	1	0
2024.16	Global	1730	110.82	109	25	23	2	0
2024.17	Colorimetry	1090	146.96	6	4	4	0	0
2024.17	ETAAS	1103.59	49.39	4	2	0	0	2
2024.17	FAAS	1147.2	119.53	32	6	6	0	0
2024.17	ICP-MS	1108.52	53.79	62	11	11	0	0
2024.17	Others	1232.87	0	1	1	0	0	1
2024.17	Global	1117.42	72.75	108	24	23	1	0
2024.18	Colorimetry	1250	107.69	6	4	3	1	0
2024.18	ETAAS	1343.8	54.73	4	2	0	0	2
2024.18	FAAS	1385.47	60.03	32	6	6	0	0
2024.18	ICP-MS	1345	79.7	61	11	10	1	0
2024.18	Others	1334.55	0	1	1	0	0	1
2024.18	Global	1358.72	84.56	108	24	22	2	0
2024.19	Colorimetry	1008	126.06	10	5	4	1	0
2024.19	ETAAS	987.22	40.84	4	2	0	0	2
2024.19	FAAS	1000	39.88	31	7	6	1	0
2024.19	ICP-MS	998	56.71	63	10	10	0	0
2024.19	Others	1016.8	0	1	1	0	0	1
2024.19	Global	998	57.08	113	25	22	3	0
2024.20	Colorimetry	1788.75	168.57	10	5	5	0	0
2024.20	ETAAS	1816.5	112	4	2	0	0	2
2024.20	FAAS	1847	88.41	31	7	7	0	0
2024.20	ICP-MS	1850	118.61	63	10	10	0	0
2024.20	Others	1906.5	0	1	1	0	0	1
2024.20	Global	1847	109.76	113	25	24	1	0
2024.21	Colorimetry	1538	121.2	6	4	4	0	0
2024.21	ETAAS	1388.99	71.41	4	2	0	0	2
2024.21	FAAS	1471.55	87.28	30	7	6	1	0
2024.21	ICP-MS	1478	73.46	63	11	10	1	0
2024.21	Global	1474.36	80.27	107	24	22	2	0
2024.22	Colorimetry	1175	148.59	6	4	4	0	0
2024.22	ETAAS	1046.4	76.85	4	2	0	0	2
2024.22	FAAS	1092.3	81.76	30	7	6	1	0
2024.22	ICP-MS	1105.77	59.93	63	11	10	1	0
2024.22	Global	1104.25	70.44	107	24	22	2	0
2024.23	Colorimetry	1735	121.22	6	4	3	1	0
2024.23	ETAAS	1702.9	105.24	4	2	0	0	2
2024.23	FAAS	1720	88.51	31	7	6	1	0
2024.23	ICP-MS	1727.4	92.65	61	11	10	1	0
2024.23	Global	1728	83.86	105	24	20	4	0
2024.24	Colorimetry	450	61.24	6	4	4	0	0
2024.24	ETAAS	385.73	36.8	4	2	0	0	2

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.24	FAAS	417.52	36.42	31	7	7	0	0
2024.24	ICP-MS	406.2	24.66	61	11	10	1	0
2024.24	Global	410	36.39	106	24	20	4	0

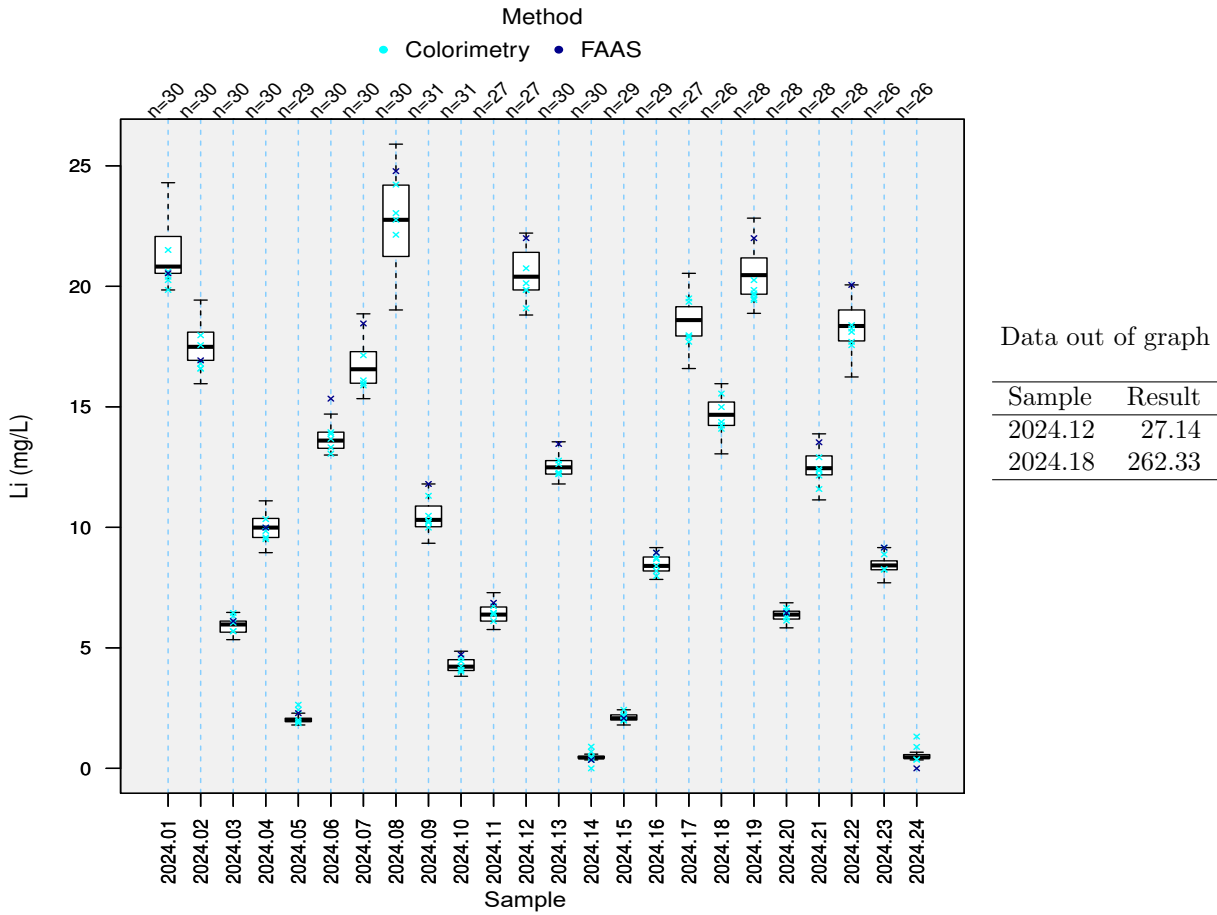


## 2.3.5 Li

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	Colorimetry	20.33	0.36	10	5	4	1	0
2024.01	FAAS	20.64	0.21	5	1	0	0	1
2024.01	Global	20.82	1.11	30	6	6	0	0
2024.02	Colorimetry	17	0.76	10	5	5	0	0
2024.02	FAAS	17.28	0.5	5	1	0	0	1
2024.02	Global	17.49	0.85	30	6	6	0	0
2024.03	Colorimetry	6	0.38	10	5	5	0	0
2024.03	FAAS	5.98	0.16	5	1	0	0	1
2024.03	Global	5.97	0.32	30	6	6	0	0
2024.04	Colorimetry	9.92	0.46	10	5	5	0	0
2024.04	FAAS	9.99	0.22	5	1	0	0	1
2024.04	Global	9.99	0.57	30	6	6	0	0
2024.05	Colorimetry	1.94	0.1	9	5	3	2	0
2024.05	FAAS	1.94	0.13	5	1	0	0	1
2024.05	Global	2	0.1	29	6	4	2	0
2024.06	Colorimetry	13.6	0.26	10	5	5	0	0
2024.06	FAAS	13.28	1.22	5	1	0	0	1
2024.06	Global	13.6	0.48	30	6	5	1	0
2024.07	Colorimetry	16.17	0.29	8	4	3	1	0
2024.07	FAAS	16.6	0.16	5	1	0	0	1
2024.07	Global	16.56	0.93	30	5	5	0	0
2024.08	Colorimetry	22.9	1.4	8	4	4	0	0
2024.08	FAAS	22.5	2.05	5	1	0	0	1
2024.08	Global	22.76	2.04	30	5	5	0	0
2024.09	Colorimetry	10.27	0.27	10	6	5	1	0
2024.09	FAAS	10.47	0.68	5	1	0	0	1
2024.09	Global	10.31	0.64	31	7	7	0	0
2024.10	Colorimetry	4.16	0.27	10	6	6	0	0
2024.10	FAAS	4.58	0.37	5	1	0	0	1
2024.10	Global	4.22	0.33	31	7	7	0	0
2024.11	Colorimetry	6.38	0.15	9	5	5	0	0
2024.11	FAAS	6.74	0.19	5	1	0	0	1
2024.11	Global	6.38	0.43	27	6	6	0	0
2024.12	Colorimetry	20.13	0.36	9	5	5	0	0
2024.12	FAAS	21.3	0.53	5	1	0	0	1
2024.12	Global	20.4	1.16	27	6	6	0	0
2024.13	Colorimetry	12.38	0.27	10	6	6	0	0
2024.13	FAAS	13	0.32	5	1	0	0	1
2024.13	Global	12.49	0.42	30	7	7	0	0
2024.14	Colorimetry	0.42	0.14	10	6	5	1	0
2024.14	FAAS	0.49	0.1	5	1	0	0	1
2024.14	Global	0.44	0.06	30	7	4	3	0
2024.15	Colorimetry	2.12	0.14	10	6	6	0	0
2024.15	FAAS	2.17	0.13	5	1	0	0	1
2024.15	Global	2.08	0.16	29	7	7	0	0
2024.16	Colorimetry	8.57	0.45	10	6	6	0	0
2024.16	FAAS	8.77	0.33	5	1	0	0	1
2024.16	Global	8.4	0.43	29	7	7	0	0
2024.17	Colorimetry	17.94	0.62	10	6	6	0	0
2024.18	Colorimetry	14.57	0.98	9	6	6	0	0
2024.19	Colorimetry	19.64	0.27	10	6	6	0	0
2024.19	FAAS	20.9	0.49	5	1	0	0	1
2024.19	Global	20.46	1.07	28	7	7	0	0
2024.20	Colorimetry	6.38	0.19	10	6	6	0	0
2024.20	FAAS	6.27	0.23	5	1	0	0	1
2024.20	Global	6.38	0.22	28	7	7	0	0
2024.21	Colorimetry	12.42	0.52	9	5	5	0	0
2024.21	FAAS	13.02	0.52	5	1	0	0	1
2024.21	Global	12.46	0.55	28	6	6	0	0

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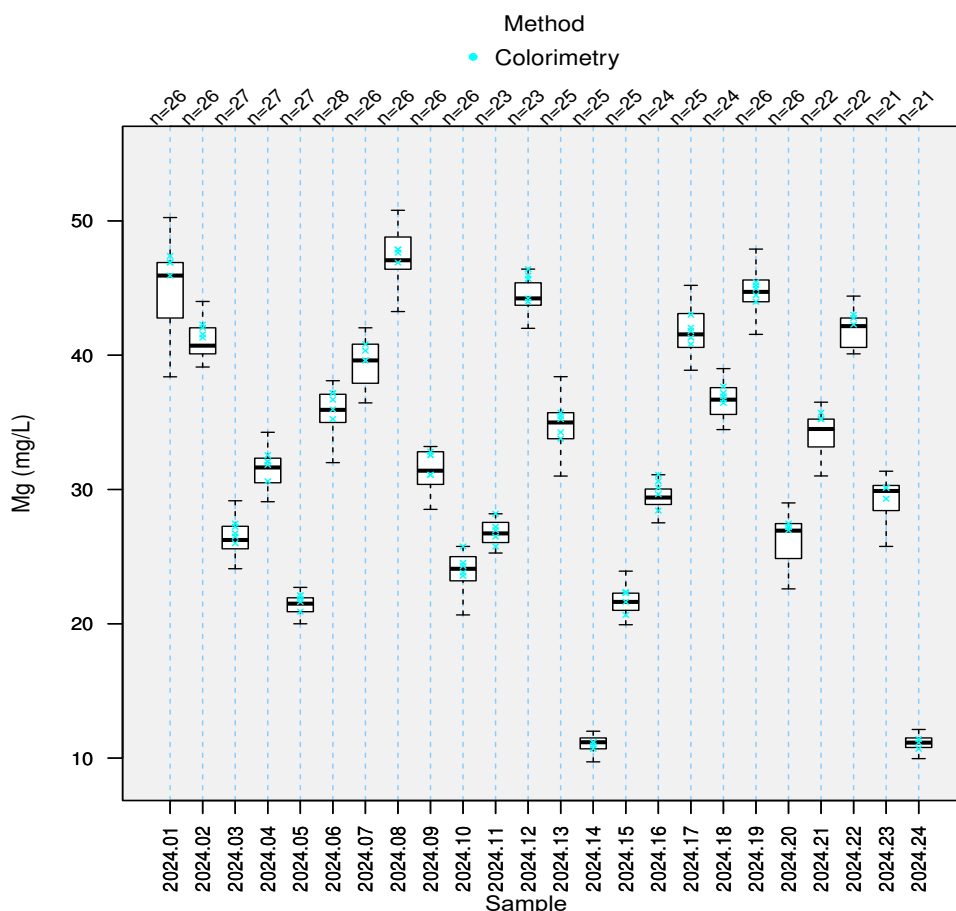
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.22	Colorimetry	18.11	0.51	9	5	5	0	0
2024.22	FAAS	18.67	0.07	5	1	0	0	1
2024.22	Global	18.36	0.91	28	6	6	0	0
2024.23	Colorimetry	8.3	0.31	8	4	4	0	0
2024.23	FAAS	8.57	0.23	5	1	0	0	1
2024.23	Global	8.42	0.26	26	5	5	0	0
2024.24	Colorimetry	0.52	0.24	8	4	3	1	0
2024.24	FAAS	0.49	0.12	5	1	0	0	1
2024.24	Global	0.46	0.11	26	5	2	3	0





2.3.6 Mg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	Colorimetry	46.9	0.38	8	4	4	0	0
2024.02	Colorimetry	41.58	0.57	8	4	4	0	0
2024.03	Colorimetry	26.49	0.9	9	5	5	0	0
2024.04	Colorimetry	31.83	1.08	9	5	5	0	0
2024.05	Colorimetry	21.94	0.49	8	5	5	0	0
2024.06	Colorimetry	37	0.9	9	5	5	0	0
2024.07	Colorimetry	40.34	0.85	7	4	4	0	0
2024.08	Colorimetry	47.87	0.61	7	4	4	0	0
2024.09	Colorimetry	31.98	1.13	8	5	5	0	0
2024.10	Colorimetry	24.15	0.71	8	5	5	0	0
2024.11	Colorimetry	26.73	0.88	8	5	5	0	0
2024.12	Colorimetry	44.75	1.17	8	5	5	0	0
2024.13	Colorimetry	35.27	1.04	8	5	5	0	0
2024.14	Colorimetry	11.18	0.23	8	5	5	0	0
2024.15	Colorimetry	22.24	0.66	8	5	5	0	0
2024.16	Colorimetry	29.73	0.59	8	5	5	0	0
2024.17	Colorimetry	41.92	1.33	8	5	5	0	0
2024.18	Colorimetry	36.94	0.63	7	5	5	0	0
2024.19	Colorimetry	45.1	0.53	8	5	5	0	0
2024.20	Colorimetry	27.22	0.29	8	5	5	0	0
2024.21	Colorimetry	35.24	0.81	7	4	3	1	0
2024.22	Colorimetry	42.77	1.46	7	4	3	1	0
2024.23	Colorimetry	30.12	0.46	6	3	3	0	0
2024.24	Colorimetry	11.29	0.33	6	3	3	0	0



Data out of graph

Sample	Result
2024.07	77.60
2024.08	91.65
2024.09	65.75
2024.12	82.05
2024.16	61.74
2024.17	82.50
2024.18	2.16
2024.18	72.62
2024.19	3.70
2024.20	2.63
2024.21	2.43
2024.21	62.78
2024.22	2.43
2024.22	83.92

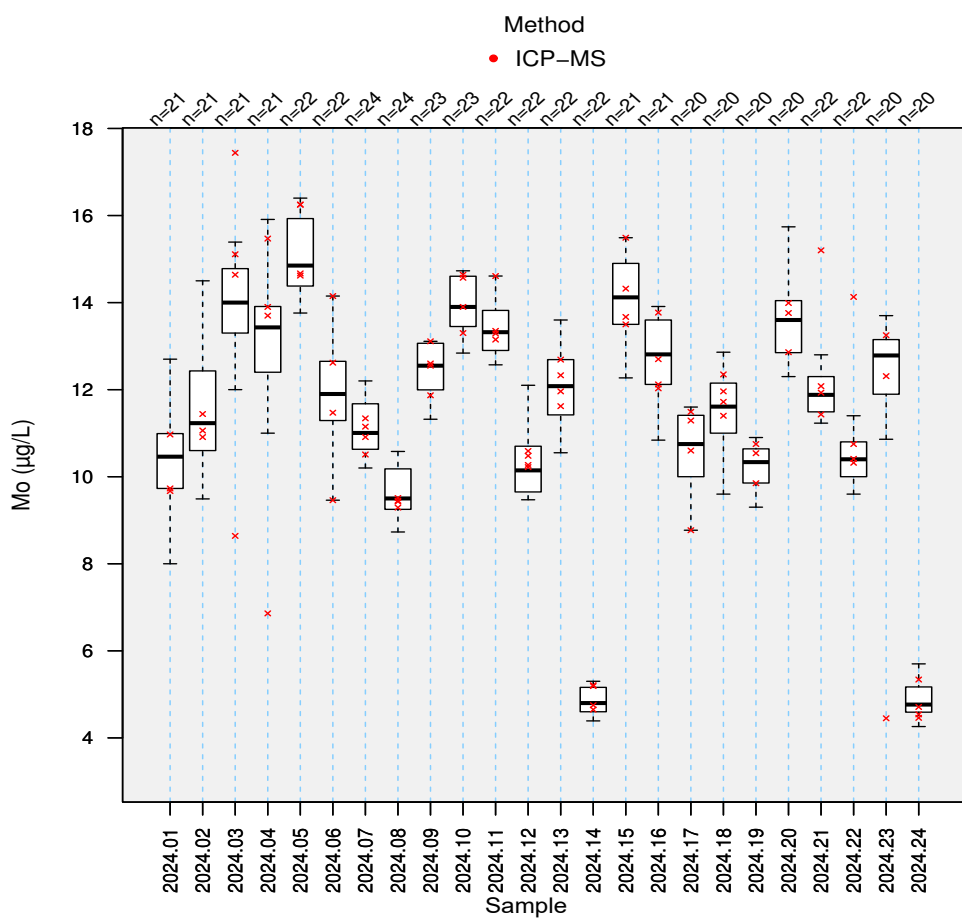
Grey lines refer to Belgian labs

## 2.3.7 Mo

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	10.48	0.79	20	4	3	1	0
2024.02	ICP-MS	11.34	1.43	20	4	3	1	0
2024.03	ICP-MS	14.1	1.15	20	4	3	1	0
2024.04	ICP-MS	13.55	1.08	20	4	3	1	0
2024.05	ICP-MS	14.9	0.99	21	4	4	0	0
2024.06	ICP-MS	11.9	1.01	21	4	4	0	0
2024.07	ICP-MS	11	0.65	24	4	4	0	0
2024.08	ICP-MS	9.5	0.61	24	4	4	0	0
2024.09	ICP-MS	12.55	0.79	23	4	4	0	0
2024.10	ICP-MS	13.9	0.86	23	4	4	0	0
2024.11	ICP-MS	13.32	0.66	22	4	4	0	0
2024.12	ICP-MS	10.14	0.75	22	4	4	0	0
2024.13	ICP-MS	12.08	0.86	22	4	4	0	0
2024.14	ICP-MS	4.8	0.41	22	4	4	0	0
2024.15	ICP-MS	14.12	1.04	21	4	4	0	0
2024.16	ICP-MS	12.81	1.1	21	4	4	0	0
2024.17	ICP-MS	10.75	1	20	4	4	0	0
2024.18	ICP-MS	11.61	0.83	20	4	4	0	0
2024.19	ICP-MS	10.34	0.56	20	3	3	0	0
2024.20	ICP-MS	13.6	0.86	20	3	3	0	0
2024.21	ICP-MS	11.88	0.59	22	4	3	1	0
2024.22	ICP-MS	10.4	0.57	22	4	3	1	0
2024.23	ICP-MS	12.79	0.88	20	4	2	2	0
2024.24	ICP-MS	4.77	0.36	20	4	4	0	0

Data out of graph

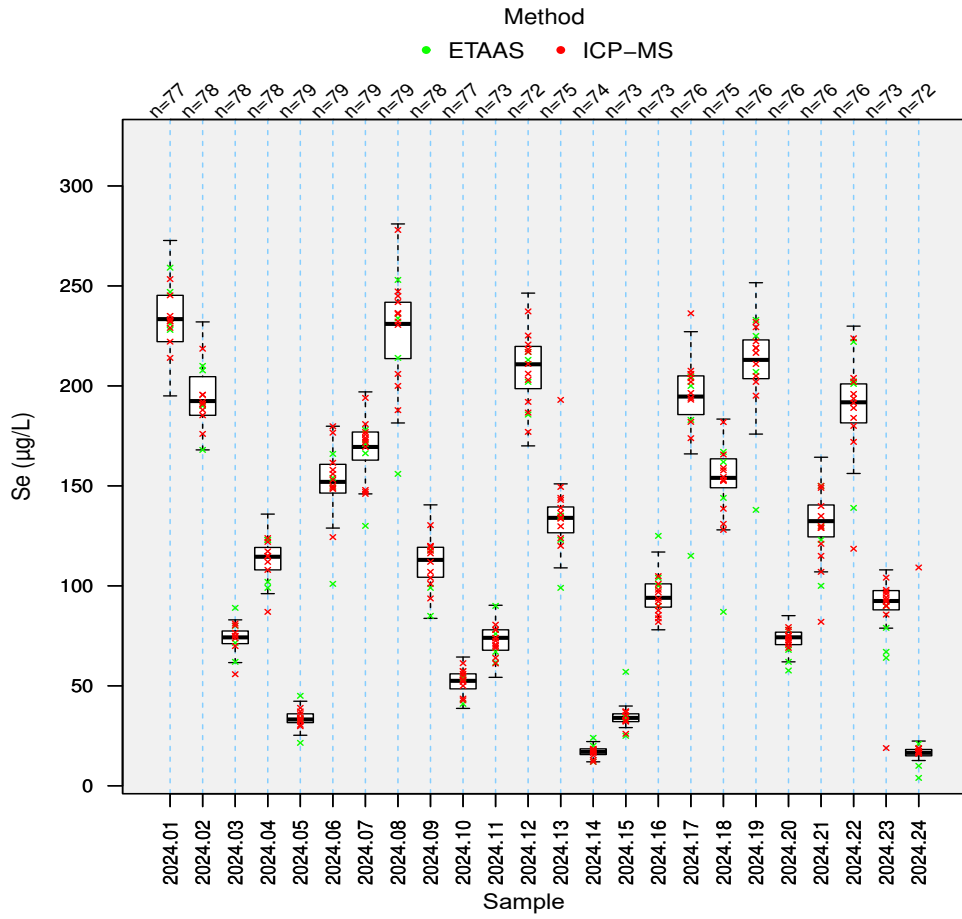
Sample	Result
2024.01	25.75
2024.01	19.00
2024.02	22.71
2024.03	21.18
2024.04	20.58
2024.05	33.90
2024.06	27.90
2024.07	17.70
2024.07	20.65
2024.07	19.84
2024.08	18.50
2024.09	18.30
2024.09	21.39
2024.09	23.45
2024.10	21.50
2024.10	25.30
2024.10	24.00
2024.11	19.70
2024.11	26.60
2024.11	1.16
2024.12	22.60
2024.12	0.92
2024.13	18.70
2024.13	18.76
2024.15	27.00
2024.15	2.56
2024.15	24.46
2024.16	22.40
2024.16	0.30
2024.16	21.20
2024.19	23.10
2024.20	24.80
2024.21	18.72
2024.22	2.28
2024.23	1.04
2024.23	19.50
2024.23	21.64



Grey lines refer to Belgian labs

## 2.3.8 Se

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	234.63	36.41	17	4	4	0	0
2024.01	ICP-MS	233.05	13.89	59	9	9	0	0
2024.02	ETAAS	190	23.03	17	4	4	0	0
2024.02	ICP-MS	192.42	9.95	60	9	9	0	0
2024.03	ETAAS	73	9.73	16	4	4	0	0
2024.03	ICP-MS	74.26	4.31	61	8	7	1	0
2024.04	ETAAS	112.88	14.99	16	4	4	0	0
2024.04	ICP-MS	115	7.9	61	8	7	1	0
2024.05	ETAAS	30.5	5.33	17	3	3	0	0
2024.05	ICP-MS	33.7	2.85	61	10	10	0	0
2024.06	ETAAS	142.1	14.07	18	4	4	0	0
2024.06	ICP-MS	152.77	10.49	60	10	10	0	0
2024.07	ETAAS	165.15	12.39	14	4	4	0	0
2024.07	ICP-MS	172.3	10.38	65	11	11	0	0
2024.08	ETAAS	213.65	27.27	14	4	4	0	0
2024.08	ICP-MS	232	17.7	65	11	11	0	0
2024.09	ETAAS	102.5	5.09	13	3	1	2	0
2024.09	ICP-MS	113.76	9.61	65	11	11	0	0
2024.10	ETAAS	47.92	8.23	12	2	2	0	0
2024.10	ICP-MS	53	5.1	65	11	11	0	0
2024.11	ETAAS	73.74	10.83	12	4	4	0	0
2024.11	ICP-MS	74	6.83	61	11	11	0	0
2024.12	ETAAS	211.96	12.86	12	4	4	0	0
2024.12	ICP-MS	210.28	15.97	60	11	11	0	0
2024.13	ETAAS	123	12.02	13	4	4	0	0
2024.13	ICP-MS	135.09	9.13	62	11	10	1	0
2024.14	ETAAS	20.25	5.04	12	3	3	0	0
2024.14	ICP-MS	16.94	1.63	62	11	10	1	0
2024.15	ETAAS	33.98	5.18	12	3	2	1	0
2024.15	ICP-MS	33.97	2.82	61	11	11	0	0
2024.16	ETAAS	98.98	12.48	12	4	4	0	0
2024.16	ICP-MS	94.01	7.55	61	11	11	0	0
2024.17	ETAAS	182.15	24.1	14	4	4	0	0
2024.17	ICP-MS	195	13.02	62	11	10	1	0
2024.18	ETAAS	143.5	18.76	14	4	3	1	0
2024.18	ICP-MS	154.84	8.84	61	11	9	2	0
2024.19	ETAAS	206.98	38.62	13	4	4	0	0
2024.19	ICP-MS	213	12.59	63	10	10	0	0
2024.20	ETAAS	70.6	7.92	13	4	4	0	0
2024.20	ICP-MS	74.5	3.94	63	10	10	0	0
2024.21	ETAAS	129.56	20.57	13	4	4	0	0
2024.21	ICP-MS	132.72	8.42	63	11	9	2	0
2024.22	ETAAS	201	30.86	13	4	4	0	0
2024.22	ICP-MS	191.42	11.24	63	11	10	1	0
2024.23	ETAAS	86.97	11.63	12	4	4	0	0
2024.23	ICP-MS	93	6.14	61	11	10	1	0
2024.24	ETAAS	14.99	5.54	11	3	3	0	0
2024.24	ICP-MS	16.59	2.2	61	11	10	1	0



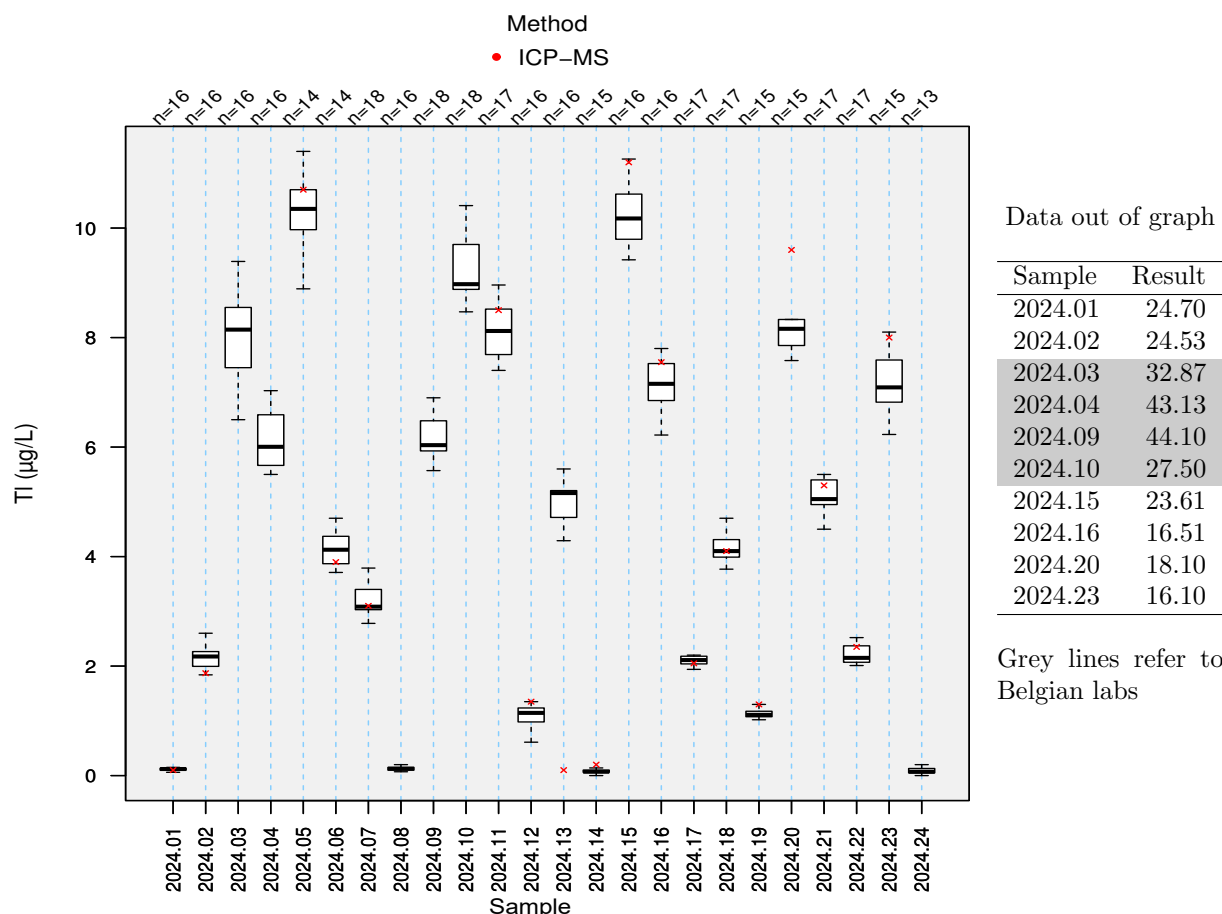
Data out of graph

Sample	Result
2024.01	375.00
2024.07	14062.00
2024.08	16827.00
2024.08	354.00
2024.09	940.10
2024.10	397.37
2024.11	3.95
2024.12	2227.80
2024.14	3.95
2024.14	0.00
2024.15	386.00
2024.18	1460.00
2024.24	3.95

Grey lines refer to Belgian labs

2.3.9 Tl

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	0.12	0.02	16	1	1	0	0
2024.02	ICP-MS	2.17	0.19	16	1	1	0	0
2024.03	ICP-MS	8.14	0.78	16	1	0	1	0
2024.04	ICP-MS	6	0.63	16	1	0	1	0
2024.05	ICP-MS	10.35	0.5	14	1	1	0	0
2024.06	ICP-MS	4.12	0.35	14	1	1	0	0
2024.07	ICP-MS	3.08	0.25	18	1	1	0	0
2024.09	ICP-MS	6.04	0.37	18	1	0	1	0
2024.10	ICP-MS	8.98	0.58	18	1	0	1	0
2024.11	ICP-MS	8.12	0.62	17	1	1	0	0
2024.12	ICP-MS	1.15	0.18	16	1	1	0	0
2024.13	ICP-MS	5.16	0.36	16	1	0	1	0
2024.14	ICP-MS	0.07	0.03	15	1	0	1	0
2024.15	ICP-MS	10.18	0.57	16	1	1	0	0
2024.16	ICP-MS	7.15	0.48	16	1	1	0	0
2024.17	ICP-MS	2.11	0.1	17	1	1	0	0
2024.18	ICP-MS	4.1	0.24	17	1	1	0	0
2024.19	ICP-MS	1.11	0.07	15	1	1	0	0
2024.20	ICP-MS	8.16	0.35	15	1	0	1	0
2024.21	ICP-MS	5.05	0.33	17	1	1	0	0
2024.22	ICP-MS	2.15	0.22	17	1	1	0	0
2024.23	ICP-MS	7.09	0.57	15	1	1	0	0



## 2.3.10 Zn

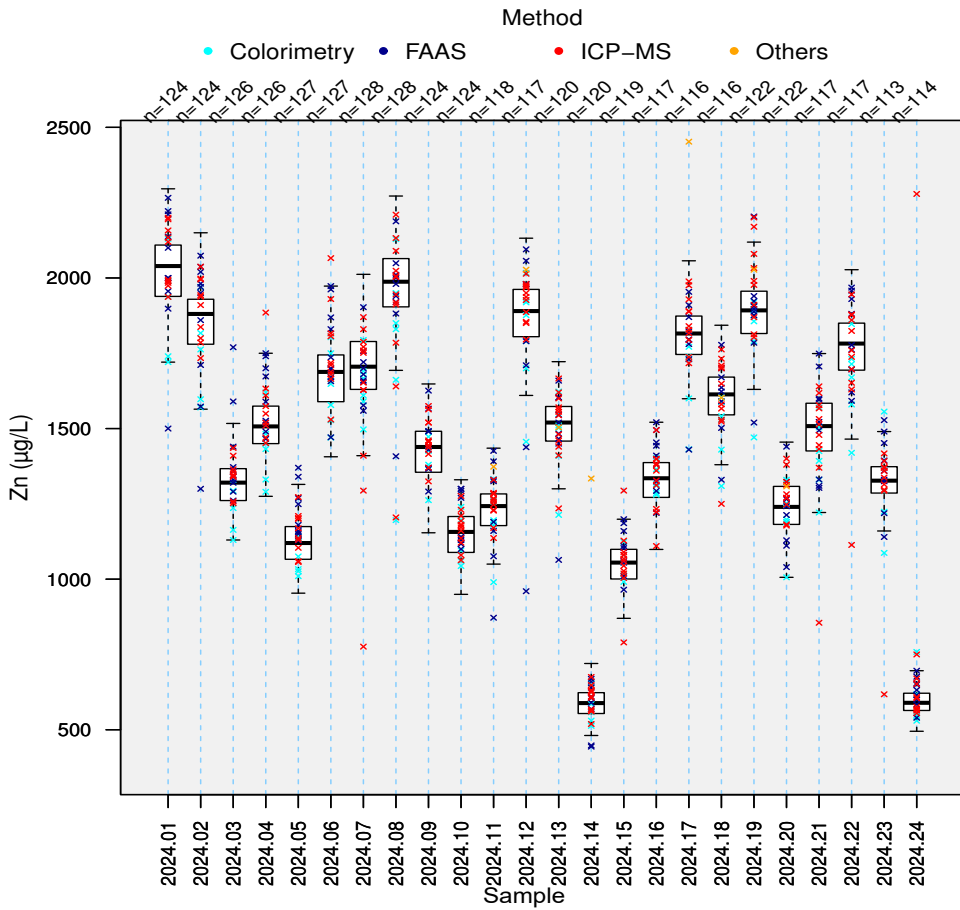
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	Colorimetry	1880	204.17	15	5	5	0	0
2024.01	FAAS	2044.26	152.75	38	10	9	1	0
2024.01	ICP-MS	2041.86	95.81	60	10	10	0	0
2024.02	Colorimetry	1706.94	204.91	15	5	5	0	0
2024.02	FAAS	1876.86	119.48	38	10	9	1	0
2024.02	ICP-MS	1886.64	100.52	60	10	10	0	0
2024.03	Colorimetry	1236	186.81	17	6	6	0	0
2024.03	FAAS	1330	51.89	37	10	8	2	0
2024.03	ICP-MS	1328.99	75.51	61	9	9	0	0
2024.04	Colorimetry	1425.72	207.56	17	6	6	0	0
2024.04	FAAS	1512	71.27	37	10	8	2	0
2024.04	ICP-MS	1519.51	77.24	61	9	8	1	0
2024.05	Colorimetry	1059.48	96.37	17	7	7	0	0
2024.05	FAAS	1152.81	85.65	38	10	10	0	0
2024.05	ICP-MS	1117.87	68.16	62	10	10	0	0
2024.06	Colorimetry	1554.18	208.37	18	7	7	0	0
2024.06	FAAS	1695.43	122.91	38	10	10	0	0
2024.06	ICP-MS	1691.93	81.78	62	10	9	1	0
2024.07	Colorimetry	1667	191.67	19	6	6	0	0
2024.07	FAAS	1690	92.85	34	9	9	0	0
2024.07	ICP-MS	1717.73	120.44	68	12	10	2	0
2024.07	Others	7248.28	4080.66	2	1	0	0	1
2024.07	Global	1705.4	117.5	128	28	25	3	0
2024.08	Colorimetry	1850	233.7	19	6	6	0	0
2024.08	FAAS	1983.5	155.49	34	9	8	1	0
2024.08	ICP-MS	2002.45	93.86	68	12	10	2	0
2024.08	Others	7136.45	3775.71	2	1	0	0	1
2024.08	Global	1987.5	118.23	128	28	24	4	0
2024.09	Colorimetry	1383.24	191.06	18	6	6	0	0
2024.09	FAAS	1451.88	95.63	33	9	9	0	0
2024.09	ICP-MS	1438.8	88.8	67	12	12	0	0
2024.10	Colorimetry	1130.94	126.59	18	6	6	0	0
2024.10	FAAS	1180	86.85	33	9	9	0	0
2024.10	ICP-MS	1150	70.87	67	12	12	0	0
2024.11	Colorimetry	1181	192.09	17	7	7	0	0
2024.11	FAAS	1280	64.08	31	9	6	3	0
2024.11	ICP-MS	1239.9	61.67	63	12	12	0	0
2024.11	Others	1301.46	53.33	2	1	0	0	1
2024.11	Global	1242.6	77.14	118	29	26	3	0
2024.12	Colorimetry	1790	284.3	17	7	7	0	0
2024.12	FAAS	1925	115.76	31	9	6	3	0
2024.12	ICP-MS	1890.12	111.17	62	12	12	0	0
2024.12	Others	1970.83	41.94	2	1	0	0	1
2024.12	Global	1890.06	116.38	117	29	25	4	0
2024.13	Colorimetry	1419.18	125.44	17	6	6	0	0
2024.13	FAAS	1525.18	97.55	32	9	8	1	0
2024.13	ICP-MS	1524.41	83.2	64	12	11	1	0
2024.13	Others	1513.03	6.55	2	1	0	0	1
2024.13	Global	1520	84.07	120	28	25	3	0
2024.14	Colorimetry	560	72.72	17	6	6	0	0
2024.14	FAAS	601.22	44.65	32	9	7	2	0
2024.14	ICP-MS	587.1	41.97	64	12	12	0	0
2024.14	Others	947.32	286.76	2	1	0	0	1
2024.14	Global	588.6	49.89	120	28	27	1	0
2024.15	Colorimetry	1011	143.74	18	6	6	0	0
2024.15	FAAS	1057.5	93.87	32	9	9	0	0
2024.15	ICP-MS	1051	56.48	63	12	10	2	0
2024.16	Colorimetry	1283.2	182.77	18	6	6	0	0
2024.16	FAAS	1340.7	134.32	31	9	9	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.16	ICP-MS	1350.12	75.69	62	11	10	1	0
2024.17	Colorimetry	1687.32	152.92	16	6	6	0	0
2024.17	FAAS	1820	106.27	34	8	7	1	0
2024.17	ICP-MS	1822.34	78.85	60	11	11	0	0
2024.17	Others	2175.86	205.07	2	1	0	0	1
2024.17	Global	1815.58	91.73	116	26	23	3	0
2024.18	Colorimetry	1517.1	119.94	16	6	6	0	0
2024.18	FAAS	1628.46	75.46	33	8	7	1	0
2024.18	ICP-MS	1629.87	80.63	60	11	10	1	0
2024.18	Others	1623.88	16	2	1	0	0	1
2024.18	Global	1613.42	92.06	116	26	23	3	0
2024.19	Colorimetry	1830.52	246.74	20	7	7	0	0
2024.19	FAAS	1897	70.96	33	9	7	2	0
2024.19	ICP-MS	1896.6	111.45	62	10	10	0	0
2024.19	Others	1962	48.48	2	1	0	0	1
2024.19	Global	1892.35	101.92	122	27	23	4	0
2024.20	Colorimetry	1189.5	100.04	20	7	7	0	0
2024.20	FAAS	1270	98.39	33	9	9	0	0
2024.20	ICP-MS	1238.88	82.45	62	10	10	0	0
2024.20	Others	1324.35	12.12	2	1	0	0	1
2024.20	Global	1239.88	93.52	122	27	27	0	0
2024.21	Colorimetry	1330	156.38	17	6	6	0	0
2024.21	FAAS	1540	118.49	32	9	9	0	0
2024.21	ICP-MS	1513.68	80.59	62	11	10	1	0
2024.22	Colorimetry	1580	218.39	17	6	6	0	0
2024.22	FAAS	1792.5	99.26	32	9	9	0	0
2024.22	ICP-MS	1784.35	90.25	62	11	10	1	0
2024.23	Colorimetry	1293.46	236.35	16	5	5	0	0
2024.23	FAAS	1327.31	56.6	32	9	7	2	0
2024.23	ICP-MS	1325.31	60.28	60	11	10	1	0
2024.24	Colorimetry	613.5	86.88	16	5	5	0	0
2024.24	FAAS	598.25	37.27	32	9	9	0	0
2024.24	ICP-MS	587.3	32.05	60	11	9	2	0



Data out of graph



Sample	Result
2024.01	220.00
2024.01	169.67
2024.02	184.00
2024.03	170.68
2024.04	11.45
2024.06	2544.06
2024.07	12753.00
2024.08	4133.28
2024.08	2546.00
2024.08	12229.80
2024.09	150.00
2024.09	4055.15
2024.09	3093.42
2024.10	113.00
2024.10	3888.70
2024.11	122.00
2024.11	64.09
2024.12	184.00
2024.12	181.81
2024.12	97.45
2024.14	336.00
2024.14	312.80
2024.17	2452.50
2024.21	2660.00
2024.22	3200.00

Grey lines refer to Belgian labs

### 3 TRACE ELEMENTS IN BLOOD

#### 3.1 PARTICIPATION

19 laboratories participated to the EQA for blood matrix.

Parameter*	N labs	Recorded results	Expected number of results	percentage of results
Al	3	16	72	22.2 %
As	7	121	168	72 %
Be	2	10	48	20.8 %
Cd	11	226	264	85.6 %
Co	9	149	216	69 %
Cr	9	168	216	77.8 %
Cu	8	46	192	24 %
Hg	7	136	192	81 %
I	6	36	144	25 %
Mg	10	94	240	39.2 %
Mn	10	193	240	80.4 %
Ni	7	39	168	23.2 %
Pb	14	296	336	88.1 %
Sb	4	22	96	22.9 %
Se	7	91	168	54.2 %
Tl	6	113	144	78.5 %
V	5	25	120	20.8 %
Zn	9	88	216	40.7 %
Total		1869	3240	57.69

\*: from sample 2024.07 onwards, only As, Cd, Co, Cr, Hg, Mg, Mn, Pb, Se, Tl and Zn parameters were analyzed

#### 3.2 GLOBAL RESULTS

STAT	Element	Total number of results	Number of evaluated results	Number of Z citations	% citations
MA	Al	16	16	0	0
MA	As	121	121	2	1.6
MA	Be	10	10	0	0
MA	Cd	226	220	16	7.3
MA+GA	Cd	226	226 (+6)	18 (+2)	8
MA	Co	149	143	12	8.4
MA+GA	Co	149	149 (+6)	13 (+1)	8.7
MA	Cr	168	166	12	7.2
MA+GA	Cr	168	168 (+2)	12	7.1
MA	Cu	46	46	3	6.5
MA	Hg	136	134	6	4.5
MA+GA	Hg	136	136 (+2)	6	4.4
MA	I	36	30	0	0
MA+GA	I	36	36 (+6)	3 (+3)	8.3
MA	Mg	94	88	12	13.6
MA+GA	Mg	94	94 (+6)	12	12.8
MA	Mn	193	181	7	3.9
MA+GA	Mn	193	193 (+12)	9 (+2)	4.7
MA	Ni	39	33	4	12.1
MA+GA	Ni	39	39 (+6)	8 (+4)	20.5
MA	Pb	296	292	11	3.8
MA+GA	Pb	296	296 (+4)	15 (+4)	5.1
MA	Sb	22	22	0	0
MA	Se	91	91	2	2.2
MA	Tl	113	113	4	3.5
MA	V	25	25	0	0
MA	Zn	88	88	0	0
Total	MA+GA	1869	1869	107	5.7

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on next

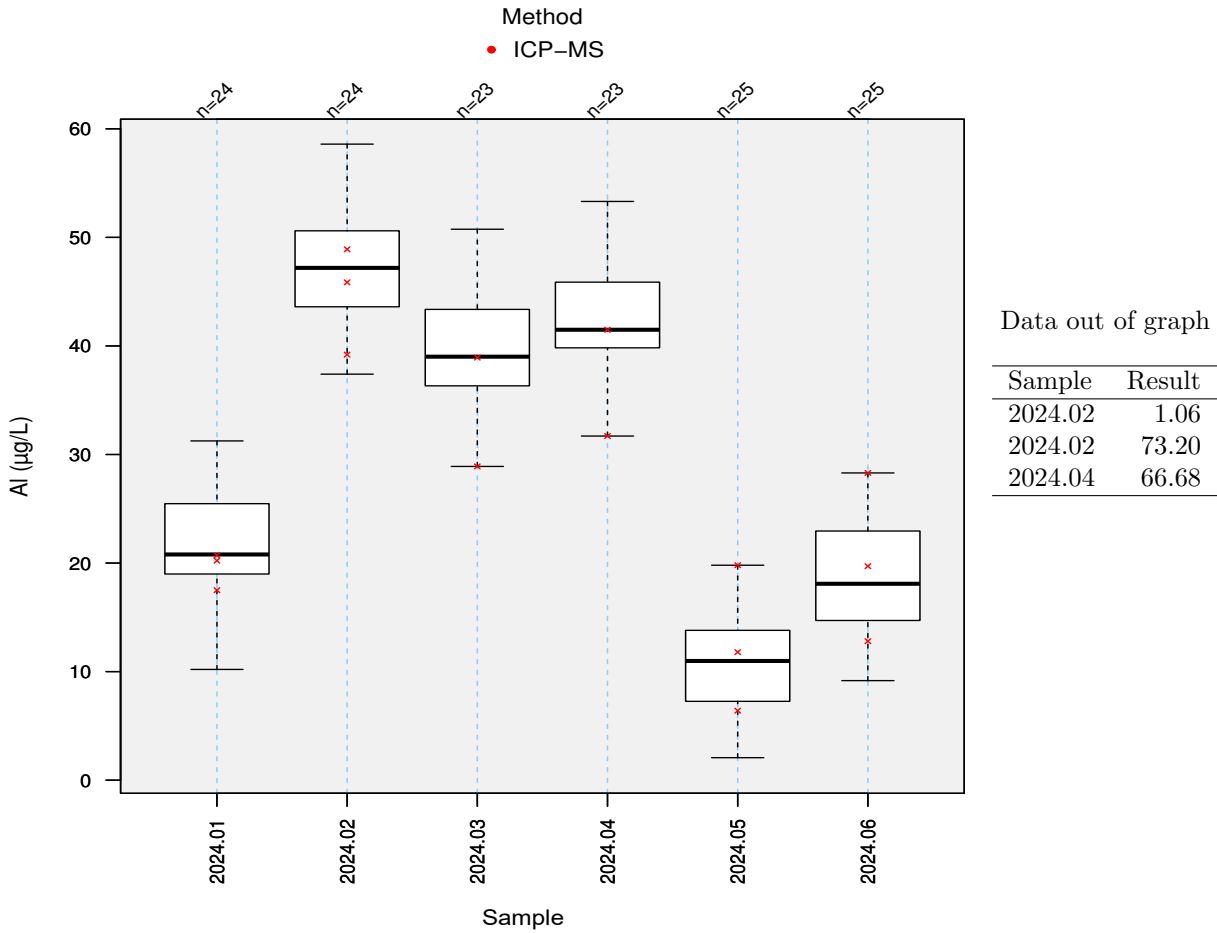
page

STAT	Element	Total number of results	Number of evaluated results	Number of Z citations	% citations
	MA	1869	1819	91	5

### 3.3 RESULTS PER ELEMENT

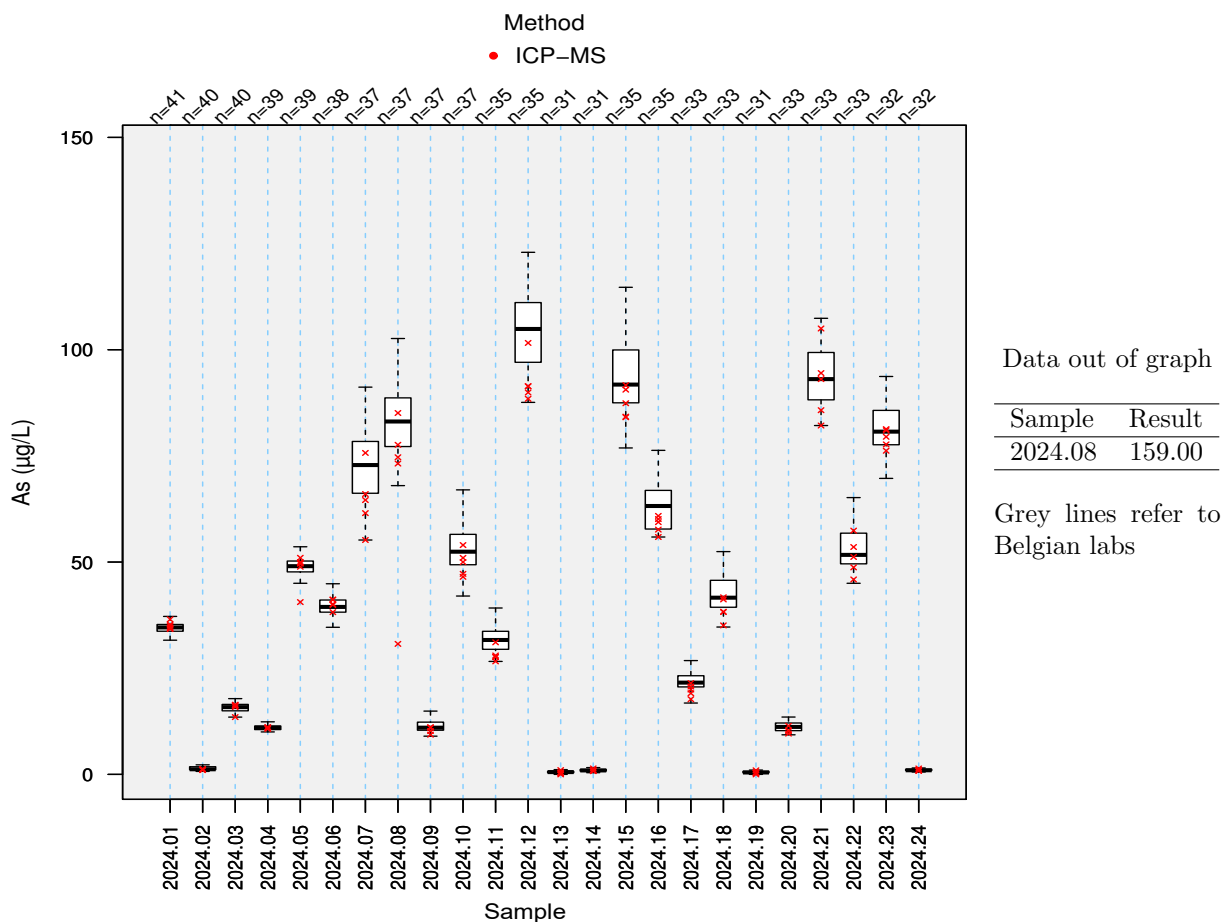
#### 3.3.1 Al

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	20.74	5.18	22	3	3	0	0
2024.02	ICP-MS	47.19	5.21	22	3	3	0	0
2024.03	ICP-MS	39.1	4.03	21	2	2	0	0
2024.04	ICP-MS	41.49	4.6	21	2	2	0	0
2024.05	ICP-MS	10.95	5	23	3	3	0	0
2024.06	ICP-MS	18.09	6.66	23	3	3	0	0



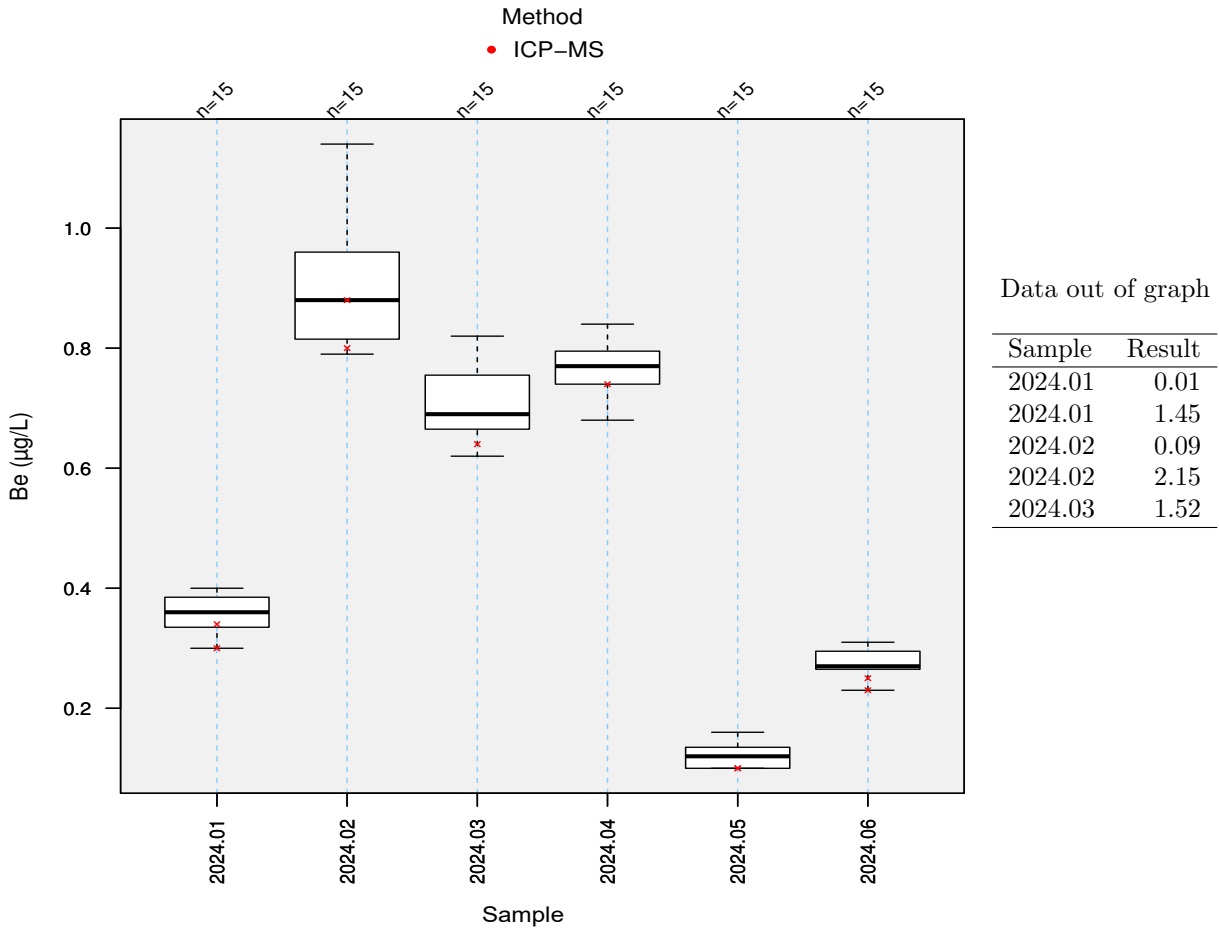
3.3.2 As

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	34.6	1.17	39	6	6	0	0
2024.02	ICP-MS	1.23	0.52	38	5	5	0	0
2024.03	ICP-MS	15.84	1.11	38	5	5	0	0
2024.04	ICP-MS	11	0.59	37	4	4	0	0
2024.05	ICP-MS	49.21	1.84	37	6	5	1	0
2024.06	ICP-MS	39.44	2.13	36	5	5	0	0
2024.07	ICP-MS	72.84	9.04	37	5	5	0	0
2024.08	ICP-MS	83.1	8.5	37	5	4	1	0
2024.09	ICP-MS	11	1.41	37	5	5	0	0
2024.10	ICP-MS	52.44	5.3	37	5	5	0	0
2024.11	ICP-MS	31.65	3.14	35	5	5	0	0
2024.12	ICP-MS	104.89	10.43	35	5	5	0	0
2024.13	ICP-MS	0.54	0.25	31	5	5	0	0
2024.14	ICP-MS	0.93	0.28	31	5	5	0	0
2024.15	ICP-MS	91.79	9.23	35	5	5	0	0
2024.16	ICP-MS	63.2	6.75	35	5	5	0	0
2024.17	ICP-MS	21.61	1.95	33	5	5	0	0
2024.18	ICP-MS	41.61	4.7	33	5	5	0	0
2024.19	ICP-MS	0.45	0.25	31	5	5	0	0
2024.20	ICP-MS	11.18	1.33	33	5	5	0	0
2024.21	ICP-MS	93.08	8.27	33	5	5	0	0
2024.22	ICP-MS	51.69	5.35	33	5	5	0	0
2024.23	ICP-MS	80.71	5.78	32	5	5	0	0
2024.24	ICP-MS	0.97	0.21	32	5	5	0	0



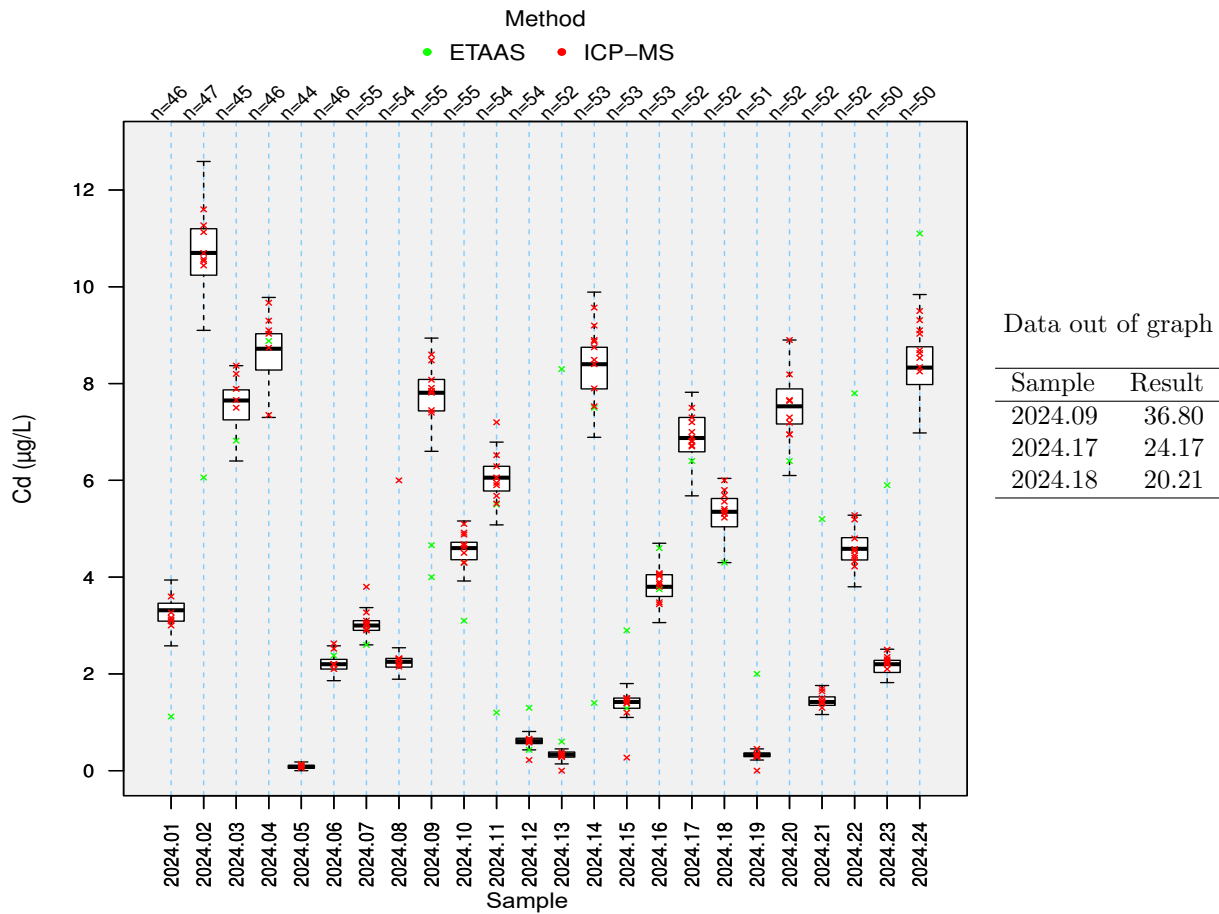
3.3.3 Be

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	0.36	0.04	15	2	2	0	0
2024.02	ICP-MS	0.88	0.11	15	2	2	0	0
2024.03	ICP-MS	0.69	0.07	15	1	1	0	0
2024.04	ICP-MS	0.77	0.04	15	1	1	0	0
2024.05	ICP-MS	0.12	0.03	15	2	2	0	0
2024.06	ICP-MS	0.27	0.02	15	2	2	0	0



## 3.3.4 Cd

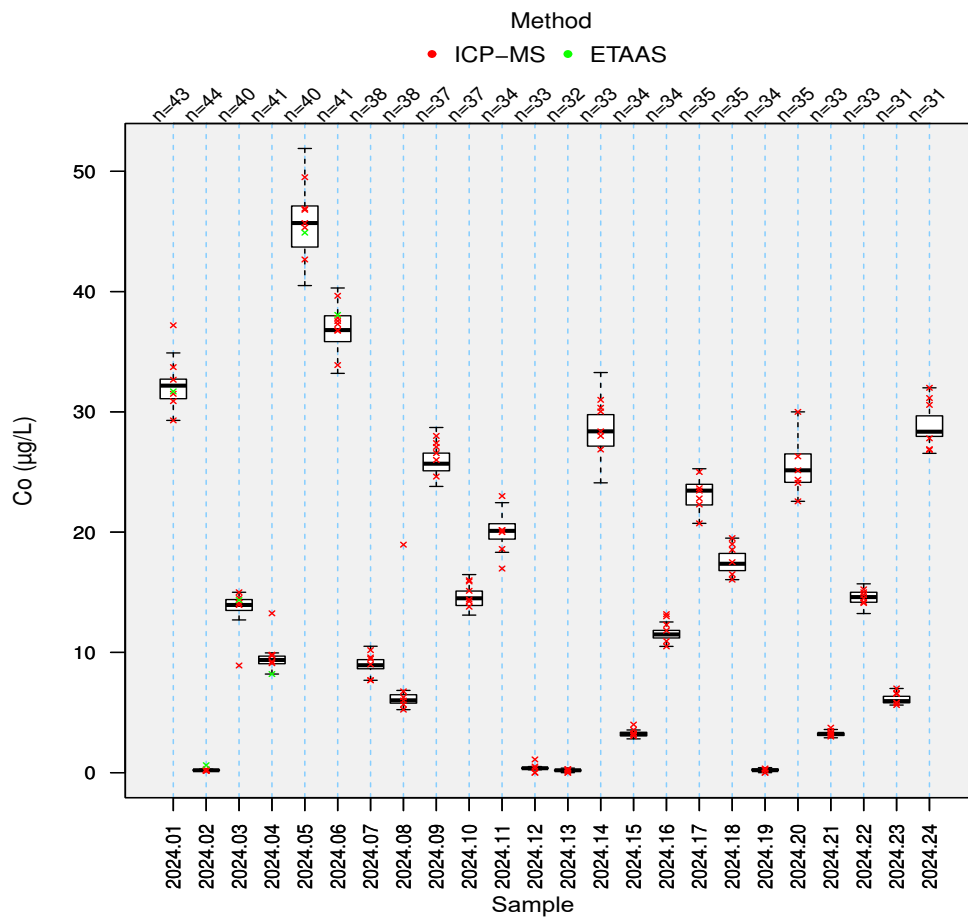
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	3.15	0.9	3	1	0	0	1
2024.01	ICP-MS	3.34	0.26	43	6	6	0	0
2024.01	Global	3.32	0.27	46	7	6	1	0
2024.02	ETAAS	10.23	1.79	3	1	0	0	1
2024.02	ICP-MS	10.74	0.68	44	7	7	0	0
2024.02	Global	10.7	0.71	47	8	7	1	0
2024.03	ETAAS	7.76	0.36	3	1	0	0	1
2024.03	ICP-MS	7.64	0.46	42	5	5	0	0
2024.03	Global	7.65	0.46	45	6	6	0	0
2024.04	ETAAS	8.88	0.58	3	1	0	0	1
2024.04	ICP-MS	8.71	0.51	43	6	6	0	0
2024.04	Global	8.72	0.53	46	7	7	0	0
2024.05	ETAAS	0	0.05	3	1	0	0	1
2024.05	ICP-MS	0.08	0.04	41	5	5	0	0
2024.05	Global	0.08	0.04	44	6	6	0	0
2024.06	ETAAS	2.25	0.07	3	1	0	0	1
2024.06	ICP-MS	2.2	0.15	43	7	7	0	0
2024.06	Global	2.2	0.15	46	8	8	0	0
2024.07	ETAAS	2.87	0.3	6	1	1	0	0
2024.07	ICP-MS	3	0.15	49	9	8	1	0
2024.08	ETAAS	2.28	0.09	6	1	1	0	0
2024.08	ICP-MS	2.24	0.13	48	8	7	1	0
2024.09	ETAAS	7.42	1.56	7	2	2	0	0
2024.09	ICP-MS	7.84	0.41	48	9	9	0	0
2024.10	ETAAS	4.29	0.48	7	2	2	0	0
2024.10	ICP-MS	4.6	0.23	48	9	9	0	0
2024.11	ETAAS	5.55	0.31	7	2	1	1	0
2024.11	ICP-MS	6.07	0.32	47	9	8	1	0
2024.12	ETAAS	0.72	0.39	7	2	2	0	0
2024.12	ICP-MS	0.61	0.07	47	9	8	1	0
2024.13	ETAAS	0.59	0.31	7	2	1	1	0
2024.13	ICP-MS	0.33	0.05	45	9	8	1	0
2024.14	ETAAS	7.88	1.04	7	2	1	1	0
2024.14	ICP-MS	8.41	0.59	46	9	9	0	0
2024.15	ETAAS	1.75	0.65	7	2	2	0	0
2024.15	ICP-MS	1.4	0.16	46	9	8	1	0
2024.16	ETAAS	3.81	0.5	7	2	2	0	0
2024.16	ICP-MS	3.77	0.31	46	9	9	0	0
2024.17	ETAAS	6.46	0.5	6	1	1	0	0
2024.17	ICP-MS	6.96	0.44	46	9	9	0	0
2024.18	ETAAS	4.88	0.56	6	1	1	0	0
2024.18	ICP-MS	5.36	0.38	46	9	9	0	0
2024.19	ETAAS	0.69	0.29	6	1	0	1	0
2024.19	ICP-MS	0.31	0.04	45	7	5	2	0
2024.20	ETAAS	7.03	0.5	6	1	1	0	0
2024.20	ICP-MS	7.62	0.54	46	8	8	0	0
2024.21	ETAAS	1.54	0.19	6	1	0	1	0
2024.21	ICP-MS	1.4	0.11	46	9	9	0	0
2024.22	ETAAS	4.77	0.25	6	1	0	1	0
2024.22	ICP-MS	4.56	0.34	46	9	9	0	0
2024.23	ETAAS	2.18	0.26	6	1	0	1	0
2024.23	ICP-MS	2.2	0.17	44	9	9	0	0
2024.24	ETAAS	7.58	0.39	6	1	0	1	0
2024.24	ICP-MS	8.4	0.52	44	9	9	0	0





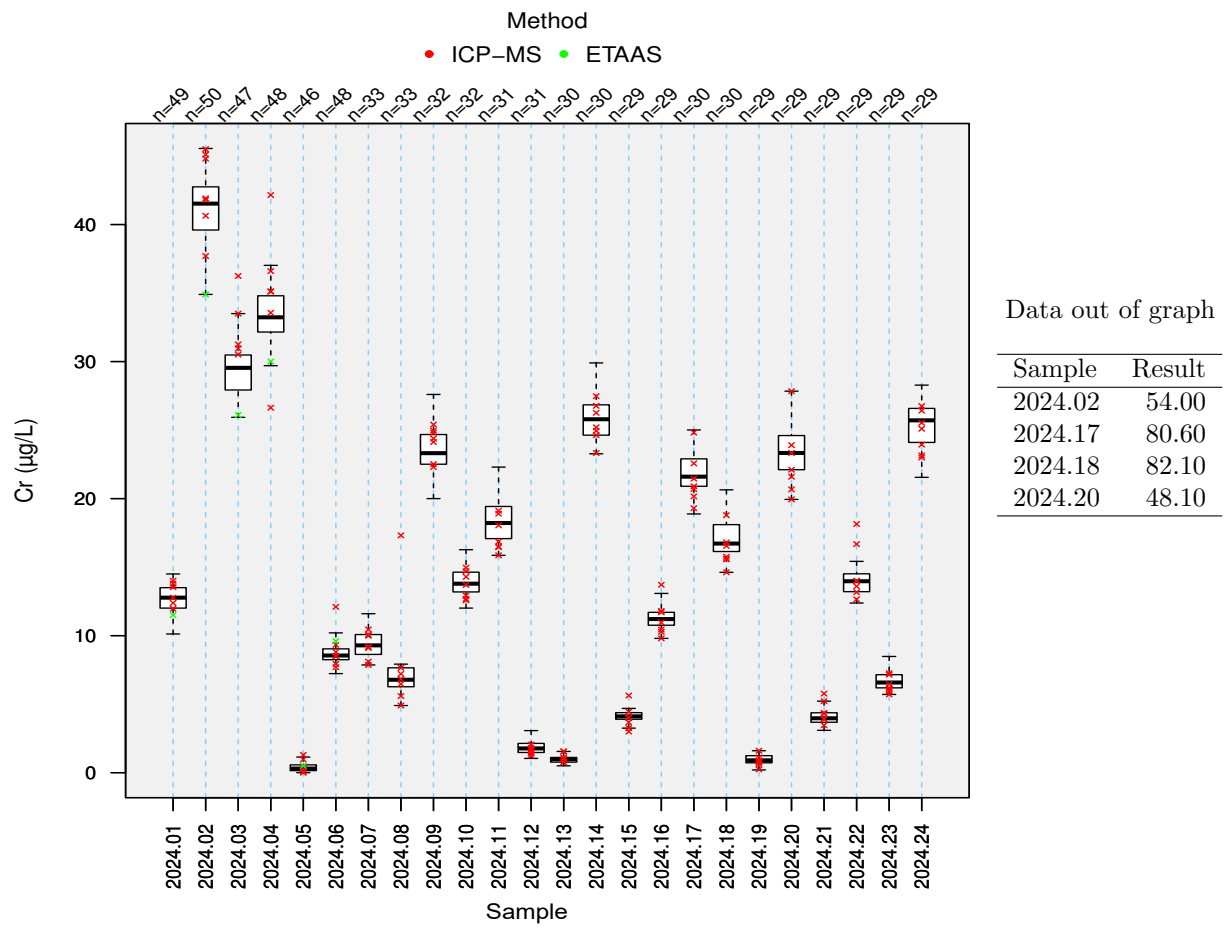
## 3.3.5 Co

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	31.7	3.47	3	1	0	0	1
2024.01	ICP-MS	32.19	1.37	40	6	5	1	0
2024.01	Global	32.18	1.2	43	7	6	1	0
2024.02	ETAAS	0.56	0.23	3	1	0	0	1
2024.02	ICP-MS	0.2	0.06	41	7	7	0	0
2024.02	Global	0.2	0.07	44	8	7	1	0
2024.03	ETAAS	13.89	0.34	2	1	0	0	1
2024.03	ICP-MS	13.95	0.61	38	5	4	1	0
2024.03	Global	13.95	0.64	40	6	5	1	0
2024.04	ETAAS	8.66	0.34	2	1	0	0	1
2024.04	ICP-MS	9.42	0.46	39	6	5	1	0
2024.04	Global	9.37	0.47	41	7	6	1	0
2024.05	ETAAS	44.2	0.52	2	1	0	0	1
2024.05	ICP-MS	45.73	2.41	38	6	6	0	0
2024.05	Global	45.7	2.52	40	7	7	0	0
2024.06	ETAAS	37.03	0.76	2	1	0	0	1
2024.06	ICP-MS	36.8	1.53	39	7	7	0	0
2024.06	Global	36.8	1.59	41	8	8	0	0
2024.07	ICP-MS	8.92	0.56	37	6	6	0	0
2024.08	ICP-MS	6.03	0.5	37	6	5	1	0
2024.09	ICP-MS	25.65	1.12	36	6	6	0	0
2024.10	ICP-MS	14.47	0.9	36	6	6	0	0
2024.11	ICP-MS	20.1	0.95	33	6	4	2	0
2024.12	ICP-MS	0.37	0.05	32	5	2	3	0
2024.13	ICP-MS	0.2	0.07	31	6	6	0	0
2024.14	ICP-MS	28.34	1.87	32	6	6	0	0
2024.15	ICP-MS	3.2	0.18	33	6	5	1	0
2024.16	ICP-MS	11.5	0.47	33	6	4	2	0
2024.17	ICP-MS	23.45	1.3	34	6	6	0	0
2024.18	ICP-MS	17.38	1.07	34	6	6	0	0
2024.19	ICP-MS	0.2	0.09	33	5	5	0	0
2024.20	ICP-MS	25.34	1.73	34	6	6	0	0
2024.21	ICP-MS	3.26	0.16	32	6	6	0	0
2024.22	ICP-MS	14.59	0.58	32	6	6	0	0
2024.23	ICP-MS	5.97	0.4	30	6	6	0	0
2024.24	ICP-MS	28.46	1.29	30	6	6	0	0



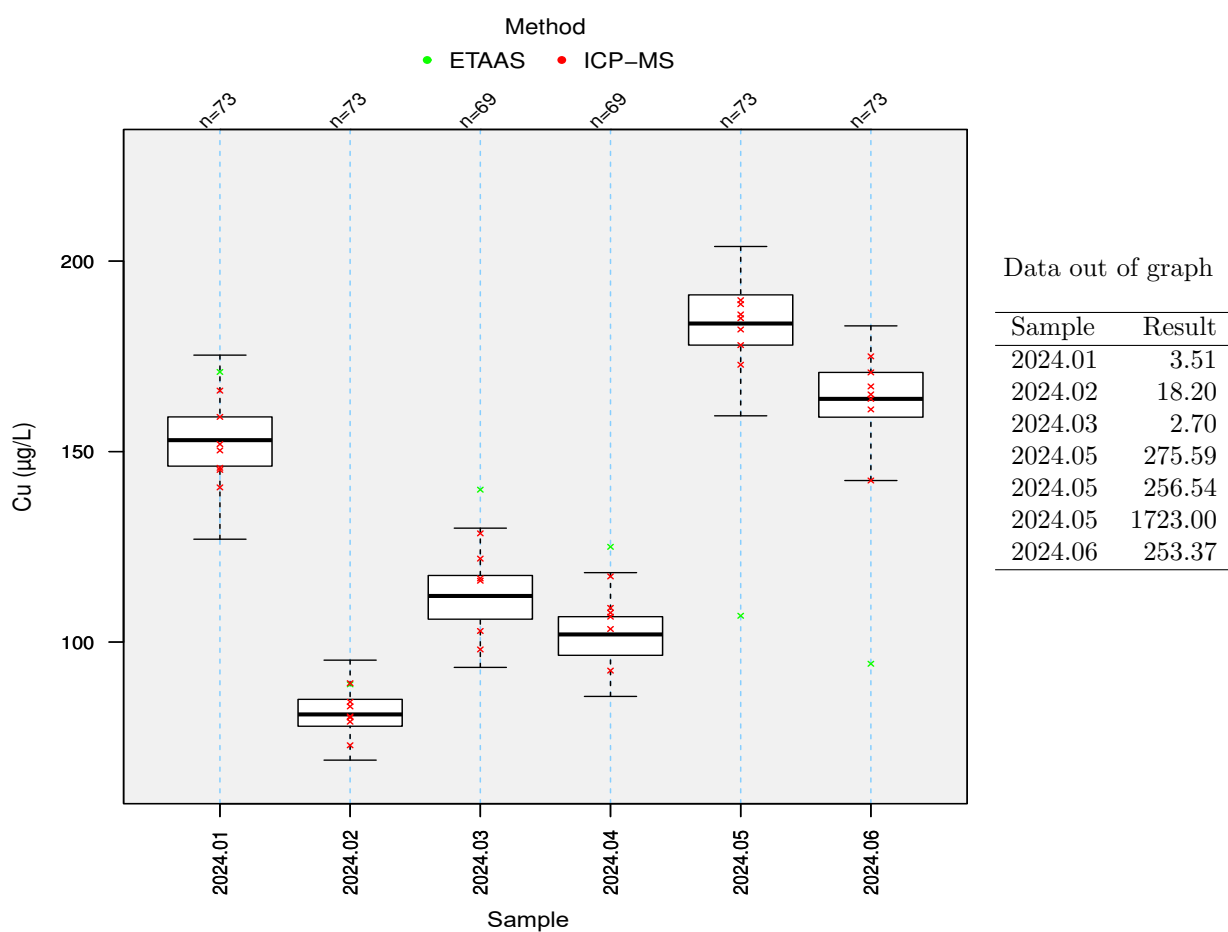
## 3.3.6 Cr

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	12.21	0.8	6	1	1	0	0
2024.01	ICP-MS	12.91	0.98	43	6	6	0	0
2024.02	ETAAS	39.93	1.24	6	1	0	1	0
2024.02	ICP-MS	41.7	2.24	44	7	7	0	0
2024.03	ETAAS	28.99	2.06	6	1	1	0	0
2024.03	ICP-MS	29.54	1.91	41	5	4	1	0
2024.04	ETAAS	31.78	2.44	6	1	1	0	0
2024.04	ICP-MS	33.3	1.75	42	6	4	2	0
2024.05	ETAAS	0.36	0.3	5	1	0	0	1
2024.05	ICP-MS	0.29	0.3	41	5	4	1	0
2024.05	Global	0.3	0.3	46	6	5	1	0
2024.06	ETAAS	8.56	0.27	5	1	0	0	1
2024.06	ICP-MS	8.54	0.59	43	7	6	1	0
2024.06	Global	8.55	0.57	48	8	7	1	0
2024.07	ICP-MS	9.28	1.05	30	7	7	0	0
2024.08	ICP-MS	6.8	1.03	30	7	6	1	0
2024.09	ICP-MS	23.02	1.48	29	7	7	0	0
2024.10	ICP-MS	13.85	1.14	29	7	7	0	0
2024.11	ICP-MS	18.27	1.67	28	7	7	0	0
2024.12	ICP-MS	1.78	0.58	28	7	7	0	0
2024.13	ICP-MS	0.98	0.24	27	7	7	0	0
2024.14	ICP-MS	25.58	1.75	27	7	7	0	0
2024.15	ICP-MS	4.08	0.29	26	7	5	2	0
2024.16	ICP-MS	11.2	0.66	26	7	6	1	0
2024.17	ICP-MS	21.5	0.97	27	7	6	1	0
2024.18	ICP-MS	16.7	1.26	27	7	7	0	0
2024.19	ICP-MS	0.93	0.39	26	7	7	0	0
2024.20	ICP-MS	23.02	1.66	26	7	7	0	0
2024.21	ICP-MS	3.99	0.61	26	7	7	0	0
2024.22	ICP-MS	13.98	0.96	26	7	6	1	0
2024.23	ICP-MS	6.58	0.68	26	7	7	0	0
2024.24	ICP-MS	25.62	1.8	26	7	7	0	0



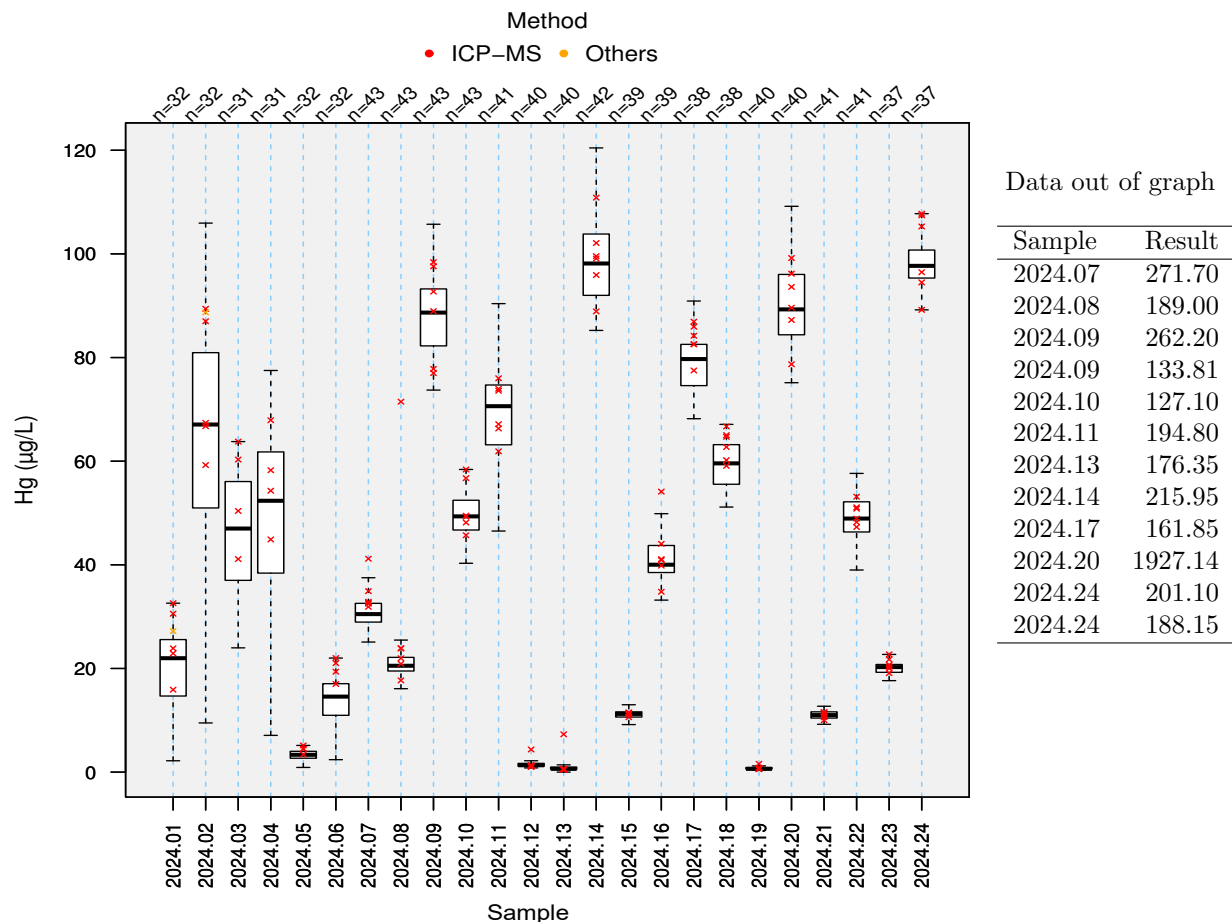
## 3.3.7 Cu

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	144.57	17.44	12	1	1	0	0
2024.01	ICP-MS	152.81	8.78	54	7	7	0	0
2024.02	ETAAS	78.75	8.88	12	1	1	0	0
2024.02	ICP-MS	81.25	4.09	54	7	7	0	0
2024.03	ETAAS	107.32	12.42	10	1	1	0	0
2024.03	ICP-MS	112.59	8.51	53	6	6	0	0
2024.04	ETAAS	98.08	9.93	10	1	1	0	0
2024.04	ICP-MS	103.43	7.44	53	6	6	0	0
2024.05	ETAAS	181.67	14.43	12	1	0	1	0
2024.05	ICP-MS	183.31	6.82	54	7	7	0	0
2024.06	ETAAS	163.87	11.48	12	1	0	1	0
2024.06	ICP-MS	163.83	5.4	54	7	6	1	0



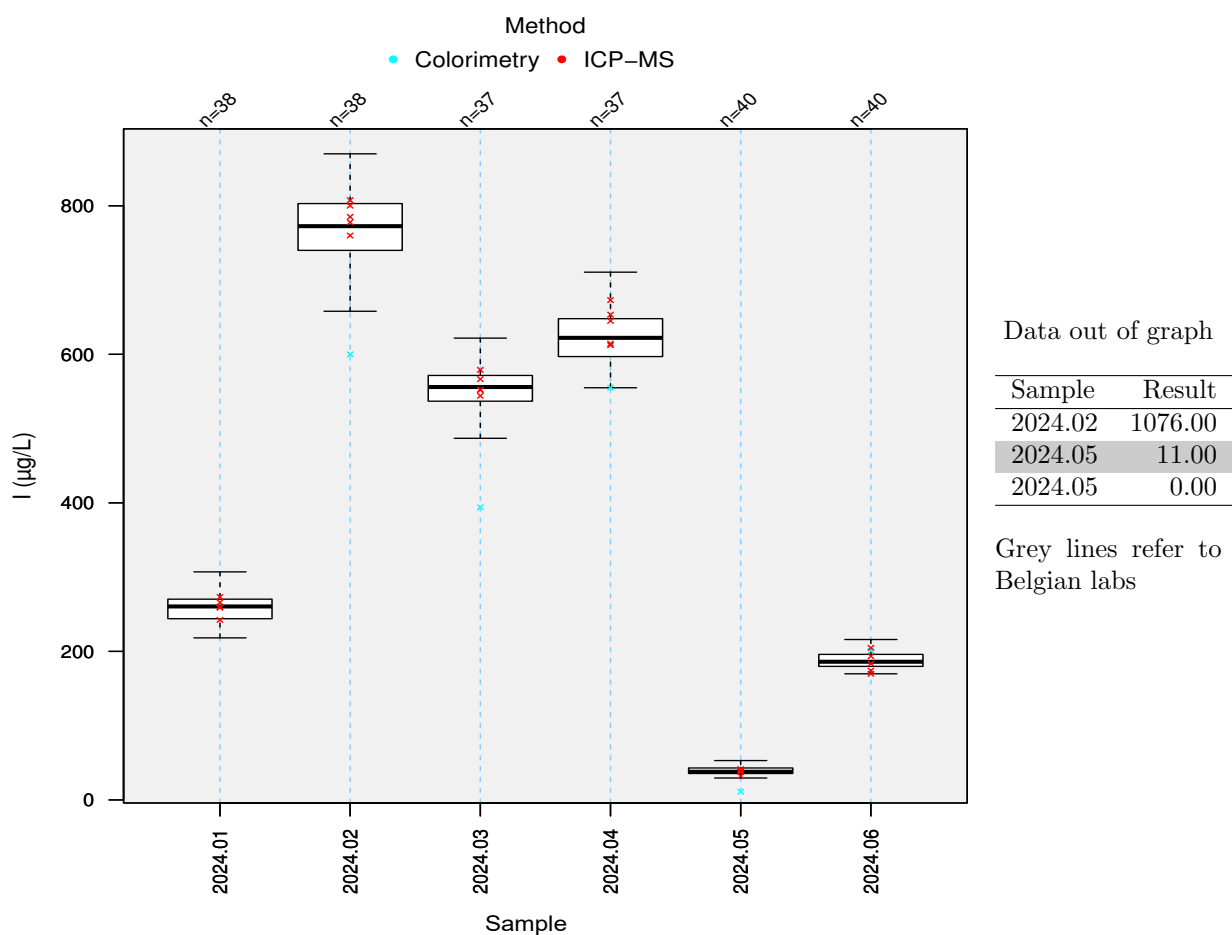
3.3.8 Hg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	22.98	7.55	28	5	5	0	0
2024.01	Others	23.92	2.44	2	1	0	0	1
2024.01	Global	21.98	7.55	32	6	6	0	0
2024.02	ICP-MS	65.97	19.98	28	5	5	0	0
2024.02	Others	79.84	6.58	2	1	0	0	1
2024.02	Global	67.08	19.95	32	6	6	0	0
2024.03	ICP-MS	47.94	18.03	27	4	4	0	0
2024.04	ICP-MS	53.36	19.86	27	4	4	0	0
2024.05	ICP-MS	3.46	0.98	28	4	4	0	0
2024.06	ICP-MS	14.57	4.33	28	4	4	0	0
2024.07	ICP-MS	30.7	2.56	40	6	5	1	0
2024.08	ICP-MS	20.59	2.09	40	6	5	1	0
2024.09	ICP-MS	88.97	7.97	40	6	6	0	0
2024.10	ICP-MS	49.37	3.84	40	6	6	0	0
2024.11	ICP-MS	71.24	9.02	38	6	6	0	0
2024.12	ICP-MS	1.32	0.38	37	6	5	1	0
2024.13	ICP-MS	0.62	0.18	37	6	5	1	0
2024.14	ICP-MS	99.1	7.93	39	6	6	0	0
2024.15	ICP-MS	11.28	0.71	37	6	6	0	0
2024.16	ICP-MS	40.06	3.71	37	6	5	1	0
2024.17	ICP-MS	80.25	5.91	36	6	6	0	0
2024.18	ICP-MS	59.58	5.75	36	6	6	0	0
2024.19	ICP-MS	0.63	0.17	38	6	5	1	0
2024.20	ICP-MS	89.43	6.9	38	6	6	0	0
2024.21	ICP-MS	11.03	0.86	39	6	6	0	0
2024.22	ICP-MS	49.44	4.31	39	6	6	0	0
2024.23	ICP-MS	20.36	1.09	35	6	6	0	0
2024.24	ICP-MS	98.09	4.71	35	6	6	0	0



## 3.3.9 I

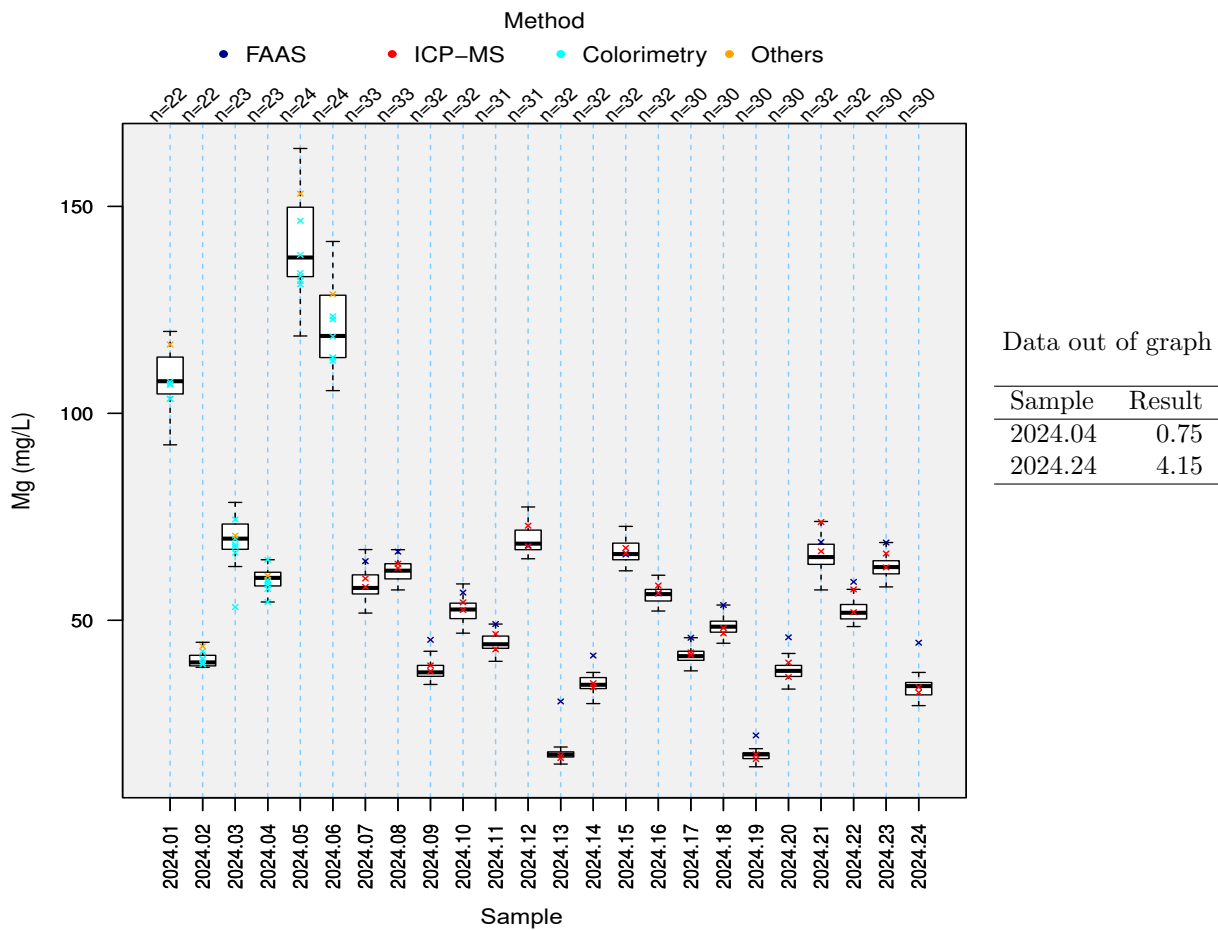
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	Colorimetry	278	14.08	2	1	0	0	1
2024.01	ICP-MS	261	19.61	35	5	5	0	0
2024.01	Global	260.52	18.79	38	6	6	0	0
2024.02	Colorimetry	838	176.43	2	1	0	0	1
2024.02	ICP-MS	771.17	44.92	35	5	5	0	0
2024.02	Global	772.58	45.81	38	6	5	1	0
2024.03	Colorimetry	486.5	68.57	2	1	0	0	1
2024.03	ICP-MS	556.74	24.97	34	5	5	0	0
2024.03	Global	556	25.69	37	6	5	1	0
2024.04	Colorimetry	573	13.34	2	1	0	0	1
2024.04	ICP-MS	627.92	31.23	34	5	5	0	0
2024.04	Global	622.2	37.81	37	6	6	0	0
2024.05	Colorimetry	23.5	9.27	2	1	0	0	1
2024.05	ICP-MS	38	4.89	37	5	5	0	0
2024.05	Global	37.92	5.34	40	6	5	1	0
2024.06	Colorimetry	194.5	4.82	2	1	0	0	1
2024.06	ICP-MS	186	11.44	37	5	5	0	0
2024.06	Global	186.07	11.7	40	6	6	0	0



## 3.3.10 Mg

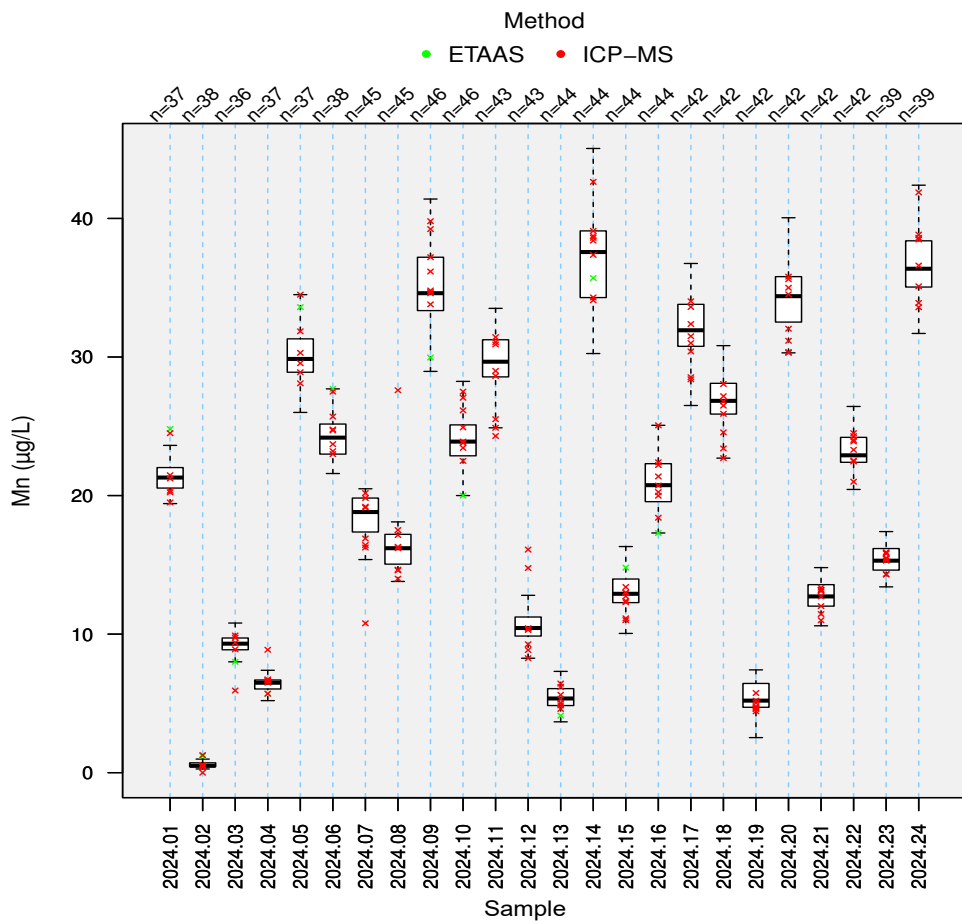
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	Colorimetry	107.04	2.34	6	5	5	0	0
2024.01	Others	116.64	0	1	1	0	0	1
2024.01	Global	107.77	5.8	22	6	6	0	0
2024.02	Colorimetry	40.7	1.24	6	5	5	0	0
2024.02	Others	43.74	0	1	1	0	0	1
2024.02	Global	39.84	1.82	22	6	6	0	0
2024.03	Colorimetry	68.28	2.63	7	6	5	1	0
2024.03	Others	70.47	0	1	1	0	0	1
2024.03	Global	69.74	4.52	23	7	6	1	0
2024.04	Colorimetry	59.29	1.75	7	6	5	1	0
2024.04	Others	60.75	0	1	1	0	0	1
2024.04	Global	60.26	2.45	23	7	7	0	0
2024.05	Colorimetry	133.89	7.3	7	6	6	0	0
2024.05	Others	153.09	0	1	1	0	0	1
2024.05	Global	137.66	11.17	24	7	7	0	0
2024.06	Colorimetry	118.58	7.12	7	6	6	0	0
2024.06	Others	128.79	0	1	1	0	0	1
2024.06	Global	118.7	11.08	24	7	7	0	0
2024.07	FAAS	57.14	3.39	8	1	1	0	0
2024.07	ICP-MS	57.95	3.16	24	2	2	0	0
2024.08	FAAS	62.05	4.15	8	1	1	0	0
2024.08	ICP-MS	62.3	2.39	24	2	2	0	0
2024.09	FAAS	36.7	0.99	8	1	0	1	0
2024.09	ICP-MS	38.15	1.87	23	2	2	0	0
2024.10	FAAS	50.2	2.78	8	1	1	0	0
2024.10	ICP-MS	52.97	2.23	23	2	2	0	0
2024.11	FAAS	44.23	0.99	7	1	0	1	0
2024.11	ICP-MS	44.6	2.64	23	2	2	0	0
2024.12	FAAS	68.19	1.53	7	1	1	0	0
2024.12	ICP-MS	68.77	4.09	23	2	2	0	0
2024.13	FAAS	17.91	0.68	8	1	0	1	0
2024.13	ICP-MS	17.54	1.01	23	2	2	0	0
2024.14	FAAS	34.75	1.29	8	1	0	1	0
2024.14	ICP-MS	34.36	2.36	23	2	2	0	0
2024.15	FAAS	65.96	0.66	8	1	1	0	0
2024.15	ICP-MS	66.27	4.28	23	2	2	0	0
2024.16	FAAS	55.64	2.69	8	1	1	0	0
2024.16	ICP-MS	56.6	2.45	23	2	2	0	0
2024.17	FAAS	40.22	0.74	8	1	0	1	0
2024.17	ICP-MS	42.04	1.26	21	2	2	0	0
2024.18	FAAS	47.3	1.64	8	1	0	1	0
2024.18	ICP-MS	48.92	1.6	21	2	2	0	0
2024.19	FAAS	17.89	0.96	8	1	0	1	0
2024.19	ICP-MS	17.4	0.85	21	2	2	0	0
2024.20	FAAS	36.7	3.51	8	1	1	0	0
2024.20	ICP-MS	37.98	1.26	21	2	2	0	0
2024.21	FAAS	64.89	4.88	8	1	1	0	0
2024.21	ICP-MS	65.2	2.73	23	2	1	1	0
2024.22	FAAS	51.08	1.52	8	1	0	1	0
2024.22	ICP-MS	51.98	2.91	23	2	2	0	0
2024.23	FAAS	62.23	2.7	8	1	1	0	0
2024.23	ICP-MS	63.3	1.98	21	2	2	0	0
2024.24	FAAS	33.66	3.33	8	1	0	1	0
2024.24	ICP-MS	34.02	1.62	21	2	2	0	0





## 3.3.11 Mn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	24.8	0	1	1	0	0	1
2024.01	ICP-MS	21.28	1.1	36	6	6	0	0
2024.01	Global	21.3	1.1	37	7	6	1	0
2024.02	ETAAS	1.2	0	1	1	0	0	1
2024.02	ICP-MS	0.49	0.2	37	7	6	1	0
2024.02	Global	0.5	0.2	38	8	6	2	0
2024.03	ETAAS	5.04	2.19	2	1	0	0	1
2024.03	ICP-MS	9.35	0.62	34	5	4	1	0
2024.03	Global	9.31	0.62	36	6	5	1	0
2024.04	ETAAS	3.56	1.58	2	1	0	0	1
2024.04	ICP-MS	6.54	0.46	35	6	5	1	0
2024.04	Global	6.49	0.48	37	7	6	1	0
2024.05	ETAAS	21.75	8.79	2	1	0	0	1
2024.05	ICP-MS	29.86	1.7	35	6	6	0	0
2024.05	Global	29.86	1.79	37	7	7	0	0
2024.06	ETAAS	14.01	10.14	2	1	0	0	1
2024.06	ICP-MS	24.18	1.28	36	7	7	0	0
2024.06	Global	24.18	1.5	38	8	8	0	0
2024.07	ICP-MS	18.95	1.83	42	8	7	1	0
2024.08	ICP-MS	16.2	1.69	42	8	7	1	0
2024.09	ETAAS	33.3	2.42	4	1	0	0	1
2024.09	ICP-MS	34.65	2.91	42	8	8	0	0
2024.09	Global	34.61	2.74	46	9	9	0	0
2024.10	ETAAS	23.6	1.39	4	1	0	0	1
2024.10	ICP-MS	23.9	1.86	42	8	8	0	0
2024.10	Global	23.9	1.58	46	9	9	0	0
2024.11	ICP-MS	29.61	1.78	41	8	8	0	0
2024.12	ICP-MS	10.44	1.04	41	8	6	2	0
2024.13	ETAAS	5.46	0.57	4	1	0	0	1
2024.13	ICP-MS	5.36	0.93	40	8	8	0	0
2024.13	Global	5.36	0.89	44	9	9	0	0
2024.14	ETAAS	37.37	4.03	4	1	0	0	1
2024.14	ICP-MS	37.58	3.56	40	8	8	0	0
2024.14	Global	37.58	3.56	44	9	9	0	0
2024.15	ETAAS	14.28	1.45	4	1	0	0	1
2024.15	ICP-MS	12.8	1.03	40	8	8	0	0
2024.15	Global	12.91	1.24	44	9	9	0	0
2024.16	ETAAS	20.88	3.59	4	1	0	0	1
2024.16	ICP-MS	20.75	1.83	40	8	8	0	0
2024.16	Global	20.75	1.99	44	9	9	0	0
2024.17	ICP-MS	31.76	1.83	39	8	8	0	0
2024.18	ICP-MS	26.71	1.65	39	8	8	0	0
2024.19	ICP-MS	5.2	1.22	39	8	8	0	0
2024.20	ICP-MS	34.39	2.58	39	8	8	0	0
2024.21	ICP-MS	12.72	1.2	40	8	8	0	0
2024.22	ICP-MS	23.02	1.31	40	8	8	0	0
2024.23	ICP-MS	15.3	0.96	37	8	8	0	0
2024.24	ICP-MS	36.4	2.34	37	8	8	0	0

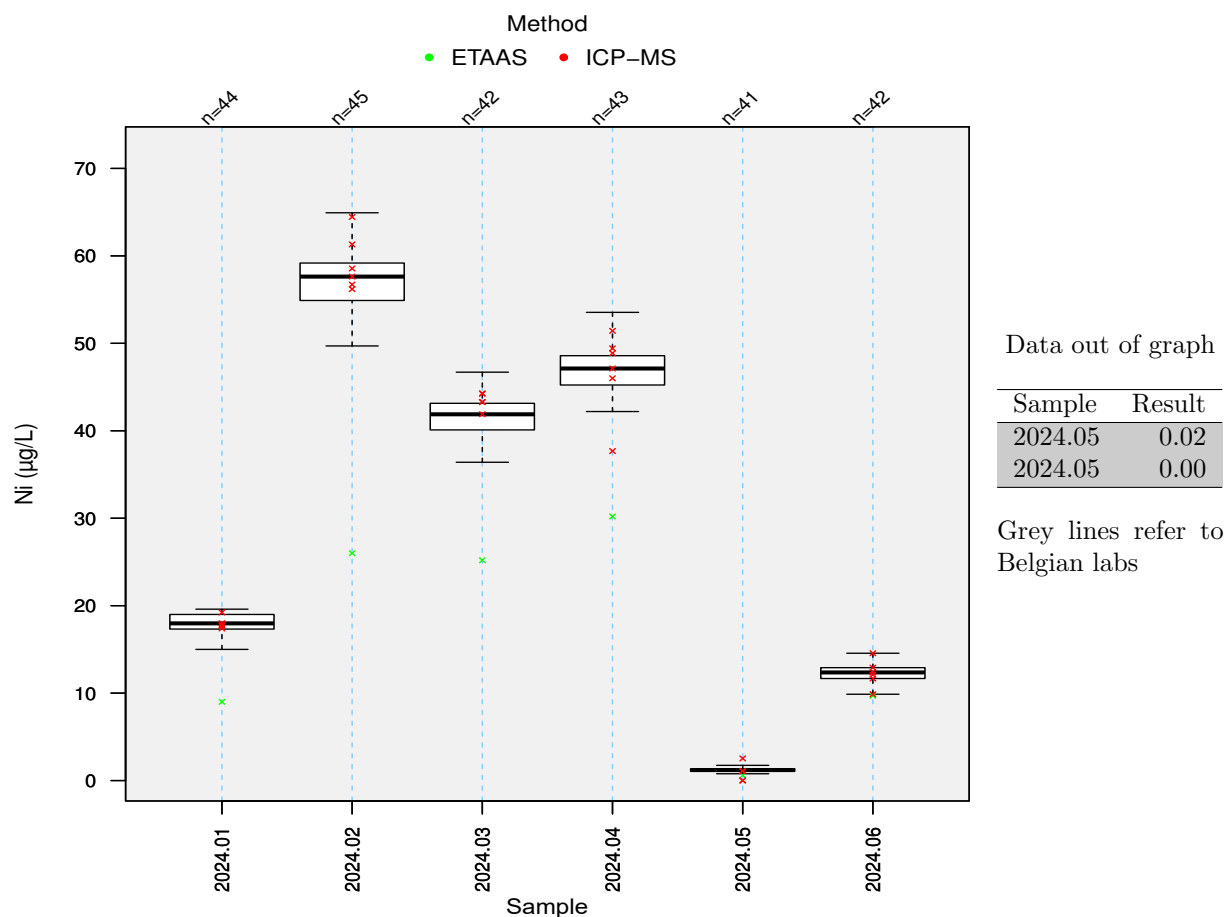


Data out of graph

Sample	Result
2024.07	73.07
2024.09	56.59
2024.10	60.10
2024.14	54.67
2024.14	56.90
2024.24	379.00
2024.24	55.10

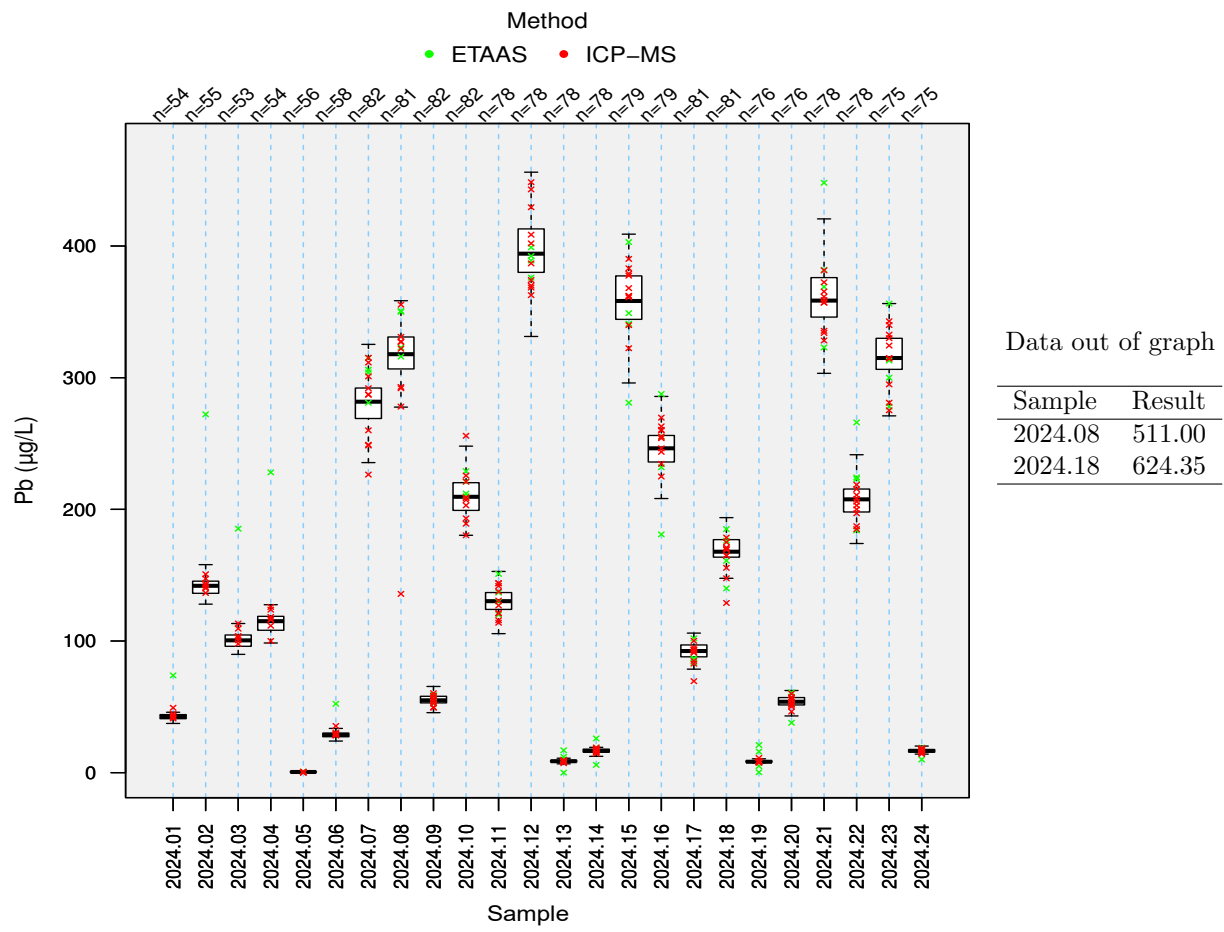
3.3.12 Ni

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	15	3.3	3	1	0	0	1
2024.01	ICP-MS	18.1	1.14	41	5	5	0	0
2024.01	Global	17.98	1.17	44	6	5	1	0
2024.02	ETAAS	26	21.32	3	1	0	0	1
2024.02	ICP-MS	57.67	2.26	42	6	6	0	0
2024.02	Global	57.63	3.17	45	7	6	1	0
2024.03	ETAAS	32.03	5.07	2	1	0	0	1
2024.03	ICP-MS	41.94	2.04	40	5	5	0	0
2024.03	Global	41.88	2.16	42	6	5	1	0
2024.04	ETAAS	37.79	5.63	2	1	0	0	1
2024.04	ICP-MS	47.2	2.58	41	6	5	1	0
2024.04	Global	47.12	2.48	43	7	5	2	0
2024.05	ETAAS	0.8	0.15	2	1	0	0	1
2024.05	ICP-MS	1.21	0.21	39	5	2	3	0
2024.05	Global	1.2	0.21	41	6	3	3	0
2024.06	ETAAS	10.87	0.87	2	1	0	0	1
2024.06	ICP-MS	12.43	0.95	40	6	6	0	0
2024.06	Global	12.37	0.9	42	7	7	0	0



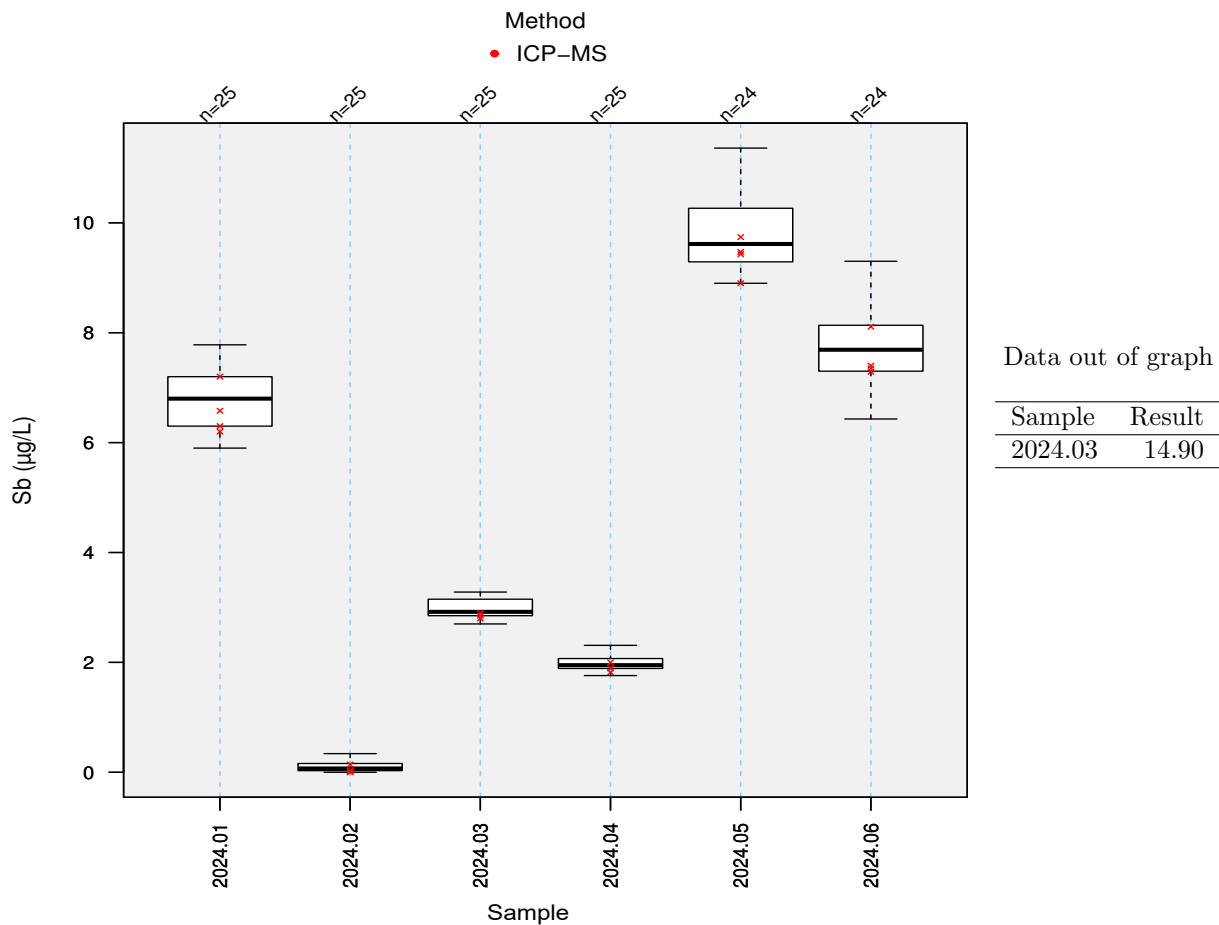
## 3.3.13 Pb

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ETAAS	44.04	8.01	4	1	0	0	1
2024.01	ICP-MS	42.94	2.1	50	6	5	1	0
2024.01	Global	42.94	2.23	54	7	6	1	0
2024.02	ETAAS	139.15	27.19	4	1	0	0	1
2024.02	ICP-MS	142.14	6.83	51	7	7	0	0
2024.02	Global	141.93	6.83	55	8	7	1	0
2024.03	ETAAS	105	60.64	5	1	0	0	1
2024.03	ICP-MS	99.47	6.01	48	6	6	0	0
2024.03	Global	100.49	6.36	53	7	6	1	0
2024.04	ETAAS	122	83.03	5	1	0	0	1
2024.04	ICP-MS	114.21	7.41	49	7	7	0	0
2024.04	Global	115.06	7.62	54	8	7	1	0
2024.05	ETAAS	1.15	0.97	6	1	1	0	0
2024.05	ICP-MS	0.5	0.14	50	7	6	1	0
2024.06	ETAAS	29.22	11.32	7	1	1	0	0
2024.06	ICP-MS	28.71	2	51	8	7	1	0
2024.07	ETAAS	289.85	22.52	20	4	4	0	0
2024.07	ICP-MS	280.06	15.68	62	10	9	1	0
2024.08	ETAAS	319.04	27.58	20	4	4	0	0
2024.08	ICP-MS	317.64	19.44	61	9	8	1	0
2024.09	ETAAS	54.44	5.07	20	4	4	0	0
2024.09	ICP-MS	55.19	3.67	62	10	10	0	0
2024.10	ETAAS	212	15.31	20	4	4	0	0
2024.10	ICP-MS	207.95	14.06	62	10	9	1	0
2024.11	ETAAS	129.5	7.76	18	4	4	0	0
2024.11	ICP-MS	130.62	8.25	60	10	10	0	0
2024.12	ETAAS	391.7	16.5	18	4	4	0	0
2024.12	ICP-MS	397.41	27.36	60	10	10	0	0
2024.13	ETAAS	9.2	3.74	19	4	4	0	0
2024.13	ICP-MS	8.7	0.66	59	10	10	0	0
2024.14	ETAAS	15.34	4.31	19	4	4	0	0
2024.14	ICP-MS	16.78	1.13	59	10	10	0	0
2024.15	ETAAS	358	30.1	19	4	4	0	0
2024.15	ICP-MS	359.39	23.77	60	10	10	0	0
2024.16	ETAAS	246.57	16.23	19	4	3	1	0
2024.16	ICP-MS	244.71	14.54	60	10	10	0	0
2024.17	ETAAS	93.24	8.15	21	4	4	0	0
2024.17	ICP-MS	92.03	5.84	60	10	9	1	0
2024.18	ETAAS	167.83	13.79	21	4	4	0	0
2024.18	ICP-MS	167.83	9.17	60	10	9	1	0
2024.19	ETAAS	8.82	5.17	18	4	4	0	0
2024.19	ICP-MS	8.29	0.61	58	9	8	1	0
2024.20	ETAAS	53.87	10.38	18	4	4	0	0
2024.20	ICP-MS	53.87	3.96	58	9	9	0	0
2024.21	ETAAS	371	26.96	19	4	4	0	0
2024.21	ICP-MS	357.01	18.1	59	10	10	0	0
2024.22	ETAAS	217.17	12.49	19	4	3	1	0
2024.22	ICP-MS	205.13	10.97	59	10	10	0	0
2024.23	ETAAS	314.94	16.46	17	4	4	0	0
2024.23	ICP-MS	314.7	17.57	58	10	10	0	0
2024.24	ETAAS	15.7	3.48	17	4	4	0	0
2024.24	ICP-MS	16.58	1.33	58	10	10	0	0



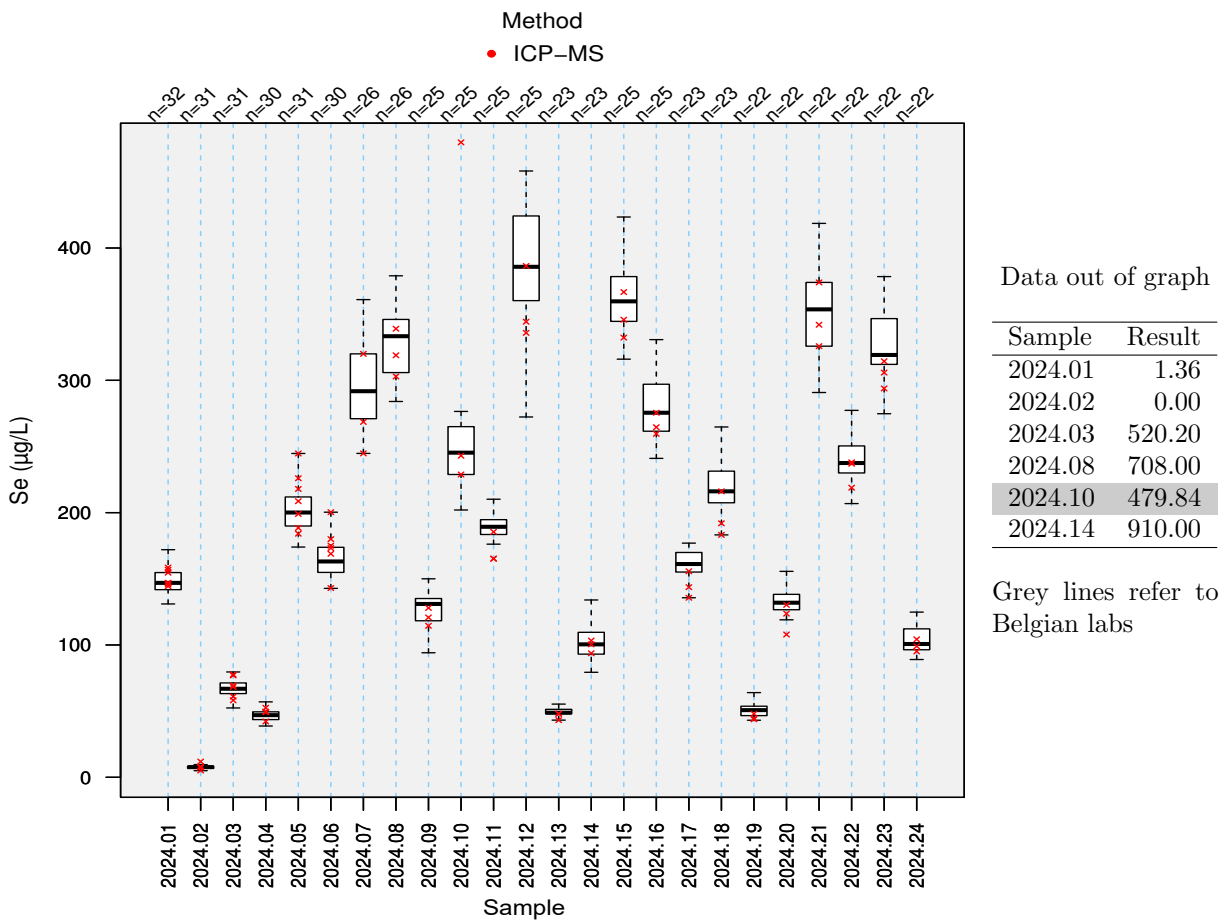
## 3.3.14 Sb

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	6.8	0.61	24	4	4	0	0
2024.02	ICP-MS	0.09	0.11	24	4	4	0	0
2024.03	ICP-MS	2.92	0.2	24	3	3	0	0
2024.04	ICP-MS	1.94	0.14	24	3	3	0	0
2024.05	ICP-MS	9.61	0.6	23	4	4	0	0
2024.06	ICP-MS	7.71	0.6	23	4	4	0	0



3.3.15 Se

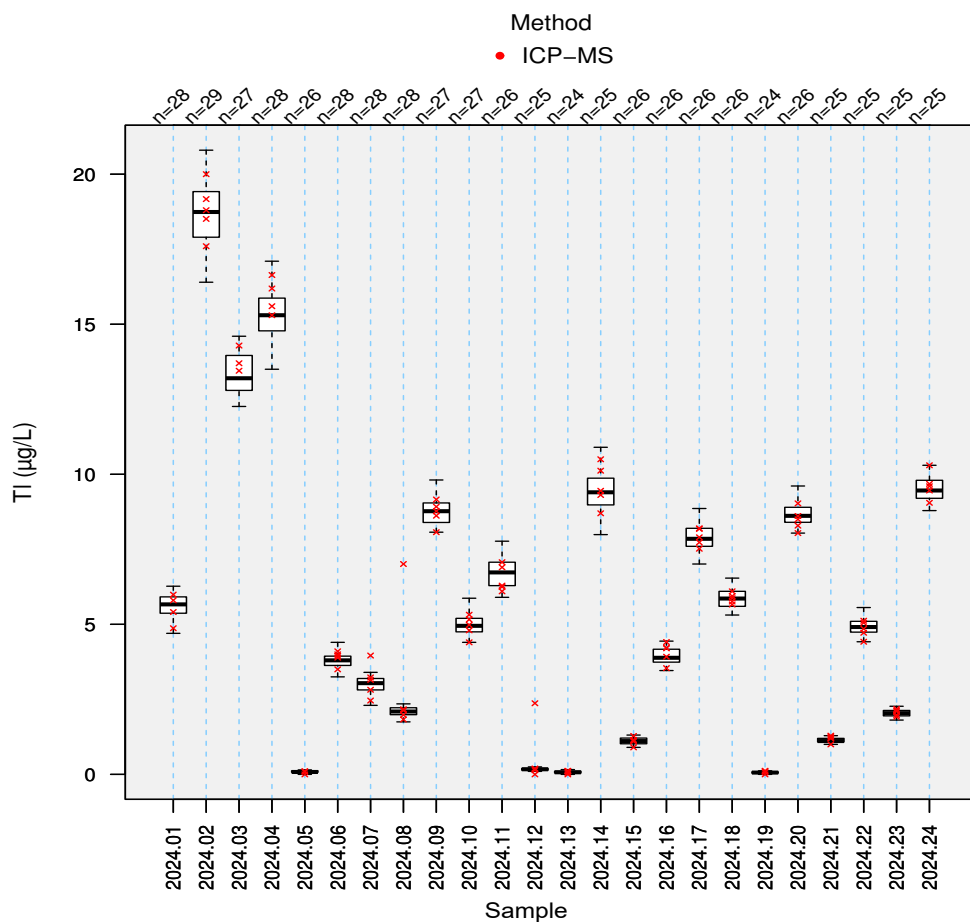
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	146.92	9.38	32	7	7	0	0
2024.02	ICP-MS	7.67	1.16	31	6	5	1	0
2024.03	ICP-MS	66.9	5.97	31	6	6	0	0
2024.04	ICP-MS	46.95	4.07	30	5	5	0	0
2024.05	ICP-MS	200.1	16.28	31	7	7	0	0
2024.06	ICP-MS	163.11	13.73	30	6	6	0	0
2024.07	ICP-MS	297.43	36.2	24	3	3	0	0
2024.08	ICP-MS	337.16	30.75	24	3	3	0	0
2024.09	ICP-MS	131	11.53	23	3	3	0	0
2024.10	ICP-MS	245.69	28.48	23	3	2	1	0
2024.11	ICP-MS	189.84	8.79	24	3	3	0	0
2024.12	ICP-MS	386.1	39.24	24	3	3	0	0
2024.13	ICP-MS	48.75	2.48	22	3	3	0	0
2024.14	ICP-MS	101.18	11.91	22	3	3	0	0
2024.15	ICP-MS	359.7	21.99	23	3	3	0	0
2024.16	ICP-MS	275.5	23.17	23	3	3	0	0
2024.17	ICP-MS	160.23	9.37	21	3	3	0	0
2024.18	ICP-MS	214.36	10.82	21	3	3	0	0
2024.19	ICP-MS	50.56	4.83	21	3	3	0	0
2024.20	ICP-MS	131.93	8.61	21	3	3	0	0
2024.21	ICP-MS	357.08	35.72	21	3	3	0	0
2024.22	ICP-MS	238.01	14.4	21	3	3	0	0
2024.23	ICP-MS	318.37	25.65	21	3	3	0	0
2024.24	ICP-MS	100.33	7.03	21	3	3	0	0





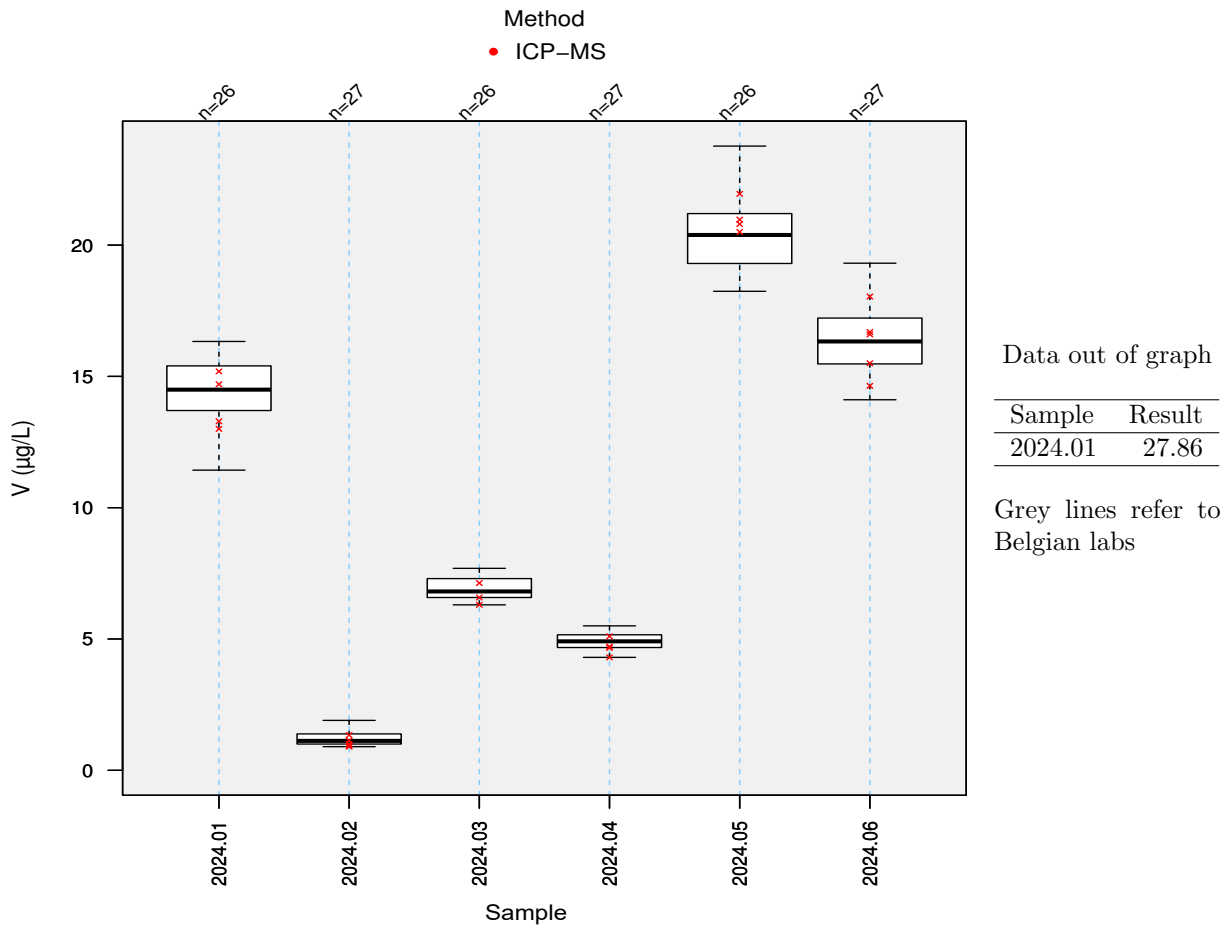
## 3.3.16 Tl

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	5.66	0.38	28	4	4	0	0
2024.02	ICP-MS	18.74	1.13	29	5	5	0	0
2024.03	ICP-MS	13.2	0.86	27	3	3	0	0
2024.04	ICP-MS	15.3	0.77	28	4	4	0	0
2024.05	ICP-MS	0.08	0.03	26	3	3	0	0
2024.06	ICP-MS	3.8	0.21	28	5	5	0	0
2024.07	ICP-MS	3.04	0.28	28	5	4	1	0
2024.08	ICP-MS	2.09	0.16	28	5	4	1	0
2024.09	ICP-MS	8.77	0.48	27	5	5	0	0
2024.10	ICP-MS	4.95	0.33	27	5	5	0	0
2024.11	ICP-MS	6.73	0.56	26	5	5	0	0
2024.12	ICP-MS	0.17	0.04	25	5	3	2	0
2024.13	ICP-MS	0.07	0.04	24	5	5	0	0
2024.14	ICP-MS	9.4	0.66	25	5	5	0	0
2024.15	ICP-MS	1.11	0.13	26	5	5	0	0
2024.16	ICP-MS	3.88	0.31	26	5	5	0	0
2024.17	ICP-MS	7.85	0.44	26	5	5	0	0
2024.18	ICP-MS	5.86	0.35	26	5	5	0	0
2024.19	ICP-MS	0.06	0.03	24	4	4	0	0
2024.20	ICP-MS	8.61	0.34	26	5	5	0	0
2024.21	ICP-MS	1.11	0.09	25	5	5	0	0
2024.22	ICP-MS	4.91	0.27	25	5	5	0	0
2024.23	ICP-MS	2.04	0.13	25	5	5	0	0
2024.24	ICP-MS	9.46	0.44	25	5	5	0	0



3.3.17 V

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	ICP-MS	14.5	1.23	26	4	4	0	0
2024.02	ICP-MS	1.12	0.29	27	5	5	0	0
2024.03	ICP-MS	6.81	0.5	26	3	3	0	0
2024.04	ICP-MS	4.91	0.36	27	4	4	0	0
2024.05	ICP-MS	20.38	1.38	26	4	4	0	0
2024.06	ICP-MS	16.33	1.29	27	5	5	0	0



3.3.18 Zn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2024.01	FAAS	0.98	0.04	8	1	1	0	0
2024.01	ICP-MS	0.95	0.06	48	8	8	0	0
2024.02	FAAS	0.22	0.02	8	1	1	0	0
2024.02	ICP-MS	0.21	0.01	48	8	8	0	0
2024.03	FAAS	0.58	0.08	8	1	1	0	0
2024.03	ICP-MS	0.52	0.04	47	7	7	0	0
2024.04	FAAS	0.44	0.06	8	1	1	0	0
2024.04	ICP-MS	0.42	0.03	47	7	7	0	0
2024.05	FAAS	1.34	0.07	8	1	1	0	0
2024.05	ICP-MS	1.26	0.09	47	8	8	0	0
2024.06	FAAS	1.1	0.06	8	1	1	0	0
2024.06	ICP-MS	1.06	0.08	47	8	8	0	0
2024.07	ICP-MS	12.03	0.46	25	2	2	0	0
2024.08	ICP-MS	12.7	0.63	25	2	2	0	0
2024.09	ICP-MS	7.4	0.64	24	2	2	0	0
2024.10	ICP-MS	10.23	0.88	24	2	2	0	0
2024.11	ICP-MS	9	0.5	24	2	2	0	0
2024.12	ICP-MS	14.07	0.66	24	2	2	0	0
2024.13	ICP-MS	3.36	0.22	23	2	2	0	0
2024.14	ICP-MS	6.69	0.33	23	2	2	0	0
2024.15	ICP-MS	13.39	0.81	23	2	2	0	0
2024.16	ICP-MS	11.31	0.52	23	2	2	0	0
2024.17	ICP-MS	8.22	0.4	23	2	2	0	0
2024.18	ICP-MS	9.61	0.45	23	2	2	0	0
2024.19	ICP-MS	3.36	0.1	22	2	2	0	0
2024.20	ICP-MS	7.29	0.36	22	2	2	0	0
2024.21	ICP-MS	13.21	0.65	23	2	2	0	0
2024.22	ICP-MS	10.39	0.44	23	2	2	0	0
2024.23	ICP-MS	12.81	0.91	22	2	2	0	0
2024.24	ICP-MS	6.84	0.57	22	2	2	0	0

