

**EXPERTISE AND SERVICE PROVISION
QUALITY OF LABORATORIES**

**CLINICAL BIOLOGY COMMISSION
COMMITTEE OF EXPERTS**

**EXTERNAL QUALITY ASSESSMENT
IN CLINICAL BIOLOGY**

ANNUAL REPORT

Trace elements

2020

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Expertise and service provision
Quality of laboratories
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All the reports are also available on our webpage:

https://www.wiv-isp.be/QML/activities/external_quality/rapports/_nl/rapports_annee.htm

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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.

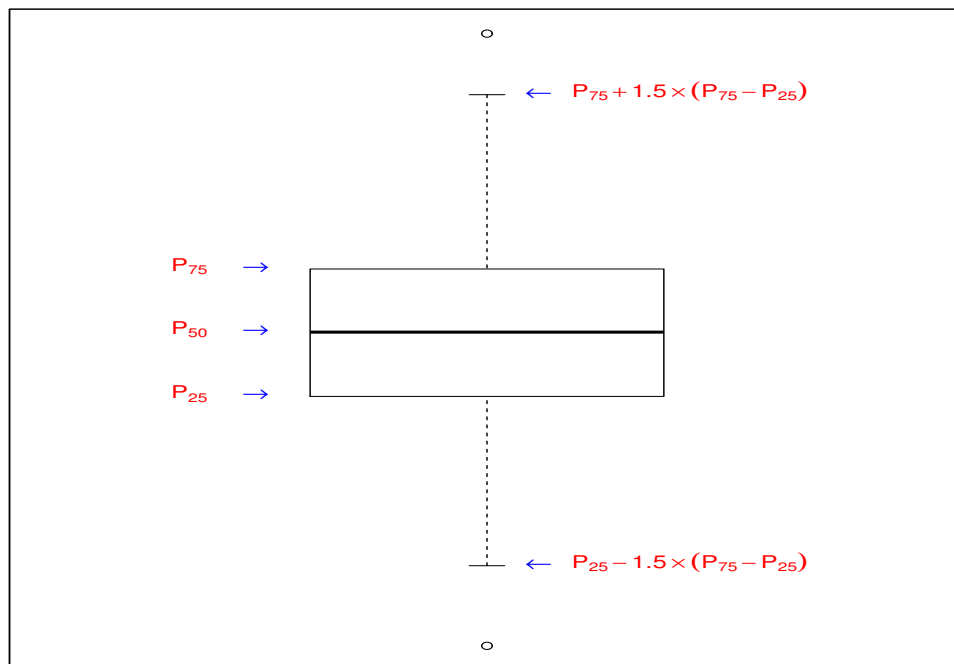
$$Z = \begin{cases} (R - M_m)/SD_m & \text{when } N_m \geq 6 \\ (R - M_g)/SD_g & \text{when } N_m < 6 \text{ and } N_g \geq 6 \end{cases}$$

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 January 2020 to December 2020. The results were encoded via the web page: www.trace-elements.eu.

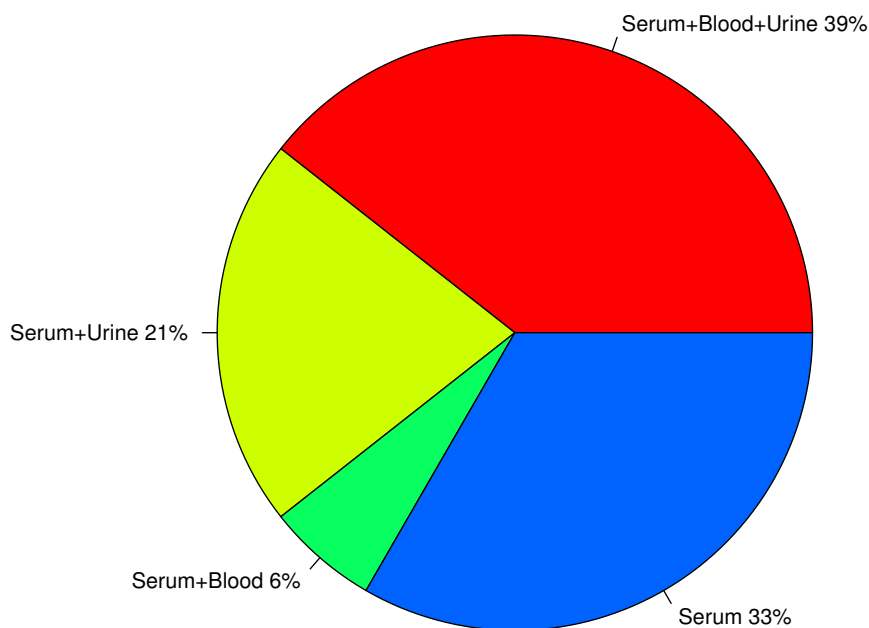
The laboratories obtained from this site an individual report, a monthly report and an annual report.

Sciensano produced individual annual reports and this global annual report.

PARTICIPATION

- 185 participants from 6 countries, 33 of which are belgian, participated to the EQA
- 13 belgian laboratories for serum, blood and urine
- 7 belgian laboratories for serum and urine
- 2 belgian laboratories for serum and blood
- 11 belgian laboratories for serum alone

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



1 TRACE ELEMENTS IN URINE

1.1 PARTICIPATION

20 laboratories participated to the EQA for urine matrix.

Parameter	N labs	Recorded results	Expected number of results	percentage
Al	4	75	96	78.12 %
As	6	132	144	91.67 %
Be	2	48	48	100 %
Cd	9	202	216	93.52 %
Co	8	180	192	93.75 %
Cr	8	178	192	92.71 %
Cu	10	224	240	93.33 %
Hg	6	118	144	81.94 %
I	7	148	168	88.1 %
Mg	8	161	192	83.85 %
Mn	8	177	192	92.19 %
Ni	8	176	192	91.67 %
Pb	10	226	240	94.17 %
Sb	4	96	96	100 %
Se	7	126	168	75 %
Tl	7	156	168	92.86 %
V	6	132	144	91.67 %
Zn	10	236	240	98.33 %
Total		2791	3072	90.85

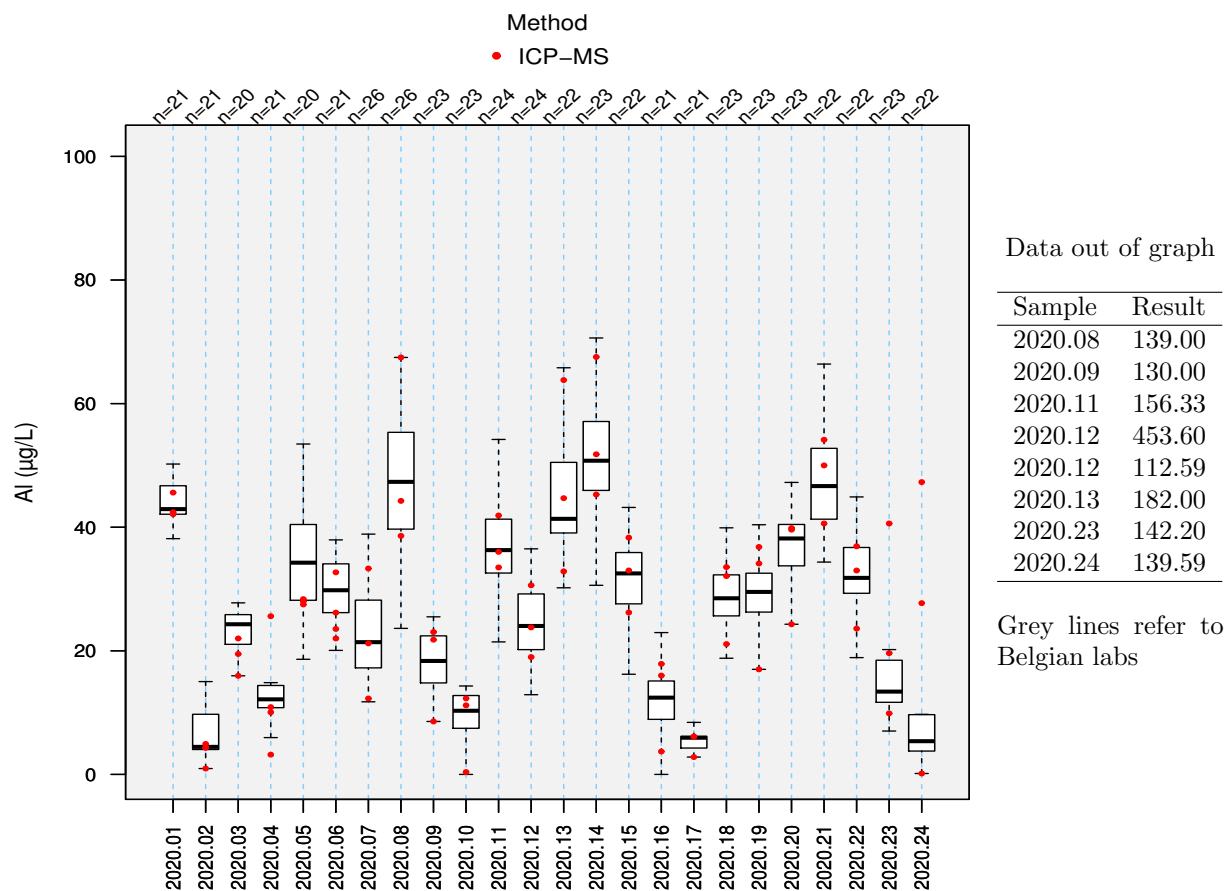
1.2 GLOBAL RESULTS

STAT	Element	Total number of results	Number of evaluated results	Number of Z citations	% citations
MA	Al	75	75	5	6.67
MA	As	132	132	2	1.52
MA	Be	48	48	2	4.17
MA	Cd	202	154	20	12.99
MA+GA	Cd	202	202 (+48)	29 (+9)	14.36
MA	Co	180	156	10	6.41
MA+GA	Co	180	180 (+24)	18 (+8)	10
MA	Cr	178	173	7	4.05
MA+GA	Cr	178	178 (+5)	9 (+2)	5.06
MA	Cu	224	224	14	6.25
MA	Hg	118	96	9	9.38
MA+GA	Hg	118	118 (+22)	10 (+1)	8.47
MA	I	148	124	4	3.23
MA+GA	I	148	148 (+24)	19 (+15)	12.84
MA	Mg	161	127	3	2.36
MA+GA	Mg	161	161 (+34)	3	1.86
MA	Mn	177	153	13	8.5
MA+GA	Mn	177	177 (+24)	14 (+1)	7.91
MA	Ni	176	154	5	3.25
MA+GA	Ni	176	176 (+22)	18 (+13)	10.23
MA	Pb	226	226	25	11.06
MA	Sb	96	96	5	5.21
MA	Se	126	126	17	13.49
MA	Tl	156	156	15	9.62
MA	V	132	132	3	2.27
MA	Zn	236	236	30	12.71
Total	MA+GA	2791	2791	238	8.53
	MA	2791	2588	189	7.3

1.3 RESULTS PER ELEMENT

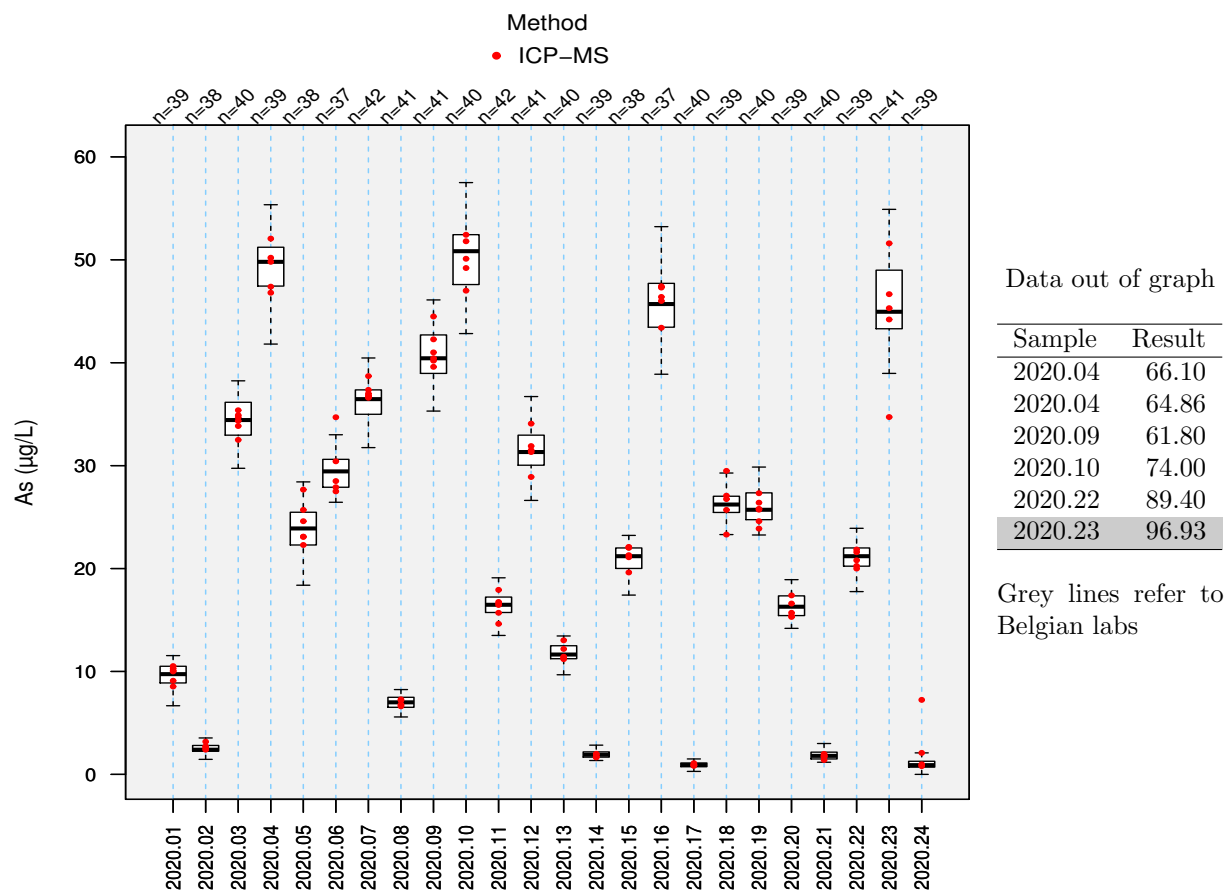
1.3.1 Al

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	42.93	3.42	21	3	3	0	0
2020.02	ICP-MS	4.46	4.23	21	4	4	0	0
2020.03	ICP-MS	24.3	2.97	20	3	3	0	0
2020.04	ICP-MS	12.15	2.66	21	4	2	2	0
2020.05	ICP-MS	34.26	8.9	20	3	3	0	0
2020.06	ICP-MS	29.8	5.85	21	4	4	0	0
2020.07	ICP-MS	21.2	7.97	23	3	3	0	0
2020.08	ICP-MS	45.63	10.59	23	3	3	0	0
2020.09	ICP-MS	18.1	5.35	21	3	3	0	0
2020.10	ICP-MS	9.86	3.68	21	3	3	0	0
2020.11	ICP-MS	36.63	6.71	22	3	3	0	0
2020.12	ICP-MS	24.02	5.42	22	3	3	0	0
2020.13	ICP-MS	41.6	7.81	20	3	3	0	0
2020.14	ICP-MS	50.76	7.87	21	3	3	0	0
2020.15	ICP-MS	32.19	5.48	20	3	3	0	0
2020.16	ICP-MS	12.42	4.29	19	3	3	0	0
2020.17	ICP-MS	5.86	1.43	20	3	3	0	0
2020.18	ICP-MS	28.43	5.15	22	3	3	0	0
2020.19	ICP-MS	28.96	4.6	22	3	3	0	0
2020.20	ICP-MS	37.84	4.94	22	3	3	0	0
2020.21	ICP-MS	46.66	7.24	20	3	3	0	0
2020.22	ICP-MS	31.11	3.74	20	3	3	0	0
2020.23	ICP-MS	13.4	6.05	21	3	2	1	0
2020.24	ICP-MS	5.38	4.43	20	3	1	2	0



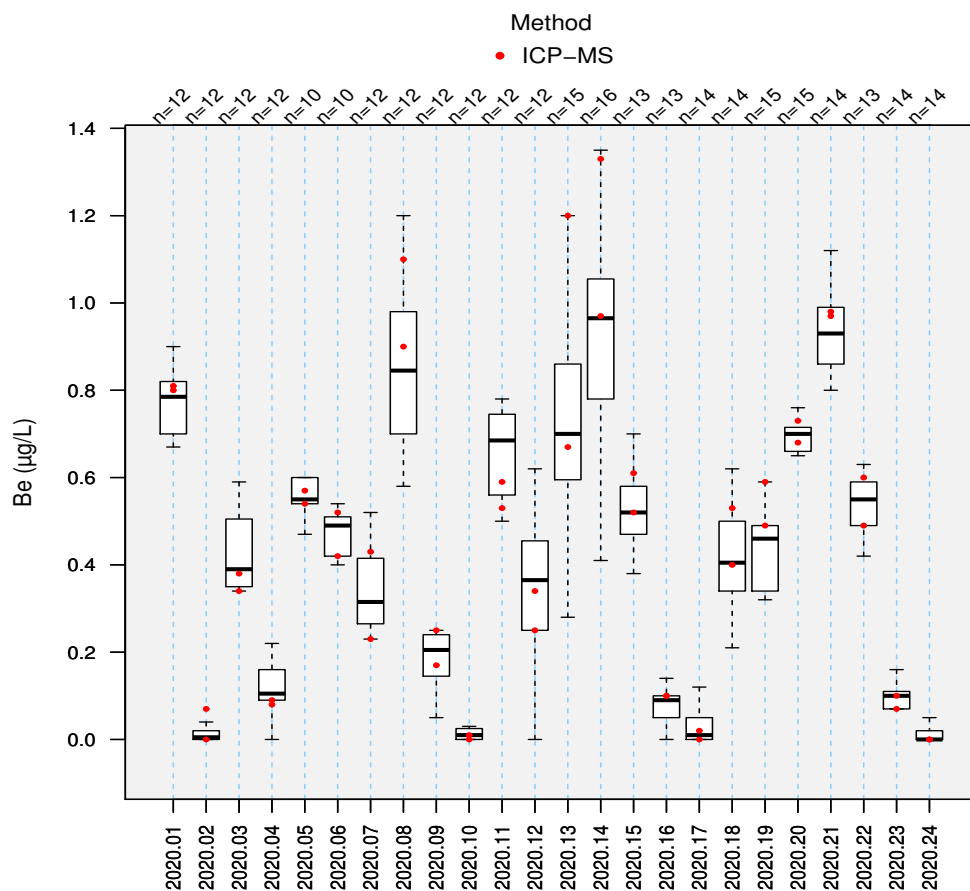
1.3.2 As

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	9.82	1.25	38	6	6	0	0
2020.02	ICP-MS	2.4	0.42	37	5	5	0	0
2020.03	ICP-MS	34.46	2.37	39	6	6	0	0
2020.04	ICP-MS	49.85	2.76	38	5	5	0	0
2020.05	ICP-MS	23.82	2.36	37	6	6	0	0
2020.06	ICP-MS	29.44	2.01	36	5	5	0	0
2020.07	ICP-MS	36.46	1.57	40	6	6	0	0
2020.08	ICP-MS	6.84	0.73	39	5	5	0	0
2020.09	ICP-MS	40.43	2.83	39	6	6	0	0
2020.10	ICP-MS	50.83	3.14	38	5	5	0	0
2020.11	ICP-MS	16.48	1.1	40	6	6	0	0
2020.12	ICP-MS	31.24	1.73	39	5	5	0	0
2020.13	ICP-MS	11.64	0.8	38	6	6	0	0
2020.14	ICP-MS	1.91	0.39	37	5	5	0	0
2020.15	ICP-MS	21.2	1.37	36	6	6	0	0
2020.16	ICP-MS	45.7	3.07	35	5	5	0	0
2020.17	ICP-MS	0.9	0.25	38	6	6	0	0
2020.18	ICP-MS	26.22	1.17	37	5	5	0	0
2020.19	ICP-MS	25.71	1.88	38	6	6	0	0
2020.20	ICP-MS	15.81	1.38	37	5	5	0	0
2020.21	ICP-MS	1.8	0.44	38	6	6	0	0
2020.22	ICP-MS	21.2	1.31	37	5	5	0	0
2020.23	ICP-MS	44.58	3.73	39	6	5	1	0
2020.24	ICP-MS	0.9	0.41	37	5	4	1	0



1.3.3 Be

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	0.78	0.09	12	2	2	0	0
2020.02	ICP-MS	0	0.01	12	2	1	1	0
2020.03	ICP-MS	0.39	0.11	12	2	2	0	0
2020.04	ICP-MS	0.11	0.04	12	2	2	0	0
2020.05	ICP-MS	0.55	0.04	10	2	2	0	0
2020.06	ICP-MS	0.49	0.06	10	2	2	0	0
2020.07	ICP-MS	0.34	0.11	11	2	2	0	0
2020.08	ICP-MS	0.86	0.21	11	2	2	0	0
2020.09	ICP-MS	0.21	0.07	11	2	2	0	0
2020.10	ICP-MS	0.01	0.02	11	2	2	0	0
2020.11	ICP-MS	0.69	0.09	11	2	2	0	0
2020.12	ICP-MS	0.36	0.15	11	2	2	0	0
2020.13	ICP-MS	0.68	0.16	14	2	1	1	0
2020.14	ICP-MS	0.96	0.19	15	2	2	0	0
2020.15	ICP-MS	0.52	0.1	12	2	2	0	0
2020.16	ICP-MS	0.1	0.05	12	2	2	0	0
2020.17	ICP-MS	0.01	0.01	13	2	2	0	0
2020.18	ICP-MS	0.41	0.1	13	2	2	0	0
2020.19	ICP-MS	0.46	0.09	14	2	2	0	0
2020.20	ICP-MS	0.7	0.03	14	2	2	0	0
2020.21	ICP-MS	0.91	0.09	13	2	2	0	0
2020.22	ICP-MS	0.54	0.08	12	2	2	0	0
2020.23	ICP-MS	0.1	0.03	13	2	2	0	0
2020.24	ICP-MS	0	0.01	13	2	2	0	0

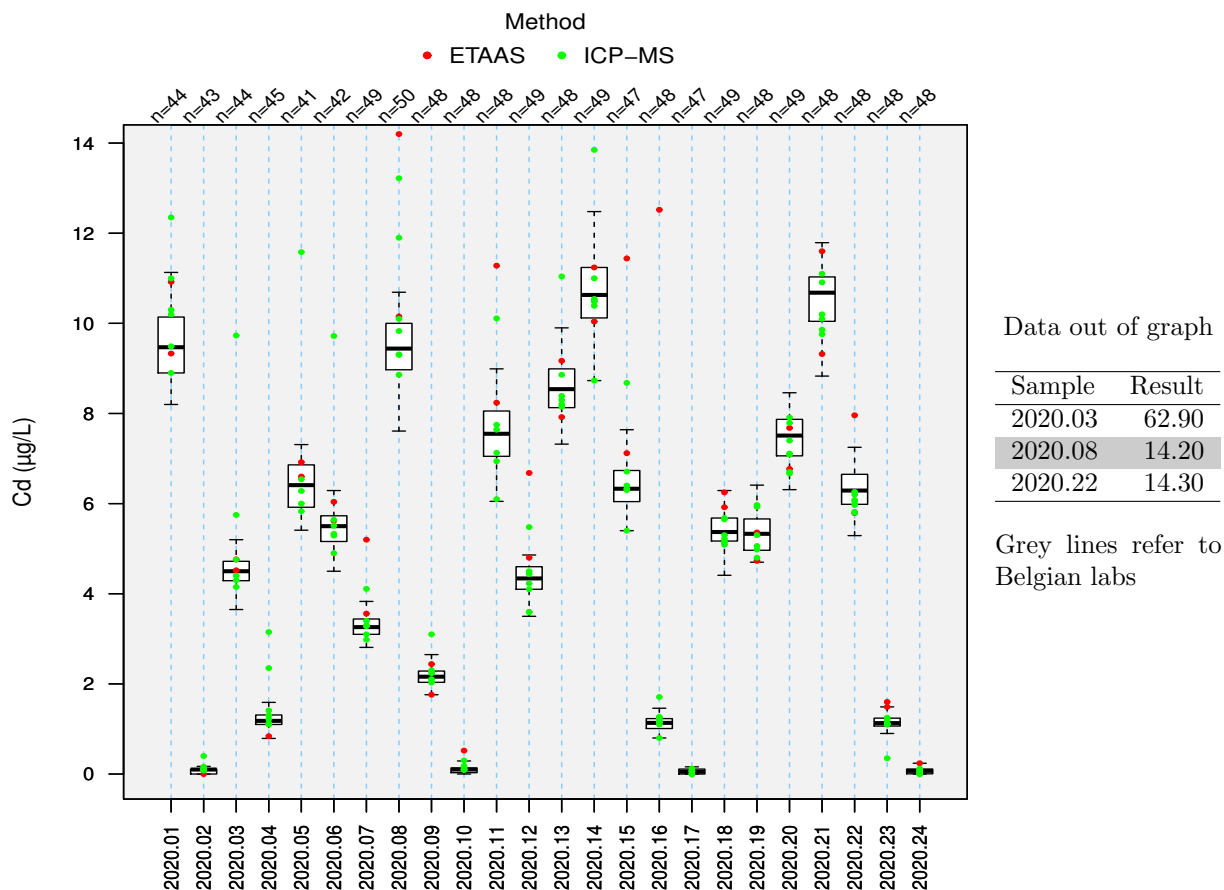


1.3.4 Cd

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	10.29	1.03	4	2	0	0	2
2020.01	ICP-MS	9.45	0.84	40	6	5	1	0
2020.01	Global	9.47	0.91	44	8	7	1	0
2020.02	ETAAS	0	0.03	4	2	0	0	2
2020.02	ICP-MS	0.1	0.05	39	7	6	1	0
2020.02	Global	0.1	0.08	43	9	8	1	0
2020.03	ETAAS	4.62	0.16	4	2	0	0	2
2020.03	ICP-MS	4.46	0.34	40	6	4	2	0
2020.03	Global	4.5	0.32	44	8	6	2	0
2020.04	ETAAS	0.99	0.25	4	2	0	0	2
2020.04	ICP-MS	1.21	0.16	41	7	5	2	0
2020.04	Global	1.18	0.16	45	9	7	2	0
2020.05	ETAAS	6.78	0.29	4	2	0	0	2
2020.05	ICP-MS	6.31	0.73	37	5	4	1	0
2020.05	Global	6.41	0.7	41	7	6	1	0
2020.06	ETAAS	5.83	0.38	4	2	0	0	2
2020.06	ICP-MS	5.45	0.43	38	6	5	1	0
2020.06	Global	5.5	0.42	42	8	7	1	0
2020.07	ETAAS	3.56	0.26	5	2	0	0	2
2020.07	ICP-MS	3.25	0.24	43	6	5	1	0
2020.07	Global	3.26	0.25	49	8	6	2	0
2020.08	ETAAS	10.15	1.59	5	2	0	0	2
2020.08	ICP-MS	9.44	0.63	44	7	5	2	0
2020.08	Global	9.44	0.7	50	9	6	3	0
2020.09	ETAAS	2.14	0.39	5	2	0	0	2
2020.09	ICP-MS	2.17	0.16	43	6	5	1	0
2020.09	Global	2.16	0.18	48	8	7	1	0
2020.10	ETAAS	0.1	0.33	5	2	0	0	2
2020.10	ICP-MS	0.1	0.04	43	7	6	1	0
2020.10	Global	0.1	0.06	48	9	7	2	0
2020.11	ETAAS	8.1	0.44	5	2	0	0	2
2020.11	ICP-MS	7.5	0.66	43	6	5	1	0
2020.11	Global	7.55	0.7	48	8	6	2	0
2020.12	ETAAS	4.8	0.44	5	2	0	0	2
2020.12	ICP-MS	4.34	0.32	44	7	6	1	0
2020.12	Global	4.34	0.37	49	9	7	2	0
2020.13	ETAAS	8.97	0.3	5	2	0	0	2
2020.13	ICP-MS	8.54	0.56	43	6	5	1	0
2020.13	Global	8.54	0.62	48	8	7	1	0
2020.14	ETAAS	11.24	0.79	5	2	0	0	2
2020.14	ICP-MS	10.57	0.8	44	7	6	1	0
2020.14	Global	10.63	0.83	49	9	8	1	0
2020.15	ETAAS	6.64	0.53	5	2	0	0	2
2020.15	ICP-MS	6.29	0.55	41	6	5	1	0
2020.15	Global	6.33	0.51	47	8	6	2	0
2020.16	ETAAS	1.24	0.02	5	2	0	0	2
2020.16	ICP-MS	1.12	0.13	42	7	6	1	0
2020.16	Global	1.13	0.16	48	9	7	2	0
2020.17	ETAAS	0	0.02	5	2	0	0	2
2020.17	ICP-MS	0.06	0.08	42	6	6	0	0
2020.17	Global	0.05	0.08	47	8	8	0	0
2020.18	ETAAS	5.61	0.47	5	2	0	0	2
2020.18	ICP-MS	5.36	0.38	44	7	7	0	0
2020.18	Global	5.37	0.38	49	9	9	0	0
2020.19	ETAAS	5.36	0.09	5	2	0	0	2
2020.19	ICP-MS	5.3	0.55	43	6	6	0	0
2020.19	Global	5.33	0.49	48	8	8	0	0
2020.20	ETAAS	7.64	0.19	5	2	0	0	2
2020.20	ICP-MS	7.5	0.61	44	7	7	0	0
2020.20	Global	7.51	0.6	49	9	9	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.21	ETAAS	10.84	0.58	5	2	0	0	2
2020.21	ICP-MS	10.6	0.71	43	6	6	0	0
2020.21	Global	10.68	0.7	48	8	8	0	0
2020.22	ETAAS	6.29	0.4	5	2	0	0	2
2020.22	ICP-MS	6.29	0.48	43	7	7	0	0
2020.22	Global	6.29	0.48	48	9	8	1	0
2020.23	ETAAS	1.24	0.26	5	2	0	0	2
2020.23	ICP-MS	1.12	0.14	42	6	5	1	0
2020.23	Global	1.13	0.12	48	8	6	2	0
2020.24	ETAAS	0.01	0.07	5	2	0	0	2
2020.24	ICP-MS	0.07	0.06	42	7	7	0	0
2020.24	Global	0.07	0.08	48	9	9	0	0

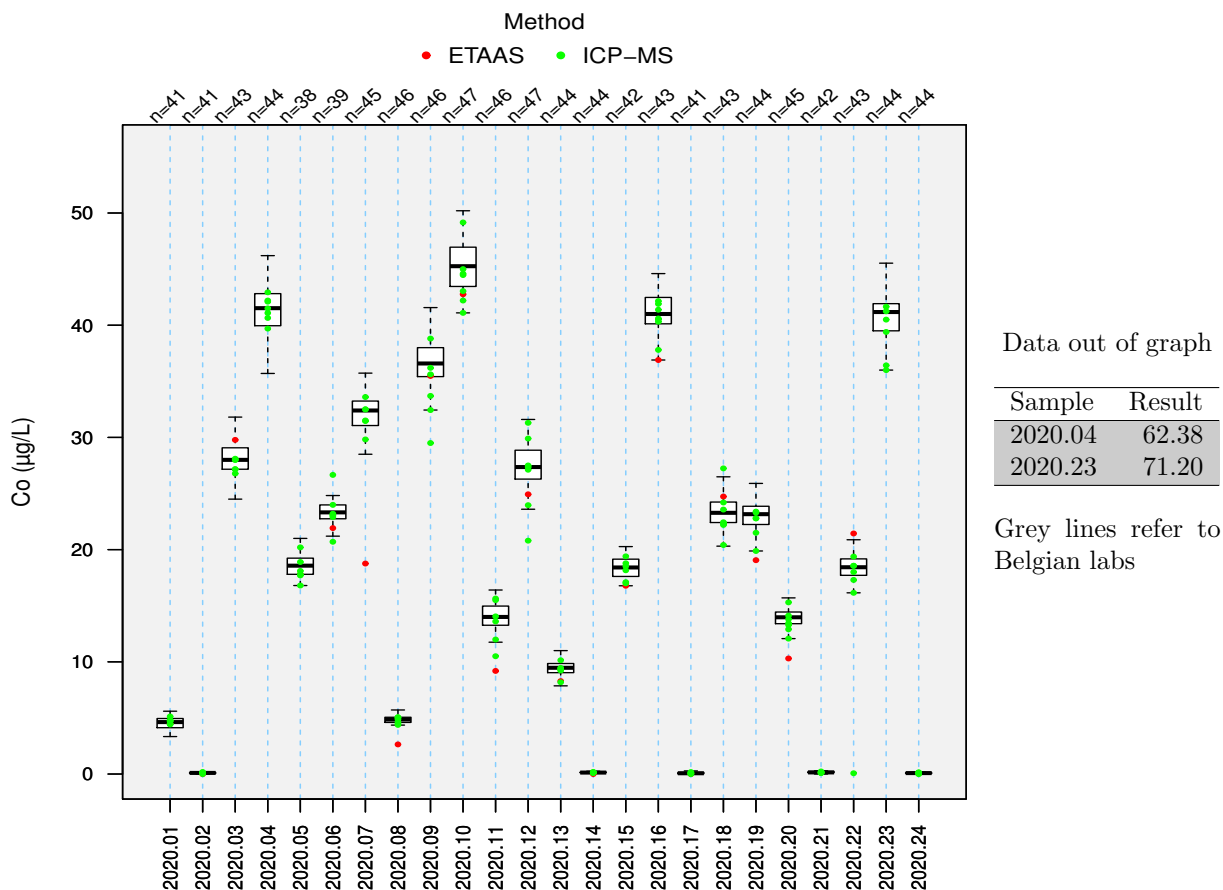


1.3.5 Co

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	4.28	0.41	4	1	0	0	1
2020.01	ICP-MS	4.64	0.51	37	6	6	0	0
2020.01	Global	4.63	0.61	41	7	7	0	0
2020.02	ETAAS	0.22	0.55	4	1	0	0	1
2020.02	ICP-MS	0.1	0.05	37	7	7	0	0
2020.02	Global	0.1	0.06	41	8	8	0	0
2020.03	ETAAS	28.55	1.26	4	1	0	0	1
2020.03	ICP-MS	27.97	1.27	39	6	6	0	0
2020.03	Global	28	1.42	43	7	7	0	0
2020.04	ETAAS	41.83	5.91	4	1	0	0	1
2020.04	ICP-MS	41.52	1.97	40	7	7	0	0
2020.04	Global	41.52	2.06	44	8	7	1	0
2020.05	ETAAS	17.8	0.61	3	1	0	0	1
2020.05	ICP-MS	18.58	1.02	35	6	6	0	0
2020.05	Global	18.57	1.06	38	7	7	0	0
2020.06	ETAAS	21.92	2.72	3	1	0	0	1
2020.06	ICP-MS	23.41	0.87	36	7	5	2	0
2020.06	Global	23.32	0.92	39	8	7	1	0
2020.07	ETAAS	28.5	4.58	3	1	0	0	1
2020.07	ICP-MS	32.44	1.68	42	6	6	0	0
2020.07	Global	32.4	1.62	45	7	6	1	0
2020.08	ETAAS	4.77	1.17	3	1	0	0	1
2020.08	ICP-MS	4.86	0.3	43	7	7	0	0
2020.08	Global	4.86	0.32	46	8	7	1	0
2020.09	ETAAS	35.48	2.24	3	1	0	0	1
2020.09	ICP-MS	36.6	1.89	43	6	5	1	0
2020.09	Global	36.59	1.84	46	7	6	1	0
2020.10	ETAAS	42.76	2.69	3	1	0	0	1
2020.10	ICP-MS	45.39	2.37	44	7	7	0	0
2020.10	Global	45.26	2.59	47	8	8	0	0
2020.11	ETAAS	12	1.9	3	1	0	0	1
2020.11	ICP-MS	14	1.13	43	6	5	1	0
2020.11	Global	14	1.2	46	7	6	1	0
2020.12	ETAAS	24.93	1.69	3	1	0	0	1
2020.12	ICP-MS	27.37	1.91	44	7	6	1	0
2020.12	Global	27.36	1.91	47	8	7	1	0
2020.13	ETAAS	8.28	0.67	3	1	0	0	1
2020.13	ICP-MS	9.49	0.42	41	6	5	1	0
2020.13	Global	9.47	0.53	44	7	7	0	0
2020.14	ETAAS	0	0.52	3	1	0	0	1
2020.14	ICP-MS	0.13	0.04	41	7	7	0	0
2020.14	Global	0.13	0.04	44	8	7	1	0
2020.15	ETAAS	17.3	0.68	3	1	0	0	1
2020.15	ICP-MS	18.43	1.04	39	6	6	0	0
2020.15	Global	18.41	1.13	42	7	7	0	0
2020.16	ETAAS	36.9	1.33	3	1	0	0	1
2020.16	ICP-MS	41.24	1.77	40	7	7	0	0
2020.16	Global	41	1.74	43	8	8	0	0
2020.17	ETAAS	0	0.67	3	1	0	0	1
2020.17	ICP-MS	0.07	0.06	38	6	6	0	0
2020.17	Global	0.07	0.08	41	7	7	0	0
2020.18	ETAAS	23.69	1.38	3	1	0	0	1
2020.18	ICP-MS	23.19	1.33	40	7	6	1	0
2020.18	Global	23.28	1.35	43	8	8	0	0
2020.19	ETAAS	19.06	2.84	3	1	0	0	1
2020.19	ICP-MS	23.22	0.9	41	6	5	1	0
2020.19	Global	23.16	1.17	44	7	6	1	0
2020.20	ETAAS	10.3	2.13	3	1	0	0	1
2020.20	ICP-MS	13.98	0.79	42	7	7	0	0
2020.20	Global	13.97	0.77	45	8	7	1	0

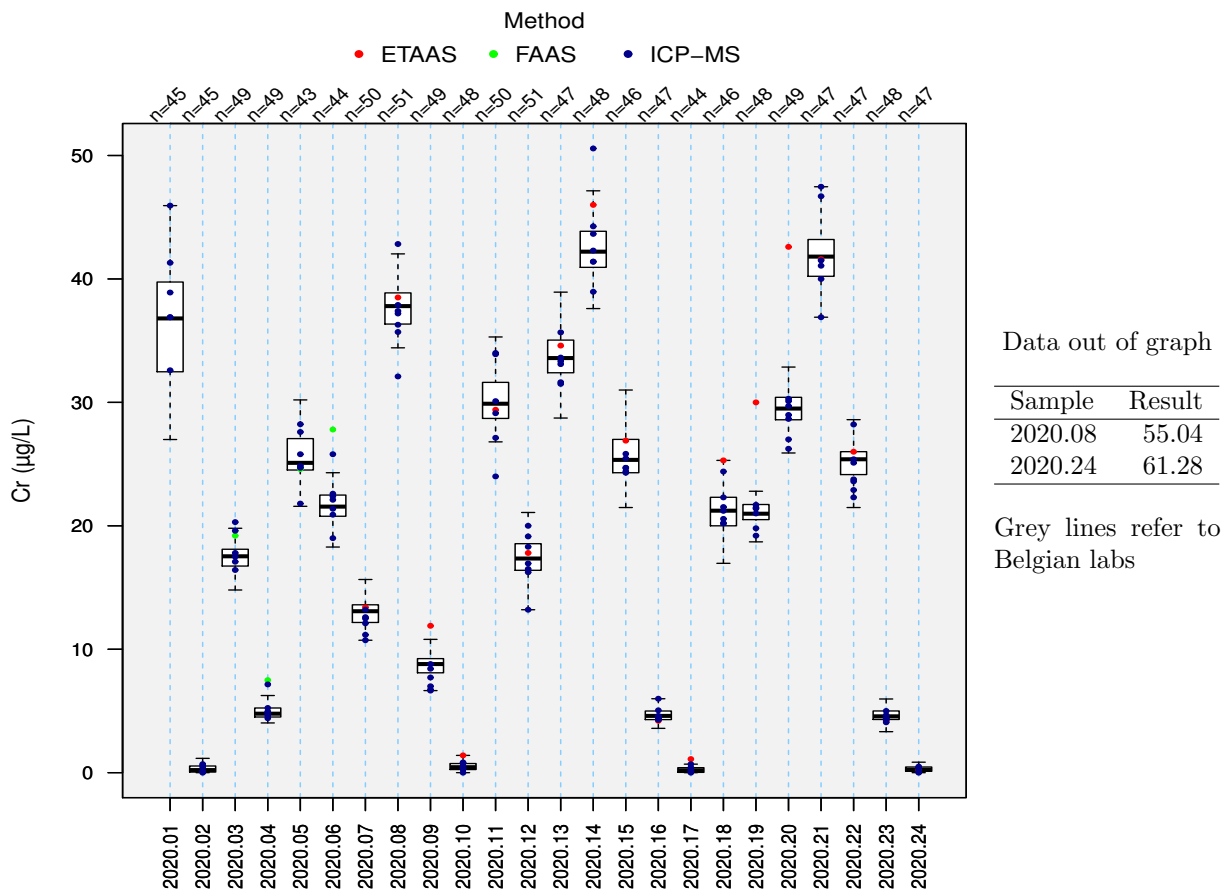
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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.21	ETAAS	0.13	0.17	3	1	0	0	1
2020.21	ICP-MS	0.15	0.07	39	6	6	0	0
2020.21	Global	0.15	0.08	42	7	7	0	0
2020.22	ETAAS	17.62	2.79	3	1	0	0	1
2020.22	ICP-MS	18.49	0.85	40	7	6	1	0
2020.22	Global	18.43	1.09	43	8	7	1	0
2020.23	ETAAS	40.84	13.23	3	1	0	0	1
2020.23	ICP-MS	41.24	1.66	41	6	5	1	0
2020.23	Global	41.17	1.73	44	7	6	1	0
2020.24	ETAAS	0.09	0.48	3	1	0	0	1
2020.24	ICP-MS	0.08	0.04	41	7	7	0	0
2020.24	Global	0.08	0.04	44	8	8	0	0



1.3.6 Cr

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	36.9	5.48	37	6	6	0	0
2020.02	ICP-MS	0.17	0.3	37	7	7	0	0
2020.03	FAAS	18.35	0.63	2	1	0	0	1
2020.03	ICP-MS	17.67	0.97	39	6	6	0	0
2020.03	Global	17.53	1.01	49	7	7	0	0
2020.04	FAAS	3.8	2.74	2	1	0	0	1
2020.04	ICP-MS	4.8	0.43	39	7	6	1	0
2020.04	Global	4.78	0.54	49	8	6	2	0
2020.05	FAAS	24.6	0	1	1	0	0	1
2020.05	ICP-MS	25.2	1.98	35	6	6	0	0
2020.05	Global	25.1	1.89	43	7	7	0	0
2020.06	FAAS	27.8	0	1	1	0	0	1
2020.06	ICP-MS	21.55	1.24	36	7	6	1	0
2020.06	Global	21.55	1.25	44	8	6	2	0
2020.07	ETAAS	13.4	0.91	7	1	1	0	0
2020.07	ICP-MS	13.08	0.95	42	6	6	0	0
2020.08	ETAAS	38.5	2.05	7	1	1	0	0
2020.08	ICP-MS	37.8	1.87	43	7	6	1	0
2020.09	ETAAS	9.34	2.12	6	1	1	0	0
2020.09	ICP-MS	8.8	0.89	43	6	6	0	0
2020.10	ETAAS	0.36	0.77	5	1	0	0	1
2020.10	ICP-MS	0.45	0.33	43	7	7	0	0
2020.10	Global	0.44	0.35	48	8	8	0	0
2020.11	ETAAS	30.07	0.77	6	1	1	0	0
2020.11	ICP-MS	29.9	2.18	43	6	6	0	0
2020.12	ETAAS	17.22	1.67	6	1	1	0	0
2020.12	ICP-MS	17.33	1.5	44	7	7	0	0
2020.13	ETAAS	33.38	1.42	7	1	1	0	0
2020.13	ICP-MS	33.61	1.97	40	6	6	0	0
2020.14	ETAAS	42.8	1.72	7	1	1	0	0
2020.14	ICP-MS	42.12	2.12	41	7	6	1	0
2020.15	ETAAS	26.46	0.75	6	1	1	0	0
2020.15	ICP-MS	25.2	2.23	39	6	6	0	0
2020.16	ETAAS	4.41	0.33	6	1	1	0	0
2020.16	ICP-MS	4.63	0.56	40	7	7	0	0
2020.17	ETAAS	0.15	0.63	6	1	1	0	0
2020.17	ICP-MS	0.22	0.24	38	6	6	0	0
2020.18	ETAAS	19.02	1.27	6	1	0	1	0
2020.18	ICP-MS	21.44	1.6	40	7	7	0	0
2020.19	ETAAS	19.62	1.73	6	1	0	1	0
2020.19	ICP-MS	21.01	0.87	41	6	6	0	0
2020.20	ETAAS	29.6	2.57	6	1	0	1	0
2020.20	ICP-MS	29.51	1.33	42	7	7	0	0
2020.21	ETAAS	42.04	0.75	6	1	1	0	0
2020.21	ICP-MS	41.5	2.41	41	6	6	0	0
2020.22	ETAAS	25.89	0.27	6	1	1	0	0
2020.22	ICP-MS	25.11	1.42	41	7	7	0	0
2020.23	ETAAS	4.47	0.46	6	1	1	0	0
2020.23	ICP-MS	4.55	0.5	41	6	6	0	0
2020.24	ETAAS	0.2	0.14	6	1	1	0	0
2020.24	ICP-MS	0.26	0.28	40	7	7	0	0



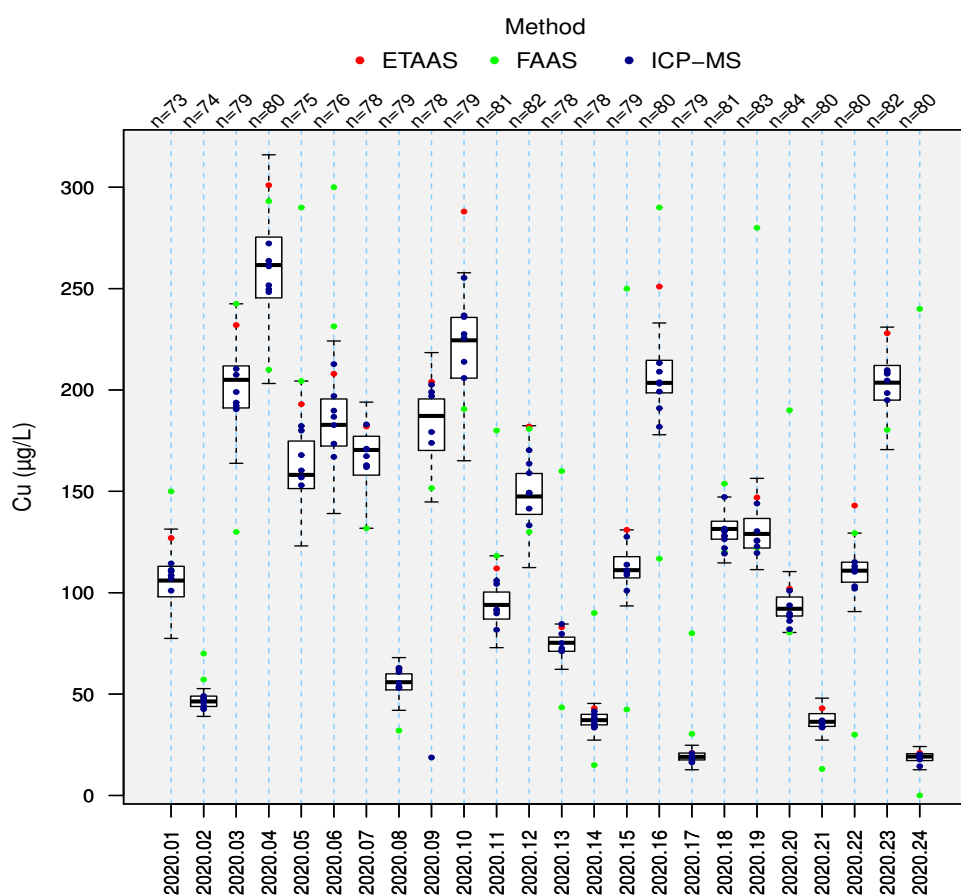
1.3.7 Cu

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	100.97	9.85	12	1	1	0	0
2020.01	FAAS	115.61	19.95	8	2	2	0	0
2020.01	ICP-MS	107.47	8.08	50	6	6	0	0
2020.02	ETAAS	45.3	3.28	12	1	1	0	0
2020.02	FAAS	54.58	9.08	8	2	2	0	0
2020.02	ICP-MS	46.48	2.98	51	7	7	0	0
2020.03	ETAAS	205.56	14.31	14	1	1	0	0
2020.03	FAAS	205.74	38.07	9	2	2	0	0
2020.03	ICP-MS	202.57	14.41	53	6	6	0	0
2020.04	ETAAS	268.2	27.97	14	1	1	0	0
2020.04	FAAS	231.78	61.6	9	2	2	0	0
2020.04	ICP-MS	261	17.56	54	7	7	0	0
2020.05	ETAAS	161.29	28.11	15	1	1	0	0
2020.05	FAAS	152.4	71.46	9	2	2	0	0
2020.05	ICP-MS	157.5	14.56	48	6	6	0	0
2020.06	ETAAS	182.25	29.42	15	1	1	0	0
2020.06	FAAS	187.33	22.59	9	2	1	1	0
2020.06	ICP-MS	182.88	12.71	49	7	7	0	0
2020.07	ETAAS	173.99	19.09	15	1	1	0	0
2020.07	FAAS	164	23.54	7	1	1	0	0
2020.07	ICP-MS	170.09	11.13	52	6	6	0	0
2020.08	ETAAS	57.2	7.24	15	1	1	0	0
2020.08	FAAS	52.07	13.1	7	1	1	0	0
2020.08	ICP-MS	56	4.83	53	7	7	0	0
2020.09	ETAAS	184.34	20.18	16	1	1	0	0
2020.09	FAAS	165.1	29.62	7	1	1	0	0
2020.09	ICP-MS	189	14.57	51	6	5	1	0
2020.10	ETAAS	219.49	25.09	16	1	1	0	0
2020.10	FAAS	222.25	32.62	7	1	1	0	0
2020.10	ICP-MS	225.89	20.71	52	7	7	0	0
2020.11	ETAAS	96.4	6.88	15	1	1	0	0
2020.11	FAAS	97	27.35	9	2	1	1	0
2020.11	ICP-MS	93.4	9.88	53	6	6	0	0
2020.12	ETAAS	147.96	14.78	15	1	1	0	0
2020.12	FAAS	130	21.65	9	2	2	0	0
2020.12	ICP-MS	149.24	13.92	54	7	7	0	0
2020.13	ETAAS	76.2	2.91	15	1	1	0	0
2020.13	FAAS	71.12	15.61	7	2	1	1	0
2020.13	ICP-MS	75.88	5.64	52	6	6	0	0
2020.14	ETAAS	40.17	4.47	14	1	1	0	0
2020.14	FAAS	36.2	12.86	7	2	1	1	0
2020.14	ICP-MS	37.1	3.71	53	7	7	0	0
2020.15	ETAAS	112.72	6.8	14	1	1	0	0
2020.15	FAAS	111.84	21.33	8	2	0	2	0
2020.15	ICP-MS	111.13	6.54	53	6	6	0	0
2020.16	ETAAS	203.45	20.46	14	1	1	0	0
2020.16	FAAS	208.73	35.54	8	2	2	0	0
2020.16	ICP-MS	203.2	9.81	54	7	7	0	0
2020.17	ETAAS	18.2	2.56	15	1	1	0	0
2020.17	FAAS	24.45	6.19	8	2	1	1	0
2020.17	ICP-MS	19.05	1.42	53	6	6	0	0
2020.18	ETAAS	128	7.15	15	1	1	0	0
2020.18	FAAS	141.25	11.3	8	2	2	0	0
2020.18	ICP-MS	131.45	6.27	55	7	7	0	0
2020.19	ETAAS	125.73	13.48	15	1	1	0	0
2020.19	FAAS	139.07	16.09	9	2	1	1	0
2020.19	ICP-MS	129	8.49	55	6	6	0	0
2020.20	ETAAS	91.44	9.65	15	1	1	0	0
2020.20	FAAS	95.9	12.24	9	2	1	1	0
2020.20	ICP-MS	92.39	6.67	56	7	7	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.21	ETAAS	36.5	7.67	15	1	1	0	0
2020.21	FAAS	35.2	13.05	7	2	1	1	0
2020.21	ICP-MS	36.61	3.17	54	6	6	0	0
2020.22	ETAAS	110.2	14.1	15	1	1	0	0
2020.22	FAAS	114.3	21.92	7	2	1	1	0
2020.22	ICP-MS	111.13	6	54	7	7	0	0
2020.23	ETAAS	200	50.85	15	1	1	0	0
2020.23	FAAS	211.46	25.24	8	2	1	1	0
2020.23	ICP-MS	203.2	10.62	55	6	6	0	0
2020.24	ETAAS	18.42	4.02	15	1	1	0	0
2020.24	FAAS	19.69	7.67	8	2	1	1	0
2020.24	ICP-MS	19.3	1.88	53	7	7	0	0

Data out of graph



Sample	Result
2020.01	7.00
2020.02	0.00
2020.02	352.00
2020.02	0.00
2020.04	405.77
2020.05	437.52
2020.06	573.41
2020.08	0.00
2020.10	1255.00
2020.11	0.00
2020.13	0.00
2020.13	6.00
2020.14	0.00
2020.14	0.00
2020.15	0.00
2020.17	0.00
2020.21	1280.00
2020.21	0.00
2020.23	336.55
2020.23	1863.60
2020.23	420.00
2020.23	1320.80
2020.24	0.00
2020.24	0.00
2020.24	1581.15

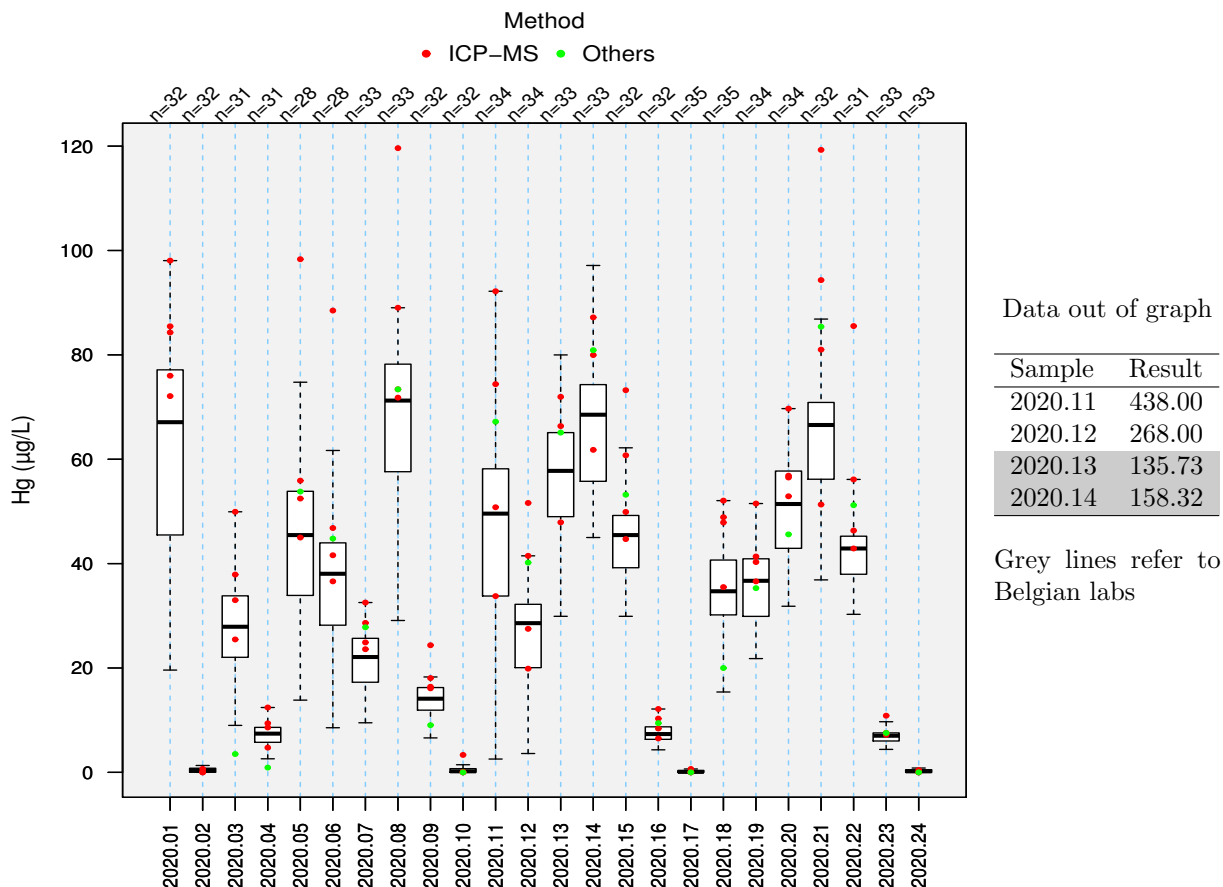
Grey lines refer to Belgian labs

1.3.8 Hg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	69.87	17.43	30	5	5	0	0
2020.02	ICP-MS	0.3	0.49	30	5	5	0	0
2020.03	ICP-MS	30.43	8.46	28	4	4	0	0
2020.03	Others	10.25	3.07	3	1	0	0	1
2020.03	Global	27.9	8.73	31	5	5	0	0
2020.04	ICP-MS	7.92	1.93	28	4	4	0	0
2020.04	Others	0.92	1.75	3	1	0	0	1
2020.04	Global	7.42	2.12	31	5	4	1	0
2020.05	ICP-MS	45	14.3	27	4	3	1	0
2020.05	Others	53.8	0	1	1	0	0	1
2020.05	Global	45.47	13.88	28	5	4	1	0
2020.06	ICP-MS	38	10.93	27	4	3	1	0
2020.06	Others	44.8	0	1	1	0	0	1
2020.06	Global	38.05	11.24	28	5	4	1	0
2020.07	ICP-MS	22.09	7.09	28	4	4	0	0
2020.07	Others	23.73	4.85	4	1	0	0	1
2020.07	Global	22.1	6.23	33	5	5	0	0
2020.08	ICP-MS	71.32	16.26	28	4	4	0	0
2020.08	Others	62.03	4.11	4	1	0	0	1
2020.08	Global	71.24	15.28	33	5	4	1	0
2020.09	ICP-MS	14.4	3.05	27	4	3	1	0
2020.09	Others	11.75	1.85	4	1	0	0	1
2020.09	Global	14.12	3.11	32	5	4	1	0
2020.10	ICP-MS	0.2	0.48	27	4	3	1	0
2020.10	Others	0.1	0.15	4	1	0	0	1
2020.10	Global	0.2	0.47	32	5	4	1	0
2020.11	ICP-MS	49.08	17.9	30	4	4	0	0
2020.11	Others	54.25	4.23	4	1	0	0	1
2020.11	Global	49.58	17.12	34	5	5	0	0
2020.12	ICP-MS	28.99	8.98	30	4	4	0	0
2020.12	Others	27.56	2.94	4	1	0	0	1
2020.12	Global	28.59	8.8	34	5	5	0	0
2020.13	ICP-MS	55.38	11.85	28	4	3	1	0
2020.13	Others	61.77	5.73	4	1	0	0	1
2020.13	Global	57.77	11.93	33	5	4	1	0
2020.14	ICP-MS	63.41	13.49	28	4	3	1	0
2020.14	Others	70.42	5.11	4	1	0	0	1
2020.14	Global	68.53	13.74	33	5	4	1	0
2020.15	ICP-MS	44.7	6.32	27	4	3	1	0
2020.15	Others	48.75	2.83	4	1	0	0	1
2020.15	Global	45.47	7.14	32	5	4	1	0
2020.16	ICP-MS	7.24	1.71	27	4	4	0	0
2020.16	Others	8.47	1.15	4	1	0	0	1
2020.16	Global	7.34	1.64	32	5	5	0	0
2020.17	ICP-MS	0.2	0.3	30	4	4	0	0
2020.17	Others	0.02	0.02	4	1	0	0	1
2020.17	Global	0.09	0.26	35	5	5	0	0
2020.18	ICP-MS	35.29	8.23	30	4	4	0	0
2020.18	Others	34	2.93	4	1	0	0	1
2020.18	Global	34.7	7.79	35	5	5	0	0
2020.19	ICP-MS	36.6	8.56	29	4	4	0	0
2020.19	Others	36.45	1.9	4	1	0	0	1
2020.19	Global	36.7	7.91	34	5	5	0	0
2020.20	ICP-MS	50.55	10.56	29	4	4	0	0
2020.20	Others	50.88	10.12	4	1	0	0	1
2020.20	Global	51.42	10.61	34	5	5	0	0
2020.21	ICP-MS	63	10.51	27	4	3	1	0
2020.21	Others	71.81	7.09	4	1	0	0	1
2020.21	Global	66.56	10.75	32	5	4	1	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.22	ICP-MS	42.27	5.3	26	4	3	1	0
2020.22	Others	44.43	3.31	4	1	0	0	1
2020.22	Global	42.9	5.4	31	5	4	1	0
2020.23	ICP-MS	6.91	1.68	28	3	3	0	0
2020.23	Others	7.28	0.3	4	1	0	0	1
2020.23	Global	7.02	1.15	33	4	3	1	0
2020.24	ICP-MS	0.2	0.36	28	3	3	0	0
2020.24	Others	0.04	0.33	4	1	0	0	1
2020.24	Global	0.2	0.37	33	4	4	0	0

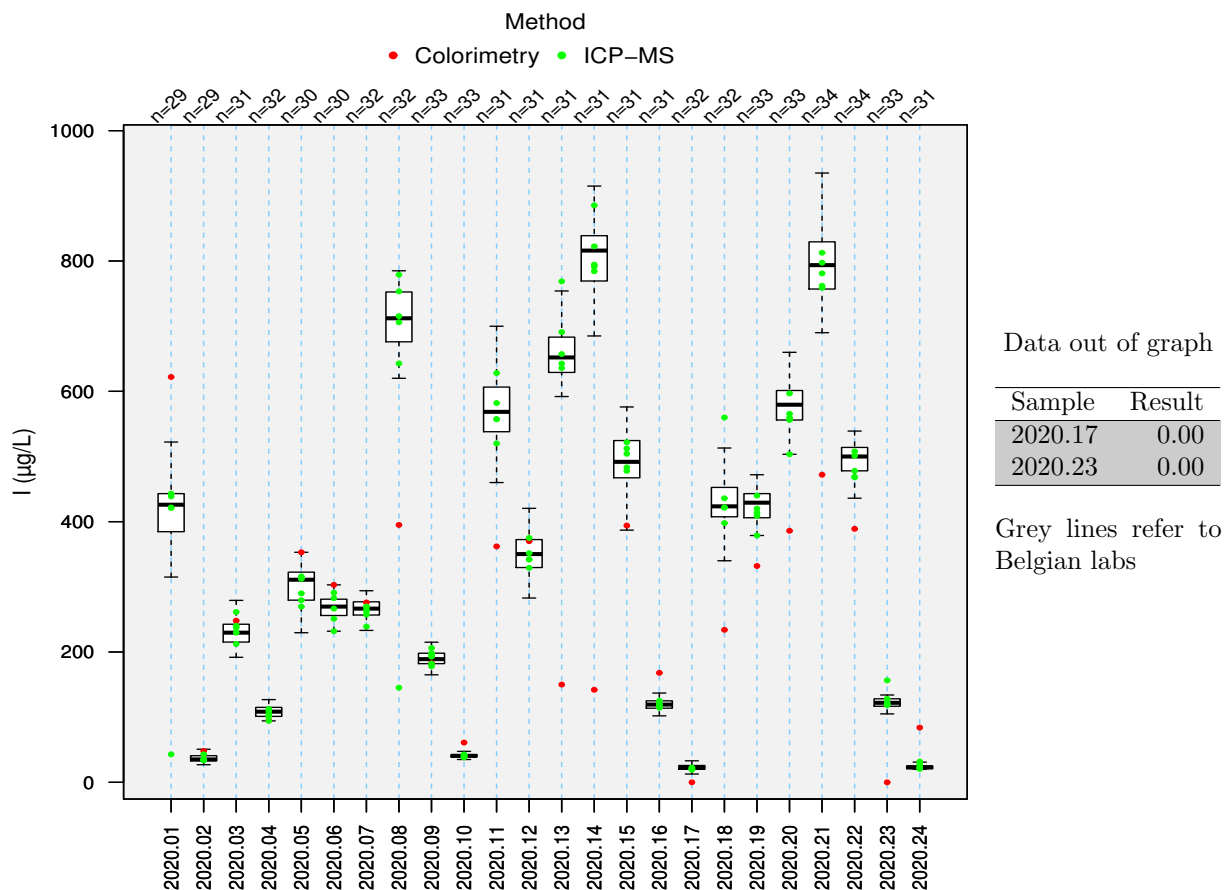


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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	Colorimetry	524	72.65	2	1	0	0	1
2020.01	ICP-MS	421.86	47.75	27	5	4	1	0
2020.01	Global	426	43.29	29	6	4	2	0
2020.02	Colorimetry	39.5	6.3	2	1	0	0	1
2020.02	ICP-MS	35.12	5.45	27	5	5	0	0
2020.02	Global	35.12	5.78	29	6	6	0	0
2020.03	Colorimetry	230.5	12.97	2	1	0	0	1
2020.03	ICP-MS	229.65	17.91	29	5	5	0	0
2020.03	Global	229.65	20.27	31	6	6	0	0
2020.04	Colorimetry	101	4.45	2	1	0	0	1
2020.04	ICP-MS	109.19	10.02	30	5	5	0	0
2020.04	Global	108.39	10.17	32	6	6	0	0
2020.05	Colorimetry	254.5	73.02	2	1	0	0	1
2020.05	ICP-MS	310.87	24.69	28	5	5	0	0
2020.05	Global	310.87	29.46	30	6	6	0	0
2020.06	Colorimetry	273.5	21.87	2	1	0	0	1
2020.06	ICP-MS	269.64	15.89	28	5	5	0	0
2020.06	Global	269.64	17.65	30	6	6	0	0
2020.07	Colorimetry	269.5	4.82	2	1	0	0	1
2020.07	ICP-MS	266.56	15.65	30	6	6	0	0
2020.07	Global	266.56	14.41	32	7	7	0	0
2020.08	Colorimetry	533	102.3	2	1	0	0	1
2020.08	ICP-MS	714.07	47.94	30	6	5	1	0
2020.08	Global	712.09	54.47	32	7	5	2	0
2020.09	Colorimetry	184	0.74	2	1	0	0	1
2020.09	ICP-MS	190	13.28	31	6	6	0	0
2020.09	Global	189	11.85	33	7	7	0	0
2020.10	Colorimetry	49.5	8.52	2	1	0	0	1
2020.10	ICP-MS	40.6	2.46	31	6	6	0	0
2020.10	Global	40.6	2.59	33	7	6	1	0
2020.11	Colorimetry	444.5	61.16	2	1	0	0	1
2020.11	ICP-MS	572	39.14	29	5	5	0	0
2020.11	Global	568.5	50.78	31	6	5	1	0
2020.12	Colorimetry	337.5	24.09	2	1	0	0	1
2020.12	ICP-MS	350.24	33.37	29	5	5	0	0
2020.12	Global	350.24	31.83	31	6	6	0	0
2020.13	Colorimetry	371	163.83	2	1	0	0	1
2020.13	ICP-MS	657.15	39.07	29	5	5	0	0
2020.13	Global	652	40.17	31	6	5	1	0
2020.14	Colorimetry	413.5	201.26	2	1	0	0	1
2020.14	ICP-MS	822.44	40.82	29	5	5	0	0
2020.14	Global	816	51.51	31	6	5	1	0
2020.15	Colorimetry	410	11.86	2	1	0	0	1
2020.15	ICP-MS	503	36.38	29	5	5	0	0
2020.15	Global	491.79	42.37	31	6	6	0	0
2020.16	Colorimetry	130.5	27.8	2	1	0	0	1
2020.16	ICP-MS	119.31	7.92	29	5	5	0	0
2020.16	Global	119.31	8.35	31	6	5	1	0
2020.17	Colorimetry	21	15.57	2	1	0	0	1
2020.17	ICP-MS	22.19	4.06	30	5	5	0	0
2020.17	Global	22.19	4.2	32	6	5	1	0
2020.18	Colorimetry	373.5	103.41	2	1	0	0	1
2020.18	ICP-MS	423.5	29.99	30	5	4	1	0
2020.18	Global	423.5	32.31	32	6	4	2	0
2020.19	Colorimetry	375	31.88	2	1	0	0	1
2020.19	ICP-MS	429.68	29	31	5	5	0	0
2020.19	Global	429.12	27.44	33	6	5	1	0
2020.20	Colorimetry	488	75.61	2	1	0	0	1
2020.20	ICP-MS	579.43	34.84	31	5	5	0	0
2020.20	Global	579.43	33.54	33	6	5	1	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.21	Colorimetry	614.5	105.64	2	1	0	0	1
2020.21	ICP-MS	802	49.87	31	5	5	0	0
2020.21	Global	793.66	53	34	6	5	1	0
2020.22	Colorimetry	444.5	41.14	2	1	0	0	1
2020.22	ICP-MS	501.1	26.36	31	5	5	0	0
2020.22	Global	500	26.03	34	6	5	1	0
2020.23	Colorimetry	56	41.51	2	1	0	0	1
2020.23	ICP-MS	122.5	8.47	30	5	4	1	0
2020.23	Global	122	8.44	33	6	4	2	0
2020.24	Colorimetry	52.5	23.35	2	1	0	0	1
2020.24	ICP-MS	22.98	3.06	28	5	5	0	0
2020.24	Global	22.97	3.07	31	6	5	1	0

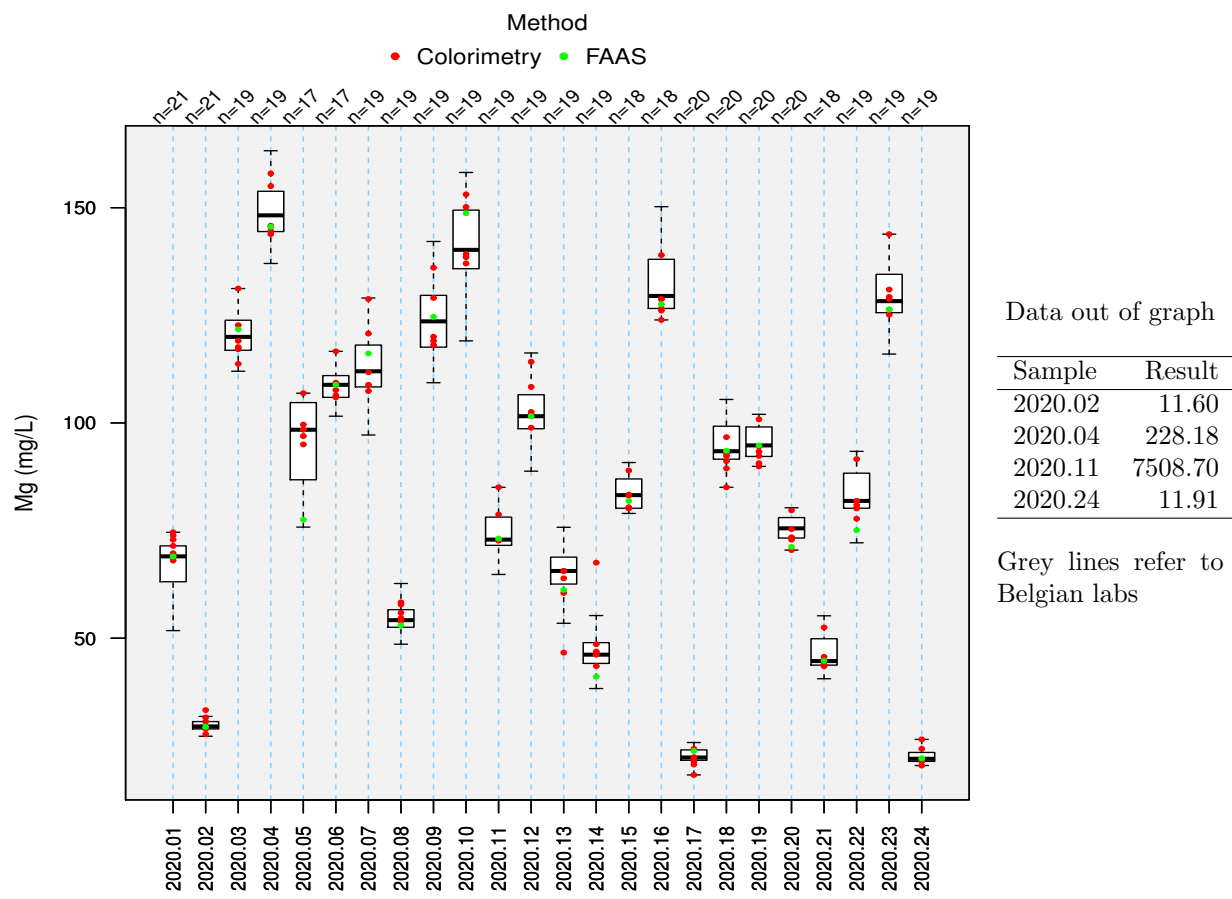


1.3.10 Mg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	Colorimetry	71.44	2.97	7	7	7	0	0
2020.01	FAAS	68.53	1.93	5	1	0	0	1
2020.01	Global	69.01	6.18	21	8	8	0	0
2020.02	Colorimetry	29.16	1.53	7	7	7	0	0
2020.02	FAAS	29.4	0.36	5	1	0	0	1
2020.02	Global	29.5	1.26	21	8	7	1	0
2020.03	Colorimetry	118.34	3.38	6	6	5	1	0
2020.03	FAAS	120.41	3.65	4	1	0	0	1
2020.03	Global	120	5.17	19	7	7	0	0
2020.04	Colorimetry	145.68	5.85	6	6	6	0	0
2020.04	FAAS	146.89	17.2	4	1	0	0	1
2020.04	Global	148.23	6.93	19	7	7	0	0
2020.05	Colorimetry	98.42	1.98	5	5	0	0	5
2020.05	FAAS	88.33	11.71	4	1	0	0	1
2020.05	Global	98.42	13.29	17	6	6	0	0
2020.06	Colorimetry	107.65	2.16	5	5	0	0	5
2020.06	FAAS	106.67	4.55	4	1	0	0	1
2020.06	Global	108.86	3.74	17	6	6	0	0
2020.07	Colorimetry	116.28	12.75	6	5	5	0	0
2020.07	FAAS	110.32	3.78	4	1	0	0	1
2020.07	Global	112	7.21	19	6	6	0	0
2020.08	Colorimetry	56.86	2.38	6	5	5	0	0
2020.08	FAAS	53.09	1.17	4	1	0	0	1
2020.08	Global	54.19	3.03	19	6	6	0	0
2020.09	Colorimetry	124.53	9.86	6	5	5	0	0
2020.09	FAAS	119.56	5.54	4	1	0	0	1
2020.09	Global	123.6	8.91	19	6	6	0	0
2020.10	Colorimetry	144.7	10.13	6	5	5	0	0
2020.10	FAAS	137.3	8.74	4	1	0	0	1
2020.10	Global	140.21	10.09	19	6	6	0	0
2020.11	Colorimetry	72.9	5.31	7	6	6	0	0
2020.11	FAAS	72.29	1.94	4	1	0	0	1
2020.11	Global	72.9	4.86	19	7	7	0	0
2020.12	Colorimetry	102.55	5.62	7	6	6	0	0
2020.12	FAAS	98.78	2.29	4	1	0	0	1
2020.12	Global	101.57	5.85	19	7	7	0	0
2020.13	Colorimetry	64.76	3.15	6	5	4	1	0
2020.13	FAAS	63.91	5.76	4	1	0	0	1
2020.13	Global	65.61	4.64	19	6	5	1	0
2020.14	Colorimetry	47.75	3.67	6	5	4	1	0
2020.14	FAAS	42.89	4.86	4	1	0	0	1
2020.14	Global	46.17	3.58	19	6	5	1	0
2020.15	Colorimetry	83.11	4.33	7	6	6	0	0
2020.15	FAAS	80.92	2.56	4	1	0	0	1
2020.15	Global	83.23	4.87	18	7	7	0	0
2020.16	Colorimetry	128.79	5.59	7	6	6	0	0
2020.16	FAAS	128.79	3.74	4	1	0	0	1
2020.16	Global	129.5	8.2	18	7	7	0	0
2020.17	Colorimetry	21.87	1.71	7	6	6	0	0
2020.17	FAAS	23.81	1.04	5	1	0	0	1
2020.17	Global	22.28	1.68	20	7	7	0	0
2020.18	Colorimetry	92.34	3.42	7	6	6	0	0
2020.18	FAAS	95.26	6.26	5	1	0	0	1
2020.18	Global	93.44	4.57	20	7	7	0	0
2020.19	Colorimetry	93.31	4.6	7	6	6	0	0
2020.19	FAAS	96.01	1.98	5	1	0	0	1
2020.19	Global	94.78	5.01	20	7	7	0	0
2020.20	Colorimetry	73.39	3.24	7	6	6	0	0
2020.20	FAAS	76.79	3.89	5	1	0	0	1

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.20	Global	75.52	3.25	20	7	7	0	0
2020.21	Colorimetry	44.71	5.22	6	5	5	0	0
2020.21	FAAS	43.86	1.17	4	1	0	0	1
2020.21	Global	44.68	4.13	18	6	6	0	0
2020.22	Colorimetry	80.92	4.86	7	6	6	0	0
2020.22	FAAS	78.12	7.38	4	1	0	0	1
2020.22	Global	81.89	6.03	19	7	7	0	0
2020.23	Colorimetry	129.28	6.46	7	6	6	0	0
2020.23	FAAS	124.41	11.98	4	1	0	0	1
2020.23	Global	128.3	6.6	19	7	7	0	0
2020.24	Colorimetry	21.87	2.18	7	6	6	0	0
2020.24	FAAS	21.87	2.38	4	1	0	0	1
2020.24	Global	21.98	1.53	19	7	7	0	0

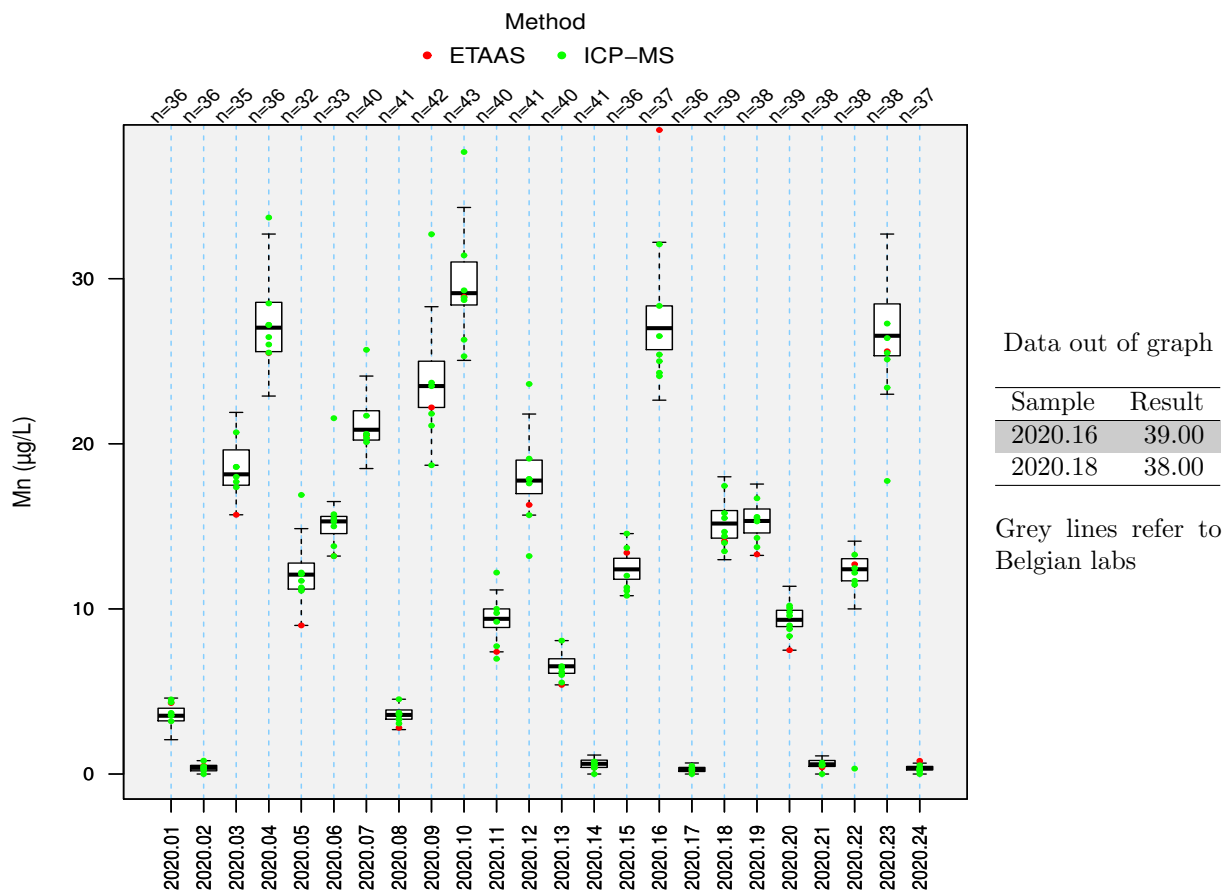


1.3.11 Mn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	4.3	0	1	1	0	0	1
2020.01	ICP-MS	3.53	0.44	34	6	6	0	0
2020.01	Global	3.53	0.51	36	7	7	0	0
2020.02	ETAAS	0.5	0	1	1	0	0	1
2020.02	ICP-MS	0.37	0.22	34	7	7	0	0
2020.02	Global	0.38	0.23	36	8	8	0	0
2020.03	ETAAS	15.7	0	1	1	0	0	1
2020.03	ICP-MS	18.3	1.58	34	6	6	0	0
2020.03	Global	18.15	1.59	35	7	7	0	0
2020.04	ETAAS	25.5	0	1	1	0	0	1
2020.04	ICP-MS	27.11	2.12	35	7	6	1	0
2020.04	Global	27.03	2.18	36	8	7	1	0
2020.05	ETAAS	9	0	1	1	0	0	1
2020.05	ICP-MS	12.1	1.06	31	6	5	1	0
2020.05	Global	12.07	1.12	32	7	6	1	0
2020.06	ETAAS	13.2	0	1	1	0	0	1
2020.06	ICP-MS	15.35	0.66	32	7	5	2	0
2020.06	Global	15.3	0.77	33	8	7	1	0
2020.07	ETAAS	20.25	0.19	2	1	0	0	1
2020.07	ICP-MS	20.95	1.24	38	6	5	1	0
2020.07	Global	20.85	1.23	40	7	6	1	0
2020.08	ETAAS	3.18	0.29	2	1	0	0	1
2020.08	ICP-MS	3.6	0.42	39	7	7	0	0
2020.08	Global	3.58	0.42	41	8	8	0	0
2020.09	ETAAS	21.84	0.27	2	1	0	0	1
2020.09	ICP-MS	23.51	1.81	39	6	5	1	0
2020.09	Global	23.49	2.06	42	7	6	1	0
2020.10	ETAAS	28.35	0.41	2	1	0	0	1
2020.10	ICP-MS	29.3	2.13	40	7	6	1	0
2020.10	Global	29.12	1.93	43	8	7	1	0
2020.11	ETAAS	8.34	0.7	2	1	0	0	1
2020.11	ICP-MS	9.47	0.8	38	6	4	2	0
2020.11	Global	9.4	0.82	40	7	6	1	0
2020.12	ETAAS	18.29	1.47	2	1	0	0	1
2020.12	ICP-MS	17.77	1.49	39	7	5	2	0
2020.12	Global	17.77	1.5	41	8	6	2	0
2020.13	ETAAS	6.16	0.56	2	1	0	0	1
2020.13	ICP-MS	6.53	0.64	38	6	6	0	0
2020.13	Global	6.53	0.63	40	7	7	0	0
2020.14	ETAAS	0.66	0.2	2	1	0	0	1
2020.14	ICP-MS	0.62	0.3	39	7	7	0	0
2020.14	Global	0.62	0.33	41	8	8	0	0
2020.15	ETAAS	12.91	0.36	2	1	0	0	1
2020.15	ICP-MS	12.33	0.93	34	6	6	0	0
2020.15	Global	12.39	0.9	36	7	7	0	0
2020.16	ETAAS	32.36	4.93	2	1	0	0	1
2020.16	ICP-MS	27	1.98	35	7	7	0	0
2020.16	Global	27	1.96	37	8	7	1	0
2020.17	ETAAS	0.18	0.06	2	1	0	0	1
2020.17	ICP-MS	0.31	0.16	33	5	5	0	0
2020.17	Global	0.3	0.17	36	6	6	0	0
2020.18	ETAAS	14.13	0.03	2	1	0	0	1
2020.18	ICP-MS	15.25	1.1	36	7	7	0	0
2020.18	Global	15.17	1.24	39	8	8	0	0
2020.19	ETAAS	14.17	0.8	3	1	0	0	1
2020.19	ICP-MS	15.35	1.04	35	6	6	0	0
2020.19	Global	15.32	1.05	38	7	7	0	0
2020.20	ETAAS	8.41	0.54	3	1	0	0	1
2020.20	ICP-MS	9.36	0.78	36	7	7	0	0
2020.20	Global	9.34	0.73	39	8	8	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.21	ETAAS	1.1	0.49	3	1	0	0	1
2020.21	ICP-MS	0.58	0.21	35	5	5	0	0
2020.21	Global	0.59	0.25	38	6	6	0	0
2020.22	ETAAS	12.7	0.69	3	1	0	0	1
2020.22	ICP-MS	12.4	0.97	35	6	5	1	0
2020.22	Global	12.4	0.98	38	7	6	1	0
2020.23	ETAAS	27.47	1.39	2	1	0	0	1
2020.23	ICP-MS	26.54	2.09	36	6	5	1	0
2020.23	Global	26.54	2.21	38	7	6	1	0
2020.24	ETAAS	0.62	0.13	2	1	0	0	1
2020.24	ICP-MS	0.34	0.16	35	7	7	0	0
2020.24	Global	0.35	0.16	37	8	8	0	0

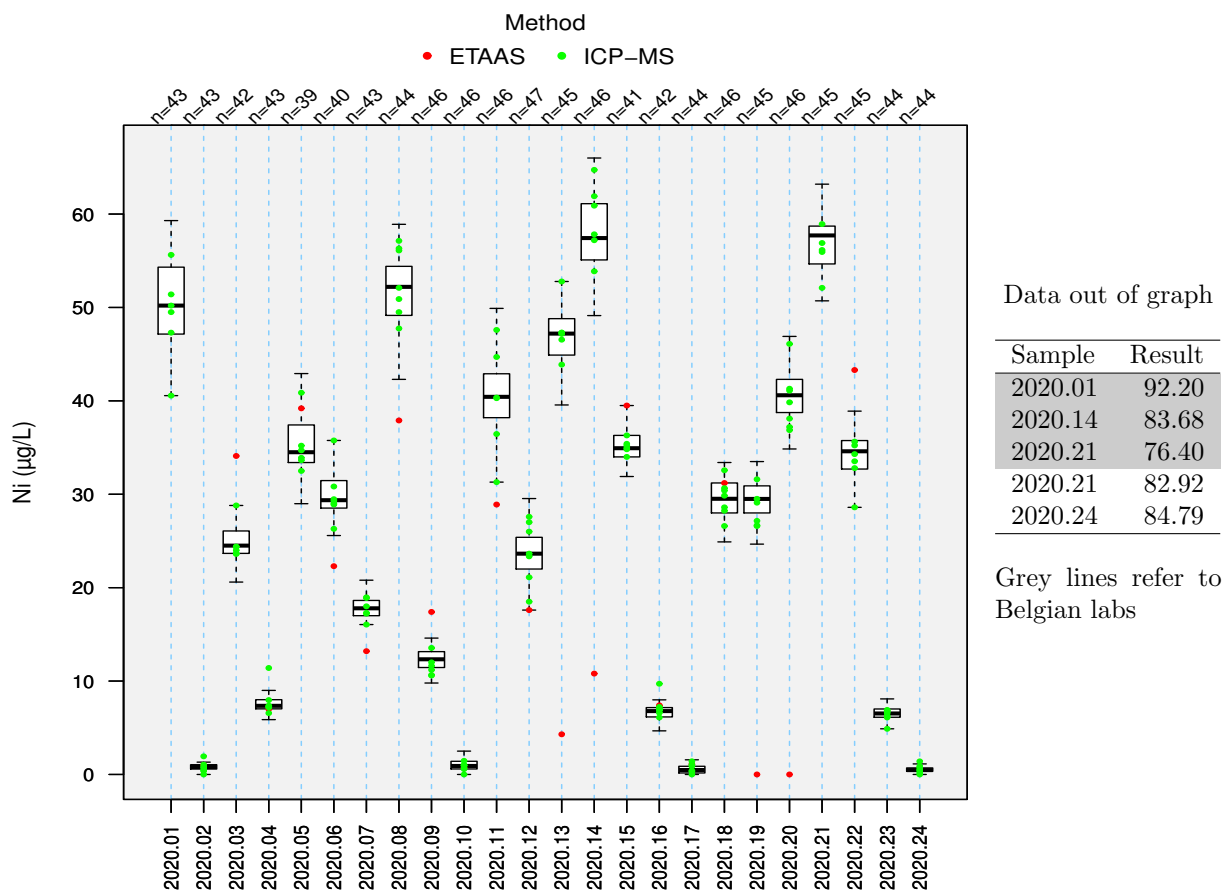


1.3.12 Ni

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	52.9	16.63	3	1	0	0	1
2020.01	ICP-MS	50.2	5.31	39	6	6	0	0
2020.01	Global	50.2	5.31	43	7	6	1	0
2020.02	ETAAS	1	0.32	3	1	0	0	1
2020.02	ICP-MS	0.76	0.34	39	7	6	1	0
2020.02	Global	0.8	0.34	43	8	7	1	0
2020.03	ETAAS	25.07	3.78	3	1	0	0	1
2020.03	ICP-MS	24.4	1.48	39	6	6	0	0
2020.03	Global	24.5	1.61	42	7	6	1	0
2020.04	ETAAS	7	0.3	3	1	0	0	1
2020.04	ICP-MS	7.37	0.74	40	7	6	1	0
2020.04	Global	7.35	0.73	43	8	7	1	0
2020.05	ETAAS	37.16	1.52	2	1	0	0	1
2020.05	ICP-MS	34.44	2.95	36	6	6	0	0
2020.05	Global	34.5	2.98	39	7	7	0	0
2020.06	ETAAS	25.8	2.59	2	1	0	0	1
2020.06	ICP-MS	29.47	2.13	37	7	7	0	0
2020.06	Global	29.37	2.09	40	8	6	2	0
2020.07	ETAAS	15.49	1.7	2	1	0	0	1
2020.07	ICP-MS	18	1.26	41	6	6	0	0
2020.07	Global	17.79	1.21	43	7	6	1	0
2020.08	ETAAS	45.4	5.56	2	1	0	0	1
2020.08	ICP-MS	52.2	3.48	42	7	7	0	0
2020.08	Global	52.2	3.76	44	8	7	1	0
2020.09	ETAAS	9.9	5.56	2	1	0	0	1
2020.09	ICP-MS	12.45	1.12	43	6	6	0	0
2020.09	Global	12.33	1.22	46	7	6	1	0
2020.10	ETAAS	6.81	4.53	2	1	0	0	1
2020.10	ICP-MS	0.88	0.49	43	7	7	0	0
2020.10	Global	0.91	0.57	46	8	8	0	0
2020.11	ETAAS	29.6	4.13	3	1	0	0	1
2020.11	ICP-MS	40.56	3.37	43	6	6	0	0
2020.11	Global	40.43	3.46	46	7	6	1	0
2020.12	ETAAS	17.8	2.46	3	1	0	0	1
2020.12	ICP-MS	23.77	2.29	44	7	7	0	0
2020.12	Global	23.64	2.52	47	8	8	0	0
2020.13	ETAAS	33.4	14.53	3	1	0	0	1
2020.13	ICP-MS	47.3	2.76	41	6	6	0	0
2020.13	Global	47.2	2.89	45	7	6	1	0
2020.14	ETAAS	41.6	16.54	3	1	0	0	1
2020.14	ICP-MS	57.91	3.99	42	7	6	1	0
2020.14	Global	57.43	4.36	46	8	6	2	0
2020.15	ETAAS	37.25	1.67	2	1	0	0	1
2020.15	ICP-MS	34.82	1.73	39	6	6	0	0
2020.15	Global	34.93	1.7	41	7	7	0	0
2020.16	ETAAS	7.4	0	2	1	0	0	1
2020.16	ICP-MS	6.7	0.64	40	7	6	1	0
2020.16	Global	6.79	0.72	42	8	7	1	0
2020.17	ETAAS	0.41	0.41	3	1	0	0	1
2020.17	ICP-MS	0.48	0.49	40	6	6	0	0
2020.17	Global	0.48	0.52	44	7	7	0	0
2020.18	ETAAS	27.07	5.71	3	1	0	0	1
2020.18	ICP-MS	29.73	2.25	42	7	7	0	0
2020.18	Global	29.52	2.37	46	8	8	0	0
2020.19	ETAAS	26.9	11.23	3	1	0	0	1
2020.19	ICP-MS	29.5	2	42	6	6	0	0
2020.19	Global	29.5	2.15	45	7	6	1	0
2020.20	ETAAS	31.6	14.6	3	1	0	0	1
2020.20	ICP-MS	40.9	2.79	43	7	7	0	0
2020.20	Global	40.6	2.57	46	8	7	1	0

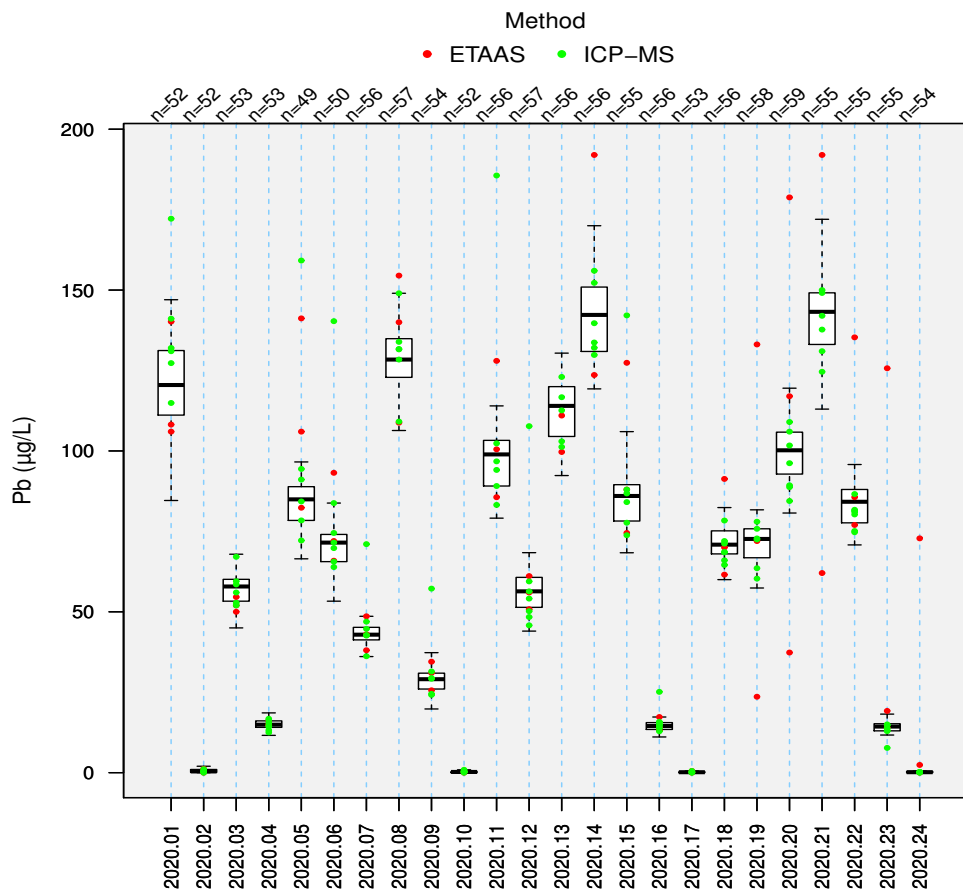
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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.21	ETAAS	57.71	14.68	3	1	0	0	1
2020.21	ICP-MS	57.8	2.61	41	5	5	0	0
2020.21	Global	57.71	3	45	6	5	1	0
2020.22	ETAAS	35.4	8.41	3	1	0	0	1
2020.22	ICP-MS	34.6	2.19	41	6	6	0	0
2020.22	Global	34.6	2.26	45	7	6	1	0
2020.23	ICP-MS	6.56	0.67	42	6	6	0	0
2020.24	ICP-MS	0.47	0.22	42	7	6	1	0



1.3.13 Pb

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	120	13.57	9	3	3	0	0
2020.01	ICP-MS	124.21	14.32	42	6	5	1	0
2020.02	ETAAS	0.8	1	9	3	3	0	0
2020.02	ICP-MS	0.38	0.35	42	7	7	0	0
2020.03	ETAAS	54.6	6.01	9	3	3	0	0
2020.03	ICP-MS	57.87	4.53	43	6	6	0	0
2020.04	ETAAS	15.55	2.84	8	3	3	0	0
2020.04	ICP-MS	14.71	1.09	44	7	7	0	0
2020.05	ETAAS	85.97	15.97	10	3	2	1	0
2020.05	ICP-MS	84.11	8.88	38	6	5	1	0
2020.06	ETAAS	71.75	8.41	10	3	3	0	0
2020.06	ICP-MS	70.7	5.7	39	7	6	1	0
2020.07	ETAAS	44.29	4.73	8	3	3	0	0
2020.07	ICP-MS	42.84	2.34	48	6	5	1	0
2020.08	ETAAS	137.1	13.93	8	3	3	0	0
2020.08	ICP-MS	128.2	8.36	49	7	6	1	0
2020.09	ETAAS	30.21	4.04	8	3	3	0	0
2020.09	ICP-MS	29.01	3.47	46	6	5	1	0
2020.10	ETAAS	0.02	0.24	6	2	2	0	0
2020.10	ICP-MS	0.24	0.22	46	7	7	0	0
2020.11	ETAAS	103.65	13.3	8	3	3	0	0
2020.11	ICP-MS	98.87	9.58	48	6	5	1	0
2020.12	ETAAS	61.42	3.06	8	3	2	1	0
2020.12	ICP-MS	56.03	5.78	49	7	6	1	0
2020.13	ETAAS	117	26.79	8	3	2	1	0
2020.13	ICP-MS	114	11.16	47	6	5	1	0
2020.14	ETAAS	159	89.7	7	3	3	0	0
2020.14	ICP-MS	141.5	12.85	48	7	6	1	0
2020.15	ETAAS	88.55	9.23	8	3	2	1	0
2020.15	ICP-MS	85.72	7.64	47	6	5	1	0
2020.16	ETAAS	13.68	0.63	8	3	2	1	0
2020.16	ICP-MS	14.66	1.46	48	7	6	1	0
2020.17	ETAAS	0.27	0.68	7	2	2	0	0
2020.17	ICP-MS	0.14	0.15	46	6	6	0	0
2020.18	ETAAS	73.85	10.97	8	3	3	0	0
2020.18	ICP-MS	70.62	4.52	48	7	7	0	0
2020.19	ETAAS	76.66	4.43	9	3	1	2	0
2020.19	ICP-MS	71.5	6.63	49	6	6	0	0
2020.20	ETAAS	111.5	9.93	9	3	1	2	0
2020.20	ICP-MS	99.69	9.52	50	7	7	0	0
2020.21	ETAAS	154.5	33.26	8	3	3	0	0
2020.21	ICP-MS	142.2	11.73	46	6	6	0	0
2020.22	ETAAS	85.29	6.41	8	3	2	1	0
2020.22	ICP-MS	83.54	8.05	46	7	7	0	0
2020.23	ETAAS	14.35	3.98	8	3	2	1	0
2020.23	ICP-MS	14.33	1.58	47	6	5	1	0
2020.24	ETAAS	0.05	1.22	8	3	2	1	0
2020.24	ICP-MS	0.16	0.22	46	7	7	0	0



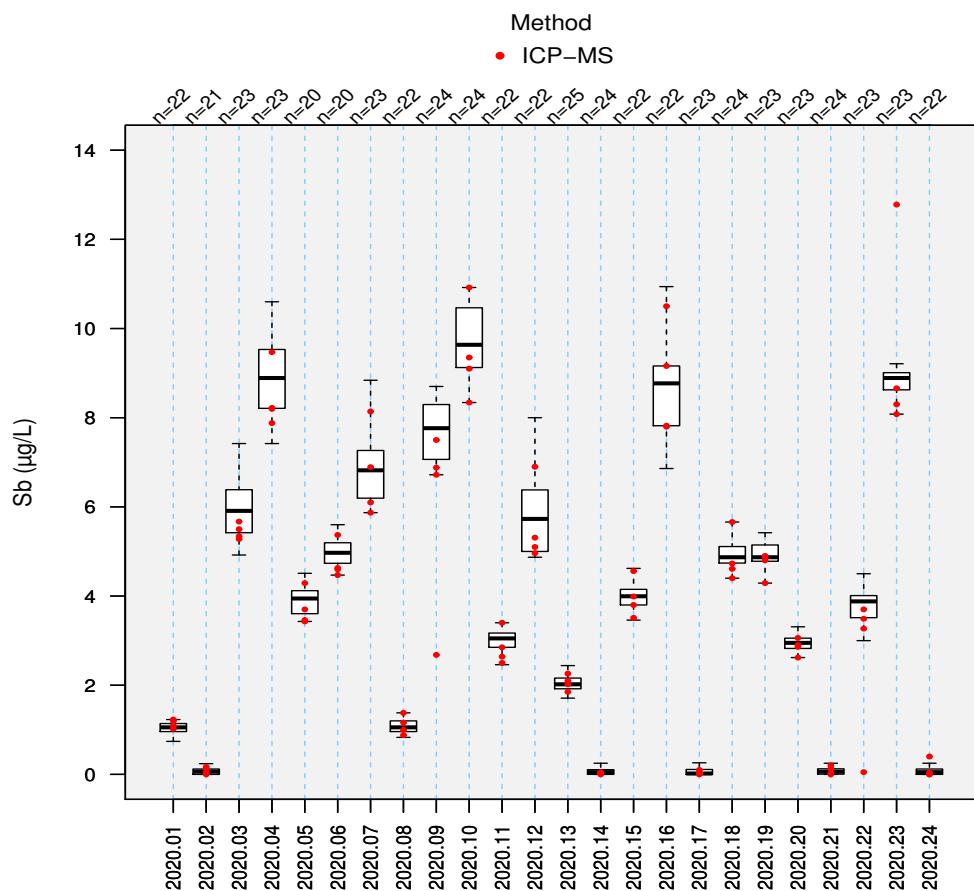
Data out of graph

Sample	Result
2020.05	256.20
2020.06	254.40
2020.08	210.16
2020.13	218.10
2020.13	481.38
2020.13	202.78
2020.14	327.00
2020.14	593.02
2020.14	236.81
2020.14	214.20
2020.21	240.30
2020.21	213.50

Grey lines refer to Belgian labs

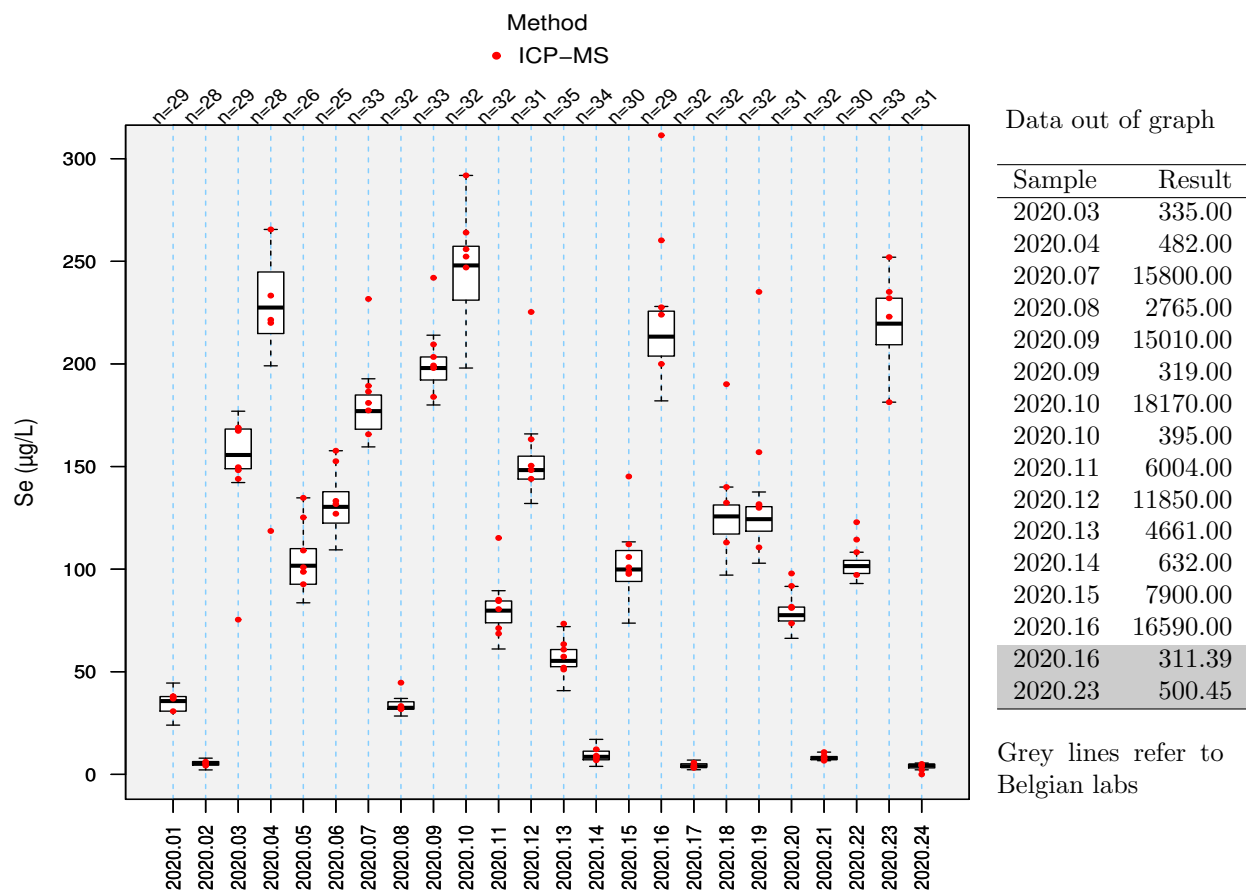
1.3.14 Sb

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	1.06	0.12	22	4	4	0	0
2020.02	ICP-MS	0.06	0.09	21	4	4	0	0
2020.03	ICP-MS	5.91	0.72	23	4	4	0	0
2020.04	ICP-MS	8.89	0.98	23	4	4	0	0
2020.05	ICP-MS	3.95	0.34	20	4	4	0	0
2020.06	ICP-MS	4.97	0.29	20	4	4	0	0
2020.07	ICP-MS	6.79	0.78	22	4	4	0	0
2020.08	ICP-MS	1.03	0.16	21	4	4	0	0
2020.09	ICP-MS	7.74	0.86	23	4	3	1	0
2020.10	ICP-MS	9.62	0.93	23	4	4	0	0
2020.11	ICP-MS	3.05	0.24	21	4	4	0	0
2020.12	ICP-MS	5.72	0.88	21	4	4	0	0
2020.13	ICP-MS	2.02	0.18	24	4	4	0	0
2020.14	ICP-MS	0.05	0.07	23	4	4	0	0
2020.15	ICP-MS	4	0.25	21	4	4	0	0
2020.16	ICP-MS	8.77	0.86	21	4	4	0	0
2020.17	ICP-MS	0.02	0.09	22	4	4	0	0
2020.18	ICP-MS	4.87	0.24	23	4	3	1	0
2020.19	ICP-MS	4.88	0.26	22	4	4	0	0
2020.20	ICP-MS	2.96	0.16	22	4	4	0	0
2020.21	ICP-MS	0.06	0.08	23	4	4	0	0
2020.22	ICP-MS	3.89	0.32	22	4	3	1	0
2020.23	ICP-MS	8.89	0.3	22	4	3	1	0
2020.24	ICP-MS	0.04	0.09	21	4	3	1	0



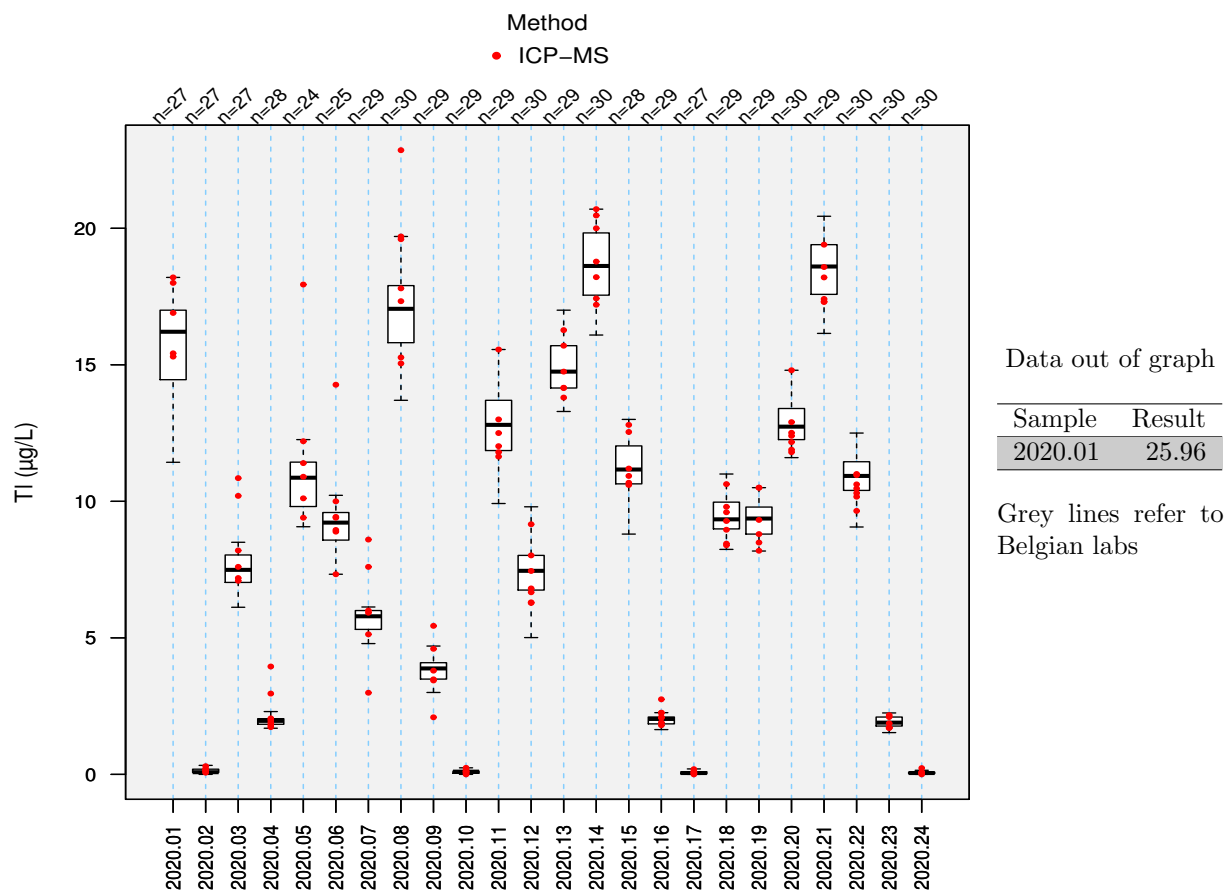
1.3.15 Se

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	35.61	5.27	28	5	5	0	0
2020.02	ICP-MS	5.29	1.15	27	4	4	0	0
2020.03	ICP-MS	156.81	14.06	28	6	5	1	0
2020.04	ICP-MS	227.5	21.35	27	5	4	1	0
2020.05	ICP-MS	101.12	12.86	25	6	6	0	0
2020.06	ICP-MS	130.18	11.51	24	5	5	0	0
2020.07	ICP-MS	177.17	12.62	32	6	5	1	0
2020.08	ICP-MS	32.5	2.58	31	5	4	1	0
2020.09	ICP-MS	198.5	8.69	32	6	5	1	0
2020.10	ICP-MS	249	15.79	31	5	5	0	0
2020.11	ICP-MS	79.79	6.51	31	6	5	1	0
2020.12	ICP-MS	148.36	8.85	30	5	4	1	0
2020.13	ICP-MS	55.95	5.86	34	6	6	0	0
2020.14	ICP-MS	8.59	3.11	33	5	5	0	0
2020.15	ICP-MS	100.9	10.61	29	6	5	1	0
2020.16	ICP-MS	214.43	14.81	28	5	3	2	0
2020.17	ICP-MS	3.95	1.23	31	5	5	0	0
2020.18	ICP-MS	126.4	9.72	31	4	3	1	0
2020.19	ICP-MS	124.82	8.33	31	6	4	2	0
2020.20	ICP-MS	77.89	4.85	30	5	4	1	0
2020.21	ICP-MS	7.9	1.11	31	5	5	0	0
2020.22	ICP-MS	101.6	4.69	29	4	3	1	0
2020.23	ICP-MS	220.41	14.9	32	6	5	1	0
2020.24	ICP-MS	4.31	1.36	30	5	4	1	0



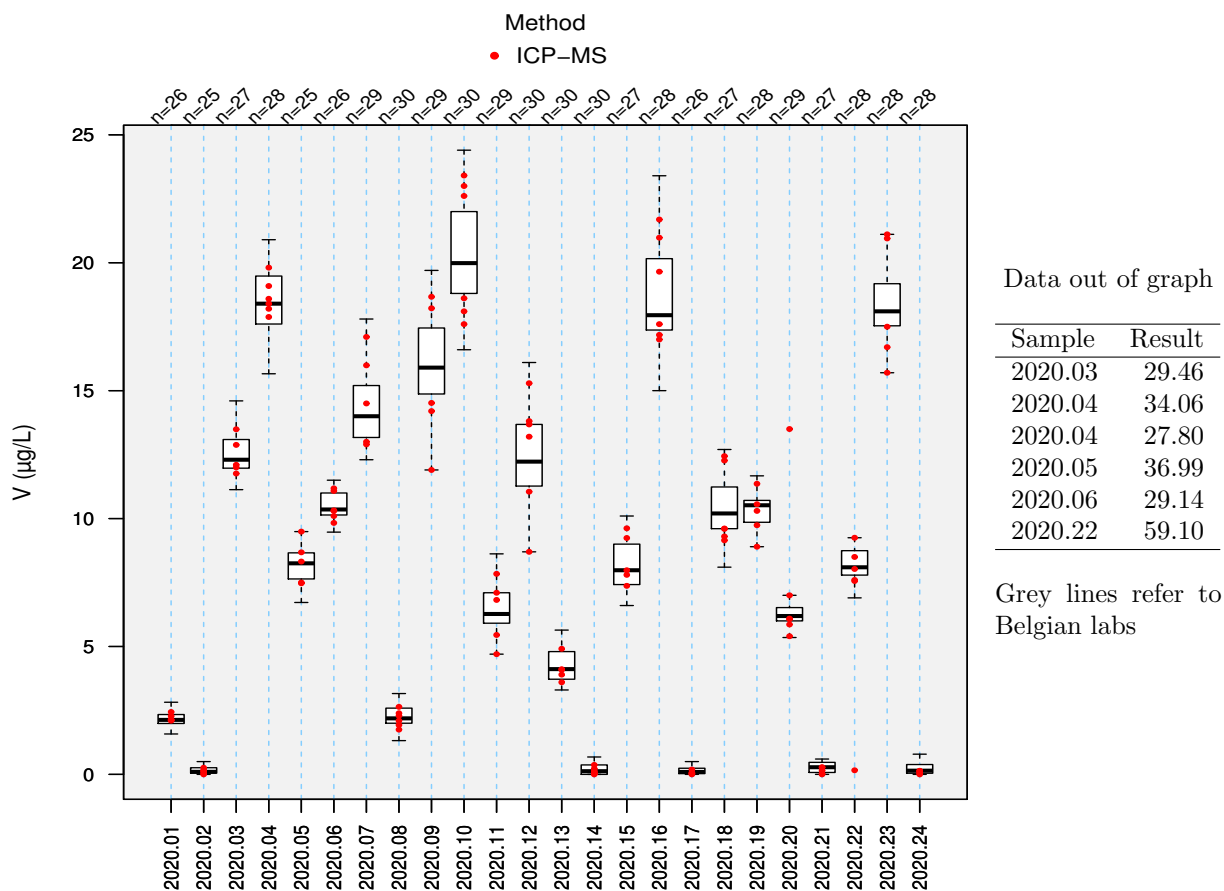
1.3.16 Tl

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	16.21	1.89	27	6	5	1	0
2020.02	ICP-MS	0.08	0.09	27	7	7	0	0
2020.03	ICP-MS	7.49	0.75	27	6	4	2	0
2020.04	ICP-MS	1.96	0.15	28	7	5	2	0
2020.05	ICP-MS	10.87	1.2	24	6	5	1	0
2020.06	ICP-MS	9.22	0.75	25	7	6	1	0
2020.07	ICP-MS	5.79	0.51	29	6	3	3	0
2020.08	ICP-MS	17.05	1.49	30	7	6	1	0
2020.09	ICP-MS	3.88	0.44	29	6	4	2	0
2020.10	ICP-MS	0.1	0.06	29	7	7	0	0
2020.11	ICP-MS	12.8	1.36	29	6	6	0	0
2020.12	ICP-MS	7.46	0.89	30	7	7	0	0
2020.13	ICP-MS	14.75	1.15	29	6	6	0	0
2020.14	ICP-MS	18.62	1.61	30	7	7	0	0
2020.15	ICP-MS	11.16	1	28	6	6	0	0
2020.16	ICP-MS	2.03	0.19	29	7	6	1	0
2020.17	ICP-MS	0.05	0.06	27	6	6	0	0
2020.18	ICP-MS	9.34	0.73	29	7	7	0	0
2020.19	ICP-MS	9.37	0.73	29	6	6	0	0
2020.20	ICP-MS	12.73	0.78	30	7	7	0	0
2020.21	ICP-MS	18.6	1.35	29	6	6	0	0
2020.22	ICP-MS	10.93	0.74	30	7	7	0	0
2020.23	ICP-MS	1.9	0.24	30	6	6	0	0
2020.24	ICP-MS	0.05	0.04	30	7	6	1	0



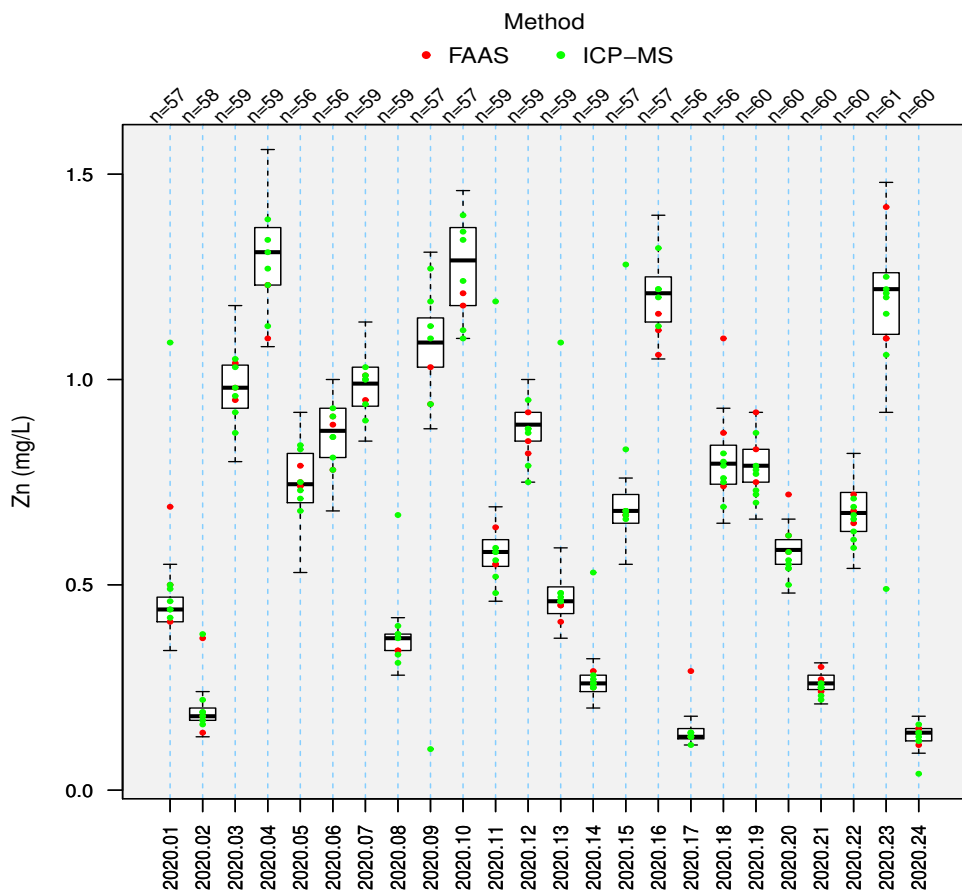
1.3.17 V

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	2.13	0.25	26	5	5	0	0
2020.02	ICP-MS	0.1	0.16	25	6	6	0	0
2020.03	ICP-MS	12.3	0.83	27	5	5	0	0
2020.04	ICP-MS	18.4	1.24	28	6	6	0	0
2020.05	ICP-MS	8.25	0.76	25	5	5	0	0
2020.06	ICP-MS	10.36	0.59	26	6	6	0	0
2020.07	ICP-MS	14.01	1.57	28	5	5	0	0
2020.08	ICP-MS	2.19	0.44	29	6	6	0	0
2020.09	ICP-MS	15.95	2.04	28	5	5	0	0
2020.10	ICP-MS	20	2.13	29	6	6	0	0
2020.11	ICP-MS	6.23	0.92	28	5	5	0	0
2020.12	ICP-MS	12.25	1.76	29	6	6	0	0
2020.13	ICP-MS	4.12	0.73	29	5	5	0	0
2020.14	ICP-MS	0.13	0.25	29	6	6	0	0
2020.15	ICP-MS	8.09	1.13	26	5	5	0	0
2020.16	ICP-MS	18.2	2	27	6	6	0	0
2020.17	ICP-MS	0.09	0.16	25	5	5	0	0
2020.18	ICP-MS	10.12	1.18	26	6	6	0	0
2020.19	ICP-MS	10.54	0.52	27	5	4	1	0
2020.20	ICP-MS	6.18	0.43	28	6	5	1	0
2020.21	ICP-MS	0.28	0.27	26	5	5	0	0
2020.22	ICP-MS	8.05	0.71	27	6	5	1	0
2020.23	ICP-MS	18.1	1.12	27	5	5	0	0
2020.24	ICP-MS	0.14	0.21	27	6	6	0	0



1.3.18 Zn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	FAAS	0.45	0.07	12	3	2	1	0
2020.01	ICP-MS	0.44	0.04	42	7	6	1	0
2020.02	FAAS	0.18	0.02	13	3	2	1	0
2020.02	ICP-MS	0.18	0.03	42	7	6	1	0
2020.03	FAAS	0.98	0.06	14	3	3	0	0
2020.03	ICP-MS	0.98	0.07	42	7	6	1	0
2020.04	FAAS	1.27	0.07	14	3	3	0	0
2020.04	ICP-MS	1.31	0.11	42	7	6	1	0
2020.05	FAAS	0.76	0.09	14	3	3	0	0
2020.05	ICP-MS	0.74	0.08	39	7	6	1	0
2020.06	FAAS	0.9	0.05	14	3	3	0	0
2020.06	ICP-MS	0.86	0.09	39	7	6	1	0
2020.07	FAAS	1	0.05	12	2	2	0	0
2020.07	ICP-MS	1	0.07	44	7	6	1	0
2020.08	FAAS	0.36	0.03	12	2	2	0	0
2020.08	ICP-MS	0.37	0.04	44	7	6	1	0
2020.09	FAAS	1.08	0.04	12	2	1	1	0
2020.09	ICP-MS	1.1	0.1	42	7	5	2	0
2020.10	FAAS	1.25	0.09	12	2	2	0	0
2020.10	ICP-MS	1.29	0.13	42	7	6	1	0
2020.11	FAAS	0.59	0.04	13	3	3	0	0
2020.11	ICP-MS	0.58	0.05	43	7	6	1	0
2020.12	FAAS	0.9	0.02	13	3	2	1	0
2020.12	ICP-MS	0.88	0.08	43	7	6	1	0
2020.13	FAAS	0.46	0.04	12	3	3	0	0
2020.13	ICP-MS	0.46	0.05	44	7	6	1	0
2020.14	FAAS	0.28	0.04	12	3	3	0	0
2020.14	ICP-MS	0.26	0.03	44	7	6	1	0
2020.15	FAAS	0.7	0.04	12	3	3	0	0
2020.15	ICP-MS	0.68	0.04	42	7	4	3	0
2020.16	FAAS	1.22	0.09	12	3	3	0	0
2020.16	ICP-MS	1.21	0.1	42	7	5	2	0
2020.17	FAAS	0.15	0.04	12	3	2	1	0
2020.17	ICP-MS	0.13	0.01	41	7	7	0	0
2020.18	FAAS	0.84	0.04	12	3	2	1	0
2020.18	ICP-MS	0.76	0.07	41	7	6	1	0
2020.19	FAAS	0.84	0.04	12	3	3	0	0
2020.19	ICP-MS	0.77	0.06	44	7	7	0	0
2020.20	FAAS	0.6	0.03	12	3	2	1	0
2020.20	ICP-MS	0.57	0.05	44	7	7	0	0
2020.21	FAAS	0.28	0.02	12	3	3	0	0
2020.21	ICP-MS	0.26	0.03	44	7	7	0	0
2020.22	FAAS	0.72	0.05	12	3	3	0	0
2020.22	ICP-MS	0.67	0.06	44	7	7	0	0
2020.23	FAAS	1.27	0.1	12	3	3	0	0
2020.23	ICP-MS	1.2	0.1	45	7	6	1	0
2020.24	FAAS	0.14	0.03	11	3	3	0	0
2020.24	ICP-MS	0.14	0.02	45	7	6	1	0



Data out of graph

Sample	Result
2020.02	0.00
2020.03	1.83
2020.03	866.80
2020.04	2.69
2020.04	1236.00
2020.05	203.00
2020.05	1.78
2020.06	163.00
2020.06	2.15
2020.07	1.91
2020.09	2.48
2020.10	2.74
2020.11	5.78
2020.12	1.92
2020.15	688.44
2020.16	1212.66
2020.16	2.87
2020.17	0.02
2020.18	2.49
2020.18	2.12
2020.18	710.00
2020.21	228.27
2020.22	586.41
2020.24	136.00

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	190	192	98.96 %
Co	7	156	168	92.86 %
Cr	7	162	168	96.43 %
Cu	27	543	648	83.8 %
Li	9	169	216	78.24 %
Mg	5	69	120	57.5 %
Mo	3	63	72	87.5 %
Se	14	292	336	86.9 %
Tl	2	47	48	97.92 %
V	1	24	24	100 %
Zn	30	618	720	85.83 %
Total		2333	2712	86.03

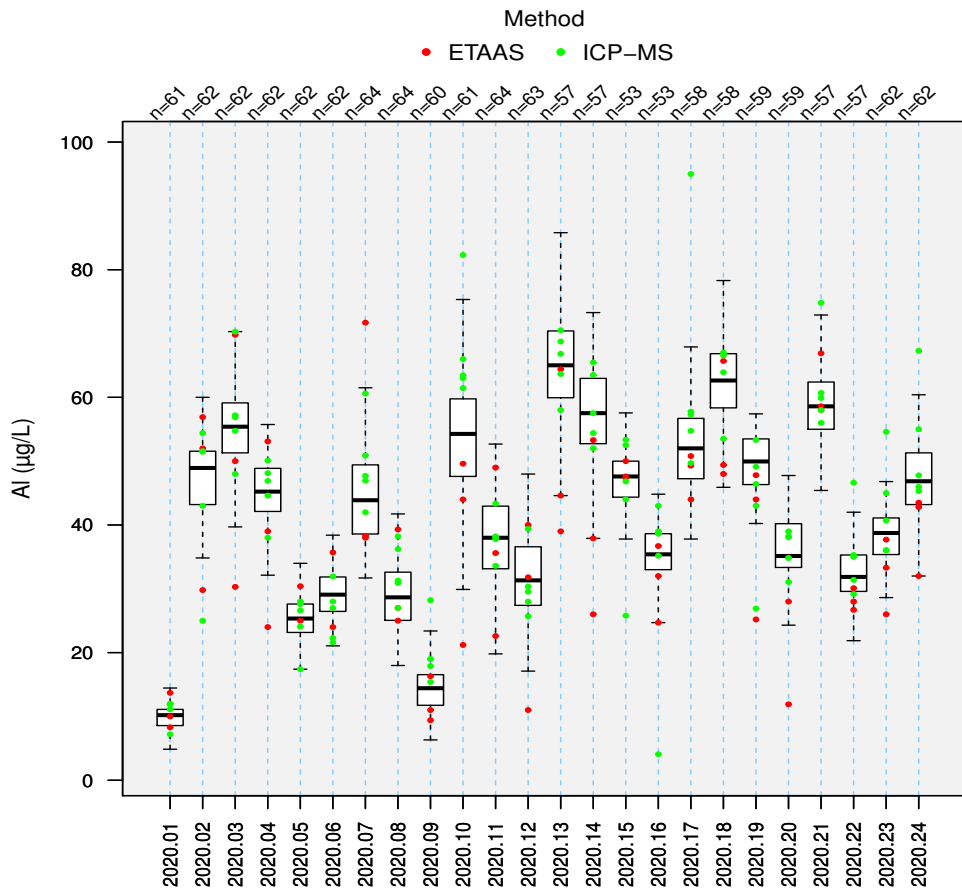
2.2 GLOBAL RESULTS

STAT	Element	Total number of results	Number of evaluated results	Number of Z citations	% citations
MA	Al	190	190	19	10
MA	Co	156	156	23	14.74
MA	Cr	162	162	9	5.56
MA	Cu	543	525	33	6.29
MA+GA	Cu	543	543 (+18)	33	6.08
MA	Li	169	147	10	6.8
MA+GA	Li	169	168 (+21)	10	5.95
MA	Mg	69	50	5	10
MA+GA	Mg	69	69 (+19)	6 (+1)	8.7
MA	Mo	63	63	2	3.17
MA	Se	292	292	16	5.48
MA	Tl	47	47	14	29.79
MA	V	24	24	0	0
MA	Zn	618	590	34	5.76
MA+GA	Zn	618	618 (+28)	39 (+5)	6.31
Total	MA+GA	2333	2332	171	7.33
	MA	2333	2246	165	7.35

2.3 RESULTS PER ELEMENT

2.3.1 Al

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	10.26	1.25	21	3	3	0	0
2020.01	ICP-MS	9.72	2.02	37	5	5	0	0
2020.02	ETAAS	49.68	4.6	21	3	2	1	0
2020.02	ICP-MS	47.86	5.9	38	5	4	1	0
2020.03	ETAAS	55.6	6.15	21	3	2	1	0
2020.03	ICP-MS	54.52	6.13	38	5	5	0	0
2020.04	ETAAS	42.66	5.91	21	3	2	1	0
2020.04	ICP-MS	45.23	3.66	38	5	5	0	0
2020.05	ETAAS	24.57	3.27	20	2	2	0	0
2020.05	ICP-MS	25.65	3.11	38	5	5	0	0
2020.06	ETAAS	27.03	4.51	20	2	2	0	0
2020.06	ICP-MS	29.57	3.46	38	5	5	0	0
2020.07	ETAAS	42.66	6.42	21	3	2	1	0
2020.07	ICP-MS	45.09	7.81	41	5	5	0	0
2020.08	ETAAS	28.35	3.4	21	3	2	1	0
2020.08	ICP-MS	29.7	7.41	41	5	5	0	0
2020.09	ETAAS	14.01	2.74	22	3	3	0	0
2020.09	ICP-MS	14.85	3.57	36	5	4	1	0
2020.10	ETAAS	52.95	11.81	22	3	3	0	0
2020.10	ICP-MS	54.4	7.18	37	5	4	1	0
2020.11	ETAAS	38	8.55	23	3	3	0	0
2020.11	ICP-MS	38	6.2	39	5	5	0	0
2020.12	ETAAS	31.8	8.98	23	3	3	0	0
2020.12	ICP-MS	30.76	6.77	38	5	5	0	0
2020.13	ETAAS	64.4	7.21	19	3	2	1	0
2020.13	ICP-MS	65.88	7.77	36	5	5	0	0
2020.14	ETAAS	56.16	7.65	19	3	2	1	0
2020.14	ICP-MS	58.17	7.82	36	5	5	0	0
2020.15	ETAAS	48	2.2	17	3	3	0	0
2020.15	ICP-MS	47.27	4.77	34	5	4	1	0
2020.16	ETAAS	36.7	4.6	17	3	3	0	0
2020.16	ICP-MS	35.26	4.14	34	5	4	1	0
2020.17	ETAAS	50.66	7.21	20	3	3	0	0
2020.17	ICP-MS	52.38	6.52	37	5	4	1	0
2020.18	ETAAS	62.3	6.94	20	3	3	0	0
2020.18	ICP-MS	62.64	5.67	37	5	5	0	0
2020.19	ETAAS	47.99	6.7	20	3	2	1	0
2020.19	ICP-MS	50.49	4.41	38	5	4	1	0
2020.20	ETAAS	34.3	6.8	20	3	2	1	0
2020.20	ICP-MS	36	5.06	38	5	5	0	0
2020.21	ETAAS	58.6	4.8	19	3	3	0	0
2020.21	ICP-MS	57.89	6.76	36	5	5	0	0
2020.22	ETAAS	32.67	3.84	19	3	3	0	0
2020.22	ICP-MS	31.31	4.19	36	5	4	1	0
2020.23	ETAAS	38.2	5.32	20	3	3	0	0
2020.23	ICP-MS	39.28	4.57	40	5	4	1	0
2020.24	ETAAS	46.47	5.73	20	3	3	0	0
2020.24	ICP-MS	47.89	5.02	40	5	4	1	0



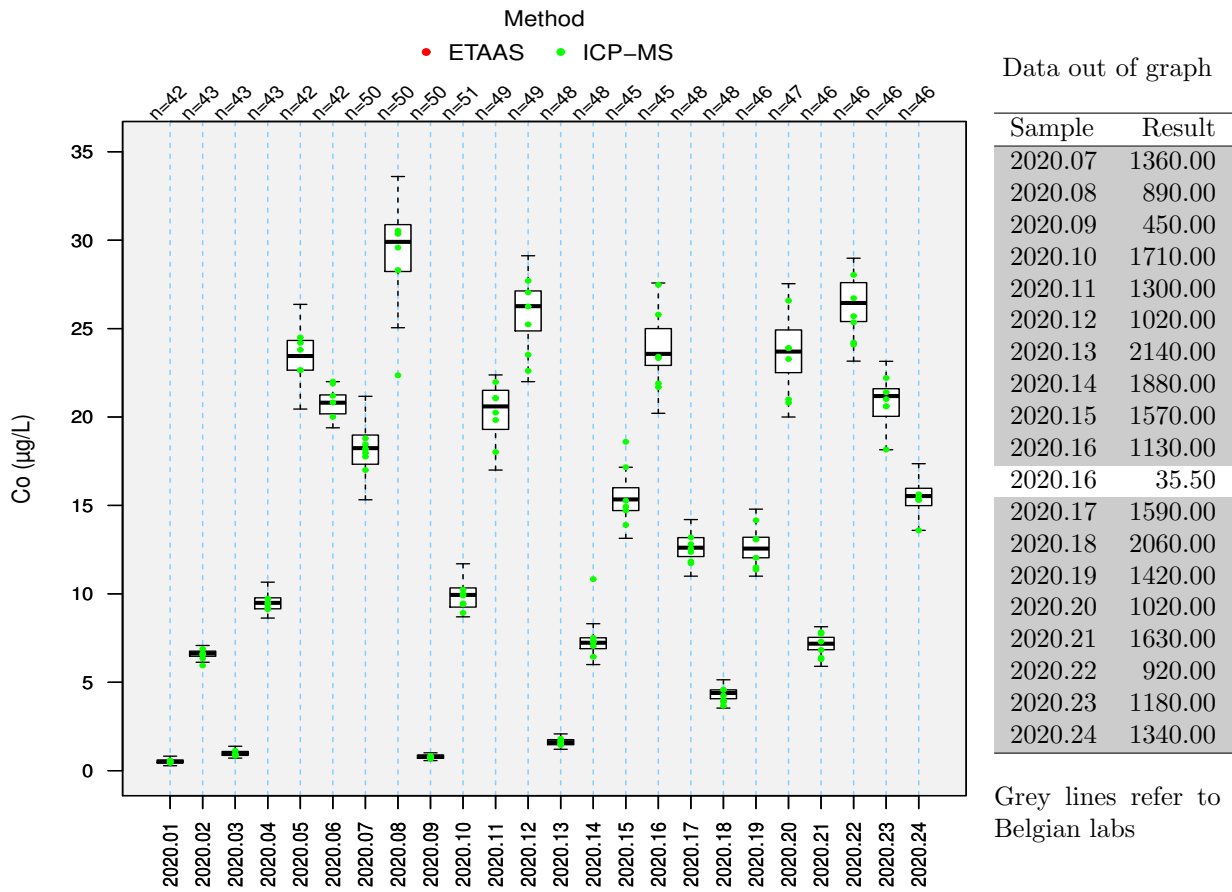
Data out of graph

Sample	Result
2020.01	0.00
2020.01	0.00
2020.03	104.40
2020.03	142.83
2020.04	157.10
2020.10	113.00
2020.14	116.37
2020.17	102.60
2020.19	111.10
2020.20	109.30
2020.21	115.00
2020.23	335.07
2020.24	256.23

Grey lines refer to Belgian labs

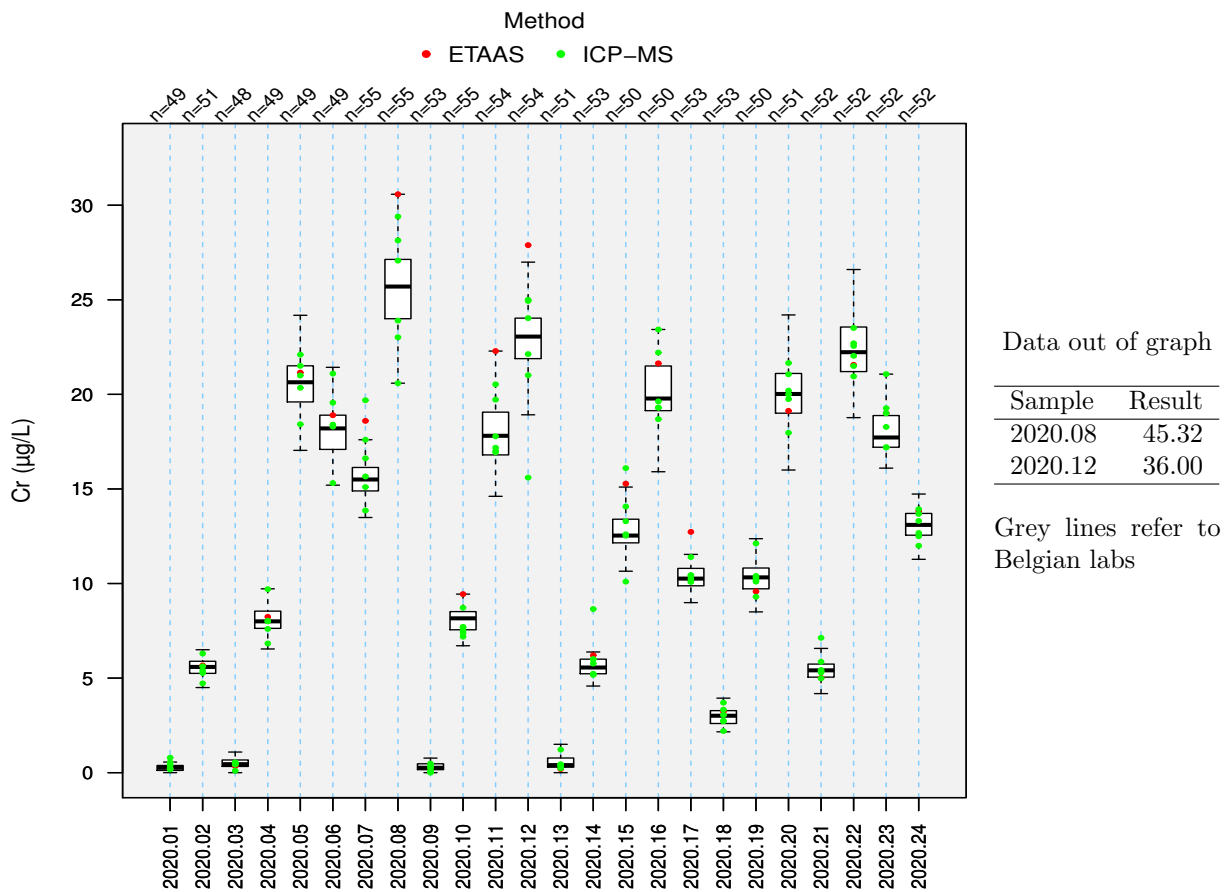
2.3.2 Co

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	0.5	0.11	36	5	5	0	0
2020.02	ICP-MS	6.63	0.3	37	5	5	0	0
2020.03	ICP-MS	0.94	0.15	37	5	5	0	0
2020.04	ICP-MS	9.49	0.46	37	5	5	0	0
2020.05	ICP-MS	23.37	1.18	36	5	5	0	0
2020.06	ICP-MS	20.73	0.8	36	5	5	0	0
2020.07	ETAAS	20.22	2.77	8	1	0	1	0
2020.07	ICP-MS	18.2	1.09	41	6	6	0	0
2020.08	ETAAS	30.54	2.45	8	1	0	1	0
2020.08	ICP-MS	29.69	1.82	41	6	5	1	0
2020.09	ETAAS	0.8	5.73	7	1	0	1	0
2020.09	ICP-MS	0.8	0.12	42	6	6	0	0
2020.10	ETAAS	10.11	2.33	8	1	0	1	0
2020.10	ICP-MS	9.91	0.76	42	6	6	0	0
2020.11	ETAAS	20.65	3.93	8	1	0	1	0
2020.11	ICP-MS	20.62	1.38	40	6	6	0	0
2020.12	ETAAS	26.59	2.34	8	1	0	1	0
2020.12	ICP-MS	26.26	1.7	40	6	6	0	0
2020.13	ETAAS	1.8	1.3	8	1	0	1	0
2020.13	ICP-MS	1.59	0.15	40	6	6	0	0
2020.14	ETAAS	7.38	0.39	8	1	0	1	0
2020.14	ICP-MS	7.22	0.42	40	6	5	1	0
2020.15	ETAAS	15.19	2.89	7	1	0	1	0
2020.15	ICP-MS	15.36	0.92	38	6	5	1	0
2020.16	ETAAS	23.2	3.19	7	1	0	1	0
2020.16	ICP-MS	23.61	1.47	38	6	6	0	0
2020.17	ETAAS	13.2	1.96	8	1	0	1	0
2020.17	ICP-MS	12.59	0.55	40	6	6	0	0
2020.18	ETAAS	5.17	5.05	8	1	0	1	0
2020.18	ICP-MS	4.36	0.34	40	6	6	0	0
2020.19	ETAAS	13.23	1.18	8	1	0	1	0
2020.19	ICP-MS	12.4	0.76	38	6	6	0	0
2020.20	ETAAS	25.32	2.55	8	1	0	1	0
2020.20	ICP-MS	23.6	1.48	39	6	6	0	0
2020.21	ETAAS	7.9	0.74	7	1	0	1	0
2020.21	ICP-MS	7.16	0.47	39	6	6	0	0
2020.22	ETAAS	26.3	0.85	7	1	0	1	0
2020.22	ICP-MS	26.6	1.64	39	6	6	0	0
2020.23	ETAAS	22.71	2.64	7	1	0	1	0
2020.23	ICP-MS	21.17	0.95	39	6	5	1	0
2020.24	ETAAS	16.21	1.09	7	1	0	1	0
2020.24	ICP-MS	15.44	0.58	39	6	5	1	0



2.3.3 Cr

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	0.27	0.15	11	1	1	0	0
2020.01	ICP-MS	0.26	0.19	37	5	5	0	0
2020.02	ETAAS	5.81	0.44	11	1	1	0	0
2020.02	ICP-MS	5.51	0.45	39	5	5	0	0
2020.03	ETAAS	0.44	0.16	11	1	1	0	0
2020.03	ICP-MS	0.48	0.26	36	5	5	0	0
2020.04	ETAAS	8.11	0.51	11	1	1	0	0
2020.04	ICP-MS	8	0.55	37	5	4	1	0
2020.05	ETAAS	20.1	1.65	11	1	1	0	0
2020.05	ICP-MS	20.7	1.31	37	5	5	0	0
2020.06	ETAAS	17.9	1.07	11	1	1	0	0
2020.06	ICP-MS	18.2	1.4	37	5	5	0	0
2020.07	ETAAS	15.65	1	12	1	1	0	0
2020.07	ICP-MS	15.48	0.94	42	6	5	1	0
2020.08	ETAAS	26.03	1.46	12	1	0	1	0
2020.08	ICP-MS	25.67	2.38	42	6	6	0	0
2020.09	ETAAS	0.25	0.26	11	1	1	0	0
2020.09	ICP-MS	0.26	0.24	41	6	6	0	0
2020.10	ETAAS	8.19	0.49	12	1	1	0	0
2020.10	ICP-MS	8.12	0.71	42	6	6	0	0
2020.11	ETAAS	18.36	1.39	12	1	1	0	0
2020.11	ICP-MS	17.73	1.33	41	6	6	0	0
2020.12	ETAAS	23.55	1.32	12	1	0	1	0
2020.12	ICP-MS	22.9	1.81	41	6	5	1	0
2020.13	ETAAS	0.34	0.22	11	1	1	0	0
2020.13	ICP-MS	0.42	0.41	40	6	6	0	0
2020.14	ETAAS	5.46	0.31	12	1	1	0	0
2020.14	ICP-MS	5.72	0.62	41	6	5	1	0
2020.15	ETAAS	12.63	1.84	11	1	1	0	0
2020.15	ICP-MS	12.53	0.83	39	6	5	1	0
2020.16	ETAAS	19.6	2.26	11	1	1	0	0
2020.16	ICP-MS	20.07	1.88	39	6	6	0	0
2020.17	ETAAS	10.3	0.51	12	1	0	1	0
2020.17	ICP-MS	10.19	0.87	41	6	6	0	0
2020.18	ETAAS	2.91	0.46	12	1	1	0	0
2020.18	ICP-MS	3.05	0.54	41	6	6	0	0
2020.19	ETAAS	10.38	0.85	12	1	1	0	0
2020.19	ICP-MS	10.3	0.86	38	6	6	0	0
2020.20	ETAAS	20.04	1.43	12	1	1	0	0
2020.20	ICP-MS	20.02	1.61	39	6	6	0	0
2020.21	ETAAS	5.07	0.47	12	1	1	0	0
2020.21	ICP-MS	5.48	0.46	40	6	5	1	0
2020.22	ETAAS	21.58	1.01	12	1	1	0	0
2020.22	ICP-MS	22.59	1.66	40	6	6	0	0
2020.23	ETAAS	17.57	1	12	1	1	0	0
2020.23	ICP-MS	17.87	1.35	40	6	6	0	0
2020.24	ETAAS	13.21	0.31	12	1	1	0	0
2020.24	ICP-MS	12.95	0.87	40	6	6	0	0



2.3.4 Cu

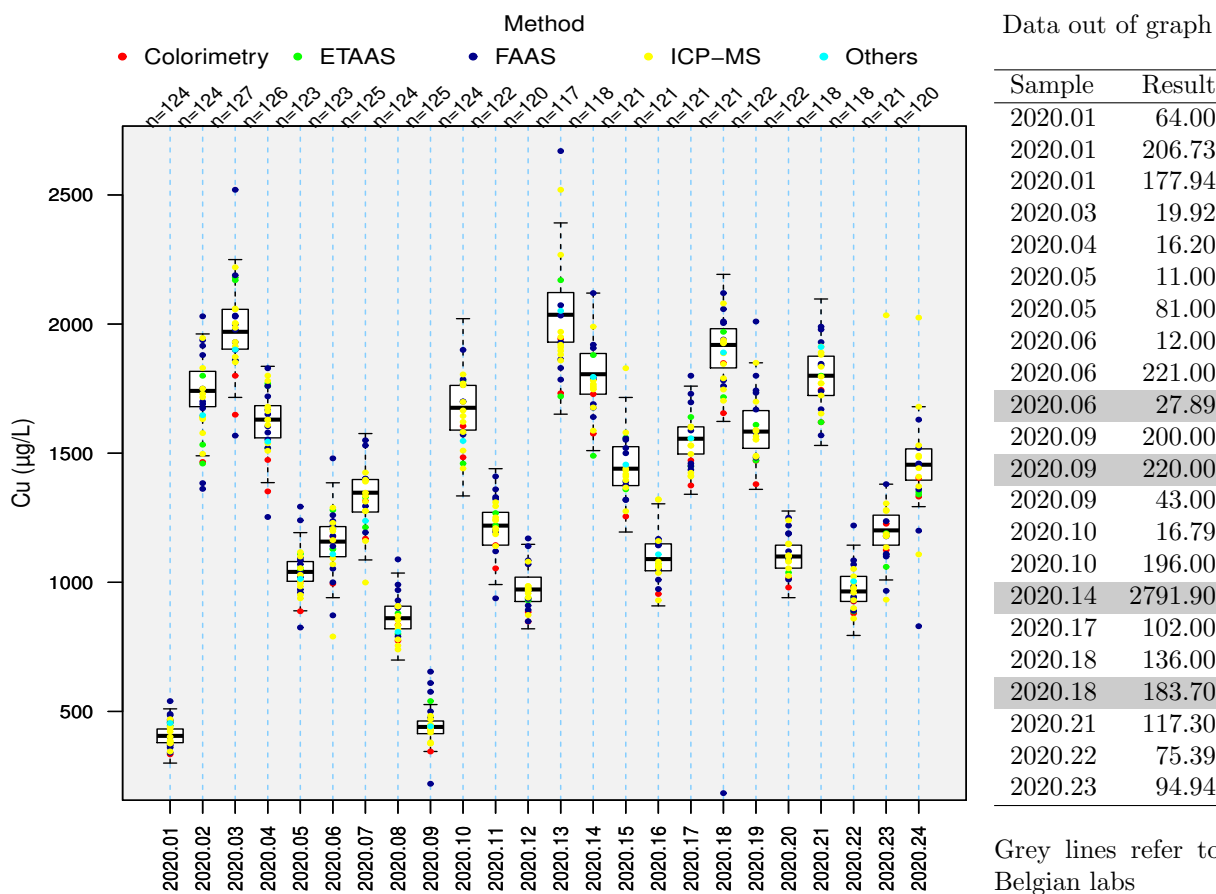
Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	Colorimetry	353.5	101.66	10	2	2	0	0
2020.01	ETAAS	432.75	29.88	10	3	3	0	0
2020.01	FAAS	409.95	48.68	44	10	10	0	0
2020.01	ICP-MS	403.22	25.35	54	10	10	0	0
2020.01	Others	455.02	0	1	1	0	0	1
2020.01	Global	405.38	38.92	124	26	25	1	0
2020.02	Colorimetry	1764.5	278.43	10	2	2	0	0
2020.02	ETAAS	1719.03	73.93	10	3	2	1	0
2020.02	FAAS	1750.5	152.35	44	10	10	0	0
2020.02	ICP-MS	1741.27	69.17	54	10	9	1	0
2020.02	Others	1647.22	0	1	1	0	0	1
2020.02	Global	1741.27	98.72	124	26	24	2	0
2020.03	Colorimetry	1765	311.9	10	2	2	0	0
2020.03	ETAAS	1953.21	75.16	10	3	2	1	0
2020.03	FAAS	1962.1	89.54	45	10	8	2	0
2020.03	ICP-MS	2013.77	109.9	56	10	10	0	0
2020.03	Others	1901.42	0	1	1	0	0	1
2020.03	Global	1970.05	114.22	127	26	24	2	0
2020.04	Colorimetry	1548.5	321.12	10	2	2	0	0
2020.04	ETAAS	1645.94	73.9	10	3	3	0	0
2020.04	FAAS	1617.35	76.72	44	10	9	1	0
2020.04	ICP-MS	1648.93	83.51	56	10	10	0	0
2020.04	Others	1544.9	0	1	1	0	0	1
2020.04	Global	1630	92.29	126	26	24	2	0
2020.05	Colorimetry	1017.5	154.09	10	2	2	0	0
2020.05	ETAAS	1053	43.85	10	3	3	0	0
2020.05	FAAS	1036	56.01	45	10	7	3	0
2020.05	ICP-MS	1043.11	57.47	52	9	9	0	0
2020.05	Others	1012.99	0	1	1	0	0	1
2020.05	Global	1040.31	56.56	123	25	22	3	0
2020.06	Colorimetry	1178.5	152.49	10	2	2	0	0
2020.06	ETAAS	1143.9	64.6	10	3	3	0	0
2020.06	FAAS	1160	75.38	45	10	8	2	0
2020.06	ICP-MS	1162.49	85.25	52	9	7	2	0
2020.06	Others	1108.95	0	1	1	0	0	1
2020.06	Global	1157.6	86.4	123	25	21	4	0
2020.07	Colorimetry	1331.13	198.13	10	2	2	0	0
2020.07	ETAAS	1328.2	74.62	11	2	2	0	0
2020.07	FAAS	1343	91.51	44	7	7	0	0
2020.07	ICP-MS	1359.97	82.19	55	10	9	1	0
2020.07	Others	1237.95	0	1	1	0	0	1
2020.07	Global	1347	93.28	125	22	21	1	0
2020.08	Colorimetry	859.17	162.34	10	2	2	0	0
2020.08	ETAAS	876	55.81	11	2	2	0	0
2020.08	FAAS	885	65.23	43	7	6	1	0
2020.08	ICP-MS	857.93	57.58	55	10	10	0	0
2020.08	Others	808.36	0	1	1	0	0	1
2020.08	Global	861	64.58	124	22	21	1	0
2020.09	Colorimetry	337.5	102.4	10	2	2	0	0
2020.09	ETAAS	462.64	45.1	11	2	2	0	0
2020.09	FAAS	449	54.07	45	7	5	2	0
2020.09	ICP-MS	432.46	29.59	54	10	10	0	0
2020.09	Others	442.31	0	1	1	0	0	1
2020.09	Global	440	36.32	125	22	18	4	0
2020.10	Colorimetry	1582.5	268.86	10	2	2	0	0
2020.10	ETAAS	1610	146.36	11	2	2	0	0
2020.10	FAAS	1700	90.26	44	7	7	0	0
2020.10	ICP-MS	1663.01	122.85	54	10	10	0	0
2020.10	Others	1547.44	0	1	1	0	0	1
2020.10	Global	1675.86	127.8	124	22	22	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.11	Colorimetry	1207.5	174.02	10	2	2	0	0
2020.11	ETAAS	1220	65.61	11	2	2	0	0
2020.11	FAAS	1227	78.11	43	8	7	1	0
2020.11	ICP-MS	1218.25	82.88	53	9	9	0	0
2020.12	Colorimetry	950.9	178.39	10	2	2	0	0
2020.12	ETAAS	957	61.99	11	2	2	0	0
2020.12	FAAS	1000	95.03	41	8	8	0	0
2020.12	ICP-MS	970	50.27	53	9	9	0	0
2020.13	Colorimetry	1810	472.32	9	2	2	0	0
2020.13	ETAAS	2047.5	200.38	10	2	2	0	0
2020.13	FAAS	2050.84	127.76	40	7	6	1	0
2020.13	ICP-MS	2034.8	119.66	52	9	8	1	0
2020.13	Others	2051.39	0	1	1	0	0	1
2020.13	Global	2036	142.33	117	21	19	2	0
2020.14	Colorimetry	1640	275.08	9	2	2	0	0
2020.14	ETAAS	1815.2	163.31	10	2	2	0	0
2020.14	FAAS	1817.25	106.01	41	8	8	0	0
2020.14	ICP-MS	1806	96.42	52	9	8	1	0
2020.14	Others	1795.29	0	1	1	0	0	1
2020.14	Global	1805.82	116.5	118	22	21	1	0
2020.15	Colorimetry	1340.91	188.33	11	2	2	0	0
2020.15	ETAAS	1442.59	99.9	8	2	2	0	0
2020.15	FAAS	1440	123.43	43	8	8	0	0
2020.15	ICP-MS	1441.3	94.47	54	9	8	1	0
2020.15	Others	1455.93	0	1	1	0	0	1
2020.15	Global	1440	111.65	121	22	21	1	0
2020.16	Colorimetry	1056	207.16	11	2	2	0	0
2020.16	ETAAS	1091.07	79.89	8	2	2	0	0
2020.16	FAAS	1086.71	79.31	43	8	8	0	0
2020.16	ICP-MS	1089.36	55.22	54	9	7	2	0
2020.16	Others	1108.31	0	1	1	0	0	1
2020.16	Global	1090	77.26	121	22	22	0	0
2020.17	Colorimetry	1498.6	135.52	10	2	2	0	0
2020.17	ETAAS	1566	105.24	11	2	2	0	0
2020.17	FAAS	1563.16	98.18	42	8	8	0	0
2020.17	ICP-MS	1554.9	56.62	52	9	9	0	0
2020.17	Others	1557.61	0	1	1	0	0	1
2020.17	Global	1556	77.94	121	22	21	1	0
2020.18	Colorimetry	1906.5	147.93	11	2	2	0	0
2020.18	ETAAS	1905	84.52	11	2	2	0	0
2020.18	FAAS	1931.92	141.33	41	8	7	1	0
2020.18	ICP-MS	1920.45	89.9	52	9	9	0	0
2020.18	Others	1889.98	0	1	1	0	0	1
2020.18	Global	1919.21	112.5	121	22	21	1	0
2020.19	Colorimetry	1525.2	201.86	9	2	2	0	0
2020.19	ETAAS	1599	86.34	11	2	2	0	0
2020.19	FAAS	1608	136.99	45	8	8	0	0
2020.19	ICP-MS	1570.26	89.94	52	9	8	1	0
2020.20	Colorimetry	1016.4	92.74	10	2	2	0	0
2020.20	ETAAS	1100	63.91	11	2	2	0	0
2020.20	FAAS	1133.1	81.87	44	8	8	0	0
2020.20	ICP-MS	1100	59.91	52	9	9	0	0
2020.21	Colorimetry	1745	219.83	11	2	2	0	0
2020.21	ETAAS	1789.7	141.5	10	2	2	0	0
2020.21	FAAS	1840	129.13	41	8	8	0	0
2020.21	ICP-MS	1797.83	98.53	51	9	9	0	0
2020.21	Others	1911.58	0	1	1	0	0	1
2020.21	Global	1800	111.12	118	22	22	0	0
2020.22	Colorimetry	926	125	11	2	2	0	0
2020.22	ETAAS	963.5	96.09	10	2	2	0	0
2020.22	FAAS	975	69.68	41	8	7	1	0
2020.22	ICP-MS	964.69	61.95	51	9	9	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.22	Others	1004.09	0	1	1	0	0	1
2020.22	Global	964.69	71.2	118	22	21	1	0
2020.23	Colorimetry	1242.64	129.55	10	2	2	0	0
2020.23	ETAAS	1201	41.85	9	2	1	1	0
2020.23	FAAS	1210.55	95.68	44	8	8	0	0
2020.23	ICP-MS	1199	58.38	53	9	7	2	0
2020.24	Colorimetry	1432.83	118.8	10	2	2	0	0
2020.24	ETAAS	1441	102.35	9	2	2	0	0
2020.24	FAAS	1459	98.75	44	8	7	1	0
2020.24	ICP-MS	1448.97	78.6	52	9	7	2	0

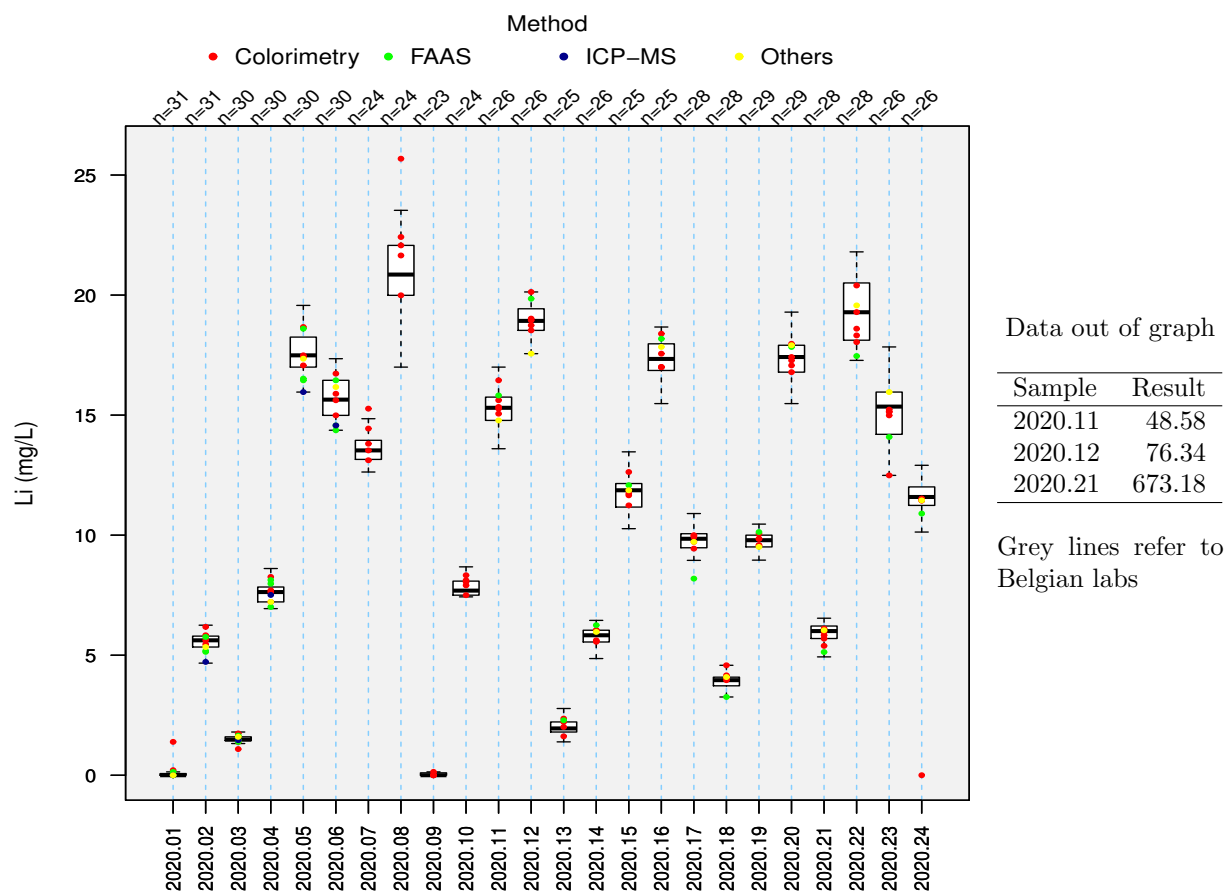


2.3.5 Li

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	Colorimetry	0.07	0.23	10	4	3	1	0
2020.01	FAAS	0	0.01	8	3	2	1	0
2020.01	ICP-MS	0	0	9	1	0	0	1
2020.01	Others	0	0	2	1	0	0	1
2020.01	Global	0	0.05	31	9	7	2	0
2020.02	Colorimetry	5.8	0.34	10	4	4	0	0
2020.02	FAAS	5.52	0.35	8	3	3	0	0
2020.02	ICP-MS	5.53	0.3	9	1	1	0	0
2020.02	Others	5.8	0.34	2	1	0	0	1
2020.02	Global	5.62	0.34	31	9	9	0	0
2020.03	Colorimetry	1.46	0.26	9	4	4	0	0
2020.03	FAAS	1.47	0.13	8	3	3	0	0
2020.03	ICP-MS	1.49	0.1	9	1	1	0	0
2020.03	Others	1.7	0.07	2	1	0	0	1
2020.03	Global	1.48	0.11	30	9	8	1	0
2020.04	Colorimetry	7.63	0.36	9	4	4	0	0
2020.04	FAAS	7.39	0.58	8	3	3	0	0
2020.04	ICP-MS	7.64	0.33	9	1	1	0	0
2020.04	Others	7.53	0.23	2	1	0	0	1
2020.04	Global	7.63	0.43	30	9	9	0	0
2020.05	Colorimetry	17.49	0.57	9	4	4	0	0
2020.05	FAAS	16.87	1.23	8	3	3	0	0
2020.05	ICP-MS	18.04	0.75	9	1	1	0	0
2020.05	Others	18.05	0.52	2	1	0	0	1
2020.05	Global	17.49	0.91	30	9	9	0	0
2020.06	Colorimetry	15.75	0.3	9	4	3	1	0
2020.06	FAAS	15.43	1.18	8	3	3	0	0
2020.06	ICP-MS	15.67	0.9	9	1	1	0	0
2020.06	Others	16.41	0.18	2	1	0	0	1
2020.06	Global	15.64	0.99	30	9	9	0	0
2020.07	Colorimetry	13.67	0.52	8	5	4	1	0
2020.08	Colorimetry	21.3	1.34	8	5	4	1	0
2020.09	Colorimetry	0	0.03	8	5	4	1	0
2020.10	Colorimetry	7.98	0.21	8	5	5	0	0
2020.11	Colorimetry	15.62	0.26	9	5	4	1	0
2020.11	FAAS	15.79	0.14	6	1	1	0	0
2020.11	Others	15.89	0.82	2	1	0	0	1
2020.11	Global	15.3	0.65	26	7	7	0	0
2020.12	Colorimetry	19.02	0.51	9	5	5	0	0
2020.12	FAAS	19.29	1.17	6	1	1	0	0
2020.12	Others	19.57	1.49	2	1	0	0	1
2020.12	Global	18.92	0.64	26	7	7	0	0
2020.13	Colorimetry	2.12	0.4	8	4	4	0	0
2020.13	FAAS	1.87	0.13	5	1	0	0	1
2020.13	Global	1.95	0.31	25	5	5	0	0
2020.14	Colorimetry	5.97	0.23	8	4	4	0	0
2020.14	FAAS	5.76	0.47	5	1	0	0	1
2020.14	Others	5.97	0.52	3	1	0	0	1
2020.14	Global	5.83	0.36	26	6	6	0	0
2020.15	Colorimetry	11.8	0.29	8	5	5	0	0
2020.15	FAAS	12.04	1.44	6	1	1	0	0
2020.15	Others	12.32	0.33	2	1	0	0	1
2020.15	Global	11.87	0.73	25	7	7	0	0
2020.16	Colorimetry	17.24	0.43	8	5	5	0	0
2020.16	FAAS	17.76	0.89	6	1	1	0	0
2020.16	Others	14.3	2.62	2	1	0	0	1
2020.16	Global	17.34	0.82	25	7	7	0	0
2020.17	Colorimetry	9.85	0.2	9	5	5	0	0
2020.17	FAAS	9.92	0.95	7	1	1	0	0
2020.17	Others	10.1	0.28	2	1	0	0	1

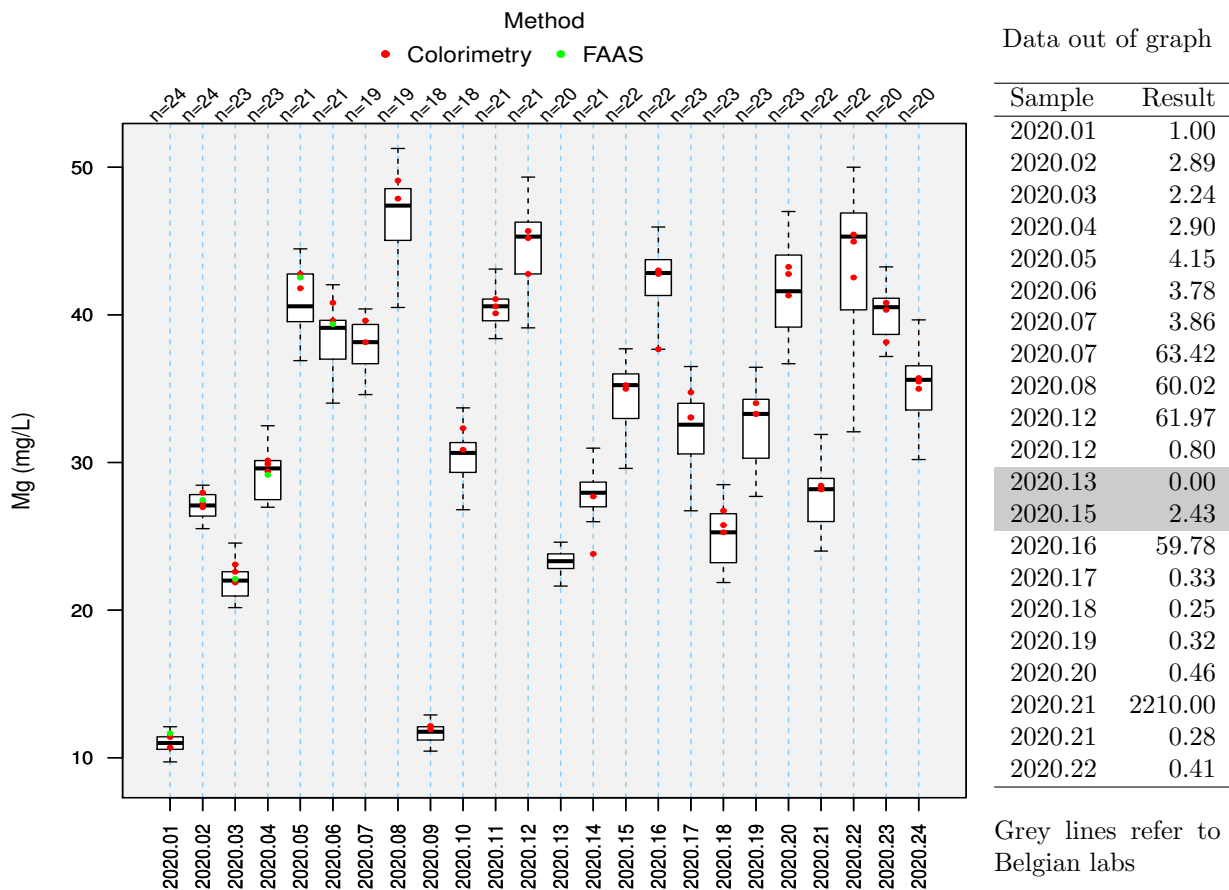
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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.17	Global	9.85	0.42	28	7	6	1	0
2020.18	Colorimetry	4.03	0.15	9	5	4	1	0
2020.18	FAAS	3.68	0.23	7	1	1	0	0
2020.18	Others	4.2	0.08	2	1	0	0	1
2020.18	Global	3.96	0.26	28	7	7	0	0
2020.19	Colorimetry	9.85	0.25	9	5	5	0	0
2020.19	FAAS	9.79	0.46	7	1	1	0	0
2020.19	Others	9.65	0.26	3	1	0	0	1
2020.19	Global	9.79	0.36	29	7	7	0	0
2020.20	Colorimetry	17.28	0.47	9	5	5	0	0
2020.20	FAAS	17.21	0.6	7	1	1	0	0
2020.20	Others	17.91	0.46	3	1	0	0	1
2020.20	Global	17.42	0.83	29	7	7	0	0
2020.21	Colorimetry	6.04	0.31	9	5	5	0	0
2020.21	FAAS	5.87	0.44	6	1	1	0	0
2020.21	Others	6.04	0.46	3	1	0	0	1
2020.21	Global	6	0.37	28	7	7	0	0
2020.22	Colorimetry	19.29	0.87	9	5	5	0	0
2020.22	FAAS	18.59	1.41	6	1	1	0	0
2020.22	Others	19.57	2.88	3	1	0	0	1
2020.22	Global	19.29	1.7	28	7	7	0	0
2020.23	Colorimetry	15.19	0.39	8	5	4	1	0
2020.23	FAAS	14.57	1.2	6	1	1	0	0
2020.23	Others	15.96	1.39	3	1	0	0	1
2020.23	Global	15.36	1.13	26	7	7	0	0
2020.24	Colorimetry	11.52	0.2	8	5	4	1	0
2020.24	FAAS	11.07	0.75	6	1	1	0	0
2020.24	Others	12.01	0.36	3	1	0	0	1
2020.24	Global	11.59	0.53	26	7	6	1	0



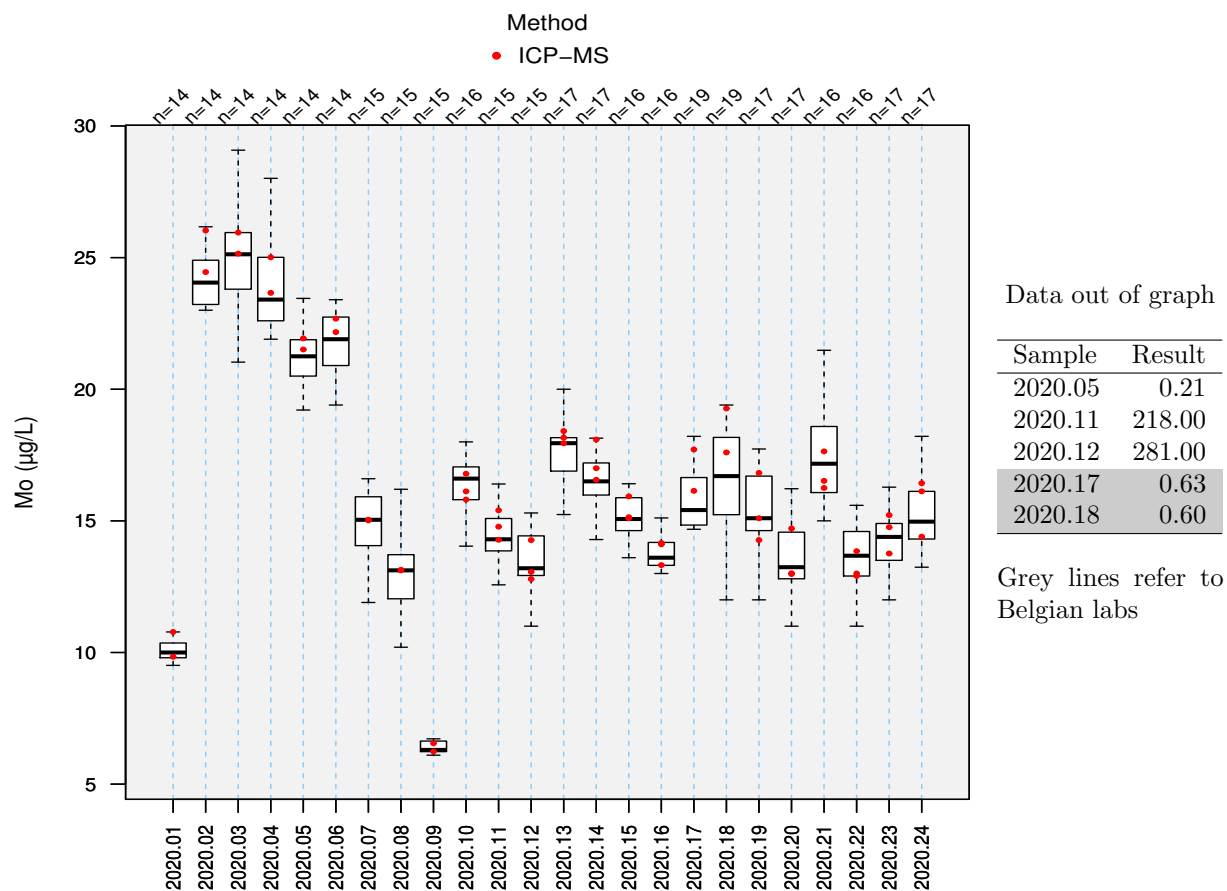
2.3.6 Mg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	Colorimetry	11	0.27	7	3	3	0	0
2020.01	FAAS	11.47	0.42	5	1	0	0	1
2020.01	Global	11	0.59	24	4	4	0	0
2020.02	Colorimetry	27	0.44	7	3	3	0	0
2020.02	FAAS	27.46	0.95	5	1	0	0	1
2020.02	Global	27.09	0.98	24	4	4	0	0
2020.03	Colorimetry	22.3	0.79	6	3	3	0	0
2020.03	FAAS	20.66	0.64	4	1	0	0	1
2020.03	Global	22	1.22	23	4	4	0	0
2020.04	Colorimetry	29.64	0.65	6	3	3	0	0
2020.04	FAAS	28.31	1.03	4	1	0	0	1
2020.04	Global	29.6	1.96	23	4	4	0	0
2020.05	Colorimetry	41.8	2.05	5	2	0	0	2
2020.05	FAAS	41.31	2.21	4	1	0	0	1
2020.05	Global	40.58	2.39	21	3	3	0	0
2020.06	Colorimetry	39.61	2.83	5	2	0	0	2
2020.06	FAAS	38.64	1.83	4	1	0	0	1
2020.06	Global	39.12	1.95	21	3	3	0	0
2020.07	Colorimetry	38.15	1.19	5	2	0	0	2
2020.07	Global	38.15	1.97	19	2	2	0	0
2020.08	Colorimetry	49	0.9	5	2	0	0	2
2020.08	Global	47.4	2.6	19	2	2	0	0
2020.09	Colorimetry	12.15	0.73	5	2	0	0	2
2020.09	Global	11.76	0.59	18	2	2	0	0
2020.10	Colorimetry	31.4	0.98	5	2	0	0	2
2020.10	Global	30.65	1.49	18	2	2	0	0
2020.11	Colorimetry	41	0.81	7	3	3	0	0
2020.12	Colorimetry	45.68	0.56	7	3	2	1	0
2020.13	Colorimetry	23.3	0.74	5	1	0	0	1
2020.13	Global	23.31	0.73	20	1	0	1	0
2020.14	Colorimetry	27.85	0.61	6	2	1	1	0
2020.15	Colorimetry	35.62	0.7	6	3	2	1	0
2020.16	Colorimetry	42.89	0.93	6	3	2	1	0
2020.17	Colorimetry	34	1.06	7	3	3	0	0
2020.18	Colorimetry	26	0.93	7	3	3	0	0
2020.19	Colorimetry	33.29	1.68	7	3	3	0	0
2020.20	Colorimetry	42.77	1.65	7	3	3	0	0
2020.21	Colorimetry	28.43	2.05	7	3	3	0	0
2020.22	Colorimetry	45.44	2.61	7	3	3	0	0
2020.23	Colorimetry	40.52	0.52	6	3	2	1	0
2020.24	Colorimetry	35.6	0.88	6	3	3	0	0



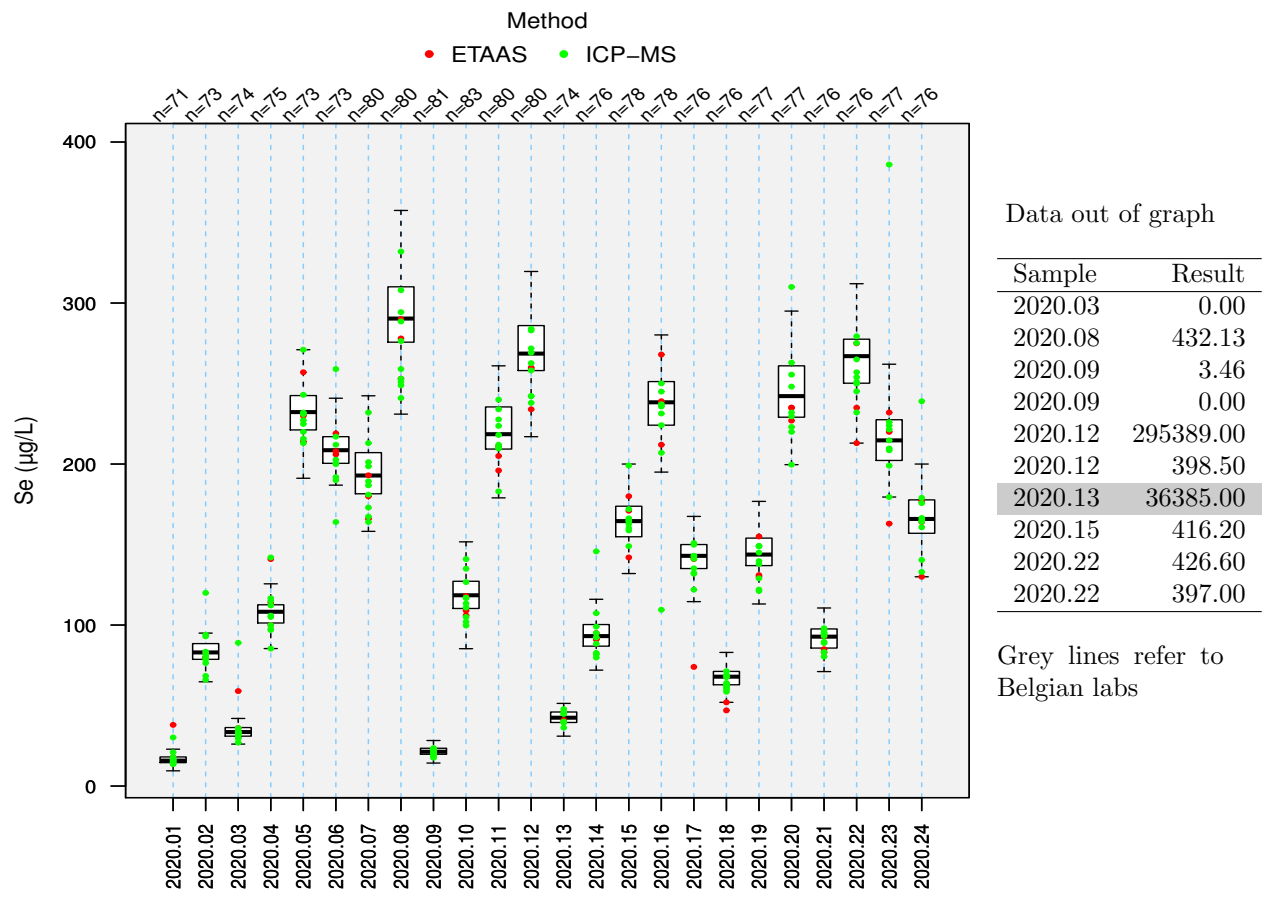
2.3.7 Mo

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	10	0.37	14	2	2	0	0
2020.02	ICP-MS	24.05	1.15	14	2	2	0	0
2020.03	ICP-MS	25.12	1.53	14	2	2	0	0
2020.04	ICP-MS	23.41	1.68	14	2	2	0	0
2020.05	ICP-MS	21.25	0.95	14	2	2	0	0
2020.06	ICP-MS	21.9	1.31	14	2	2	0	0
2020.07	ICP-MS	15.04	1.38	15	2	2	0	0
2020.08	ICP-MS	13.12	1.24	15	2	2	0	0
2020.09	ICP-MS	6.3	0.3	15	2	2	0	0
2020.10	ICP-MS	16.61	0.83	16	3	3	0	0
2020.11	ICP-MS	14.3	0.91	15	3	3	0	0
2020.12	ICP-MS	13.2	1.12	15	3	3	0	0
2020.13	ICP-MS	17.95	0.94	17	3	3	0	0
2020.14	ICP-MS	16.5	0.9	17	3	3	0	0
2020.15	ICP-MS	15.07	0.81	16	3	3	0	0
2020.16	ICP-MS	13.6	0.63	16	3	3	0	0
2020.17	ICP-MS	15.41	1.34	19	3	2	1	0
2020.18	ICP-MS	16.7	2.18	19	3	2	1	0
2020.19	ICP-MS	15.1	1.53	17	3	3	0	0
2020.20	ICP-MS	13.24	1.31	17	3	3	0	0
2020.21	ICP-MS	17.17	1.59	16	3	3	0	0
2020.22	ICP-MS	13.68	1.17	16	3	3	0	0
2020.23	ICP-MS	14.39	1.04	17	3	3	0	0
2020.24	ICP-MS	14.97	1.34	17	3	3	0	0



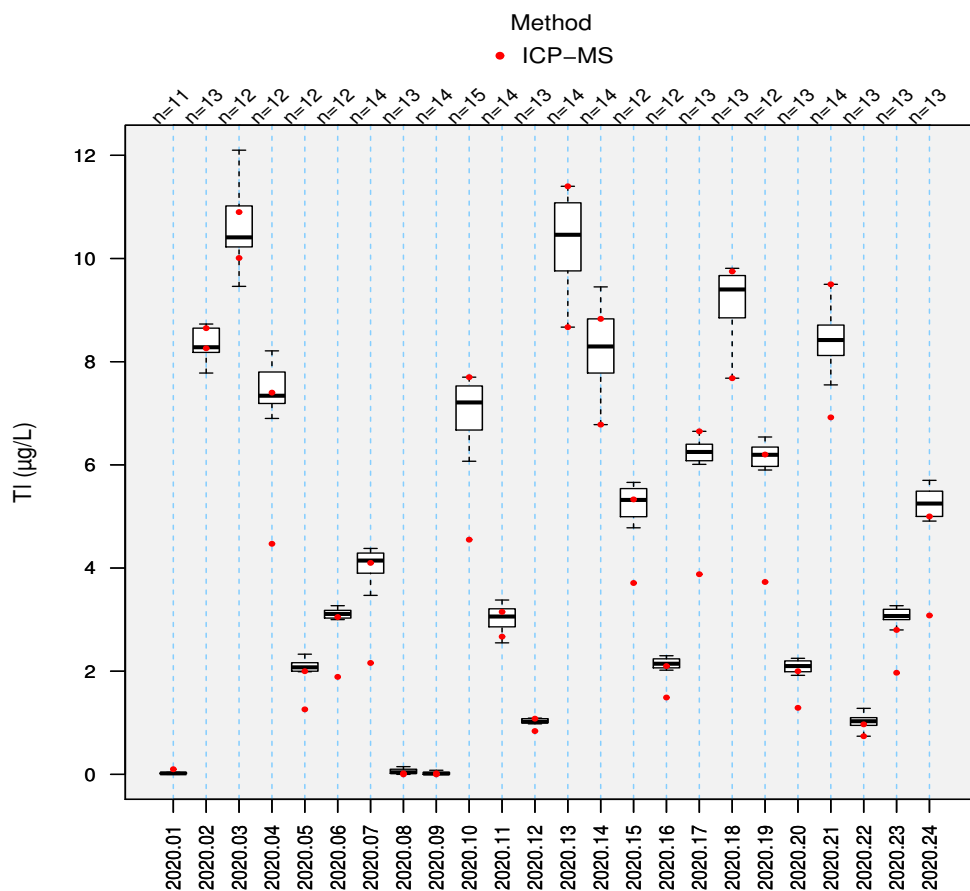
2.3.8 Se

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	15.01	5.93	17	2	1	1	0
2020.01	ICP-MS	15.8	2.22	53	10	9	1	0
2020.02	ETAAS	80.6	12.2	19	3	3	0	0
2020.02	ICP-MS	83.45	5.86	53	10	9	1	0
2020.03	ETAAS	32.39	9.13	19	2	2	0	0
2020.03	ICP-MS	33.72	3.34	55	10	9	1	0
2020.04	ETAAS	106.07	10.77	20	3	2	1	0
2020.04	ICP-MS	108.26	7.32	55	10	8	2	0
2020.05	ETAAS	231.3	15.53	19	3	3	0	0
2020.05	ICP-MS	233.05	16.16	53	9	9	0	0
2020.06	ETAAS	208	13.93	19	3	3	0	0
2020.06	ICP-MS	208.87	11.11	53	9	7	2	0
2020.07	ETAAS	190.39	19.96	22	3	3	0	0
2020.07	ICP-MS	193.55	15.46	54	10	10	0	0
2020.08	ETAAS	288.5	26.52	22	3	3	0	0
2020.08	ICP-MS	290.86	25.03	54	10	10	0	0
2020.09	ETAAS	21.56	6	22	2	2	0	0
2020.09	ICP-MS	21.33	2.36	55	10	10	0	0
2020.10	ETAAS	118.75	16.53	24	3	3	0	0
2020.10	ICP-MS	118.5	11.31	55	10	10	0	0
2020.11	ETAAS	217.44	25.49	24	3	3	0	0
2020.11	ICP-MS	219.11	12.79	54	9	9	0	0
2020.12	ETAAS	278	24.12	24	3	3	0	0
2020.12	ICP-MS	267.69	20.07	54	9	9	0	0
2020.13	ETAAS	42.23	9.46	20	2	2	0	0
2020.13	ICP-MS	42.14	4.16	50	9	8	1	0
2020.14	ETAAS	91.32	13.22	22	3	3	0	0
2020.14	ICP-MS	93.35	8.38	50	9	8	1	0
2020.15	ETAAS	162.78	23.43	20	3	3	0	0
2020.15	ICP-MS	164.72	11.42	54	9	8	1	0
2020.16	ETAAS	238.6	34.07	20	3	3	0	0
2020.16	ICP-MS	238.14	19.72	54	9	8	1	0
2020.17	ETAAS	142.94	9.66	22	3	2	1	0
2020.17	ICP-MS	143	11.11	52	9	9	0	0
2020.18	ETAAS	67.15	11.42	22	3	3	0	0
2020.18	ICP-MS	68.22	4.84	52	9	9	0	0
2020.19	ETAAS	141.81	17.63	22	3	3	0	0
2020.19	ICP-MS	143.78	10.32	52	9	9	0	0
2020.20	ETAAS	240.87	22.98	22	3	3	0	0
2020.20	ICP-MS	242.26	23.34	52	9	9	0	0
2020.21	ETAAS	88.48	12.23	23	3	3	0	0
2020.21	ICP-MS	93	5.9	51	9	9	0	0
2020.22	ETAAS	268.6	41.87	23	3	3	0	0
2020.22	ICP-MS	265	17.81	51	9	9	0	0
2020.23	ETAAS	206.7	20.89	21	3	3	0	0
2020.23	ICP-MS	215.67	18.25	55	9	8	1	0
2020.24	ETAAS	159.5	21.87	21	3	3	0	0
2020.24	ICP-MS	168.27	12.92	54	9	8	1	0



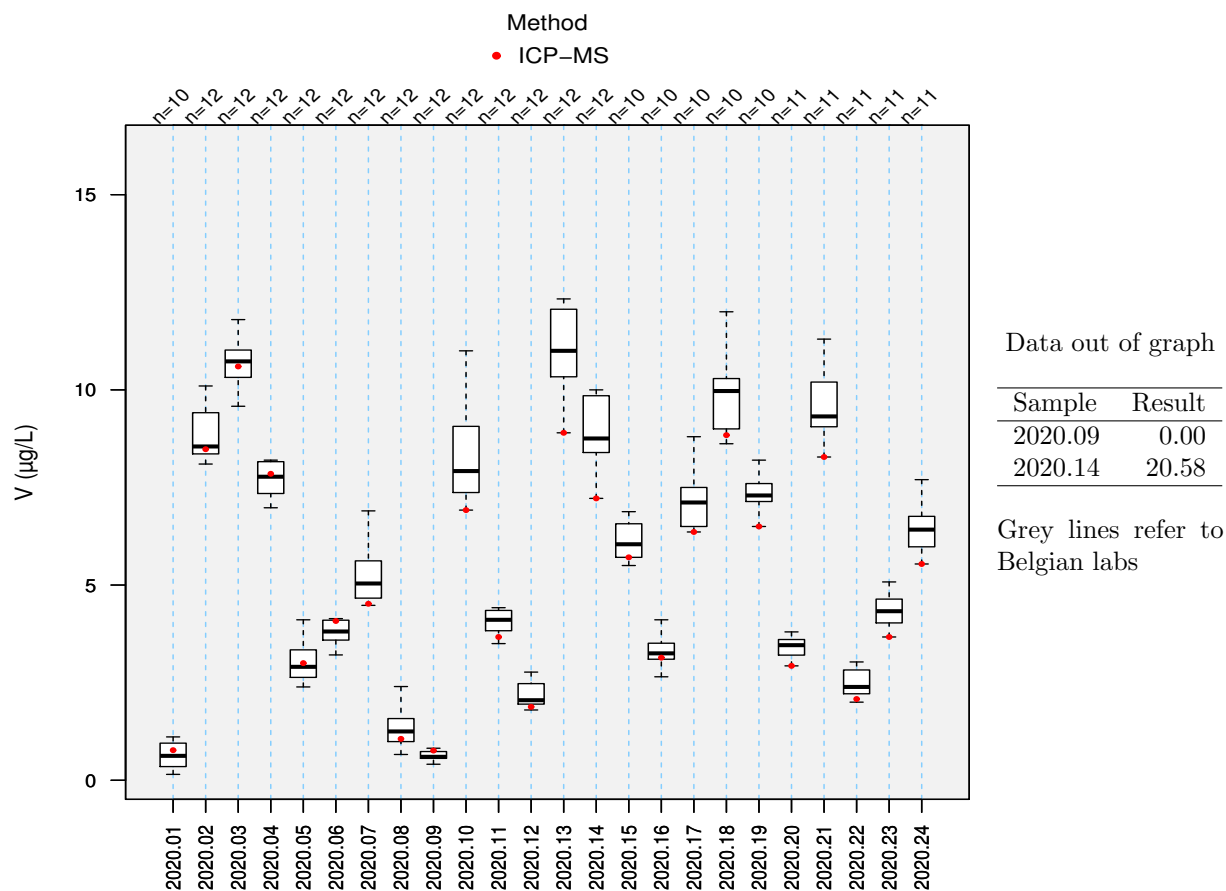
2.3.9 Tl

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	0.02	0.02	11	1	0	1	0
2020.02	ICP-MS	8.28	0.35	13	2	2	0	0
2020.03	ICP-MS	10.41	0.57	12	2	2	0	0
2020.04	ICP-MS	7.34	0.39	12	2	1	1	0
2020.05	ICP-MS	2.08	0.12	12	2	1	1	0
2020.06	ICP-MS	3.11	0.1	12	2	1	1	0
2020.07	ICP-MS	4.14	0.27	14	2	1	1	0
2020.08	ICP-MS	0.04	0.06	13	2	2	0	0
2020.09	ICP-MS	0.02	0.03	14	2	2	0	0
2020.10	ICP-MS	7.21	0.63	15	2	1	1	0
2020.11	ICP-MS	3.06	0.23	14	2	2	0	0
2020.12	ICP-MS	1.02	0.06	13	2	2	0	0
2020.13	ICP-MS	10.46	0.88	14	2	2	0	0
2020.14	ICP-MS	8.3	0.74	14	2	2	0	0
2020.15	ICP-MS	5.32	0.35	12	2	1	1	0
2020.16	ICP-MS	2.15	0.12	12	2	1	1	0
2020.17	ICP-MS	6.25	0.24	13	2	1	1	0
2020.18	ICP-MS	9.4	0.61	13	2	2	0	0
2020.19	ICP-MS	6.2	0.2	12	2	1	1	0
2020.20	ICP-MS	2.1	0.16	13	2	1	1	0
2020.21	ICP-MS	8.42	0.39	14	2	1	1	0
2020.22	ICP-MS	1.03	0.11	13	2	2	0	0
2020.23	ICP-MS	3.07	0.15	13	2	1	1	0
2020.24	ICP-MS	5.25	0.36	13	2	1	1	0



2.3.10 V

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	0.62	0.42	10	1	1	0	0
2020.02	ICP-MS	8.55	0.59	12	1	1	0	0
2020.03	ICP-MS	10.73	0.43	12	1	1	0	0
2020.04	ICP-MS	7.78	0.55	12	1	1	0	0
2020.05	ICP-MS	2.91	0.48	12	1	1	0	0
2020.06	ICP-MS	3.81	0.36	12	1	1	0	0
2020.07	ICP-MS	5.04	0.61	12	1	1	0	0
2020.08	ICP-MS	1.25	0.37	12	1	1	0	0
2020.09	ICP-MS	0.6	0.12	12	1	1	0	0
2020.10	ICP-MS	7.92	1.12	12	1	1	0	0
2020.11	ICP-MS	4.11	0.32	12	1	1	0	0
2020.12	ICP-MS	2.05	0.32	12	1	1	0	0
2020.13	ICP-MS	11	1.16	12	1	1	0	0
2020.14	ICP-MS	8.75	1.01	12	1	1	0	0
2020.15	ICP-MS	6.04	0.6	10	1	1	0	0
2020.16	ICP-MS	3.25	0.28	10	1	1	0	0
2020.17	ICP-MS	7.12	0.64	10	1	1	0	0
2020.18	ICP-MS	9.97	0.85	10	1	1	0	0
2020.19	ICP-MS	7.29	0.28	10	1	1	0	0
2020.20	ICP-MS	3.46	0.3	11	1	1	0	0
2020.21	ICP-MS	9.32	0.85	11	1	1	0	0
2020.22	ICP-MS	2.39	0.45	11	1	1	0	0
2020.23	ICP-MS	4.33	0.45	11	1	1	0	0
2020.24	ICP-MS	6.42	0.58	11	1	1	0	0



2.3.11 Zn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	Colorimetry	562.44	63.03	21	5	5	0	0
2020.01	ETAAS	601.68	77.57	5	1	0	0	1
2020.01	FAAS	580	70.79	47	12	12	0	0
2020.01	ICP-MS	588.6	63.32	54	10	10	0	0
2020.01	Others	880.94	0	1	1	0	0	1
2020.01	Global	588.6	66.87	133	29	28	1	0
2020.02	Colorimetry	1234.13	125.37	21	5	5	0	0
2020.02	ETAAS	1242.6	39.99	5	1	0	0	1
2020.02	FAAS	1203.45	102.37	48	12	12	0	0
2020.02	ICP-MS	1225.27	78.61	54	10	10	0	0
2020.02	Others	1221.02	0	1	1	0	0	1
2020.02	Global	1222.74	85.25	134	29	29	0	0
2020.03	Colorimetry	1016	127.5	21	5	5	0	0
2020.03	ETAAS	1092.18	48.48	5	1	0	0	1
2020.03	FAAS	1028.39	81.39	48	12	12	0	0
2020.03	ICP-MS	1034.9	52.7	56	10	10	0	0
2020.03	Others	1139.92	0	1	1	0	0	1
2020.03	Global	1032.99	74.69	136	29	29	0	0
2020.04	Colorimetry	1308	167.5	21	5	5	0	0
2020.04	ETAAS	1386.48	96.96	5	1	0	0	1
2020.04	FAAS	1301.46	106.67	47	12	12	0	0
2020.04	ICP-MS	1310.83	77.07	56	10	10	0	0
2020.04	Others	1340.05	0	1	1	0	0	1
2020.04	Global	1308	91.75	135	29	29	0	0
2020.05	Colorimetry	1740	213.32	21	5	5	0	0
2020.05	ETAAS	1700.4	211.02	5	1	0	0	1
2020.05	FAAS	1751.36	128.62	48	12	12	0	0
2020.05	ICP-MS	1782.54	77.92	52	9	9	0	0
2020.05	Others	1710.21	0	1	1	0	0	1
2020.05	Global	1765.9	116.34	132	28	28	0	0
2020.06	Colorimetry	1640	189.08	21	5	5	0	0
2020.06	ETAAS	1569.6	158.82	5	1	0	0	1
2020.06	FAAS	1650.04	139.69	48	12	12	0	0
2020.06	ICP-MS	1703.67	92.77	52	9	8	1	0
2020.06	Others	1701.05	0	1	1	0	0	1
2020.06	Global	1675.42	145.88	132	28	27	1	0
2020.07	Colorimetry	1510	160.57	23	5	5	0	0
2020.07	ETAAS	1558	46.78	7	1	0	1	0
2020.07	FAAS	1560	155.14	45	9	9	0	0
2020.07	ICP-MS	1576.14	103.38	55	10	9	1	0
2020.07	Others	1464.31	0	1	1	0	0	1
2020.07	Global	1567.8	132.32	135	26	25	1	0
2020.08	Colorimetry	1837.74	224.65	23	5	5	0	0
2020.08	ETAAS	1780	122.06	7	1	1	0	0
2020.08	FAAS	1919.49	163.86	45	9	8	1	0
2020.08	ICP-MS	1931	148.85	55	10	9	1	0
2020.08	Others	1797.19	0	1	1	0	0	1
2020.08	Global	1910	153.81	135	26	23	3	0
2020.09	Colorimetry	542.82	74.52	23	5	5	0	0
2020.09	ETAAS	568.98	89.56	7	1	1	0	0
2020.09	FAAS	574.76	86.82	46	9	9	0	0
2020.09	ICP-MS	563.18	56.78	54	10	8	2	0
2020.09	Others	988.85	0	1	1	0	0	1
2020.09	Global	568.98	69.59	135	26	23	3	0
2020.10	Colorimetry	1300	193.92	23	5	5	0	0
2020.10	ETAAS	1280	173.91	7	1	1	0	0
2020.10	FAAS	1310	124.8	46	9	9	0	0
2020.10	ICP-MS	1289.04	89.33	54	10	9	1	0
2020.10	Others	1428.34	0	1	1	0	0	1
2020.10	Global	1289.7	116.74	135	26	24	2	0

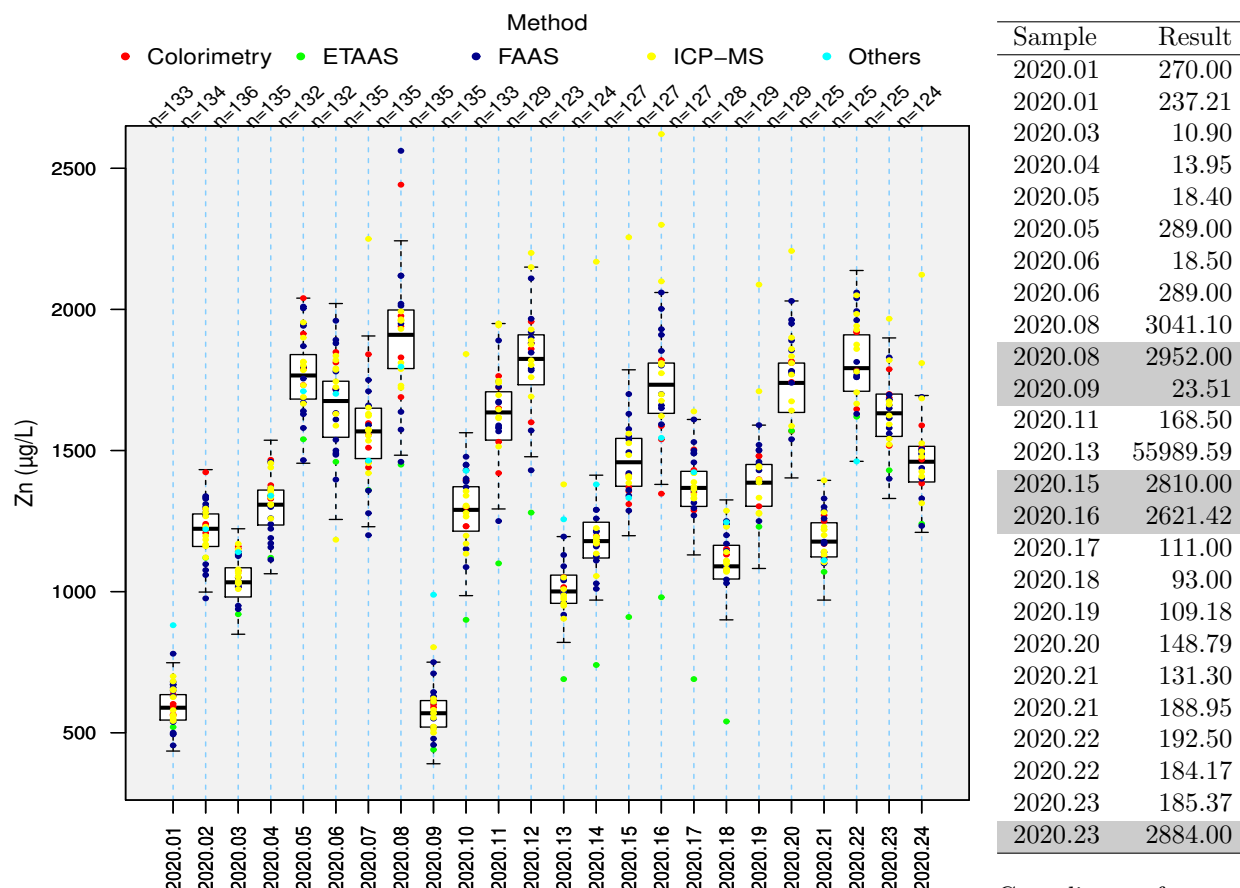
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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.11	Colorimetry	1546.72	156.54	22	5	5	0	0
2020.11	ETAAS	1563.06	142.4	7	1	0	1	0
2020.11	FAAS	1634.35	107.49	45	10	9	1	0
2020.11	ICP-MS	1672.93	95.05	54	9	9	0	0
2020.12	Colorimetry	1680.78	205.06	20	4	4	0	0
2020.12	ETAAS	1780	98.9	7	1	0	1	0
2020.12	FAAS	1830	113.06	43	10	9	1	0
2020.12	ICP-MS	1858.68	99.95	54	9	8	1	0
2020.13	Colorimetry	999.16	96.24	19	3	3	0	0
2020.13	ETAAS	993.96	204.58	6	1	1	0	0
2020.13	FAAS	1011.74	59.12	40	9	8	1	0
2020.13	ICP-MS	1000.31	77.84	52	9	8	1	0
2020.13	Others	1256.33	0	1	1	0	0	1
2020.13	Global	1000.62	74.13	123	23	20	3	0
2020.14	Colorimetry	1164.04	126.86	19	3	3	0	0
2020.14	ETAAS	1262.22	118.47	6	1	0	1	0
2020.14	FAAS	1177.2	82.77	41	10	10	0	0
2020.14	ICP-MS	1178.92	73.66	52	9	8	1	0
2020.14	Others	1379.94	0	1	1	0	0	1
2020.14	Global	1178.92	92.4	124	24	22	2	0
2020.15	Colorimetry	1373.4	103.78	21	4	4	0	0
2020.15	ETAAS	1612.11	314.95	4	1	0	0	1
2020.15	FAAS	1488.6	108.97	44	10	10	0	0
2020.15	ICP-MS	1458.42	94.89	53	9	7	2	0
2020.15	Others	1332.2	0	1	1	0	0	1
2020.15	Global	1458.42	125.7	127	25	22	3	0
2020.16	Colorimetry	1608.84	177.33	21	4	4	0	0
2020.16	ETAAS	1710.21	280.16	4	1	0	0	1
2020.16	FAAS	1750.78	143.26	44	10	10	0	0
2020.16	ICP-MS	1758	93.06	53	9	6	3	0
2020.16	Others	1544.75	0	1	1	0	0	1
2020.16	Global	1733.1	132.15	127	25	22	3	0
2020.17	Colorimetry	1362.7	191.5	20	4	4	0	0
2020.17	ETAAS	1315	150.15	7	1	0	1	0
2020.17	FAAS	1376.7	83.09	42	10	10	0	0
2020.17	ICP-MS	1370.53	61.27	52	9	8	1	0
2020.17	Others	1423.1	0	1	1	0	0	1
2020.17	Global	1367.51	92.11	127	25	24	1	0
2020.18	Colorimetry	1079.12	156.35	20	4	4	0	0
2020.18	ETAAS	1105.26	158.28	7	1	0	1	0
2020.18	FAAS	1090	81.98	43	10	10	0	0
2020.18	ICP-MS	1092.21	54.93	52	9	8	1	0
2020.18	Others	1245.87	0	1	1	0	0	1
2020.18	Global	1089.6	87.9	128	25	24	1	0
2020.19	Colorimetry	1386.5	124.84	20	4	4	0	0
2020.19	ETAAS	1366.86	103.49	7	1	1	0	0
2020.19	FAAS	1393.02	108.23	45	10	10	0	0
2020.19	ICP-MS	1370.13	78.76	52	9	7	2	0
2020.20	Colorimetry	1720.5	139.5	20	4	4	0	0
2020.20	ETAAS	1706.94	194.44	7	1	1	0	0
2020.20	FAAS	1760.57	174.06	45	10	10	0	0
2020.20	ICP-MS	1728.93	106.25	52	9	8	1	0
2020.21	Colorimetry	1123	148.25	19	4	4	0	0
2020.21	ETAAS	1275.3	168.84	6	1	1	0	0
2020.21	FAAS	1207.99	87.94	42	10	10	0	0
2020.21	ICP-MS	1168.78	74.82	52	9	8	1	0
2020.21	Others	1111.15	0	1	1	0	0	1
2020.21	Global	1177.2	89.7	125	25	25	0	0
2020.22	Colorimetry	1705	161.84	19	4	4	0	0
2020.22	ETAAS	1833.3	187.09	6	1	1	0	0
2020.22	FAAS	1819.06	142.77	42	10	10	0	0
2020.22	ICP-MS	1800.45	129.58	52	9	9	0	0

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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.22	Others	1461.69	0	1	1	0	0	1
2020.22	Global	1791.96	148.26	125	25	25	0	0
2020.23	Colorimetry	1650.7	140.6	17	4	4	0	0
2020.23	ETAAS	1635	54.63	5	1	0	0	1
2020.23	FAAS	1650	109.49	44	10	10	0	0
2020.23	ICP-MS	1622.89	90.01	54	9	7	2	0
2020.23	Global	1632	111.2	125	24	22	2	0
2020.24	Colorimetry	1468	106.66	17	4	4	0	0
2020.24	ETAAS	1471.5	47.59	5	1	0	0	1
2020.24	FAAS	1466.25	96.37	44	10	10	0	0
2020.24	ICP-MS	1451.88	81.94	53	9	7	2	0
2020.24	Global	1460.25	92.23	124	24	22	2	0

Data out of graph



Grey lines refer to Belgian labs

3 TRACE ELEMENTS IN BLOOD

3.1 PARTICIPATION

15 laboratories participated to the EQA for blood matrix.

Parameter	N labs	Recorded results	Expected number of results	percentage
As	4	96	96	100 %
Cd	11	242	264	91.67 %
Co	5	120	120	100 %
Cr	5	120	120	100 %
Hg	7	144	168	85.71 %
Mg	2	48	48	100 %
Mn	8	172	192	89.58 %
Pb	15	358	360	99.44 %
Se	3	72	72	100 %
Tl	5	120	120	100 %
Zn	2	48	48	100 %
Total		1540	1608	95.77

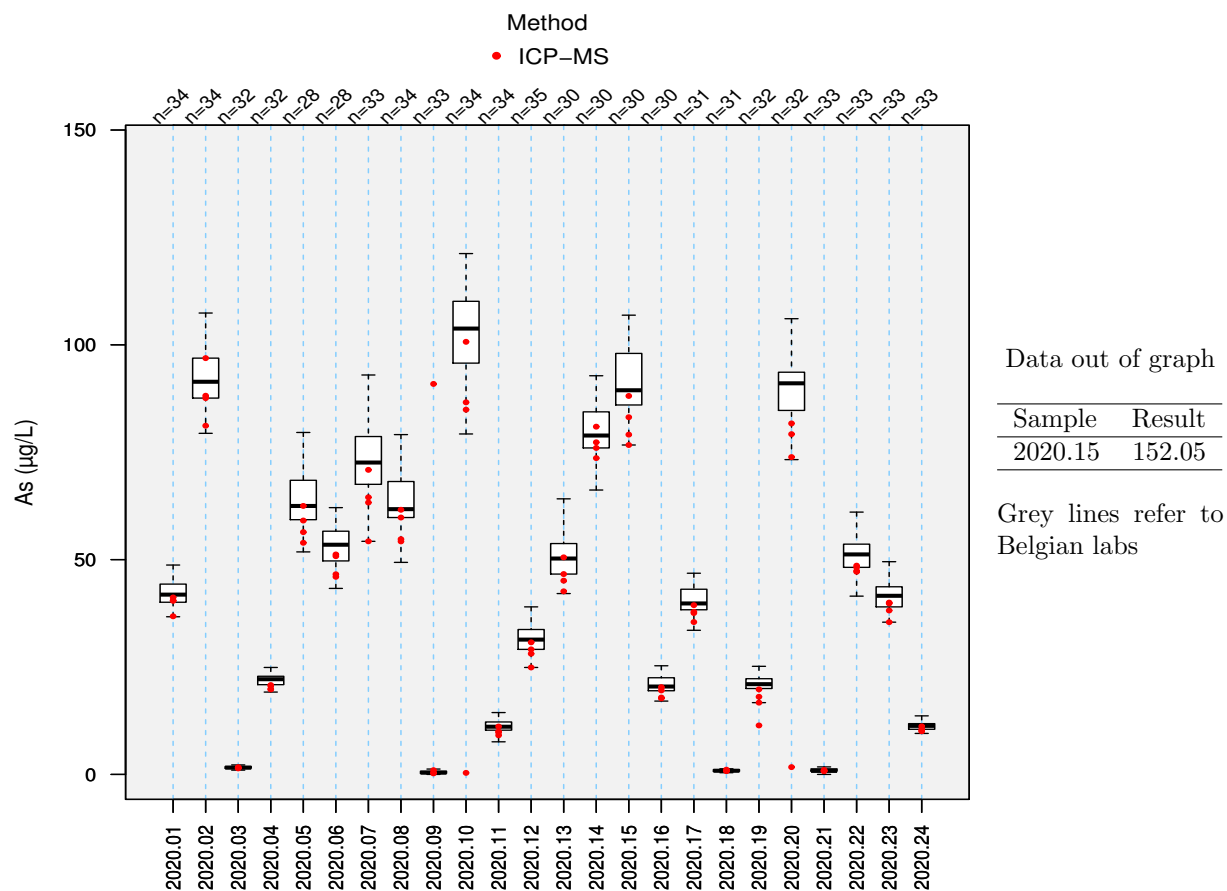
3.2 GLOBAL RESULTS

STAT	Element	Total number of results	Number of evaluated results	Number of Z citations	% citations
MA	As	96	96	6	6.25
MA	Cd	242	242	24	9.92
MA	Co	120	120	5	4.17
MA	Cr	120	120	8	6.67
MA	Hg	144	144	8	5.56
MA	Mg	48	24	0	0
MA+GA	Mg	48	48 (+24)	2 (+2)	4.17
MA	Mn	172	172	10	5.81
MA	Pb	358	334	30	8.98
MA+GA	Pb	358	358 (+24)	32 (+2)	8.94
MA	Se	72	72	1	1.39
MA	Tl	120	120	9	7.5
MA	Zn	48	48	0	0
Total	MA+GA	1540	1540	105	6.82
	MA	1540	1492	101	6.77

3.3 RESULTS PER ELEMENT

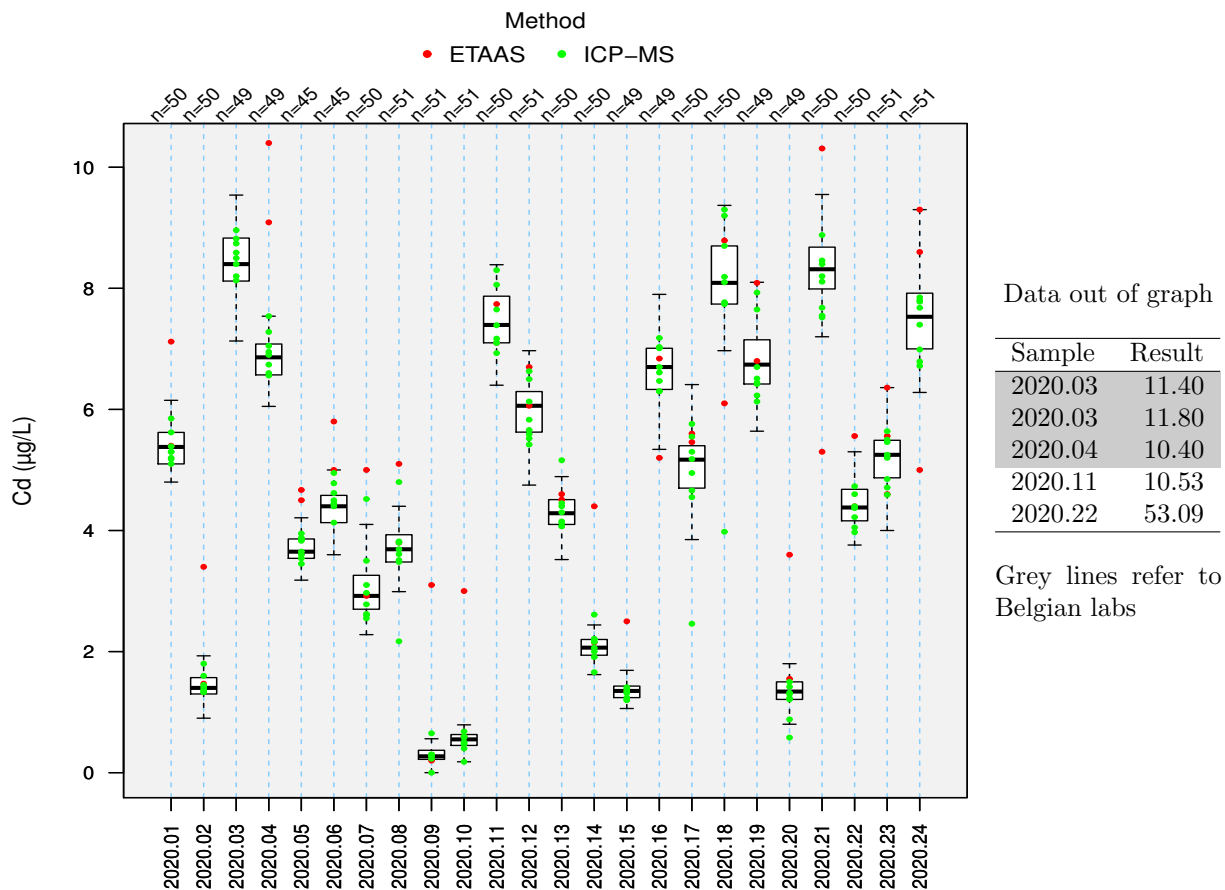
3.3.1 As

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	41.93	3.05	33	4	4	0	0
2020.02	ICP-MS	91.4	6.89	33	4	4	0	0
2020.03	ICP-MS	1.57	0.27	31	4	4	0	0
2020.04	ICP-MS	22.16	1.23	31	4	4	0	0
2020.05	ICP-MS	62.5	6.61	27	4	4	0	0
2020.06	ICP-MS	53.33	5.13	27	4	4	0	0
2020.07	ICP-MS	70.9	7.98	31	4	4	0	0
2020.08	ICP-MS	61.75	6.18	32	4	4	0	0
2020.09	ICP-MS	0.4	0.32	31	4	3	1	0
2020.10	ICP-MS	101.85	10.23	32	4	3	1	0
2020.11	ICP-MS	11.03	1.26	32	4	4	0	0
2020.12	ICP-MS	30.8	3.42	33	4	4	0	0
2020.13	ICP-MS	50.25	5.79	28	4	4	0	0
2020.14	ICP-MS	78.88	6.92	28	4	4	0	0
2020.15	ICP-MS	89.39	9.11	28	4	4	0	0
2020.16	ICP-MS	20.46	2.31	28	4	4	0	0
2020.17	ICP-MS	39.8	3.96	29	4	4	0	0
2020.18	ICP-MS	0.85	0.27	29	4	4	0	0
2020.19	ICP-MS	21.01	1.33	30	4	2	2	0
2020.20	ICP-MS	91.04	5.29	30	4	2	2	0
2020.21	ICP-MS	0.82	0.36	31	4	4	0	0
2020.22	ICP-MS	51.57	4.12	31	4	4	0	0
2020.23	ICP-MS	41.7	2.89	31	4	4	0	0
2020.24	ICP-MS	11.3	1.04	31	4	4	0	0



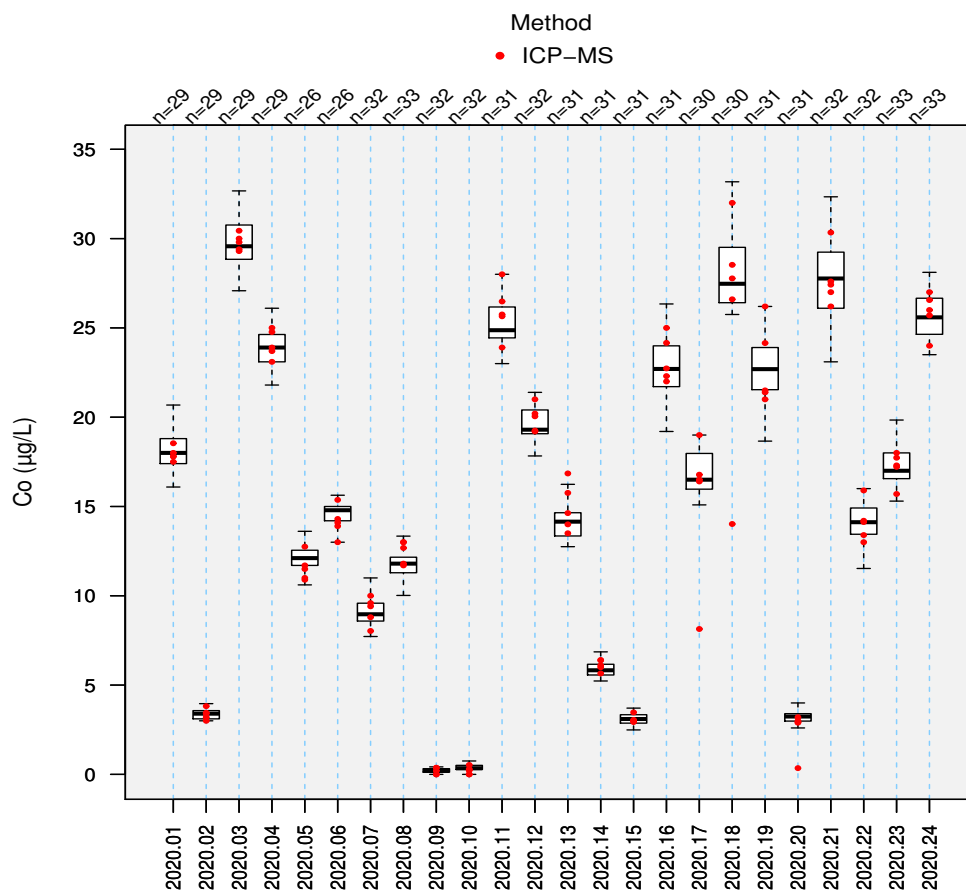
3.3.2 Cd

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	5.55	0.31	6	2	1	1	0
2020.01	ICP-MS	5.35	0.39	44	8	8	0	0
2020.02	ETAAS	1.41	0.41	6	2	1	1	0
2020.02	ICP-MS	1.4	0.2	44	8	8	0	0
2020.03	ETAAS	8.6	1.65	7	2	2	0	0
2020.03	ICP-MS	8.39	0.51	42	8	8	0	0
2020.04	ETAAS	7	1.35	7	2	2	0	0
2020.04	ICP-MS	6.86	0.37	42	8	8	0	0
2020.05	ETAAS	3.3	0.6	7	2	2	0	0
2020.05	ICP-MS	3.67	0.23	38	8	8	0	0
2020.06	ETAAS	4.3	0.57	7	2	2	0	0
2020.06	ICP-MS	4.4	0.21	38	8	8	0	0
2020.07	ETAAS	2.97	0.49	10	2	1	1	0
2020.07	ICP-MS	2.92	0.32	40	8	7	1	0
2020.08	ETAAS	3.7	0.23	10	2	1	1	0
2020.08	ICP-MS	3.66	0.37	41	8	6	2	0
2020.09	ETAAS	0.22	0.26	10	2	1	1	0
2020.09	ICP-MS	0.27	0.09	41	8	7	1	0
2020.10	ETAAS	0.52	0.17	10	2	1	1	0
2020.10	ICP-MS	0.55	0.11	41	8	7	1	0
2020.11	ETAAS	7.74	0.43	9	2	2	0	0
2020.11	ICP-MS	7.34	0.5	41	8	8	0	0
2020.12	ETAAS	6.18	0.47	9	2	2	0	0
2020.12	ICP-MS	5.88	0.54	42	8	8	0	0
2020.13	ETAAS	4.55	0.45	10	2	2	0	0
2020.13	ICP-MS	4.28	0.3	40	8	8	0	0
2020.14	ETAAS	2.17	0.21	10	2	1	1	0
2020.14	ICP-MS	2.04	0.18	40	8	7	1	0
2020.15	ETAAS	1.34	0.2	8	2	1	1	0
2020.15	ICP-MS	1.35	0.13	41	8	8	0	0
2020.16	ETAAS	6.78	0.36	8	2	1	1	0
2020.16	ICP-MS	6.63	0.53	41	8	8	0	0
2020.17	ETAAS	5.17	0.27	11	2	2	0	0
2020.17	ICP-MS	5.17	0.56	39	8	7	1	0
2020.18	ETAAS	7.98	0.48	11	2	1	1	0
2020.18	ICP-MS	8.1	0.72	39	8	7	1	0
2020.19	ETAAS	6.8	0.17	9	2	1	1	0
2020.19	ICP-MS	6.73	0.57	40	8	8	0	0
2020.20	ETAAS	1.55	0.18	9	2	1	1	0
2020.20	ICP-MS	1.31	0.19	40	8	7	1	0
2020.21	ETAAS	8.25	0.49	10	2	0	2	0
2020.21	ICP-MS	8.32	0.52	40	8	8	0	0
2020.22	ETAAS	4.34	0.14	10	2	1	1	0
2020.22	ICP-MS	4.39	0.39	40	8	8	0	0
2020.23	ETAAS	5.07	0.47	10	3	3	0	0
2020.23	ICP-MS	5.25	0.46	41	8	8	0	0
2020.24	ETAAS	7.57	1.13	10	3	3	0	0
2020.24	ICP-MS	7.49	0.55	41	8	8	0	0



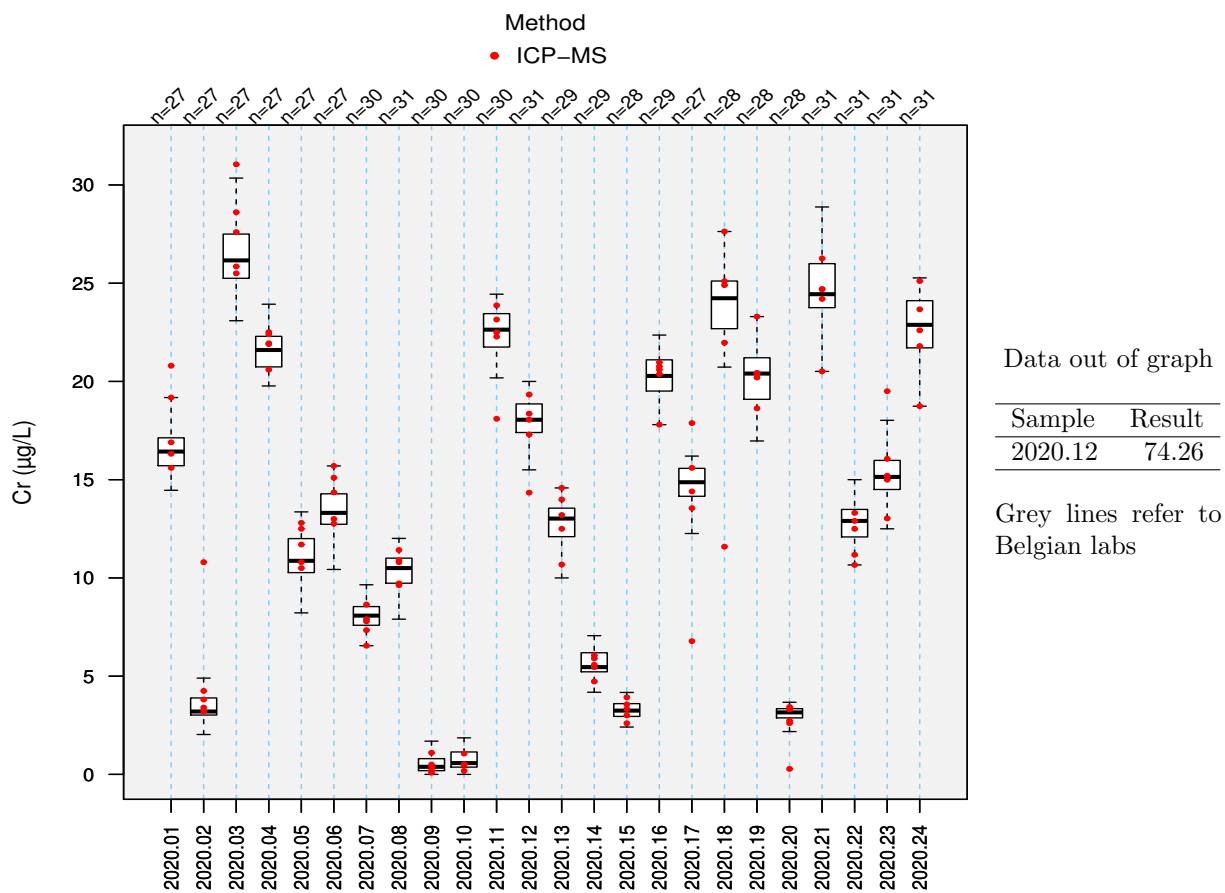
3.3.3 Co

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	18.09	0.99	28	5	5	0	0
2020.02	ICP-MS	3.42	0.34	28	5	5	0	0
2020.03	ICP-MS	29.63	1.42	28	5	5	0	0
2020.04	ICP-MS	23.91	1.1	28	5	5	0	0
2020.05	ICP-MS	12.08	0.58	25	5	5	0	0
2020.06	ICP-MS	14.85	0.59	25	5	4	1	0
2020.07	ICP-MS	8.98	0.72	30	5	5	0	0
2020.08	ICP-MS	11.8	0.46	31	5	5	0	0
2020.09	ICP-MS	0.2	0.12	30	5	5	0	0
2020.10	ICP-MS	0.33	0.14	30	5	5	0	0
2020.11	ICP-MS	24.97	1.3	29	5	5	0	0
2020.12	ICP-MS	19.45	0.94	30	5	5	0	0
2020.13	ICP-MS	14.15	0.87	29	5	4	1	0
2020.14	ICP-MS	5.93	0.43	29	5	5	0	0
2020.15	ICP-MS	3.1	0.3	29	5	5	0	0
2020.16	ICP-MS	22.7	1.6	29	5	5	0	0
2020.17	ICP-MS	16.5	1.47	28	5	4	1	0
2020.18	ICP-MS	27.69	2.25	28	5	4	1	0
2020.19	ICP-MS	22.69	1.72	29	5	5	0	0
2020.20	ICP-MS	3.24	0.28	29	5	4	1	0
2020.21	ICP-MS	27.95	1.92	30	5	5	0	0
2020.22	ICP-MS	14.16	0.95	30	5	5	0	0
2020.23	ICP-MS	17.22	1	31	5	5	0	0
2020.24	ICP-MS	25.69	1.46	31	5	5	0	0



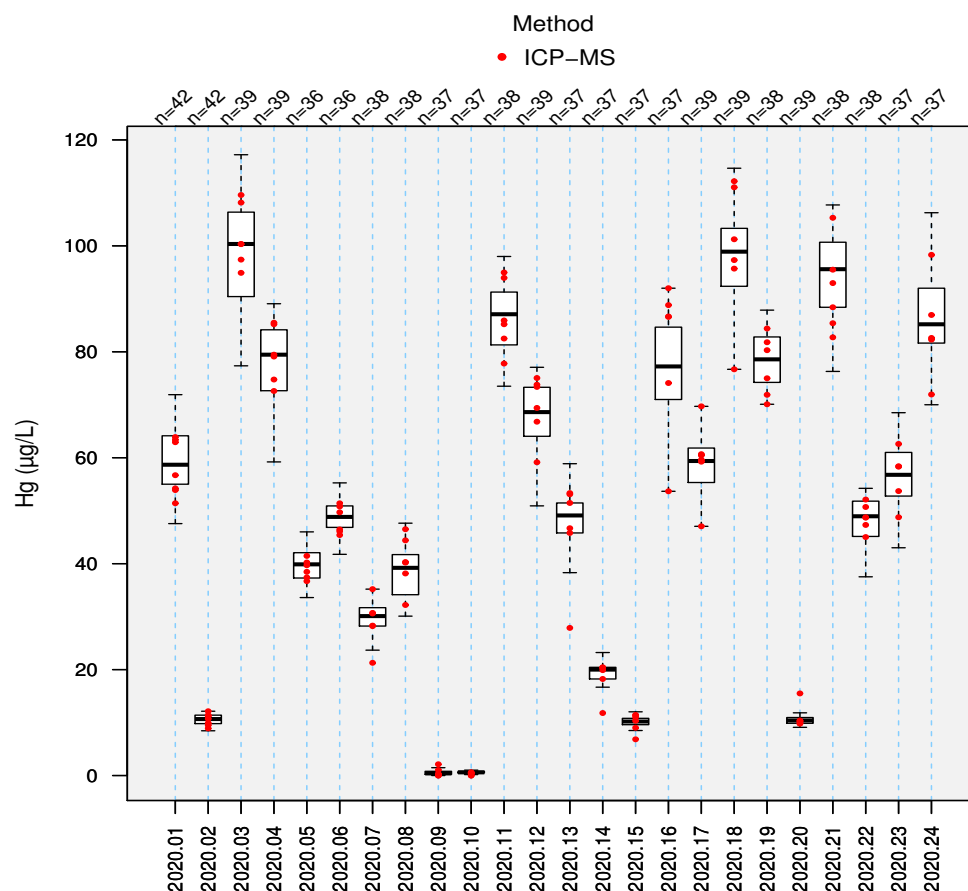
3.3.4 Cr

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	16.41	1.26	24	5	4	1	0
2020.02	ICP-MS	3.21	0.69	24	5	4	1	0
2020.03	ICP-MS	26.73	1.75	23	5	5	0	0
2020.04	ICP-MS	21.6	1.16	23	5	5	0	0
2020.05	ICP-MS	10.89	1.42	22	5	5	0	0
2020.06	ICP-MS	13.64	1.57	22	5	5	0	0
2020.07	ICP-MS	8.16	0.72	26	5	5	0	0
2020.08	ICP-MS	10.6	1.01	27	5	5	0	0
2020.09	ICP-MS	0.38	0.44	26	5	5	0	0
2020.10	ICP-MS	0.57	0.53	26	5	5	0	0
2020.11	ICP-MS	22.64	1.19	26	5	4	1	0
2020.12	ICP-MS	18.05	1.01	27	5	4	1	0
2020.13	ICP-MS	12.95	0.95	25	5	5	0	0
2020.14	ICP-MS	5.46	0.69	25	5	5	0	0
2020.15	ICP-MS	3.25	0.47	24	5	5	0	0
2020.16	ICP-MS	20.37	1.1	25	5	5	0	0
2020.17	ICP-MS	14.97	1.02	23	5	4	1	0
2020.18	ICP-MS	24.47	1.57	24	5	4	1	0
2020.19	ICP-MS	20.43	1.44	24	5	5	0	0
2020.20	ICP-MS	3.19	0.32	24	5	4	1	0
2020.21	ICP-MS	24.7	1.72	27	5	5	0	0
2020.22	ICP-MS	13.12	1.02	27	5	5	0	0
2020.23	ICP-MS	15.2	1.39	27	5	4	1	0
2020.24	ICP-MS	22.88	1.85	27	5	5	0	0



3.3.5 Hg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	59.38	6.78	41	7	7	0	0
2020.02	ICP-MS	10.63	1.19	41	7	7	0	0
2020.03	ICP-MS	100.92	11.26	38	6	6	0	0
2020.04	ICP-MS	79.62	8.77	38	6	6	0	0
2020.05	ICP-MS	39.87	3.47	36	6	6	0	0
2020.06	ICP-MS	48.83	2.92	36	6	6	0	0
2020.07	ICP-MS	30.5	2.48	35	6	5	1	0
2020.08	ICP-MS	39.8	5.02	35	6	6	0	0
2020.09	ICP-MS	0.4	0.29	34	6	5	1	0
2020.10	ICP-MS	0.6	0.18	34	6	4	2	0
2020.11	ICP-MS	88.77	7.33	36	6	6	0	0
2020.12	ICP-MS	69.4	6.87	37	6	6	0	0
2020.13	ICP-MS	48.97	4.19	34	6	5	1	0
2020.14	ICP-MS	20.02	1.55	34	6	5	1	0
2020.15	ICP-MS	10.1	1	34	6	5	1	0
2020.16	ICP-MS	77.12	10.17	34	6	6	0	0
2020.17	ICP-MS	59.6	4.82	35	6	6	0	0
2020.18	ICP-MS	98.9	8.11	35	6	6	0	0
2020.19	ICP-MS	79.04	6.02	35	6	6	0	0
2020.20	ICP-MS	10.39	0.72	35	6	5	1	0
2020.21	ICP-MS	95.59	8.61	34	6	6	0	0
2020.22	ICP-MS	48.72	4.7	34	6	6	0	0
2020.23	ICP-MS	58.14	5.86	34	5	5	0	0
2020.24	ICP-MS	86.03	7.73	34	5	5	0	0

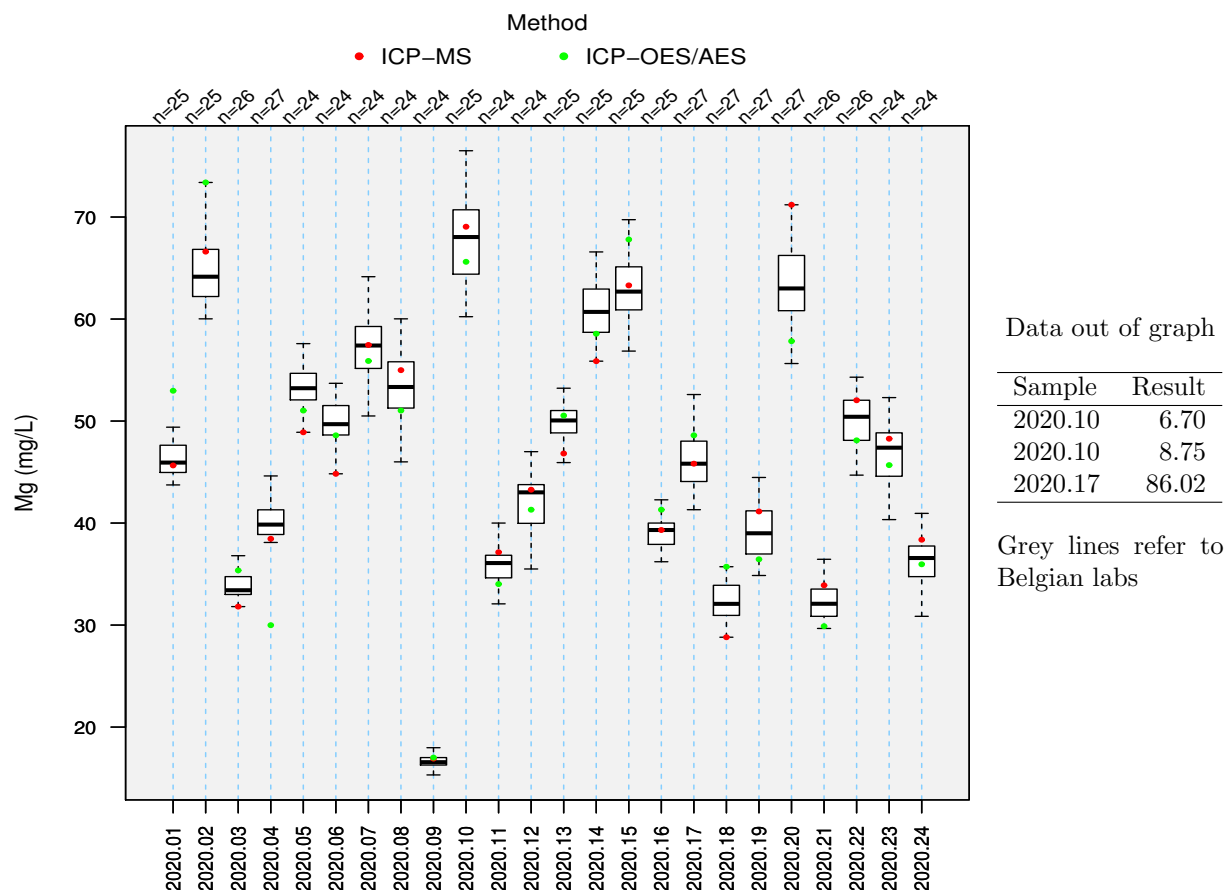


3.3.6 Mg

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	46.9	2.49	15	1	1	0	0
2020.01	ICP-OES/AES	52.97	0	1	1	0	0	1
2020.01	Global	45.93	1.98	25	2	1	1	0
2020.02	ICP-MS	65.61	3.25	15	1	1	0	0
2020.02	ICP-OES/AES	73.39	0	1	1	0	0	1
2020.02	Global	64.15	3.42	25	2	2	0	0
2020.03	ICP-MS	33.29	0.93	17	1	1	0	0
2020.03	ICP-OES/AES	35.36	0	1	1	0	0	1
2020.03	Global	33.41	1.23	26	2	2	0	0
2020.04	ICP-MS	40.58	1.8	17	1	1	0	0
2020.04	ICP-OES/AES	29.99	0	1	1	0	0	1
2020.04	Global	39.85	1.79	27	2	1	1	0
2020.05	ICP-MS	53.46	2.56	15	1	1	0	0
2020.05	ICP-OES/AES	51.03	0	1	1	0	0	1
2020.05	Global	53.22	1.87	24	2	2	0	0
2020.06	ICP-MS	49.82	2.43	15	1	1	0	0
2020.06	ICP-OES/AES	48.6	0	1	1	0	0	1
2020.06	Global	49.7	2.13	24	2	2	0	0
2020.07	ICP-MS	57.53	1.86	14	1	1	0	0
2020.07	ICP-OES/AES	57.95	1.53	2	1	0	0	1
2020.07	Global	57.41	2.86	24	2	2	0	0
2020.08	ICP-MS	53.7	2.61	14	1	1	0	0
2020.08	ICP-OES/AES	53.95	2.16	2	1	0	0	1
2020.08	Global	53.34	2.97	24	2	2	0	0
2020.09	ICP-MS	16.52	0.36	14	1	1	0	0
2020.09	ICP-OES/AES	17.13	0.09	2	1	0	0	1
2020.09	Global	16.56	0.54	24	2	2	0	0
2020.10	ICP-MS	69.74	4.14	15	1	1	0	0
2020.10	ICP-OES/AES	68.28	1.98	2	1	0	0	1
2020.10	Global	68.04	4.68	25	2	2	0	0
2020.11	ICP-MS	36.2	1.46	14	1	1	0	0
2020.11	ICP-OES/AES	35.6	1.17	2	1	0	0	1
2020.11	Global	36.08	1.54	24	2	2	0	0
2020.12	ICP-MS	43.01	2.66	14	1	1	0	0
2020.12	ICP-OES/AES	42.64	0.99	2	1	0	0	1
2020.12	Global	43.01	2.67	24	2	2	0	0
2020.13	ICP-MS	50.06	1.9	15	1	1	0	0
2020.13	ICP-OES/AES	50.05	0.36	2	1	0	0	1
2020.13	Global	50.06	1.62	25	2	2	0	0
2020.14	ICP-MS	61.24	3.49	15	1	1	0	0
2020.14	ICP-OES/AES	59.29	0.54	2	1	0	0	1
2020.14	Global	60.7	3.14	25	2	2	0	0
2020.15	ICP-MS	62.69	3.19	15	1	1	0	0
2020.15	ICP-OES/AES	66.46	0.99	2	1	0	0	1
2020.15	Global	62.69	3.13	25	2	2	0	0
2020.16	ICP-MS	39.12	1.58	15	1	1	0	0
2020.16	ICP-OES/AES	40.46	0.63	2	1	0	0	1
2020.16	Global	39.32	1.55	25	2	2	0	0
2020.17	ICP-MS	45.63	2.42	16	1	1	0	0
2020.17	ICP-OES/AES	47.02	1.17	2	1	0	0	1
2020.17	Global	45.82	2.93	27	2	2	0	0
2020.18	ICP-MS	31.84	1.95	16	1	1	0	0
2020.18	ICP-OES/AES	33.41	1.71	2	1	0	0	1
2020.18	Global	32.08	2.19	27	2	2	0	0
2020.19	ICP-MS	39.55	3.05	16	1	1	0	0
2020.19	ICP-OES/AES	37.42	0.72	2	1	0	0	1
2020.19	Global	39	3.14	27	2	2	0	0
2020.20	ICP-MS	64.03	4.89	16	1	1	0	0
2020.20	ICP-OES/AES	60.26	1.8	2	1	0	0	1

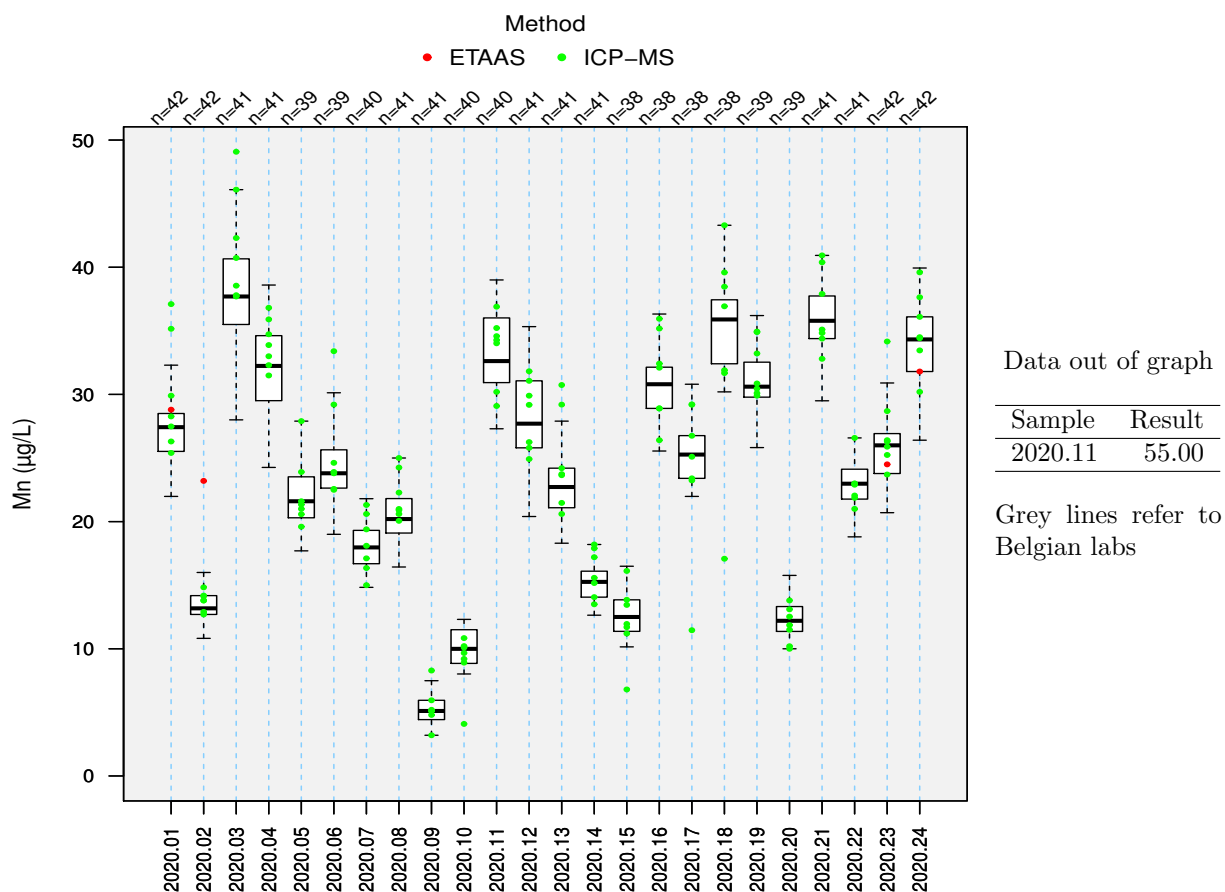
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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.20	Global	63	4.01	27	2	2	0	0
2020.21	ICP-MS	32.41	1.75	16	1	1	0	0
2020.21	ICP-OES/AES	30.74	0.63	2	1	0	0	1
2020.21	Global	32.09	1.93	26	2	2	0	0
2020.22	ICP-MS	51.03	2.53	16	1	1	0	0
2020.22	ICP-OES/AES	48.84	0.54	2	1	0	0	1
2020.22	Global	50.42	2.65	26	2	2	0	0
2020.23	ICP-MS	48.11	2.07	15	1	1	0	0
2020.23	ICP-OES/AES	46.05	0.27	2	1	0	0	1
2020.23	Global	47.39	2.75	24	2	2	0	0
2020.24	ICP-MS	36.94	1.88	15	1	1	0	0
2020.24	ICP-OES/AES	35.84	0.09	2	1	0	0	1
2020.24	Global	36.58	2.12	24	2	2	0	0



3.3.7 Mn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	26.7	3.13	7	1	1	0	0
2020.01	ICP-MS	27.43	1.83	35	7	5	2	0
2020.02	ETAAS	12.53	1.11	7	1	0	1	0
2020.02	ICP-MS	13.29	1.08	35	7	7	0	0
2020.03	ICP-MS	37.68	3.83	35	7	7	0	0
2020.04	ICP-MS	32.19	3.31	35	7	7	0	0
2020.05	ICP-MS	21.34	2.74	33	7	7	0	0
2020.06	ICP-MS	23.78	2.28	33	7	6	1	0
2020.07	ICP-MS	18.07	2.07	34	7	7	0	0
2020.08	ICP-MS	20.2	2.19	35	7	7	0	0
2020.09	ICP-MS	5.15	1.09	35	7	7	0	0
2020.10	ICP-MS	10.1	1.67	35	7	6	1	0
2020.11	ICP-MS	32.51	3.05	34	7	7	0	0
2020.12	ICP-MS	27.7	3.24	35	7	7	0	0
2020.13	ICP-MS	22.75	2.2	35	7	6	1	0
2020.14	ICP-MS	15.27	1.34	35	7	7	0	0
2020.15	ICP-MS	12.56	1.75	33	7	6	1	0
2020.16	ICP-MS	30.84	2.61	33	7	7	0	0
2020.17	ICP-MS	25.63	2.46	32	7	6	1	0
2020.18	ICP-MS	35.88	3.86	32	7	6	1	0
2020.19	ICP-MS	30.61	1.7	33	7	7	0	0
2020.20	ICP-MS	12.36	1.72	33	7	7	0	0
2020.21	ICP-MS	35.67	2.18	34	7	7	0	0
2020.22	ICP-MS	22.86	1.6	34	7	7	0	0
2020.23	ETAAS	24.5	2.59	7	1	1	0	0
2020.23	ICP-MS	26.3	2	35	7	6	1	0
2020.24	ETAAS	32.4	2.41	7	1	1	0	0
2020.24	ICP-MS	34.5	3.08	35	7	7	0	0

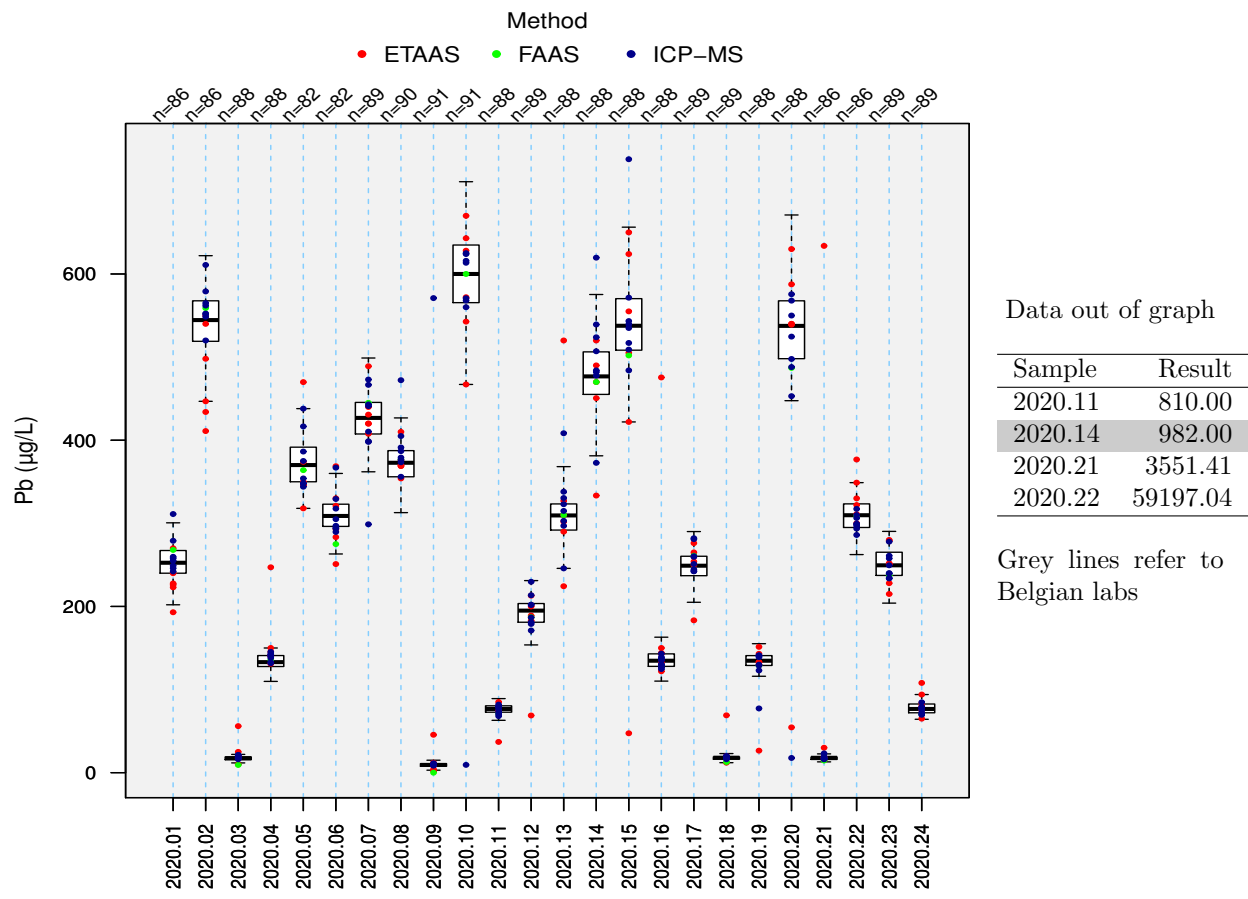


3.3.8 Pb

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ETAAS	246.57	19.2	29	6	6	0	0
2020.01	FAAS	268	0	1	1	0	0	1
2020.01	ICP-MS	253.17	17.78	56	8	7	1	0
2020.01	Global	252.56	19.91	86	15	15	0	0
2020.02	ETAAS	532.5	33.36	29	6	5	1	0
2020.02	FAAS	559	0	1	1	0	0	1
2020.02	ICP-MS	551.58	40.97	56	8	8	0	0
2020.02	Global	544.55	35.42	86	15	13	2	0
2020.03	ETAAS	17.27	4.98	32	6	5	1	0
2020.03	FAAS	12.95	2.71	2	1	0	0	1
2020.03	ICP-MS	17.51	1.53	54	8	8	0	0
2020.03	Global	17.45	2.44	88	15	11	4	0
2020.04	ETAAS	134.68	9.91	32	6	5	1	0
2020.04	FAAS	130.35	4.19	2	1	0	0	1
2020.04	ICP-MS	132.61	10.56	54	8	8	0	0
2020.04	Global	133	9.67	88	15	14	1	0
2020.05	ETAAS	374	34.77	31	6	6	0	0
2020.05	FAAS	377.81	10.23	2	1	0	0	1
2020.05	ICP-MS	368.26	26.17	49	8	8	0	0
2020.05	Global	370.11	30.1	82	15	14	1	0
2020.06	ETAAS	315	26.52	31	6	6	0	0
2020.06	FAAS	300.15	18.64	2	1	0	0	1
2020.06	ICP-MS	308.73	18.24	49	8	7	1	0
2020.06	Global	308.87	19.64	82	15	14	1	0
2020.07	ETAAS	421	28.01	35	6	6	0	0
2020.07	FAAS	438.5	17.98	4	1	0	0	1
2020.07	ICP-MS	432.53	25.2	48	8	7	1	0
2020.07	Global	426.83	28.15	89	15	14	1	0
2020.08	ETAAS	369	25.76	35	6	6	0	0
2020.08	FAAS	378	12.25	4	1	0	0	1
2020.08	ICP-MS	376.3	21.09	49	8	7	1	0
2020.08	Global	372.87	23.06	90	15	14	1	0
2020.09	ETAAS	8.8	7.4	36	6	5	1	0
2020.09	FAAS	0	2.31	3	1	0	0	1
2020.09	ICP-MS	9.63	1.53	50	8	7	1	0
2020.09	Global	9.32	2.35	91	15	11	4	0
2020.10	ETAAS	596.73	53	36	6	6	0	0
2020.10	FAAS	600	29.95	3	1	0	0	1
2020.10	ICP-MS	611.04	53.98	50	8	7	1	0
2020.10	Global	600	51.4	91	15	14	1	0
2020.11	ETAAS	77.9	6.48	33	5	4	1	0
2020.11	FAAS	75.85	10.77	4	1	0	0	1
2020.11	ICP-MS	75.94	5.13	50	8	8	0	0
2020.11	Global	76.66	5.55	88	14	13	1	0
2020.12	ETAAS	198.91	19.62	33	5	4	1	0
2020.12	FAAS	201.25	24.79	4	1	0	0	1
2020.12	ICP-MS	191.1	16.28	51	8	8	0	0
2020.12	Global	194.98	16.68	89	14	13	1	0
2020.13	ETAAS	308.75	20.85	34	6	4	2	0
2020.13	FAAS	310	31.49	3	1	0	0	1
2020.13	ICP-MS	309	22.92	49	8	7	1	0
2020.13	Global	309.5	23.18	88	15	12	3	0
2020.14	ETAAS	475.23	37.83	34	6	4	2	0
2020.14	FAAS	470	36.86	3	1	0	0	1
2020.14	ICP-MS	477.68	36.86	49	8	7	1	0
2020.14	Global	476.78	37.4	88	15	12	3	0
2020.15	ETAAS	555.15	51.38	30	6	5	1	0
2020.15	FAAS	514.14	27.09	4	1	0	0	1
2020.15	ICP-MS	532.71	33.5	52	8	7	1	0
2020.15	Global	537.68	45.51	88	15	13	2	0

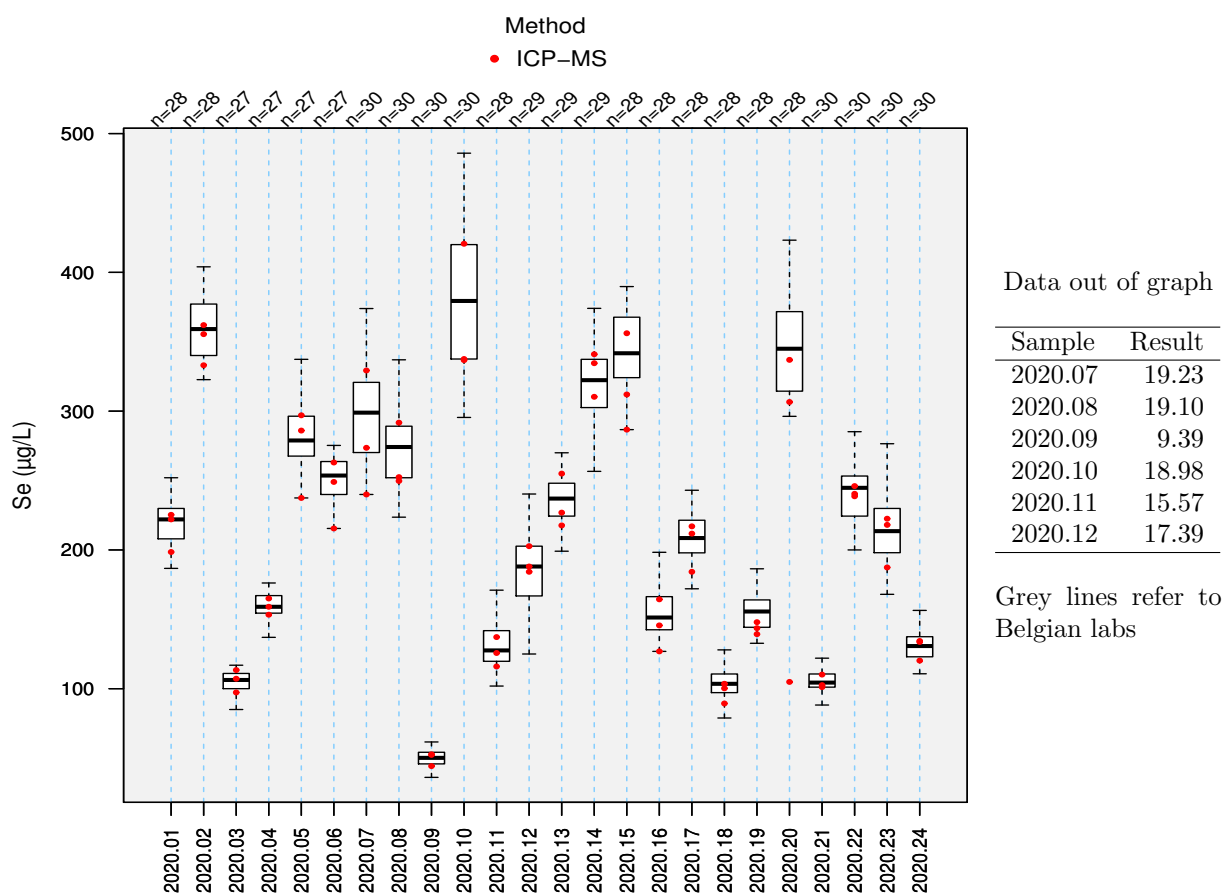
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Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.16	ETAAS	141.47	7.92	30	6	5	1	0
2020.16	FAAS	128.4	6.04	4	1	0	0	1
2020.16	ICP-MS	131.5	9.22	52	8	8	0	0
2020.16	Global	134.68	11.11	88	15	14	1	0
2020.17	ETAAS	252	19.87	33	6	5	1	0
2020.17	FAAS	252.78	19.94	3	1	0	0	1
2020.17	ICP-MS	246	15.94	52	8	8	0	0
2020.17	Global	249	17.34	89	15	14	1	0
2020.18	ETAAS	17	3.93	33	6	5	1	0
2020.18	FAAS	6.22	4.74	3	1	0	0	1
2020.18	ICP-MS	18.3	1.76	52	8	8	0	0
2020.18	Global	18	2.08	89	15	14	1	0
2020.19	ETAAS	134.68	9.66	30	6	5	1	0
2020.19	FAAS	132.88	11.57	4	1	0	0	1
2020.19	ICP-MS	134.34	7.89	52	8	7	1	0
2020.19	Global	134.68	8.77	88	15	13	2	0
2020.20	ETAAS	538.3	48.81	30	6	5	1	0
2020.20	FAAS	512.25	46.89	4	1	0	0	1
2020.20	ICP-MS	535	49.25	52	8	7	1	0
2020.20	Global	537.55	51.56	88	15	13	2	0
2020.21	ETAAS	17.62	4.43	31	6	5	1	0
2020.21	FAAS	10.36	5.41	3	1	0	0	1
2020.21	ICP-MS	18.23	1.53	50	8	7	1	0
2020.21	Global	17.9	2.1	86	15	13	2	0
2020.22	ETAAS	312	18.85	31	6	5	1	0
2020.22	FAAS	309	4.61	3	1	0	0	1
2020.22	ICP-MS	307.98	25.1	50	8	8	0	0
2020.22	Global	309.75	20.78	86	15	14	1	0
2020.23	ETAAS	252.5	22.24	29	6	6	0	0
2020.23	FAAS	244.01	3.87	4	1	0	0	1
2020.23	ICP-MS	249.37	19.85	54	8	8	0	0
2020.23	Global	249.48	20.7	89	15	15	0	0
2020.24	ETAAS	81.6	9.27	29	6	6	0	0
2020.24	FAAS	71.41	3.82	4	1	0	0	1
2020.24	ICP-MS	75.82	6.26	54	8	8	0	0
2020.24	Global	76.66	7.81	89	15	14	1	0



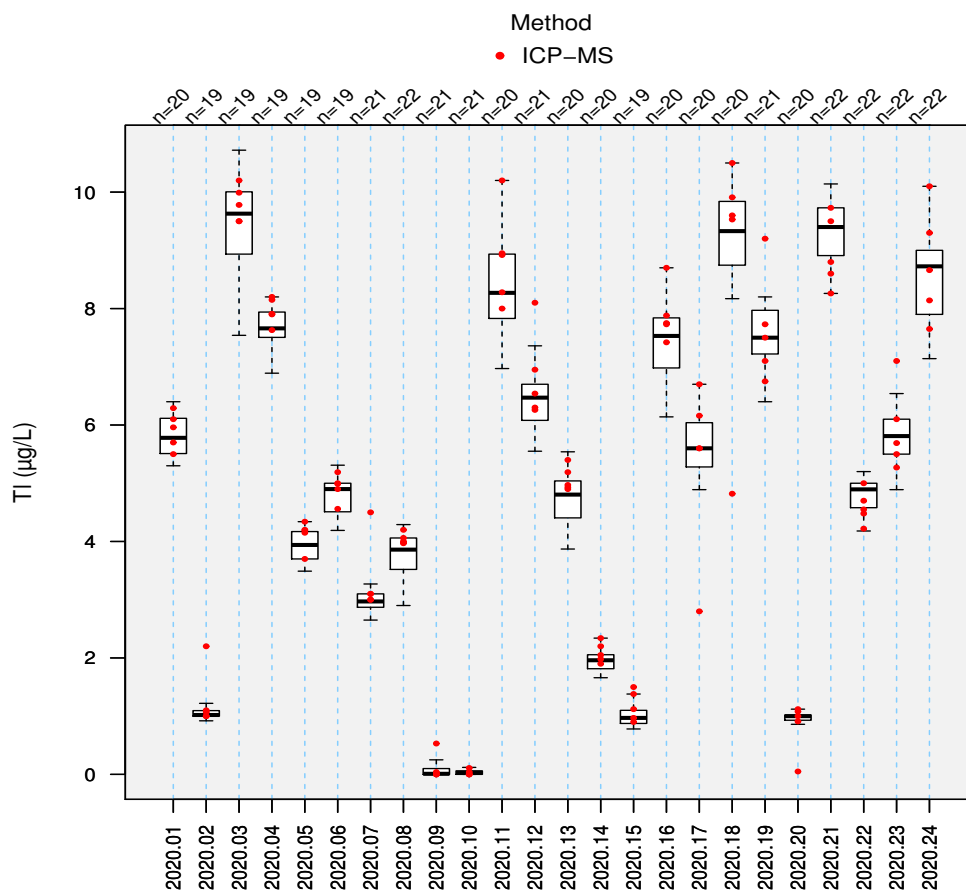
3.3.9 Se

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	222	15.96	26	3	3	0	0
2020.02	ICP-MS	363	28.04	26	3	3	0	0
2020.03	ICP-MS	106.3	7.86	25	3	3	0	0
2020.04	ICP-MS	161	9.37	25	3	3	0	0
2020.05	ICP-MS	281.24	20.47	25	3	3	0	0
2020.06	ICP-MS	258	17.4	25	3	3	0	0
2020.07	ICP-MS	302	39.79	27	3	3	0	0
2020.08	ICP-MS	278.08	26.34	27	3	3	0	0
2020.09	ICP-MS	50.56	6.03	27	3	3	0	0
2020.10	ICP-MS	395.79	58.99	27	3	3	0	0
2020.11	ICP-MS	127.94	15.31	26	3	3	0	0
2020.12	ICP-MS	188.05	26.71	27	3	3	0	0
2020.13	ICP-MS	236.19	20.2	26	3	3	0	0
2020.14	ICP-MS	325.39	27.32	26	3	3	0	0
2020.15	ICP-MS	346.64	33.38	25	3	3	0	0
2020.16	ICP-MS	150.1	18.74	25	3	3	0	0
2020.17	ICP-MS	208.56	18.08	26	3	3	0	0
2020.18	ICP-MS	103.52	10.13	26	3	3	0	0
2020.19	ICP-MS	156.86	15.61	26	3	3	0	0
2020.20	ICP-MS	353.55	40.76	26	3	2	1	0
2020.21	ICP-MS	104.8	7.01	27	3	3	0	0
2020.22	ICP-MS	245.69	18.58	27	3	3	0	0
2020.23	ICP-MS	219.03	24.03	28	3	3	0	0
2020.24	ICP-MS	130.75	10.98	28	3	3	0	0



3.3.10 Tl

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	5.78	0.44	20	5	5	0	0
2020.02	ICP-MS	1.02	0.07	19	5	4	1	0
2020.03	ICP-MS	9.63	0.79	19	5	5	0	0
2020.04	ICP-MS	7.66	0.32	19	5	5	0	0
2020.05	ICP-MS	3.94	0.35	19	5	5	0	0
2020.06	ICP-MS	4.9	0.36	19	5	5	0	0
2020.07	ICP-MS	2.97	0.17	21	5	4	1	0
2020.08	ICP-MS	3.86	0.37	22	5	5	0	0
2020.09	ICP-MS	0.01	0.07	21	5	4	1	0
2020.10	ICP-MS	0.03	0.04	21	5	5	0	0
2020.11	ICP-MS	8.27	0.76	20	5	5	0	0
2020.12	ICP-MS	6.47	0.46	21	5	4	1	0
2020.13	ICP-MS	4.8	0.44	20	5	5	0	0
2020.14	ICP-MS	1.96	0.17	20	5	5	0	0
2020.15	ICP-MS	0.97	0.17	19	5	4	1	0
2020.16	ICP-MS	7.53	0.61	20	5	5	0	0
2020.17	ICP-MS	5.6	0.54	20	5	4	1	0
2020.18	ICP-MS	9.33	0.77	20	5	4	1	0
2020.19	ICP-MS	7.5	0.56	21	5	4	1	0
2020.20	ICP-MS	1	0.06	20	5	4	1	0
2020.21	ICP-MS	9.4	0.57	22	5	5	0	0
2020.22	ICP-MS	4.89	0.29	22	5	5	0	0
2020.23	ICP-MS	5.81	0.44	22	5	5	0	0
2020.24	ICP-MS	8.72	0.77	22	5	5	0	0



3.3.11 Zn

Sample	Method	Median	SD	N	NBE	NG	NC	NE
2020.01	ICP-MS	8.82	0.29	21	2	2	0	0
2020.02	ICP-MS	12.56	0.7	21	2	2	0	0
2020.03	ICP-MS	5.9	0.2	21	2	2	0	0
2020.04	ICP-MS	7.37	0.42	21	2	2	0	0
2020.05	ICP-MS	10.41	0.58	18	2	2	0	0
2020.06	ICP-MS	9.7	0.92	18	2	2	0	0
2020.07	ICP-MS	11.11	0.67	22	2	2	0	0
2020.08	ICP-MS	10.41	0.66	22	2	2	0	0
2020.09	ICP-MS	3.1	0.17	22	2	2	0	0
2020.10	ICP-MS	13.31	0.86	22	2	2	0	0
2020.11	ICP-MS	6.94	0.53	21	2	2	0	0
2020.12	ICP-MS	8.34	0.66	22	2	2	0	0
2020.13	ICP-MS	9.5	0.51	21	2	2	0	0
2020.14	ICP-MS	11.9	0.59	21	2	2	0	0
2020.15	ICP-MS	12.39	0.58	20	2	2	0	0
2020.16	ICP-MS	7.42	0.35	20	2	2	0	0
2020.17	ICP-MS	8.87	0.49	19	2	2	0	0
2020.18	ICP-MS	6.05	0.29	19	2	2	0	0
2020.19	ICP-MS	7.5	0.41	21	2	2	0	0
2020.20	ICP-MS	12.59	0.62	21	2	2	0	0
2020.21	ICP-MS	6.03	0.41	21	2	2	0	0
2020.22	ICP-MS	9.57	0.82	21	2	2	0	0
2020.23	ICP-MS	9.06	0.56	22	2	2	0	0
2020.24	ICP-MS	6.87	0.65	22	2	2	0	0

