ENVIRONMENT AGENCY AUSTRIA umweltbundesamt

EVALUATION OF THE INTERLABORATORY COMPARISON TEST

Polycyclic aromatic hydrocarbons P18

Sample dispatch on 25th April 2017

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1 Interlaboratory comparison test: Polycyclic aromatic hydrocarbons P18

1.1 Participants and time schedule

- Number of registrations: 27
- Number of submitted data records: 27
- Dispatch of samples: 25th April 2017
- Closing date for submission of data: 23rd May 2017

To anonymize results, each laboratory was given a laboratory code on a random basis.

1.2 Sampling, sample material and distribution

The following samples were made available

- 1 Sample synthetic water (P18 A)
- 1 Sample ground water (P18 B)

The sampling of ground water was carried out on 24th April 2017. The sample was stored at < 4 °C until further processing. The synthetic sample was prepared at the day of dispatch.

Both samples were partly spiked with specific substances and were filled into bottles under continuous stirring to achieve homogeneous samples.

The samples were dispatched on 25th April 2017.

Each participant received:

- 2 samples (each 2000 ml), each filled in 2x 1000 ml glas bottles

1.3 Control testing

During filling the bottles, aliquots of each sample were collected randomly for control testing. Testing was performed close to the time of sample dispatch.

In the parameter-oriented evaluation, the results of the control testing are given in the form of arithmetic means of the detected concentrations as check value ± U.

2 Evaluation

The analytical results had to be made available to the organiser not later than 23rd May 2017. Any values received at a later date were not considered. A statistical evaluation of interlaboratory comparison data was only carried out if at least 6 valid results per parameter were available.

To evaluate the data, outliers were detected first by using the outlier test method according to Hampel. Values identified as conspicuous by this test method are marked specifically in the parameter-oriented evaluation. Further evaluation was performed in accordance with DIN ISO 5725-2. Results < LOQ or < LOD are not taken into account for calculation.

The adjusted average value (after removal of outliers) for all submitted results was used as a basis for the calculation of recovery rates and z-scores.

z-Score

z-Scores were calculated on the basis of the following formula:

$$z - score = \frac{x_i - \overline{X}}{SD}$$

In this context,

x_i is the measurement value of the participating laboratory.

$\overline{X}$ is the adjusted average value (i.e. after removal of outliers) of the participants' results.

SD is the reproducibility standard deviation, calculated from the participants' results (after removal of outliers) in the relevant test round.

Interpretation of z-Scores in the parameter-oriented evaluation:

- |z| < 2 result: good
- 2 < |z| < 3 result: questionable
- |z| > 3 result: not satisfactory

3 Representation and interpretation of measurement results

The parameter oriented report shows the measurement values including uncertainty, recovery rate, calculated z-Score and the outliers in tabular form. The results listed in the table are also represented graphically.

The laboratory oriented report shows the results of the individual laboratories, including the recovery rates and z-Scores.

An annotation of the tables and graphics is given in section 5.

4 Explanatory notes

As explained in section 2, the z-Score is calculated using the reproducibility standard deviation, calculated from the participants' results (after removal of outliers) in the relevant test round. As a consequence it might occur that the z-Score between -2 and 2 covers an extraordinary range, due to a high variance of the results. On the other hand, a low variation of the participants' results leads to an extraordinary small recovery rate range when applying a z-Score of -2 to +2.

The recovery rate is calculated for the individual result based on the target value. Therefore, in the case of a high variance of the results, participants should also consider recovery rates as an indicator for the necessity of internal quality assurance measures.

At this Interlaboratory comparison test all parameters in both samples show a high variance of the results. On the other hand, the measurement uncertainty of the check values is significantly lower (see Parameter oriented report: Check value ± U vs. Standard deviation at the Characteristics of parameter).

Sample P18 A and Sample P18 B: For the parameter Indeno[1,2,3-cd]pyrene no target value was calculated because of the low analyte content and/or the small number of submitted results.

5 Annotations on tables and charts

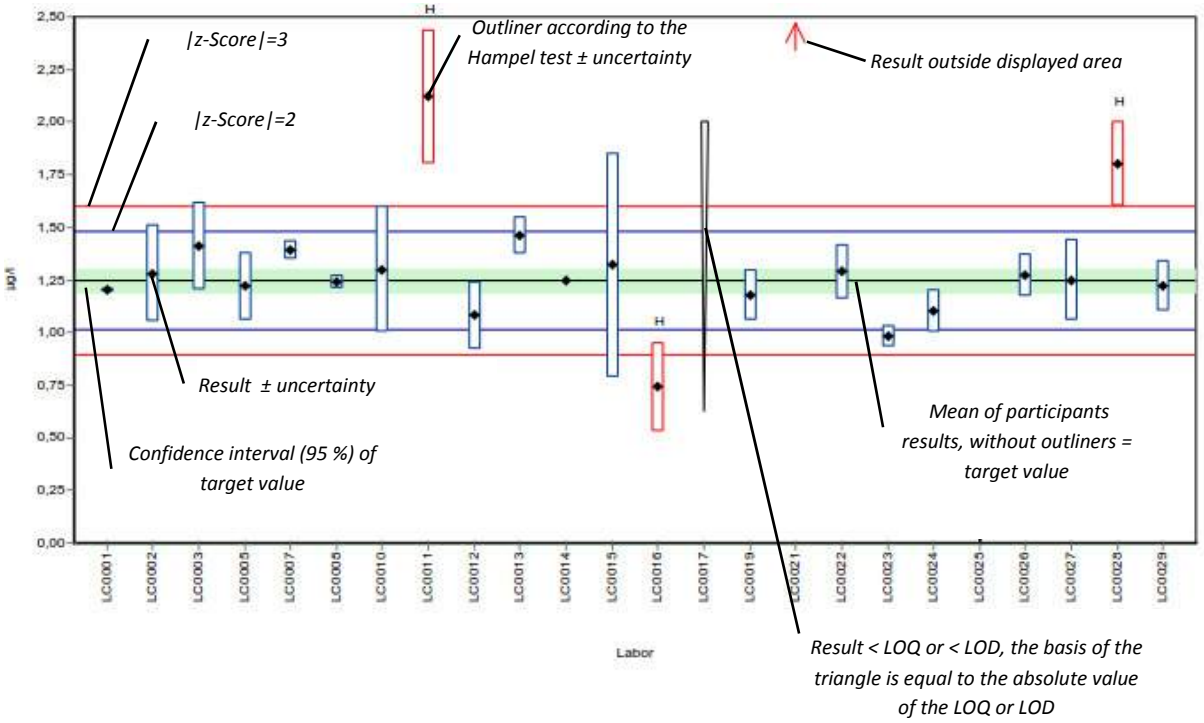
5.1 Information and abbreviations in tables

Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/l)
Mean	Mean of the participants results, without outliers (3 significant digits)
CI (99 %)	99% confidence interval (3 significant digits)
Minimum	Minimum of all submitted results, after removal of outliers (3 significant digits)
Maximum	Maximum of all submitted results, after removal of outliers (3 significant digits)
SD	Reproducibility standard deviation, calculated from the participants results, after removal of outliers (3 significant digits)
RSD %	Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, after removal of outliers (2 significant digits)
Check value ± U	Mean of check value ± measurement uncertainty (3 significant digits)
Labcode	Laboratory identifier (anonymized)
Result	Result as indicated by participant (max. 5 decimal places)
± U	Results uncertainty as indicated by participant (max. 5 decimal places)
LOQ	Limit of quantification
LOD	Limit of detection
Recovery	Recovery rate in % based on target value (3 significant digits, max. one decimal place given)
z-Score	Deviation of result based on target value depicted as a multiple of the criteria (3 significant digits, max. 2 decimal places given)
-	*No data available*
Comments	Comment on the respective result (e.g. H, FN, FP)
H	Outlier according to Hampel-Test
FN	False negative – for a result < LOQ or result < LOD: The absolute value of the LOQ or LOD fulfils the condition of an outlier according to the Hampel test.
FP	False positive – for parameters where no target value is available because of a too low analyte content (n < 6):

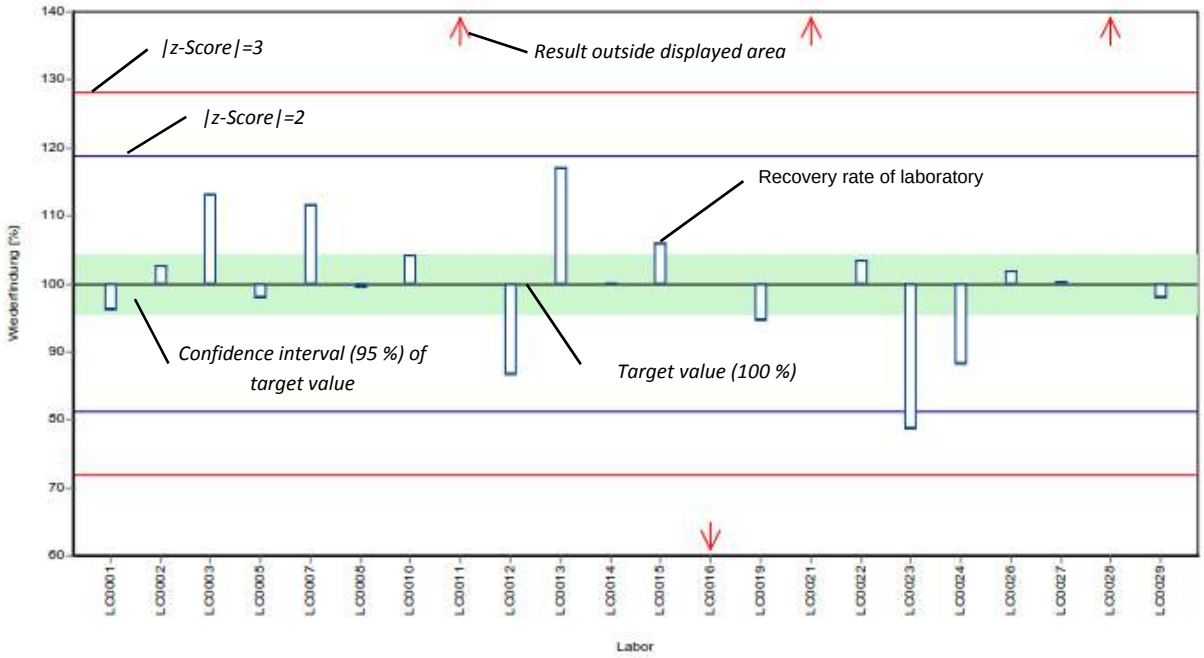
	Result that exceeds the median of the absolute values of the transmitted LOQs or LODs by more than 100 %.
Standard deviation	Reproducibility standard deviation, calculated from the participants results (3 significant digits)
Rel. standard deviation	Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, (3 significant digits)
n	Number of results
Target value	Mean of the participants results, without outliers (3 significant digits)
Criteria	Criteria for z-Score calculation. The given value matches the reproducibility standard deviation, calculated from the participants' results, after removal of outliers (3 significant digits).

5.2 Graphical presentation of results

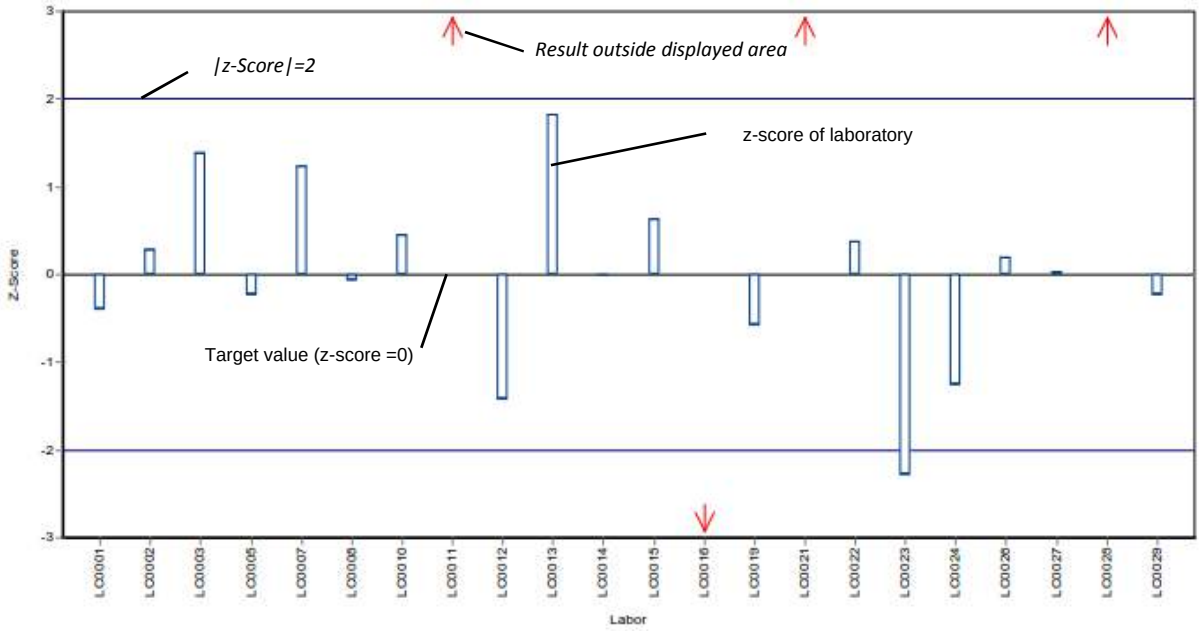
Example chart: Results



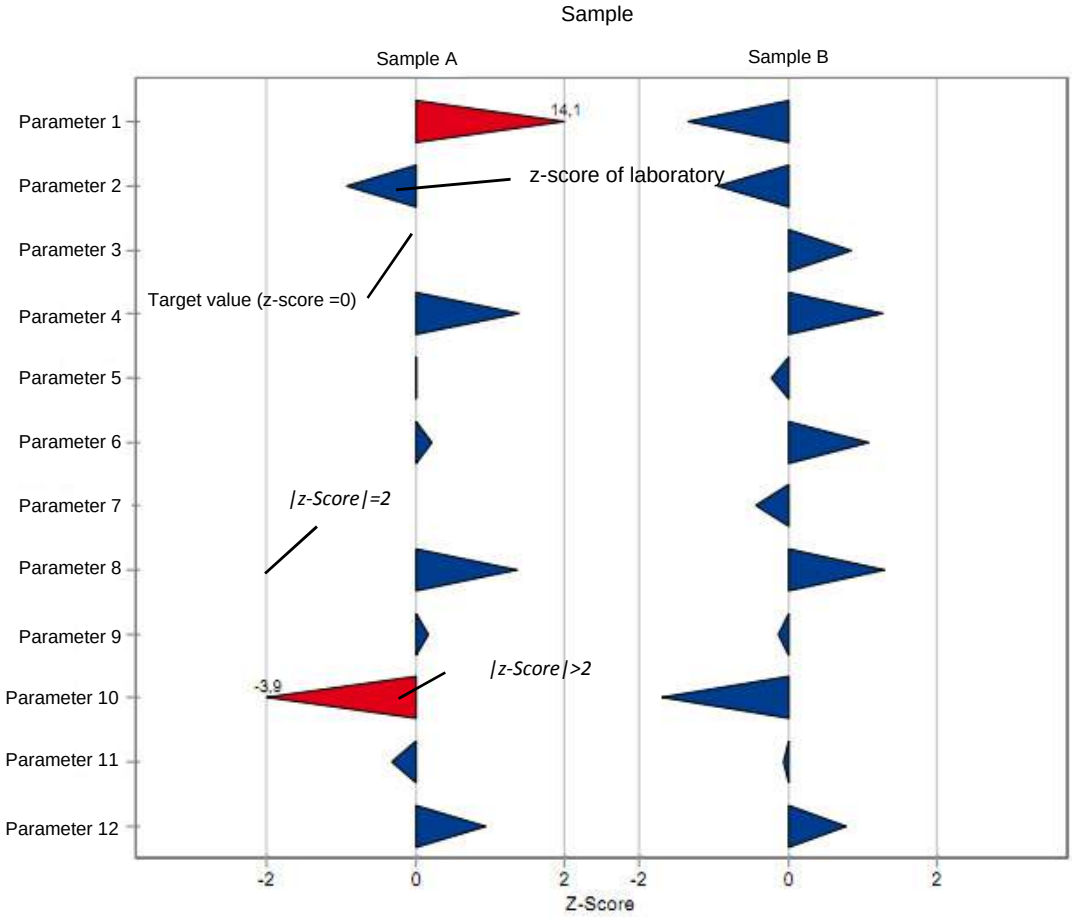
Example chart: Recovery



Example chart: z-score



Example chart: z-score - laboratory oriented report



6 Summary of results, after removal of outliers

Parameter	Sample	Unit	Number of results for calculation	Number of outliers	Mean	±	CI (99%)	Minimum	Maximum	SD	RSD %
Acenaphthene	P18 A	ng/l	19	1	249	±	28	177	342	40.6	16
	P18 B	ng/l	18	1	34.1	±	3.41	25.2	44.8	4.82	14
Acenaphthylene	P18 A	ng/l	18	1	65.2	±	10.7	38	104	15.1	23
	P18 B	ng/l	17	1	41.7	±	7.13	24.7	58	9.79	24
Anthracene	P18 A	ng/l	23	0	89.2	±	15.2	45	132	24.3	27
	P18 B	ng/l	9	1	7.47	±	4.94	3	18.7	4.94	66
Benzo[a]anthracene	P18 A	ng/l	23	0	212	±	24.3	124	270	38.8	18
	P18 B	ng/l	21	1	60.7	±	6.88	44	84.5	10.5	17
Benzo[a]pyrene	P18 A	ng/l	23	1	166	±	27.4	86.3	232	43.8	26
	P18 B	ng/l	13	2	7.92	±	1.42	6	11.3	1.71	22
Benzo[b]fluoranthene	P18 A	ng/l	25	1	85.8	±	7.71	65	106	12.9	15
	P18 B	ng/l	23	1	36.5	±	5.08	18.2	54.7	8.13	22
Benzo[g,h,i]perylene	P18 A	ng/l	26	0	123	±	33.9	6	234	57.6	47
	P18 B	ng/l	16	2	10	±	2.64	2.5	15	3.51	35
Benzo[k]fluoranthene	P18 A	ng/l	26	0	149	±	21.6	40.7	193	36.7	25
	P18 B	ng/l	21	2	20.6	±	3.04	9.8	29	4.64	22
Chrysene	P18 A	ng/l	23	0	101	±	10.9	73	142	17.3	17
	P18 B	ng/l	12	2	7.13	±	2.5	5	14	2.88	40
Dibenzo[a,h]anthracene	P18 A	ng/l	20	1	43.4	±	10.3	22.3	83.8	15.3	35
	P18 B	ng/l	15	2	14.4	±	3.63	6	20	4.69	33
Fluoranthene	P18 A	ng/l	25	0	212	±	31.5	73.1	288	52.4	25
	P18 B	ng/l	22	1	22.5	±	3.03	13.1	30	4.74	21
Fluorene	P18 A	ng/l	20	0	169	±	14	124	205	20.9	12
	P18 B	ng/l	11	2	11.7	±	2.38	7	15.7	2.63	23
Indeno[1,2,3-cd]pyrene	P18 A	ng/l	4	0	-	±	-	1.1	114	-	-
	P18 B	ng/l	4	0	-	±	-	2.8	65.9	-	-
Naphthalene	P18 A	ng/l	18	2	53.3	±	9.52	38	92.2	13.5	25

Summary of results, after removal of outliers: Polycyclic Aromatic Hydrocarbons P18

Parameter	Sample	Unit	Number of results for calculation	Number of outliers	Mean	± CI (99%)	Minimum	Maximum	SD	RSD %
Naphthalene	P18 B	ng/l	14	3	24.5	± 4.59	16.4	36.5	5.73	23
Phenanthrene	P18 A	ng/l	20	0	115	± 12.5	79.7	145	18.6	16
	P18 B	ng/l	10	2	12.5	± 2.14	10	17	2.25	18
Pyrene	P18 A	ng/l	19	2	29.1	± 4.15	18	39.4	6.02	21
	P18 B	ng/l	11	2	8.35	± 1.72	5	11	1.9	23

7 Parameter oriented report

Parameter oriented report

P18 A

Acenaphthene

Unit	ng/l
Mean ± CI (99%)	249 ± 28
Minimum - Maximum	177 - 342
Control test value ± U	244 ± 43.4

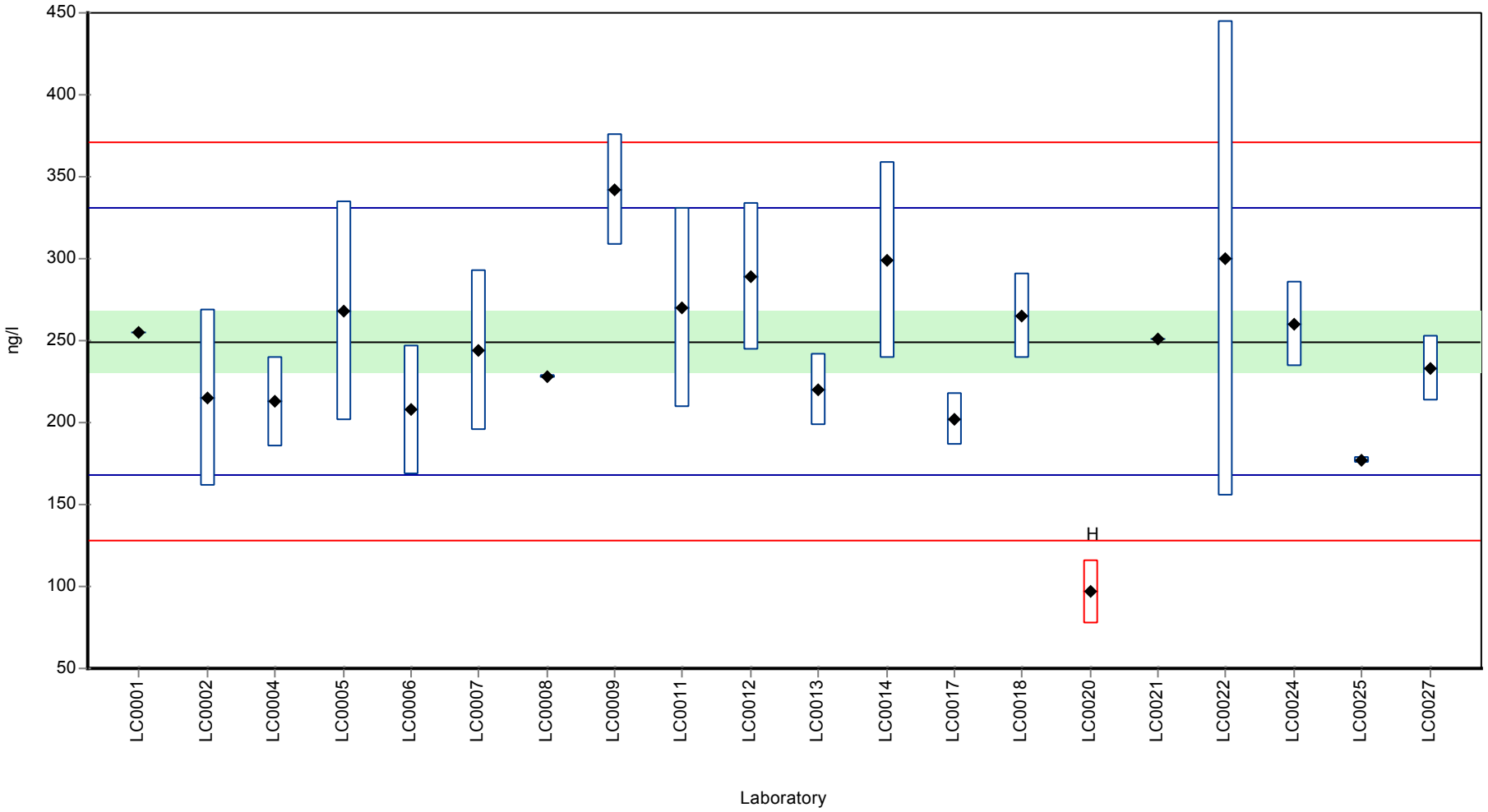
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	255.5	-	102	0.15	
LC0002	215	54	86.2	-0.85	
LC0003	-	-	-	-	
LC0004	212.7	27.6	85.3	-0.91	
LC0005	268	66.9	107	0.46	
LC0006	208	39.5	83.4	-1.02	
LC0007	244	49	97.8	-0.13	
LC0008	228	1	91.4	-0.53	
LC0009	342	34	137	2.28	
LC0010	-	-	-	-	
LC0011	270	61	108	0.51	
LC0012	289.4	45	116	0.98	
LC0013	220	22	88.2	-0.72	
LC0014	299	60	120	1.22	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	202	16.2	81	-1.17	
LC0018	265	26	106	0.38	
LC0019	-	-	-	-	
LC0020	96.85	19.37	38.8	-3.76	H
LC0021	251	-	101	0.04	
LC0022	300	145	120	1.24	
LC0023	-	-	-	-	
LC0024	260	26	104	0.26	
LC0025	177	1.77	71	-1.78	
LC0026	-	-	-	-	
LC0027	233	20	93.4	-0.41	

Characteristics of parameter

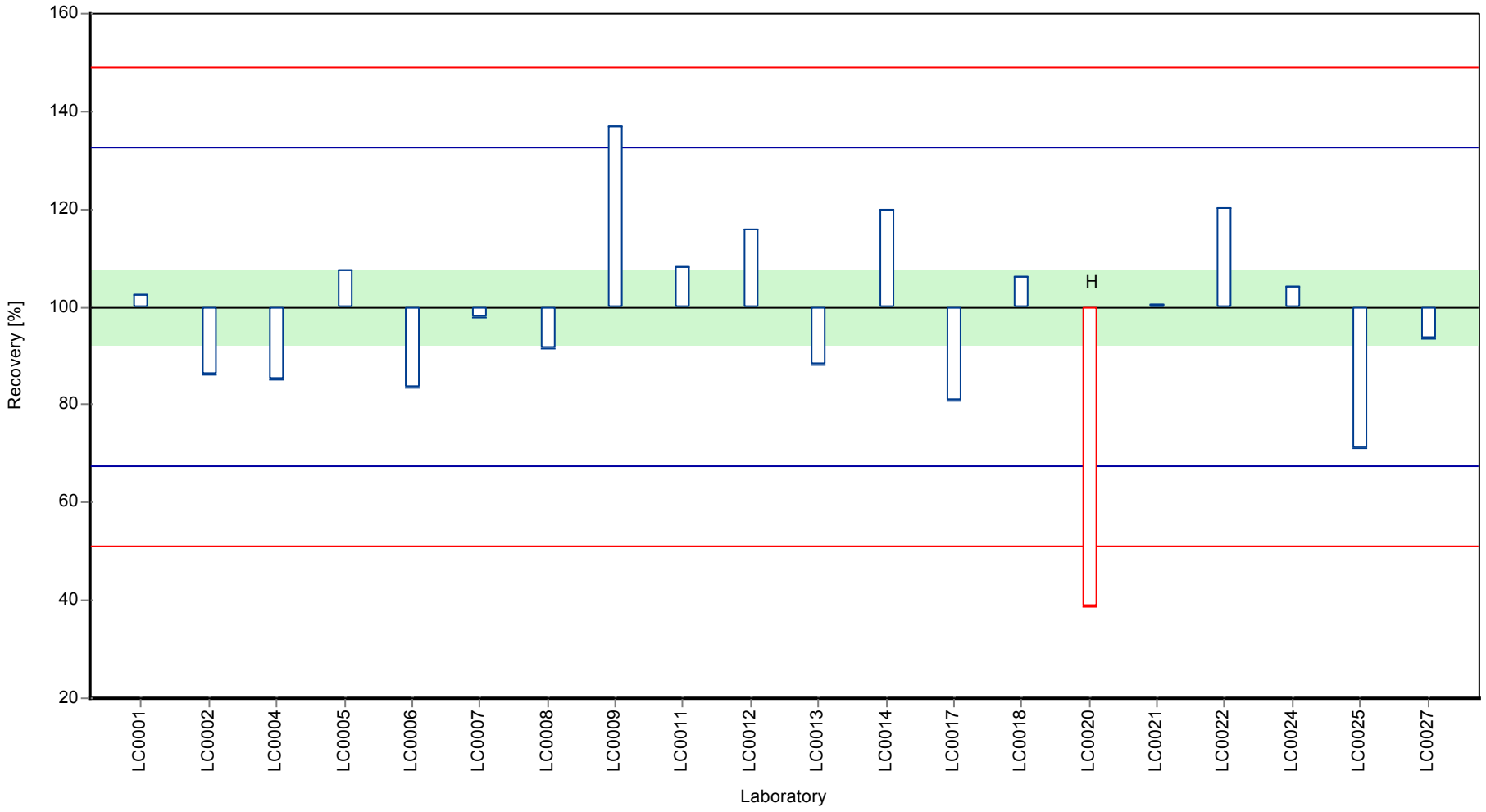
	all results	without outliers	Unit
Mean ± CI (99%)	242 ± 35	249 ± 28	ng/l
Minimum	96.8	177	ng/l
Maximum	342	342	ng/l
Standard deviation	52.2	40.6	ng/l
rel. Standard deviation	21.6	16.3	%
n	20	19	-

Graphical presentation of results

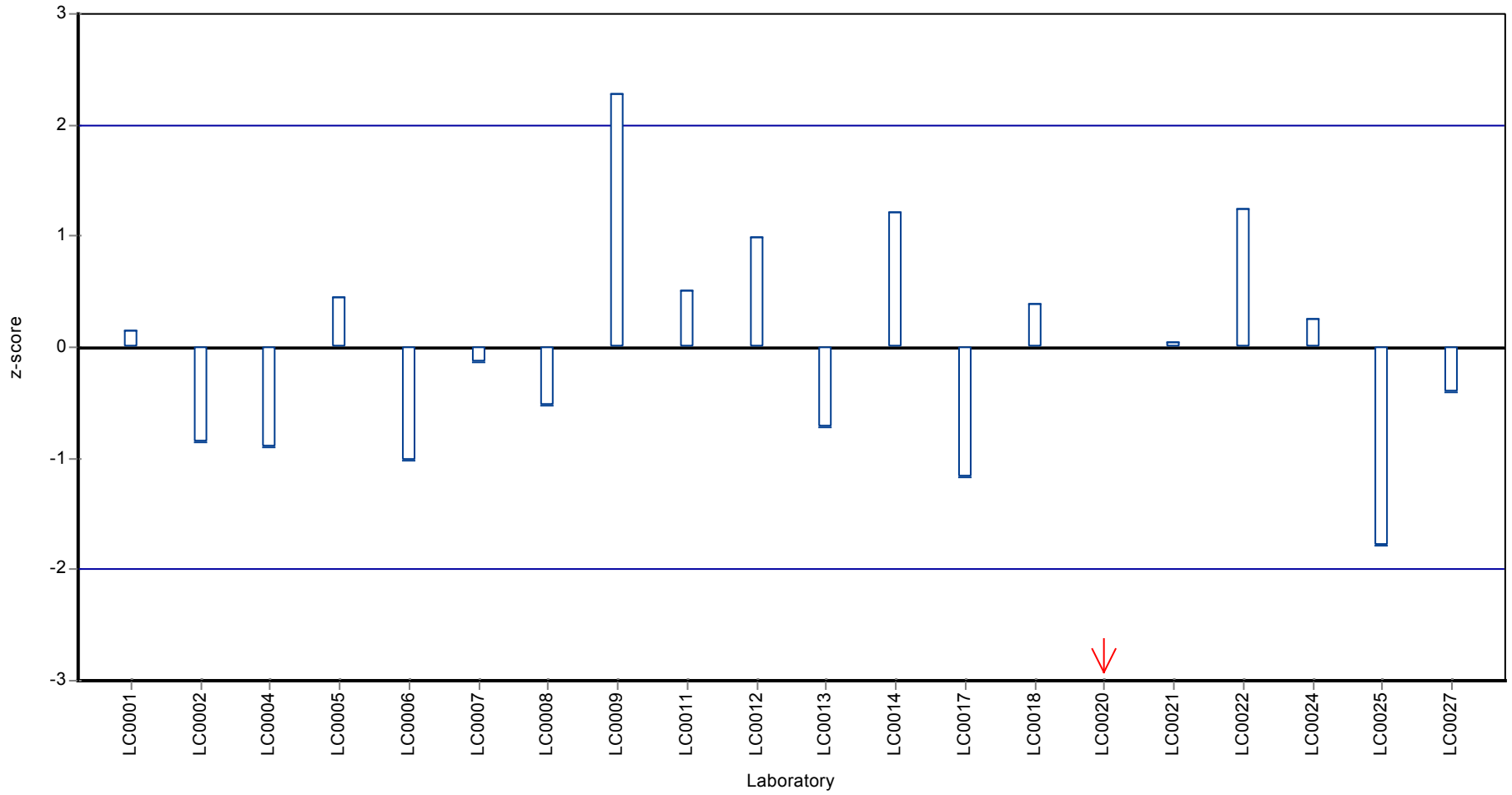
Results



Recovery rate



Z-score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-2
-3
z-score
LC0001
LC0002
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LC0006
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LC0011
LC0012
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LC0017
LC0018
LC0020
LC0021
LC0022
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 B

Acenaphthene

Unit	ng/l
Mean ± CI (99%)	34.1 ± 3.41
Minimum - Maximum	25.2 - 44.8
Control test value ± U	-

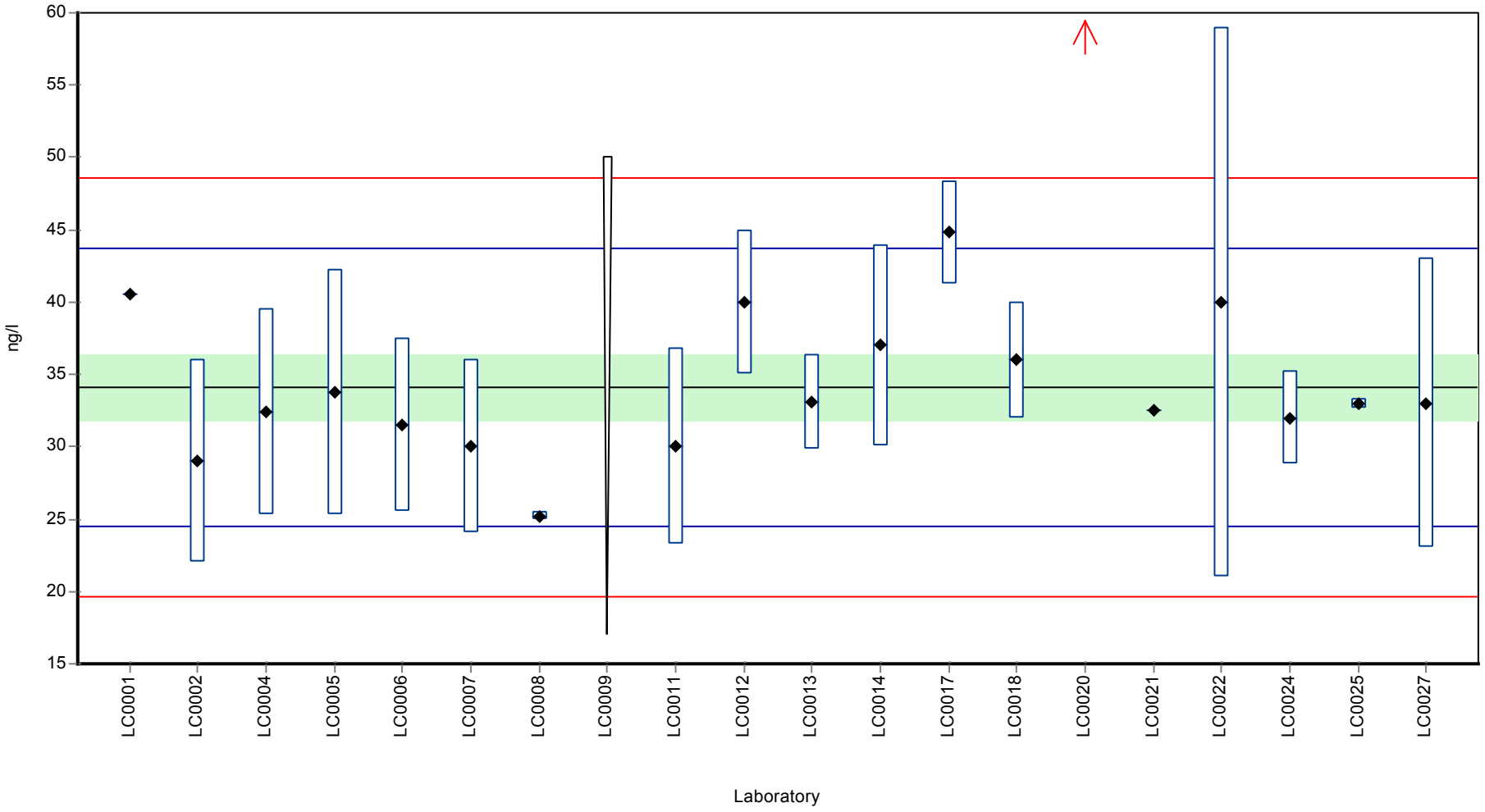
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	40.5	-	119	1.33	
LC0002	29	7	85	-1.06	
LC0003	-	-	-	-	
LC0004	32.4	7.1	95	-0.35	
LC0005	33.8	8.46	99.1	-0.06	
LC0006	31.5	5.98	92.4	-0.54	
LC0007	30	6	88	-0.85	
LC0008	25.2	0.28	73.9	-1.84	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	30	6.8	88	-0.85	
LC0012	39.96	5	117	1.22	
LC0013	33.1	3.3	97.1	-0.21	
LC0014	37	7	109	0.6	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	44.8	3.58	131	2.22	
LC0018	36	4	106	0.39	
LC0019	-	-	-	-	
LC0020	114.13	22.83	335	16.6	H
LC0021	32.5	-	95.3	-0.33	
LC0022	40	19	117	1.22	
LC0023	-	-	-	-	
LC0024	32	3.2	93.8	-0.43	
LC0025	33	0.33	96.8	-0.23	
LC0026	-	-	-	-	
LC0027	33	10	96.8	-0.23	

Characteristics of parameter

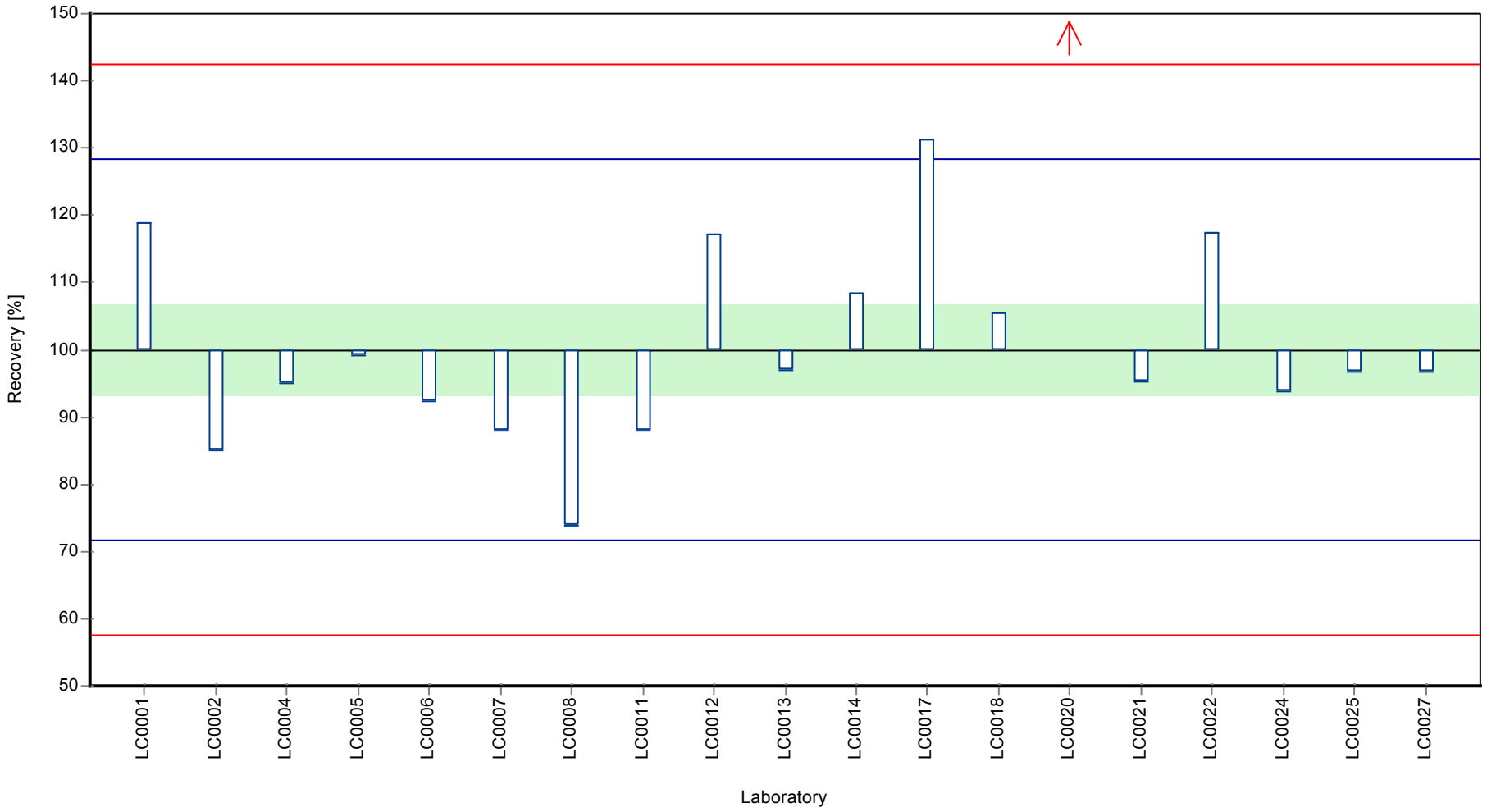
	all results	without outliers	Unit
Mean ± CI (99%)	38.3 ± 13	34.1 ± 3.41	ng/l
Minimum	25.2	25.2	ng/l
Maximum	114	44.8	ng/l
Standard deviation	18.9	4.82	ng/l
rel. Standard deviation	49.5	14.1	%
n	19	18	-

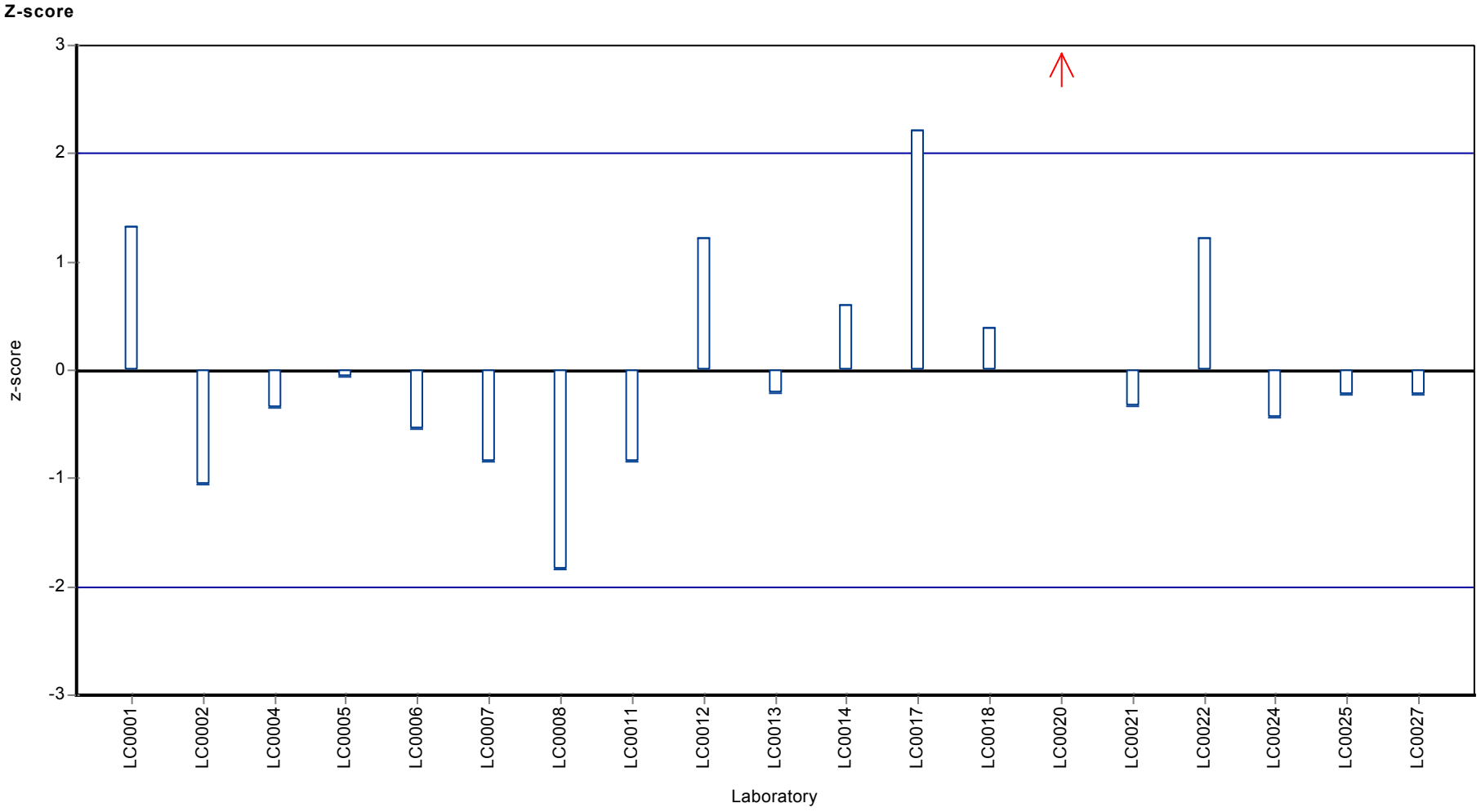
Graphical presentation of results

Results



Recovery rate




Z-score
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z-score
LC0001
LC0002
LC0004
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LC0011
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LC0017
LC0018
LC0020
LC0021
LC0022
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 A

Acenaphthylene

Unit	ng/l
Mean ± CI (99%)	65.2 ± 10.7
Minimum - Maximum	38 - 104
Control test value ± U	57.1 ± 10.8

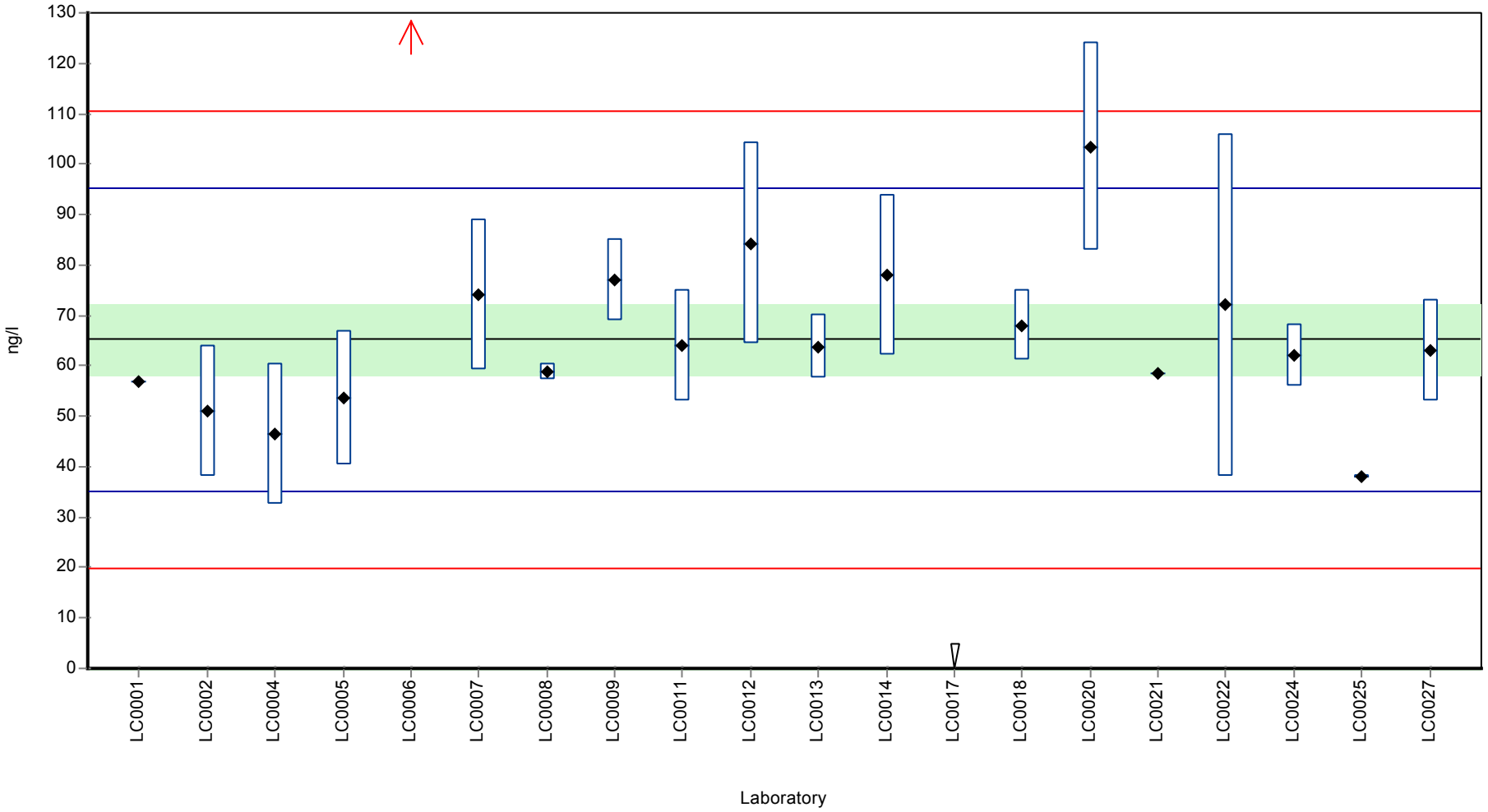
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	57	-	87.5	-0.54	
LC0002	51	13	78.3	-0.94	
LC0003	-	-	-	-	
LC0004	46.4	13.9	71.2	-1.24	
LC0005	53.7	13.4	82.4	-0.76	
LC0006	220	52.8	338	10.3	H
LC0007	74	15	114	0.59	
LC0008	58.7	1.61	90.1	-0.43	
LC0009	77	8	118	0.79	
LC0010	-	-	-	-	
LC0011	64	11	98.2	-0.08	
LC0012	84.24	20	129	1.27	
LC0013	63.8	6.4	97.9	-0.09	
LC0014	78	16	120	0.85	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	< 5 (LOQ)	-	-	-	FN
LC0018	68	7	104	0.19	
LC0019	-	-	-	-	
LC0020	103.5	20.7	159	2.54	
LC0021	58.6	-	89.9	-0.43	
LC0022	72	34	110	0.45	
LC0023	-	-	-	-	
LC0024	62	6.2	95.1	-0.21	
LC0025	38	0.38	58.3	-1.8	
LC0026	-	-	-	-	
LC0027	63	10	96.7	-0.14	

Characteristics of parameter

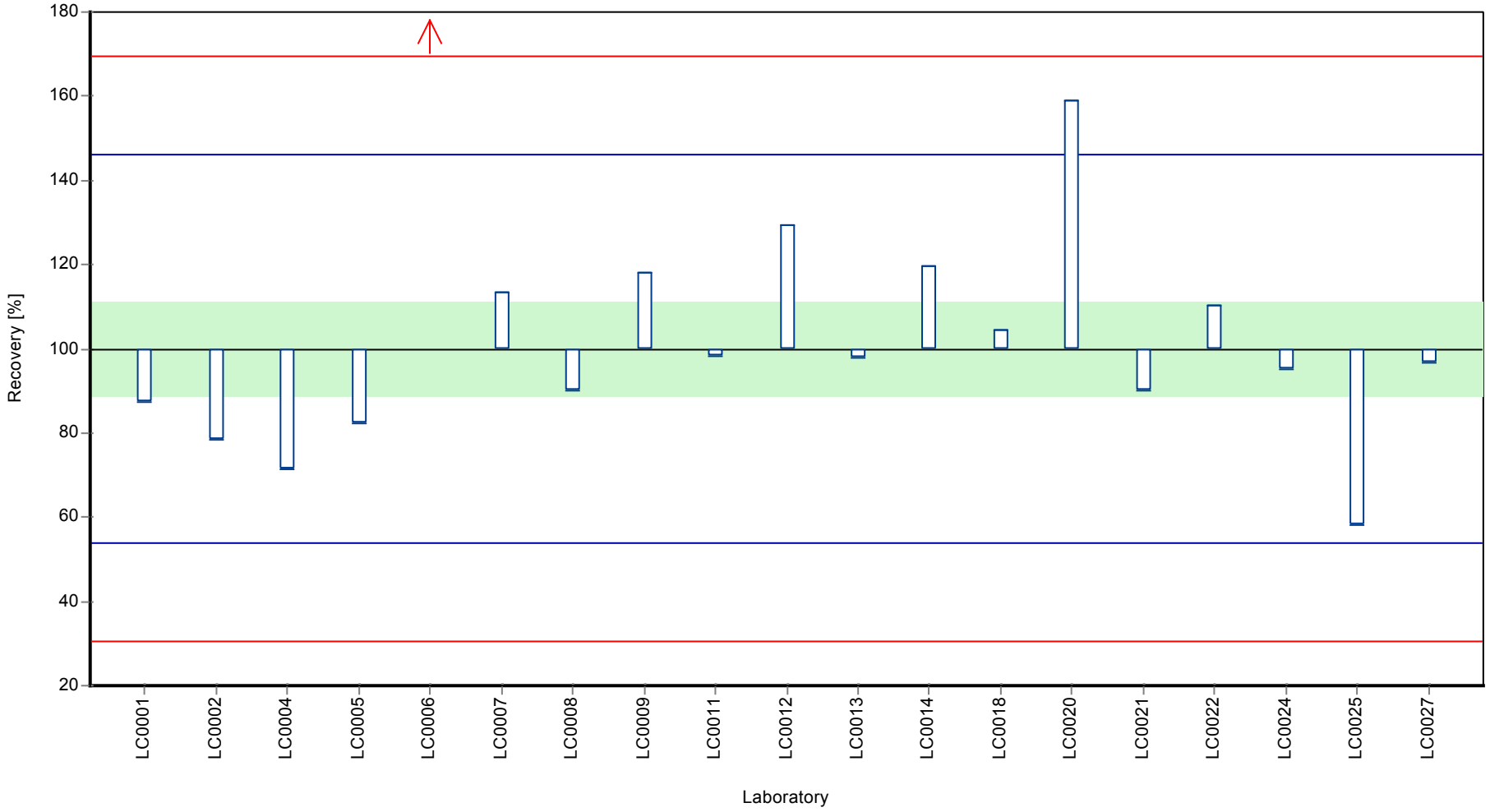
	all results	without outliers	Unit
Mean ± CI (99%)	73.3 ± 26.4	65.2 ± 10.7	ng/l
Minimum	38	38	ng/l
Maximum	220	104	ng/l
Standard deviation	38.4	15.1	ng/l
rel. Standard deviation	52.4	23.1	%
n	19	18	-

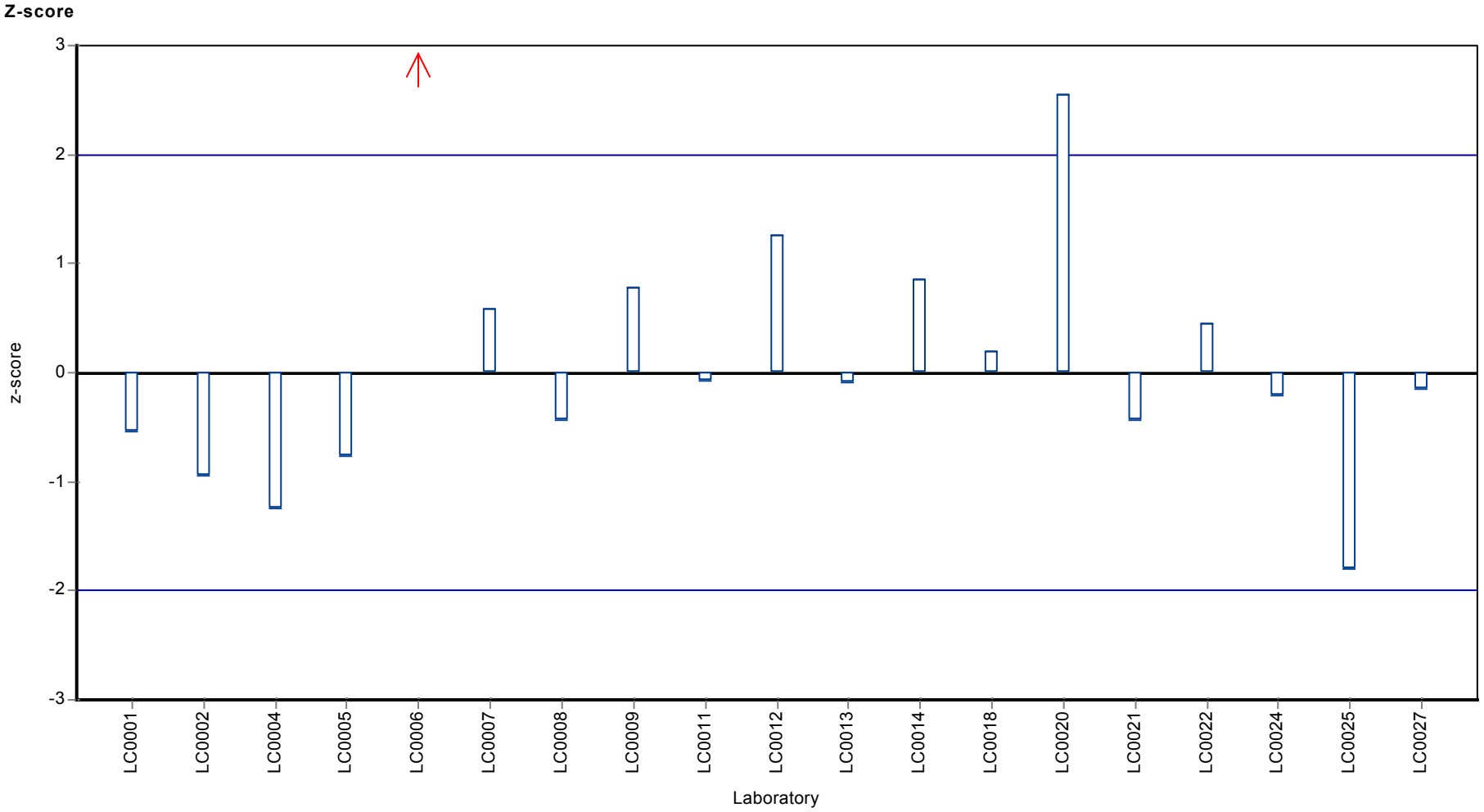
Graphical presentation of results

Results



Recovery rate




Z-score
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z-score
LC0001
LC0002
LC0004
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LC0006
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LC0008
LC0009
LC0011
LC0012
LC0013
LC0014
LC0018
LC0020
LC0021
LC0022
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 B

Acenaphthylene

Unit	ng/l
Mean ± CI (99%)	41.7 ± 7.13
Minimum - Maximum	24.7 - 58
Control test value ± U	29.4 ± 3.11

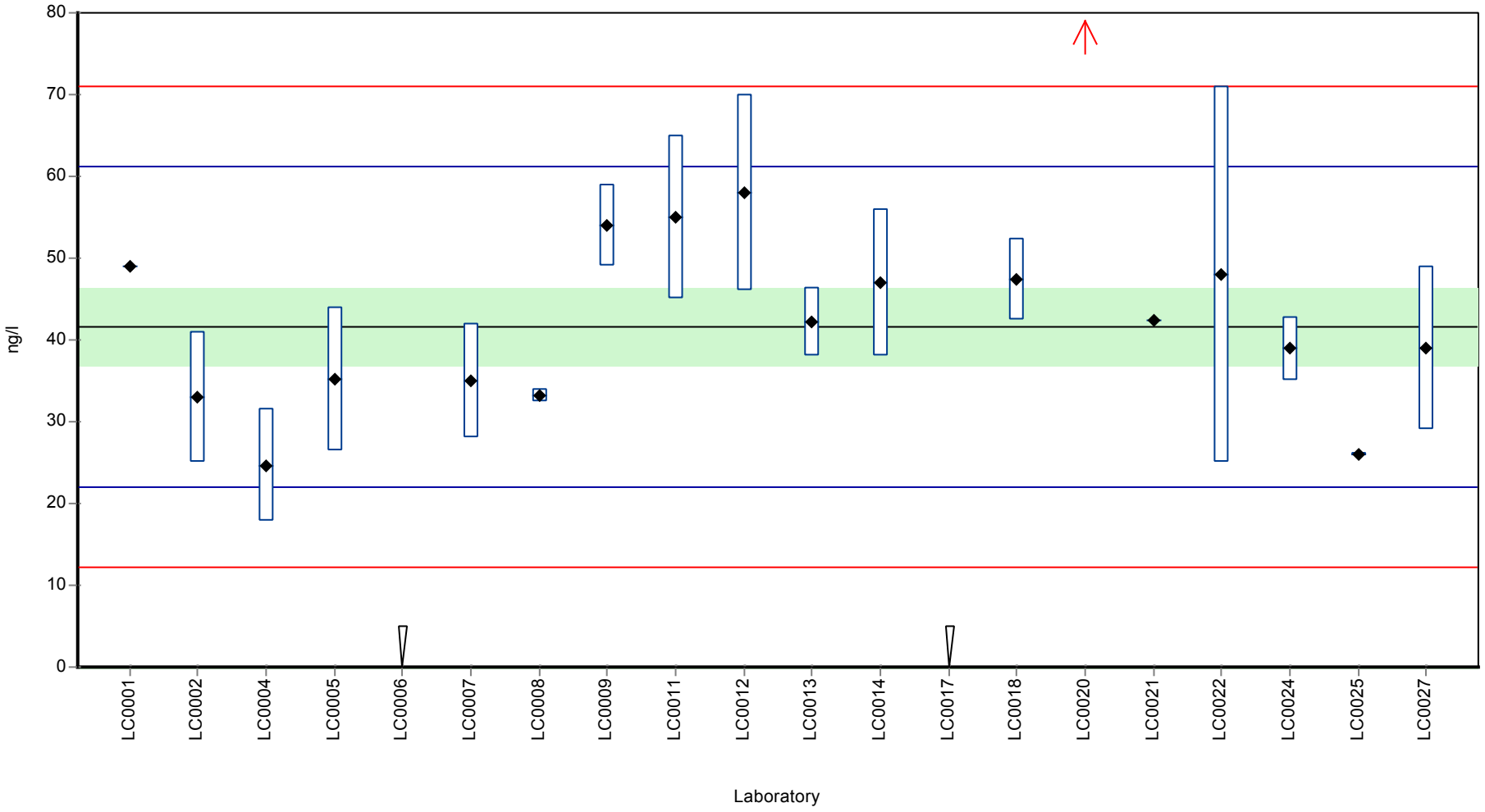
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	49	-	118	0.75	
LC0002	33	8	79.2	-0.89	
LC0003	-	-	-	-	
LC0004	24.7	6.9	59.3	-1.73	
LC0005	35.2	8.8	84.5	-0.66	
LC0006	< 5 (LOQ)	-	-	-	FN
LC0007	35	7	84	-0.68	
LC0008	33.2	0.86	79.7	-0.86	
LC0009	54	5	130	1.26	
LC0010	-	-	-	-	
LC0011	55	10	132	1.36	
LC0012	58	12	139	1.67	
LC0013	42.3	4.2	102	0.06	
LC0014	47	9	113	0.55	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	< 5 (LOQ)	-	-	-	FN
LC0018	47.5	5	114	0.6	
LC0019	-	-	-	-	
LC0020	121.89	24.38	293	8.19	H
LC0021	42.4	-	102	0.08	
LC0022	48	23	115	0.65	
LC0023	-	-	-	-	
LC0024	39	3.9	93.6	-0.27	
LC0025	26	0.26	62.4	-1.6	
LC0026	-	-	-	-	
LC0027	39	10	93.6	-0.27	

Characteristics of parameter

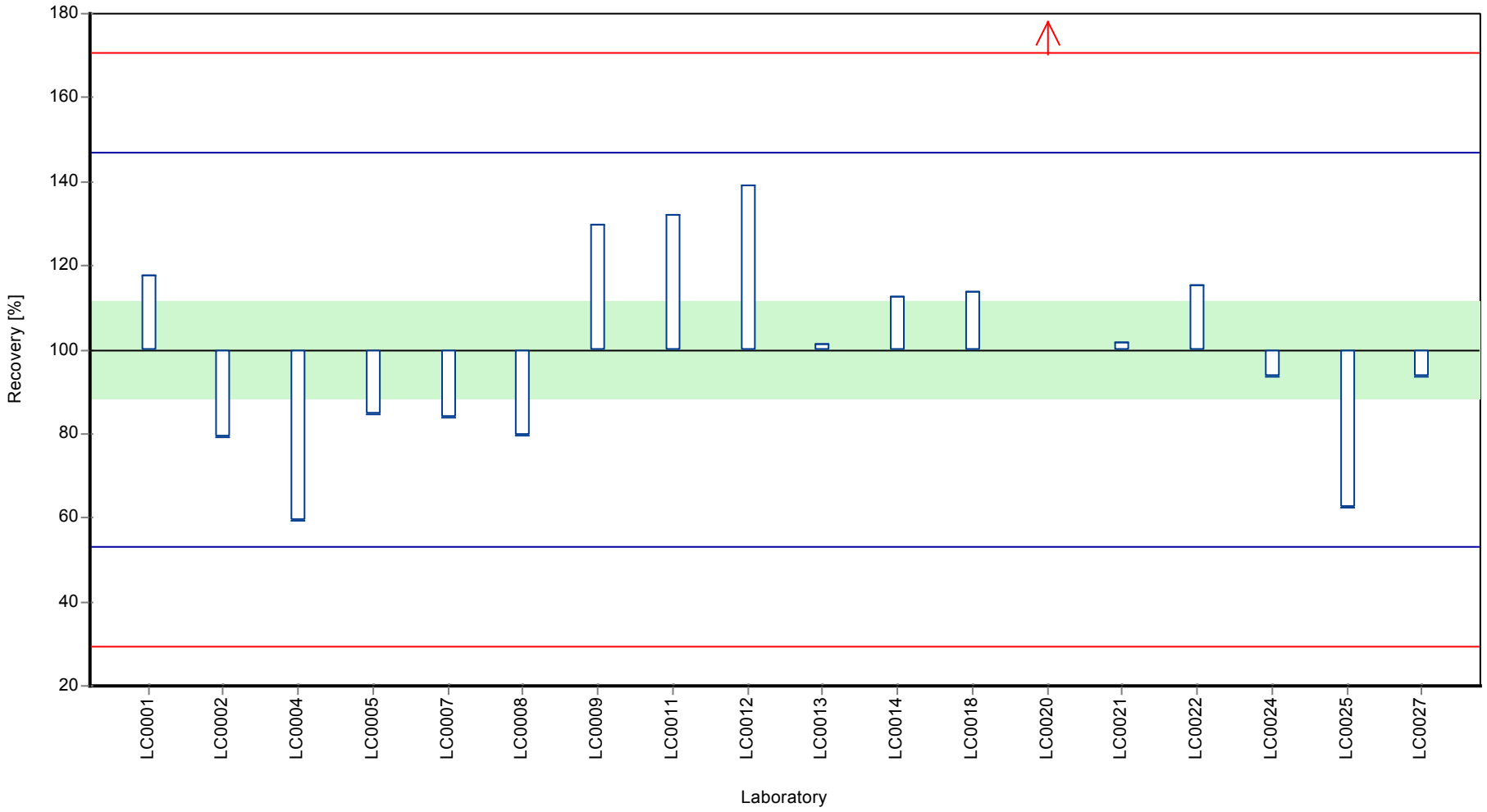
	all results	without outliers	Unit
Mean ± CI (99%)	46.1 ± 15	41.7 ± 7.13	ng/l
Minimum	24.7	24.7	ng/l
Maximum	122	58	ng/l
Standard deviation	21.2	9.79	ng/l
rel. Standard deviation	45.9	23.5	%
n	18	17	-

Graphical presentation of results

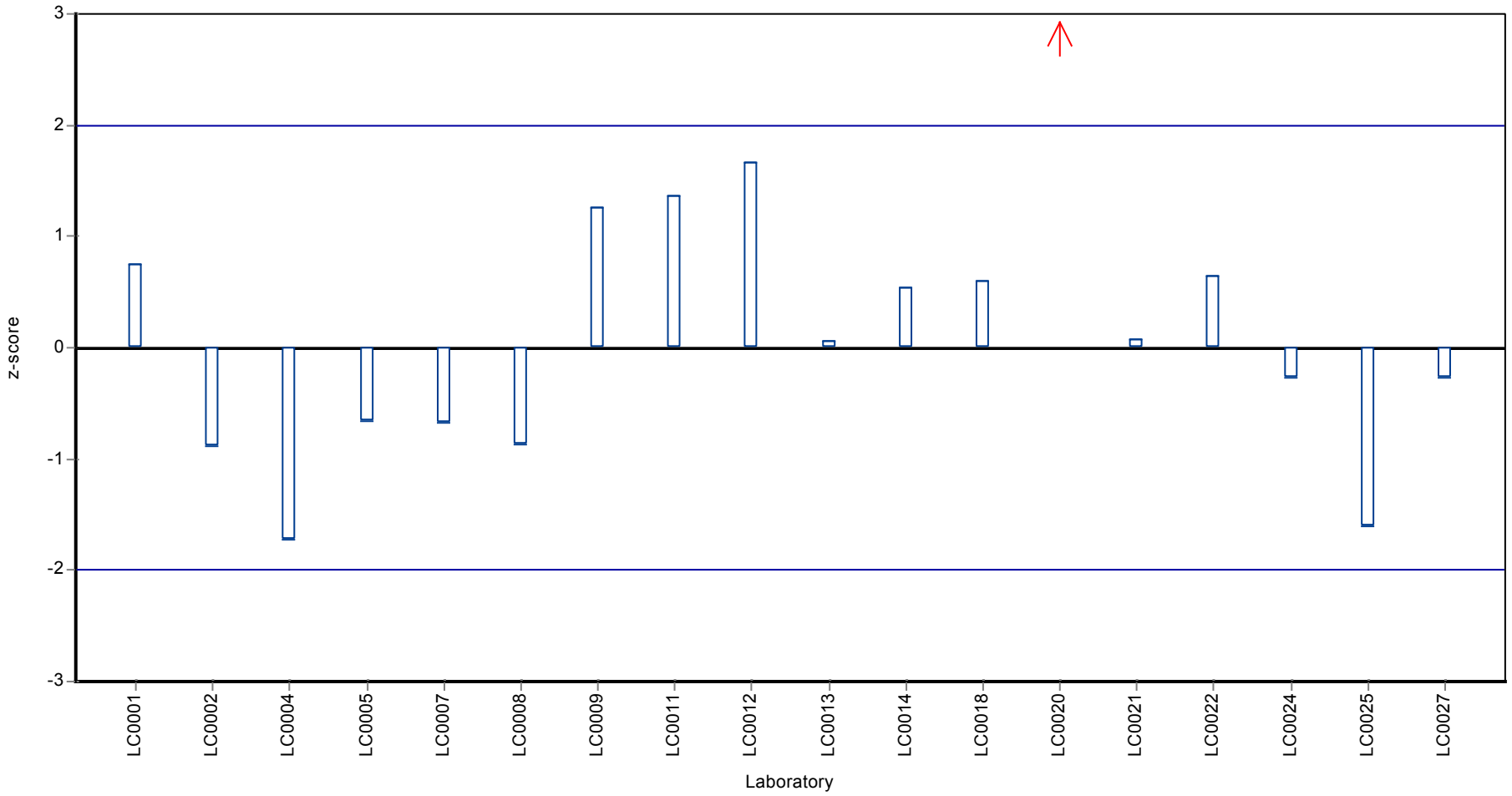
Results



Recovery rate



Z-score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z-score
LC0001
LC0002
LC0004
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LC0007
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LC0009
LC0011
LC0012
LC0013
LC0014
LC0018
LC0020
LC0021
LC0022
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 A

Anthracene

Unit	ng/l
Mean ± CI (99%)	89.2 ± 15.2
Minimum - Maximum	45 - 132
Control test value ± U	106 ± 16.3

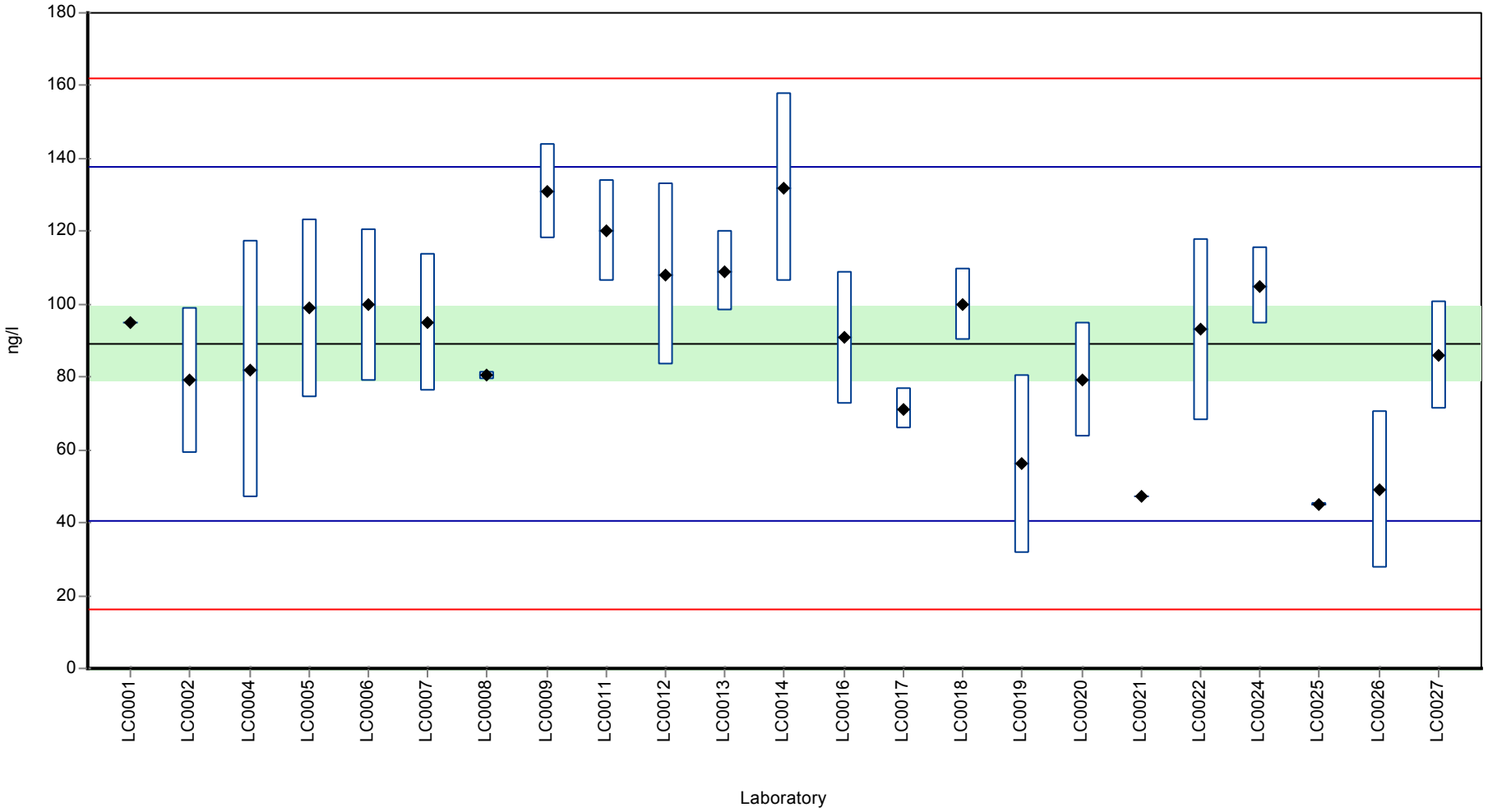
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	95	-	106	0.24	
LC0002	79	20	88.5	-0.42	
LC0003	-	-	-	-	
LC0004	82.1	35.3	92	-0.29	
LC0005	98.8	24.7	111	0.39	
LC0006	99.7	21	112	0.43	
LC0007	95	19	106	0.24	
LC0008	80.4	1.04	90.1	-0.36	
LC0009	131	13	147	1.72	
LC0010	-	-	-	-	
LC0011	120	14	134	1.26	
LC0012	108.04	25	121	0.77	
LC0013	109	11	122	0.81	
LC0014	132	26	148	1.76	
LC0015	-	-	-	-	
LC0016	90.8	18.2	102	0.06	
LC0017	71.3	5.7	79.9	-0.74	
LC0018	100	10	112	0.44	
LC0019	56.07	24.67	62.8	-1.36	
LC0020	79.19	15.83	88.7	-0.41	
LC0021	47.3	-	53	-1.72	
LC0022	93	25	104	0.15	
LC0023	-	-	-	-	
LC0024	105	10.5	118	0.65	
LC0025	45	0.45	50.4	-1.82	
LC0026	49	21.56	54.9	-1.65	
LC0027	86	15	96.4	-0.13	

Characteristics of parameter

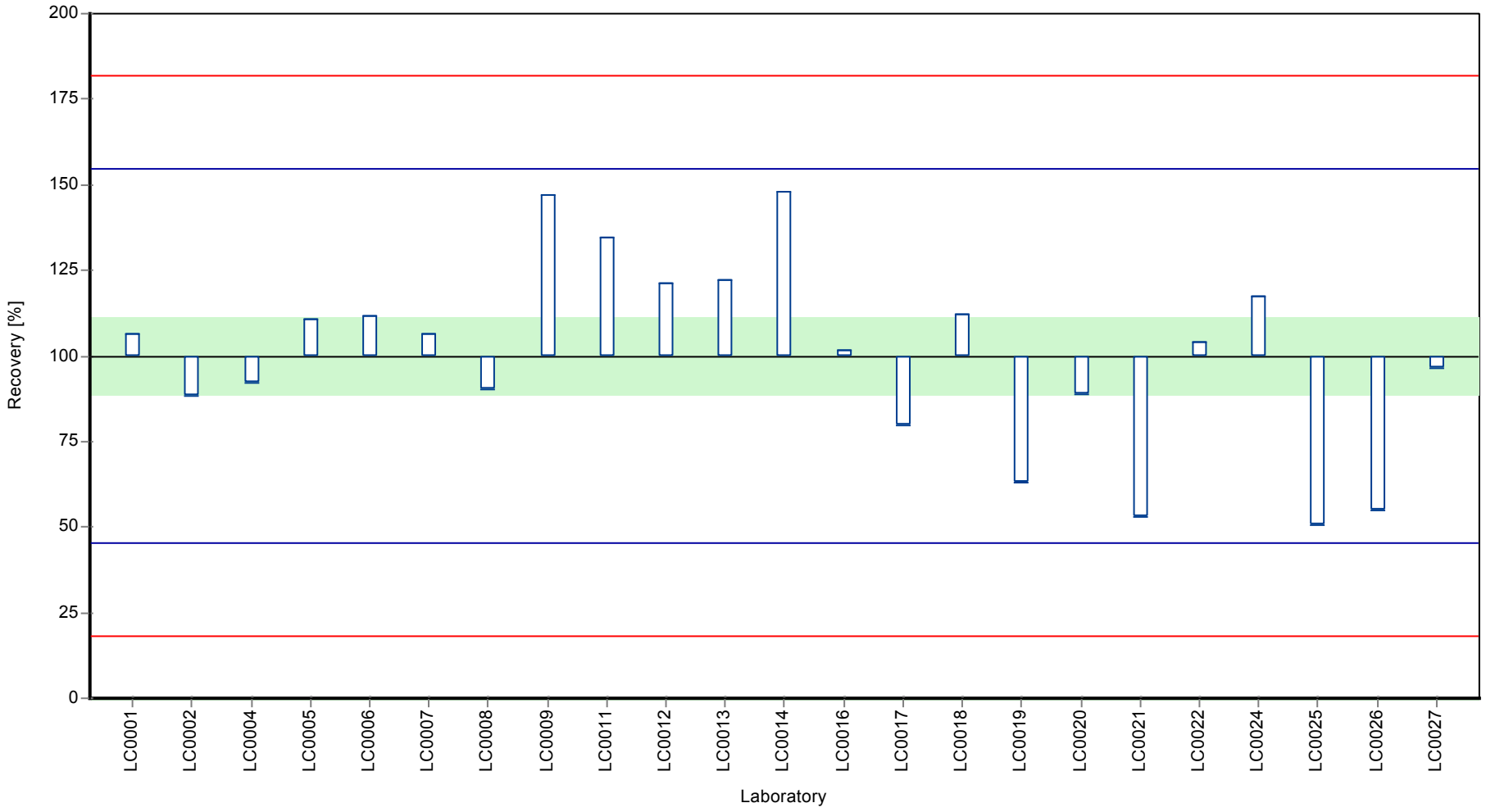
	all results	without outliers	Unit
Mean ± CI (99%)	89.2 ± 15.2	89.2 ± 15.2	ng/l
Minimum	45	45	ng/l
Maximum	132	132	ng/l
Standard deviation	24.3	24.3	ng/l
rel. Standard deviation	27.3	27.3	%
n	23	23	-

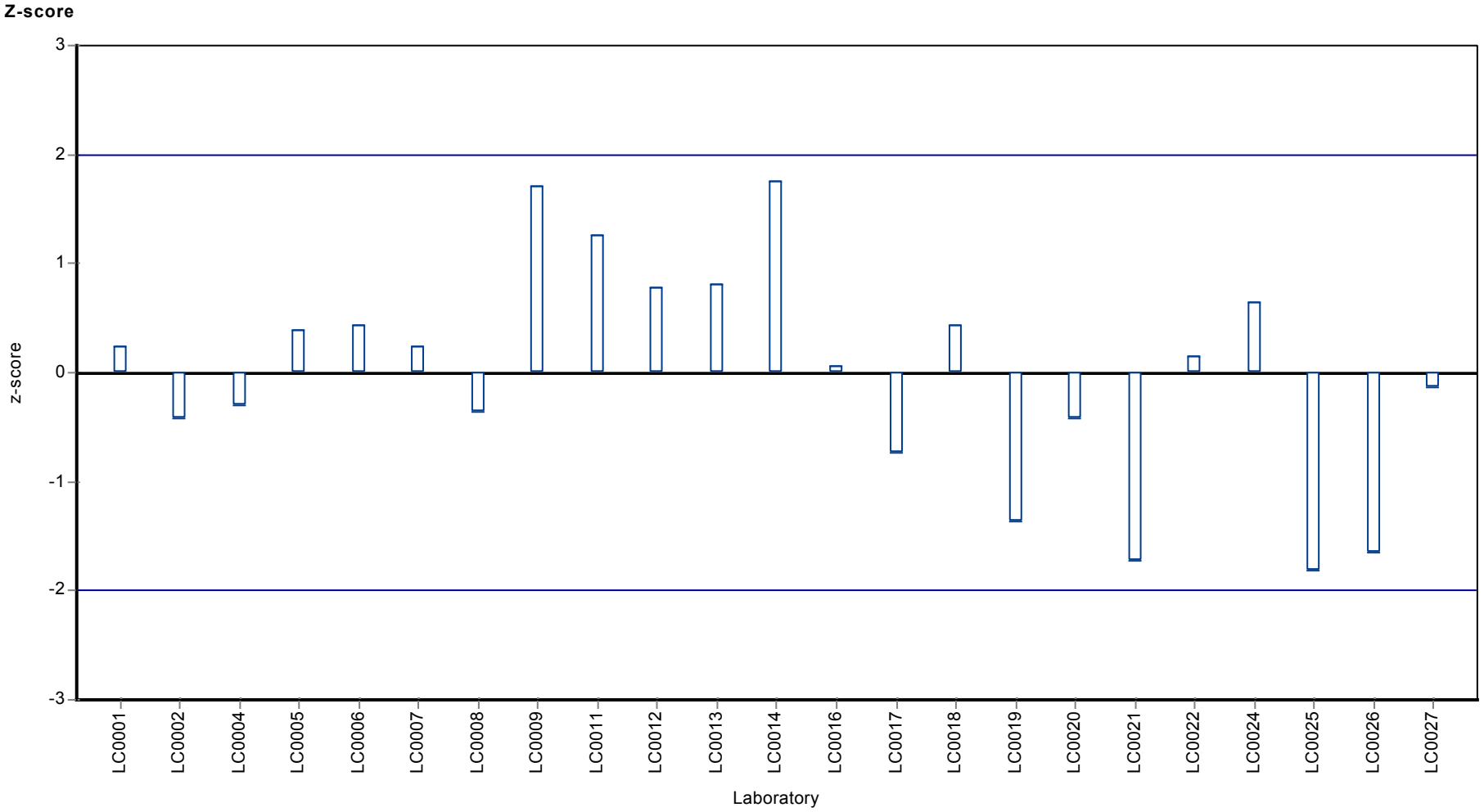
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0007
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LC0009
LC0011
LC0012
LC0013
LC0014
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Anthracene

Unit	ng/l
Mean ± CI (99%)	7.47 ± 4.94
Minimum - Maximum	3 - 18.7
Control test value ± U	4.16 ± 0.383

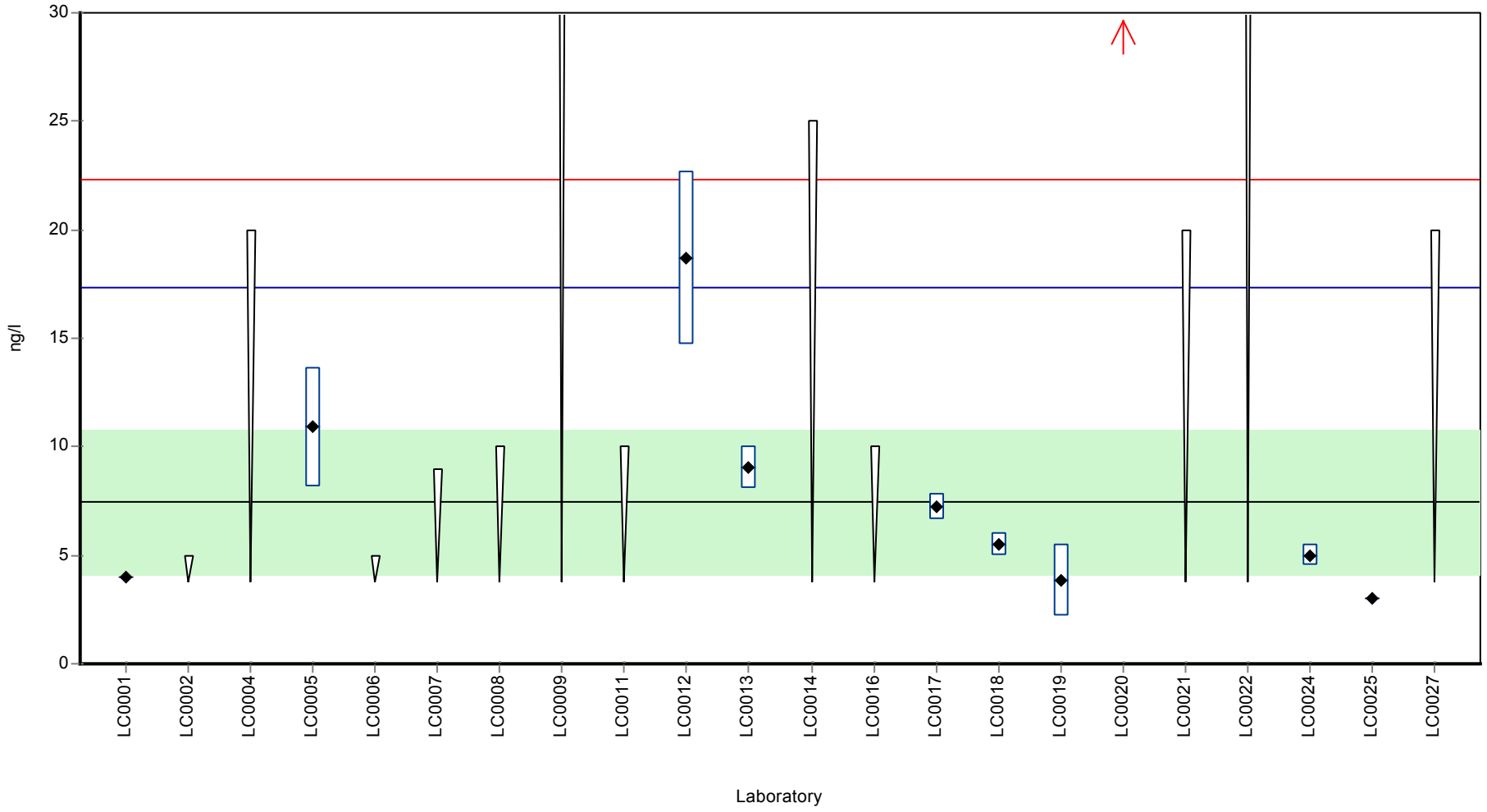
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	4	-	53.5	-0.7	
LC0002	< 5 (LOQ)	-	-	-	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	10.9	2.73	146	0.69	
LC0006	< 5 (LOQ)	-	-	-	
LC0007	<9 (LOD)	-	-	-	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	< 10 (LOQ)	-	-	-	
LC0012	18.7	4	250	2.27	
LC0013	9.05	1	121	0.32	
LC0014	< 25 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	< 10 (LOQ)	-	-	-	
LC0017	7.25	0.58	97	-0.04	
LC0018	5.5	0.5	73.6	-0.4	
LC0019	3.84	1.69	51.4	-0.73	
LC0020	95.04	19.01	1270	17.7	H
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 54 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	5	0.5	66.9	-0.5	
LC0025	3	0.03	40.2	-0.9	
LC0026	-	-	-	-	
LC0027	< 20 (LOQ)	-	-	-	

Characteristics of parameter

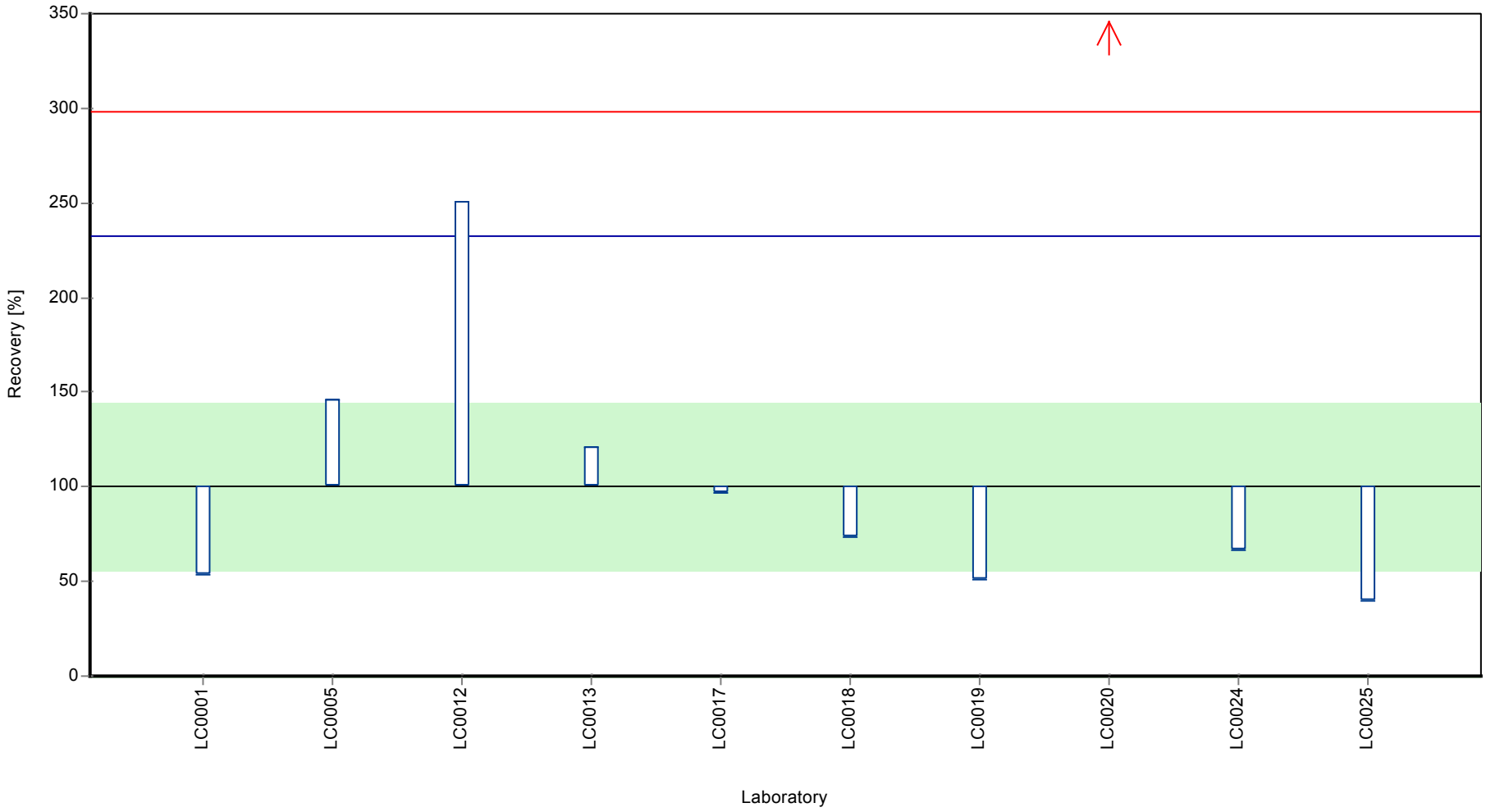
	all results	without outliers	Unit
Mean ± CI (99%)	16.2 ± 26.6	7.47 ± 4.94	ng/l
Minimum	3	3	ng/l
Maximum	95	18.7	ng/l
Standard deviation	28.1	4.94	ng/l
rel. Standard deviation	173	66.2	%
n	10	9	-

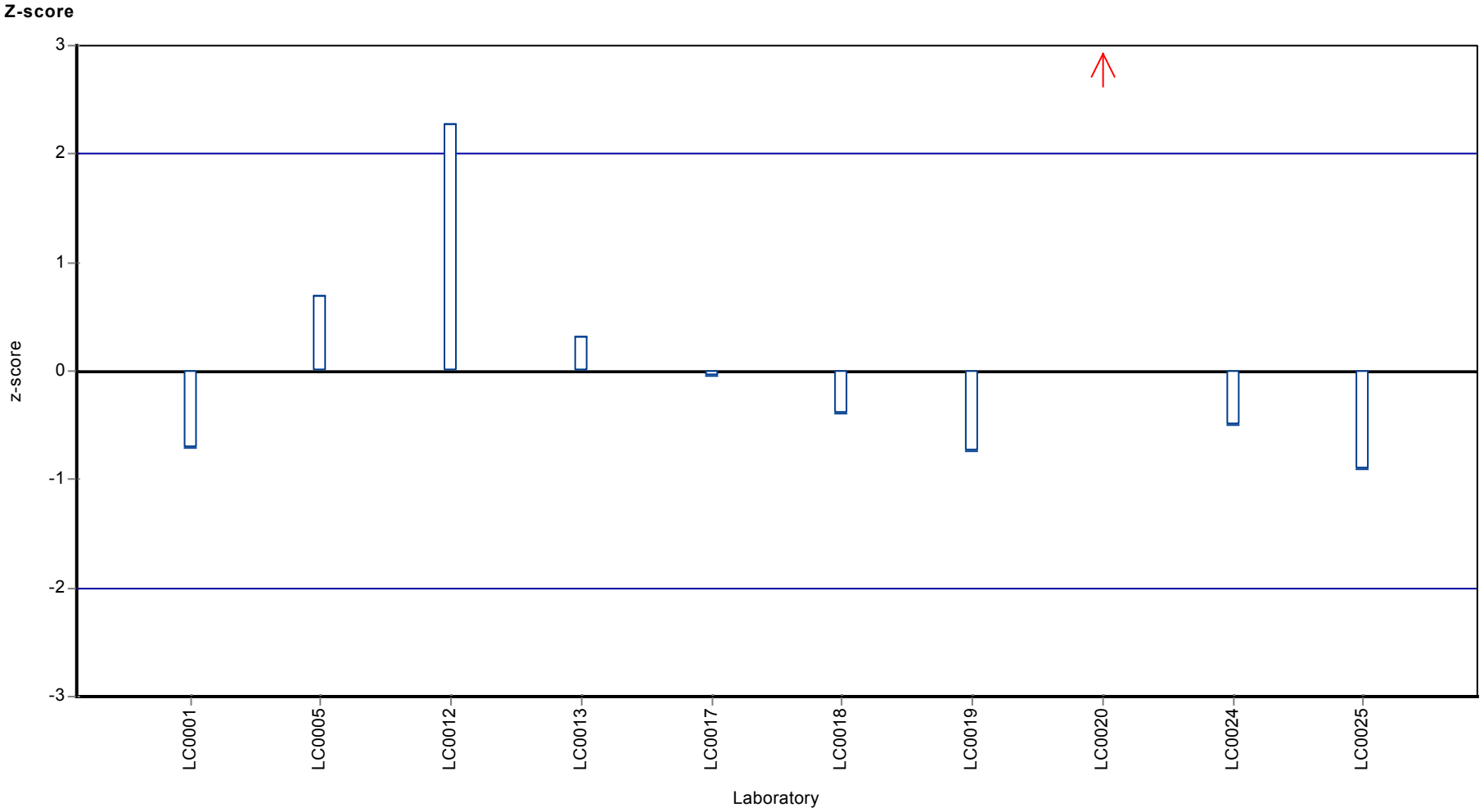
Graphical presentation of results

Results



Recovery rate




Z-score
3
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-1
-2
-3
z-score
LC0001
LC0005
LC0012
LC0013
LC0017
LC0018
LC0019
LC0020
LC0024
LC0025
Laboratory

Parameter oriented report

P18 A

Benzo[a]anthracene

Unit	ng/l
Mean ± CI (99%)	212 ± 24.3
Minimum - Maximum	124 - 270
Control test value ± U	191 ± 34.6

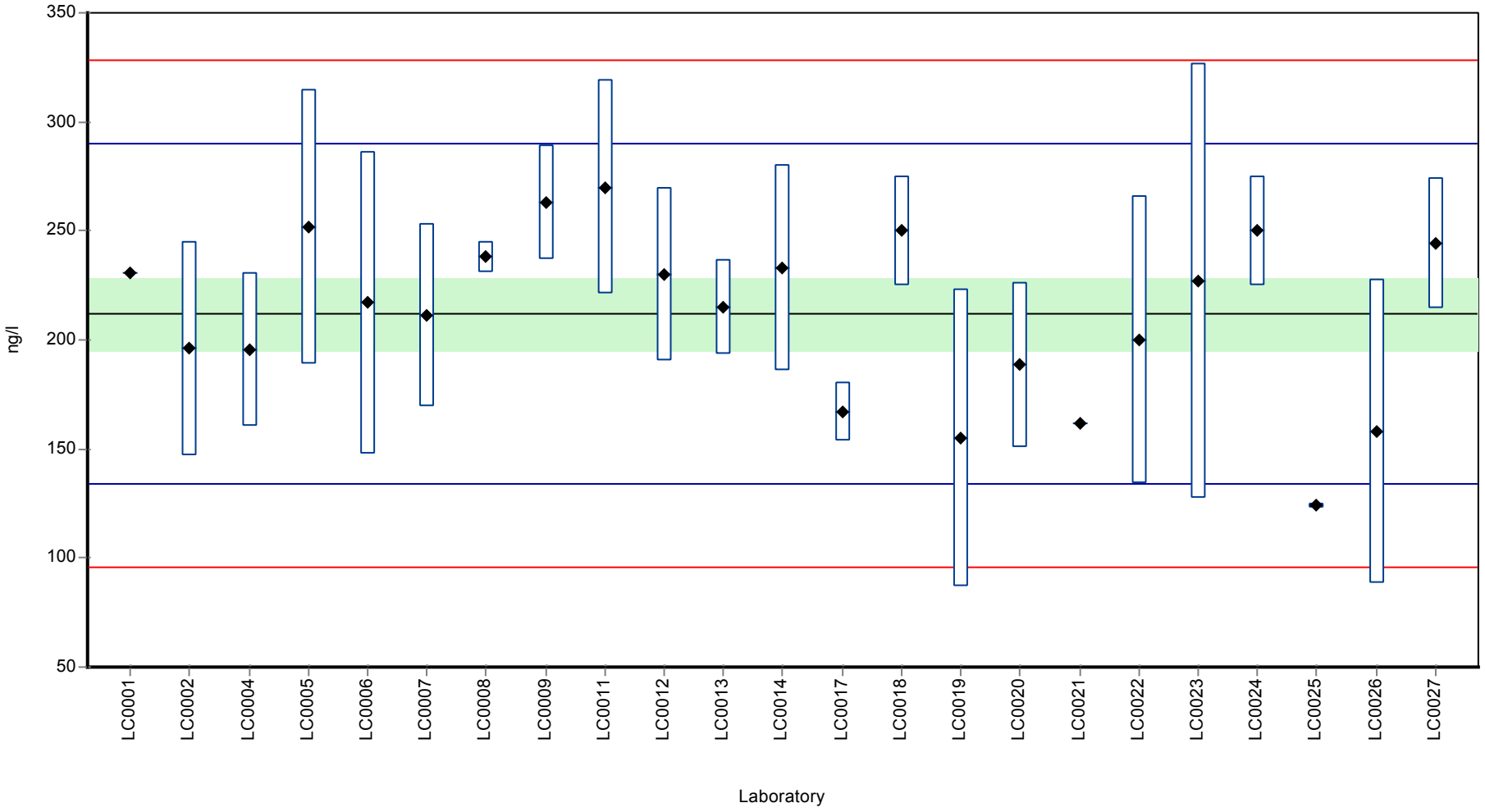
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	231	-	109	0.49	
LC0002	196	49	92.4	-0.41	
LC0003	-	-	-	-	
LC0004	195.6	35.2	92.2	-0.42	
LC0005	252	63.1	119	1.03	
LC0006	217	69.5	102	0.13	
LC0007	211	42	99.5	-0.03	
LC0008	238	7.2	112	0.67	
LC0009	263	26	124	1.31	
LC0010	-	-	-	-	
LC0011	270	49	127	1.49	
LC0012	230.02	40	108	0.46	
LC0013	215	22	101	0.08	
LC0014	233	47	110	0.54	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	167	13.4	78.8	-1.16	
LC0018	250	25	118	0.98	
LC0019	155.13	68.26	73.2	-1.47	
LC0020	188.39	37.88	88.8	-0.61	
LC0021	162	-	76.4	-1.29	
LC0022	200	66	94.3	-0.31	
LC0023	227	100	107	0.39	
LC0024	250	25	118	0.98	
LC0025	124	1.24	58.5	-2.27	
LC0026	158	69.52	74.5	-1.39	
LC0027	244	30	115	0.82	

Characteristics of parameter

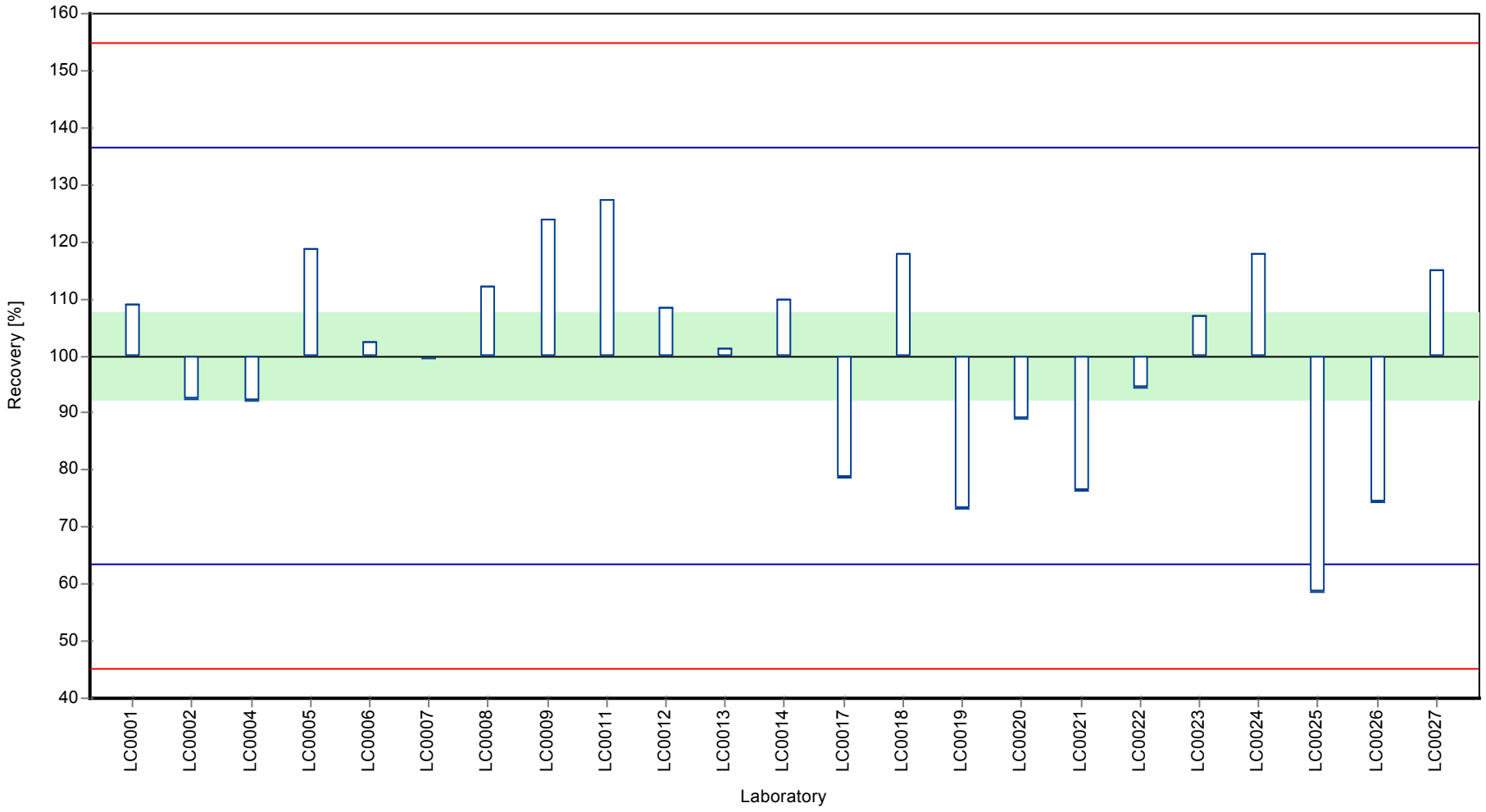
	all results	without outliers	Unit
Mean ± CI (99%)	212 ± 24.3	212 ± 24.3	ng/l
Minimum	124	124	ng/l
Maximum	270	270	ng/l
Standard deviation	38.8	38.8	ng/l
rel. Standard deviation	18.3	18.3	%
n	23	23	-

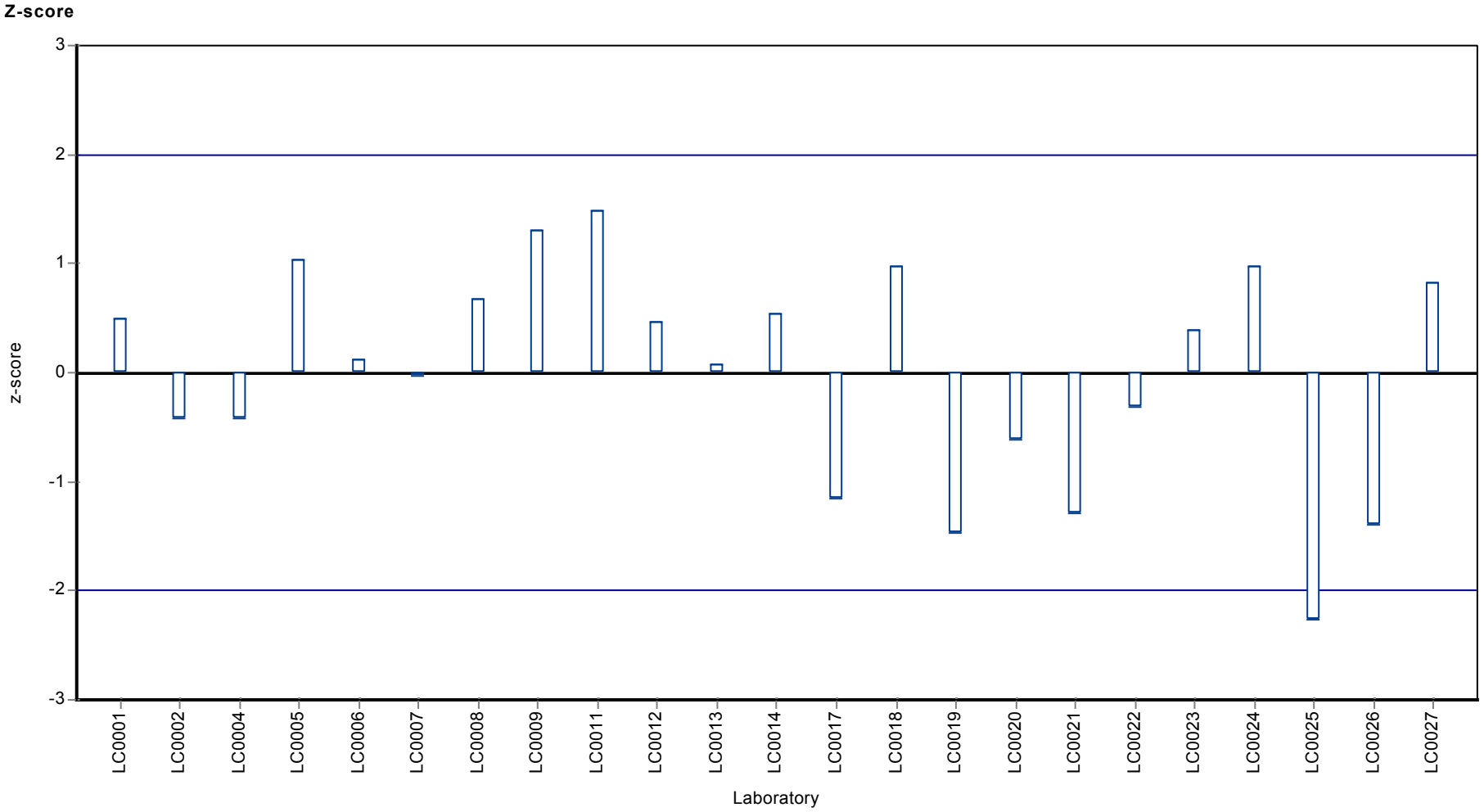
Graphical presentation of results

Results



Recovery rate

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-3
z-score
LC0001
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LC0006
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LC0009
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LC0017
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LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Benzo[a]anthracene

Unit	ng/l
Mean ± CI (99%)	60.7 ± 6.88
Minimum - Maximum	44 - 84.5
Control test value ± U	46.8 ± 4.88

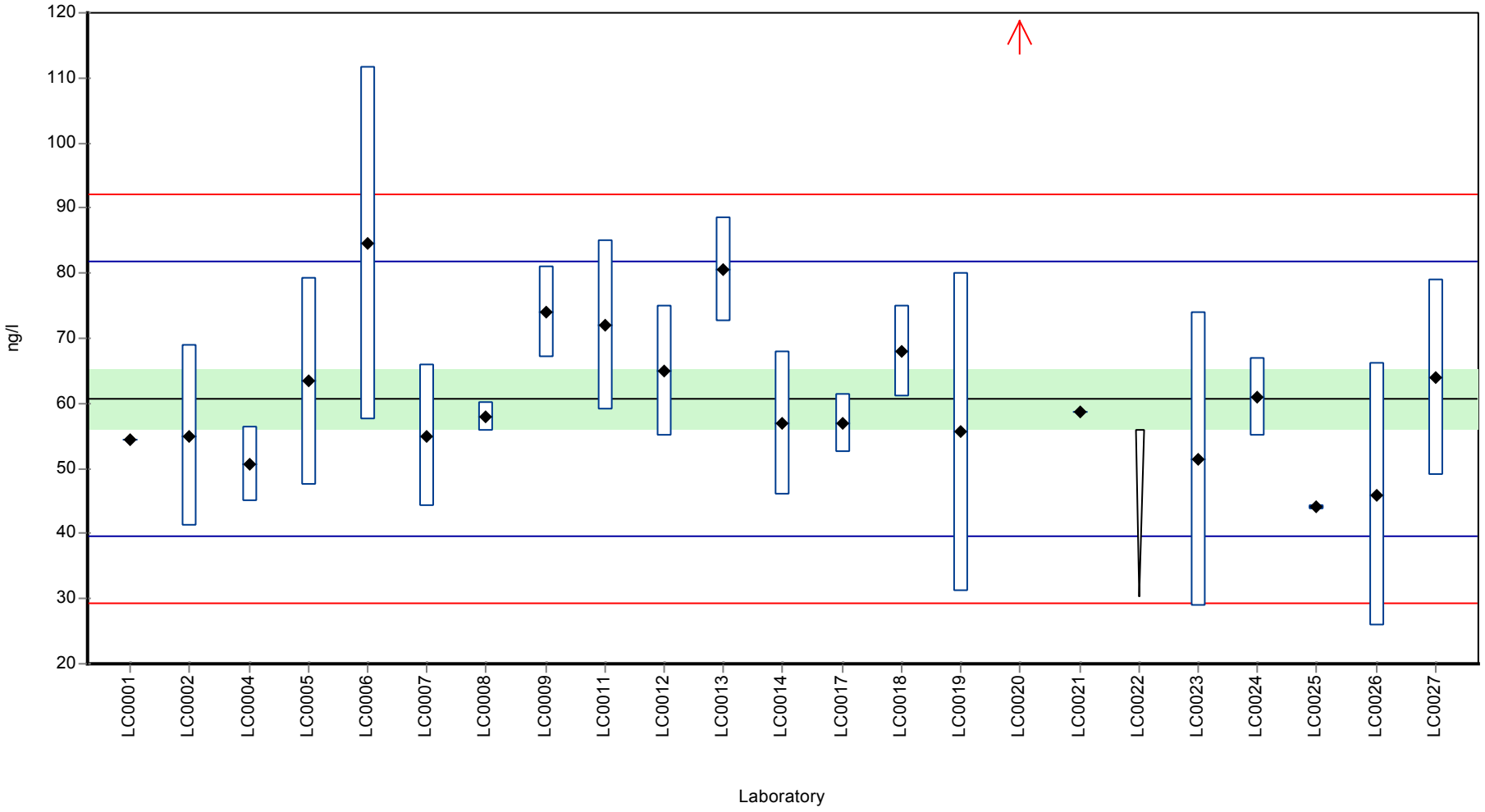
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	54.5	-	89.8	-0.59	
LC0002	55	14	90.6	-0.54	
LC0003	-	-	-	-	
LC0004	50.6	5.8	83.4	-0.96	
LC0005	63.4	15.9	104	0.26	
LC0006	84.5	27.1	139	2.26	
LC0007	55	11	90.6	-0.54	
LC0008	57.9	2.28	95.4	-0.27	
LC0009	74	7	122	1.27	
LC0010	-	-	-	-	
LC0011	72	13	119	1.07	
LC0012	64.98	10	107	0.41	
LC0013	80.5	8.1	133	1.88	
LC0014	57	11	93.9	-0.35	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	57	4.56	93.9	-0.35	
LC0018	68	7	112	0.69	
LC0019	55.56	24.44	91.5	-0.49	
LC0020	208.94	41.79	344	14.1	H
LC0021	58.6	-	96.5	-0.2	
LC0022	< 56 (LOQ)	-	-	-	
LC0023	51.3	22.6	84.5	-0.9	
LC0024	61	6.1	100	0.03	
LC0025	44	0.44	72.5	-1.59	
LC0026	46	20.24	75.8	-1.4	
LC0027	64	15	105	0.31	

Characteristics of parameter

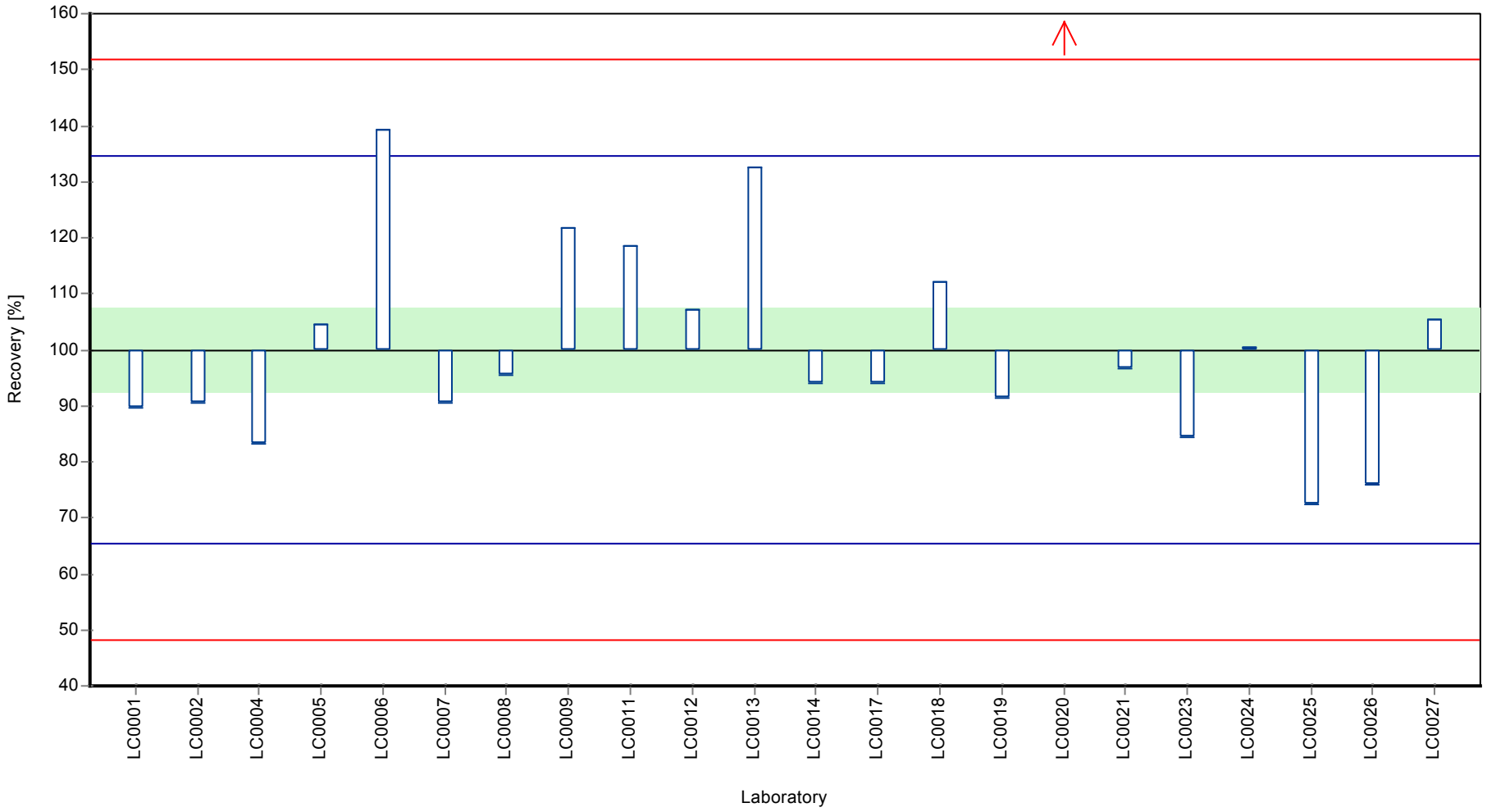
	all results	without outliers	Unit
Mean ± CI (99%)	67.4 ± 21.3	60.7 ± 6.88	ng/l
Minimum	44	44	ng/l
Maximum	209	84.5	ng/l
Standard deviation	33.2	10.5	ng/l
rel. Standard deviation	49.3	17.3	%
n	22	21	-

Graphical presentation of results

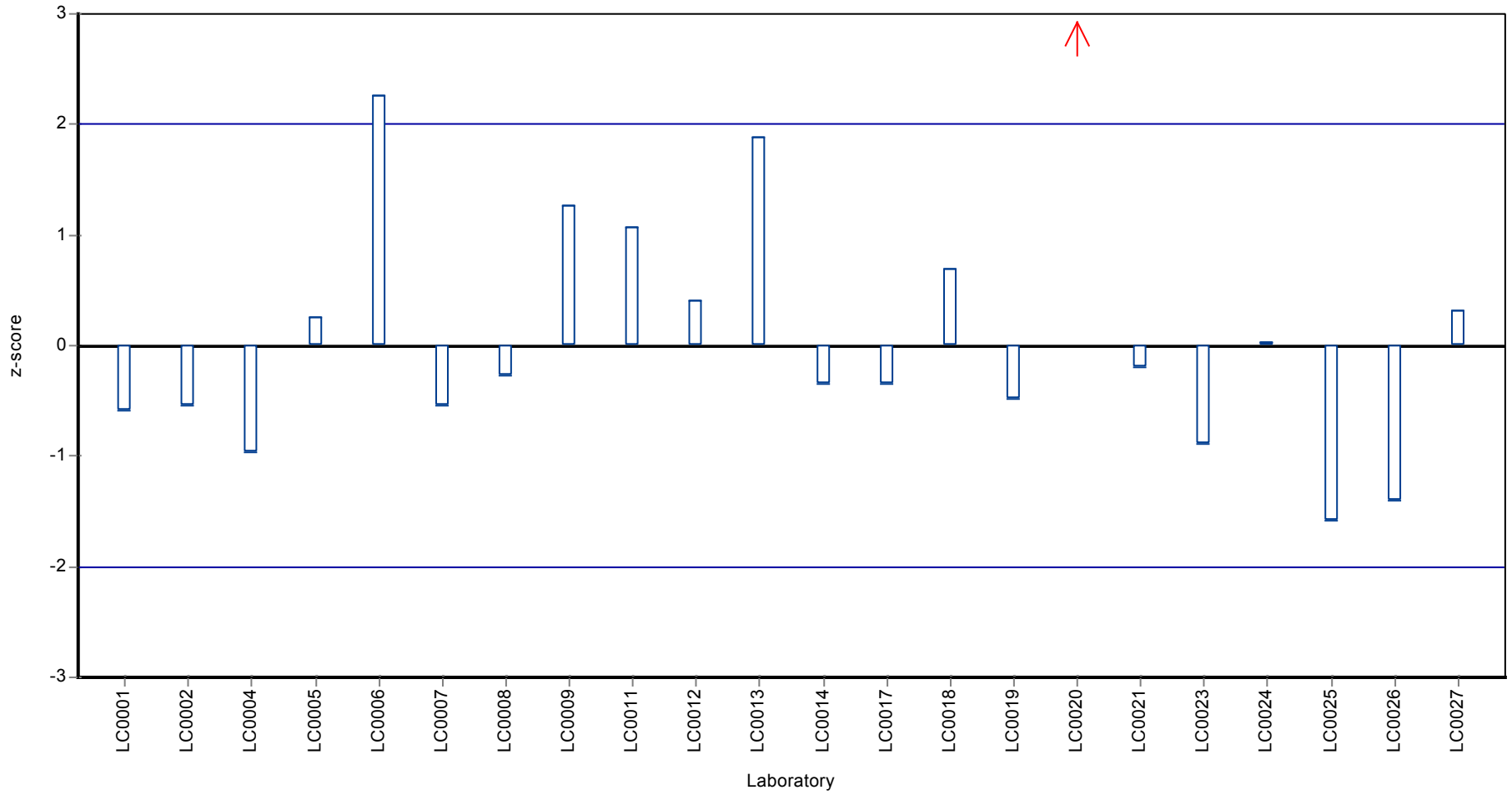
Results



Recovery rate



Z-score


3
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-1
-2
-3
z-score
LC0001
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LC0005
LC0006
LC0007
LC0008
LC0009
LC0011
LC0012
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LC0014
LC0017
LC0018
LC0019
LC0020
LC0021
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 A

Benzo[a]pyrene

Unit	ng/l
Mean ± CI (99%)	166 ± 27.4
Minimum - Maximum	86.3 - 232
Control test value ± U	204 ± 38.8

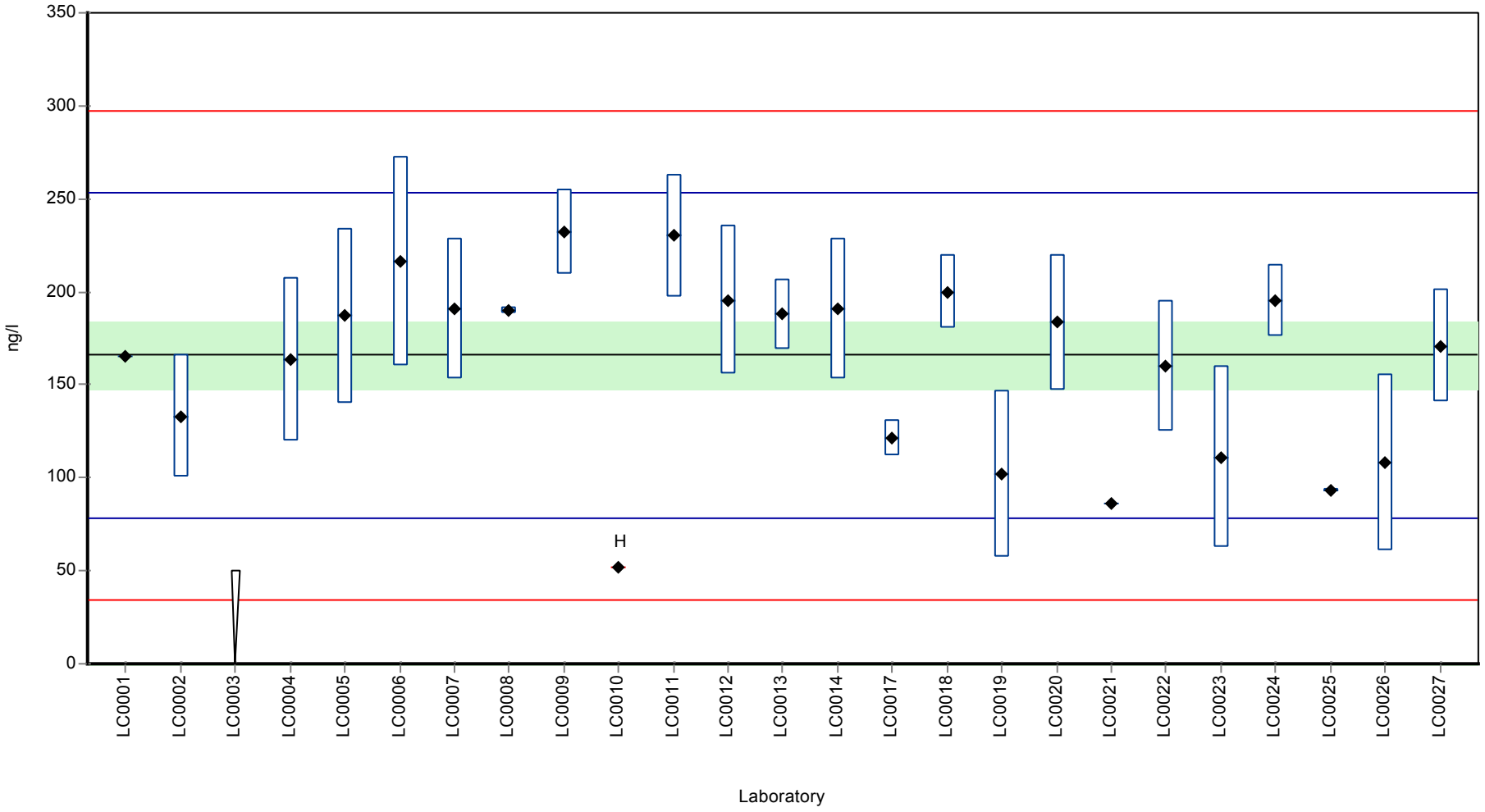
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	165.5	-	99.8	-0.01	
LC0002	133	33	80.2	-0.75	
LC0003	< 50 (LOQ)	-	-	-	FN
LC0004	163.5	44.1	98.6	-0.05	
LC0005	187	46.8	113	0.48	
LC0006	216	56.3	130	1.15	
LC0007	191	38	115	0.57	
LC0008	190	1.8	115	0.55	
LC0009	232	23	140	1.51	
LC0010	51.8	-	31.2	-2.6	H
LC0011	230	33	139	1.47	
LC0012	195.6	40	118	0.68	
LC0013	188	19	113	0.51	
LC0014	191	38	115	0.57	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	121.7	9.74	73.4	-1.01	
LC0018	200	20	121	0.78	
LC0019	102.03	44.89	61.5	-1.46	
LC0020	183.57	36.71	111	0.41	
LC0021	86.3	-	52	-1.82	
LC0022	160	35	96.5	-0.13	
LC0023	111	49	66.9	-1.25	
LC0024	195	19.5	118	0.67	
LC0025	93	0.93	56.1	-1.66	
LC0026	108	47.52	65.1	-1.32	
LC0027	171	30	103	0.12	

Characteristics of parameter

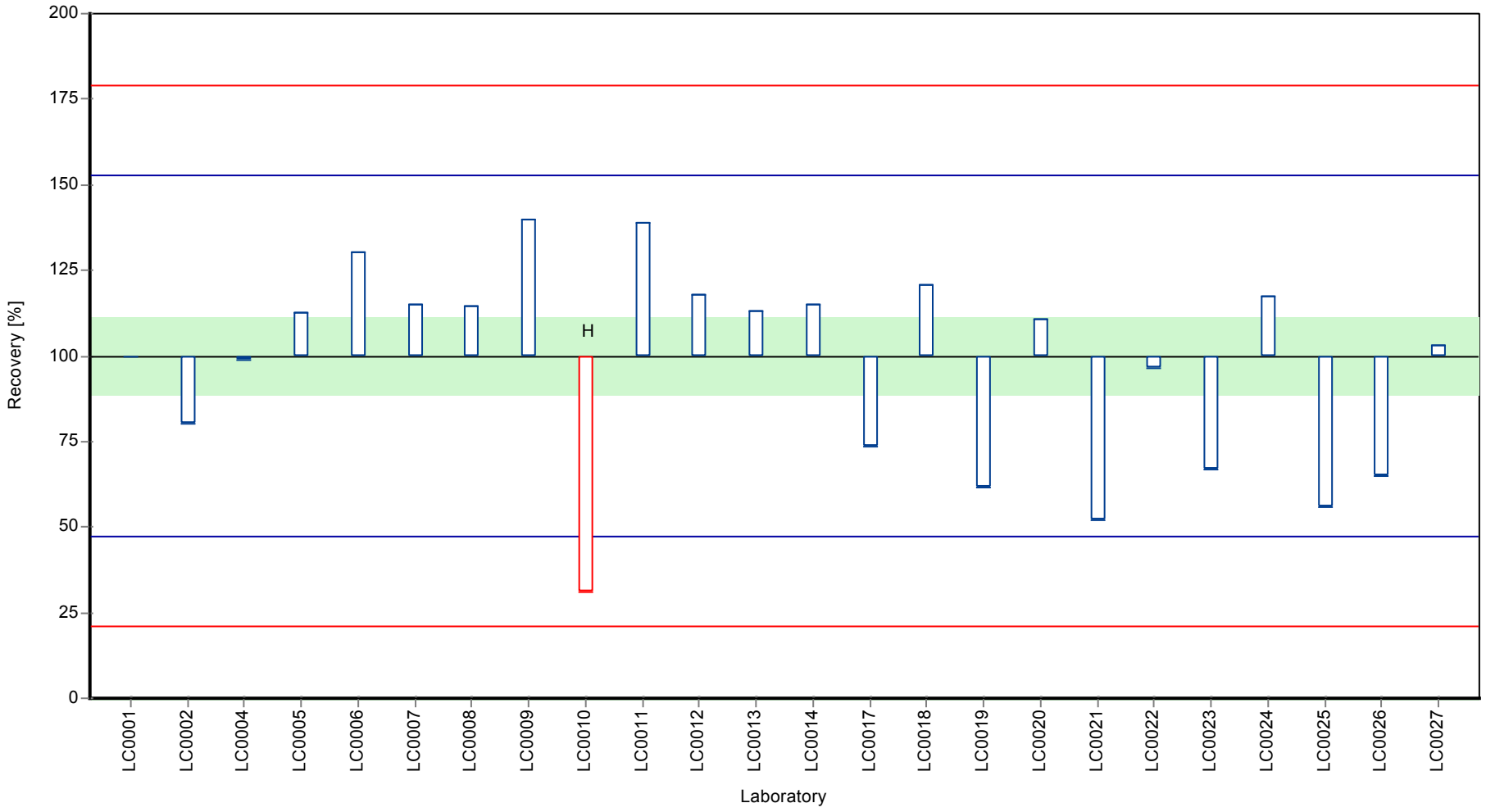
	all results	without outliers	Unit
Mean ± CI (99%)	161 ± 29.8	166 ± 27.4	ng/l
Minimum	51.8	86.3	ng/l
Maximum	232	232	ng/l
Standard deviation	48.7	43.8	ng/l
rel. Standard deviation	30.3	26.4	%
n	24	23	-

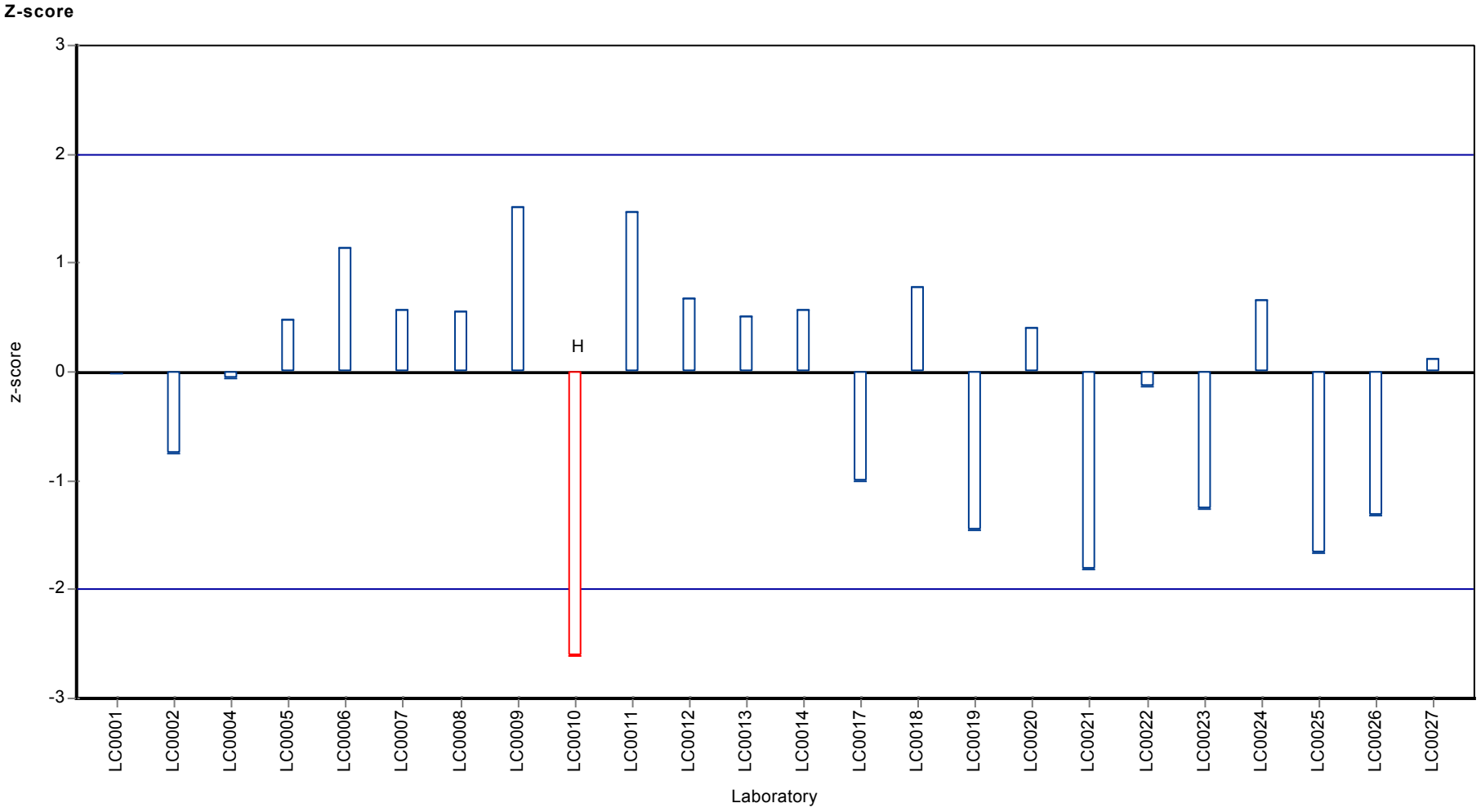
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
3
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LC0001
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LC0004
LC0005
LC0006
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LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Benzo[a]pyrene

Unit	ng/l
Mean ± CI (99%)	7.92 ± 1.42
Minimum - Maximum	6 - 11.3
Control test value ± U	7.44 ± 0.921

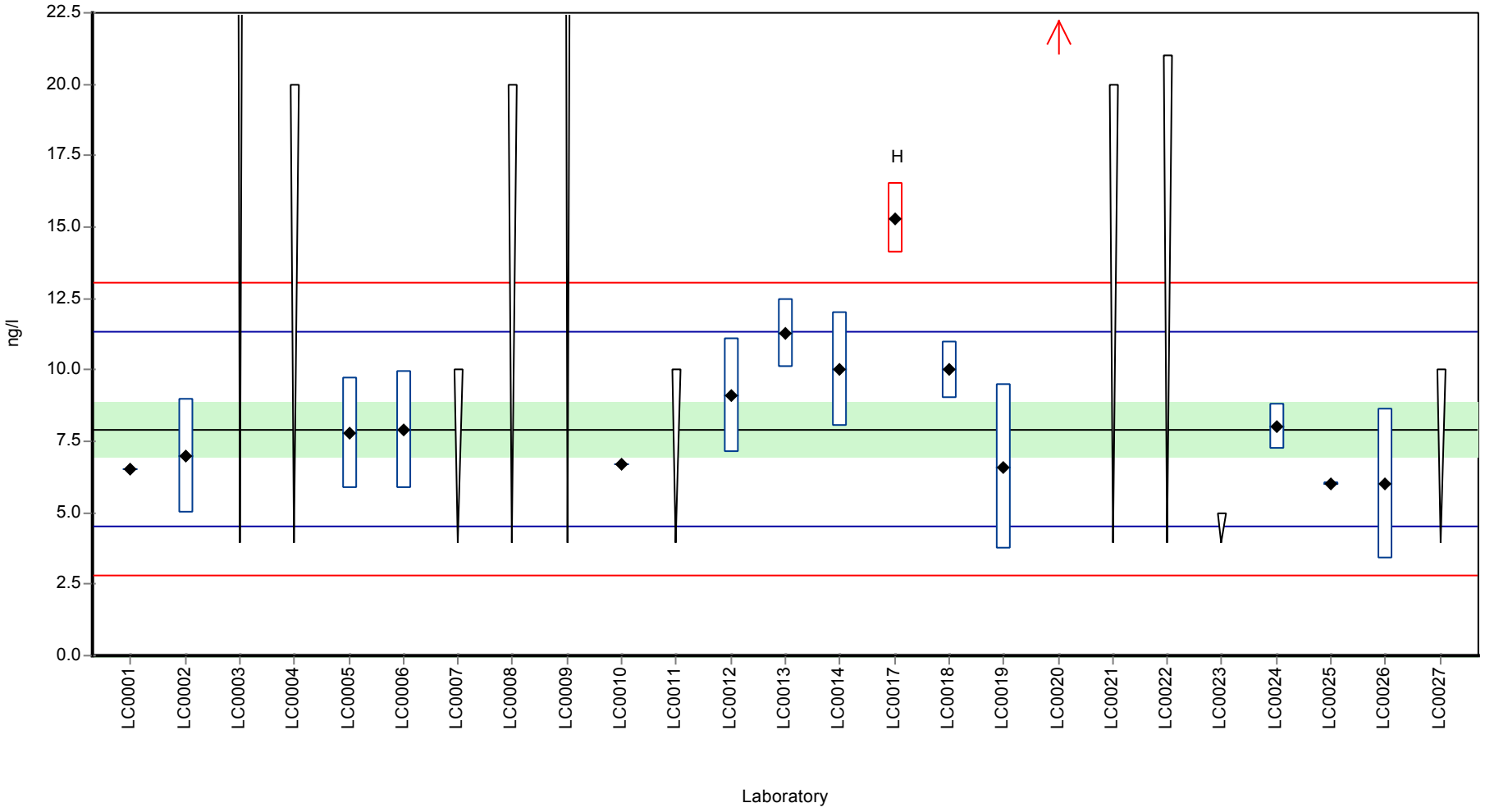
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6.5	-	82.1	-0.83	
LC0002	7	2	88.4	-0.54	
LC0003	< 50 (LOQ)	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	7.8	1.94	98.5	-0.07	
LC0006	7.91	2.06	99.9	0.00	
LC0007	<10 (LOD)	-	-	-	
LC0008	< 20 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	6.7	-	84.6	-0.71	
LC0011	< 10 (LOQ)	-	-	-	
LC0012	9.1	2	115	0.69	
LC0013	11.3	1.2	143	1.98	
LC0014	10	2	126	1.22	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	15.3	1.22	193	4.33	H
LC0018	10	1	126	1.22	
LC0019	6.6	2.9	83.4	-0.77	
LC0020	30.77	6.154	389	13.4	H
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 21 (LOQ)	-	-	-	
LC0023	< 5 (LOQ)	-	-	-	
LC0024	8	0.8	101	0.05	
LC0025	6	0.06	75.8	-1.12	
LC0026	6	2.64	75.8	-1.12	
LC0027	< 10 (LOQ)	-	-	-	

Characteristics of parameter

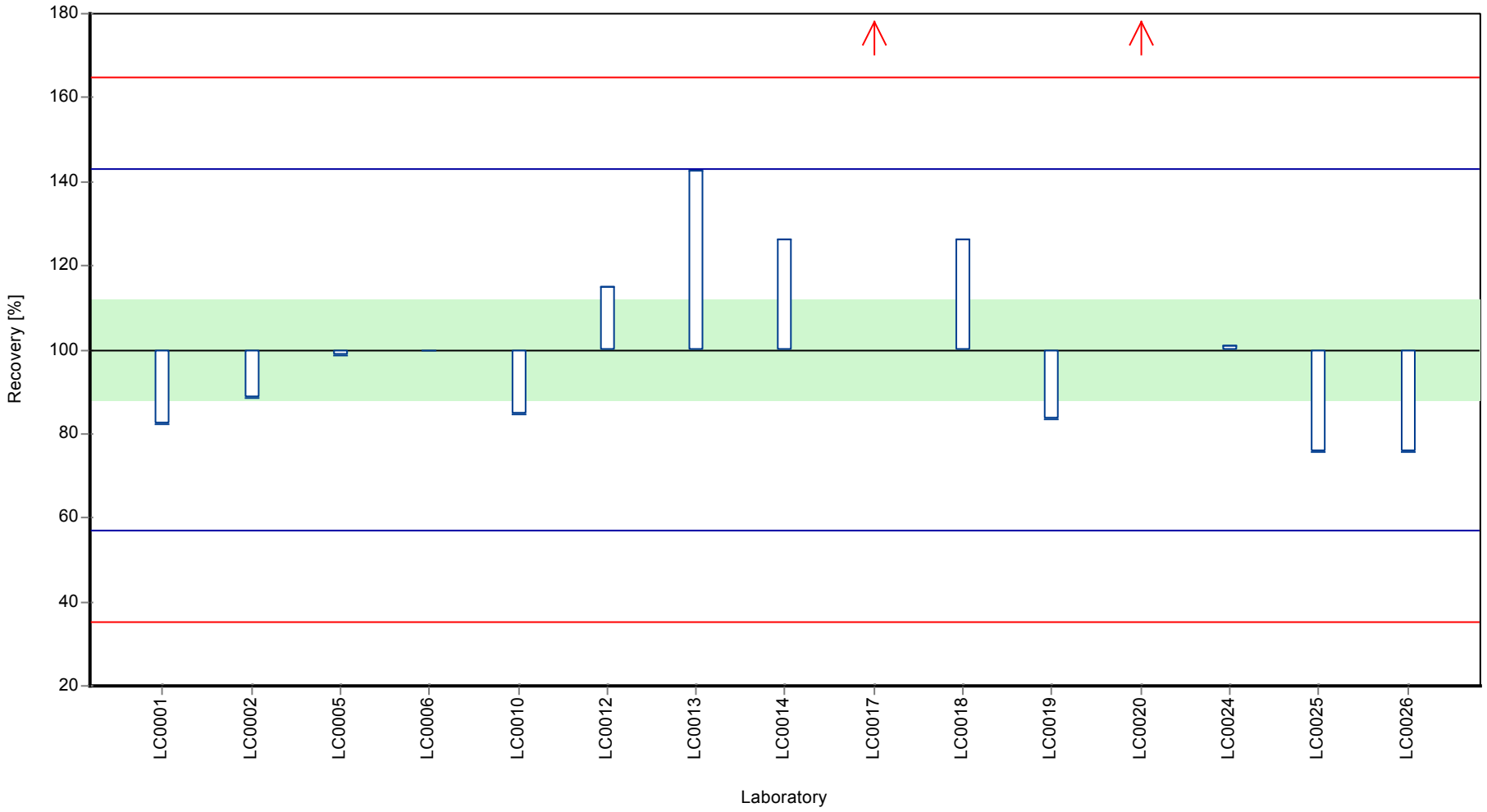
	all results	without outliers	Unit
Mean ± CI (99%)	9.93 ± 4.86	7.92 ± 1.42	ng/l
Minimum	6	6	ng/l
Maximum	30.8	11.3	ng/l
Standard deviation	6.27	1.71	ng/l
rel. Standard deviation	63.2	21.6	%
n	15	13	-

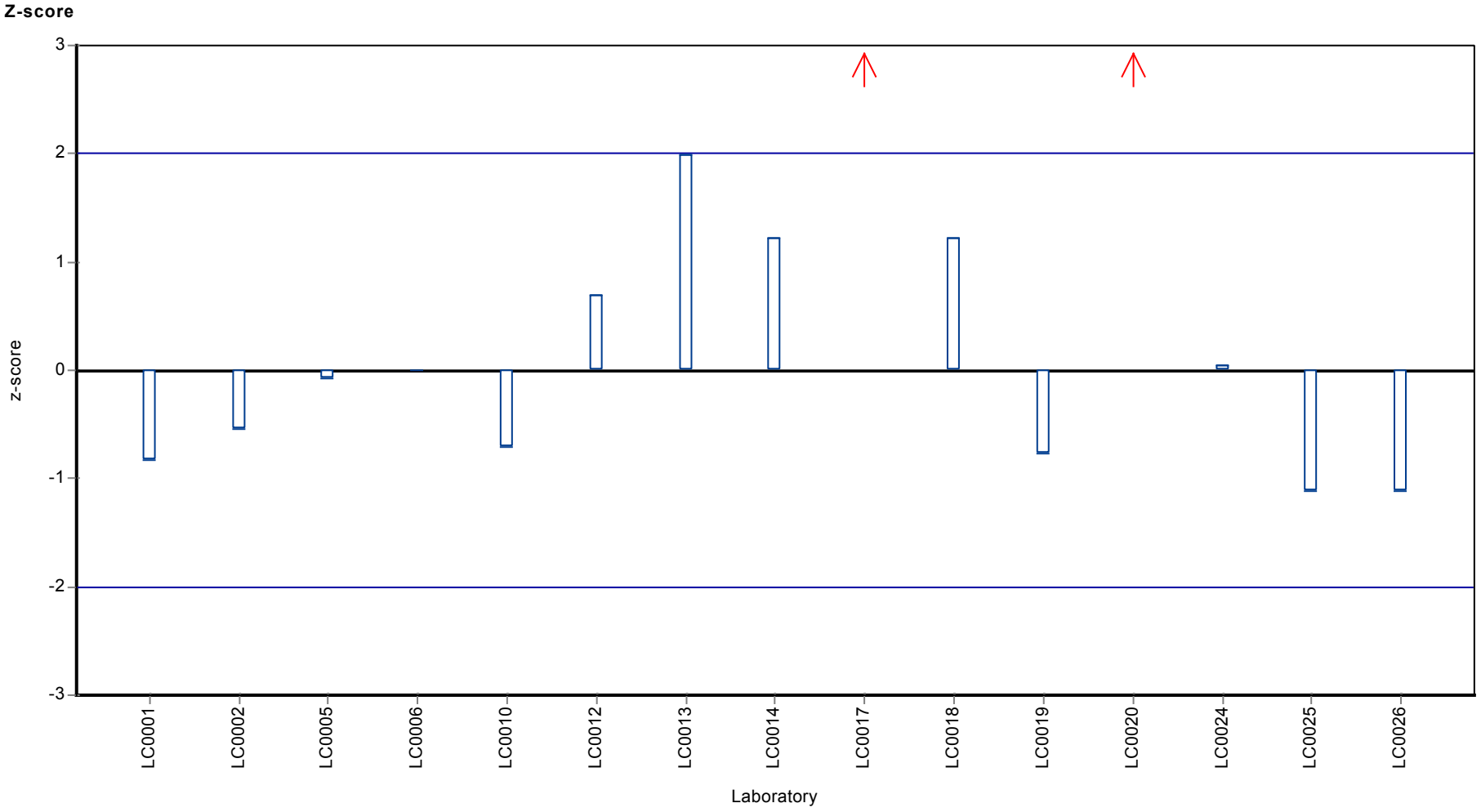
Graphical presentation of results

Results



Recovery rate




Z-score
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-1
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-3
z-score
LC0001
LC0002
LC0005
LC0006
LC0010
LC0012
LC0013
LC0014
LC0017
LC0018
LC0019
LC0020
LC0024
LC0025
LC0026
Laboratory

Parameter oriented report

P18 A

Benzo[b]fluoranthene

Unit	ng/l
Mean ± CI (99%)	85.8 ± 7.71
Minimum - Maximum	65 - 106
Control test value ± U	111 ± 23.2

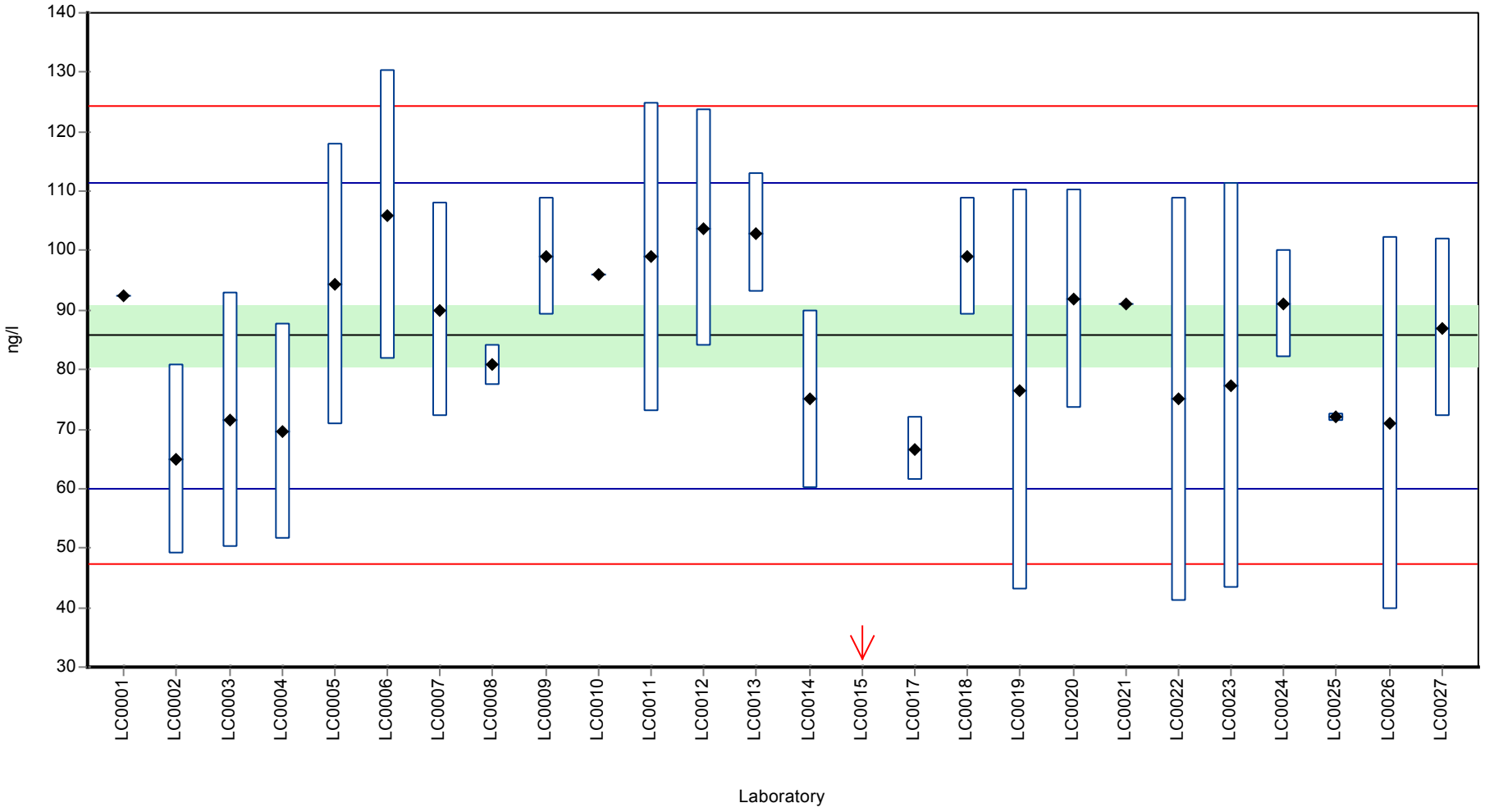
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	92.5	-	108	0.52	
LC0002	65	16	75.8	-1.61	
LC0003	71.6	21.5	83.5	-1.1	
LC0004	69.6	18.1	81.2	-1.26	
LC0005	94.3	23.6	110	0.66	
LC0006	106	24.3	124	1.57	
LC0007	90	18	105	0.33	
LC0008	80.8	3.51	94.2	-0.39	
LC0009	99	10	115	1.03	
LC0010	95.9	-	112	0.79	
LC0011	99	26	115	1.03	
LC0012	103.82	20	121	1.4	
LC0013	103	10	120	1.34	
LC0014	75	15	87.5	-0.84	
LC0015	25.8	-	30.1	-4.66	H
LC0016	-	-	-	-	
LC0017	66.7	5.34	77.8	-1.48	
LC0018	99	10	115	1.03	
LC0019	76.51	33.67	89.2	-0.72	
LC0020	91.91	18.38	107	0.48	
LC0021	91	-	106	0.41	
LC0022	75	34	87.5	-0.84	
LC0023	77.4	34.1	90.3	-0.65	
LC0024	91	9.1	106	0.41	
LC0025	72	0.72	84	-1.07	
LC0026	71	31.24	82.8	-1.15	
LC0027	87	15	101	0.1	

Characteristics of parameter

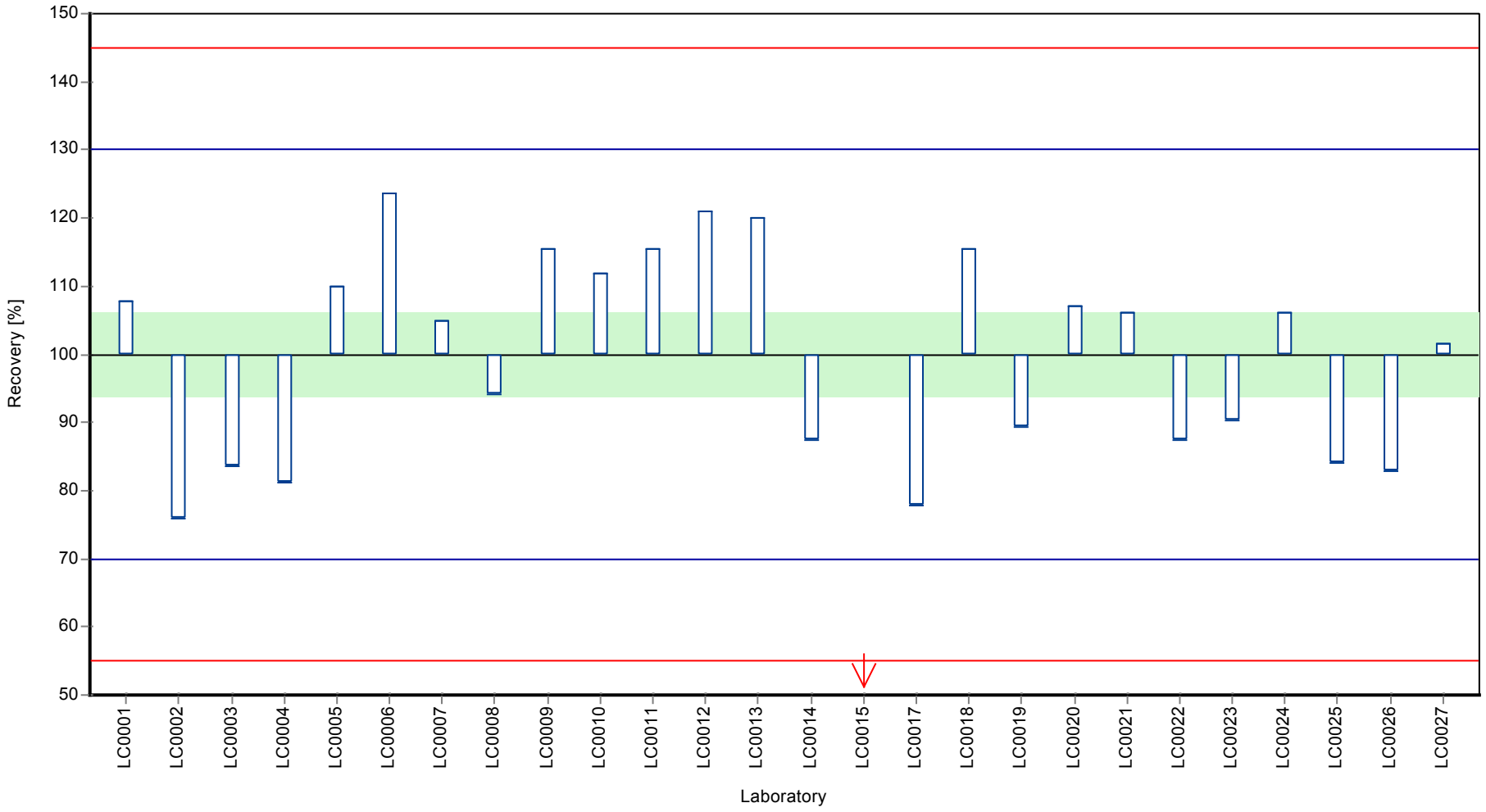
	all results	without outliers	Unit
Mean ± CI (99%)	83.5 ± 10.1	85.8 ± 7.71	ng/l
Minimum	25.8	65	ng/l
Maximum	106	106	ng/l
Standard deviation	17.2	12.9	ng/l
rel. Standard deviation	20.6	15	%
n	26	25	-

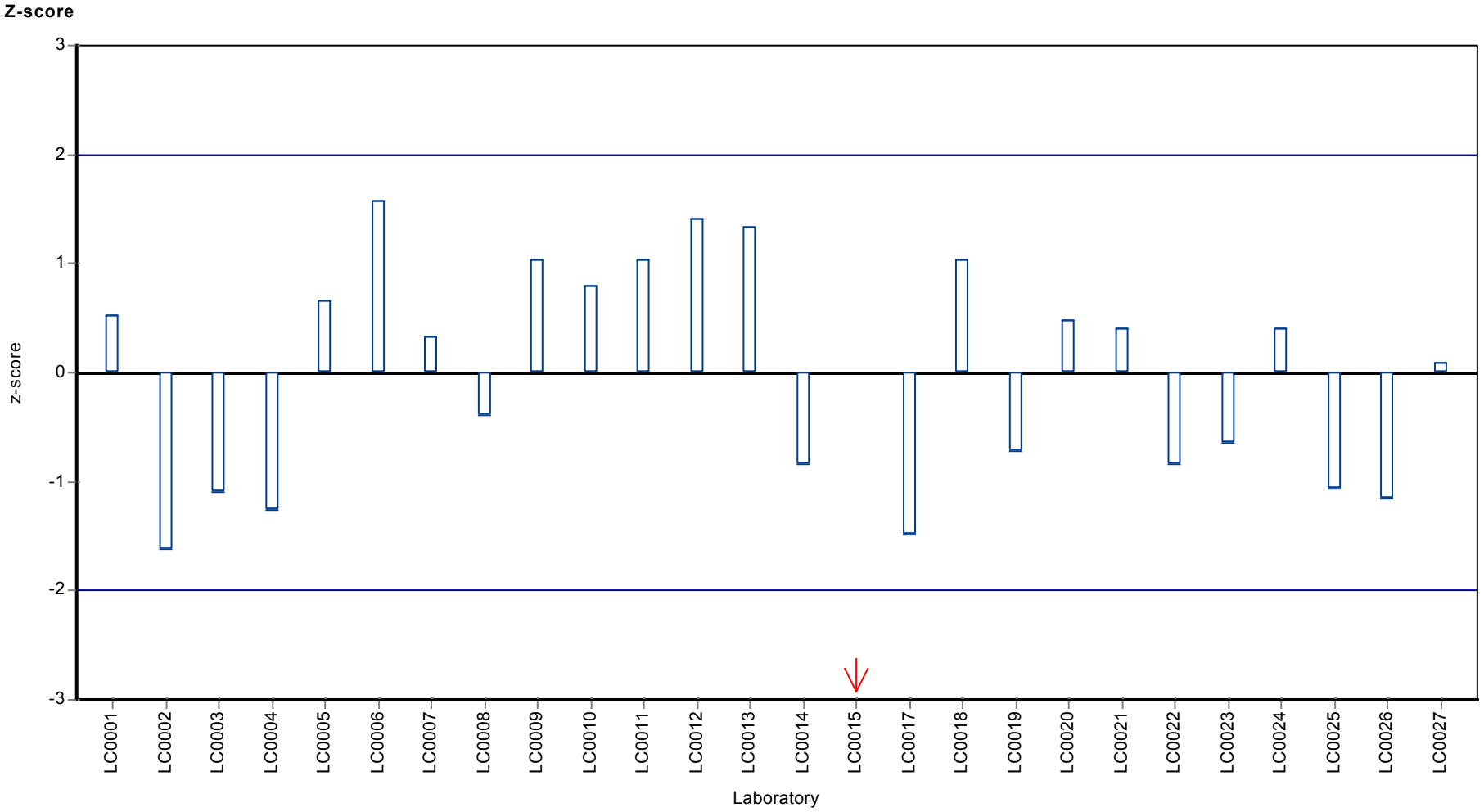
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
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LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Benzo[b]fluoranthene

Unit	ng/l
Mean ± CI (99%)	36.5 ± 5.08
Minimum - Maximum	18.2 - 54.7
Control test value ± U	40.2 ± 4.34

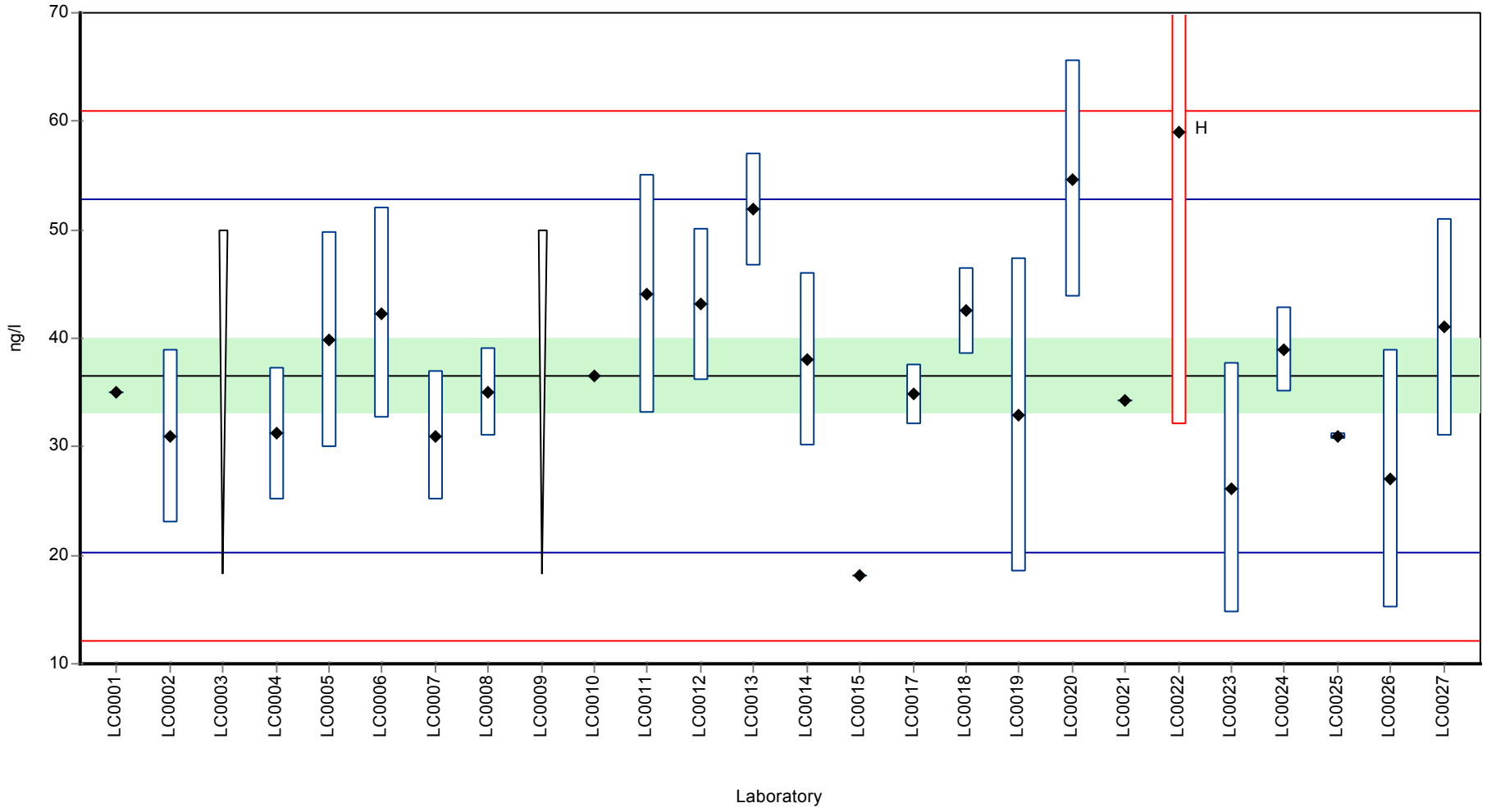
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	35	-	95.8	-0.19	
LC0002	31	8	84.8	-0.68	
LC0003	< 50 (LOQ)	-	-	-	
LC0004	31.2	6.1	85.4	-0.66	
LC0005	39.8	9.95	109	0.4	
LC0006	42.3	9.73	116	0.71	
LC0007	31	6	84.8	-0.68	
LC0008	35	4.09	95.8	-0.19	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	36.5	-	99.9	0.00	
LC0011	44	11	120	0.92	
LC0012	43.13	7	118	0.81	
LC0013	51.9	5.2	142	1.89	
LC0014	38	8	104	0.18	
LC0015	18.2	-	49.8	-2.26	
LC0016	-	-	-	-	
LC0017	34.8	2.78	95.2	-0.21	
LC0018	42.5	4	116	0.73	
LC0019	32.88	14.47	90	-0.45	
LC0020	54.69	10.93	150	2.23	
LC0021	34.3	-	93.9	-0.28	
LC0022	59	27	161	2.76	H
LC0023	26.2	11.5	71.7	-1.27	
LC0024	39	3.9	107	0.3	
LC0025	31	0.31	84.8	-0.68	
LC0026	27	11.88	73.9	-1.17	
LC0027	41	10	112	0.55	

Characteristics of parameter

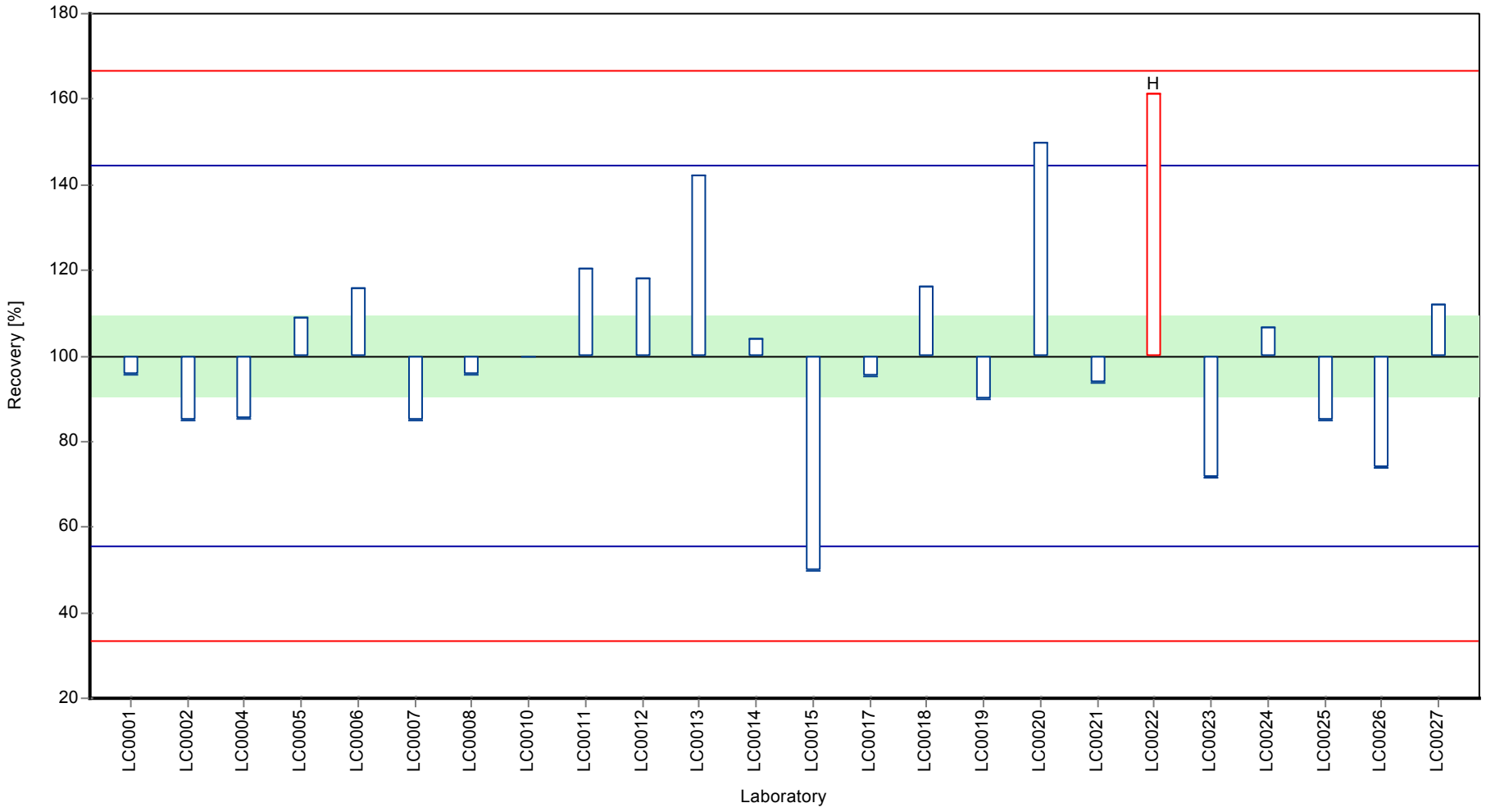
	all results	without outliers	Unit
Mean ± CI (99%)	37.5 ± 5.62	36.5 ± 5.08	ng/l
Minimum	18.2	18.2	ng/l
Maximum	59	54.7	ng/l
Standard deviation	9.18	8.13	ng/l
rel. Standard deviation	24.5	22.2	%
n	24	23	-

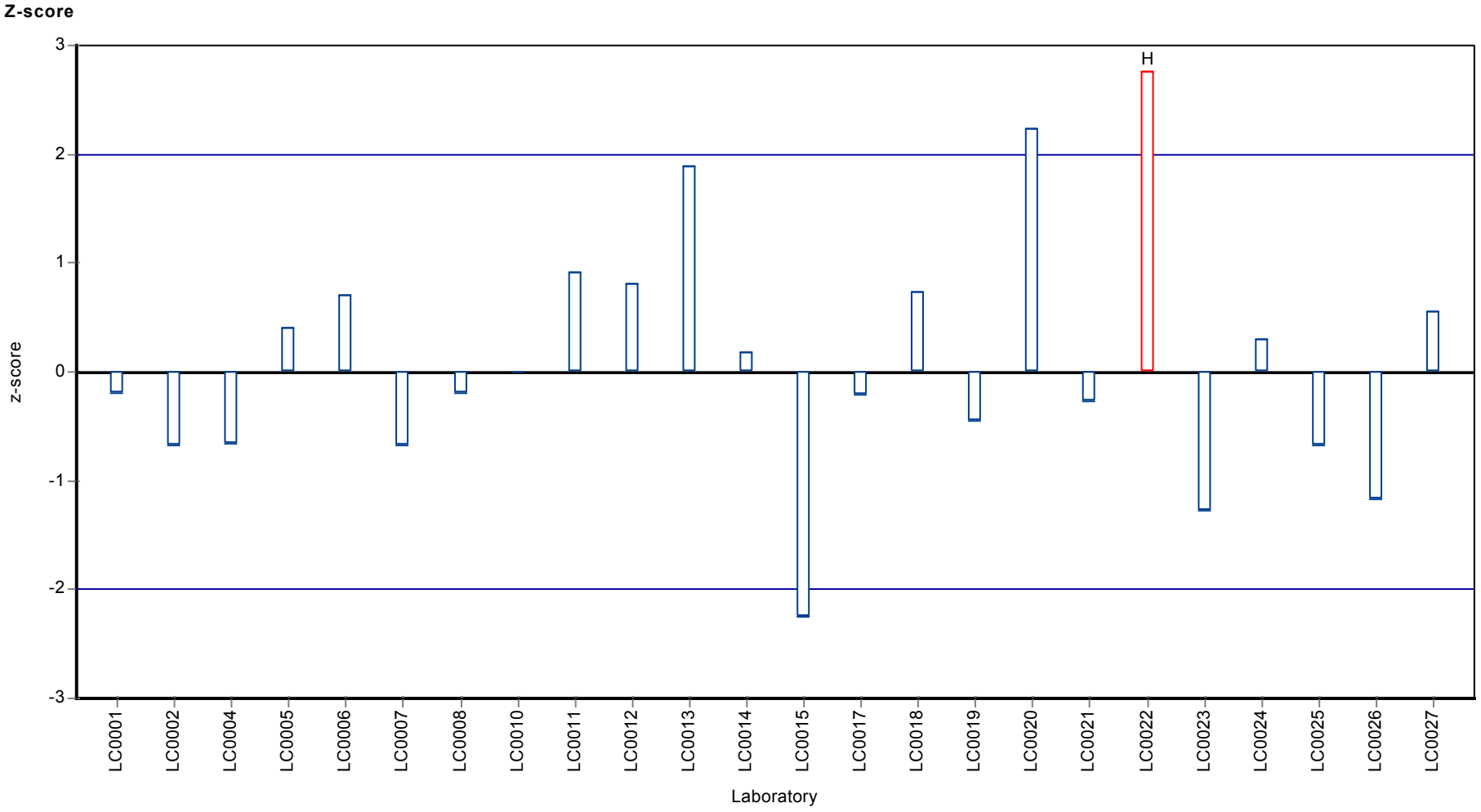
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
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LC0001
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LC0018
LC0019
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LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 A

Benzo[g,h,i]perylene

Unit	ng/l
Mean ± CI (99%)	123 ± 33.9
Minimum - Maximum	6 - 234
Control test value ± U	132 ± 33.3

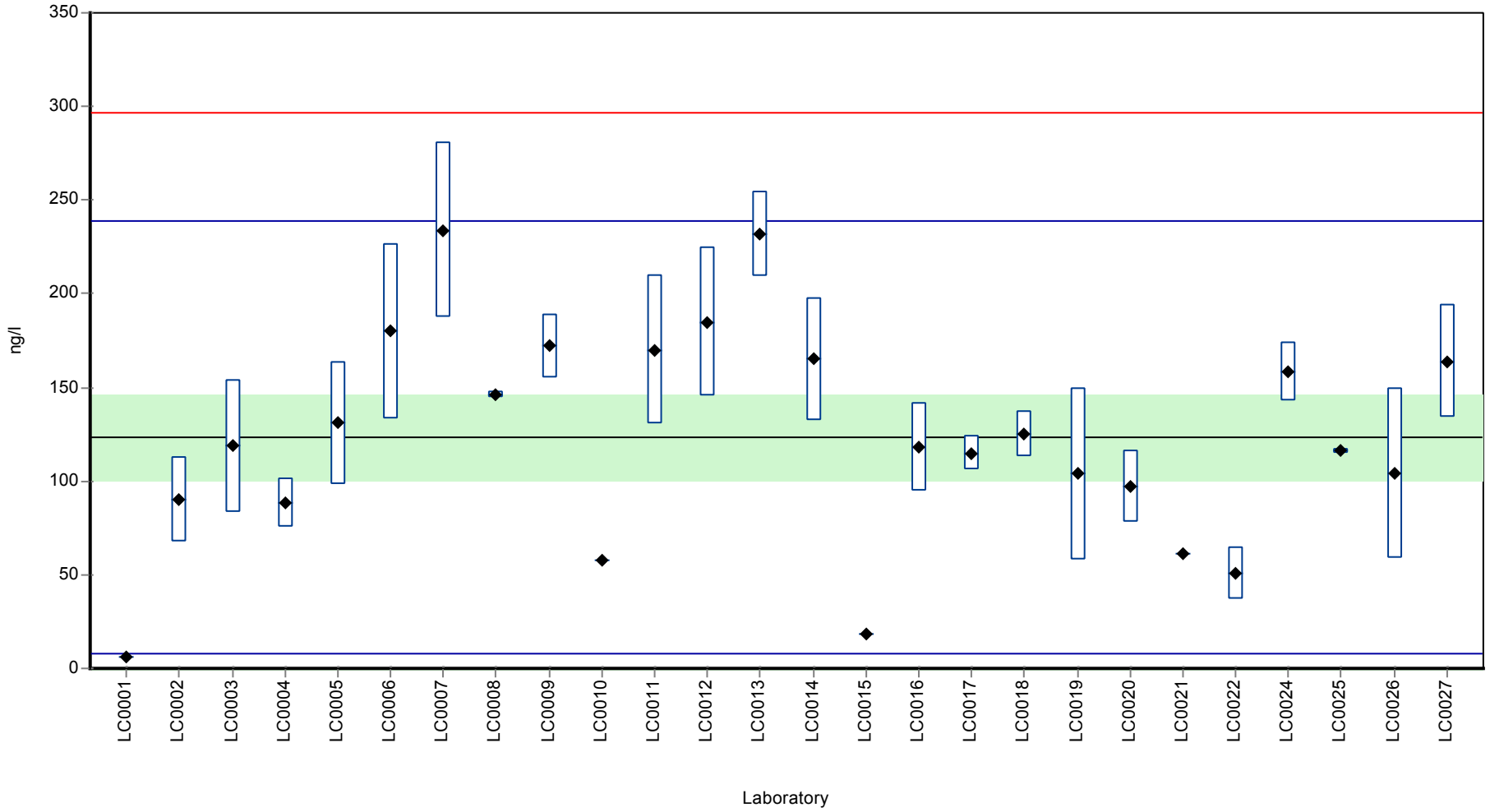
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6	-	4.9	-2.04	
LC0002	90	23	73	-0.58	
LC0003	118.8	35.6	96.3	-0.08	
LC0004	88.4	13.3	71.7	-0.61	
LC0005	131	32.8	106	0.13	
LC0006	180	46.7	146	0.98	
LC0007	234	47	190	1.92	
LC0008	146	1.7	118	0.39	
LC0009	172	17	139	0.84	
LC0010	57.9	-	46.9	-1.14	
LC0011	170	40	138	0.81	
LC0012	184.96	40	150	1.07	
LC0013	232	23	188	1.89	
LC0014	165	33	134	0.72	
LC0015	18	-	14.6	-1.83	
LC0016	118.2	23.6	95.8	-0.09	
LC0017	115	9.2	93.2	-0.14	
LC0018	125	12	101	0.03	
LC0019	103.87	45.7	84.2	-0.34	
LC0020	97.22	19.44	78.8	-0.45	
LC0021	61	-	49.4	-1.08	
LC0022	51	14	41.3	-1.26	
LC0023	-	-	-	-	
LC0024	158	15.8	128	0.6	
LC0025	116	1.16	94	-0.13	
LC0026	104	45.76	84.3	-0.34	
LC0027	164	30	133	0.7	

Characteristics of parameter

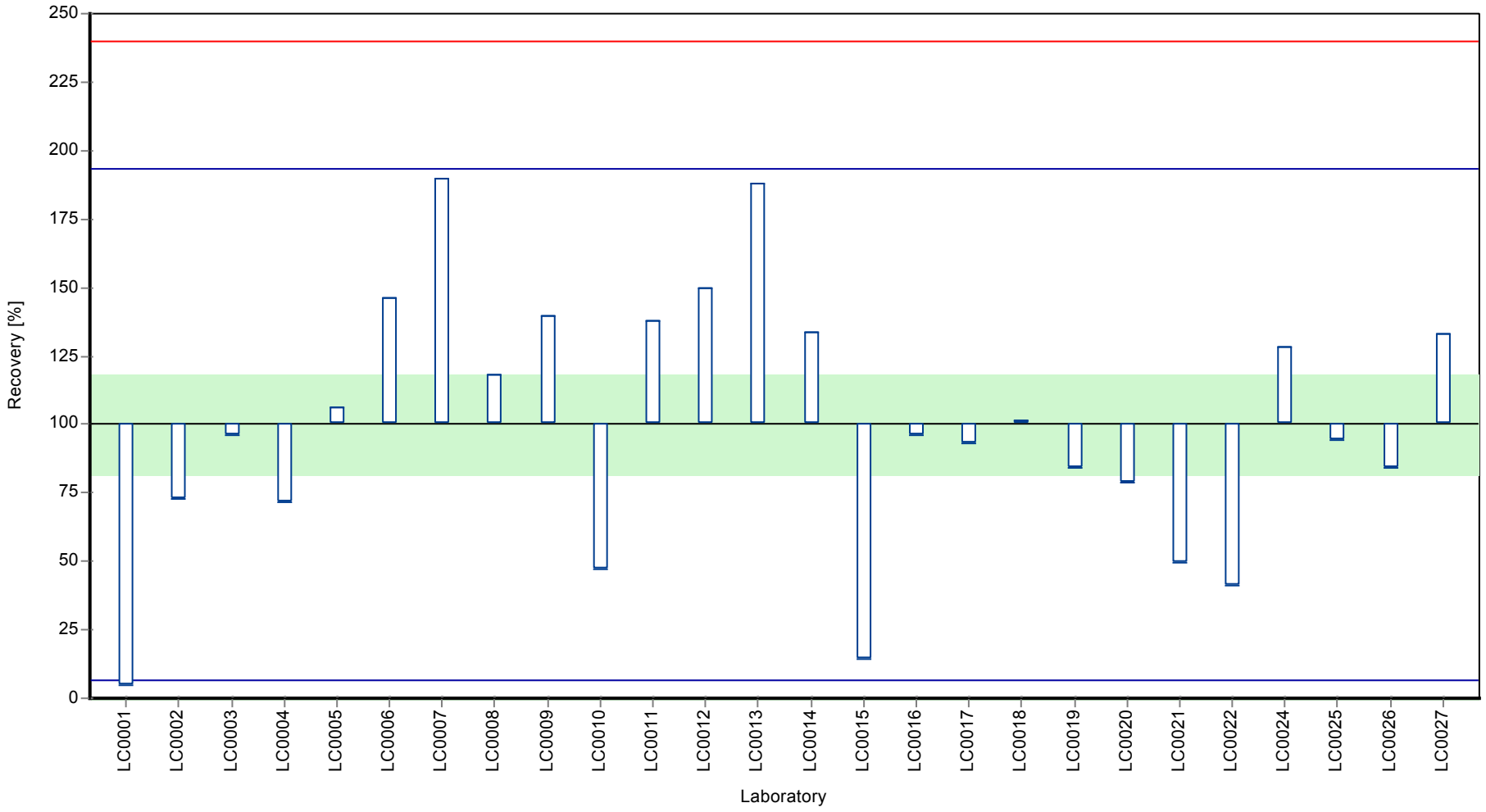
	all results	without outliers	Unit
Mean ± CI (99%)	123 ± 33.9	123 ± 33.9	ng/l
Minimum	6	6	ng/l
Maximum	234	234	ng/l
Standard deviation	57.6	57.6	ng/l
rel. Standard deviation	46.7	46.7	%
n	26	26	-

Graphical presentation of results

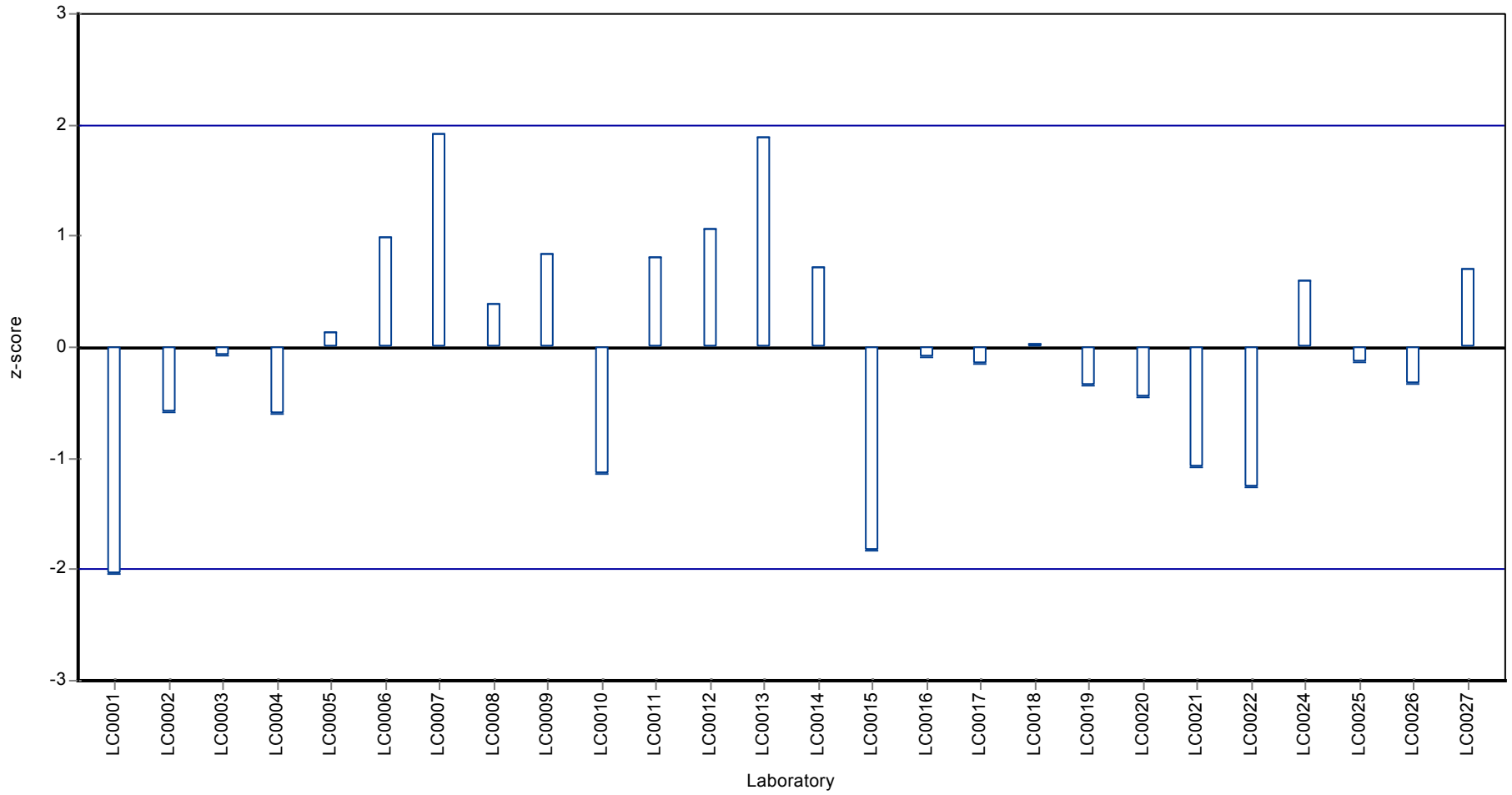
Results



Recovery rate



Z-score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z-score
LC0001
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LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Benzo[g,h,i]perylene

Unit	ng/l
Mean ± CI (99%)	10 ± 2.64
Minimum - Maximum	2.5 - 15
Control test value ± U	8.17 ± 0.954

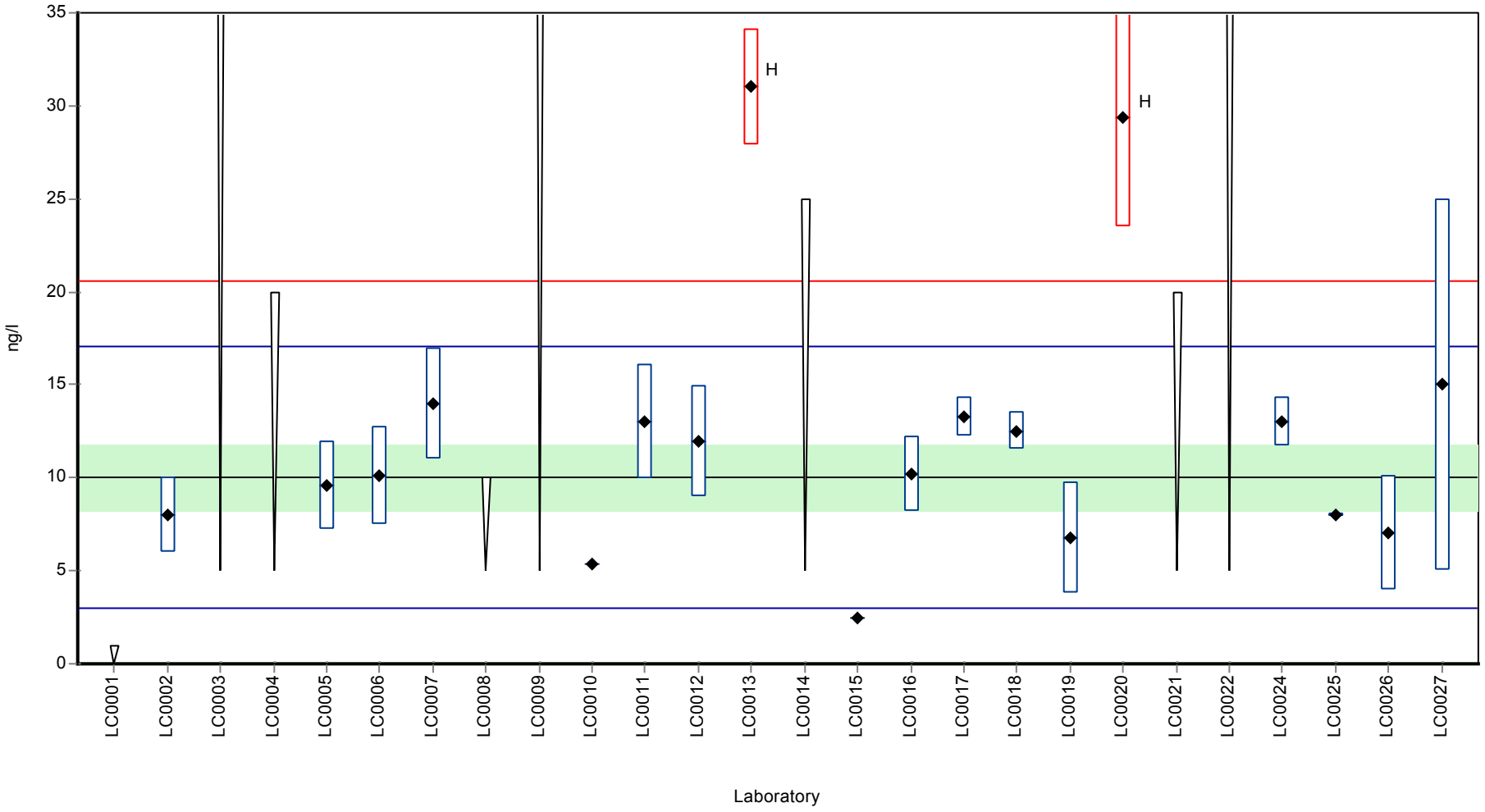
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 1 (LOQ)	-	-	-	
LC0002	8	2	79.8	-0.57	
LC0003	< 50 (LOQ)	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	9.6	2.4	95.8	-0.12	
LC0006	10.1	2.62	101	0.02	
LC0007	14	3	140	1.13	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	5.4	-	53.9	-1.32	
LC0011	13	3.1	130	0.85	
LC0012	11.99	3	120	0.56	
LC0013	31	3.1	309	5.97	H
LC0014	< 25 (LOQ)	-	-	-	
LC0015	2.5	-	24.9	-2.14	
LC0016	10.2	2	102	0.05	
LC0017	13.3	1.06	133	0.93	
LC0018	12.5	1	125	0.7	
LC0019	6.76	2.97	67.5	-0.93	
LC0020	29.36	5.87	293	5.5	H
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 47 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	13	1.3	130	0.85	
LC0025	8	0.08	79.8	-0.57	
LC0026	7	3.08	69.8	-0.86	
LC0027	15	10	150	1.42	

Characteristics of parameter

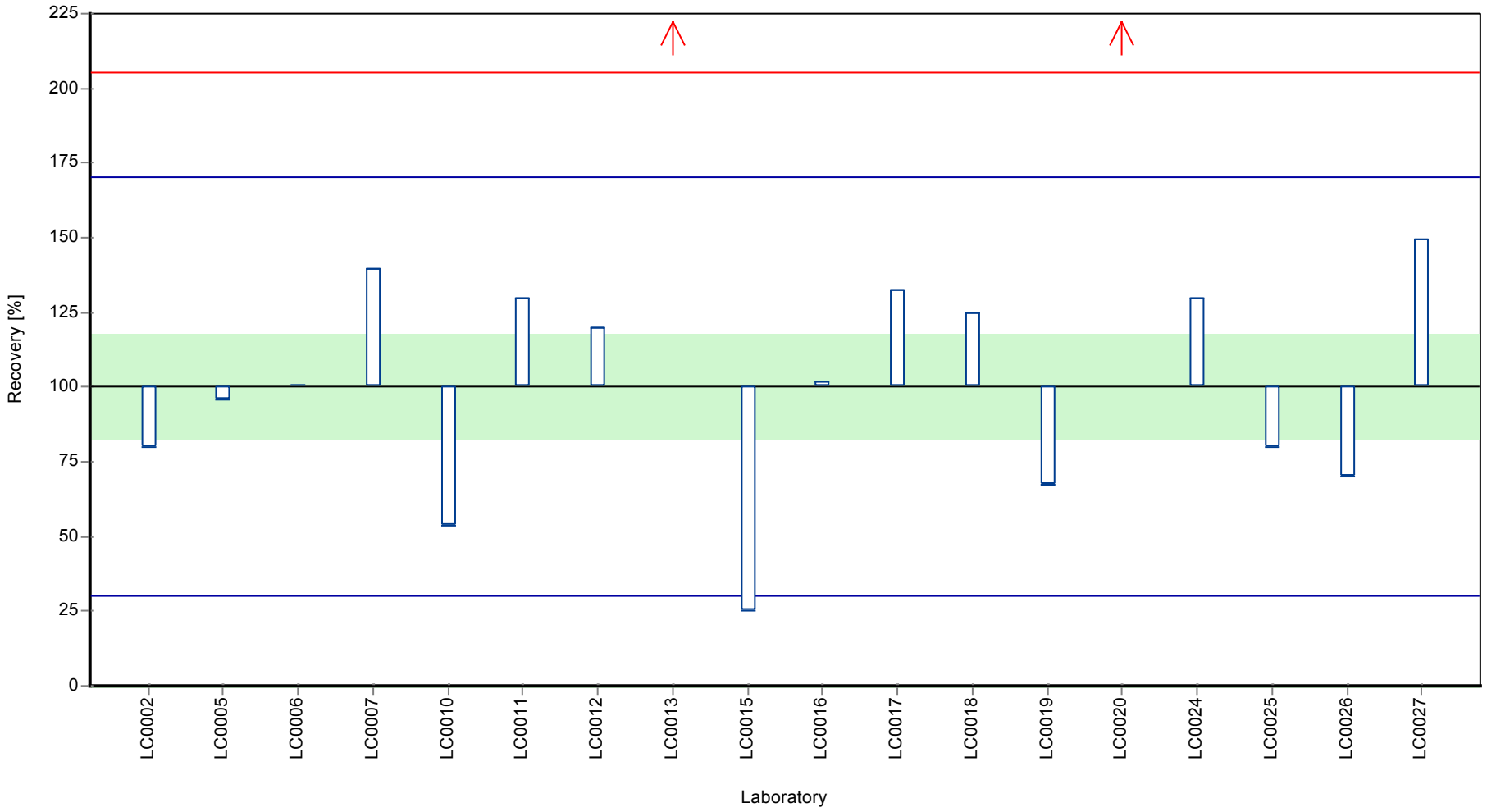
	all results	without outliers	Unit
Mean ± CI (99%)	12.3 ± 5.17	10 ± 2.64	ng/l
Minimum	2.5	2.5	ng/l
Maximum	31	15	ng/l
Standard deviation	7.31	3.51	ng/l
rel. Standard deviation	59.6	35.1	%
n	18	16	-

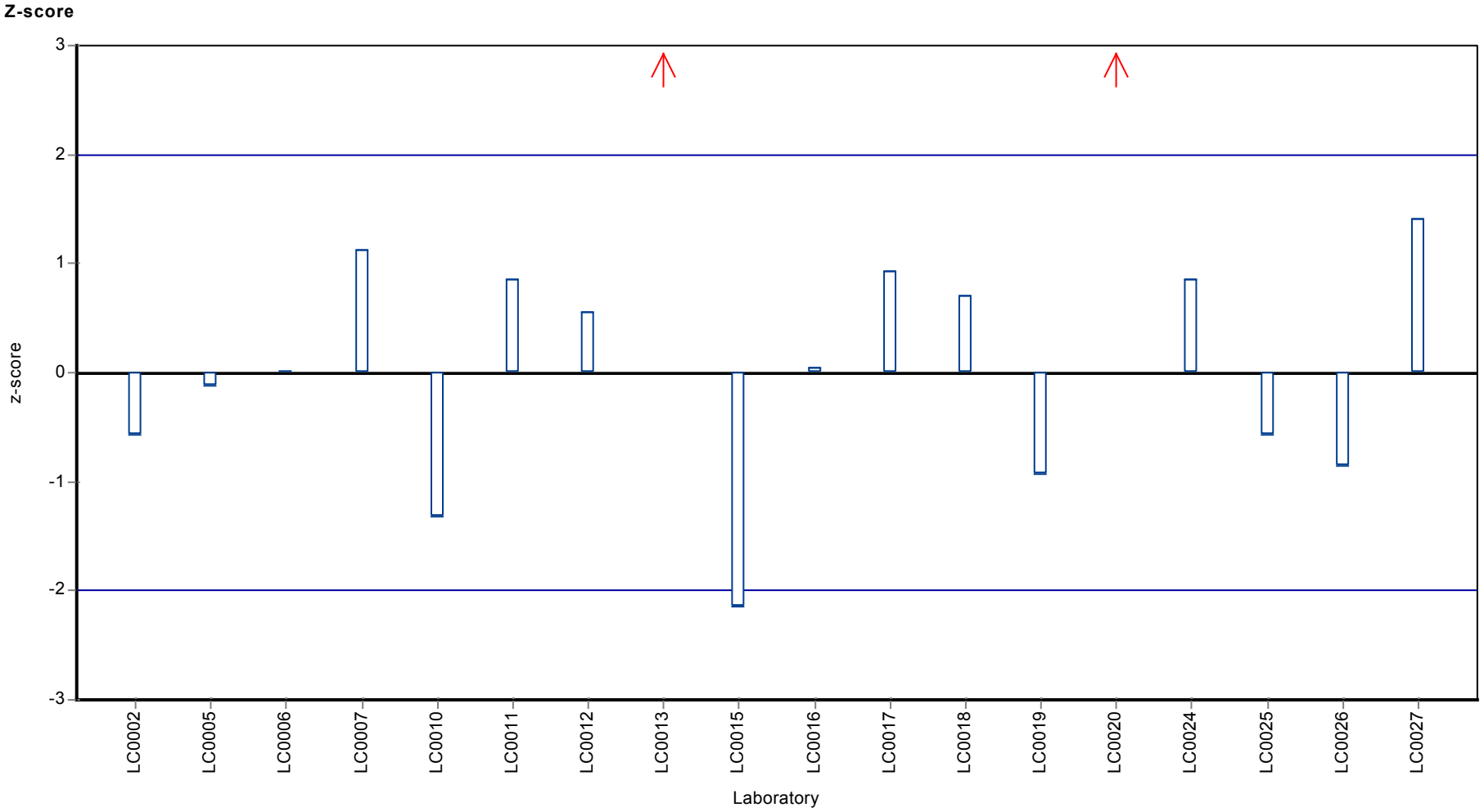
Graphical presentation of results

Results



Recovery rate




Z-score
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z-score
LC0002
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LC0013
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 A

Benzo[k]fluoranthene

Unit	ng/l
Mean ± CI (99%)	149 ± 21.6
Minimum - Maximum	40.7 - 193
Control test value ± U	209 ± 51.9

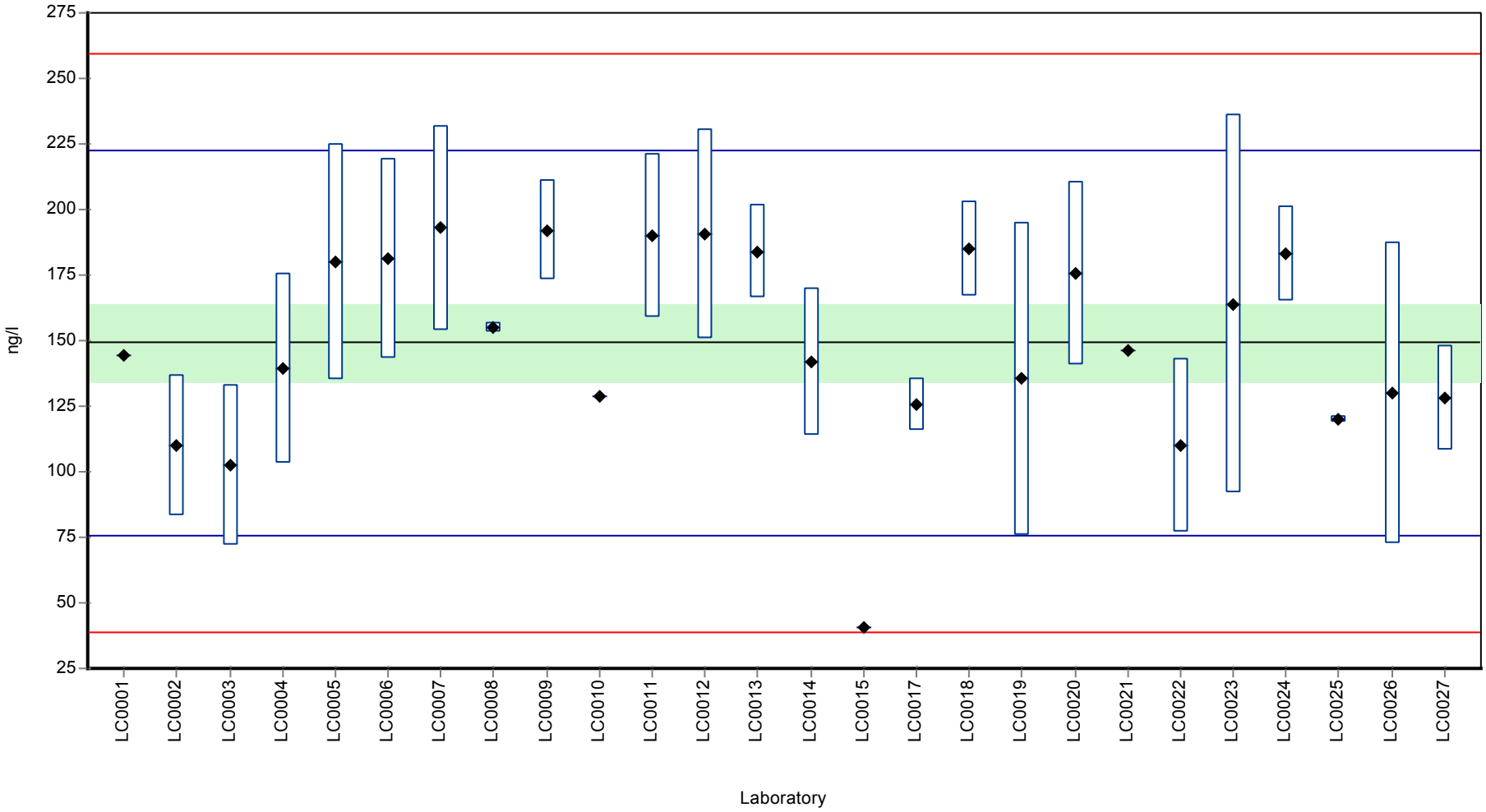
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	144.5	-	96.9	-0.13	
LC0002	110	27	73.8	-1.06	
LC0003	102.5	30.8	68.8	-1.27	
LC0004	139.2	36.2	93.4	-0.27	
LC0005	180	45.1	121	0.84	
LC0006	181	38.1	121	0.87	
LC0007	193	39	129	1.2	
LC0008	155	1.6	104	0.16	
LC0009	192	19	129	1.17	
LC0010	128.7	-	86.3	-0.56	
LC0011	190	31	127	1.11	
LC0012	190.82	40	128	1.14	
LC0013	184	18	123	0.95	
LC0014	142	28	95.3	-0.19	
LC0015	40.7	-	27.3	-2.95	
LC0016	-	-	-	-	
LC0017	125.7	10.1	84.3	-0.64	
LC0018	185	18	124	0.98	
LC0019	135.47	59.61	90.9	-0.37	
LC0020	175.51	35.1	118	0.72	
LC0021	146	-	97.9	-0.08	
LC0022	110	33	73.8	-1.06	
LC0023	164	72	110	0.41	
LC0024	183	18.3	123	0.92	
LC0025	120	1.2	80.5	-0.79	
LC0026	130	57.2	87.2	-0.52	
LC0027	128	20	85.9	-0.57	

Characteristics of parameter

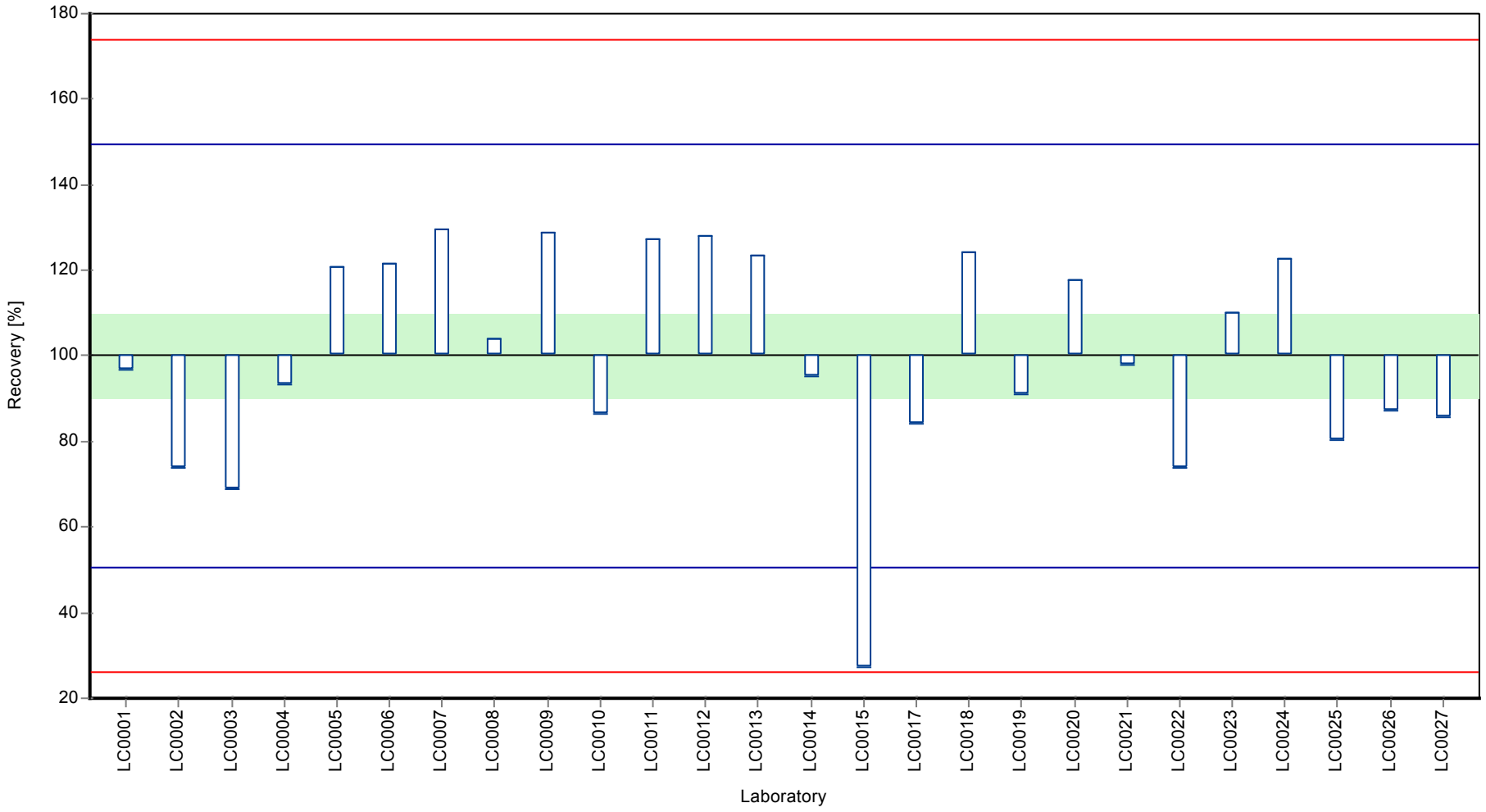
	all results	without outliers	Unit
Mean ± CI (99%)	149 ± 21.6	149 ± 21.6	ng/l
Minimum	40.7	40.7	ng/l
Maximum	193	193	ng/l
Standard deviation	36.7	36.7	ng/l
rel. Standard deviation	24.6	24.6	%
n	26	26	-

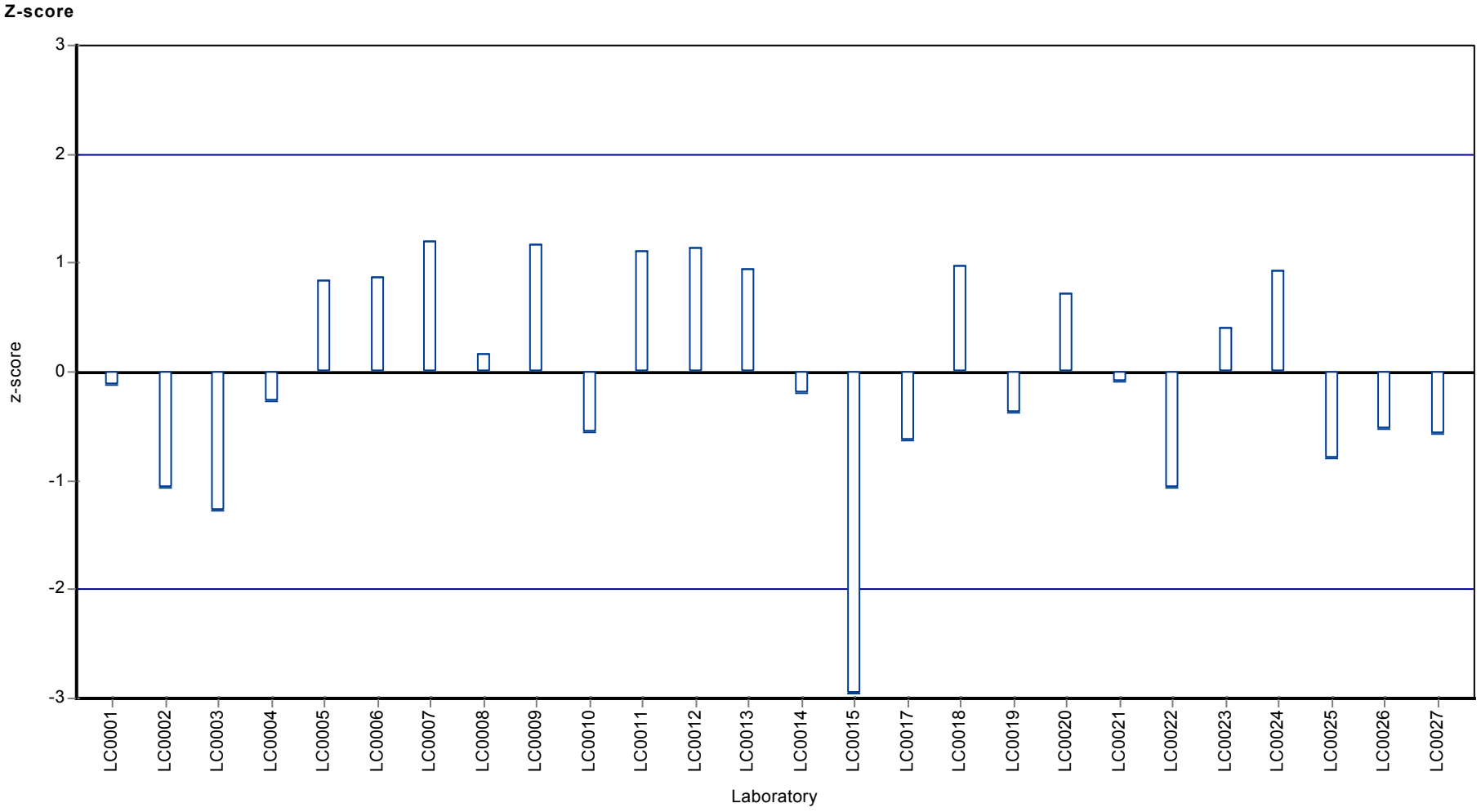
Graphical presentation of results

Results



Recovery rate




Z-score
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z-score
LC0001
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LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Benzo[k]fluoranthene

Unit	ng/l
Mean ± CI (99%)	20.6 ± 3.04
Minimum - Maximum	9.8 - 29
Control test value ± U	21.6 ± 3.19

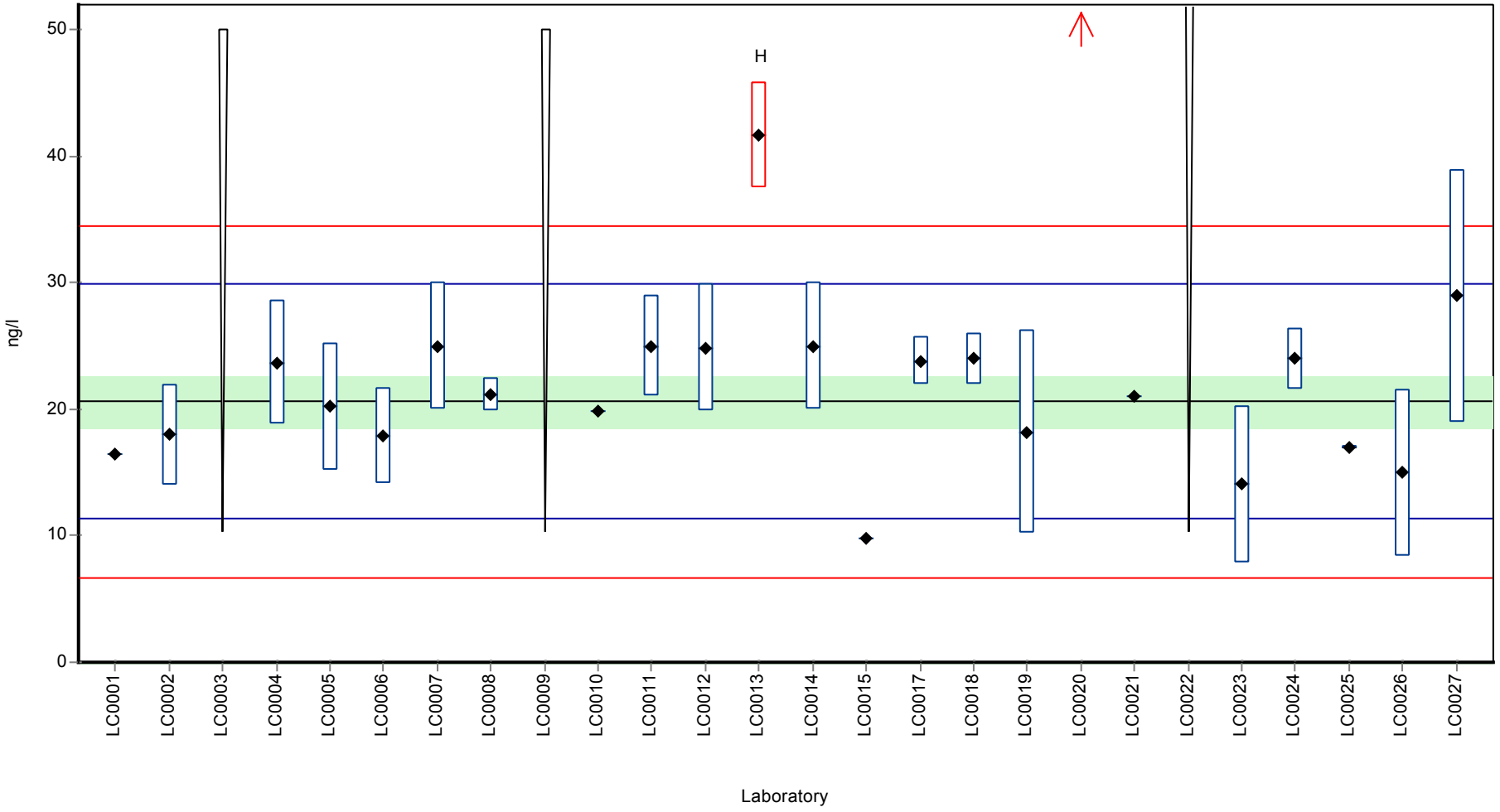
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	16.5	-	80	-0.89	
LC0002	18	4	87.3	-0.57	
LC0003	< 50 (LOQ)	-	-	-	
LC0004	23.7	4.9	115	0.66	
LC0005	20.2	5.05	97.9	-0.09	
LC0006	17.9	3.75	86.8	-0.59	
LC0007	25	5	121	0.94	
LC0008	21.2	1.29	103	0.12	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	19.9	-	96.5	-0.16	
LC0011	25	4	121	0.94	
LC0012	24.87	5	121	0.91	
LC0013	41.7	4.2	202	4.54	H
LC0014	25	5	121	0.94	
LC0015	9.8	-	47.5	-2.33	
LC0016	-	-	-	-	
LC0017	23.8	1.9	115	0.68	
LC0018	24	2	116	0.73	
LC0019	18.21	8.01	88.3	-0.52	
LC0020	89.3	17.86	433	14.8	H
LC0021	21	-	102	0.08	
LC0022	< 58 (LOQ)	-	-	-	
LC0023	14.1	6.2	68.4	-1.41	
LC0024	24	2.4	116	0.73	
LC0025	17	0.17	82.4	-0.78	
LC0026	15	6.6	72.7	-1.21	
LC0027	29	10	141	1.8	

Characteristics of parameter

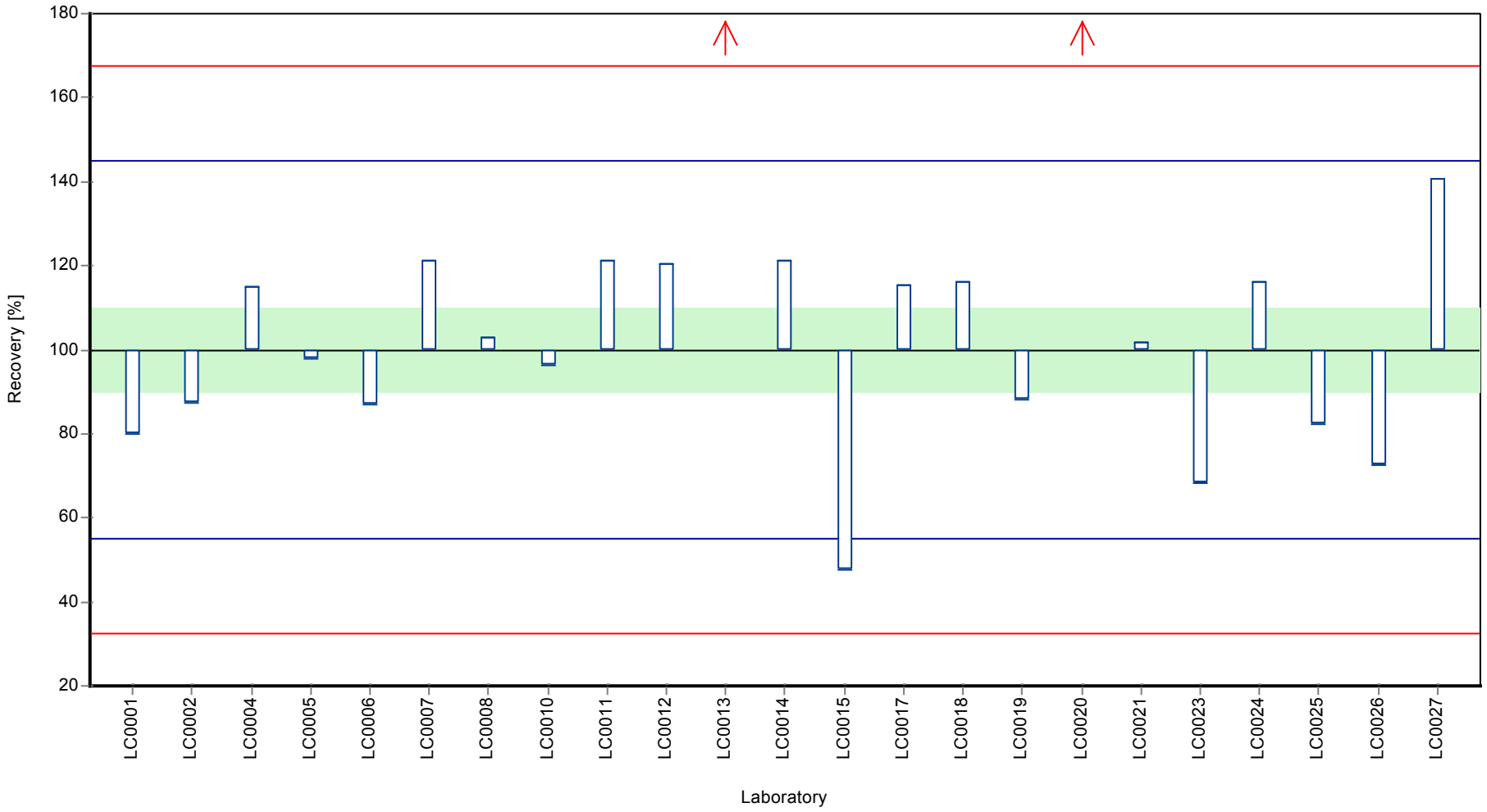
	all results	without outliers	Unit
Mean ± CI (99%)	24.5 ± 9.65	20.6 ± 3.04	ng/l
Minimum	9.8	9.8	ng/l
Maximum	89.3	29	ng/l
Standard deviation	15.4	4.64	ng/l
rel. Standard deviation	62.9	22.5	%
n	23	21	-

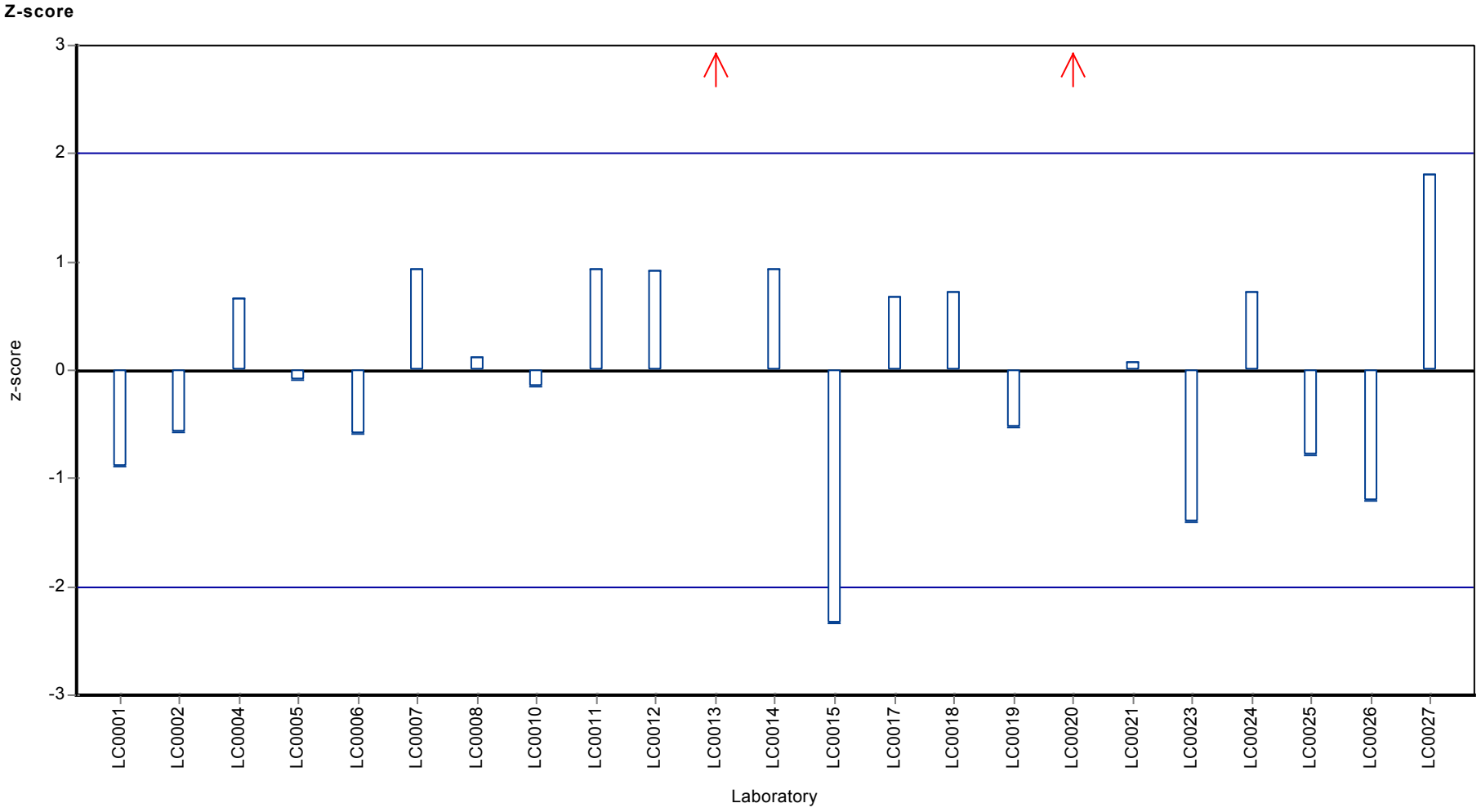
Graphical presentation of results

Results



Recovery rate

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z-score
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LC0001
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LC0017
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LC0020
LC0021
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 A

Chrysene

Unit	ng/l
Mean ± CI (99%)	101 ± 10.9
Minimum - Maximum	73 - 142
Control test value ± U	94.8 ± 16.4

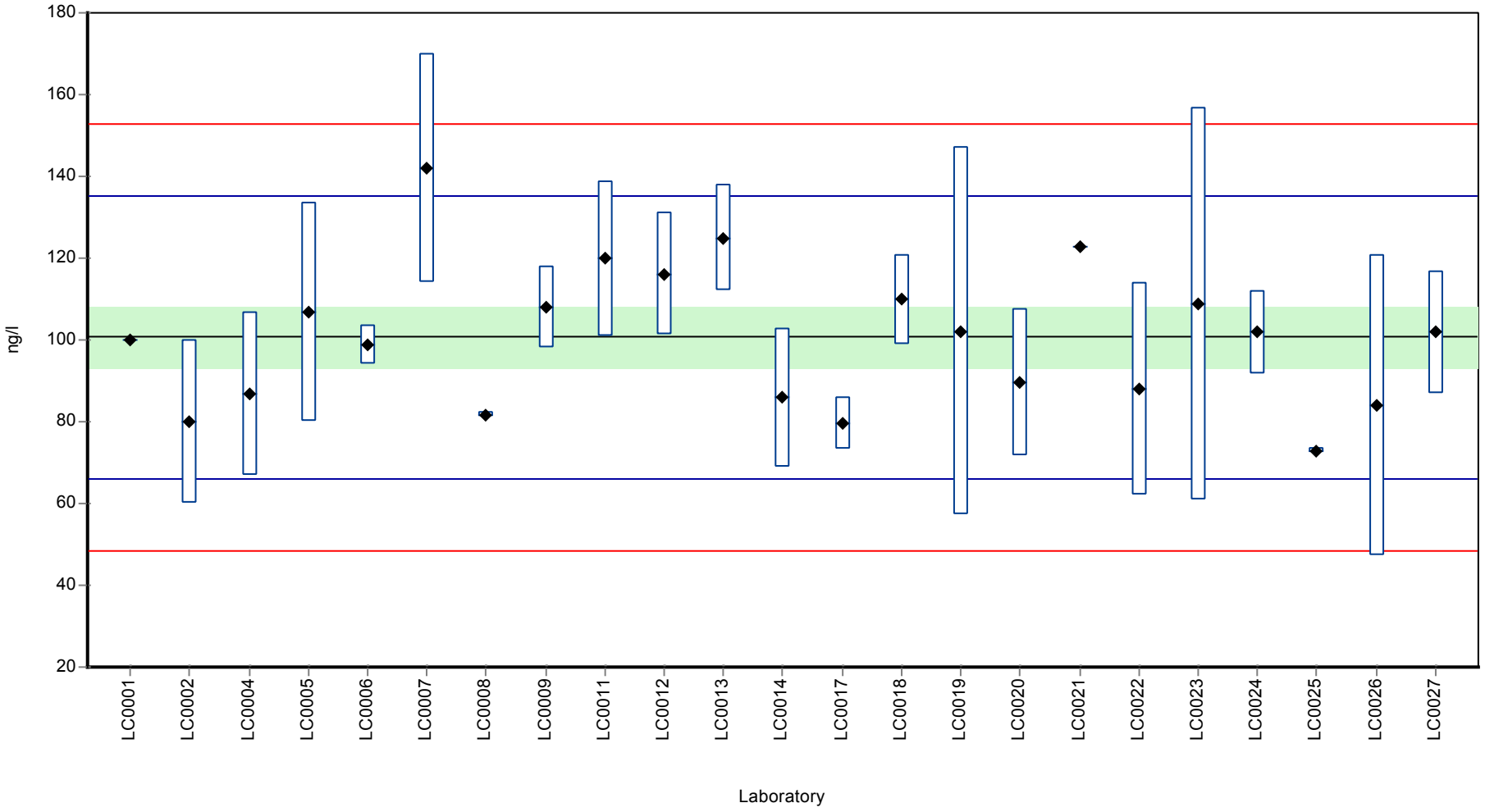
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	100	-	99.4	-0.04	
LC0002	80	20	79.5	-1.19	
LC0003	-	-	-	-	
LC0004	87	20	86.5	-0.79	
LC0005	107	26.8	106	0.37	
LC0006	98.8	4.94	98.2	-0.1	
LC0007	142	28	141	2.39	
LC0008	81.7	0.66	81.2	-1.09	
LC0009	108	10	107	0.43	
LC0010	-	-	-	-	
LC0011	120	19	119	1.12	
LC0012	116.08	15	115	0.89	
LC0013	125	13	124	1.41	
LC0014	86	17	85.5	-0.84	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	79.7	6.38	79.2	-1.21	
LC0018	110	11	109	0.54	
LC0019	102.09	44.92	101	0.09	
LC0020	89.75	17.95	89.2	-0.63	
LC0021	123	-	122	1.29	
LC0022	88	26	87.5	-0.73	
LC0023	109	48	108	0.48	
LC0024	102	10.2	101	0.08	
LC0025	73	0.73	72.6	-1.59	
LC0026	84	36.96	83.5	-0.96	
LC0027	102	15	101	0.08	

Characteristics of parameter

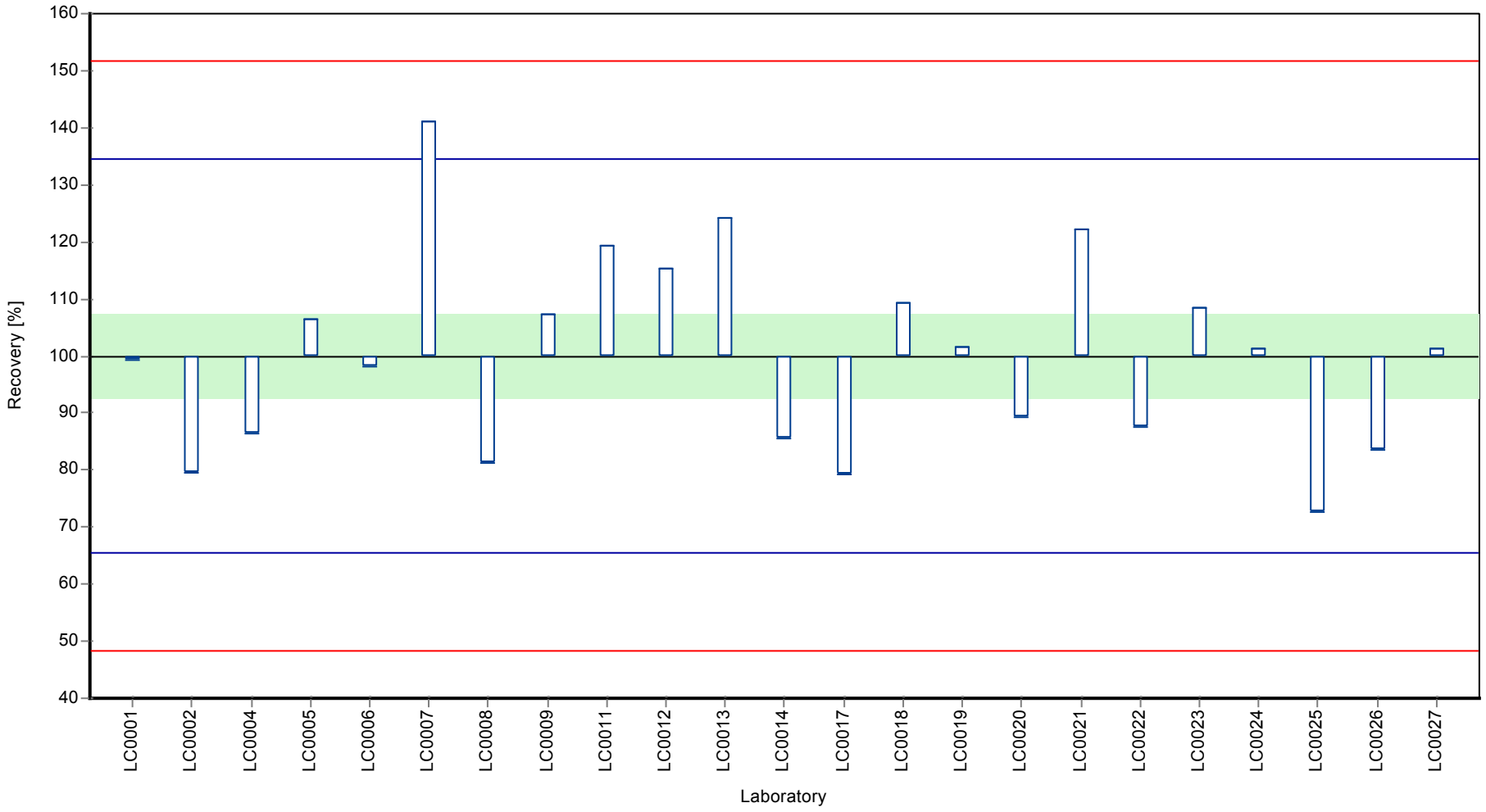
	all results	without outliers	Unit
Mean ± CI (99%)	101 ± 10.9	101 ± 10.9	ng/l
Minimum	73	73	ng/l
Maximum	142	142	ng/l
Standard deviation	17.3	17.3	ng/l
rel. Standard deviation	17.2	17.2	%
n	23	23	-

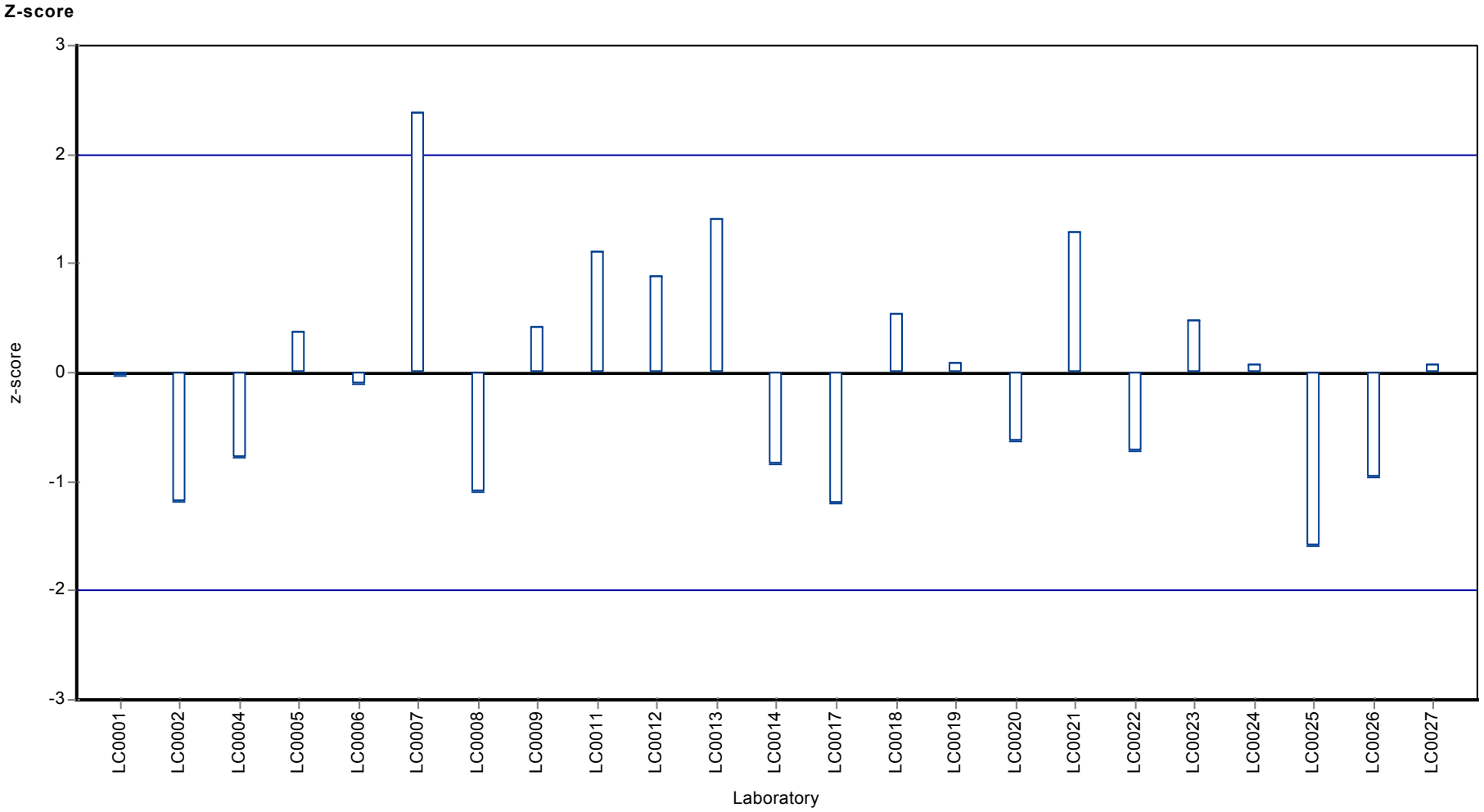
Graphical presentation of results

Results



Recovery rate

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LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Chrysene

Unit	ng/l
Mean ± CI (99%)	7.13 ± 2.5
Minimum - Maximum	5 - 14
Control test value ± U	4.18 ± 0.725

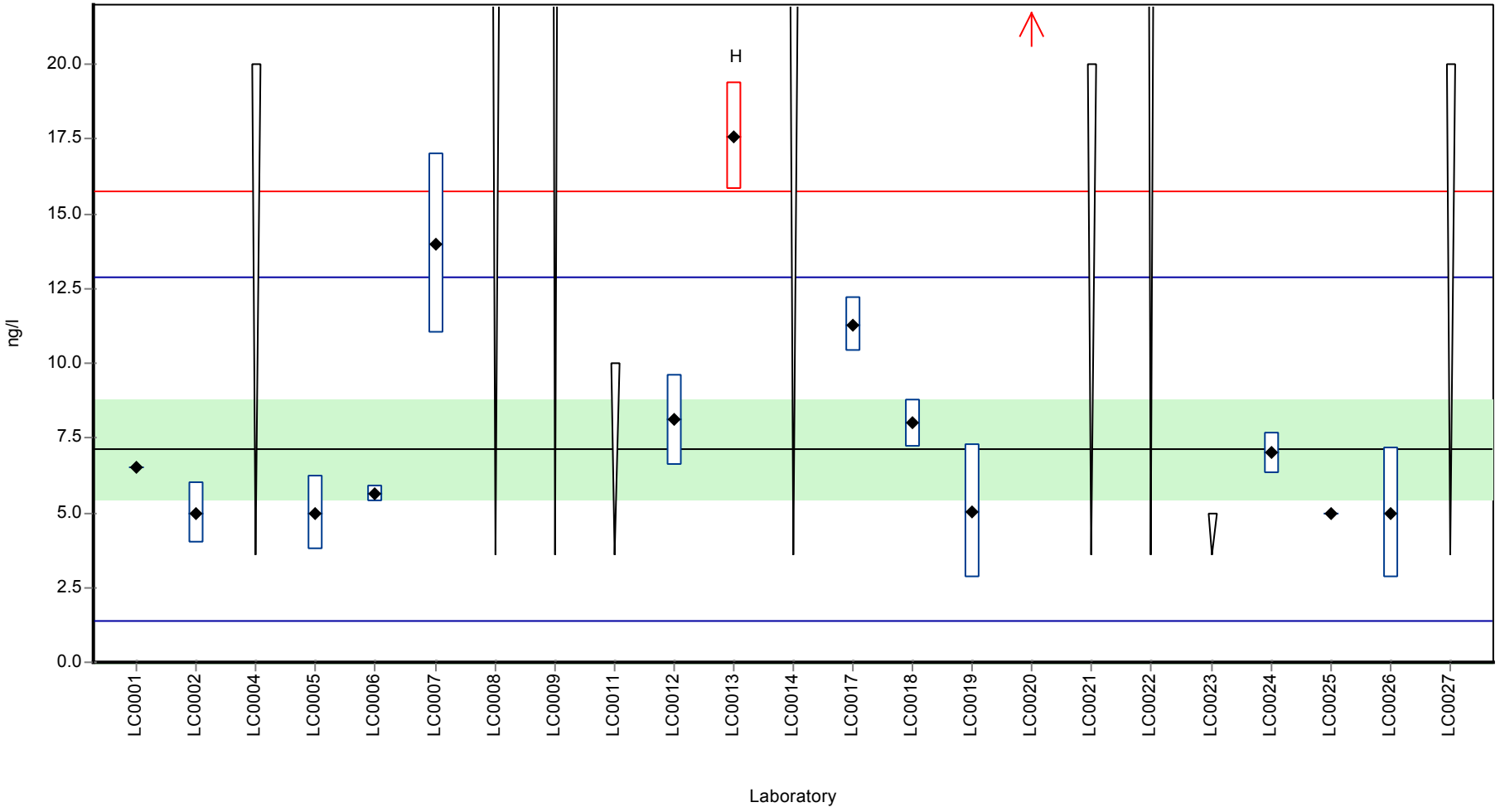
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6.5	-	91.2	-0.22	
LC0002	5	1	70.1	-0.74	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	5	1.26	70.1	-0.74	
LC0006	5.62	0.28	78.8	-0.52	
LC0007	14	3	196	2.38	
LC0008	< 30 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	< 10 (LOQ)	-	-	-	
LC0012	8.1	1.5	114	0.34	
LC0013	17.6	1.8	247	3.63	H
LC0014	< 25 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	11.3	0.9	158	1.45	
LC0018	8	0.8	112	0.3	
LC0019	5.05	2.22	70.8	-0.72	
LC0020	43.87	8.77	615	12.7	H
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 41 (LOQ)	-	-	-	
LC0023	< 5 (LOQ)	-	-	-	
LC0024	7	0.7	98.2	-0.05	
LC0025	5	0.05	70.1	-0.74	
LC0026	5	2.2	70.1	-0.74	
LC0027	< 20 (LOQ)	-	-	-	

Characteristics of parameter

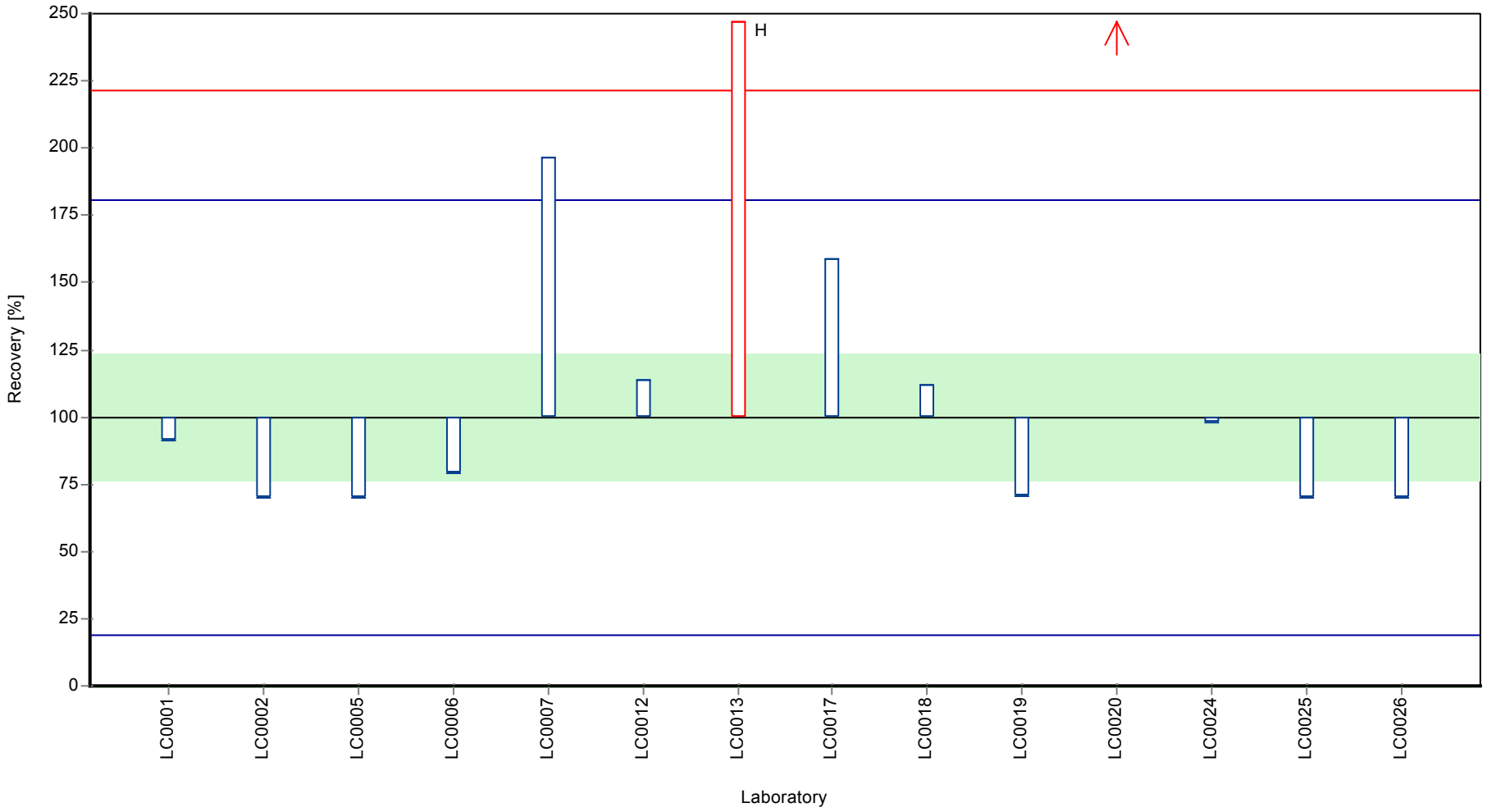
	all results	without outliers	Unit
Mean ± CI (99%)	10.5 ± 8.3	7.13 ± 2.5	ng/l
Minimum	5	5	ng/l
Maximum	43.9	14	ng/l
Standard deviation	10.3	2.88	ng/l
rel. Standard deviation	98.5	40.4	%
n	14	12	-

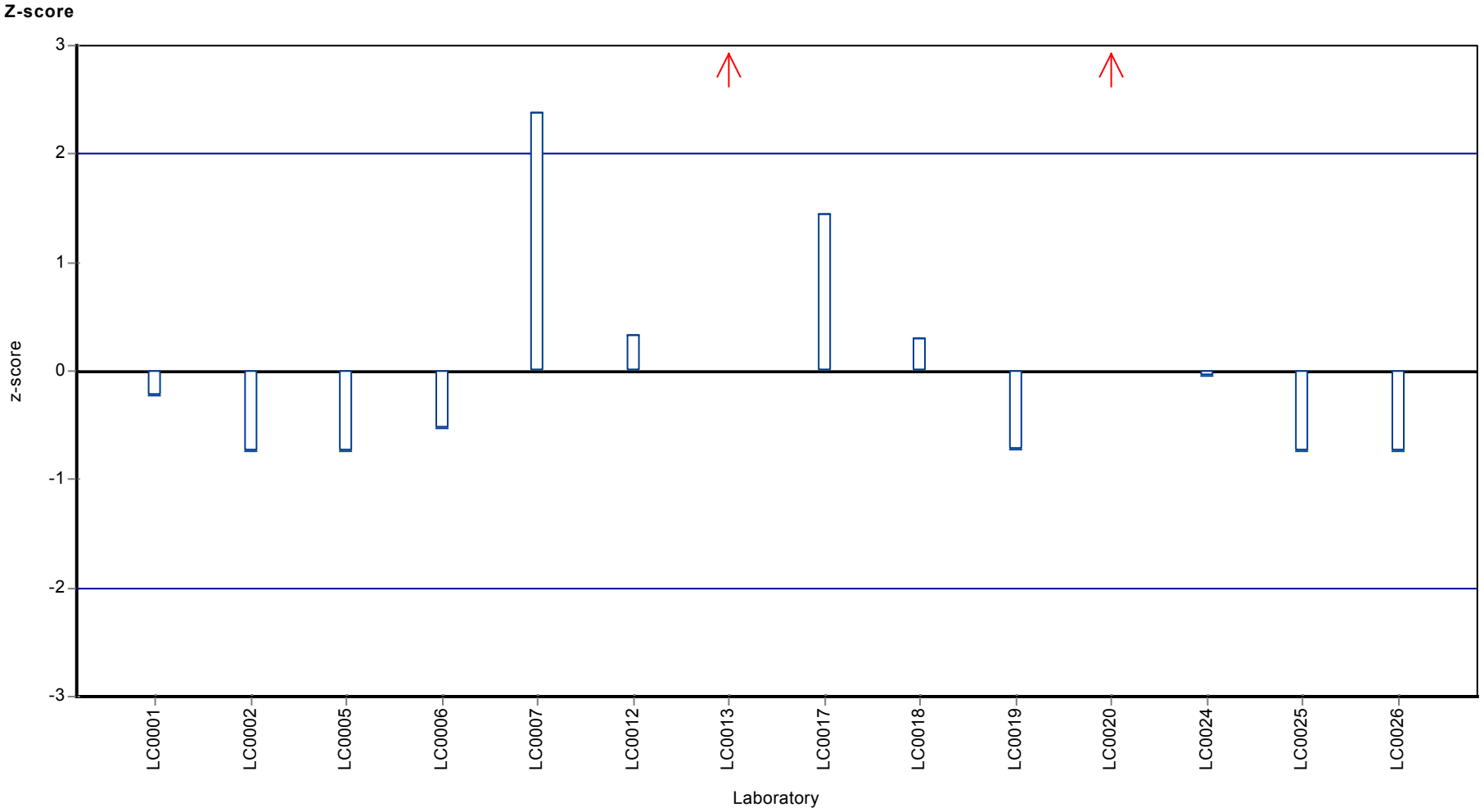
Graphical presentation of results

Results



Recovery rate




Z-score
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-3
z-score
LC0001
LC0002
LC0005
LC0006
LC0007
LC0012
LC0013
LC0017
LC0018
LC0019
LC0020
LC0024
LC0025
LC0026
Laboratory

Parameter oriented report

P18 A

Dibenzo[a,h]anthracene

Unit	ng/l
Mean ± CI (99%)	43.4 ± 10.3
Minimum - Maximum	22.3 - 83.8
Control test value ± U	36.4 ± 8.96

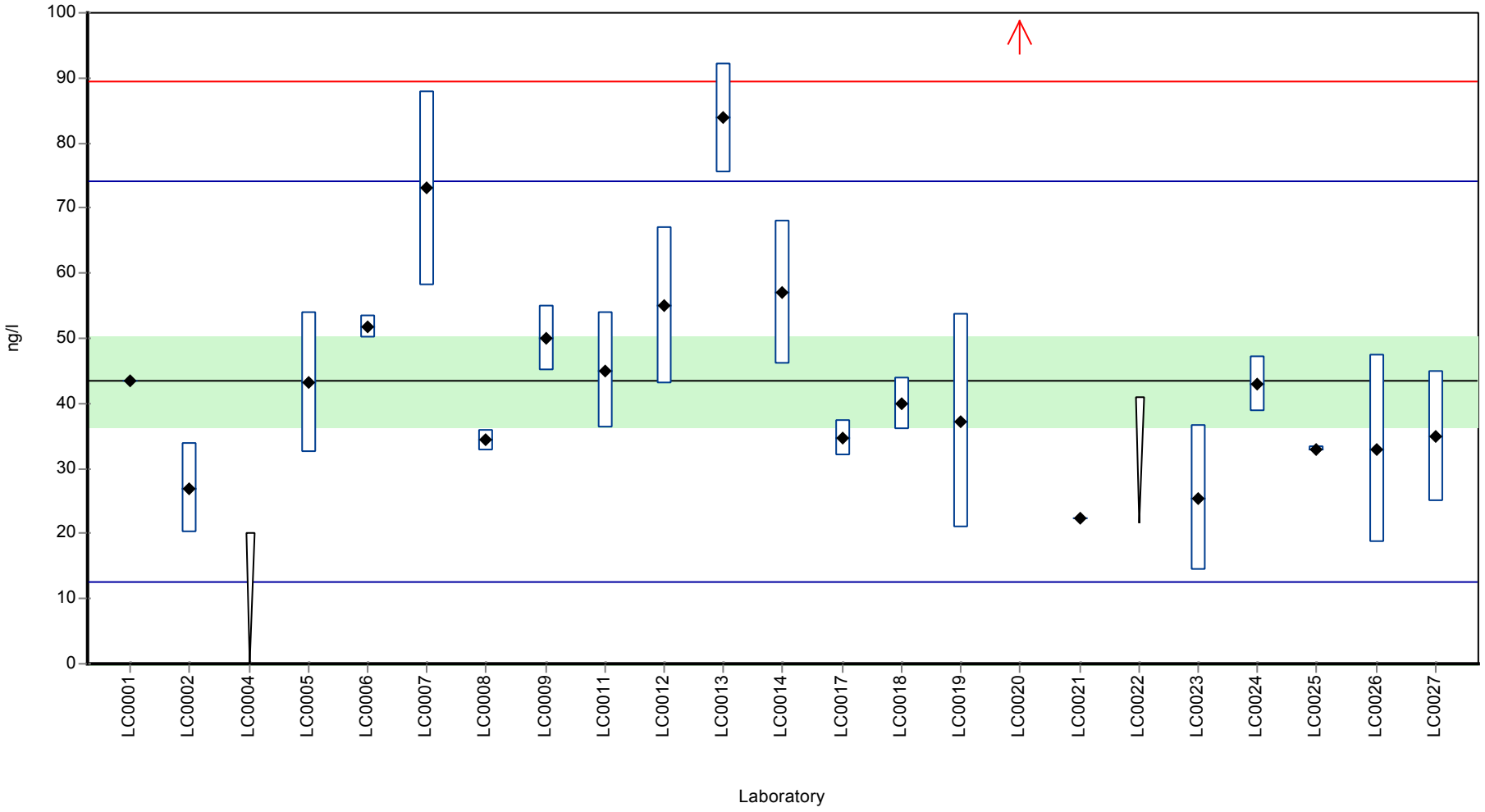
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	43.5	-	100	0.01	
LC0002	27	7	62.3	-1.07	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	43.3	10.8	99.8	0.00	
LC0006	51.8	1.81	119	0.55	
LC0007	73	15	168	1.93	
LC0008	34.3	1.61	79.1	-0.59	
LC0009	50	5	115	0.43	
LC0010	-	-	-	-	
LC0011	45	8.9	104	0.11	
LC0012	54.97	12	127	0.76	
LC0013	83.8	8.4	193	2.63	
LC0014	57	11	131	0.89	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	34.7	2.78	80	-0.56	
LC0018	40	4	92.2	-0.22	
LC0019	37.31	16.41	86	-0.4	
LC0020	115.06	23.01	265	4.67	H
LC0021	22.3	-	51.4	-1.37	
LC0022	< 41 (LOQ)	-	-	-	
LC0023	25.4	11.2	58.6	-1.17	
LC0024	43	4.3	99.1	-0.02	
LC0025	33	0.33	76.1	-0.68	
LC0026	33	14.52	76.1	-0.68	
LC0027	35	10	80.7	-0.55	

Characteristics of parameter

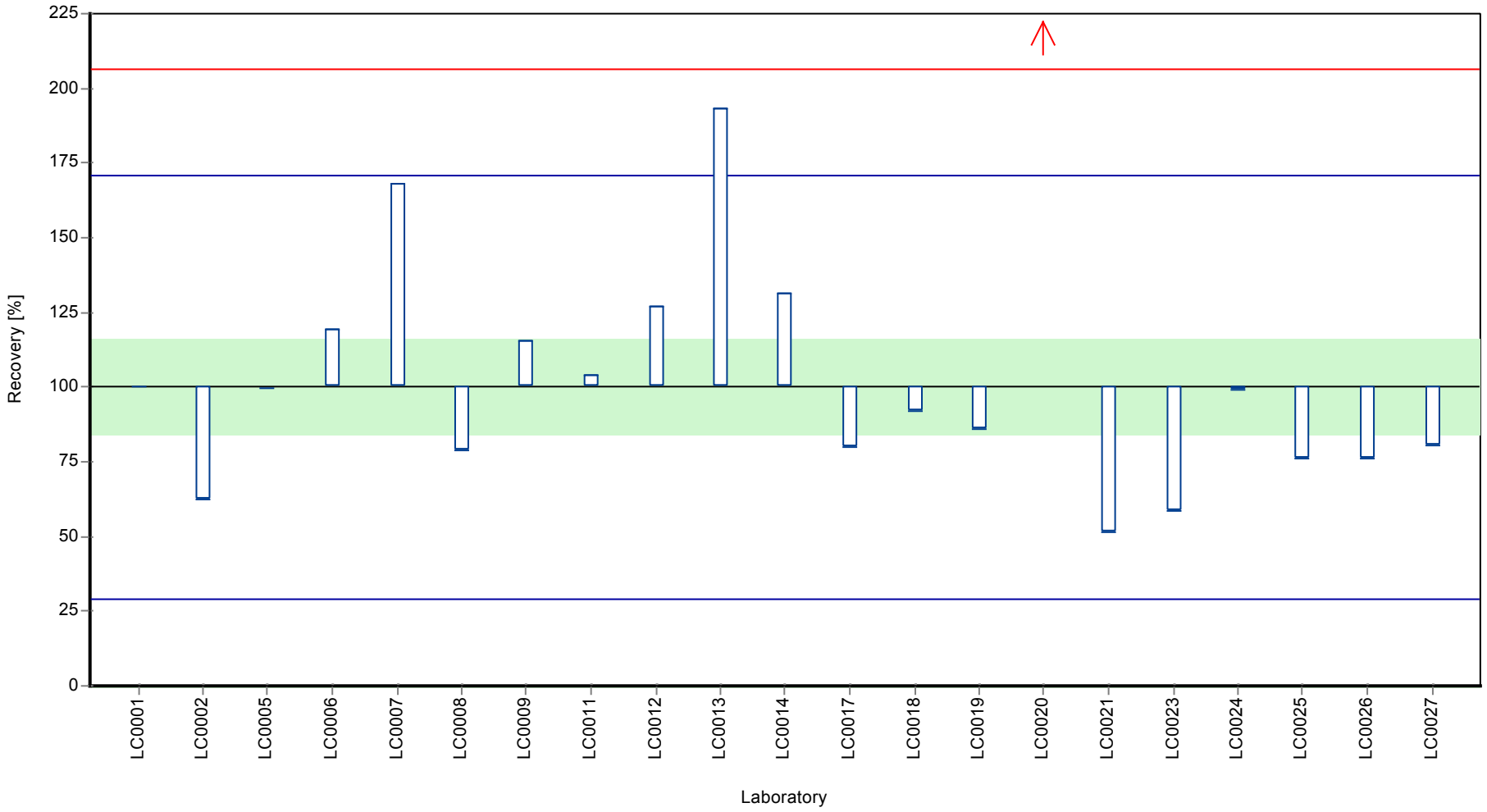
	all results	without outliers	Unit
Mean ± CI (99%)	46.8 ± 14.2	43.4 ± 10.3	ng/l
Minimum	22.3	22.3	ng/l
Maximum	115	83.8	ng/l
Standard deviation	21.6	15.3	ng/l
rel. Standard deviation	46.3	35.4	%
n	21	20	-

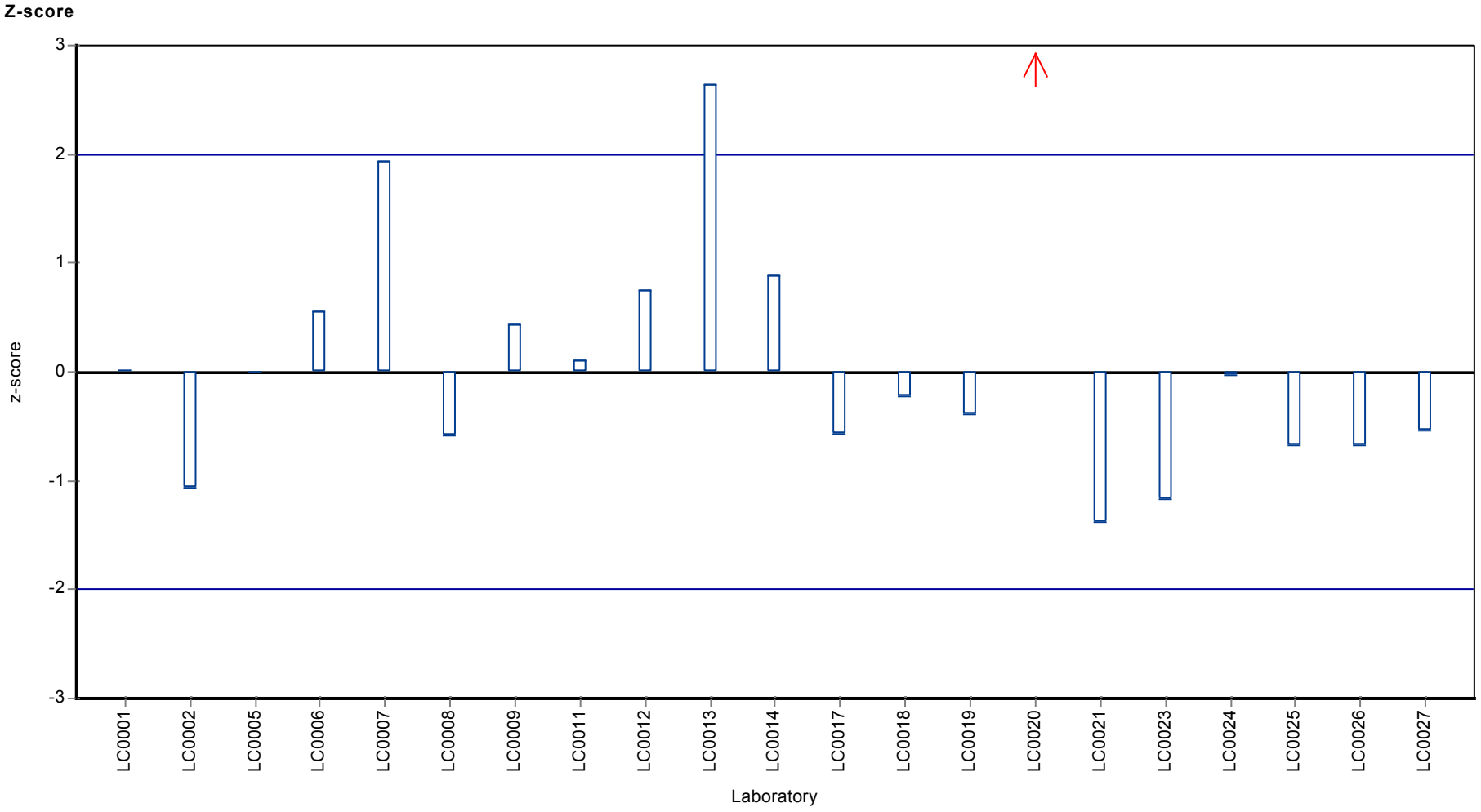
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
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LC0001
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LC0009
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LC0014
LC0017
LC0018
LC0019
LC0020
LC0021
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Dibenzo[a,h]anthracene

Unit	ng/l
Mean ± CI (99%)	14.4 ± 3.63
Minimum - Maximum	6 - 20
Control test value ± U	11.9 ± 1.87

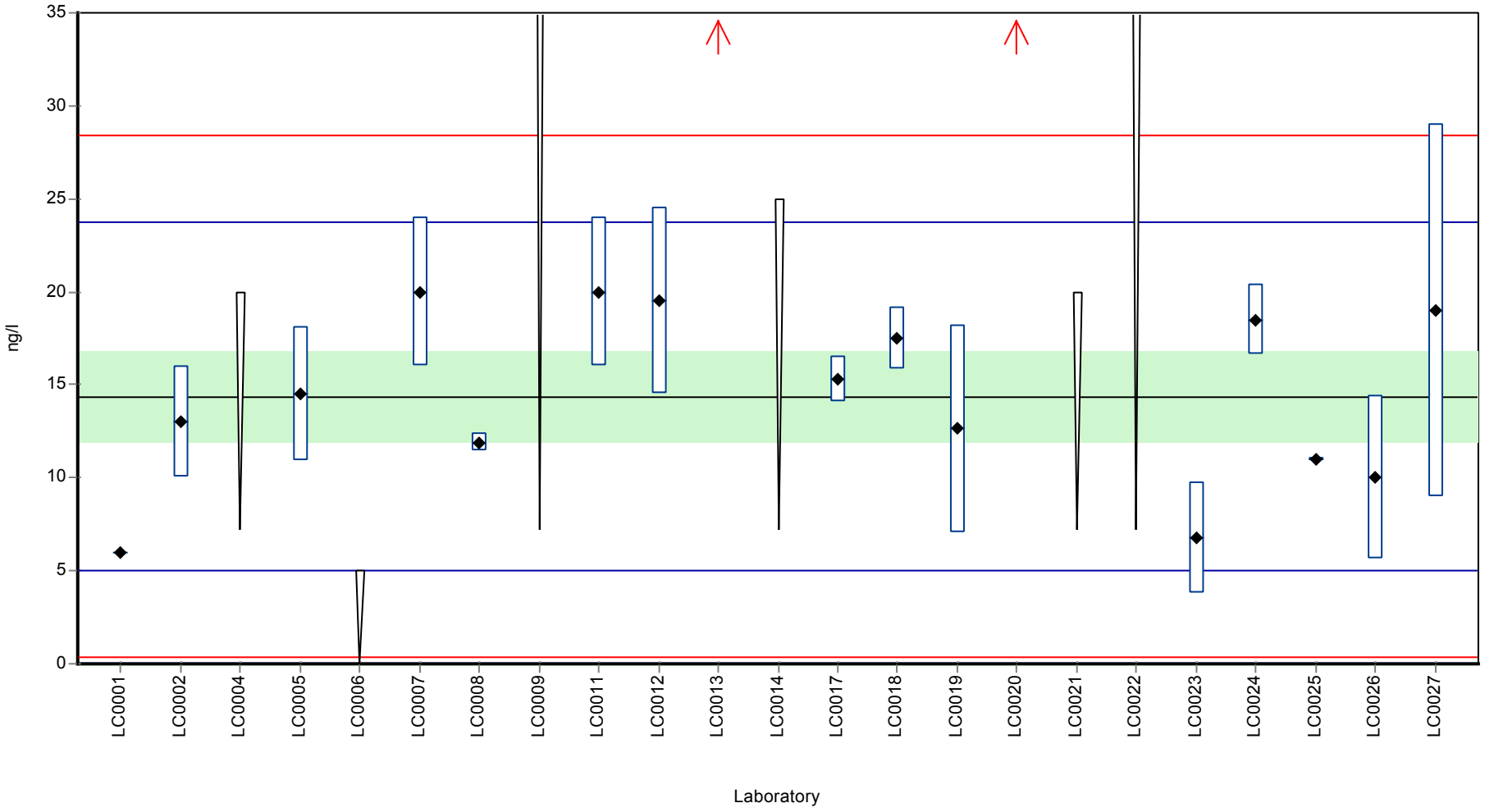
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6	-	41.7	-1.79	
LC0002	13	3	90.4	-0.29	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	14.5	3.63	101	0.03	
LC0006	< 5 (LOQ)	-	-	-	
LC0007	20	4	139	1.2	
LC0008	11.9	0.51	82.8	-0.53	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	20	4	139	1.2	
LC0012	19.51	5	136	1.09	
LC0013	41.2	4.1	287	5.72	H
LC0014	< 25 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	15.3	1.22	106	0.2	
LC0018	17.5	1.7	122	0.67	
LC0019	12.63	5.56	87.9	-0.37	
LC0020	53.53	10.7	372	8.35	H
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 41 (LOQ)	-	-	-	
LC0023	6.8	3	47.3	-1.62	
LC0024	18.5	1.9	129	0.88	
LC0025	11	0.11	76.5	-0.72	
LC0026	10	4.4	69.6	-0.93	
LC0027	19	10	132	0.99	

Characteristics of parameter

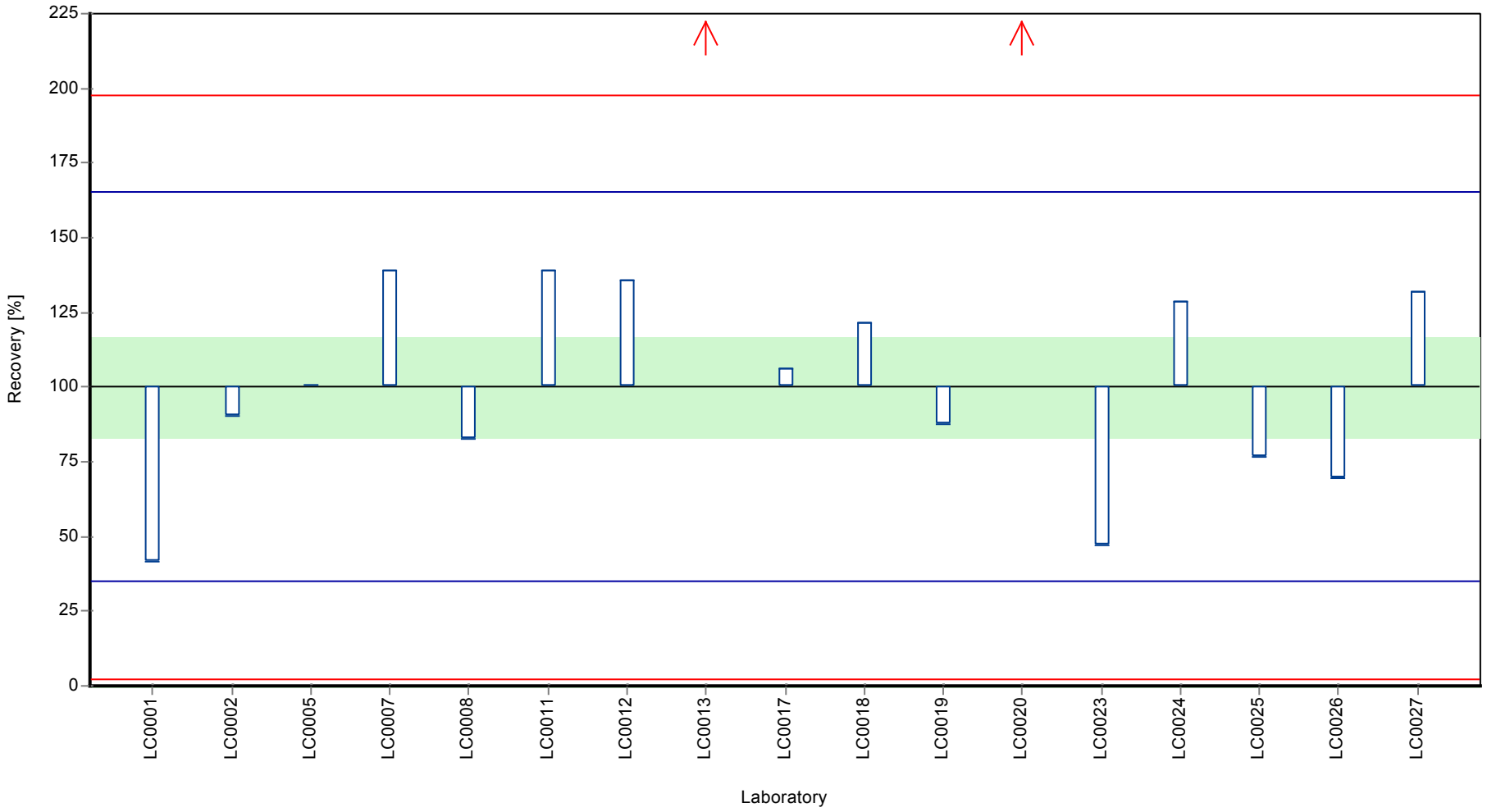
	all results	without outliers	Unit
Mean ± CI (99%)	18.3 ± 8.73	14.4 ± 3.63	ng/l
Minimum	6	6	ng/l
Maximum	53.5	20	ng/l
Standard deviation	12	4.69	ng/l
rel. Standard deviation	65.7	32.6	%
n	17	15	-

Graphical presentation of results

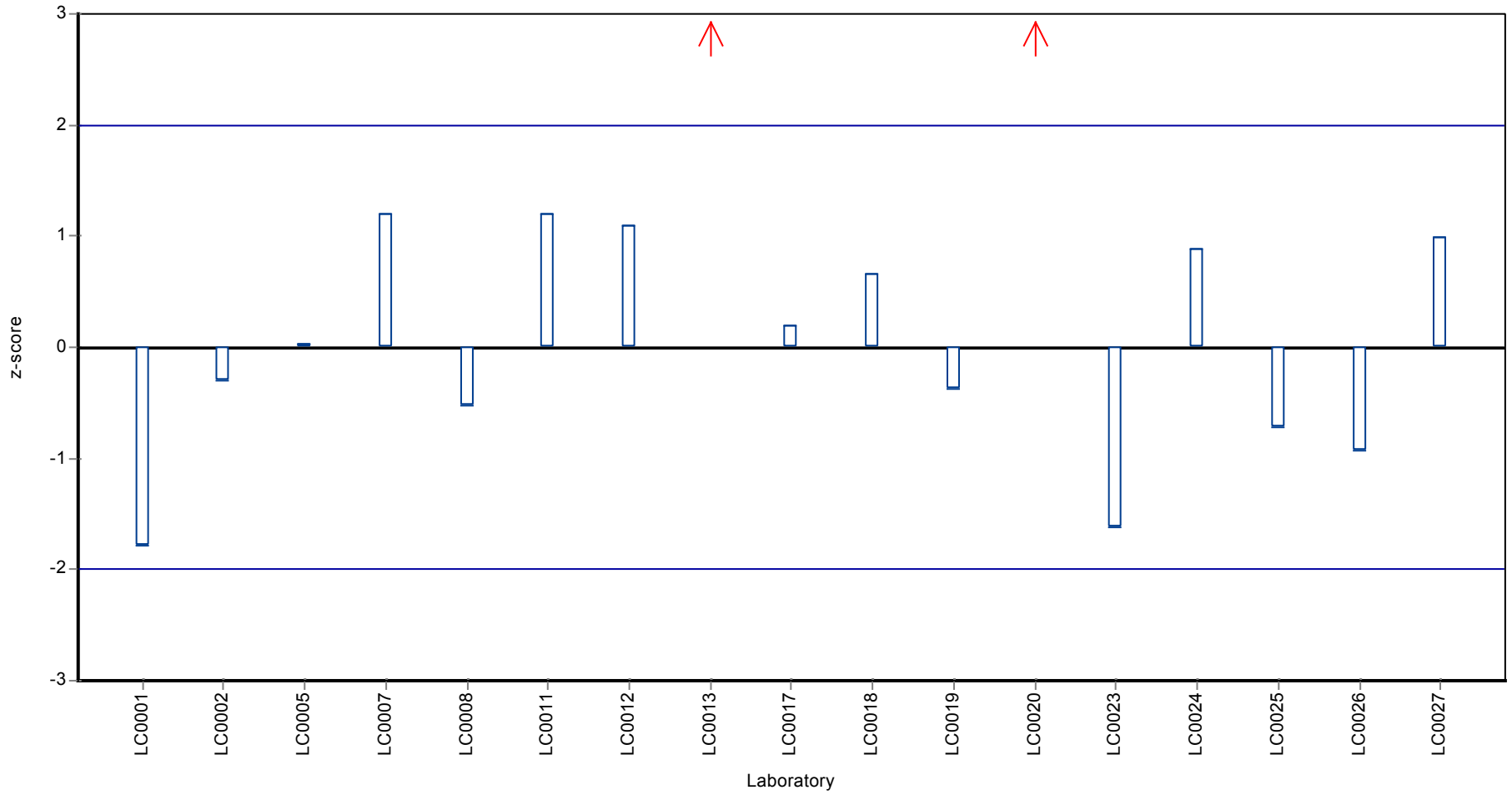
Results



Recovery rate



Z-score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z-score
LC0001
LC0002
LC0005
LC0007
LC0008
LC0011
LC0012
LC0013
LC0017
LC0018
LC0019
LC0020
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 A

Fluoranthene

Unit	ng/l
Mean ± CI (99%)	212 ± 31.5
Minimum - Maximum	73.1 - 288
Control test value ± U	245 ± 42.8

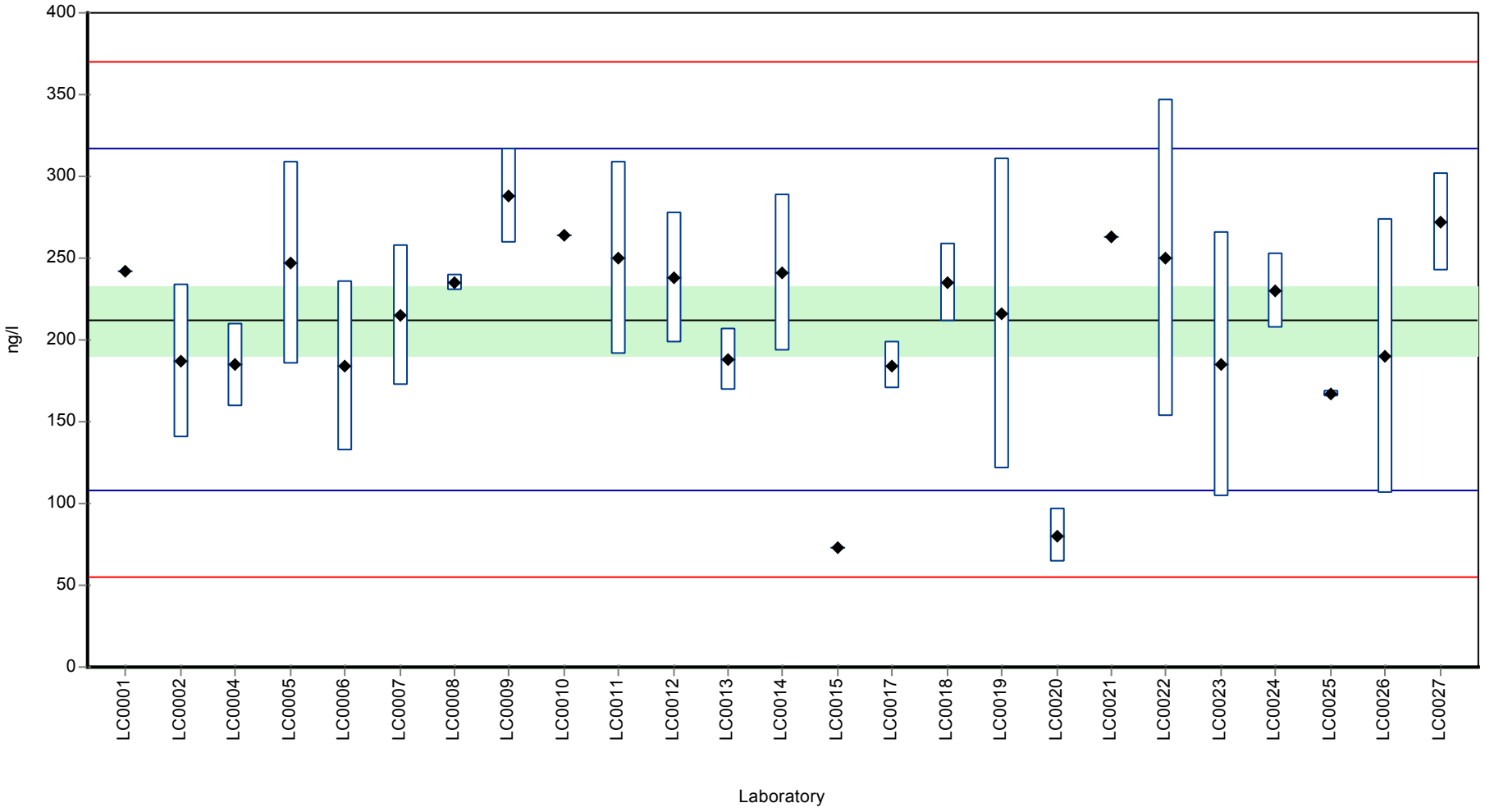
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	242	-	114	0.56	
LC0002	187	47	88	-0.48	
LC0003	-	-	-	-	
LC0004	184.6	25.8	86.9	-0.53	
LC0005	247	61.8	116	0.66	
LC0006	184	51.6	86.6	-0.54	
LC0007	215	43	101	0.05	
LC0008	235	4.7	111	0.43	
LC0009	288	29	136	1.44	
LC0010	263.9	-	124	0.98	
LC0011	250	59	118	0.72	
LC0012	238.48	40	112	0.5	
LC0013	188	19	88.5	-0.47	
LC0014	241	48	113	0.55	
LC0015	73.1	-	34.4	-2.66	
LC0016	-	-	-	-	
LC0017	184.3	14.7	86.8	-0.54	
LC0018	235	24	111	0.43	
LC0019	215.87	94.98	102	0.07	
LC0020	80.45	16.09	37.9	-2.52	
LC0021	263	-	124	0.96	
LC0022	250	97	118	0.72	
LC0023	185	81	87.1	-0.52	
LC0024	230	23	108	0.34	
LC0025	167	1.67	78.6	-0.87	
LC0026	190	83.6	89.5	-0.43	
LC0027	272	30	128	1.14	

Characteristics of parameter

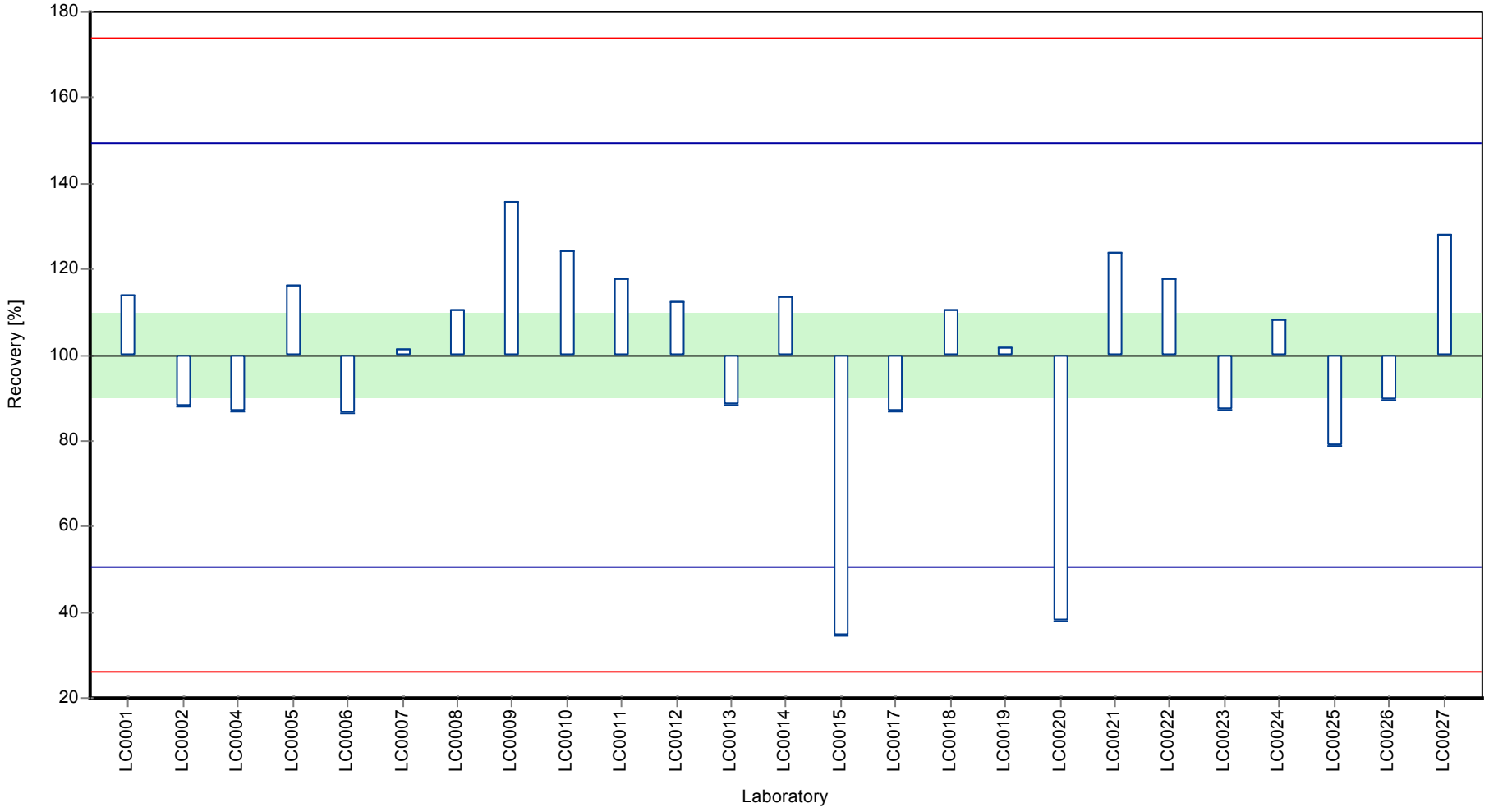
	all results	without outliers	Unit
Mean ± CI (99%)	212 ± 31.5	212 ± 31.5	ng/l
Minimum	73.1	73.1	ng/l
Maximum	288	288	ng/l
Standard deviation	52.4	52.4	ng/l
rel. Standard deviation	24.7	24.7	%
n	25	25	-

Graphical presentation of results

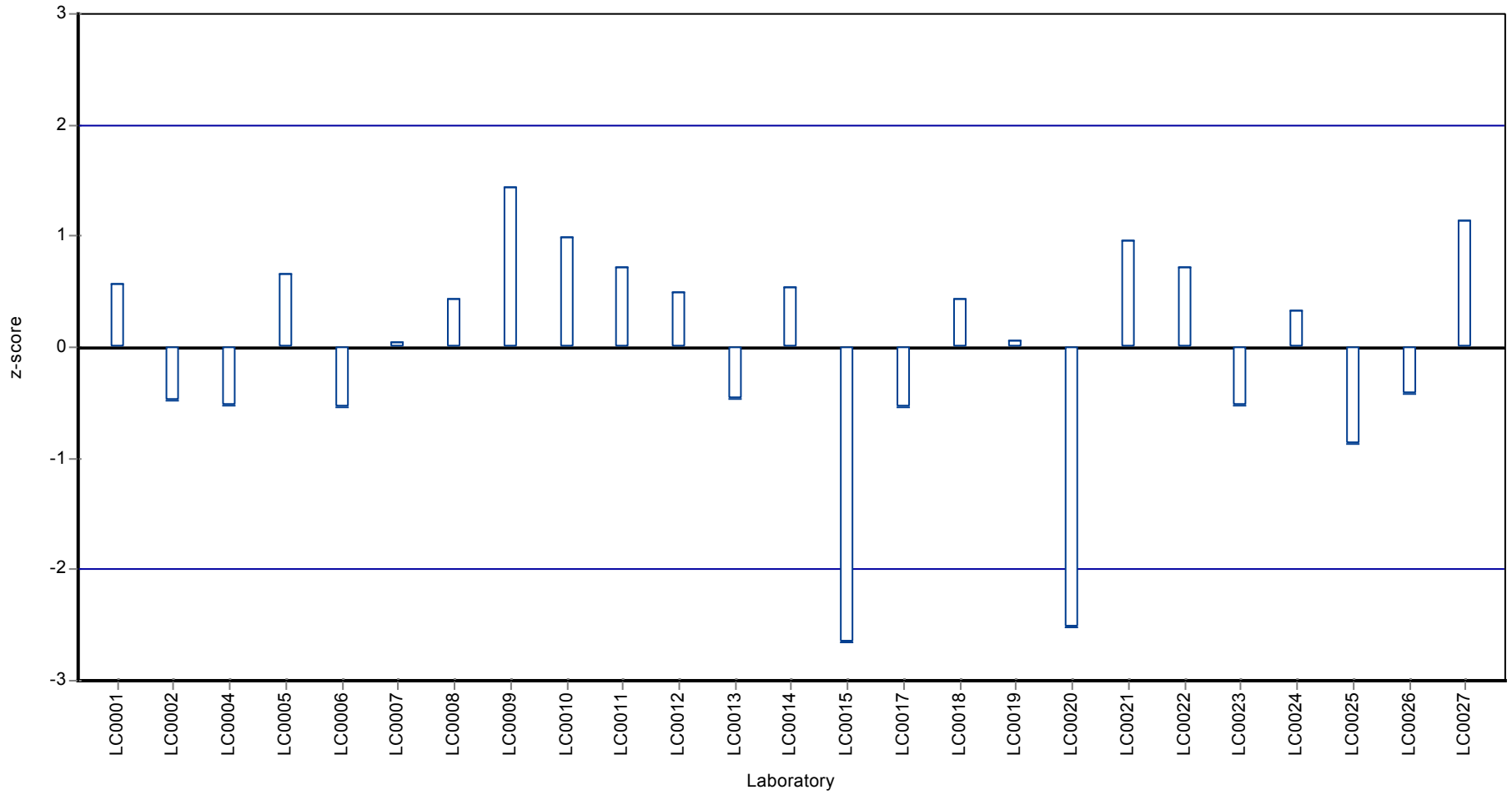
Results



Recovery rate



Z-score


3
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z-score
LC0001
LC0002
LC0004
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LC0006
LC0007
LC0008
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LC0011
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LC0013
LC0014
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LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Fluoranthene

Unit	ng/l
Mean ± CI (99%)	22.5 ± 3.03
Minimum - Maximum	13.1 - 30
Control test value ± U	20.6 ± 2.18

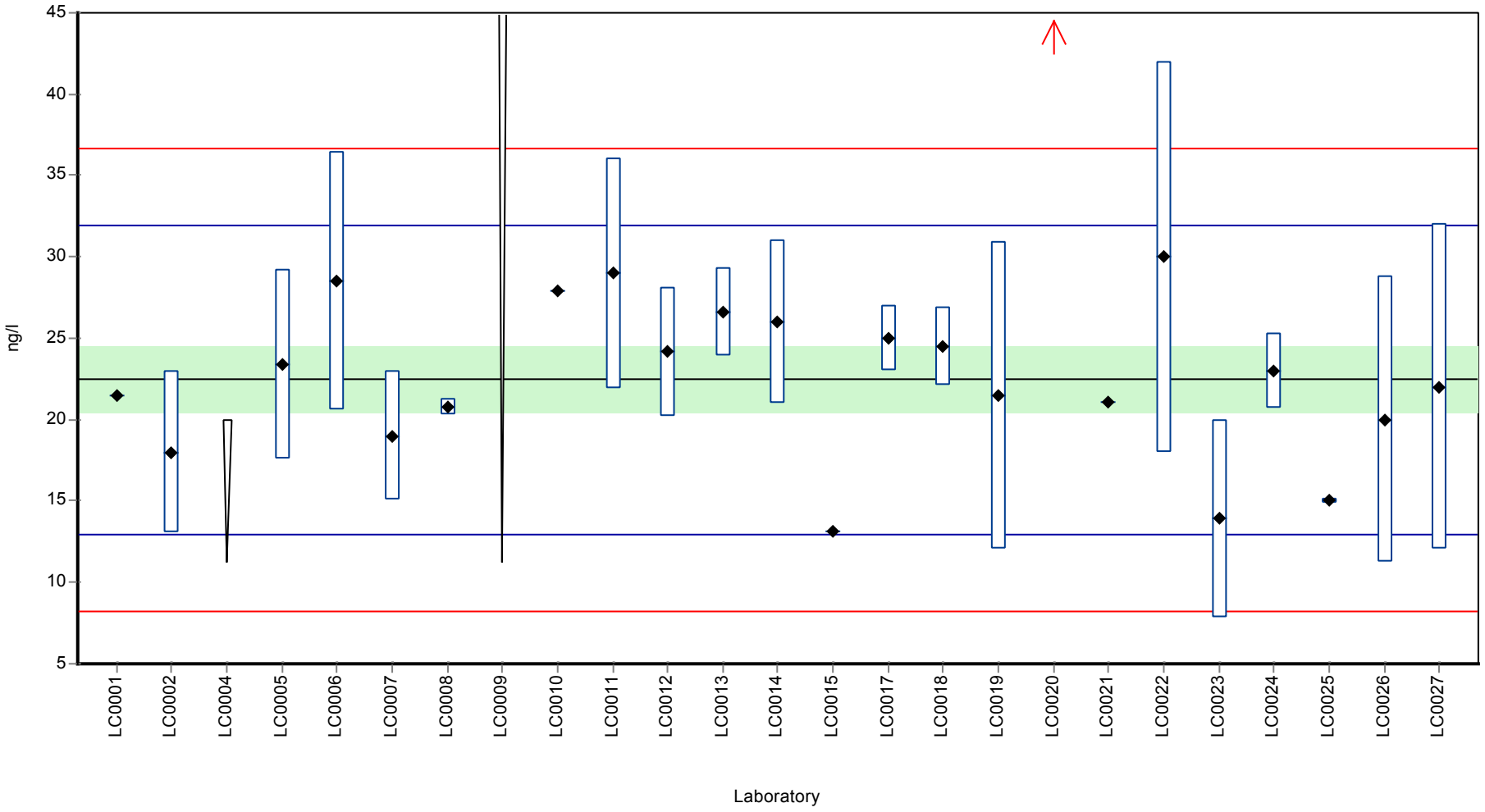
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	21.5	-	95.8	-0.2	
LC0002	18	5	80.2	-0.94	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	23.4	5.84	104	0.2	
LC0006	28.5	7.97	127	1.28	
LC0007	19	4	84.6	-0.73	
LC0008	20.8	0.5	92.6	-0.35	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	27.9	-	124	1.15	
LC0011	29	7.1	129	1.38	
LC0012	24.15	4	108	0.36	
LC0013	26.6	2.7	118	0.88	
LC0014	26	5	116	0.75	
LC0015	13.1	-	58.4	-1.97	
LC0016	-	-	-	-	
LC0017	25	2	111	0.54	
LC0018	24.5	2.4	109	0.43	
LC0019	21.46	9.44	95.6	-0.21	
LC0020	100.66	20.13	448	16.5	H
LC0021	21.1	-	94	-0.28	
LC0022	30	12	134	1.59	
LC0023	13.9	6.1	61.9	-1.81	
LC0024	23	2.3	102	0.12	
LC0025	15	0.15	66.8	-1.57	
LC0026	20	8.8	89.1	-0.52	
LC0027	22	10	98	-0.1	

Characteristics of parameter

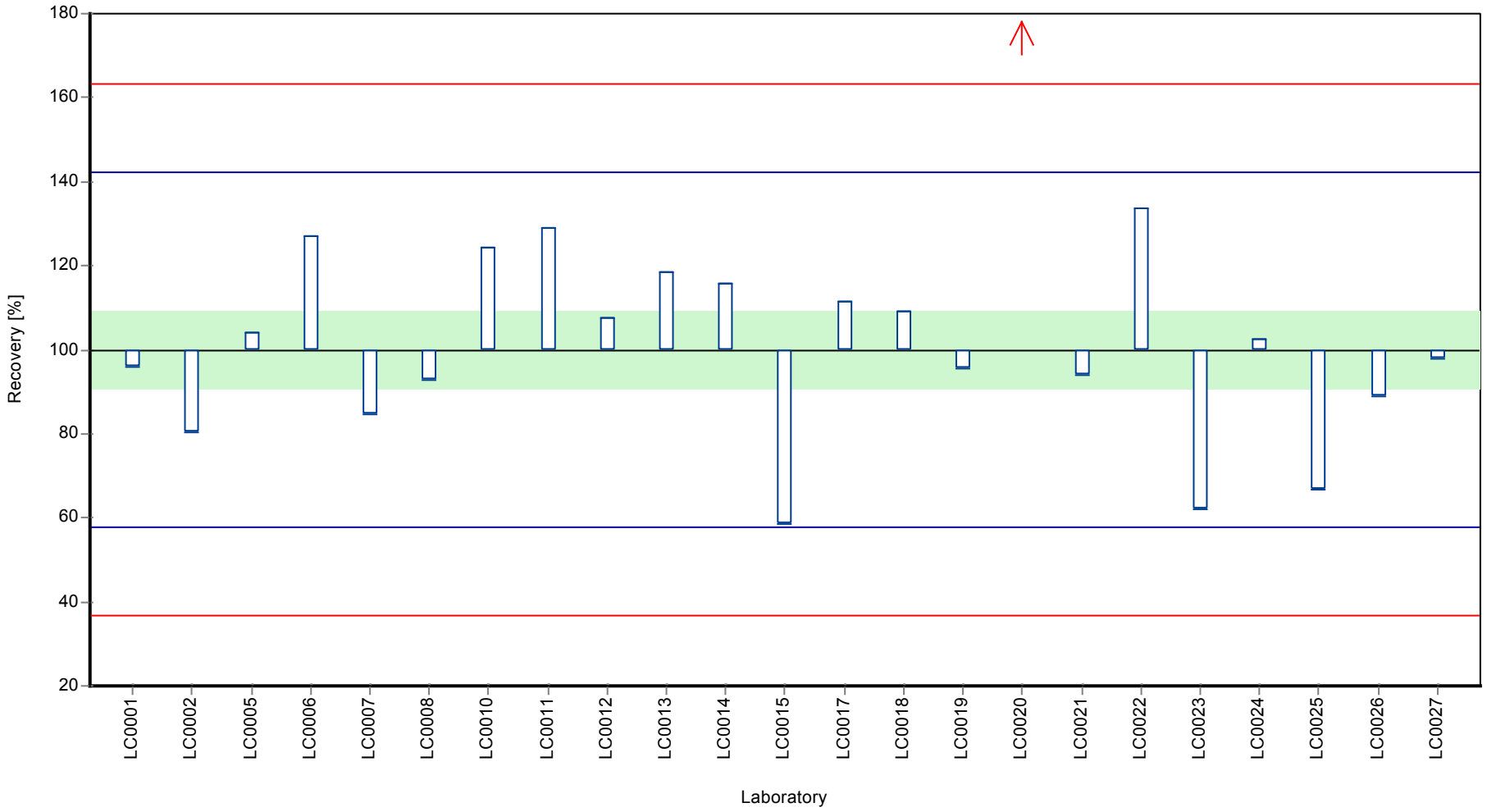
	all results	without outliers	Unit
Mean ± CI (99%)	25.9 ± 10.6	22.5 ± 3.03	ng/l
Minimum	13.1	13.1	ng/l
Maximum	101	30	ng/l
Standard deviation	17	4.74	ng/l
rel. Standard deviation	65.6	21.1	%
n	23	22	-

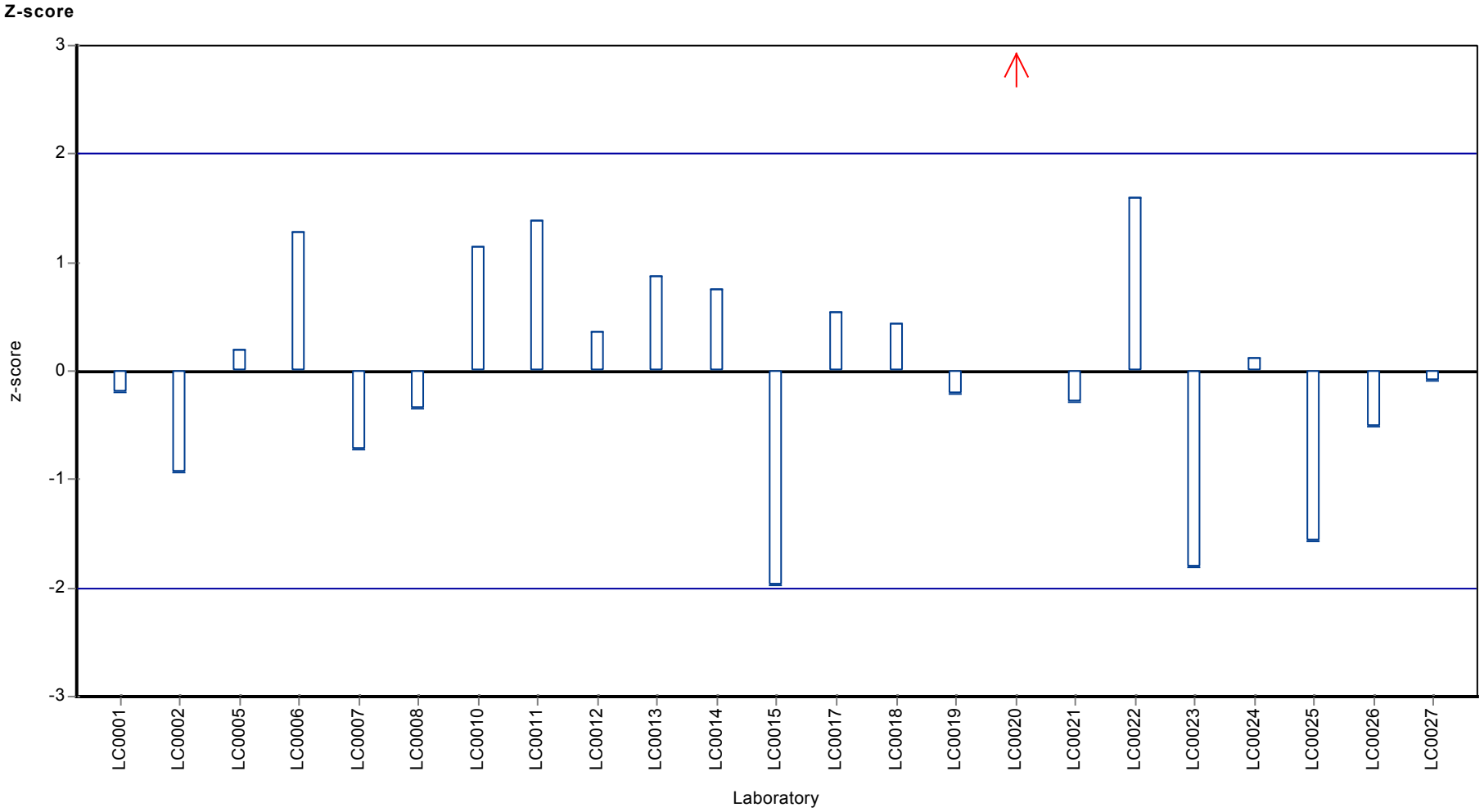
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
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-2
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LC0001
LC0002
LC0005
LC0006
LC0007
LC0008
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LC0011
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LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 A

Fluorene

Unit	ng/l
Mean ± CI (99%)	169 ± 14
Minimum - Maximum	124 - 205
Control test value ± U	-

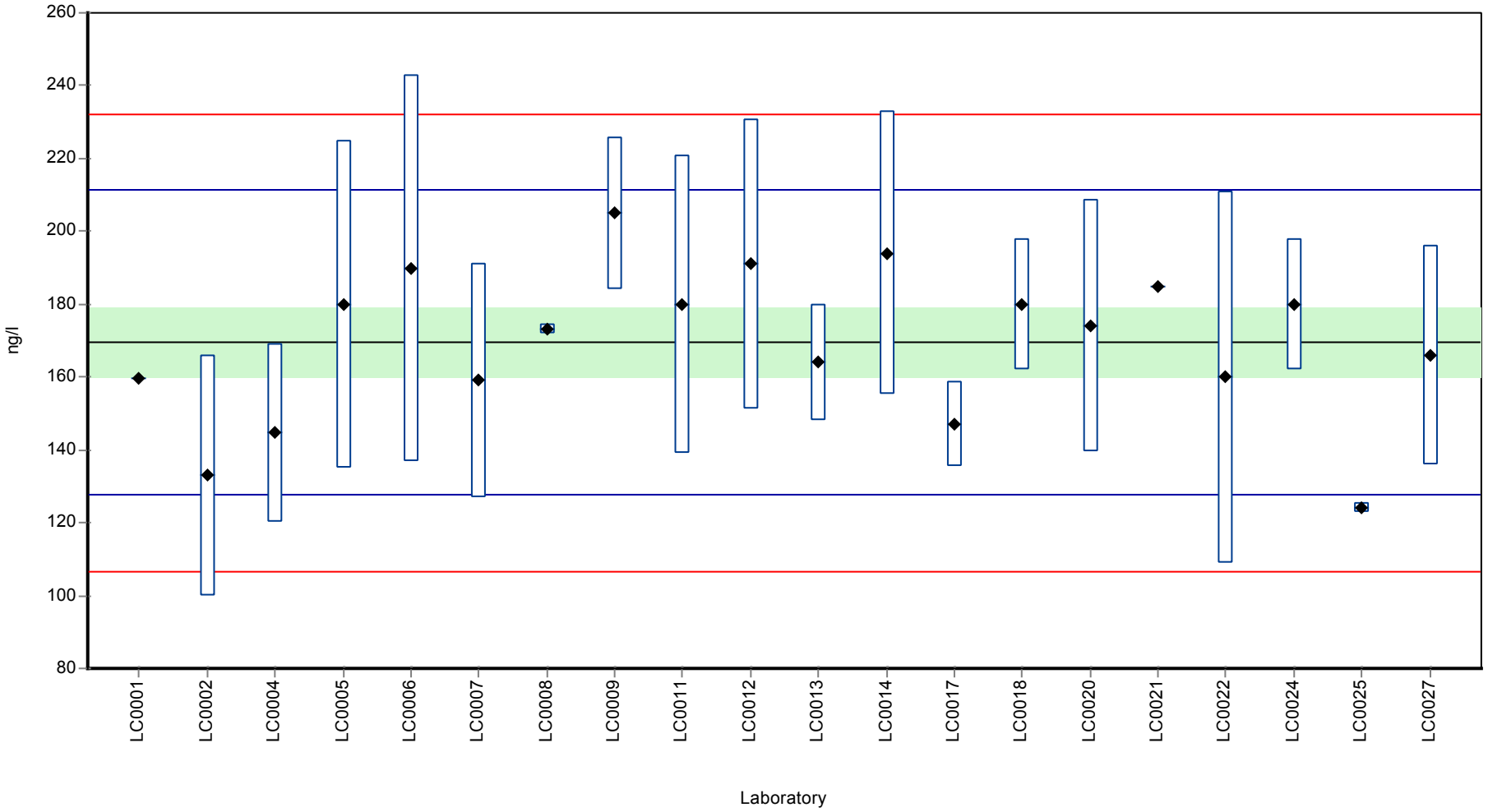
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	159.5	-	94.1	-0.47	
LC0002	133	33	78.5	-1.74	
LC0003	-	-	-	-	
LC0004	144.6	24.6	85.3	-1.19	
LC0005	180	44.9	106	0.5	
LC0006	190	53.1	112	0.98	
LC0007	159	32	93.8	-0.5	
LC0008	173	1.3	102	0.17	
LC0009	205	21	121	1.7	
LC0010	-	-	-	-	
LC0011	180	41	106	0.5	
LC0012	190.97	40	113	1.03	
LC0013	164	16	96.8	-0.26	
LC0014	194	39	114	1.17	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	147	11.8	86.7	-1.07	
LC0018	180	18	106	0.5	
LC0019	-	-	-	-	
LC0020	173.99	34.79	103	0.22	
LC0021	185	-	109	0.74	
LC0022	160	51	94.4	-0.45	
LC0023	-	-	-	-	
LC0024	180	18	106	0.5	
LC0025	124	1.24	73.2	-2.17	
LC0026	-	-	-	-	
LC0027	166	30	98	-0.17	

Characteristics of parameter

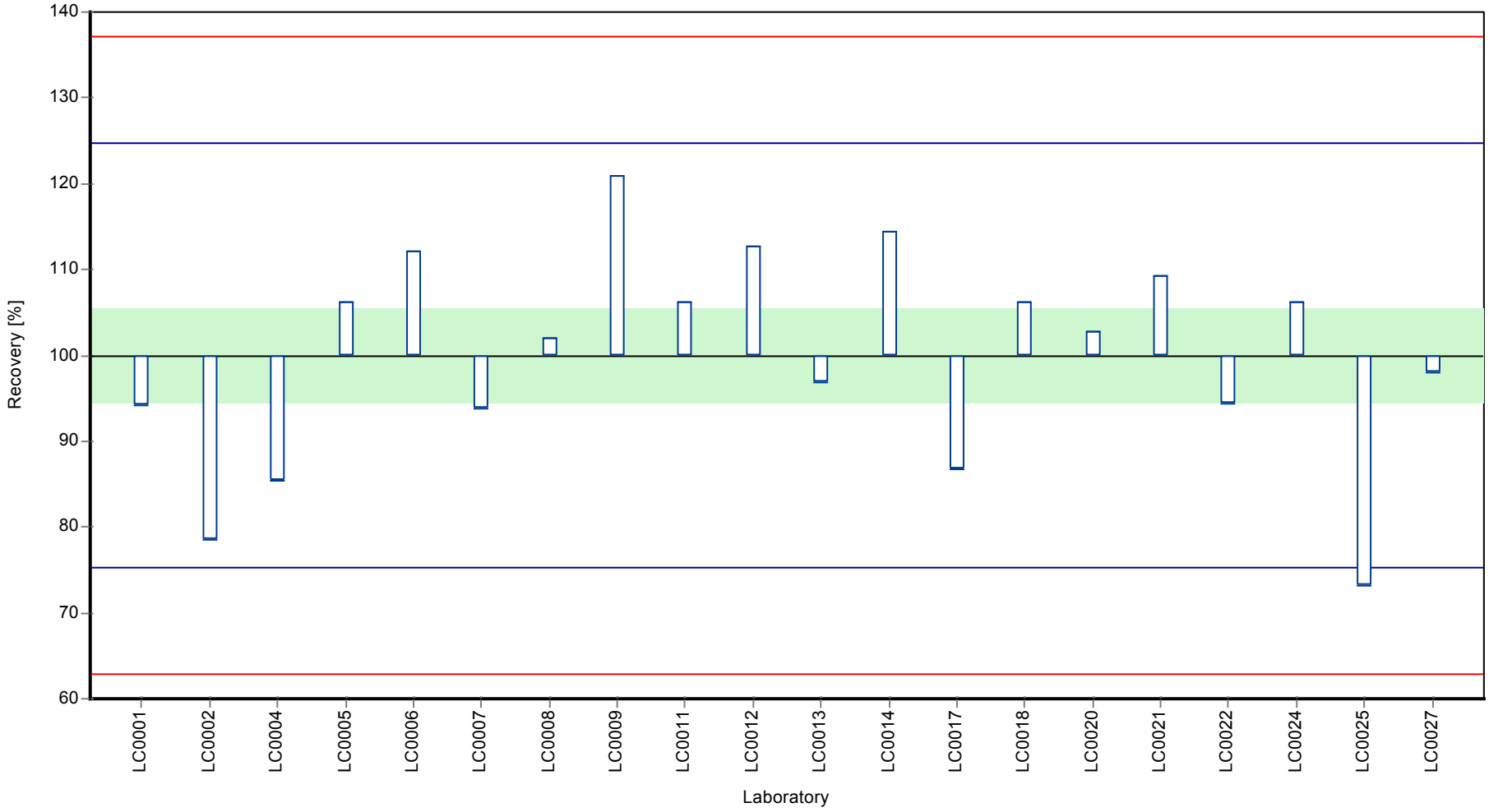
	all results	without outliers	Unit
Mean ± CI (99%)	169 ± 14	169 ± 14	ng/l
Minimum	124	124	ng/l
Maximum	205	205	ng/l
Standard deviation	20.9	20.9	ng/l
rel. Standard deviation	12.4	12.4	%
n	20	20	-

Graphical presentation of results

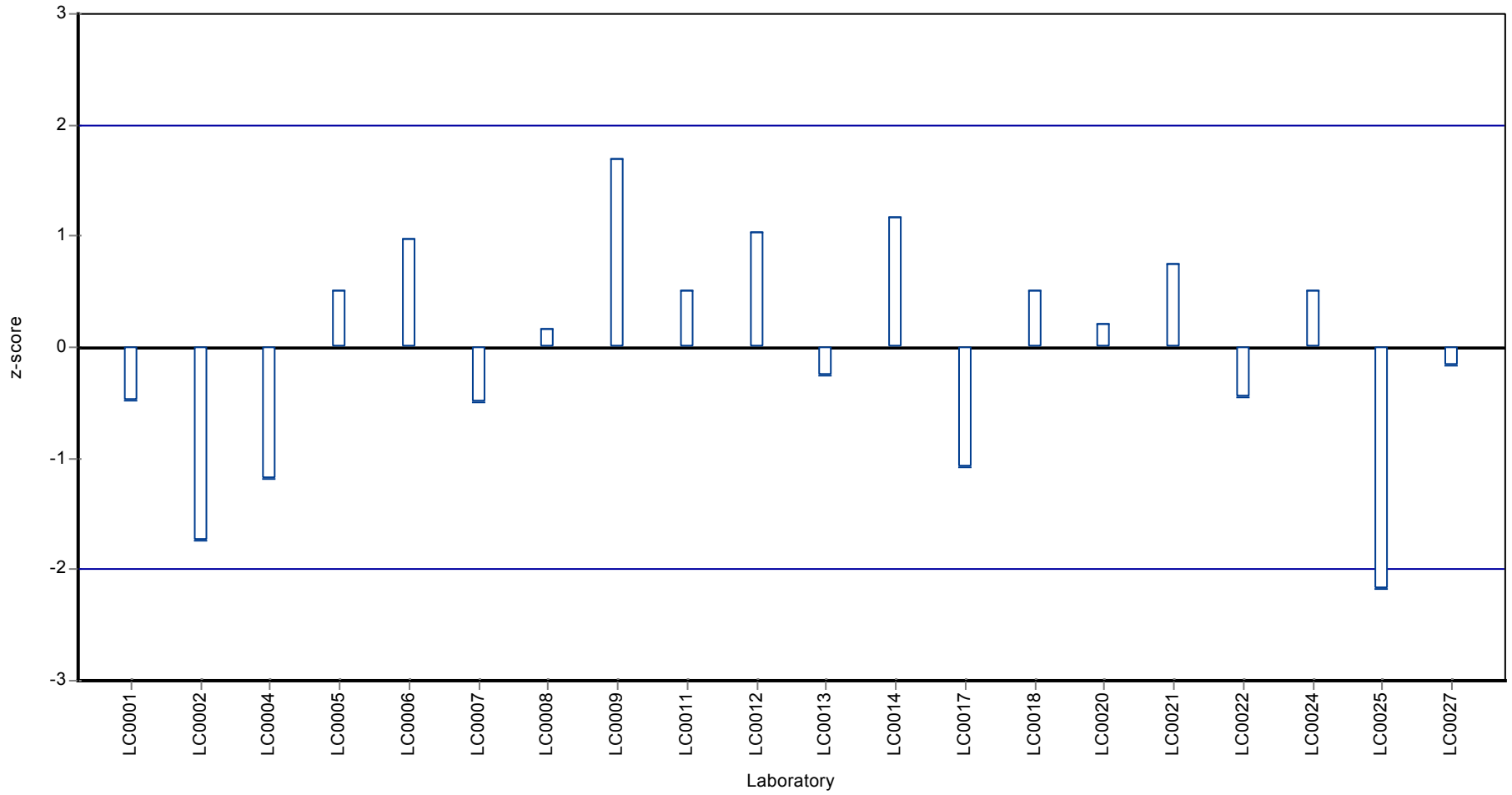
Results



Recovery rate



Z-score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z-score
LC0001
LC0002
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LC0009
LC0011
LC0012
LC0013
LC0014
LC0017
LC0018
LC0020
LC0021
LC0022
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 B

Fluorene

Unit	ng/l
Mean ± CI (99%)	11.7 ± 2.38
Minimum - Maximum	7 - 15.7
Control test value ± U	10.3 ± 0.925

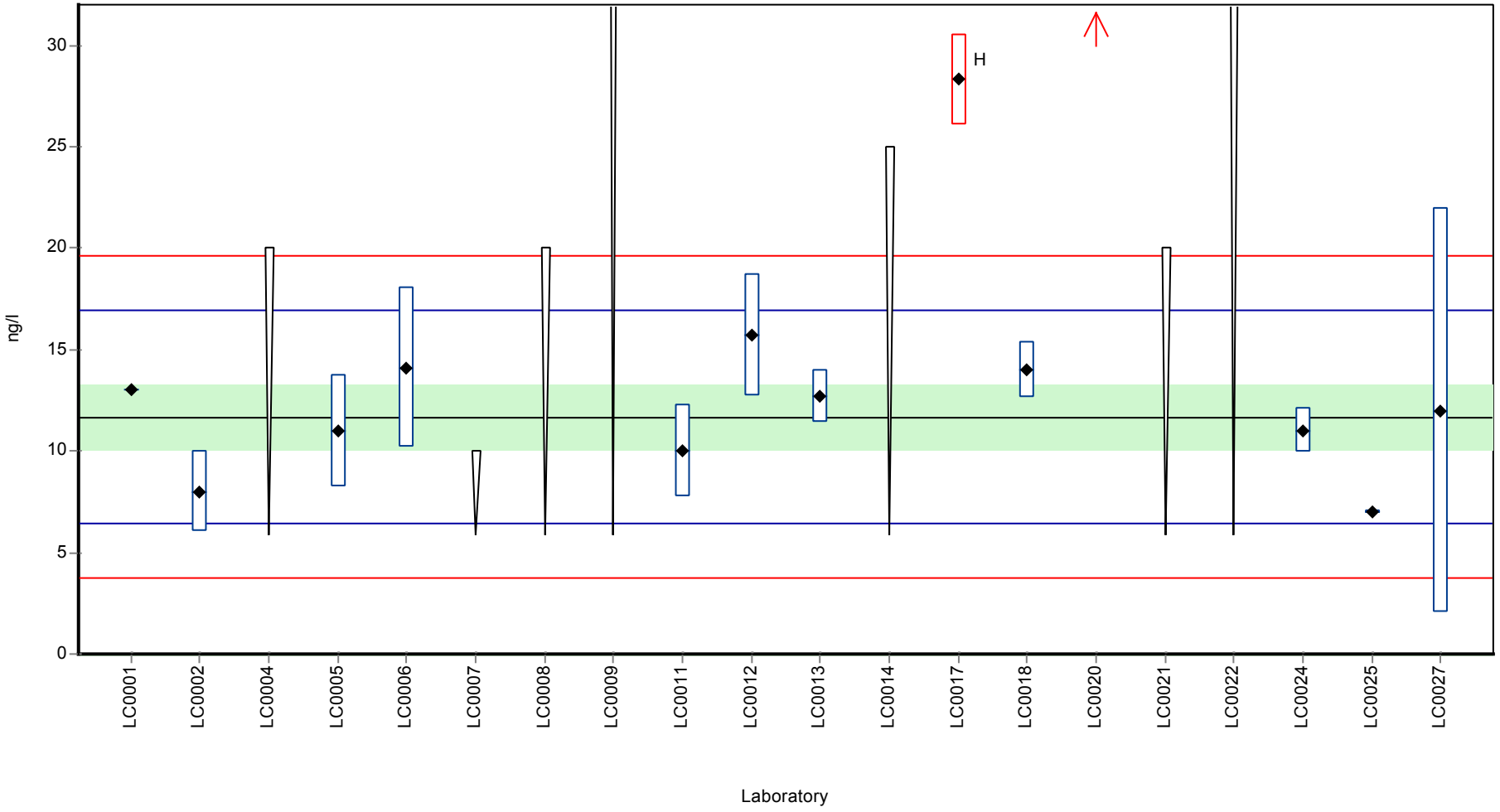
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	13	-	111	0.5	
LC0002	8	2	68.5	-1.4	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	11	2.74	94.2	-0.26	
LC0006	14.1	3.96	121	0.92	
LC0007	<10 (LOD)	-	-	-	
LC0008	< 20 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	10	2.3	85.6	-0.64	
LC0012	15.69	3	134	1.52	
LC0013	12.7	1.3	109	0.39	
LC0014	< 25 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	28.3	2.26	242	6.31	H
LC0018	14	1.4	120	0.88	
LC0019	-	-	-	-	
LC0020	95.86	19.17	821	32	H
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 38 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	11	1.1	94.2	-0.26	
LC0025	7	0.07	59.9	-1.78	
LC0026	-	-	-	-	
LC0027	12	10	103	0.12	

Characteristics of parameter

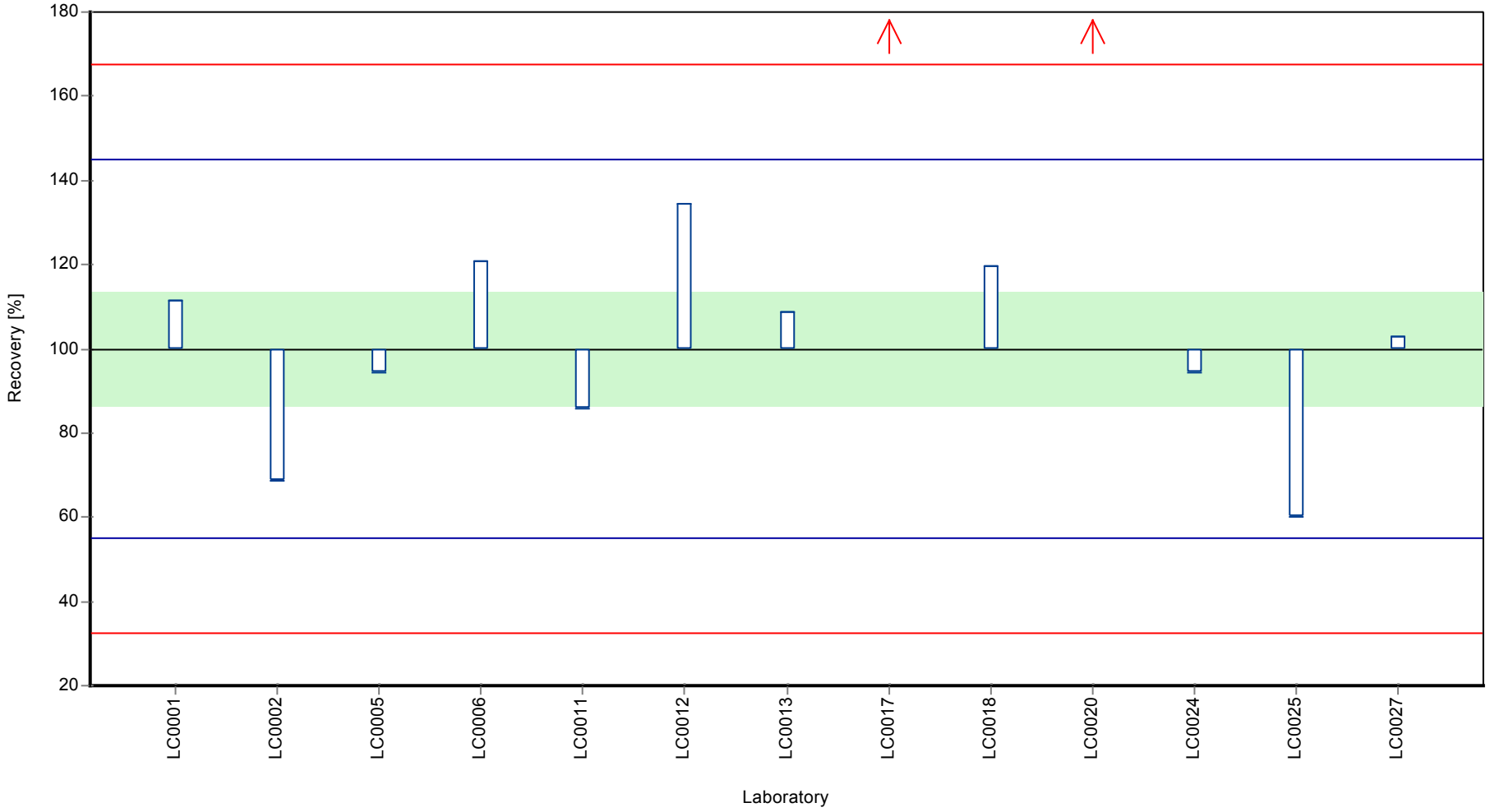
	all results	without outliers	Unit
Mean ± CI (99%)	19.4 ± 19.6	11.7 ± 2.38	ng/l
Minimum	7	7	ng/l
Maximum	95.9	15.7	ng/l
Standard deviation	23.5	2.63	ng/l
rel. Standard deviation	121	22.6	%
n	13	11	-

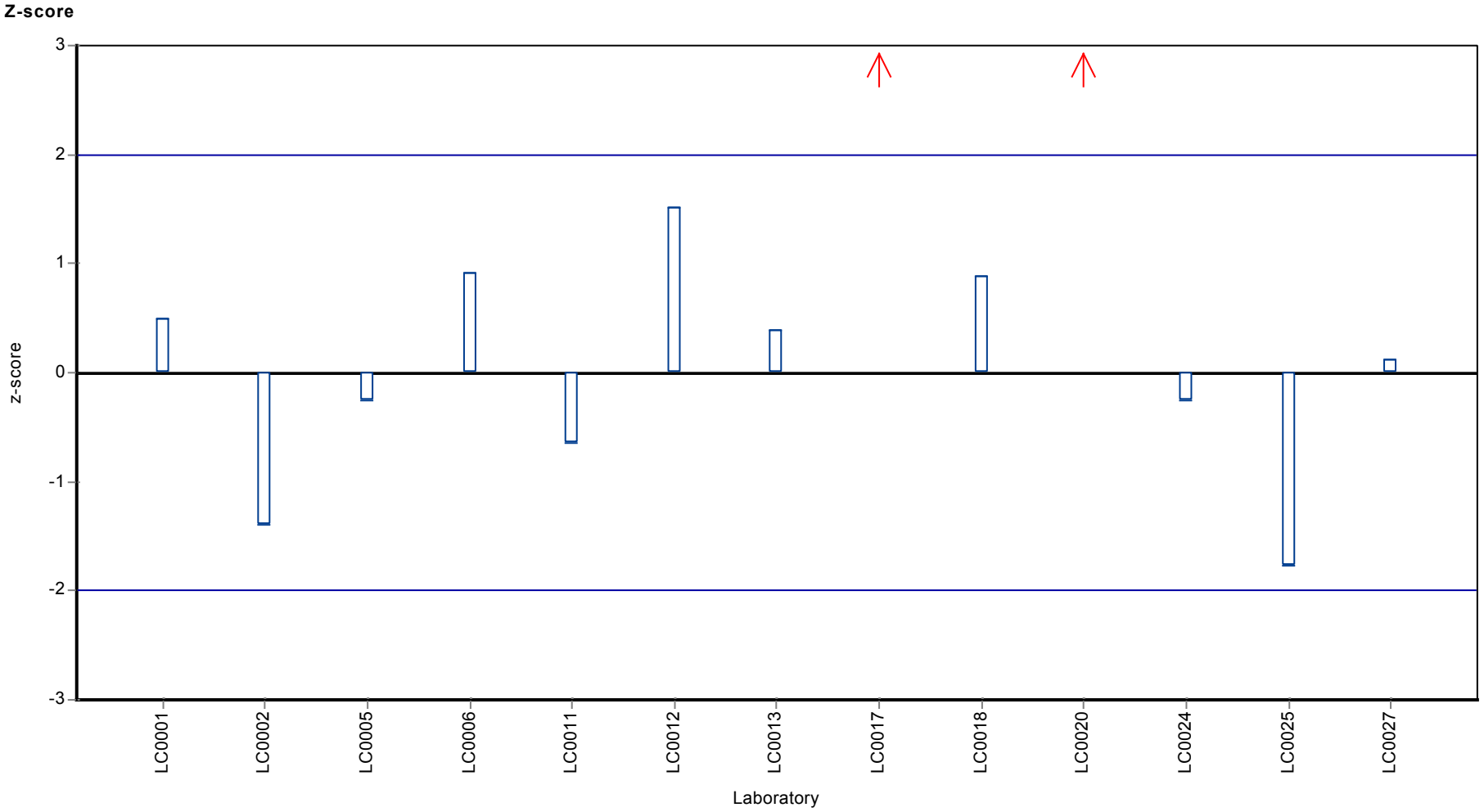
Graphical presentation of results

Results



Recovery rate

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LC0001
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LC0005
LC0006
LC0011
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LC0013
LC0017
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LC0020
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 A

Indeno[1,2,3-cd]pyrene

Unit	ng/l
Mean ± CI (99%)	-
Minimum - Maximum	1.1 - 114
Control test value ± U	7.3 ± 2.11

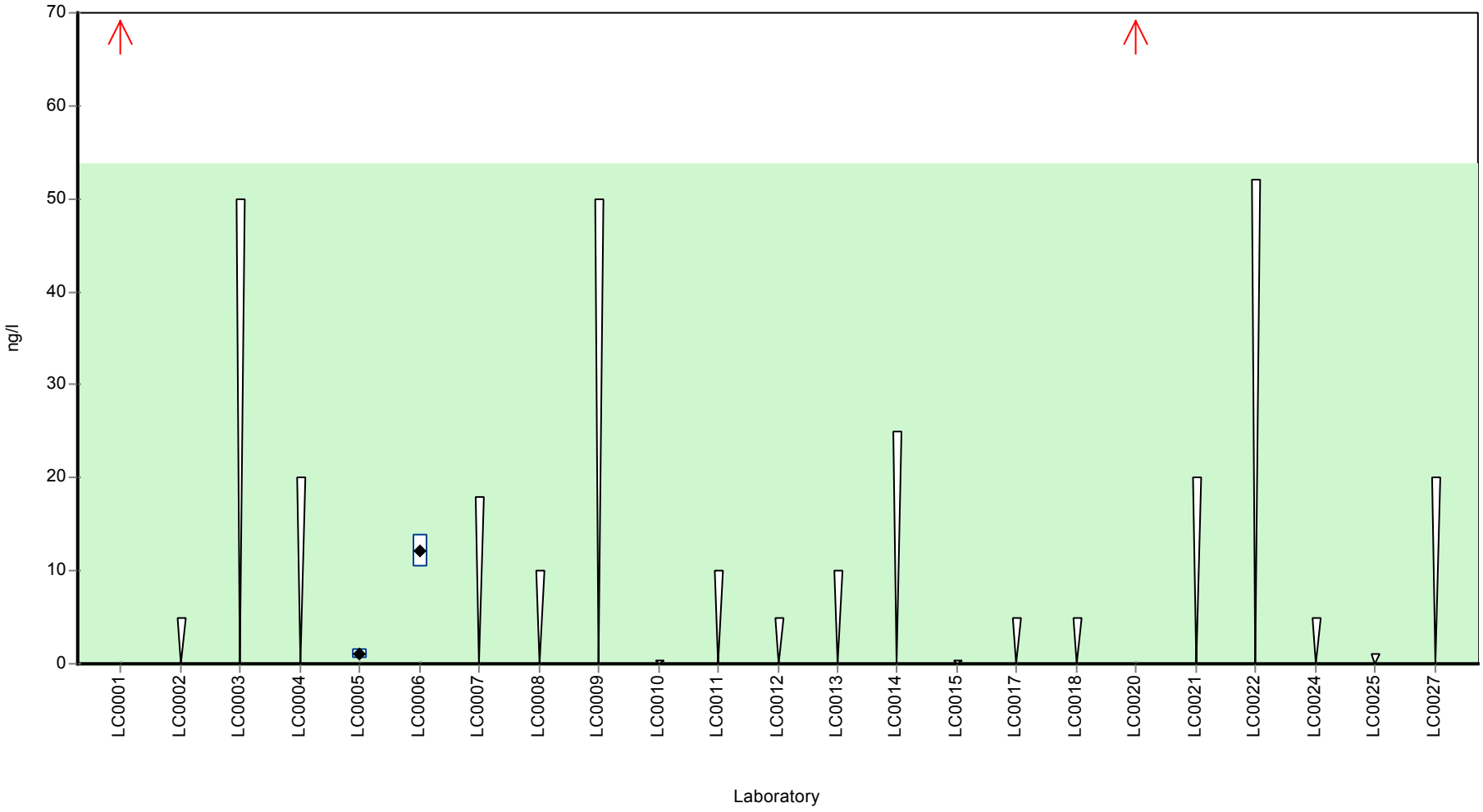
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	114	-	-	-	FP
LC0002	< 5 (LOQ)	-	-	-	
LC0003	< 50 (LOQ)	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	1.1	0.5	-	-	
LC0006	12.1	1.81	-	-	
LC0007	< 18 (LOQ)	-	-	-	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	< 0.3 (LOQ)	-	-	-	
LC0011	< 10 (LOQ)	-	-	-	
LC0012	< 5 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	< 25 (LOQ)	-	-	-	
LC0015	< 0.3 (LOQ)	-	-	-	
LC0016	-	-	-	-	
LC0017	< 5 (LOQ)	-	-	-	
LC0018	< 5 (LOQ)	-	-	-	
LC0019	-	-	-	-	
LC0020	77.7	15.54	-	-	FP
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 52 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	< 5 (LOQ)	-	-	-	
LC0025	< 1 (LOQ)	-	-	-	
LC0026	-	-	-	-	
LC0027	< 20 (LOQ)	-	-	-	

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	51.2 ± 80.7	-	ng/l
Minimum	1.1	1.1	ng/l
Maximum	114	114	ng/l
Standard deviation	53.8	-	ng/l
rel. Standard deviation	105	-	%
n	4	4	-

Graphical presentation of results

Results



Parameter oriented report

P18 B

Indeno[1,2,3-cd]pyrene

Unit	ng/l
Mean ± CI (99%)	-
Minimum - Maximum	2.8 - 65.9
Control test value ± U	2.51 ± 0.376

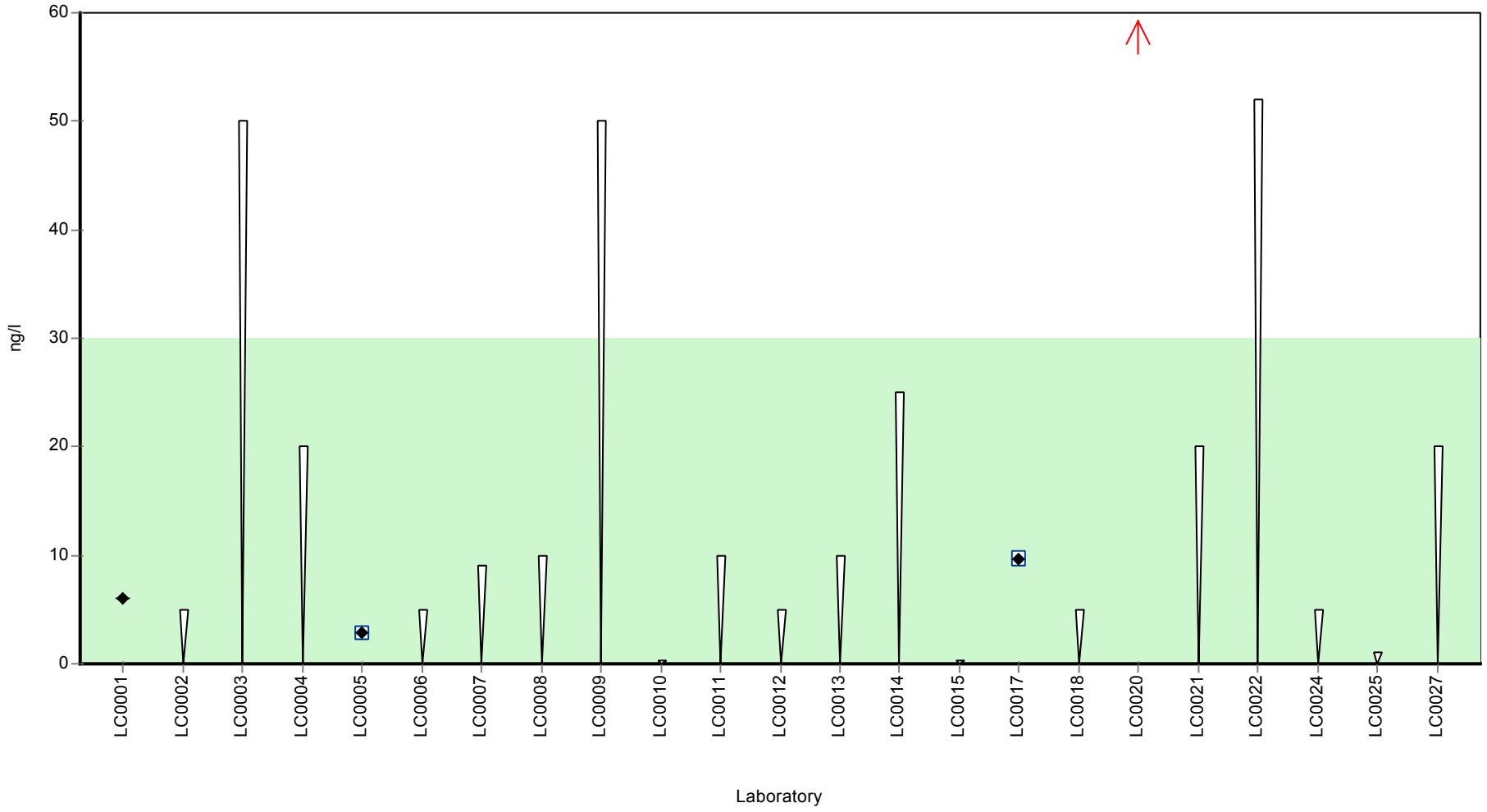
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6	-	-	-	
LC0002	< 5 (LOQ)	-	-	-	
LC0003	< 50 (LOQ)	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	2.8	0.7	-	-	
LC0006	< 5 (LOQ)	-	-	-	
LC0007	<9 (LOD)	-	-	-	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	< 0.3 (LOQ)	-	-	-	
LC0011	< 10 (LOQ)	-	-	-	
LC0012	< 5 (LOQ)	-	-	-	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	< 25 (LOQ)	-	-	-	
LC0015	< 0.3 (LOQ)	-	-	-	
LC0016	-	-	-	-	
LC0017	9.67	0.77	-	-	
LC0018	< 5 (LOQ)	-	-	-	
LC0019	-	-	-	-	
LC0020	65.93	13.19	-	-	FP
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 52 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	< 5 (LOQ)	-	-	-	
LC0025	< 1 (LOQ)	-	-	-	
LC0026	-	-	-	-	
LC0027	< 20 (LOQ)	-	-	-	

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	21.1 ± 45	-	ng/l
Minimum	2.8	2.8	ng/l
Maximum	65.9	65.9	ng/l
Standard deviation	30	-	ng/l
rel. Standard deviation	142	-	%
n	4	4	-

Graphical presentation of results

Results



Parameter oriented report

P18 A

Naphthalene

Unit	ng/l
Mean ± CI (99%)	53.3 ± 9.52
Minimum - Maximum	38 - 92.2
Control test value ± U	49.6 ± 9.12

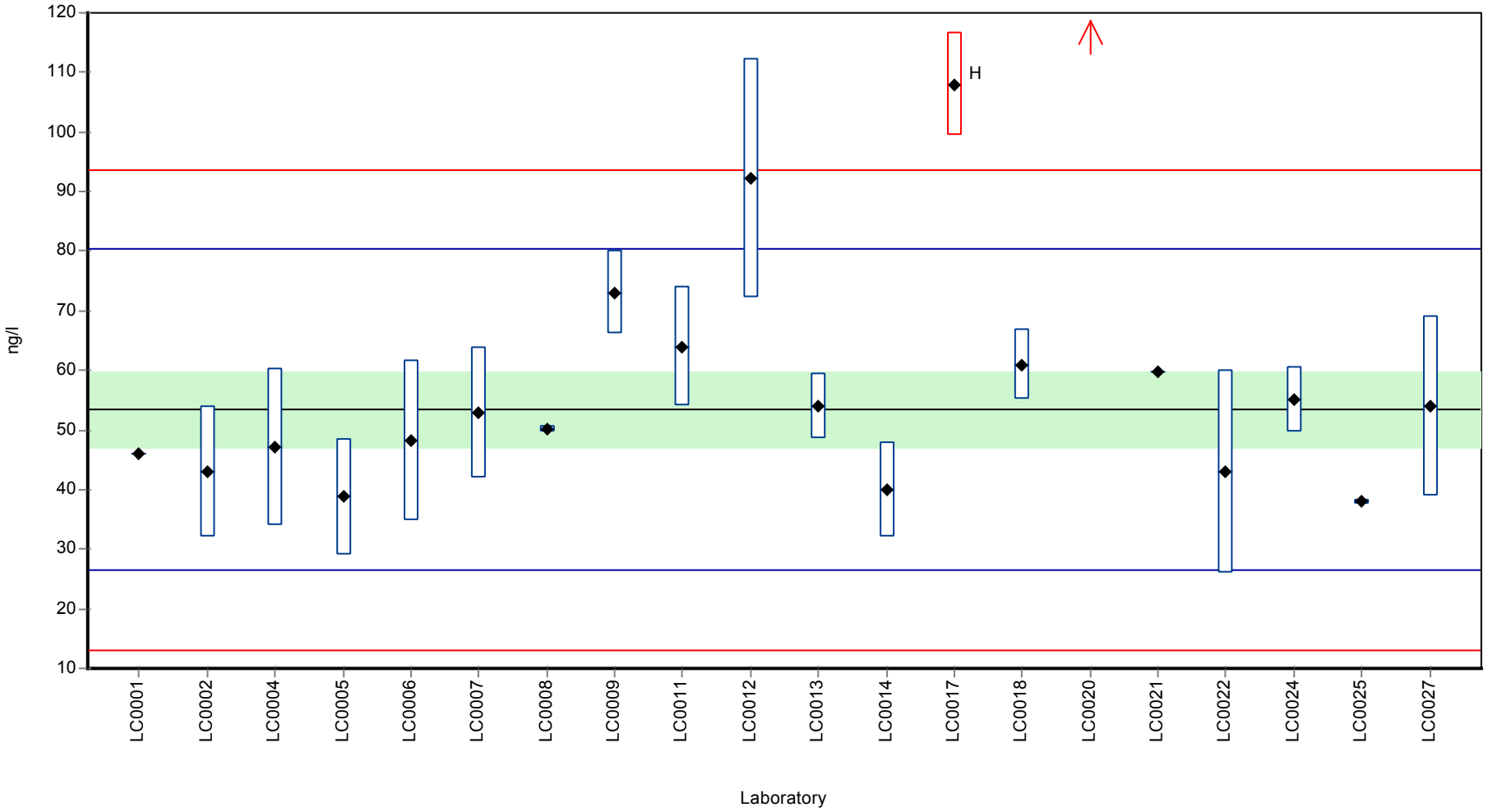
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	46	-	86.2	-0.55	
LC0002	43	11	80.6	-0.77	
LC0003	-	-	-	-	
LC0004	47	13.2	88.1	-0.47	
LC0005	38.8	9.69	72.7	-1.08	
LC0006	48.2	13.5	90.4	-0.38	
LC0007	53	11	99.4	-0.03	
LC0008	50.1	0.55	93.9	-0.24	
LC0009	73	7	137	1.46	
LC0010	-	-	-	-	
LC0011	64	10	120	0.79	
LC0012	92.18	20	173	2.88	
LC0013	54	5.4	101	0.05	
LC0014	40	8	75	-0.99	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	108	8.64	202	4.06	H
LC0018	61	6	114	0.57	
LC0019	-	-	-	-	
LC0020	203.4	40.68	381	11.1	H
LC0021	59.8	-	112	0.48	
LC0022	43	17	80.6	-0.77	
LC0023	-	-	-	-	
LC0024	55	5.5	103	0.12	
LC0025	38	0.38	71.2	-1.14	
LC0026	-	-	-	-	
LC0027	54	15	101	0.05	

Characteristics of parameter

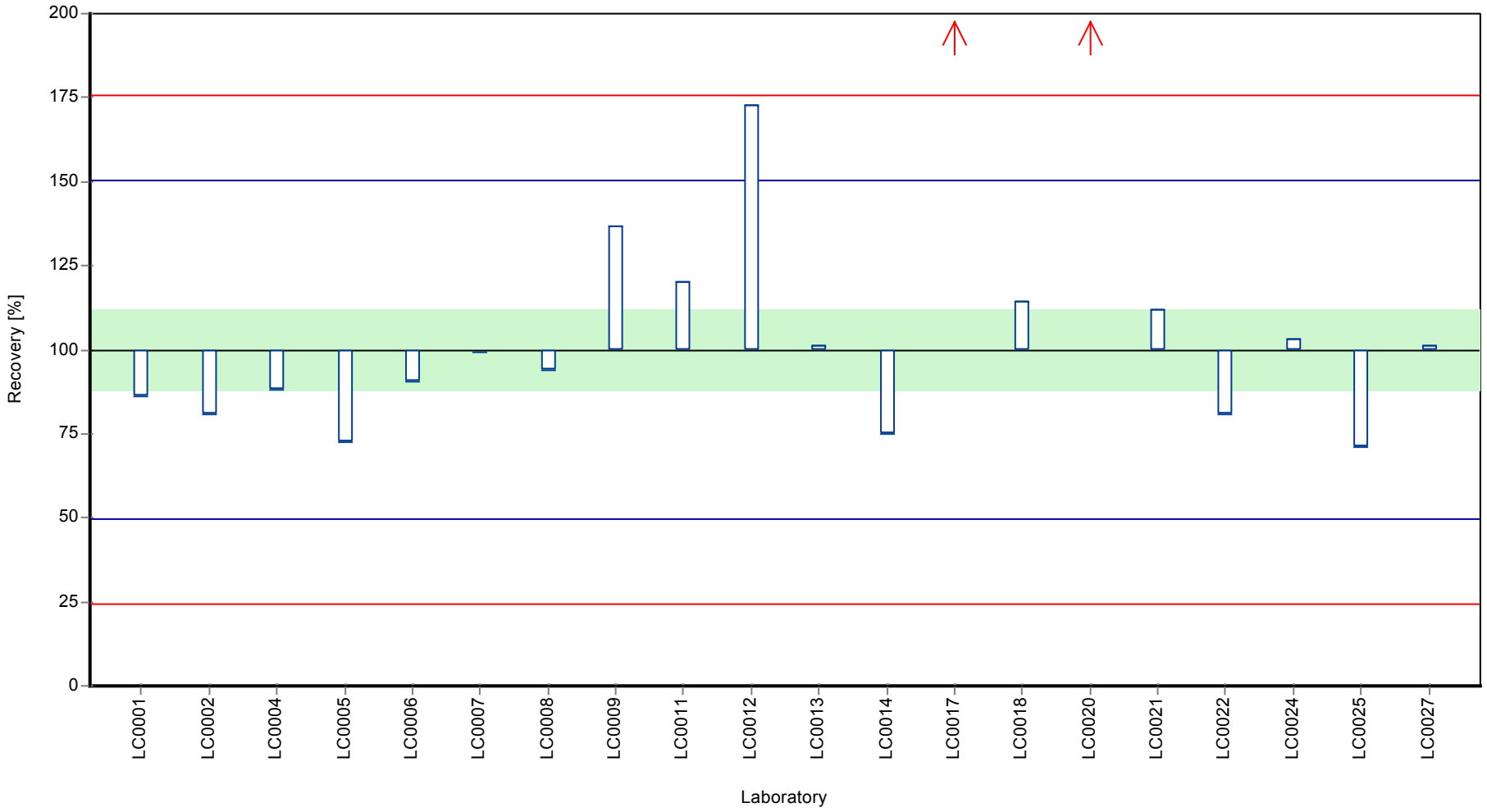
	all results	without outliers	Unit
Mean ± CI (99%)	63.6 ± 25	53.3 ± 9.52	ng/l
Minimum	38	38	ng/l
Maximum	203	92.2	ng/l
Standard deviation	37.3	13.5	ng/l
rel. Standard deviation	58.7	25.2	%
n	20	18	-

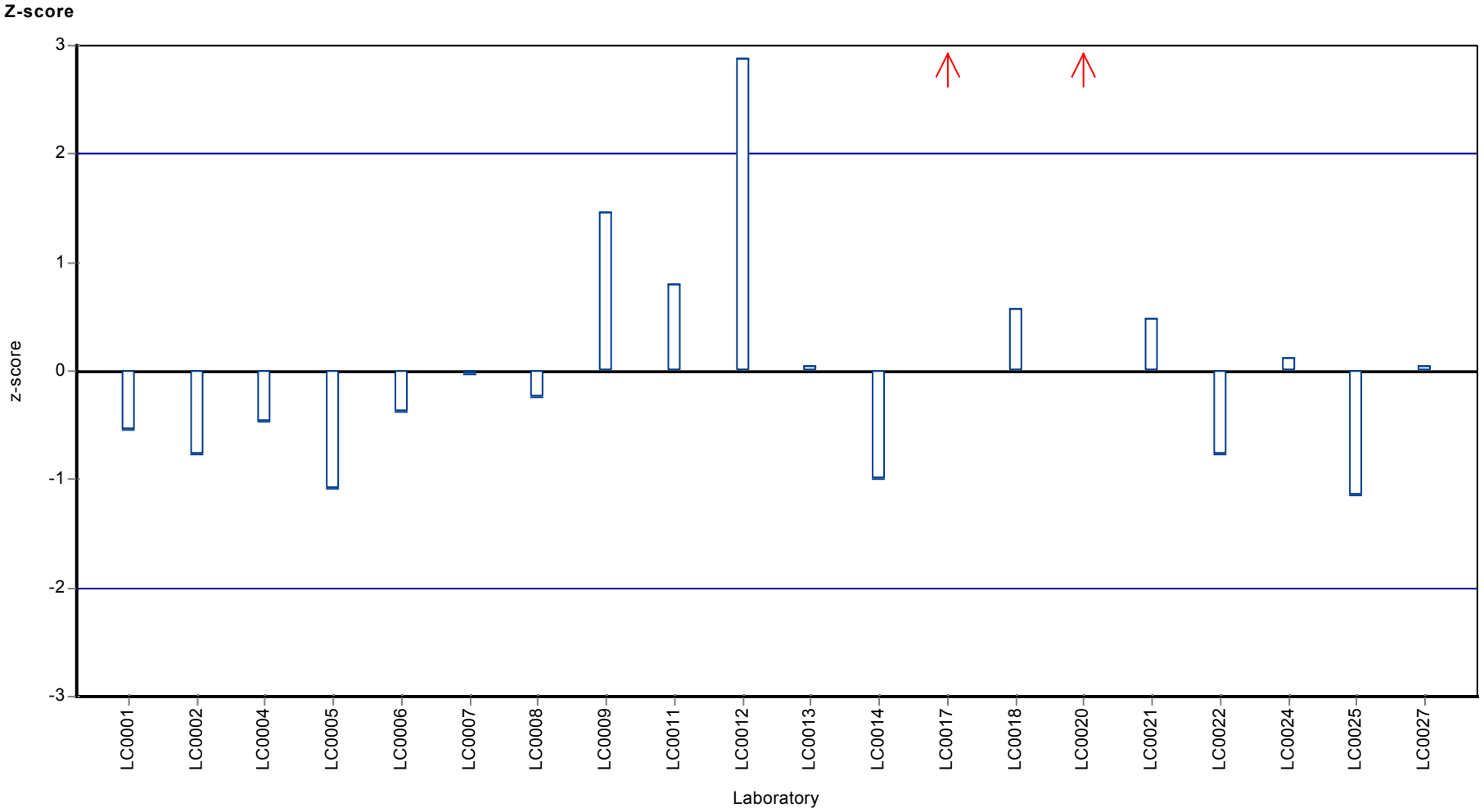
Graphical presentation of results

Results



Recovery rate

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1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0011
LC0012
LC0013
LC0014
LC0017
LC0018
LC0020
LC0021
LC0022
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 B

Naphthalene

Unit	ng/l
Mean ± CI (99%)	24.5 ± 4.59
Minimum - Maximum	16.4 - 36.5
Control test value ± U	16.8 ± 1.95

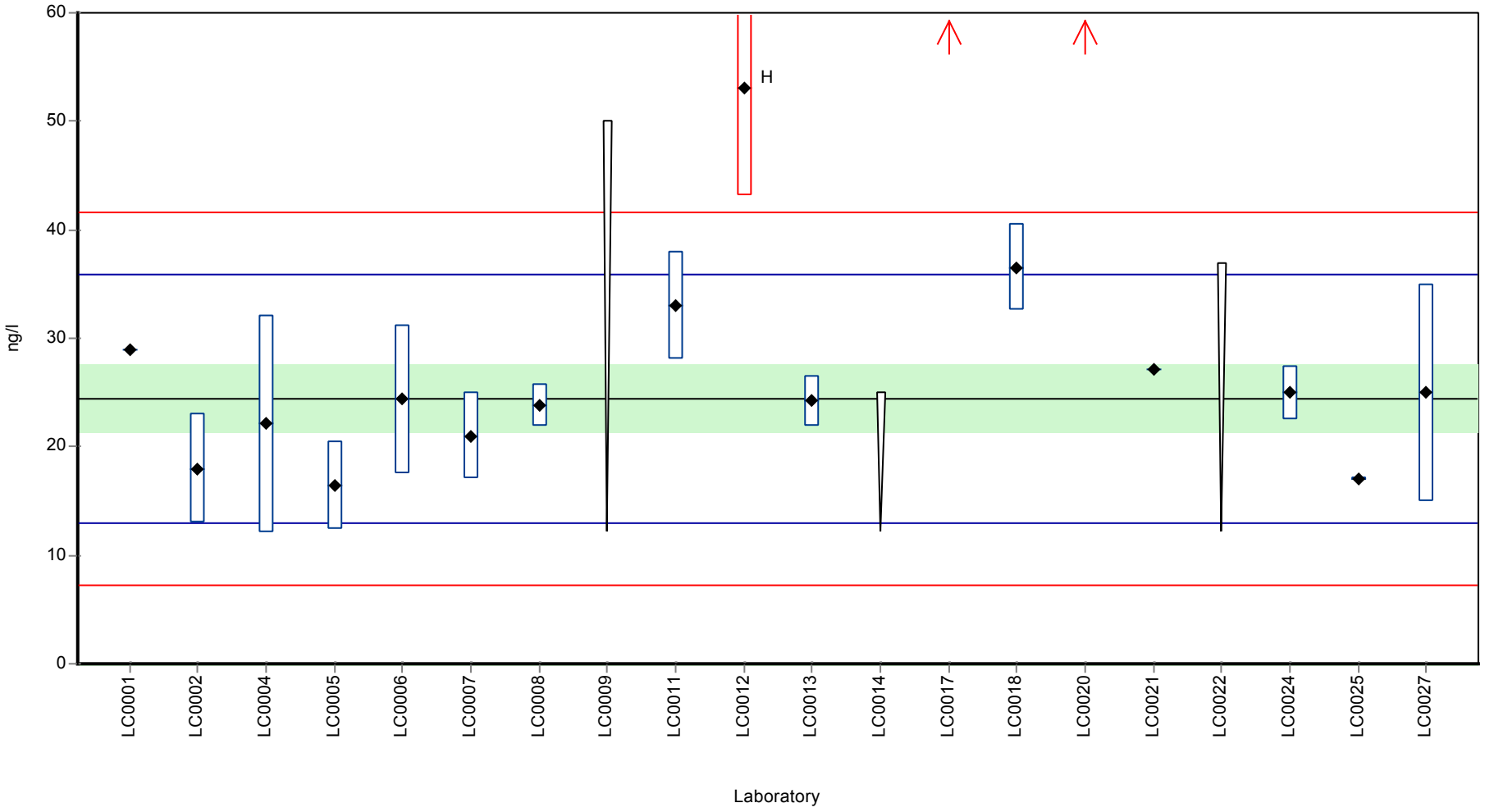
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	29	-	119	0.79	
LC0002	18	5	73.6	-1.13	
LC0003	-	-	-	-	
LC0004	22.1	10	90.3	-0.41	
LC0005	16.4	4.09	67	-1.41	
LC0006	24.4	6.84	99.7	-0.01	
LC0007	21	4	85.8	-0.6	
LC0008	23.8	2	97.3	-0.12	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	33	5	135	1.49	
LC0012	53.07	10	217	4.99	H
LC0013	24.2	2.4	98.9	-0.05	
LC0014	< 25 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	92	7.36	376	11.8	H
LC0018	36.5	4	149	2.1	
LC0019	-	-	-	-	
LC0020	97.87	19.57	400	12.8	H
LC0021	27.1	-	111	0.46	
LC0022	< 37 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	25	2.5	102	0.09	
LC0025	17	0.17	69.5	-1.3	
LC0026	-	-	-	-	
LC0027	25	10	102	0.09	

Characteristics of parameter

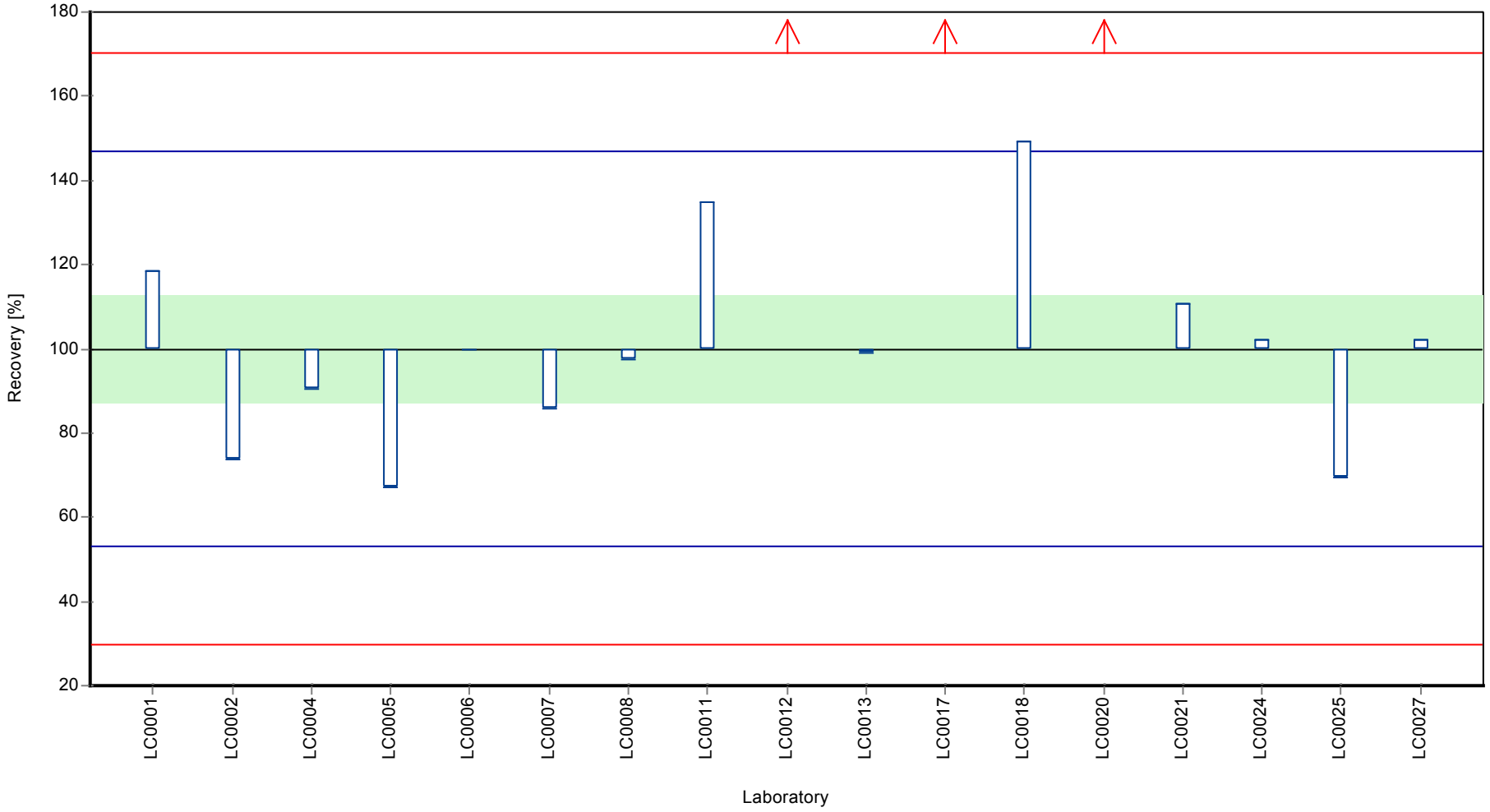
	all results	without outliers	Unit
Mean ± CI (99%)	34.4 ± 17.7	24.5 ± 4.59	ng/l
Minimum	16.4	16.4	ng/l
Maximum	97.9	36.5	ng/l
Standard deviation	24.4	5.73	ng/l
rel. Standard deviation	70.8	23.4	%
n	17	14	-

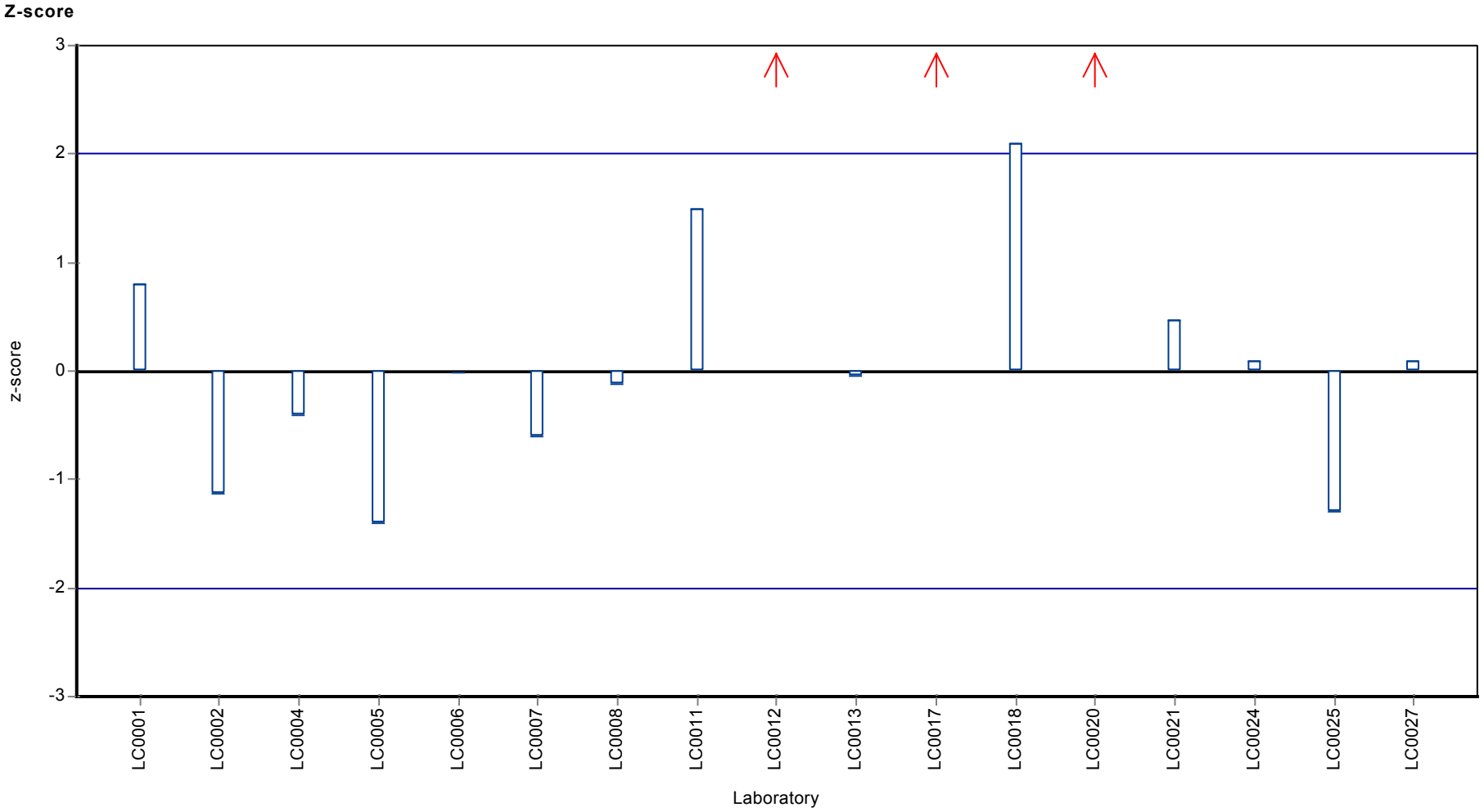
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
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-1
-2
-3
LC0001
LC0002
LC0004
LC0005
LC0006
LC0007
LC0008
LC0011
LC0012
LC0013
LC0017
LC0018
LC0020
LC0021
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 A

Phenanthrene

Unit	ng/l
Mean ± CI (99%)	115 ± 12.5
Minimum - Maximum	79.7 - 145
Control test value ± U	143 ± 23.4

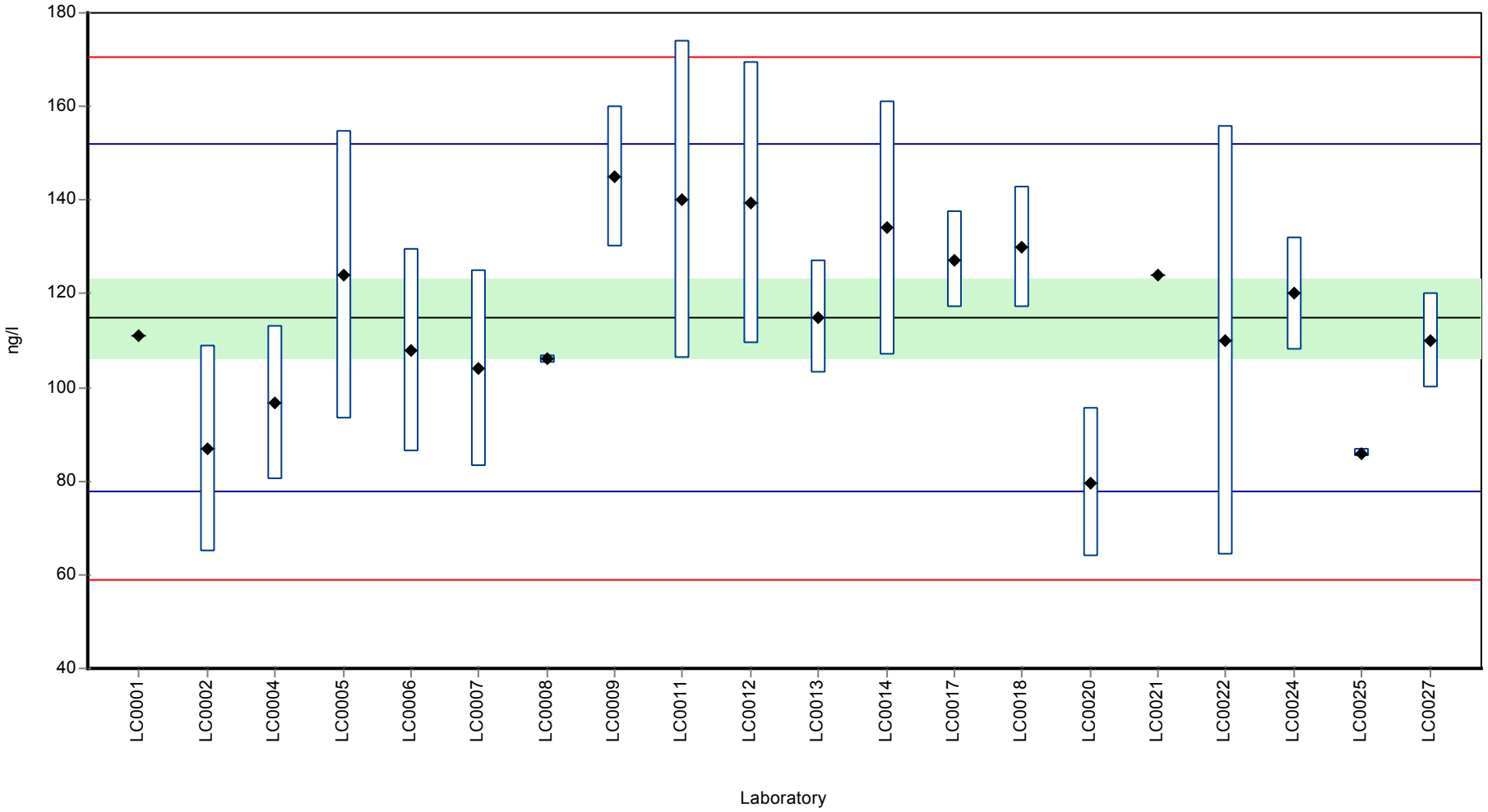
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	111	-	96.6	-0.21	
LC0002	87	22	75.7	-1.5	
LC0003	-	-	-	-	
LC0004	96.7	16.4	84.2	-0.98	
LC0005	124	30.9	108	0.49	
LC0006	108	21.7	94	-0.37	
LC0007	104	21	90.6	-0.58	
LC0008	106	1	92.3	-0.48	
LC0009	145	15	126	1.62	
LC0010	-	-	-	-	
LC0011	140	34	122	1.35	
LC0012	139.37	30	121	1.32	
LC0013	115	12	100	0.01	
LC0014	134	27	117	1.03	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	127.3	10.2	111	0.67	
LC0018	130	13	113	0.81	
LC0019	-	-	-	-	
LC0020	79.66	15.93	69.4	-1.89	
LC0021	124	-	108	0.49	
LC0022	110	46	95.8	-0.26	
LC0023	-	-	-	-	
LC0024	120	12	104	0.28	
LC0025	86	0.86	74.9	-1.55	
LC0026	-	-	-	-	
LC0027	110	10	95.8	-0.26	

Characteristics of parameter

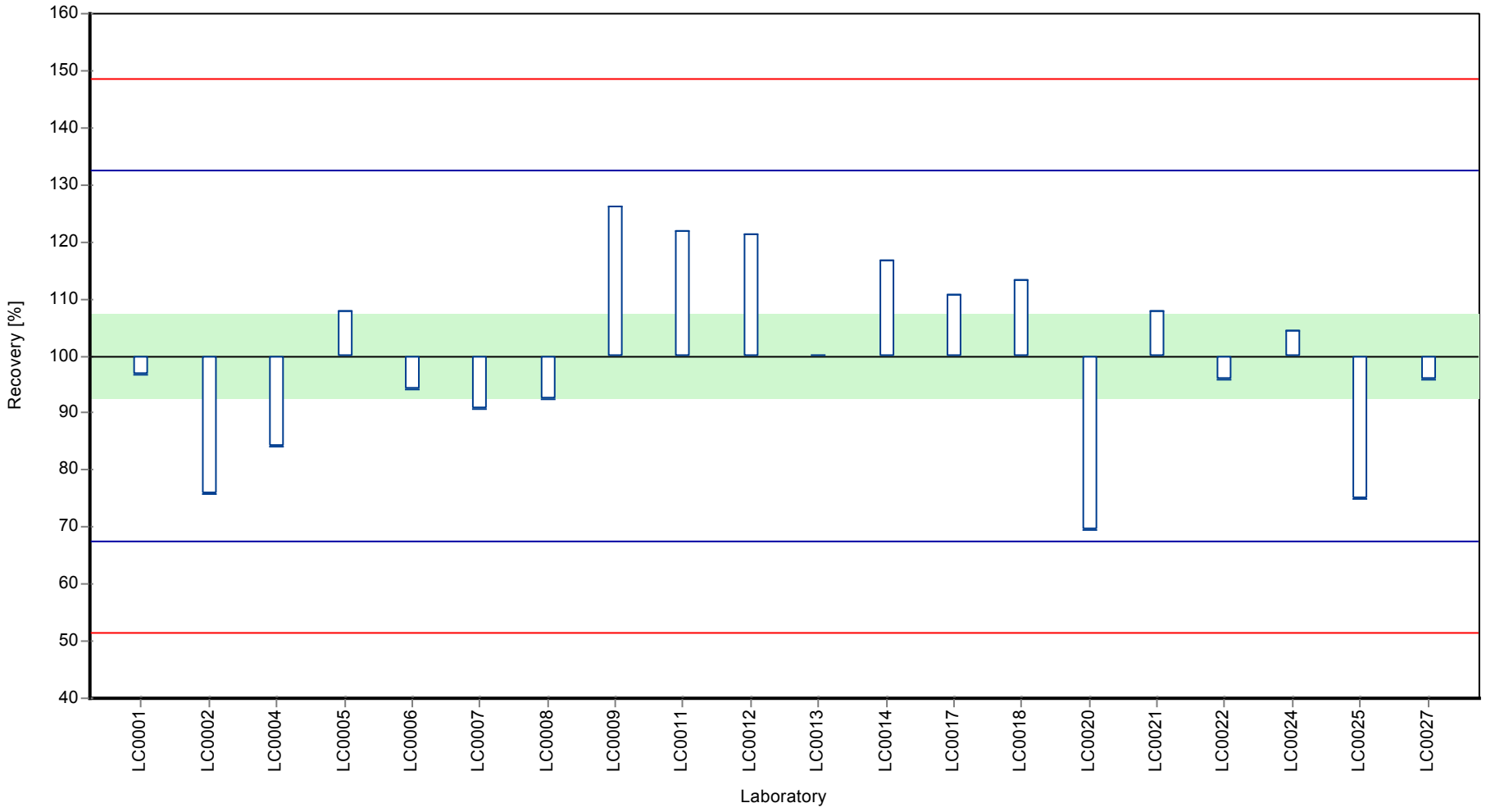
	all results	without outliers	Unit
Mean ± CI (99%)	115 ± 12.5	115 ± 12.5	ng/l
Minimum	79.7	79.7	ng/l
Maximum	145	145	ng/l
Standard deviation	18.6	18.6	ng/l
rel. Standard deviation	16.2	16.2	%
n	20	20	-

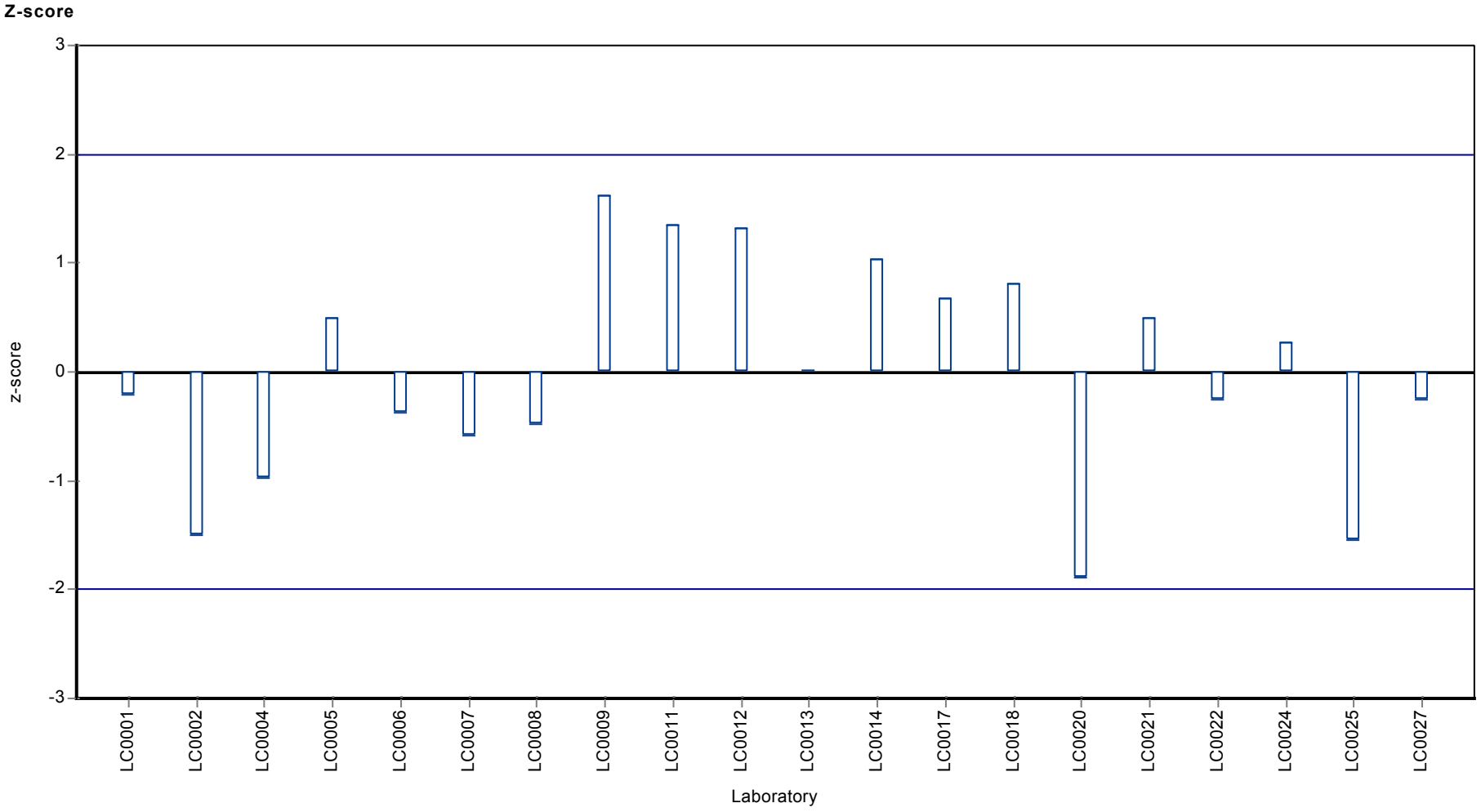
Graphical presentation of results

Results



Recovery rate

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2
1
0
-1
-2
-3
z-score
LC0001
LC0002
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LC0005
LC0006
LC0007
LC0008
LC0009
LC0011
LC0012
LC0013
LC0014
LC0017
LC0018
LC0020
LC0021
LC0022
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 B

Phenanthrene

Unit	ng/l
Mean ± CI (99%)	12.5 ± 2.14
Minimum - Maximum	10 - 17
Control test value ± U	11.3 ± 1.28

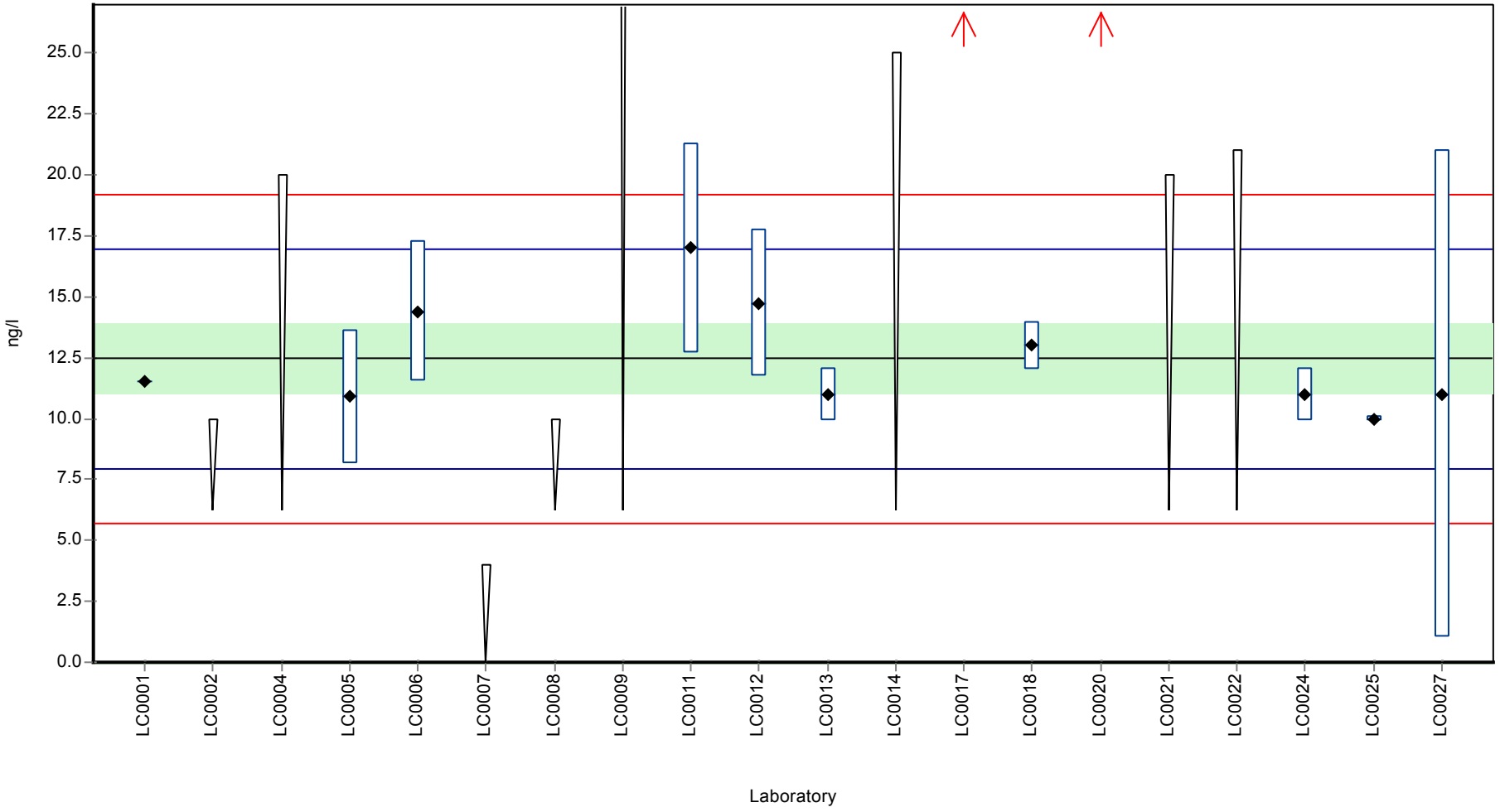
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	11.5	-	92.3	-0.42	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	10.9	2.73	87.5	-0.69	
LC0006	14.4	2.88	116	0.86	
LC0007	<4 (LOD)	-	-	-	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	17	4.3	137	2.02	
LC0012	14.74	3	118	1.01	
LC0013	11	1.1	88.3	-0.65	
LC0014	< 25 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	66.5	5.32	534	24	H
LC0018	13	1	104	0.24	
LC0019	-	-	-	-	
LC0020	133.97	26.79	1080	53.9	H
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 21 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	11	1.1	88.3	-0.65	
LC0025	10	0.1	80.3	-1.09	
LC0026	-	-	-	-	
LC0027	11	10	88.3	-0.65	

Characteristics of parameter

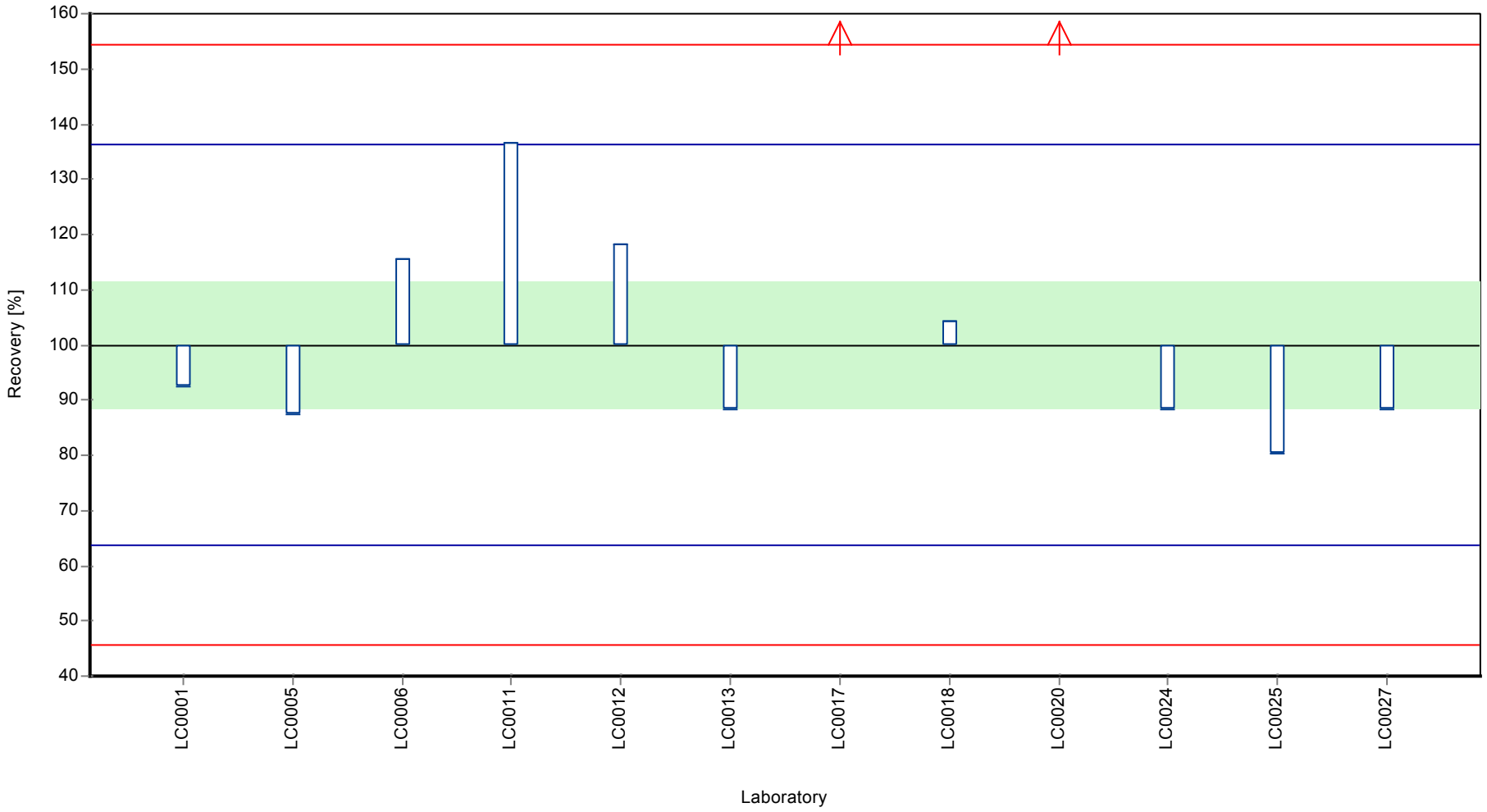
	all results	without outliers	Unit
Mean ± CI (99%)	27.1 ± 32.2	12.5 ± 2.14	ng/l
Minimum	10	10	ng/l
Maximum	134	17	ng/l
Standard deviation	37.1	2.25	ng/l
rel. Standard deviation	137	18.1	%
n	12	10	-

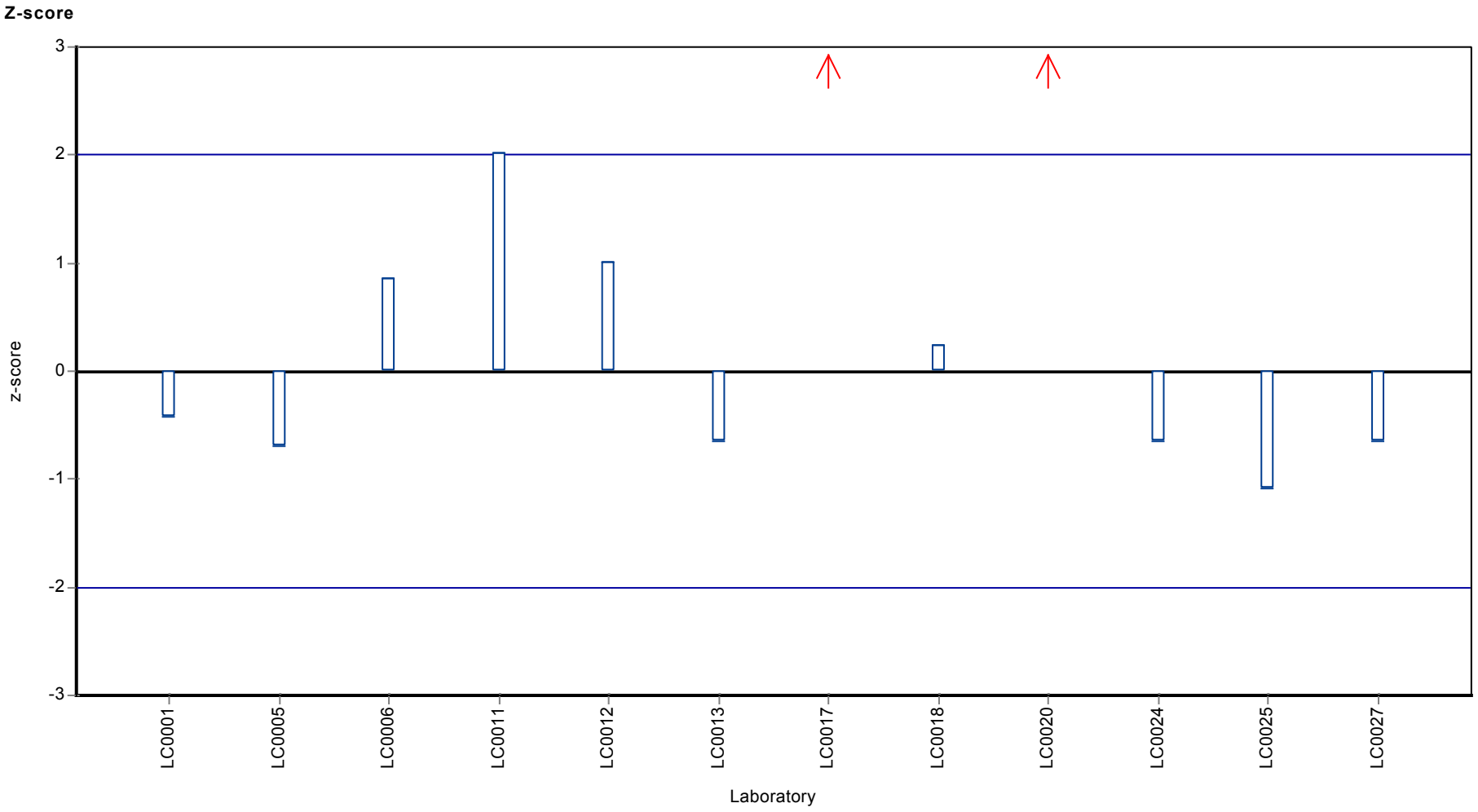
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
3
2
1
0
-1
-2
-3
LC0001
LC0005
LC0006
LC0011
LC0012
LC0013
LC0017
LC0018
LC0020
LC0024
LC0025
LC0027
Laboratory

Parameter oriented report

P18 A

Pyrene

Unit	ng/l
Mean ± CI (99%)	29.1 ± 4.15
Minimum - Maximum	18 - 39.4
Control test value ± U	28.9 ± 3.93

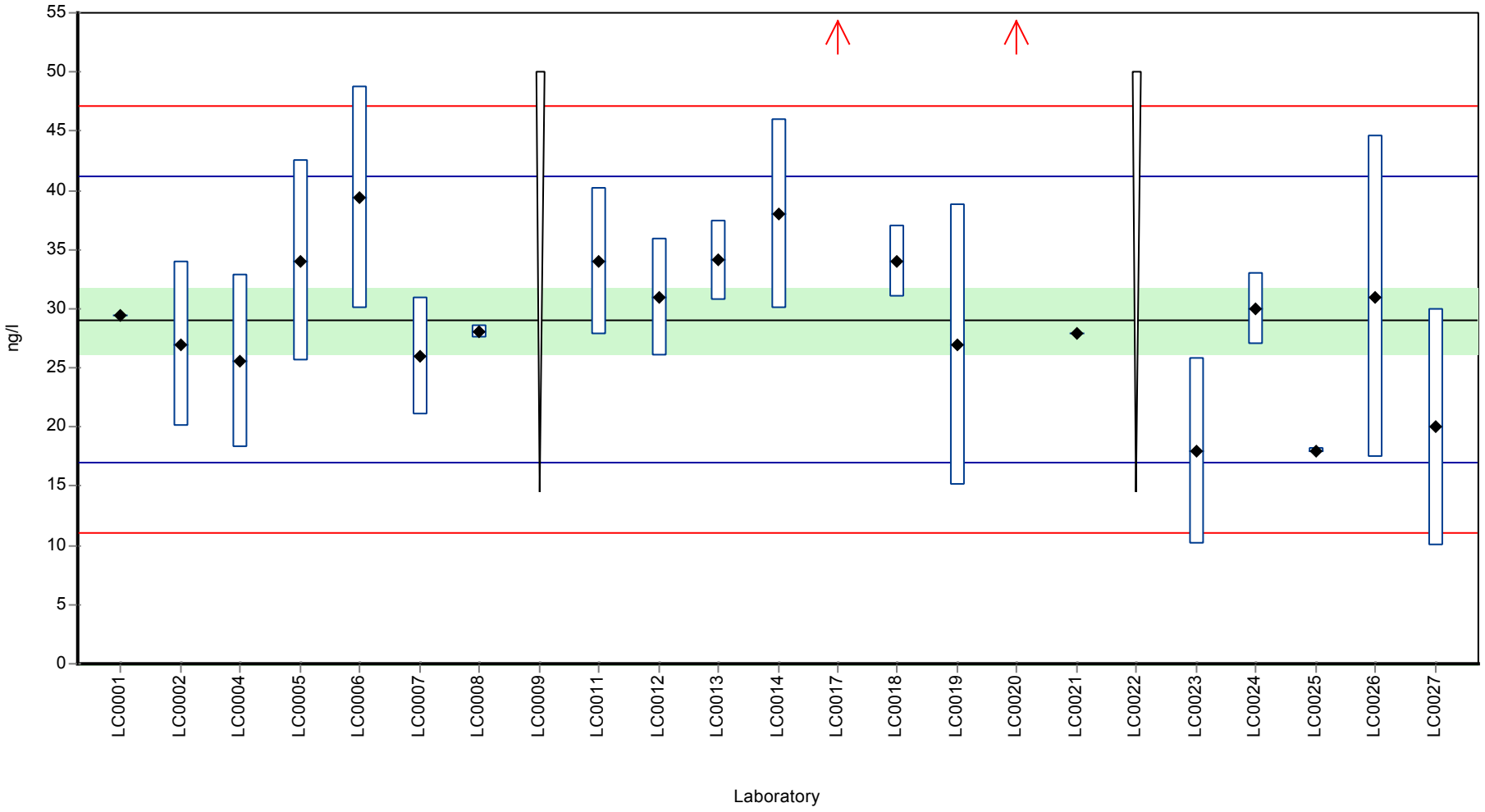
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	29.5	-	101	0.07	
LC0002	27	7	92.9	-0.34	
LC0003	-	-	-	-	
LC0004	25.6	7.3	88	-0.58	
LC0005	34	8.5	117	0.82	
LC0006	39.4	9.44	136	1.71	
LC0007	26	5	89.4	-0.51	
LC0008	28	0.55	96.3	-0.18	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	34	6.2	117	0.82	
LC0012	30.95	5	106	0.31	
LC0013	34.1	3.4	117	0.83	
LC0014	38	8	131	1.48	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	61.7	4.94	212	5.42	H
LC0018	34	3	117	0.82	
LC0019	26.99	11.87	92.8	-0.35	
LC0020	337.98	67.58	1160	51.3	H
LC0021	27.9	-	96	-0.2	
LC0022	< 50 (LOQ)	-	-	-	
LC0023	18	7.9	61.9	-1.84	
LC0024	30	3	103	0.15	
LC0025	18	0.18	61.9	-1.84	
LC0026	31	13.64	107	0.32	
LC0027	20	10	68.8	-1.51	

Characteristics of parameter

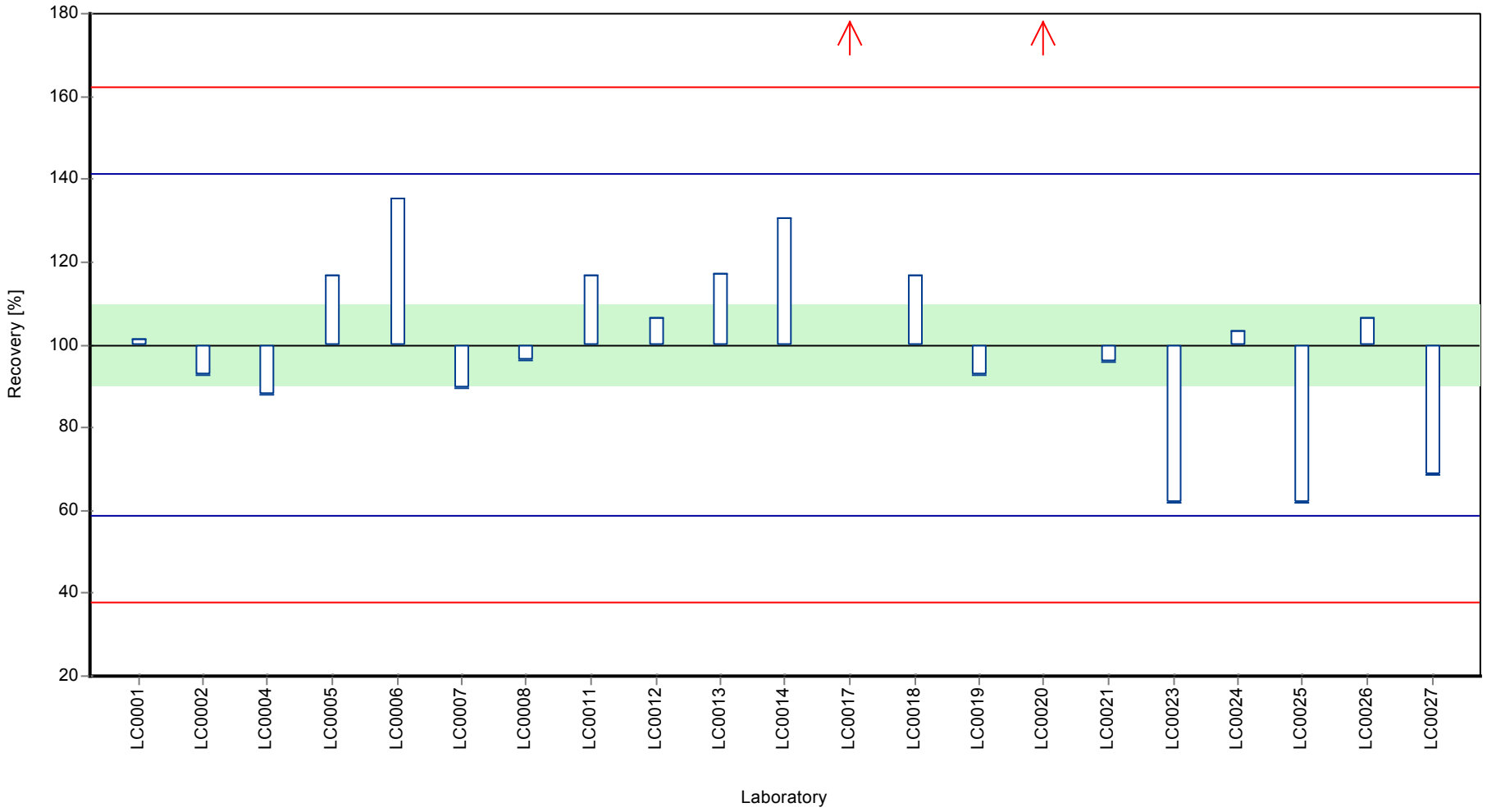
	all results	without outliers	Unit
Mean ± CI (99%)	45.3 ± 44.3	29.1 ± 4.15	ng/l
Minimum	18	18	ng/l
Maximum	338	39.4	ng/l
Standard deviation	67.7	6.02	ng/l
rel. Standard deviation	149	20.7	%
n	21	19	-

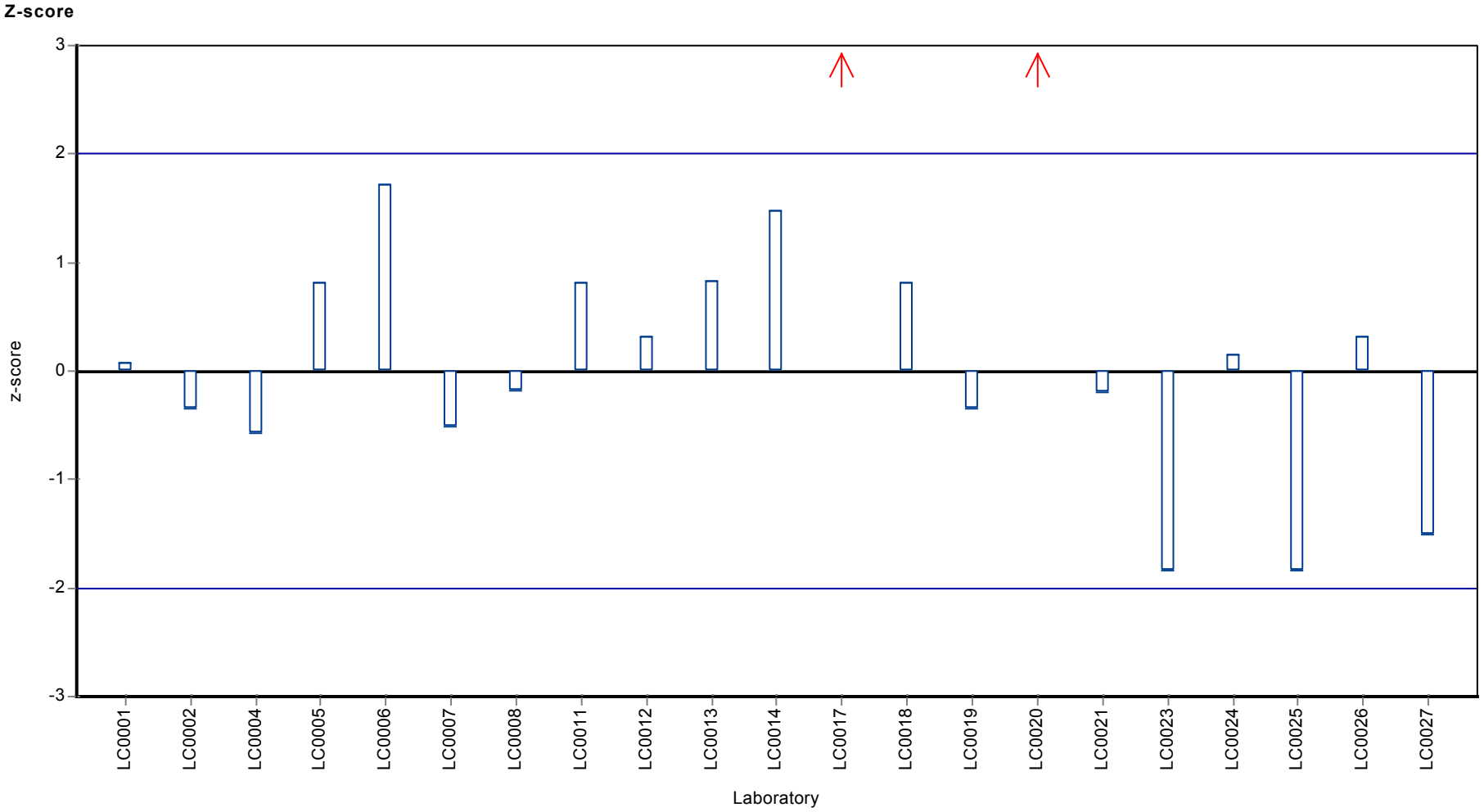
Graphical presentation of results

Results



Recovery rate




Z-score
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z-score
LC0001
LC0002
LC0004
LC0005
LC0006
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LC0008
LC0011
LC0012
LC0013
LC0014
LC0017
LC0018
LC0019
LC0020
LC0021
LC0023
LC0024
LC0025
LC0026
LC0027
Laboratory

Parameter oriented report

P18 B

Pyrene

Unit	ng/l
Mean ± CI (99%)	8.35 ± 1.72
Minimum - Maximum	5 - 11
Control test value ± U	7.15 ± 0.704

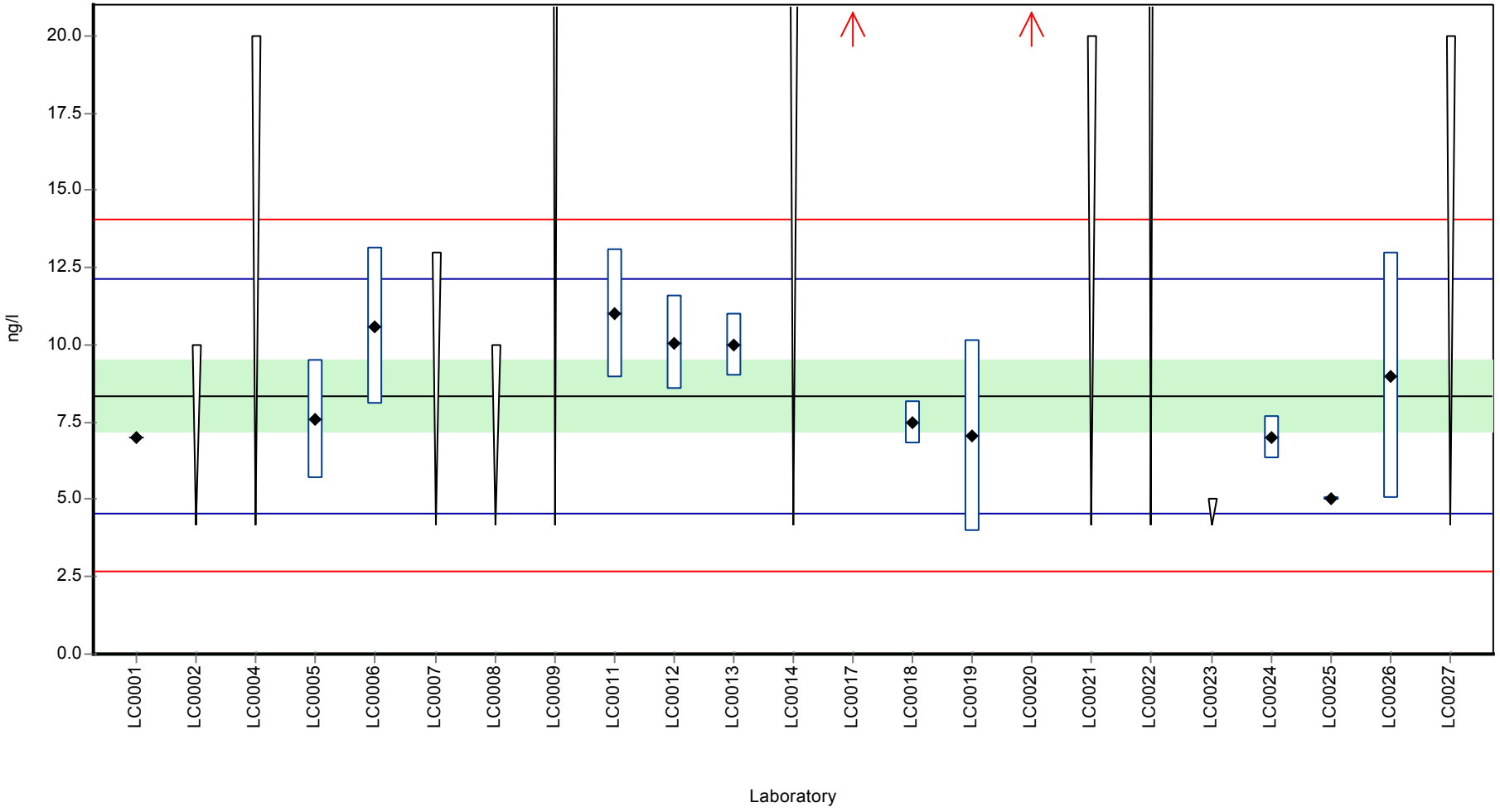
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	7	-	83.9	-0.71	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	7.6	1.91	91	-0.39	
LC0006	10.6	2.54	127	1.19	
LC0007	<13 (LOD)	-	-	-	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	< 50 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	11	2.1	132	1.4	
LC0012	10.07	1.5	121	0.91	
LC0013	10	1	120	0.87	
LC0014	< 25 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	23	1.84	276	7.72	H
LC0018	7.5	0.7	89.8	-0.45	
LC0019	7.06	3.11	84.6	-0.68	
LC0020	104.8	20.96	1260	50.8	H
LC0021	< 20 (LOQ)	-	-	-	
LC0022	< 50 (LOQ)	-	-	-	
LC0023	< 5 (LOQ)	-	-	-	
LC0024	7	0.7	83.9	-0.71	
LC0025	5	0.05	59.9	-1.76	
LC0026	9	3.96	108	0.34	
LC0027	< 20 (LOQ)	-	-	-	

Characteristics of parameter

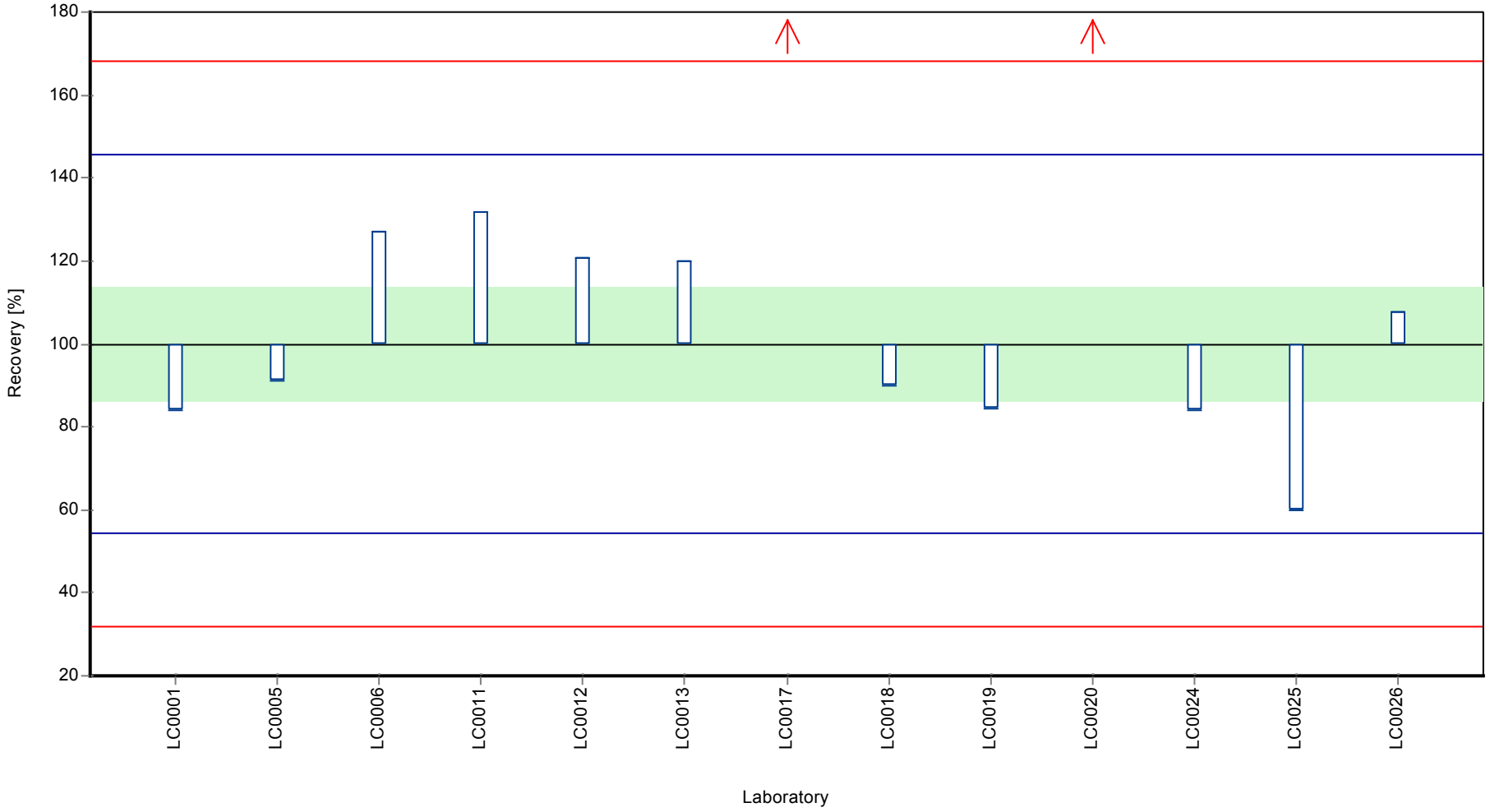
	all results	without outliers	Unit
Mean ± CI (99%)	16.9 ± 22.3	8.35 ± 1.72	ng/l
Minimum	5	5	ng/l
Maximum	105	11	ng/l
Standard deviation	26.8	1.9	ng/l
rel. Standard deviation	158	22.7	%
n	13	11	-

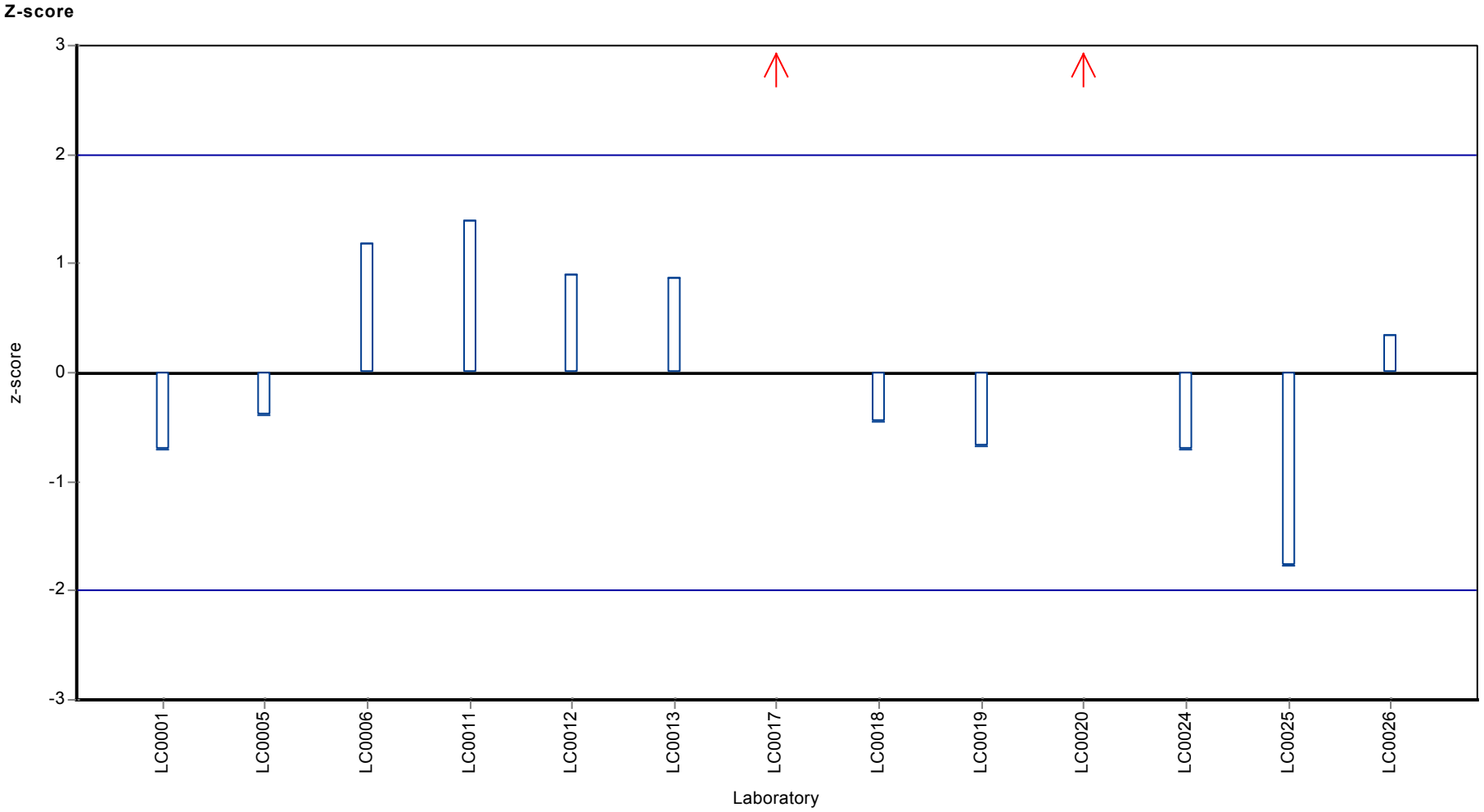
Graphical presentation of results

Results



Recovery rate

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z-score
LC0001
LC0005
LC0006
LC0011
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LC0013
LC0017
LC0018
LC0019
LC0020
LC0024
LC0025
LC0026
Laboratory

8 Laboratory oriented report

The laboratory oriented report is sorted by laboratory code.

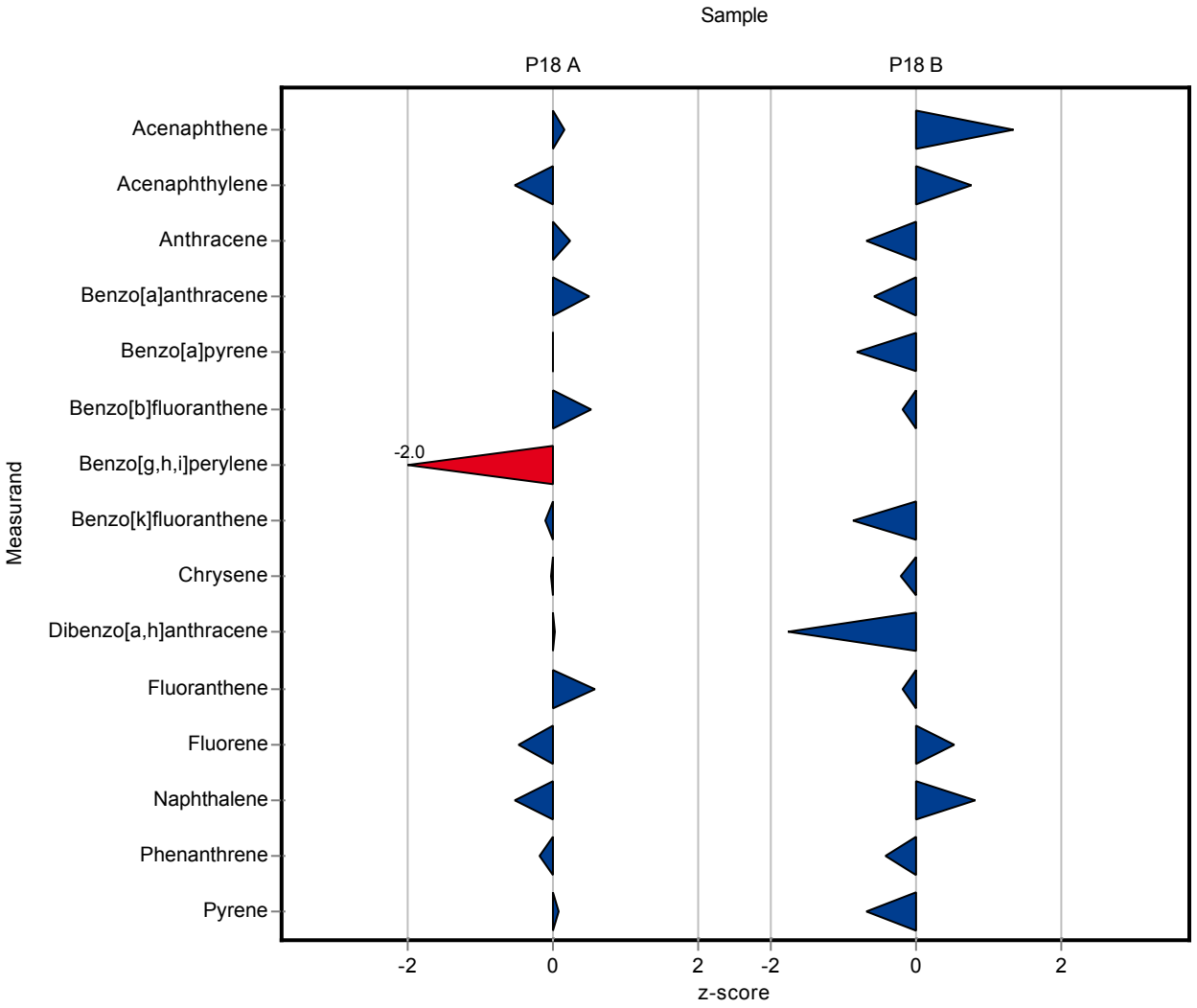
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	255.5	-	40.6	102	0.15
Acenaphthylene	ng/l	65.2	± 10.7	57	-	15.1	87.5	-0.54
Anthracene	ng/l	89.2	± 15.2	95	-	24.3	106	0.24
Benzo[a]anthracene	ng/l	212	± 24.3	231	-	38.8	109	0.49
Benzo[a]pyrene	ng/l	166	± 27.4	165.5	-	43.8	99.8	-0.01
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	92.5	-	12.9	108	0.52
Benzo[g,h,i]perylene	ng/l	123	± 33.9	6	-	57.6	4.9	-2.04
Benzo[k]fluoranthene	ng/l	149	± 21.6	144.5	-	36.7	96.9	-0.13
Chrysene	ng/l	101	± 10.9	100	-	17.3	99.4	-0.04
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	43.5	-	15.3	100	0.01
Fluoranthene	ng/l	212	± 31.5	242	-	52.4	114	0.56
Fluorene	ng/l	169	± 14	159.5	-	20.9	94.1	-0.47
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	114	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	46	-	13.5	86.2	-0.55
Phenanthrene	ng/l	115	± 12.5	111	-	18.6	96.6	-0.21
Pyrene	ng/l	29.1	± 4.15	29.5	-	6.02	101	0.07

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	40.5	-	4.82	119	1.33
Acenaphthylene	ng/l	41.7	± 7.13	49	-	9.79	118	0.75
Anthracene	ng/l	7.47	± 4.94	4	-	4.94	53.5	-0.7
Benzo[a]anthracene	ng/l	60.7	± 6.88	54.5	-	10.5	89.8	-0.59
Benzo[a]pyrene	ng/l	7.92	± 1.42	6.5	-	1.71	82.1	-0.83
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	35	-	8.13	95.8	-0.19
Benzo[g,h,i]perylene	ng/l	10	± 2.64	<1 (LOQ)	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	16.5	-	4.64	80	-0.89
Chrysene	ng/l	7.13	± 2.5	6.5	-	2.88	91.2	-0.22
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	6	-	4.69	41.7	-1.79
Fluoranthene	ng/l	22.5	± 3.03	21.5	-	4.74	95.8	-0.2
Fluorene	ng/l	11.7	± 2.38	13	-	2.63	111	0.5
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	6	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	29	-	5.73	119	0.79
Phenanthrene	ng/l	12.5	± 2.14	11.5	-	2.25	92.3	-0.42
Pyrene	ng/l	8.35	± 1.72	7	-	1.9	83.9	-0.71


Sample
P18 A
P18 B
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Measurand
-2.0
-2
0
2
-2
0
2
z-score

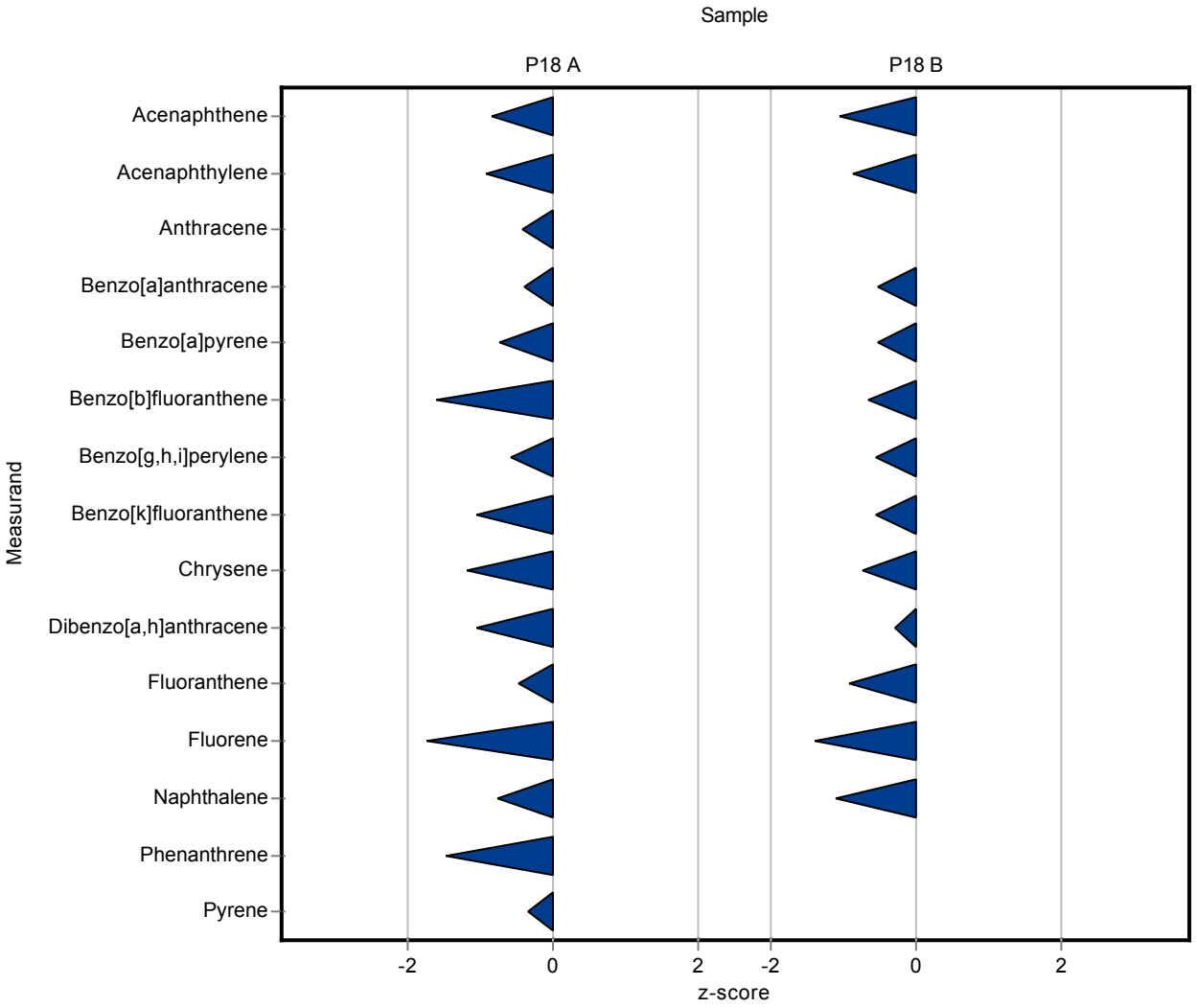
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	215	54	40.6	86.2	-0.85
Acenaphthylene	ng/l	65.2	± 10.7	51	13	15.1	78.3	-0.94
Anthracene	ng/l	89.2	± 15.2	79	20	24.3	88.5	-0.42
Benzo[a]anthracene	ng/l	212	± 24.3	196	49	38.8	92.4	-0.41
Benzo[a]pyrene	ng/l	166	± 27.4	133	33	43.8	80.2	-0.75
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	65	16	12.9	75.8	-1.61
Benzo[g,h,i]perylene	ng/l	123	± 33.9	90	23	57.6	73	-0.58
Benzo[k]fluoranthene	ng/l	149	± 21.6	110	27	36.7	73.8	-1.06
Chrysene	ng/l	101	± 10.9	80	20	17.3	79.5	-1.19
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	27	7	15.3	62.3	-1.07
Fluoranthene	ng/l	212	± 31.5	187	47	52.4	88	-0.48
Fluorene	ng/l	169	± 14	133	33	20.9	78.5	-1.74
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	43	11	13.5	80.6	-0.77
Phenanthrene	ng/l	115	± 12.5	87	22	18.6	75.7	-1.5
Pyrene	ng/l	29.1	± 4.15	27	7	6.02	92.9	-0.34

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	29	7	4.82	85	-1.06
Acenaphthylene	ng/l	41.7	± 7.13	33	8	9.79	79.2	-0.89
Anthracene	ng/l	7.47	± 4.94	<5 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	55	14	10.5	90.6	-0.54
Benzo[a]pyrene	ng/l	7.92	± 1.42	7	2	1.71	88.4	-0.54
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	31	8	8.13	84.8	-0.68
Benzo[g,h,i]perylene	ng/l	10	± 2.64	8	2	3.51	79.8	-0.57
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	18	4	4.64	87.3	-0.57
Chrysene	ng/l	7.13	± 2.5	5	1	2.88	70.1	-0.74
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	13	3	4.69	90.4	-0.29
Fluoranthene	ng/l	22.5	± 3.03	18	5	4.74	80.2	-0.94
Fluorene	ng/l	11.7	± 2.38	8	2	2.63	68.5	-1.4
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	18	5	5.73	73.6	-1.13
Phenanthrene	ng/l	12.5	± 2.14	<10 (LOQ)	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<10 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
-2
0
2
-2
0
2
z-score

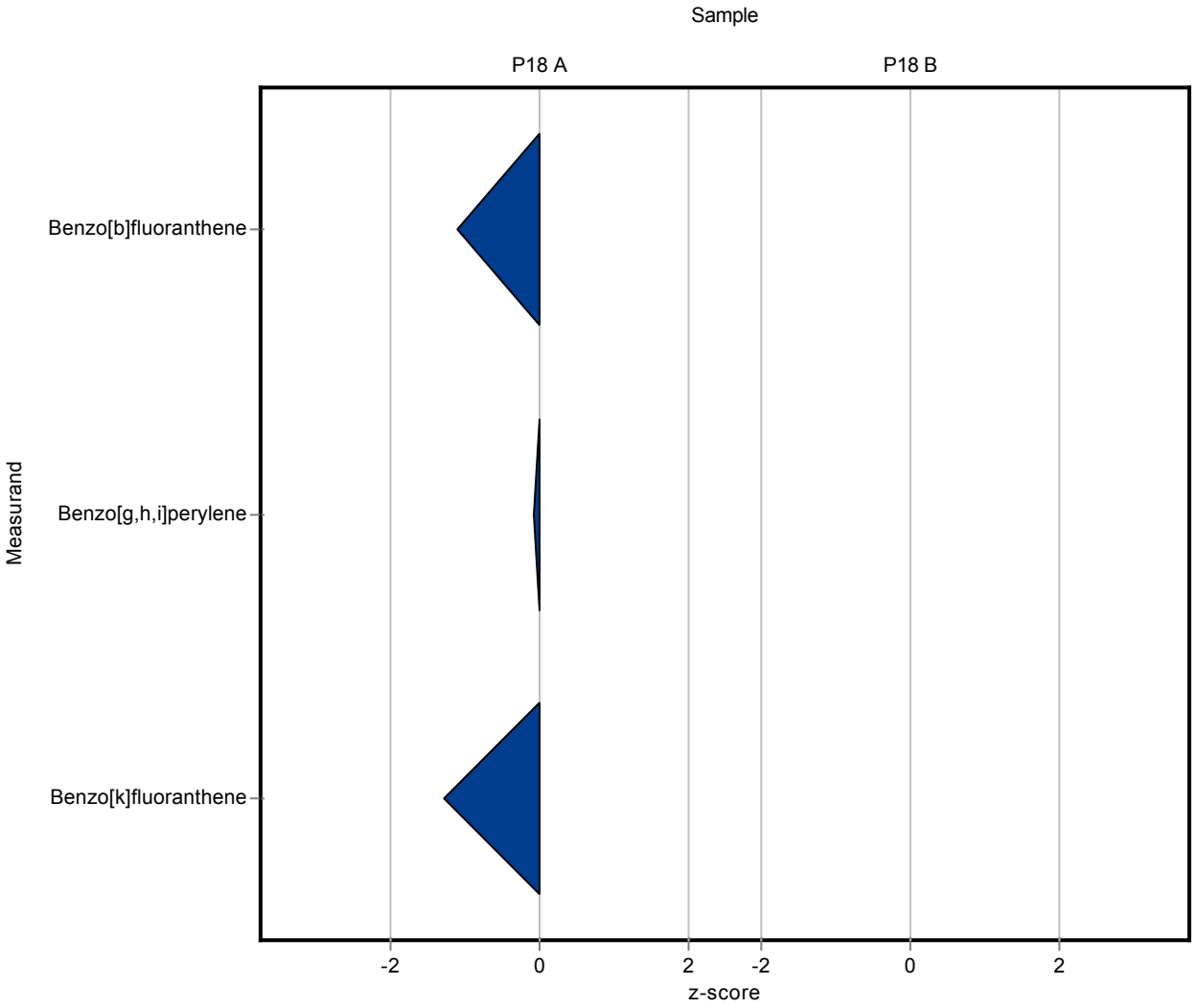
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	-	-	40.6	-	-
Acenaphthylene	ng/l	65.2	± 10.7	-	-	15.1	-	-
Anthracene	ng/l	89.2	± 15.2	-	-	24.3	-	-
Benzo[a]anthracene	ng/l	212	± 24.3	-	-	38.8	-	-
Benzo[a]pyrene	ng/l	166	± 27.4	<50 (LOQ)	-	43.8	-	-
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	71.6	21.5	12.9	83.5	-1.1
Benzo[g,h,i]perylene	ng/l	123	± 33.9	118.8	35.6	57.6	96.3	-0.08
Benzo[k]fluoranthene	ng/l	149	± 21.6	102.5	30.8	36.7	68.8	-1.27
Chrysene	ng/l	101	± 10.9	-	-	17.3	-	-
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	-	-	15.3	-	-
Fluoranthene	ng/l	212	± 31.5	-	-	52.4	-	-
Fluorene	ng/l	169	± 14	-	-	20.9	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<50 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	-	-	13.5	-	-
Phenanthrene	ng/l	115	± 12.5	-	-	18.6	-	-
Pyrene	ng/l	29.1	± 4.15	-	-	6.02	-	-

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	-	-	4.82	-	-
Acenaphthylene	ng/l	41.7	± 7.13	-	-	9.79	-	-
Anthracene	ng/l	7.47	± 4.94	-	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	-	-	10.5	-	-
Benzo[a]pyrene	ng/l	7.92	± 1.42	<50 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	<50 (LOQ)	-	8.13	-	-
Benzo[g,h,i]perylene	ng/l	10	± 2.64	<50 (LOQ)	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	<50 (LOQ)	-	4.64	-	-
Chrysene	ng/l	7.13	± 2.5	-	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	-	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	-	-	4.74	-	-
Fluorene	ng/l	11.7	± 2.38	-	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<50 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	-	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	-	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	-	-	1.9	-	-


Sample
P18 A
P18 B
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Measurand
-2
0
2
-2
0
2
z-score

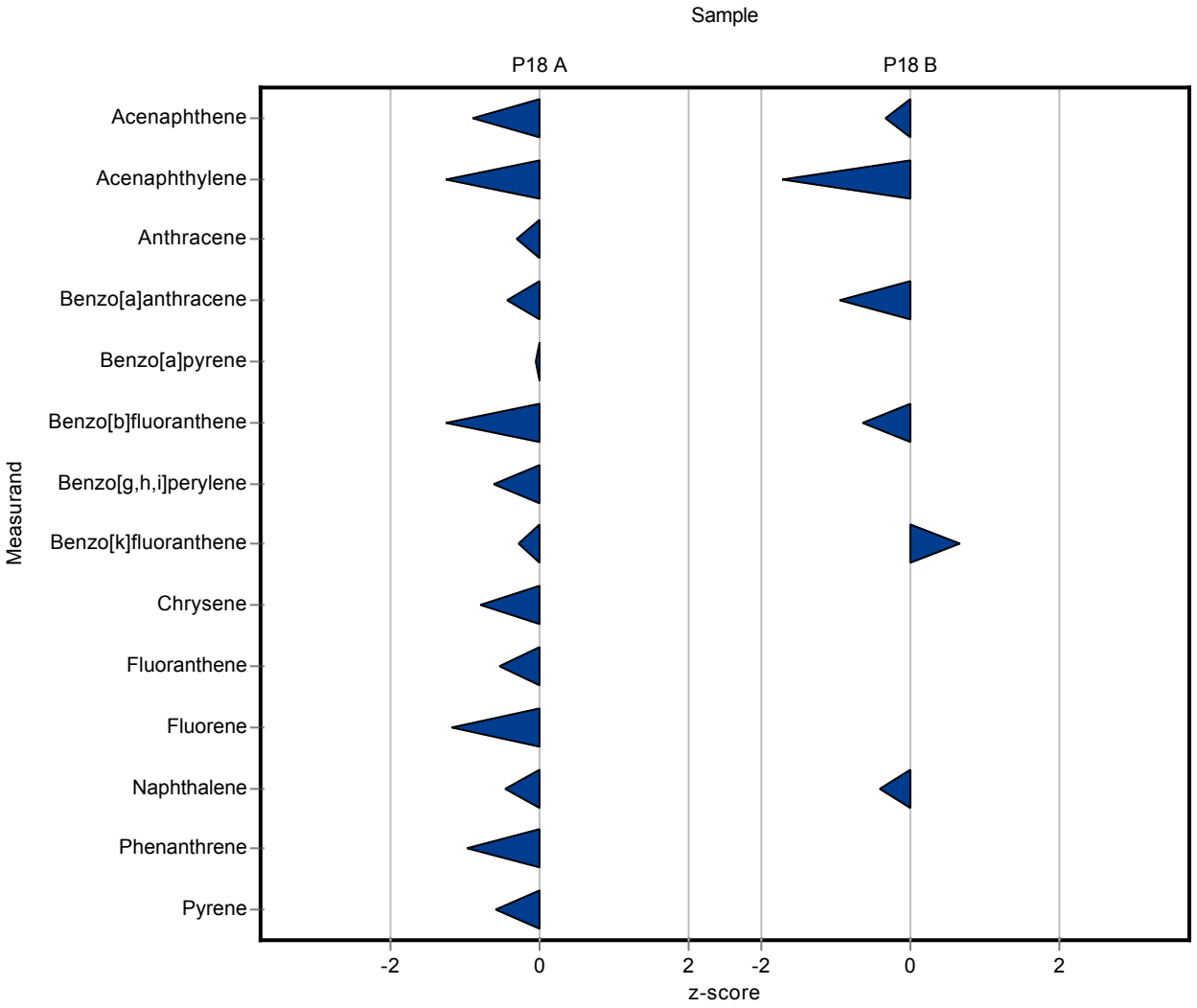
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	212.7	27.6	40.6	85.3	-0.91
Acenaphthylene	ng/l	65.2	± 10.7	46.4	13.9	15.1	71.2	-1.24
Anthracene	ng/l	89.2	± 15.2	82.1	35.3	24.3	92	-0.29
Benzo[a]anthracene	ng/l	212	± 24.3	195.6	35.2	38.8	92.2	-0.42
Benzo[a]pyrene	ng/l	166	± 27.4	163.5	44.1	43.8	98.6	-0.05
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	69.6	18.1	12.9	81.2	-1.26
Benzo[g,h,i]perylene	ng/l	123	± 33.9	88.4	13.3	57.6	71.7	-0.61
Benzo[k]fluoranthene	ng/l	149	± 21.6	139.2	36.2	36.7	93.4	-0.27
Chrysene	ng/l	101	± 10.9	87	20	17.3	86.5	-0.79
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	<20 (LOQ)	-	15.3	-	-
Fluoranthene	ng/l	212	± 31.5	184.6	25.8	52.4	86.9	-0.53
Fluorene	ng/l	169	± 14	144.6	24.6	20.9	85.3	-1.19
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	47	13.2	13.5	88.1	-0.47
Phenanthrene	ng/l	115	± 12.5	96.7	16.4	18.6	84.2	-0.98
Pyrene	ng/l	29.1	± 4.15	25.6	7.3	6.02	88	-0.58

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	32.4	7.1	4.82	95	-0.35
Acenaphthylene	ng/l	41.7	± 7.13	24.7	6.9	9.79	59.3	-1.73
Anthracene	ng/l	7.47	± 4.94	<20 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	50.6	5.8	10.5	83.4	-0.96
Benzo[a]pyrene	ng/l	7.92	± 1.42	<20 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	31.2	6.1	8.13	85.4	-0.66
Benzo[g,h,i]perylene	ng/l	10	± 2.64	<20 (LOQ)	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	23.7	4.9	4.64	115	0.66
Chrysene	ng/l	7.13	± 2.5	<20 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	<20 (LOQ)	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	<20 (LOQ)	-	4.74	-	-
Fluorene	ng/l	11.7	± 2.38	<20 (LOQ)	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	22.1	10	5.73	90.3	-0.41
Phenanthrene	ng/l	12.5	± 2.14	<20 (LOQ)	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<20 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Measurand
-2
0
2
-2
0
2
z-score

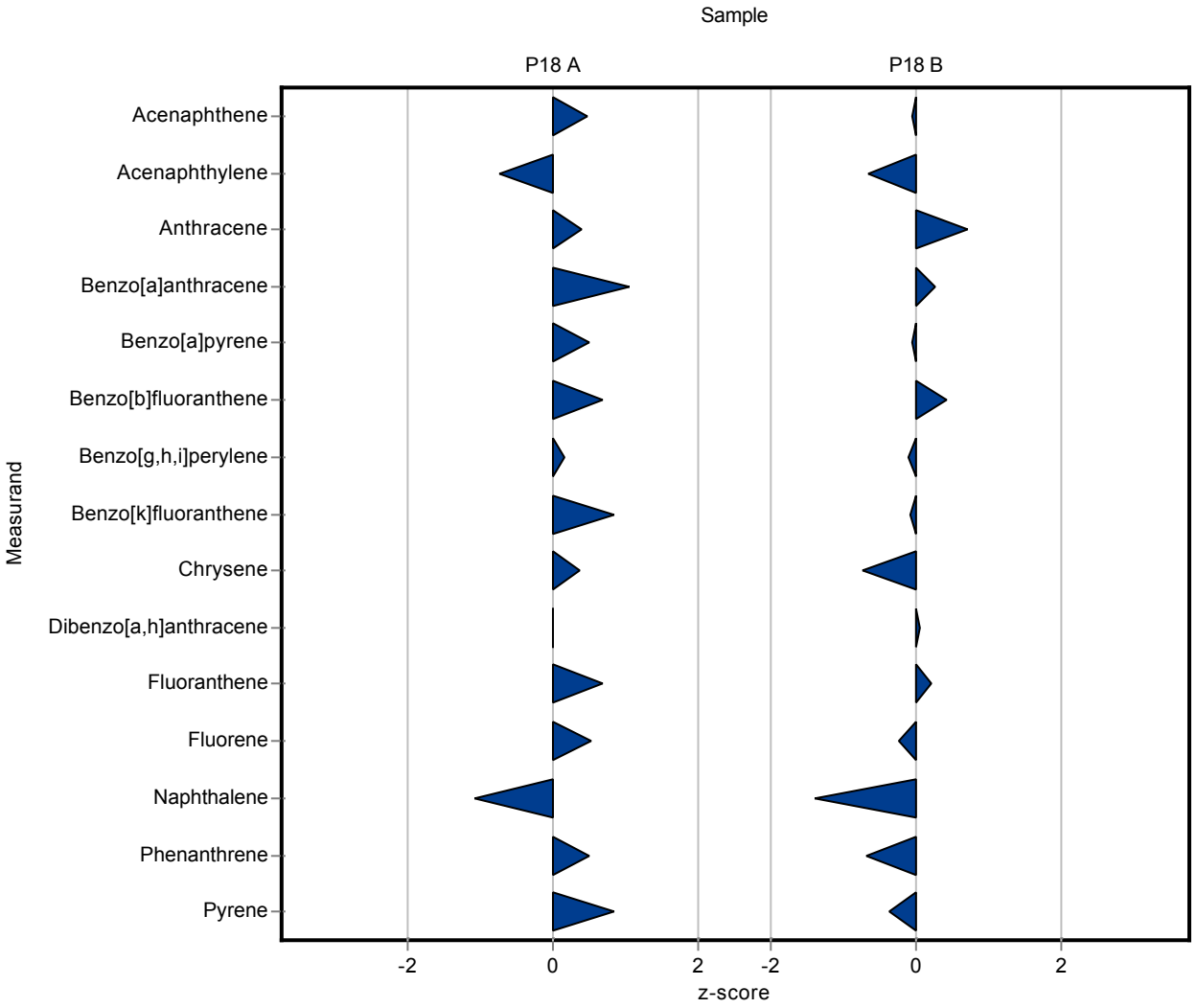
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	268	66.9	40.6	107	0.46
Acenaphthylene	ng/l	65.2	± 10.7	53.7	13.4	15.1	82.4	-0.76
Anthracene	ng/l	89.2	± 15.2	98.8	24.7	24.3	111	0.39
Benzo[a]anthracene	ng/l	212	± 24.3	252	63.1	38.8	119	1.03
Benzo[a]pyrene	ng/l	166	± 27.4	187	46.8	43.8	113	0.48
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	94.3	23.6	12.9	110	0.66
Benzo[g,h,i]perylene	ng/l	123	± 33.9	131	32.8	57.6	106	0.13
Benzo[k]fluoranthene	ng/l	149	± 21.6	180	45.1	36.7	121	0.84
Chrysene	ng/l	101	± 10.9	107	26.8	17.3	106	0.37
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	43.3	10.8	15.3	99.8	0.00
Fluoranthene	ng/l	212	± 31.5	247	61.8	52.4	116	0.66
Fluorene	ng/l	169	± 14	180	44.9	20.9	106	0.5
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	1.1	0.5	-	-	-
Naphthalene	ng/l	53.3	± 9.52	38.8	9.69	13.5	72.7	-1.08
Phenanthrene	ng/l	115	± 12.5	124	30.9	18.6	108	0.49
Pyrene	ng/l	29.1	± 4.15	34	8.5	6.02	117	0.82

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	33.8	8.46	4.82	99.1	-0.06
Acenaphthylene	ng/l	41.7	± 7.13	35.2	8.8	9.79	84.5	-0.66
Anthracene	ng/l	7.47	± 4.94	10.9	2.73	4.94	146	0.69
Benzo[a]anthracene	ng/l	60.7	± 6.88	63.4	15.9	10.5	104	0.26
Benzo[a]pyrene	ng/l	7.92	± 1.42	7.8	1.94	1.71	98.5	-0.07
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	39.8	9.95	8.13	109	0.4
Benzo[g,h,i]perylene	ng/l	10	± 2.64	9.6	2.4	3.51	95.8	-0.12
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	20.2	5.05	4.64	97.9	-0.09
Chrysene	ng/l	7.13	± 2.5	5	1.26	2.88	70.1	-0.74
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	14.5	3.63	4.69	101	0.03
Fluoranthene	ng/l	22.5	± 3.03	23.4	5.84	4.74	104	0.2
Fluorene	ng/l	11.7	± 2.38	11	2.74	2.63	94.2	-0.26
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	2.8	0.7	-	-	-
Naphthalene	ng/l	24.5	± 4.59	16.4	4.09	5.73	67	-1.41
Phenanthrene	ng/l	12.5	± 2.14	10.9	2.73	2.25	87.5	-0.69
Pyrene	ng/l	8.35	± 1.72	7.6	1.91	1.9	91	-0.39


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
-2
0
2
-2
0
2
z-score

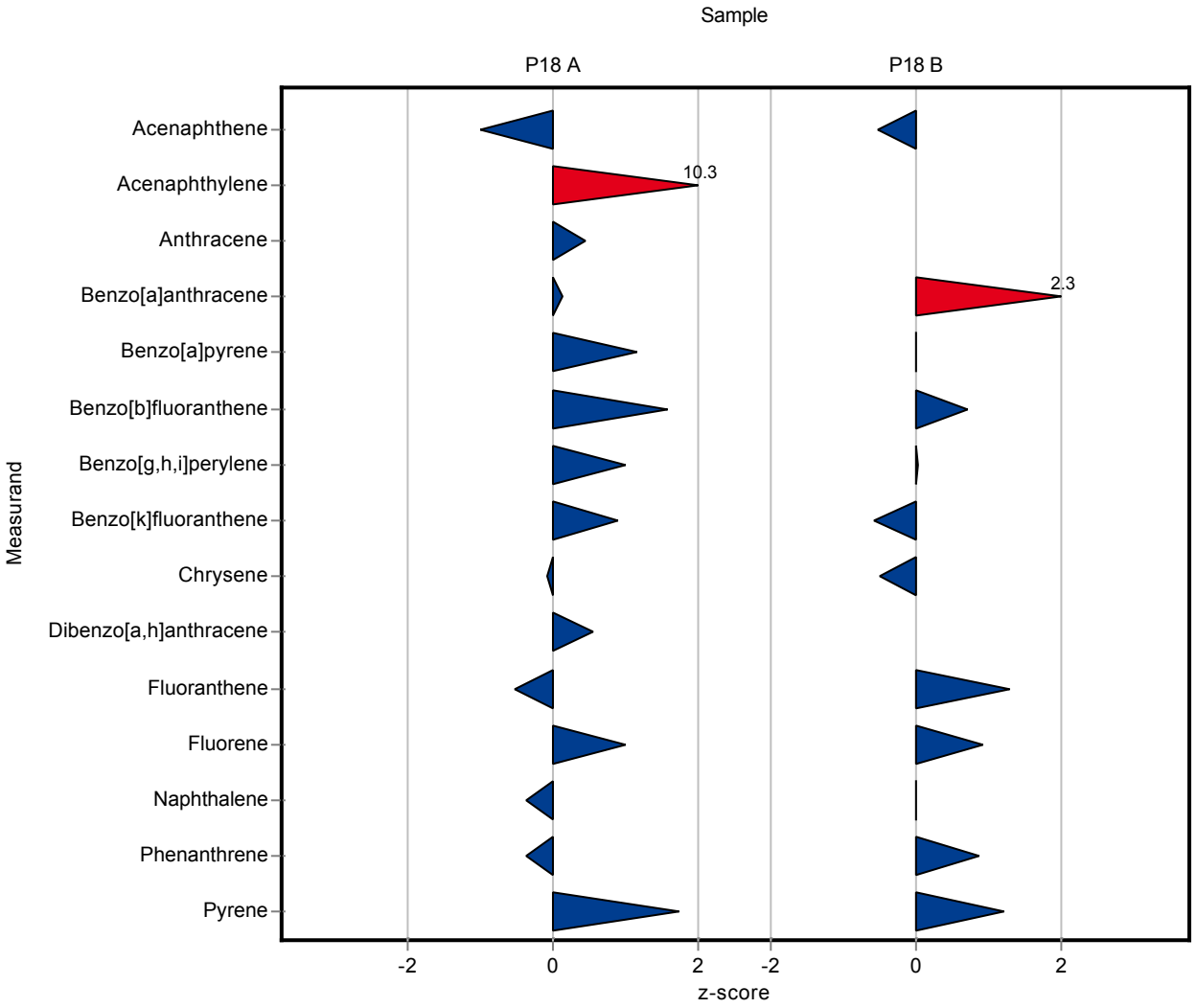
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	208	39.5	40.6	83.4	-1.02
Acenaphthylene	ng/l	65.2	± 10.7	220	52.8	15.1	338	10.3
Anthracene	ng/l	89.2	± 15.2	99.7	21	24.3	112	0.43
Benzo[a]anthracene	ng/l	212	± 24.3	217	69.5	38.8	102	0.13
Benzo[a]pyrene	ng/l	166	± 27.4	216	56.3	43.8	130	1.15
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	106	24.3	12.9	124	1.57
Benzo[g,h,i]perylene	ng/l	123	± 33.9	180	46.7	57.6	146	0.98
Benzo[k]fluoranthene	ng/l	149	± 21.6	181	38.1	36.7	121	0.87
Chrysene	ng/l	101	± 10.9	98.8	4.94	17.3	98.2	-0.1
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	51.8	1.81	15.3	119	0.55
Fluoranthene	ng/l	212	± 31.5	184	51.6	52.4	86.6	-0.54
Fluorene	ng/l	169	± 14	190	53.1	20.9	112	0.98
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	12.1	1.81	-	-	-
Naphthalene	ng/l	53.3	± 9.52	48.2	13.5	13.5	90.4	-0.38
Phenanthrene	ng/l	115	± 12.5	108	21.7	18.6	94	-0.37
Pyrene	ng/l	29.1	± 4.15	39.4	9.44	6.02	136	1.71

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	31.5	5.98	4.82	92.4	-0.54
Acenaphthylene	ng/l	41.7	± 7.13	<5 (LOQ)	-	9.79	-	-
Anthracene	ng/l	7.47	± 4.94	<5 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	84.5	27.1	10.5	139	2.26
Benzo[a]pyrene	ng/l	7.92	± 1.42	7.91	2.06	1.71	99.9	0.00
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	42.3	9.73	8.13	116	0.71
Benzo[g,h,i]perylene	ng/l	10	± 2.64	10.1	2.62	3.51	101	0.02
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	17.9	3.75	4.64	86.8	-0.59
Chrysene	ng/l	7.13	± 2.5	5.62	0.28	2.88	78.8	-0.52
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	<5 (LOQ)	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	28.5	7.97	4.74	127	1.28
Fluorene	ng/l	11.7	± 2.38	14.1	3.96	2.63	121	0.92
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	24.4	6.84	5.73	99.7	-0.01
Phenanthrene	ng/l	12.5	± 2.14	14.4	2.88	2.25	116	0.86
Pyrene	ng/l	8.35	± 1.72	10.6	2.54	1.9	127	1.19


Sample
P18 A
P18 B
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Measurand
10.3
2.3
-2
0
2
-2
0
2
z-score

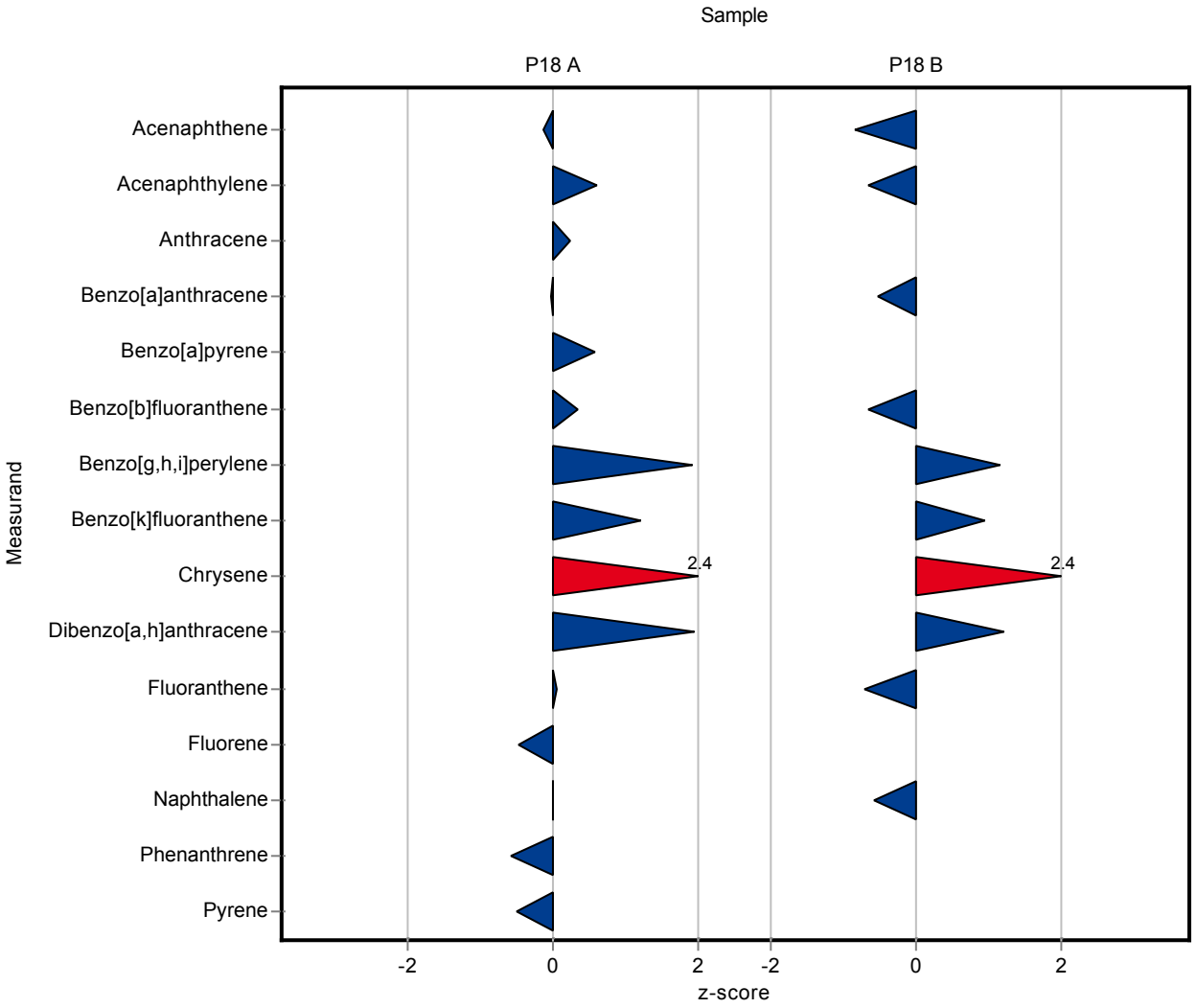
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	244	49	40.6	97.8	-0.13
Acenaphthylene	ng/l	65.2	± 10.7	74	15	15.1	114	0.59
Anthracene	ng/l	89.2	± 15.2	95	19	24.3	106	0.24
Benzo[a]anthracene	ng/l	212	± 24.3	211	42	38.8	99.5	-0.03
Benzo[a]pyrene	ng/l	166	± 27.4	191	38	43.8	115	0.57
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	90	18	12.9	105	0.33
Benzo[g,h,i]perylene	ng/l	123	± 33.9	234	47	57.6	190	1.92
Benzo[k]fluoranthene	ng/l	149	± 21.6	193	39	36.7	129	1.2
Chrysene	ng/l	101	± 10.9	142	28	17.3	141	2.39
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	73	15	15.3	168	1.93
Fluoranthene	ng/l	212	± 31.5	215	43	52.4	101	0.05
Fluorene	ng/l	169	± 14	159	32	20.9	93.8	-0.5
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<18 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	53	11	13.5	99.4	-0.03
Phenanthrene	ng/l	115	± 12.5	104	21	18.6	90.6	-0.58
Pyrene	ng/l	29.1	± 4.15	26	5	6.02	89.4	-0.51

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	30	6	4.82	88	-0.85
Acenaphthylene	ng/l	41.7	± 7.13	35	7	9.79	84	-0.68
Anthracene	ng/l	7.47	± 4.94	<9 (LOD)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	55	11	10.5	90.6	-0.54
Benzo[a]pyrene	ng/l	7.92	± 1.42	<10 (LOD)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	31	6	8.13	84.8	-0.68
Benzo[g,h,i]perylene	ng/l	10	± 2.64	14	3	3.51	140	1.13
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	25	5	4.64	121	0.94
Chrysene	ng/l	7.13	± 2.5	14	3	2.88	196	2.38
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	20	4	4.69	139	1.2
Fluoranthene	ng/l	22.5	± 3.03	19	4	4.74	84.6	-0.73
Fluorene	ng/l	11.7	± 2.38	<10 (LOD)	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<9 (LOD)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	21	4	5.73	85.8	-0.6
Phenanthrene	ng/l	12.5	± 2.14	<4 (LOD)	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<13 (LOD)	-	1.9	-	-


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
2.4
2.4
-2
0
2
-2
0
2
z-score

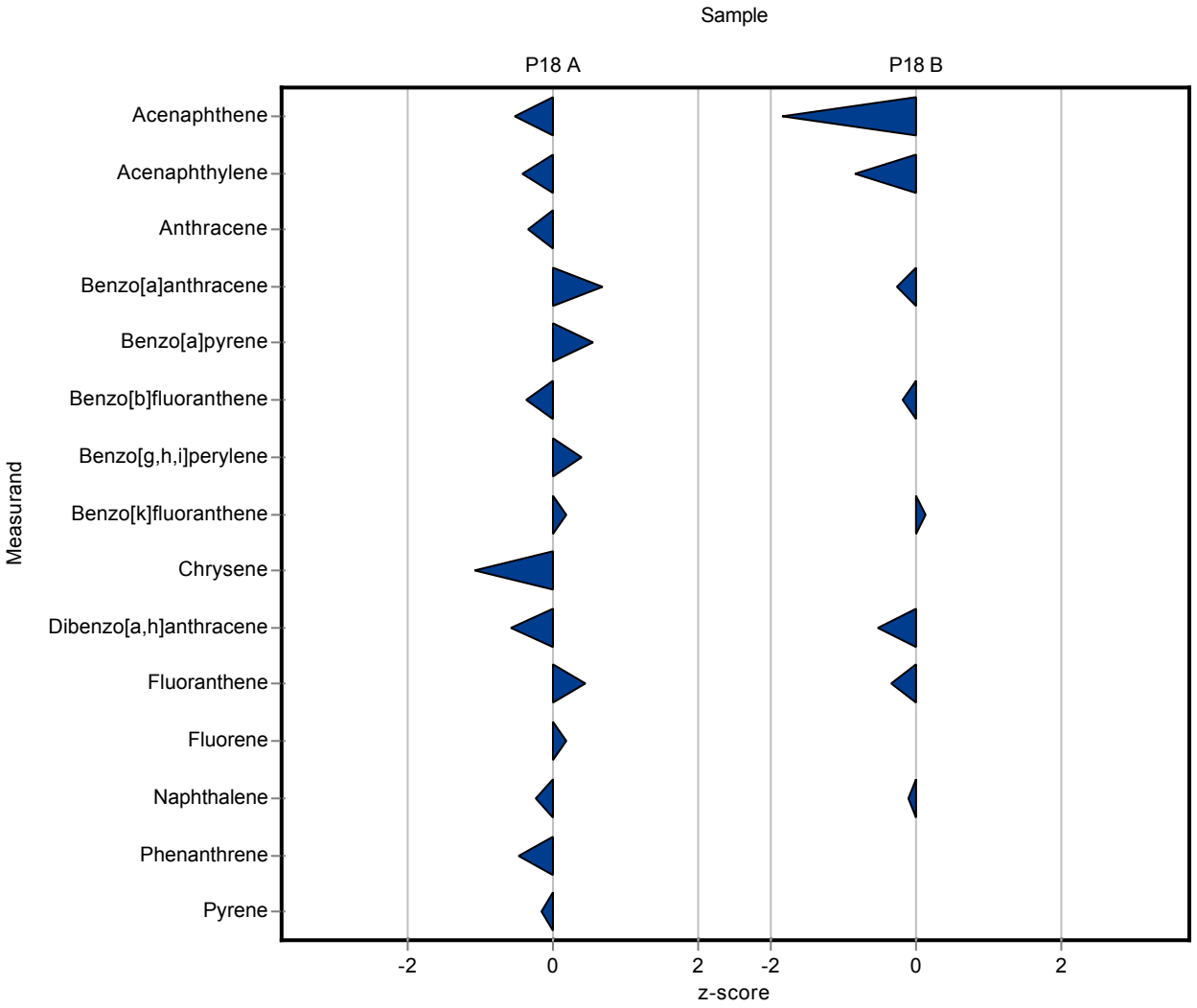
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	228	1	40.6	91.4	-0.53
Acenaphthylene	ng/l	65.2	± 10.7	58.7	1.61	15.1	90.1	-0.43
Anthracene	ng/l	89.2	± 15.2	80.4	1.04	24.3	90.1	-0.36
Benzo[a]anthracene	ng/l	212	± 24.3	238	7.2	38.8	112	0.67
Benzo[a]pyrene	ng/l	166	± 27.4	190	1.8	43.8	115	0.55
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	80.8	3.51	12.9	94.2	-0.39
Benzo[g,h,i]perylene	ng/l	123	± 33.9	146	1.7	57.6	118	0.39
Benzo[k]fluoranthene	ng/l	149	± 21.6	155	1.6	36.7	104	0.16
Chrysene	ng/l	101	± 10.9	81.7	0.66	17.3	81.2	-1.09
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	34.3	1.61	15.3	79.1	-0.59
Fluoranthene	ng/l	212	± 31.5	235	4.7	52.4	111	0.43
Fluorene	ng/l	169	± 14	173	1.3	20.9	102	0.17
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	50.1	0.55	13.5	93.9	-0.24
Phenanthrene	ng/l	115	± 12.5	106	1	18.6	92.3	-0.48
Pyrene	ng/l	29.1	± 4.15	28	0.55	6.02	96.3	-0.18

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	25.2	0.28	4.82	73.9	-1.84
Acenaphthylene	ng/l	41.7	± 7.13	33.2	0.86	9.79	79.7	-0.86
Anthracene	ng/l	7.47	± 4.94	<10 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	57.9	2.28	10.5	95.4	-0.27
Benzo[a]pyrene	ng/l	7.92	± 1.42	<20 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	35	4.09	8.13	95.8	-0.19
Benzo[g,h,i]perylene	ng/l	10	± 2.64	<10 (LOQ)	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	21.2	1.29	4.64	103	0.12
Chrysene	ng/l	7.13	± 2.5	<30 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	11.9	0.51	4.69	82.8	-0.53
Fluoranthene	ng/l	22.5	± 3.03	20.8	0.5	4.74	92.6	-0.35
Fluorene	ng/l	11.7	± 2.38	<20 (LOQ)	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	23.8	2	5.73	97.3	-0.12
Phenanthrene	ng/l	12.5	± 2.14	<10 (LOQ)	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<10 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Measurand
-2
0
2
-2
0
2
z-score

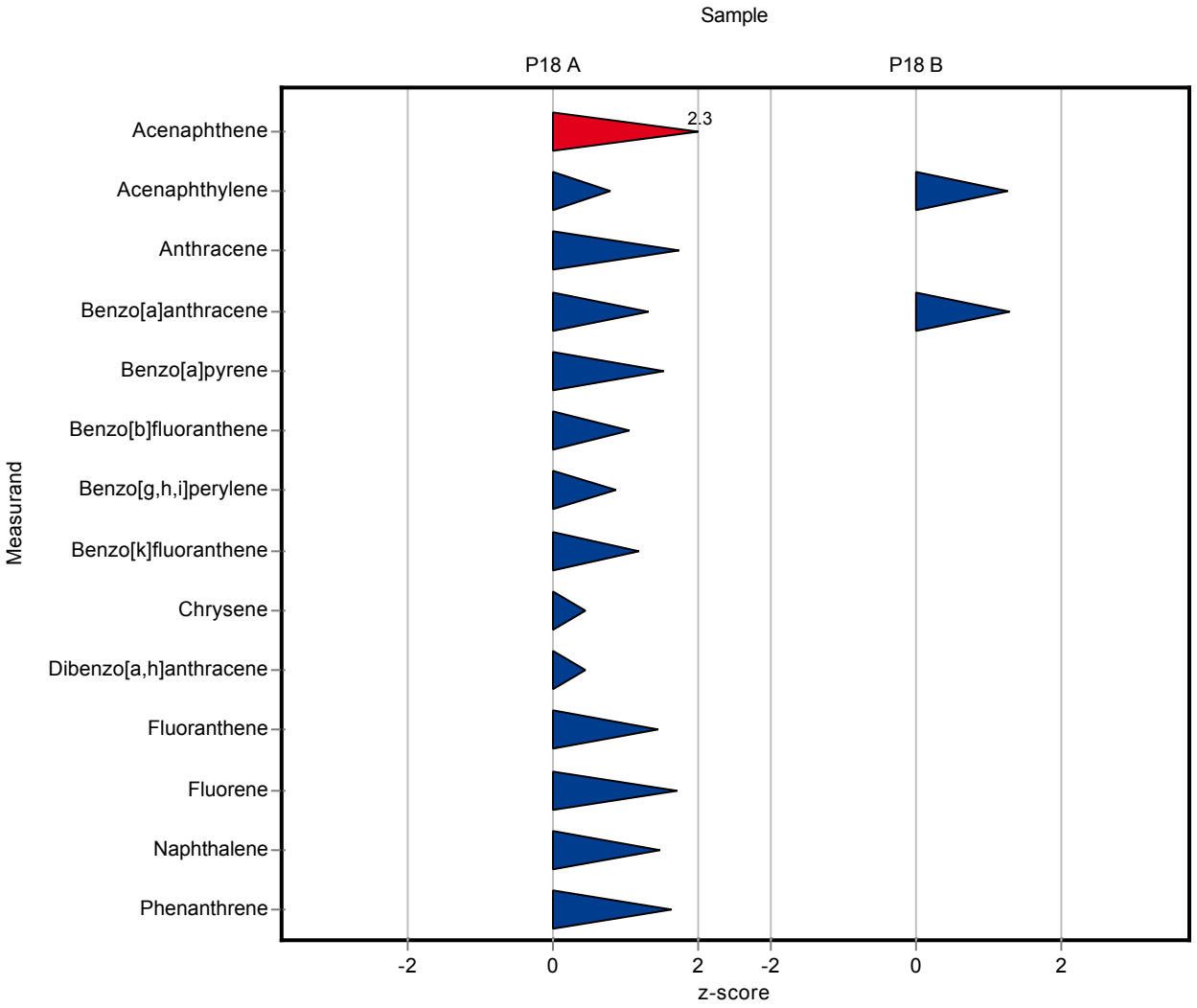
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	342	34	40.6	137	2.28
Acenaphthylene	ng/l	65.2	± 10.7	77	8	15.1	118	0.79
Anthracene	ng/l	89.2	± 15.2	131	13	24.3	147	1.72
Benzo[a]anthracene	ng/l	212	± 24.3	263	26	38.8	124	1.31
Benzo[a]pyrene	ng/l	166	± 27.4	232	23	43.8	140	1.51
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	99	10	12.9	115	1.03
Benzo[g,h,i]perylene	ng/l	123	± 33.9	172	17	57.6	139	0.84
Benzo[k]fluoranthene	ng/l	149	± 21.6	192	19	36.7	129	1.17
Chrysene	ng/l	101	± 10.9	108	10	17.3	107	0.43
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	50	5	15.3	115	0.43
Fluoranthene	ng/l	212	± 31.5	288	29	52.4	136	1.44
Fluorene	ng/l	169	± 14	205	21	20.9	121	1.7
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<50 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	73	7	13.5	137	1.46
Phenanthrene	ng/l	115	± 12.5	145	15	18.6	126	1.62
Pyrene	ng/l	29.1	± 4.15	<50 (LOQ)	-	6.02	-	-

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	<50 (LOQ)	-	4.82	-	-
Acenaphthylene	ng/l	41.7	± 7.13	54	5	9.79	130	1.26
Anthracene	ng/l	7.47	± 4.94	<50 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	74	7	10.5	122	1.27
Benzo[a]pyrene	ng/l	7.92	± 1.42	<50 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	<50 (LOQ)	-	8.13	-	-
Benzo[g,h,i]perylene	ng/l	10	± 2.64	<50 (LOQ)	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	<50 (LOQ)	-	4.64	-	-
Chrysene	ng/l	7.13	± 2.5	<50 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	<50 (LOQ)	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	<50 (LOQ)	-	4.74	-	-
Fluorene	ng/l	11.7	± 2.38	<50 (LOQ)	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<50 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	<50 (LOQ)	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	<50 (LOQ)	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<50 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
2.3
Measurand
-2
0
2
-2
0
2
z-score

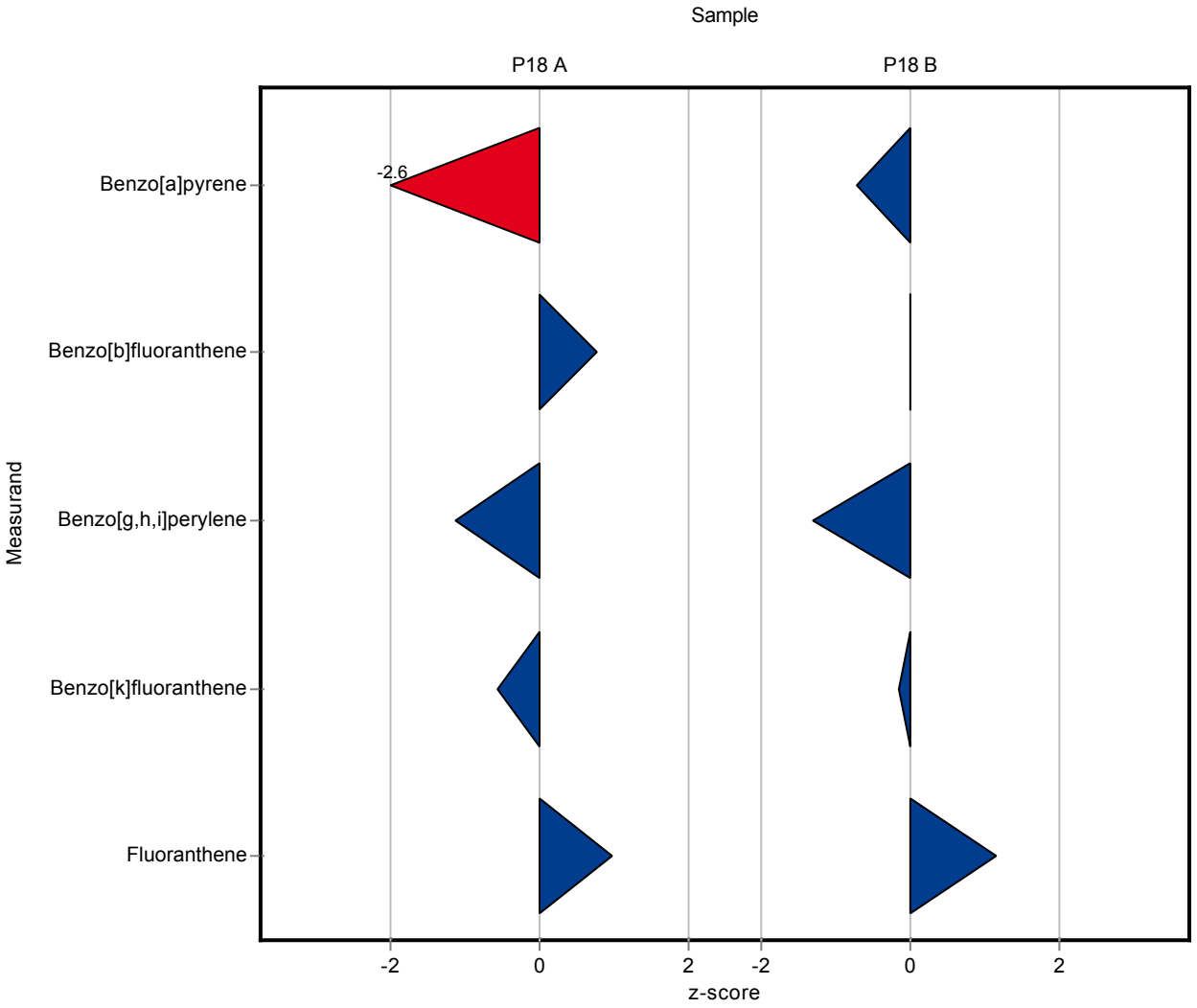
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	-	-	40.6	-	-
Acenaphthylene	ng/l	65.2	± 10.7	-	-	15.1	-	-
Anthracene	ng/l	89.2	± 15.2	-	-	24.3	-	-
Benzo[a]anthracene	ng/l	212	± 24.3	-	-	38.8	-	-
Benzo[a]pyrene	ng/l	166	± 27.4	51.8	-	43.8	31.2	-2.6
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	95.9	-	12.9	112	0.79
Benzo[g,h,i]perylene	ng/l	123	± 33.9	57.9	-	57.6	46.9	-1.14
Benzo[k]fluoranthene	ng/l	149	± 21.6	128.7	-	36.7	86.3	-0.56
Chrysene	ng/l	101	± 10.9	-	-	17.3	-	-
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	-	-	15.3	-	-
Fluoranthene	ng/l	212	± 31.5	263.9	-	52.4	124	0.98
Fluorene	ng/l	169	± 14	-	-	20.9	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<0.3 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	-	-	13.5	-	-
Phenanthrene	ng/l	115	± 12.5	-	-	18.6	-	-
Pyrene	ng/l	29.1	± 4.15	-	-	6.02	-	-

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	-	-	4.82	-	-
Acenaphthylene	ng/l	41.7	± 7.13	-	-	9.79	-	-
Anthracene	ng/l	7.47	± 4.94	-	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	-	-	10.5	-	-
Benzo[a]pyrene	ng/l	7.92	± 1.42	6.7	-	1.71	84.6	-0.71
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	36.5	-	8.13	99.9	0.00
Benzo[g,h,i]perylene	ng/l	10	± 2.64	5.4	-	3.51	53.9	-1.32
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	19.9	-	4.64	96.5	-0.16
Chrysene	ng/l	7.13	± 2.5	-	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	-	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	27.9	-	4.74	124	1.15
Fluorene	ng/l	11.7	± 2.38	-	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<0.3 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	-	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	-	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	-	-	1.9	-	-


Sample
P18 A
P18 B
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Fluoranthene
-2.6
Measurand
-2
0
2
-2
0
2
z-score

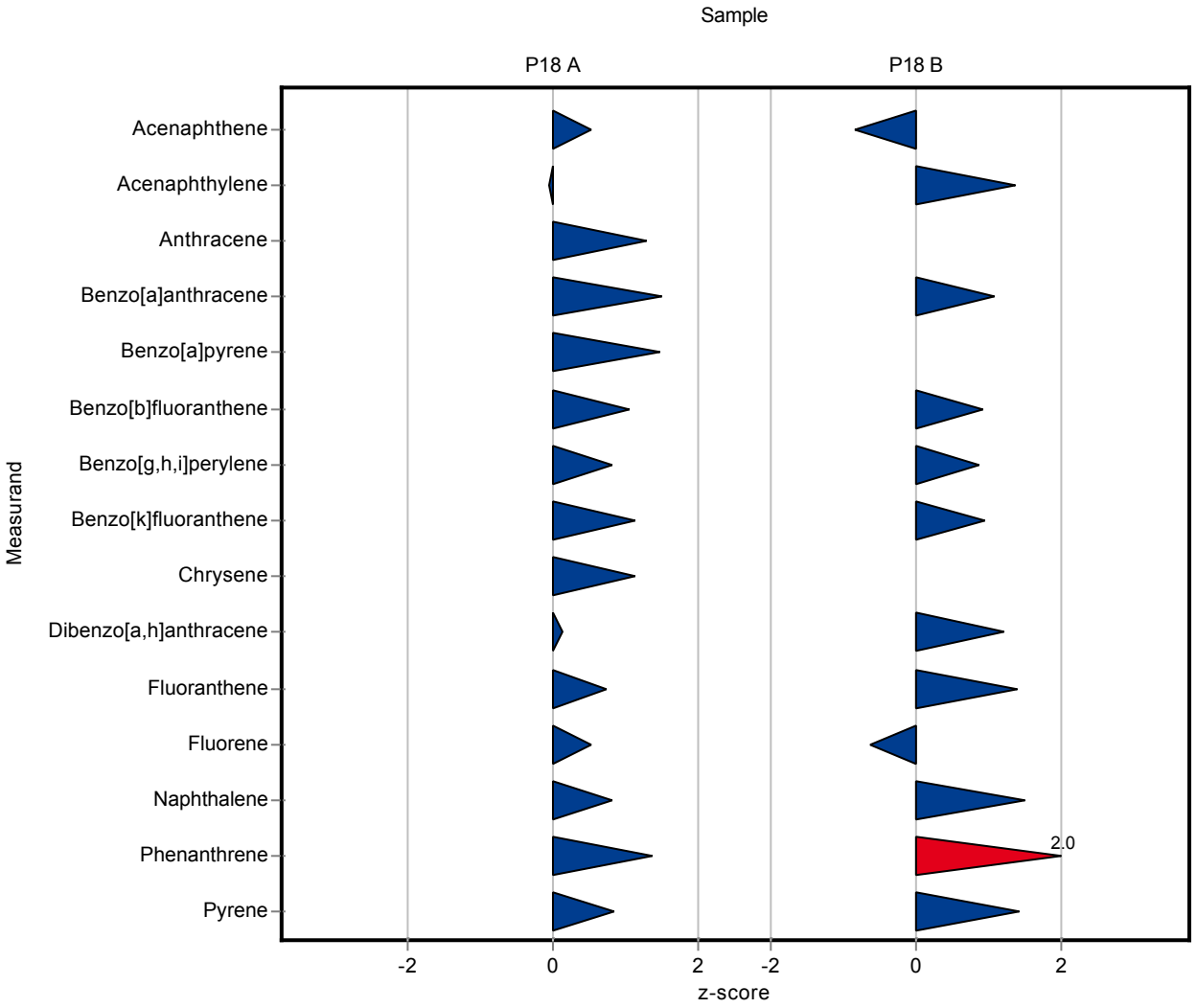
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	270	61	40.6	108	0.51
Acenaphthylene	ng/l	65.2	± 10.7	64	11	15.1	98.2	-0.08
Anthracene	ng/l	89.2	± 15.2	120	14	24.3	134	1.26
Benzo[a]anthracene	ng/l	212	± 24.3	270	49	38.8	127	1.49
Benzo[a]pyrene	ng/l	166	± 27.4	230	33	43.8	139	1.47
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	99	26	12.9	115	1.03
Benzo[g,h,i]perylene	ng/l	123	± 33.9	170	40	57.6	138	0.81
Benzo[k]fluoranthene	ng/l	149	± 21.6	190	31	36.7	127	1.11
Chrysene	ng/l	101	± 10.9	120	19	17.3	119	1.12
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	45	8.9	15.3	104	0.11
Fluoranthene	ng/l	212	± 31.5	250	59	52.4	118	0.72
Fluorene	ng/l	169	± 14	180	41	20.9	106	0.5
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	64	10	13.5	120	0.79
Phenanthrene	ng/l	115	± 12.5	140	34	18.6	122	1.35
Pyrene	ng/l	29.1	± 4.15	34	6.2	6.02	117	0.82

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	30	6.8	4.82	88	-0.85
Acenaphthylene	ng/l	41.7	± 7.13	55	10	9.79	132	1.36
Anthracene	ng/l	7.47	± 4.94	<10 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	72	13	10.5	119	1.07
Benzo[a]pyrene	ng/l	7.92	± 1.42	<10 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	44	11	8.13	120	0.92
Benzo[g,h,i]perylene	ng/l	10	± 2.64	13	3.1	3.51	130	0.85
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	25	4	4.64	121	0.94
Chrysene	ng/l	7.13	± 2.5	<10 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	20	4	4.69	139	1.2
Fluoranthene	ng/l	22.5	± 3.03	29	7.1	4.74	129	1.38
Fluorene	ng/l	11.7	± 2.38	10	2.3	2.63	85.6	-0.64
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	33	5	5.73	135	1.49
Phenanthrene	ng/l	12.5	± 2.14	17	4.3	2.25	137	2.02
Pyrene	ng/l	8.35	± 1.72	11	2.1	1.9	132	1.4


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
2.0
-2
0
2
-2
0
2
z-score

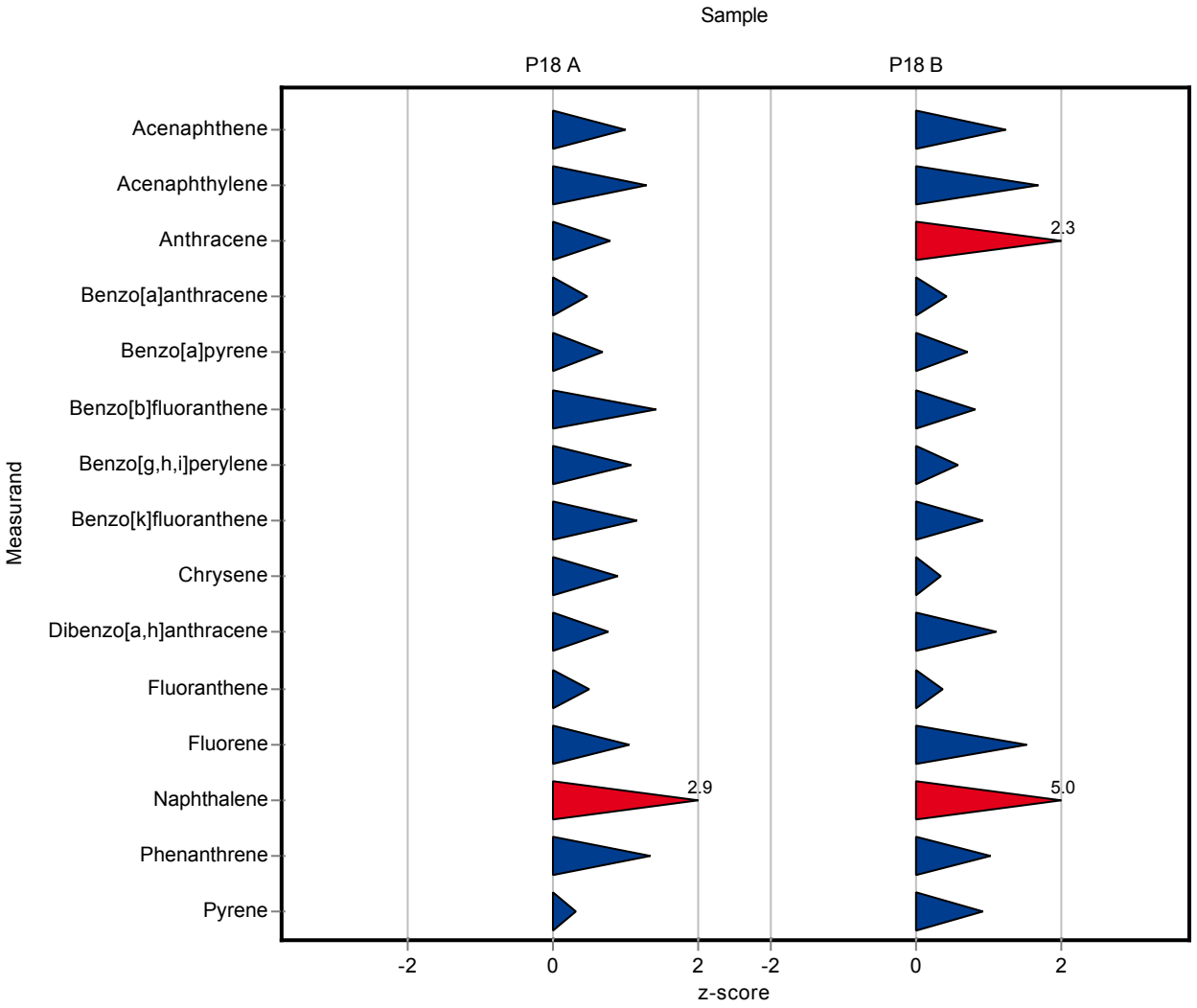
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	289.4	45	40.6	116	0.98
Acenaphthylene	ng/l	65.2	± 10.7	84.24	20	15.1	129	1.27
Anthracene	ng/l	89.2	± 15.2	108.04	25	24.3	121	0.77
Benzo[a]anthracene	ng/l	212	± 24.3	230.02	40	38.8	108	0.46
Benzo[a]pyrene	ng/l	166	± 27.4	195.6	40	43.8	118	0.68
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	103.82	20	12.9	121	1.4
Benzo[g,h,i]perylene	ng/l	123	± 33.9	184.96	40	57.6	150	1.07
Benzo[k]fluoranthene	ng/l	149	± 21.6	190.82	40	36.7	128	1.14
Chrysene	ng/l	101	± 10.9	116.08	15	17.3	115	0.89
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	54.97	12	15.3	127	0.76
Fluoranthene	ng/l	212	± 31.5	238.48	40	52.4	112	0.5
Fluorene	ng/l	169	± 14	190.97	40	20.9	113	1.03
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	92.18	20	13.5	173	2.88
Phenanthrene	ng/l	115	± 12.5	139.37	30	18.6	121	1.32
Pyrene	ng/l	29.1	± 4.15	30.95	5	6.02	106	0.31

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	39.96	5	4.82	117	1.22
Acenaphthylene	ng/l	41.7	± 7.13	58	12	9.79	139	1.67
Anthracene	ng/l	7.47	± 4.94	18.7	4	4.94	250	2.27
Benzo[a]anthracene	ng/l	60.7	± 6.88	64.98	10	10.5	107	0.41
Benzo[a]pyrene	ng/l	7.92	± 1.42	9.1	2	1.71	115	0.69
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	43.13	7	8.13	118	0.81
Benzo[g,h,i]perylene	ng/l	10	± 2.64	11.99	3	3.51	120	0.56
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	24.87	5	4.64	121	0.91
Chrysene	ng/l	7.13	± 2.5	8.1	1.5	2.88	114	0.34
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	19.51	5	4.69	136	1.09
Fluoranthene	ng/l	22.5	± 3.03	24.15	4	4.74	108	0.36
Fluorene	ng/l	11.7	± 2.38	15.69	3	2.63	134	1.52
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	53.07	10	5.73	217	4.99
Phenanthrene	ng/l	12.5	± 2.14	14.74	3	2.25	118	1.01
Pyrene	ng/l	8.35	± 1.72	10.07	1.5	1.9	121	0.91


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
2,3
2,9
5,0
-2
0
2
-2
0
2
z-score

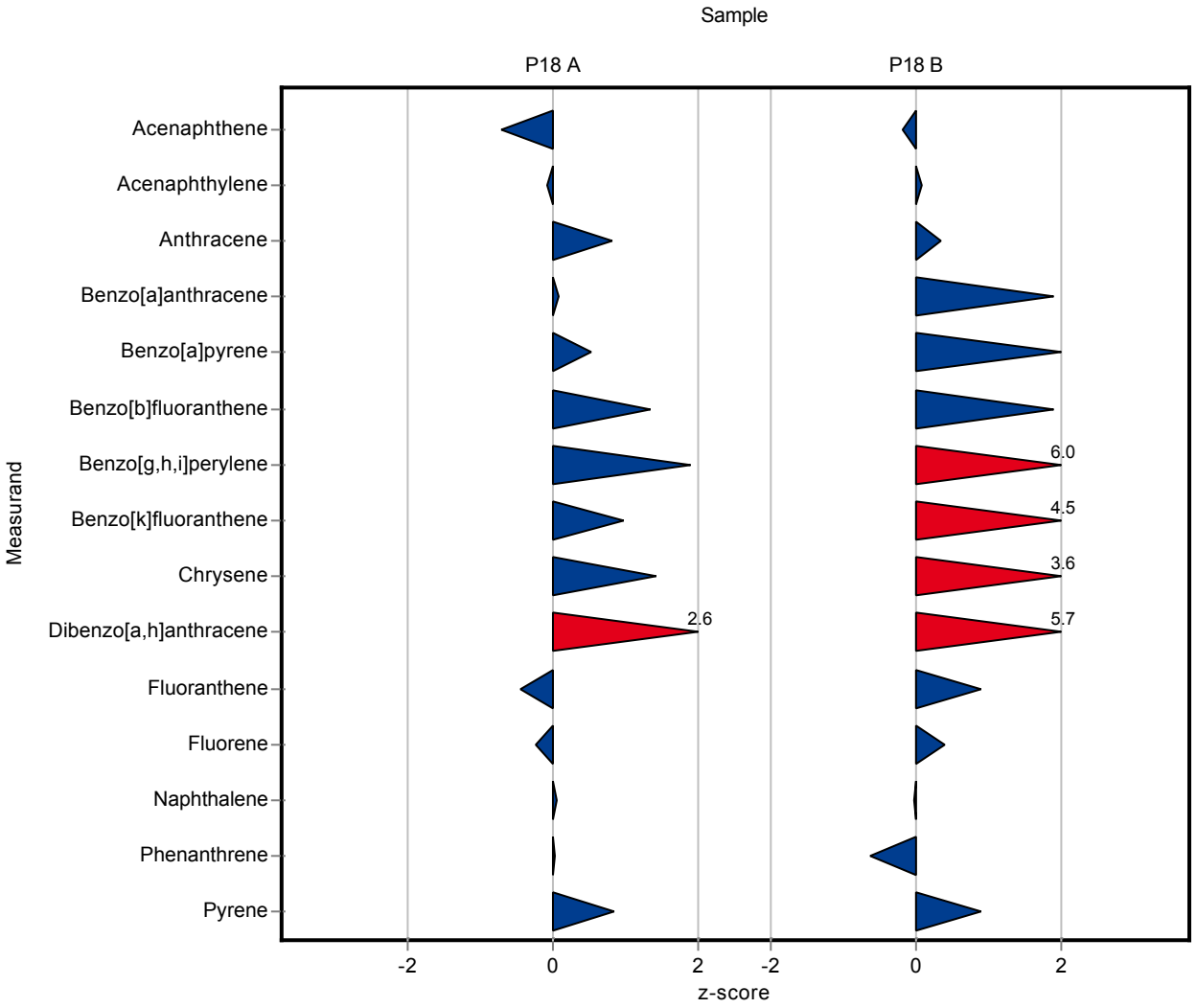
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	220	22	40.6	88.2	-0.72
Acenaphthylene	ng/l	65.2	± 10.7	63.8	6.4	15.1	97.9	-0.09
Anthracene	ng/l	89.2	± 15.2	109	11	24.3	122	0.81
Benzo[a]anthracene	ng/l	212	± 24.3	215	22	38.8	101	0.08
Benzo[a]pyrene	ng/l	166	± 27.4	188	19	43.8	113	0.51
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	103	10	12.9	120	1.34
Benzo[g,h,i]perylene	ng/l	123	± 33.9	232	23	57.6	188	1.89
Benzo[k]fluoranthene	ng/l	149	± 21.6	184	18	36.7	123	0.95
Chrysene	ng/l	101	± 10.9	125	13	17.3	124	1.41
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	83.8	8.4	15.3	193	2.63
Fluoranthene	ng/l	212	± 31.5	188	19	52.4	88.5	-0.47
Fluorene	ng/l	169	± 14	164	16	20.9	96.8	-0.26
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	54	5.4	13.5	101	0.05
Phenanthrene	ng/l	115	± 12.5	115	12	18.6	100	0.01
Pyrene	ng/l	29.1	± 4.15	34.1	3.4	6.02	117	0.83

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	33.1	3.3	4.82	97.1	-0.21
Acenaphthylene	ng/l	41.7	± 7.13	42.3	4.2	9.79	102	0.06
Anthracene	ng/l	7.47	± 4.94	9.05	1	4.94	121	0.32
Benzo[a]anthracene	ng/l	60.7	± 6.88	80.5	8.1	10.5	133	1.88
Benzo[a]pyrene	ng/l	7.92	± 1.42	11.3	1.2	1.71	143	1.98
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	51.9	5.2	8.13	142	1.89
Benzo[g,h,i]perylene	ng/l	10	± 2.64	31	3.1	3.51	309	5.97
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	41.7	4.2	4.64	202	4.54
Chrysene	ng/l	7.13	± 2.5	17.6	1.8	2.88	247	3.63
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	41.2	4.1	4.69	287	5.72
Fluoranthene	ng/l	22.5	± 3.03	26.6	2.7	4.74	118	0.88
Fluorene	ng/l	11.7	± 2.38	12.7	1.3	2.63	109	0.39
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	24.2	2.4	5.73	98.9	-0.05
Phenanthrene	ng/l	12.5	± 2.14	11	1.1	2.25	88.3	-0.65
Pyrene	ng/l	8.35	± 1.72	10	1	1.9	120	0.87


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
2.6
6.0
4.5
3.6
5.7
-2
0
2
-2
0
2
z-score

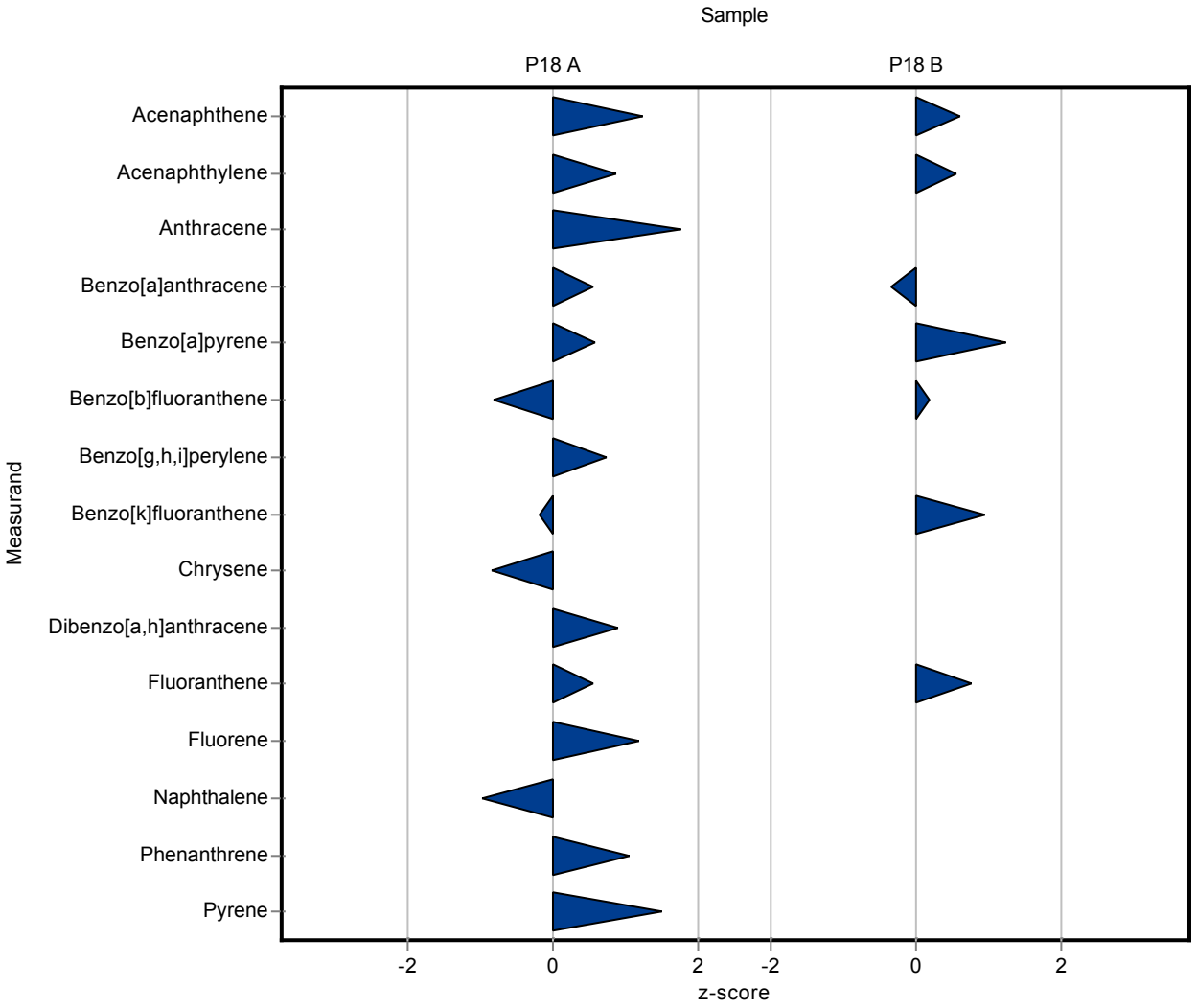
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	299	60	40.6	120	1.22
Acenaphthylene	ng/l	65.2	± 10.7	78	16	15.1	120	0.85
Anthracene	ng/l	89.2	± 15.2	132	26	24.3	148	1.76
Benzo[a]anthracene	ng/l	212	± 24.3	233	47	38.8	110	0.54
Benzo[a]pyrene	ng/l	166	± 27.4	191	38	43.8	115	0.57
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	75	15	12.9	87.5	-0.84
Benzo[g,h,i]perylene	ng/l	123	± 33.9	165	33	57.6	134	0.72
Benzo[k]fluoranthene	ng/l	149	± 21.6	142	28	36.7	95.3	-0.19
Chrysene	ng/l	101	± 10.9	86	17	17.3	85.5	-0.84
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	57	11	15.3	131	0.89
Fluoranthene	ng/l	212	± 31.5	241	48	52.4	113	0.55
Fluorene	ng/l	169	± 14	194	39	20.9	114	1.17
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<25 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	40	8	13.5	75	-0.99
Phenanthrene	ng/l	115	± 12.5	134	27	18.6	117	1.03
Pyrene	ng/l	29.1	± 4.15	38	8	6.02	131	1.48

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	37	7	4.82	109	0.6
Acenaphthylene	ng/l	41.7	± 7.13	47	9	9.79	113	0.55
Anthracene	ng/l	7.47	± 4.94	<25 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	57	11	10.5	93.9	-0.35
Benzo[a]pyrene	ng/l	7.92	± 1.42	10	2	1.71	126	1.22
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	38	8	8.13	104	0.18
Benzo[g,h,i]perylene	ng/l	10	± 2.64	<25 (LOQ)	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	25	5	4.64	121	0.94
Chrysene	ng/l	7.13	± 2.5	<25 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	<25 (LOQ)	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	26	5	4.74	116	0.75
Fluorene	ng/l	11.7	± 2.38	<25 (LOQ)	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<25 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	<25 (LOQ)	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	<25 (LOQ)	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<25 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
-2
0
2
-2
0
2
z-score

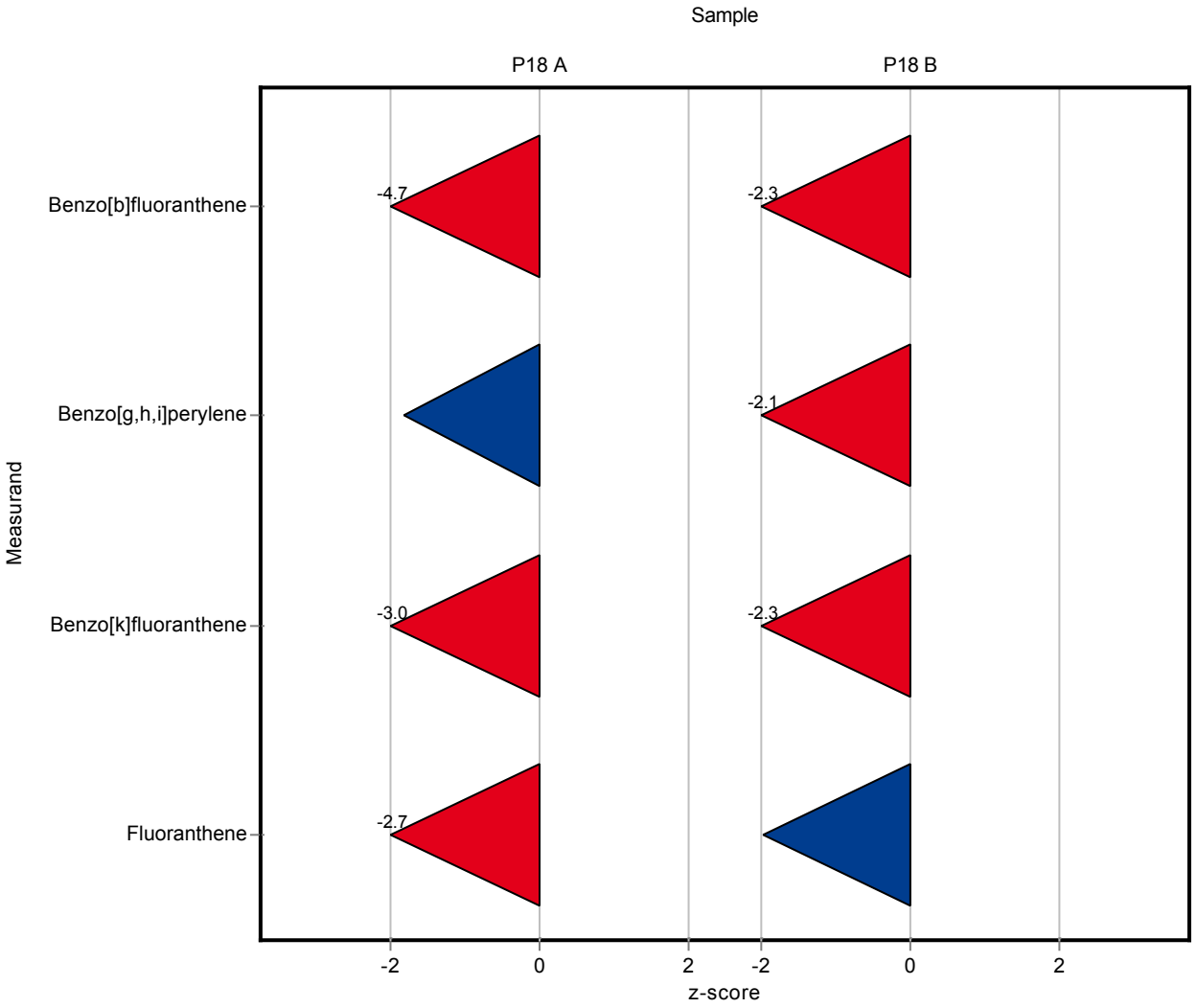
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	±	CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	±	28	-	-	40.6	-	-
Acenaphthylene	ng/l	65.2	±	10.7	-	-	15.1	-	-
Anthracene	ng/l	89.2	±	15.2	-	-	24.3	-	-
Benzo[a]anthracene	ng/l	212	±	24.3	-	-	38.8	-	-
Benzo[a]pyrene	ng/l	166	±	27.4	-	-	43.8	-	-
Benzo[b]fluoranthene	ng/l	85.8	±	7.71	25.8	-	12.9	30.1	-4.66
Benzo[g,h,i]perylene	ng/l	123	±	33.9	18	-	57.6	14.6	-1.83
Benzo[k]fluoranthene	ng/l	149	±	21.6	40.7	-	36.7	27.3	-2.95
Chrysene	ng/l	101	±	10.9	-	-	17.3	-	-
Dibenzo[a,h]anthracene	ng/l	43.4	±	10.3	-	-	15.3	-	-
Fluoranthene	ng/l	212	±	31.5	73.1	-	52.4	34.4	-2.66
Fluorene	ng/l	169	±	14	-	-	20.9	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	±	-	<0.3 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	±	9.52	-	-	13.5	-	-
Phenanthrene	ng/l	115	±	12.5	-	-	18.6	-	-
Pyrene	ng/l	29.1	±	4.15	-	-	6.02	-	-

Sample: P18B

Parameter	Unit	Target	±	CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	±	3.41	-	-	4.82	-	-
Acenaphthylene	ng/l	41.7	±	7.13	-	-	9.79	-	-
Anthracene	ng/l	7.47	±	4.94	-	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	±	6.88	-	-	10.5	-	-
Benzo[a]pyrene	ng/l	7.92	±	1.42	-	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	±	5.08	18.2	-	8.13	49.8	-2.26
Benzo[g,h,i]perylene	ng/l	10	±	2.64	2.5	-	3.51	24.9	-2.14
Benzo[k]fluoranthene	ng/l	20.6	±	3.04	9.8	-	4.64	47.5	-2.33
Chrysene	ng/l	7.13	±	2.5	-	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	±	3.63	-	-	4.69	-	-
Fluoranthene	ng/l	22.5	±	3.03	13.1	-	4.74	58.4	-1.97
Fluorene	ng/l	11.7	±	2.38	-	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	±	-	<0.3 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	±	4.59	-	-	5.73	-	-
Phenanthrene	ng/l	12.5	±	2.14	-	-	2.25	-	-
Pyrene	ng/l	8.35	±	1.72	-	-	1.9	-	-


Sample
P18 A
P18 B
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Fluoranthene
Measurand
-4.7
-2.3
-2.1
-3.0
-2.3
-2.7
-2
0
2
-2
0
2
z-score

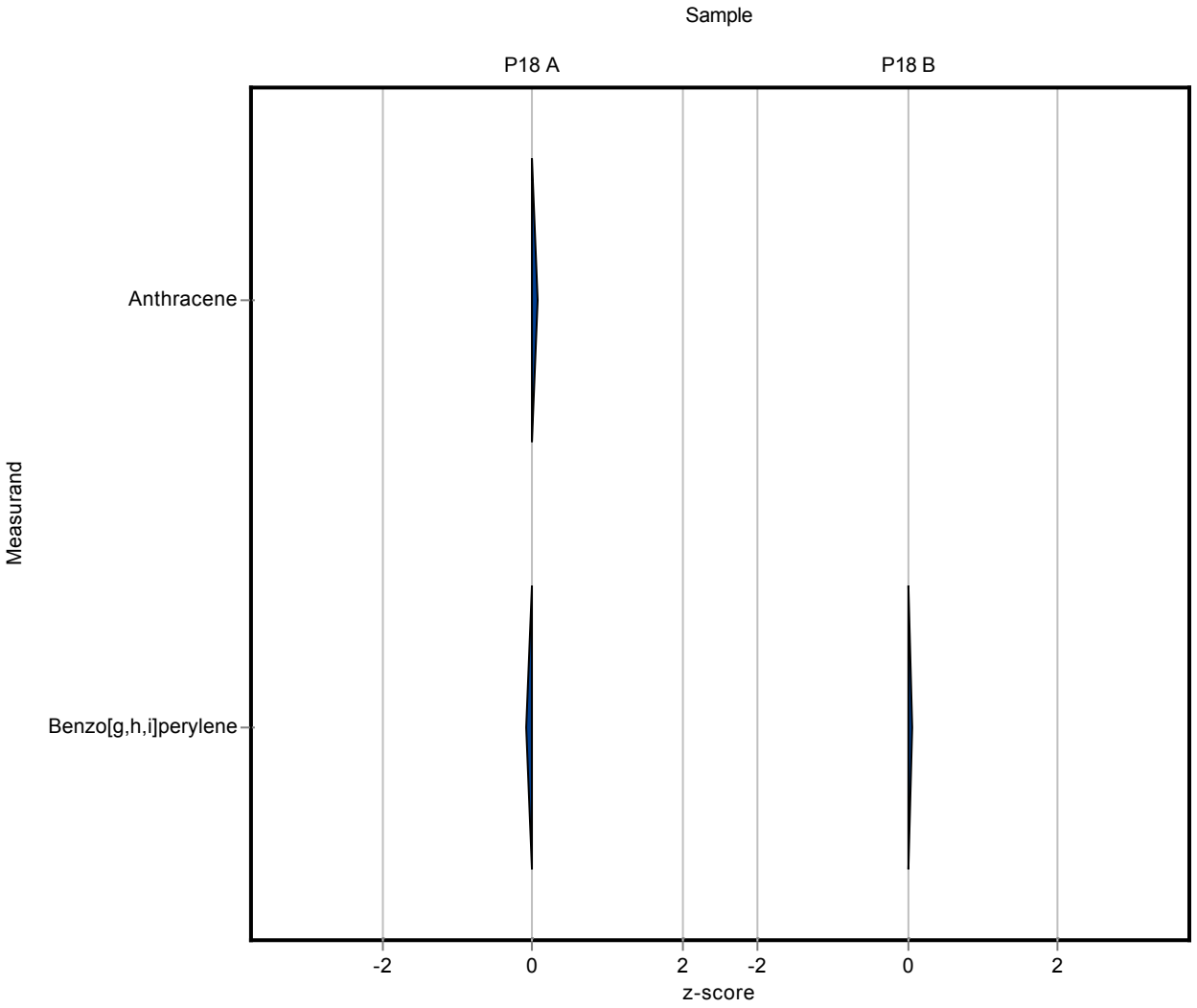
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	-	-	40.6	-	-
Acenaphthylene	ng/l	65.2	± 10.7	-	-	15.1	-	-
Anthracene	ng/l	89.2	± 15.2	90.8	18.2	24.3	102	0.06
Benzo[a]anthracene	ng/l	212	± 24.3	-	-	38.8	-	-
Benzo[a]pyrene	ng/l	166	± 27.4	-	-	43.8	-	-
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	-	-	12.9	-	-
Benzo[g,h,i]perylene	ng/l	123	± 33.9	118.2	23.6	57.6	95.8	-0.09
Benzo[k]fluoranthene	ng/l	149	± 21.6	-	-	36.7	-	-
Chrysene	ng/l	101	± 10.9	-	-	17.3	-	-
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	-	-	15.3	-	-
Fluoranthene	ng/l	212	± 31.5	-	-	52.4	-	-
Fluorene	ng/l	169	± 14	-	-	20.9	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	-	-	13.5	-	-
Phenanthrene	ng/l	115	± 12.5	-	-	18.6	-	-
Pyrene	ng/l	29.1	± 4.15	-	-	6.02	-	-

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	-	-	4.82	-	-
Acenaphthylene	ng/l	41.7	± 7.13	-	-	9.79	-	-
Anthracene	ng/l	7.47	± 4.94	<10 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	-	-	10.5	-	-
Benzo[a]pyrene	ng/l	7.92	± 1.42	-	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	-	-	8.13	-	-
Benzo[g,h,i]perylene	ng/l	10	± 2.64	10.2	2	3.51	102	0.05
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	-	-	4.64	-	-
Chrysene	ng/l	7.13	± 2.5	-	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	-	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	-	-	4.74	-	-
Fluorene	ng/l	11.7	± 2.38	-	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	-	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	-	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	-	-	1.9	-	-


Sample
P18 A
P18 B
Anthracene
Benzo[g,h,i]perylene
Measurand
-2
0
2
-2
0
2
z-score

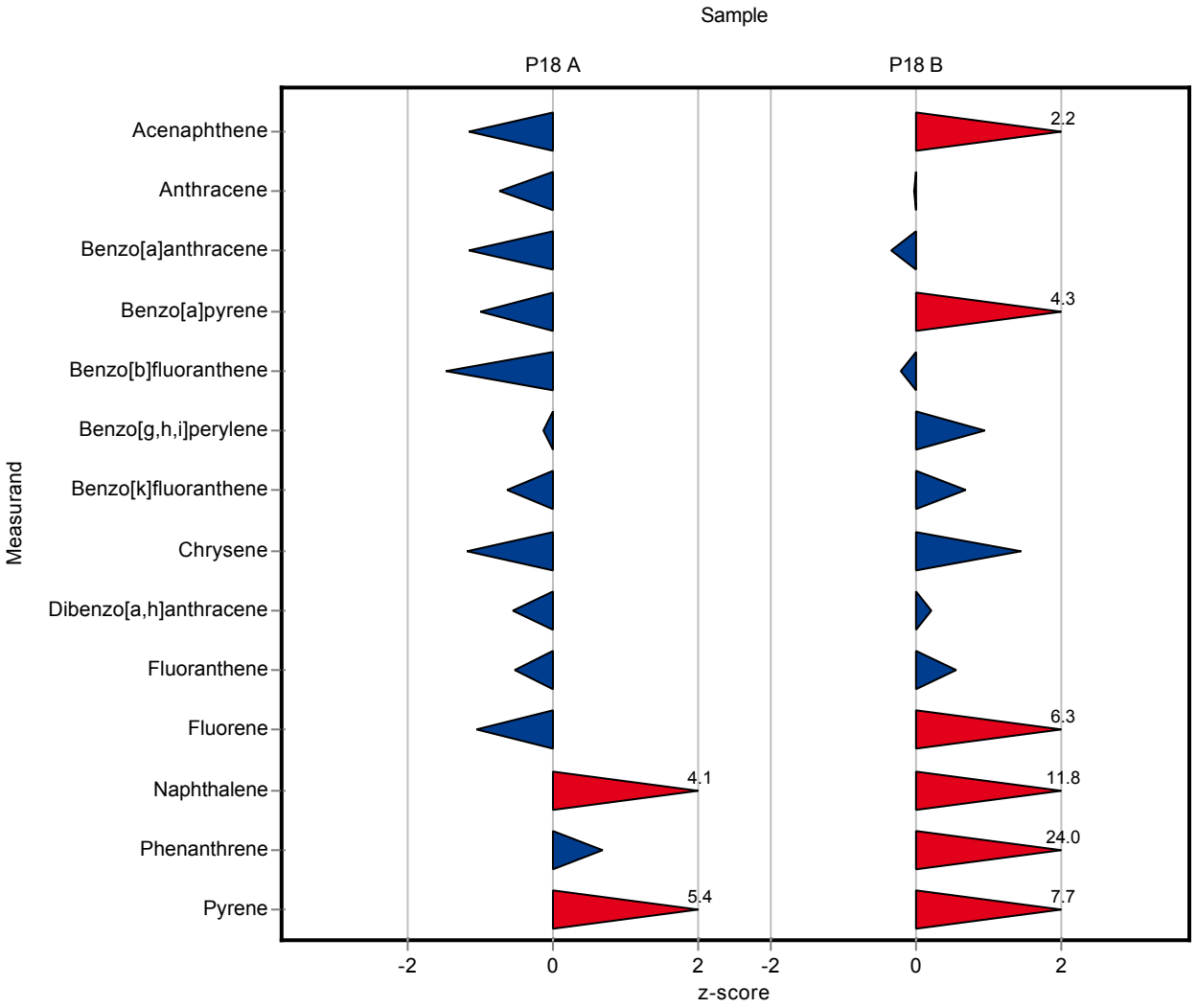
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	202	16.2	40.6	81	-1.17
Acenaphthylene	ng/l	65.2	± 10.7	<5 (LOQ)	-	15.1	-	-
Anthracene	ng/l	89.2	± 15.2	71.3	5.7	24.3	79.9	-0.74
Benzo[a]anthracene	ng/l	212	± 24.3	167	13.4	38.8	78.8	-1.16
Benzo[a]pyrene	ng/l	166	± 27.4	121.7	9.74	43.8	73.4	-1.01
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	66.7	5.34	12.9	77.8	-1.48
Benzo[g,h,i]perylene	ng/l	123	± 33.9	115	9.2	57.6	93.2	-0.14
Benzo[k]fluoranthene	ng/l	149	± 21.6	125.7	10.1	36.7	84.3	-0.64
Chrysene	ng/l	101	± 10.9	79.7	6.38	17.3	79.2	-1.21
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	34.7	2.78	15.3	80	-0.56
Fluoranthene	ng/l	212	± 31.5	184.3	14.7	52.4	86.8	-0.54
Fluorene	ng/l	169	± 14	147	11.8	20.9	86.7	-1.07
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	108	8.64	13.5	202	4.06
Phenanthrene	ng/l	115	± 12.5	127.3	10.2	18.6	111	0.67
Pyrene	ng/l	29.1	± 4.15	61.7	4.94	6.02	212	5.42

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	44.8	3.58	4.82	131	2.22
Acenaphthylene	ng/l	41.7	± 7.13	<5 (LOQ)	-	9.79	-	-
Anthracene	ng/l	7.47	± 4.94	7.25	0.58	4.94	97	-0.04
Benzo[a]anthracene	ng/l	60.7	± 6.88	57	4.56	10.5	93.9	-0.35
Benzo[a]pyrene	ng/l	7.92	± 1.42	15.3	1.22	1.71	193	4.33
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	34.8	2.78	8.13	95.2	-0.21
Benzo[g,h,i]perylene	ng/l	10	± 2.64	13.3	1.06	3.51	133	0.93
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	23.8	1.9	4.64	115	0.68
Chrysene	ng/l	7.13	± 2.5	11.3	0.9	2.88	158	1.45
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	15.3	1.22	4.69	106	0.2
Fluoranthene	ng/l	22.5	± 3.03	25	2	4.74	111	0.54
Fluorene	ng/l	11.7	± 2.38	28.3	2.26	2.63	242	6.31
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	9.67	0.77	-	-	-
Naphthalene	ng/l	24.5	± 4.59	92	7.36	5.73	376	11.8
Phenanthrene	ng/l	12.5	± 2.14	66.5	5.32	2.25	534	24
Pyrene	ng/l	8.35	± 1.72	23	1.84	1.9	276	7.72


Sample
P18 A
P18 B
Measurand
Acenaphthene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
2.2
4.3
6.3
4.1
11.8
24.0
5.4
7.7
-2
0
2
-2
0
2
z-score

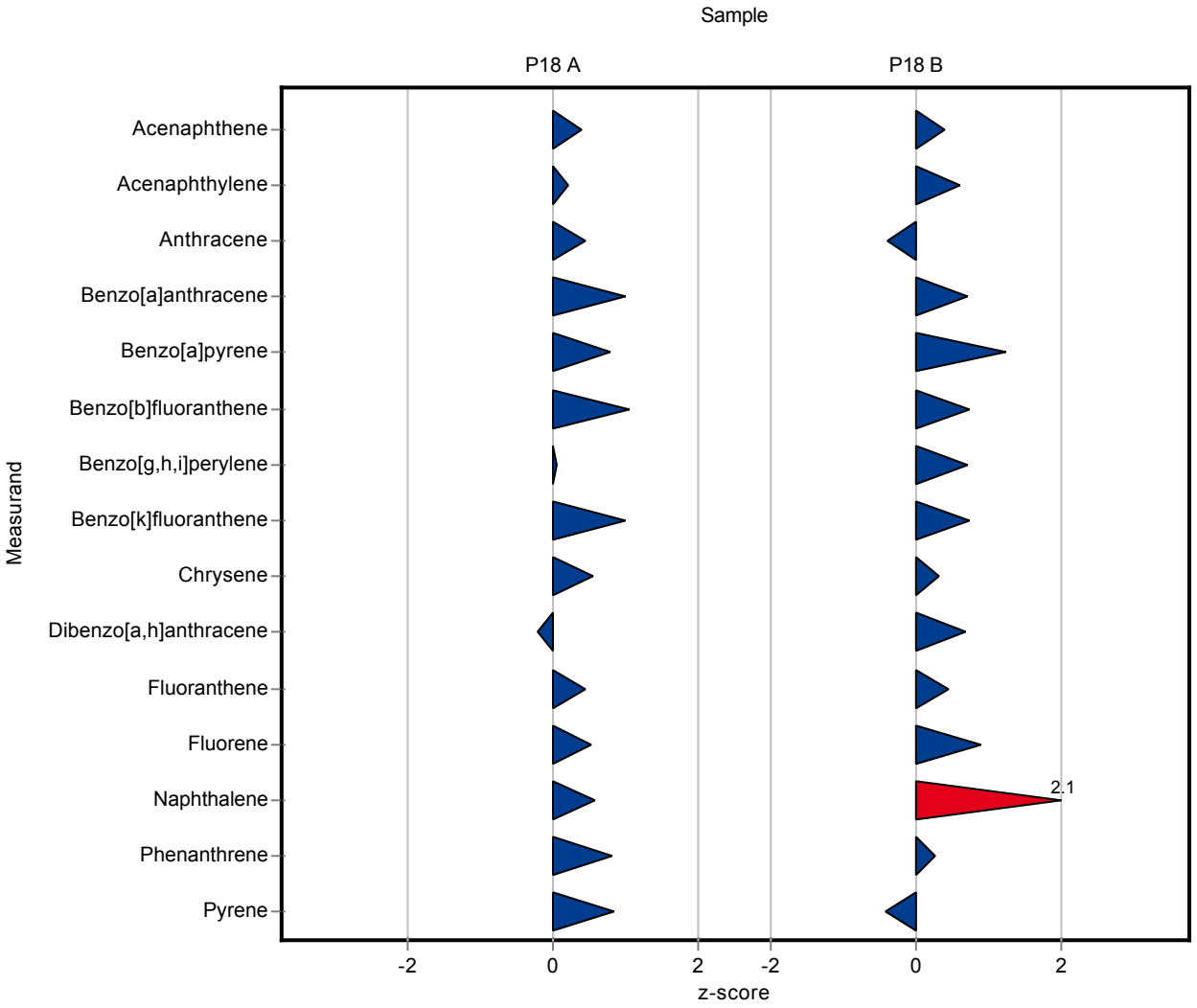
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	265	26	40.6	106	0.38
Acenaphthylene	ng/l	65.2	± 10.7	68	7	15.1	104	0.19
Anthracene	ng/l	89.2	± 15.2	100	10	24.3	112	0.44
Benzo[a]anthracene	ng/l	212	± 24.3	250	25	38.8	118	0.98
Benzo[a]pyrene	ng/l	166	± 27.4	200	20	43.8	121	0.78
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	99	10	12.9	115	1.03
Benzo[g,h,i]perylene	ng/l	123	± 33.9	125	12	57.6	101	0.03
Benzo[k]fluoranthene	ng/l	149	± 21.6	185	18	36.7	124	0.98
Chrysene	ng/l	101	± 10.9	110	11	17.3	109	0.54
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	40	4	15.3	92.2	-0.22
Fluoranthene	ng/l	212	± 31.5	235	24	52.4	111	0.43
Fluorene	ng/l	169	± 14	180	18	20.9	106	0.5
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	61	6	13.5	114	0.57
Phenanthrene	ng/l	115	± 12.5	130	13	18.6	113	0.81
Pyrene	ng/l	29.1	± 4.15	34	3	6.02	117	0.82

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	36	4	4.82	106	0.39
Acenaphthylene	ng/l	41.7	± 7.13	47.5	5	9.79	114	0.6
Anthracene	ng/l	7.47	± 4.94	5.5	0.5	4.94	73.6	-0.4
Benzo[a]anthracene	ng/l	60.7	± 6.88	68	7	10.5	112	0.69
Benzo[a]pyrene	ng/l	7.92	± 1.42	10	1	1.71	126	1.22
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	42.5	4	8.13	116	0.73
Benzo[g,h,i]perylene	ng/l	10	± 2.64	12.5	1	3.51	125	0.7
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	24	2	4.64	116	0.73
Chrysene	ng/l	7.13	± 2.5	8	0.8	2.88	112	0.3
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	17.5	1.7	4.69	122	0.67
Fluoranthene	ng/l	22.5	± 3.03	24.5	2.4	4.74	109	0.43
Fluorene	ng/l	11.7	± 2.38	14	1.4	2.63	120	0.88
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	36.5	4	5.73	149	2.1
Phenanthrene	ng/l	12.5	± 2.14	13	1	2.25	104	0.24
Pyrene	ng/l	8.35	± 1.72	7.5	0.7	1.9	89.8	-0.45


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
2.1
-2
0
2
-2
0
2
z-score

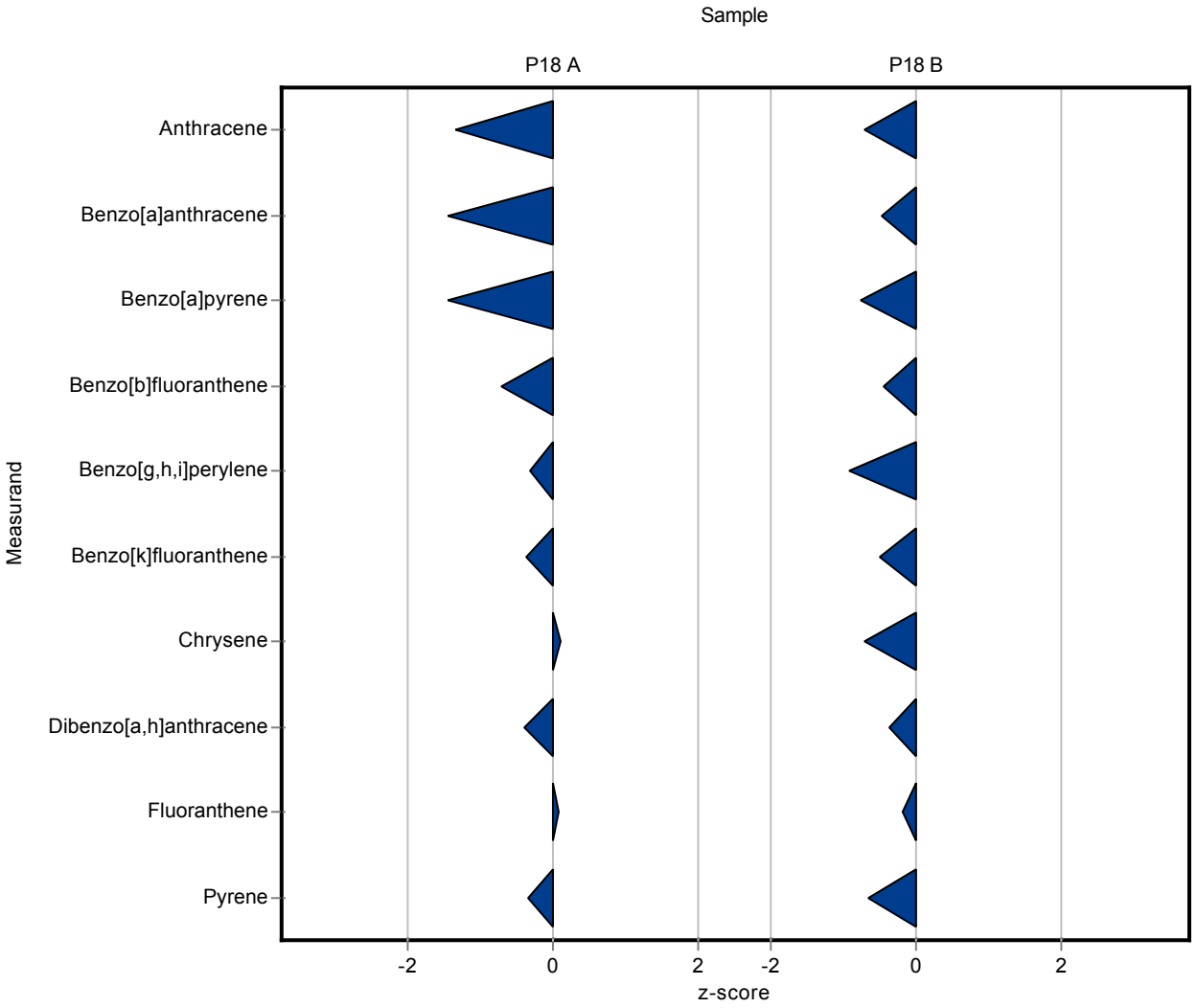
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	-	-	40.6	-	-
Acenaphthylene	ng/l	65.2	± 10.7	-	-	15.1	-	-
Anthracene	ng/l	89.2	± 15.2	56.07	24.67	24.3	62.8	-1.36
Benzo[a]anthracene	ng/l	212	± 24.3	155.13	68.26	38.8	73.2	-1.47
Benzo[a]pyrene	ng/l	166	± 27.4	102.03	44.89	43.8	61.5	-1.46
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	76.51	33.67	12.9	89.2	-0.72
Benzo[g,h,i]perylene	ng/l	123	± 33.9	103.87	45.7	57.6	84.2	-0.34
Benzo[k]fluoranthene	ng/l	149	± 21.6	135.47	59.61	36.7	90.9	-0.37
Chrysene	ng/l	101	± 10.9	102.09	44.92	17.3	101	0.09
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	37.31	16.41	15.3	86	-0.4
Fluoranthene	ng/l	212	± 31.5	215.87	94.98	52.4	102	0.07
Fluorene	ng/l	169	± 14	-	-	20.9	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	-	-	13.5	-	-
Phenanthrene	ng/l	115	± 12.5	-	-	18.6	-	-
Pyrene	ng/l	29.1	± 4.15	26.99	11.87	6.02	92.8	-0.35

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	-	-	4.82	-	-
Acenaphthylene	ng/l	41.7	± 7.13	-	-	9.79	-	-
Anthracene	ng/l	7.47	± 4.94	3.84	1.69	4.94	51.4	-0.73
Benzo[a]anthracene	ng/l	60.7	± 6.88	55.56	24.44	10.5	91.5	-0.49
Benzo[a]pyrene	ng/l	7.92	± 1.42	6.6	2.9	1.71	83.4	-0.77
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	32.88	14.47	8.13	90	-0.45
Benzo[g,h,i]perylene	ng/l	10	± 2.64	6.76	2.97	3.51	67.5	-0.93
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	18.21	8.01	4.64	88.3	-0.52
Chrysene	ng/l	7.13	± 2.5	5.05	2.22	2.88	70.8	-0.72
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	12.63	5.56	4.69	87.9	-0.37
Fluoranthene	ng/l	22.5	± 3.03	21.46	9.44	4.74	95.6	-0.21
Fluorene	ng/l	11.7	± 2.38	-	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	-	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	-	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	7.06	3.11	1.9	84.6	-0.68


Sample
P18 A
P18 B
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Pyrene
Measurand
-2
0
2
-2
0
2
z-score

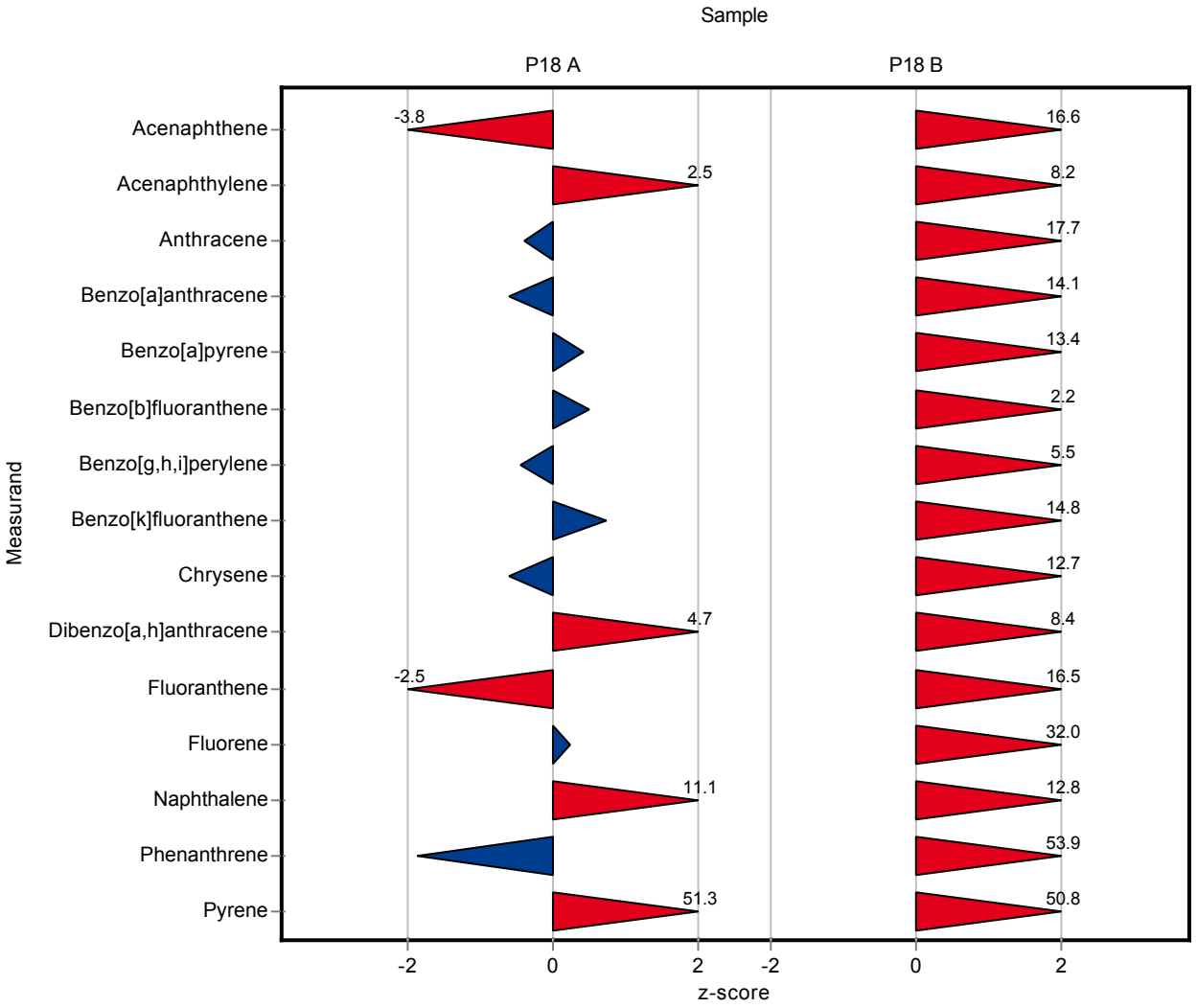
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	96.85	19.37	40.6	38.8	-3.76
Acenaphthylene	ng/l	65.2	± 10.7	103.5	20.7	15.1	159	2.54
Anthracene	ng/l	89.2	± 15.2	79.19	15.83	24.3	88.7	-0.41
Benzo[a]anthracene	ng/l	212	± 24.3	188.39	37.88	38.8	88.8	-0.61
Benzo[a]pyrene	ng/l	166	± 27.4	183.57	36.71	43.8	111	0.41
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	91.91	18.38	12.9	107	0.48
Benzo[g,h,i]perylene	ng/l	123	± 33.9	97.22	19.44	57.6	78.8	-0.45
Benzo[k]fluoranthene	ng/l	149	± 21.6	175.51	35.1	36.7	118	0.72
Chrysene	ng/l	101	± 10.9	89.75	17.95	17.3	89.2	-0.63
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	115.06	23.01	15.3	265	4.67
Fluoranthene	ng/l	212	± 31.5	80.45	16.09	52.4	37.9	-2.52
Fluorene	ng/l	169	± 14	173.99	34.79	20.9	103	0.22
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	77.7	15.54	-	-	-
Naphthalene	ng/l	53.3	± 9.52	203.4	40.68	13.5	381	11.1
Phenanthrene	ng/l	115	± 12.5	79.66	15.93	18.6	69.4	-1.89
Pyrene	ng/l	29.1	± 4.15	337.98	67.58	6.02	1160	51.3

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	114.13	22.83	4.82	335	16.6
Acenaphthylene	ng/l	41.7	± 7.13	121.89	24.38	9.79	293	8.19
Anthracene	ng/l	7.47	± 4.94	95.04	19.01	4.94	1270	17.7
Benzo[a]anthracene	ng/l	60.7	± 6.88	208.94	41.79	10.5	344	14.1
Benzo[a]pyrene	ng/l	7.92	± 1.42	30.77	6.154	1.71	389	13.4
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	54.69	10.93	8.13	150	2.23
Benzo[g,h,i]perylene	ng/l	10	± 2.64	29.36	5.87	3.51	293	5.5
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	89.3	17.86	4.64	433	14.8
Chrysene	ng/l	7.13	± 2.5	43.87	8.77	2.88	615	12.7
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	53.53	10.7	4.69	372	8.35
Fluoranthene	ng/l	22.5	± 3.03	100.66	20.13	4.74	448	16.5
Fluorene	ng/l	11.7	± 2.38	95.86	19.17	2.63	821	32
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	65.93	13.19	-	-	-
Naphthalene	ng/l	24.5	± 4.59	97.87	19.57	5.73	400	12.8
Phenanthrene	ng/l	12.5	± 2.14	133.97	26.79	2.25	1080	53.9
Pyrene	ng/l	8.35	± 1.72	104.8	20.96	1.9	1260	50.8


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
-3.8
2.5
4.7
-2.5
11.1
51.3
16.6
8.2
17.7
14.1
13.4
2.2
5.5
14.8
12.7
8.4
16.5
32.0
12.8
53.9
50.8
-2
0
2
-2
0
2
z-score

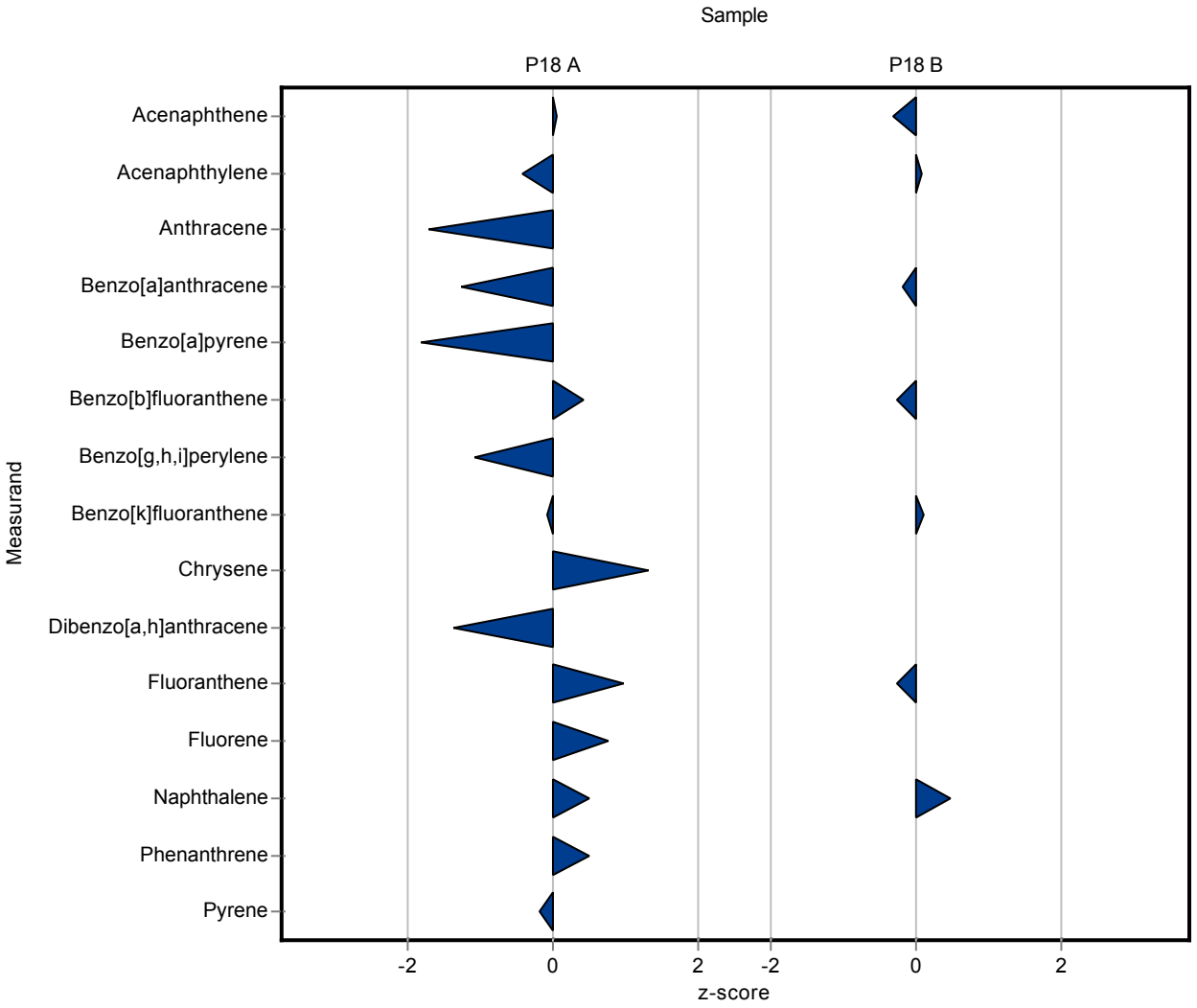
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	251	-	40.6	101	0.04
Acenaphthylene	ng/l	65.2	± 10.7	58.6	-	15.1	89.9	-0.43
Anthracene	ng/l	89.2	± 15.2	47.3	-	24.3	53	-1.72
Benzo[a]anthracene	ng/l	212	± 24.3	162	-	38.8	76.4	-1.29
Benzo[a]pyrene	ng/l	166	± 27.4	86.3	-	43.8	52	-1.82
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	91	-	12.9	106	0.41
Benzo[g,h,i]perylene	ng/l	123	± 33.9	61	-	57.6	49.4	-1.08
Benzo[k]fluoranthene	ng/l	149	± 21.6	146	-	36.7	97.9	-0.08
Chrysene	ng/l	101	± 10.9	123	-	17.3	122	1.29
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	22.3	-	15.3	51.4	-1.37
Fluoranthene	ng/l	212	± 31.5	263	-	52.4	124	0.96
Fluorene	ng/l	169	± 14	185	-	20.9	109	0.74
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	59.8	-	13.5	112	0.48
Phenanthrene	ng/l	115	± 12.5	124	-	18.6	108	0.49
Pyrene	ng/l	29.1	± 4.15	27.9	-	6.02	96	-0.2

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	32.5	-	4.82	95.3	-0.33
Acenaphthylene	ng/l	41.7	± 7.13	42.4	-	9.79	102	0.08
Anthracene	ng/l	7.47	± 4.94	<20 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	58.6	-	10.5	96.5	-0.2
Benzo[a]pyrene	ng/l	7.92	± 1.42	<20 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	34.3	-	8.13	93.9	-0.28
Benzo[g,h,i]perylene	ng/l	10	± 2.64	<20 (LOQ)	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	21	-	4.64	102	0.08
Chrysene	ng/l	7.13	± 2.5	<20 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	<20 (LOQ)	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	21.1	-	4.74	94	-0.28
Fluorene	ng/l	11.7	± 2.38	<20 (LOQ)	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	27.1	-	5.73	111	0.46
Phenanthrene	ng/l	12.5	± 2.14	<20 (LOQ)	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<20 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
-2
0
2
-2
0
2
z-score

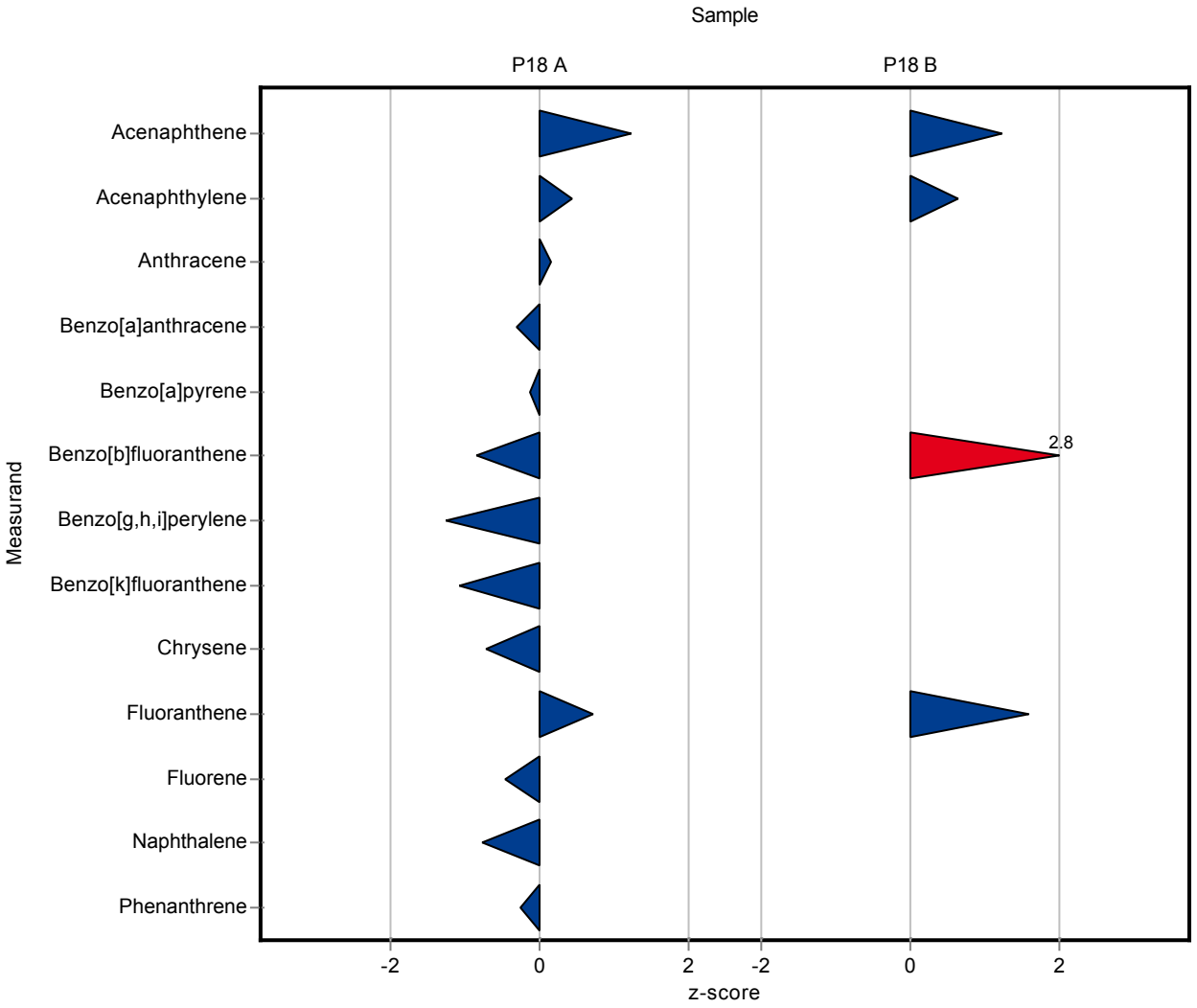
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	300	145	40.6	120	1.24
Acenaphthylene	ng/l	65.2	± 10.7	72	34	15.1	110	0.45
Anthracene	ng/l	89.2	± 15.2	93	25	24.3	104	0.15
Benzo[a]anthracene	ng/l	212	± 24.3	200	66	38.8	94.3	-0.31
Benzo[a]pyrene	ng/l	166	± 27.4	160	35	43.8	96.5	-0.13
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	75	34	12.9	87.5	-0.84
Benzo[g,h,i]perylene	ng/l	123	± 33.9	51	14	57.6	41.3	-1.26
Benzo[k]fluoranthene	ng/l	149	± 21.6	110	33	36.7	73.8	-1.06
Chrysene	ng/l	101	± 10.9	88	26	17.3	87.5	-0.73
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	<41 (LOQ)	-	15.3	-	-
Fluoranthene	ng/l	212	± 31.5	250	97	52.4	118	0.72
Fluorene	ng/l	169	± 14	160	51	20.9	94.4	-0.45
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<52 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	43	17	13.5	80.6	-0.77
Phenanthrene	ng/l	115	± 12.5	110	46	18.6	95.8	-0.26
Pyrene	ng/l	29.1	± 4.15	<50 (LOQ)	-	6.02	-	-

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	40	19	4.82	117	1.22
Acenaphthylene	ng/l	41.7	± 7.13	48	23	9.79	115	0.65
Anthracene	ng/l	7.47	± 4.94	<54 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	<56 (LOQ)	-	10.5	-	-
Benzo[a]pyrene	ng/l	7.92	± 1.42	<21 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	59	27	8.13	161	2.76
Benzo[g,h,i]perylene	ng/l	10	± 2.64	<47 (LOQ)	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	<58 (LOQ)	-	4.64	-	-
Chrysene	ng/l	7.13	± 2.5	<41 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	<41 (LOQ)	-	4.69	-	-
Fluoranthene	ng/l	22.5	± 3.03	30	12	4.74	134	1.59
Fluorene	ng/l	11.7	± 2.38	<38 (LOQ)	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<52 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	<37 (LOQ)	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	<21 (LOQ)	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<50 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Measurand
2.8
-2
0
2
-2
0
2
z-score

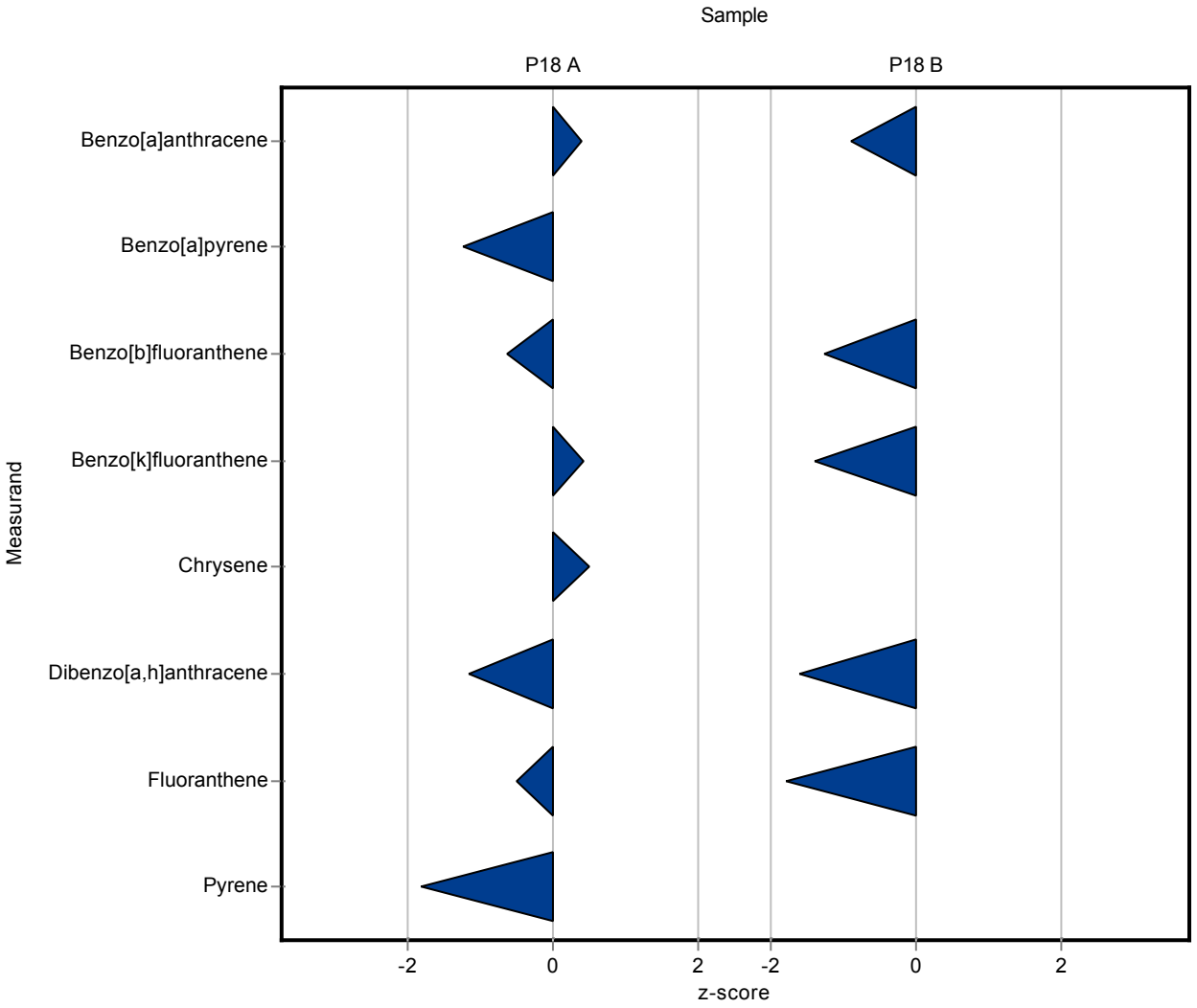
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	-	-	40.6	-	-
Acenaphthylene	ng/l	65.2	± 10.7	-	-	15.1	-	-
Anthracene	ng/l	89.2	± 15.2	-	-	24.3	-	-
Benzo[a]anthracene	ng/l	212	± 24.3	227	100	38.8	107	0.39
Benzo[a]pyrene	ng/l	166	± 27.4	111	49	43.8	66.9	-1.25
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	77.4	34.1	12.9	90.3	-0.65
Benzo[g,h,i]perylene	ng/l	123	± 33.9	-	-	57.6	-	-
Benzo[k]fluoranthene	ng/l	149	± 21.6	164	72	36.7	110	0.41
Chrysene	ng/l	101	± 10.9	109	48	17.3	108	0.48
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	25.4	11.2	15.3	58.6	-1.17
Fluoranthene	ng/l	212	± 31.5	185	81	52.4	87.1	-0.52
Fluorene	ng/l	169	± 14	-	-	20.9	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	-	-	13.5	-	-
Phenanthrene	ng/l	115	± 12.5	-	-	18.6	-	-
Pyrene	ng/l	29.1	± 4.15	18	7.9	6.02	61.9	-1.84

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	-	-	4.82	-	-
Acenaphthylene	ng/l	41.7	± 7.13	-	-	9.79	-	-
Anthracene	ng/l	7.47	± 4.94	-	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	51.3	22.6	10.5	84.5	-0.9
Benzo[a]pyrene	ng/l	7.92	± 1.42	<5 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	26.2	11.5	8.13	71.7	-1.27
Benzo[g,h,i]perylene	ng/l	10	± 2.64	-	-	3.51	-	-
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	14.1	6.2	4.64	68.4	-1.41
Chrysene	ng/l	7.13	± 2.5	<5 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	6.8	3	4.69	47.3	-1.62
Fluoranthene	ng/l	22.5	± 3.03	13.9	6.1	4.74	61.9	-1.81
Fluorene	ng/l	11.7	± 2.38	-	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	-	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	-	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	<5 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Pyrene
Measurand
-2
0
2
-2
0
2
z-score

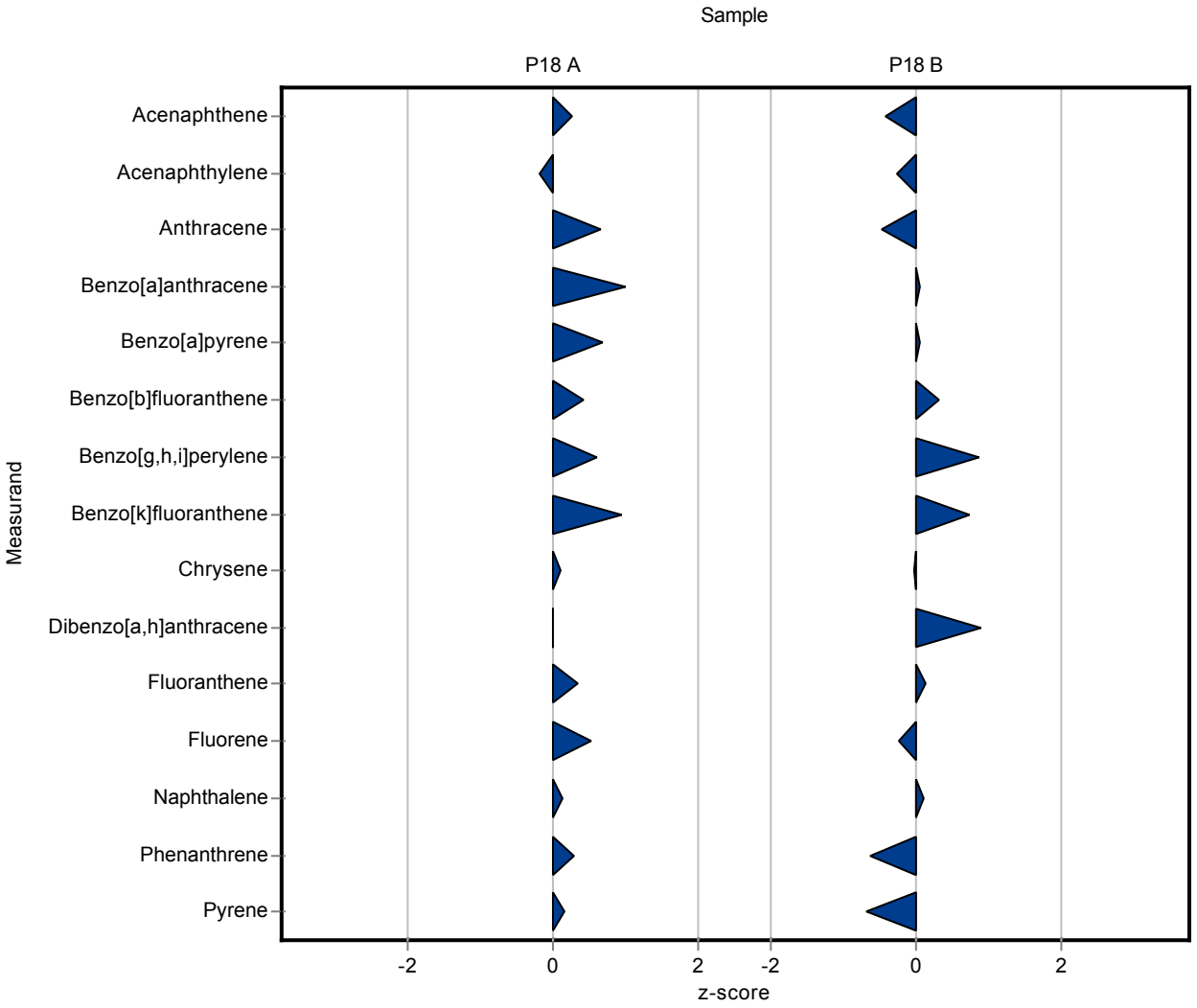
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	260	26	40.6	104	0.26
Acenaphthylene	ng/l	65.2	± 10.7	62	6.2	15.1	95.1	-0.21
Anthracene	ng/l	89.2	± 15.2	105	10.5	24.3	118	0.65
Benzo[a]anthracene	ng/l	212	± 24.3	250	25	38.8	118	0.98
Benzo[a]pyrene	ng/l	166	± 27.4	195	19.5	43.8	118	0.67
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	91	9.1	12.9	106	0.41
Benzo[g,h,i]perylene	ng/l	123	± 33.9	158	15.8	57.6	128	0.6
Benzo[k]fluoranthene	ng/l	149	± 21.6	183	18.3	36.7	123	0.92
Chrysene	ng/l	101	± 10.9	102	10.2	17.3	101	0.08
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	43	4.3	15.3	99.1	-0.02
Fluoranthene	ng/l	212	± 31.5	230	23	52.4	108	0.34
Fluorene	ng/l	169	± 14	180	18	20.9	106	0.5
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	55	5.5	13.5	103	0.12
Phenanthrene	ng/l	115	± 12.5	120	12	18.6	104	0.28
Pyrene	ng/l	29.1	± 4.15	30	3	6.02	103	0.15

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	32	3.2	4.82	93.8	-0.43
Acenaphthylene	ng/l	41.7	± 7.13	39	3.9	9.79	93.6	-0.27
Anthracene	ng/l	7.47	± 4.94	5	0.5	4.94	66.9	-0.5
Benzo[a]anthracene	ng/l	60.7	± 6.88	61	6.1	10.5	100	0.03
Benzo[a]pyrene	ng/l	7.92	± 1.42	8	0.8	1.71	101	0.05
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	39	3.9	8.13	107	0.3
Benzo[g,h,i]perylene	ng/l	10	± 2.64	13	1.3	3.51	130	0.85
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	24	2.4	4.64	116	0.73
Chrysene	ng/l	7.13	± 2.5	7	0.7	2.88	98.2	-0.05
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	18.5	1.9	4.69	129	0.88
Fluoranthene	ng/l	22.5	± 3.03	23	2.3	4.74	102	0.12
Fluorene	ng/l	11.7	± 2.38	11	1.1	2.63	94.2	-0.26
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	25	2.5	5.73	102	0.09
Phenanthrene	ng/l	12.5	± 2.14	11	1.1	2.25	88.3	-0.65
Pyrene	ng/l	8.35	± 1.72	7	0.7	1.9	83.9	-0.71


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
-2
0
2
-2
0
2
z-score

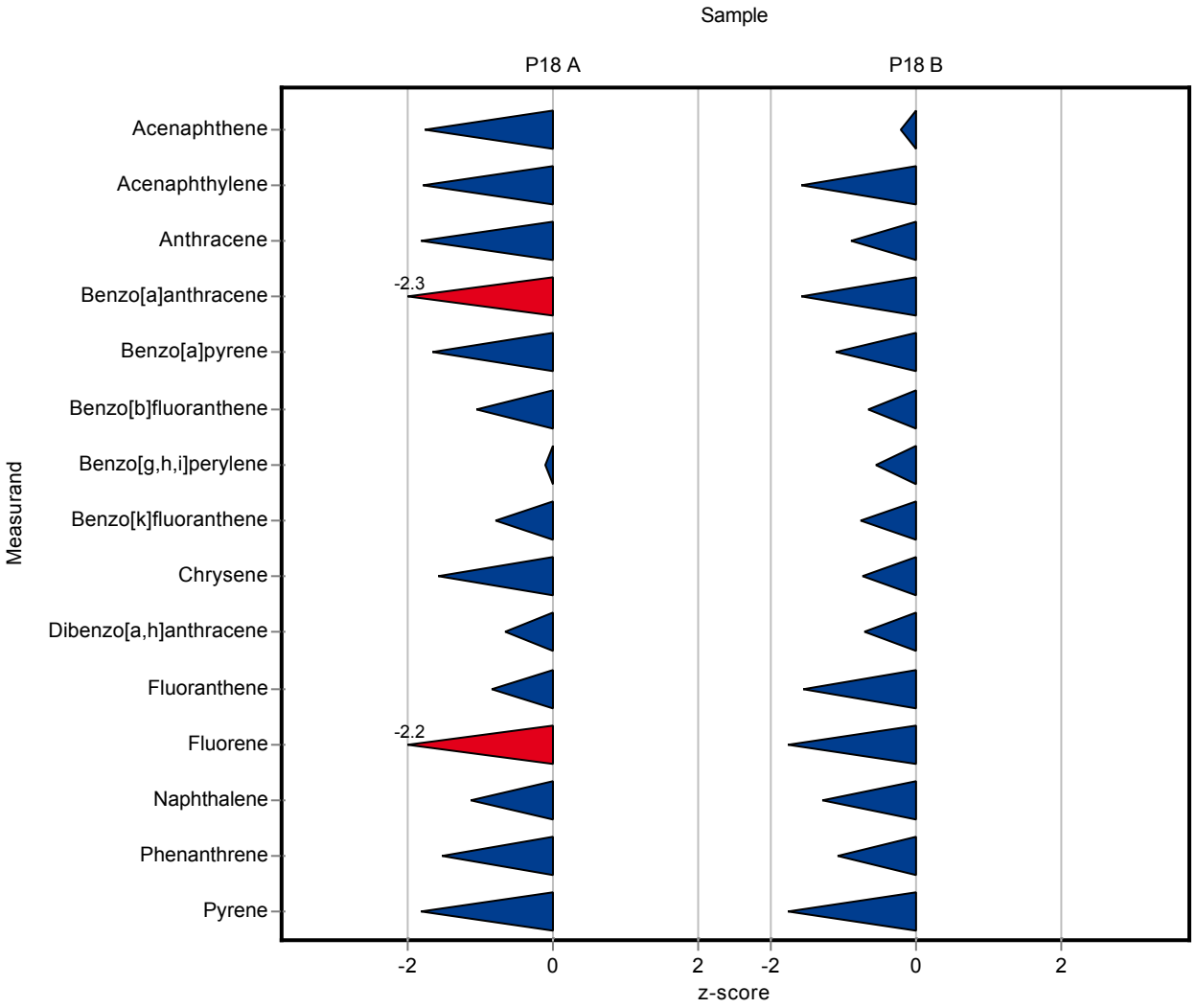
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	177	1.77	40.6	71	-1.78
Acenaphthylene	ng/l	65.2	± 10.7	38	0.38	15.1	58.3	-1.8
Anthracene	ng/l	89.2	± 15.2	45	0.45	24.3	50.4	-1.82
Benzo[a]anthracene	ng/l	212	± 24.3	124	1.24	38.8	58.5	-2.27
Benzo[a]pyrene	ng/l	166	± 27.4	93	0.93	43.8	56.1	-1.66
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	72	0.72	12.9	84	-1.07
Benzo[g,h,i]perylene	ng/l	123	± 33.9	116	1.16	57.6	94	-0.13
Benzo[k]fluoranthene	ng/l	149	± 21.6	120	1.2	36.7	80.5	-0.79
Chrysene	ng/l	101	± 10.9	73	0.73	17.3	72.6	-1.59
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	33	0.33	15.3	76.1	-0.68
Fluoranthene	ng/l	212	± 31.5	167	1.67	52.4	78.6	-0.87
Fluorene	ng/l	169	± 14	124	1.24	20.9	73.2	-2.17
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<1 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	38	0.38	13.5	71.2	-1.14
Phenanthrene	ng/l	115	± 12.5	86	0.86	18.6	74.9	-1.55
Pyrene	ng/l	29.1	± 4.15	18	0.18	6.02	61.9	-1.84

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	33	0.33	4.82	96.8	-0.23
Acenaphthylene	ng/l	41.7	± 7.13	26	0.26	9.79	62.4	-1.6
Anthracene	ng/l	7.47	± 4.94	3	0.03	4.94	40.2	-0.9
Benzo[a]anthracene	ng/l	60.7	± 6.88	44	0.44	10.5	72.5	-1.59
Benzo[a]pyrene	ng/l	7.92	± 1.42	6	0.06	1.71	75.8	-1.12
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	31	0.31	8.13	84.8	-0.68
Benzo[g,h,i]perylene	ng/l	10	± 2.64	8	0.08	3.51	79.8	-0.57
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	17	0.17	4.64	82.4	-0.78
Chrysene	ng/l	7.13	± 2.5	5	0.05	2.88	70.1	-0.74
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	11	0.11	4.69	76.5	-0.72
Fluoranthene	ng/l	22.5	± 3.03	15	0.15	4.74	66.8	-1.57
Fluorene	ng/l	11.7	± 2.38	7	0.07	2.63	59.9	-1.78
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<1 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	17	0.17	5.73	69.5	-1.3
Phenanthrene	ng/l	12.5	± 2.14	10	0.1	2.25	80.3	-1.09
Pyrene	ng/l	8.35	± 1.72	5	0.05	1.9	59.9	-1.76


Sample
P18 A
P18 B
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Measurand
-2.3
-2.2
-2
0
2
-2
0
2
z-score

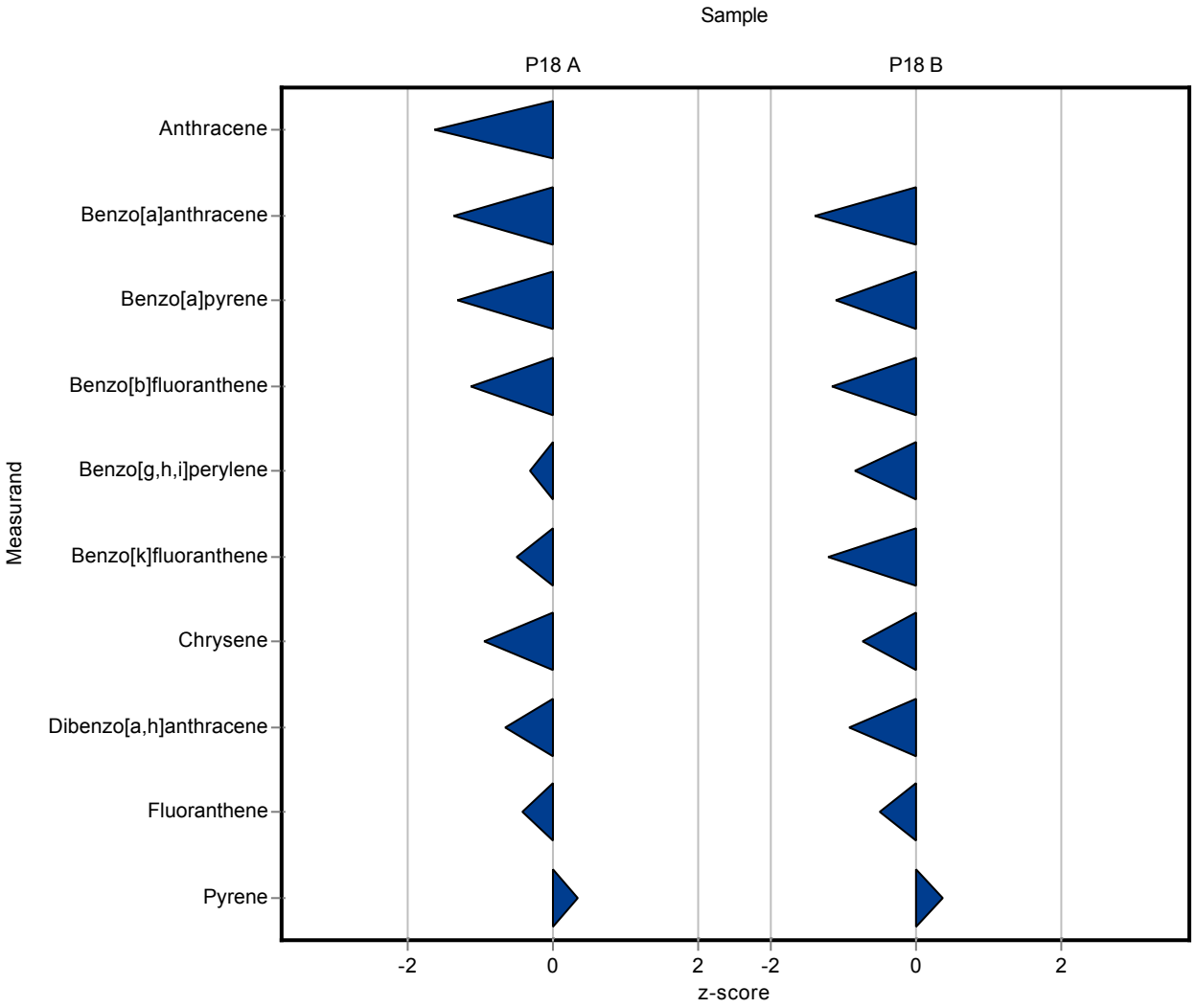
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	-	-	40.6	-	-
Acenaphthylene	ng/l	65.2	± 10.7	-	-	15.1	-	-
Anthracene	ng/l	89.2	± 15.2	49	21.56	24.3	54.9	-1.65
Benzo[a]anthracene	ng/l	212	± 24.3	158	69.52	38.8	74.5	-1.39
Benzo[a]pyrene	ng/l	166	± 27.4	108	47.52	43.8	65.1	-1.32
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	71	31.24	12.9	82.8	-1.15
Benzo[g,h,i]perylene	ng/l	123	± 33.9	104	45.76	57.6	84.3	-0.34
Benzo[k]fluoranthene	ng/l	149	± 21.6	130	57.2	36.7	87.2	-0.52
Chrysene	ng/l	101	± 10.9	84	36.96	17.3	83.5	-0.96
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	33	14.52	15.3	76.1	-0.68
Fluoranthene	ng/l	212	± 31.5	190	83.6	52.4	89.5	-0.43
Fluorene	ng/l	169	± 14	-	-	20.9	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	-	-	13.5	-	-
Phenanthrene	ng/l	115	± 12.5	-	-	18.6	-	-
Pyrene	ng/l	29.1	± 4.15	31	13.64	6.02	107	0.32

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	-	-	4.82	-	-
Acenaphthylene	ng/l	41.7	± 7.13	-	-	9.79	-	-
Anthracene	ng/l	7.47	± 4.94	-	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	46	20.24	10.5	75.8	-1.4
Benzo[a]pyrene	ng/l	7.92	± 1.42	6	2.64	1.71	75.8	-1.12
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	27	11.88	8.13	73.9	-1.17
Benzo[g,h,i]perylene	ng/l	10	± 2.64	7	3.08	3.51	69.8	-0.86
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	15	6.6	4.64	72.7	-1.21
Chrysene	ng/l	7.13	± 2.5	5	2.2	2.88	70.1	-0.74
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	10	4.4	4.69	69.6	-0.93
Fluoranthene	ng/l	22.5	± 3.03	20	8.8	4.74	89.1	-0.52
Fluorene	ng/l	11.7	± 2.38	-	-	2.63	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	-	-	5.73	-	-
Phenanthrene	ng/l	12.5	± 2.14	-	-	2.25	-	-
Pyrene	ng/l	8.35	± 1.72	9	3.96	1.9	108	0.34


Sample
P18 A
P18 B
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Pyrene
Measurand
-2
0
2
-2
0
2
z-score

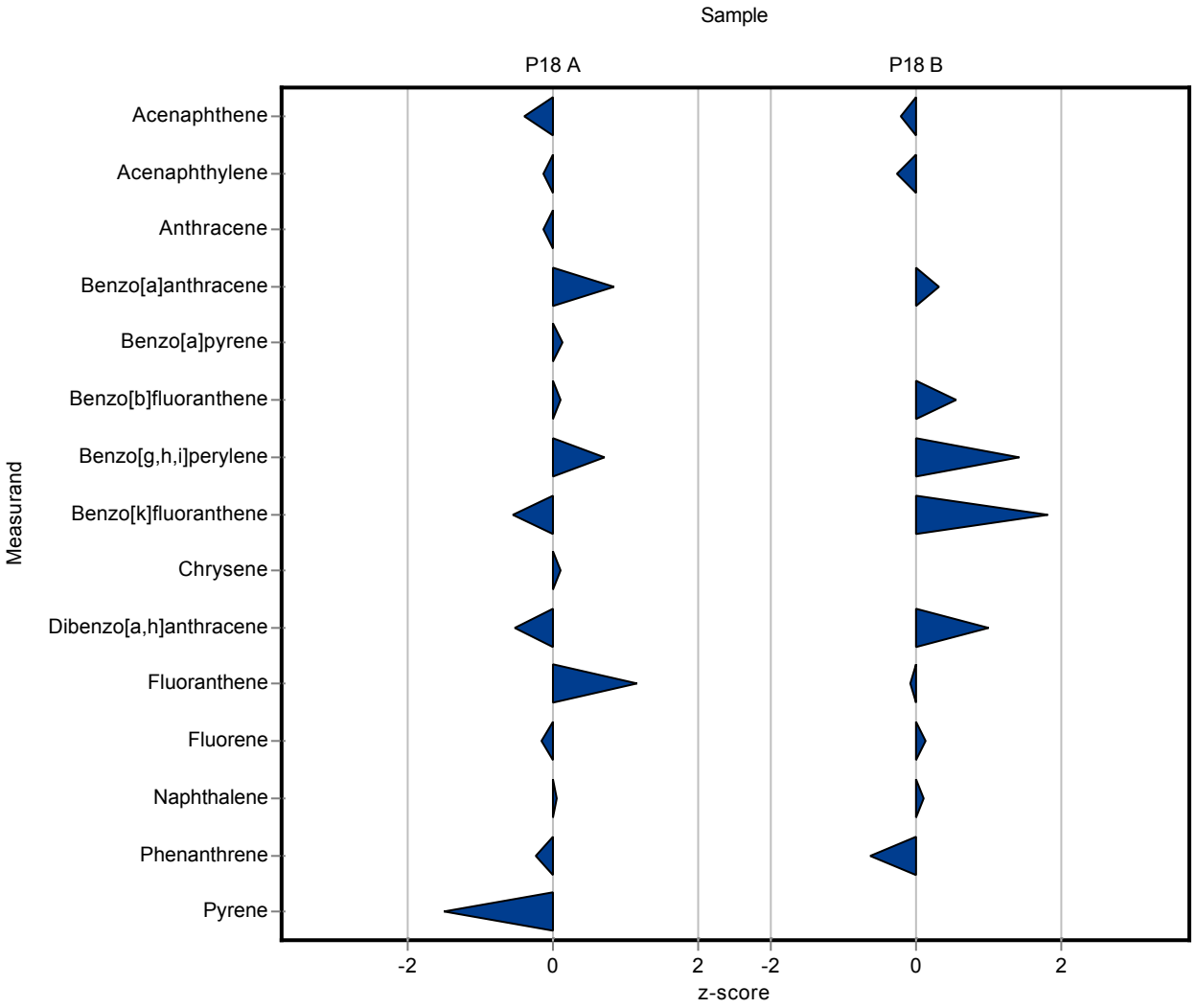
The following results were achieved:

Sample: P18A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	249	± 28	233	20	40.6	93.4	-0.41
Acenaphthylene	ng/l	65.2	± 10.7	63	10	15.1	96.7	-0.14
Anthracene	ng/l	89.2	± 15.2	86	15	24.3	96.4	-0.13
Benzo[a]anthracene	ng/l	212	± 24.3	244	30	38.8	115	0.82
Benzo[a]pyrene	ng/l	166	± 27.4	171	30	43.8	103	0.12
Benzo[b]fluoranthene	ng/l	85.8	± 7.71	87	15	12.9	101	0.1
Benzo[g,h,i]perylene	ng/l	123	± 33.9	164	30	57.6	133	0.7
Benzo[k]fluoranthene	ng/l	149	± 21.6	128	20	36.7	85.9	-0.57
Chrysene	ng/l	101	± 10.9	102	15	17.3	101	0.08
Dibenzo[a,h]anthracene	ng/l	43.4	± 10.3	35	10	15.3	80.7	-0.55
Fluoranthene	ng/l	212	± 31.5	272	30	52.4	128	1.14
Fluorene	ng/l	169	± 14	166	30	20.9	98	-0.17
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	53.3	± 9.52	54	15	13.5	101	0.05
Phenanthrene	ng/l	115	± 12.5	110	10	18.6	95.8	-0.26
Pyrene	ng/l	29.1	± 4.15	20	10	6.02	68.8	-1.51

Sample: P18B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	34.1	± 3.41	33	10	4.82	96.8	-0.23
Acenaphthylene	ng/l	41.7	± 7.13	39	10	9.79	93.6	-0.27
Anthracene	ng/l	7.47	± 4.94	<20 (LOQ)	-	4.94	-	-
Benzo[a]anthracene	ng/l	60.7	± 6.88	64	15	10.5	105	0.31
Benzo[a]pyrene	ng/l	7.92	± 1.42	<10 (LOQ)	-	1.71	-	-
Benzo[b]fluoranthene	ng/l	36.5	± 5.08	41	10	8.13	112	0.55
Benzo[g,h,i]perylene	ng/l	10	± 2.64	15	10	3.51	150	1.42
Benzo[k]fluoranthene	ng/l	20.6	± 3.04	29	10	4.64	141	1.8
Chrysene	ng/l	7.13	± 2.5	<20 (LOQ)	-	2.88	-	-
Dibenzo[a,h]anthracene	ng/l	14.4	± 3.63	19	10	4.69	132	0.99
Fluoranthene	ng/l	22.5	± 3.03	22	10	4.74	98	-0.1
Fluorene	ng/l	11.7	± 2.38	12	10	2.63	103	0.12
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	24.5	± 4.59	25	10	5.73	102	0.09
Phenanthrene	ng/l	12.5	± 2.14	11	10	2.25	88.3	-0.65
Pyrene	ng/l	8.35	± 1.72	<20 (LOQ)	-	1.9	-	-


Sample
P18 A
P18 B
Measurand
Acenaphthene
Acenaphthylene
Anthracene
Benzo[a]anthracene
Benzo[a]pyrene
Benzo[b]fluoranthene
Benzo[g,h,i]perylene
Benzo[k]fluoranthene
Chrysene
Dibenzo[a,h]anthracene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene
-2
0
2
-2
0
2
z-score