ENVIRONMENT AGENCY AUSTRIA umweltbundesamt

EVALUATION OF THE INTERLABORATORY COMPARISON TEST

Polycyclic Aromatic Hydrocarbons - P19

Sample dispatch on 17th April 2018

1st Edition 29th June 2018

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1 Interlaboratory comparison test: Polycyclic Aromatic Hydrocarbons P19

1.1 Participants and time schedule

- Number of registrations: 30
- Number of submitted data records: 29
- Dispatch of samples: 17th April 2018
- Closing date for submission of data: 15th May 2018

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 (P19 A)
- 1 Sample ground water (P19 B)

The sampling of ground water was carried out on 15th April 2018. 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 17th April 2018.

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 control test value ± U.

2 Evaluation

The analytical results had to be made available to the organiser not later than 15th May 2018. 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.

In justified cases, the outlier elimination was done according to other criteria. This procedure is documented in section 4 of the report.

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:

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

In this context,

x_i	is the measurement value of the participating laboratory.
$\overline{X}$	is the target value, normally the average value of the participants' results after removal of outliers; if this approach is not applicable, the target value is assigned according to the procedure given in section 4;
Criteria	is normally the reproducibility standard deviation (sR) calculated from the participants' results (after removal of outliers) in the relevant test round; if this approach is not applicable, the criteria is derived according to the procedure given in section 4

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 normally calculated using the reproducibility standard deviation, calculated from the participants' results (after removal of outliers) in the relevant test round. It might occur that the z-Score between -2 and 2 covers a large range of measurement values when the variance of the results is high. On the other hand, the range of good results can be very narrow, when the variation of the participants' results is small.

The recovery rate is calculated for the individual result based on the target value and is thus independent of the reproducibility standard deviation. In the case of a high variance of the results, participants should also consider recovery rates as additional criteria to decide on the necessity of internal quality assurance measures.

This is particularly recommended for the following parameters: Benzo[a]anthracene sample B, Benzo[k]fluoranthene sample A, Dibenzo[a,h]anthracene sample A and B and Indeno[1,2,3-cd]pyrene sample A.

Sample P19 B: For the parameter Indeno[1,2,3-cd]pyrene no target value was calculated because of the low analyte content and the small number of submitted results.

5 Annotations on tables and charts

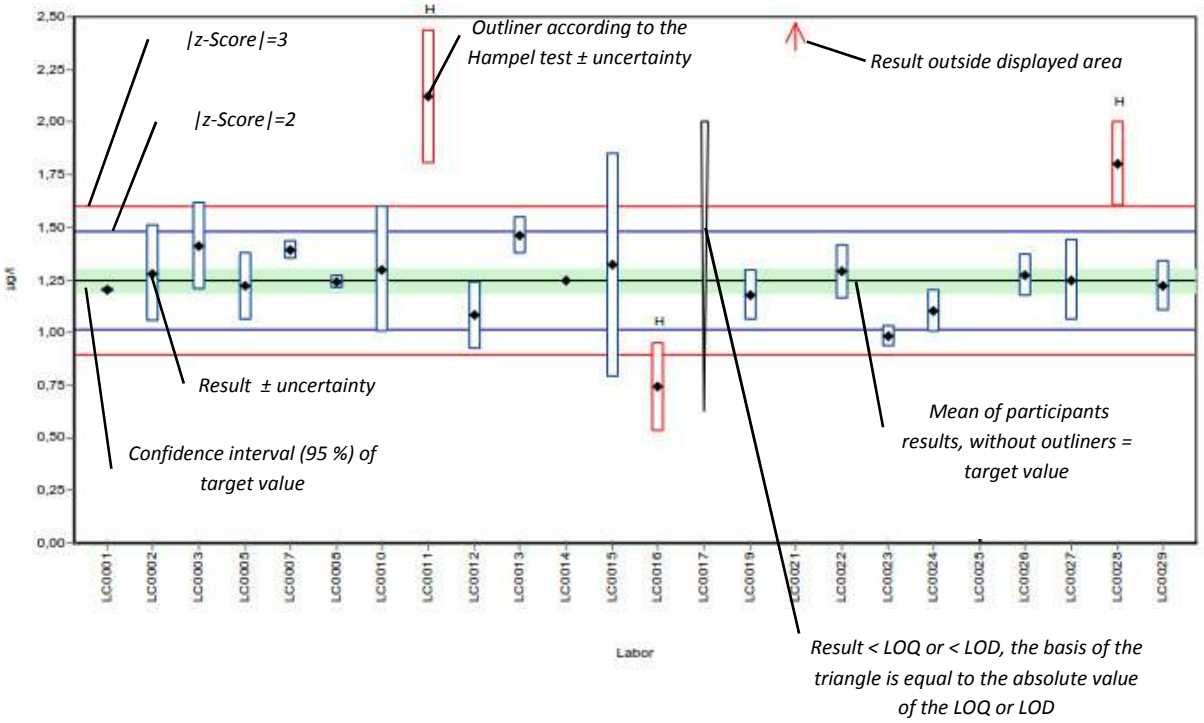
5.1 Information and abbreviations in tables

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)
Control test value ± U	Mean of control test 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):

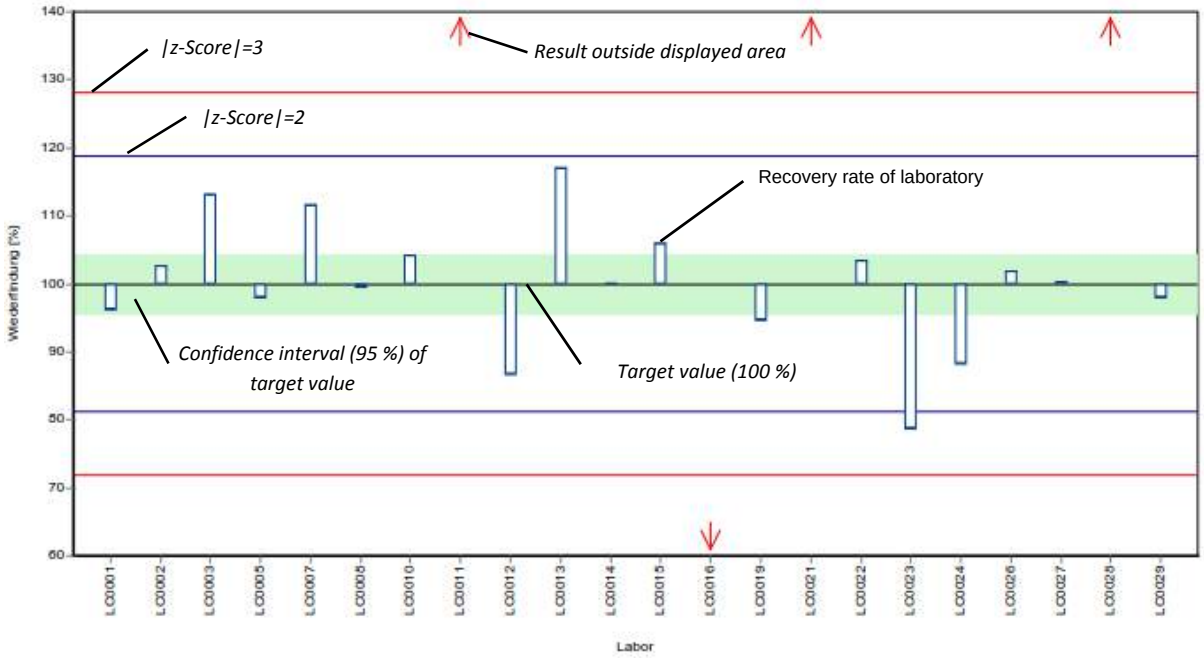
	Result that exceeds the median of the absolute values of the transmitted LOQs or LODs by more than 100 %.
Standard deviation	Reproducibility standard deviation, calculated from the participants results (3 significant digits)
Rel. standard deviation	Reproducibility standard deviation, calculated from 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 (if not otherwise stated in clause 4: 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

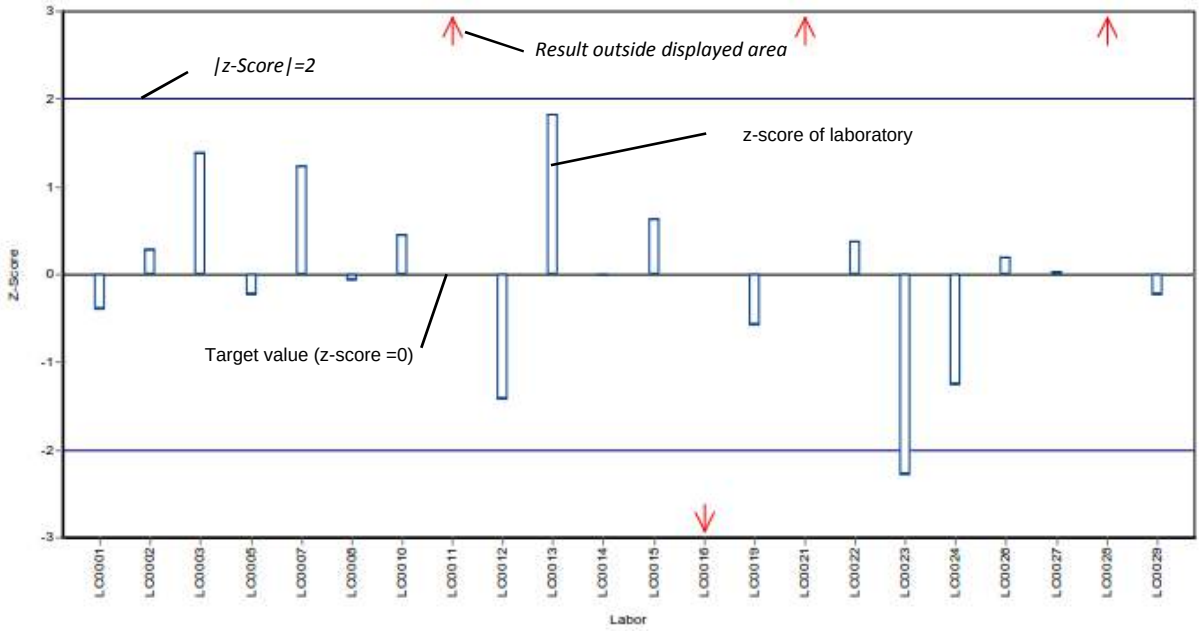
Example chart: Results



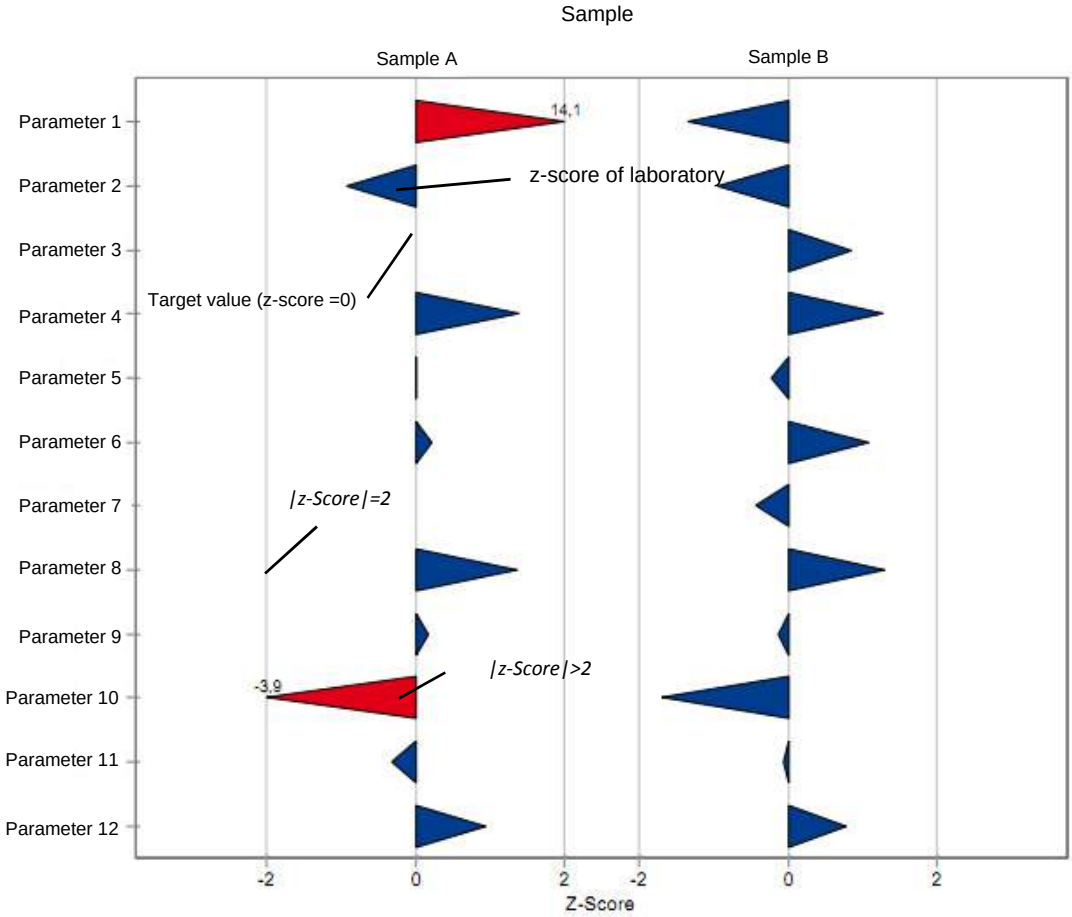
Example chart: Recovery



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	P19 A	ng/l	21	1	55.9	±	8.55	37	85.7	13.1	23
	P19 B	ng/l	20	2	30.2	±	3.93	20	42.4	5.86	19
Acenaphthylene	P19 A	ng/l	20	1	104	±	10.5	81.1	144	15.7	15
	P19 B	ng/l	12	1	7.67	±	1.58	5.92	10.5	1.83	24
Anthracene	P19 A	ng/l	24	0	80.2	±	11.8	32.1	111	19.3	24
	P19 B	ng/l	14	3	10.2	±	1.48	7.7	13.9	1.85	18
Benzo[a]anthracene	P19 A	ng/l	25	0	121	±	12.8	65.2	156	21.4	18
	P19 B	ng/l	18	1	6.73	±	1.44	3.4	11	2.04	30
Benzo[a]pyrene	P19 A	ng/l	28	0	117	±	15.1	65	173	26.6	23
	P19 B	ng/l	16	5	6.7	±	0.834	3.86	8.6	1.11	17
Benzo[b]fluoranthene	P19 A	ng/l	28	0	262	±	27.7	180	380	48.9	19
	P19 B	ng/l	26	2	30.3	±	2.56	22	39	4.35	14
Benzo[g,h,i]perylene	P19 A	ng/l	27	1	89.3	±	11.9	55.9	142	20.6	23
	P19 B	ng/l	25	3	36.9	±	4.34	24.1	57.6	7.23	20
Benzo[k]fluoranthene	P19 A	ng/l	28	0	60.5	±	11.9	14.5	100	21	35
	P19 B	ng/l	13	5	4.96	±	0.746	2.86	6.5	0.897	18
Chrysene	P19 A	ng/l	25	0	68.5	±	8.88	35.9	99	14.8	22
	P19 B	ng/l	16	4	9.93	±	1.21	6.2	13	1.61	16
Dibenzo[a,h]anthracene	P19 A	ng/l	25	0	183	±	30.3	68.6	267	50.4	28
	P19 B	ng/l	19	1	12.1	±	2.84	6.96	22.3	4.13	34
Fluoranthene	P19 A	ng/l	24	1	50.3	±	4.84	30.4	66.2	7.9	16
	P19 B	ng/l	23	2	43.4	±	3.1	37	56.5	4.96	11
Fluorene	P19 A	ng/l	20	2	174	±	16.5	136	243	24.5	14
	P19 B	ng/l	18	4	50.9	±	4.08	39	65	5.77	11
Indeno[1,2,3-cd]pyrene	P19 A	ng/l	7	2	26.6	±	13	15.8	44.4	11.5	43
	P19 B	ng/l	4	1	-	±	-	2.71	5.88	-	-
Naphthalene	P19 A	ng/l	20	1	226	±	27.1	143	301	40.4	18

Summary of results, after removal of outliers: Polycyclic Aromatic Hydrocarbons P19

Parameter	Sample	Unit	Number of results for calculation	Number of outliers	Mean	± CI (99%)	Minimum	Maximum	SD	RSD %
Naphthalene	P19 B	ng/l	15	2	19	± 4.12	4.02	25.1	5.32	28
Phenanthrene	P19 A	ng/l	21	2	76.9	± 6.9	59.4	97	10.5	14
	P19 B	ng/l	20	2	28.2	± 2.84	22	36	4.23	15
Pyrene	P19 A	ng/l	24	0	262	± 19.3	198	318	31.5	12
	P19 B	ng/l	22	1	38.5	± 3.47	24.8	50.9	5.43	14

7 Parameter oriented report

Parameter oriented report

P19 A

Acenaphthene

Unit	ng/l
Mean ± CI (99%)	55.9 ± 8.55
Minimum - Maximum	37 - 85.7
Control test value ± U	57.8 ± 16.2

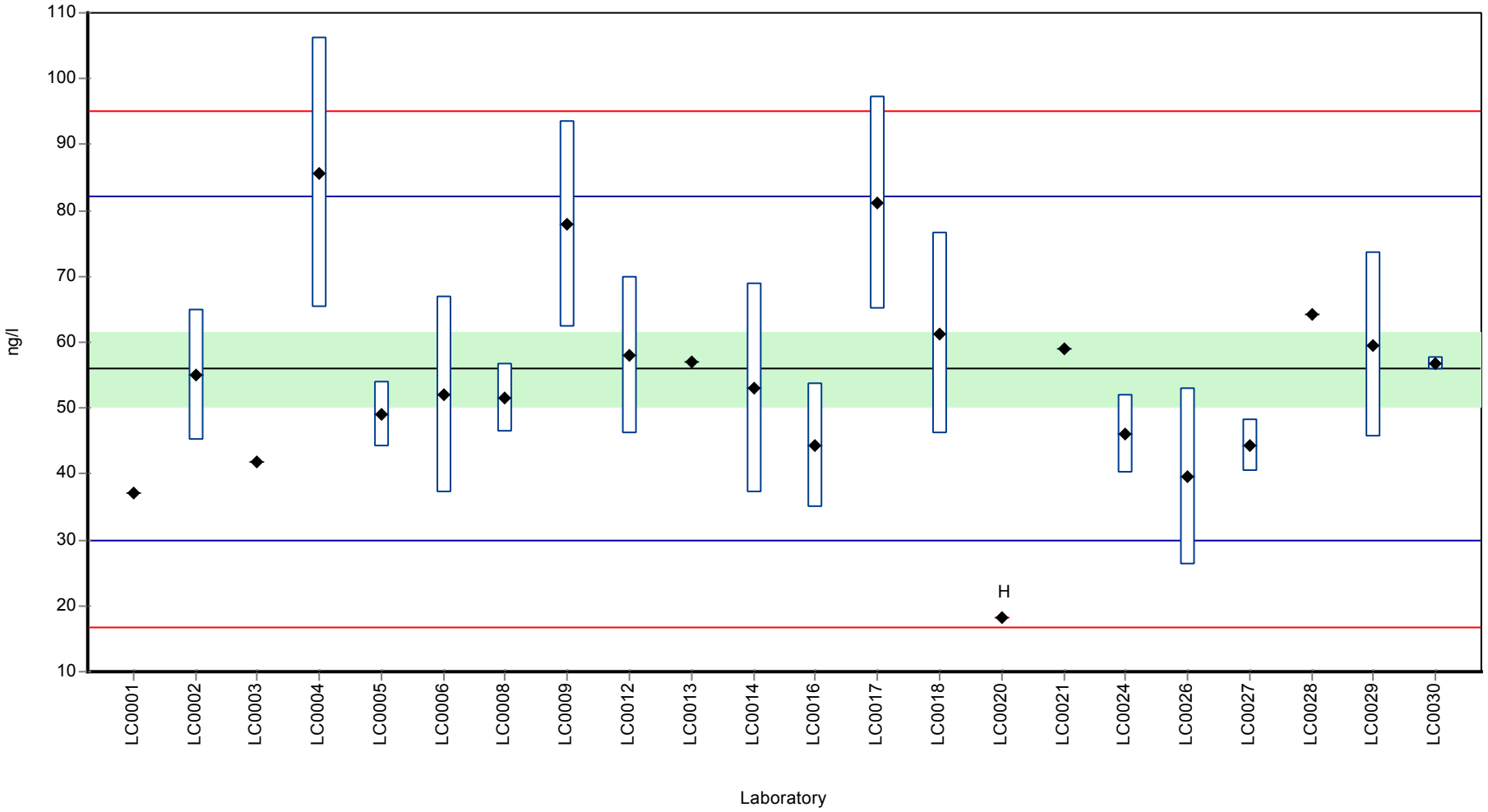
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	37	-	66.2	-1.45	
LC0002	55	10	98.4	-0.07	
LC0003	41.9	-	74.9	-1.07	
LC0004	85.66	20.56	153	2.28	
LC0005	49	5	87.6	-0.53	
LC0006	52	15	93	-0.3	
LC0007	-	-	-	-	
LC0008	51.51	5.15	92.1	-0.34	
LC0009	77.9	15.6	139	1.68	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	58	12	104	0.16	
LC0013	57	-	102	0.08	
LC0014	53	16	94.8	-0.22	
LC0015	-	-	-	-	
LC0016	44.3	9.52	79.2	-0.89	
LC0017	81.08	16.22	145	1.93	
LC0018	61.3	15.3	110	0.41	
LC0019	-	-	-	-	
LC0020	18.1	-	32.4	-2.9	H
LC0021	59	0.059	106	0.24	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	46	6	82.3	-0.76	
LC0025	-	-	-	-	
LC0026	39.6	13.35	70.8	-1.25	
LC0027	44.3	4.01	79.2	-0.89	
LC0028	64.3	-	115	0.64	
LC0029	59.6	14	107	0.28	
LC0030	56.8	1.069	102	0.07	

Characteristics of parameter

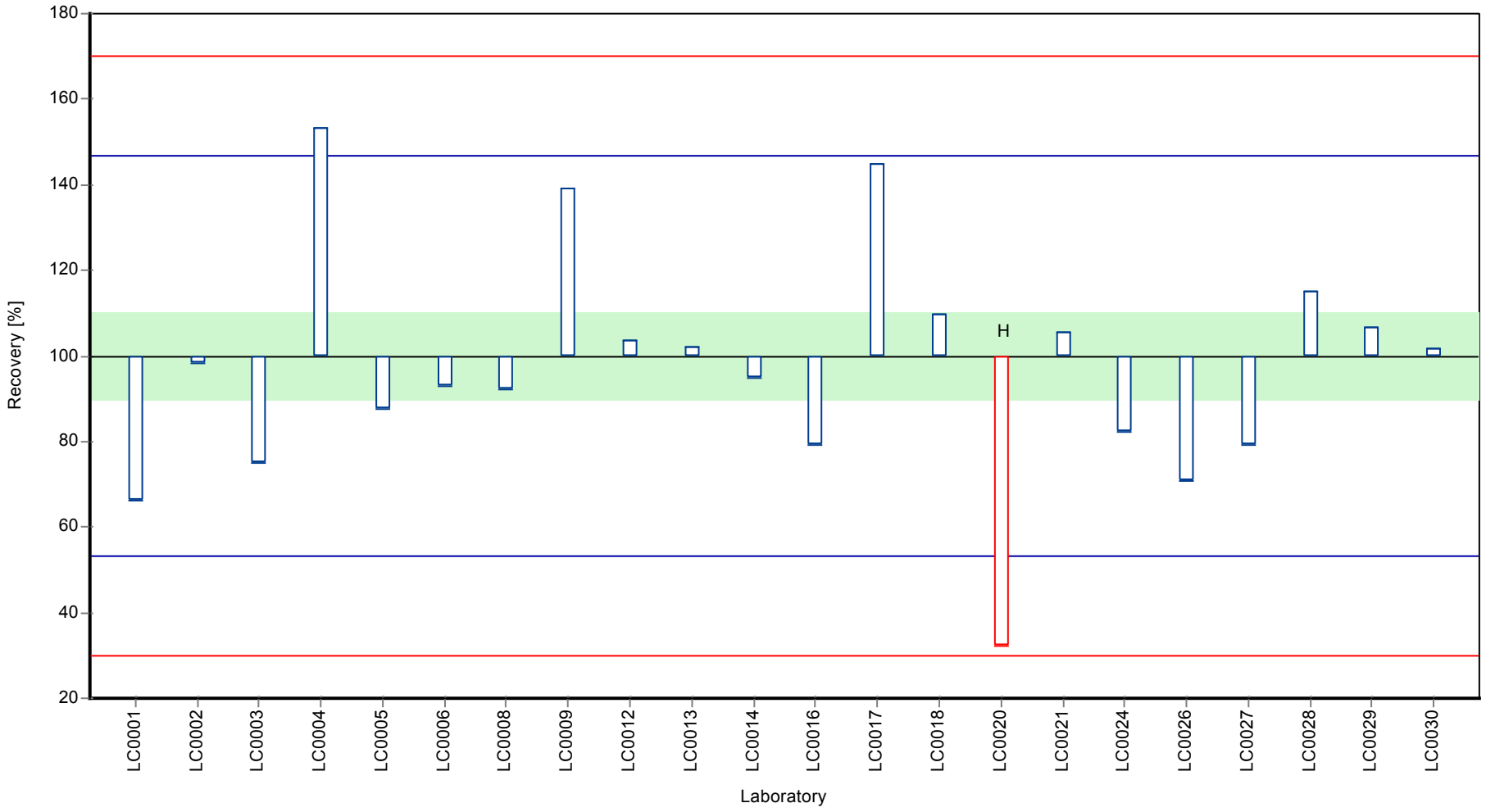
	all results	without outliers	Unit
Mean ± CI (99%)	54.2 ± 9.65	55.9 ± 8.55	ng/l
Minimum	18.1	37	ng/l
Maximum	85.7	85.7	ng/l
Standard deviation	15.1	13.1	ng/l
rel. Standard deviation	27.8	23.4	%
n	22	21	-

Graphical presentation of results

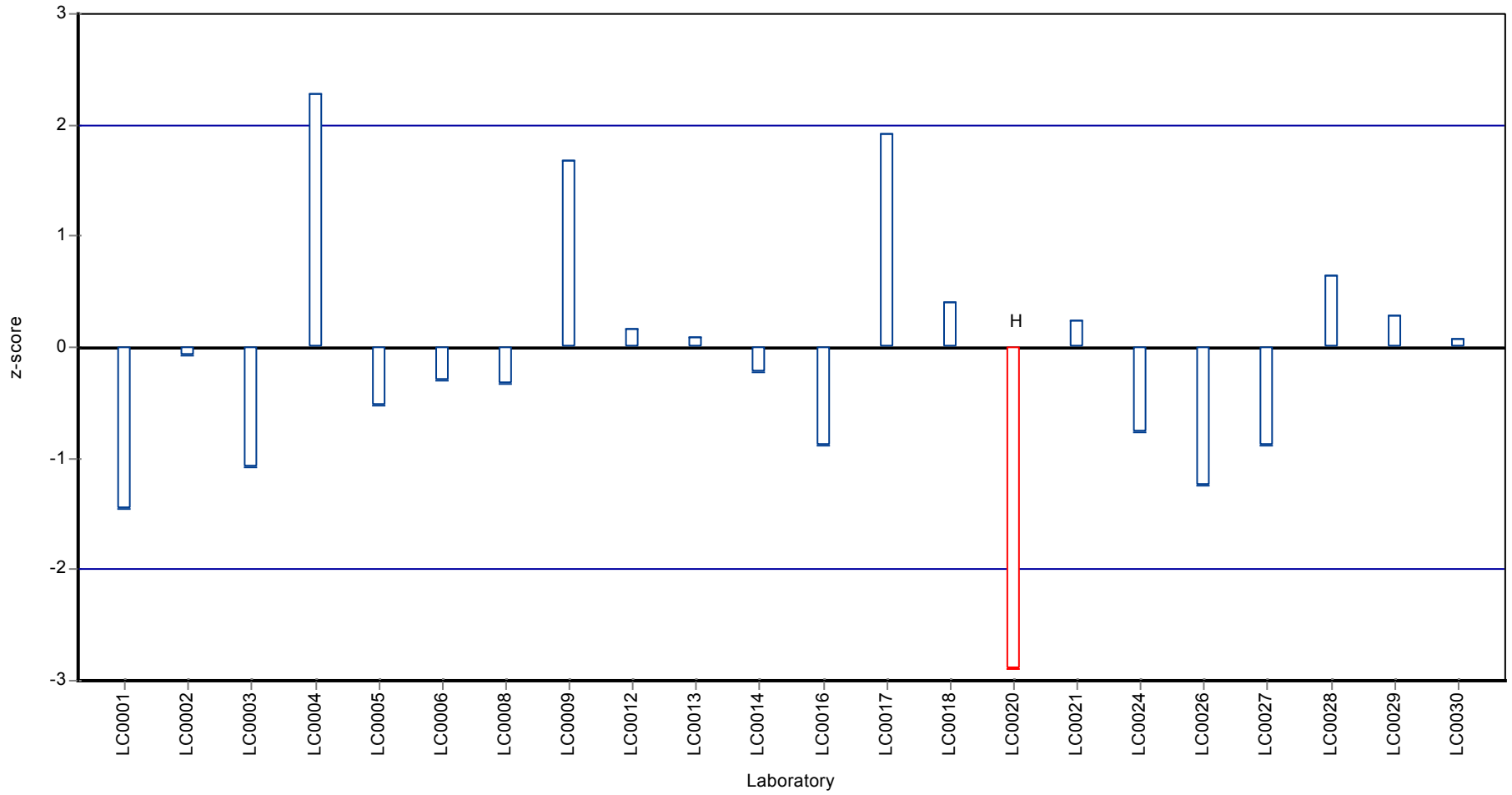
Results



Recovery rate



Z-score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LC0030
Laboratory

Parameter oriented report

P19 B

Acenaphthene

Unit	ng/l
Mean ± CI (99%)	30.2 ± 3.93
Minimum - Maximum	20 - 42.4
Control test value ± U	32.6 ± 9.12

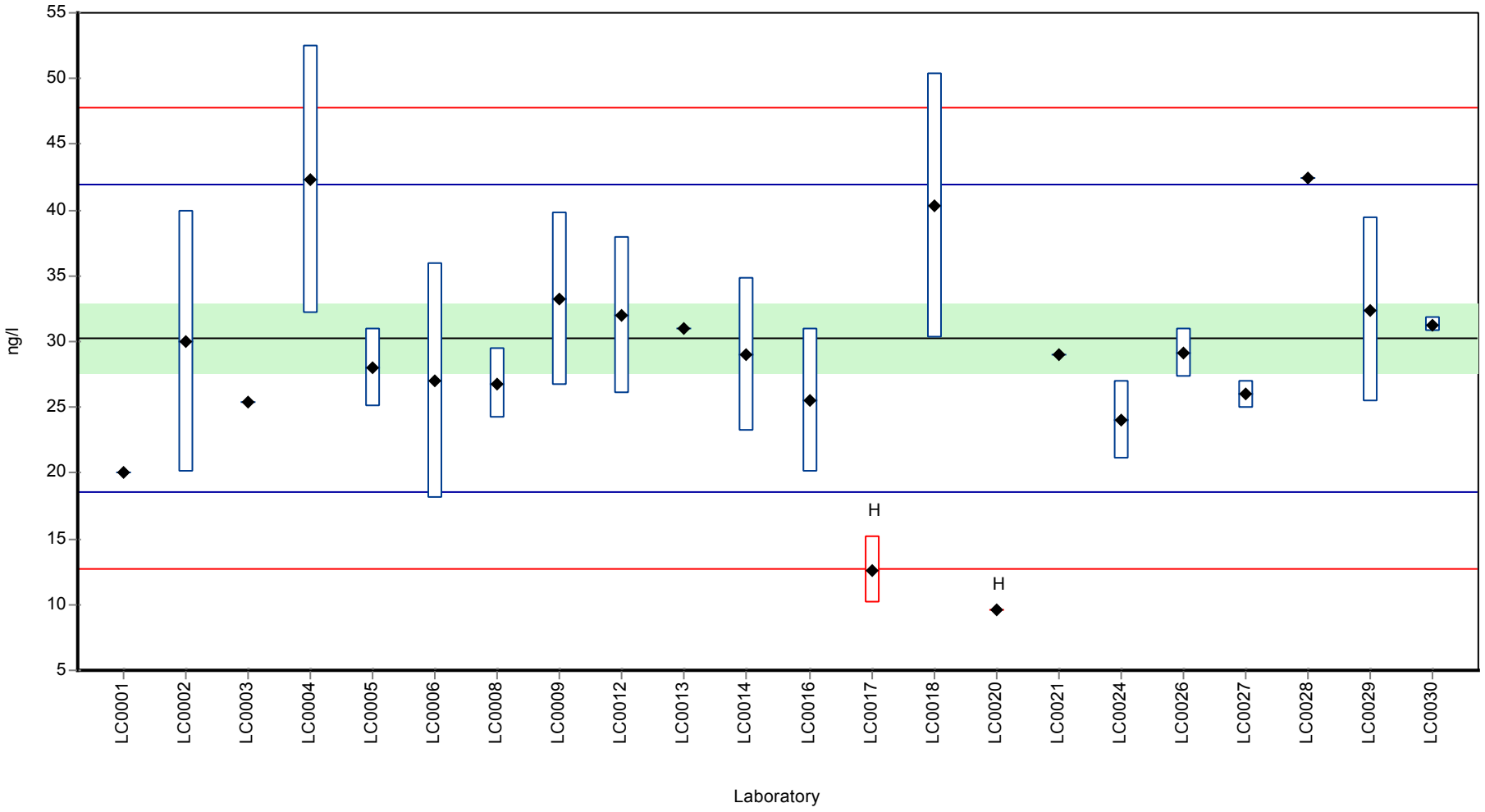
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	20	-	66.1	-1.75	
LC0002	30	10	99.2	-0.04	
LC0003	25.4	-	84	-0.83	
LC0004	42.31	10.15	140	2.06	
LC0005	28	3	92.6	-0.38	
LC0006	27	9	89.3	-0.55	
LC0007	-	-	-	-	
LC0008	26.79	2.68	88.6	-0.59	
LC0009	33.2	6.6	110	0.51	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	32	6	106	0.3	
LC0013	31	-	103	0.13	
LC0014	29	5.8	95.9	-0.21	
LC0015	-	-	-	-	
LC0016	25.5	5.48	84.3	-0.81	
LC0017	12.63	2.53	41.8	-3	H
LC0018	40.3	10.1	133	1.72	
LC0019	-	-	-	-	
LC0020	9.6	-	31.7	-3.52	H
LC0021	29	0.029	95.9	-0.21	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	24	3	79.4	-1.06	
LC0025	-	-	-	-	
LC0026	29.15	1.87	96.4	-0.19	
LC0027	26	1.07	86	-0.72	
LC0028	42.4	-	140	2.08	
LC0029	32.4	7	107	0.37	
LC0030	31.3	0.589	104	0.18	

Characteristics of parameter

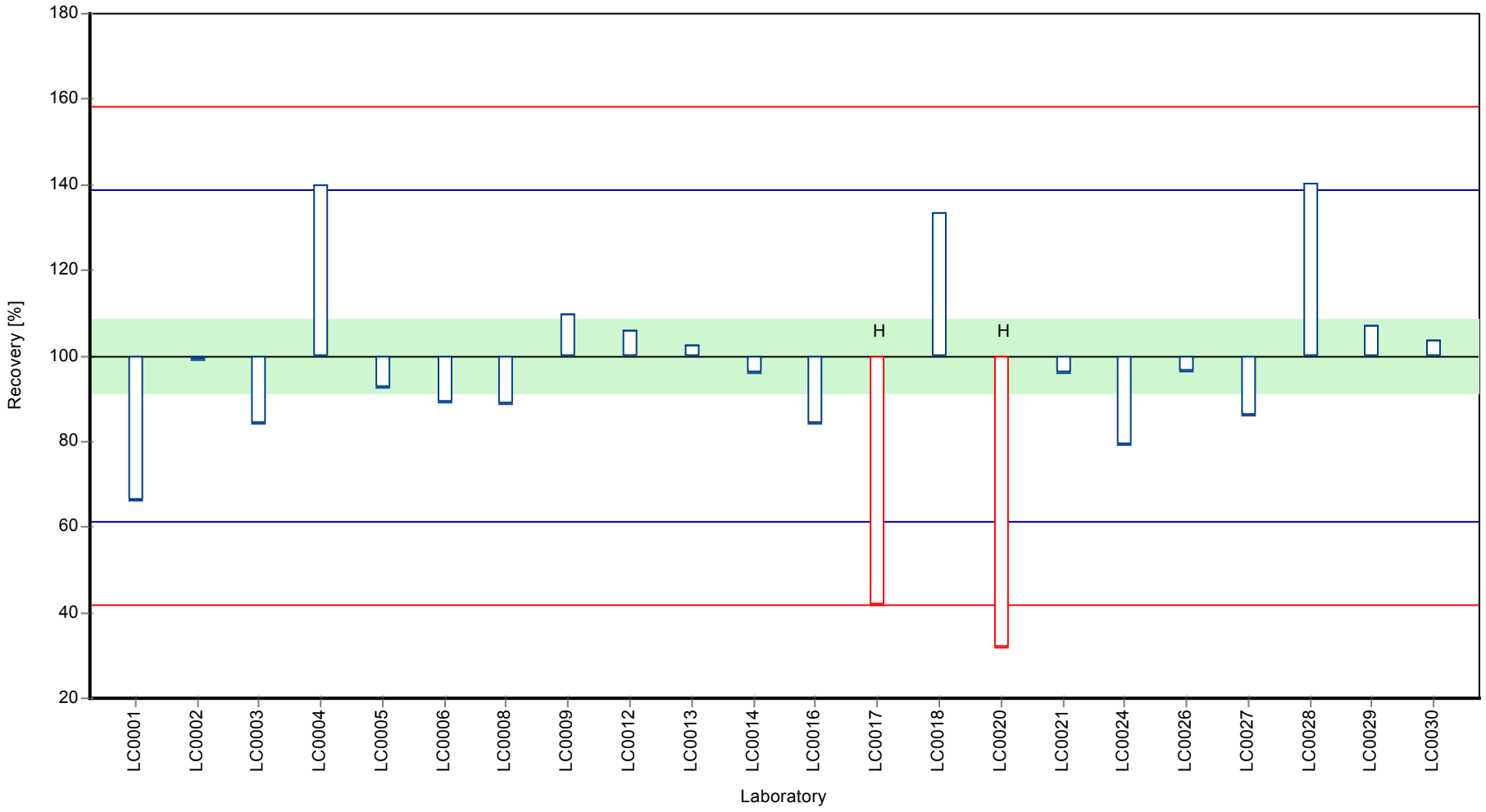
	all results	without outliers	Unit
Mean ± CI (99%)	28.5 ± 5.07	30.2 ± 3.93	ng/l
Minimum	9.6	20	ng/l
Maximum	42.4	42.4	ng/l
Standard deviation	7.93	5.86	ng/l
rel. Standard deviation	27.8	19.4	%
n	22	20	-

Graphical presentation of results

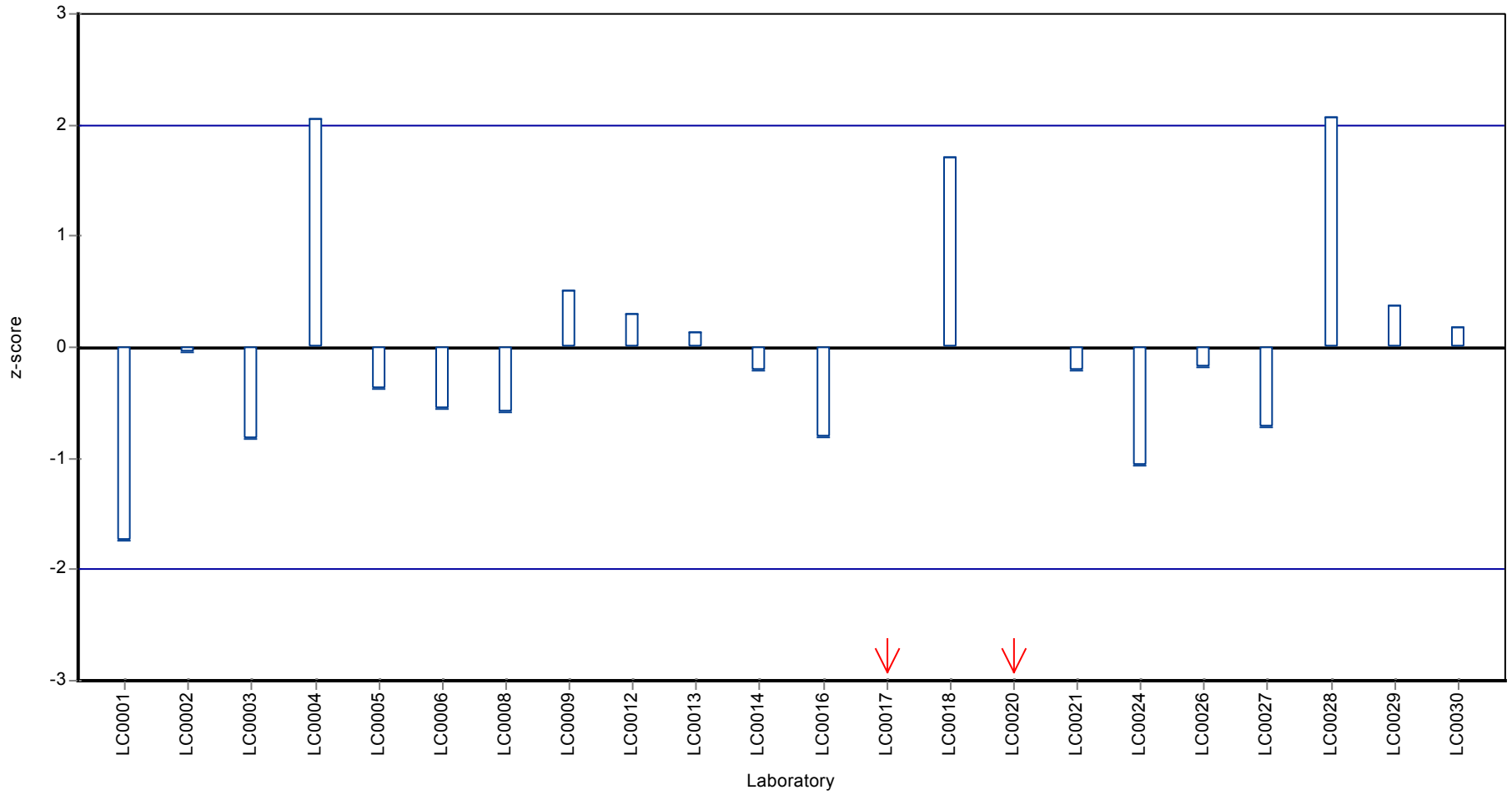
Results



Recovery rate



Z-score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LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Acenaphthylene

Unit	ng/l
Mean ± CI (99%)	104 ± 10.5
Minimum - Maximum	81.1 - 144
Control test value ± U	116 ± 32.6

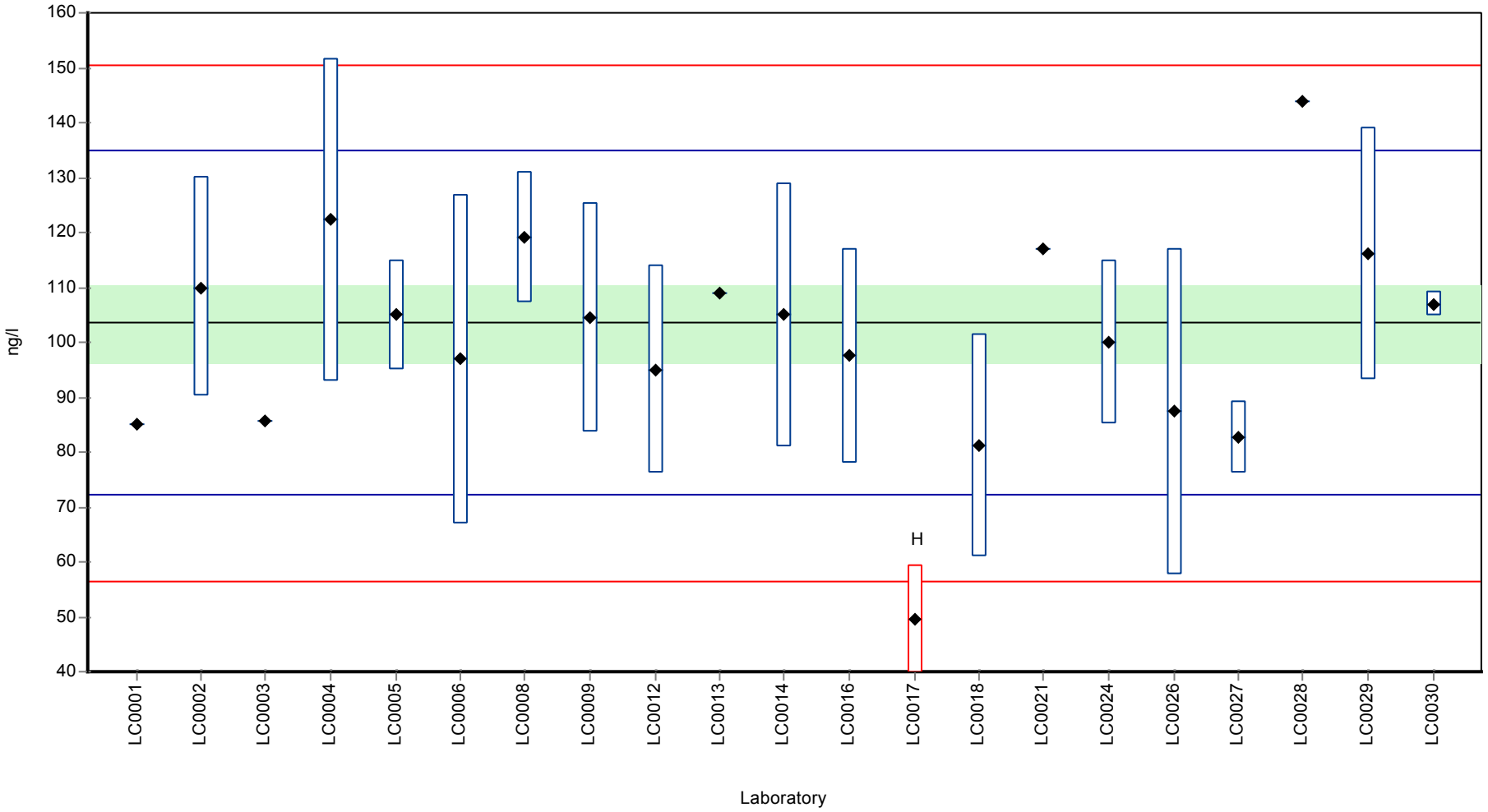
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	85	-	82.1	-1.18	
LC0002	110	20	106	0.41	
LC0003	85.8	-	82.9	-1.13	
LC0004	122.26	29.34	118	1.19	
LC0005	105	10	101	0.1	
LC0006	97	30	93.7	-0.41	
LC0007	-	-	-	-	
LC0008	119.04	11.9	115	0.99	
LC0009	104.5	20.9	101	0.06	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	95	19	91.8	-0.54	
LC0013	109	-	105	0.35	
LC0014	105	24	101	0.1	
LC0015	-	-	-	-	
LC0016	97.5	19.5	94.2	-0.38	
LC0017	49.52	9.9	47.8	-3.44	H
LC0018	81.1	20.3	78.3	-1.43	
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	117	0.12	113	0.86	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	100	15	96.6	-0.22	
LC0025	-	-	-	-	
LC0026	87.4	29.7	84.4	-1.03	
LC0027	82.6	6.55	79.8	-1.33	
LC0028	144	-	139	2.58	
LC0029	116	23	112	0.8	
LC0030	107	2.178	103	0.22	

Characteristics of parameter

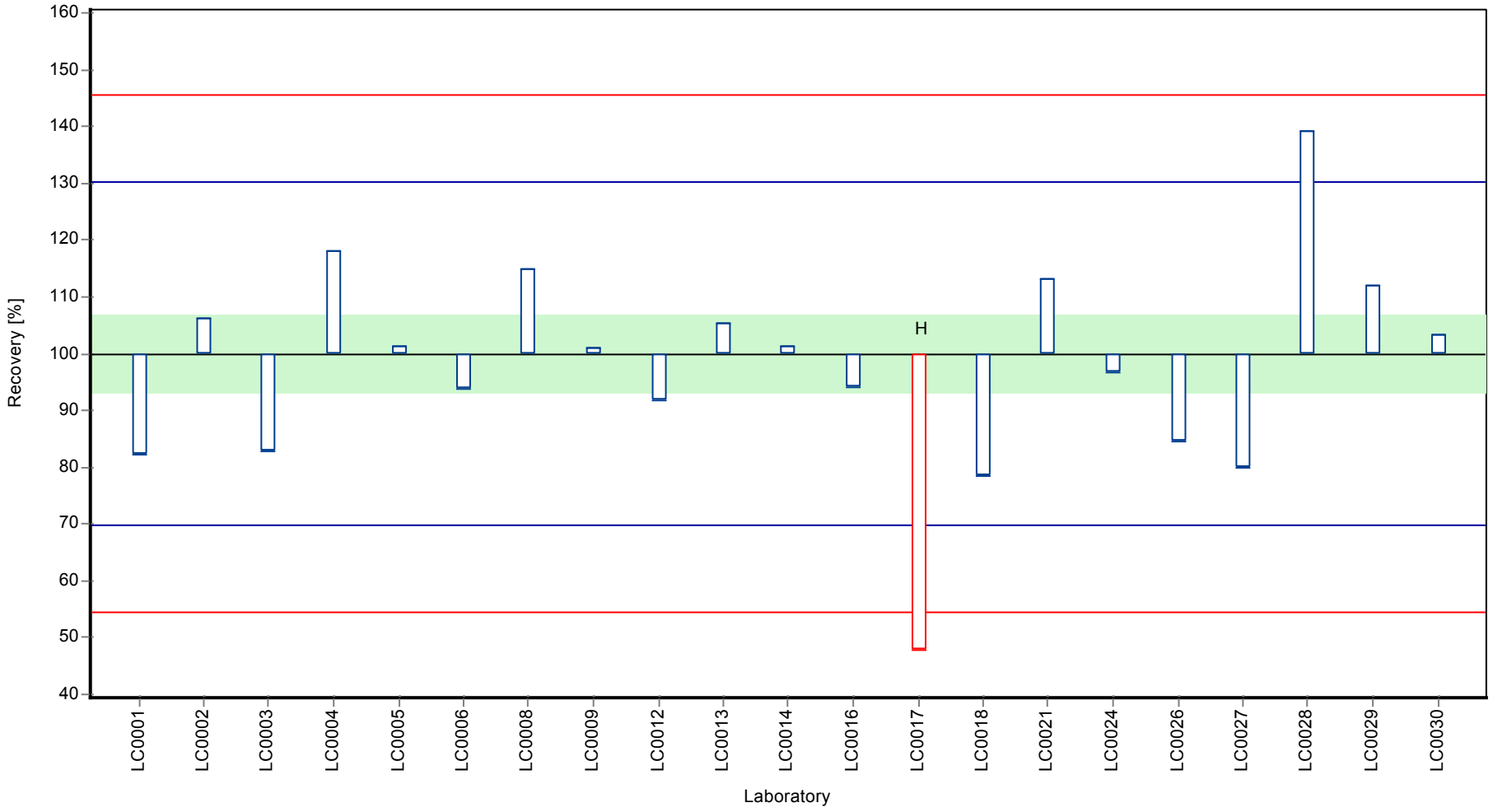
	all results	without outliers	Unit
Mean ± CI (99%)	101 ± 12.6	104 ± 10.5	ng/l
Minimum	49.5	81.1	ng/l
Maximum	144	144	ng/l
Standard deviation	19.3	15.7	ng/l
rel. Standard deviation	19.1	15.2	%
n	21	20	-

Graphical presentation of results

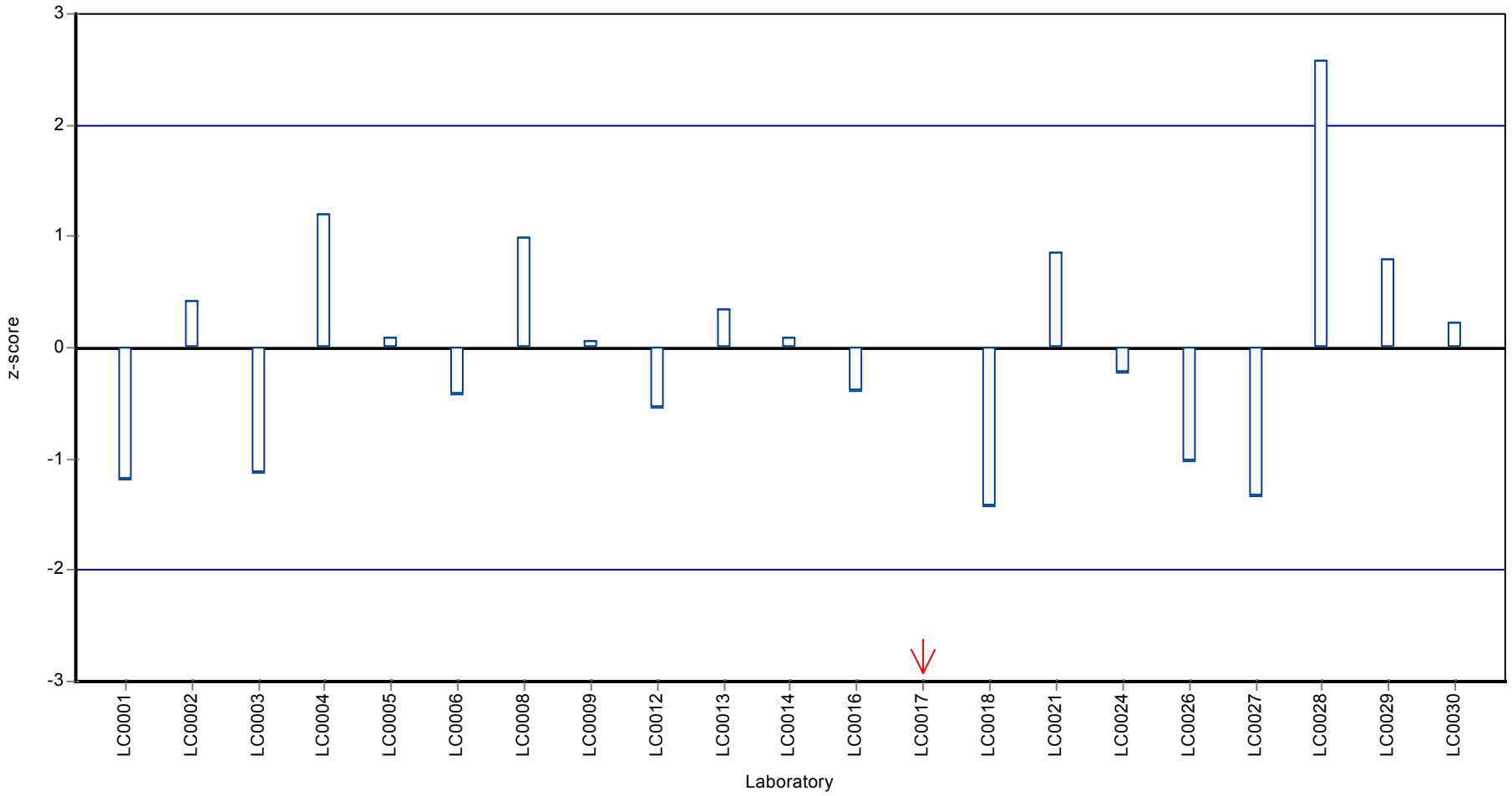
Results



Recovery rate



Z-score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LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Acenaphthylene

Unit	ng/l
Mean ± CI (99%)	7.67 ± 1.58
Minimum - Maximum	5.92 - 10.5
Control test value ± U	6.27 ± 1.76

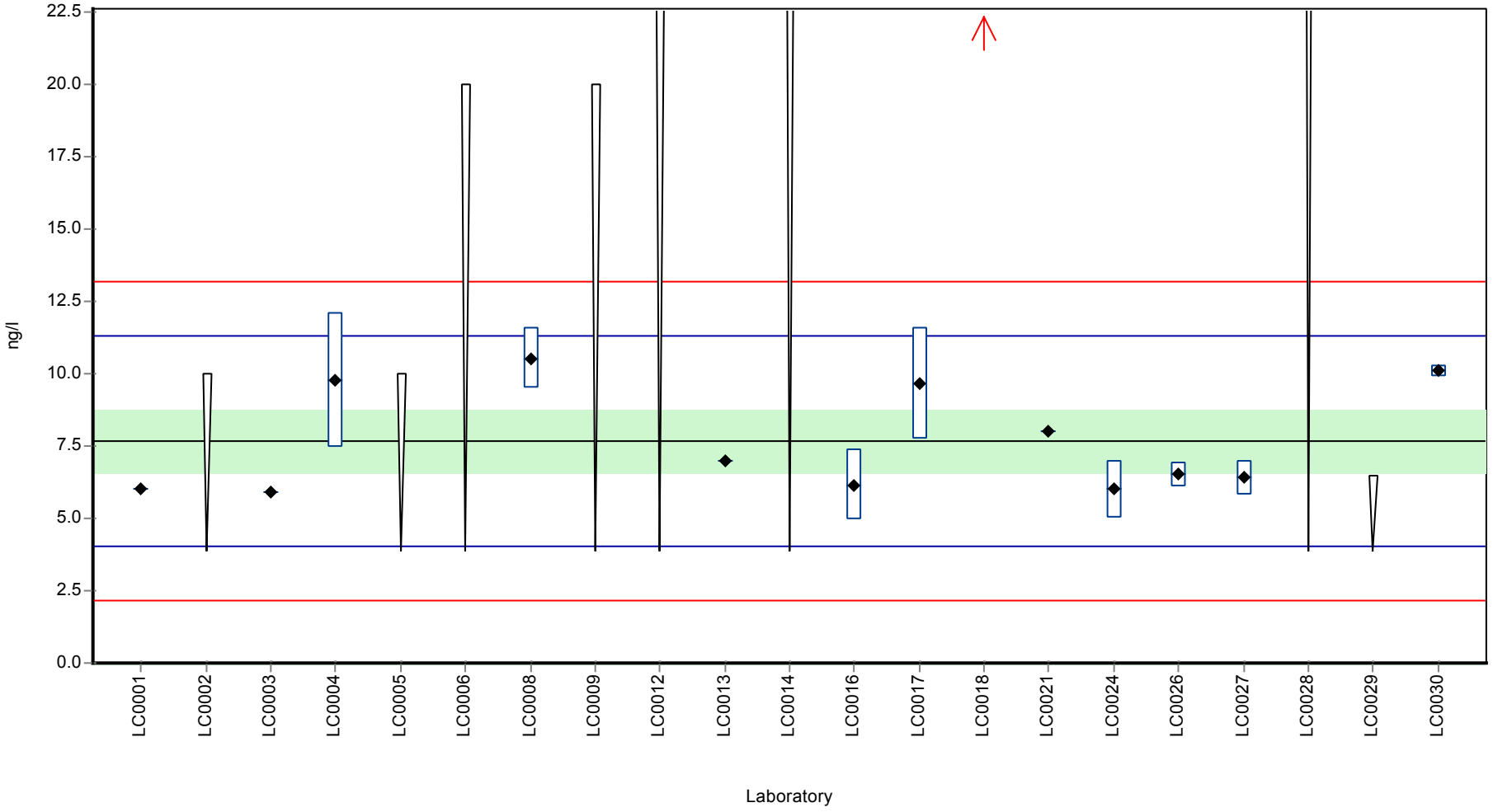
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6	-	78.3	-0.91	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	5.92	-	77.2	-0.96	
LC0004	9.75	2.32	127	1.14	
LC0005	< 10 (LOQ)	-	-	-	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	-	-	-	-	
LC0008	10.53	1.05	137	1.57	
LC0009	< 20 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	7	-	91.3	-0.36	
LC0014	< 30 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	6.15	1.23	80.2	-0.83	
LC0017	9.63	1.93	126	1.08	
LC0018	57.5	14.4	750	27.3	H
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	8	0.008	104	0.18	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	6	1	78.3	-0.91	
LC0025	-	-	-	-	
LC0026	6.51	0.44	84.9	-0.63	
LC0027	6.4	0.601	83.5	-0.69	
LC0028	< 40 (LOQ)	-	-	-	
LC0029	< 6.5 (LOQ)	-	-	-	
LC0030	10.1	0.206	132	1.33	

Characteristics of parameter

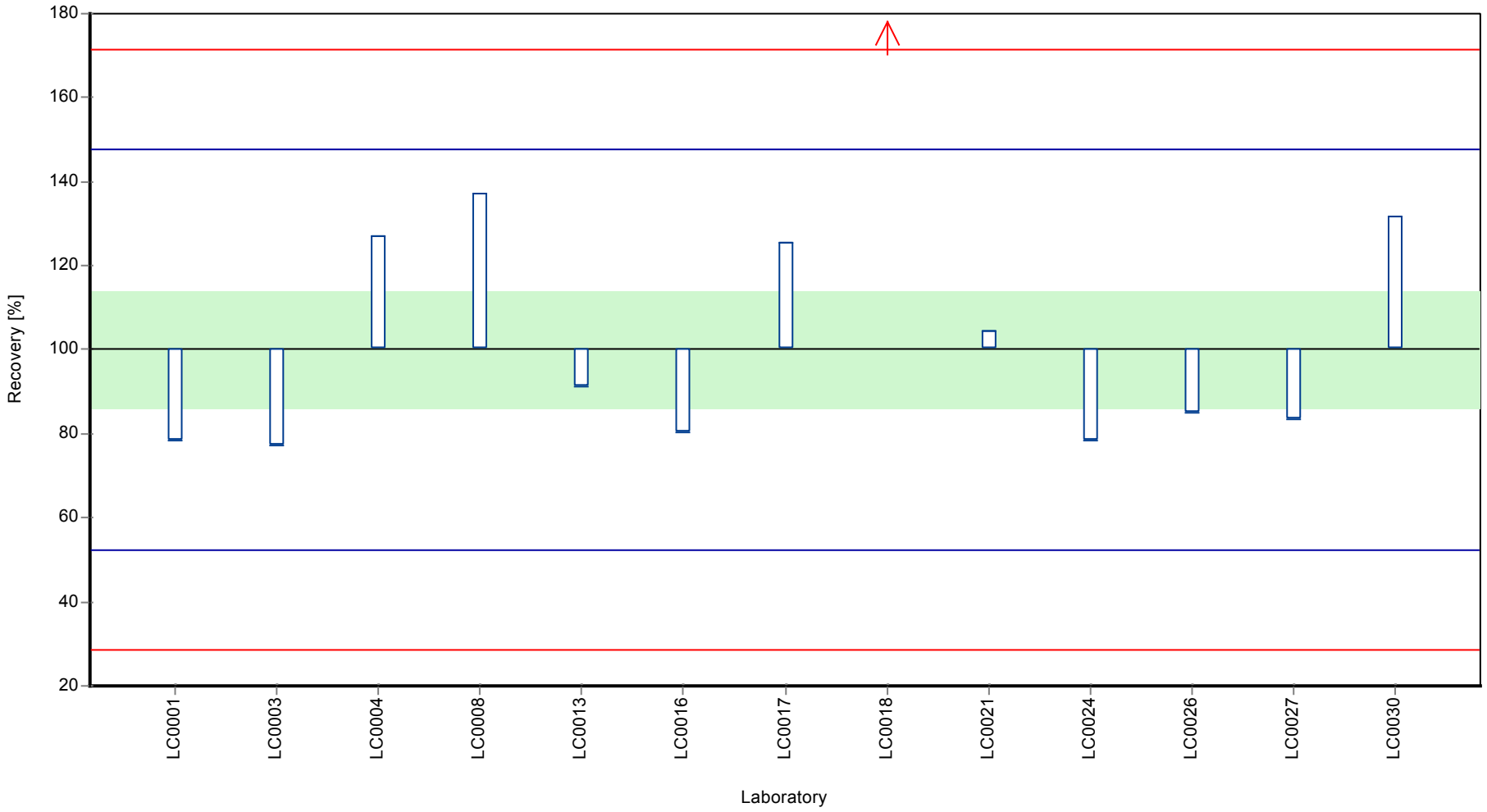
	all results	without outliers	Unit
Mean ± CI (99%)	11.5 ± 11.6	7.67 ± 1.58	ng/l
Minimum	5.92	5.92	ng/l
Maximum	57.5	10.5	ng/l
Standard deviation	13.9	1.83	ng/l
rel. Standard deviation	121	23.8	%
n	13	12	-

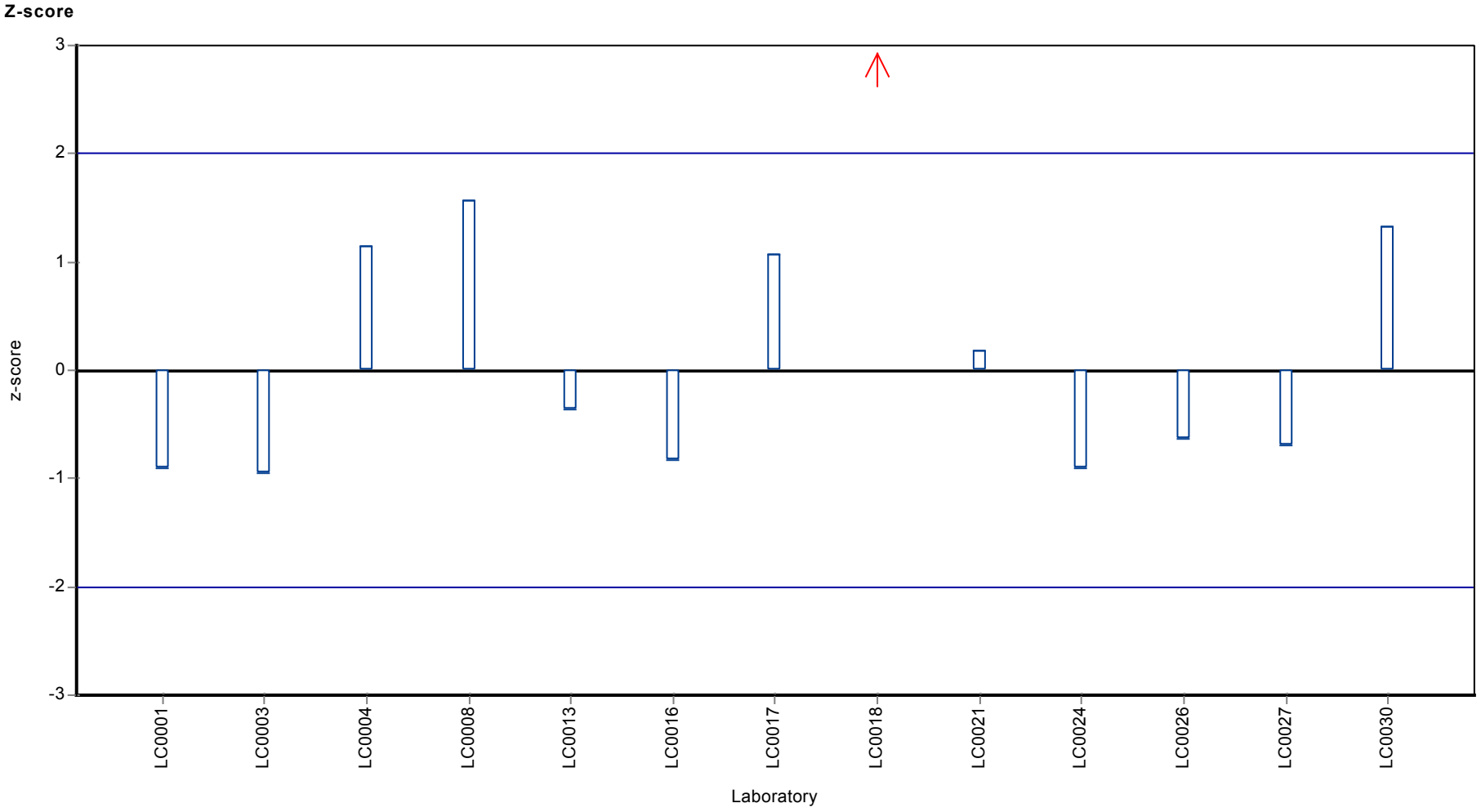
Graphical presentation of results

Results



Recovery rate




Z-score
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z-score
LC0001
LC0003
LC0004
LC0008
LC0013
LC0016
LC0017
LC0018
LC0021
LC0024
LC0026
LC0027
LC0030
Laboratory

Parameter oriented report

P19 A

Anthracene

Unit	ng/l
Mean ± CI (99%)	80.2 ± 11.8
Minimum - Maximum	32.1 - 111
Control test value ± U	96.1 ± 25

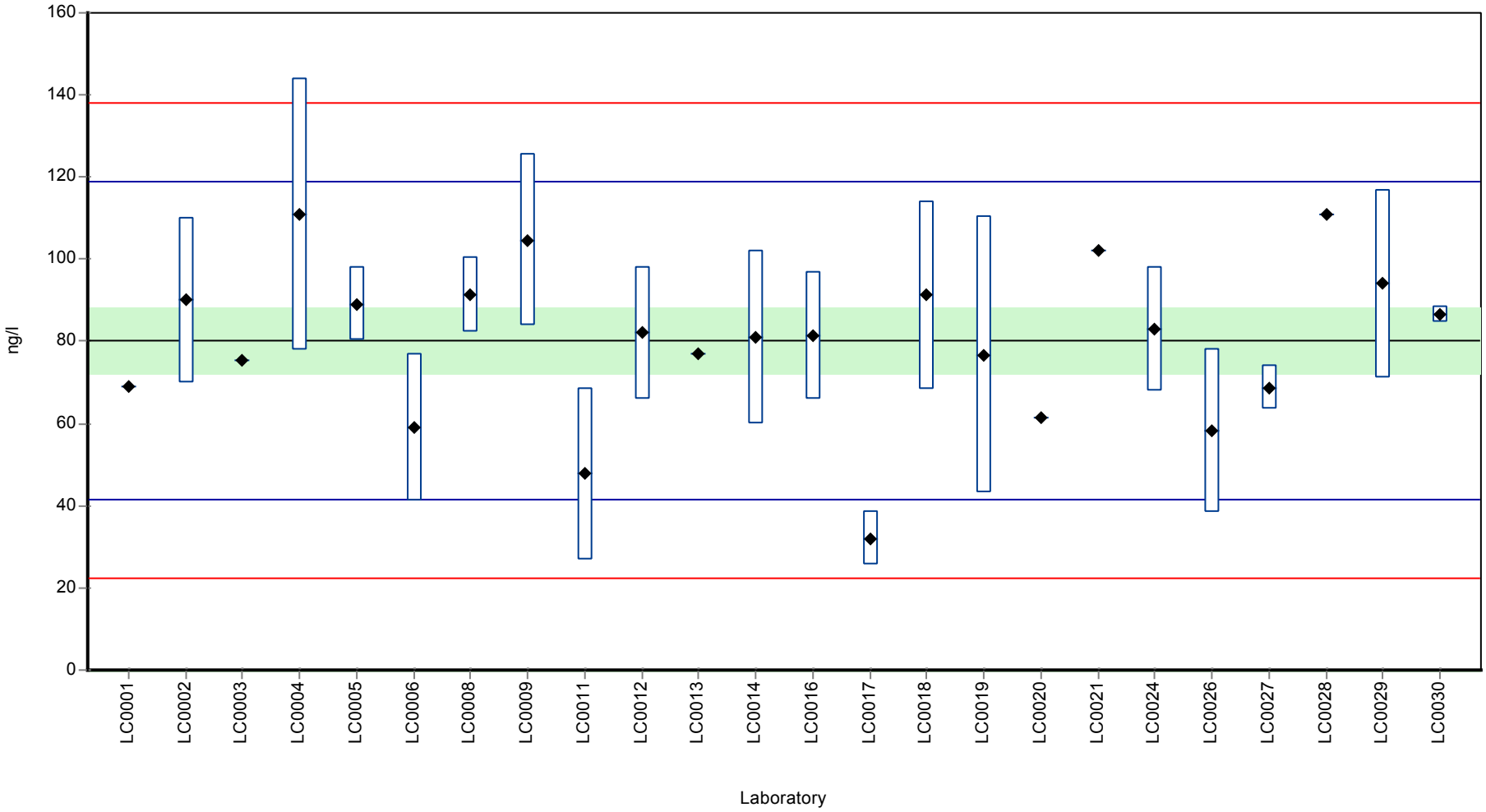
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	69	-	86.1	-0.58	
LC0002	90	20	112	0.51	
LC0003	75.6	-	94.3	-0.24	
LC0004	110.89	33.27	138	1.59	
LC0005	89	9	111	0.46	
LC0006	59	18	73.6	-1.1	
LC0007	-	-	-	-	
LC0008	91.49	9.15	114	0.59	
LC0009	104.6	20.9	130	1.27	
LC0010	-	-	-	-	
LC0011	47.75	21.01	59.6	-1.68	
LC0012	82	16	102	0.1	
LC0013	77	-	96.1	-0.16	
LC0014	81	21	101	0.04	
LC0015	-	-	-	-	
LC0016	81.5	15.5	102	0.07	
LC0017	32.11	6.42	40.1	-2.49	
LC0018	91.2	22.8	114	0.57	
LC0019	76.7	33.7	95.7	-0.18	
LC0020	61.5	-	76.7	-0.97	
LC0021	102	0.102	127	1.13	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	83	15	104	0.15	
LC0025	-	-	-	-	
LC0026	58.08	19.96	72.5	-1.14	
LC0027	68.8	5.37	85.8	-0.59	
LC0028	111	-	138	1.6	
LC0029	94	23	117	0.72	
LC0030	86.5	1.915	108	0.33	

Characteristics of parameter

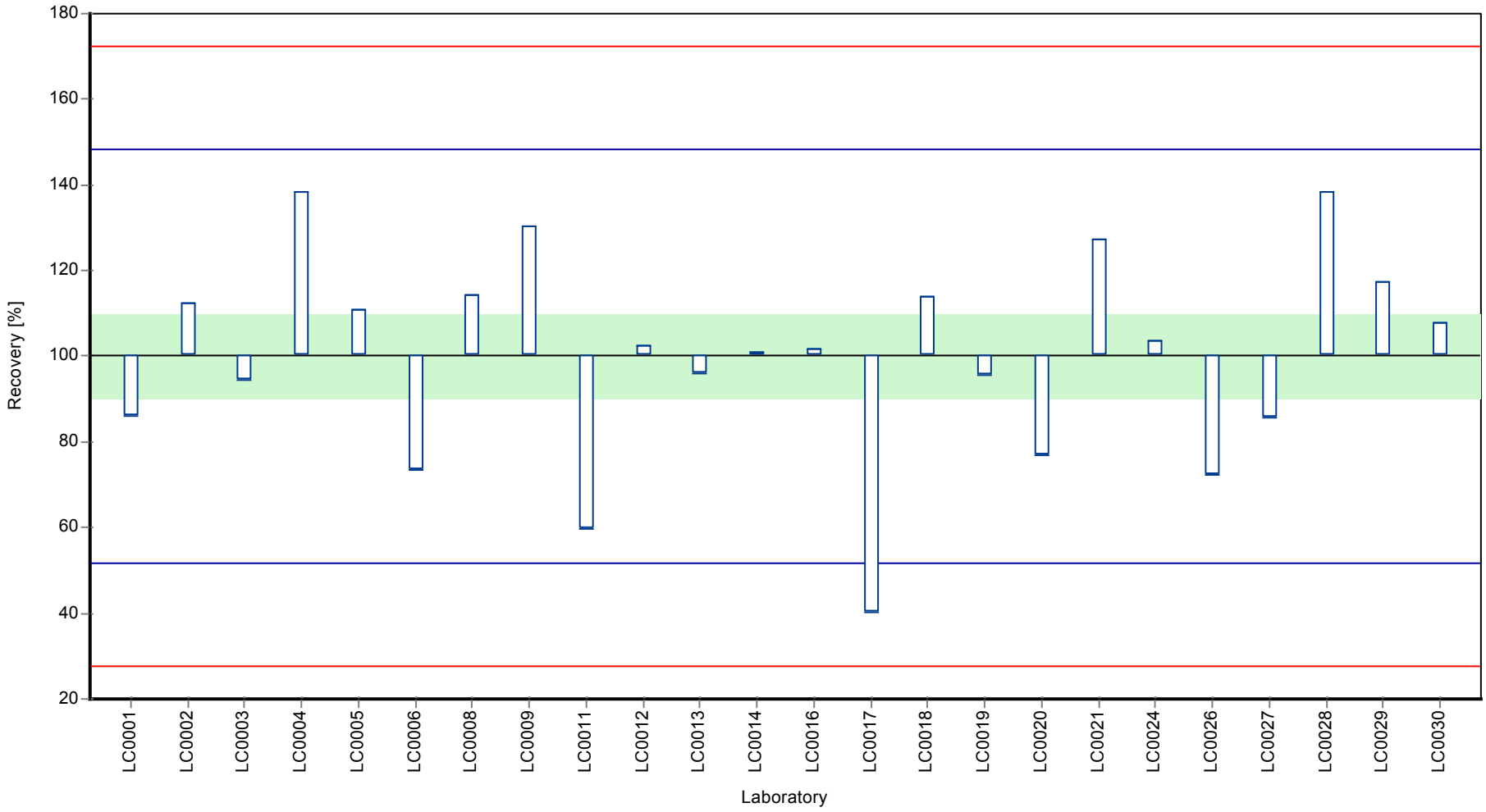
	all results	without outliers	Unit
Mean ± CI (99%)	80.2 ± 11.8	80.2 ± 11.8	ng/l
Minimum	32.1	32.1	ng/l
Maximum	111	111	ng/l
Standard deviation	19.3	19.3	ng/l
rel. Standard deviation	24.1	24.1	%
n	24	24	-

Graphical presentation of results

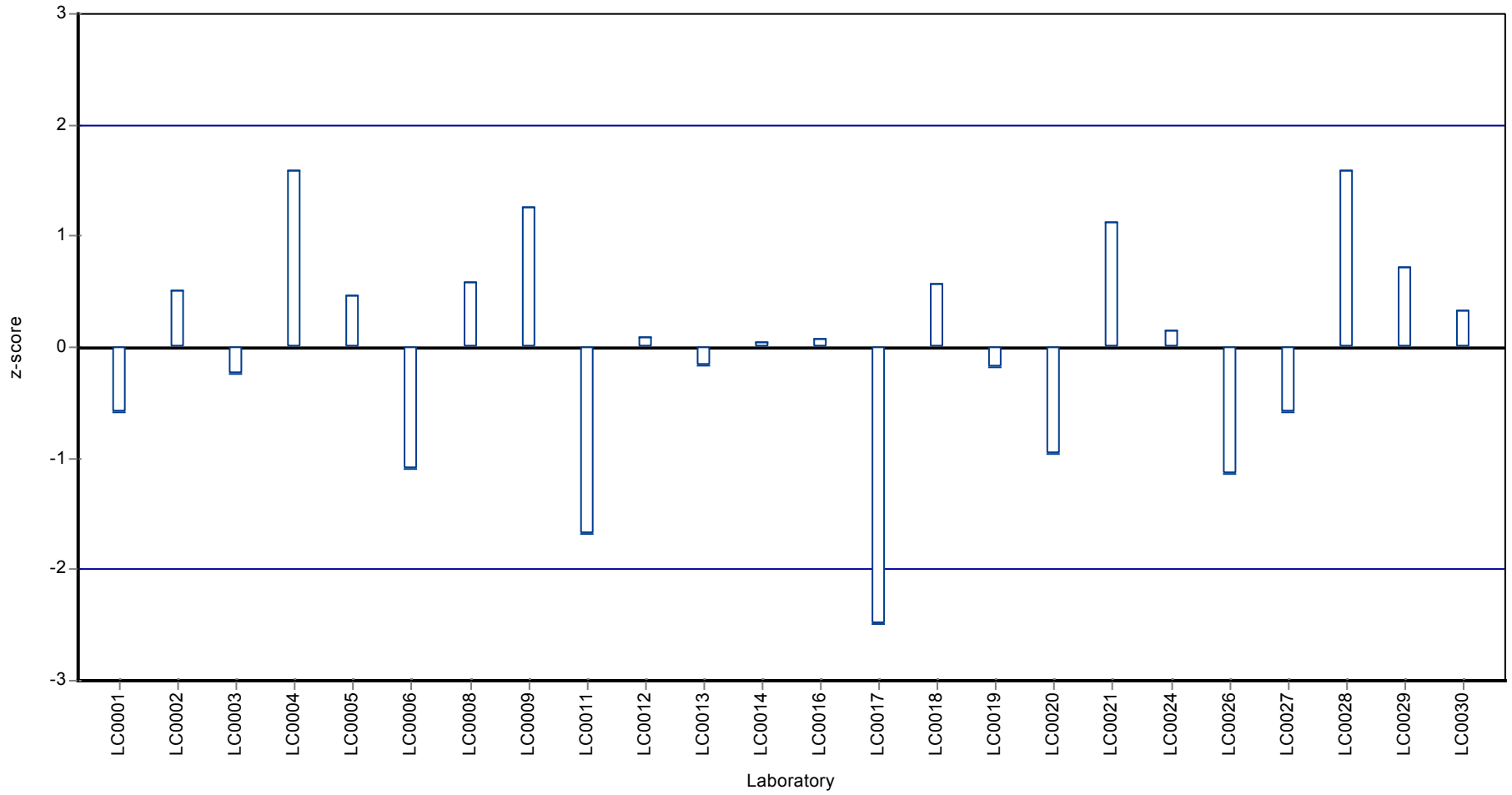
Results



Recovery rate



Z-score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z-score
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LC0021
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LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Anthracene

Unit	ng/l
Mean ± CI (99%)	10.2 ± 1.48
Minimum - Maximum	7.7 - 13.9
Control test value ± U	10 ± 2.6

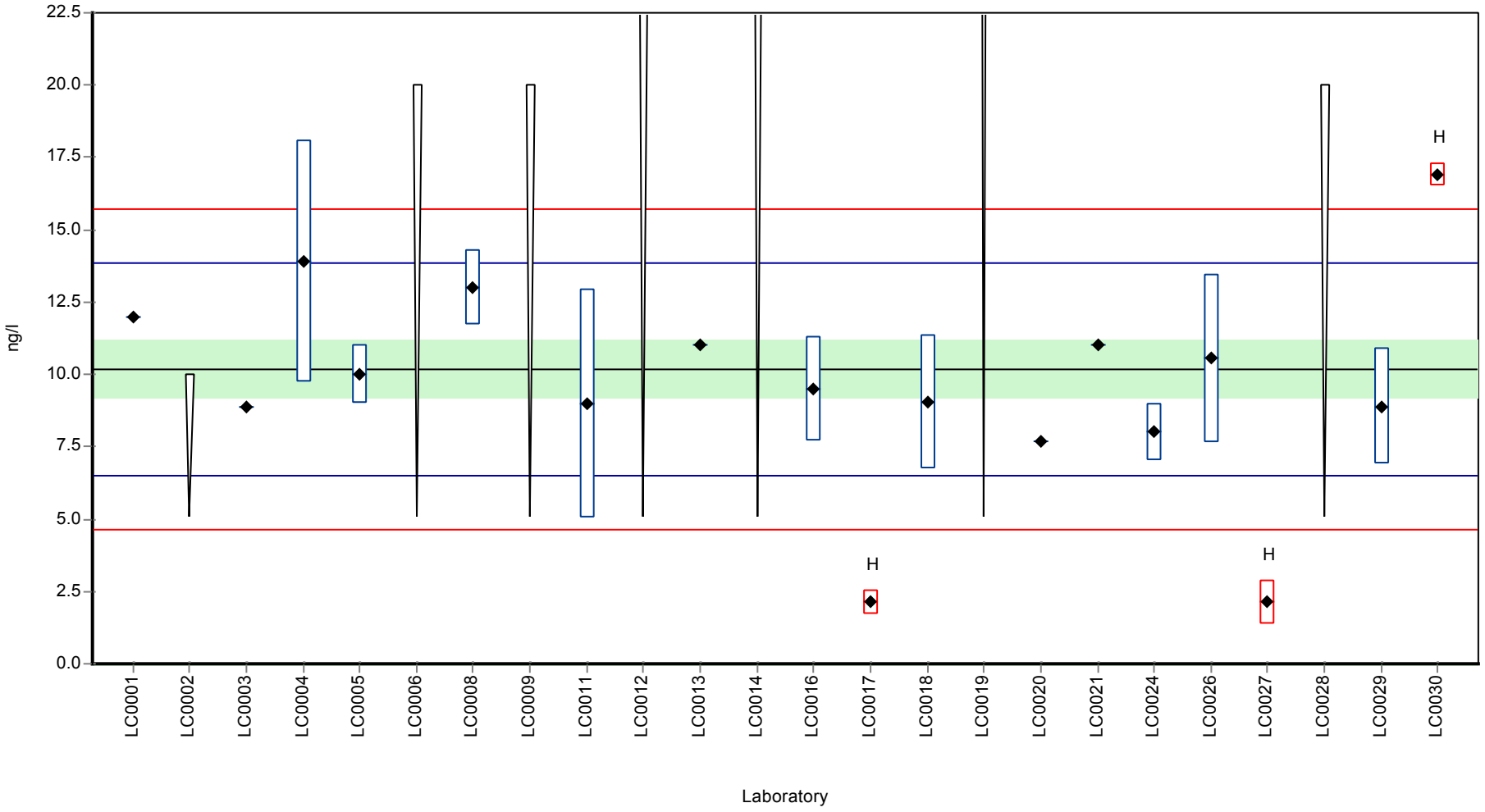
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	12	-	118	0.98	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	8.9	-	87.4	-0.69	
LC0004	13.93	4.18	137	2.03	
LC0005	10	1	98.2	-0.1	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	-	-	-	-	
LC0008	13.02	1.3	128	1.54	
LC0009	< 20 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	9	3.96	88.4	-0.64	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	11	-	108	0.44	
LC0014	< 30 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	9.5	1.81	93.3	-0.37	
LC0017	2.12	0.42	20.8	-4.37	H
LC0018	9.05	2.3	88.9	-0.61	
LC0019	< 50 (LOQ)	-	-	-	
LC0020	7.7	-	75.6	-1.35	
LC0021	11	0.011	108	0.44	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	8	1	78.6	-1.18	
LC0025	-	-	-	-	
LC0026	10.55	2.93	104	0.2	
LC0027	2.14	0.767	21	-4.36	H
LC0028	< 20 (LOQ)	-	-	-	
LC0029	8.9	2	87.4	-0.69	
LC0030	16.9	0.374	166	3.64	H

Characteristics of parameter

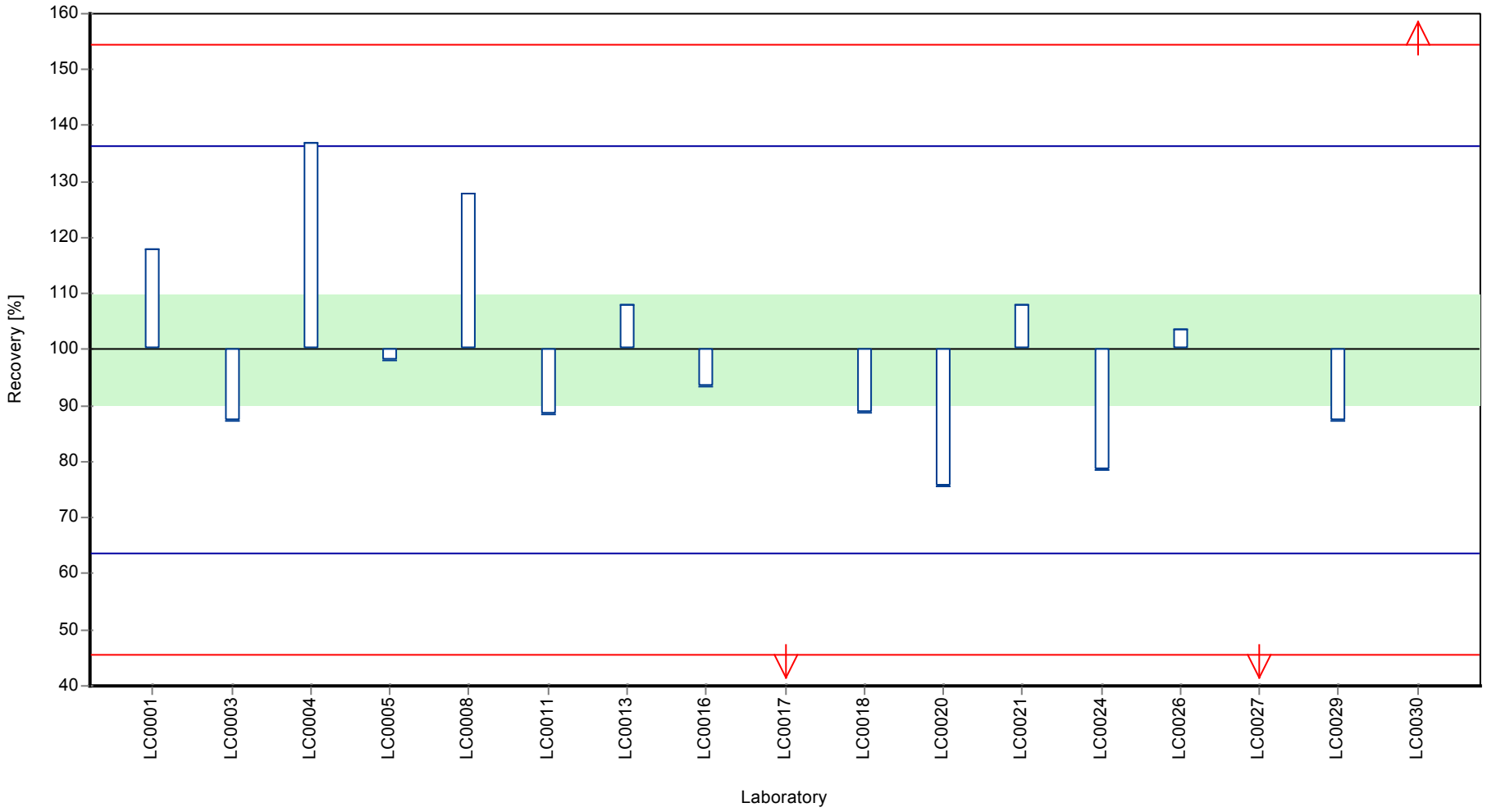
	all results	without outliers	Unit
Mean ± CI (99%)	9.63 ± 2.66	10.2 ± 1.48	ng/l
Minimum	2.12	7.7	ng/l
Maximum	16.9	13.9	ng/l
Standard deviation	3.66	1.85	ng/l
rel. Standard deviation	38	18.1	%
n	17	14	-

Graphical presentation of results

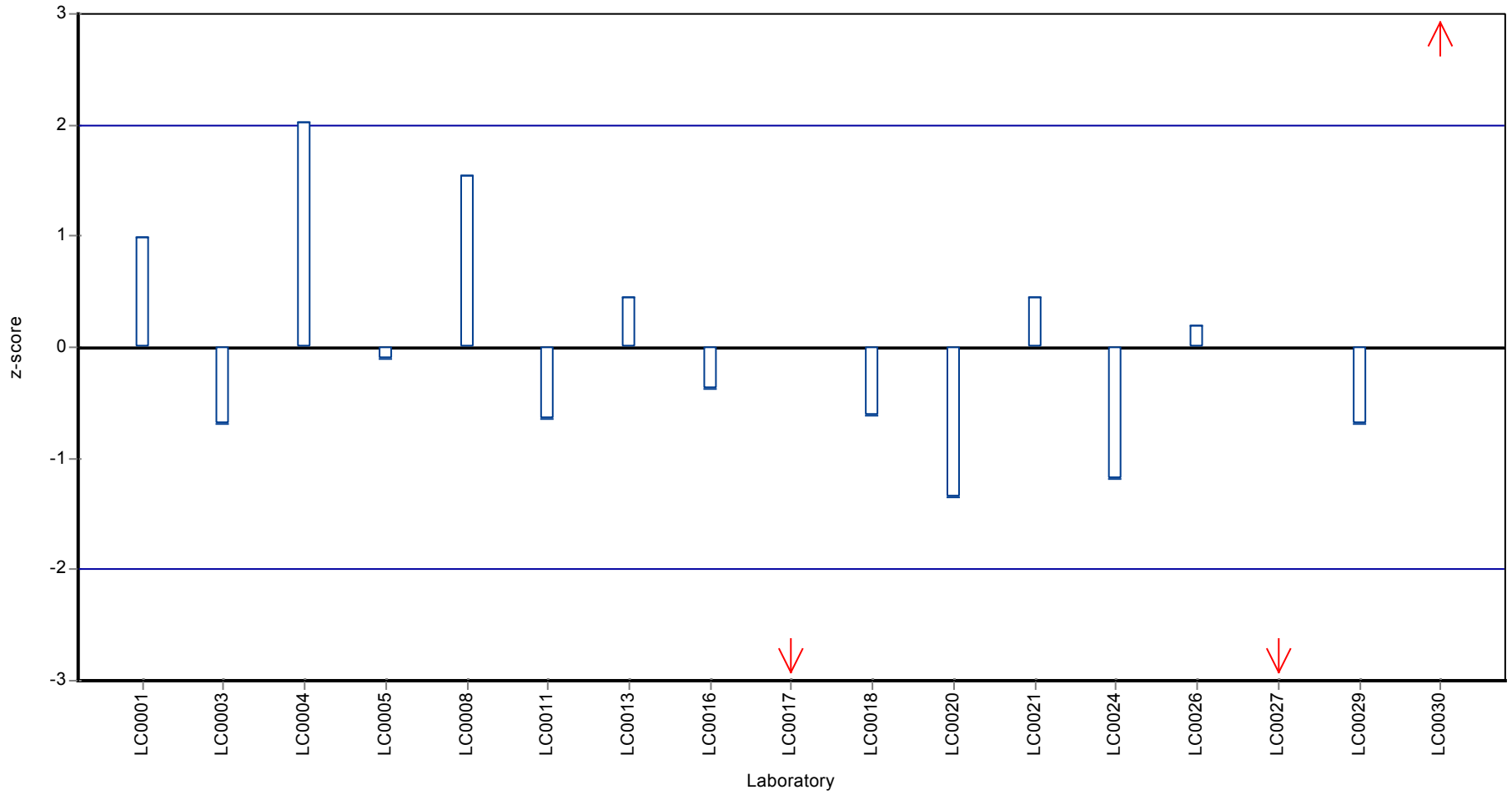
Results



Recovery rate



Z-score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z-score
LC0001
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LC0008
LC0011
LC0013
LC0016
LC0017
LC0018
LC0020
LC0021
LC0024
LC0026
LC0027
LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Benzo[a]anthracene

Unit	ng/l
Mean ± CI (99%)	121 ± 12.8
Minimum - Maximum	65.2 - 156
Control test value ± U	105 ± 25.1

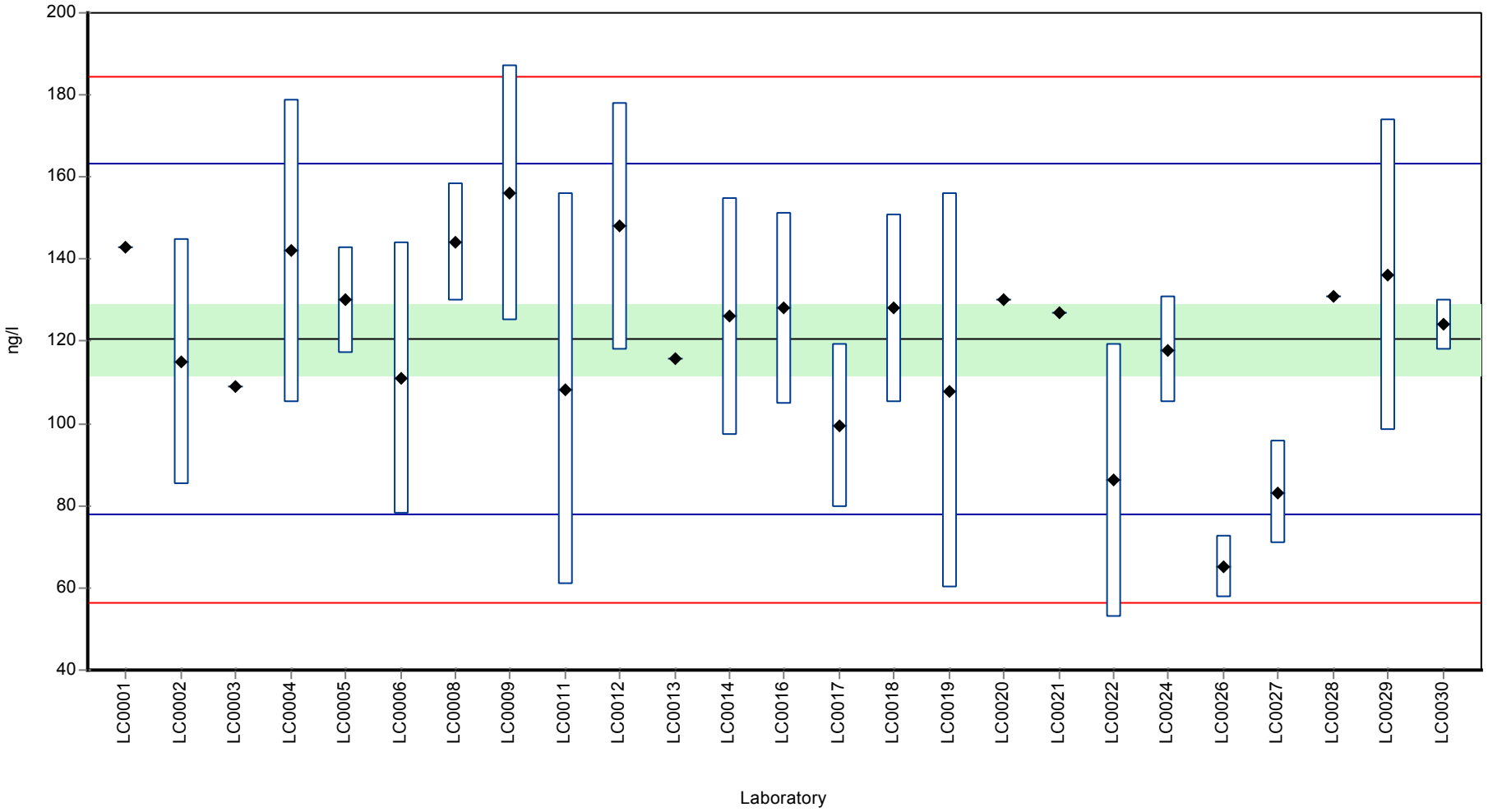
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	143	-	119	1.05	
LC0002	115	30	95.4	-0.26	
LC0003	109	-	90.4	-0.54	
LC0004	142.06	36.94	118	1.01	
LC0005	130	13	108	0.44	
LC0006	111	33	92.1	-0.45	
LC0007	-	-	-	-	
LC0008	144.17	14.42	120	1.11	
LC0009	156	31.2	129	1.66	
LC0010	-	-	-	-	
LC0011	108.32	47.66	89.9	-0.57	
LC0012	148	30	123	1.29	
LC0013	116	-	96.3	-0.21	
LC0014	126	29	105	0.26	
LC0015	-	-	-	-	
LC0016	128	23.2	106	0.35	
LC0017	99.47	19.89	82.5	-0.99	
LC0018	128	23	106	0.35	
LC0019	108	48	89.6	-0.59	
LC0020	130.2	-	108	0.45	
LC0021	127	0.13	105	0.3	
LC0022	86.1	33.5	71.4	-1.61	
LC0023	-	-	-	-	
LC0024	118	13	97.9	-0.12	
LC0025	-	-	-	-	
LC0026	65.22	7.49	54.1	-2.59	
LC0027	83.2	12.5	69	-1.75	
LC0028	131	-	109	0.49	
LC0029	136.2	38	113	0.73	
LC0030	124	6.133	103	0.16	

Characteristics of parameter

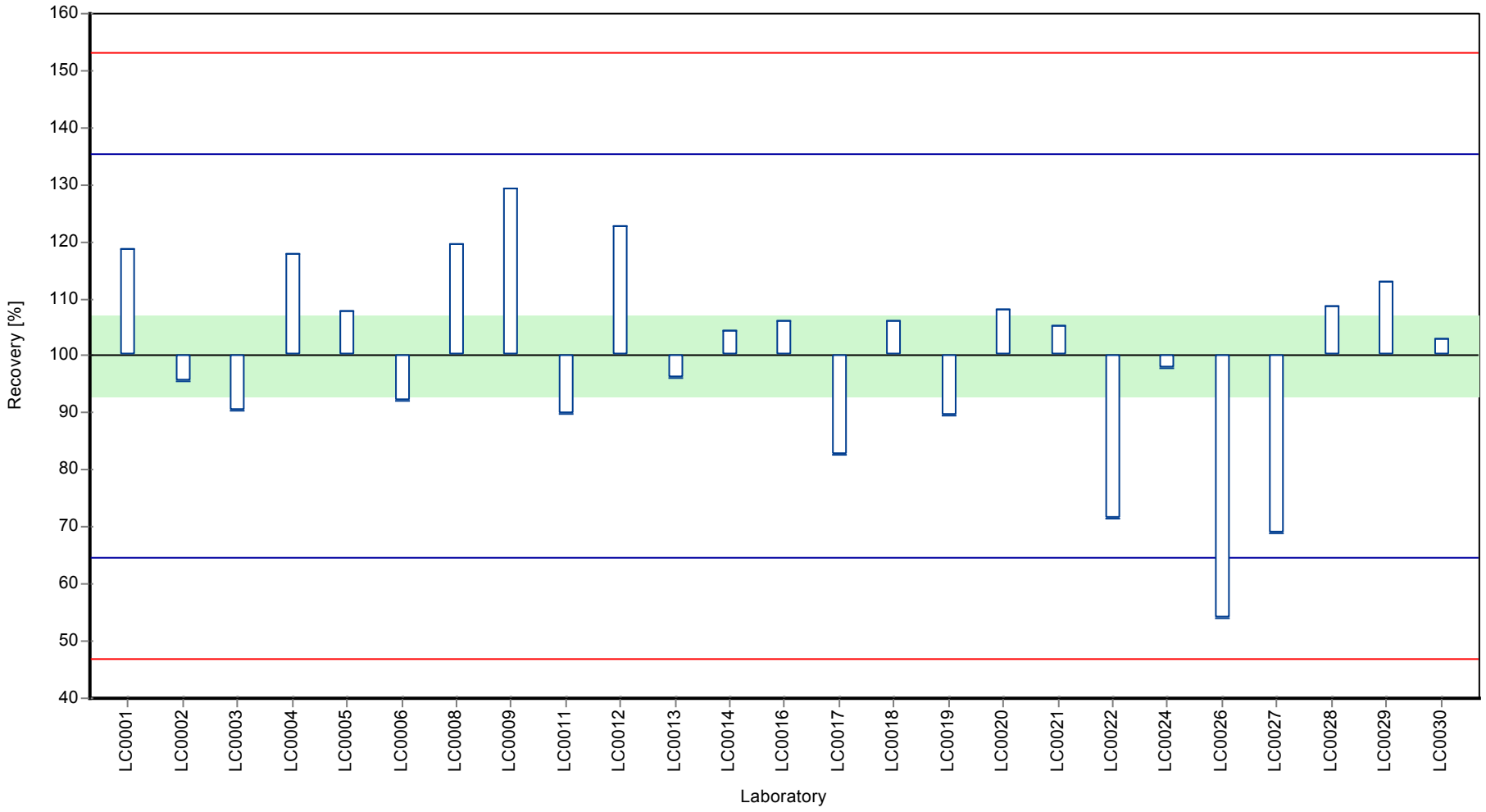
	all results	without outliers	Unit
Mean ± CI (99%)	121 ± 12.8	121 ± 12.8	ng/l
Minimum	65.2	65.2	ng/l
Maximum	156	156	ng/l
Standard deviation	21.4	21.4	ng/l
rel. Standard deviation	17.7	17.7	%
n	25	25	-

Graphical presentation of results

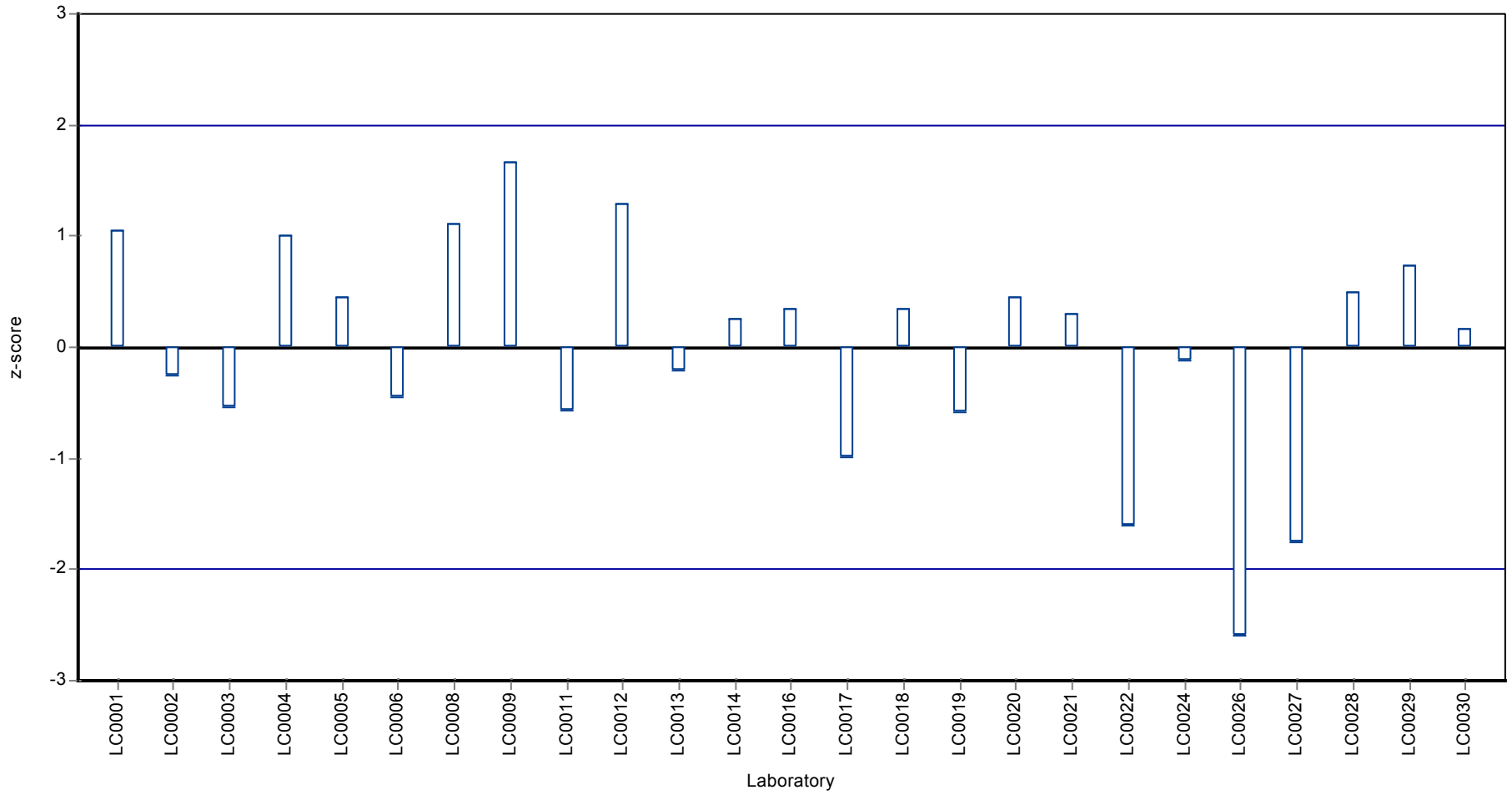
Results



Recovery rate



Z-score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z-score
LC0001
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LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Benzo[a]anthracene

Unit	ng/l
Mean ± CI (99%)	6.73 ± 1.44
Minimum - Maximum	3.4 - 11
Control test value ± U	6.39 ± 1.53

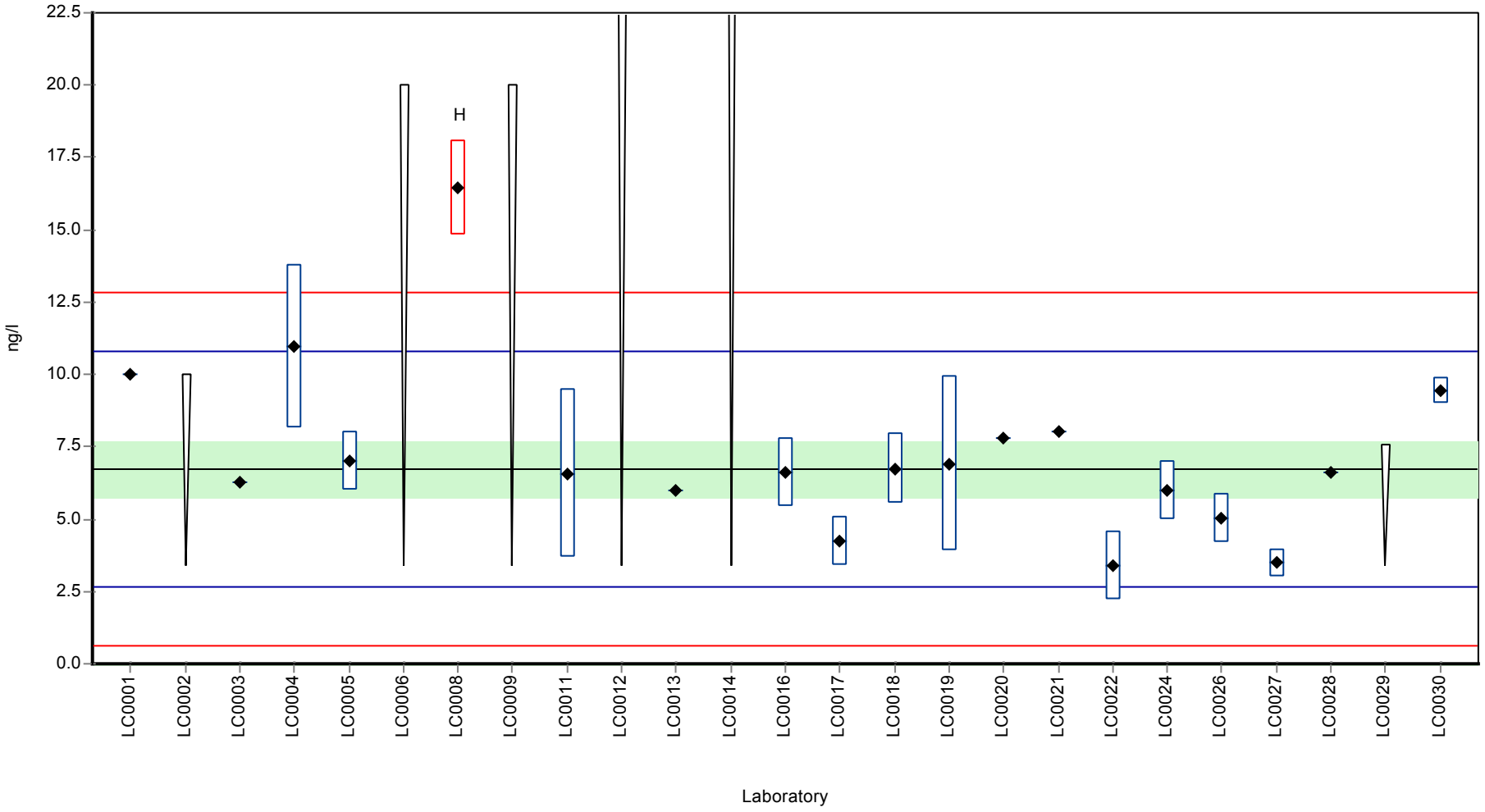
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	10	-	149	1.6	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	6.26	-	93	-0.23	
LC0004	10.96	2.84	163	2.07	
LC0005	7	1	104	0.13	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	-	-	-	-	
LC0008	16.46	1.65	245	4.76	H
LC0009	< 20 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	6.58	2.9	97.8	-0.07	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	6	-	89.2	-0.36	
LC0014	< 30 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	6.6	1.2	98.1	-0.06	
LC0017	4.23	0.85	62.9	-1.22	
LC0018	6.75	1.2	100	0.01	
LC0019	6.92	3.04	103	0.09	
LC0020	7.8	-	116	0.53	
LC0021	8	0.008	119	0.62	
LC0022	3.4	1.2	50.5	-1.63	
LC0023	-	-	-	-	
LC0024	6	1	89.2	-0.36	
LC0025	-	-	-	-	
LC0026	5.03	0.83	74.8	-0.83	
LC0027	3.48	0.505	51.7	-1.59	
LC0028	6.64	-	98.7	-0.04	
LC0029	< 7.6 (LOQ)	-	-	-	
LC0030	9.45	0.466	140	1.33	

Characteristics of parameter

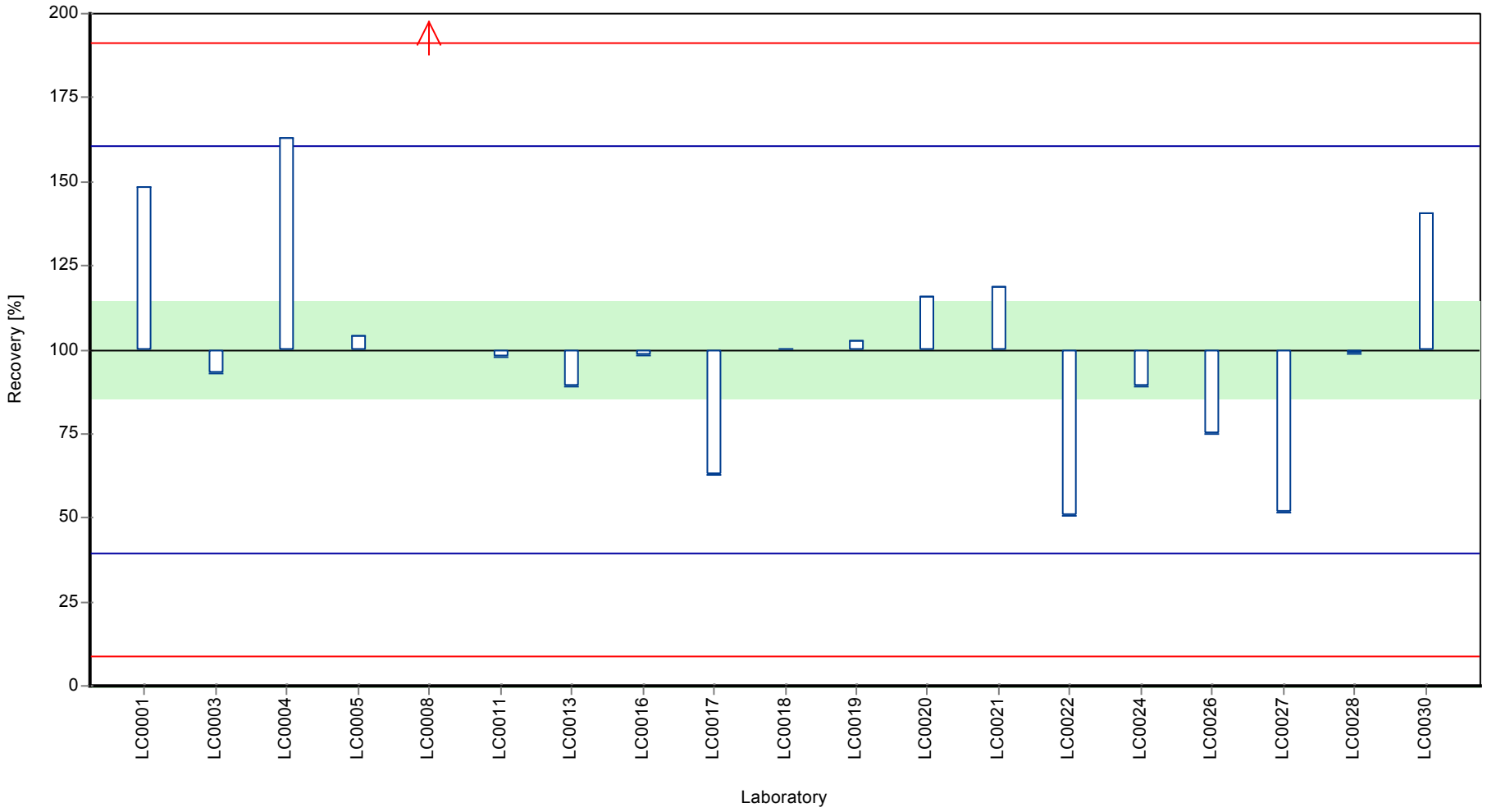
	all results	without outliers	Unit
Mean ± CI (99%)	7.24 ± 2.06	6.73 ± 1.44	ng/l
Minimum	3.4	3.4	ng/l
Maximum	16.5	11	ng/l
Standard deviation	2.99	2.04	ng/l
rel. Standard deviation	41.3	30.4	%
n	19	18	-

Graphical presentation of results

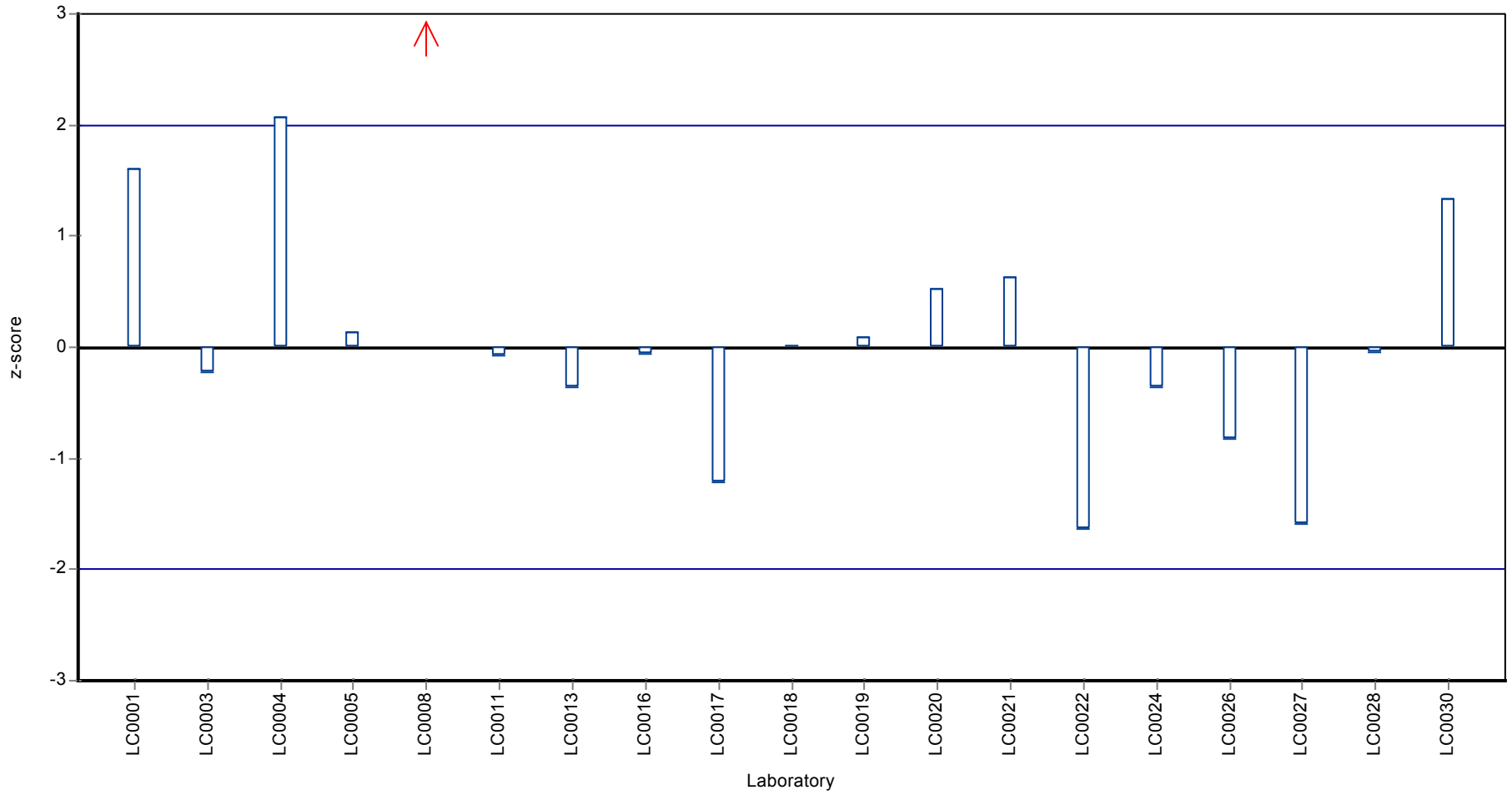
Results



Recovery rate



Z-score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LC0001
LC0003
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LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0030
Laboratory

Parameter oriented report

P19 A

Benzo[a]pyrene

Unit	ng/l
Mean ± CI (99%)	117 ± 15.1
Minimum - Maximum	65 - 173
Control test value ± U	137 ± 38.4

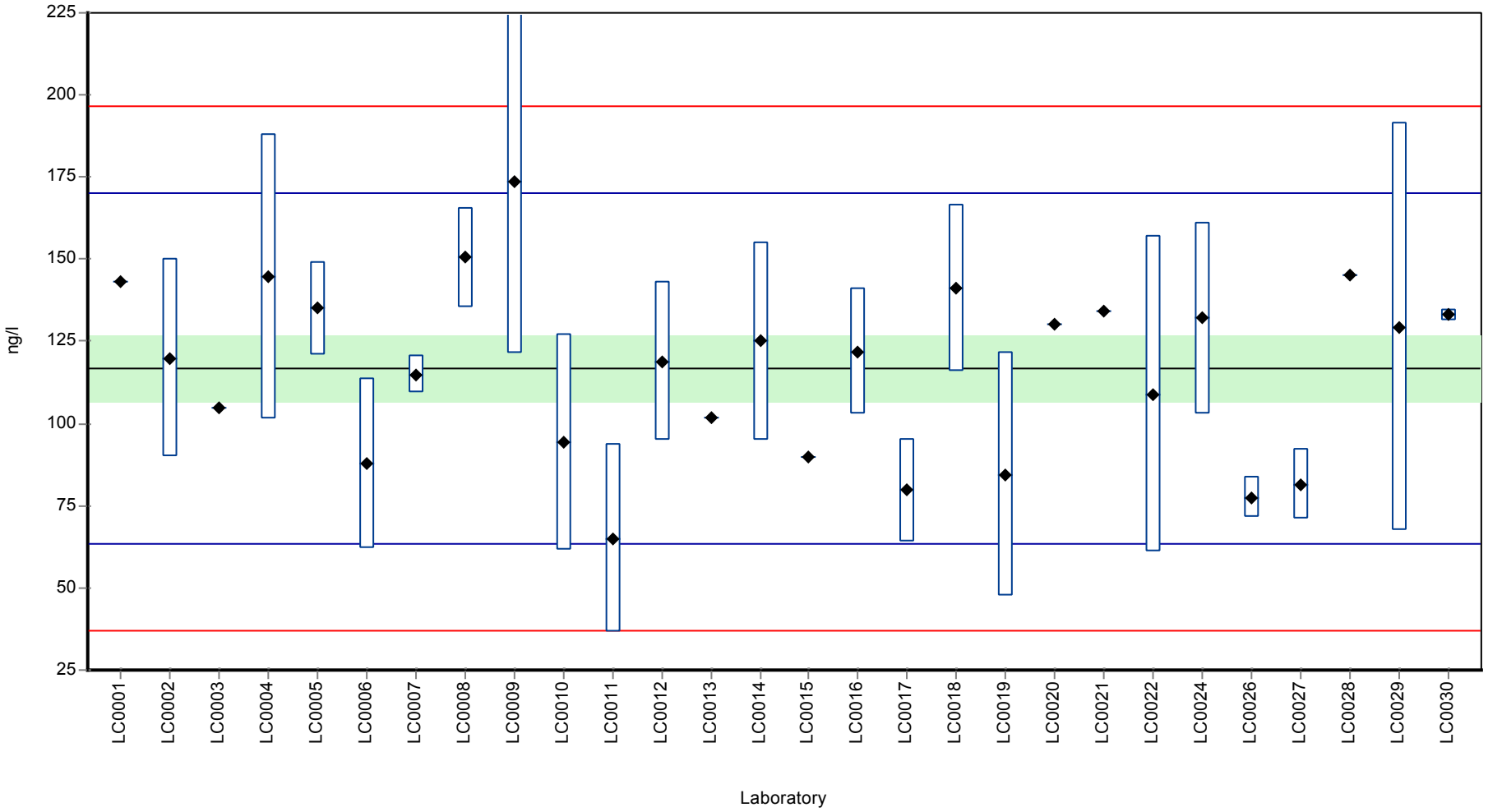
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	143	-	123	0.99	
LC0002	120	30	103	0.12	
LC0003	105	-	90	-0.44	
LC0004	144.75	43.43	124	1.05	
LC0005	135	14	116	0.69	
LC0006	88	26	75.4	-1.08	
LC0007	114.79	5.74	98.3	-0.07	
LC0008	150.46	15.05	129	1.27	
LC0009	173.4	52	149	2.13	
LC0010	94.3	33	80.8	-0.84	
LC0011	65.02	28.61	55.7	-1.94	
LC0012	119	24	102	0.09	
LC0013	102	-	87.4	-0.55	
LC0014	125	30	107	0.31	
LC0015	89.74	-	76.9	-1.01	
LC0016	122	19.4	105	0.2	
LC0017	79.63	15.93	68.2	-1.39	
LC0018	141	25.4	121	0.91	
LC0019	84.6	37.2	72.5	-1.21	
LC0020	130.3	-	112	0.51	
LC0021	134	0.134	115	0.65	
LC0022	108.9	48.2	93.3	-0.29	
LC0023	-	-	-	-	
LC0024	132	29	113	0.57	
LC0025	-	-	-	-	
LC0026	77.55	6.23	66.4	-1.47	
LC0027	81.6	10.7	69.9	-1.32	
LC0028	145	-	124	1.06	
LC0029	129.4	62	111	0.48	
LC0030	133	1.857	114	0.61	

Characteristics of parameter

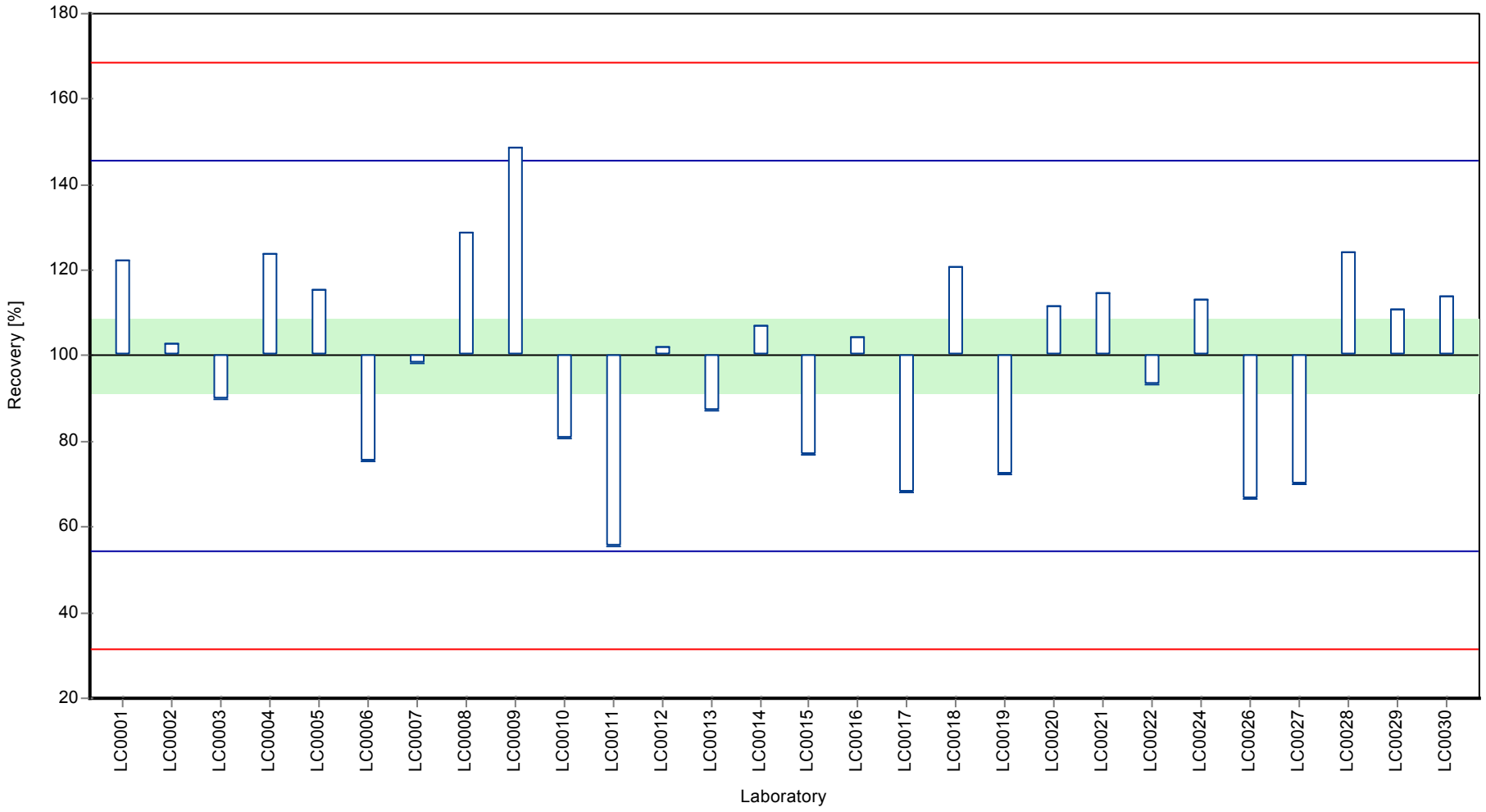
	all results	without outliers	Unit
Mean ± CI (99%)	117 ± 15.1	117 ± 15.1	ng/l
Minimum	65	65	ng/l
Maximum	173	173	ng/l
Standard deviation	26.6	26.6	ng/l
rel. Standard deviation	22.8	22.8	%
n	28	28	-

Graphical presentation of results

Results



Recovery rate



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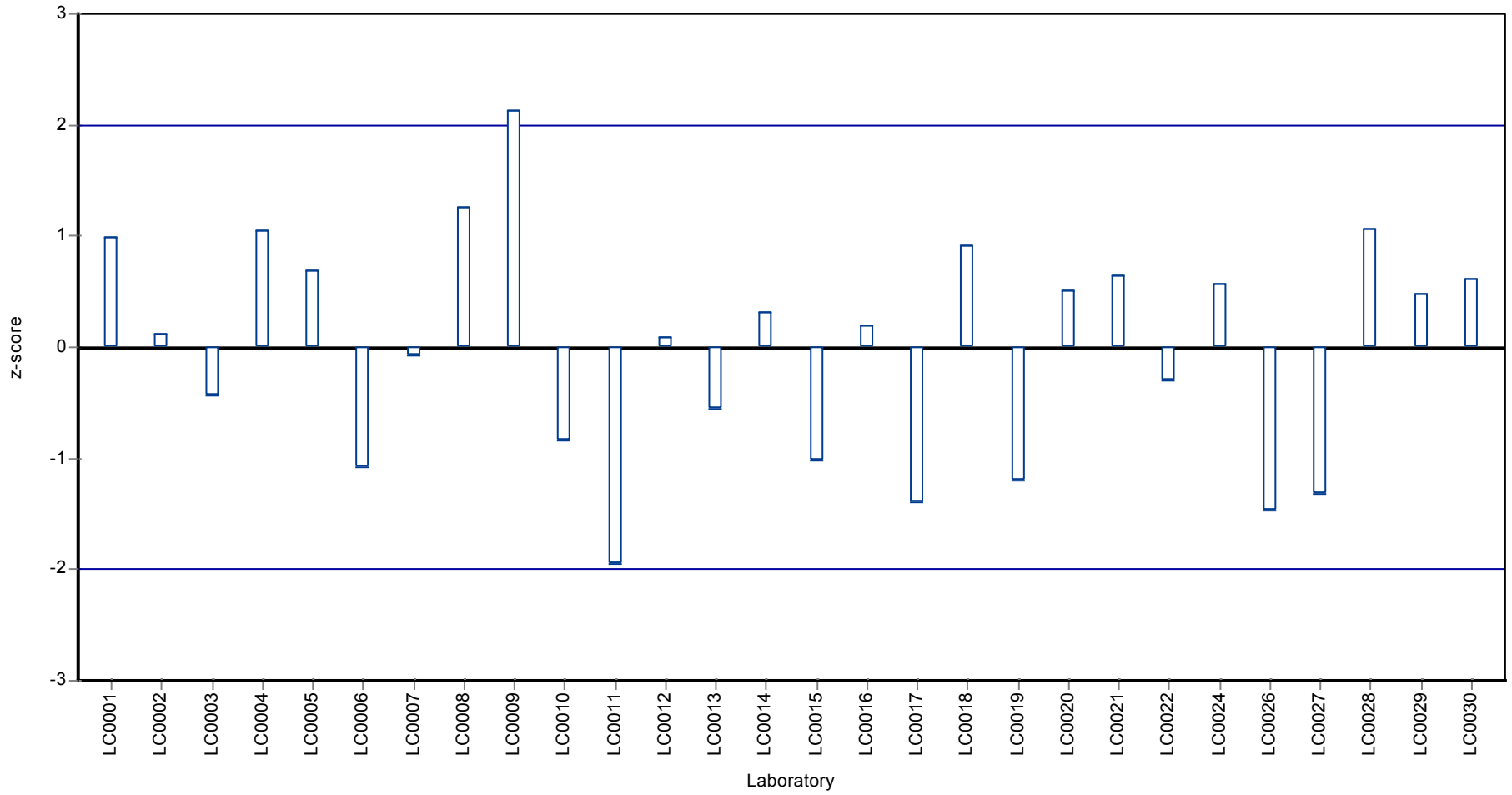
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LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Benzo[a]pyrene

Unit	ng/l
Mean ± CI (99%)	6.7 ± 0.834
Minimum - Maximum	3.86 - 8.6
Control test value ± U	7.19 ± 2.01

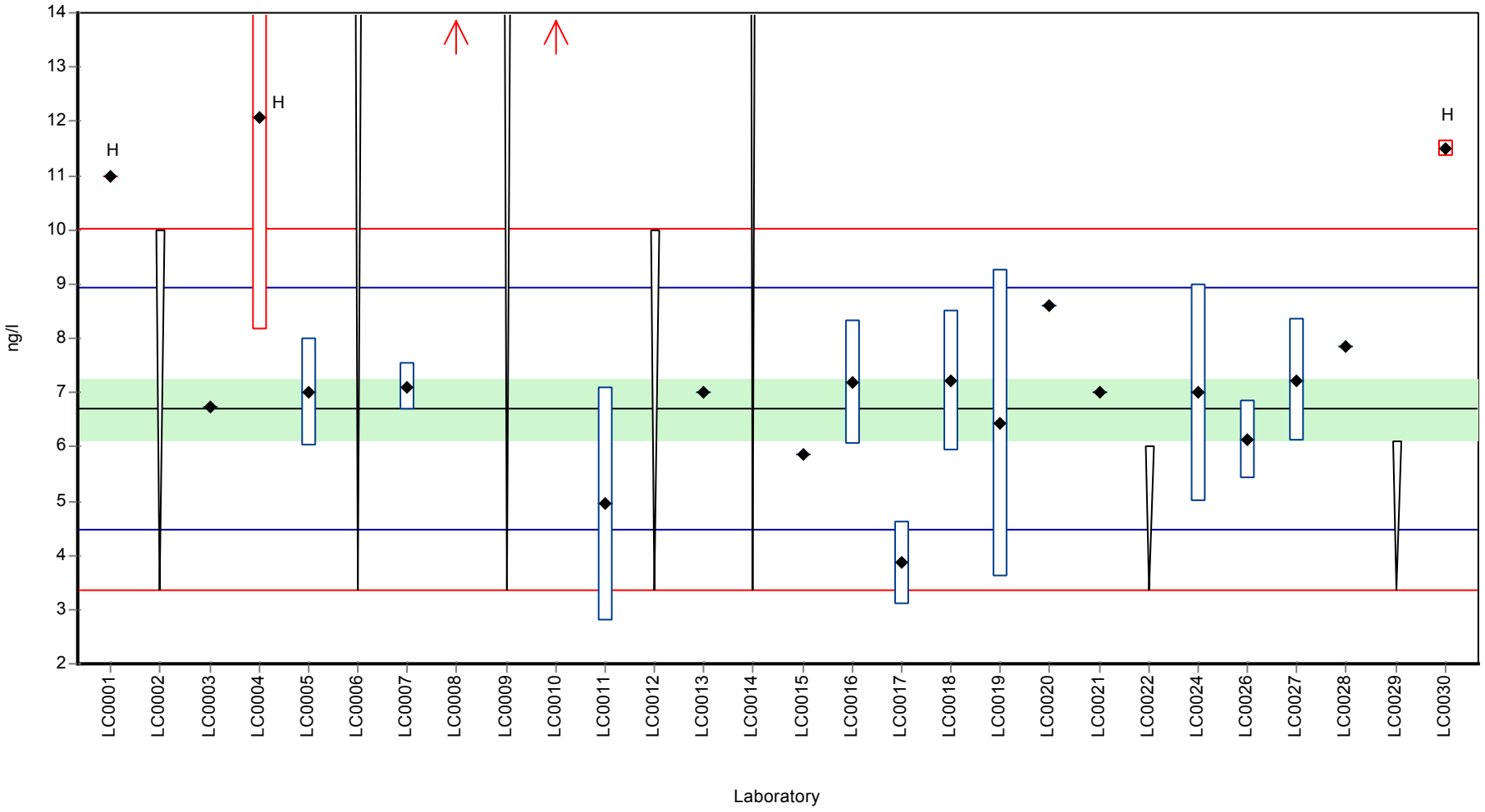
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	11	-	164	3.87	H
LC0002	< 10 (LOQ)	-	-	-	
LC0003	6.74	-	101	0.04	
LC0004	12.08	3.93	180	4.84	H
LC0005	7	1	105	0.27	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	7.11	0.45	106	0.37	
LC0008	17.15	1.72	256	9.4	H
LC0009	< 20 (LOQ)	-	-	-	
LC0010	18.3	6.4	273	10.4	H
LC0011	4.94	2.17	73.8	-1.58	
LC0012	< 10 (LOQ)	-	-	-	
LC0013	7	-	105	0.27	
LC0014	< 30 (LOQ)	-	-	-	
LC0015	5.86	-	87.5	-0.75	
LC0016	7.18	1.15	107	0.43	
LC0017	3.86	0.77	57.6	-2.55	
LC0018	7.22	1.3	108	0.47	
LC0019	6.44	2.83	96.1	-0.23	
LC0020	8.6	-	128	1.71	
LC0021	7	0.007	105	0.27	
LC0022	< 6 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	7	2	105	0.27	
LC0025	-	-	-	-	
LC0026	6.13	0.73	91.5	-0.51	
LC0027	7.23	1.13	108	0.48	
LC0028	7.86	-	117	1.05	
LC0029	< 6.1 (LOQ)	-	-	-	
LC0030	11.5	0.16	172	4.32	H

Characteristics of parameter

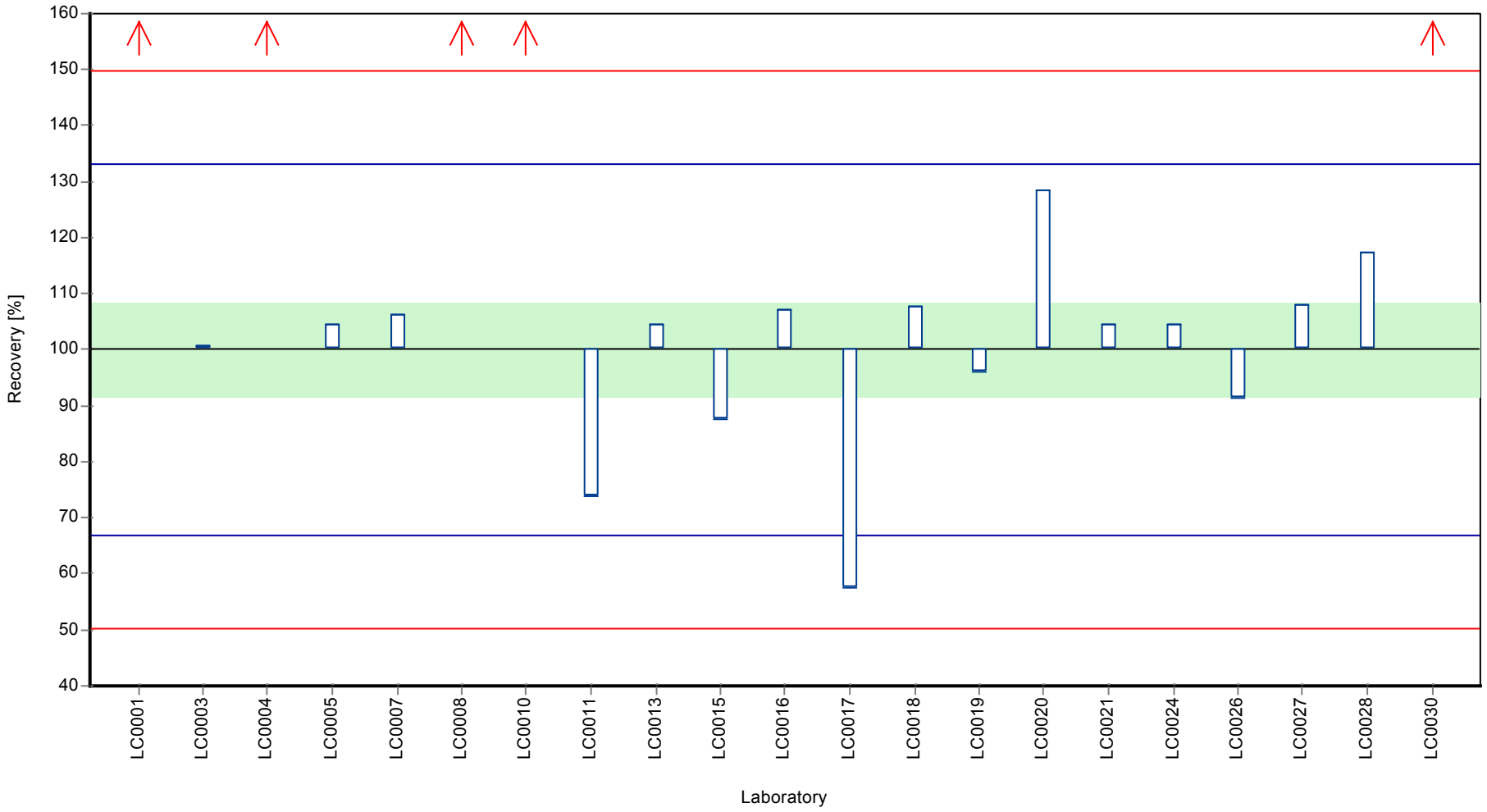
	all results	without outliers	Unit
Mean ± CI (99%)	8.44 ± 2.4	6.7 ± 0.834	ng/l
Minimum	3.86	3.86	ng/l
Maximum	18.3	8.6	ng/l
Standard deviation	3.67	1.11	ng/l
rel. Standard deviation	43.5	16.6	%
n	21	16	-

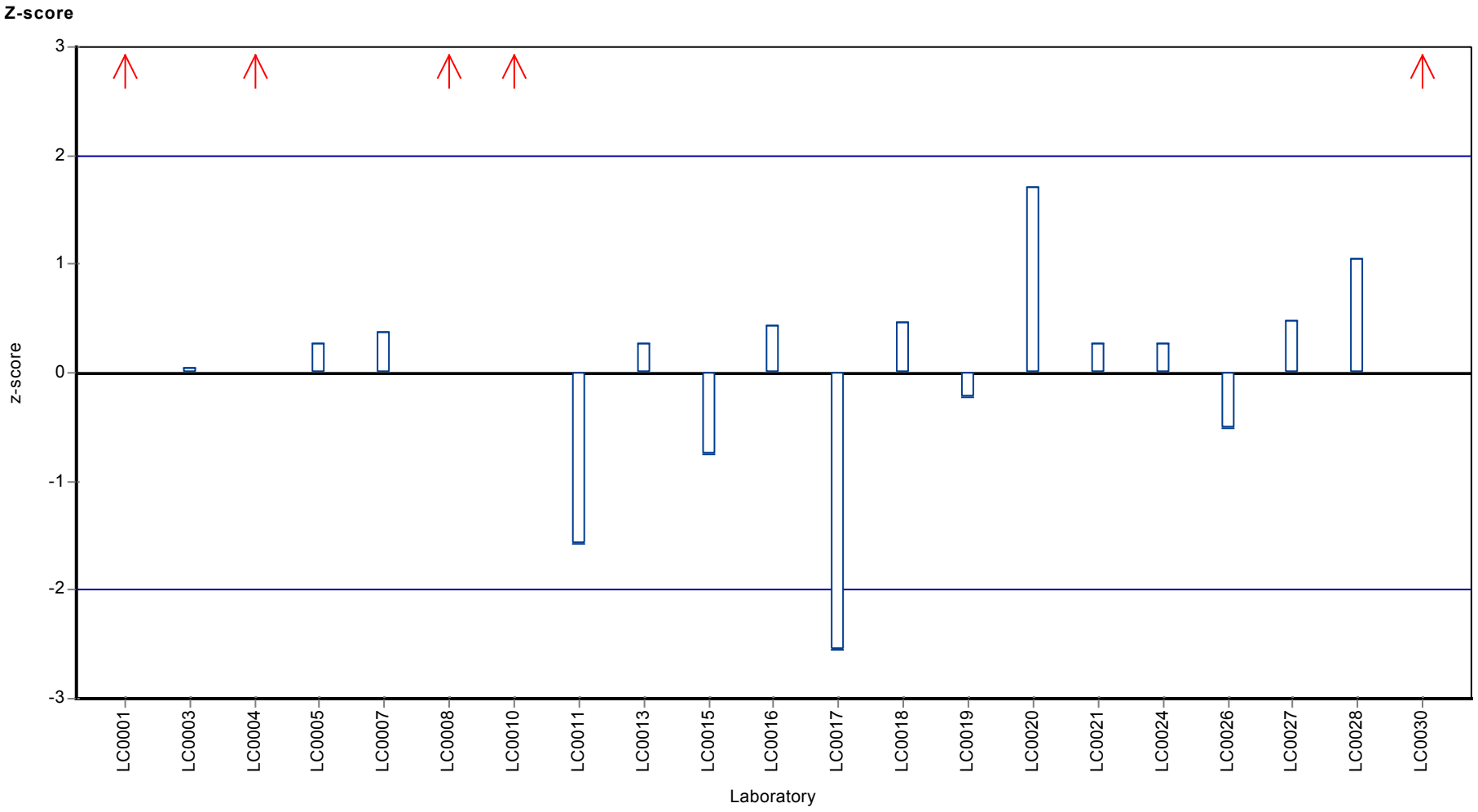
Graphical presentation of results

Results



Recovery rate

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LC0024
LC0026
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LC0028
LC0030
Laboratory

Parameter oriented report

P19 A

Benzo[b]fluoranthene

Unit	ng/l
Mean ± CI (99%)	262 ± 27.7
Minimum - Maximum	180 - 380
Control test value ± U	201 ± 66.3

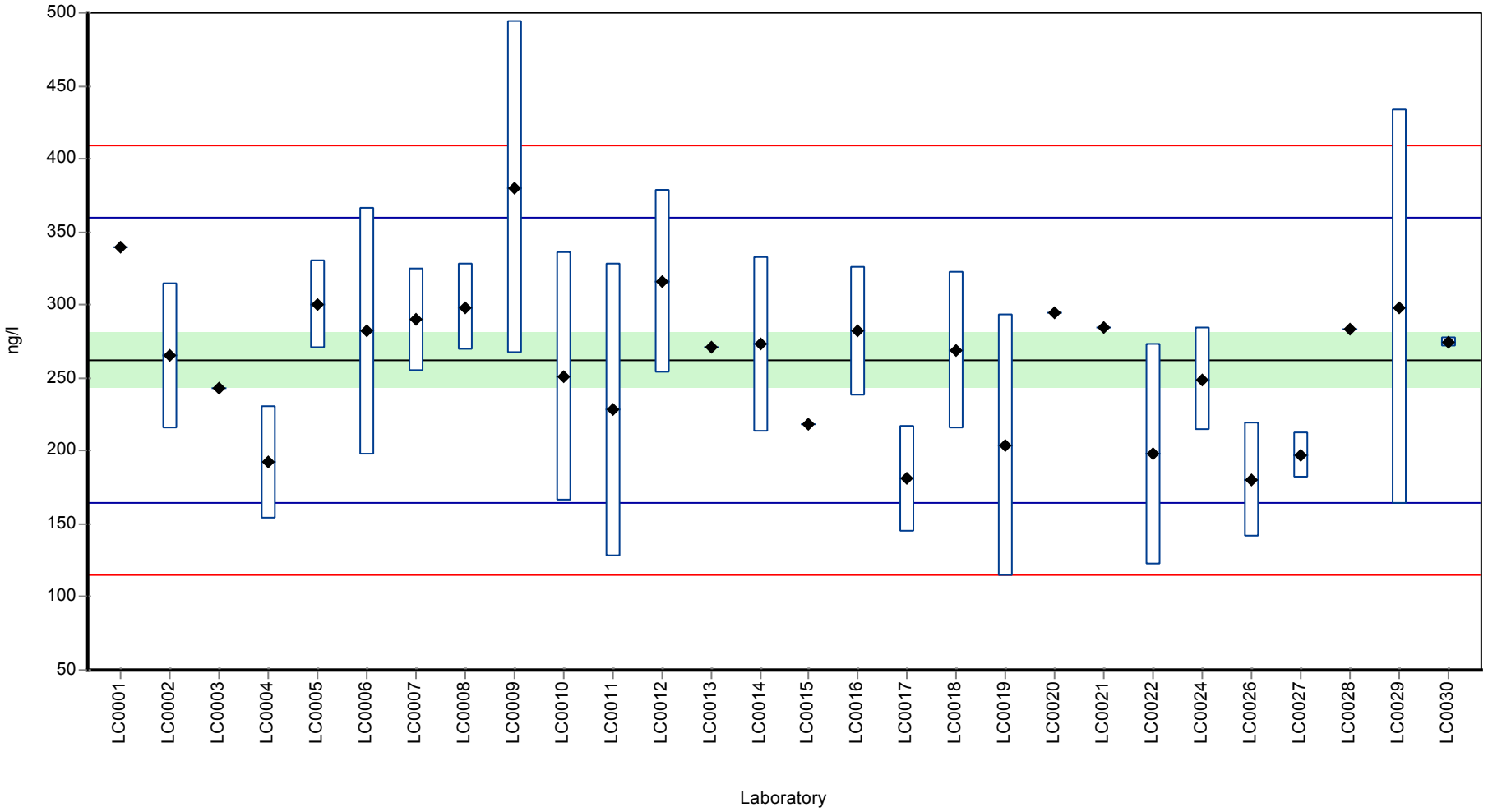
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	340	-	130	1.59	
LC0002	265	50	101	0.06	
LC0003	243	-	92.7	-0.39	
LC0004	192.15	38.43	73.3	-1.43	
LC0005	300	30	114	0.77	
LC0006	282	85	108	0.4	
LC0007	289.72	35.56	110	0.56	
LC0008	298.45	29.85	114	0.74	
LC0009	380.1	114	145	2.41	
LC0010	251	85.3	95.7	-0.23	
LC0011	227.9	100.28	86.9	-0.7	
LC0012	316	63	121	1.1	
LC0013	271	-	103	0.18	
LC0014	273	60	104	0.22	
LC0015	218.01	-	83.1	-0.9	
LC0016	282	44.3	108	0.4	
LC0017	180.82	36.16	69	-1.66	
LC0018	269	53.8	103	0.14	
LC0019	204	90	77.8	-1.19	
LC0020	294.6	-	112	0.66	
LC0021	285	0.29	109	0.47	
LC0022	197.8	75.5	75.4	-1.32	
LC0023	-	-	-	-	
LC0024	249	35	95	-0.27	
LC0025	-	-	-	-	
LC0026	180.33	38.9	68.8	-1.67	
LC0027	197	16	75.1	-1.33	
LC0028	283	-	108	0.42	
LC0029	298.3	135	114	0.74	
LC0030	274	3.339	104	0.24	

Characteristics of parameter

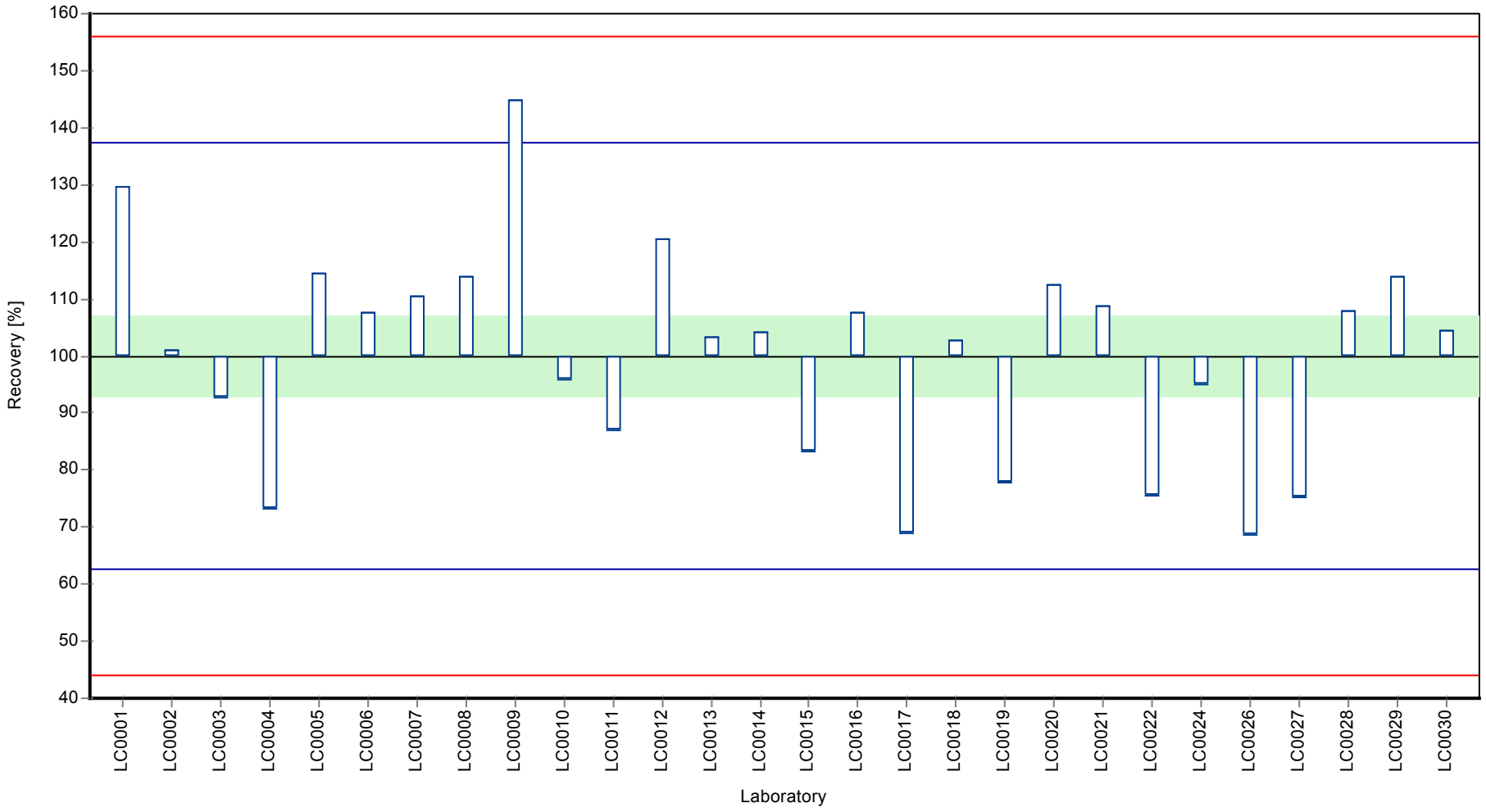
	all results	without outliers	Unit
Mean ± CI (99%)	262 ± 27.7	262 ± 27.7	ng/l
Minimum	180	180	ng/l
Maximum	380	380	ng/l
Standard deviation	48.9	48.9	ng/l
rel. Standard deviation	18.7	18.7	%
n	28	28	-

Graphical presentation of results

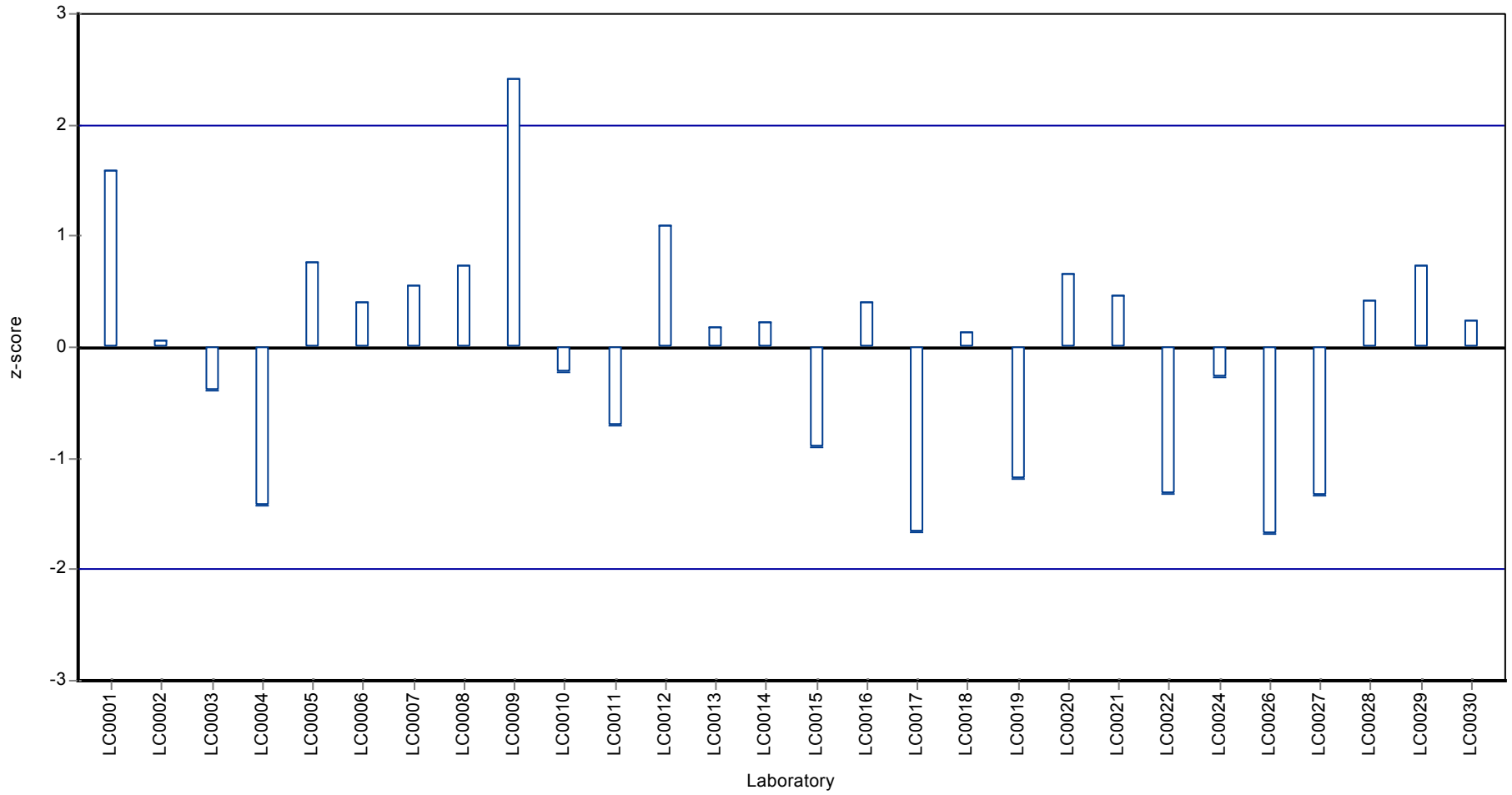
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
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LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Benzo[b]fluoranthene

Unit	ng/l
Mean ± CI (99%)	30.3 ± 2.56
Minimum - Maximum	22 - 39
Control test value ± U	31.7 ± 8.23

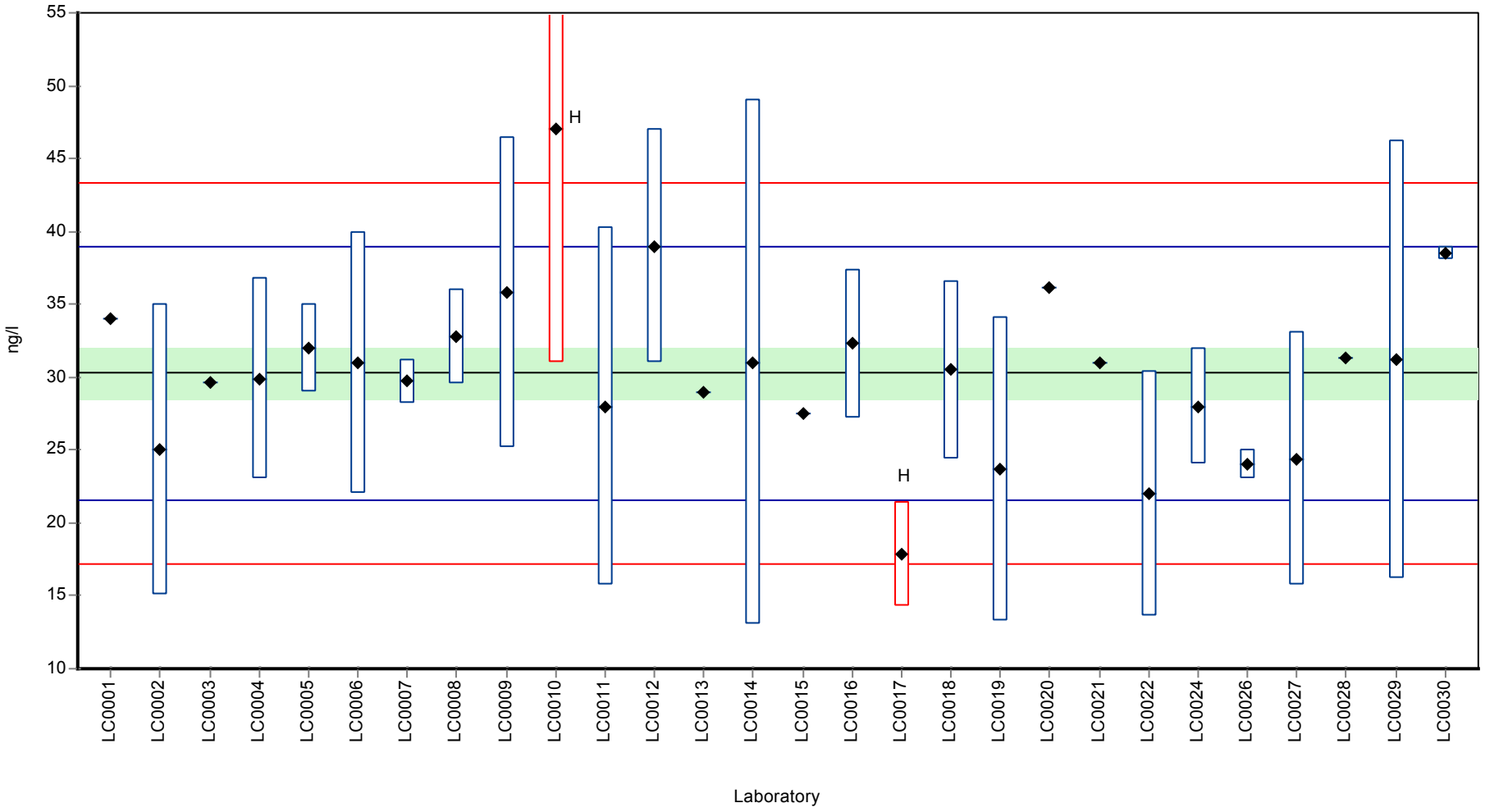
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	34	-	112	0.85	
LC0002	25	10	82.6	-1.21	
LC0003	29.6	-	97.8	-0.16	
LC0004	29.91	6.88	98.8	-0.08	
LC0005	32	3	106	0.4	
LC0006	31	9	102	0.17	
LC0007	29.71	1.49	98.1	-0.13	
LC0008	32.77	3.28	108	0.57	
LC0009	35.8	10.7	118	1.27	
LC0010	47	16	155	3.84	H
LC0011	27.98	12.31	92.4	-0.53	
LC0012	39	8	129	2	
LC0013	29	-	95.8	-0.29	
LC0014	31	18	102	0.17	
LC0015	27.47	-	90.7	-0.65	
LC0016	32.3	5.08	107	0.47	
LC0017	17.89	3.58	59.1	-2.85	H
LC0018	30.5	6.1	101	0.05	
LC0019	23.7	10.4	78.3	-1.51	
LC0020	36.1	-	119	1.34	
LC0021	31	0.031	102	0.17	
LC0022	22	8.4	72.7	-1.9	
LC0023	-	-	-	-	
LC0024	28	4	92.5	-0.52	
LC0025	-	-	-	-	
LC0026	24	1	79.3	-1.44	
LC0027	24.4	8.72	80.6	-1.35	
LC0028	31.3	-	103	0.23	
LC0029	31.2	15	103	0.21	
LC0030	38.5	0.468	127	1.89	

Characteristics of parameter

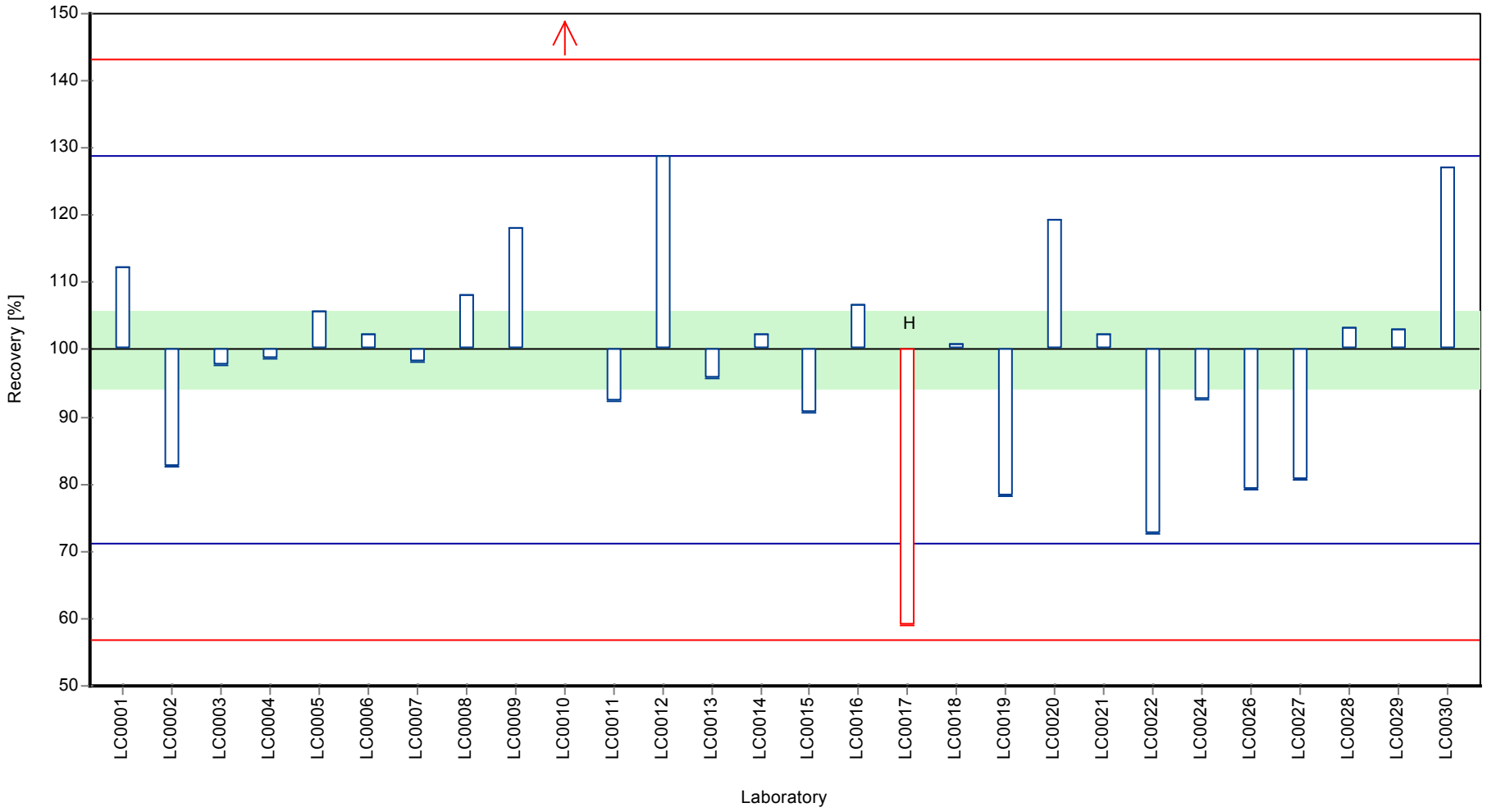
	all results	without outliers	Unit
Mean ± CI (99%)	30.4 ± 3.28	30.3 ± 2.56	ng/l
Minimum	17.9	22	ng/l
Maximum	47	39	ng/l
Standard deviation	5.79	4.35	ng/l
rel. Standard deviation	19	14.4	%
n	28	26	-

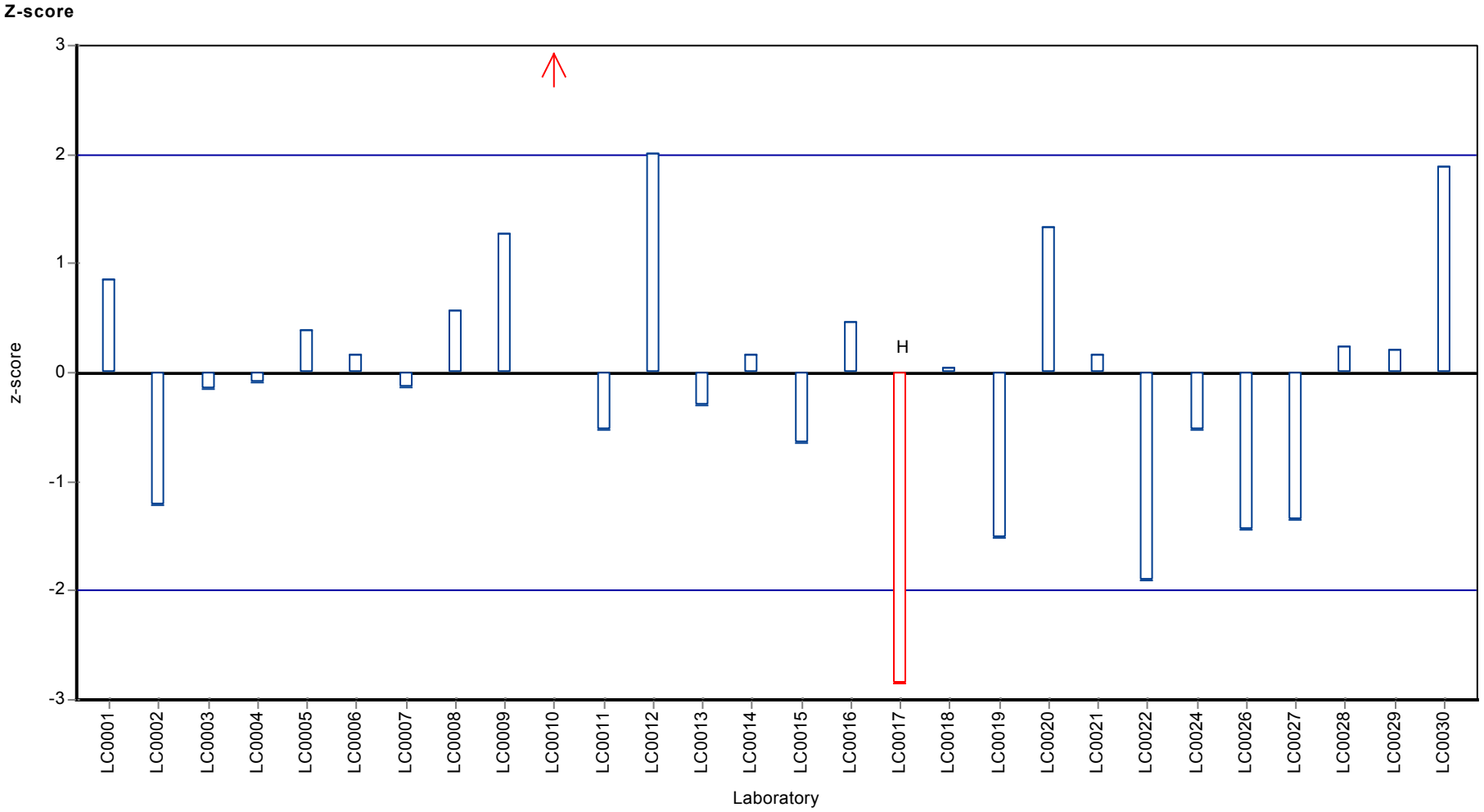
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
3
2
1
0
-1
-2
-3
H
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Benzo[g,h,i]perylene

Unit	ng/l
Mean ± CI (99%)	89.3 ± 11.9
Minimum - Maximum	55.9 - 142
Control test value ± U	103 ± 33

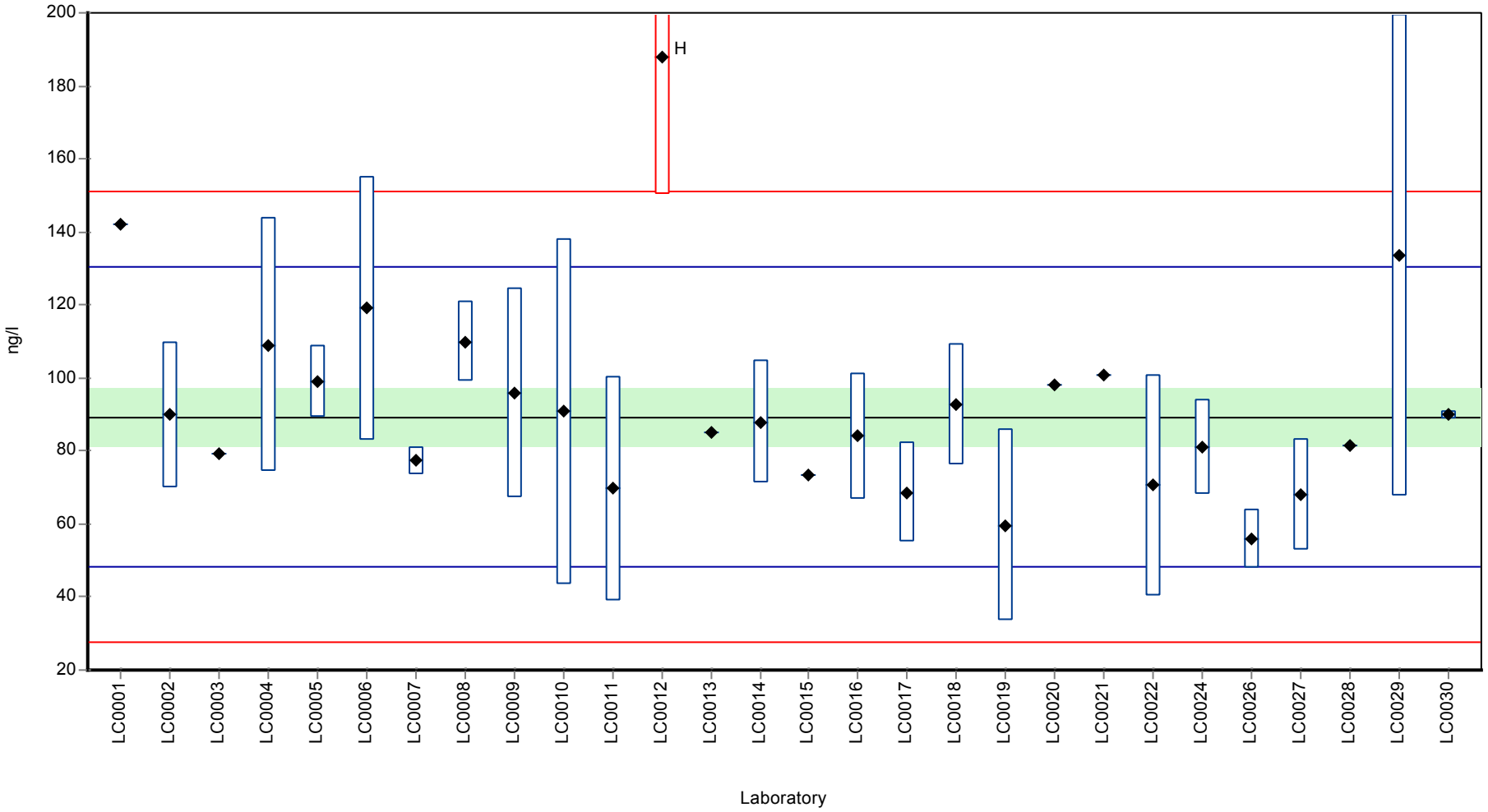
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	142	-	159	2.55	
LC0002	90	20	101	0.03	
LC0003	79.2	-	88.6	-0.49	
LC0004	109.04	34.89	122	0.95	
LC0005	99	10	111	0.47	
LC0006	119	36	133	1.44	
LC0007	77.29	3.86	86.5	-0.58	
LC0008	109.8	10.98	123	0.99	
LC0009	95.7	28.7	107	0.31	
LC0010	90.7	47.2	102	0.07	
LC0011	69.64	30.64	77.9	-0.95	
LC0012	188	38	210	4.78	H
LC0013	85	-	95.1	-0.21	
LC0014	88	17	98.5	-0.07	
LC0015	73.36	-	82.1	-0.77	
LC0016	84	17.4	94	-0.26	
LC0017	68.68	13.74	76.9	-1	
LC0018	92.8	16.7	104	0.17	
LC0019	59.6	26.2	66.7	-1.44	
LC0020	98	-	110	0.42	
LC0021	101	0.101	113	0.56	
LC0022	70.6	30.2	79	-0.91	
LC0023	-	-	-	-	
LC0024	81	13	90.7	-0.4	
LC0025	-	-	-	-	
LC0026	55.88	8.12	62.5	-1.62	
LC0027	67.9	15.2	76	-1.04	
LC0028	81.7	-	91.4	-0.37	
LC0029	133.4	66	149	2.14	
LC0030	89.9	1.178	101	0.03	

Characteristics of parameter

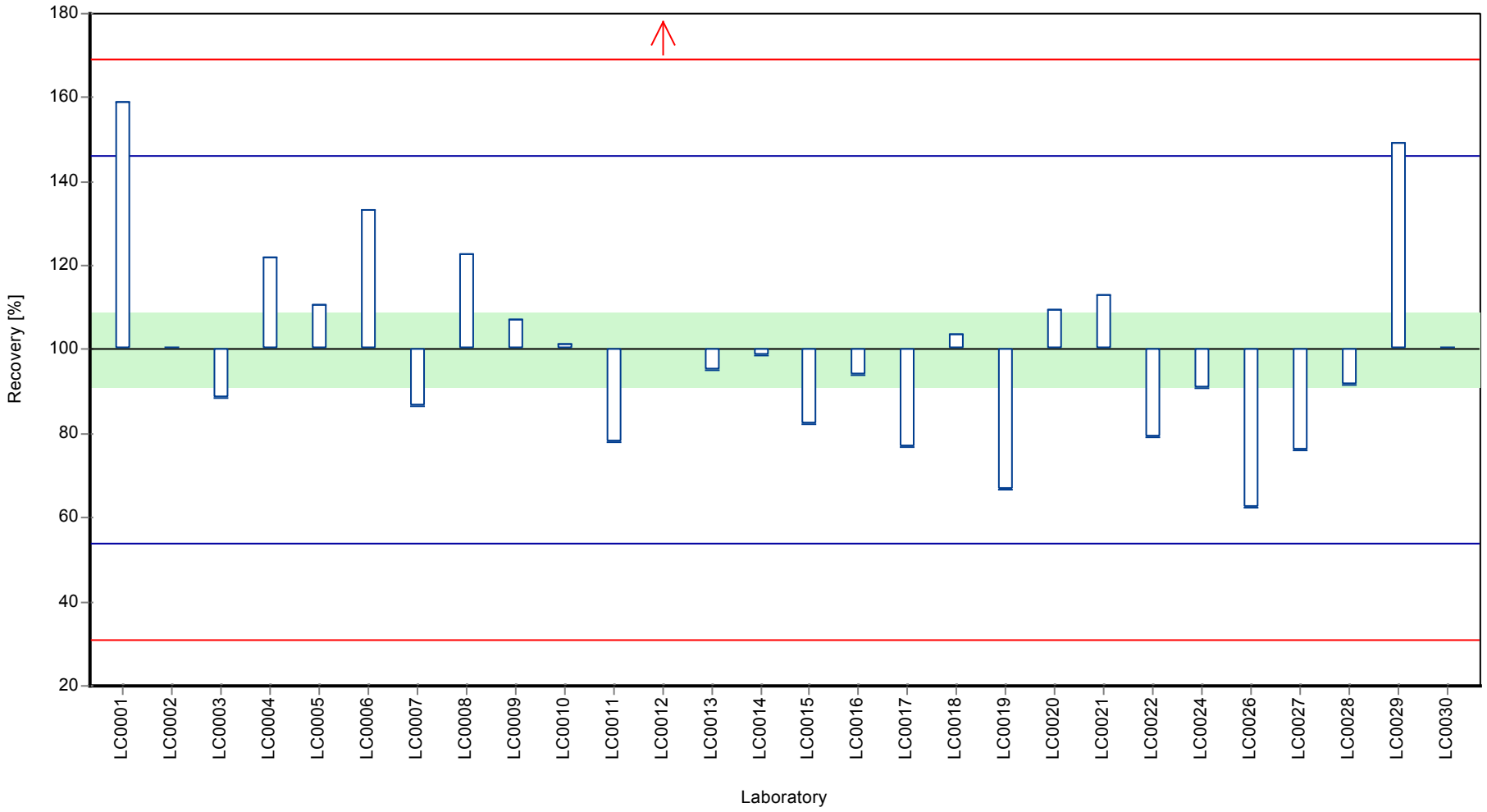
	all results	without outliers	Unit
Mean ± CI (99%)	92.9 ± 15.6	89.3 ± 11.9	ng/l
Minimum	55.9	55.9	ng/l
Maximum	188	142	ng/l
Standard deviation	27.5	20.6	ng/l
rel. Standard deviation	29.6	23.1	%
n	28	27	-

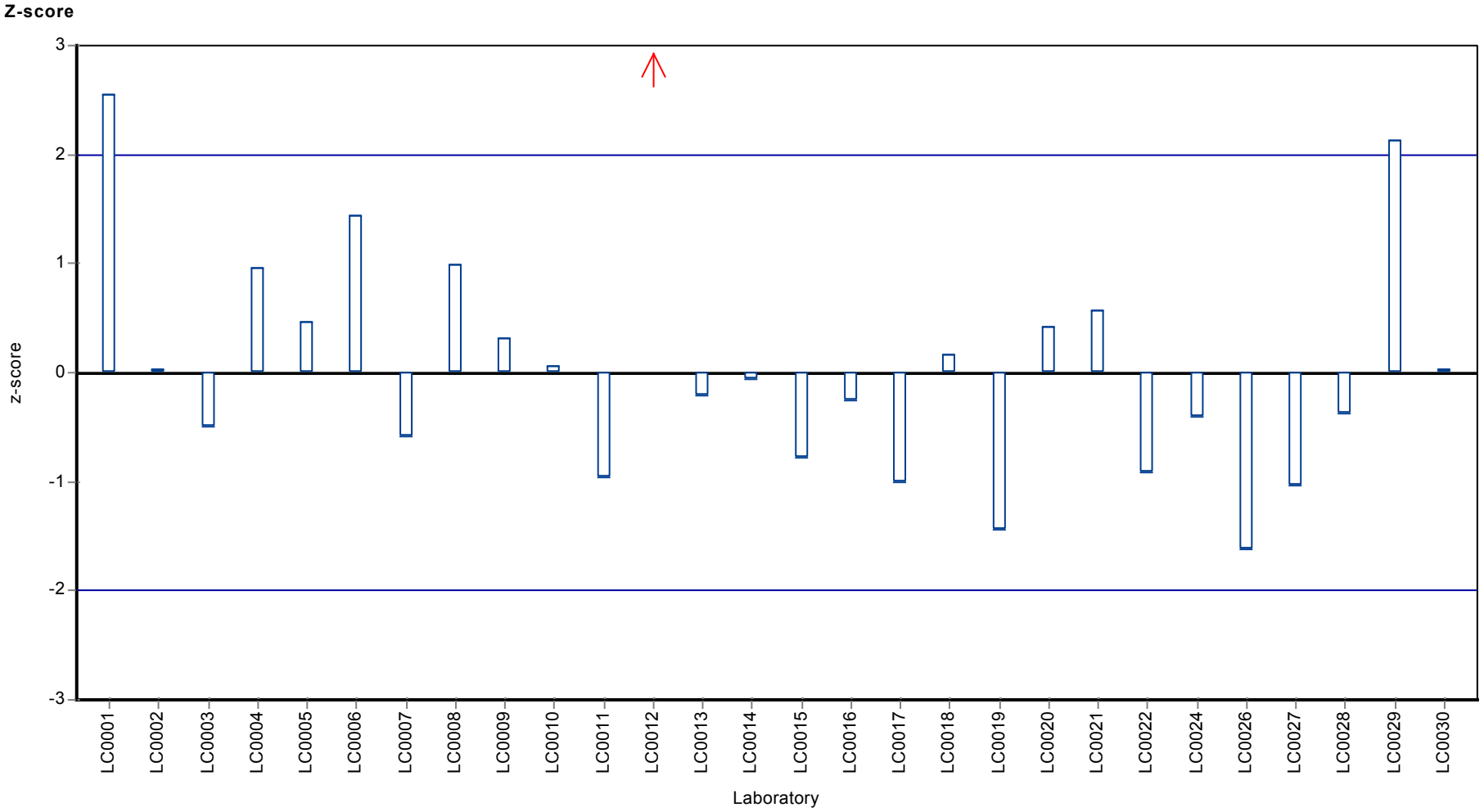
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
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LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Benzo[g,h,i]perylene

Unit	ng/l
Mean ± Cl (99%)	36.9 ± 4.34
Minimum - Maximum	24.1 - 57.6
Control test value ± U	43.8 ± 14

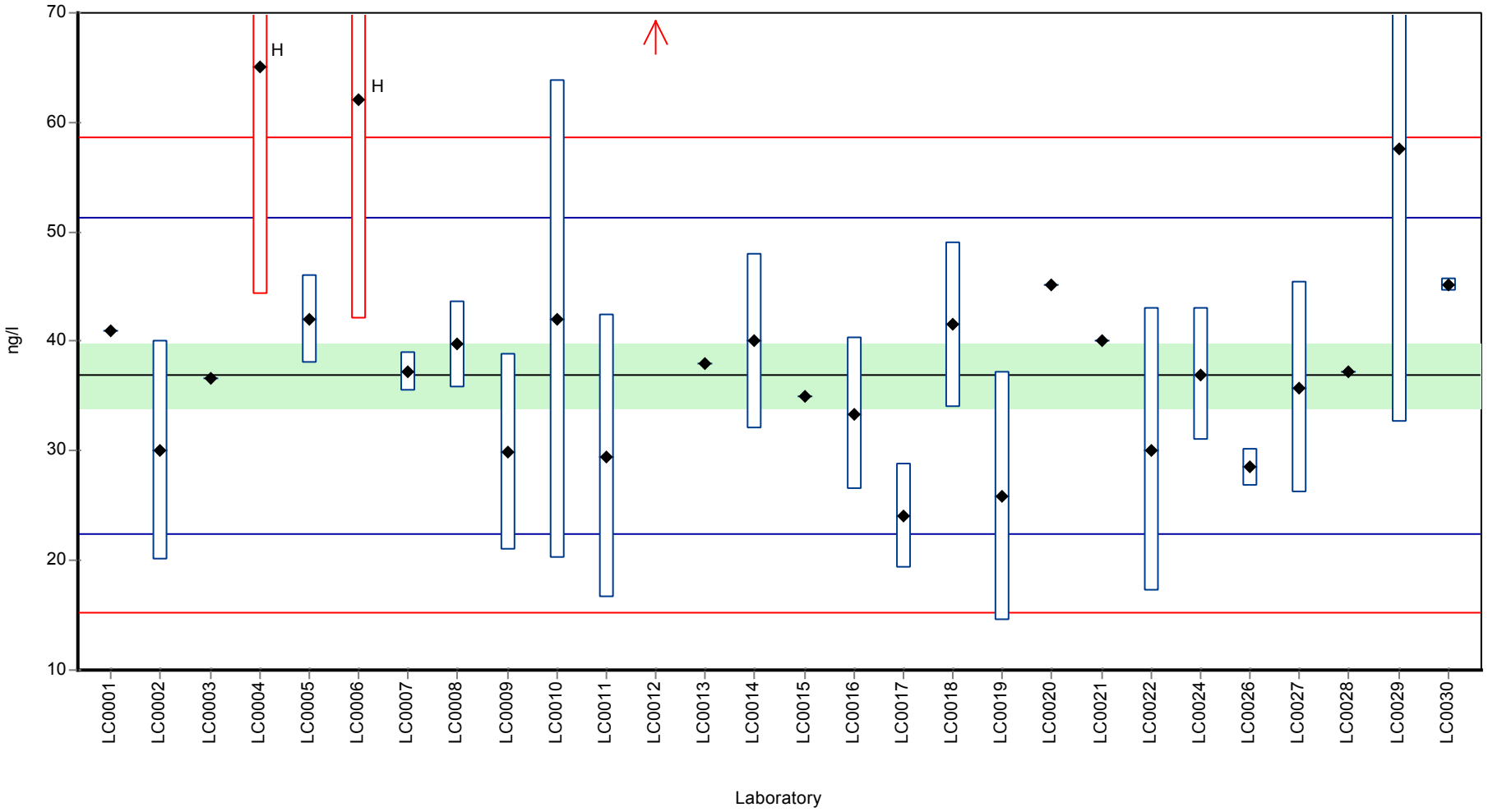
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	41	-	111	0.57	
LC0002	30	10	81.3	-0.95	
LC0003	36.6	-	99.2	-0.04	
LC0004	65.02	20.81	176	3.89	H
LC0005	42	4	114	0.71	
LC0006	62	20	168	3.47	H
LC0007	37.23	1.86	101	0.05	
LC0008	39.76	3.98	108	0.4	
LC0009	29.9	9	81	-0.97	
LC0010	42	21.8	114	0.71	
LC0011	29.5	12.98	80	-1.02	
LC0012	79	16	214	5.82	H
LC0013	38	-	103	0.15	
LC0014	40	8	108	0.43	
LC0015	34.96	-	94.8	-0.27	
LC0016	33.4	6.94	90.5	-0.48	
LC0017	24.06	4.81	65.2	-1.78	
LC0018	41.5	7.5	112	0.64	
LC0019	25.9	11.4	70.2	-1.52	
LC0020	45.1	-	122	1.14	
LC0021	40	0.04	108	0.43	
LC0022	30.1	12.9	81.6	-0.94	
LC0023	-	-	-	-	
LC0024	37	6	100	0.01	
LC0025	-	-	-	-	
LC0026	28.53	1.74	77.3	-1.16	
LC0027	35.8	9.6	97	-0.15	
LC0028	37.2	-	101	0.04	
LC0029	57.6	25	156	2.86	
LC0030	45.2	0.593	123	1.15	

Characteristics of parameter

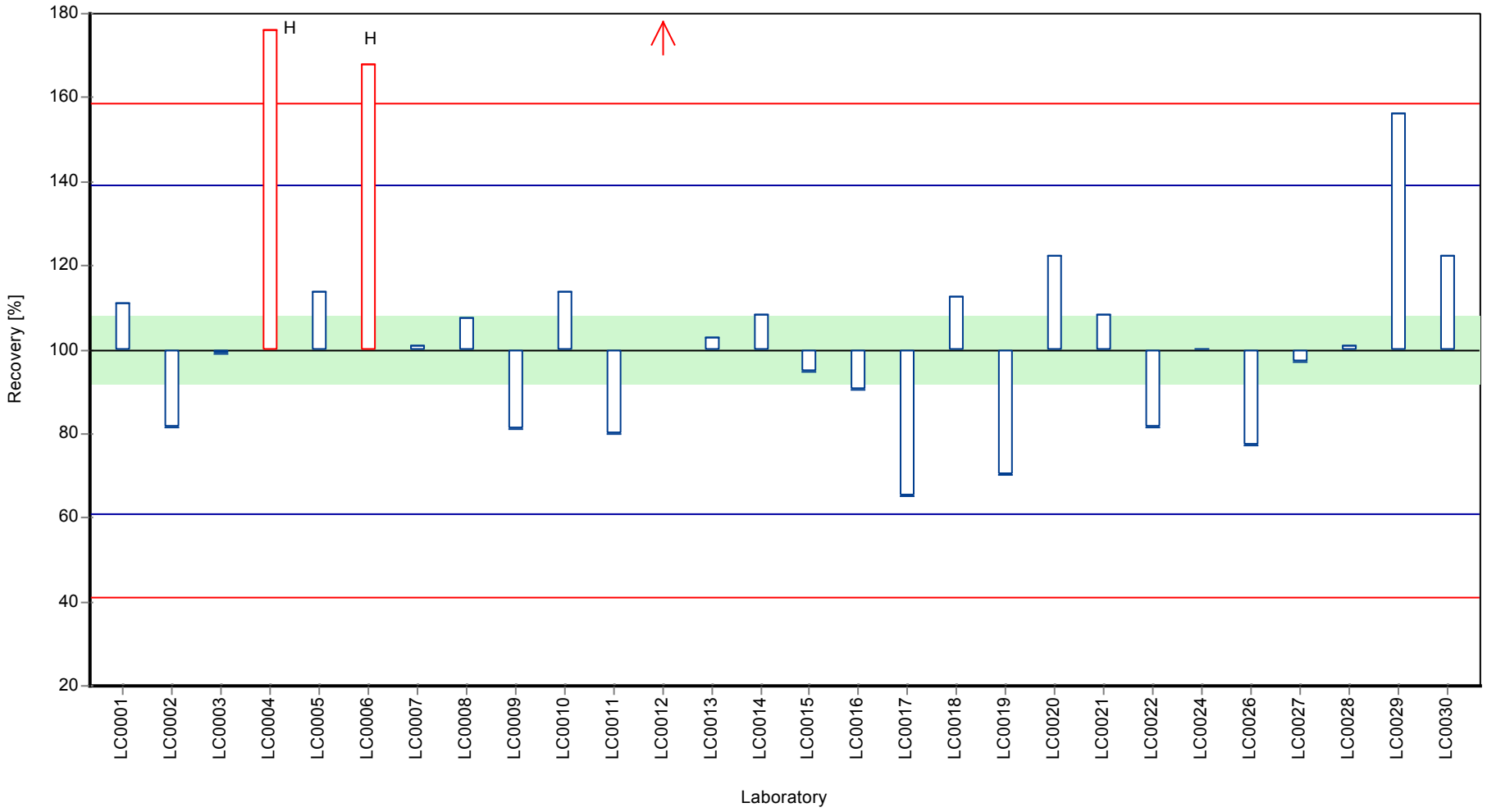
	all results	without outliers	Unit
Mean ± Cl (99%)	40.3 ± 7.01	36.9 ± 4.34	ng/l
Minimum	24.1	24.1	ng/l
Maximum	79	57.6	ng/l
Standard deviation	12.4	7.23	ng/l
rel. Standard deviation	30.7	19.6	%
n	28	25	-

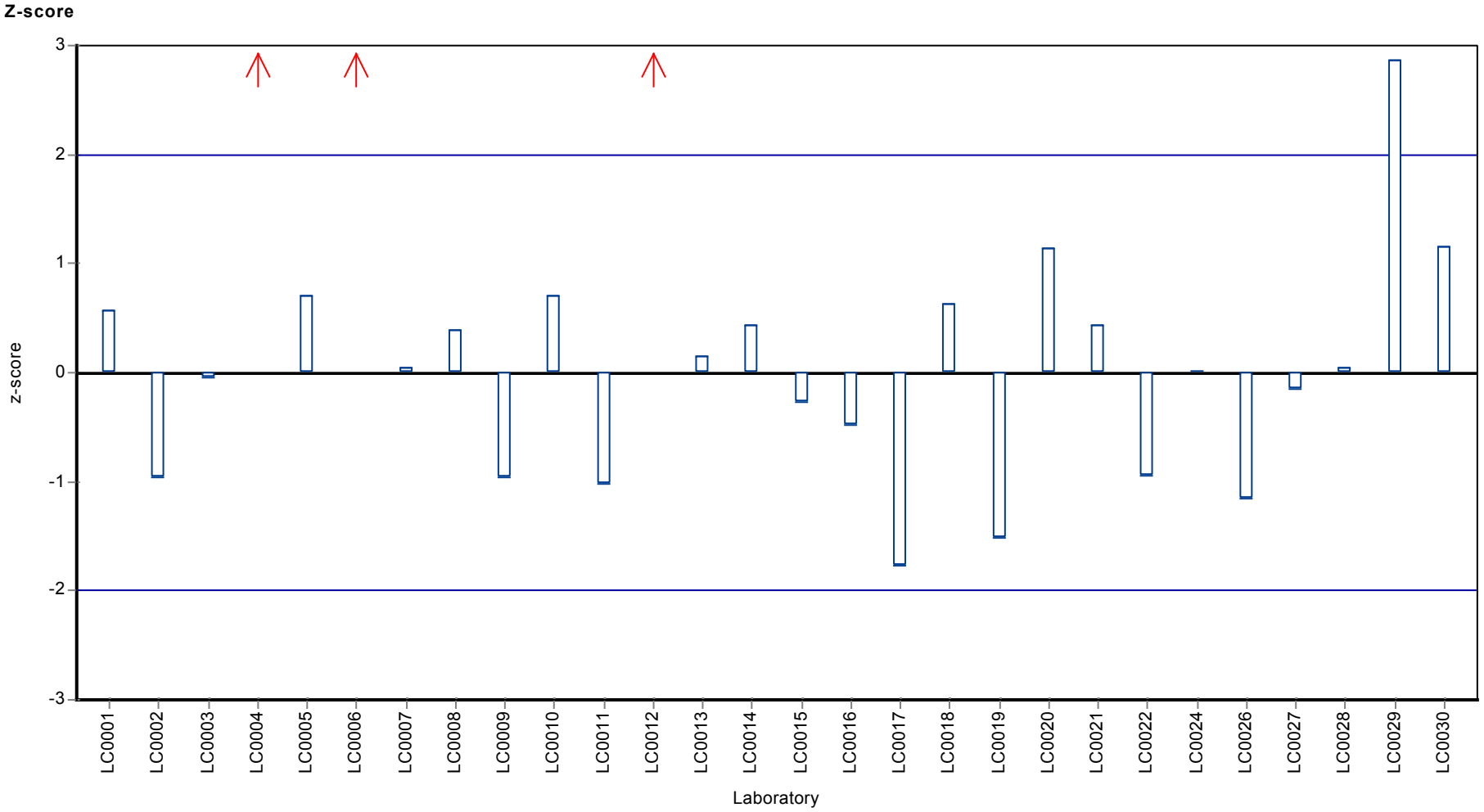
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
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LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Benzo[k]fluoranthene

Unit	ng/l
Mean ± CI (99%)	60.5 ± 11.9
Minimum - Maximum	14.5 - 100
Control test value ± U	62.6 ± 17.5

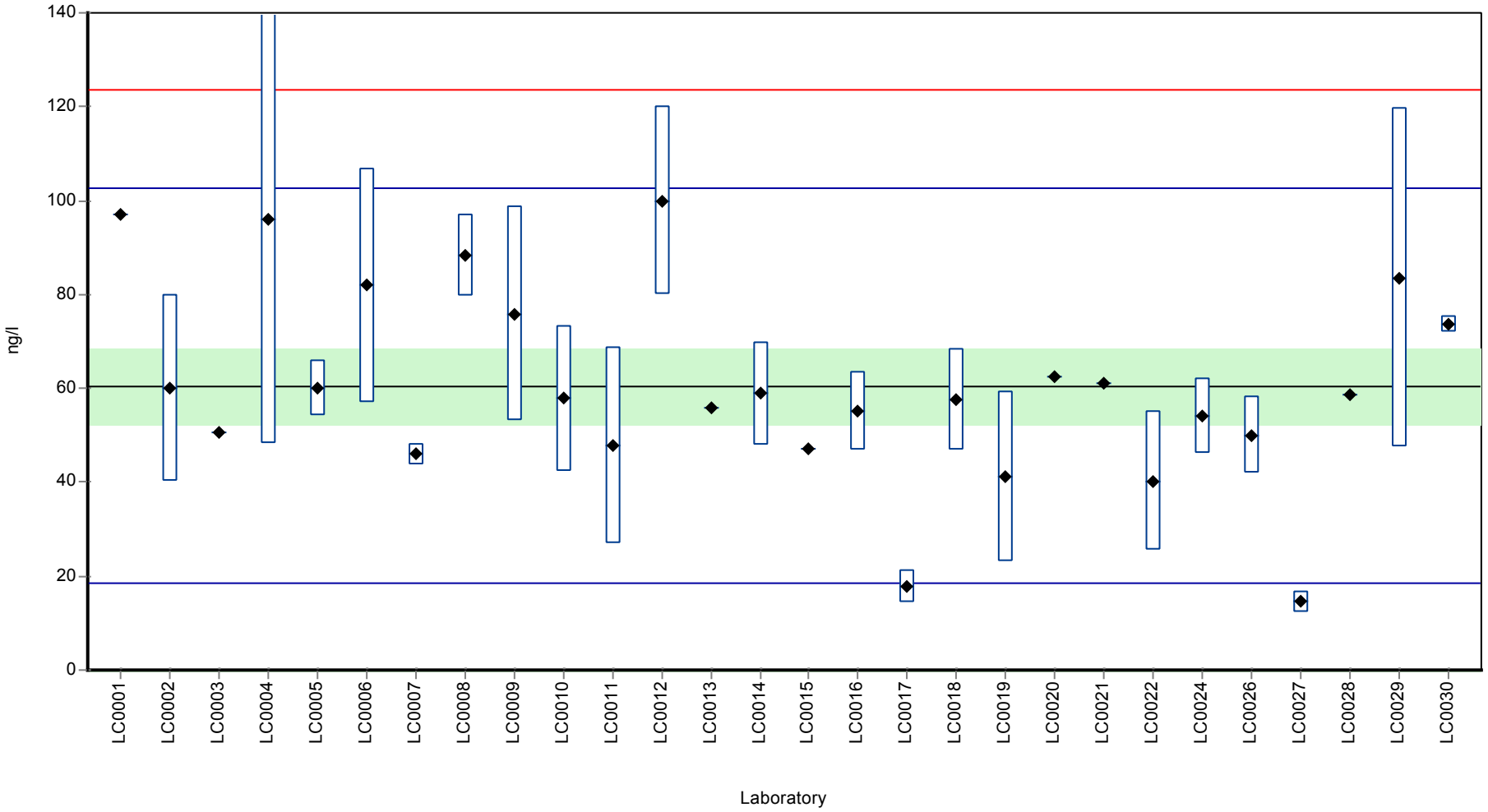
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	97	-	160	1.74	
LC0002	60	20	99.2	-0.02	
LC0003	50.5	-	83.5	-0.47	
LC0004	96.07	48.04	159	1.69	
LC0005	60	6	99.2	-0.02	
LC0006	82	25	136	1.02	
LC0007	46.03	2.3	76.1	-0.69	
LC0008	88.29	8.83	146	1.32	
LC0009	75.9	22.8	125	0.73	
LC0010	57.8	15.6	95.6	-0.13	
LC0011	47.72	21	78.9	-0.61	
LC0012	100	20	165	1.88	
LC0013	56	-	92.6	-0.21	
LC0014	59	11	97.6	-0.07	
LC0015	47.17	-	78	-0.63	
LC0016	55	8.37	90.9	-0.26	
LC0017	17.89	3.58	29.6	-2.03	
LC0018	57.6	10.9	95.2	-0.14	
LC0019	41.1	18.1	68	-0.92	
LC0020	62.5	-	103	0.1	
LC0021	61	0.061	101	0.02	
LC0022	40.3	14.8	66.6	-0.96	
LC0023	-	-	-	-	
LC0024	54	8	89.3	-0.31	
LC0025	-	-	-	-	
LC0026	50.1	8.13	82.8	-0.49	
LC0027	14.5	2.27	24	-2.19	
LC0028	58.6	-	96.9	-0.09	
LC0029	83.6	36	138	1.1	
LC0030	73.8	1.786	122	0.63	

Characteristics of parameter

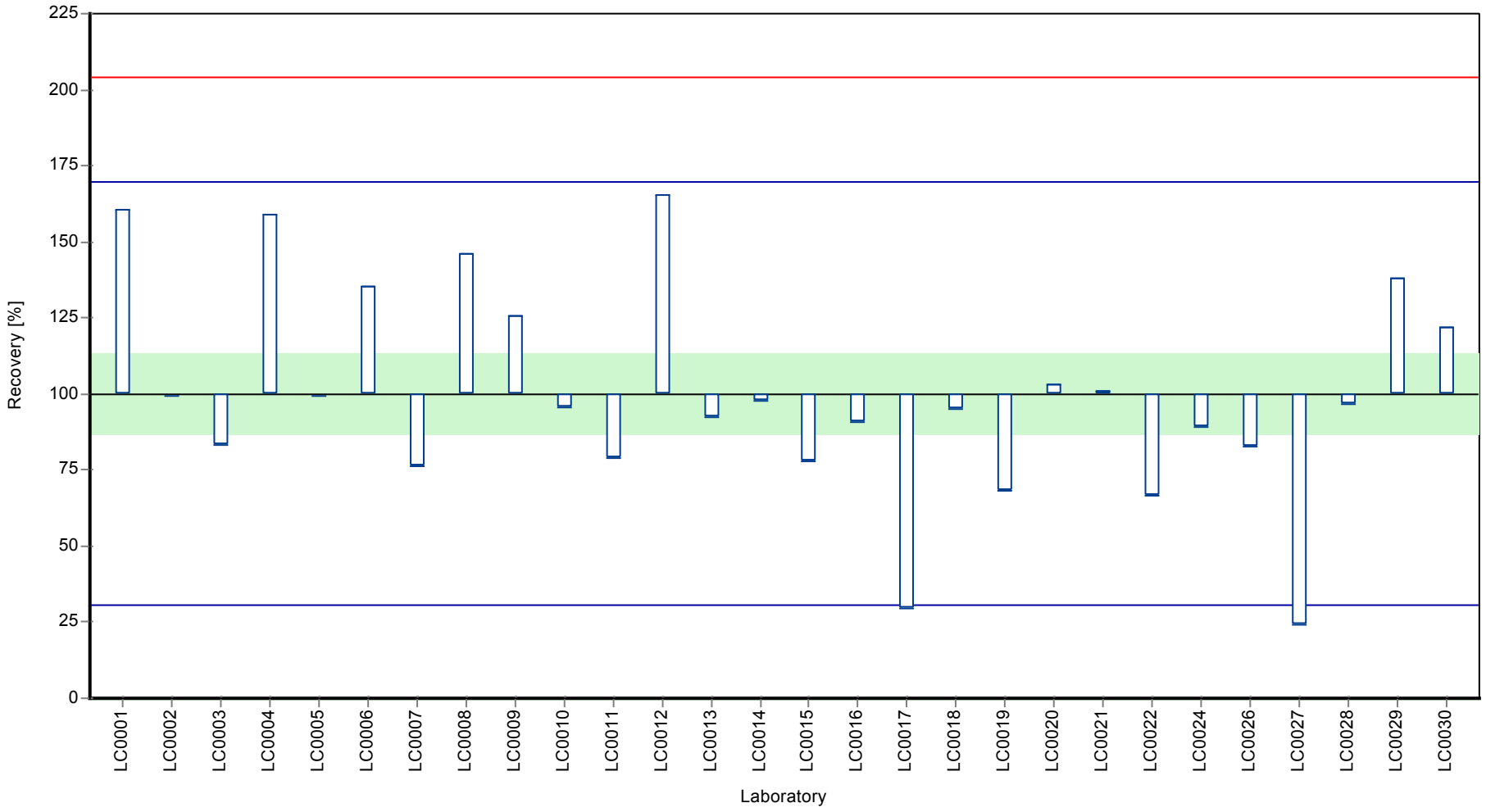
	all results	without outliers	Unit
Mean ± CI (99%)	60.5 ± 11.9	60.5 ± 11.9	ng/l
Minimum	14.5	14.5	ng/l
Maximum	100	100	ng/l
Standard deviation	21	21	ng/l
rel. Standard deviation	34.8	34.8	%
n	28	28	-

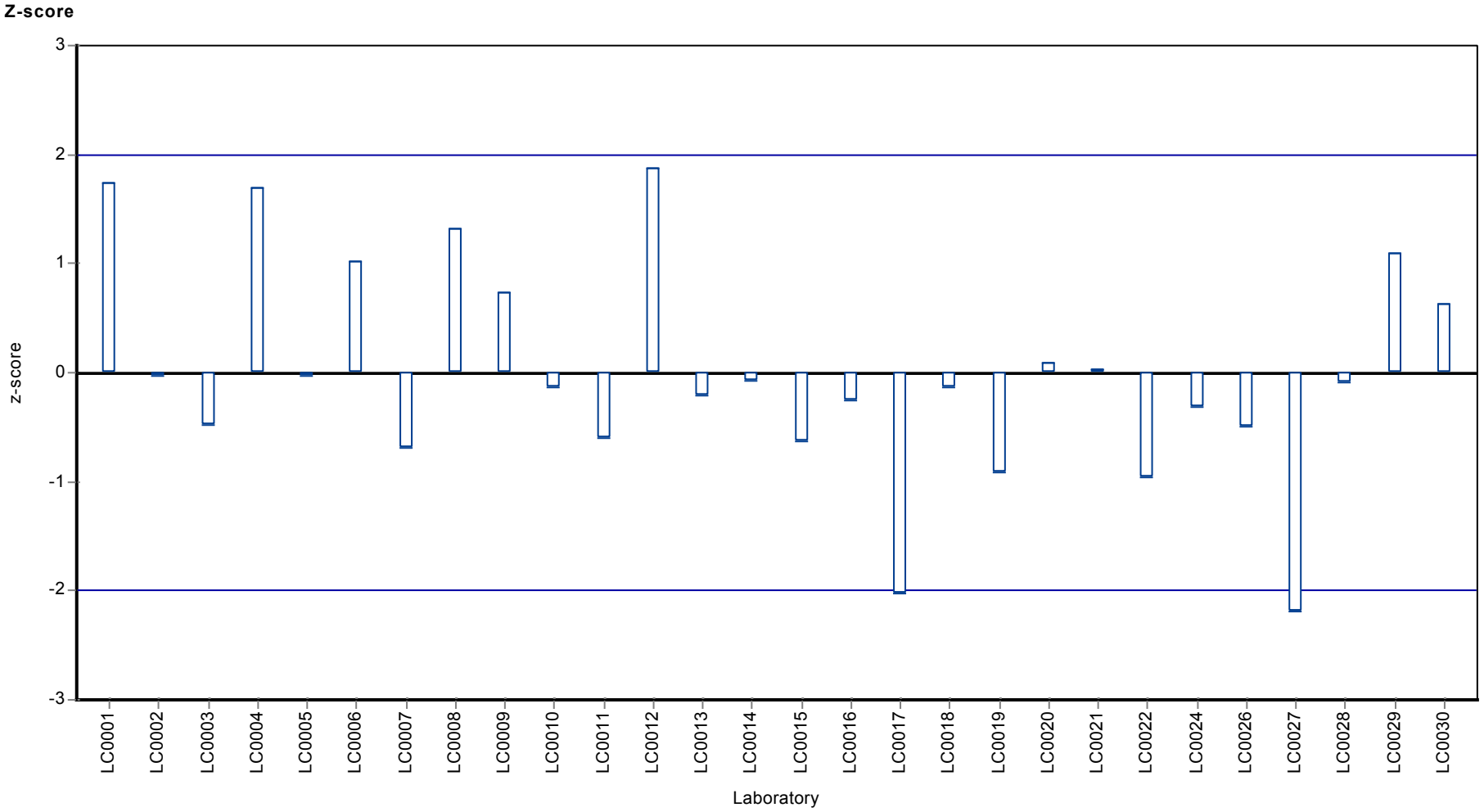
Graphical presentation of results

Results



Recovery rate




Z-score
3
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-1
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-3
z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
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LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Benzo[k]fluoranthene

Unit	ng/l
Mean ± CI (99%)	4.96 ± 0.746
Minimum - Maximum	2.86 - 6.5
Control test value ± U	6.21 ± 1.74

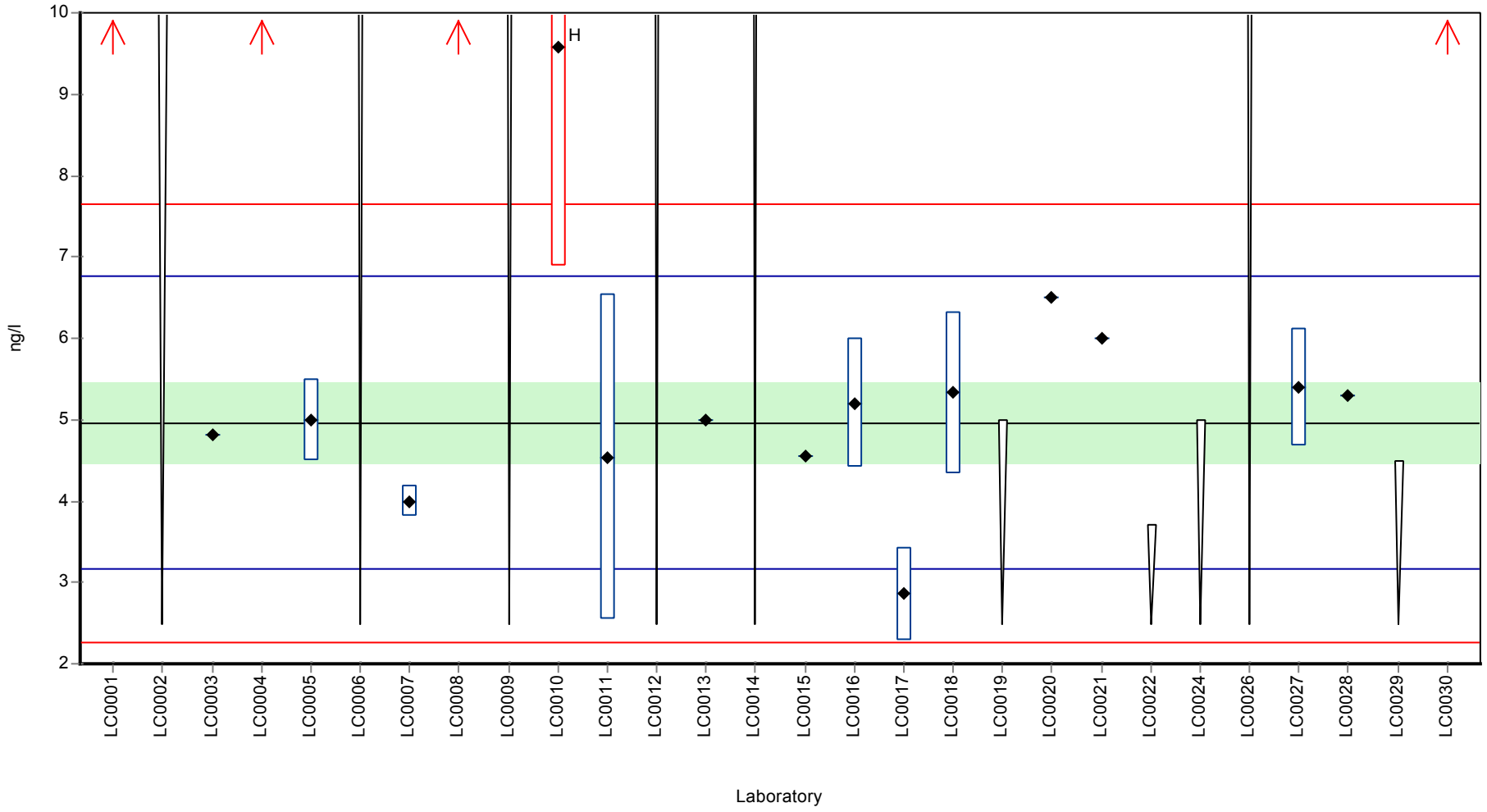
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	11	-	222	6.73	H
LC0002	< 10 (LOQ)	-	-	-	
LC0003	4.81	-	96.9	-0.17	
LC0004	14.96	7.48	302	11.1	H
LC0005	5	0.5	101	0.04	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	4	0.2	80.6	-1.07	
LC0008	15.97	1.6	322	12.3	H
LC0009	< 20 (LOQ)	-	-	-	
LC0010	9.58	2.69	193	5.15	H
LC0011	4.54	2	91.5	-0.47	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	5	-	101	0.04	
LC0014	< 30 (LOQ)	-	-	-	
LC0015	4.56	-	91.9	-0.45	
LC0016	5.2	0.792	105	0.27	
LC0017	2.86	0.57	57.6	-2.34	
LC0018	5.33	1	107	0.41	
LC0019	< 5 (LOQ)	-	-	-	
LC0020	6.5	-	131	1.72	
LC0021	6	0.006	121	1.16	
LC0022	< 3.7 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	< 5 (LOQ)	-	-	-	
LC0025	-	-	-	-	
LC0026	< 20 (LOQ)	-	-	-	
LC0027	5.4	0.726	109	0.49	
LC0028	5.3	-	107	0.38	
LC0029	< 4.5 (LOQ)	-	-	-	
LC0030	12.2	0.296	246	8.07	H

Characteristics of parameter

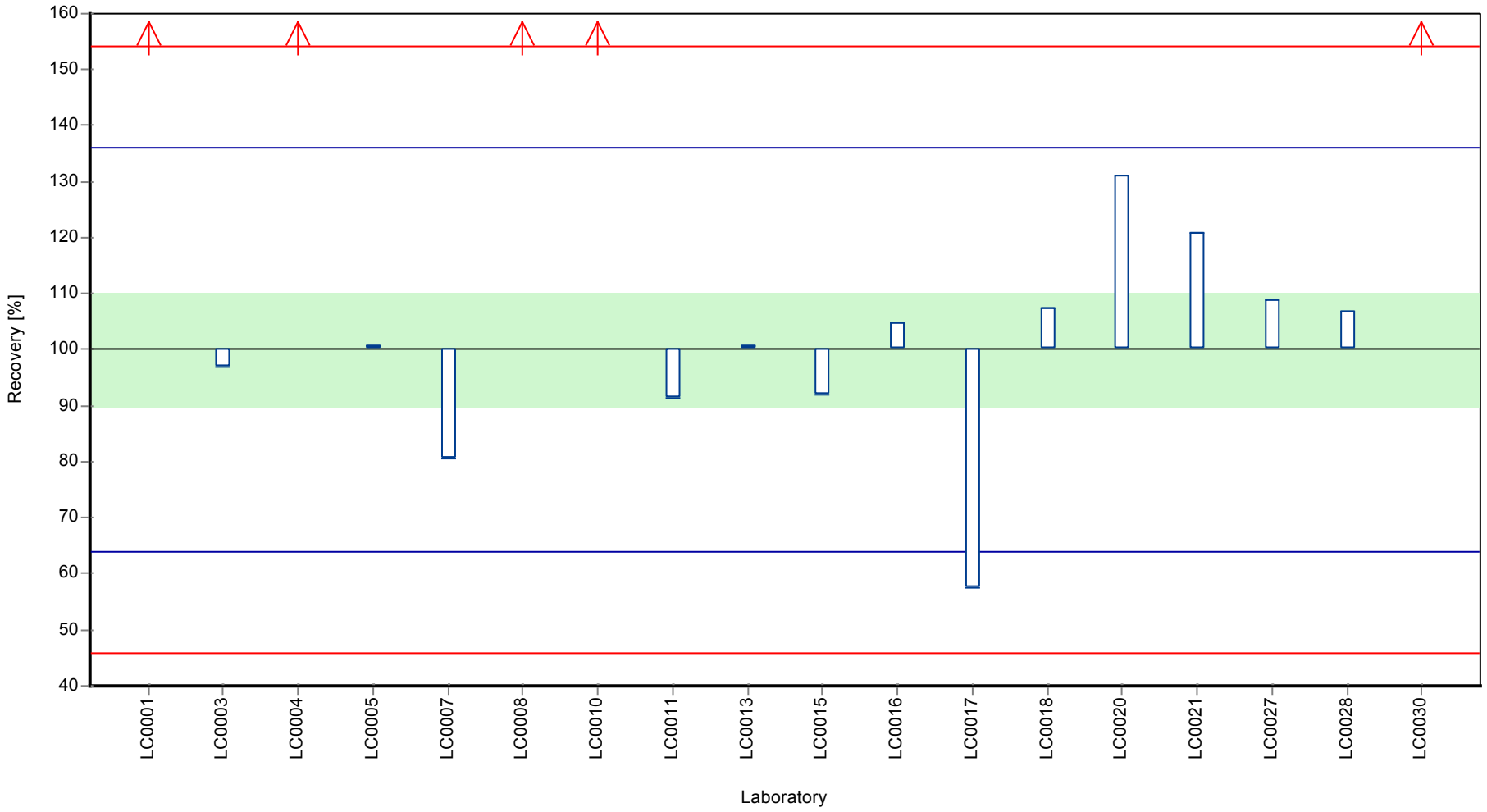
	all results	without outliers	Unit
Mean ± CI (99%)	7.12 ± 2.75	4.96 ± 0.746	ng/l
Minimum	2.86	2.86	ng/l
Maximum	16	6.5	ng/l
Standard deviation	3.89	0.897	ng/l
rel. Standard deviation	54.6	18.1	%
n	18	13	-

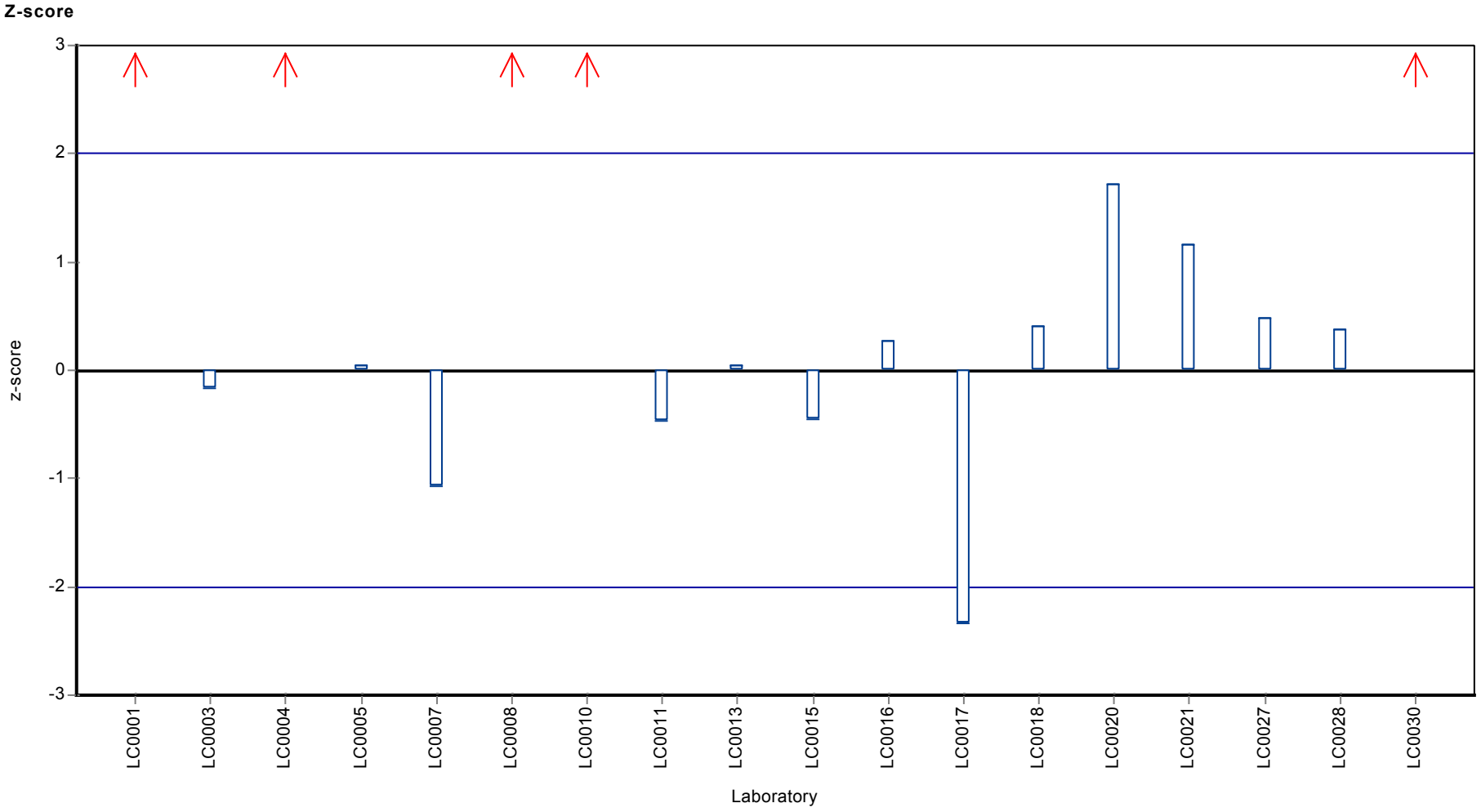
Graphical presentation of results

Results



Recovery rate

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-2
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LC0001
LC0003
LC0004
LC0005
LC0007
LC0008
LC0010
LC0011
LC0013
LC0015
LC0016
LC0017
LC0018
LC0020
LC0021
LC0027
LC0028
LC0030
Laboratory

Parameter oriented report

P19 A

Chrysene

Unit	ng/l
Mean ± CI (99%)	68.5 ± 8.88
Minimum - Maximum	35.9 - 99
Control test value ± U	65.8 ± 17.1

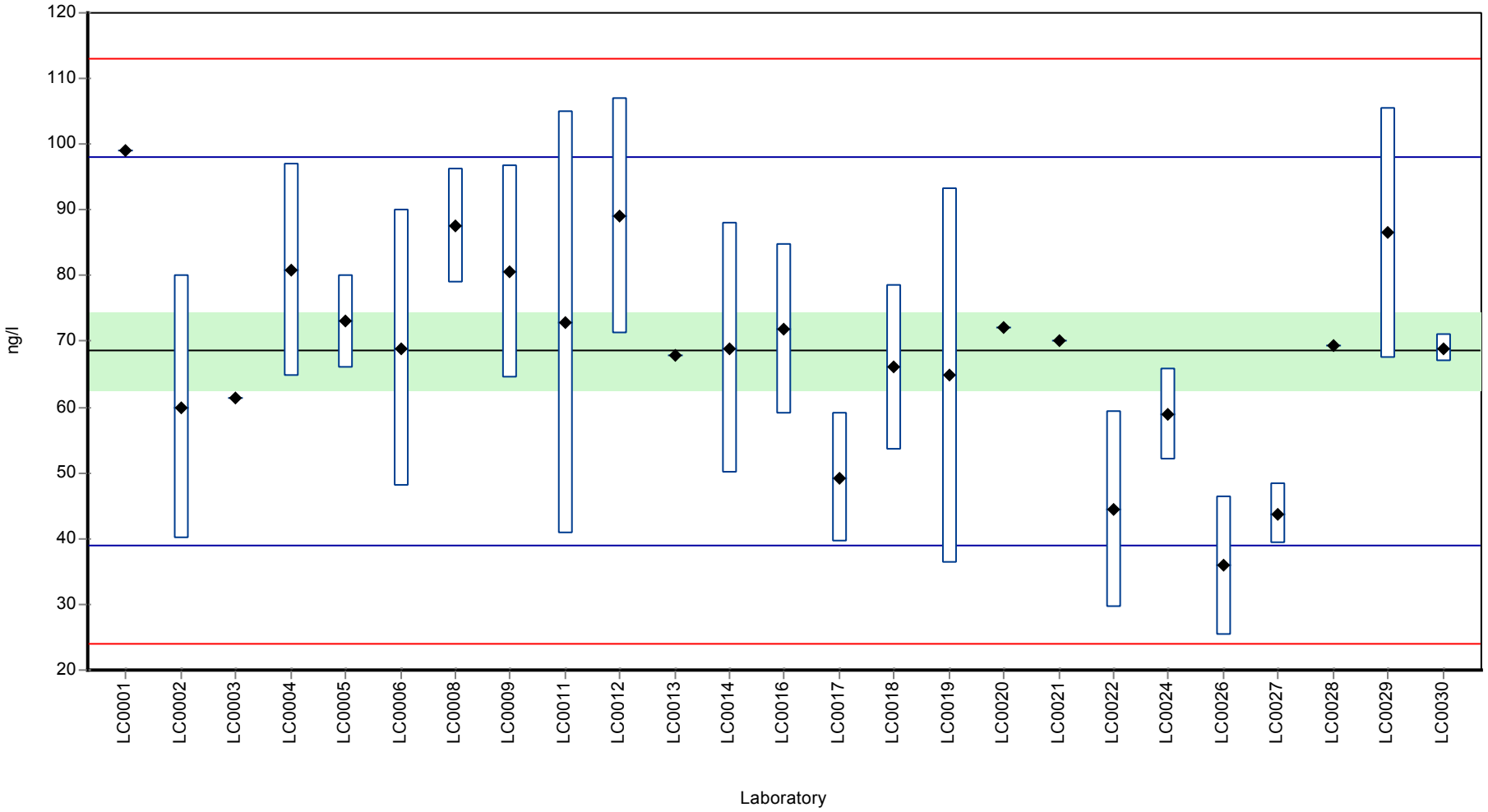
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	99	-	145	2.06	
LC0002	60	20	87.6	-0.57	
LC0003	61.4	-	89.6	-0.48	
LC0004	80.93	16.19	118	0.84	
LC0005	73	7	107	0.3	
LC0006	69	21	101	0.03	
LC0007	-	-	-	-	
LC0008	87.52	8.75	128	1.28	
LC0009	80.6	16.1	118	0.82	
LC0010	-	-	-	-	
LC0011	72.9	32.08	106	0.3	
LC0012	89	18	130	1.38	
LC0013	68	-	99.3	-0.03	
LC0014	69	19	101	0.03	
LC0015	-	-	-	-	
LC0016	71.9	12.9	105	0.23	
LC0017	49.25	9.85	71.9	-1.3	
LC0018	66.1	12.6	96.5	-0.16	
LC0019	64.8	28.5	94.6	-0.25	
LC0020	72.1	-	105	0.24	
LC0021	70	0.07	102	0.1	
LC0022	44.5	15	65	-1.62	
LC0023	-	-	-	-	
LC0024	59	7	86.1	-0.64	
LC0025	-	-	-	-	
LC0026	35.85	10.7	52.3	-2.21	
LC0027	43.8	4.56	63.9	-1.67	
LC0028	69.5	-	101	0.07	
LC0029	86.5	19	126	1.22	
LC0030	69	2.071	101	0.03	

Characteristics of parameter

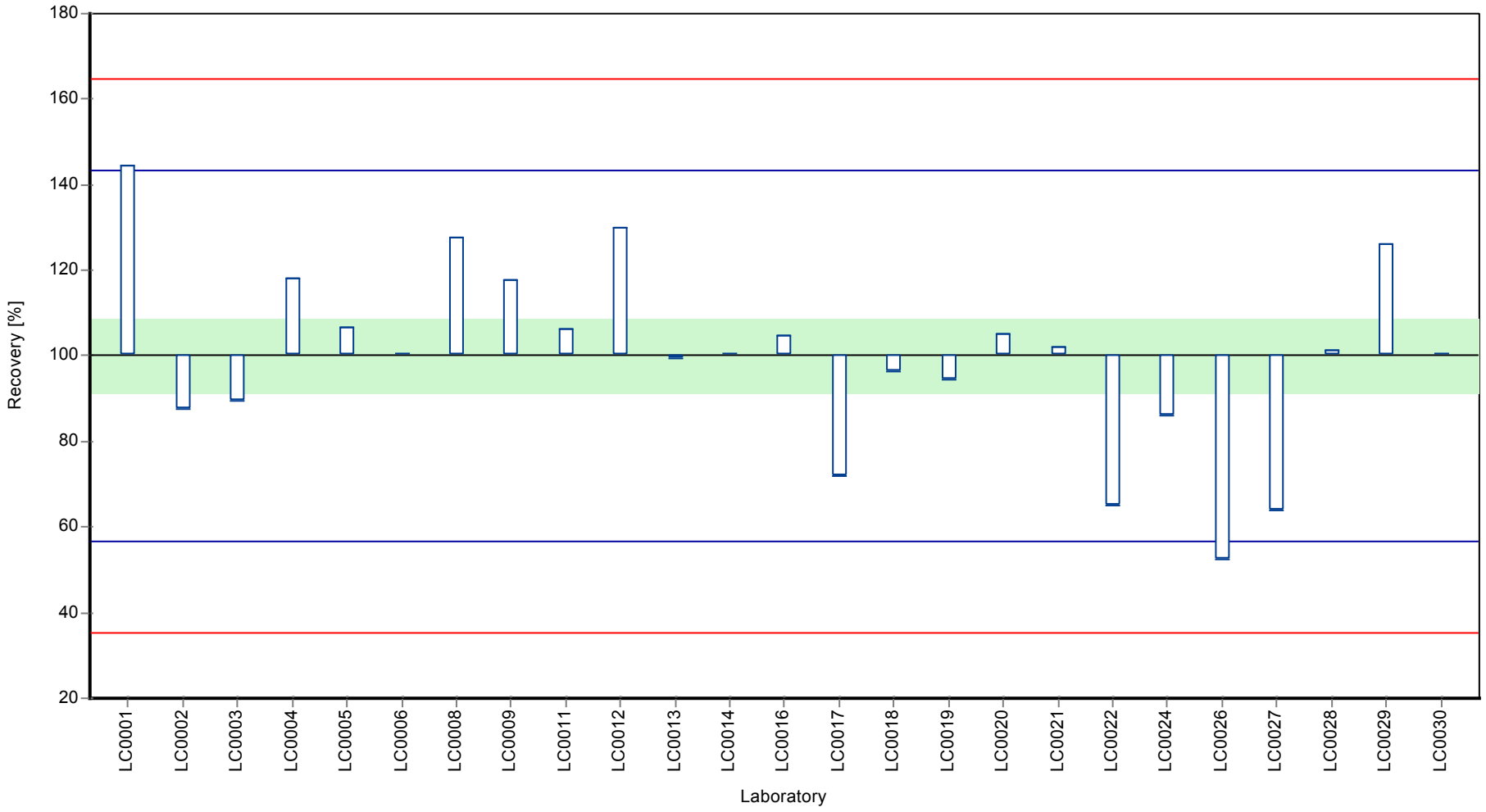
	all results	without outliers	Unit
Mean ± CI (99%)	68.5 ± 8.88	68.5 ± 8.88	ng/l
Minimum	35.9	35.9	ng/l
Maximum	99	99	ng/l
Standard deviation	14.8	14.8	ng/l
rel. Standard deviation	21.6	21.6	%
n	25	25	-

Graphical presentation of results

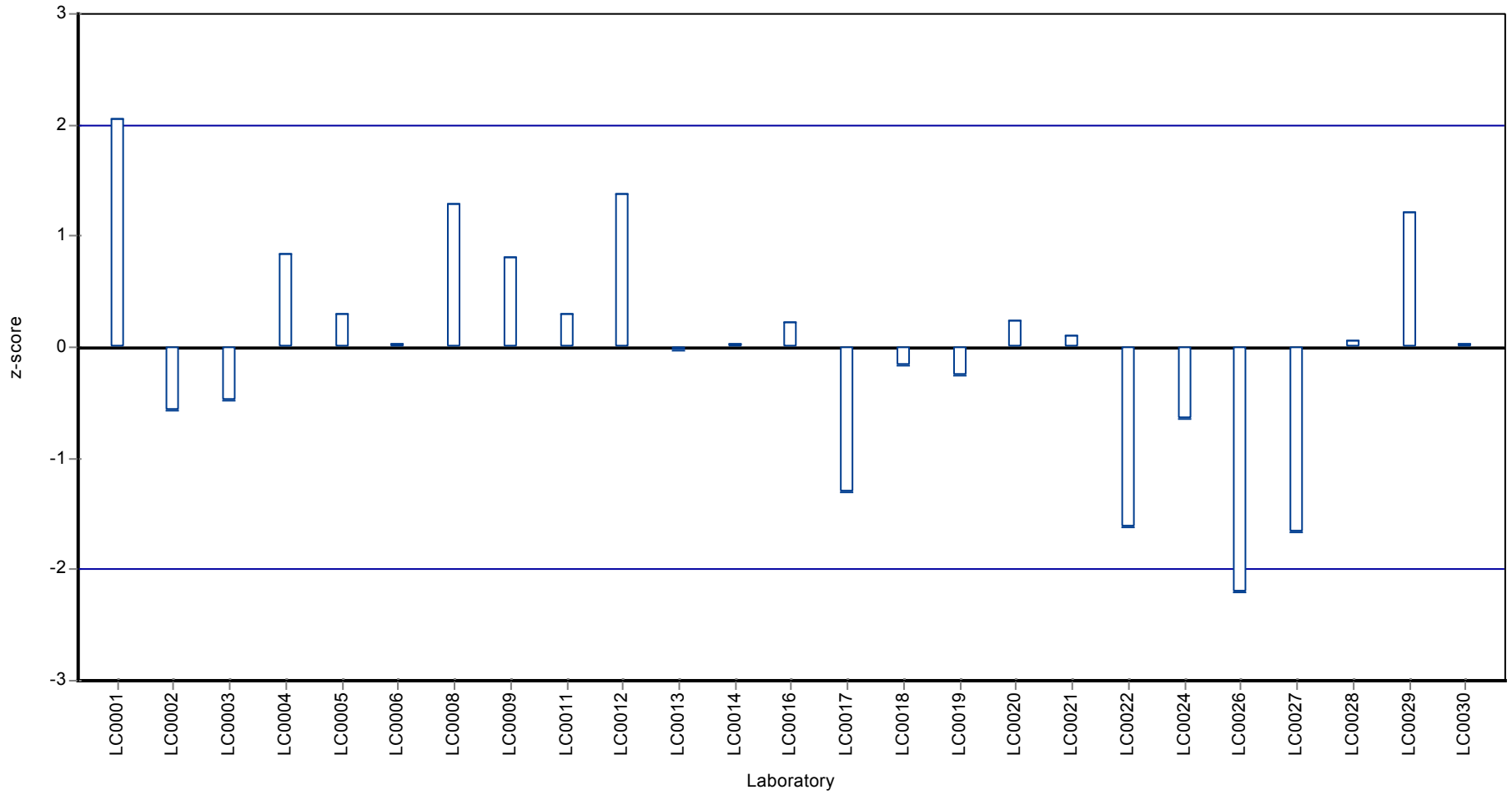
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
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LC0011
LC0012
LC0013
LC0014
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Chrysene

Unit	ng/l
Mean ± CI (99%)	9.93 ± 1.21
Minimum - Maximum	6.2 - 13
Control test value ± U	10.1 ± 2.62

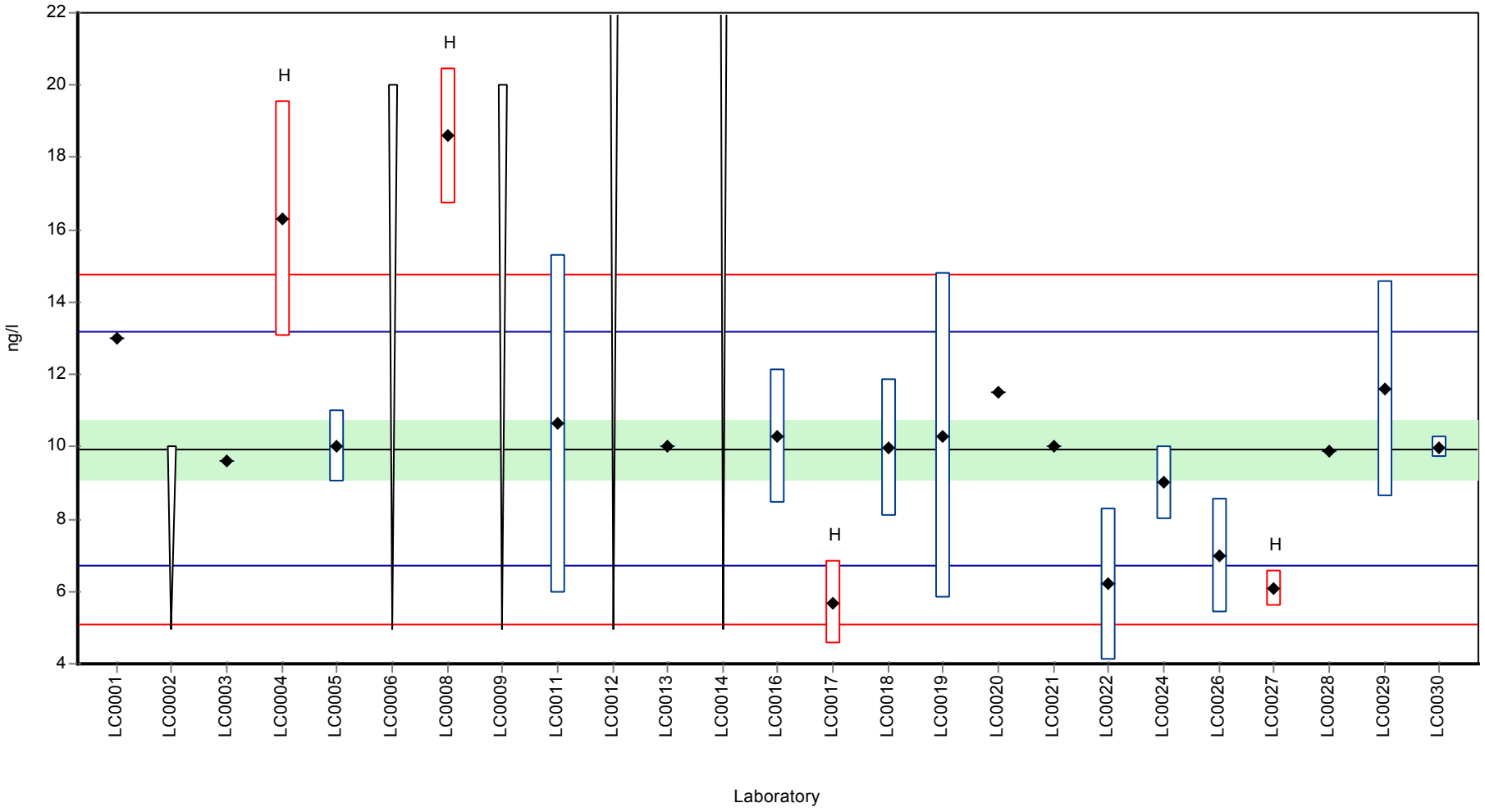
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	13	-	131	1.9	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	9.61	-	96.7	-0.2	
LC0004	16.32	3.26	164	3.96	H
LC0005	10	1	101	0.04	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	-	-	-	-	
LC0008	18.59	1.86	187	5.36	H
LC0009	< 20 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	10.64	4.68	107	0.44	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	10	-	101	0.04	
LC0014	< 30 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	10.3	1.85	104	0.23	
LC0017	5.69	1.14	57.3	-2.63	H
LC0018	9.99	1.9	101	0.03	
LC0019	10.3	4.5	104	0.23	
LC0020	11.5	-	116	0.97	
LC0021	10	0.01	101	0.04	
LC0022	6.2	2.1	62.4	-2.31	
LC0023	-	-	-	-	
LC0024	9	1	90.6	-0.58	
LC0025	-	-	-	-	
LC0026	6.98	1.58	70.3	-1.83	
LC0027	6.08	0.505	61.2	-2.39	H
LC0028	9.86	-	99.2	-0.05	
LC0029	11.6	3	117	1.03	
LC0030	9.98	0.3	100	0.03	

Characteristics of parameter

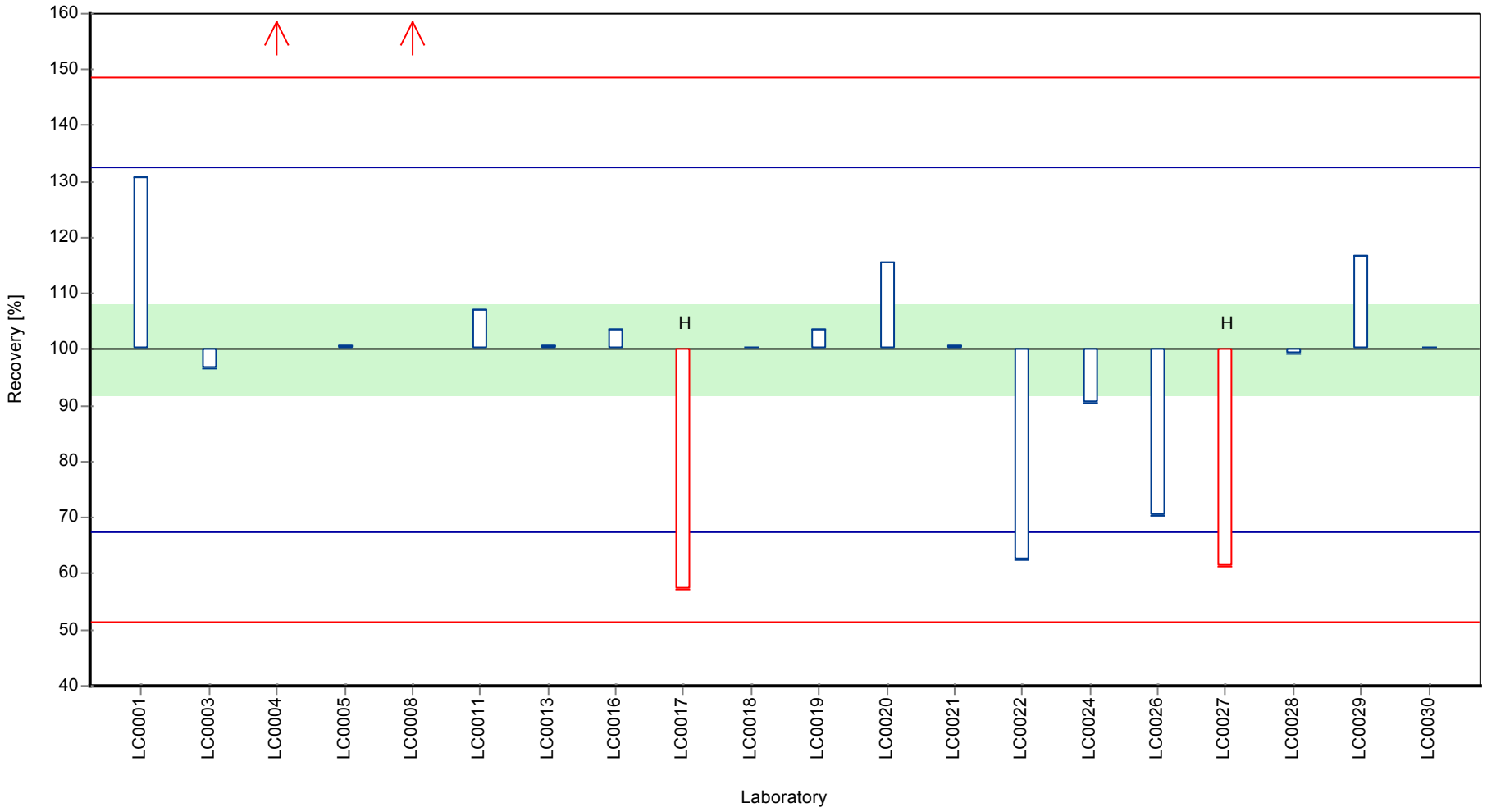
	all results	without outliers	Unit
Mean ± CI (99%)	10.3 ± 2.09	9.93 ± 1.21	ng/l
Minimum	5.69	6.2	ng/l
Maximum	18.6	13	ng/l
Standard deviation	3.12	1.61	ng/l
rel. Standard deviation	30.4	16.2	%
n	20	16	-

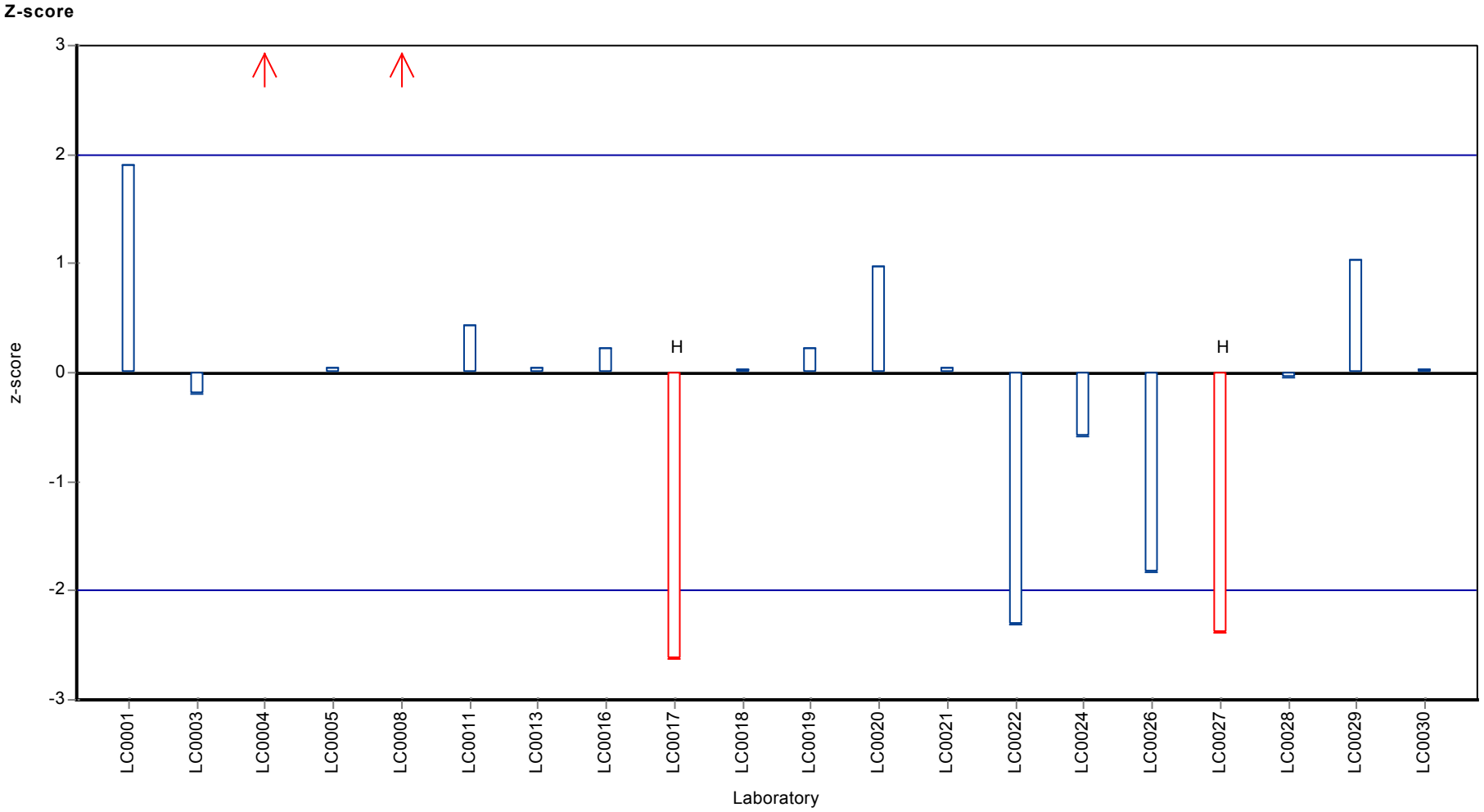
Graphical presentation of results

Results



Recovery rate




Z-score
3
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-3
z-score
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H
LC0001
LC0003
LC0004
LC0005
LC0008
LC0011
LC0013
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Dibenzo[a,h]anthracene

Unit	ng/l
Mean ± CI (99%)	183 ± 30.3
Minimum - Maximum	68.6 - 267
Control test value ± U	125 ± 51.3

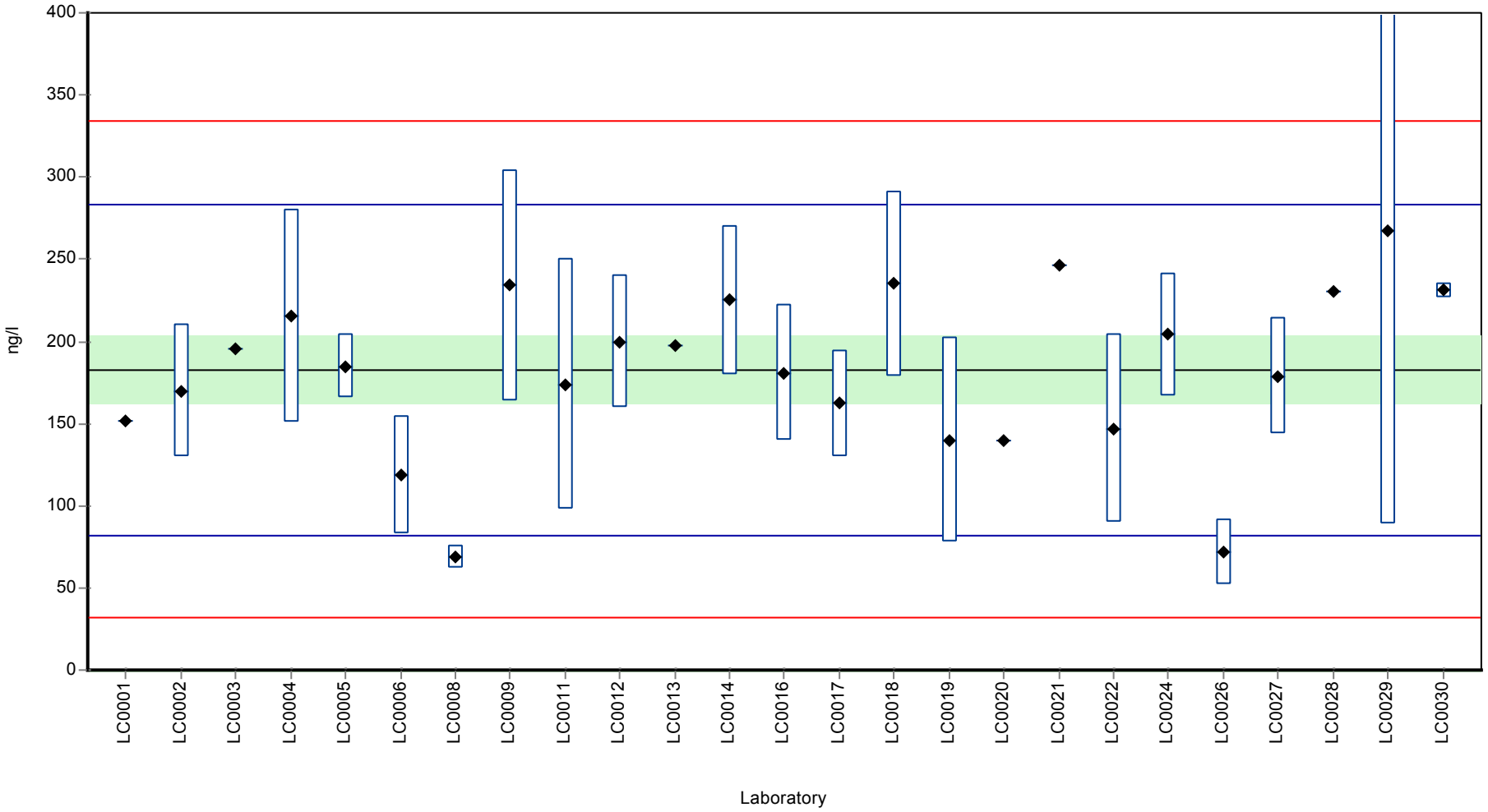
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	152	-	83.1	-0.61	
LC0002	170	40	93	-0.26	
LC0003	196	-	107	0.26	
LC0004	215.83	64.75	118	0.65	
LC0005	185	19	101	0.04	
LC0006	119	36	65.1	-1.27	
LC0007	-	-	-	-	
LC0008	68.6	6.86	37.5	-2.27	
LC0009	234.3	70.3	128	1.02	
LC0010	-	-	-	-	
LC0011	173.75	76.45	95	-0.18	
LC0012	200	40	109	0.34	
LC0013	198	-	108	0.3	
LC0014	225	45	123	0.83	
LC0015	-	-	-	-	
LC0016	181	41.7	99	-0.04	
LC0017	162.31	32.46	88.7	-0.41	
LC0018	235	56.4	128	1.03	
LC0019	140	62	76.6	-0.85	
LC0020	140.1	-	76.6	-0.85	
LC0021	246	0.25	135	1.25	
LC0022	146.9	57.1	80.3	-0.71	
LC0023	-	-	-	-	
LC0024	204	37	112	0.42	
LC0025	-	-	-	-	
LC0026	71.98	20.28	39.4	-2.2	
LC0027	179	35.4	97.9	-0.08	
LC0028	230	-	126	0.93	
LC0029	267.4	179	146	1.68	
LC0030	231	4.554	126	0.95	

Characteristics of parameter

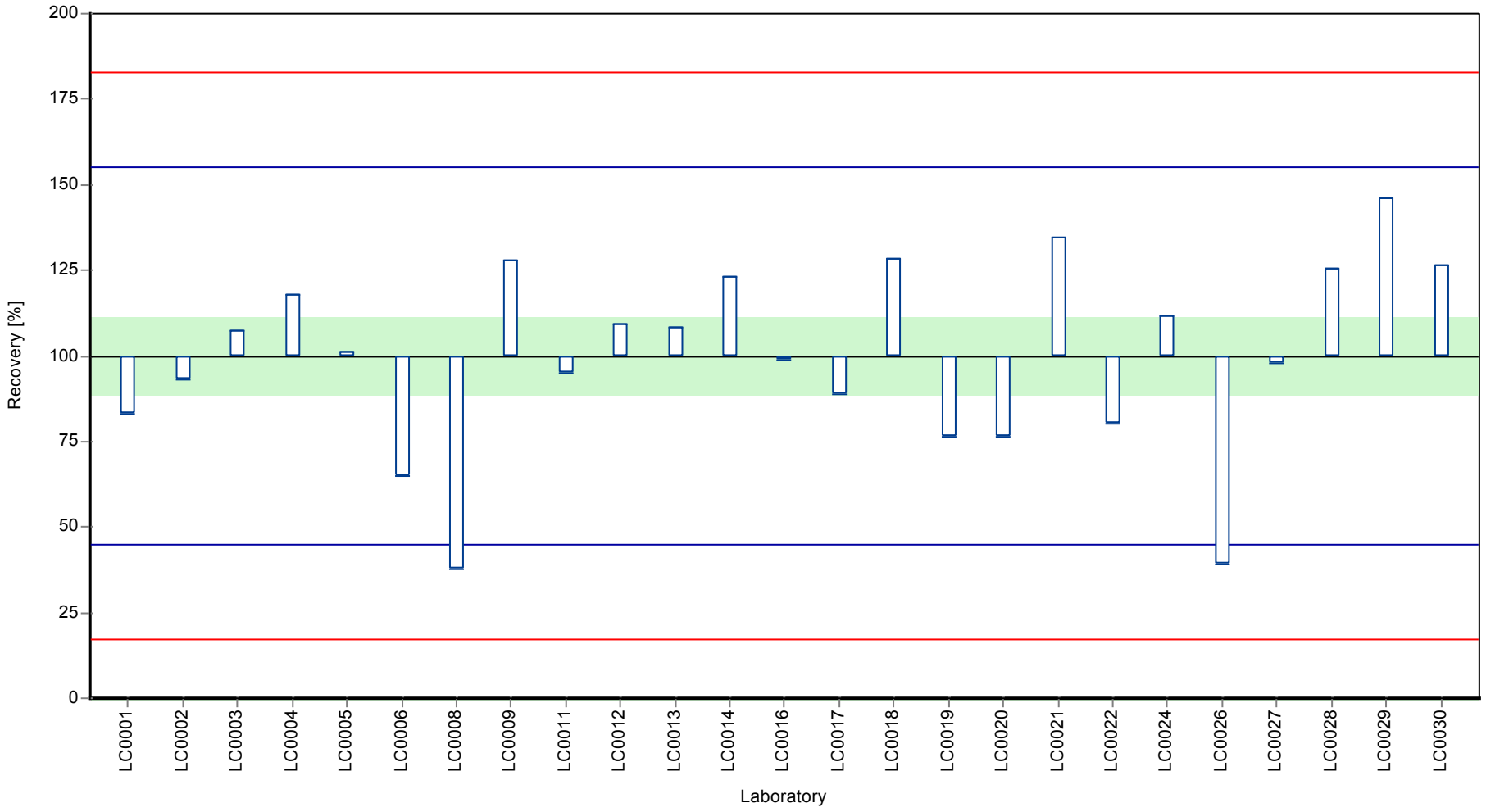
	all results	without outliers	Unit
Mean ± CI (99%)	183 ± 30.3	183 ± 30.3	ng/l
Minimum	68.6	68.6	ng/l
Maximum	267	267	ng/l
Standard deviation	50.4	50.4	ng/l
rel. Standard deviation	27.6	27.6	%
n	25	25	-

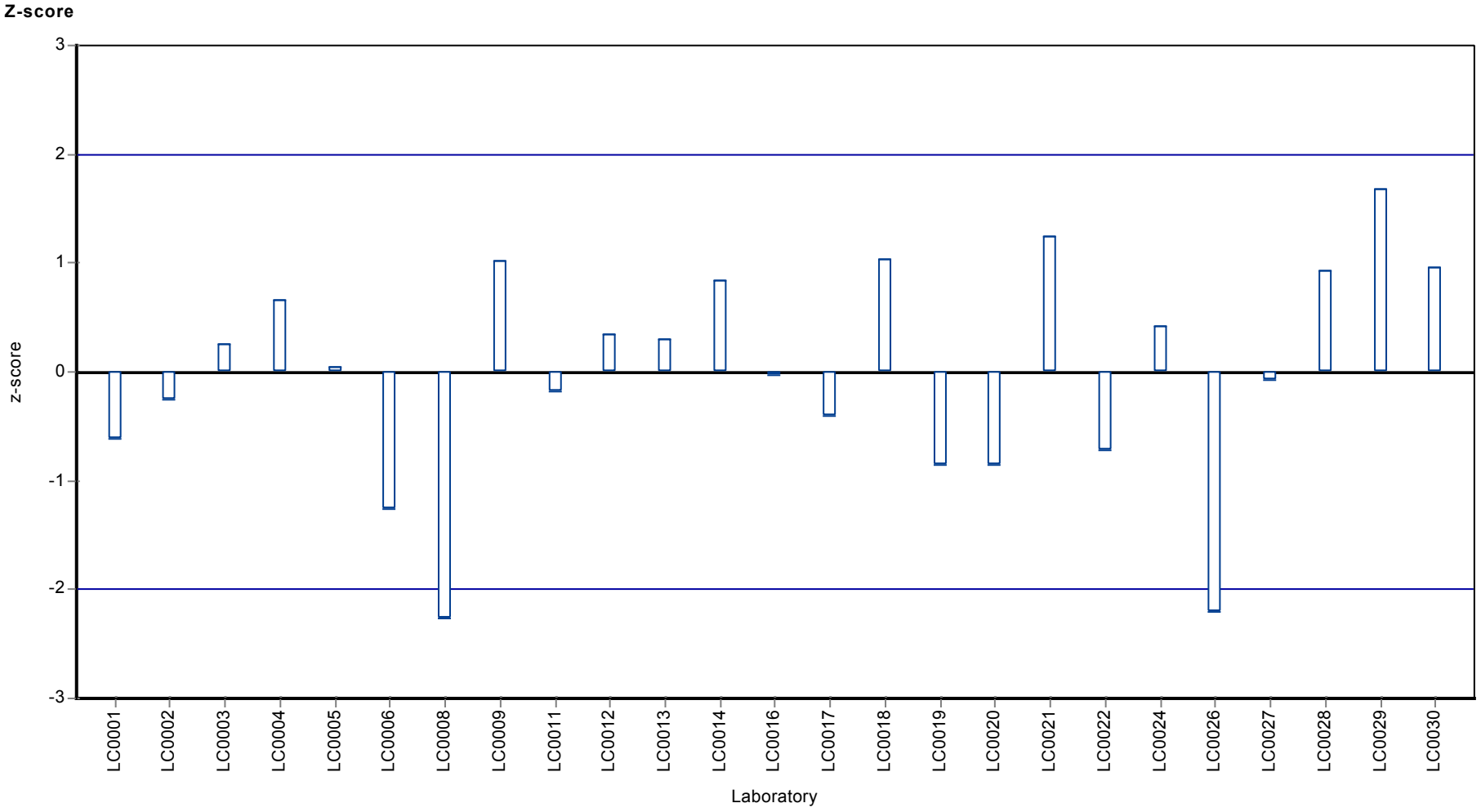
Graphical presentation of results

Results



Recovery rate




Z-score
3
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-1
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-3
z-score
LC0001
LC0002
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LC0005
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LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Dibenzo[a,h]anthracene

Unit	ng/l
Mean ± CI (99%)	12.1 ± 2.84
Minimum - Maximum	6.96 - 22.3
Control test value ± U	13.5 ± 4.31

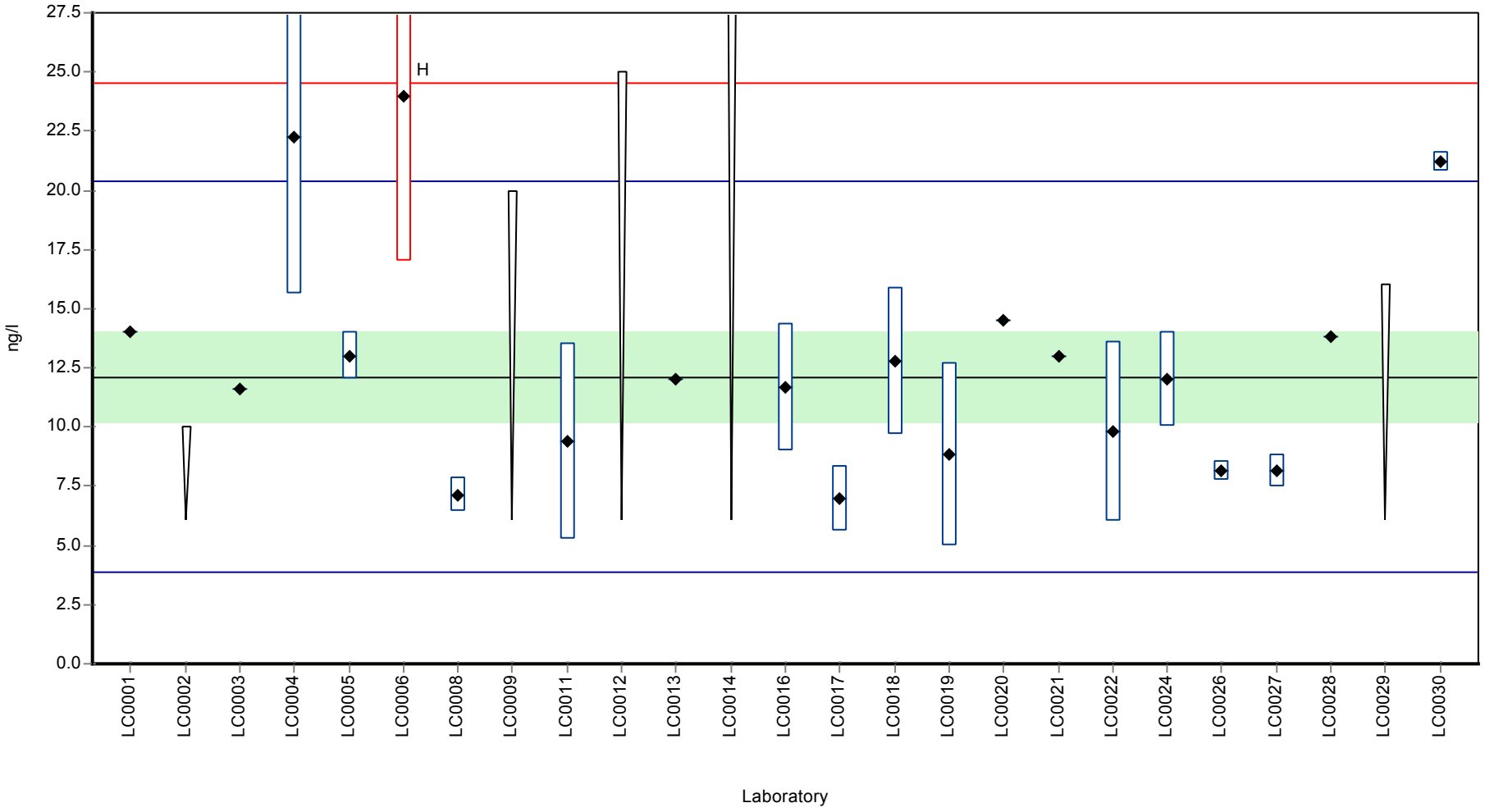
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	14	-	115	0.46	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	11.6	-	95.7	-0.13	
LC0004	22.28	6.68	184	2.46	
LC0005	13	1	107	0.21	
LC0006	24	7	198	2.88	H
LC0007	-	-	-	-	
LC0008	7.15	0.72	59	-1.21	
LC0009	< 20 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	9.38	4.13	77.4	-0.67	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	12	-	99	-0.03	
LC0014	< 30 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	11.7	2.7	96.5	-0.1	
LC0017	6.96	1.39	57.4	-1.25	
LC0018	12.8	3.1	106	0.16	
LC0019	8.85	3.89	73	-0.79	
LC0020	14.5	-	120	0.58	
LC0021	13	0.013	107	0.21	
LC0022	9.8	3.8	80.8	-0.56	
LC0023	-	-	-	-	
LC0024	12	2	99	-0.03	
LC0025	-	-	-	-	
LC0026	8.15	0.42	67.2	-0.96	
LC0027	8.17	0.686	67.4	-0.96	
LC0028	13.8	-	114	0.41	
LC0029	< 16 (LOQ)	-	-	-	
LC0030	21.2	0.418	175	2.2	

Characteristics of parameter

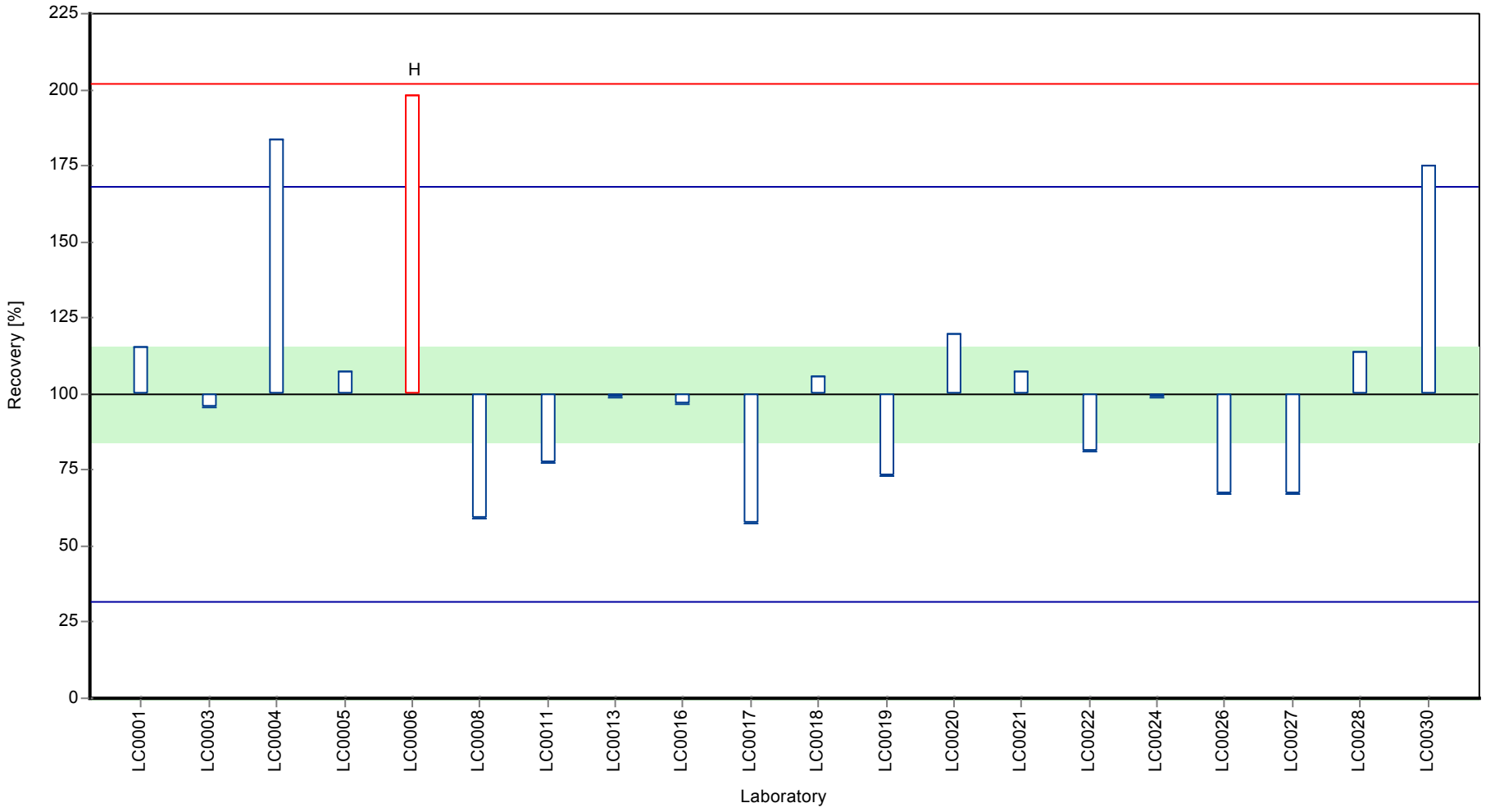
	all results	without outliers	Unit
Mean ± CI (99%)	12.7 ± 3.23	12.1 ± 2.84	ng/l
Minimum	6.96	6.96	ng/l
Maximum	24	22.3	ng/l
Standard deviation	4.81	4.13	ng/l
rel. Standard deviation	37.9	34	%
n	20	19	-

Graphical presentation of results

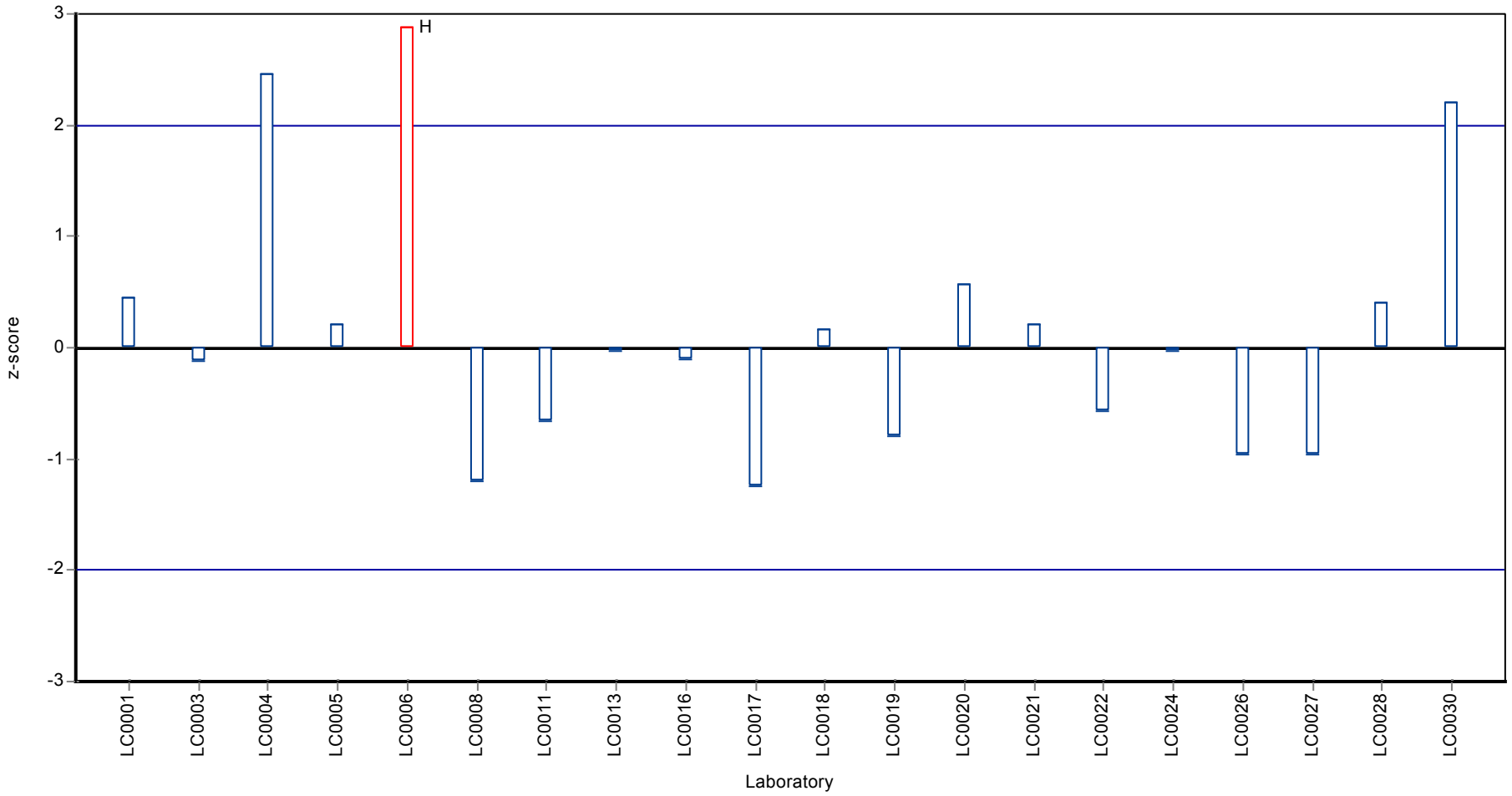
Results



Recovery rate



Z-score


3
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z-score
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LC0001
LC0003
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LC0005
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LC0008
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LC0016
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LC0019
LC0020
LC0021
LC0022
LC0024
LC0026
LC0027
LC0028
LC0030
Laboratory

Parameter oriented report

P19 A

Fluoranthene

Unit	ng/l
Mean ± CI (99%)	50.3 ± 4.84
Minimum - Maximum	30.4 - 66.2
Control test value ± U	52.2 ± 11.5

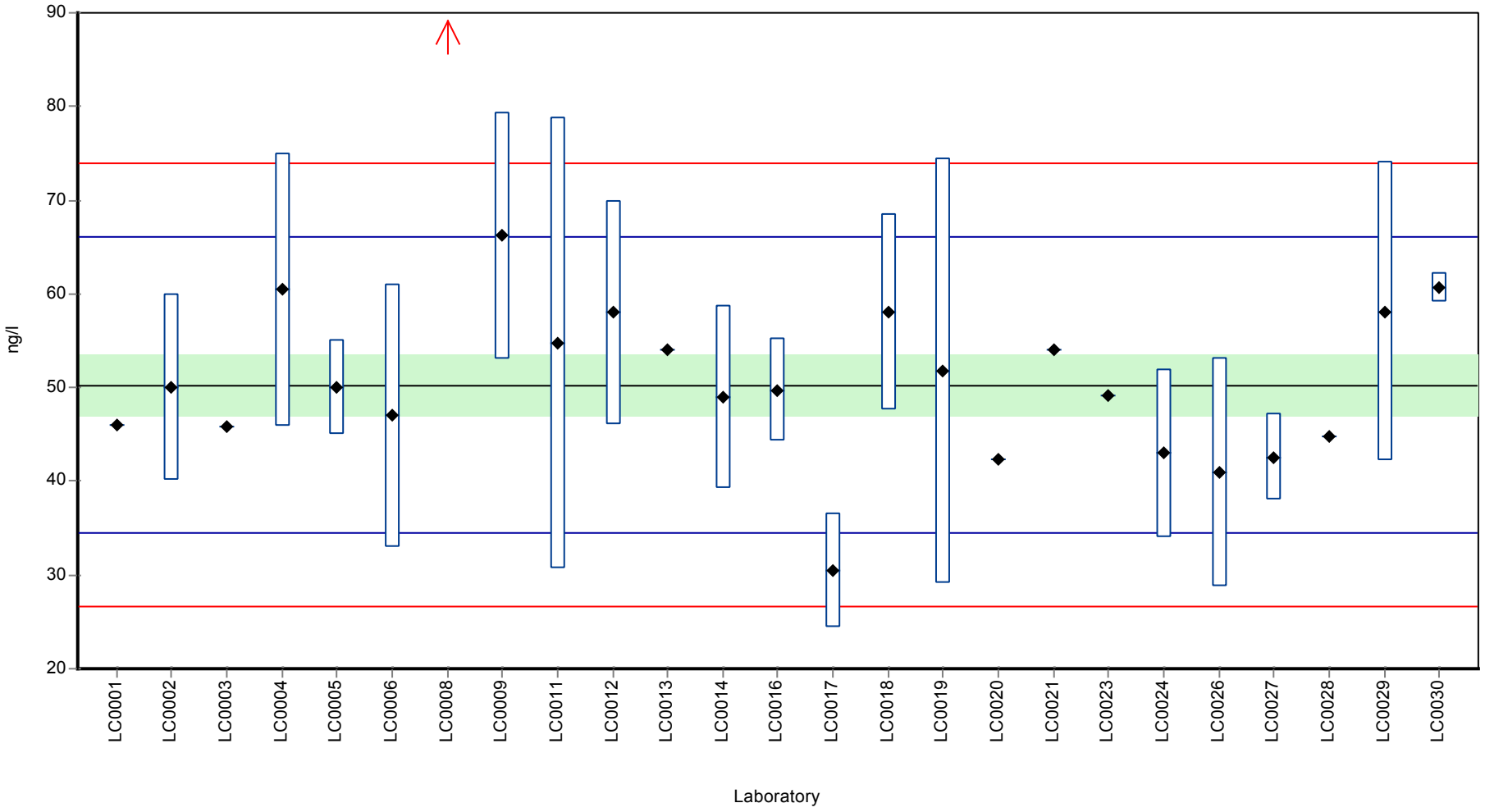
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	46	-	91.5	-0.54	
LC0002	50	10	99.4	-0.04	
LC0003	45.9	-	91.3	-0.56	
LC0004	60.42	14.5	120	1.28	
LC0005	50	5	99.4	-0.04	
LC0006	47	14	93.5	-0.42	
LC0007	-	-	-	-	
LC0008	94.02	9.4	187	5.54	H
LC0009	66.2	13.2	132	2.02	
LC0010	-	-	-	-	
LC0011	54.7	24.07	109	0.56	
LC0012	58	12	115	0.98	
LC0013	54	-	107	0.47	
LC0014	49	9.8	97.5	-0.16	
LC0015	-	-	-	-	
LC0016	49.7	5.52	98.8	-0.07	
LC0017	30.42	6.08	60.5	-2.52	
LC0018	58.1	10.5	116	0.99	
LC0019	51.7	22.7	103	0.18	
LC0020	42.3	-	84.1	-1.01	
LC0021	54	0.054	107	0.47	
LC0022	-	-	-	-	
LC0023	49.1	-	97.7	-0.15	
LC0024	43	9	85.5	-0.92	
LC0025	-	-	-	-	
LC0026	41	12.2	81.5	-1.18	
LC0027	42.6	4.56	84.7	-0.97	
LC0028	44.8	-	89.1	-0.69	
LC0029	58.1	16	116	0.99	
LC0030	60.7	1.614	121	1.32	

Characteristics of parameter

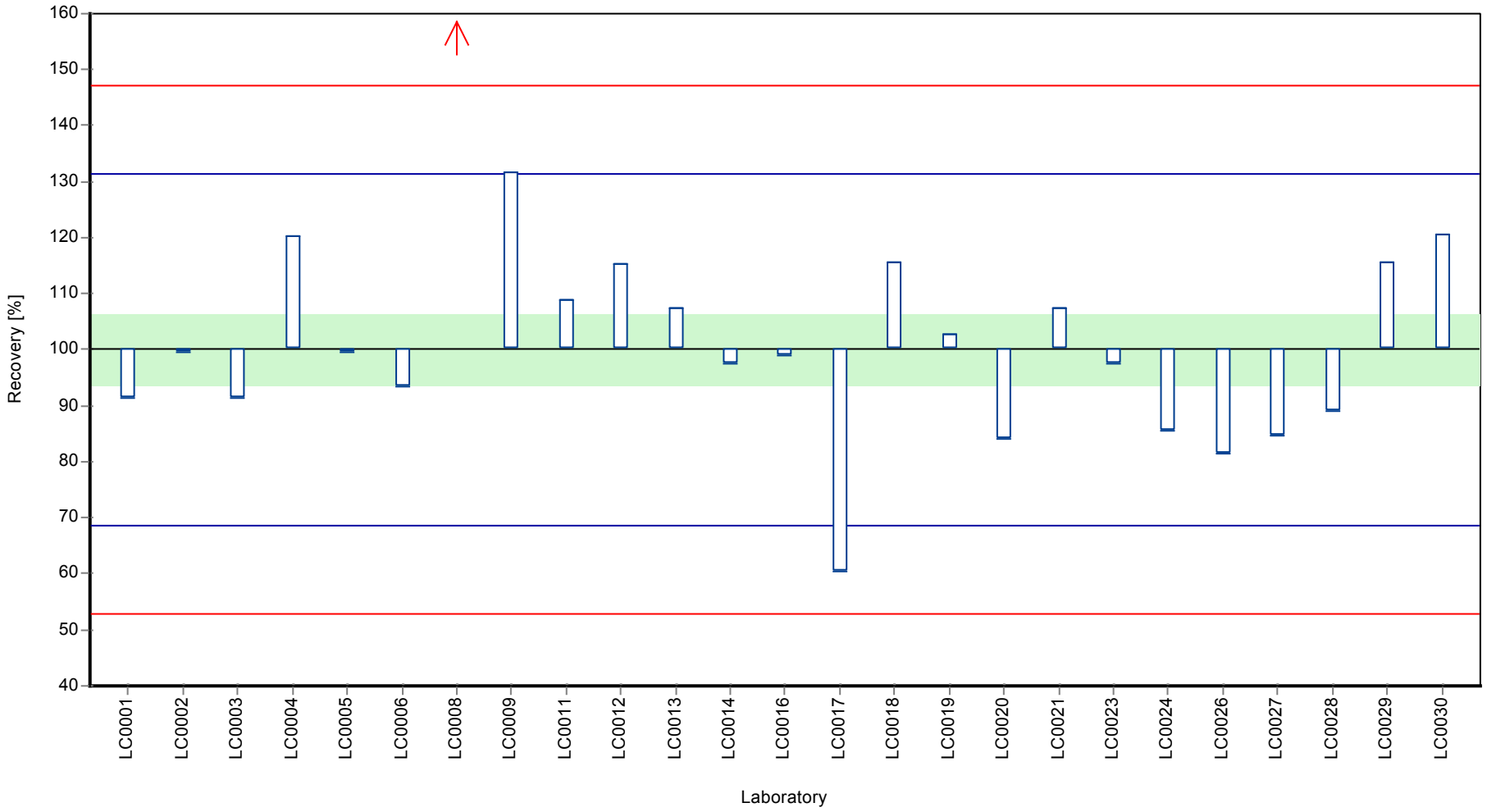
	all results	without outliers	Unit
Mean ± CI (99%)	52 ± 7	50.3 ± 4.84	ng/l
Minimum	30.4	30.4	ng/l
Maximum	94	66.2	ng/l
Standard deviation	11.7	7.9	ng/l
rel. Standard deviation	22.4	15.7	%
n	25	24	-

Graphical presentation of results

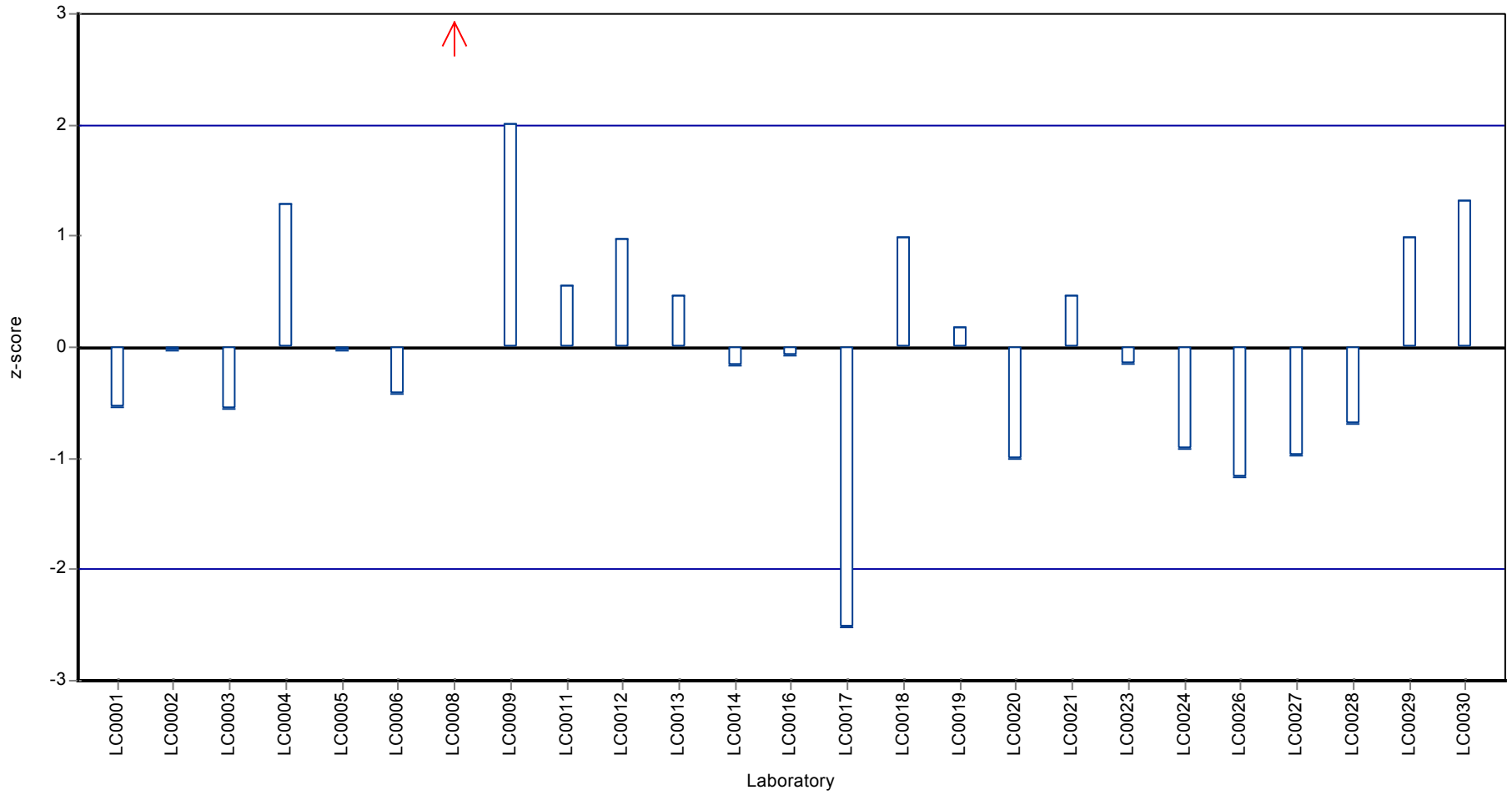
Results



Recovery rate



Z-score


3
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-3
z-score
LC0001
LC0002
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LC0011
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LC0021
LC0023
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Fluoranthene

Unit	ng/l
Mean ± CI (99%)	43.4 ± 3.1
Minimum - Maximum	37 - 56.5
Control test value ± U	45.3 ± 9.97

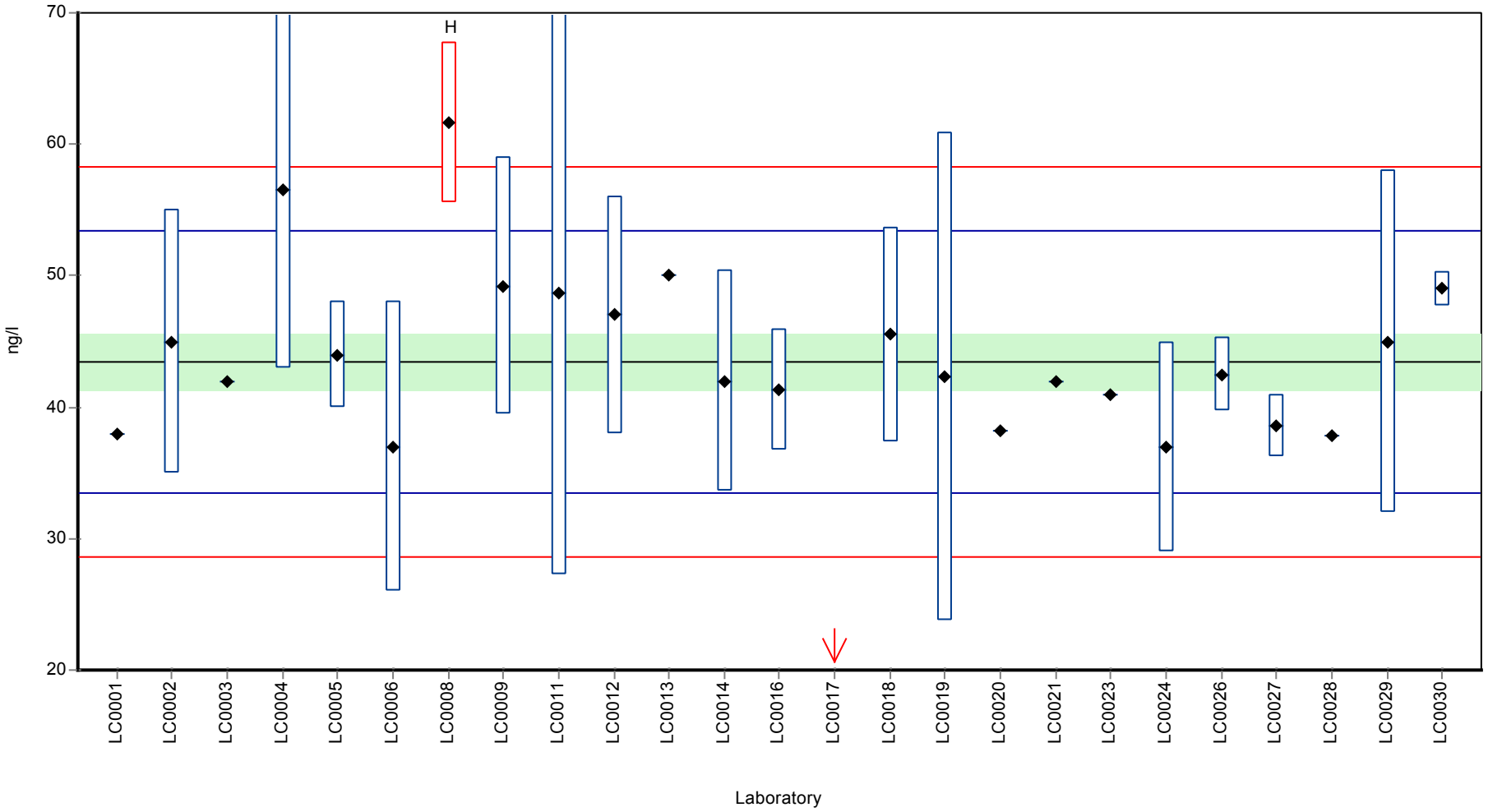
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	38	-	87.5	-1.1	
LC0002	45	10	104	0.31	
LC0003	41.9	-	96.4	-0.31	
LC0004	56.48	13.56	130	2.63	
LC0005	44	4	101	0.11	
LC0006	37	11	85.2	-1.3	
LC0007	-	-	-	-	
LC0008	61.64	6.16	142	3.67	H
LC0009	49.2	9.8	113	1.16	
LC0010	-	-	-	-	
LC0011	48.68	21.42	112	1.05	
LC0012	47	9	108	0.71	
LC0013	50	-	115	1.32	
LC0014	42	8.4	96.7	-0.29	
LC0015	-	-	-	-	
LC0016	41.3	4.58	95.1	-0.43	
LC0017	10.29	2.06	23.7	-6.68	H
LC0018	45.5	8.2	105	0.41	
LC0019	42.3	18.6	97.4	-0.23	
LC0020	38.2	-	87.9	-1.06	
LC0021	42	0.042	96.7	-0.29	
LC0022	-	-	-	-	
LC0023	40.9	-	94.1	-0.51	
LC0024	37	8	85.2	-1.3	
LC0025	-	-	-	-	
LC0026	42.48	2.77	97.8	-0.2	
LC0027	38.6	2.34	88.8	-0.98	
LC0028	37.8	-	87	-1.14	
LC0029	45	13	104	0.31	
LC0030	49	1.304	113	1.12	

Characteristics of parameter

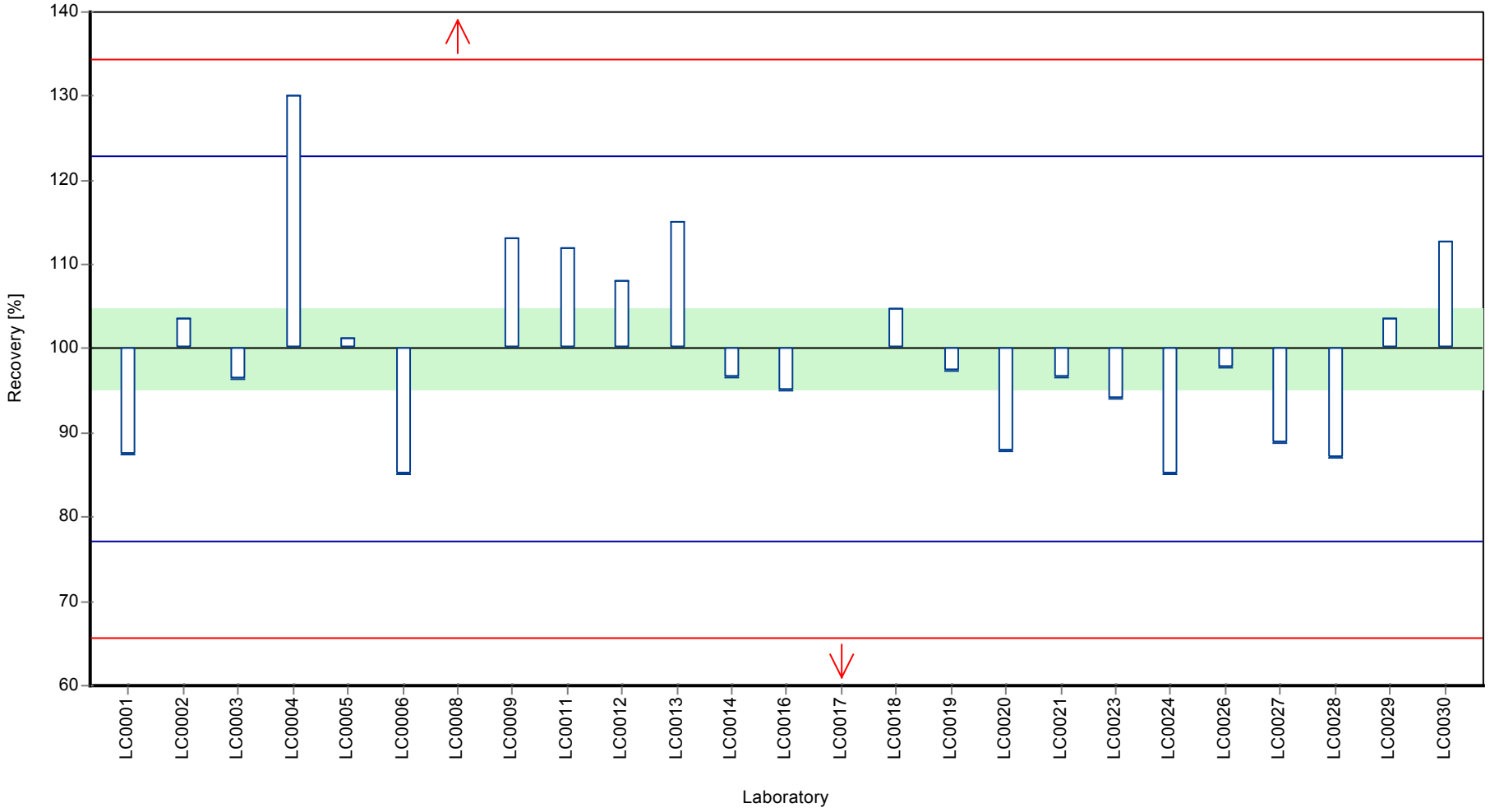
	all results	without outliers	Unit
Mean ± CI (99%)	42.9 ± 5.43	43.4 ± 3.1	ng/l
Minimum	10.3	37	ng/l
Maximum	61.6	56.5	ng/l
Standard deviation	9.04	4.96	ng/l
rel. Standard deviation	21.1	11.4	%
n	25	23	-

Graphical presentation of results

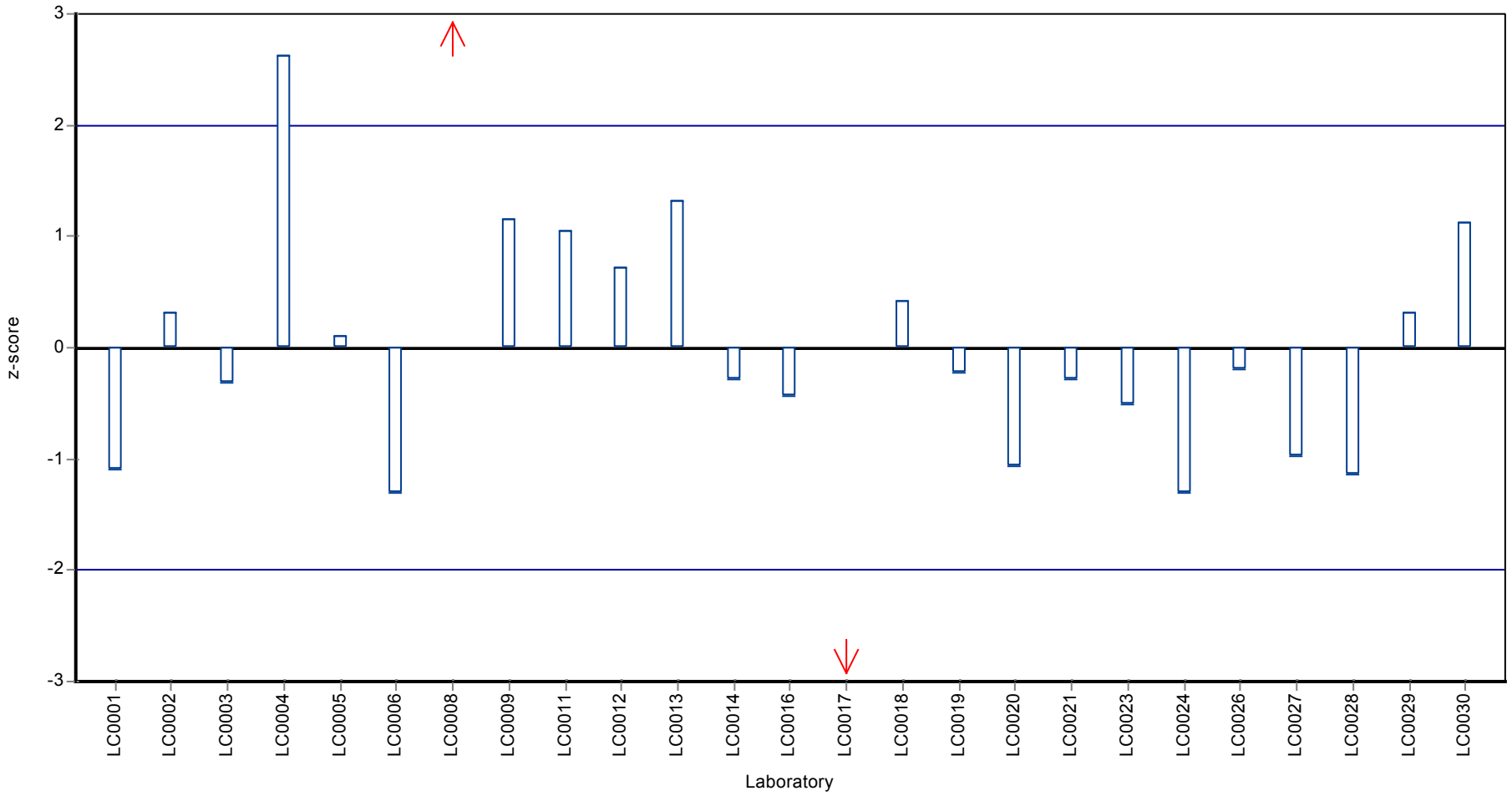
Results



Recovery rate



Z-score


3
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z-score
LC0001
LC0002
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LC0011
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LC0019
LC0020
LC0021
LC0023
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Fluorene

Unit	ng/l
Mean ± CI (99%)	174 ± 16.5
Minimum - Maximum	136 - 243
Control test value ± U	149 ± 44.6

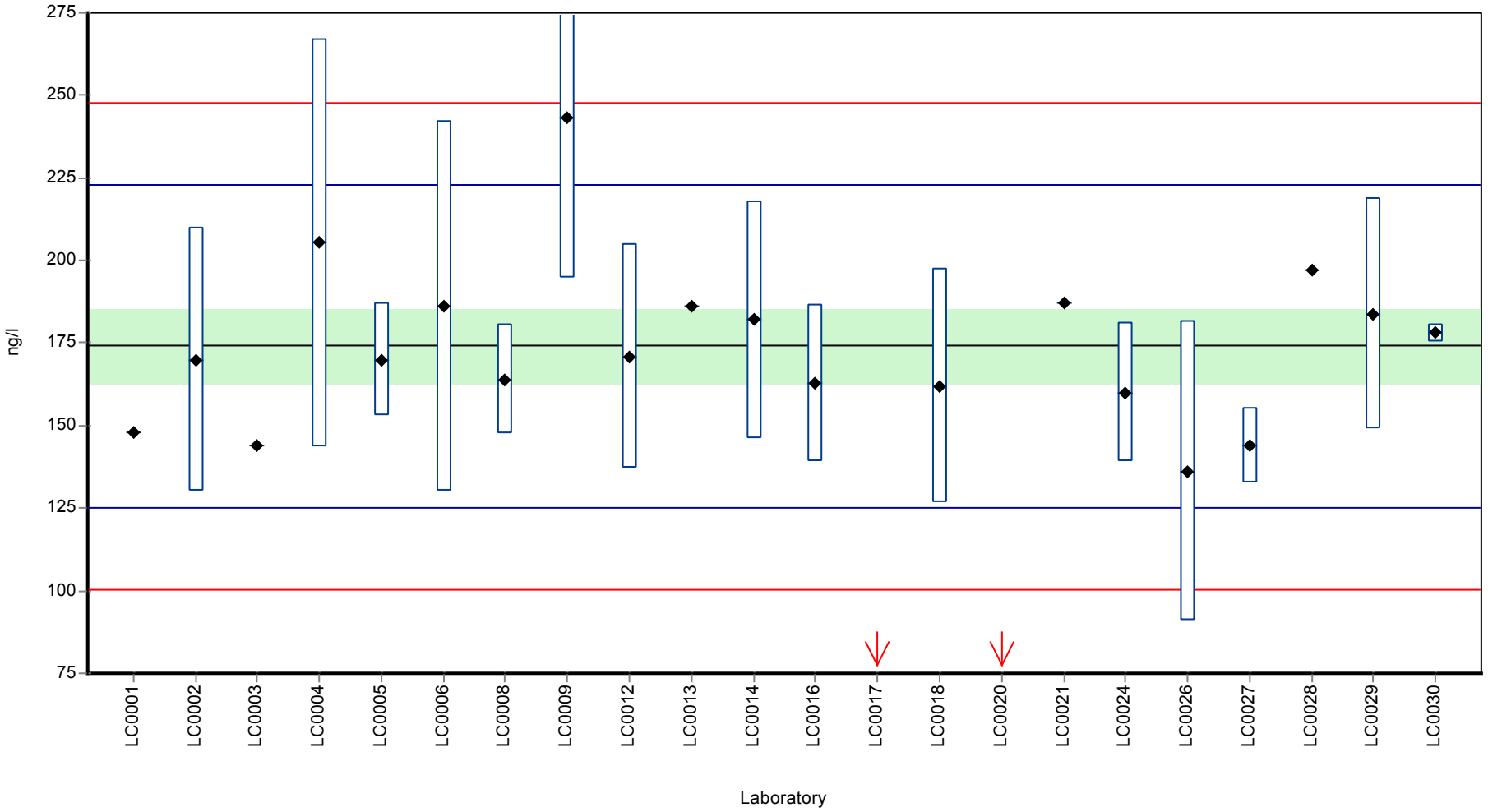
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	148	-	85	-1.06	
LC0002	170	40	97.7	-0.17	
LC0003	144	-	82.7	-1.22	
LC0004	205.32	61.6	118	1.27	
LC0005	170	17	97.7	-0.17	
LC0006	186	56	107	0.49	
LC0007	-	-	-	-	
LC0008	164.08	16.41	94.3	-0.41	
LC0009	243.3	48.7	140	2.82	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	171	34	98.3	-0.12	
LC0013	186	-	107	0.49	
LC0014	182	36	105	0.32	
LC0015	-	-	-	-	
LC0016	163	23.8	93.7	-0.45	
LC0017	7.35	1.47	4.2	-6.79	H
LC0018	162	35.6	93.1	-0.49	
LC0019	-	-	-	-	
LC0020	74.6	-	42.9	-4.05	H
LC0021	187	0.19	107	0.53	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	160	21	91.9	-0.57	
LC0025	-	-	-	-	
LC0026	136.28	45.57	78.3	-1.54	
LC0027	144	11.5	82.7	-1.22	
LC0028	197	-	113	0.94	
LC0029	183.9	35	106	0.4	
LC0030	178	2.785	102	0.16	

Characteristics of parameter

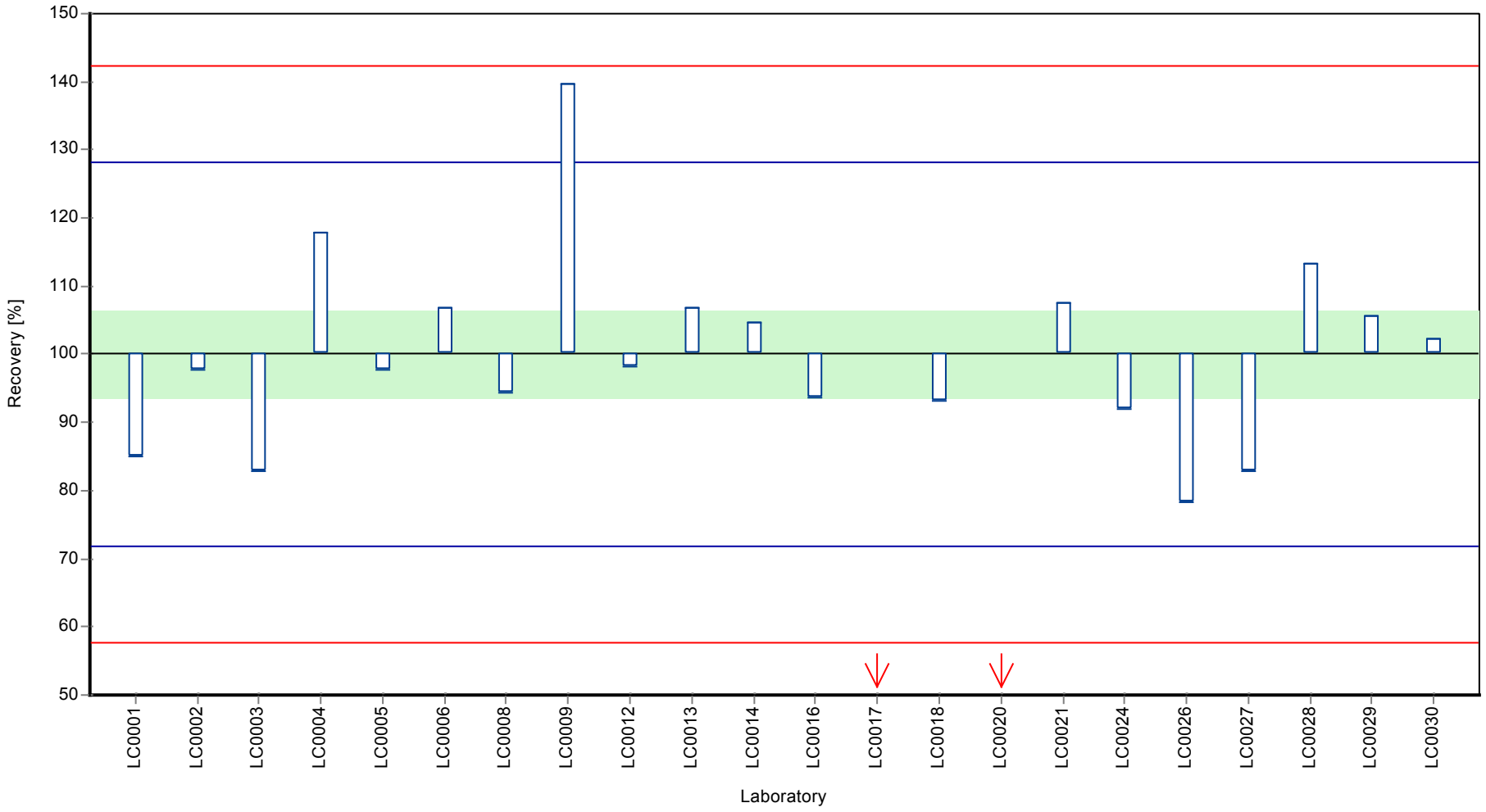
	all results	without outliers	Unit
Mean ± CI (99%)	162 ± 29.9	174 ± 16.5	ng/l
Minimum	7.35	136	ng/l
Maximum	243	243	ng/l
Standard deviation	46.8	24.5	ng/l
rel. Standard deviation	28.9	14.1	%
n	22	20	-

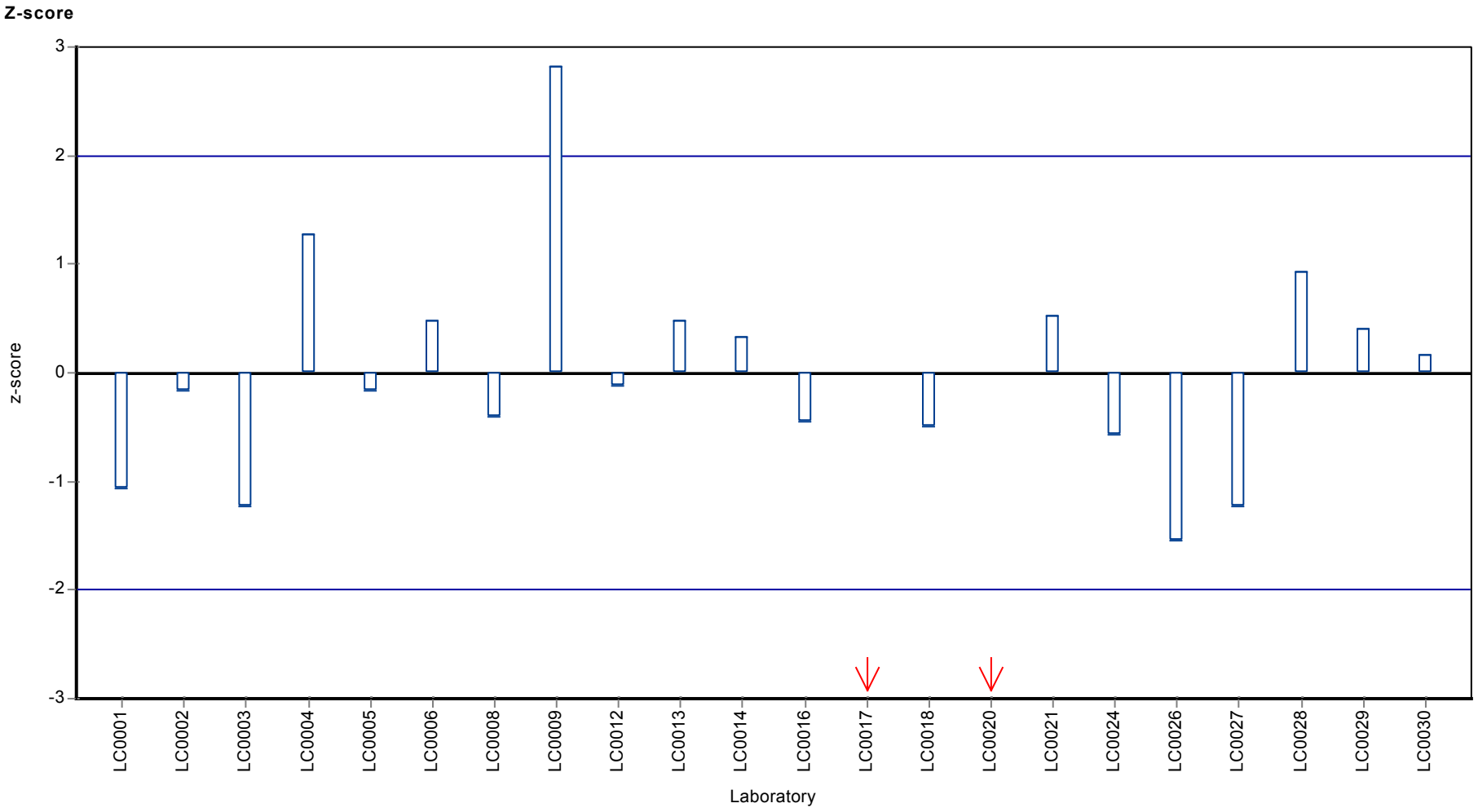
Graphical presentation of results

Results



Recovery rate




Z-score
z-score
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2
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0
-1
-2
-3
LC0001
LC0002
LC0003
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LC0008
LC0009
LC0012
LC0013
LC0014
LC0016
LC0017
LC0018
LC0020
LC0021
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Fluorene

Unit	ng/l
Mean ± CI (99%)	50.9 ± 4.08
Minimum - Maximum	39 - 65
Control test value ± U	56.8 ± 17

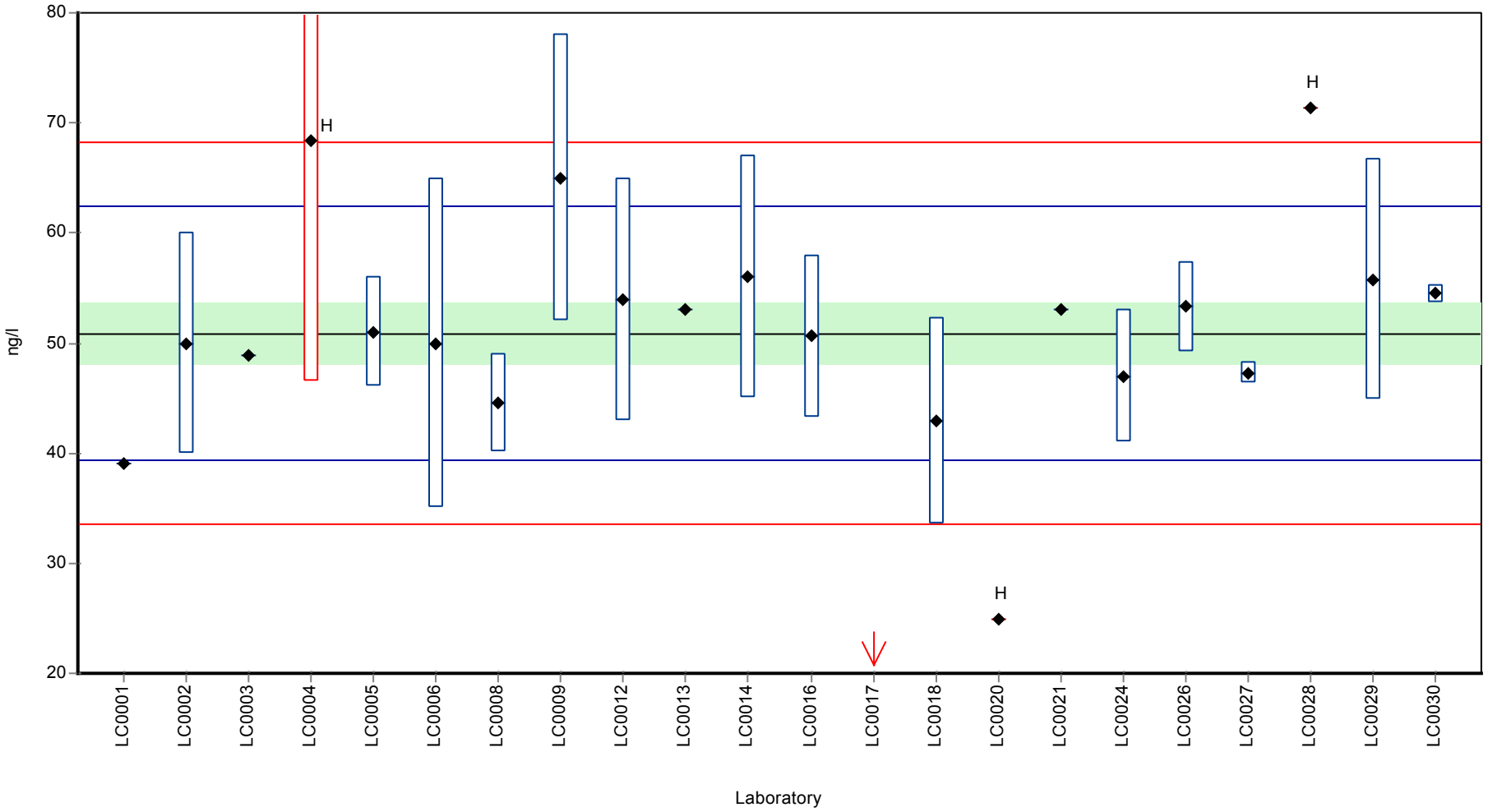
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	39	-	76.6	-2.06	
LC0002	50	10	98.3	-0.15	
LC0003	48.9	-	96.1	-0.34	
LC0004	68.38	21.88	134	3.03	H
LC0005	51	5	100	0.02	
LC0006	50	15	98.3	-0.15	
LC0007	-	-	-	-	
LC0008	44.61	4.46	87.7	-1.09	
LC0009	65	13	128	2.45	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	54	11	106	0.54	
LC0013	53	-	104	0.37	
LC0014	56	11	110	0.89	
LC0015	-	-	-	-	
LC0016	50.6	7.38	99.4	-0.05	
LC0017	2.54	0.51	5	-8.39	H
LC0018	42.9	9.4	84.3	-1.38	
LC0019	-	-	-	-	
LC0020	24.9	-	48.9	-4.51	H
LC0021	53	0.053	104	0.37	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	47	6	92.4	-0.67	
LC0025	-	-	-	-	
LC0026	53.3	4.05	105	0.42	
LC0027	47.3	0.943	93	-0.62	
LC0028	71.4	-	140	3.56	H
LC0029	55.8	11	110	0.85	
LC0030	54.5	0.852	107	0.63	

Characteristics of parameter

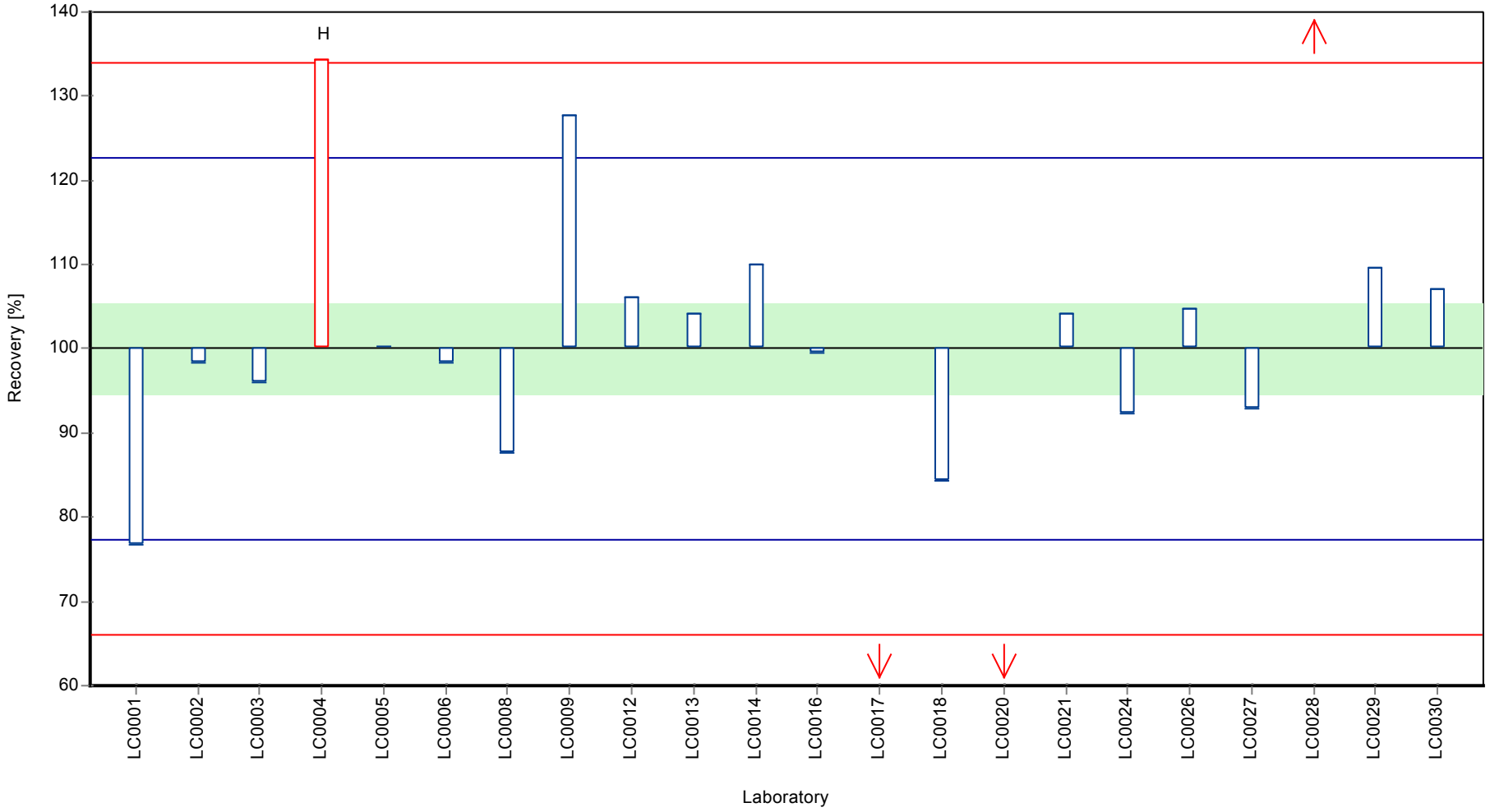
	all results	without outliers	Unit
Mean ± CI (99%)	49.2 ± 9.09	50.9 ± 4.08	ng/l
Minimum	2.54	39	ng/l
Maximum	71.4	65	ng/l
Standard deviation	14.2	5.77	ng/l
rel. Standard deviation	28.9	11.3	%
n	22	18	-

Graphical presentation of results

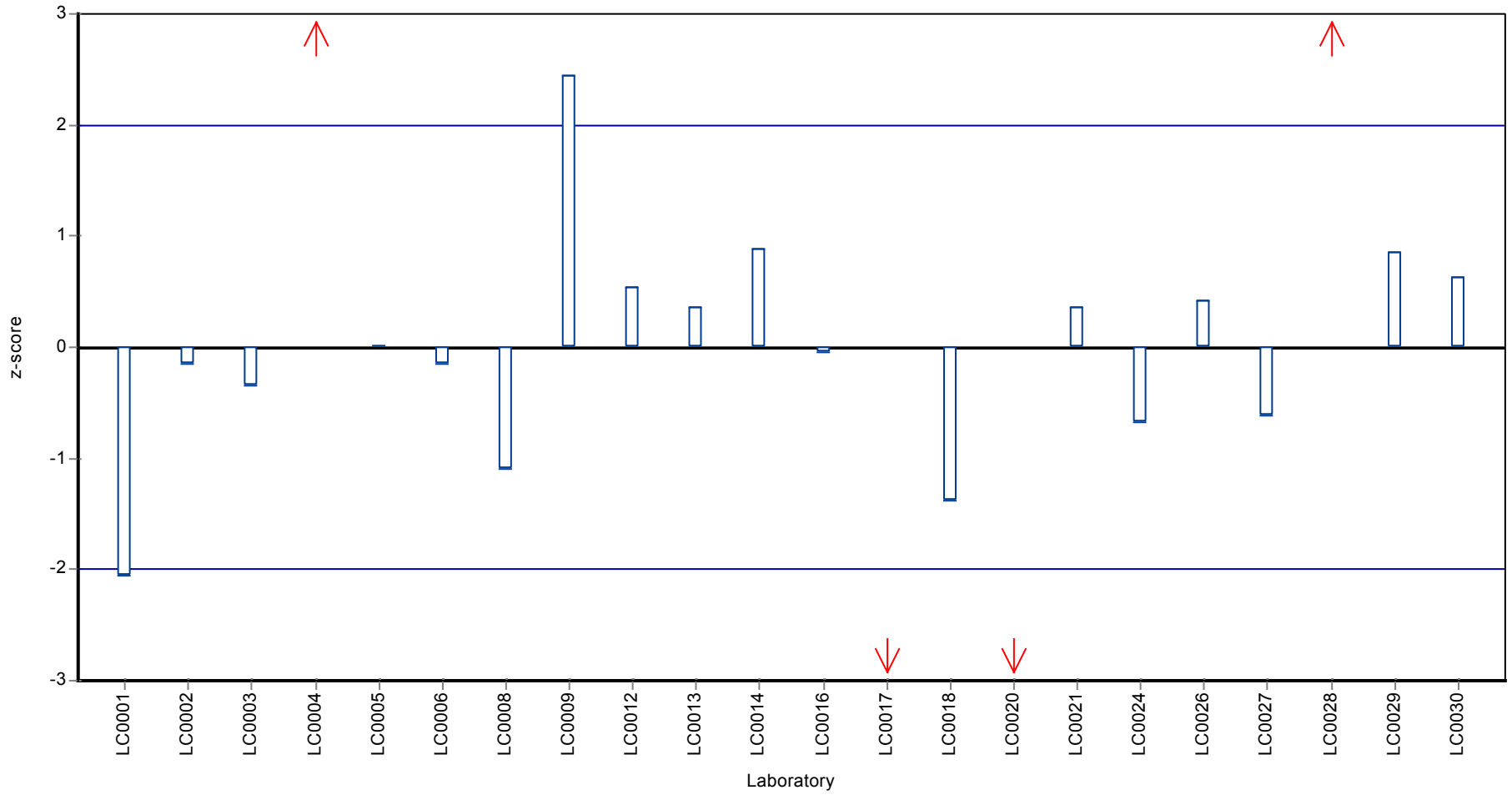
Results



Recovery rate



Z-score


3
2
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-2
-3
z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0012
LC0013
LC0014
LC0016
LC0017
LC0018
LC0020
LC0021
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Indeno[1,2,3-cd]pyrene

Unit	ng/l
Mean ± CI (99%)	26.6 ± 13
Minimum - Maximum	15.8 - 44.4
Control test value ± U	22.9 ± 7.34

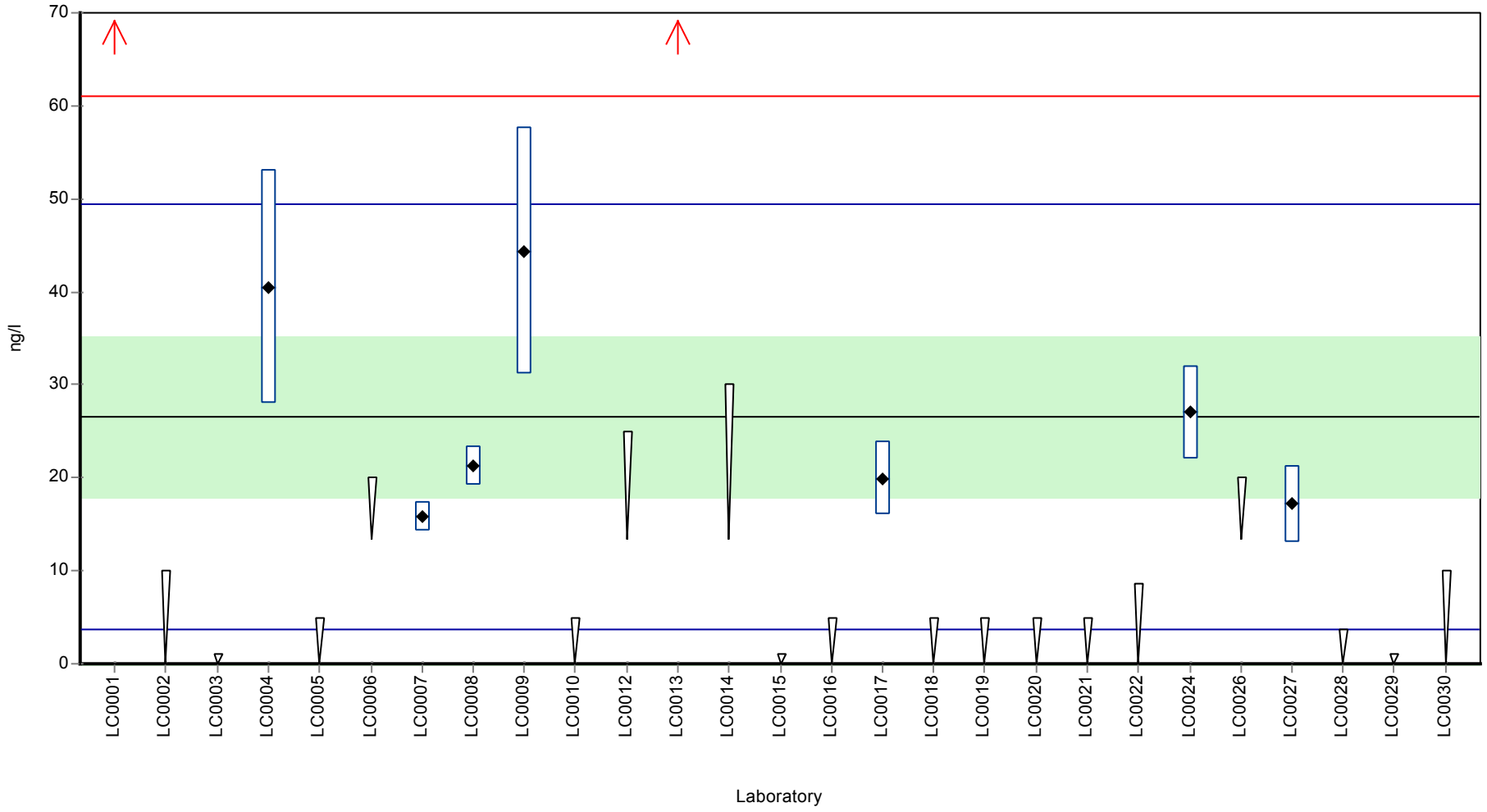
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	94	-	354	5.89	H
LC0002	< 10 (LOQ)	-	-	-	
LC0003	< 1 (LOQ)	-	-	-	
LC0004	40.49	12.55	152	1.21	
LC0005	< 5 (LOQ)	-	-	-	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	15.84	1.51	59.6	-0.94	
LC0008	21.29	2.13	80.1	-0.46	
LC0009	44.4	13.3	167	1.56	
LC0010	< 5 (LOQ)	-	-	-	
LC0011	-	-	-	-	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	86	-	323	5.19	H
LC0014	< 30 (LOQ)	-	-	-	
LC0015	< 1 (LOQ)	-	-	-	
LC0016	< 5 (LOQ)	-	-	-	
LC0017	19.9	3.98	74.8	-0.58	
LC0018	< 5 (LOQ)	-	-	-	
LC0019	< 5 (LOQ)	-	-	-	
LC0020	< 5 (LOQ)	-	-	-	
LC0021	< 5 (LOQ)	-	-	-	
LC0022	< 8.6 (LOQ)	-	-	-	
LC0023	-	-	-	-	
LC0024	27	5	102	0.04	
LC0025	-	-	-	-	
LC0026	< 20 (LOQ)	-	-	-	
LC0027	17.2	4.16	64.7	-0.82	
LC0028	< 3.7 (LOQ)	-	-	-	
LC0029	< 1 (LOQ)	-	-	-	
LC0030	< 10 (LOQ)	-	-	-	

Characteristics of parameter

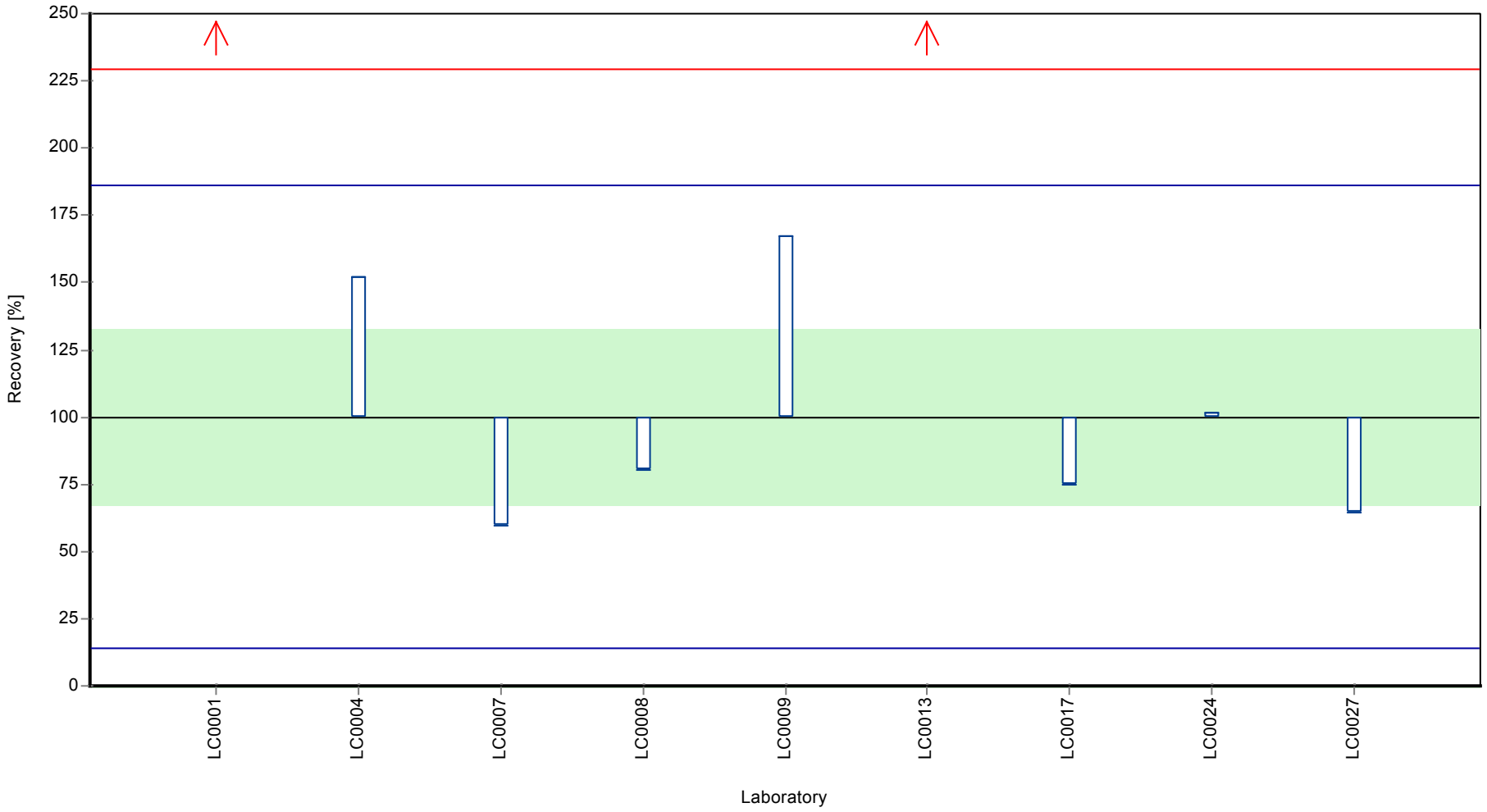
	all results	without outliers	Unit
Mean ± CI (99%)	40.7 ± 29.7	26.6 ± 13	ng/l
Minimum	15.8	15.8	ng/l
Maximum	94	44.4	ng/l
Standard deviation	29.7	11.5	ng/l
rel. Standard deviation	73.1	43.1	%
n	9	7	-

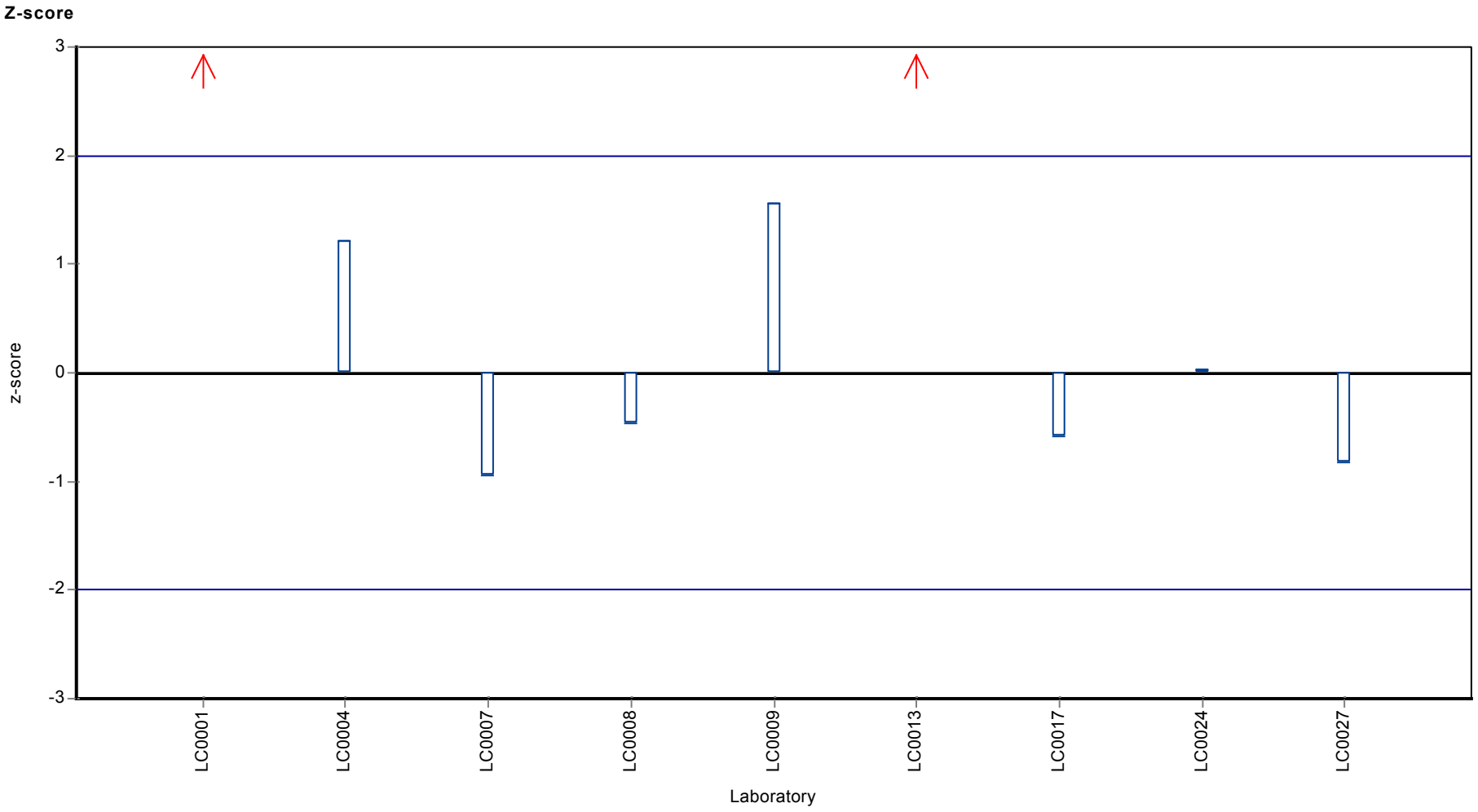
Graphical presentation of results

Results



Recovery rate




Z-score
3
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-1
-2
-3
z-score
LC0001
LC0004
LC0007
LC0008
LC0009
LC0013
LC0017
LC0024
LC0027
Laboratory

Parameter oriented report

P19 B

Indeno[1,2,3-cd]pyrene

Unit	ng/l
Mean ± CI (99%)	-
Minimum - Maximum	2.71 - 5.88
Control test value ± U	3.03 ± 0.971

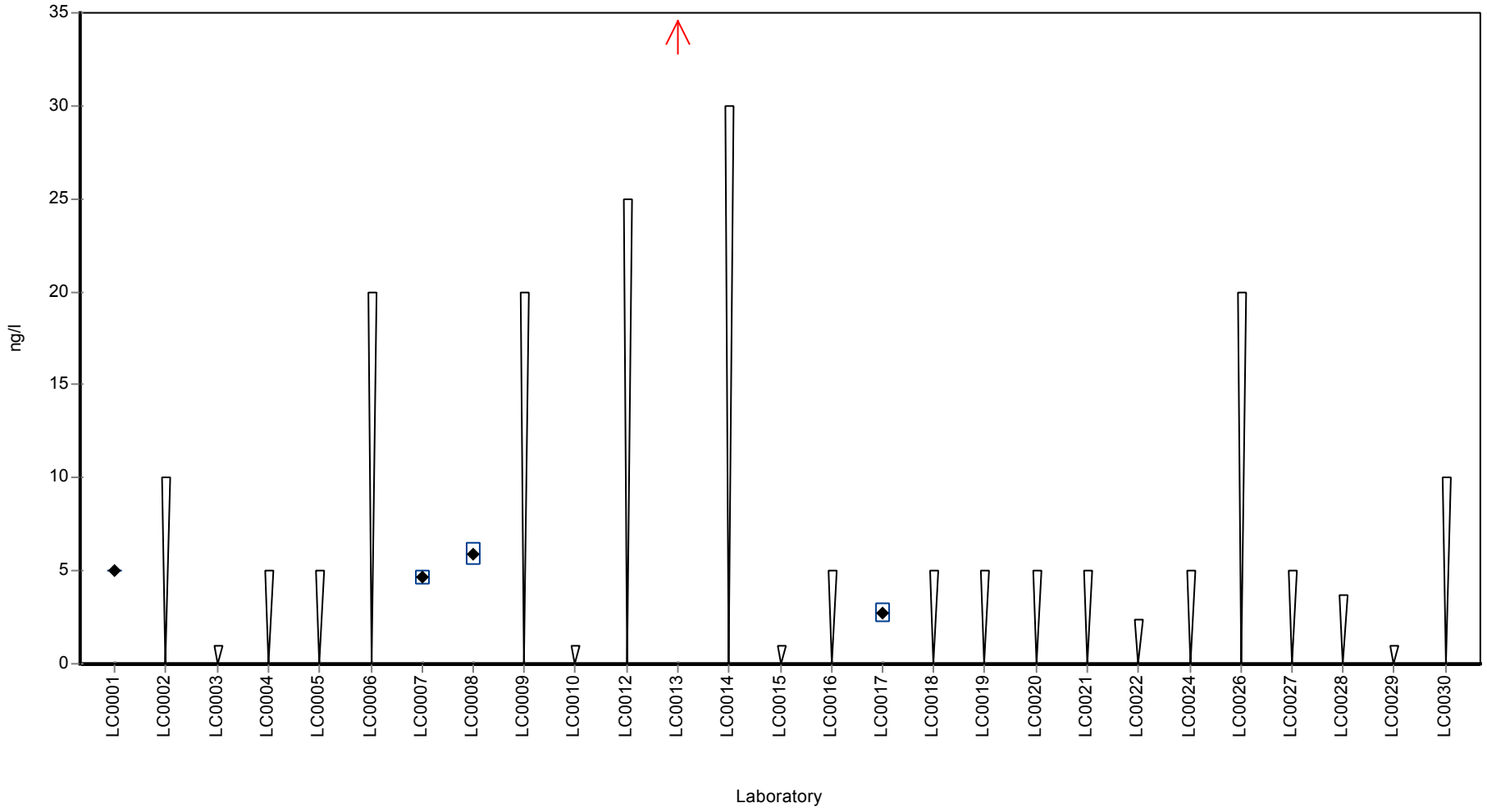
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	5	-	-	-	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	< 1 (LOQ)	-	-	-	
LC0004	<5 (LOD)	-	-	-	
LC0005	< 5 (LOQ)	-	-	-	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	4.64	0.4	-	-	
LC0008	5.88	0.59	-	-	
LC0009	< 20 (LOQ)	-	-	-	
LC0010	<1 (LOD)	-	-	-	
LC0011	-	-	-	-	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	37	-	-	-	H
LC0014	< 30 (LOQ)	-	-	-	
LC0015	< 1 (LOQ)	-	-	-	
LC0016	< 5 (LOQ)	-	-	-	
LC0017	2.71	0.54	-	-	
LC0018	< 5 (LOQ)	-	-	-	
LC0019	< 5 (LOQ)	-	-	-	
LC0020	< 5 (LOQ)	-	-	-	
LC0021	< 5 (LOQ)	-	-	-	
LC0022	<2.4 (LOD)	-	-	-	
LC0023	-	-	-	-	
LC0024	< 5 (LOQ)	-	-	-	
LC0025	-	-	-	-	
LC0026	< 20 (LOQ)	-	-	-	
LC0027	< 5 (LOQ)	-	-	-	
LC0028	< 3.7 (LOQ)	-	-	-	
LC0029	< 1 (LOQ)	-	-	-	
LC0030	< 10 (LOQ)	-	-	-	

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	11 ± 19.5	-	ng/l
Minimum	2.71	2.71	ng/l
Maximum	37	5.88	ng/l
Standard deviation	14.6	-	ng/l
rel. Standard deviation	132	-	%
n	5	4	-

Graphical presentation of results

Results



Parameter oriented report

P19 A

Naphthalene

Unit	ng/l
Mean ± CI (99%)	226 ± 27.1
Minimum - Maximum	143 - 301
Control test value ± U	214 ± 59.8

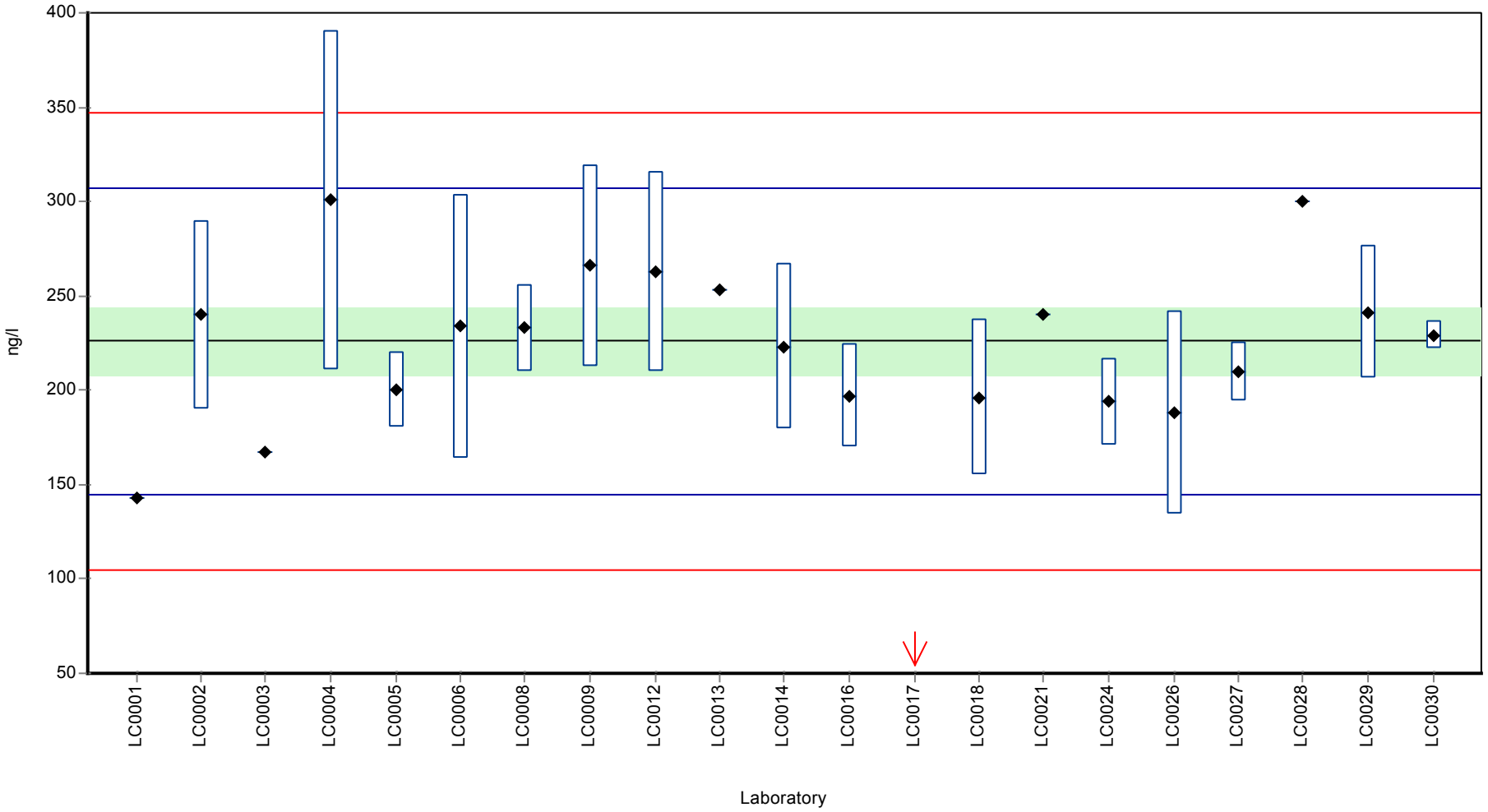
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	143	-	63.3	-2.05	
LC0002	240	50	106	0.35	
LC0003	167	-	73.9	-1.46	
LC0004	300.67	90.2	133	1.85	
LC0005	200	20	88.5	-0.64	
LC0006	234	70	104	0.2	
LC0007	-	-	-	-	
LC0008	232.89	23.29	103	0.17	
LC0009	266	53.2	118	0.99	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	263	53	116	0.92	
LC0013	253	-	112	0.67	
LC0014	223	44	98.7	-0.07	
LC0015	-	-	-	-	
LC0016	197	27.5	87.2	-0.71	
LC0017	17.55	3.51	7.8	-5.16	H
LC0018	196	41.2	86.8	-0.74	
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	240	0.24	106	0.35	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	194	23	85.9	-0.79	
LC0025	-	-	-	-	
LC0026	188	53.54	83.2	-0.94	
LC0027	210	15.7	93	-0.39	
LC0028	300	-	133	1.83	
LC0029	241.4	35	107	0.38	
LC0030	229	7.316	101	0.08	

Characteristics of parameter

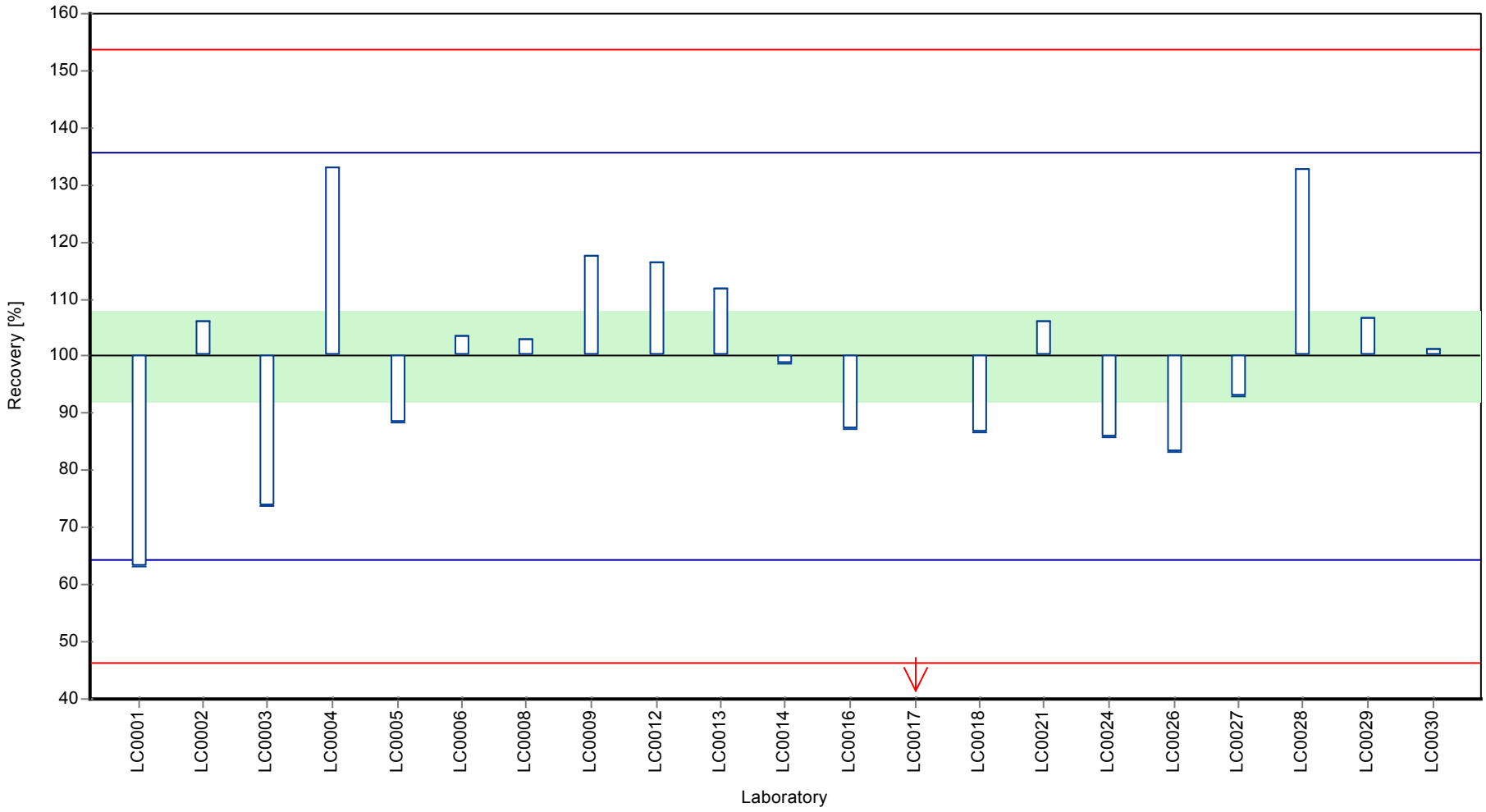
	all results	without outliers	Unit
Mean ± CI (99%)	216 ± 39.4	226 ± 27.1	ng/l
Minimum	17.6	143	ng/l
Maximum	301	301	ng/l
Standard deviation	60.1	40.4	ng/l
rel. Standard deviation	27.9	17.9	%
n	21	20	-

Graphical presentation of results

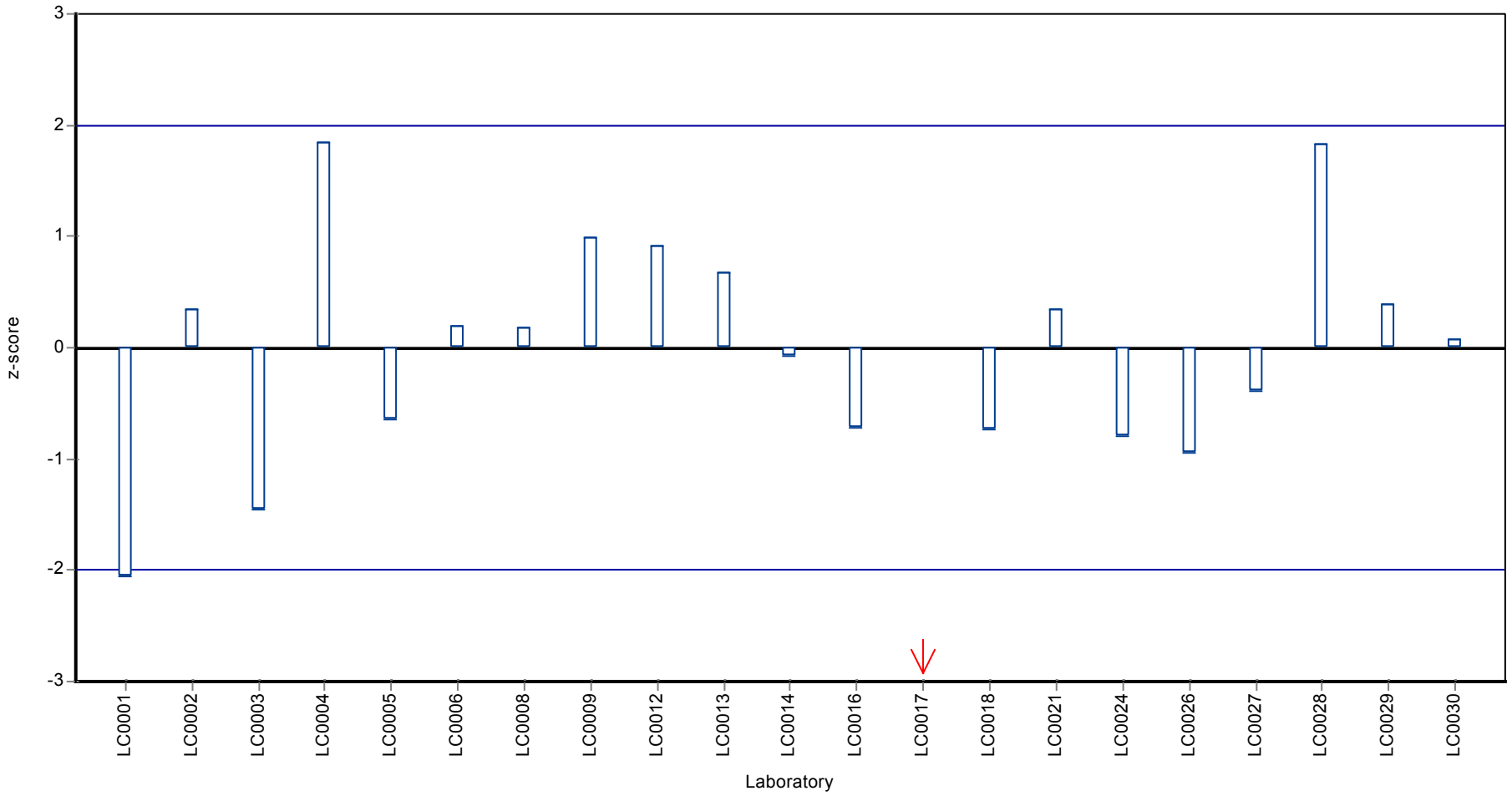
Results



Recovery rate



Z-score


3
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z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0012
LC0013
LC0014
LC0016
LC0017
LC0018
LC0021
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Naphthalene

Unit	ng/l
Mean ± CI (99%)	19 ± 4.12
Minimum - Maximum	4.02 - 25.1
Control test value ± U	21.2 ± 5.94

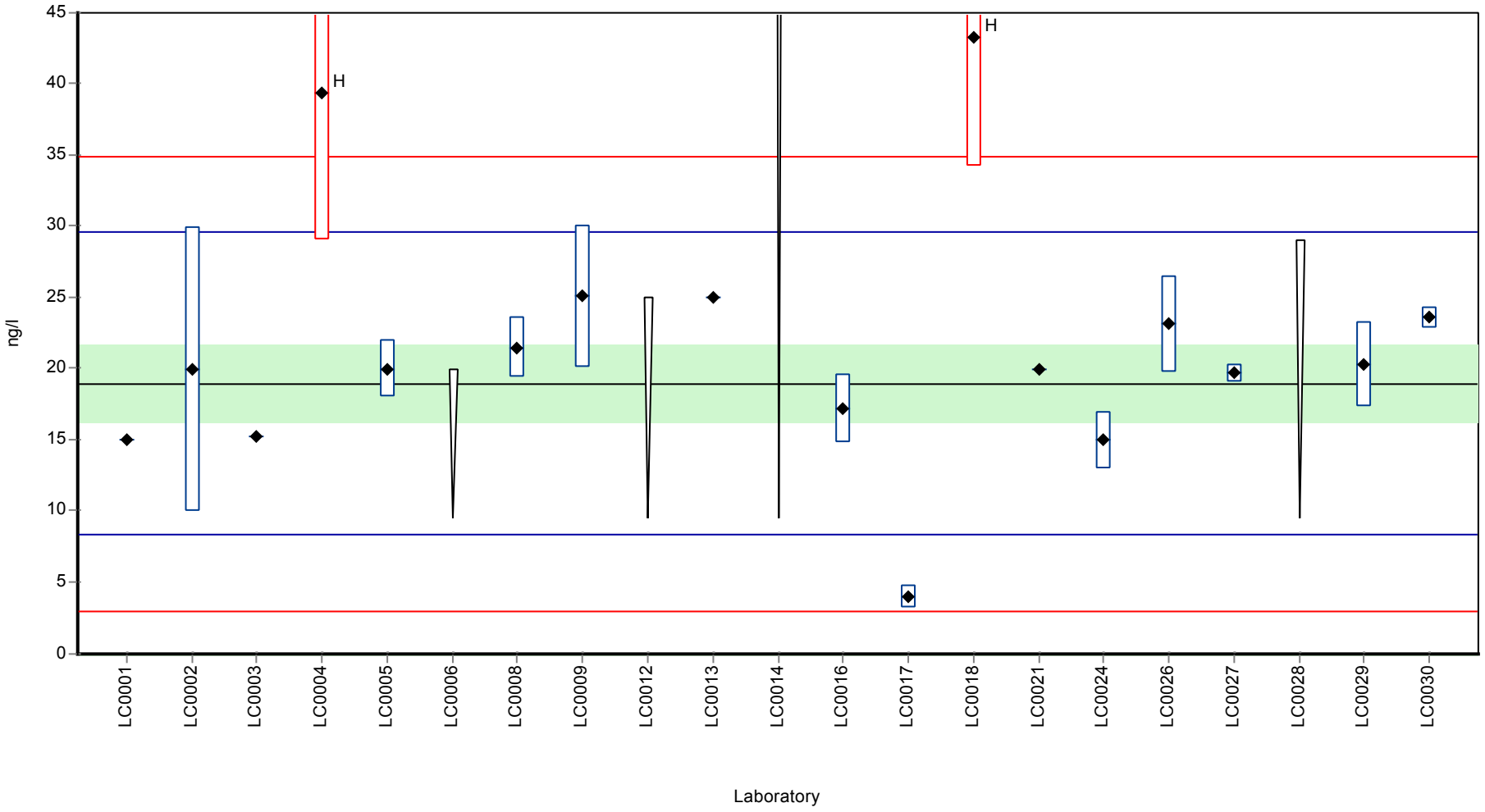
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	15	-	79	-0.75	
LC0002	20	10	105	0.19	
LC0003	15.3	-	80.6	-0.69	
LC0004	39.35	10.35	207	3.83	H
LC0005	20	2	105	0.19	
LC0006	< 20 (LOQ)	-	-	-	
LC0007	-	-	-	-	
LC0008	21.51	2.15	113	0.47	
LC0009	25.1	5	132	1.15	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	< 25 (LOQ)	-	-	-	
LC0013	25	-	132	1.13	
LC0014	< 100 (LOQ)	-	-	-	
LC0015	-	-	-	-	
LC0016	17.2	2.4	90.6	-0.34	
LC0017	4.02	0.8	21.2	-2.81	
LC0018	43.3	9.1	228	4.57	H
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	20	0.02	105	0.19	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	15	2	79	-0.75	
LC0025	-	-	-	-	
LC0026	23.15	3.35	122	0.78	
LC0027	19.7	0.622	104	0.13	
LC0028	< 29 (LOQ)	-	-	-	
LC0029	20.3	3	107	0.25	
LC0030	23.6	0.752	124	0.87	

Characteristics of parameter

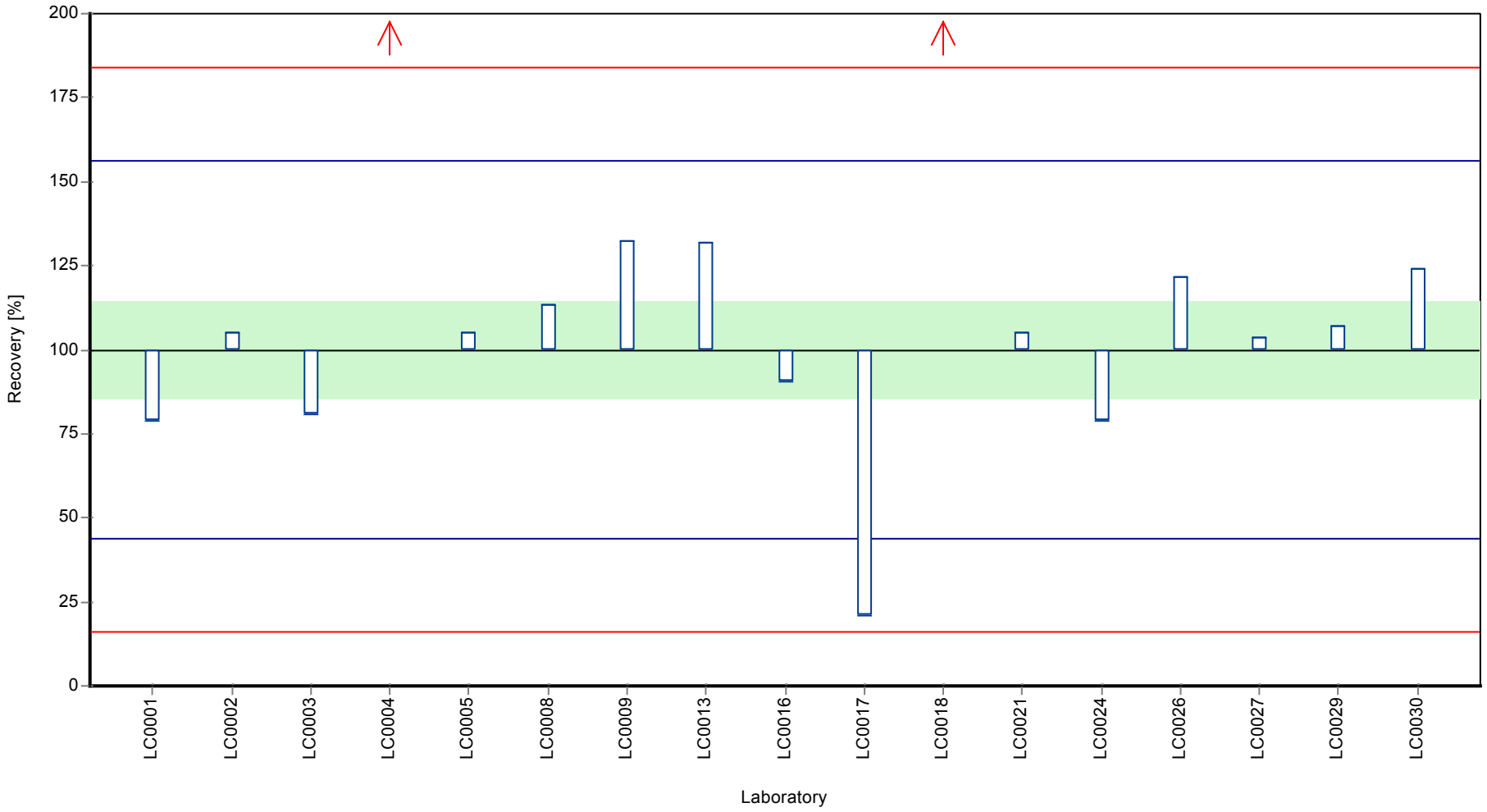
	all results	without outliers	Unit
Mean ± CI (99%)	21.6 ± 6.52	19 ± 4.12	ng/l
Minimum	4.02	4.02	ng/l
Maximum	43.3	25.1	ng/l
Standard deviation	8.96	5.32	ng/l
rel. Standard deviation	41.4	28	%
n	17	15	-

Graphical presentation of results

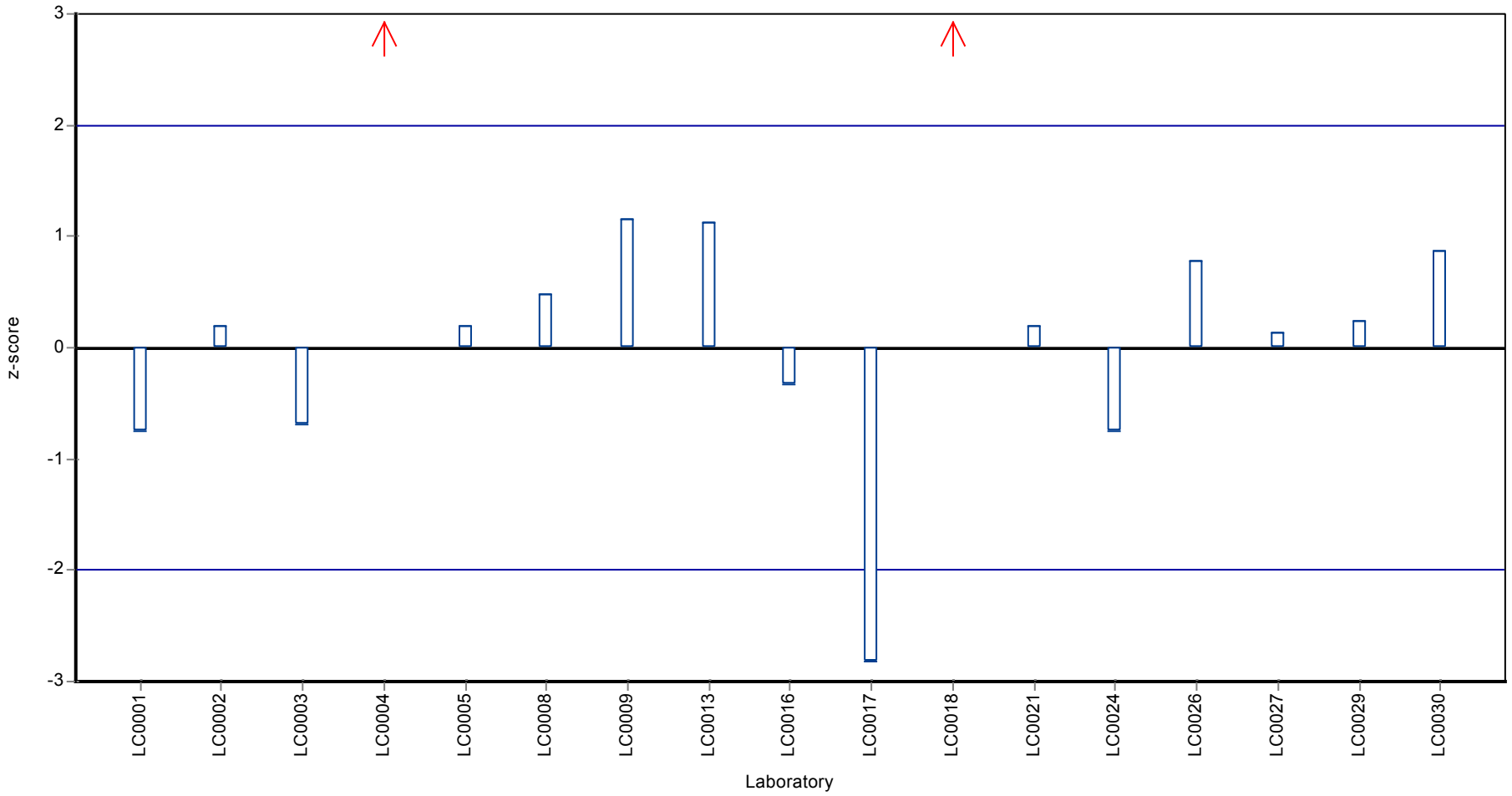
Results



Recovery rate



Z-score


3
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-3
z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0008
LC0009
LC0013
LC0016
LC0017
LC0018
LC0021
LC0024
LC0026
LC0027
LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Phenanthrene

Unit	ng/l
Mean ± CI (99%)	76.9 ± 6.9
Minimum - Maximum	59.4 - 97
Control test value ± U	78.7 ± 20.5

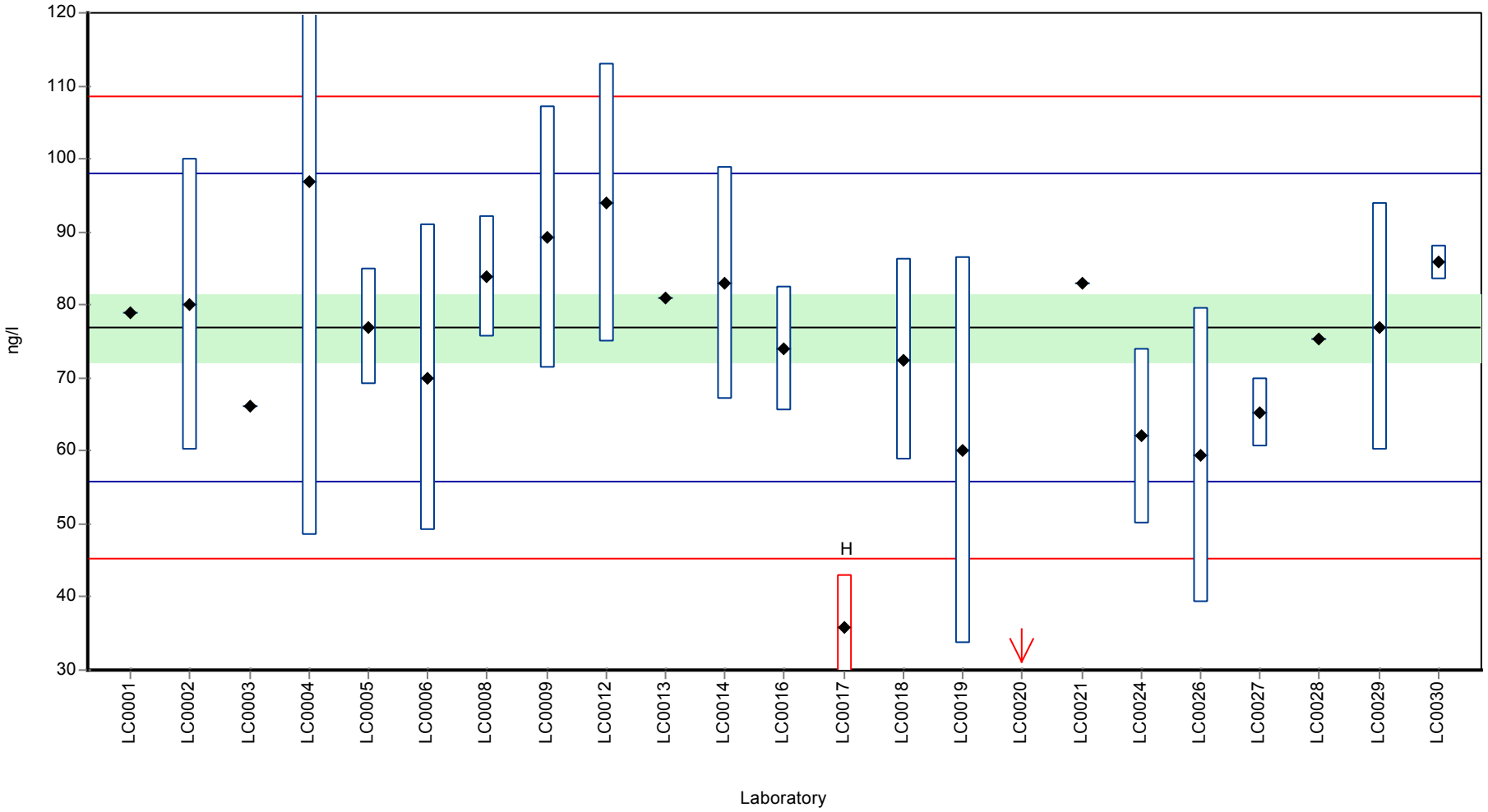
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	79	-	103	0.2	
LC0002	80	20	104	0.29	
LC0003	66.2	-	86.1	-1.01	
LC0004	96.98	48.49	126	1.91	
LC0005	77	8	100	0.01	
LC0006	70	21	91	-0.65	
LC0007	-	-	-	-	
LC0008	83.89	8.39	109	0.66	
LC0009	89.3	17.9	116	1.18	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	94	19	122	1.62	
LC0013	81	-	105	0.39	
LC0014	83	16	108	0.58	
LC0015	-	-	-	-	
LC0016	74	8.5	96.2	-0.28	
LC0017	35.78	7.16	46.5	-3.9	H
LC0018	72.5	13.8	94.3	-0.42	
LC0019	60.1	26.4	78.2	-1.59	
LC0020	28.8	-	37.5	-4.56	H
LC0021	83	0.083	108	0.58	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	62	12	80.6	-1.41	
LC0025	-	-	-	-	
LC0026	59.43	20.28	77.3	-1.66	
LC0027	65.2	4.76	84.8	-1.11	
LC0028	75.4	-	98.1	-0.14	
LC0029	77	17	100	0.01	
LC0030	85.8	2.315	112	0.84	

Characteristics of parameter

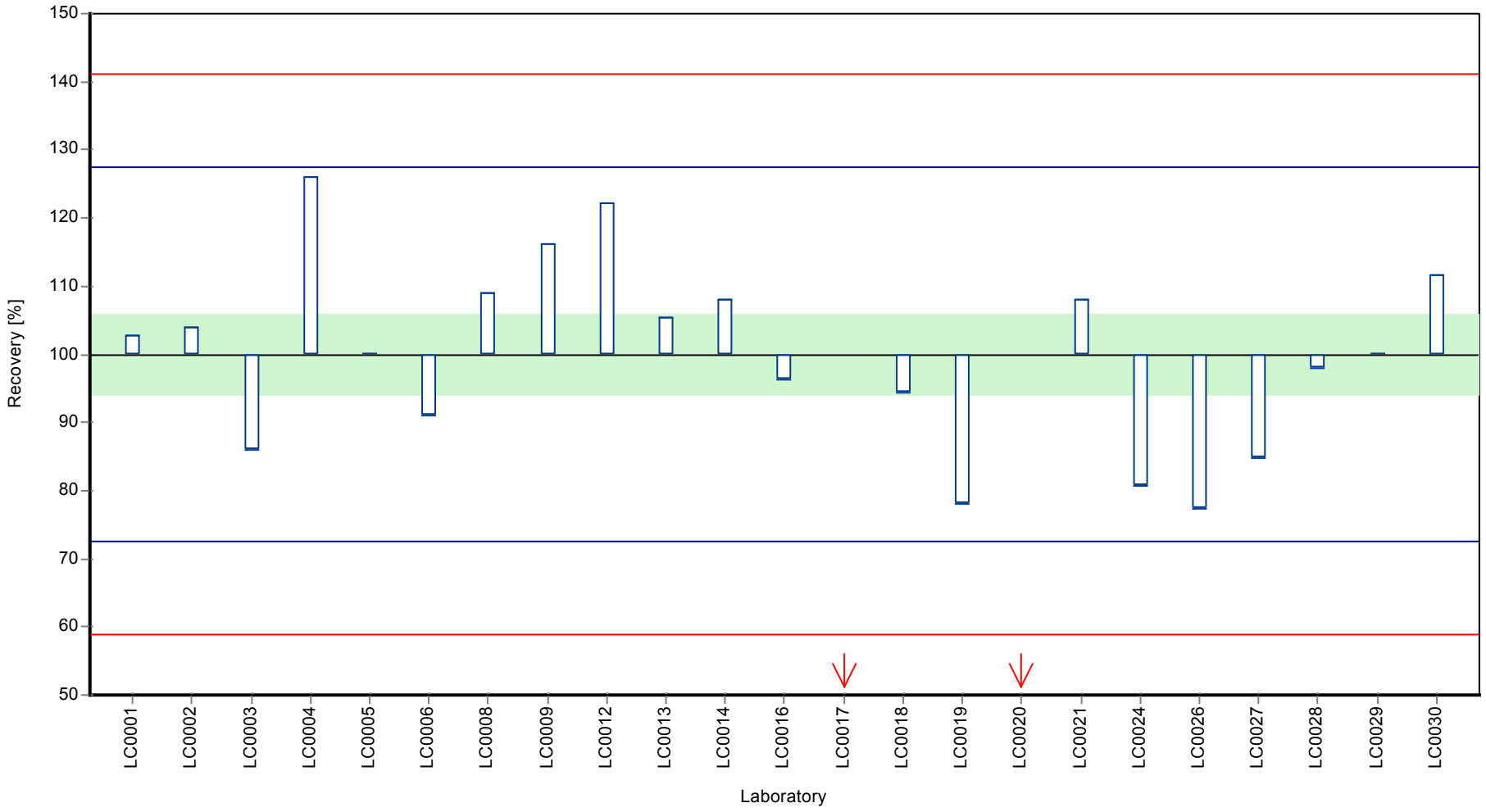
	all results	without outliers	Unit
Mean ± CI (99%)	73 ± 10.2	76.9 ± 6.9	ng/l
Minimum	28.8	59.4	ng/l
Maximum	97	97	ng/l
Standard deviation	16.3	10.5	ng/l
rel. Standard deviation	22.4	13.7	%
n	23	21	-

Graphical presentation of results

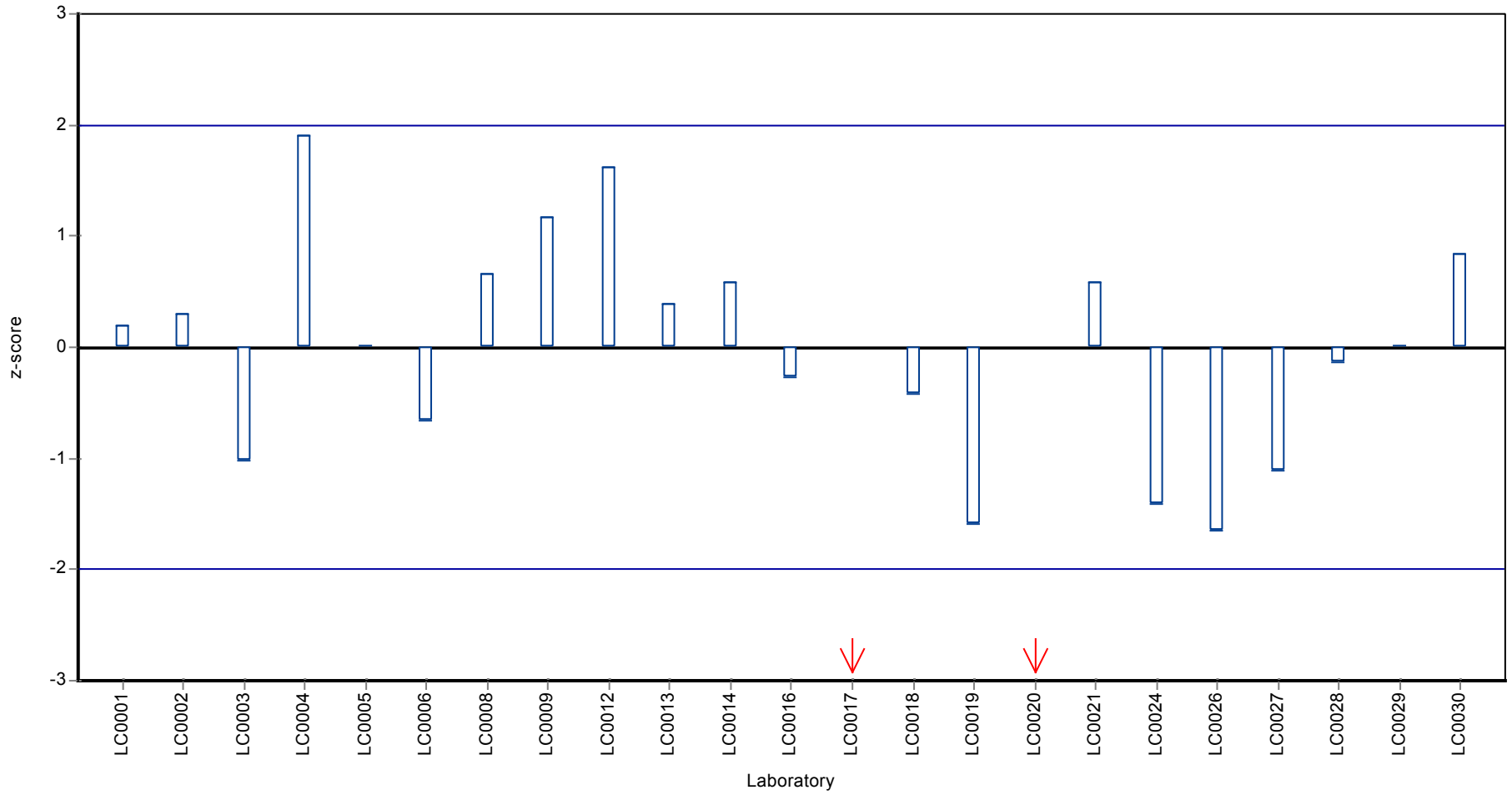
Results



Recovery rate



Z-score


3
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LC0001
LC0002
LC0003
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LC0017
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LC0019
LC0020
LC0021
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Phenanthrene

Unit	ng/l
Mean ± CI (99%)	28.2 ± 2.84
Minimum - Maximum	22 - 36
Control test value ± U	28.3 ± 7.35

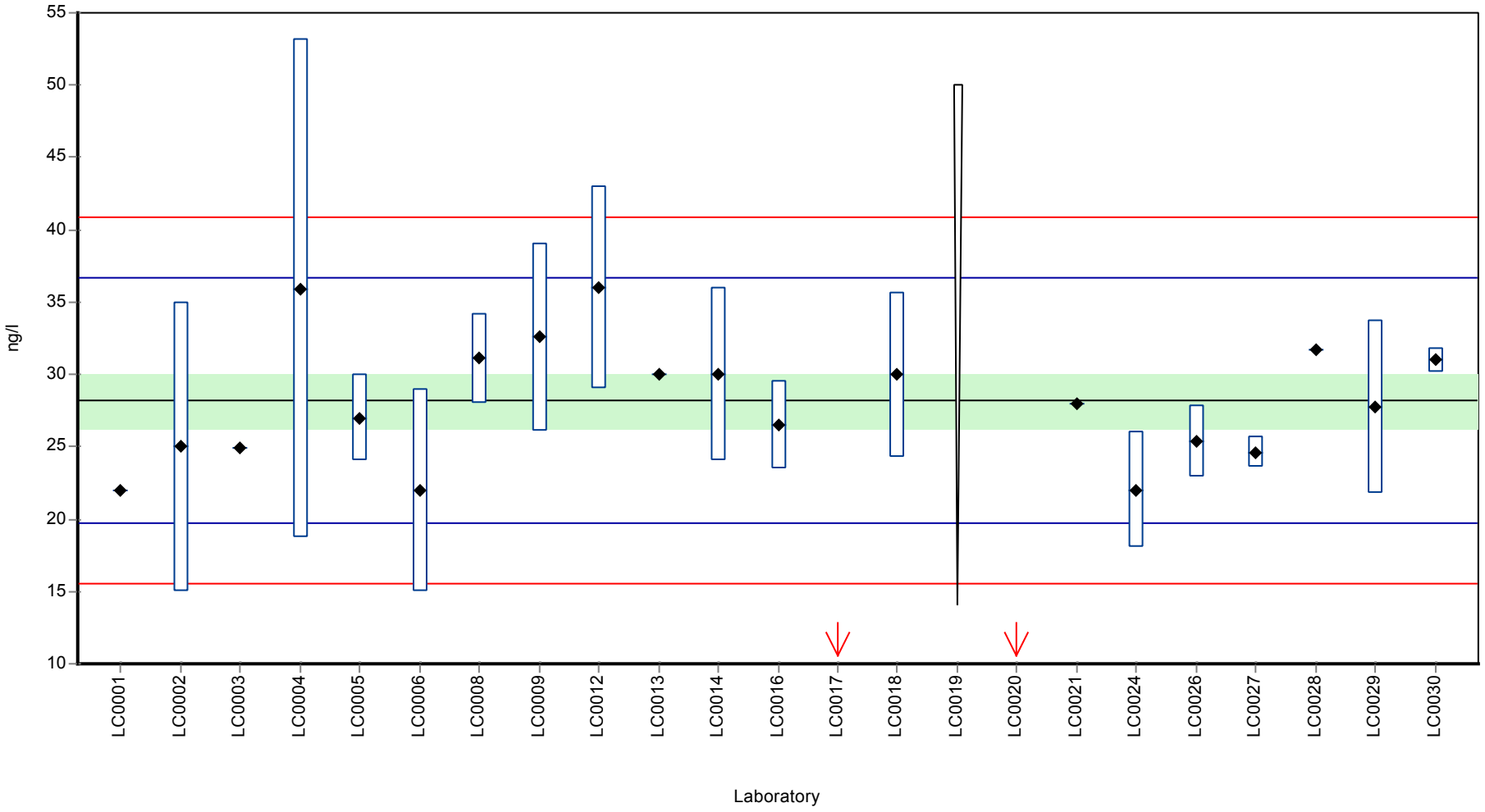
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	22	-	78.1	-1.46	
LC0002	25	10	88.7	-0.75	
LC0003	24.9	-	88.4	-0.78	
LC0004	35.93	17.25	128	1.83	
LC0005	27	3	95.8	-0.28	
LC0006	22	7	78.1	-1.46	
LC0007	-	-	-	-	
LC0008	31.1	3.11	110	0.69	
LC0009	32.6	6.5	116	1.05	
LC0010	-	-	-	-	
LC0011	-	-	-	-	
LC0012	36	7	128	1.85	
LC0013	30	-	106	0.43	
LC0014	30	6	106	0.43	
LC0015	-	-	-	-	
LC0016	26.5	3.04	94.1	-0.4	
LC0017	7.71	1.54	27.4	-4.84	H
LC0018	30	5.7	106	0.43	
LC0019	< 50 (LOQ)	-	-	-	
LC0020	5.6	-	19.9	-5.34	H
LC0021	28	0.028	99.4	-0.04	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	22	4	78.1	-1.46	
LC0025	-	-	-	-	
LC0026	25.4	2.51	90.1	-0.66	
LC0027	24.6	1.07	87.3	-0.85	
LC0028	31.7	-	113	0.83	
LC0029	27.8	6	98.7	-0.09	
LC0030	31	0.836	110	0.67	

Characteristics of parameter

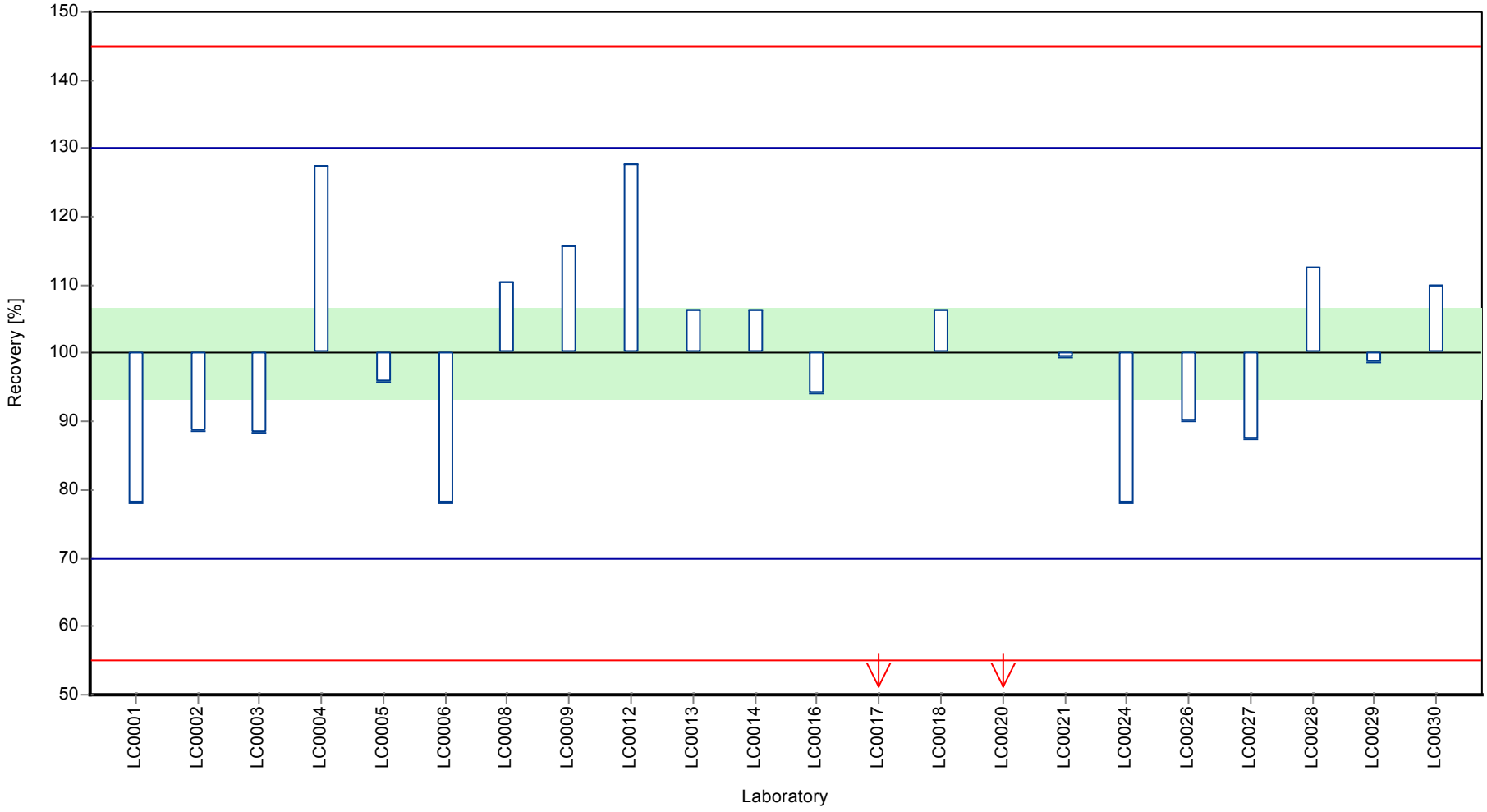
	all results	without outliers	Unit
Mean ± CI (99%)	26.2 ± 4.8	28.2 ± 2.84	ng/l
Minimum	5.6	22	ng/l
Maximum	36	36	ng/l
Standard deviation	7.51	4.23	ng/l
rel. Standard deviation	28.6	15	%
n	22	20	-

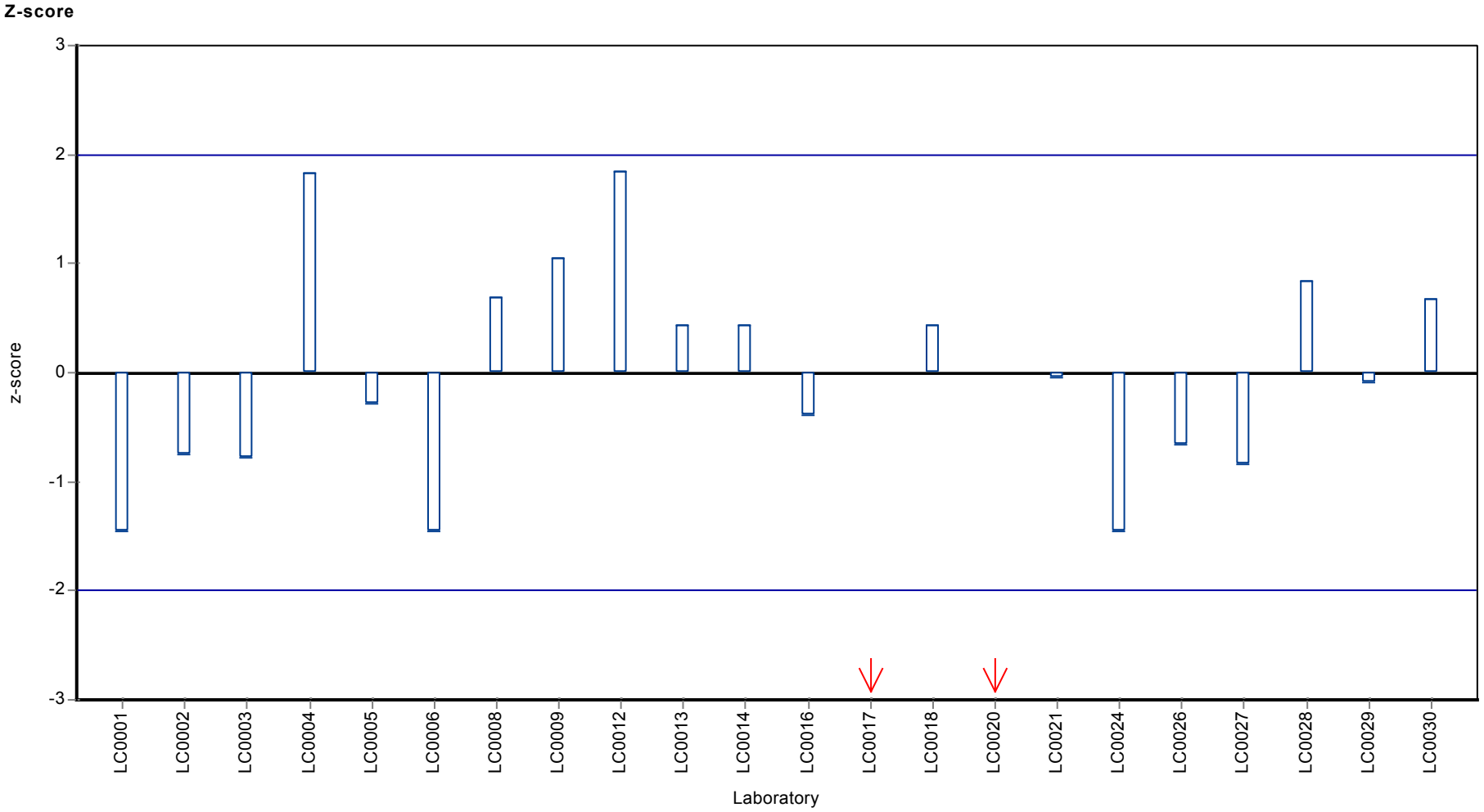
Graphical presentation of results

Results



Recovery rate

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LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0012
LC0013
LC0014
LC0016
LC0017
LC0018
LC0020
LC0021
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 A

Pyrene

Unit	ng/l
Mean ± CI (99%)	262 ± 19.3
Minimum - Maximum	198 - 318
Control test value ± U	206 ± 61.8

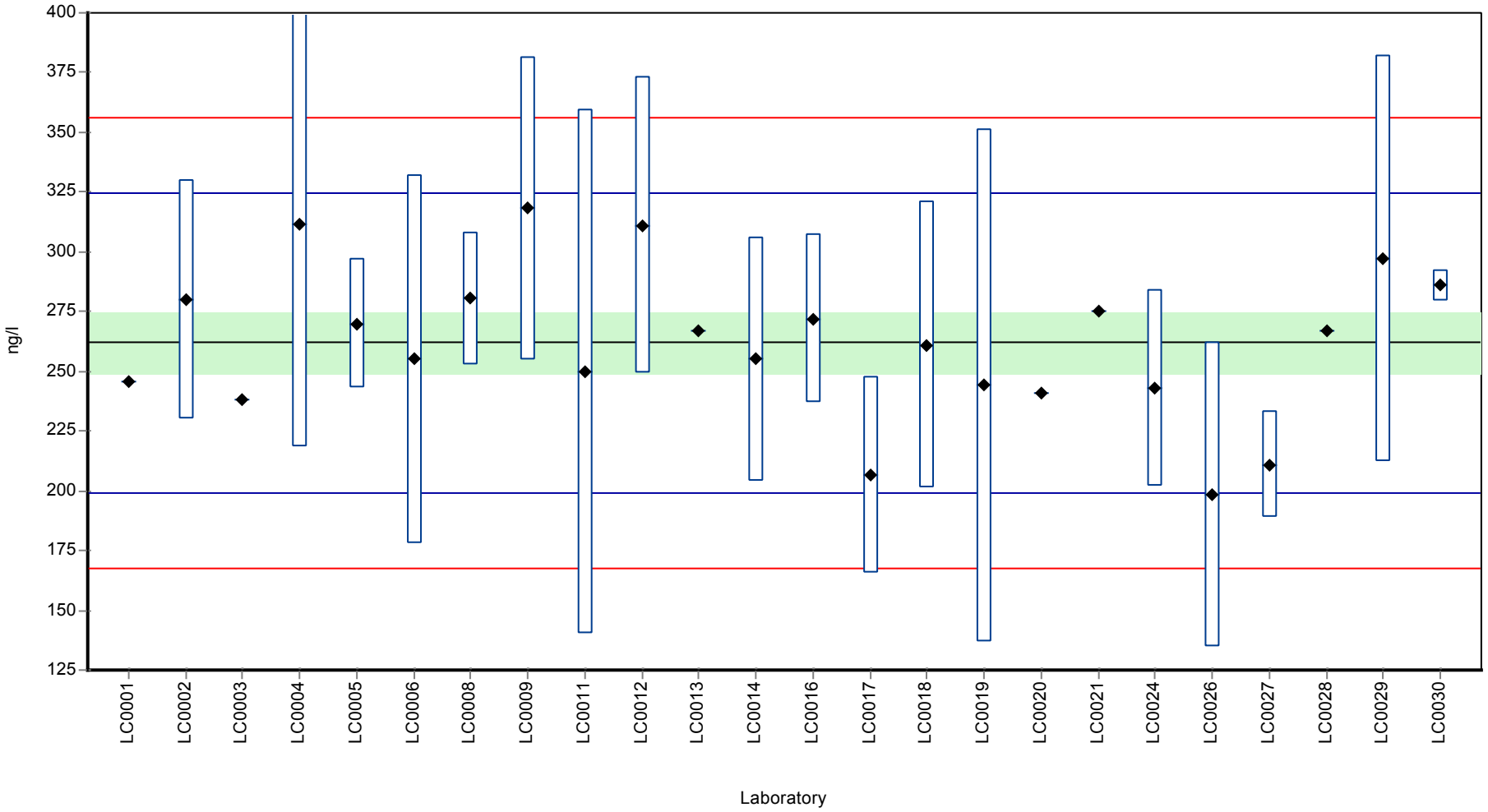
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	246	-	94	-0.5	
LC0002	280	50	107	0.58	
LC0003	238	-	90.9	-0.76	
LC0004	311.58	93.47	119	1.58	
LC0005	270	27	103	0.26	
LC0006	255	77	97.4	-0.22	
LC0007	-	-	-	-	
LC0008	280.39	28.04	107	0.59	
LC0009	318.1	63.6	121	1.79	
LC0010	-	-	-	-	
LC0011	249.9	109.96	95.4	-0.38	
LC0012	311	62	119	1.56	
LC0013	267	-	102	0.16	
LC0014	255	51	97.4	-0.22	
LC0015	-	-	-	-	
LC0016	272	35.4	104	0.32	
LC0017	206.5	41.3	78.9	-1.76	
LC0018	261	60	99.7	-0.03	
LC0019	244	107	93.2	-0.57	
LC0020	241.2	-	92.1	-0.66	
LC0021	275	0.28	105	0.42	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	243	41	92.8	-0.6	
LC0025	-	-	-	-	
LC0026	198.08	63.78	75.6	-2.02	
LC0027	211	22.1	80.6	-1.61	
LC0028	267	-	102	0.16	
LC0029	297.4	85	114	1.13	
LC0030	286	6.503	109	0.77	

Characteristics of parameter

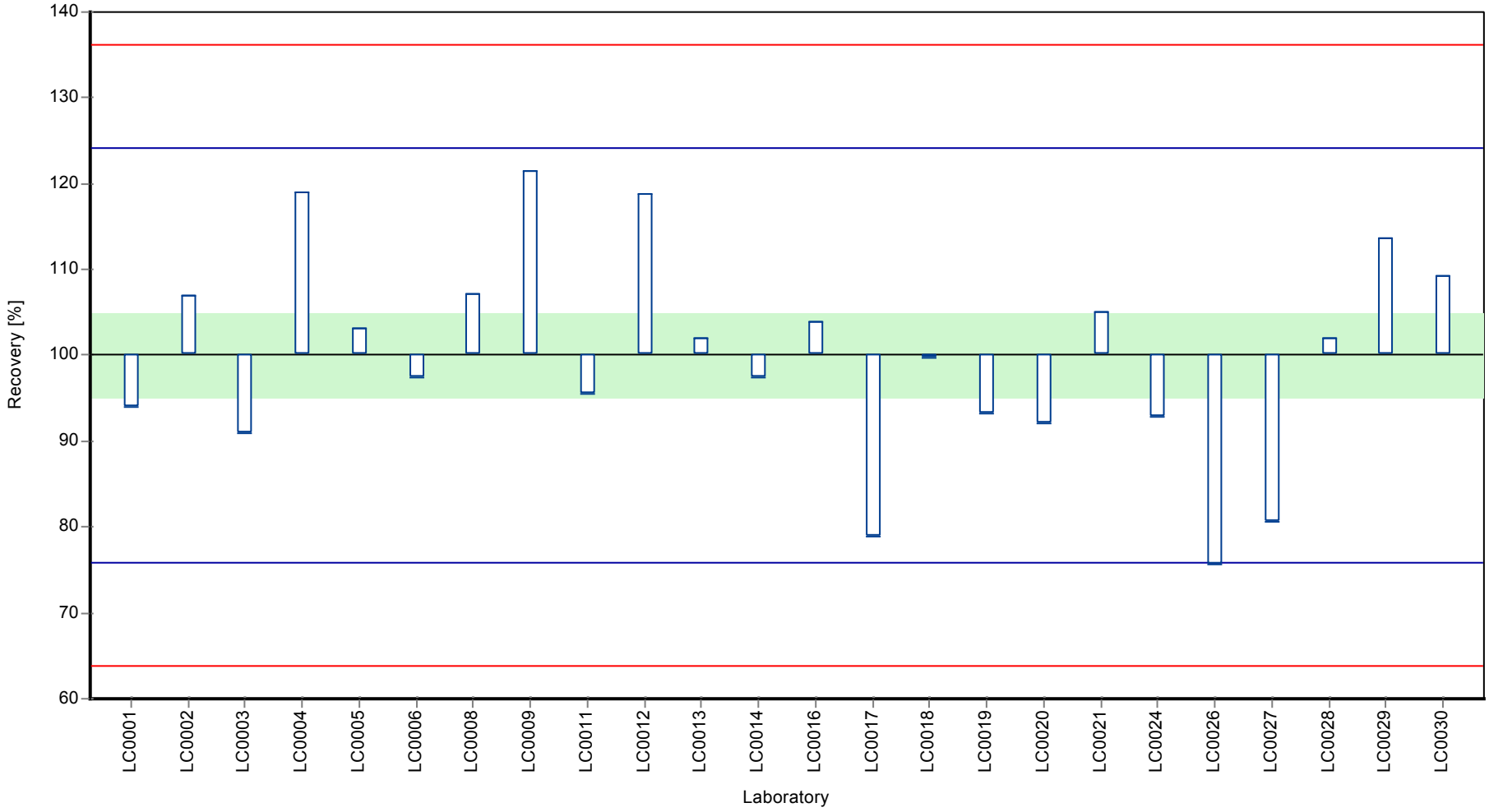
	all results	without outliers	Unit
Mean ± CI (99%)	262 ± 19.3	262 ± 19.3	ng/l
Minimum	198	198	ng/l
Maximum	318	318	ng/l
Standard deviation	31.5	31.5	ng/l
rel. Standard deviation	12	12	%
n	24	24	-

Graphical presentation of results

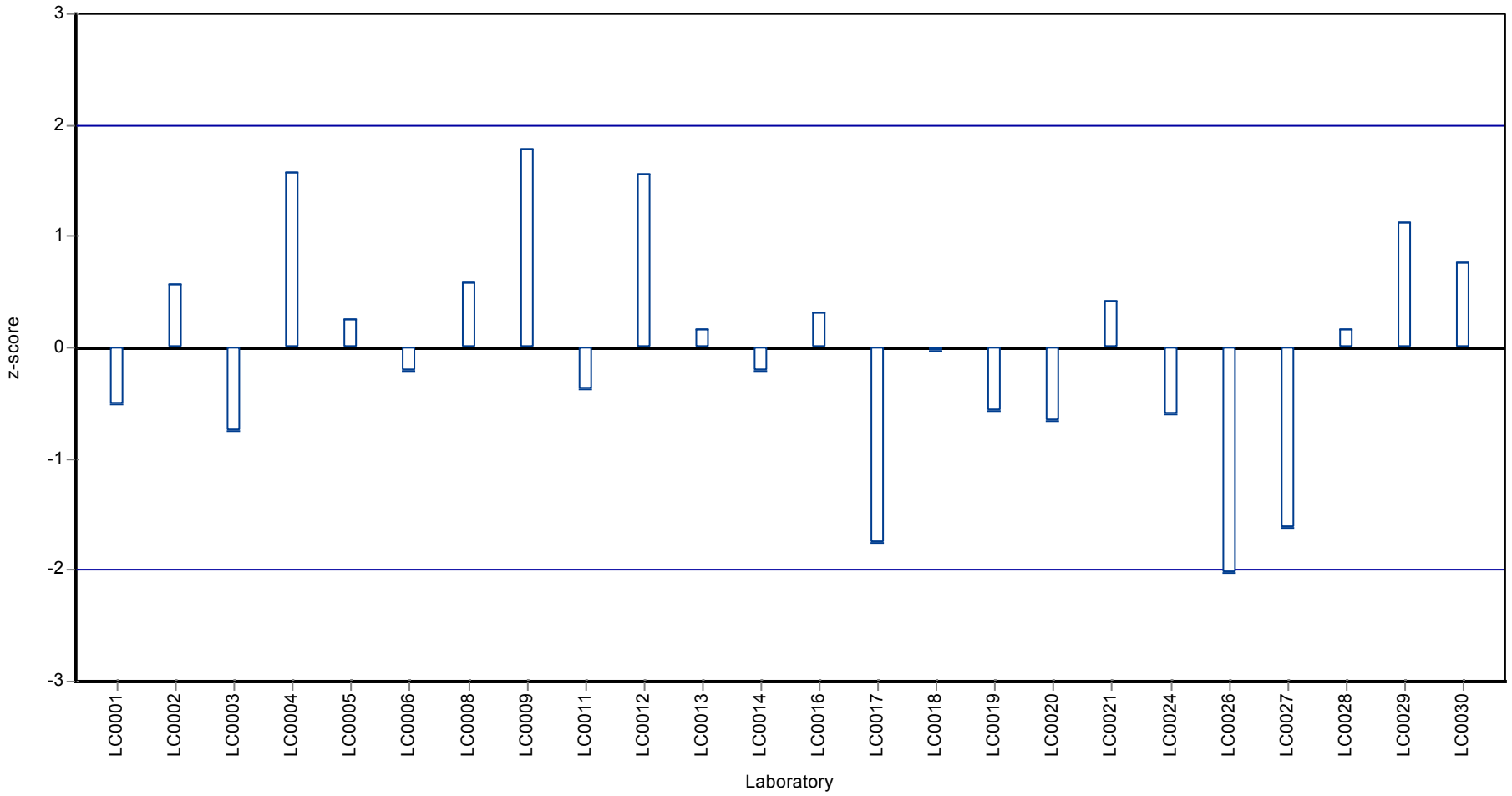
Results



Recovery rate



Z-score


3
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z-score
LC0001
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LC0020
LC0021
LC0024
LC0026
LC0027
LC0028
LC0029
LC0030
Laboratory

Parameter oriented report

P19 B

Pyrene

Unit	ng/l
Mean ± CI (99%)	38.5 ± 3.47
Minimum - Maximum	24.8 - 50.9
Control test value ± U	39.5 ± 7.89

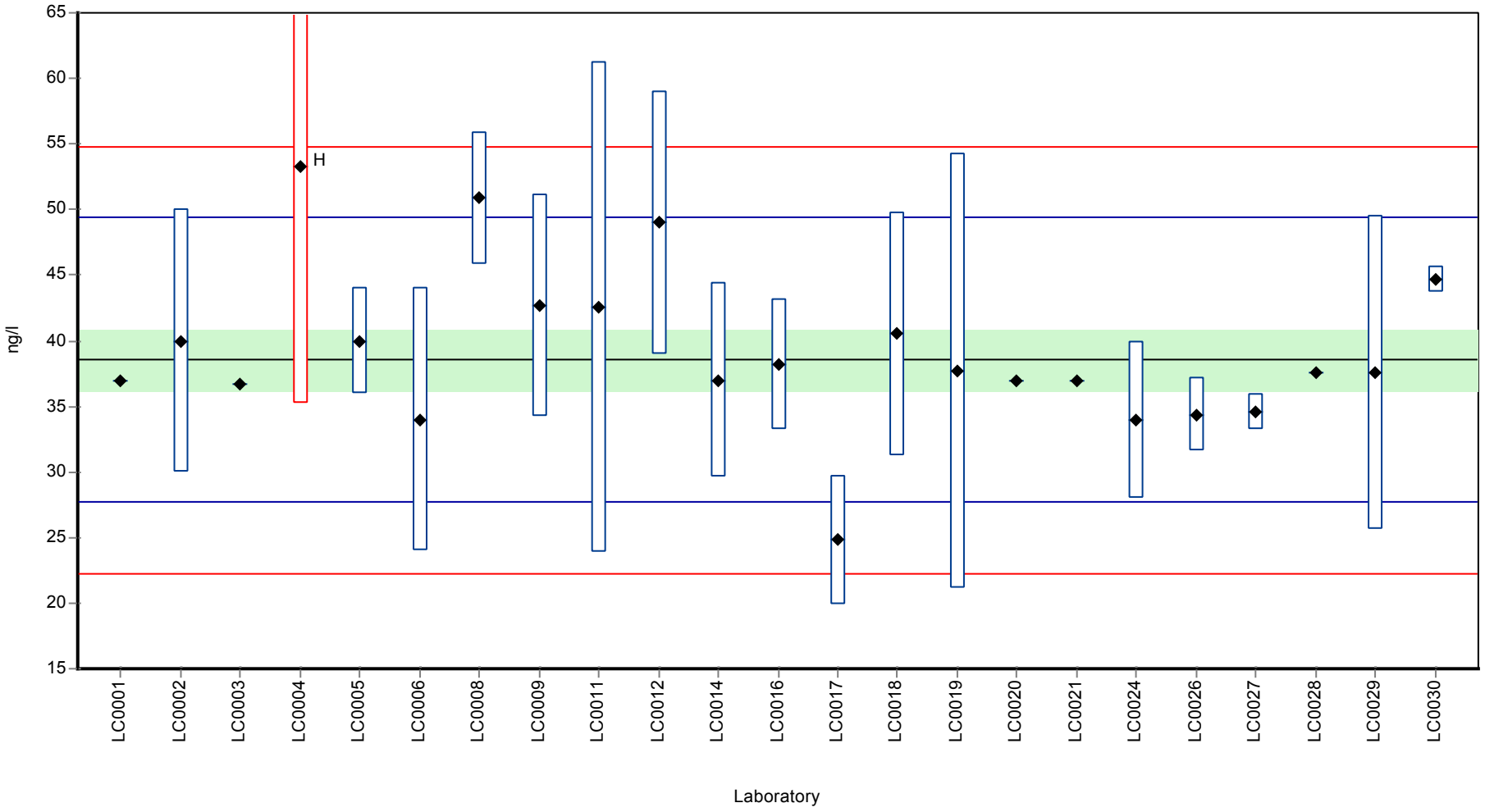
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	37	-	96	-0.28	
LC0002	40	10	104	0.27	
LC0003	36.7	-	95.2	-0.34	
LC0004	53.25	18.11	138	2.71	H
LC0005	40	4	104	0.27	
LC0006	34	10	88.2	-0.84	
LC0007	-	-	-	-	
LC0008	50.87	5.09	132	2.27	
LC0009	42.7	8.5	111	0.77	
LC0010	-	-	-	-	
LC0011	42.56	18.73	110	0.74	
LC0012	49	10	127	1.93	
LC0013	-	-	-	-	
LC0014	37	7.4	96	-0.28	
LC0015	-	-	-	-	
LC0016	38.2	4.97	99.1	-0.06	
LC0017	24.81	4.96	64.4	-2.53	
LC0018	40.5	9.3	105	0.36	
LC0019	37.7	16.6	97.8	-0.15	
LC0020	37	-	96	-0.28	
LC0021	37	0.037	96	-0.28	
LC0022	-	-	-	-	
LC0023	-	-	-	-	
LC0024	34	6	88.2	-0.84	
LC0025	-	-	-	-	
LC0026	34.38	2.83	89.2	-0.77	
LC0027	34.6	1.38	89.8	-0.73	
LC0028	37.6	-	97.6	-0.17	
LC0029	37.6	12	97.6	-0.17	
LC0030	44.7	1.016	116	1.13	

Characteristics of parameter

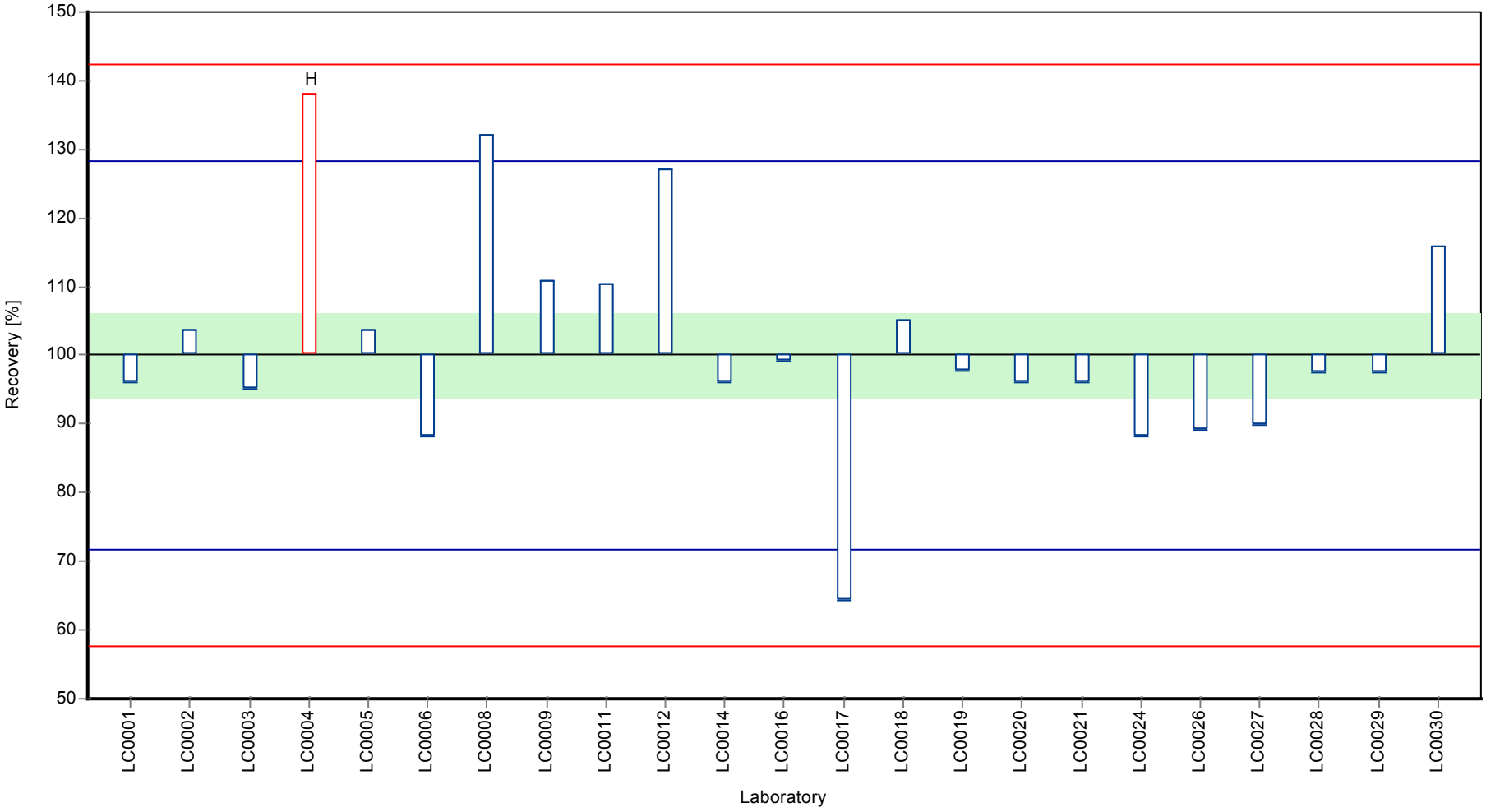
	all results	without outliers	Unit
Mean ± CI (99%)	39.2 ± 3.83	38.5 ± 3.47	ng/l
Minimum	24.8	24.8	ng/l
Maximum	53.2	50.9	ng/l
Standard deviation	6.13	5.43	ng/l
rel. Standard deviation	15.6	14.1	%
n	23	22	-

Graphical presentation of results

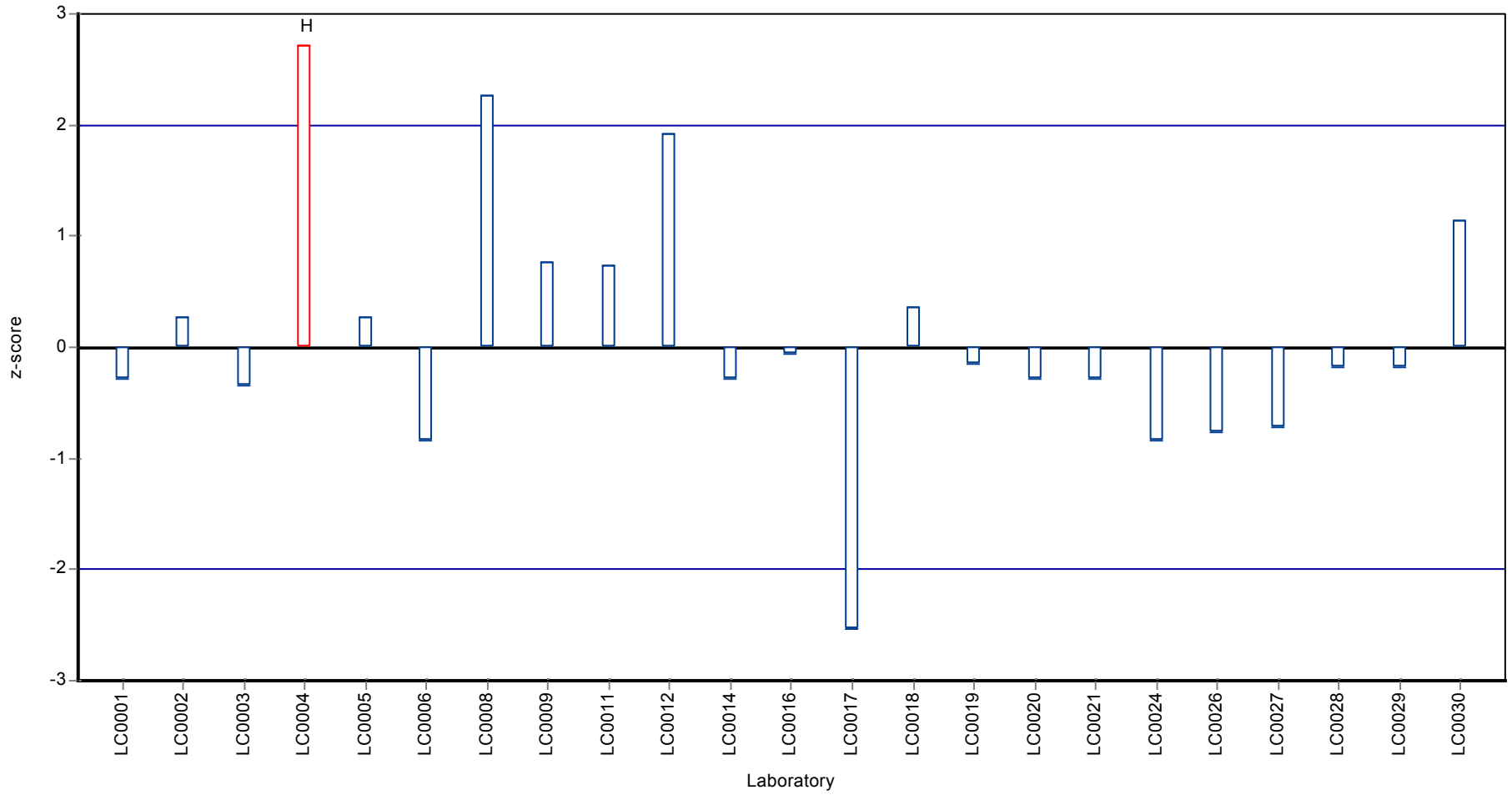
Results



Recovery rate



Z-score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z-score
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LC0001
LC0002
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Laboratory

8 Laboratory oriented report

The laboratory oriented report is sorted by laboratory code.

The following results were achieved:

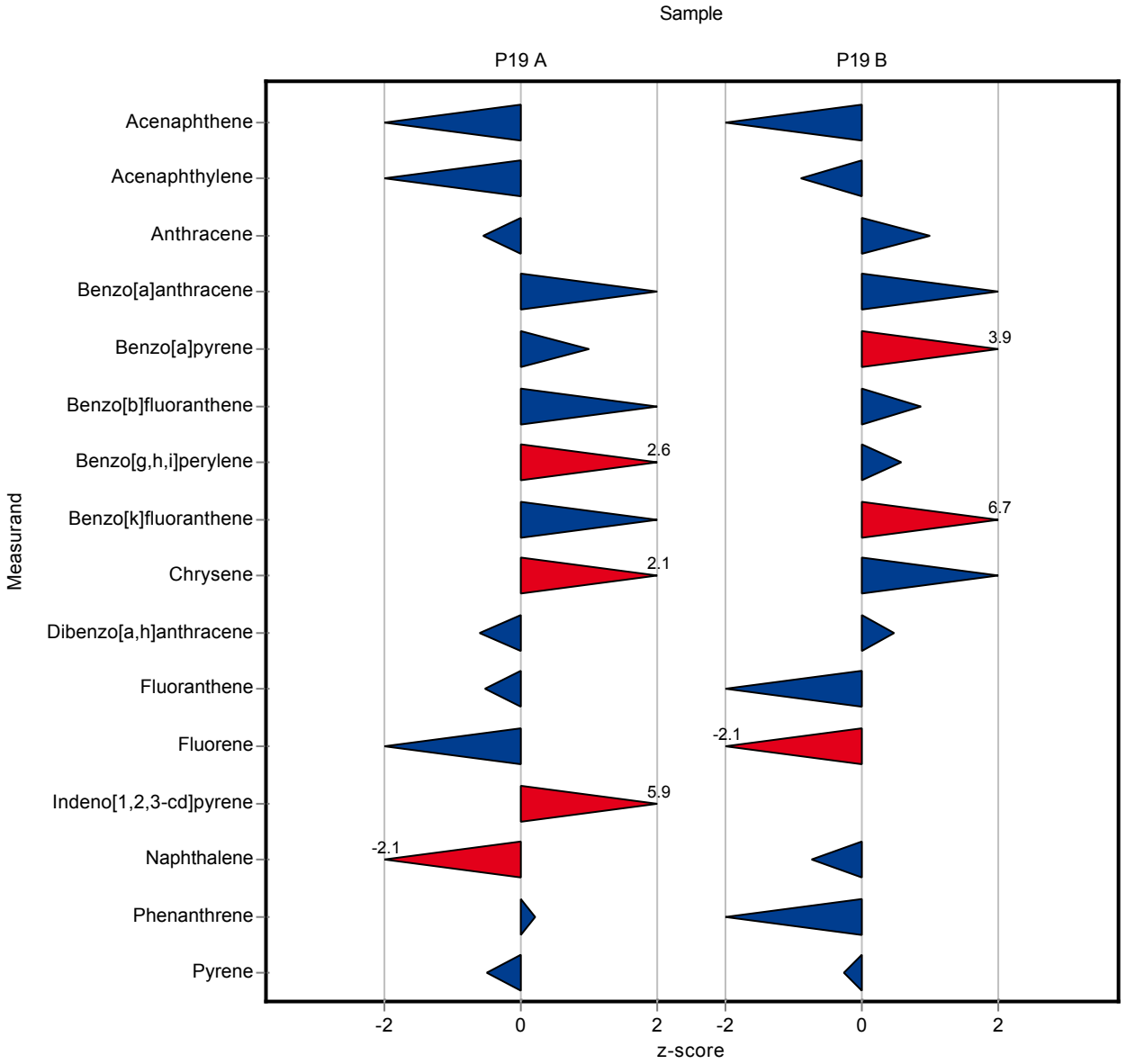
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	37	-	13.1	66.2	-1.45
Acenaphthylene	ng/l	104	± 10.5	85	-	15.7	82.1	-1.18
Anthracene	ng/l	80.2	± 11.8	69	-	19.3	86.1	-0.58
Benzo[a]anthracene	ng/l	121	± 12.8	143	-	21.4	119	1.05
Benzo[a]pyrene	ng/l	117	± 15.1	143	-	26.6	123	0.99
Benzo[b]fluoranthene	ng/l	262	± 27.7	340	-	48.9	130	1.59
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	142	-	20.6	159	2.55
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	97	-	21	160	1.74
Chrysene	ng/l	68.5	± 8.88	99	-	14.8	145	2.06
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	152	-	50.4	83.1	-0.61
Fluoranthene	ng/l	50.3	± 4.84	46	-	7.9	91.5	-0.54
Fluorene	ng/l	174	± 16.5	148	-	24.5	85	-1.06
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	94	-	11.5	354	5.89
Naphthalene	ng/l	226	± 27.1	143	-	40.4	63.3	-2.05
Phenanthrene	ng/l	76.9	± 6.9	79	-	10.5	103	0.20
Pyrene	ng/l	262	± 19.3	246	-	31.5	94	-0.50

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	20	-	5.86	66.1	-1.75
Acenaphthylene	ng/l	7.67	± 1.58	6	-	1.83	78.3	-0.91
Anthracene	ng/l	10.2	± 1.48	12	-	1.85	118	0.98
Benzo[a]anthracene	ng/l	6.73	± 1.44	10	-	2.04	149	1.60
Benzo[a]pyrene	ng/l	6.7	± 0.834	11	-	1.11	164	3.87
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	34	-	4.35	112	0.85
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	41	-	7.23	111	0.57
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	11	-	0.897	222	6.73
Chrysene	ng/l	9.93	± 1.21	13	-	1.61	131	1.90
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	14	-	4.13	115	0.46
Fluoranthene	ng/l	43.4	± 3.1	38	-	4.96	87.5	-1.10
Fluorene	ng/l	50.9	± 4.08	39	-	5.77	76.6	-2.06
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	5	-	-	-	-
Naphthalene	ng/l	19	± 4.12	15	-	5.32	79	-0.75
Phenanthrene	ng/l	28.2	± 2.84	22	-	4.23	78.1	-1.46

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	37	-	5.43	96	-0.28



The following results were achieved:

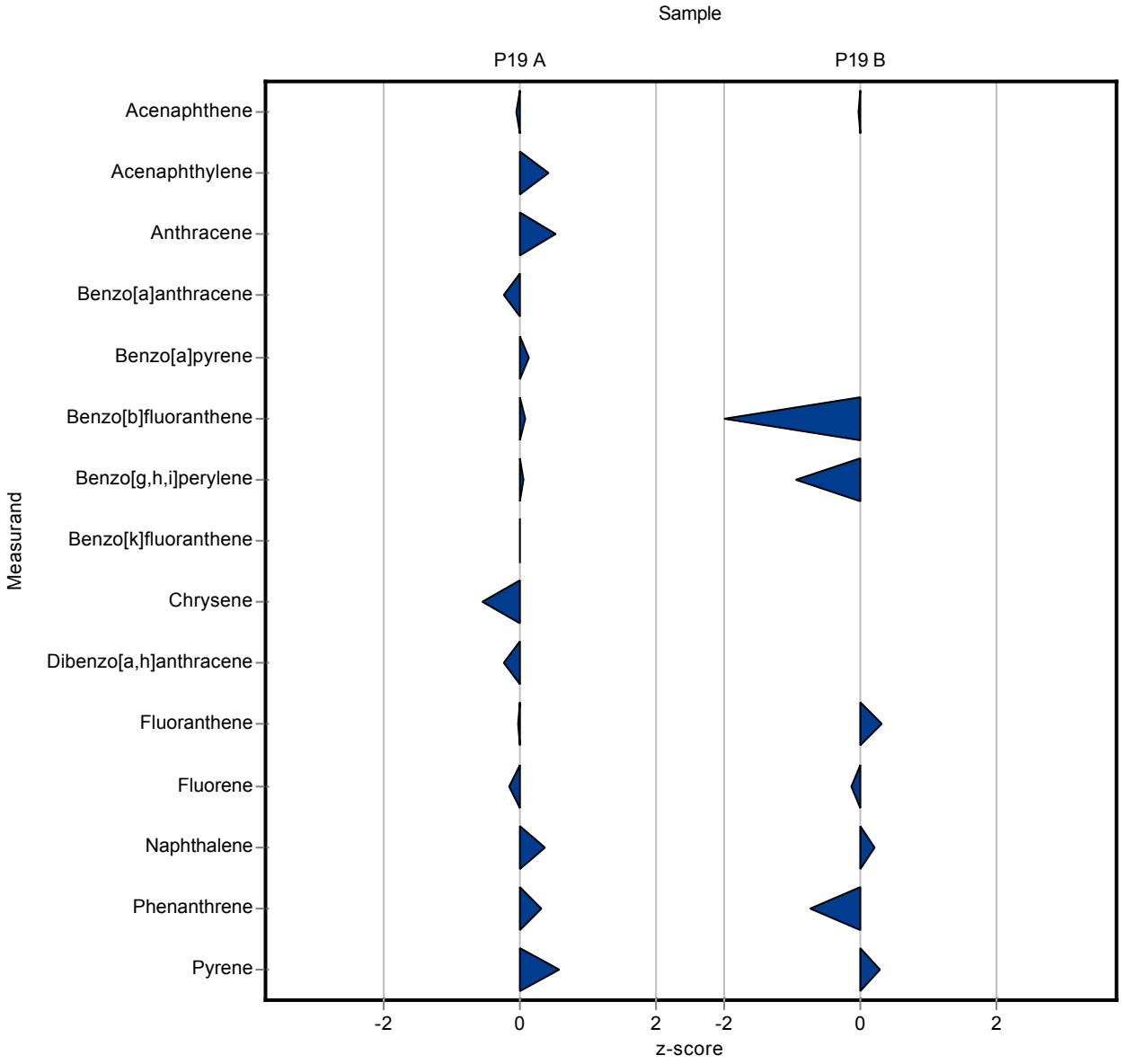
Sample: P19A

Parameter	Unit	Target	±	CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	±	8.55	55	10	13.1	98.4	-0.07
Acenaphthylene	ng/l	104	±	10.5	110	20	15.7	106	0.41
Anthracene	ng/l	80.2	±	11.8	90	20	19.3	112	0.51
Benzo[a]anthracene	ng/l	121	±	12.8	115	30	21.4	95.4	-0.26
Benzo[a]pyrene	ng/l	117	±	15.1	120	30	26.6	103	0.12
Benzo[b]fluoranthene	ng/l	262	±	27.7	265	50	48.9	101	0.06
Benzo[g,h,i]perylene	ng/l	89.3	±	11.9	90	20	20.6	101	0.03
Benzo[k]fluoranthene	ng/l	60.5	±	11.9	60	20	21	99.2	-0.02
Chrysene	ng/l	68.5	±	8.88	60	20	14.8	87.6	-0.57
Dibenzo[a,h]anthracene	ng/l	183	±	30.3	170	40	50.4	93	-0.26
Fluoranthene	ng/l	50.3	±	4.84	50	10	7.9	99.4	-0.04
Fluorene	ng/l	174	±	16.5	170	40	24.5	97.7	-0.17
Indeno[1,2,3-cd]pyrene	ng/l	26.6	±	13	<10 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	±	27.1	240	50	40.4	106	0.35
Phenanthrene	ng/l	76.9	±	6.9	80	20	10.5	104	0.29
Pyrene	ng/l	262	±	19.3	280	50	31.5	107	0.58

Sample: P19B

Parameter	Unit	Target	±	CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	±	3.93	30	10	5.86	99.2	-0.04
Acenaphthylene	ng/l	7.67	±	1.58	<10 (LOQ)	-	1.83	-	-
Anthracene	ng/l	10.2	±	1.48	<10 (LOQ)	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	±	1.44	<10 (LOQ)	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	±	0.834	<10 (LOQ)	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	±	2.56	25	10	4.35	82.6	-1.21
Benzo[g,h,i]perylene	ng/l	36.9	±	4.34	30	10	7.23	81.3	-0.95
Benzo[k]fluoranthene	ng/l	4.96	±	0.746	<10 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	±	1.21	<10 (LOQ)	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	±	2.84	<10 (LOQ)	-	4.13	-	-
Fluoranthene	ng/l	43.4	±	3.1	45	10	4.96	104	0.31
Fluorene	ng/l	50.9	±	4.08	50	10	5.77	98.3	-0.15
Indeno[1,2,3-cd]pyrene	ng/l	-	±	-	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	±	4.12	20	10	5.32	105	0.19
Phenanthrene	ng/l	28.2	±	2.84	25	10	4.23	88.7	-0.75

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	40	10	5.43	104	0.27



The following results were achieved:

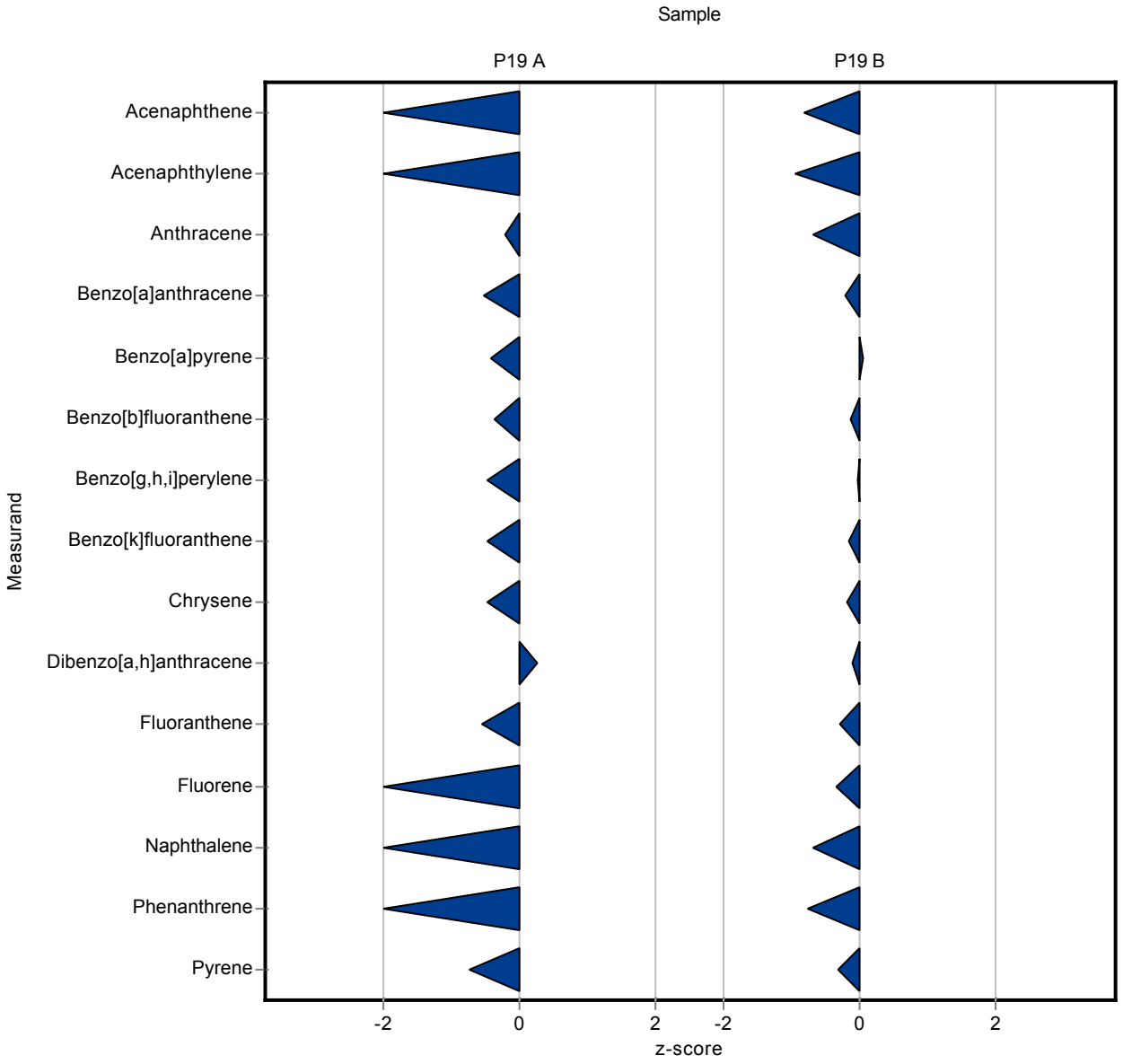
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	41.9	-	13.1	74.9	-1.07
Acenaphthylene	ng/l	104	± 10.5	85.8	-	15.7	82.9	-1.13
Anthracene	ng/l	80.2	± 11.8	75.6	-	19.3	94.3	-0.24
Benzo[a]anthracene	ng/l	121	± 12.8	109	-	21.4	90.4	-0.54
Benzo[a]pyrene	ng/l	117	± 15.1	105	-	26.6	90	-0.44
Benzo[b]fluoranthene	ng/l	262	± 27.7	243	-	48.9	92.7	-0.39
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	79.2	-	20.6	88.6	-0.49
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	50.5	-	21	83.5	-0.47
Chrysene	ng/l	68.5	± 8.88	61.4	-	14.8	89.6	-0.48
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	196	-	50.4	107	0.26
Fluoranthene	ng/l	50.3	± 4.84	45.9	-	7.9	91.3	-0.56
Fluorene	ng/l	174	± 16.5	144	-	24.5	82.7	-1.22
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<1 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	167	-	40.4	73.9	-1.46
Phenanthrene	ng/l	76.9	± 6.9	66.2	-	10.5	86.1	-1.01
Pyrene	ng/l	262	± 19.3	238	-	31.5	90.9	-0.76

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	25.4	-	5.86	84	-0.83
Acenaphthylene	ng/l	7.67	± 1.58	5.92	-	1.83	77.2	-0.96
Anthracene	ng/l	10.2	± 1.48	8.9	-	1.85	87.4	-0.69
Benzo[a]anthracene	ng/l	6.73	± 1.44	6.26	-	2.04	93	-0.23
Benzo[a]pyrene	ng/l	6.7	± 0.834	6.74	-	1.11	101	0.04
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	29.6	-	4.35	97.8	-0.16
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	36.6	-	7.23	99.2	-0.04
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	4.81	-	0.897	96.9	-0.17
Chrysene	ng/l	9.93	± 1.21	9.61	-	1.61	96.7	-0.20
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	11.6	-	4.13	95.7	-0.13
Fluoranthene	ng/l	43.4	± 3.1	41.9	-	4.96	96.4	-0.31
Fluorene	ng/l	50.9	± 4.08	48.9	-	5.77	96.1	-0.34
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<1 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	15.3	-	5.32	80.6	-0.69
Phenanthrene	ng/l	28.2	± 2.84	24.9	-	4.23	88.4	-0.78

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	36.7	-	5.43	95.2	-0.34



The following results were achieved:

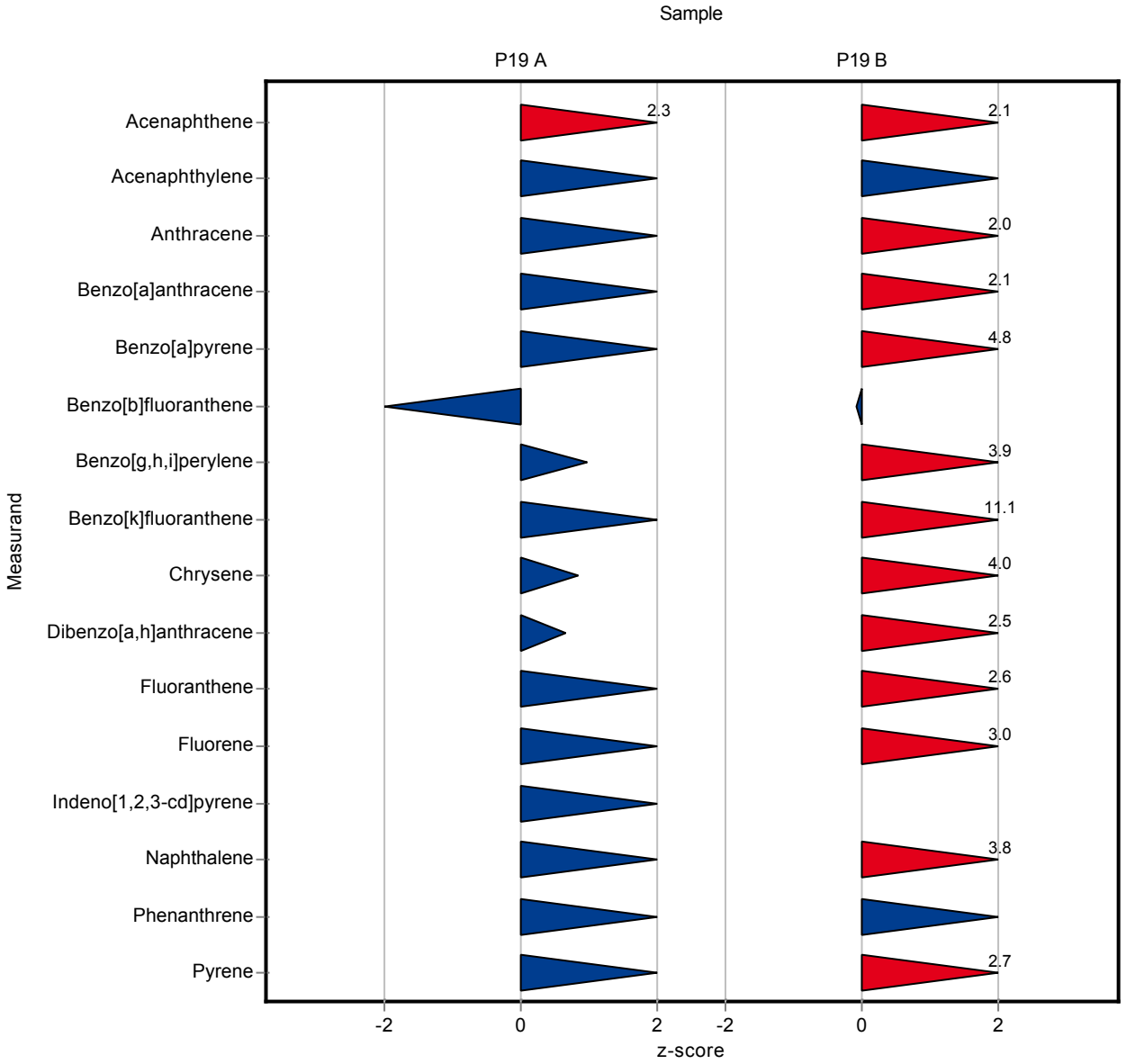
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	85.66	20.56	13.1	153	2.28
Acenaphthylene	ng/l	104	± 10.5	122.26	29.34	15.7	118	1.19
Anthracene	ng/l	80.2	± 11.8	110.89	33.27	19.3	138	1.59
Benzo[a]anthracene	ng/l	121	± 12.8	142.06	36.94	21.4	118	1.01
Benzo[a]pyrene	ng/l	117	± 15.1	144.75	43.43	26.6	124	1.05
Benzo[b]fluoranthene	ng/l	262	± 27.7	192.15	38.43	48.9	73.3	-1.43
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	109.04	34.89	20.6	122	0.95
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	96.07	48.04	21	159	1.69
Chrysene	ng/l	68.5	± 8.88	80.93	16.19	14.8	118	0.84
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	215.83	64.75	50.4	118	0.65
Fluoranthene	ng/l	50.3	± 4.84	60.42	14.5	7.9	120	1.28
Fluorene	ng/l	174	± 16.5	205.32	61.6	24.5	118	1.27
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	40.49	12.55	11.5	152	1.21
Naphthalene	ng/l	226	± 27.1	300.67	90.2	40.4	133	1.85
Phenanthrene	ng/l	76.9	± 6.9	96.98	48.49	10.5	126	1.91
Pyrene	ng/l	262	± 19.3	311.58	93.47	31.5	119	1.58

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	42.31	10.15	5.86	140	2.06
Acenaphthylene	ng/l	7.67	± 1.58	9.75	2.32	1.83	127	1.14
Anthracene	ng/l	10.2	± 1.48	13.93	4.18	1.85	137	2.03
Benzo[a]anthracene	ng/l	6.73	± 1.44	10.96	2.84	2.04	163	2.07
Benzo[a]pyrene	ng/l	6.7	± 0.834	12.08	3.93	1.11	180	4.84
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	29.91	6.88	4.35	98.8	-0.08
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	65.02	20.81	7.23	176	3.89
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	14.96	7.48	0.897	302	11.10
Chrysene	ng/l	9.93	± 1.21	16.32	3.26	1.61	164	3.96
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	22.28	6.68	4.13	184	2.46
Fluoranthene	ng/l	43.4	± 3.1	56.48	13.56	4.96	130	2.63
Fluorene	ng/l	50.9	± 4.08	68.38	21.88	5.77	134	3.03
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOD)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	39.35	10.35	5.32	207	3.83
Phenanthrene	ng/l	28.2	± 2.84	35.93	17.25	4.23	128	1.83

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	53.25	18.11	5.43	138	2.71



The following results were achieved:

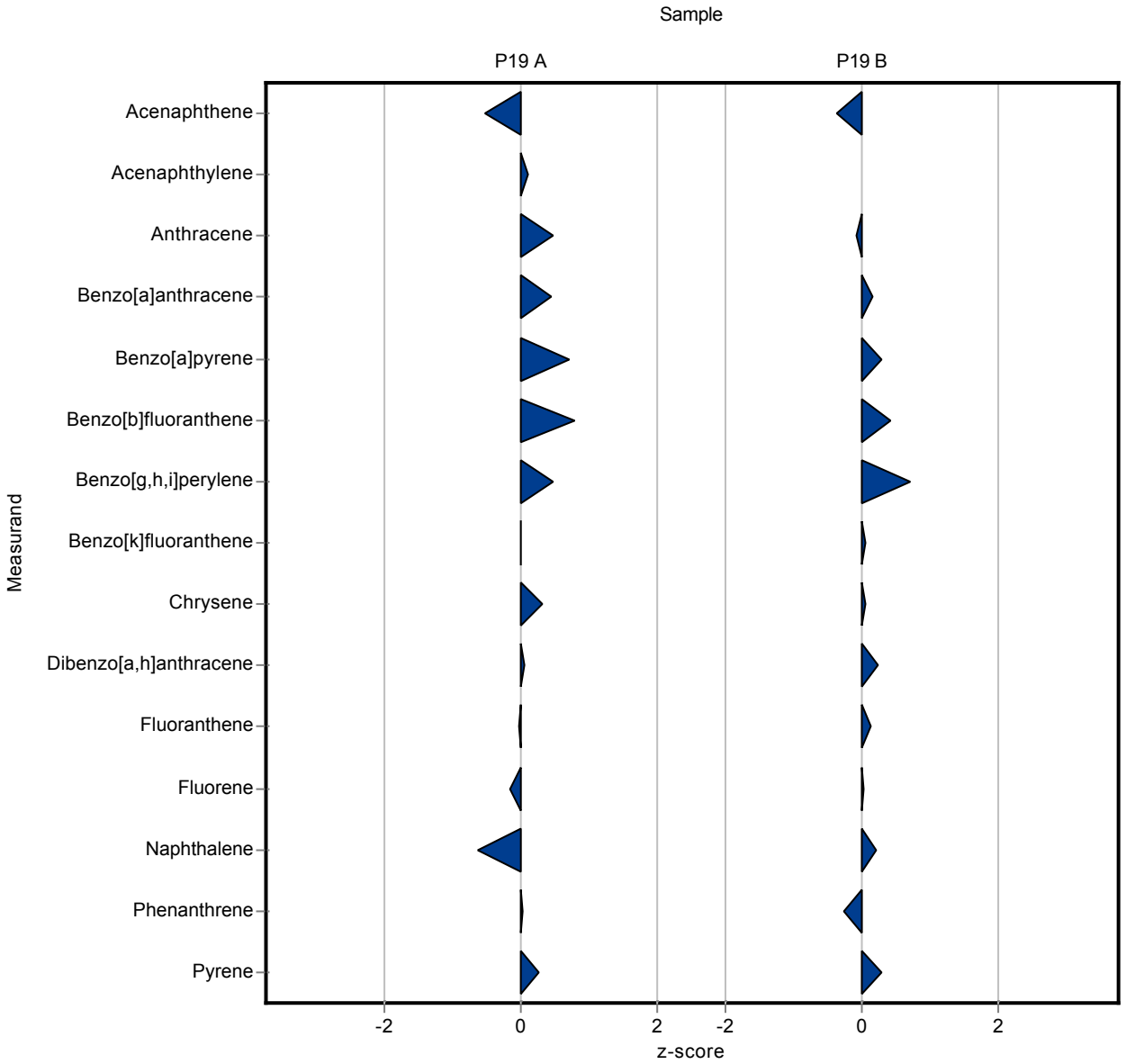
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	49	5	13.1	87.6	-0.53
Acenaphthylene	ng/l	104	± 10.5	105	10	15.7	101	0.10
Anthracene	ng/l	80.2	± 11.8	89	9	19.3	111	0.46
Benzo[a]anthracene	ng/l	121	± 12.8	130	13	21.4	108	0.44
Benzo[a]pyrene	ng/l	117	± 15.1	135	14	26.6	116	0.69
Benzo[b]fluoranthene	ng/l	262	± 27.7	300	30	48.9	114	0.77
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	99	10	20.6	111	0.47
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	60	6	21	99.2	-0.02
Chrysene	ng/l	68.5	± 8.88	73	7	14.8	107	0.30
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	185	19	50.4	101	0.04
Fluoranthene	ng/l	50.3	± 4.84	50	5	7.9	99.4	-0.04
Fluorene	ng/l	174	± 16.5	170	17	24.5	97.7	-0.17
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<5 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	200	20	40.4	88.5	-0.64
Phenanthrene	ng/l	76.9	± 6.9	77	8	10.5	100	0.01
Pyrene	ng/l	262	± 19.3	270	27	31.5	103	0.26

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	28	3	5.86	92.6	-0.38
Acenaphthylene	ng/l	7.67	± 1.58	<10 (LOQ)	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	10	1	1.85	98.2	-0.10
Benzo[a]anthracene	ng/l	6.73	± 1.44	7	1	2.04	104	0.13
Benzo[a]pyrene	ng/l	6.7	± 0.834	7	1	1.11	105	0.27
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	32	3	4.35	106	0.40
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	42	4	7.23	114	0.71
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	5	0.5	0.897	101	0.04
Chrysene	ng/l	9.93	± 1.21	10	1	1.61	101	0.04
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	13	1	4.13	107	0.21
Fluoranthene	ng/l	43.4	± 3.1	44	4	4.96	101	0.11
Fluorene	ng/l	50.9	± 4.08	51	5	5.77	100	0.02
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	20	2	5.32	105	0.19
Phenanthrene	ng/l	28.2	± 2.84	27	3	4.23	95.8	-0.28

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	40	4	5.43	104	0.27



The following results were achieved:

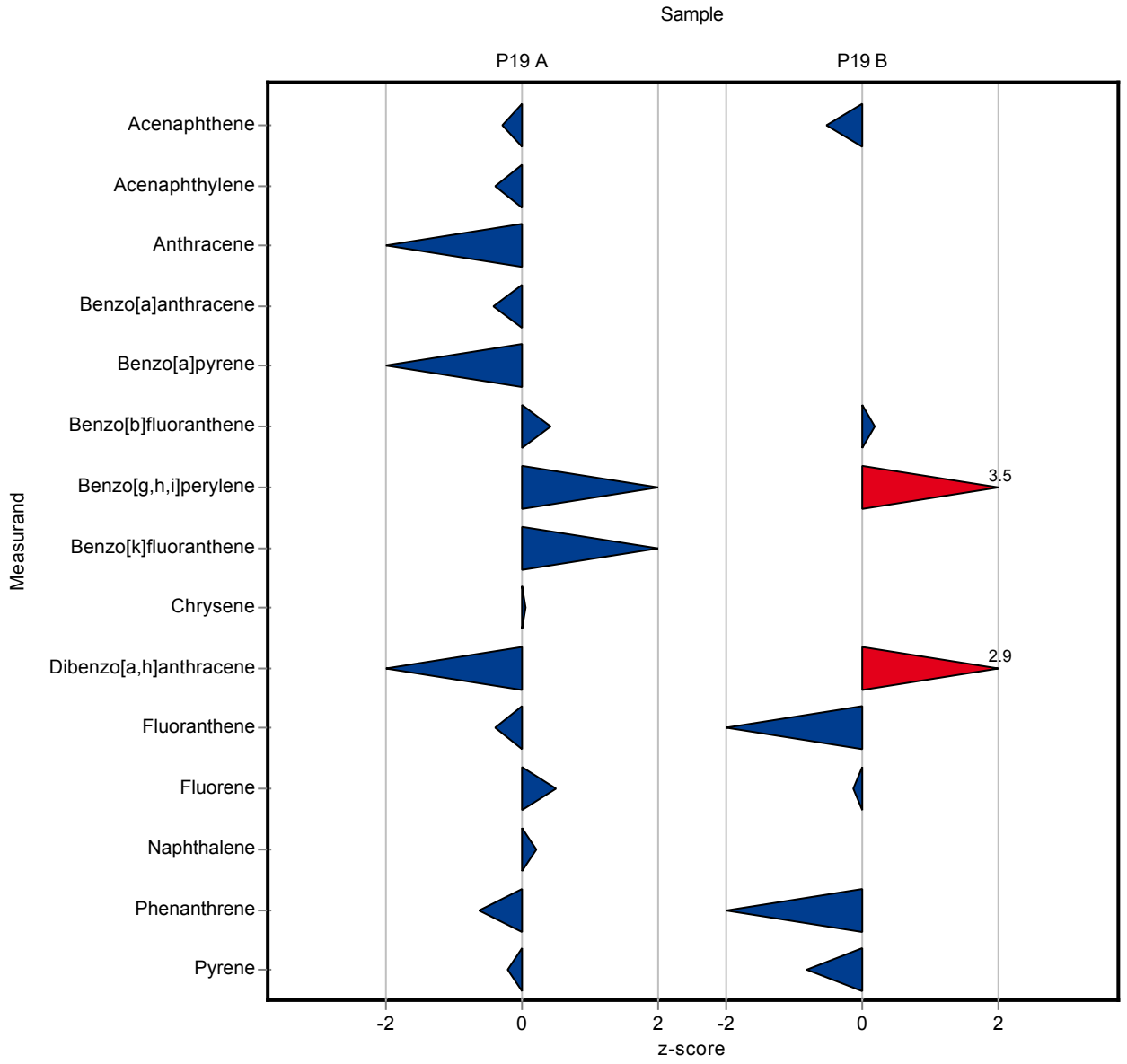
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	52	15	13.1	93	-0.30
Acenaphthylene	ng/l	104	± 10.5	97	30	15.7	93.7	-0.41
Anthracene	ng/l	80.2	± 11.8	59	18	19.3	73.6	-1.10
Benzo[a]anthracene	ng/l	121	± 12.8	111	33	21.4	92.1	-0.45
Benzo[a]pyrene	ng/l	117	± 15.1	88	26	26.6	75.4	-1.08
Benzo[b]fluoranthene	ng/l	262	± 27.7	282	85	48.9	108	0.40
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	119	36	20.6	133	1.44
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	82	25	21	136	1.02
Chrysene	ng/l	68.5	± 8.88	69	21	14.8	101	0.03
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	119	36	50.4	65.1	-1.27
Fluoranthene	ng/l	50.3	± 4.84	47	14	7.9	93.5	-0.42
Fluorene	ng/l	174	± 16.5	186	56	24.5	107	0.49
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<20 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	234	70	40.4	104	0.20
Phenanthrene	ng/l	76.9	± 6.9	70	21	10.5	91	-0.65
Pyrene	ng/l	262	± 19.3	255	77	31.5	97.4	-0.22

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	27	9	5.86	89.3	-0.55
Acenaphthylene	ng/l	7.67	± 1.58	<20 (LOQ)	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	<20 (LOQ)	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	<20 (LOQ)	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	<20 (LOQ)	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	31	9	4.35	102	0.17
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	62	20	7.23	168	3.47
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<20 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	<20 (LOQ)	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	24	7	4.13	198	2.88
Fluoranthene	ng/l	43.4	± 3.1	37	11	4.96	85.2	-1.30
Fluorene	ng/l	50.9	± 4.08	50	15	5.77	98.3	-0.15
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	<20 (LOQ)	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	22	7	4.23	78.1	-1.46

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	34	10	5.43	88.2	-0.84



The following results were achieved:

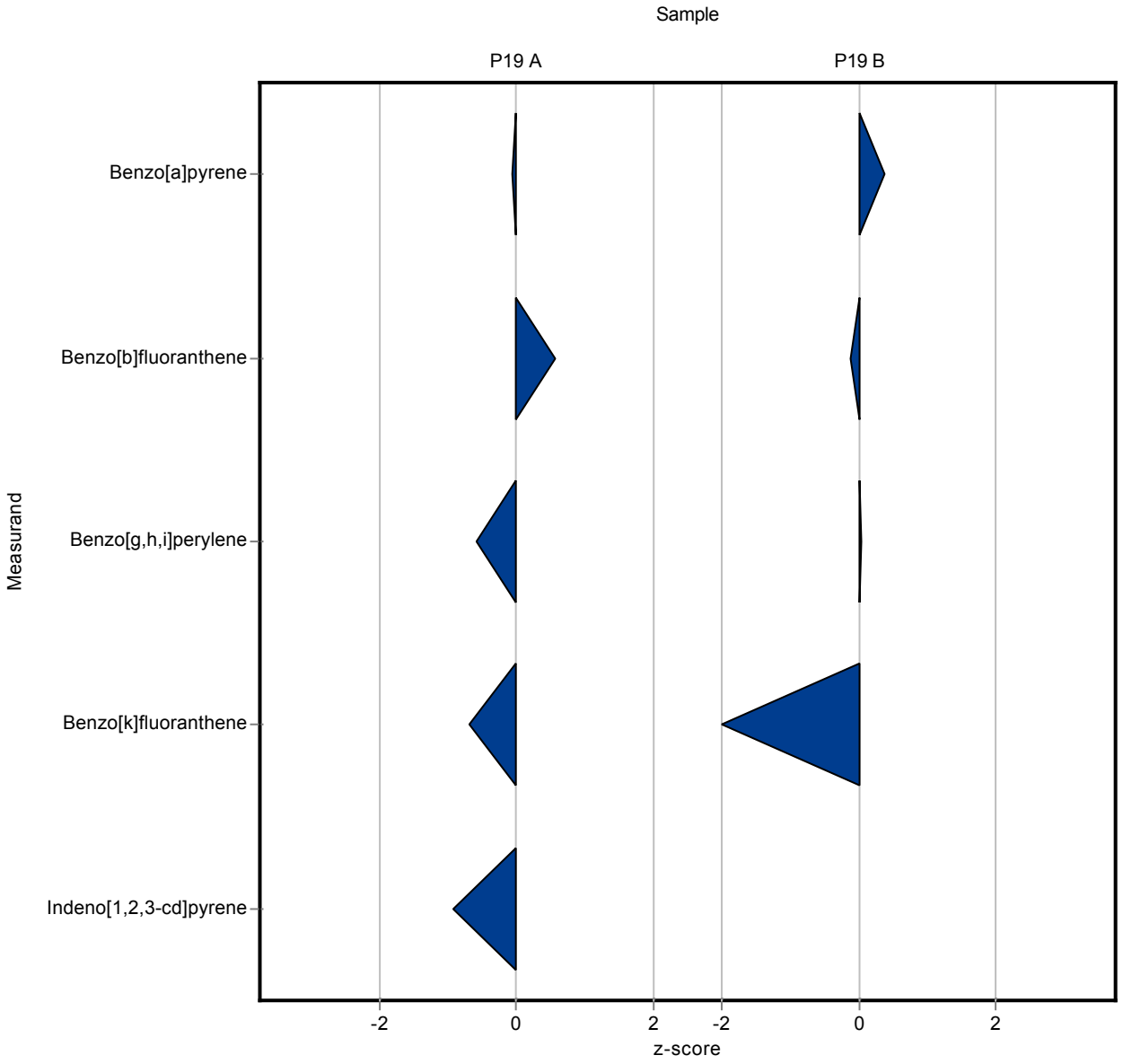
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	-	-	13.1	-	-
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	-	-	19.3	-	-
Benzo[a]anthracene	ng/l	121	± 12.8	-	-	21.4	-	-
Benzo[a]pyrene	ng/l	117	± 15.1	114.79	5.74	26.6	98.3	-0.07
Benzo[b]fluoranthene	ng/l	262	± 27.7	289.72	35.56	48.9	110	0.56
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	77.29	3.86	20.6	86.5	-0.58
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	46.03	2.3	21	76.1	-0.69
Chrysene	ng/l	68.5	± 8.88	-	-	14.8	-	-
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	-	-	50.4	-	-
Fluoranthene	ng/l	50.3	± 4.84	-	-	7.9	-	-
Fluorene	ng/l	174	± 16.5	-	-	24.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	15.84	1.51	11.5	59.6	-0.94
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	-	-	10.5	-	-
Pyrene	ng/l	262	± 19.3	-	-	31.5	-	-

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	-	-	5.86	-	-
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	-	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	-	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	7.11	0.45	1.11	106	0.37
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	29.71	1.49	4.35	98.1	-0.13
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	37.23	1.86	7.23	101	0.05
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	4	0.2	0.897	80.6	-1.07
Chrysene	ng/l	9.93	± 1.21	-	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	-	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	-	-	4.96	-	-
Fluorene	ng/l	50.9	± 4.08	-	-	5.77	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	4.64	0.4	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	-	-	4.23	-	-

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	-	-	5.43	-	-



The following results were achieved:

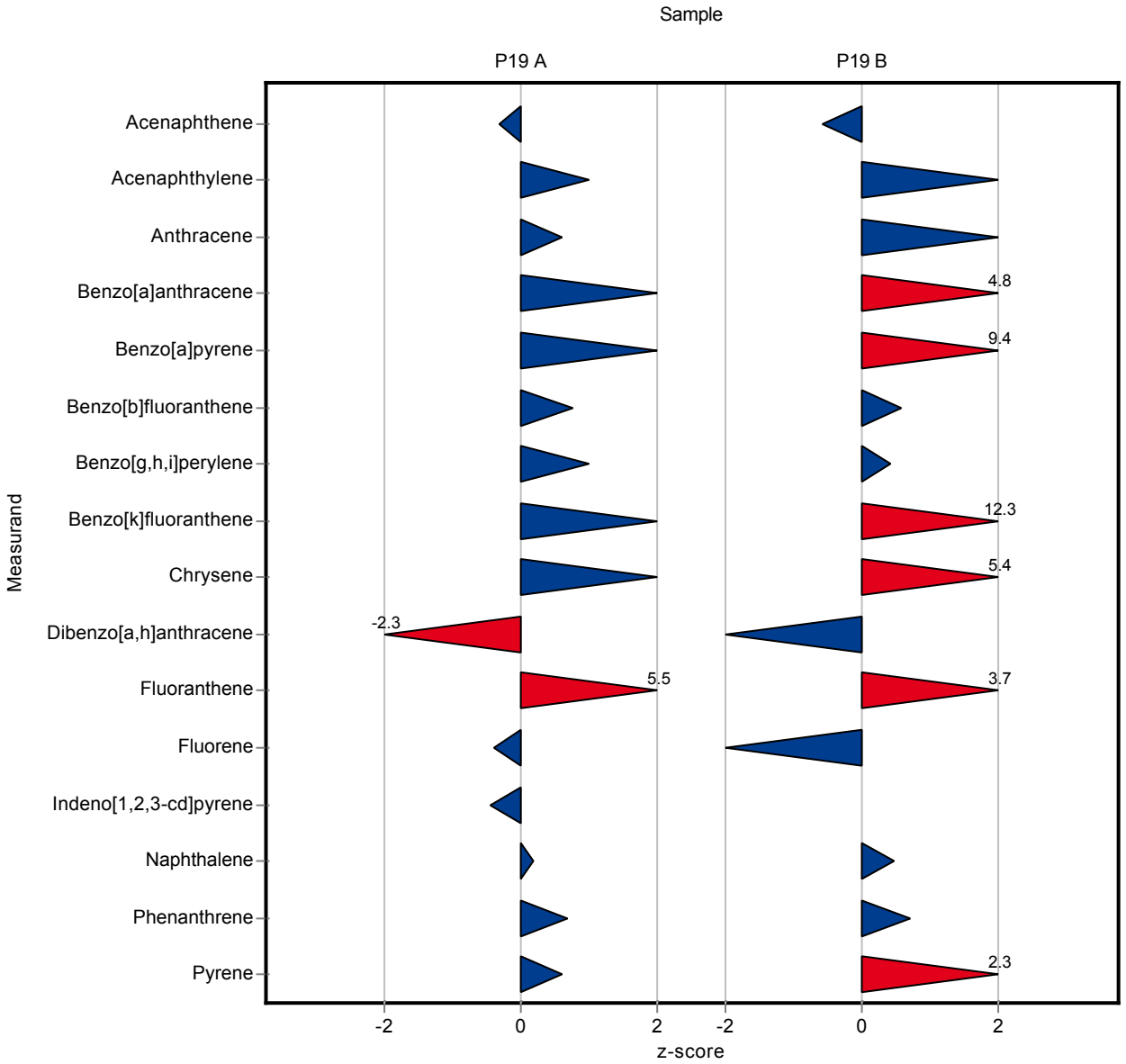
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	51.51	5.15	13.1	92.1	-0.34
Acenaphthylene	ng/l	104	± 10.5	119.04	11.9	15.7	115	0.99
Anthracene	ng/l	80.2	± 11.8	91.49	9.15	19.3	114	0.59
Benzo[a]anthracene	ng/l	121	± 12.8	144.17	14.42	21.4	120	1.11
Benzo[a]pyrene	ng/l	117	± 15.1	150.46	15.05	26.6	129	1.27
Benzo[b]fluoranthene	ng/l	262	± 27.7	298.45	29.85	48.9	114	0.74
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	109.8	10.98	20.6	123	0.99
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	88.29	8.83	21	146	1.32
Chrysene	ng/l	68.5	± 8.88	87.52	8.75	14.8	128	1.28
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	68.6	6.86	50.4	37.5	-2.27
Fluoranthene	ng/l	50.3	± 4.84	94.02	9.4	7.9	187	5.54
Fluorene	ng/l	174	± 16.5	164.08	16.41	24.5	94.3	-0.41
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	21.29	2.13	11.5	80.1	-0.46
Naphthalene	ng/l	226	± 27.1	232.89	23.29	40.4	103	0.17
Phenanthrene	ng/l	76.9	± 6.9	83.89	8.39	10.5	109	0.66
Pyrene	ng/l	262	± 19.3	280.39	28.04	31.5	107	0.59

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	26.79	2.68	5.86	88.6	-0.59
Acenaphthylene	ng/l	7.67	± 1.58	10.53	1.05	1.83	137	1.57
Anthracene	ng/l	10.2	± 1.48	13.02	1.3	1.85	128	1.54
Benzo[a]anthracene	ng/l	6.73	± 1.44	16.46	1.65	2.04	245	4.76
Benzo[a]pyrene	ng/l	6.7	± 0.834	17.15	1.72	1.11	256	9.40
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	32.77	3.28	4.35	108	0.57
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	39.76	3.98	7.23	108	0.40
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	15.97	1.6	0.897	322	12.30
Chrysene	ng/l	9.93	± 1.21	18.59	1.86	1.61	187	5.36
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	7.15	0.72	4.13	59	-1.21
Fluoranthene	ng/l	43.4	± 3.1	61.64	6.16	4.96	142	3.67
Fluorene	ng/l	50.9	± 4.08	44.61	4.46	5.77	87.7	-1.09
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	5.88	0.59	-	-	-
Naphthalene	ng/l	19	± 4.12	21.51	2.15	5.32	113	0.47
Phenanthrene	ng/l	28.2	± 2.84	31.1	3.11	4.23	110	0.69

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	50.87	5.09	5.43	132	2.27



The following results were achieved:

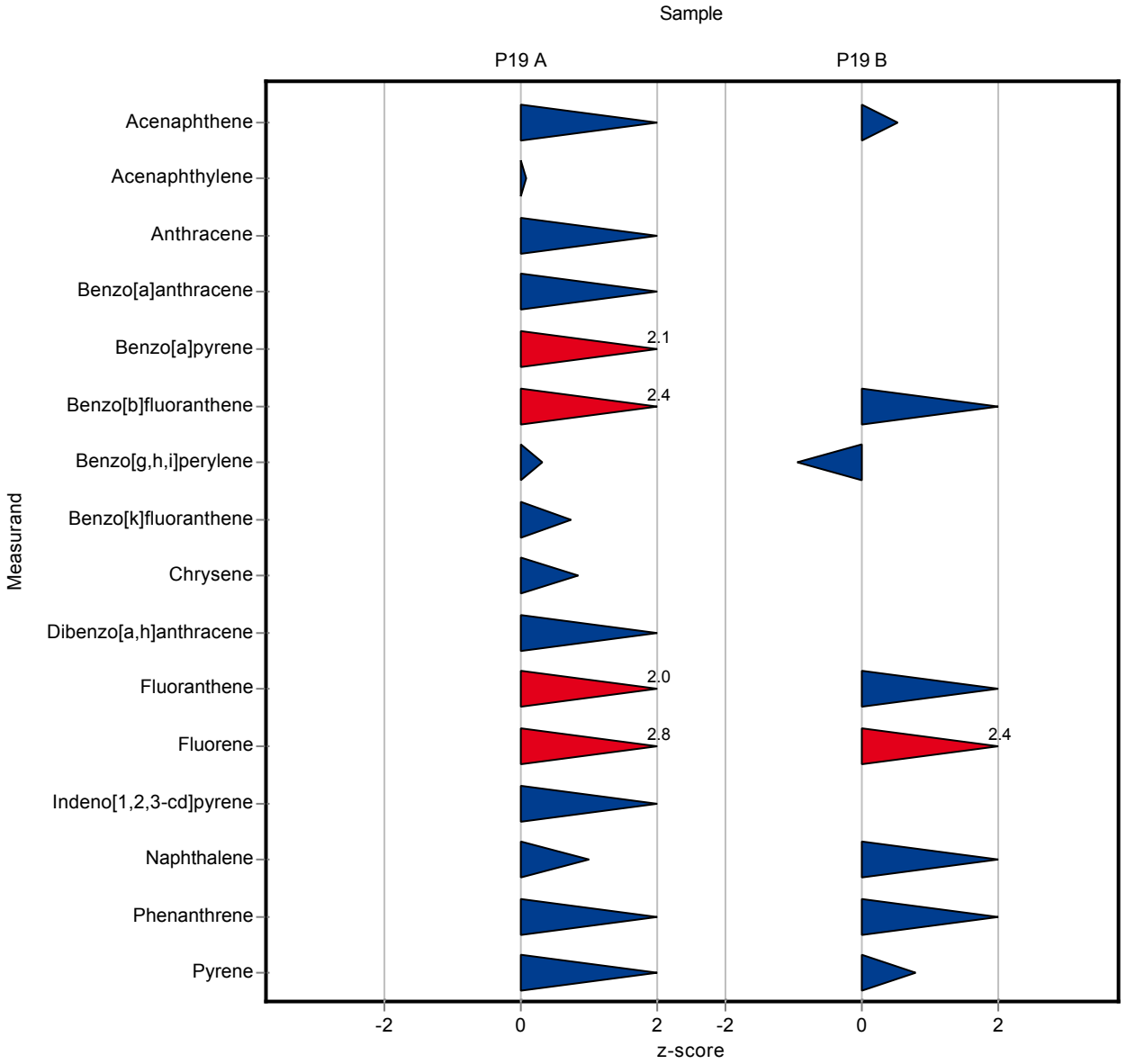
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	77.9	15.6	13.1	139	1.68
Acenaphthylene	ng/l	104	± 10.5	104.5	20.9	15.7	101	0.06
Anthracene	ng/l	80.2	± 11.8	104.6	20.9	19.3	130	1.27
Benzo[a]anthracene	ng/l	121	± 12.8	156	31.2	21.4	129	1.66
Benzo[a]pyrene	ng/l	117	± 15.1	173.4	52	26.6	149	2.13
Benzo[b]fluoranthene	ng/l	262	± 27.7	380.1	114	48.9	145	2.41
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	95.7	28.7	20.6	107	0.31
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	75.9	22.8	21	125	0.73
Chrysene	ng/l	68.5	± 8.88	80.6	16.1	14.8	118	0.82
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	234.3	70.3	50.4	128	1.02
Fluoranthene	ng/l	50.3	± 4.84	66.2	13.2	7.9	132	2.02
Fluorene	ng/l	174	± 16.5	243.3	48.7	24.5	140	2.82
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	44.4	13.3	11.5	167	1.56
Naphthalene	ng/l	226	± 27.1	266	53.2	40.4	118	0.99
Phenanthrene	ng/l	76.9	± 6.9	89.3	17.9	10.5	116	1.18
Pyrene	ng/l	262	± 19.3	318.1	63.6	31.5	121	1.79

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	33.2	6.6	5.86	110	0.51
Acenaphthylene	ng/l	7.67	± 1.58	<20 (LOQ)	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	<20 (LOQ)	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	<20 (LOQ)	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	<20 (LOQ)	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	35.8	10.7	4.35	118	1.27
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	29.9	9	7.23	81	-0.97
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<20 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	<20 (LOQ)	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	<20 (LOQ)	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	49.2	9.8	4.96	113	1.16
Fluorene	ng/l	50.9	± 4.08	65	13	5.77	128	2.45
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	25.1	5	5.32	132	1.15
Phenanthrene	ng/l	28.2	± 2.84	32.6	6.5	4.23	116	1.05

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	42.7	8.5	5.43	111	0.77



The following results were achieved:

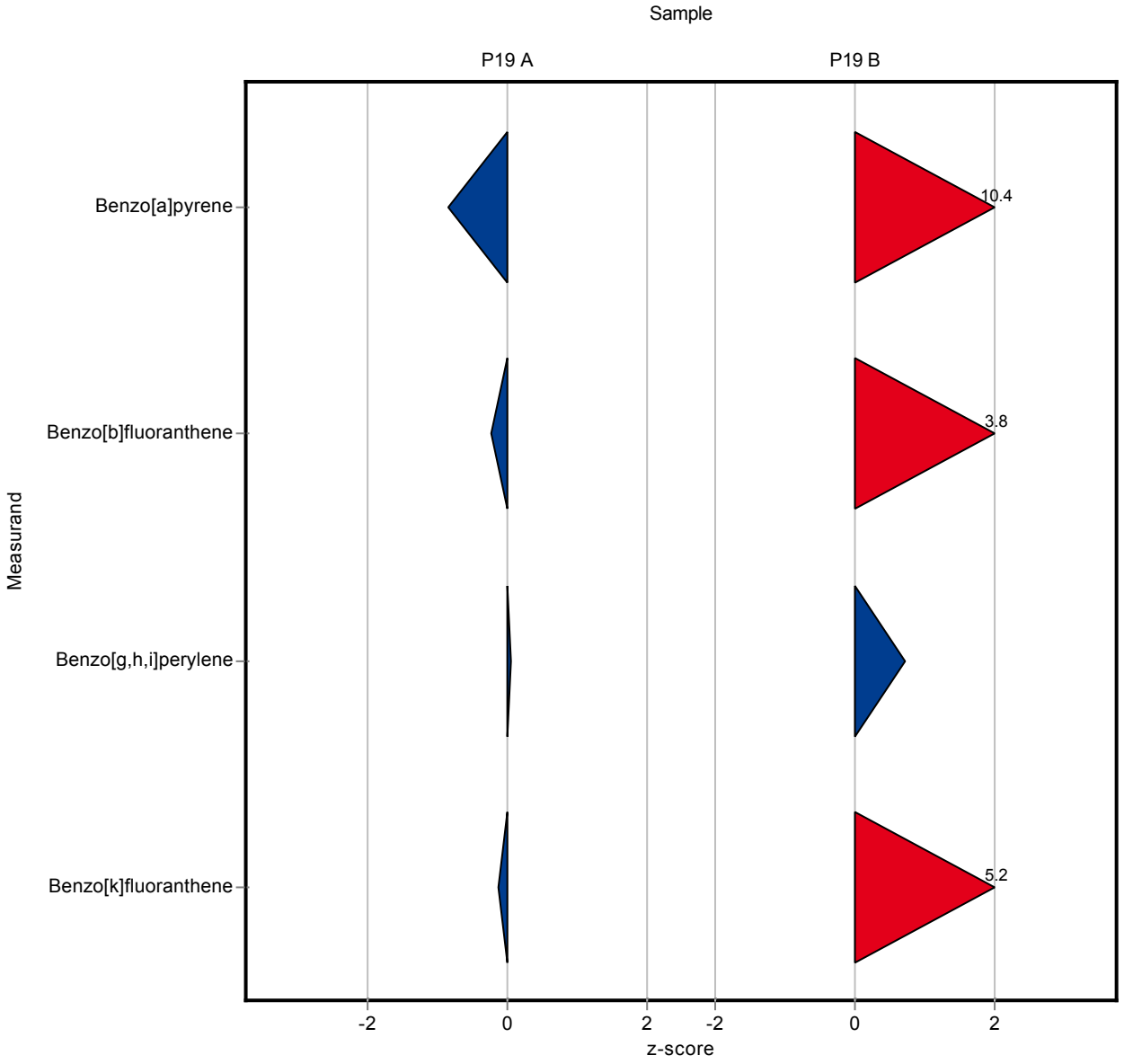
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	-	-	13.1	-	-
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	-	-	19.3	-	-
Benzo[a]anthracene	ng/l	121	± 12.8	-	-	21.4	-	-
Benzo[a]pyrene	ng/l	117	± 15.1	94.3	33	26.6	80.8	-0.84
Benzo[b]fluoranthene	ng/l	262	± 27.7	251	85.3	48.9	95.7	-0.23
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	90.7	47.2	20.6	102	0.07
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	57.8	15.6	21	95.6	-0.13
Chrysene	ng/l	68.5	± 8.88	-	-	14.8	-	-
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	-	-	50.4	-	-
Fluoranthene	ng/l	50.3	± 4.84	-	-	7.9	-	-
Fluorene	ng/l	174	± 16.5	-	-	24.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<5 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	-	-	10.5	-	-
Pyrene	ng/l	262	± 19.3	-	-	31.5	-	-

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	-	-	5.86	-	-
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	-	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	-	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	18.3	6.4	1.11	273	10.40
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	47	16	4.35	155	3.84
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	42	21.8	7.23	114	0.71
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	9.58	2.69	0.897	193	5.15
Chrysene	ng/l	9.93	± 1.21	-	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	-	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	-	-	4.96	-	-
Fluorene	ng/l	50.9	± 4.08	-	-	5.77	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<1 (LOD)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	-	-	4.23	-	-

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	-	-	5.43	-	-



The following results were achieved:

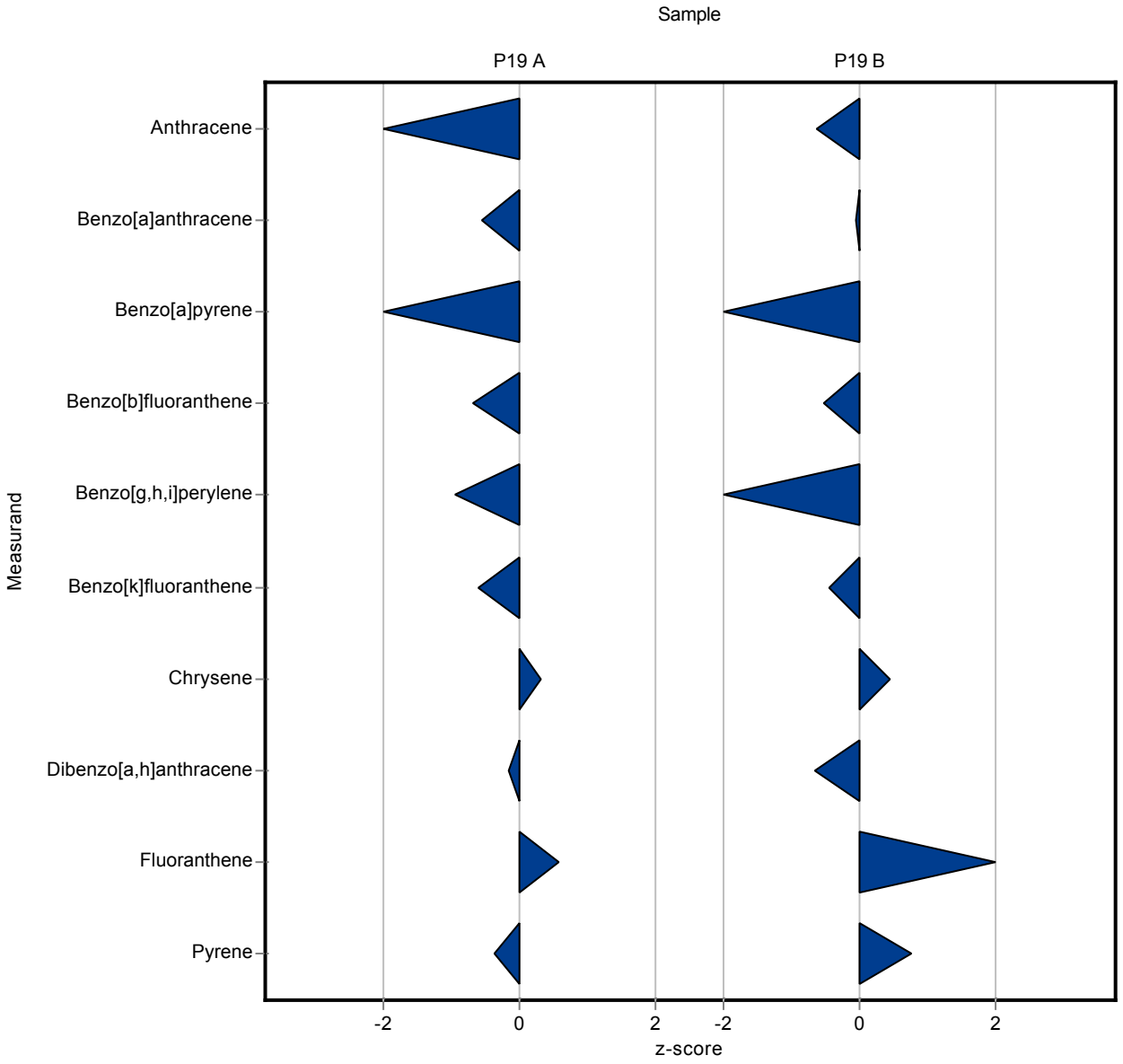
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	-	-	13.1	-	-
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	47.75	21.01	19.3	59.6	-1.68
Benzo[a]anthracene	ng/l	121	± 12.8	108.32	47.66	21.4	89.9	-0.57
Benzo[a]pyrene	ng/l	117	± 15.1	65.02	28.61	26.6	55.7	-1.94
Benzo[b]fluoranthene	ng/l	262	± 27.7	227.9	100.28	48.9	86.9	-0.70
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	69.64	30.64	20.6	77.9	-0.95
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	47.72	21	21	78.9	-0.61
Chrysene	ng/l	68.5	± 8.88	72.9	32.08	14.8	106	0.30
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	173.75	76.45	50.4	95	-0.18
Fluoranthene	ng/l	50.3	± 4.84	54.7	24.07	7.9	109	0.56
Fluorene	ng/l	174	± 16.5	-	-	24.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	-	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	-	-	10.5	-	-
Pyrene	ng/l	262	± 19.3	249.9	109.96	31.5	95.4	-0.38

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	-	-	5.86	-	-
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	9	3.96	1.85	88.4	-0.64
Benzo[a]anthracene	ng/l	6.73	± 1.44	6.58	2.9	2.04	97.8	-0.07
Benzo[a]pyrene	ng/l	6.7	± 0.834	4.94	2.17	1.11	73.8	-1.58
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	27.98	12.31	4.35	92.4	-0.53
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	29.5	12.98	7.23	80	-1.02
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	4.54	2	0.897	91.5	-0.47
Chrysene	ng/l	9.93	± 1.21	10.64	4.68	1.61	107	0.44
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	9.38	4.13	4.13	77.4	-0.67
Fluoranthene	ng/l	43.4	± 3.1	48.68	21.42	4.96	112	1.05
Fluorene	ng/l	50.9	± 4.08	-	-	5.77	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	-	-	4.23	-	-

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	42.56	18.73	5.43	110	0.74



The following results were achieved:

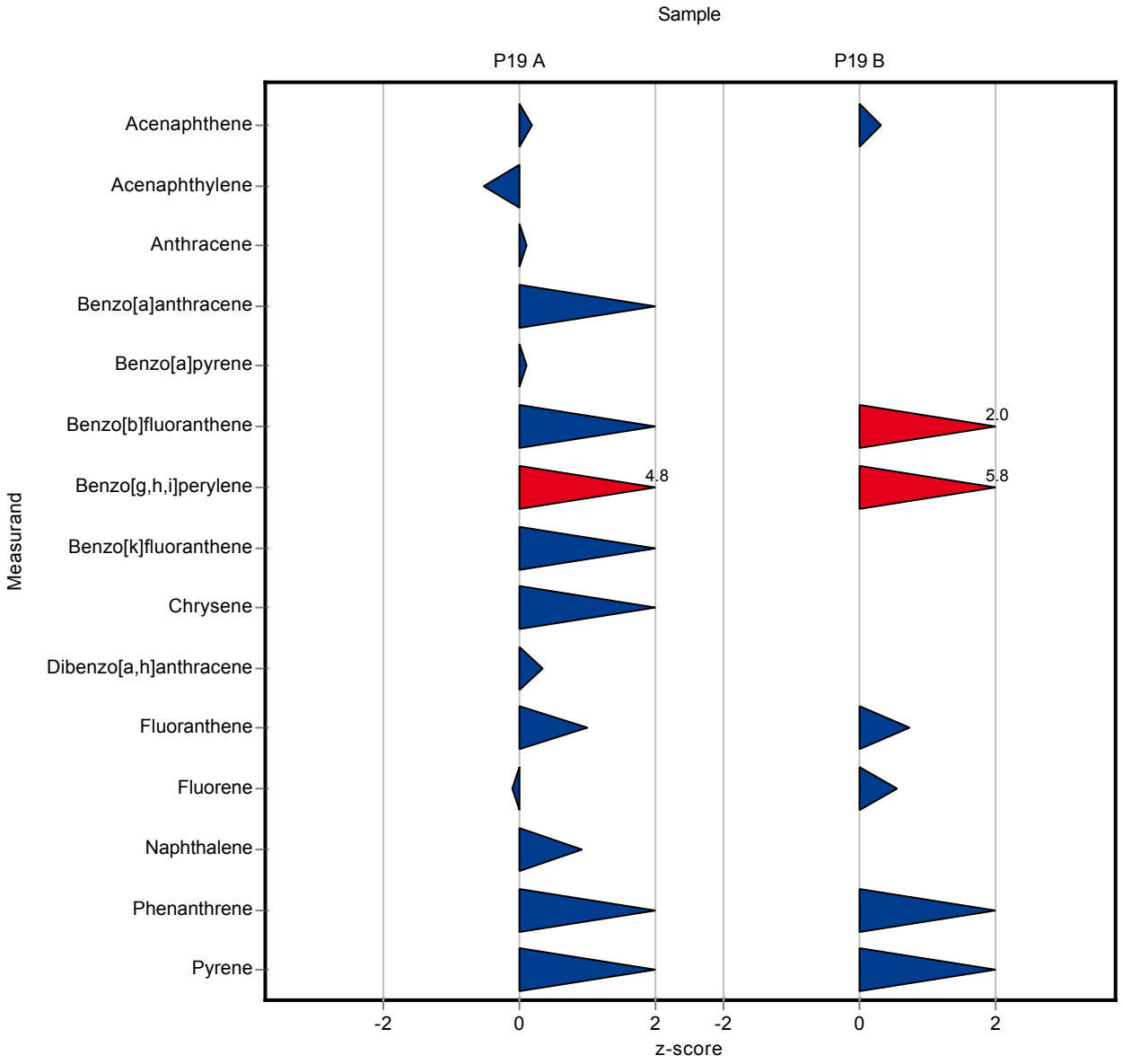
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	58	12	13.1	104	0.16
Acenaphthylene	ng/l	104	± 10.5	95	19	15.7	91.8	-0.54
Anthracene	ng/l	80.2	± 11.8	82	16	19.3	102	0.10
Benzo[a]anthracene	ng/l	121	± 12.8	148	30	21.4	123	1.29
Benzo[a]pyrene	ng/l	117	± 15.1	119	24	26.6	102	0.09
Benzo[b]fluoranthene	ng/l	262	± 27.7	316	63	48.9	121	1.10
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	188	38	20.6	210	4.78
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	100	20	21	165	1.88
Chrysene	ng/l	68.5	± 8.88	89	18	14.8	130	1.38
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	200	40	50.4	109	0.34
Fluoranthene	ng/l	50.3	± 4.84	58	12	7.9	115	0.98
Fluorene	ng/l	174	± 16.5	171	34	24.5	98.3	-0.12
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<25 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	263	53	40.4	116	0.92
Phenanthrene	ng/l	76.9	± 6.9	94	19	10.5	122	1.62
Pyrene	ng/l	262	± 19.3	311	62	31.5	119	1.56

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	32	6	5.86	106	0.30
Acenaphthylene	ng/l	7.67	± 1.58	<25 (LOQ)	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	<25 (LOQ)	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	<25 (LOQ)	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	<10 (LOQ)	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	39	8	4.35	129	2.00
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	79	16	7.23	214	5.82
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<25 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	<25 (LOQ)	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	<25 (LOQ)	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	47	9	4.96	108	0.71
Fluorene	ng/l	50.9	± 4.08	54	11	5.77	106	0.54
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<25 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	<25 (LOQ)	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	36	7	4.23	128	1.85

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	49	10	5.43	127	1.93



The following results were achieved:

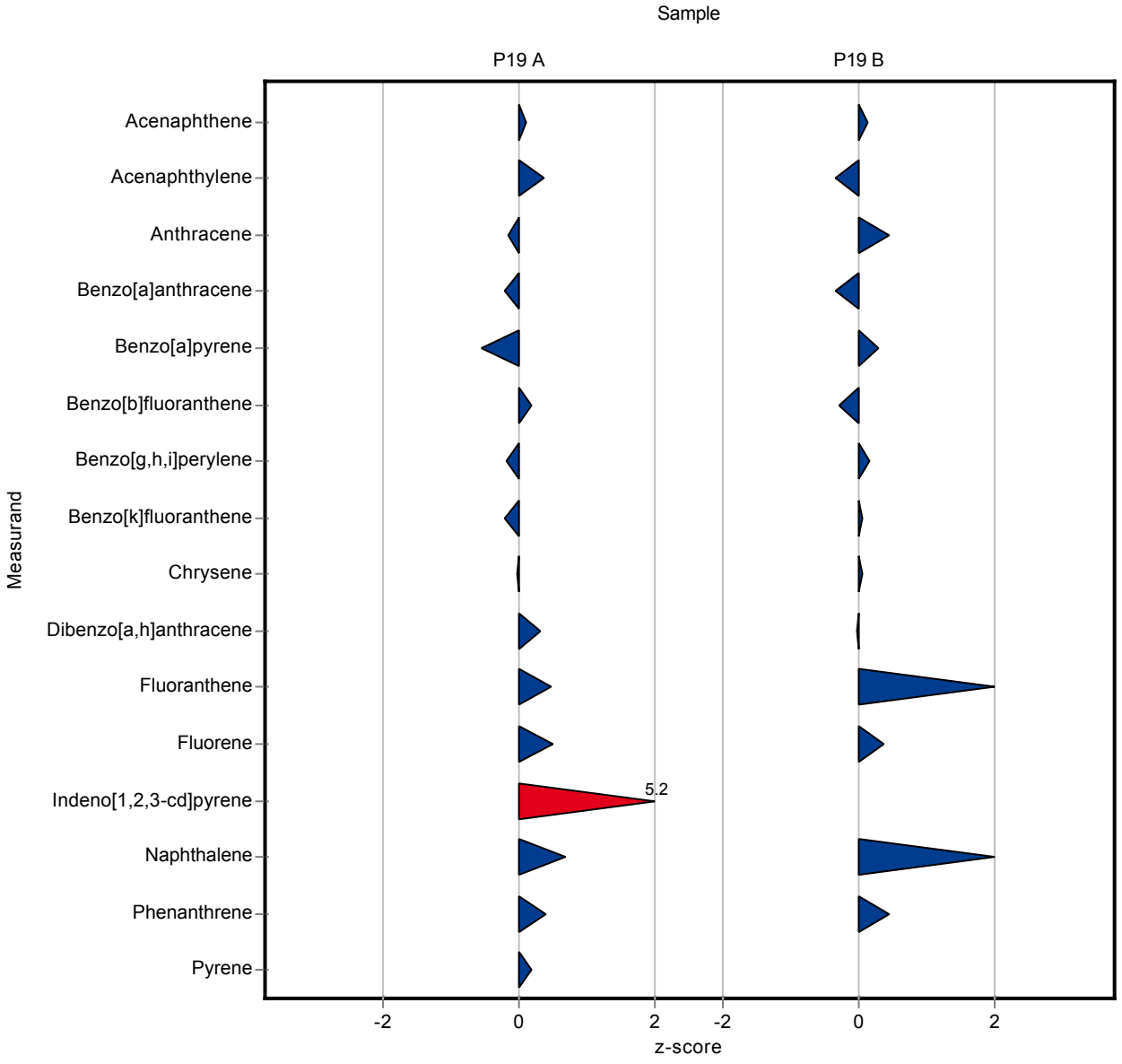
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	57	-	13.1	102	0.08
Acenaphthylene	ng/l	104	± 10.5	109	-	15.7	105	0.35
Anthracene	ng/l	80.2	± 11.8	77	-	19.3	96.1	-0.16
Benzo[a]anthracene	ng/l	121	± 12.8	116	-	21.4	96.3	-0.21
Benzo[a]pyrene	ng/l	117	± 15.1	102	-	26.6	87.4	-0.55
Benzo[b]fluoranthene	ng/l	262	± 27.7	271	-	48.9	103	0.18
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	85	-	20.6	95.1	-0.21
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	56	-	21	92.6	-0.21
Chrysene	ng/l	68.5	± 8.88	68	-	14.8	99.3	-0.03
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	198	-	50.4	108	0.30
Fluoranthene	ng/l	50.3	± 4.84	54	-	7.9	107	0.47
Fluorene	ng/l	174	± 16.5	186	-	24.5	107	0.49
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	86	-	11.5	323	5.19
Naphthalene	ng/l	226	± 27.1	253	-	40.4	112	0.67
Phenanthrene	ng/l	76.9	± 6.9	81	-	10.5	105	0.39
Pyrene	ng/l	262	± 19.3	267	-	31.5	102	0.16

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	31	-	5.86	103	0.13
Acenaphthylene	ng/l	7.67	± 1.58	7	-	1.83	91.3	-0.36
Anthracene	ng/l	10.2	± 1.48	11	-	1.85	108	0.44
Benzo[a]anthracene	ng/l	6.73	± 1.44	6	-	2.04	89.2	-0.36
Benzo[a]pyrene	ng/l	6.7	± 0.834	7	-	1.11	105	0.27
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	29	-	4.35	95.8	-0.29
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	38	-	7.23	103	0.15
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	5	-	0.897	101	0.04
Chrysene	ng/l	9.93	± 1.21	10	-	1.61	101	0.04
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	12	-	4.13	99	-0.03
Fluoranthene	ng/l	43.4	± 3.1	50	-	4.96	115	1.32
Fluorene	ng/l	50.9	± 4.08	53	-	5.77	104	0.37
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	37	-	-	-	-
Naphthalene	ng/l	19	± 4.12	25	-	5.32	132	1.13
Phenanthrene	ng/l	28.2	± 2.84	30	-	4.23	106	0.43

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	-	-	5.43	-	-



The following results were achieved:

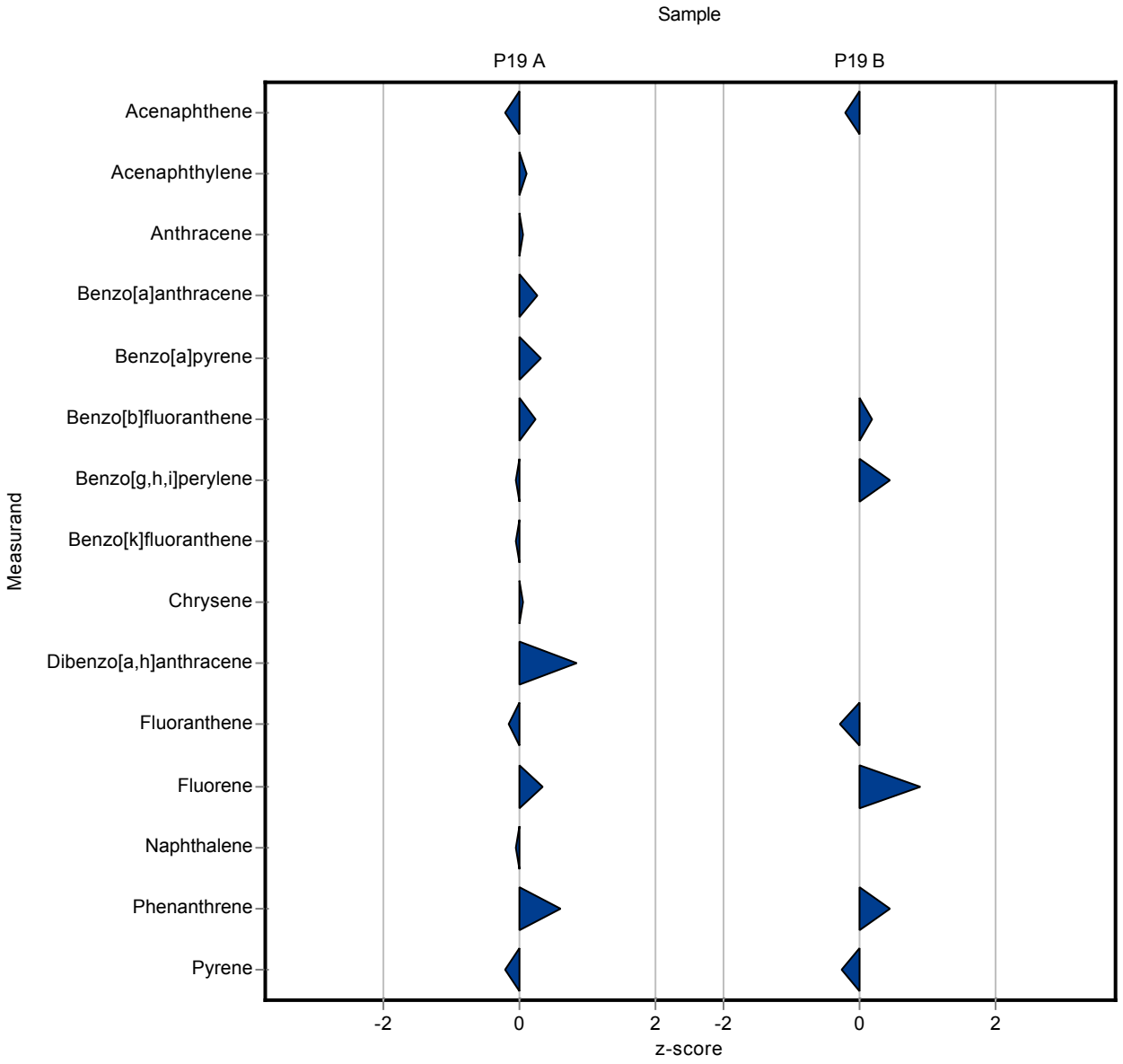
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	53	16	13.1	94.8	-0.22
Acenaphthylene	ng/l	104	± 10.5	105	24	15.7	101	0.10
Anthracene	ng/l	80.2	± 11.8	81	21	19.3	101	0.04
Benzo[a]anthracene	ng/l	121	± 12.8	126	29	21.4	105	0.26
Benzo[a]pyrene	ng/l	117	± 15.1	125	30	26.6	107	0.31
Benzo[b]fluoranthene	ng/l	262	± 27.7	273	60	48.9	104	0.22
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	88	17	20.6	98.5	-0.07
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	59	11	21	97.6	-0.07
Chrysene	ng/l	68.5	± 8.88	69	19	14.8	101	0.03
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	225	45	50.4	123	0.83
Fluoranthene	ng/l	50.3	± 4.84	49	9.8	7.9	97.5	-0.16
Fluorene	ng/l	174	± 16.5	182	36	24.5	105	0.32
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<30 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	223	44	40.4	98.7	-0.07
Phenanthrene	ng/l	76.9	± 6.9	83	16	10.5	108	0.58
Pyrene	ng/l	262	± 19.3	255	51	31.5	97.4	-0.22

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	29	5.8	5.86	95.9	-0.21
Acenaphthylene	ng/l	7.67	± 1.58	<30 (LOQ)	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	<30 (LOQ)	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	<30 (LOQ)	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	<30 (LOQ)	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	31	18	4.35	102	0.17
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	40	8	7.23	108	0.43
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<30 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	<30 (LOQ)	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	<30 (LOQ)	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	42	8.4	4.96	96.7	-0.29
Fluorene	ng/l	50.9	± 4.08	56	11	5.77	110	0.89
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<30 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	<100 (LOQ)	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	30	6	4.23	106	0.43

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	37	7.4	5.43	96	-0.28



The following results were achieved:

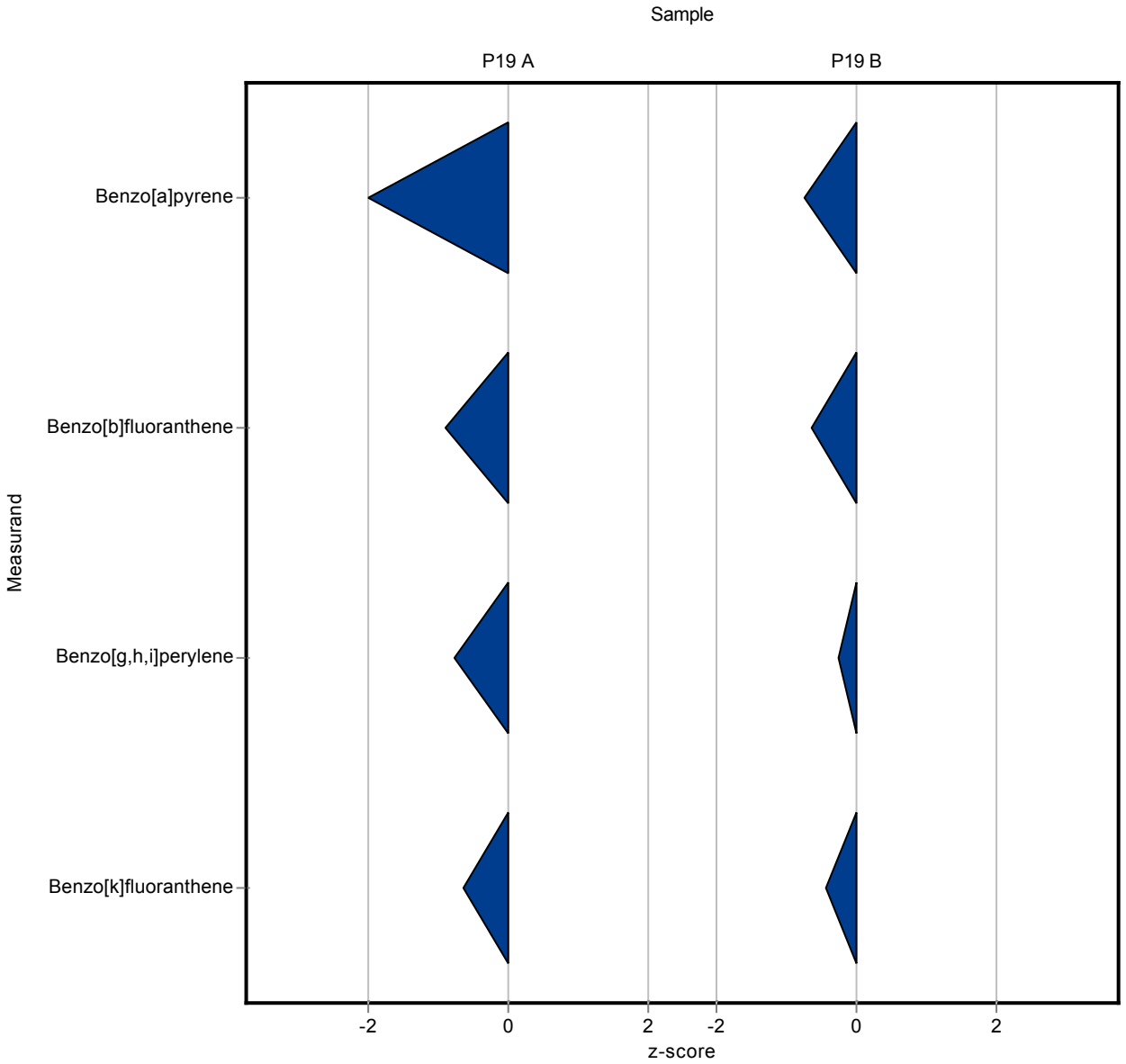
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	-	-	13.1	-	-
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	-	-	19.3	-	-
Benzo[a]anthracene	ng/l	121	± 12.8	-	-	21.4	-	-
Benzo[a]pyrene	ng/l	117	± 15.1	89.74	-	26.6	76.9	-1.01
Benzo[b]fluoranthene	ng/l	262	± 27.7	218.01	-	48.9	83.1	-0.90
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	73.36	-	20.6	82.1	-0.77
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	47.17	-	21	78	-0.63
Chrysene	ng/l	68.5	± 8.88	-	-	14.8	-	-
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	-	-	50.4	-	-
Fluoranthene	ng/l	50.3	± 4.84	-	-	7.9	-	-
Fluorene	ng/l	174	± 16.5	-	-	24.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<1 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	-	-	10.5	-	-
Pyrene	ng/l	262	± 19.3	-	-	31.5	-	-

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	-	-	5.86	-	-
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	-	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	-	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	5.86	-	1.11	87.5	-0.75
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	27.47	-	4.35	90.7	-0.65
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	34.96	-	7.23	94.8	-0.27
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	4.56	-	0.897	91.9	-0.45
Chrysene	ng/l	9.93	± 1.21	-	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	-	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	-	-	4.96	-	-
Fluorene	ng/l	50.9	± 4.08	-	-	5.77	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<1 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	-	-	4.23	-	-

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	-	-	5.43	-	-



The following results were achieved:

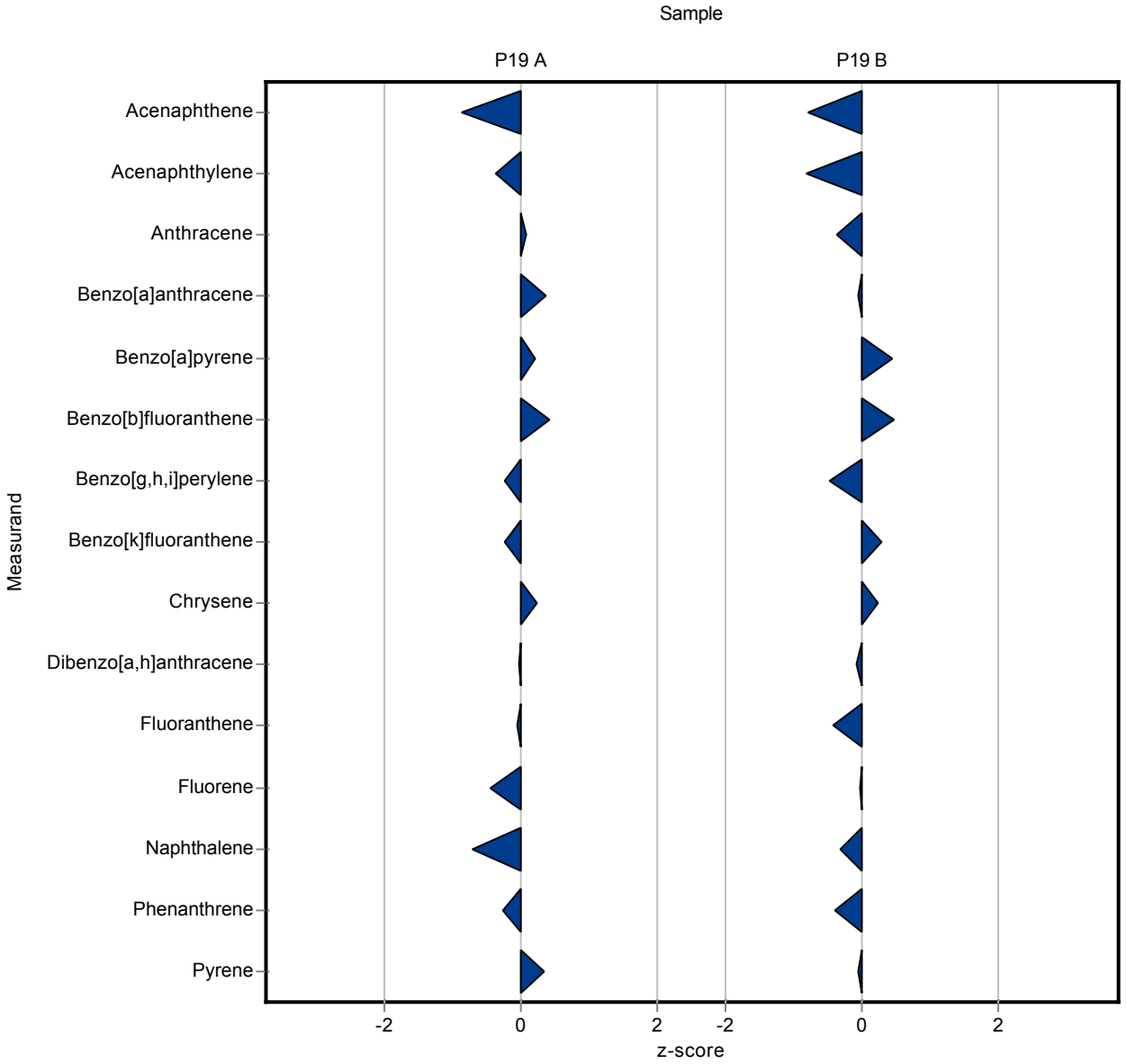
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	44.3	9.52	13.1	79.2	-0.89
Acenaphthylene	ng/l	104	± 10.5	97.5	19.5	15.7	94.2	-0.38
Anthracene	ng/l	80.2	± 11.8	81.5	15.5	19.3	102	0.07
Benzo[a]anthracene	ng/l	121	± 12.8	128	23.2	21.4	106	0.35
Benzo[a]pyrene	ng/l	117	± 15.1	122	19.4	26.6	105	0.20
Benzo[b]fluoranthene	ng/l	262	± 27.7	282	44.3	48.9	108	0.40
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	84	17.4	20.6	94	-0.26
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	55	8.37	21	90.9	-0.26
Chrysene	ng/l	68.5	± 8.88	71.9	12.9	14.8	105	0.23
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	181	41.7	50.4	99	-0.04
Fluoranthene	ng/l	50.3	± 4.84	49.7	5.52	7.9	98.8	-0.07
Fluorene	ng/l	174	± 16.5	163	23.8	24.5	93.7	-0.45
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<5 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	197	27.5	40.4	87.2	-0.71
Phenanthrene	ng/l	76.9	± 6.9	74	8.5	10.5	96.2	-0.28
Pyrene	ng/l	262	± 19.3	272	35.4	31.5	104	0.32

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	25.5	5.48	5.86	84.3	-0.81
Acenaphthylene	ng/l	7.67	± 1.58	6.15	1.23	1.83	80.2	-0.83
Anthracene	ng/l	10.2	± 1.48	9.5	1.81	1.85	93.3	-0.37
Benzo[a]anthracene	ng/l	6.73	± 1.44	6.6	1.2	2.04	98.1	-0.06
Benzo[a]pyrene	ng/l	6.7	± 0.834	7.18	1.15	1.11	107	0.43
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	32.3	5.08	4.35	107	0.47
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	33.4	6.94	7.23	90.5	-0.48
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	5.2	0.792	0.897	105	0.27
Chrysene	ng/l	9.93	± 1.21	10.3	1.85	1.61	104	0.23
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	11.7	2.7	4.13	96.5	-0.10
Fluoranthene	ng/l	43.4	± 3.1	41.3	4.58	4.96	95.1	-0.43
Fluorene	ng/l	50.9	± 4.08	50.6	7.38	5.77	99.4	-0.05
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	17.2	2.4	5.32	90.6	-0.34
Phenanthrene	ng/l	28.2	± 2.84	26.5	3.04	4.23	94.1	-0.40

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	38.2	4.97	5.43	99.1	-0.06



The following results were achieved:

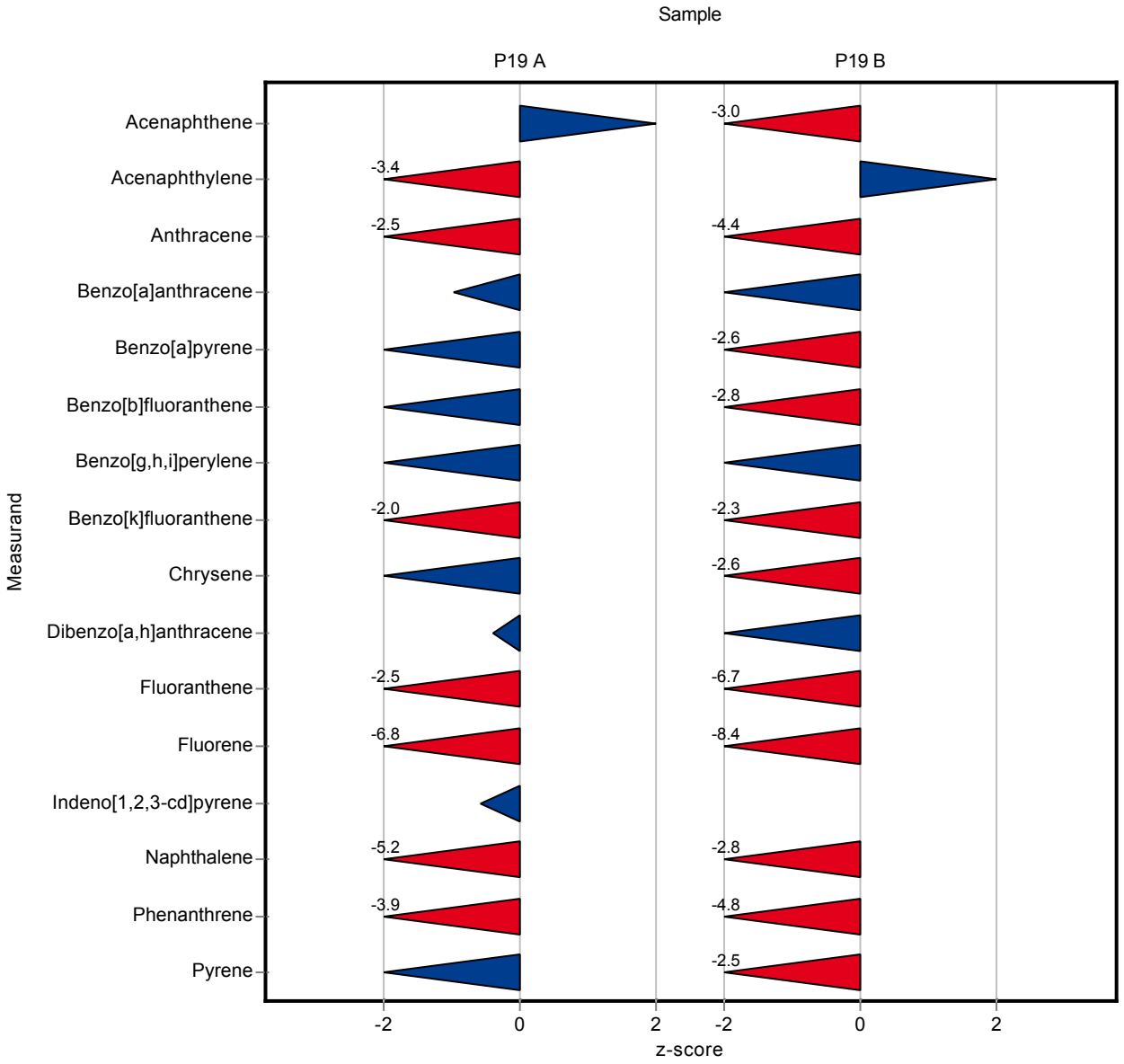
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	81.08	16.22	13.1	145	1.93
Acenaphthylene	ng/l	104	± 10.5	49.52	9.9	15.7	47.8	-3.44
Anthracene	ng/l	80.2	± 11.8	32.11	6.42	19.3	40.1	-2.49
Benzo[a]anthracene	ng/l	121	± 12.8	99.47	19.89	21.4	82.5	-0.99
Benzo[a]pyrene	ng/l	117	± 15.1	79.63	15.93	26.6	68.2	-1.39
Benzo[b]fluoranthene	ng/l	262	± 27.7	180.82	36.16	48.9	69	-1.66
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	68.68	13.74	20.6	76.9	-1.00
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	17.89	3.58	21	29.6	-2.03
Chrysene	ng/l	68.5	± 8.88	49.25	9.85	14.8	71.9	-1.30
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	162.31	32.46	50.4	88.7	-0.41
Fluoranthene	ng/l	50.3	± 4.84	30.42	6.08	7.9	60.5	-2.52
Fluorene	ng/l	174	± 16.5	7.35	1.47	24.5	4.22	-6.79
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	19.9	3.98	11.5	74.8	-0.58
Naphthalene	ng/l	226	± 27.1	17.55	3.51	40.4	7.77	-5.16
Phenanthrene	ng/l	76.9	± 6.9	35.78	7.16	10.5	46.5	-3.90
Pyrene	ng/l	262	± 19.3	206.5	41.3	31.5	78.9	-1.76

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	12.63	2.53	5.86	41.8	-3.00
Acenaphthylene	ng/l	7.67	± 1.58	9.63	1.93	1.83	126	1.08
Anthracene	ng/l	10.2	± 1.48	2.12	0.42	1.85	20.8	-4.37
Benzo[a]anthracene	ng/l	6.73	± 1.44	4.23	0.85	2.04	62.9	-1.22
Benzo[a]pyrene	ng/l	6.7	± 0.834	3.86	0.77	1.11	57.6	-2.55
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	17.89	3.58	4.35	59.1	-2.85
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	24.06	4.81	7.23	65.2	-1.78
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	2.86	0.57	0.897	57.6	-2.34
Chrysene	ng/l	9.93	± 1.21	5.69	1.14	1.61	57.3	-2.63
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	6.96	1.39	4.13	57.4	-1.25
Fluoranthene	ng/l	43.4	± 3.1	10.29	2.06	4.96	23.7	-6.68
Fluorene	ng/l	50.9	± 4.08	2.54	0.51	5.77	4.99	-8.39
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	2.71	0.54	-	-	-
Naphthalene	ng/l	19	± 4.12	4.02	0.8	5.32	21.2	-2.81
Phenanthrene	ng/l	28.2	± 2.84	7.71	1.54	4.23	27.4	-4.84

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	24.81	4.96	5.43	64.4	-2.53



The following results were achieved:

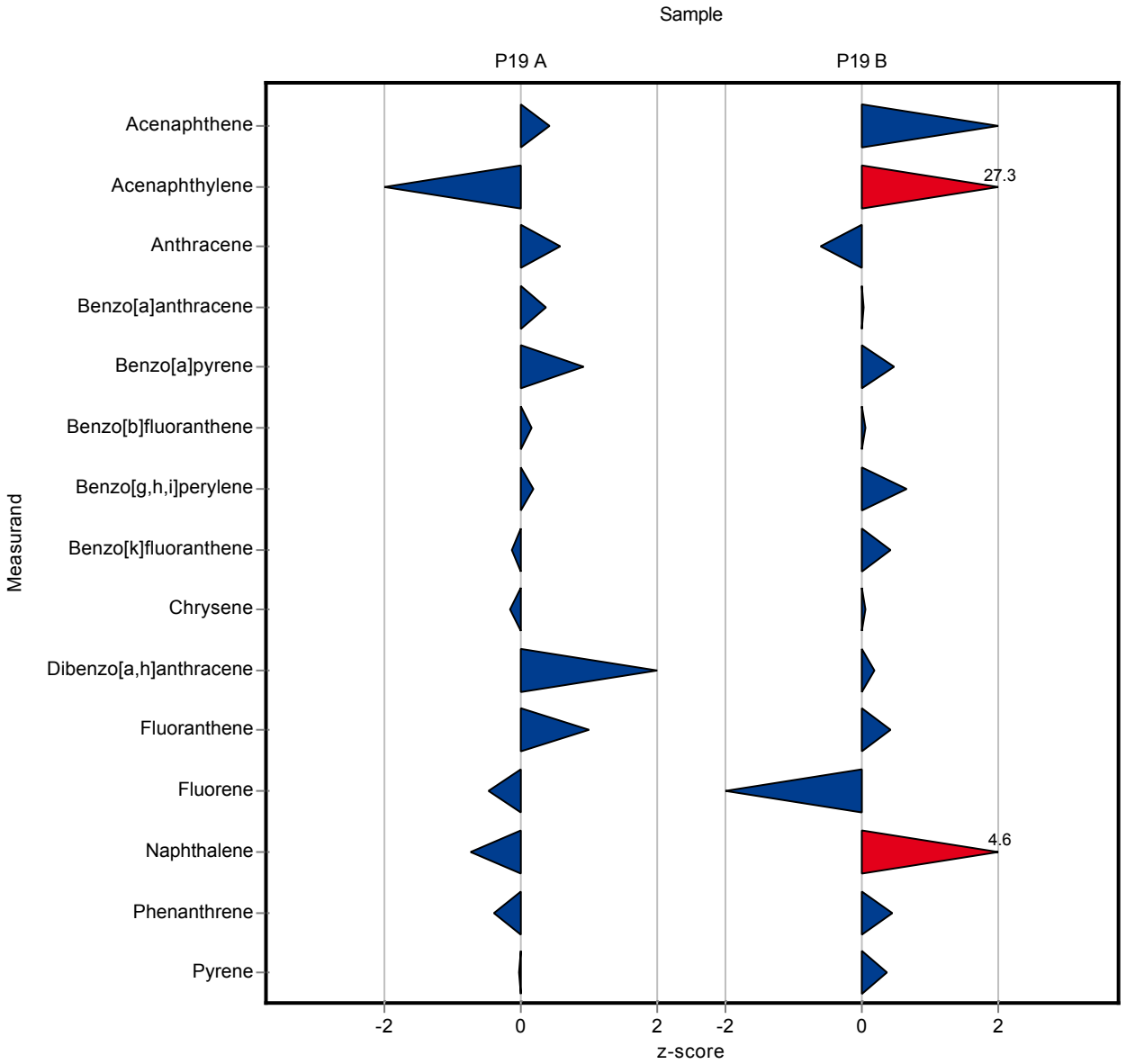
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	61.3	15.3	13.1	110	0.41
Acenaphthylene	ng/l	104	± 10.5	81.1	20.3	15.7	78.3	-1.43
Anthracene	ng/l	80.2	± 11.8	91.2	22.8	19.3	114	0.57
Benzo[a]anthracene	ng/l	121	± 12.8	128	23	21.4	106	0.35
Benzo[a]pyrene	ng/l	117	± 15.1	141	25.4	26.6	121	0.91
Benzo[b]fluoranthene	ng/l	262	± 27.7	269	53.8	48.9	103	0.14
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	92.8	16.7	20.6	104	0.17
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	57.6	10.9	21	95.2	-0.14
Chrysene	ng/l	68.5	± 8.88	66.1	12.6	14.8	96.5	-0.16
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	235	56.4	50.4	128	1.03
Fluoranthene	ng/l	50.3	± 4.84	58.1	10.5	7.9	116	0.99
Fluorene	ng/l	174	± 16.5	162	35.6	24.5	93.1	-0.49
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<5 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	196	41.2	40.4	86.8	-0.74
Phenanthrene	ng/l	76.9	± 6.9	72.5	13.8	10.5	94.3	-0.42
Pyrene	ng/l	262	± 19.3	261	60	31.5	99.7	-0.03

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	40.3	10.1	5.86	133	1.72
Acenaphthylene	ng/l	7.67	± 1.58	57.5	14.4	1.83	750	27.30
Anthracene	ng/l	10.2	± 1.48	9.05	2.3	1.85	88.9	-0.61
Benzo[a]anthracene	ng/l	6.73	± 1.44	6.75	1.2	2.04	100	0.01
Benzo[a]pyrene	ng/l	6.7	± 0.834	7.22	1.3	1.11	108	0.47
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	30.5	6.1	4.35	101	0.05
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	41.5	7.5	7.23	112	0.64
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	5.33	1	0.897	107	0.41
Chrysene	ng/l	9.93	± 1.21	9.99	1.9	1.61	101	0.03
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	12.8	3.1	4.13	106	0.16
Fluoranthene	ng/l	43.4	± 3.1	45.5	8.2	4.96	105	0.41
Fluorene	ng/l	50.9	± 4.08	42.9	9.4	5.77	84.3	-1.38
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	43.3	9.1	5.32	228	4.57
Phenanthrene	ng/l	28.2	± 2.84	30	5.7	4.23	106	0.43

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	40.5	9.3	5.43	105	0.36



The following results were achieved:

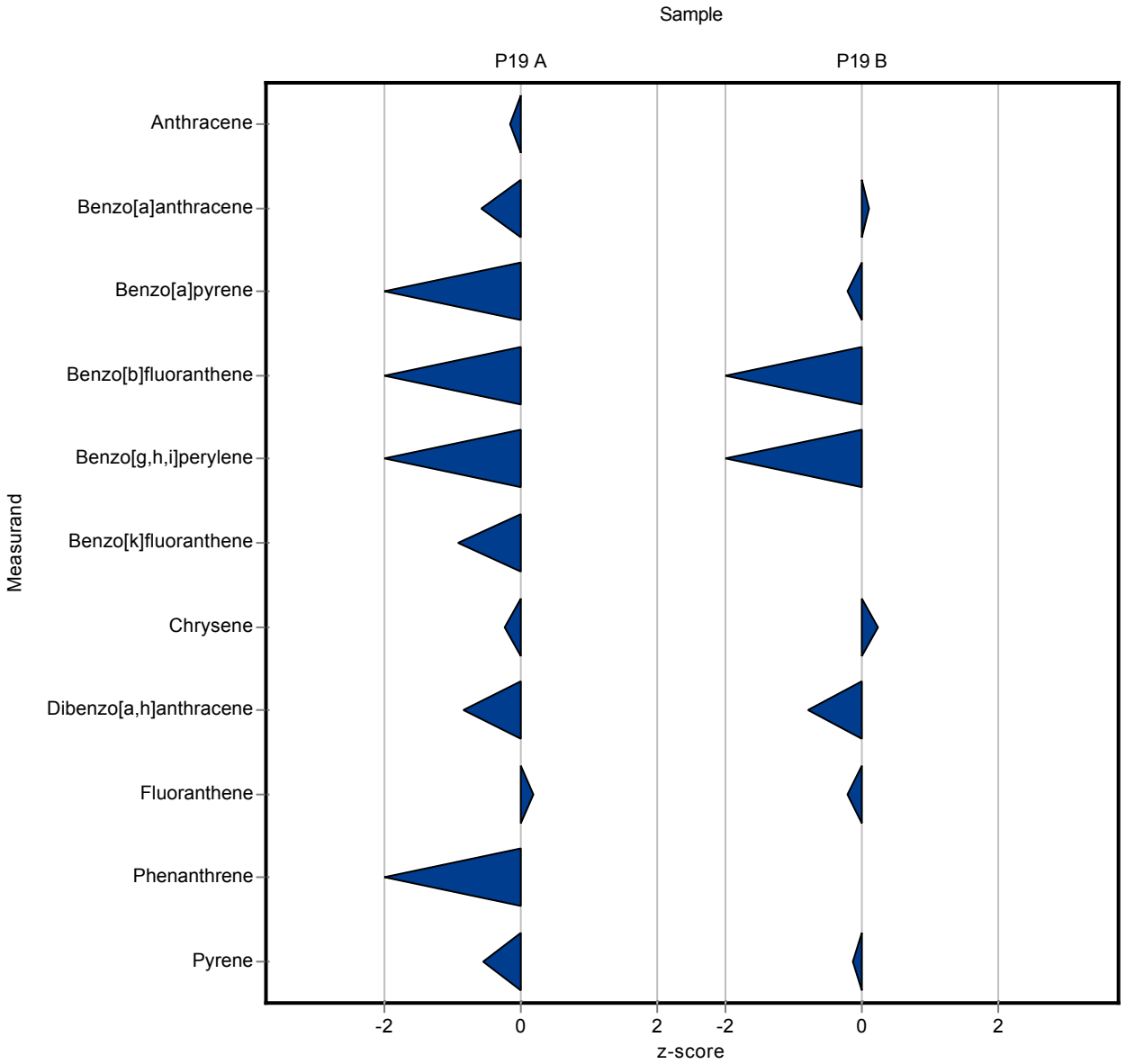
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	-	-	13.1	-	-
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	76.7	33.7	19.3	95.7	-0.18
Benzo[a]anthracene	ng/l	121	± 12.8	108	48	21.4	89.6	-0.59
Benzo[a]pyrene	ng/l	117	± 15.1	84.6	37.2	26.6	72.5	-1.21
Benzo[b]fluoranthene	ng/l	262	± 27.7	204	90	48.9	77.8	-1.19
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	59.6	26.2	20.6	66.7	-1.44
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	41.1	18.1	21	68	-0.92
Chrysene	ng/l	68.5	± 8.88	64.8	28.5	14.8	94.6	-0.25
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	140	62	50.4	76.6	-0.85
Fluoranthene	ng/l	50.3	± 4.84	51.7	22.7	7.9	103	0.18
Fluorene	ng/l	174	± 16.5	-	-	24.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<5 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	60.1	26.4	10.5	78.2	-1.59
Pyrene	ng/l	262	± 19.3	244	107	31.5	93.2	-0.57

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	-	-	5.86	-	-
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	<50 (LOQ)	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	6.92	3.04	2.04	103	0.09
Benzo[a]pyrene	ng/l	6.7	± 0.834	6.44	2.83	1.11	96.1	-0.23
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	23.7	10.4	4.35	78.3	-1.51
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	25.9	11.4	7.23	70.2	-1.52
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<5 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	10.3	4.5	1.61	104	0.23
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	8.85	3.89	4.13	73	-0.79
Fluoranthene	ng/l	43.4	± 3.1	42.3	18.6	4.96	97.4	-0.23
Fluorene	ng/l	50.9	± 4.08	-	-	5.77	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	<50 (LOQ)	-	4.23	-	-

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	37.7	16.6	5.43	97.8	-0.15



The following results were achieved:

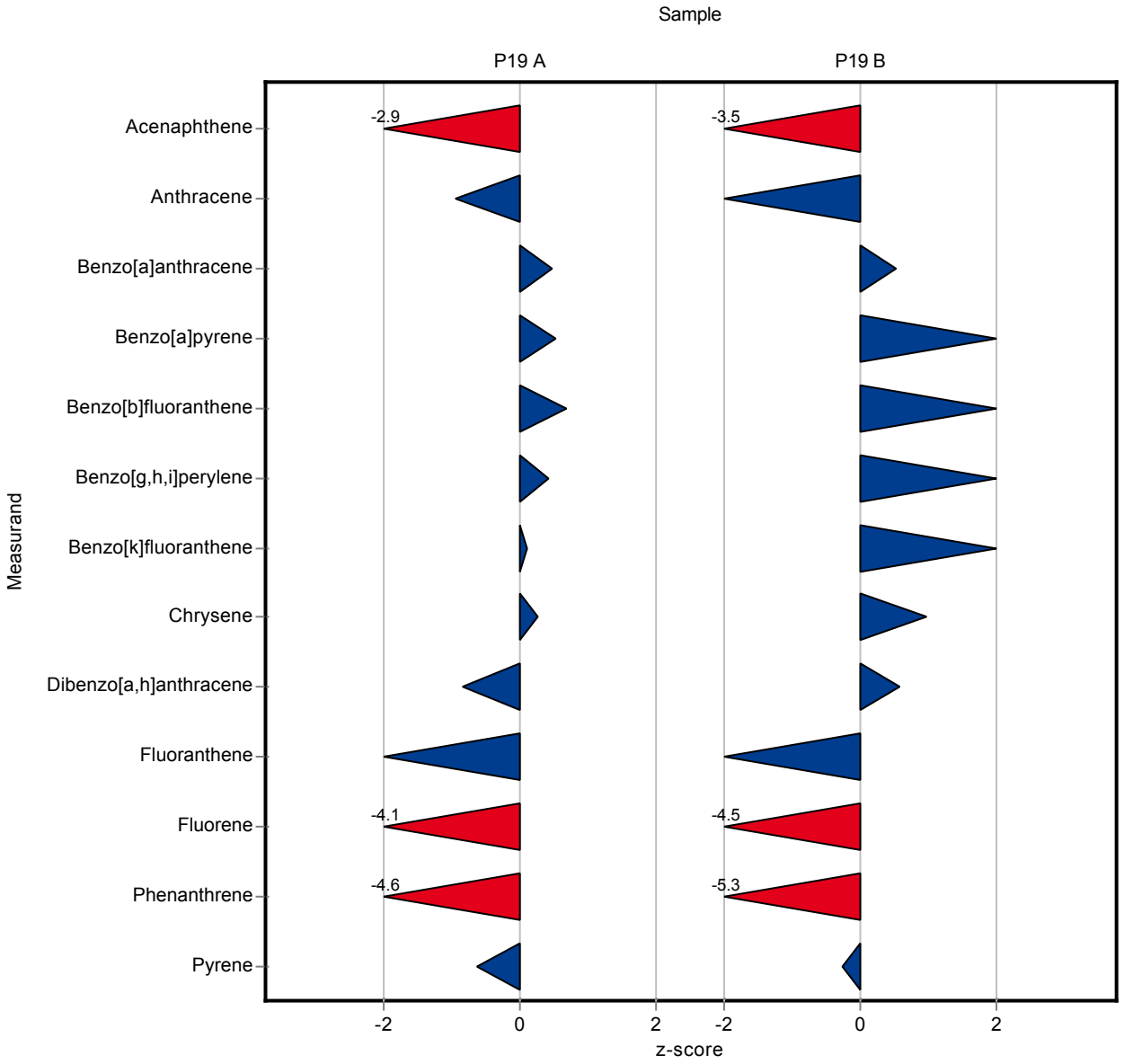
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	18.1	-	13.1	32.4	-2.90
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	61.5	-	19.3	76.7	-0.97
Benzo[a]anthracene	ng/l	121	± 12.8	130.2	-	21.4	108	0.45
Benzo[a]pyrene	ng/l	117	± 15.1	130.3	-	26.6	112	0.51
Benzo[b]fluoranthene	ng/l	262	± 27.7	294.6	-	48.9	112	0.66
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	98	-	20.6	110	0.42
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	62.5	-	21	103	0.10
Chrysene	ng/l	68.5	± 8.88	72.1	-	14.8	105	0.24
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	140.1	-	50.4	76.6	-0.85
Fluoranthene	ng/l	50.3	± 4.84	42.3	-	7.9	84.1	-1.01
Fluorene	ng/l	174	± 16.5	74.6	-	24.5	42.9	-4.05
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<5 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	28.8	-	10.5	37.5	-4.56
Pyrene	ng/l	262	± 19.3	241.2	-	31.5	92.1	-0.66

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	9.6	-	5.86	31.7	-3.52
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	7.7	-	1.85	75.6	-1.35
Benzo[a]anthracene	ng/l	6.73	± 1.44	7.8	-	2.04	116	0.53
Benzo[a]pyrene	ng/l	6.7	± 0.834	8.6	-	1.11	128	1.71
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	36.1	-	4.35	119	1.34
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	45.1	-	7.23	122	1.14
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	6.5	-	0.897	131	1.72
Chrysene	ng/l	9.93	± 1.21	11.5	-	1.61	116	0.97
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	14.5	-	4.13	120	0.58
Fluoranthene	ng/l	43.4	± 3.1	38.2	-	4.96	87.9	-1.06
Fluorene	ng/l	50.9	± 4.08	24.9	-	5.77	48.9	-4.51
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	5.6	-	4.23	19.9	-5.34

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	37	-	5.43	96	-0.28



The following results were achieved:

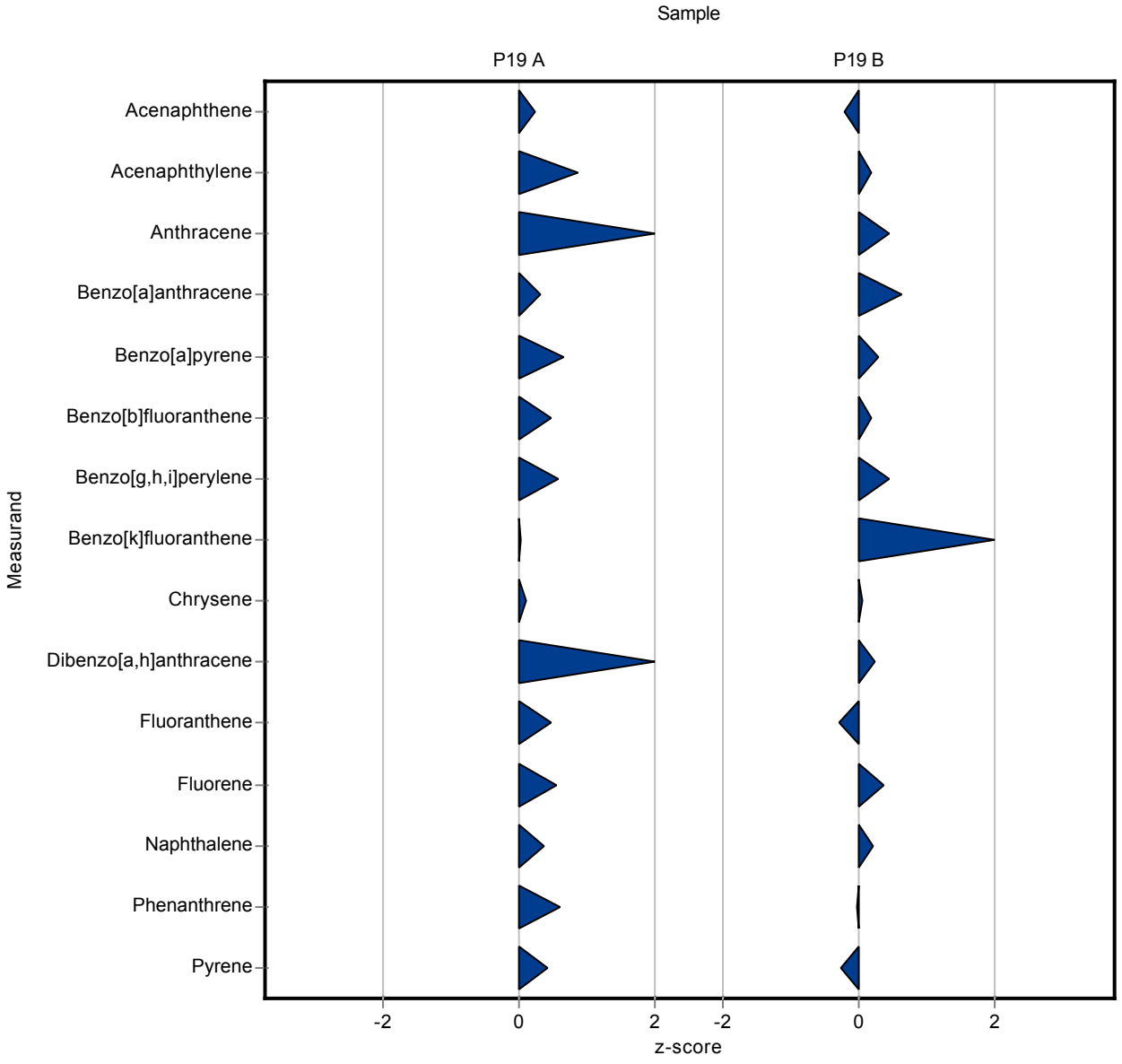
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	59	0.059	13.1	106	0.24
Acenaphthylene	ng/l	104	± 10.5	117	0.12	15.7	113	0.86
Anthracene	ng/l	80.2	± 11.8	102	0.102	19.3	127	1.13
Benzo[a]anthracene	ng/l	121	± 12.8	127	0.13	21.4	105	0.30
Benzo[a]pyrene	ng/l	117	± 15.1	134	0.134	26.6	115	0.65
Benzo[b]fluoranthene	ng/l	262	± 27.7	285	0.29	48.9	109	0.47
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	101	0.101	20.6	113	0.56
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	61	0.061	21	101	0.02
Chrysene	ng/l	68.5	± 8.88	70	0.07	14.8	102	0.10
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	246	0.25	50.4	135	1.25
Fluoranthene	ng/l	50.3	± 4.84	54	0.054	7.9	107	0.47
Fluorene	ng/l	174	± 16.5	187	0.19	24.5	107	0.53
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<5 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	240	0.24	40.4	106	0.35
Phenanthrene	ng/l	76.9	± 6.9	83	0.083	10.5	108	0.58
Pyrene	ng/l	262	± 19.3	275	0.28	31.5	105	0.42

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	29	0.029	5.86	95.9	-0.21
Acenaphthylene	ng/l	7.67	± 1.58	8	0.008	1.83	104	0.18
Anthracene	ng/l	10.2	± 1.48	11	0.011	1.85	108	0.44
Benzo[a]anthracene	ng/l	6.73	± 1.44	8	0.008	2.04	119	0.62
Benzo[a]pyrene	ng/l	6.7	± 0.834	7	0.007	1.11	105	0.27
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	31	0.031	4.35	102	0.17
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	40	0.04	7.23	108	0.43
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	6	0.006	0.897	121	1.16
Chrysene	ng/l	9.93	± 1.21	10	0.01	1.61	101	0.04
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	13	0.013	4.13	107	0.21
Fluoranthene	ng/l	43.4	± 3.1	42	0.042	4.96	96.7	-0.29
Fluorene	ng/l	50.9	± 4.08	53	0.053	5.77	104	0.37
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	20	0.02	5.32	105	0.19
Phenanthrene	ng/l	28.2	± 2.84	28	0.028	4.23	99.4	-0.04

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	37	0.037	5.43	96	-0.28



The following results were achieved:

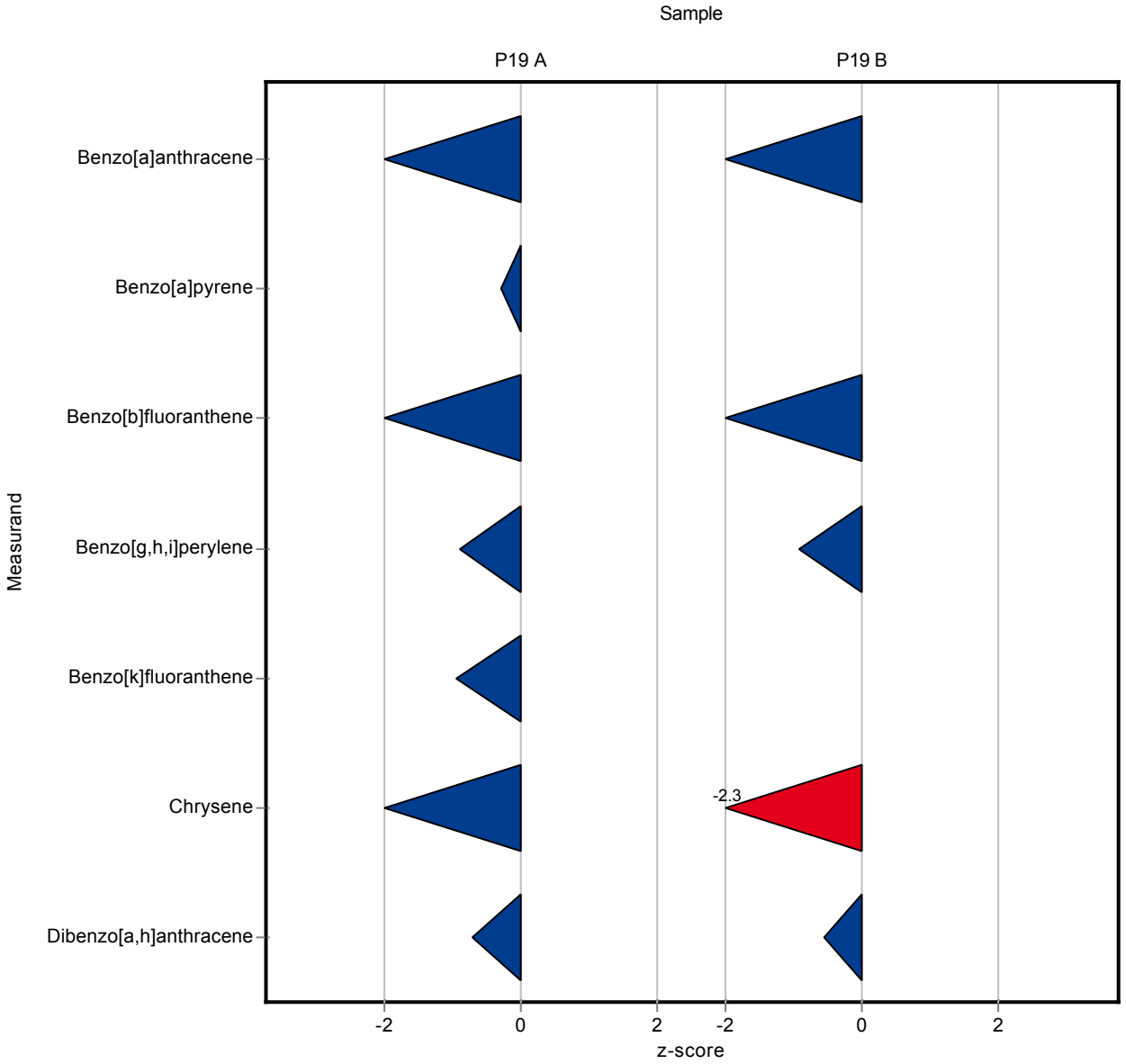
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	-	-	13.1	-	-
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	-	-	19.3	-	-
Benzo[a]anthracene	ng/l	121	± 12.8	86.1	33.5	21.4	71.4	-1.61
Benzo[a]pyrene	ng/l	117	± 15.1	108.9	48.2	26.6	93.3	-0.29
Benzo[b]fluoranthene	ng/l	262	± 27.7	197.8	75.5	48.9	75.4	-1.32
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	70.6	30.2	20.6	79	-0.91
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	40.3	14.8	21	66.6	-0.96
Chrysene	ng/l	68.5	± 8.88	44.5	15	14.8	65	-1.62
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	146.9	57.1	50.4	80.3	-0.71
Fluoranthene	ng/l	50.3	± 4.84	-	-	7.9	-	-
Fluorene	ng/l	174	± 16.5	-	-	24.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<8.6 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	-	-	10.5	-	-
Pyrene	ng/l	262	± 19.3	-	-	31.5	-	-

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	-	-	5.86	-	-
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	-	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	3.4	1.2	2.04	50.5	-1.63
Benzo[a]pyrene	ng/l	6.7	± 0.834	<6 (LOQ)	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	22	8.4	4.35	72.7	-1.90
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	30.1	12.9	7.23	81.6	-0.94
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<3.7 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	6.2	2.1	1.61	62.4	-2.31
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	9.8	3.8	4.13	80.8	-0.56
Fluoranthene	ng/l	43.4	± 3.1	-	-	4.96	-	-
Fluorene	ng/l	50.9	± 4.08	-	-	5.77	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<2.4 (LOD)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	-	-	4.23	-	-

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	-	-	5.43	-	-



The following results were achieved:

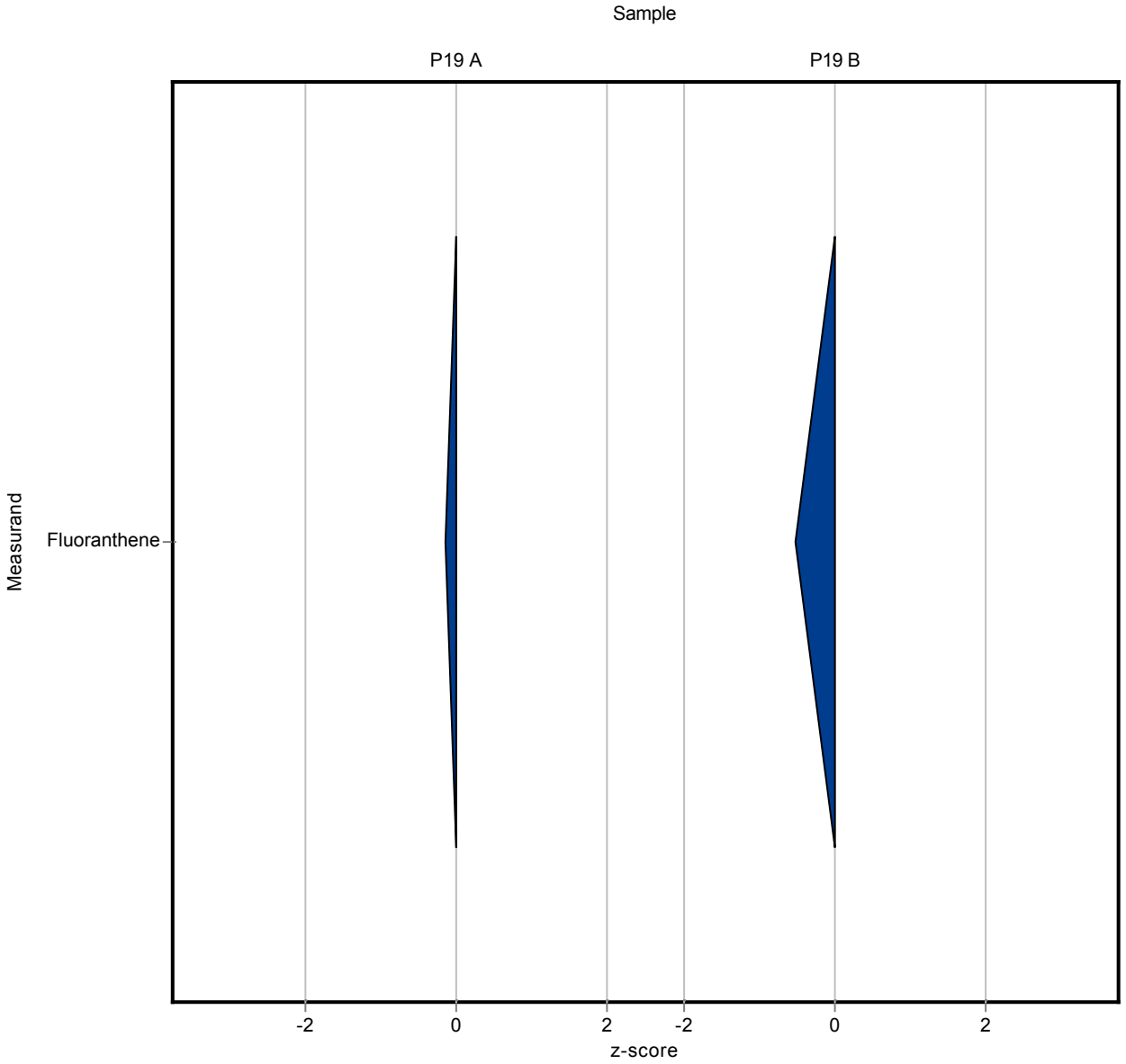
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	-	-	13.1	-	-
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	-	-	19.3	-	-
Benzo[a]anthracene	ng/l	121	± 12.8	-	-	21.4	-	-
Benzo[a]pyrene	ng/l	117	± 15.1	-	-	26.6	-	-
Benzo[b]fluoranthene	ng/l	262	± 27.7	-	-	48.9	-	-
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	-	-	20.6	-	-
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	-	-	21	-	-
Chrysene	ng/l	68.5	± 8.88	-	-	14.8	-	-
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	-	-	50.4	-	-
Fluoranthene	ng/l	50.3	± 4.84	49.1	-	7.9	97.7	-0.15
Fluorene	ng/l	174	± 16.5	-	-	24.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	-	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	-	-	10.5	-	-
Pyrene	ng/l	262	± 19.3	-	-	31.5	-	-

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	-	-	5.86	-	-
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	-	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	-	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	-	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	-	-	4.35	-	-
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	-	-	7.23	-	-
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	-	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	-	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	-	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	40.9	-	4.96	94.1	-0.51
Fluorene	ng/l	50.9	± 4.08	-	-	5.77	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	-	-	4.23	-	-

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	-	-	5.43	-	-



The following results were achieved:

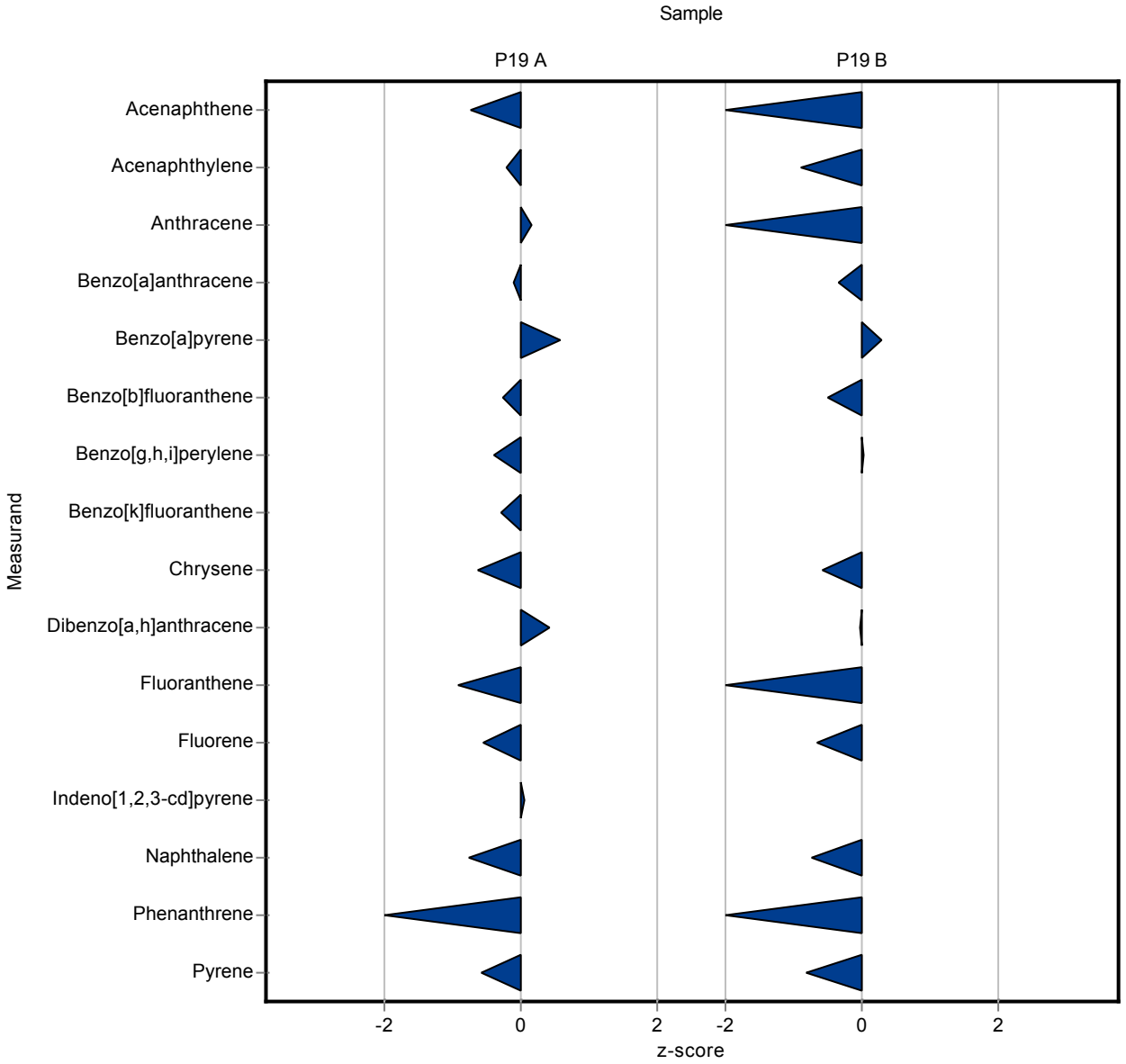
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	46	6	13.1	82.3	-0.76
Acenaphthylene	ng/l	104	± 10.5	100	15	15.7	96.6	-0.22
Anthracene	ng/l	80.2	± 11.8	83	15	19.3	104	0.15
Benzo[a]anthracene	ng/l	121	± 12.8	118	13	21.4	97.9	-0.12
Benzo[a]pyrene	ng/l	117	± 15.1	132	29	26.6	113	0.57
Benzo[b]fluoranthene	ng/l	262	± 27.7	249	35	48.9	95	-0.27
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	81	13	20.6	90.7	-0.40
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	54	8	21	89.3	-0.31
Chrysene	ng/l	68.5	± 8.88	59	7	14.8	86.1	-0.64
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	204	37	50.4	112	0.42
Fluoranthene	ng/l	50.3	± 4.84	43	9	7.9	85.5	-0.92
Fluorene	ng/l	174	± 16.5	160	21	24.5	91.9	-0.57
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	27	5	11.5	102	0.04
Naphthalene	ng/l	226	± 27.1	194	23	40.4	85.9	-0.79
Phenanthrene	ng/l	76.9	± 6.9	62	12	10.5	80.6	-1.41
Pyrene	ng/l	262	± 19.3	243	41	31.5	92.8	-0.60

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	24	3	5.86	79.4	-1.06
Acenaphthylene	ng/l	7.67	± 1.58	6	1	1.83	78.3	-0.91
Anthracene	ng/l	10.2	± 1.48	8	1	1.85	78.6	-1.18
Benzo[a]anthracene	ng/l	6.73	± 1.44	6	1	2.04	89.2	-0.36
Benzo[a]pyrene	ng/l	6.7	± 0.834	7	2	1.11	105	0.27
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	28	4	4.35	92.5	-0.52
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	37	6	7.23	100	0.01
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<5 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	9	1	1.61	90.6	-0.58
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	12	2	4.13	99	-0.03
Fluoranthene	ng/l	43.4	± 3.1	37	8	4.96	85.2	-1.30
Fluorene	ng/l	50.9	± 4.08	47	6	5.77	92.4	-0.67
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	15	2	5.32	79	-0.75
Phenanthrene	ng/l	28.2	± 2.84	22	4	4.23	78.1	-1.46

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	34	6	5.43	88.2	-0.84



The following results were achieved:

Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	-	-	13.1	-	-
Acenaphthylene	ng/l	104	± 10.5	-	-	15.7	-	-
Anthracene	ng/l	80.2	± 11.8	-	-	19.3	-	-
Benzo[a]anthracene	ng/l	121	± 12.8	-	-	21.4	-	-
Benzo[a]pyrene	ng/l	117	± 15.1	-	-	26.6	-	-
Benzo[b]fluoranthene	ng/l	262	± 27.7	-	-	48.9	-	-
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	-	-	20.6	-	-
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	-	-	21	-	-
Chrysene	ng/l	68.5	± 8.88	-	-	14.8	-	-
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	-	-	50.4	-	-
Fluoranthene	ng/l	50.3	± 4.84	-	-	7.9	-	-
Fluorene	ng/l	174	± 16.5	-	-	24.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	-	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	-	-	40.4	-	-
Phenanthrene	ng/l	76.9	± 6.9	-	-	10.5	-	-
Pyrene	ng/l	262	± 19.3	-	-	31.5	-	-

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	-	-	5.86	-	-
Acenaphthylene	ng/l	7.67	± 1.58	-	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	-	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	± 1.44	-	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	-	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	-	-	4.35	-	-
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	-	-	7.23	-	-
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	-	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	-	-	1.61	-	-
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	-	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	-	-	4.96	-	-
Fluorene	ng/l	50.9	± 4.08	-	-	5.77	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	19	± 4.12	-	-	5.32	-	-
Phenanthrene	ng/l	28.2	± 2.84	-	-	4.23	-	-

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	-	-	5.43	-	-

The following results were achieved:

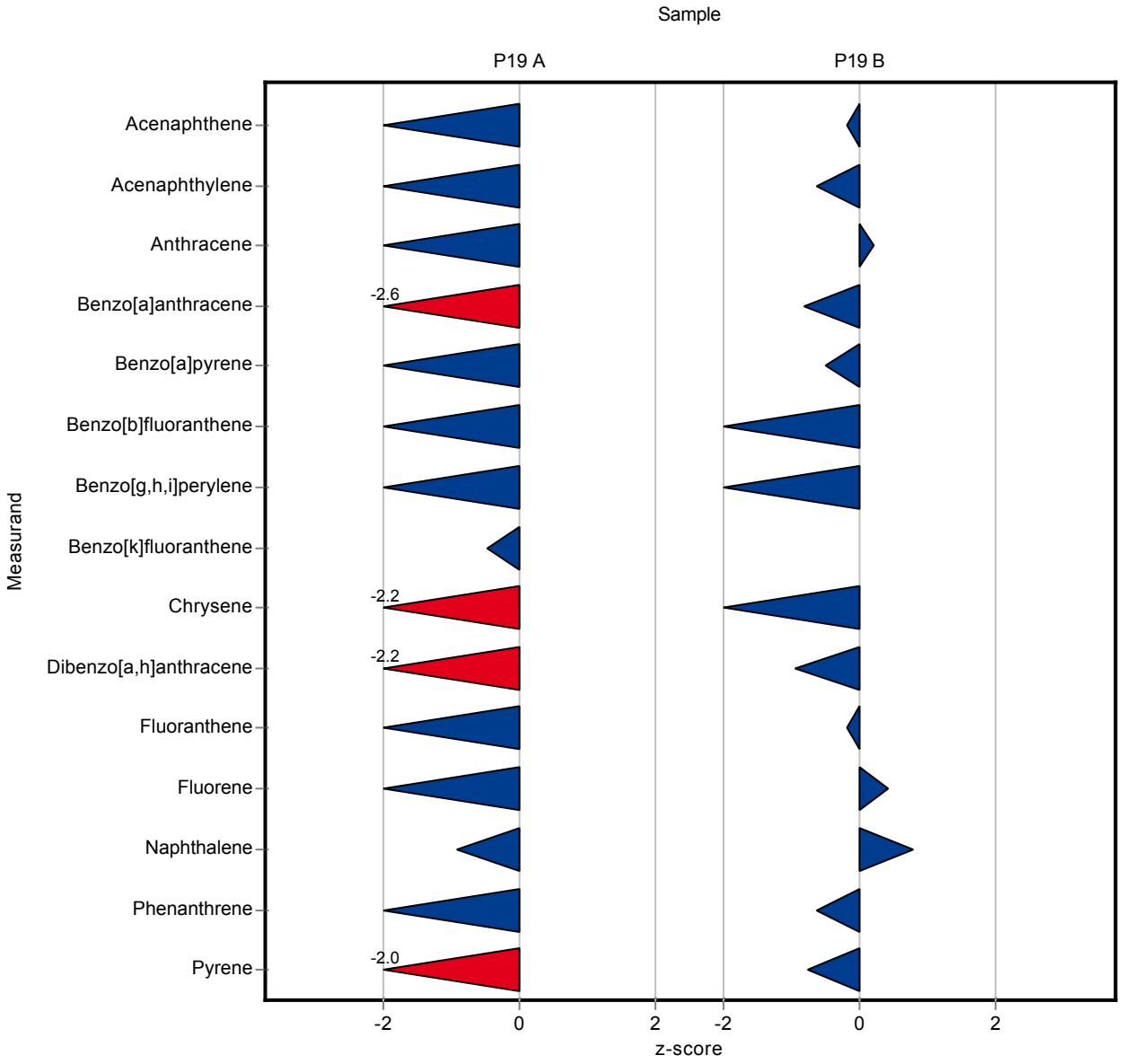
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	39.6	13.35	13.1	70.8	-1.25
Acenaphthylene	ng/l	104	± 10.5	87.4	29.7	15.7	84.4	-1.03
Anthracene	ng/l	80.2	± 11.8	58.08	19.96	19.3	72.5	-1.14
Benzo[a]anthracene	ng/l	121	± 12.8	65.22	7.49	21.4	54.1	-2.59
Benzo[a]pyrene	ng/l	117	± 15.1	77.55	6.23	26.6	66.4	-1.47
Benzo[b]fluoranthene	ng/l	262	± 27.7	180.33	38.9	48.9	68.8	-1.67
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	55.88	8.12	20.6	62.5	-1.62
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	50.1	8.13	21	82.8	-0.49
Chrysene	ng/l	68.5	± 8.88	35.85	10.7	14.8	52.3	-2.21
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	71.98	20.28	50.4	39.4	-2.20
Fluoranthene	ng/l	50.3	± 4.84	41	12.2	7.9	81.5	-1.18
Fluorene	ng/l	174	± 16.5	136.28	45.57	24.5	78.3	-1.54
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<20 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	188	53.54	40.4	83.2	-0.94
Phenanthrene	ng/l	76.9	± 6.9	59.43	20.28	10.5	77.3	-1.66
Pyrene	ng/l	262	± 19.3	198.08	63.78	31.5	75.6	-2.02

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	29.15	1.87	5.86	96.4	-0.19
Acenaphthylene	ng/l	7.67	± 1.58	6.51	0.44	1.83	84.9	-0.63
Anthracene	ng/l	10.2	± 1.48	10.55	2.93	1.85	104	0.20
Benzo[a]anthracene	ng/l	6.73	± 1.44	5.03	0.83	2.04	74.8	-0.83
Benzo[a]pyrene	ng/l	6.7	± 0.834	6.13	0.73	1.11	91.5	-0.51
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	24	1	4.35	79.3	-1.44
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	28.53	1.74	7.23	77.3	-1.16
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<20 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	6.98	1.58	1.61	70.3	-1.83
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	8.15	0.42	4.13	67.2	-0.96
Fluoranthene	ng/l	43.4	± 3.1	42.48	2.77	4.96	97.8	-0.20
Fluorene	ng/l	50.9	± 4.08	53.3	4.05	5.77	105	0.42
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	23.15	3.35	5.32	122	0.78
Phenanthrene	ng/l	28.2	± 2.84	25.4	2.51	4.23	90.1	-0.66

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	34.38	2.83	5.43	89.2	-0.77



The following results were achieved:

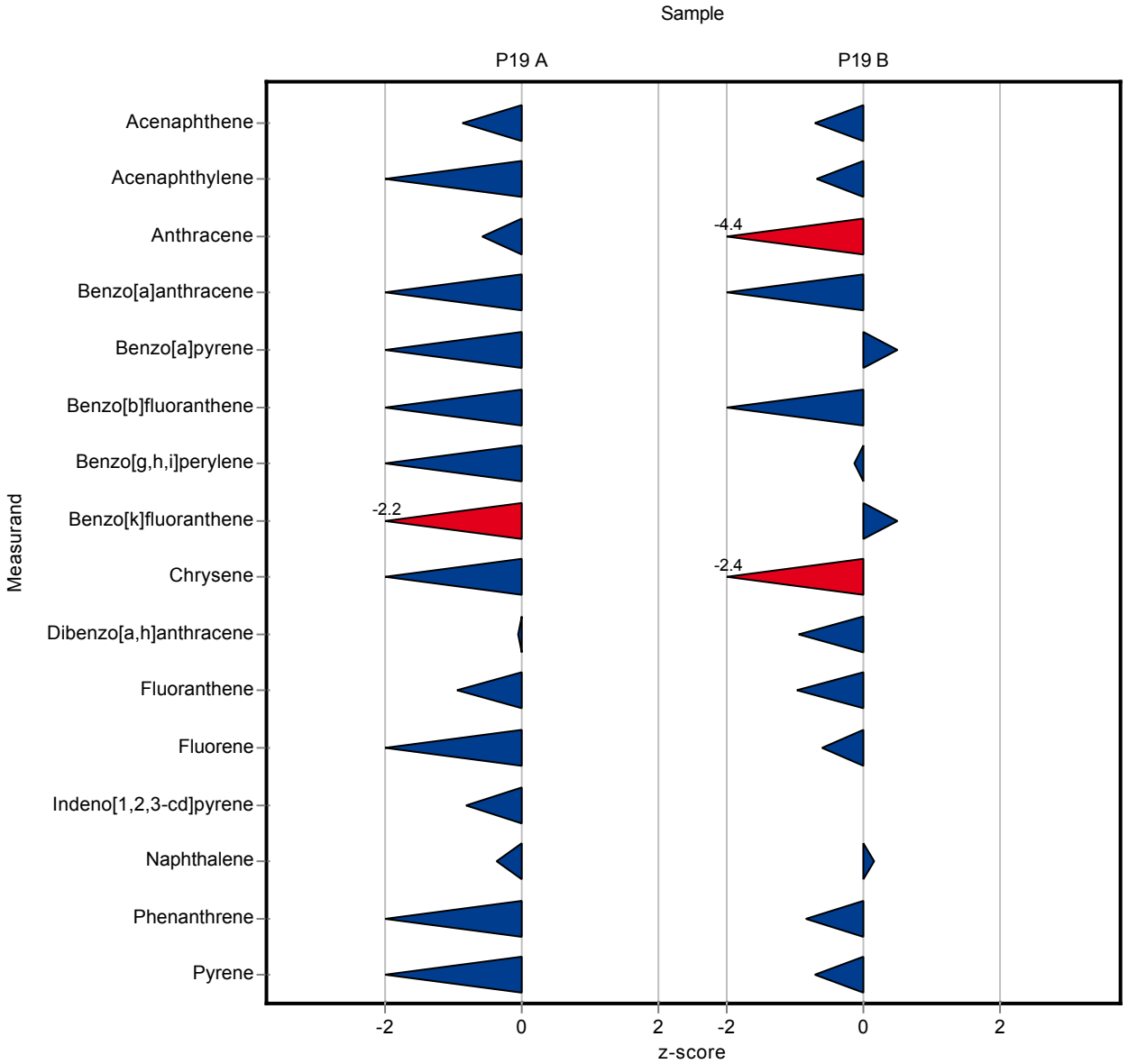
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	44.3	4.01	13.1	79.2	-0.89
Acenaphthylene	ng/l	104	± 10.5	82.6	6.55	15.7	79.8	-1.33
Anthracene	ng/l	80.2	± 11.8	68.8	5.37	19.3	85.8	-0.59
Benzo[a]anthracene	ng/l	121	± 12.8	83.2	12.5	21.4	69	-1.75
Benzo[a]pyrene	ng/l	117	± 15.1	81.6	10.7	26.6	69.9	-1.32
Benzo[b]fluoranthene	ng/l	262	± 27.7	197	16	48.9	75.1	-1.33
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	67.9	15.2	20.6	76	-1.04
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	14.5	2.27	21	24	-2.19
Chrysene	ng/l	68.5	± 8.88	43.8	4.56	14.8	63.9	-1.67
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	179	35.4	50.4	97.9	-0.08
Fluoranthene	ng/l	50.3	± 4.84	42.6	4.56	7.9	84.7	-0.97
Fluorene	ng/l	174	± 16.5	144	11.5	24.5	82.7	-1.22
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	17.2	4.16	11.5	64.7	-0.82
Naphthalene	ng/l	226	± 27.1	210	15.7	40.4	93	-0.39
Phenanthrene	ng/l	76.9	± 6.9	65.2	4.76	10.5	84.8	-1.11
Pyrene	ng/l	262	± 19.3	211	22.1	31.5	80.6	-1.61

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	26	1.07	5.86	86	-0.72
Acenaphthylene	ng/l	7.67	± 1.58	6.4	0.601	1.83	83.5	-0.69
Anthracene	ng/l	10.2	± 1.48	2.14	0.767	1.85	21	-4.36
Benzo[a]anthracene	ng/l	6.73	± 1.44	3.48	0.505	2.04	51.7	-1.59
Benzo[a]pyrene	ng/l	6.7	± 0.834	7.23	1.13	1.11	108	0.48
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	24.4	8.72	4.35	80.6	-1.35
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	35.8	9.6	7.23	97	-0.15
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	5.4	0.726	0.897	109	0.49
Chrysene	ng/l	9.93	± 1.21	6.08	0.505	1.61	61.2	-2.39
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	8.17	0.686	4.13	67.4	-0.96
Fluoranthene	ng/l	43.4	± 3.1	38.6	2.34	4.96	88.8	-0.98
Fluorene	ng/l	50.9	± 4.08	47.3	0.943	5.77	93	-0.62
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	19.7	0.622	5.32	104	0.13
Phenanthrene	ng/l	28.2	± 2.84	24.6	1.07	4.23	87.3	-0.85

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	34.6	1.38	5.43	89.8	-0.73



The following results were achieved:

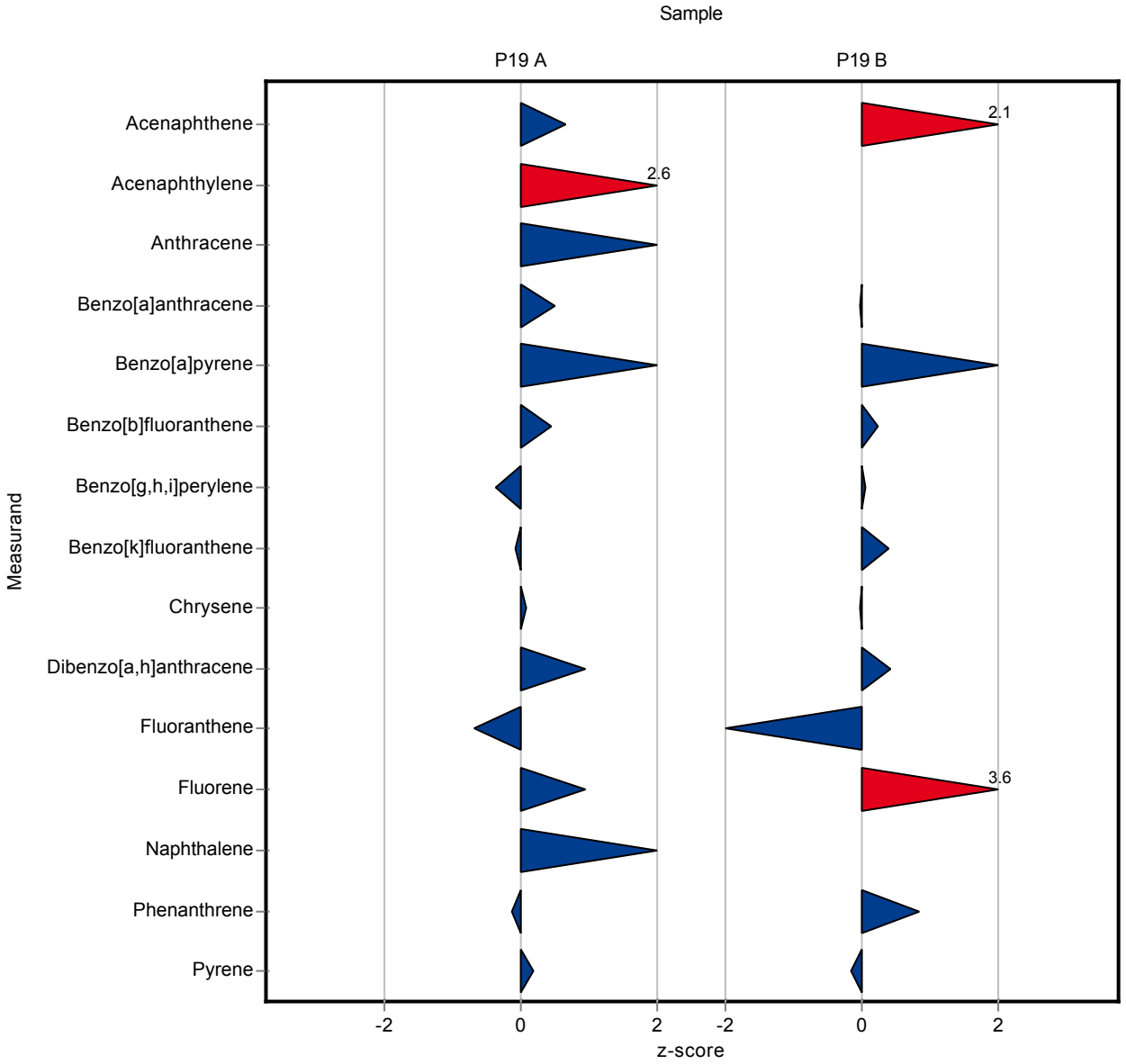
Sample: P19A

Parameter	Unit	Target	±	CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	±	8.55	64.3	-	13.1	115	0.64
Acenaphthylene	ng/l	104	±	10.5	144	-	15.7	139	2.58
Anthracene	ng/l	80.2	±	11.8	111	-	19.3	138	1.60
Benzo[a]anthracene	ng/l	121	±	12.8	131	-	21.4	109	0.49
Benzo[a]pyrene	ng/l	117	±	15.1	145	-	26.6	124	1.06
Benzo[b]fluoranthene	ng/l	262	±	27.7	283	-	48.9	108	0.42
Benzo[g,h,i]perylene	ng/l	89.3	±	11.9	81.7	-	20.6	91.4	-0.37
Benzo[k]fluoranthene	ng/l	60.5	±	11.9	58.6	-	21	96.9	-0.09
Chrysene	ng/l	68.5	±	8.88	69.5	-	14.8	101	0.07
Dibenzo[a,h]anthracene	ng/l	183	±	30.3	230	-	50.4	126	0.93
Fluoranthene	ng/l	50.3	±	4.84	44.8	-	7.9	89.1	-0.69
Fluorene	ng/l	174	±	16.5	197	-	24.5	113	0.94
Indeno[1,2,3-cd]pyrene	ng/l	26.6	±	13	<3.7 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	±	27.1	300	-	40.4	133	1.83
Phenanthrene	ng/l	76.9	±	6.9	75.4	-	10.5	98.1	-0.14
Pyrene	ng/l	262	±	19.3	267	-	31.5	102	0.16

Sample: P19B

Parameter	Unit	Target	±	CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	±	3.93	42.4	-	5.86	140	2.08
Acenaphthylene	ng/l	7.67	±	1.58	<40 (LOQ)	-	1.83	-	-
Anthracene	ng/l	10.2	±	1.48	<20 (LOQ)	-	1.85	-	-
Benzo[a]anthracene	ng/l	6.73	±	1.44	6.64	-	2.04	98.7	-0.04
Benzo[a]pyrene	ng/l	6.7	±	0.834	7.86	-	1.11	117	1.05
Benzo[b]fluoranthene	ng/l	30.3	±	2.56	31.3	-	4.35	103	0.23
Benzo[g,h,i]perylene	ng/l	36.9	±	4.34	37.2	-	7.23	101	0.04
Benzo[k]fluoranthene	ng/l	4.96	±	0.746	5.3	-	0.897	107	0.38
Chrysene	ng/l	9.93	±	1.21	9.86	-	1.61	99.2	-0.05
Dibenzo[a,h]anthracene	ng/l	12.1	±	2.84	13.8	-	4.13	114	0.41
Fluoranthene	ng/l	43.4	±	3.1	37.8	-	4.96	87	-1.14
Fluorene	ng/l	50.9	±	4.08	71.4	-	5.77	140	3.56
Indeno[1,2,3-cd]pyrene	ng/l	-	±	-	<3.7 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	±	4.12	<29 (LOQ)	-	5.32	-	-
Phenanthrene	ng/l	28.2	±	2.84	31.7	-	4.23	113	0.83

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	37.6	-	5.43	97.6	-0.17



The following results were achieved:

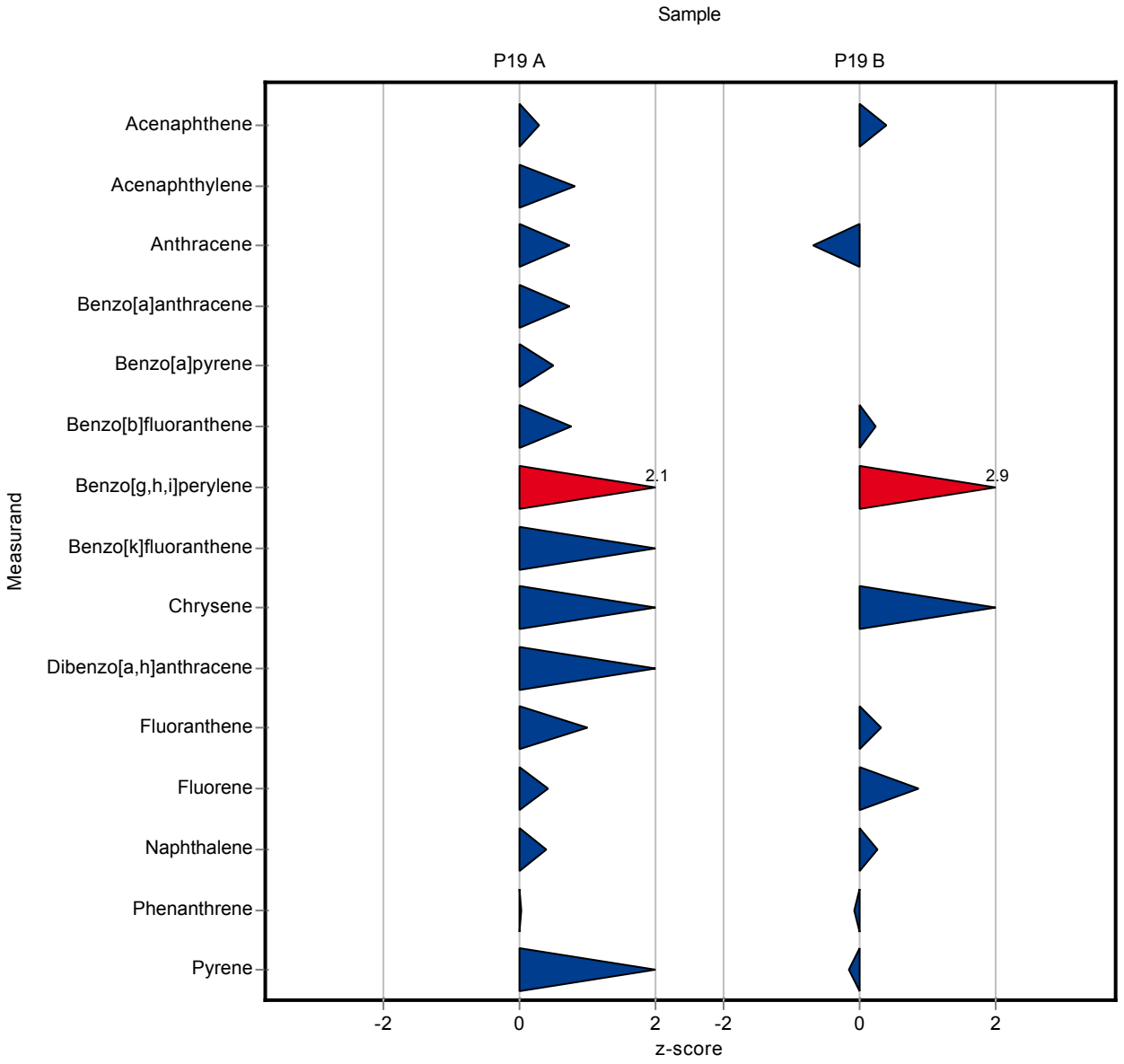
Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	59.6	14	13.1	107	0.28
Acenaphthylene	ng/l	104	± 10.5	116	23	15.7	112	0.80
Anthracene	ng/l	80.2	± 11.8	94	23	19.3	117	0.72
Benzo[a]anthracene	ng/l	121	± 12.8	136.2	38	21.4	113	0.73
Benzo[a]pyrene	ng/l	117	± 15.1	129.4	62	26.6	111	0.48
Benzo[b]fluoranthene	ng/l	262	± 27.7	298.3	135	48.9	114	0.74
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	133.4	66	20.6	149	2.14
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	83.6	36	21	138	1.10
Chrysene	ng/l	68.5	± 8.88	86.5	19	14.8	126	1.22
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	267.4	179	50.4	146	1.68
Fluoranthene	ng/l	50.3	± 4.84	58.1	16	7.9	116	0.99
Fluorene	ng/l	174	± 16.5	183.9	35	24.5	106	0.40
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<1 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	241.4	35	40.4	107	0.38
Phenanthrene	ng/l	76.9	± 6.9	77	17	10.5	100	0.01
Pyrene	ng/l	262	± 19.3	297.4	85	31.5	114	1.13

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	32.4	7	5.86	107	0.37
Acenaphthylene	ng/l	7.67	± 1.58	<6.5 (LOQ)	-	1.83	-	-
Anthracene	ng/l	10.2	± 1.48	8.9	2	1.85	87.4	-0.69
Benzo[a]anthracene	ng/l	6.73	± 1.44	<7.6 (LOQ)	-	2.04	-	-
Benzo[a]pyrene	ng/l	6.7	± 0.834	<6.1 (LOQ)	-	1.11	-	-
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	31.2	15	4.35	103	0.21
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	57.6	25	7.23	156	2.86
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	<4.5 (LOQ)	-	0.897	-	-
Chrysene	ng/l	9.93	± 1.21	11.6	3	1.61	117	1.03
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	<16 (LOQ)	-	4.13	-	-
Fluoranthene	ng/l	43.4	± 3.1	45	13	4.96	104	0.31
Fluorene	ng/l	50.9	± 4.08	55.8	11	5.77	110	0.85
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<1 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	20.3	3	5.32	107	0.25
Phenanthrene	ng/l	28.2	± 2.84	27.8	6	4.23	98.7	-0.09

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	37.6	12	5.43	97.6	-0.17



The following results were achieved:

Sample: P19A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	55.9	± 8.55	56.8	1.069	13.1	102	0.07
Acenaphthylene	ng/l	104	± 10.5	107	2.178	15.7	103	0.22
Anthracene	ng/l	80.2	± 11.8	86.5	1.915	19.3	108	0.33
Benzo[a]anthracene	ng/l	121	± 12.8	124	6.133	21.4	103	0.16
Benzo[a]pyrene	ng/l	117	± 15.1	133	1.857	26.6	114	0.61
Benzo[b]fluoranthene	ng/l	262	± 27.7	274	3.339	48.9	104	0.24
Benzo[g,h,i]perylene	ng/l	89.3	± 11.9	89.9	1.178	20.6	101	0.03
Benzo[k]fluoranthene	ng/l	60.5	± 11.9	73.8	1.786	21	122	0.63
Chrysene	ng/l	68.5	± 8.88	69	2.071	14.8	101	0.03
Dibenzo[a,h]anthracene	ng/l	183	± 30.3	231	4.554	50.4	126	0.95
Fluoranthene	ng/l	50.3	± 4.84	60.7	1.614	7.9	121	1.32
Fluorene	ng/l	174	± 16.5	178	2.785	24.5	102	0.16
Indeno[1,2,3-cd]pyrene	ng/l	26.6	± 13	<10 (LOQ)	-	11.5	-	-
Naphthalene	ng/l	226	± 27.1	229	7.316	40.4	101	0.08
Phenanthrene	ng/l	76.9	± 6.9	85.8	2.315	10.5	112	0.84
Pyrene	ng/l	262	± 19.3	286	6.503	31.5	109	0.77

Sample: P19B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	30.2	± 3.93	31.3	0.589	5.86	104	0.18
Acenaphthylene	ng/l	7.67	± 1.58	10.1	0.206	1.83	132	1.33
Anthracene	ng/l	10.2	± 1.48	16.9	0.374	1.85	166	3.64
Benzo[a]anthracene	ng/l	6.73	± 1.44	9.45	0.466	2.04	140	1.33
Benzo[a]pyrene	ng/l	6.7	± 0.834	11.5	0.16	1.11	172	4.32
Benzo[b]fluoranthene	ng/l	30.3	± 2.56	38.5	0.468	4.35	127	1.89
Benzo[g,h,i]perylene	ng/l	36.9	± 4.34	45.2	0.593	7.23	123	1.15
Benzo[k]fluoranthene	ng/l	4.96	± 0.746	12.2	0.296	0.897	246	8.07
Chrysene	ng/l	9.93	± 1.21	9.98	0.3	1.61	100	0.03
Dibenzo[a,h]anthracene	ng/l	12.1	± 2.84	21.2	0.418	4.13	175	2.20
Fluoranthene	ng/l	43.4	± 3.1	49	1.304	4.96	113	1.12
Fluorene	ng/l	50.9	± 4.08	54.5	0.852	5.77	107	0.63
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	19	± 4.12	23.6	0.752	5.32	124	0.87
Phenanthrene	ng/l	28.2	± 2.84	31	0.836	4.23	110	0.67

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Pyrene	ng/l	38.5	± 3.47	44.7	1.016	5.43	116	1.13