

# **EVALUATION OF THE INTERLABORATORY COMPARISON TEST**

## **Polycyclic aromatic hydrocarbons P17**

Sample dispatch on 19<sup>th</sup> April 2016

**Address:** Umweltbundesamt GmbH  
Spittelauer Lände 5  
1090 Vienna/Austria

**Contact:** Dr. Sandra Kulcsar

**Telephone:** +43 (0) 1 31304 4334

**E-mail:** ringversuche@umweltbundesamt.at

**Website:** [www.umweltbundesamt.at/leistungen](http://www.umweltbundesamt.at/leistungen)  
[www.imatest.at](http://www.imatest.at)

**Management:**  
Dipl.-Ing. Monika Denner

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# 1 Interlaboratory comparison test: Polycyclic aromatic hydrocarbons P17

## 1.1 Participants and time schedule

- Number of registrations: 16
- Number of submitted data records: 16
- Dispatch of samples: 19<sup>th</sup> April 2016
- Closing date for submission of data: 24<sup>th</sup> May 2016

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

- Sample P17 A – synthetic water
- Sample P17 B – ground water

The sampling of ground water was carried out on 18<sup>th</sup> April 2016. 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 19<sup>th</sup> April 2016.

Each participant received:

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

## 1.3 Control testing

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

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

## 2 Evaluation

The analytical results had to be made available to the organiser not later than 24<sup>th</sup> May 2016. Any values received at a later date were not considered. A statistical evaluation of interlaboratory comparison data was only carried out if at least 6 valid results per parameter were available.

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

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

### z-Score

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

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

In this context,

$x_i$  is the measurement value of the participating laboratory.

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

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

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

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

### **3 Representation and interpretation of measurement results**

The parameter-oriented evaluation 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 (see section 5)

### **4 Explanatory notes**

As explained in section 2, the z-Score is calculated using the reproducibility standard deviation, calculated from the participants' results (after removal of outliers) in the relevant test round. As a consequence it might occur that the z-Score between -2 and 2 covers an extraordinary range, due to a high variance of the results.

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

At this Interlaboratory comparison test all parameters in both samples show a high variance of the results.

Sample P17 A and Sample P17 B: For the parameter Indeno[1,2,3-cd]pyrene no target value was calculated because of the low analyte content and/or the small number of submitted results.

## 5 Annotations on tables and charts

### 5.1 Information and abbreviations in tables

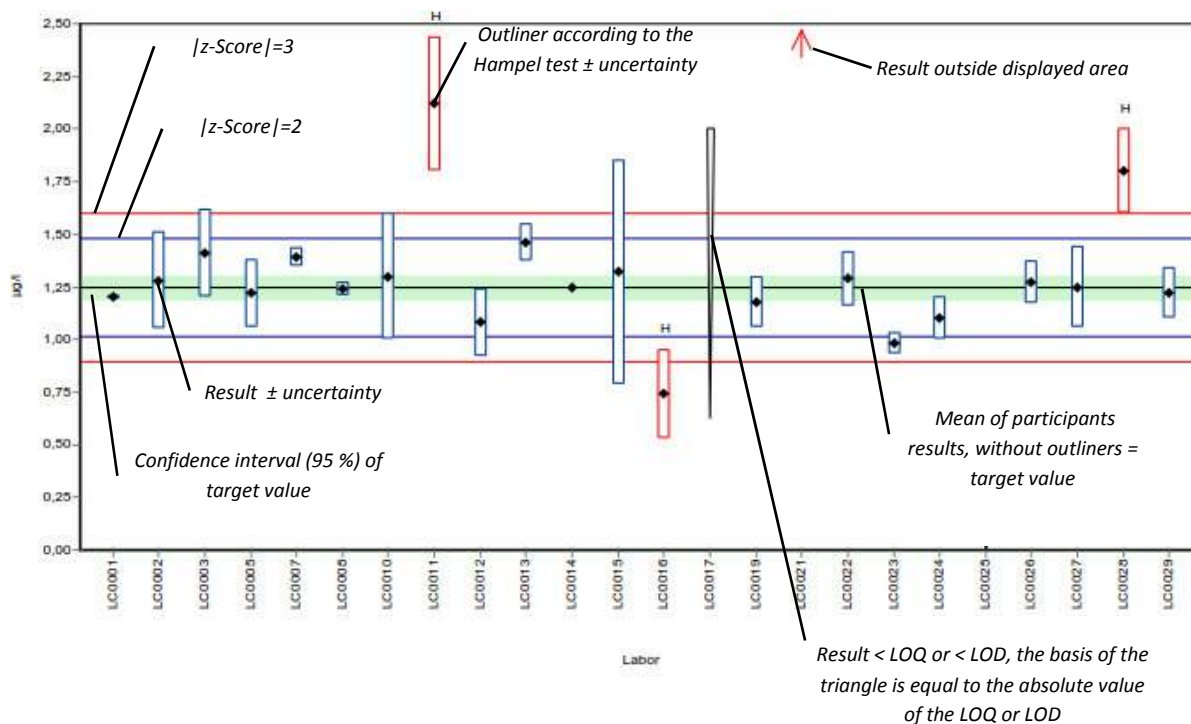
Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/l)
Mean	Mean of the participants results, without outliers (3 significant digits)
CI (99 %)	99% confidence interval (3 significant digits)
Minimum	Minimum of all submitted results, after removal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

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

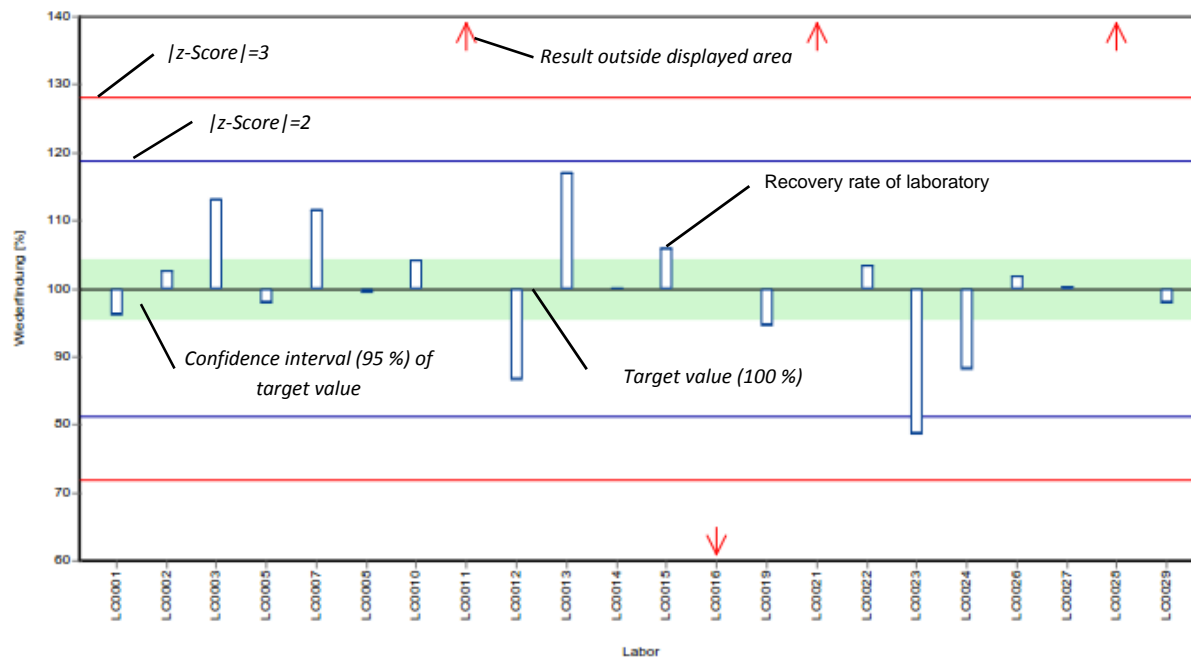


## 5.2 Graphical presentation of results

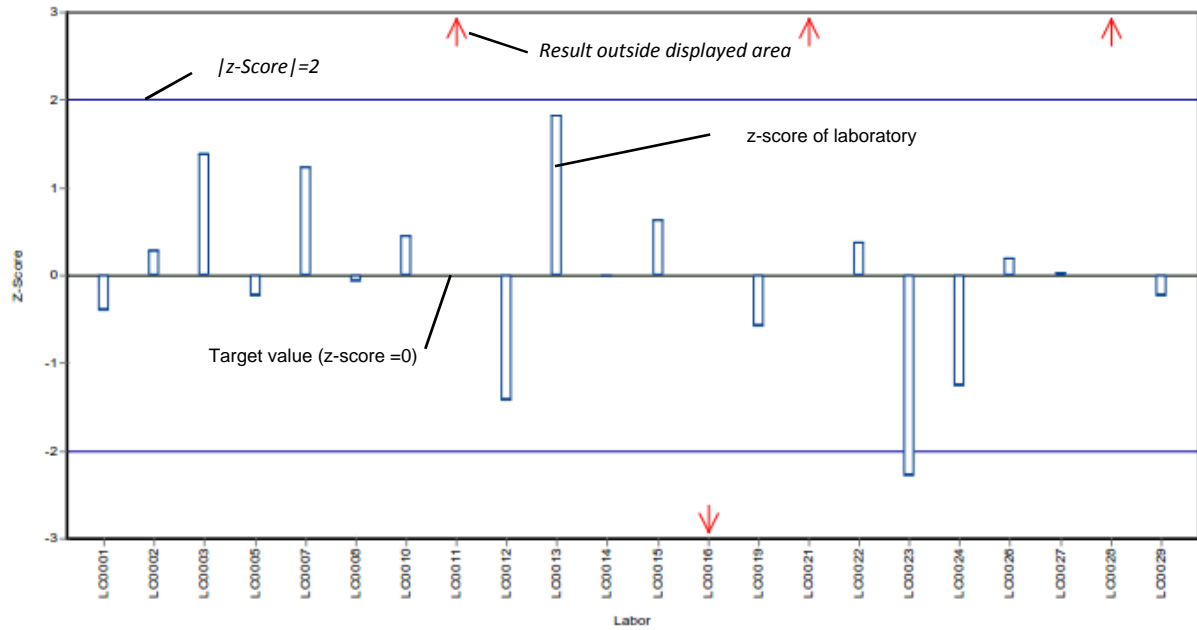
### Example chart: Results



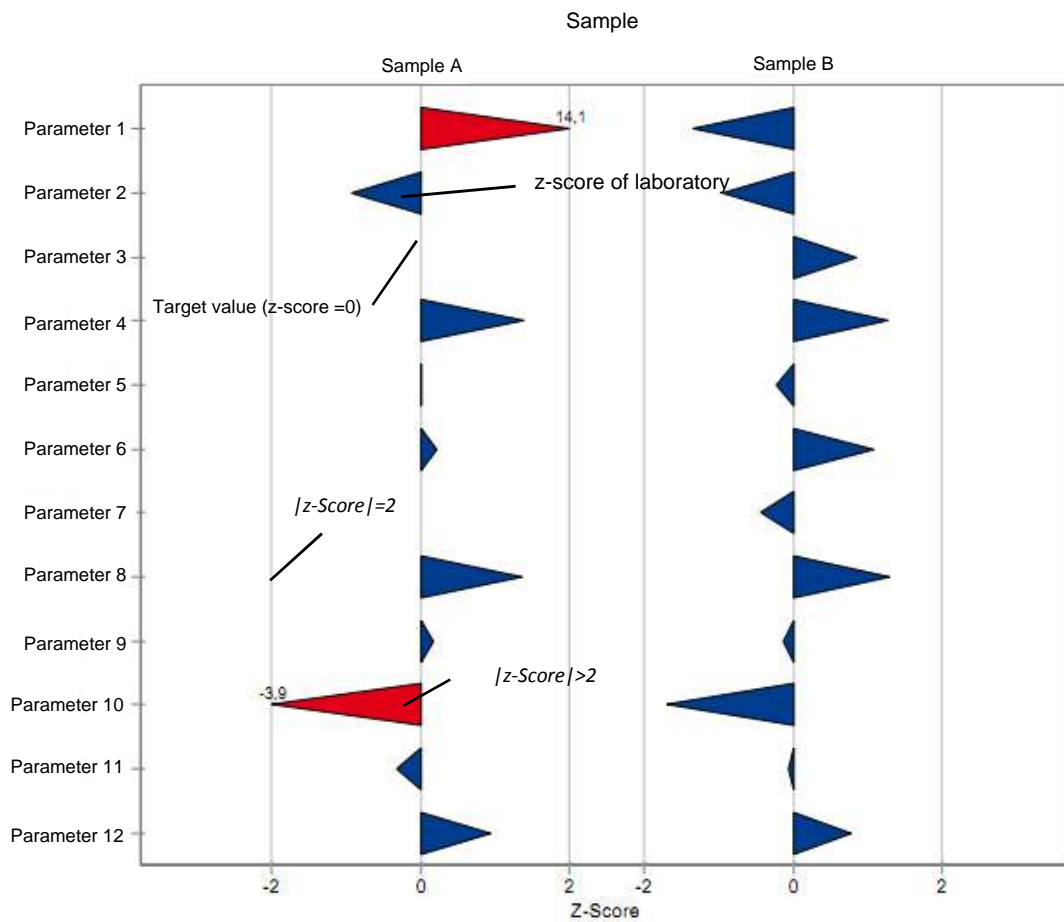
### Example chart: Recovery



**Example chart: z-score**



**Example chart: z-score - laboratory oriented report**



Summary of results, after removal of outliers: Polycyclic Aromatic Hydrocarbons P17

## 6 Summary of results, after removal of outliers

Parameter	Sample	Unit	Number of results	Number of outliers	Mean	± CI (99%)	Minimum	Maximum	SD	RSD %
Acenaphthene	P17 A	ng/l	13	1	99.3	± 23.6	56	135	28.3	29
	P17 B	ng/l	11	1	19.3	± 5.39	10	30	5.96	31
Acenaphthylene	P17 A	ng/l	10	2	331	± 60	189	424	63.2	19
	P17 B	ng/l	10	0	31.2	± 8.51	20.8	50	8.98	29
Anthracene	P17 A	ng/l	14	0	102	± 33	44.4	202	41.1	40
	P17 B	ng/l	14	0	76.7	± 16.1	47	105	20.1	26
Benzo[a]anthracene	P17 A	ng/l	14	0	54.5	± 11.2	30.9	74.1	14	26
	P17 B	ng/l	14	0	67.8	± 12.6	39	90	15.8	23
Benzo[a]pyrene	P17 A	ng/l	14	1	171	± 40.7	79.4	258	50.8	30
	P17 B	ng/l	15	1	54.2	± 14.4	23.4	82.5	18.6	34
Benzo[b]fluoranthene	P17 A	ng/l	15	1	70.1	± 18	23	108	23.2	33
	P17 B	ng/l	11	1	21.8	± 6.17	12	36	6.82	31
Benzo[g,h,i]perylene	P17 A	ng/l	14	1	225	± 59.8	97	396	74.6	33
	P17 B	ng/l	14	1	47.5	± 14.6	15	74	18.2	38
Benzo[k]fluoranthene	P17 A	ng/l	15	1	101	± 25.9	22	146	33.4	33
	P17 B	ng/l	10	1	13.5	± 3.59	7.7	20	3.78	28
Chrysene	P17 A	ng/l	14	0	128	± 22.8	77.9	176	28.5	22
	P17 B	ng/l	11	0	14.5	± 4.5	8.7	24	4.98	34
Dibenzo[a,h]anthracene	P17 A	ng/l	14	0	79	± 16.1	43	109	20.1	25
	P17 B	ng/l	7	0	7.29	± 3.56	3.6	13	3.14	43
Fluoranthene	P17 A	ng/l	14	0	117	± 20	60.8	150	24.9	21
	P17 B	ng/l	14	0	75.3	± 12.6	40.6	98	15.7	21
Fluorene	P17 A	ng/l	14	0	202	± 43.8	119	262	54.7	27
	P17 B	ng/l	14	0	68.8	± 13	40.6	92	16.3	24
Indeno[1,2,3-cd]pyrene	P17 A	ng/l	4	0	-	± -	7.8	20	-	-
	P17 B	ng/l	2	0	-	± -	2.08	6.4	-	-
Naphthalene	P17 A	ng/l	14	0	114	± 29.3	46	190	36.5	32

Summary of results, after removal of outliers: Polycyclic Aromatic Hydrocarbons P17

Parameter	Sample	Unit	Number of results for calculation	Number of outliers	Mean	± CI (99%)	Minimum	Maximum	SD	RSD %
Naphthalene	P17 B	ng/l	14	0	84.3	± 20.6	31	130	25.7	30
Phenanthrene	P17 A	ng/l	14	0	296	± 55.6	169	386	69.3	23
	P17 B	ng/l	12	1	30.7	± 5.18	20	39	5.98	19
Pyrene	P17 A	ng/l	14	0	77.3	± 13.7	50.8	102	17.1	22
	P17 B	ng/l	12	0	22.4	± 6.21	6	30.1	7.17	32

## 7 Parameter oriented report

Acenaphthene.....	14
Acenaphthylene.....	22
Anthracene.....	30
Benzo(a)anthracene.....	38
Benzo(a)pyrene.....	46
Benzo(b)fluoranthene.....	54
Benzo(g,h,i)perylene.....	62
Benzo(k)fluoranthene.....	70
Chrysene.....	78
Dibenzo(a,h)anthracene.....	86
Fluoranthene.....	94
Fluorene.....	102
Indeno(1,2,3-c,d)pyrene.....	110
Naphthalene.....	114
Phenanthrene.....	122
Pyrene.....	130

## Parameter oriented report

### P17 A

#### Acenaphthene

Unit	ng/l
Mean ± CI (99%)	99.3 ± 23.6
Minimum - Maximum	56 - 135
Control test value ± U	67.1 ± 1.81

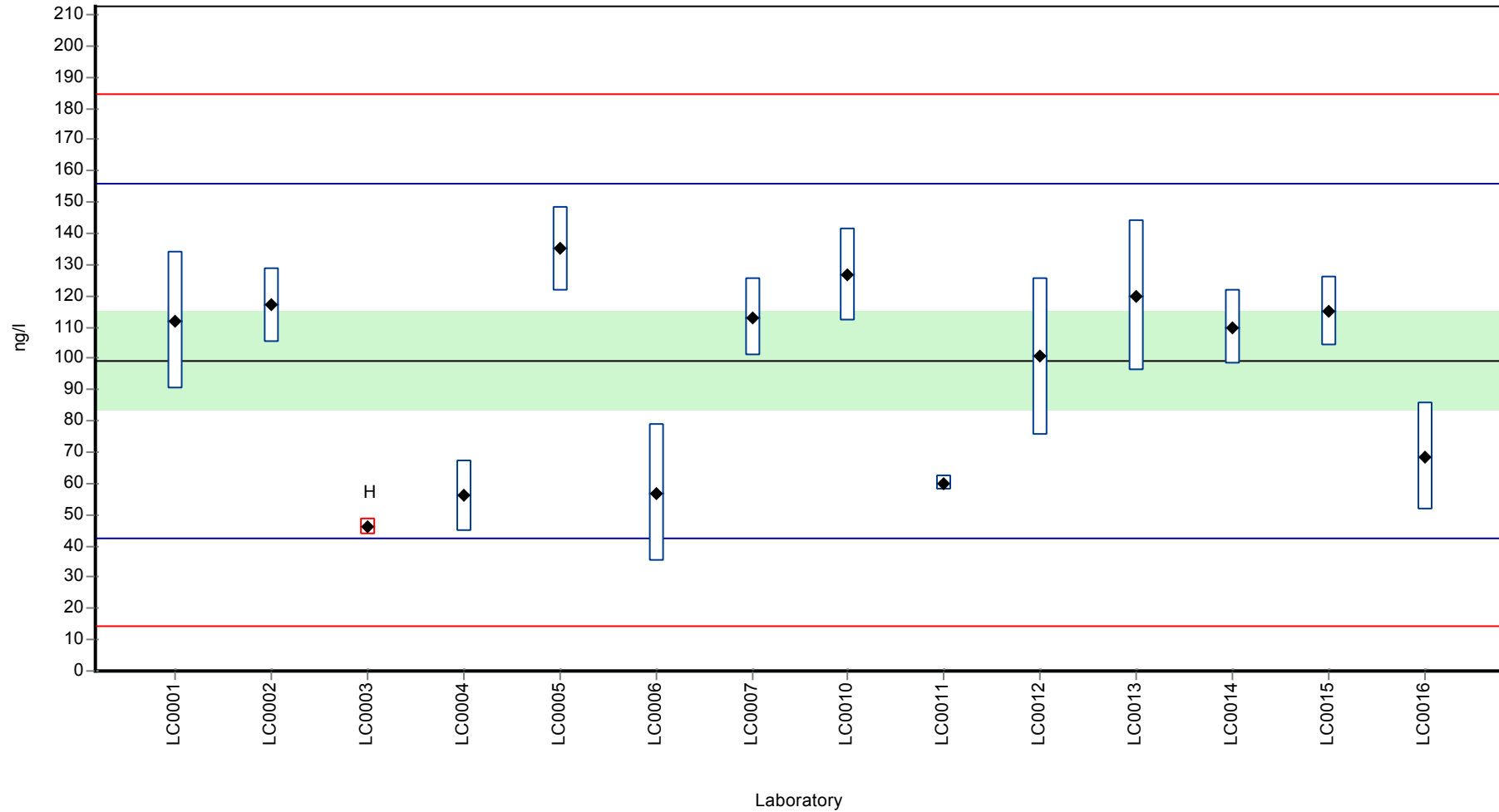
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	112	22	113	0.45	
LC0002	117	12	118	0.62	
LC0003	46.25	2.775	46.6	-1.87	H
LC0004	56	11.2	56.4	-1.53	
LC0005	135	13.5	136	1.26	
LC0006	57	22	57.4	-1.49	
LC0007	113.2	12.7	114	0.49	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	126.7	15	128	0.97	
LC0011	60.1	2.3	60.5	-1.38	
LC0012	100.5	25.1	101	0.04	
LC0013	120	24	121	0.73	
LC0014	110	12	111	0.38	
LC0015	115.1	11	116	0.56	
LC0016	68.6	17.1	69.1	-1.08	

#### Characteristics of parameter

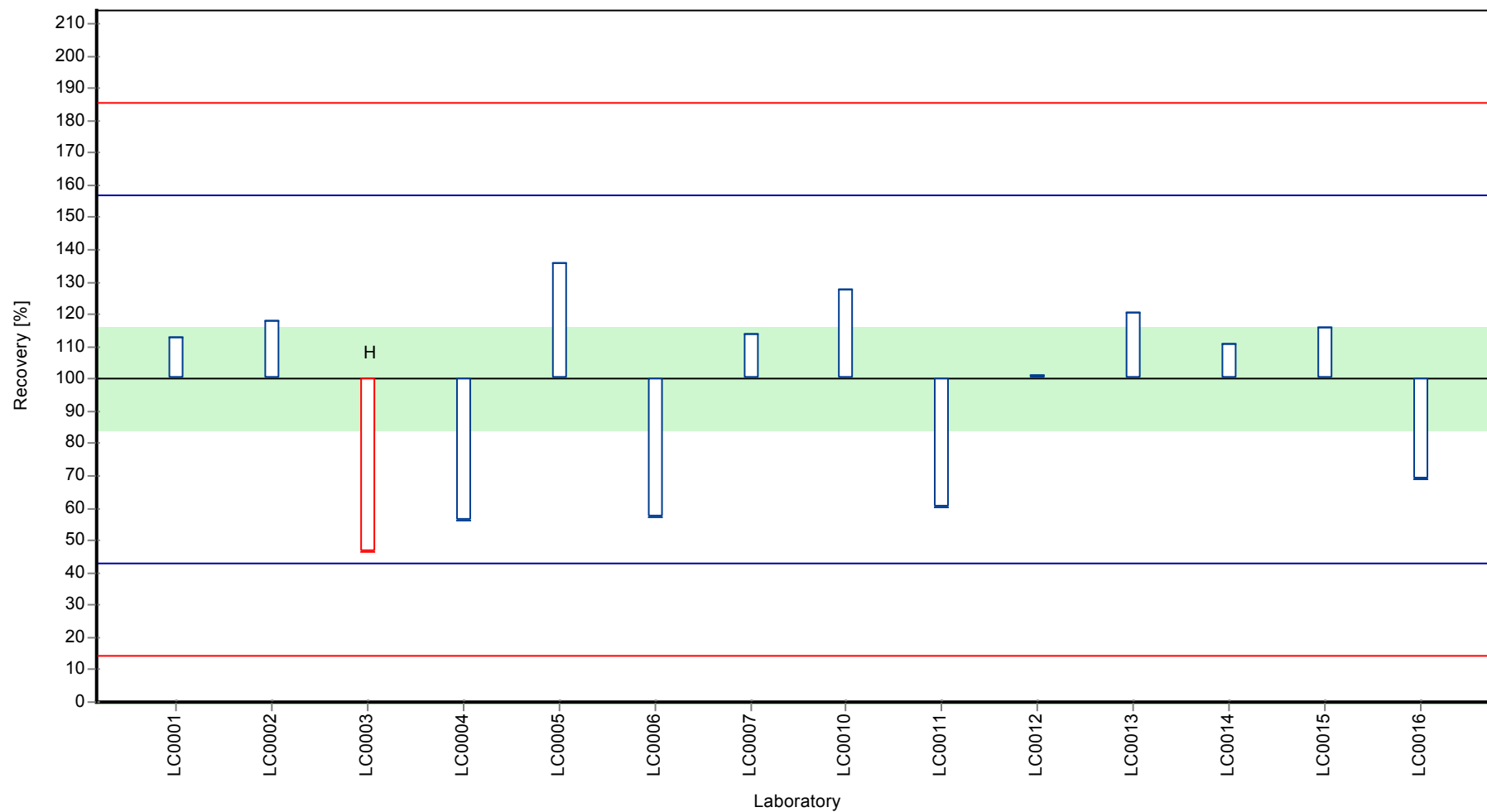
	all results	without outliers	Unit
Mean ± CI (99%)	95.5 ± 24.6	99.3 ± 23.6	ng/l
Minimum	46.2	56	ng/l
Maximum	135	135	ng/l
Standard deviation	30.7	28.3	ng/l
rel. Standard deviation	32.1	28.5	%
n	14	13	-

Graphical presentation of results

Results



Recovery rate

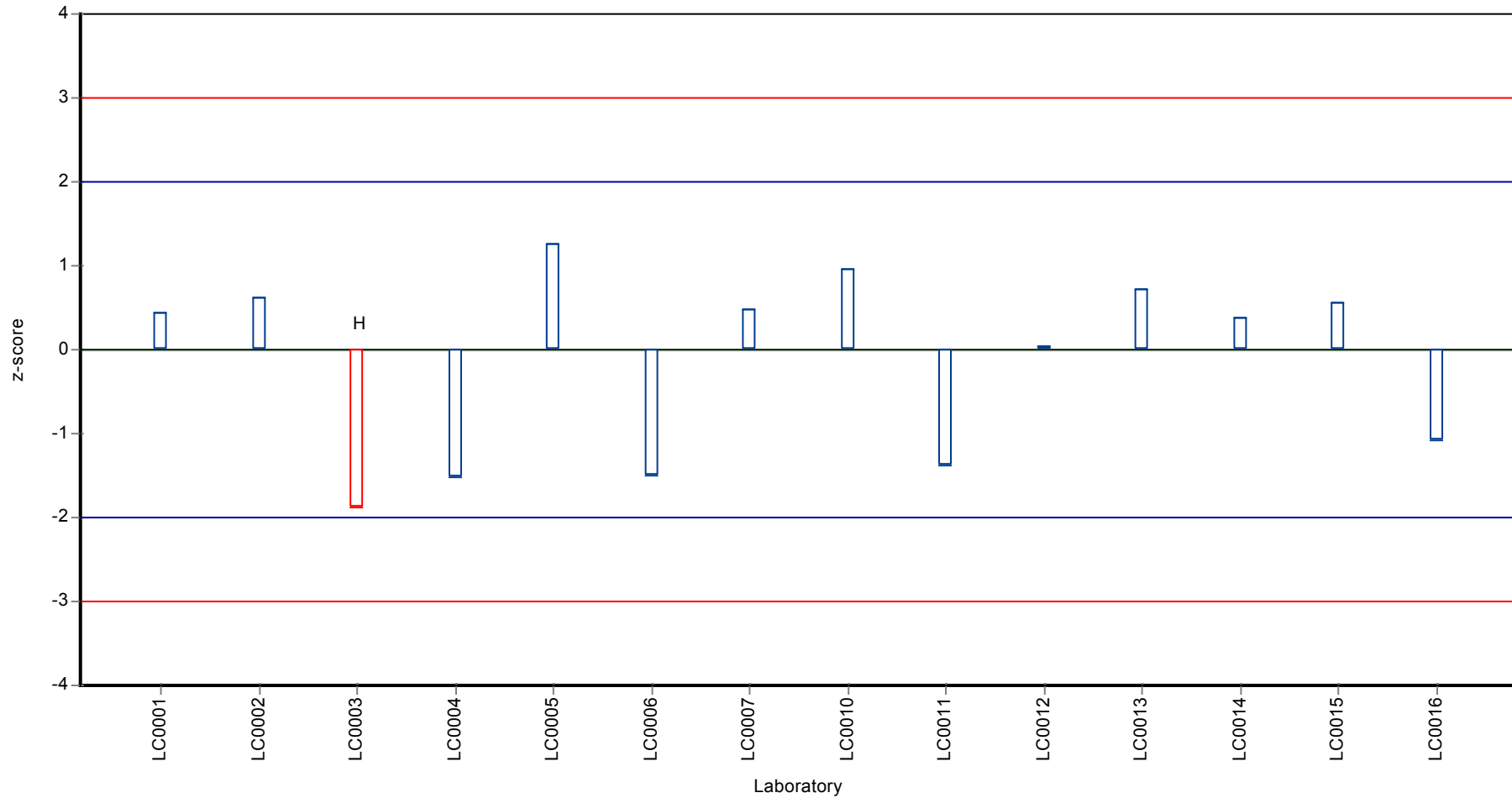




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Acenaphthene

Z-score



## Parameter oriented report

### P17 B

#### Acenaphthene

Unit	ng/l
Mean ± CI (99%)	19.3 ± 5.39
Minimum - Maximum	10 - 30
Control test value ± U	9.33 ± 1.88

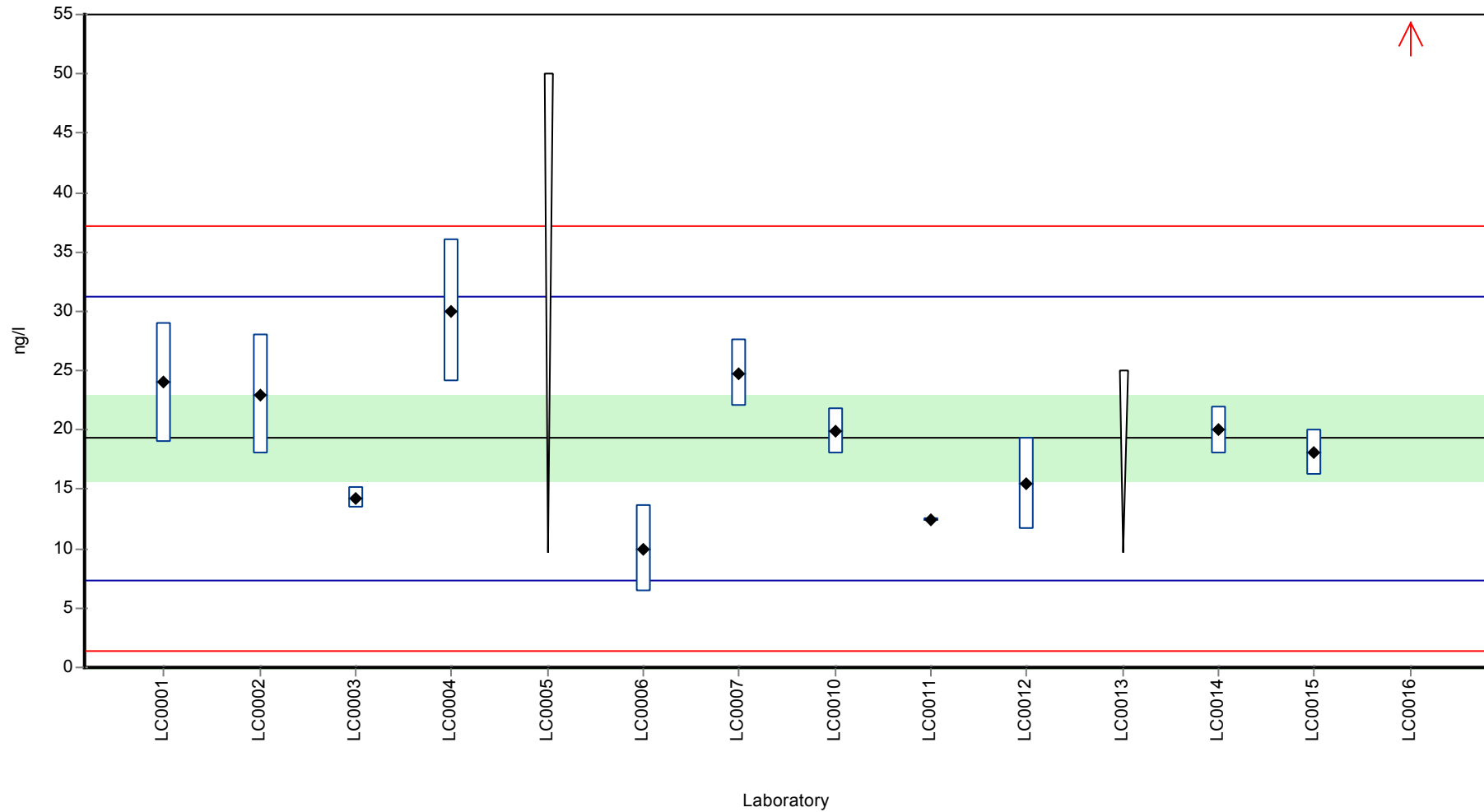
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	24	5	124	0.79	
LC0002	23	5	119	0.62	
LC0003	14.3	0.858	74.2	-0.84	
LC0004	30	6	156	1.8	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	10	3.7	51.9	-1.56	
LC0007	24.8	2.78	129	0.93	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	19.9	2	103	0.1	
LC0011	12.5	0.14	64.8	-1.14	
LC0012	15.5	3.9	80.4	-0.64	
LC0013	< 25 (LOQ)	-	-	-	
LC0014	20	2	104	0.12	
LC0015	18.1	2	93.9	-0.2	
LC0016	56.4	14.1	293	6.23	H

#### Characteristics of parameter

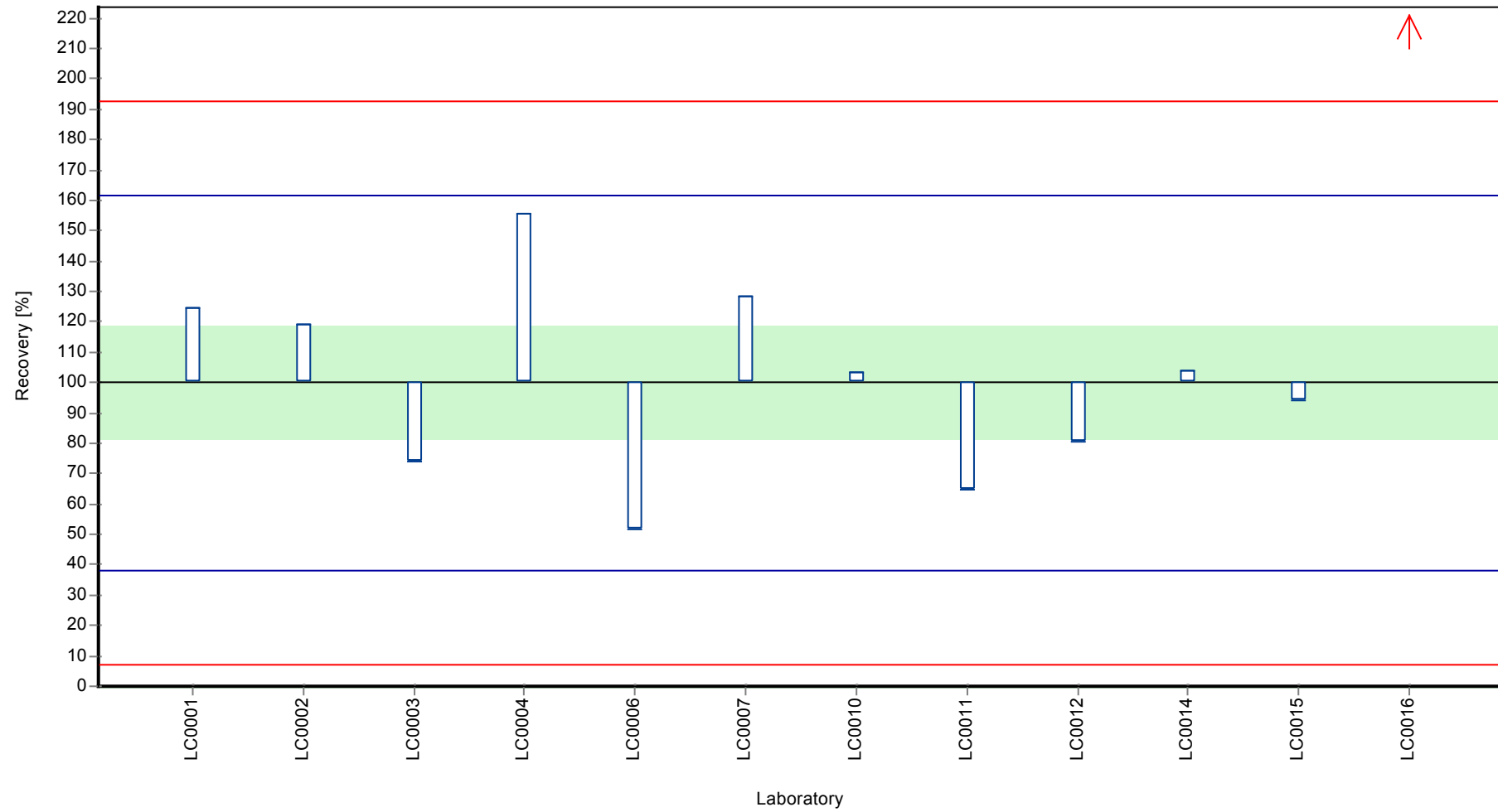
	all results	without outliers	Unit
Mean ± CI (99%)	22.4 ± 10.5	19.3 ± 5.39	ng/l
Minimum	10	10	ng/l
Maximum	56.4	30	ng/l
Standard deviation	12.1	5.96	ng/l
rel. Standard deviation	54.2	30.9	%
n	12	11	-

Graphical presentation of results

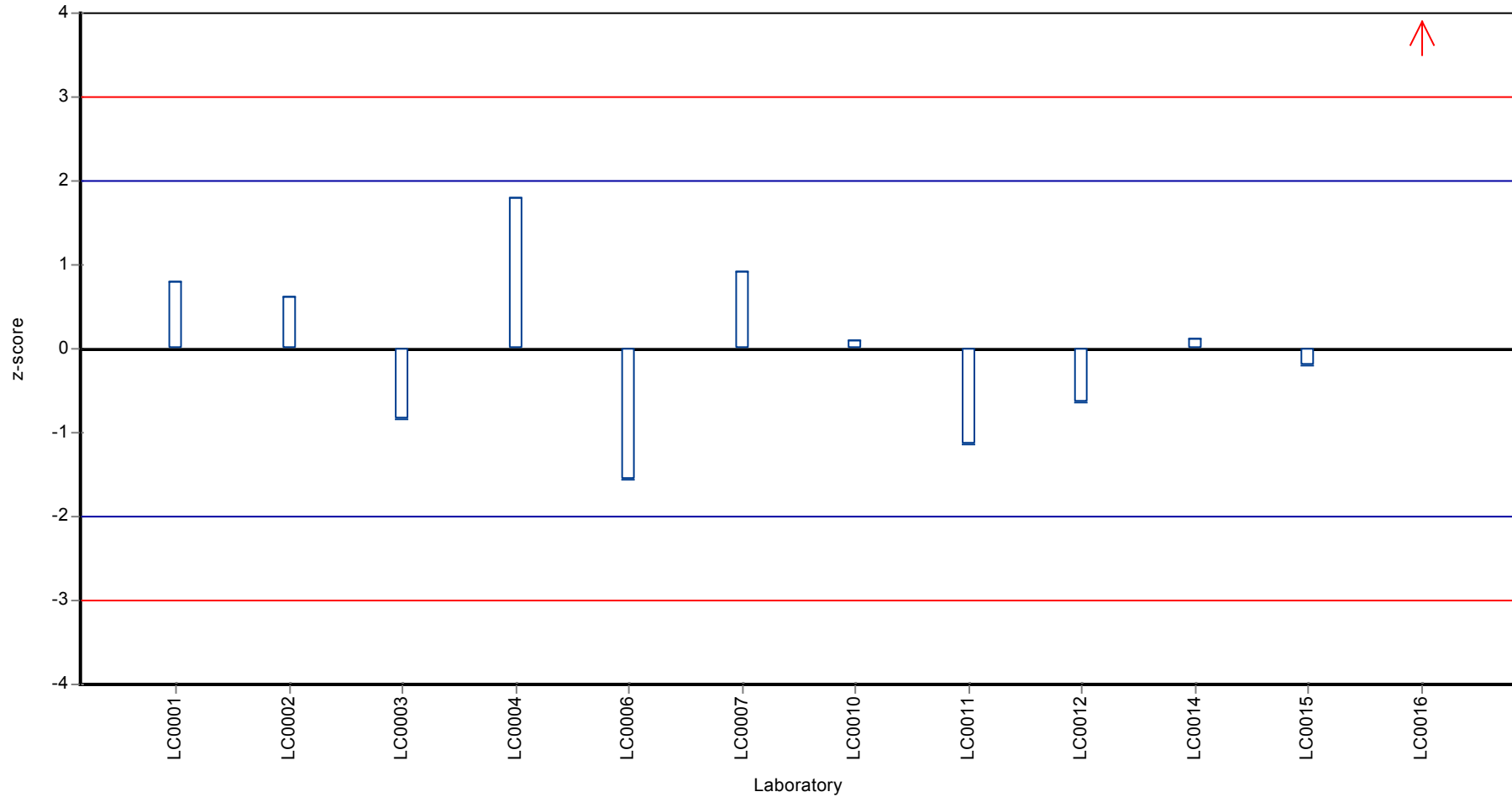
Results



Recovery rate



Z-score



## Parameter oriented report

### P17 A

#### Acenaphthylene

Unit	ng/l
Mean ± CI (99%)	331 ± 60
Minimum - Maximum	189 - 424
Control test value ± U	223 ± 11.5

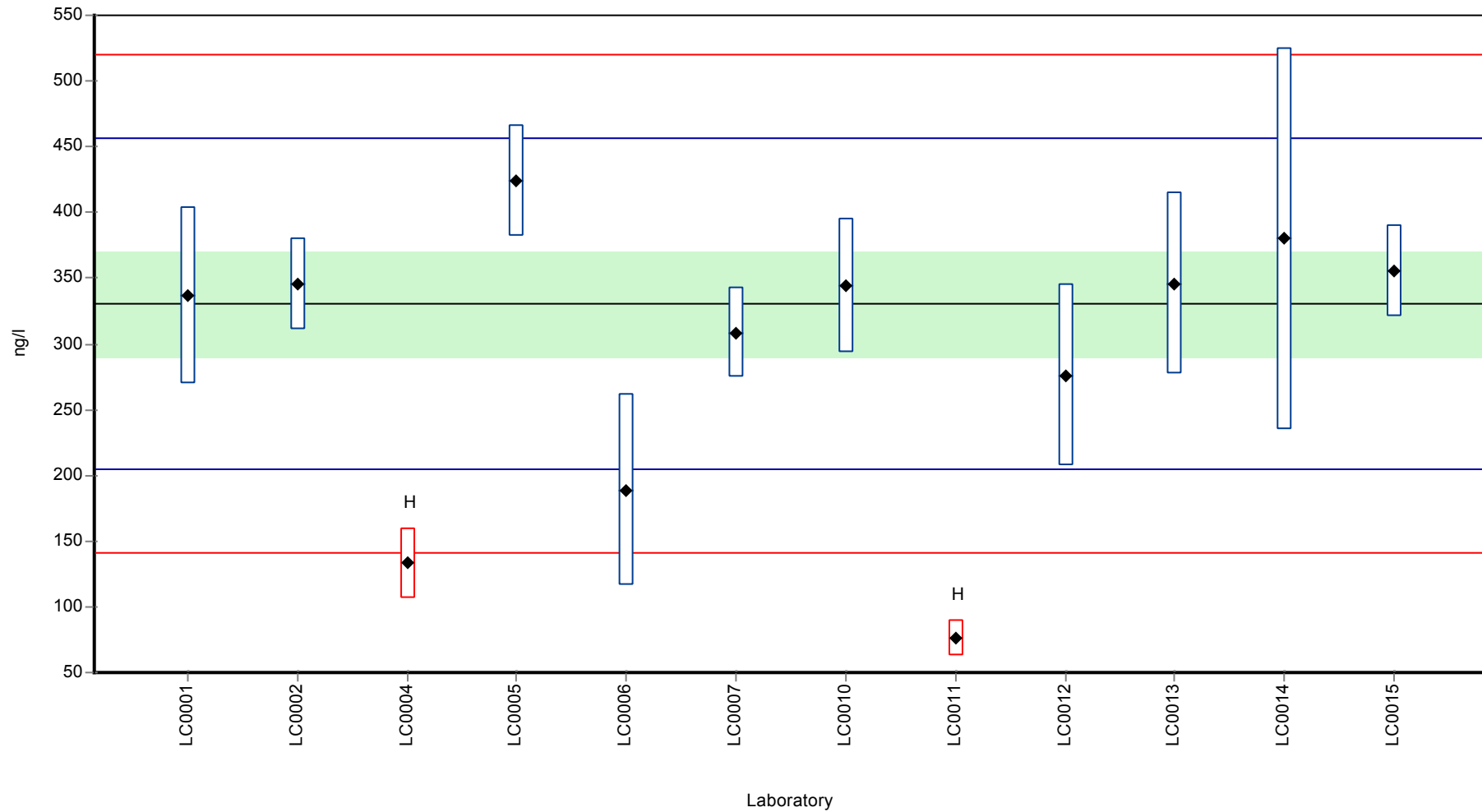
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	337	67	102	0.1	
LC0002	346	35	105	0.24	
LC0003	-	-	-	-	
LC0004	133	26.6	40.2	-3.13	H
LC0005	424	42.4	128	1.48	
LC0006	189	73	57.2	-2.24	
LC0007	308.4	34.5	93.3	-0.35	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	344.5	51	104	0.22	
LC0011	76.5	14	23.1	-4.02	H
LC0012	276.2	69.1	83.5	-0.86	
LC0013	346	69	105	0.24	
LC0014	380	145	115	0.78	
LC0015	355.3	35	107	0.39	
LC0016	-	-	-	-	

#### Characteristics of parameter

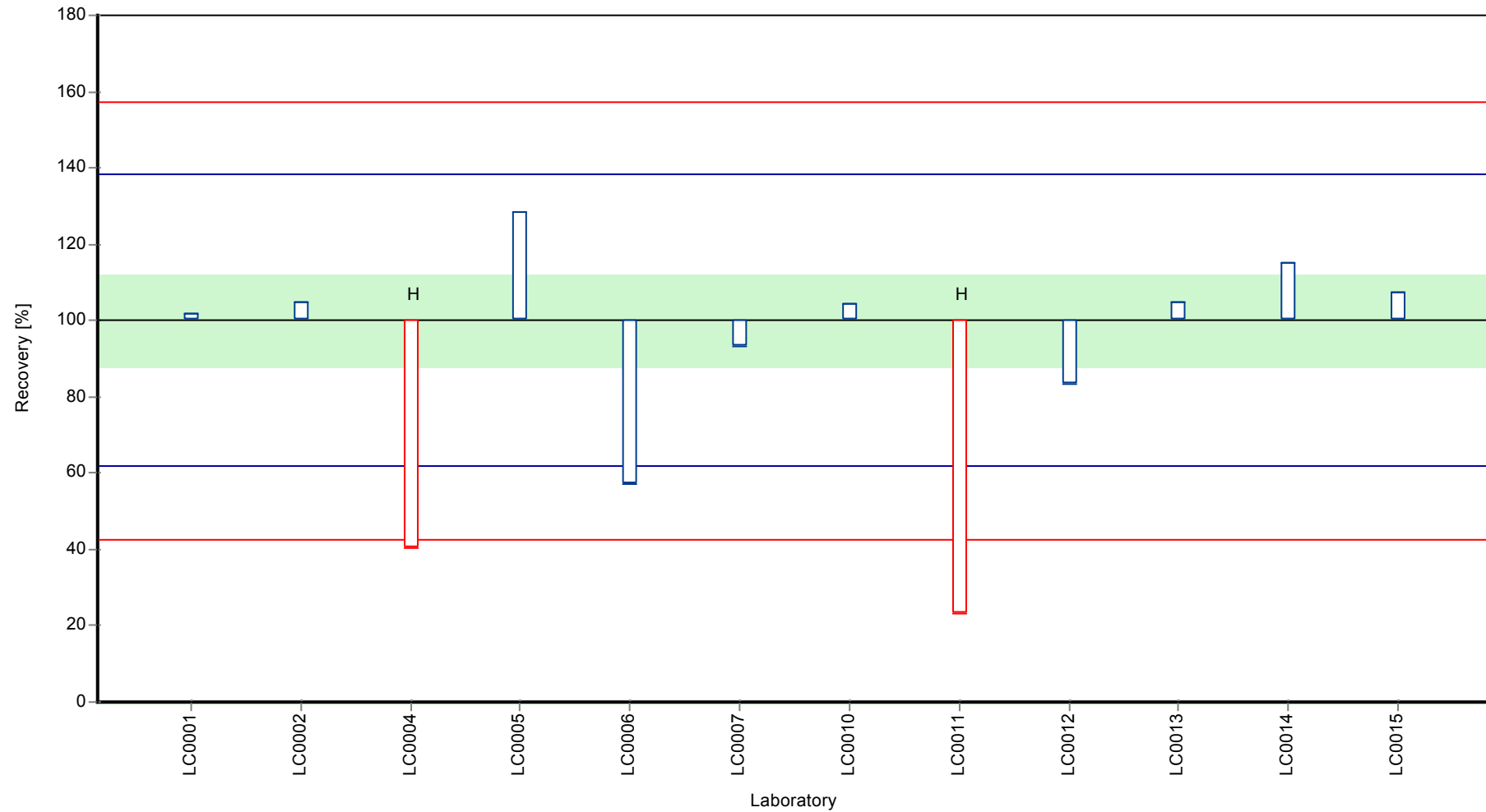
	all results	without outliers	Unit
Mean ± CI (99%)	293 ± 91.4	331 ± 60	ng/l
Minimum	76.5	189	ng/l
Maximum	424	424	ng/l
Standard deviation	106	63.2	ng/l
rel. Standard deviation	36	19.1	%
n	12	10	-

Graphical presentation of results

Results

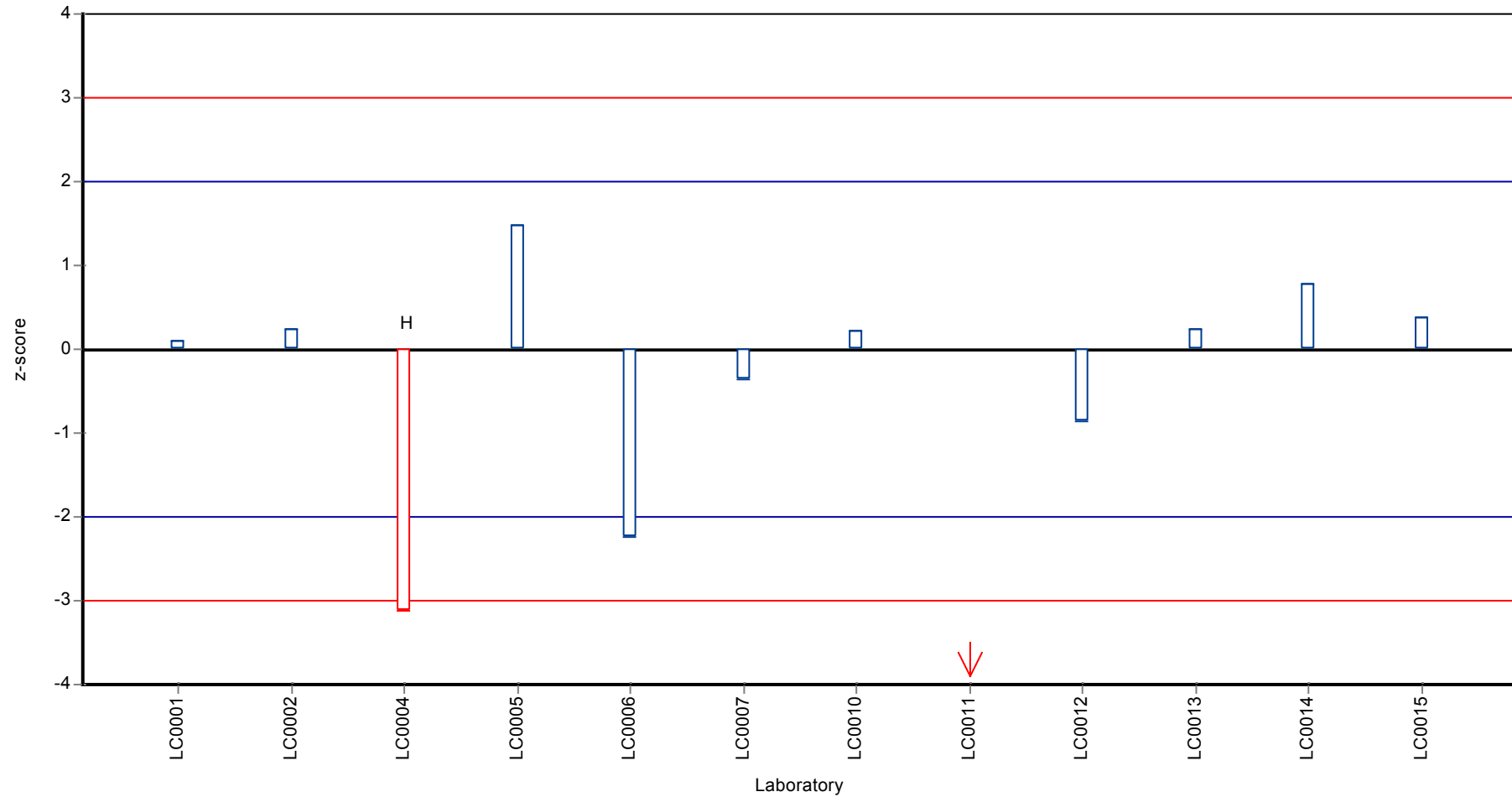


**Recovery rate**





Z-score



## Parameter oriented report

### P17 B

#### Acenaphthylene

Unit	ng/l
Mean ± CI (99%)	31.2 ± 8.51
Minimum - Maximum	20.8 - 50
Control test value ± U	20.5 ± 2.59

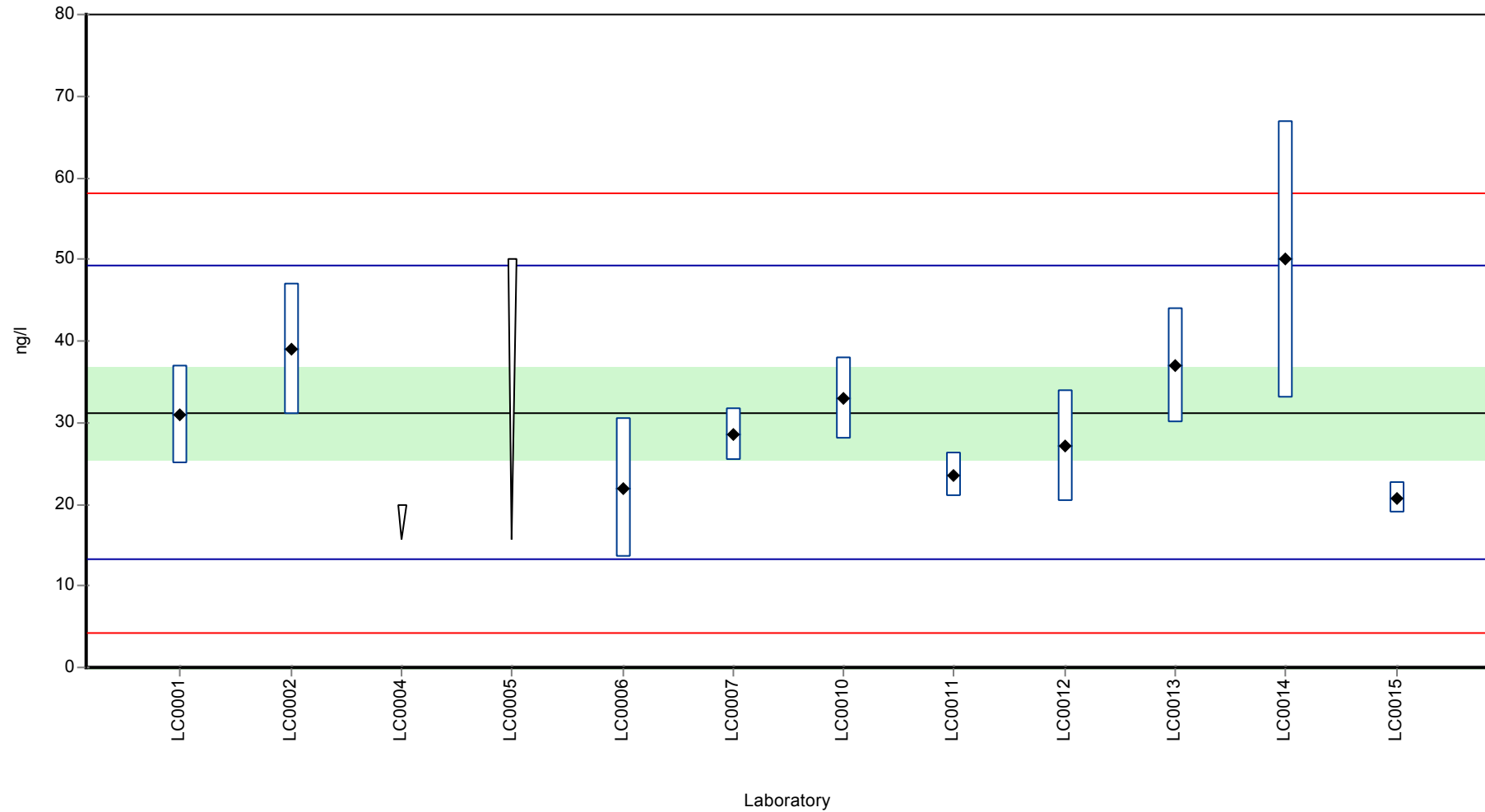
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	31	6	99.4	-0.02	
LC0002	39	8	125	0.87	
LC0003	-	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	22	8.6	70.5	-1.03	
LC0007	28.6	3.2	91.7	-0.29	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	32.9	5	105	0.19	
LC0011	23.6	2.7	75.6	-0.85	
LC0012	27.1	6.8	86.9	-0.46	
LC0013	37	7	119	0.65	
LC0014	50	17	160	2.09	
LC0015	20.8	2	66.7	-1.16	
LC0016	-	-	-	-	

#### Characteristics of parameter

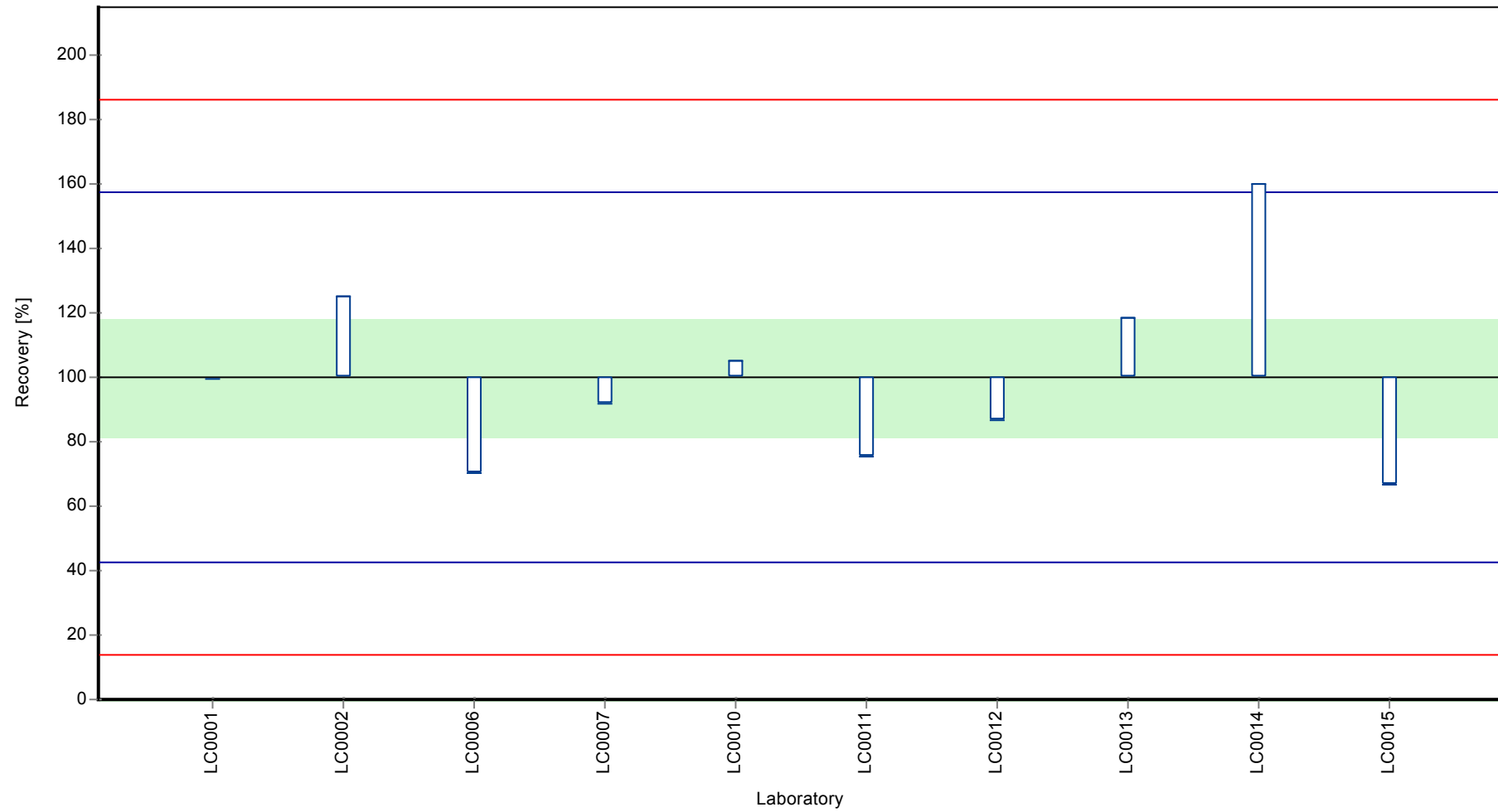
	all results	without outliers	Unit
Mean ± CI (99%)	31.2 ± 8.51	31.2 ± 8.51	ng/l
Minimum	20.8	20.8	ng/l
Maximum	50	50	ng/l
Standard deviation	8.98	8.98	ng/l
rel. Standard deviation	28.8	28.8	%
n	10	10	-

Graphical presentation of results

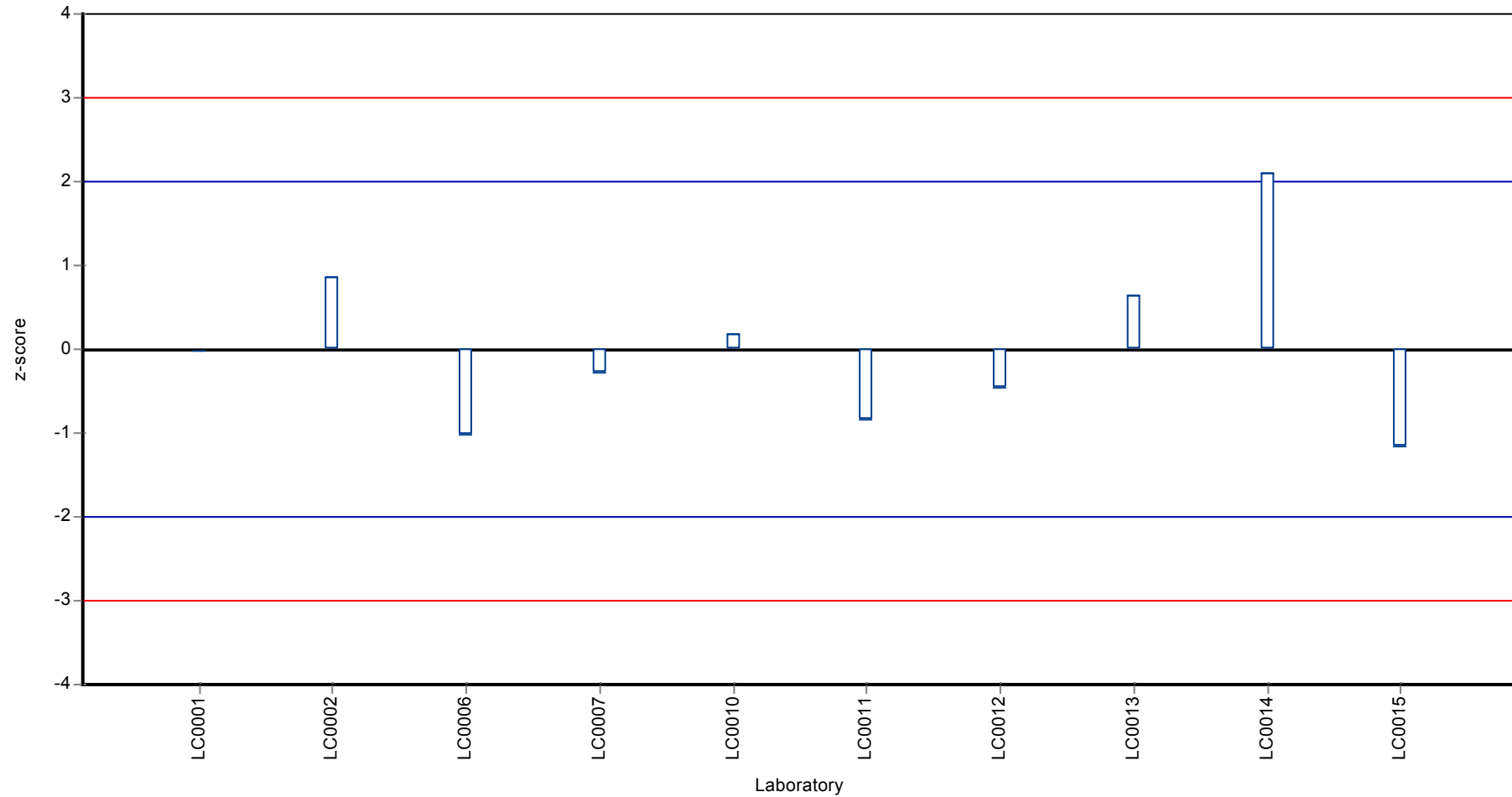
Results



**Recovery rate**



Z-score



## Parameter oriented report

### P17 A

#### Anthracene

Unit	ng/l
Mean ± CI (99%)	102 ± 33
Minimum - Maximum	44.4 - 202
Control test value ± U	86.1 ± 3.98

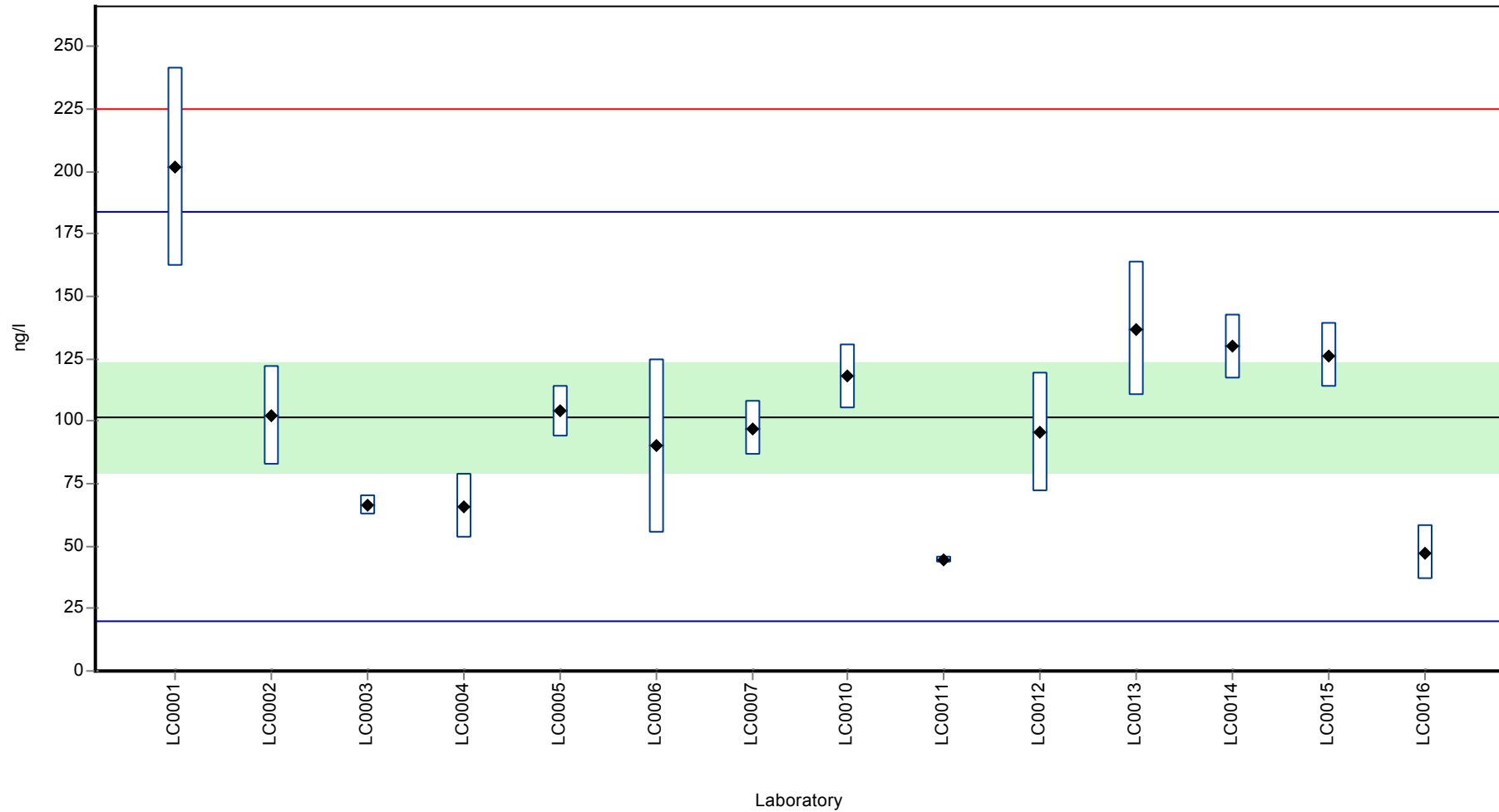
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	202	40	198	2.44	
LC0002	102	20	100	0.00	
LC0003	66.35	3.981	65.1	-0.86	
LC0004	66	13.2	64.8	-0.87	
LC0005	104	10.4	102	0.05	
LC0006	90	35	88.4	-0.29	
LC0007	97	10.9	95.2	-0.12	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	117.9	13	116	0.39	
LC0011	44.4	1.5	43.6	-1.4	
LC0012	95.7	23.9	94	-0.15	
LC0013	137	27	135	0.85	
LC0014	130	13	128	0.69	
LC0015	126.4	13	124	0.6	
LC0016	47.2	10.9	46.3	-1.33	

#### Characteristics of parameter

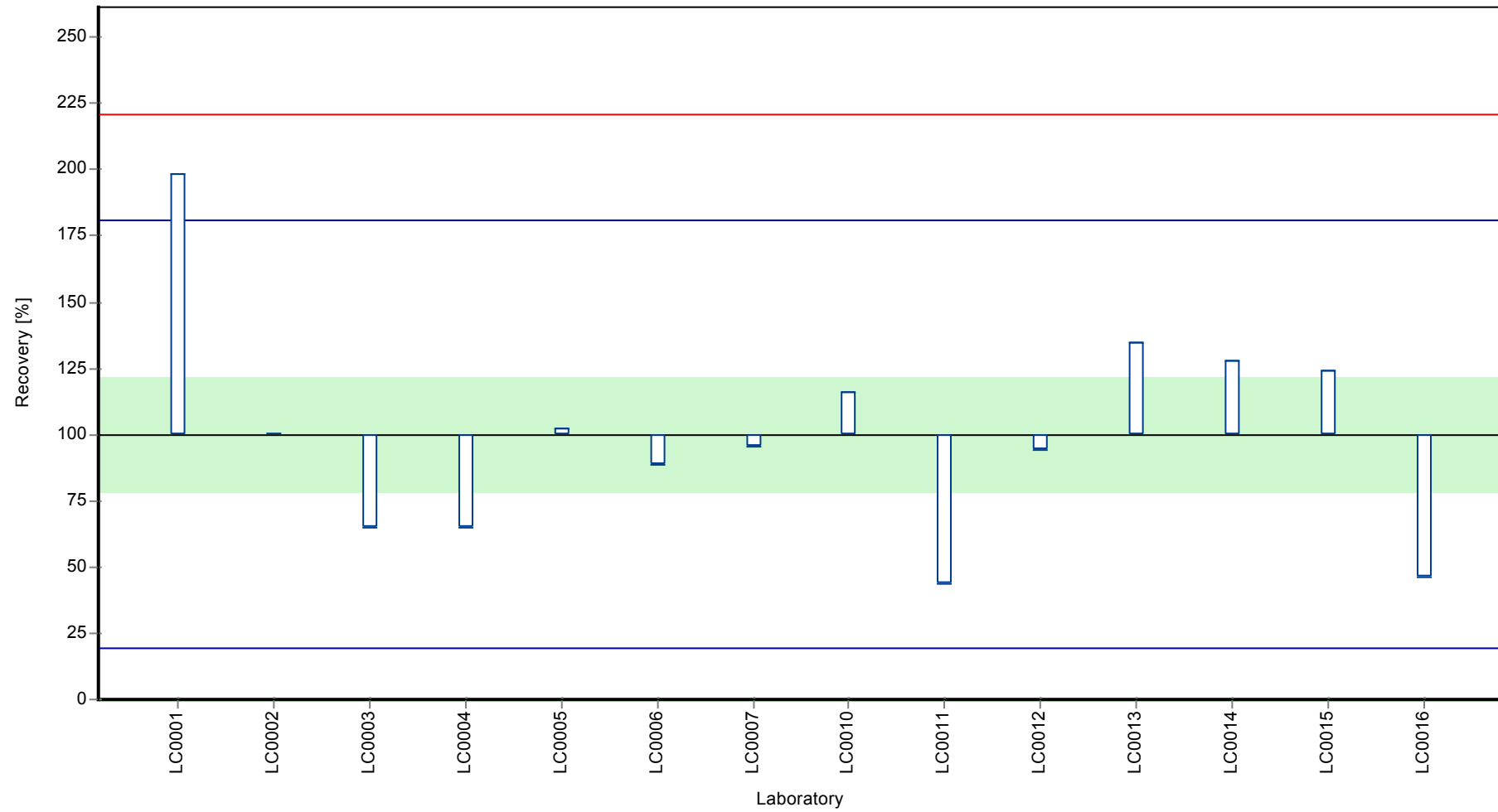
	all results	without outliers	Unit
Mean ± CI (99%)	102 ± 33	102 ± 33	ng/l
Minimum	44.4	44.4	ng/l
Maximum	202	202	ng/l
Standard deviation	41.1	41.1	ng/l
rel. Standard deviation	40.4	40.4	%
n	14	14	-

Graphical presentation of results

Results

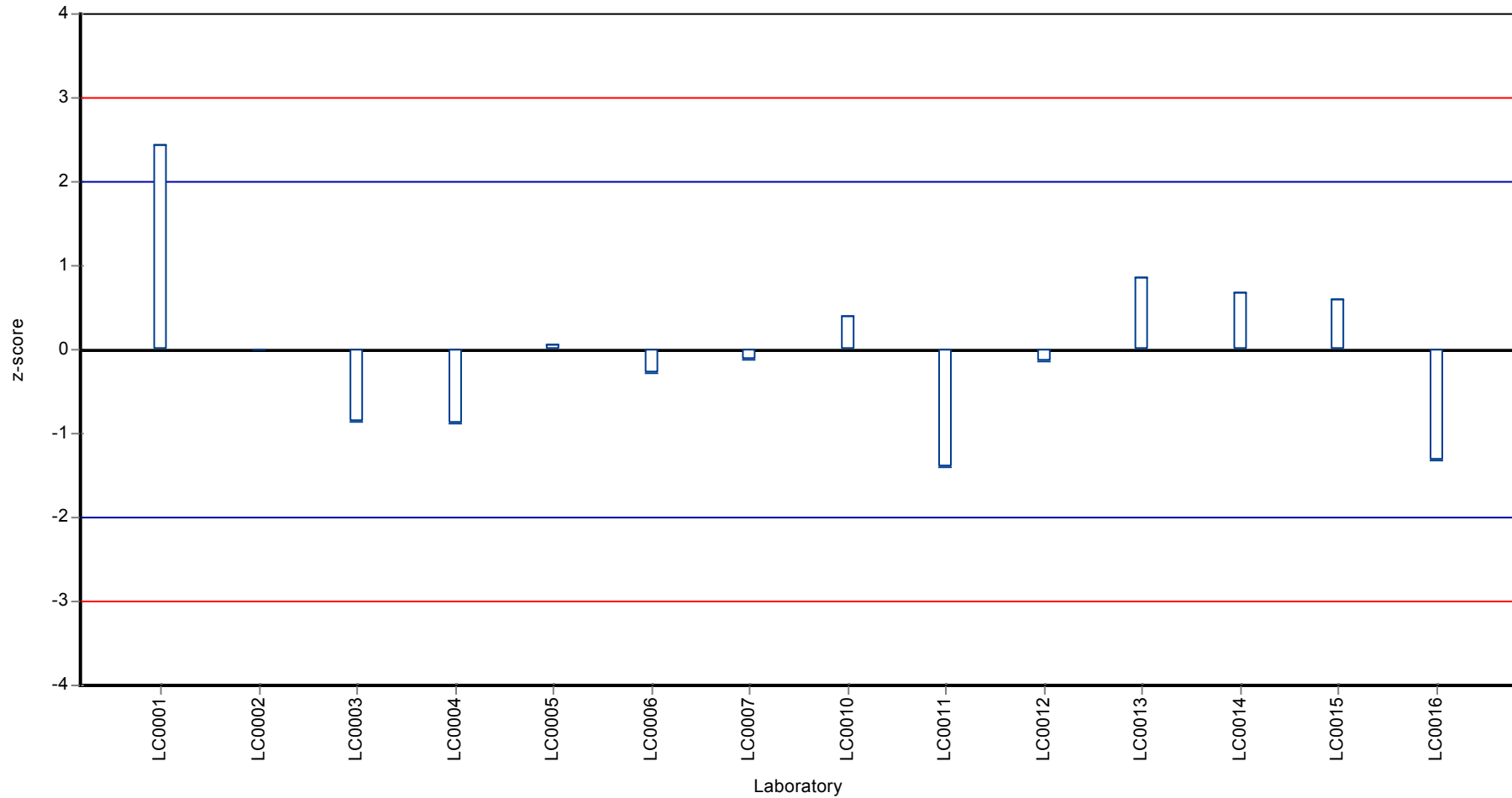


**Recovery rate**





Z-score



## Parameter oriented report

### P17 B

#### Anthracene

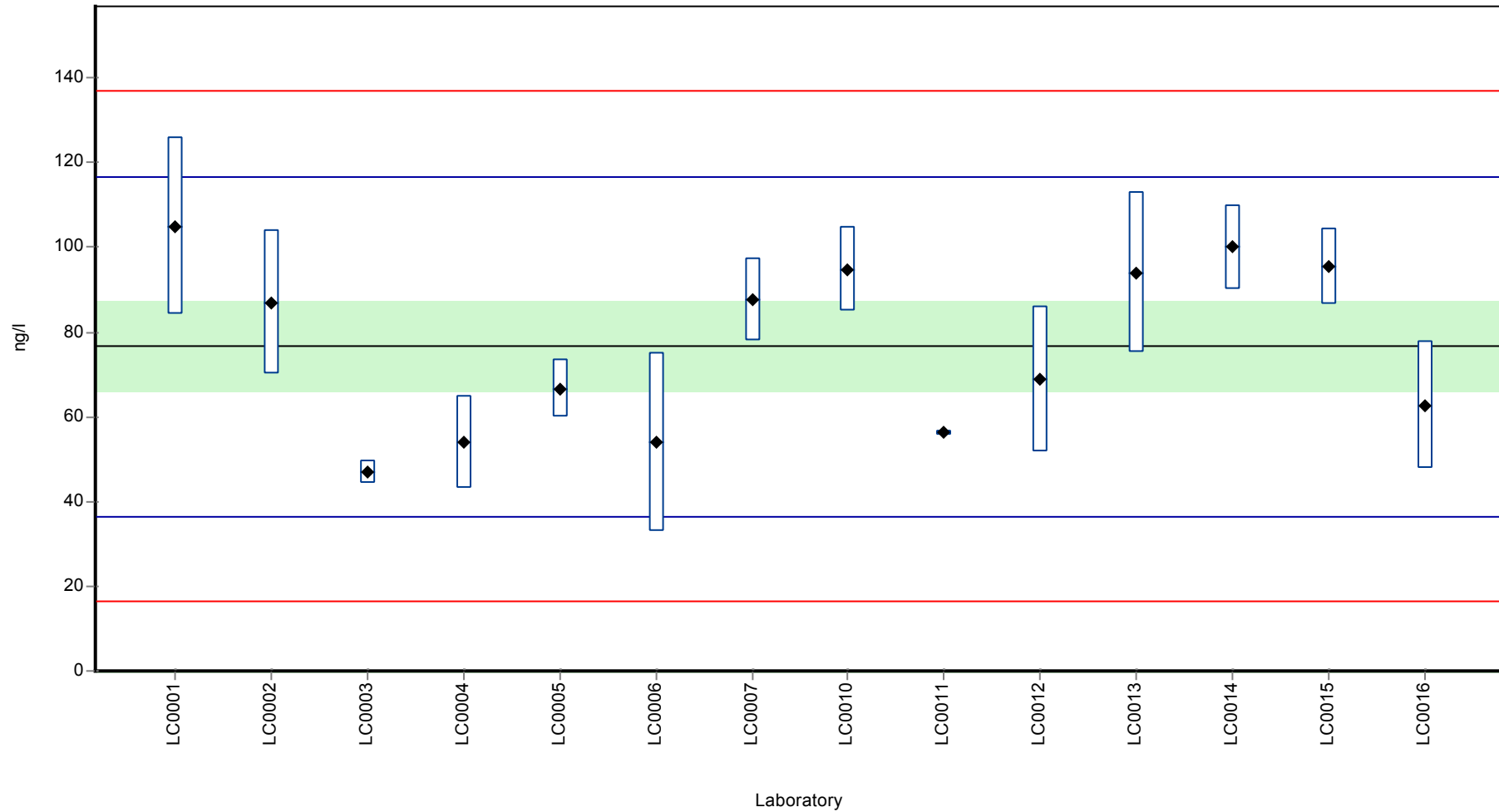
Unit	ng/l
Mean ± CI (99%)	76.7 ± 16.1
Minimum - Maximum	47 - 105
Control test value ± U	51.0 ± 5.35

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	105	21	137	1.41	
LC0002	87	17	113	0.52	
LC0003	46.95	2.817	61.2	-1.48	
LC0004	54	10.8	70.4	-1.13	
LC0005	66.7	6.7	87	-0.5	
LC0006	54	21	70.4	-1.13	
LC0007	87.6	9.81	114	0.55	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	94.8	10	124	0.9	
LC0011	56.2	0.5	73.3	-1.02	
LC0012	68.9	17.2	89.9	-0.39	
LC0013	94	19	123	0.86	
LC0014	100	10	130	1.16	
LC0015	95.3	9	124	0.93	
LC0016	62.8	15.1	81.9	-0.69	

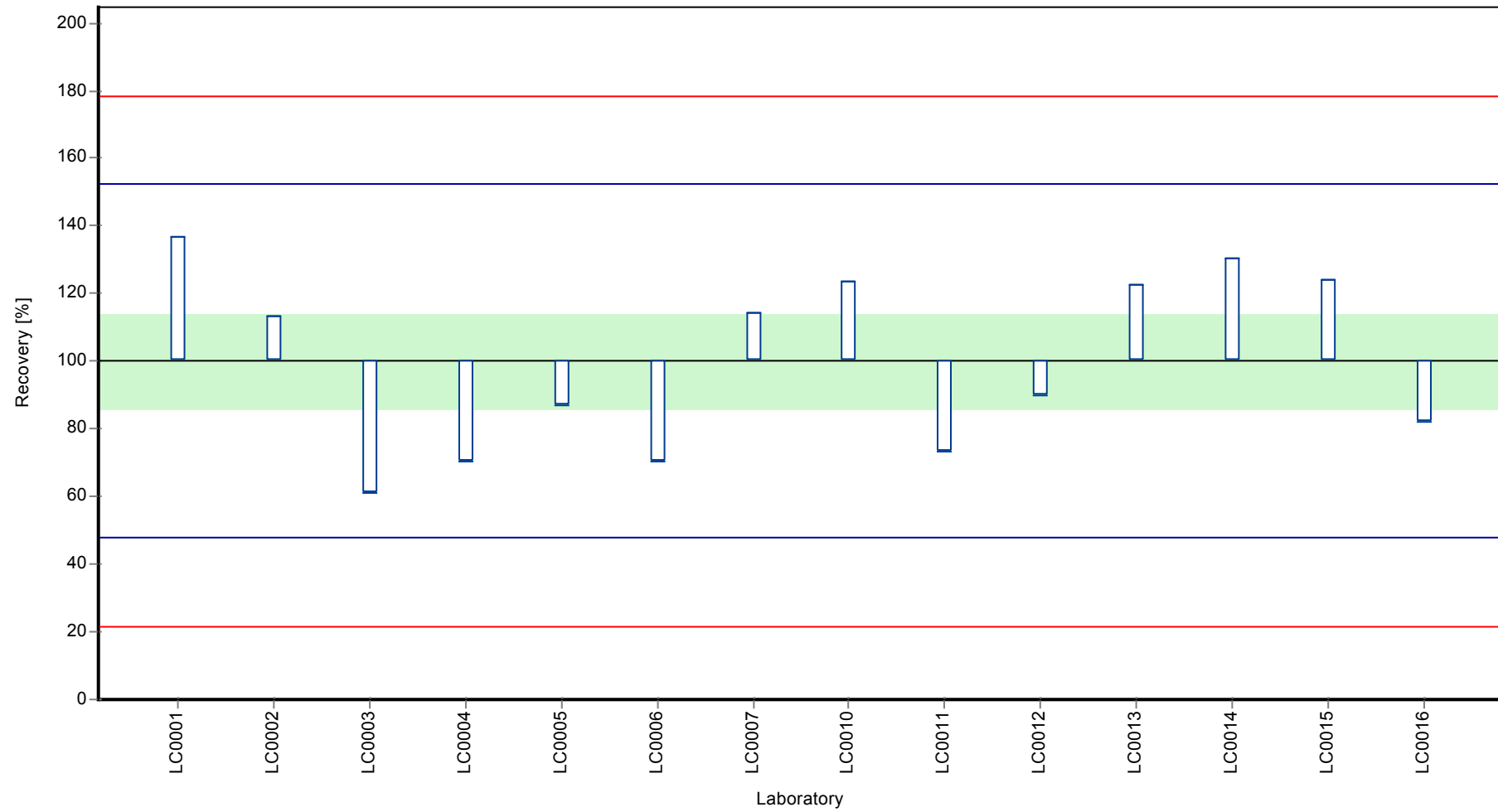
#### Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	76.7 ± 16.1	76.7 ± 16.1	ng/l
Minimum	47	47	ng/l
Maximum	105	105	ng/l
Standard deviation	20.1	20.1	ng/l
rel. Standard deviation	26.2	26.2	%
n	14	14	-

**Graphical presentation of results**  
**Results**



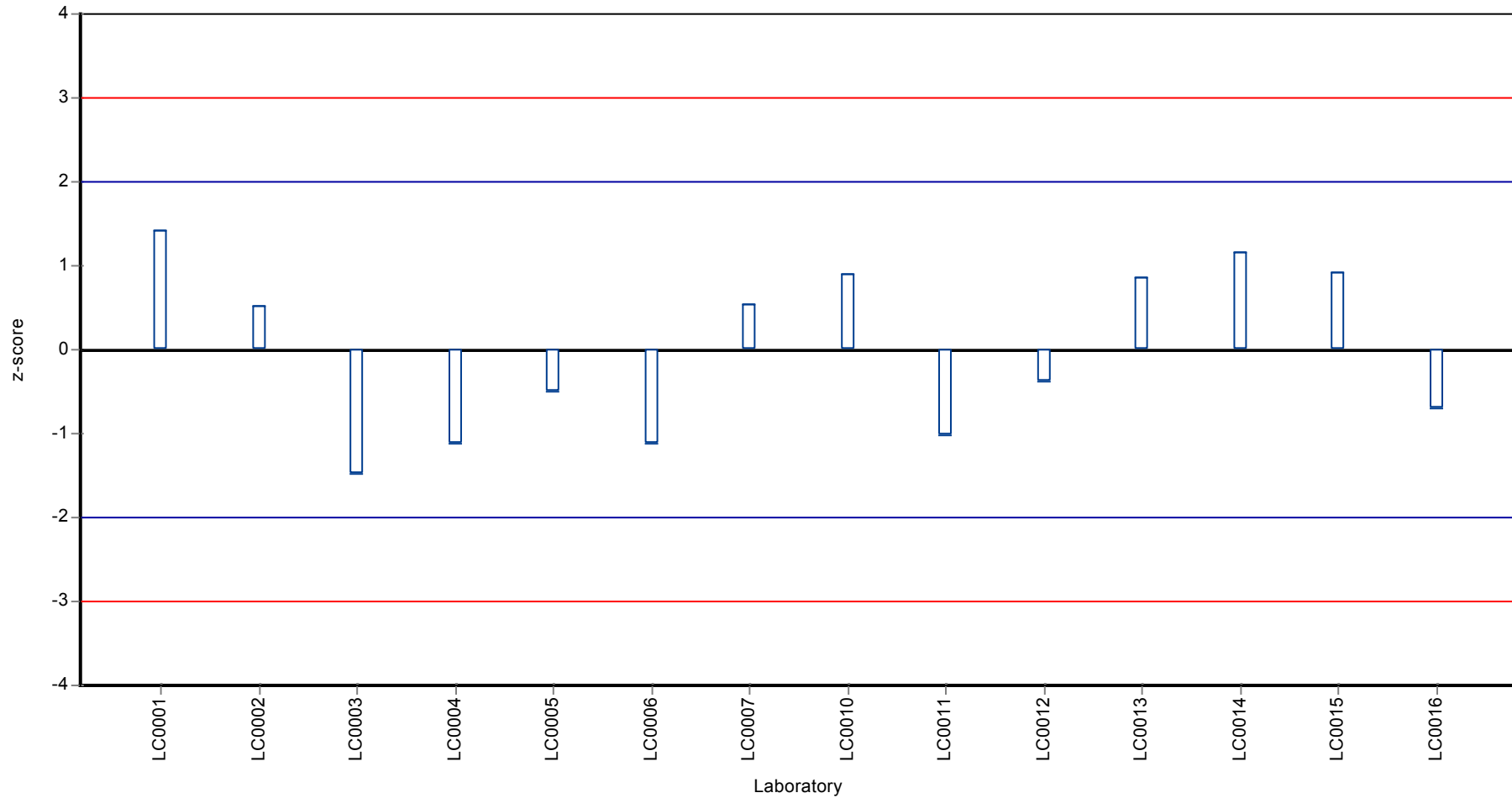
**Recovery rate**



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Anthracene

**Z-score**



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Benzo[a]anthracene

## Parameter oriented report

### P17 A

#### Benzo[a]anthracene

Unit	ng/l
Mean ± CI (99%)	54.5 ± 11.2
Minimum - Maximum	30.9 - 74.1
Control test value ± U	36.8 ± 2.84

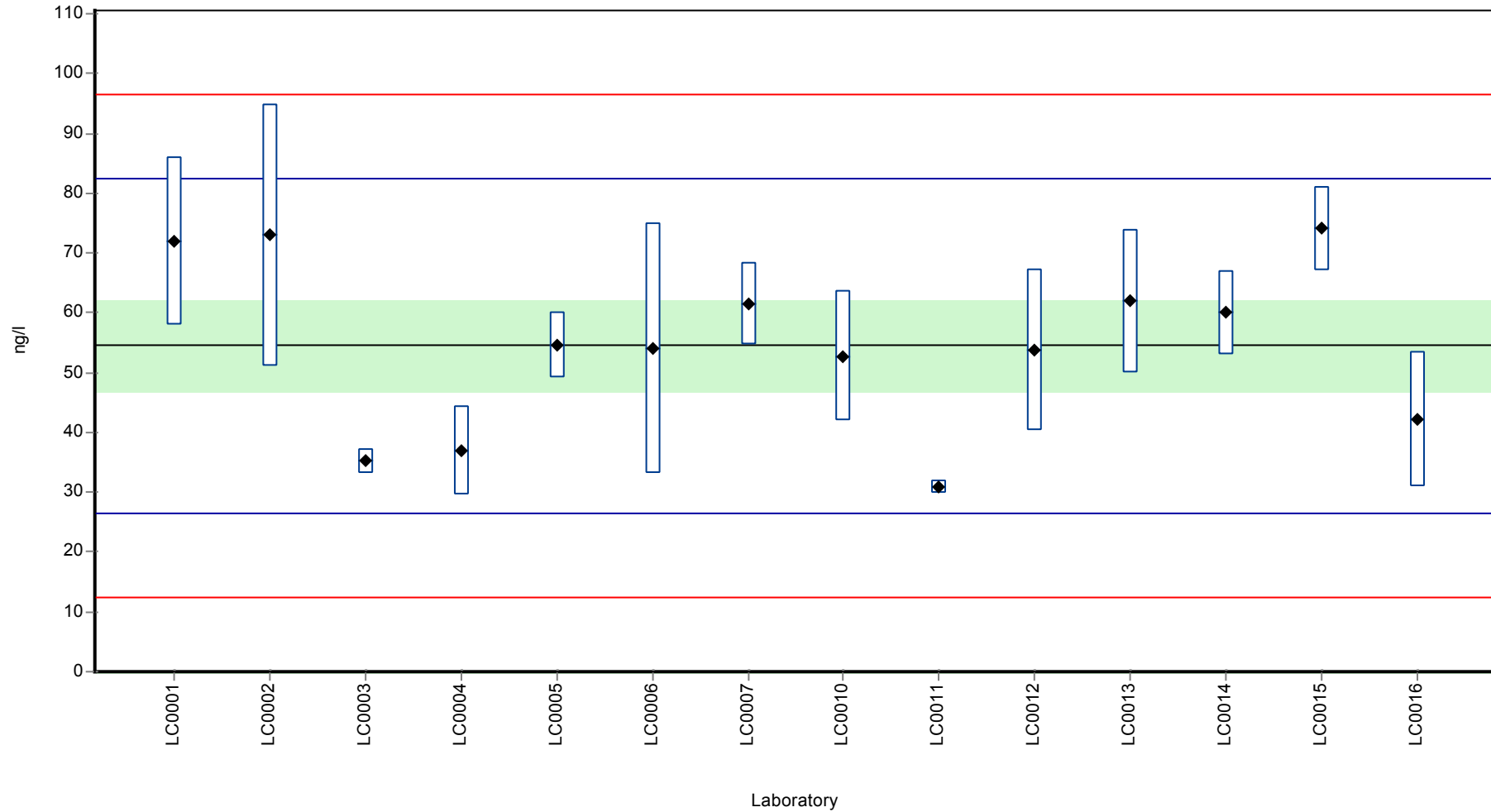
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	72	14	132	1.25	
LC0002	73	22	134	1.32	
LC0003	35.25	2.115	64.7	-1.37	
LC0004	37	7.4	67.9	-1.25	
LC0005	54.6	5.46	100	0.01	
LC0006	54	21	99.1	-0.04	
LC0007	61.4	6.88	113	0.49	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	52.8	11	96.9	-0.12	
LC0011	30.9	1.1	56.7	-1.68	
LC0012	53.8	13.5	98.7	-0.05	
LC0013	62	12	114	0.54	
LC0014	60	7	110	0.39	
LC0015	74.1	7	136	1.4	
LC0016	42.2	11.4	77.4	-0.88	

#### Characteristics of parameter

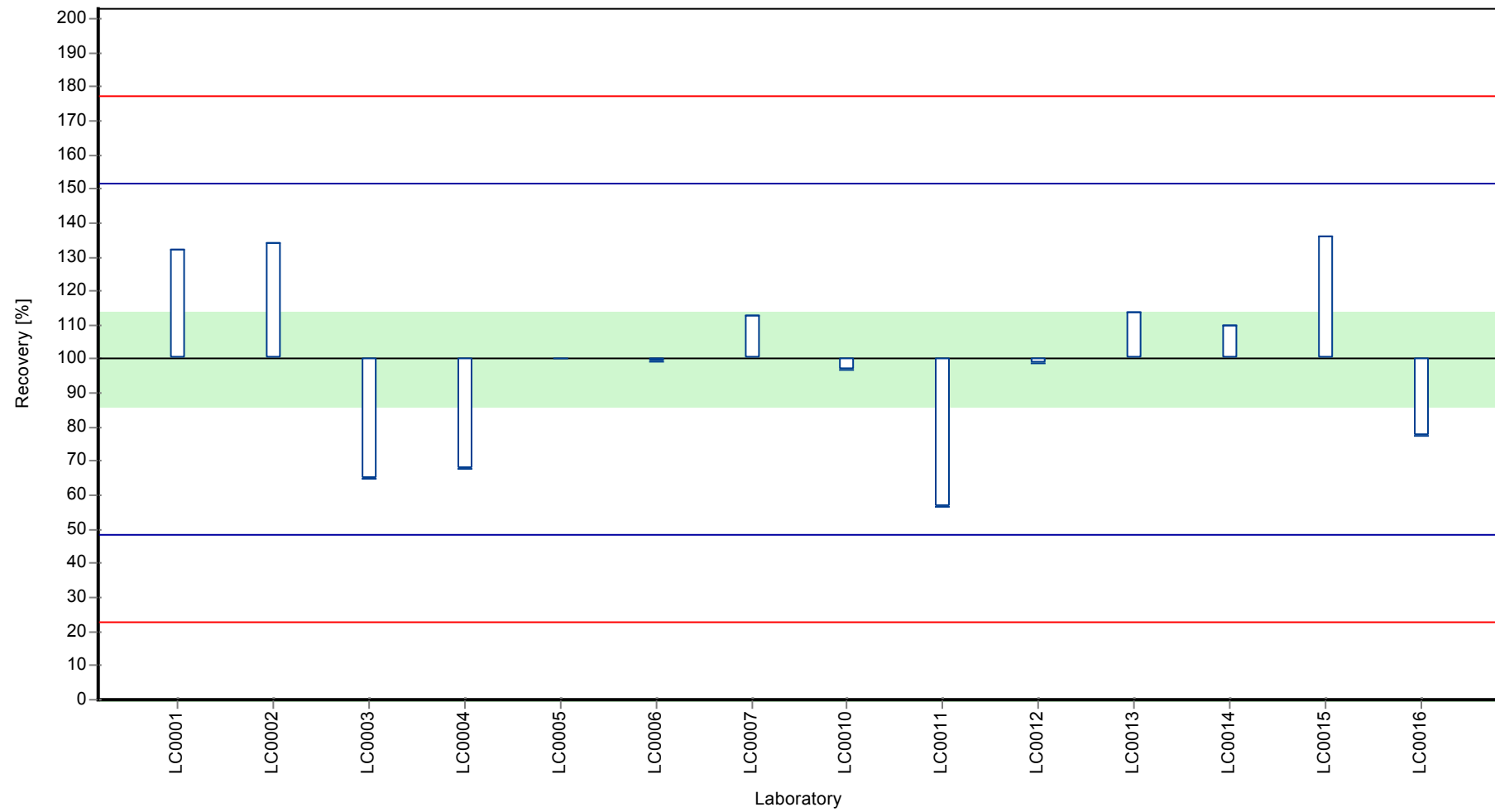
	all results	without outliers	Unit
Mean ± CI (99%)	54.5 ± 11.2	54.5 ± 11.2	ng/l
Minimum	30.9	30.9	ng/l
Maximum	74.1	74.1	ng/l
Standard deviation	14	14	ng/l
rel. Standard deviation	25.7	25.7	%
n	14	14	-

Graphical presentation of results

Results



**Recovery rate**

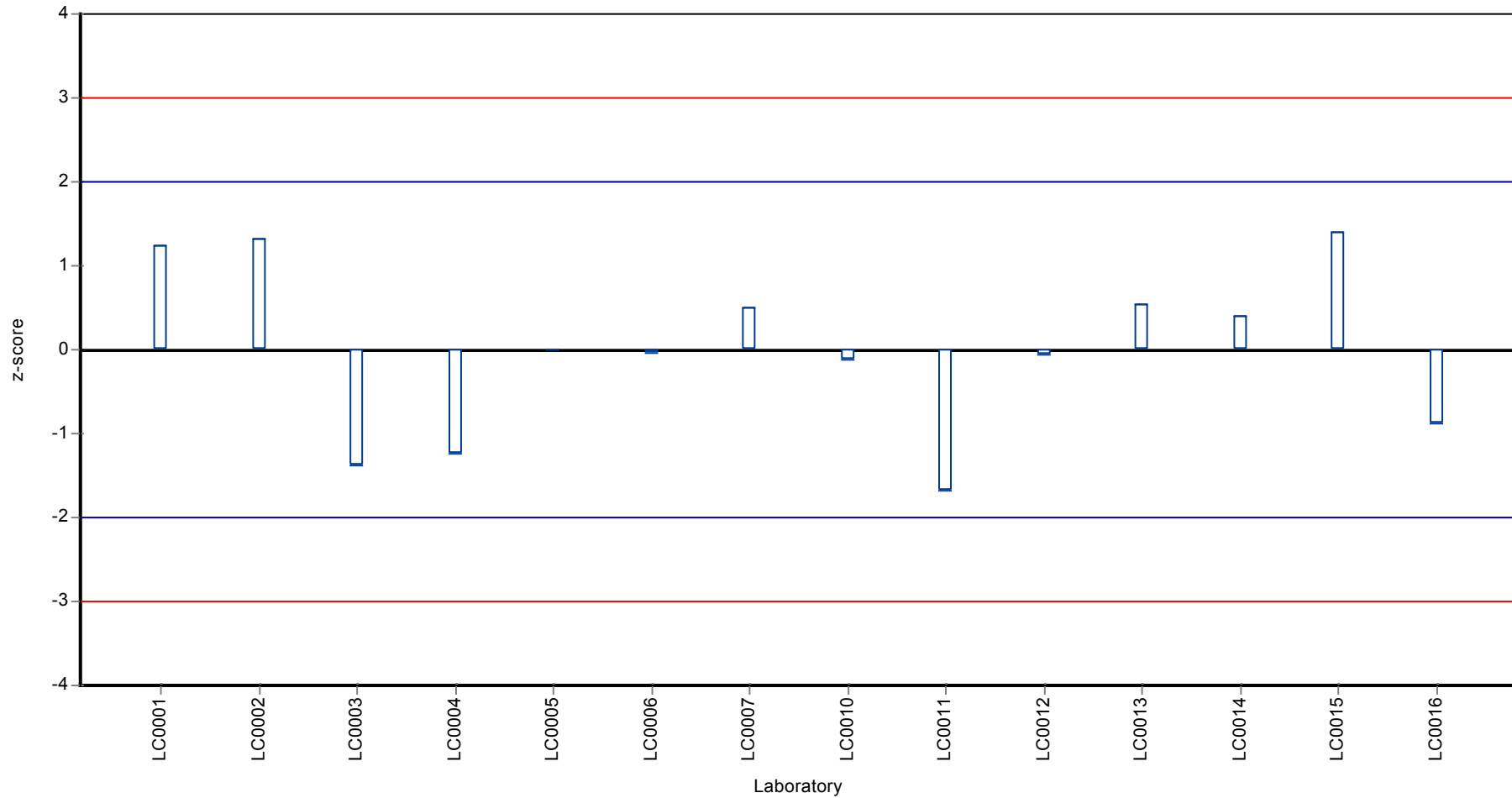




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Benzo[a]anthracene

Z-score



## Parameter oriented report

### P17 B

#### Benzo[a]anthracene

Unit	ng/l
Mean ± CI (99%)	67.8 ± 12.6
Minimum - Maximum	39 - 90
Control test value ± U	45.0 ± 6.43

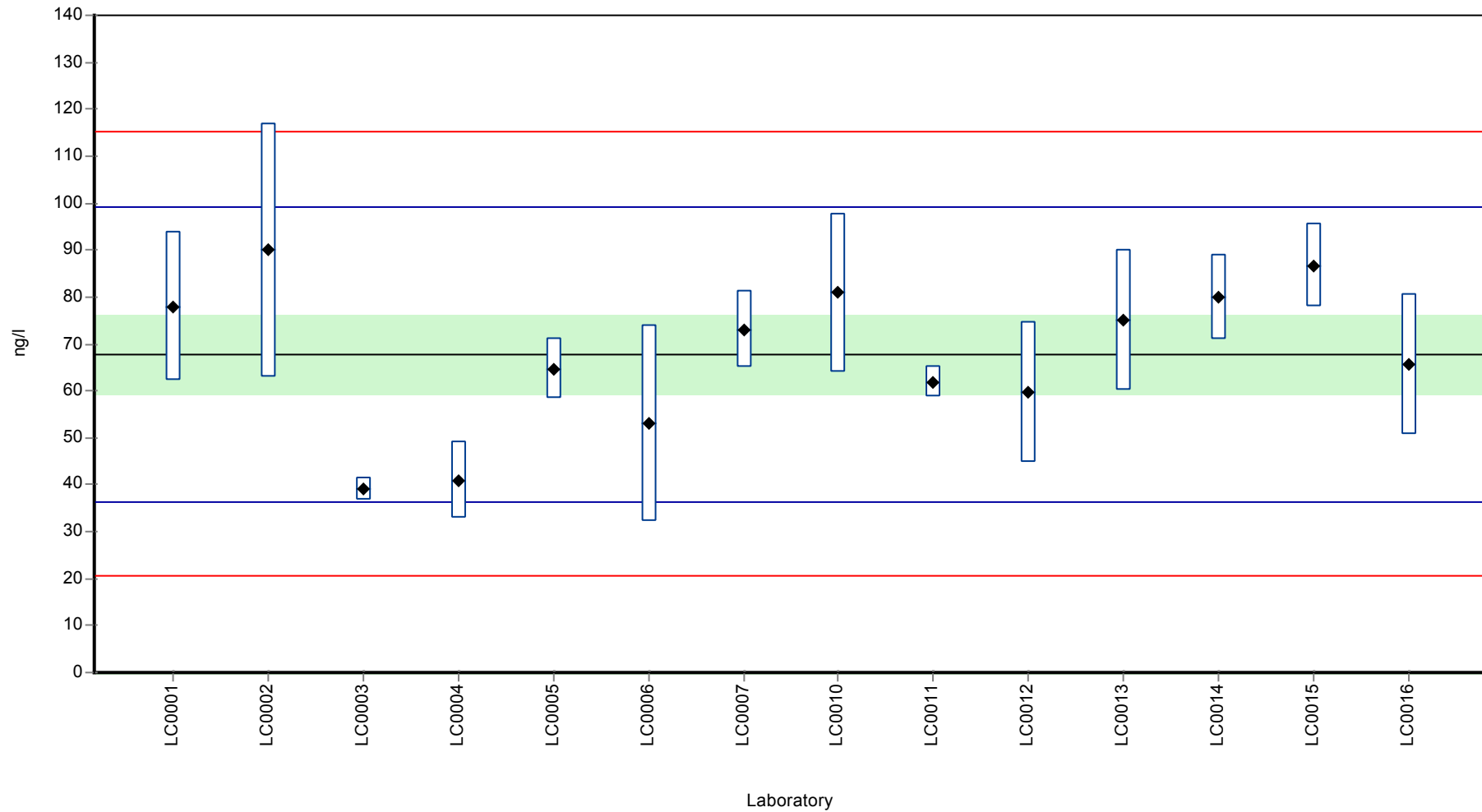
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	78	16	115	0.65	
LC0002	90	27	133	1.41	
LC0003	39.05	2.343	57.6	-1.82	
LC0004	41	8.2	60.5	-1.7	
LC0005	64.7	6.47	95.5	-0.19	
LC0006	53	21	78.2	-0.94	
LC0007	73	8.18	108	0.33	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	80.9	17	119	0.83	
LC0011	61.9	3.3	91.4	-0.37	
LC0012	59.8	15	88.3	-0.51	
LC0013	75	15	111	0.46	
LC0014	80	9	118	0.78	
LC0015	86.7	9	128	1.2	
LC0016	65.6	15.1	96.8	-0.14	

#### Characteristics of parameter

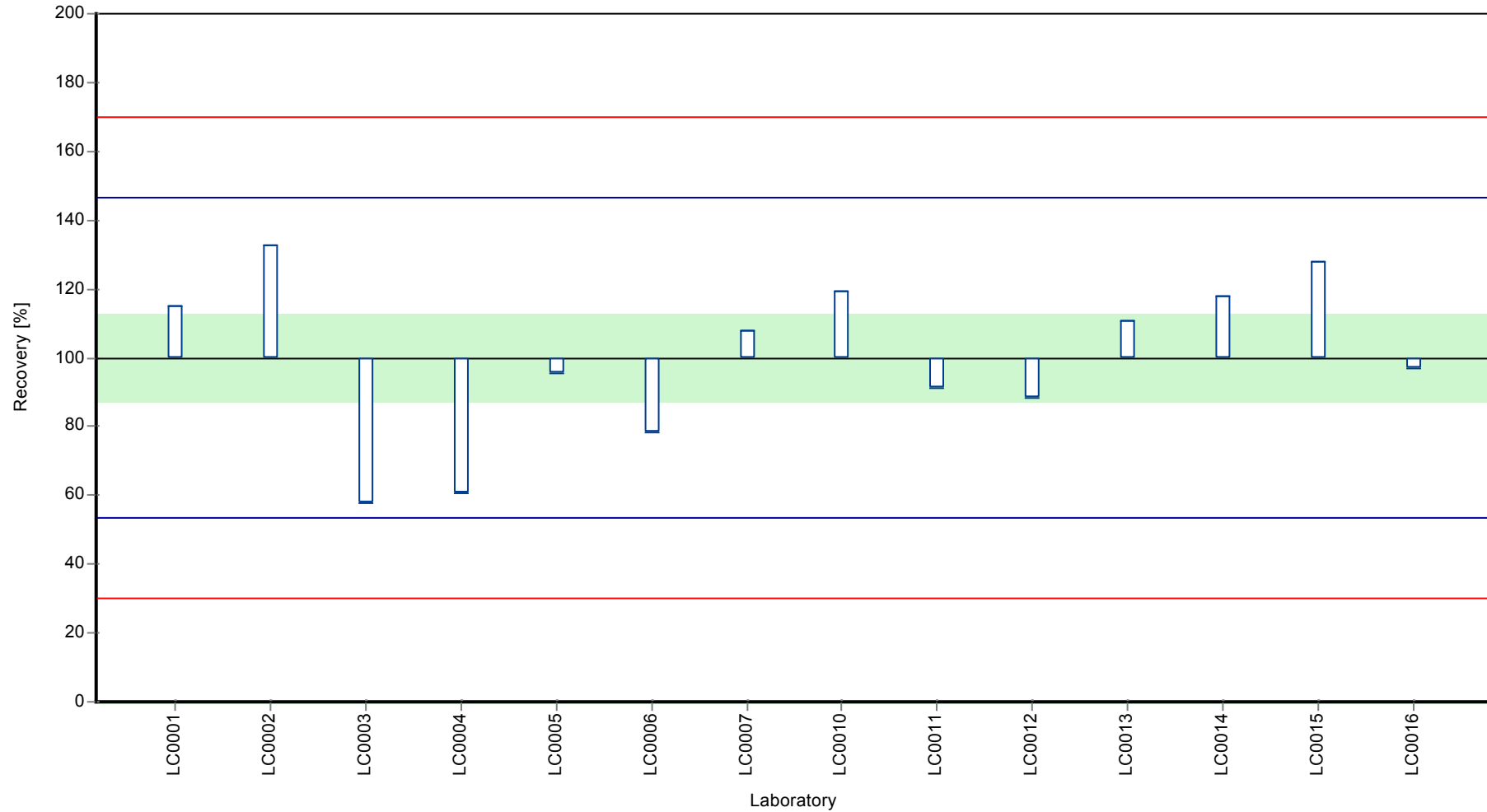
	all results	without outliers	Unit
Mean ± CI (99%)	67.8 ± 12.6	67.8 ± 12.6	ng/l
Minimum	39	39	ng/l
Maximum	90	90	ng/l
Standard deviation	15.8	15.8	ng/l
rel. Standard deviation	23.3	23.3	%
n	14	14	-

Graphical presentation of results

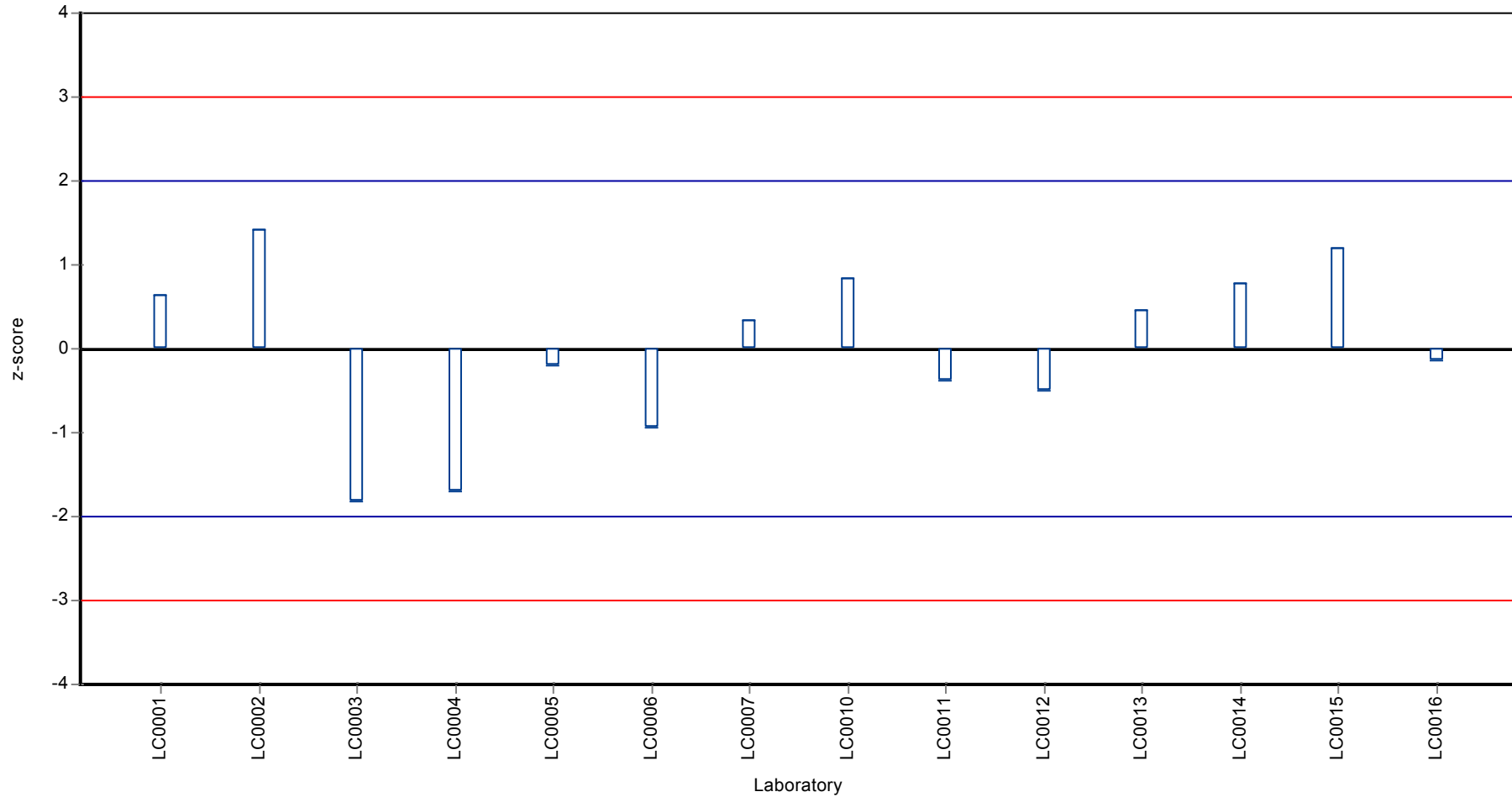
Results



**Recovery rate**



Z-score



## Parameter oriented report

### P17 A

#### Benzo[a]pyrene

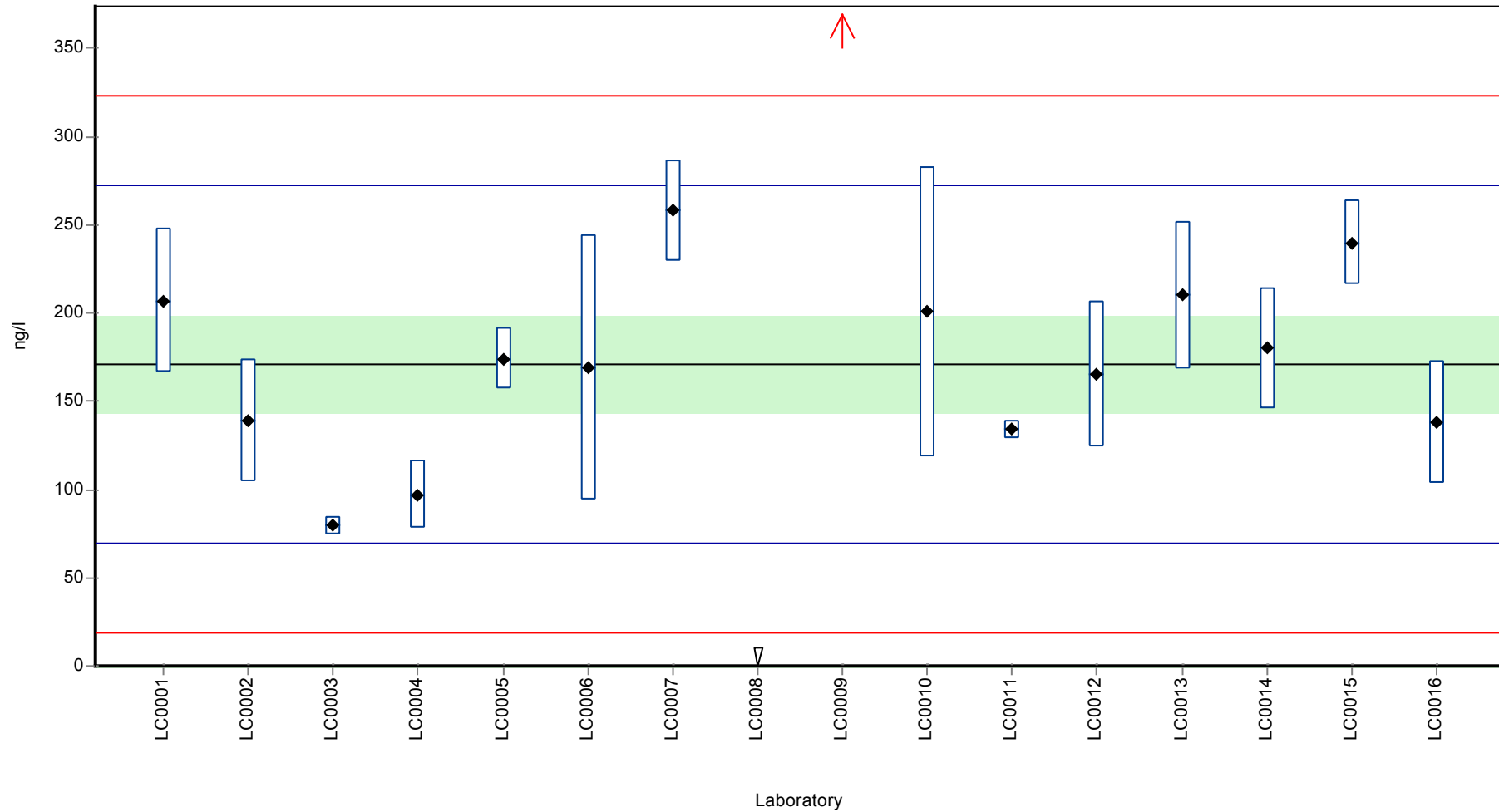
Unit	ng/l
Mean ± CI (99%)	171 ± 40.7
Minimum - Maximum	79.4 - 258
Control test value ± U	94.8 ± 7.97

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	207	41	121	0.71	
LC0002	139	35	81.4	-0.63	
LC0003	79.4	4.764	46.5	-1.8	
LC0004	97	19.4	56.8	-1.45	
LC0005	174	17.4	102	0.06	
LC0006	169	75	99	-0.04	
LC0007	258	28.9	151	1.72	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	15775	3532	9240	307	H
LC0010	200.6	82	117	0.59	
LC0011	134	4.9	78.5	-0.72	
LC0012	165.1	41.3	96.7	-0.11	
LC0013	210	42	123	0.77	
LC0014	180	34	105	0.18	
LC0015	239.9	24	140	1.36	
LC0016	138	34.5	80.8	-0.65	

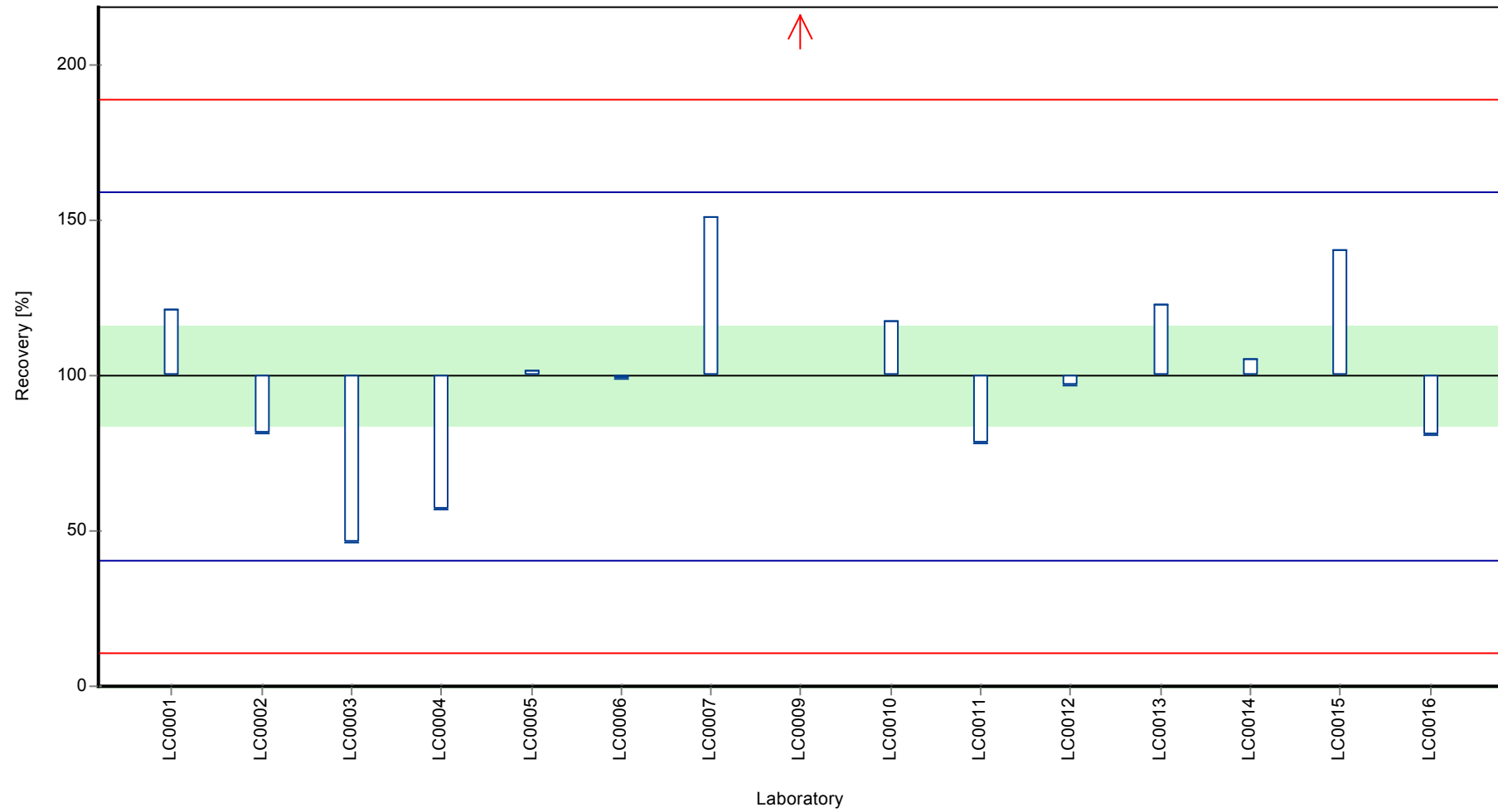
#### Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	1210 ± 3120	171 ± 40.7	ng/l
Minimum	79.4	79.4	ng/l
Maximum	15800	258	ng/l
Standard deviation	4030	50.8	ng/l
rel. Standard deviation	333	29.7	%
n	15	14	-

**Graphical presentation of results**  
**Results**



Recovery rate

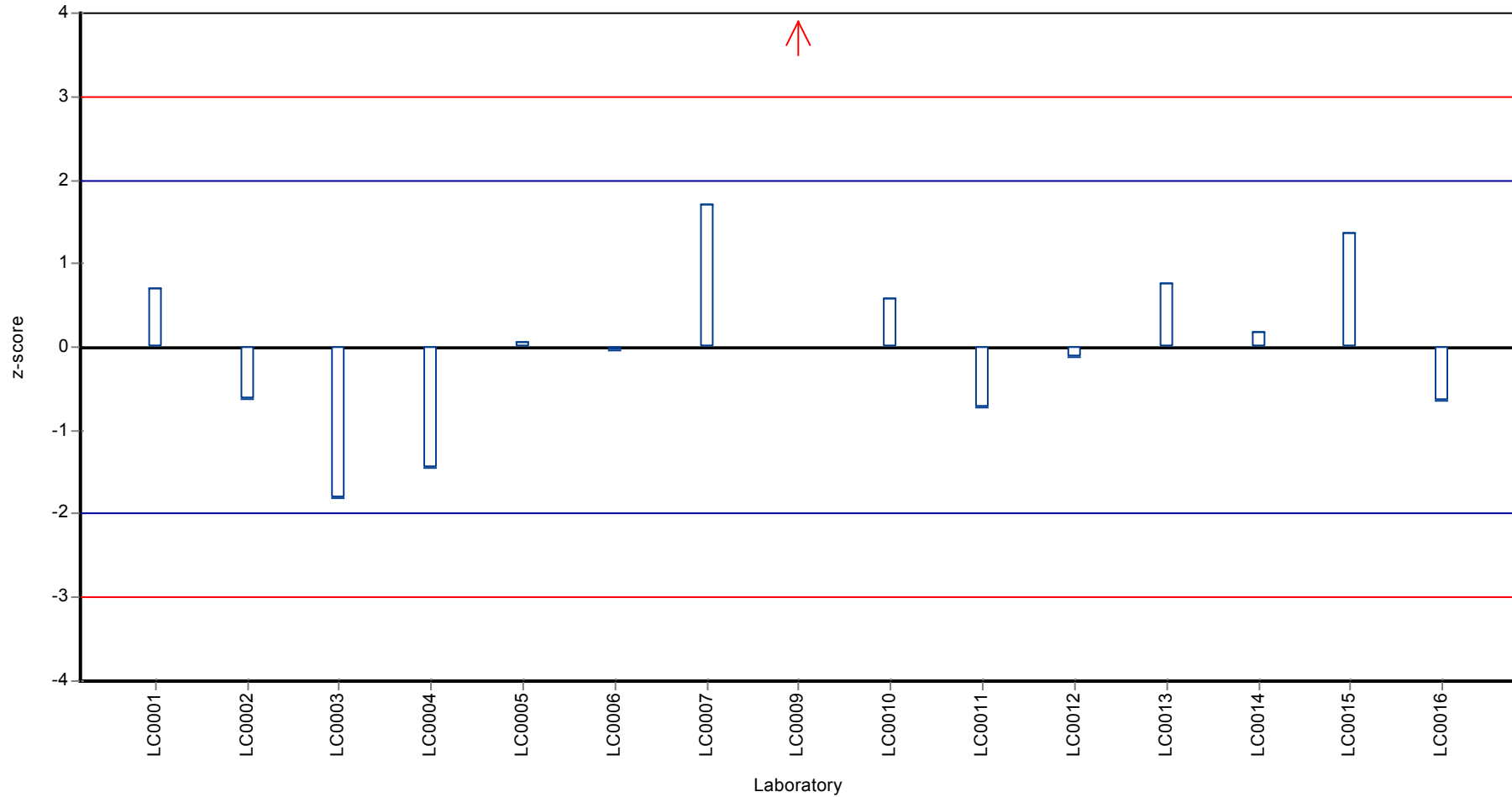




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Benzo[a]pyrene

Z-score



## Parameter oriented report

### P17 B

#### Benzo[a]pyrene

Unit	ng/l
Mean ± CI (99%)	54.2 ± 14.4
Minimum - Maximum	23.4 - 82.5
Control test value ± U	45.8 ± 23.5

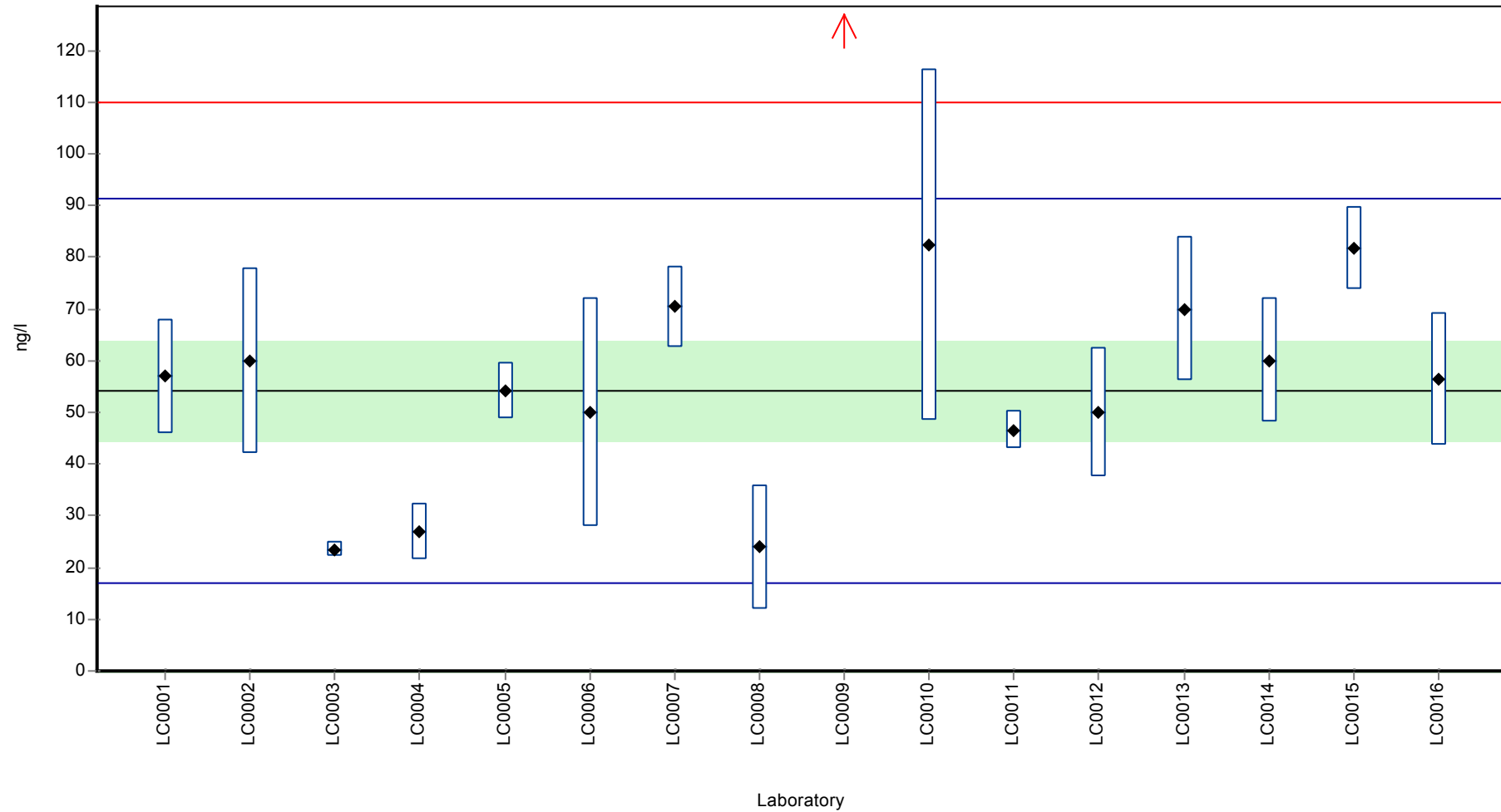
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	57	11	105	0.15	
LC0002	60	18	111	0.31	
LC0003	23.45	1.407	43.3	-1.65	
LC0004	27	5.4	49.8	-1.46	
LC0005	54.1	5.4	99.8	-0.01	
LC0006	50	22	92.2	-0.23	
LC0007	70.4	7.88	130	0.87	
LC0008	24	12	44.3	-1.63	
LC0009	4760	1065	8780	253	H
LC0010	82.5	34	152	1.52	
LC0011	46.5	3.7	85.8	-0.41	
LC0012	50	12.5	92.2	-0.23	
LC0013	70	14	129	0.85	
LC0014	60	12	111	0.31	
LC0015	81.6	8	151	1.47	
LC0016	56.5	12.9	104	0.12	

#### Characteristics of parameter

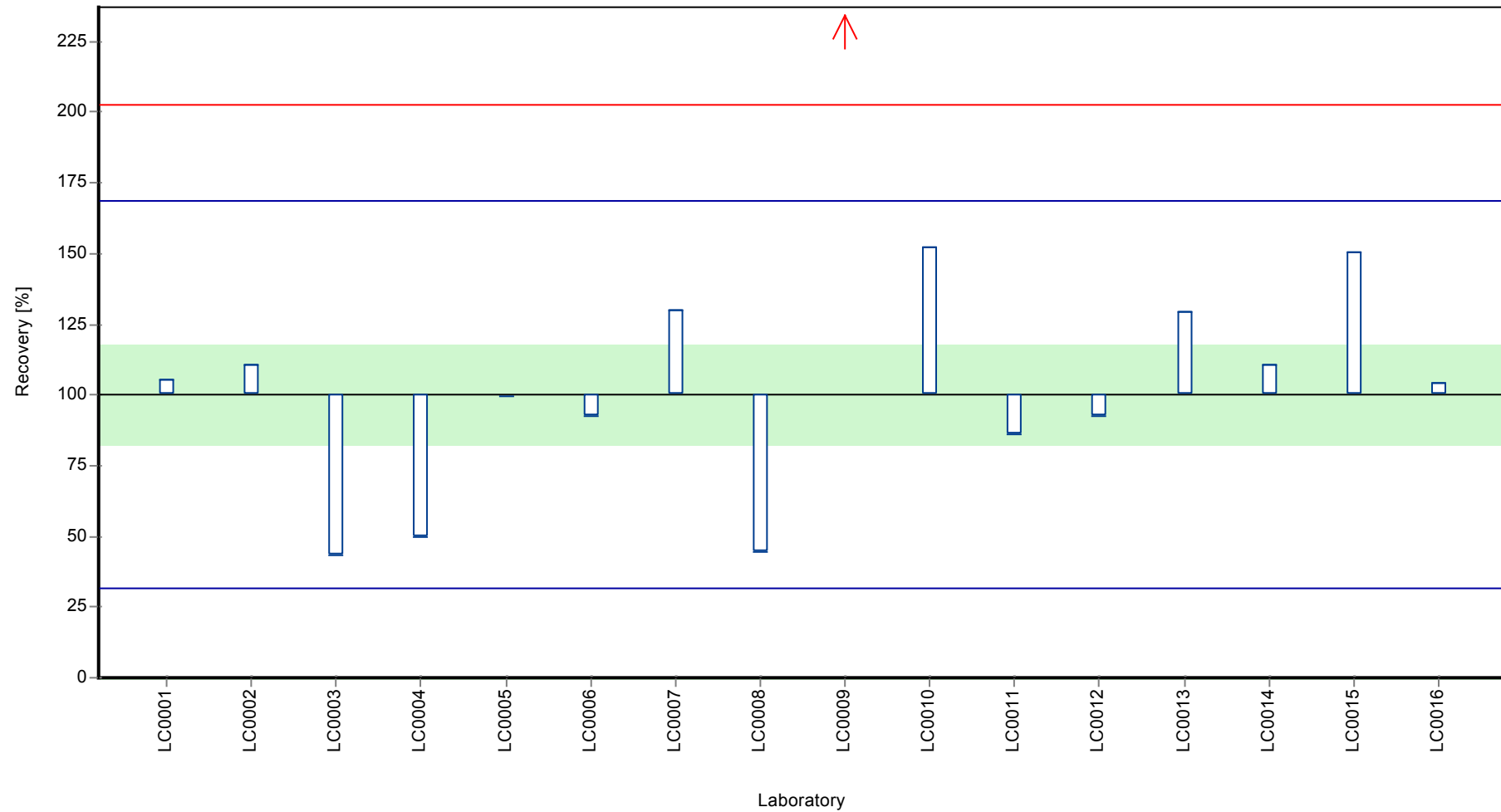
	all results	without outliers	Unit
Mean ± CI (99%)	348 ± 882	54.2 ± 14.4	ng/l
Minimum	23.4	23.4	ng/l
Maximum	4760	82.5	ng/l
Standard deviation	1180	18.6	ng/l
rel. Standard deviation	338	34.3	%
n	16	15	-

Graphical presentation of results

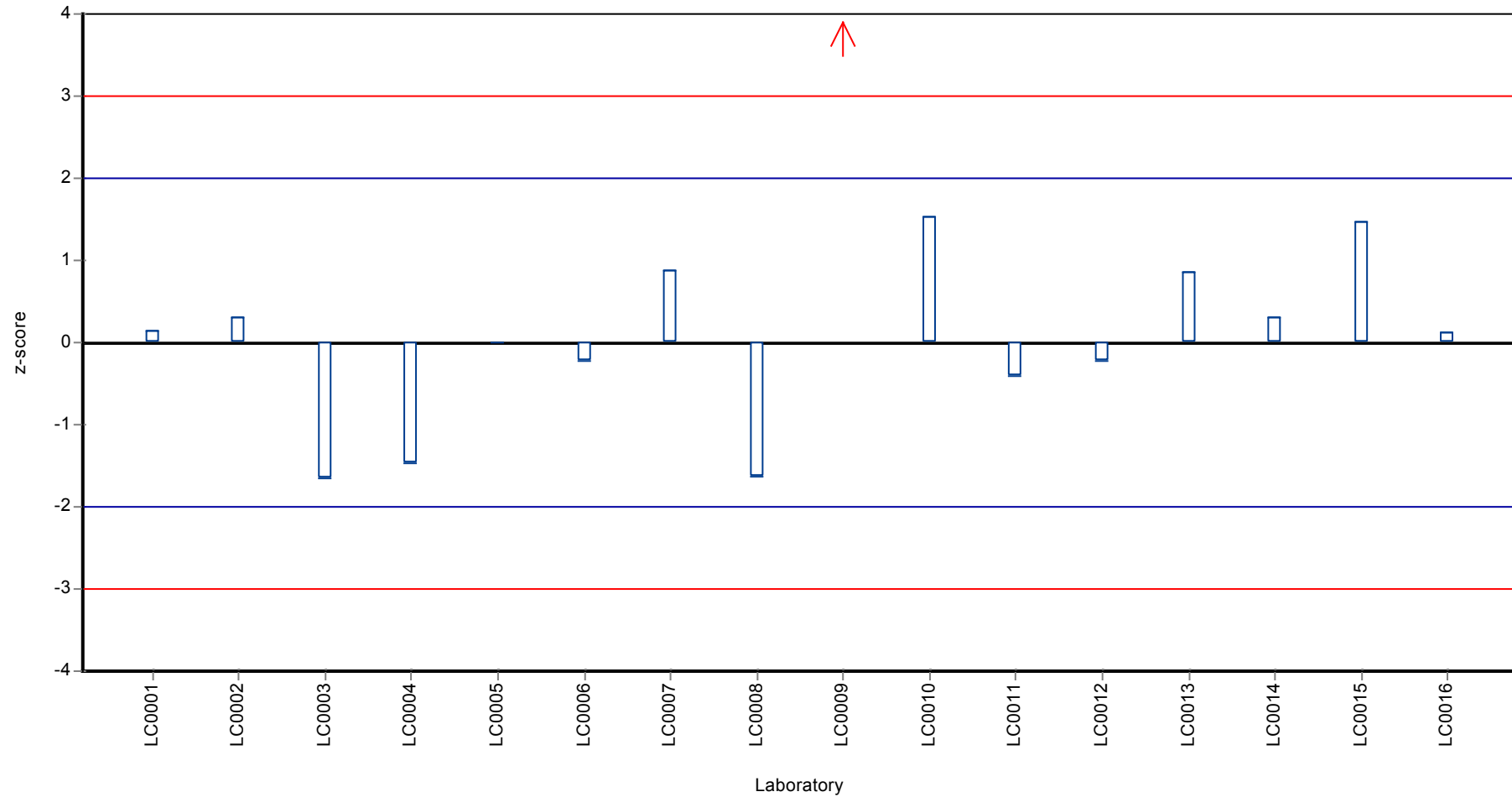
Results



Recovery rate



Z-score



## Parameter oriented report

### P17 A

#### Benzo[b]fluoranthene

Unit	ng/l
Mean ± CI (99%)	70.1 ± 18
Minimum - Maximum	23 - 108
Control test value ± U	40.7 ± 2.63

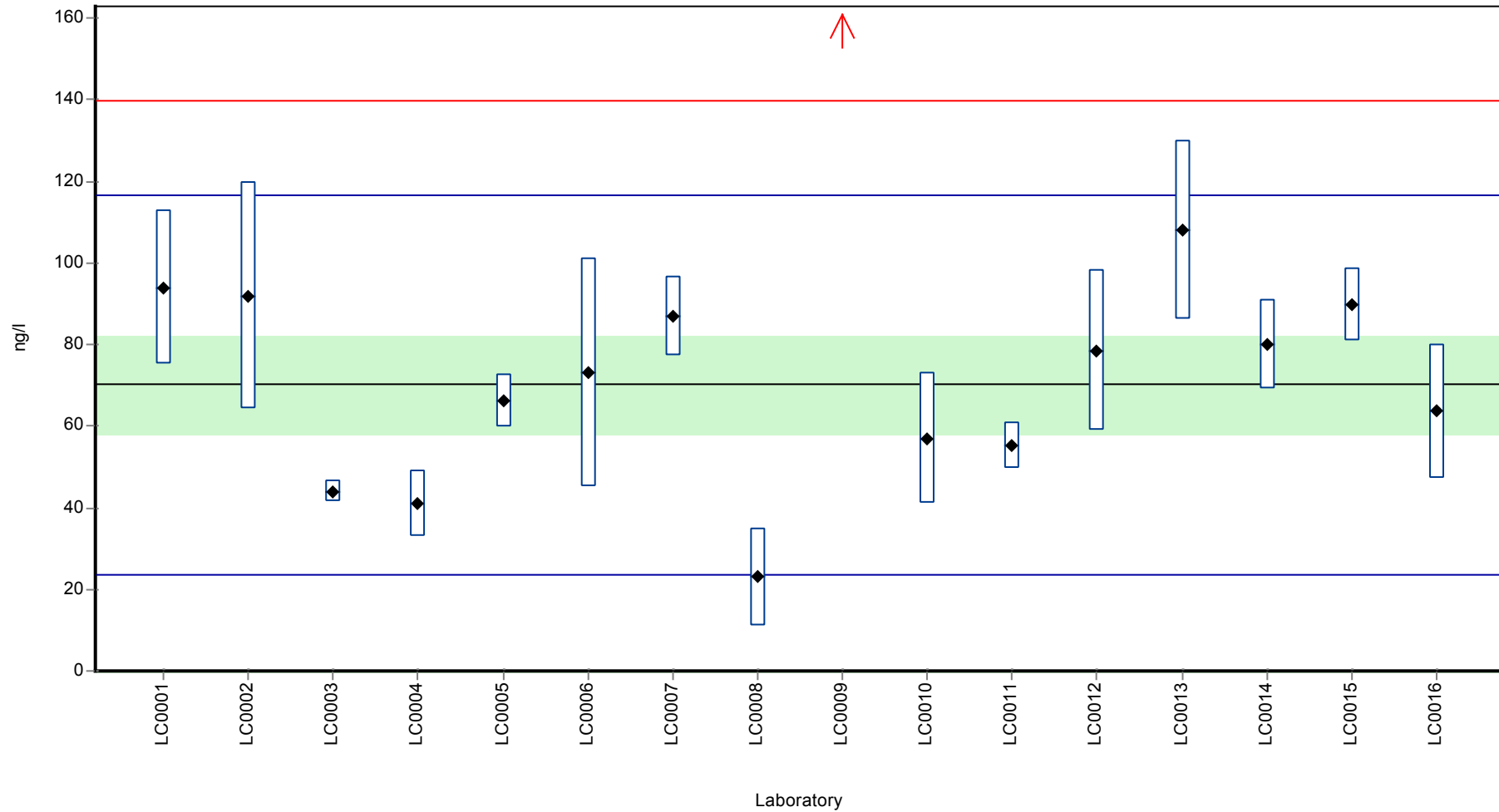
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	94	19	134	1.03	
LC0002	92	28	131	0.94	
LC0003	43.95	2.637	62.7	-1.13	
LC0004	41	8.2	58.5	-1.26	
LC0005	66.2	6.6	94.4	-0.17	
LC0006	73	28	104	0.12	
LC0007	86.8	9.72	124	0.72	
LC0008	23	12	32.8	-2.03	
LC0009	8250	656	11800	353	H
LC0010	57	16	81.3	-0.57	
LC0011	55.1	5.7	78.6	-0.65	
LC0012	78.6	19.7	112	0.36	
LC0013	108	22	154	1.63	
LC0014	80	11	114	0.42	
LC0015	89.8	9	128	0.85	
LC0016	63.6	16.5	90.7	-0.28	

#### Characteristics of parameter

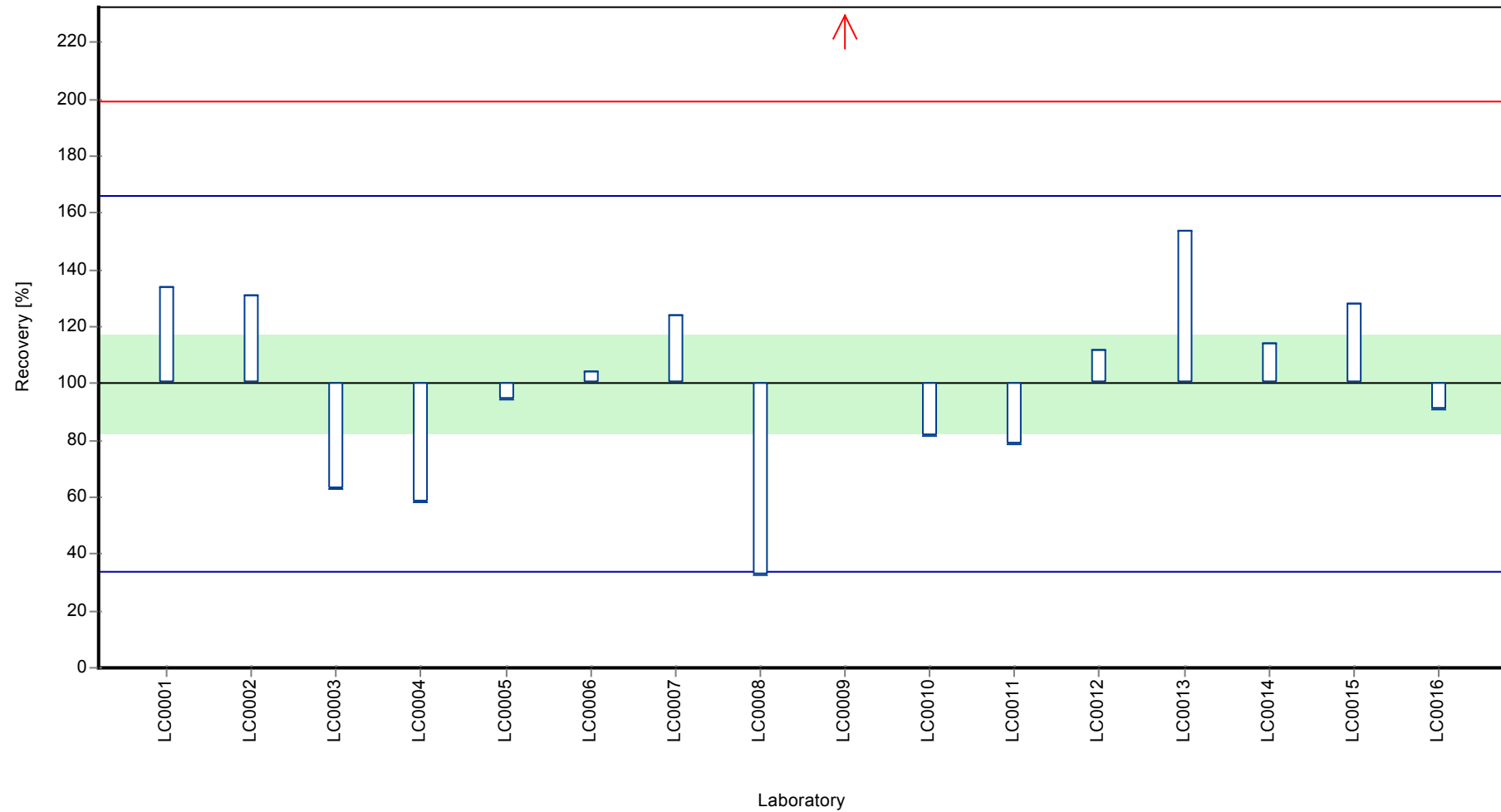
	all results	without outliers	Unit
Mean ± CI (99%)	581 ± 1530	70.1 ± 18	ng/l
Minimum	23	23	ng/l
Maximum	8250	108	ng/l
Standard deviation	2050	23.2	ng/l
rel. Standard deviation	352	33.1	%
n	16	15	-

Graphical presentation of results

Results

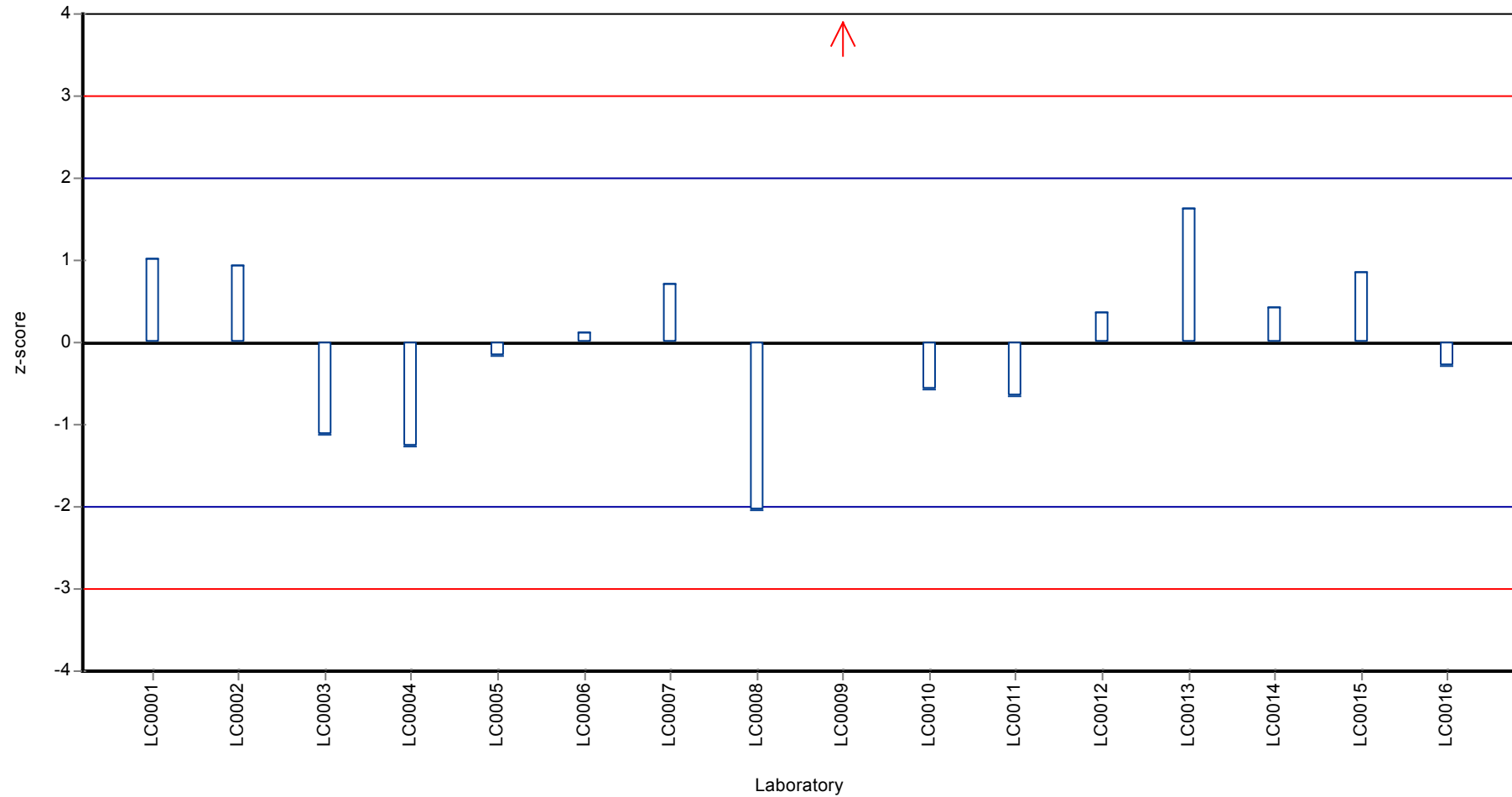


Recovery rate





Z-score



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Benzo[b]fluoranthene

## Parameter oriented report

### P17 B

#### Benzo[b]fluoranthene

Unit	ng/l
Mean ± CI (99%)	21.8 ± 6.17
Minimum - Maximum	12 - 36
Control test value ± U	13.2 ± 2.73

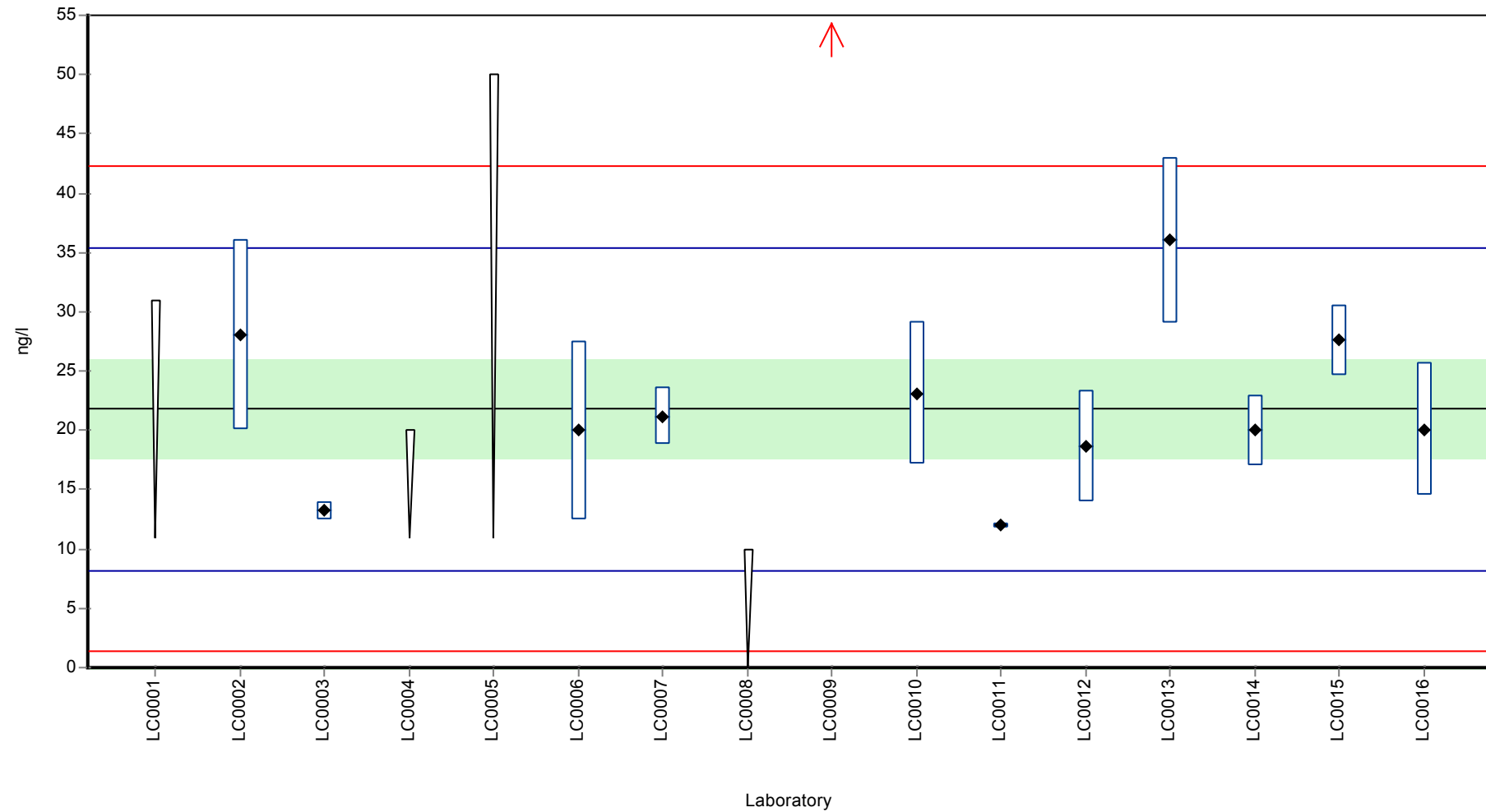
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 31 (LOQ)	-	-	-	
LC0002	28	8	128	0.91	
LC0003	13.2	0.792	60.6	-1.26	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	20	7.5	91.7	-0.26	
LC0007	21.2	2.37	97.2	-0.09	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	2185	173	10000	317	H
LC0010	23.1	6	106	0.19	
LC0011	12	0.21	55	-1.44	
LC0012	18.6	4.7	85.3	-0.47	
LC0013	36	7	165	2.08	
LC0014	20	3	91.7	-0.26	
LC0015	27.6	3	127	0.85	
LC0016	20.1	5.62	92.2	-0.25	

#### Characteristics of parameter

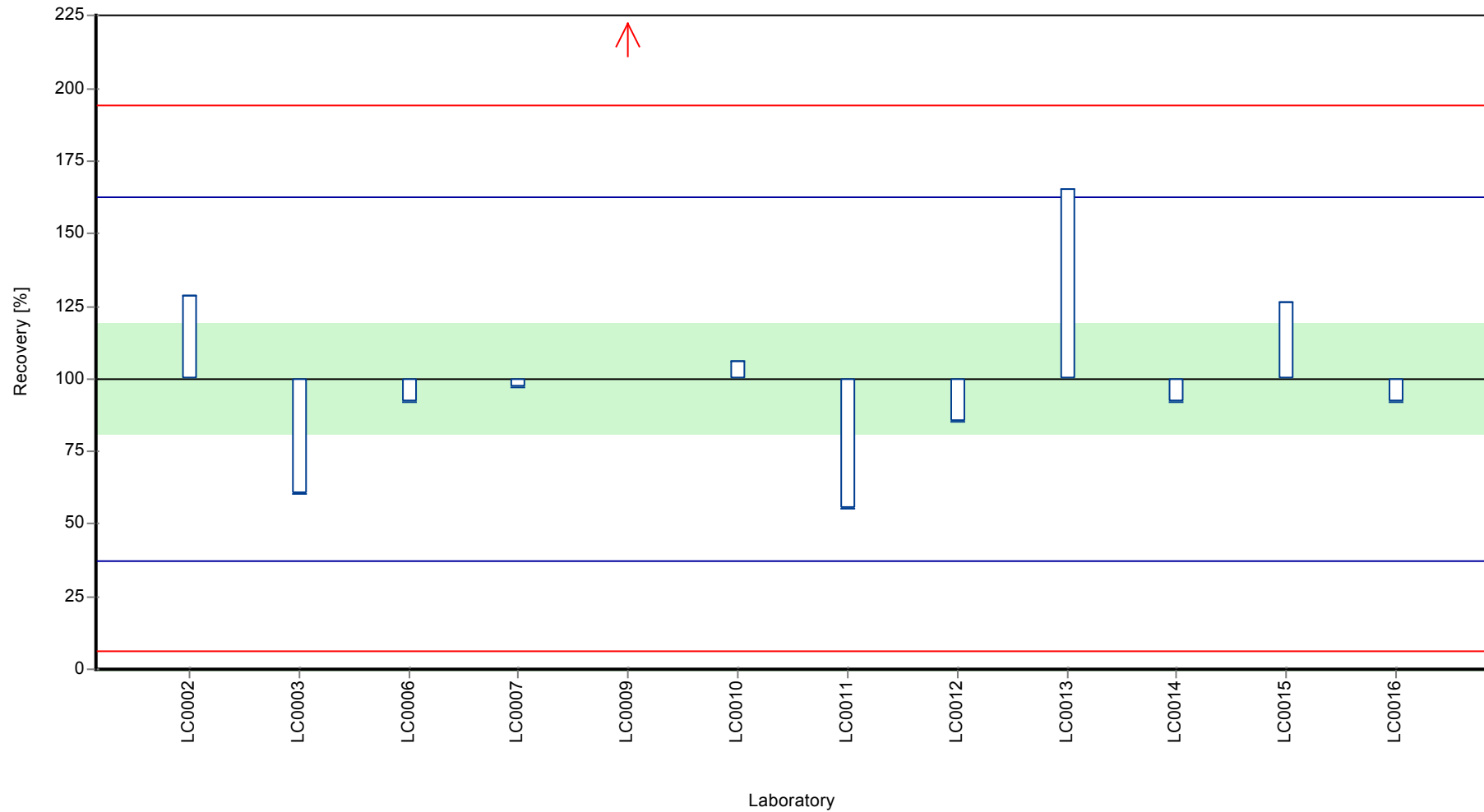
	all results	without outliers	Unit
Mean ± CI (99%)	202 ± 541	21.8 ± 6.17	ng/l
Minimum	12	12	ng/l
Maximum	2180	36	ng/l
Standard deviation	624	6.82	ng/l
rel. Standard deviation	309	31.3 %	
n	12	11	-

Graphical presentation of results

Results



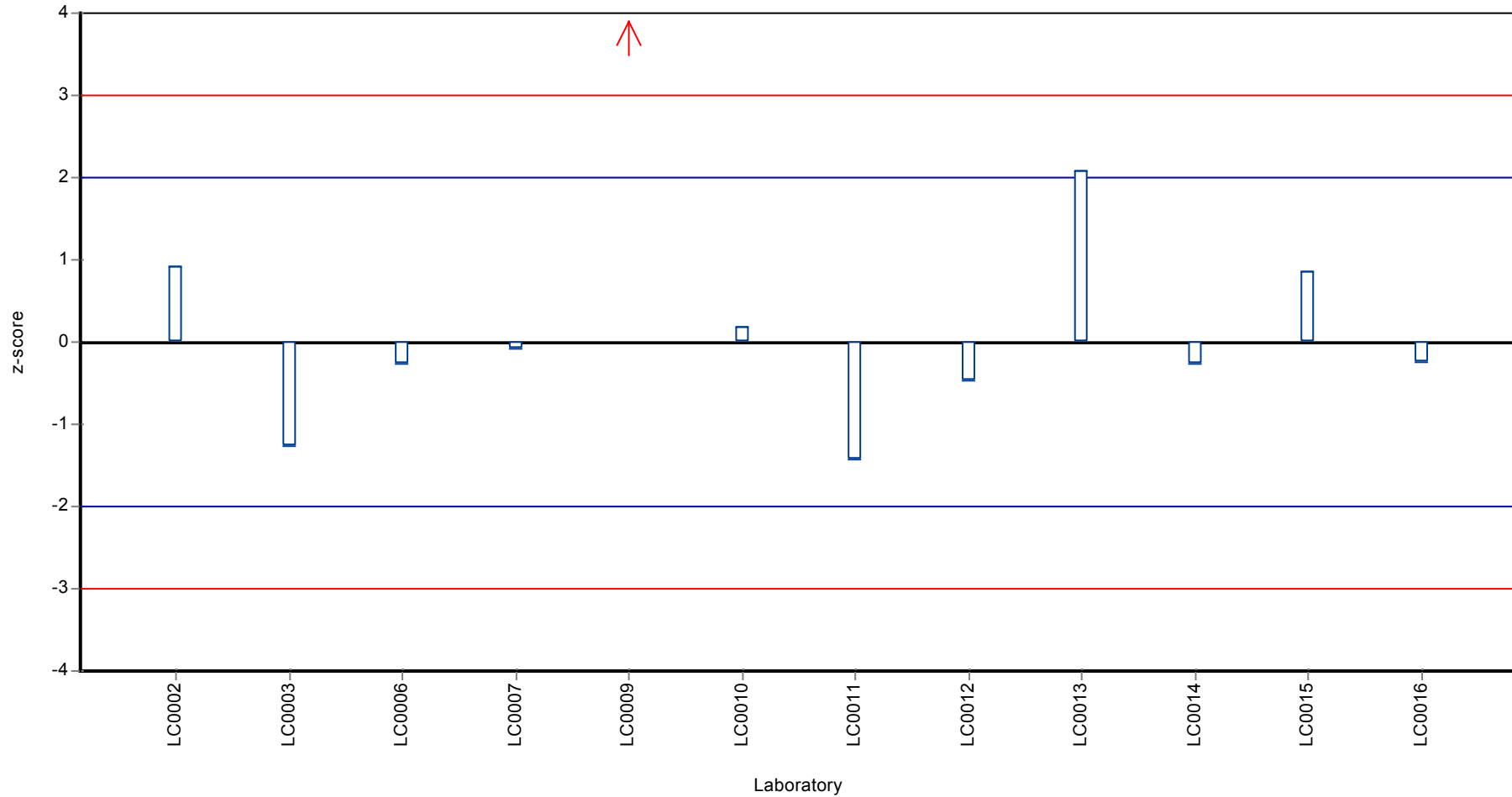
Recovery rate



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Benzo[b]fluoranthene

Z-score



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Benzo[g,h,i]perylene

## Parameter oriented report

### P17 A

#### Benzo[g,h,i]perylene

Unit	ng/l
Mean ± CI (99%)	225 ± 59.8
Minimum - Maximum	97 - 396
Control test value ± U	88.6 ± 8.79

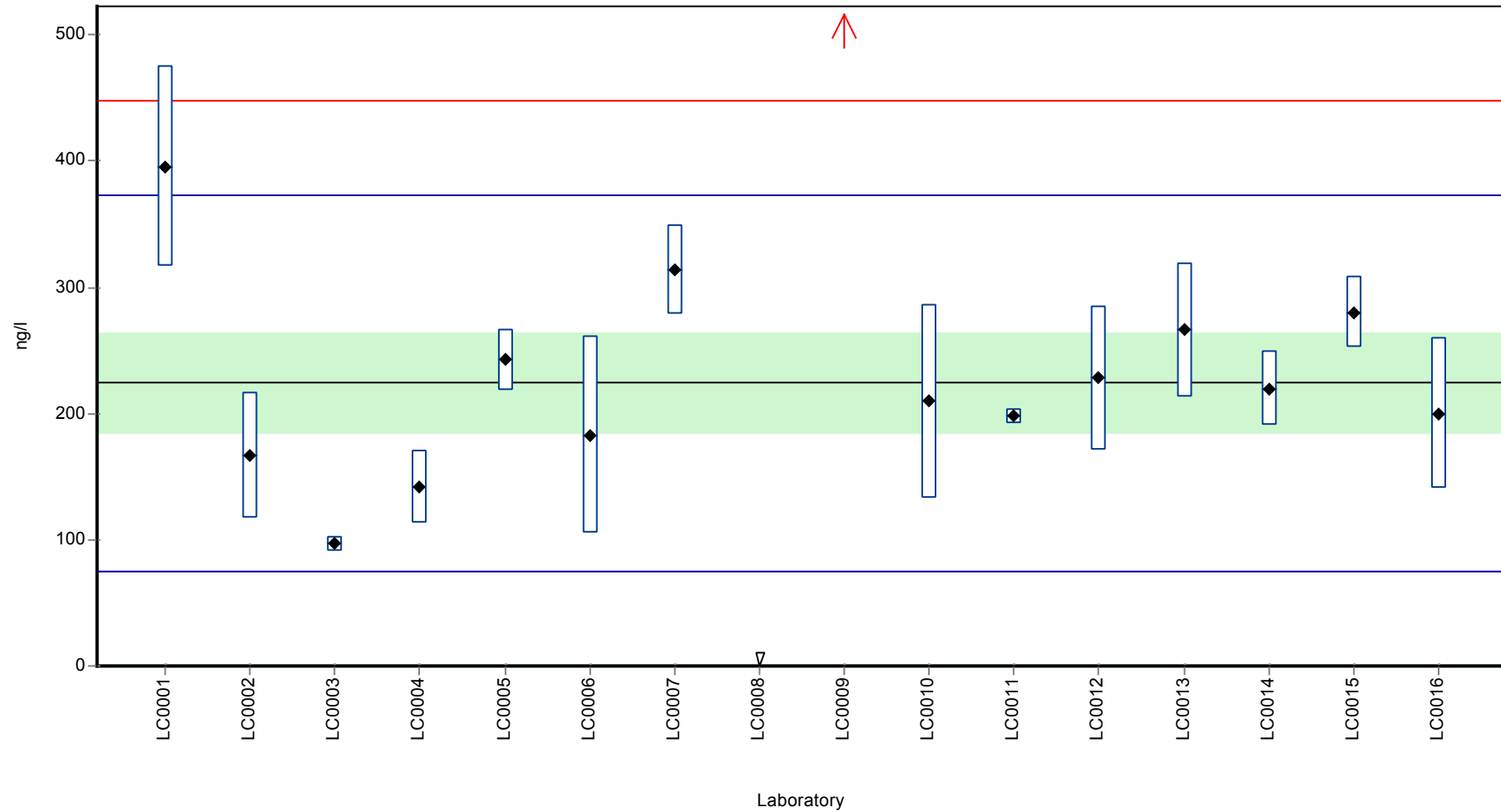
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	396	79	176	2.3	
LC0002	167	50	74.4	-0.77	
LC0003	96.95	5.817	43.2	-1.71	
LC0004	142	28.4	63.2	-1.11	
LC0005	242.6	24.3	108	0.24	
LC0006	183	78	81.5	-0.56	
LC0007	314	35.2	140	1.2	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	21200	2980	9440	281	H
LC0010	209.8	77	93.4	-0.2	
LC0011	198	5.7	88.2	-0.36	
LC0012	228.4	57.1	102	0.05	
LC0013	266	53	118	0.56	
LC0014	220	30	98	-0.06	
LC0015	280.4	28	125	0.75	
LC0016	200	59.8	89.1	-0.33	

#### Characteristics of parameter

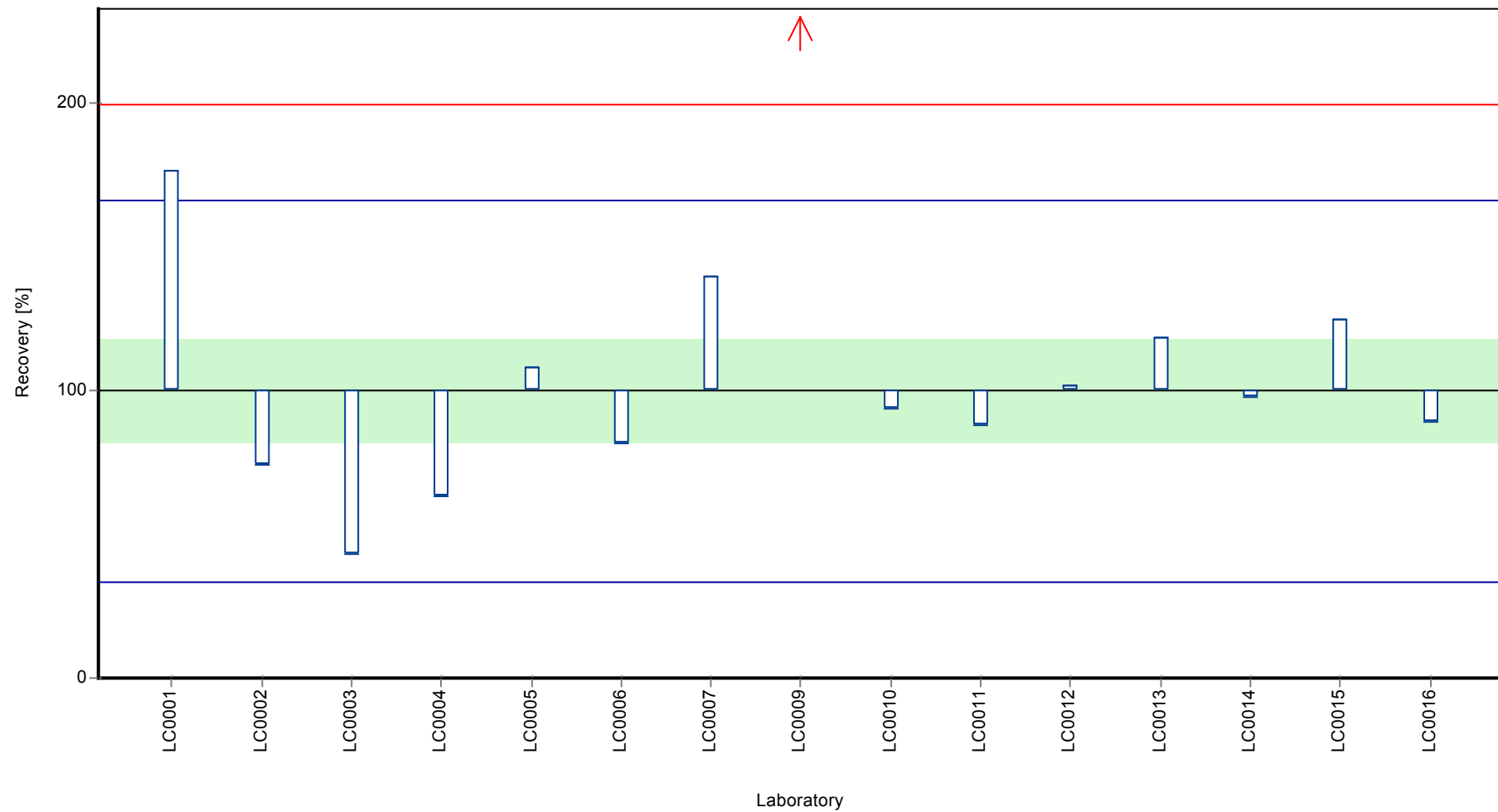
	all results	without outliers	Unit
Mean ± CI (99%)	1620 ± 4200	225 ± 59.8	ng/l
Minimum	97	97	ng/l
Maximum	21200	396	ng/l
Standard deviation	5420	74.6	ng/l
rel. Standard deviation	334	33.2	%
n	15	14	-

Graphical presentation of results

Results



Recovery rate

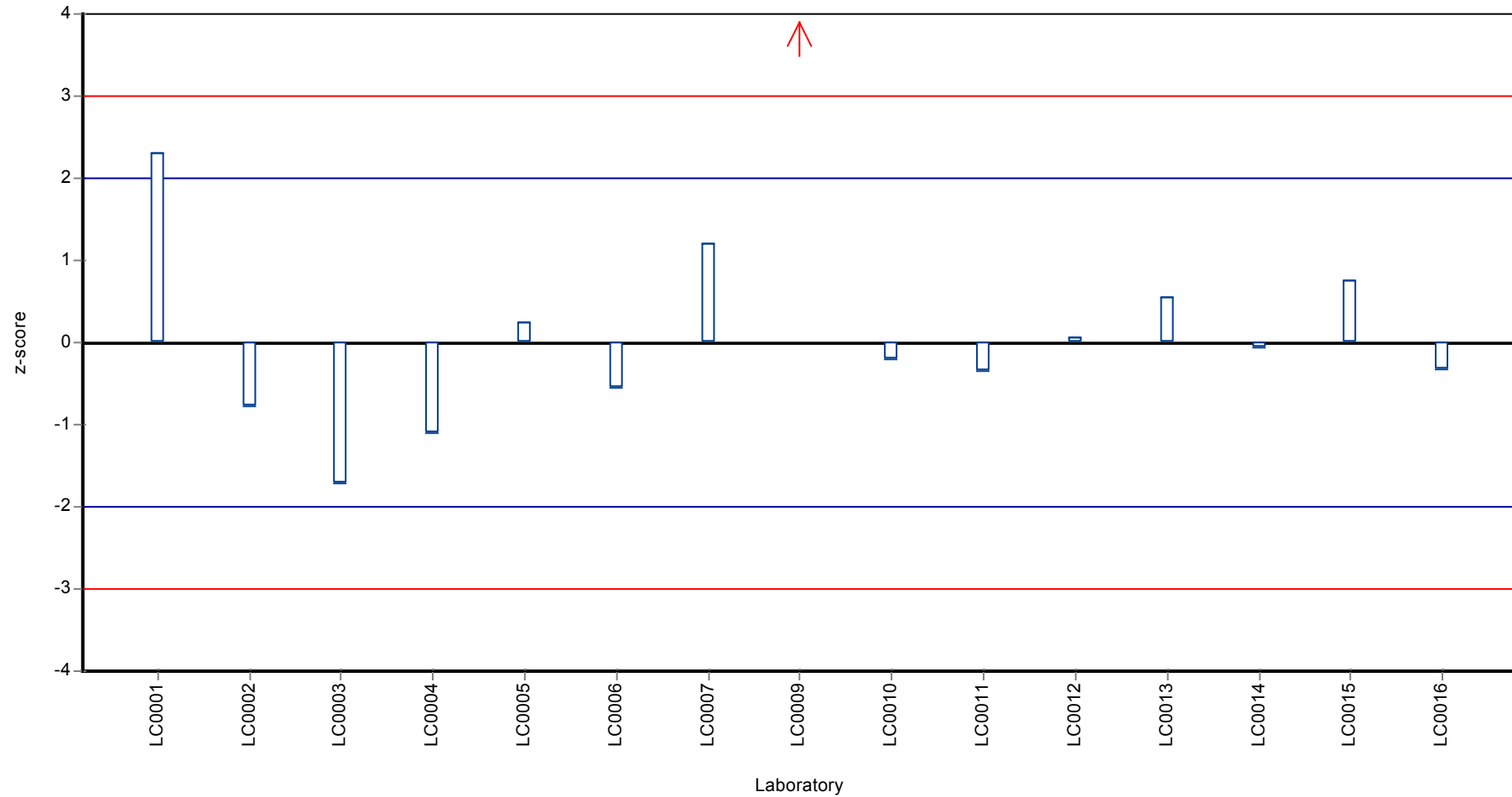




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Benzo[g,h,i]perylene

Z-score



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Benzo[g,h,i]perylene

## Parameter oriented report

### P17 B

#### Benzo[g,h,i]perylene

Unit	ng/l
Mean ± CI (99%)	47.5 ± 14.6
Minimum - Maximum	15 - 74
Control test value ± U	23.9 ± 4.40

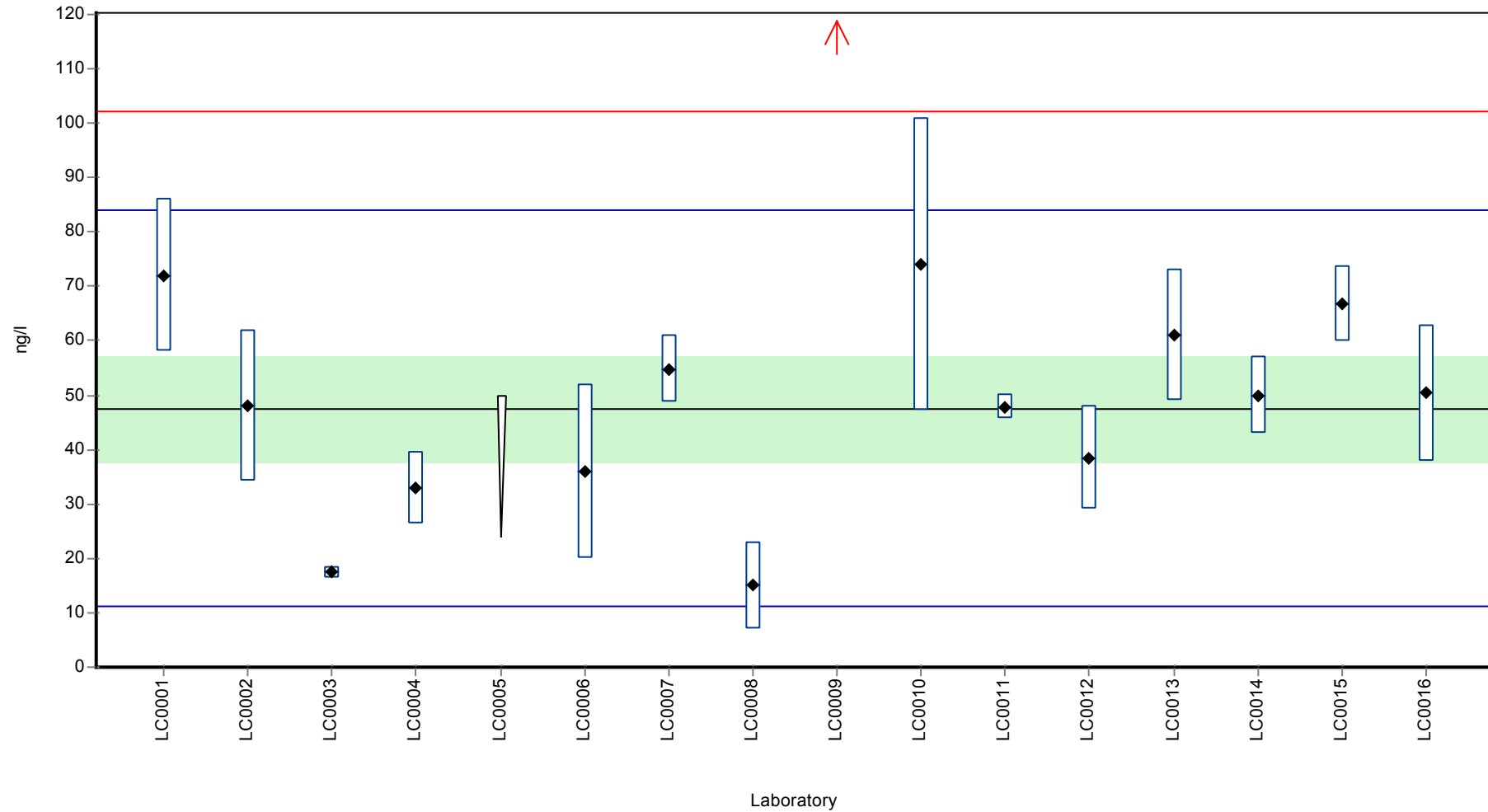
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	72	14	152	1.35	
LC0002	48	14	101	0.03	
LC0003	17.4	1.044	36.7	-1.65	
LC0004	33	6.6	69.5	-0.8	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	36	16	75.8	-0.63	
LC0007	54.8	6.14	115	0.4	
LC0008	15	8	31.6	-1.78	
LC0009	4475	629	9430	243	H
LC0010	74	27	156	1.46	
LC0011	47.8	2.3	101	0.02	
LC0012	38.5	9.6	81.1	-0.49	
LC0013	61	12	128	0.74	
LC0014	50	7	105	0.14	
LC0015	66.7	7	141	1.06	
LC0016	50.4	12.6	106	0.16	

#### Characteristics of parameter

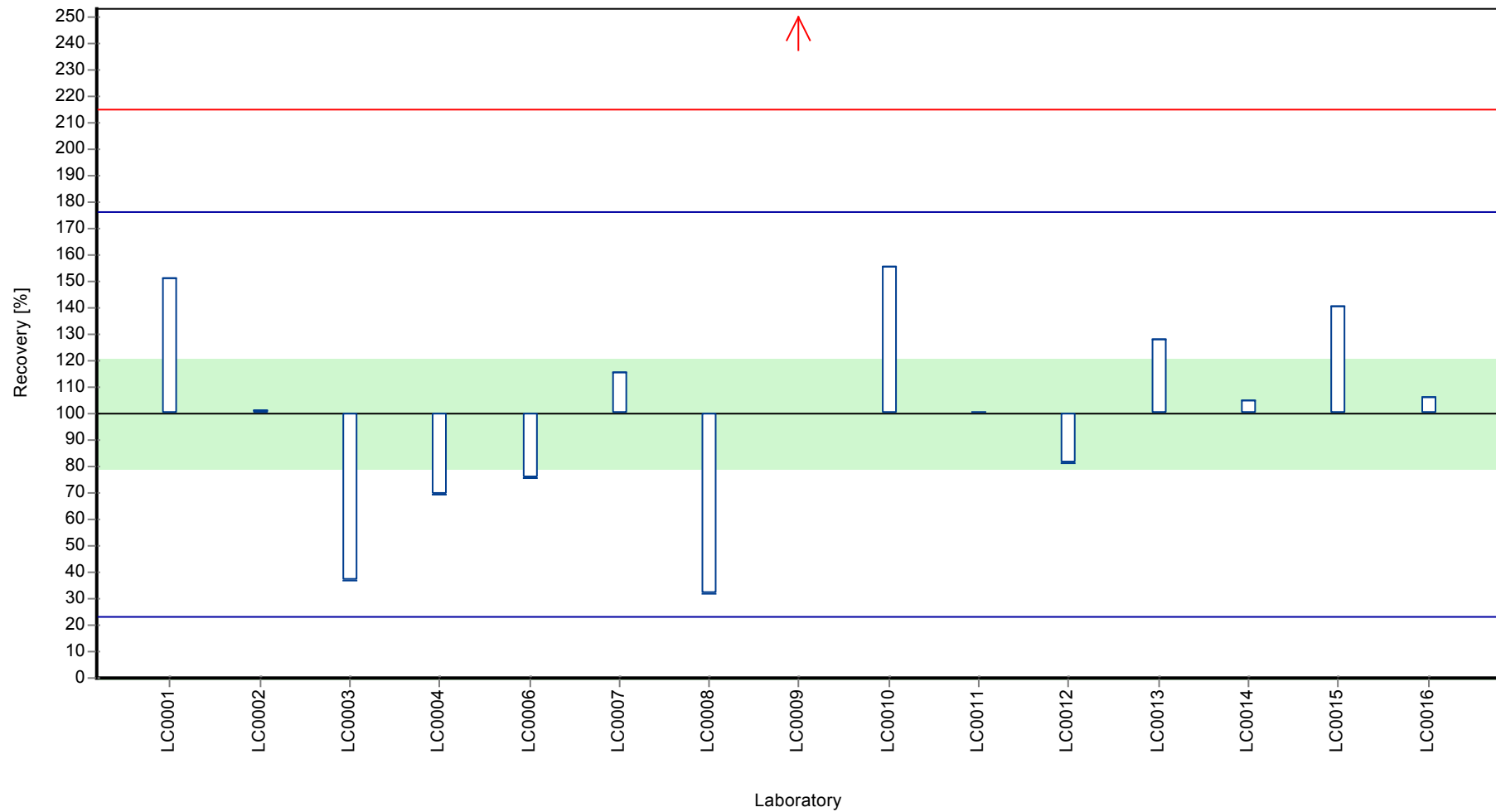
	all results	without outliers	Unit
Mean ± CI (99%)	343 ± 886	47.5 ± 14.6	ng/l
Minimum	15	15	ng/l
Maximum	4480	74	ng/l
Standard deviation	1140	18.2	ng/l
rel. Standard deviation	334	38.3	%
n	15	14	-

Graphical presentation of results

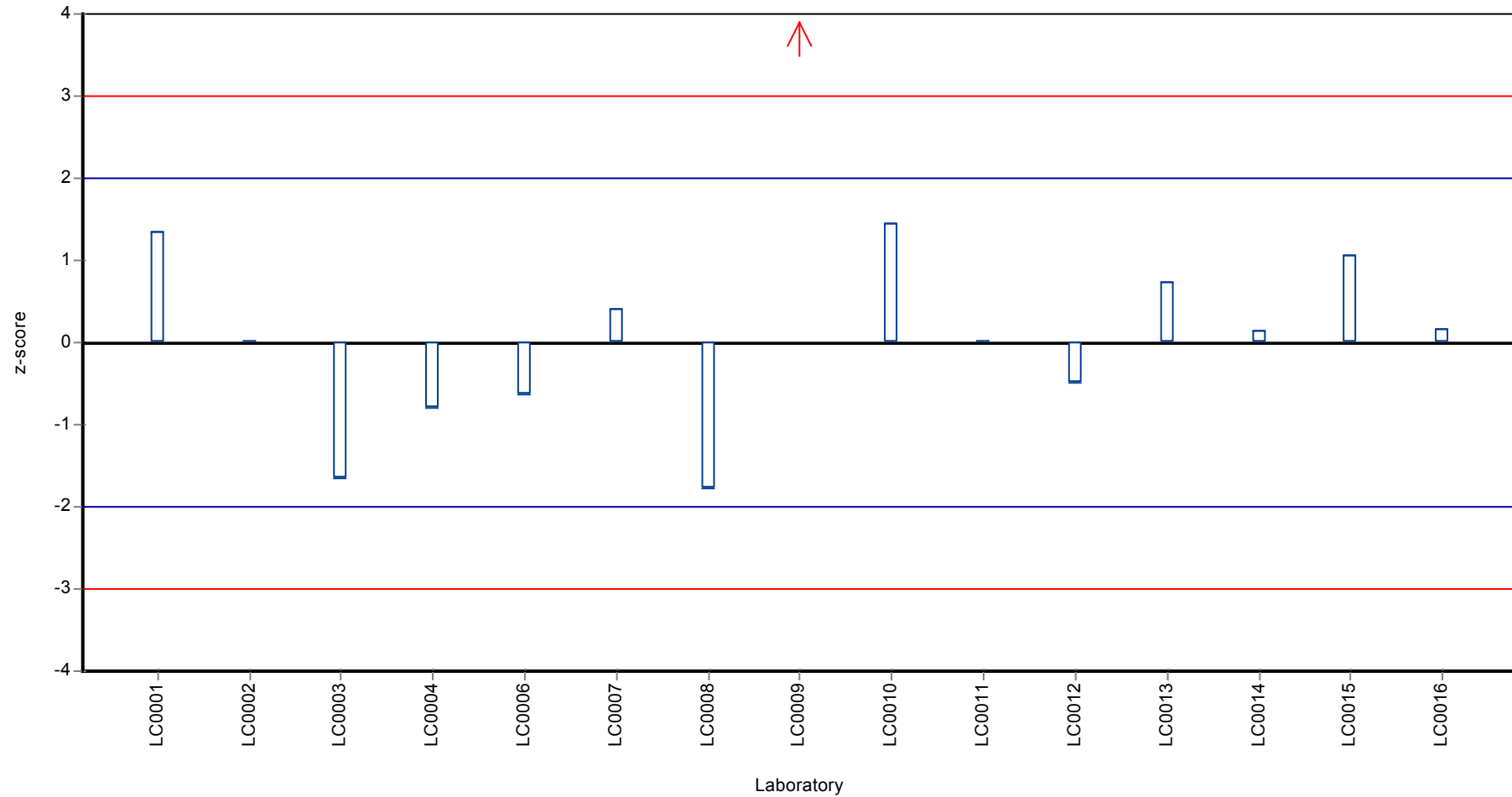
Results



Recovery rate



Z-score



## Parameter oriented report

### P17 A

#### Benzo[k]fluoranthene

Unit	ng/l
Mean ± CI (99%)	101 ± 25.9
Minimum - Maximum	22 - 146
Control test value ± U	57.7 ± 5.96

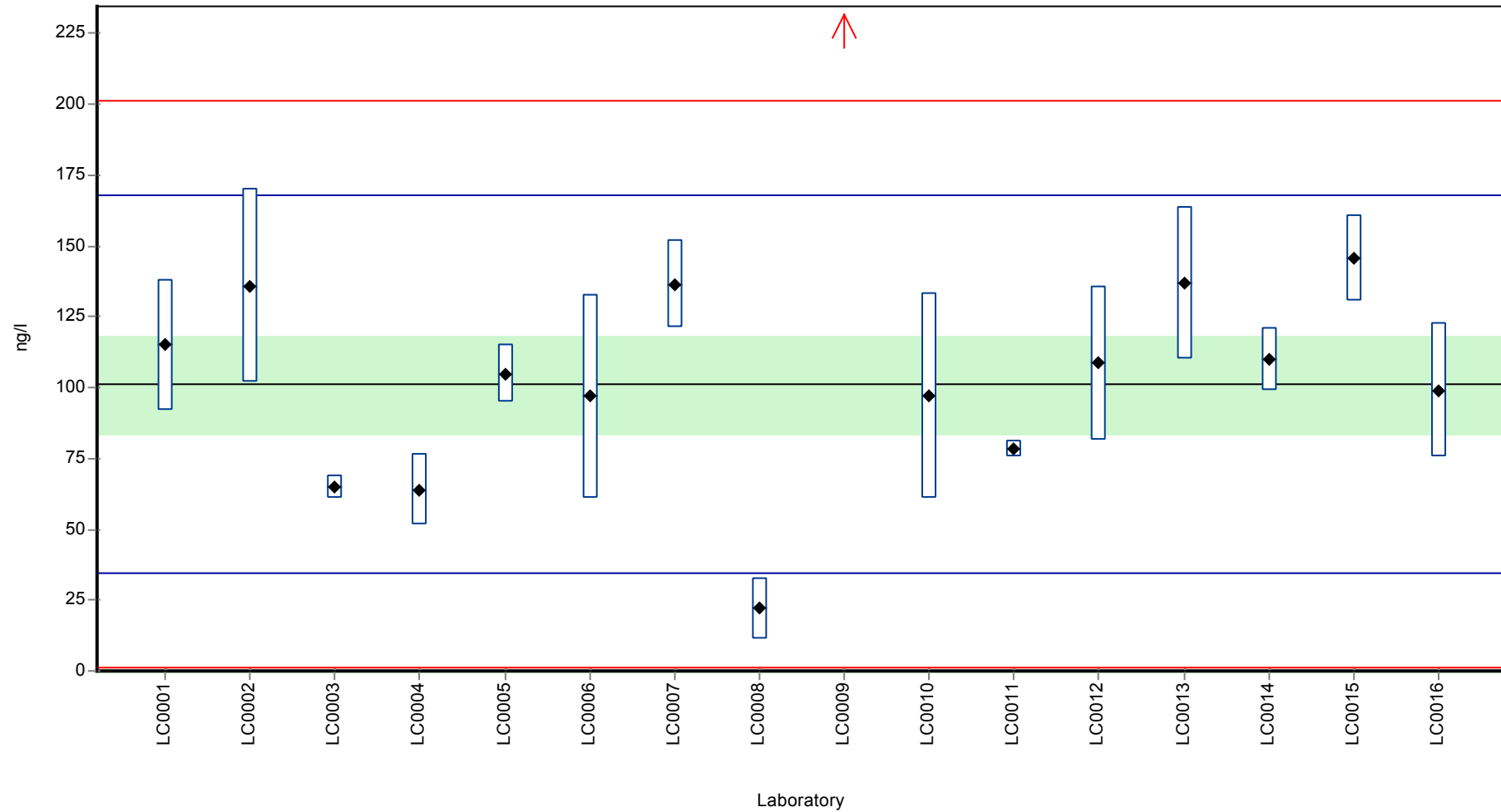
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	115	23	114	0.42	
LC0002	136	34	135	1.05	
LC0003	64.95	3.897	64.3	-1.08	
LC0004	64	12.8	63.3	-1.11	
LC0005	105	10.5	104	0.12	
LC0006	97	36	96	-0.12	
LC0007	136.6	15.3	135	1.06	
LC0008	22	11	21.8	-2.37	
LC0009	12575	1247	12400	374	H
LC0010	97.1	36	96.1	-0.12	
LC0011	78.2	2.9	77.4	-0.69	
LC0012	108.6	27.2	107	0.23	
LC0013	137	27	136	1.08	
LC0014	110	11	109	0.27	
LC0015	145.7	15	144	1.34	
LC0016	98.9	23.7	97.9	-0.07	

#### Characteristics of parameter

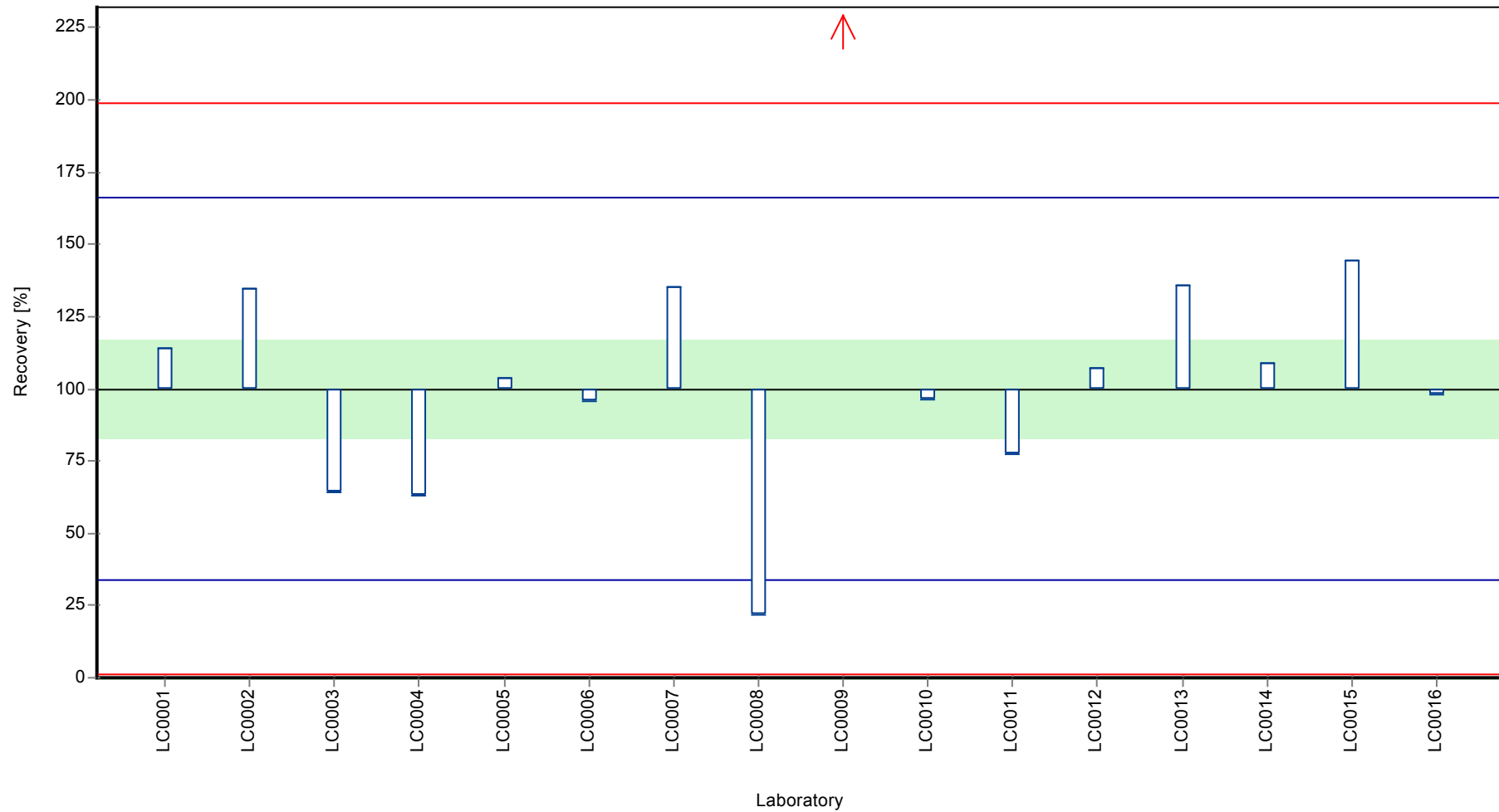
	all results	without outliers	Unit
Mean ± CI (99%)	881 ± 2340	101 ± 25.9	ng/l
Minimum	22	22	ng/l
Maximum	12600	146	ng/l
Standard deviation	3120	33.4	ng/l
rel. Standard deviation	354	33	%
n	16	15	-

Graphical presentation of results

Results

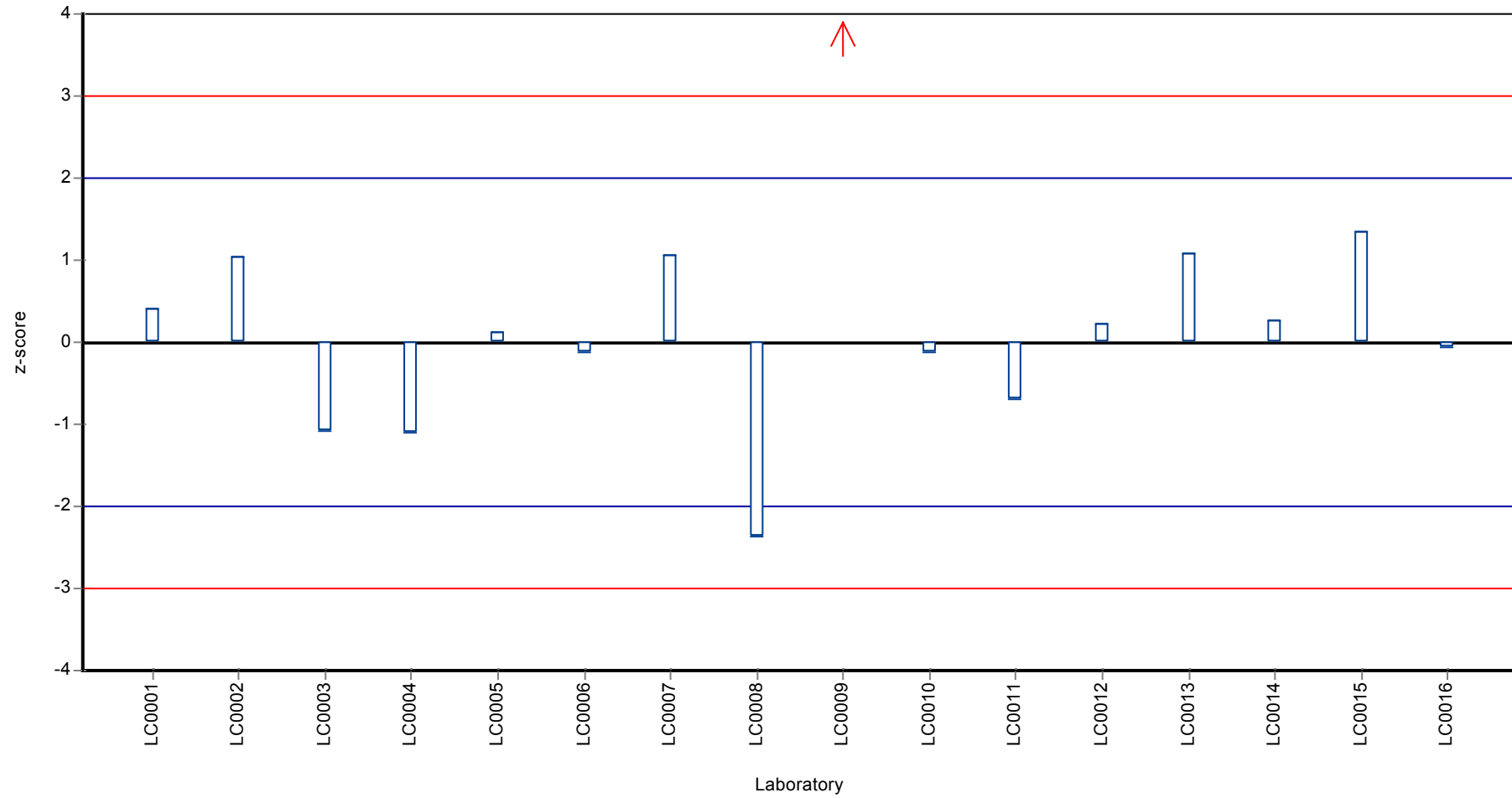


Recovery rate





Z-score



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Benzo[k]fluoranthene

## Parameter oriented report

### P17 B

#### Benzo[k]fluoranthene

Unit	ng/l
Mean ± CI (99%)	13.5 ± 3.59
Minimum - Maximum	7.7 - 20
Control test value ± U	9.53 ± 1.16

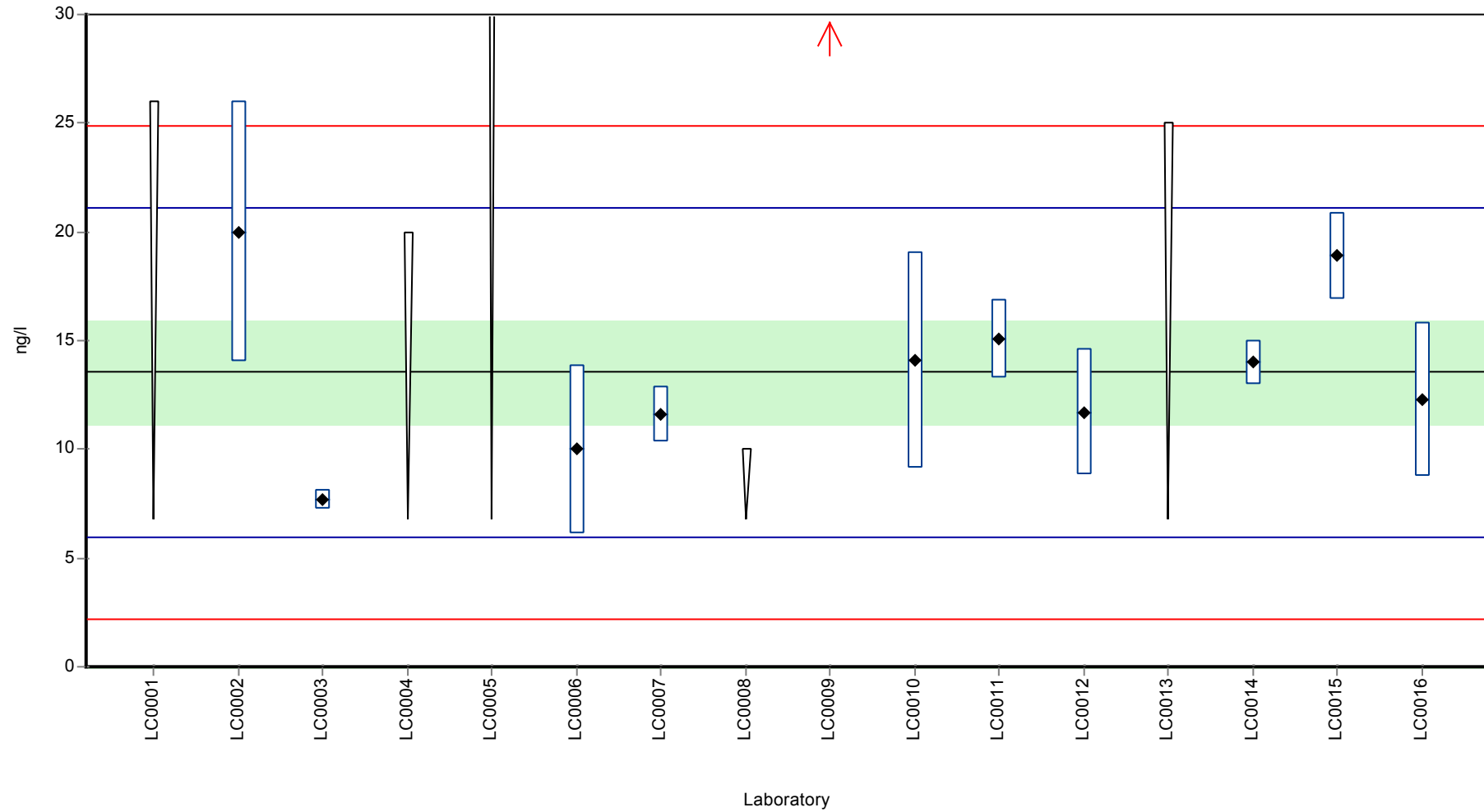
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 26 (LOQ)	-	-	-	
LC0002	20	6	148	1.71	
LC0003	7.7	0.462	56.9	-1.54	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	10	3.9	73.9	-0.94	
LC0007	11.6	1.3	85.7	-0.51	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	1325	131	9790	347	H
LC0010	14.1	5	104	0.15	
LC0011	15.1	1.8	112	0.41	
LC0012	11.7	2.9	86.4	-0.49	
LC0013	< 25 (LOQ)	-	-	-	
LC0014	14	1	103	0.12	
LC0015	18.9	2	140	1.42	
LC0016	12.3	3.56	90.8	-0.33	

#### Characteristics of parameter

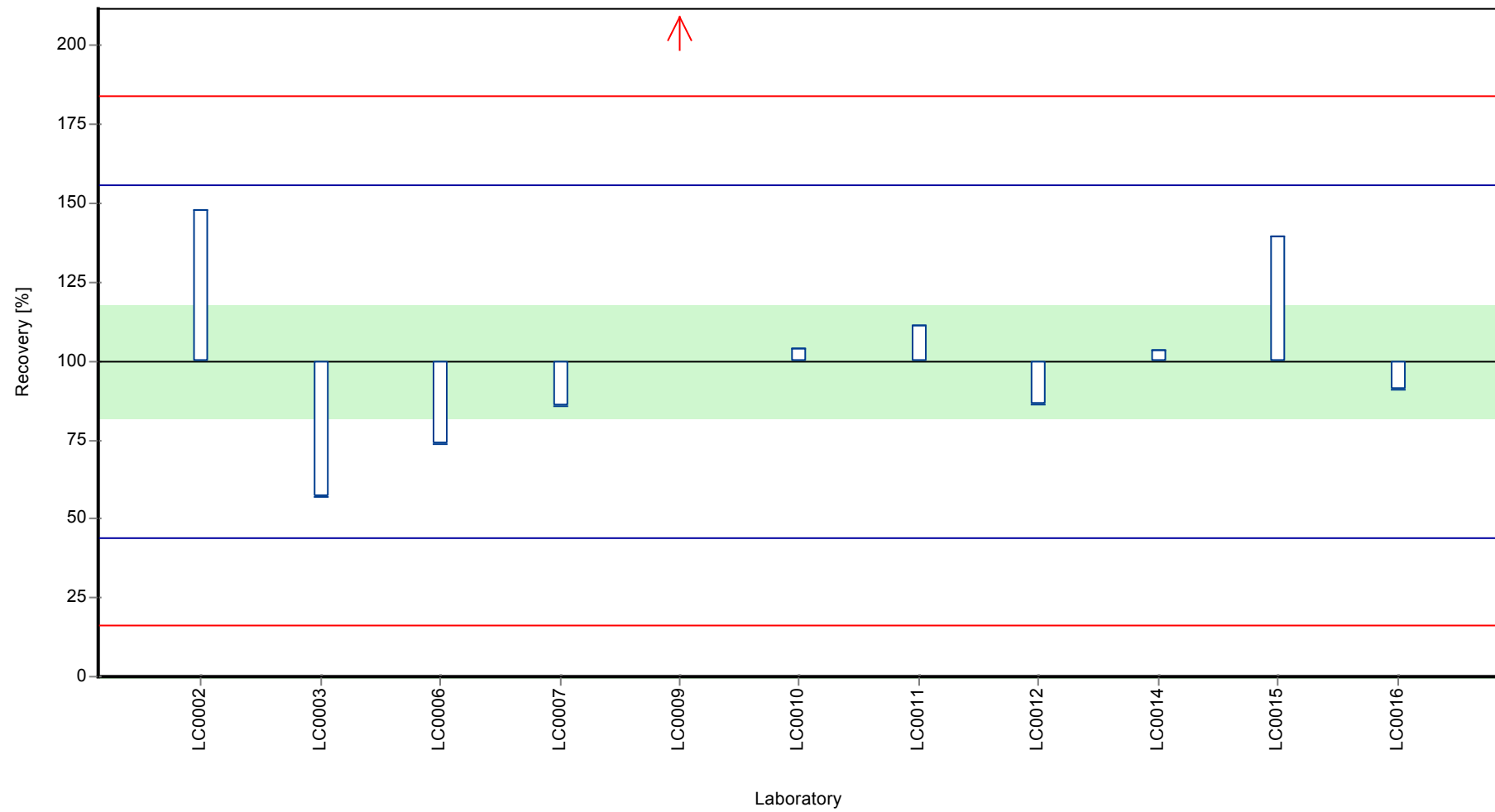
	all results	without outliers	Unit
Mean ± CI (99%)	133 ± 358	13.5 ± 3.59	ng/l
Minimum	7.7	7.7	ng/l
Maximum	1320	20	ng/l
Standard deviation	395	3.78	ng/l
rel. Standard deviation	298	27.9 %	
n	11	10	-

Graphical presentation of results

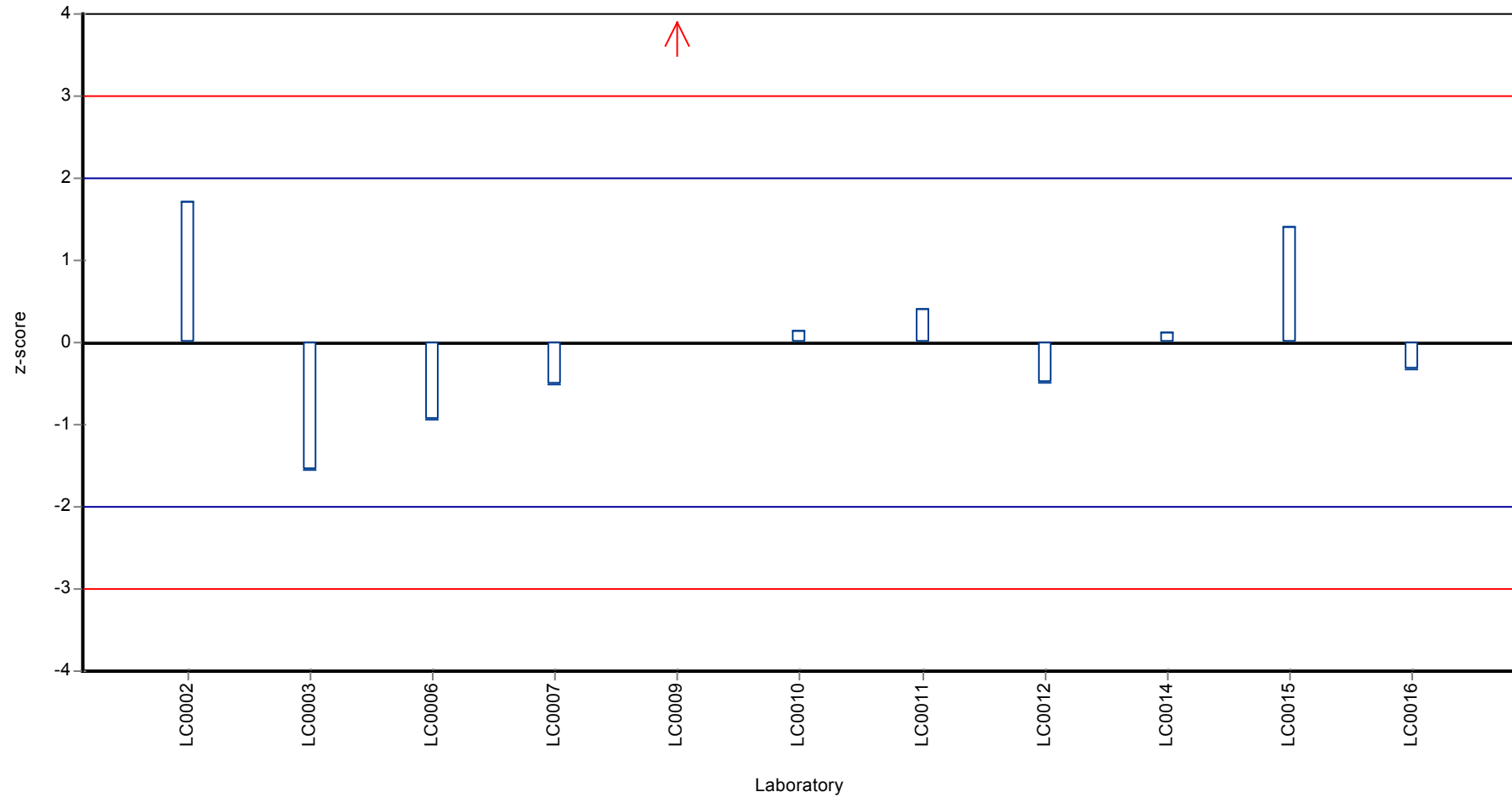
Results



Recovery rate



Z-score



## Parameter oriented report

### P17 A

#### Chrysene

Unit	ng/l
Mean ± CI (99%)	128 ± 22.8
Minimum - Maximum	77.9 - 176
Control test value ± U	-

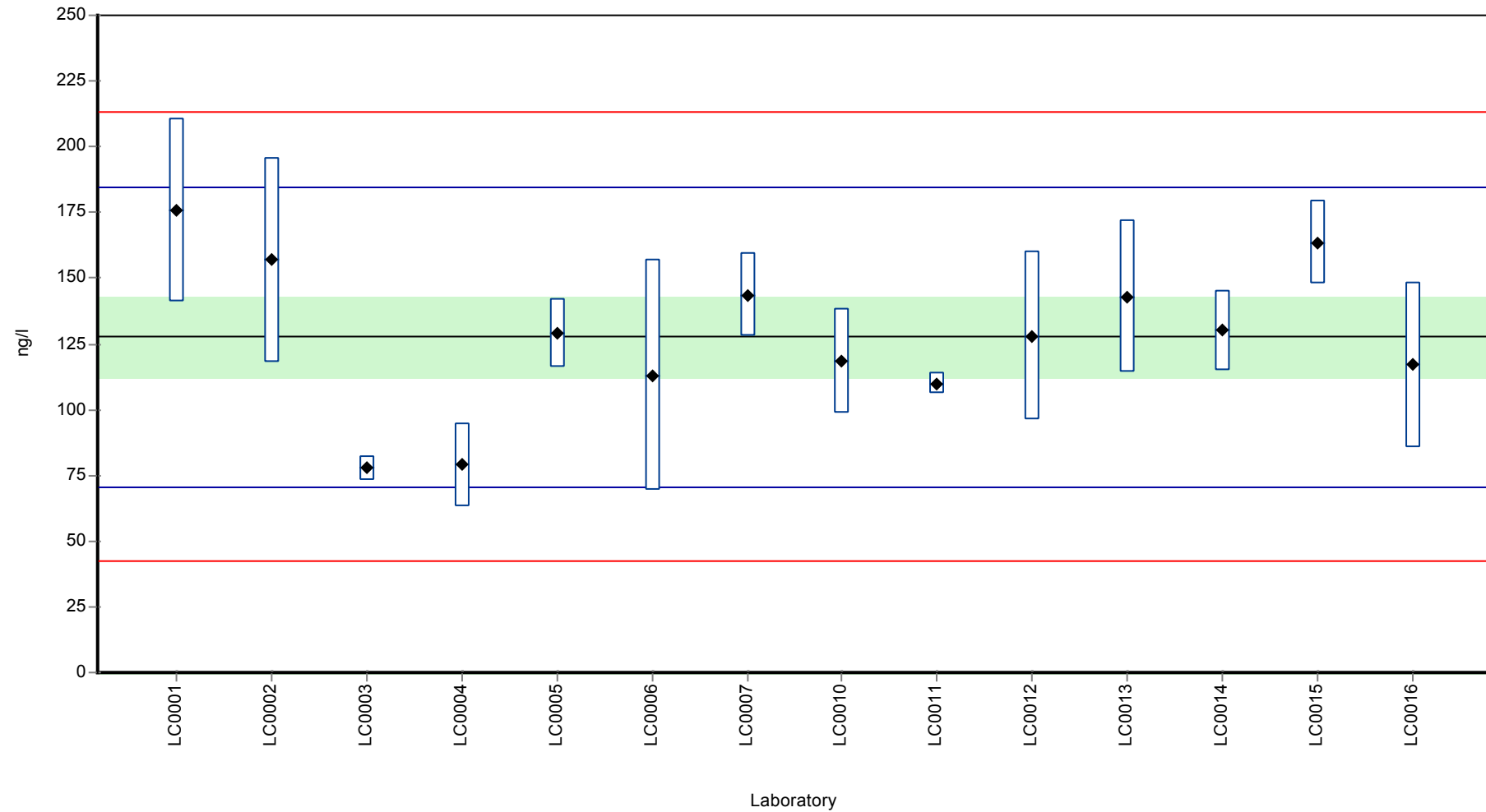
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	176	35	138	1.7	
LC0002	157	39	123	1.03	
LC0003	77.9	4.674	61.1	-1.74	
LC0004	79	15.8	61.9	-1.7	
LC0005	129	12.9	101	0.05	
LC0006	113	44	88.6	-0.51	
LC0007	143.6	16.1	113	0.56	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	118.6	20	93	-0.31	
LC0011	110	4.2	86.2	-0.62	
LC0012	128	32	100	0.02	
LC0013	143	29	112	0.54	
LC0014	130	15	102	0.09	
LC0015	163.5	16	128	1.26	
LC0016	117	31.6	91.7	-0.37	

#### Characteristics of parameter

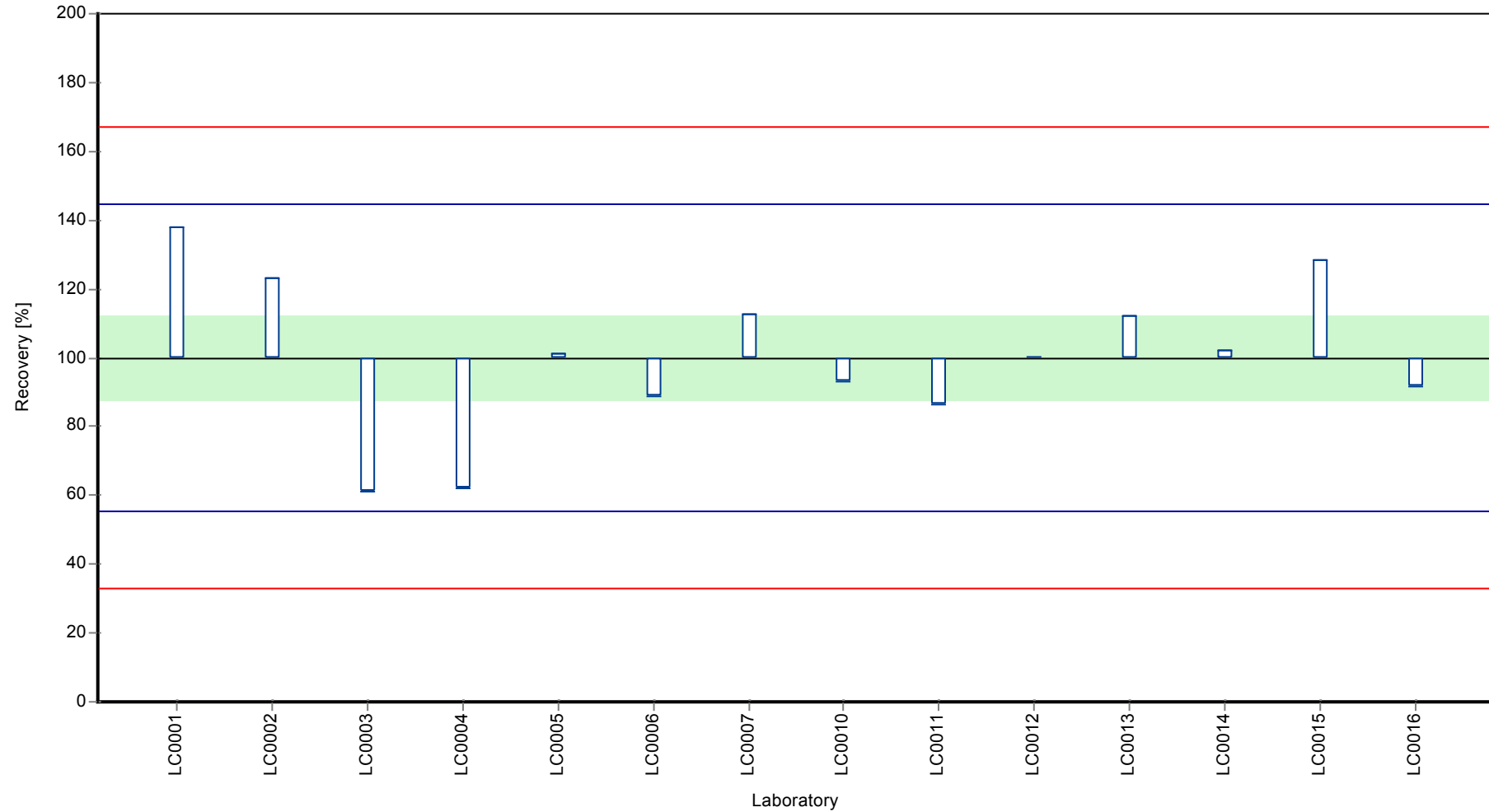
	all results	without outliers	Unit
Mean ± CI (99%)	128 ± 22.8	128 ± 22.8	ng/l
Minimum	77.9	77.9	ng/l
Maximum	176	176	ng/l
Standard deviation	28.5	28.5	ng/l
rel. Standard deviation	22.3	22.3	%
n	14	14	-

Graphical presentation of results

Results



**Recovery rate**

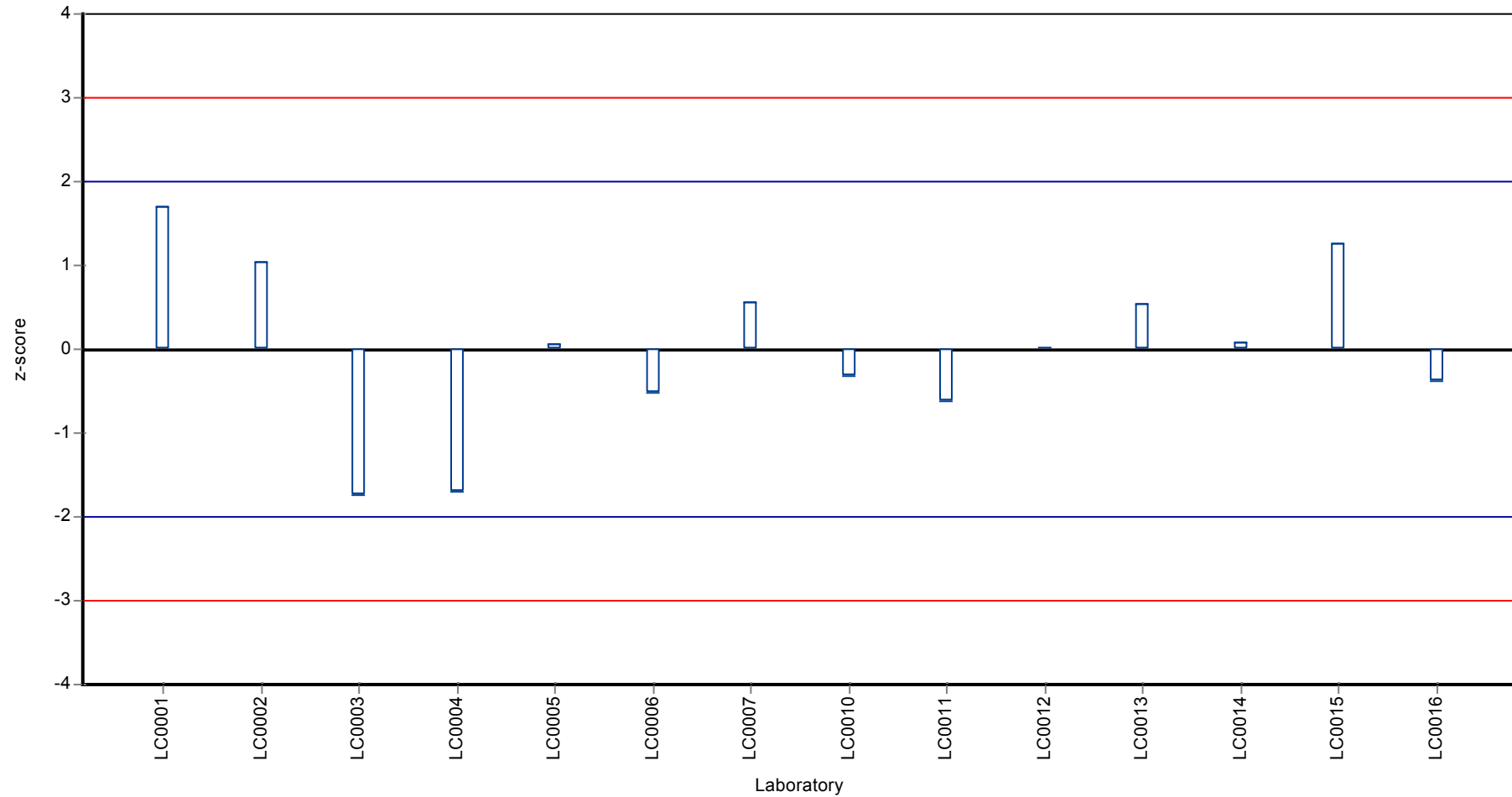




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Chrysene

Z-score



## Parameter oriented report

### P17 B

#### Chrysene

Unit	ng/l
Mean ± CI (99%)	14.5 ± 4.5
Minimum - Maximum	8.7 - 24
Control test value ± U	< 8.90 (LOQ)

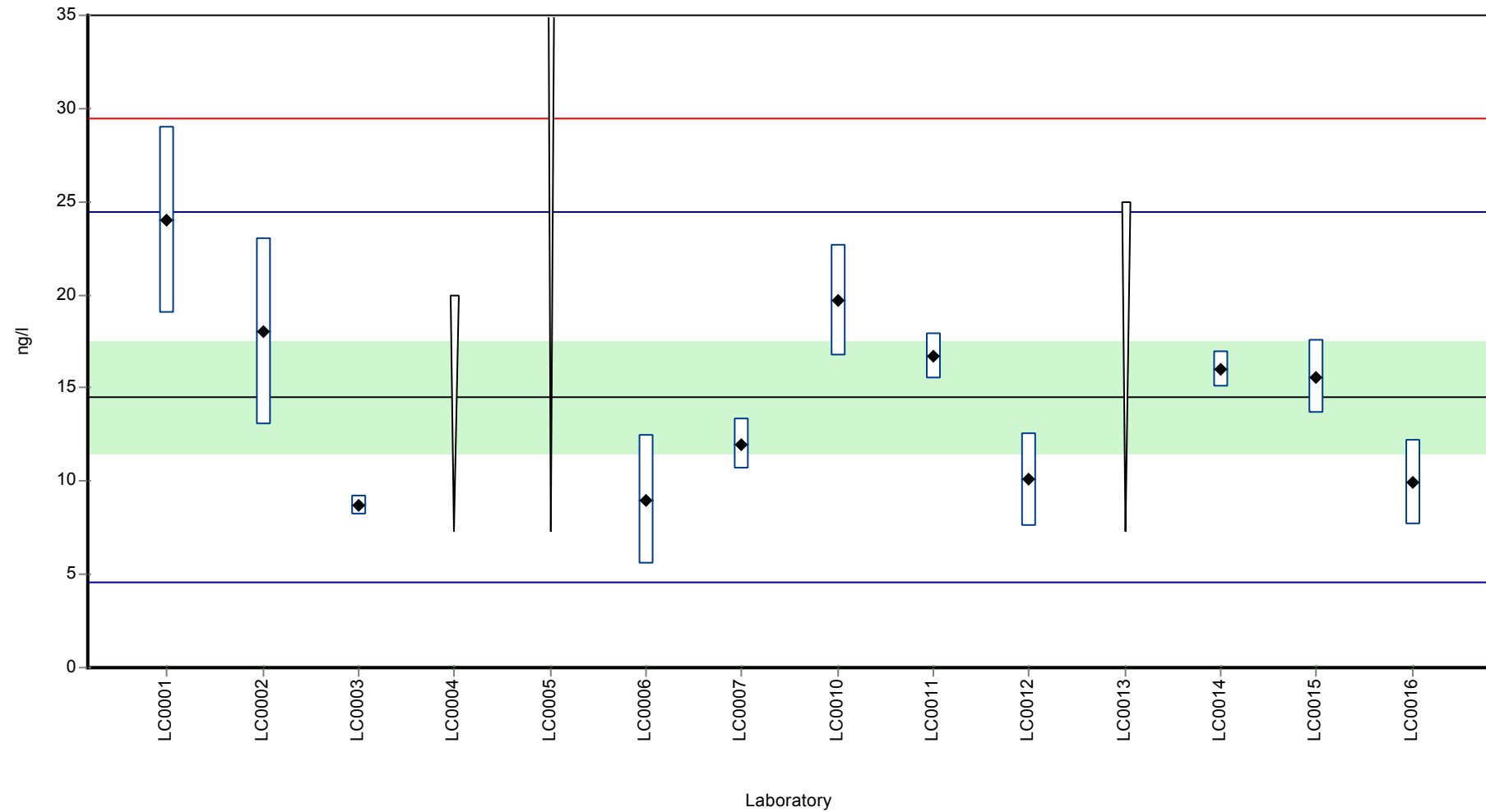
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	24	5	165	1.9	
LC0002	18	5	124	0.7	
LC0003	8.7	0.522	59.9	-1.17	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	9	3.5	62	-1.11	
LC0007	12	1.34	82.6	-0.51	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	19.7	3	136	1.04	
LC0011	16.7	1.2	115	0.44	
LC0012	10.1	2.5	69.5	-0.89	
LC0013	< 25 (LOQ)	-	-	-	
LC0014	16	1	110	0.3	
LC0015	15.6	2	107	0.22	
LC0016	9.96	2.29	68.6	-0.92	

#### Characteristics of parameter

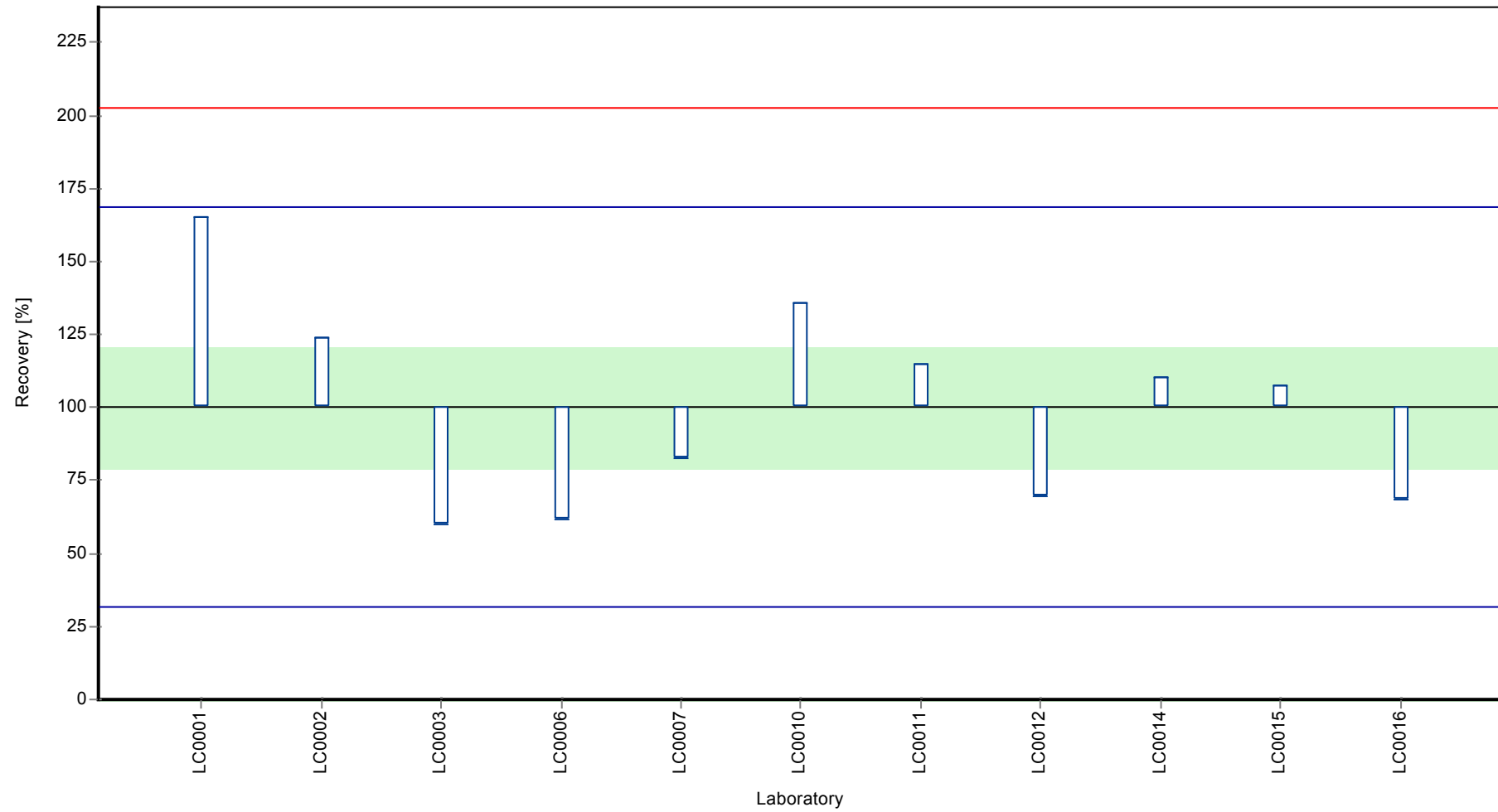
	all results	without outliers	Unit
Mean ± CI (99%)	14.5 ± 4.5	14.5 ± 4.5	ng/l
Minimum	8.7	8.7	ng/l
Maximum	24	24	ng/l
Standard deviation	4.98	4.98	ng/l
rel. Standard deviation	34.3	34.3	%
n	11	11	-

Graphical presentation of results

Results



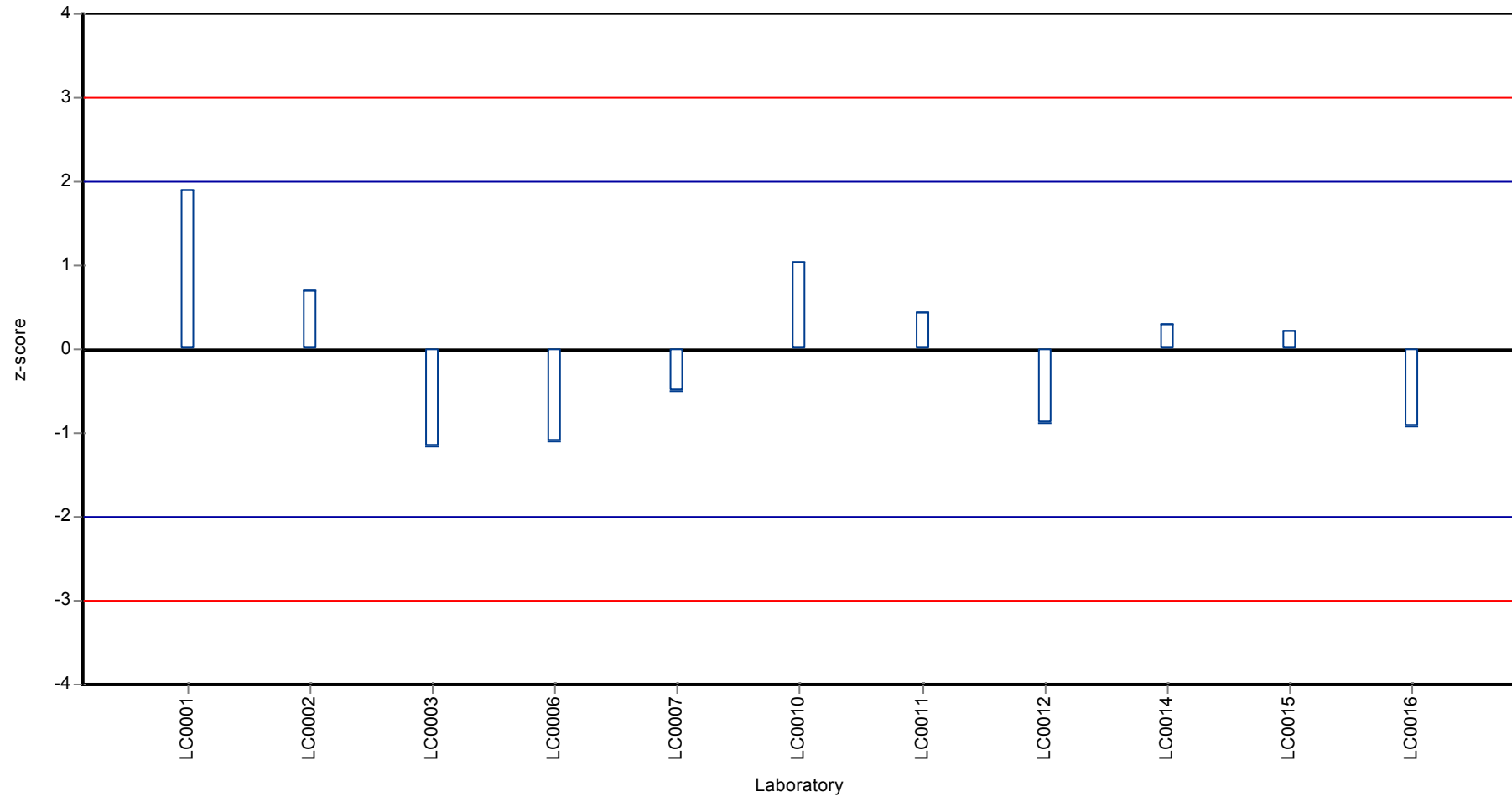
**Recovery rate**



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Chrysene

Z-score



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Dibenzo[a,h]anthracene

## Parameter oriented report

### P17 A

#### Dibenzo[a,h]anthracene

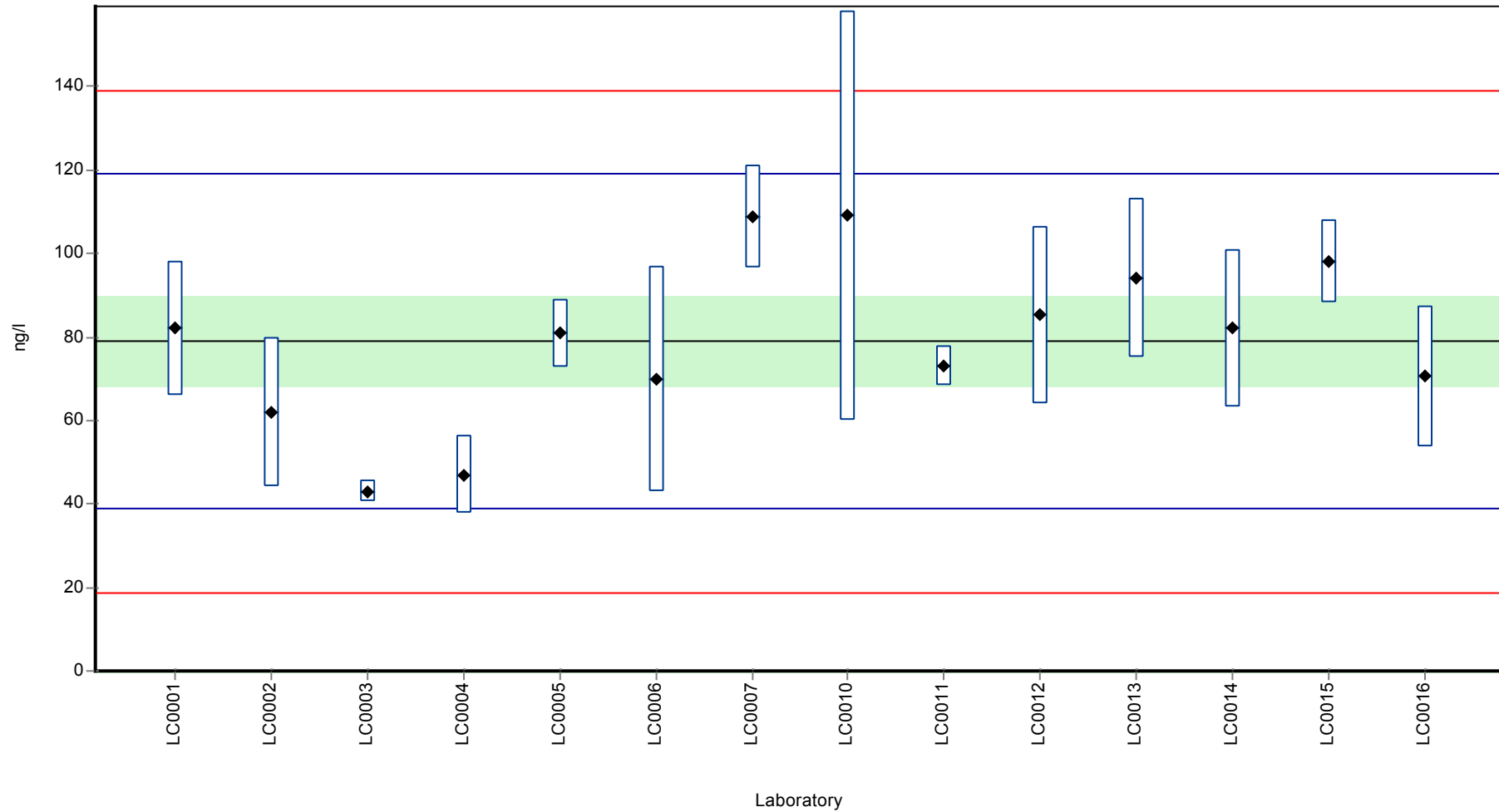
Unit	ng/l
Mean ± CI (99%)	79 ± 16.1
Minimum - Maximum	43 - 109
Control test value ± U	-

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	82	16	104	0.15	
LC0002	62	18	78.5	-0.85	
LC0003	43.05	2.583	54.5	-1.79	
LC0004	47	9.4	59.5	-1.59	
LC0005	80.9	8.1	102	0.1	
LC0006	70	27	88.6	-0.45	
LC0007	108.8	12.2	138	1.49	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	109	49	138	1.5	
LC0011	73	4.7	92.4	-0.3	
LC0012	85.2	21.3	108	0.31	
LC0013	94	19	119	0.75	
LC0014	82	19	104	0.15	
LC0015	98.1	10	124	0.95	
LC0016	70.5	16.9	89.3	-0.42	

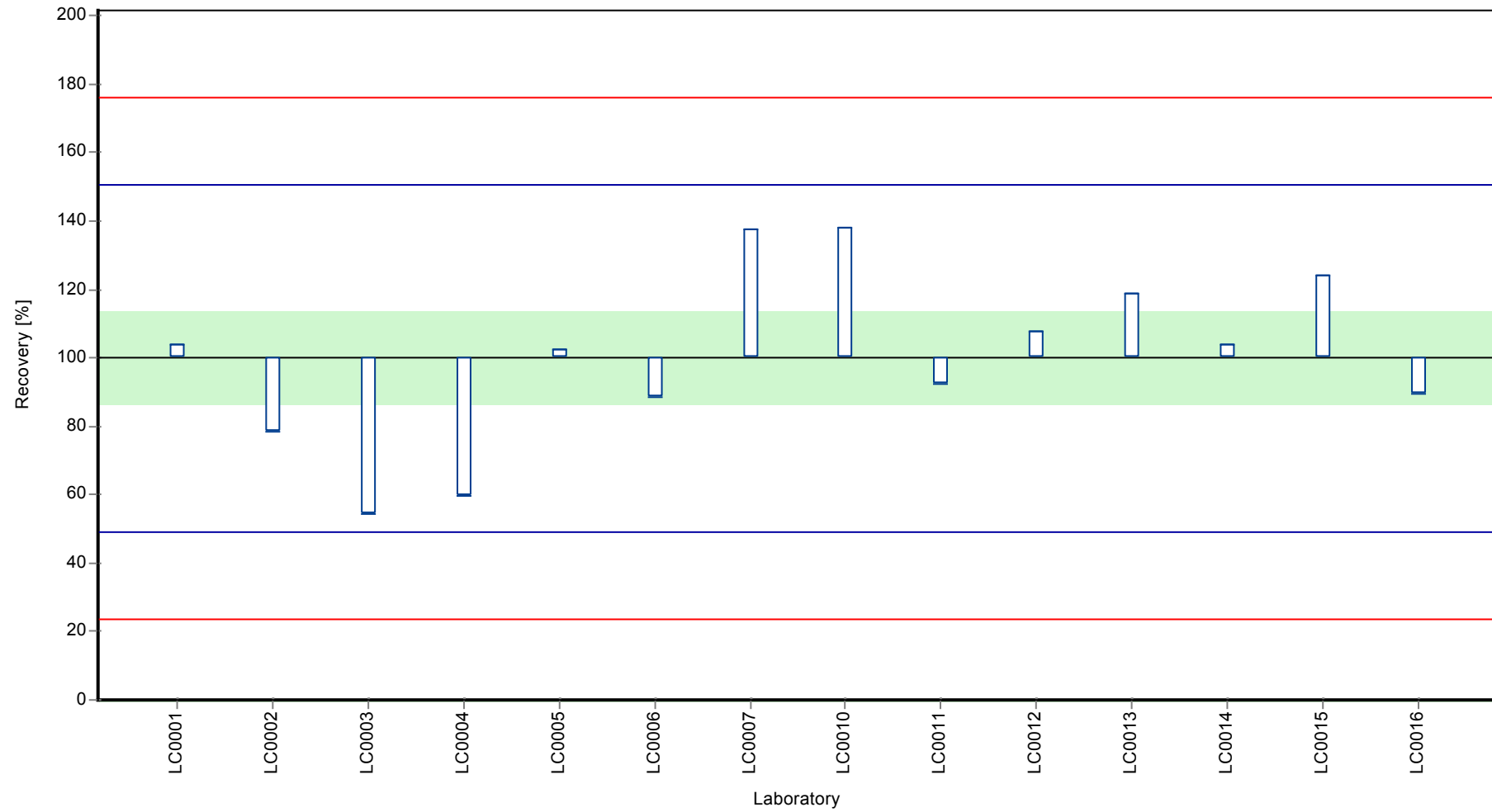
#### Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	79 ± 16.1	79 ± 16.1	ng/l
Minimum	43	43	ng/l
Maximum	109	109	ng/l
Standard deviation	20.1	20.1	ng/l
rel. Standard deviation	25.4	25.4	%
n	14	14	-

**Graphical presentation of results**  
**Results**



**Recovery rate**

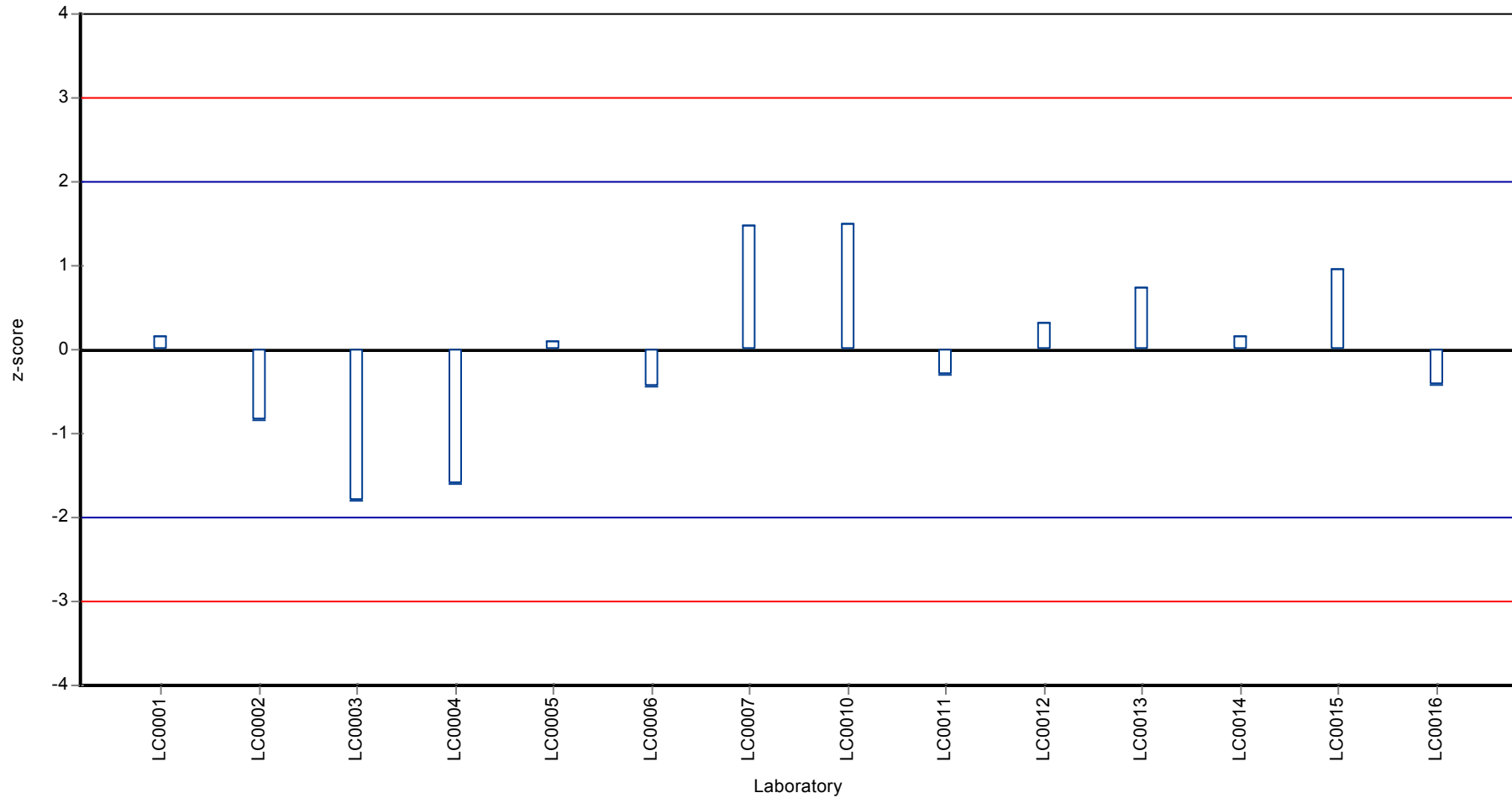




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Dibenzo[a,h]anthracene

Z-score



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Dibenzo[a,h]anthracene

## Parameter oriented report

### P17 B

#### Dibenzo[a,h]anthracene

Unit	ng/l
Mean ± CI (99%)	7.29 ± 3.56
Minimum - Maximum	3.6 - 13
Control test value ± U	< 6.20 (LOQ)

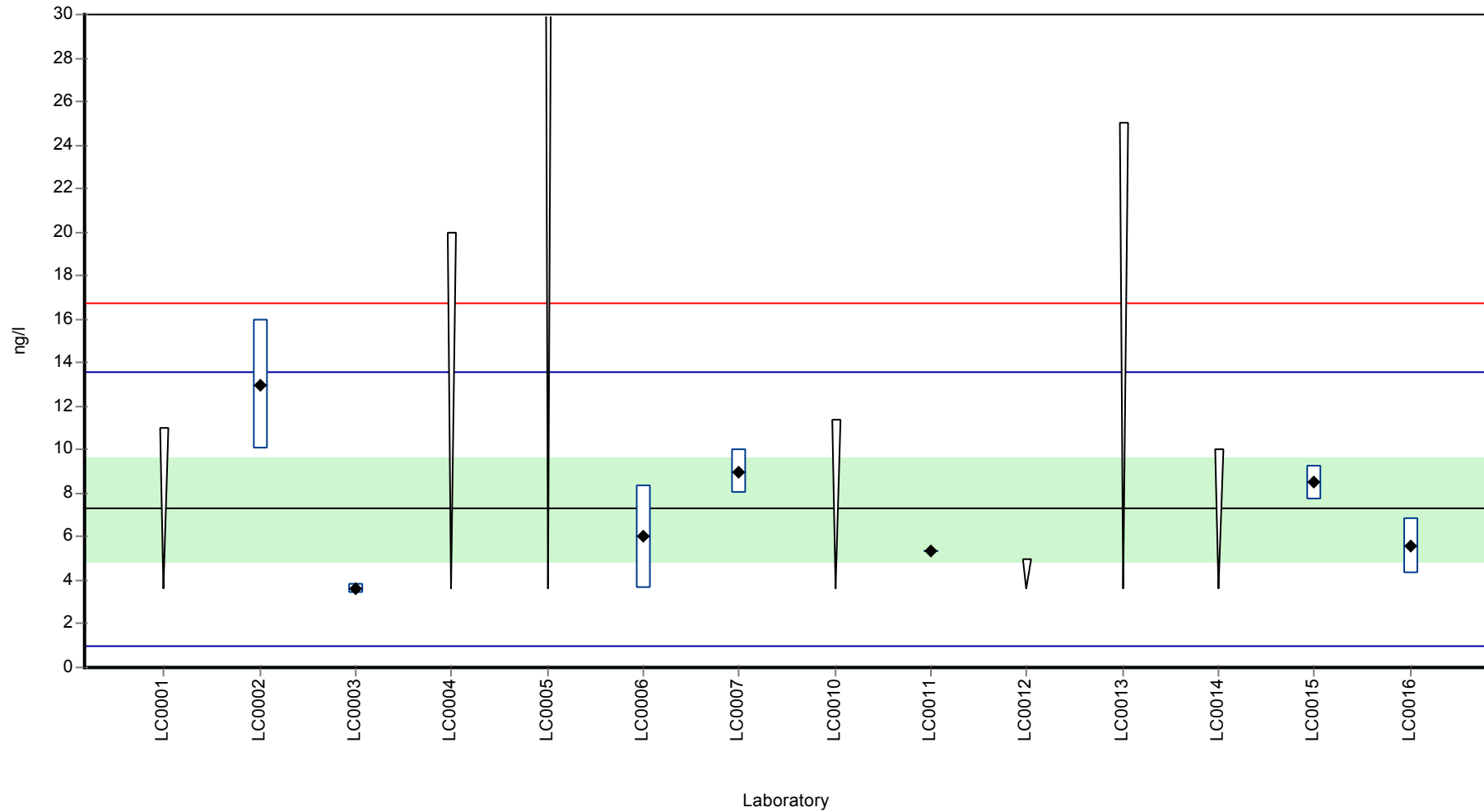
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 11 (LOQ)	-	-	-	
LC0002	13	3	178	1.82	
LC0003	3.6	0.216	49.4	-1.18	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	6	2.4	82.3	-0.41	
LC0007	9	1.01	123	0.55	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	< 11.4 (LOQ)	-	-	-	
LC0011	5.32	0.06	73	-0.63	
LC0012	< 5 (LOQ)	-	-	-	
LC0013	< 25 (LOQ)	-	-	-	
LC0014	< 10 (LOQ)	-	-	-	
LC0015	8.5	0.8	117	0.39	
LC0016	5.6	1.28	76.8	-0.54	

#### Characteristics of parameter

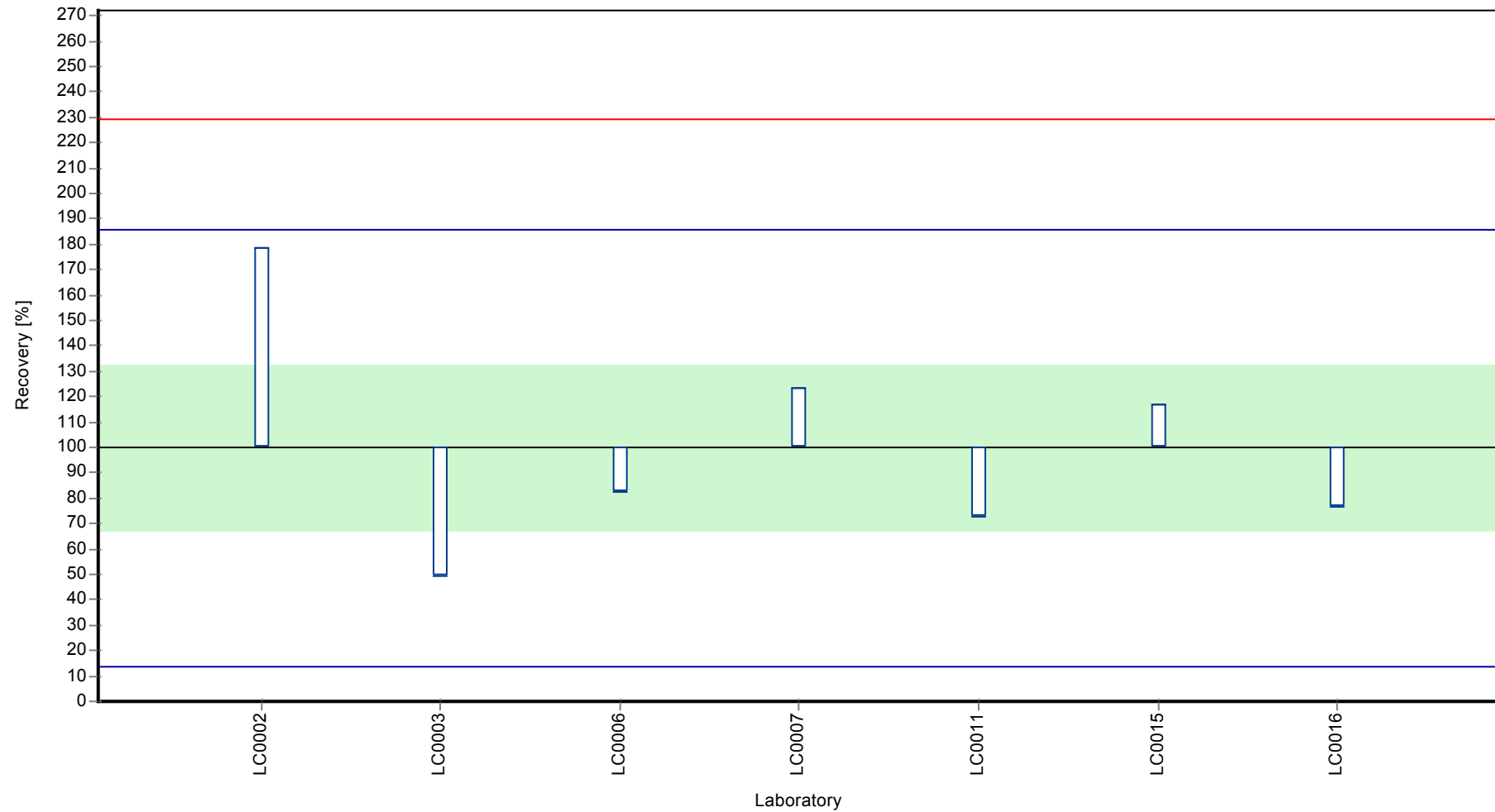
	all results	without outliers	Unit
Mean ± CI (99%)	7.29 ± 3.56	7.29 ± 3.56	ng/l
Minimum	3.6	3.6	ng/l
Maximum	13	13	ng/l
Standard deviation	3.14	3.14	ng/l
rel. Standard deviation	43	43	%
n	7	7	-

Graphical presentation of results

Results



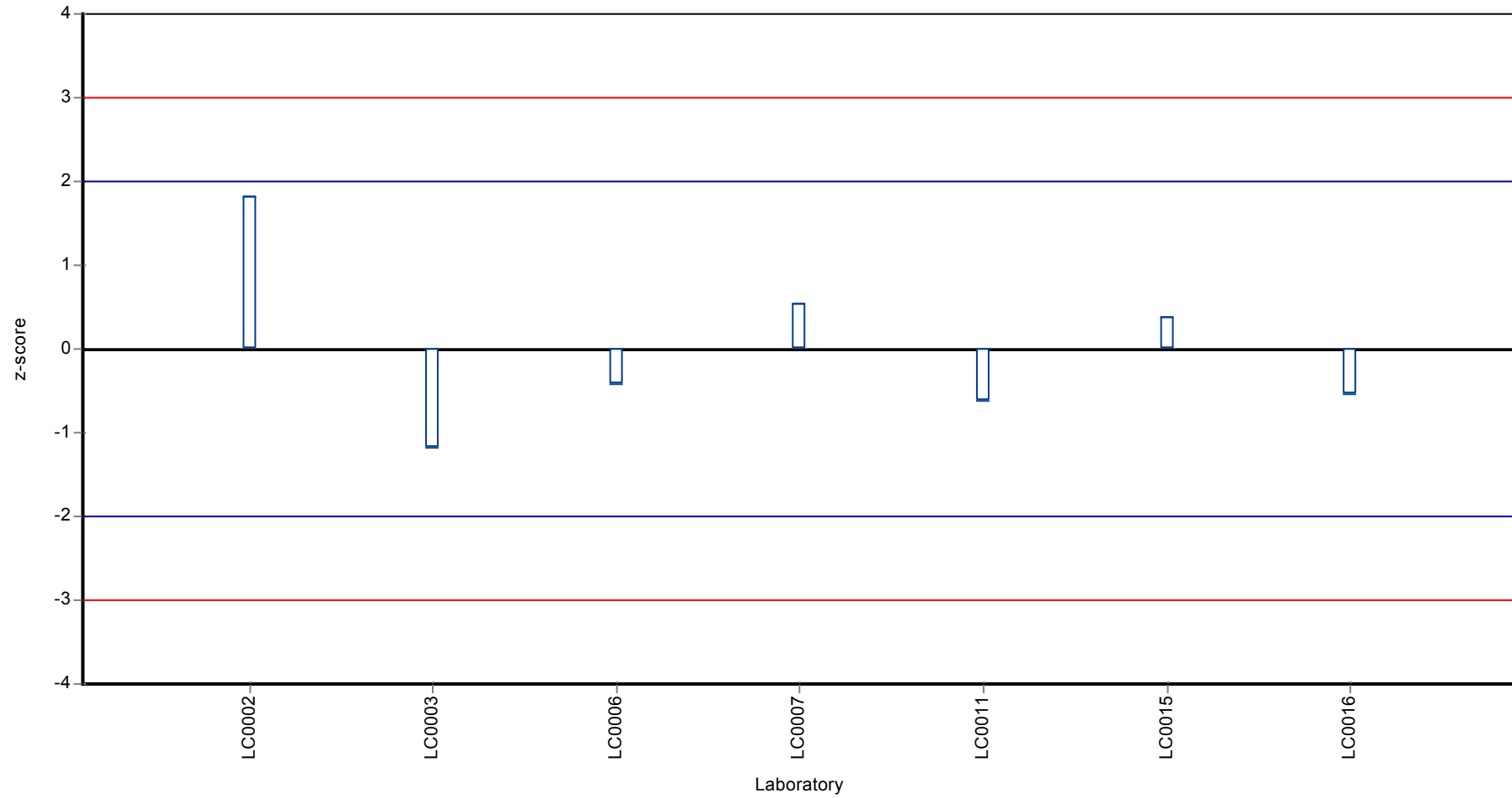
**Recovery rate**



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Dibenzo[a,h]anthracene

Z-score



## Parameter oriented report

### P17 A

#### Fluoranthene

Unit	ng/l
Mean ± CI (99%)	117 ± 20
Minimum - Maximum	60.8 - 150
Control test value ± U	71.7 ± 0.991

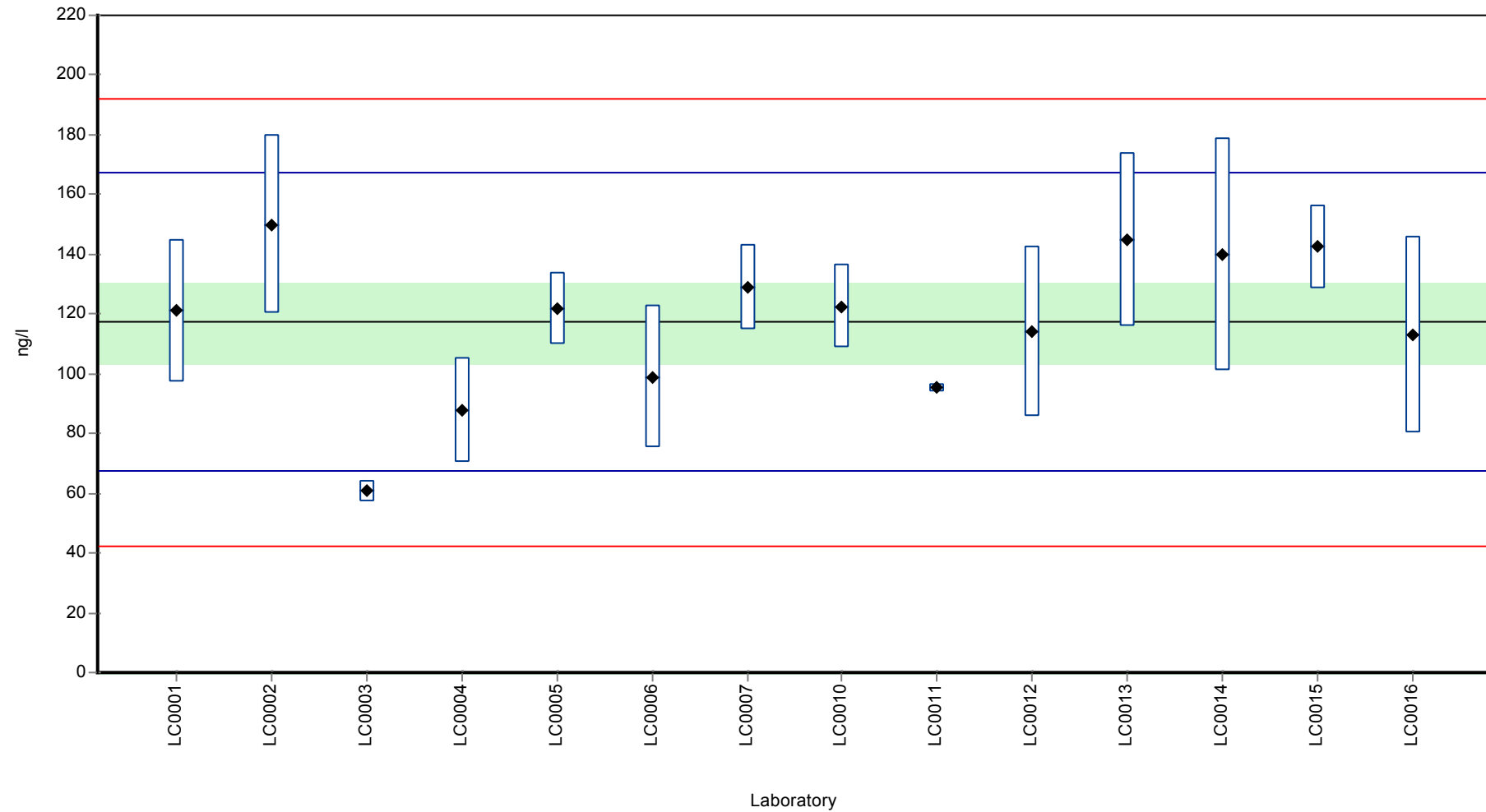
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	121	24	103	0.15	
LC0002	150	30	128	1.31	
LC0003	60.8	3.648	51.9	-2.26	
LC0004	88	17.6	75	-1.17	
LC0005	121.8	12.2	104	0.18	
LC0006	99	24	84.4	-0.73	
LC0007	128.8	14.4	110	0.46	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	122.4	14	104	0.21	
LC0011	95.3	1.3	81.3	-0.88	
LC0012	113.9	28.5	97.1	-0.14	
LC0013	145	29	124	1.11	
LC0014	140	39	119	0.91	
LC0015	142.6	14	122	1.02	
LC0016	113	32.8	96.4	-0.17	

#### Characteristics of parameter

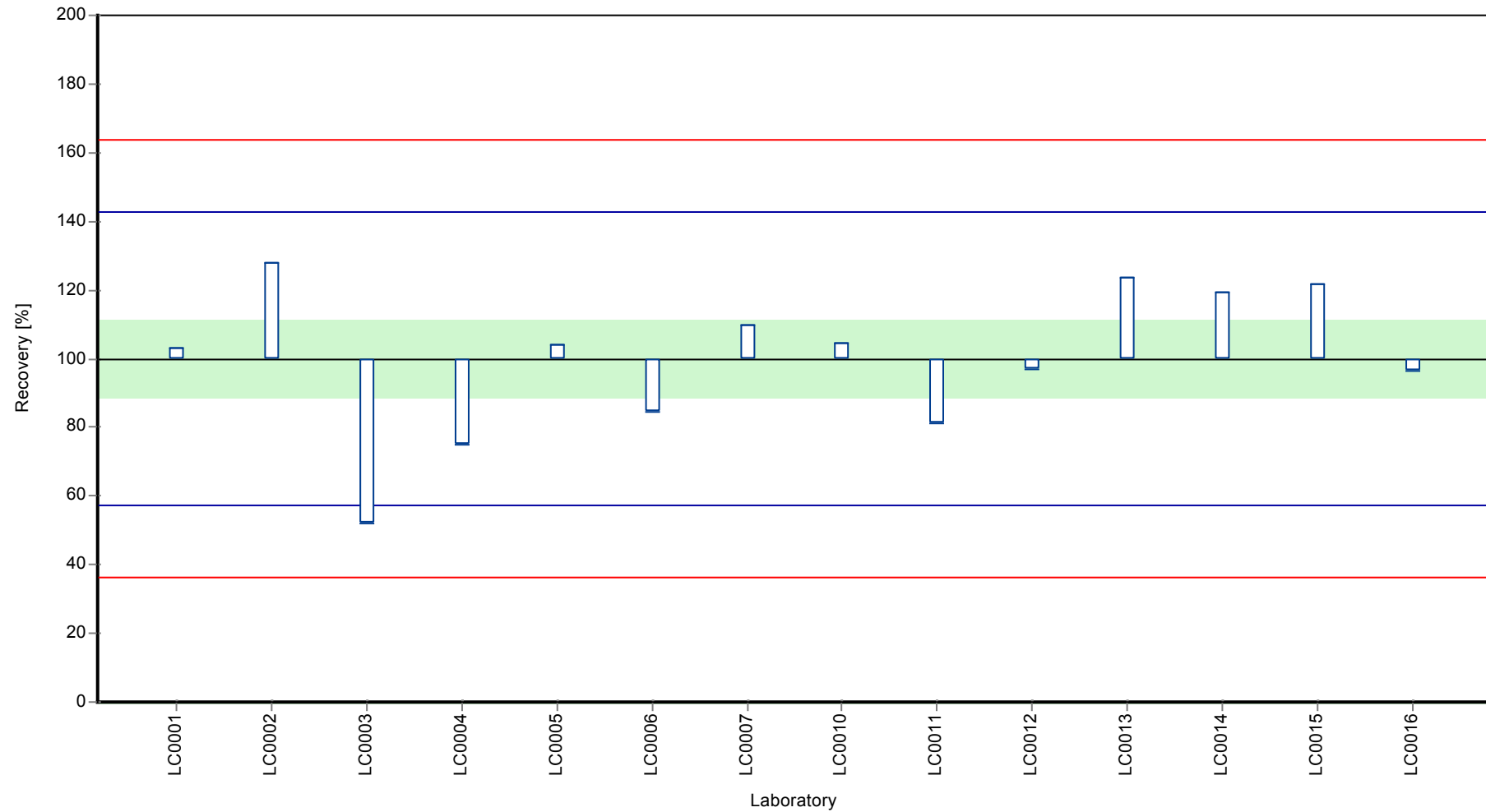
	all results	without outliers	Unit
Mean ± CI (99%)	117 ± 20	117 ± 20	ng/l
Minimum	60.8	60.8	ng/l
Maximum	150	150	ng/l
Standard deviation	24.9	24.9	ng/l
rel. Standard deviation	21.3	21.3	%
n	14	14	-

Graphical presentation of results

Results

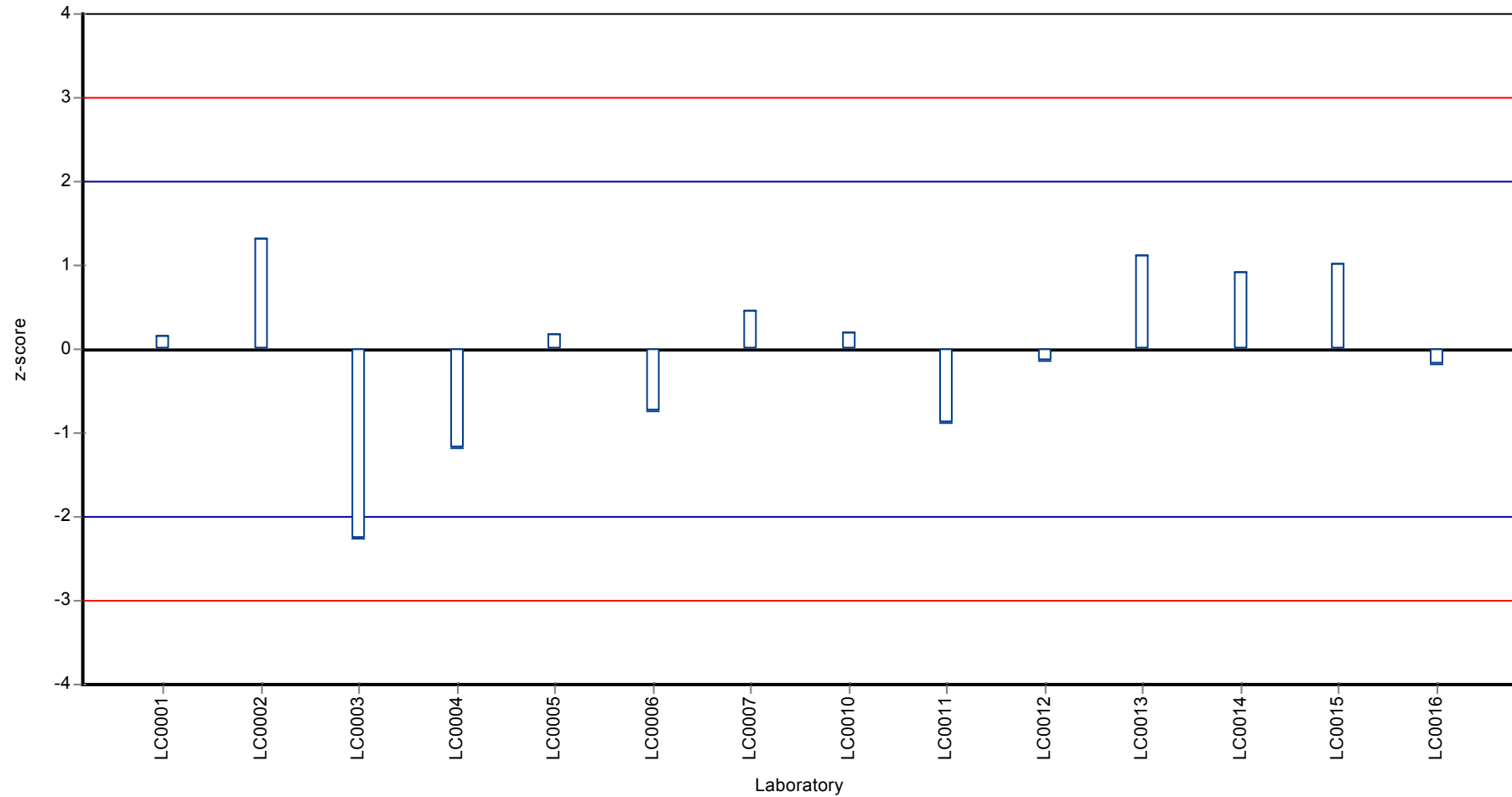


**Recovery rate**





Z-score



## Parameter oriented report

### P17 B

#### Fluoranthene

Unit	ng/l
Mean ± CI (99%)	75.3 ± 12.6
Minimum - Maximum	40.6 - 98
Control test value ± U	46.3 ± 5.79

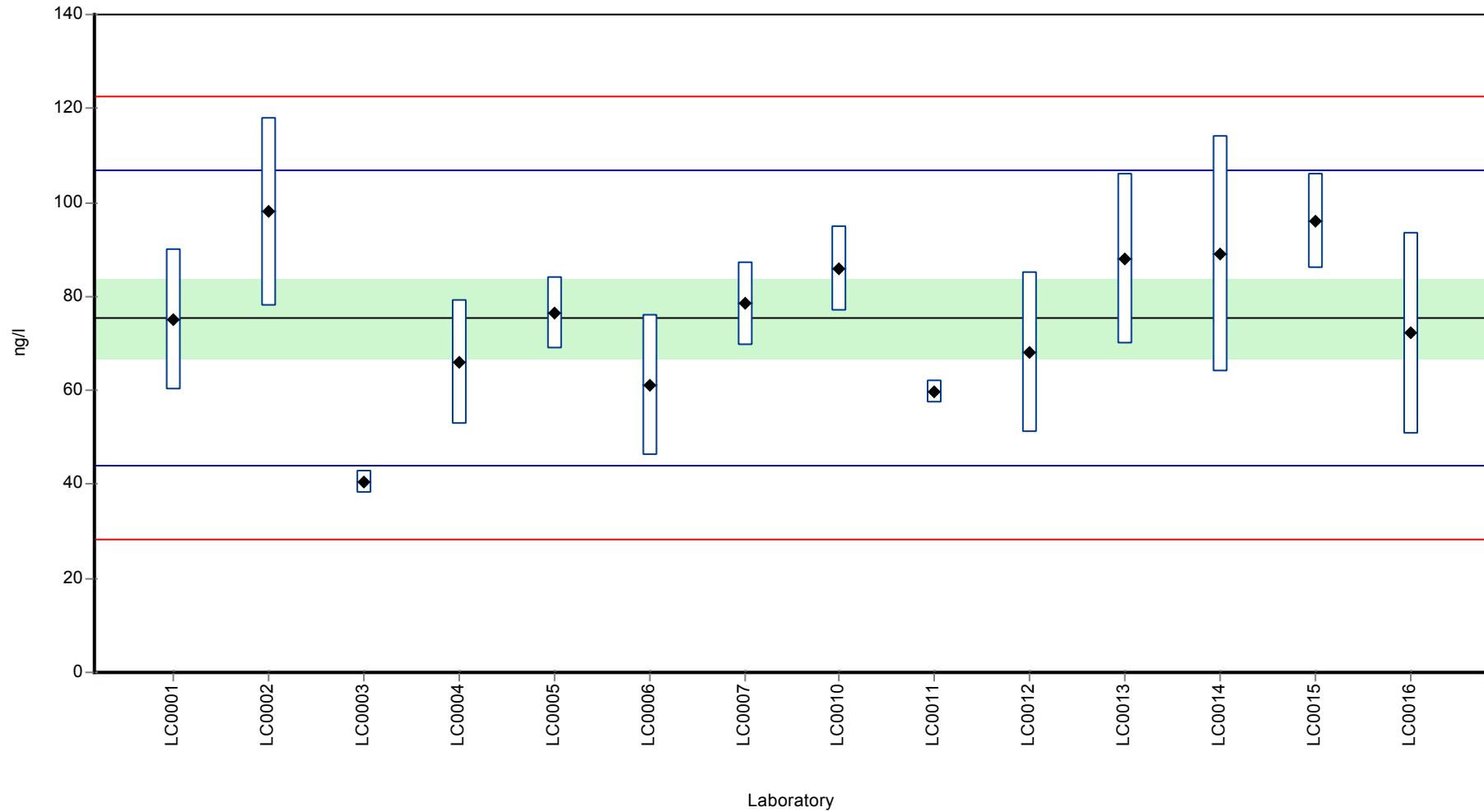
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	75	15	99.6	-0.02	
LC0002	98	20	130	1.44	
LC0003	40.6	2.436	53.9	-2.21	
LC0004	66	13.2	87.6	-0.59	
LC0005	76.6	7.7	102	0.08	
LC0006	61	15	81	-0.91	
LC0007	78.4	8.78	104	0.2	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	85.8	9	114	0.67	
LC0011	59.7	2.6	79.3	-0.99	
LC0012	68.1	17	90.4	-0.46	
LC0013	88	18	117	0.81	
LC0014	89	25	118	0.87	
LC0015	96	10	127	1.32	
LC0016	72.1	21.6	95.7	-0.2	

#### Characteristics of parameter

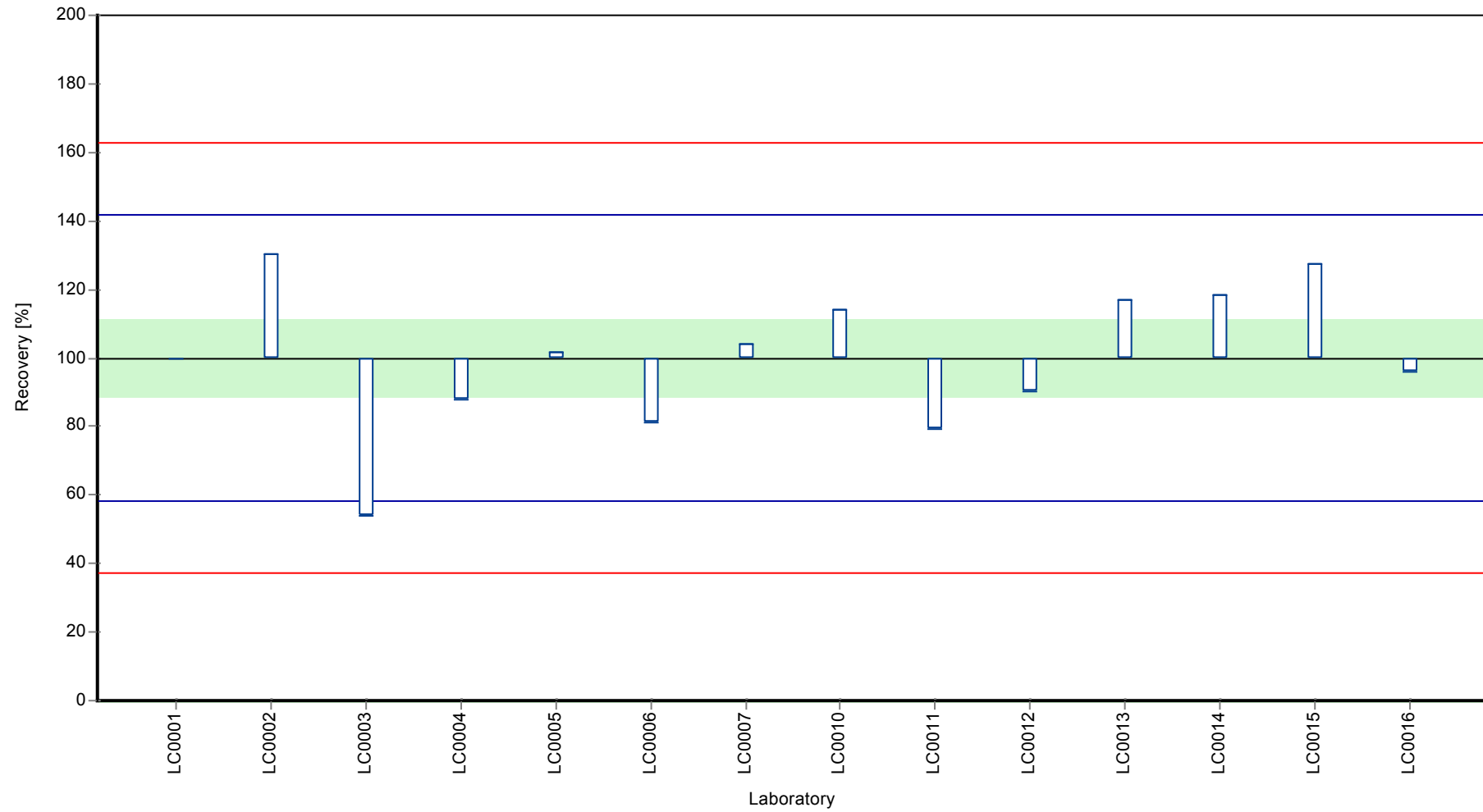
	all results	without outliers	Unit
Mean ± CI (99%)	75.3 ± 12.6	75.3 ± 12.6	ng/l
Minimum	40.6	40.6	ng/l
Maximum	98	98	ng/l
Standard deviation	15.7	15.7	ng/l
rel. Standard deviation	20.9	20.9	%
n	14	14	-

Graphical presentation of results

Results



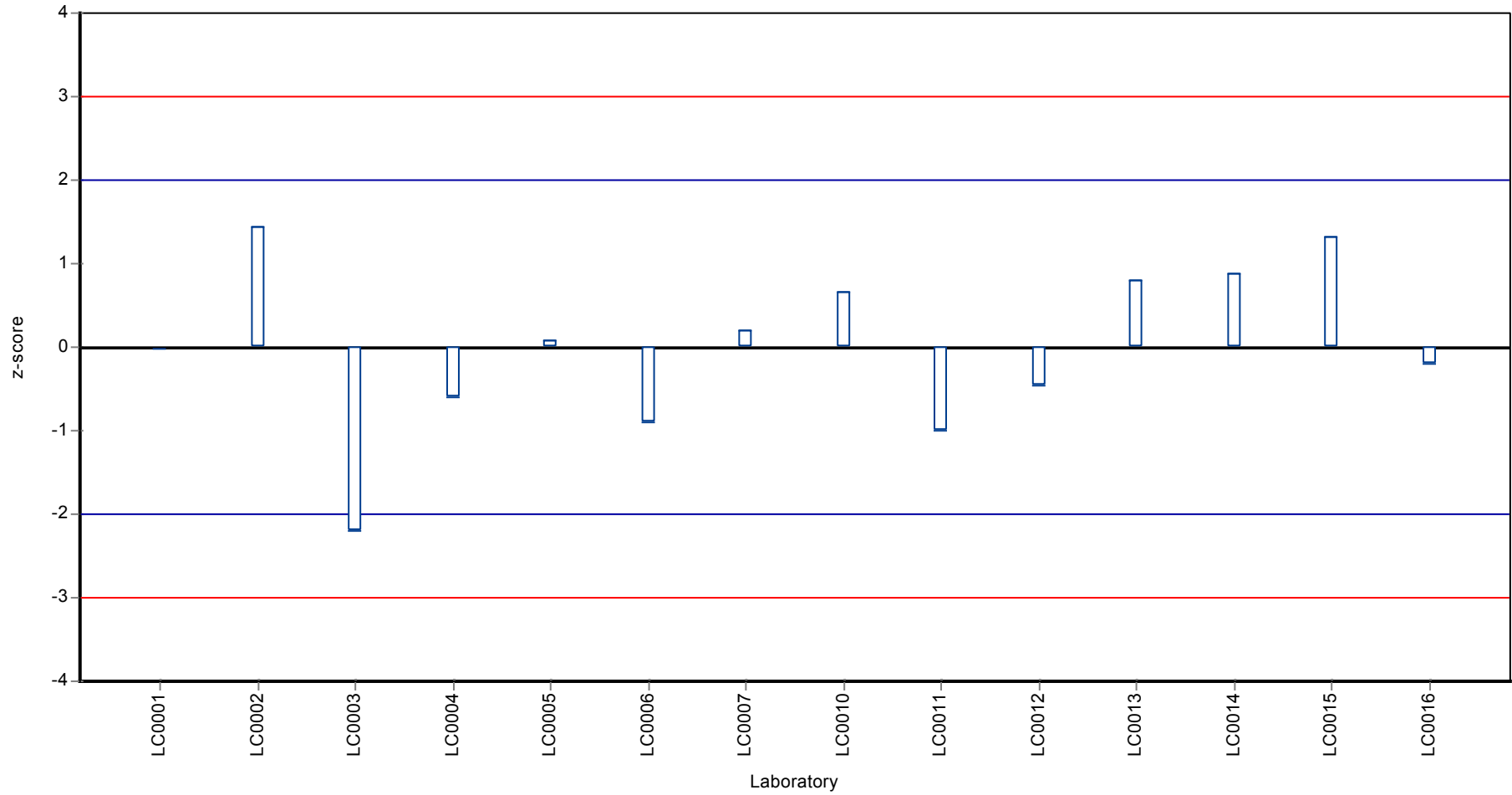
**Recovery rate**



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Fluoranthene

Z-score



## Parameter oriented report

### P17 A

#### Fluorene

Unit	ng/l
Mean ± CI (99%)	202 ± 43.8
Minimum - Maximum	119 - 262
Control test value ± U	138 ± 2.25

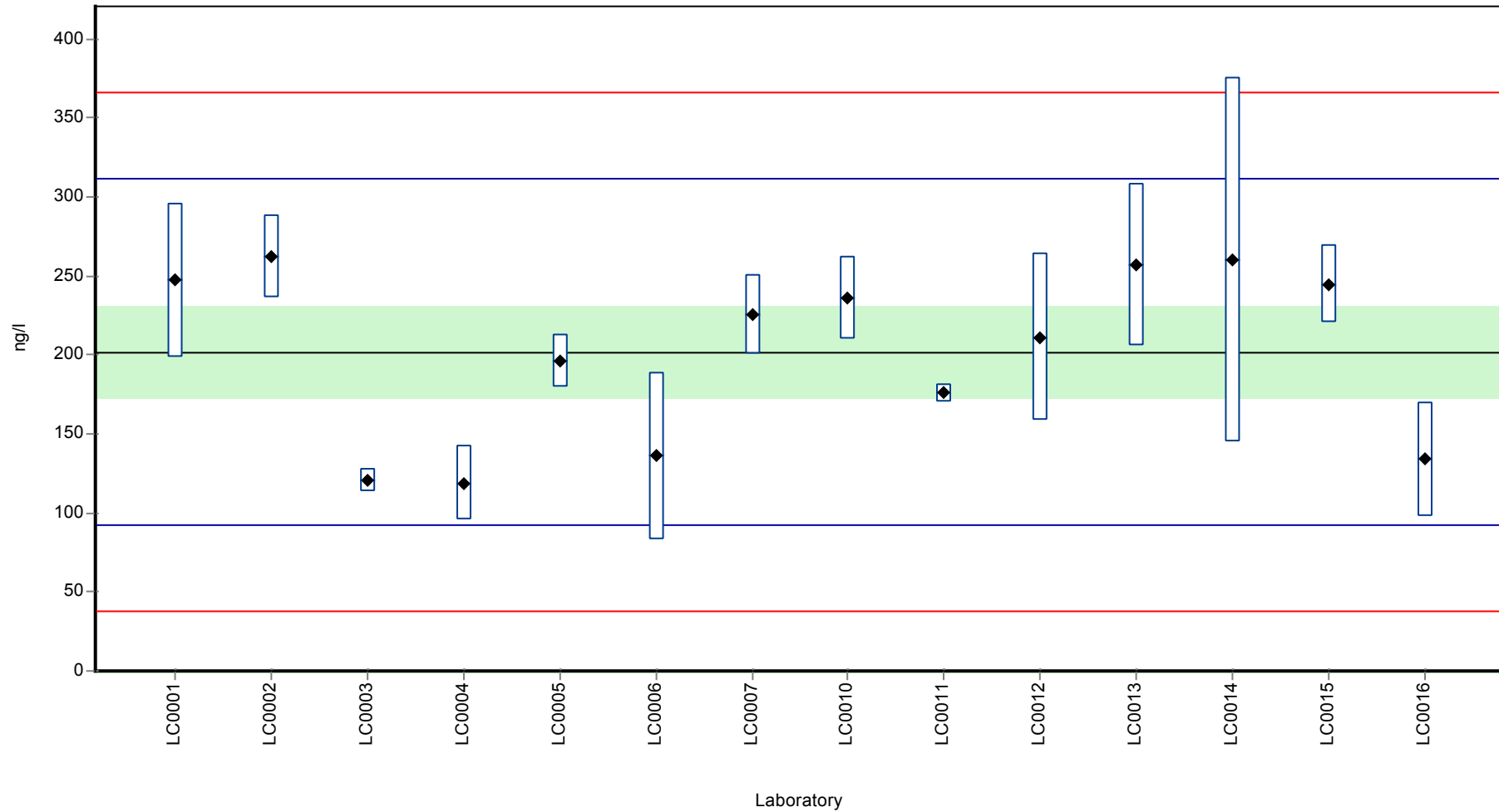
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	247	49	122	0.83	
LC0002	262	26	130	1.1	
LC0003	120.45	7.227	59.7	-1.49	
LC0004	119	23.8	59	-1.51	
LC0005	196	17	97.1	-0.11	
LC0006	136	53	67.4	-1.2	
LC0007	225.6	25.3	112	0.43	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	236	26	117	0.63	
LC0011	176	5.7	87.2	-0.47	
LC0012	211.2	52.8	105	0.17	
LC0013	257	51	127	1.01	
LC0014	260	115	129	1.06	
LC0015	244.8	25	121	0.79	
LC0016	134	36.2	66.4	-1.24	

#### Characteristics of parameter

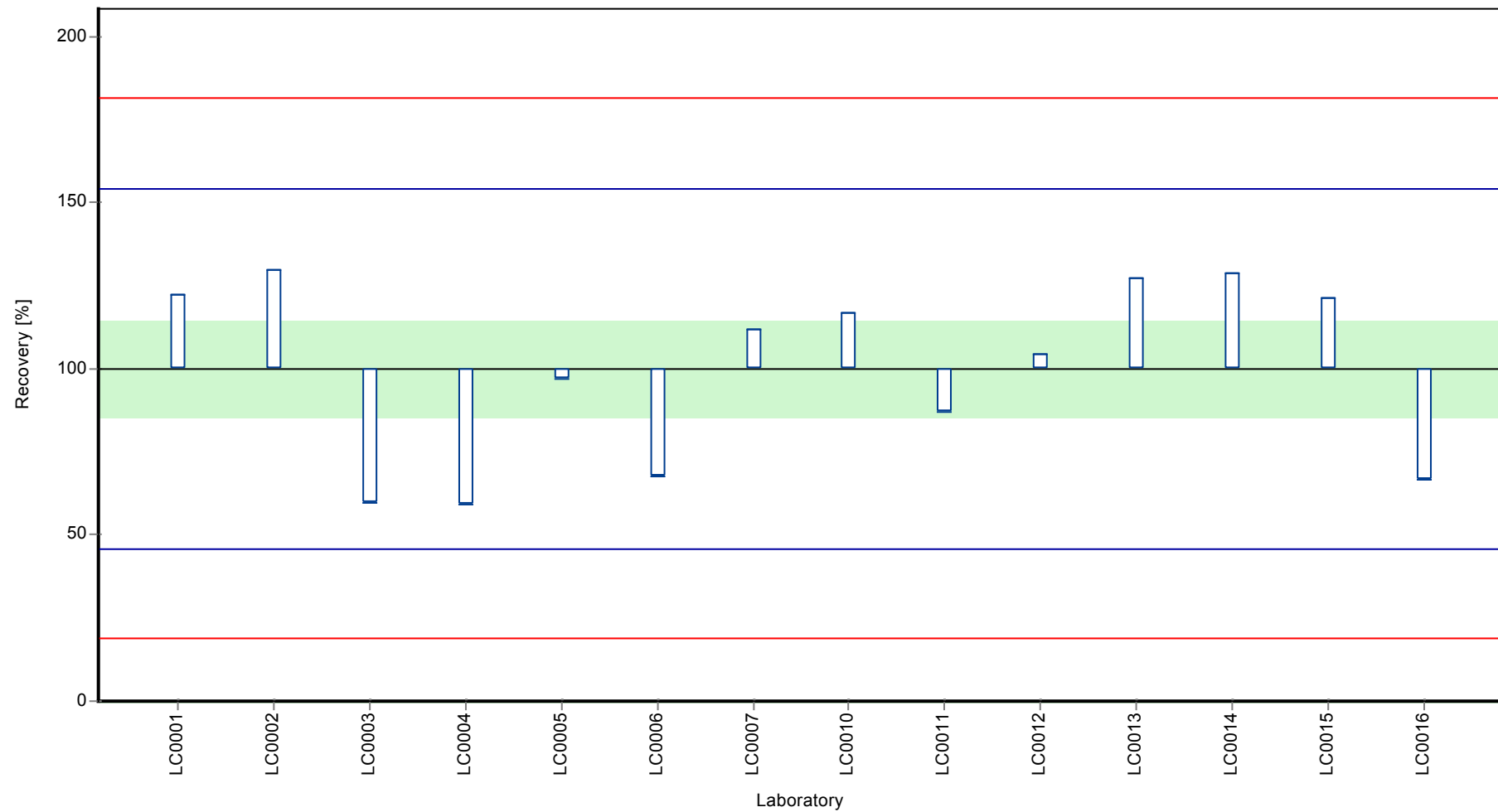
	all results	without outliers	Unit
Mean ± CI (99%)	202 ± 43.8	202 ± 43.8	ng/l
Minimum	119	119	ng/l
Maximum	262	262	ng/l
Standard deviation	54.7	54.7	ng/l
rel. Standard deviation	27.1	27.1	%
n	14	14	-

Graphical presentation of results

Results

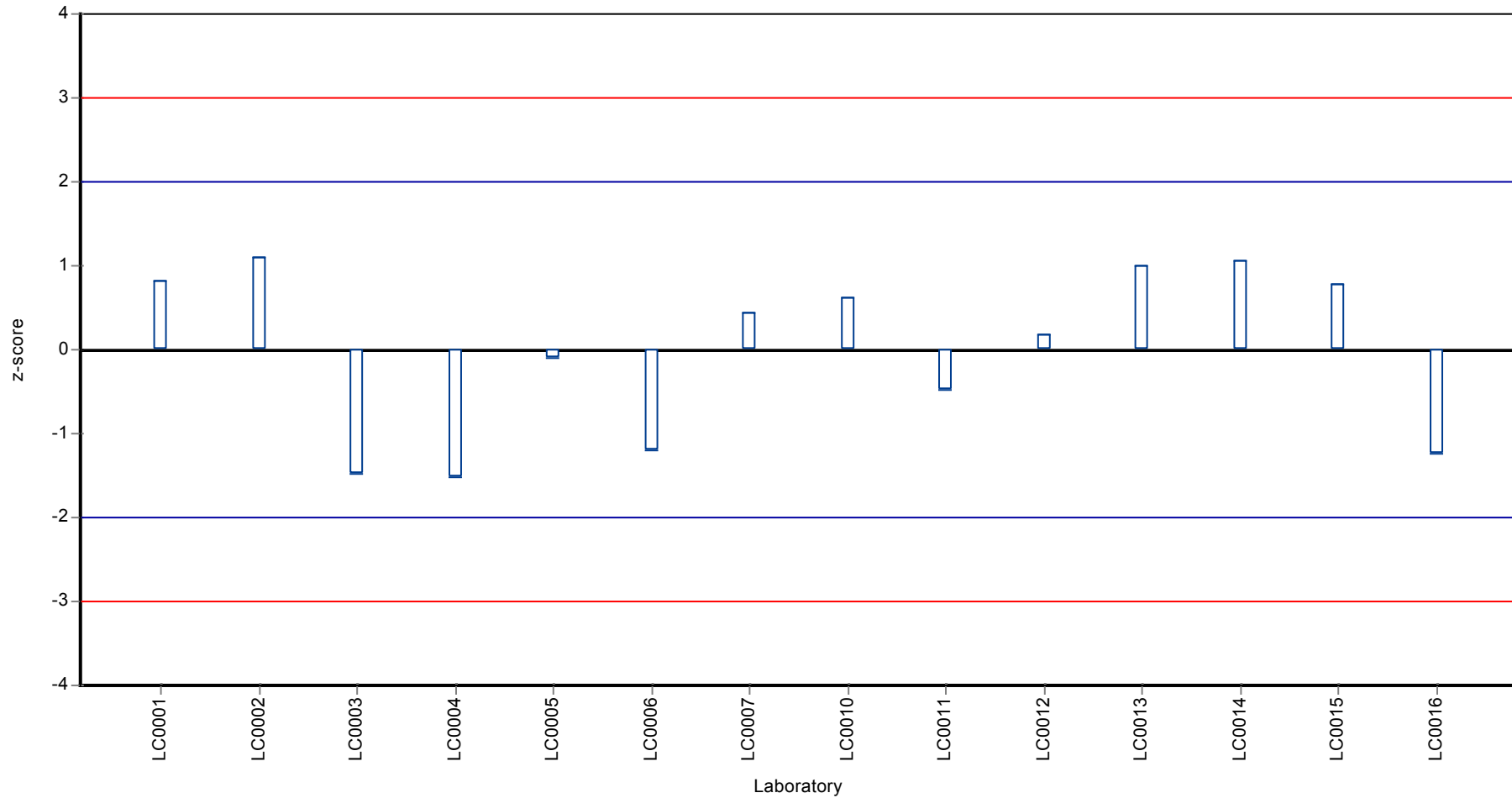


Recovery rate





Z-score



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Fluorene

## Parameter oriented report

### P17 B

#### Fluorene

Unit	ng/l
Mean ± CI (99%)	68.8 ± 13
Minimum - Maximum	40.6 - 92
Control test value ± U	43.5 ± 7.08

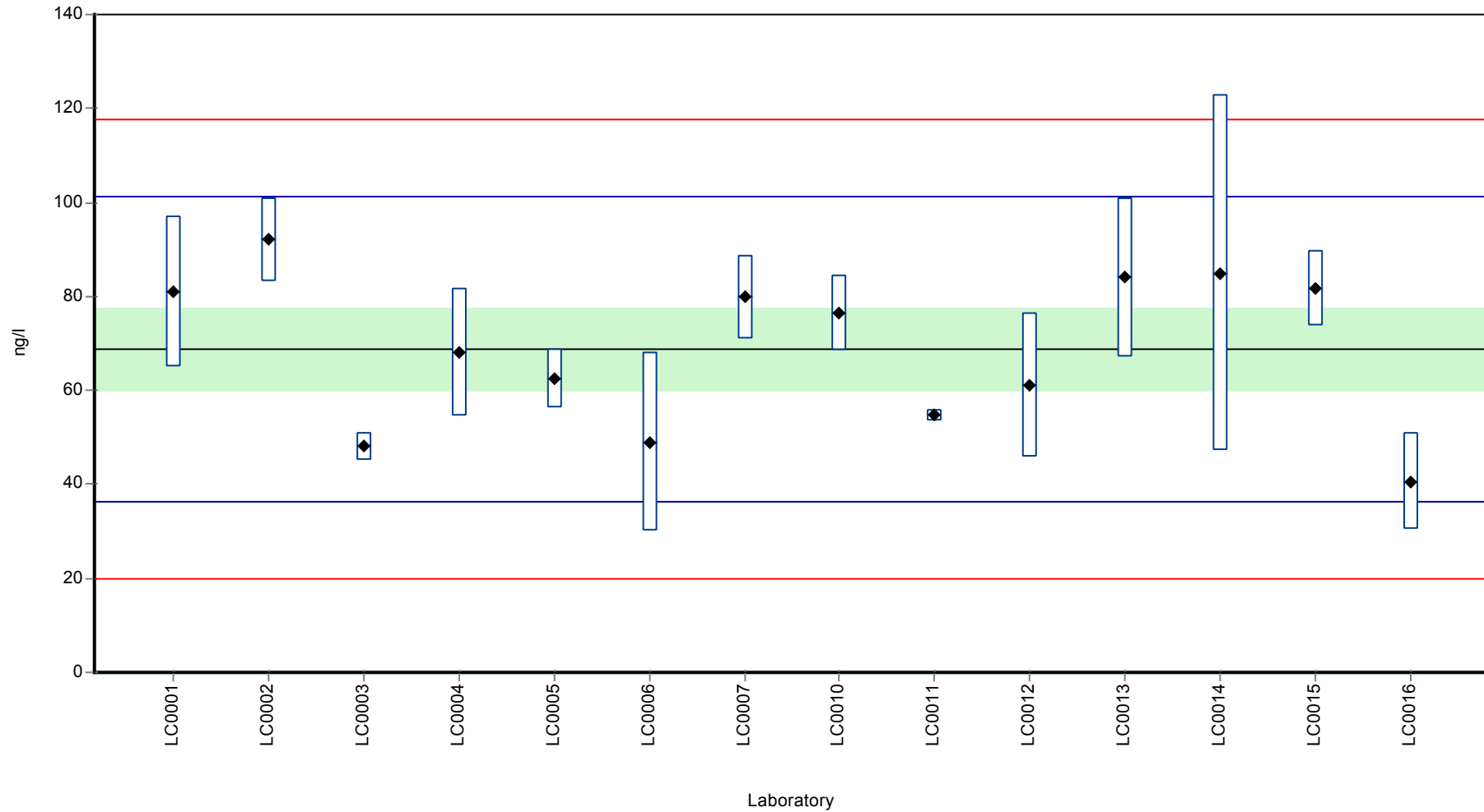
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	81	16	118	0.75	
LC0002	92	9	134	1.42	
LC0003	48.05	2.883	69.8	-1.28	
LC0004	68	13.6	98.8	-0.05	
LC0005	62.5	6.3	90.8	-0.39	
LC0006	49	19	71.2	-1.22	
LC0007	79.8	8.94	116	0.67	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	76.4	8	111	0.46	
LC0011	54.7	1.3	79.5	-0.87	
LC0012	61.1	15.3	88.7	-0.48	
LC0013	84	17	122	0.93	
LC0014	85	38	123	0.99	
LC0015	81.7	8	119	0.79	
LC0016	40.6	10.2	59	-1.74	

#### Characteristics of parameter

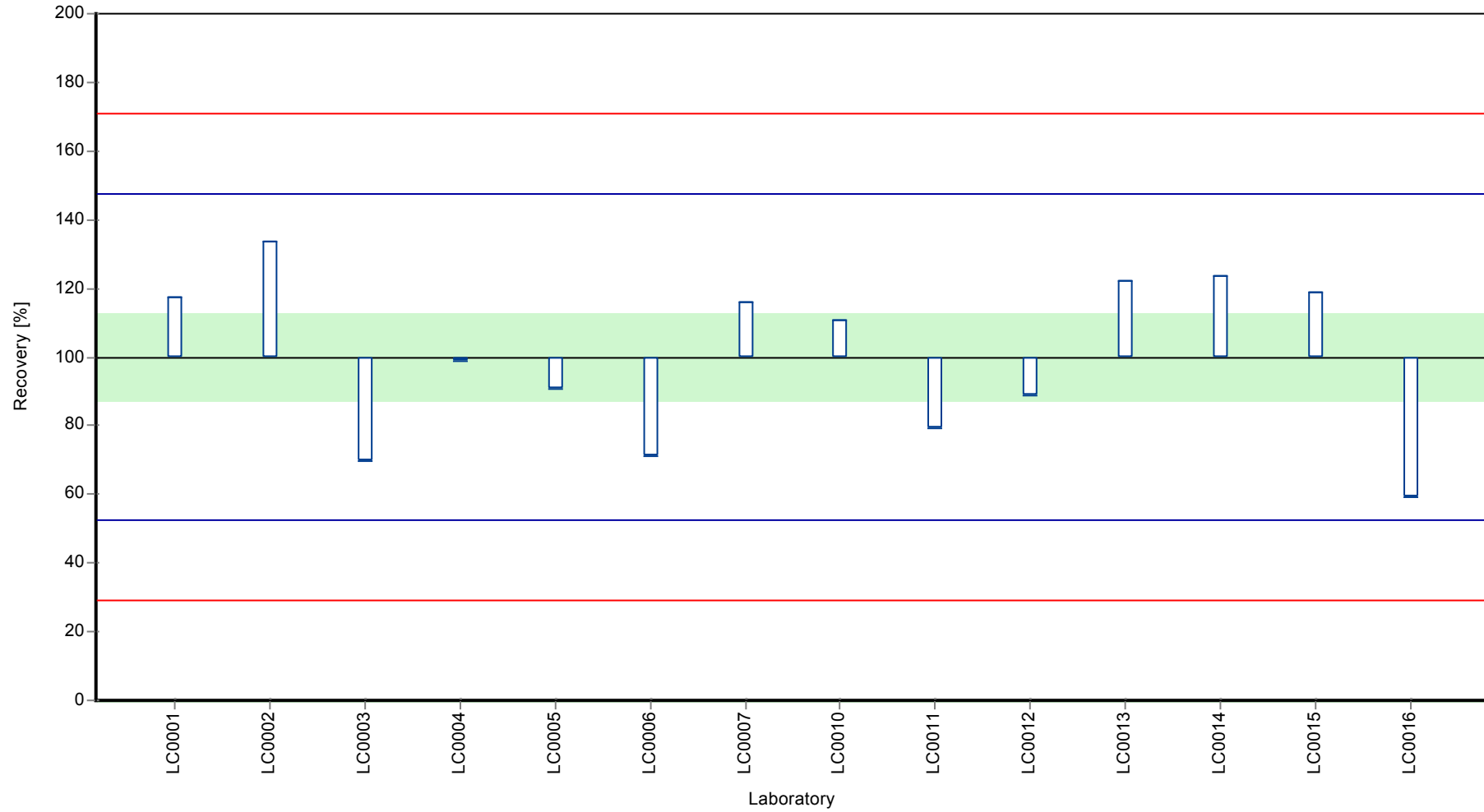
	all results	without outliers	Unit
Mean ± CI (99%)	68.8 ± 13	68.8 ± 13	ng/l
Minimum	40.6	40.6	ng/l
Maximum	92	92	ng/l
Standard deviation	16.3	16.3	ng/l
rel. Standard deviation	23.6	23.6	%
n	14	14	-

Graphical presentation of results

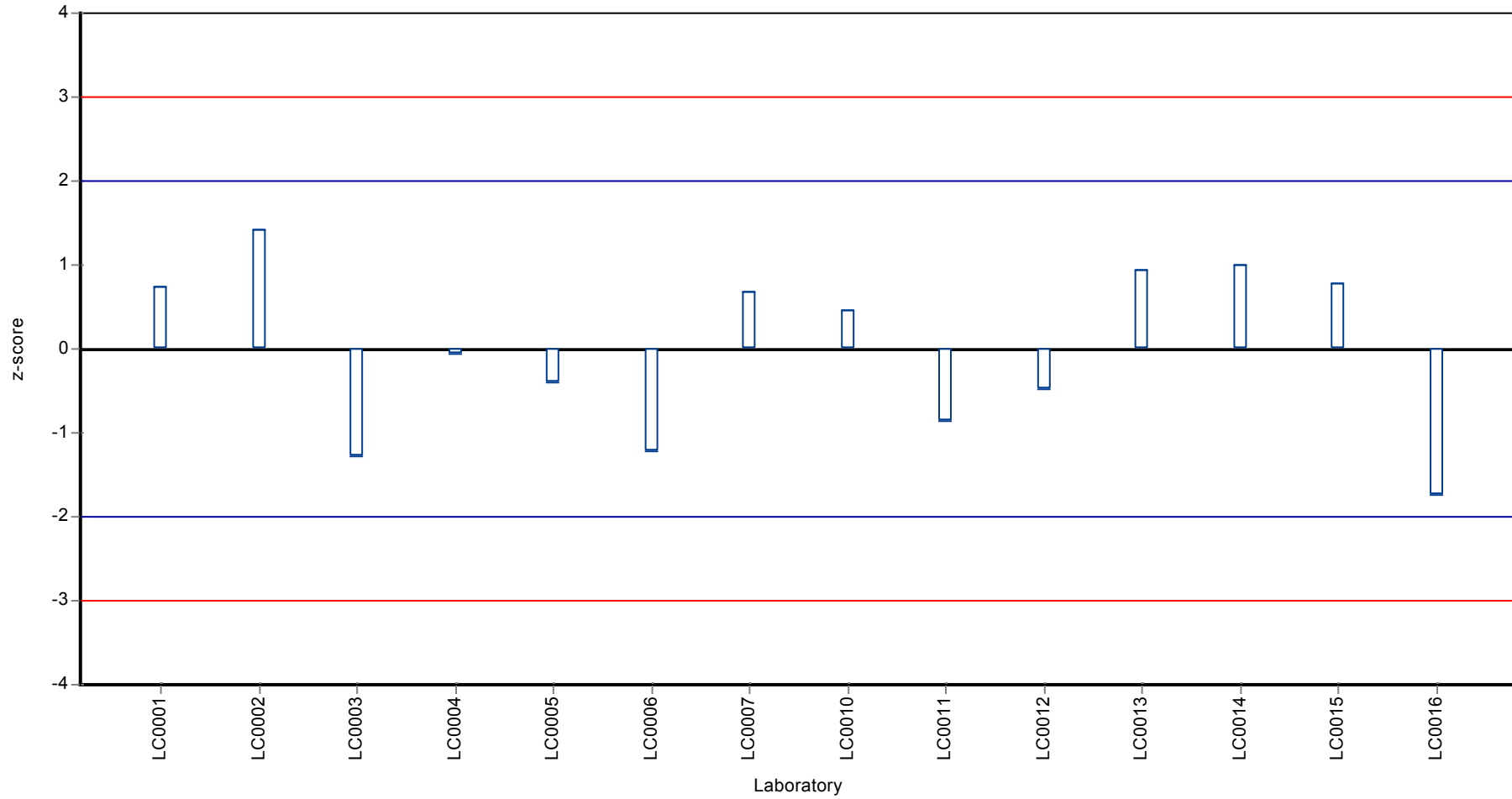
Results



**Recovery rate**



Z-score



Parameter oriented report Polycyclic Aromatic  
Hydrocarbons P17

Sample: P17A, Parameter: Indeno[1,2,3-cd]pyrene

## Parameter oriented report

### P17 A

#### Indeno[1,2,3-cd]pyrene

Unit	ng/l
Mean ± CI (99%)	-
Minimum - Maximum	7.8 - 20
Control test value ± U	6.12 ± 0.765

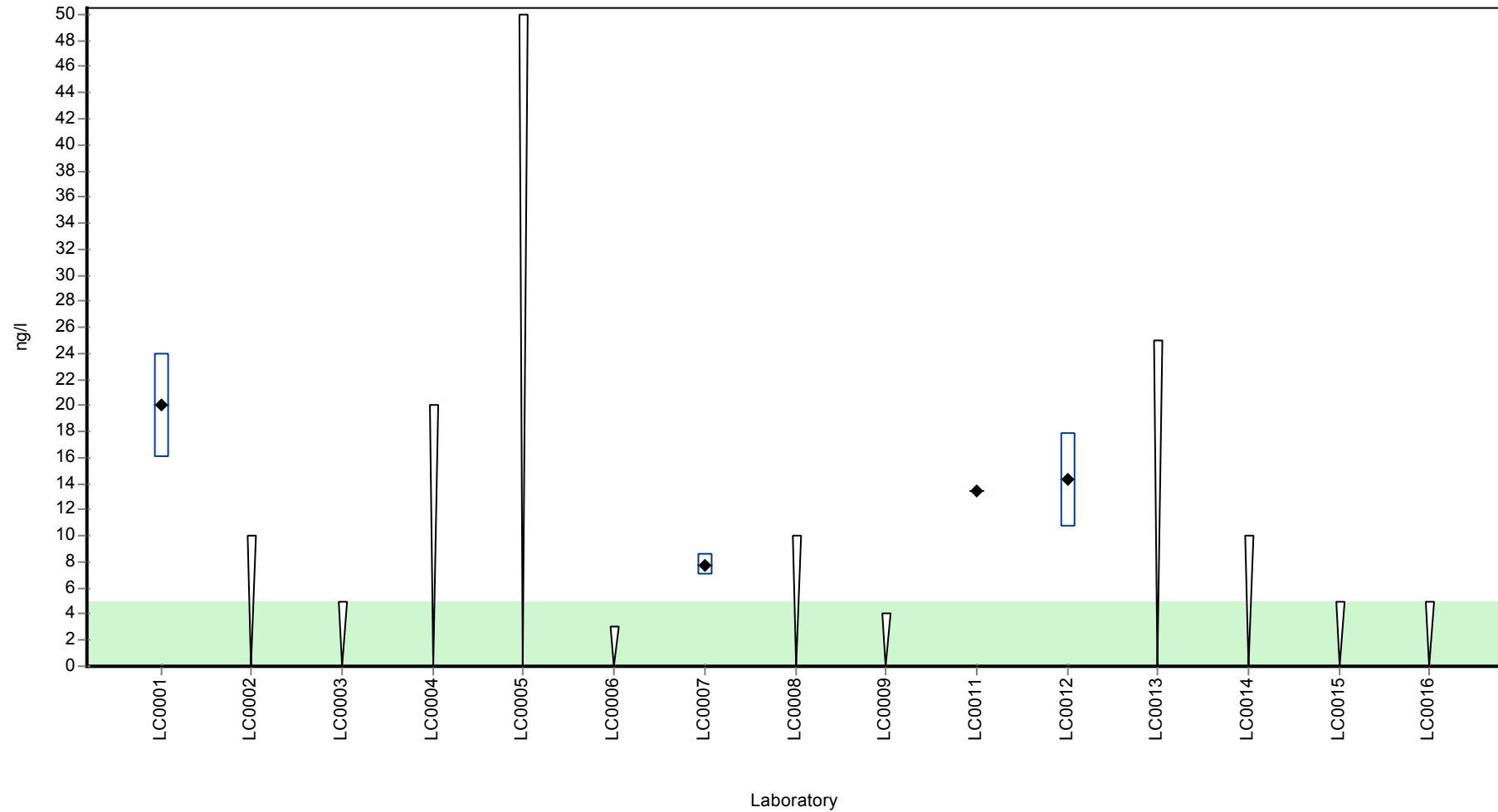
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	20	4	-	-	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	< 5 (LOQ)	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	< 3 (LOQ)	-	-	-	
LC0007	7.8	0.874	-	-	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	< 4.1 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	13.5	0.07	-	-	
LC0012	14.3	3.6	-	-	
LC0013	< 25 (LOQ)	-	-	-	
LC0014	< 10 (LOQ)	-	-	-	
LC0015	< 5 (LOQ)	-	-	-	
LC0016	< 5 (LOQ)	-	-	-	

#### Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	13.9 ± 7.49	-	ng/l
Minimum	7.8	7.8	ng/l
Maximum	20	20	ng/l
Standard deviation	4.99	-	ng/l
rel. Standard deviation	35.9	-	%
n	4	4	-

Graphical presentation of results

Results



## Parameter oriented report

### P17 B

#### Indeno[1,2,3-cd]pyrene

Unit	ng/l
Mean ± CI (99%)	-
Minimum - Maximum	2.08 - 6.4
Control test value ± U	< 1.30 (LOD)

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 11 (LOQ)	-	-	-	
LC0002	< 10 (LOQ)	-	-	-	
LC0003	< 5 (LOQ)	-	-	-	
LC0004	< 20 (LOQ)	-	-	-	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	<0.8 (LOD)	-	-	-	
LC0007	6.4	0.717	-	-	
LC0008	< 10 (LOQ)	-	-	-	
LC0009	< 4.1 (LOQ)	-	-	-	
LC0010	-	-	-	-	
LC0011	2.08	0.01	-	-	
LC0012	< 5 (LOQ)	-	-	-	
LC0013	< 25 (LOQ)	-	-	-	
LC0014	< 10 (LOQ)	-	-	-	
LC0015	< 5 (LOQ)	-	-	-	
LC0016	< 5 (LOQ)	-	-	-	

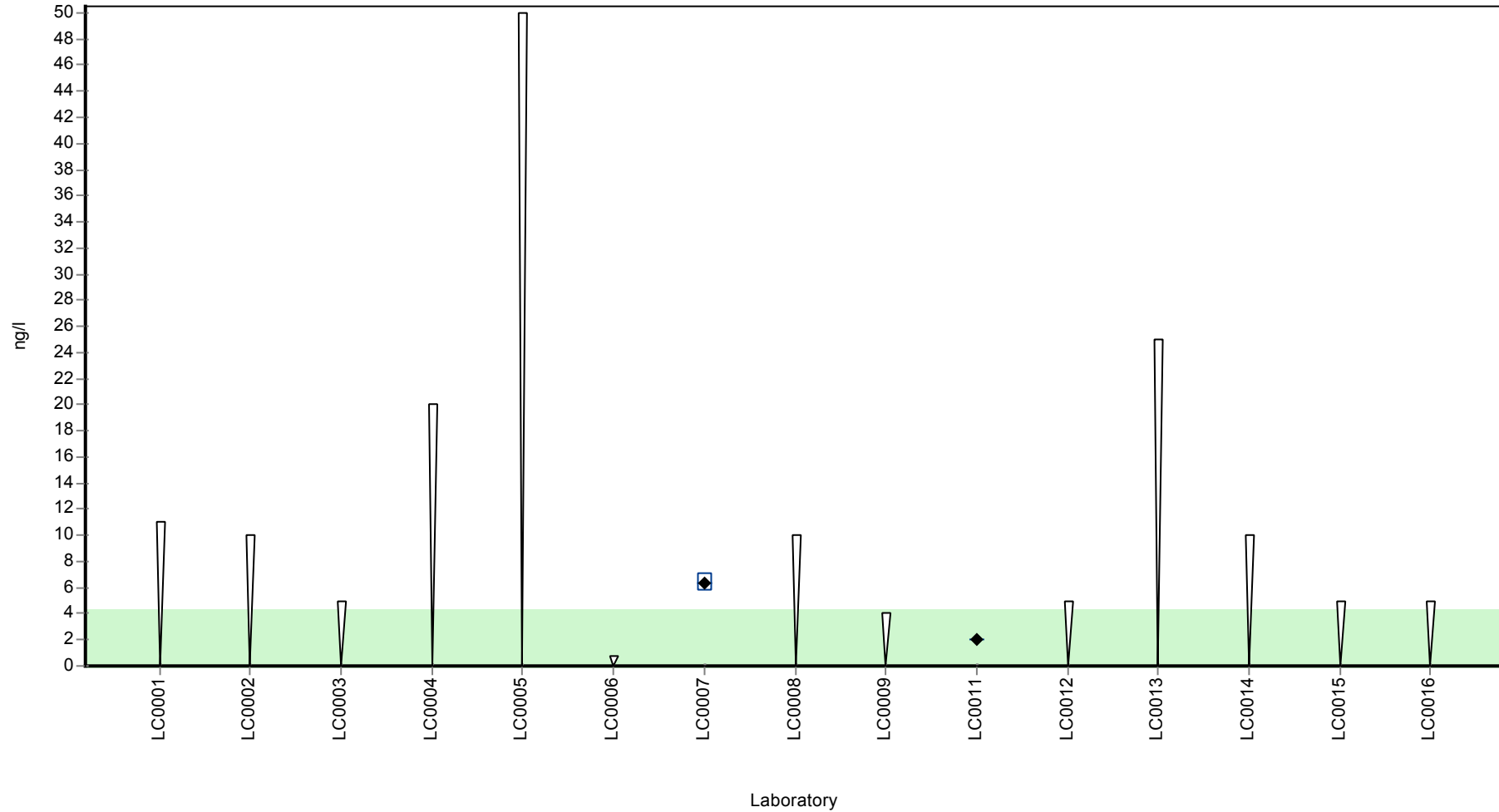
#### Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	4.24 ± 6.48	-	ng/l
Minimum	2.08	2.08	ng/l
Maximum	6.4	6.4	ng/l
Standard deviation	3.05	-	ng/l
rel. Standard deviation	72	-	%
n	2	2	-



Graphical presentation of results

Results



## Parameter oriented report

### P17 A

#### Naphthalene

Unit	ng/l
Mean ± CI (99%)	114 ± 29.3
Minimum - Maximum	46 - 190
Control test value ± U	107 ± 4.12

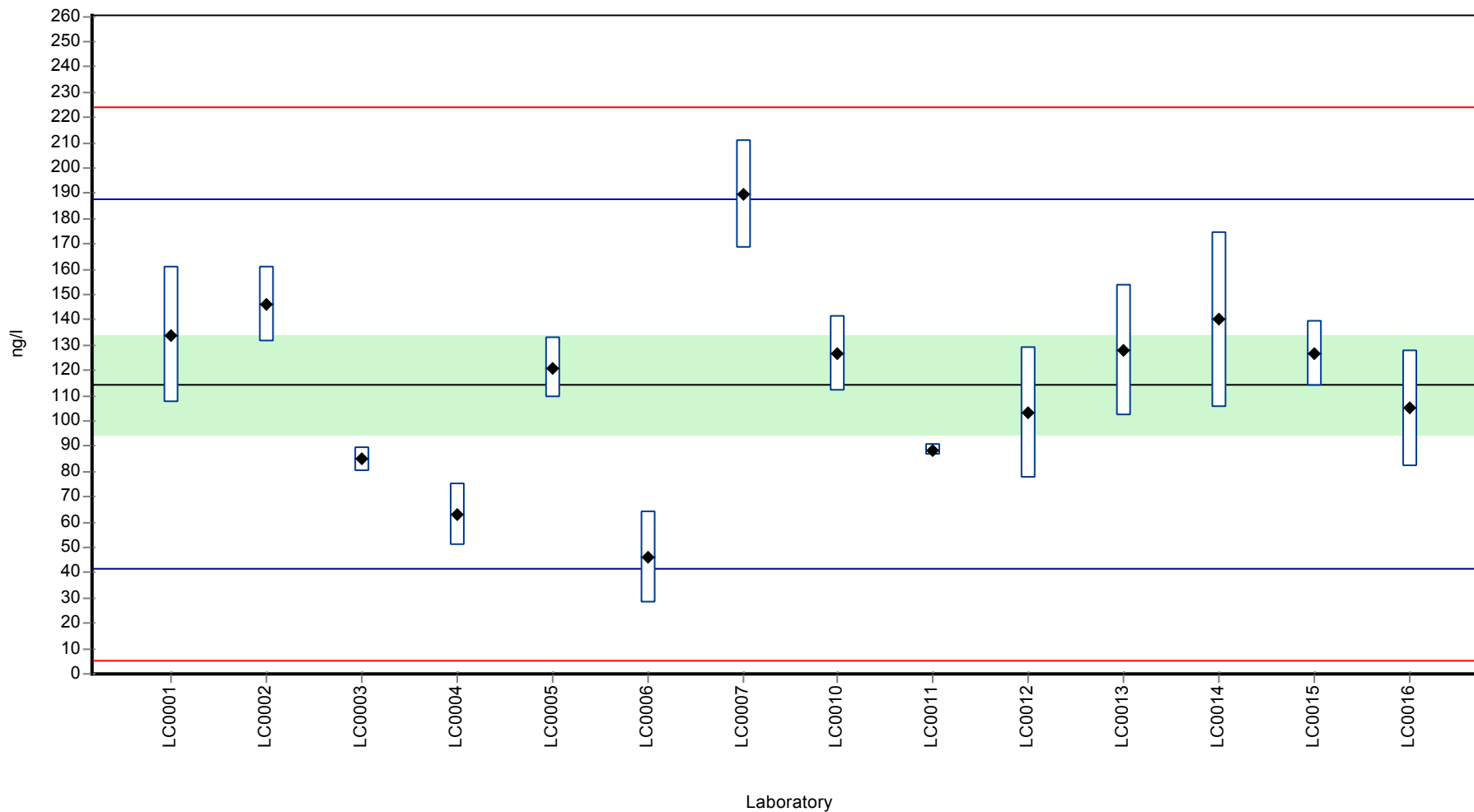
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	134	27	117	0.54	
LC0002	146	15	128	0.86	
LC0003	84.8	5.088	74.1	-0.81	
LC0004	63	12.6	55	-1.41	
LC0005	121	12.1	106	0.18	
LC0006	46	18	40.2	-1.88	
LC0007	189.6	21.2	166	2.06	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	126.7	15	111	0.34	
LC0011	88.6	2	77.4	-0.71	
LC0012	103.2	25.8	90.1	-0.31	
LC0013	128	26	112	0.37	
LC0014	140	35	122	0.7	
LC0015	126.9	13	111	0.34	
LC0016	105	23.1	91.7	-0.26	

#### Characteristics of parameter

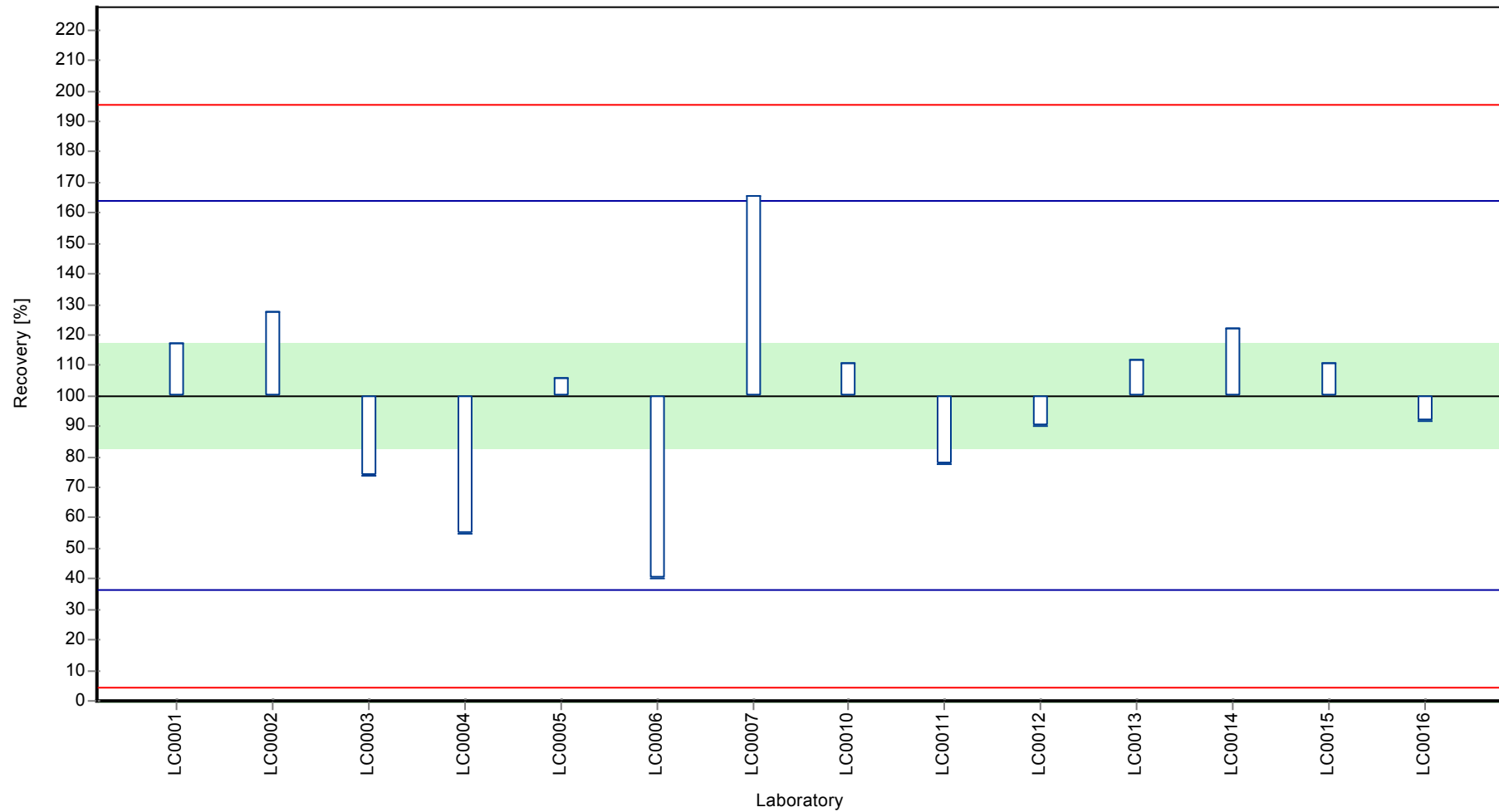
	all results	without outliers	Unit
Mean ± CI (99%)	114 ± 29.3	114 ± 29.3	ng/l
Minimum	46	46	ng/l
Maximum	190	190	ng/l
Standard deviation	36.5	36.5	ng/l
rel. Standard deviation	31.9	31.9	%
n	14	14	-

Graphical presentation of results

Results



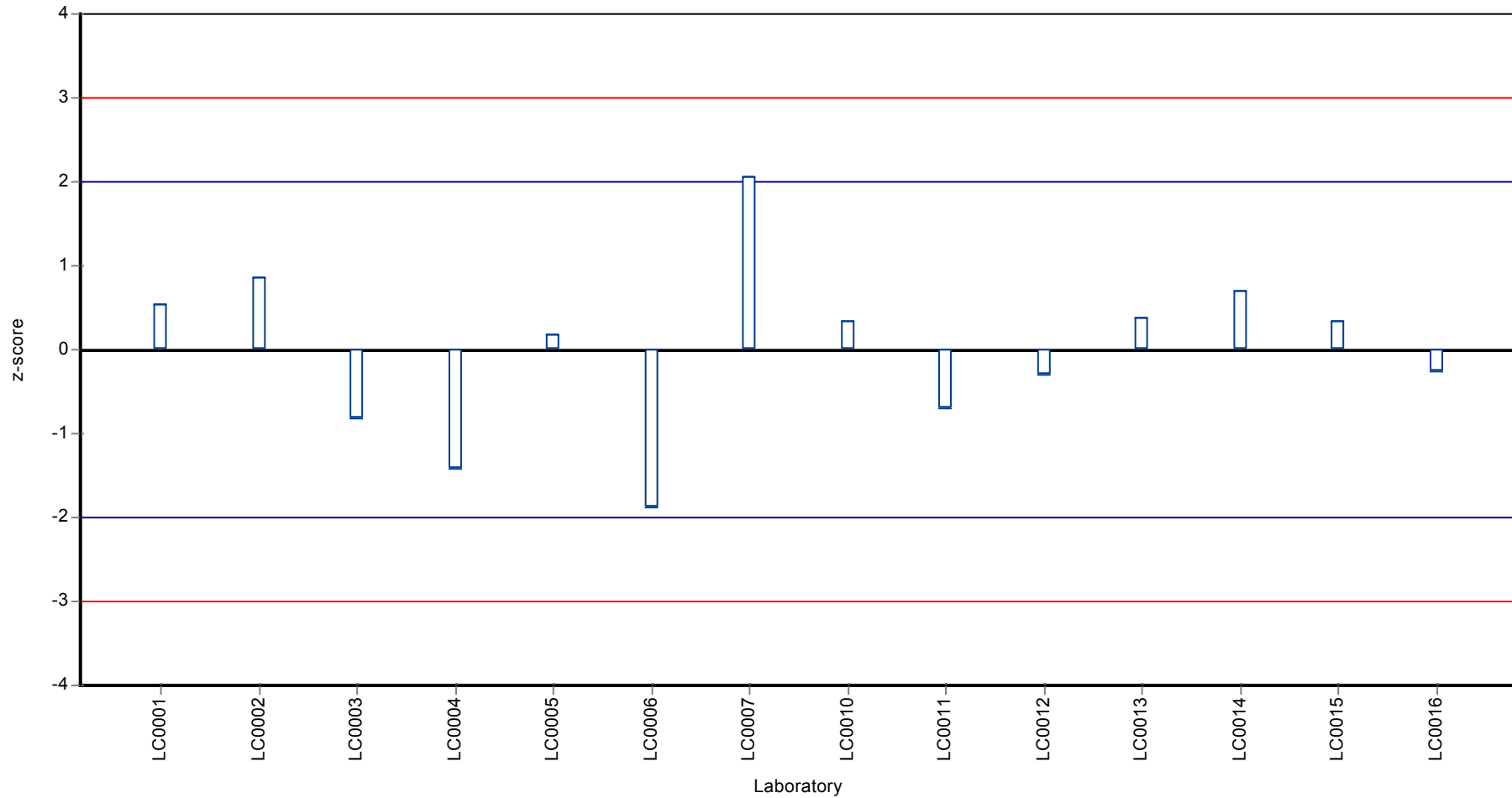
**Recovery rate**



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Naphthalene

Z-score



## Parameter oriented report

### P17 B

#### Naphthalene

Unit	ng/l
Mean ± CI (99%)	84.3 ± 20.6
Minimum - Maximum	31 - 130
Control test value ± U	72.4 ± 9.17

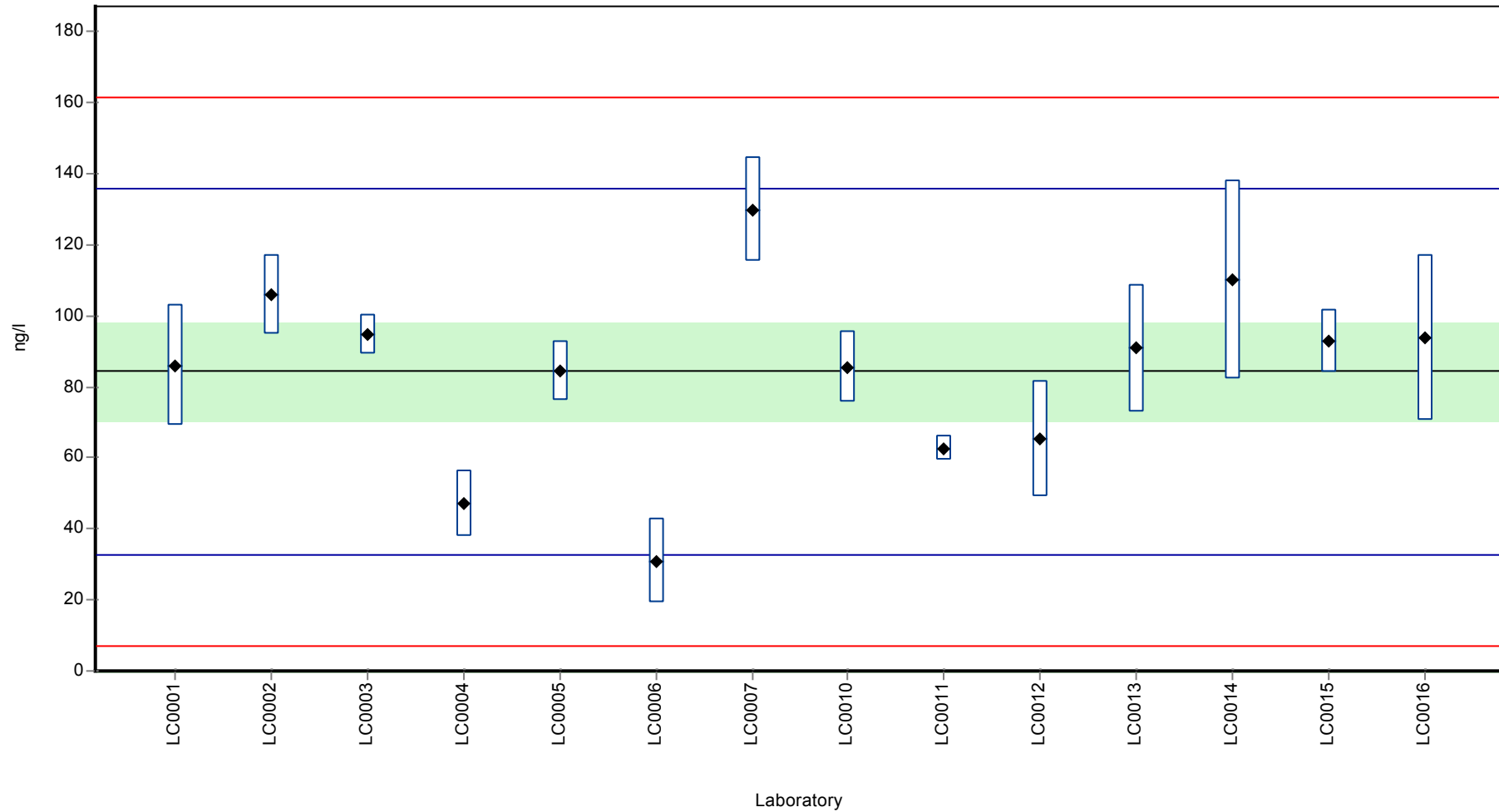
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	86	17	102	0.06	
LC0002	106	11	126	0.84	
LC0003	94.85	5.691	112	0.41	
LC0004	47	9.4	55.7	-1.45	
LC0005	84.6	8.5	100	0.01	
LC0006	31	12	36.8	-2.07	
LC0007	130	14.6	154	1.78	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	85.5	10	101	0.05	
LC0011	62.7	3.5	74.3	-0.84	
LC0012	65.4	16.4	77.5	-0.74	
LC0013	91	18	108	0.26	
LC0014	110	28	130	1	
LC0015	93	9	110	0.34	
LC0016	93.7	23.4	111	0.36	

#### Characteristics of parameter

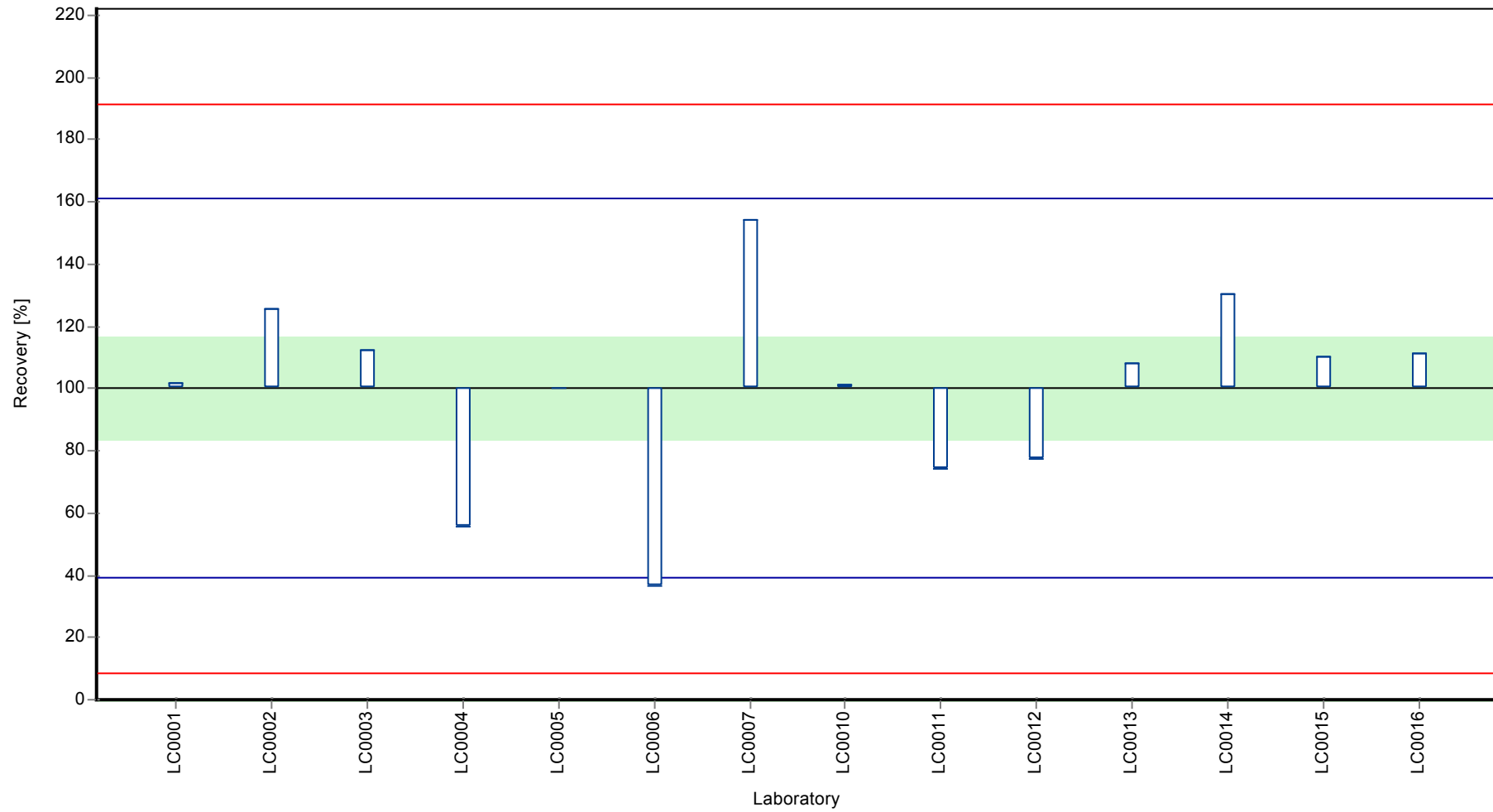
	all results	without outliers	Unit
Mean ± CI (99%)	84.3 ± 20.6	84.3 ± 20.6	ng/l
Minimum	31	31	ng/l
Maximum	130	130	ng/l
Standard deviation	25.7	25.7	ng/l
rel. Standard deviation	30.5	30.5	%
n	14	14	-

Graphical presentation of results

Results



**Recovery rate**

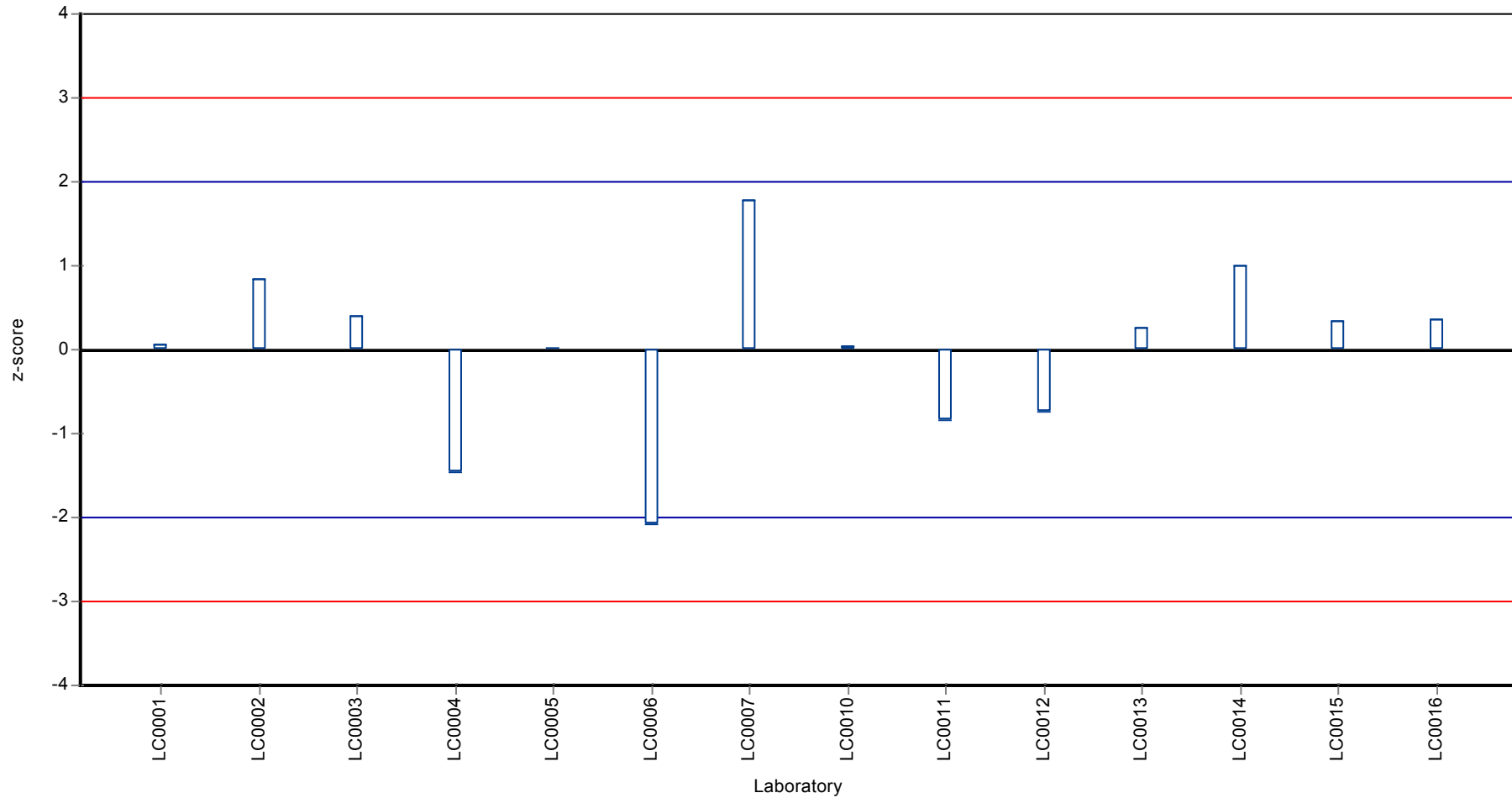




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Naphthalene

Z-score



## Parameter oriented report

### P17 A

#### Phenanthrene

Unit	ng/l
Mean ± CI (99%)	296 ± 55.6
Minimum - Maximum	169 - 386
Control test value ± U	192 ± 3.65

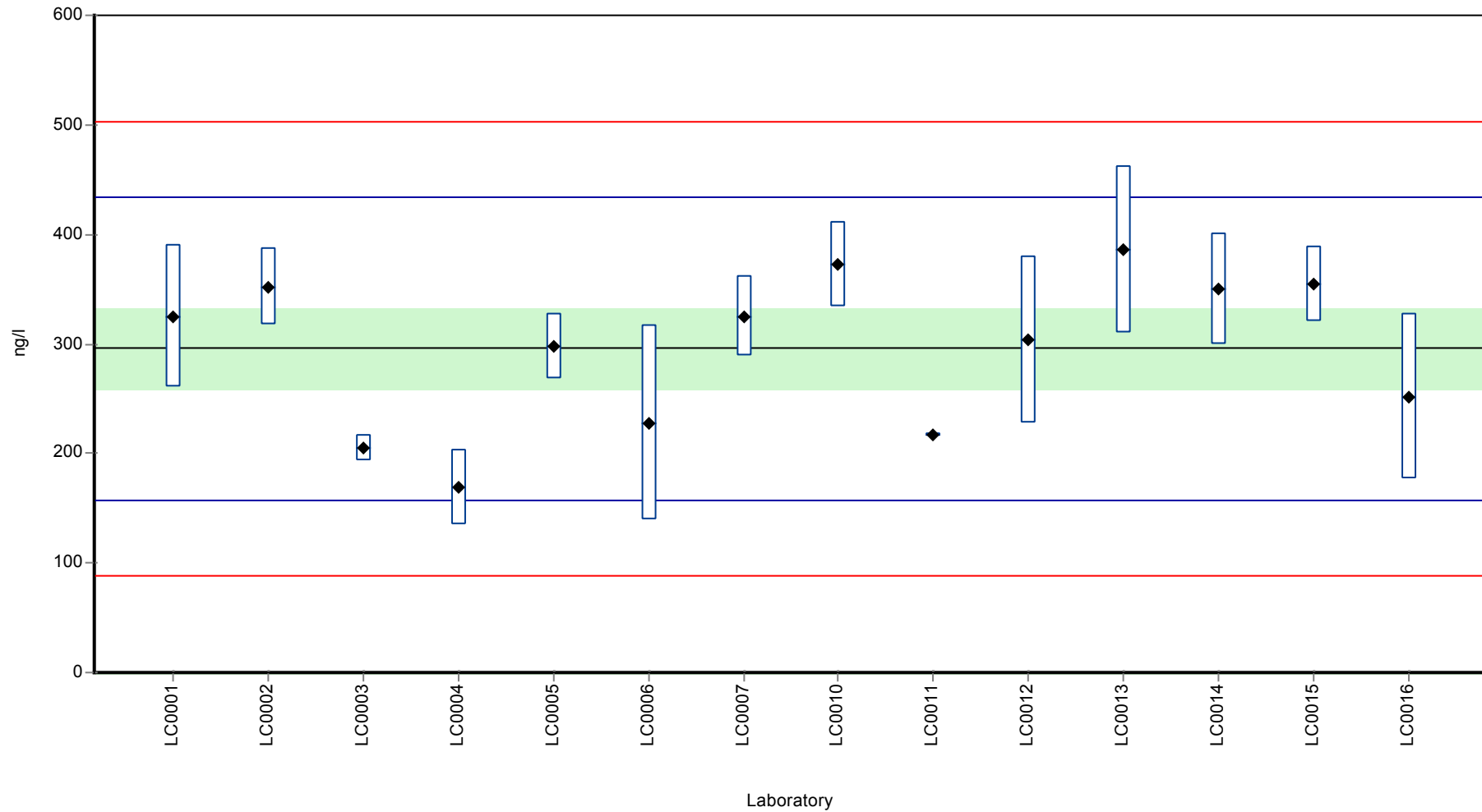
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	325	65	110	0.42	
LC0002	352	35	119	0.81	
LC0003	204.6	12.276	69.2	-1.31	
LC0004	169	33.8	57.2	-1.83	
LC0005	298	29.8	101	0.04	
LC0006	228	89	77.1	-0.97	
LC0007	325	36.4	110	0.42	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	372	39	126	1.1	
LC0011	217	1.4	73.4	-1.13	
LC0012	304.1	76	103	0.12	
LC0013	386	77	131	1.31	
LC0014	350	51	118	0.79	
LC0015	354.7	35	120	0.85	
LC0016	252	75.6	85.3	-0.63	

#### Characteristics of parameter

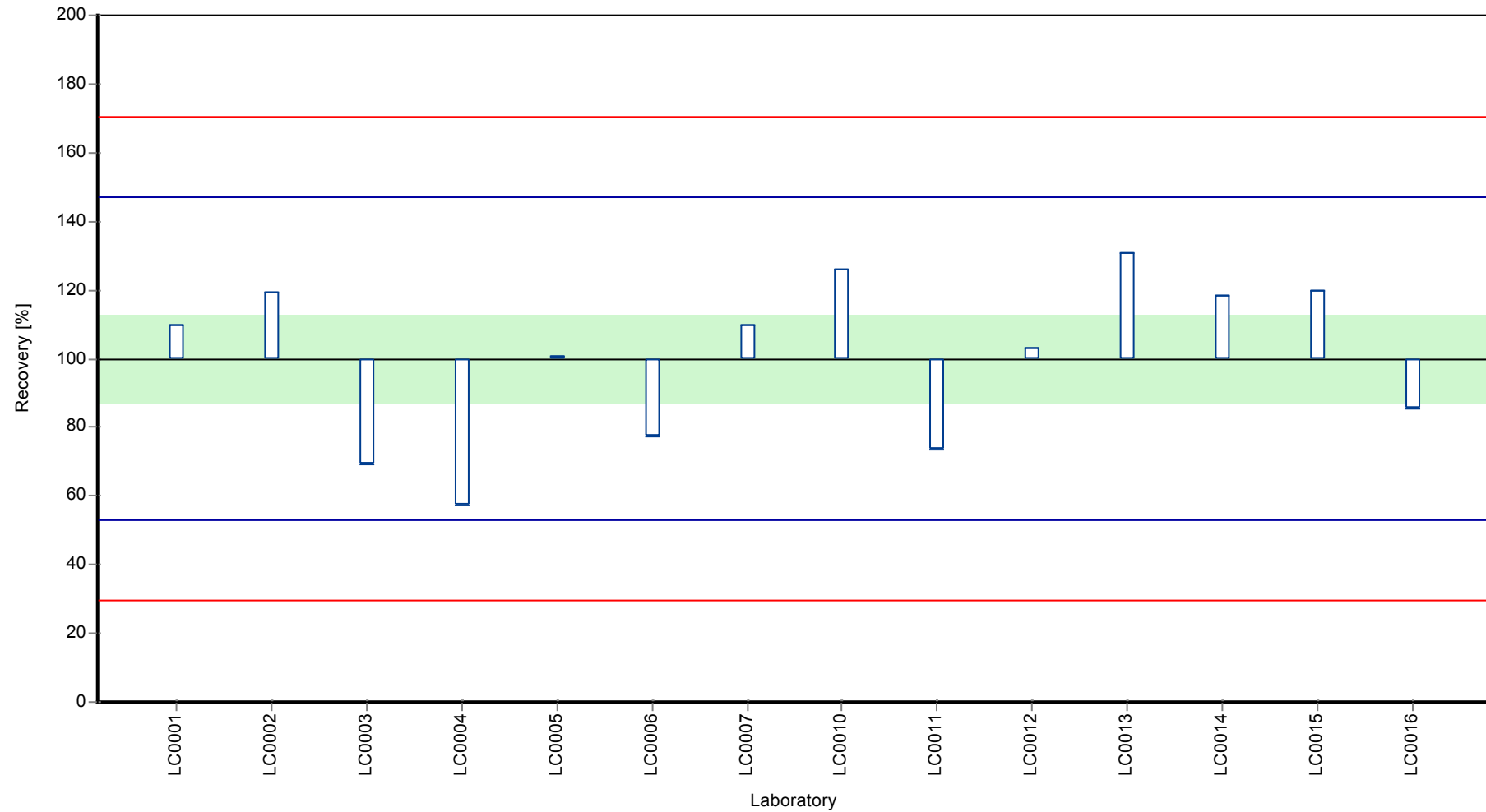
	all results	without outliers	Unit
Mean ± CI (99%)	296 ± 55.6	296 ± 55.6	ng/l
Minimum	169	169	ng/l
Maximum	386	386	ng/l
Standard deviation	69.3	69.3	ng/l
rel. Standard deviation	23.4	23.4	%
n	14	14	-

Graphical presentation of results

Results



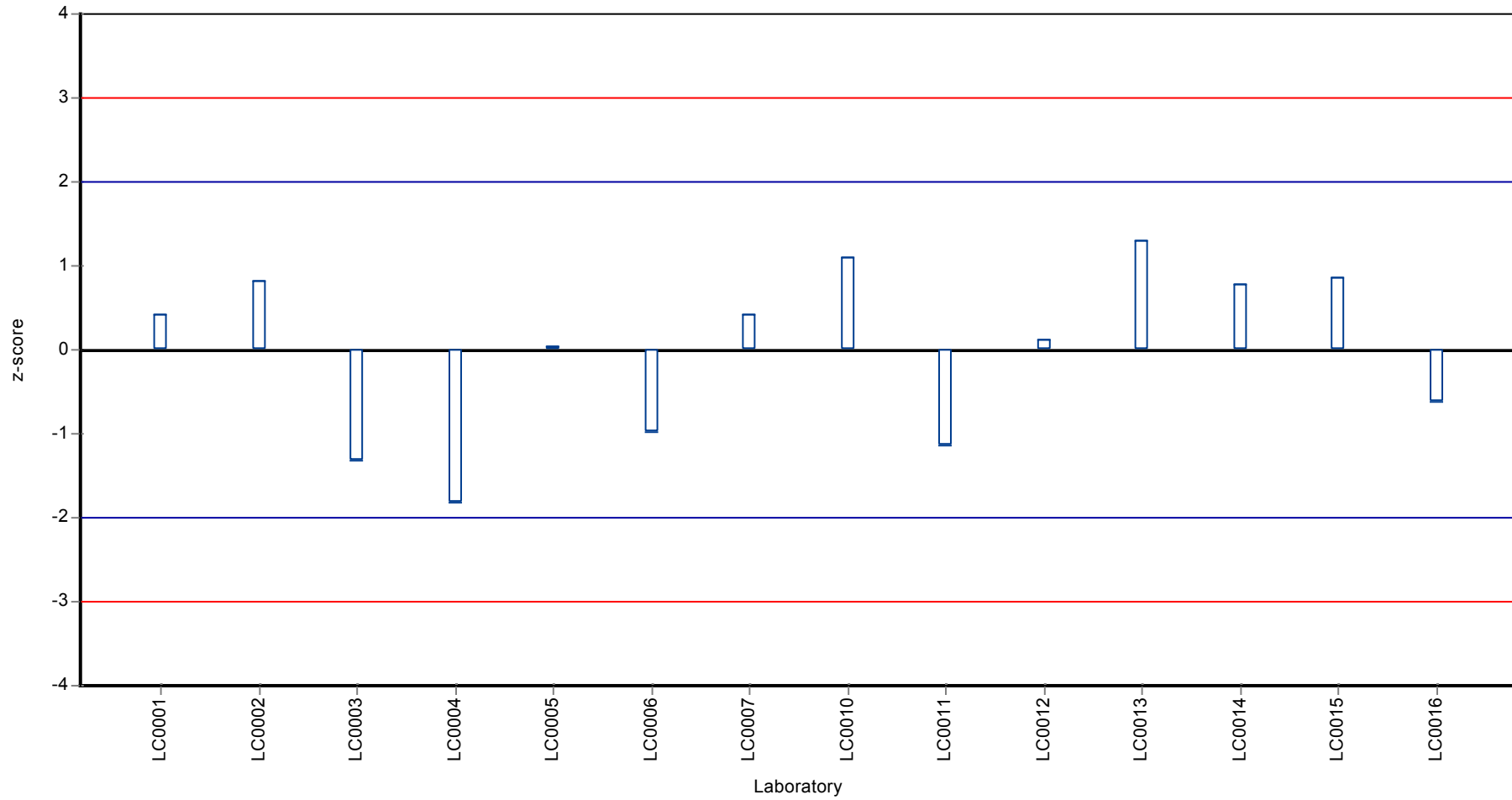
Recovery rate



Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17A, Parameter: Phenanthrene

Z-score



## Parameter oriented report

### P17 B

#### Phenanthrene

Unit	ng/l
Mean ± CI (99%)	30.7 ± 5.18
Minimum - Maximum	20 - 39
Control test value ± U	-

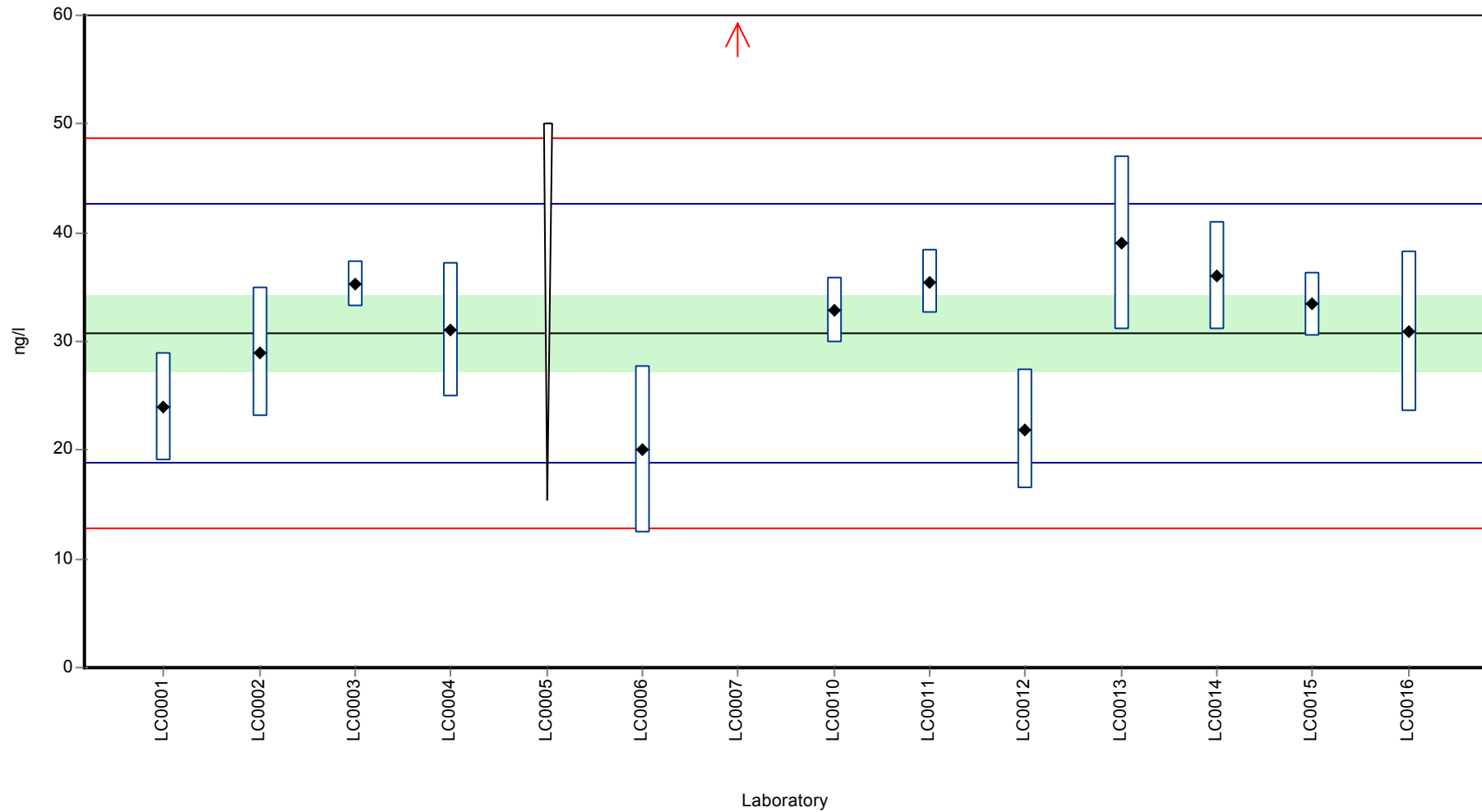
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	24	5	78.1	-1.13	
LC0002	29	6	94.3	-0.29	
LC0003	35.3	2.118	115	0.76	
LC0004	31	6.2	101	0.04	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	20	7.7	65.1	-1.8	
LC0007	90.4	10.1	294	9.98	H
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	32.9	3	107	0.36	
LC0011	35.5	3	115	0.8	
LC0012	21.9	5.5	71.2	-1.48	
LC0013	39	8	127	1.38	
LC0014	36	5	117	0.88	
LC0015	33.4	3	109	0.45	
LC0016	30.9	7.42	101	0.03	

#### Characteristics of parameter

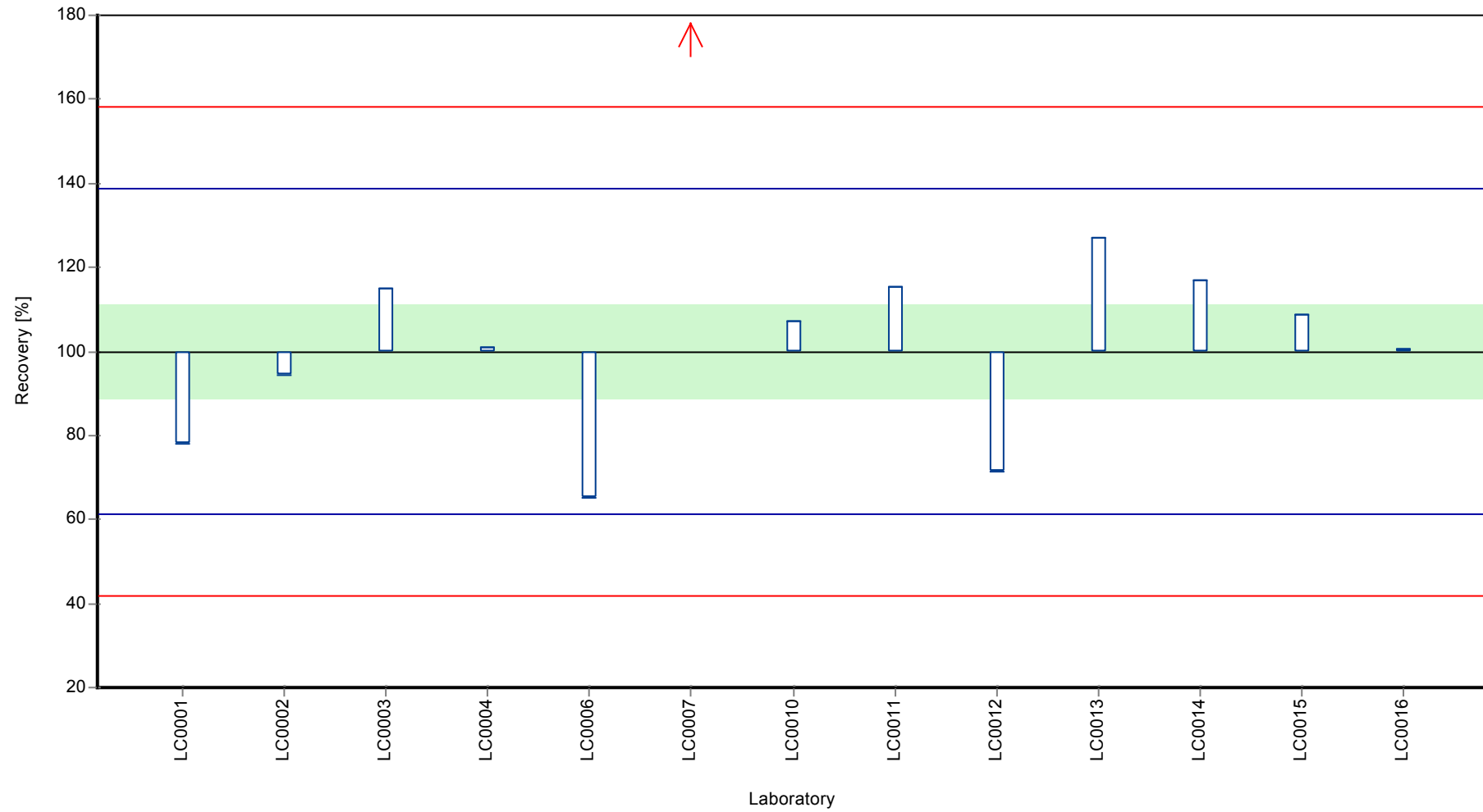
	all results	without outliers	Unit
Mean ± CI (99%)	35.3 ± 14.6	30.7 ± 5.18	ng/l
Minimum	20	20	ng/l
Maximum	90.4	39	ng/l
Standard deviation	17.5	5.98	ng/l
rel. Standard deviation	49.6	19.4	%
n	13	12	-

Graphical presentation of results

Results



Recovery rate

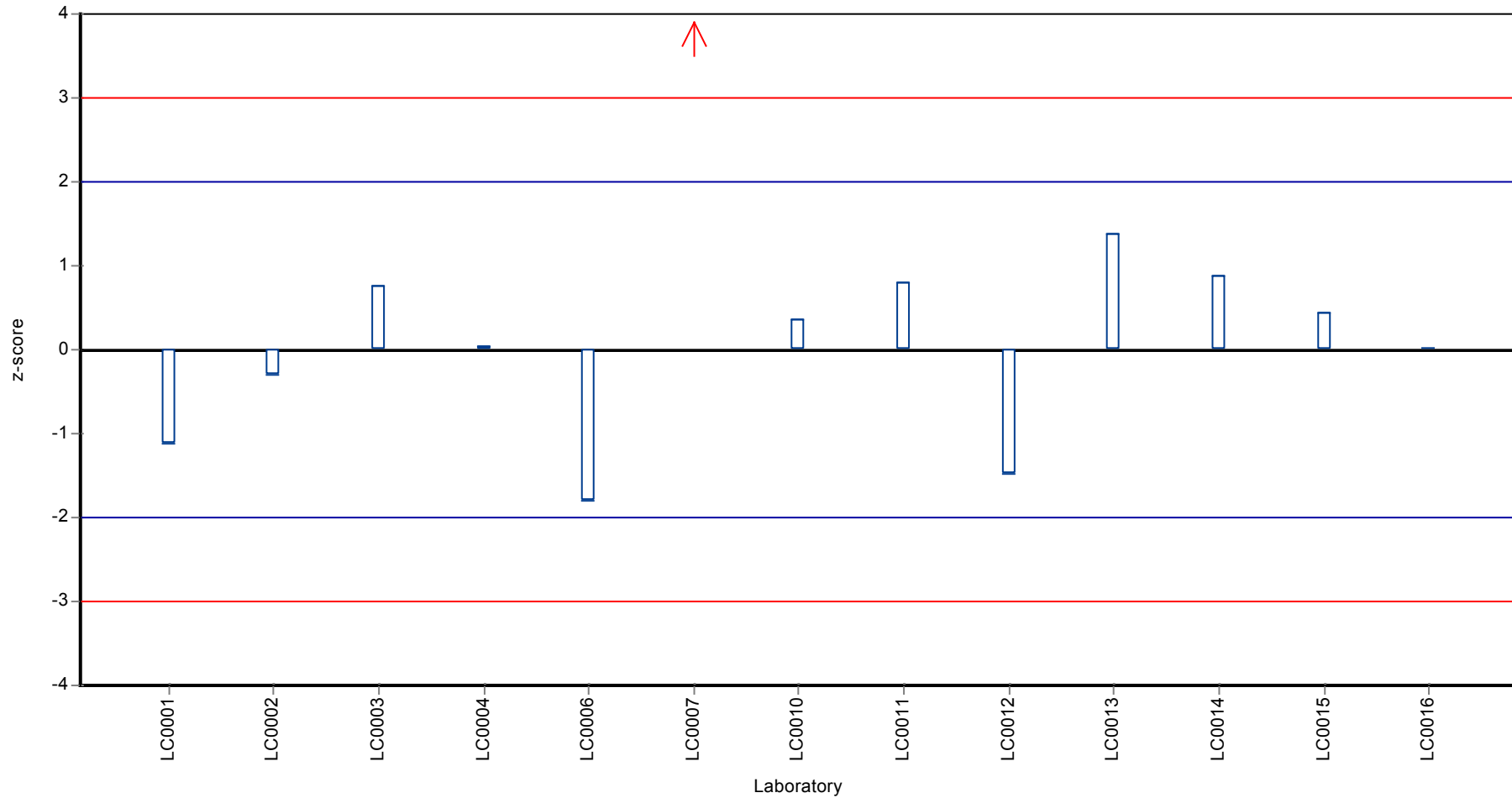




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Phenanthrene

Z-score



## Parameter oriented report

### P17 A

#### Pyrene

Unit	ng/l
Mean ± CI (99%)	77.3 ± 13.7
Minimum - Maximum	50.8 - 102
Control test value ± U	53.9 ± 1.27

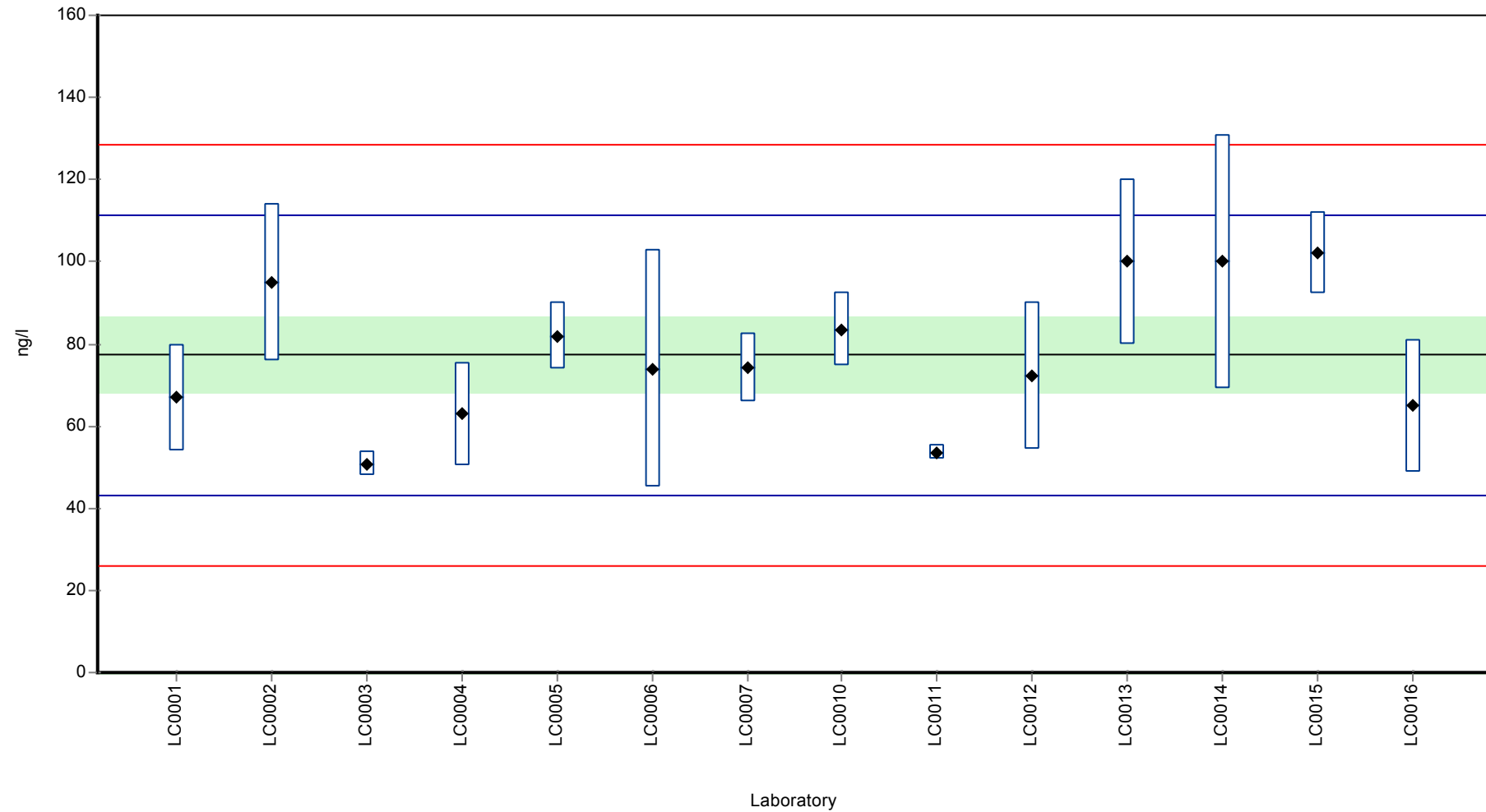
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	67	13	86.7	-0.6	
LC0002	95	19	123	1.03	
LC0003	50.8	3.048	65.7	-1.55	
LC0004	63	12.6	81.5	-0.84	
LC0005	81.9	8.2	106	0.27	
LC0006	74	29	95.7	-0.19	
LC0007	74.2	8.31	96	-0.18	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	83.5	9	108	0.36	
LC0011	53.5	1.8	69.2	-1.39	
LC0012	72.2	18.1	93.4	-0.3	
LC0013	100	20	129	1.33	
LC0014	100	31	129	1.33	
LC0015	102.2	10	132	1.46	
LC0016	64.9	16.2	84	-0.72	

#### Characteristics of parameter

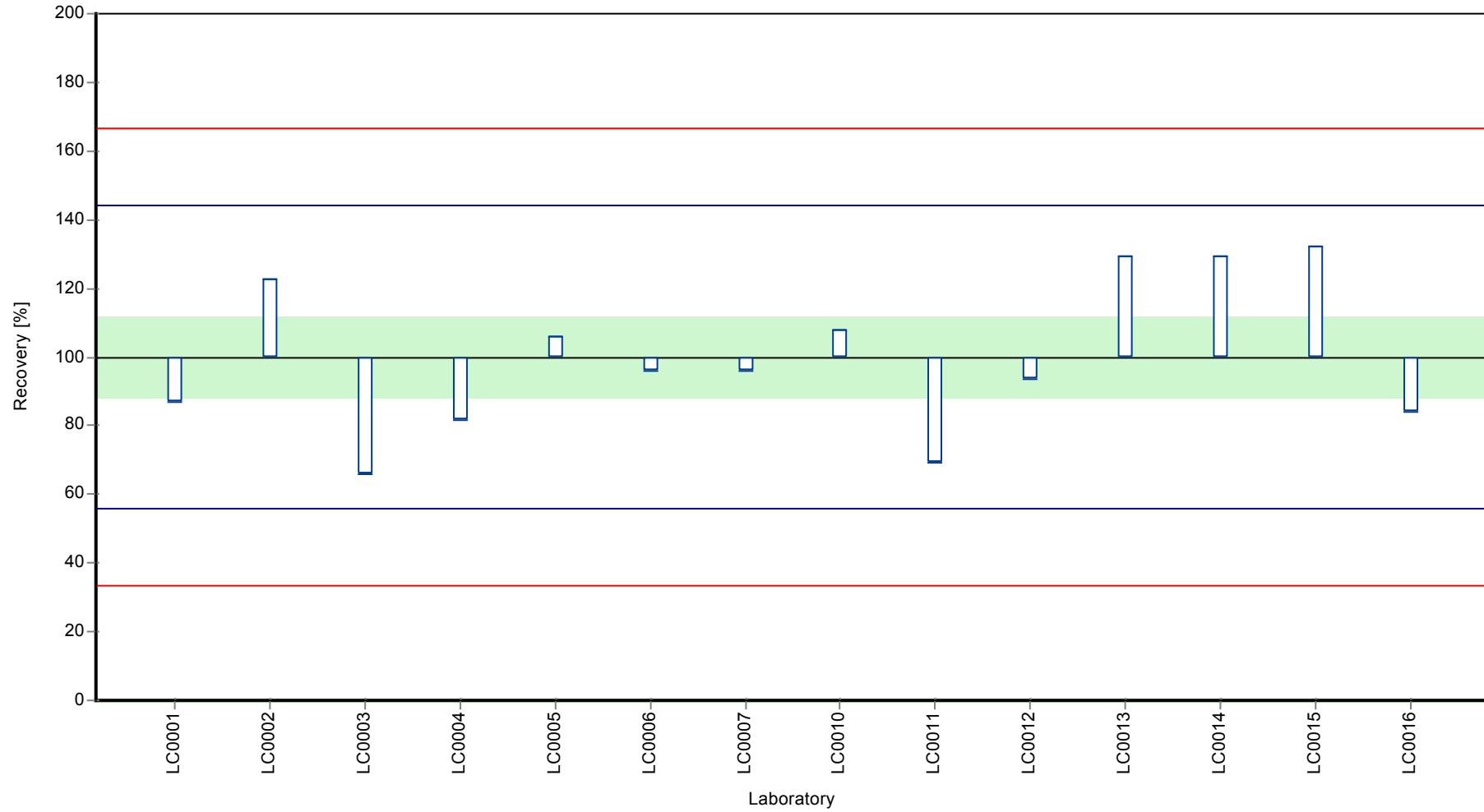
	all results	without outliers	Unit
Mean ± CI (99%)	77.3 ± 13.7	77.3 ± 13.7	ng/l
Minimum	50.8	50.8	ng/l
Maximum	102	102	ng/l
Standard deviation	17.1	17.1	ng/l
rel. Standard deviation	22.1	22.1	%
n	14	14	-

Graphical presentation of results

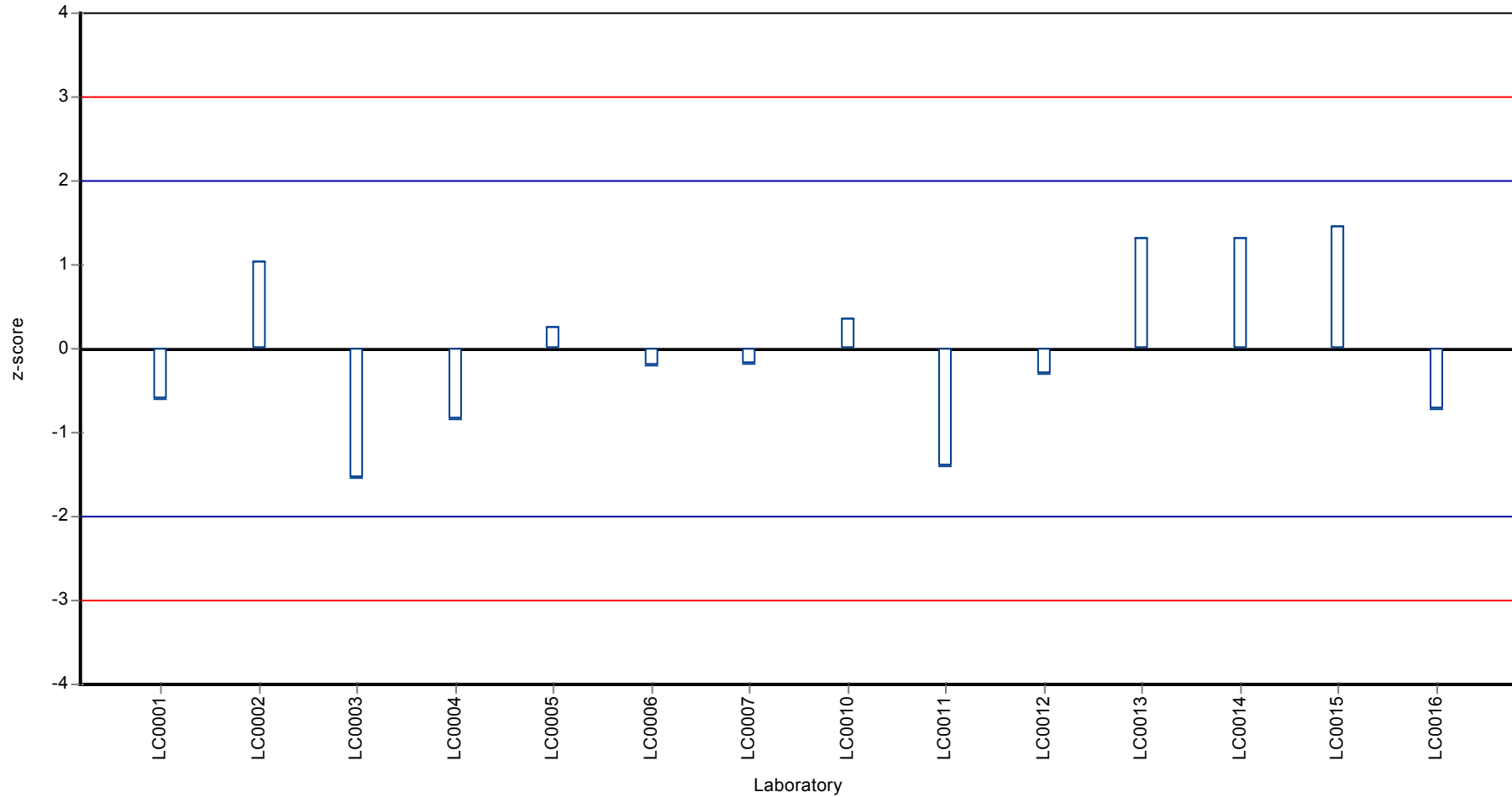
Results



Recovery rate



Z-score



## Parameter oriented report

### P17 B

#### Pyrene

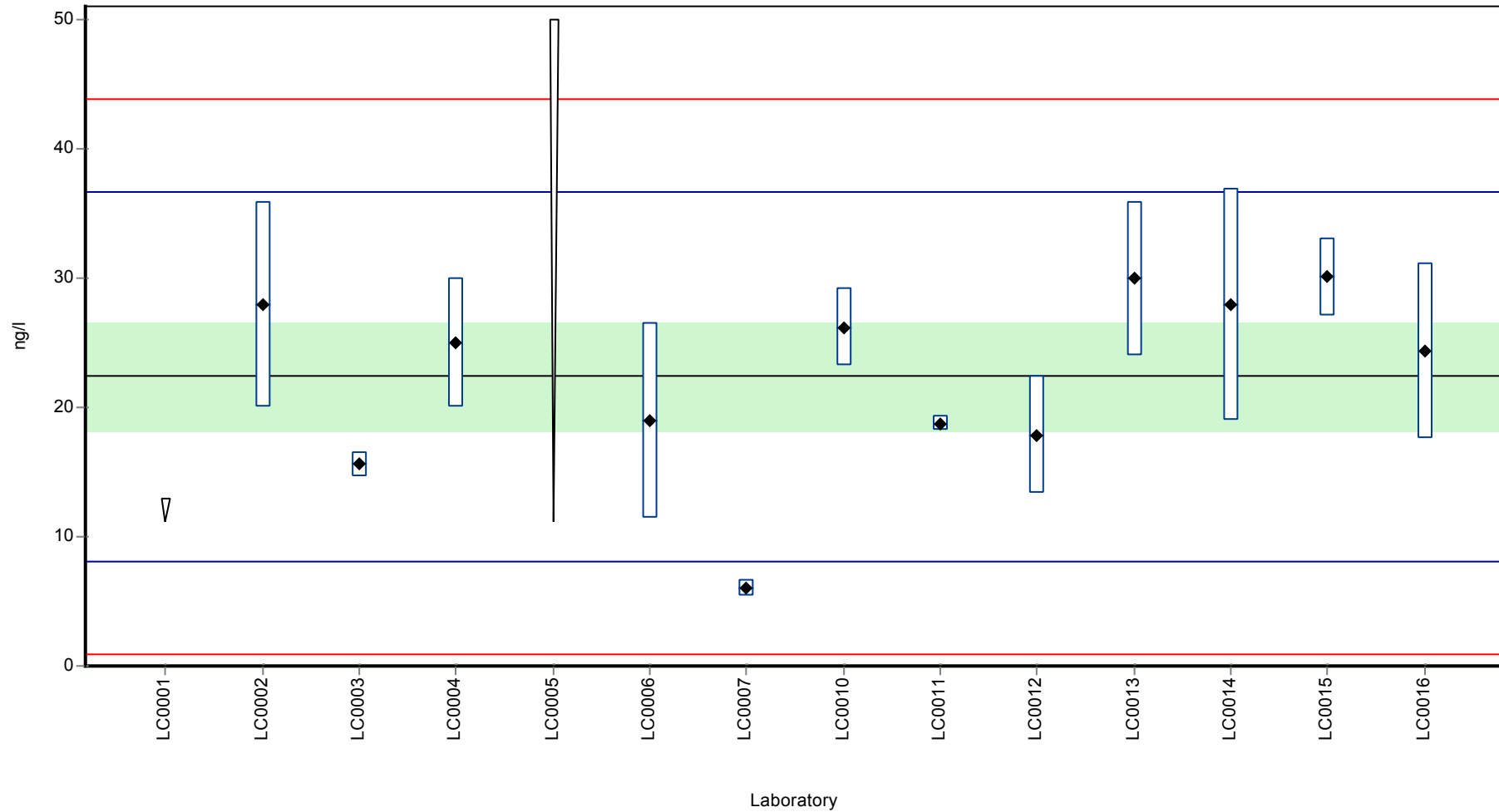
Unit	ng/l
Mean ± CI (99%)	22.4 ± 6.21
Minimum - Maximum	6 - 30.1
Control test value ± U	13.3 ± 1.73

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 13 (LOQ)	-	-	-	
LC0002	28	8	125	0.78	
LC0003	15.6	0.936	69.6	-0.95	
LC0004	25	5	112	0.36	
LC0005	< 50 (LOQ)	-	-	-	
LC0006	19	7.6	84.8	-0.48	
LC0007	6	0.672	26.8	-2.29	
LC0008	-	-	-	-	
LC0009	-	-	-	-	
LC0010	26.2	3	117	0.53	
LC0011	18.8	0.57	83.9	-0.51	
LC0012	17.9	4.5	79.9	-0.63	
LC0013	30	6	134	1.06	
LC0014	28	9	125	0.78	
LC0015	30.1	3	134	1.07	
LC0016	24.4	6.83	109	0.28	

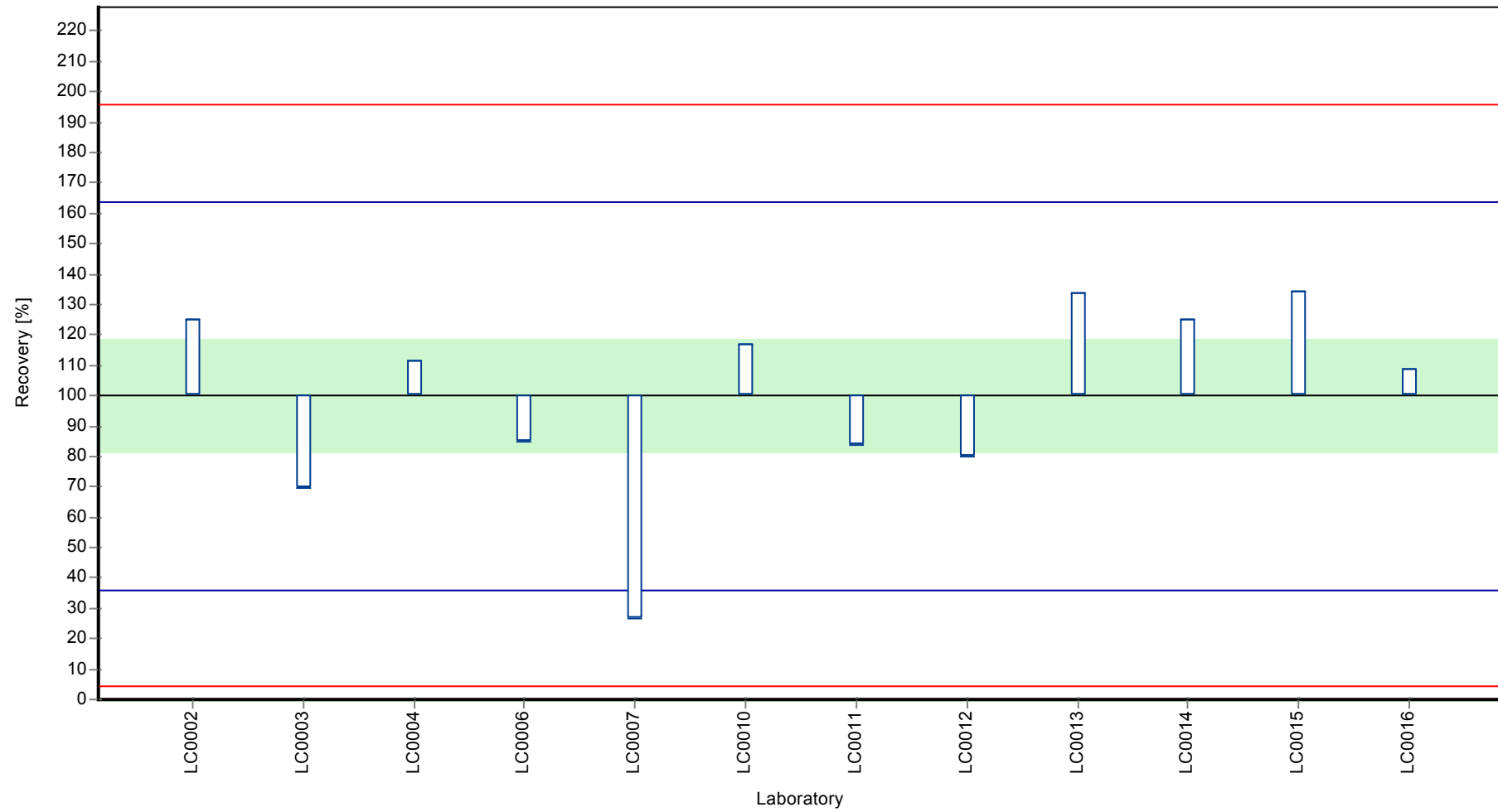
#### Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	22.4 ± 6.21	22.4 ± 6.21	ng/l
Minimum	6	6	ng/l
Maximum	30.1	30.1	ng/l
Standard deviation	7.17	7.17	ng/l
rel. Standard deviation	32	32	%
n	12	12	-

**Graphical presentation of results**  
**Results**



**Recovery rate**

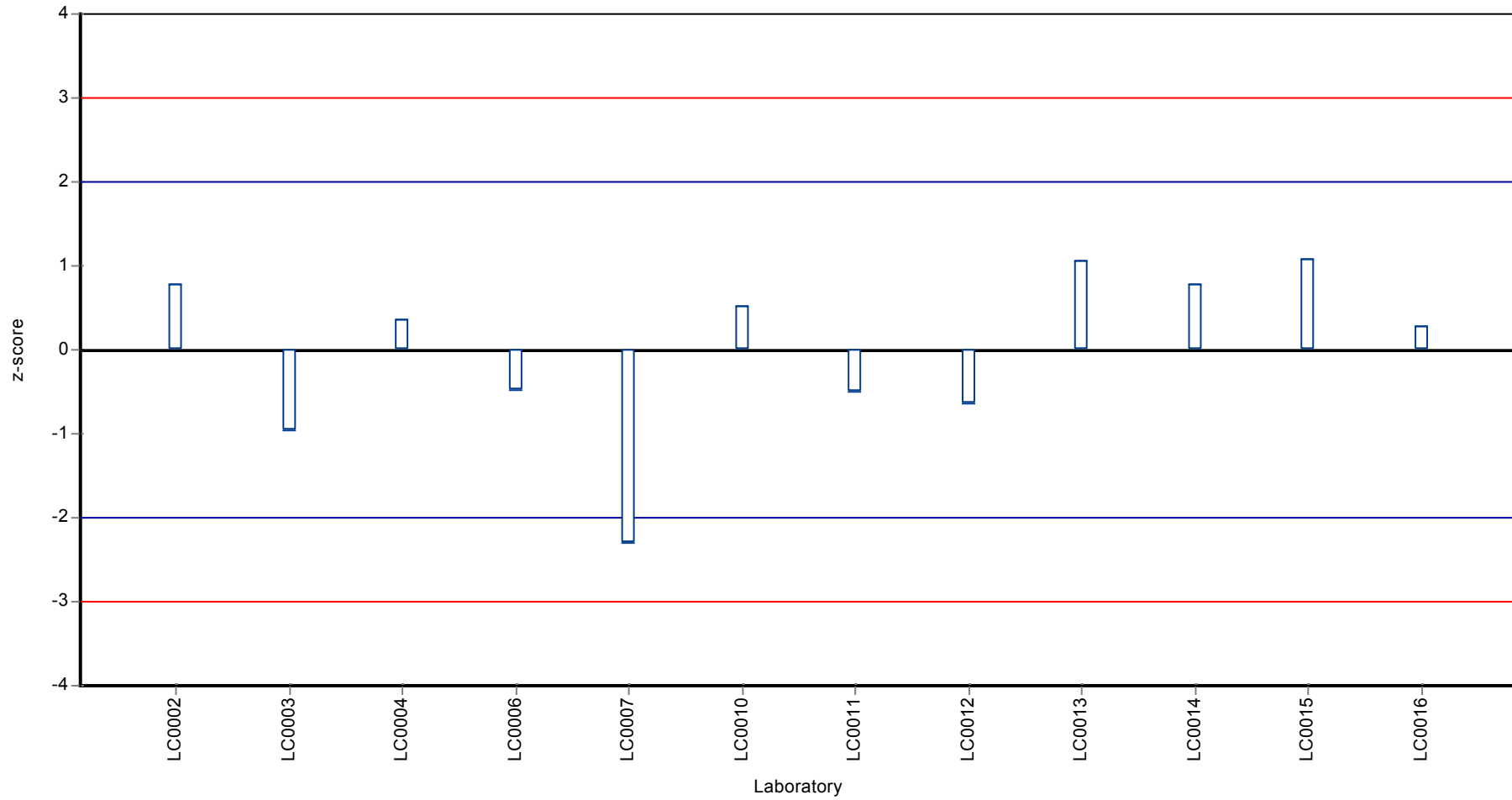




Parameter oriented report Polycyclic Aromatic Hydrocarbons P17

Sample: P17B, Parameter: Pyrene

Z-score



## 8 Laboratory oriented report

The laboratory oriented report is sorted by laboratory code.

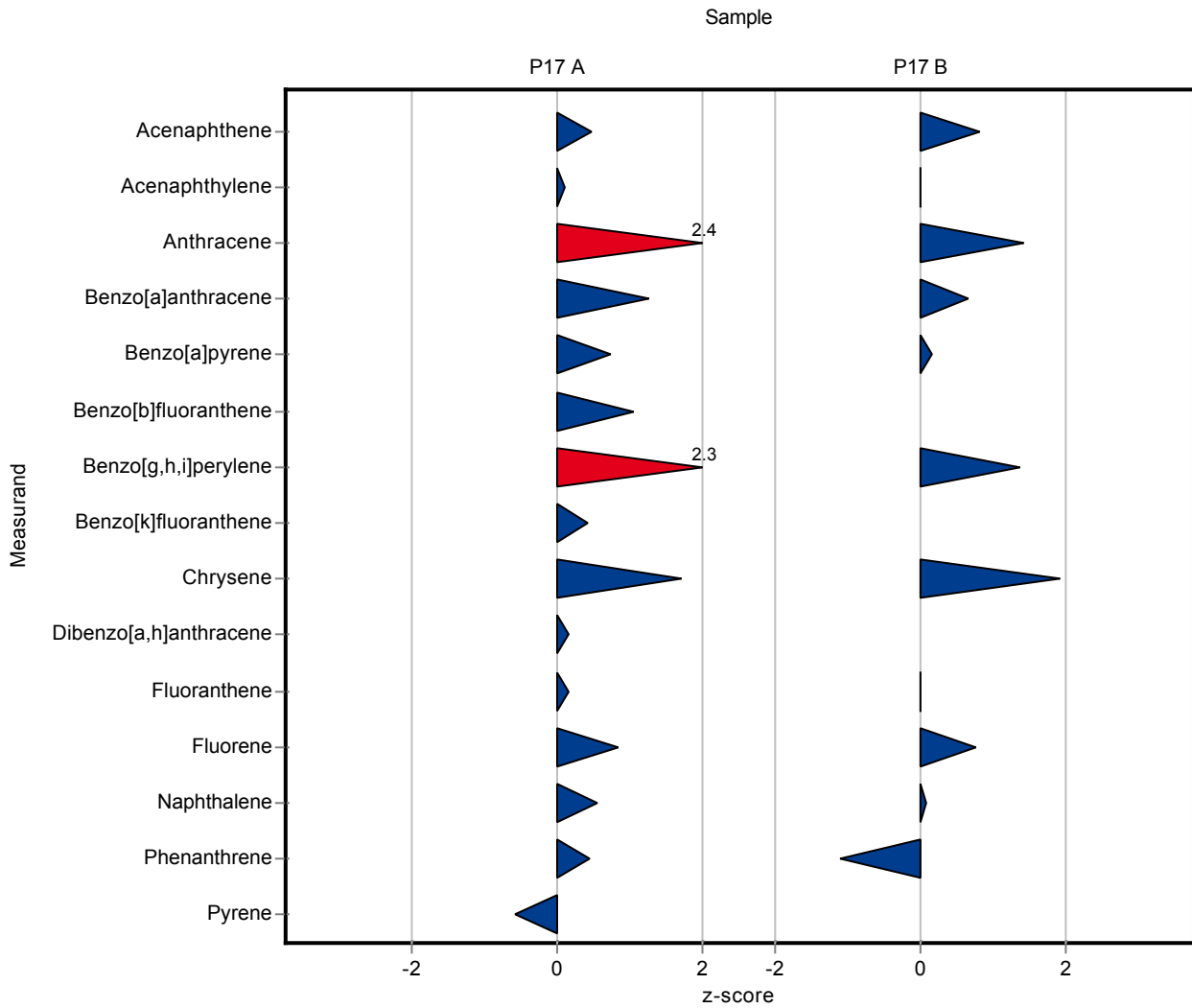
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	112	22	28.3	113	0.45
Acenaphthylene	ng/l	331	± 60	337	67	63.2	102	0.1
Anthracene	ng/l	102	± 33	202	40	41.1	198	2.44
Benzo[a]anthracene	ng/l	54.5	± 11.2	72	14	14	132	1.25
Benzo[a]pyrene	ng/l	171	± 40.7	207	41	50.8	121	0.71
Benzo[b]fluoranthene	ng/l	70.1	± 18	94	19	23.2	134	1.03
Benzo[g,h,i]perylene	ng/l	225	± 59.8	396	79	74.6	176	2.3
Benzo[k]fluoranthene	ng/l	101	± 25.9	115	23	33.4	114	0.42
Chrysene	ng/l	128	± 22.8	176	35	28.5	138	1.7
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	82	16	20.1	104	0.15
Fluoranthene	ng/l	117	± 20	121	24	24.9	103	0.15
Fluorene	ng/l	202	± 43.8	247	49	54.7	122	0.83
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	20	4	-	-	-
Naphthalene	ng/l	114	± 29.3	134	27	36.5	117	0.54
Phenanthrene	ng/l	296	± 55.6	325	65	69.3	110	0.42
Pyrene	ng/l	77.3	± 13.7	67	13	17.1	86.7	-0.6

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	24	5	5.96	124	0.79
Acenaphthylene	ng/l	31.2	± 8.51	31	6	8.98	99.4	-0.02
Anthracene	ng/l	76.7	± 16.1	105	21	20.1	137	1.41
Benzo[a]anthracene	ng/l	67.8	± 12.6	78	16	15.8	115	0.65
Benzo[a]pyrene	ng/l	54.2	± 14.4	57	11	18.6	105	0.15
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	<31 (LOQ)	-	6.82	-	-
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	72	14	18.2	152	1.35
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	<26 (LOQ)	-	3.78	-	-
Chrysene	ng/l	14.5	± 4.5	24	5	4.98	165	1.9
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	<11 (LOQ)	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	75	15	15.7	99.6	-0.02
Fluorene	ng/l	68.8	± 13	81	16	16.3	118	0.75
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<11 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	86	17	25.7	102	0.06
Phenanthrene	ng/l	30.7	± 5.18	24	5	5.98	78.1	-1.13
Pyrene	ng/l	22.4	± 6.21	<13 (LOQ)	-	7.17	-	-



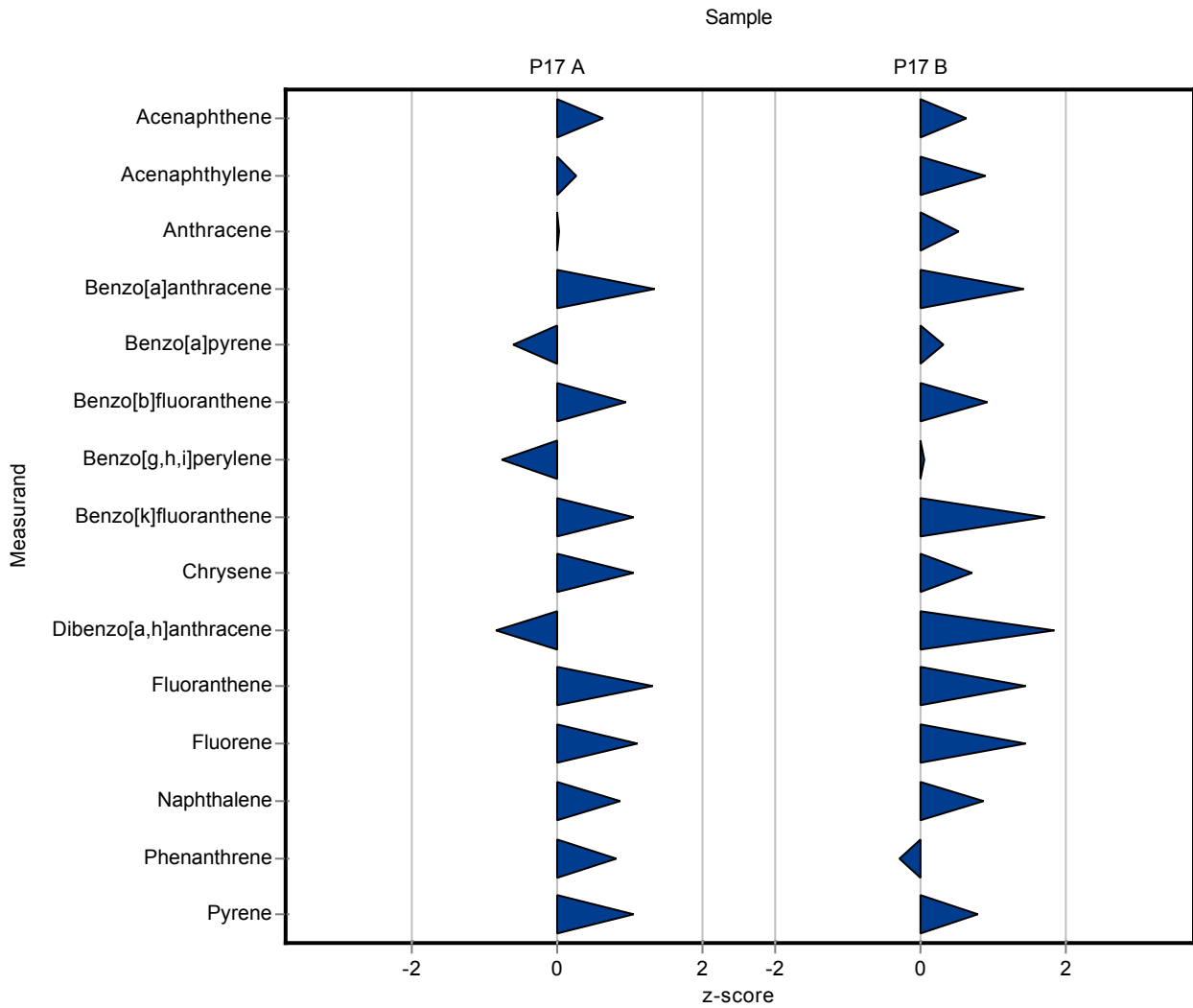
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	117	12	28.3	118	0.62
Acenaphthylene	ng/l	331	± 60	346	35	63.2	105	0.24
Anthracene	ng/l	102	± 33	102	20	41.1	100	0.00
Benzo[a]anthracene	ng/l	54.5	± 11.2	73	22	14	134	1.32
Benzo[a]pyrene	ng/l	171	± 40.7	139	35	50.8	81.4	-0.63
Benzo[b]fluoranthene	ng/l	70.1	± 18	92	28	23.2	131	0.94
Benzo[g,h,i]perylene	ng/l	225	± 59.8	167	50	74.6	74.4	-0.77
Benzo[k]fluoranthene	ng/l	101	± 25.9	136	34	33.4	135	1.05
Chrysene	ng/l	128	± 22.8	157	39	28.5	123	1.03
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	62	18	20.1	78.5	-0.85
Fluoranthene	ng/l	117	± 20	150	30	24.9	128	1.31
Fluorene	ng/l	202	± 43.8	262	26	54.7	130	1.1
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	146	15	36.5	128	0.86
Phenanthrene	ng/l	296	± 55.6	352	35	69.3	119	0.81
Pyrene	ng/l	77.3	± 13.7	95	19	17.1	123	1.03

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	23	5	5.96	119	0.62
Acenaphthylene	ng/l	31.2	± 8.51	39	8	8.98	125	0.87
Anthracene	ng/l	76.7	± 16.1	87	17	20.1	113	0.52
Benzo[a]anthracene	ng/l	67.8	± 12.6	90	27	15.8	133	1.41
Benzo[a]pyrene	ng/l	54.2	± 14.4	60	18	18.6	111	0.31
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	28	8	6.82	128	0.91
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	48	14	18.2	101	0.03
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	20	6	3.78	148	1.71
Chrysene	ng/l	14.5	± 4.5	18	5	4.98	124	0.7
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	13	3	3.14	178	1.82
Fluoranthene	ng/l	75.3	± 12.6	98	20	15.7	130	1.44
Fluorene	ng/l	68.8	± 13	92	9	16.3	134	1.42
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	106	11	25.7	126	0.84
Phenanthrene	ng/l	30.7	± 5.18	29	6	5.98	94.3	-0.29
Pyrene	ng/l	22.4	± 6.21	28	8	7.17	125	0.78



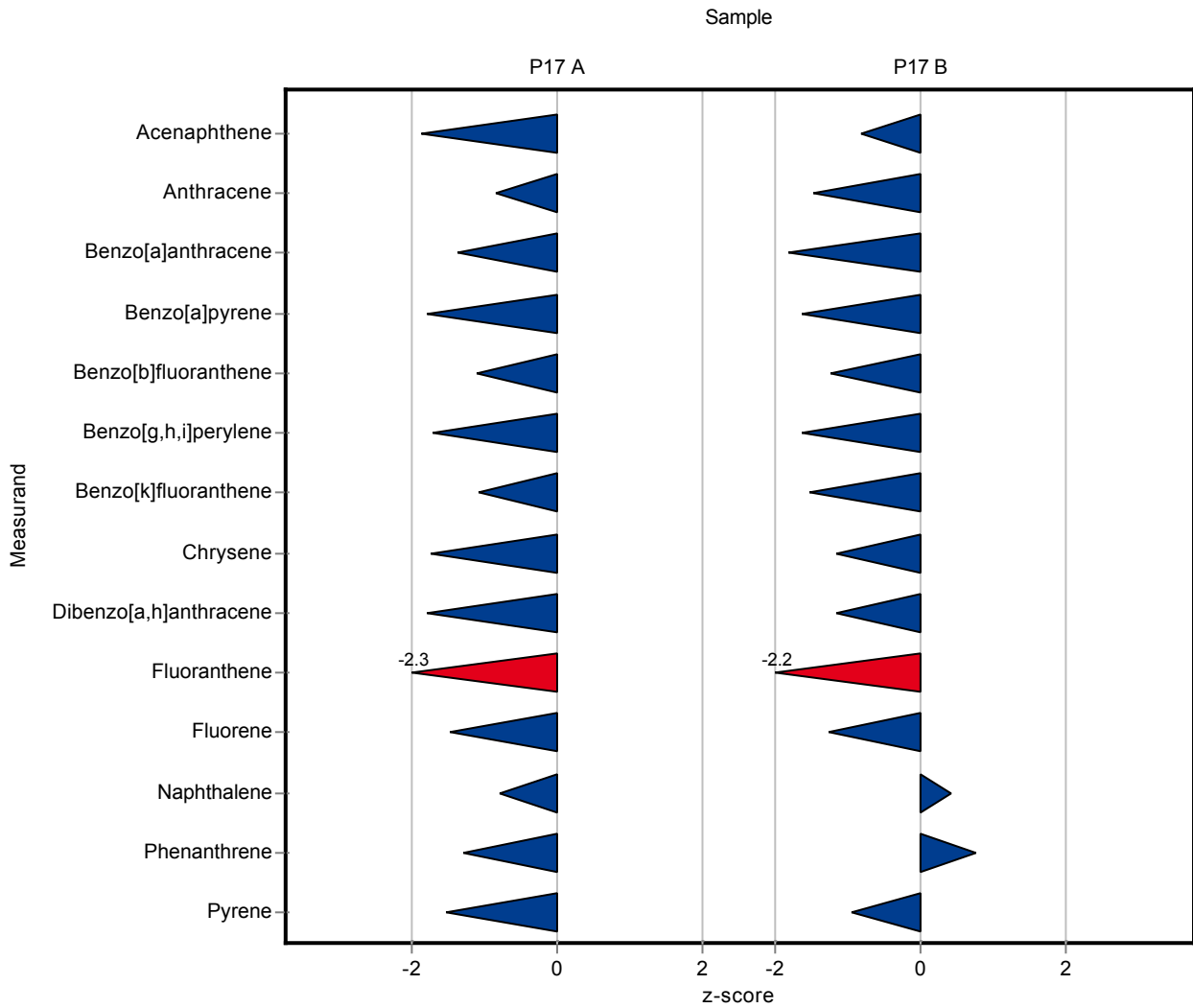
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	46.25	2.775	28.3	46.6	-1.87
Acenaphthylene	ng/l	331	± 60	-	-	63.2	-	-
Anthracene	ng/l	102	± 33	66.35	3.981	41.1	65.1	-0.86
Benzo[a]anthracene	ng/l	54.5	± 11.2	35.25	2.115	14	64.7	-1.37
Benzo[a]pyrene	ng/l	171	± 40.7	79.4	4.764	50.8	46.5	-1.8
Benzo[b]fluoranthene	ng/l	70.1	± 18	43.95	2.637	23.2	62.7	-1.13
Benzo[g,h,i]perylene	ng/l	225	± 59.8	96.95	5.817	74.6	43.2	-1.71
Benzo[k]fluoranthene	ng/l	101	± 25.9	64.95	3.897	33.4	64.3	-1.08
Chrysene	ng/l	128	± 22.8	77.9	4.674	28.5	61.1	-1.74
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	43.05	2.583	20.1	54.5	-1.79
Fluoranthene	ng/l	117	± 20	60.8	3.648	24.9	51.9	-2.26
Fluorene	ng/l	202	± 43.8	120.45	7.227	54.7	59.7	-1.49
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	84.8	5.088	36.5	74.1	-0.81
Phenanthrene	ng/l	296	± 55.6	204.6	12.276	69.3	69.2	-1.31
Pyrene	ng/l	77.3	± 13.7	50.8	3.048	17.1	65.7	-1.55

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	14.3	0.858	5.96	74.2	-0.84
Acenaphthylene	ng/l	31.2	± 8.51	-	-	8.98	-	-
Anthracene	ng/l	76.7	± 16.1	46.95	2.817	20.1	61.2	-1.48
Benzo[a]anthracene	ng/l	67.8	± 12.6	39.05	2.343	15.8	57.6	-1.82
Benzo[a]pyrene	ng/l	54.2	± 14.4	23.45	1.407	18.6	43.3	-1.65
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	13.2	0.792	6.82	60.6	-1.26
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	17.4	1.044	18.2	36.7	-1.65
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	7.7	0.462	3.78	56.9	-1.54
Chrysene	ng/l	14.5	± 4.5	8.7	0.522	4.98	59.9	-1.17
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	3.6	0.216	3.14	49.4	-1.18
Fluoranthene	ng/l	75.3	± 12.6	40.6	2.436	15.7	53.9	-2.21
Fluorene	ng/l	68.8	± 13	48.05	2.883	16.3	69.8	-1.28
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	94.85	5.691	25.7	112	0.41
Phenanthrene	ng/l	30.7	± 5.18	35.3	2.118	5.98	115	0.76
Pyrene	ng/l	22.4	± 6.21	15.6	0.936	7.17	69.6	-0.95





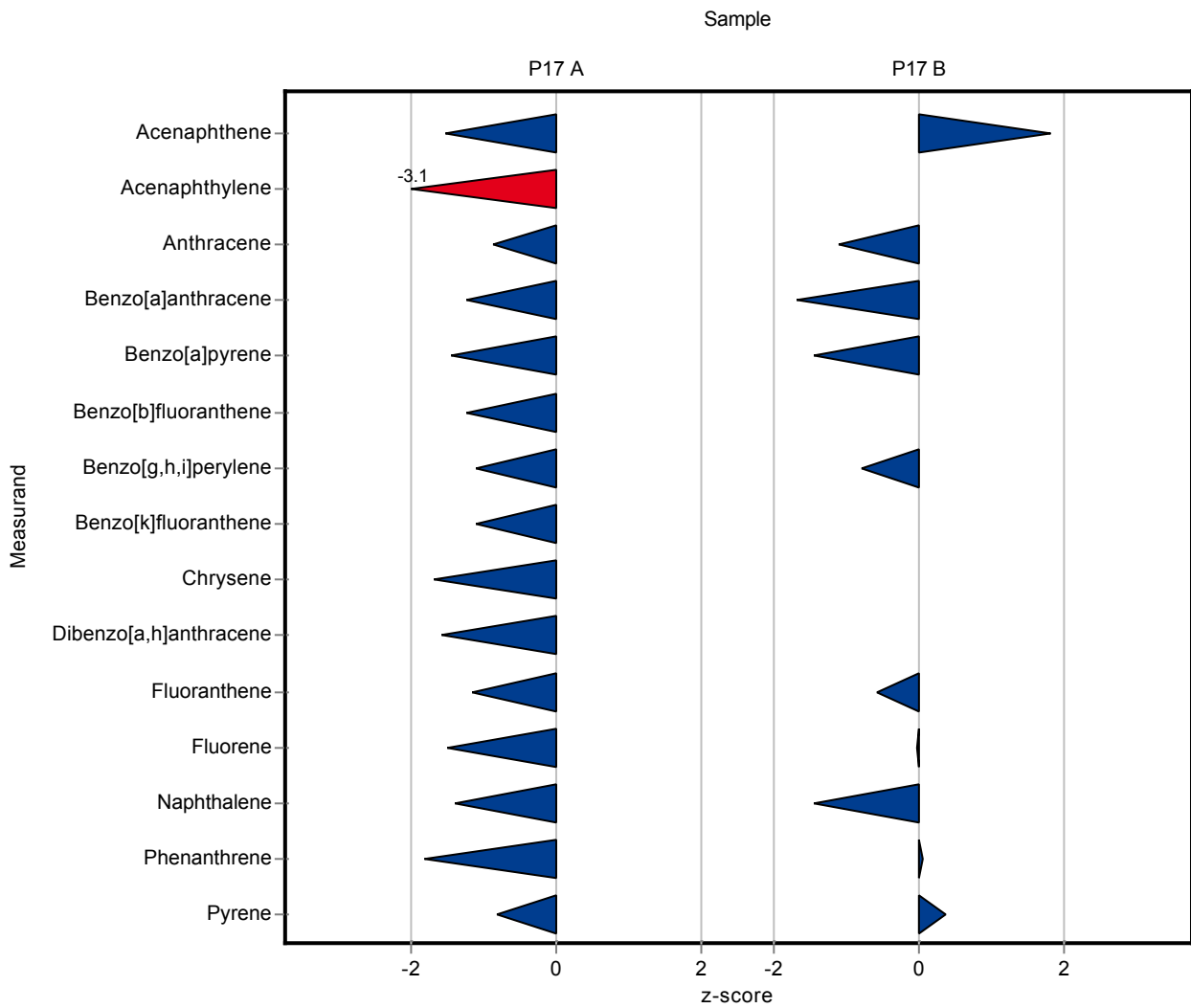
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	56	11.2	28.3	56.4	-1.53
Acenaphthylene	ng/l	331	± 60	133	26.6	63.2	40.2	-3.13
Anthracene	ng/l	102	± 33	66	13.2	41.1	64.8	-0.87
Benzo[a]anthracene	ng/l	54.5	± 11.2	37	7.4	14	67.9	-1.25
Benzo[a]pyrene	ng/l	171	± 40.7	97	19.4	50.8	56.8	-1.45
Benzo[b]fluoranthene	ng/l	70.1	± 18	41	8.2	23.2	58.5	-1.26
Benzo[g,h,i]perylene	ng/l	225	± 59.8	142	28.4	74.6	63.2	-1.11
Benzo[k]fluoranthene	ng/l	101	± 25.9	64	12.8	33.4	63.3	-1.11
Chrysene	ng/l	128	± 22.8	79	15.8	28.5	61.9	-1.7
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	47	9.4	20.1	59.5	-1.59
Fluoranthene	ng/l	117	± 20	88	17.6	24.9	75	-1.17
Fluorene	ng/l	202	± 43.8	119	23.8	54.7	59	-1.51
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	63	12.6	36.5	55	-1.41
Phenanthrene	ng/l	296	± 55.6	169	33.8	69.3	57.2	-1.83
Pyrene	ng/l	77.3	± 13.7	63	12.6	17.1	81.5	-0.84

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	30	6	5.96	156	1.8
Acenaphthylene	ng/l	31.2	± 8.51	<20 (LOQ)	-	8.98	-	-
Anthracene	ng/l	76.7	± 16.1	54	10.8	20.1	70.4	-1.13
Benzo[a]anthracene	ng/l	67.8	± 12.6	41	8.2	15.8	60.5	-1.7
Benzo[a]pyrene	ng/l	54.2	± 14.4	27	5.4	18.6	49.8	-1.46
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	<20 (LOQ)	-	6.82	-	-
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	33	6.6	18.2	69.5	-0.8
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	<20 (LOQ)	-	3.78	-	-
Chrysene	ng/l	14.5	± 4.5	<20 (LOQ)	-	4.98	-	-
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	<20 (LOQ)	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	66	13.2	15.7	87.6	-0.59
Fluorene	ng/l	68.8	± 13	68	13.6	16.3	98.8	-0.05
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<20 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	47	9.4	25.7	55.7	-1.45
Phenanthrene	ng/l	30.7	± 5.18	31	6.2	5.98	101	0.04
Pyrene	ng/l	22.4	± 6.21	25	5	7.17	112	0.36



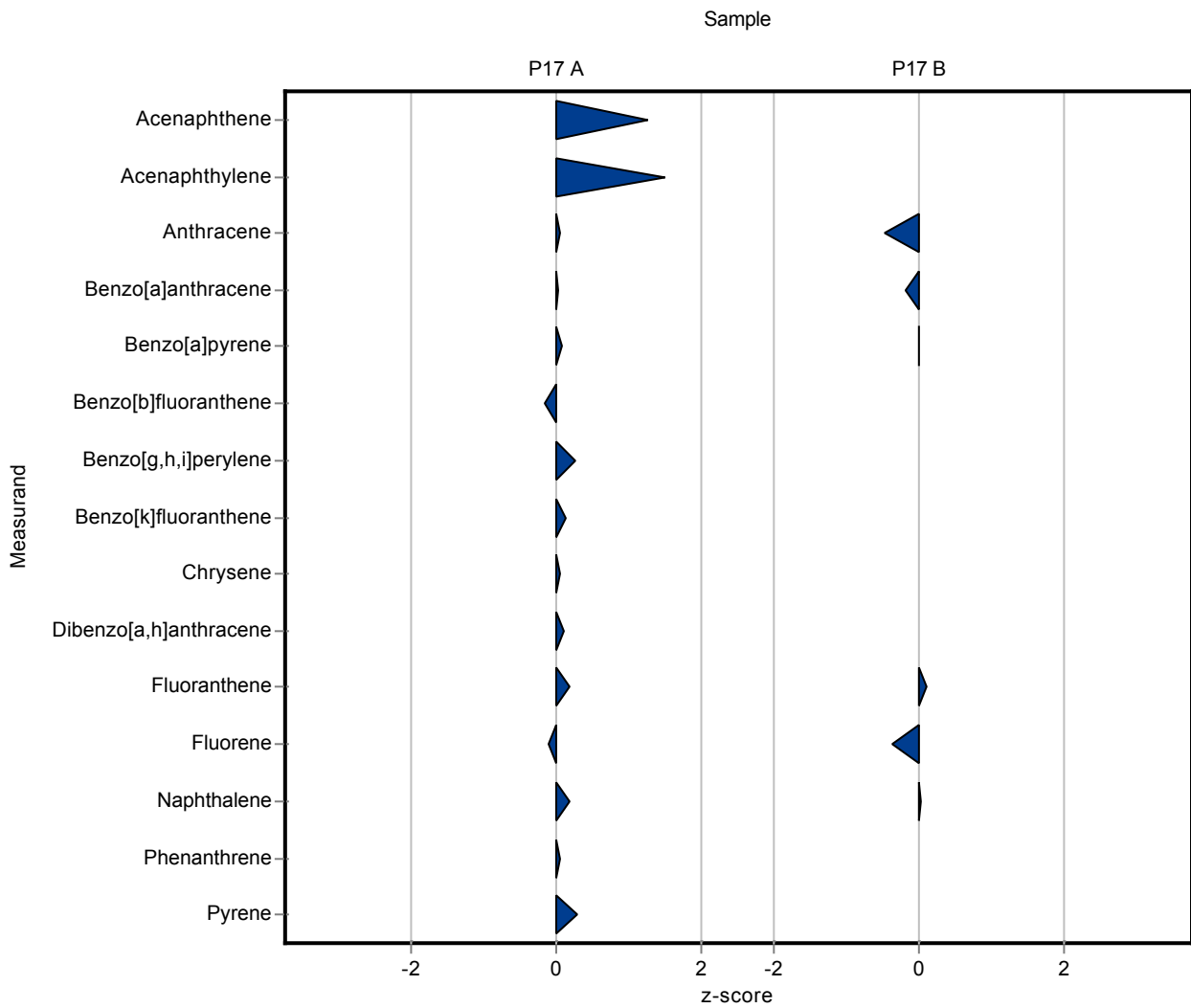
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	135	13.5	28.3	136	1.26
Acenaphthylene	ng/l	331	± 60	424	42.4	63.2	128	1.48
Anthracene	ng/l	102	± 33	104	10.4	41.1	102	0.05
Benzo[a]anthracene	ng/l	54.5	± 11.2	54.6	5.46	14	100	0.01
Benzo[a]pyrene	ng/l	171	± 40.7	174	17.4	50.8	102	0.06
Benzo[b]fluoranthene	ng/l	70.1	± 18	66.2	6.6	23.2	94.4	-0.17
Benzo[g,h,i]perylene	ng/l	225	± 59.8	242.6	24.3	74.6	108	0.24
Benzo[k]fluoranthene	ng/l	101	± 25.9	105	10.5	33.4	104	0.12
Chrysene	ng/l	128	± 22.8	129	12.9	28.5	101	0.05
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	80.9	8.1	20.1	102	0.1
Fluoranthene	ng/l	117	± 20	121.8	12.2	24.9	104	0.18
Fluorene	ng/l	202	± 43.8	196	17	54.7	97.1	-0.11
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<50 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	121	12.1	36.5	106	0.18
Phenanthrene	ng/l	296	± 55.6	298	29.8	69.3	101	0.04
Pyrene	ng/l	77.3	± 13.7	81.9	8.2	17.1	106	0.27

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	<50 (LOQ)	-	5.96	-	-
Acenaphthylene	ng/l	31.2	± 8.51	<50 (LOQ)	-	8.98	-	-
Anthracene	ng/l	76.7	± 16.1	66.7	6.7	20.1	87	-0.5
Benzo[a]anthracene	ng/l	67.8	± 12.6	64.7	6.47	15.8	95.5	-0.19
Benzo[a]pyrene	ng/l	54.2	± 14.4	54.1	5.4	18.6	99.8	-0.01
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	<50 (LOQ)	-	6.82	-	-
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	<50 (LOQ)	-	18.2	-	-
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	<50 (LOQ)	-	3.78	-	-
Chrysene	ng/l	14.5	± 4.5	<50 (LOQ)	-	4.98	-	-
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	<50 (LOQ)	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	76.6	7.7	15.7	102	0.08
Fluorene	ng/l	68.8	± 13	62.5	6.3	16.3	90.8	-0.39
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<50 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	84.6	8.5	25.7	100	0.01
Phenanthrene	ng/l	30.7	± 5.18	<50 (LOQ)	-	5.98	-	-
Pyrene	ng/l	22.4	± 6.21	<50 (LOQ)	-	7.17	-	-



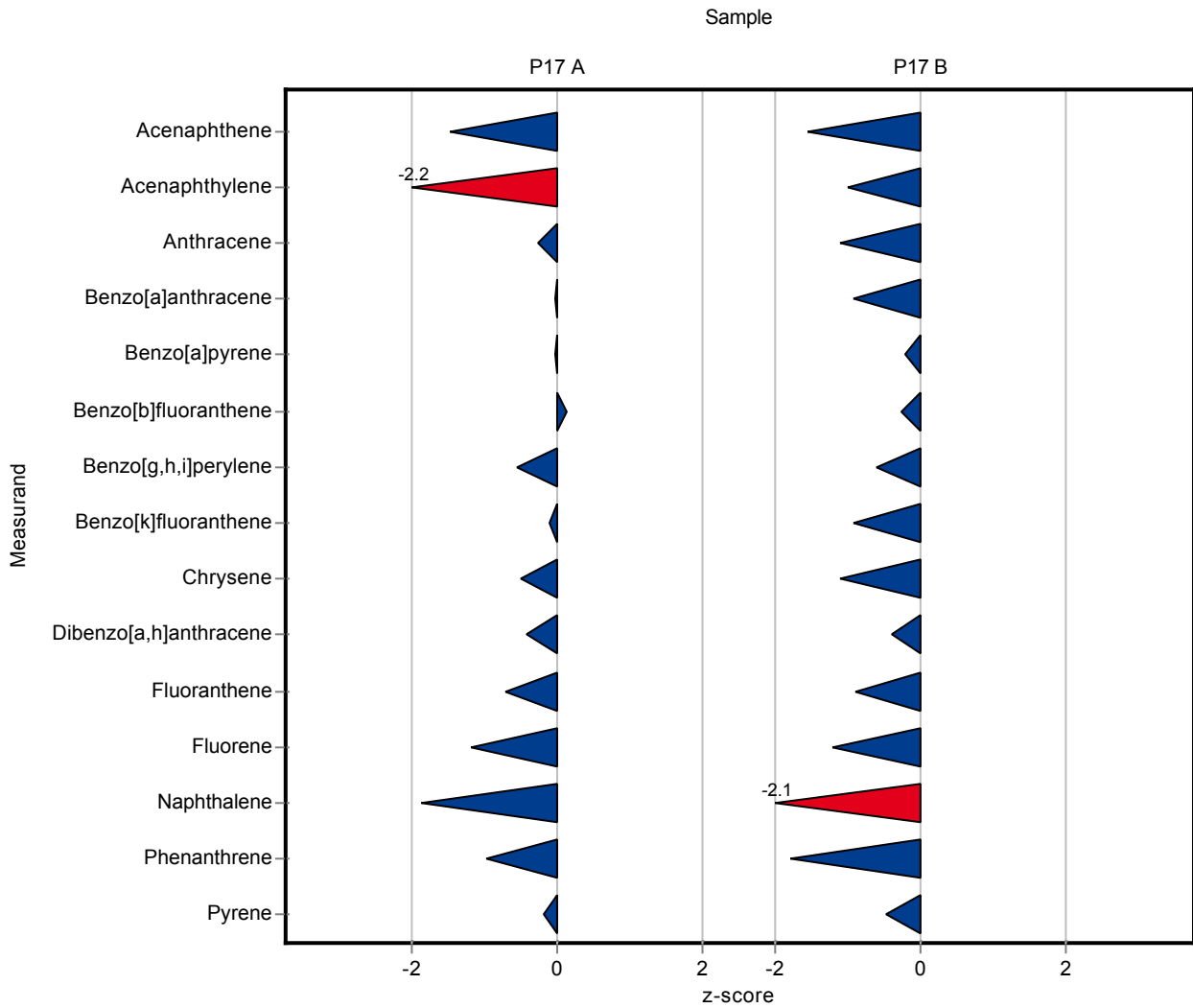
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	57	22	28.3	57.4	-1.49
Acenaphthylene	ng/l	331	± 60	189	73	63.2	57.2	-2.24
Anthracene	ng/l	102	± 33	90	35	41.1	88.4	-0.29
Benzo[a]anthracene	ng/l	54.5	± 11.2	54	21	14	99.1	-0.04
Benzo[a]pyrene	ng/l	171	± 40.7	169	75	50.8	99	-0.04
Benzo[b]fluoranthene	ng/l	70.1	± 18	73	28	23.2	104	0.12
Benzo[g,h,i]perylene	ng/l	225	± 59.8	183	78	74.6	81.5	-0.56
Benzo[k]fluoranthene	ng/l	101	± 25.9	97	36	33.4	96	-0.12
Chrysene	ng/l	128	± 22.8	113	44	28.5	88.6	-0.51
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	70	27	20.1	88.6	-0.45
Fluoranthene	ng/l	117	± 20	99	24	24.9	84.4	-0.73
Fluorene	ng/l	202	± 43.8	136	53	54.7	67.4	-1.2
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<3 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	46	18	36.5	40.2	-1.88
Phenanthrene	ng/l	296	± 55.6	228	89	69.3	77.1	-0.97
Pyrene	ng/l	77.3	± 13.7	74	29	17.1	95.7	-0.19

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	10	3.7	5.96	51.9	-1.56
Acenaphthylene	ng/l	31.2	± 8.51	22	8.6	8.98	70.5	-1.03
Anthracene	ng/l	76.7	± 16.1	54	21	20.1	70.4	-1.13
Benzo[a]anthracene	ng/l	67.8	± 12.6	53	21	15.8	78.2	-0.94
Benzo[a]pyrene	ng/l	54.2	± 14.4	50	22	18.6	92.2	-0.23
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	20	7.5	6.82	91.7	-0.26
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	36	16	18.2	75.8	-0.63
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	10	3.9	3.78	73.9	-0.94
Chrysene	ng/l	14.5	± 4.5	9	3.5	4.98	62	-1.11
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	6	2.4	3.14	82.3	-0.41
Fluoranthene	ng/l	75.3	± 12.6	61	15	15.7	81	-0.91
Fluorene	ng/l	68.8	± 13	49	19	16.3	71.2	-1.22
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<0.8 (LOD)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	31	12	25.7	36.8	-2.07
Phenanthrene	ng/l	30.7	± 5.18	20	7.7	5.98	65.1	-1.8
Pyrene	ng/l	22.4	± 6.21	19	7.6	7.17	84.8	-0.48



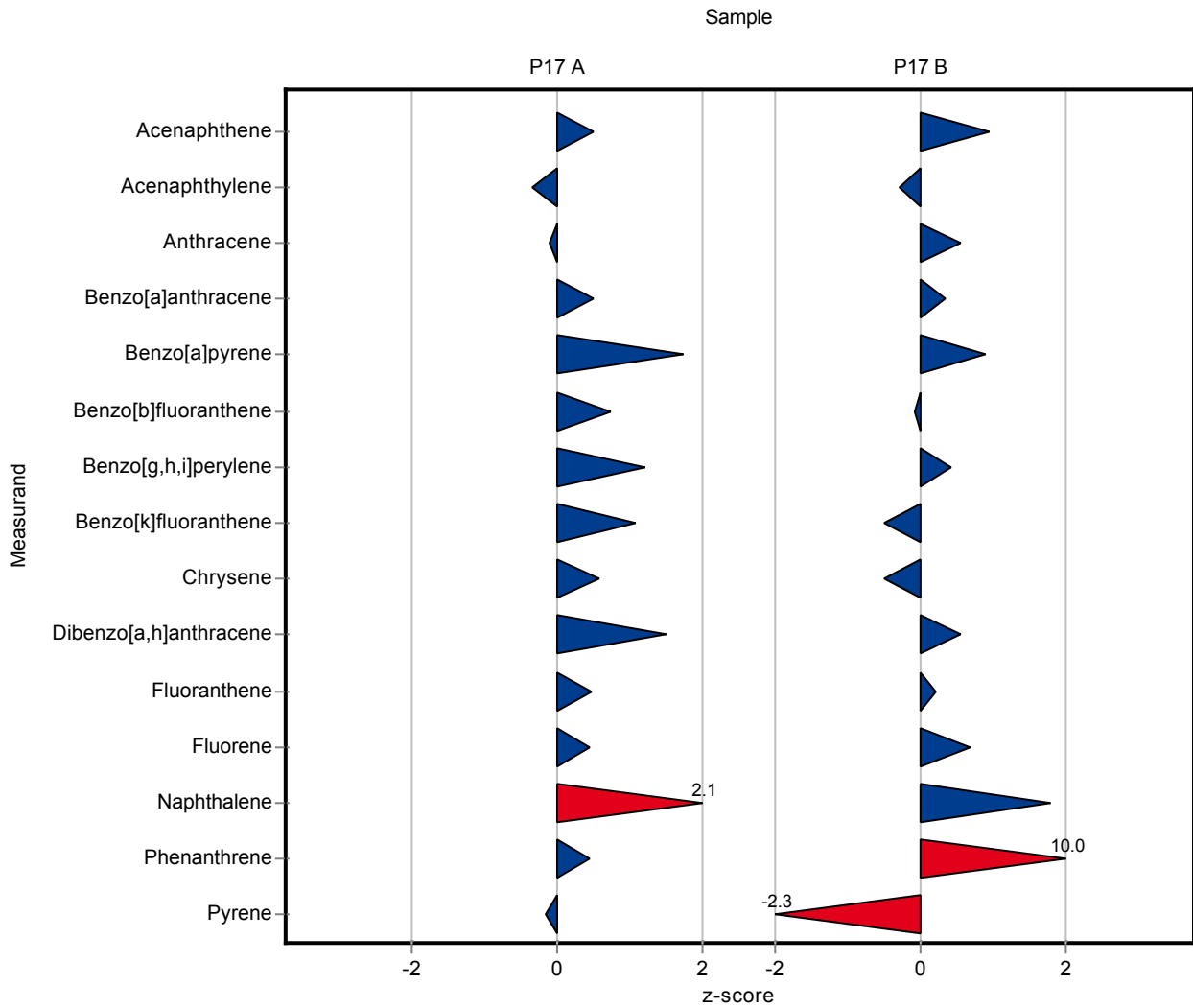
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	113.2	12.7	28.3	114	0.49
Acenaphthylene	ng/l	331	± 60	308.4	34.5	63.2	93.3	-0.35
Anthracene	ng/l	102	± 33	97	10.9	41.1	95.2	-0.12
Benzo[a]anthracene	ng/l	54.5	± 11.2	61.4	6.88	14	113	0.49
Benzo[a]pyrene	ng/l	171	± 40.7	258	28.9	50.8	151	1.72
Benzo[b]fluoranthene	ng/l	70.1	± 18	86.8	9.72	23.2	124	0.72
Benzo[g,h,i]perylene	ng/l	225	± 59.8	314	35.2	74.6	140	1.2
Benzo[k]fluoranthene	ng/l	101	± 25.9	136.6	15.3	33.4	135	1.06
Chrysene	ng/l	128	± 22.8	143.6	16.1	28.5	113	0.56
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	108.8	12.2	20.1	138	1.49
Fluoranthene	ng/l	117	± 20	128.8	14.4	24.9	110	0.46
Fluorene	ng/l	202	± 43.8	225.6	25.3	54.7	112	0.43
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	7.8	0.874	-	-	-
Naphthalene	ng/l	114	± 29.3	189.6	21.2	36.5	166	2.06
Phenanthrene	ng/l	296	± 55.6	325	36.4	69.3	110	0.42
Pyrene	ng/l	77.3	± 13.7	74.2	8.31	17.1	96	-0.18

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	24.8	2.78	5.96	129	0.93
Acenaphthylene	ng/l	31.2	± 8.51	28.6	3.2	8.98	91.7	-0.29
Anthracene	ng/l	76.7	± 16.1	87.6	9.81	20.1	114	0.55
Benzo[a]anthracene	ng/l	67.8	± 12.6	73	8.18	15.8	108	0.33
Benzo[a]pyrene	ng/l	54.2	± 14.4	70.4	7.88	18.6	130	0.87
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	21.2	2.37	6.82	97.2	-0.09
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	54.8	6.14	18.2	115	0.4
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	11.6	1.3	3.78	85.7	-0.51
Chrysene	ng/l	14.5	± 4.5	12	1.34	4.98	82.6	-0.51
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	9	1.01	3.14	123	0.55
Fluoranthene	ng/l	75.3	± 12.6	78.4	8.78	15.7	104	0.2
Fluorene	ng/l	68.8	± 13	79.8	8.94	16.3	116	0.67
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	6.4	0.717	-	-	-
Naphthalene	ng/l	84.3	± 20.6	130	14.6	25.7	154	1.78
Phenanthrene	ng/l	30.7	± 5.18	90.4	10.1	5.98	294	9.98
Pyrene	ng/l	22.4	± 6.21	6	0.672	7.17	26.8	-2.29





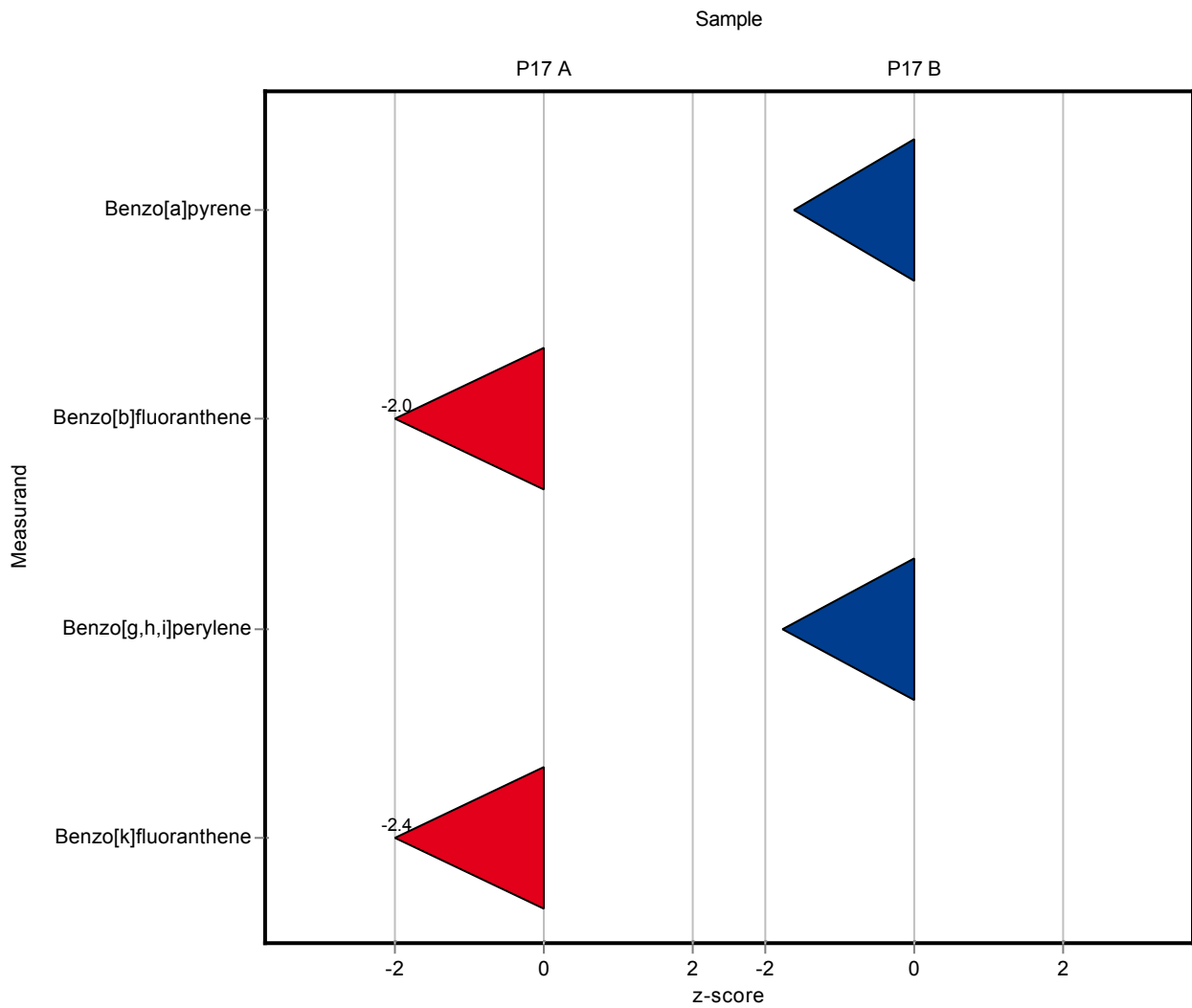
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	-	-	28.3	-	-
Acenaphthylene	ng/l	331	± 60	-	-	63.2	-	-
Anthracene	ng/l	102	± 33	-	-	41.1	-	-
Benzo[a]anthracene	ng/l	54.5	± 11.2	-	-	14	-	-
Benzo[a]pyrene	ng/l	171	± 40.7	<10 (LOQ)	-	50.8	-	-
Benzo[b]fluoranthene	ng/l	70.1	± 18	23	12	23.2	32.8	-2.03
Benzo[g,h,i]perylene	ng/l	225	± 59.8	<10 (LOQ)	-	74.6	-	-
Benzo[k]fluoranthene	ng/l	101	± 25.9	22	11	33.4	21.8	-2.37
Chrysene	ng/l	128	± 22.8	-	-	28.5	-	-
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	-	-	20.1	-	-
Fluoranthene	ng/l	117	± 20	-	-	24.9	-	-
Fluorene	ng/l	202	± 43.8	-	-	54.7	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	-	-	36.5	-	-
Phenanthrene	ng/l	296	± 55.6	-	-	69.3	-	-
Pyrene	ng/l	77.3	± 13.7	-	-	17.1	-	-

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	-	-	5.96	-	-
Acenaphthylene	ng/l	31.2	± 8.51	-	-	8.98	-	-
Anthracene	ng/l	76.7	± 16.1	-	-	20.1	-	-
Benzo[a]anthracene	ng/l	67.8	± 12.6	-	-	15.8	-	-
Benzo[a]pyrene	ng/l	54.2	± 14.4	24	12	18.6	44.3	-1.63
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	<10 (LOQ)	-	6.82	-	-
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	15	8	18.2	31.6	-1.78
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	<10 (LOQ)	-	3.78	-	-
Chrysene	ng/l	14.5	± 4.5	-	-	4.98	-	-
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	-	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	-	-	15.7	-	-
Fluorene	ng/l	68.8	± 13	-	-	16.3	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	-	-	25.7	-	-
Phenanthrene	ng/l	30.7	± 5.18	-	-	5.98	-	-
Pyrene	ng/l	22.4	± 6.21	-	-	7.17	-	-



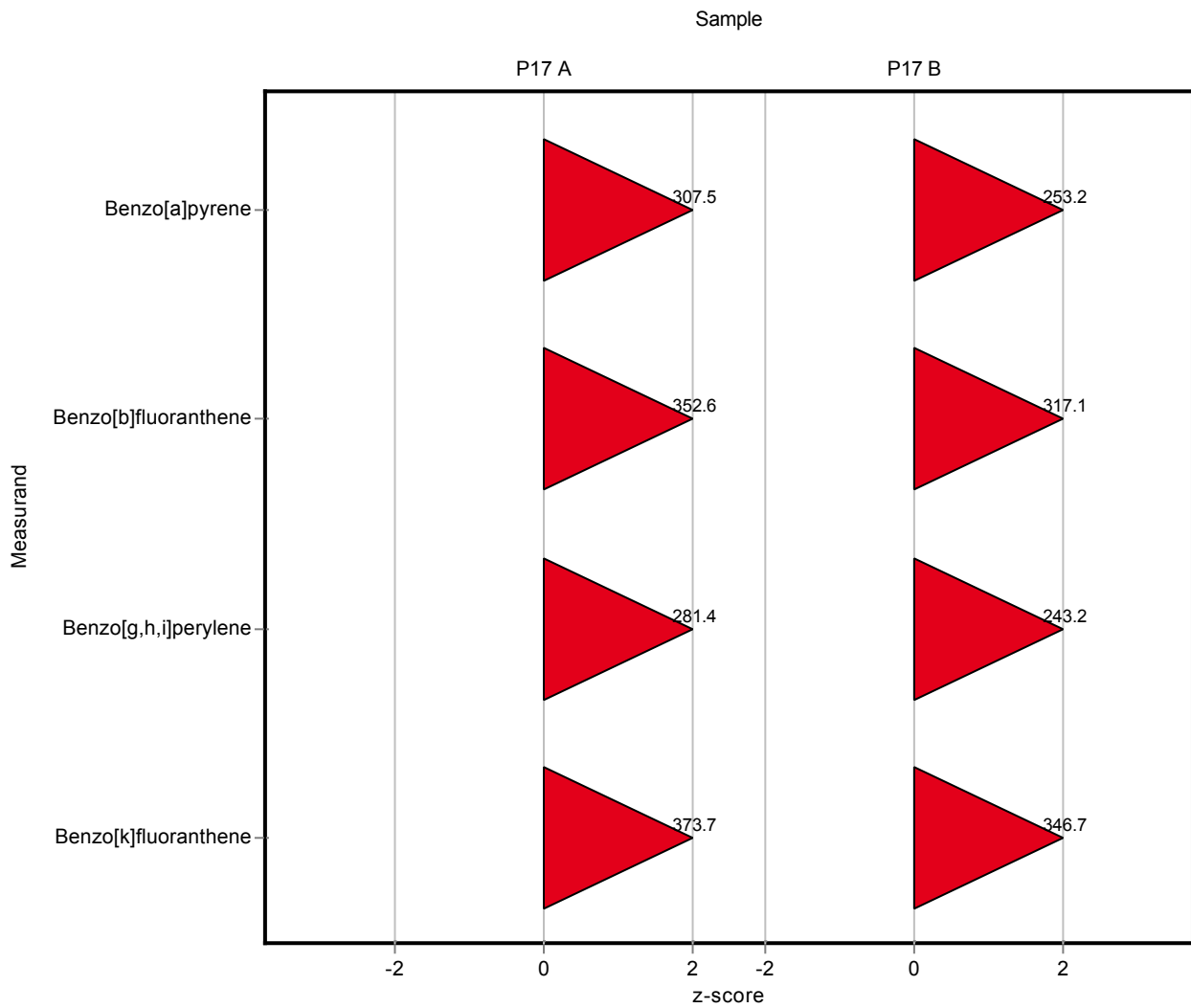
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	-	-	28.3	-	-
Acenaphthylene	ng/l	331	± 60	-	-	63.2	-	-
Anthracene	ng/l	102	± 33	-	-	41.1	-	-
Benzo[a]anthracene	ng/l	54.5	± 11.2	-	-	14	-	-
Benzo[a]pyrene	ng/l	171	± 40.7	15775	3532	50.8	9240	307
Benzo[b]fluoranthene	ng/l	70.1	± 18	8250	656	23.2	11800	353
Benzo[g,h,i]perylene	ng/l	225	± 59.8	21200	2980	74.6	9440	281
Benzo[k]fluoranthene	ng/l	101	± 25.9	12575	1247	33.4	12400	374
Chrysene	ng/l	128	± 22.8	-	-	28.5	-	-
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	-	-	20.1	-	-
Fluoranthene	ng/l	117	± 20	-	-	24.9	-	-
Fluorene	ng/l	202	± 43.8	-	-	54.7	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<4.1 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	-	-	36.5	-	-
Phenanthrene	ng/l	296	± 55.6	-	-	69.3	-	-
Pyrene	ng/l	77.3	± 13.7	-	-	17.1	-	-

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	-	-	5.96	-	-
Acenaphthylene	ng/l	31.2	± 8.51	-	-	8.98	-	-
Anthracene	ng/l	76.7	± 16.1	-	-	20.1	-	-
Benzo[a]anthracene	ng/l	67.8	± 12.6	-	-	15.8	-	-
Benzo[a]pyrene	ng/l	54.2	± 14.4	4760	1065	18.6	8780	253
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	2185	173	6.82	10000	317
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	4475	629	18.2	9430	243
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	1325	131	3.78	9790	347
Chrysene	ng/l	14.5	± 4.5	-	-	4.98	-	-
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	-	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	-	-	15.7	-	-
Fluorene	ng/l	68.8	± 13	-	-	16.3	-	-
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<4.1 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	-	-	25.7	-	-
Phenanthrene	ng/l	30.7	± 5.18	-	-	5.98	-	-
Pyrene	ng/l	22.4	± 6.21	-	-	7.17	-	-



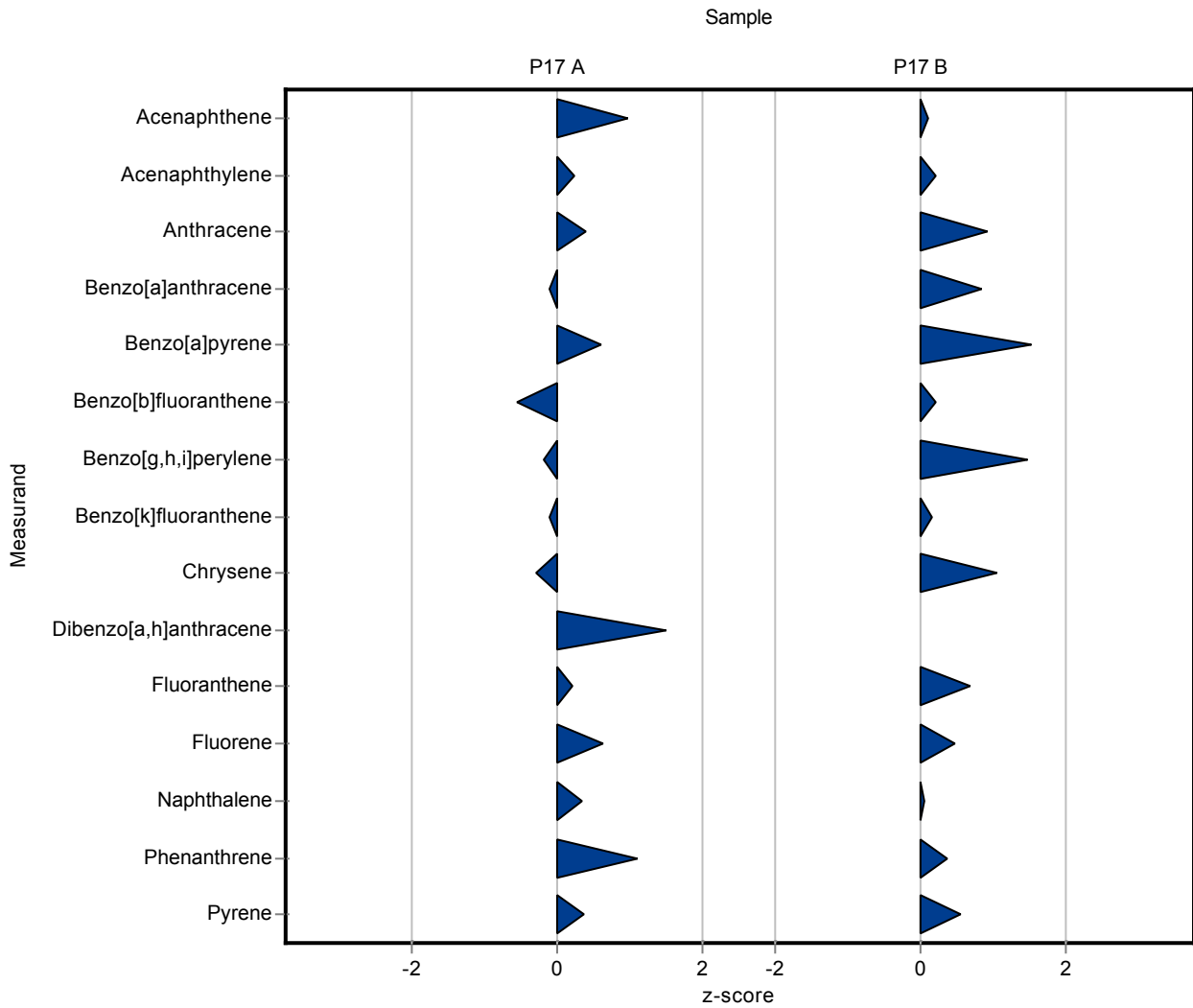
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	126.7	15	28.3	128	0.97
Acenaphthylene	ng/l	331	± 60	344.5	51	63.2	104	0.22
Anthracene	ng/l	102	± 33	117.9	13	41.1	116	0.39
Benzo[a]anthracene	ng/l	54.5	± 11.2	52.8	11	14	96.9	-0.12
Benzo[a]pyrene	ng/l	171	± 40.7	200.6	82	50.8	117	0.59
Benzo[b]fluoranthene	ng/l	70.1	± 18	57	16	23.2	81.3	-0.57
Benzo[g,h,i]perylene	ng/l	225	± 59.8	209.8	77	74.6	93.4	-0.2
Benzo[k]fluoranthene	ng/l	101	± 25.9	97.1	36	33.4	96.1	-0.12
Chrysene	ng/l	128	± 22.8	118.6	20	28.5	93	-0.31
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	109	49	20.1	138	1.5
Fluoranthene	ng/l	117	± 20	122.4	14	24.9	104	0.21
Fluorene	ng/l	202	± 43.8	236	26	54.7	117	0.63
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	114	± 29.3	126.7	15	36.5	111	0.34
Phenanthrene	ng/l	296	± 55.6	372	39	69.3	126	1.1
Pyrene	ng/l	77.3	± 13.7	83.5	9	17.1	108	0.36

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	19.9	2	5.96	103	0.1
Acenaphthylene	ng/l	31.2	± 8.51	32.9	5	8.98	105	0.19
Anthracene	ng/l	76.7	± 16.1	94.8	10	20.1	124	0.9
Benzo[a]anthracene	ng/l	67.8	± 12.6	80.9	17	15.8	119	0.83
Benzo[a]pyrene	ng/l	54.2	± 14.4	82.5	34	18.6	152	1.52
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	23.1	6	6.82	106	0.19
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	74	27	18.2	156	1.46
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	14.1	5	3.78	104	0.15
Chrysene	ng/l	14.5	± 4.5	19.7	3	4.98	136	1.04
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	<11.4 (LOQ)	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	85.8	9	15.7	114	0.67
Fluorene	ng/l	68.8	± 13	76.4	8	16.3	111	0.46
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	-	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	85.5	10	25.7	101	0.05
Phenanthrene	ng/l	30.7	± 5.18	32.9	3	5.98	107	0.36
Pyrene	ng/l	22.4	± 6.21	26.2	3	7.17	117	0.53



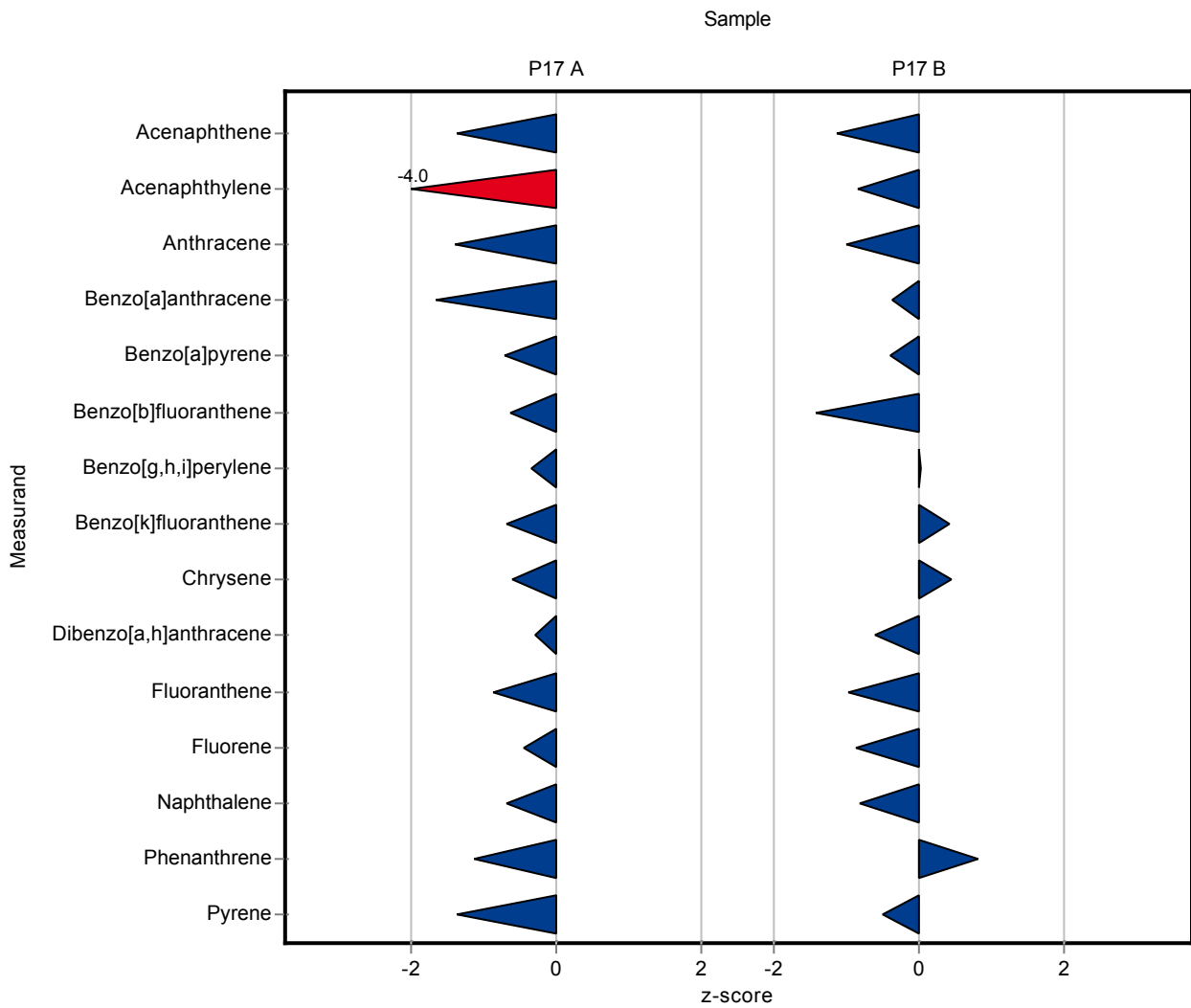
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	60.1	2.3	28.3	60.5	-1.38
Acenaphthylene	ng/l	331	± 60	76.5	14	63.2	23.1	-4.02
Anthracene	ng/l	102	± 33	44.4	1.5	41.1	43.6	-1.4
Benzo[a]anthracene	ng/l	54.5	± 11.2	30.9	1.1	14	56.7	-1.68
Benzo[a]pyrene	ng/l	171	± 40.7	134	4.9	50.8	78.5	-0.72
Benzo[b]fluoranthene	ng/l	70.1	± 18	55.1	5.7	23.2	78.6	-0.65
Benzo[g,h,i]perylene	ng/l	225	± 59.8	198	5.7	74.6	88.2	-0.36
Benzo[k]fluoranthene	ng/l	101	± 25.9	78.2	2.9	33.4	77.4	-0.69
Chrysene	ng/l	128	± 22.8	110	4.2	28.5	86.2	-0.62
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	73	4.7	20.1	92.4	-0.3
Fluoranthene	ng/l	117	± 20	95.3	1.3	24.9	81.3	-0.88
Fluorene	ng/l	202	± 43.8	176	5.7	54.7	87.2	-0.47
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	13.5	0.07	-	-	-
Naphthalene	ng/l	114	± 29.3	88.6	2	36.5	77.4	-0.71
Phenanthrene	ng/l	296	± 55.6	217	1.4	69.3	73.4	-1.13
Pyrene	ng/l	77.3	± 13.7	53.5	1.8	17.1	69.2	-1.39

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	12.5	0.14	5.96	64.8	-1.14
Acenaphthylene	ng/l	31.2	± 8.51	23.6	2.7	8.98	75.6	-0.85
Anthracene	ng/l	76.7	± 16.1	56.2	0.5	20.1	73.3	-1.02
Benzo[a]anthracene	ng/l	67.8	± 12.6	61.9	3.3	15.8	91.4	-0.37
Benzo[a]pyrene	ng/l	54.2	± 14.4	46.5	3.7	18.6	85.8	-0.41
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	12	0.21	6.82	55	-1.44
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	47.8	2.3	18.2	101	0.02
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	15.1	1.8	3.78	112	0.41
Chrysene	ng/l	14.5	± 4.5	16.7	1.2	4.98	115	0.44
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	5.32	0.06	3.14	73	-0.63
Fluoranthene	ng/l	75.3	± 12.6	59.7	2.6	15.7	79.3	-0.99
Fluorene	ng/l	68.8	± 13	54.7	1.3	16.3	79.5	-0.87
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	2.08	0.01	-	-	-
Naphthalene	ng/l	84.3	± 20.6	62.7	3.5	25.7	74.3	-0.84
Phenanthrene	ng/l	30.7	± 5.18	35.5	3	5.98	115	0.8
Pyrene	ng/l	22.4	± 6.21	18.8	0.57	7.17	83.9	-0.51





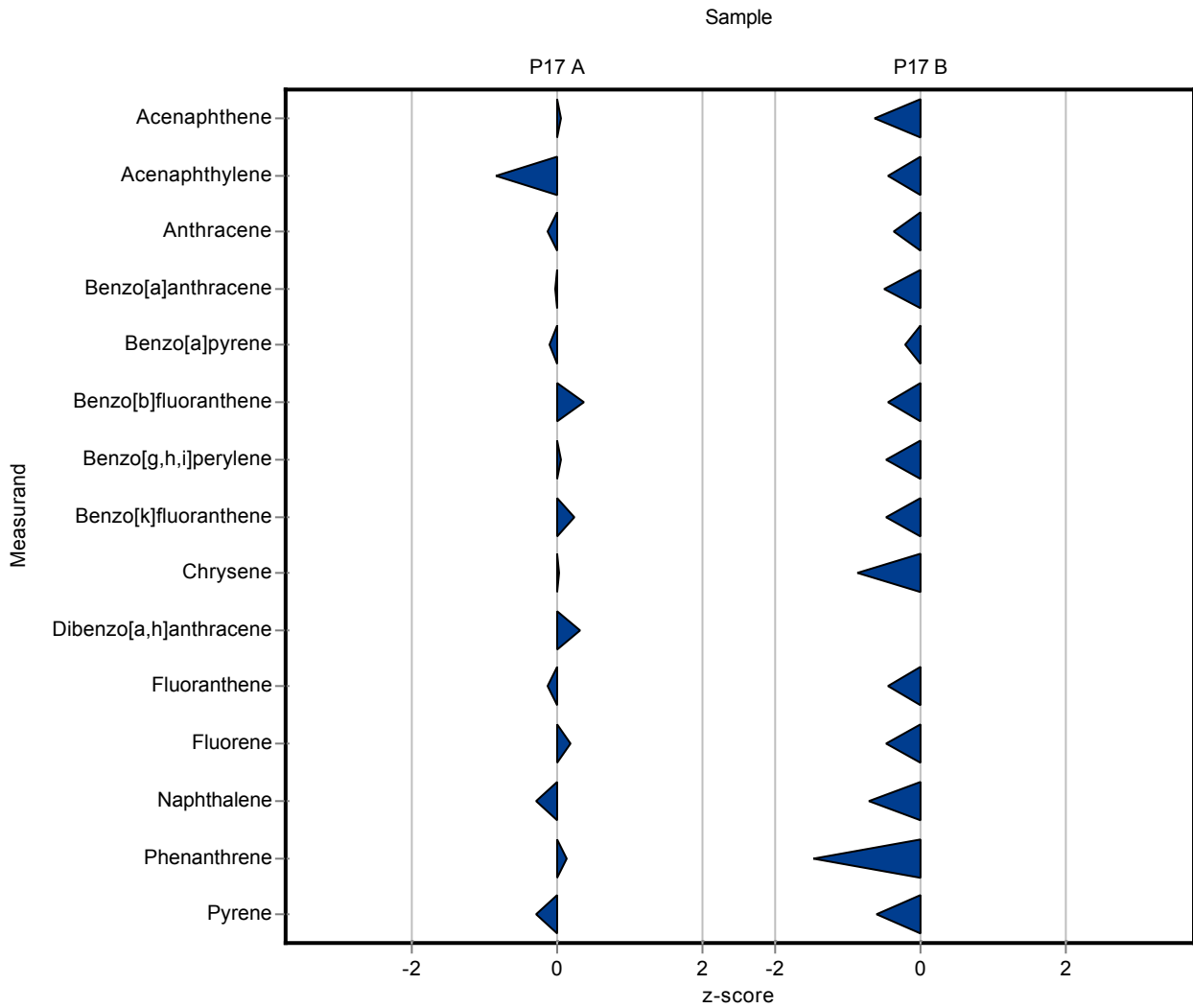
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	100.5	25.1	28.3	101	0.04
Acenaphthylene	ng/l	331	± 60	276.2	69.1	63.2	83.5	-0.86
Anthracene	ng/l	102	± 33	95.7	23.9	41.1	94	-0.15
Benzo[a]anthracene	ng/l	54.5	± 11.2	53.8	13.5	14	98.7	-0.05
Benzo[a]pyrene	ng/l	171	± 40.7	165.1	41.3	50.8	96.7	-0.11
Benzo[b]fluoranthene	ng/l	70.1	± 18	78.6	19.7	23.2	112	0.36
Benzo[g,h,i]perylene	ng/l	225	± 59.8	228.4	57.1	74.6	102	0.05
Benzo[k]fluoranthene	ng/l	101	± 25.9	108.6	27.2	33.4	107	0.23
Chrysene	ng/l	128	± 22.8	128	32	28.5	100	0.02
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	85.2	21.3	20.1	108	0.31
Fluoranthene	ng/l	117	± 20	113.9	28.5	24.9	97.1	-0.14
Fluorene	ng/l	202	± 43.8	211.2	52.8	54.7	105	0.17
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	14.3	3.6	-	-	-
Naphthalene	ng/l	114	± 29.3	103.2	25.8	36.5	90.1	-0.31
Phenanthrene	ng/l	296	± 55.6	304.1	76	69.3	103	0.12
Pyrene	ng/l	77.3	± 13.7	72.2	18.1	17.1	93.4	-0.3

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	15.5	3.9	5.96	80.4	-0.64
Acenaphthylene	ng/l	31.2	± 8.51	27.1	6.8	8.98	86.9	-0.46
Anthracene	ng/l	76.7	± 16.1	68.9	17.2	20.1	89.9	-0.39
Benzo[a]anthracene	ng/l	67.8	± 12.6	59.8	15	15.8	88.3	-0.51
Benzo[a]pyrene	ng/l	54.2	± 14.4	50	12.5	18.6	92.2	-0.23
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	18.6	4.7	6.82	85.3	-0.47
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	38.5	9.6	18.2	81.1	-0.49
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	11.7	2.9	3.78	86.4	-0.49
Chrysene	ng/l	14.5	± 4.5	10.1	2.5	4.98	69.5	-0.89
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	<5 (LOQ)	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	68.1	17	15.7	90.4	-0.46
Fluorene	ng/l	68.8	± 13	61.1	15.3	16.3	88.7	-0.48
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	65.4	16.4	25.7	77.5	-0.74
Phenanthrene	ng/l	30.7	± 5.18	21.9	5.5	5.98	71.2	-1.48
Pyrene	ng/l	22.4	± 6.21	17.9	4.5	7.17	79.9	-0.63



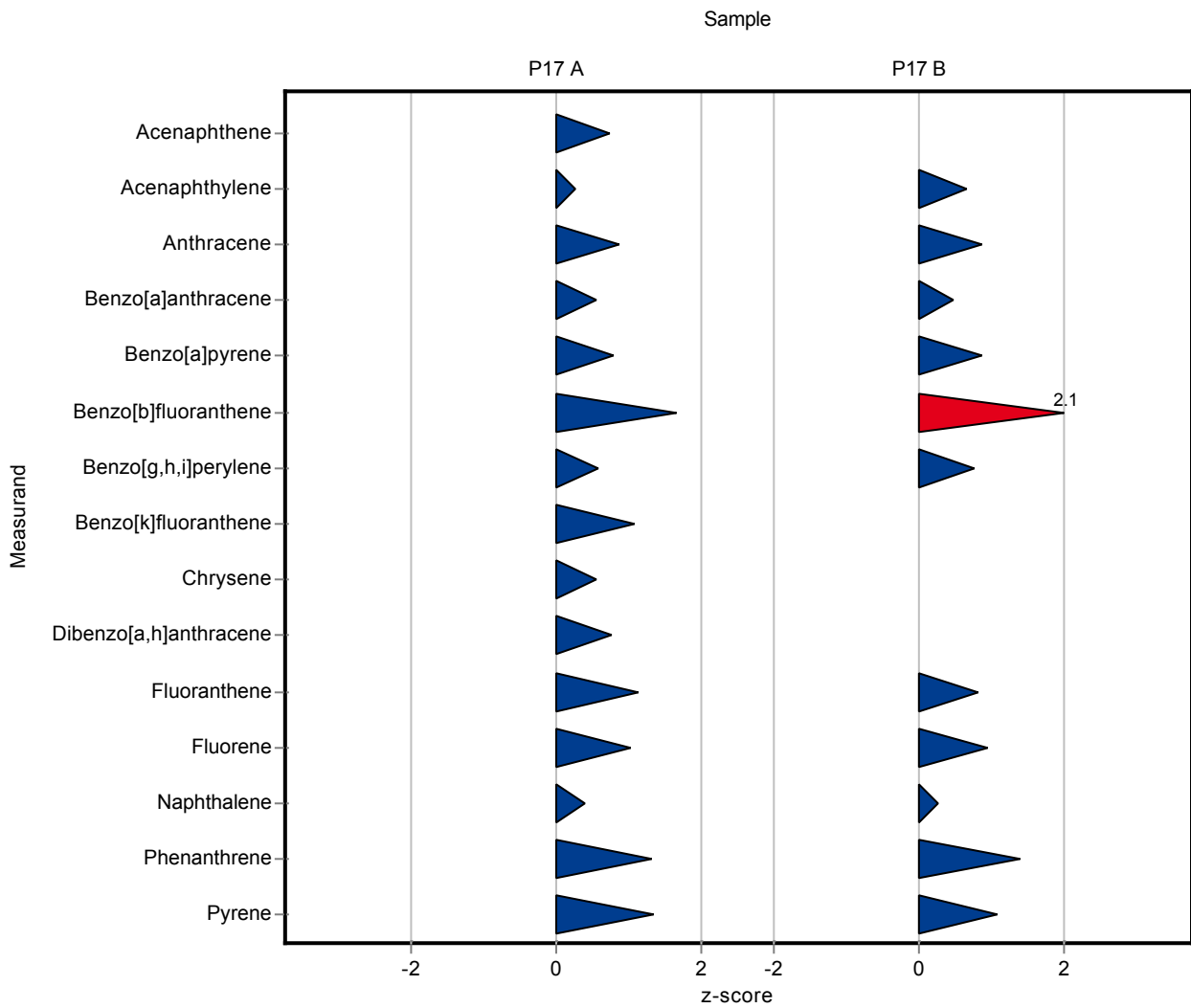
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	120	24	28.3	121	0.73
Acenaphthylene	ng/l	331	± 60	346	69	63.2	105	0.24
Anthracene	ng/l	102	± 33	137	27	41.1	135	0.85
Benzo[a]anthracene	ng/l	54.5	± 11.2	62	12	14	114	0.54
Benzo[a]pyrene	ng/l	171	± 40.7	210	42	50.8	123	0.77
Benzo[b]fluoranthene	ng/l	70.1	± 18	108	22	23.2	154	1.63
Benzo[g,h,i]perylene	ng/l	225	± 59.8	266	53	74.6	118	0.56
Benzo[k]fluoranthene	ng/l	101	± 25.9	137	27	33.4	136	1.08
Chrysene	ng/l	128	± 22.8	143	29	28.5	112	0.54
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	94	19	20.1	119	0.75
Fluoranthene	ng/l	117	± 20	145	29	24.9	124	1.11
Fluorene	ng/l	202	± 43.8	257	51	54.7	127	1.01
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<25 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	128	26	36.5	112	0.37
Phenanthrene	ng/l	296	± 55.6	386	77	69.3	131	1.31
Pyrene	ng/l	77.3	± 13.7	100	20	17.1	129	1.33

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	<25 (LOQ)	-	5.96	-	-
Acenaphthylene	ng/l	31.2	± 8.51	37	7	8.98	119	0.65
Anthracene	ng/l	76.7	± 16.1	94	19	20.1	123	0.86
Benzo[a]anthracene	ng/l	67.8	± 12.6	75	15	15.8	111	0.46
Benzo[a]pyrene	ng/l	54.2	± 14.4	70	14	18.6	129	0.85
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	36	7	6.82	165	2.08
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	61	12	18.2	128	0.74
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	<25 (LOQ)	-	3.78	-	-
Chrysene	ng/l	14.5	± 4.5	<25 (LOQ)	-	4.98	-	-
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	<25 (LOQ)	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	88	18	15.7	117	0.81
Fluorene	ng/l	68.8	± 13	84	17	16.3	122	0.93
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<25 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	91	18	25.7	108	0.26
Phenanthrene	ng/l	30.7	± 5.18	39	8	5.98	127	1.38
Pyrene	ng/l	22.4	± 6.21	30	6	7.17	134	1.06



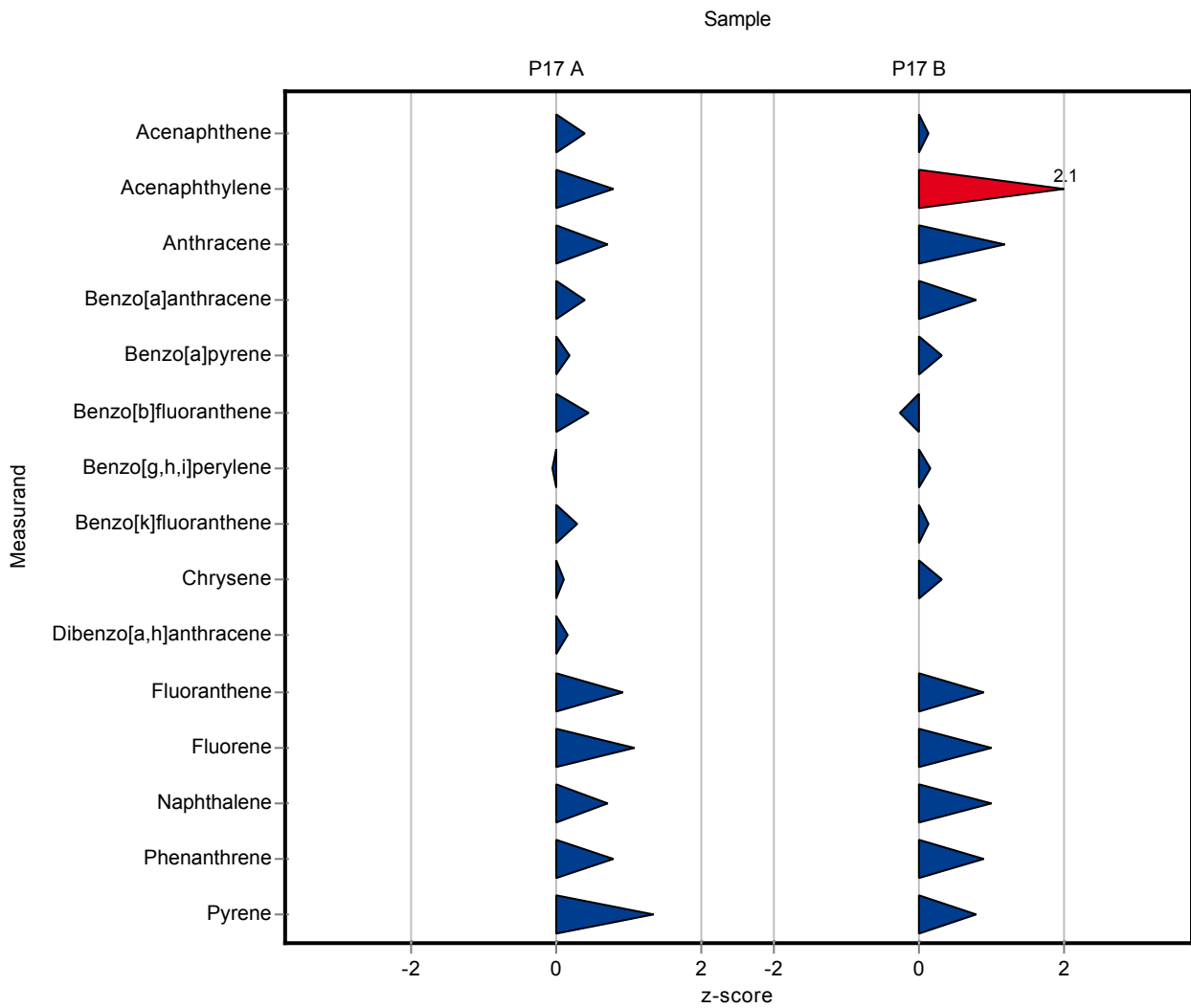
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	110	12	28.3	111	0.38
Acenaphthylene	ng/l	331	± 60	380	145	63.2	115	0.78
Anthracene	ng/l	102	± 33	130	13	41.1	128	0.69
Benzo[a]anthracene	ng/l	54.5	± 11.2	60	7	14	110	0.39
Benzo[a]pyrene	ng/l	171	± 40.7	180	34	50.8	105	0.18
Benzo[b]fluoranthene	ng/l	70.1	± 18	80	11	23.2	114	0.42
Benzo[g,h,i]perylene	ng/l	225	± 59.8	220	30	74.6	98	-0.06
Benzo[k]fluoranthene	ng/l	101	± 25.9	110	11	33.4	109	0.27
Chrysene	ng/l	128	± 22.8	130	15	28.5	102	0.09
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	82	19	20.1	104	0.15
Fluoranthene	ng/l	117	± 20	140	39	24.9	119	0.91
Fluorene	ng/l	202	± 43.8	260	115	54.7	129	1.06
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	140	35	36.5	122	0.7
Phenanthrene	ng/l	296	± 55.6	350	51	69.3	118	0.79
Pyrene	ng/l	77.3	± 13.7	100	31	17.1	129	1.33

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	20	2	5.96	104	0.12
Acenaphthylene	ng/l	31.2	± 8.51	50	17	8.98	160	2.09
Anthracene	ng/l	76.7	± 16.1	100	10	20.1	130	1.16
Benzo[a]anthracene	ng/l	67.8	± 12.6	80	9	15.8	118	0.78
Benzo[a]pyrene	ng/l	54.2	± 14.4	60	12	18.6	111	0.31
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	20	3	6.82	91.7	-0.26
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	50	7	18.2	105	0.14
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	14	1	3.78	103	0.12
Chrysene	ng/l	14.5	± 4.5	16	1	4.98	110	0.3
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	<10 (LOQ)	-	3.14	-	-
Fluoranthene	ng/l	75.3	± 12.6	89	25	15.7	118	0.87
Fluorene	ng/l	68.8	± 13	85	38	16.3	123	0.99
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<10 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	110	28	25.7	130	1
Phenanthrene	ng/l	30.7	± 5.18	36	5	5.98	117	0.88
Pyrene	ng/l	22.4	± 6.21	28	9	7.17	125	0.78



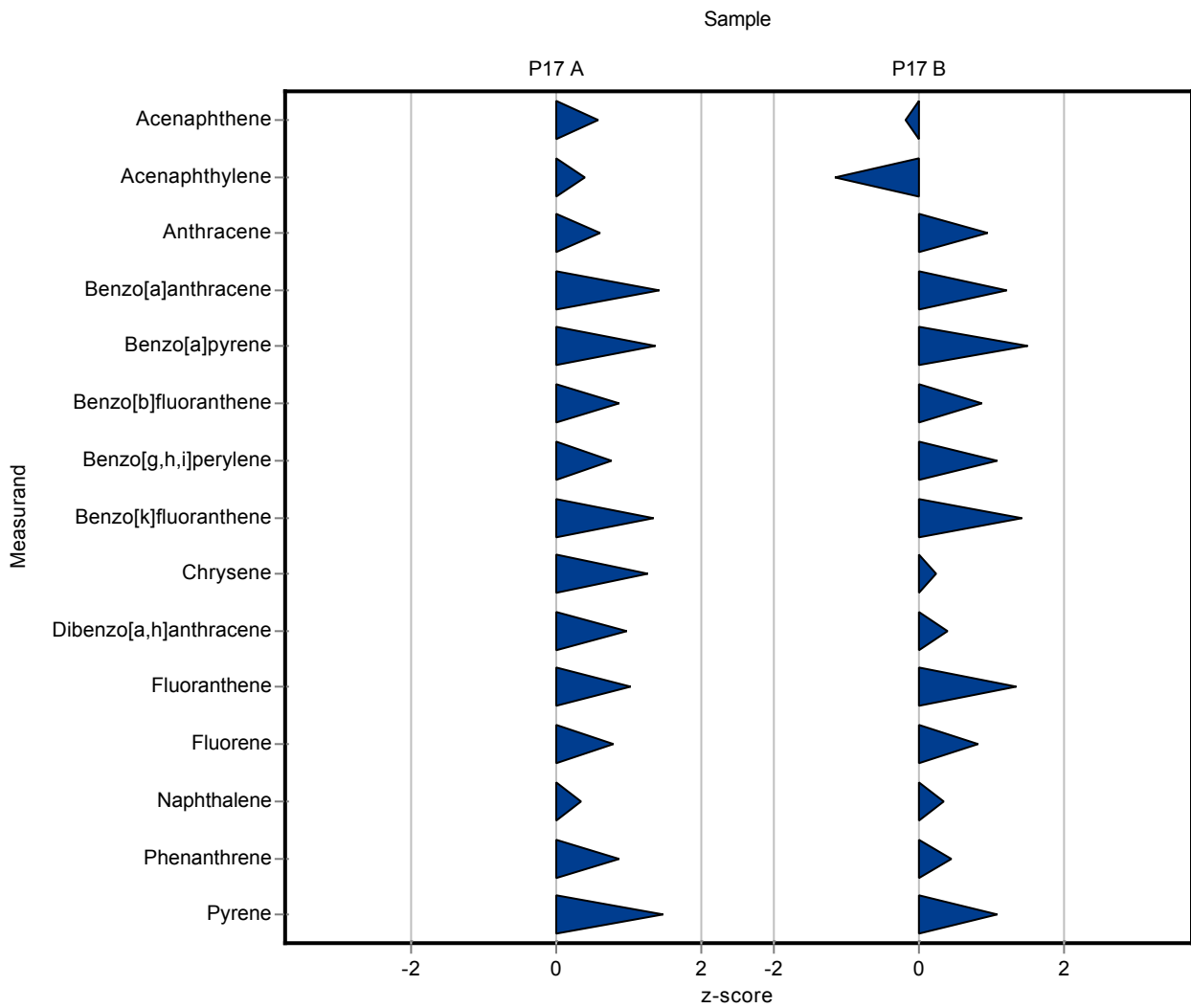
The following results were achieved:

Sample: P17A

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	115.1	11	28.3	116	0.56
Acenaphthylene	ng/l	331	± 60	355.3	35	63.2	107	0.39
Anthracene	ng/l	102	± 33	126.4	13	41.1	124	0.6
Benzo[a]anthracene	ng/l	54.5	± 11.2	74.1	7	14	136	1.4
Benzo[a]pyrene	ng/l	171	± 40.7	239.9	24	50.8	140	1.36
Benzo[b]fluoranthene	ng/l	70.1	± 18	89.8	9	23.2	128	0.85
Benzo[g,h,i]perylene	ng/l	225	± 59.8	280.4	28	74.6	125	0.75
Benzo[k]fluoranthene	ng/l	101	± 25.9	145.7	15	33.4	144	1.34
Chrysene	ng/l	128	± 22.8	163.5	16	28.5	128	1.26
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	98.1	10	20.1	124	0.95
Fluoranthene	ng/l	117	± 20	142.6	14	24.9	122	1.02
Fluorene	ng/l	202	± 43.8	244.8	25	54.7	121	0.79
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	126.9	13	36.5	111	0.34
Phenanthrene	ng/l	296	± 55.6	354.7	35	69.3	120	0.85
Pyrene	ng/l	77.3	± 13.7	102.2	10	17.1	132	1.46

Sample: P17B

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	18.1	2	5.96	93.9	-0.2
Acenaphthylene	ng/l	31.2	± 8.51	20.8	2	8.98	66.7	-1.16
Anthracene	ng/l	76.7	± 16.1	95.3	9	20.1	124	0.93
Benzo[a]anthracene	ng/l	67.8	± 12.6	86.7	9	15.8	128	1.2
Benzo[a]pyrene	ng/l	54.2	± 14.4	81.6	8	18.6	151	1.47
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	27.6	3	6.82	127	0.85
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	66.7	7	18.2	141	1.06
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	18.9	2	3.78	140	1.42
Chrysene	ng/l	14.5	± 4.5	15.6	2	4.98	107	0.22
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	8.5	0.8	3.14	117	0.39
Fluoranthene	ng/l	75.3	± 12.6	96	10	15.7	127	1.32
Fluorene	ng/l	68.8	± 13	81.7	8	16.3	119	0.79
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	93	9	25.7	110	0.34
Phenanthrene	ng/l	30.7	± 5.18	33.4	3	5.98	109	0.45
Pyrene	ng/l	22.4	± 6.21	30.1	3	7.17	134	1.07





The following results were achieved:

**Sample: P17A**

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	99.3	± 23.6	68.6	17.1	28.3	69.1	-1.08
Acenaphthylene	ng/l	331	± 60	-	-	63.2	-	-
Anthracene	ng/l	102	± 33	47.2	10.9	41.1	46.3	-1.33
Benzo[a]anthracene	ng/l	54.5	± 11.2	42.2	11.4	14	77.4	-0.88
Benzo[a]pyrene	ng/l	171	± 40.7	138	34.5	50.8	80.8	-0.65
Benzo[b]fluoranthene	ng/l	70.1	± 18	63.6	16.5	23.2	90.7	-0.28
Benzo[g,h,i]perylene	ng/l	225	± 59.8	200	59.8	74.6	89.1	-0.33
Benzo[k]fluoranthene	ng/l	101	± 25.9	98.9	23.7	33.4	97.9	-0.07
Chrysene	ng/l	128	± 22.8	117	31.6	28.5	91.7	-0.37
Dibenzo[a,h]anthracene	ng/l	79	± 16.1	70.5	16.9	20.1	89.3	-0.42
Fluoranthene	ng/l	117	± 20	113	32.8	24.9	96.4	-0.17
Fluorene	ng/l	202	± 43.8	134	36.2	54.7	66.4	-1.24
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	114	± 29.3	105	23.1	36.5	91.7	-0.26
Phenanthrene	ng/l	296	± 55.6	252	75.6	69.3	85.3	-0.63
Pyrene	ng/l	77.3	± 13.7	64.9	16.2	17.1	84	-0.72

**Sample: P17B**

Parameter	Unit	Target	± CI(99%)	Result	± U	Criteria	Recovery	z-score
Acenaphthene	ng/l	19.3	± 5.39	56.4	14.1	5.96	293	6.23
Acenaphthylene	ng/l	31.2	± 8.51	-	-	8.98	-	-
Anthracene	ng/l	76.7	± 16.1	62.8	15.1	20.1	81.9	-0.69
Benzo[a]anthracene	ng/l	67.8	± 12.6	65.6	15.1	15.8	96.8	-0.14
Benzo[a]pyrene	ng/l	54.2	± 14.4	56.5	12.9	18.6	104	0.12
Benzo[b]fluoranthene	ng/l	21.8	± 6.17	20.1	5.62	6.82	92.2	-0.25
Benzo[g,h,i]perylene	ng/l	47.5	± 14.6	50.4	12.6	18.2	106	0.16
Benzo[k]fluoranthene	ng/l	13.5	± 3.59	12.3	3.56	3.78	90.8	-0.33
Chrysene	ng/l	14.5	± 4.5	9.96	2.29	4.98	68.6	-0.92
Dibenzo[a,h]anthracene	ng/l	7.29	± 3.56	5.6	1.28	3.14	76.8	-0.54
Fluoranthene	ng/l	75.3	± 12.6	72.1	21.6	15.7	95.7	-0.2
Fluorene	ng/l	68.8	± 13	40.6	10.2	16.3	59	-1.74
Indeno[1,2,3-cd]pyrene	ng/l	-	± -	<5 (LOQ)	-	-	-	-
Naphthalene	ng/l	84.3	± 20.6	93.7	23.4	25.7	111	0.36
Phenanthrene	ng/l	30.7	± 5.18	30.9	7.42	5.98	101	0.03
Pyrene	ng/l	22.4	± 6.21	24.4	6.83	7.17	109	0.28

