ENVIRONMENT AGENCY AUSTRIA umweltbundesamt

Proficiency Testing Scheme für die Wasseranalytik - Realproben

P22 Polyzyklische Aromatische Kohlenwasserstoffe (PAK)

Proficiency Testing Scheme for Water Analysis - natural water samples

P22 Polycyclic aromatic hydrocarbons (PAH)

BERICHT / REPORT

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D1. Beschreibung des Ringversuchs

D1.1. Ausgestaltung und Durchführung

- Anzahl der Anmeldungen: 18
- Anzahl der übermittelten Datensätze: 18
- Probenversand: 04.05.2021
- Einsendeschluss der Daten: 01.06.2021

Die Ergebnisabgabe erfolgte auf elektronischem Weg mittels passwortgeschützter Online-Dateneingabe. Beim Abschluss der Dateneingabe bestätigte der Teilnehmer die vollständige und korrekte Eingabe aller Daten und die Freigabe der Ergebnisse zur Auswertung.

Zur Anonymisierung der Ergebnisse wurde jedem Labor willkürlich ein Laborcode zugeteilt.

D1.2. Beschreibung der Prüfgegenstände

Die Probenahmen von Trinkwasser und Grundwasser erfolgten am 29.04.2021. Das Probenmaterial umfasste:

- 1 Probe Trinkwasser (P22 A)
- 1 Probe Grundwasser (P22 B)

Alle Proben wurden bis zur weiteren Verarbeitung gekühlt gelagert (4 +/-3°C).

Das Abfüllen der Proben erfolgte nach Filtration (40 µm) unter ständigem Rühren (Rührkessel). Anschließend wurden die Proben in den Flaschen mit einzelnen Substanzen dotiert und durch Schütteln homogenisiert. Die Stabilisierung erfolgte durch Kühlung.

Die homogenen Prüfgegenstände wurden am 04.05.2021 verschickt.

Jedes Teilnehmerlabor erhielt:

- 2 Proben zu je ca. 2000 ml, abgefüllt in je 2 x 1000 ml Braunglasflaschen.

D1.3. Anweisungen für die Teilnehmer

Aus Stabilitätsgründen wurde empfohlen bis spätestens 06.05.2021 mit den Analysen zu beginnen.

Den Teilnehmern stand die Wahl der Analysenmethode bzw. der verwendeten Norm frei, welche mit ihrem Routineverfahren übereinstimmen sollte. Eine Übersicht der angewendeten Methoden findet sich unter E9.

D1.4. Kontrollanalytik zur Bewertung der Homogenität

Im Zuge der Abfüllung wurden zu willkürlichen Zeitpunkten mehrere Aliquote pro Probe zur Kontrollanalytik entnommen.
Es wurden für die A- bzw. B-Probe jeweils n=5 Kontrollproben sowie n=1 undotierte Realprobe dem Labor zur Analyse übergeben.

Die Parameter wurden in der Prüfstelle am Umweltbundesamt (Prüfstelle für Umwelt-, GVO- & Treibstoffanalytik) zeitnah zum Probenversand analysiert.

Im Zuge der Auswertung wurde die relative Standardabweichung zwischen den Kontrollprobenabfüllungen bewertet und mit der Vergleichsstandardabweichung beim aktuellen Ringversuch verglichen.
Die Ergebnisse der Kontrollanalytik sind in der parameterorientieren Auswertung (E.7.) in Form von Mittelwerten ± Messunsicherheit als Kontrollwert (control test value) ± U gelistet (jeweils angegeben als erweiterte Messunsicherheit, k=2).

D1.5. Trendtest zur Bewertung der Stabilität

Die Bewertung der Stabilität der Prüfgegenstände (Realproben) erfolgte auf Basis der Datenstatistik aus den vergangenen Runden für Realproben im Zeitraum 2013 bis 2019.

Um die ausreichende Stabilität der Prüfgegenstände der aktuellen Eignungsprüfungsrunde bis zum Abgabetermin zu überprüfen, wurde die Darstellung der Teilnehmerergebnisse nach Analysendatum ausgewertet und auf systematische Trends geprüft (unauffällig). Durch Darstellung der Teilnehmerergebnisse nach Abfüllreihenfolge wurde auf das Vorliegen möglicher systematischer Trends der Ergebnisse geprüft (unauffällig).

Aufgrund der bisherigen Erfahrungen und aufgrund der Bewertungsgrundlagen der aktuellen Eignungsprüfungsrunde gilt die Stabilität der Prüfgegenstände im empfohlenen Zeitraum für die Analyse bis zum Abgabeschluss als gewährleistet.

D1.6. Ermittlung des zugewiesenen Wertes

Die Ergebnisse der Analysen mussten spätestens bis zum 01.06.2021 beim Veranstalter vorliegen. Später eingehende Werte wurden nicht berücksichtigt.

Im Zuge der Plausibilitätsprüfung der Daten (z.B. Check korrekte Einheiten, Messunsicherheitsangabe, …) wurden die Teilnehmer mit auffälligen Ergebnissen zum erneuten Datencheck der Eingabe und um Rückmeldung binnen 24 h aufgefordert.

Nach Abschluss der Plausibilitätsprüfung, wurde der Ausreißertest nach Hampel durchgeführt und die Ausreißer ermittelt. Die von diesem Test auffällig eingestuften Werte wurden in der Auswertung gekennzeichnet („H“). In begründeten Fällen, z.B. wenn der Ausreißertest nach Hampel nicht anwendbar ist (z.B. Ergebnisse liegen sehr eng beieinander oder überwiegend selber Zahlenwert bzw. bei wenig abgegebenen Daten mit sehr hoher Streuung), kann eine Ausreißereliminierung nach weiteren Kriterien erfolgen (z.B. Dean- und Dixon Test bzw. manuelle Ausreißerdefinition aufgrund Expertenbefund). Diese Vorgangsweise wird nach Anwendung unter Punkt D4 des Berichts dokumentiert.

Die weitere Auswertung erfolgte gemäß ISO 5725-2. Eine statistische Auswertung der Ringversuchsdaten erfolgte erst ab zumindest 6 gültigen, nummerischen Ergebnissen pro Parameter. Ergebnisse kleiner Bestimmungs- oder Nachweisgrenze wurden bei den Berechnungen nicht berücksichtigt.

Der zugewiesene Wert wird im Normalfall jeweils als der ausreißerbereinigte Mittelwert über alle übermittelten Ergebnisse gebildet.

Bei sehr hohen Streuungen der Teilnehmerergebnisse von über 50 % oder bei mangelhafter Rückführbarkeit der statistischen Kenndaten aus den ausreißerbereinigten Ergebnissen der Teilnehmer auf den Mittelwert des Kontrolllabores bzw. einer zu geringen Anzahl an ausreißerbereinigten Ergebnissen über die Gruppe der akkreditierten Labore, kann die Situation auftreten, dass kein zugewiesener Wert für den aktuellen Ringversuch festgelegt werden kann und daher keine Bewertung der Teilnehmerergebnisse für diesen Parameter möglich ist. Ein entsprechender Hinweis wird im Bericht unter E7 bei der informativen Auswertung angebracht. Im Rahmen der internen Qualitätssicherung der Teilnehmer kann ein Vergleich mit den Ergebnissen des Kontrolllabors durchgeführt werden. Diese

Vorgehensweise wird bei Anwendung jeweils parameter- und probenbezogen unter Punkt D4 des Berichts dokumentiert.

D2. Kriterien der Leistungsbewertung

D2.1. Leistungskriterium z-Score

Als Basis zur Berechnung der Wiederfindungsraten sowie der z-Scores wurde der ausreißerbereinigte Mittelwert über alle übermittelten Ergebnisse herangezogen.

Die Ermittlung der z-Scores erfolgte gemäß nachfolgender Formel:

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

Dabei ist:

x_i	Messergebnis des teilnehmenden Labors
$\overline{X}$	zugewiesener Wert Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Teilnehmerergebnisse. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben.
Kriterium	Vergleichsstandardabweichung berechnet aus den Statistiken für reale Wasserproben der vorangegangenen Runden im Zeitraum 2013 bis 2019 (RSDpooled) bzw. aus den ausreißerbereinigten Teilnehmerergebnissen (sR) des aktuellen Ringversuchs (falls noch weniger als 6 vorangegangene Runden für A und B-Proben vorlagen). In begründeten Fällen (z.B. Ergebnisse Realproben nahe an Mindestbestimmungsgrenze oder regulatorischer Vorgaben) erfolgt die Festlegung nach Expertenbefund und die Vorgangsweise wird unter Punkt D4 des Berichts beschrieben.

D2.2. Leistungskriterium E_n-Score

Für die realen Wasserproben erfolgen seit 2019 zusätzliche Bewertungen unter Einbeziehung der erweiterten Messunsicherheiten der Teilnehmer und der erweiterten Messunsicherheit des zugewiesenen Wertes, gemäß E_n-Score. Diese Auswertungen werden für die Teilnehmer im Bericht unter Punkt E8, jeweils im Anschluss an die z-Score Auswertung dargestellt.

Die Ermittlung der E_n-Scores erfolgte gemäß nachfolgender Formel:

$$E_n - score = \frac{x_i - \bar{X}}{\sqrt{U(x_i)^2 + U(\bar{X})^2}}$$

Dabei ist:

x_i	Messergebnis des teilnehmenden Labors
$\overline{X}$	zugewiesener Wert Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Teilnehmerergebnisse. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben.
U(x_i)	erweiterte Messunsicherheit des Messergebnisses (Teilnehmer-ergebnis), k=2
U($\bar{X}$)	erweiterte Messunsicherheit des zugewiesenen Wertes, k=2

D2.3. Leistungsbewertung z-Score und E_n-Score

Interpretation der z-Scores:

- |z-Score| ≤ 2.0 Ergebnis gut
- 2.0 < |z-Score| < 3.0 Ergebnis fragwürdig
- |z-Score| ≥ 3.0 Ergebnis nicht zufriedenstellend

Hinweis: Bei der Bewertung mittels z-Score wird die Messunsicherheit der Teilnehmer nicht mitberücksichtigt. Der Vergleich der Abweichung zum zugewiesenen Wert erfolgt über das Kriterium.

Interpretation der E_n-Scores:

- |E_n-Score| ≤ 1.0 zufriedenstellende Leistung
- |E_n-Score| > 1.0 nicht zufriedenstellende Leistung

Hinweis: Bei der Bewertung mittels E_n-Score erfolgt die Berücksichtigung der erweiterten Messunsicherheiten der Teilnehmer und des zugewiesenen Wertes. |E_n-Score| > 1.0 können darauf hinweisen, dass die Unsicherheitsschätzungen überprüft oder ein Messproblem korrigiert werden muss.

D3. Darstellung und Interpretation der Messergebnisse

In der parameterorientierten Auswertung ist eine tabellarische Übersicht mit den Messergebnissen inklusive der Unsicherheit (± U), der Wiederfindung zum zugewiesenen Wert und dem berechneten z-Score dargestellt. Weiterhin werden unter Anmerkungen die Ausreißer gekennzeichnet. Die in der Tabelle angeführten Ergebnisse werden auch grafisch dargestellt.

In der laborientierten Auswertung werden pro Labor in anonymisierter Form die Ergebnisse der einzelnen Labore als Messergebnis ± U sowie die Wiederfindungen und die ermittelten z-Scores bezugnehmend auf das Kriterium dargestellt. Weiters werden die E_n-Scores unter Berücksichtigung der erweiterten Unsicherheiten in unabhängigen Tabellen ausgegeben. Die laborientierten Auswertungen enthalten jeweils die Bewertungsgrundlagen wie zugewiesener Wert samt erweiterter Messunsicherheit sowie das Kriterium.

Eine Erläuterung zu den Tabellen und Grafiken kann Punkt D.5. entnommen werden.

D4. Anmerkungen zur Auswertung

Wie unter Punkt D2 ersichtlich, können die z-Scores auch unter Einbeziehung der Vergleichsstandardabweichung der ausreißerbereinigten Teilnehmerergebnisse des aktuellen Ringversuchs berechnet werden. Das kann zur Folge haben, dass es bei Parametern mit hoher Ergebnisstreuung dazu kommen kann, dass der Bereich z-Score - 2 bis z-Score + 2 einen ungewöhnlich hohen Wiederfindungsbereich abdeckt. Umgekehrt führt eine sehr geringe Streuung der Teilnehmerergebnisse dazu, dass z-Score - 2 bis z-Score + 2 einen ungewöhnlich kleinen Wiederfindungsbereich abdeckt.

Die Wiederfindungsrate wird unabhängig von der Streuung der Ergebnisse, als prozentuelle Abweichung vom zugewiesenen Wert berechnet und sollte bei der Bewertung von Ergebnissen im Rahmen des internen Qualitätsmanagementsystems der teilnehmenden Labore berücksichtigt werden.

Als Ergebnis einer Langzeitauswertung über aktuell 7 Eignungsprüfungsrunden (2013 - 2019) in Realproben wurden Kriterien (RSDpool) zur Ergebnisbewertung berechnet. Diese wurden im Zuge der Auswertung den relativen Vergleichs-standardabweichungen (vR) des aktuellen Ringversuchs gegenübergestellt.

Bei allen Parametern erfolgt die Berechnung der Scores nach D2. Proben P22 A und P22 B: Für die Parameter Acenaphthylen, Anthracen, Chrysen und Indeno(1,2,3-c,d)pyren wurden die relativen Vergleichsstandardabweichungen (vR) der aktuellen Runde, gerundet auf 2 signifikante Stellen, für die Bewertung gewählt.

D5. Erläuterung zu Tabellen und Grafiken

D5.1. Angaben und Abkürzungen in Tabellen

Parameter	Allgemeine Bezeichnung des Analysenparameters
Probe	Bezeichnung der übermittelten Probe
Einheit	Vorgegebene Einheit für Messwert und Ergebnisunsicherheit (z.B. µg/l)
Zugewiesener Wert	Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen)
U (k=2)	erweiterte Unsicherheit (k=2) des zugewiesenen Wertes, (angegeben auf 3 signifikante Stellen)
Kriterium	Vorgabewert zur Ermittlung des z-Scores in der angegebenen Einheit (angegeben auf 3 signifikante Stellen)
Kriterium [%]	Vorgabewert zur Ermittlung des z-Scores in % des zugewiesenen Wertes (angegeben auf 2 signifikante Stellen)
Mittelwert	Ausreißerbereinigter Mittelwert über die Teilnehmer-ergebnisse (angegeben auf 3 signifikante Stellen)
VB (99%)	99% Vertrauensbereich (angegeben auf 3 signifikante Stellen)
Minimum	Minimales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
Maximum	Maximales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
sR	Vergleichsstandardabweichung, berechnet aus den ausreißerbereinigten Teilnehmerergebnissen des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)
vR	relative Vergleichsstandardabweichung in %, berechnet aus den ausreißerbereinigten Teilnehmerergebnissen des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 2 signifikante Stellen)
Kontrollwert ±	Mittelwert der Kontrollmessungen des Veranstalters ±
U (k=2)	erweiterte Ergebnisunsicherheit des Kontrollwertes (jeweils angegeben auf 3 signifikante Stellen)
Laborcode	anonymisierte, eindeutige Teilnehmerkennung im jeweiligen Ringversuch

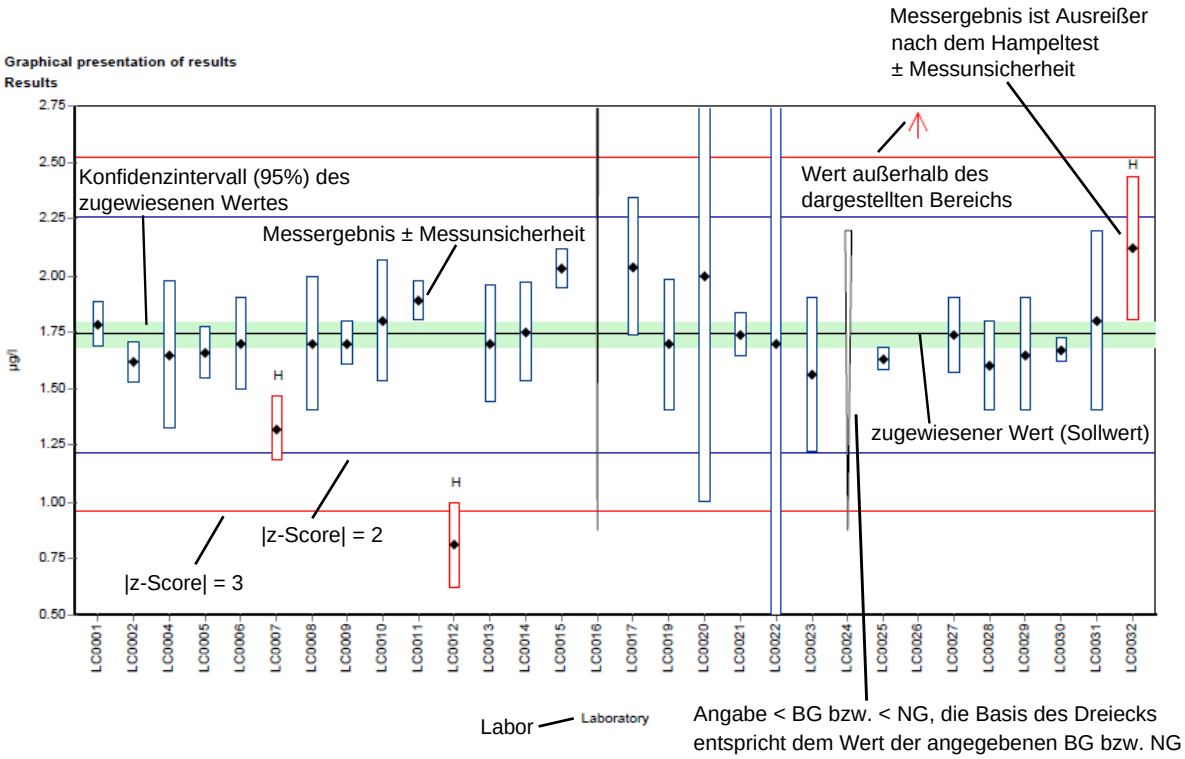
Messwert	einzelne(r) Messwert(e) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt)
Messergebnis	Für die Bewertung herangezogenes Ergebnis lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt). Bei Eignungsprüfungsrunden mit Vorgabe von unabhängigen Mehrfachbestimmungen, entspricht dies dem berechneten Mittelwert aus den einzelnen Messwerten der Teilnehmer.
± U	kombinierte Messunsicherheit ohne Erweiterungsfaktor (k=1) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt)
BG	Bestimmungsgrenze
NG	Nachweisgrenze
WF	Wiederfindungsrate in %, bezogen auf den zugewiesenen Wert (angegeben auf 3 signifikante Stellen, dargestellt maximal 1 Nachkommastelle)
MW	Mittelwert
z-Score	Abweichung des Messergebnisses zum zugewiesenen Wert, ausgedrückt als Vielfaches des Kriteriums (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen)
E_n-Score	Abweichung des Messergebnisses zum zugewiesenen Wert, ausgedrückt als Vielfaches der kombinierten Messunsicherheiten, bestehend aus erweiterter Unsicherheit des zugewiesenen Wertes und der erweiterten Unsicherheit der Messergebnisse der Teilnehmer (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen). Beim E_n-Score erfolgt die Berücksichtigung der Messunsicherheit der Teilnehmer.
-	Keine Daten übermittelt bzw. keine Berechnung möglich
Anmerkungen	Anmerkungen zum jeweiligen Messergebnis (z.B. H, FN, FP)
H	Ausreißer nach dem Hampel-Test
FN	Falsch negativ – Messergebnis kleiner Bestimmungs- bzw. Nachweisgrenze dessen Betrag die Bedingungen eines Ausreißers nach dem Hampeltest erfüllt.
FP	Falsch positiv – Falls aufgrund des geringen Analytgehalts kein zugewiesener Wert ermittelt werden kann (n < 6), wird der Median der Beträge der übermittelten Nachweis- bzw. Bestimmungsgrenzen ermittelt. Als falsch positiv wird ein

	Messergebnis bewertet, welches diesen Median um mehr als 100 % übersteigt.
Standardabweichung	Vergleichsstandardabweichung berechnet aus den Teilnehmerergebnissen des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)
rel. Standardabweichung	relative Vergleichsstandardabweichung in %, berechnet aus den Teilnehmerergebnissen des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 3 signifikante Stellen)
n	Anzahl der Messergebnisse

D5.2. Graphische Darstellung der Ergebnisse

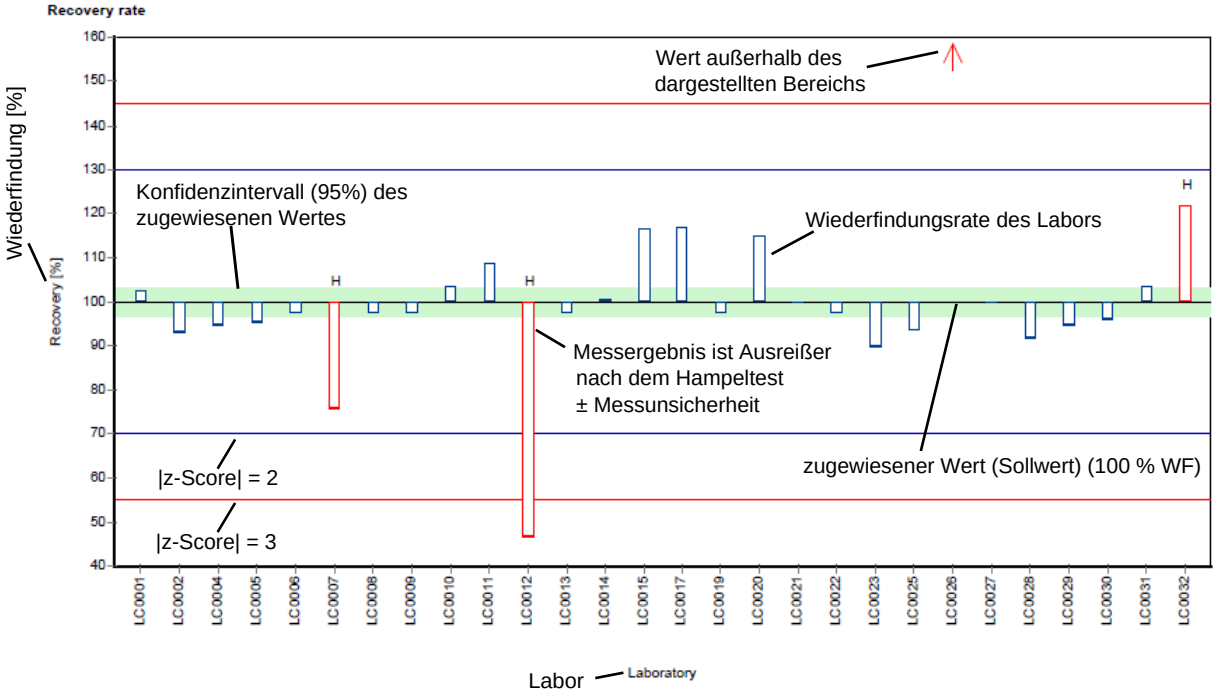
Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

Beispieldiagramm: Messwerte



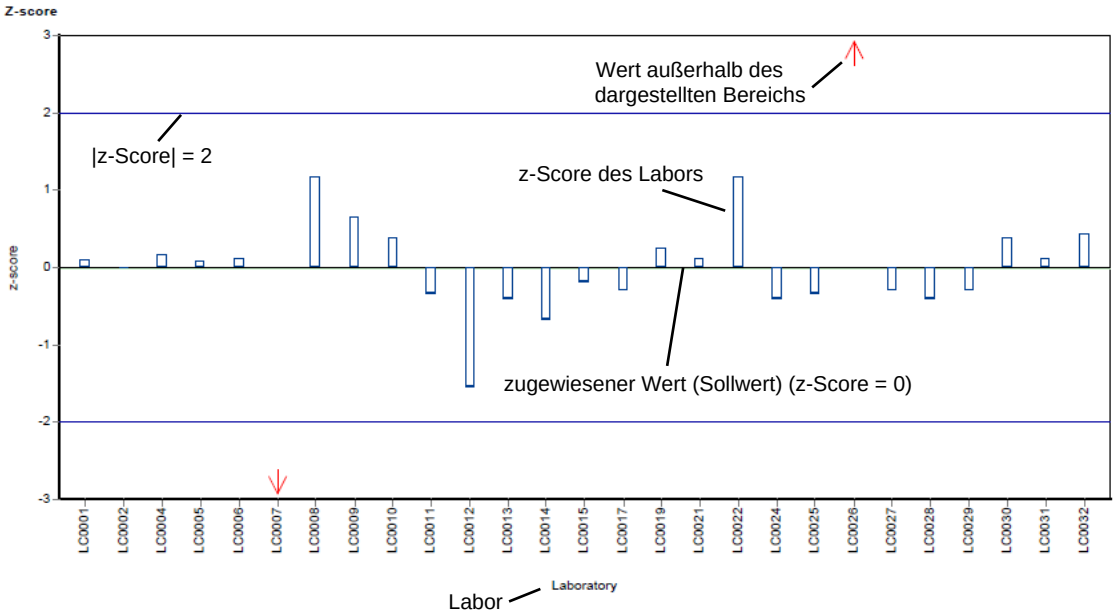
Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: Wiederfindung zum zugewiesenen Wert



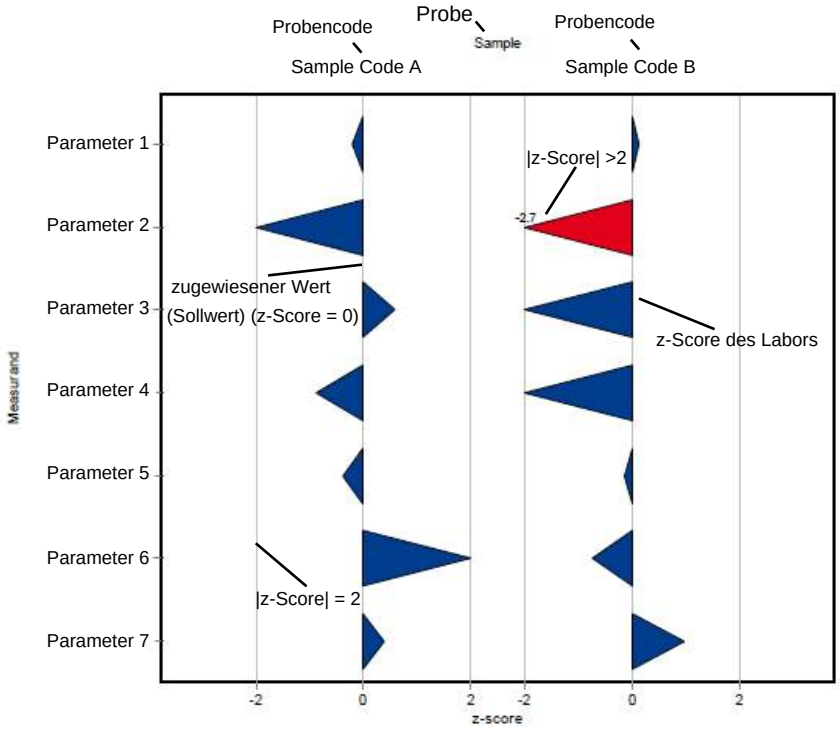
Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: z-Score

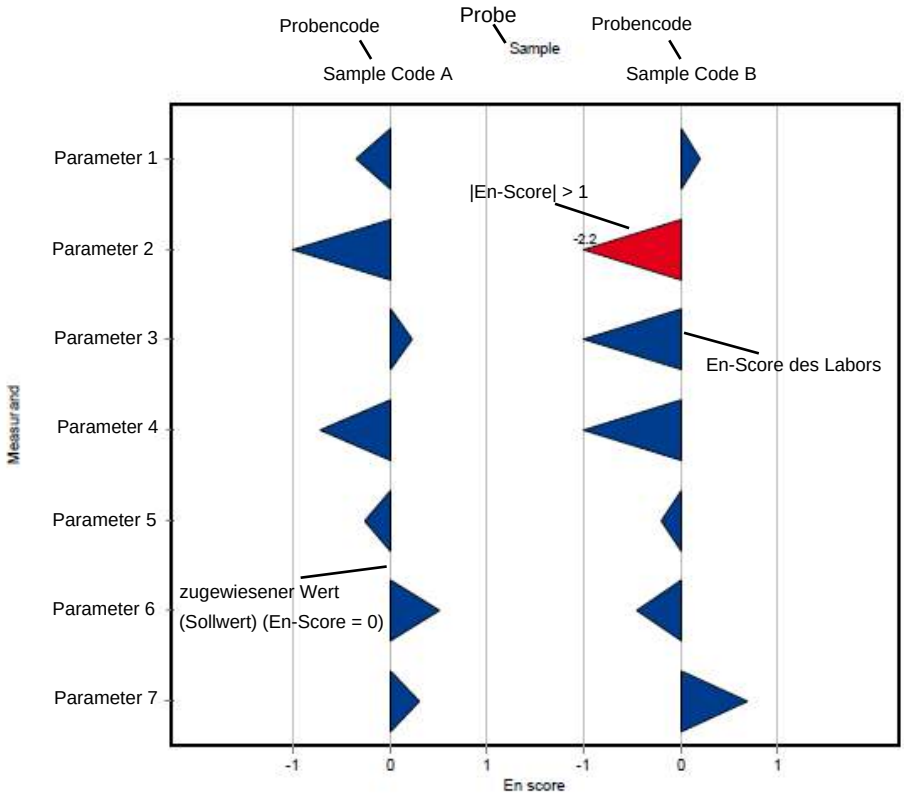


Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: z-Score (laborientierte Auswertung)



Beispieldiagramm: En-Score (laborientierte Auswertung)



D6. Zusammenfassung

D6.1. Tabelle der zugewiesenen Werte

Parameter	Probe	Einheit	zugewiesener Wert	±	U (k=2)	Kriterium	Kriterium [%]
Acenaphthen	P22 A	ng/l	13.8	±	2.04	2.63	19
	P22 B	ng/l	107	±	17.8	20.3	19
Acenaphthylen	P22 A	ng/l	15.4	±	2.97	4.92	32
	P22 B	ng/l	138	±	22.8	42.7	31
Anthracen	P22 A	ng/l	11.1	±	1.11	2.1	19
	P22 B	ng/l	135	±	11.2	22.9	17
Benzo[a]anthracen	P22 A	ng/l	13.8	±	1.23	2.91	21
	P22 B	ng/l	123	±	9.48	25.9	21
Benzo[a]pyren	P22 A	ng/l	11.5	±	1.41	2.75	24
	P22 B	ng/l	83	±	7.73	19.9	24
Benzo[b]fluoranthen	P22 A	ng/l	15.8	±	1.3	2.69	17
	P22 B	ng/l	107	±	7.93	18.2	17
Benzo[g,h,i]perylen	P22 A	ng/l	11.8	±	1.02	3.78	32
	P22 B	ng/l	97.2	±	8.89	31.1	32
Benzo[k]fluoranthen	P22 A	ng/l	17.1	±	1.7	4.45	26
	P22 B	ng/l	74	±	5.26	19.2	26
Chrysen	P22 A	ng/l	19	±	0.871	1.63	8.6
	P22 B	ng/l	94.9	±	9.16	18	19
Dibenzo[a,h]anthracen	P22 A	ng/l	15.4	±	2.51	4.63	30
	P22 B	ng/l	120	±	21.6	36.1	30
Fluoranthen	P22 A	ng/l	18.9	±	2.7	3.4	18
	P22 B	ng/l	174	±	16.6	31.3	18
Fluoren	P22 A	ng/l	22.4	±	2.02	3.14	14
	P22 B	ng/l	104	±	9.65	14.5	14
Indeno[1,2,3-cd]pyren	P22 A	ng/l	14.9	±	1.37	2.54	17
	P22 B	ng/l	77.2	±	10.5	20.1	26
Naphthalin	P22 A	ng/l	31.2	±	3.8	6.54	21
	P22 B	ng/l	159	±	24.7	33.3	21
Phenanthren	P22 A	ng/l	18.3	±	2.63	2.75	15
	P22 B	ng/l	186	±	11.7	27.9	15
Pyren	P22 A	ng/l	16.9	±	1.82	2.7	16
	P22 B	ng/l	114	±	8.23	18.2	16

D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	± VB (99%)	Minimum	Maximum	sR	vR [%]
Acenaphthen	P22 A	12	2	ng/l	13.8	± 3.06	6.51	20	3.53	26
	P22 B	12	2	ng/l	107	± 26.7	55.3	159	30.8	29
Acenaphthylen	P22 A	11	2	ng/l	15.4	± 4.46	10	27.2	4.93	32
	P22 B	14	1	ng/l	138	± 34.3	70	231	42.7	31
Anthracen	P22 A	14	1	ng/l	11.1	± 1.67	8	14.3	2.08	19
	P22 B	16	1	ng/l	135	± 16.8	82	162	22.4	17
Benzo[a]anthracen	P22 A	14	1	ng/l	13.8	± 1.85	10	18.5	2.3	17
	P22 B	14	2	ng/l	123	± 14.2	95	159	17.7	14
Benzo[a]pyren	P22 A	14	1	ng/l	11.5	± 2.11	8.86	17.7	2.63	23
	P22 B	16	1	ng/l	83	± 11.6	49	103	15.5	19
Benzo[b]fluoranthen	P22 A	15	2	ng/l	15.8	± 1.95	11	21.9	2.52	16
	P22 B	15	2	ng/l	107	± 11.9	71.1	131	15.4	14
Benzo[g,h,i]perylen	P22 A	13	0	ng/l	11.8	± 1.53	9	15.5	1.84	16
	P22 B	14	3	ng/l	97.2	± 13.3	59	124	16.6	17
Benzo[k]fluoranthen	P22 A	17	0	ng/l	17.1	± 2.56	11	25.1	3.51	21
	P22 B	15	2	ng/l	74	± 7.9	56	101	10.2	14
Chrysen	P22 A	14	2	ng/l	19	± 1.31	17	22.2	1.63	8.6
	P22 B	16	0	ng/l	94.9	± 13.7	57	124	18.3	19
Dibenzo[a,h]anthracen	P22 A	13	0	ng/l	15.4	± 3.76	10	24.4	4.52	29
	P22 B	16	1	ng/l	120	± 32.5	42	198	43.3	36
Fluoranthen	P22 A	17	0	ng/l	18.9	± 4.05	9.7	30	5.57	30
	P22 B	16	1	ng/l	174	± 24.9	110	223	33.2	19
Fluoren	P22 A	13	2	ng/l	22.4	± 3.03	16.5	27	3.64	16
	P22 B	11	4	ng/l	104	± 14.5	63	119	16	15
Indeno[1,2,3-cd]pyren	P22 A	13	2	ng/l	14.9	± 2.06	10	18.1	2.47	17
	P22 B	15	2	ng/l	77.2	± 15.7	32	102	20.2	26

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	± VB (99%)	Minimum	Maximum	sR	vR [%]
Naphthalin	P22 A	14	1	ng/l	31.2	± 5.71	20	43	7.12	23
	P22 B	14	1	ng/l	159	± 37.1	100	250	46.3	29
Phenanthren	P22 A	12	2	ng/l	18.3	± 3.94	8.29	26	4.55	25
	P22 B	12	4	ng/l	186	± 17.5	131	215	20.2	11
Pyren	P22 A	16	0	ng/l	16.9	± 2.72	11	24.4	3.63	22
	P22 B	15	2	ng/l	114	± 12.3	78	144	15.9	14

E1. Description of the proficiency test

E1.1. Design and implementation

- Number of registrations: 18
- Number of submitted data records: 18
- Dispatch of samples: 04th May 2021
- Closing date for submission of data: 01st June 2021

The results were submitted electronically by a password-protected online data entry. Upon completion of the data entry, the participant confirmed the complete and correct entry of all data and the authorization of the results for evaluation.

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

E1.2. Description of the proficiency test items

The sampling of drinking water and ground water was carried out on 29th April 2021.

The following samples were made available

- 1 sample drinking water (P22 A)
- 1 sample ground water (P22 B)

Both samples were stored at 4 +/- 3°C until further processing. After filtration (40 µm), the samples were filled into bottles under continuous stirring (stirring vessel). Afterwards the samples were partly spiked in the bottles with specific substances and homogenized by shaking. The samples were stabilized by cooling.

The homogeneous proficiency test items were dispatched on 04th May 2021.

Each participant received:

- 2 samples each 2000 ml, filled in 2 x 1000 ml brown glass bottles

E1.3. Instructions for the participants

For reasons of stability, it was recommended to start the analysis by the 06th May 2021 at the latest.

The participants are expected to use the test method or measurement method of their choice, which should be consistent with their routine procedures. In E9. you will find the overview of applied methods in course of the proficiency testing.

E1.4. Control testing for homogeneity evaluation

During filling of the bottles, aliquots of each sample were collected randomly for control testing. From each of the samples A and B, n=5 control test samples and n=1 unspiked real water sample were transferred to the laboratory for control testing.

All parameters were tested in the testing laboratory at Environment Agency Austria (Prüfstelle für Umwelt-, GVO- & Treibstoffanalytik) close to the time of sample dispatch.

During evaluation the relative standard deviation between the individual results of the control test samples was assessed for each parameter by comparison with the reproducibility standard deviation of the actual proficiency test.

In the parameter-oriented evaluation (E.7.), the results of the control testing are given in the form of arithmetic means of the detected concentrations ± expanded measurement uncertainty as control test value ± U (expanded uncertainty, k=2).

E1.5. Trend test for stability evaluation

The evaluation of stability of the proficiency test items was performed using the data statistics of the results of previous proficiency testing rounds for real water samples of the period from 2013 to 2019.

The assessment of the stability of the proficiency test items of the current round was carried out by evaluation of all participant results sorted by analysis date (until submission deadline): No systematic trends were identified.

Using all participants results, it was furthermore tested if systematic trends could be detected depending on the order in which the bottles were filled for the proficiency test: No systematic trends could be identified.

According to data obtained from previous rounds for real water samples from 2013 to 2019 and based on the trend test evaluation of the current round, the stability of the test items for proficiency testing of real water samples can be confirmed for the recommended analysis period until deadline for submission of data.

E1.6. Determination of the assigned values

The analytical results had to be made available to the organiser not later than 01st June 2021. Any values received at a later date were not considered.

In the course of the plausibility assessment of all received data (e.g. check for correct units, indication of measurement uncertainty, …) the participants with noticeable results were asked to perform a subsequent data check and to give a prompt feedback within 24 h.

After plausibility assessment an outlier test according to Hampel was performed to identify outliers. Values identified as conspicuous are marked specifically in the parameter-oriented evaluation ('H').

In justified cases, for instance, when the outlier test according to Hampel is not applicable (e.g. many similar or identical results of the participants or in case of a very limited number of highly scattering results) a different outlier identification method can be applied (e.g. Dean and Dixon outlier test or manual outlier elimination by expert judgement). In such a case, this procedure is documented in section E4 of the report.

Further data evaluation was performed in accordance with ISO 5725-2. A statistical evaluation of proficiency testing data was only carried out if at least 6 valid results per parameter were available. Results < LOQ or < LOD are not included in the calculation for the assigned value.

The assigned values are normally calculated as the mean over all submitted results, after removal of outliers.

For real water samples in some exceptional cases it might occur, that no assigned value based on participants' results can be calculated and no evaluation of the participants results can be made. E.g due to large variations in the participant results (vR > 50 %) and/or insufficient traceability of the calculated mean of all participants after outlier-clearing to the mean of control testing or if the number of results (without outliers) of the group of accredited testing laboratories is too low.

In this case, a clear statement in section E7 of the report is made and all provided statistical data are for information only. In section E4 further information is given, when applicable, for each parameter and proficiency test item. In course of the internal quality measures, the participants can compare their results with the control test values.

E2. Criteria of performance evaluation

E2.1. Performance criterion z-Score

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-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 (result) of the participating laboratory;
$\overline{X}$	assigned value the target value for the assessment of the performance of the participants (3 significant digits), 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 E4
Criteria	is the reproducibility standard deviation calculated from previous rounds for proficiency testing for real water samples from 2013 to 2019 (as RSD pooled) or from the participants' results after removal of outliers (sR) in the current round (if less than 6 previous rounds for the parameters of real water samples A and B are available). Where justified (e.g. results for real water samples are close to minimum quantification limit or in case of regulatory requirements) the criteria is defined by expert judgement and the procedure is clearly described in section E4 of the report.

E2.2. Performance criterion E_n-Score

Since 2019 additional assessment of the participants' results using E_n-Scores for proficiency testing of real water samples is performed. This additional assessment takes into account the expanded measurement uncertainties of the participants results and the expanded uncertainty of the assigned value and is provided in the laboratory oriented part of the report (see E8 after the z-scores evaluation).

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

$$E_n - score = \frac{x_i - \bar{X}}{\sqrt{U(x_i)^2 + U(\bar{X})^2}}$$

In this context,

x_i is the measurement value (result) of the participating laboratory

$\overline{X}$ assigned value
the target value for the assessment of the performance of the participants (3 significant digits), 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 E4

U(x_i) expanded measurement uncertainty for the result of the participating laboratory, k=2

U($\bar{X}$) expanded measurement uncertainty for the assigned value, k=2

E2.3. Performance evaluation z-Score and E_n-Score

Interpretation of z-Scores:

- |z-Score| ≤ 2.0 good result
- 2.0 < |z-Score| < 3.0 questionable result
- |z-Score| ≥ 3.0 unsatisfactory result

Note: In case of assessment of the participants' performance by z-scores the measurement uncertainty of the participants' results is not taken into account. The difference between result of participants and the assigned value is evaluated by the criteria.

Interpretation of E_n-Scores:

- |E_n-Score| ≤ 1.0 satisfactory performance
- |E_n-Score| > 1.0 unsatisfactory performance

Note: In case of assessment of the participants' performance by E_n-Scores the expanded measurement uncertainties for the results and for the assigned values are taken into account. IE_n-ScoreI > 1.0 might indicate to check the measurement uncertainty estimation or might point out to correct a measurement problem.

E3. Representation and interpretation of measurement results

The parameter-oriented report provides the measurement values (results) including uncertainty (± U), 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 (anonymous), including the measurement uncertainty (± U), recovery rates, z-Scores and additionally evaluation of E_n-Scores on separate pages.

The tables also contain the basis for the data assessment as the assigned values and expanded measurement uncertainties and the criteria.

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

E4. Explanatory notes

As explained in section E2, the z-Score can also be 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 assigned 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.

As a result of a long-term evaluation of 7 proficiency testing rounds (2013 - 2019) in real samples, evaluation criteria (RSDpool) were calculated. These criteria were compared with the relative reproducibility standard deviation (vR) of the current proficiency testing.

Scores for all listed parameters were calculated according to E2.

Samples P22 A and P22 B: For parameters Acenaphthylene, Anthracene, Chrysen and Indeno(1,2,3-c,d)pyrene the reproducibility standard deviation (vR) of the actual proficiency testing round was chosen for assessment (vR rounded to two significant figures).

E5. Annotations on tables and charts

E5.1. Information and abbreviations in tables

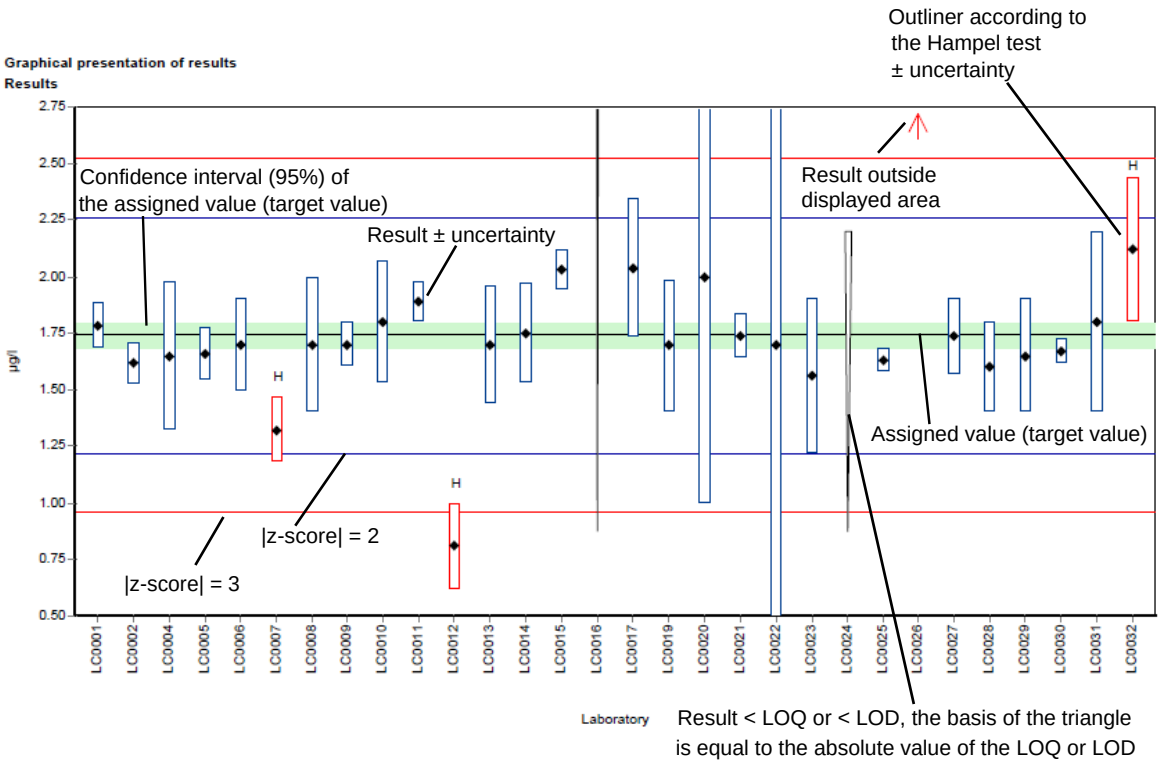
Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/l)
Assigned value	Target value for proficiency assessment of the participants (3 significant digits)
U (k=2)	Expanded uncertainty (k=2) of the assigned value (3 significant digits)
Criteria	Specified value for the determination of the z-score in the given unit (3 significant digits)
Criteria [%]	Specified value for the determination of the z-score in % of the assigned value (2 significant digits)
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 (k=2)	Mean of control test value ± expanded measurement uncertainty (3 significant digits)
Labcode	Laboratory identifier (anonymized)
Result	Result as indicated by participant (max. 5 decimal places)
± U	combined measurement uncertainty without expansion factor (k=1), as indicated by participant (max. 5 decimal places)
LOQ	Limit of quantification
LOD	Limit of detection

Recovery	Recovery rate in % based on assigned value (target value) (3 significant digits, max. one decimal place given)
z-Score	Deviation of result based on the assigned value (target value) given as a multiple of the criteria (3 significant digits, max. 2 decimal places given)
E_n-Score	Deviation of result based on the assigned value (target value) given as a multiple of the combined expanded measurement uncertainty of the participant's results and expanded measurement uncertainty for the assigned value (3 significant digits, max. 2 decimal places given). Note: E_n-Score assessment takes into account the measurement uncertainty of the participants.
-	No data available or no calculation possible
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

E5.2. Graphical presentation of results

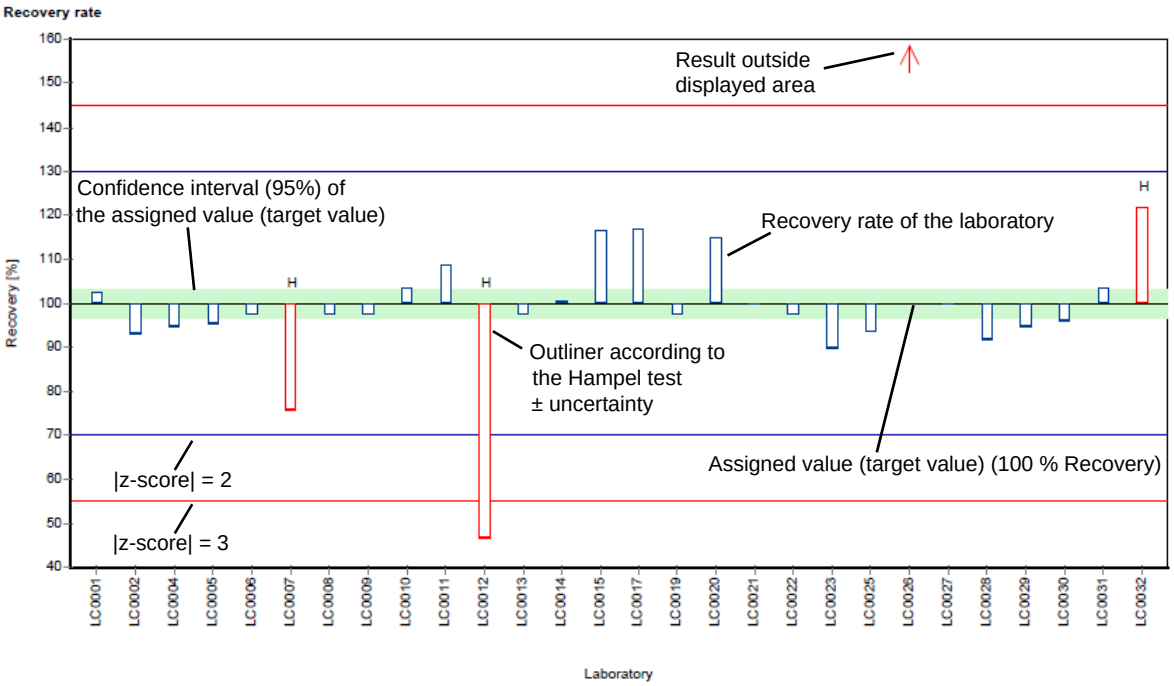
The graphic representation in the report is explained below by means of commented example diagrams:

Example chart: Results



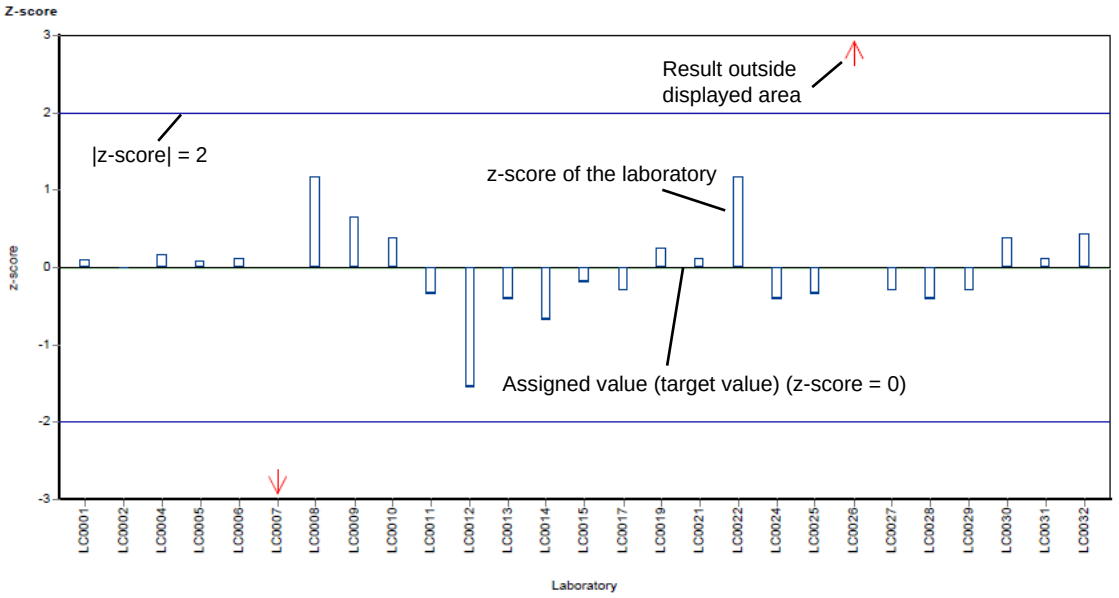
Different analysis methods are represented with different colors.

Example chart: Recovery



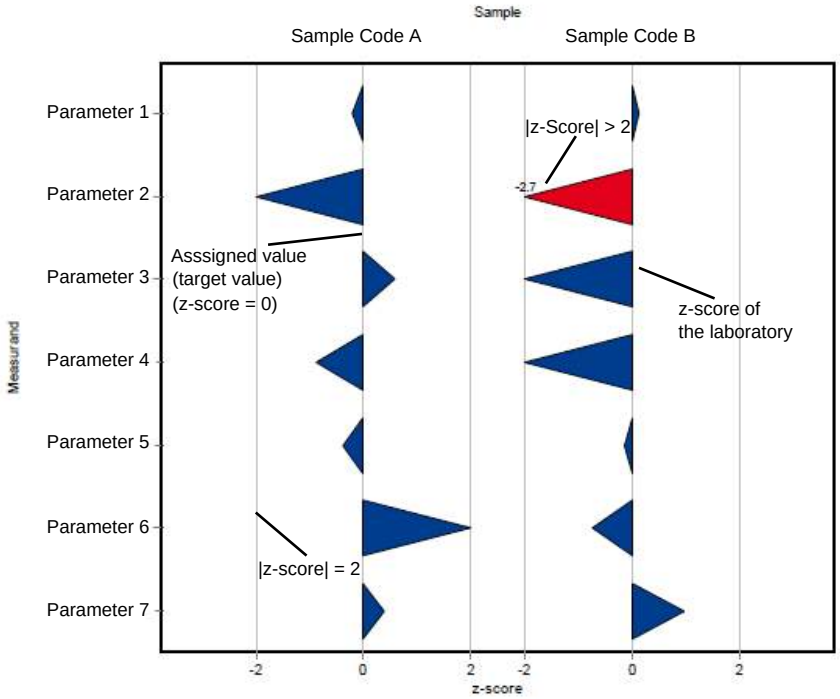
Different analysis methods are represented with different colors.

Example chart: z-score

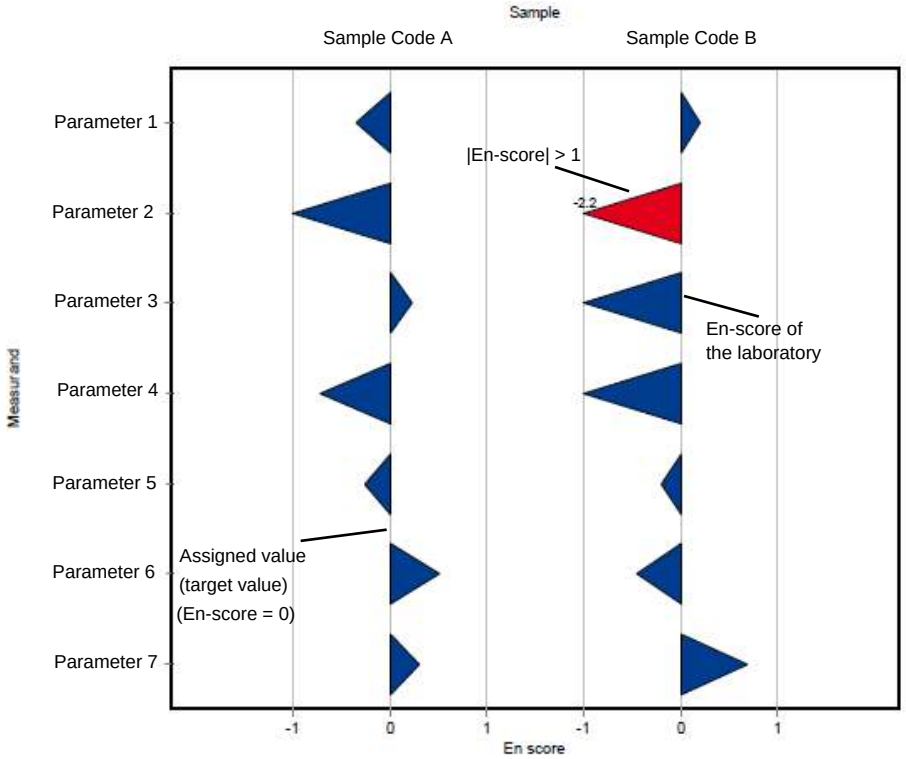


Different analysis methods are represented with different colors.

Example chart: z-score (laboratory oriented report)



Example chart: En-score (laboratory oriented report)



E6. Summary

E6.1. Table of assigned values

Parameter	Sample	Unit	Assigned value	±	U (k=2)	Criterion	Criterion [%]
Acenaphthene	P22 A	ng/l	13.8	±	2.04	2.63	19
	P22 B	ng/l	107	±	17.8	20.3	19
Acenaphthylene	P22 A	ng/l	15.4	±	2.97	4.92	32
	P22 B	ng/l	138	±	22.8	42.7	31
Anthracene	P22 A	ng/l	11.1	±	1.11	2.1	19
	P22 B	ng/l	135	±	11.2	22.9	17
Benzo[a]anthracene	P22 A	ng/l	13.8	±	1.23	2.91	21
	P22 B	ng/l	123	±	9.48	25.9	21
Benzo[a]pyrene	P22 A	ng/l	11.5	±	1.41	2.75	24
	P22 B	ng/l	83	±	7.73	19.9	24
Benzo[b]fluoranthene	P22 A	ng/l	15.8	±	1.3	2.69	17
	P22 B	ng/l	107	±	7.93	18.2	17
Benzo[g,h,i]perylene	P22 A	ng/l	11.8	±	1.02	3.78	32
	P22 B	ng/l	97.2	±	8.89	31.1	32
Benzo[k]fluoranthene	P22 A	ng/l	17.1	±	1.7	4.45	26
	P22 B	ng/l	74	±	5.26	19.2	26
Chrysene	P22 A	ng/l	19	±	0.871	1.63	8.6
	P22 B	ng/l	94.9	±	9.16	18	19
Dibenzo[a,h]anthracene	P22 A	ng/l	15.4	±	2.51	4.63	30
	P22 B	ng/l	120	±	21.6	36.1	30
Fluoranthene	P22 A	ng/l	18.9	±	2.7	3.4	18
	P22 B	ng/l	174	±	16.6	31.3	18
Fluorene	P22 A	ng/l	22.4	±	2.02	3.14	14
	P22 B	ng/l	104	±	9.65	14.5	14
Indeno[1,2,3-cd]pyrene	P22 A	ng/l	14.9	±	1.37	2.54	17
	P22 B	ng/l	77.2	±	10.5	20.1	26
Naphthalene	P22 A	ng/l	31.2	±	3.8	6.54	21
	P22 B	ng/l	159	±	24.7	33.3	21
Phenanthrene	P22 A	ng/l	18.3	±	2.63	2.75	15
	P22 B	ng/l	186	±	11.7	27.9	15
Pyrene	P22 A	ng/l	16.9	±	1.82	2.7	16
	P22 B	ng/l	114	±	8.23	18.2	16

E6.2. Summary of results, after removal of outliers

Parameter	Sample	Number of results for calculation	Number of outliers	Unit	Mean	± CI (99%)	Minimum	Maximum	sR	vR [%]
Acenaphthene	P22 A	12	2	ng/l	13.8	± 3.06	6.51	20	3.53	26
	P22 B	12	2	ng/l	107	± 26.7	55.3	159	30.8	29
Acenaphthylene	P22 A	11	2	ng/l	15.4	± 4.46	10	27.2	4.93	32
	P22 B	14	1	ng/l	138	± 34.3	70	231	42.7	31
Anthracene	P22 A	14	1	ng/l	11.1	± 1.67	8	14.3	2.08	19
	P22 B	16	1	ng/l	135	± 16.8	82	162	22.4	17
Benzo[a]anthracene	P22 A	14	1	ng/l	13.8	± 1.85	10	18.5	2.3	17
	P22 B	14	2	ng/l	123	± 14.2	95	159	17.7	14
Benzo[a]pyrene	P22 A	14	1	ng/l	11.5	± 2.11	8.86	17.7	2.63	23
	P22 B	16	1	ng/l	83	± 11.6	49	103	15.5	19
Benzo[b]fluoranthene	P22 A	15	2	ng/l	15.8	± 1.95	11	21.9	2.52	16
	P22 B	15	2	ng/l	107	± 11.9	71.1	131	15.4	14
Benzo[g,h,i]perylene	P22 A	13	0	ng/l	11.8	± 1.53	9	15.5	1.84	16
	P22 B	14	3	ng/l	97.2	± 13.3	59	124	16.6	17
Benzo[k]fluoranthene	P22 A	17	0	ng/l	17.1	± 2.56	11	25.1	3.51	21
	P22 B	15	2	ng/l	74	± 7.9	56	101	10.2	14
Chrysene	P22 A	14	2	ng/l	19	± 1.31	17	22.2	1.63	8.6
	P22 B	16	0	ng/l	94.9	± 13.7	57	124	18.3	19
Dibenzo[a,h]anthracene	P22 A	13	0	ng/l	15.4	± 3.76	10	24.4	4.52	29
	P22 B	16	1	ng/l	120	± 32.5	42	198	43.3	36
Fluoranthene	P22 A	17	0	ng/l	18.9	± 4.05	9.7	30	5.57	30
	P22 B	16	1	ng/l	174	± 24.9	110	223	33.2	19
Fluorene	P22 A	13	2	ng/l	22.4	± 3.03	16.5	27	3.64	16
	P22 B	11	4	ng/l	104	± 14.5	63	119	16	15
Indeno[1,2,3-cd]pyrene	P22 A	13	2	ng/l	14.9	± 2.06	10	18.1	2.47	17
	P22 B	15	2	ng/l	77.2	± 15.7	32	102	20.2	26
Naphthalene	P22 A	14	1	ng/l	31.2	± 5.71	20	43	7.12	23

Parameter	Sample	Number of results for calculation	Number of outliers	Unit	Mean	± CI (99%)	Minimum	Maximum	sR	vR [%]
Naphthalene	P22 B	14	1	ng/l	159	± 37.1	100	250	46.3	29
Phenanthrene	P22 A	12	2	ng/l	18.3	± 3.94	8.29	26	4.55	25
	P22 B	12	4	ng/l	186	± 17.5	131	215	20.2	11
Pyrene	P22 A	16	0	ng/l	16.9	± 2.72	11	24.4	3.63	22
	P22 B	15	2	ng/l	114	± 12.3	78	144	15.9	14

E7. Parameterorientierte Auswertung / Parameter oriented report

Parameter oriented report

P22 A

Acenaphthene

Unit	ng/l
Assigned value ± U (k=2)	13.8 ± 2.04
Criterion	2.63 (19 %)
Minimum - Maximum	6.51 - 20
Control test value ± U (k=2)	19 ± 5.32

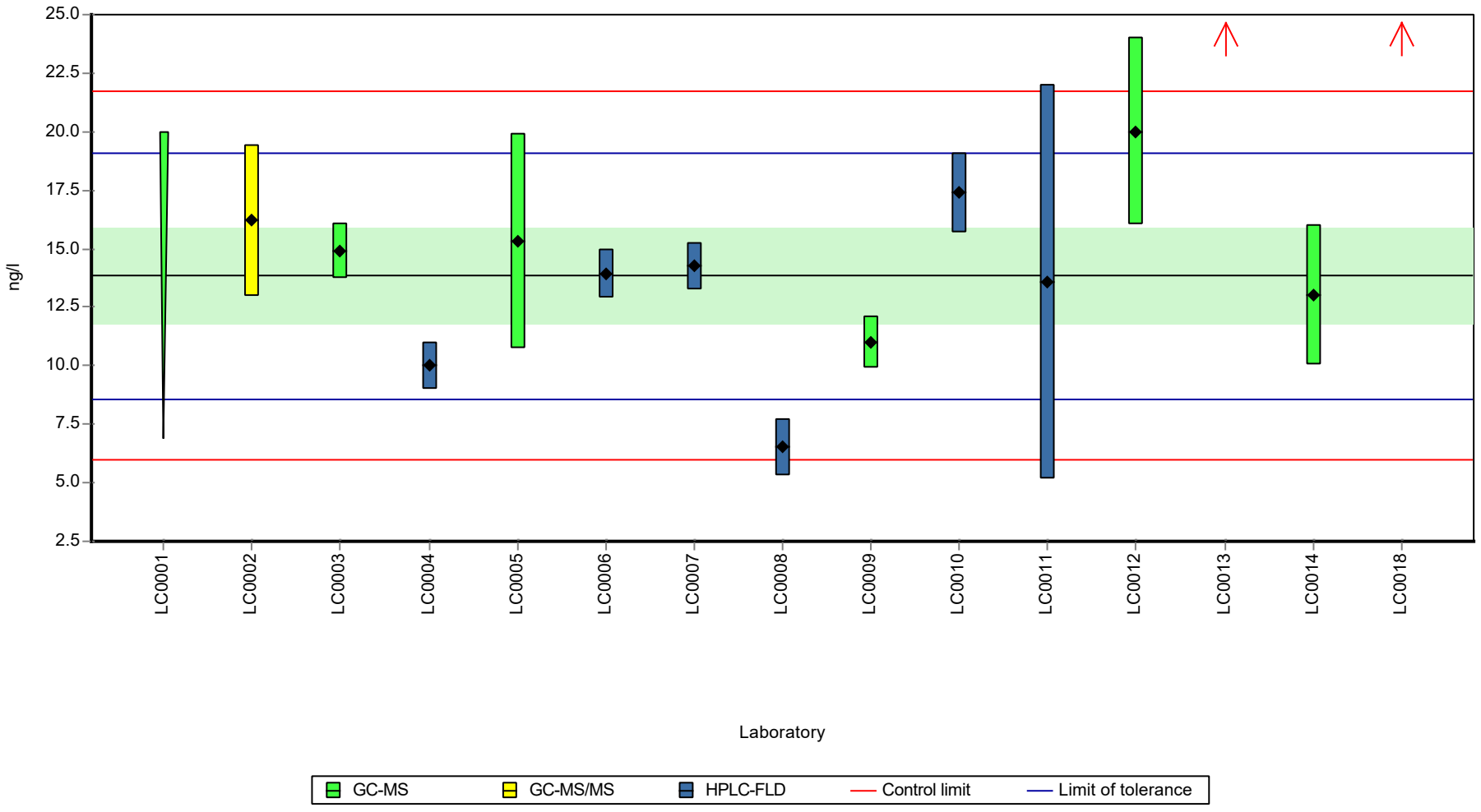
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	16.2	3.23	117	0.9	
LC0003	14.9	1.2	108	0.4	
LC0004	10	1	72.3	-1.46	
LC0005	15.34	4.6	111	0.57	
LC0006	13.9	1.04	100	0.02	
LC0007	14.25	1.02	103	0.16	
LC0008	6.51	1.2	47	-2.79	
LC0009	11	1.1	79.5	-1.08	
LC0010	17.4	1.7	126	1.35	
LC0011	13.57	8.43	98.1	-0.1	
LC0012	20	4	145	2.34	
LC0013	29.4	8.8	212	5.92	H
LC0014	13	3	93.9	-0.32	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	136	20	983	46.5	H

Characteristics of parameter

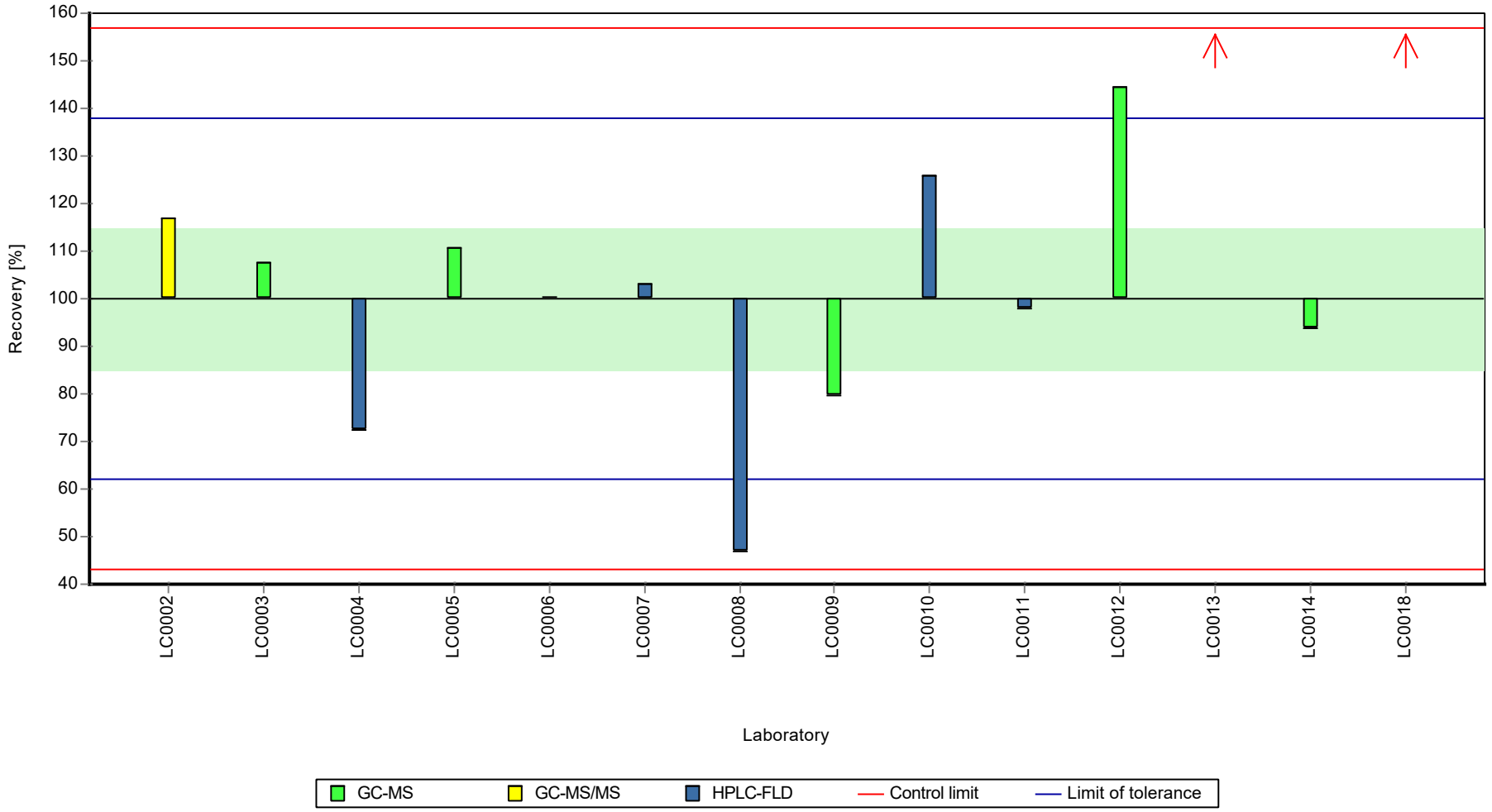
	all results	without outliers	Unit
Mean ± CI (99%)	23.7 ± 26.3	13.8 ± 3.06	ng/l
Minimum	6.51	6.51	ng/l
Maximum	136	20	ng/l
Standard deviation	32.8	3.53	ng/l
rel. standard deviation	138	25.5	%
n	14	12	-

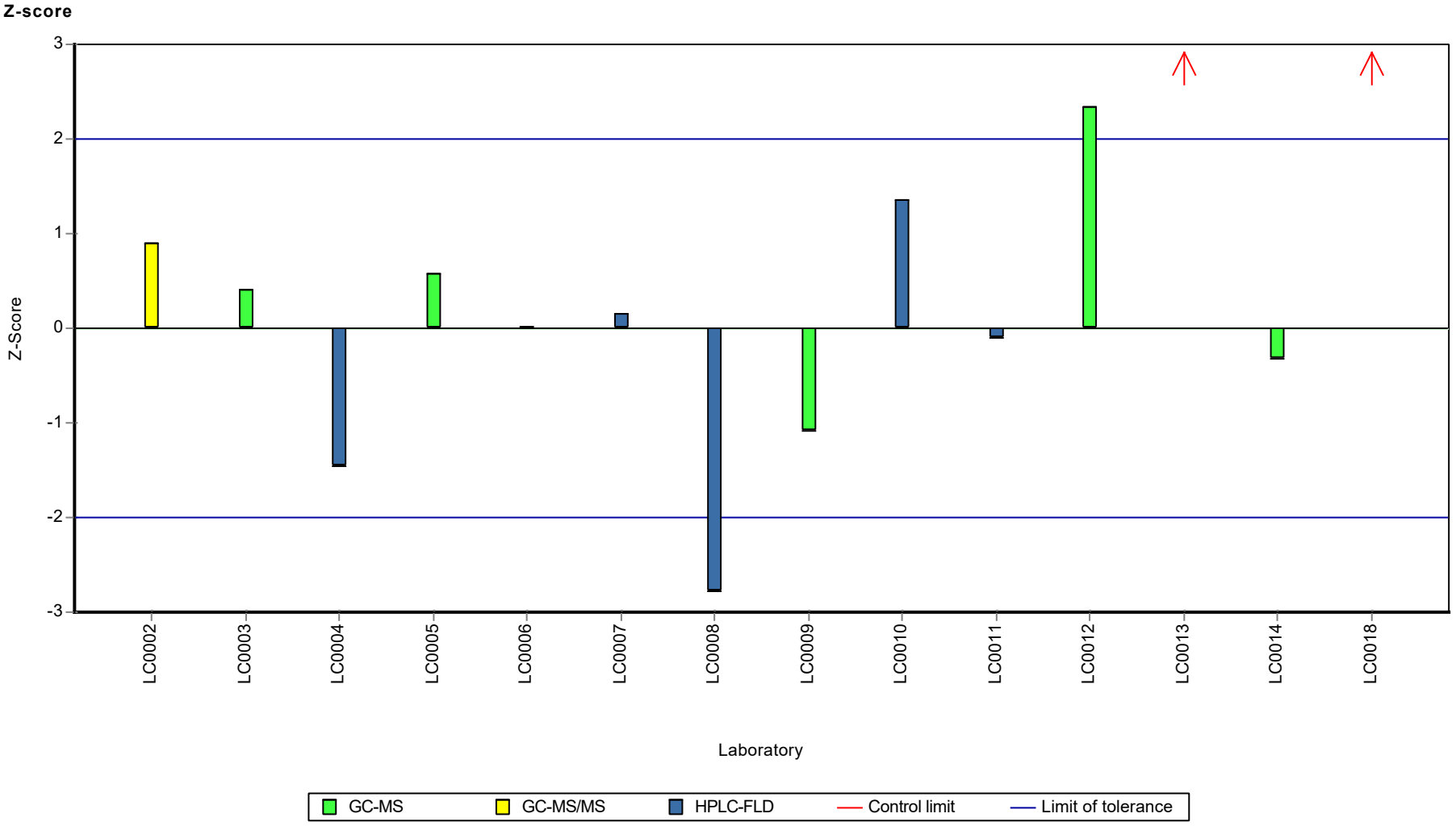
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Acenaphthene

Unit	ng/l
Assigned value ± U (k=2)	107 ± 17.8
Criterion	20.3 (19 %)
Minimum - Maximum	55.3 - 159
Control test value ± U (k=2)	141 ± 39.5

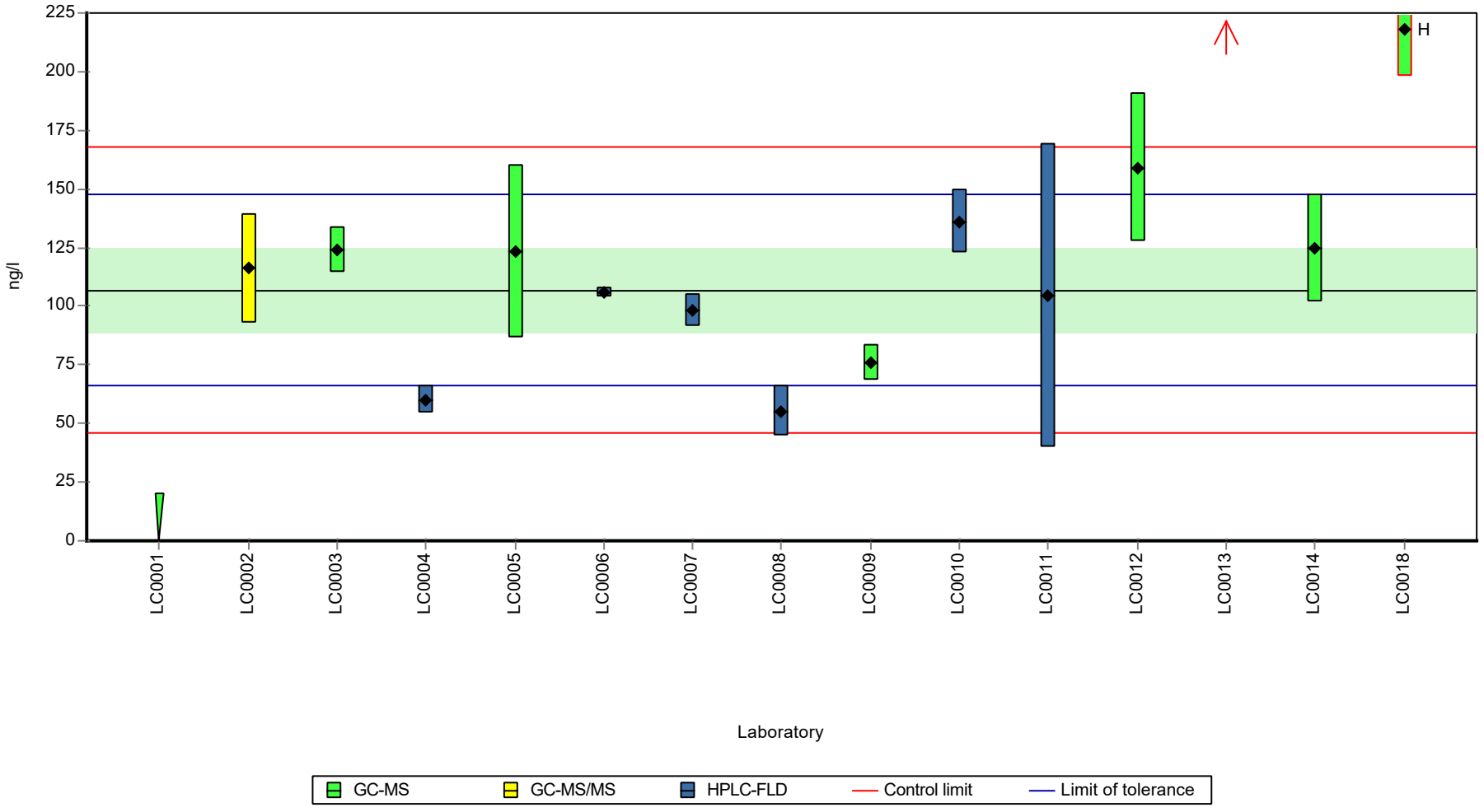
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	FN
LC0002	116	23.2	108	0.45	
LC0003	124	10	116	0.84	
LC0004	60	6	56.1	-2.31	
LC0005	123	36.9	115	0.79	
LC0006	106	2.08	99.1	-0.05	
LC0007	98.4	7.05	92	-0.42	
LC0008	55.3	11	51.7	-2.54	
LC0009	76	7.6	71.1	-1.52	
LC0010	136	13.6	127	1.43	
LC0011	104.42	64.83	97.7	-0.12	
LC0012	159	31.8	149	2.56	
LC0013	315	79	295	10.2	H
LC0014	125	23	117	0.89	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	218	20	204	5.47	H

Characteristics of parameter

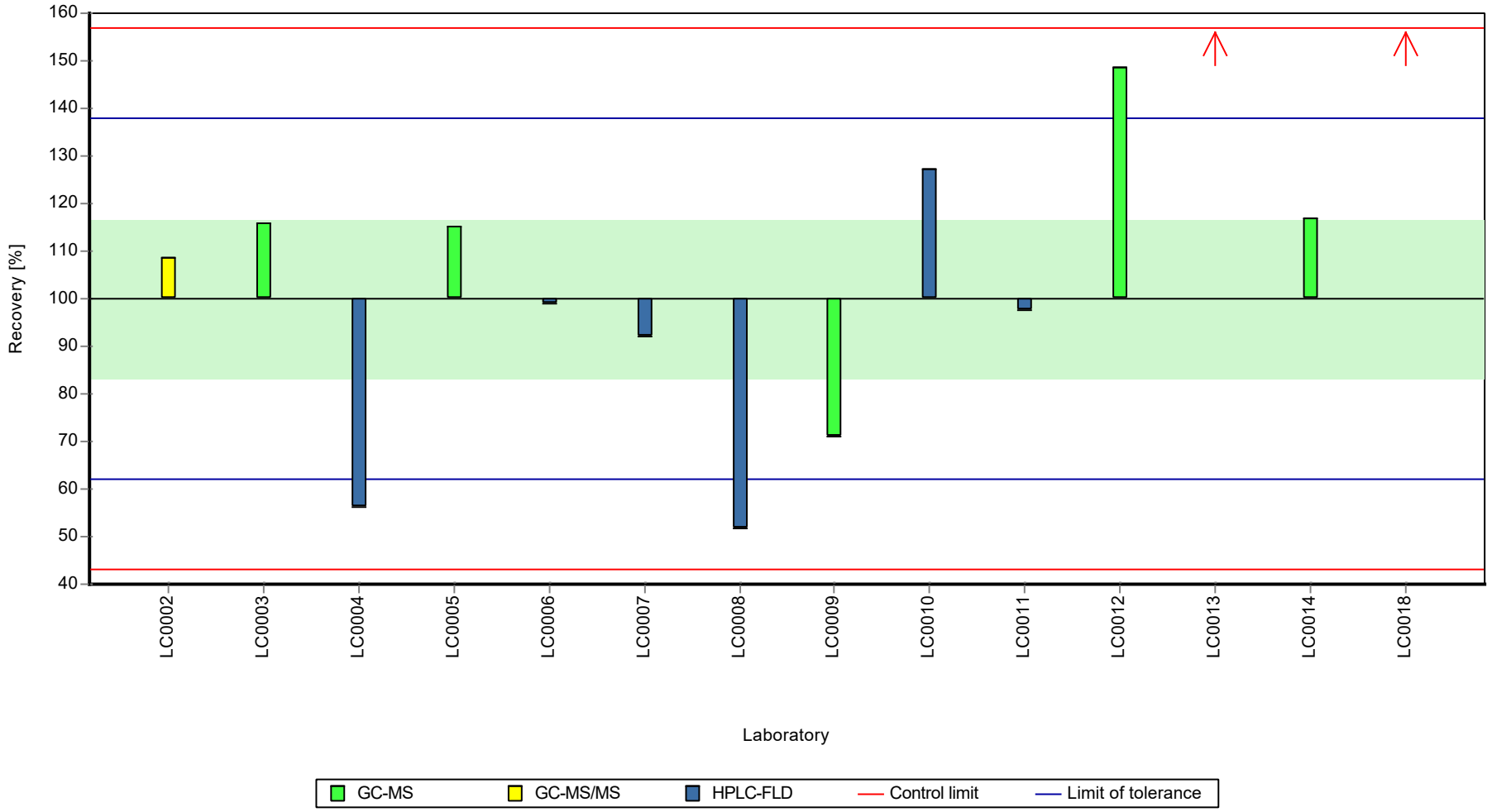
	all results	without outliers	Unit
Mean ± CI (99%)	130 ± 53.9	107 ± 26.7	ng/l
Minimum	55.3	55.3	ng/l
Maximum	315	159	ng/l
Standard deviation	67.2	30.8	ng/l
rel. standard deviation	51.8	28.8	%
n	14	12	-

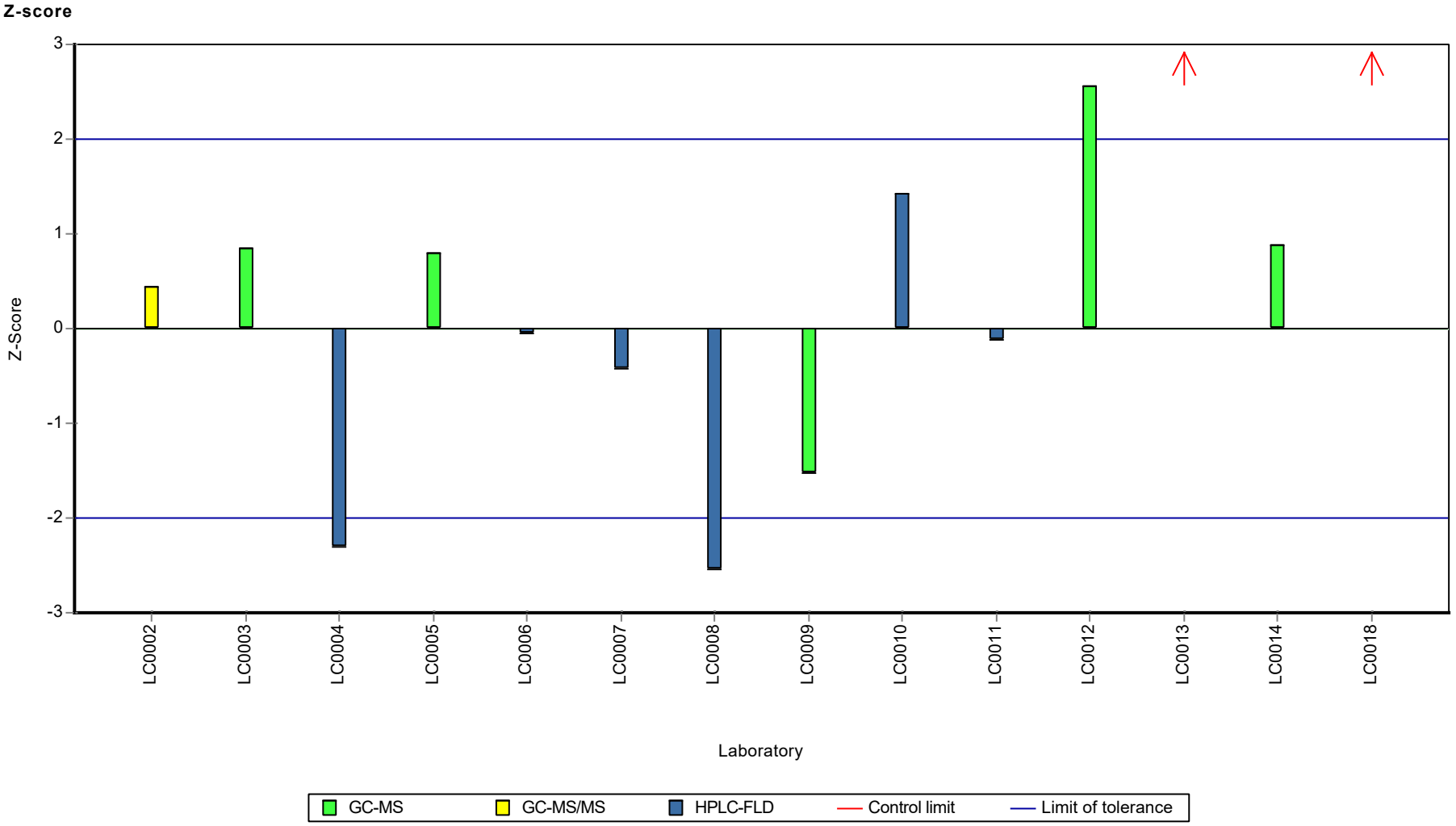
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Acenaphthylene

Unit	ng/l
Assigned value ± U (k=2)	15.4 ± 2.97
Criterion	4.92 (32 %)
Minimum - Maximum	10 - 27.2
Control test value ± U (k=2)	15 ± 4.19

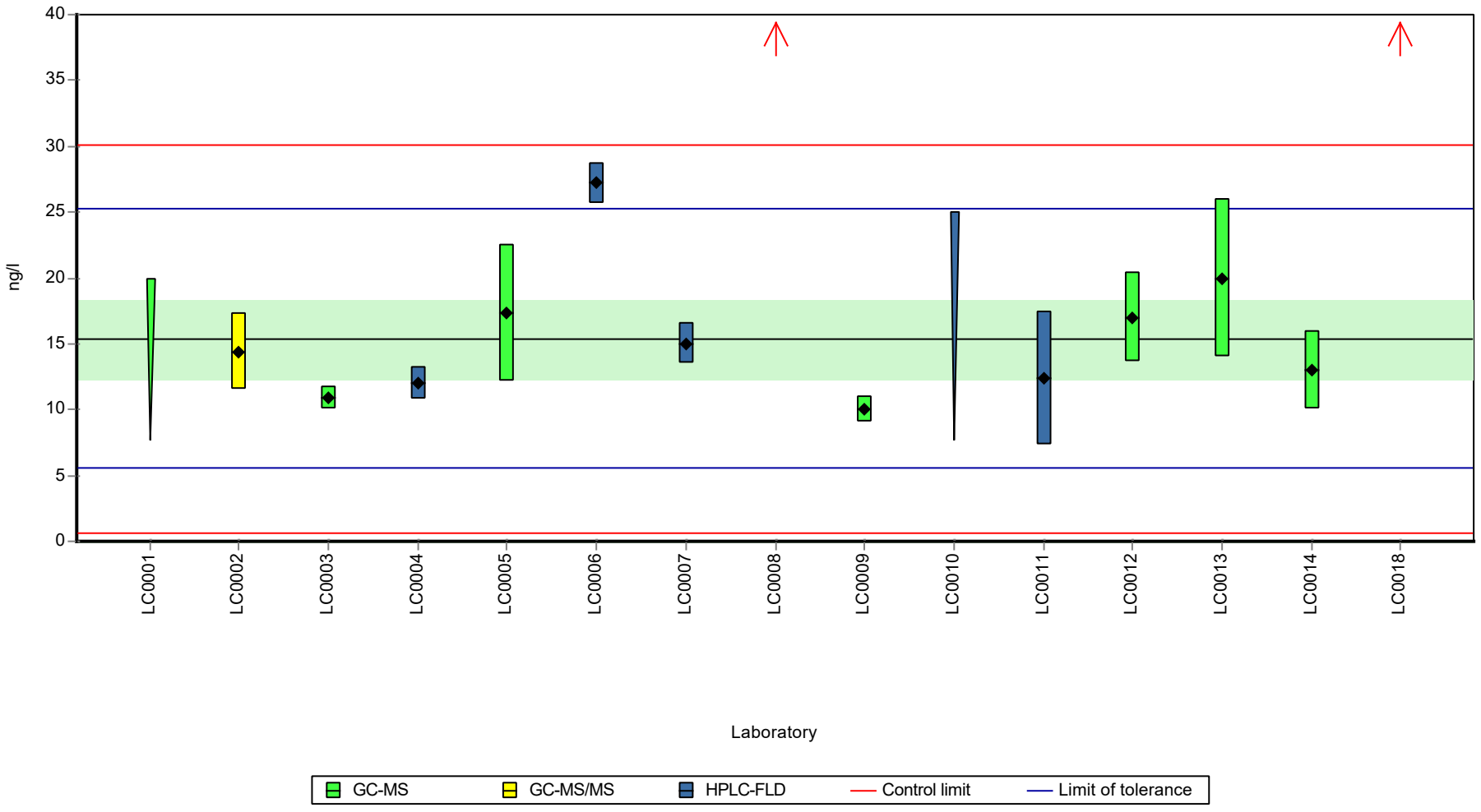
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	14.4	2.88	93.6	-0.2	
LC0003	10.9	0.87	70.9	-0.91	
LC0004	12	1.2	78	-0.69	
LC0005	17.29	5.19	112	0.39	
LC0006	27.2	1.56	177	2.4	
LC0007	15	1.56	97.5	-0.08	
LC0008	100	20	650	17.2	H
LC0009	10	1	65	-1.09	
LC0010	< 25 (LOQ)	-	-	-	
LC0011	12.44	5.08	80.9	-0.6	
LC0012	17	3.4	111	0.33	
LC0013	20	6	130	0.94	
LC0014	13	3	84.5	-0.48	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	145	20	943	26.3	H

Characteristics of parameter

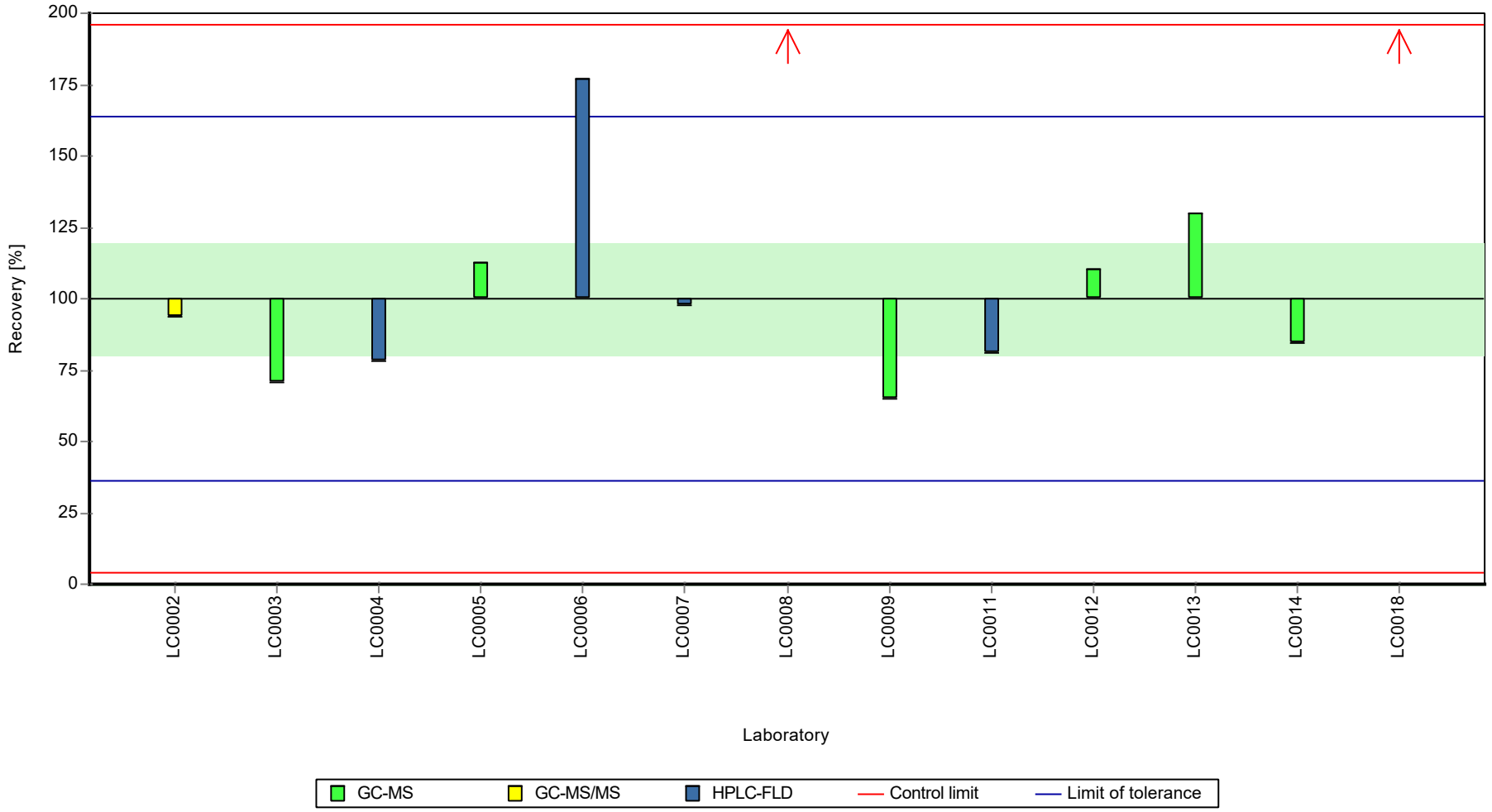
	all results	without outliers	Unit
Mean ± CI (99%)	31.9 ± 34.5	15.4 ± 4.46	ng/l
Minimum	10	10	ng/l
Maximum	145	27.2	ng/l
Standard deviation	41.5	4.93	ng/l
rel. standard deviation	130	32.1	%
n	13	11	-

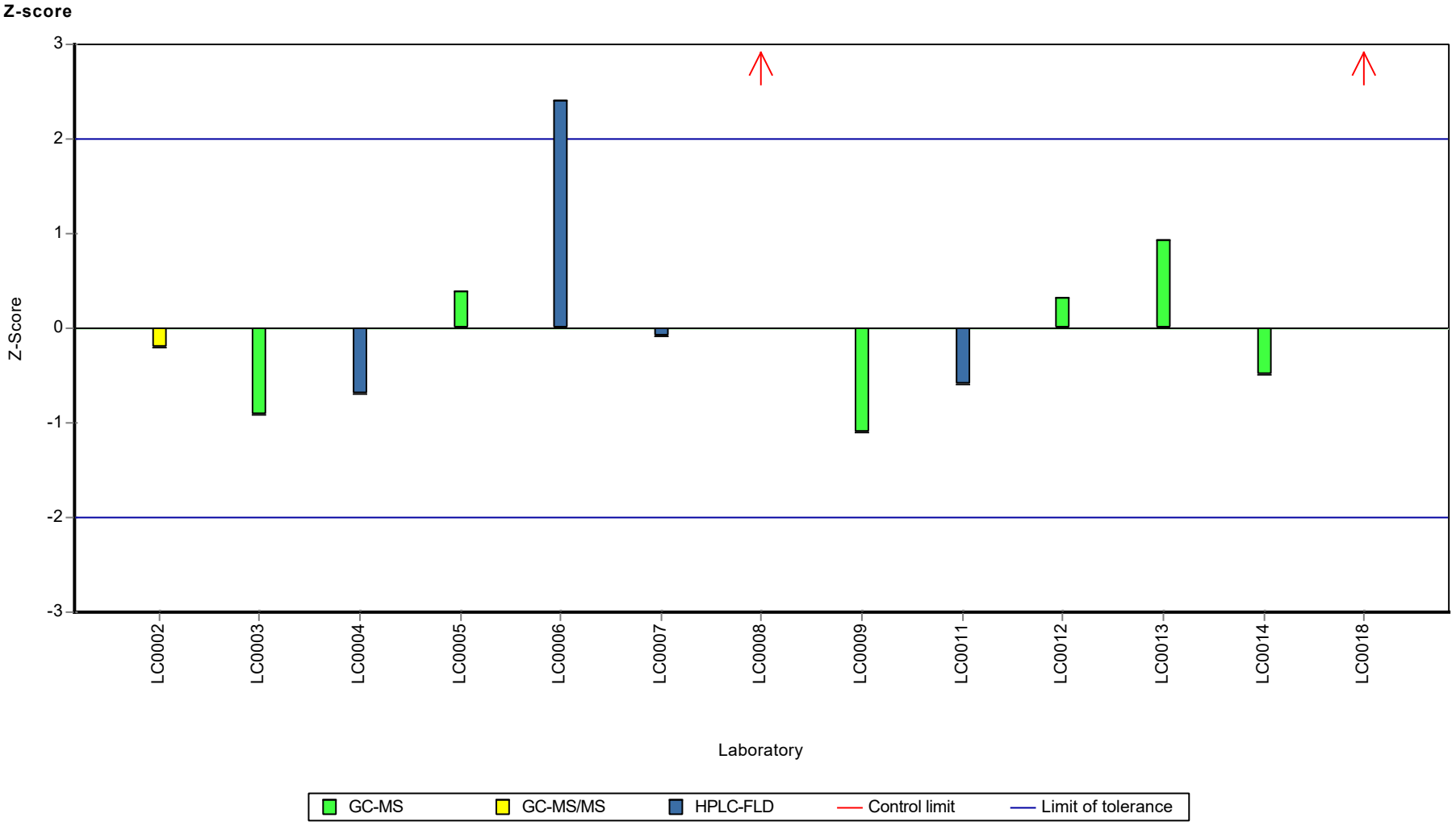
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Acenaphthylene

Unit	ng/l
Assigned value ± U (k=2)	138 ± 22.8
Criterion	42.7 (31 %)
Minimum - Maximum	70 - 231
Control test value ± U (k=2)	148 ± 41.4

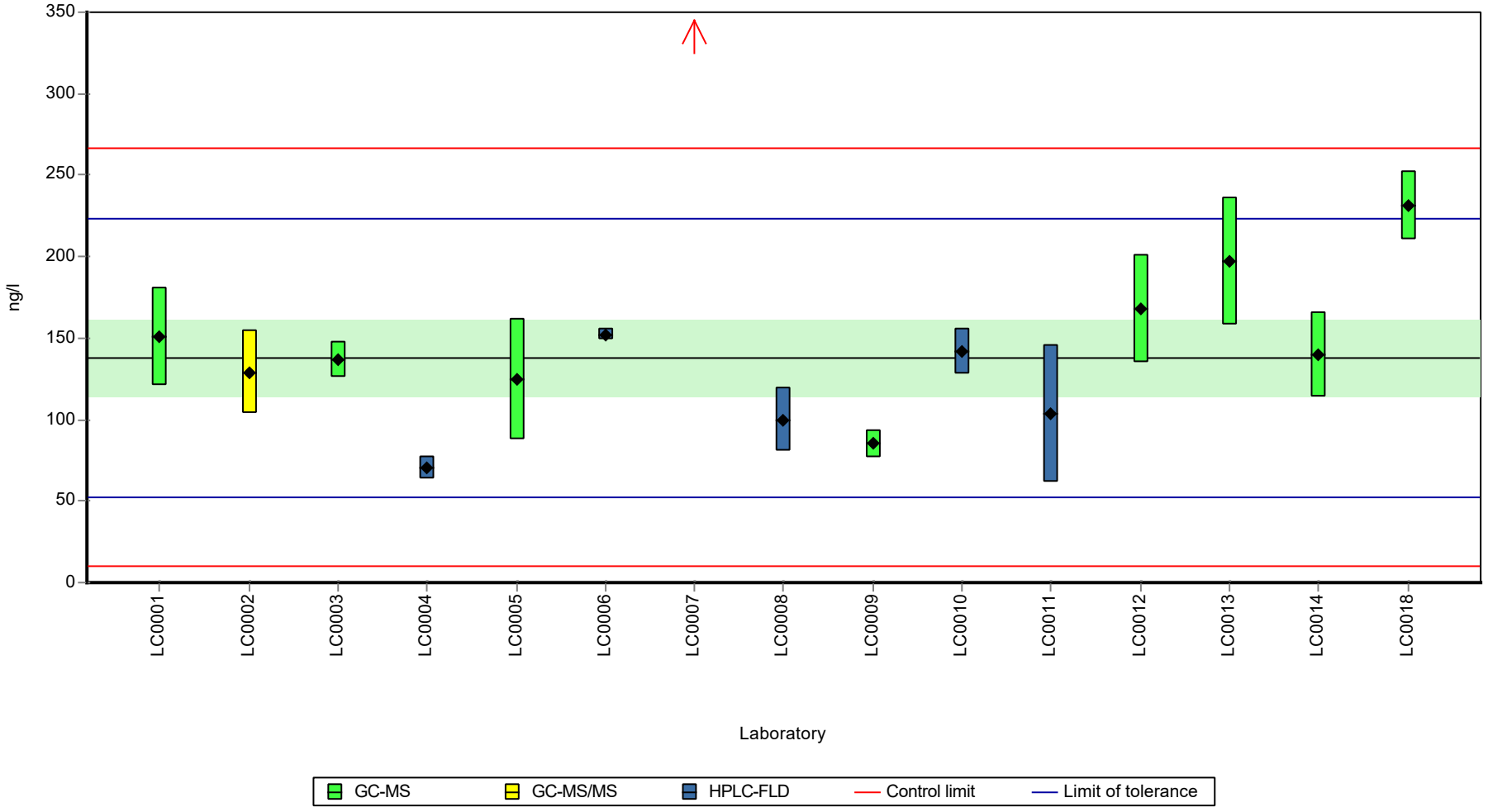
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	151	30	110	0.31	
LC0002	129	25.9	93.6	-0.21	
LC0003	137	11	99.4	-0.02	
LC0004	70	7	50.8	-1.59	
LC0005	124.51	37.35	90.3	-0.31	
LC0006	152	3.52	110	0.33	
LC0007	504	52.57	366	8.57	H
LC0008	100	20	72.5	-0.89	
LC0009	85	8.5	61.7	-1.24	
LC0010	142	14.2	103	0.1	
LC0011	103.74	42.39	75.2	-0.8	
LC0012	168	33.6	122	0.7	
LC0013	197	39	143	1.38	
LC0014	140	26	102	0.05	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	231	21	168	2.18	

Characteristics of parameter

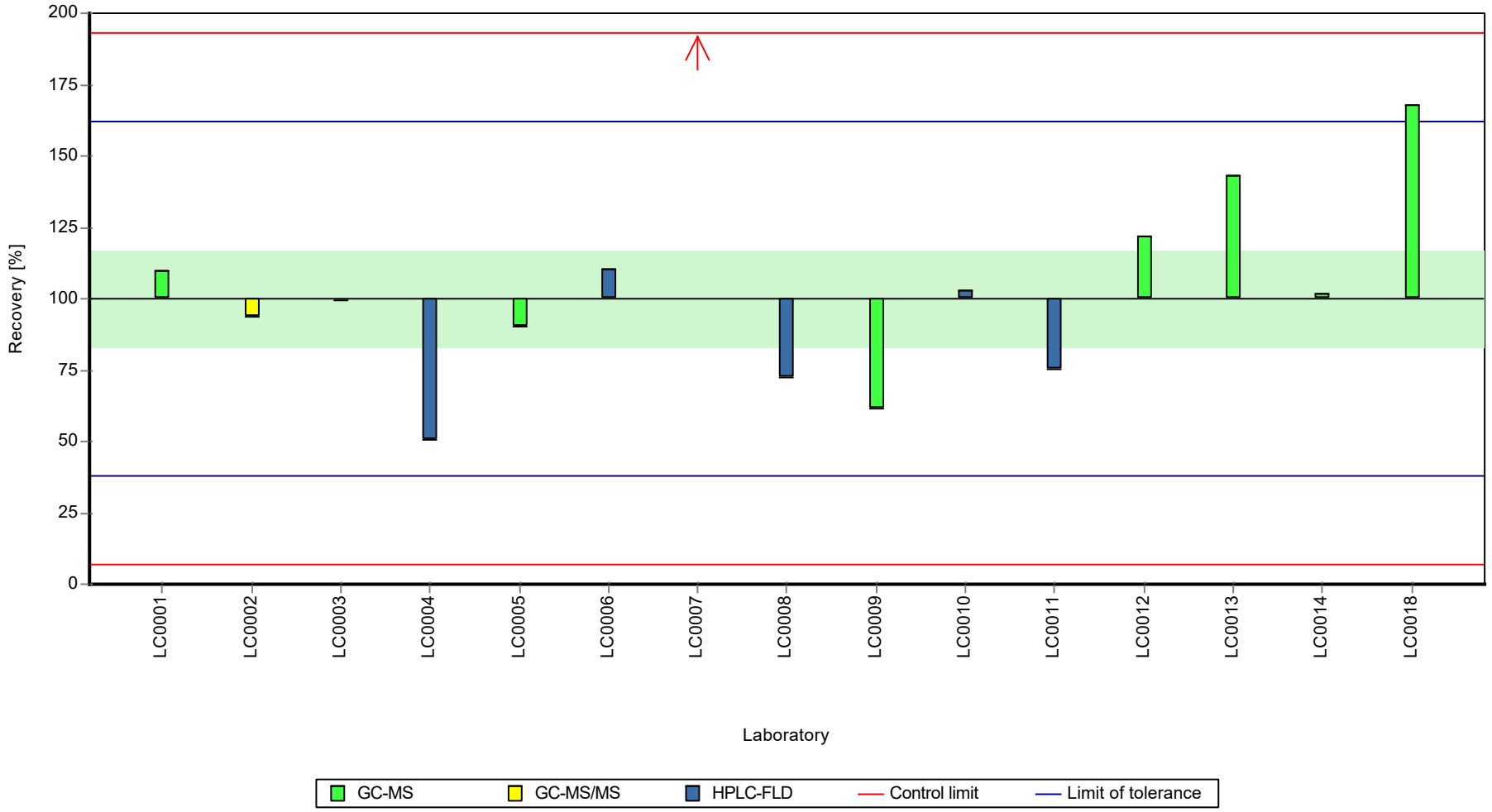
	all results	without outliers	Unit
Mean ± CI (99%)	162 ± 79.9	138 ± 34.3	ng/l
Minimum	70	70	ng/l
Maximum	504	231	ng/l
Standard deviation	103	42.7	ng/l
rel. standard deviation	63.5	31	%
n	15	14	-

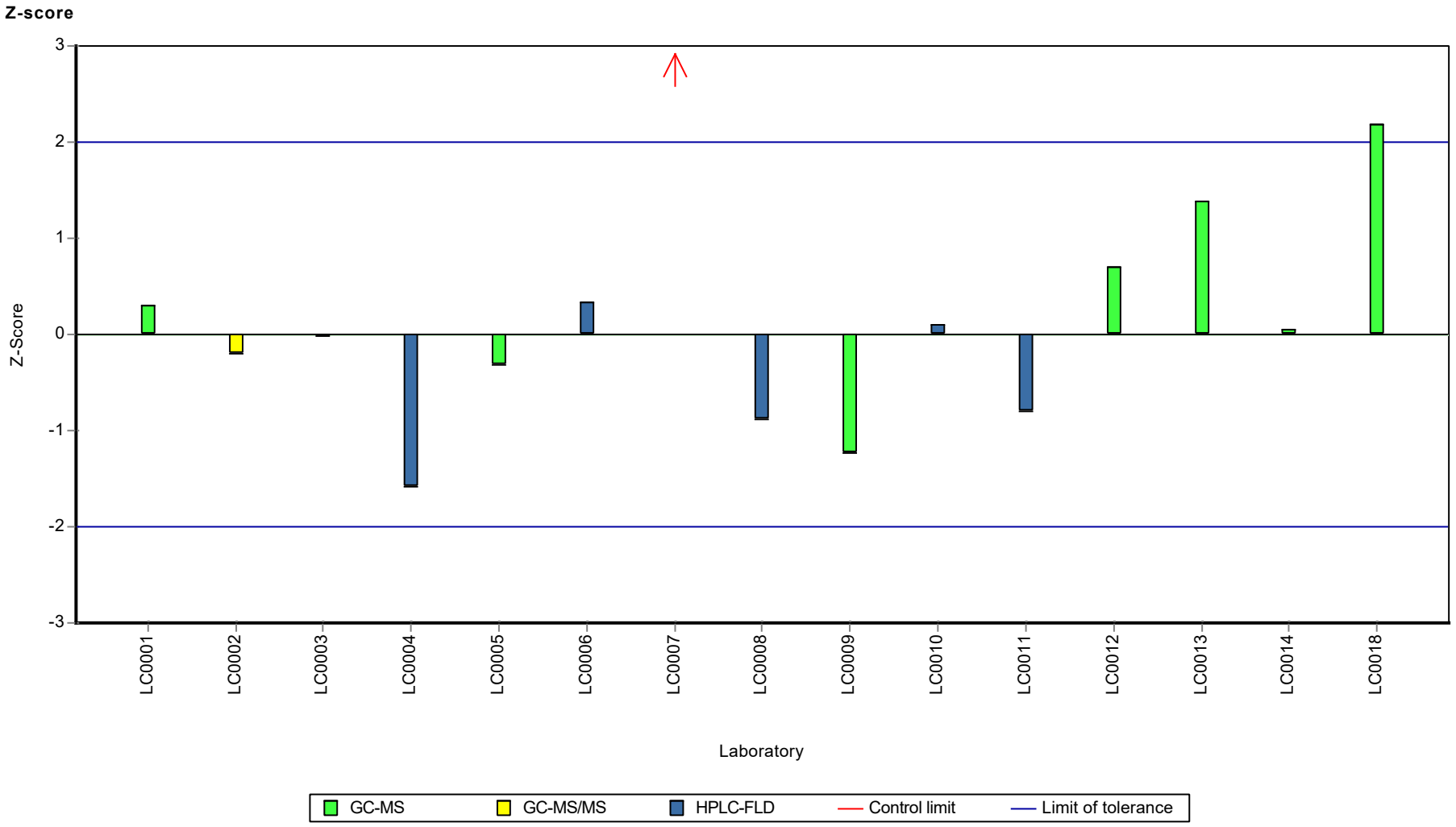
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Anthracene

Unit	ng/l
Assigned value ± U (k=2)	11.1 ± 1.11
Criterion	2.1 (19 %)
Minimum - Maximum	8 - 14.3
Control test value ± U (k=2)	12.9 ± 3.36

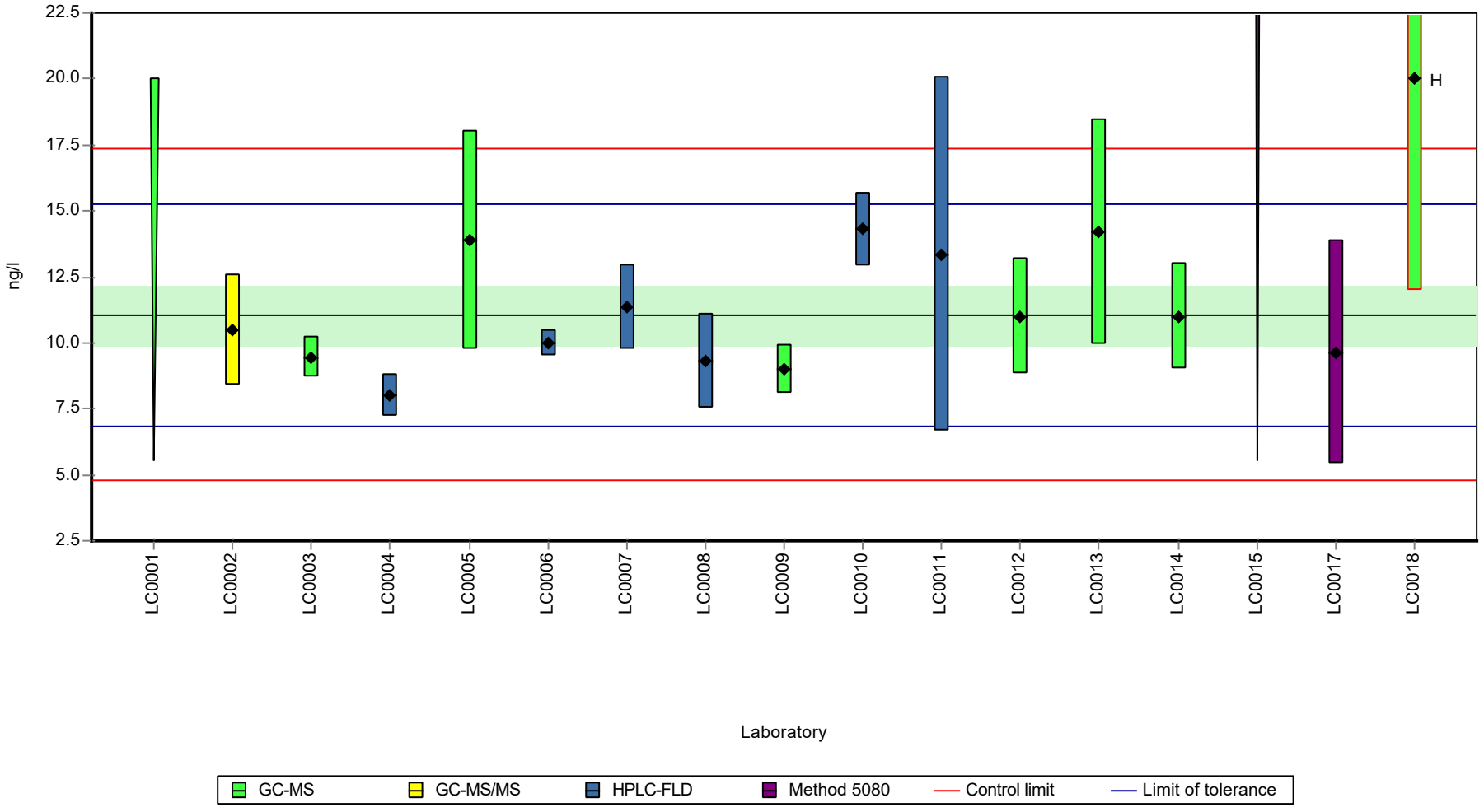
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	10.5	2.1	94.8	-0.27	
LC0003	9.46	0.76	85.4	-0.77	
LC0004	8	0.8	72.3	-1.46	
LC0005	13.9	4.17	126	1.34	
LC0006	10	0.505	90.3	-0.51	
LC0007	11.35	1.63	103	0.13	
LC0008	9.31	1.8	84.1	-0.84	
LC0009	9	0.9	81.3	-0.98	
LC0010	14.3	1.4	129	1.53	
LC0011	13.35	6.71	121	1.08	
LC0012	11	2.2	99.4	-0.03	
LC0013	14.2	4.3	128	1.49	
LC0014	11	2	99.4	-0.03	
LC0015	< 50 (LOQ)	-	-	-	
LC0016	-	-	-	-	
LC0017	9.63	4.24	87	-0.69	
LC0018	20	8	181	4.24	H

Characteristics of parameter

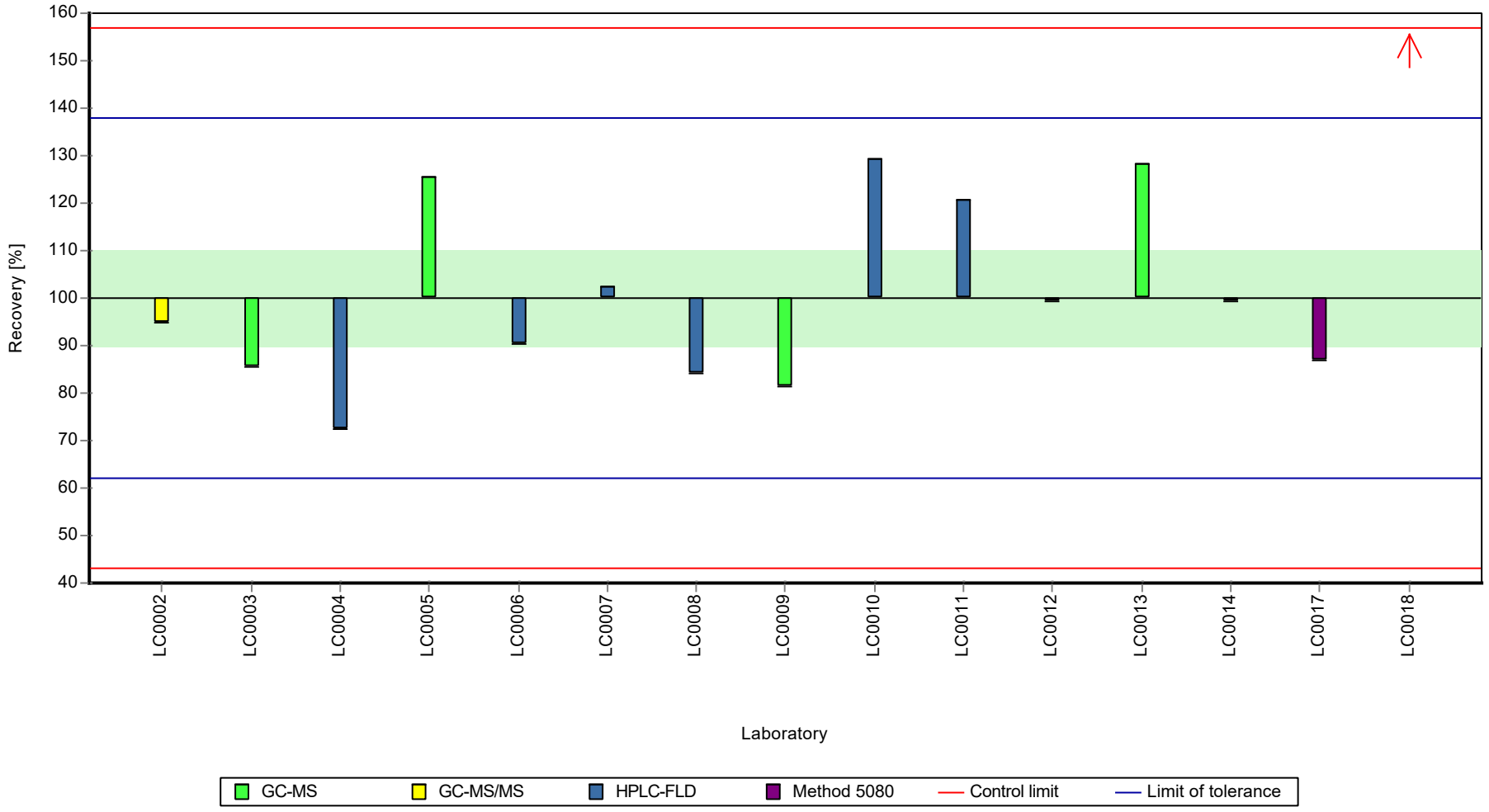
	all results	without outliers	Unit
Mean ± CI (99%)	11.7 ± 2.37	11.1 ± 1.67	ng/l
Minimum	8	8	ng/l
Maximum	20	14.3	ng/l
Standard deviation	3.06	2.08	ng/l
rel. standard deviation	26.2	18.8	%
n	15	14	-

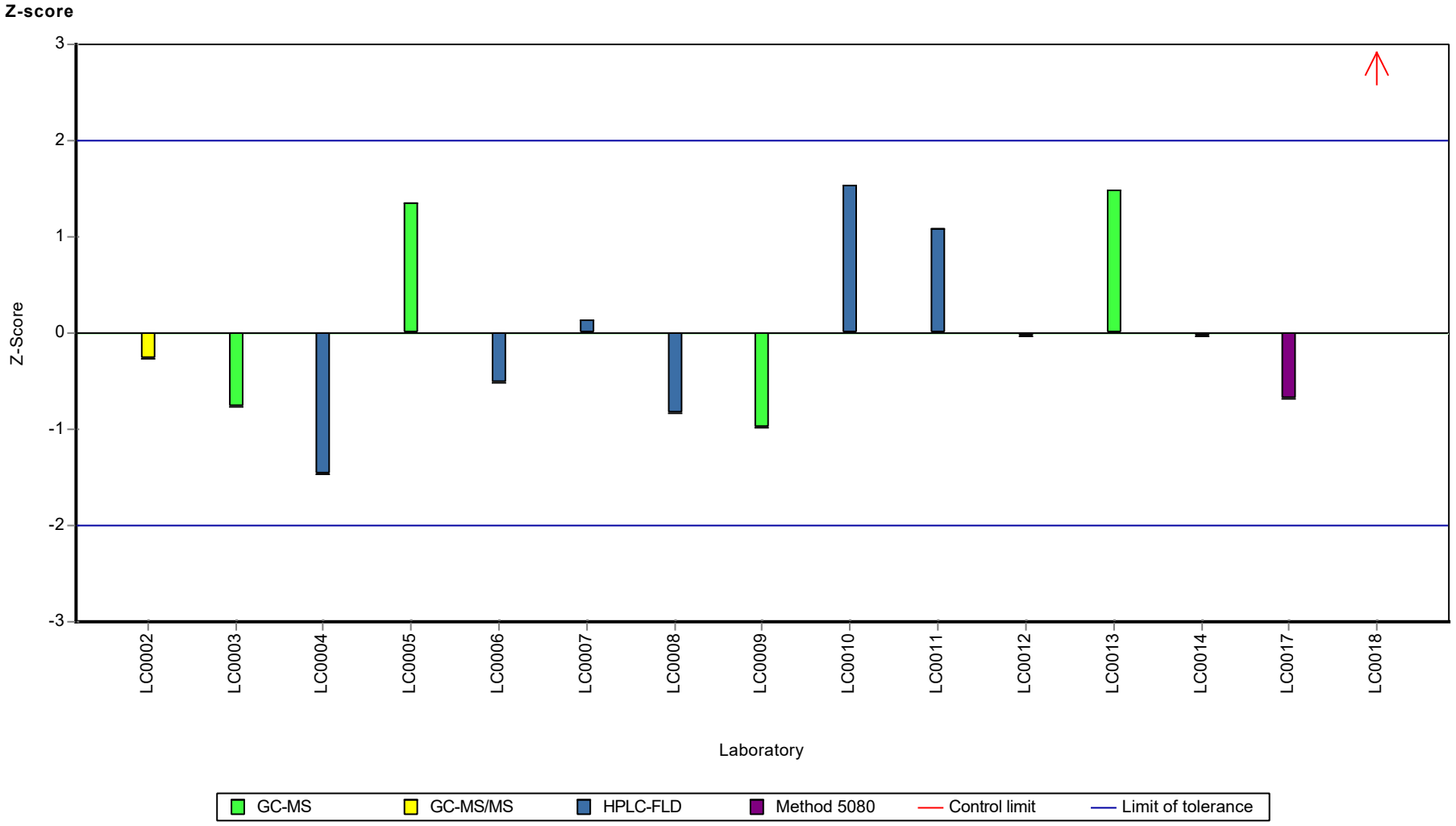
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Anthracene

Unit	ng/l
Assigned value ± U (k=2)	135 ± 11.2
Criterion	22.9 (17 %)
Minimum - Maximum	82 - 162
Control test value ± U (k=2)	148 ± 38.6

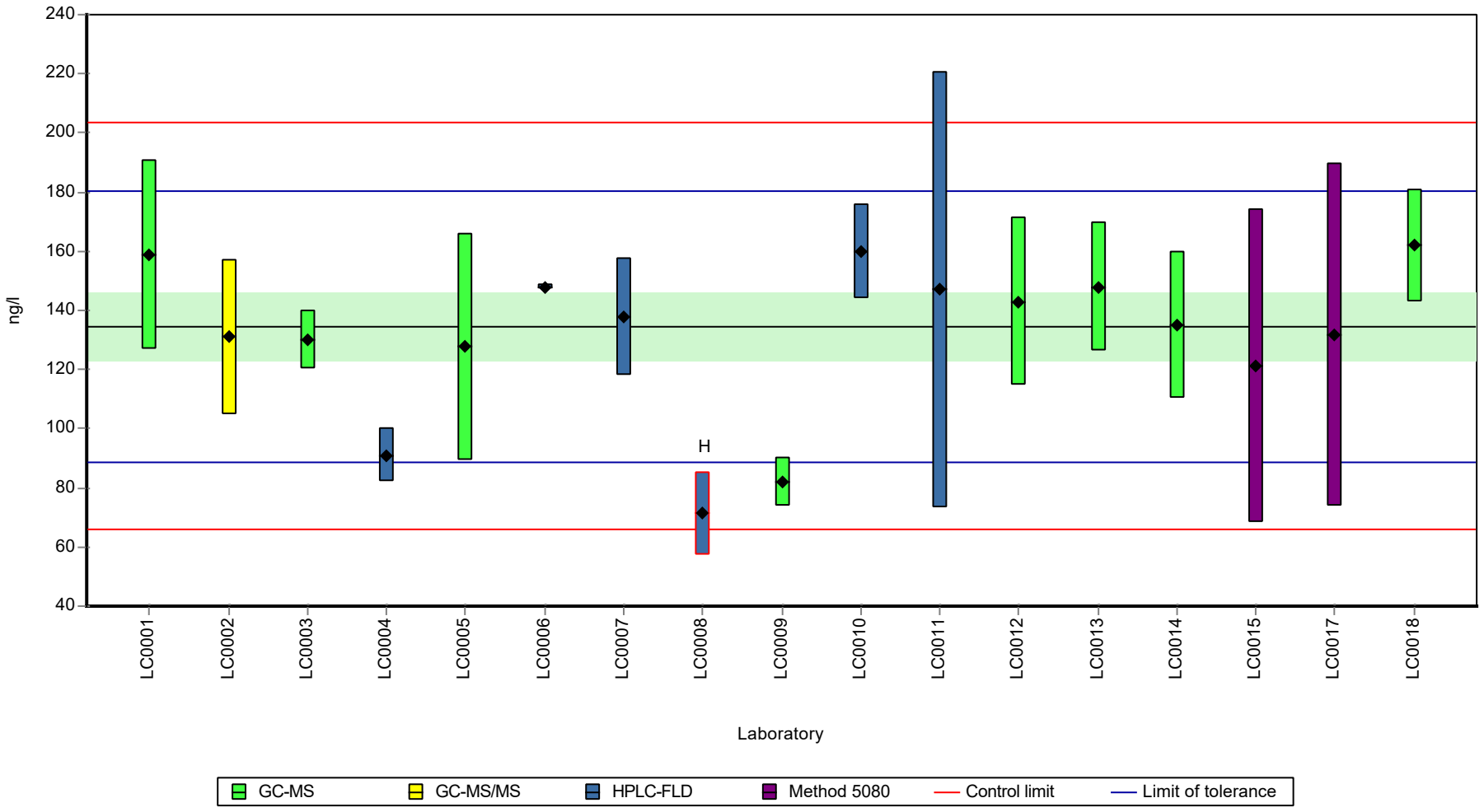
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	159	32	118	1.06	
LC0002	131	26.3	97.3	-0.16	
LC0003	130	10	96.6	-0.2	
LC0004	91	9.1	67.6	-1.91	
LC0005	127.74	38.32	94.9	-0.3	
LC0006	148	1.08	110	0.58	
LC0007	137.8	19.79	102	0.14	
LC0008	71.4	14	53	-2.76	H
LC0009	82	8.2	60.9	-2.3	
LC0010	160	16	119	1.11	
LC0011	146.94	73.92	109	0.54	
LC0012	143	28.6	106	0.36	
LC0013	148	22	110	0.58	
LC0014	135	25	100	0.02	
LC0015	121	53	89.9	-0.6	
LC0016	-	-	-	-	
LC0017	131.81	57.99	97.9	-0.12	
LC0018	162	19	120	1.2	

Characteristics of parameter

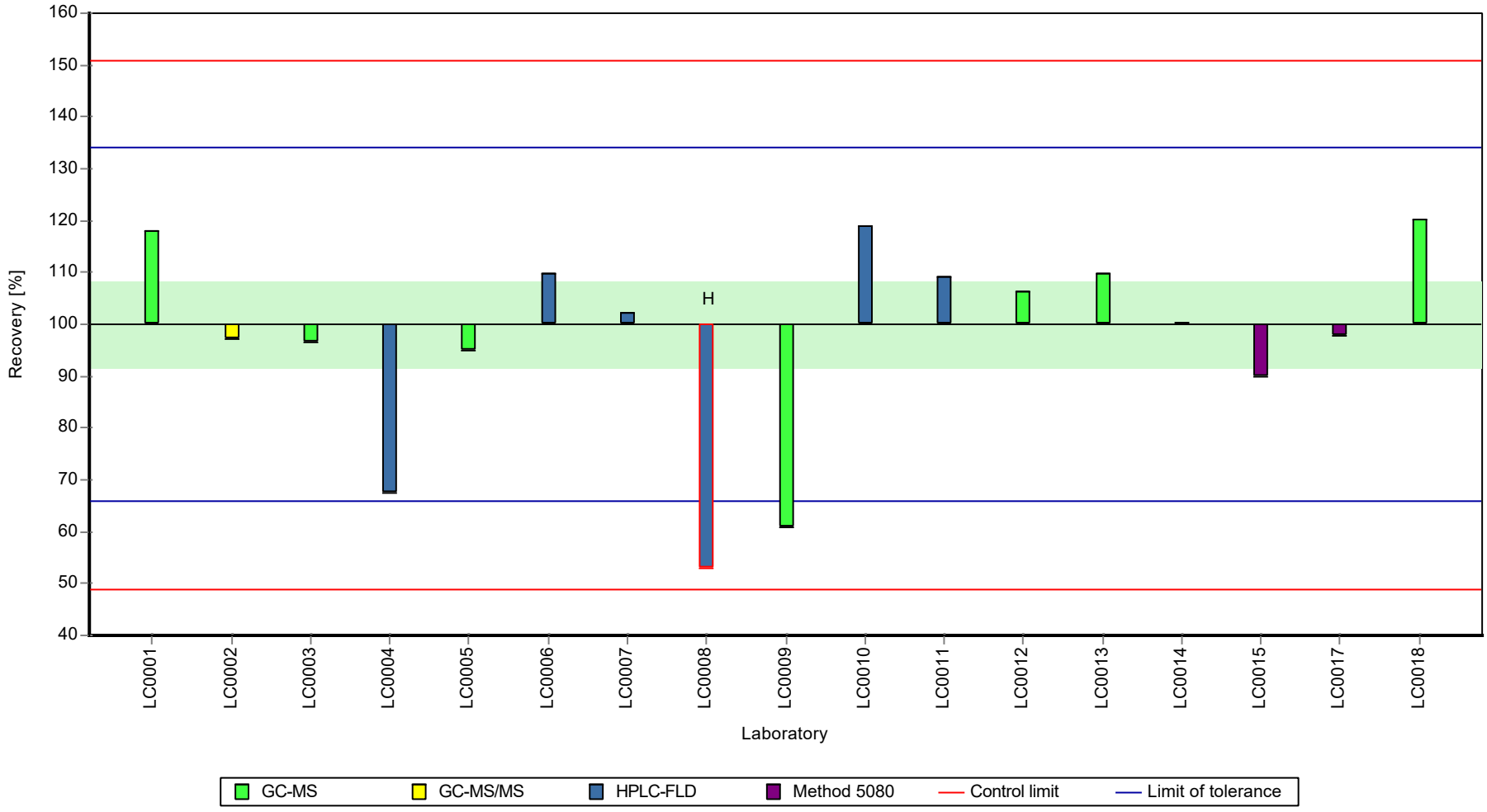
	all results	without outliers	Unit
Mean ± CI (99%)	131 ± 19.3	135 ± 16.8	ng/l
Minimum	71.4	82	ng/l
Maximum	162	162	ng/l
Standard deviation	26.6	22.4	ng/l
rel. standard deviation	20.3	16.6	%
n	17	16	-

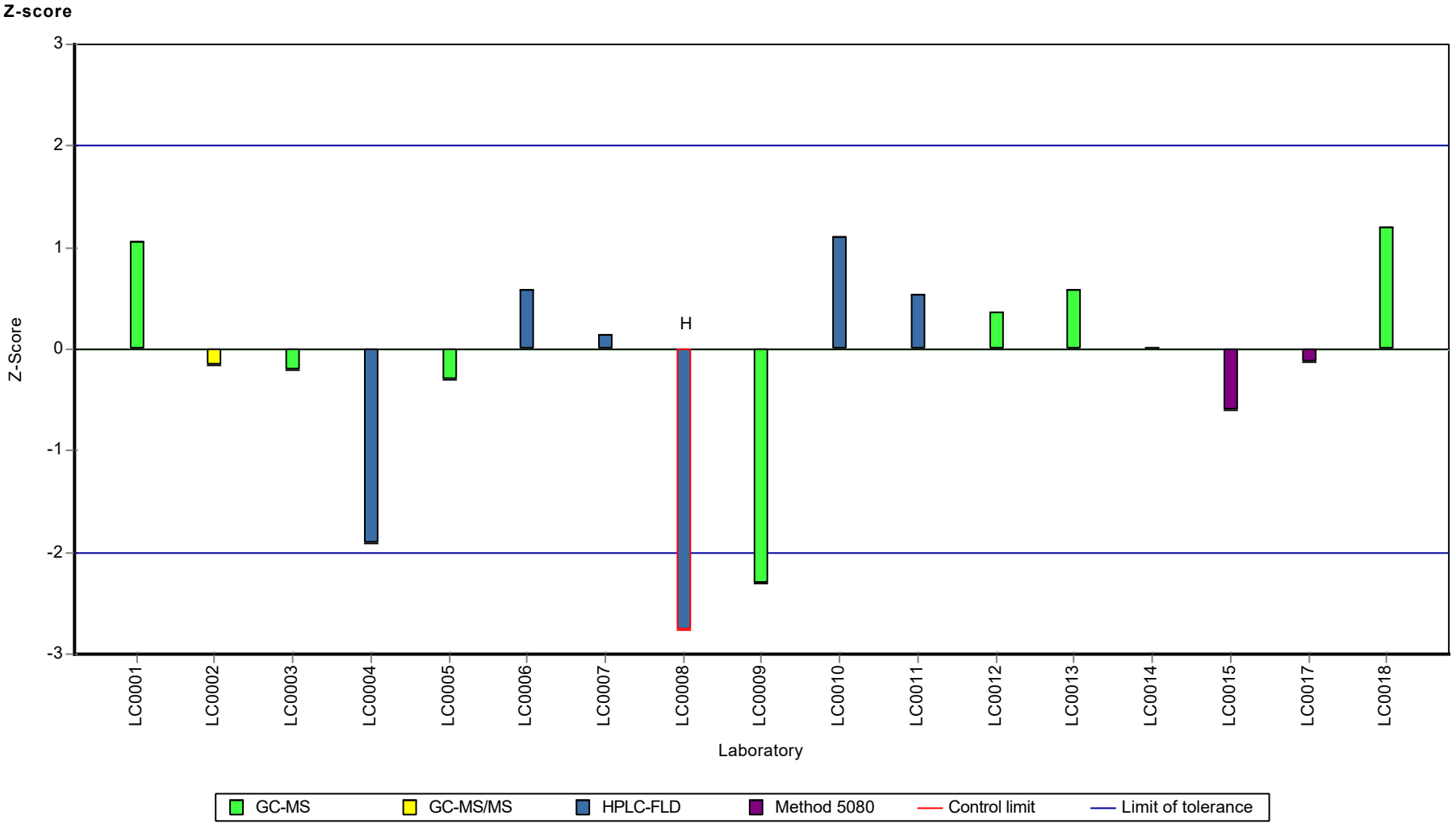
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
H
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Benzo[a]anthracene

Unit	ng/l
Assigned value ± U (k=2)	13.8 ± 1.23
Criterion	2.91 (21 %)
Minimum - Maximum	10 - 18.5
Control test value ± U (k=2)	15.3 ± 3.67

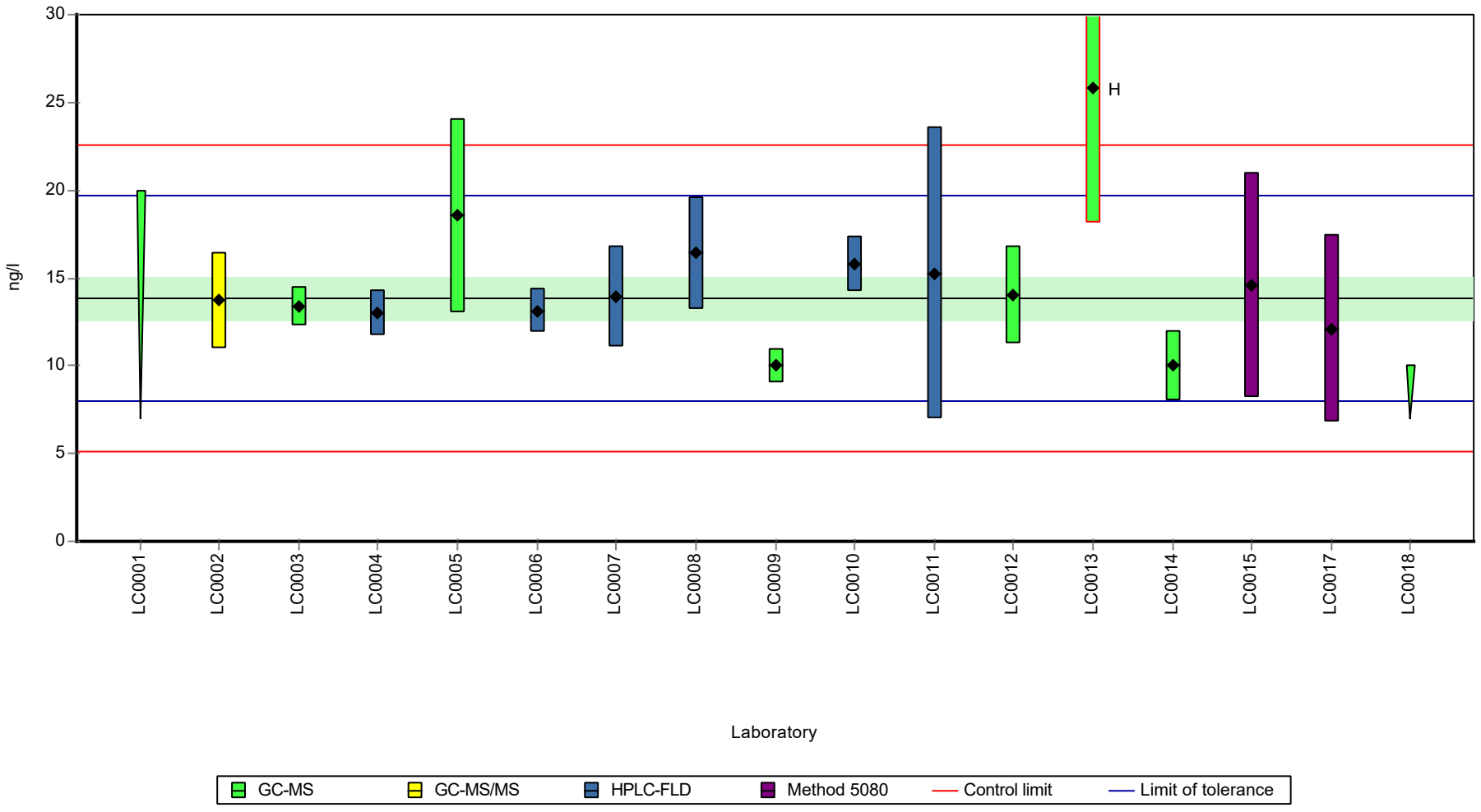
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	13.7	2.74	99	-0.05	
LC0003	13.4	1.1	96.8	-0.15	
LC0004	13	1.3	93.9	-0.29	
LC0005	18.54	5.56	134	1.62	
LC0006	13.1	1.25	94.6	-0.26	
LC0007	13.9	2.88	100	0.02	
LC0008	16.4	3.2	118	0.88	
LC0009	10	1	72.2	-1.32	
LC0010	15.8	1.6	114	0.67	
LC0011	15.26	8.32	110	0.49	
LC0012	14	2.8	101	0.05	
LC0013	25.8	7.7	186	4.11	H
LC0014	10	2	72.2	-1.32	
LC0015	14.6	6.4	105	0.26	
LC0016	-	-	-	-	
LC0017	12.11	5.33	87.5	-0.6	
LC0018	< 10 (LOQ)	-	-	-	

Characteristics of parameter

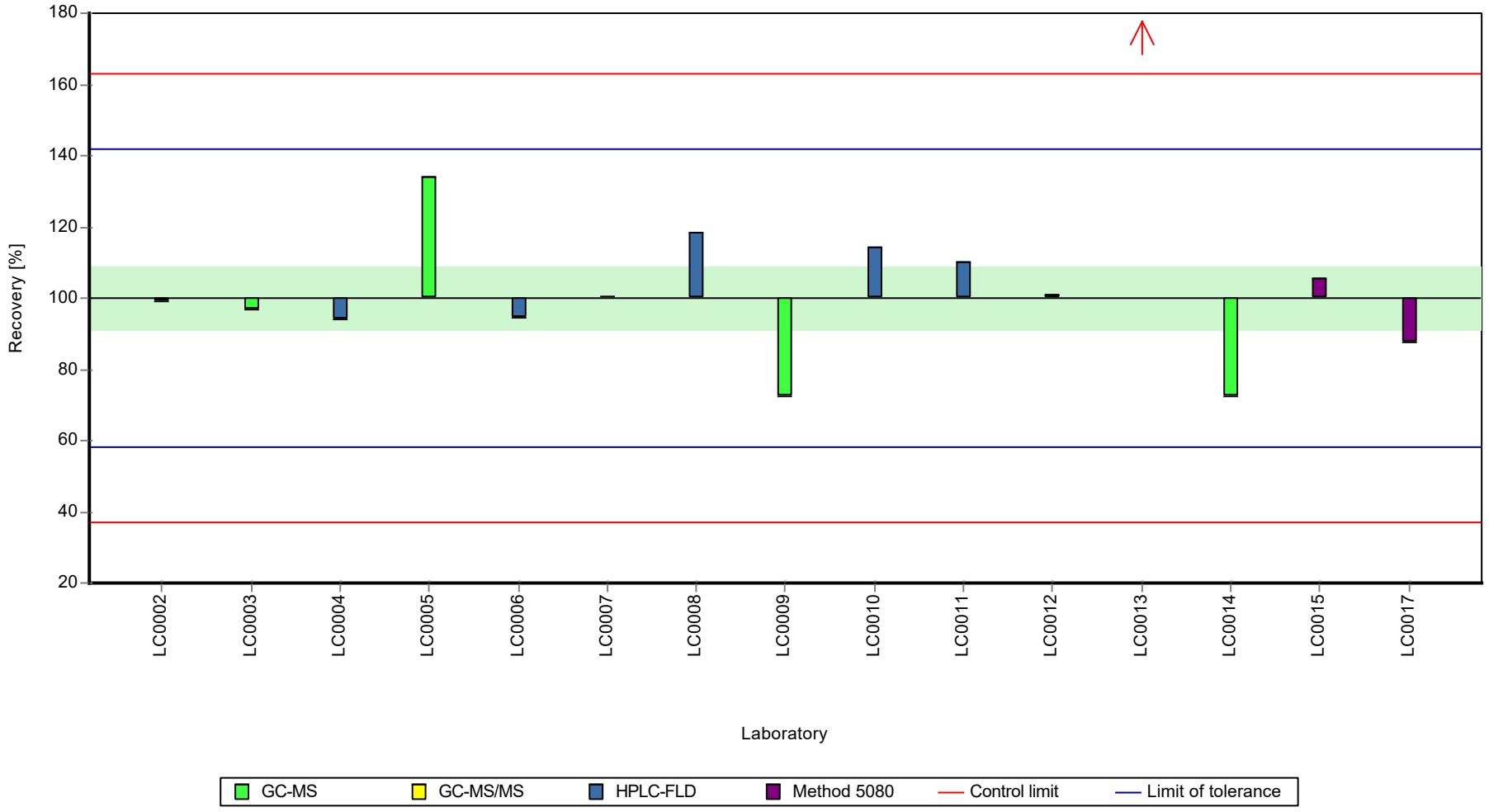
	all results	without outliers	Unit
Mean ± CI (99%)	14.6 ± 2.95	13.8 ± 1.85	ng/l
Minimum	10	10	ng/l
Maximum	25.8	18.5	ng/l
Standard deviation	3.8	2.3	ng/l
rel. standard deviation	26	16.6	%
n	15	14	-

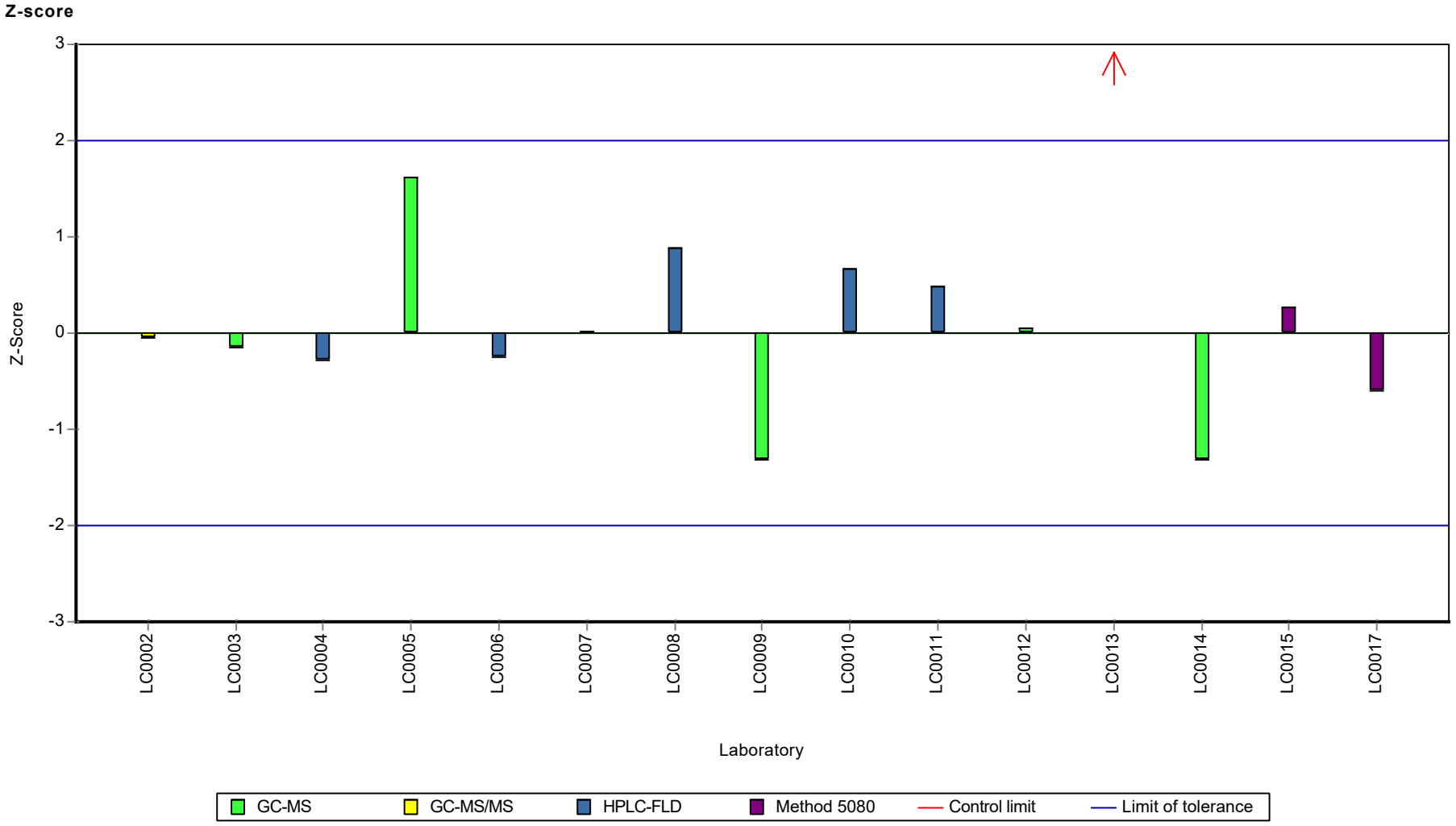
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Benzo[a]anthracene

Unit	ng/l
Assigned value ± U (k=2)	123 ± 9.48
Criterion	25.9 (21 %)
Minimum - Maximum	95 - 159
Control test value ± U (k=2)	121 ± 29

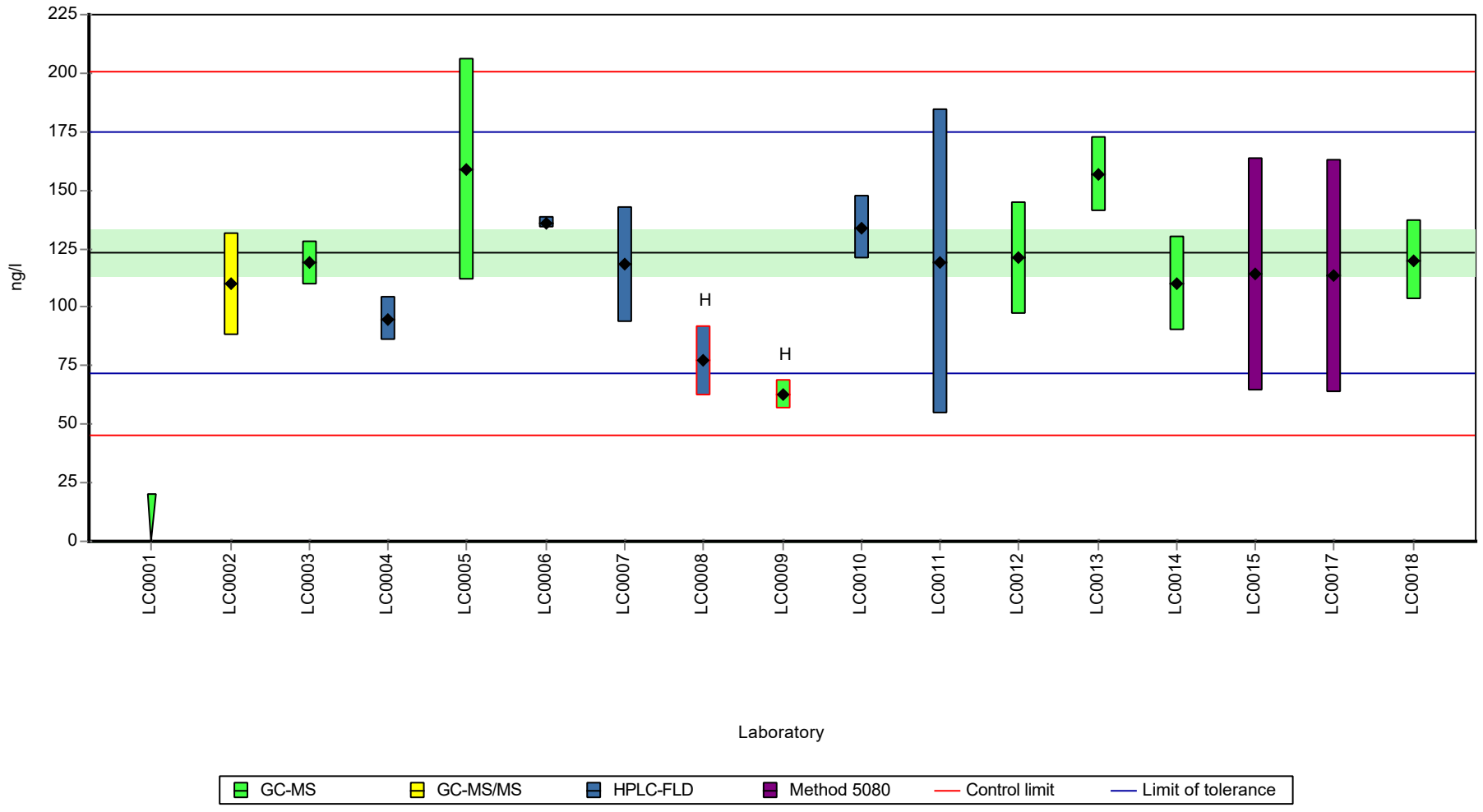
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	FN
LC0002	110	22	89.3	-0.51	
LC0003	119	9.5	96.6	-0.16	
LC0004	95	9.5	77.1	-1.09	
LC0005	158.79	47.64	129	1.37	
LC0006	136	2.53	110	0.49	
LC0007	118.1	24.48	95.8	-0.2	
LC0008	77	15	62.5	-1.79	H
LC0009	63	6.3	51.1	-2.33	H
LC0010	134	13.4	109	0.42	
LC0011	119.25	65.03	96.8	-0.15	
LC0012	121	24.2	98.2	-0.09	
LC0013	157	16	127	1.3	
LC0014	110	20	89.3	-0.51	
LC0015	114	50	92.5	-0.36	
LC0016	-	-	-	-	
LC0017	113.26	49.8	91.9	-0.39	
LC0018	120	17	97.4	-0.13	

Characteristics of parameter

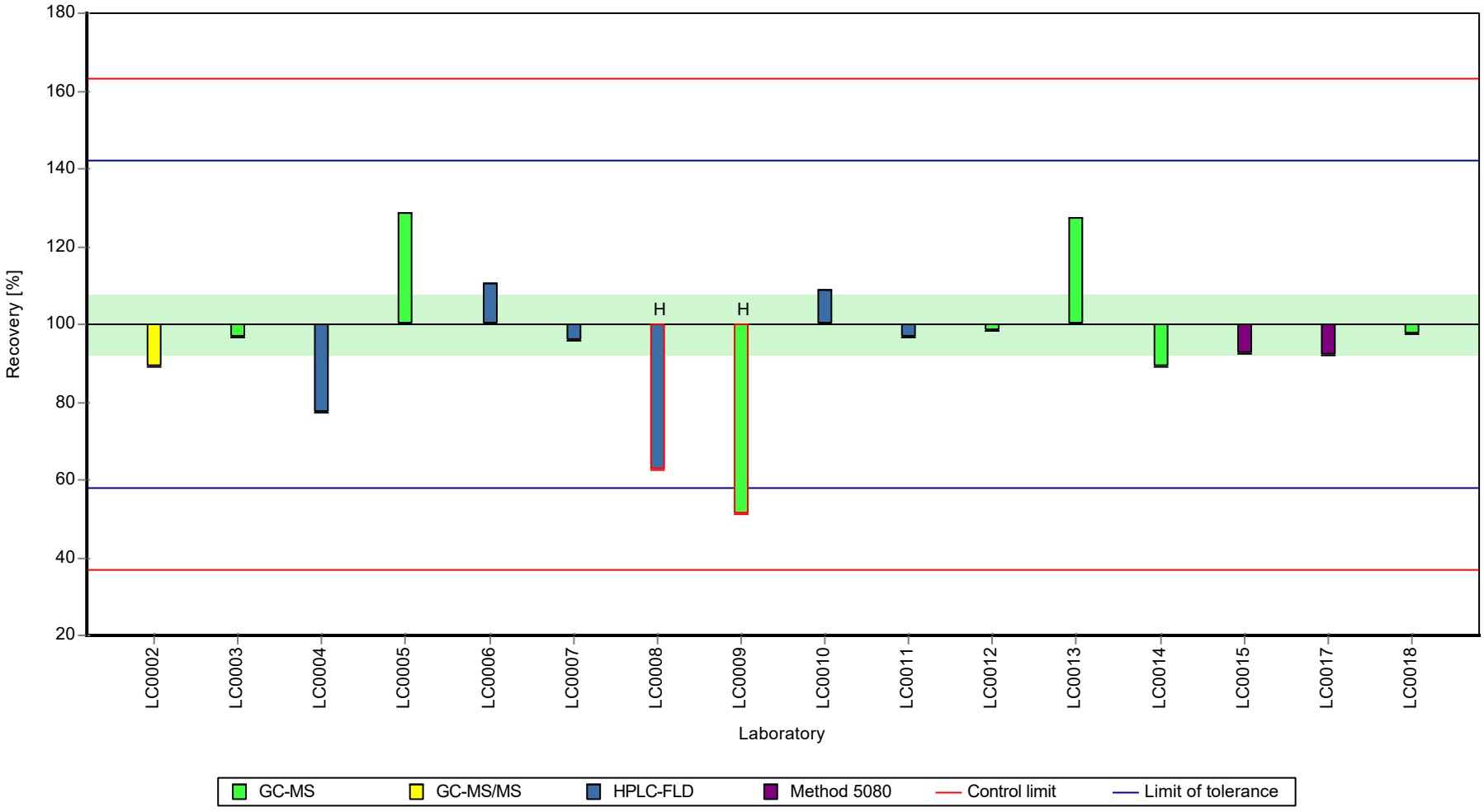
	all results	without outliers	Unit
Mean ± CI (99%)	117 ± 18.5	123 ± 14.2	ng/l
Minimum	63	95	ng/l
Maximum	159	159	ng/l
Standard deviation	24.7	17.7	ng/l
rel. standard deviation	21.2	14.4	%
n	16	14	-

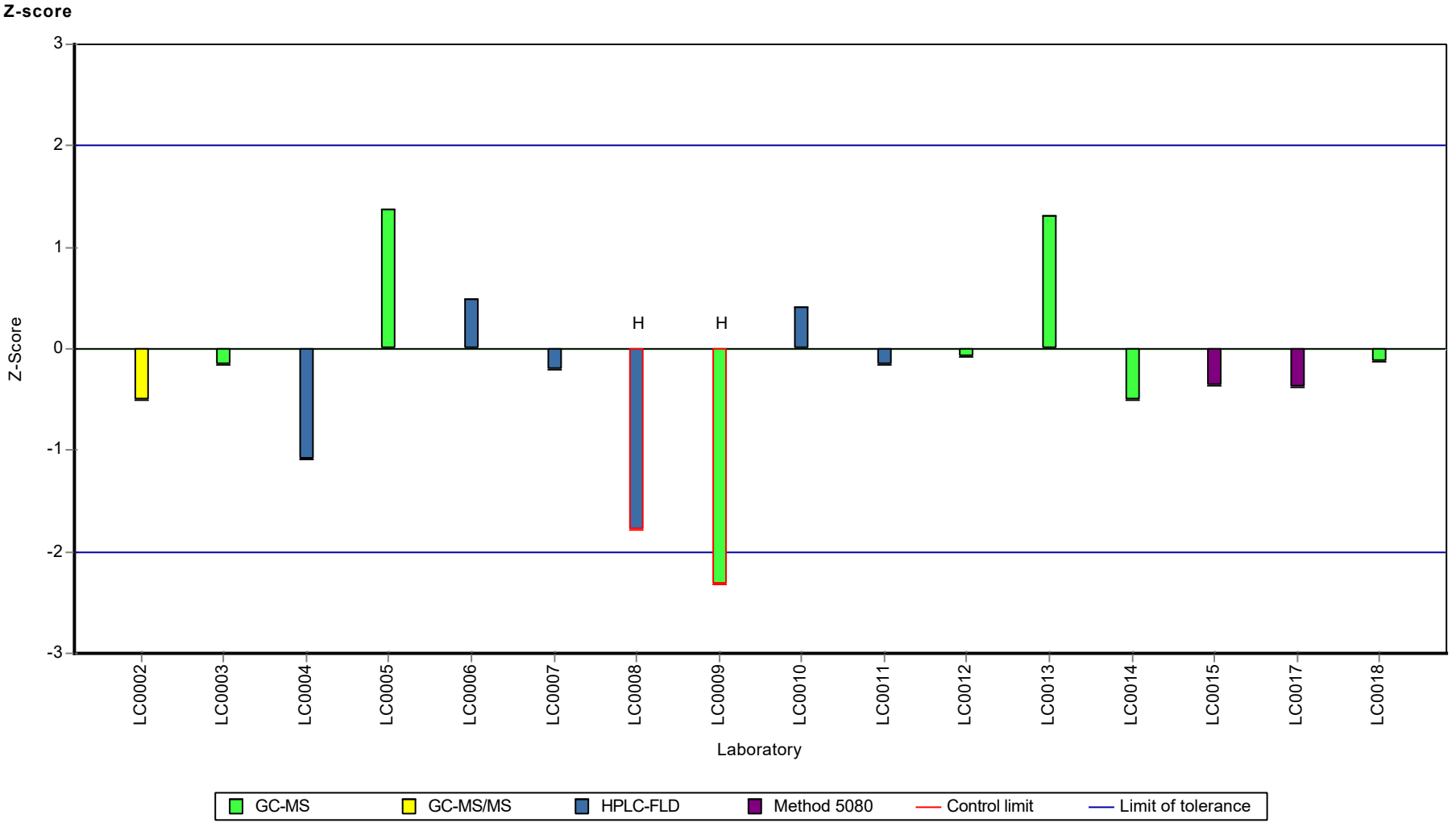
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
H
H
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Benzo[a]pyrene

Unit	ng/l
Assigned value ± U (k=2)	11.5 ± 1.41
Criterion	2.75 (24 %)
Minimum - Maximum	8.86 - 17.7
Control test value ± U (k=2)	12.0 ± 3.36

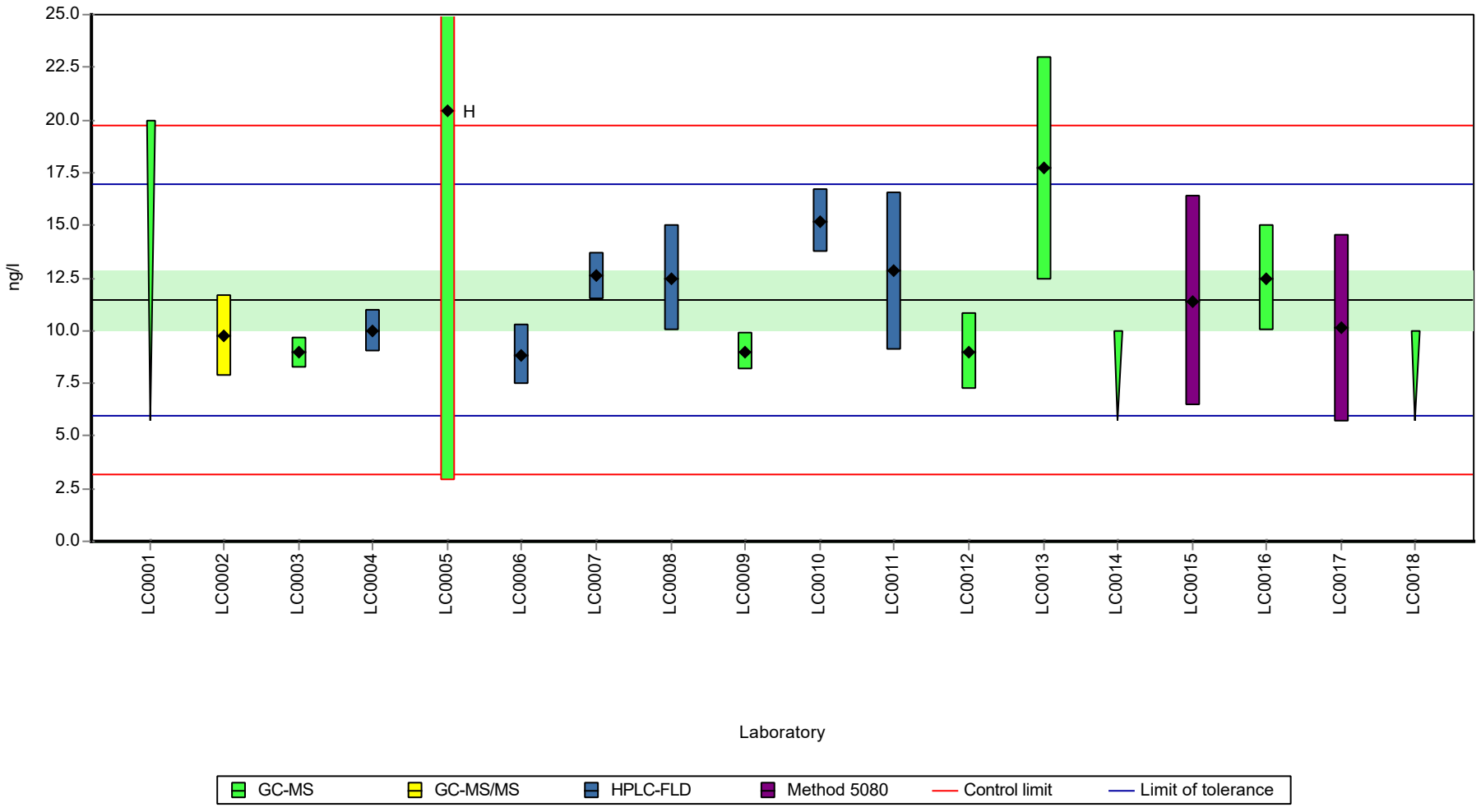
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	9.75	1.95	85.1	-0.62	
LC0003	8.96	0.72	78.2	-0.91	
LC0004	10	1	87.3	-0.53	
LC0005	20.44	17.58	178	3.27	H
LC0006	8.86	1.42	77.3	-0.94	
LC0007	12.6	1.12	110	0.42	
LC0008	12.5	2.5	109	0.38	
LC0009	9	0.9	78.6	-0.89	
LC0010	15.2	1.5	133	1.36	
LC0011	12.83	3.77	112	0.5	
LC0012	9	1.8	78.6	-0.89	
LC0013	17.7	5.3	154	2.27	
LC0014	< 10 (LOQ)	-	-	-	
LC0015	11.4	5	99.5	-0.02	
LC0016	12.49	2.498	109	0.38	
LC0017	10.11	4.45	88.2	-0.49	
LC0018	< 10 (LOQ)	-	-	-	

Characteristics of parameter

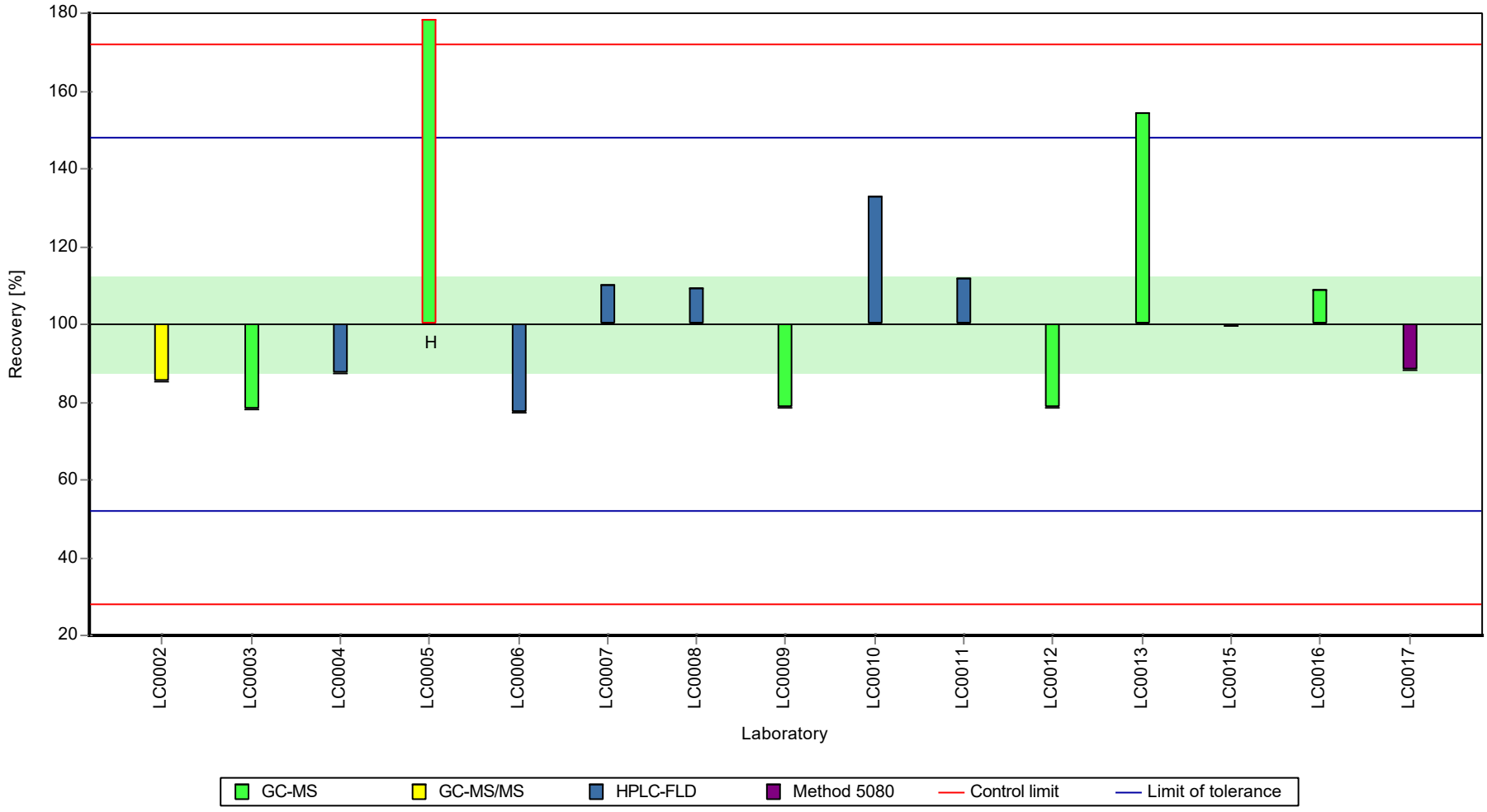
	all results	without outliers	Unit
Mean ± CI (99%)	12.1 ± 2.66	11.5 ± 2.11	ng/l
Minimum	8.86	8.86	ng/l
Maximum	20.4	17.7	ng/l
Standard deviation	3.44	2.63	ng/l
rel. standard deviation	28.5	23	%
n	15	14	-

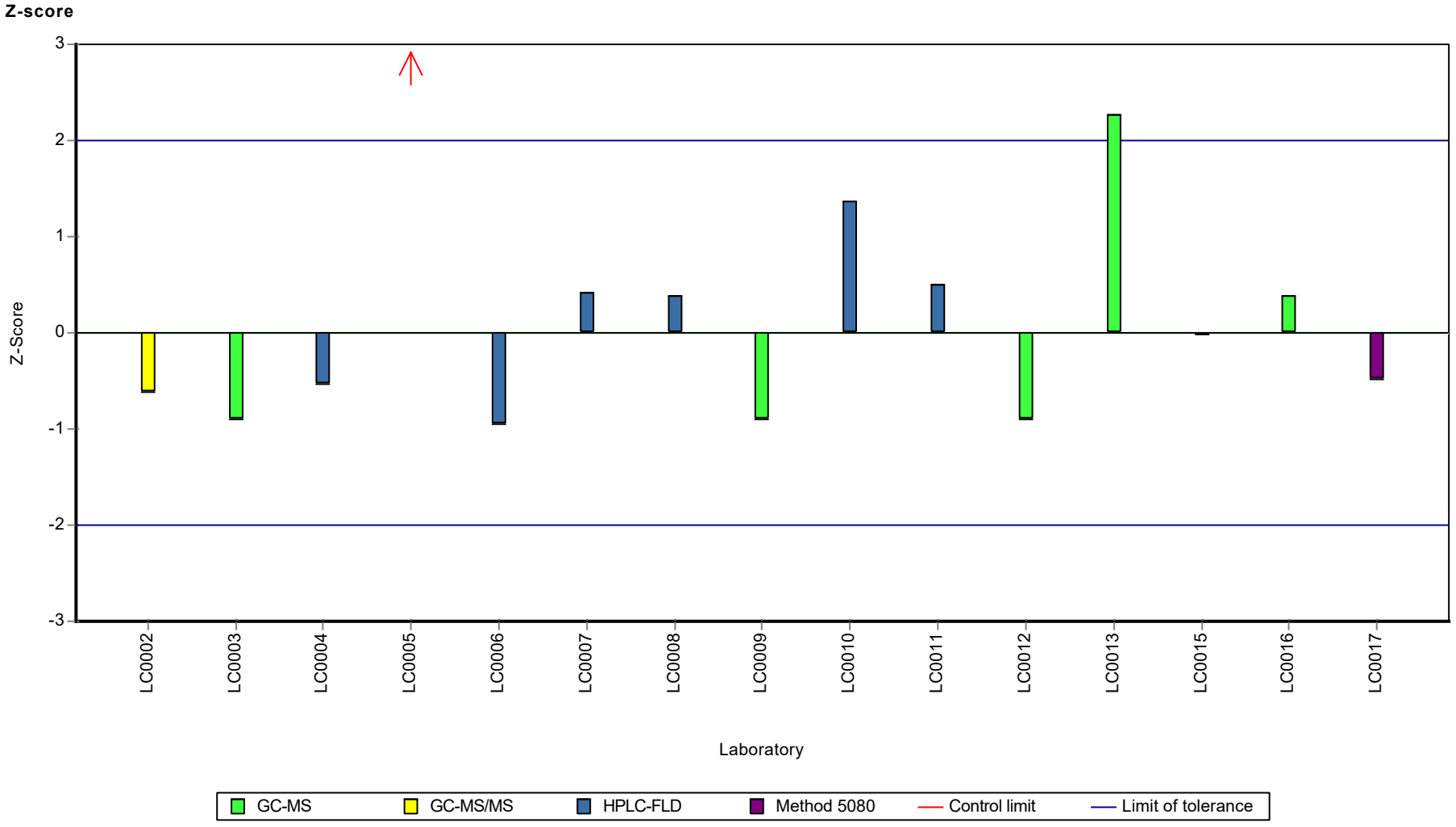
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0015
LC0016
LC0017
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Benzo[a]pyrene

Unit	ng/l
Assigned value ± U (k=2)	83 ± 7.73
Criterion	19.9 (24 %)
Minimum - Maximum	49 - 103
Control test value ± U (k=2)	93.3 ± 26.1

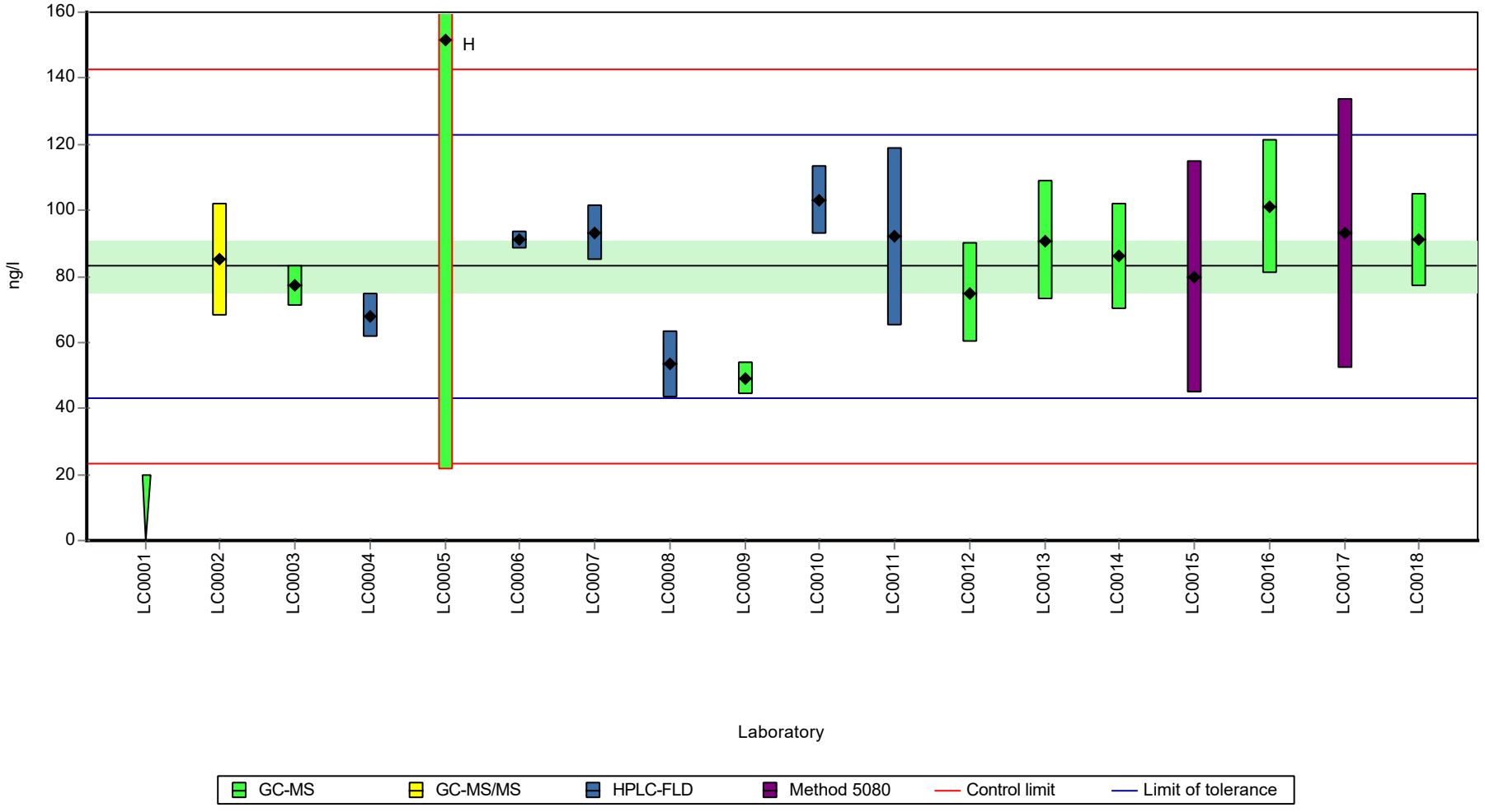
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	FN
LC0002	85.1	17	103	0.1	
LC0003	77.2	6.2	93	-0.29	
LC0004	68	6.8	81.9	-0.75	
LC0005	151.45	130.25	182	3.43	H
LC0006	91.1	2.75	110	0.41	
LC0007	93.2	8.26	112	0.51	
LC0008	53.3	10	64.2	-1.49	
LC0009	49	4.9	59	-1.71	
LC0010	103	10.3	124	1	
LC0011	91.92	27.03	111	0.45	
LC0012	75	15	90.3	-0.4	
LC0013	90.7	18.1	109	0.39	
LC0014	86	16	104	0.15	
LC0015	79.7	35.1	96	-0.17	
LC0016	101.198	20.24	122	0.91	
LC0017	92.96	40.9	112	0.5	
LC0018	91	14	110	0.4	

Characteristics of parameter

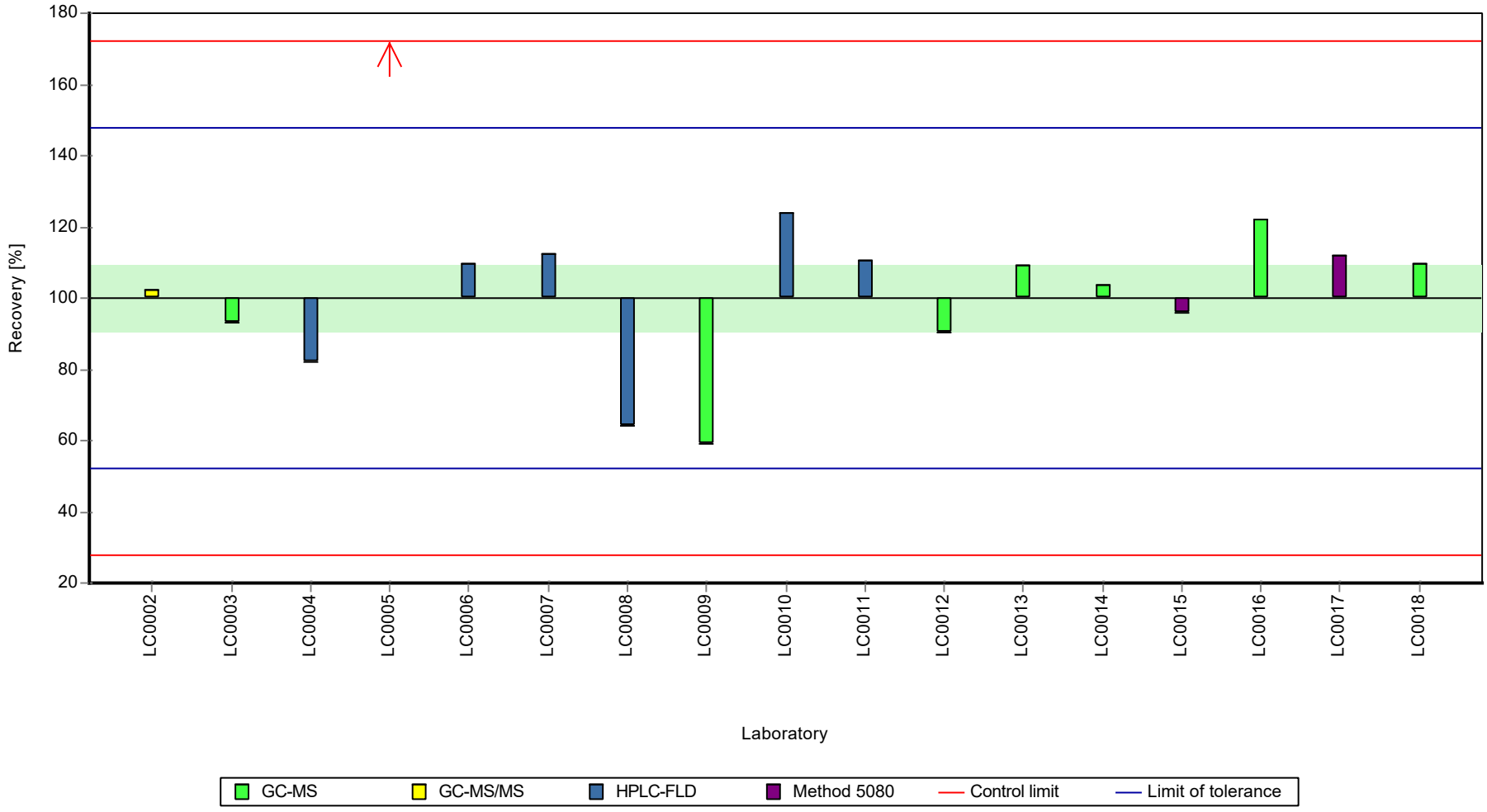
	all results	without outliers	Unit
Mean ± CI (99%)	87 ± 16.3	83 ± 11.6	ng/l
Minimum	49	49	ng/l
Maximum	151	103	ng/l
Standard deviation	22.4	15.5	ng/l
rel. standard deviation	25.7	18.6	%
n	17	16	-

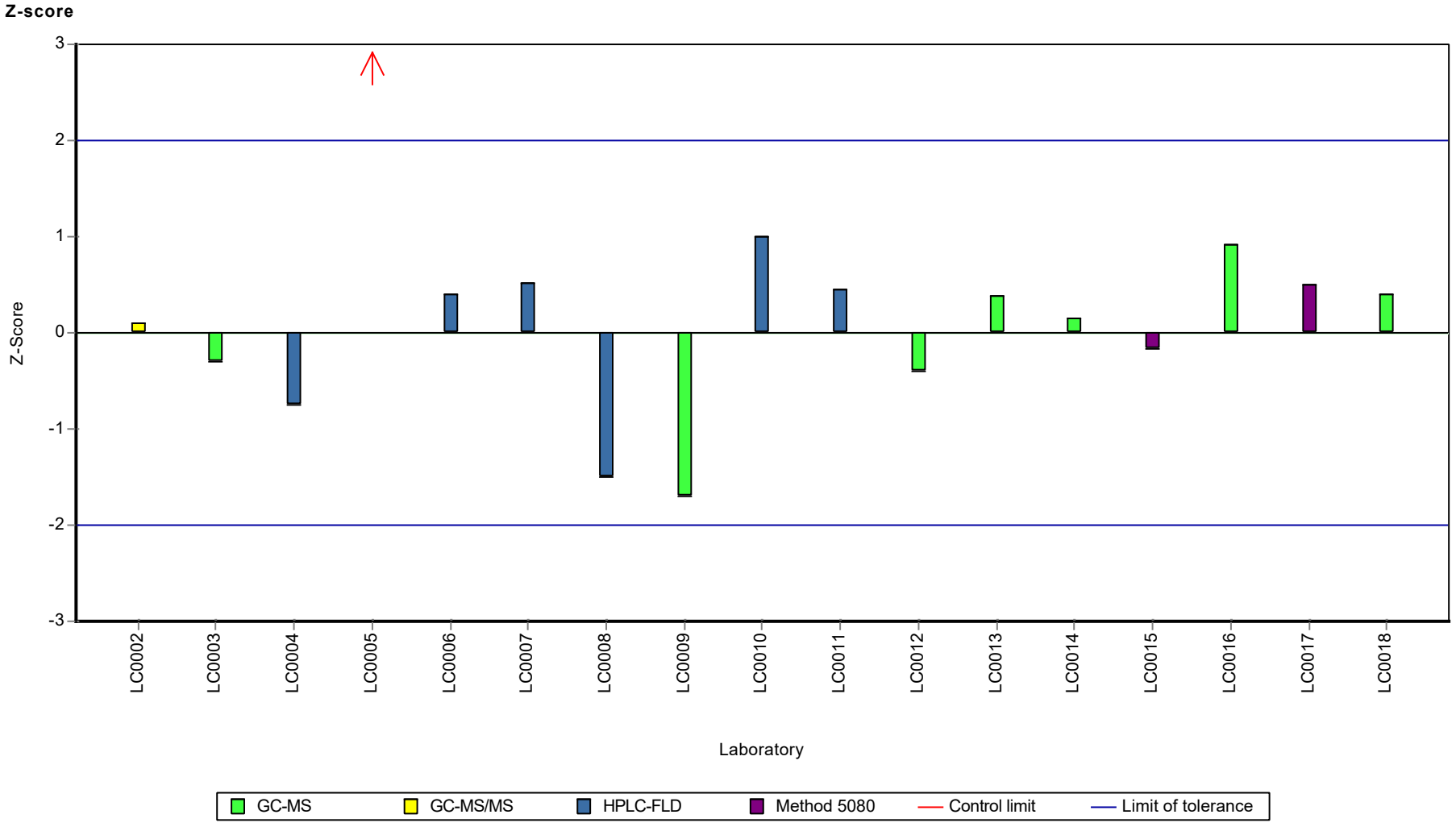
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Benzo[b]fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	15.8 ± 1.3
Criterion	2.69 (17 %)
Minimum - Maximum	11 - 22
Control test value ± U (k=2)	17.3 ± 4.5

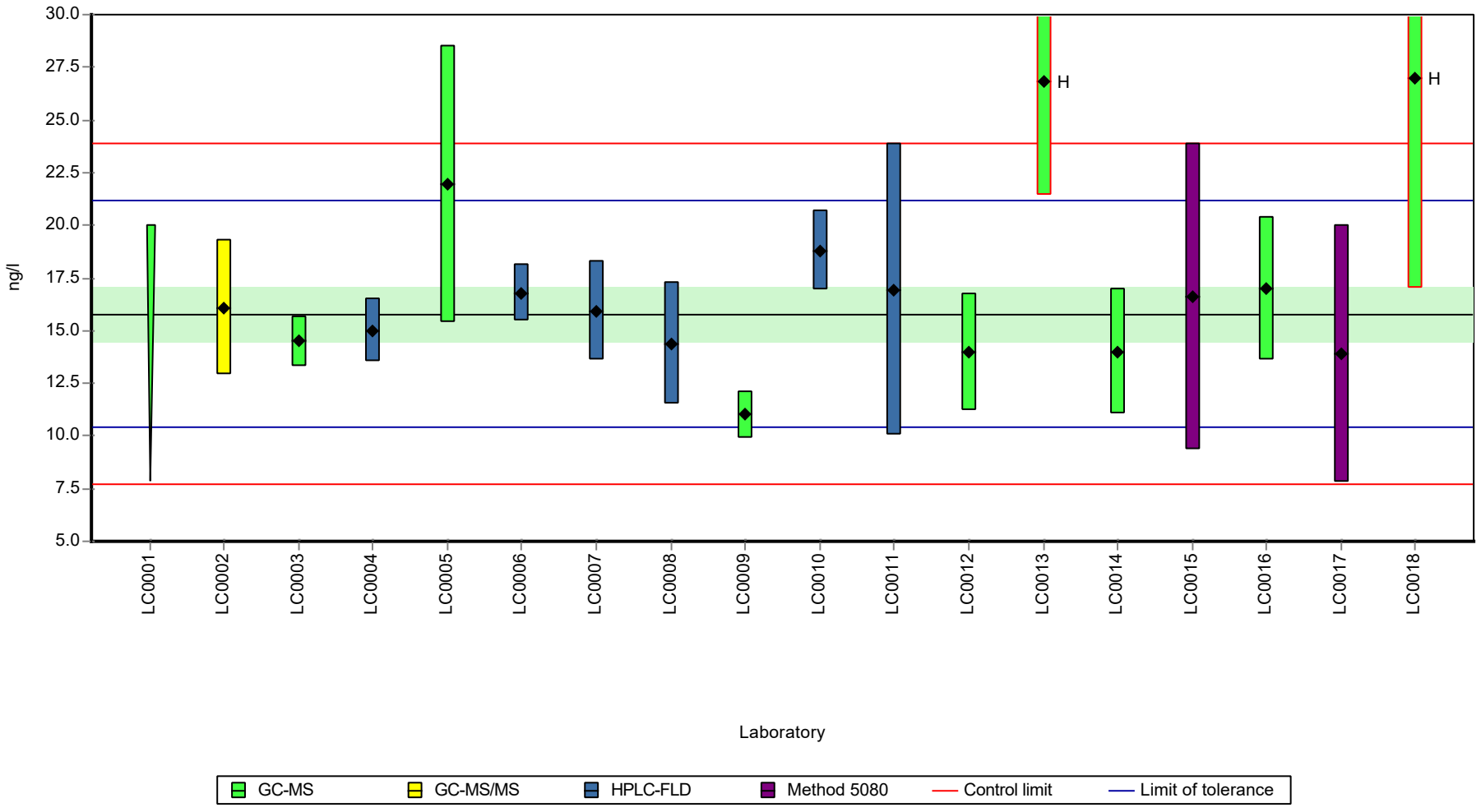
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	16.1	3.22	102	0.11	
LC0003	14.5	1.2	91.8	-0.48	
LC0004	15	1.5	95	-0.3	
LC0005	21.95	6.59	139	2.29	
LC0006	16.8	1.32	106	0.38	
LC0007	15.95	2.36	101	0.06	
LC0008	14.4	2.9	91.2	-0.52	
LC0009	11	1.1	69.6	-1.79	
LC0010	18.8	1.9	119	1.12	
LC0011	16.95	6.93	107	0.43	
LC0012	14	2.8	88.6	-0.67	
LC0013	26.8	5.4	170	4.1	H
LC0014	14	3	88.6	-0.67	
LC0015	16.6	7.3	105	0.3	
LC0016	16.985	3.397	108	0.44	
LC0017	13.88	6.11	87.9	-0.71	
LC0018	27	10	171	4.17	H

Characteristics of parameter

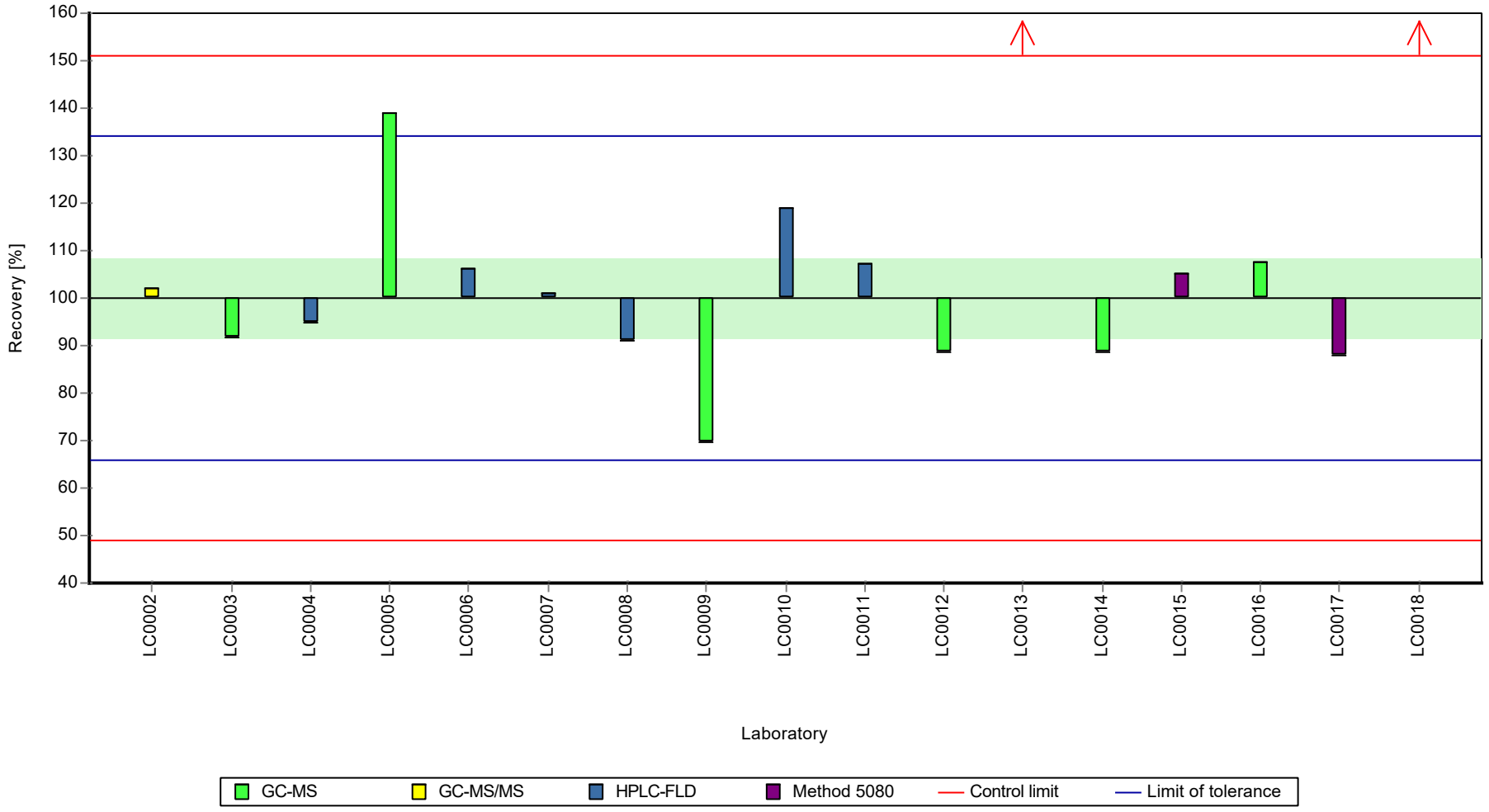
	all results	without outliers	Unit
Mean ± Cl (99%)	17.1 ± 3.18	15.8 ± 1.95	ng/l
Minimum	11	11	ng/l
Maximum	27	22	ng/l
Standard deviation	4.38	2.52	ng/l
rel. standard deviation	25.6	15.9	%
n	17	15	-

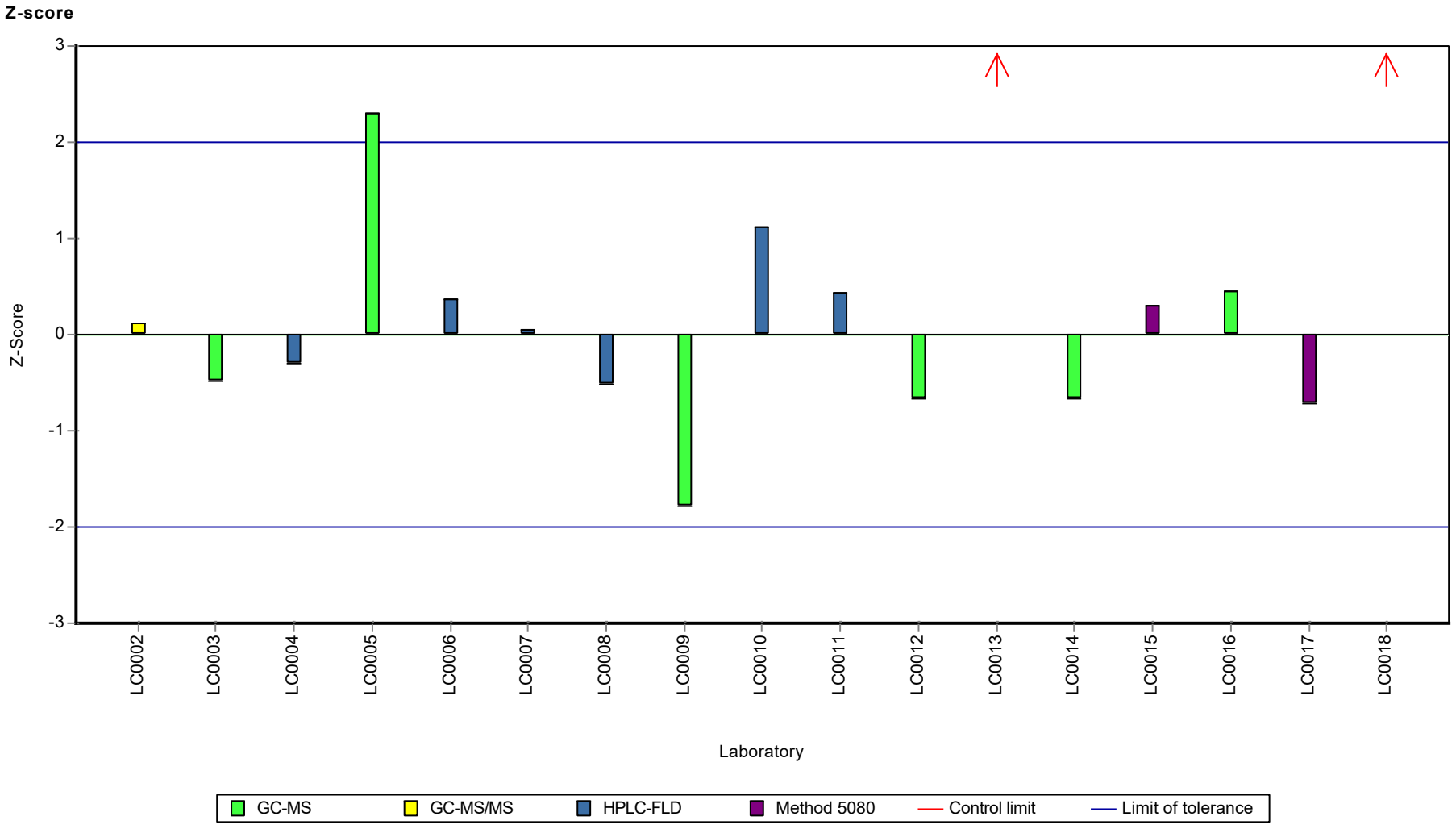
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Benzo[b]fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	107 ± 7.93
Criterion	18.2 (17 %)
Minimum - Maximum	71.1 - 131
Control test value ± U (k=2)	117 ± 30.5

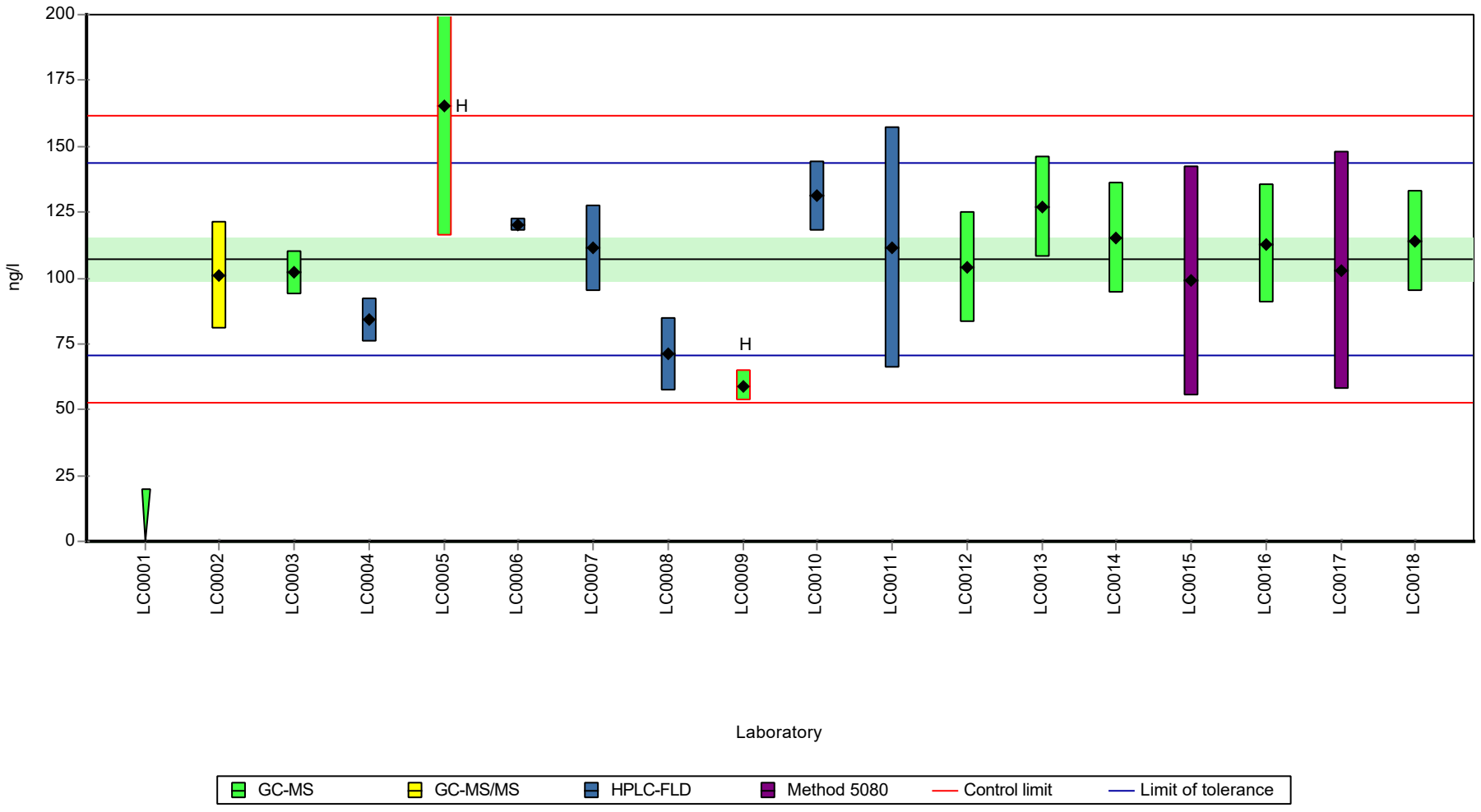
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	FN
LC0002	101	20.2	94.3	-0.34	
LC0003	102	8.2	95.2	-0.28	
LC0004	84	8.4	78.4	-1.27	
LC0005	165.6	49.68	155	3.21	H
LC0006	120	2.65	112	0.71	
LC0007	111.2	16.48	104	0.23	
LC0008	71.1	14	66.4	-1.98	
LC0009	59	5.9	55.1	-2.64	H
LC0010	131	13.1	122	1.31	
LC0011	111.47	45.54	104	0.24	
LC0012	104	20.8	97.1	-0.17	
LC0013	127	19	119	1.09	
LC0014	115	21	107	0.43	
LC0015	99	43.6	92.4	-0.45	
LC0016	112.959	22.592	105	0.32	
LC0017	102.66	45.17	95.9	-0.24	
LC0018	114	19	106	0.38	

Characteristics of parameter

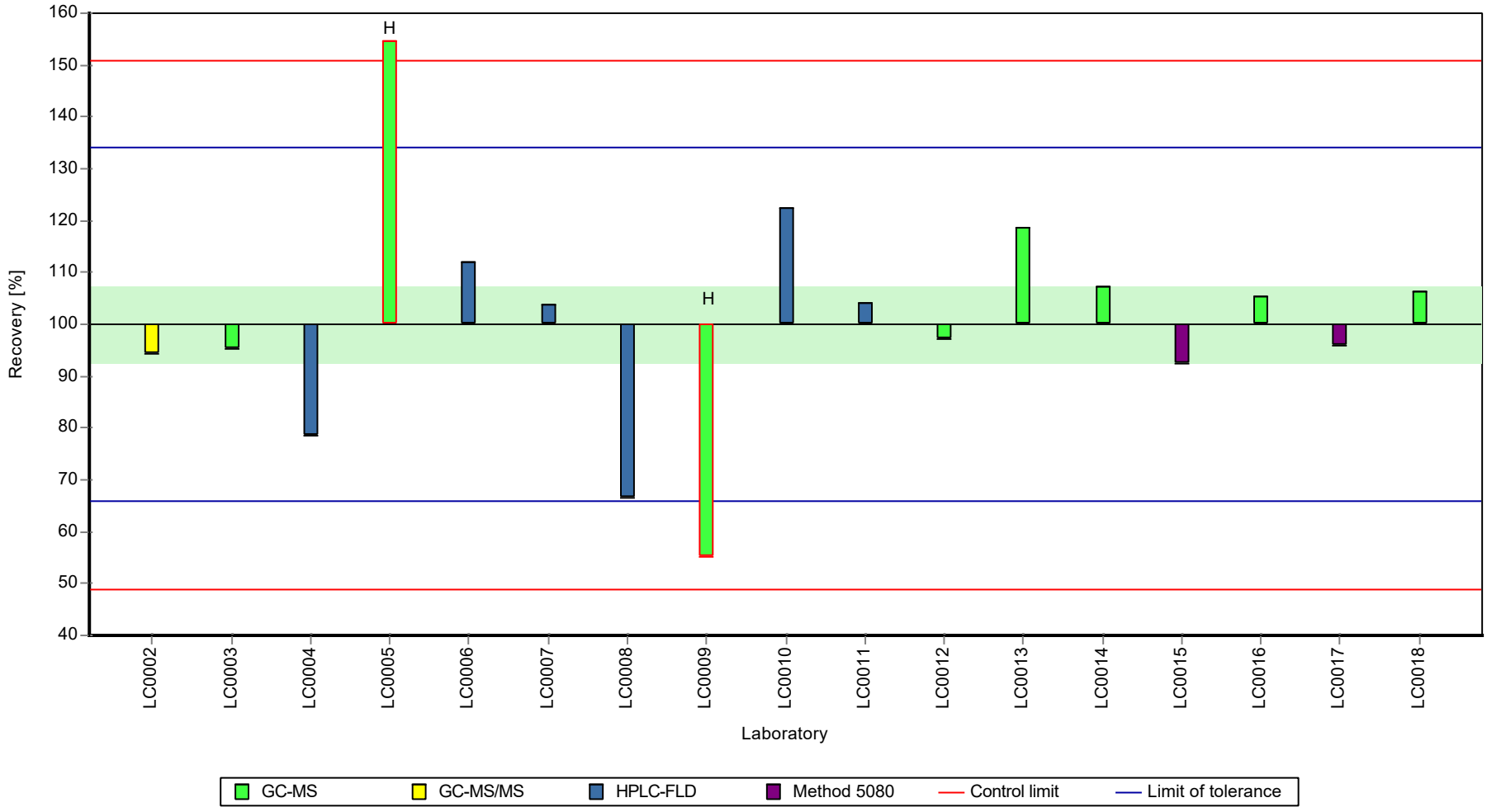
	all results	without outliers	Unit
Mean ± CI (99%)	108 ± 17.3	107 ± 11.9	ng/l
Minimum	59	71.1	ng/l
Maximum	166	131	ng/l
Standard deviation	23.8	15.4	ng/l
rel. standard deviation	22.1	14.3	%
n	17	15	-

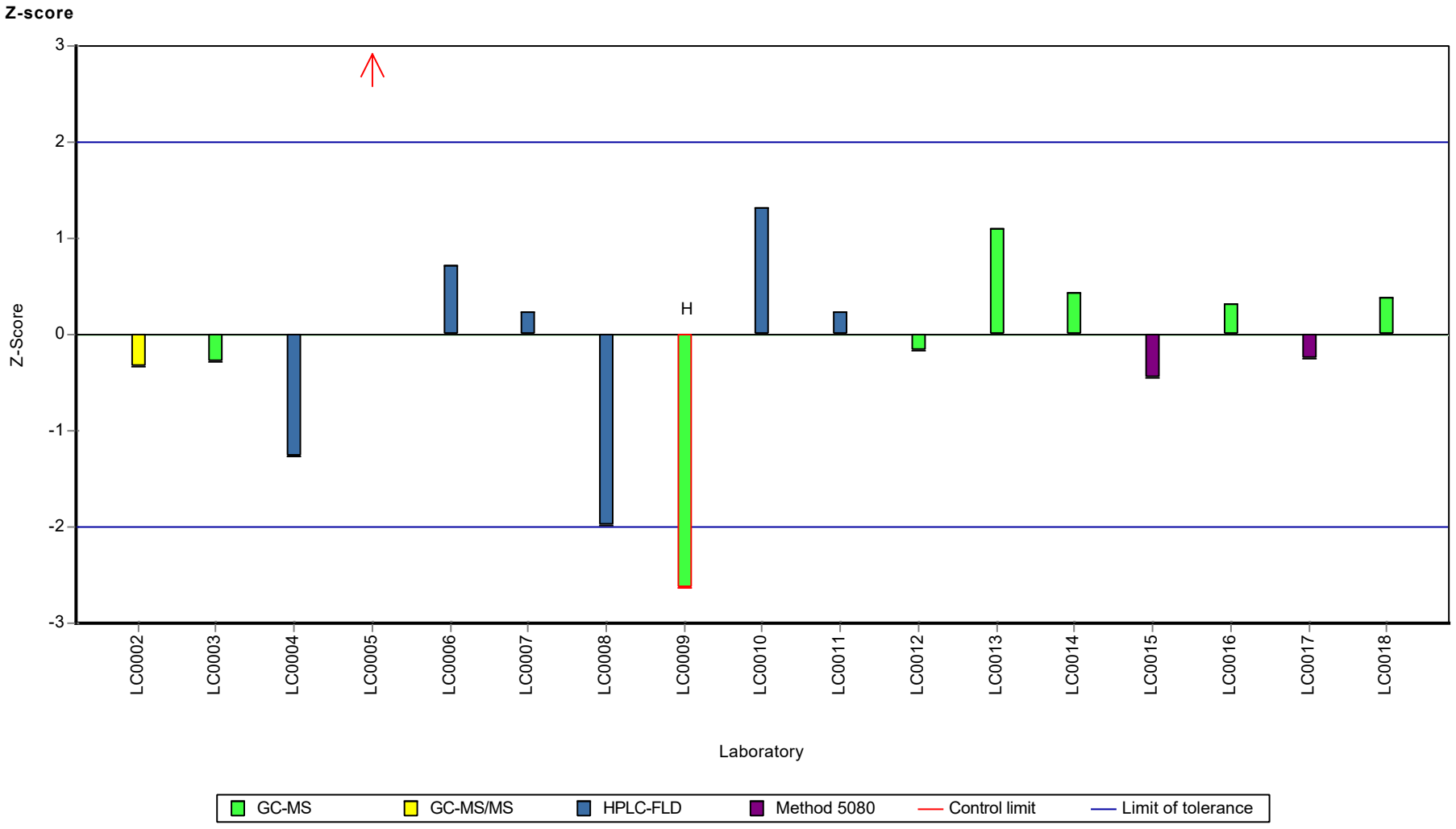
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
H
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Benzo[g,h,i]perylene

Unit	ng/l
Assigned value ± U (k=2)	11.8 ± 1.02
Criterion	3.78 (32 %)
Minimum - Maximum	9 - 15.5
Control test value ± U (k=2)	13.1 ± 4.18

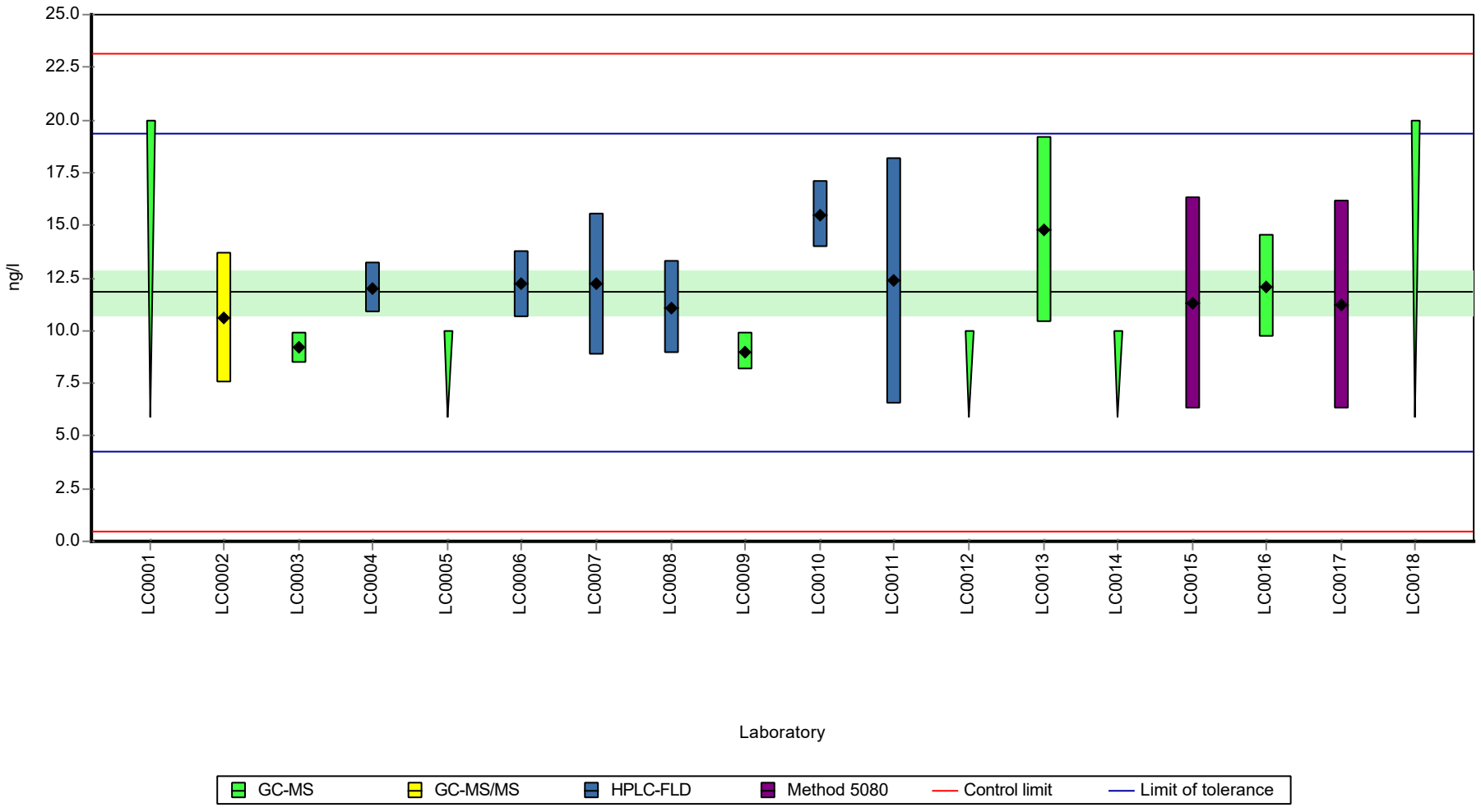
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	10.6	3.09	89.7	-0.32	
LC0003	9.18	0.73	77.7	-0.7	
LC0004	12	1.2	102	0.05	
LC0005	< 10 (LOQ)	-	-	-	
LC0006	12.2	1.61	103	0.1	
LC0007	12.2	3.37	103	0.1	
LC0008	11.1	2.2	94	-0.19	
LC0009	9	0.9	76.2	-0.74	
LC0010	15.5	1.6	131	0.97	
LC0011	12.35	5.84	105	0.14	
LC0012	< 10 (LOQ)	-	-	-	
LC0013	14.8	4.4	125	0.79	
LC0014	< 10 (LOQ)	-	-	-	
LC0015	11.3	5	95.7	-0.14	
LC0016	12.099	2.42	102	0.08	
LC0017	11.24	4.95	95.1	-0.15	
LC0018	< 20 (LOQ)	-	-	-	

Characteristics of parameter

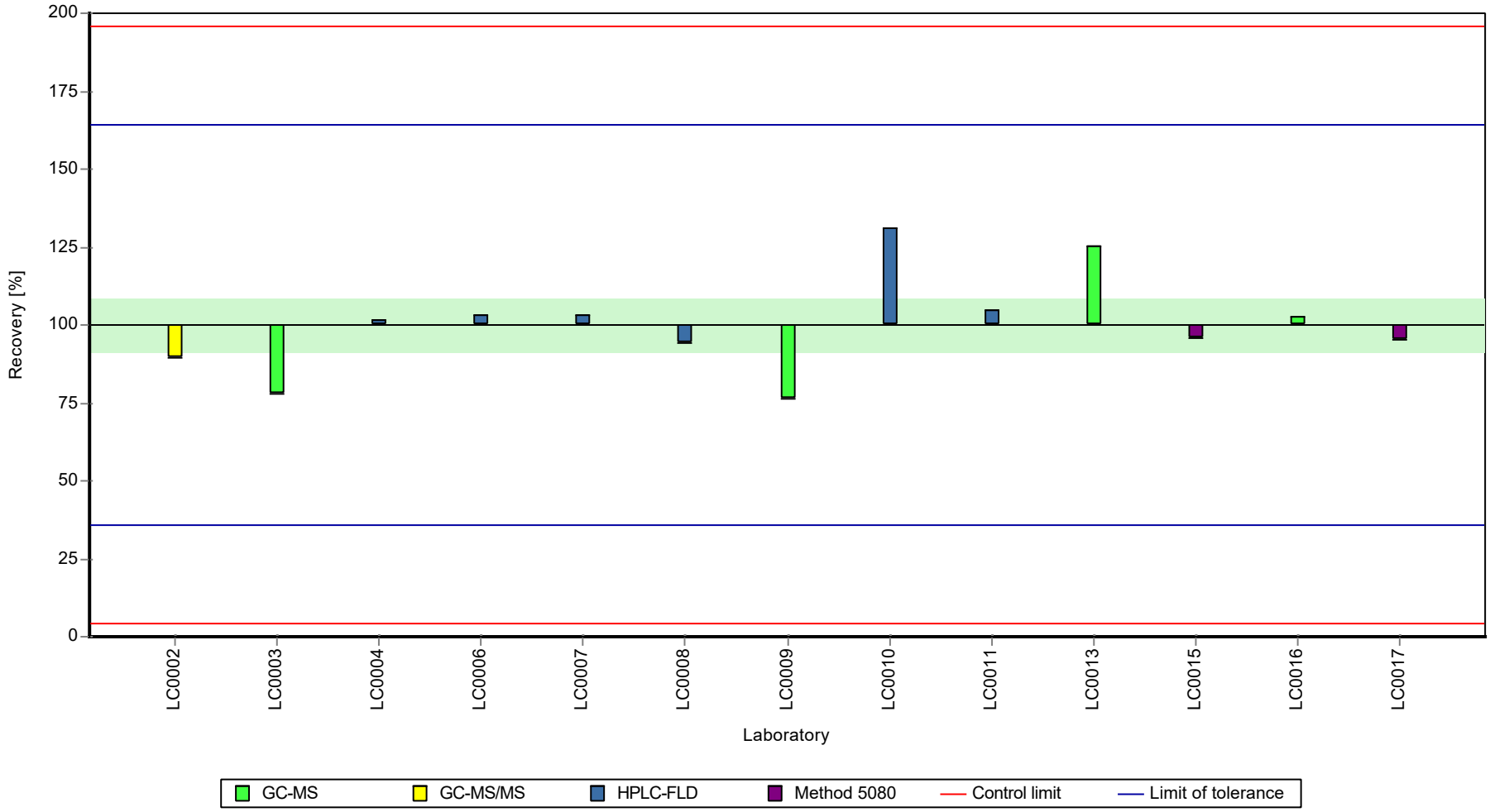
	all results	without outliers	Unit
Mean ± CI (99%)	11.8 ± 1.53	11.8 ± 1.53	ng/l
Minimum	9	9	ng/l
Maximum	15.5	15.5	ng/l
Standard deviation	1.84	1.84	ng/l
rel. standard deviation	15.6	15.6	%
n	13	13	-

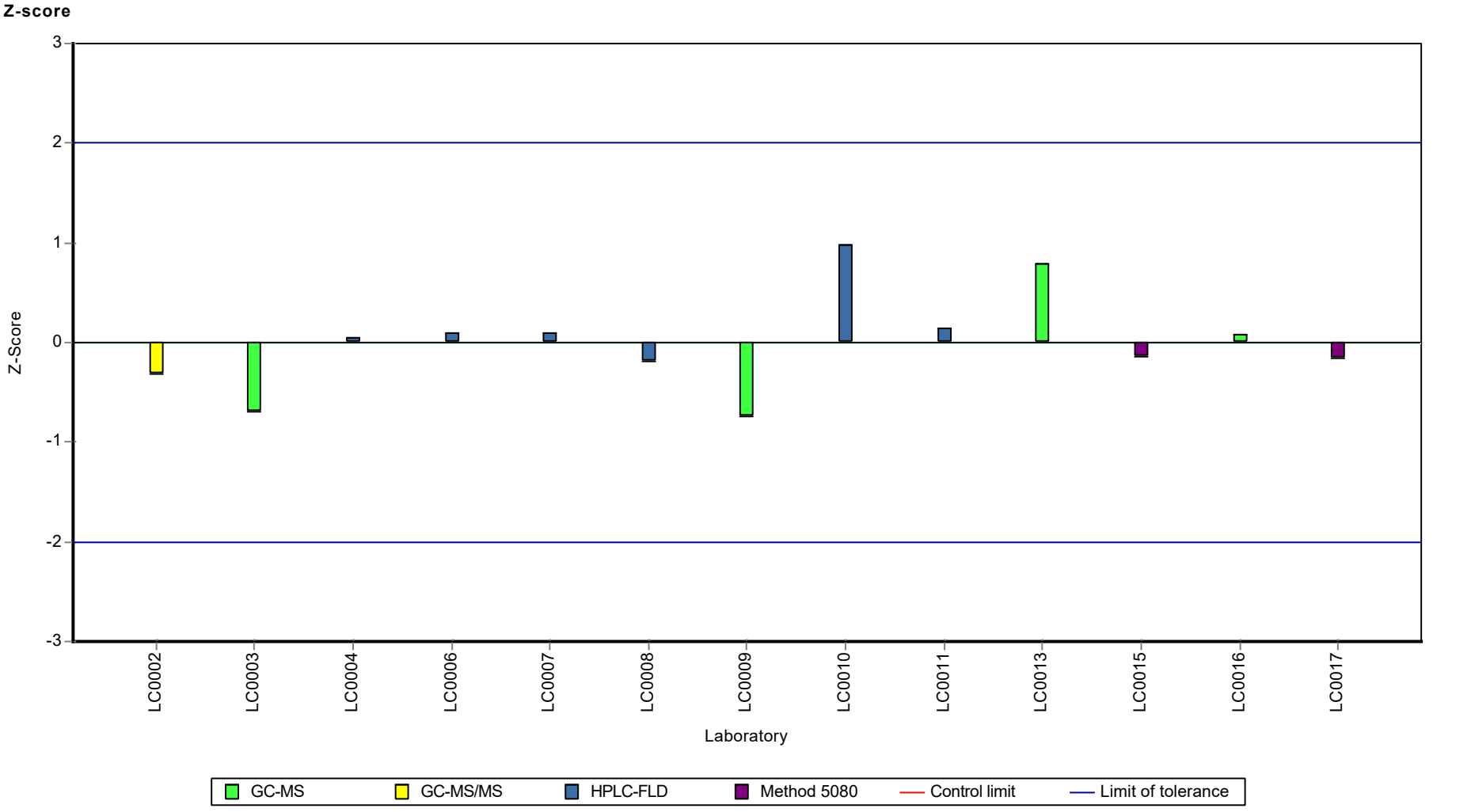
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0013
LC0015
LC0016
LC0017
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Benzo[g,h,i]perylene

Unit	ng/l
Assigned value ± U (k=2)	97.2 ± 8.89
Criterion	31.1 (32 %)
Minimum - Maximum	59 - 124
Control test value ± U (k=2)	110 ± 35.1

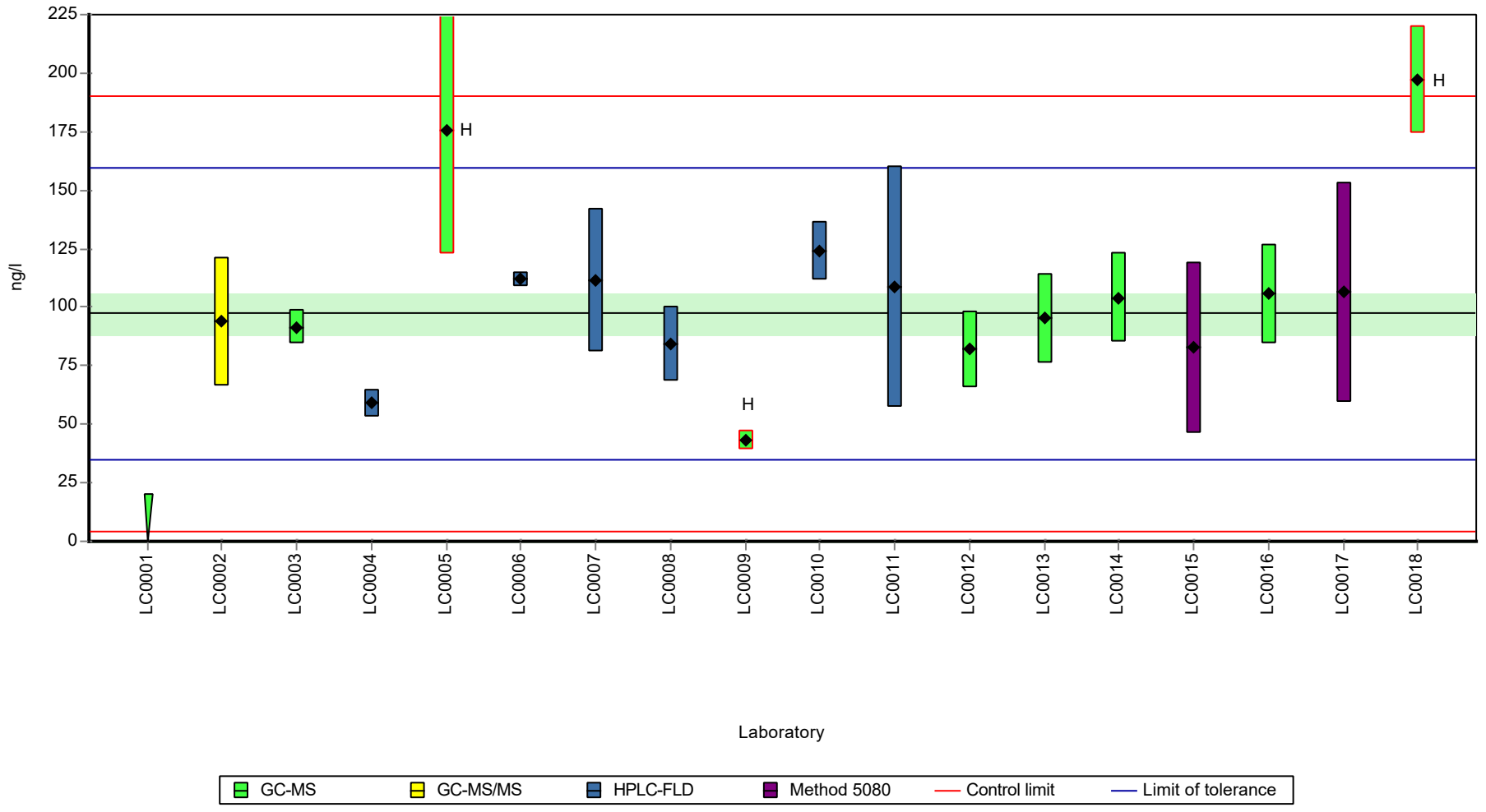
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	FN
LC0002	93.7	27.2	96.4	-0.11	
LC0003	91.3	7.3	93.9	-0.19	
LC0004	59	5.9	60.7	-1.23	
LC0005	175.41	52.62	180	2.52	H
LC0006	112	3.11	115	0.48	
LC0007	111.5	30.84	115	0.46	
LC0008	84.4	16	86.8	-0.41	
LC0009	43	4.3	44.2	-1.74	H
LC0010	124	12.4	128	0.86	
LC0011	108.95	51.49	112	0.38	
LC0012	82	16.4	84.4	-0.49	
LC0013	95.1	19	97.9	-0.07	
LC0014	104	19	107	0.22	
LC0015	82.7	36.4	85.1	-0.47	
LC0016	105.639	21.128	109	0.27	
LC0017	106.25	46.75	109	0.29	
LC0018	197	23	203	3.21	H

Characteristics of parameter

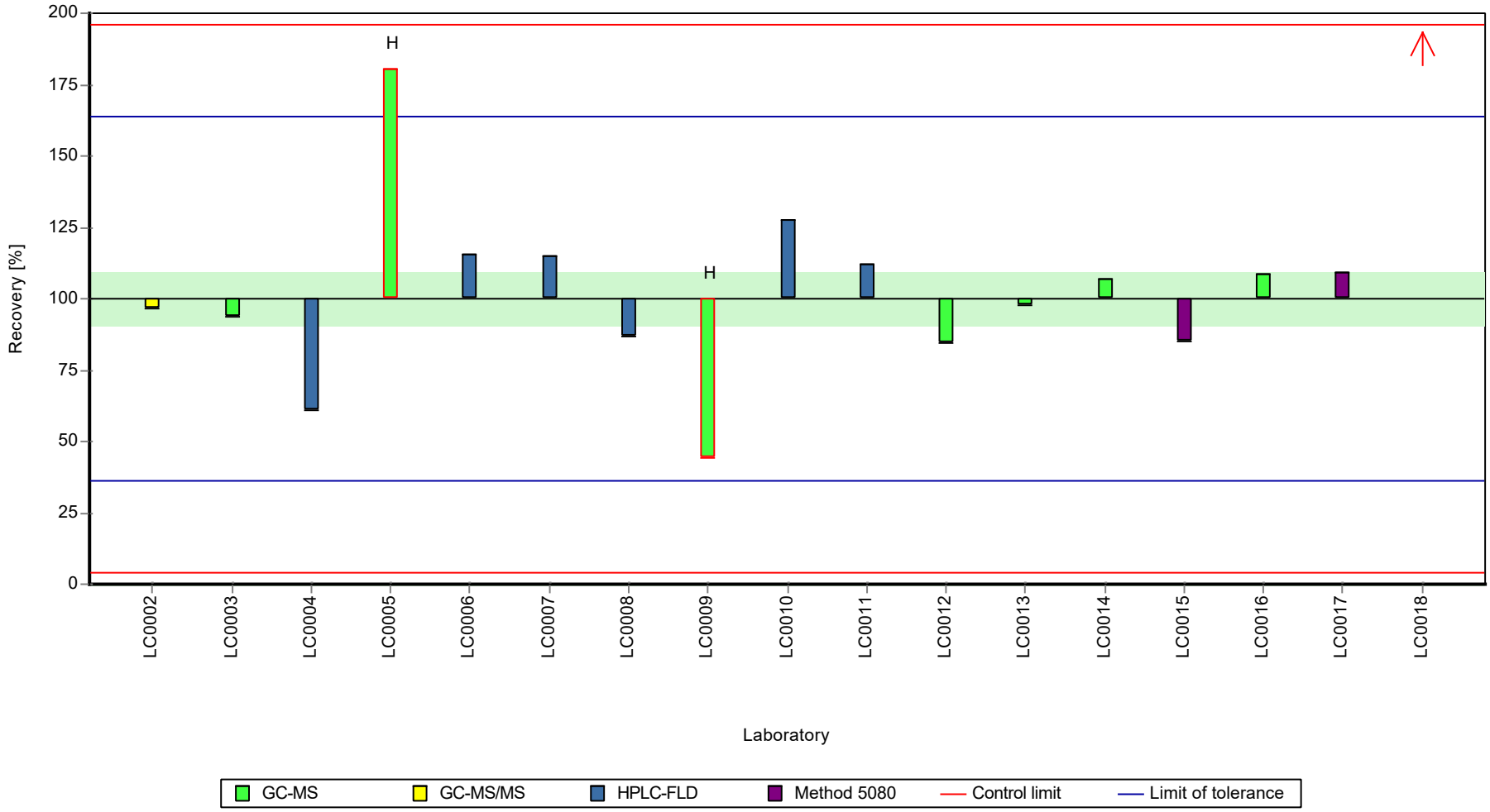
	all results	without outliers	Unit
Mean ± CI (99%)	104 ± 26.8	97.2 ± 13.3	ng/l
Minimum	43	59	ng/l
Maximum	197	124	ng/l
Standard deviation	36.8	16.6	ng/l
rel. standard deviation	35.3	17.1	%
n	17	14	-

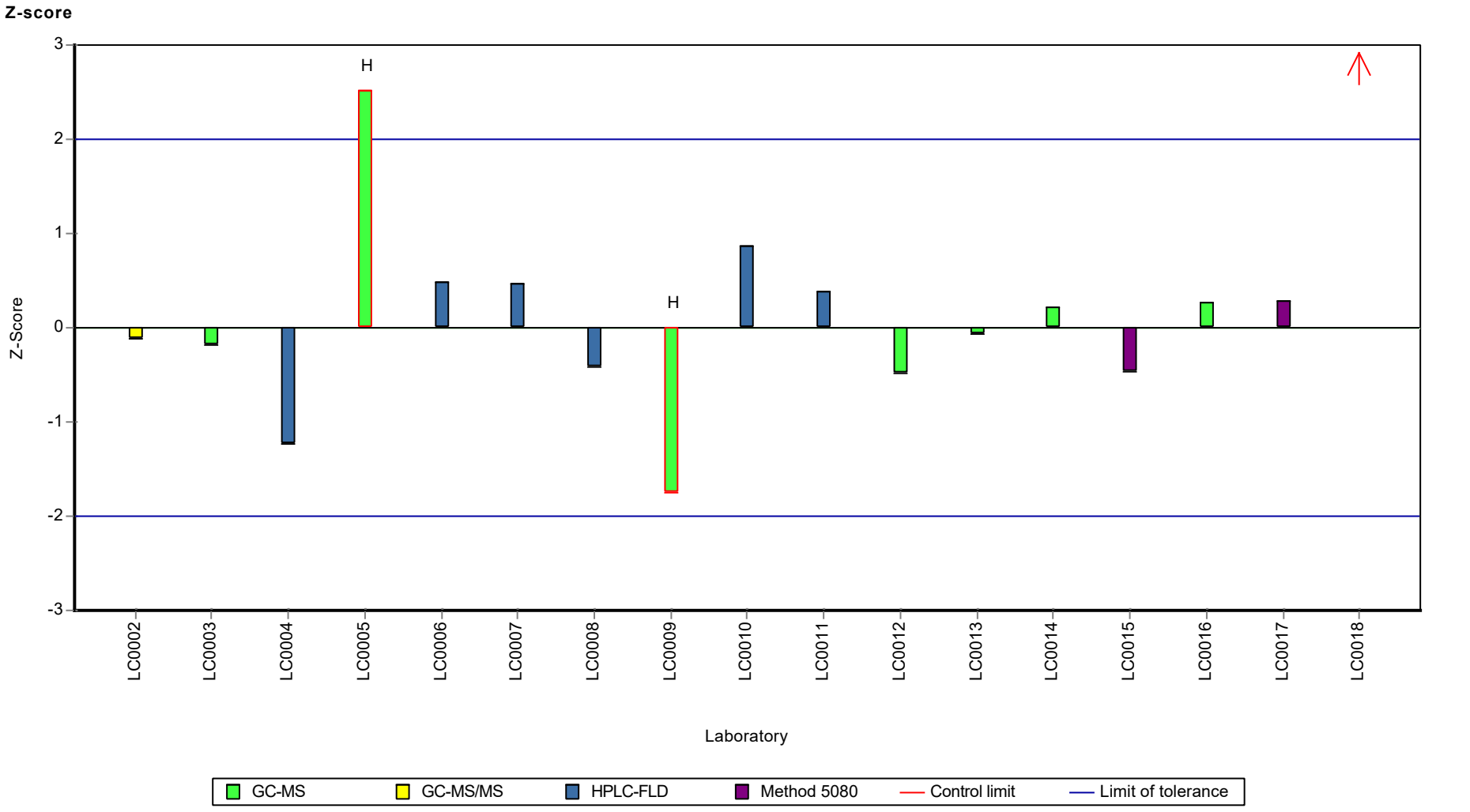
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
H
H
LC0002
LC0003
LC0004
LC0005
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LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Benzo[k]fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	17.1 ± 1.7
Criterion	4.45 (26 %)
Minimum - Maximum	11 - 25.1
Control test value ± U (k=2)	18.4 ± 5.17

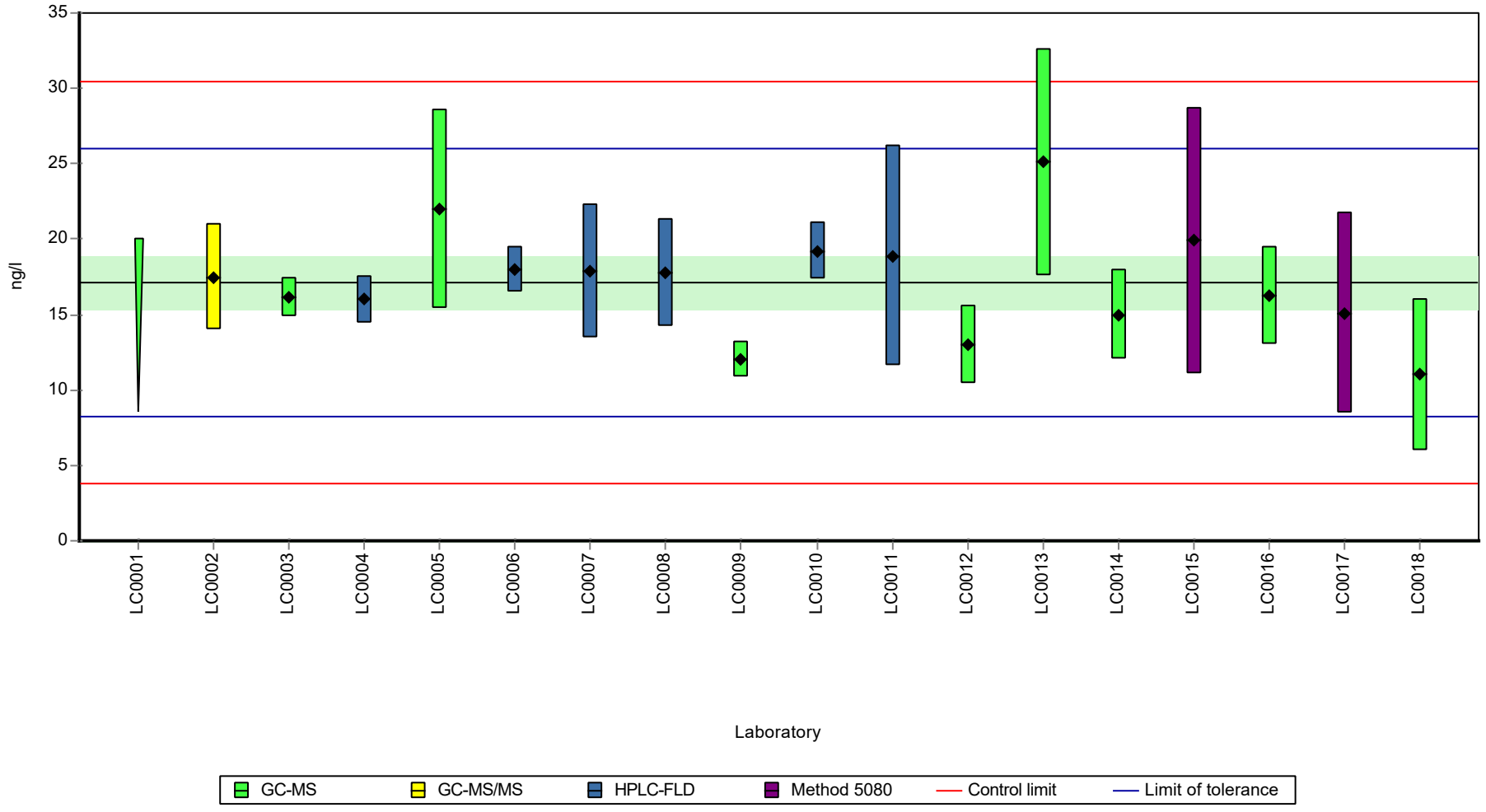
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	17.5	3.51	102	0.09	
LC0003	16.1	1.3	94.1	-0.23	
LC0004	16	1.6	93.5	-0.25	
LC0005	22.05	6.61	129	1.11	
LC0006	18	1.5	105	0.2	
LC0007	17.9	4.45	105	0.18	
LC0008	17.8	3.6	104	0.16	
LC0009	12	1.2	70.2	-1.15	
LC0010	19.2	1.9	112	0.47	
LC0011	18.9	7.28	110	0.4	
LC0012	13	2.6	76	-0.92	
LC0013	25.1	7.5	147	1.8	
LC0014	15	3	87.7	-0.47	
LC0015	19.9	8.8	116	0.63	
LC0016	16.259	3.252	95	-0.19	
LC0017	15.09	6.64	88.2	-0.45	
LC0018	11	5	64.3	-1.37	

Characteristics of parameter

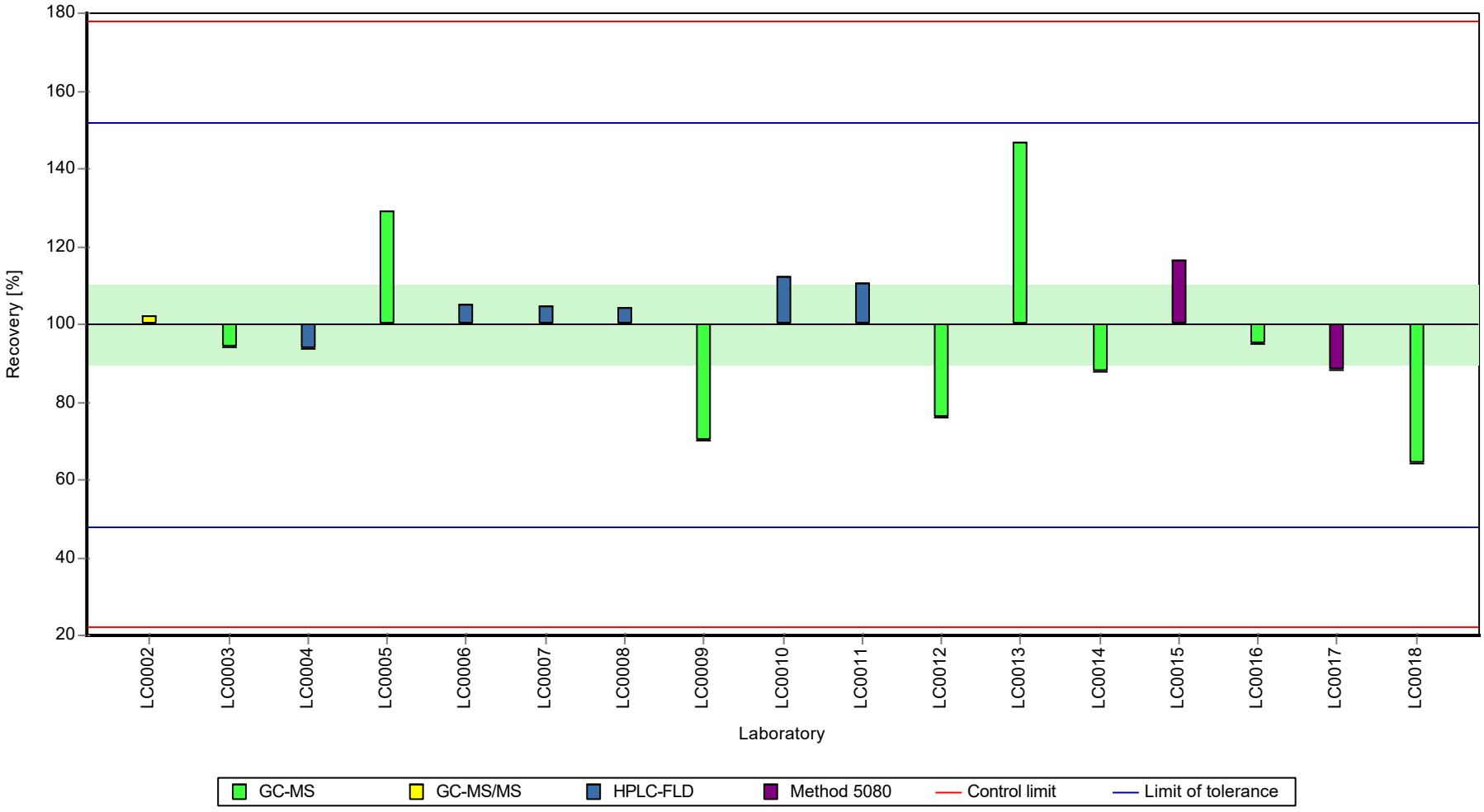
	all results	without outliers	Unit
Mean ± Cl (99%)	17.1 ± 2.56	17.1 ± 2.56	ng/l
Minimum	11	11	ng/l
Maximum	25.1	25.1	ng/l
Standard deviation	3.51	3.51	ng/l
rel. standard deviation	20.5	20.5	%
n	17	17	-

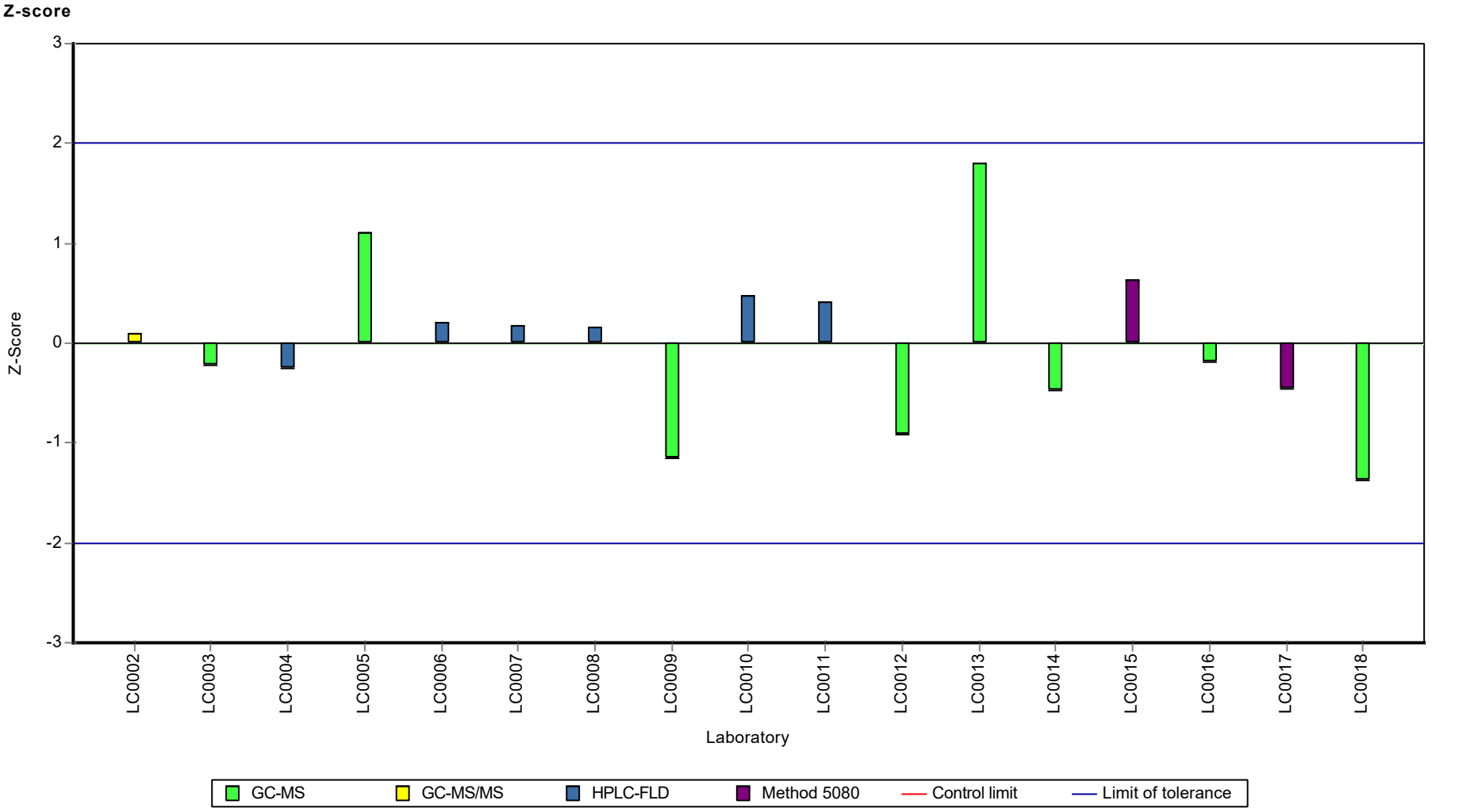
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
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LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Benzo[k]fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	74 ± 5.26
Criterion	19.2 (26 %)
Minimum - Maximum	56 - 101
Control test value ± U (k=2)	77 ± 21.6

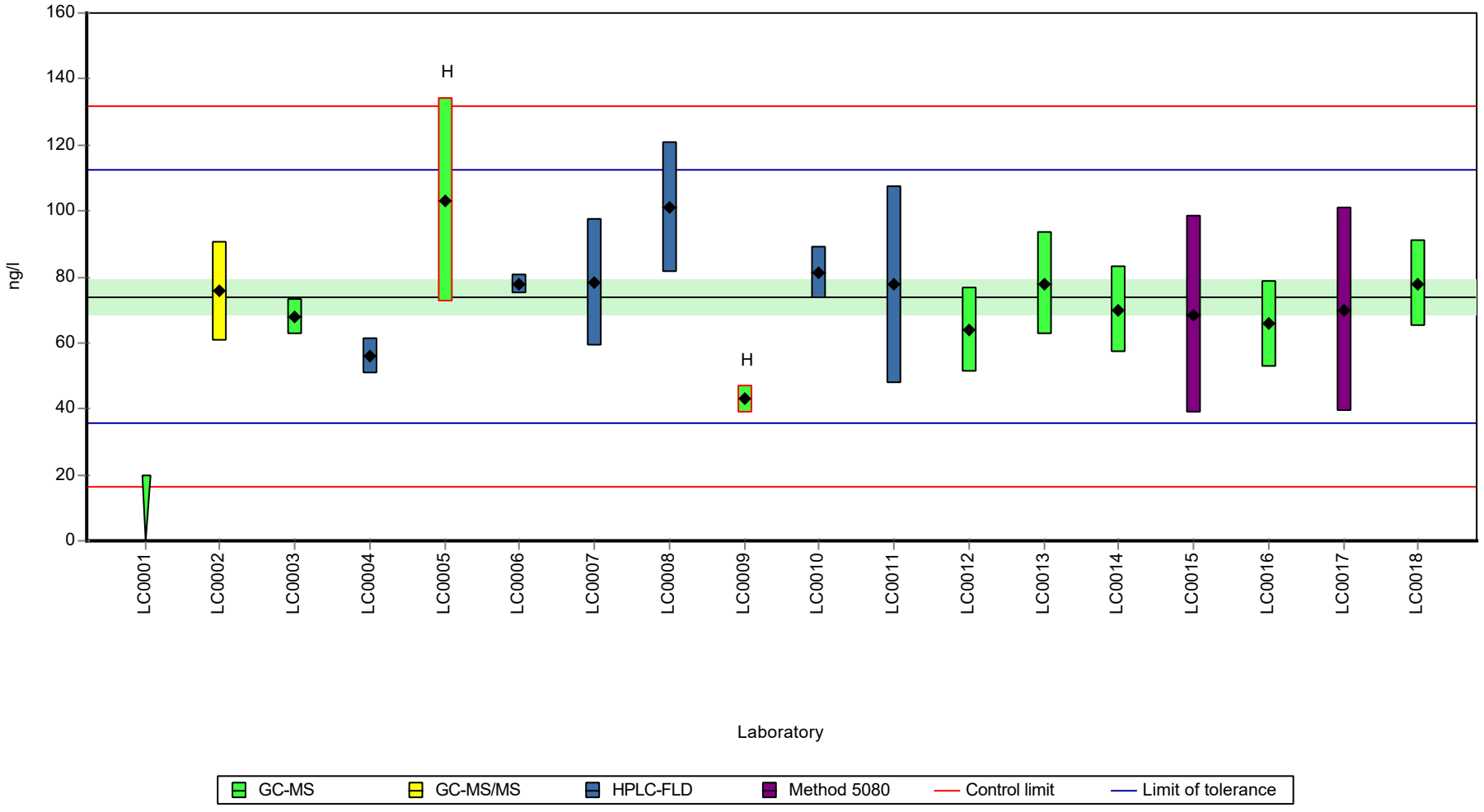
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	FN
LC0002	75.6	15.1	102	0.08	
LC0003	67.7	5.4	91.5	-0.33	
LC0004	56	5.6	75.7	-0.94	
LC0005	103.11	30.93	139	1.51	H
LC0006	78	2.97	105	0.21	
LC0007	78.3	19.46	106	0.22	
LC0008	101	20	137	1.4	
LC0009	43	4.3	58.1	-1.61	H
LC0010	81.3	8.1	110	0.38	
LC0011	77.69	29.92	105	0.19	
LC0012	64	12.8	86.5	-0.52	
LC0013	77.8	15.6	105	0.2	
LC0014	70	13	94.6	-0.21	
LC0015	68.6	30.2	92.7	-0.28	
LC0016	65.815	13.163	89	-0.42	
LC0017	70.04	30.82	94.7	-0.2	
LC0018	78	13	105	0.21	

Characteristics of parameter

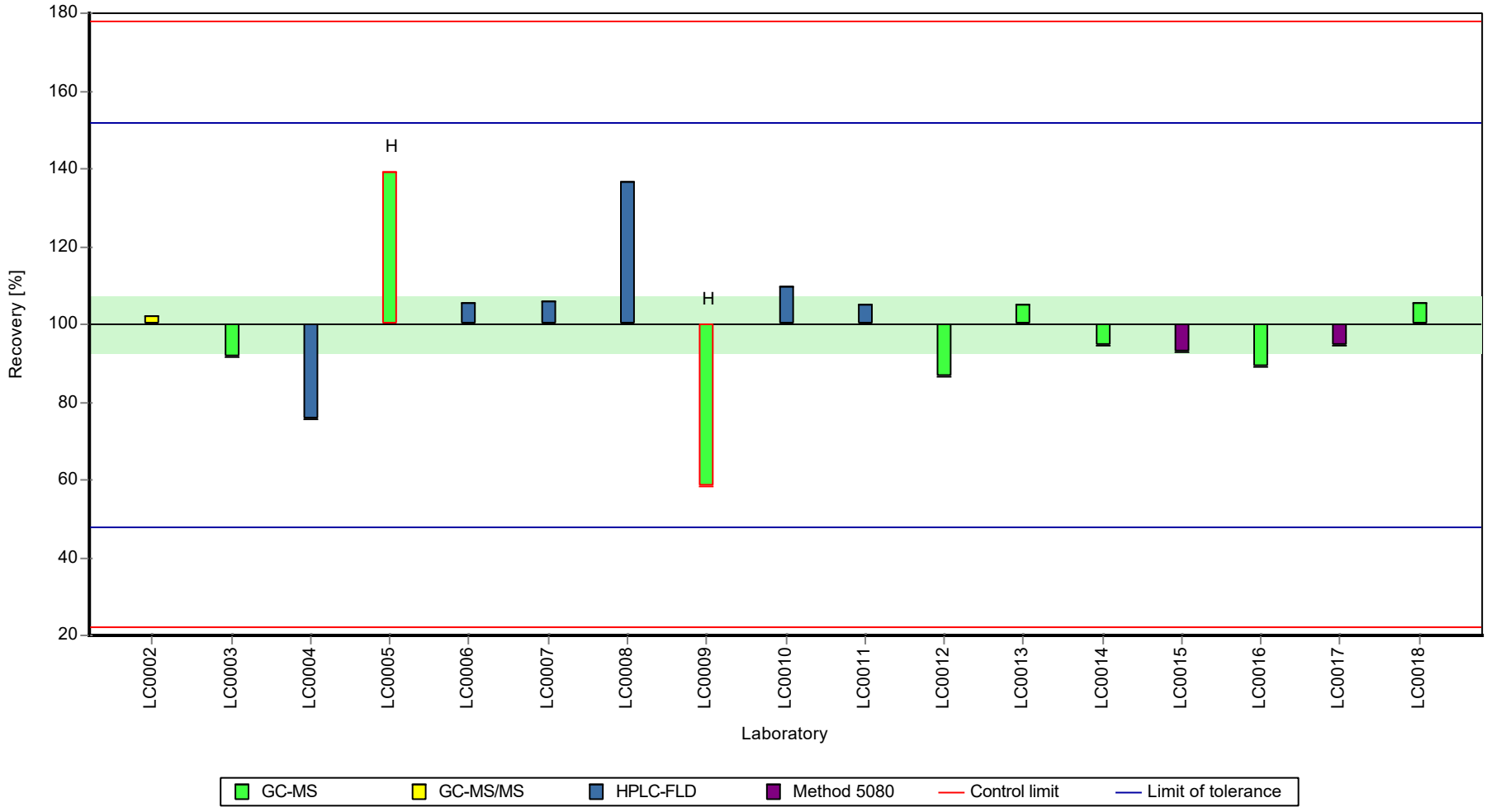
	all results	without outliers	Unit
Mean ± CI (99%)	73.9 ± 10.4	74 ± 7.9	ng/l
Minimum	43	56	ng/l
Maximum	103	101	ng/l
Standard deviation	14.3	10.2	ng/l
rel. standard deviation	19.3	13.8	%
n	17	15	-

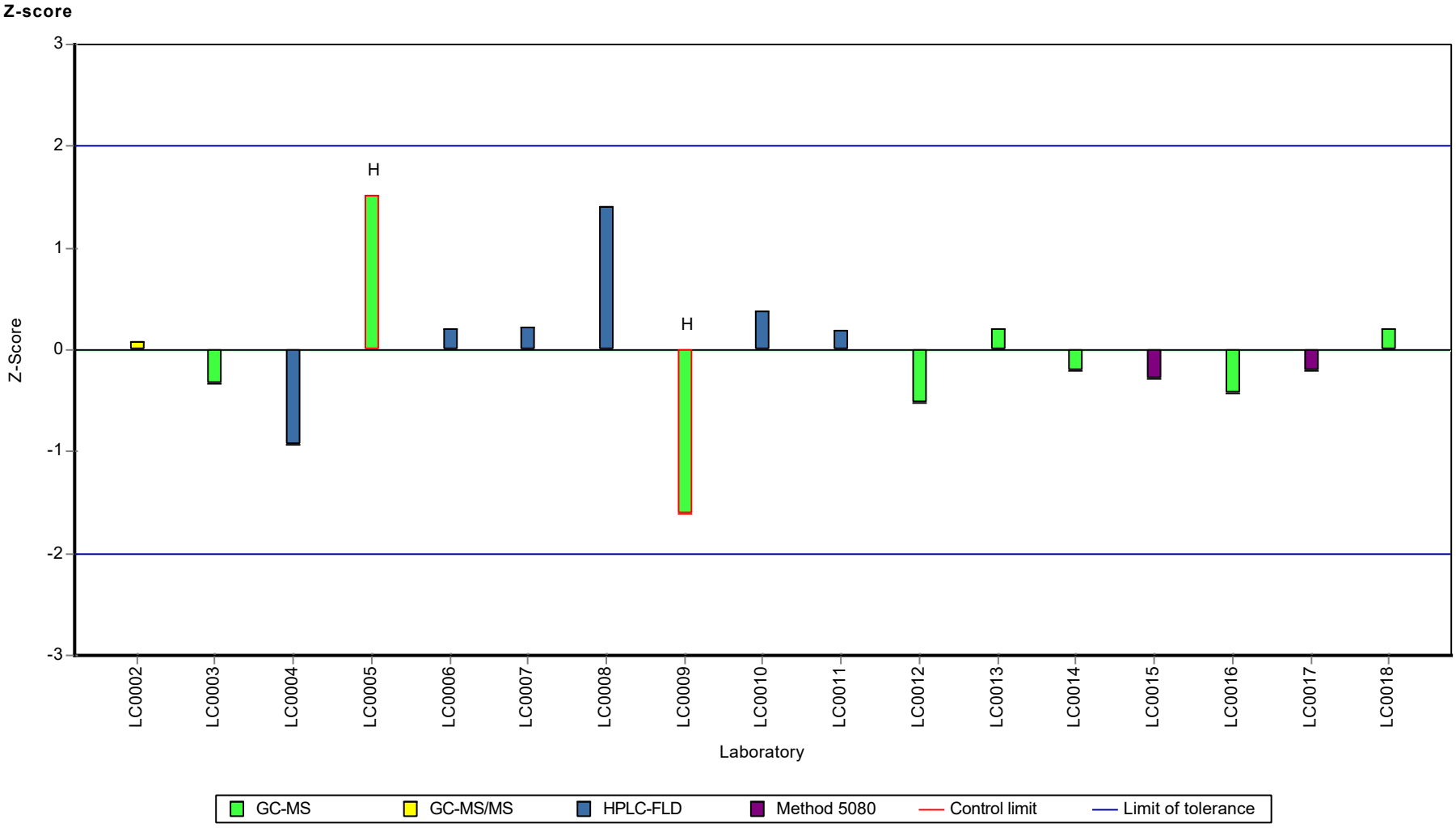
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
H
H
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Chrysene

Unit	ng/l
Assigned value ± U (k=2)	19 ± 0.871
Criterion	1.63 (8.6 %)
Minimum - Maximum	17 - 22.2
Control test value ± U (k=2)	18.9 ± 4.93

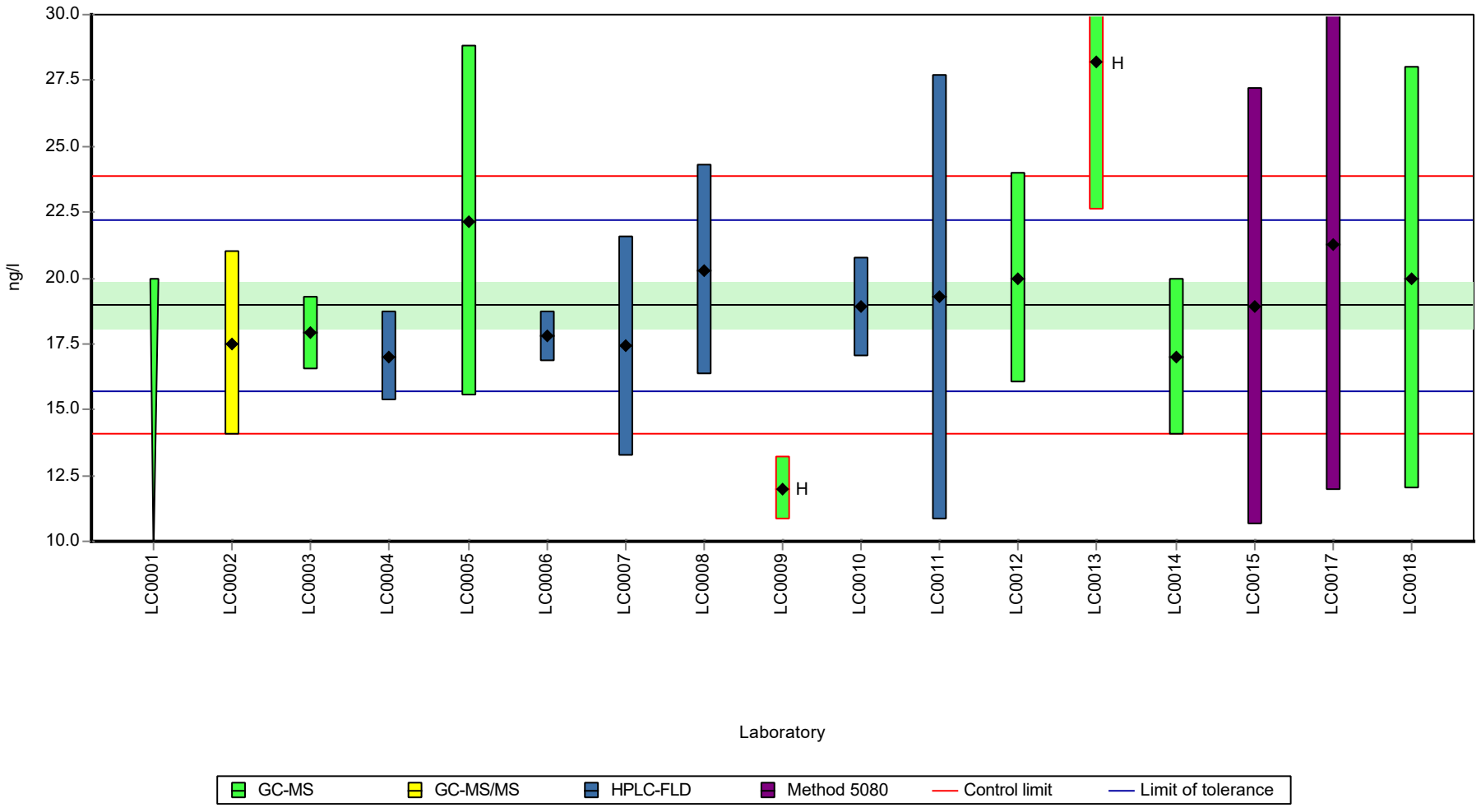
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	17.5	3.5	92.3	-0.9	
LC0003	17.9	1.4	94.4	-0.65	
LC0004	17	1.7	89.7	-1.2	
LC0005	22.16	6.65	117	1.96	
LC0006	17.8	0.96	93.9	-0.71	
LC0007	17.4	4.18	91.8	-0.96	
LC0008	20.3	4	107	0.82	
LC0009	12	1.2	63.3	-4.27	H
LC0010	18.9	1.9	99.7	-0.04	
LC0011	19.28	8.45	102	0.2	
LC0012	20	4	105	0.64	
LC0013	28.2	5.6	149	5.67	H
LC0014	17	3	89.7	-1.2	
LC0015	18.9	8.3	99.7	-0.04	
LC0016	-	-	-	-	
LC0017	21.3	9.37	112	1.44	
LC0018	20	8	105	0.64	

Characteristics of parameter

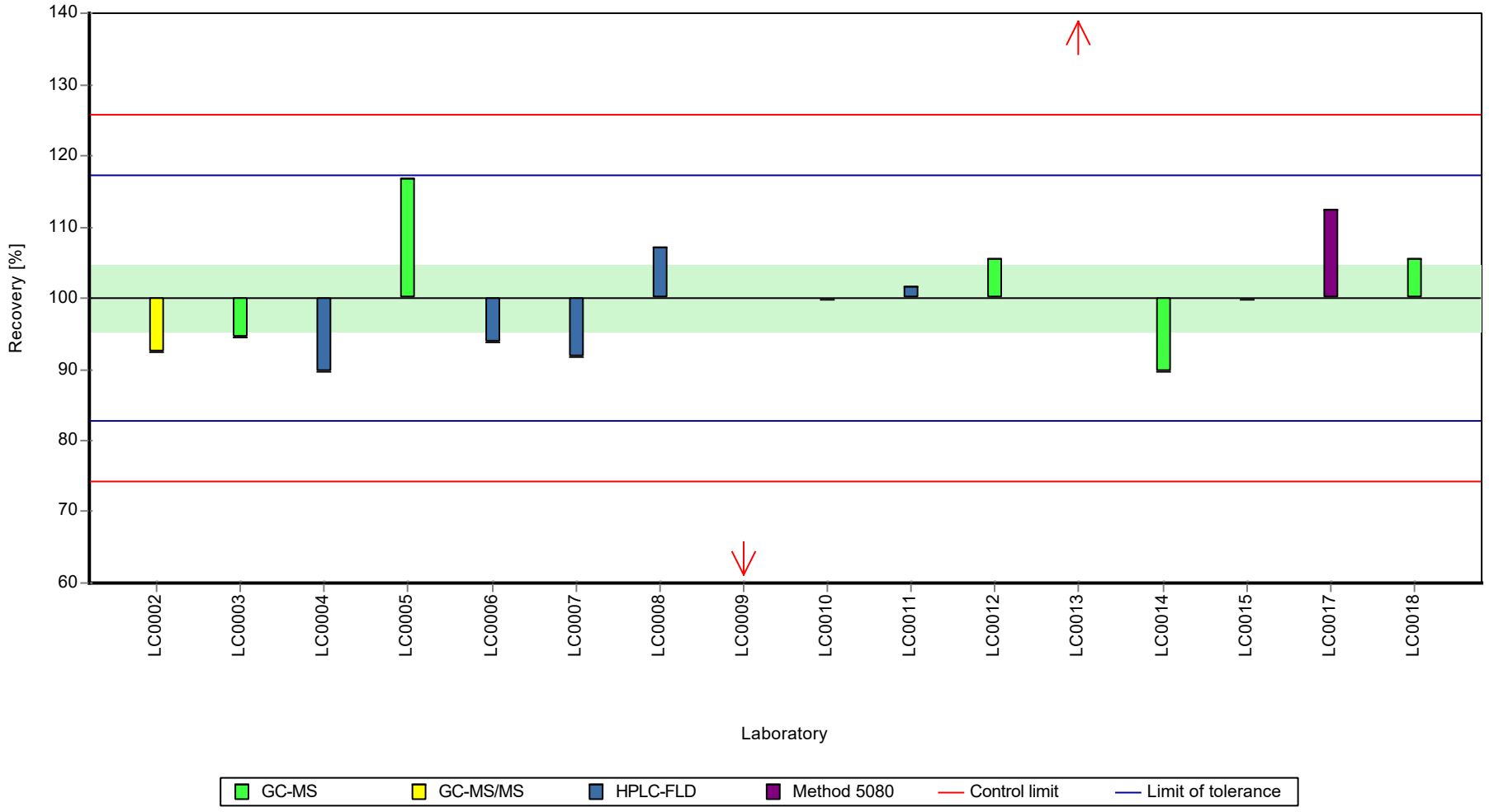
	all results	without outliers	Unit
Mean ± CI (99%)	19.1 ± 2.51	19 ± 1.31	ng/l
Minimum	12	17	ng/l
Maximum	28.2	22.2	ng/l
Standard deviation	3.35	1.63	ng/l
rel. standard deviation	17.5	8.59	%
n	16	14	-

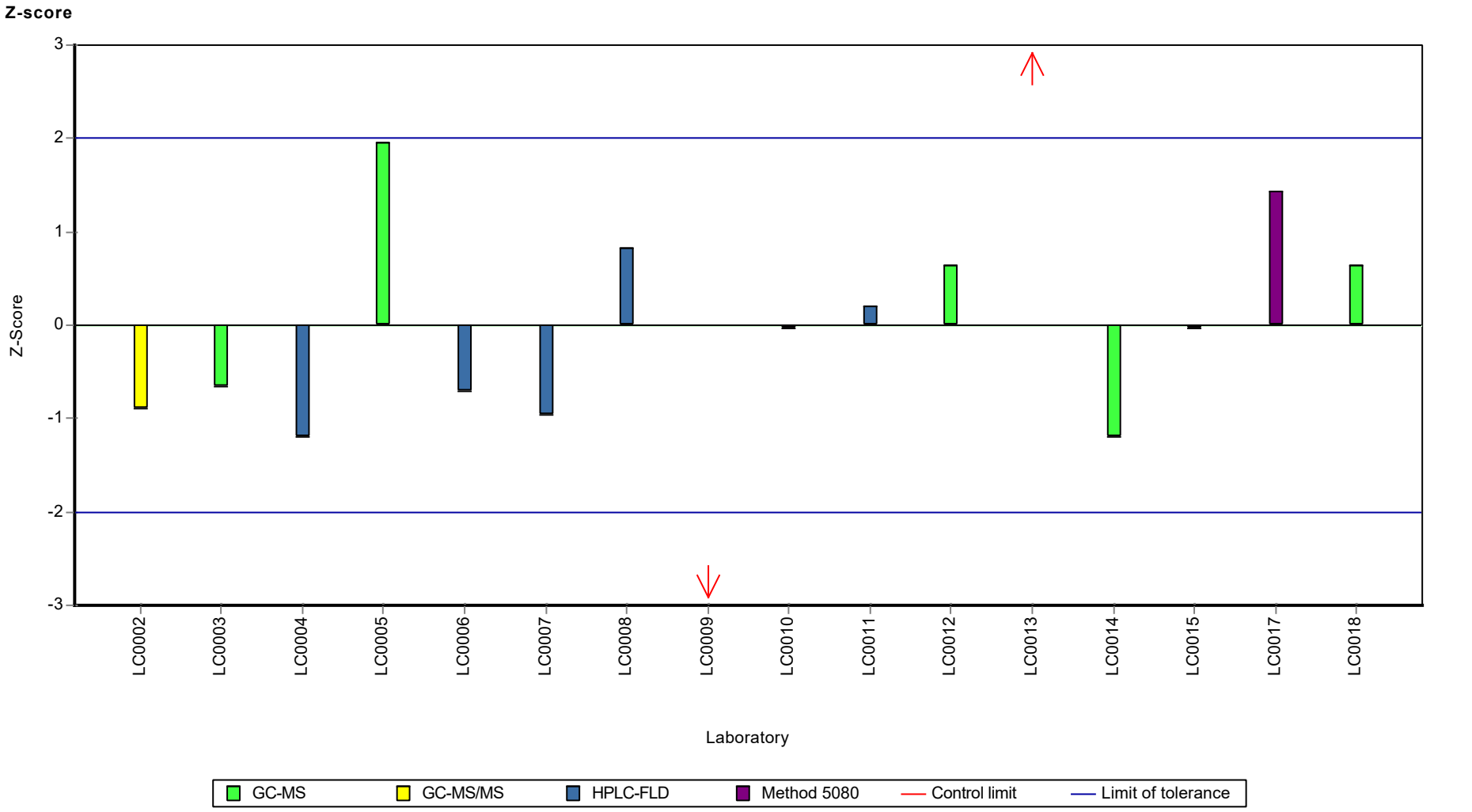
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Chrysene

Unit	ng/l
Assigned value ± U (k=2)	94.9 ± 9.16
Criterion	18 (19 %)
Minimum - Maximum	57 - 124
Control test value ± U (k=2)	93.6 ± 24.3

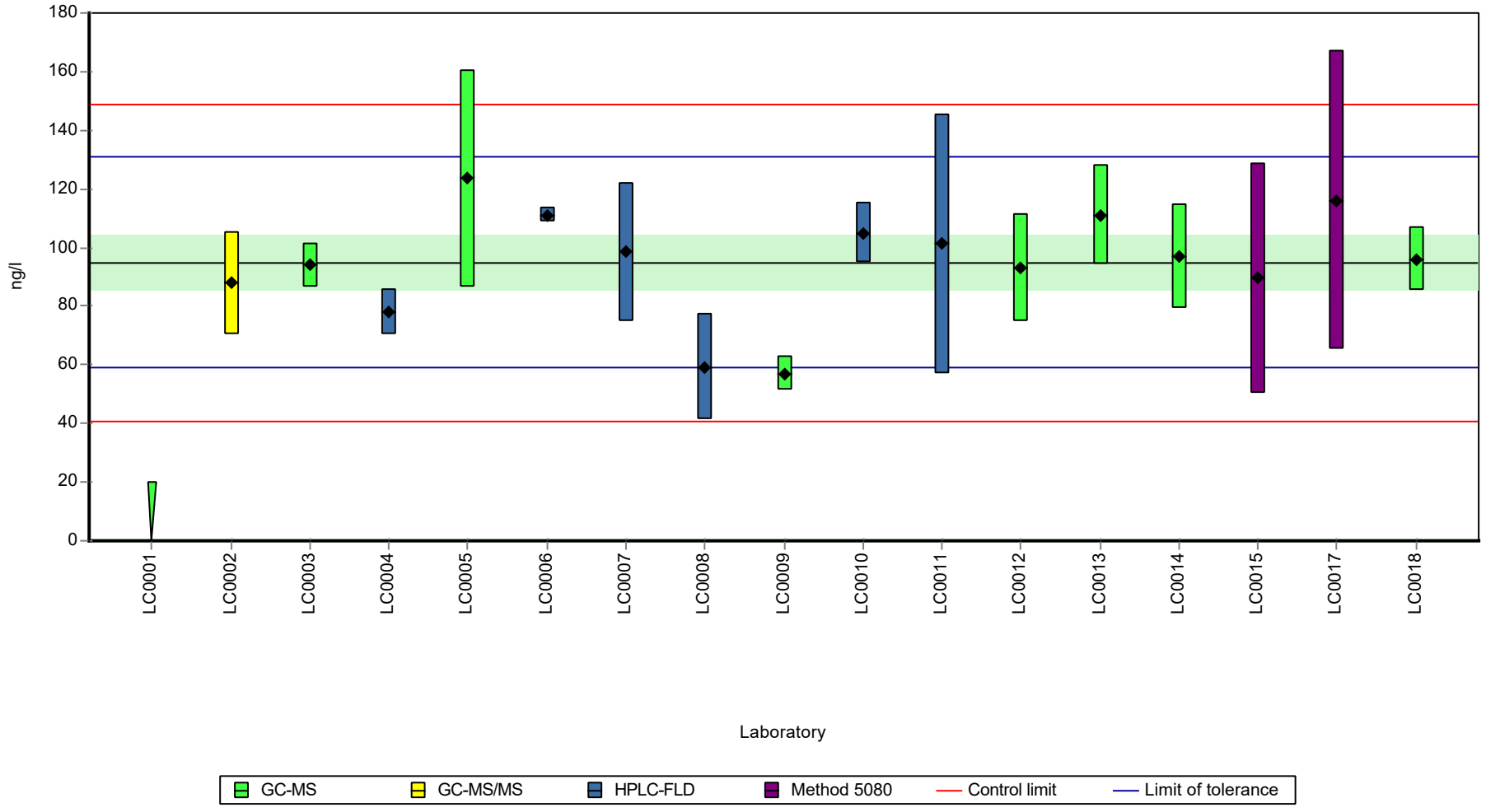
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	FN
LC0002	87.9	17.6	92.6	-0.39	
LC0003	94	7.5	99.1	-0.05	
LC0004	78	7.8	82.2	-0.94	
LC0005	123.63	37.09	130	1.59	
LC0006	111	2.56	117	0.89	
LC0007	98.4	23.63	104	0.2	
LC0008	59.3	18	62.5	-1.97	
LC0009	57	5.7	60.1	-2.1	
LC0010	105	10.5	111	0.56	
LC0011	101.28	44.4	107	0.35	
LC0012	93	18.6	98	-0.1	
LC0013	111	17	117	0.89	
LC0014	97	18	102	0.12	
LC0015	89.5	39.4	94.3	-0.3	
LC0016	-	-	-	-	
LC0017	116.19	51.12	122	1.18	
LC0018	96	11	101	0.06	

Characteristics of parameter

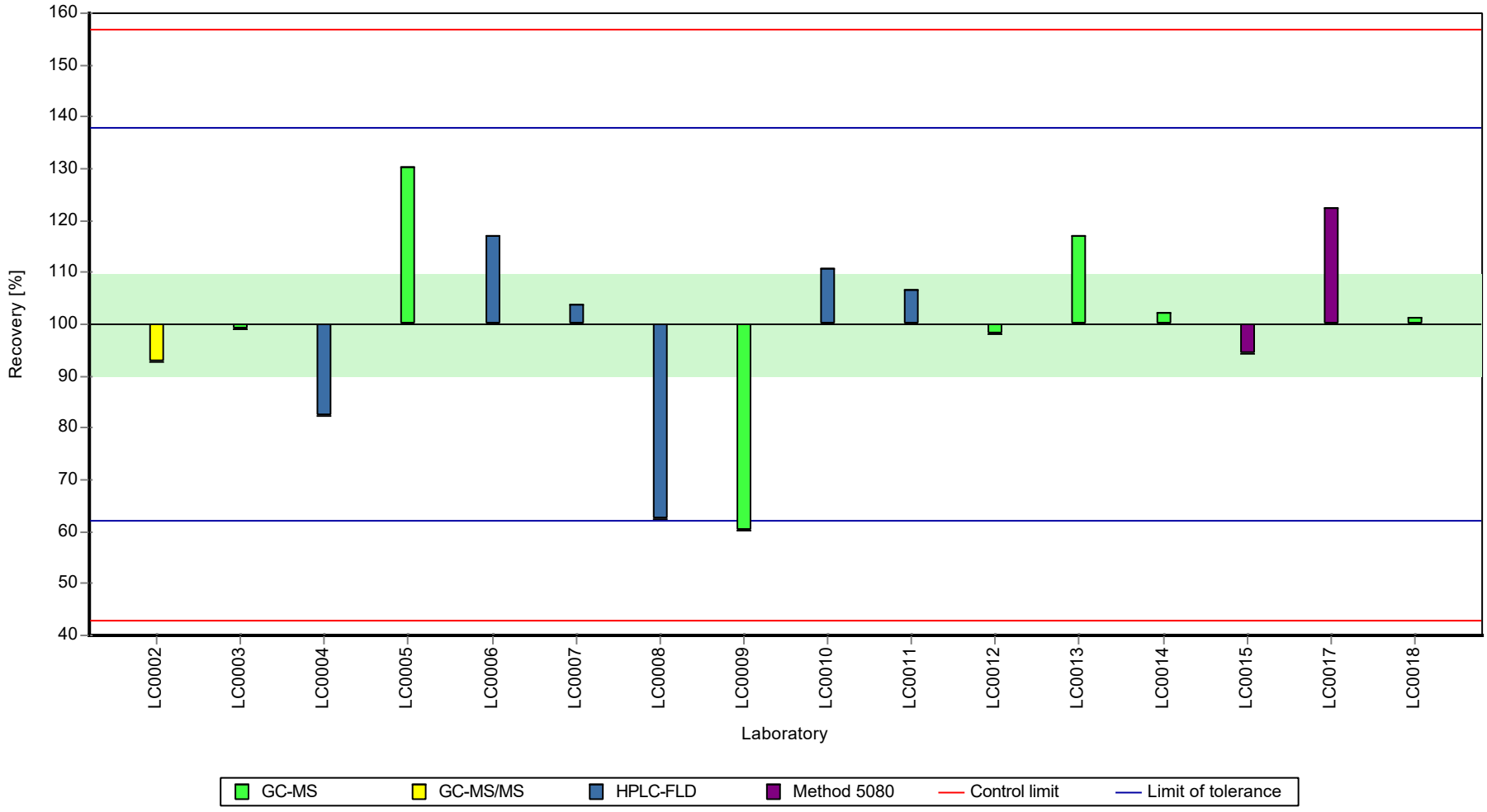
	all results	without outliers	Unit
Mean ± CI (99%)	94.9 ± 13.7	94.9 ± 13.7	ng/l
Minimum	57	57	ng/l
Maximum	124	124	ng/l
Standard deviation	18.3	18.3	ng/l
rel. standard deviation	19.3	19.3	%
n	16	16	-

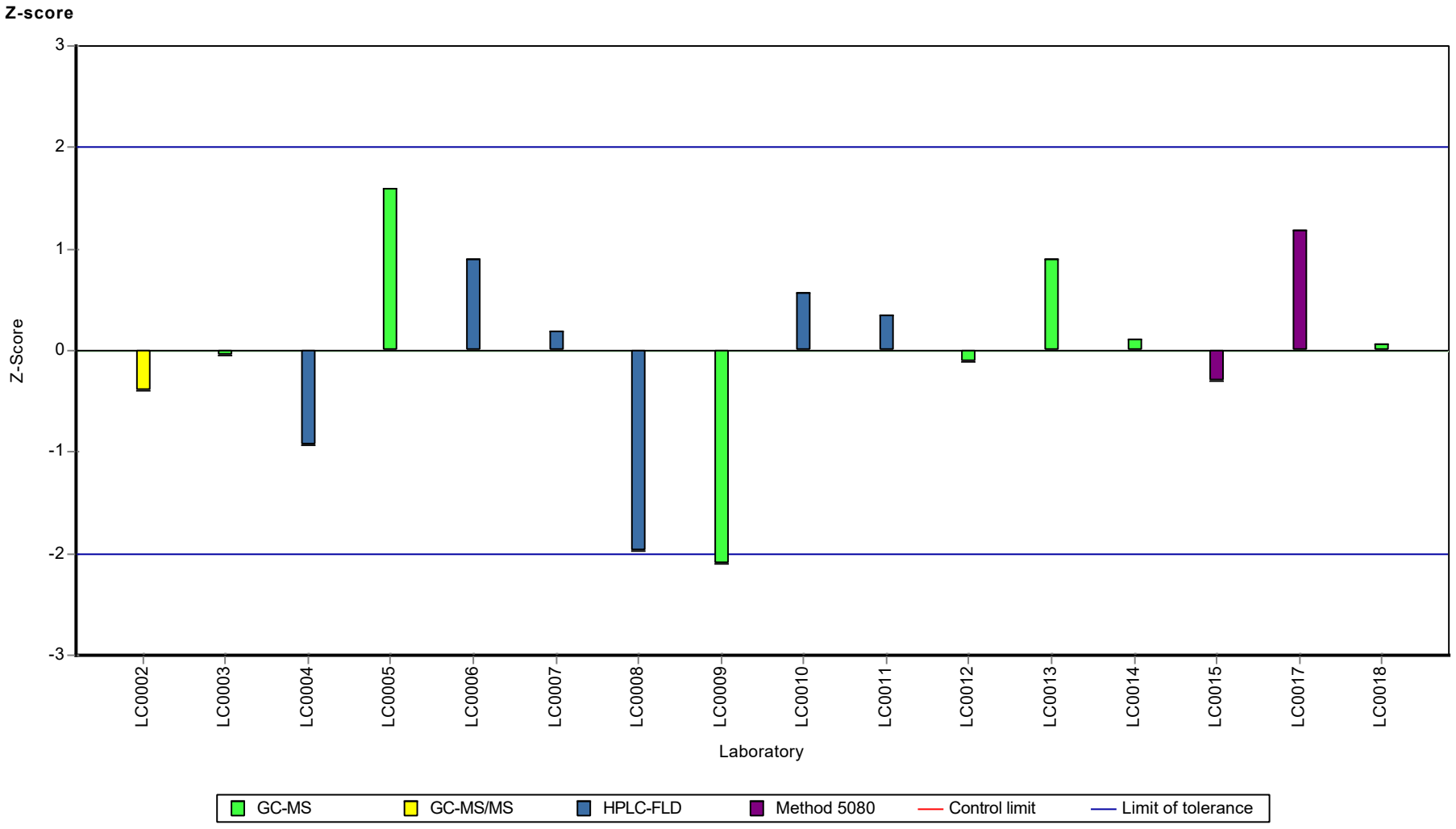
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Dibenzo[a,h]anthracene

Unit	ng/l
Assigned value ± U (k=2)	15.4 ± 2.51
Criterion	4.63 (30 %)
Minimum - Maximum	10 - 24.4
Control test value ± U (k=2)	15.4 ± 4.94

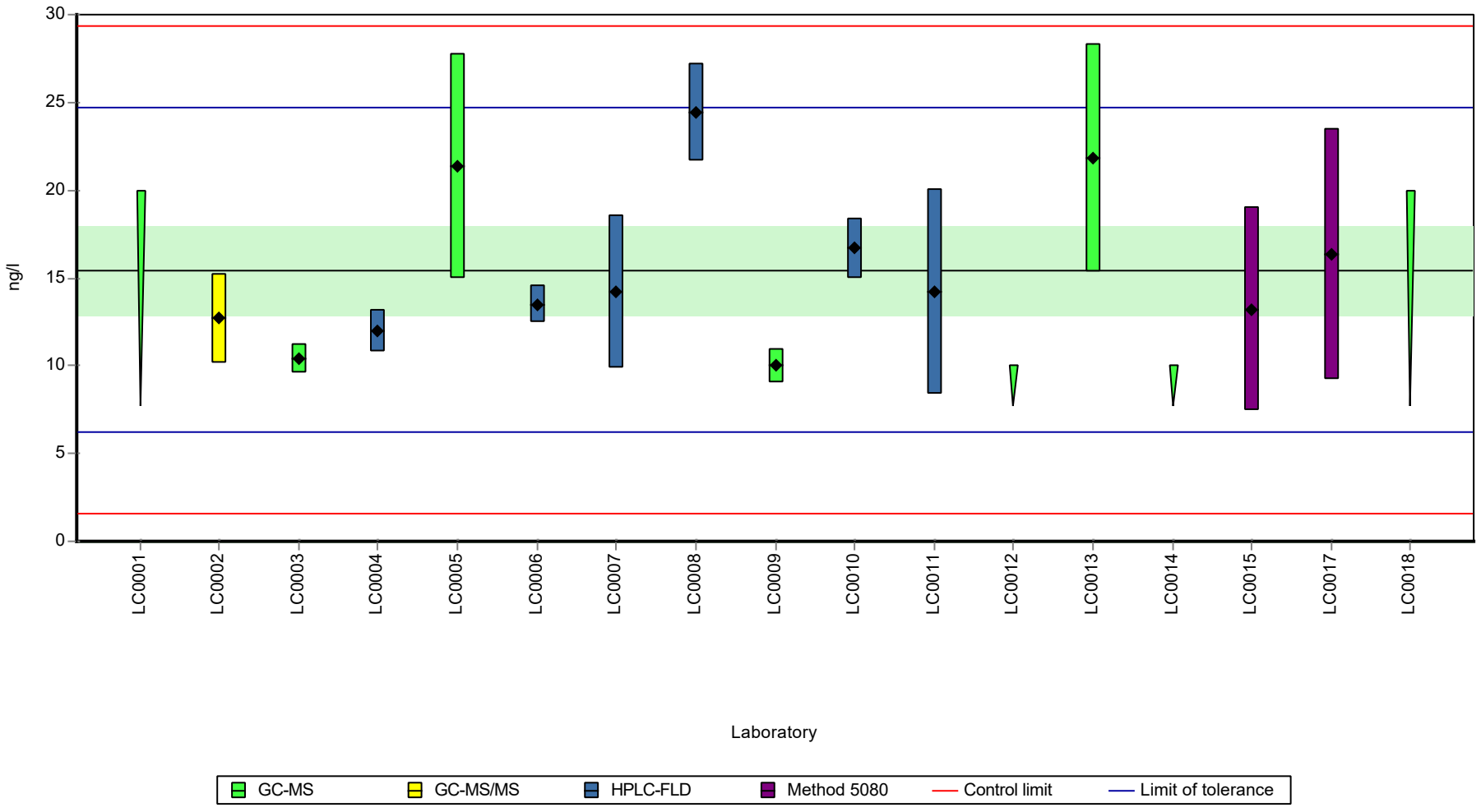
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	12.7	2.55	82.2	-0.59	
LC0003	10.4	0.83	67.3	-1.09	
LC0004	12	1.2	77.7	-0.74	
LC0005	21.39	6.42	138	1.28	
LC0006	13.5	1.07	87.4	-0.42	
LC0007	14.2	4.39	91.9	-0.27	
LC0008	24.4	2.8	158	1.93	
LC0009	10	1	64.7	-1.18	
LC0010	16.7	1.7	108	0.27	
LC0011	14.19	5.84	91.9	-0.27	
LC0012	< 10 (LOQ)	-	-	-	
LC0013	21.8	6.5	141	1.37	
LC0014	< 10 (LOQ)	-	-	-	
LC0015	13.2	5.8	85.5	-0.48	
LC0016	-	-	-	-	
LC0017	16.33	7.18	106	0.19	
LC0018	< 20 (LOQ)	-	-	-	

Characteristics of parameter

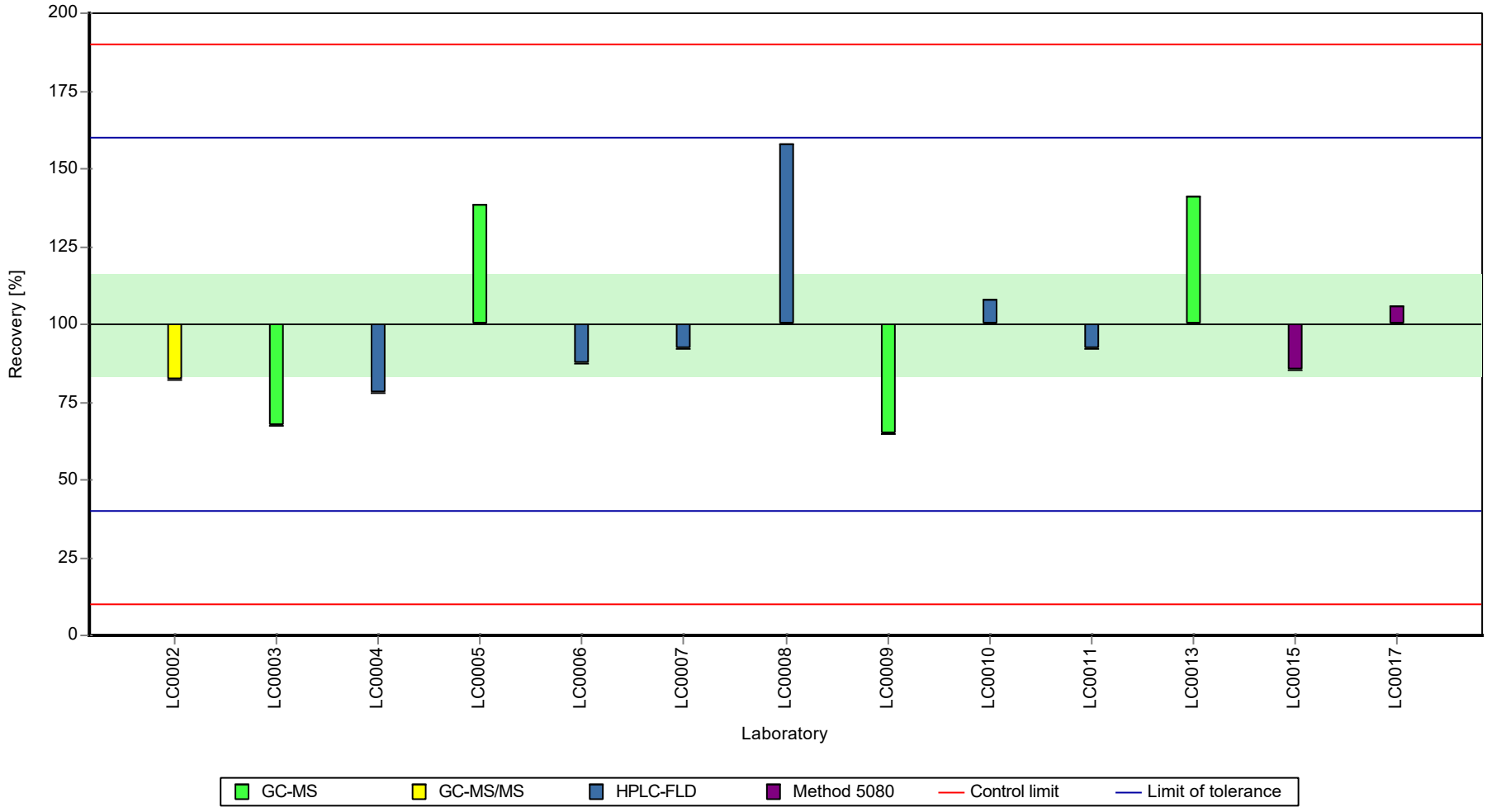
	all results	without outliers	Unit
Mean ± CI (99%)	15.4 ± 3.76	15.4 ± 3.76	ng/l
Minimum	10	10	ng/l
Maximum	24.4	24.4	ng/l
Standard deviation	4.52	4.52	ng/l
rel. standard deviation	29.2	29.2	%
n	13	13	-

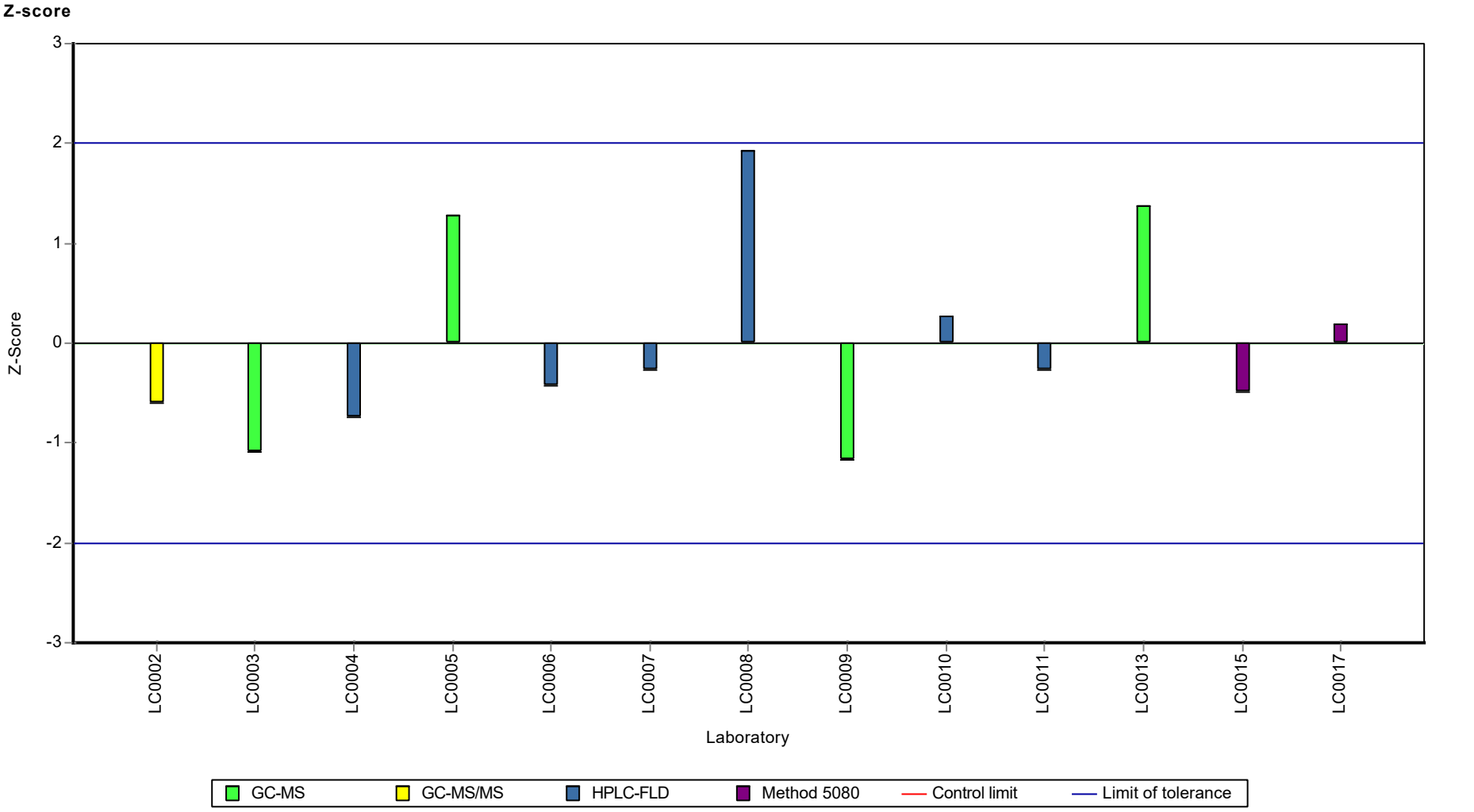
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0013
LC0015
LC0017
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Dibenzo[a,h]anthracene

Unit	ng/l
Assigned value ± U (k=2)	120 ± 21.6
Criterion	36.1 (30 %)
Minimum - Maximum	42 - 198
Control test value ± U (k=2)	135 ± 43.1

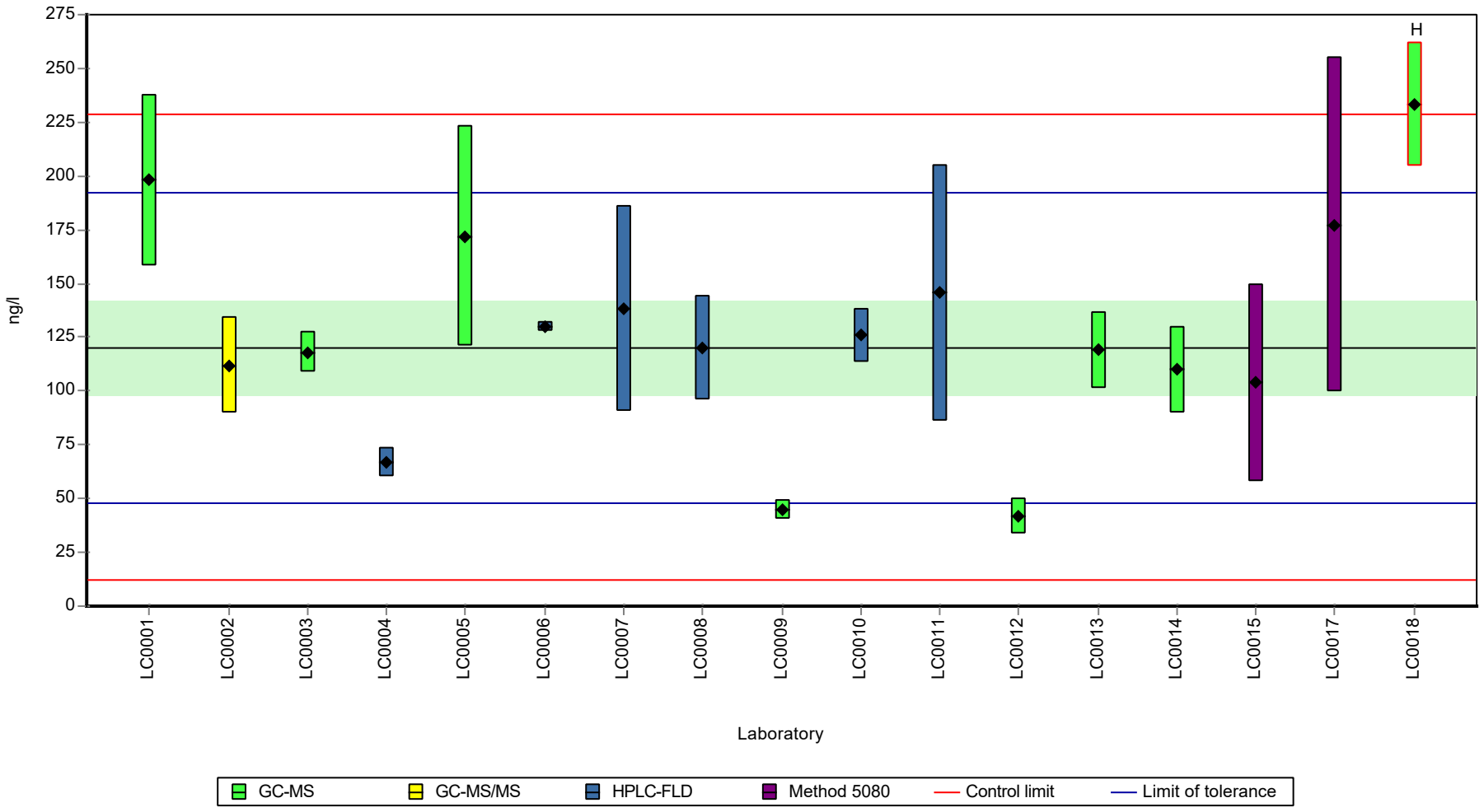
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	198	40	165	2.16	
LC0002	112	22.3	93.2	-0.23	
LC0003	118	9.4	98.1	-0.06	
LC0004	67	6.7	55.7	-1.48	
LC0005	172.06	51.62	143	1.44	
LC0006	130	2.15	108	0.27	
LC0007	138	47.92	115	0.49	
LC0008	120	24	99.8	-0.01	
LC0009	45	4.5	37.4	-2.09	
LC0010	126	12.6	105	0.16	
LC0011	145.58	59.86	121	0.7	
LC0012	42	8.4	34.9	-2.17	
LC0013	119	18	99	-0.03	
LC0014	110	20	91.5	-0.28	
LC0015	104	46	86.5	-0.45	
LC0016	-	-	-	-	
LC0017	177.04	77.9	147	1.58	
LC0018	233	29	194	3.13	H

Characteristics of parameter

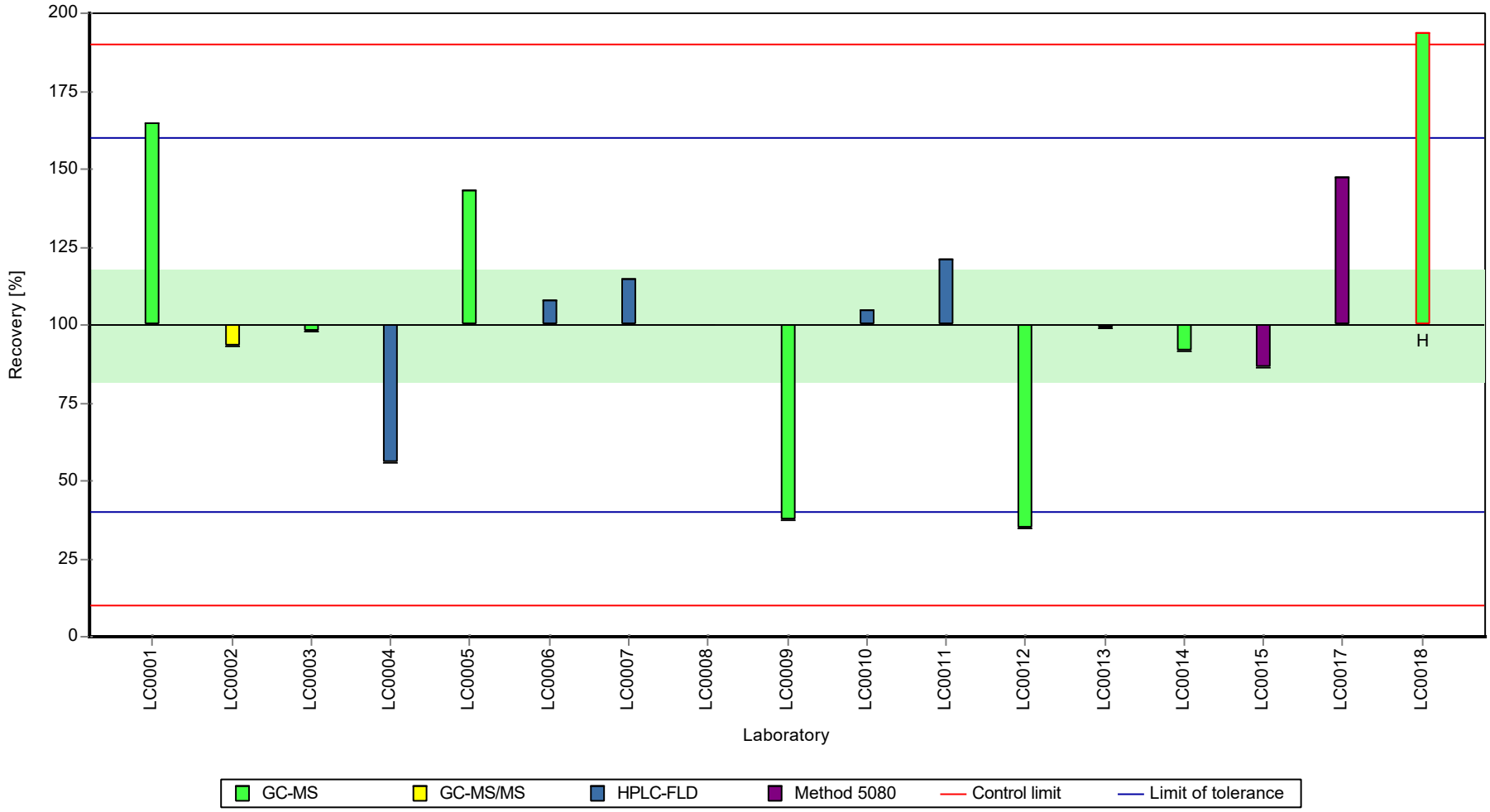
	all results	without outliers	Unit
Mean ± CI (99%)	127 ± 36.4	120 ± 32.5	ng/l
Minimum	42	42	ng/l
Maximum	233	198	ng/l
Standard deviation	50	43.3	ng/l
rel. standard deviation	39.4	36	%
n	17	16	-

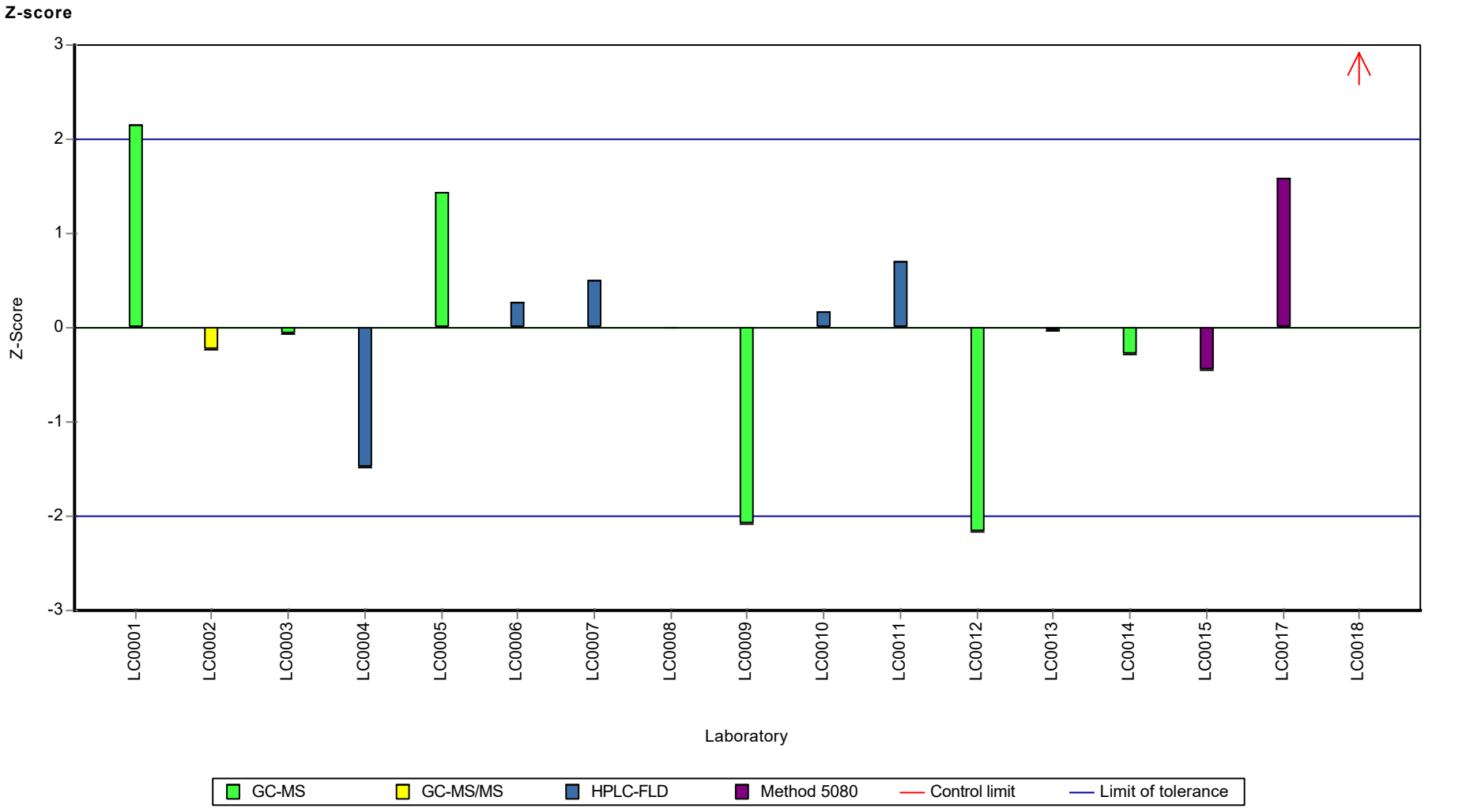
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	18.9 ± 2.7
Criterion	3.4 (18 %)
Minimum - Maximum	9.7 - 30
Control test value ± U (k=2)	21.3 ± 4.69

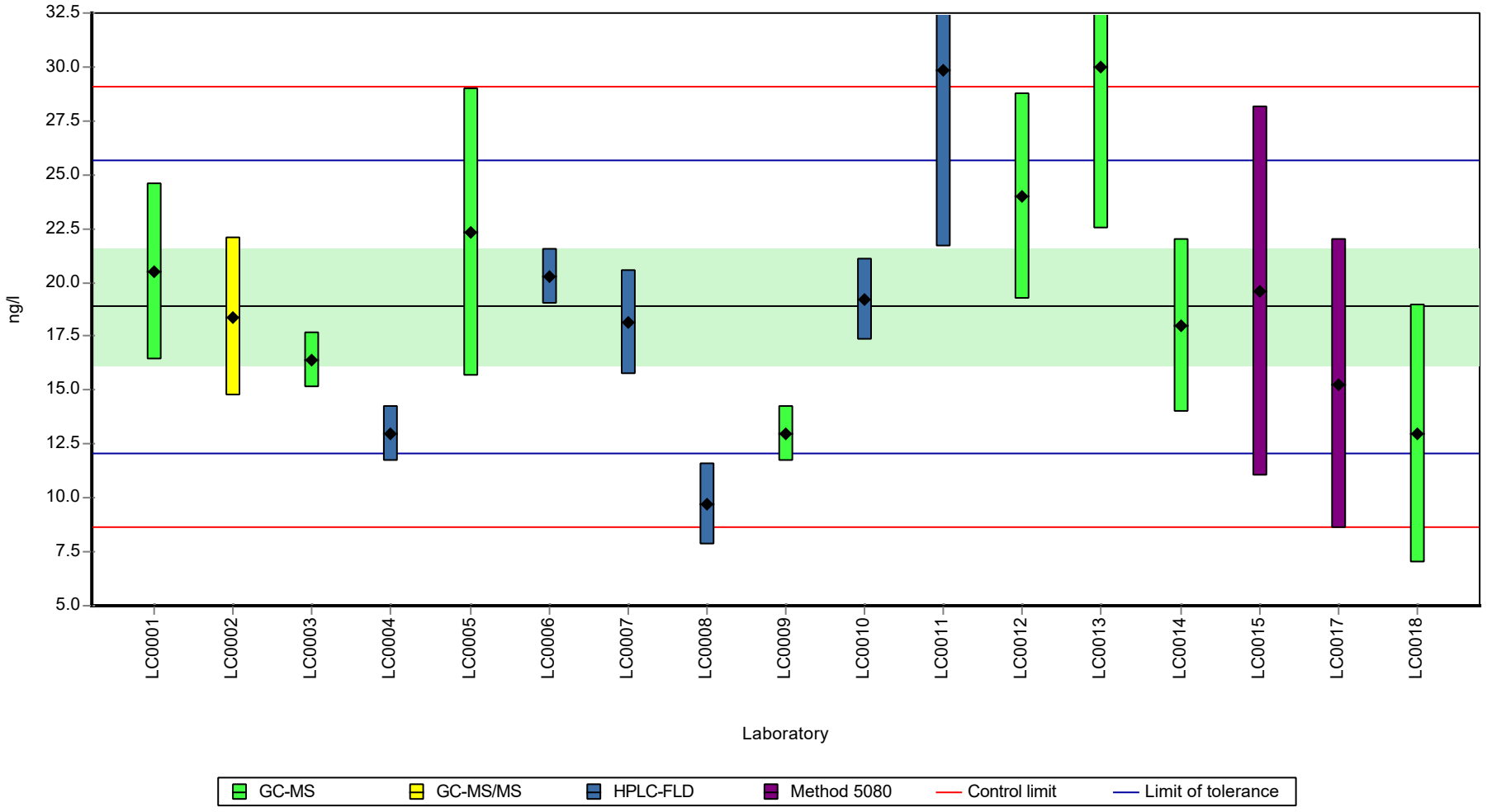
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	20.5	4.1	109	0.48	
LC0002	18.4	3.68	97.5	-0.14	
LC0003	16.4	1.3	86.9	-0.73	
LC0004	13	1.3	68.9	-1.73	
LC0005	22.34	6.7	118	1.02	
LC0006	20.3	1.29	108	0.42	
LC0007	18.15	2.43	96.2	-0.21	
LC0008	9.7	1.9	51.4	-2.7	
LC0009	13	1.3	68.9	-1.73	
LC0010	19.2	1.9	102	0.1	
LC0011	29.87	8.27	158	3.24	
LC0012	24	4.8	127	1.51	
LC0013	30	7.5	159	3.28	
LC0014	18	4	95.4	-0.26	
LC0015	19.6	8.6	104	0.22	
LC0016	-	-	-	-	
LC0017	15.27	6.72	80.9	-1.06	
LC0018	13	6	68.9	-1.73	

Characteristics of parameter

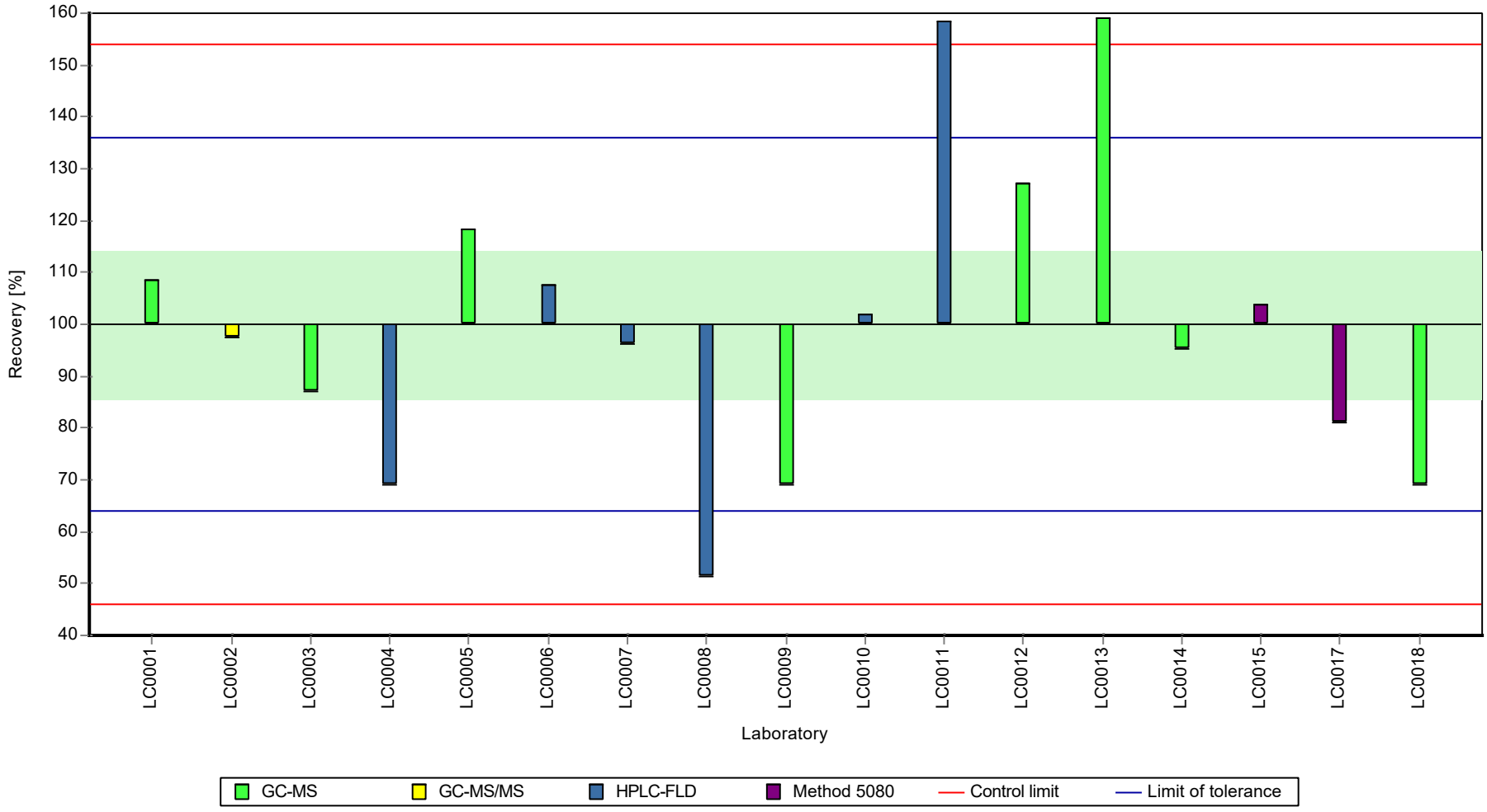
	all results	without outliers	Unit
Mean ± CI (99%)	18.9 ± 4.05	18.9 ± 4.05	ng/l
Minimum	9.7	9.7	ng/l
Maximum	30	30	ng/l
Standard deviation	5.57	5.57	ng/l
rel. standard deviation	29.5	29.5	%
n	17	17	-

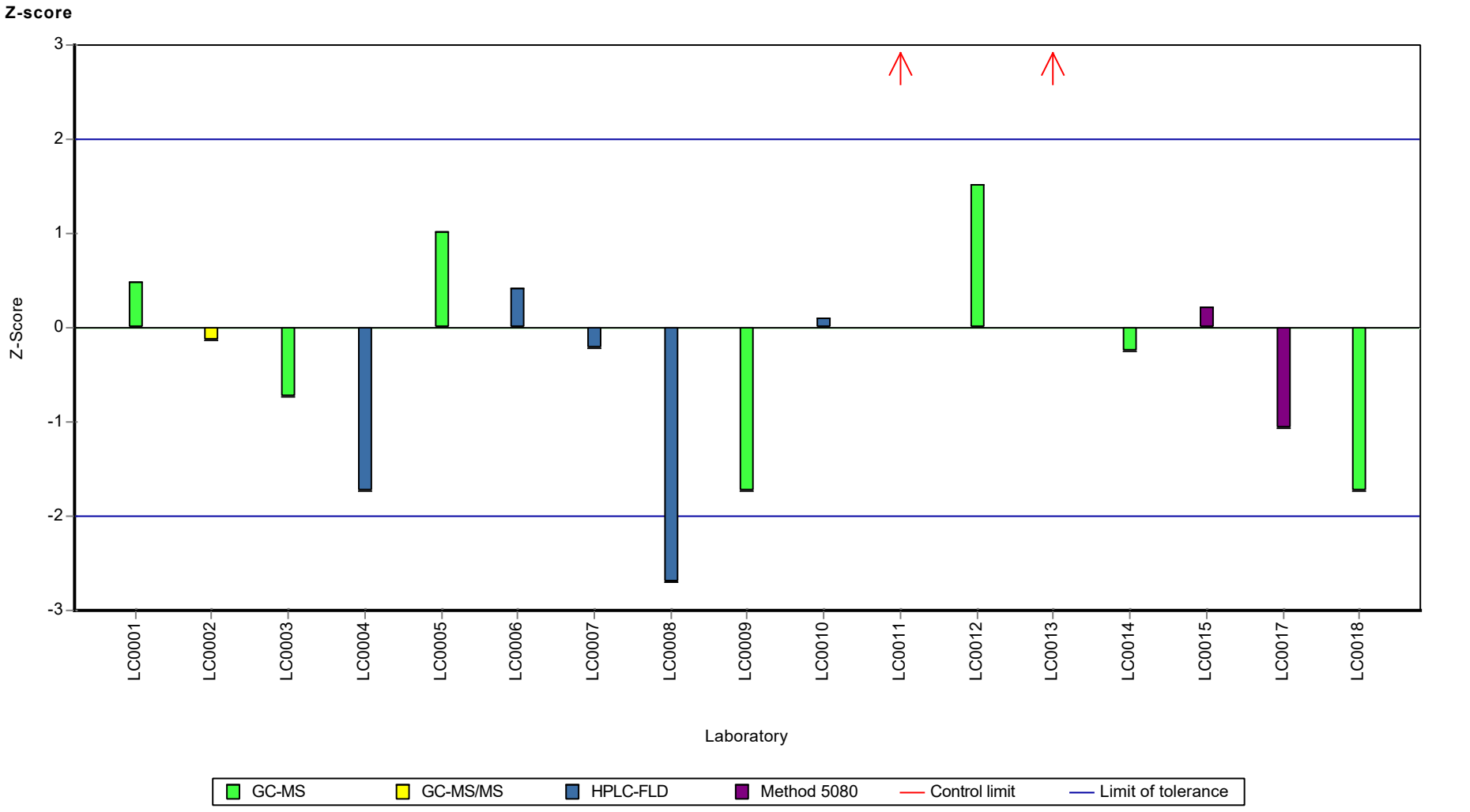
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Fluoranthene

Unit	ng/l
Assigned value ± U (k=2)	174 ± 16.6
Criterion	31.3 (18 %)
Minimum - Maximum	110 - 223
Control test value ± U (k=2)	187 ± 41.2

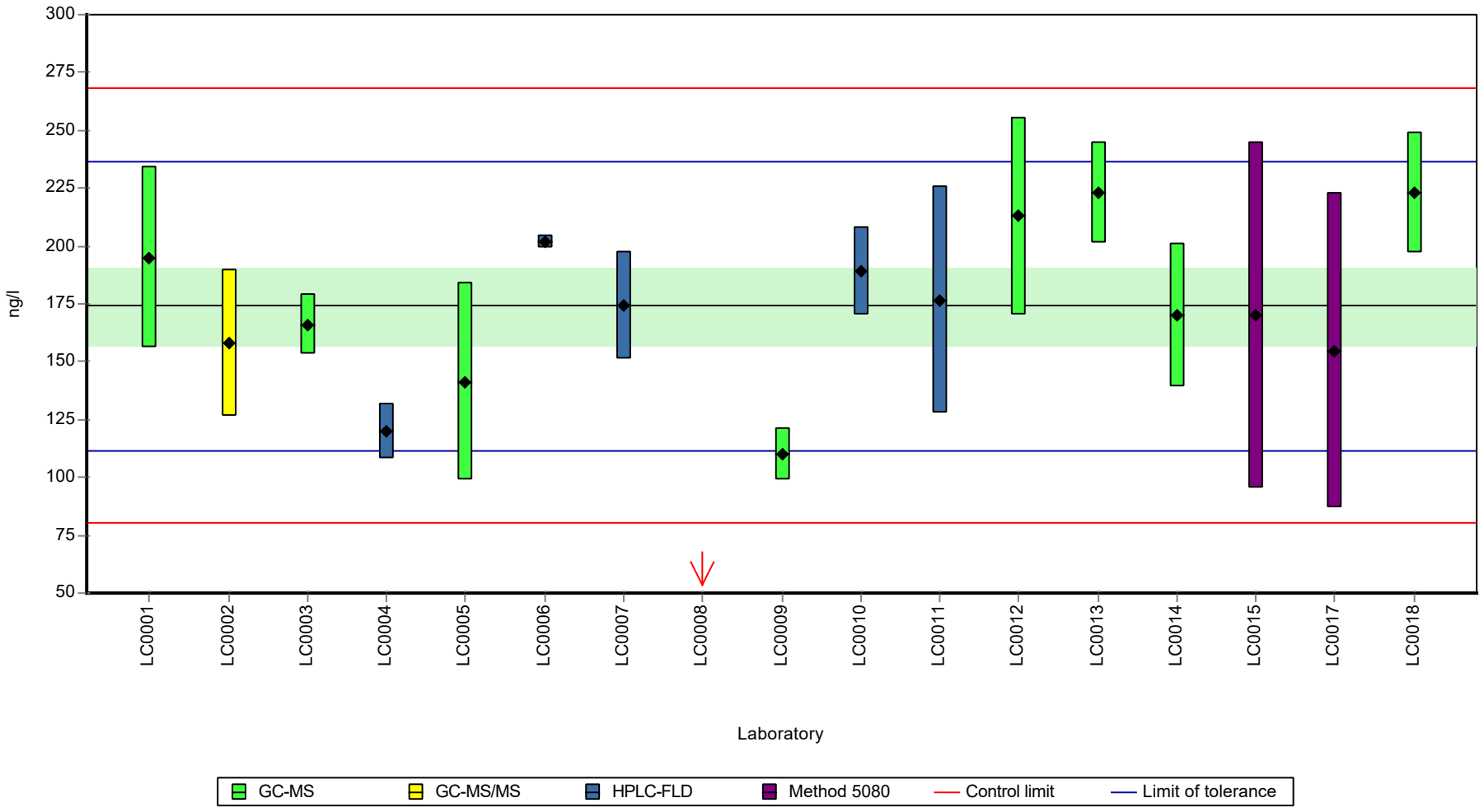
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	195	39	112	0.67	
LC0002	158	31.7	90.7	-0.51	
LC0003	166	13	95.3	-0.26	
LC0004	120	12	68.9	-1.73	
LC0005	141.41	42.42	81.2	-1.04	
LC0006	202	2.99	116	0.89	
LC0007	174	23.32	99.9	0.00	
LC0008	32.9	6.4	18.9	-4.51	H
LC0009	110	11	63.2	-2.05	
LC0010	189	18.9	109	0.47	
LC0011	176.67	48.94	101	0.08	
LC0012	213	42.6	122	1.24	
LC0013	223	22	128	1.56	
LC0014	170	31	97.6	-0.13	
LC0015	170	75	97.6	-0.13	
LC0016	-	-	-	-	
LC0017	154.69	68.06	88.8	-0.62	
LC0018	223	26	128	1.56	

Characteristics of parameter

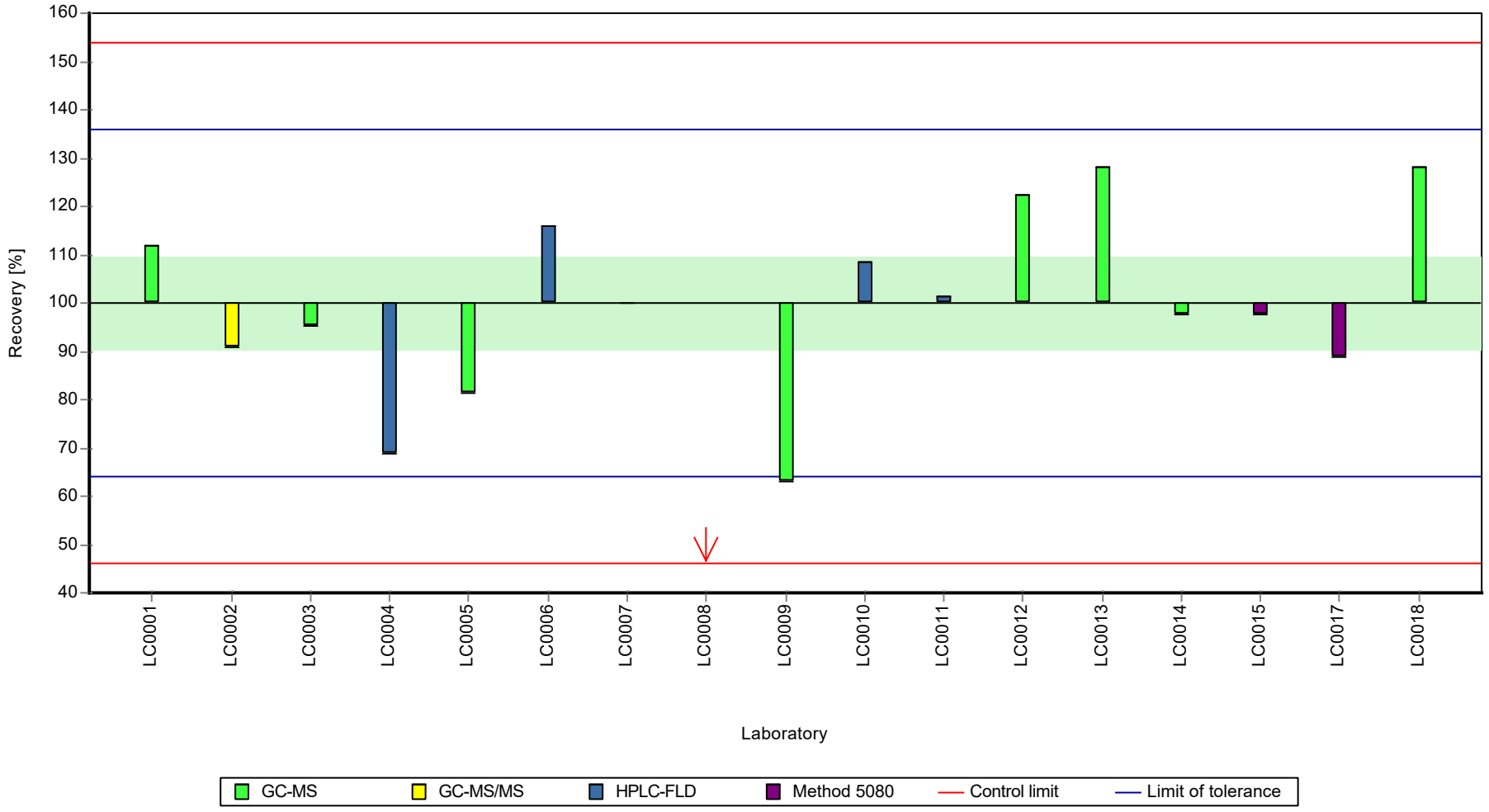
	all results	without outliers	Unit
Mean ± CI (99%)	166 ± 34.2	174 ± 24.9	ng/l
Minimum	32.9	110	ng/l
Maximum	223	223	ng/l
Standard deviation	47	33.2	ng/l
rel. standard deviation	28.3	19.1	%
n	17	16	-

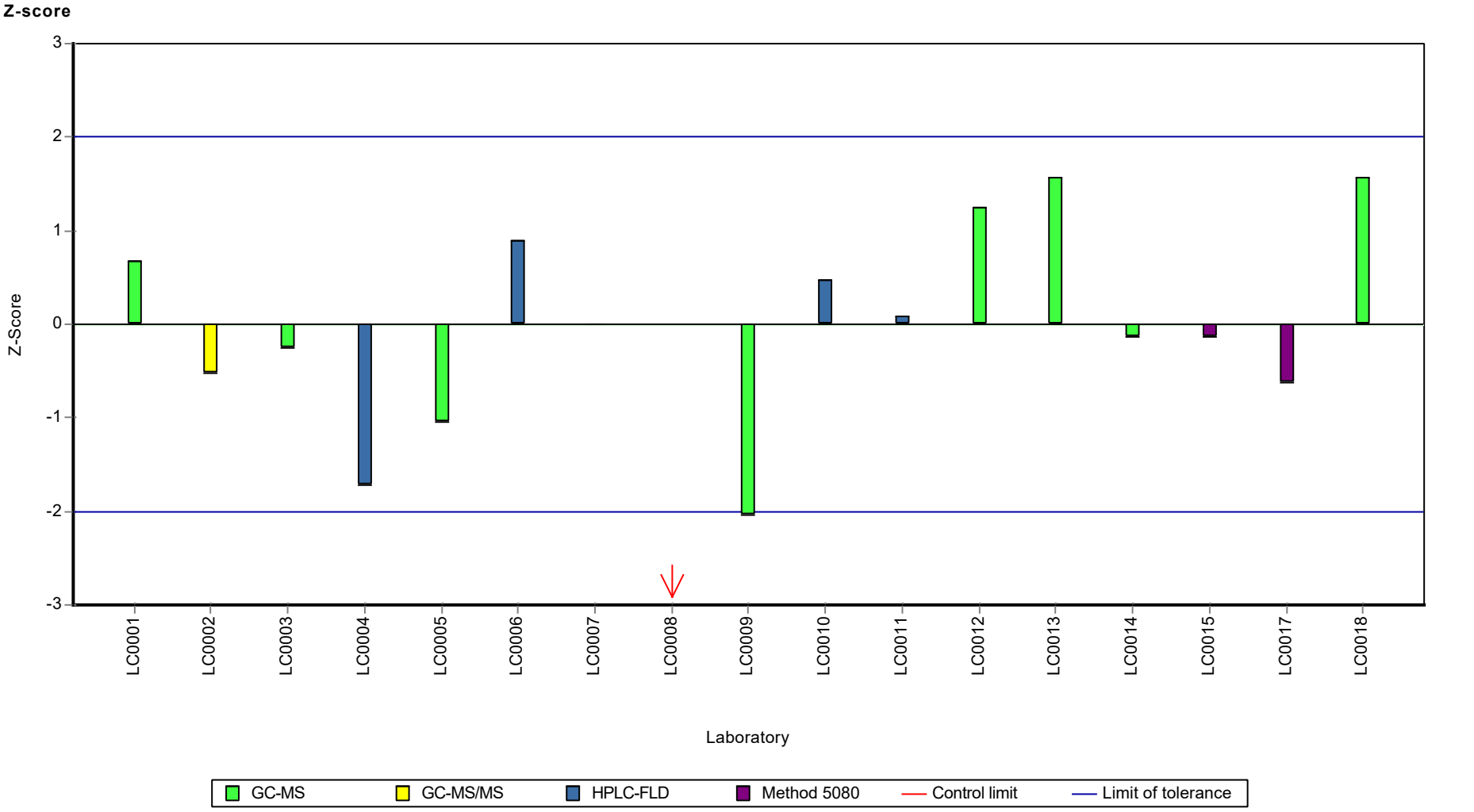
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Fluorene

Unit	ng/l
Assigned value ± U (k=2)	22.4 ± 2.02
Criterion	3.14 (14 %)
Minimum - Maximum	16.5 - 27
Control test value ± U (k=2)	26.7 ± 8.02

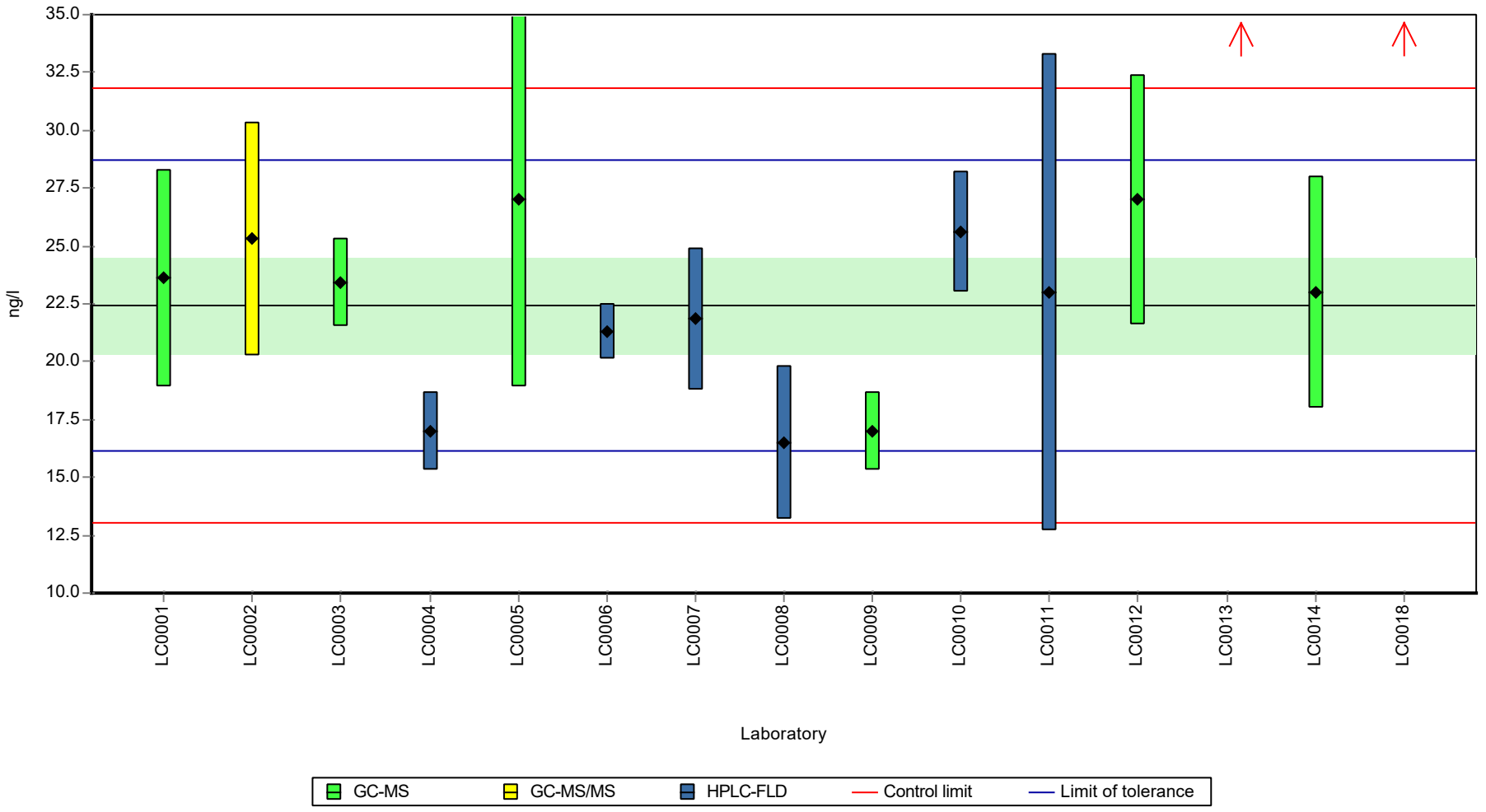
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	23.6	4.7	105	0.37	
LC0002	25.3	5.06	113	0.91	
LC0003	23.4	1.9	104	0.31	
LC0004	17	1.7	75.8	-1.73	
LC0005	27.04	8.11	121	1.47	
LC0006	21.3	1.23	95	-0.36	
LC0007	21.85	3.06	97.4	-0.18	
LC0008	16.5	3.3	73.6	-1.89	
LC0009	17	1.7	75.8	-1.73	
LC0010	25.6	2.6	114	1.01	
LC0011	23	10.29	103	0.18	
LC0012	27	5.4	120	1.46	
LC0013	41.3	10.3	184	6.01	H
LC0014	23	5	103	0.18	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	98	20	437	24.1	H

Characteristics of parameter

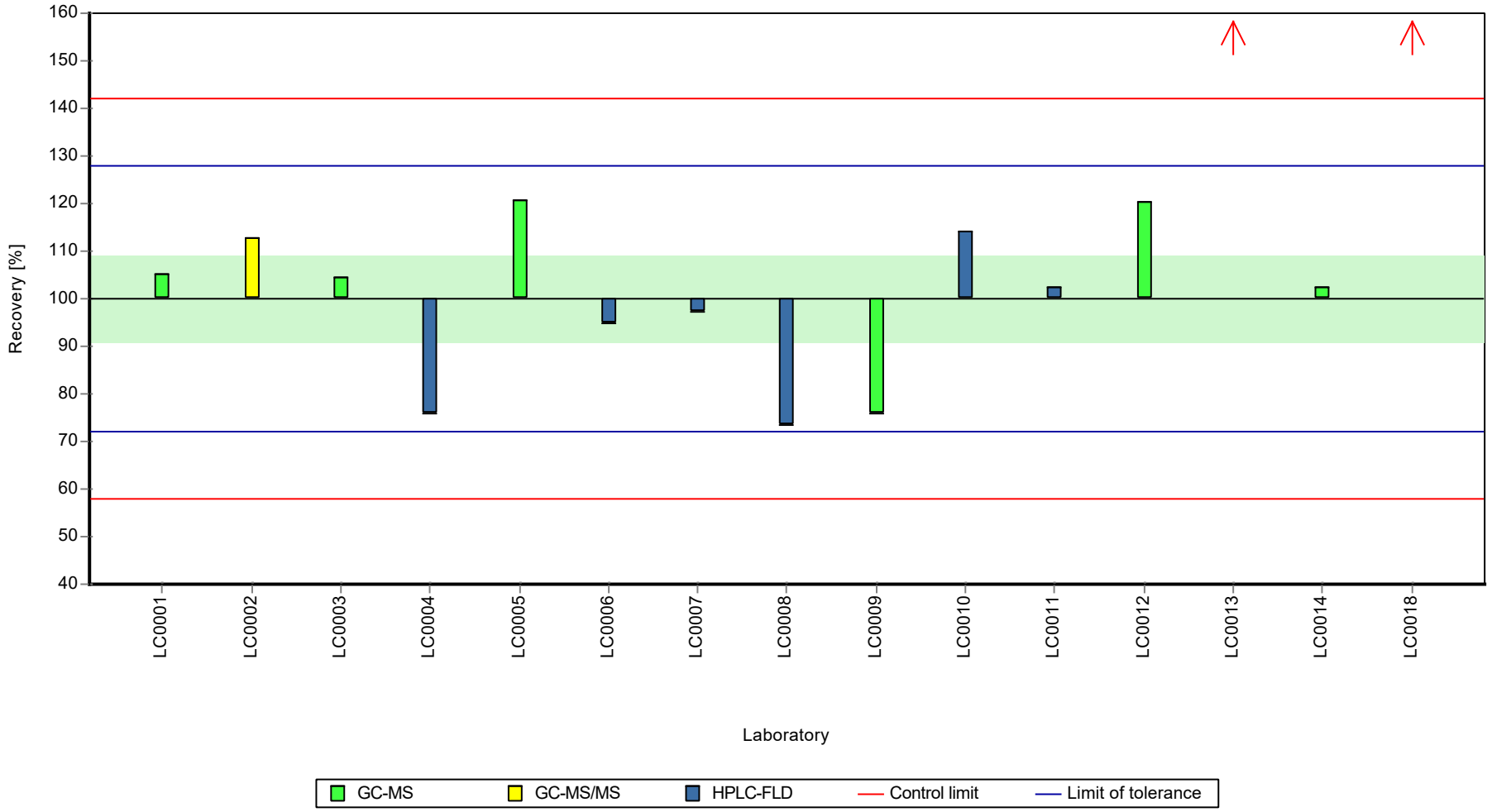
	all results	without outliers	Unit
Mean ± CI (99%)	28.7 ± 15.5	22.4 ± 3.03	ng/l
Minimum	16.5	16.5	ng/l
Maximum	98	27	ng/l
Standard deviation	20.1	3.64	ng/l
rel. standard deviation	69.8	16.2	%
n	15	13	-

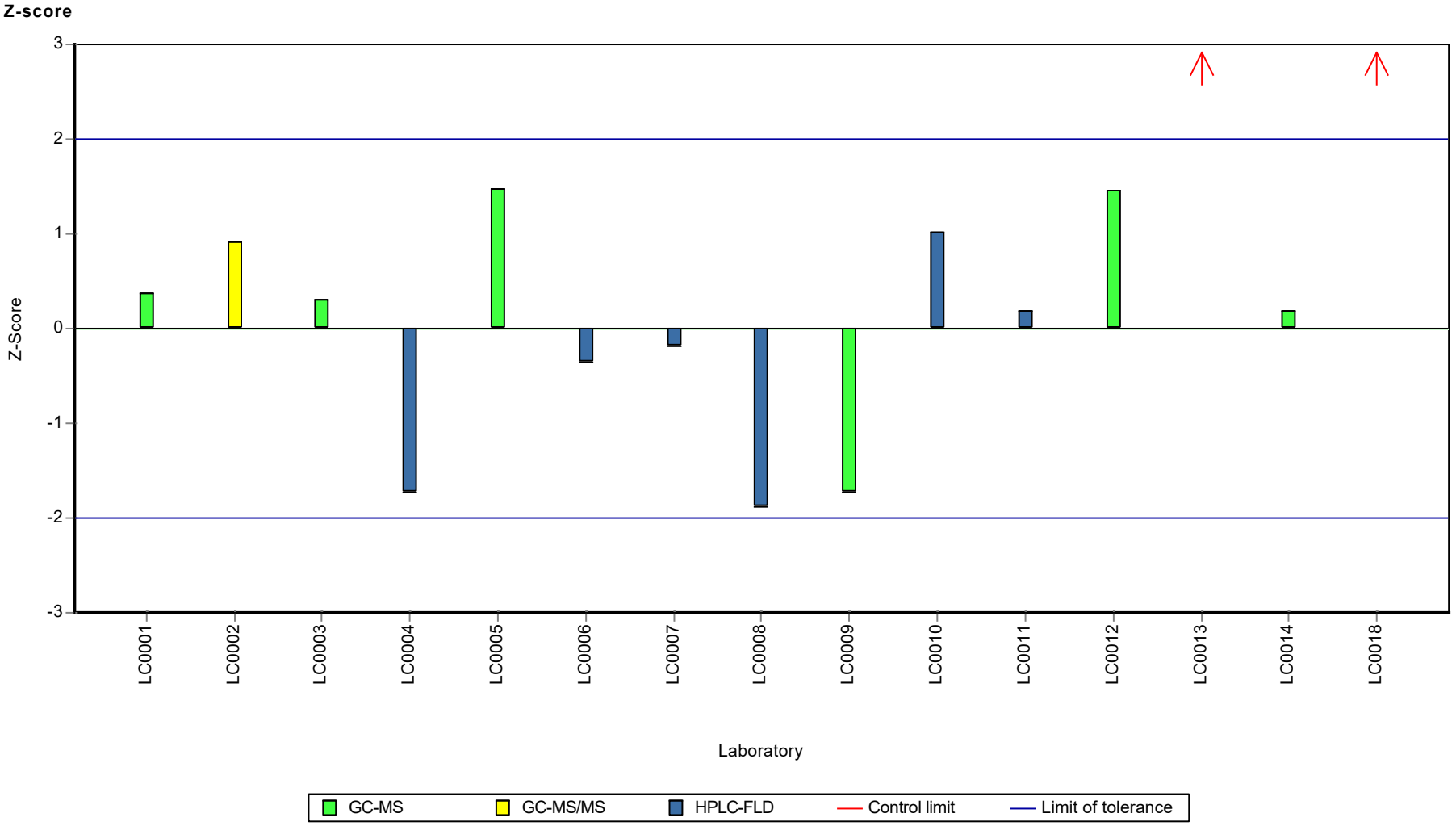
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Fluorene

Unit	ng/l
Assigned value ± U (k=2)	104 ± 9.65
Criterion	14.5 (14 %)
Minimum - Maximum	63 - 119
Control test value ± U (k=2)	116 ± 34.8

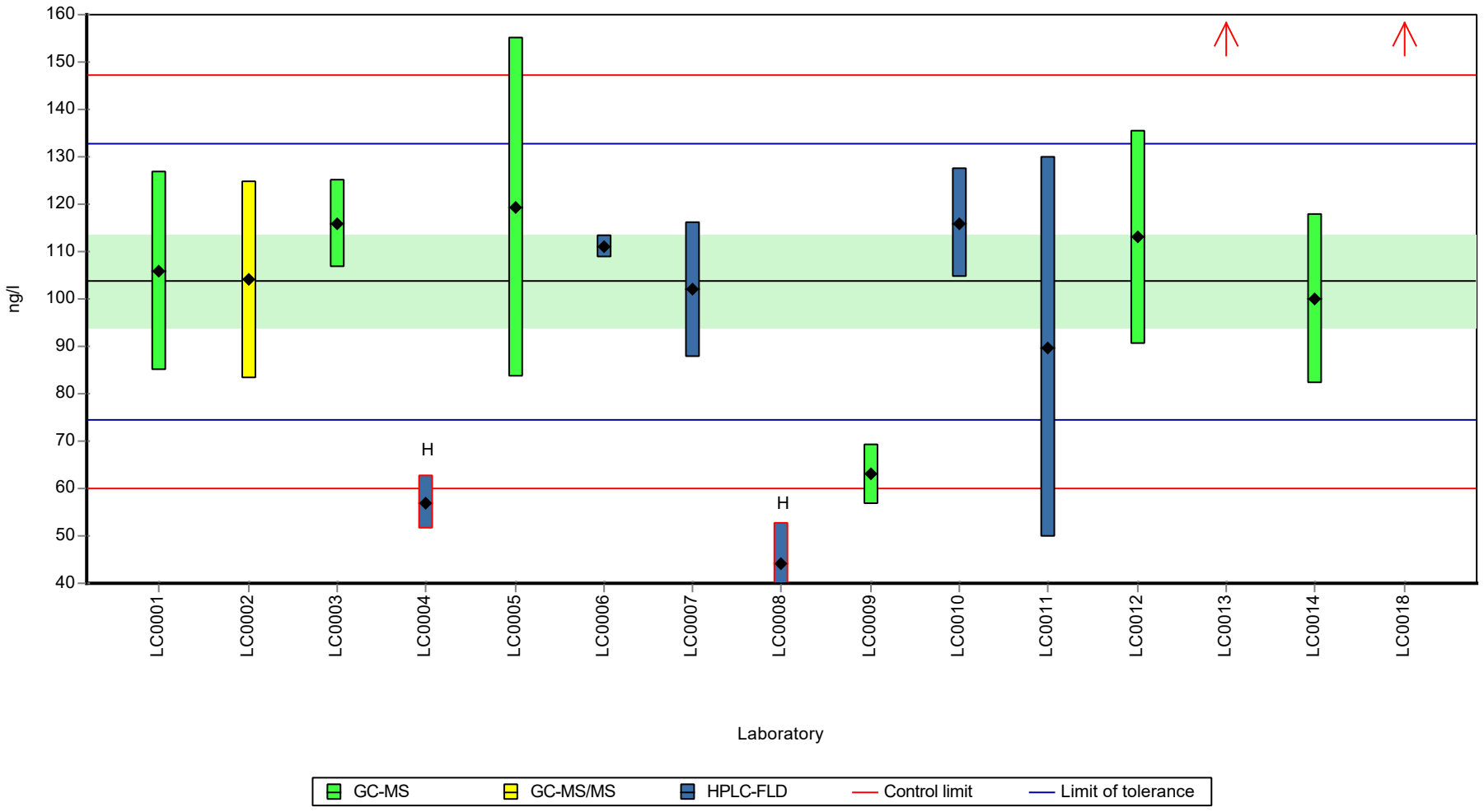
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	106	21	102	0.16	
LC0002	104	20.8	100	0.02	
LC0003	116	9.3	112	0.85	
LC0004	57	5.7	55	-3.21	H
LC0005	119.35	35.81	115	1.08	
LC0006	111	2.52	107	0.51	
LC0007	101.9	14.27	98.3	-0.12	
LC0008	44	8.8	42.5	-4.11	H
LC0009	63	6.3	60.8	-2.8	
LC0010	116	11.6	112	0.85	
LC0011	89.8	40.16	86.6	-0.95	
LC0012	113	22.6	109	0.65	
LC0013	242	48	233	9.54	H
LC0014	100	18	96.5	-0.25	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	187	23	180	5.75	H

Characteristics of parameter

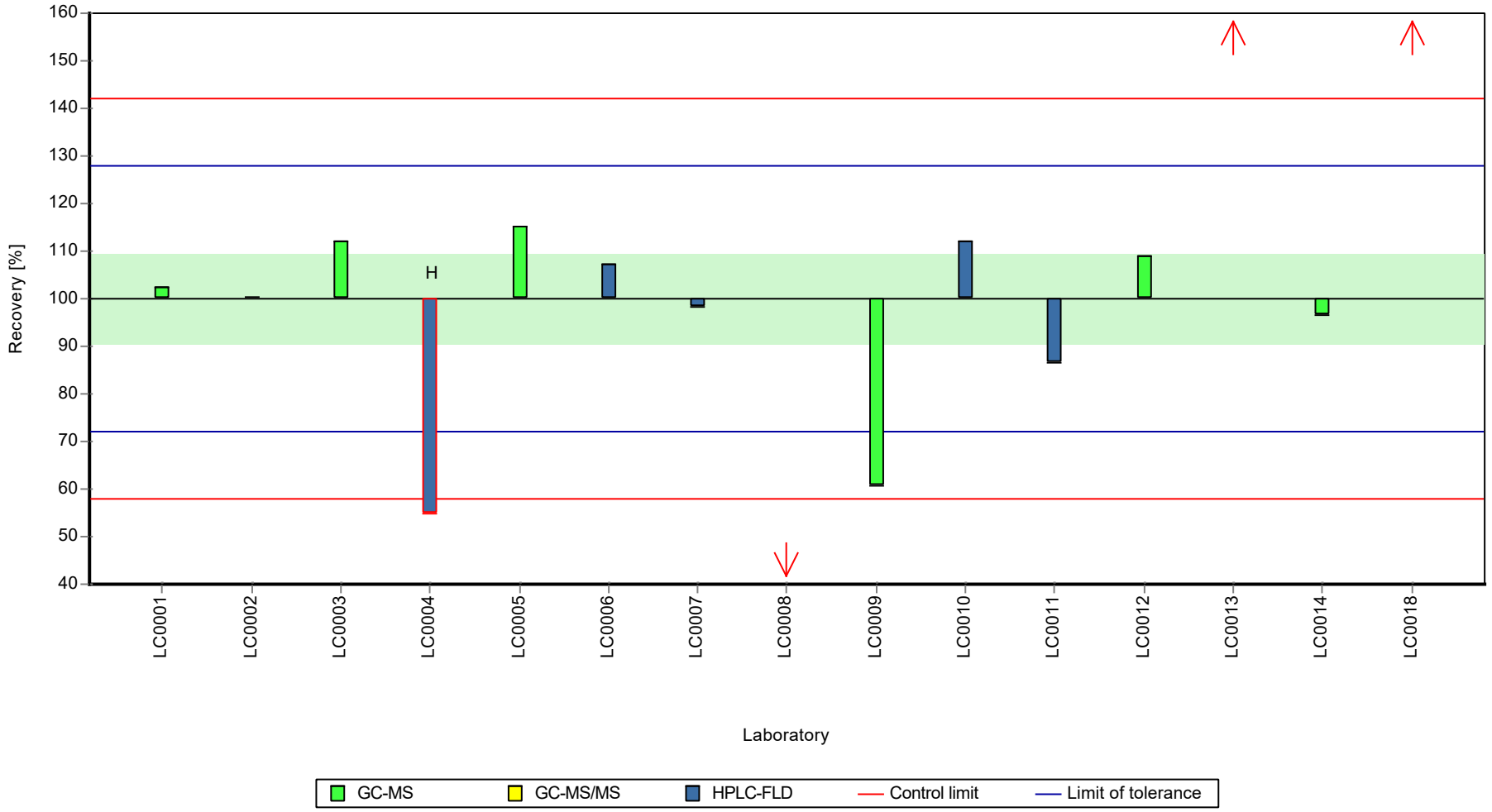
	all results	without outliers	Unit
Mean ± CI (99%)	111 ± 37.9	104 ± 14.5	ng/l
Minimum	44	63	ng/l
Maximum	242	119	ng/l
Standard deviation	48.9	16	ng/l
rel. standard deviation	43.9	15.4	%
n	15	11	-

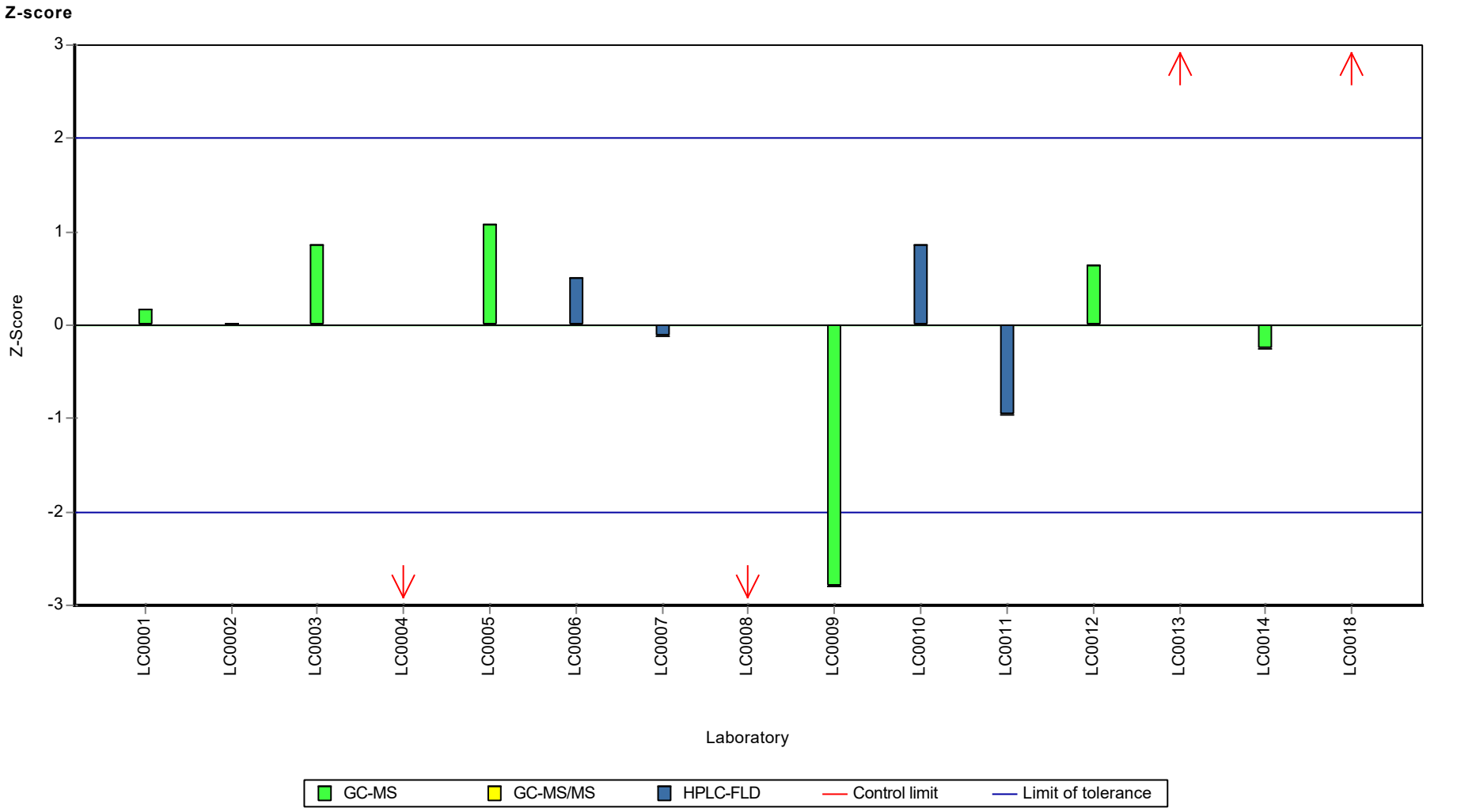
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Indeno[1,2,3-cd]pyrene

Unit	ng/l
Assigned value ± U (k=2)	14.9 ± 1.37
Criterion	2.54 (17 %)
Minimum - Maximum	10 - 18.1
Control test value ± U (k=2)	16.9 ± 5.4

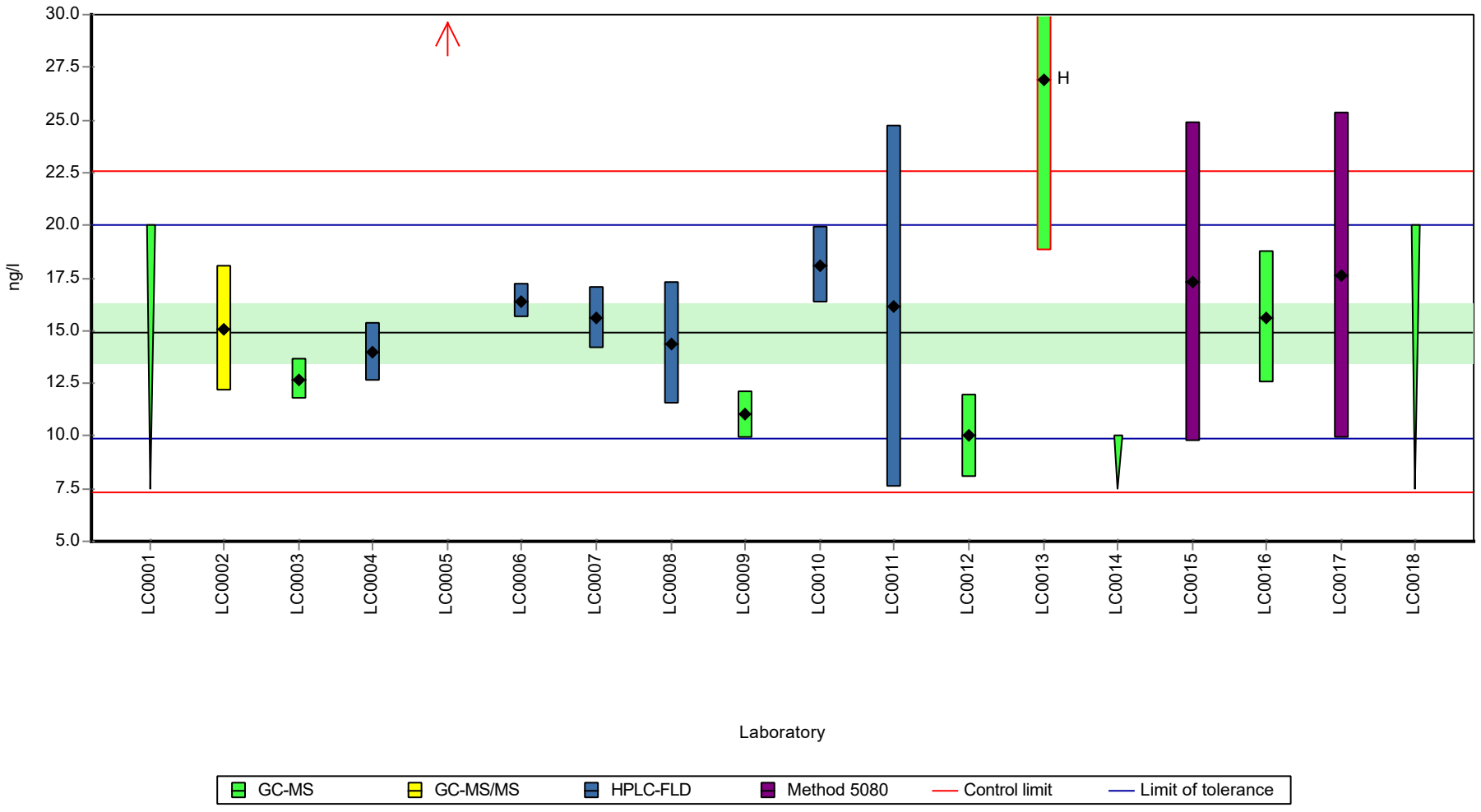
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	15.1	3.01	101	0.07	
LC0003	12.7	1	85.1	-0.88	
LC0004	14	1.4	93.8	-0.36	
LC0005	51.09	15.33	342	14.3	H
LC0006	16.4	0.795	110	0.58	
LC0007	15.6	1.49	105	0.27	
LC0008	14.4	2.9	96.5	-0.21	
LC0009	11	1.1	73.7	-1.55	
LC0010	18.1	1.8	121	1.25	
LC0011	16.14	8.62	108	0.48	
LC0012	10	2	67	-1.94	
LC0013	26.9	8.1	180	4.72	H
LC0014	< 10 (LOQ)	-	-	-	
LC0015	17.3	7.6	116	0.94	
LC0016	15.64	3.128	105	0.28	
LC0017	17.63	7.76	118	1.07	
LC0018	< 20 (LOQ)	-	-	-	

Characteristics of parameter

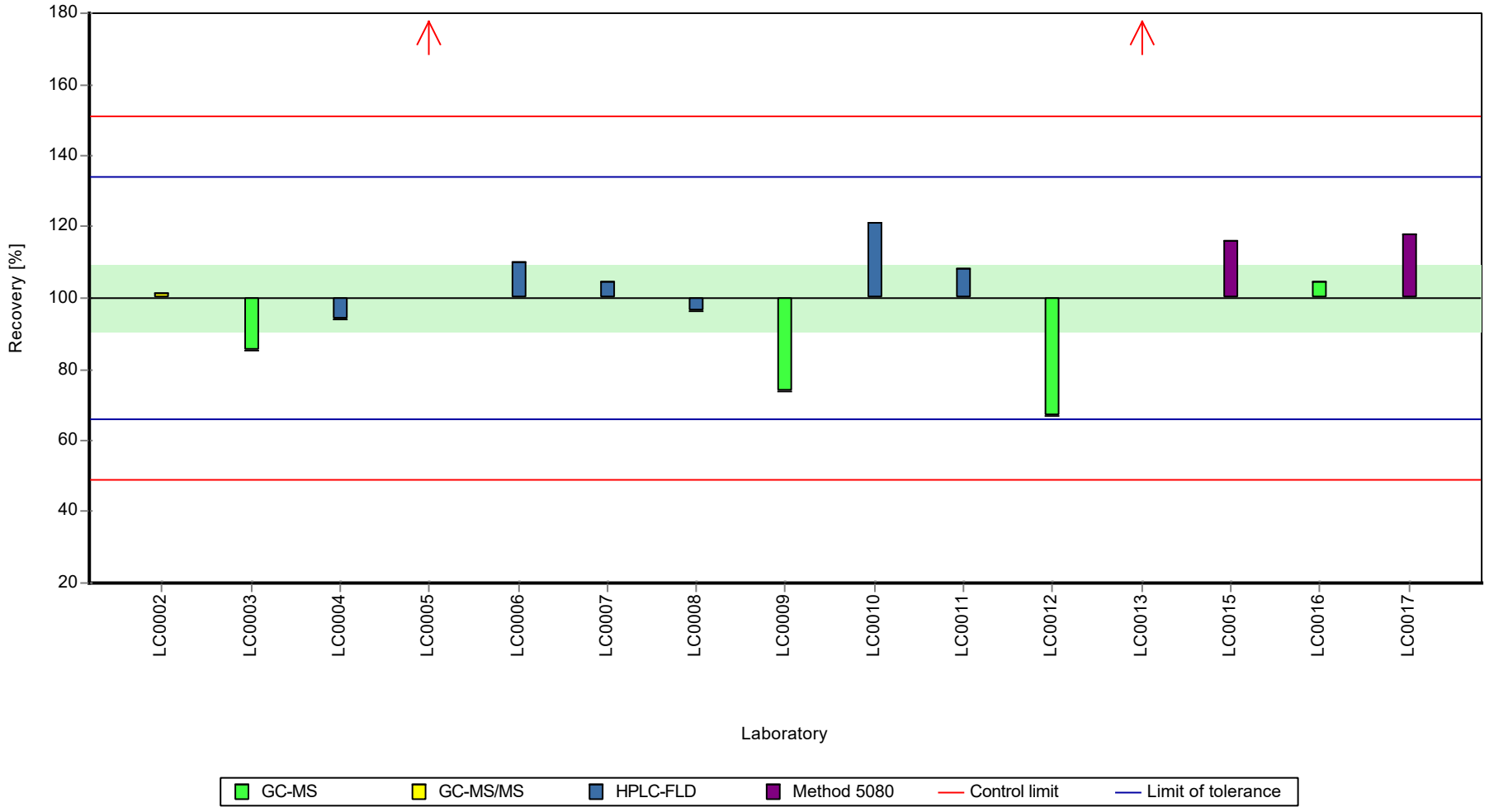
	all results	without outliers	Unit
Mean ± Cl (99%)	18.1 ± 7.66	14.9 ± 2.06	ng/l
Minimum	10	10	ng/l
Maximum	51.1	18.1	ng/l
Standard deviation	9.89	2.47	ng/l
rel. standard deviation	54.6	16.6	%
n	15	13	-

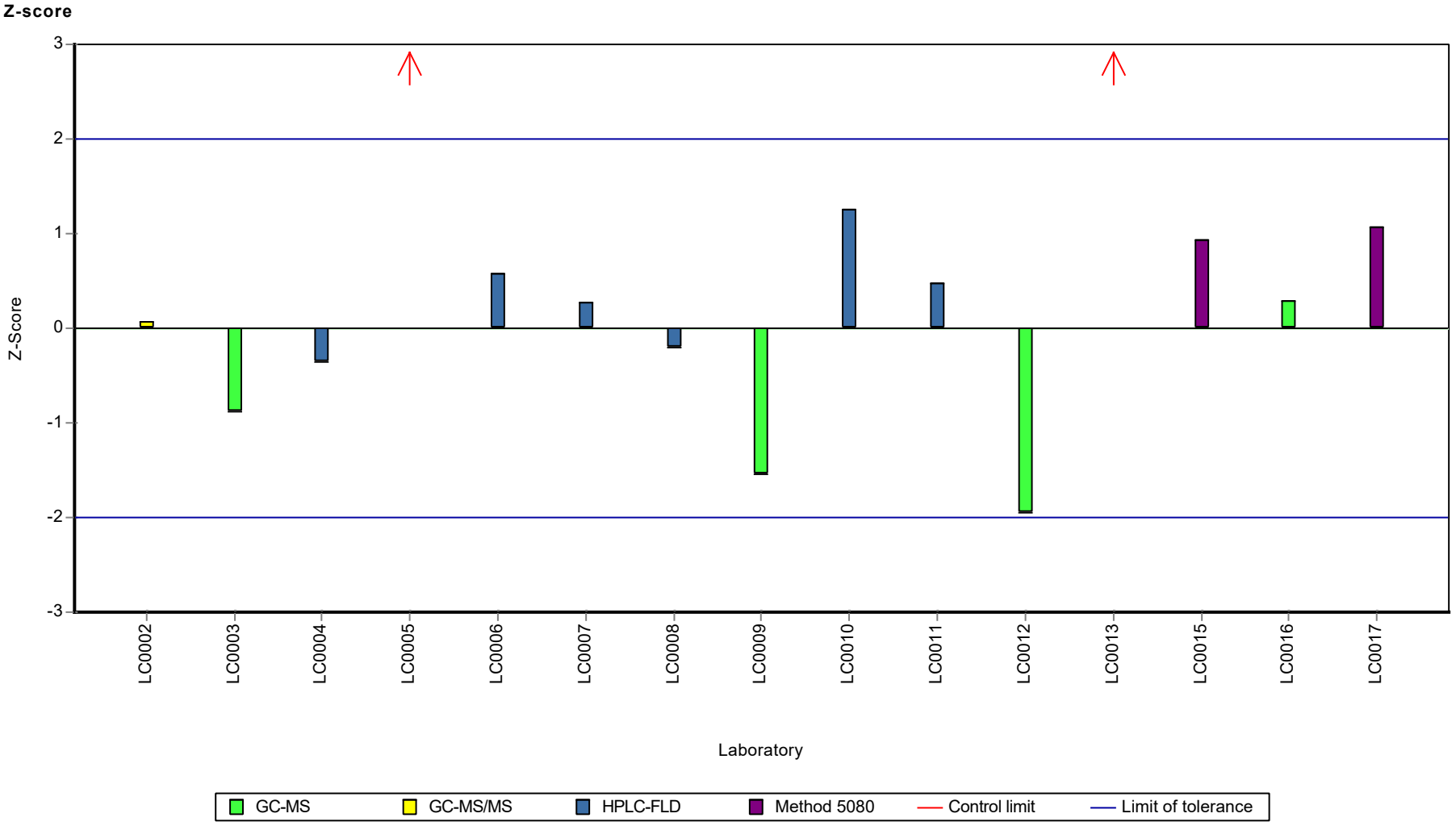
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0015
LC0016
LC0017
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Indeno[1,2,3-cd]pyrene

Unit	ng/l
Assigned value ± U (k=2)	77.2 ± 10.5
Criterion	20.1 (26 %)
Minimum - Maximum	32 - 102
Control test value ± U (k=2)	92.9 ± 29.7

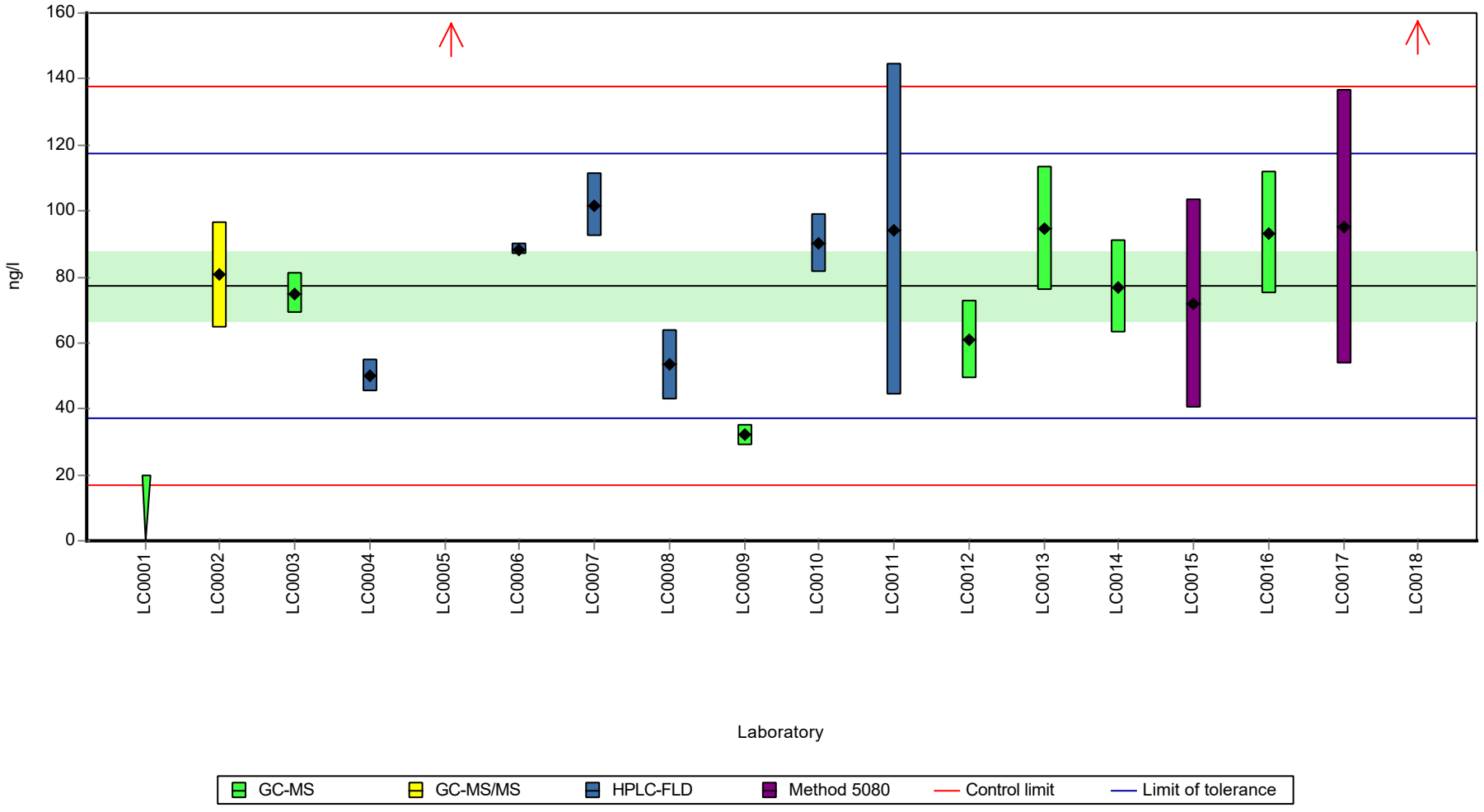
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	FN
LC0002	80.6	16.1	104	0.17	
LC0003	75	6	97.1	-0.11	
LC0004	50	5	64.7	-1.36	
LC0005	187.29	56.19	242	5.48	H
LC0006	88.4	1.58	114	0.56	
LC0007	101.77	9.69	132	1.22	
LC0008	53.3	10.6	69	-1.19	
LC0009	32	3.2	41.4	-2.25	
LC0010	90.2	9	117	0.65	
LC0011	94.33	50.37	122	0.85	
LC0012	61	12	79	-0.81	
LC0013	94.7	18.9	123	0.87	
LC0014	77	14	99.7	-0.01	
LC0015	71.9	31.6	93.1	-0.27	
LC0016	93.26	18.652	121	0.8	
LC0017	95.1	41.84	123	0.89	
LC0018	205	26	265	6.36	H

Characteristics of parameter

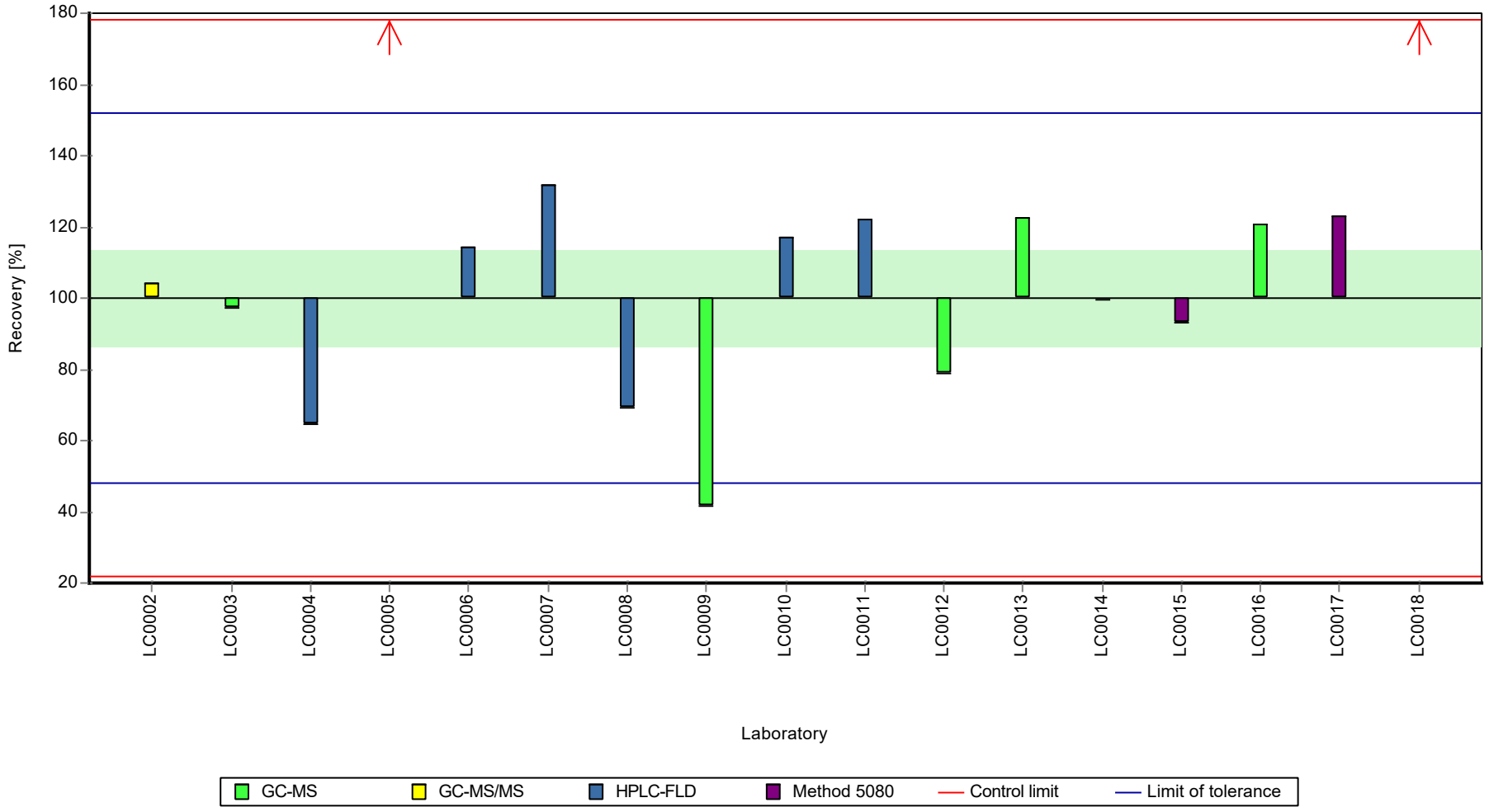
	all results	without outliers	Unit
Mean ± CI (99%)	91.2 ± 31.9	77.2 ± 15.7	ng/l
Minimum	32	32	ng/l
Maximum	205	102	ng/l
Standard deviation	43.9	20.2	ng/l
rel. standard deviation	48.1	26.2	%
n	17	15	-

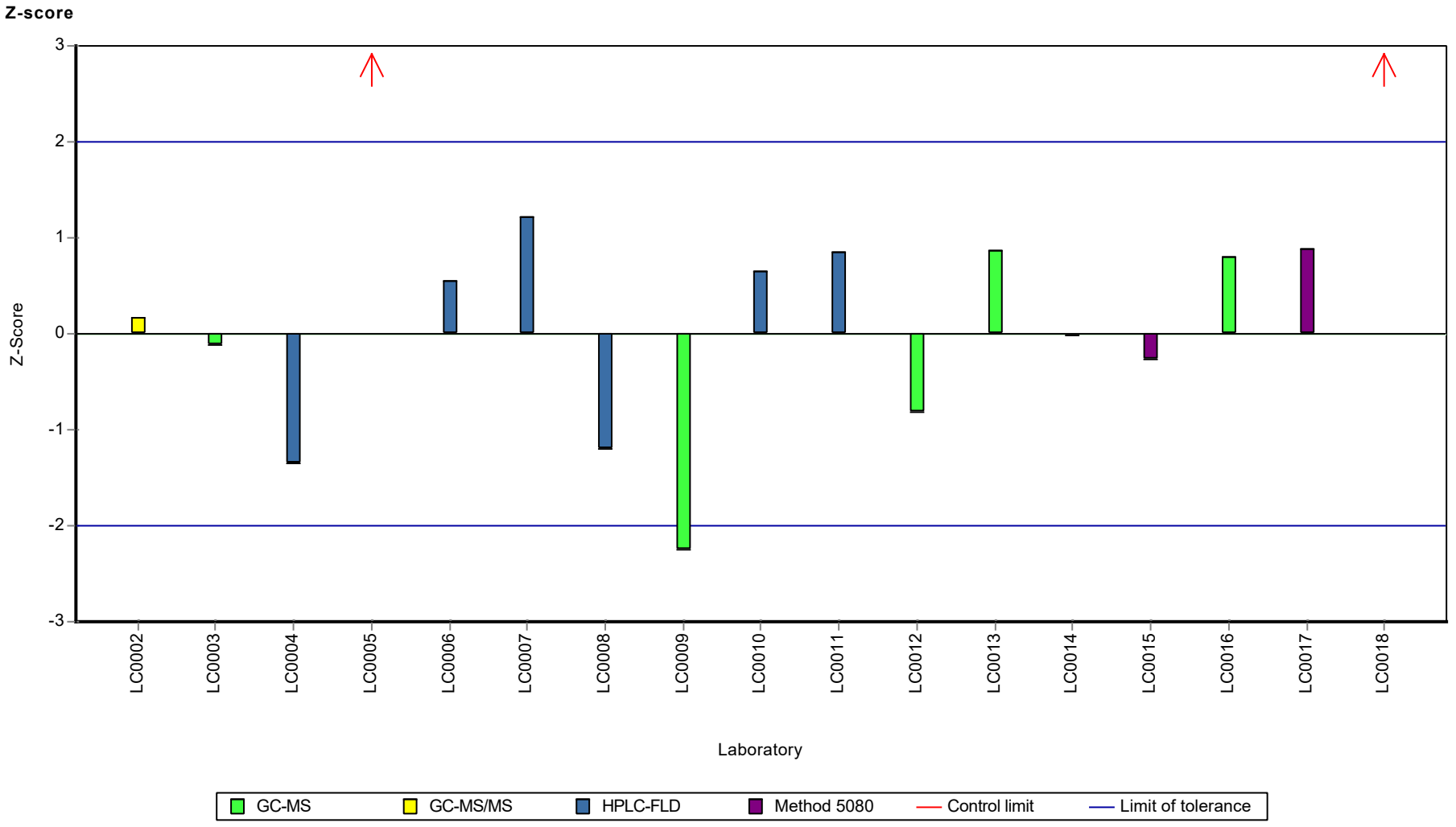
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Naphthalene

Unit	ng/l
Assigned value ± U (k=2)	31.2 ± 3.8
Criterion	6.54 (21 %)
Minimum - Maximum	20 - 43
Control test value ± U (k=2)	37 ± 10.4

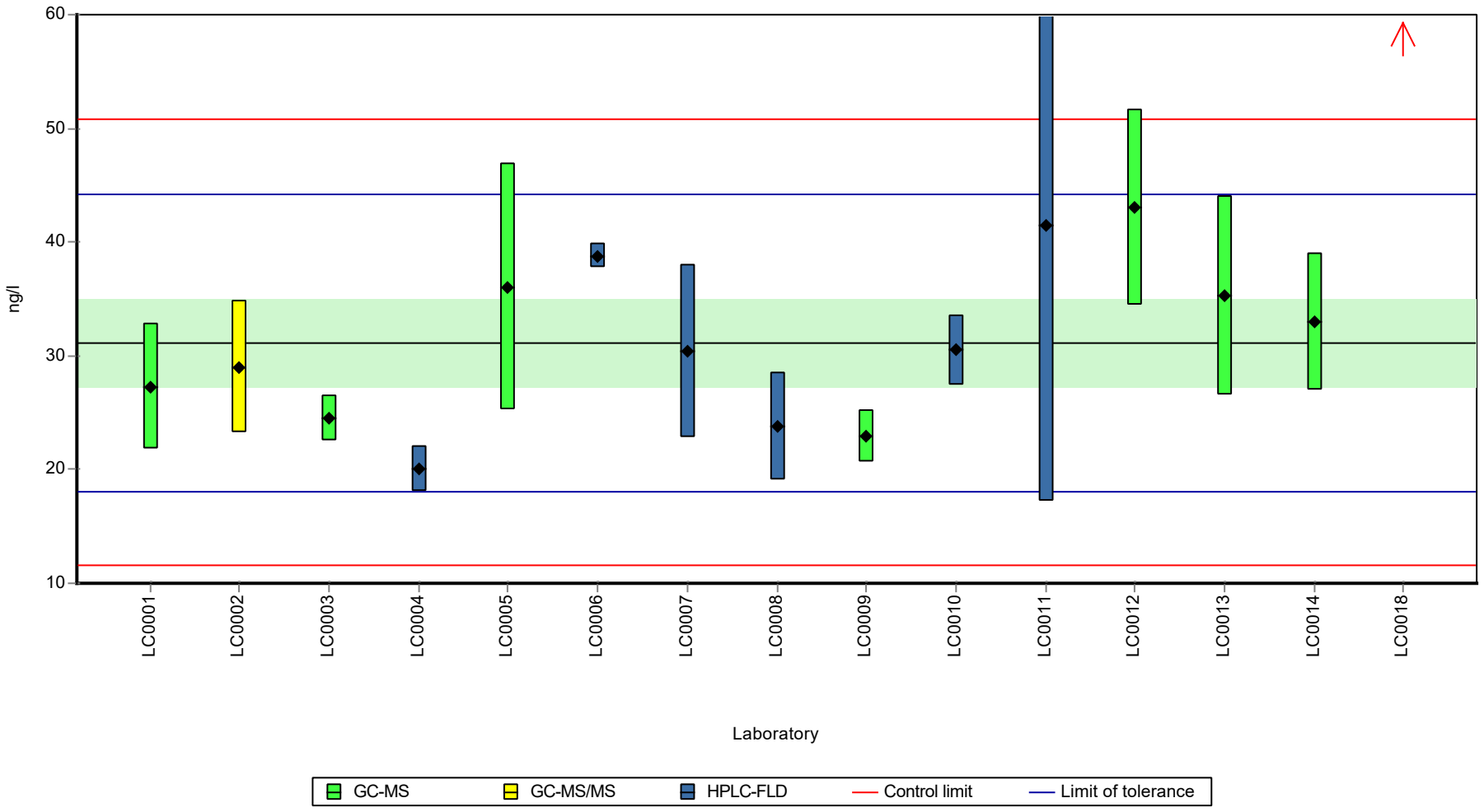
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	27.3	5.5	87.6	-0.59	
LC0002	29	5.8	93.1	-0.33	
LC0003	24.5	2	78.6	-1.02	
LC0004	20	2	64.2	-1.7	
LC0005	36.07	10.82	116	0.75	
LC0006	38.8	1.05	125	1.17	
LC0007	30.45	7.63	97.7	-0.11	
LC0008	23.8	4.7	76.4	-1.12	
LC0009	23	2.3	73.8	-1.25	
LC0010	30.5	3.1	97.9	-0.1	
LC0011	41.42	24.17	133	1.57	
LC0012	43	8.6	138	1.81	
LC0013	35.3	8.8	113	0.63	
LC0014	33	6	106	0.28	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	365	30	1170	51	H

Characteristics of parameter

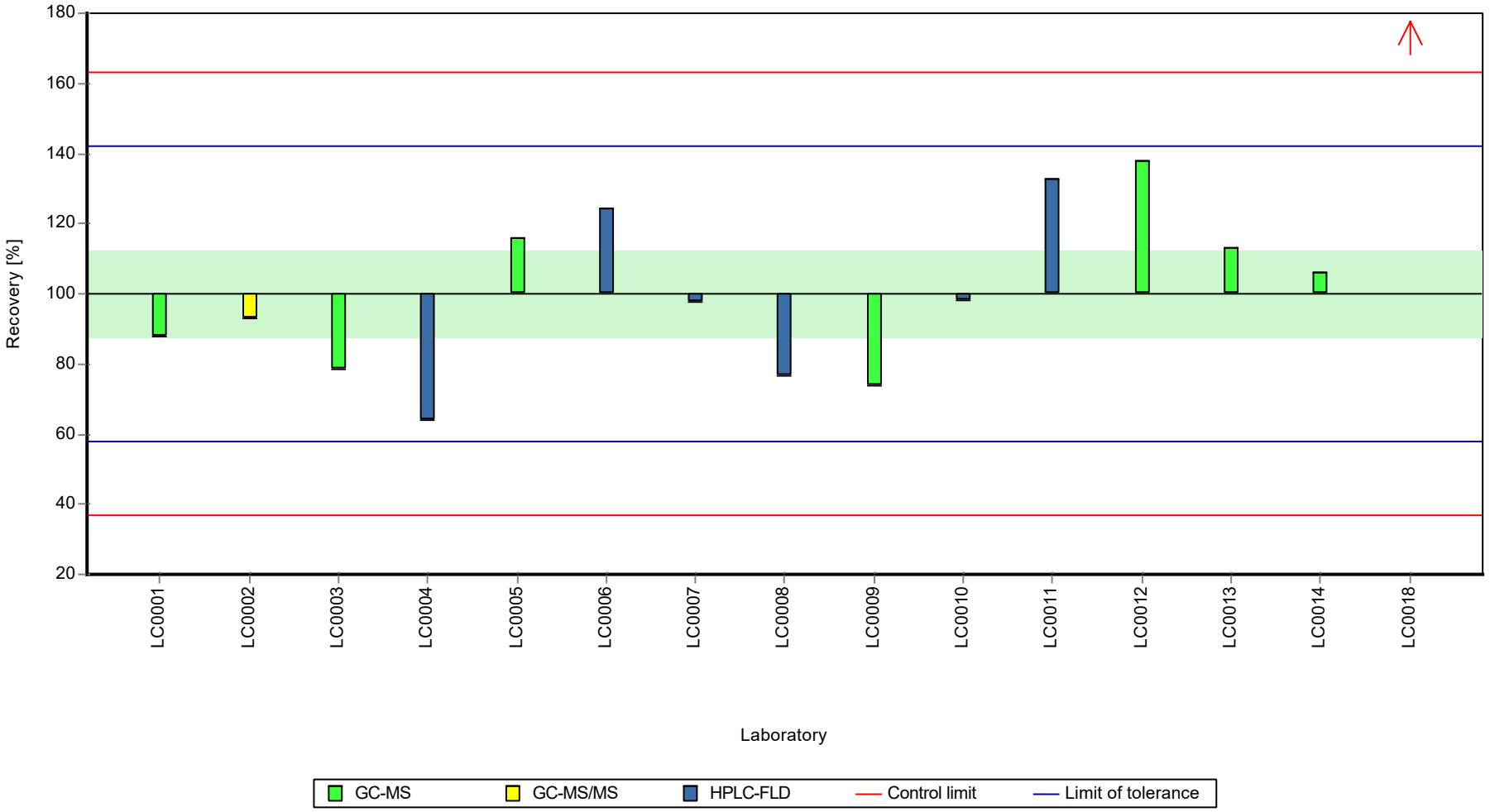
	all results	without outliers	Unit
Mean ± CI (99%)	53.4 ± 67	31.2 ± 5.71	ng/l
Minimum	20	20	ng/l
Maximum	365	43	ng/l
Standard deviation	86.5	7.12	ng/l
rel. standard deviation	162	22.8	%
n	15	14	-

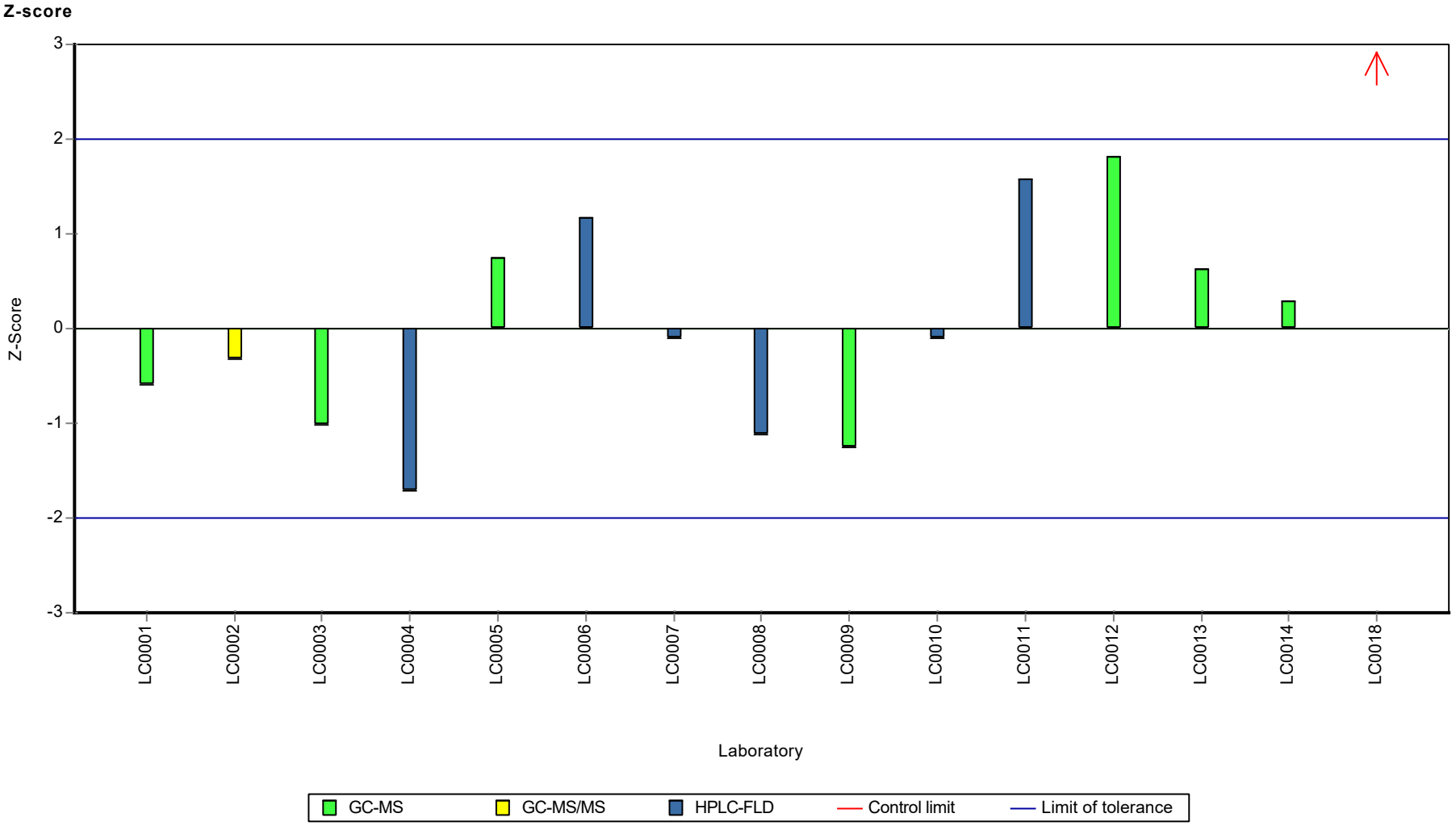
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Naphthalene

Unit	ng/l
Assigned value ± U (k=2)	159 ± 24.7
Criterion	33.3 (21 %)
Minimum - Maximum	100 - 250
Control test value ± U (k=2)	223 ± 62.4

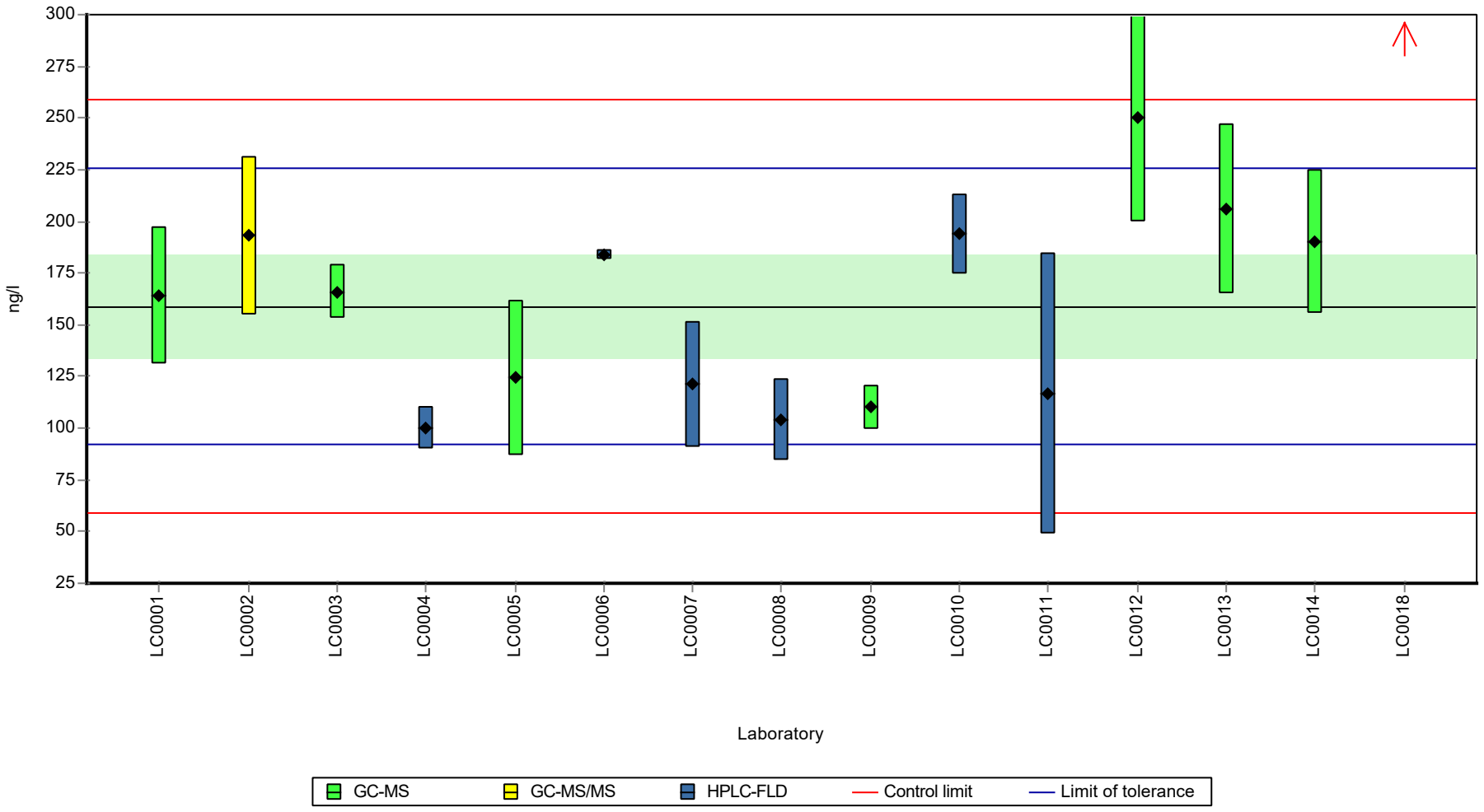
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	164	33	103	0.16	
LC0002	193	38.5	122	1.03	
LC0003	166	13	105	0.22	
LC0004	100	10	63	-1.76	
LC0005	124.24	37.27	78.2	-1.04	
LC0006	184	2.6	116	0.76	
LC0007	121.3	30.39	76.4	-1.12	
LC0008	104	20	65.5	-1.64	
LC0009	110	11	69.3	-1.46	
LC0010	194	19.4	122	1.06	
LC0011	116.68	68.08	73.5	-1.26	
LC0012	250	50	157	2.73	
LC0013	206	41	130	1.42	
LC0014	190	35	120	0.94	
LC0015	-	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	459	45	289	9	H

Characteristics of parameter

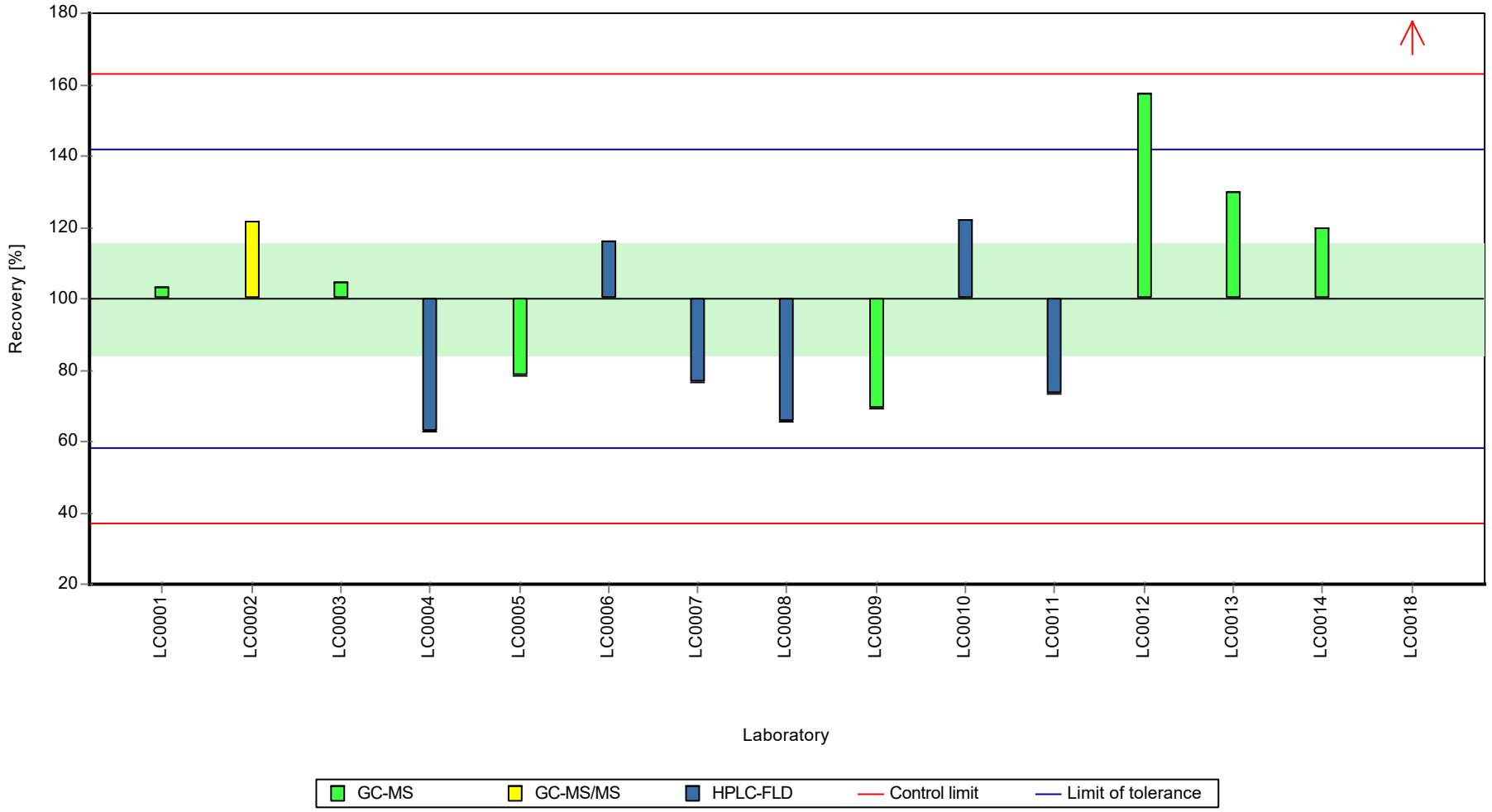
	all results	without outliers	Unit
Mean ± CI (99%)	179 ± 69.3	159 ± 37.1	ng/l
Minimum	100	100	ng/l
Maximum	459	250	ng/l
Standard deviation	89.4	46.3	ng/l
rel. standard deviation	50	29.2	%
n	15	14	-

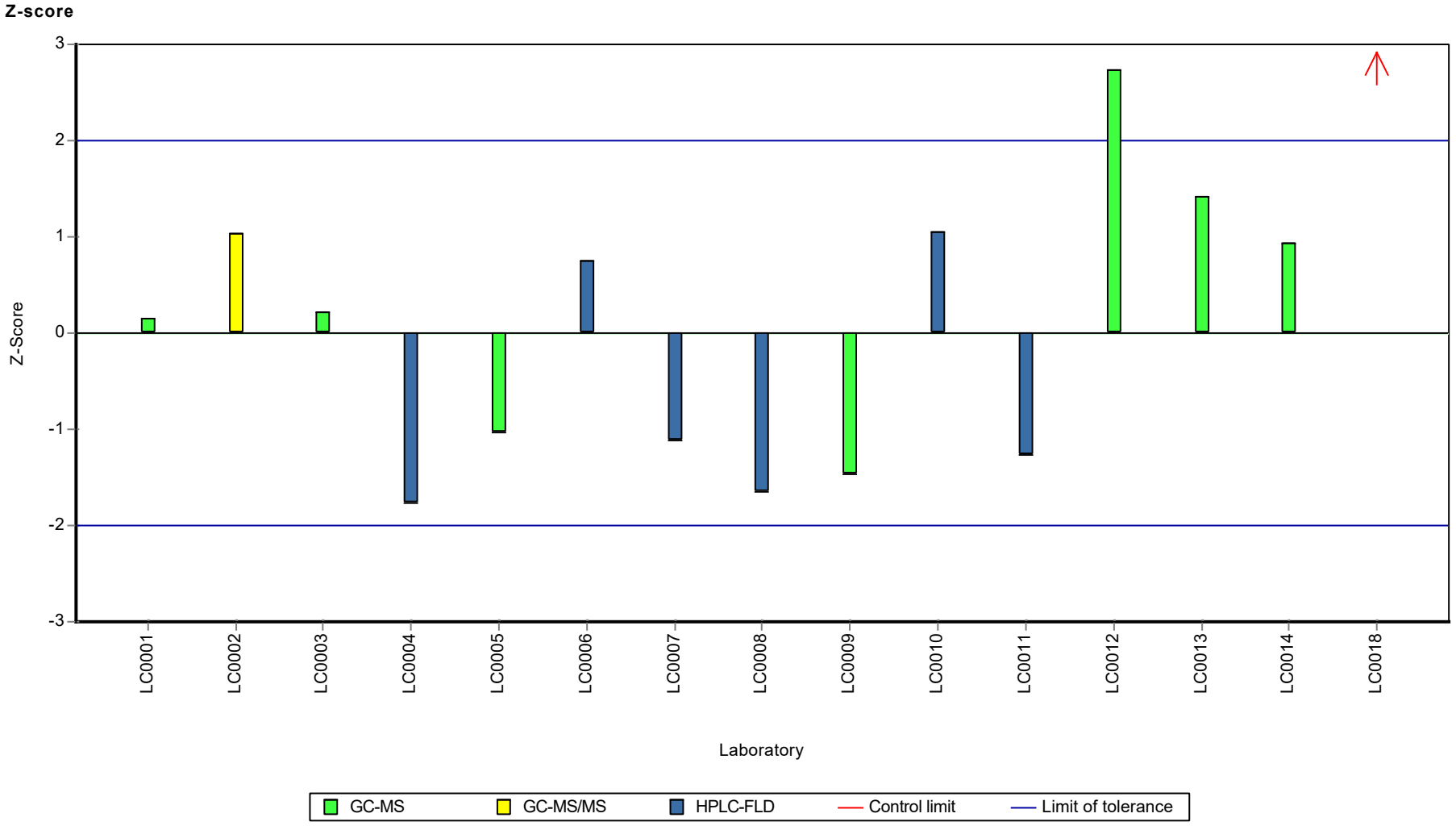
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Phenanthrene

Unit	ng/l
Assigned value ± U (k=2)	18.3 ± 2.63
Criterion	2.75 (15 %)
Minimum - Maximum	8.29 - 26
Control test value ± U (k=2)	22.5 ± 5.86

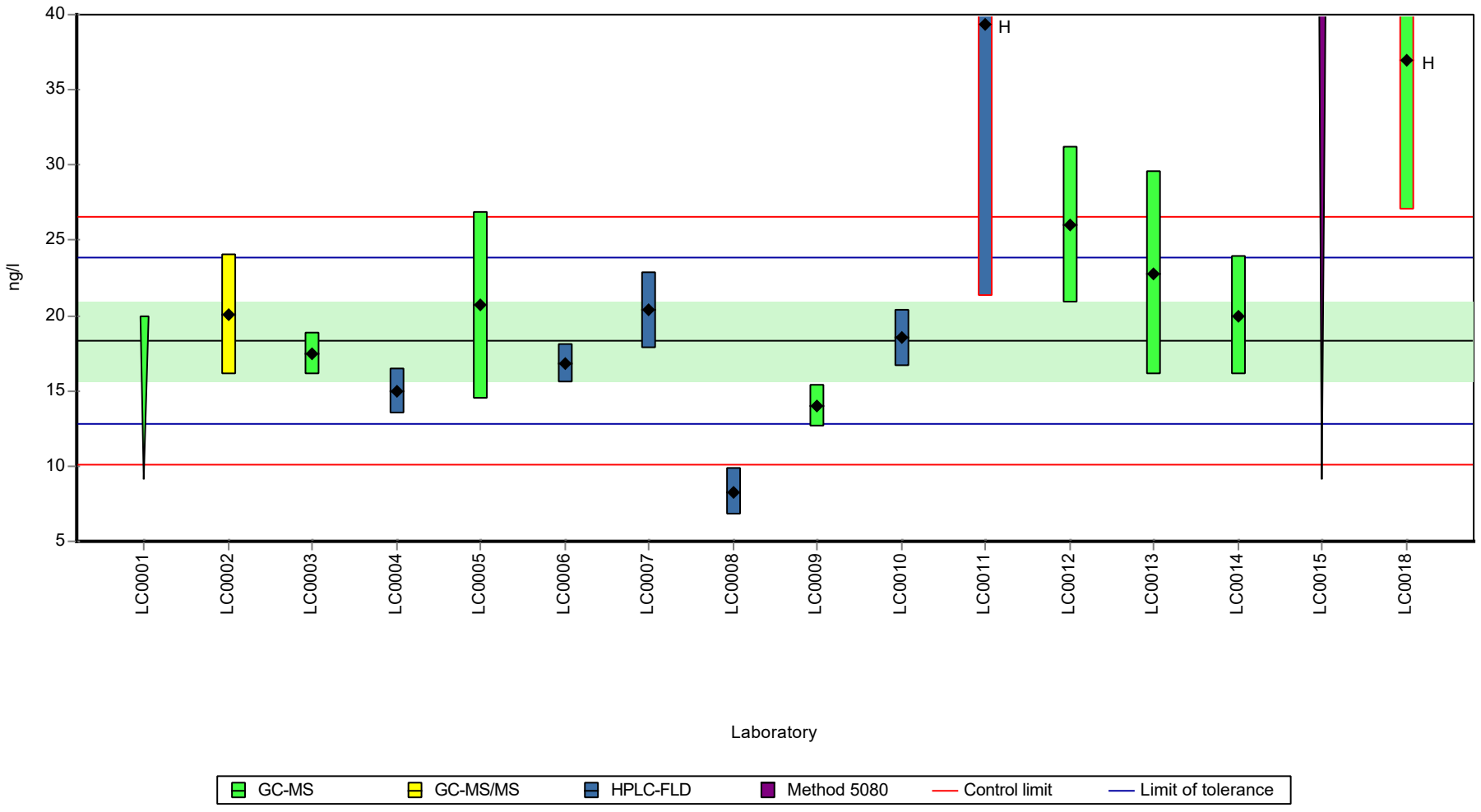
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	20.1	4.02	110	0.64	
LC0003	17.5	1.4	95.4	-0.3	
LC0004	15	1.5	81.8	-1.21	
LC0005	20.69	6.21	113	0.86	
LC0006	16.8	1.26	91.6	-0.56	
LC0007	20.35	2.58	111	0.73	
LC0008	8.29	1.6	45.2	-3.65	
LC0009	14	1.4	76.4	-1.58	
LC0010	18.5	1.9	101	0.06	
LC0011	39.31	18.07	214	7.63	H
LC0012	26	5.2	142	2.79	
LC0013	22.8	6.8	124	1.62	
LC0014	20	4	109	0.6	
LC0015	< 50 (LOQ)	-	-	-	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	37	10	202	6.79	H

Characteristics of parameter

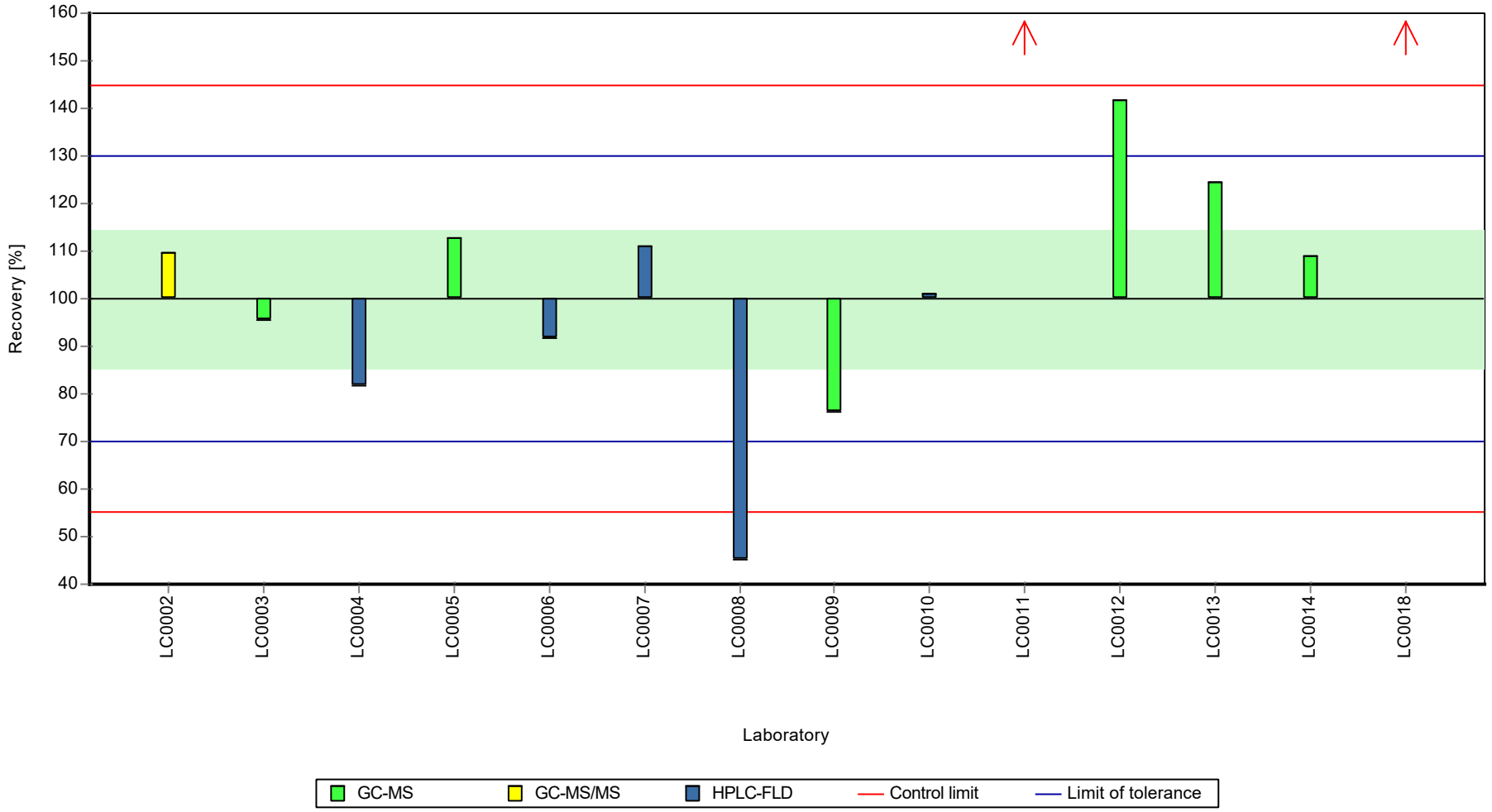
	all results	without outliers	Unit
Mean ± Cl (99%)	21.2 ± 6.69	18.3 ± 3.94	ng/l
Minimum	8.29	8.29	ng/l
Maximum	39.3	26	ng/l
Standard deviation	8.34	4.55	ng/l
rel. standard deviation	39.4	24.8	%
n	14	12	-

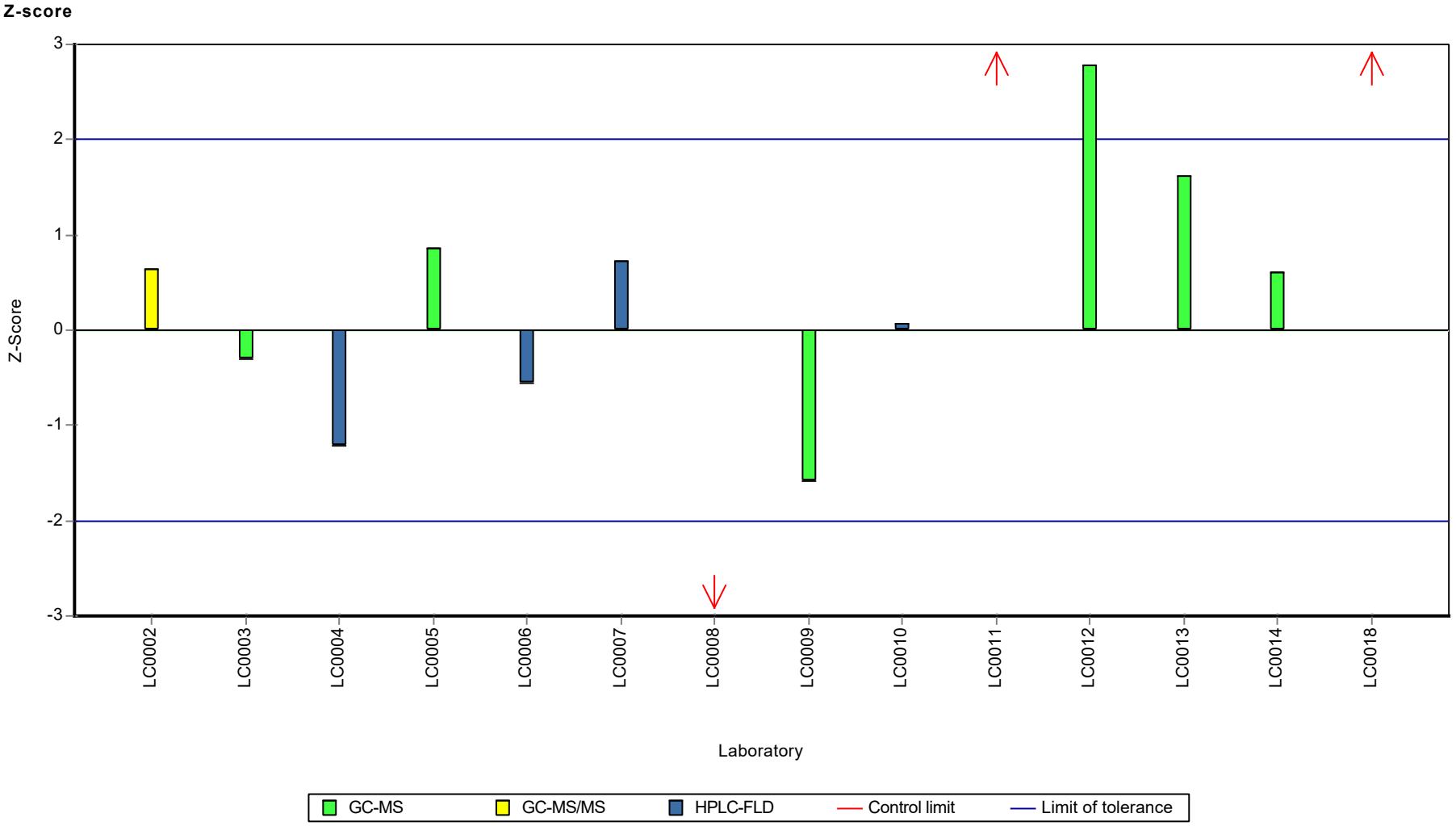
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Phenanthrene

Unit	ng/l
Assigned value ± U (k=2)	186 ± 11.7
Criterion	27.9 (15 %)
Minimum - Maximum	131 - 215
Control test value ± U (k=2)	208 ± 54

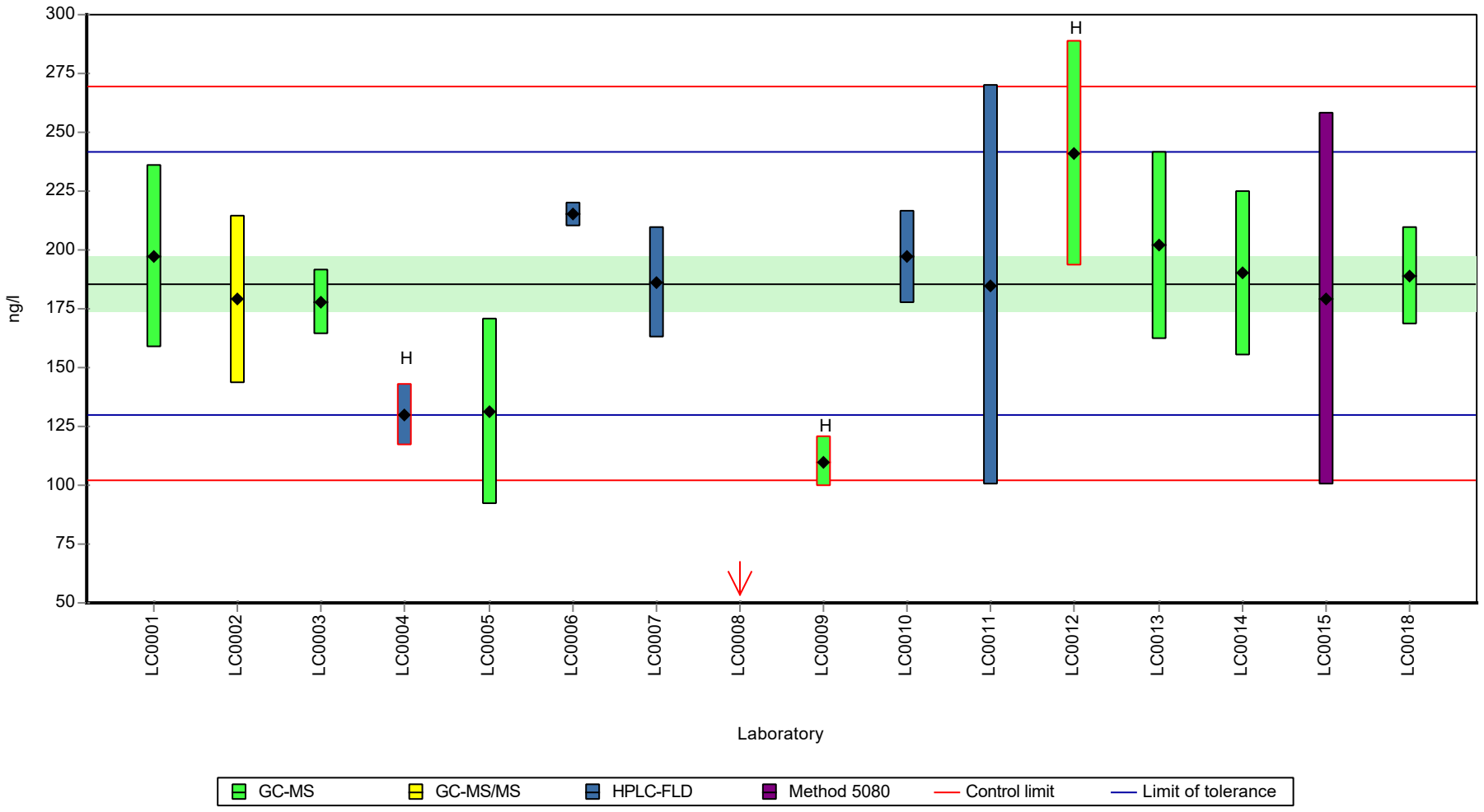
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	197	39	106	0.41	
LC0002	179	35.8	96.4	-0.24	
LC0003	178	14	95.8	-0.28	
LC0004	130	13	70	-2	H
LC0005	131.4	39.42	70.8	-1.95	
LC0006	215	4.99	116	1.05	
LC0007	186.09	23.58	100	0.01	
LC0008	4.28	0.8	2.3	-6.51	H
LC0009	110	11	59.2	-2.72	H
LC0010	197	19.7	106	0.41	
LC0011	185.03	85.08	99.6	-0.02	
LC0012	241	48.2	130	1.98	H
LC0013	202	40	109	0.58	
LC0014	190	35	102	0.15	
LC0015	179	79	96.4	-0.24	
LC0016	-	-	-	-	
LC0017	-	-	-	-	
LC0018	189	21	102	0.12	

Characteristics of parameter

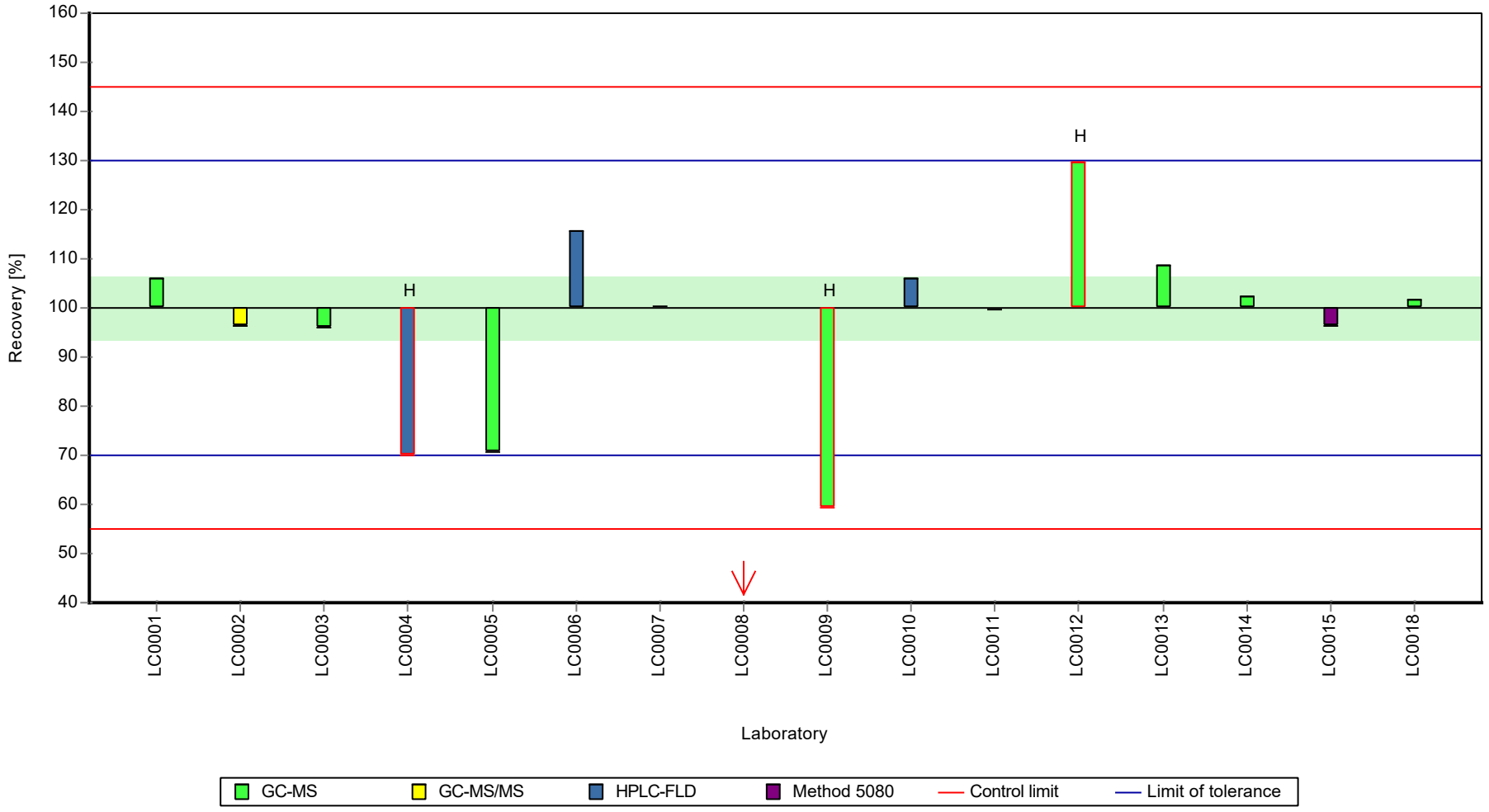
	all results	without outliers	Unit
Mean ± Cl (99%)	170 ± 41.2	186 ± 17.5	ng/l
Minimum	4.28	131	ng/l
Maximum	241	215	ng/l
Standard deviation	54.9	20.2	ng/l
rel. standard deviation	32.4	10.9	%
n	16	12	-

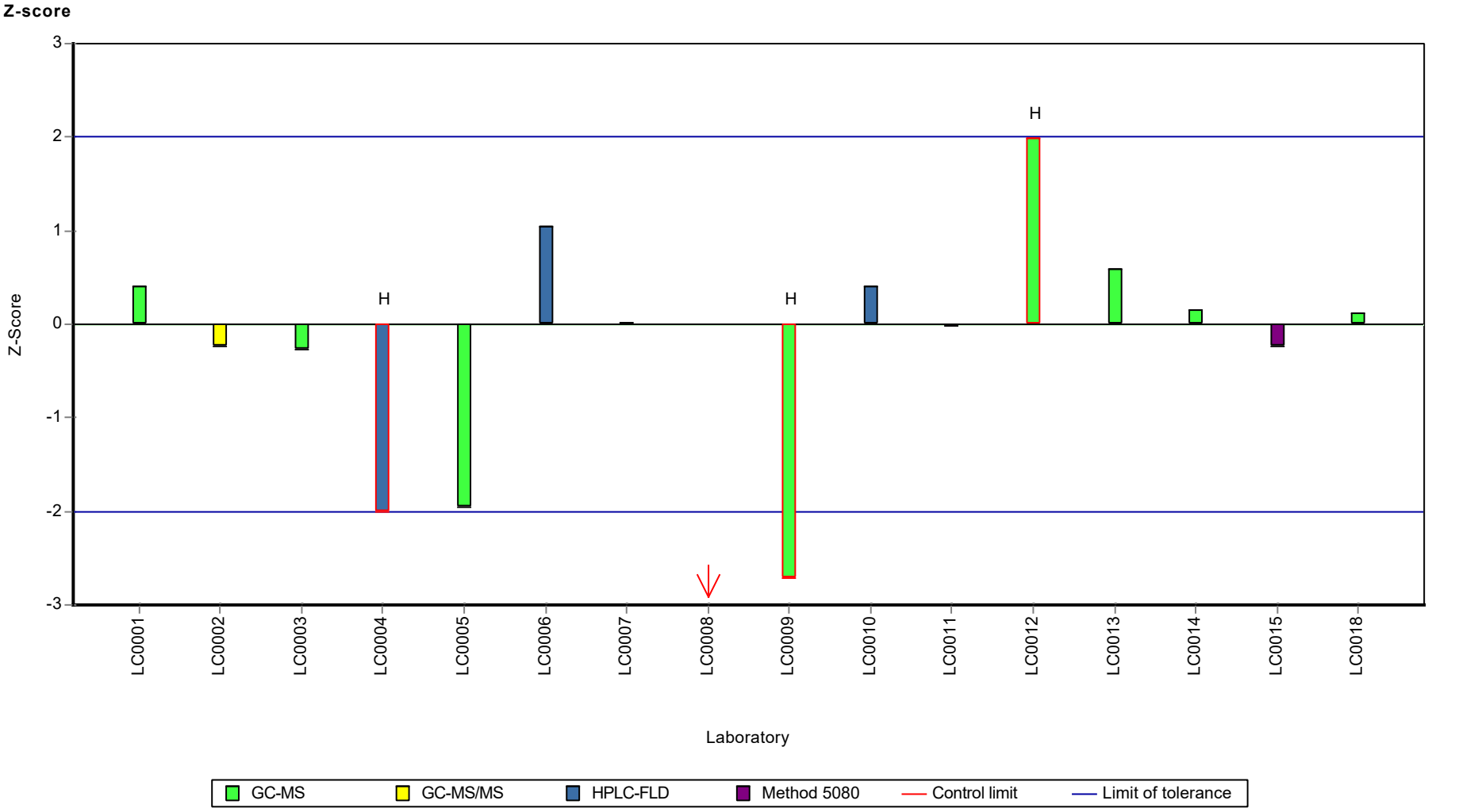
Graphical presentation of results

Results



Recovery rate




Z-score
Z-Score
3
2
1
0
-1
-2
-3
H
H
H
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 A

Pyrene

Unit	ng/l
Assigned value ± U (k=2)	16.9 ± 1.82
Criterion	2.7 (16 %)
Minimum - Maximum	11 - 24.4
Control test value ± U (k=2)	19.6 ± 3.92

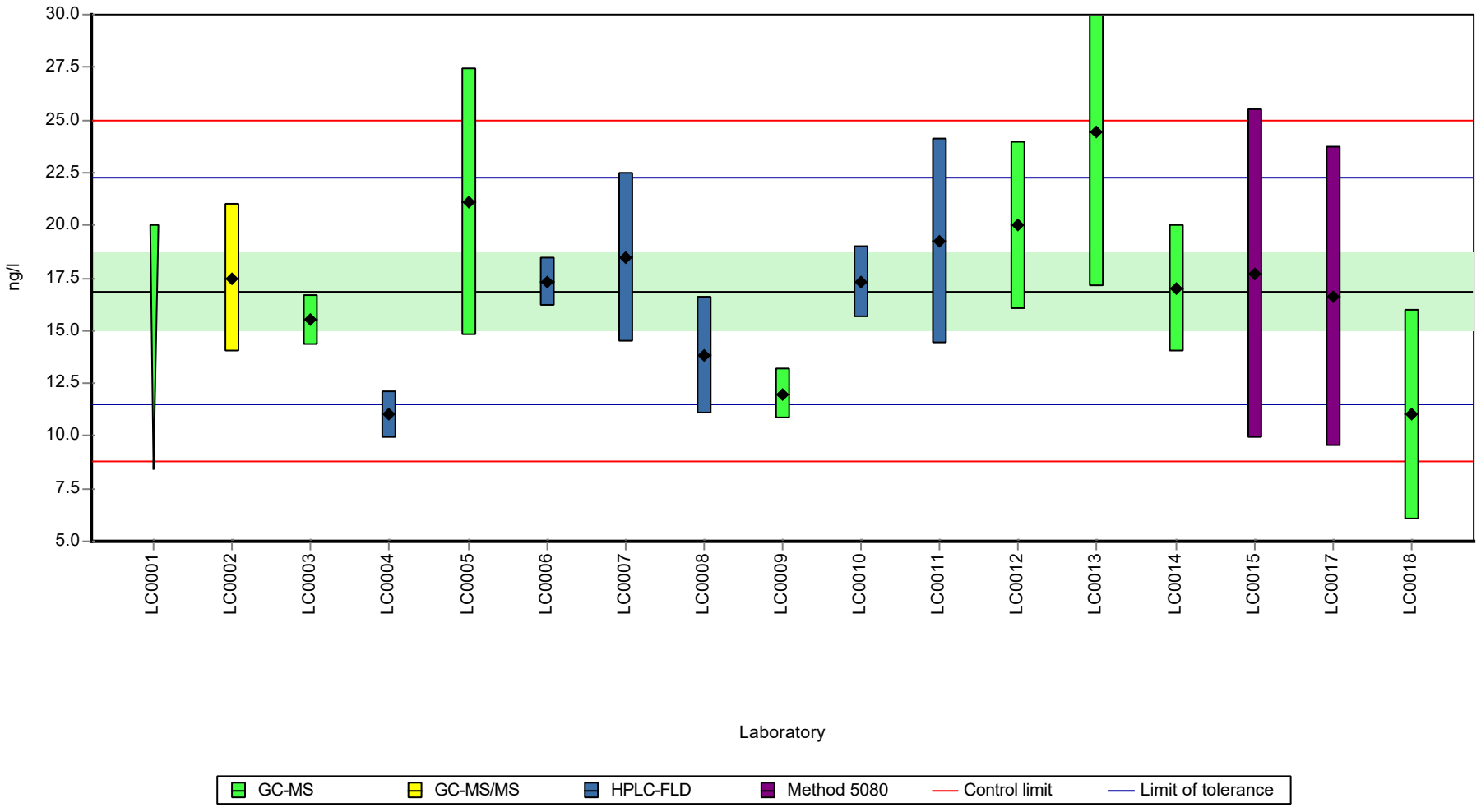
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 20 (LOQ)	-	-	-	
LC0002	17.5	3.5	104	0.23	
LC0003	15.5	1.2	91.9	-0.51	
LC0004	11	1.1	65.2	-2.17	
LC0005	21.1	6.33	125	1.57	
LC0006	17.3	1.17	103	0.16	
LC0007	18.45	4.03	109	0.59	
LC0008	13.8	2.8	81.8	-1.14	
LC0009	12	1.2	71.1	-1.8	
LC0010	17.3	1.7	103	0.16	
LC0011	19.23	4.88	114	0.88	
LC0012	20	4	119	1.16	
LC0013	24.4	7.3	145	2.79	
LC0014	17	3	101	0.05	
LC0015	17.7	7.8	105	0.31	
LC0016	-	-	-	-	
LC0017	16.6	7.11	98.4	-0.1	
LC0018	11	5	65.2	-2.17	

Characteristics of parameter

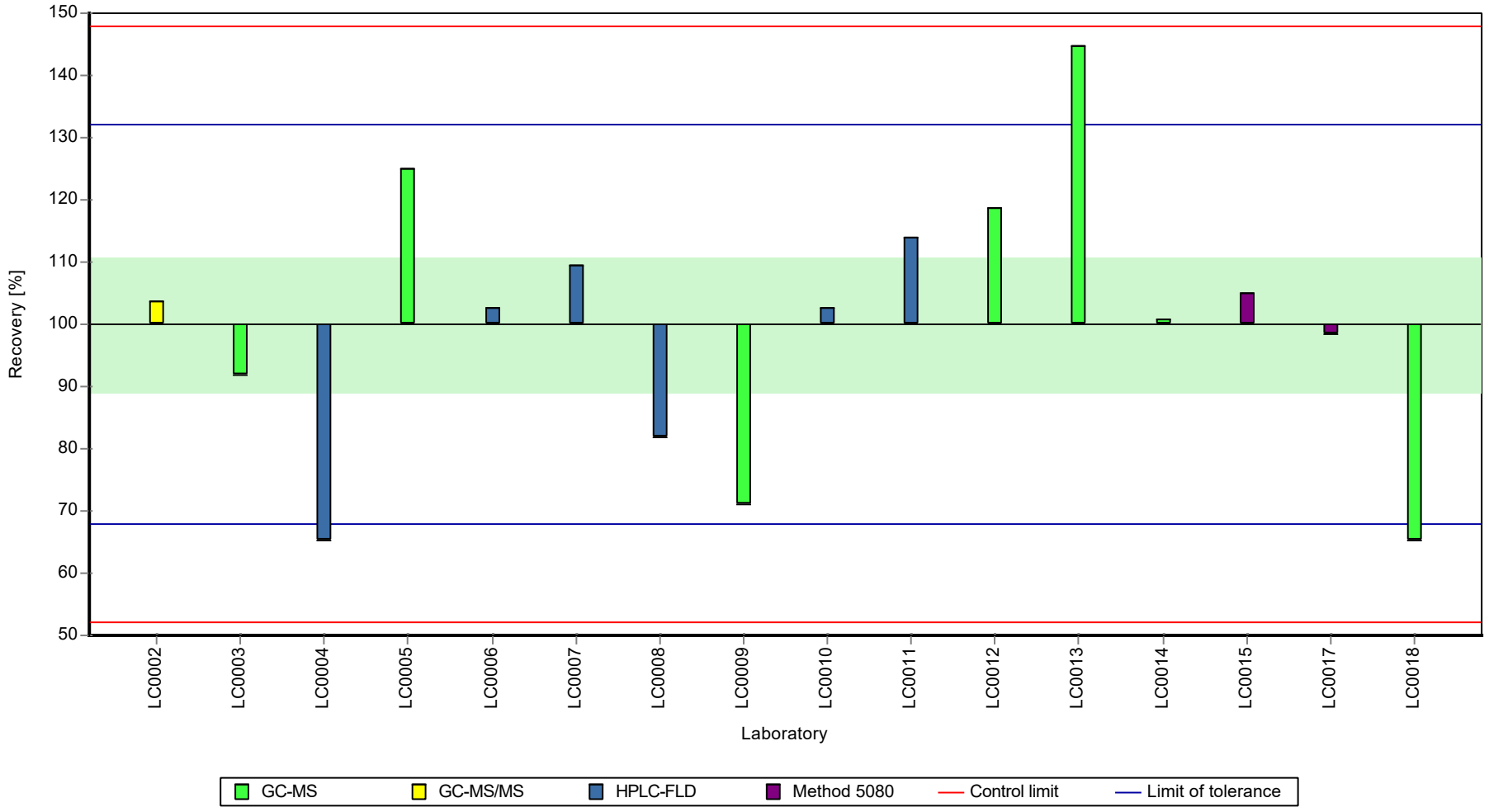
	all results	without outliers	Unit
Mean ± CI (99%)	16.9 ± 2.72	16.9 ± 2.72	ng/l
Minimum	11	11	ng/l
Maximum	24.4	24.4	ng/l
Standard deviation	3.63	3.63	ng/l
rel. standard deviation	21.5	21.5	%
n	16	16	-

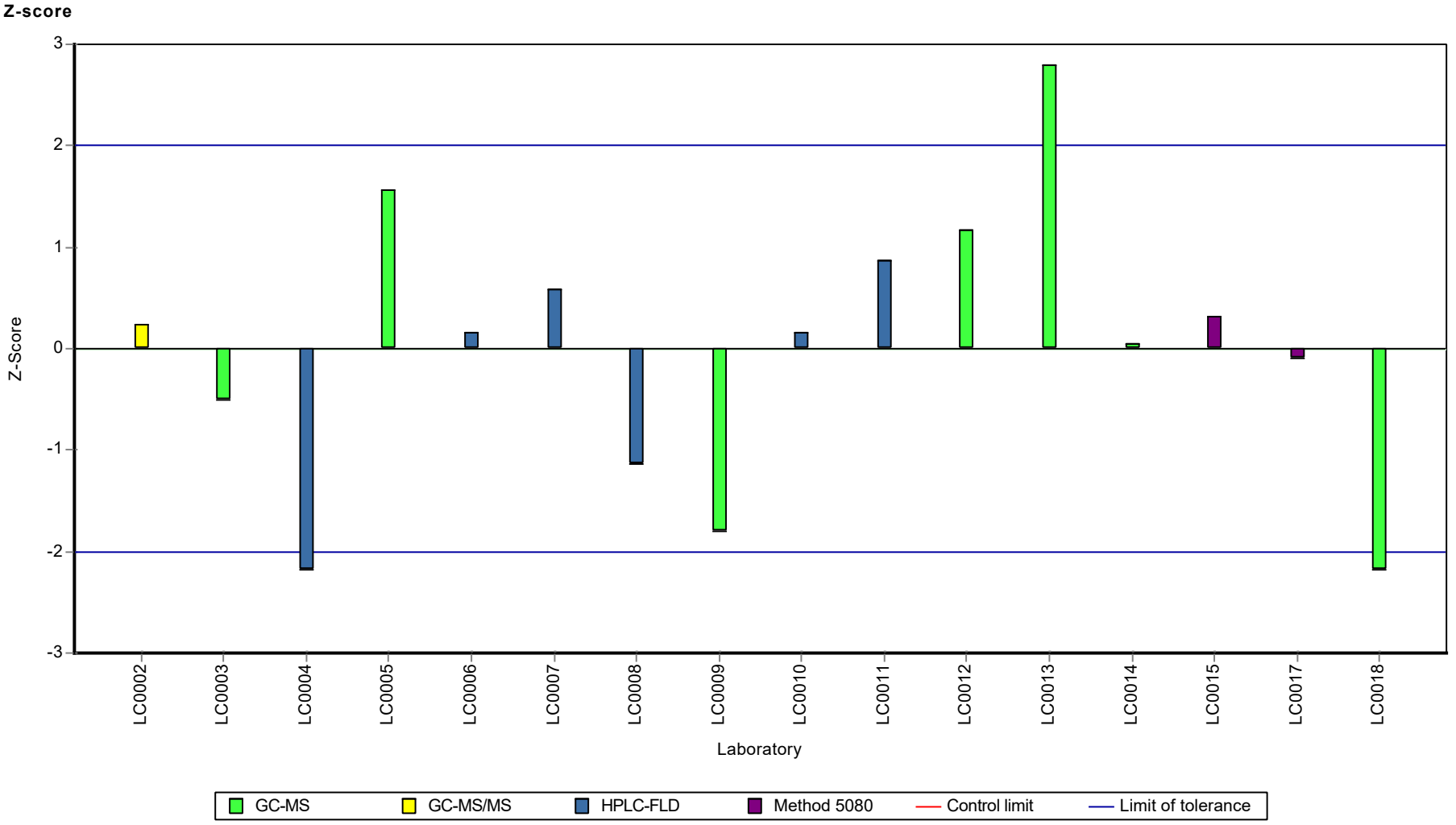
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
Z-Score
LC0002
LC0003
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

Parameter oriented report

P22 B

Pyrene

Unit	ng/l
Assigned value ± U (k=2)	114 ± 8.23
Criterion	18.2 (16 %)
Minimum - Maximum	78 - 144
Control test value ± U (k=2)	118 ± 23.6

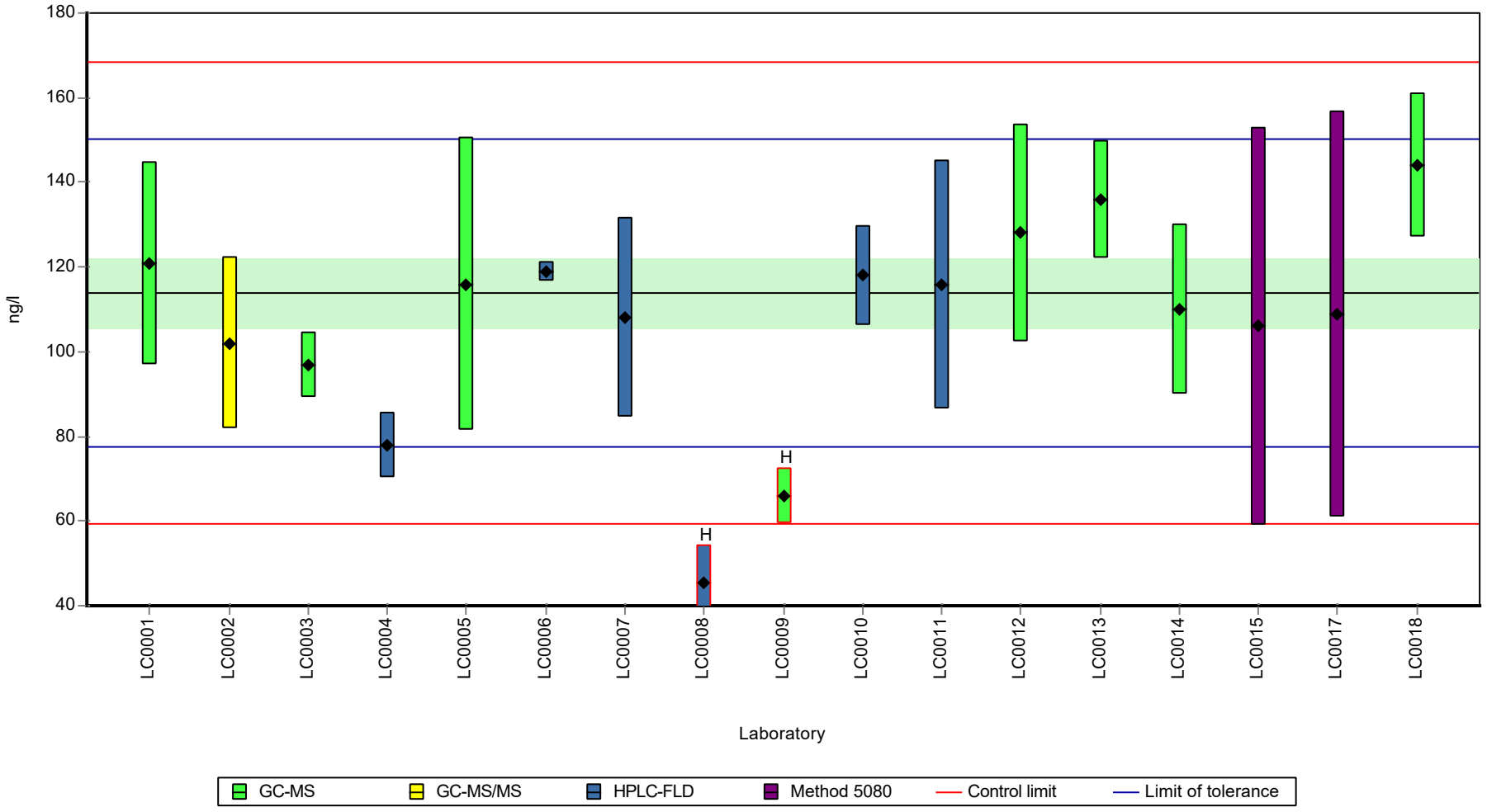
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	121	24	106	0.39	
LC0002	102	20.4	89.6	-0.65	
LC0003	96.8	7.7	85	-0.94	
LC0004	78	7.8	68.5	-1.97	
LC0005	115.99	34.8	102	0.12	
LC0006	119	2.4	105	0.28	
LC0007	108	23.6	94.9	-0.32	
LC0008	45.5	9	40	-3.75	H
LC0009	66	6.6	58	-2.63	H
LC0010	118	11.8	104	0.23	
LC0011	115.67	29.35	102	0.1	
LC0012	128	25.6	112	0.78	
LC0013	136	14	119	1.22	
LC0014	110	20	96.6	-0.21	
LC0015	106	47	93.1	-0.43	
LC0016	-	-	-	-	
LC0017	108.83	47.89	95.6	-0.27	
LC0018	144	17	127	1.66	

Characteristics of parameter

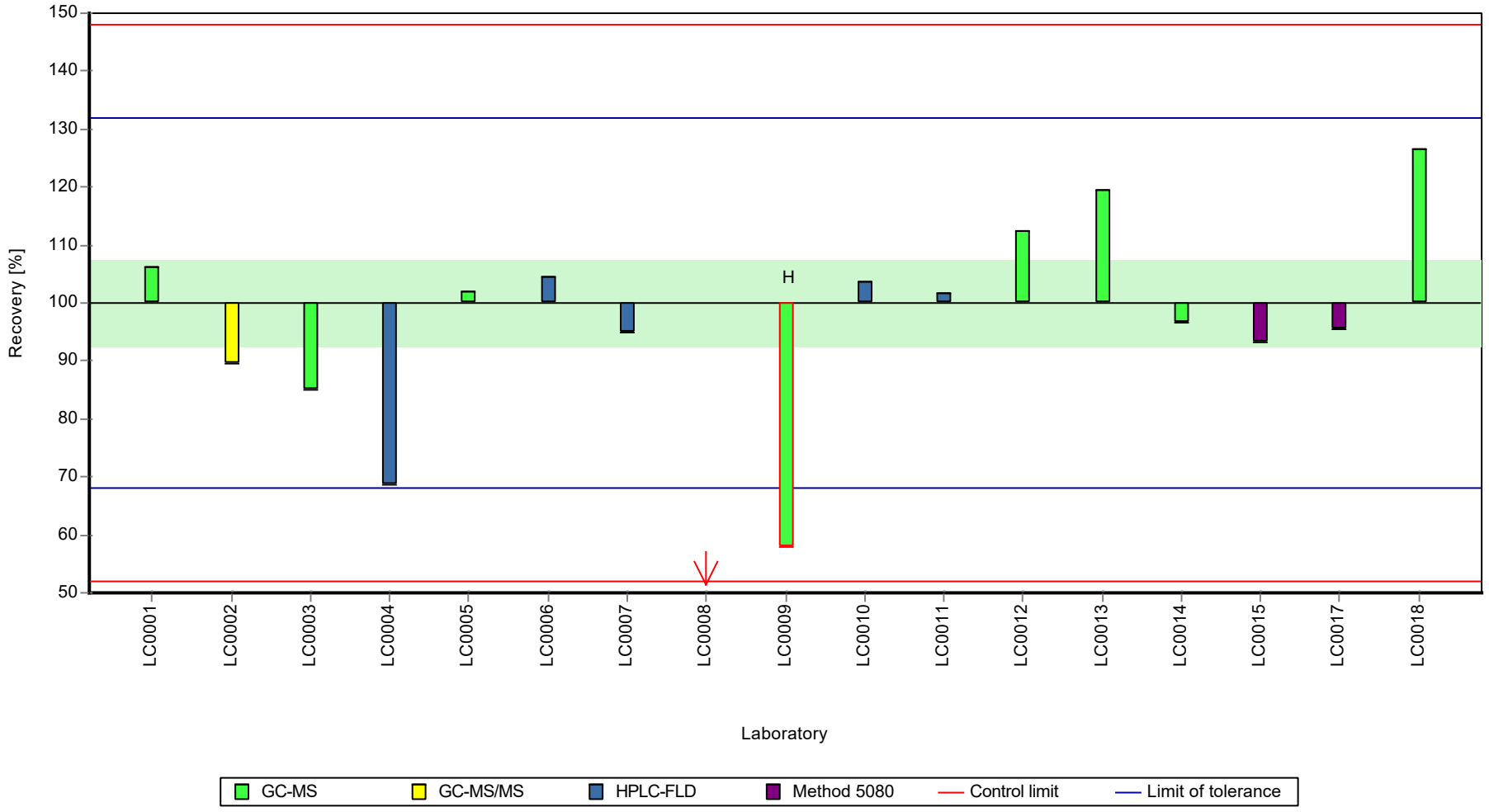
	all results	without outliers	Unit
Mean ± CI (99%)	107 ± 17.9	114 ± 12.3	ng/l
Minimum	45.5	78	ng/l
Maximum	144	144	ng/l
Standard deviation	24.6	15.9	ng/l
rel. standard deviation	23	14	%
n	17	15	-

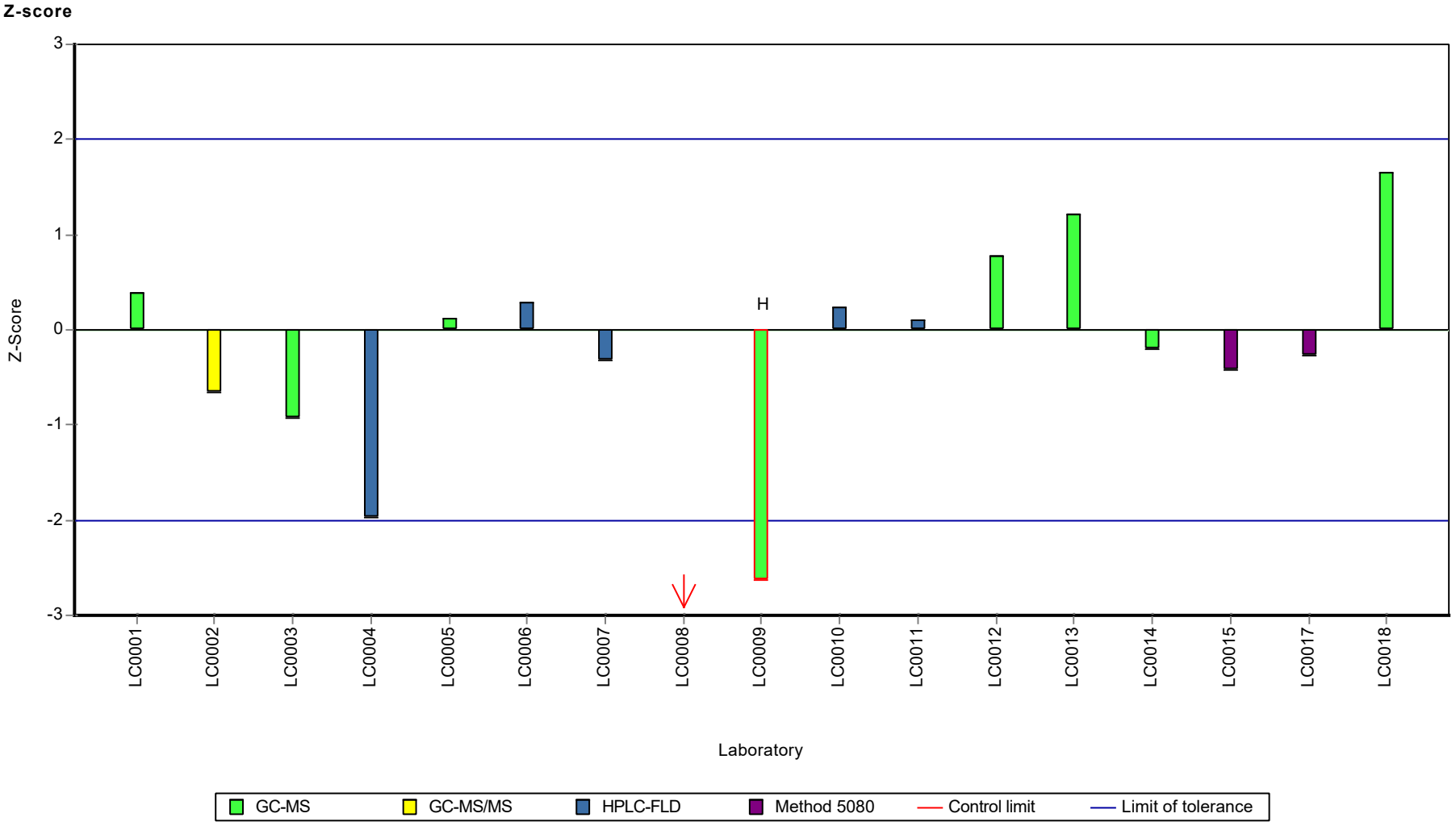
Graphical presentation of results

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
LC0017
LC0018
Laboratory
GC-MS
GC-MS/MS
HPLC-FLD
Method 5080
Control limit
Limit of tolerance

E8. Laborientierte Auswertung / Laboratory oriented report

Die Laborientierte Auswertung ist nach dem Laborcode sortiert.

The laboratory oriented report is sorted by laboratory code.

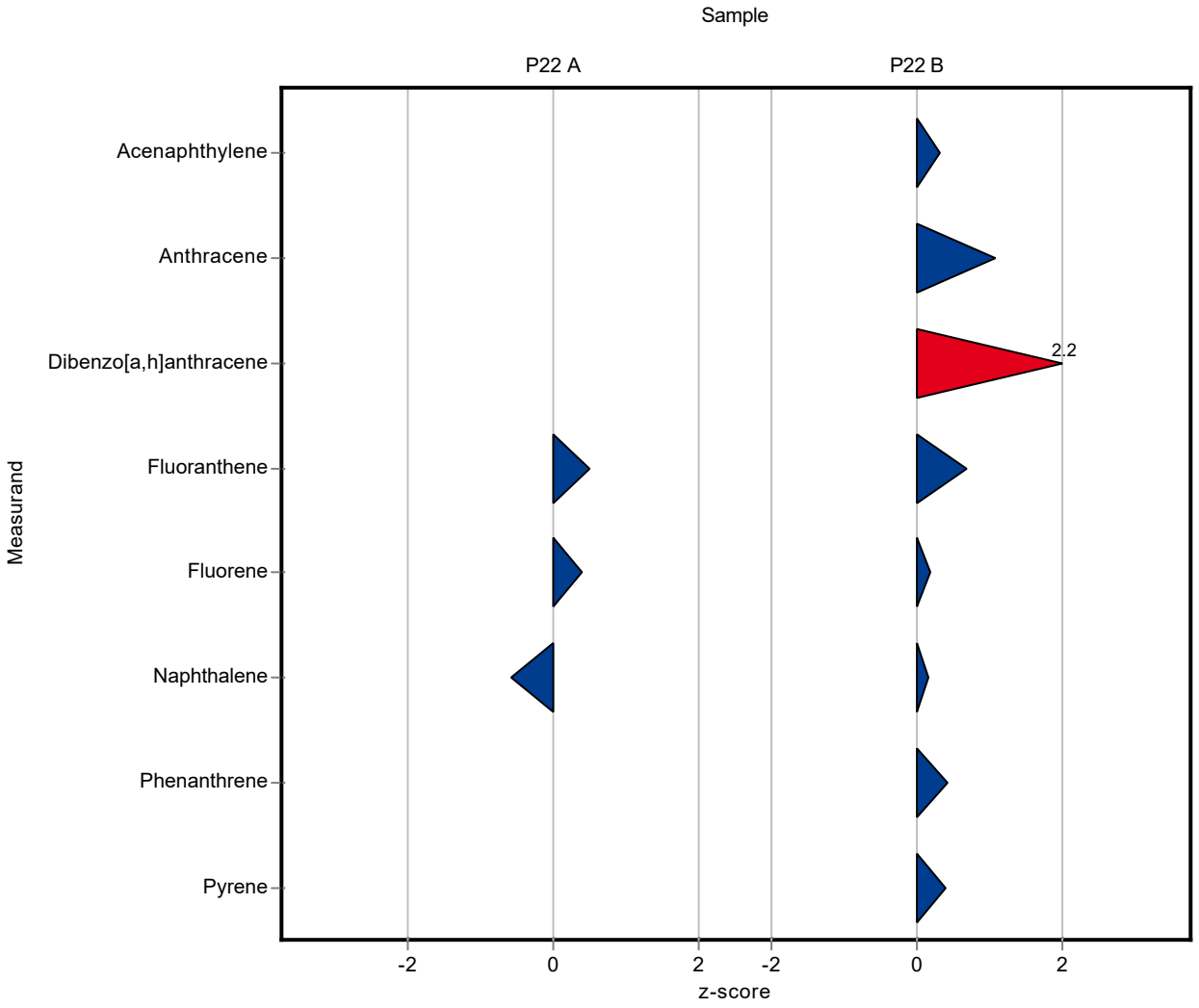
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	<20 (LOQ) ± -	2.63	-	-
Acenaphthylene	ng/l	15.4 ± 2.97	<20 (LOQ) ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	<20 (LOQ) ± -	2.1	-	-
Benzo[a]anthracene	ng/l	13.8 ± 1.23	<20 (LOQ) ± -	2.91	-	-
Benzo[a]pyrene	ng/l	11.5 ± 1.41	<20 (LOQ) ± -	2.75	-	-
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	<20 (LOQ) ± -	2.69	-	-
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<20 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	<20 (LOQ) ± -	4.45	-	-
Chrysene	ng/l	19 ± 0.871	<20 (LOQ) ± -	1.63	-	-
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	<20 (LOQ) ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	20.5 ± 4.1	3.4	109	0.48
Fluorene	ng/l	22.4 ± 2.02	23.6 ± 4.7	3.14	105	0.37
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	<20 (LOQ) ± -	2.54	-	-
Naphthalene	ng/l	31.2 ± 3.8	27.3 ± 5.5	6.54	87.6	-0.59
Phenanthrene	ng/l	18.3 ± 2.63	<20 (LOQ) ± -	2.75	-	-
Pyrene	ng/l	16.9 ± 1.82	<20 (LOQ) ± -	2.7	-	-

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	<20 (LOQ) ± -	20.3	-	-
Acenaphthylene	ng/l	138 ± 22.8	151 ± 30	42.7	110	0.31
Anthracene	ng/l	135 ± 11.2	159 ± 32	22.9	118	1.06
Benzo[a]anthracene	ng/l	123 ± 9.48	<20 (LOQ) ± -	25.9	-	-
Benzo[a]pyrene	ng/l	83 ± 7.73	<20 (LOQ) ± -	19.9	-	-
Benzo[b]fluoranthene	ng/l	107 ± 7.93	<20 (LOQ) ± -	18.2	-	-
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	<20 (LOQ) ± -	31.1	-	-
Benzo[k]fluoranthene	ng/l	74 ± 5.26	<20 (LOQ) ± -	19.2	-	-
Chrysene	ng/l	94.9 ± 9.16	<20 (LOQ) ± -	18	-	-
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	198 ± 40	36.1	165	2.16

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	195 ± 39	31.3	112	0.67
Fluorene	ng/l	104 ± 9.65	106 ± 21	14.5	102	0.16
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	<20 (LOQ) ± -	20.1	-	-
Naphthalene	ng/l	159 ± 24.7	164 ± 33	33.3	103	0.16
Phenanthrene	ng/l	186 ± 11.7	197 ± 39	27.9	106	0.41
Pyrene	ng/l	114 ± 8.23	121 ± 24	18.2	106	0.39



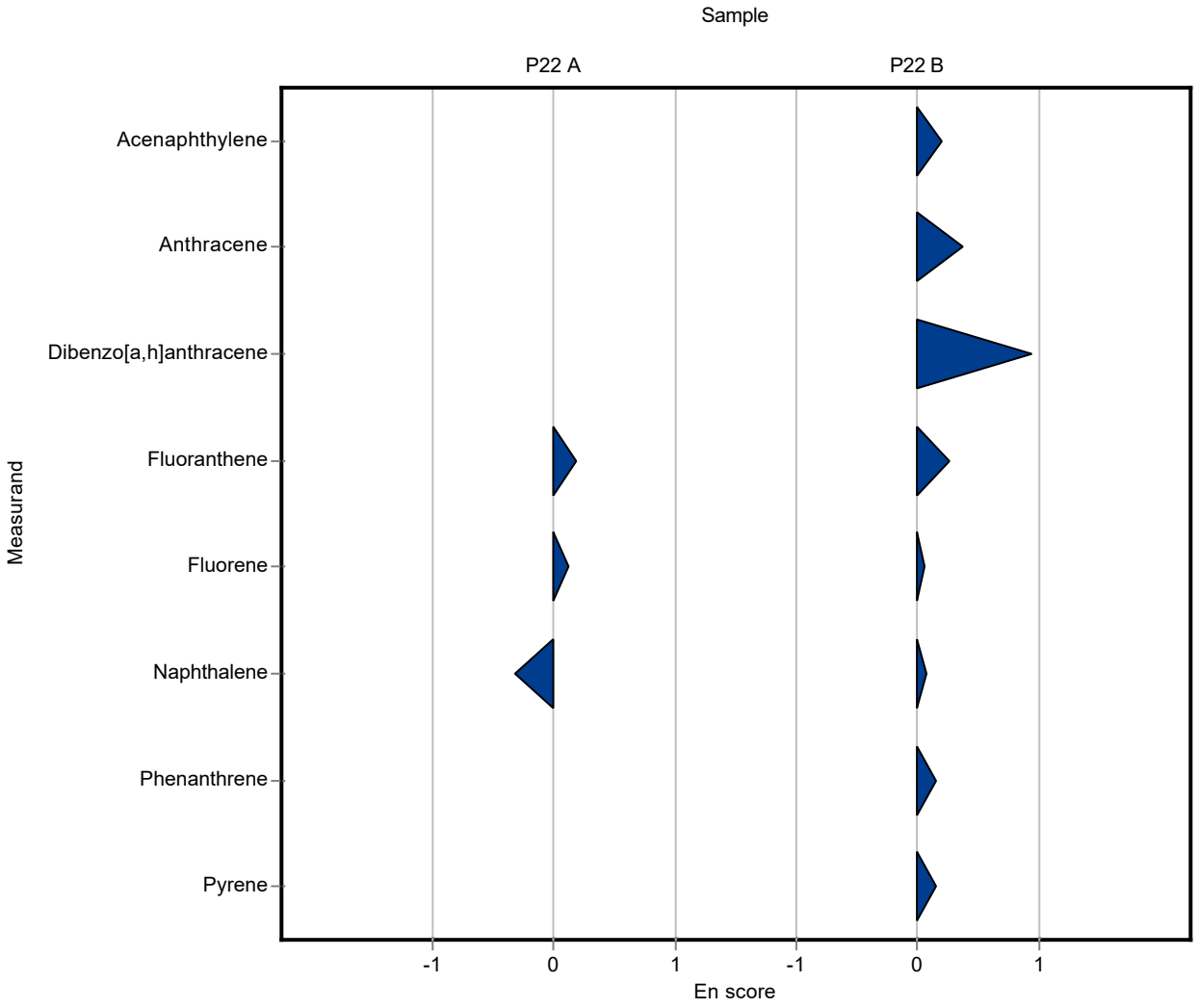
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	<20 (LOQ) ± -	2.63	-	-
Acenaphthylene	ng/l	15.4 ± 2.97	<20 (LOQ) ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	<20 (LOQ) ± -	2.1	-	-
Benzo[a]anthracene	ng/l	13.8 ± 1.23	<20 (LOQ) ± -	2.91	-	-
Benzo[a]pyrene	ng/l	11.5 ± 1.41	<20 (LOQ) ± -	2.75	-	-
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	<20 (LOQ) ± -	2.69	-	-
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<20 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	<20 (LOQ) ± -	4.45	-	-
Chrysene	ng/l	19 ± 0.871	<20 (LOQ) ± -	1.63	-	-
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	<20 (LOQ) ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	20.5 ± 4.1	3.4	109	0.19
Fluorene	ng/l	22.4 ± 2.02	23.6 ± 4.7	3.14	105	0.12
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	<20 (LOQ) ± -	2.54	-	-
Naphthalene	ng/l	31.2 ± 3.8	27.3 ± 5.5	6.54	87.6	-0.33
Phenanthrene	ng/l	18.3 ± 2.63	<20 (LOQ) ± -	2.75	-	-
Pyrene	ng/l	16.9 ± 1.82	<20 (LOQ) ± -	2.7	-	-

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	<20 (LOQ) ± -	20.3	-	-
Acenaphthylene	ng/l	138 ± 22.8	151 ± 30	42.7	110	0.20
Anthracene	ng/l	135 ± 11.2	159 ± 32	22.9	118	0.38
Benzo[a]anthracene	ng/l	123 ± 9.48	<20 (LOQ) ± -	25.9	-	-
Benzo[a]pyrene	ng/l	83 ± 7.73	<20 (LOQ) ± -	19.9	-	-
Benzo[b]fluoranthene	ng/l	107 ± 7.93	<20 (LOQ) ± -	18.2	-	-
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	<20 (LOQ) ± -	31.1	-	-
Benzo[k]fluoranthene	ng/l	74 ± 5.26	<20 (LOQ) ± -	19.2	-	-
Chrysene	ng/l	94.9 ± 9.16	<20 (LOQ) ± -	18	-	-
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	198 ± 40	36.1	165	0.94

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	195 ± 39	31.3	112	0.26
Fluorene	ng/l	104 ± 9.65	106 ± 21	14.5	102	0.05
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	<20 (LOQ) ± -	20.1	-	-
Naphthalene	ng/l	159 ± 24.7	164 ± 33	33.3	103	0.07
Phenanthrene	ng/l	186 ± 11.7	197 ± 39	27.9	106	0.14
Pyrene	ng/l	114 ± 8.23	121 ± 24	18.2	106	0.15



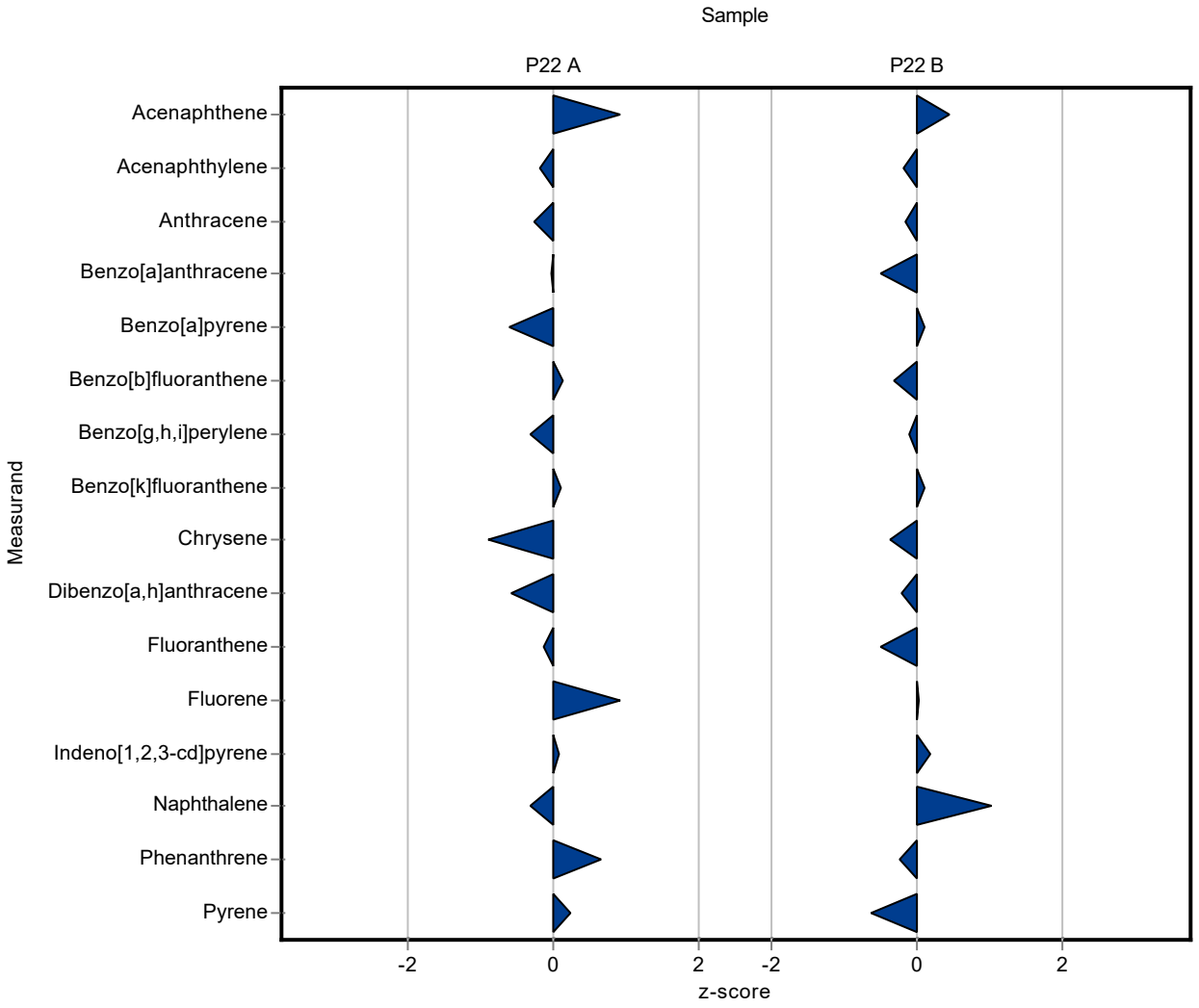
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	16.2 ± 3.23	2.63	117	0.90
Acenaphthylene	ng/l	15.4 ± 2.97	14.4 ± 2.88	4.92	93.6	-0.20
Anthracene	ng/l	11.1 ± 1.11	10.5 ± 2.1	2.1	94.8	-0.27
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13.7 ± 2.74	2.91	99	-0.05
Benzo[a]pyrene	ng/l	11.5 ± 1.41	9.75 ± 1.95	2.75	85.1	-0.62
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.1 ± 3.22	2.69	102	0.11
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	10.6 ± 3.09	3.78	89.7	-0.32
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	17.5 ± 3.51	4.45	102	0.09
Chrysene	ng/l	19 ± 0.871	17.5 ± 3.5	1.63	92.3	-0.90
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	12.7 ± 2.55	4.63	82.2	-0.59
Fluoranthene	ng/l	18.9 ± 2.7	18.4 ± 3.68	3.4	97.5	-0.14
Fluorene	ng/l	22.4 ± 2.02	25.3 ± 5.06	3.14	113	0.91
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	15.1 ± 3.01	2.54	101	0.07
Naphthalene	ng/l	31.2 ± 3.8	29 ± 5.8	6.54	93.1	-0.33
Phenanthrene	ng/l	18.3 ± 2.63	20.1 ± 4.02	2.75	110	0.64
Pyrene	ng/l	16.9 ± 1.82	17.5 ± 3.5	2.7	104	0.23

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	116 ± 23.2	20.3	108	0.45
Acenaphthylene	ng/l	138 ± 22.8	129 ± 25.9	42.7	93.6	-0.21
Anthracene	ng/l	135 ± 11.2	131 ± 26.3	22.9	97.3	-0.16
Benzo[a]anthracene	ng/l	123 ± 9.48	110 ± 22	25.9	89.3	-0.51
Benzo[a]pyrene	ng/l	83 ± 7.73	85.1 ± 17	19.9	103	0.10
Benzo[b]fluoranthene	ng/l	107 ± 7.93	101 ± 20.2	18.2	94.3	-0.34
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	93.7 ± 27.2	31.1	96.4	-0.11
Benzo[k]fluoranthene	ng/l	74 ± 5.26	75.6 ± 15.1	19.2	102	0.08
Chrysene	ng/l	94.9 ± 9.16	87.9 ± 17.6	18	92.6	-0.39
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	112 ± 22.3	36.1	93.2	-0.23

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	158 ± 31.7	31.3	90.7	-0.51
Fluorene	ng/l	104 ± 9.65	104 ± 20.8	14.5	100	0.02
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	80.6 ± 16.1	20.1	104	0.17
Naphthalene	ng/l	159 ± 24.7	193 ± 38.5	33.3	122	1.03
Phenanthrene	ng/l	186 ± 11.7	179 ± 35.8	27.9	96.4	-0.24
Pyrene	ng/l	114 ± 8.23	102 ± 20.4	18.2	89.6	-0.65



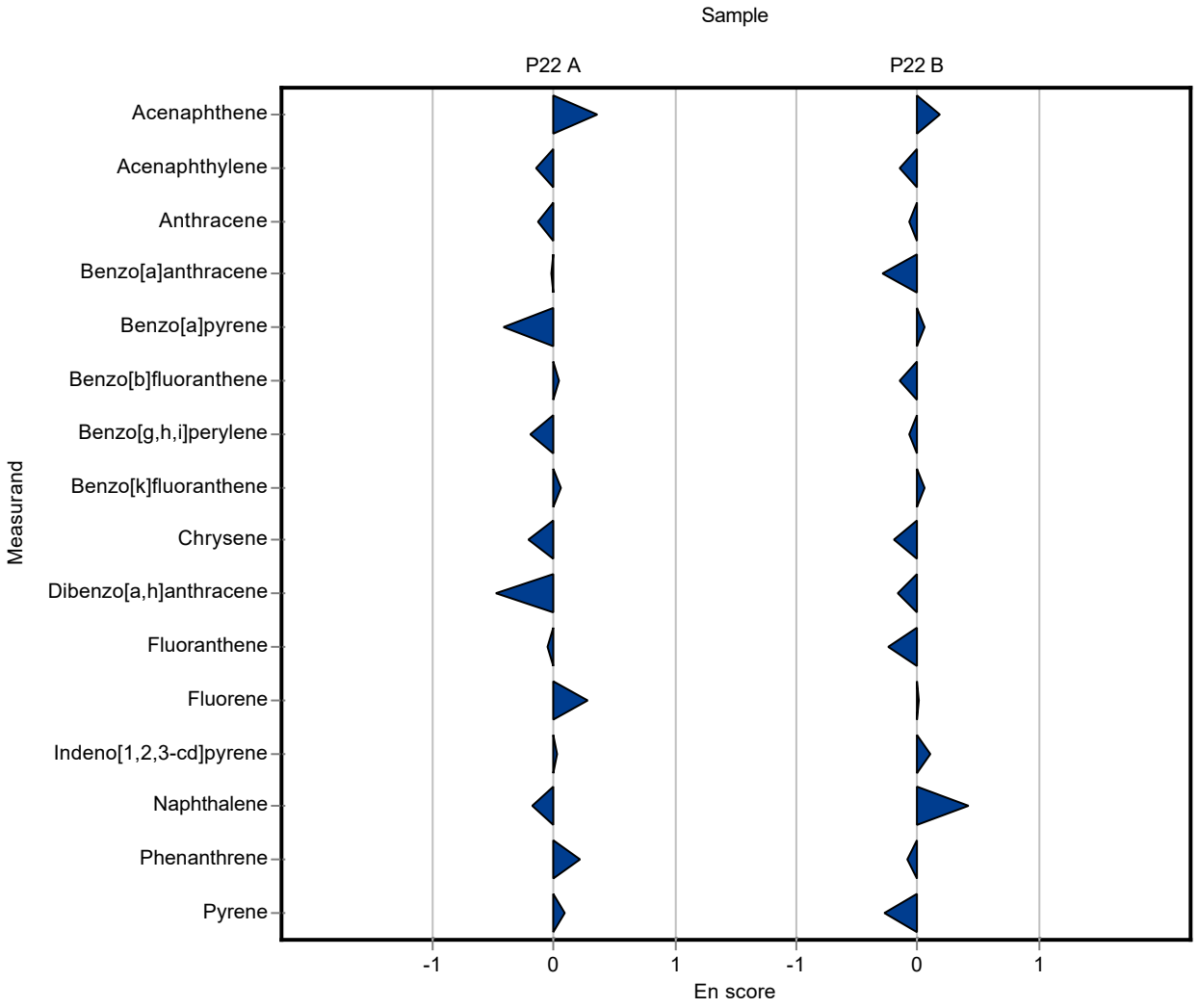
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	16.2 ± 3.23	2.63	117	0.35
Acenaphthylene	ng/l	15.4 ± 2.97	14.4 ± 2.88	4.92	93.6	-0.15
Anthracene	ng/l	11.1 ± 1.11	10.5 ± 2.1	2.1	94.8	-0.13
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13.7 ± 2.74	2.91	99	-0.03
Benzo[a]pyrene	ng/l	11.5 ± 1.41	9.75 ± 1.95	2.75	85.1	-0.41
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.1 ± 3.22	2.69	102	0.05
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	10.6 ± 3.09	3.78	89.7	-0.19
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	17.5 ± 3.51	4.45	102	0.05
Chrysene	ng/l	19 ± 0.871	17.5 ± 3.5	1.63	92.3	-0.21
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	12.7 ± 2.55	4.63	82.2	-0.48
Fluoranthene	ng/l	18.9 ± 2.7	18.4 ± 3.68	3.4	97.5	-0.06
Fluorene	ng/l	22.4 ± 2.02	25.3 ± 5.06	3.14	113	0.28
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	15.1 ± 3.01	2.54	101	0.03
Naphthalene	ng/l	31.2 ± 3.8	29 ± 5.8	6.54	93.1	-0.18
Phenanthrene	ng/l	18.3 ± 2.63	20.1 ± 4.02	2.75	110	0.21
Pyrene	ng/l	16.9 ± 1.82	17.5 ± 3.5	2.7	104	0.09

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	116 ± 23.2	20.3	108	0.18
Acenaphthylene	ng/l	138 ± 22.8	129 ± 25.9	42.7	93.6	-0.16
Anthracene	ng/l	135 ± 11.2	131 ± 26.3	22.9	97.3	-0.07
Benzo[a]anthracene	ng/l	123 ± 9.48	110 ± 22	25.9	89.3	-0.29
Benzo[a]pyrene	ng/l	83 ± 7.73	85.1 ± 17	19.9	103	0.06
Benzo[b]fluoranthene	ng/l	107 ± 7.93	101 ± 20.2	18.2	94.3	-0.15
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	93.7 ± 27.2	31.1	96.4	-0.06
Benzo[k]fluoranthene	ng/l	74 ± 5.26	75.6 ± 15.1	19.2	102	0.05
Chrysene	ng/l	94.9 ± 9.16	87.9 ± 17.6	18	92.6	-0.19
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	112 ± 22.3	36.1	93.2	-0.17

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	158 ± 31.7	31.3	90.7	-0.25
Fluorene	ng/l	104 ± 9.65	104 ± 20.8	14.5	100	0.01
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	80.6 ± 16.1	20.1	104	0.10
Naphthalene	ng/l	159 ± 24.7	193 ± 38.5	33.3	122	0.42
Phenanthrene	ng/l	186 ± 11.7	179 ± 35.8	27.9	96.4	-0.09
Pyrene	ng/l	114 ± 8.23	102 ± 20.4	18.2	89.6	-0.28



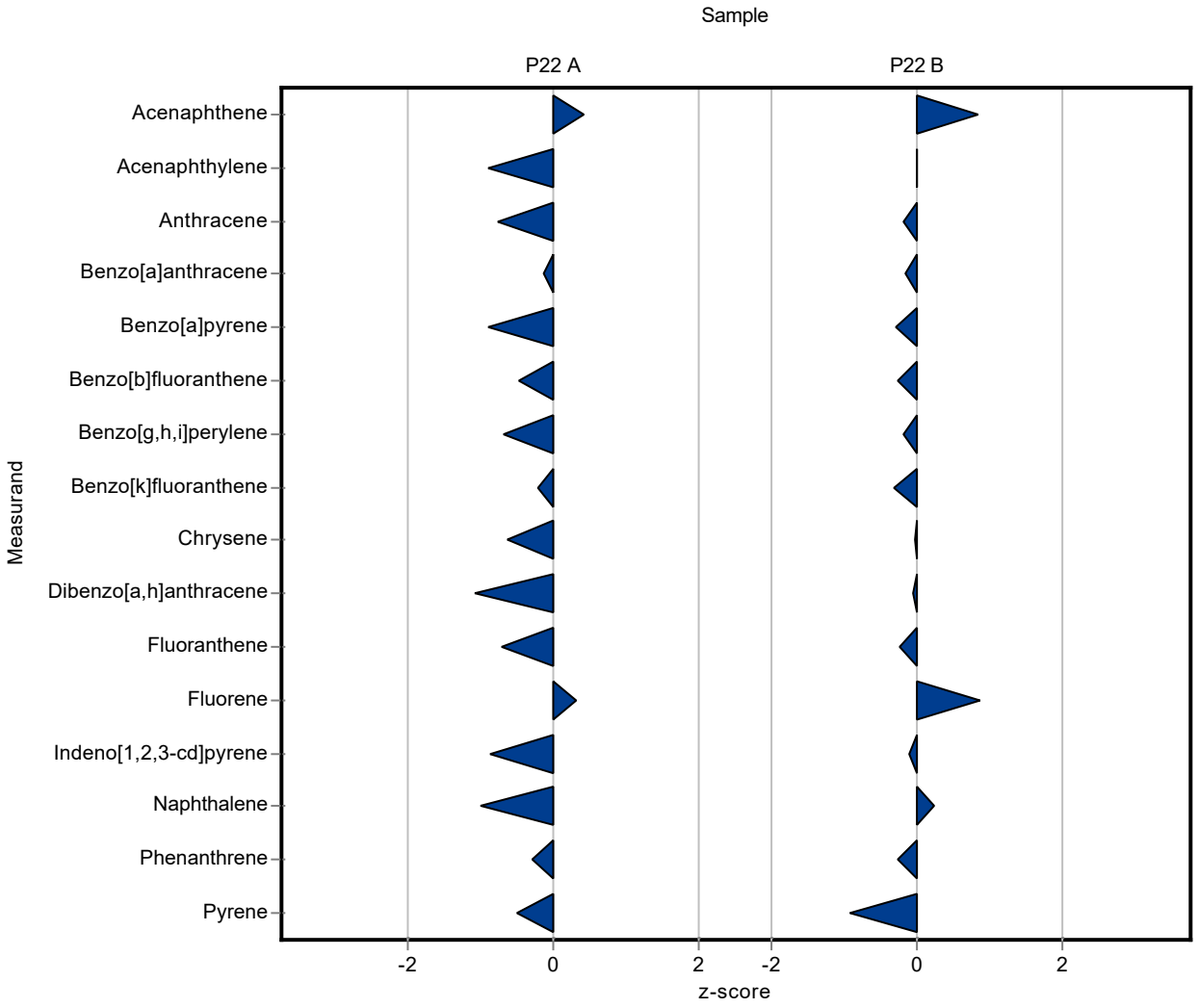
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	14.9 ± 1.2	2.63	108	0.40
Acenaphthylene	ng/l	15.4 ± 2.97	10.9 ± 0.87	4.92	70.9	-0.91
Anthracene	ng/l	11.1 ± 1.11	9.46 ± 0.76	2.1	85.4	-0.77
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13.4 ± 1.1	2.91	96.8	-0.15
Benzo[a]pyrene	ng/l	11.5 ± 1.41	8.96 ± 0.72	2.75	78.2	-0.91
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	14.5 ± 1.2	2.69	91.8	-0.48
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	9.18 ± 0.73	3.78	77.7	-0.70
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	16.1 ± 1.3	4.45	94.1	-0.23
Chrysene	ng/l	19 ± 0.871	17.9 ± 1.4	1.63	94.4	-0.65
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	10.4 ± 0.83	4.63	67.3	-1.09
Fluoranthene	ng/l	18.9 ± 2.7	16.4 ± 1.3	3.4	86.9	-0.73
Fluorene	ng/l	22.4 ± 2.02	23.4 ± 1.9	3.14	104	0.31
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	12.7 ± 1	2.54	85.1	-0.88
Naphthalene	ng/l	31.2 ± 3.8	24.5 ± 2	6.54	78.6	-1.02
Phenanthrene	ng/l	18.3 ± 2.63	17.5 ± 1.4	2.75	95.4	-0.30
Pyrene	ng/l	16.9 ± 1.82	15.5 ± 1.2	2.7	91.9	-0.51

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	124 ± 10	20.3	116	0.84
Acenaphthylene	ng/l	138 ± 22.8	137 ± 11	42.7	99.4	-0.02
Anthracene	ng/l	135 ± 11.2	130 ± 10	22.9	96.6	-0.20
Benzo[a]anthracene	ng/l	123 ± 9.48	119 ± 9.5	25.9	96.6	-0.16
Benzo[a]pyrene	ng/l	83 ± 7.73	77.2 ± 6.2	19.9	93	-0.29
Benzo[b]fluoranthene	ng/l	107 ± 7.93	102 ± 8.2	18.2	95.2	-0.28
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	91.3 ± 7.3	31.1	93.9	-0.19
Benzo[k]fluoranthene	ng/l	74 ± 5.26	67.7 ± 5.4	19.2	91.5	-0.33
Chrysene	ng/l	94.9 ± 9.16	94 ± 7.5	18	99.1	-0.05
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	118 ± 9.4	36.1	98.1	-0.06

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	166 ± 13	31.3	95.3	-0.26
Fluorene	ng/l	104 ± 9.65	116 ± 9.3	14.5	112	0.85
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	75 ± 6	20.1	97.1	-0.11
Naphthalene	ng/l	159 ± 24.7	166 ± 13	33.3	105	0.22
Phenanthrene	ng/l	186 ± 11.7	178 ± 14	27.9	95.8	-0.28
Pyrene	ng/l	114 ± 8.23	96.8 ± 7.7	18.2	85	-0.94



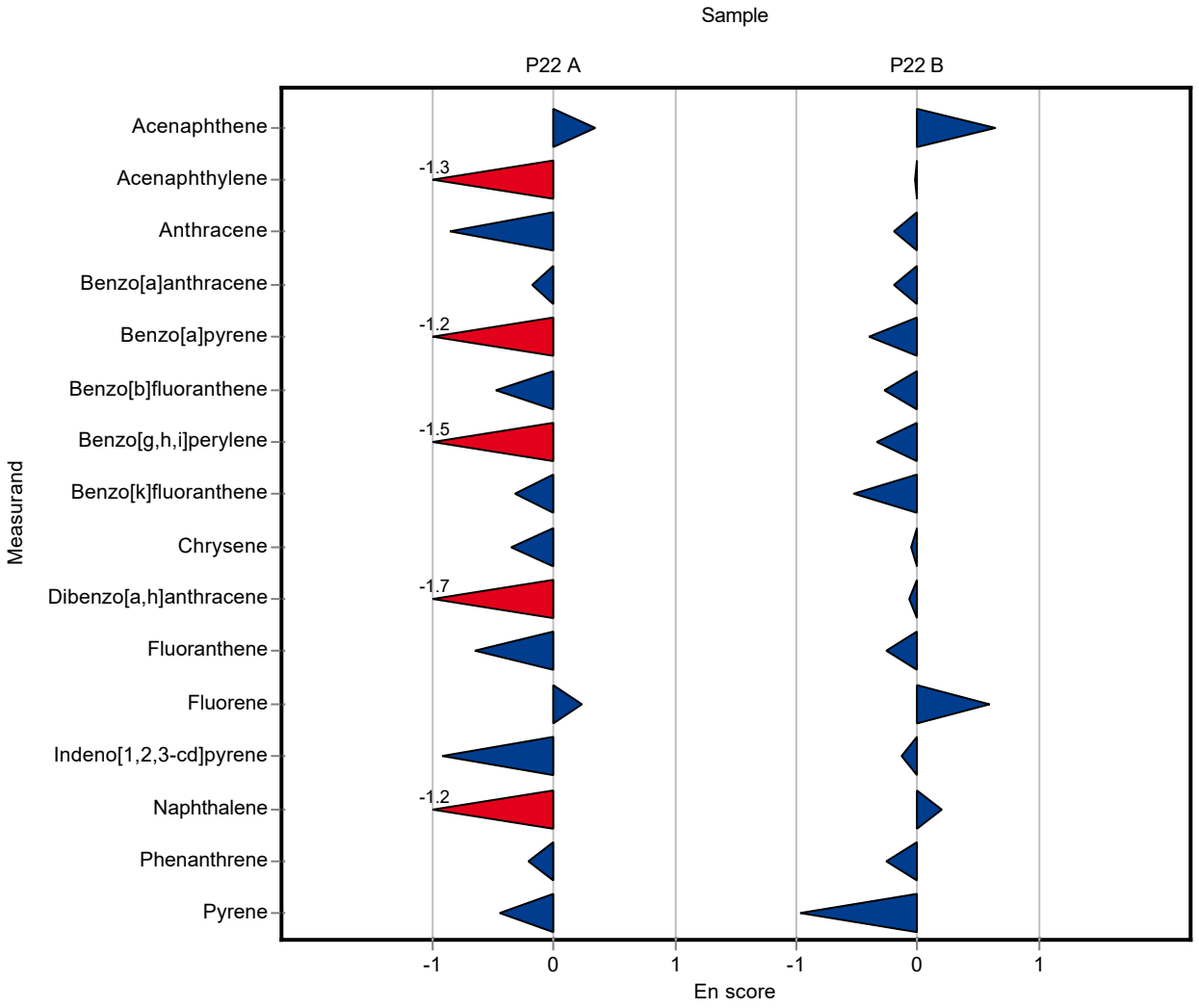
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	14.9 ± 1.2	2.63	108	0.34
Acenaphthylene	ng/l	15.4 ± 2.97	10.9 ± 0.87	4.92	70.9	-1.30
Anthracene	ng/l	11.1 ± 1.11	9.46 ± 0.76	2.1	85.4	-0.85
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13.4 ± 1.1	2.91	96.8	-0.18
Benzo[a]pyrene	ng/l	11.5 ± 1.41	8.96 ± 0.72	2.75	78.2	-1.24
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	14.5 ± 1.2	2.69	91.8	-0.47
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	9.18 ± 0.73	3.78	77.7	-1.48
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	16.1 ± 1.3	4.45	94.1	-0.32
Chrysene	ng/l	19 ± 0.871	17.9 ± 1.4	1.63	94.4	-0.36
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	10.4 ± 0.83	4.63	67.3	-1.68
Fluoranthene	ng/l	18.9 ± 2.7	16.4 ± 1.3	3.4	86.9	-0.66
Fluorene	ng/l	22.4 ± 2.02	23.4 ± 1.9	3.14	104	0.23
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	12.7 ± 1	2.54	85.1	-0.92
Naphthalene	ng/l	31.2 ± 3.8	24.5 ± 2	6.54	78.6	-1.21
Phenanthrene	ng/l	18.3 ± 2.63	17.5 ± 1.4	2.75	95.4	-0.22
Pyrene	ng/l	16.9 ± 1.82	15.5 ± 1.2	2.7	91.9	-0.45

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	124 ± 10	20.3	116	0.64
Acenaphthylene	ng/l	138 ± 22.8	137 ± 11	42.7	99.4	-0.03
Anthracene	ng/l	135 ± 11.2	130 ± 10	22.9	96.6	-0.20
Benzo[a]anthracene	ng/l	123 ± 9.48	119 ± 9.5	25.9	96.6	-0.20
Benzo[a]pyrene	ng/l	83 ± 7.73	77.2 ± 6.2	19.9	93	-0.40
Benzo[b]fluoranthene	ng/l	107 ± 7.93	102 ± 8.2	18.2	95.2	-0.28
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	91.3 ± 7.3	31.1	93.9	-0.34
Benzo[k]fluoranthene	ng/l	74 ± 5.26	67.7 ± 5.4	19.2	91.5	-0.52
Chrysene	ng/l	94.9 ± 9.16	94 ± 7.5	18	99.1	-0.05
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	118 ± 9.4	36.1	98.1	-0.08

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	166 ± 13	31.3	95.3	-0.26
Fluorene	ng/l	104 ± 9.65	116 ± 9.3	14.5	112	0.59
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	75 ± 6	20.1	97.1	-0.14
Naphthalene	ng/l	159 ± 24.7	166 ± 13	33.3	105	0.20
Phenanthrene	ng/l	186 ± 11.7	178 ± 14	27.9	95.8	-0.25
Pyrene	ng/l	114 ± 8.23	96.8 ± 7.7	18.2	85	-0.97



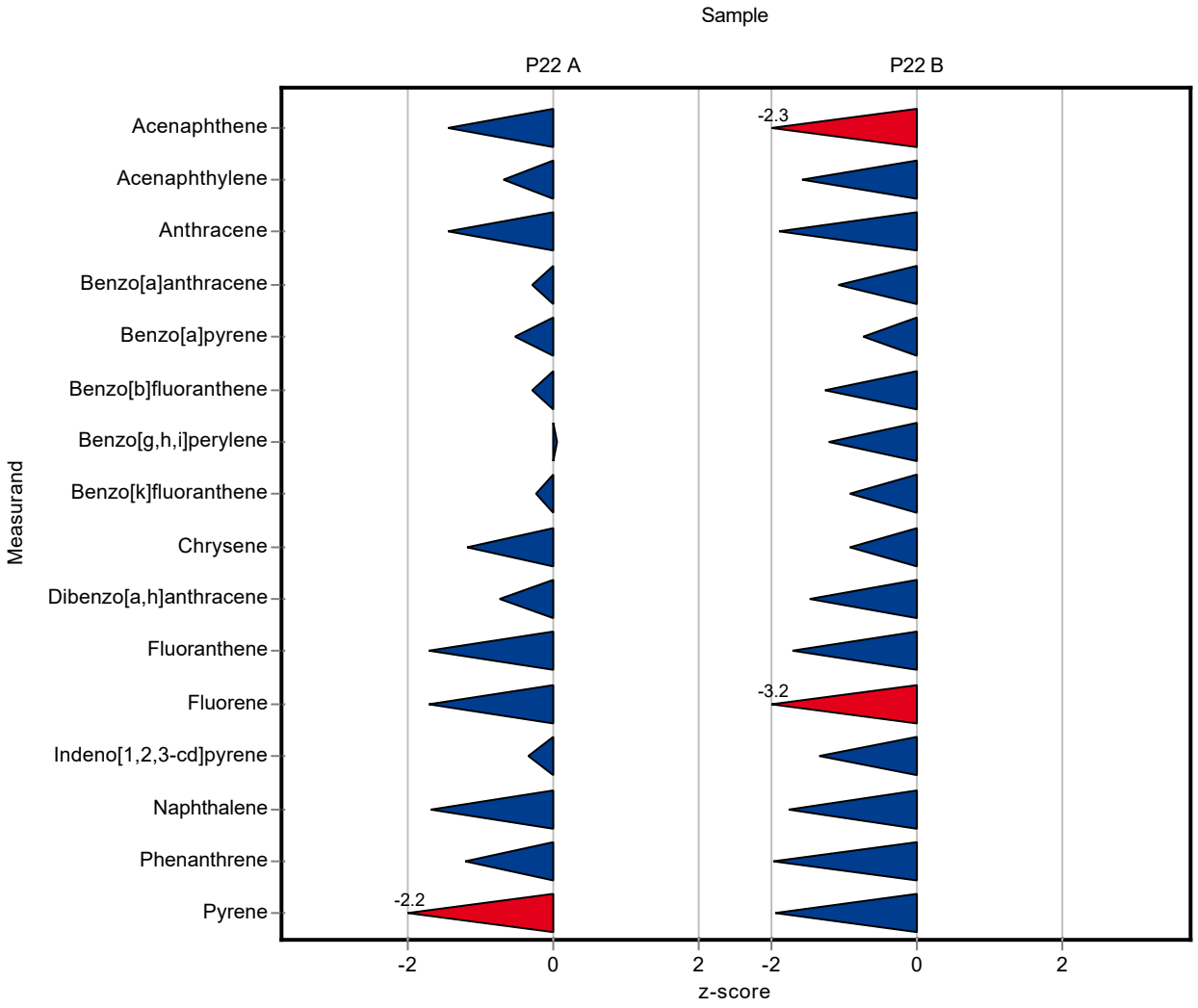
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	10 ± 1	2.63	72.3	-1.46
Acenaphthylene	ng/l	15.4 ± 2.97	12 ± 1.2	4.92	78	-0.69
Anthracene	ng/l	11.1 ± 1.11	8 ± 0.8	2.1	72.3	-1.46
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13 ± 1.3	2.91	93.9	-0.29
Benzo[a]pyrene	ng/l	11.5 ± 1.41	10 ± 1	2.75	87.3	-0.53
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	15 ± 1.5	2.69	95	-0.30
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12 ± 1.2	3.78	102	0.05
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	16 ± 1.6	4.45	93.5	-0.25
Chrysene	ng/l	19 ± 0.871	17 ± 1.7	1.63	89.7	-1.20
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	12 ± 1.2	4.63	77.7	-0.74
Fluoranthene	ng/l	18.9 ± 2.7	13 ± 1.3	3.4	68.9	-1.73
Fluorene	ng/l	22.4 ± 2.02	17 ± 1.7	3.14	75.8	-1.73
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	14 ± 1.4	2.54	93.8	-0.36
Naphthalene	ng/l	31.2 ± 3.8	20 ± 2	6.54	64.2	-1.70
Phenanthrene	ng/l	18.3 ± 2.63	15 ± 1.5	2.75	81.8	-1.21
Pyrene	ng/l	16.9 ± 1.82	11 ± 1.1	2.7	65.2	-2.17

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	60 ± 6	20.3	56.1	-2.31
Acenaphthylene	ng/l	138 ± 22.8	70 ± 7	42.7	50.8	-1.59
Anthracene	ng/l	135 ± 11.2	91 ± 9.1	22.9	67.6	-1.91
Benzo[a]anthracene	ng/l	123 ± 9.48	95 ± 9.5	25.9	77.1	-1.09
Benzo[a]pyrene	ng/l	83 ± 7.73	68 ± 6.8	19.9	81.9	-0.75
Benzo[b]fluoranthene	ng/l	107 ± 7.93	84 ± 8.4	18.2	78.4	-1.27
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	59 ± 5.9	31.1	60.7	-1.23
Benzo[k]fluoranthene	ng/l	74 ± 5.26	56 ± 5.6	19.2	75.7	-0.94
Chrysene	ng/l	94.9 ± 9.16	78 ± 7.8	18	82.2	-0.94
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	67 ± 6.7	36.1	55.7	-1.48

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	120 ± 12	31.3	68.9	-1.73
Fluorene	ng/l	104 ± 9.65	57 ± 5.7	14.5	55	-3.21
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	50 ± 5	20.1	64.7	-1.36
Naphthalene	ng/l	159 ± 24.7	100 ± 10	33.3	63	-1.76
Phenanthrene	ng/l	186 ± 11.7	130 ± 13	27.9	70	-2.00
Pyrene	ng/l	114 ± 8.23	78 ± 7.8	18.2	68.5	-1.97



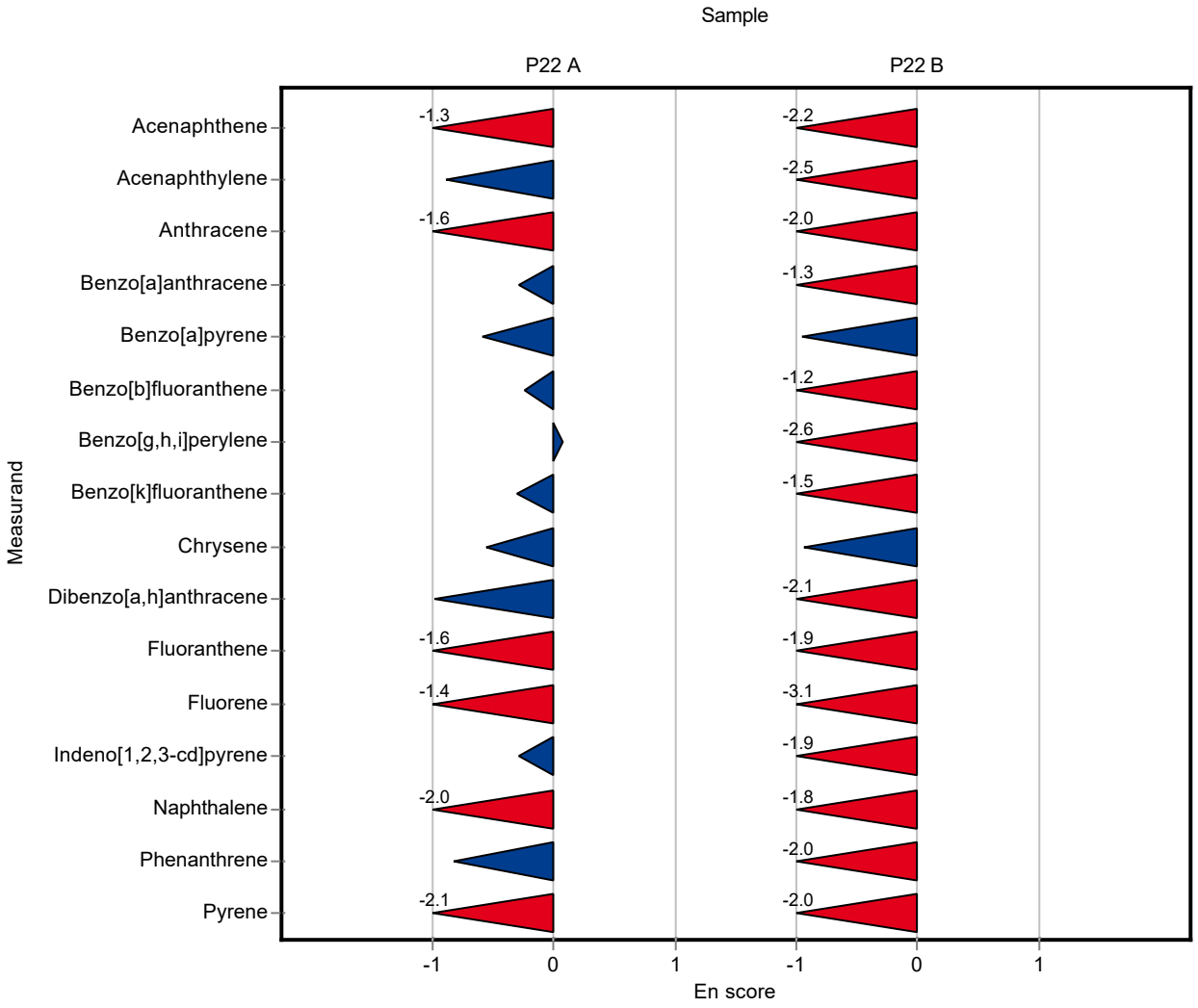
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	10 ± 1	2.63	72.3	-1.34
Acenaphthylene	ng/l	15.4 ± 2.97	12 ± 1.2	4.92	78	-0.89
Anthracene	ng/l	11.1 ± 1.11	8 ± 0.8	2.1	72.3	-1.58
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13 ± 1.3	2.91	93.9	-0.29
Benzo[a]pyrene	ng/l	11.5 ± 1.41	10 ± 1	2.75	87.3	-0.60
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	15 ± 1.5	2.69	95	-0.24
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12 ± 1.2	3.78	102	0.07
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	16 ± 1.6	4.45	93.5	-0.30
Chrysene	ng/l	19 ± 0.871	17 ± 1.7	1.63	89.7	-0.56
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	12 ± 1.2	4.63	77.7	-0.99
Fluoranthene	ng/l	18.9 ± 2.7	13 ± 1.3	3.4	68.9	-1.56
Fluorene	ng/l	22.4 ± 2.02	17 ± 1.7	3.14	75.8	-1.37
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	14 ± 1.4	2.54	93.8	-0.30
Naphthalene	ng/l	31.2 ± 3.8	20 ± 2	6.54	64.2	-2.02
Phenanthrene	ng/l	18.3 ± 2.63	15 ± 1.5	2.75	81.8	-0.84
Pyrene	ng/l	16.9 ± 1.82	11 ± 1.1	2.7	65.2	-2.06

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	60 ± 6	20.3	56.1	-2.19
Acenaphthylene	ng/l	138 ± 22.8	70 ± 7	42.7	50.8	-2.53
Anthracene	ng/l	135 ± 11.2	91 ± 9.1	22.9	67.6	-2.04
Benzo[a]anthracene	ng/l	123 ± 9.48	95 ± 9.5	25.9	77.1	-1.33
Benzo[a]pyrene	ng/l	83 ± 7.73	68 ± 6.8	19.9	81.9	-0.96
Benzo[b]fluoranthene	ng/l	107 ± 7.93	84 ± 8.4	18.2	78.4	-1.24
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	59 ± 5.9	31.1	60.7	-2.58
Benzo[k]fluoranthene	ng/l	74 ± 5.26	56 ± 5.6	19.2	75.7	-1.45
Chrysene	ng/l	94.9 ± 9.16	78 ± 7.8	18	82.2	-0.93
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	67 ± 6.7	36.1	55.7	-2.09

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	120 ± 12	31.3	68.9	-1.85
Fluorene	ng/l	104 ± 9.65	57 ± 5.7	14.5	55	-3.12
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	50 ± 5	20.1	64.7	-1.88
Naphthalene	ng/l	159 ± 24.7	100 ± 10	33.3	63	-1.85
Phenanthrene	ng/l	186 ± 11.7	130 ± 13	27.9	70	-1.95
Pyrene	ng/l	114 ± 8.23	78 ± 7.8	18.2	68.5	-2.03



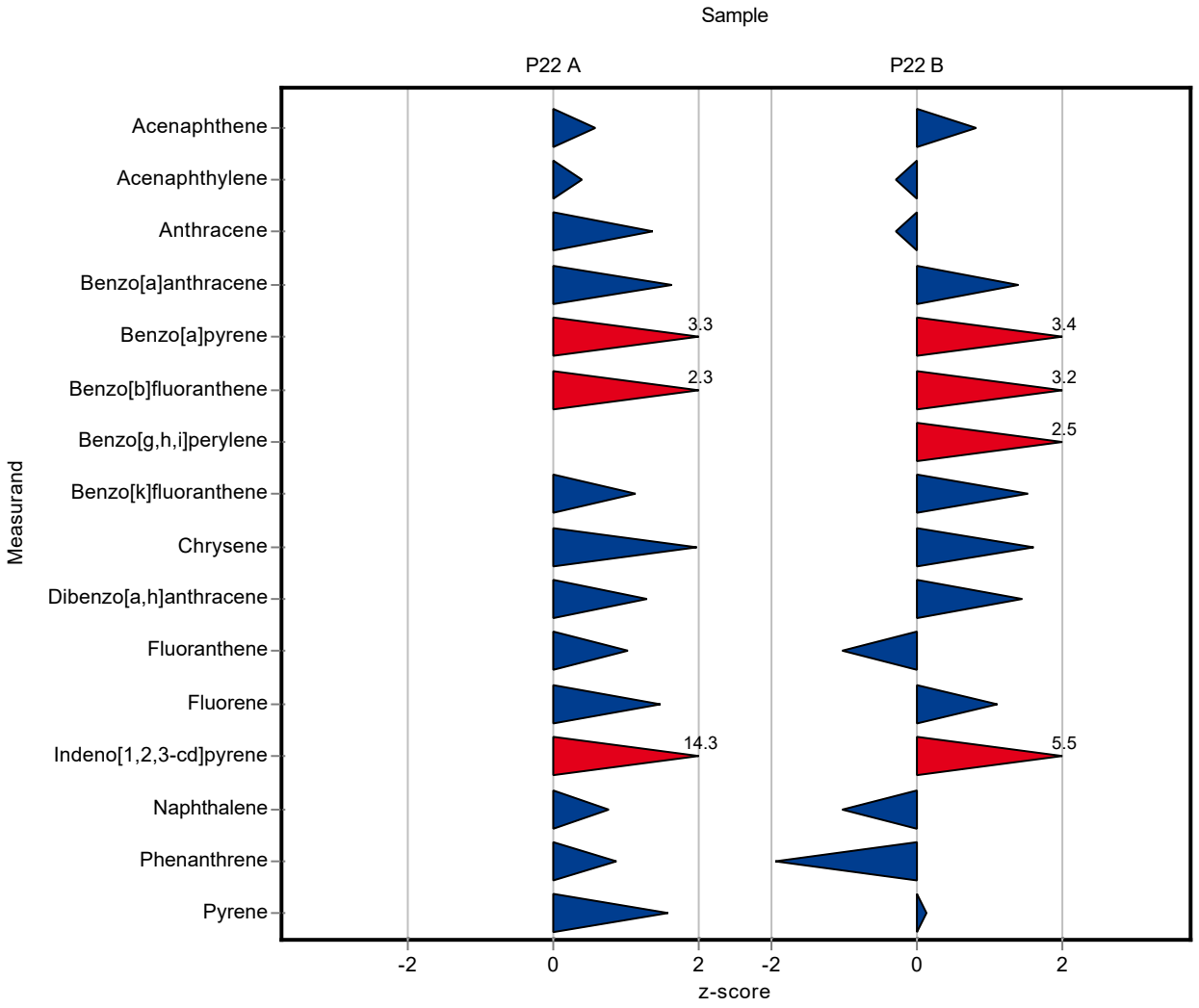
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	15.34 ± 4.6	2.63	111	0.57
Acenaphthylene	ng/l	15.4 ± 2.97	17.29 ± 5.19	4.92	112	0.39
Anthracene	ng/l	11.1 ± 1.11	13.9 ± 4.17	2.1	126	1.34
Benzo[a]anthracene	ng/l	13.8 ± 1.23	18.54 ± 5.56	2.91	134	1.62
Benzo[a]pyrene	ng/l	11.5 ± 1.41	20.44 ± 17.58	2.75	178	3.27
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	21.95 ± 6.59	2.69	139	2.29
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<10 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	22.05 ± 6.61	4.45	129	1.11
Chrysene	ng/l	19 ± 0.871	22.16 ± 6.65	1.63	117	1.96
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	21.39 ± 6.42	4.63	138	1.28
Fluoranthene	ng/l	18.9 ± 2.7	22.34 ± 6.7	3.4	118	1.02
Fluorene	ng/l	22.4 ± 2.02	27.04 ± 8.11	3.14	121	1.47
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	51.09 ± 15.33	2.54	342	14.30
Naphthalene	ng/l	31.2 ± 3.8	36.07 ± 10.82	6.54	116	0.75
Phenanthrene	ng/l	18.3 ± 2.63	20.69 ± 6.21	2.75	113	0.86
Pyrene	ng/l	16.9 ± 1.82	21.1 ± 6.33	2.7	125	1.57

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	123 ± 36.9	20.3	115	0.79
Acenaphthylene	ng/l	138 ± 22.8	124.51 ± 37.35	42.7	90.3	-0.31
Anthracene	ng/l	135 ± 11.2	127.74 ± 38.32	22.9	94.9	-0.30
Benzo[a]anthracene	ng/l	123 ± 9.48	158.79 ± 47.64	25.9	129	1.37
Benzo[a]pyrene	ng/l	83 ± 7.73	151.45 ± 130.25	19.9	182	3.43
Benzo[b]fluoranthene	ng/l	107 ± 7.93	165.6 ± 49.68	18.2	155	3.21
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	175.41 ± 52.62	31.1	180	2.52
Benzo[k]fluoranthene	ng/l	74 ± 5.26	103.11 ± 30.93	19.2	139	1.51
Chrysene	ng/l	94.9 ± 9.16	123.63 ± 37.09	18	130	1.59
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	172.06 ± 51.62	36.1	143	1.44

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	141.41 ± 42.42	31.3	81.2	-1.04
Fluorene	ng/l	104 ± 9.65	119.35 ± 35.81	14.5	115	1.08
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	187.29 ± 56.19	20.1	242	5.48
Naphthalene	ng/l	159 ± 24.7	124.24 ± 37.27	33.3	78.2	-1.04
Phenanthrene	ng/l	186 ± 11.7	131.4 ± 39.42	27.9	70.8	-1.95
Pyrene	ng/l	114 ± 8.23	115.99 ± 34.8	18.2	102	0.12



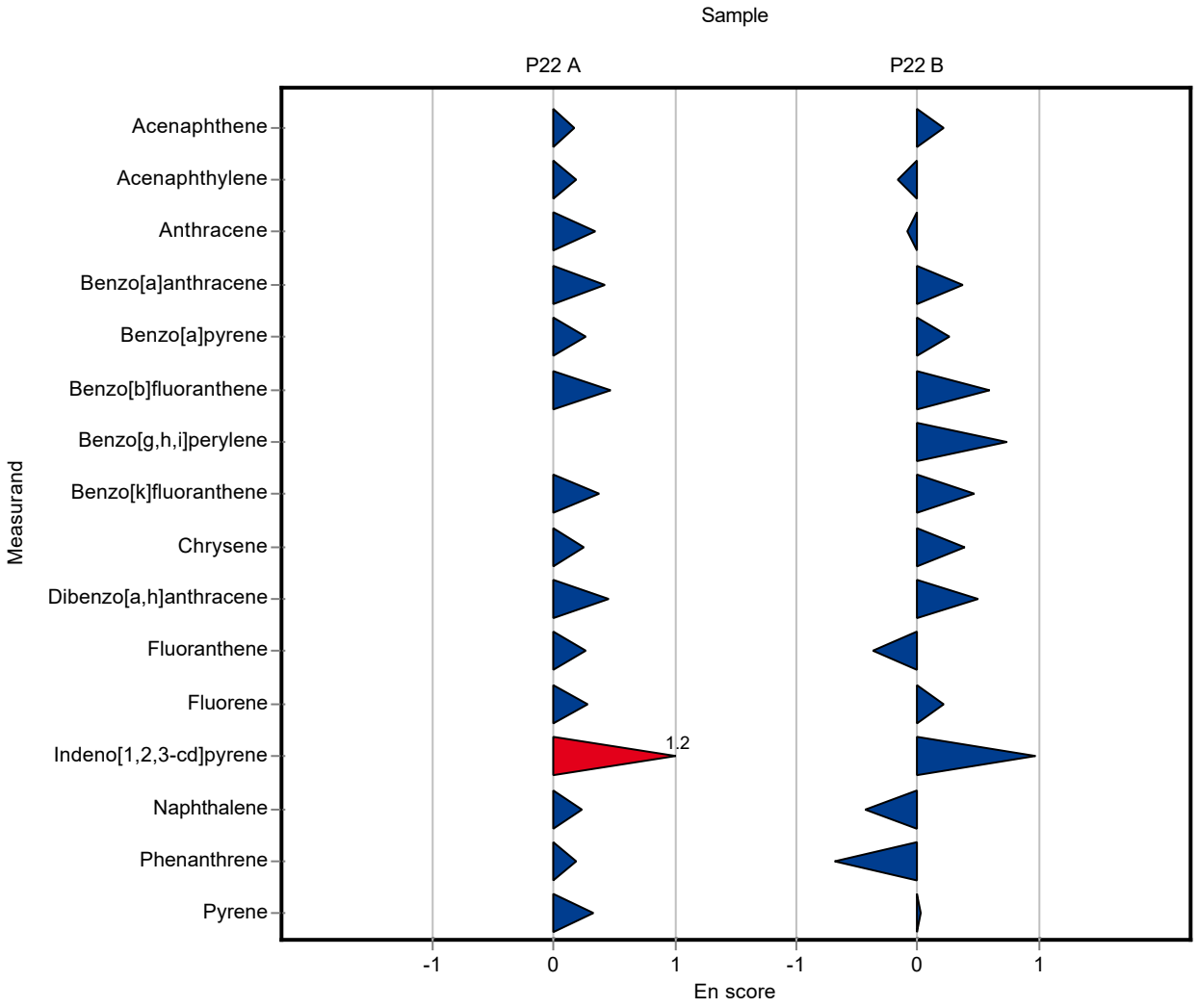
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	15.34 ± 4.6	2.63	111	0.16
Acenaphthylene	ng/l	15.4 ± 2.97	17.29 ± 5.19	4.92	112	0.18
Anthracene	ng/l	11.1 ± 1.11	13.9 ± 4.17	2.1	126	0.34
Benzo[a]anthracene	ng/l	13.8 ± 1.23	18.54 ± 5.56	2.91	134	0.42
Benzo[a]pyrene	ng/l	11.5 ± 1.41	20.44 ± 17.58	2.75	178	0.26
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	21.95 ± 6.59	2.69	139	0.47
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<10 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	22.05 ± 6.61	4.45	129	0.37
Chrysene	ng/l	19 ± 0.871	22.16 ± 6.65	1.63	117	0.24
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	21.39 ± 6.42	4.63	138	0.45
Fluoranthene	ng/l	18.9 ± 2.7	22.34 ± 6.7	3.4	118	0.25
Fluorene	ng/l	22.4 ± 2.02	27.04 ± 8.11	3.14	121	0.28
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	51.09 ± 15.33	2.54	342	1.18
Naphthalene	ng/l	31.2 ± 3.8	36.07 ± 10.82	6.54	116	0.22
Phenanthrene	ng/l	18.3 ± 2.63	20.69 ± 6.21	2.75	113	0.18
Pyrene	ng/l	16.9 ± 1.82	21.1 ± 6.33	2.7	125	0.33

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	123 ± 36.9	20.3	115	0.21
Acenaphthylene	ng/l	138 ± 22.8	124.51 ± 37.35	42.7	90.3	-0.17
Anthracene	ng/l	135 ± 11.2	127.74 ± 38.32	22.9	94.9	-0.09
Benzo[a]anthracene	ng/l	123 ± 9.48	158.79 ± 47.64	25.9	129	0.37
Benzo[a]pyrene	ng/l	83 ± 7.73	151.45 ± 130.25	19.9	182	0.26
Benzo[b]fluoranthene	ng/l	107 ± 7.93	165.6 ± 49.68	18.2	155	0.59
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	175.41 ± 52.62	31.1	180	0.74
Benzo[k]fluoranthene	ng/l	74 ± 5.26	103.11 ± 30.93	19.2	139	0.47
Chrysene	ng/l	94.9 ± 9.16	123.63 ± 37.09	18	130	0.39
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	172.06 ± 51.62	36.1	143	0.49

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	141.41 ± 42.42	31.3	81.2	-0.38
Fluorene	ng/l	104 ± 9.65	119.35 ± 35.81	14.5	115	0.22
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	187.29 ± 56.19	20.1	242	0.97
Naphthalene	ng/l	159 ± 24.7	124.24 ± 37.27	33.3	78.2	-0.44
Phenanthrene	ng/l	186 ± 11.7	131.4 ± 39.42	27.9	70.8	-0.68
Pyrene	ng/l	114 ± 8.23	115.99 ± 34.8	18.2	102	0.03



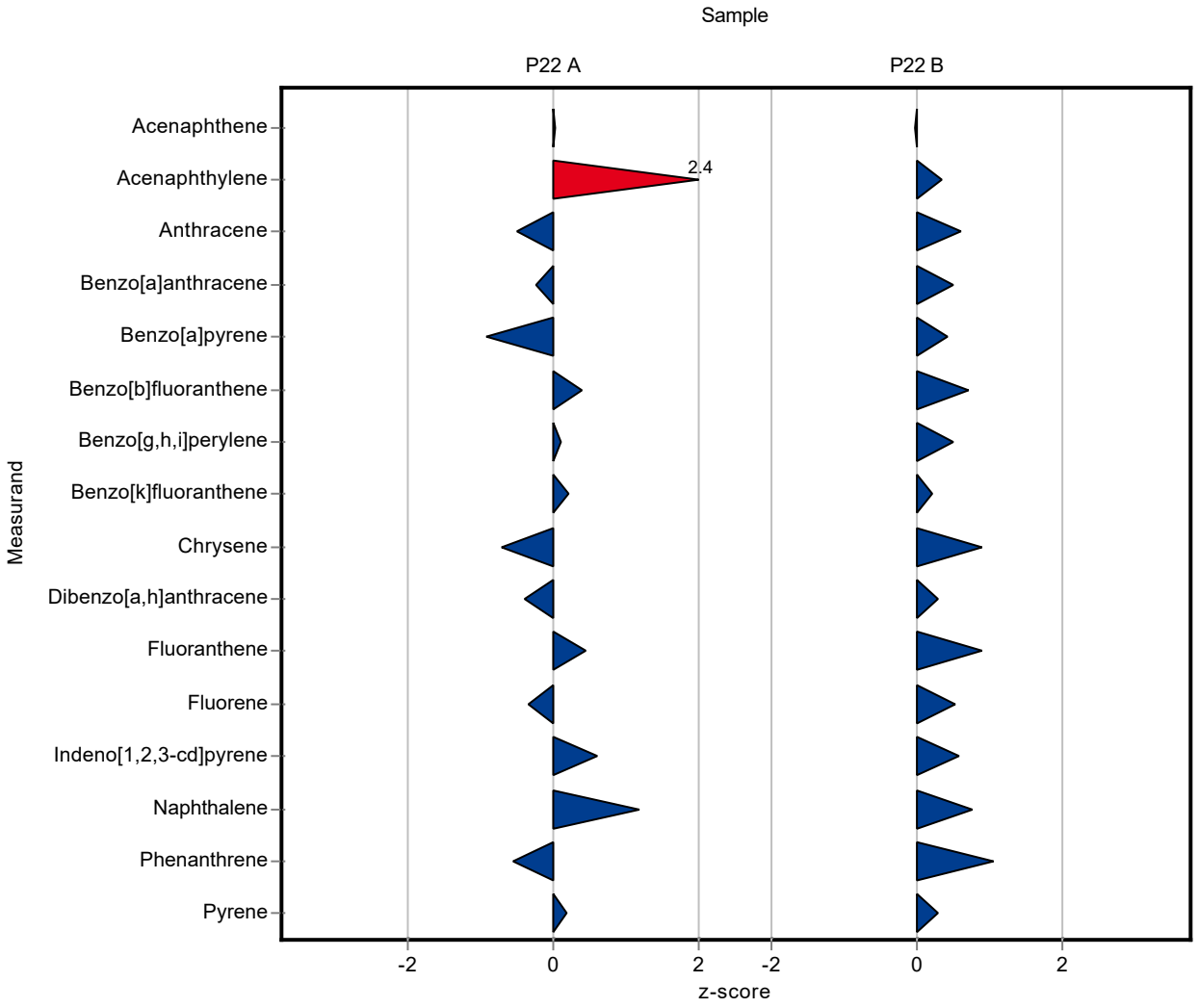
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	13.9 ± 1.04	2.63	100	0.02
Acenaphthylene	ng/l	15.4 ± 2.97	27.2 ± 1.56	4.92	177	2.40
Anthracene	ng/l	11.1 ± 1.11	10 ± 0.505	2.1	90.3	-0.51
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13.1 ± 1.25	2.91	94.6	-0.26
Benzo[a]pyrene	ng/l	11.5 ± 1.41	8.86 ± 1.42	2.75	77.3	-0.94
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.8 ± 1.32	2.69	106	0.38
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12.2 ± 1.61	3.78	103	0.10
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	18 ± 1.5	4.45	105	0.20
Chrysene	ng/l	19 ± 0.871	17.8 ± 0.96	1.63	93.9	-0.71
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	13.5 ± 1.07	4.63	87.4	-0.42
Fluoranthene	ng/l	18.9 ± 2.7	20.3 ± 1.29	3.4	108	0.42
Fluorene	ng/l	22.4 ± 2.02	21.3 ± 1.23	3.14	95	-0.36
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	16.4 ± 0.795	2.54	110	0.58
Naphthalene	ng/l	31.2 ± 3.8	38.8 ± 1.05	6.54	125	1.17
Phenanthrene	ng/l	18.3 ± 2.63	16.8 ± 1.26	2.75	91.6	-0.56
Pyrene	ng/l	16.9 ± 1.82	17.3 ± 1.17	2.7	103	0.16

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	106 ± 2.08	20.3	99.1	-0.05
Acenaphthylene	ng/l	138 ± 22.8	152 ± 3.52	42.7	110	0.33
Anthracene	ng/l	135 ± 11.2	148 ± 1.08	22.9	110	0.58
Benzo[a]anthracene	ng/l	123 ± 9.48	136 ± 2.53	25.9	110	0.49
Benzo[a]pyrene	ng/l	83 ± 7.73	91.1 ± 2.75	19.9	110	0.41
Benzo[b]fluoranthene	ng/l	107 ± 7.93	120 ± 2.65	18.2	112	0.71
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	112 ± 3.11	31.1	115	0.48
Benzo[k]fluoranthene	ng/l	74 ± 5.26	78 ± 2.97	19.2	105	0.21
Chrysene	ng/l	94.9 ± 9.16	111 ± 2.56	18	117	0.89
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	130 ± 2.15	36.1	108	0.27

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	202 ± 2.99	31.3	116	0.89
Fluorene	ng/l	104 ± 9.65	111 ± 2.52	14.5	107	0.51
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	88.4 ± 1.58	20.1	114	0.56
Naphthalene	ng/l	159 ± 24.7	184 ± 2.6	33.3	116	0.76
Phenanthrene	ng/l	186 ± 11.7	215 ± 4.99	27.9	116	1.05
Pyrene	ng/l	114 ± 8.23	119 ± 2.4	18.2	105	0.28



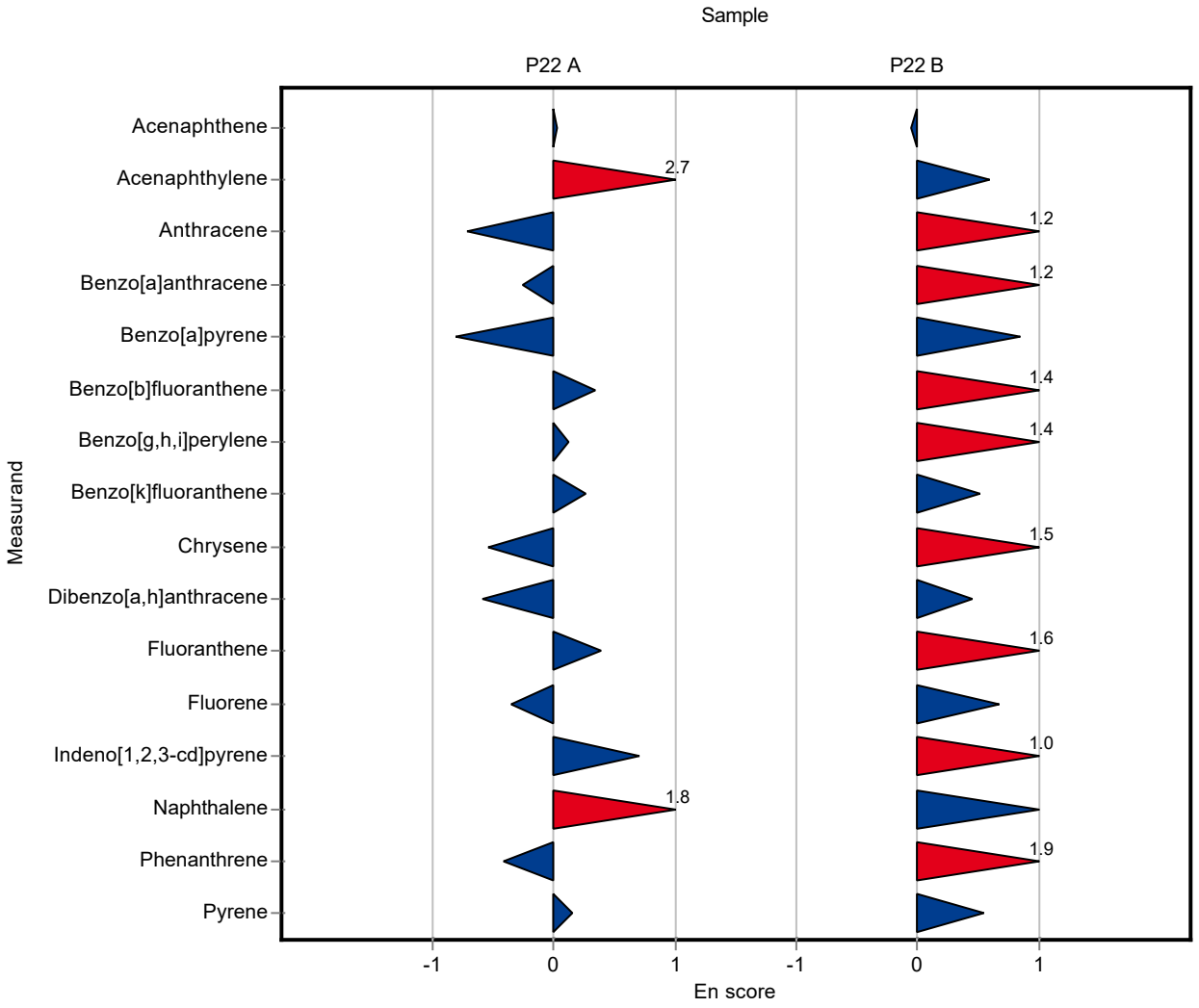
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	13.9 ± 1.04	2.63	100	0.02
Acenaphthylene	ng/l	15.4 ± 2.97	27.2 ± 1.56	4.92	177	2.74
Anthracene	ng/l	11.1 ± 1.11	10 ± 0.505	2.1	90.3	-0.71
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13.1 ± 1.25	2.91	94.6	-0.27
Benzo[a]pyrene	ng/l	11.5 ± 1.41	8.86 ± 1.42	2.75	77.3	-0.82
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.8 ± 1.32	2.69	106	0.34
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12.2 ± 1.61	3.78	103	0.12
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	18 ± 1.5	4.45	105	0.26
Chrysene	ng/l	19 ± 0.871	17.8 ± 0.96	1.63	93.9	-0.55
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	13.5 ± 1.07	4.63	87.4	-0.59
Fluoranthene	ng/l	18.9 ± 2.7	20.3 ± 1.29	3.4	108	0.38
Fluorene	ng/l	22.4 ± 2.02	21.3 ± 1.23	3.14	95	-0.35
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	16.4 ± 0.795	2.54	110	0.70
Naphthalene	ng/l	31.2 ± 3.8	38.8 ± 1.05	6.54	125	1.76
Phenanthrene	ng/l	18.3 ± 2.63	16.8 ± 1.26	2.75	91.6	-0.42
Pyrene	ng/l	16.9 ± 1.82	17.3 ± 1.17	2.7	103	0.15

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	106 ± 2.08	20.3	99.1	-0.05
Acenaphthylene	ng/l	138 ± 22.8	152 ± 3.52	42.7	110	0.59
Anthracene	ng/l	135 ± 11.2	148 ± 1.08	22.9	110	1.17
Benzo[a]anthracene	ng/l	123 ± 9.48	136 ± 2.53	25.9	110	1.19
Benzo[a]pyrene	ng/l	83 ± 7.73	91.1 ± 2.75	19.9	110	0.85
Benzo[b]fluoranthene	ng/l	107 ± 7.93	120 ± 2.65	18.2	112	1.35
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	112 ± 3.11	31.1	115	1.37
Benzo[k]fluoranthene	ng/l	74 ± 5.26	78 ± 2.97	19.2	105	0.51
Chrysene	ng/l	94.9 ± 9.16	111 ± 2.56	18	117	1.54
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	130 ± 2.15	36.1	108	0.44

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	202 ± 2.99	31.3	116	1.58
Fluorene	ng/l	104 ± 9.65	111 ± 2.52	14.5	107	0.68
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	88.4 ± 1.58	20.1	114	1.02
Naphthalene	ng/l	159 ± 24.7	184 ± 2.6	33.3	116	1.00
Phenanthrene	ng/l	186 ± 11.7	215 ± 4.99	27.9	116	1.91
Pyrene	ng/l	114 ± 8.23	119 ± 2.4	18.2	105	0.54



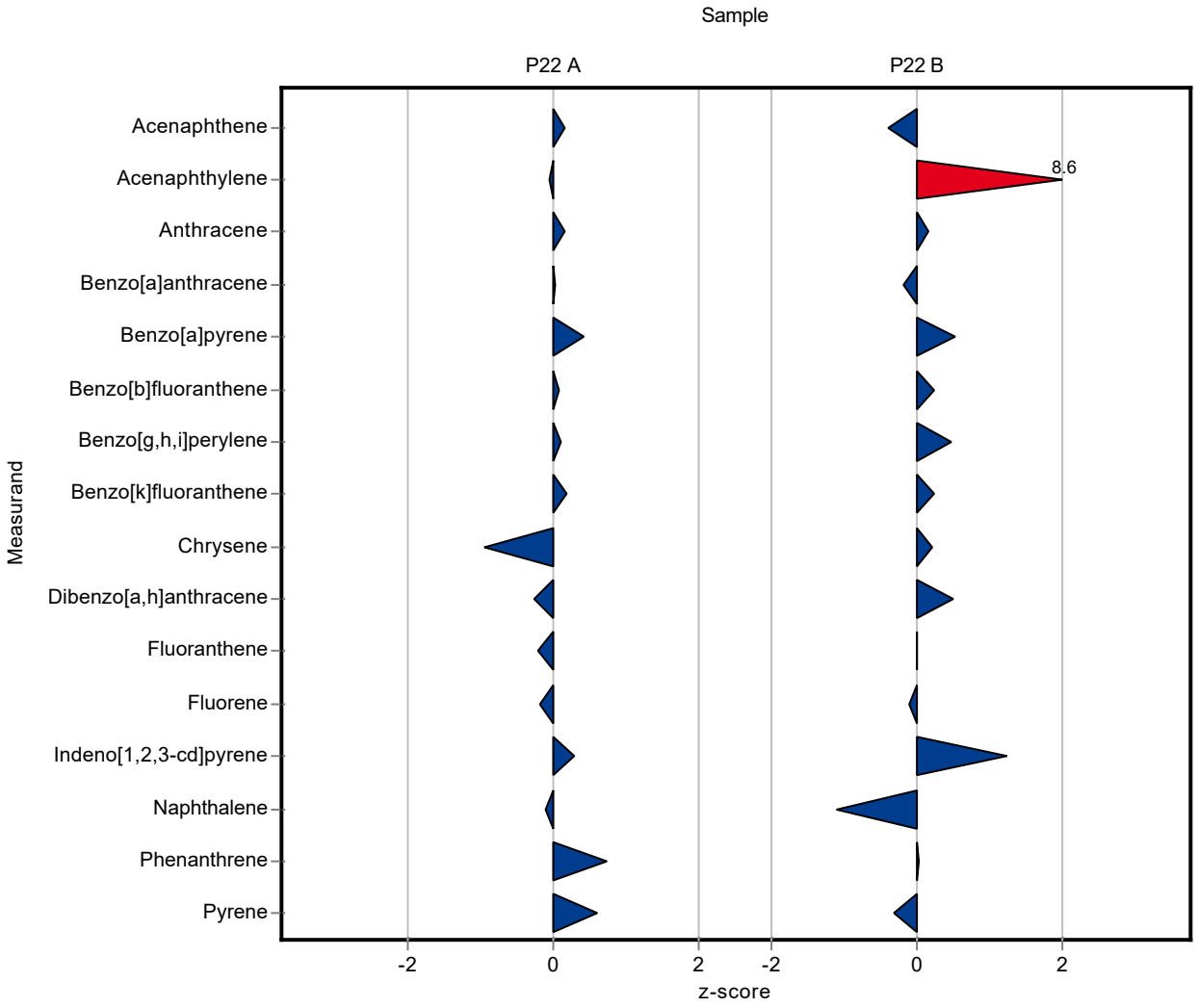
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	14.25 ± 1.02	2.63	103	0.16
Acenaphthylene	ng/l	15.4 ± 2.97	15 ± 1.56	4.92	97.5	-0.08
Anthracene	ng/l	11.1 ± 1.11	11.35 ± 1.63	2.1	103	0.13
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13.9 ± 2.88	2.91	100	0.02
Benzo[a]pyrene	ng/l	11.5 ± 1.41	12.6 ± 1.12	2.75	110	0.42
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	15.95 ± 2.36	2.69	101	0.06
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12.2 ± 3.37	3.78	103	0.10
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	17.9 ± 4.45	4.45	105	0.18
Chrysene	ng/l	19 ± 0.871	17.4 ± 4.18	1.63	91.8	-0.96
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	14.2 ± 4.39	4.63	91.9	-0.27
Fluoranthene	ng/l	18.9 ± 2.7	18.15 ± 2.43	3.4	96.2	-0.21
Fluorene	ng/l	22.4 ± 2.02	21.85 ± 3.06	3.14	97.4	-0.18
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	15.6 ± 1.49	2.54	105	0.27
Naphthalene	ng/l	31.2 ± 3.8	30.45 ± 7.63	6.54	97.7	-0.11
Phenanthrene	ng/l	18.3 ± 2.63	20.35 ± 2.58	2.75	111	0.73
Pyrene	ng/l	16.9 ± 1.82	18.45 ± 4.03	2.7	109	0.59

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	98.4 ± 7.05	20.3	92	-0.42
Acenaphthylene	ng/l	138 ± 22.8	504 ± 52.57	42.7	366	8.57
Anthracene	ng/l	135 ± 11.2	137.8 ± 19.79	22.9	102	0.14
Benzo[a]anthracene	ng/l	123 ± 9.48	118.1 ± 24.48	25.9	95.8	-0.20
Benzo[a]pyrene	ng/l	83 ± 7.73	93.2 ± 8.26	19.9	112	0.51
Benzo[b]fluoranthene	ng/l	107 ± 7.93	111.2 ± 16.48	18.2	104	0.23
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	111.5 ± 30.84	31.1	115	0.46
Benzo[k]fluoranthene	ng/l	74 ± 5.26	78.3 ± 19.46	19.2	106	0.22
Chrysene	ng/l	94.9 ± 9.16	98.4 ± 23.63	18	104	0.20
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	138 ± 47.92	36.1	115	0.49

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	174 ± 23.32	31.3	99.9	0.00
Fluorene	ng/l	104 ± 9.65	101.9 ± 14.27	14.5	98.3	-0.12
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	101.77 ± 9.69	20.1	132	1.22
Naphthalene	ng/l	159 ± 24.7	121.3 ± 30.39	33.3	76.4	-1.12
Phenanthrene	ng/l	186 ± 11.7	186.09 ± 23.58	27.9	100	0.01
Pyrene	ng/l	114 ± 8.23	108 ± 23.6	18.2	94.9	-0.32



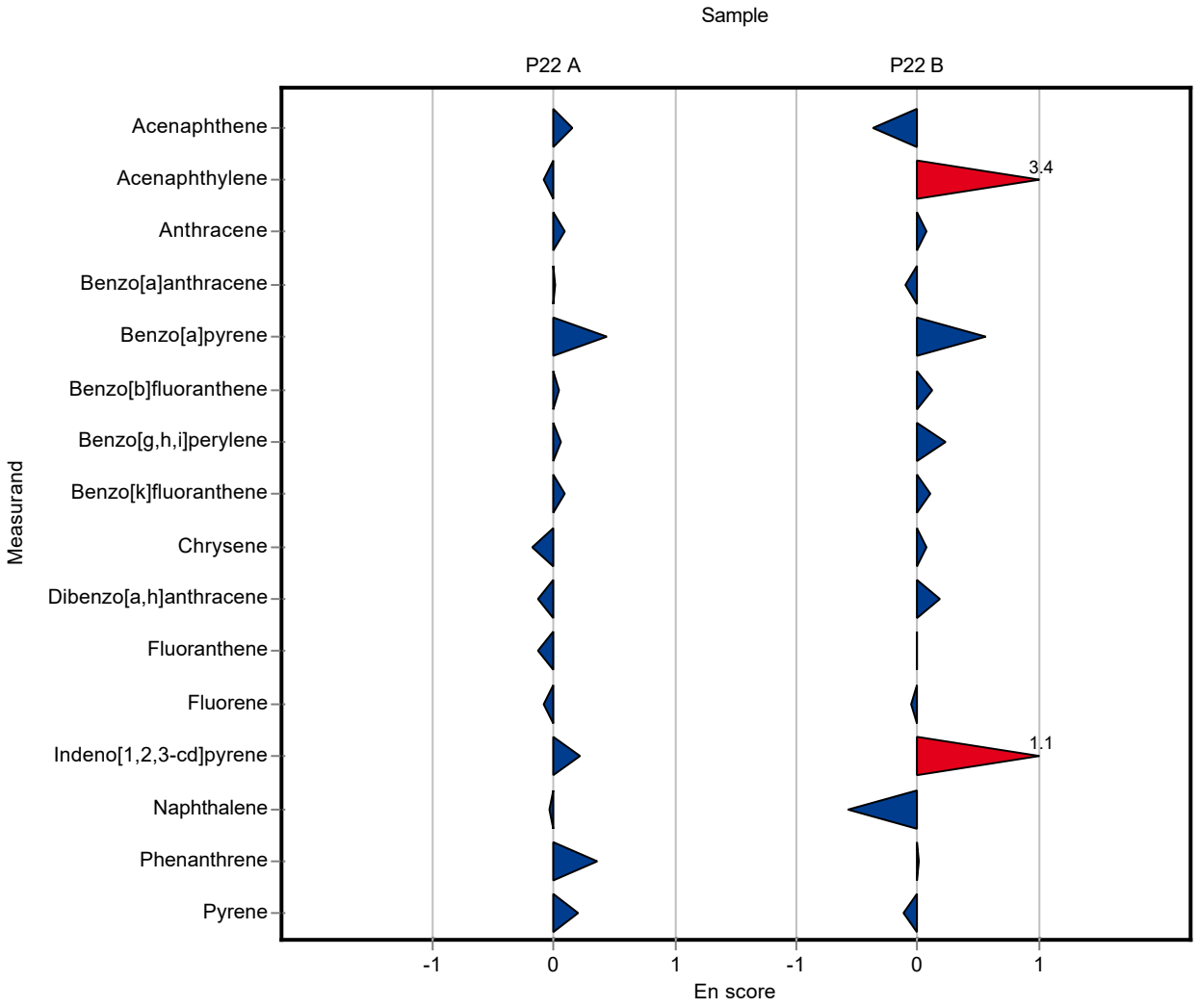
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	14.25 ± 1.02	2.63	103	0.14
Acenaphthylene	ng/l	15.4 ± 2.97	15 ± 1.56	4.92	97.5	-0.09
Anthracene	ng/l	11.1 ± 1.11	11.35 ± 1.63	2.1	103	0.08
Benzo[a]anthracene	ng/l	13.8 ± 1.23	13.9 ± 2.88	2.91	100	0.01
Benzo[a]pyrene	ng/l	11.5 ± 1.41	12.6 ± 1.12	2.75	110	0.43
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	15.95 ± 2.36	2.69	101	0.03
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12.2 ± 3.37	3.78	103	0.06
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	17.9 ± 4.45	4.45	105	0.09
Chrysene	ng/l	19 ± 0.871	17.4 ± 4.18	1.63	91.8	-0.19
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	14.2 ± 4.39	4.63	91.9	-0.14
Fluoranthene	ng/l	18.9 ± 2.7	18.15 ± 2.43	3.4	96.2	-0.13
Fluorene	ng/l	22.4 ± 2.02	21.85 ± 3.06	3.14	97.4	-0.09
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	15.6 ± 1.49	2.54	105	0.21
Naphthalene	ng/l	31.2 ± 3.8	30.45 ± 7.63	6.54	97.7	-0.04
Phenanthrene	ng/l	18.3 ± 2.63	20.35 ± 2.58	2.75	111	0.35
Pyrene	ng/l	16.9 ± 1.82	18.45 ± 4.03	2.7	109	0.19

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	98.4 ± 7.05	20.3	92	-0.38
Acenaphthylene	ng/l	138 ± 22.8	504 ± 52.57	42.7	366	3.40
Anthracene	ng/l	135 ± 11.2	137.8 ± 19.79	22.9	102	0.08
Benzo[a]anthracene	ng/l	123 ± 9.48	118.1 ± 24.48	25.9	95.8	-0.10
Benzo[a]pyrene	ng/l	83 ± 7.73	93.2 ± 8.26	19.9	112	0.56
Benzo[b]fluoranthene	ng/l	107 ± 7.93	111.2 ± 16.48	18.2	104	0.12
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	111.5 ± 30.84	31.1	115	0.23
Benzo[k]fluoranthene	ng/l	74 ± 5.26	78.3 ± 19.46	19.2	106	0.11
Chrysene	ng/l	94.9 ± 9.16	98.4 ± 23.63	18	104	0.07
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	138 ± 47.92	36.1	115	0.18

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	174 ± 23.32	31.3	99.9	0.00
Fluorene	ng/l	104 ± 9.65	101.9 ± 14.27	14.5	98.3	-0.06
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	101.77 ± 9.69	20.1	132	1.11
Naphthalene	ng/l	159 ± 24.7	121.3 ± 30.39	33.3	76.4	-0.57
Phenanthrene	ng/l	186 ± 11.7	186.09 ± 23.58	27.9	100	0.01
Pyrene	ng/l	114 ± 8.23	108 ± 23.6	18.2	94.9	-0.12



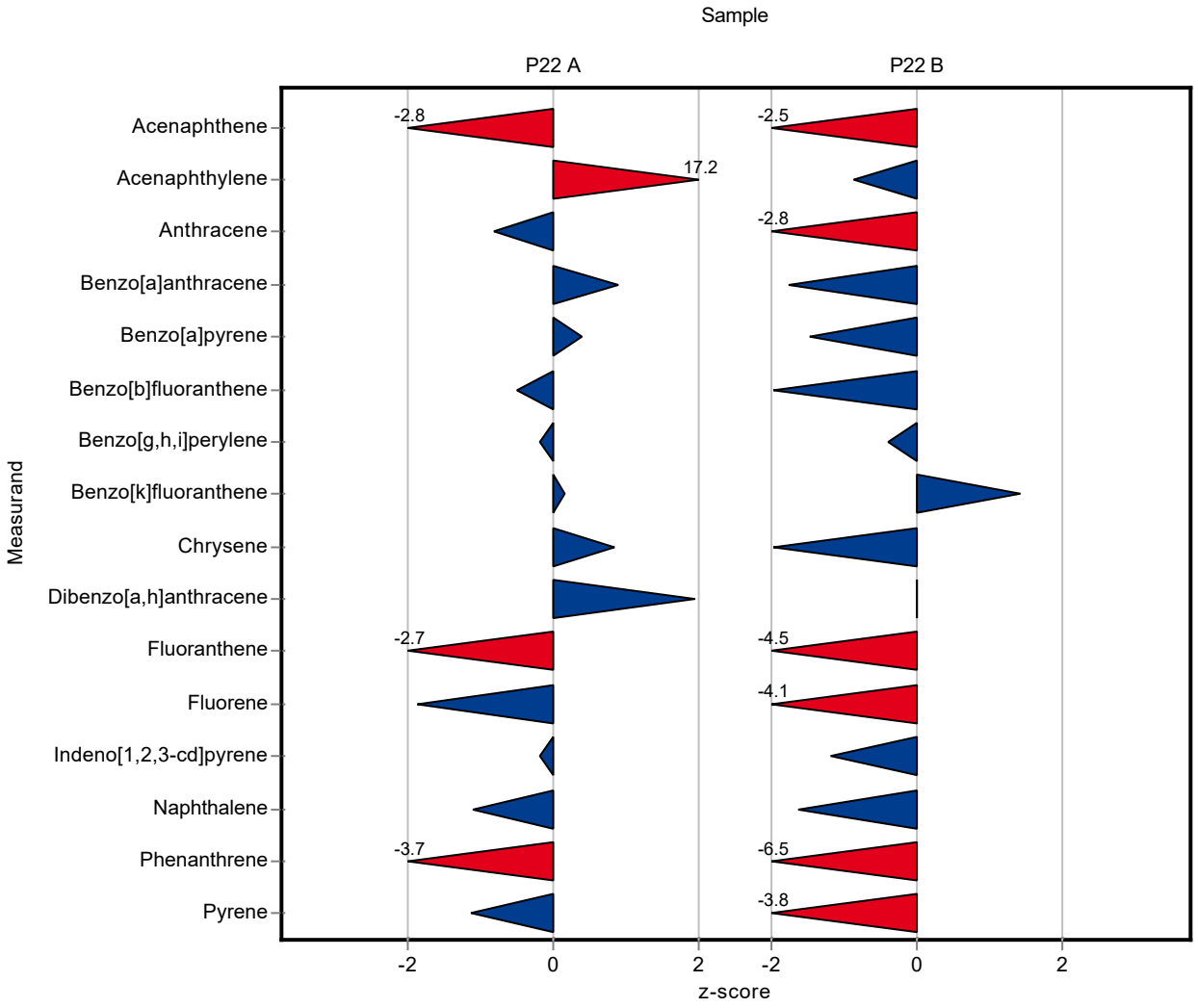
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	6.51 ± 1.2	2.63	47	-2.79
Acenaphthylene	ng/l	15.4 ± 2.97	100 ± 20	4.92	650	17.20
Anthracene	ng/l	11.1 ± 1.11	9.31 ± 1.8	2.1	84.1	-0.84
Benzo[a]anthracene	ng/l	13.8 ± 1.23	16.4 ± 3.2	2.91	118	0.88
Benzo[a]pyrene	ng/l	11.5 ± 1.41	12.5 ± 2.5	2.75	109	0.38
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	14.4 ± 2.9	2.69	91.2	-0.52
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	11.1 ± 2.2	3.78	94	-0.19
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	17.8 ± 3.6	4.45	104	0.16
Chrysene	ng/l	19 ± 0.871	20.3 ± 4	1.63	107	0.82
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	24.4 ± 2.8	4.63	158	1.93
Fluoranthene	ng/l	18.9 ± 2.7	9.7 ± 1.9	3.4	51.4	-2.70
Fluorene	ng/l	22.4 ± 2.02	16.5 ± 3.3	3.14	73.6	-1.89
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	14.4 ± 2.9	2.54	96.5	-0.21
Naphthalene	ng/l	31.2 ± 3.8	23.8 ± 4.7	6.54	76.4	-1.12
Phenanthrene	ng/l	18.3 ± 2.63	8.29 ± 1.6	2.75	45.2	-3.65
Pyrene	ng/l	16.9 ± 1.82	13.8 ± 2.8	2.7	81.8	-1.14

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	55.3 ± 11	20.3	51.7	-2.54
Acenaphthylene	ng/l	138 ± 22.8	100 ± 20	42.7	72.5	-0.89
Anthracene	ng/l	135 ± 11.2	71.4 ± 14	22.9	53	-2.76
Benzo[a]anthracene	ng/l	123 ± 9.48	77 ± 15	25.9	62.5	-1.79
Benzo[a]pyrene	ng/l	83 ± 7.73	53.3 ± 10	19.9	64.2	-1.49
Benzo[b]fluoranthene	ng/l	107 ± 7.93	71.1 ± 14	18.2	66.4	-1.98
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	84.4 ± 16	31.1	86.8	-0.41
Benzo[k]fluoranthene	ng/l	74 ± 5.26	101 ± 20	19.2	137	1.40
Chrysene	ng/l	94.9 ± 9.16	59.3 ± 18	18	62.5	-1.97
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	120 ± 24	36.1	99.8	-0.01

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	32.9 ± 6.4	31.3	18.9	-4.51
Fluorene	ng/l	104 ± 9.65	44 ± 8.8	14.5	42.5	-4.11
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	53.3 ± 10.6	20.1	69	-1.19
Naphthalene	ng/l	159 ± 24.7	104 ± 20	33.3	65.5	-1.64
Phenanthrene	ng/l	186 ± 11.7	4.28 ± 0.8	27.9	2.3	-6.51
Pyrene	ng/l	114 ± 8.23	45.5 ± 9	18.2	40	-3.75



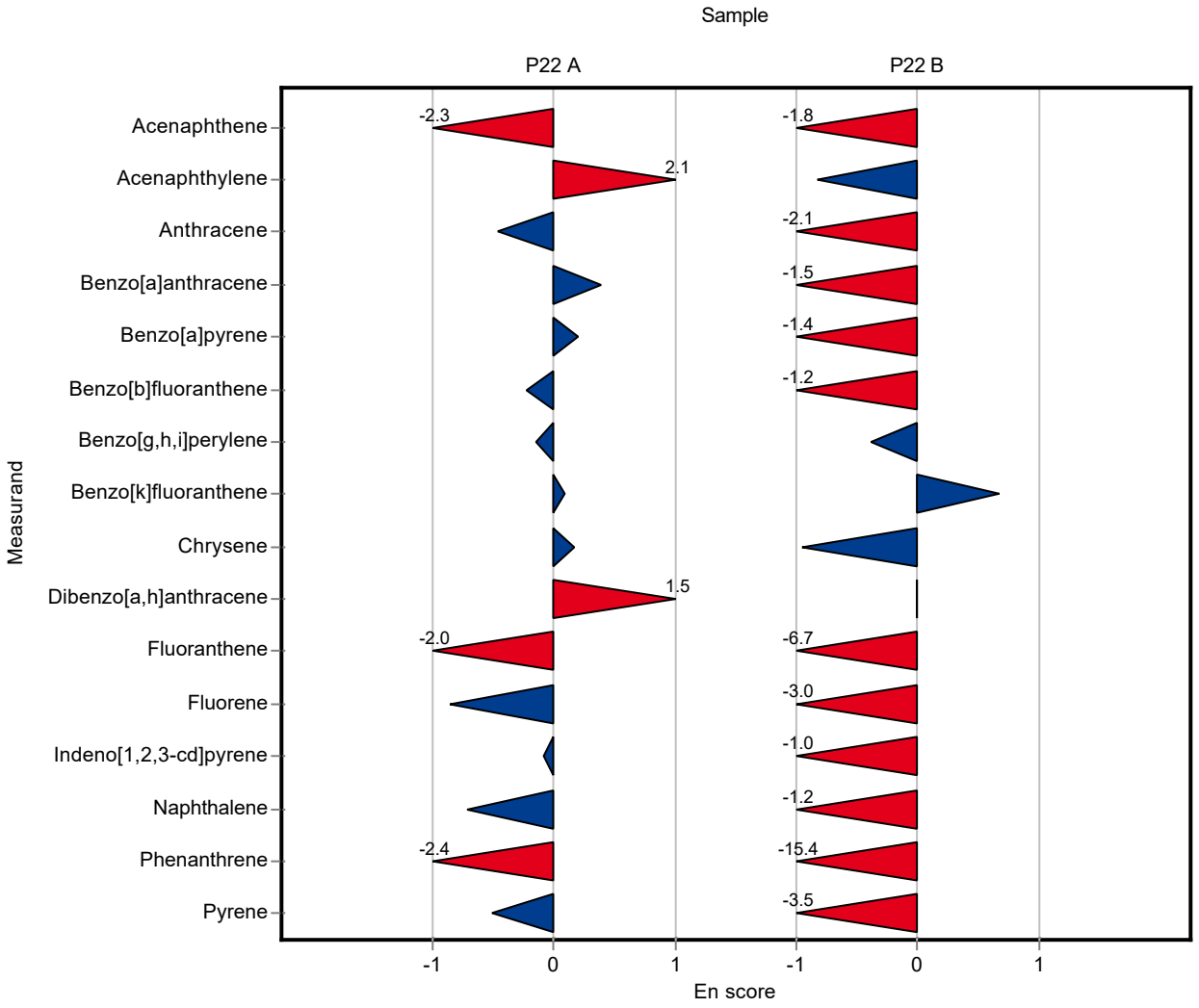
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	6.51 ± 1.2	2.63	47	-2.33
Acenaphthylene	ng/l	15.4 ± 2.97	100 ± 20	4.92	650	2.11
Anthracene	ng/l	11.1 ± 1.11	9.31 ± 1.8	2.1	84.1	-0.47
Benzo[a]anthracene	ng/l	13.8 ± 1.23	16.4 ± 3.2	2.91	118	0.39
Benzo[a]pyrene	ng/l	11.5 ± 1.41	12.5 ± 2.5	2.75	109	0.20
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	14.4 ± 2.9	2.69	91.2	-0.23
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	11.1 ± 2.2	3.78	94	-0.16
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	17.8 ± 3.6	4.45	104	0.09
Chrysene	ng/l	19 ± 0.871	20.3 ± 4	1.63	107	0.17
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	24.4 ± 2.8	4.63	158	1.46
Fluoranthene	ng/l	18.9 ± 2.7	9.7 ± 1.9	3.4	51.4	-1.97
Fluorene	ng/l	22.4 ± 2.02	16.5 ± 3.3	3.14	73.6	-0.86
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	14.4 ± 2.9	2.54	96.5	-0.09
Naphthalene	ng/l	31.2 ± 3.8	23.8 ± 4.7	6.54	76.4	-0.72
Phenanthrene	ng/l	18.3 ± 2.63	8.29 ± 1.6	2.75	45.2	-2.43
Pyrene	ng/l	16.9 ± 1.82	13.8 ± 2.8	2.7	81.8	-0.52

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	55.3 ± 11	20.3	51.7	-1.83
Acenaphthylene	ng/l	138 ± 22.8	100 ± 20	42.7	72.5	-0.82
Anthracene	ng/l	135 ± 11.2	71.4 ± 14	22.9	53	-2.10
Benzo[a]anthracene	ng/l	123 ± 9.48	77 ± 15	25.9	62.5	-1.47
Benzo[a]pyrene	ng/l	83 ± 7.73	53.3 ± 10	19.9	64.2	-1.39
Benzo[b]fluoranthene	ng/l	107 ± 7.93	71.1 ± 14	18.2	66.4	-1.24
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	84.4 ± 16	31.1	86.8	-0.39
Benzo[k]fluoranthene	ng/l	74 ± 5.26	101 ± 20	19.2	137	0.67
Chrysene	ng/l	94.9 ± 9.16	59.3 ± 18	18	62.5	-0.96
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	120 ± 24	36.1	99.8	0.00

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	32.9 ± 6.4	31.3	18.9	-6.73
Fluorene	ng/l	104 ± 9.65	44 ± 8.8	14.5	42.5	-2.97
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	53.3 ± 10.6	20.1	69	-1.01
Naphthalene	ng/l	159 ± 24.7	104 ± 20	33.3	65.5	-1.17
Phenanthrene	ng/l	186 ± 11.7	4.28 ± 0.8	27.9	2.3	-15.40
Pyrene	ng/l	114 ± 8.23	45.5 ± 9	18.2	40	-3.45



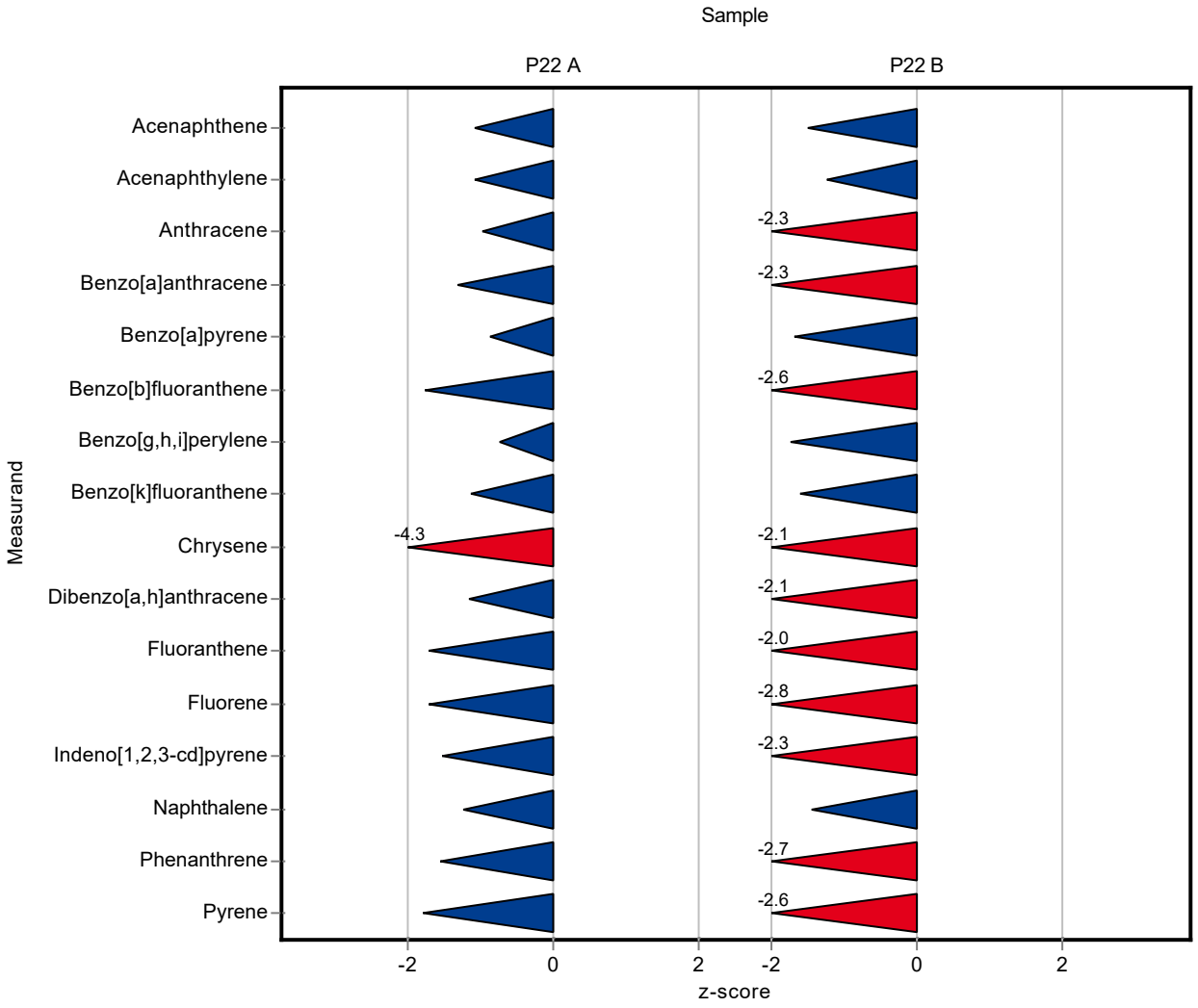
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	11 ± 1.1	2.63	79.5	-1.08
Acenaphthylene	ng/l	15.4 ± 2.97	10 ± 1	4.92	65	-1.09
Anthracene	ng/l	11.1 ± 1.11	9 ± 0.9	2.1	81.3	-0.98
Benzo[a]anthracene	ng/l	13.8 ± 1.23	10 ± 1	2.91	72.2	-1.32
Benzo[a]pyrene	ng/l	11.5 ± 1.41	9 ± 0.9	2.75	78.6	-0.89
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	11 ± 1.1	2.69	69.6	-1.79
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	9 ± 0.9	3.78	76.2	-0.74
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	12 ± 1.2	4.45	70.2	-1.15
Chrysene	ng/l	19 ± 0.871	12 ± 1.2	1.63	63.3	-4.27
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	10 ± 1	4.63	64.7	-1.18
Fluoranthene	ng/l	18.9 ± 2.7	13 ± 1.3	3.4	68.9	-1.73
Fluorene	ng/l	22.4 ± 2.02	17 ± 1.7	3.14	75.8	-1.73
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	11 ± 1.1	2.54	73.7	-1.55
Naphthalene	ng/l	31.2 ± 3.8	23 ± 2.3	6.54	73.8	-1.25
Phenanthrene	ng/l	18.3 ± 2.63	14 ± 1.4	2.75	76.4	-1.58
Pyrene	ng/l	16.9 ± 1.82	12 ± 1.2	2.7	71.1	-1.80

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	76 ± 7.6	20.3	71.1	-1.52
Acenaphthylene	ng/l	138 ± 22.8	85 ± 8.5	42.7	61.7	-1.24
Anthracene	ng/l	135 ± 11.2	82 ± 8.2	22.9	60.9	-2.30
Benzo[a]anthracene	ng/l	123 ± 9.48	63 ± 6.3	25.9	51.1	-2.33
Benzo[a]pyrene	ng/l	83 ± 7.73	49 ± 4.9	19.9	59	-1.71
Benzo[b]fluoranthene	ng/l	107 ± 7.93	59 ± 5.9	18.2	55.1	-2.64
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	43 ± 4.3	31.1	44.2	-1.74
Benzo[k]fluoranthene	ng/l	74 ± 5.26	43 ± 4.3	19.2	58.1	-1.61
Chrysene	ng/l	94.9 ± 9.16	57 ± 5.7	18	60.1	-2.10
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	45 ± 4.5	36.1	37.4	-2.09

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	110 ± 11	31.3	63.2	-2.05
Fluorene	ng/l	104 ± 9.65	63 ± 6.3	14.5	60.8	-2.80
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	32 ± 3.2	20.1	41.4	-2.25
Naphthalene	ng/l	159 ± 24.7	110 ± 11	33.3	69.3	-1.46
Phenanthrene	ng/l	186 ± 11.7	110 ± 11	27.9	59.2	-2.72
Pyrene	ng/l	114 ± 8.23	66 ± 6.6	18.2	58	-2.63



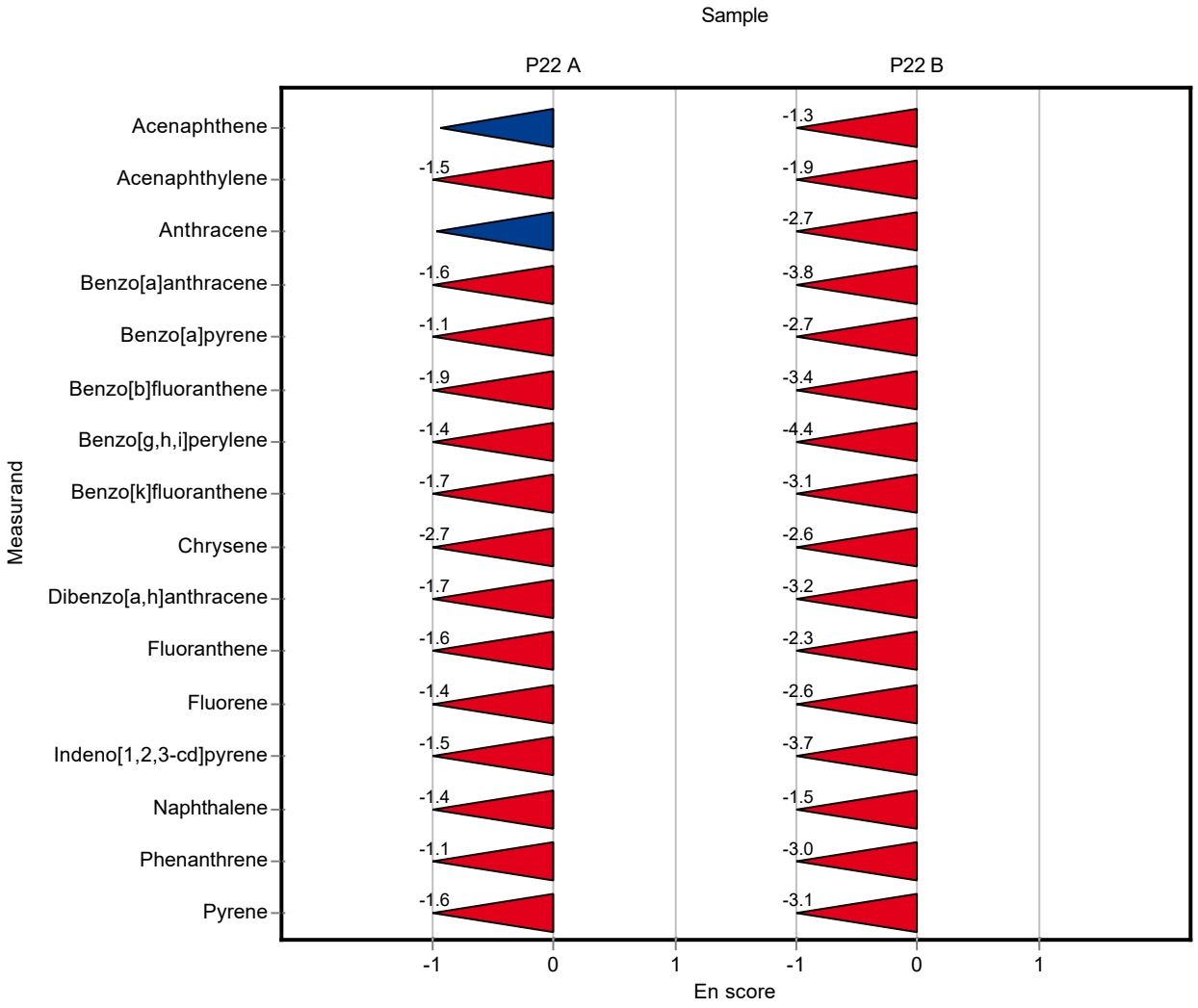
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	11 ± 1.1	2.63	79.5	-0.95
Acenaphthylene	ng/l	15.4 ± 2.97	10 ± 1	4.92	65	-1.50
Anthracene	ng/l	11.1 ± 1.11	9 ± 0.9	2.1	81.3	-0.98
Benzo[a]anthracene	ng/l	13.8 ± 1.23	10 ± 1	2.91	72.2	-1.64
Benzo[a]pyrene	ng/l	11.5 ± 1.41	9 ± 0.9	2.75	78.6	-1.08
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	11 ± 1.1	2.69	69.6	-1.88
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	9 ± 0.9	3.78	76.2	-1.36
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	12 ± 1.2	4.45	70.2	-1.73
Chrysene	ng/l	19 ± 0.871	12 ± 1.2	1.63	63.3	-2.73
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	10 ± 1	4.63	64.7	-1.70
Fluoranthene	ng/l	18.9 ± 2.7	13 ± 1.3	3.4	68.9	-1.56
Fluorene	ng/l	22.4 ± 2.02	17 ± 1.7	3.14	75.8	-1.37
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	11 ± 1.1	2.54	73.7	-1.51
Naphthalene	ng/l	31.2 ± 3.8	23 ± 2.3	6.54	73.8	-1.37
Phenanthrene	ng/l	18.3 ± 2.63	14 ± 1.4	2.75	76.4	-1.13
Pyrene	ng/l	16.9 ± 1.82	12 ± 1.2	2.7	71.1	-1.62

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	76 ± 7.6	20.3	71.1	-1.32
Acenaphthylene	ng/l	138 ± 22.8	85 ± 8.5	42.7	61.7	-1.86
Anthracene	ng/l	135 ± 11.2	82 ± 8.2	22.9	60.9	-2.65
Benzo[a]anthracene	ng/l	123 ± 9.48	63 ± 6.3	25.9	51.1	-3.82
Benzo[a]pyrene	ng/l	83 ± 7.73	49 ± 4.9	19.9	59	-2.73
Benzo[b]fluoranthene	ng/l	107 ± 7.93	59 ± 5.9	18.2	55.1	-3.38
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	43 ± 4.3	31.1	44.2	-4.38
Benzo[k]fluoranthene	ng/l	74 ± 5.26	43 ± 4.3	19.2	58.1	-3.07
Chrysene	ng/l	94.9 ± 9.16	57 ± 5.7	18	60.1	-2.59
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	45 ± 4.5	36.1	37.4	-3.21

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	110 ± 11	31.3	63.2	-2.33
Fluorene	ng/l	104 ± 9.65	63 ± 6.3	14.5	60.8	-2.56
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	32 ± 3.2	20.1	41.4	-3.69
Naphthalene	ng/l	159 ± 24.7	110 ± 11	33.3	69.3	-1.47
Phenanthrene	ng/l	186 ± 11.7	110 ± 11	27.9	59.2	-3.04
Pyrene	ng/l	114 ± 8.23	66 ± 6.6	18.2	58	-3.07



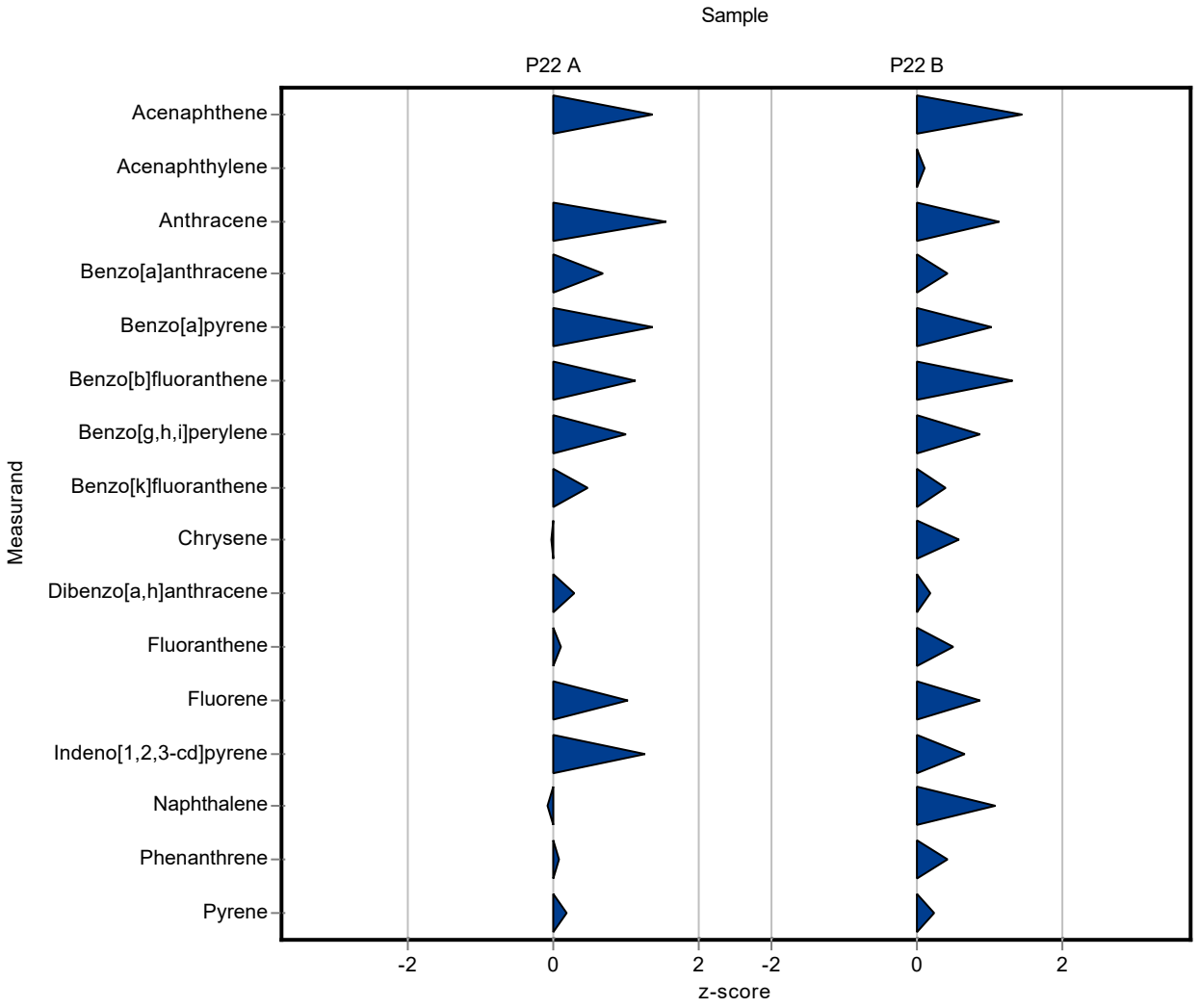
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	17.4 ± 1.7	2.63	126	1.35
Acenaphthylene	ng/l	15.4 ± 2.97	<25 (LOQ) ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	14.3 ± 1.4	2.1	129	1.53
Benzo[a]anthracene	ng/l	13.8 ± 1.23	15.8 ± 1.6	2.91	114	0.67
Benzo[a]pyrene	ng/l	11.5 ± 1.41	15.2 ± 1.5	2.75	133	1.36
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	18.8 ± 1.9	2.69	119	1.12
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	15.5 ± 1.6	3.78	131	0.97
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	19.2 ± 1.9	4.45	112	0.47
Chrysene	ng/l	19 ± 0.871	18.9 ± 1.9	1.63	99.7	-0.04
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	16.7 ± 1.7	4.63	108	0.27
Fluoranthene	ng/l	18.9 ± 2.7	19.2 ± 1.9	3.4	102	0.10
Fluorene	ng/l	22.4 ± 2.02	25.6 ± 2.6	3.14	114	1.01
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	18.1 ± 1.8	2.54	121	1.25
Naphthalene	ng/l	31.2 ± 3.8	30.5 ± 3.1	6.54	97.9	-0.10
Phenanthrene	ng/l	18.3 ± 2.63	18.5 ± 1.9	2.75	101	0.06
Pyrene	ng/l	16.9 ± 1.82	17.3 ± 1.7	2.7	103	0.16

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	136 ± 13.6	20.3	127	1.43
Acenaphthylene	ng/l	138 ± 22.8	142 ± 14.2	42.7	103	0.10
Anthracene	ng/l	135 ± 11.2	160 ± 16	22.9	119	1.11
Benzo[a]anthracene	ng/l	123 ± 9.48	134 ± 13.4	25.9	109	0.42
Benzo[a]pyrene	ng/l	83 ± 7.73	103 ± 10.3	19.9	124	1.00
Benzo[b]fluoranthene	ng/l	107 ± 7.93	131 ± 13.1	18.2	122	1.31
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	124 ± 12.4	31.1	128	0.86
Benzo[k]fluoranthene	ng/l	74 ± 5.26	81.3 ± 8.1	19.2	110	0.38
Chrysene	ng/l	94.9 ± 9.16	105 ± 10.5	18	111	0.56
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	126 ± 12.6	36.1	105	0.16

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	189 ± 18.9	31.3	109	0.47
Fluorene	ng/l	104 ± 9.65	116 ± 11.6	14.5	112	0.85
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	90.2 ± 9	20.1	117	0.65
Naphthalene	ng/l	159 ± 24.7	194 ± 19.4	33.3	122	1.06
Phenanthrene	ng/l	186 ± 11.7	197 ± 19.7	27.9	106	0.41
Pyrene	ng/l	114 ± 8.23	118 ± 11.8	18.2	104	0.23



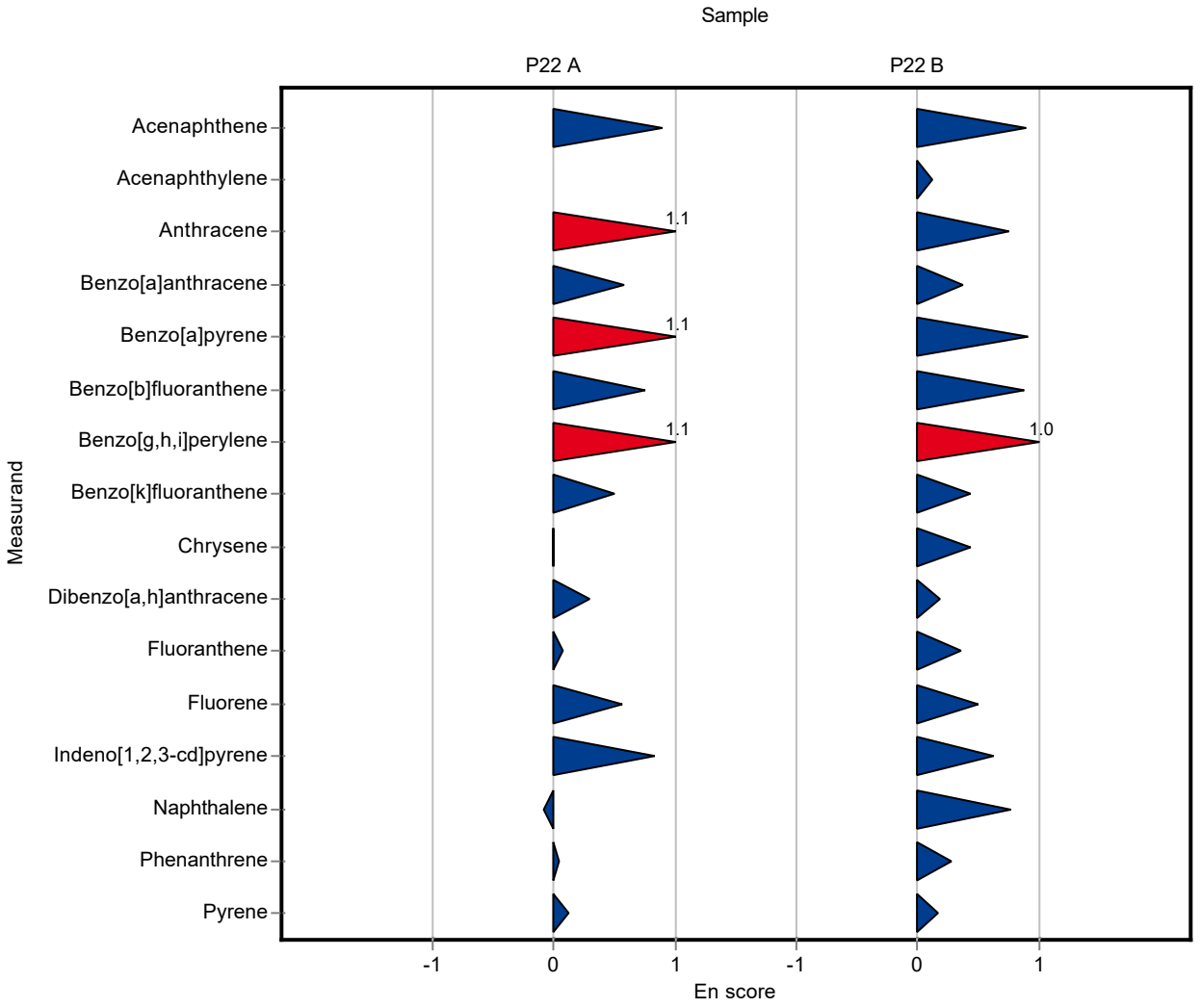
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	17.4 ± 1.7	2.63	126	0.90
Acenaphthylene	ng/l	15.4 ± 2.97	<25 (LOQ) ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	14.3 ± 1.4	2.1	129	1.07
Benzo[a]anthracene	ng/l	13.8 ± 1.23	15.8 ± 1.6	2.91	114	0.57
Benzo[a]pyrene	ng/l	11.5 ± 1.41	15.2 ± 1.5	2.75	133	1.13
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	18.8 ± 1.9	2.69	119	0.75
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	15.5 ± 1.6	3.78	131	1.10
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	19.2 ± 1.9	4.45	112	0.50
Chrysene	ng/l	19 ± 0.871	18.9 ± 1.9	1.63	99.7	-0.02
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	16.7 ± 1.7	4.63	108	0.30
Fluoranthene	ng/l	18.9 ± 2.7	19.2 ± 1.9	3.4	102	0.07
Fluorene	ng/l	22.4 ± 2.02	25.6 ± 2.6	3.14	114	0.57
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	18.1 ± 1.8	2.54	121	0.82
Naphthalene	ng/l	31.2 ± 3.8	30.5 ± 3.1	6.54	97.9	-0.09
Phenanthrene	ng/l	18.3 ± 2.63	18.5 ± 1.9	2.75	101	0.04
Pyrene	ng/l	16.9 ± 1.82	17.3 ± 1.7	2.7	103	0.11

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	136 ± 13.6	20.3	127	0.90
Acenaphthylene	ng/l	138 ± 22.8	142 ± 14.2	42.7	103	0.11
Anthracene	ng/l	135 ± 11.2	160 ± 16	22.9	119	0.75
Benzo[a]anthracene	ng/l	123 ± 9.48	134 ± 13.4	25.9	109	0.38
Benzo[a]pyrene	ng/l	83 ± 7.73	103 ± 10.3	19.9	124	0.91
Benzo[b]fluoranthene	ng/l	107 ± 7.93	131 ± 13.1	18.2	122	0.87
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	124 ± 12.4	31.1	128	1.02
Benzo[k]fluoranthene	ng/l	74 ± 5.26	81.3 ± 8.1	19.2	110	0.43
Chrysene	ng/l	94.9 ± 9.16	105 ± 10.5	18	111	0.44
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	126 ± 12.6	36.1	105	0.17

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	189 ± 18.9	31.3	109	0.36
Fluorene	ng/l	104 ± 9.65	116 ± 11.6	14.5	112	0.49
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	90.2 ± 9	20.1	117	0.62
Naphthalene	ng/l	159 ± 24.7	194 ± 19.4	33.3	122	0.77
Phenanthrene	ng/l	186 ± 11.7	197 ± 19.7	27.9	106	0.28
Pyrene	ng/l	114 ± 8.23	118 ± 11.8	18.2	104	0.17



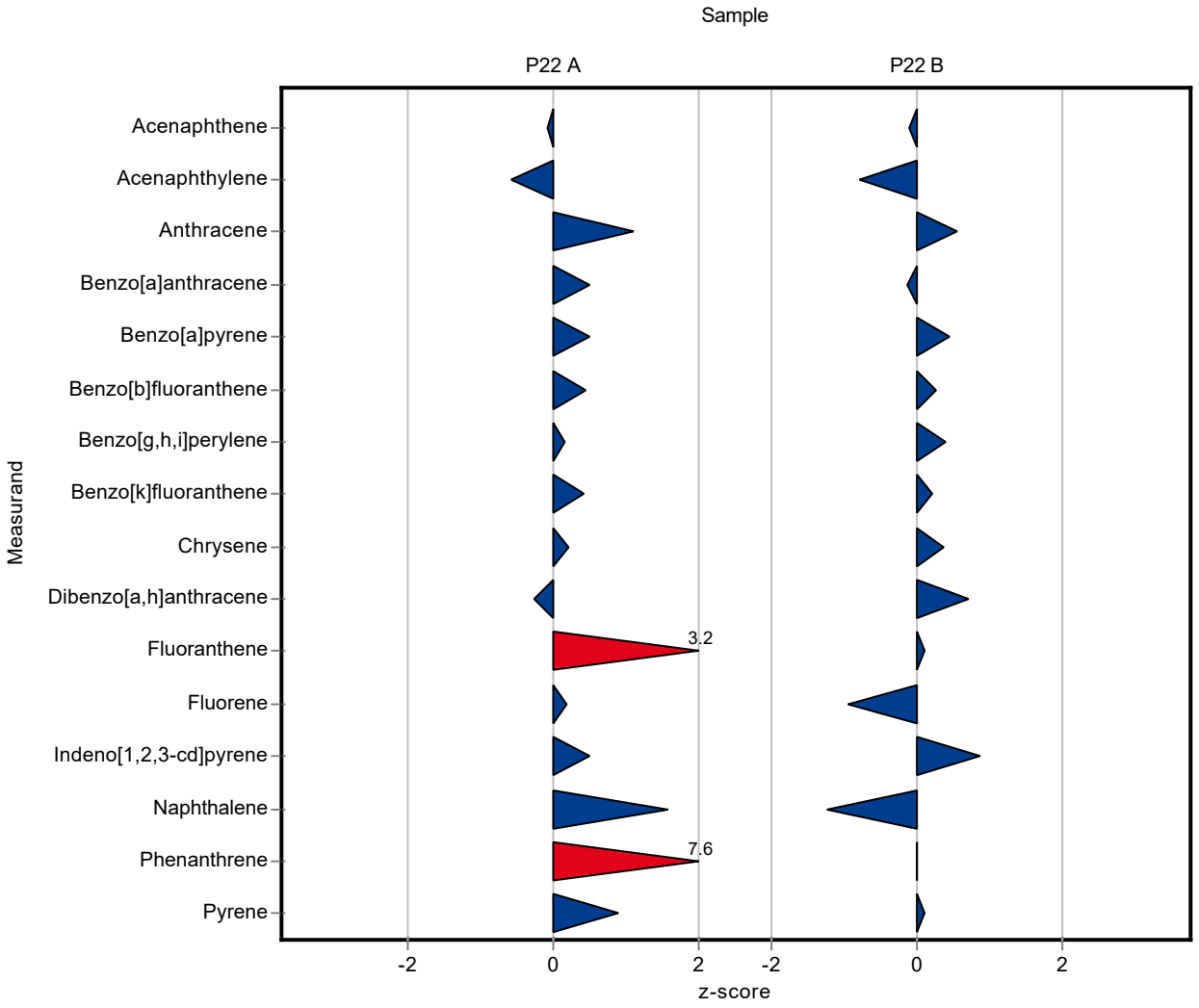
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	13.57 ± 8.43	2.63	98.1	-0.10
Acenaphthylene	ng/l	15.4 ± 2.97	12.44 ± 5.08	4.92	80.9	-0.60
Anthracene	ng/l	11.1 ± 1.11	13.35 ± 6.71	2.1	121	1.08
Benzo[a]anthracene	ng/l	13.8 ± 1.23	15.26 ± 8.32	2.91	110	0.49
Benzo[a]pyrene	ng/l	11.5 ± 1.41	12.83 ± 3.77	2.75	112	0.50
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.95 ± 6.93	2.69	107	0.43
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12.35 ± 5.84	3.78	105	0.14
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	18.9 ± 7.28	4.45	110	0.40
Chrysene	ng/l	19 ± 0.871	19.28 ± 8.45	1.63	102	0.20
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	14.19 ± 5.84	4.63	91.9	-0.27
Fluoranthene	ng/l	18.9 ± 2.7	29.87 ± 8.27	3.4	158	3.24
Fluorene	ng/l	22.4 ± 2.02	23 ± 10.29	3.14	103	0.18
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	16.14 ± 8.62	2.54	108	0.48
Naphthalene	ng/l	31.2 ± 3.8	41.42 ± 24.17	6.54	133	1.57
Phenanthrene	ng/l	18.3 ± 2.63	39.31 ± 18.07	2.75	214	7.63
Pyrene	ng/l	16.9 ± 1.82	19.23 ± 4.88	2.7	114	0.88

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	104.42 ± 64.83	20.3	97.7	-0.12
Acenaphthylene	ng/l	138 ± 22.8	103.74 ± 42.39	42.7	75.2	-0.80
Anthracene	ng/l	135 ± 11.2	146.94 ± 73.92	22.9	109	0.54
Benzo[a]anthracene	ng/l	123 ± 9.48	119.25 ± 65.03	25.9	96.8	-0.15
Benzo[a]pyrene	ng/l	83 ± 7.73	91.92 ± 27.03	19.9	111	0.45
Benzo[b]fluoranthene	ng/l	107 ± 7.93	111.47 ± 45.54	18.2	104	0.24
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	108.95 ± 51.49	31.1	112	0.38
Benzo[k]fluoranthene	ng/l	74 ± 5.26	77.69 ± 29.92	19.2	105	0.19
Chrysene	ng/l	94.9 ± 9.16	101.28 ± 44.4	18	107	0.35
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	145.58 ± 59.86	36.1	121	0.70

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	176.67 ± 48.94	31.3	101	0.08
Fluorene	ng/l	104 ± 9.65	89.8 ± 40.16	14.5	86.6	-0.95
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	94.33 ± 50.37	20.1	122	0.85
Naphthalene	ng/l	159 ± 24.7	116.68 ± 68.08	33.3	73.5	-1.26
Phenanthrene	ng/l	186 ± 11.7	185.03 ± 85.08	27.9	99.6	-0.02
Pyrene	ng/l	114 ± 8.23	115.67 ± 29.35	18.2	102	0.10



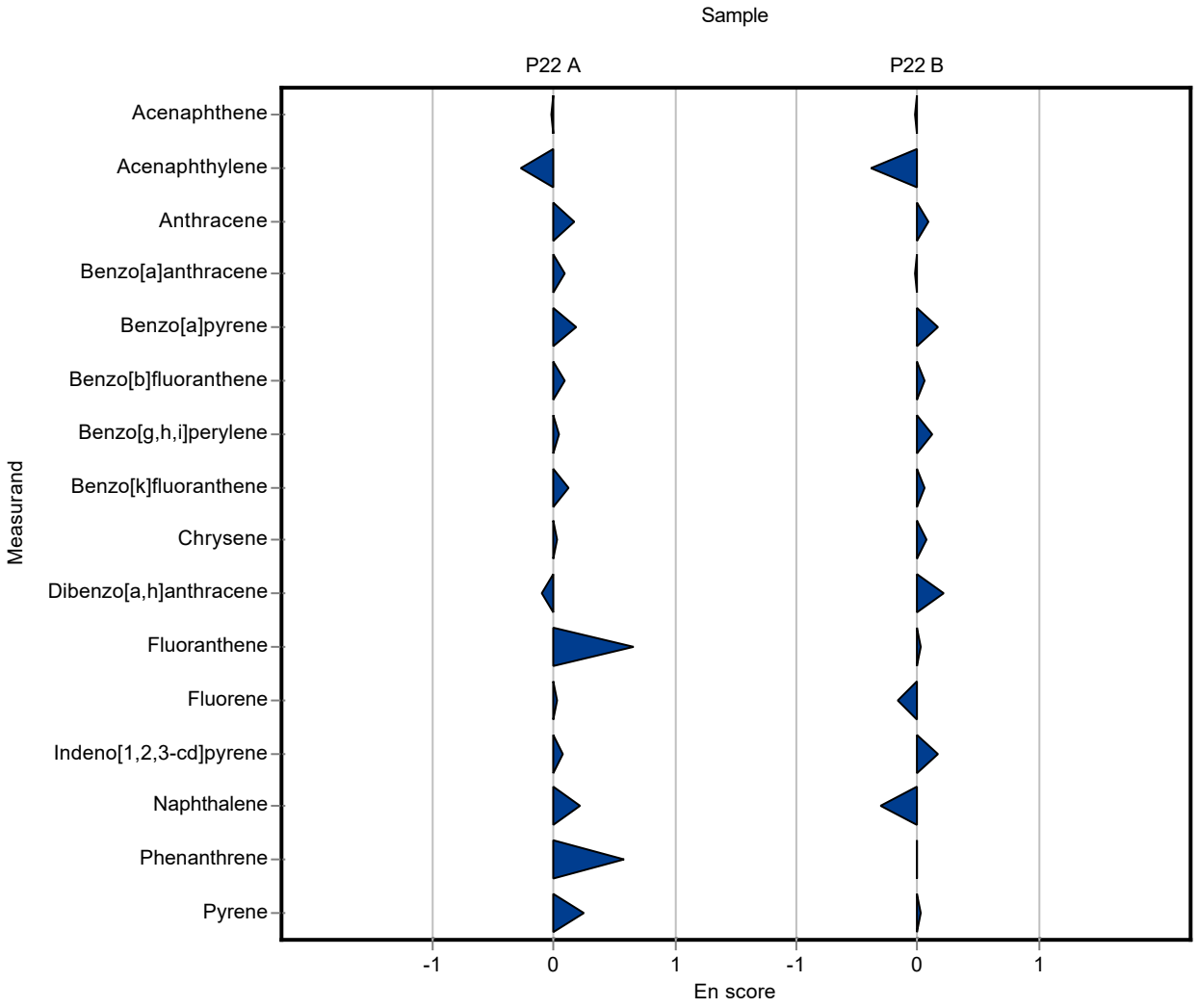
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	13.57 ± 8.43	2.63	98.1	-0.02
Acenaphthylene	ng/l	15.4 ± 2.97	12.44 ± 5.08	4.92	80.9	-0.28
Anthracene	ng/l	11.1 ± 1.11	13.35 ± 6.71	2.1	121	0.17
Benzo[a]anthracene	ng/l	13.8 ± 1.23	15.26 ± 8.32	2.91	110	0.08
Benzo[a]pyrene	ng/l	11.5 ± 1.41	12.83 ± 3.77	2.75	112	0.18
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.95 ± 6.93	2.69	107	0.08
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12.35 ± 5.84	3.78	105	0.05
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	18.9 ± 7.28	4.45	110	0.12
Chrysene	ng/l	19 ± 0.871	19.28 ± 8.45	1.63	102	0.02
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	14.19 ± 5.84	4.63	91.9	-0.10
Fluoranthene	ng/l	18.9 ± 2.7	29.87 ± 8.27	3.4	158	0.66
Fluorene	ng/l	22.4 ± 2.02	23 ± 10.29	3.14	103	0.03
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	16.14 ± 8.62	2.54	108	0.07
Naphthalene	ng/l	31.2 ± 3.8	41.42 ± 24.17	6.54	133	0.21
Phenanthrene	ng/l	18.3 ± 2.63	39.31 ± 18.07	2.75	214	0.58
Pyrene	ng/l	16.9 ± 1.82	19.23 ± 4.88	2.7	114	0.24

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	104.42 ± 64.83	20.3	97.7	-0.02
Acenaphthylene	ng/l	138 ± 22.8	103.74 ± 42.39	42.7	75.2	-0.39
Anthracene	ng/l	135 ± 11.2	146.94 ± 73.92	22.9	109	0.08
Benzo[a]anthracene	ng/l	123 ± 9.48	119.25 ± 65.03	25.9	96.8	-0.03
Benzo[a]pyrene	ng/l	83 ± 7.73	91.92 ± 27.03	19.9	111	0.16
Benzo[b]fluoranthene	ng/l	107 ± 7.93	111.47 ± 45.54	18.2	104	0.05
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	108.95 ± 51.49	31.1	112	0.11
Benzo[k]fluoranthene	ng/l	74 ± 5.26	77.69 ± 29.92	19.2	105	0.06
Chrysene	ng/l	94.9 ± 9.16	101.28 ± 44.4	18	107	0.07
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	145.58 ± 59.86	36.1	121	0.21

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	176.67 ± 48.94	31.3	101	0.03
Fluorene	ng/l	104 ± 9.65	89.8 ± 40.16	14.5	86.6	-0.17
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	94.33 ± 50.37	20.1	122	0.17
Naphthalene	ng/l	159 ± 24.7	116.68 ± 68.08	33.3	73.5	-0.30
Phenanthrene	ng/l	186 ± 11.7	185.03 ± 85.08	27.9	99.6	0.00
Pyrene	ng/l	114 ± 8.23	115.67 ± 29.35	18.2	102	0.03



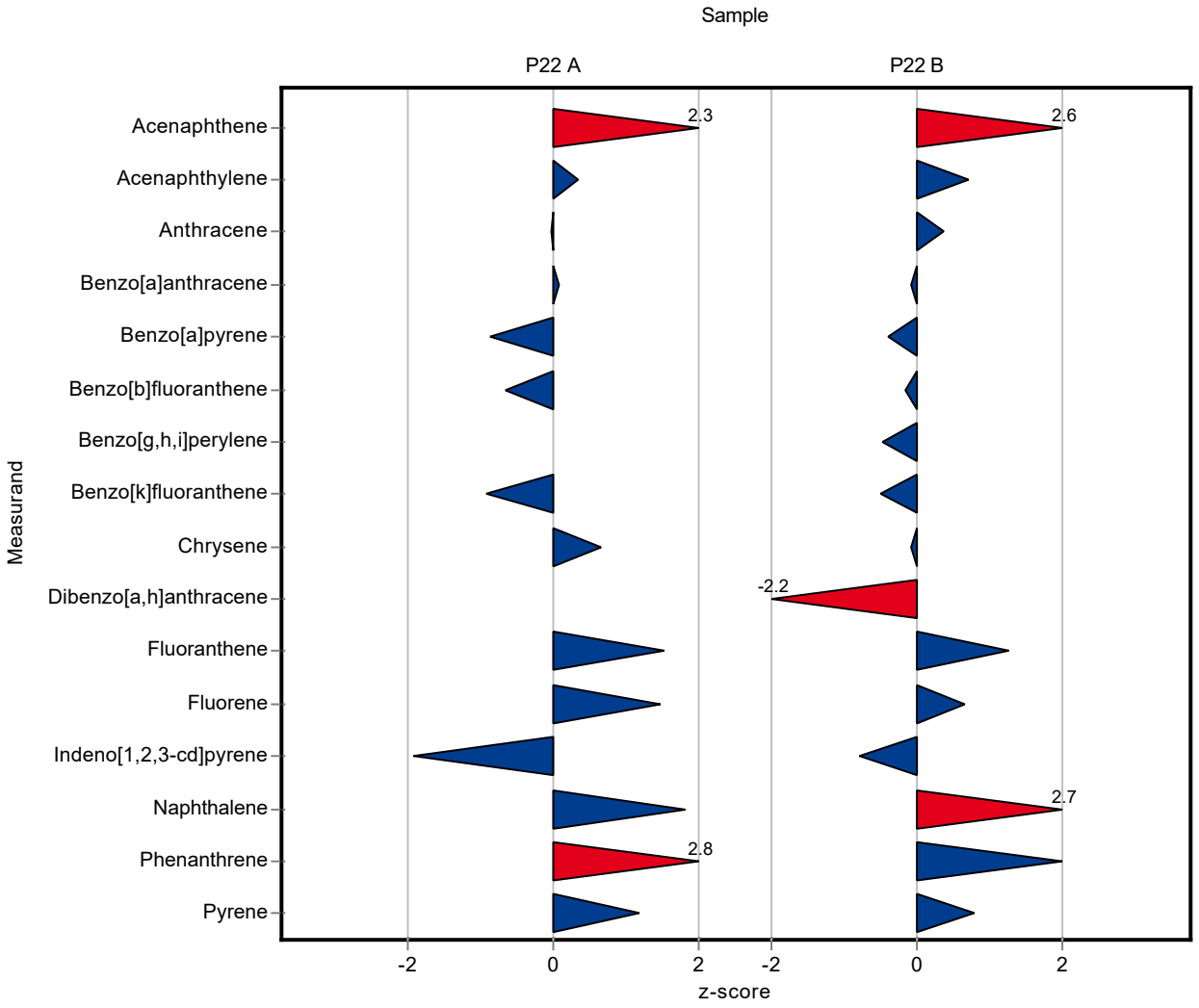
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	20 ± 4	2.63	145	2.34
Acenaphthylene	ng/l	15.4 ± 2.97	17 ± 3.4	4.92	111	0.33
Anthracene	ng/l	11.1 ± 1.11	11 ± 2.2	2.1	99.4	-0.03
Benzo[a]anthracene	ng/l	13.8 ± 1.23	14 ± 2.8	2.91	101	0.05
Benzo[a]pyrene	ng/l	11.5 ± 1.41	9 ± 1.8	2.75	78.6	-0.89
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	14 ± 2.8	2.69	88.6	-0.67
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<10 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	13 ± 2.6	4.45	76	-0.92
Chrysene	ng/l	19 ± 0.871	20 ± 4	1.63	105	0.64
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	<10 (LOQ) ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	24 ± 4.8	3.4	127	1.51
Fluorene	ng/l	22.4 ± 2.02	27 ± 5.4	3.14	120	1.46
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	10 ± 2	2.54	67	-1.94
Naphthalene	ng/l	31.2 ± 3.8	43 ± 8.6	6.54	138	1.81
Phenanthrene	ng/l	18.3 ± 2.63	26 ± 5.2	2.75	142	2.79
Pyrene	ng/l	16.9 ± 1.82	20 ± 4	2.7	119	1.16

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	159 ± 31.8	20.3	149	2.56
Acenaphthylene	ng/l	138 ± 22.8	168 ± 33.6	42.7	122	0.70
Anthracene	ng/l	135 ± 11.2	143 ± 28.6	22.9	106	0.36
Benzo[a]anthracene	ng/l	123 ± 9.48	121 ± 24.2	25.9	98.2	-0.09
Benzo[a]pyrene	ng/l	83 ± 7.73	75 ± 15	19.9	90.3	-0.40
Benzo[b]fluoranthene	ng/l	107 ± 7.93	104 ± 20.8	18.2	97.1	-0.17
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	82 ± 16.4	31.1	84.4	-0.49
Benzo[k]fluoranthene	ng/l	74 ± 5.26	64 ± 12.8	19.2	86.5	-0.52
Chrysene	ng/l	94.9 ± 9.16	93 ± 18.6	18	98	-0.10
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	42 ± 8.4	36.1	34.9	-2.17

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	213 ± 42.6	31.3	122	1.24
Fluorene	ng/l	104 ± 9.65	113 ± 22.6	14.5	109	0.65
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	61 ± 12	20.1	79	-0.81
Naphthalene	ng/l	159 ± 24.7	250 ± 50	33.3	157	2.73
Phenanthrene	ng/l	186 ± 11.7	241 ± 48.2	27.9	130	1.98
Pyrene	ng/l	114 ± 8.23	128 ± 25.6	18.2	112	0.78



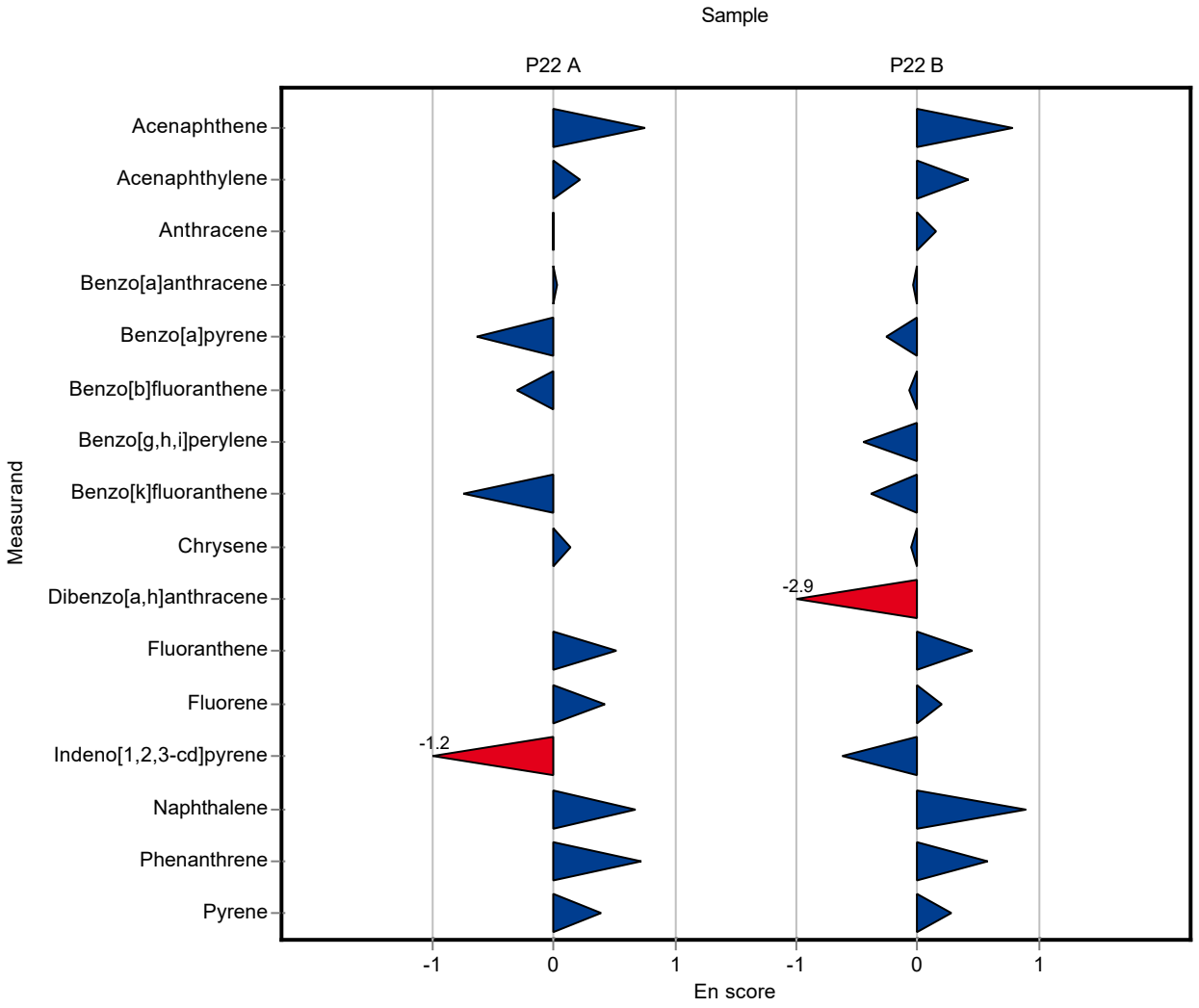
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	20 ± 4	2.63	145	0.75
Acenaphthylene	ng/l	15.4 ± 2.97	17 ± 3.4	4.92	111	0.22
Anthracene	ng/l	11.1 ± 1.11	11 ± 2.2	2.1	99.4	-0.02
Benzo[a]anthracene	ng/l	13.8 ± 1.23	14 ± 2.8	2.91	101	0.03
Benzo[a]pyrene	ng/l	11.5 ± 1.41	9 ± 1.8	2.75	78.6	-0.64
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	14 ± 2.8	2.69	88.6	-0.31
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<10 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	13 ± 2.6	4.45	76	-0.75
Chrysene	ng/l	19 ± 0.871	20 ± 4	1.63	105	0.13
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	<10 (LOQ) ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	24 ± 4.8	3.4	127	0.52
Fluorene	ng/l	22.4 ± 2.02	27 ± 5.4	3.14	120	0.42
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	10 ± 2	2.54	67	-1.16
Naphthalene	ng/l	31.2 ± 3.8	43 ± 8.6	6.54	138	0.67
Phenanthrene	ng/l	18.3 ± 2.63	26 ± 5.2	2.75	142	0.71
Pyrene	ng/l	16.9 ± 1.82	20 ± 4	2.7	119	0.38

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	159 ± 31.8	20.3	149	0.79
Acenaphthylene	ng/l	138 ± 22.8	168 ± 33.6	42.7	122	0.42
Anthracene	ng/l	135 ± 11.2	143 ± 28.6	22.9	106	0.14
Benzo[a]anthracene	ng/l	123 ± 9.48	121 ± 24.2	25.9	98.2	-0.05
Benzo[a]pyrene	ng/l	83 ± 7.73	75 ± 15	19.9	90.3	-0.26
Benzo[b]fluoranthene	ng/l	107 ± 7.93	104 ± 20.8	18.2	97.1	-0.07
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	82 ± 16.4	31.1	84.4	-0.45
Benzo[k]fluoranthene	ng/l	74 ± 5.26	64 ± 12.8	19.2	86.5	-0.38
Chrysene	ng/l	94.9 ± 9.16	93 ± 18.6	18	98	-0.05
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	42 ± 8.4	36.1	34.9	-2.86

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	213 ± 42.6	31.3	122	0.45
Fluorene	ng/l	104 ± 9.65	113 ± 22.6	14.5	109	0.20
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	61 ± 12	20.1	79	-0.62
Naphthalene	ng/l	159 ± 24.7	250 ± 50	33.3	157	0.89
Phenanthrene	ng/l	186 ± 11.7	241 ± 48.2	27.9	130	0.57
Pyrene	ng/l	114 ± 8.23	128 ± 25.6	18.2	112	0.27



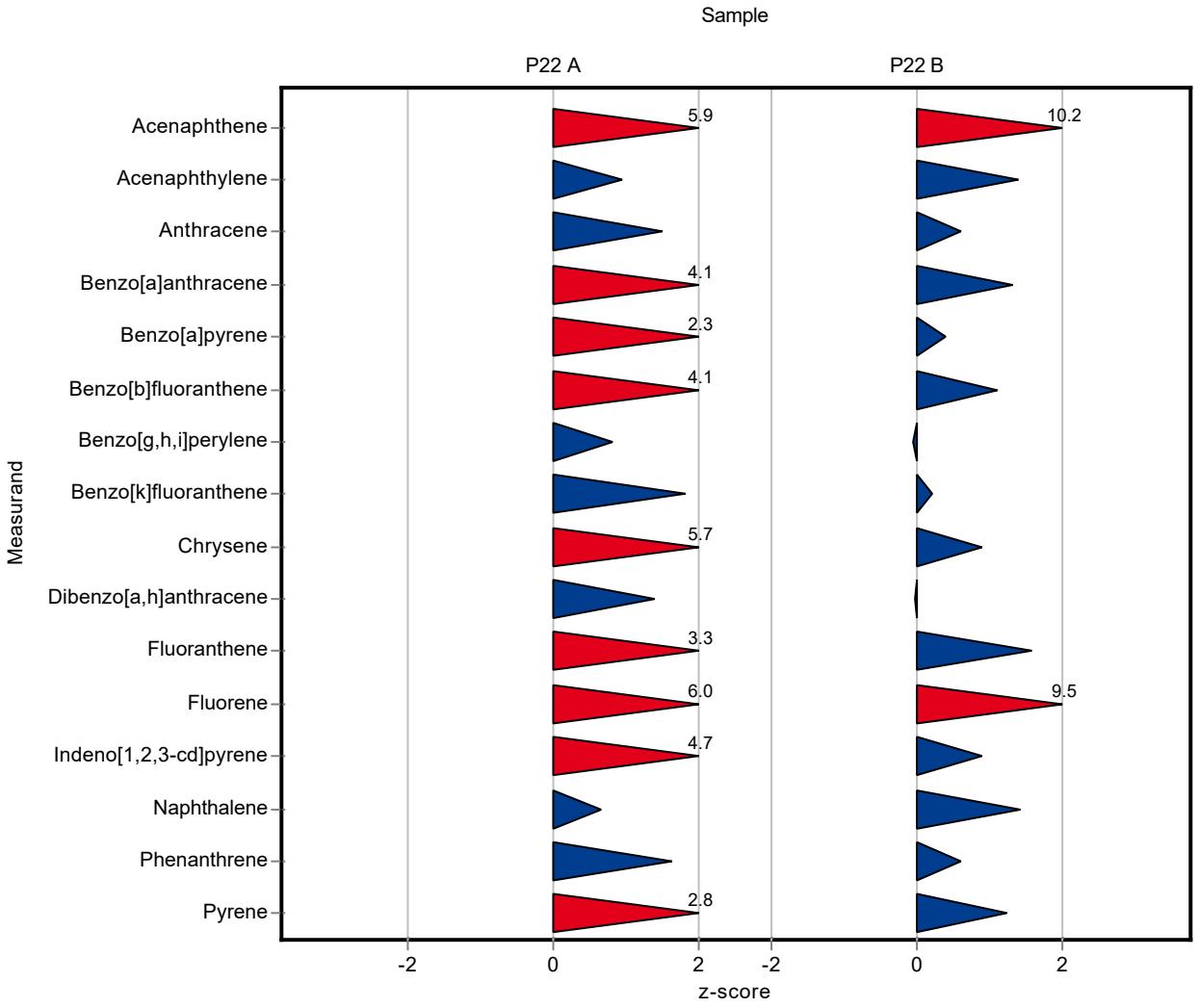
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	29.4 ± 8.8	2.63	212	5.92
Acenaphthylene	ng/l	15.4 ± 2.97	20 ± 6	4.92	130	0.94
Anthracene	ng/l	11.1 ± 1.11	14.2 ± 4.3	2.1	128	1.49
Benzo[a]anthracene	ng/l	13.8 ± 1.23	25.8 ± 7.7	2.91	186	4.11
Benzo[a]pyrene	ng/l	11.5 ± 1.41	17.7 ± 5.3	2.75	154	2.27
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	26.8 ± 5.4	2.69	170	4.10
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	14.8 ± 4.4	3.78	125	0.79
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	25.1 ± 7.5	4.45	147	1.80
Chrysene	ng/l	19 ± 0.871	28.2 ± 5.6	1.63	149	5.67
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	21.8 ± 6.5	4.63	141	1.37
Fluoranthene	ng/l	18.9 ± 2.7	30 ± 7.5	3.4	159	3.28
Fluorene	ng/l	22.4 ± 2.02	41.3 ± 10.3	3.14	184	6.01
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	26.9 ± 8.1	2.54	180	4.72
Naphthalene	ng/l	31.2 ± 3.8	35.3 ± 8.8	6.54	113	0.63
Phenanthrene	ng/l	18.3 ± 2.63	22.8 ± 6.8	2.75	124	1.62
Pyrene	ng/l	16.9 ± 1.82	24.4 ± 7.3	2.7	145	2.79

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	315 ± 79	20.3	295	10.20
Acenaphthylene	ng/l	138 ± 22.8	197 ± 39	42.7	143	1.38
Anthracene	ng/l	135 ± 11.2	148 ± 22	22.9	110	0.58
Benzo[a]anthracene	ng/l	123 ± 9.48	157 ± 16	25.9	127	1.30
Benzo[a]pyrene	ng/l	83 ± 7.73	90.7 ± 18.1	19.9	109	0.39
Benzo[b]fluoranthene	ng/l	107 ± 7.93	127 ± 19	18.2	119	1.09
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	95.1 ± 19	31.1	97.9	-0.07
Benzo[k]fluoranthene	ng/l	74 ± 5.26	77.8 ± 15.6	19.2	105	0.20
Chrysene	ng/l	94.9 ± 9.16	111 ± 17	18	117	0.89
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	119 ± 18	36.1	99	-0.03

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	223 ± 22	31.3	128	1.56
Fluorene	ng/l	104 ± 9.65	242 ± 48	14.5	233	9.54
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	94.7 ± 18.9	20.1	123	0.87
Naphthalene	ng/l	159 ± 24.7	206 ± 41	33.3	130	1.42
Phenanthrene	ng/l	186 ± 11.7	202 ± 40	27.9	109	0.58
Pyrene	ng/l	114 ± 8.23	136 ± 14	18.2	119	1.22



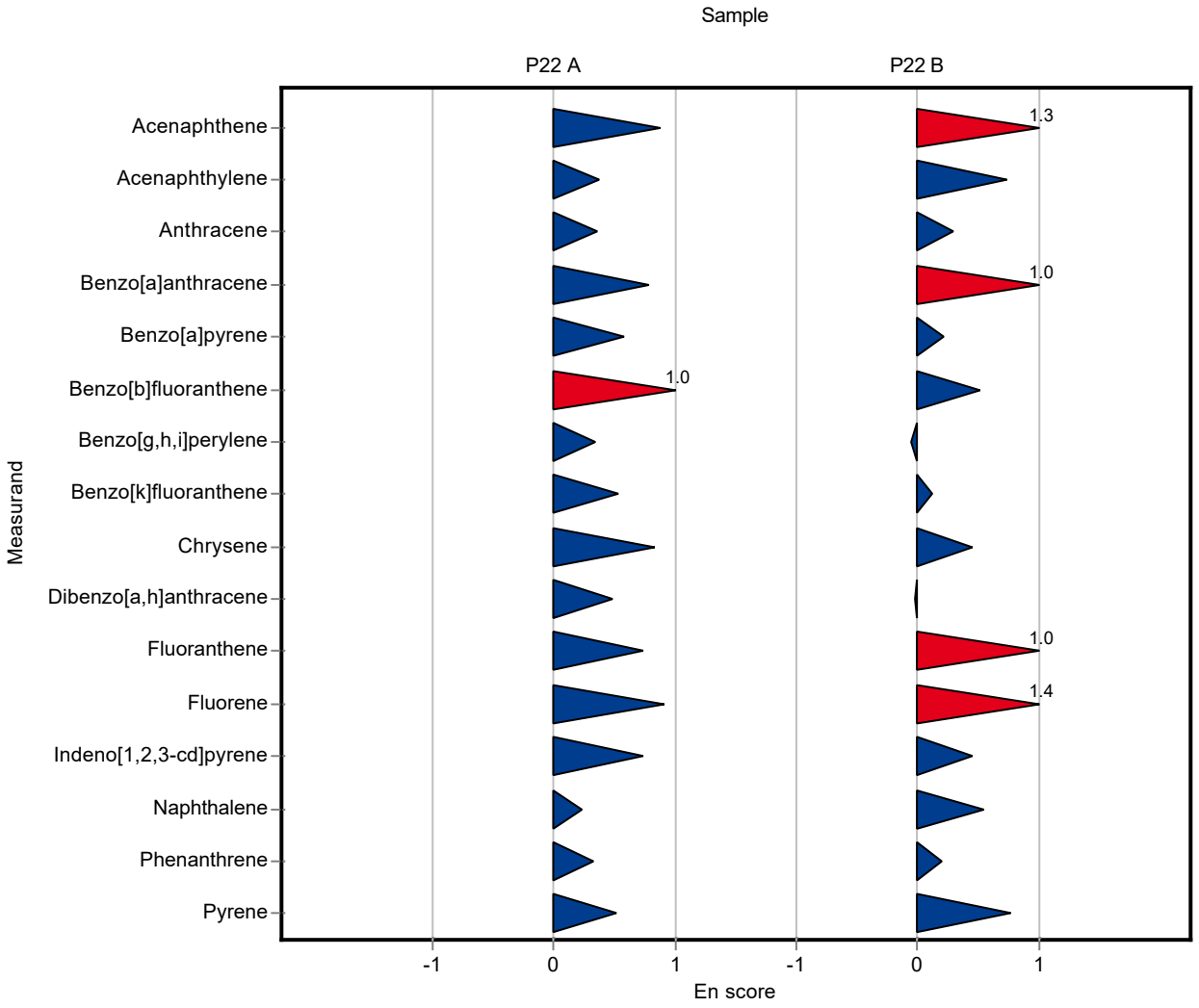
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	29.4 ± 8.8	2.63	212	0.88
Acenaphthylene	ng/l	15.4 ± 2.97	20 ± 6	4.92	130	0.37
Anthracene	ng/l	11.1 ± 1.11	14.2 ± 4.3	2.1	128	0.36
Benzo[a]anthracene	ng/l	13.8 ± 1.23	25.8 ± 7.7	2.91	186	0.77
Benzo[a]pyrene	ng/l	11.5 ± 1.41	17.7 ± 5.3	2.75	154	0.58
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	26.8 ± 5.4	2.69	170	1.01
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	14.8 ± 4.4	3.78	125	0.34
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	25.1 ± 7.5	4.45	147	0.53
Chrysene	ng/l	19 ± 0.871	28.2 ± 5.6	1.63	149	0.82
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	21.8 ± 6.5	4.63	141	0.48
Fluoranthene	ng/l	18.9 ± 2.7	30 ± 7.5	3.4	159	0.73
Fluorene	ng/l	22.4 ± 2.02	41.3 ± 10.3	3.14	184	0.91
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	26.9 ± 8.1	2.54	180	0.74
Naphthalene	ng/l	31.2 ± 3.8	35.3 ± 8.8	6.54	113	0.23
Phenanthrene	ng/l	18.3 ± 2.63	22.8 ± 6.8	2.75	124	0.32
Pyrene	ng/l	16.9 ± 1.82	24.4 ± 7.3	2.7	145	0.51

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	315 ± 79	20.3	295	1.31
Acenaphthylene	ng/l	138 ± 22.8	197 ± 39	42.7	143	0.73
Anthracene	ng/l	135 ± 11.2	148 ± 22	22.9	110	0.29
Benzo[a]anthracene	ng/l	123 ± 9.48	157 ± 16	25.9	127	1.01
Benzo[a]pyrene	ng/l	83 ± 7.73	90.7 ± 18.1	19.9	109	0.21
Benzo[b]fluoranthene	ng/l	107 ± 7.93	127 ± 19	18.2	119	0.51
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	95.1 ± 19	31.1	97.9	-0.05
Benzo[k]fluoranthene	ng/l	74 ± 5.26	77.8 ± 15.6	19.2	105	0.12
Chrysene	ng/l	94.9 ± 9.16	111 ± 17	18	117	0.46
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	119 ± 18	36.1	99	-0.03

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	223 ± 22	31.3	128	1.04
Fluorene	ng/l	104 ± 9.65	242 ± 48	14.5	233	1.43
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	94.7 ± 18.9	20.1	123	0.45
Naphthalene	ng/l	159 ± 24.7	206 ± 41	33.3	130	0.55
Phenanthrene	ng/l	186 ± 11.7	202 ± 40	27.9	109	0.20
Pyrene	ng/l	114 ± 8.23	136 ± 14	18.2	119	0.76



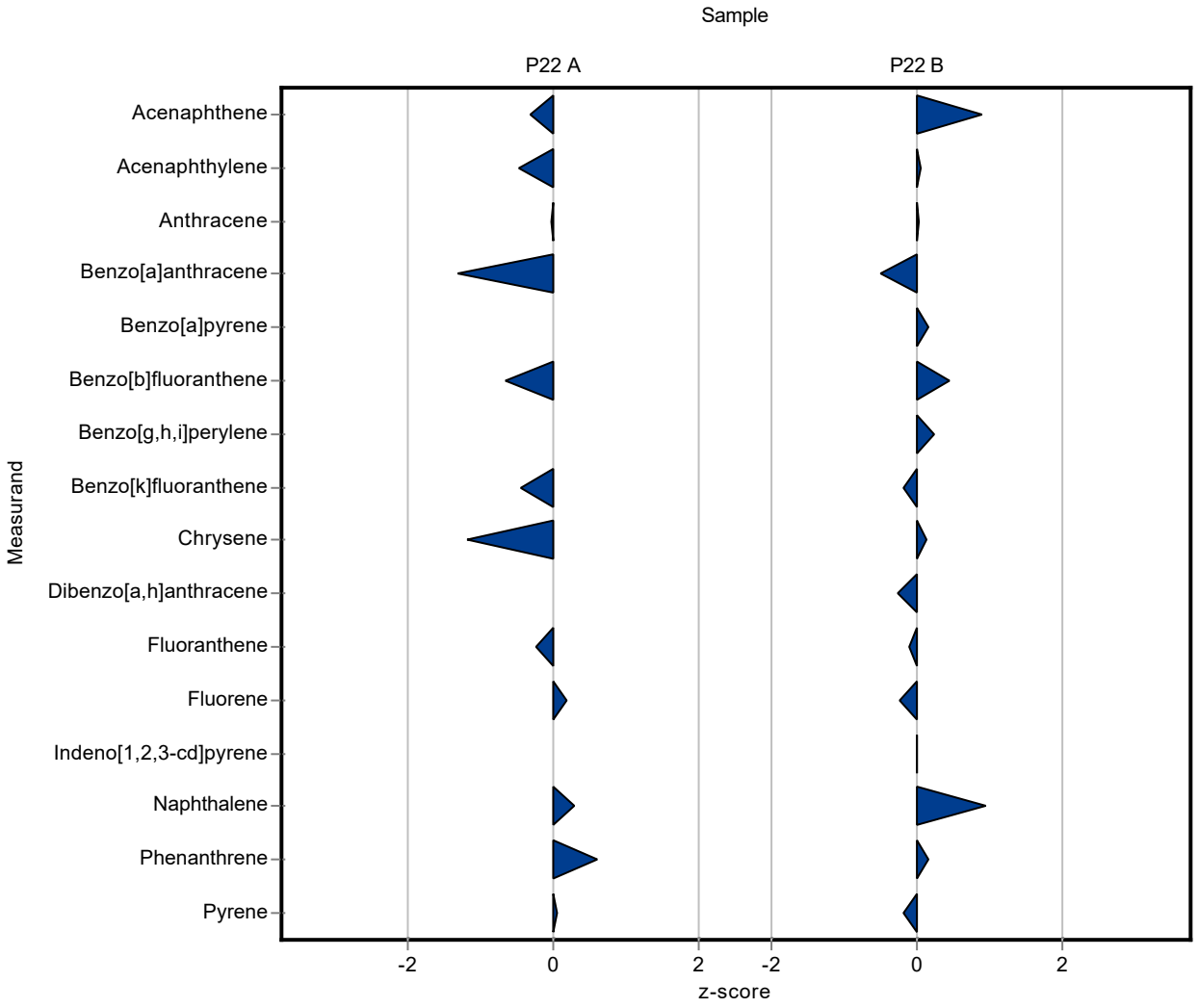
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	13 ± 3	2.63	93.9	-0.32
Acenaphthylene	ng/l	15.4 ± 2.97	13 ± 3	4.92	84.5	-0.48
Anthracene	ng/l	11.1 ± 1.11	11 ± 2	2.1	99.4	-0.03
Benzo[a]anthracene	ng/l	13.8 ± 1.23	10 ± 2	2.91	72.2	-1.32
Benzo[a]pyrene	ng/l	11.5 ± 1.41	<10 (LOQ) ± -	2.75	-	-
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	14 ± 3	2.69	88.6	-0.67
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<10 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	15 ± 3	4.45	87.7	-0.47
Chrysene	ng/l	19 ± 0.871	17 ± 3	1.63	89.7	-1.20
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	<10 (LOQ) ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	18 ± 4	3.4	95.4	-0.26
Fluorene	ng/l	22.4 ± 2.02	23 ± 5	3.14	103	0.18
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	<10 (LOQ) ± -	2.54	-	-
Naphthalene	ng/l	31.2 ± 3.8	33 ± 6	6.54	106	0.28
Phenanthrene	ng/l	18.3 ± 2.63	20 ± 4	2.75	109	0.60
Pyrene	ng/l	16.9 ± 1.82	17 ± 3	2.7	101	0.05

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	125 ± 23	20.3	117	0.89
Acenaphthylene	ng/l	138 ± 22.8	140 ± 26	42.7	102	0.05
Anthracene	ng/l	135 ± 11.2	135 ± 25	22.9	100	0.02
Benzo[a]anthracene	ng/l	123 ± 9.48	110 ± 20	25.9	89.3	-0.51
Benzo[a]pyrene	ng/l	83 ± 7.73	86 ± 16	19.9	104	0.15
Benzo[b]fluoranthene	ng/l	107 ± 7.93	115 ± 21	18.2	107	0.43
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	104 ± 19	31.1	107	0.22
Benzo[k]fluoranthene	ng/l	74 ± 5.26	70 ± 13	19.2	94.6	-0.21
Chrysene	ng/l	94.9 ± 9.16	97 ± 18	18	102	0.12
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	110 ± 20	36.1	91.5	-0.28

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	170 ± 31	31.3	97.6	-0.13
Fluorene	ng/l	104 ± 9.65	100 ± 18	14.5	96.5	-0.25
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	77 ± 14	20.1	99.7	-0.01
Naphthalene	ng/l	159 ± 24.7	190 ± 35	33.3	120	0.94
Phenanthrene	ng/l	186 ± 11.7	190 ± 35	27.9	102	0.15
Pyrene	ng/l	114 ± 8.23	110 ± 20	18.2	96.6	-0.21



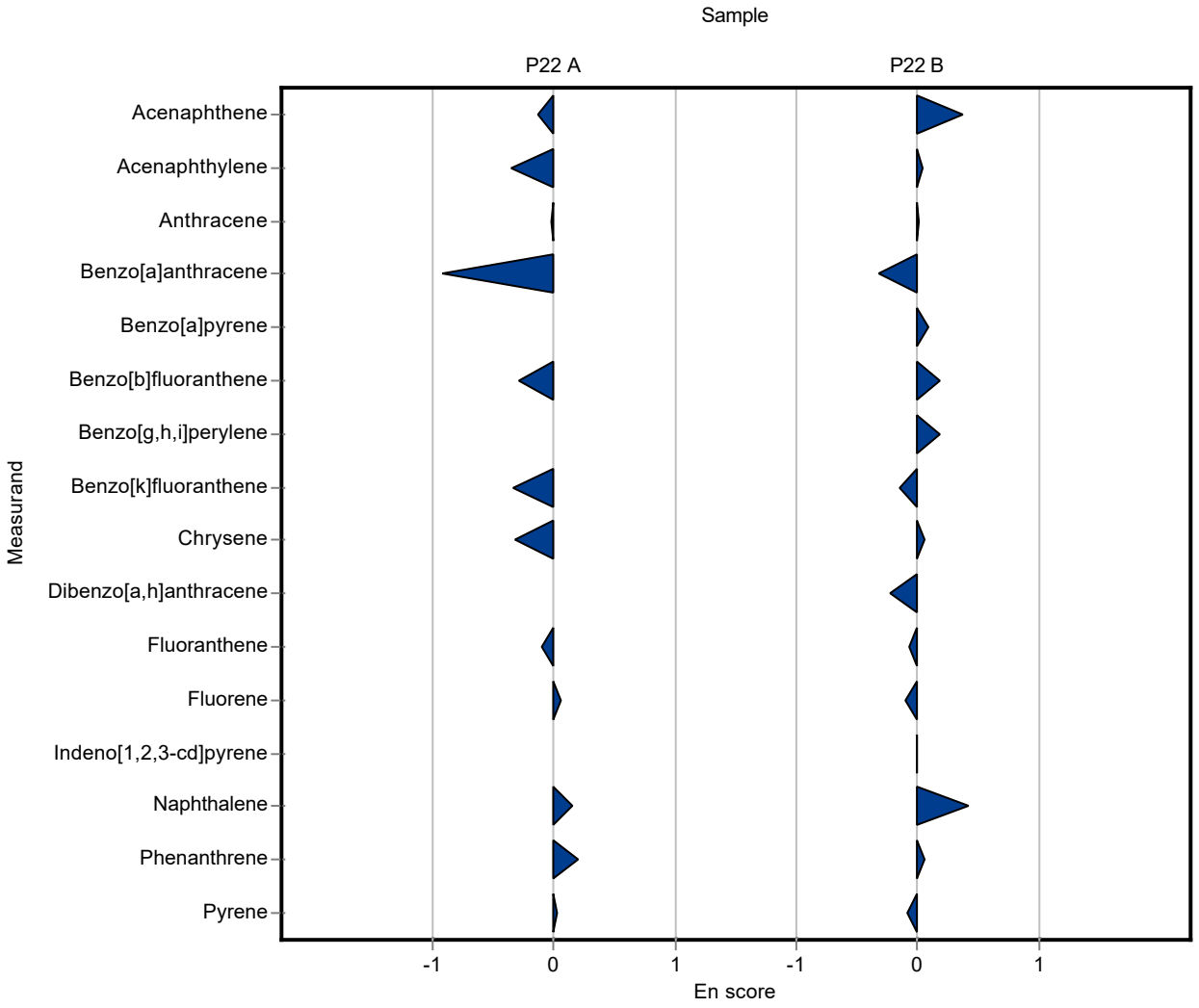
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	13 ± 3	2.63	93.9	-0.13
Acenaphthylene	ng/l	15.4 ± 2.97	13 ± 3	4.92	84.5	-0.36
Anthracene	ng/l	11.1 ± 1.11	11 ± 2	2.1	99.4	-0.02
Benzo[a]anthracene	ng/l	13.8 ± 1.23	10 ± 2	2.91	72.2	-0.92
Benzo[a]pyrene	ng/l	11.5 ± 1.41	<10 (LOQ) ± -	2.75	-	-
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	14 ± 3	2.69	88.6	-0.29
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<10 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	15 ± 3	4.45	87.7	-0.34
Chrysene	ng/l	19 ± 0.871	17 ± 3	1.63	89.7	-0.32
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	<10 (LOQ) ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	18 ± 4	3.4	95.4	-0.10
Fluorene	ng/l	22.4 ± 2.02	23 ± 5	3.14	103	0.06
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	<10 (LOQ) ± -	2.54	-	-
Naphthalene	ng/l	31.2 ± 3.8	33 ± 6	6.54	106	0.15
Phenanthrene	ng/l	18.3 ± 2.63	20 ± 4	2.75	109	0.20
Pyrene	ng/l	16.9 ± 1.82	17 ± 3	2.7	101	0.02

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	125 ± 23	20.3	117	0.37
Acenaphthylene	ng/l	138 ± 22.8	140 ± 26	42.7	102	0.04
Anthracene	ng/l	135 ± 11.2	135 ± 25	22.9	100	0.01
Benzo[a]anthracene	ng/l	123 ± 9.48	110 ± 20	25.9	89.3	-0.32
Benzo[a]pyrene	ng/l	83 ± 7.73	86 ± 16	19.9	104	0.09
Benzo[b]fluoranthene	ng/l	107 ± 7.93	115 ± 21	18.2	107	0.18
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	104 ± 19	31.1	107	0.17
Benzo[k]fluoranthene	ng/l	74 ± 5.26	70 ± 13	19.2	94.6	-0.15
Chrysene	ng/l	94.9 ± 9.16	97 ± 18	18	102	0.06
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	110 ± 20	36.1	91.5	-0.23

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	170 ± 31	31.3	97.6	-0.06
Fluorene	ng/l	104 ± 9.65	100 ± 18	14.5	96.5	-0.10
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	77 ± 14	20.1	99.7	-0.01
Naphthalene	ng/l	159 ± 24.7	190 ± 35	33.3	120	0.42
Phenanthrene	ng/l	186 ± 11.7	190 ± 35	27.9	102	0.06
Pyrene	ng/l	114 ± 8.23	110 ± 20	18.2	96.6	-0.09



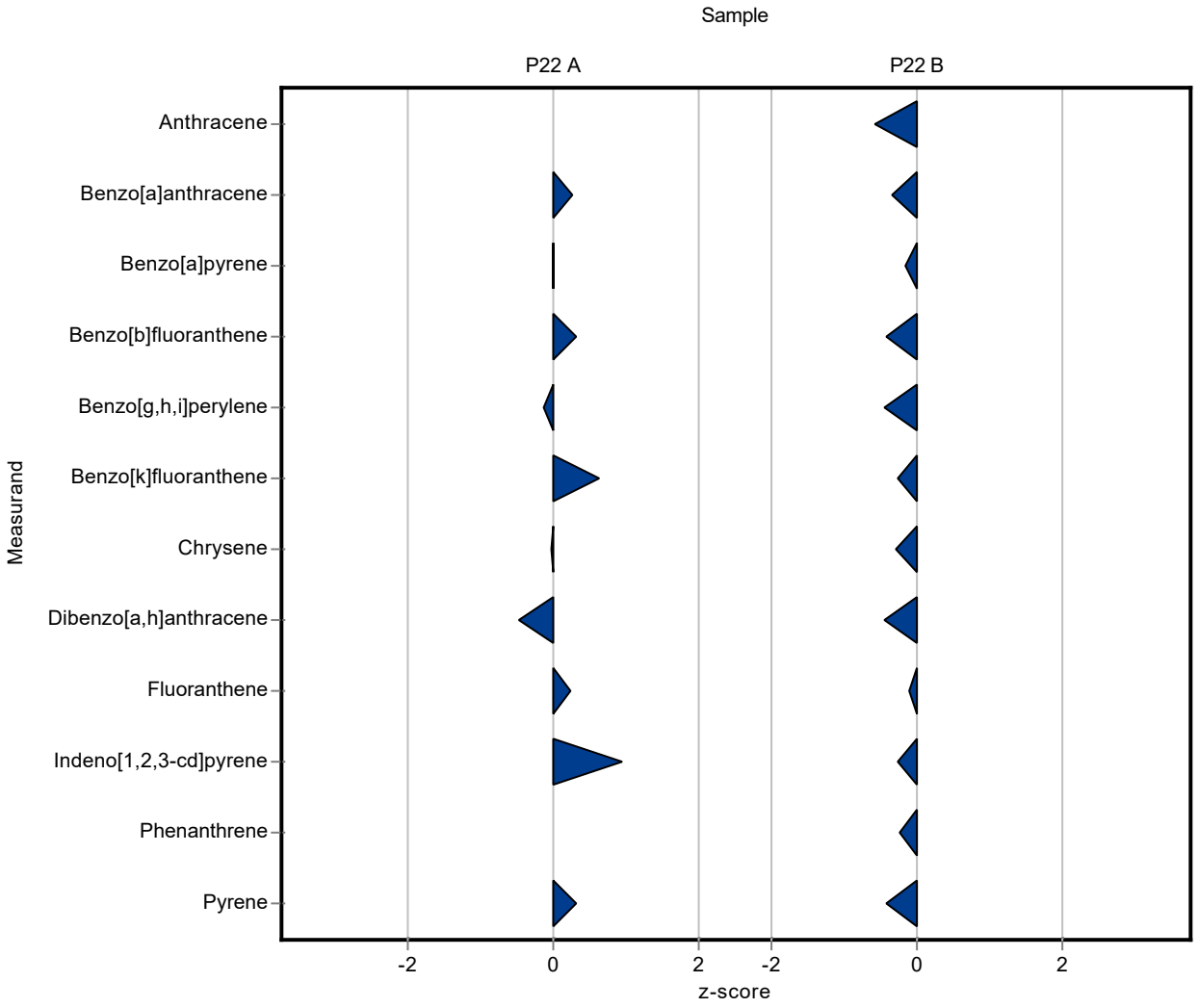
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	- ± -	2.63	-	-
Acenaphthylene	ng/l	15.4 ± 2.97	- ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	<50 (LOQ) ± -	2.1	-	-
Benzo[a]anthracene	ng/l	13.8 ± 1.23	14.6 ± 6.4	2.91	105	0.26
Benzo[a]pyrene	ng/l	11.5 ± 1.41	11.4 ± 5	2.75	99.5	-0.02
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.6 ± 7.3	2.69	105	0.30
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	11.3 ± 5	3.78	95.7	-0.14
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	19.9 ± 8.8	4.45	116	0.63
Chrysene	ng/l	19 ± 0.871	18.9 ± 8.3	1.63	99.7	-0.04
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	13.2 ± 5.8	4.63	85.5	-0.48
Fluoranthene	ng/l	18.9 ± 2.7	19.6 ± 8.6	3.4	104	0.22
Fluorene	ng/l	22.4 ± 2.02	- ± -	3.14	-	-
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	17.3 ± 7.6	2.54	116	0.94
Naphthalene	ng/l	31.2 ± 3.8	- ± -	6.54	-	-
Phenanthrene	ng/l	18.3 ± 2.63	<50 (LOQ) ± -	2.75	-	-
Pyrene	ng/l	16.9 ± 1.82	17.7 ± 7.8	2.7	105	0.31

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	- ± -	20.3	-	-
Acenaphthylene	ng/l	138 ± 22.8	- ± -	42.7	-	-
Anthracene	ng/l	135 ± 11.2	121 ± 53	22.9	89.9	-0.60
Benzo[a]anthracene	ng/l	123 ± 9.48	114 ± 50	25.9	92.5	-0.36
Benzo[a]pyrene	ng/l	83 ± 7.73	79.7 ± 35.1	19.9	96	-0.17
Benzo[b]fluoranthene	ng/l	107 ± 7.93	99 ± 43.6	18.2	92.4	-0.45
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	82.7 ± 36.4	31.1	85.1	-0.47
Benzo[k]fluoranthene	ng/l	74 ± 5.26	68.6 ± 30.2	19.2	92.7	-0.28
Chrysene	ng/l	94.9 ± 9.16	89.5 ± 39.4	18	94.3	-0.30
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	104 ± 46	36.1	86.5	-0.45

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	170 ± 75	31.3	97.6	-0.13
Fluorene	ng/l	104 ± 9.65	- ± -	14.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	71.9 ± 31.6	20.1	93.1	-0.27
Naphthalene	ng/l	159 ± 24.7	- ± -	33.3	-	-
Phenanthrene	ng/l	186 ± 11.7	179 ± 79	27.9	96.4	-0.24
Pyrene	ng/l	114 ± 8.23	106 ± 47	18.2	93.1	-0.43



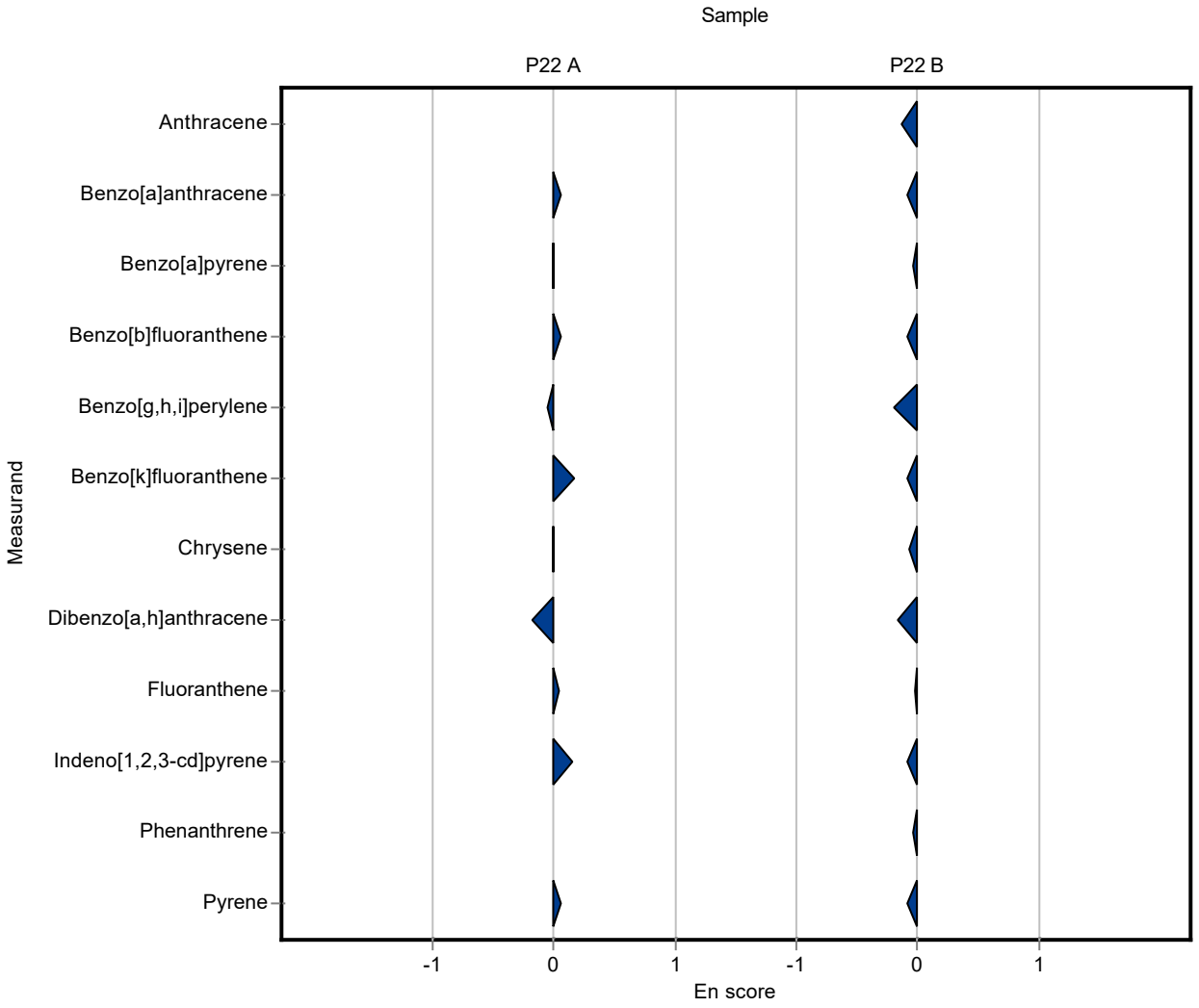
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	- ± -	2.63	-	-
Acenaphthylene	ng/l	15.4 ± 2.97	- ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	<50 (LOQ) ± -	2.1	-	-
Benzo[a]anthracene	ng/l	13.8 ± 1.23	14.6 ± 6.4	2.91	105	0.06
Benzo[a]pyrene	ng/l	11.5 ± 1.41	11.4 ± 5	2.75	99.5	-0.01
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.6 ± 7.3	2.69	105	0.06
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	11.3 ± 5	3.78	95.7	-0.05
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	19.9 ± 8.8	4.45	116	0.16
Chrysene	ng/l	19 ± 0.871	18.9 ± 8.3	1.63	99.7	0.00
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	13.2 ± 5.8	4.63	85.5	-0.19
Fluoranthene	ng/l	18.9 ± 2.7	19.6 ± 8.6	3.4	104	0.04
Fluorene	ng/l	22.4 ± 2.02	- ± -	3.14	-	-
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	17.3 ± 7.6	2.54	116	0.16
Naphthalene	ng/l	31.2 ± 3.8	- ± -	6.54	-	-
Phenanthrene	ng/l	18.3 ± 2.63	<50 (LOQ) ± -	2.75	-	-
Pyrene	ng/l	16.9 ± 1.82	17.7 ± 7.8	2.7	105	0.05

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	- ± -	20.3	-	-
Acenaphthylene	ng/l	138 ± 22.8	- ± -	42.7	-	-
Anthracene	ng/l	135 ± 11.2	121 ± 53	22.9	89.9	-0.13
Benzo[a]anthracene	ng/l	123 ± 9.48	114 ± 50	25.9	92.5	-0.09
Benzo[a]pyrene	ng/l	83 ± 7.73	79.7 ± 35.1	19.9	96	-0.05
Benzo[b]fluoranthene	ng/l	107 ± 7.93	99 ± 43.6	18.2	92.4	-0.09
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	82.7 ± 36.4	31.1	85.1	-0.20
Benzo[k]fluoranthene	ng/l	74 ± 5.26	68.6 ± 30.2	19.2	92.7	-0.09
Chrysene	ng/l	94.9 ± 9.16	89.5 ± 39.4	18	94.3	-0.07
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	104 ± 46	36.1	86.5	-0.17

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	170 ± 75	31.3	97.6	-0.03
Fluorene	ng/l	104 ± 9.65	- ± -	14.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	71.9 ± 31.6	20.1	93.1	-0.08
Naphthalene	ng/l	159 ± 24.7	- ± -	33.3	-	-
Phenanthrene	ng/l	186 ± 11.7	179 ± 79	27.9	96.4	-0.04
Pyrene	ng/l	114 ± 8.23	106 ± 47	18.2	93.1	-0.08



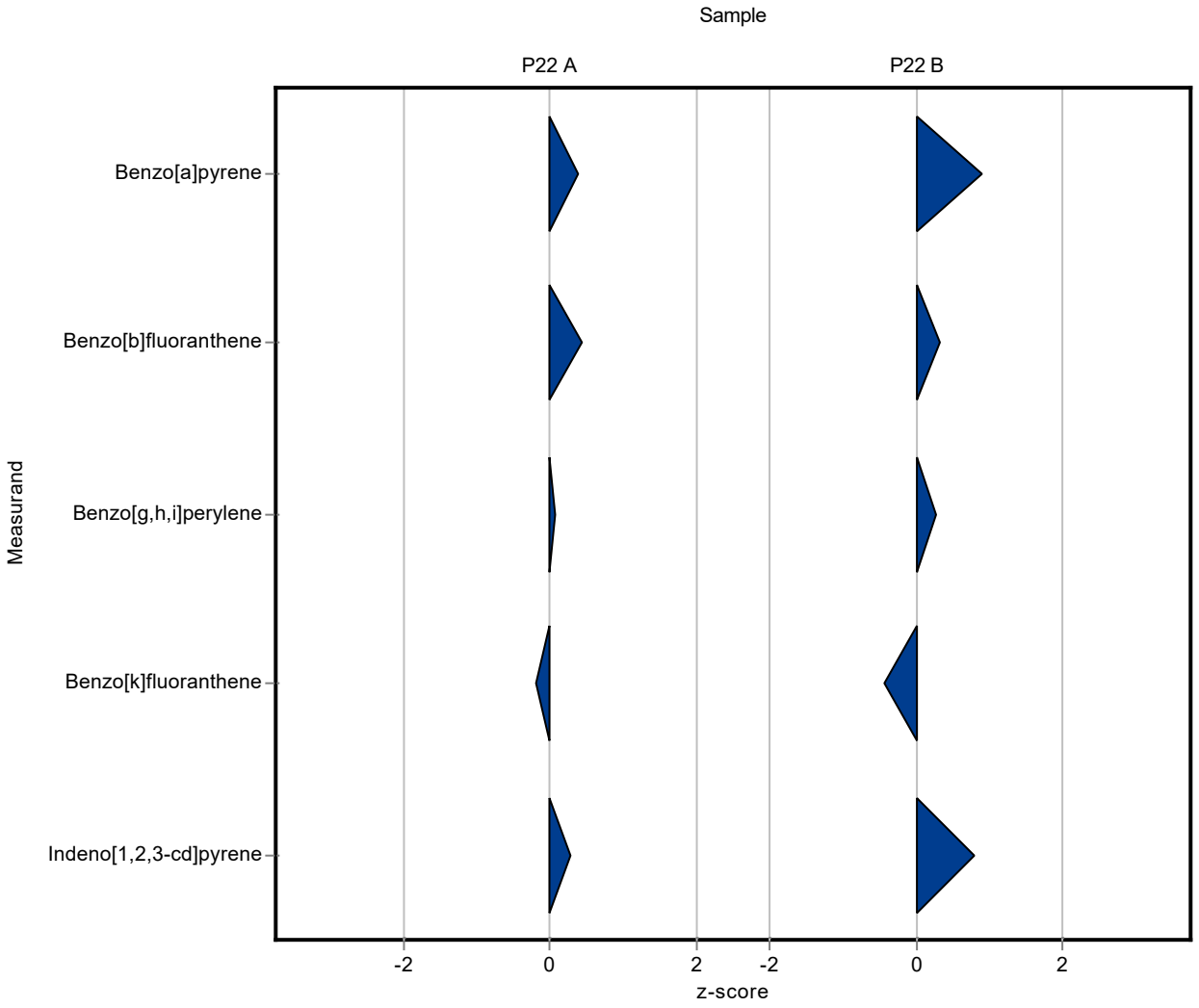
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	- ± -	2.63	-	-
Acenaphthylene	ng/l	15.4 ± 2.97	- ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	- ± -	2.1	-	-
Benzo[a]anthracene	ng/l	13.8 ± 1.23	- ± -	2.91	-	-
Benzo[a]pyrene	ng/l	11.5 ± 1.41	12.49 ± 2.498	2.75	109	0.38
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.985 ± 3.397	2.69	108	0.44
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12.099 ± 2.42	3.78	102	0.08
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	16.259 ± 3.252	4.45	95	-0.19
Chrysene	ng/l	19 ± 0.871	- ± -	1.63	-	-
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	- ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	- ± -	3.4	-	-
Fluorene	ng/l	22.4 ± 2.02	- ± -	3.14	-	-
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	15.64 ± 3.128	2.54	105	0.28
Naphthalene	ng/l	31.2 ± 3.8	- ± -	6.54	-	-
Phenanthrene	ng/l	18.3 ± 2.63	- ± -	2.75	-	-
Pyrene	ng/l	16.9 ± 1.82	- ± -	2.7	-	-

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	- ± -	20.3	-	-
Acenaphthylene	ng/l	138 ± 22.8	- ± -	42.7	-	-
Anthracene	ng/l	135 ± 11.2	- ± -	22.9	-	-
Benzo[a]anthracene	ng/l	123 ± 9.48	- ± -	25.9	-	-
Benzo[a]pyrene	ng/l	83 ± 7.73	101.198 ± 20.24	19.9	122	0.91
Benzo[b]fluoranthene	ng/l	107 ± 7.93	112.959 ± 22.592	18.2	105	0.32
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	105.639 ± 21.128	31.1	109	0.27
Benzo[k]fluoranthene	ng/l	74 ± 5.26	65.815 ± 13.163	19.2	89	-0.42
Chrysene	ng/l	94.9 ± 9.16	- ± -	18	-	-
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	- ± -	36.1	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	- ± -	31.3	-	-
Fluorene	ng/l	104 ± 9.65	- ± -	14.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	93.26 ± 18.652	20.1	121	0.80
Naphthalene	ng/l	159 ± 24.7	- ± -	33.3	-	-
Phenanthrene	ng/l	186 ± 11.7	- ± -	27.9	-	-
Pyrene	ng/l	114 ± 8.23	- ± -	18.2	-	-



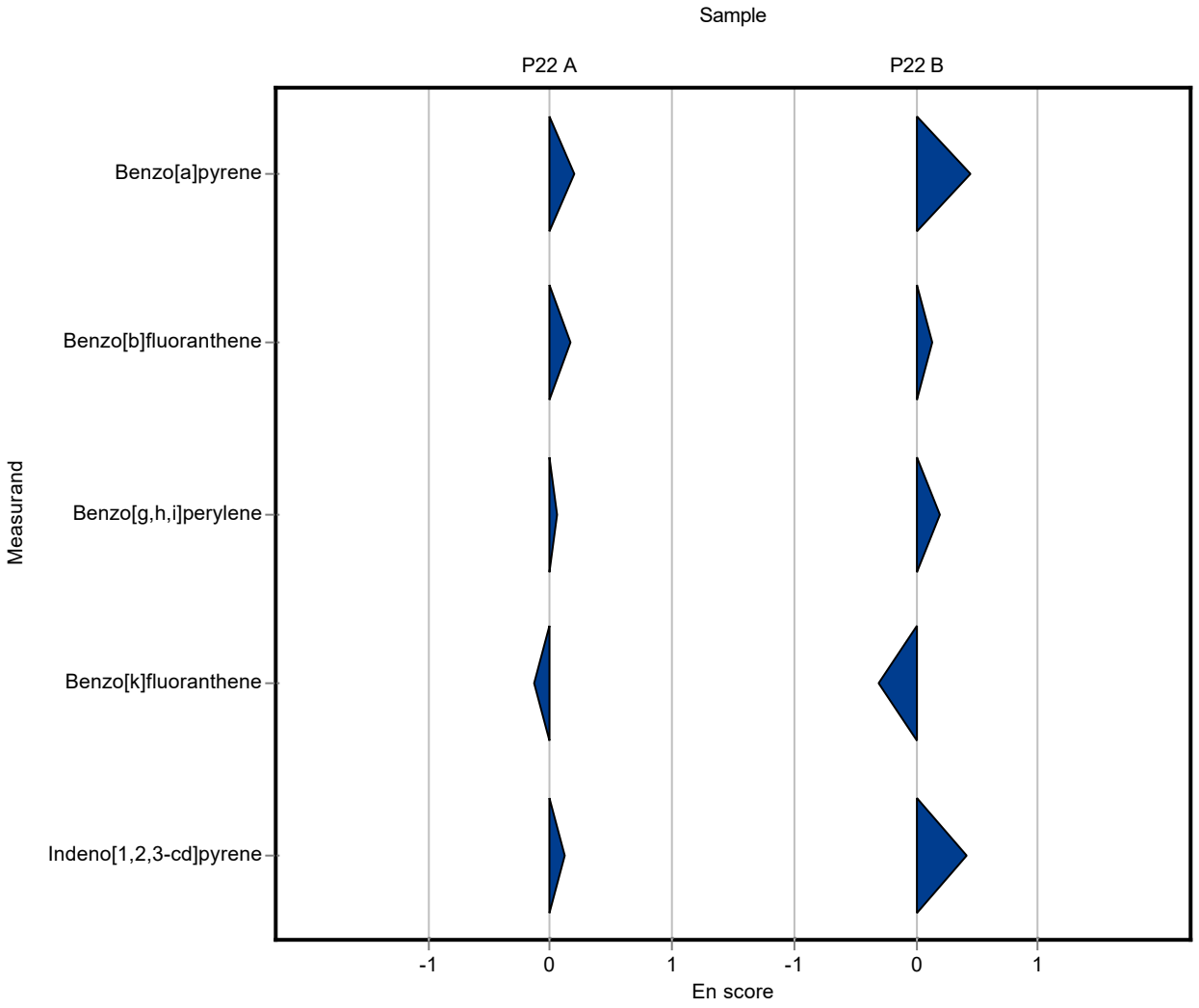
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	- ± -	2.63	-	-
Acenaphthylene	ng/l	15.4 ± 2.97	- ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	- ± -	2.1	-	-
Benzo[a]anthracene	ng/l	13.8 ± 1.23	- ± -	2.91	-	-
Benzo[a]pyrene	ng/l	11.5 ± 1.41	12.49 ± 2.498	2.75	109	0.20
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	16.985 ± 3.397	2.69	108	0.17
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	12.099 ± 2.42	3.78	102	0.06
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	16.259 ± 3.252	4.45	95	-0.13
Chrysene	ng/l	19 ± 0.871	- ± -	1.63	-	-
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	- ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	- ± -	3.4	-	-
Fluorene	ng/l	22.4 ± 2.02	- ± -	3.14	-	-
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	15.64 ± 3.128	2.54	105	0.11
Naphthalene	ng/l	31.2 ± 3.8	- ± -	6.54	-	-
Phenanthrene	ng/l	18.3 ± 2.63	- ± -	2.75	-	-
Pyrene	ng/l	16.9 ± 1.82	- ± -	2.7	-	-

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	- ± -	20.3	-	-
Acenaphthylene	ng/l	138 ± 22.8	- ± -	42.7	-	-
Anthracene	ng/l	135 ± 11.2	- ± -	22.9	-	-
Benzo[a]anthracene	ng/l	123 ± 9.48	- ± -	25.9	-	-
Benzo[a]pyrene	ng/l	83 ± 7.73	101.198 ± 20.24	19.9	122	0.44
Benzo[b]fluoranthene	ng/l	107 ± 7.93	112.959 ± 22.592	18.2	105	0.13
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	105.639 ± 21.128	31.1	109	0.20
Benzo[k]fluoranthene	ng/l	74 ± 5.26	65.815 ± 13.163	19.2	89	-0.30
Chrysene	ng/l	94.9 ± 9.16	- ± -	18	-	-
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	- ± -	36.1	-	-

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	- ± -	31.3	-	-
Fluorene	ng/l	104 ± 9.65	- ± -	14.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	93.26 ± 18.652	20.1	121	0.41
Naphthalene	ng/l	159 ± 24.7	- ± -	33.3	-	-
Phenanthrene	ng/l	186 ± 11.7	- ± -	27.9	-	-
Pyrene	ng/l	114 ± 8.23	- ± -	18.2	-	-



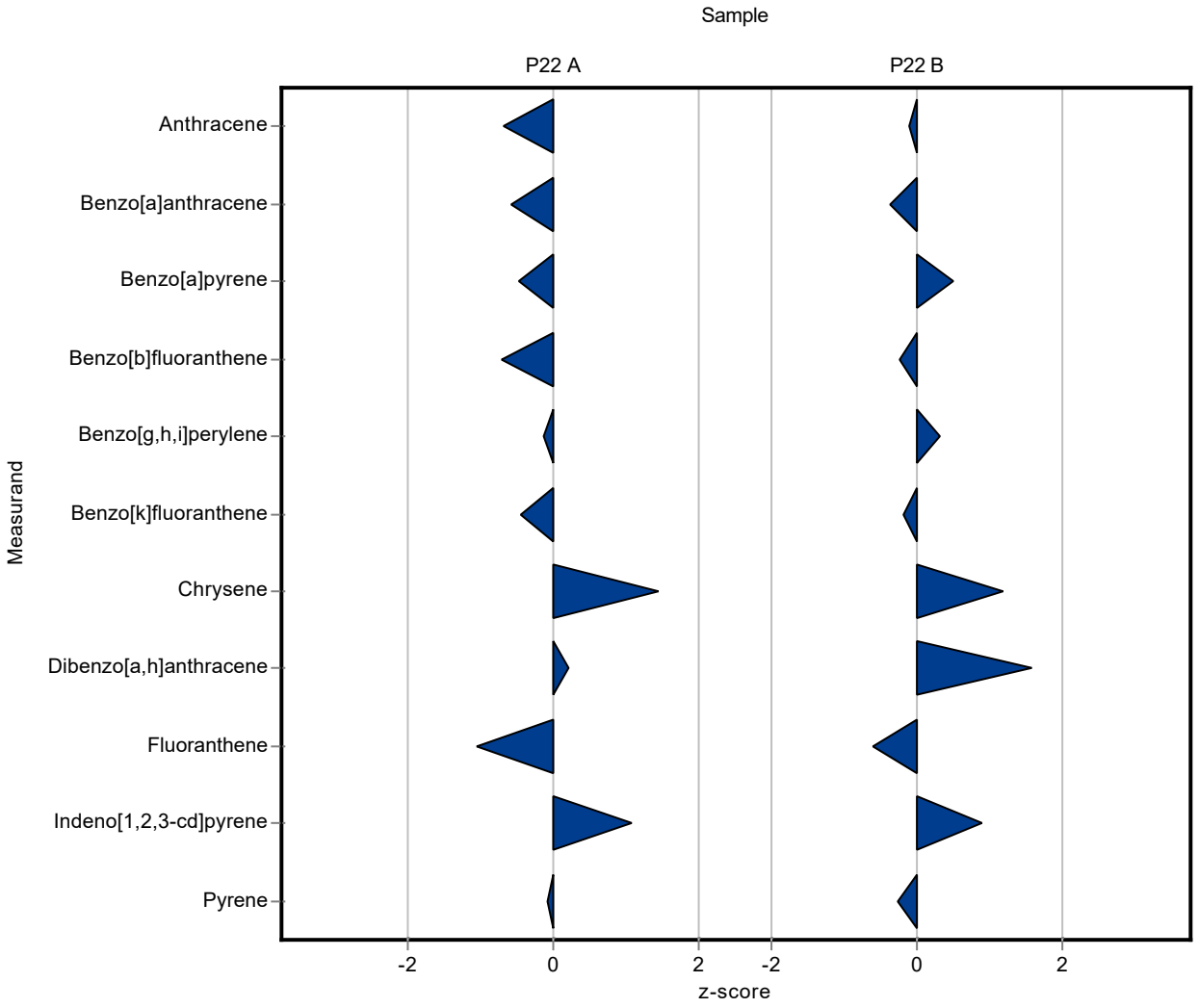
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	- ± -	2.63	-	-
Acenaphthylene	ng/l	15.4 ± 2.97	- ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	9.63 ± 4.24	2.1	87	-0.69
Benzo[a]anthracene	ng/l	13.8 ± 1.23	12.11 ± 5.33	2.91	87.5	-0.60
Benzo[a]pyrene	ng/l	11.5 ± 1.41	10.11 ± 4.45	2.75	88.2	-0.49
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	13.88 ± 6.11	2.69	87.9	-0.71
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	11.24 ± 4.95	3.78	95.1	-0.15
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	15.09 ± 6.64	4.45	88.2	-0.45
Chrysene	ng/l	19 ± 0.871	21.3 ± 9.37	1.63	112	1.44
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	16.33 ± 7.18	4.63	106	0.19
Fluoranthene	ng/l	18.9 ± 2.7	15.27 ± 6.72	3.4	80.9	-1.06
Fluorene	ng/l	22.4 ± 2.02	- ± -	3.14	-	-
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	17.63 ± 7.76	2.54	118	1.07
Naphthalene	ng/l	31.2 ± 3.8	- ± -	6.54	-	-
Phenanthrene	ng/l	18.3 ± 2.63	- ± -	2.75	-	-
Pyrene	ng/l	16.9 ± 1.82	16.6 ± 7.11	2.7	98.4	-0.10

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	- ± -	20.3	-	-
Acenaphthylene	ng/l	138 ± 22.8	- ± -	42.7	-	-
Anthracene	ng/l	135 ± 11.2	131.81 ± 57.99	22.9	97.9	-0.12
Benzo[a]anthracene	ng/l	123 ± 9.48	113.26 ± 49.8	25.9	91.9	-0.39
Benzo[a]pyrene	ng/l	83 ± 7.73	92.96 ± 40.9	19.9	112	0.50
Benzo[b]fluoranthene	ng/l	107 ± 7.93	102.66 ± 45.17	18.2	95.9	-0.24
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	106.25 ± 46.75	31.1	109	0.29
Benzo[k]fluoranthene	ng/l	74 ± 5.26	70.04 ± 30.82	19.2	94.7	-0.20
Chrysene	ng/l	94.9 ± 9.16	116.19 ± 51.12	18	122	1.18
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	177.04 ± 77.9	36.1	147	1.58

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	154.69 ± 68.06	31.3	88.8	-0.62
Fluorene	ng/l	104 ± 9.65	- ± -	14.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	95.1 ± 41.84	20.1	123	0.89
Naphthalene	ng/l	159 ± 24.7	- ± -	33.3	-	-
Phenanthrene	ng/l	186 ± 11.7	- ± -	27.9	-	-
Pyrene	ng/l	114 ± 8.23	108.83 ± 47.89	18.2	95.6	-0.27



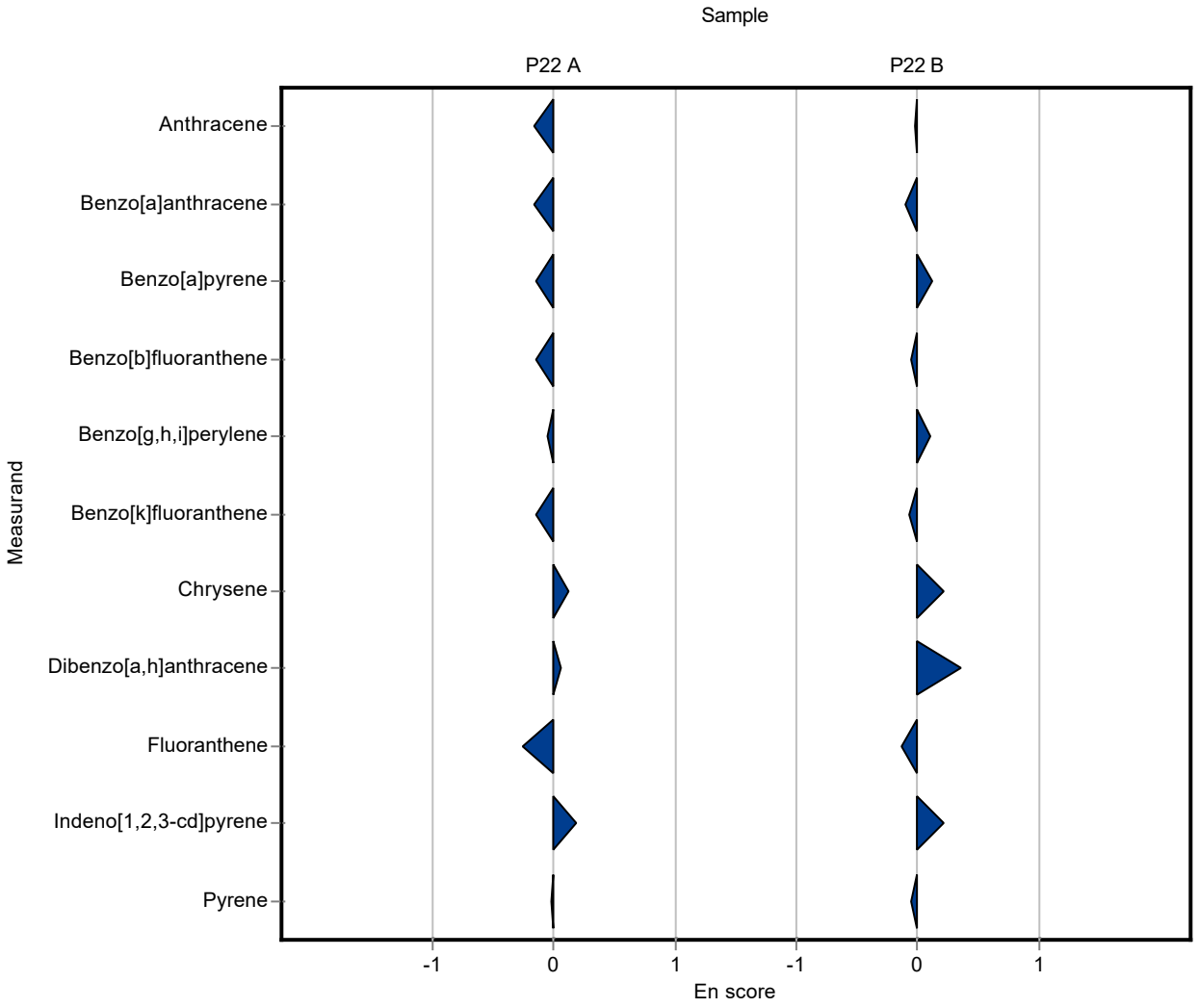
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	- ± -	2.63	-	-
Acenaphthylene	ng/l	15.4 ± 2.97	- ± -	4.92	-	-
Anthracene	ng/l	11.1 ± 1.11	9.63 ± 4.24	2.1	87	-0.17
Benzo[a]anthracene	ng/l	13.8 ± 1.23	12.11 ± 5.33	2.91	87.5	-0.16
Benzo[a]pyrene	ng/l	11.5 ± 1.41	10.11 ± 4.45	2.75	88.2	-0.15
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	13.88 ± 6.11	2.69	87.9	-0.16
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	11.24 ± 4.95	3.78	95.1	-0.06
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	15.09 ± 6.64	4.45	88.2	-0.15
Chrysene	ng/l	19 ± 0.871	21.3 ± 9.37	1.63	112	0.13
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	16.33 ± 7.18	4.63	106	0.06
Fluoranthene	ng/l	18.9 ± 2.7	15.27 ± 6.72	3.4	80.9	-0.26
Fluorene	ng/l	22.4 ± 2.02	- ± -	3.14	-	-
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	17.63 ± 7.76	2.54	118	0.17
Naphthalene	ng/l	31.2 ± 3.8	- ± -	6.54	-	-
Phenanthrene	ng/l	18.3 ± 2.63	- ± -	2.75	-	-
Pyrene	ng/l	16.9 ± 1.82	16.6 ± 7.11	2.7	98.4	-0.02

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	- ± -	20.3	-	-
Acenaphthylene	ng/l	138 ± 22.8	- ± -	42.7	-	-
Anthracene	ng/l	135 ± 11.2	131.81 ± 57.99	22.9	97.9	-0.02
Benzo[a]anthracene	ng/l	123 ± 9.48	113.26 ± 49.8	25.9	91.9	-0.10
Benzo[a]pyrene	ng/l	83 ± 7.73	92.96 ± 40.9	19.9	112	0.12
Benzo[b]fluoranthene	ng/l	107 ± 7.93	102.66 ± 45.17	18.2	95.9	-0.05
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	106.25 ± 46.75	31.1	109	0.10
Benzo[k]fluoranthene	ng/l	74 ± 5.26	70.04 ± 30.82	19.2	94.7	-0.06
Chrysene	ng/l	94.9 ± 9.16	116.19 ± 51.12	18	122	0.21
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	177.04 ± 77.9	36.1	147	0.36

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	154.69 ± 68.06	31.3	88.8	-0.14
Fluorene	ng/l	104 ± 9.65	- ± -	14.5	-	-
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	95.1 ± 41.84	20.1	123	0.21
Naphthalene	ng/l	159 ± 24.7	- ± -	33.3	-	-
Phenanthrene	ng/l	186 ± 11.7	- ± -	27.9	-	-
Pyrene	ng/l	114 ± 8.23	108.83 ± 47.89	18.2	95.6	-0.05



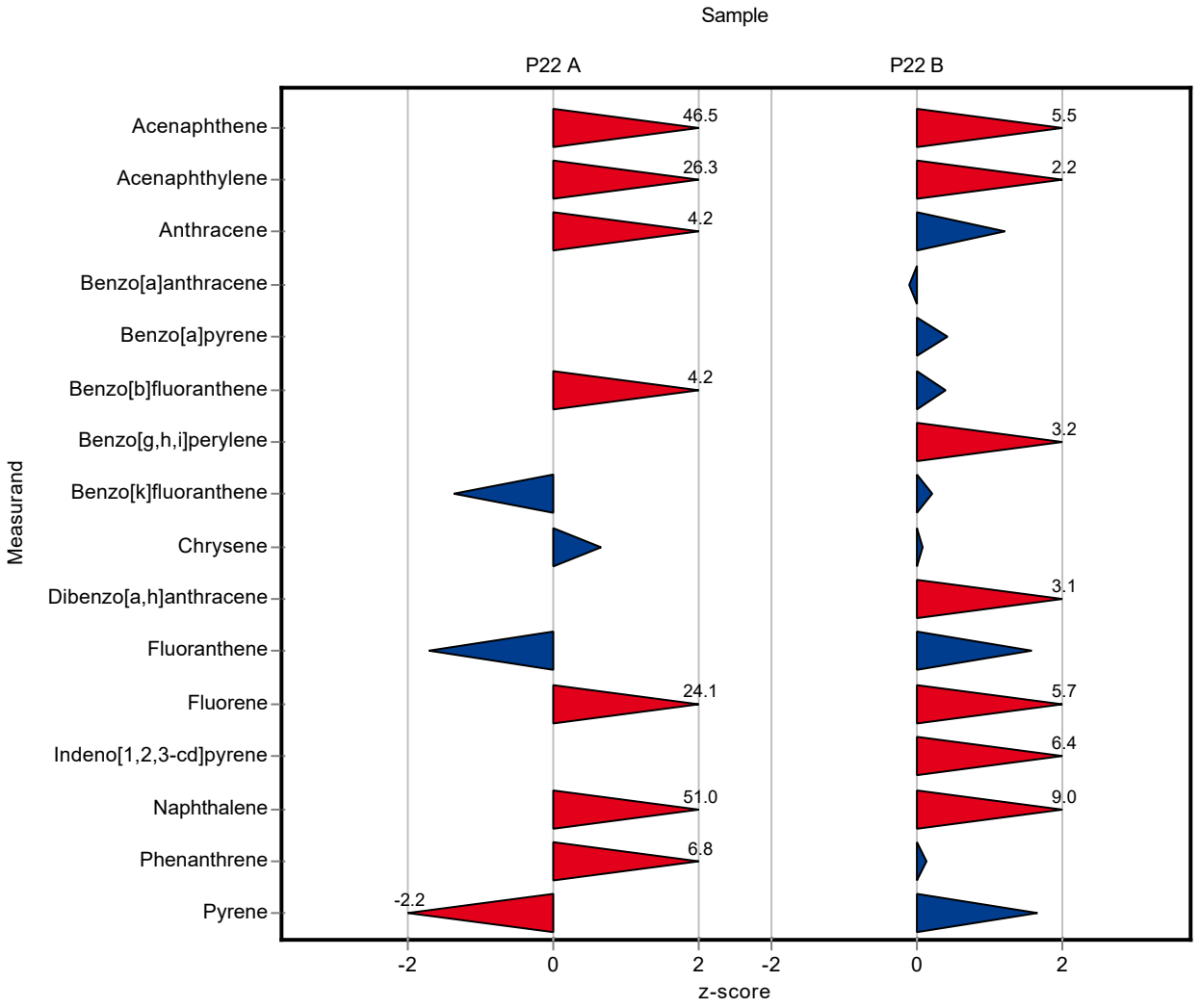
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	13.8 ± 2.04	136 ± 20	2.63	983	46.50
Acenaphthylene	ng/l	15.4 ± 2.97	145 ± 20	4.92	943	26.30
Anthracene	ng/l	11.1 ± 1.11	20 ± 8	2.1	181	4.24
Benzo[a]anthracene	ng/l	13.8 ± 1.23	<10 (LOQ) ± -	2.91	-	-
Benzo[a]pyrene	ng/l	11.5 ± 1.41	<10 (LOQ) ± -	2.75	-	-
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	27 ± 10	2.69	171	4.17
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<20 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	11 ± 5	4.45	64.3	-1.37
Chrysene	ng/l	19 ± 0.871	20 ± 8	1.63	105	0.64
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	<20 (LOQ) ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	13 ± 6	3.4	68.9	-1.73
Fluorene	ng/l	22.4 ± 2.02	98 ± 20	3.14	437	24.10
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	<20 (LOQ) ± -	2.54	-	-
Naphthalene	ng/l	31.2 ± 3.8	365 ± 30	6.54	1170	51.00
Phenanthrene	ng/l	18.3 ± 2.63	37 ± 10	2.75	202	6.79
Pyrene	ng/l	16.9 ± 1.82	11 ± 5	2.7	65.2	-2.17

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Acenaphthene	ng/l	107 ± 17.8	218 ± 20	20.3	204	5.47
Acenaphthylene	ng/l	138 ± 22.8	231 ± 21	42.7	168	2.18
Anthracene	ng/l	135 ± 11.2	162 ± 19	22.9	120	1.20
Benzo[a]anthracene	ng/l	123 ± 9.48	120 ± 17	25.9	97.4	-0.13
Benzo[a]pyrene	ng/l	83 ± 7.73	91 ± 14	19.9	110	0.40
Benzo[b]fluoranthene	ng/l	107 ± 7.93	114 ± 19	18.2	106	0.38
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	197 ± 23	31.1	203	3.21
Benzo[k]fluoranthene	ng/l	74 ± 5.26	78 ± 13	19.2	105	0.21
Chrysene	ng/l	94.9 ± 9.16	96 ± 11	18	101	0.06
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	233 ± 29	36.1	194	3.13

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Fluoranthene	ng/l	174 ± 16.6	223 ± 26	31.3	128	1.56
Fluorene	ng/l	104 ± 9.65	187 ± 23	14.5	180	5.75
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	205 ± 26	20.1	265	6.36
Naphthalene	ng/l	159 ± 24.7	459 ± 45	33.3	289	9.00
Phenanthrene	ng/l	186 ± 11.7	189 ± 21	27.9	102	0.12
Pyrene	ng/l	114 ± 8.23	144 ± 17	18.2	127	1.66



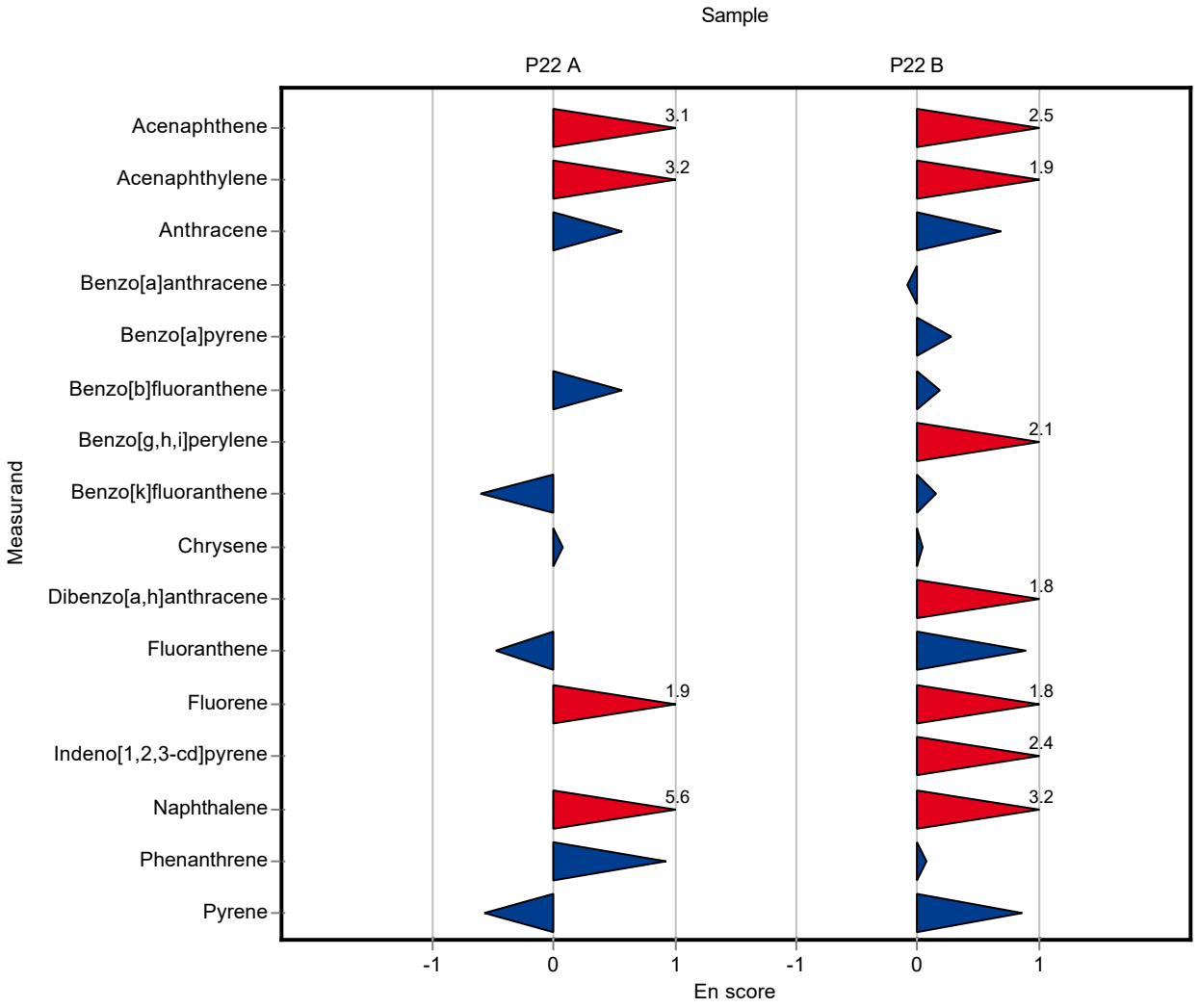
Sample: P22A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	13.8 ± 2.04	136 ± 20	2.63	983	3.05
Acenaphthylene	ng/l	15.4 ± 2.97	145 ± 20	4.92	943	3.23
Anthracene	ng/l	11.1 ± 1.11	20 ± 8	2.1	181	0.56
Benzo[a]anthracene	ng/l	13.8 ± 1.23	<10 (LOQ) ± -	2.91	-	-
Benzo[a]pyrene	ng/l	11.5 ± 1.41	<10 (LOQ) ± -	2.75	-	-
Benzo[b]fluoranthene	ng/l	15.8 ± 1.3	27 ± 10	2.69	171	0.56
Benzo[g,h,i]perylene	ng/l	11.8 ± 1.02	<20 (LOQ) ± -	3.78	-	-
Benzo[k]fluoranthene	ng/l	17.1 ± 1.7	11 ± 5	4.45	64.3	-0.60
Chrysene	ng/l	19 ± 0.871	20 ± 8	1.63	105	0.06
Dibenzo[a,h]anthracene	ng/l	15.4 ± 2.51	<20 (LOQ) ± -	4.63	-	-
Fluoranthene	ng/l	18.9 ± 2.7	13 ± 6	3.4	68.9	-0.48
Fluorene	ng/l	22.4 ± 2.02	98 ± 20	3.14	437	1.89
Indeno[1,2,3-cd]pyrene	ng/l	14.9 ± 1.37	<20 (LOQ) ± -	2.54	-	-
Naphthalene	ng/l	31.2 ± 3.8	365 ± 30	6.54	1170	5.55
Phenanthrene	ng/l	18.3 ± 2.63	37 ± 10	2.75	202	0.93
Pyrene	ng/l	16.9 ± 1.82	11 ± 5	2.7	65.2	-0.58

Sample: P22B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Acenaphthene	ng/l	107 ± 17.8	218 ± 20	20.3	204	2.54
Acenaphthylene	ng/l	138 ± 22.8	231 ± 21	42.7	168	1.95
Anthracene	ng/l	135 ± 11.2	162 ± 19	22.9	120	0.69
Benzo[a]anthracene	ng/l	123 ± 9.48	120 ± 17	25.9	97.4	-0.09
Benzo[a]pyrene	ng/l	83 ± 7.73	91 ± 14	19.9	110	0.28
Benzo[b]fluoranthene	ng/l	107 ± 7.93	114 ± 19	18.2	106	0.18
Benzo[g,h,i]perylene	ng/l	97.2 ± 8.89	197 ± 23	31.1	203	2.13
Benzo[k]fluoranthene	ng/l	74 ± 5.26	78 ± 13	19.2	105	0.15
Chrysene	ng/l	94.9 ± 9.16	96 ± 11	18	101	0.05
Dibenzo[a,h]anthracene	ng/l	120 ± 21.6	233 ± 29	36.1	194	1.82

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Fluoranthene	ng/l	174 ± 16.6	223 ± 26	31.3	128	0.90
Fluorene	ng/l	104 ± 9.65	187 ± 23	14.5	180	1.77
Indeno[1,2,3-cd]pyrene	ng/l	77.2 ± 10.5	205 ± 26	20.1	265	2.41
Naphthalene	ng/l	159 ± 24.7	459 ± 45	33.3	289	3.22
Phenanthrene	ng/l	186 ± 11.7	189 ± 21	27.9	102	0.08
Pyrene	ng/l	114 ± 8.23	144 ± 17	18.2	127	0.86



E9. Methodenübersicht / Overview of methods

LabCode	Sample	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene
LC0001	P22A	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540
LC0002	P22A	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;
LC0003	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0004	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0005	P22A	GC-MS; own method	GC-MS; own method	GC-MS; own method	GC-MS; own method
LC0006	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0007	P22A	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0008	P22A	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0009	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0010	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0011	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0012	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0013	P22A	GC-MS; in house	GC-MS; in house	GC-MS; in house	GC-MS; in house
LC0014	P22A	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)
LC0015	P22A			Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0016	P22A				
LC0017	P22A			Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0018	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39

LabCode	Sample	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene
LC0001	P22A	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540
LC0002	P22A	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;
LC0003	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0004	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0005	P22A	GC-MS; Screening BAFU	GC-MS; own method	GC-MS; own method	GC-MS; own method
LC0006	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0007	P22A	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0008	P22A	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0009	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0010	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0011	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0012	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0013	P22A	GC-MS; in house	GC-MS; in house	GC-MS; in house	GC-MS; in house
LC0014	P22A	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)
LC0015	P22A	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0016	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0017	P22A	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0018	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39

LabCode	Chrysene	Dibenzo[a,h]anthracene	Fluoranthene	Fluorene
LC0001	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540
LC0002	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;
LC0003	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0004	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0005	GC-MS; own method	GC-MS; own method	GC-MS; own method	GC-MS; own method
LC0006	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0007	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0008	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0009	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0010	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0011	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0012	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0013	GC-MS; in house	GC-MS; in house	GC-MS; in house	GC-MS; in house
LC0014	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)
LC0015	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	
LC0016				
LC0017	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	
LC0018	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39

LabCode	Sample	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
LC0001	P22A	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540
LC0002	P22A	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;
LC0003	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0004	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0005	P22A	GC-MS; own method	GC-MS; own method	GC-MS; own method	GC-MS; own method
LC0006	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0007	P22A	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0008	P22A	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0009	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0010	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0011	P22A	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0012	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0013	P22A	GC-MS; in house	GC-MS; in house	GC-MS; in house	GC-MS; in house
LC0014	P22A	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)
LC0015	P22A	Method 5080; APAT CNR-IRSA		Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0016	P22A	GC-MS; DIN 38407-39			
LC0017	P22A	Method 5080; APAT CNR-IRSA			Method 5080; APAT CNR-IRSA
LC0018	P22A	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39

LabCode	Sample	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene
LC0001	P22B	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540
LC0002	P22B	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;
LC0003	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0004	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0005	P22B	GC-MS; own method	GC-MS; own method	GC-MS; own method	GC-MS; own method
LC0006	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0007	P22B	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0008	P22B	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0009	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0010	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0011	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0012	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0013	P22B	GC-MS; in house	GC-MS; in house	GC-MS; in house	GC-MS; in house
LC0014	P22B	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)
LC0015	P22B			Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0016	P22B				
LC0017	P22B			Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0018	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39

LabCode	Sample	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene
LC0001	P22B	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540
LC0002	P22B	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;
LC0003	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0004	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0005	P22B	GC-MS; Screening BAFU	GC-MS; own method	GC-MS; own method	GC-MS; own method
LC0006	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0007	P22B	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0008	P22B	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0009	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0010	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0011	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0012	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0013	P22B	GC-MS; in house	GC-MS; in house	GC-MS; in house	GC-MS; in house
LC0014	P22B	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)
LC0015	P22B	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0016	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0017	P22B	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0018	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39

LabCode	Sample	Chrysene	Dibenzo[a,h]anthracene	Fluoranthene	Fluorene
LC0001	P22B	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540
LC0002	P22B	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;
LC0003	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0004	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0005	P22B	GC-MS; own method	GC-MS; own method	GC-MS; own method	GC-MS; own method
LC0006	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0007	P22B	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0008	P22B	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0009	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0010	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0011	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0012	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0013	P22B	GC-MS; in house	GC-MS; in house	GC-MS; in house	GC-MS; in house
LC0014	P22B	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)
LC0015	P22B	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	
LC0016	P22B				
LC0017	P22B	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA	
LC0018	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39

LabCode	Sample	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
LC0001	P22B	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540	GC-MS; ISO 28540
LC0002	P22B	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;	GC-MS/MS;
LC0003	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0004	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0005	P22B	GC-MS; own method	GC-MS; own method	GC-MS; own method	GC-MS; own method
LC0006	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0007	P22B	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0008	P22B	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)	HPLC-FLD; EN ISO 17993(F18)
LC0009	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0010	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0011	P22B	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993	HPLC-FLD; EN ISO 17993
LC0012	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39
LC0013	P22B	GC-MS; in house	GC-MS; in house	GC-MS; in house	GC-MS; in house
LC0014	P22B	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)	GC-MS; ISO 28540(F40)
LC0015	P22B	Method 5080; APAT CNR-IRSA		Method 5080; APAT CNR-IRSA	Method 5080; APAT CNR-IRSA
LC0016	P22B	GC-MS; DIN 38407-39			
LC0017	P22B	Method 5080; APAT CNR-IRSA			Method 5080; APAT CNR-IRSA
LC0018	P22B	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39	GC-MS; DIN 38407-39