umweltbundesamt
ENVIRONMENT AGENCY AUSTRIA

Proficiency Testing Scheme für die Umweltanalytik

CBL10 Chlorierte Kohlenwasserstoffe (CKW) und BTEX & C5–C10

Proficiency Testing Scheme for Environmental Analysis

CBL10 Chlorinated hydrocarbons (CHC) and BTEX & C5–C10

BERICHT / REPORT

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D1. Beschreibung des Ringversuchs

D1.1. Ausgestaltung und Durchführung

- Anzahl der Anmeldungen: 23
- Anzahl der übermittelten Datensätze: 23
- Probenversand: 07.10.2024
- Einsendeschluss der Daten: 05.11.2024

Beim Ringversuch CBL10 bestand die Möglichkeit, an den Teilen CL11 (CKW) und/oder BL12 (BTEX & C5–C10) teilzunehmen.

Die Ergebnisabgabe erfolgte auf elektronischem Weg mittels passwortgeschützter Online-Dateneingabe. Beim Abschluss der Dateneingabe bestätigten die Teilnehmenden 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

Als Probe wurde jeweils ein mit zertifiziertem Kalibriergas beladenes Aktivkohleröhrchen versandt. Zusätzlich wurde ein unbeladenes Röhrchen zur Blindwertbestimmung beigelegt. Die Beladung der Röhrchen erfolgte in zwei Serien (CL11 und BL12). Es wurde ein definiertes Volumen des Kalibriergases der Firma Air Liquide mit einer Pumpe über Orbo 32S Aktivkohleröhrchen (Supelco) gesaugt. Die verwendeten Kalibriergase enthielten zum einen die Substanzen cis-1,2-Dichlorethen, trans-1,2-Dichlorethen, Trichlormethan, 1,1,1-Trichlorethan, Trichlorethen, Tetrachlormethan und Tetrachlorethen (CL11) und zum anderen Benzol, Ethylbenzol, o-Xylol, Summe von m- und p-Xylol, Toluol, n-Pentan, n-Hexan, n-Heptan, n-Oktan, n-Nonan und n-Dekan (BL12). Die Beladung der Röhrchen erfolgte über ein Y-Stück im drucklosen Zustand. Der eingestellte Pumpenfluss wurde sowohl vor als auch nach der Beladung der Aktivkohleröhrchen kontrolliert. Das Beladen der Röhrchen erfolgte am 02.10.2024. Die Proben wurden bis zum Versand bei -80 °C gelagert und am 07.10.2024 verschickt.

Jedes Teilnehmerlabor erhielt je nach Anmeldung:

- 1 beladenes Aktivkohleröhrchen Probe CL11 und/oder
- 1 beladenes Aktivkohleröhrchen Probe BL12
- sowie 1 unbeladenes Aktivkohleröhrchen (Blindwert) pro Probe

D1.3. Anweisungen für die Teilnehmenden

Aus Stabilitätsgründen wurde empfohlen bis spätestens 15.10.2024 mit den Analysen zu beginnen.

Den Teilnehmenden 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 CL11 bzw. BL12 jeweils n=5 Kontrollproben sowie je n=1 unbeladene Kontrollprobe dem Labor zur Analyse übergeben.

Die Bestimmung der Parameter wurde an ein externes Labor (akkreditiert nach EN ISO/IEC 17025 für die o.a. Parameter) im Unterauftrag vergeben (verdeckte Vergabe, Proben anonymisiert) und erfolgte zeitnah zum Probenversand.

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 (E7) 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

Um die ausreichende Stabilität der Prüfgegenstände der aktuellen Eignungsprüfungsrunde bis zum Abgabetermin zu überprüfen, wurde die Darstellung der Ergebnisse der Teilnehmenden nach Analysendatum ausgewertet und auf systematische Trends geprüft (unauffällig). Durch Darstellung der Ergebnisse der Teilnehmenden 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 05.11.2024 beim Veranstalter vorliegen. Später eingehende Werte wurden nicht berücksichtigt.

Im Zuge der Plausibilitätsprüfung der Daten (z.B. Check korrekte Einheiten, Messunsicherheitsangabe, …) wurden die Teilnehmenden 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 Ergebnisse der Teilnehmenden von über 50 % oder bei mangelhafter Rückführbarkeit der statistischen Kenndaten aus den ausreißerbereinigten Ergebnissen der Teilnehmenden 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 Ergebnisse der Teilnehmenden für diesen Parameter möglich ist. Ein entsprechender Hinweis wird im Bericht unter E7 bei der informativen Auswertung angebracht. Im Rahmen der internen Qualitätssicherung der Teilnehmenden 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 Teilnehmenden (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Ergebnisse der Teilnehmenden. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben.
Kriterium	Vergleichsstandardabweichung berechnet aus den Statistiken für beladene Aktivkohleröhrchen der vorangegangenen Runden im Zeitraum 2015 bis 2023 (RSDpooled) bzw. aus den ausreißerbereinigten Ergebnissen der Teilnehmenden (sR) des aktuellen Ringversuchs. 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 Realproben erfolgen seit 2019 zusätzliche Bewertungen unter Einbeziehung der erweiterten Messunsicherheiten der Teilnehmenden und der erweiterten Messunsicherheit des zugewiesenen Wertes, gemäß E_n-Score. Diese Auswertungen werden für die Teilnehmenden 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 Teilnehmenden (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Ergebnisse der Teilnehmenden. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben.
U(x_i)	erweiterte Messunsicherheit des Messergebnisses (Ergebnisse der Teilnehmenden), k=2
U($\overline{X}$)	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 Teilnehmenden 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 Teilnehmenden 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 D5 entnommen werden.

D4. Anmerkungen zur Auswertung

Wie unter Punkt D2 ersichtlich, können die z-Scores auch unter Einbeziehung der Vergleichsstandardabweichung der ausreißerbereinigten Ergebnisse der Teilnehmenden 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 Ergebnisse der Teilnehmenden 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 die bisherigen Eignungsprüfungsrunden (2015–2023) wurden Kriterien (RSDpool) zur Ergebnisbewertung berechnet. Diese wurden im Zuge der Auswertung den relativen Vergleichsstandardabweichungen (vR) des aktuellen Ringversuchs gegenübergestellt.

Probe CBL10 / BL12

Parameter Benzol, Ethylbenzol, o-Xylol, Summe aus m- und p-Xylol, Toluol: Bei diesen Parametern erfolgt die Berechnung der Scores nach D2 (Kriterium: RSD pool).

Parameter n-Pentan, n-Hexan, n-Heptan, n-Oktan: Die auf Basis der Ergebnisse der Teilnehmenden berechneten Sollwerte lagen außerhalb der Messunsicherheit des Kontrollwertes und es ist über das Kontrolllabor keine Rückführbarkeit möglich. Der zugewiesene Wert wurde daher über die ausreißerbereinigten Mittelwerte aus der Gruppe der akkreditierten Teilnehmenden berechnet (Kriterium: RSD pool).

Parameter n-Nonan, n-Dekan: Für diese Parameter erfolgt die Berechnung der Scores nach D2 und es wurden relative Vergleichsstandardabweichungen (vR) von 20 % für n-Nonan und 30 % für n-Dekan für die Bewertung festgelegt (jeweils aktuelle vR, aufgerundet).

Probe CBL10 / CL11

Parameter 1,1,1-Trichlorethan, cis-1,2-Dichlorethen, Tetrachlorethen, trans-1,2-Dichlorethen, Trichlorethen, Trichlormethan: Bei diesen Parametern erfolgt die Berechnung der Scores nach D2 (Kriterium: aktuelle vR, auf 2 sign. Stellen gerundet).

Parameter Tetrachlormethan: Der auf Basis der Ergebnisse der Teilnehmenden berechnete Sollwert lag außerhalb der Messunsicherheit des Kontrollwertes und es ist über das Kontrolllabor keine Rückführbarkeit möglich. Der zugewiesene Wert wurde daher über den ausreißerbereinigten Mittelwert aus der Gruppe der akkreditierten Teilnehmenden berechnet (Kriterium: aktuelle vR, auf 2 sign. Stellen gerundet).

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. hier µg pro Röhrchen)
Zugewiesener Wert	Sollwert für die Leistungsbewertung der Teilnehmenden (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 Ergebnisse der Teilnehmenden (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, ausreißer-bereinigt (angegeben auf 3 signifikante Stellen)
sR	Vergleichsstandardabweichung, berechnet aus den ausreißerbereinigten Ergebnissen der Teilnehmenden des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)

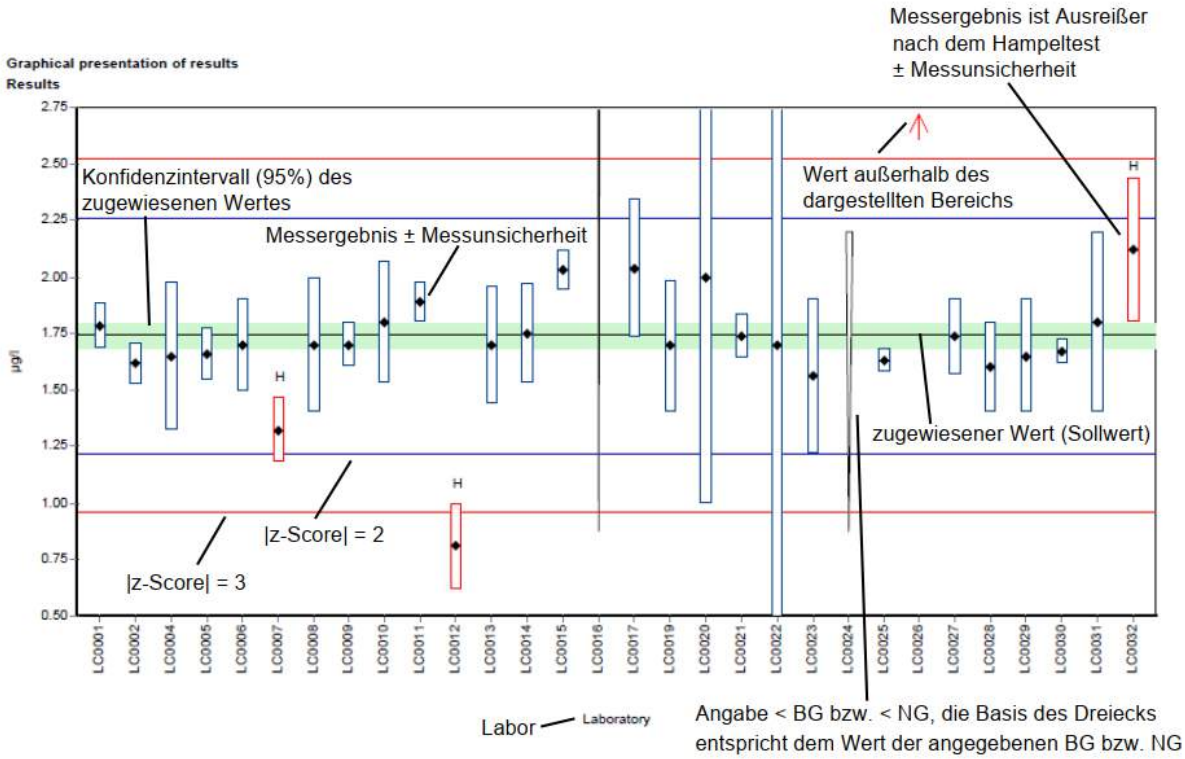
vR	relative Vergleichsstandardabweichung in %, berechnet aus den ausreißerbereinigten Ergebnissen der Teilnehmenden des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 2 signifikante Stellen)
Kontrollwert ± U (k=2)	Mittelwert der Kontrollmessungen des Veranstalters ± erweiterte Ergebnisunsicherheit des Kontrollwertes (jeweils angegeben auf 3 signifikante Stellen)
Laborcode	anonymisierte, eindeutige Kennung des teilnehmenden Labors im jeweiligen Ringversuch
Messwert	einzelne(r) Messwert(e) lt. Angabe der Teilnehmenden (maximal 5 Nachkommastellen dargestellt)
Messergebnis	Für die Bewertung herangezogenes Ergebnis lt. Angabe der Teilnehmenden (maximal 5 Nachkommastellen dargestellt). Bei Eignungsprüfungsrunden mit Vorgabe von unabhängigen Mehrfachbestimmungen, entspricht dies dem berechneten Mittelwert aus den einzelnen Messwerten der Teilnehmenden.
± U	kombinierte Messunsicherheit ohne Erweiterungsfaktor (k=1) lt. Angabe der Teilnehmenden (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 Teilnehmenden (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen). Beim E_n-Score erfolgt die Berücksichtigung der Messunsicherheit der Teilnehmenden.
-	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 Ergebnissen der Teilnehmenden des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)
rel. Standardabweichung	relative Vergleichsstandardabweichung in %, berechnet aus den Ergebnissen der Teilnehmenden des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 3 signifikante Stellen)
n	Anzahl der Messergebnisse
*	Kennzeichnung für Hinweise zur Erläuterung

D5.2. Graphische Darstellung der Ergebnisse

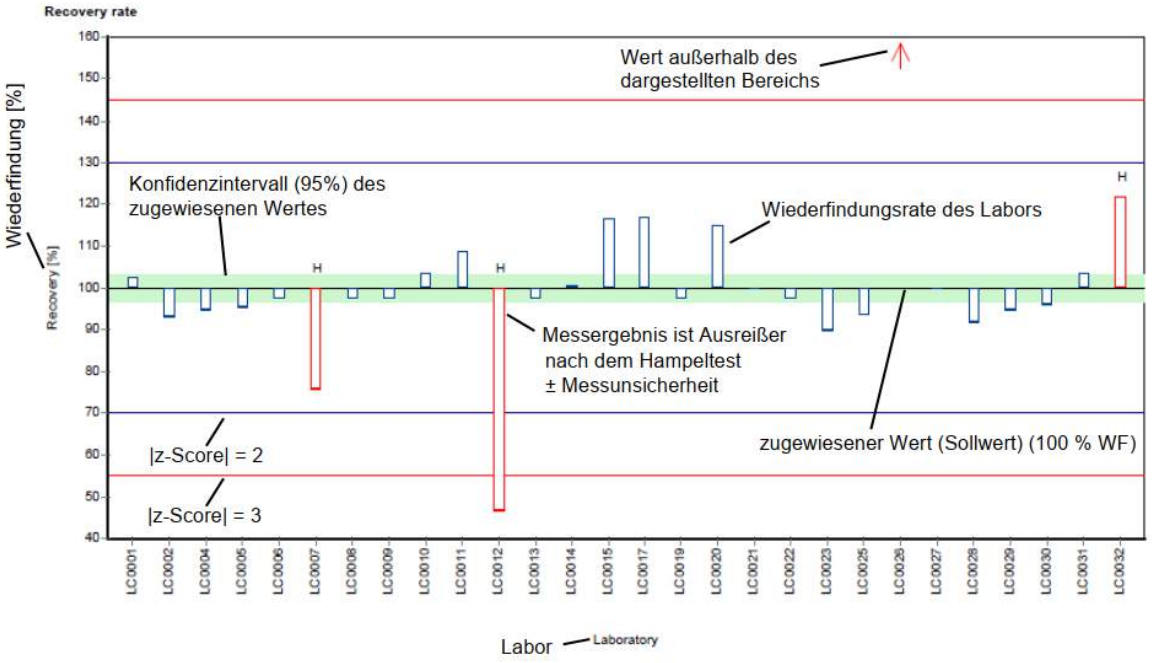
Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

Beispieldiagramm: Messwerte



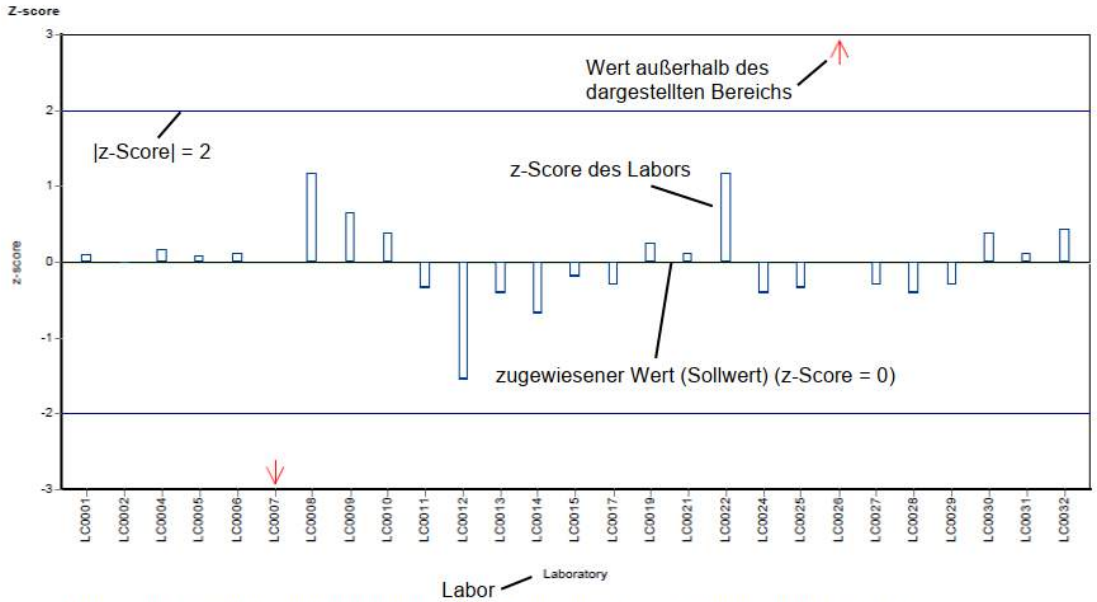
Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: Wiederfindung zum zugewiesenen Wert



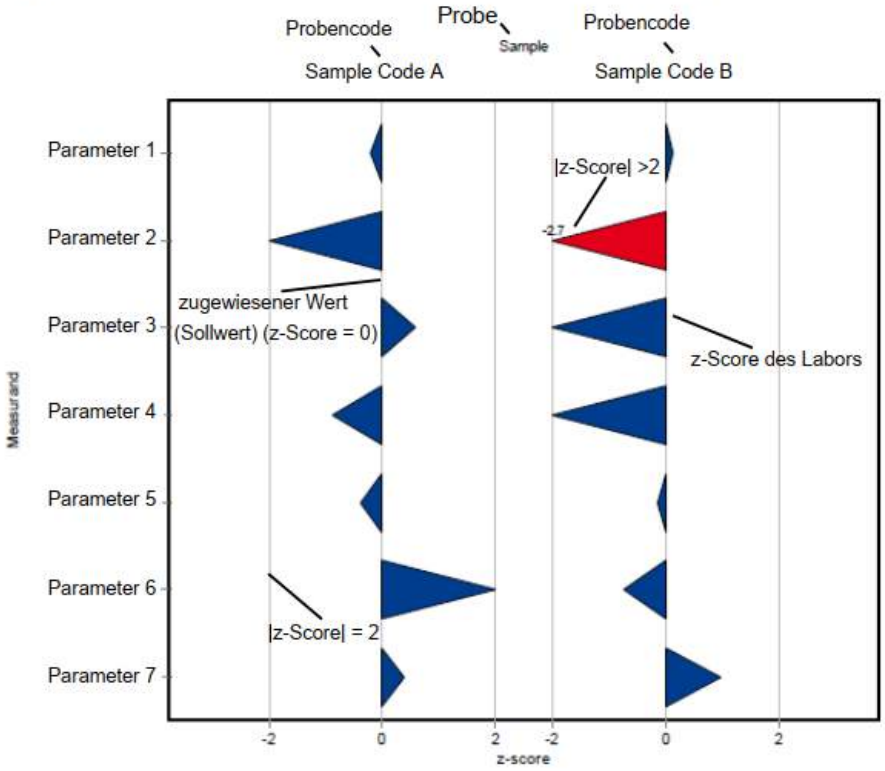
Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: z-Score

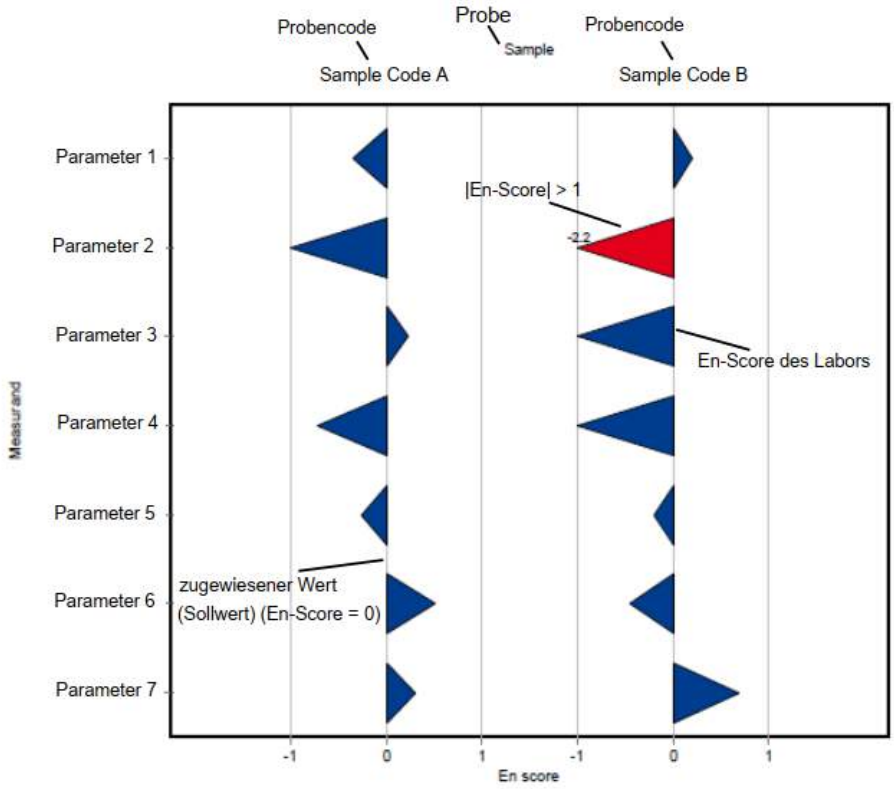


Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

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 [%]
1,1,1-Trichlorethan	CL11 - CKW	µg/Röhrchen	2.13	± 0.241	0.49	23
Benzol	BL12 - BTEX & C5-C10	µg/Röhrchen	4.68	± 0.154	0.702	15
cis-1,2-Dichlorethen	CL11 - CKW	µg/Röhrchen	1.72	± 0.318	0.619	36
Ethylbenzol	BL12 - BTEX & C5-C10	µg/Röhrchen	4.28	± 0.313	0.771	18
n-Dekan	BL12 - BTEX & C5-C10	µg/Röhrchen	2.43	± 0.409	0.73	30
n-Heptan	BL12 - BTEX & C5-C10	µg/Röhrchen	5.79	± 0.457	1.04	18
n-Hexan	BL12 - BTEX & C5-C10	µg/Röhrchen	6.03	± 0.453	0.964	16
n-Nonan	BL12 - BTEX & C5-C10	µg/Röhrchen	4.28	± 0.443	0.856	20
n-Oktan	BL12 - BTEX & C5-C10	µg/Röhrchen	5.53	± 0.404	0.94	17
n-Pentan	BL12 - BTEX & C5-C10	µg/Röhrchen	5.78	± 0.374	1.73	30
o-Xylol	BL12 - BTEX & C5-C10	µg/Röhrchen	3.8	± 0.335	0.684	18
Summe von m-Xylol und p-Xylol	BL12 - BTEX & C5-C10	µg/Röhrchen	7.89	± 0.8	1.5	19
Tetrachlorethen	CL11 - CKW	µg/Röhrchen	1.09	± 0.199	0.414	38
Tetrachlormethan	CL11 - CKW	µg/Röhrchen	2.56	± 0.205	0.564	22
Toluol	BL12 - BTEX & C5-C10	µg/Röhrchen	4.41	± 0.306	0.662	15
trans-1,2-Dichlorethen	CL11 - CKW	µg/Röhrchen	1.57	± 0.422	0.755	48
Trichlorethen	CL11 - CKW	µg/Röhrchen	1.66	± 0.269	0.549	33
Trichlormethan	CL11 - CKW	µg/Röhrchen	2.12	± 0.148	0.297	14

D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	±	VB (99%)	Minimum	Maximum	sR	vR [%]
1,1,1-Trichlorethan	CL11 - CKW	16	1	µg/Röhrchen	2.13	±	0.362	0.91	2.84	0.483	23
Benzol	BL12 - BTEX & C5-C10	19	4	µg/Röhrchen	4.68	±	0.231	3.96	5.19	0.336	7.2
cis-1,2-Dichlorethen	CL11 - CKW	15	0	µg/Röhrchen	1.72	±	0.477	0.46	2.64	0.616	36
Ethylbenzol	BL12 - BTEX & C5-C10	21	1	µg/Röhrchen	4.28	±	0.47	2.72	5.25	0.717	17
n-Dekan	BL12 - BTEX & C5-C10	10	2	µg/Röhrchen	2.43	±	0.614	1.58	3.69	0.647	27
n-Heptan	BL12 - BTEX & C5-C10	12	1	µg/Röhrchen	5.8	±	0.626	4.52	7.05	0.723	12
n-Hexan	BL12 - BTEX & C5-C10	9	2	µg/Röhrchen	6.01	±	0.601	4.71	6.82	0.601	10
n-Nonan	BL12 - BTEX & C5-C10	11	1	µg/Röhrchen	4.28	±	0.665	2.99	5.63	0.735	17
n-Oktan	BL12 - BTEX & C5-C10	12	1	µg/Röhrchen	5.54	±	0.554	4.23	6.18	0.64	12
n-Pentan	BL12 - BTEX & C5-C10	9	1	µg/Röhrchen	5.78	±	0.495	5.1	6.78	0.495	8.6
o-Xylol	BL12 - BTEX & C5-C10	21	1	µg/Röhrchen	3.8	±	0.503	2.11	5.21	0.769	20
Summe von m-Xylol und p-Xylol	BL12 - BTEX & C5-C10	21	1	µg/Röhrchen	7.89	±	1.2	3.72	10.4	1.83	23
Tetrachlorethen	CL11 - CKW	17	0	µg/Röhrchen	1.09	±	0.298	0.4	1.76	0.41	38
Tetrachlormethan	CL11 - CKW	16	1	µg/Röhrchen	2.46	±	0.407	0.93	3.34	0.543	22
Toluol	BL12 - BTEX & C5-C10	21	1	µg/Röhrchen	4.41	±	0.459	2.86	5.16	0.701	16
trans-1,2-Dichlorethen	CL11 - CKW	13	1	µg/Röhrchen	1.57	±	0.633	0.11	2.46	0.761	48
Trichlorethen	CL11 - CKW	17	0	µg/Röhrchen	1.66	±	0.404	0.612	2.31	0.555	33
Trichlormethan	CL11 - CKW	16	1	µg/Röhrchen	2.12	±	0.222	1.64	2.63	0.296	14

E1. Description of the proficiency test

E1.1. Design and implementation

- Number of registrations: 23
- Number of submitted data records: 23
- Dispatch of samples: October 07th, 2024
- Closing date for submission of data: November 05th, 2024

For the interlaboratory comparison test CBL10 the participants could participate in CL11 (CHC) and/or BL12 (BTEX & C5–C10).

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

An activated charcoal tube loaded with certified calibration gas was prepared. In addition, an unloaded activated charcoal tube was made available to determine the blank value. The tubes were loaded in two series (CL11 and BL12). A defined volume of the calibration gas from Air Liquide was loaded on Orbo 32S activated charcoal tubes (Supelco) with a pump. The calibration gases contained the substances cis-1,2-dichloroethene, trans-1,2-dichloroethene, trichloromethane, 1,1,1-trichloroethane, trichloroethene, tetrachloromethane and tetrachloroethene for CL11 and the substances benzene, ethylbenzene, o-xylene, sum of m- and p-xylene, toluene, n-pentane, n-hexane, n-heptane, n-octane, n-nonane and n-decane for BL12. The tubes were loaded using a Y-piece under pressure-less condition. The set flow of the pump was checked before and after loading of the activated charcoal tubes.

The tubes were loaded on October, 02nd 2024. The samples were stored at -80 °C and dispatched on October, 7th 2024.

Each participant received (depending on the registration):

- 1 loaded activated charcoal tube sample CL11 and/or
- 1 loaded activated charcoal tube sample BL12
- and 1 unloaded charcoal tube (blank value) per each sample

E1.3. Instructions for the participants

For reasons of stability, it was recommended to start the analysis by the 15th of October 2024 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 sample were transferred to the laboratory for control testing.

The determination of the parameters was performed at an external laboratory (accredited by EN ISO/IEC 17025 for the parameters listed) in subcontract (anonymous submission) and testing was performed 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 (E7), 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 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 and based on the trend test evaluation of the current round, the stability of the test items for proficiency testing 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 05th of November 2024. 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 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	The reproducibility standard deviation calculated from previous rounds for activated charcoal tubes from 2015 to 2023 (as RSD pooled) or reproducibility standard deviation calculated from the participants' results after removal of outliers (sR) in the current round. Where justified (e.g. results for real 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 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 E5.

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 previous proficiency testing rounds (2015–2023), evaluation criteria (RSDpool) were calculated. These criteria were compared with the relative reproducibility standard deviation (vR) of the current proficiency testing.

Sample CBL10 / BL12
Parameters benzene, ethylbenzene, o-xylene, sum of m- and p-xylene, toluene: Scores for all listed parameters were calculated according to E2 (criterion: RSD pool).

Parameters n-pentane, n-hexane, n-heptane, n-octane: The assigned values calculated based on the participants' results were outside of the measurement uncertainty of the control test value and thus traceability could not be proven by this procedure. Therefore, new assigned values were defined by the group of accredited participating laboratories after outlier-assessment (criterion: RSD pool).

Parameters n-nonane, n-decane: For these parameters Scores were calculated according to E2 and a reproducibility standard deviation (vR) of 20 % for n-nonane and 30 % for n-decane was chosen for assessment.

Sample CBL10 / CL11
Parameters 1,1,1-trichloroethane, cis-1,2-dichloroethene, tetrachloroethene, trans-1,2-dichloroethene, trichloroethene, trichloromethane: Scores for all listed parameters were calculated according to E2 (criterion: reproducibility standard deviation vR, rounded to 2 sign. figures).

Parameter tetrachloromethane: The assigned value calculated based on the participants' results was outside of the measurement uncertainty of the control test

value and thus traceability could not be proven by this procedure. Therefore, a new assigned value was defined by the group of accredited participating laboratories after outlier-assessment (criterion: actual vR, rounded to 2 sign. figures).

E5. Annotations on tables and charts

E5.1. Information and abbreviations in tables

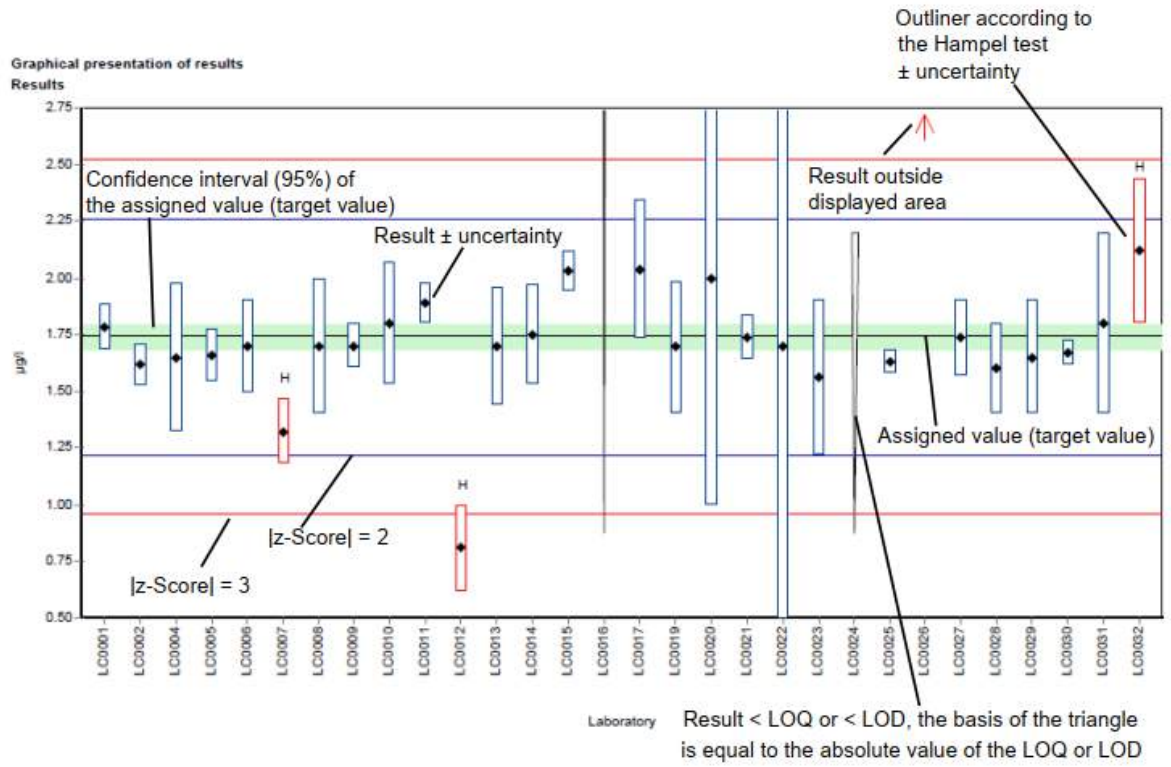
Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/tube)
Assigned value	Target value for proficiency assessment of the participants (3 significant digits)
U (k=2)	Expanded uncertainty (k=2) of the assigned value (3 significant digits)
Criteria	Specified 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
*	mark for additional comments

E5.2. Graphical presentation of results

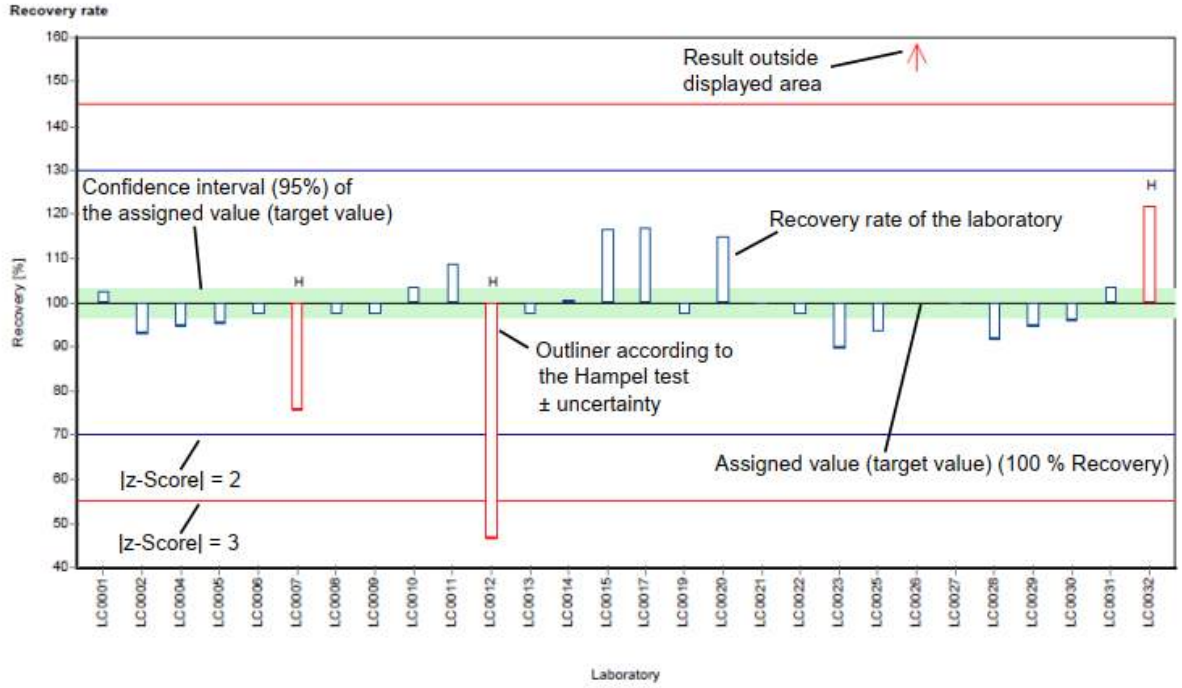
The graphic representation in the report is explained below by means of commented example diagrams:

Example chart: Results



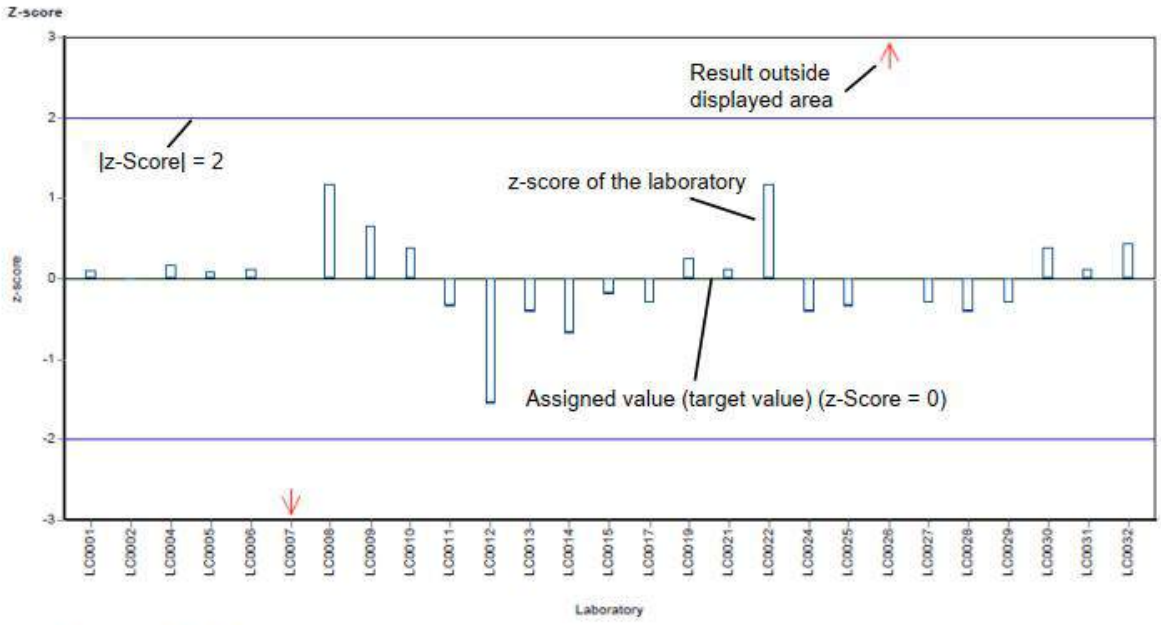
Different analysis methods are represented with different colors.

Example chart: Recovery



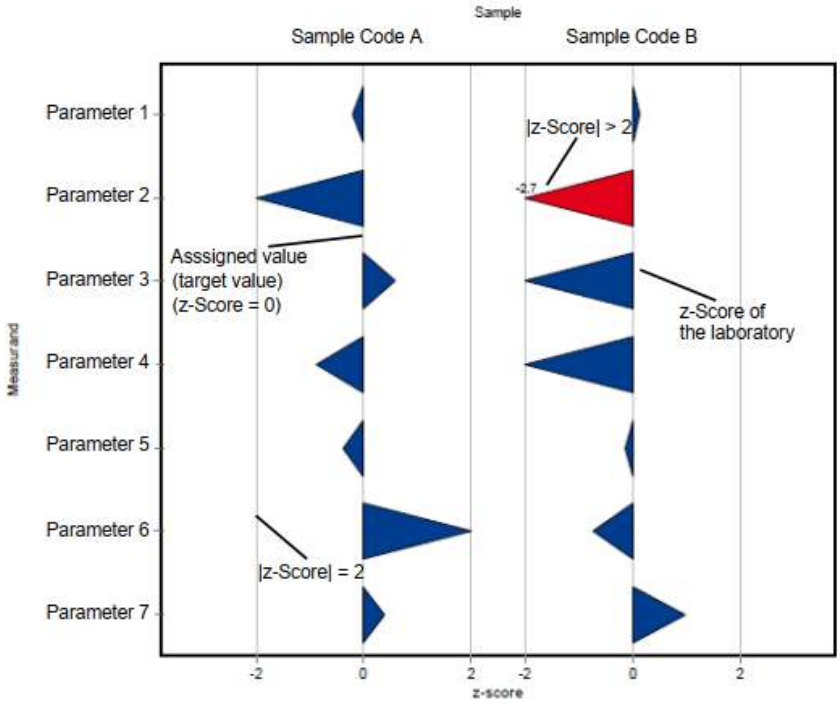
Different analysis methods are represented with different colors.

Example chart: z-Score

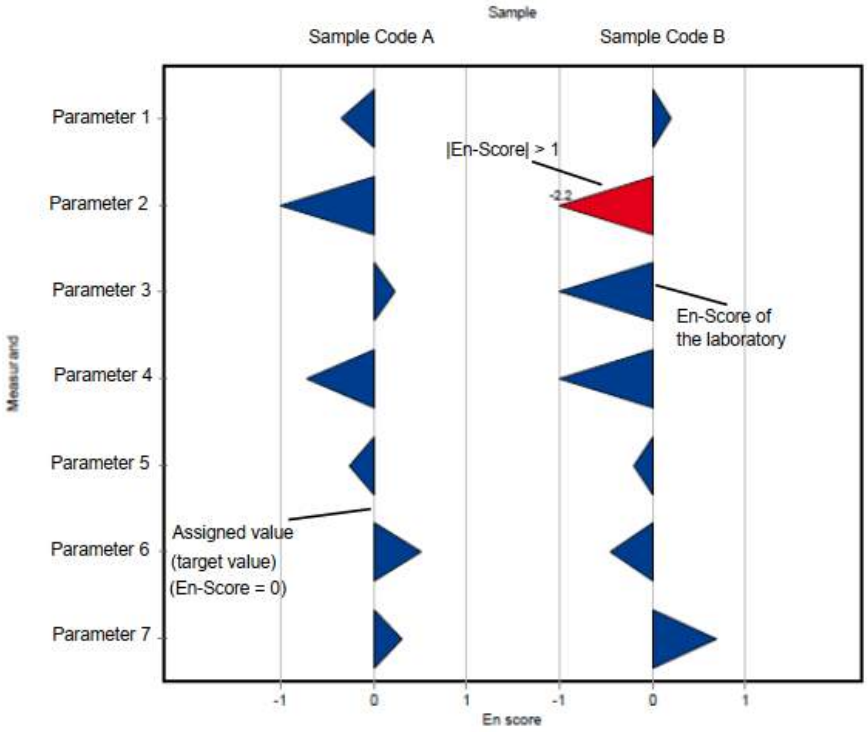


Different analysis methods are represented with different colors.

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 [%]
1,1,1-Trichloroethane	CL11 - CHC	µg/tube	2.13	±	0.241	0.49	23
Benzene	BL12 - BTEX & C5-C10	µg/tube	4.68	±	0.154	0.702	15
cis-1,2-Dichloroethene	CL11 - CHC	µg/tube	1.72	±	0.318	0.619	36
Ethylbenzene	BL12 - BTEX & C5-C10	µg/tube	4.28	±	0.313	0.771	18
n-Decane	BL12 - BTEX & C5-C10	µg/tube	2.43	±	0.409	0.73	30
n-Heptane	BL12 - BTEX & C5-C10	µg/tube	5.79	±	0.457	1.04	18
n-Hexane	BL12 - BTEX & C5-C10	µg/tube	6.03	±	0.453	0.964	16
n-Nonane	BL12 - BTEX & C5-C10	µg/tube	4.28	±	0.443	0.856	20
n-Octane	BL12 - BTEX & C5-C10	µg/tube	5.53	±	0.404	0.94	17
n-Pentane	BL12 - BTEX & C5-C10	µg/tube	5.78	±	0.374	1.73	30
o-Xylene	BL12 - BTEX & C5-C10	µg/tube	3.8	±	0.335	0.684	18
Sum of m-Xylene and p-Xylene	BL12 - BTEX & C5-C10	µg/tube	7.89	±	0.8	1.5	19
Tetrachloroethene	CL11 - CHC	µg/tube	1.09	±	0.199	0.414	38
Tetrachloromethane	CL11 - CHC	µg/tube	2.56	±	0.205	0.564	22
Toluene	BL12 - BTEX & C5-C10	µg/tube	4.41	±	0.306	0.662	15
trans-1,2-Dichloroethene	CL11 - CHC	µg/tube	1.57	±	0.422	0.755	48
Trichloroethene	CL11 - CHC	µg/tube	1.66	±	0.269	0.549	33
Trichloromethane	CL11 - CHC	µg/tube	2.12	±	0.148	0.297	14

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 [%]
1,1,1-Trichloroethane	CL11 - CHC	16	1	µg/tube	2.13	±	0.362	0.91	2.84	0.483	23
Benzene	BL12 - BTEX & C5-C10	19	4	µg/tube	4.68	±	0.231	3.96	5.19	0.336	7.2
cis-1,2-Dichloroethene	CL11 - CHC	15	0	µg/tube	1.72	±	0.477	0.46	2.64	0.616	36
Ethylbenzene	BL12 - BTEX & C5-C10	21	1	µg/tube	4.28	±	0.47	2.72	5.25	0.717	17
n-Decane	BL12 - BTEX & C5-C10	10	2	µg/tube	2.43	±	0.614	1.58	3.69	0.647	27
n-Heptane	BL12 - BTEX & C5-C10	12	1	µg/tube	5.8	±	0.626	4.52	7.05	0.723	12
n-Hexane	BL12 - BTEX & C5-C10	9	2	µg/tube	6.01	±	0.601	4.71	6.82	0.601	10
n-Nonane	BL12 - BTEX & C5-C10	11	1	µg/tube	4.28	±	0.665	2.99	5.63	0.735	17
n-Octane	BL12 - BTEX & C5-C10	12	1	µg/tube	5.54	±	0.554	4.23	6.18	0.64	12
n-Pentane	BL12 - BTEX & C5-C10	9	1	µg/tube	5.78	±	0.495	5.1	6.78	0.495	8.6
o-Xylene	BL12 - BTEX & C5-C10	21	1	µg/tube	3.8	±	0.503	2.11	5.21	0.769	20
Sum of m-Xylene and p-Xylene	BL12 - BTEX & C5-C10	21	1	µg/tube	7.89	±	1.2	3.72	10.4	1.83	23
Tetrachloroethene	CL11 - CHC	17	0	µg/tube	1.09	±	0.298	0.4	1.76	0.41	38
Tetrachloromethane	CL11 - CHC	16	1	µg/tube	2.46	±	0.407	0.93	3.34	0.543	22
Toluene	BL12 - BTEX & C5-C10	21	1	µg/tube	4.41	±	0.459	2.86	5.16	0.701	16
trans-1,2-Dichloroethene	CL11 - CHC	13	1	µg/tube	1.57	±	0.633	0.11	2.46	0.761	48
Trichloroethene	CL11 - CHC	17	0	µg/tube	1.66	±	0.404	0.612	2.31	0.555	33
Trichloromethane	CL11 - CHC	16	1	µg/tube	2.12	±	0.222	1.64	2.63	0.296	14

E7. Parameterorientierte Auswertung / Parameter oriented report

Parameter oriented report

CL11 - CHC

1,1,1-Trichloroethane

Unit	µg/tube
Assigned value ± U (k=2)	2.13 ± 0.241
Criterion	0.49 (23 %)
Minimum - Maximum	0.91 - 2.84
Control test value ± U (k=2)	2.44 ± 0.732

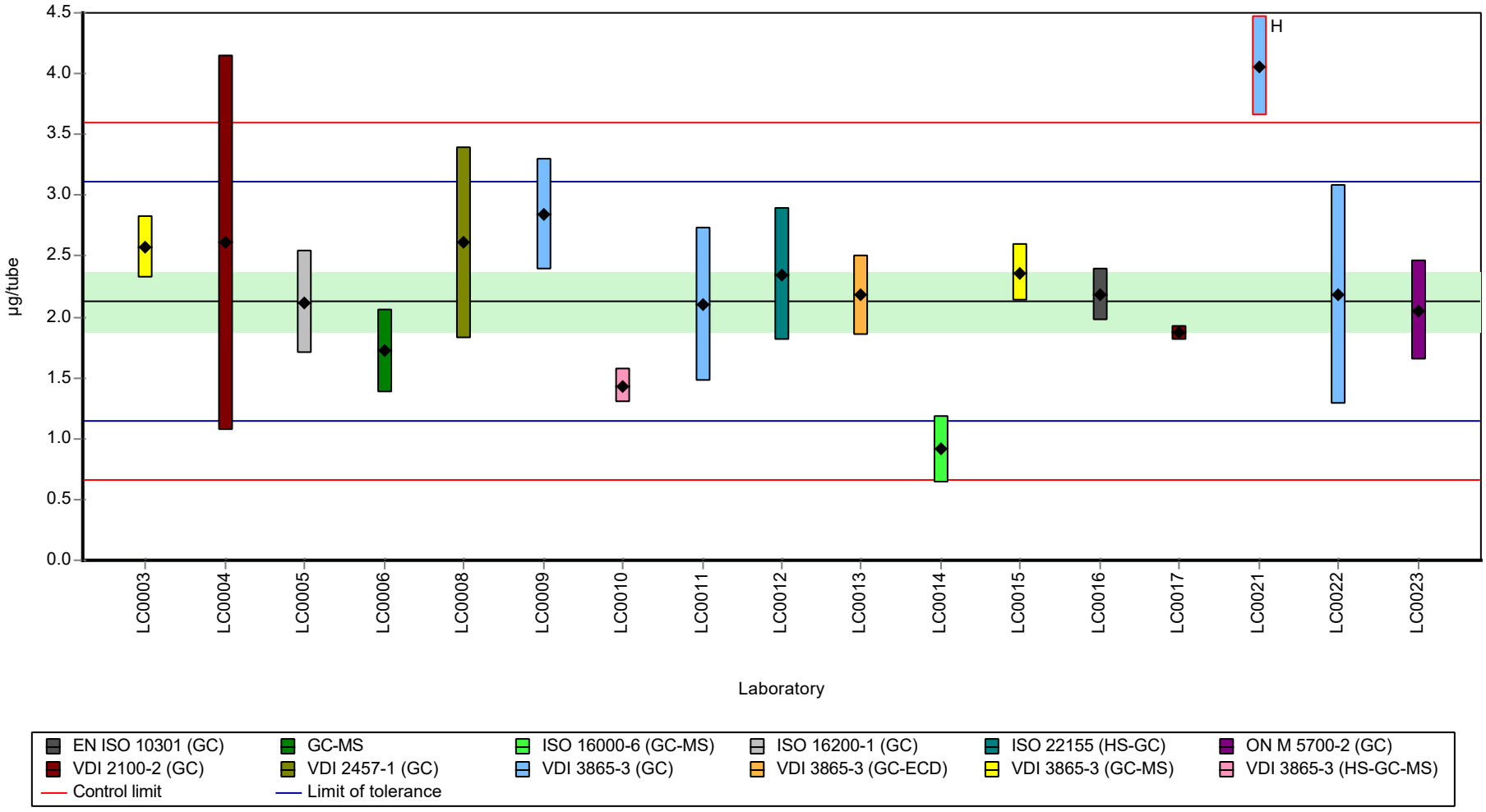
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0003	2.578	0.258	121	0.91	
LC0004	2.61	1.54	122	0.98	
LC0005	2.12	0.424	99.5	-0.02	
LC0006	1.72	0.34	80.7	-0.84	
LC0008	2.61	0.79	122	0.98	
LC0009	2.841	0.454	133	1.45	
LC0010	1.43	0.14	67.1	-1.43	
LC0011	2.1	0.63	98.6	-0.06	
LC0012	2.35	0.54	110	0.45	
LC0013	2.179	0.327	102	0.1	
LC0014	0.91	0.273	42.7	-2.49	
LC0015	2.3642	0.24	111	0.48	
LC0016	2.18	0.218	102	0.1	
LC0017	1.87	0.06	87.8	-0.53	
LC0021	4.06	0.41	191	3.94	H
LC0022	2.18	0.9	102	0.1	
LC0023	2.05	0.41	96.2	-0.16	

Characteristics of parameter

	all results	w ithout outliers	Unit
Mean ± CI (99%)	2.24 ± 0.481	2.13 ± 0.362	µg/tube
Minimum	0.91	0.91	µg/tube
Maximum	4.06	2.84	µg/tube
Standard deviation	0.662	0.483	µg/tube
rel. standard deviation	29.5	22.7	%
n	17	16	-

Graphical presentation of results

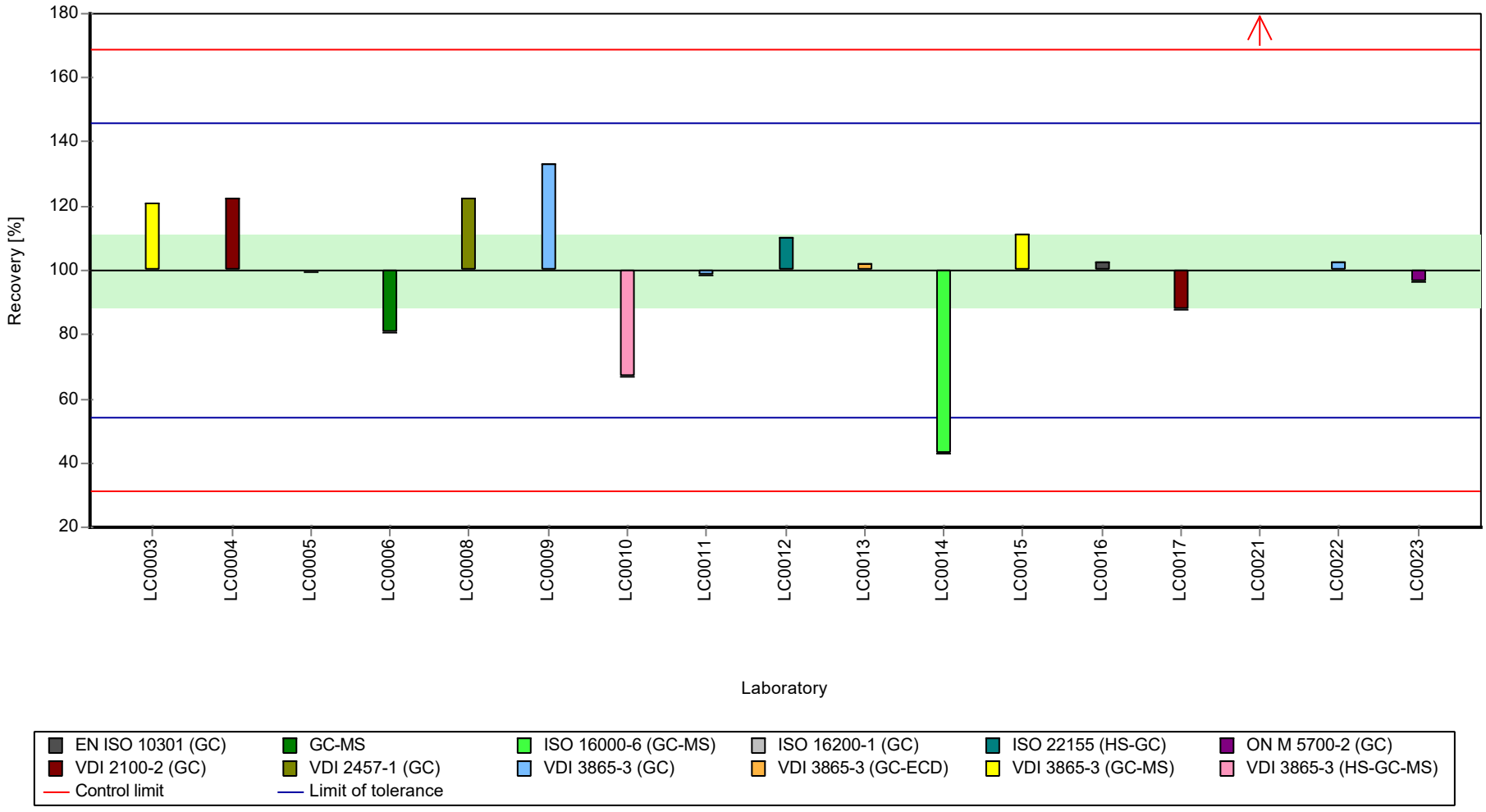
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

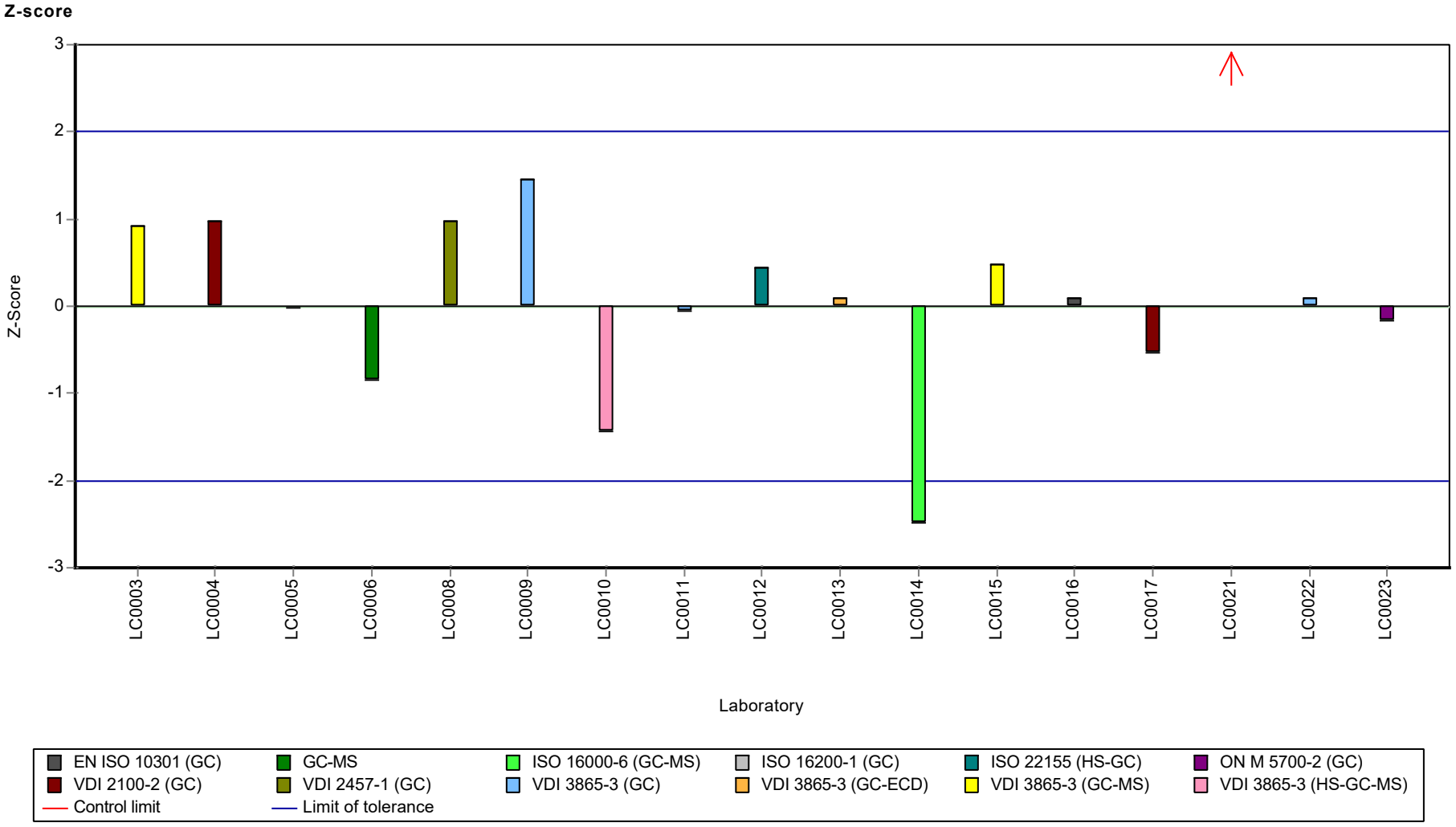
Sample: CL11, Parameter: 1,1,1-Trichloroethane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: 1,1,1-Trichloroethane



Parameter oriented report

BL12 - BTEX & C5-C10

Benzene

Unit	µg/tube
Assigned value ± U (k=2)	4.68 ± 0.154
Criterion	0.702 (15 %)
Minimum - Maximum	3.96 - 5.19
Control test value ± U (k=2)	4.03 ± 1.09

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	4.89	0.03	104	0.3	
LC0002	4.29	0.582	91.6	-0.56	
LC0003	4.944	0.494	106	0.37	
LC0004	5.05	1.21	108	0.52	
LC0005	3.24	0.648	69.2	-2.05	H
LC0006	4.7	0.94	100	0.03	
LC0007	4.4096	0.6619	94.2	-0.39	
LC0008	4.63	1.16	98.9	-0.07	
LC0009	5.073	0.507	108	0.56	
LC0010	3.96	0.48	84.6	-1.03	
LC0011	4.77	2.15	102	0.12	
LC0012	4.76	1.43	102	0.11	
LC0013	3.96	0.792	84.6	-1.03	
LC0014	0.59	0.177	12.6	-5.83	H
LC0015	5.1945	0.52	111	0.73	
LC0016	4.63	0.45	98.9	-0.07	
LC0017	4.61	0.28	98.5	-0.1	
LC0018	4.91	1.47	105	0.32	
LC0019	4.79	0.43	102	0.15	
LC0020	4.741	0.21	101	0.08	
LC0021	6.04	0.91	129	1.93	H
LC0022	4.65	1.9	99.3	-0.05	
LC0023	2.41	0.48	51.5	-3.24	H

Characteristics of parameter

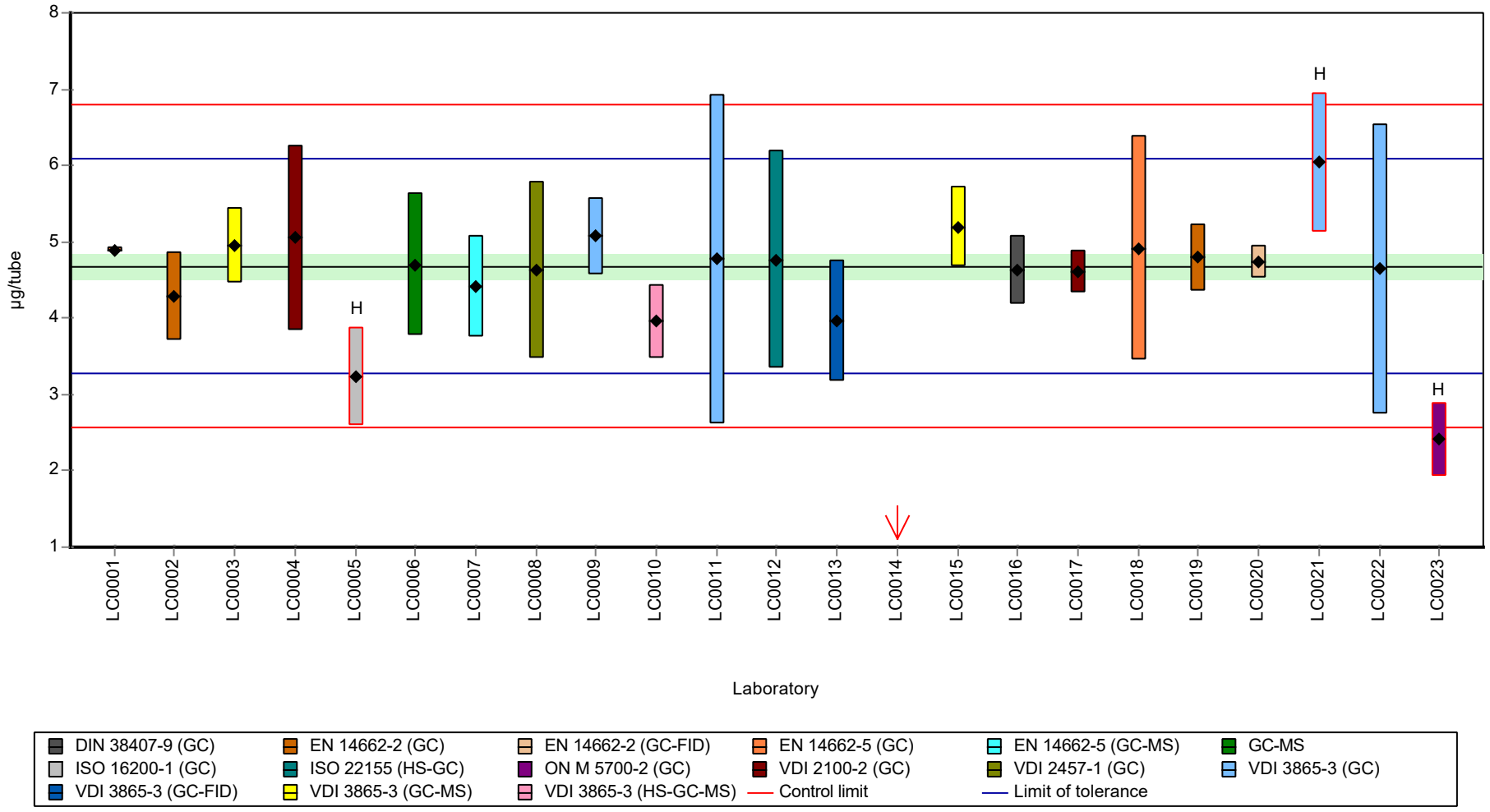
	all results	w ithout outliers	Unit
Mean ± CI (99%)	4.4 ± 0.681	4.68 ± 0.231	µg/tube
Minimum	0.59	3.96	µg/tube
Maximum	6.04	5.19	µg/tube
Standard deviation	1.09	0.336	µg/tube
rel. standard deviation	24.7	7.17	%
n	23	19	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: Benzene

Graphical presentation of results

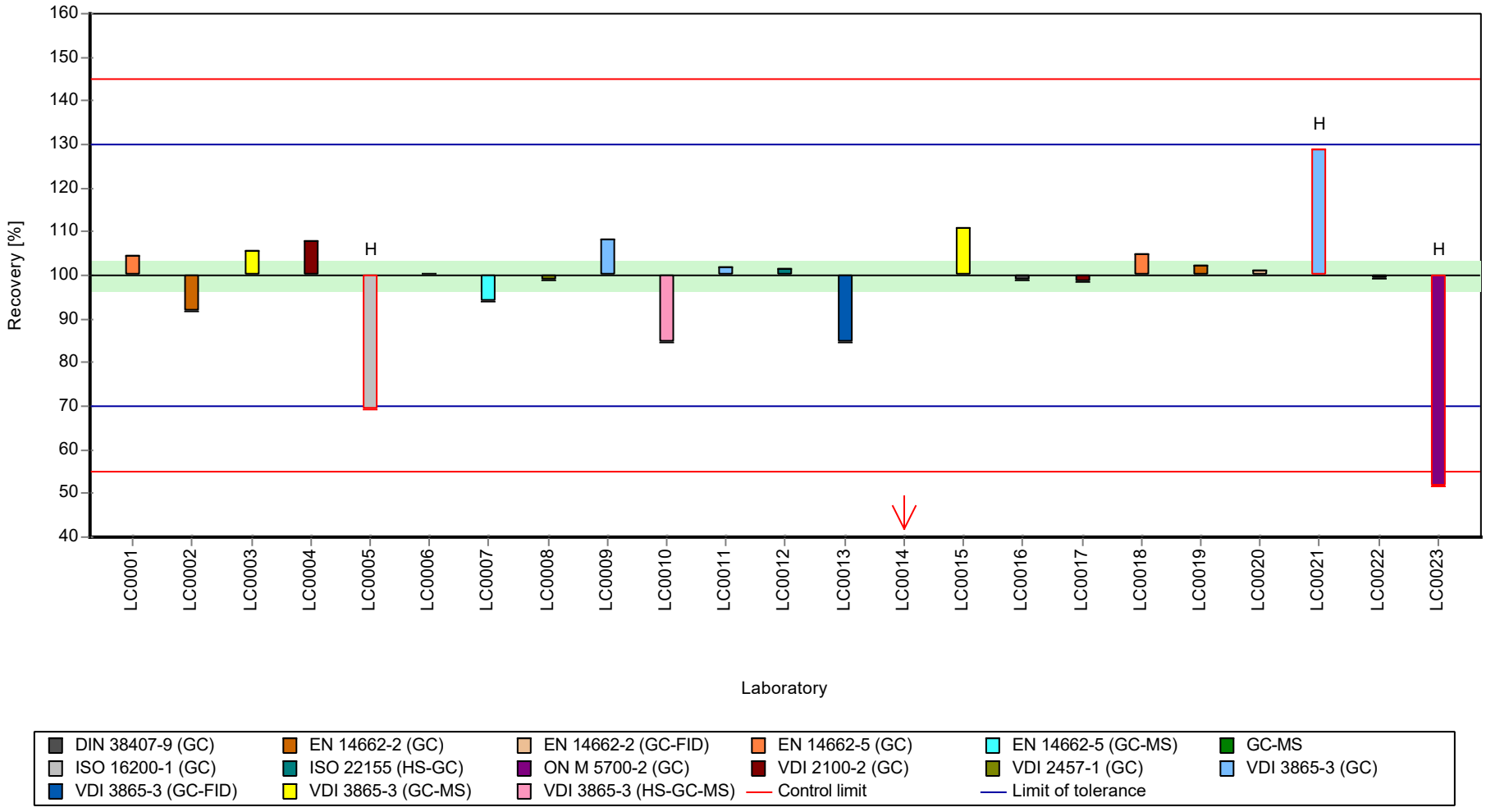
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

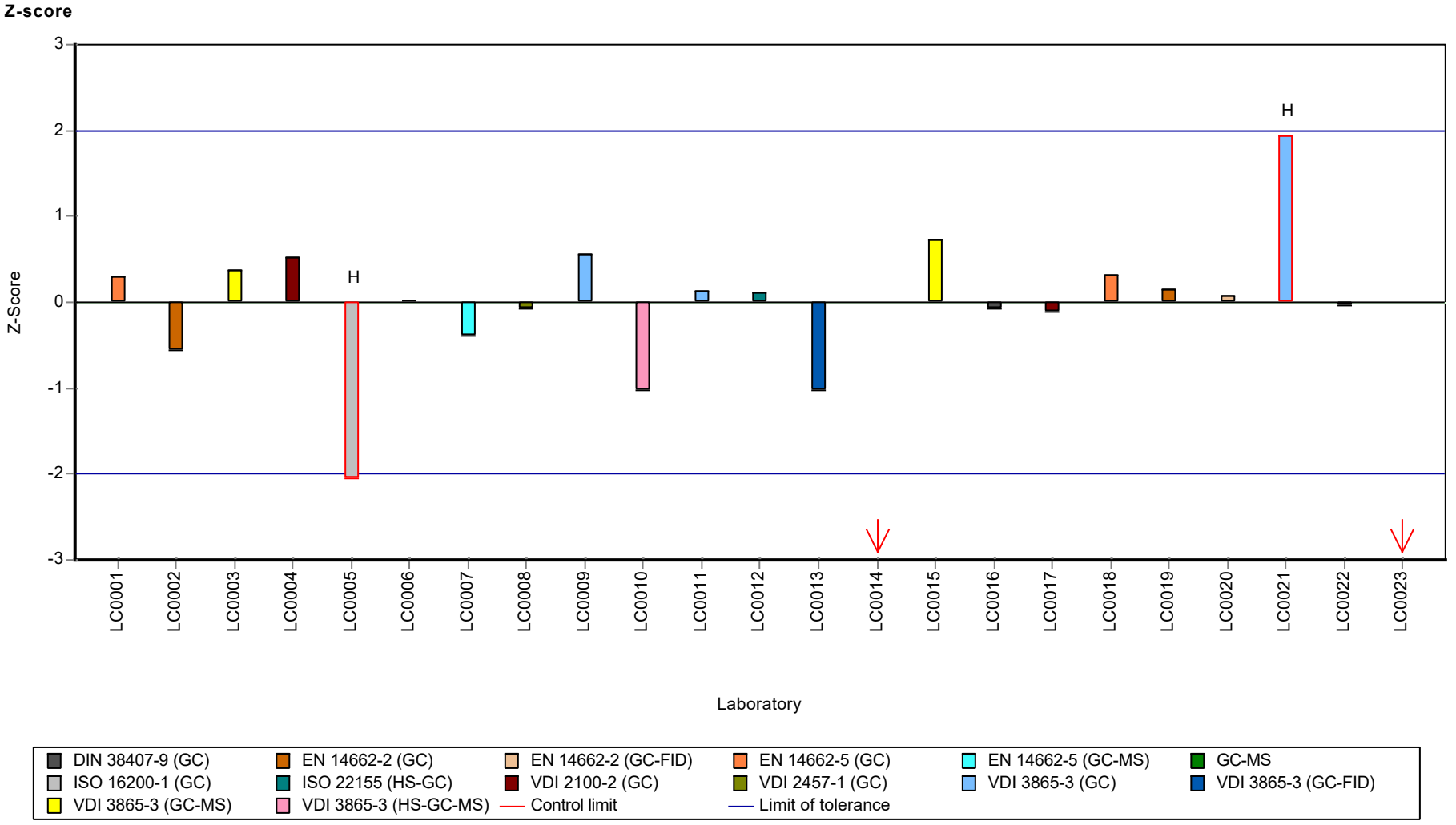
Sample: BL12, Parameter: Benzene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: Benzene



Parameter oriented report

CL11 - CHC

cis-1,2-Dichloroethene

Unit	µg/tube
Assigned value ± U (k=2)	1.72 ± 0.318
Criterion	0.619 (36 %)
Minimum - Maximum	0.46 - 2.64
Control test value ± U (k=2)	1.96 ± 0.412

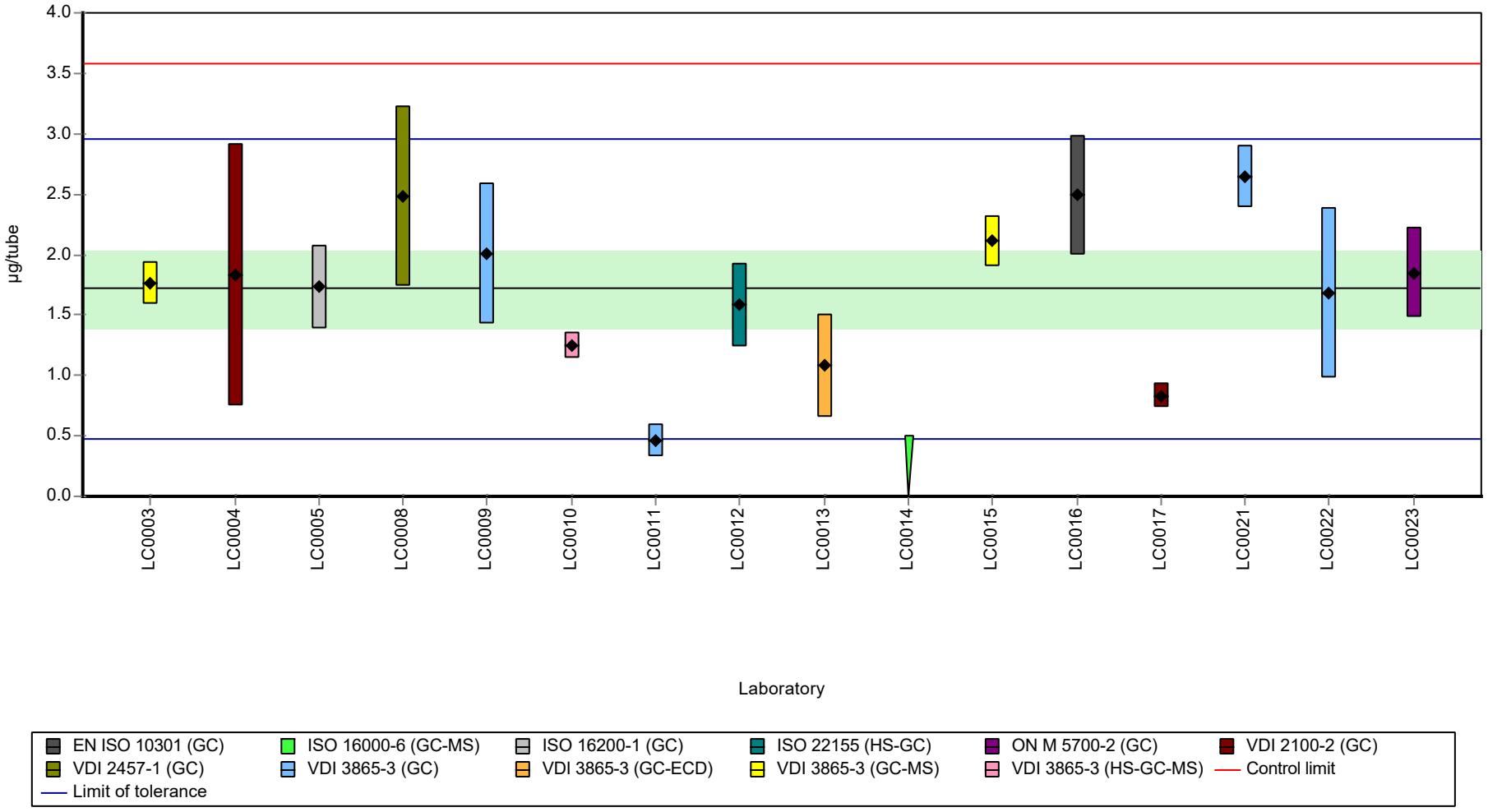
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0003	1.768	0.177	103	0.08	
LC0004	1.83	1.08	106	0.18	
LC0005	1.73	0.346	101	0.02	
LC0006	-	-	-	-	
LC0008	2.48	0.75	144	1.23	
LC0009	2.006	0.582	117	0.46	
LC0010	1.25	0.11	72.7	-0.76	
LC0011	0.46	0.14	26.8	-2.03	
LC0012	1.58	0.35	91.9	-0.22	
LC0013	1.079	0.432	62.8	-1.03	
LC0014	< 0.5 (LOQ)	-	-	-	
LC0015	2.1098	0.21	123	0.63	
LC0016	2.49	0.498	145	1.25	
LC0017	0.831	0.1	48.3	-1.43	
LC0021	2.64	0.26	154	1.49	
LC0022	1.68	0.7	97.7	-0.06	
LC0023	1.85	0.37	108	0.21	

Characteristics of parameter

	all results	w ithout outliers	Unit
Mean ± CI (99%)	1.72 ± 0.477	1.72 ± 0.477	µg/tube
Minimum	0.46	0.46	µg/tube
Maximum	2.64	2.64	µg/tube
Standard deviation	0.616	0.616	µg/tube
rel. standard deviation	35.8	35.8	%
n	15	15	-

Graphical presentation of results

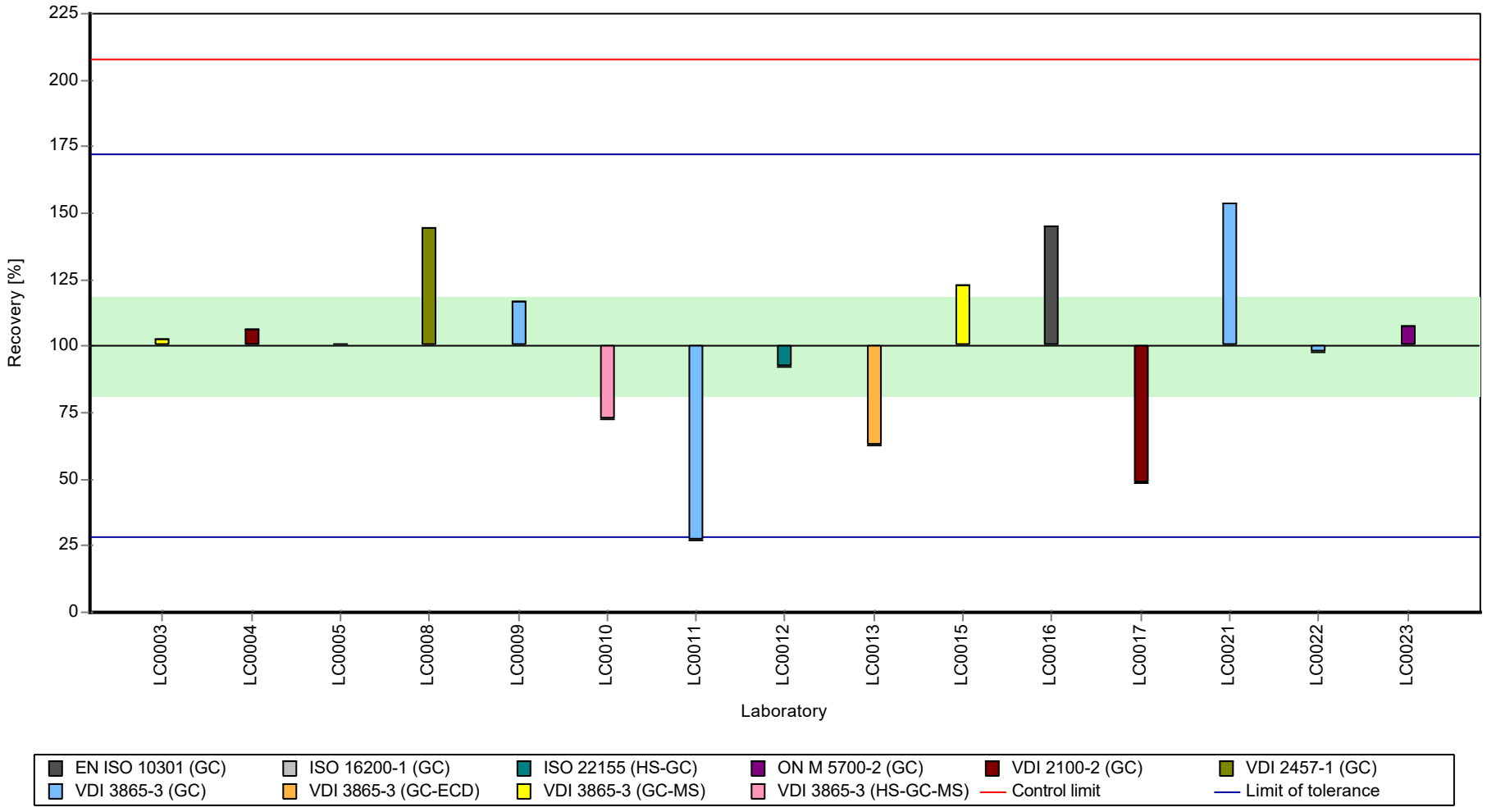
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

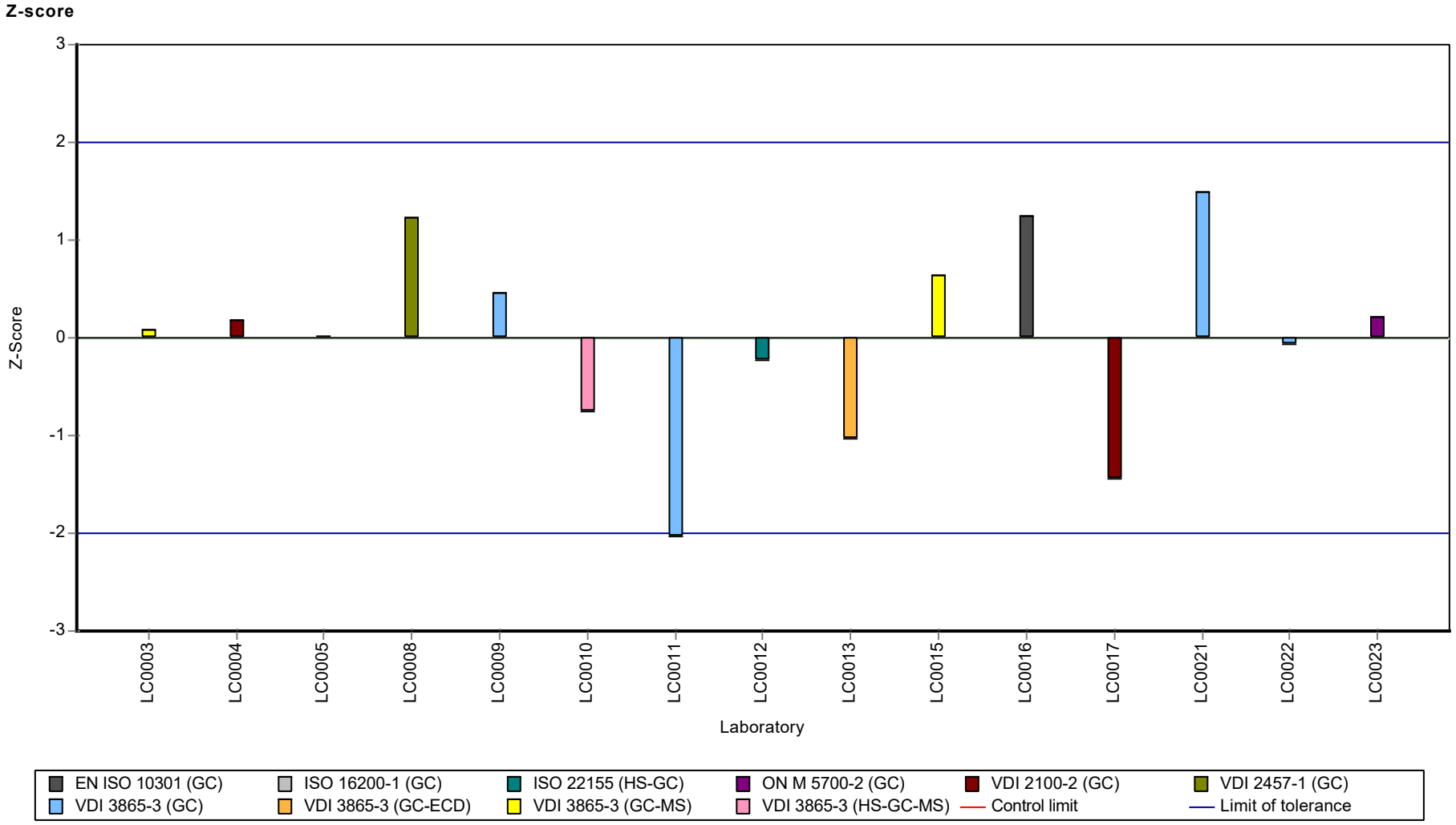
Sample: CL11, Parameter: cis-1,2-Dichloroethene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: cis-1,2-Dichloroethene



Parameter oriented report

BL12 - BTEX & C5-C10

Ethylbenzene

Unit	µg/tube
Assigned value ± U (k=2)	4.28 ± 0.313
Criterion	0.771 (18 %)
Minimum - Maximum	2.72 - 5.25
Control test value ± U (k=2)	3.88 ± 0.775

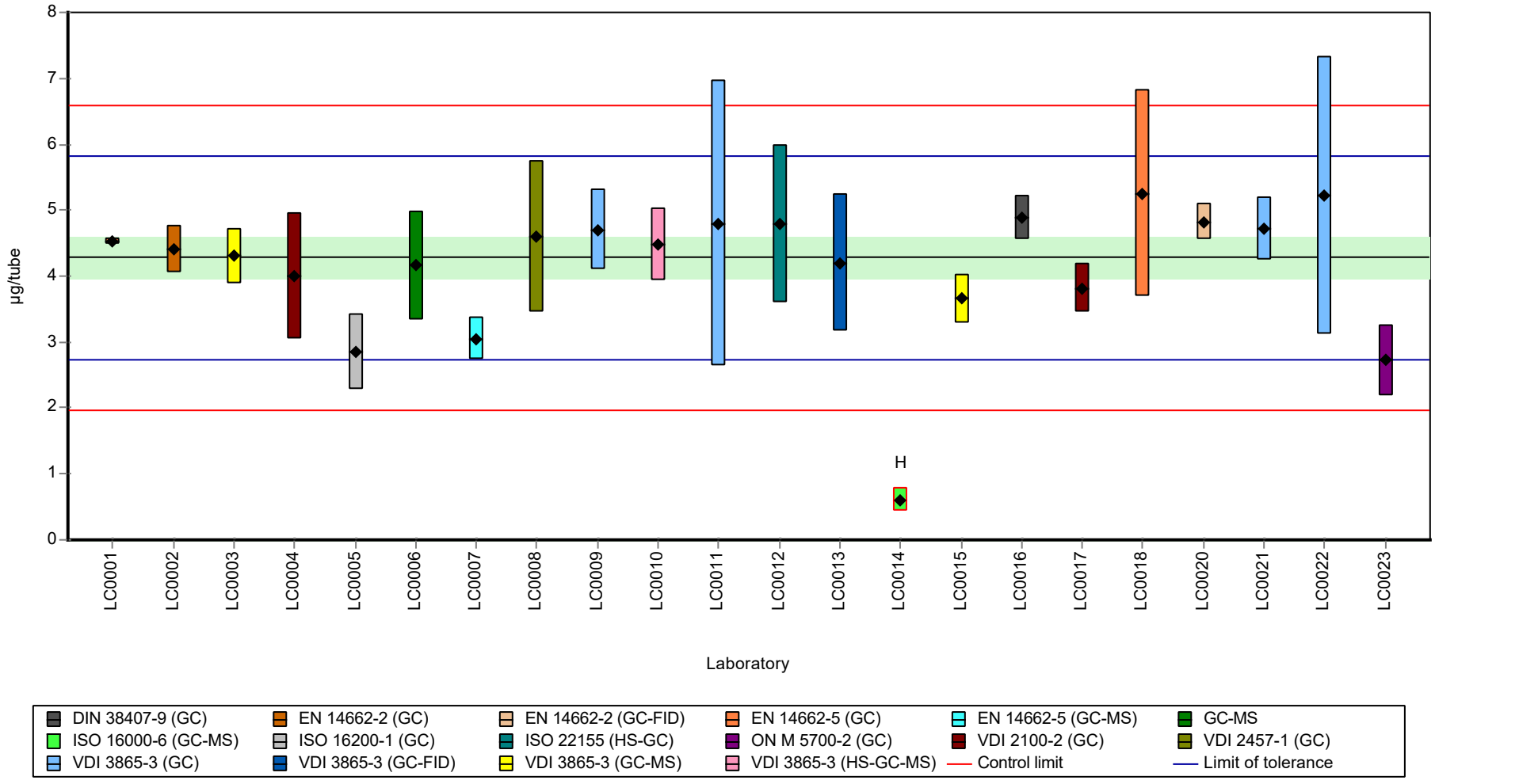
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	4.53	0.05	106	0.32	
LC0002	4.41	0.367	103	0.16	
LC0003	4.3	0.43	100	0.02	
LC0004	3.99	0.958	93.2	-0.38	
LC0005	2.85	0.57	66.5	-1.86	
LC0006	4.16	0.83	97.1	-0.16	
LC0007	3.0506	0.326	71.2	-1.6	
LC0008	4.59	1.15	107	0.4	
LC0009	4.699	0.611	110	0.54	
LC0010	4.47	0.55	104	0.24	
LC0011	4.8	2.16	112	0.67	
LC0012	4.79	1.2	112	0.66	
LC0013	4.2	1.05	98.1	-0.11	
LC0014	0.61	0.183	14.2	-4.76	H
LC0015	3.6622	0.37	85.5	-0.81	
LC0016	4.89	0.342	114	0.79	
LC0017	3.82	0.38	89.2	-0.6	
LC0018	5.25	1.57	123	1.25	
LC0019	-	-	-	-	
LC0020	4.825	0.27	113	0.7	
LC0021	4.72	0.47	110	0.57	
LC0022	5.22	2.1	122	1.22	
LC0023	2.72	0.54	63.5	-2.03	

Characteristics of parameter

	all results	w ithout outliers	Unit
Mean ± CI (99%)	4.12 ± 0.672	4.28 ± 0.47	µg/tube
Minimum	0.61	2.72	µg/tube
Maximum	5.25	5.25	µg/tube
Standard deviation	1.05	0.717	µg/tube
rel. standard deviation	25.5	16.7	%
n	22	21	-

Graphical presentation of results

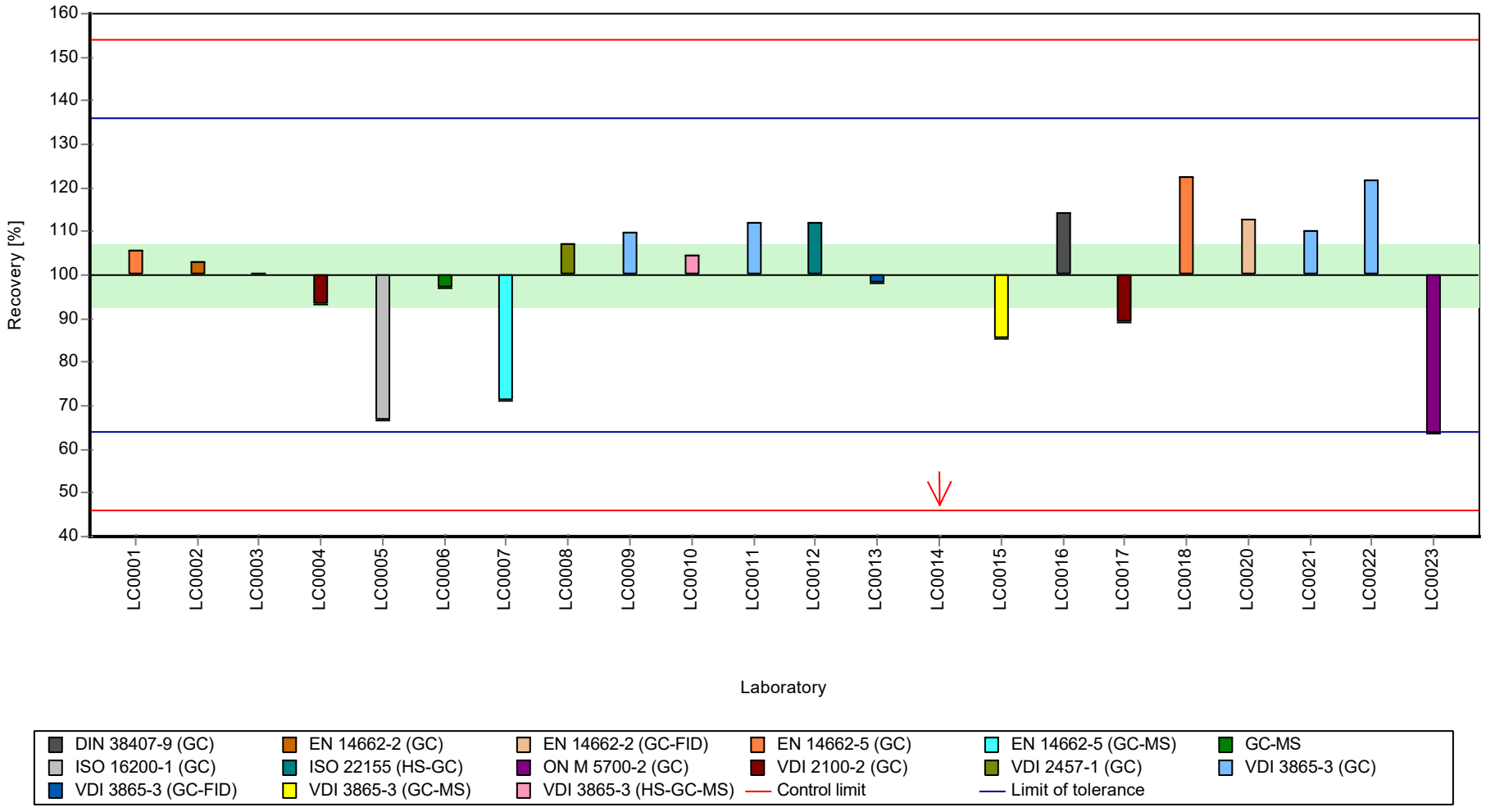
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

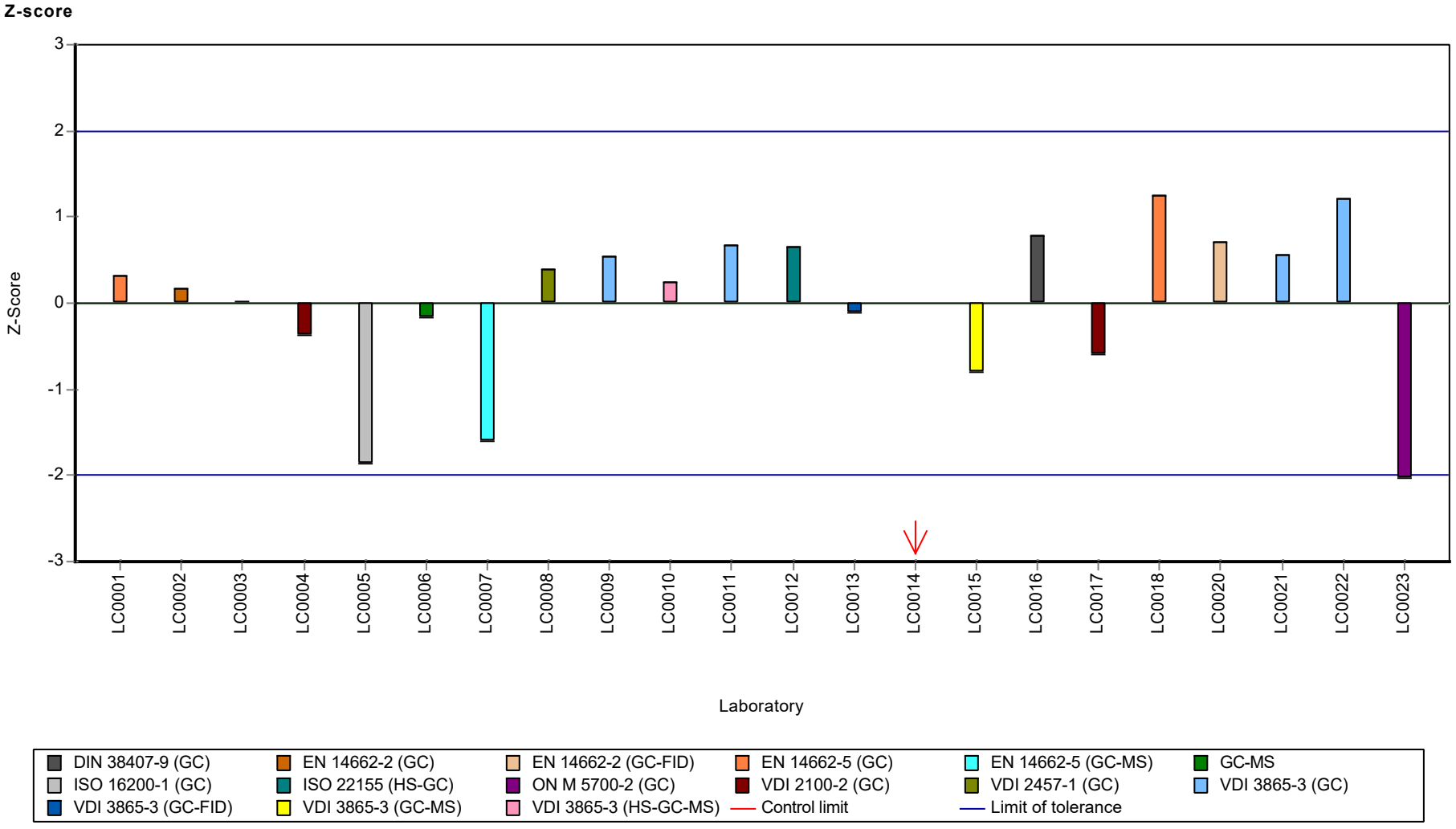
Sample: BL12, Parameter: Ethylbenzene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: Ethylbenzene



Parameter oriented report

BL12 - BTEX & C5-C10

n-Decane

Unit	µg/tube
Assigned value ± U (k=2)	2.43 ± 0.409
Criterion	0.73 (30 %)
Minimum - Maximum	1.58 - 3.69
Control test value ± U (k=2)	2.60 ± 0.286

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	3.69	0.734	152	1.72	
LC0003	-	-	-	-	
LC0004	1.96	0.529	80.6	-0.65	
LC0005	2.09	0.418	85.9	-0.47	
LC0006	5.63	1.13	231	4.38	H
LC0007	-	-	-	-	
LC0008	-	-	-	-	
LC0009	2.18	0.614	89.6	-0.35	
LC0010	5.83	0.65	240	4.65	H
LC0011	2.38	0.48	97.8	-0.07	
LC0012	2.49	0.25	102	0.08	
LC0013	1.584	0.554	65.1	-1.16	
LC0014	< 2 (LOQ)	-	-	-	
LC0015	1.9767	0.2	81.2	-0.63	
LC0016	-	-	-	-	
LC0017	2.65	0.33	109	0.3	
LC0018	-	-	-	-	
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	-	-	-	-	
LC0022	3.33	1.3	137	1.23	
LC0023	-	-	-	-	

Characteristics of parameter

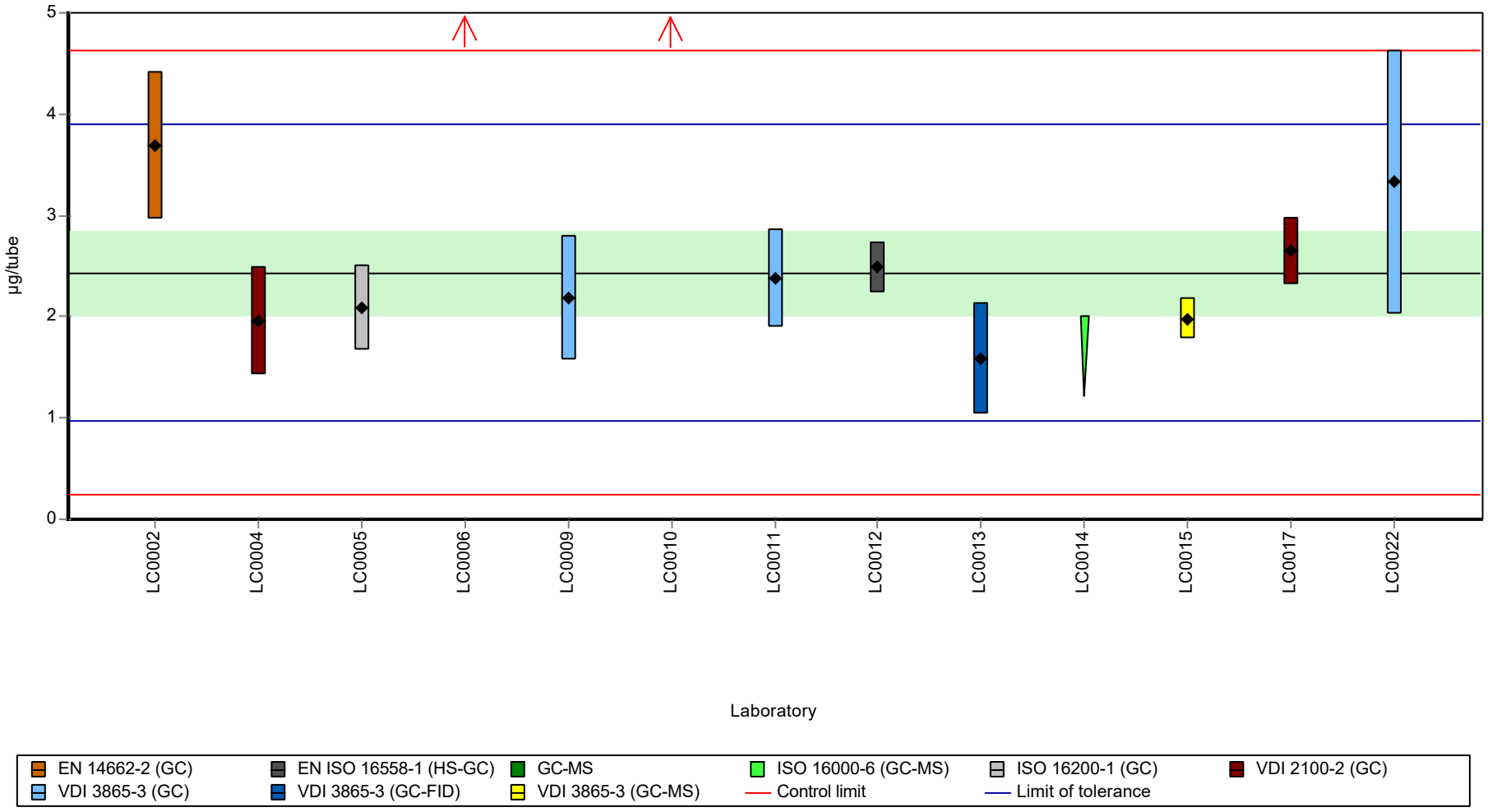
	all results	without outliers	Unit
Mean ± CI (99%)	2.98 ± 1.22	2.43 ± 0.614	µg/tube
Minimum	1.58	1.58	µg/tube
Maximum	5.83	3.69	µg/tube
Standard deviation	1.41	0.647	µg/tube
rel. standard deviation	47.3	26.6	%
n	12	10	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Decane

Graphical presentation of results

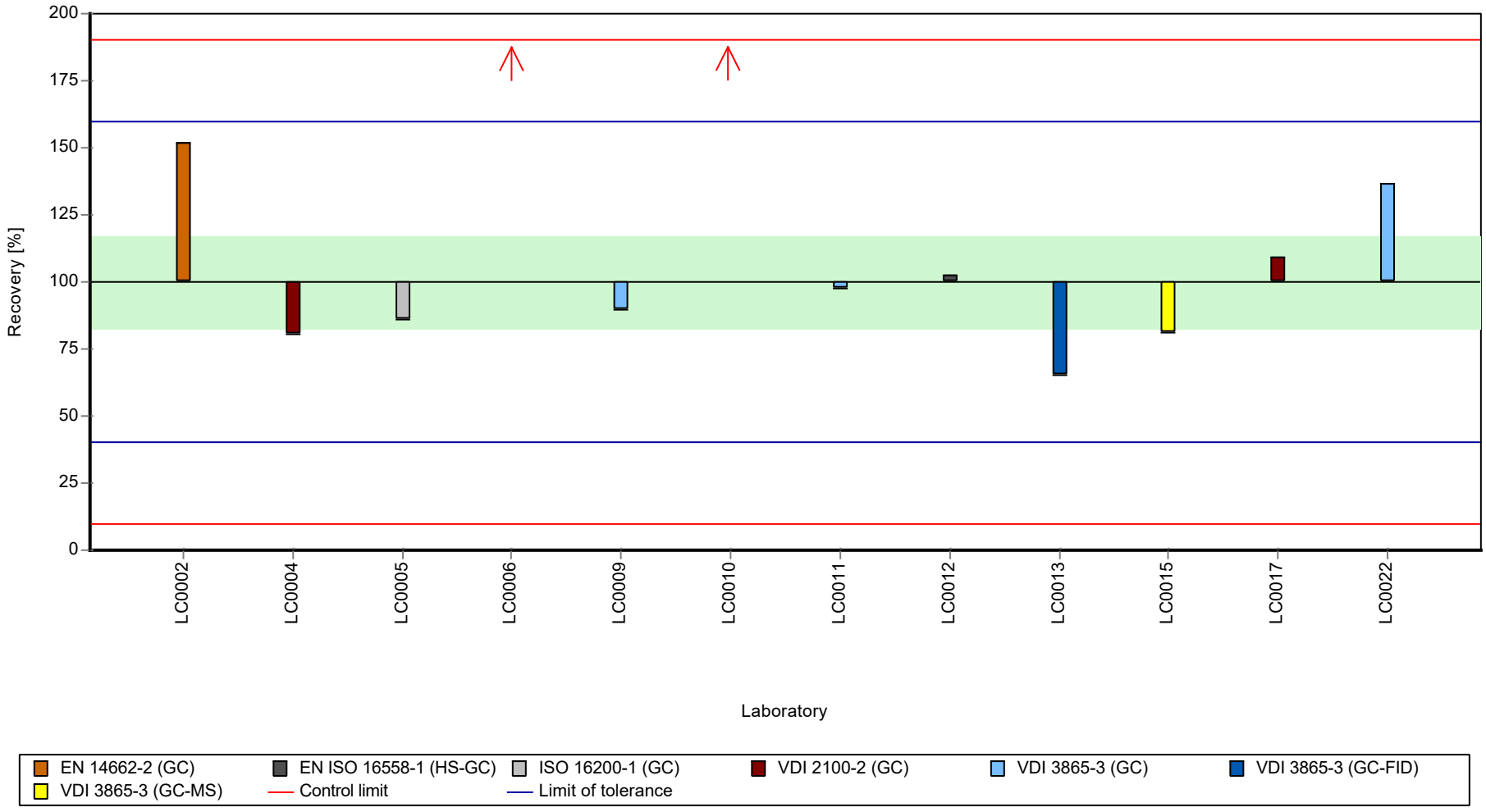
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

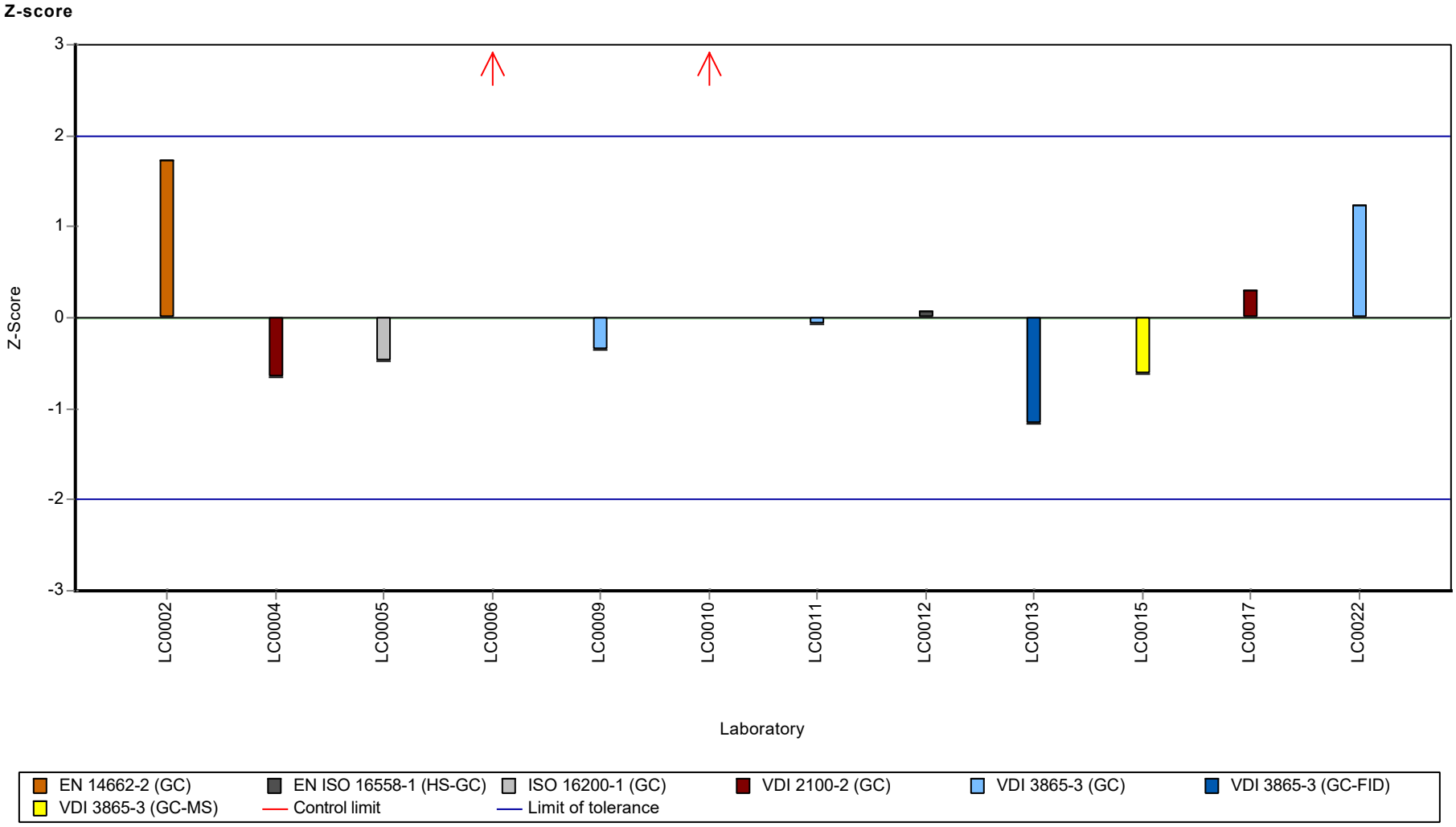
Sample: BL12, Parameter: n-Decane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Decane



Parameter oriented report

BL12 - BTEX & C5-C10

n-Heptane

Unit	µg/tube
Assigned value ± U (k=2)	5.79 ± 0.457
Criterion	1.04 (18 %)
Minimum - Maximum	4.52 - 7.05
Control test value ± U (k=2)	7.03 ± 0.843

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	5.27	0.632	91	-0.5	
LC0003	-	-	-	-	
LC0004	6.27	1.69	108	0.46	
LC0005	4.72	0.94	81.5	-1.03	
LC0006	5.63	1.13	97.2	-0.15	
LC0007	-	-	-	-	
LC0008	-	-	-	-	
LC0009	6.532	0.719	113	0.71	
LC0010	6.08	0.7	105	0.28	
LC0011	5.86	1.17	101	0.07	
LC0012	5.9	0.59	102	0.11	
LC0013	4.522	1.02	78.1	-1.22	
LC0014	< 2 (LOQ)	-	-	-	FN
LC0015	7.0484	0.7	122	1.21	
LC0016	-	-	-	-	
LC0017	5.52	0.49	95.3	-0.26	
LC0018	-	-	-	-	
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	28.8	4.32	497	22.08	H
LC0022	6.2	2.5	107	0.39	
LC0023	-	-	-	-	

Characteristics of parameter

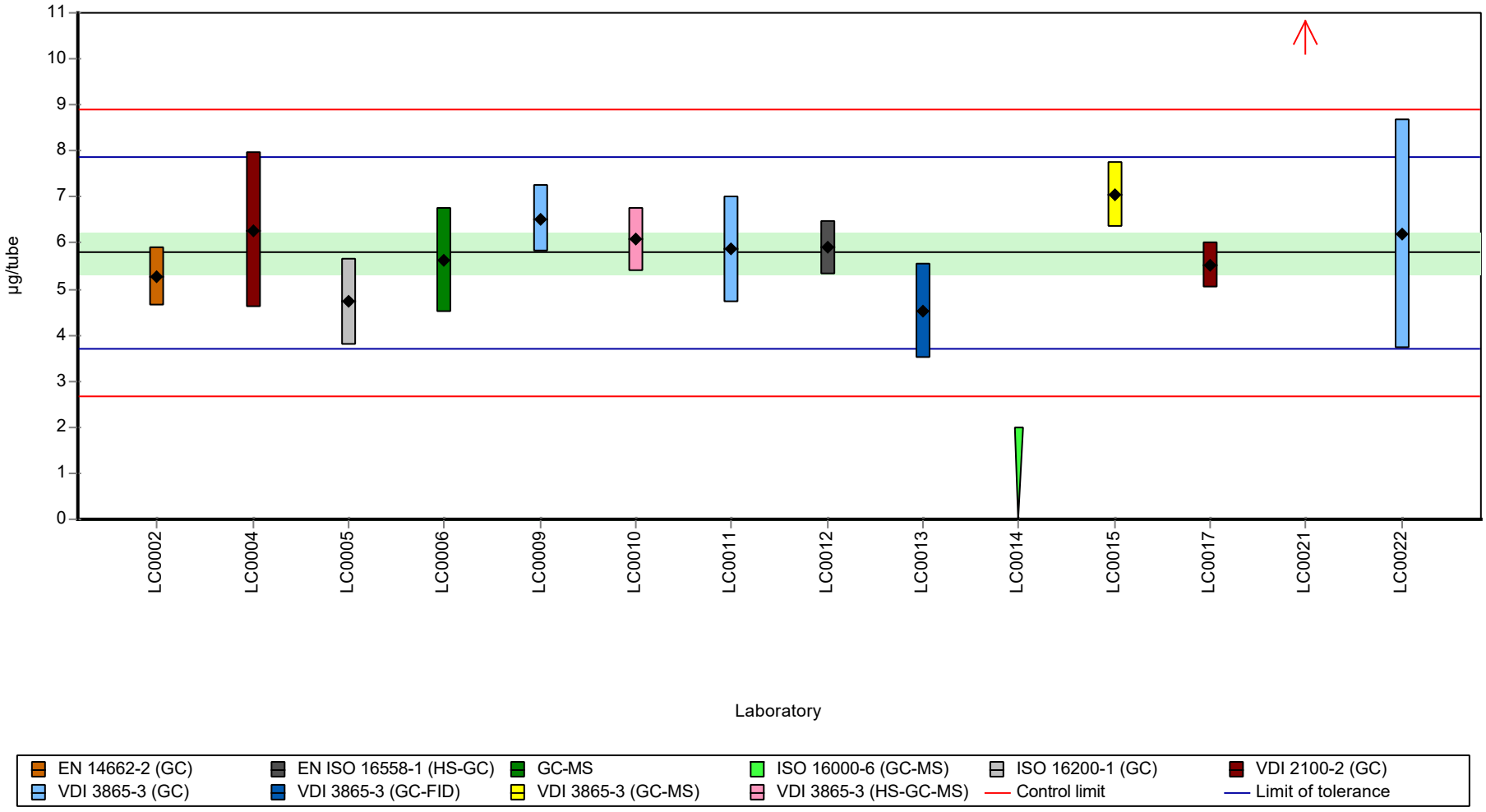
	all results	w ithout outliers	Unit
Mean ± CI (99%)	7.57 ± 5.34	5.8 ± 0.626	µg/tube
Minimum	4.52	4.52	µg/tube
Maximum	28.8	7.05	µg/tube
Standard deviation	6.42	0.723	µg/tube
rel. standard deviation	84.8	12.5	%
n	13	12	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Heptane

Graphical presentation of results

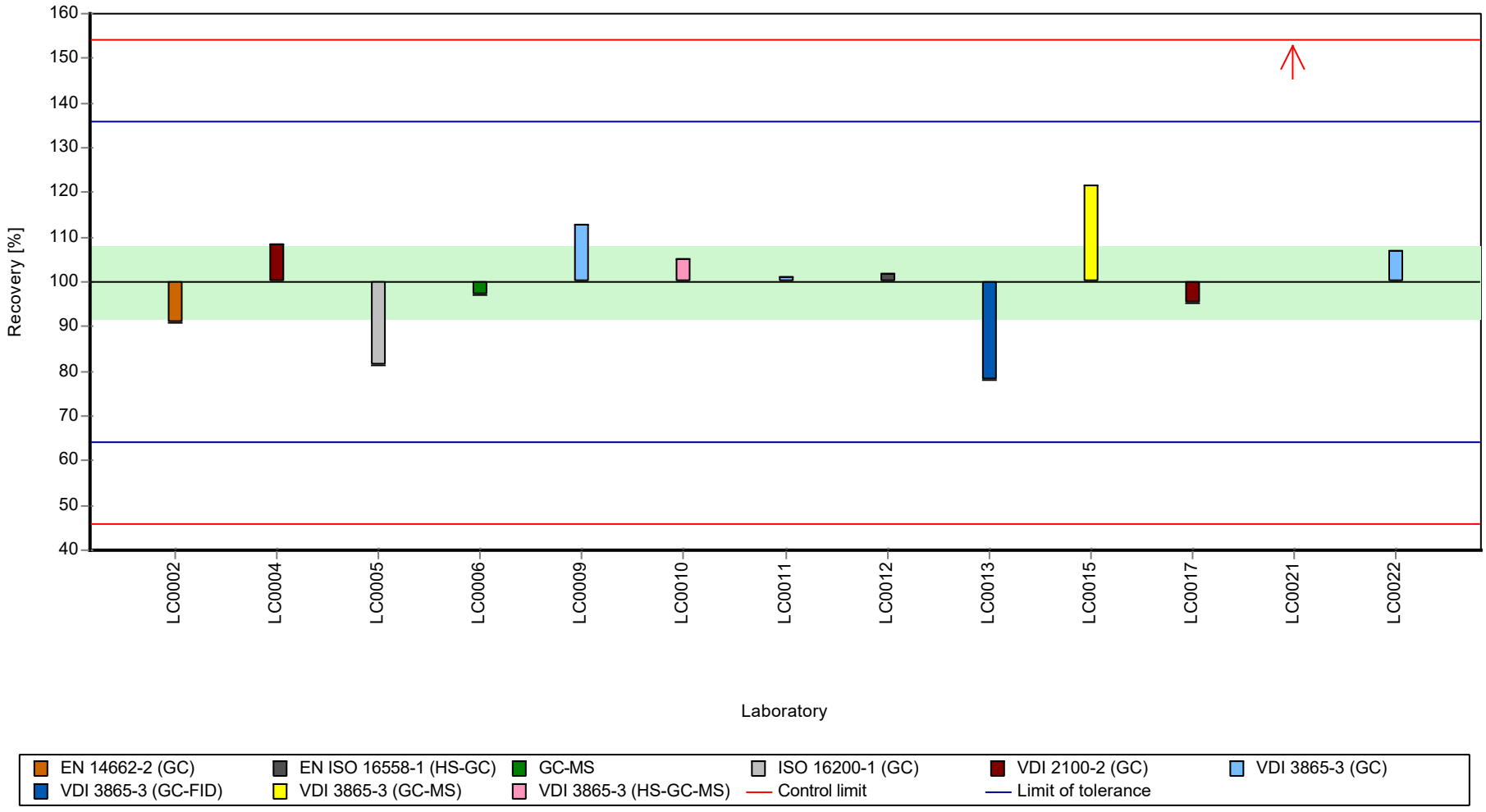
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

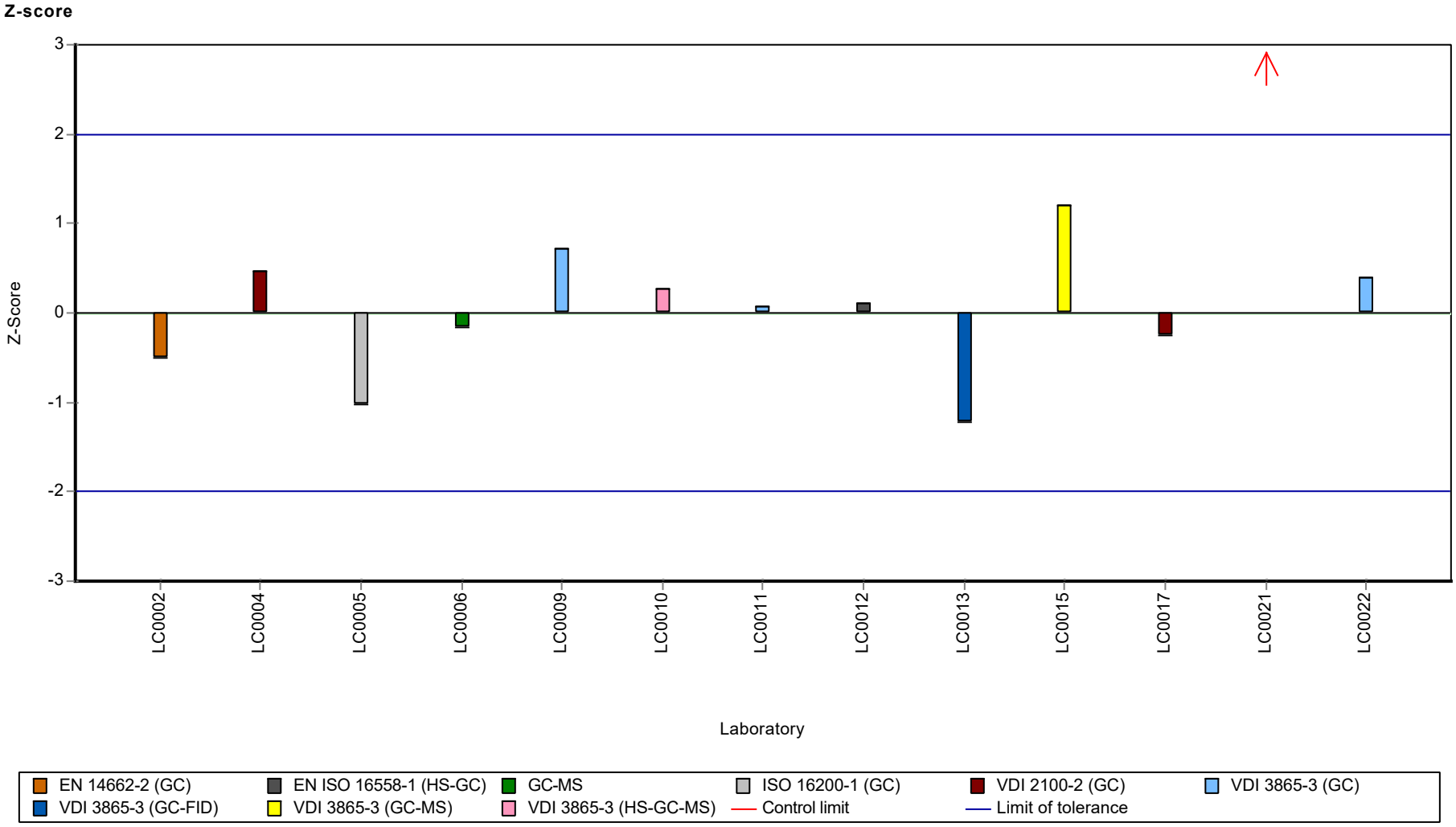
Sample: BL12, Parameter: n-Heptane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Heptane



Parameter oriented report

BL12 - BTEX & C5-C10

n-Hexane

Unit	µg/tube
Assigned value ± U (k=2)	6.03 ± 0.453
Criterion	0.964 (16 %)
Minimum - Maximum	4.71 - 6.82
Control test value ± U (k=2)	6.95 ± 0.695

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	-	-	-	-	
LC0004	6.25	1.69	104	0.23	
LC0005	-	-	-	-	
LC0006	5.63	1.13	93.4	-0.41	
LC0007	-	-	-	-	
LC0008	-	-	-	-	
LC0009	6.041	1.027	100	0.02	
LC0010	6	0.62	99.6	-0.03	
LC0011	5.86	1.17	97.3	-0.17	
LC0012	3.81	0.38	63.2	-2.3	H
LC0013	4.713	1.18	78.2	-1.36	
LC0014	< 2 (LOQ)	-	-	-	FN
LC0015	6.82	0.68	113	0.82	
LC0016	-	-	-	-	
LC0017	6.2	0.6	103	0.18	
LC0018	-	-	-	-	
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	58.9	8.84	978	54.84	H
LC0022	6.55	2.6	109	0.54	
LC0023	-	-	-	-	

Characteristics of parameter

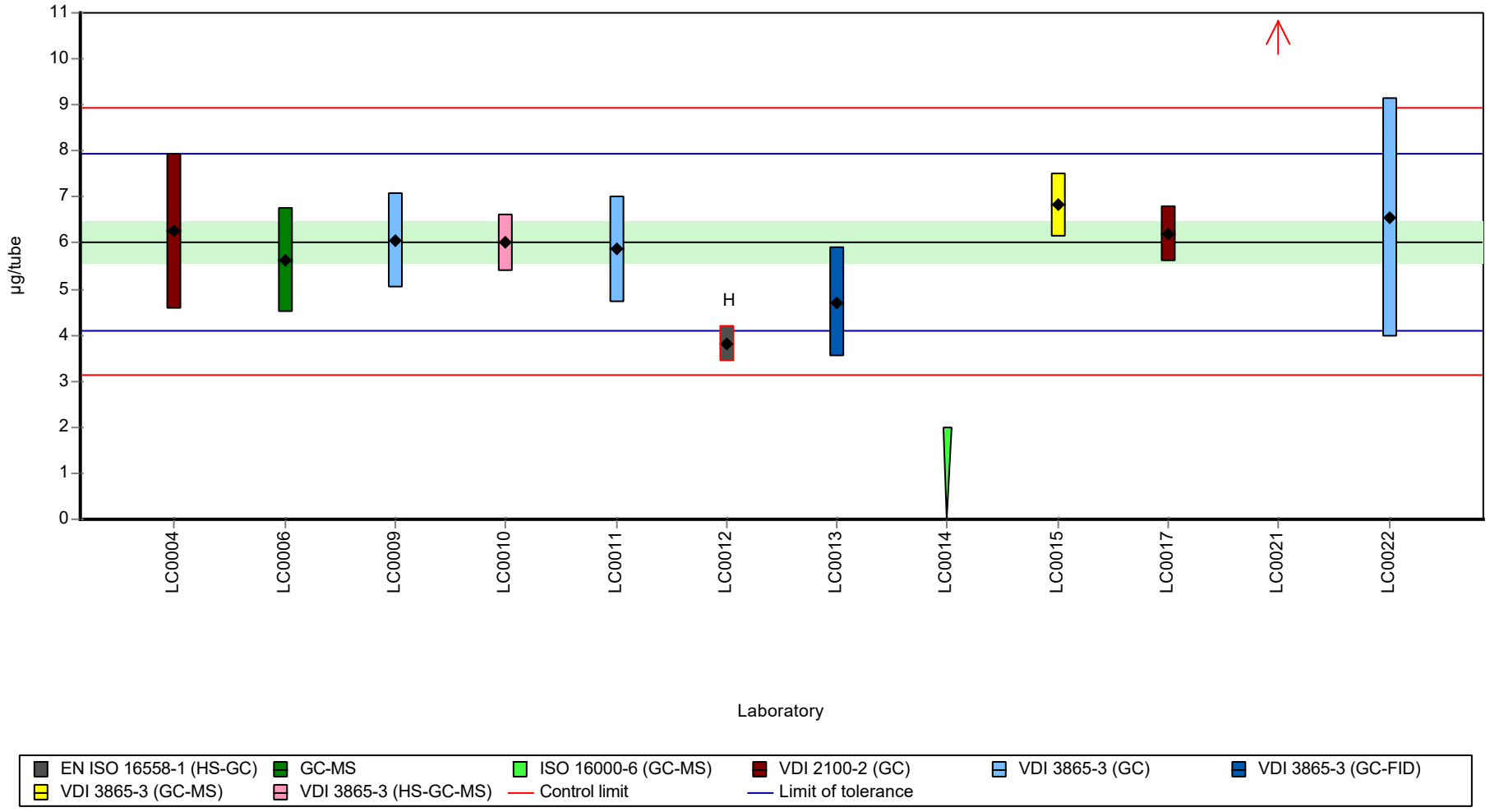
	all results	w ithout outliers	Unit
Mean ± CI (99%)	10.6 ± 14.5	6.01 ± 0.601	µg/tube
Minimum	3.81	4.71	µg/tube
Maximum	58.9	6.82	µg/tube
Standard deviation	16	0.601	µg/tube
rel. standard deviation	151	10	%
n	11	9	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Hexane

Graphical presentation of results

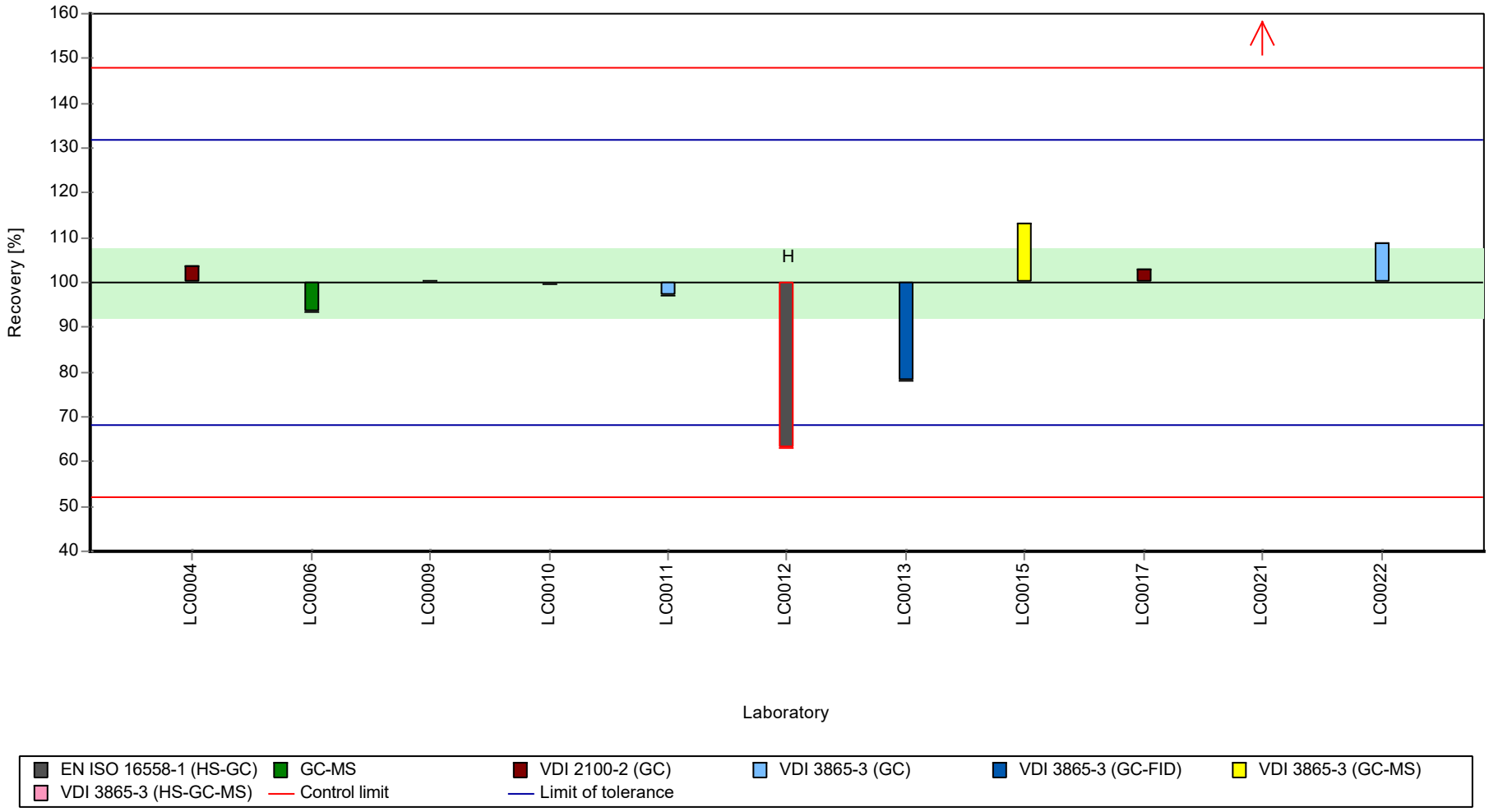
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

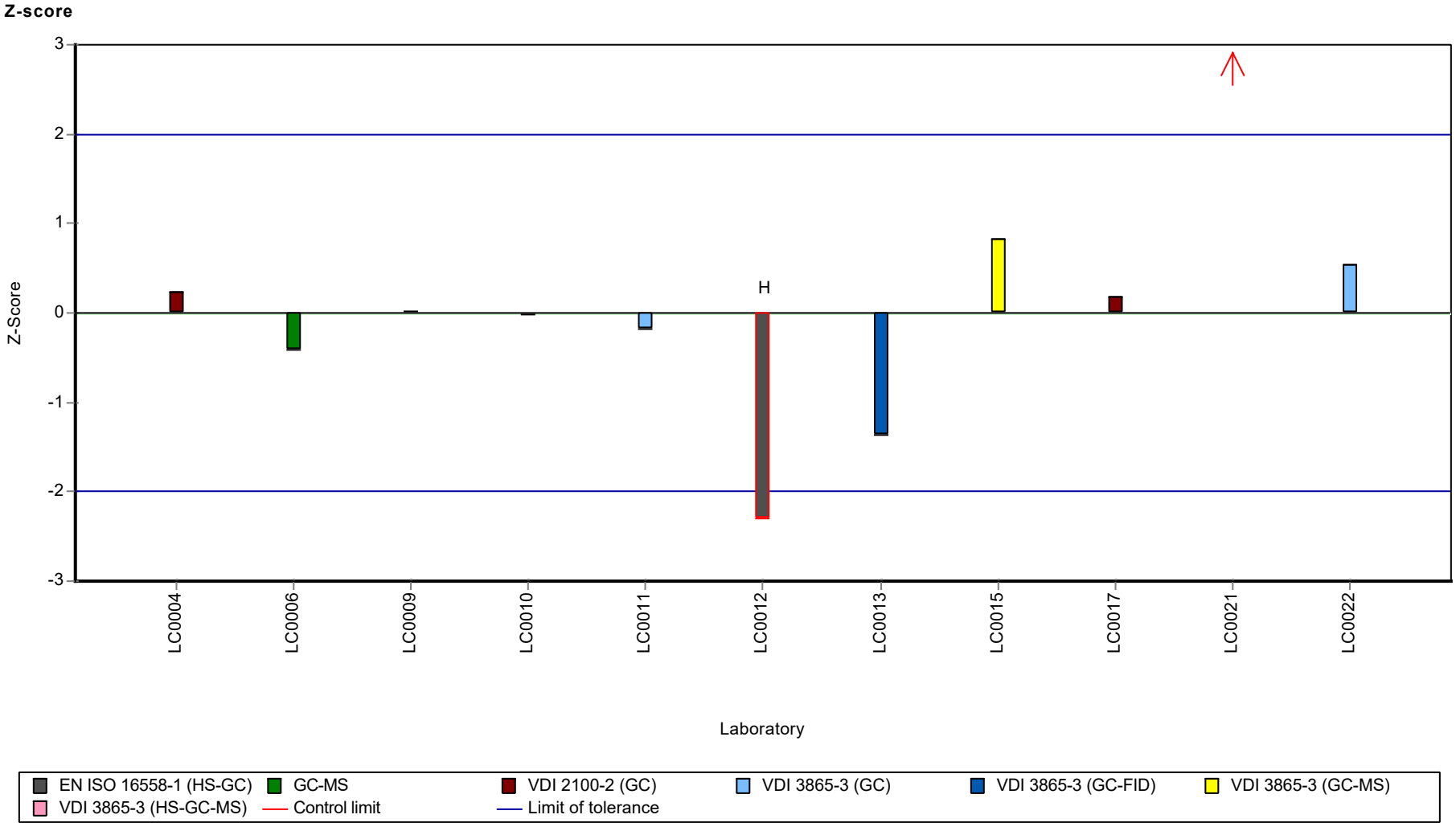
Sample: BL12, Parameter: n-Hexane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Hexane



Parameter oriented report

BL12 - BTEX & C5-C10

n-Nonane

Unit	µg/tube
Assigned value ± U (k=2)	4.28 ± 0.443
Criterion	0.856 (20 %)
Minimum - Maximum	2.99 - 5.63
Control test value ± U (k=2)	4.95 ± 0.545

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	4.84	0.446	113	0.66	
LC0003	-	-	-	-	
LC0004	3.55	0.957	83	-0.85	
LC0005	3.58	0.716	83.7	-0.82	
LC0006	5.63	1.13	132	1.58	
LC0007	-	-	-	-	
LC0008	-	-	-	-	
LC0009	4.366	1.004	102	0.1	
LC0010	7.39	0.88	173	3.64	H
LC0011	4.37	0.87	102	0.11	
LC0012	4.11	0.41	96.1	-0.2	
LC0013	2.994	0.599	70	-1.5	
LC0014	< 2 (LOQ)	-	-	-	FN
LC0015	4.0637	0.41	95	-0.25	
LC0016	-	-	-	-	
LC0017	4.73	0.66	111	0.53	
LC0018	-	-	-	-	
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	-	-	-	-	
LC0022	4.83	1.9	113	0.64	
LC0023	-	-	-	-	

Characteristics of parameter

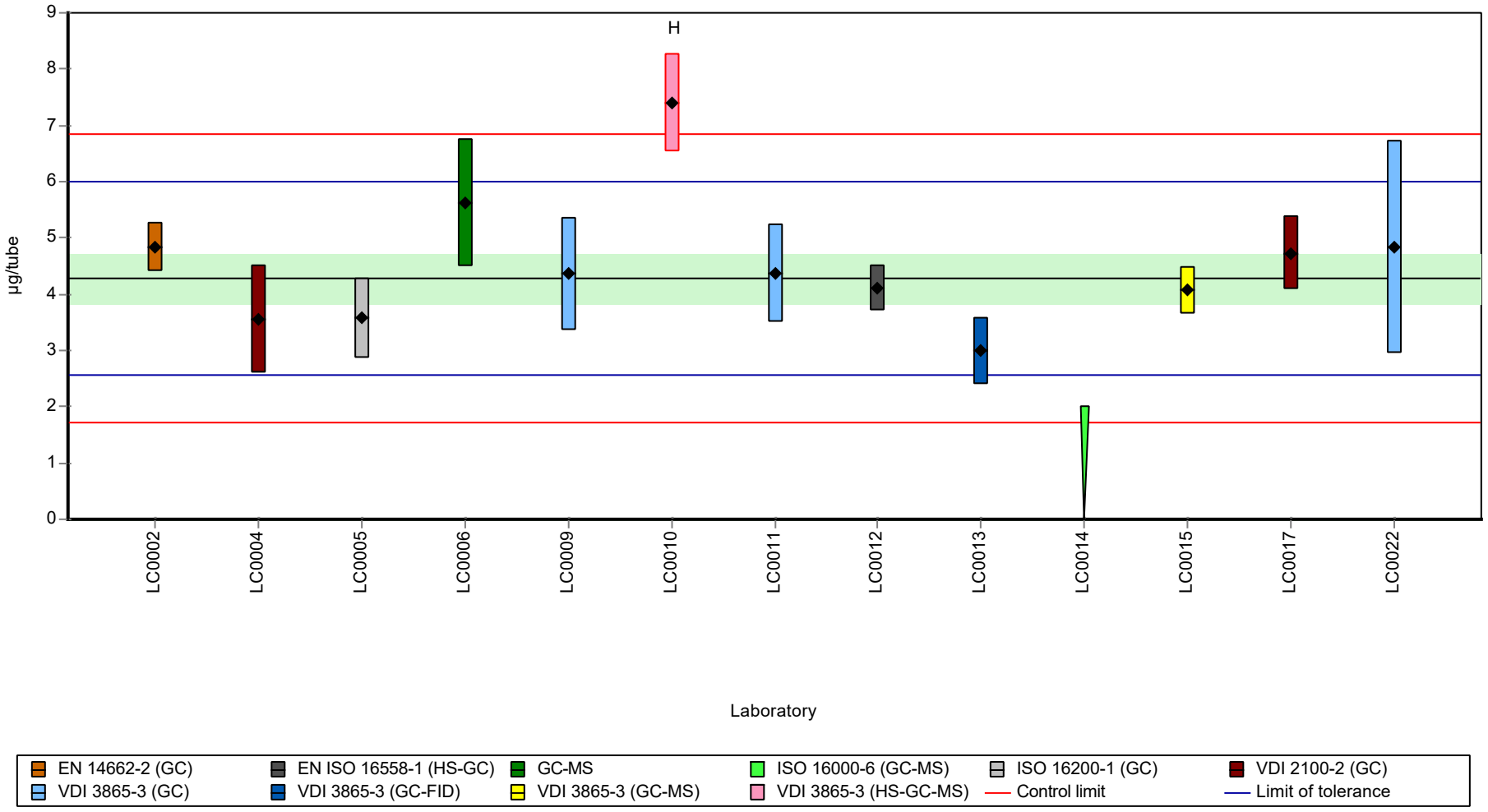
	all results	w ithout outliers	Unit
Mean ± CI (99%)	4.54 ± 0.987	4.28 ± 0.665	µg/tube
Minimum	2.99	2.99	µg/tube
Maximum	7.39	5.63	µg/tube
Standard deviation	1.14	0.735	µg/tube
rel. standard deviation	25.1	17.2	%
n	12	11	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Nonane

Graphical presentation of results

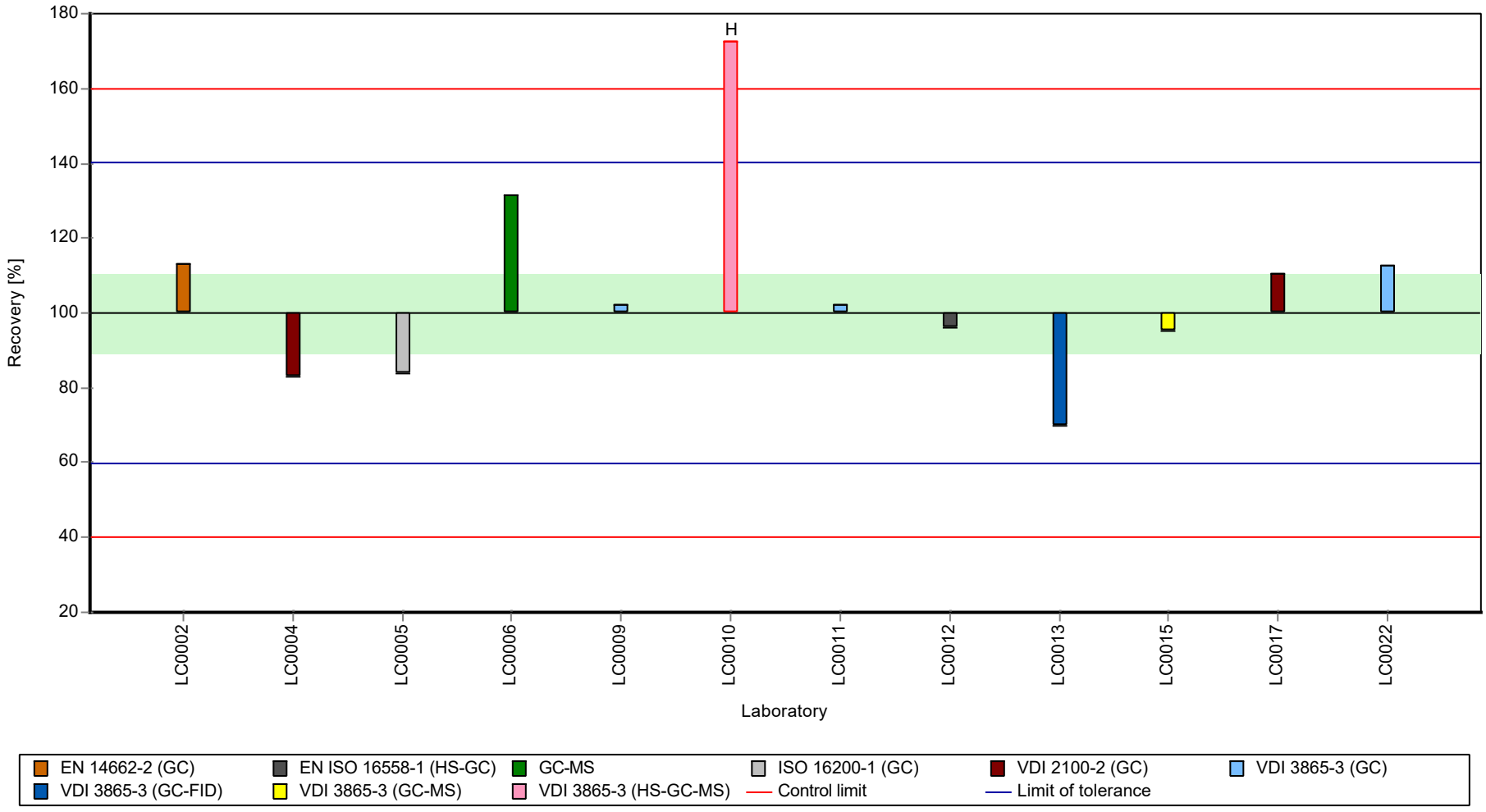
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

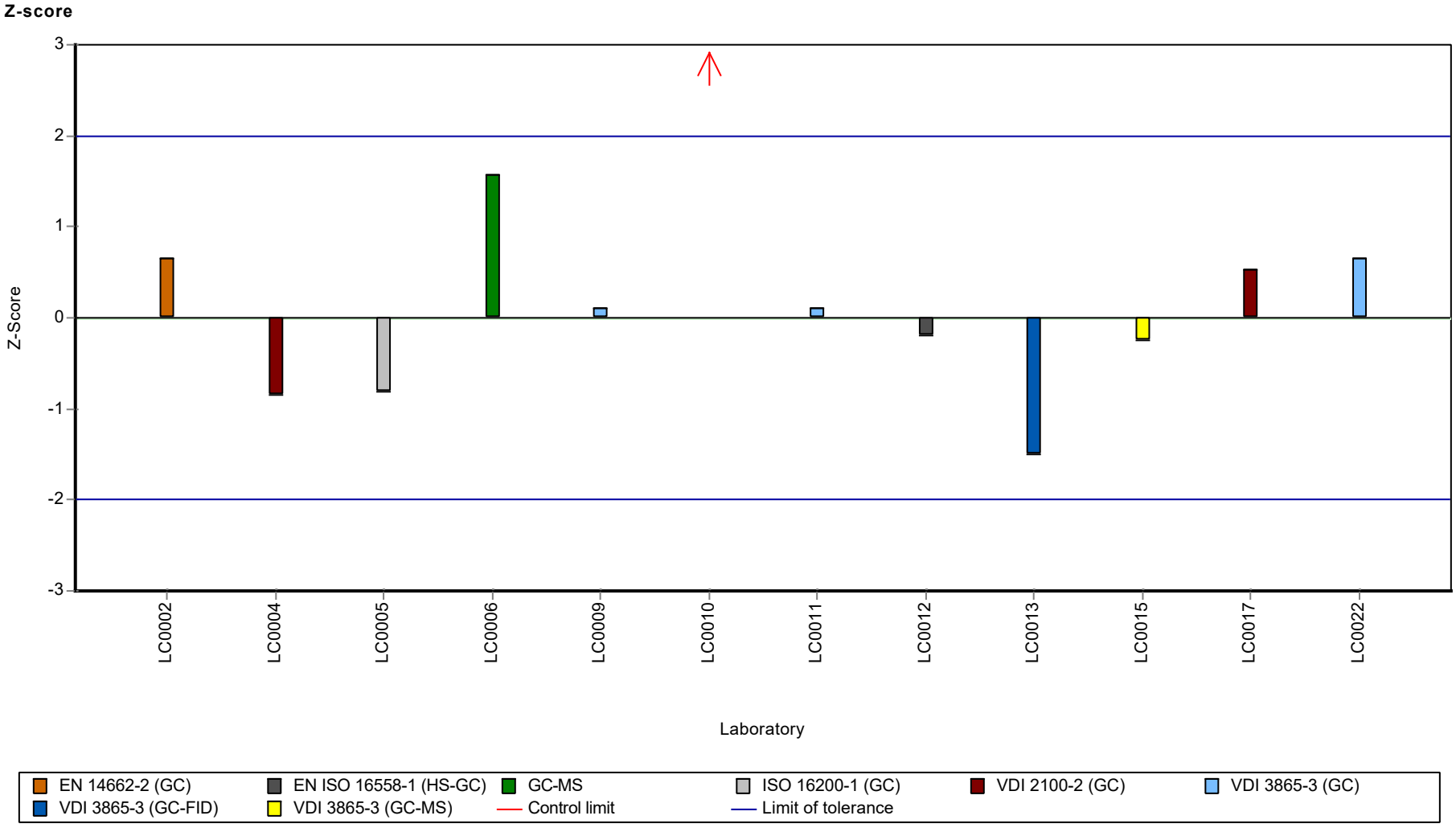
Sample: BL12, Parameter: n-Nonane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Nonane



Parameter oriented report

BL12 - BTEX & C5-C10

n-Octane

Unit	µg/tube
Assigned value ± U (k=2)	5.53 ± 0.404
Criterion	0.94 (17 %)
Minimum - Maximum	4.23 - 6.18
Control test value ± U (k=2)	6.70 ± 0.871

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	5.49	0.493	99.3	-0.04	
LC0003	-	-	-	-	
LC0004	5.49	1.48	99.3	-0.04	
LC0005	4.49	0.898	81.2	-1.11	
LC0006	5.63	1.13	102	0.11	
LC0007	-	-	-	-	
LC0008	-	-	-	-	
LC0009	6.042	0.906	109	0.54	
LC0010	6.16	0.74	111	0.67	
LC0011	5.61	1.12	101	0.08	
LC0012	5.83	0.58	105	0.32	
LC0013	4.227	1.056	76.4	-1.39	
LC0014	< 2 (LOQ)	-	-	-	FN
LC0015	6.1802	0.62	112	0.69	
LC0016	-	-	-	-	
LC0017	5.15	0.5	93.1	-0.41	
LC0018	-	-	-	-	
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	12.1	1.82	219	6.99	H
LC0022	6.15	2.5	111	0.66	
LC0023	-	-	-	-	

Characteristics of parameter

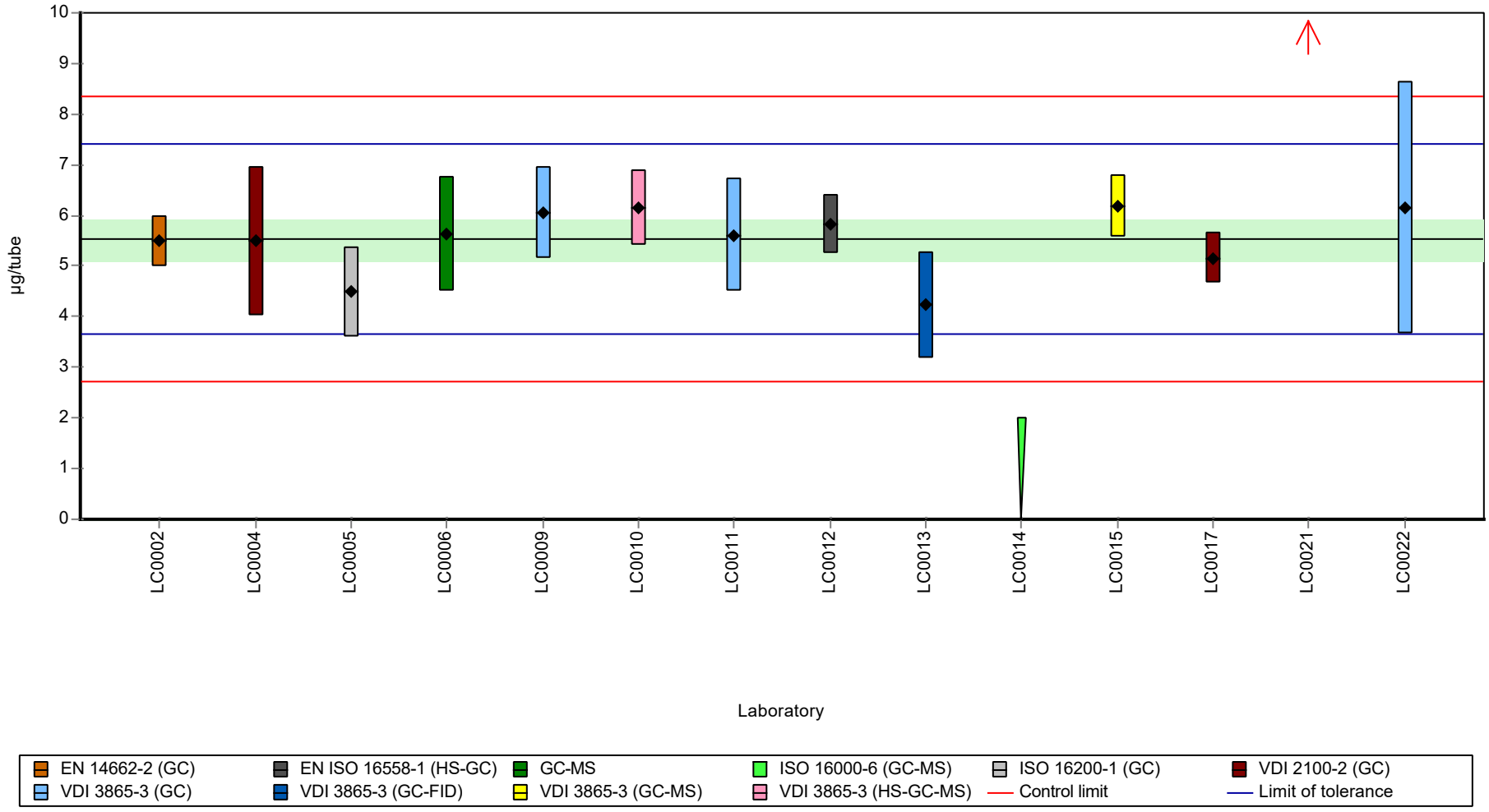
	all results	w ithout outliers	Unit
Mean ± CI (99%)	6.04 ± 1.6	5.54 ± 0.554	µg/tube
Minimum	4.23	4.23	µg/tube
Maximum	12.1	6.18	µg/tube
Standard deviation	1.92	0.64	µg/tube
rel. standard deviation	31.8	11.5	%
n	13	12	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Octane

Graphical presentation of results

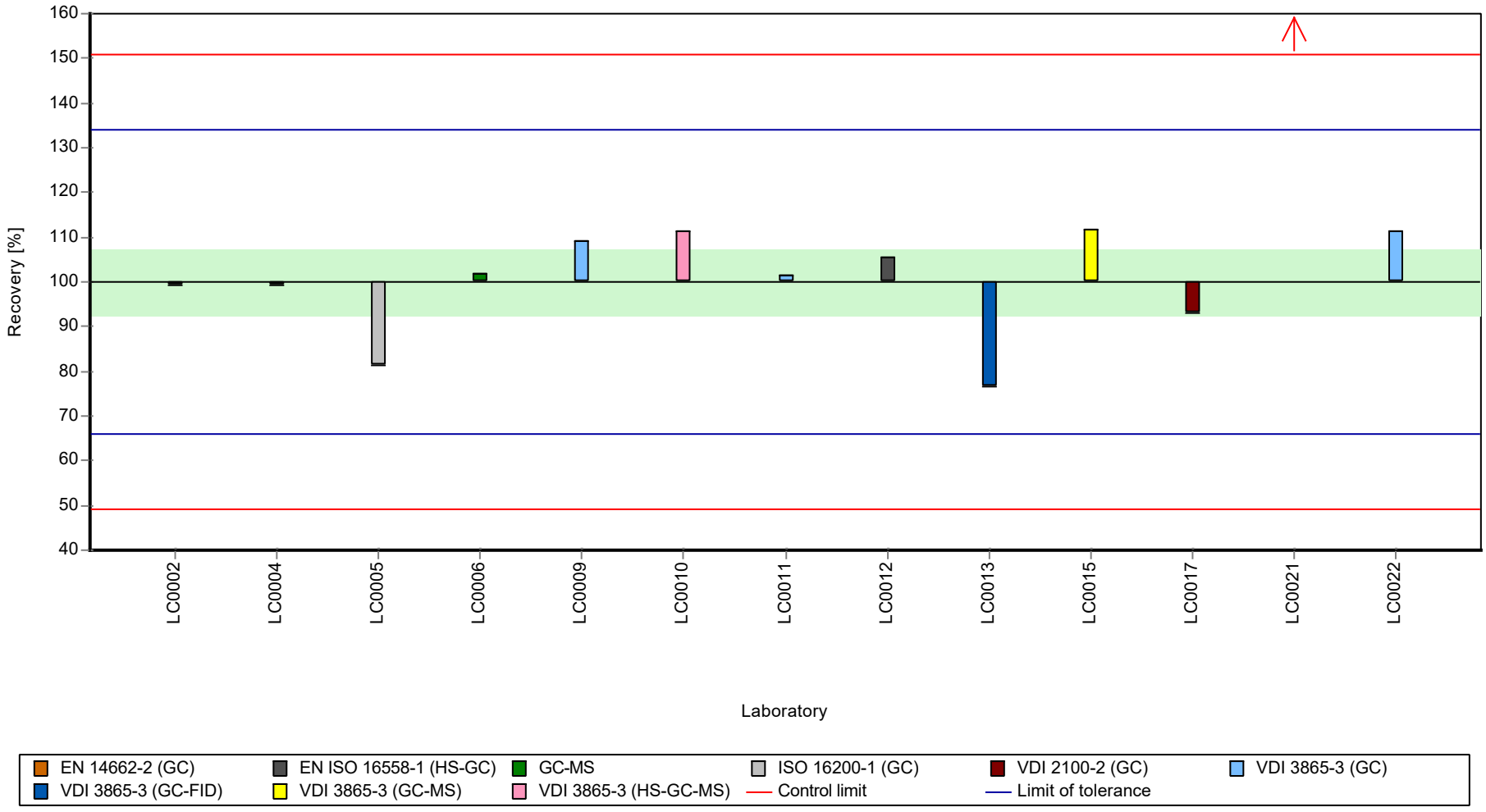
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

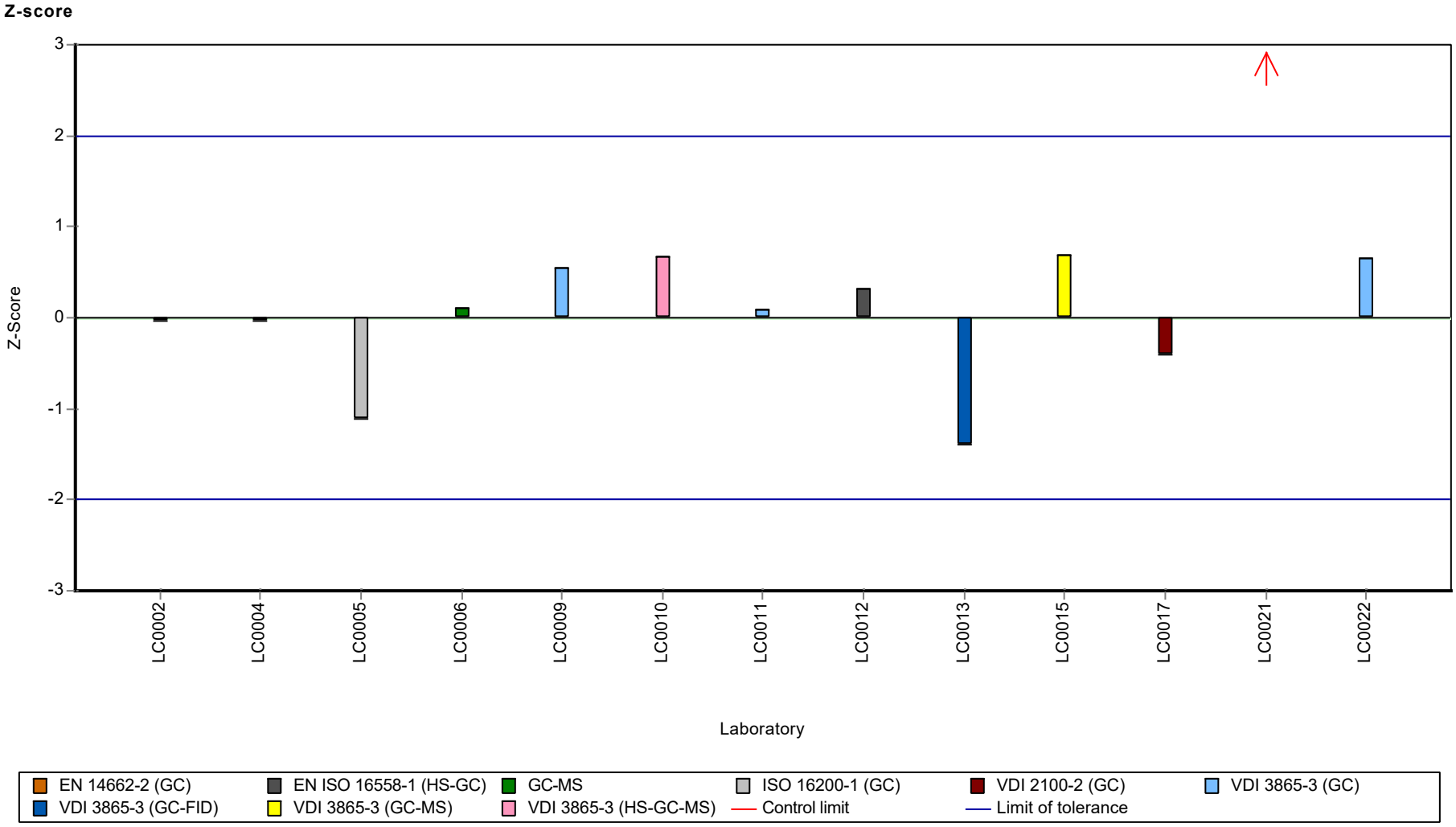
Sample: BL12, Parameter: n-Octane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Octane



Parameter oriented report

BL12 - BTEX & C5-C10

n-Pentane

Unit	µg/tube
Assigned value ± U (k=2)	5.78 ± 0.374
Criterion	1.73 (30 %)
Minimum - Maximum	5.1 - 6.78
Control test value ± U (k=2)	7.13 ± 0.784

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	-	-	-	-	
LC0003	-	-	-	-	
LC0004	5.83	1.57	101	0.03	
LC0005	-	-	-	-	
LC0006	5.63	1.13	97.4	-0.09	
LC0007	-	-	-	-	
LC0008	-	-	-	-	
LC0009	5.438	0.653	94.1	-0.2	
LC0010	5.84	0.7	101	0.04	
LC0011	5.76	1.15	99.7	-0.01	
LC0012	5.1	0.51	88.3	-0.39	
LC0013	5.382	1.076	93.2	-0.23	
LC0014	< 2 (LOQ)	-	-	-	FN
LC0015	8.15	0.82	141	1.37	H
LC0016	-	-	-	-	
LC0017	6.22	1.1	108	0.26	
LC0018	-	-	-	-	
LC0019	-	-	-	-	
LC0020	-	-	-	-	
LC0021	-	-	-	-	
LC0022	6.78	2.7	117	0.58	
LC0023	-	-	-	-	

Characteristics of parameter

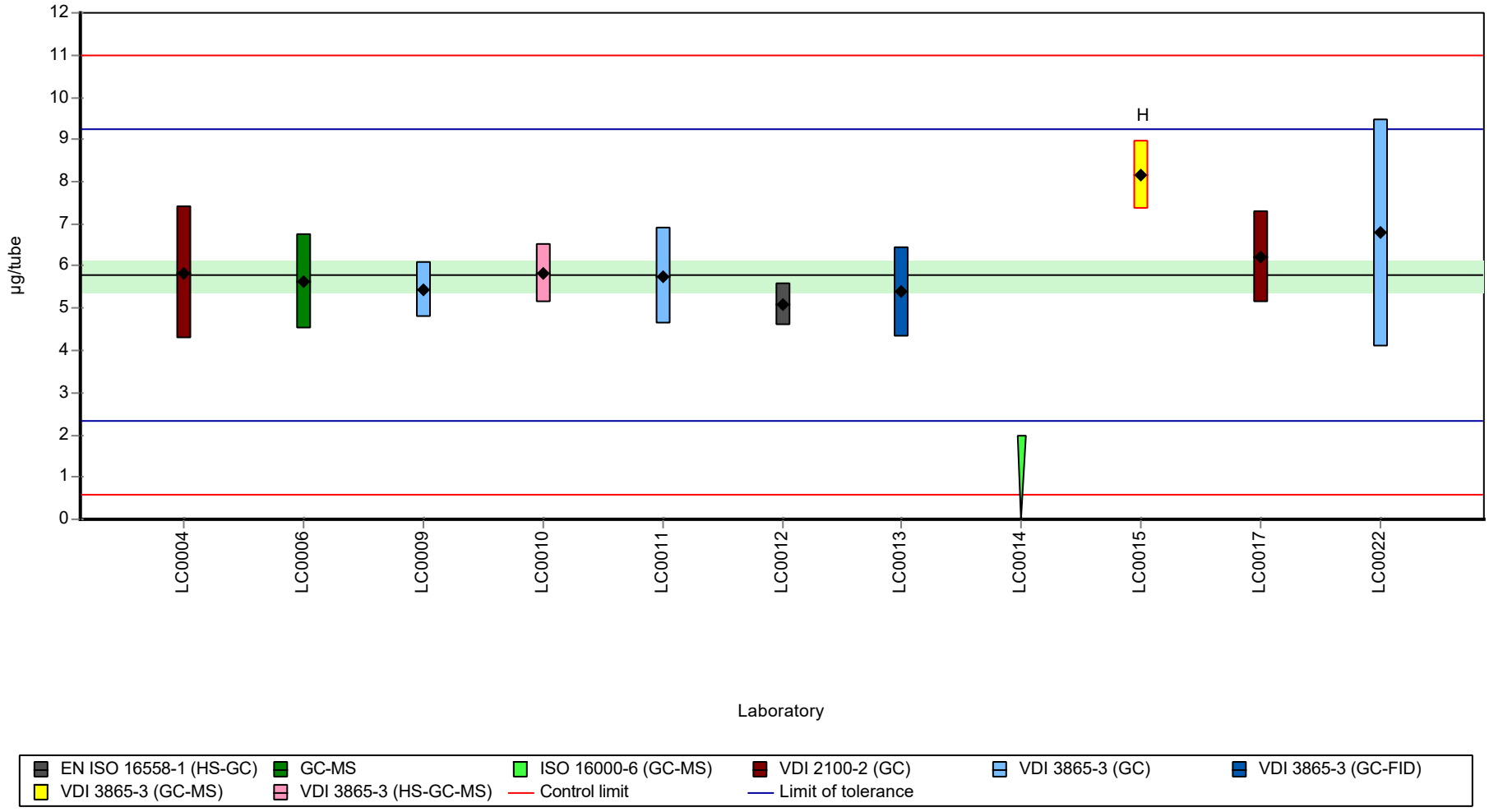
	all results	w ithout outliers	Unit
Mean ± CI (99%)	6.01 ± 0.839	5.78 ± 0.495	µg/tube
Minimum	5.1	5.1	µg/tube
Maximum	8.15	6.78	µg/tube
Standard deviation	0.884	0.495	µg/tube
rel. standard deviation	14.7	8.57	%
n	10	9	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Pentane

Graphical presentation of results

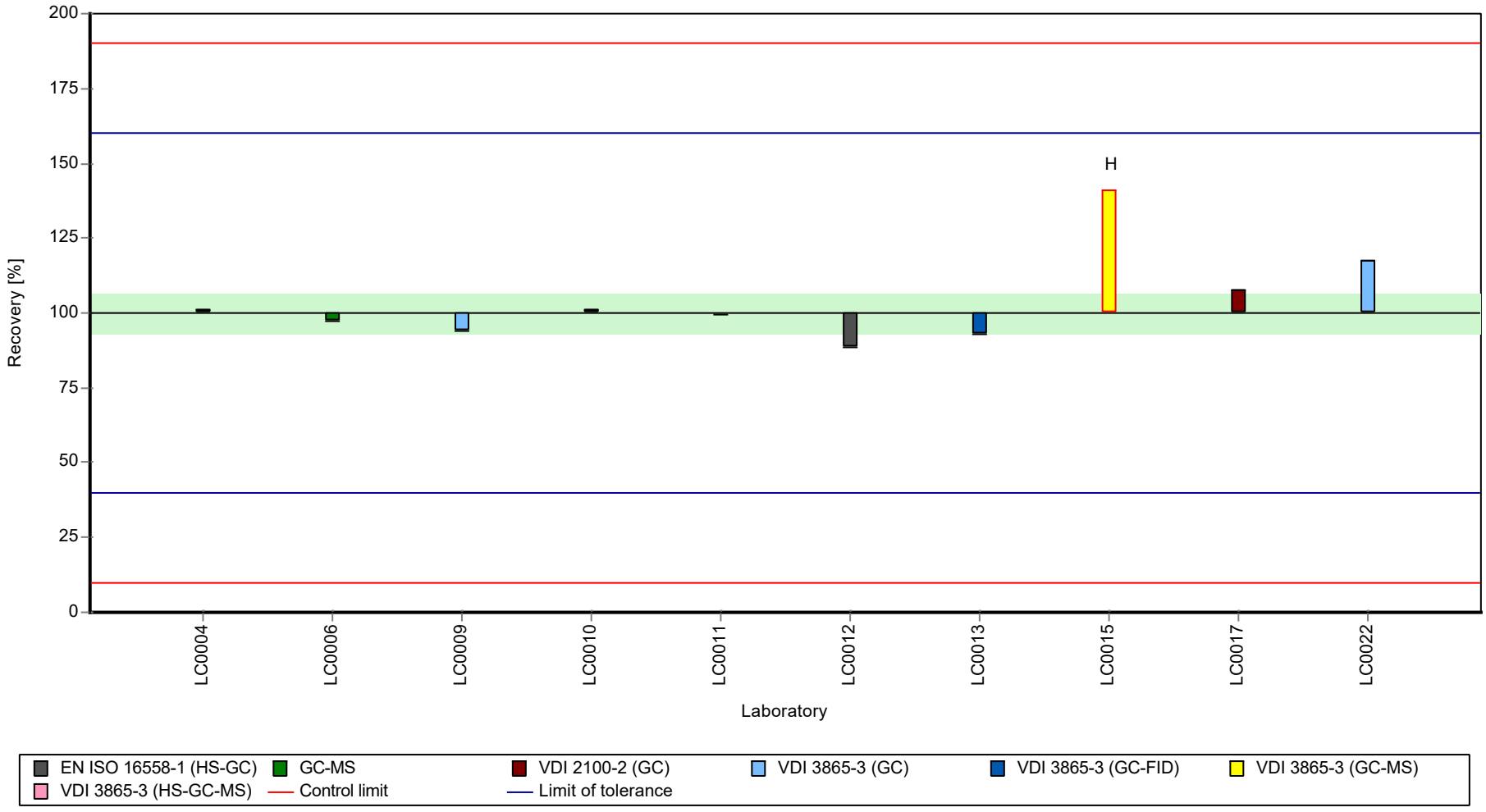
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

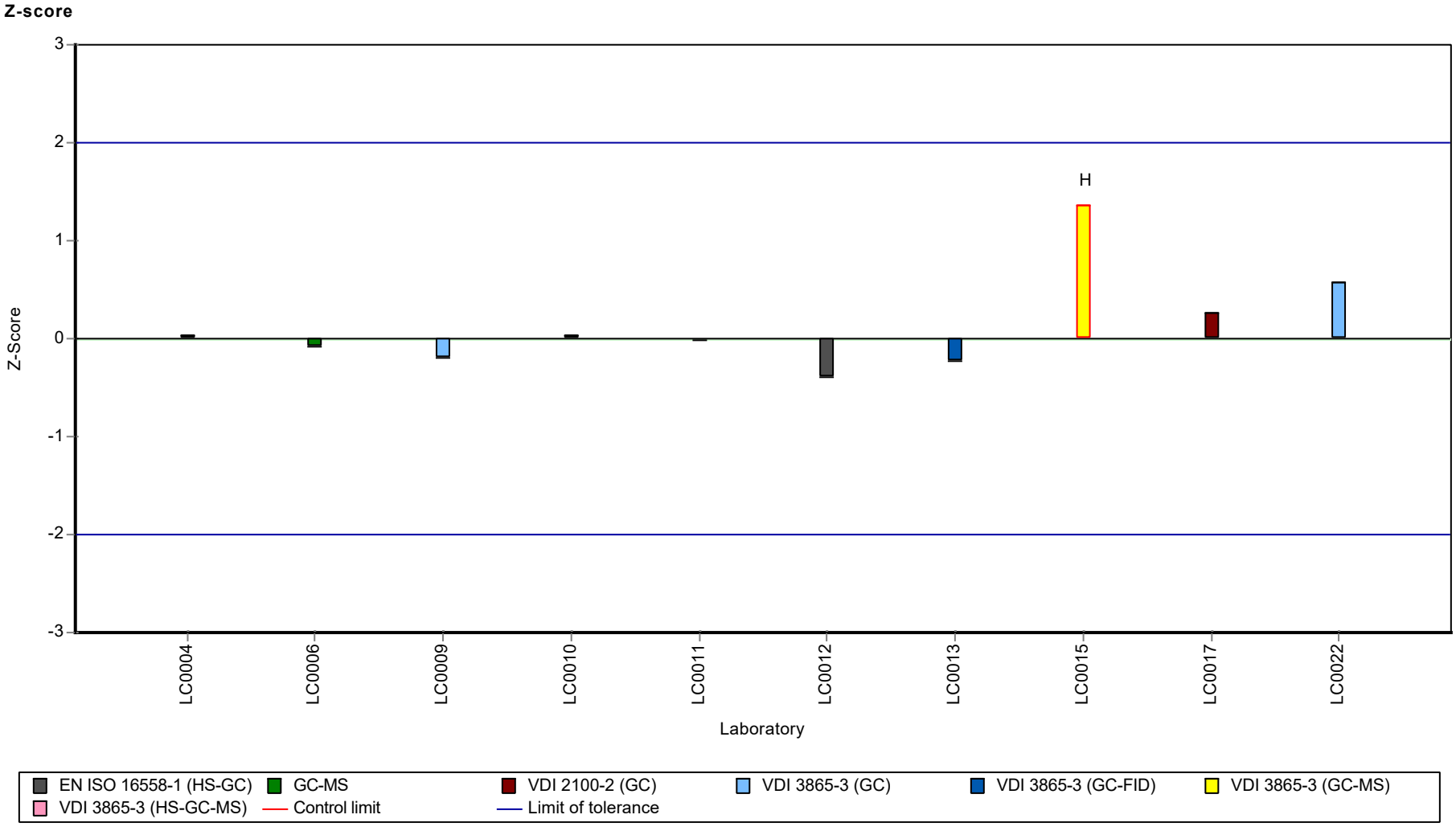
Sample: BL12, Parameter: n-Pentane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: n-Pentane



Parameter oriented report

BL12 - BTEX & C5-C10

o-Xylene

Unit	µg/tube
Assigned value ± U (k=2)	3.8 ± 0.335
Criterion	0.684 (18 %)
Minimum - Maximum	2.11 - 5.21
Control test value ± U (k=2)	4.00 ± 0.72

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	4.33	0.02	114	0.78	
LC0002	4.06	0.376	107	0.38	
LC0003	3.208	0.321	84.5	-0.86	
LC0004	3.44	0.826	90.6	-0.52	
LC0005	2.54	0.508	66.9	-1.84	
LC0006	4.08	0.82	107	0.41	
LC0007	2.5412	0.3091	66.9	-1.84	
LC0008	3.95	0.99	104	0.22	
LC0009	3.879	0.626	102	0.12	
LC0010	5.21	0.45	137	2.06	
LC0011	3.8	1.71	100	0.00	
LC0012	4.42	1.28	116	0.91	
LC0013	3.92	0.98	103	0.18	
LC0014	0.57	0.171	15	-4.72	H
LC0015	3.1142	0.31	82	-1	
LC0016	3.87	0.348	102	0.1	
LC0017	3.45	0.43	90.8	-0.51	
LC0018	4.59	1.38	121	1.16	
LC0019	-	-	-	-	
LC0020	4.361	0.25	115	0.82	
LC0021	4.23	0.42	111	0.63	
LC0022	4.66	1.9	123	1.26	
LC0023	2.11	0.42	55.6	-2.47	

Characteristics of parameter

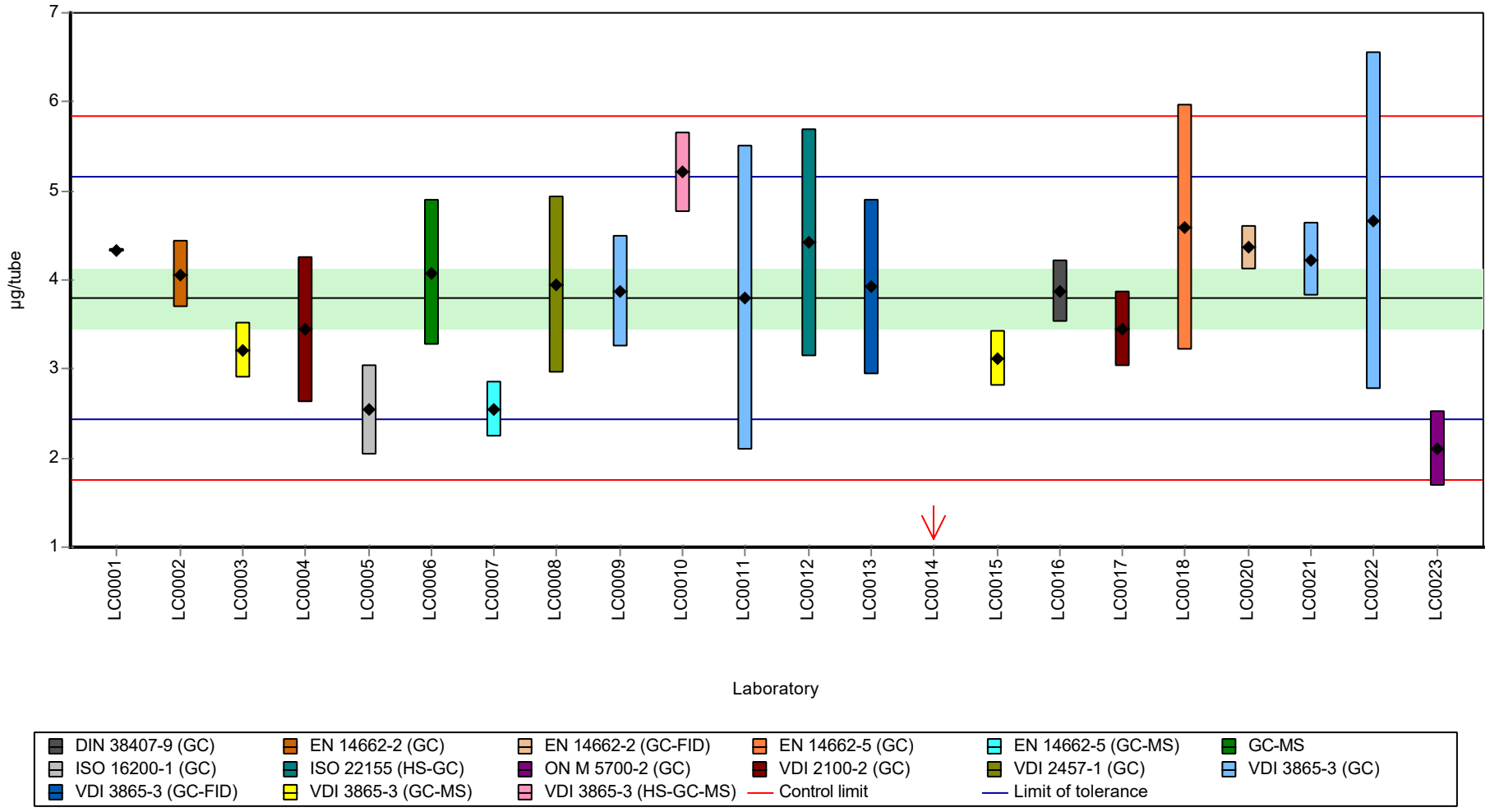
	all results	w ithout outliers	Unit
Mean ± CI (99%)	3.65 ± 0.651	3.8 ± 0.503	µg/tube
Minimum	0.57	2.11	µg/tube
Maximum	5.21	5.21	µg/tube
Standard deviation	1.02	0.769	µg/tube
rel. standard deviation	27.9	20.2	%
n	22	21	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: o-Xylene

Graphical presentation of results

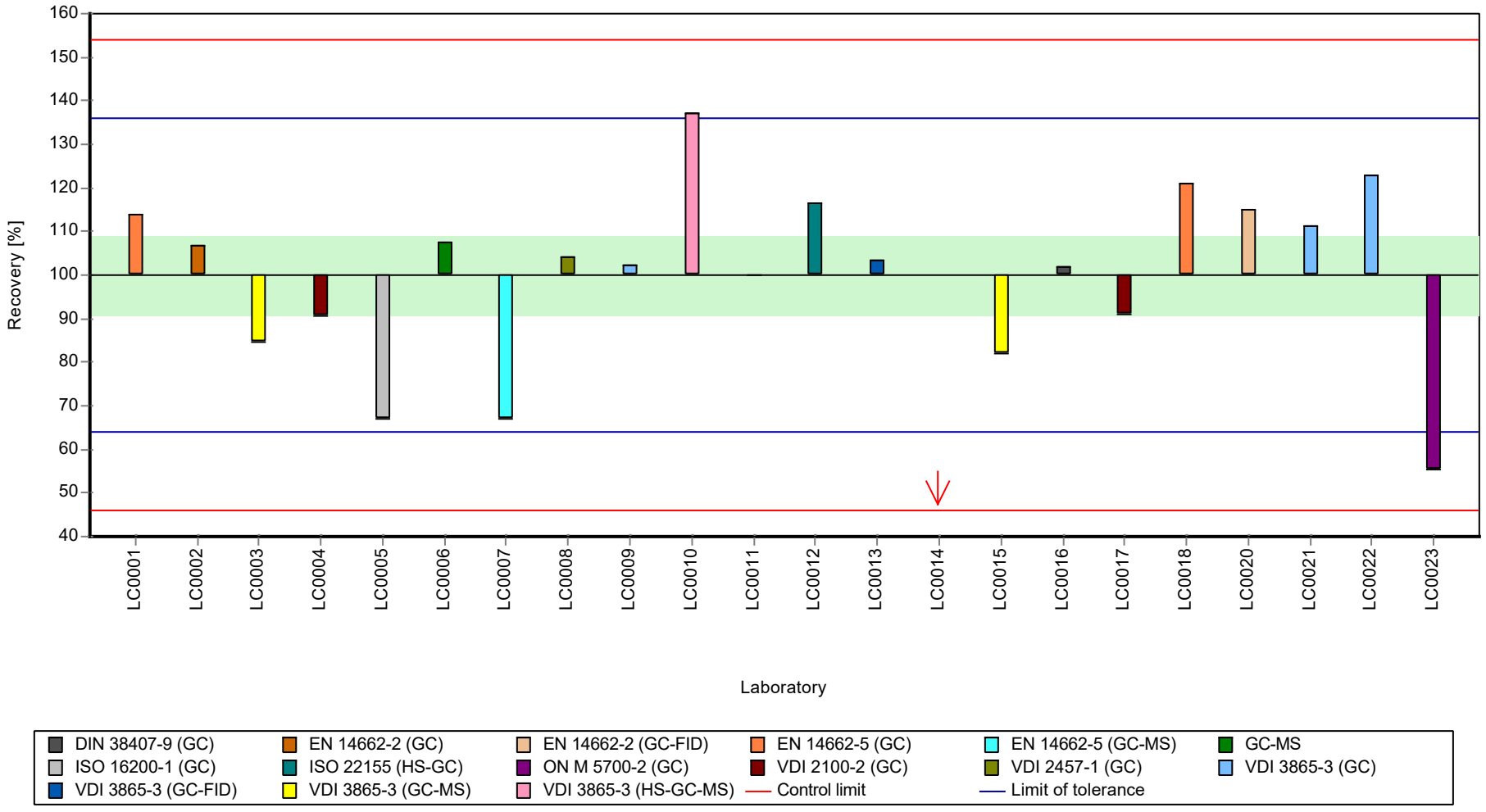
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

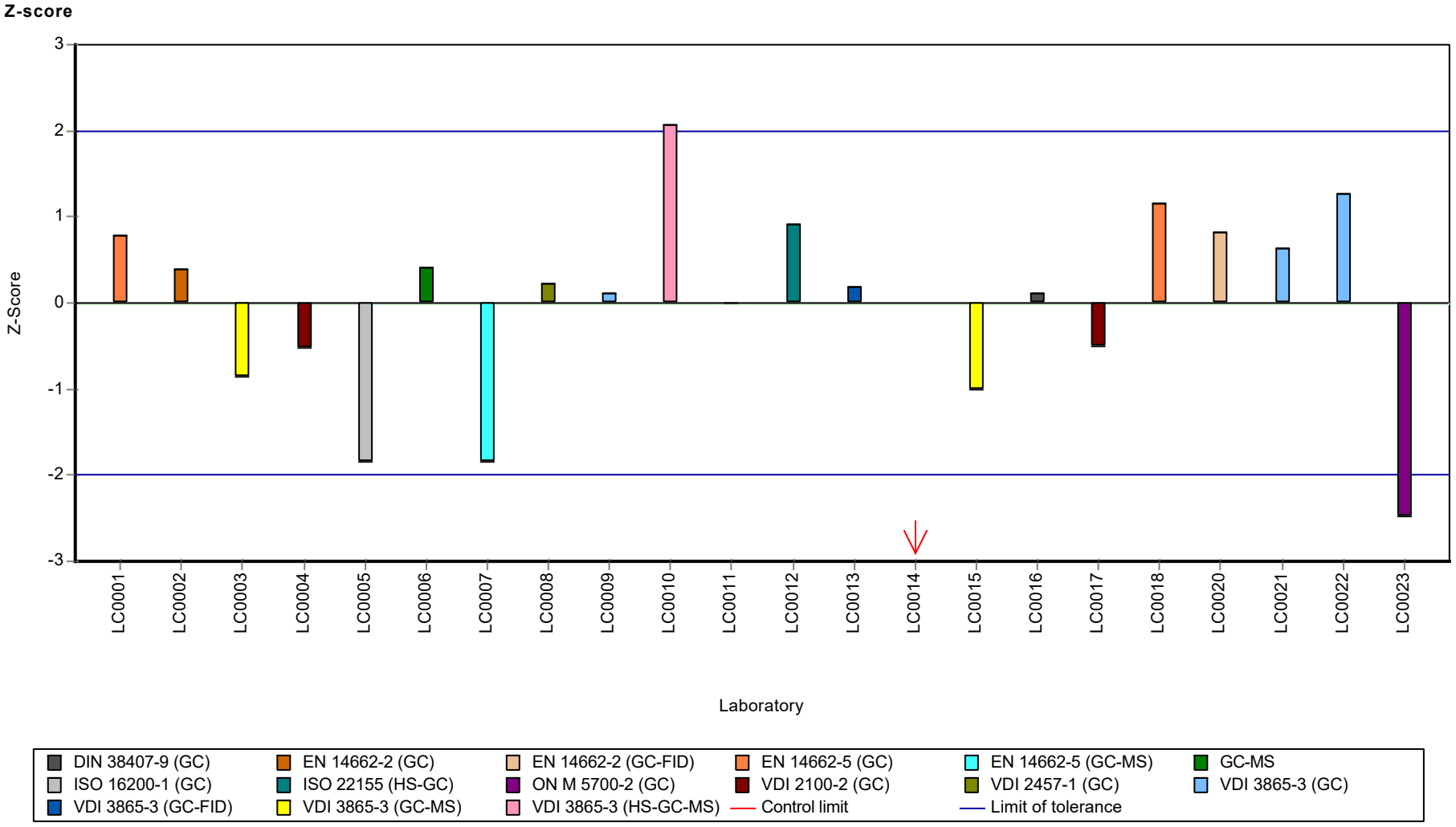
Sample: BL12, Parameter: o-Xylene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: o-Xylene



Parameter oriented report

BL12 - BTEX & C5-C10

Sum of m-Xylene and p-Xylene

Unit	µg/tube
Assigned value ± U (k=2)	7.89 ± 0.8
Criterion	1.5 (19 %)
Minimum - Maximum	3.72 - 10.4
Control test value ± U (k=2)	7.95 ± 1.27

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	8.88	0.1	113	0.66	
LC0002	8.59	0.801	109	0.47	
LC0003	6.948	0.695	88.1	-0.63	
LC0004	7.26	1.74	92	-0.42	
LC0005	5.53	1.106	70.1	-1.57	
LC0006	7.91	1.58	100	0.01	
LC0007	4.9178	0.5684	62.3	-1.98	
LC0008	9.18	2.3	116	0.86	
LC0009	8.822	1.588	112	0.62	
LC0010	10.4	1.2	132	1.68	
LC0011	8.81	3.96	112	0.61	
LC0012	8.53	2.47	108	0.43	
LC0013	8.17	1.634	104	0.19	
LC0014	0.69	0.207	8.8	-4.8	H
LC0015	6.4699	0.65	82	-0.95	
LC0016	9.45	0.756	120	1.04	
LC0017	3.72	0.39	47.2	-2.78	
LC0018	9.98	2.99	127	1.4	
LC0019	-	-	-	-	
LC0020	9.126	0.48	116	0.83	
LC0021	8.12	0.81	103	0.15	
LC0022	9.84	3.9	125	1.3	
LC0023	5.01	1	63.5	-1.92	

Characteristics of parameter

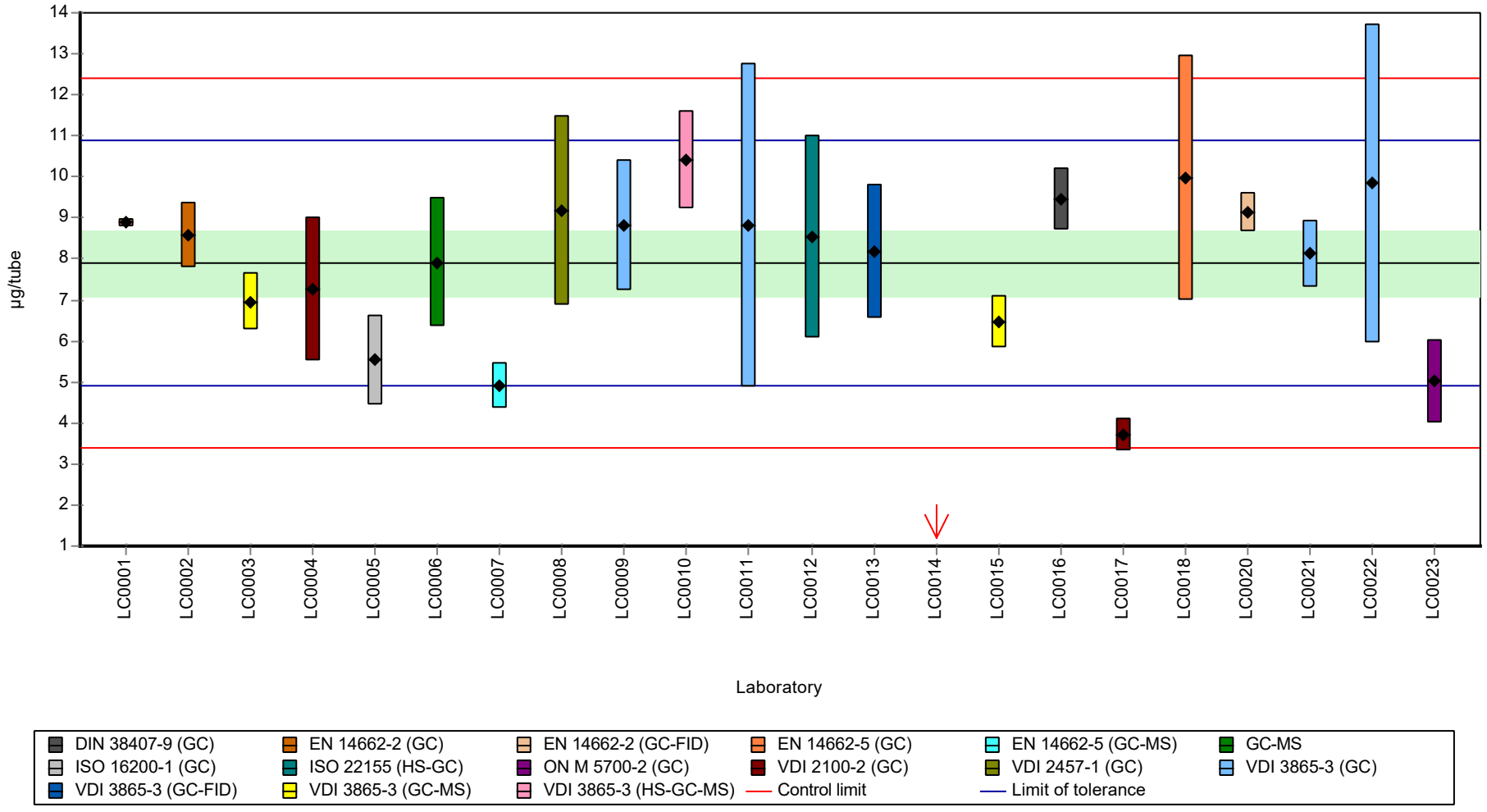
	all results	w ithout outliers	Unit
Mean ± CI (99%)	7.56 ± 1.51	7.89 ± 1.2	µg/tube
Minimum	0.69	3.72	µg/tube
Maximum	10.4	10.4	µg/tube
Standard deviation	2.36	1.83	µg/tube
rel. standard deviation	31.2	23.2	%
n	22	21	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: Sum of m-Xylene and p-Xylene

Graphical presentation of results

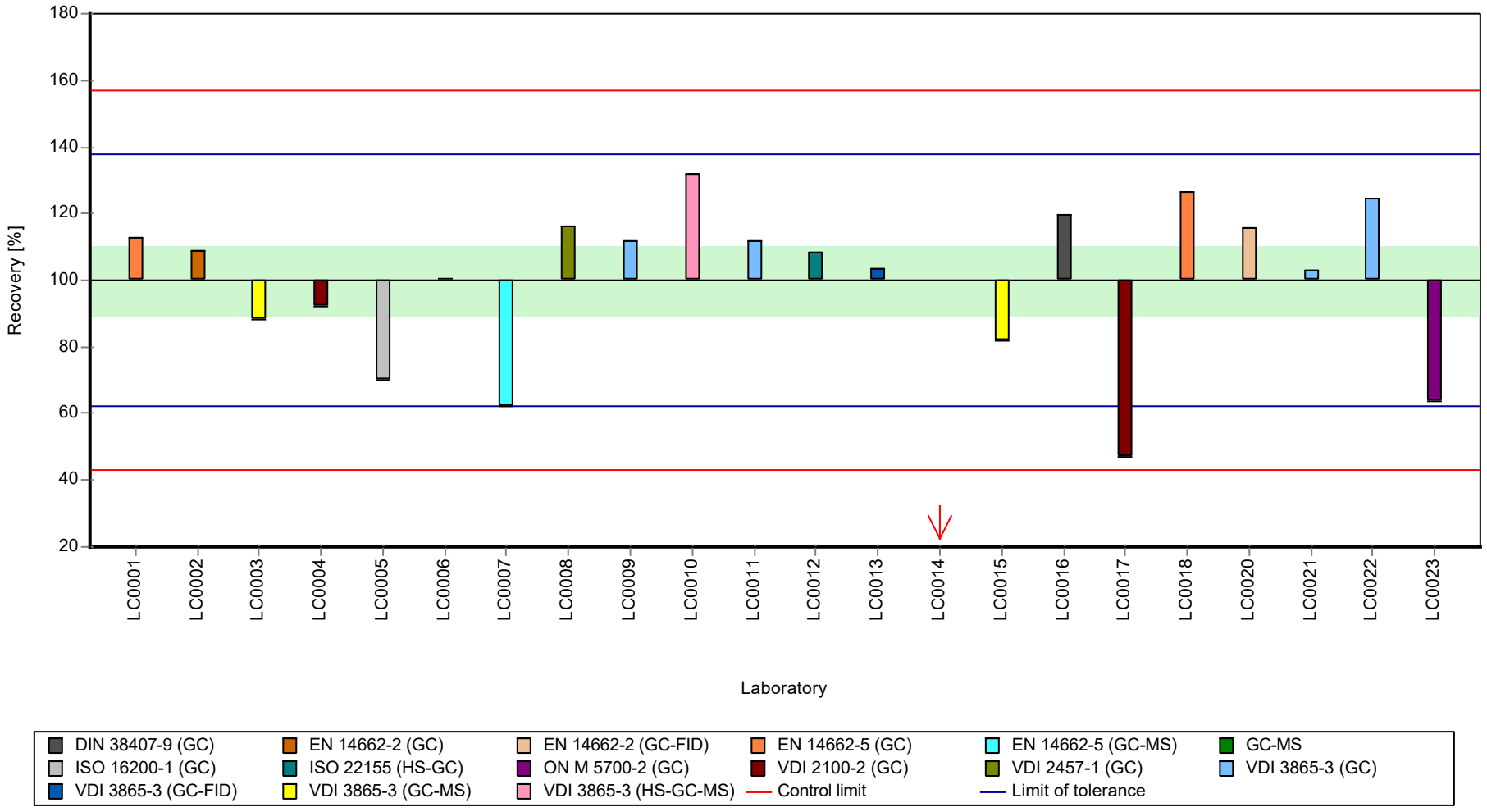
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

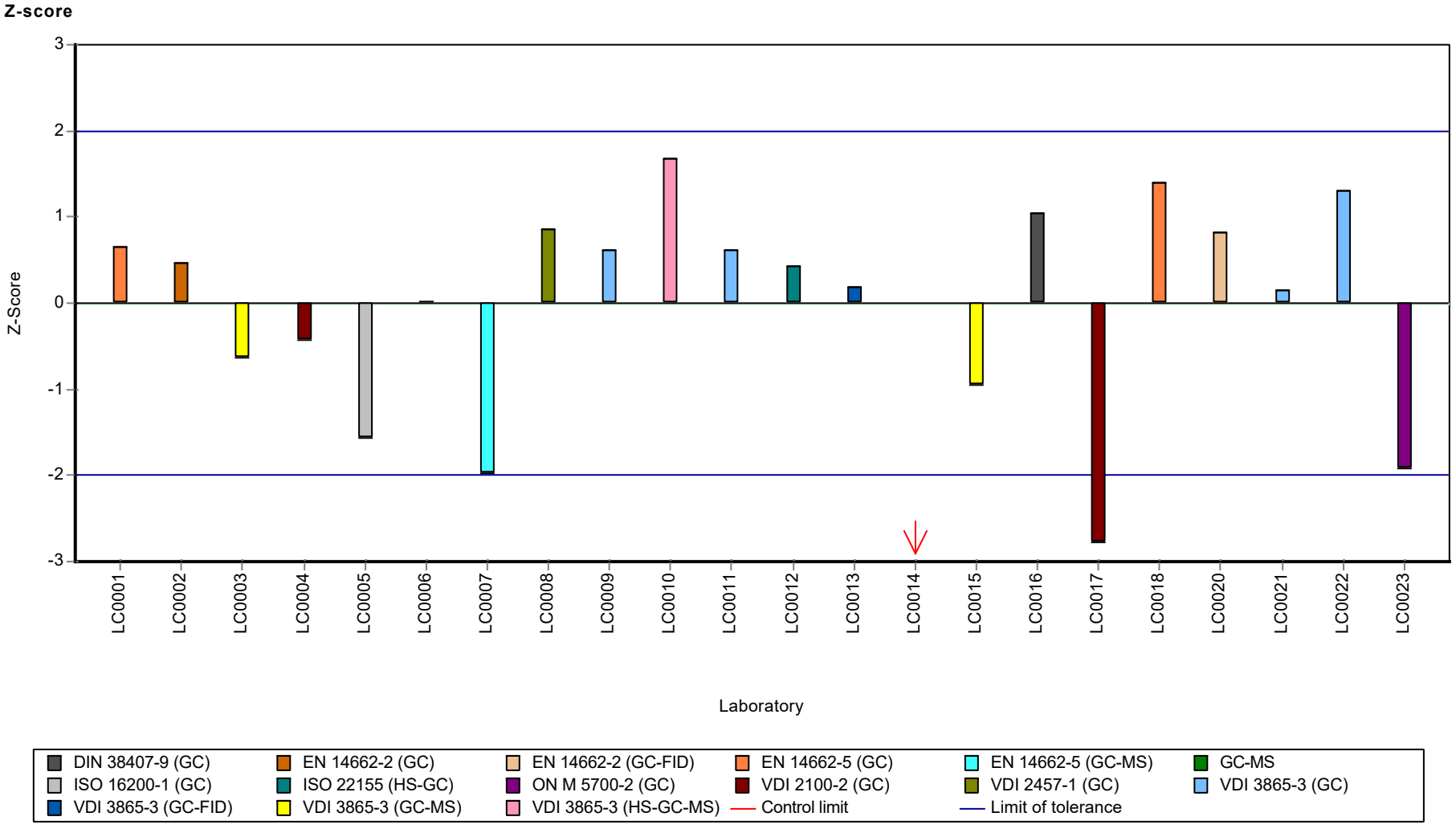
Sample: BL12, Parameter: Sum of m-Xylene and p-Xylene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: Sum of m-Xylene and p-Xylene



Parameter oriented report

CL11 - CHC

Tetrachloroethene

Unit	µg/tube
Assigned value ± U (k=2)	1.09 ± 0.199
Criterion	0.414 (38 %)
Minimum - Maximum	0.4 - 1.76
Control test value ± U (k=2)	1.33 ± 0.278

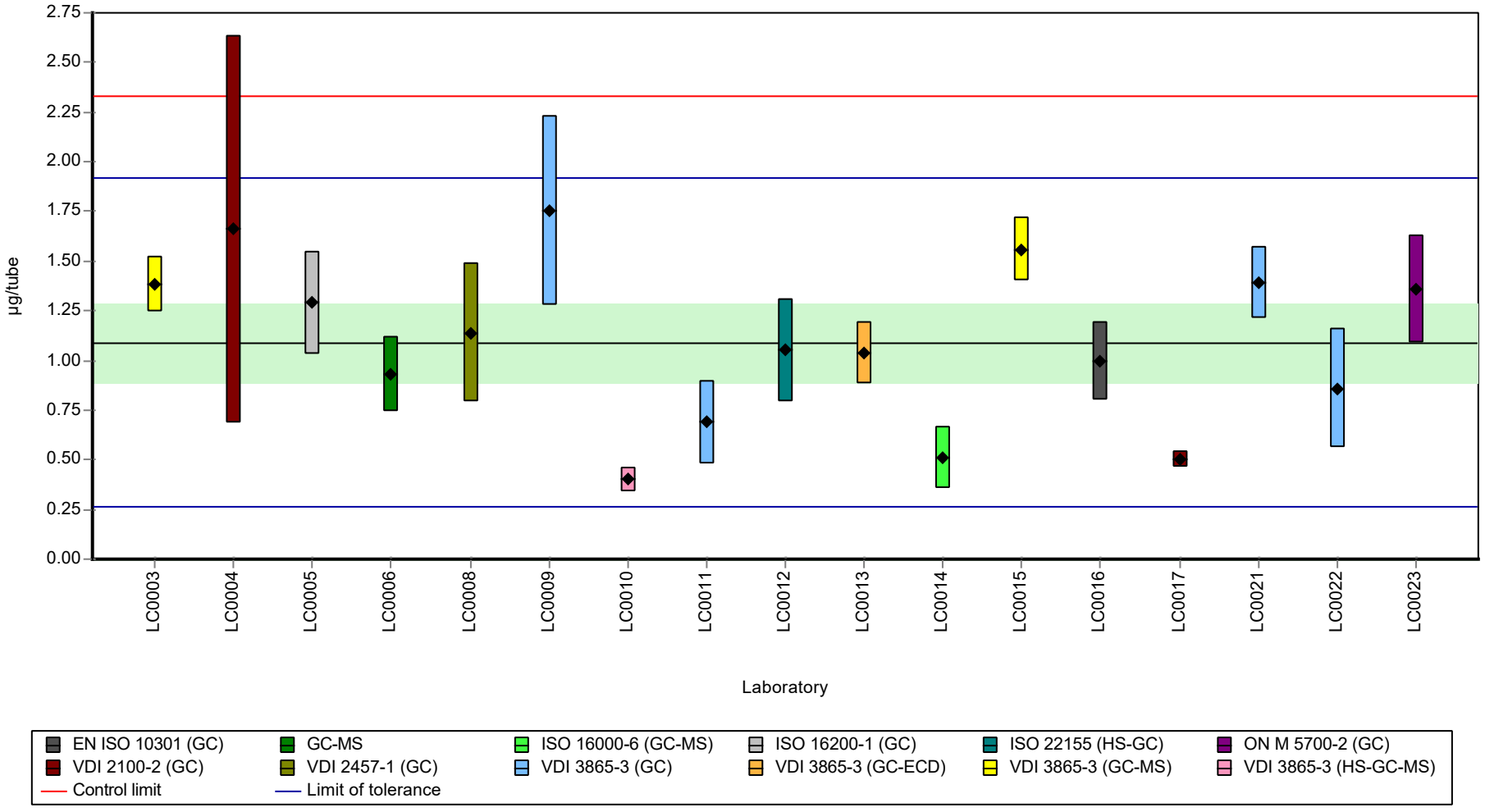
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0003	1.386	0.139	127	0.72	
LC0004	1.66	0.976	152	1.38	
LC0005	1.29	0.258	118	0.48	
LC0006	0.93	0.19	85.4	-0.39	
LC0008	1.14	0.35	105	0.12	
LC0009	1.755	0.475	161	1.61	
LC0010	0.4	0.06	36.7	-1.67	
LC0011	0.69	0.21	63.3	-0.96	
LC0012	1.05	0.26	96.4	-0.1	
LC0013	1.041	0.156	95.6	-0.12	
LC0014	0.51	0.153	46.8	-1.4	
LC0015	1.5598	0.16	143	1.14	
LC0016	0.994	0.199	91.2	-0.23	
LC0017	0.505	0.041	46.4	-1.41	
LC0021	1.39	0.18	128	0.73	
LC0022	0.86	0.3	78.9	-0.55	
LC0023	1.36	0.27	125	0.65	

Characteristics of parameter

	all results	w ithout outliers	Unit
Mean ± CI (99%)	1.09 ± 0.298	1.09 ± 0.298	µg/tube
Minimum	0.4	0.4	µg/tube
Maximum	1.76	1.76	µg/tube
Standard deviation	0.41	0.41	µg/tube
rel. standard deviation	37.6	37.6	%
n	17	17	-

Graphical presentation of results

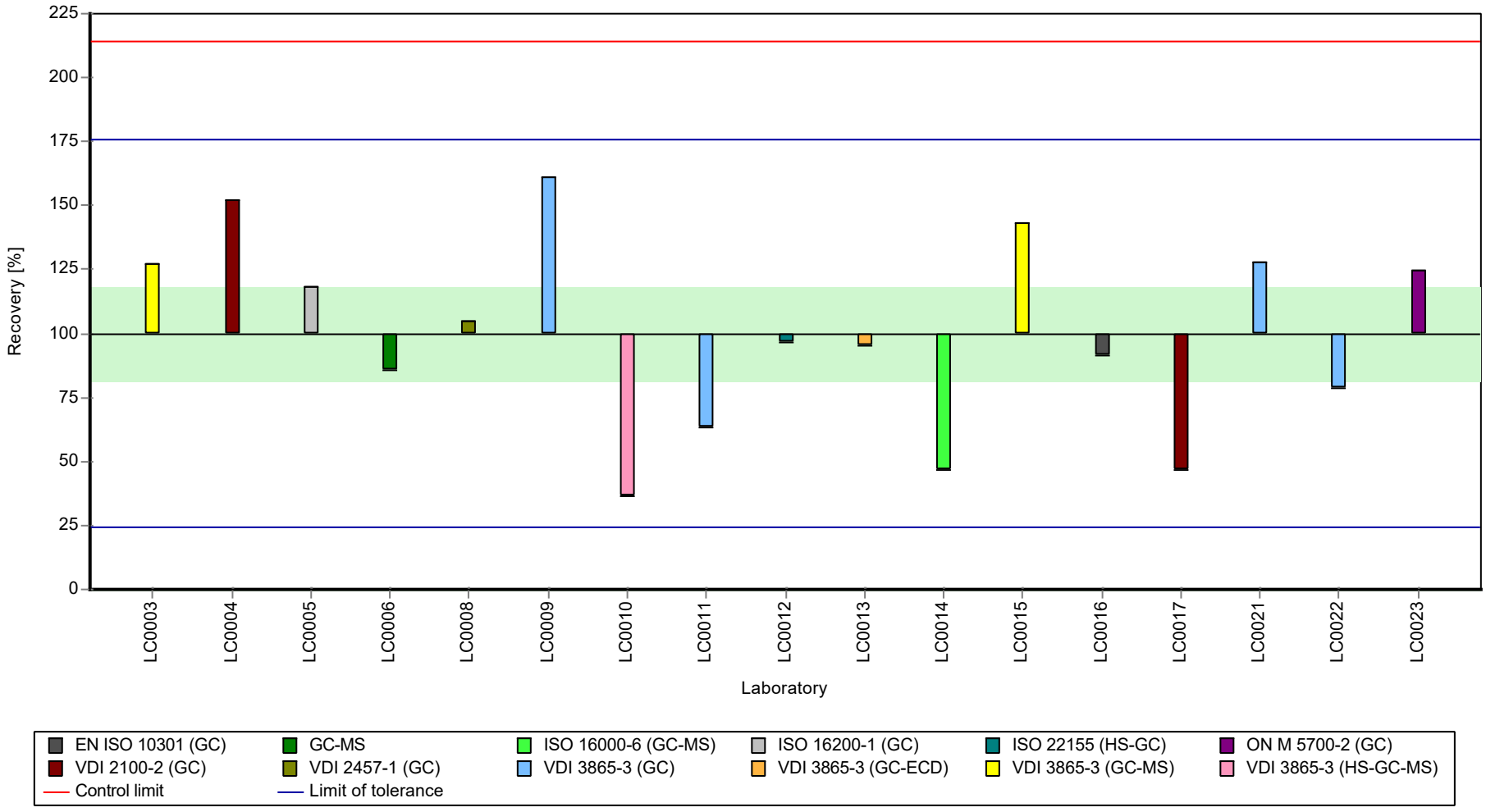
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

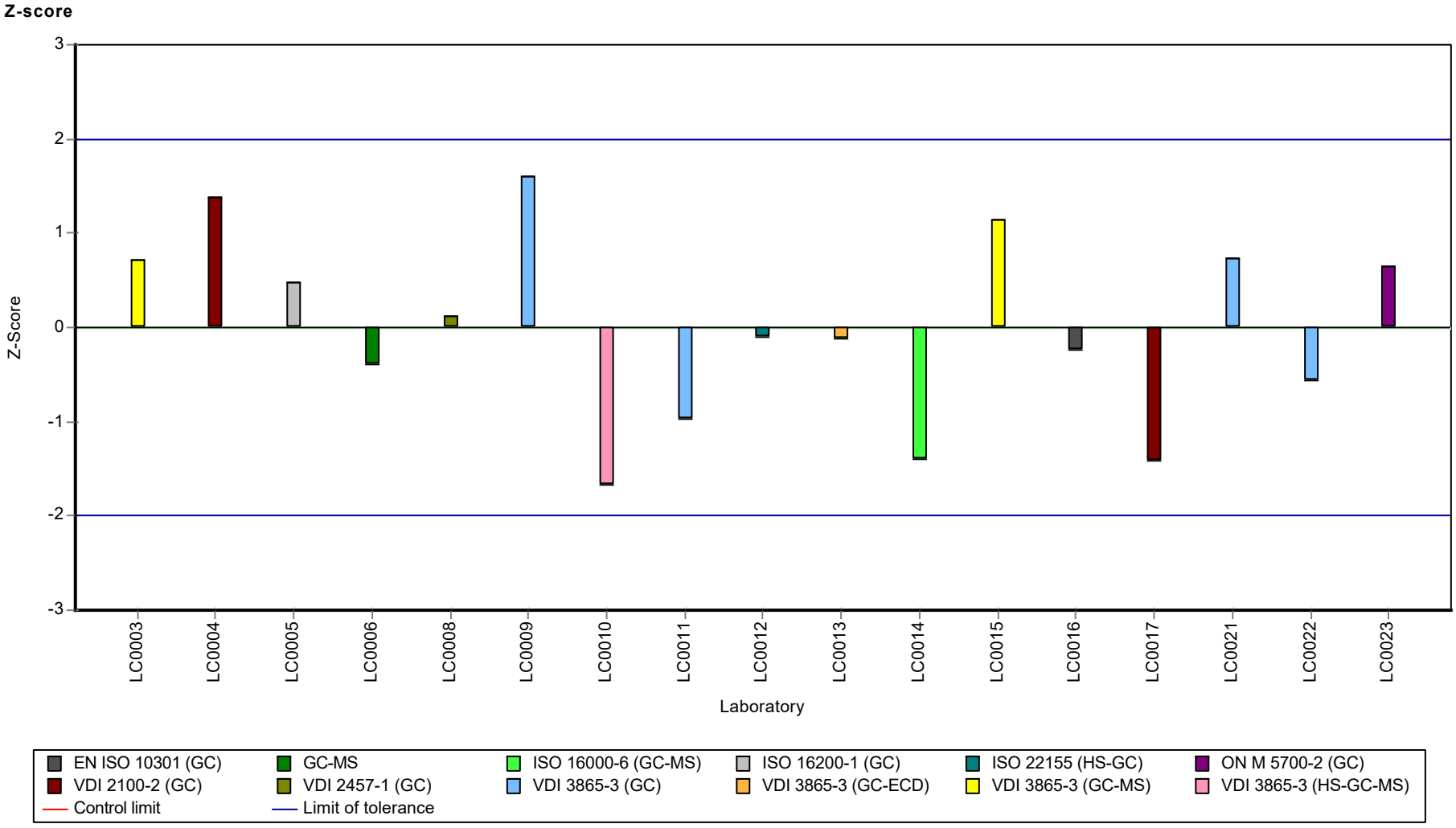
Sample: CL11, Parameter: Tetrachloroethene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: Tetrachloroethene



Parameter oriented report

CL11 - CHC

Tetrachloromethane

Unit	µg/tube
Assigned value ± U (k=2)	2.56 ± 0.205
Criterion	0.564 (22 %)
Minimum - Maximum	0.93 - 3.34
Control test value ± U (k=2)	5.40 ± 1.03

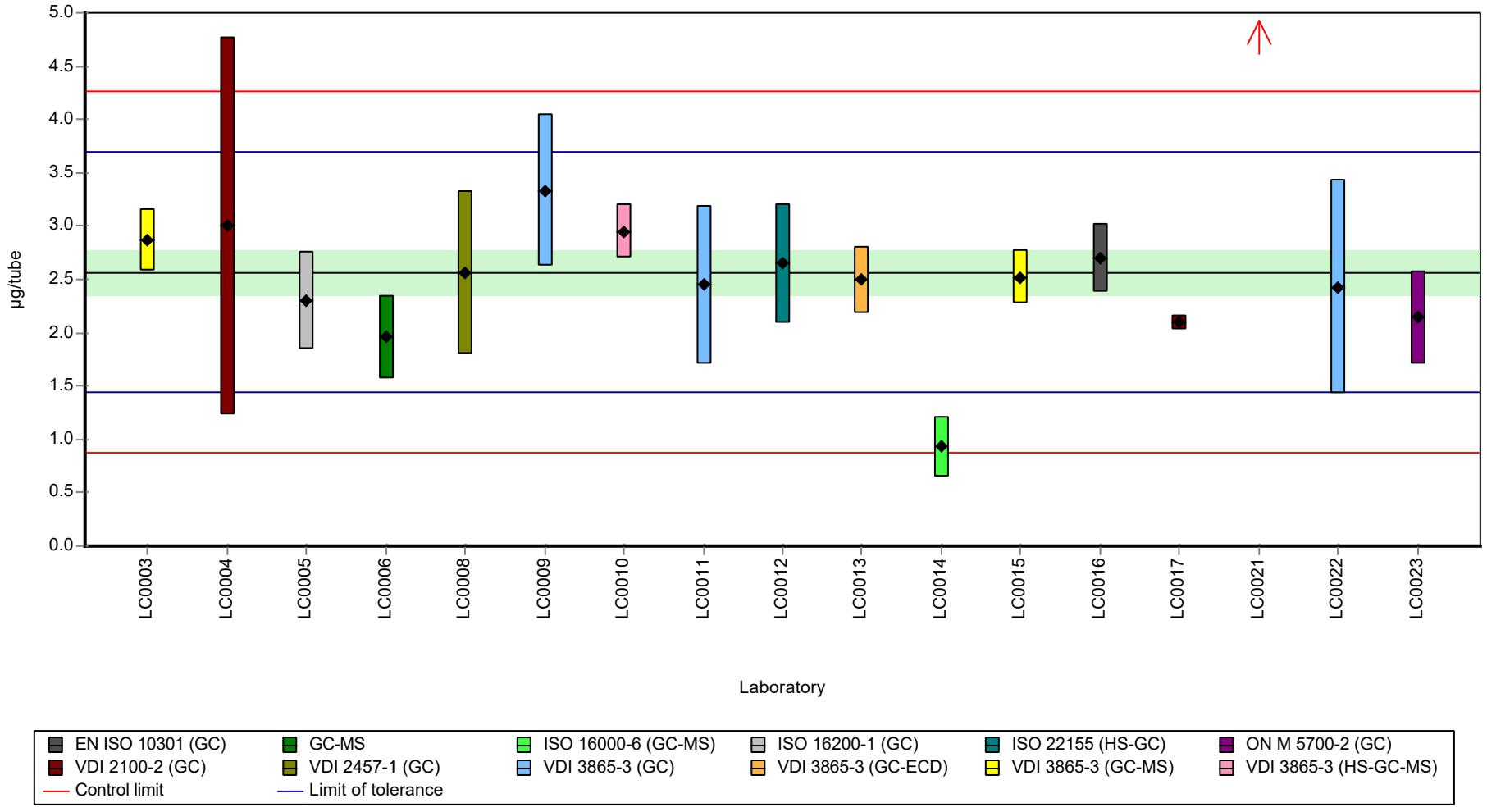
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0003	2.866	0.287	112	0.54	
LC0004	3	1.77	117	0.77	
LC0005	2.3	0.46	89.7	-0.47	
LC0006	1.96	0.39	76.4	-1.07	
LC0008	2.56	0.77	99.8	-0.01	
LC0009	3.335	0.714	130	1.37	
LC0010	2.95	0.25	115	0.68	
LC0011	2.45	0.74	95.6	-0.2	
LC0012	2.65	0.56	103	0.15	
LC0013	2.495	0.312	97.3	-0.12	
LC0014	0.93	0.279	36.3	-2.9	
LC0015	2.521	0.25	98.3	-0.08	
LC0016	2.7	0.324	105	0.24	
LC0017	2.1	0.07	81.9	-0.82	
LC0021	5.99	0.6	234	6.07	H
LC0022	2.43	1	94.8	-0.24	
LC0023	2.14	0.43	83.5	-0.75	

Characteristics of parameter

	all results	w ithout outliers	Unit
Mean ± CI (99%)	2.67 ± 0.731	2.46 ± 0.407	µg/tube
Minimum	0.93	0.93	µg/tube
Maximum	5.99	3.34	µg/tube
Standard deviation	1	0.543	µg/tube
rel. standard deviation	37.6	22.1	%
n	17	16	-

Graphical presentation of results

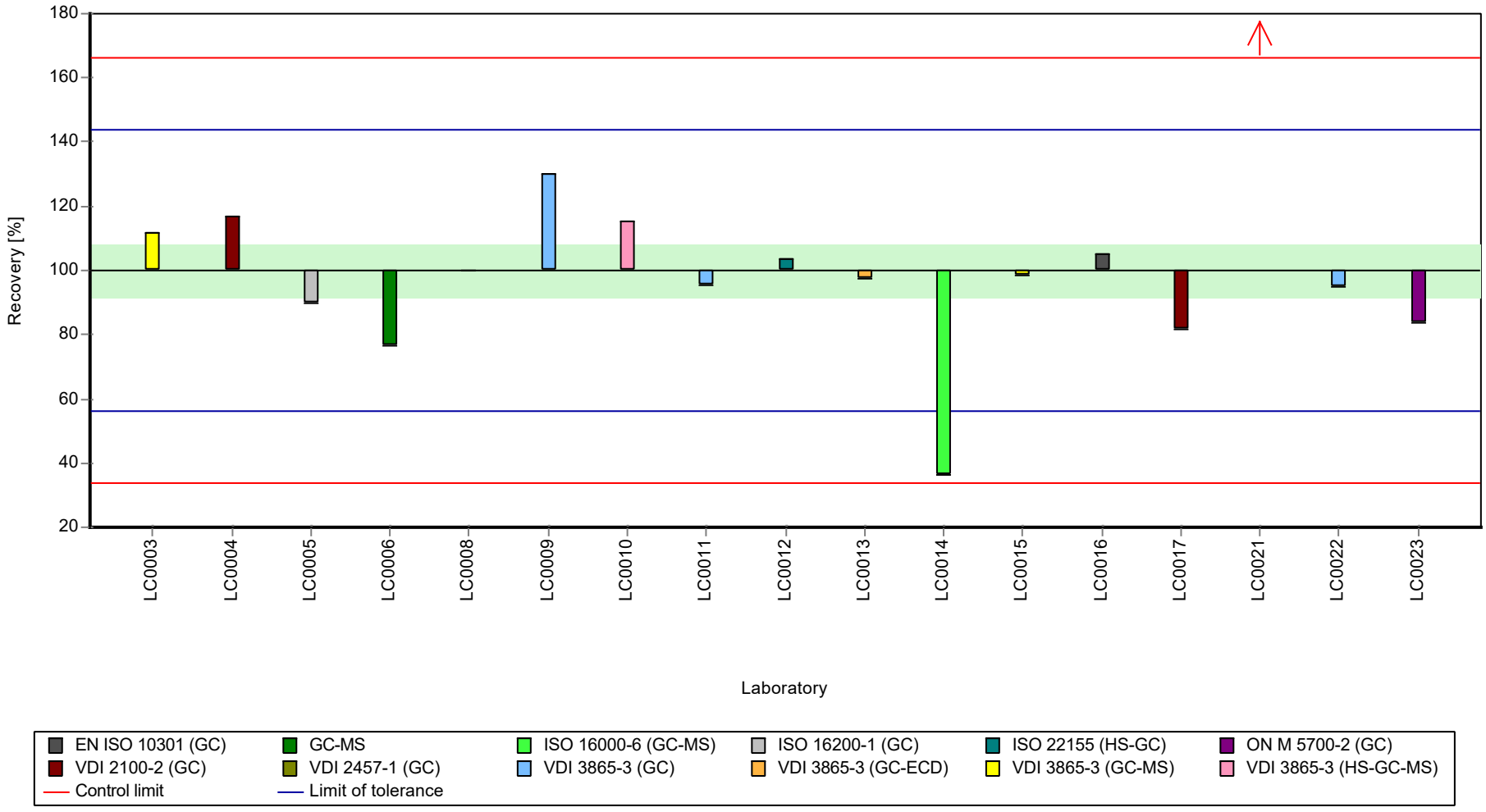
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

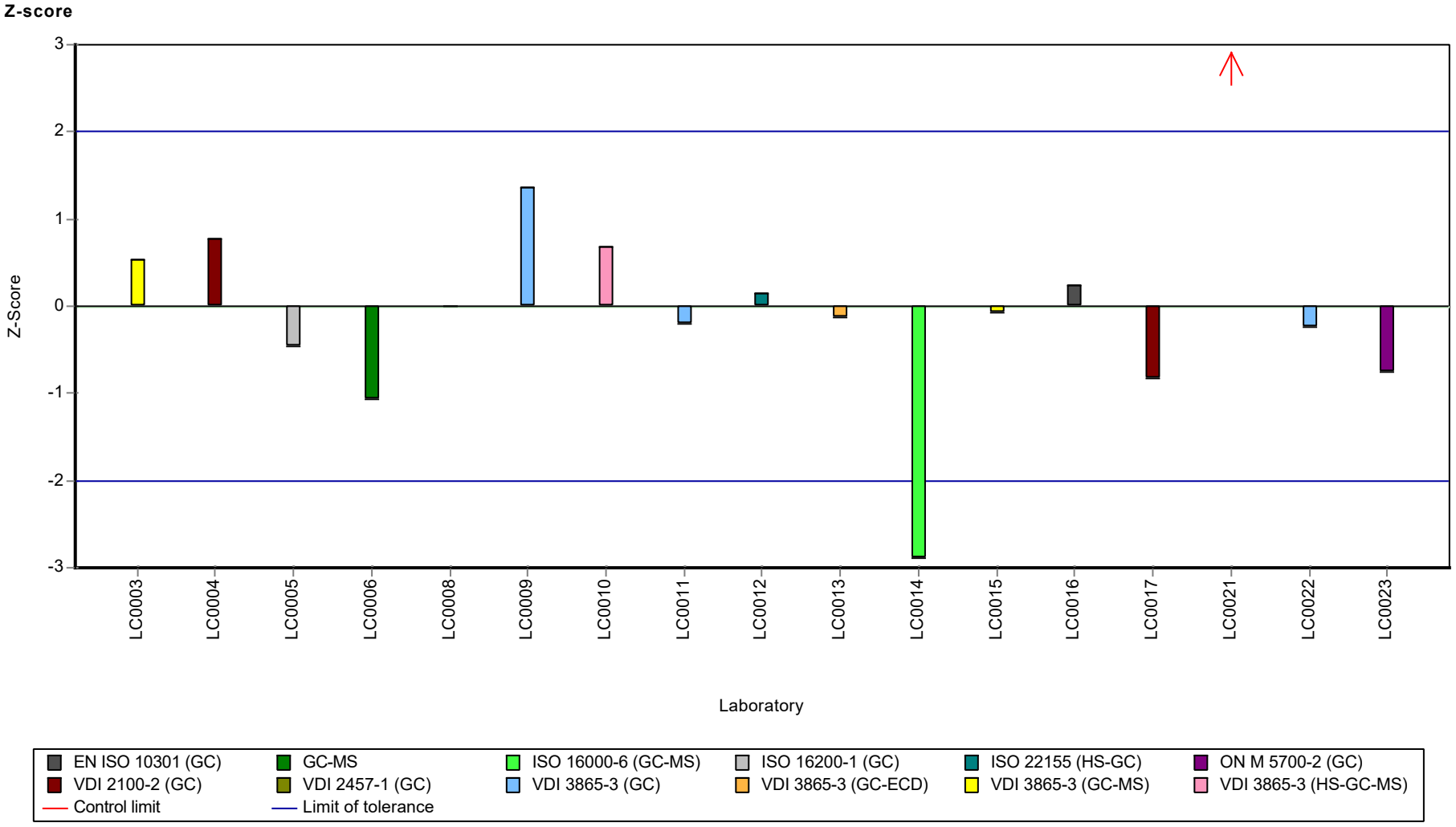
Sample: CL11, Parameter: Tetrachloromethane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: Tetrachloromethane



Parameter oriented report

BL12 - BTEX & C5-C10

Toluene

Unit	µg/tube
Assigned value ± U (k=2)	4.41 ± 0.306
Criterion	0.662 (15 %)
Minimum - Maximum	2.86 - 5.16
Control test value ± U (k=2)	4.25 ± 0.595

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	4.66	0.04	106	0.37	
LC0002	4.32	0.519	97.9	-0.14	
LC0003	5.042	0.504	114	0.95	
LC0004	4.93	1.18	112	0.78	
LC0005	3.28	0.656	74.3	-1.71	
LC0006	4.92	0.98	111	0.76	
LC0007	3.4932	0.33	79.1	-1.39	
LC0008	4.44	1.12	101	0.04	
LC0009	5.149	0.515	117	1.11	
LC0010	4.36	0.53	98.8	-0.08	
LC0011	4.88	2.2	111	0.7	
LC0012	4.54	1.18	103	0.19	
LC0013	2.86	0.5	64.8	-2.35	
LC0014	0.54	0.162	12.2	-5.85	H
LC0015	4.7715	0.48	108	0.54	
LC0016	4.02	0.322	91.1	-0.59	
LC0017	4.42	0.38	100	0.01	
LC0018	5.16	1.55	117	1.13	
LC0019	-	-	-	-	
LC0020	5.037	0.24	114	0.94	
LC0021	4.87	0.73	110	0.69	
LC0022	4.56	1.8	103	0.22	
LC0023	2.98	0.6	67.5	-2.17	

Characteristics of parameter

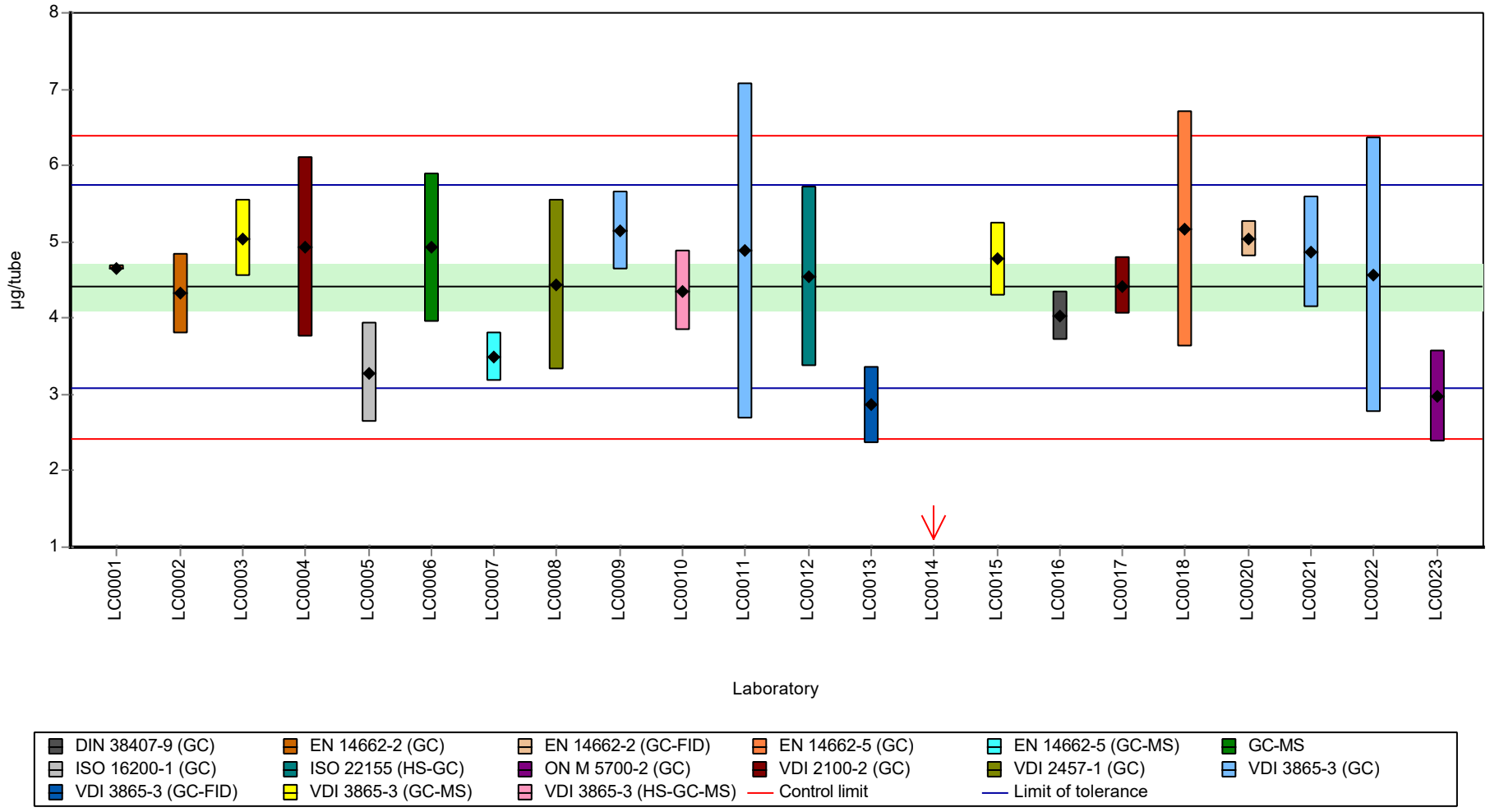
	all results	w ithout outliers	Unit
Mean ± CI (99%)	4.24 ± 0.686	4.41 ± 0.459	µg/tube
Minimum	0.54	2.86	µg/tube
Maximum	5.16	5.16	µg/tube
Standard deviation	1.07	0.701	µg/tube
rel. standard deviation	25.3	15.9	%
n	22	21	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: Toluene

Graphical presentation of results

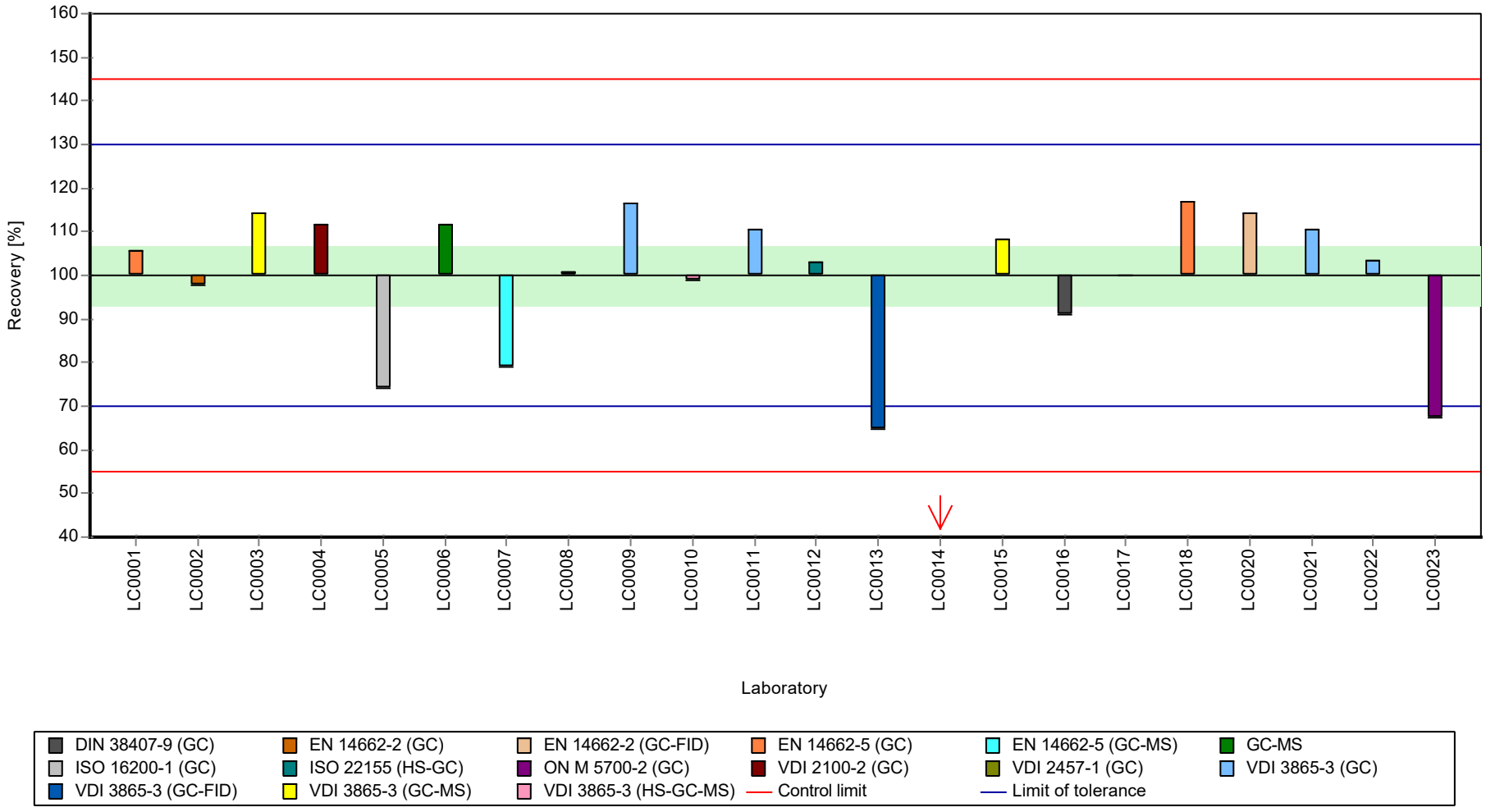
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

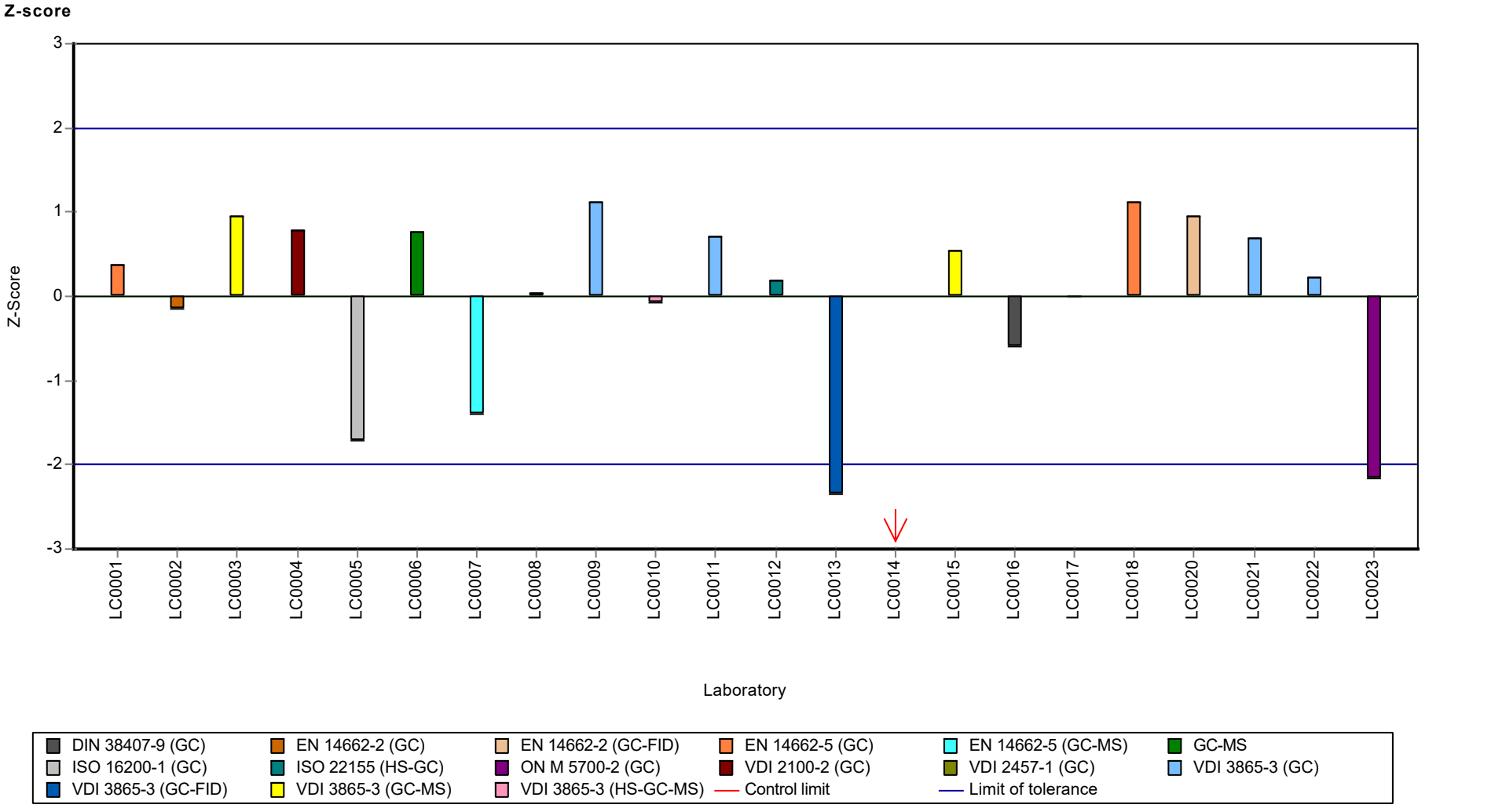
Sample: BL12, Parameter: Toluene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: BL12, Parameter: Toluene



Parameter oriented report

CL11 - CHC

trans-1,2-Dichloroethene

Unit	µg/tube
Assigned value ± U (k=2)	1.57 ± 0.422
Criterion	0.755 (48 %)
Minimum - Maximum	0.11 - 2.46
Control test value ± U (k=2)	1.80 ± 0.36

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0003	1.85	0.185	118	0.37	
LC0004	1.87	1.11	119	0.39	
LC0005	1.79	0.358	114	0.29	
LC0006	-	-	-	-	
LC0008	-	-	-	-	
LC0009	2.087	0.44	133	0.68	
LC0010	1.49	0.15	94.7	-0.11	
LC0011	0.11	0.03	7	-1.94	
LC0012	1.54	0.38	97.9	-0.04	
LC0013	0.307	0.154	19.5	-1.68	
LC0014	< 0.5 (LOQ)	-	-	-	
LC0015	2.2244	0.22	141	0.86	
LC0016	2.46	0.615	156	1.17	
LC0017	0.661	0.1	42	-1.21	
LC0021	5.34	0.53	339	4.99	H
LC0022	1.68	0.7	107	0.14	
LC0023	2.39	0.48	152	1.08	

Characteristics of parameter

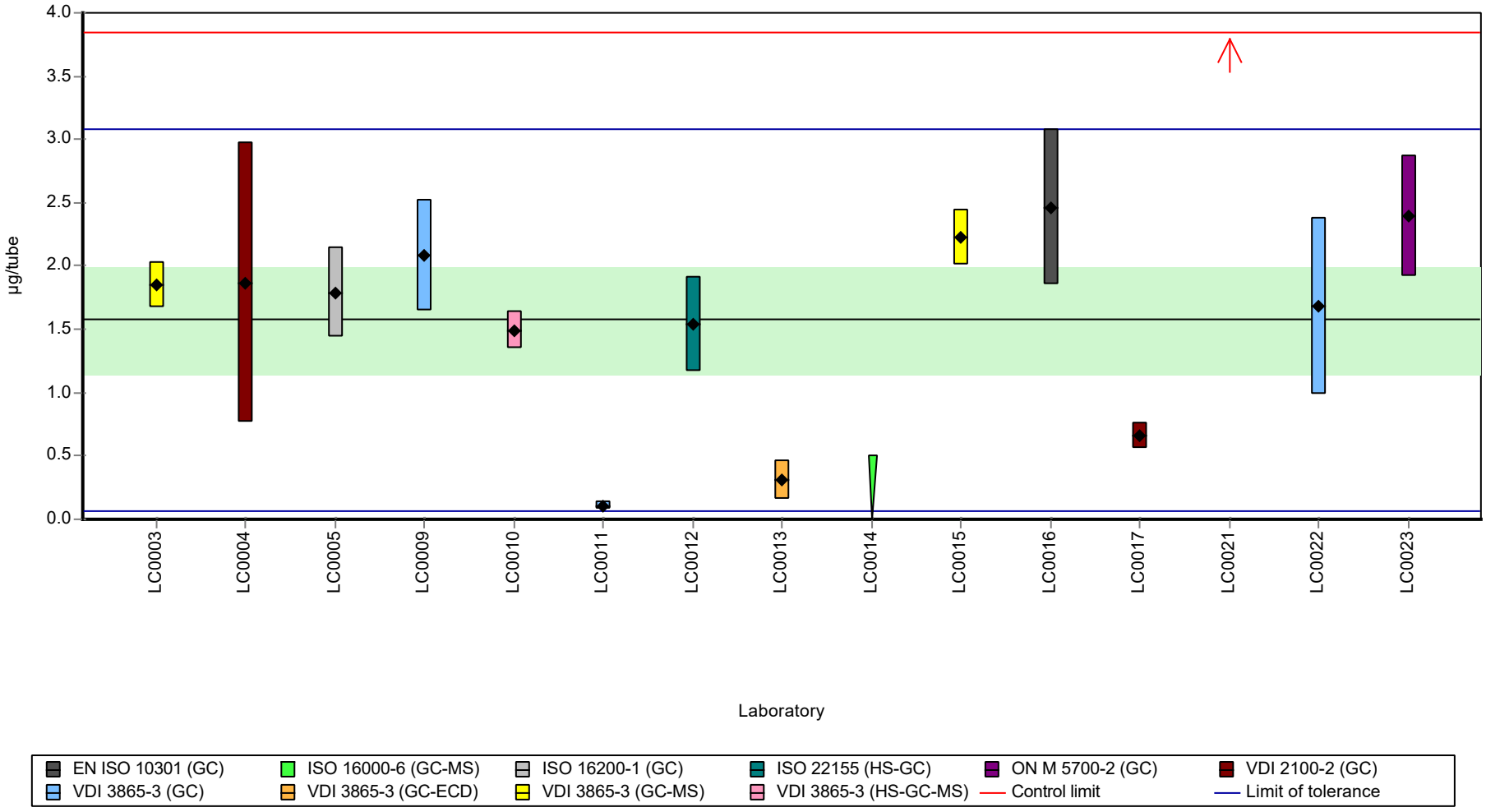
	all results	w ithout outliers	Unit
Mean ± CI (99%)	1.84 ± 0.997	1.57 ± 0.633	µg/tube
Minimum	0.11	0.11	µg/tube
Maximum	5.34	2.46	µg/tube
Standard deviation	1.24	0.761	µg/tube
rel. standard deviation	67.5	48.4	%
n	14	13	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: trans-1,2-Dichloroethene

Graphical presentation of results

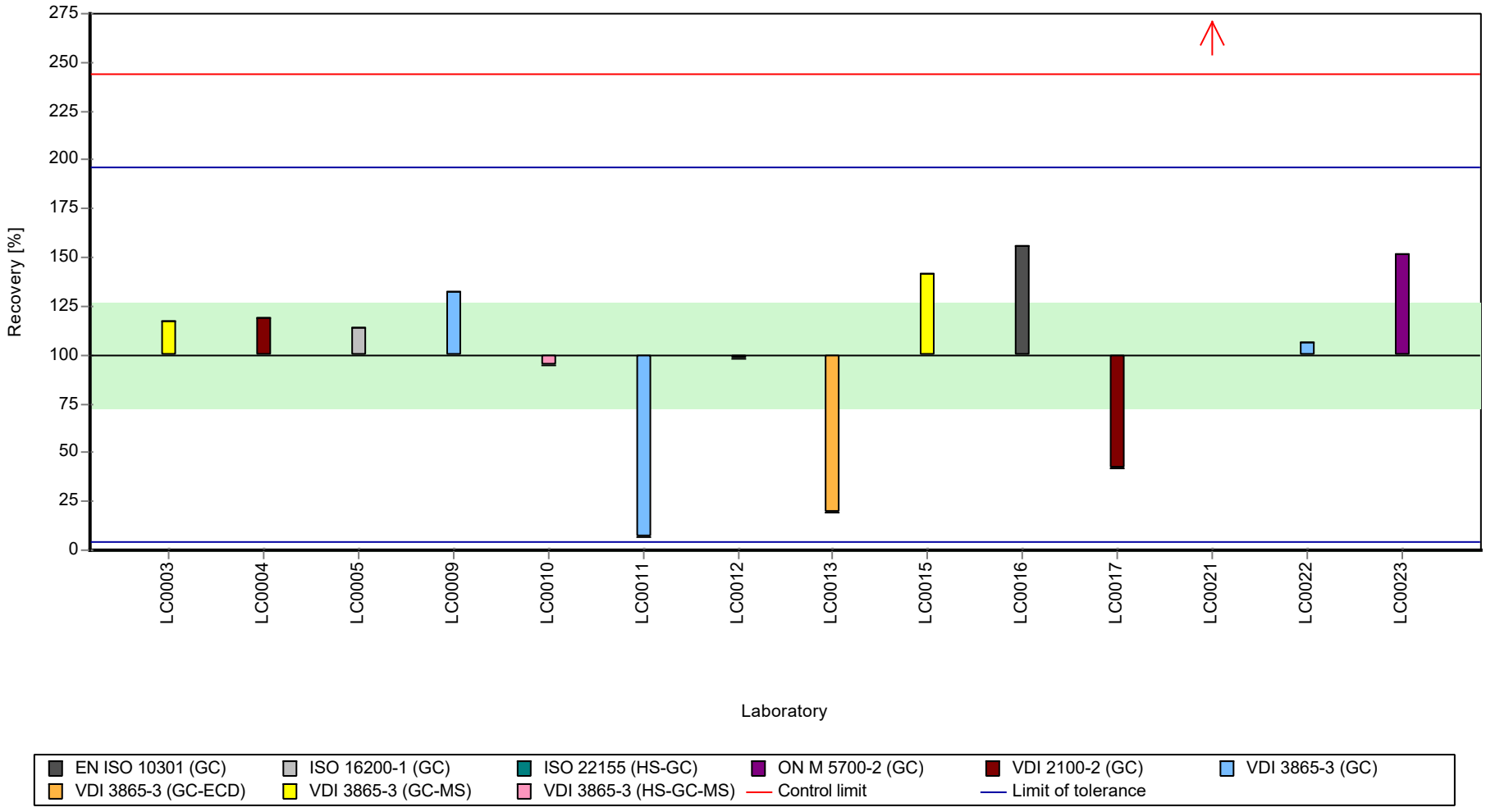
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

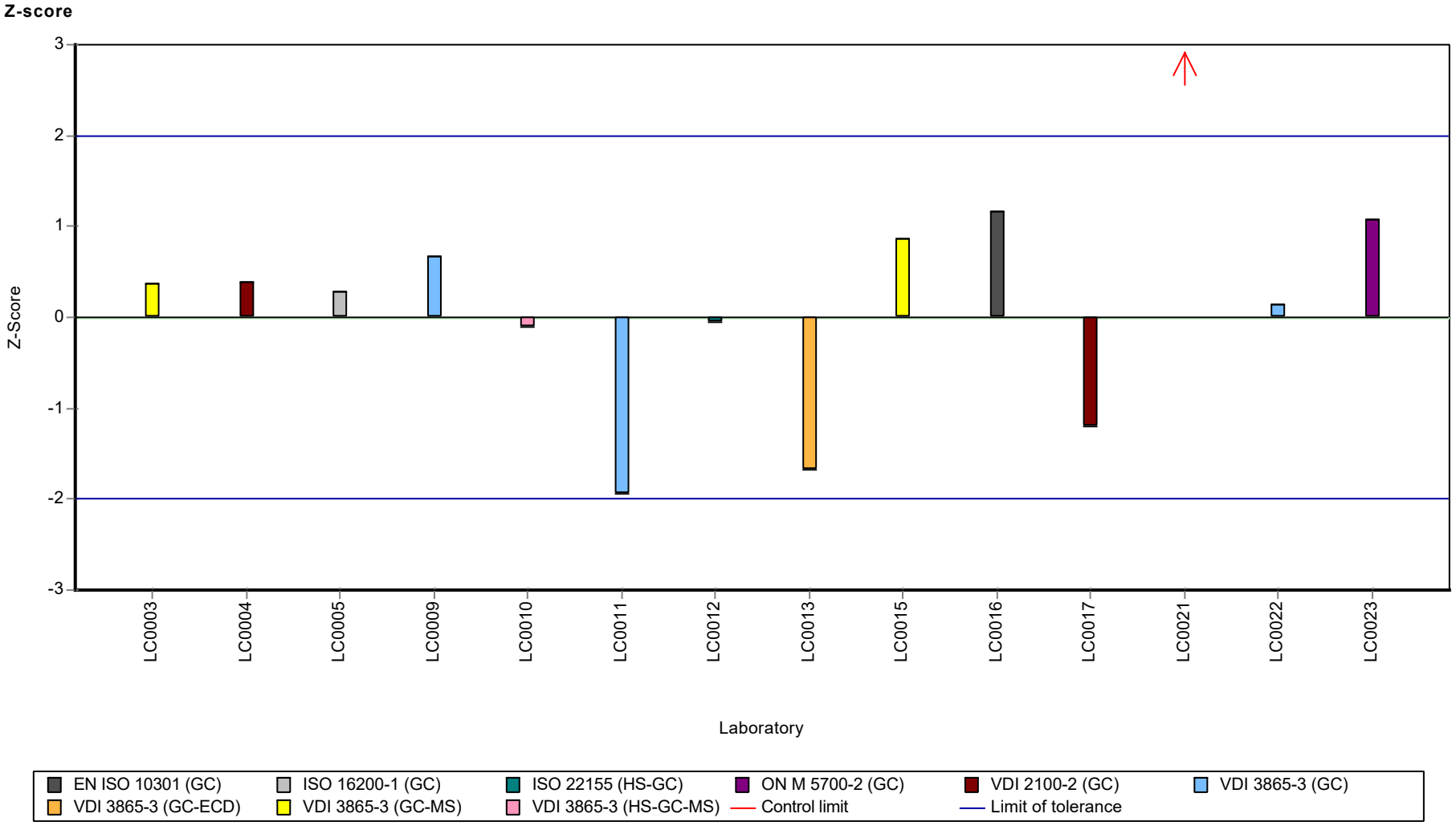
Sample: CL11, Parameter: trans-1,2-Dichloroethene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: trans-1,2-Dichloroethene



Parameter oriented report

CL11 - CHC

Trichloroethene

Unit	µg/tube
Assigned value ± U (k=2)	1.66 ± 0.269
Criterion	0.549 (33 %)
Minimum - Maximum	0.612 - 2.31
Control test value ± U (k=2)	1.98 ± 0.515

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0003	2.102	0.21	126	0.8	
LC0004	2.12	1.25	128	0.83	
LC0005	1.8	0.36	108	0.25	
LC0006	1.38	0.28	83	-0.51	
LC0008	2.05	0.62	123	0.71	
LC0009	2.229	0.468	134	1.03	
LC0010	0.63	0.12	37.9	-1.88	
LC0011	1.37	0.41	82.4	-0.53	
LC0012	1.64	0.38	98.7	-0.04	
LC0013	2.032	0.254	122	0.67	
LC0014	0.74	0.222	44.5	-1.68	
LC0015	2.3118	0.23	139	1.18	
LC0016	1.56	0.234	93.9	-0.19	
LC0017	0.612	0.046	36.8	-1.91	
LC0021	2.07	0.31	125	0.74	
LC0022	1.62	0.6	97.5	-0.08	
LC0023	1.99	0.4	120	0.6	

Characteristics of parameter

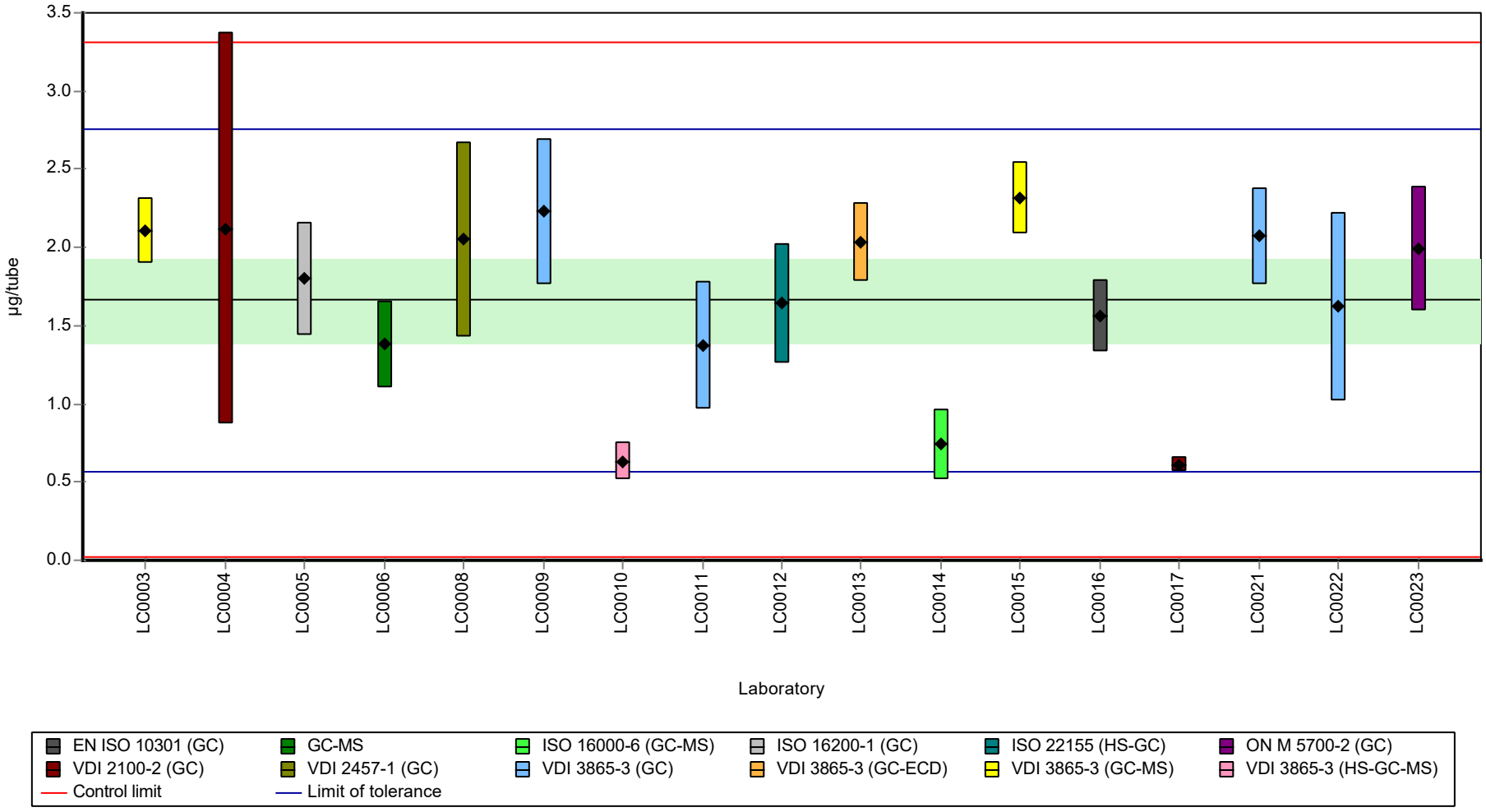
	all results	w ithout outliers	Unit
Mean ± CI (99%)	1.66 ± 0.404	1.66 ± 0.404	µg/tube
Minimum	0.612	0.612	µg/tube
Maximum	2.31	2.31	µg/tube
Standard deviation	0.555	0.555	µg/tube
rel. standard deviation	33.4	33.4	%
n	17	17	-

Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: Trichloroethene

Graphical presentation of results

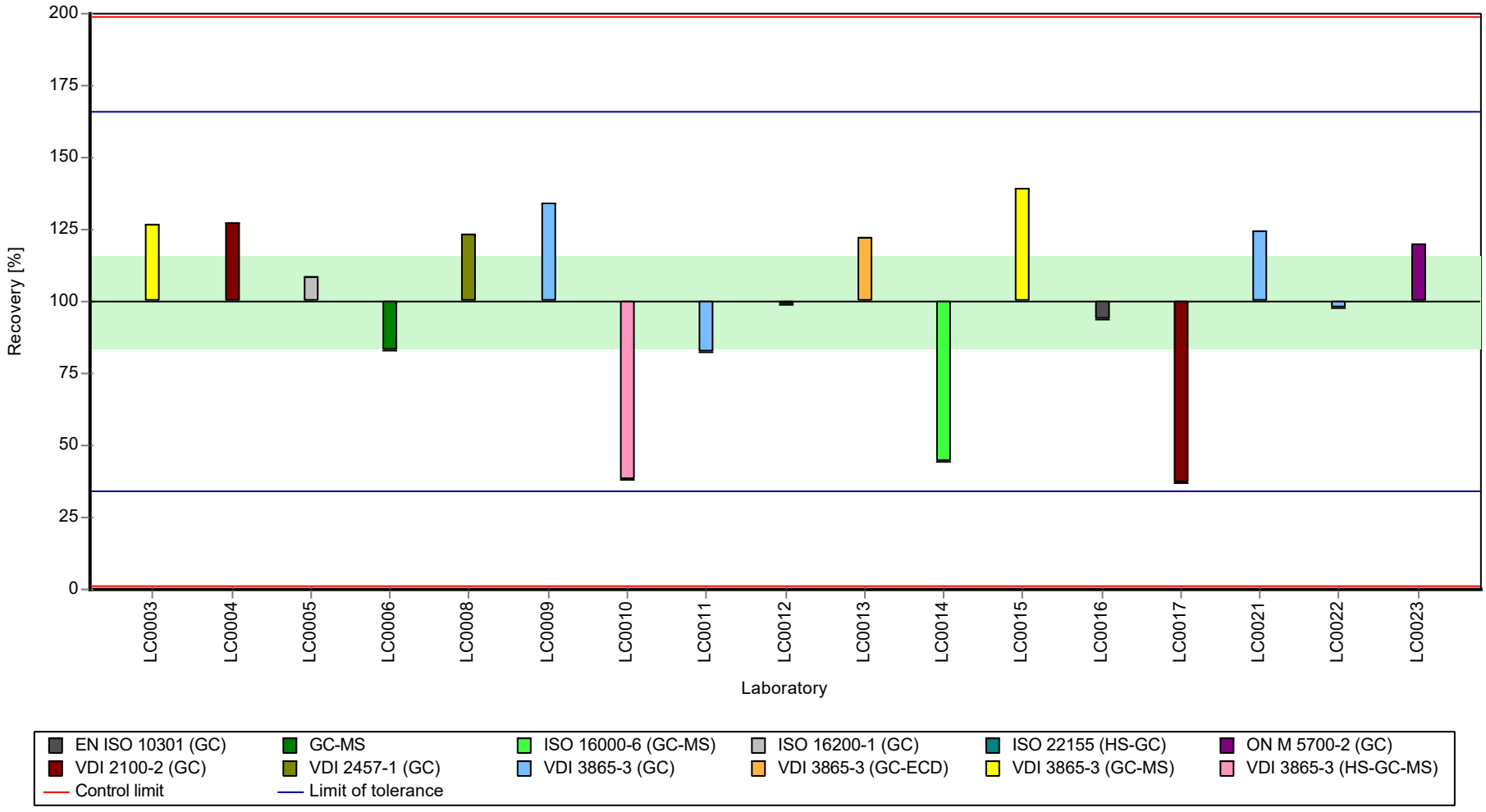
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

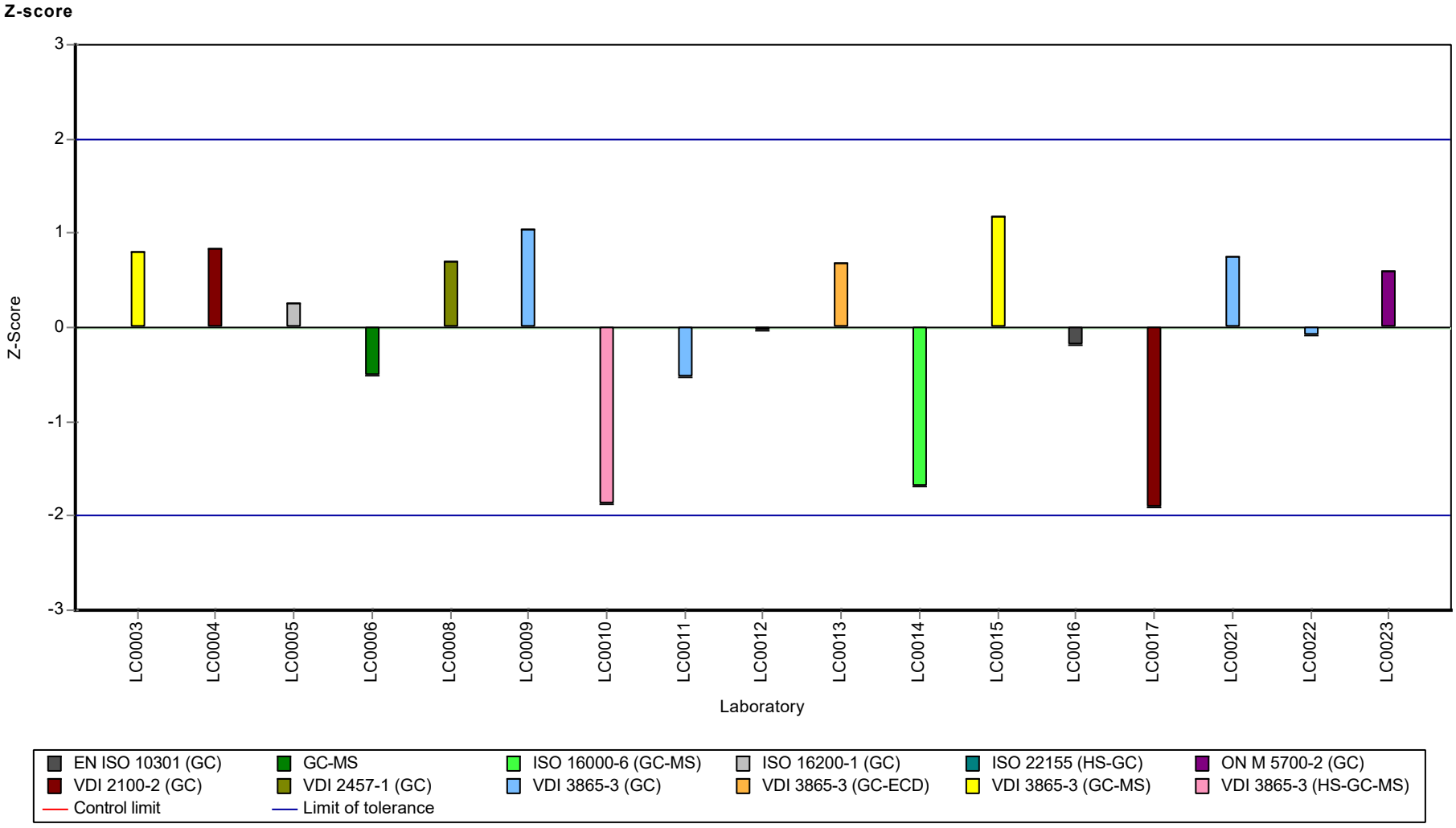
Sample: CL11, Parameter: Trichloroethene

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: Trichloroethene



Parameter oriented report

CL11 - CHC

Trichloromethane

Unit	µg/tube
Assigned value ± U (k=2)	2.12 ± 0.148
Criterion	0.297 (14 %)
Minimum - Maximum	1.64 - 2.63
Control test value ± U (k=2)	2.02 ± 0.404

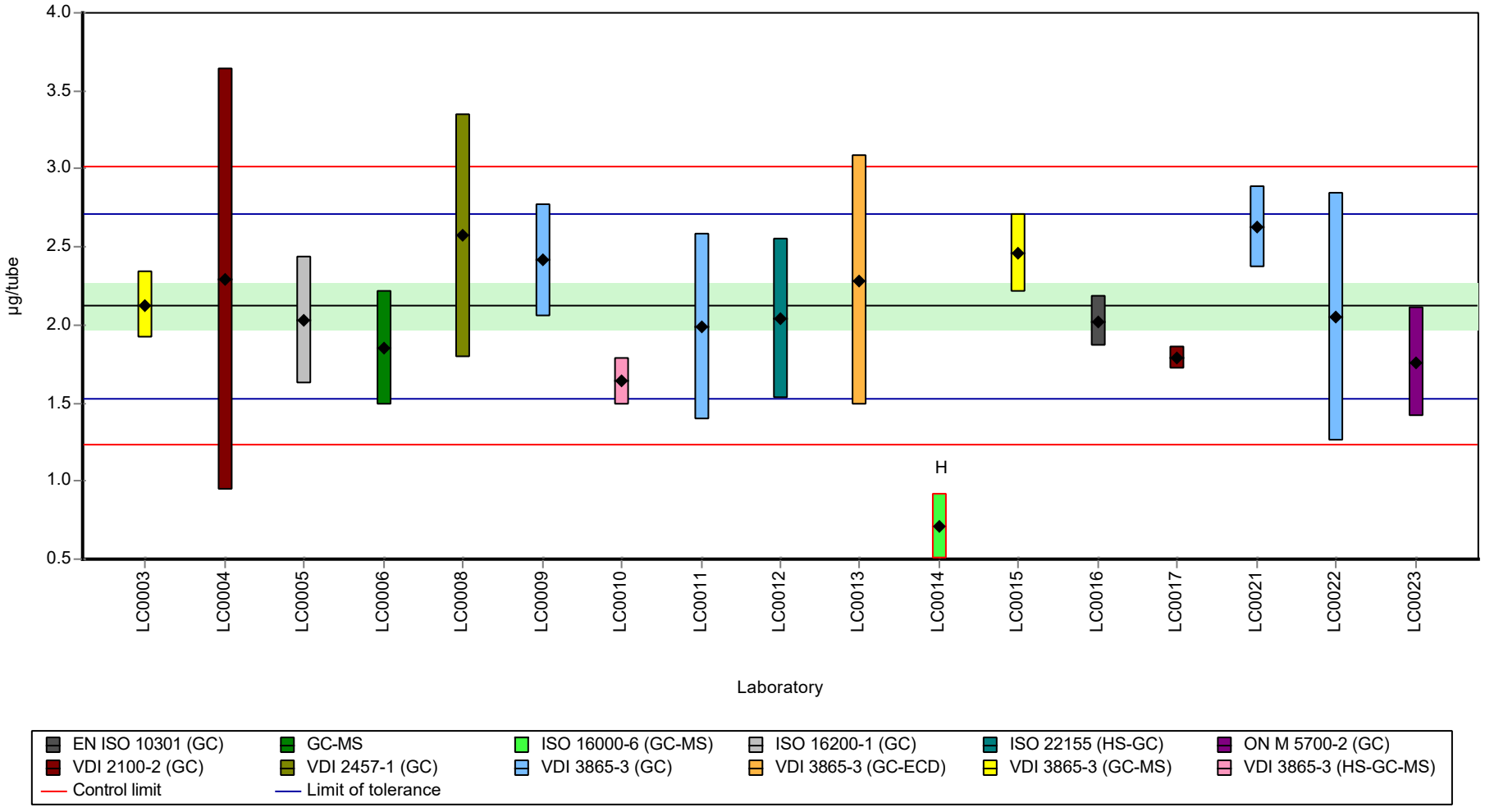
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0003	2.128	0.213	100	0.02	
LC0004	2.29	1.35	108	0.57	
LC0005	2.03	0.406	95.7	-0.31	
LC0006	1.85	0.37	87.2	-0.92	
LC0008	2.57	0.78	121	1.51	
LC0009	2.414	0.362	114	0.98	
LC0010	1.64	0.15	77.3	-1.62	
LC0011	1.99	0.6	93.8	-0.44	
LC0012	2.04	0.51	96.1	-0.28	
LC0013	2.285	0.8	108	0.55	
LC0014	0.71	0.213	33.5	-4.75	H
LC0015	2.4627	0.25	116	1.15	
LC0016	2.02	0.162	95.2	-0.34	
LC0017	1.79	0.07	84.4	-1.12	
LC0021	2.63	0.26	124	1.71	
LC0022	2.05	0.8	96.6	-0.24	
LC0023	1.76	0.35	82.9	-1.22	

Characteristics of parameter

	all results	w ithout outliers	Unit
Mean ± CI (99%)	2.04 ± 0.325	2.12 ± 0.222	µg/tube
Minimum	0.71	1.64	µg/tube
Maximum	2.63	2.63	µg/tube
Standard deviation	0.446	0.296	µg/tube
rel. standard deviation	21.9	13.9	%
n	17	16	-

Graphical presentation of results

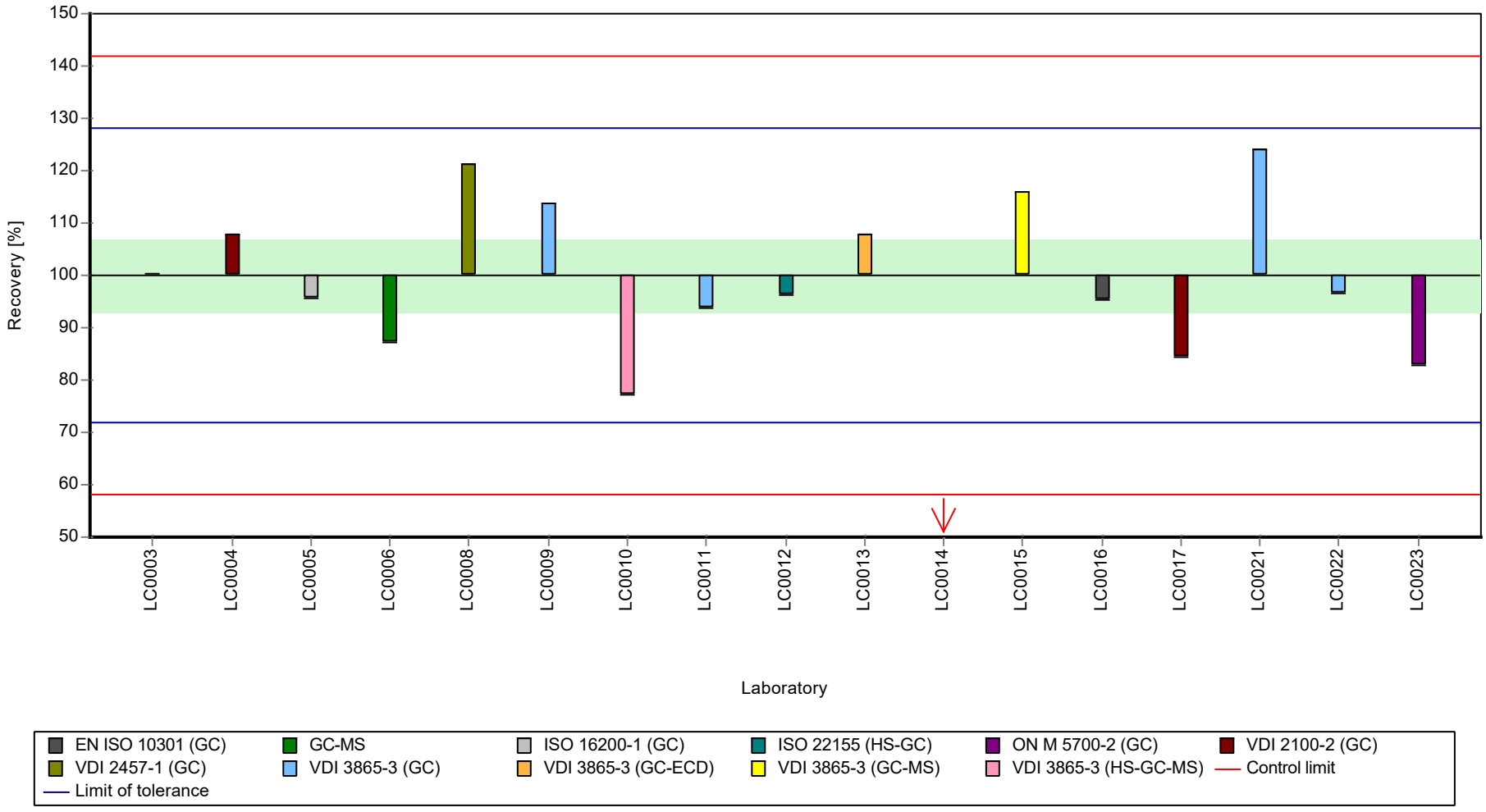
Results



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

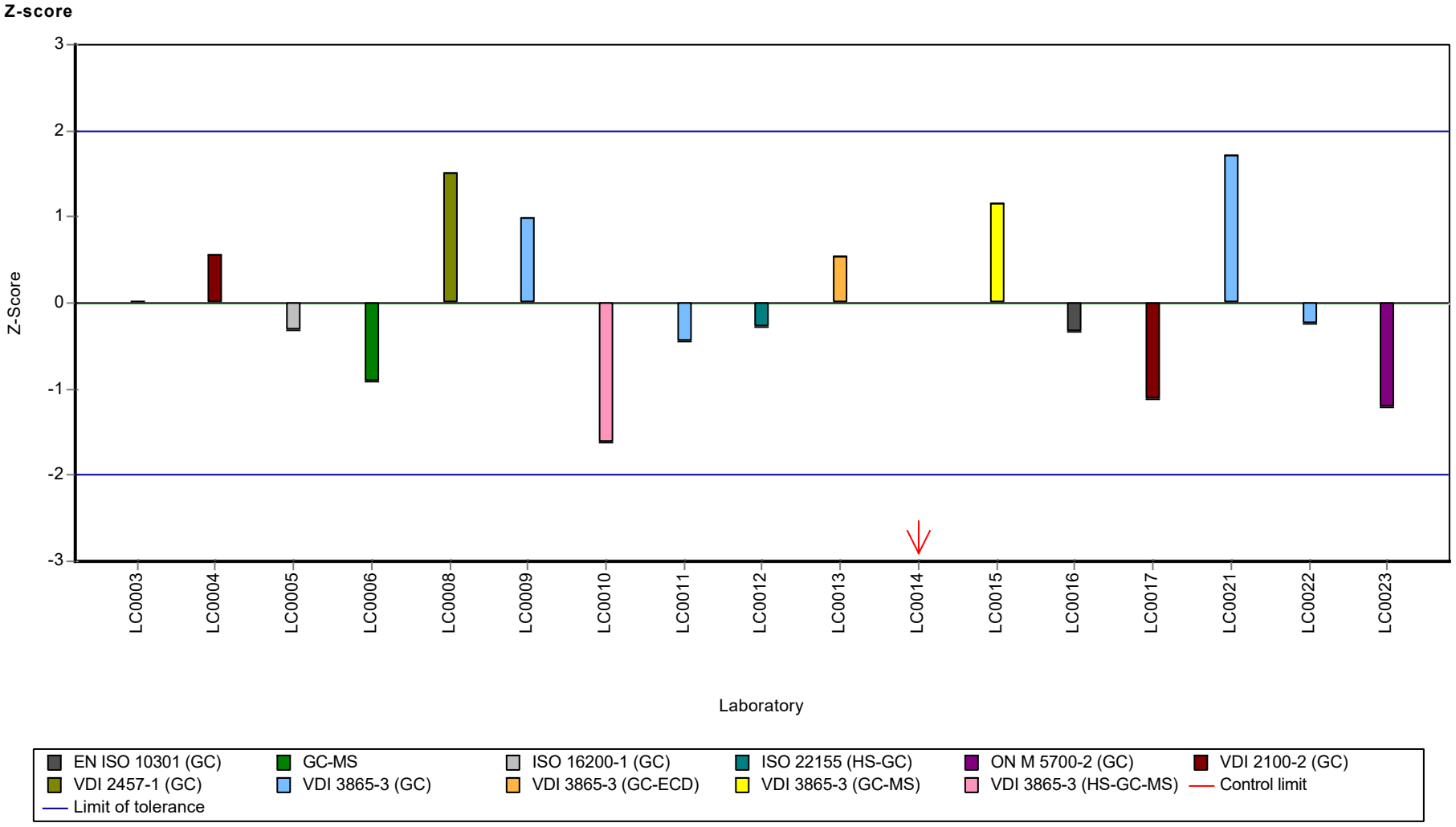
Sample: CL11, Parameter: Trichloromethane

Recovery rate



Parameter oriented report CHC and BTEX & C5-C10 - CBL10

Sample: CL11, Parameter: Trichloromethane



E8. Laborорientierte Auswertung / Laboratory oriented report

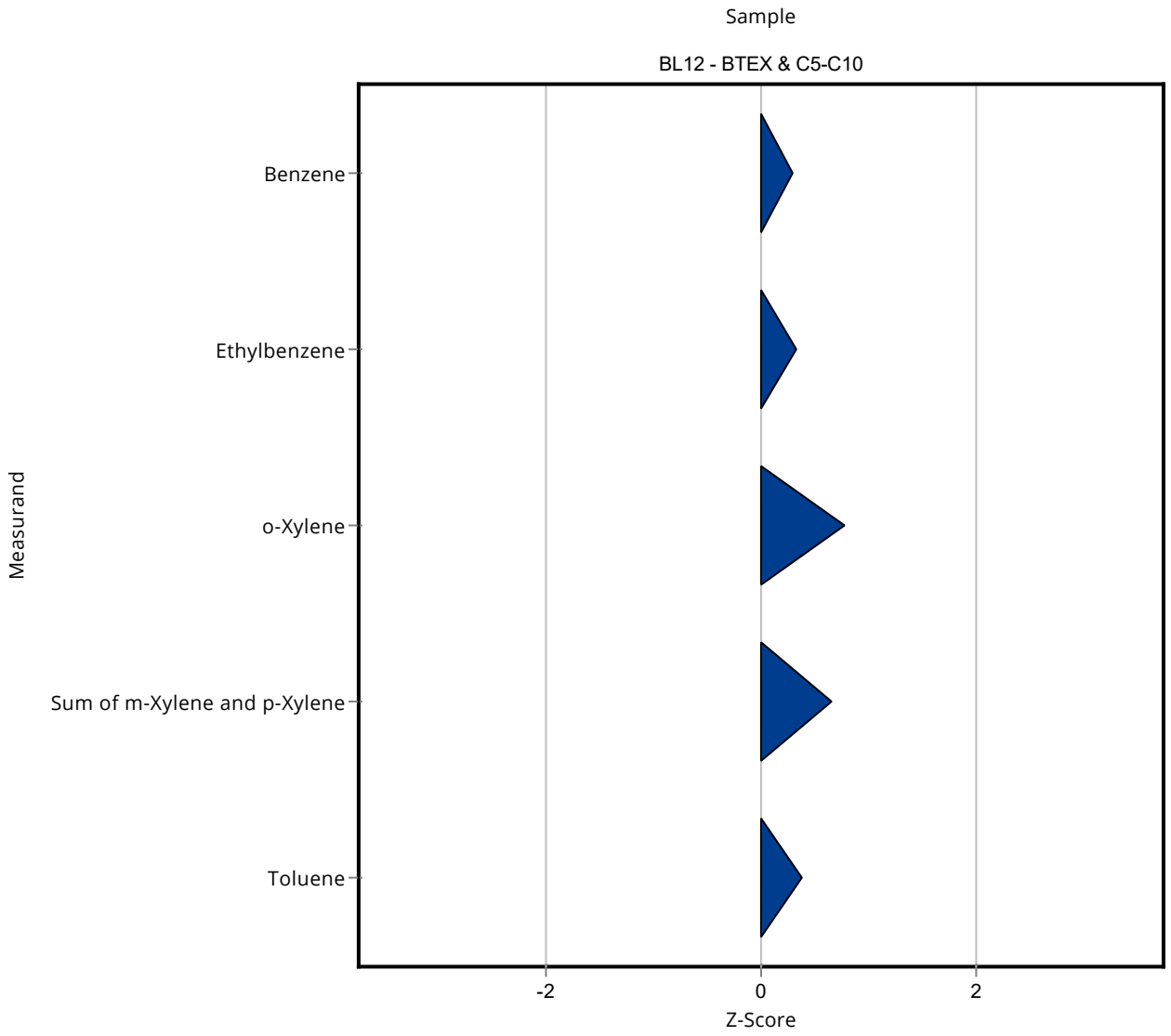
Die Laborорientierte Auswertung ist nach dem Laborcode sortiert.

The laboratory oriented report is sorted by laboratory code.

Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0001

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.89 ± 0.03	0.702	104	0.30
Ethylbenzene	µg/tube	4.28 ± 0.313	4.53 ± 0.05	0.771	106	0.32
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.33 ± 0.02	0.684	114	0.78
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.88 ± 0.1	1.5	113	0.66
Toluene	µg/tube	4.41 ± 0.306	4.66 ± 0.04	0.662	106	0.37

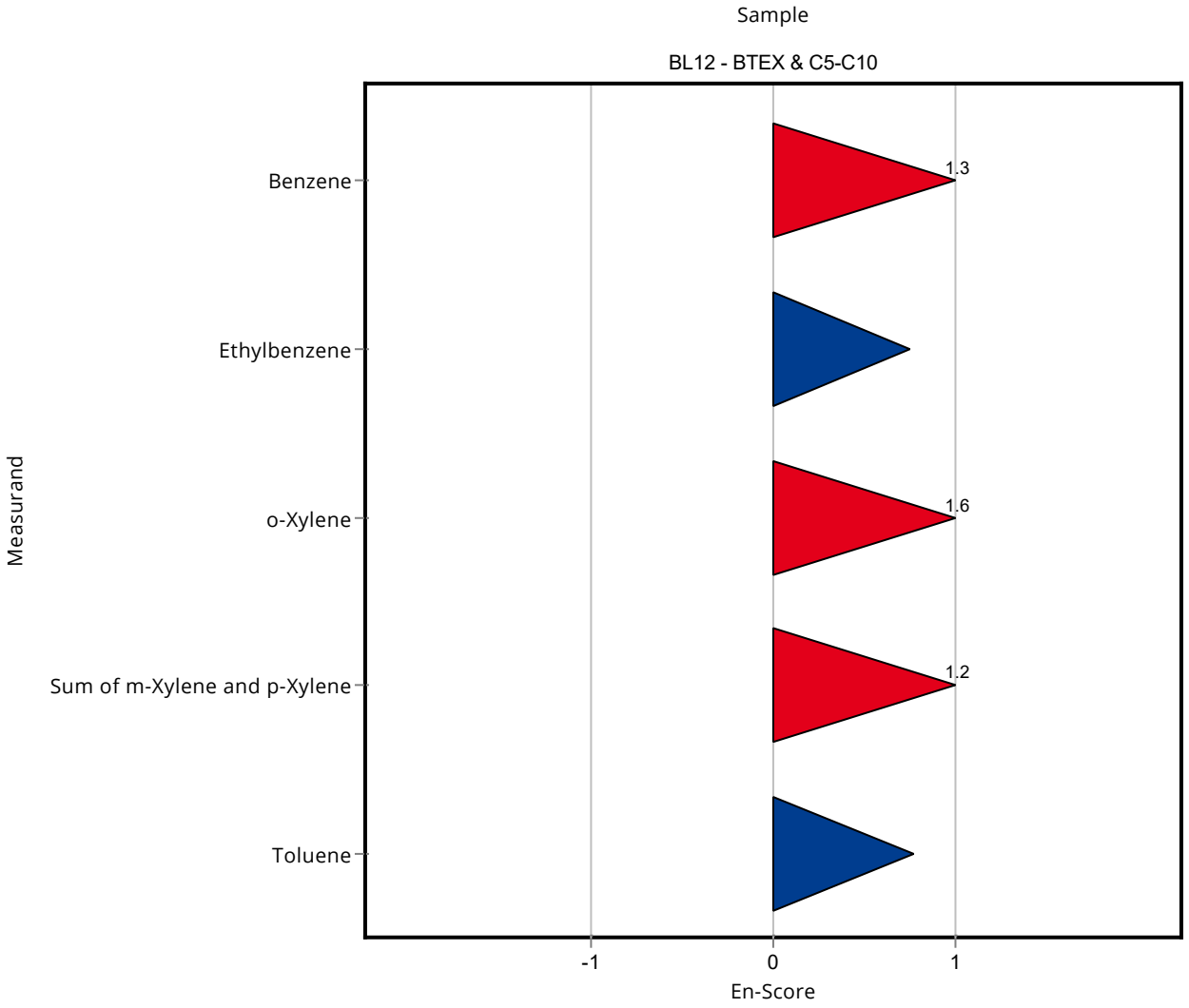

Sample
BL12 - BTEX & C5-C10
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
Measurand
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.89 ± 0.03	0.702	104	1.26
Ethylbenzene	µg/tube	4.28 ± 0.313	4.53 ± 0.05	0.771	106	0.75
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.33 ± 0.02	0.684	114	1.57
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.88 ± 0.1	1.5	113	1.20
Toluene	µg/tube	4.41 ± 0.306	4.66 ± 0.04	0.662	106	0.78

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

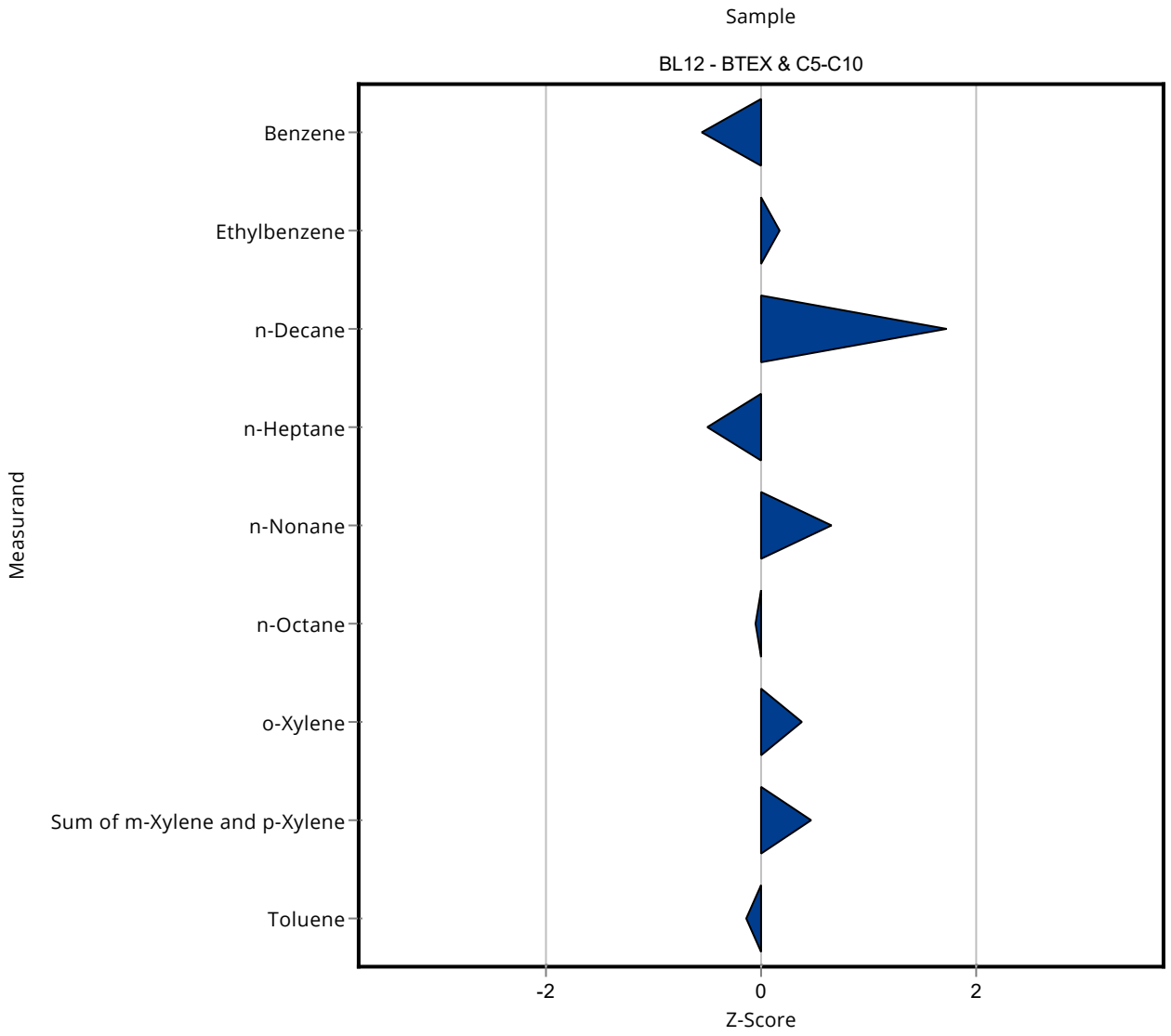
Labcode: LC0001



Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0002

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.29 ± 0.582	0.702	91.6	-0.56
Ethylbenzene	µg/tube	4.28 ± 0.313	4.41 ± 0.367	0.771	103	0.16
n-Decane	µg/tube	2.43 ± 0.409	3.69 ± 0.734	0.73	152	1.72
n-Heptane	µg/tube	5.79 ± 0.457	5.27 ± 0.632	1.04	91	-0.50
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	4.84 ± 0.446	0.856	113	0.66
n-Octane	µg/tube	5.53 ± 0.404	5.49 ± 0.493	0.94	99.3	-0.04
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.06 ± 0.376	0.684	107	0.38
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.59 ± 0.801	1.5	109	0.47
Toluene	µg/tube	4.41 ± 0.306	4.32 ± 0.519	0.662	97.9	-0.14

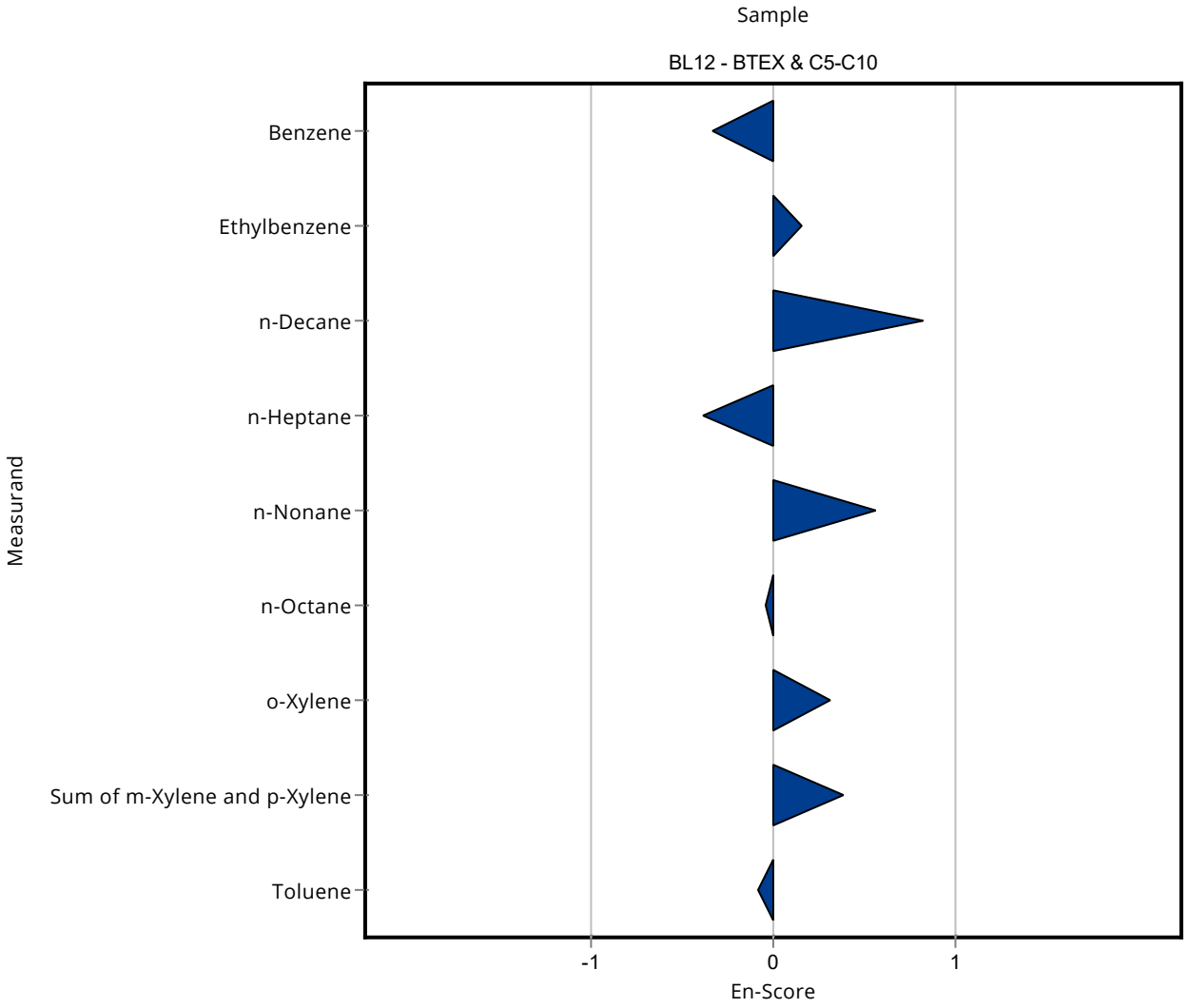

Sample
BL12 - BTEX & C5-C10
Benzene
Ethylbenzene
n-Decane
n-Heptane
n-Nonane
n-Octane
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
Measurand
-2
0
2
Z-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0002

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.29 ± 0.582	0.702	91.6	-0.33
Ethylbenzene	µg/tube	4.28 ± 0.313	4.41 ± 0.367	0.771	103	0.16
n-Decane	µg/tube	2.43 ± 0.409	3.69 ± 0.734	0.73	152	0.82
n-Heptane	µg/tube	5.79 ± 0.457	5.27 ± 0.632	1.04	91	-0.39
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	4.84 ± 0.446	0.856	113	0.56
n-Octane	µg/tube	5.53 ± 0.404	5.49 ± 0.493	0.94	99.3	-0.04
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.06 ± 0.376	0.684	107	0.32
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.59 ± 0.801	1.5	109	0.39
Toluene	µg/tube	4.41 ± 0.306	4.32 ± 0.519	0.662	97.9	-0.09


Sample
BL12 - BTEX & C5-C10
Benzene
Ethylbenzene
n-Decane
n-Heptane
n-Nonane
n-Octane
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
Measurand
-1
0
1
En-Score

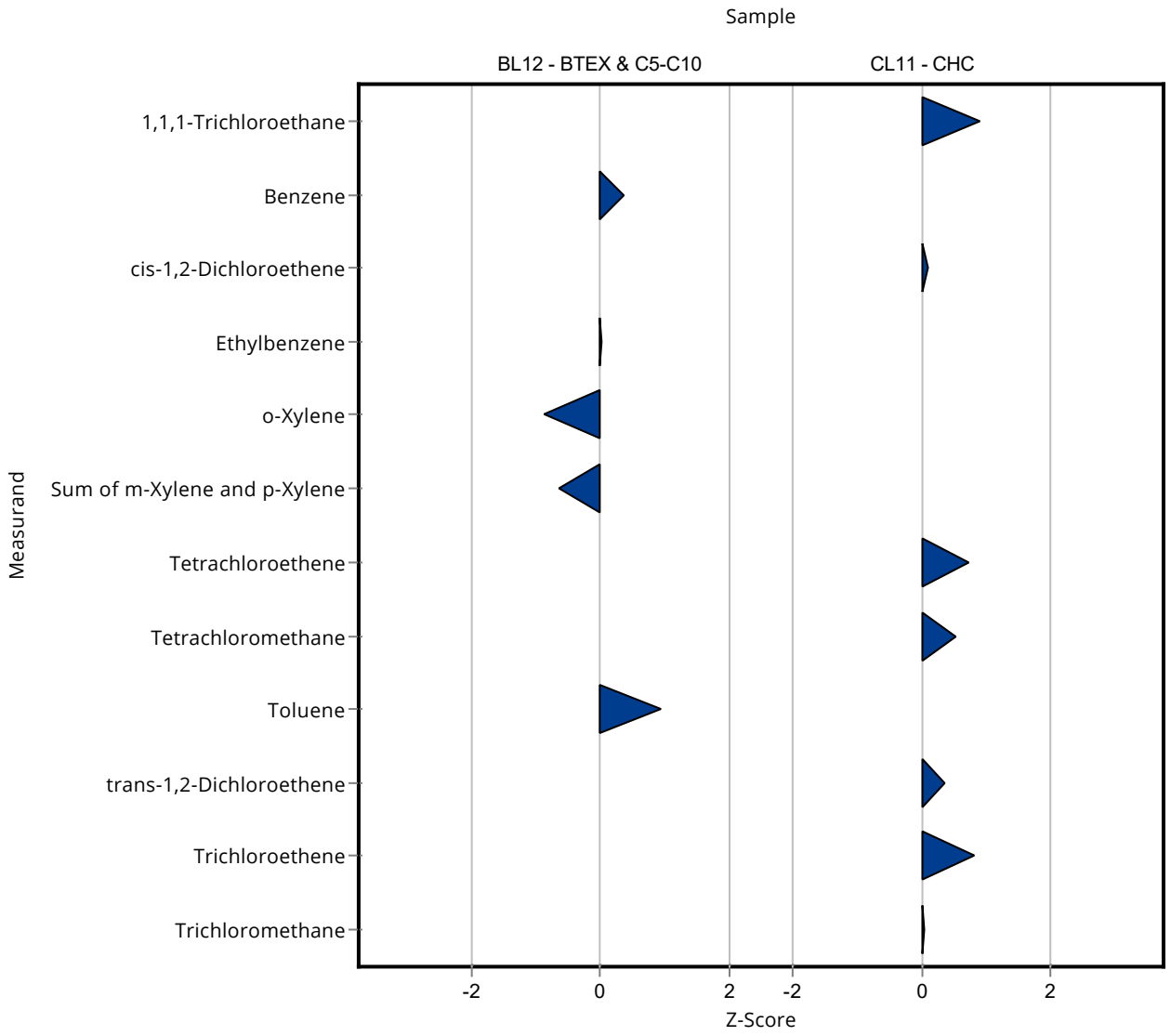
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0003

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.944 ± 0.494	0.702	106	0.37
Ethylbenzene	µg/tube	4.28 ± 0.313	4.3 ± 0.43	0.771	100	0.02
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	3.208 ± 0.321	0.684	84.5	-0.86
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	6.948 ± 0.695	1.5	88.1	-0.63
Toluene	µg/tube	4.41 ± 0.306	5.042 ± 0.504	0.662	114	0.95

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.578 ± 0.258	0.49	121	0.91
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.768 ± 0.177	0.619	103	0.08
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.386 ± 0.139	0.414	127	0.72
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.866 ± 0.287	0.564	112	0.54
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.85 ± 0.185	0.755	118	0.37
Trichloroethene	µg/tube	1.66 ± 0.269	2.102 ± 0.21	0.549	126	0.80
Trichloromethane	µg/tube	2.12 ± 0.148	2.128 ± 0.213	0.297	100	0.02


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
Measurand
-2
0
2
-2
0
2
Z-Score

Sample: BL12

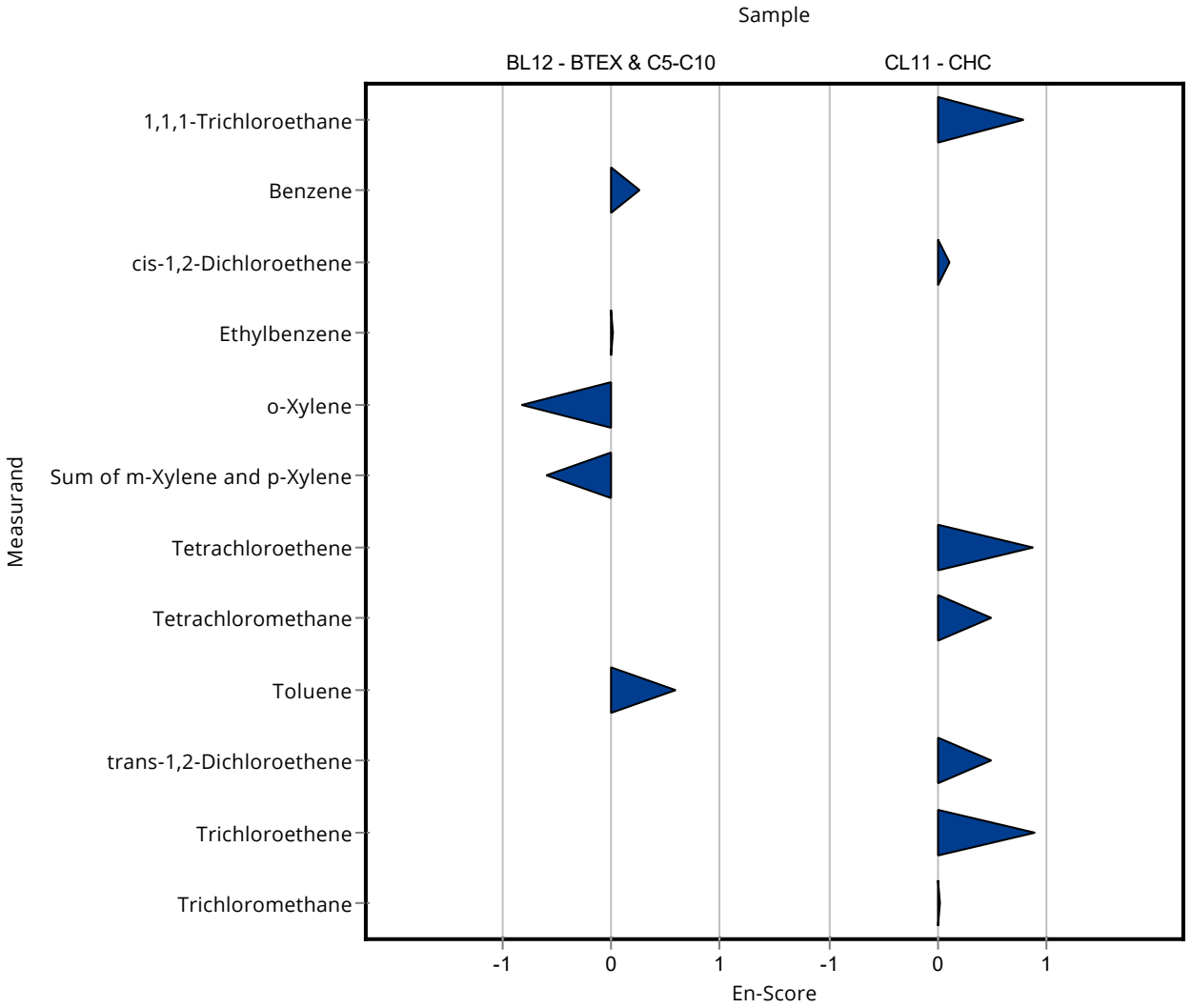
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.944 ± 0.494	0.702	106	0.26
Ethylbenzene	µg/tube	4.28 ± 0.313	4.3 ± 0.43	0.771	100	0.02
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	3.208 ± 0.321	0.684	84.5	-0.81
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	6.948 ± 0.695	1.5	88.1	-0.59
Toluene	µg/tube	4.41 ± 0.306	5.042 ± 0.504	0.662	114	0.60

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.578 ± 0.258	0.49	121	0.79
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.768 ± 0.177	0.619	103	0.10
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.386 ± 0.139	0.414	127	0.87
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.866 ± 0.287	0.564	112	0.50
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.85 ± 0.185	0.755	118	0.49
Trichloroethene	µg/tube	1.66 ± 0.269	2.102 ± 0.21	0.549	126	0.88
Trichloromethane	µg/tube	2.12 ± 0.148	2.128 ± 0.213	0.297	100	0.01

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0003

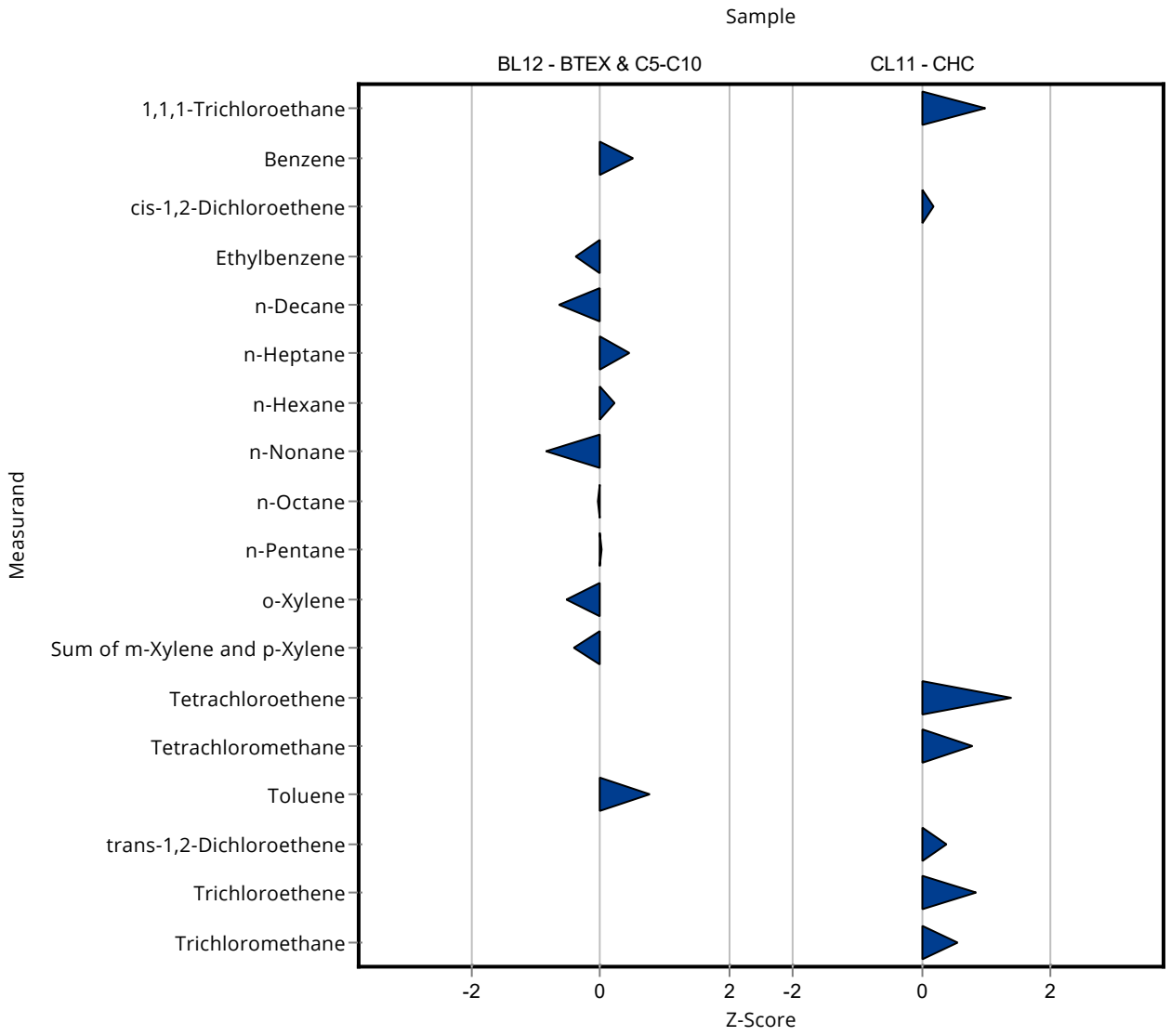


Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	5.05 ± 1.21	0.702	108	0.52
Ethylbenzene	µg/tube	4.28 ± 0.313	3.99 ± 0.958	0.771	93.2	-0.38
n-Decane	µg/tube	2.43 ± 0.409	1.96 ± 0.529	0.73	80.6	-0.65
n-Heptane	µg/tube	5.79 ± 0.457	6.27 ± 1.69	1.04	108	0.46
n-Hexane	µg/tube	6.03 ± 0.453	6.25 ± 1.69	0.964	104	0.23
n-Nonane	µg/tube	4.28 ± 0.443	3.55 ± 0.957	0.856	83	-0.85
n-Octane	µg/tube	5.53 ± 0.404	5.49 ± 1.48	0.94	99.3	-0.04
n-Pentane	µg/tube	5.78 ± 0.374	5.83 ± 1.57	1.73	101	0.03
o-Xylene	µg/tube	3.8 ± 0.335	3.44 ± 0.826	0.684	90.6	-0.52
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	7.26 ± 1.74	1.5	92	-0.42
Toluene	µg/tube	4.41 ± 0.306	4.93 ± 1.18	0.662	112	0.78

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.61 ± 1.54	0.49	122	0.98
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.83 ± 1.08	0.619	106	0.18
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.66 ± 0.976	0.414	152	1.38
Tetrachloromethane	µg/tube	2.56 ± 0.205	3 ± 1.77	0.564	117	0.77
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.87 ± 1.11	0.755	119	0.39
Trichloroethene	µg/tube	1.66 ± 0.269	2.12 ± 1.25	0.549	128	0.83
Trichloromethane	µg/tube	2.12 ± 0.148	2.29 ± 1.35	0.297	108	0.57


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
-2
0
2
-2
0
2
Z-Score

Sample: BL12

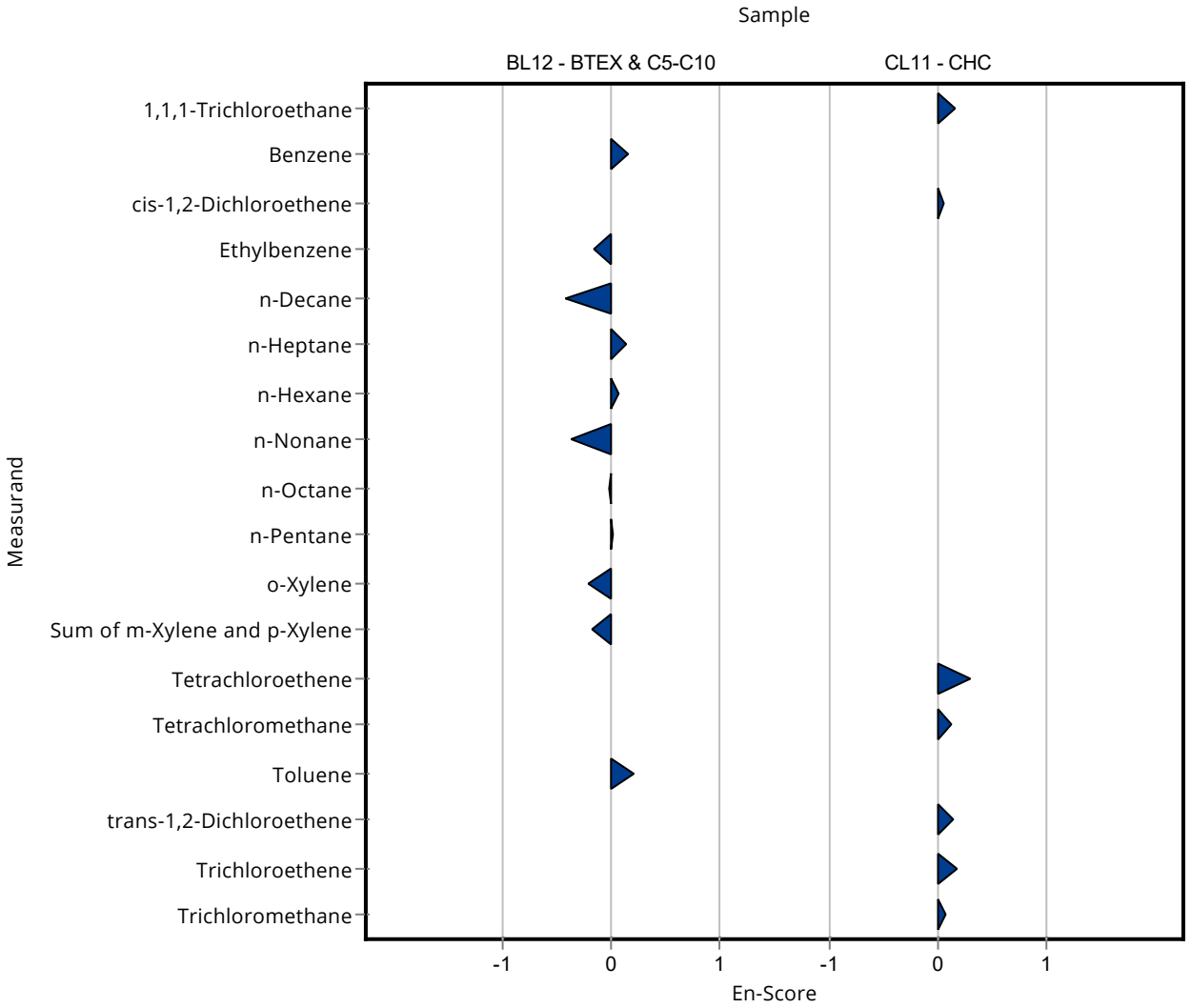
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	5.05 ± 1.21	0.702	108	0.15
Ethylbenzene	µg/tube	4.28 ± 0.313	3.99 ± 0.958	0.771	93.2	-0.15
n-Decane	µg/tube	2.43 ± 0.409	1.96 ± 0.529	0.73	80.6	-0.42
n-Heptane	µg/tube	5.79 ± 0.457	6.27 ± 1.69	1.04	108	0.14
n-Hexane	µg/tube	6.03 ± 0.453	6.25 ± 1.69	0.964	104	0.07
n-Nonane	µg/tube	4.28 ± 0.443	3.55 ± 0.957	0.856	83	-0.37
n-Octane	µg/tube	5.53 ± 0.404	5.49 ± 1.48	0.94	99.3	-0.01
n-Pentane	µg/tube	5.78 ± 0.374	5.83 ± 1.57	1.73	101	0.02
o-Xylene	µg/tube	3.8 ± 0.335	3.44 ± 0.826	0.684	90.6	-0.21
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	7.26 ± 1.74	1.5	92	-0.18
Toluene	µg/tube	4.41 ± 0.306	4.93 ± 1.18	0.662	112	0.22

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.61 ± 1.54	0.49	122	0.16
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.83 ± 1.08	0.619	106	0.05
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.66 ± 0.976	0.414	152	0.29
Tetrachloromethane	µg/tube	2.56 ± 0.205	3 ± 1.77	0.564	117	0.12
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.87 ± 1.11	0.755	119	0.13
Trichloroethene	µg/tube	1.66 ± 0.269	2.12 ± 1.25	0.549	128	0.18
Trichloromethane	µg/tube	2.12 ± 0.148	2.29 ± 1.35	0.297	108	0.06

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0004



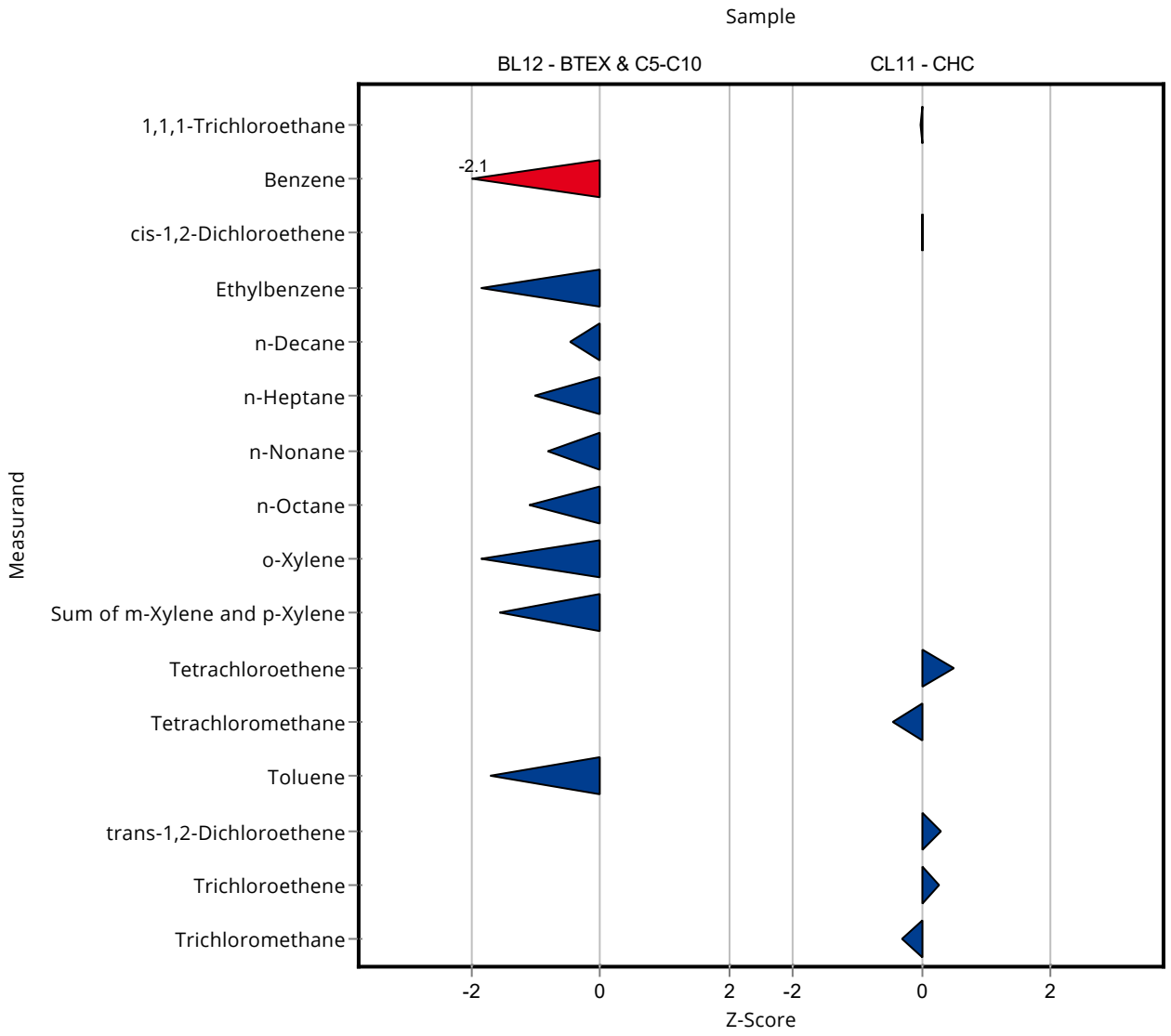
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0005

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	3.24 ± 0.648	0.702	69.2	-2.05
Ethylbenzene	µg/tube	4.28 ± 0.313	2.85 ± 0.57	0.771	66.5	-1.86
n-Decane	µg/tube	2.43 ± 0.409	2.09 ± 0.418	0.73	85.9	-0.47
n-Heptane	µg/tube	5.79 ± 0.457	4.72 ± 0.94	1.04	81.5	-1.03
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	3.58 ± 0.716	0.856	83.7	-0.82
n-Octane	µg/tube	5.53 ± 0.404	4.49 ± 0.898	0.94	81.2	-1.11
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	2.54 ± 0.508	0.684	66.9	-1.84
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	5.53 ± 1.106	1.5	70.1	-1.57
Toluene	µg/tube	4.41 ± 0.306	3.28 ± 0.656	0.662	74.3	-1.71

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.12 ± 0.424	0.49	99.5	-0.02
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.73 ± 0.346	0.619	101	0.02
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.29 ± 0.258	0.414	118	0.48
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.3 ± 0.46	0.564	89.7	-0.47
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.79 ± 0.358	0.755	114	0.29
Trichloroethene	µg/tube	1.66 ± 0.269	1.8 ± 0.36	0.549	108	0.25
Trichloromethane	µg/tube	2.12 ± 0.148	2.03 ± 0.406	0.297	95.7	-0.31


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Nonane
n-Octane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
-2.1
-2
0
2
-2
0
2
Z-Score

Sample: BL12

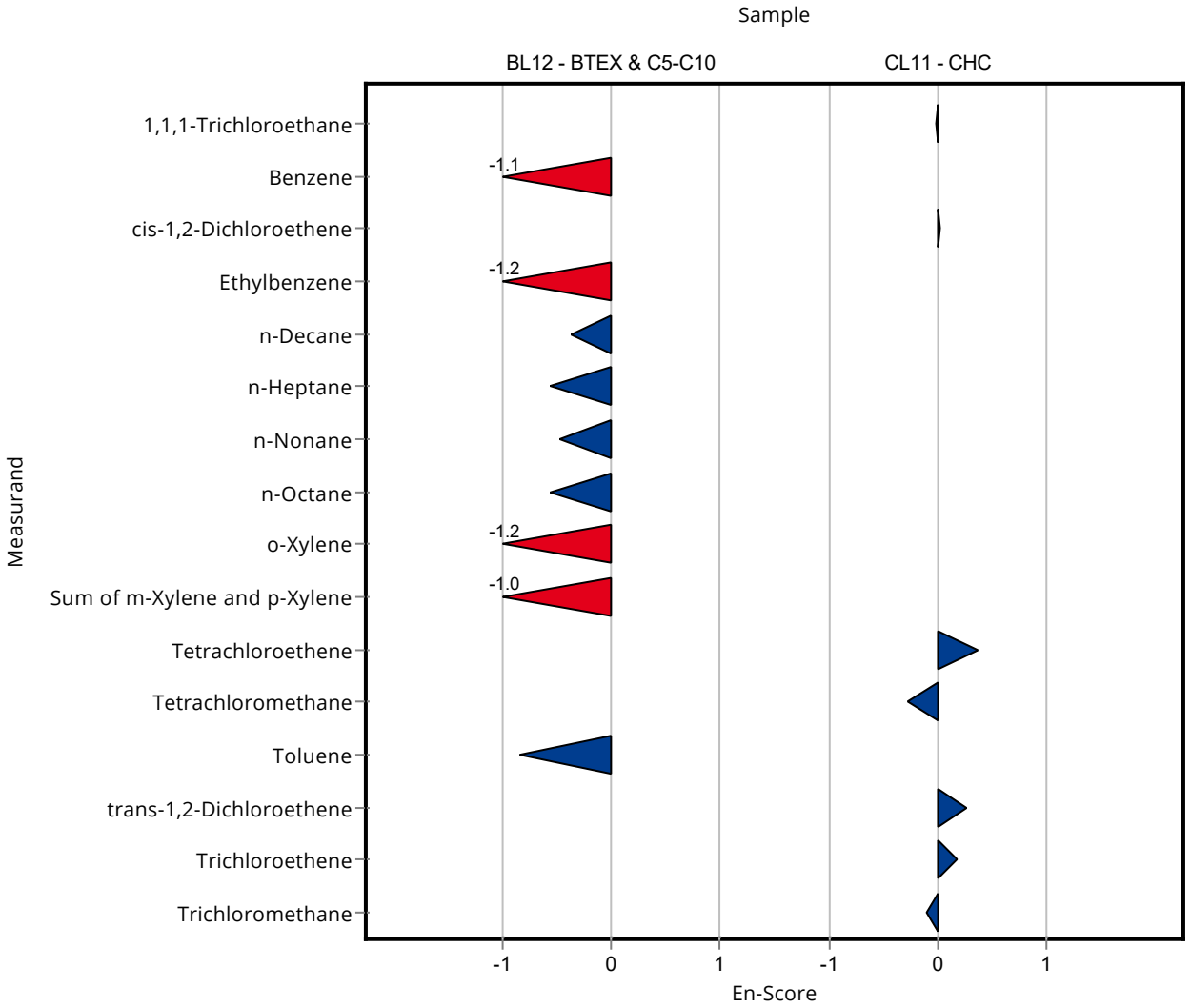
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	3.24 ± 0.648	0.702	69.2	-1.11
Ethylbenzene	µg/tube	4.28 ± 0.313	2.85 ± 0.57	0.771	66.5	-1.21
n-Decane	µg/tube	2.43 ± 0.409	2.09 ± 0.418	0.73	85.9	-0.37
n-Heptane	µg/tube	5.79 ± 0.457	4.72 ± 0.94	1.04	81.5	-0.55
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	3.58 ± 0.716	0.856	83.7	-0.47
n-Octane	µg/tube	5.53 ± 0.404	4.49 ± 0.898	0.94	81.2	-0.57
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	2.54 ± 0.508	0.684	66.9	-1.18
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	5.53 ± 1.106	1.5	70.1	-1.00
Toluene	µg/tube	4.41 ± 0.306	3.28 ± 0.656	0.662	74.3	-0.84

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.12 ± 0.424	0.49	99.5	-0.01
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.73 ± 0.346	0.619	101	0.01
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.29 ± 0.258	0.414	118	0.36
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.3 ± 0.46	0.564	89.7	-0.28
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.79 ± 0.358	0.755	114	0.26
Trichloroethene	µg/tube	1.66 ± 0.269	1.8 ± 0.36	0.549	108	0.18
Trichloromethane	µg/tube	2.12 ± 0.148	2.03 ± 0.406	0.297	95.7	-0.11

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0005



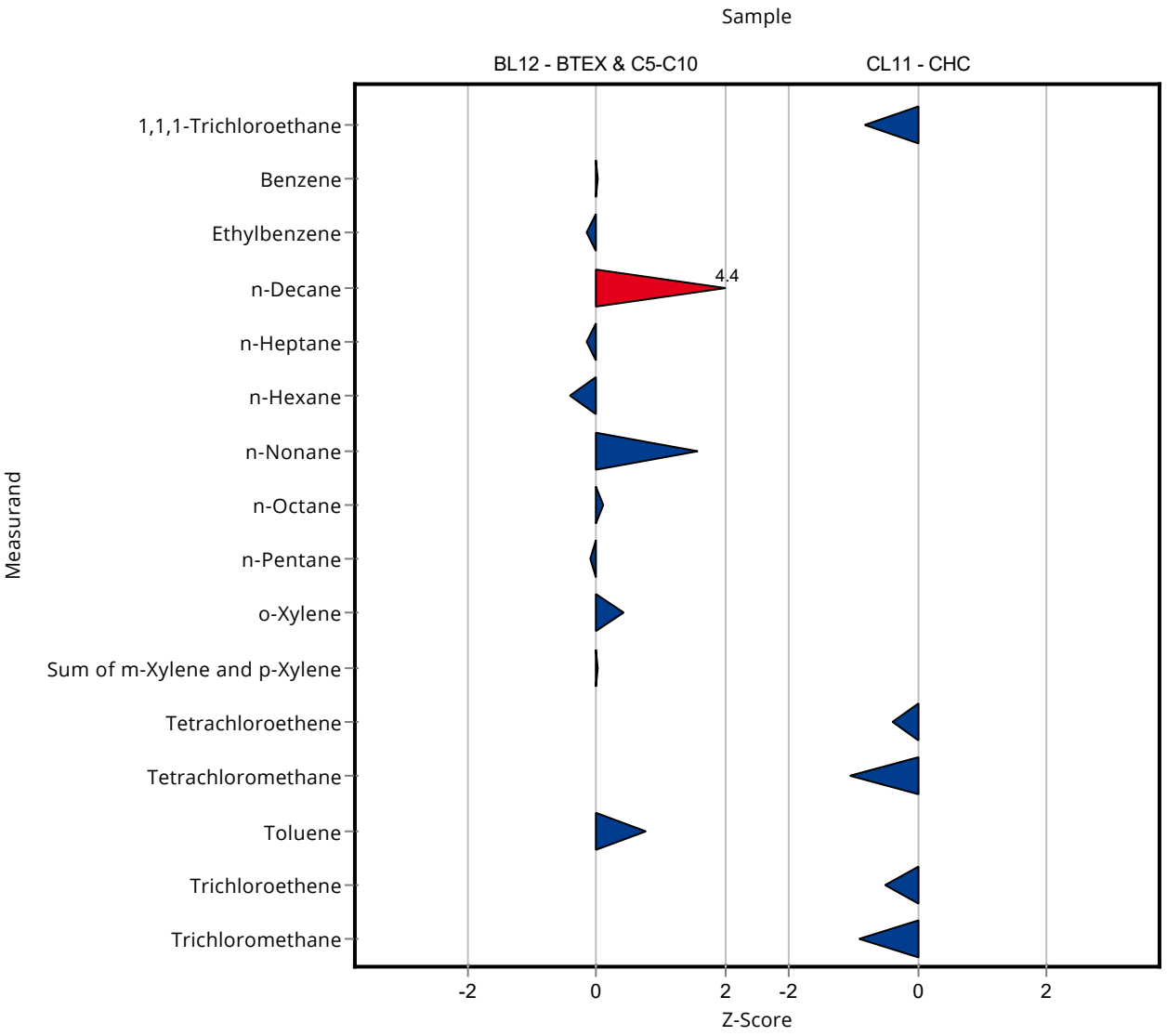
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0006

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.7 ± 0.94	0.702	100	0.03
Ethylbenzene	µg/tube	4.28 ± 0.313	4.16 ± 0.83	0.771	97.1	-0.16
n-Decane	µg/tube	2.43 ± 0.409	5.63 ± 1.13	0.73	231	4.38
n-Heptane	µg/tube	5.79 ± 0.457	5.63 ± 1.13	1.04	97.2	-0.15
n-Hexane	µg/tube	6.03 ± 0.453	5.63 ± 1.13	0.964	93.4	-0.41
n-Nonane	µg/tube	4.28 ± 0.443	5.63 ± 1.13	0.856	132	1.58
n-Octane	µg/tube	5.53 ± 0.404	5.63 ± 1.13	0.94	102	0.11
n-Pentane	µg/tube	5.78 ± 0.374	5.63 ± 1.13	1.73	97.4	-0.09
o-Xylene	µg/tube	3.8 ± 0.335	4.08 ± 0.82	0.684	107	0.41
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	7.91 ± 1.58	1.5	100	0.01
Toluene	µg/tube	4.41 ± 0.306	4.92 ± 0.98	0.662	111	0.76

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	1.72 ± 0.34	0.49	80.7	-0.84
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	- ± -	0.619	-	-
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.93 ± 0.19	0.414	85.4	-0.39
Tetrachloromethane	µg/tube	2.56 ± 0.205	1.96 ± 0.39	0.564	76.4	-1.07
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	- ± -	0.755	-	-
Trichloroethene	µg/tube	1.66 ± 0.269	1.38 ± 0.28	0.549	83	-0.51
Trichloromethane	µg/tube	2.12 ± 0.148	1.85 ± 0.37	0.297	87.2	-0.92

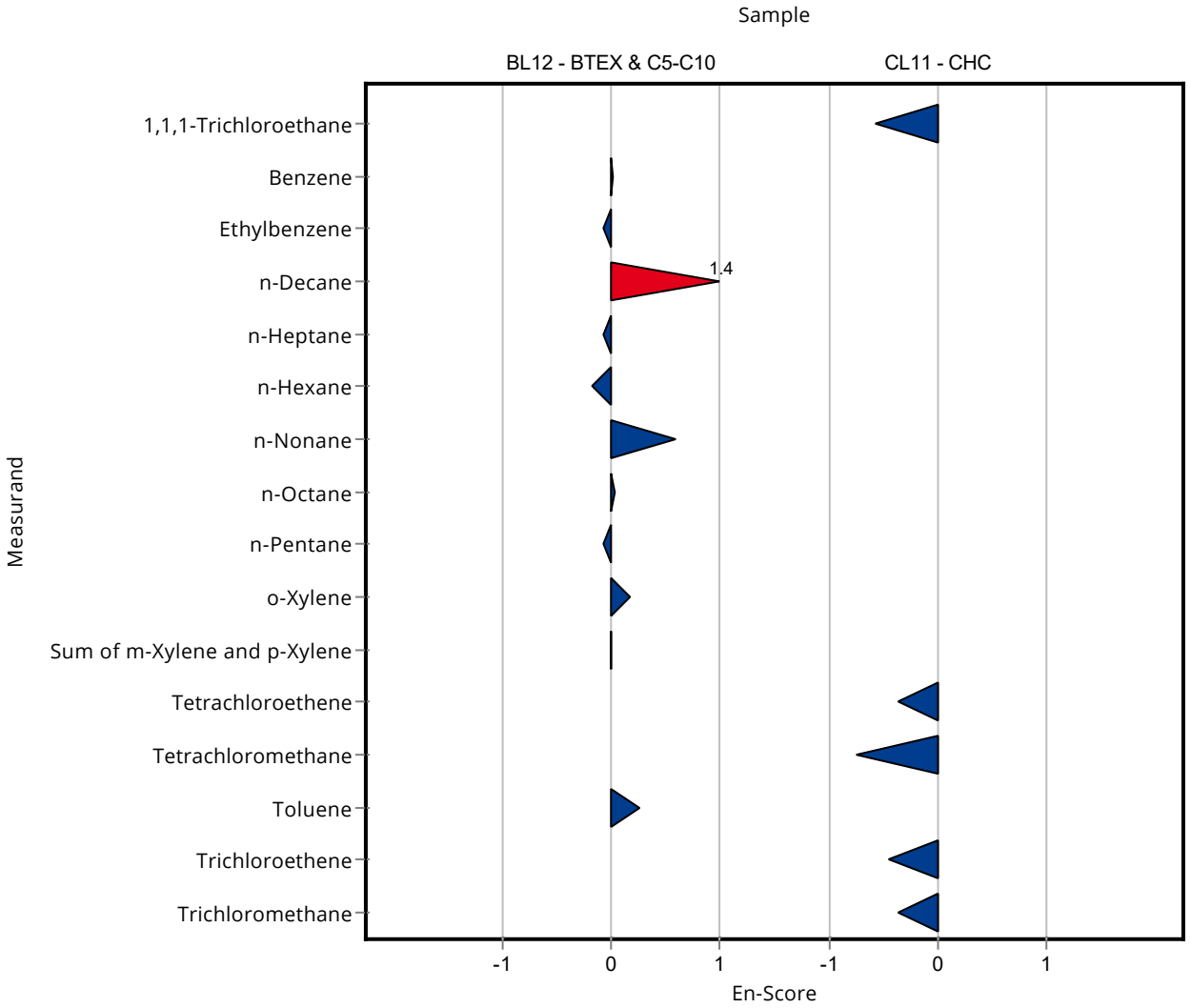

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
Ethylbenzene
n-Decane
4.4
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
Trichloroethene
Trichloromethane
Measurand
-2
0
2
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.7 ± 0.94	0.702	100	0.01
Ethylbenzene	µg/tube	4.28 ± 0.313	4.16 ± 0.83	0.771	97.1	-0.07
n-Decane	µg/tube	2.43 ± 0.409	5.63 ± 1.13	0.73	231	1.39
n-Heptane	µg/tube	5.79 ± 0.457	5.63 ± 1.13	1.04	97.2	-0.07
n-Hexane	µg/tube	6.03 ± 0.453	5.63 ± 1.13	0.964	93.4	-0.17
n-Nonane	µg/tube	4.28 ± 0.443	5.63 ± 1.13	0.856	132	0.59
n-Octane	µg/tube	5.53 ± 0.404	5.63 ± 1.13	0.94	102	0.04
n-Pentane	µg/tube	5.78 ± 0.374	5.63 ± 1.13	1.73	97.4	-0.06
o-Xylene	µg/tube	3.8 ± 0.335	4.08 ± 0.82	0.684	107	0.17
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	7.91 ± 1.58	1.5	100	0.01
Toluene	µg/tube	4.41 ± 0.306	4.92 ± 0.98	0.662	111	0.26

Sample: CL11

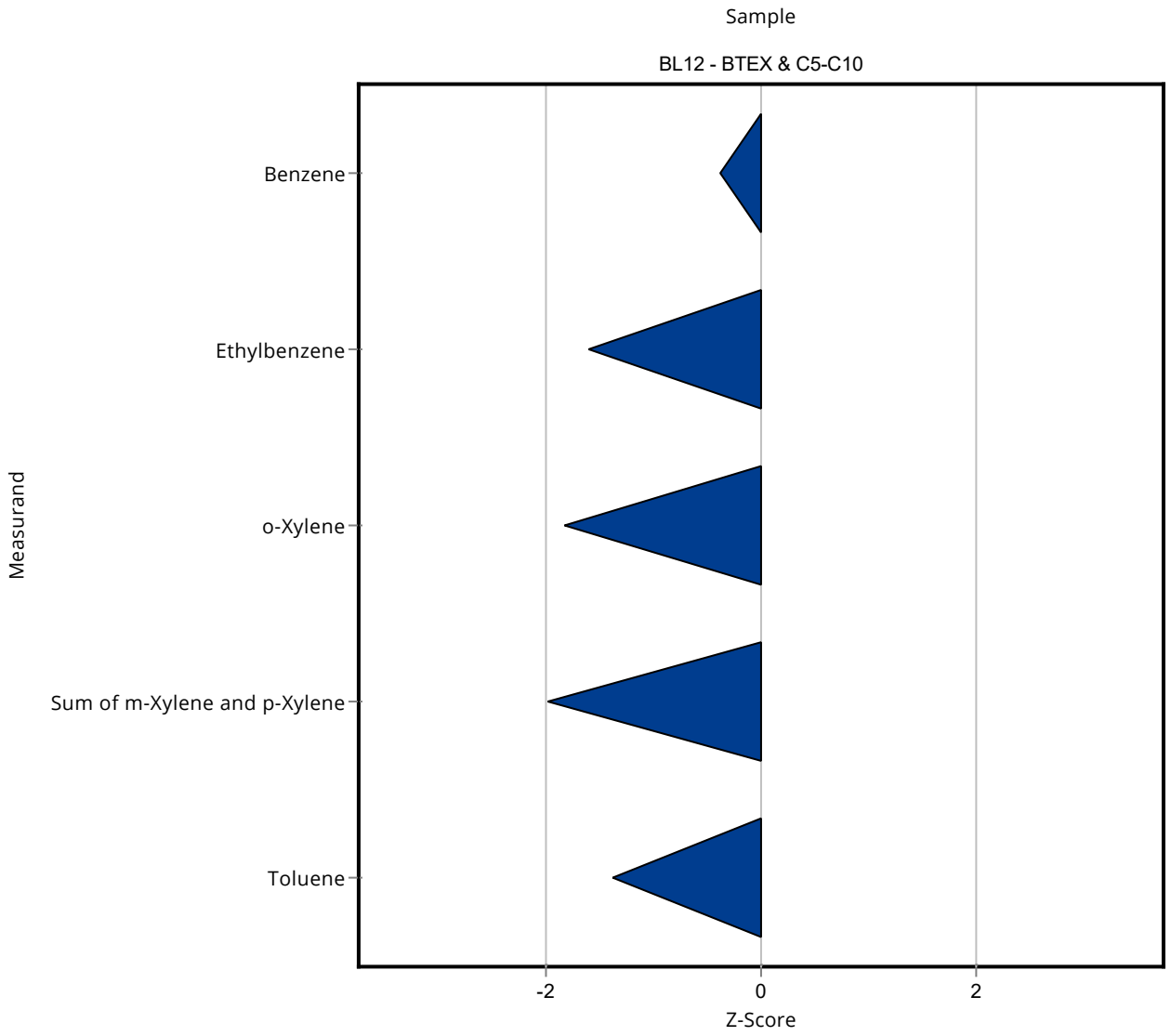
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	1.72 ± 0.34	0.49	80.7	-0.57
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	- ± -	0.619	-	-
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.93 ± 0.19	0.414	85.4	-0.37
Tetrachloromethane	µg/tube	2.56 ± 0.205	1.96 ± 0.39	0.564	76.4	-0.75
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	- ± -	0.755	-	-
Trichloroethene	µg/tube	1.66 ± 0.269	1.38 ± 0.28	0.549	83	-0.45
Trichloromethane	µg/tube	2.12 ± 0.148	1.85 ± 0.37	0.297	87.2	-0.36


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
Trichloroethene
Trichloromethane
1.4
Measurand
-1
0
1
-1
0
1
En-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0007

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.4096 ± 0.6619	0.702	94.2	-0.39
Ethylbenzene	µg/tube	4.28 ± 0.313	3.0506 ± 0.326	0.771	71.2	-1.60
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	2.5412 ± 0.3091	0.684	66.9	-1.84
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	4.9178 ± 0.5684	1.5	62.3	-1.98
Toluene	µg/tube	4.41 ± 0.306	3.4932 ± 0.33	0.662	79.1	-1.39

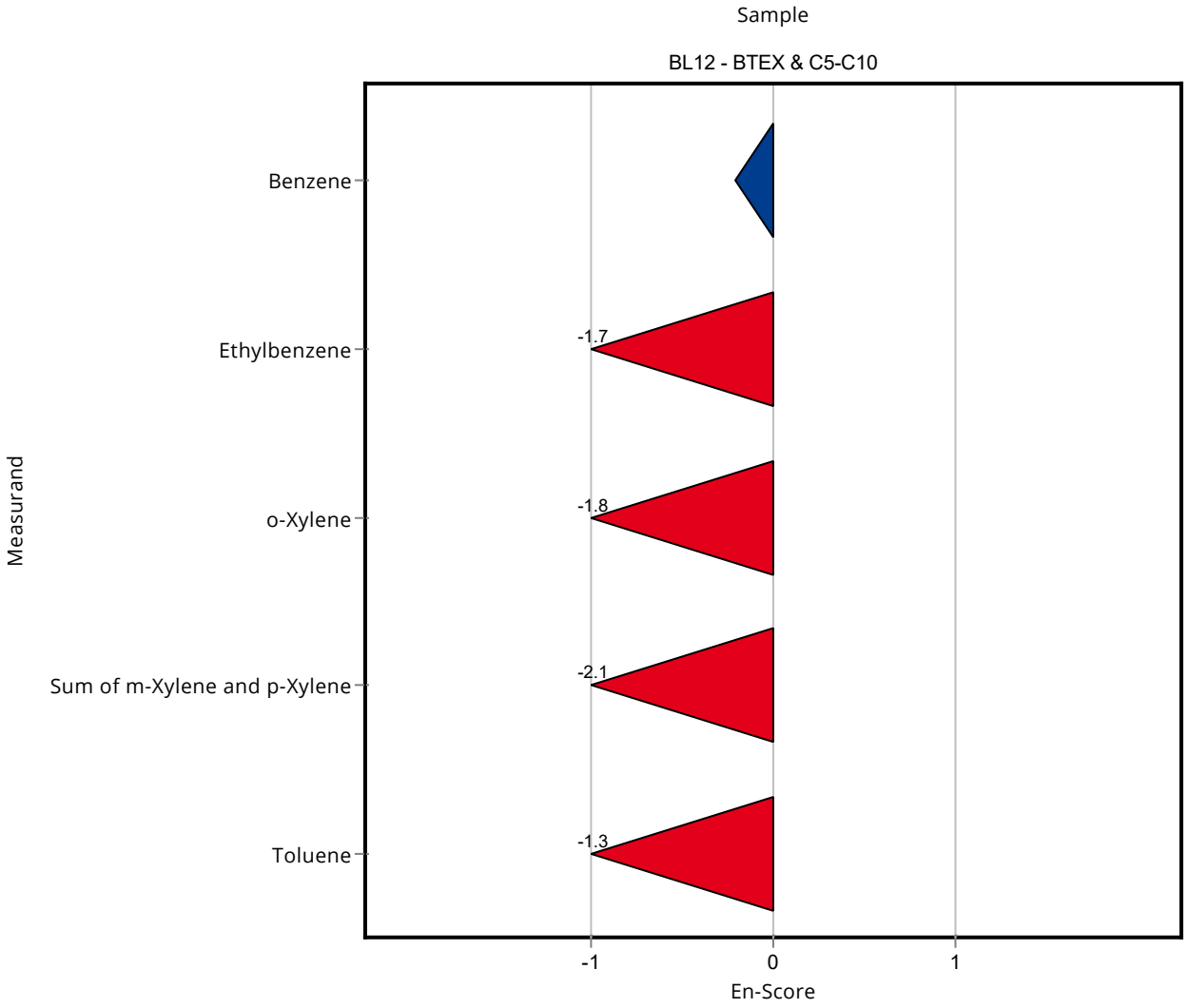

Sample
BL12 - BTEX & C5-C10
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
Measurand
-2
0
2
Z-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0007

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.4096 ± 0.6619	0.702	94.2	-0.20
Ethylbenzene	µg/tube	4.28 ± 0.313	3.0506 ± 0.326	0.771	71.2	-1.70
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	2.5412 ± 0.3091	0.684	66.9	-1.79
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	4.9178 ± 0.5684	1.5	62.3	-2.14
Toluene	µg/tube	4.41 ± 0.306	3.4932 ± 0.33	0.662	79.1	-1.27


Sample
BL12 - BTEX & C5-C10
Measurand
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
-1.7
-1.8
-2.1
-1.3
-1
0
1
En-Score

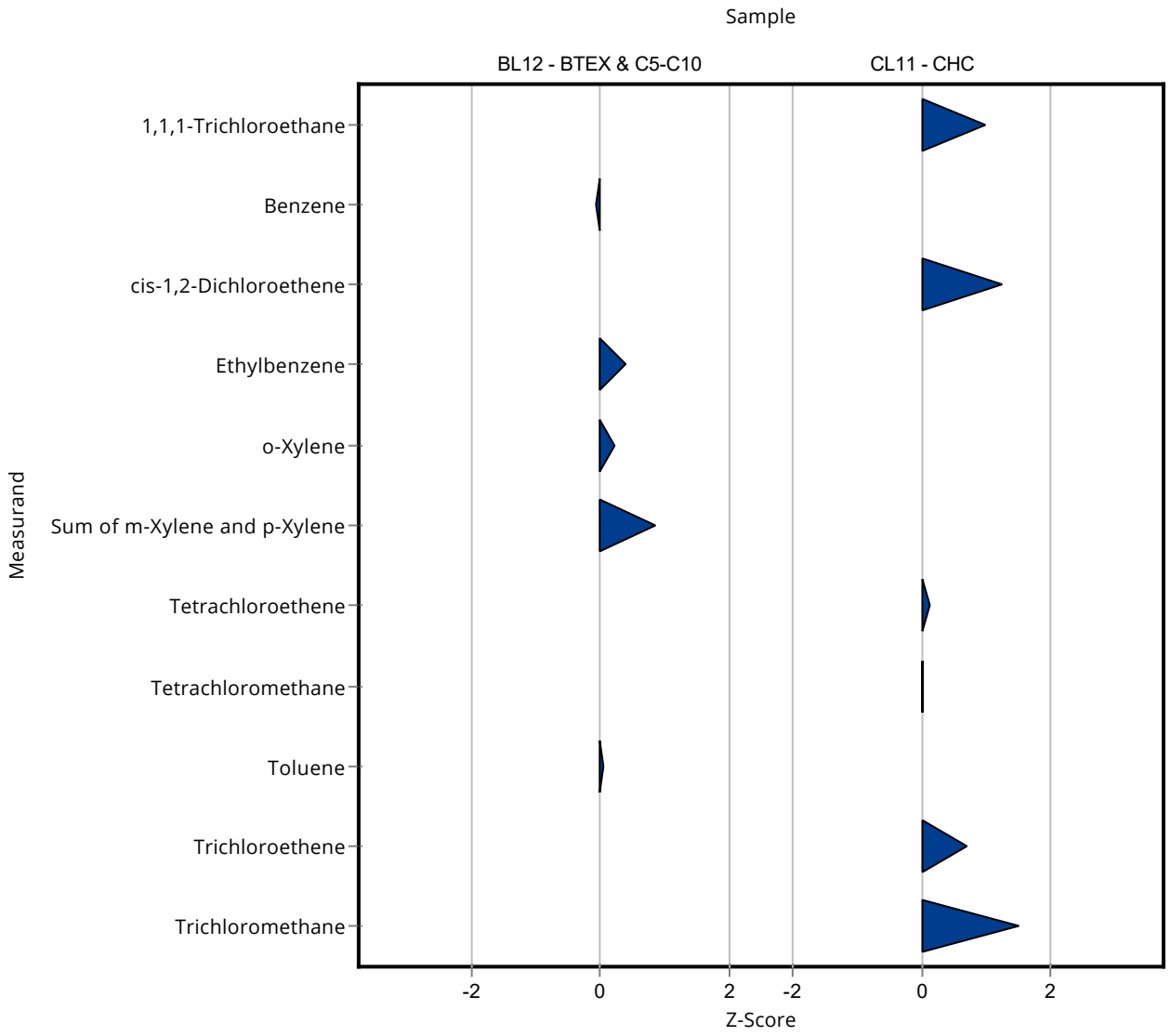
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0008

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.63 ± 1.16	0.702	98.9	-0.07
Ethylbenzene	µg/tube	4.28 ± 0.313	4.59 ± 1.15	0.771	107	0.40
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	3.95 ± 0.99	0.684	104	0.22
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.18 ± 2.3	1.5	116	0.86
Toluene	µg/tube	4.41 ± 0.306	4.44 ± 1.12	0.662	101	0.04

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.61 ± 0.79	0.49	122	0.98
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.48 ± 0.75	0.619	144	1.23
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.14 ± 0.35	0.414	105	0.12
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.56 ± 0.77	0.564	99.8	-0.01
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	- ± -	0.755	-	-
Trichloroethene	µg/tube	1.66 ± 0.269	2.05 ± 0.62	0.549	123	0.71
Trichloromethane	µg/tube	2.12 ± 0.148	2.57 ± 0.78	0.297	121	1.51


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
Trichloroethene
Trichloromethane
-2
0
2
-2
0
2
Z-Score

Sample: BL12

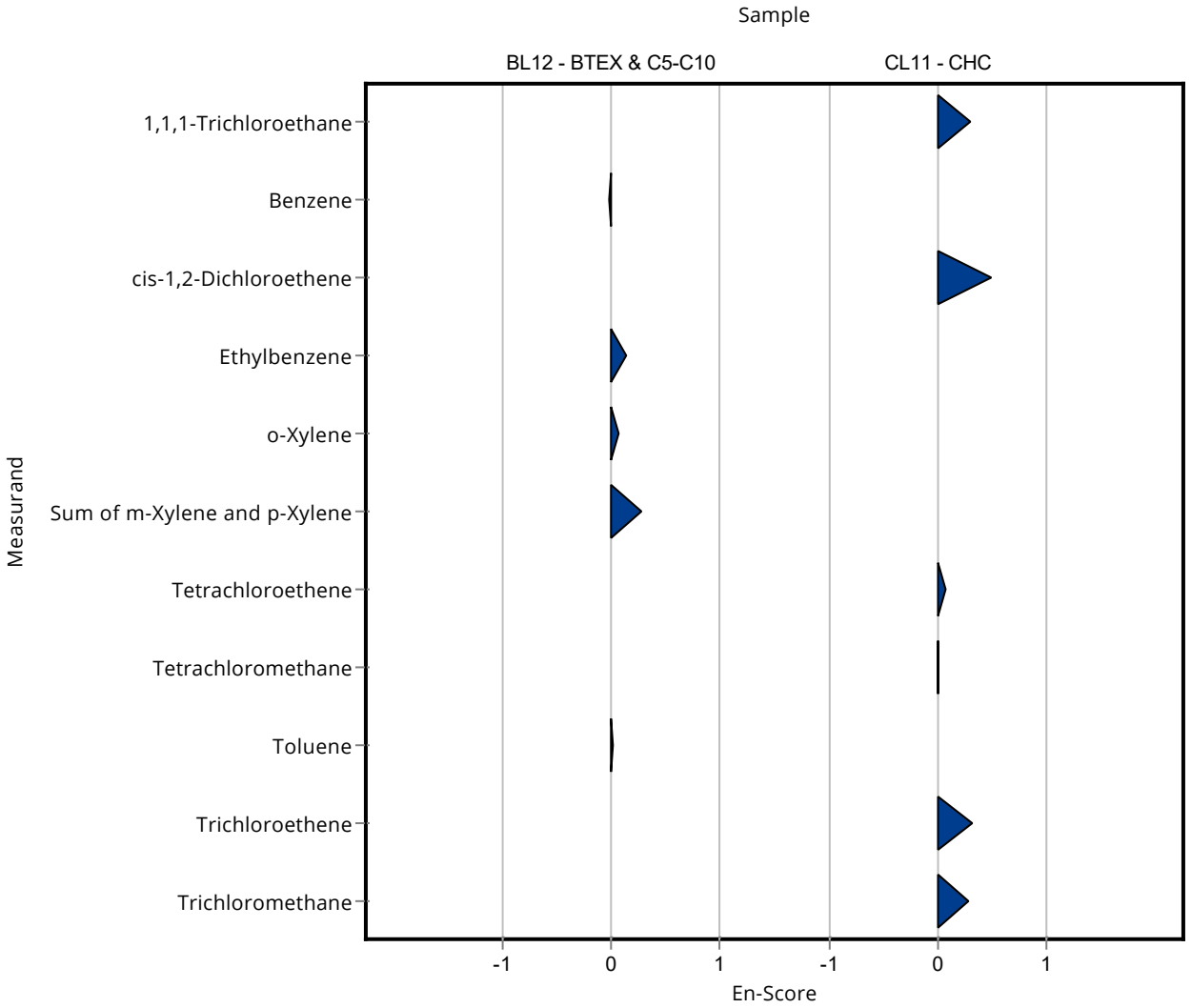
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.63 ± 1.16	0.702	98.9	-0.02
Ethylbenzene	µg/tube	4.28 ± 0.313	4.59 ± 1.15	0.771	107	0.13
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	3.95 ± 0.99	0.684	104	0.08
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.18 ± 2.3	1.5	116	0.28
Toluene	µg/tube	4.41 ± 0.306	4.44 ± 1.12	0.662	101	0.01

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.61 ± 0.79	0.49	122	0.30
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.48 ± 0.75	0.619	144	0.50
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.14 ± 0.35	0.414	105	0.07
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.56 ± 0.77	0.564	99.8	0.00
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	- ± -	0.755	-	-
Trichloroethene	µg/tube	1.66 ± 0.269	2.05 ± 0.62	0.549	123	0.31
Trichloromethane	µg/tube	2.12 ± 0.148	2.57 ± 0.78	0.297	121	0.29

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0008



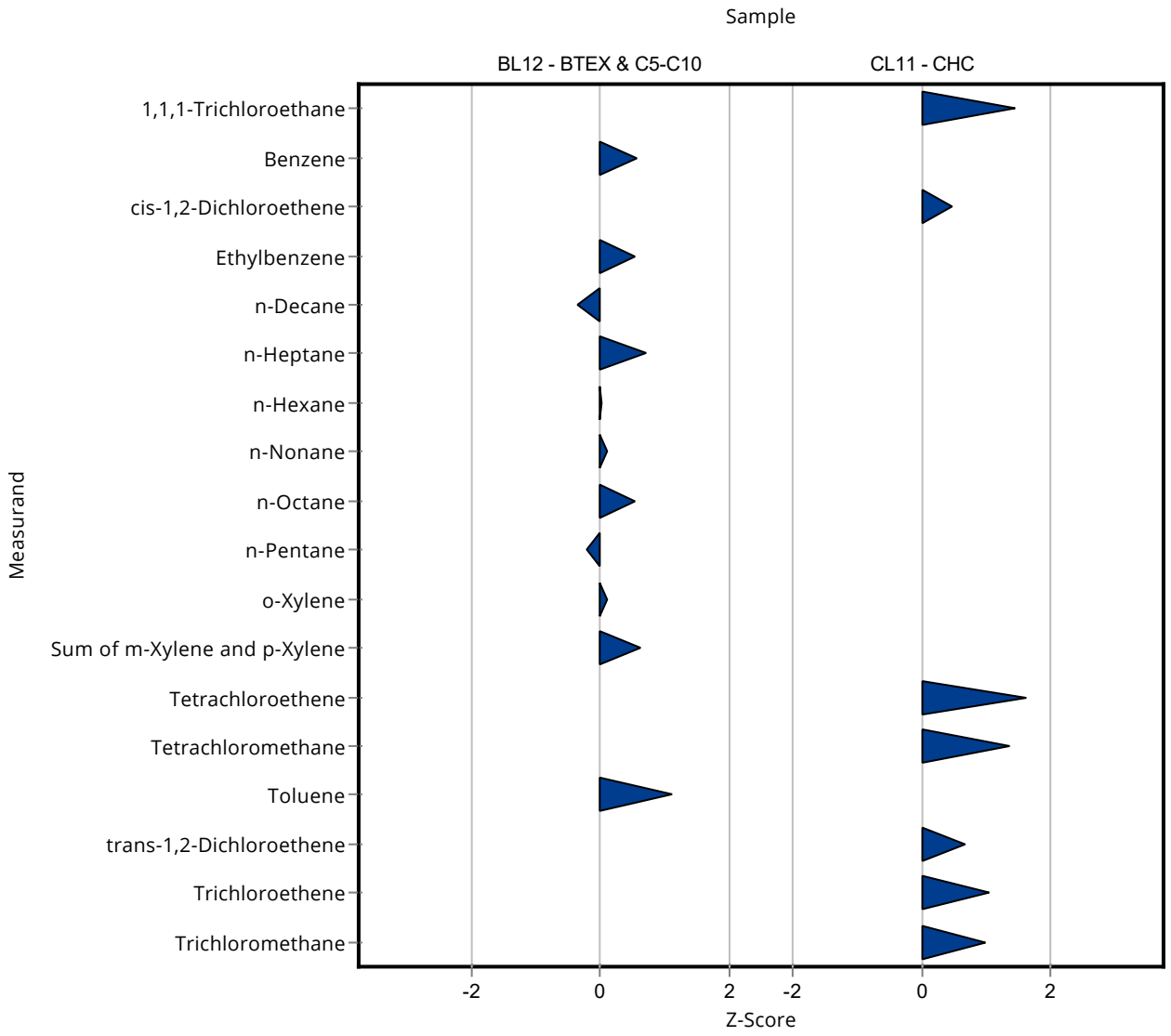
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0009

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	5.073 ± 0.507	0.702	108	0.56
Ethylbenzene	µg/tube	4.28 ± 0.313	4.699 ± 0.611	0.771	110	0.54
n-Decane	µg/tube	2.43 ± 0.409	2.18 ± 0.614	0.73	89.6	-0.35
n-Heptane	µg/tube	5.79 ± 0.457	6.532 ± 0.719	1.04	113	0.71
n-Hexane	µg/tube	6.03 ± 0.453	6.041 ± 1.027	0.964	100	0.02
n-Nonane	µg/tube	4.28 ± 0.443	4.366 ± 1.004	0.856	102	0.10
n-Octane	µg/tube	5.53 ± 0.404	6.042 ± 0.906	0.94	109	0.54
n-Pentane	µg/tube	5.78 ± 0.374	5.438 ± 0.653	1.73	94.1	-0.20
o-Xylene	µg/tube	3.8 ± 0.335	3.879 ± 0.626	0.684	102	0.12
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.822 ± 1.588	1.5	112	0.62
Toluene	µg/tube	4.41 ± 0.306	5.149 ± 0.515	0.662	117	1.11

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.841 ± 0.454	0.49	133	1.45
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.006 ± 0.582	0.619	117	0.46
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.755 ± 0.475	0.414	161	1.61
Tetrachloromethane	µg/tube	2.56 ± 0.205	3.335 ± 0.714	0.564	130	1.37
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	2.087 ± 0.44	0.755	133	0.68
Trichloroethene	µg/tube	1.66 ± 0.269	2.229 ± 0.468	0.549	134	1.03
Trichloromethane	µg/tube	2.12 ± 0.148	2.414 ± 0.362	0.297	114	0.98


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
-2
0
2
-2
0
2
Z-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0009

Sample: BL12

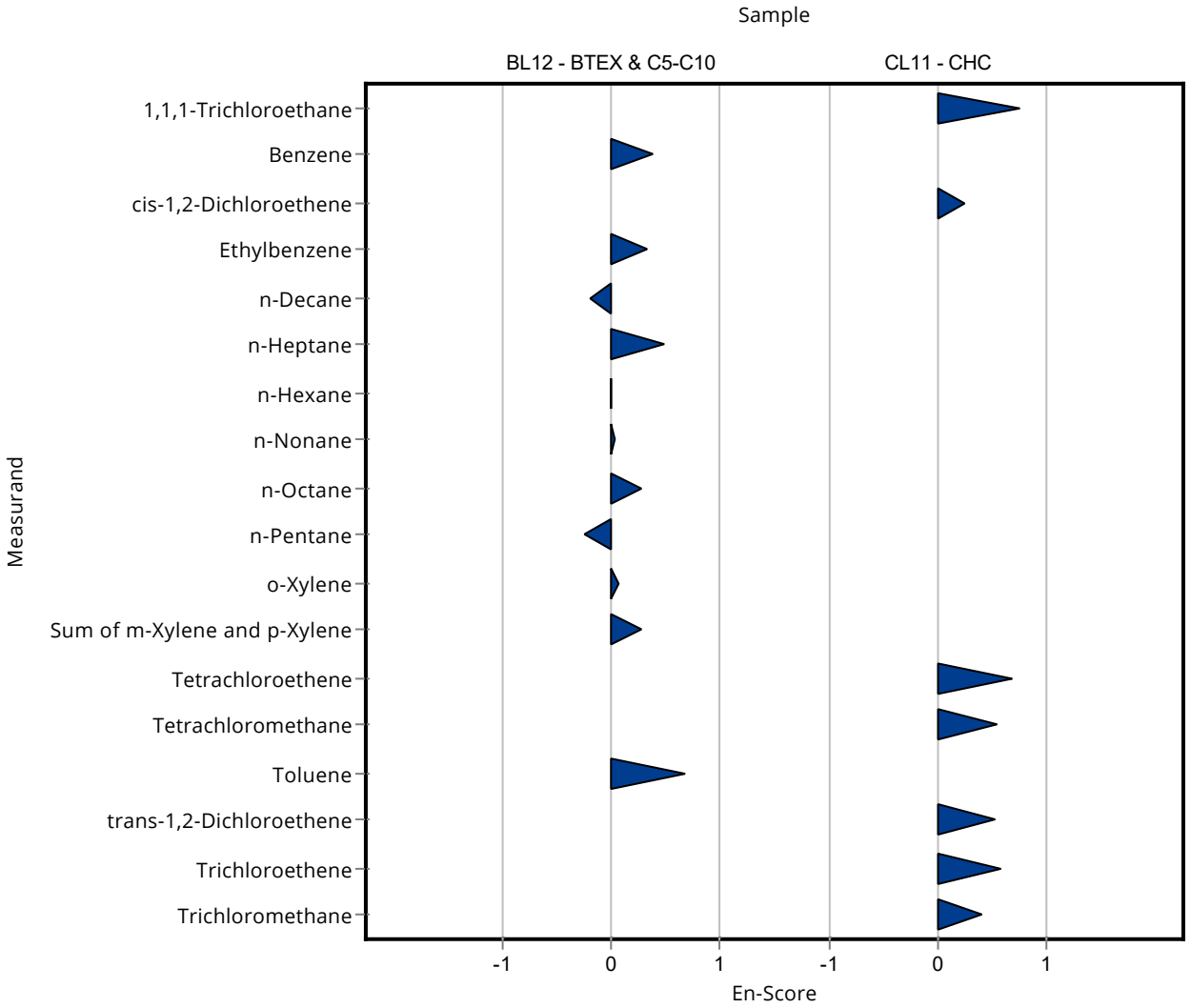
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	5.073 ± 0.507	0.702	108	0.38
Ethylbenzene	µg/tube	4.28 ± 0.313	4.699 ± 0.611	0.771	110	0.33
n-Decane	µg/tube	2.43 ± 0.409	2.18 ± 0.614	0.73	89.6	-0.20
n-Heptane	µg/tube	5.79 ± 0.457	6.532 ± 0.719	1.04	113	0.49
n-Hexane	µg/tube	6.03 ± 0.453	6.041 ± 1.027	0.964	100	0.01
n-Nonane	µg/tube	4.28 ± 0.443	4.366 ± 1.004	0.856	102	0.04
n-Octane	µg/tube	5.53 ± 0.404	6.042 ± 0.906	0.94	109	0.28
n-Pentane	µg/tube	5.78 ± 0.374	5.438 ± 0.653	1.73	94.1	-0.25
o-Xylene	µg/tube	3.8 ± 0.335	3.879 ± 0.626	0.684	102	0.06
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.822 ± 1.588	1.5	112	0.28
Toluene	µg/tube	4.41 ± 0.306	5.149 ± 0.515	0.662	117	0.68

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.841 ± 0.454	0.49	133	0.76
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.006 ± 0.582	0.619	117	0.24
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.755 ± 0.475	0.414	161	0.69
Tetrachloromethane	µg/tube	2.56 ± 0.205	3.335 ± 0.714	0.564	130	0.53
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	2.087 ± 0.44	0.755	133	0.53
Trichloroethene	µg/tube	1.66 ± 0.269	2.229 ± 0.468	0.549	134	0.58
Trichloromethane	µg/tube	2.12 ± 0.148	2.414 ± 0.362	0.297	114	0.40

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0009

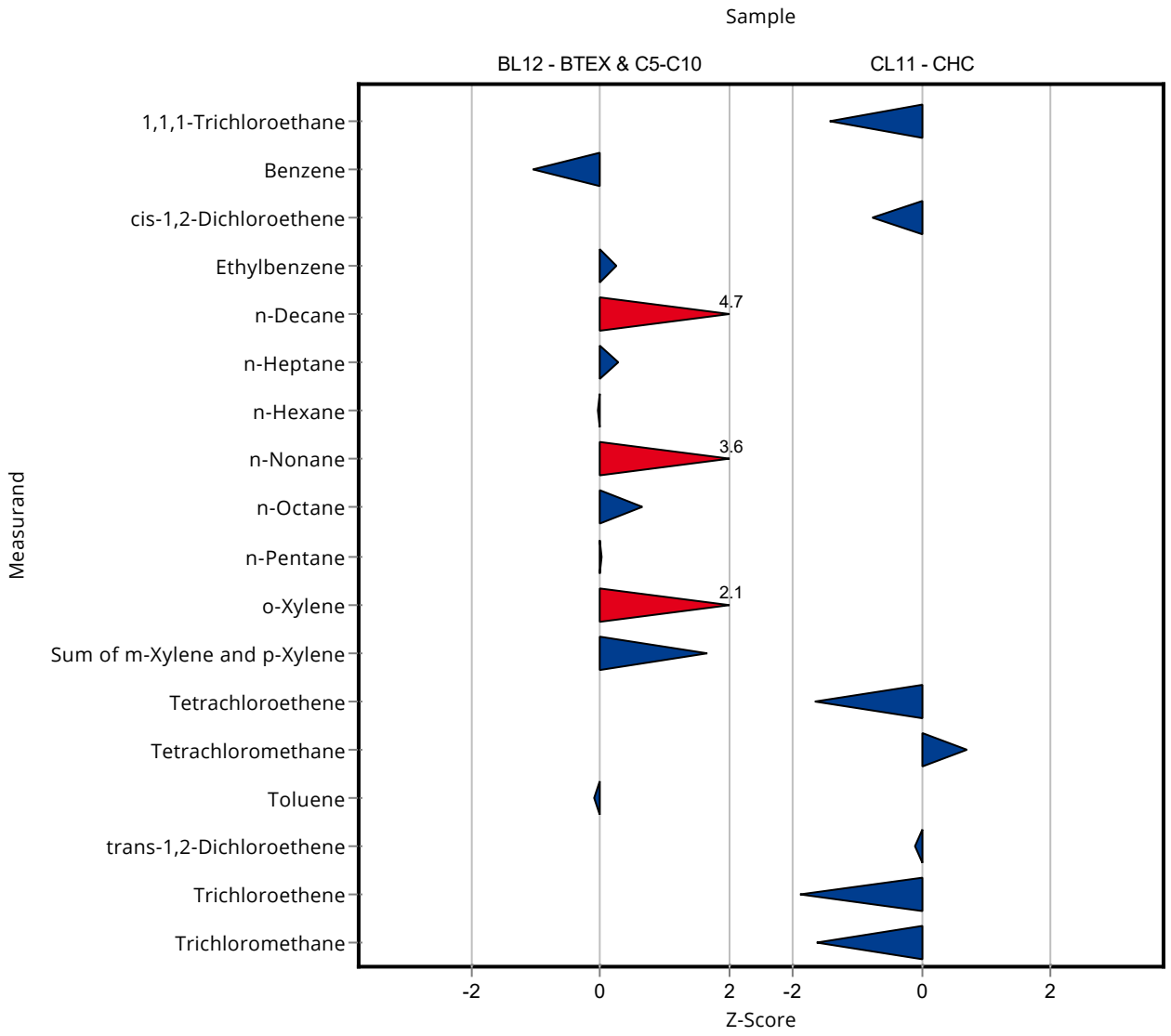


Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	3.96 ± 0.48	0.702	84.6	-1.03
Ethylbenzene	µg/tube	4.28 ± 0.313	4.47 ± 0.55	0.771	104	0.24
n-Decane	µg/tube	2.43 ± 0.409	5.83 ± 0.65	0.73	240	4.65
n-Heptane	µg/tube	5.79 ± 0.457	6.08 ± 0.7	1.04	105	0.28
n-Hexane	µg/tube	6.03 ± 0.453	6 ± 0.62	0.964	99.6	-0.03
n-Nonane	µg/tube	4.28 ± 0.443	7.39 ± 0.88	0.856	173	3.64
n-Octane	µg/tube	5.53 ± 0.404	6.16 ± 0.74	0.94	111	0.67
n-Pentane	µg/tube	5.78 ± 0.374	5.84 ± 0.7	1.73	101	0.04
o-Xylene	µg/tube	3.8 ± 0.335	5.21 ± 0.45	0.684	137	2.06
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	10.4 ± 1.2	1.5	132	1.68
Toluene	µg/tube	4.41 ± 0.306	4.36 ± 0.53	0.662	98.8	-0.08

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	1.43 ± 0.14	0.49	67.1	-1.43
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.25 ± 0.11	0.619	72.7	-0.76
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.4 ± 0.06	0.414	36.7	-1.67
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.95 ± 0.25	0.564	115	0.68
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.49 ± 0.15	0.755	94.7	-0.11
Trichloroethene	µg/tube	1.66 ± 0.269	0.63 ± 0.12	0.549	37.9	-1.88
Trichloromethane	µg/tube	2.12 ± 0.148	1.64 ± 0.15	0.297	77.3	-1.62

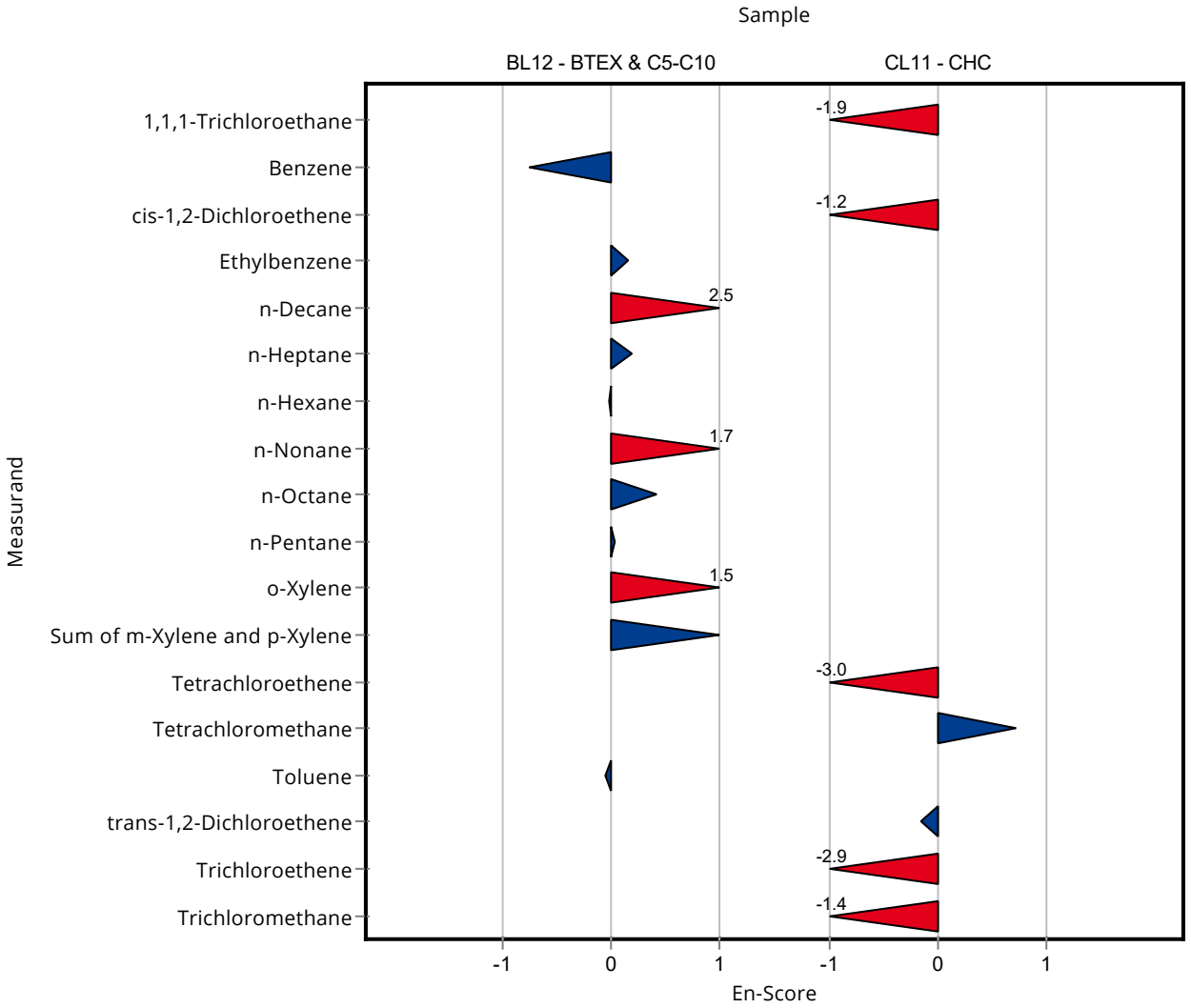

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
4.7
3.6
2.1
-2
0
2
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	3.96 ± 0.48	0.702	84.6	-0.74
Ethylbenzene	µg/tube	4.28 ± 0.313	4.47 ± 0.55	0.771	104	0.16
n-Decane	µg/tube	2.43 ± 0.409	5.83 ± 0.65	0.73	240	2.49
n-Heptane	µg/tube	5.79 ± 0.457	6.08 ± 0.7	1.04	105	0.20
n-Hexane	µg/tube	6.03 ± 0.453	6 ± 0.62	0.964	99.6	-0.02
n-Nonane	µg/tube	4.28 ± 0.443	7.39 ± 0.88	0.856	173	1.71
n-Octane	µg/tube	5.53 ± 0.404	6.16 ± 0.74	0.94	111	0.41
n-Pentane	µg/tube	5.78 ± 0.374	5.84 ± 0.7	1.73	101	0.04
o-Xylene	µg/tube	3.8 ± 0.335	5.21 ± 0.45	0.684	137	1.47
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	10.4 ± 1.2	1.5	132	0.99
Toluene	µg/tube	4.41 ± 0.306	4.36 ± 0.53	0.662	98.8	-0.05

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	1.43 ± 0.14	0.49	67.1	-1.90
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.25 ± 0.11	0.619	72.7	-1.21
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.4 ± 0.06	0.414	36.7	-2.97
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.95 ± 0.25	0.564	115	0.71
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.49 ± 0.15	0.755	94.7	-0.16
Trichloroethene	µg/tube	1.66 ± 0.269	0.63 ± 0.12	0.549	37.9	-2.86
Trichloromethane	µg/tube	2.12 ± 0.148	1.64 ± 0.15	0.297	77.3	-1.44


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
2.5
1.7
1.5
-1.9
-1.2
-3.0
-2.9
-1.4
-1
0
1
-1
0
1
En-Score

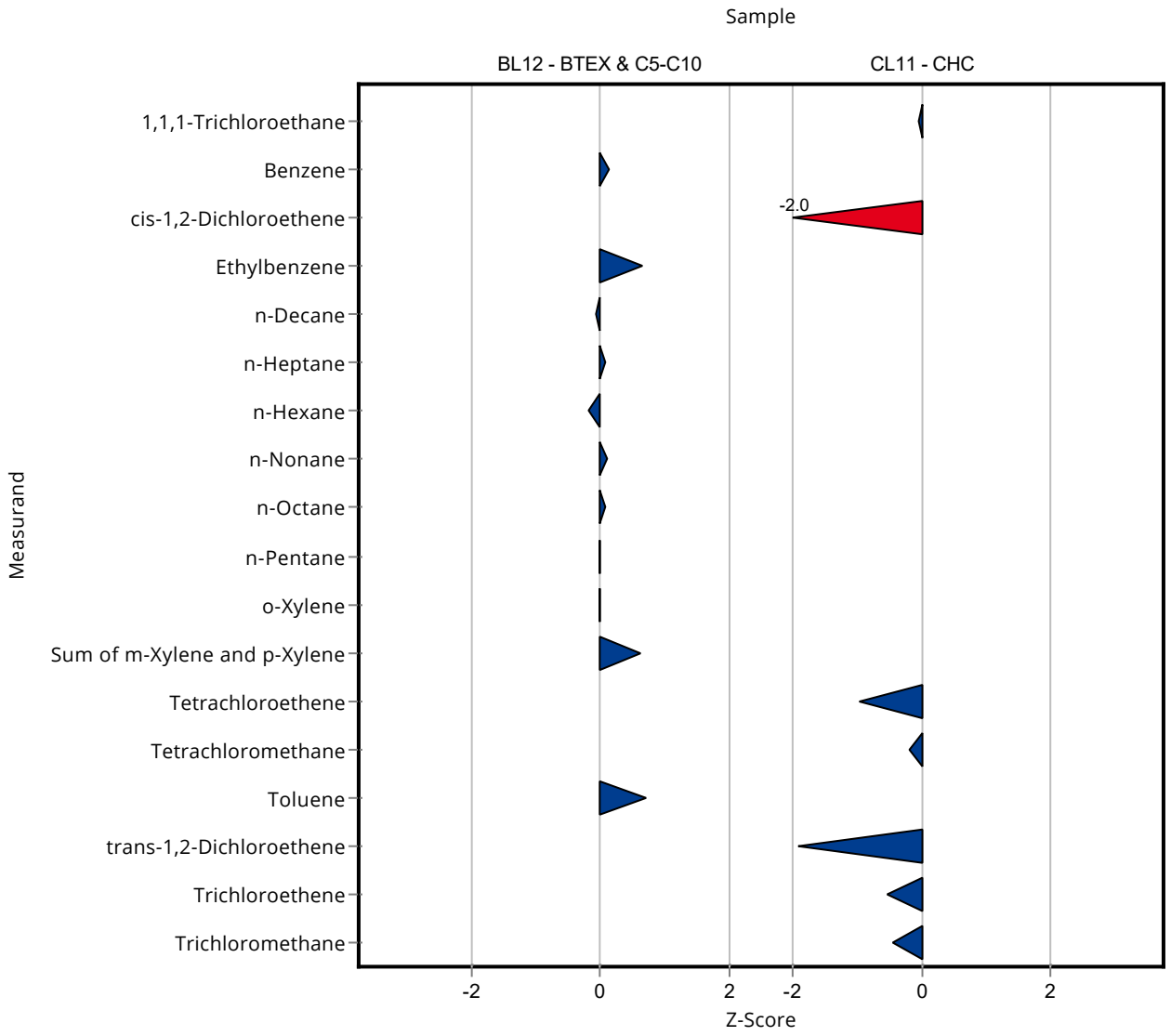
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0011

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.77 ± 2.15	0.702	102	0.12
Ethylbenzene	µg/tube	4.28 ± 0.313	4.8 ± 2.16	0.771	112	0.67
n-Decane	µg/tube	2.43 ± 0.409	2.38 ± 0.48	0.73	97.8	-0.07
n-Heptane	µg/tube	5.79 ± 0.457	5.86 ± 1.17	1.04	101	0.07
n-Hexane	µg/tube	6.03 ± 0.453	5.86 ± 1.17	0.964	97.3	-0.17
n-Nonane	µg/tube	4.28 ± 0.443	4.37 ± 0.87	0.856	102	0.11
n-Octane	µg/tube	5.53 ± 0.404	5.61 ± 1.12	0.94	101	0.08
n-Pentane	µg/tube	5.78 ± 0.374	5.76 ± 1.15	1.73	99.7	-0.01
o-Xylene	µg/tube	3.8 ± 0.335	3.8 ± 1.71	0.684	100	0.00
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.81 ± 3.96	1.5	112	0.61
Toluene	µg/tube	4.41 ± 0.306	4.88 ± 2.2	0.662	111	0.70

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.1 ± 0.63	0.49	98.6	-0.06
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	0.46 ± 0.14	0.619	26.8	-2.03
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.69 ± 0.21	0.414	63.3	-0.96
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.45 ± 0.74	0.564	95.6	-0.20
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	0.11 ± 0.03	0.755	6.99	-1.94
Trichloroethene	µg/tube	1.66 ± 0.269	1.37 ± 0.41	0.549	82.4	-0.53
Trichloromethane	µg/tube	2.12 ± 0.148	1.99 ± 0.6	0.297	93.8	-0.44


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
-2.0
-2
0
2
-2
0
2
Z-Score

Sample: BL12

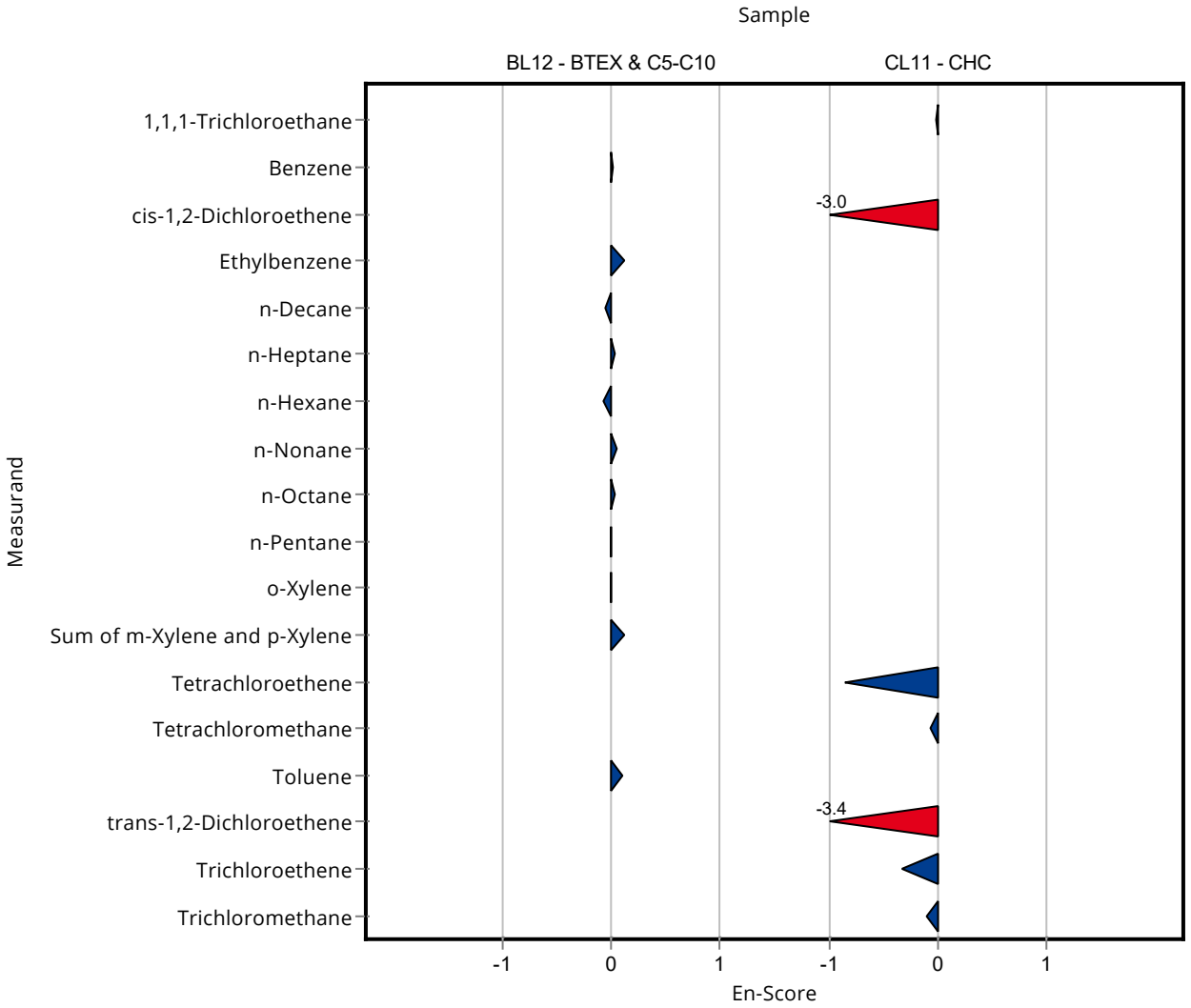
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.77 ± 2.15	0.702	102	0.02
Ethylbenzene	µg/tube	4.28 ± 0.313	4.8 ± 2.16	0.771	112	0.12
n-Decane	µg/tube	2.43 ± 0.409	2.38 ± 0.48	0.73	97.8	-0.05
n-Heptane	µg/tube	5.79 ± 0.457	5.86 ± 1.17	1.04	101	0.03
n-Hexane	µg/tube	6.03 ± 0.453	5.86 ± 1.17	0.964	97.3	-0.07
n-Nonane	µg/tube	4.28 ± 0.443	4.37 ± 0.87	0.856	102	0.05
n-Octane	µg/tube	5.53 ± 0.404	5.61 ± 1.12	0.94	101	0.03
n-Pentane	µg/tube	5.78 ± 0.374	5.76 ± 1.15	1.73	99.7	-0.01
o-Xylene	µg/tube	3.8 ± 0.335	3.8 ± 1.71	0.684	100	0.00
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.81 ± 3.96	1.5	112	0.12
Toluene	µg/tube	4.41 ± 0.306	4.88 ± 2.2	0.662	111	0.11

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.1 ± 0.63	0.49	98.6	-0.02
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	0.46 ± 0.14	0.619	26.8	-2.97
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.69 ± 0.21	0.414	63.3	-0.86
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.45 ± 0.74	0.564	95.6	-0.08
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	0.11 ± 0.03	0.755	6.99	-3.43
Trichloroethene	µg/tube	1.66 ± 0.269	1.37 ± 0.41	0.549	82.4	-0.34
Trichloromethane	µg/tube	2.12 ± 0.148	1.99 ± 0.6	0.297	93.8	-0.11

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0011



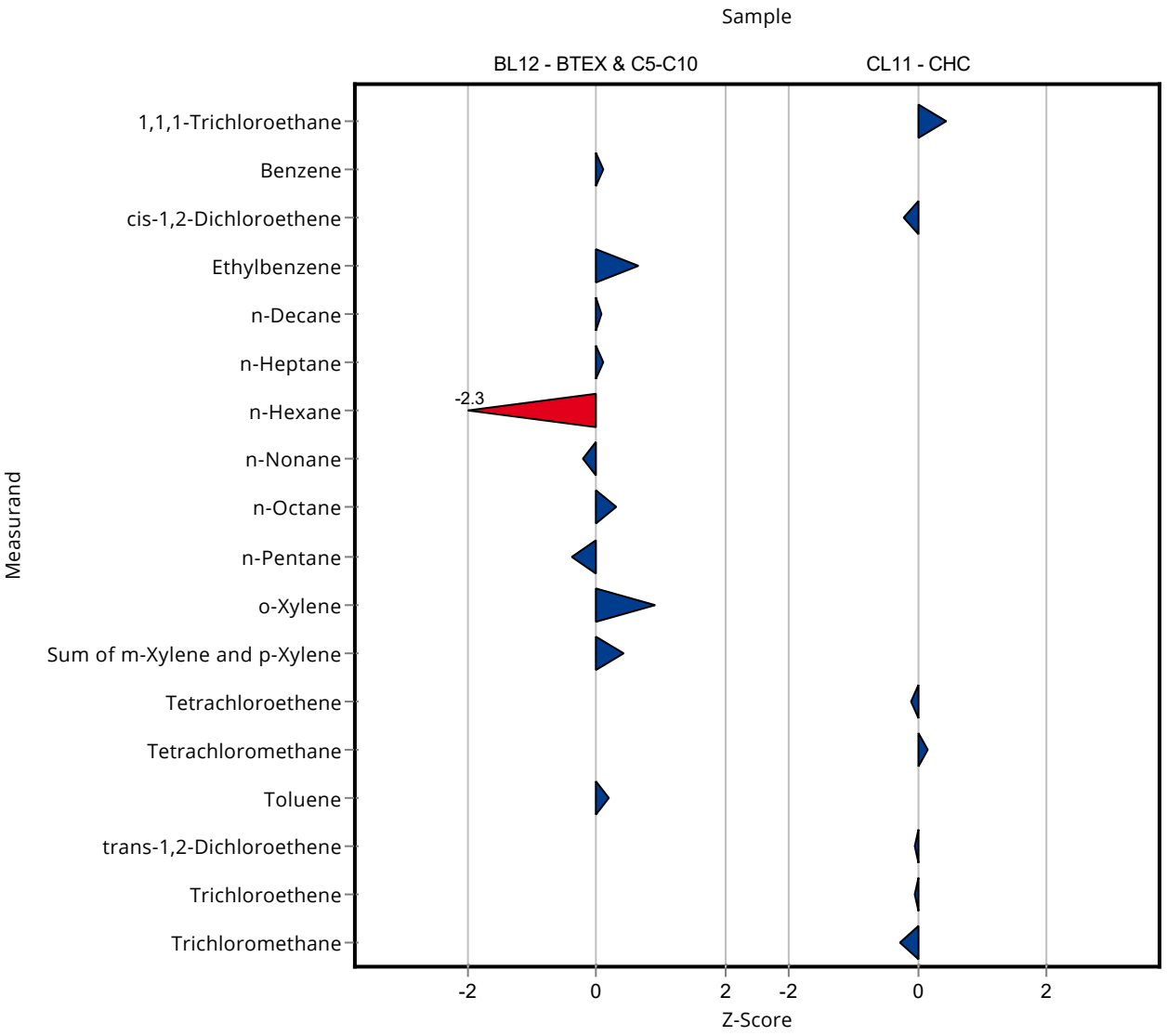
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0012

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.76 ± 1.43	0.702	102	0.11
Ethylbenzene	µg/tube	4.28 ± 0.313	4.79 ± 1.2	0.771	112	0.66
n-Decane	µg/tube	2.43 ± 0.409	2.49 ± 0.25	0.73	102	0.08
n-Heptane	µg/tube	5.79 ± 0.457	5.9 ± 0.59	1.04	102	0.11
n-Hexane	µg/tube	6.03 ± 0.453	3.81 ± 0.38	0.964	63.2	-2.30
n-Nonane	µg/tube	4.28 ± 0.443	4.11 ± 0.41	0.856	96.1	-0.20
n-Octane	µg/tube	5.53 ± 0.404	5.83 ± 0.58	0.94	105	0.32
n-Pentane	µg/tube	5.78 ± 0.374	5.1 ± 0.51	1.73	88.3	-0.39
o-Xylene	µg/tube	3.8 ± 0.335	4.42 ± 1.28	0.684	116	0.91
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.53 ± 2.47	1.5	108	0.43
Toluene	µg/tube	4.41 ± 0.306	4.54 ± 1.18	0.662	103	0.19

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.35 ± 0.54	0.49	110	0.45
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.58 ± 0.35	0.619	91.9	-0.22
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.05 ± 0.26	0.414	96.4	-0.10
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.65 ± 0.56	0.564	103	0.15
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.54 ± 0.38	0.755	97.9	-0.04
Trichloroethene	µg/tube	1.66 ± 0.269	1.64 ± 0.38	0.549	98.7	-0.04
Trichloromethane	µg/tube	2.12 ± 0.148	2.04 ± 0.51	0.297	96.1	-0.28

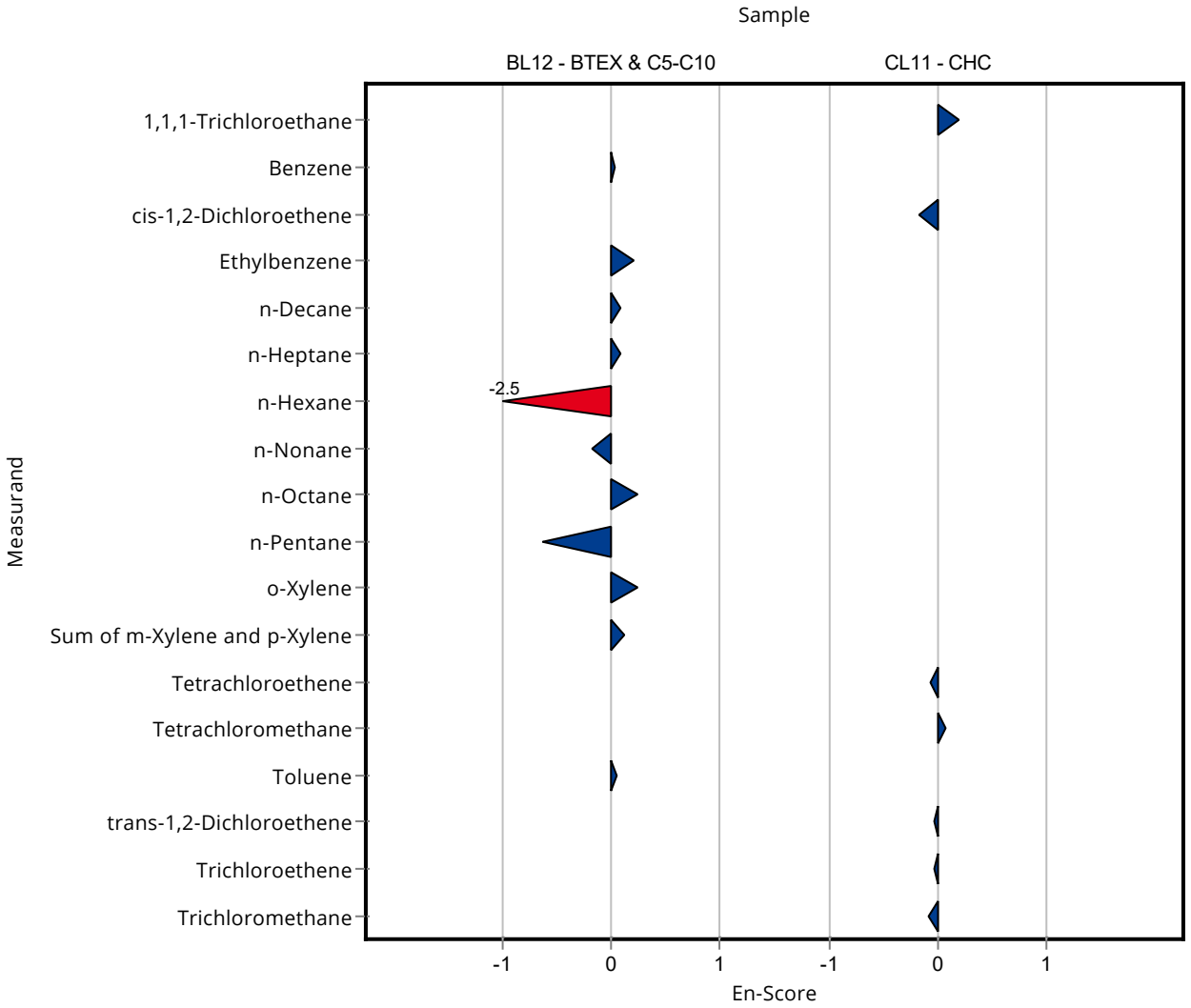

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
-2.3
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
-2
0
2
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.76 ± 1.43	0.702	102	0.03
Ethylbenzene	µg/tube	4.28 ± 0.313	4.79 ± 1.2	0.771	112	0.21
n-Decane	µg/tube	2.43 ± 0.409	2.49 ± 0.25	0.73	102	0.09
n-Heptane	µg/tube	5.79 ± 0.457	5.9 ± 0.59	1.04	102	0.09
n-Hexane	µg/tube	6.03 ± 0.453	3.81 ± 0.38	0.964	63.2	-2.50
n-Nonane	µg/tube	4.28 ± 0.443	4.11 ± 0.41	0.856	96.1	-0.18
n-Octane	µg/tube	5.53 ± 0.404	5.83 ± 0.58	0.94	105	0.24
n-Pentane	µg/tube	5.78 ± 0.374	5.1 ± 0.51	1.73	88.3	-0.62
o-Xylene	µg/tube	3.8 ± 0.335	4.42 ± 1.28	0.684	116	0.24
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.53 ± 2.47	1.5	108	0.13
Toluene	µg/tube	4.41 ± 0.306	4.54 ± 1.18	0.662	103	0.05

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.35 ± 0.54	0.49	110	0.20
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.58 ± 0.35	0.619	91.9	-0.18
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.05 ± 0.26	0.414	96.4	-0.07
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.65 ± 0.56	0.564	103	0.08
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.54 ± 0.38	0.755	97.9	-0.04
Trichloroethene	µg/tube	1.66 ± 0.269	1.64 ± 0.38	0.549	98.7	-0.03
Trichloromethane	µg/tube	2.12 ± 0.148	2.04 ± 0.51	0.297	96.1	-0.08

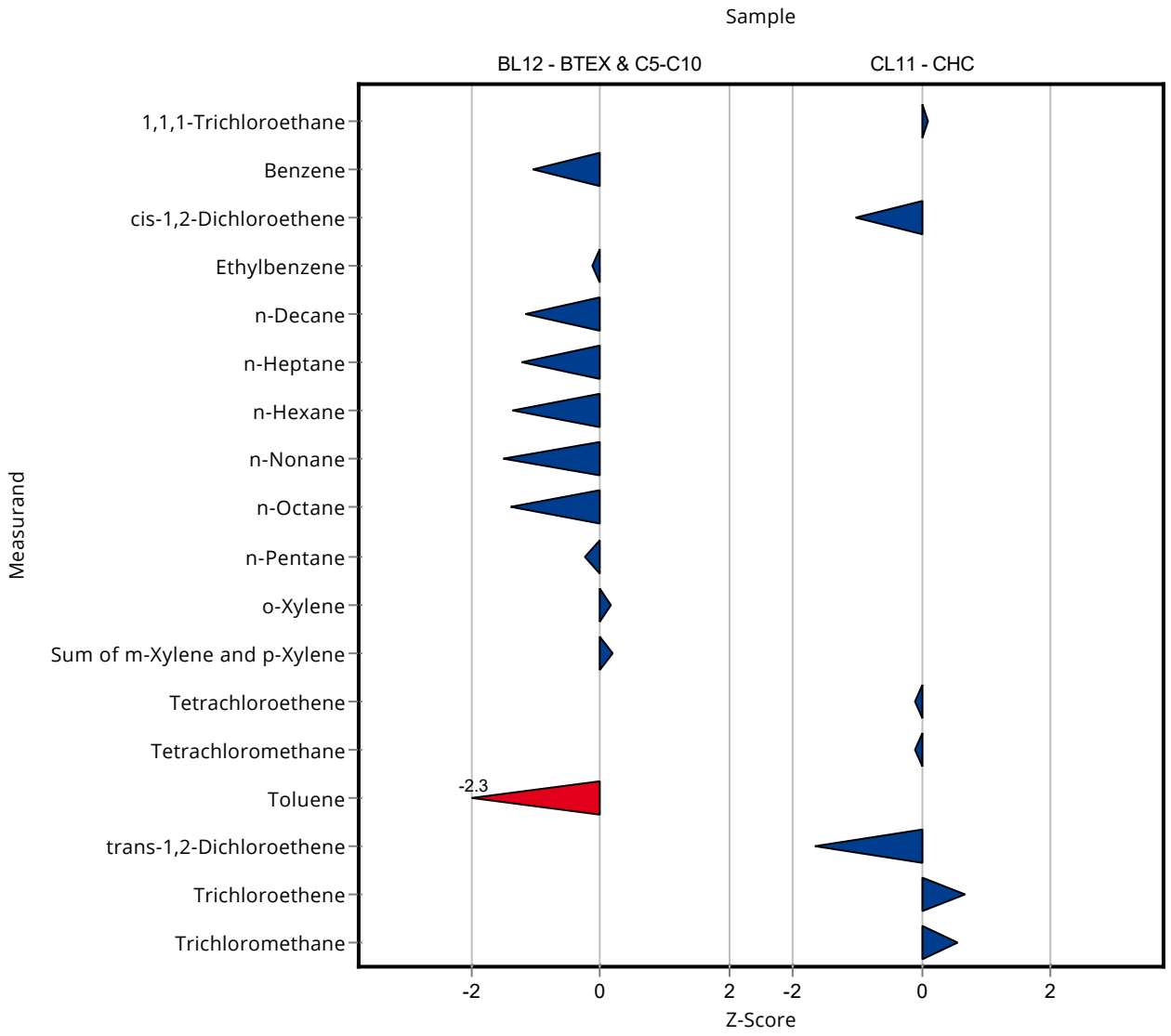

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
-2.5
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
Measurand
-1
0
1
-1
0
1
En-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	3.96 ± 0.792	0.702	84.6	-1.03
Ethylbenzene	µg/tube	4.28 ± 0.313	4.2 ± 1.05	0.771	98.1	-0.11
n-Decane	µg/tube	2.43 ± 0.409	1.584 ± 0.554	0.73	65.1	-1.16
n-Heptane	µg/tube	5.79 ± 0.457	4.522 ± 1.02	1.04	78.1	-1.22
n-Hexane	µg/tube	6.03 ± 0.453	4.713 ± 1.18	0.964	78.2	-1.36
n-Nonane	µg/tube	4.28 ± 0.443	2.994 ± 0.599	0.856	70	-1.50
n-Octane	µg/tube	5.53 ± 0.404	4.227 ± 1.056	0.94	76.4	-1.39
n-Pentane	µg/tube	5.78 ± 0.374	5.382 ± 1.076	1.73	93.2	-0.23
o-Xylene	µg/tube	3.8 ± 0.335	3.92 ± 0.98	0.684	103	0.18
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.17 ± 1.634	1.5	104	0.19
Toluene	µg/tube	4.41 ± 0.306	2.86 ± 0.5	0.662	64.8	-2.35

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.179 ± 0.327	0.49	102	0.10
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.079 ± 0.432	0.619	62.8	-1.03
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.041 ± 0.156	0.414	95.6	-0.12
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.495 ± 0.312	0.564	97.3	-0.12
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	0.307 ± 0.154	0.755	19.5	-1.68
Trichloroethene	µg/tube	1.66 ± 0.269	2.032 ± 0.254	0.549	122	0.67
Trichloromethane	µg/tube	2.12 ± 0.148	2.285 ± 0.8	0.297	108	0.55


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
-2.3
-2
0
2
-2
0
2
Z-Score

Sample: BL12

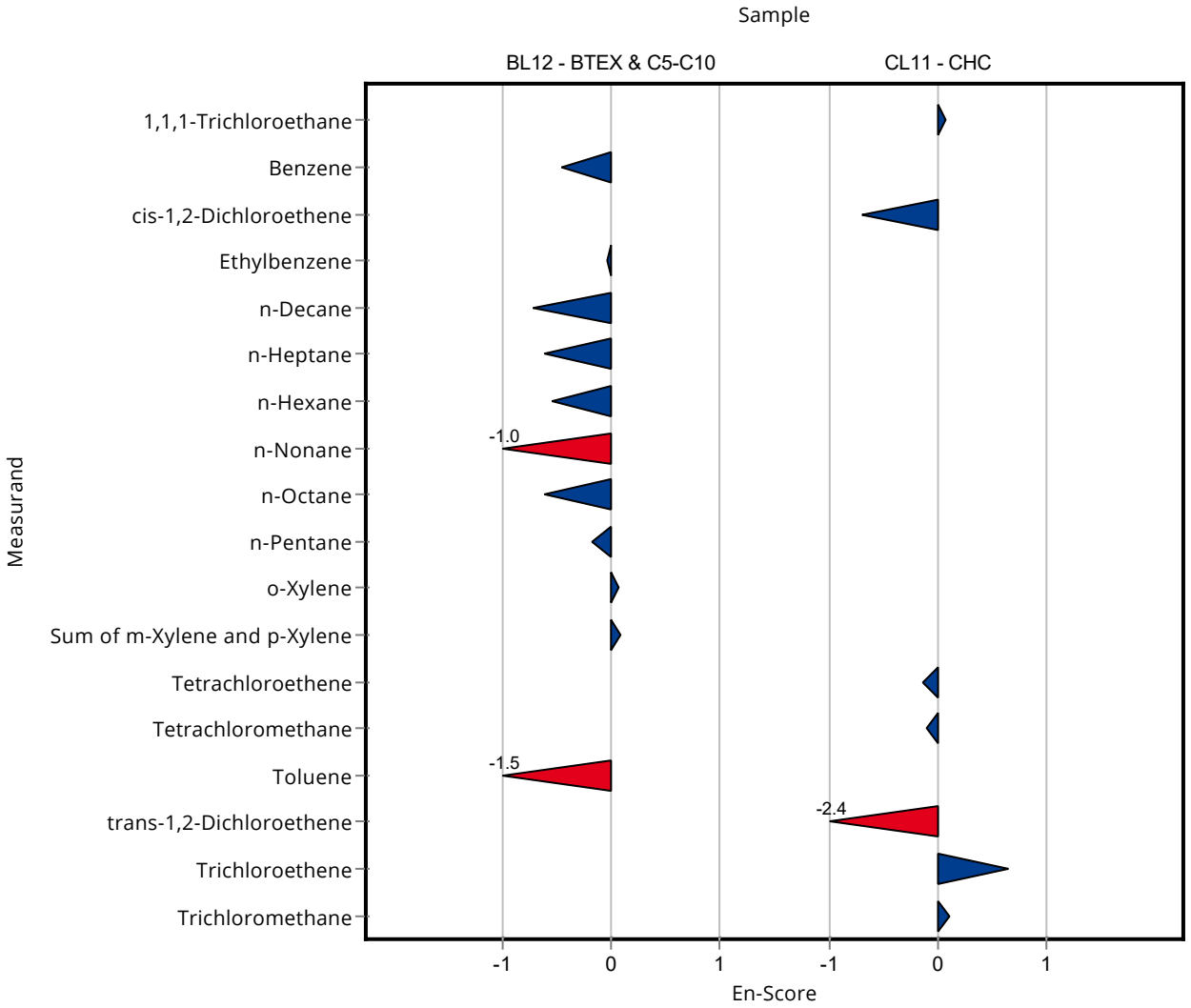
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	3.96 ± 0.792	0.702	84.6	-0.45
Ethylbenzene	µg/tube	4.28 ± 0.313	4.2 ± 1.05	0.771	98.1	-0.04
n-Decane	µg/tube	2.43 ± 0.409	1.584 ± 0.554	0.73	65.1	-0.72
n-Heptane	µg/tube	5.79 ± 0.457	4.522 ± 1.02	1.04	78.1	-0.61
n-Hexane	µg/tube	6.03 ± 0.453	4.713 ± 1.18	0.964	78.2	-0.55
n-Nonane	µg/tube	4.28 ± 0.443	2.994 ± 0.599	0.856	70	-1.01
n-Octane	µg/tube	5.53 ± 0.404	4.227 ± 1.056	0.94	76.4	-0.61
n-Pentane	µg/tube	5.78 ± 0.374	5.382 ± 1.076	1.73	93.2	-0.18
o-Xylene	µg/tube	3.8 ± 0.335	3.92 ± 0.98	0.684	103	0.06
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.17 ± 1.634	1.5	104	0.08
Toluene	µg/tube	4.41 ± 0.306	2.86 ± 0.5	0.662	64.8	-1.49

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.179 ± 0.327	0.49	102	0.07
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.079 ± 0.432	0.619	62.8	-0.70
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.041 ± 0.156	0.414	95.6	-0.13
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.495 ± 0.312	0.564	97.3	-0.11
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	0.307 ± 0.154	0.755	19.5	-2.42
Trichloroethene	µg/tube	1.66 ± 0.269	2.032 ± 0.254	0.549	122	0.64
Trichloromethane	µg/tube	2.12 ± 0.148	2.285 ± 0.8	0.297	108	0.10

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0013



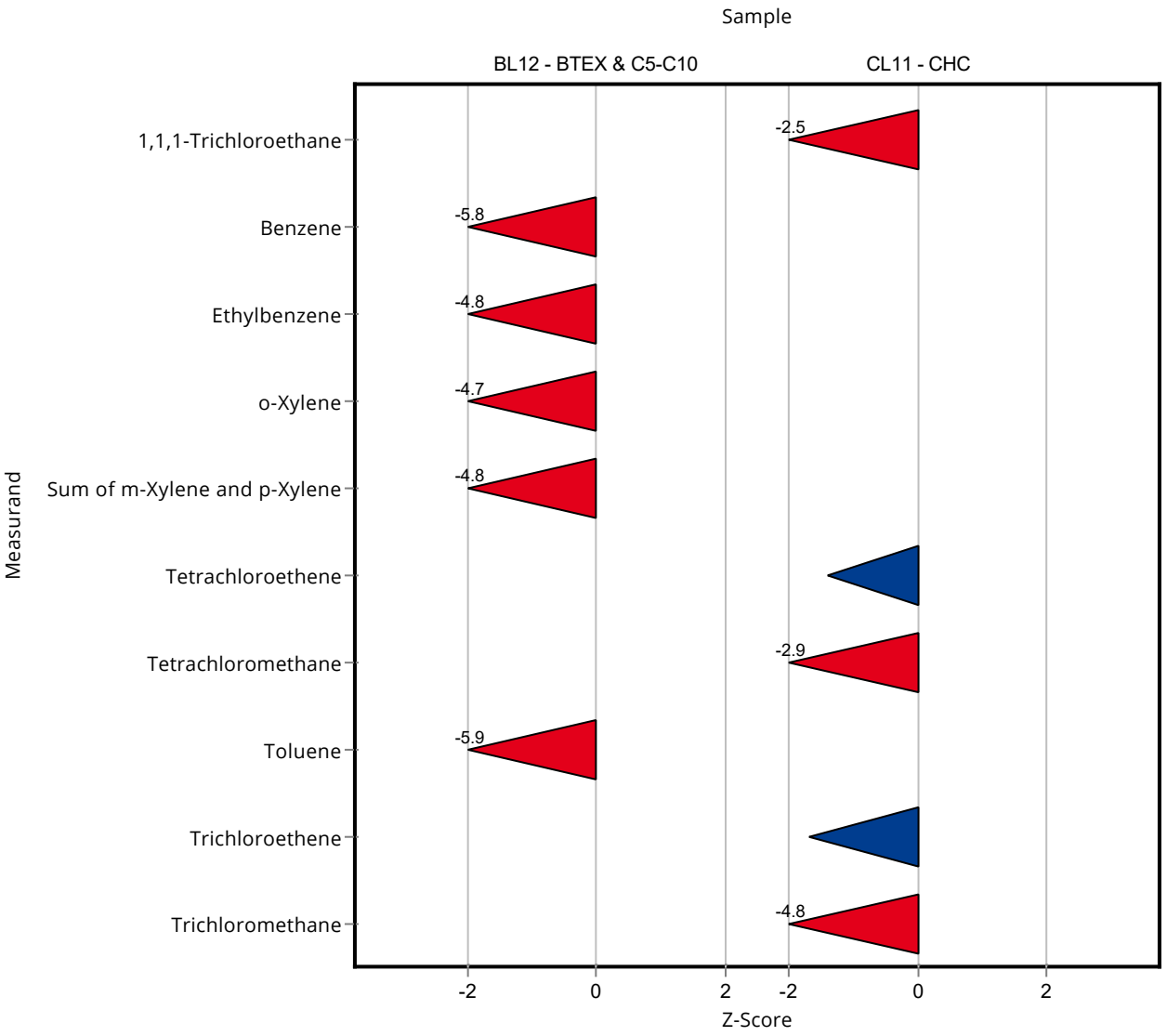
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0014

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	0.59 ± 0.177	0.702	12.6	-5.83
Ethylbenzene	µg/tube	4.28 ± 0.313	0.61 ± 0.183	0.771	14.2	-4.76
n-Decane	µg/tube	2.43 ± 0.409	<2 (LOQ) ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	<2 (LOQ) ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	<2 (LOQ) ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	<2 (LOQ) ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	<2 (LOQ) ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	<2 (LOQ) ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	0.57 ± 0.171	0.684	15	-4.72
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	0.69 ± 0.207	1.5	8.75	-4.80
Toluene	µg/tube	4.41 ± 0.306	0.54 ± 0.162	0.662	12.2	-5.85

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	0.91 ± 0.273	0.49	42.7	-2.49
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	<0.5 (LOQ) ± -	0.619	-	-
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.51 ± 0.153	0.414	46.8	-1.40
Tetrachloromethane	µg/tube	2.56 ± 0.205	0.93 ± 0.279	0.564	36.3	-2.90
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	<0.5 (LOQ) ± -	0.755	-	-
Trichloroethene	µg/tube	1.66 ± 0.269	0.74 ± 0.222	0.549	44.5	-1.68
Trichloromethane	µg/tube	2.12 ± 0.148	0.71 ± 0.213	0.297	33.5	-4.75

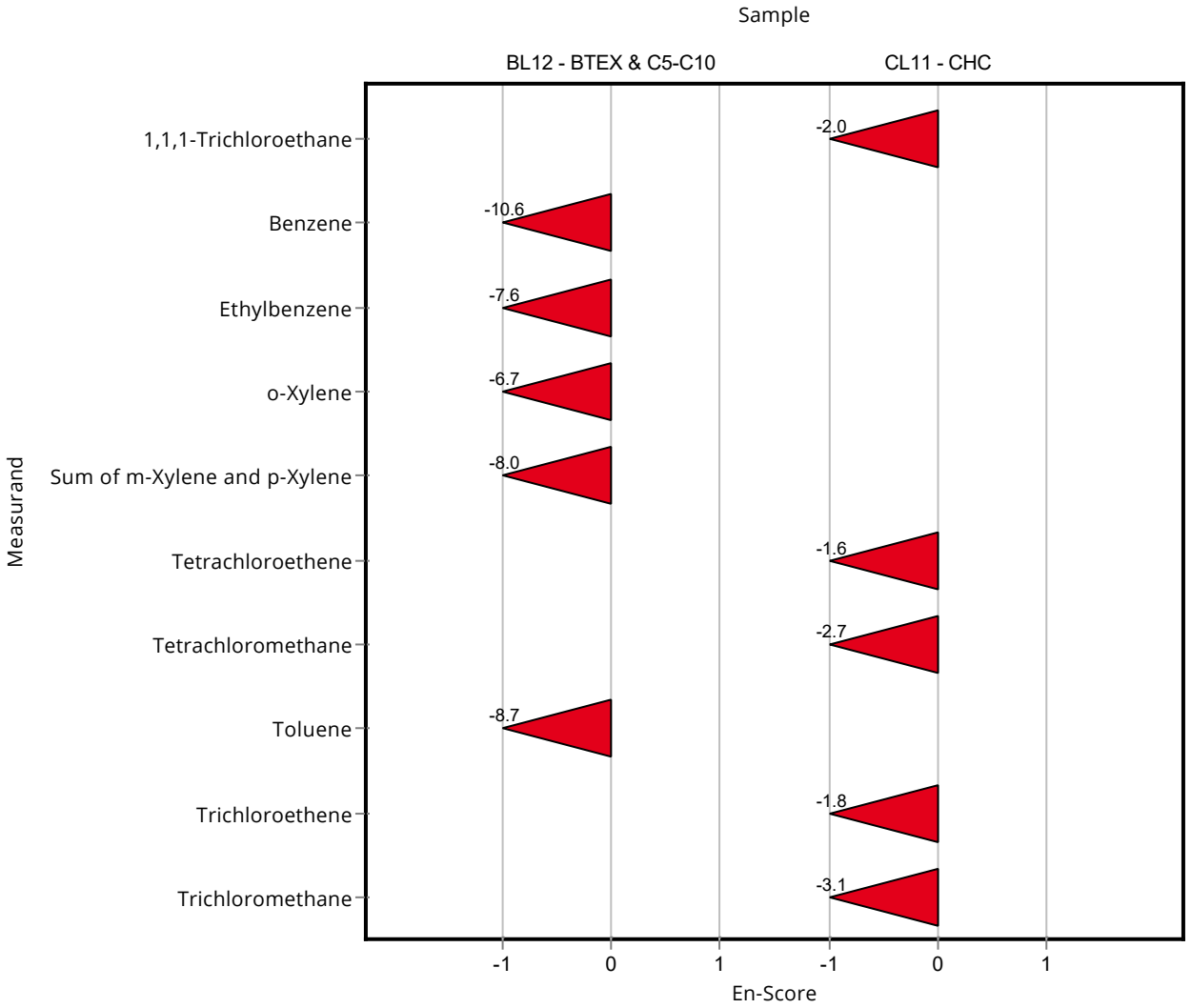

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
Trichloroethene
Trichloromethane
-5.8
-4.8
-4.7
-4.8
-5.9
-2.5
-2.9
-4.8
-2
0
2
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	0.59 ± 0.177	0.702	12.6	-10.60
Ethylbenzene	µg/tube	4.28 ± 0.313	0.61 ± 0.183	0.771	14.2	-7.63
n-Decane	µg/tube	2.43 ± 0.409	<2 (LOQ) ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	<2 (LOQ) ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	<2 (LOQ) ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	<2 (LOQ) ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	<2 (LOQ) ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	<2 (LOQ) ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	0.57 ± 0.171	0.684	15	-6.74
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	0.69 ± 0.207	1.5	8.75	-7.99
Toluene	µg/tube	4.41 ± 0.306	0.54 ± 0.162	0.662	12.2	-8.69

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	0.91 ± 0.273	0.49	42.7	-2.04
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	<0.5 (LOQ) ± -	0.619	-	-
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.51 ± 0.153	0.414	46.8	-1.59
Tetrachloromethane	µg/tube	2.56 ± 0.205	0.93 ± 0.279	0.564	36.3	-2.75
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	<0.5 (LOQ) ± -	0.755	-	-
Trichloroethene	µg/tube	1.66 ± 0.269	0.74 ± 0.222	0.549	44.5	-1.78
Trichloromethane	µg/tube	2.12 ± 0.148	0.71 ± 0.213	0.297	33.5	-3.13

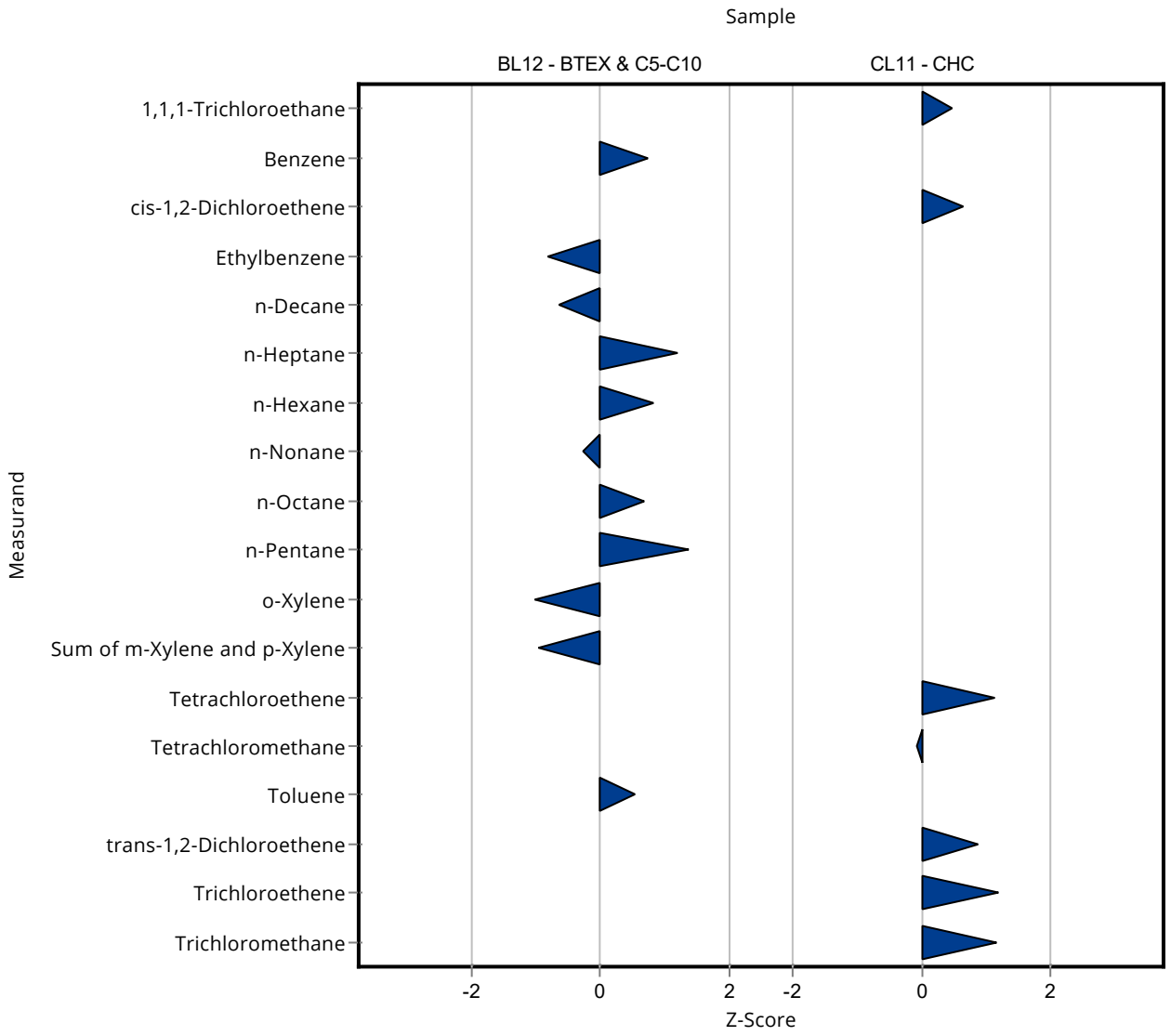

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
Trichloroethene
Trichloromethane
-10.6
-7.6
-6.7
-8.0
-8.7
-2.0
-1.6
-2.7
-1.8
-3.1
-1
0
1
-1
0
1
En-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	5.1945 ± 0.52	0.702	111	0.73
Ethylbenzene	µg/tube	4.28 ± 0.313	3.6622 ± 0.37	0.771	85.5	-0.81
n-Decane	µg/tube	2.43 ± 0.409	1.9767 ± 0.2	0.73	81.2	-0.63
n-Heptane	µg/tube	5.79 ± 0.457	7.0484 ± 0.7	1.04	122	1.21
n-Hexane	µg/tube	6.03 ± 0.453	6.82 ± 0.68	0.964	113	0.82
n-Nonane	µg/tube	4.28 ± 0.443	4.0637 ± 0.41	0.856	95	-0.25
n-Octane	µg/tube	5.53 ± 0.404	6.1802 ± 0.62	0.94	112	0.69
n-Pentane	µg/tube	5.78 ± 0.374	8.15 ± 0.82	1.73	141	1.37
o-Xylene	µg/tube	3.8 ± 0.335	3.1142 ± 0.31	0.684	82	-1.00
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	6.4699 ± 0.65	1.5	82	-0.95
Toluene	µg/tube	4.41 ± 0.306	4.7715 ± 0.48	0.662	108	0.54

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.3642 ± 0.24	0.49	111	0.48
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.1098 ± 0.21	0.619	123	0.63
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.5598 ± 0.16	0.414	143	1.14
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.521 ± 0.25	0.564	98.3	-0.08
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	2.2244 ± 0.22	0.755	141	0.86
Trichloroethene	µg/tube	1.66 ± 0.269	2.3118 ± 0.23	0.549	139	1.18
Trichloromethane	µg/tube	2.12 ± 0.148	2.4627 ± 0.25	0.297	116	1.15


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
Measurand
-2
0
2
-2
0
2
Z-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

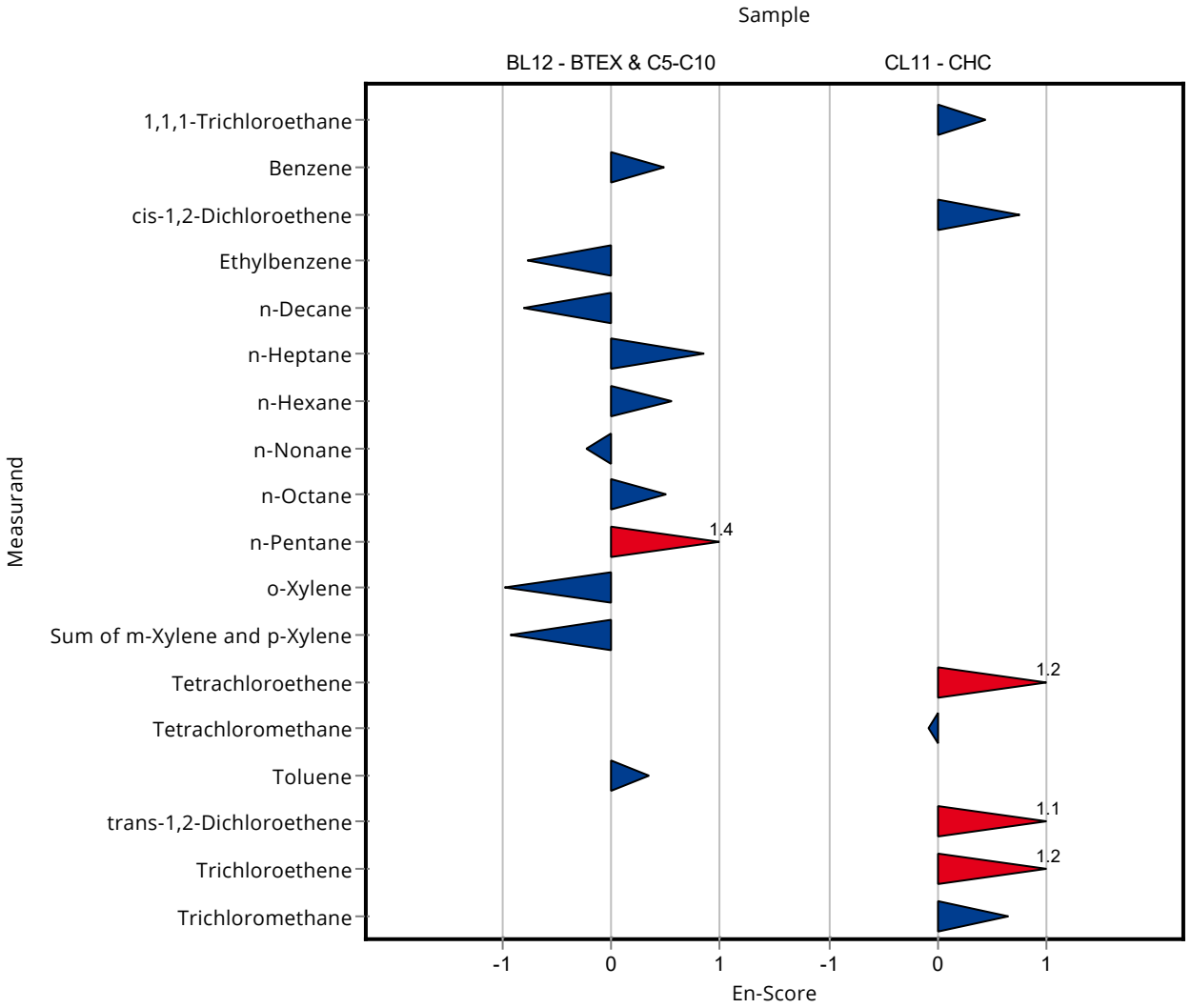
Labcode: LC0015

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	5.1945 ± 0.52	0.702	111	0.49
Ethylbenzene	µg/tube	4.28 ± 0.313	3.6622 ± 0.37	0.771	85.5	-0.77
n-Decane	µg/tube	2.43 ± 0.409	1.9767 ± 0.2	0.73	81.2	-0.80
n-Heptane	µg/tube	5.79 ± 0.457	7.0484 ± 0.7	1.04	122	0.85
n-Hexane	µg/tube	6.03 ± 0.453	6.82 ± 0.68	0.964	113	0.55
n-Nonane	µg/tube	4.28 ± 0.443	4.0637 ± 0.41	0.856	95	-0.23
n-Octane	µg/tube	5.53 ± 0.404	6.1802 ± 0.62	0.94	112	0.50
n-Pentane	µg/tube	5.78 ± 0.374	8.15 ± 0.82	1.73	141	1.41
o-Xylene	µg/tube	3.8 ± 0.335	3.1142 ± 0.31	0.684	82	-0.97
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	6.4699 ± 0.65	1.5	82	-0.93
Toluene	µg/tube	4.41 ± 0.306	4.7715 ± 0.48	0.662	108	0.35

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.3642 ± 0.24	0.49	111	0.43
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.1098 ± 0.21	0.619	123	0.74
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.5598 ± 0.16	0.414	143	1.25
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.521 ± 0.25	0.564	98.3	-0.08
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	2.2244 ± 0.22	0.755	141	1.07
Trichloroethene	µg/tube	1.66 ± 0.269	2.3118 ± 0.23	0.549	139	1.22
Trichloromethane	µg/tube	2.12 ± 0.148	2.4627 ± 0.25	0.297	116	0.65


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
1.4
1.2
1.1
1.2
-1
0
1
-1
0
1
En-Score

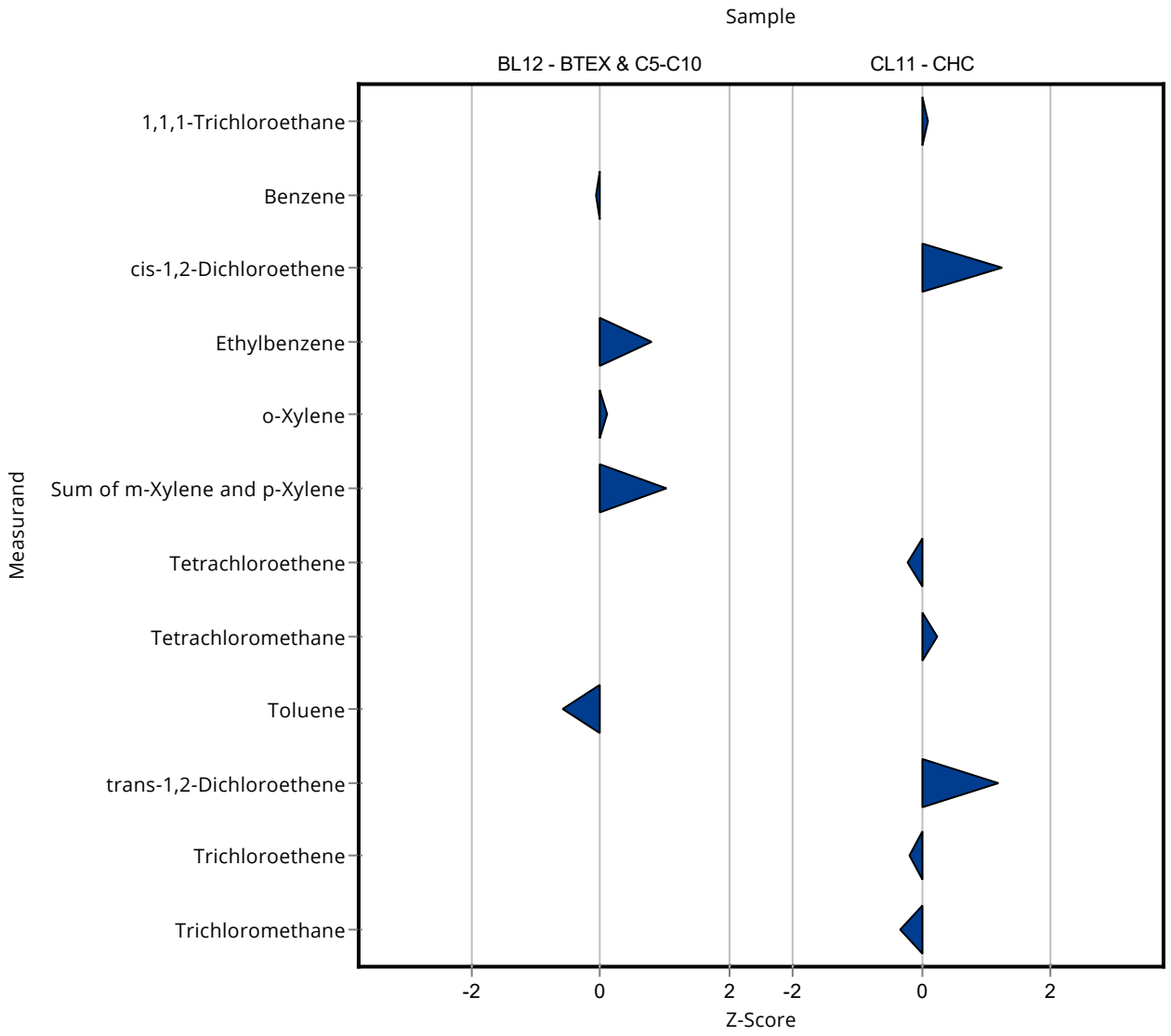
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0016

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.63 ± 0.45	0.702	98.9	-0.07
Ethylbenzene	µg/tube	4.28 ± 0.313	4.89 ± 0.342	0.771	114	0.79
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	3.87 ± 0.348	0.684	102	0.10
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.45 ± 0.756	1.5	120	1.04
Toluene	µg/tube	4.41 ± 0.306	4.02 ± 0.322	0.662	91.1	-0.59

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.18 ± 0.218	0.49	102	0.10
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.49 ± 0.498	0.619	145	1.25
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.994 ± 0.199	0.414	91.2	-0.23
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.7 ± 0.324	0.564	105	0.24
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	2.46 ± 0.615	0.755	156	1.17
Trichloroethene	µg/tube	1.66 ± 0.269	1.56 ± 0.234	0.549	93.9	-0.19
Trichloromethane	µg/tube	2.12 ± 0.148	2.02 ± 0.162	0.297	95.2	-0.34

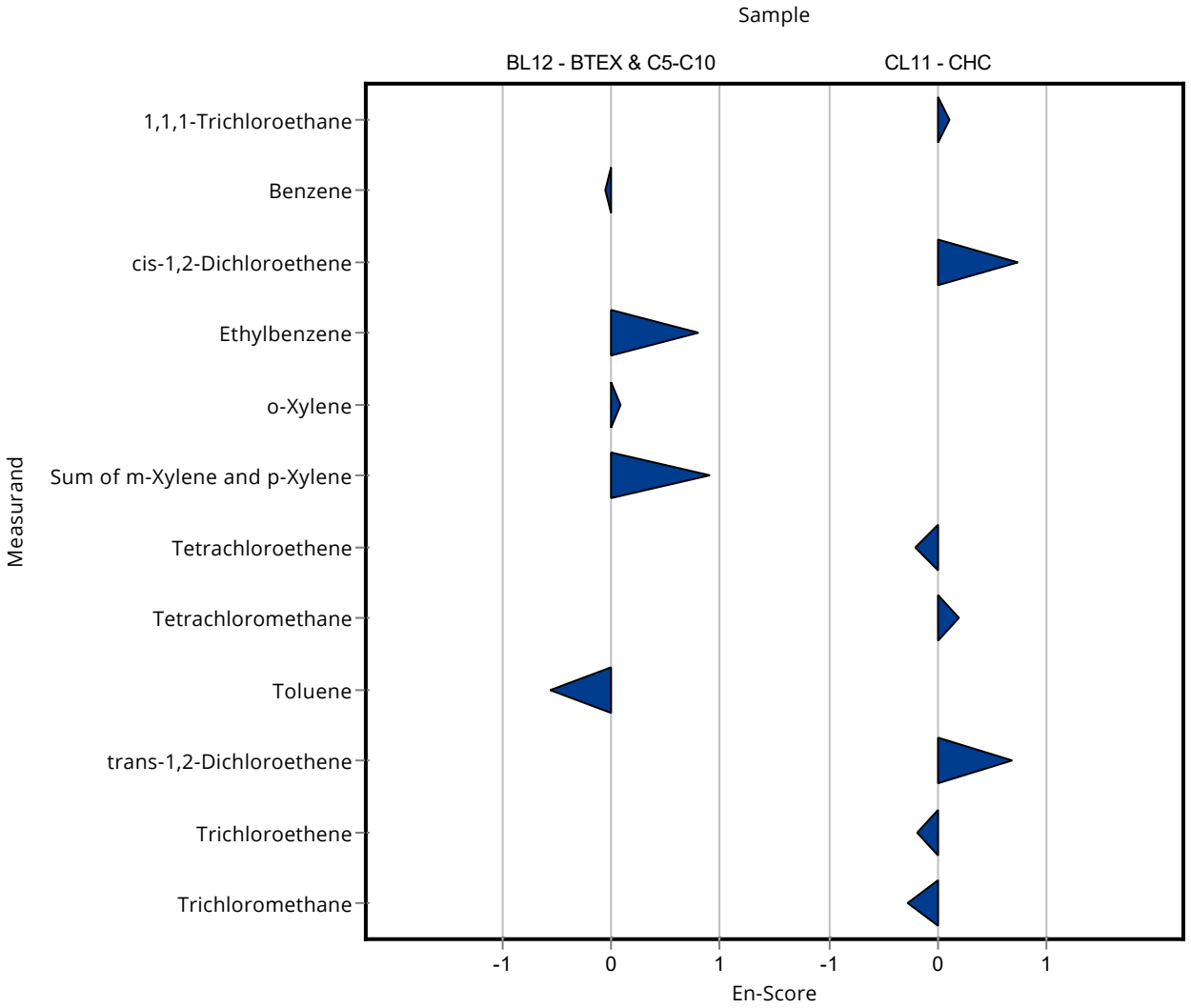

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
Measurand
-2
0
2
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.63 ± 0.45	0.702	98.9	-0.06
Ethylbenzene	µg/tube	4.28 ± 0.313	4.89 ± 0.342	0.771	114	0.81
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	3.87 ± 0.348	0.684	102	0.09
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.45 ± 0.756	1.5	120	0.91
Toluene	µg/tube	4.41 ± 0.306	4.02 ± 0.322	0.662	91.1	-0.55

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.18 ± 0.218	0.49	102	0.10
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.49 ± 0.498	0.619	145	0.74
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.994 ± 0.199	0.414	91.2	-0.21
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.7 ± 0.324	0.564	105	0.20
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	2.46 ± 0.615	0.755	156	0.68
Trichloroethene	µg/tube	1.66 ± 0.269	1.56 ± 0.234	0.549	93.9	-0.19
Trichloromethane	µg/tube	2.12 ± 0.148	2.02 ± 0.162	0.297	95.2	-0.29


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
Measurand
-1
0
1
-1
0
1
En-Score

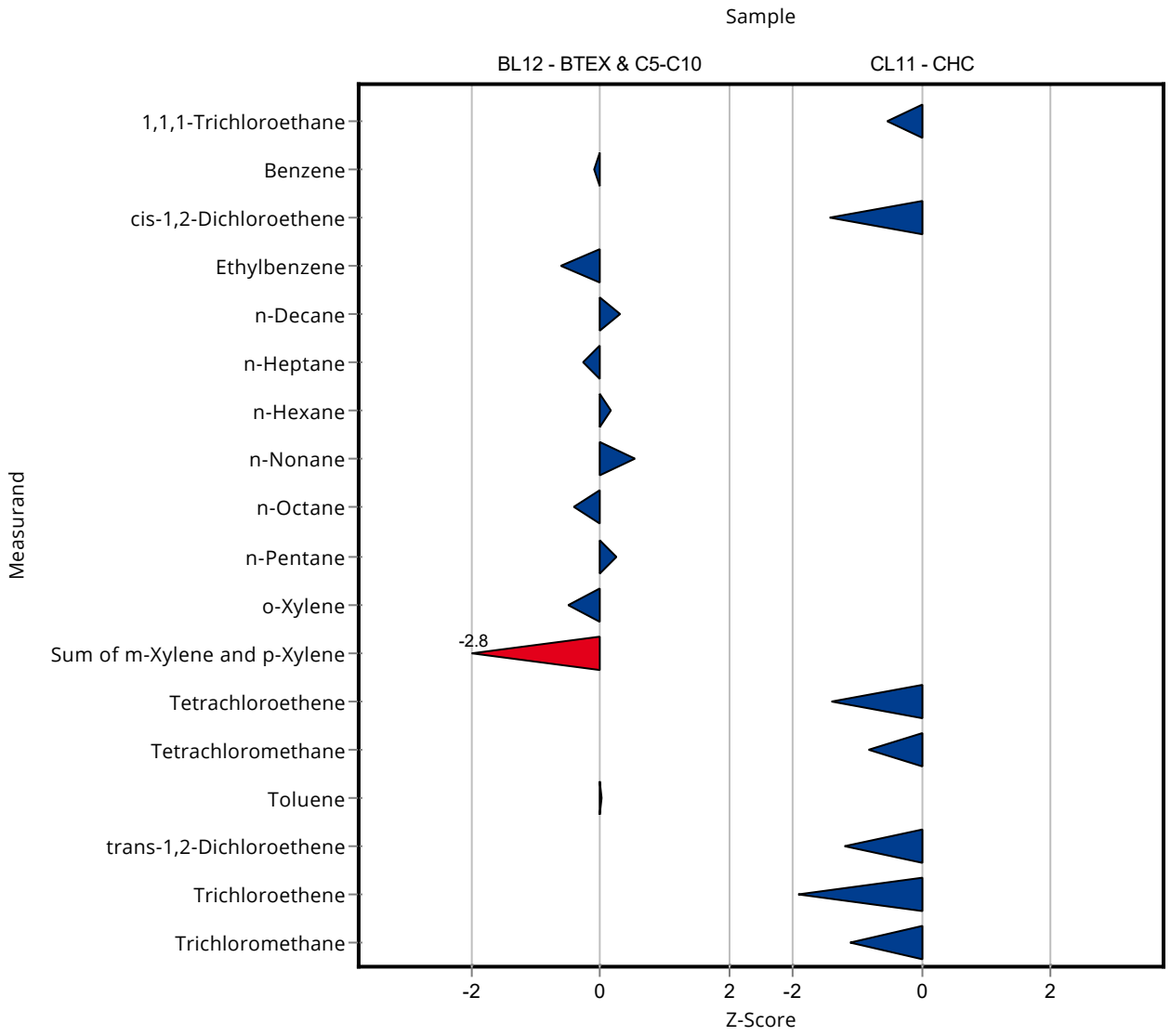
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0017

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.61 ± 0.28	0.702	98.5	-0.10
Ethylbenzene	µg/tube	4.28 ± 0.313	3.82 ± 0.38	0.771	89.2	-0.60
n-Decane	µg/tube	2.43 ± 0.409	2.65 ± 0.33	0.73	109	0.30
n-Heptane	µg/tube	5.79 ± 0.457	5.52 ± 0.49	1.04	95.3	-0.26
n-Hexane	µg/tube	6.03 ± 0.453	6.2 ± 0.6	0.964	103	0.18
n-Nonane	µg/tube	4.28 ± 0.443	4.73 ± 0.66	0.856	111	0.53
n-Octane	µg/tube	5.53 ± 0.404	5.15 ± 0.5	0.94	93.1	-0.41
n-Pentane	µg/tube	5.78 ± 0.374	6.22 ± 1.1	1.73	108	0.26
o-Xylene	µg/tube	3.8 ± 0.335	3.45 ± 0.43	0.684	90.8	-0.51
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	3.72 ± 0.39	1.5	47.2	-2.78
Toluene	µg/tube	4.41 ± 0.306	4.42 ± 0.38	0.662	100	0.01

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	1.87 ± 0.06	0.49	87.8	-0.53
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	0.831 ± 0.1	0.619	48.3	-1.43
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.505 ± 0.041	0.414	46.4	-1.41
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.1 ± 0.07	0.564	81.9	-0.82
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	0.661 ± 0.1	0.755	42	-1.21
Trichloroethene	µg/tube	1.66 ± 0.269	0.612 ± 0.046	0.549	36.8	-1.91
Trichloromethane	µg/tube	2.12 ± 0.148	1.79 ± 0.07	0.297	84.4	-1.12

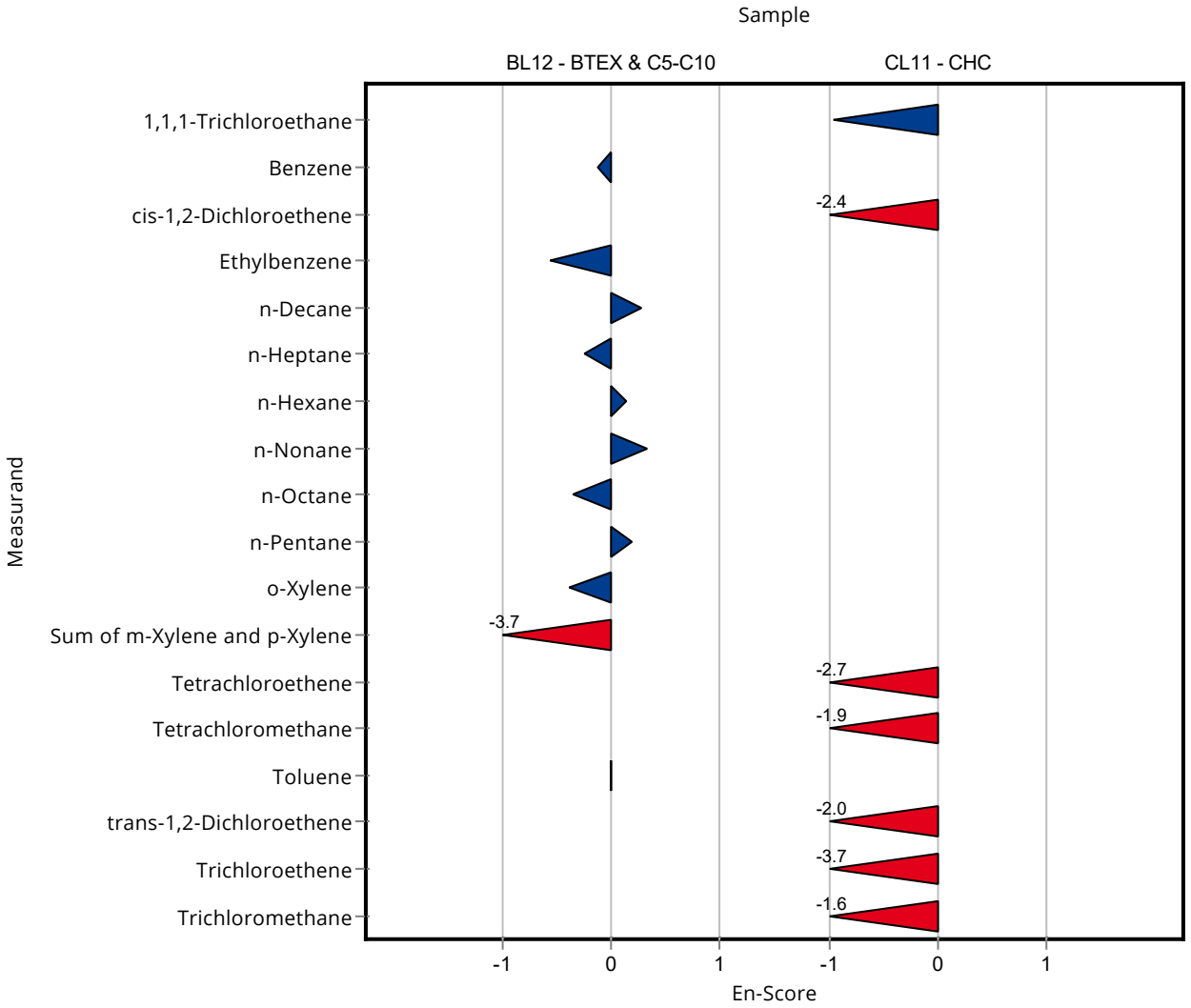

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
-2.8
-2
0
2
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.61 ± 0.28	0.702	98.5	-0.12
Ethylbenzene	µg/tube	4.28 ± 0.313	3.82 ± 0.38	0.771	89.2	-0.56
n-Decane	µg/tube	2.43 ± 0.409	2.65 ± 0.33	0.73	109	0.28
n-Heptane	µg/tube	5.79 ± 0.457	5.52 ± 0.49	1.04	95.3	-0.25
n-Hexane	µg/tube	6.03 ± 0.453	6.2 ± 0.6	0.964	103	0.14
n-Nonane	µg/tube	4.28 ± 0.443	4.73 ± 0.66	0.856	111	0.32
n-Octane	µg/tube	5.53 ± 0.404	5.15 ± 0.5	0.94	93.1	-0.35
n-Pentane	µg/tube	5.78 ± 0.374	6.22 ± 1.1	1.73	108	0.20
o-Xylene	µg/tube	3.8 ± 0.335	3.45 ± 0.43	0.684	90.8	-0.38
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	3.72 ± 0.39	1.5	47.2	-3.73
Toluene	µg/tube	4.41 ± 0.306	4.42 ± 0.38	0.662	100	0.01

Sample: CL11

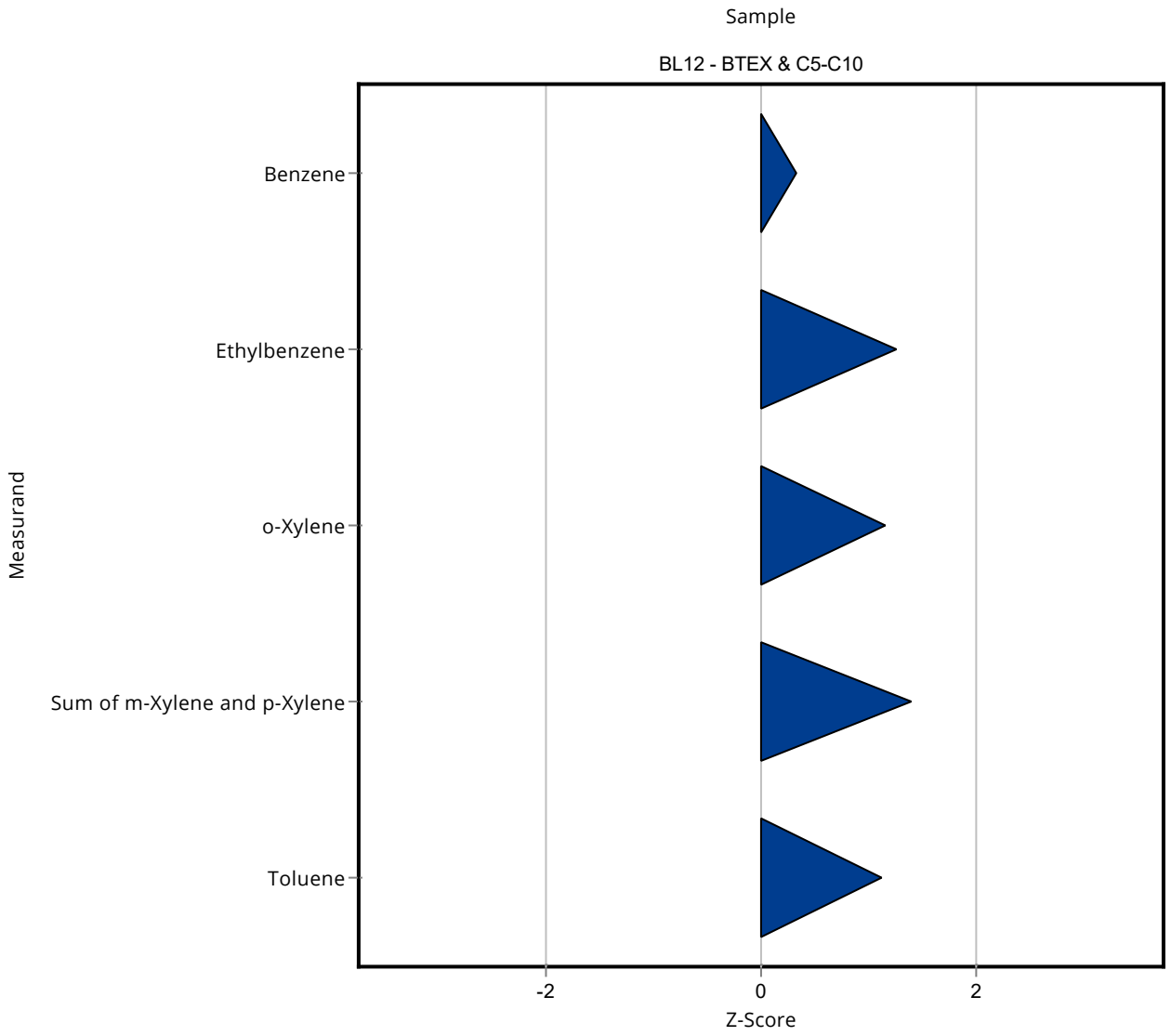
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	1.87 ± 0.06	0.49	87.8	-0.97
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	0.831 ± 0.1	0.619	48.3	-2.36
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.505 ± 0.041	0.414	46.4	-2.72
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.1 ± 0.07	0.564	81.9	-1.87
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	0.661 ± 0.1	0.755	42	-1.95
Trichloroethene	µg/tube	1.66 ± 0.269	0.612 ± 0.046	0.549	36.8	-3.69
Trichloromethane	µg/tube	2.12 ± 0.148	1.79 ± 0.07	0.297	84.4	-1.63


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
-2.4
-3.7
-2.7
-1.9
-2.0
-3.7
-1.6
-1
0
1
-1
0
1
En-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0018

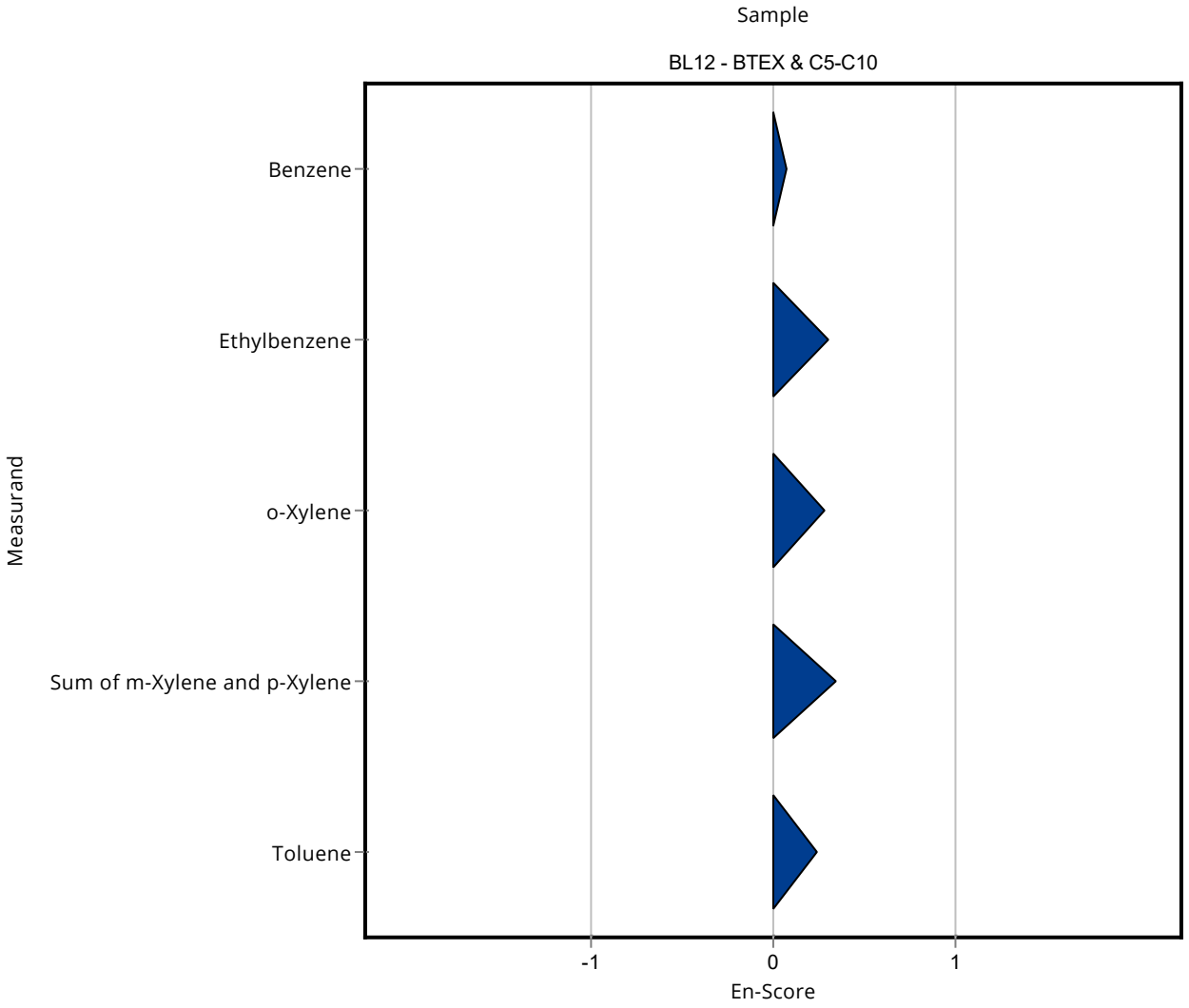
Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.91 ± 1.47	0.702	105	0.32
Ethylbenzene	µg/tube	4.28 ± 0.313	5.25 ± 1.57	0.771	123	1.25
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.59 ± 1.38	0.684	121	1.16
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.98 ± 2.99	1.5	127	1.40
Toluene	µg/tube	4.41 ± 0.306	5.16 ± 1.55	0.662	117	1.13


Sample
BL12 - BTEX & C5-C10
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
Measurand
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.91 ± 1.47	0.702	105	0.08
Ethylbenzene	µg/tube	4.28 ± 0.313	5.25 ± 1.57	0.771	123	0.31
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.59 ± 1.38	0.684	121	0.28
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.98 ± 2.99	1.5	127	0.35
Toluene	µg/tube	4.41 ± 0.306	5.16 ± 1.55	0.662	117	0.24

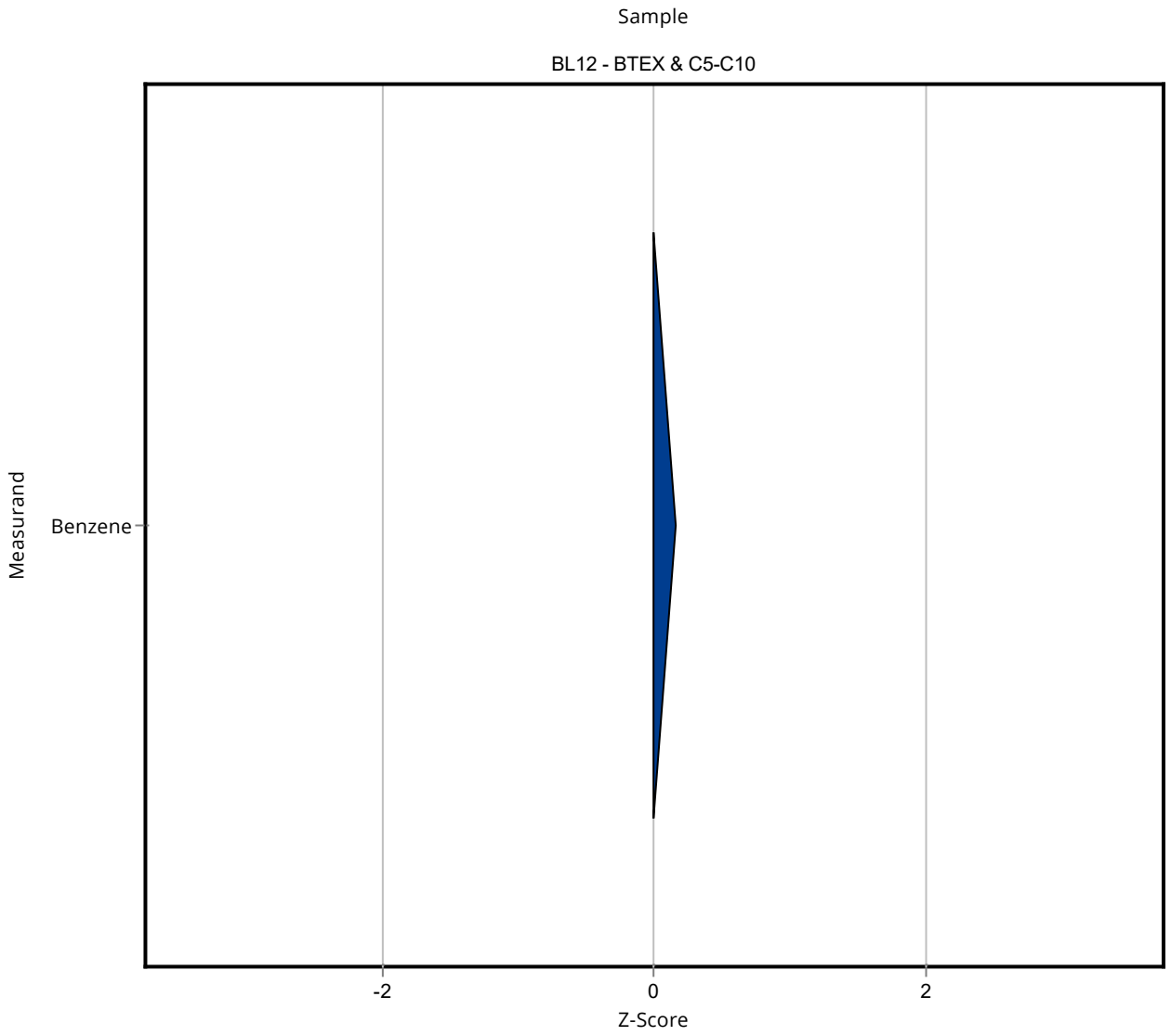

Sample
BL12 - BTEX & C5-C10
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
Measurand
-1
0
1
En-Score

Summary of results CHC and BTEX & C5-C10 - CBL10

Labcode: LC0019

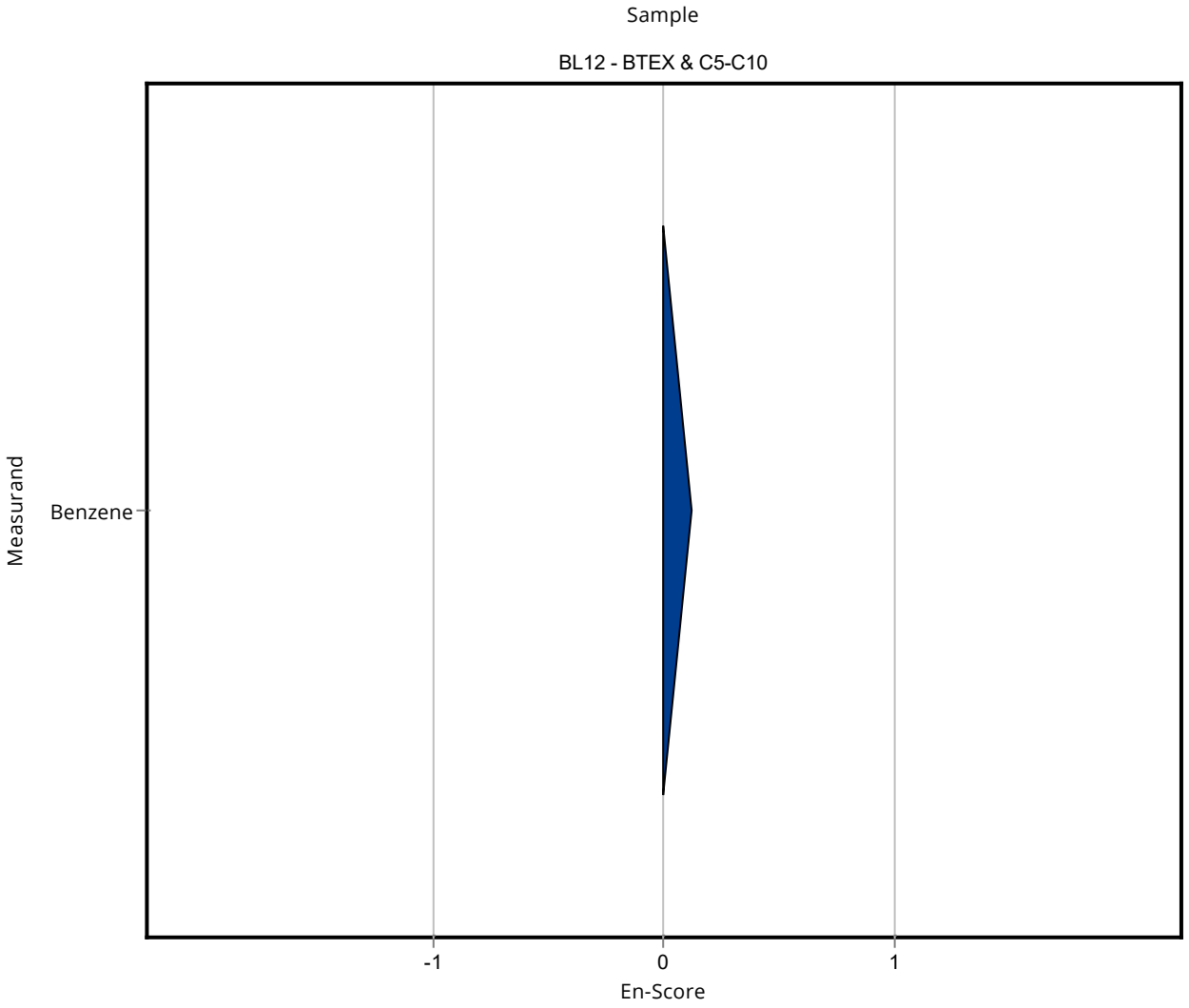
Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.79 ± 0.43	0.702	102	0.15
Ethylbenzene	µg/tube	4.28 ± 0.313	- ± -	0.771	-	-
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	- ± -	0.684	-	-
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	- ± -	1.5	-	-
Toluene	µg/tube	4.41 ± 0.306	- ± -	0.662	-	-


Sample
BL12 - BTEX & C5-C10
Measurand
Benzene
-2
0
2
Z-Score

Sample: BL12

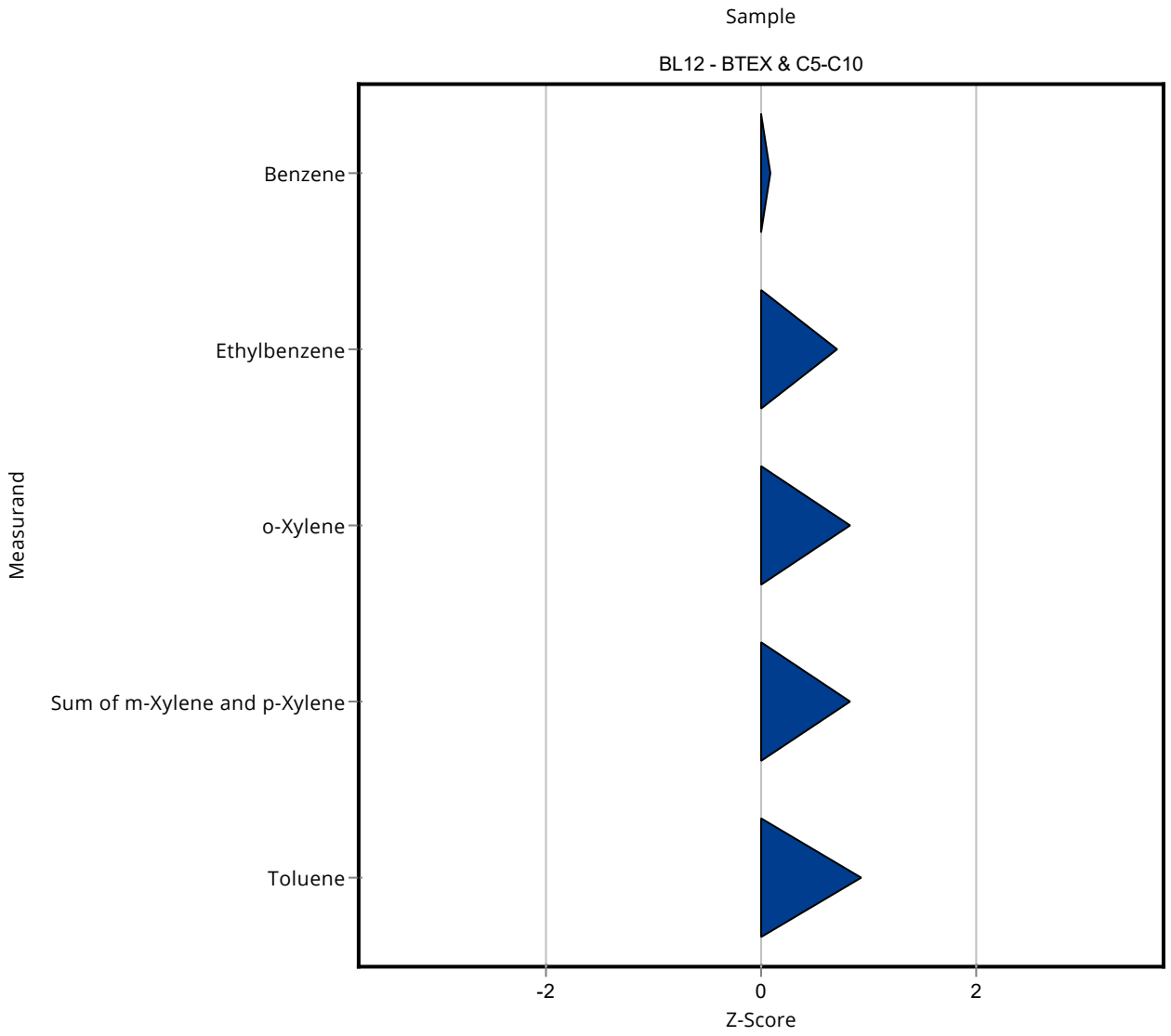
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.79 ± 0.43	0.702	102	0.12
Ethylbenzene	µg/tube	4.28 ± 0.313	- ± -	0.771	-	-
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	- ± -	0.684	-	-
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	- ± -	1.5	-	-
Toluene	µg/tube	4.41 ± 0.306	- ± -	0.662	-	-


Sample
BL12 - BTEX & C5-C10
Measurand
Benzene
-1
0
1
En-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0020

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.741 ± 0.21	0.702	101	0.08
Ethylbenzene	µg/tube	4.28 ± 0.313	4.825 ± 0.27	0.771	113	0.70
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.361 ± 0.25	0.684	115	0.82
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.126 ± 0.48	1.5	116	0.83
Toluene	µg/tube	4.41 ± 0.306	5.037 ± 0.24	0.662	114	0.94

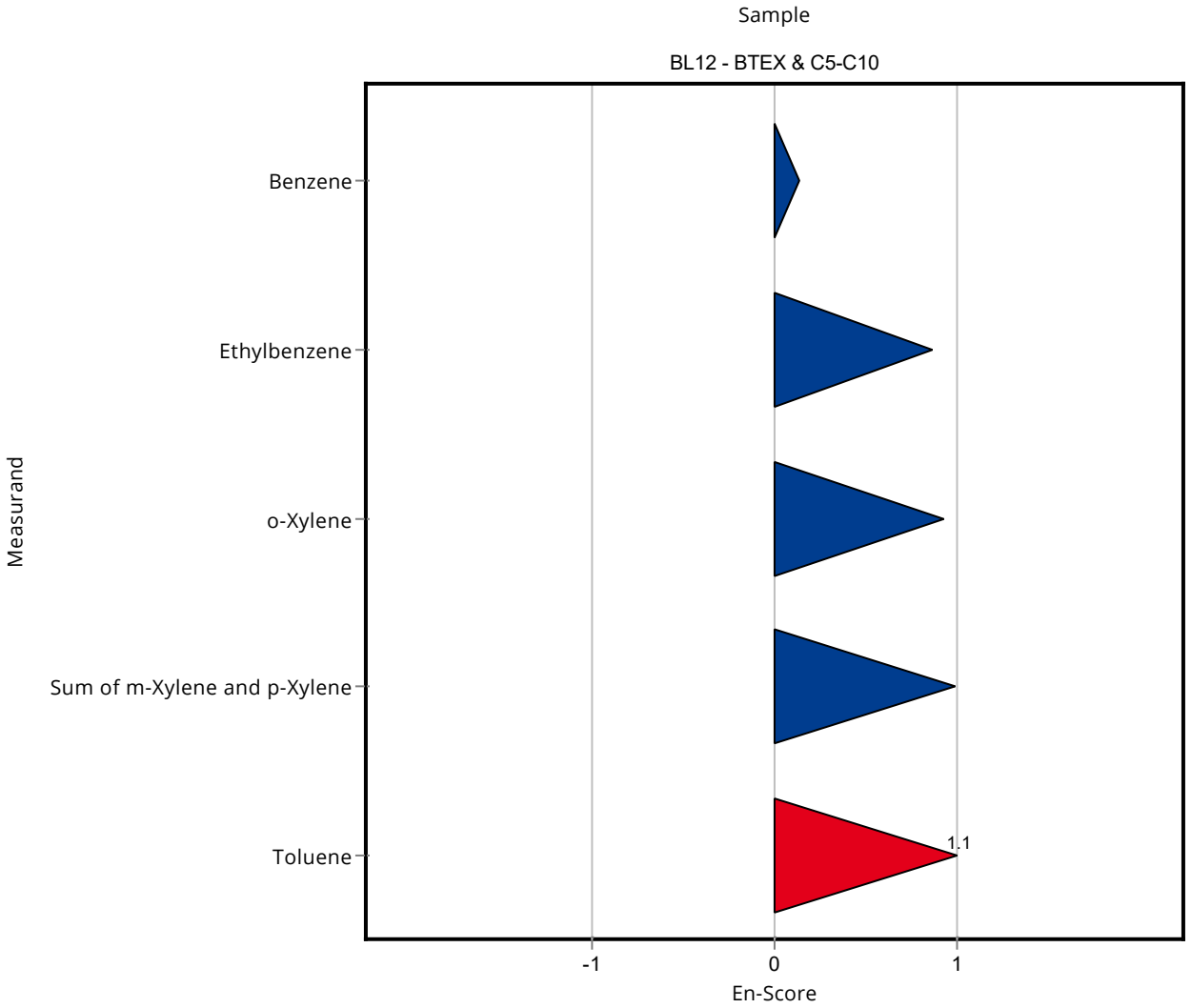

Sample
BL12 - BTEX & C5-C10
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
Measurand
-2
0
2
Z-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0020

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.741 ± 0.21	0.702	101	0.13
Ethylbenzene	µg/tube	4.28 ± 0.313	4.825 ± 0.27	0.771	113	0.87
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.361 ± 0.25	0.684	115	0.93
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.126 ± 0.48	1.5	116	0.99
Toluene	µg/tube	4.41 ± 0.306	5.037 ± 0.24	0.662	114	1.09


Sample
BL12 - BTEX & C5-C10
Measurand
Benzene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Toluene
1.1
-1
0
1
En-Score

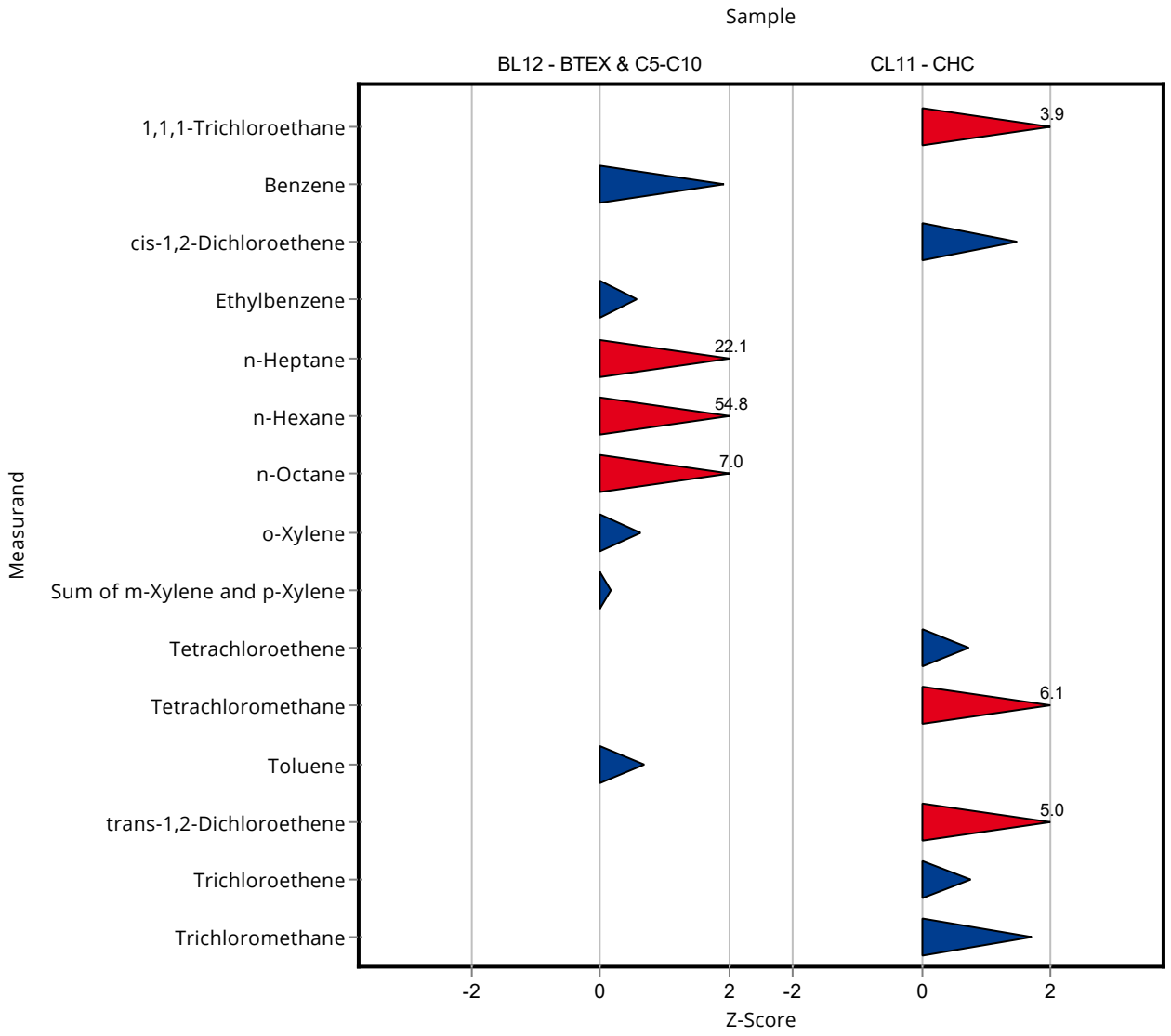
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0021

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	6.04 ± 0.91	0.702	129	1.93
Ethylbenzene	µg/tube	4.28 ± 0.313	4.72 ± 0.47	0.771	110	0.57
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	28.8 ± 4.32	1.04	497	22.08
n-Hexane	µg/tube	6.03 ± 0.453	58.9 ± 8.84	0.964	978	54.84
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	12.1 ± 1.82	0.94	219	6.99
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.23 ± 0.42	0.684	111	0.63
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.12 ± 0.81	1.5	103	0.15
Toluene	µg/tube	4.41 ± 0.306	4.87 ± 0.73	0.662	110	0.69

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	4.06 ± 0.41	0.49	191	3.94
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.64 ± 0.26	0.619	154	1.49
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.39 ± 0.18	0.414	128	0.73
Tetrachloromethane	µg/tube	2.56 ± 0.205	5.99 ± 0.6	0.564	234	6.07
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	5.34 ± 0.53	0.755	339	4.99
Trichloroethene	µg/tube	1.66 ± 0.269	2.07 ± 0.31	0.549	125	0.74
Trichloromethane	µg/tube	2.12 ± 0.148	2.63 ± 0.26	0.297	124	1.71

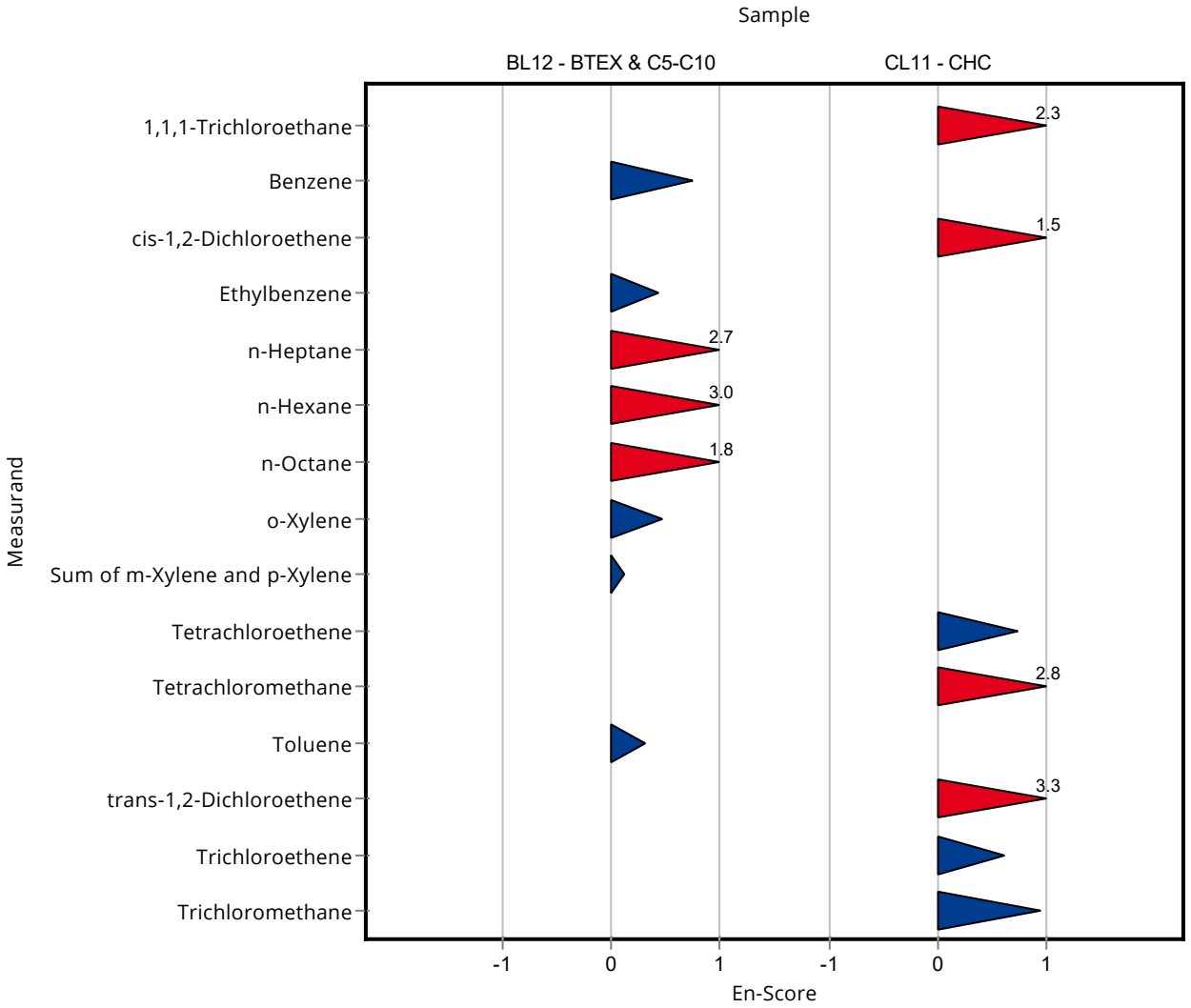

Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Heptane
n-Hexane
n-Octane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
22.1
54.8
7.0
3.9
6.1
5.0
-2
0
2
-2
0
2
Z-Score

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	6.04 ± 0.91	0.702	129	0.74
Ethylbenzene	µg/tube	4.28 ± 0.313	4.72 ± 0.47	0.771	110	0.44
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	28.8 ± 4.32	1.04	497	2.66
n-Hexane	µg/tube	6.03 ± 0.453	58.9 ± 8.84	0.964	978	2.99
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	12.1 ± 1.82	0.94	219	1.79
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	4.23 ± 0.42	0.684	111	0.48
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	8.12 ± 0.81	1.5	103	0.13
Toluene	µg/tube	4.41 ± 0.306	4.87 ± 0.73	0.662	110	0.31

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	4.06 ± 0.41	0.49	191	2.26
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	2.64 ± 0.26	0.619	154	1.51
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.39 ± 0.18	0.414	128	0.73
Tetrachloromethane	µg/tube	2.56 ± 0.205	5.99 ± 0.6	0.564	234	2.81
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	5.34 ± 0.53	0.755	339	3.30
Trichloroethene	µg/tube	1.66 ± 0.269	2.07 ± 0.31	0.549	125	0.60
Trichloromethane	µg/tube	2.12 ± 0.148	2.63 ± 0.26	0.297	124	0.94


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
Measurand
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Heptane
n-Hexane
n-Octane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
2.3
1.5
2.7
3.0
1.8
2.8
3.3
-1
0
1
-1
0
1
En-Score

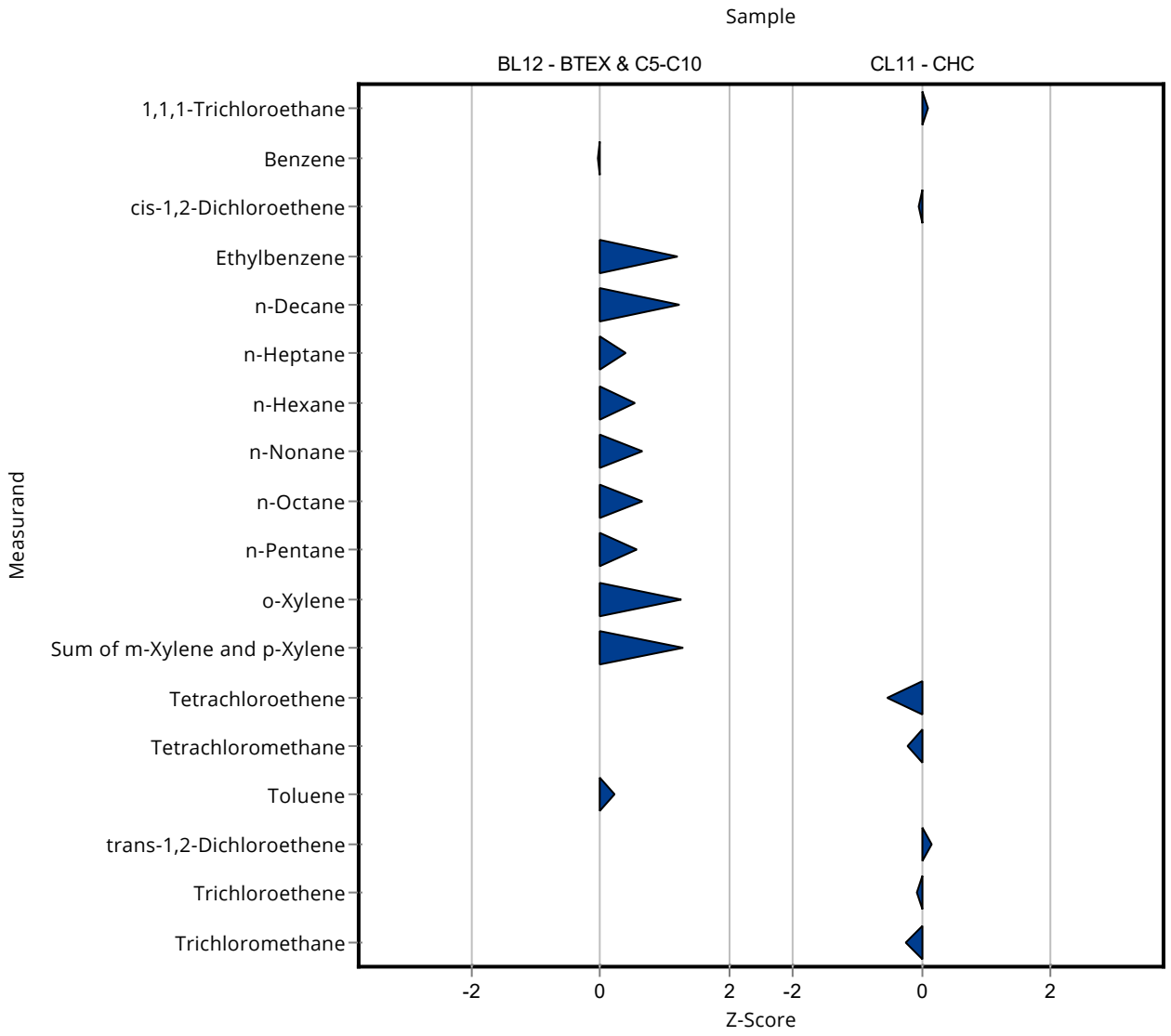
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0022

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	4.65 ± 1.9	0.702	99.3	-0.05
Ethylbenzene	µg/tube	4.28 ± 0.313	5.22 ± 2.1	0.771	122	1.22
n-Decane	µg/tube	2.43 ± 0.409	3.33 ± 1.3	0.73	137	1.23
n-Heptane	µg/tube	5.79 ± 0.457	6.2 ± 2.5	1.04	107	0.39
n-Hexane	µg/tube	6.03 ± 0.453	6.55 ± 2.6	0.964	109	0.54
n-Nonane	µg/tube	4.28 ± 0.443	4.83 ± 1.9	0.856	113	0.64
n-Octane	µg/tube	5.53 ± 0.404	6.15 ± 2.5	0.94	111	0.66
n-Pentane	µg/tube	5.78 ± 0.374	6.78 ± 2.7	1.73	117	0.58
o-Xylene	µg/tube	3.8 ± 0.335	4.66 ± 1.9	0.684	123	1.26
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.84 ± 3.9	1.5	125	1.30
Toluene	µg/tube	4.41 ± 0.306	4.56 ± 1.8	0.662	103	0.22

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.18 ± 0.9	0.49	102	0.10
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.68 ± 0.7	0.619	97.7	-0.06
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.86 ± 0.3	0.414	78.9	-0.55
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.43 ± 1	0.564	94.8	-0.24
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.68 ± 0.7	0.755	107	0.14
Trichloroethene	µg/tube	1.66 ± 0.269	1.62 ± 0.6	0.549	97.5	-0.08
Trichloromethane	µg/tube	2.12 ± 0.148	2.05 ± 0.8	0.297	96.6	-0.24


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
n-Decane
n-Heptane
n-Hexane
n-Nonane
n-Octane
n-Pentane
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
Measurand
-2
0
2
-2
0
2
Z-Score

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0022

Sample: BL12

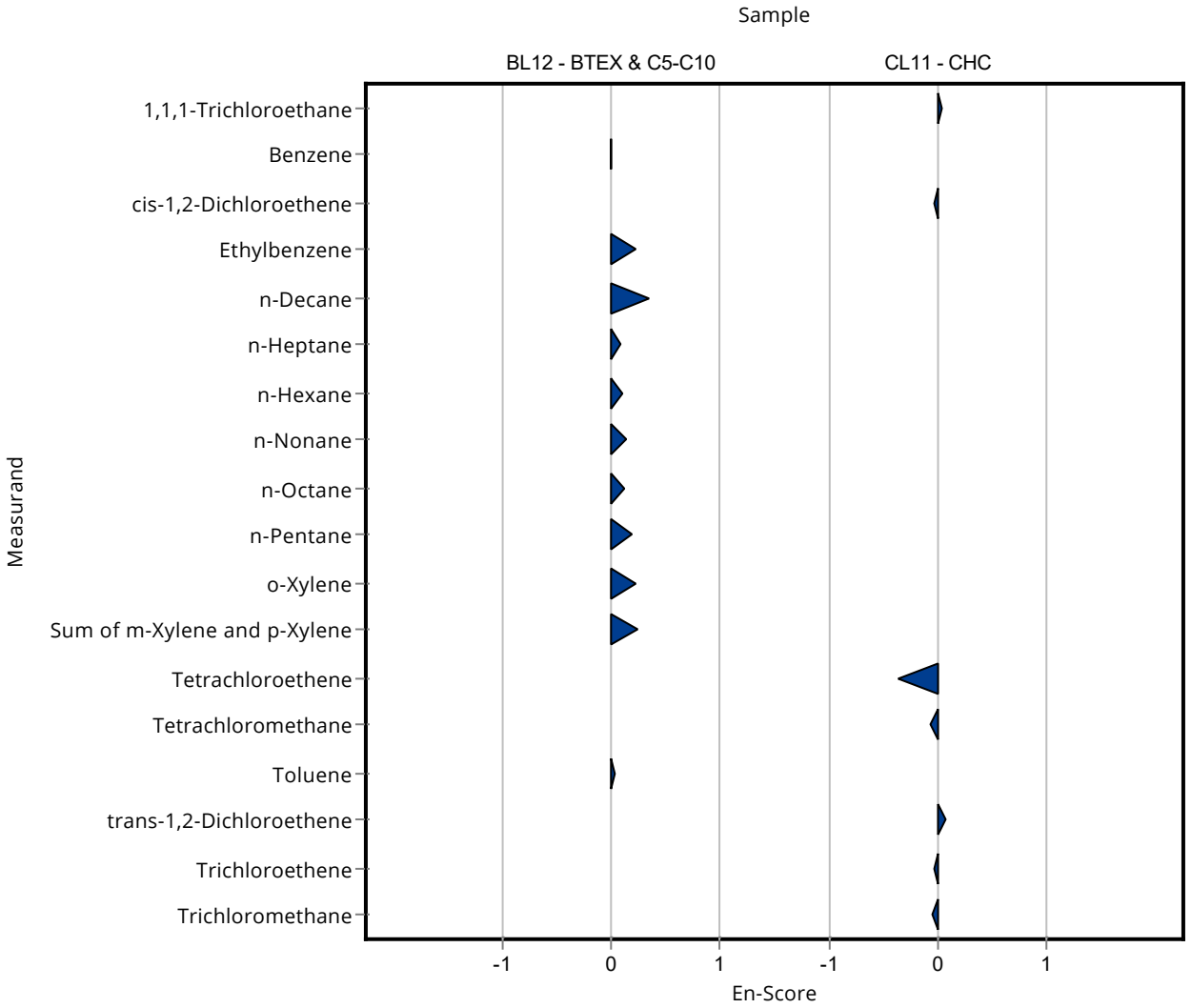
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	4.65 ± 1.9	0.702	99.3	-0.01
Ethylbenzene	µg/tube	4.28 ± 0.313	5.22 ± 2.1	0.771	122	0.22
n-Decane	µg/tube	2.43 ± 0.409	3.33 ± 1.3	0.73	137	0.34
n-Heptane	µg/tube	5.79 ± 0.457	6.2 ± 2.5	1.04	107	0.08
n-Hexane	µg/tube	6.03 ± 0.453	6.55 ± 2.6	0.964	109	0.10
n-Nonane	µg/tube	4.28 ± 0.443	4.83 ± 1.9	0.856	113	0.14
n-Octane	µg/tube	5.53 ± 0.404	6.15 ± 2.5	0.94	111	0.12
n-Pentane	µg/tube	5.78 ± 0.374	6.78 ± 2.7	1.73	117	0.19
o-Xylene	µg/tube	3.8 ± 0.335	4.66 ± 1.9	0.684	123	0.23
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	9.84 ± 3.9	1.5	125	0.25
Toluene	µg/tube	4.41 ± 0.306	4.56 ± 1.8	0.662	103	0.04

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.18 ± 0.9	0.49	102	0.03
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.68 ± 0.7	0.619	97.7	-0.03
Tetrachloroethene	µg/tube	1.09 ± 0.199	0.86 ± 0.3	0.414	78.9	-0.36
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.43 ± 1	0.564	94.8	-0.07
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	1.68 ± 0.7	0.755	107	0.07
Trichloroethene	µg/tube	1.66 ± 0.269	1.62 ± 0.6	0.549	97.5	-0.03
Trichloromethane	µg/tube	2.12 ± 0.148	2.05 ± 0.8	0.297	96.6	-0.04

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0022



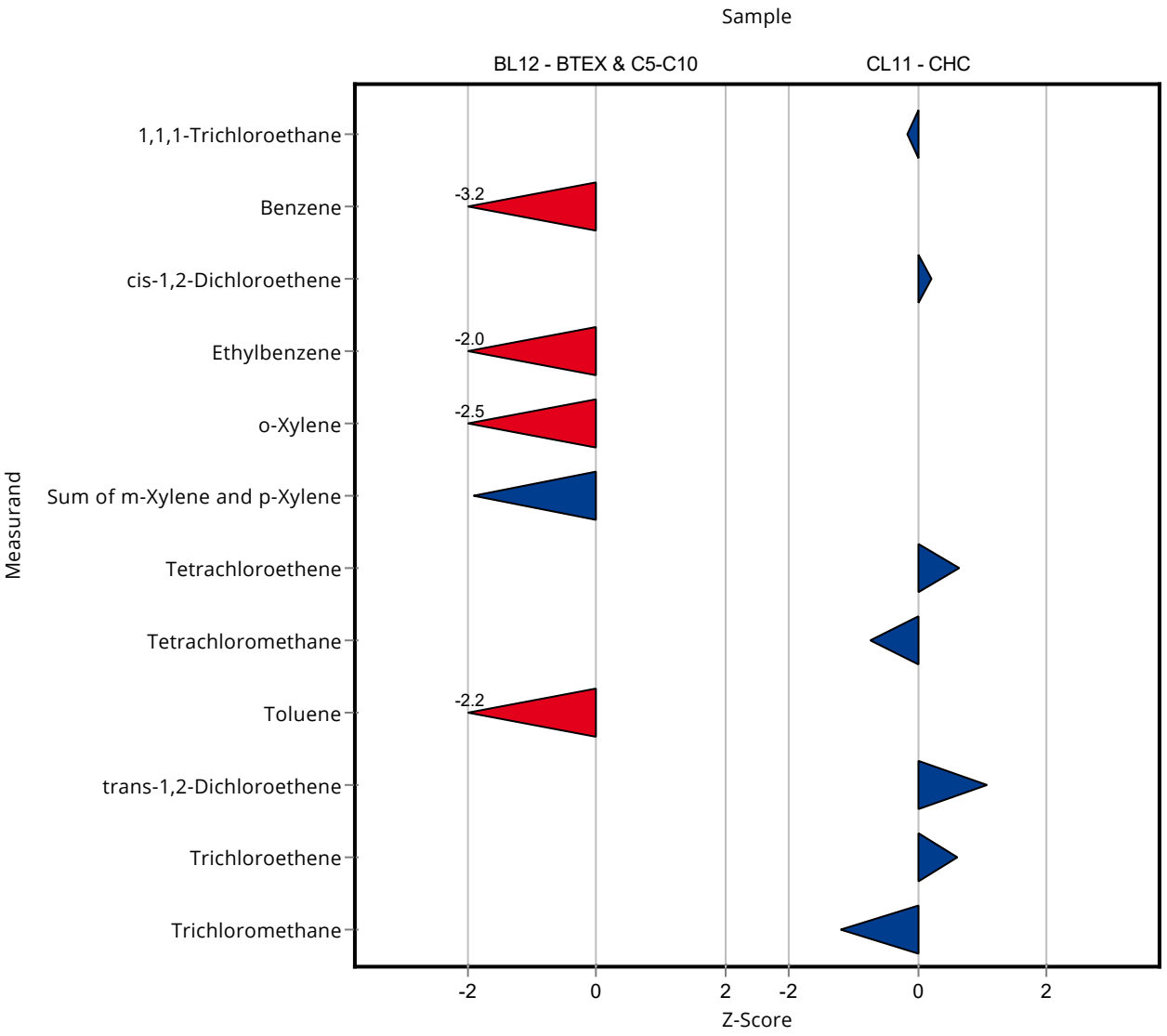
Summary of results CHC and BTEX & C5-C10 - CBL10 Labcode: LC0023

Sample: BL12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Benzene	µg/tube	4.68 ± 0.154	2.41 ± 0.48	0.702	51.5	-3.24
Ethylbenzene	µg/tube	4.28 ± 0.313	2.72 ± 0.54	0.771	63.5	-2.03
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	2.11 ± 0.42	0.684	55.6	-2.47
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	5.01 ± 1	1.5	63.5	-1.92
Toluene	µg/tube	4.41 ± 0.306	2.98 ± 0.6	0.662	67.5	-2.17

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.05 ± 0.41	0.49	96.2	-0.16
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.85 ± 0.37	0.619	108	0.21
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.36 ± 0.27	0.414	125	0.65
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.14 ± 0.43	0.564	83.5	-0.75
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	2.39 ± 0.48	0.755	152	1.08
Trichloroethene	µg/tube	1.66 ± 0.269	1.99 ± 0.4	0.549	120	0.60
Trichloromethane	µg/tube	2.12 ± 0.148	1.76 ± 0.35	0.297	82.9	-1.22


Sample
BL12 - BTEX & C5-C10
CL11 - CHC
1,1,1-Trichloroethane
Benzene
cis-1,2-Dichloroethene
Ethylbenzene
o-Xylene
Sum of m-Xylene and p-Xylene
Tetrachloroethene
Tetrachloromethane
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Trichloromethane
Measurand
-3.2
-2.0
-2.5
-2.2
-2
0
2
-2
0
2
Z-Score

Sample: BL12

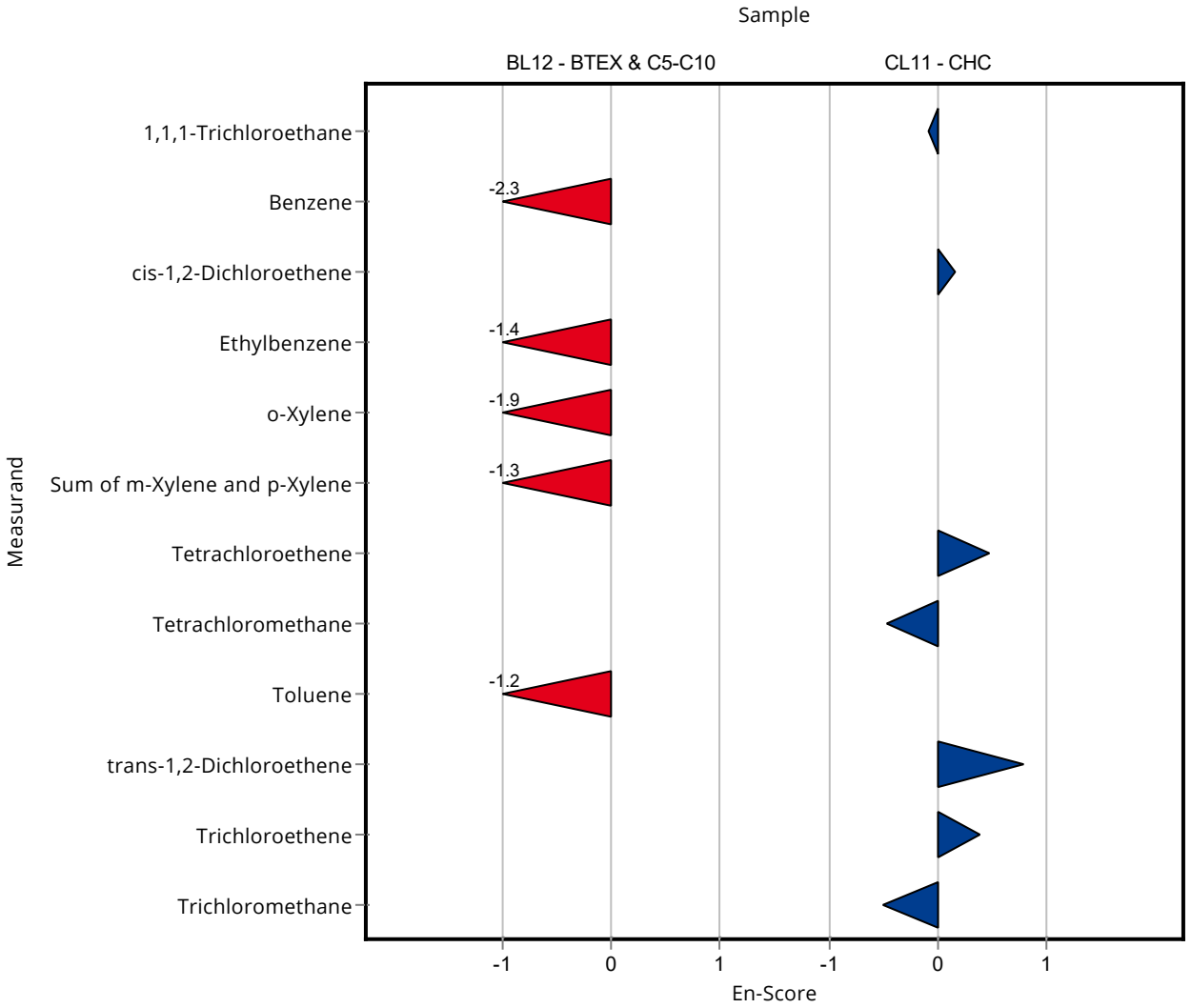
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Benzene	µg/tube	4.68 ± 0.154	2.41 ± 0.48	0.702	51.5	-2.34
Ethylbenzene	µg/tube	4.28 ± 0.313	2.72 ± 0.54	0.771	63.5	-1.39
n-Decane	µg/tube	2.43 ± 0.409	- ± -	0.73	-	-
n-Heptane	µg/tube	5.79 ± 0.457	- ± -	1.04	-	-
n-Hexane	µg/tube	6.03 ± 0.453	- ± -	0.964	-	-
n-Nonane	µg/tube	4.28 ± 0.443	- ± -	0.856	-	-
n-Octane	µg/tube	5.53 ± 0.404	- ± -	0.94	-	-
n-Pentane	µg/tube	5.78 ± 0.374	- ± -	1.73	-	-
o-Xylene	µg/tube	3.8 ± 0.335	2.11 ± 0.42	0.684	55.6	-1.87
Sum of m-Xylene and p-Xylene	µg/tube	7.89 ± 0.8	5.01 ± 1	1.5	63.5	-1.34
Toluene	µg/tube	4.41 ± 0.306	2.98 ± 0.6	0.662	67.5	-1.16

Sample: CL11

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	µg/tube	2.13 ± 0.241	2.05 ± 0.41	0.49	96.2	-0.09
cis-1,2-Dichloroethene	µg/tube	1.72 ± 0.318	1.85 ± 0.37	0.619	108	0.16
Tetrachloroethene	µg/tube	1.09 ± 0.199	1.36 ± 0.27	0.414	125	0.47
Tetrachloromethane	µg/tube	2.56 ± 0.205	2.14 ± 0.43	0.564	83.5	-0.48
trans-1,2-Dichloroethene	µg/tube	1.57 ± 0.422	2.39 ± 0.48	0.755	152	0.78
Trichloroethene	µg/tube	1.66 ± 0.269	1.99 ± 0.4	0.549	120	0.39
Trichloromethane	µg/tube	2.12 ± 0.148	1.76 ± 0.35	0.297	82.9	-0.51

Summary of results CHC and BTEX & C5-C10 - CBL10 - En-Score

Labcode: LC0023



E9. Methodenübersicht / Overview of methods

LabCode	Sample	Benzene	Ethylbenzene	n-Decane	n-Heptane
LC0001	**BL12**	EN 14662-5 (GC);	EN 14662-5 (GC);		
LC0002	**BL12**	EN 14662-2 (GC); VDI 2100-2	EN 14662-2 (GC); VDI 2100-2	EN 14662-2 (GC); VDI 2100-2	EN 14662-2 (GC); VDI 2100-2
LC0003	**BL12**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);		
LC0004	**BL12**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0005	**BL12**	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
LC0006	**BL12**	GC-MS; liquid extraction	GC-MS; liquid extraction	GC-MS; liquid extraction	GC-MS; liquid extraction
LC0007	**BL12**	EN 14662-5 (GC-MS);	EN 14662-5 (GC-MS);		
LC0008	**BL12**	VDI 2457-1 (GC);	VDI 2457-1 (GC);		
LC0009	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0010	**BL12**	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);
LC0011	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC); house method	VDI 3865-3 (GC); house method
LC0012	**BL12**	ISO 22155 (HS-GC);	ISO 22155 (HS-GC);	EN ISO 16558-1 (HS-GC);	EN ISO 16558-1 (HS-GC);
LC0013	**BL12**	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
LC0014	**BL12**	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);
LC0015	**BL12**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0016	**BL12**	DIN 38407-9 (GC); F9-1	DIN 38407-9 (GC); F9-1		
LC0017	**BL12**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0018	**BL12**	EN 14662-5 (GC);	EN 14662-5 (GC); house method		
LC0019	**BL12**	EN 14662-2 (GC);			
LC0020	**BL12**	EN 14662-2 (GC-FID);	EN 14662-2 (GC-FID);		
LC0021	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);		VDI 3865-3 (GC);
LC0022	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0023	**BL12**	ON M 5700-2 (GC);	ON M 5700-2 (GC);		

LabCode	Sample	n-Hexane	n-Nonane	n-Octane	n-Pentane
LC0001	**BL12**				
LC0002	**BL12**		EN 14662-2 (GC); VDI 2100-2	EN 14662-2 (GC); VDI 2100-2	
LC0003	**BL12**				
LC0004	**BL12**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0005	**BL12**		ISO 16200-1 (GC);	ISO 16200-1 (GC);	
LC0006	**BL12**	GC-MS; liquid extraction	GC-MS; liquid extraction	GC-MS; liquid extraction	GC-MS; liquid extraction
LC0007	**BL12**				
LC0008	**BL12**				
LC0009	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0010	**BL12**	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);
LC0011	**BL12**	VDI 3865-3 (GC); house method	VDI 3865-3 (GC); house method	VDI 3865-3 (GC); house method	VDI 3865-3 (GC); house method
LC0012	**BL12**	EN ISO 16558-1 (HS-GC);	EN ISO 16558-1 (HS-GC);	EN ISO 16558-1 (HS-GC);	EN ISO 16558-1 (HS-GC);
LC0013	**BL12**	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
LC0014	**BL12**	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);
LC0015	**BL12**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0016	**BL12**				
LC0017	**BL12**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0018	**BL12**				
LC0019	**BL12**				
LC0020	**BL12**				
LC0021	**BL12**	VDI 3865-3 (GC);		VDI 3865-3 (GC);	
LC0022	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0023	**BL12**				

LabCode	Sample	o-Xylene	Sum of m-Xylene and p-Xylene	Toluene
LC0001	**BL12**	EN 14662-5 (GC);	EN 14662-5 (GC);	EN 14662-5 (GC);
LC0002	**BL12**	EN 14662-2 (GC); VDI 2100-2	EN 14662-2 (GC); VDI 2100-2	EN 14662-2 (GC); VDI 2100-2
LC0003	**BL12**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0004	**BL12**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0005	**BL12**	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
LC0006	**BL12**	GC-MS; liquid extraction	GC-MS; liquid extraction	GC-MS; liquid extraction
LC0007	**BL12**	EN 14662-5 (GC-MS);	EN 14662-5 (GC-MS);	EN 14662-5 (GC-MS);
LC0008	**BL12**	VDI 2457-1 (GC);	VDI 2457-1 (GC);	VDI 2457-1 (GC);
LC0009	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0010	**BL12**	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);
LC0011	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0012	**BL12**	ISO 22155 (HS-GC);	ISO 22155 (HS-GC);	ISO 22155 (HS-GC);
LC0013	**BL12**	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
LC0014	**BL12**	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);
LC0015	**BL12**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0016	**BL12**	DIN 38407-9 (GC); F9-1	DIN 38407-9 (GC); F9-1	DIN 38407-9 (GC); F9-1
LC0017	**BL12**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0018	**BL12**	EN 14662-5 (GC); house method	EN 14662-5 (GC); house method	EN 14662-5 (GC); house method
LC0019	**BL12**			
LC0020	**BL12**	EN 14662-2 (GC-FID);	EN 14662-2 (GC-FID);	EN 14662-2 (GC-FID);
LC0021	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0022	**BL12**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0023	**BL12**	ON M 5700-2 (GC);	ON M 5700-2 (GC);	ON M 5700-2 (GC);

LabCode	Sample	1,1,1-Trichloroethane	cis-1,2-Dichloroethene	Tetrachloroethene	Tetrachloromethane
LC0003	**CL11**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0004	**CL11**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0005	**CL11**	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
LC0006	**CL11**	GC-MS; liquid extraction		GC-MS; liquid extraction	GC-MS; liquid extraction
LC0008	**CL11**	VDI 2457-1 (GC);	VDI 2457-1 (GC);	VDI 2457-1 (GC);	VDI 2457-1 (GC);
LC0009	**CL11**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0010	**CL11**	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);
LC0011	**CL11**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0012	**CL11**	ISO 22155 (HS-GC);	ISO 22155 (HS-GC);	ISO 22155 (HS-GC);	ISO 22155 (HS-GC);
LC0013	**CL11**	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);
LC0014	**CL11**	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);
LC0015	**CL11**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0016	**CL11**	EN ISO 10301 (GC); F4	EN ISO 10301 (GC); F4	EN ISO 10301 (GC); F4	EN ISO 10301 (GC); F4
LC0017	**CL11**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0021	**CL11**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0022	**CL11**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0023	**CL11**	ON M 5700-2 (GC);	ON M 5700-2 (GC);	ON M 5700-2 (GC);	ON M 5700-2 (GC);

LabCode	Sample	trans-1,2-Dichloroethene	Trichloroethene	Trichloromethane
LC0003	**CL11**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0004	**CL11**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0005	**CL11**	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
LC0006	**CL11**		GC-MS; liquid extraction	GC-MS; liquid extraction
LC0008	**CL11**		VDI 2457-1 (GC);	VDI 2457-1 (GC);
LC0009	**CL11**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0010	**CL11**	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);	VDI 3865-3 (HS-GC-MS);
LC0011	**CL11**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0012	**CL11**	ISO 22155 (HS-GC);	ISO 22155 (HS-GC);	ISO 22155 (HS-GC);
LC0013	**CL11**	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);
LC0014	**CL11**	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);	ISO 16000-6 (GC-MS);
LC0015	**CL11**	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0016	**CL11**	EN ISO 10301 (GC); F4	EN ISO 10301 (GC); F4	EN ISO 10301 (GC); F4
LC0017	**CL11**	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0021	**CL11**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0022	**CL11**	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0023	**CL11**	ON M 5700-2 (GC);	ON M 5700-2 (GC);	ON M 5700-2 (GC);