

**Proficiency Testing Scheme für die  
Umweltanalytik  
CBL12 Chlorierte Kohlenwasserstoffe (CKW) und  
BTEX & C5–C10**

**Proficiency Testing Scheme for  
Environmental Analysis  
CBL12 Chlorinated hydrocarbons (CHC) and  
BTEX & C5–C10**

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## **D1. Beschreibung des Ringversuchs**

### **D1.1. Ausgestaltung und Durchführung**

- Anzahl der Anmeldungen: 22
- Anzahl der übermittelten Datensätze: 22
- Probenversand: 19.05.2026
- Einsendeschluss der Daten: 16.06.2026

Beim Ringversuch CBL12 bestand die Möglichkeit, an den Teilen CL13 (CKW) und/oder BL14 (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 Kalibriergas beladenes Aktivkohleröhrchen versandt. Zusätzlich wurde ein unbeladenes Röhrchen zur Blindwertbestimmung beigelegt. Die Beladung der Röhrchen erfolgte in zwei Serien (CL13 und BL14). Es wurde ein definiertes Volumen des Kalibriergases der Firma Air Liquide mit einer Pumpe über Orbo 32S Aktivkohleröhrchen (Supelco) gesaugt. Die verwendeten Kalibriergase enthielten die Substanzen 1,1,1-Trichlorethan, cis-1,2-Dichlorethen, Tetrachlorethen, Tetrachlormethan, trans-1,2-Dichlorethen, Trichlorethen und Trichlormethan (CL13) bzw. Benzol, Toluol, Ethylbenzol, o-Xylol, Summe von m-Xylol und p-Xylol, n-Pentan, n-Hexan, n-Heptan, n-Oktan, n-Nonan und n-Dekan (BL14). 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 12.05.2026. Die Proben wurden bis zum Versand bei -80 °C gelagert und am 19.05.2026 verschickt.

Jedes teilnehmende Labor erhielt je nach Anmeldung:

- 1 beladenes Aktivkohleröhrchen Probe CL13 und/oder
- 1 beladenes Aktivkohleröhrchen Probe BL14
- sowie 1 unbeladenes Aktivkohleröhrchen (Blindwert) pro Probe

### **D1.3. Anweisungen für die Teilnehmenden**

Aus Stabilitätsgründen wurde empfohlen bis spätestens 27.05.2026 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 Beladung wurden zu willkürlichen Zeitpunkten mehrere Aliquote pro Probe zur Kontrollanalytik entnommen. Es wurden für die Proben CL13 bzw. BL14 jeweils n=5 Kontrollproben sowie n=1 unbeladenes Aktivkohleröhrchen dem Labor zur Analyse übergeben.

Die Bestimmung der Parameter wurde an ein externes Labor (akkreditiert nach EN ISO/IEC 17025) 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 parameterorientierten Auswertung (E7) in Form von Mittelwerten  $\pm$  Messunsicherheit als Kontrollwert (control test value)  $\pm$  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. Im Rahmen der Auswertung wurden potenzielle Trends bei Tetrachlorethen (CL13) sowie Ethylbenzol, o-Xylol und Summe von m-Xylol und p-Xylol (BL14) identifiziert. Diese hatten unter den gegebenen Rahmenbedingungen keine signifikanten Auswirkungen auf die Beurteilung der Analyseergebnisse und wurden daher als nicht bewertungsrelevant eingestuft.

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 16.06.2026 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 Stunden aufgefordert.

Nach Abschluss der Plausibilitätsprüfung, wurde der Ausreißertest nach Hampel durchgeführt und die Ausreißer ermittelt. Die von diesem Test auffällig eingestufteten 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 gleicher 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 Expert:innenbefund). 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  $n=6$  gültigen, numerischen 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. Die Prüfung auf Rückführbarkeit des zugewiesenen Wertes erfolgt durch Vergleich mit dem Mittelwert des Kontrolllabores.

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:

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

$x_i$  Messergebnis des teilnehmenden Labors

$\bar{X}$  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 Proben der vorangegangenen Runden im Zeitraum 2015 bis 2025 (RSDpooled) bzw. aus den ausreißerbereinigten Ergebnissen der Teilnehmenden (sR) des aktuellen Ringversuchs (falls noch weniger als 6 vorangegangene Runden vorlagen). In begründeten Fällen (z.B. Ergebnisse Realproben nahe an Mindestbestimmungsgrenze oder regulatorischer Vorgaben) erfolgt die Festlegung nach Expertenbefund und die Vorgangsweise wird unter Punkt D4 des Berichts beschrieben.

### D2.2. Leistungskriterium E<sub>n</sub>-Score

Für die Realproben erfolgen zusätzliche Bewertungen unter Einbeziehung der erweiterten Messunsicherheiten der Teilnehmenden und der erweiterten Messunsicherheit des zugewiesenen Wertes, gemäß E<sub>n</sub>-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<sub>n</sub>-Scores erfolgte gemäß nachfolgender Formel:

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

$x_i$  Messergebnis des teilnehmenden Labors

$\bar{X}$	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), $k=2$
$U(\bar{X})$	erweiterte Messunsicherheit des zugewiesenen Wertes, $k=2$

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

#### Interpretation der z-Scores:

- $|z\text{-Score}| \leq 2.0$  Ergebnis gut
- $2.0 < |z\text{-Score}| < 3.0$  Ergebnis fragwürdig
- $|z\text{-Score}| \geq 3.0$  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:

- $|E_n\text{-Score}| \leq 1.0$  zufriedenstellende Leistung
- $|E_n\text{-Score}| > 1.0$  nicht zufriedenstellende Leistung

Hinweis: Bei der Bewertung mittels  $E_n$ -Scores erfolgt die Berücksichtigung der erweiterten Messunsicherheiten der Teilnehmenden und des zugewiesenen Wertes.

$|E_n\text{-Score}| > 1.0$  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 ( $\pm U$ ), 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 labororientierten Auswertung werden pro Labor in anonymisierter Form die Ergebnisse der einzelnen Labore als Messergebnis  $\pm U$  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 labororientierten 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 umfasst. 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 Eignungsprüfungen von 2015 bis 2025 wurden Kriterien (RSDpool) zur Ergebnisbewertung berechnet. Diese wurden im Zuge der Auswertung den relativen Vergleichsstandardabweichungen ( $vR$ ) des aktuellen Ringversuchs gegenübergestellt.

Probe CBL12 / CL13

Bei den Parametern 1,1,1-Trichlorethan, cis-1,2-Dichlorethen, Tetrachlormethan, Trichlorethen und Trichlormethan erfolgte die Berechnung der Scores nach D2.

Für Tetrachlorethen wurde die relative Vergleichsstandardabweichung ( $vR$ ) der aktuellen Eignungsprüfungsrunde für die Bewertung gewählt

Parameter trans-1,2-Dichlorethen: Der auf Basis der Ergebnisse der Teilnehmenden berechnete Sollwert lag außerhalb der Messunsicherheit des Kontrollwertes und es war über das Kontrolllabor keine Rückführbarkeit möglich. Der zugewiesene Wert wurde daher über den ausreißerbereinigten Mittelwert aus der Gruppe der akkreditierten Teilnehmenden berechnet.

Probe CBL12 / BL14

Für Benzol erfolgte die Berechnung der Scores nach D2.

Toluol, Ethylbenzol, n-Pentan, n-Hexan, n-Heptan, n-Oktan: Für diese Parameter wurden relative Vergleichsstandardabweichungen (vR) der aktuellen Eignungsprüfungsrunde für die Bewertung gewählt.

Parameter n-Nonan und n-Dekan: Aufgrund des geringen Gehaltes in der Probe konnte kein Sollwert berechnet werden. Für diese Parameter empfehlen wir einen Vergleich mit den Ergebnissen des Kontrolllabors.

o-Xylol und Summe von m-Xylol und p-Xylol: Für diese Parameter betrug die relative Vergleichsstandardabweichung zwischen den teilnehmenden Laboren über 50 %. Aufgrund der hohen Streuung zwischen den Ergebnissen in der Gruppe der akkreditierten teilnehmenden Labore konnte kein zugewiesener Wert abgeleitet werden. Für diese Parameter empfehlen wir einen Vergleich mit dem in D6.1 angeführten informativen Werten.

## **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/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)

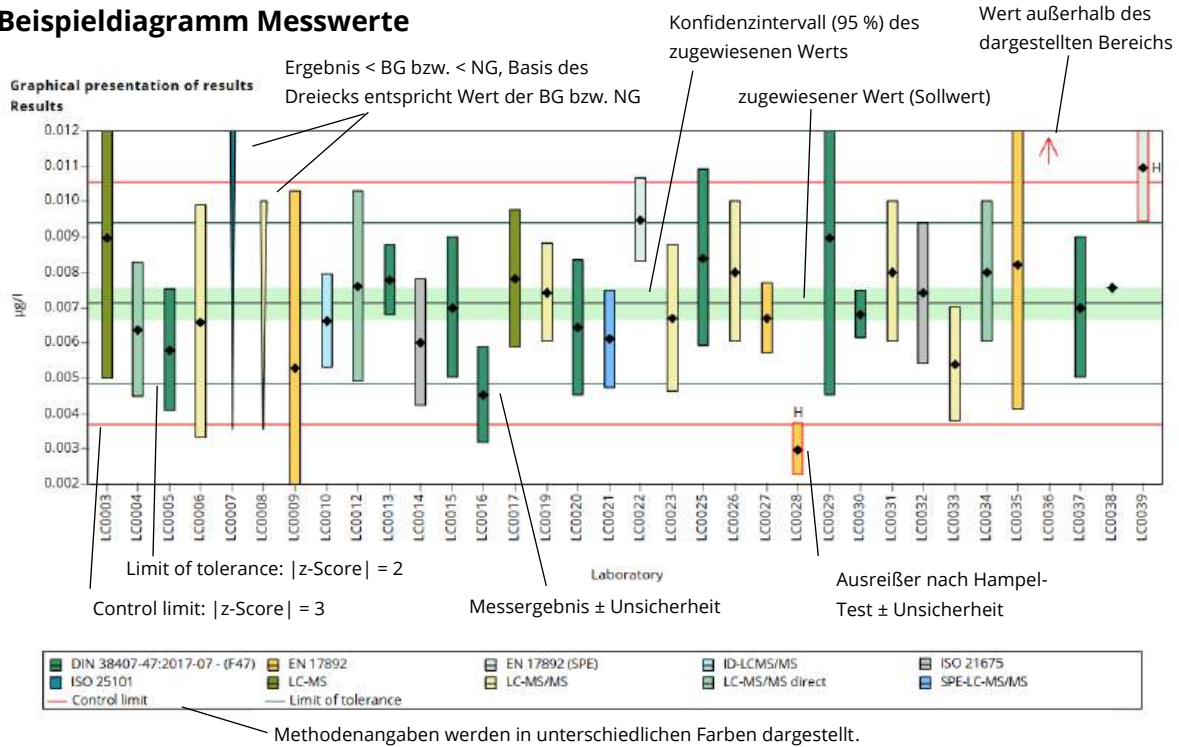
Maximum	Maximales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
sR	Vergleichsstandardabweichung, berechnet aus den ausreißerbereinigten Ergebnissen der Teilnehmenden des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)
vR	relative Vergleichsstandardabweichung 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 <sub>n</sub> -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 <sub>n</sub> -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

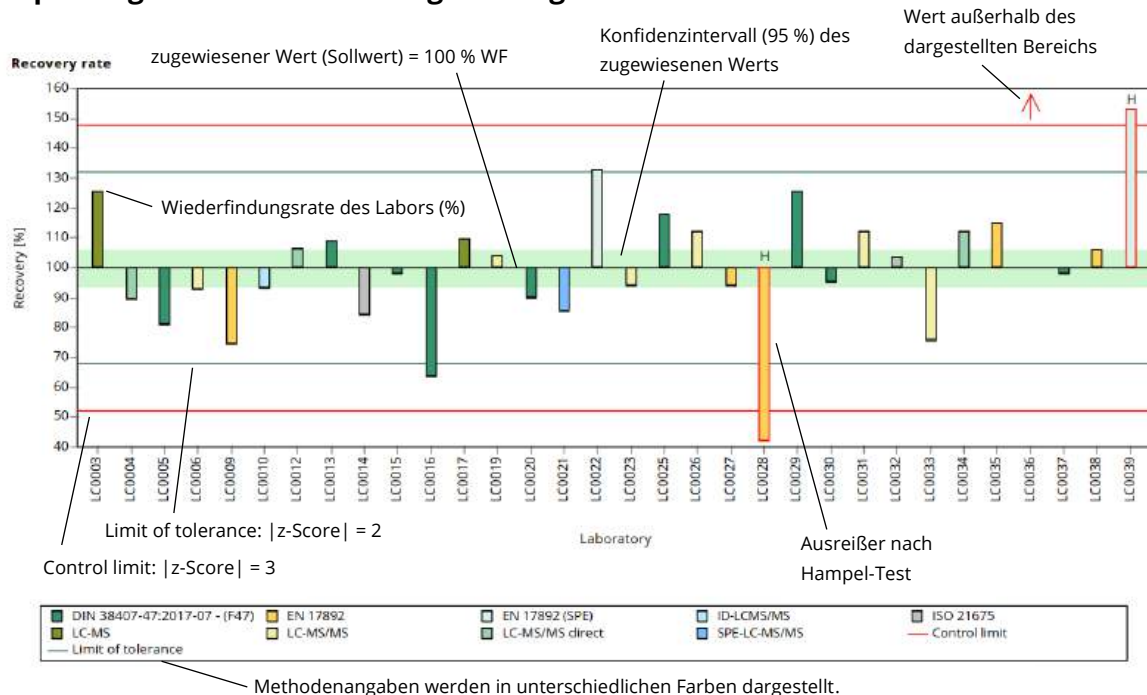
## D5.2. Graphische Darstellung der Ergebnisse

Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

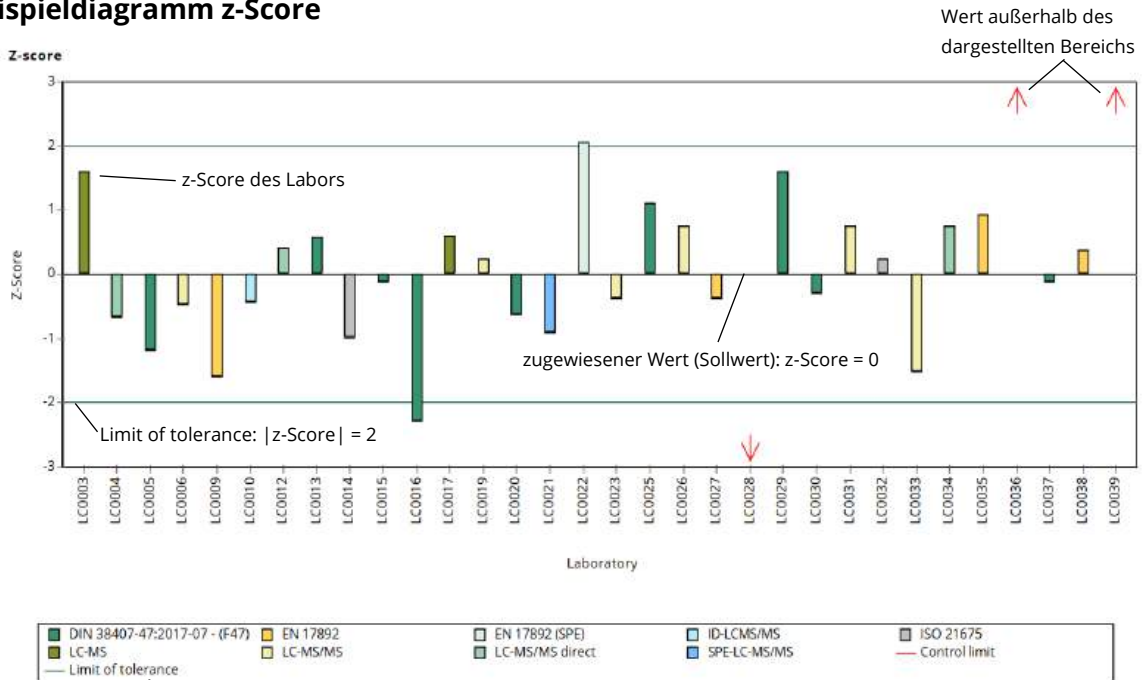
### Beispieldiagramm Messwerte



### Beispieldiagramm Wiederfindung zum zugewiesenen Wert

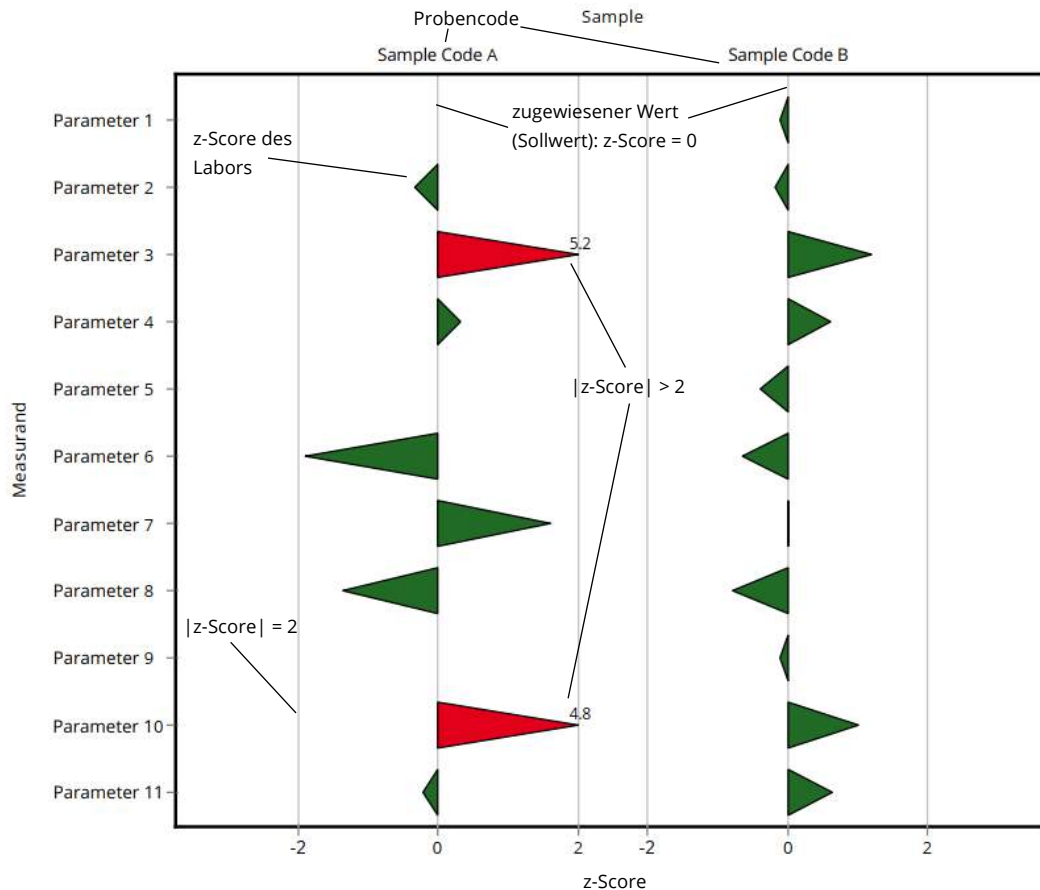


### Beispieldiagramm z-Score

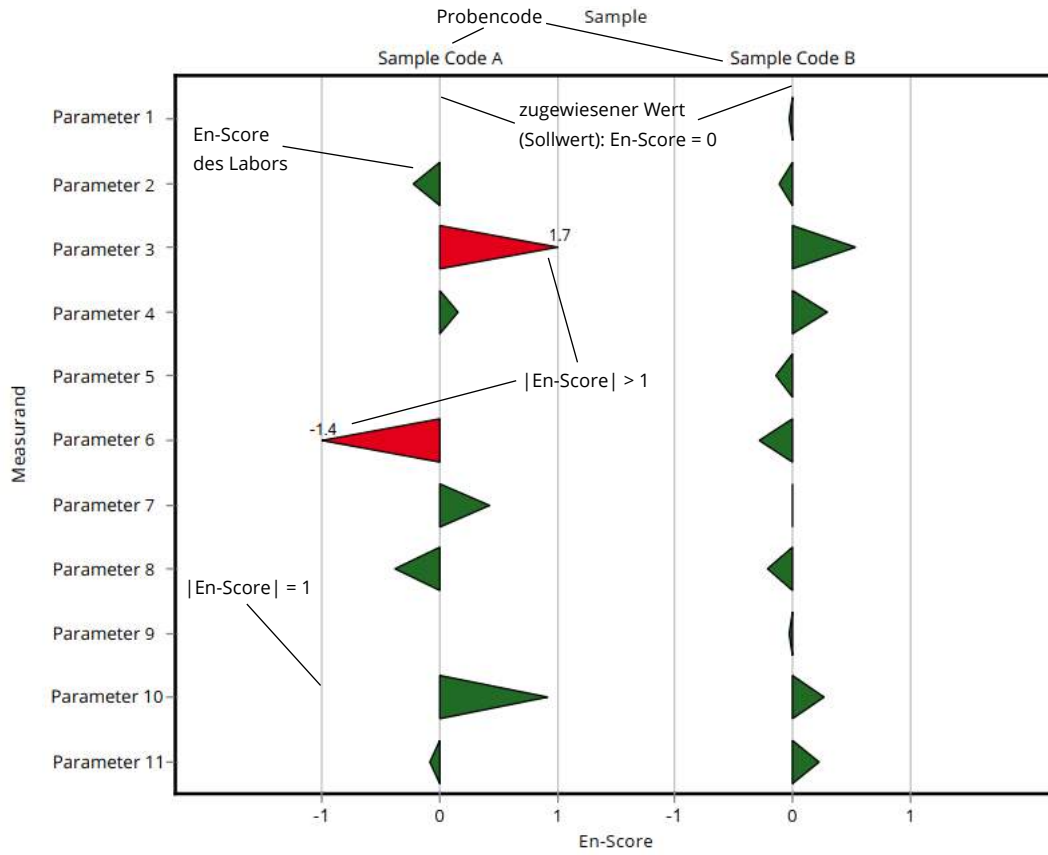


Methodenangaben werden in unterschiedlichen Farben dargestellt.

### Beispieldiagramm z-Score (labororientierte Auswertung)



### Beispieldiagramm En-Score (labororientierte Auswertung)



## D6. Zusammenfassung

### D6.1. Tabelle der zugewiesenen Werte

Parameter	Probe	Einheit	zugewiesener $\pm$ U (k=2) Wert	Kriterium	Kriterium [%]
Benzol	BL14 - BTEX	$\mu\text{g/Röhrchen}$	2.47 $\pm$ 0.152	0.345	14
Toluol	BL14 - BTEX	$\mu\text{g/Röhrchen}$	1.63 $\pm$ 0.249	0.555	34
Ethylbenzol	BL14 - BTEX	$\mu\text{g/Röhrchen}$	0.676 $\pm$ 0.137	0.298	44
o-Xylol *	BL14 - BTEX	$\mu\text{g/Röhrchen}$	- $\pm$ -	-	-
Summe von m-Xylol und p-Xylol *	BL14 - BTEX	$\mu\text{g/Röhrchen}$	- $\pm$ -	-	-
n-Pentan	BL14 - BTEX	$\mu\text{g/Röhrchen}$	3.91 $\pm$ 1.04	1.64	42
n-Hexan	BL14 - BTEX	$\mu\text{g/Röhrchen}$	3.41 $\pm$ 0.57	0.99	29
n-Heptan	BL14 - BTEX	$\mu\text{g/Röhrchen}$	2.86 $\pm$ 0.425	0.773	27
n-Oktan	BL14 - BTEX	$\mu\text{g/Röhrchen}$	1.45 $\pm$ 0.358	0.654	45
n-Nonan **	BL14 - BTEX	$\mu\text{g/Röhrchen}$	- $\pm$ -	-	-
n-Dekan **	BL14 - BTEX	$\mu\text{g/Röhrchen}$	- $\pm$ -	-	-
1,1,1-Trichlorethan	CL13 - CKW	$\mu\text{g/Röhrchen}$	3.62 $\pm$ 0.3	0.579	16
cis-1,2-Dichlorethen	CL13 - CKW	$\mu\text{g/Röhrchen}$	2.43 $\pm$ 0.304	0.825	34
Tetrachlorethen	CL13 - CKW	$\mu\text{g/Röhrchen}$	2.15 $\pm$ 0.498	1.03	48
Tetrachlormethan	CL13 - CKW	$\mu\text{g/Röhrchen}$	4.48 $\pm$ 0.35	0.94	21
trans-1,2-Dichlorethen	CL13 - CKW	$\mu\text{g/Röhrchen}$	2.25 $\pm$ 0.535	1.04	46
Trichlorethen	CL13 - CKW	$\mu\text{g/Röhrchen}$	3.02 $\pm$ 0.268	0.755	25
Trichlormethan	CL13 - CKW	$\mu\text{g/Röhrchen}$	3.32 $\pm$ 0.233	0.464	14

\*Für nachfolgende Substanzen sind zur Information die berechneten Mittelwerte MW  $\pm$  U(k=2) über die Daten der akkreditierten Labore (n) nach Ausreißerbereinigung angeführt.

Diese können zum Vergleich im Rahmen Ihrer QS-Maßnahmen herangezogen werden.

o-Xylol

BL14: MW (n=17, akkr.)  $\pm$  U(k=2): 0.408  $\pm$  0.111  $\mu\text{g/Röhrchen}$

Summe von m-Xylol und p-Xylol

BL14: MW (n=18, akkr.)  $\pm$  U(k=2): 0.915  $\pm$  0.246  $\mu\text{g/Röhrchen}$

\*\* Für nachfolgende Substanzen sind zur Information die Werte des Kontrolllabors zum Vergleich angeführt:

n-Nonan

BL14: <0.5  $\mu\text{g/Röhrchen}$

n-Dekan

BL14: <0.5  $\mu\text{g/Röhrchen}$

## D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert ± VB (99%)	Minimum	Maximum	sR	vR [%]
Benzol	BL14 - BTEX	19	0	µg/Röhrchen	2.47 ± 0.228	1.78	3.28	0.331	13
Toluol	BL14 - BTEX	20	0	µg/Röhrchen	1.63 ± 0.374	0.465	2.74	0.558	34
Ethylbenzol	BL14 - BTEX	19	0	µg/Röhrchen	0.676 ± 0.205	0.209	1.16	0.298	44
o-Xylol	BL14 - BTEX	19	0	µg/Röhrchen	0.426 ± 0.155	0.109	0.95	0.226	53
Summe von m-Xylol und p-Xylol	BL14 - BTEX	20	0	µg/Röhrchen	0.956 ± 0.344	0.157	1.84	0.513	54
n-Pentan	BL14 - BTEX	10	0	µg/Röhrchen	3.91 ± 1.56	1.6	7.33	1.64	42
n-Hexan	BL14 - BTEX	12	0	µg/Röhrchen	3.41 ± 0.855	1.84	5.27	0.988	29
n-Heptan	BL14 - BTEX	13	0	µg/Röhrchen	2.86 ± 0.638	1.62	4.49	0.766	27
n-Oktan	BL14 - BTEX	13	0	µg/Röhrchen	1.45 ± 0.537	0.64	2.75	0.646	44
n-Nonan	BL14 - BTEX	10	0	µg/Röhrchen	0.325 ± 0.288	0.059	1.02	0.304	93
n-Dekan	BL14 - BTEX	3	0	µg/Röhrchen	- ± -	0.003	0.957	-	-
1,1,1-Trichlorethan	CL13 - CKW	15	2	µg/Röhrchen	3.62 ± 0.45	2.53	4.57	0.581	16
cis-1,2-Dichlorethen	CL13 - CKW	17	0	µg/Röhrchen	2.43 ± 0.456	1.02	3.47	0.627	26
Tetrachlorethen	CL13 - CKW	17	0	µg/Röhrchen	2.15 ± 0.747	0.717	4.1	1.03	48
Tetrachlormethan	CL13 - CKW	16	1	µg/Röhrchen	4.48 ± 0.526	3.23	5.93	0.701	16
trans-1,2-Dichlorethen	CL13 - CKW	16	0	µg/Röhrchen	2.21 ± 0.763	0.36	3.73	1.02	46
Trichlorethen	CL13 - CKW	17	0	µg/Röhrchen	3.02 ± 0.402	2.17	4	0.552	18
Trichlormethan	CL13 - CKW	16	1	µg/Röhrchen	3.32 ± 0.349	2.36	4.09	0.465	14

## **E1. Description of the proficiency test**

### **E1.1. Design and implementation**

- Number of registrations: 22
- Number of submitted data records: 22
- Dispatch of samples: May 19<sup>th</sup>, 2026
- Closing date for submission of data: June 16<sup>th</sup>, 2026

For the interlaboratory comparison test CBL12 the participants could participate in CL13 (CHC) and/or BL14 (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 authorized 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 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 (CL13 and BL14). 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 1,1,1-trichloroethane, cis-1,2-dichloroethene, tetrachloroethene, tetrachloromethane, trans-1,2-dichloroethene, trichloroethene and trichloromethane for CL13 and benzene, toluene, ethylbenzene, o-xylene, sum of m-xylene and p-xylene, n-pentane, n-hexane, n-heptane, n-octane, n-nonane and n-decane for BL14. 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 May 12<sup>th</sup>, 2026. The samples were stored at -80 °C and dispatched on May 19<sup>th</sup>, 2026.

Each participant received (depending on the registration):

- 1 loaded activated charcoal tube sample CL13 and/or
- 1 loaded activated charcoal tube sample BL14
- and 1 unloaded charcoal tube (blank value) per sample

### **E1.3. Instructions for the participants**

For stability reasons, it was recommended to start the analysis no later than May 27<sup>th</sup>, 2026.

The participants were 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 loading of activated charcoal tubes, aliquots of each sample were collected randomly for control testing. From each of the sample series CL13 and BL14, n=5 control test samples and n=1 unloaded tube 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) 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  $\pm$  expanded measurement uncertainty as control test value  $\pm$  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 participants' 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 tubes were loaded for the proficiency test. During this evaluation, possible trends were identified for tetrachloroethene (CL13) as well as for ethylbenzene, o-xylene and the sum of m-xylene and p-xylene (BL14). Under the given condition, these tendencies did not have a significant impact on the assessment of the analytical results and were therefore considered not relevant for evaluation.

Based on previous experience and 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 up to the submission deadline.

### **E1.6. Determination of the assigned values**

The analytical results had to be made available to the organiser not later than June 16<sup>th</sup>, 2026. Any values received at later date were not considered.

During 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 prompt feedback within 24 hours.

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  $n=6$  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. The traceability of the assigned value is checked by comparing it with the mean value of the control testing laboratory.

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 statistical data provided is 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 based on the following formula:

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

$x_i$	is the measurement value (result) of the participating laboratory
$\bar{X}$	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
Criterion	is the reproducibility standard deviation calculated from previous rounds for proficiency testing samples from 2015 to 2025 (as RSD pooled) or from the participants' results after removal of outliers (sR) in the current round (if less than 6 previous rounds for the parameters are available) Where justified (e.g. results for samples are close to minimum quantification limit or in case of regulatory requirements) the criterion is defined by expert judgement and the procedure is clearly described in section E4 of the report.

### E2.2. Performance criterion E<sub>n</sub>-Score

In addition, an assessment of the participants' results using E<sub>n</sub>-Scores for proficiency testing of real samples is performed. This additional assessment considers 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<sub>n</sub>-Scores were calculated based on the following formula:

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

$x_i$	is the measurement value (result) of the participating laboratory
$\bar{X}$	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:

- $|z\text{-Score}| \leq 2.0$  good result
- $2.0 < |z\text{-Score}| < 3.0$  questionable result
- $|z\text{-Score}| \geq 3.0$  unsatisfactory result

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

#### Interpretation of $E_n$ -Scores:

- $|E_n\text{-Score}| \leq 1.0$  satisfactory performance
- $|E_n\text{-Score}| > 1.0$  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 considered.  $|E_n\text{-Score}| > 1.0$  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 ( $\pm U$ ), 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 ( $\pm U$ ), 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 proficiency testing rounds between 2015 and 2025 in real samples, evaluation criteria (RSDpool) were calculated. These criteria were compared with the relative reproducibility standard deviation (vR) of the current proficiency testing.

Sample CBL12 / CL13

Parameters 1,1,1-trichloroethane, cis-1,2-dichloroethene, tetrachloromethane, trichloroethene, trichloromethane: The scores for all listed parameters were calculated according to E2.

For tetrachloroethene the reproducibility standard deviation (vR) of the current proficiency testing round was chosen for assessment.

Parameter trans-1,2-dichloroethene: 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.

Sample CBL12 / BL14

For benzene the scores were calculated according to E2.

Toluene, ethylbenzene, n-pentane, n-hexane, n-heptane, n-octane: For these parameters the reproducibility standard deviation (vR) of the current proficiency testing round was chosen for assessment.

Parameters n-nonane and n-decane:

Due to the low concentrations in the sample, assigned values were not calculated. For these parameters, we recommend comparing your results with the control test values.

Parameters o-xylene and sum of m-xylene and p-xylene: The relative reproducibility standard deviation between the results of the participating laboratories was over 50 %. Due to the high variance between the results in the group of accredited participating laboratories, no assigned values could be derived. For these parameters, we recommend a comparison with the informative values listed in E6.1.

## E5. Annotations on tables and charts

### E5.1. Information and abbreviations in tables

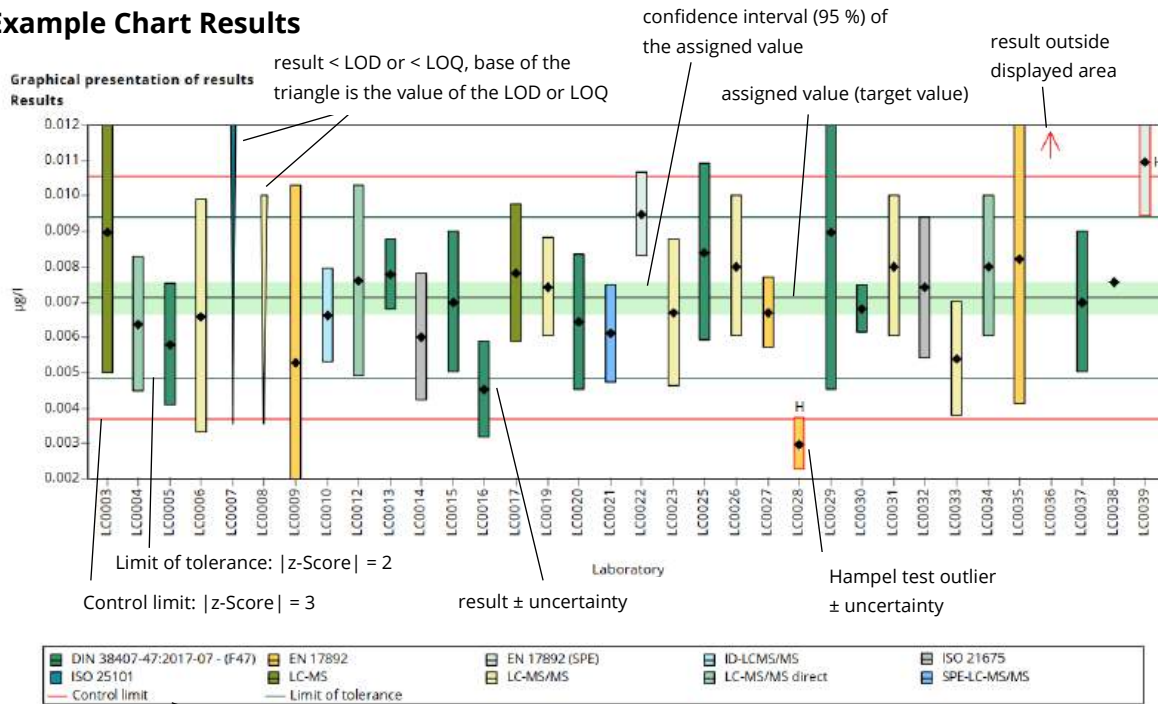
Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/tube)
Assigned value	Target value for proficiency assessment of the participants (3 significant digits)
U (k=2)	Expanded uncertainty (k=2) of the assigned value (3 significant digits)
Criteria	Specified 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 results of the participants, 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 ± U	Result as indicated by participant (max. 5 decimal places) 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 <sub>n</sub> -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 <sub>n</sub> -Score assessment considers 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

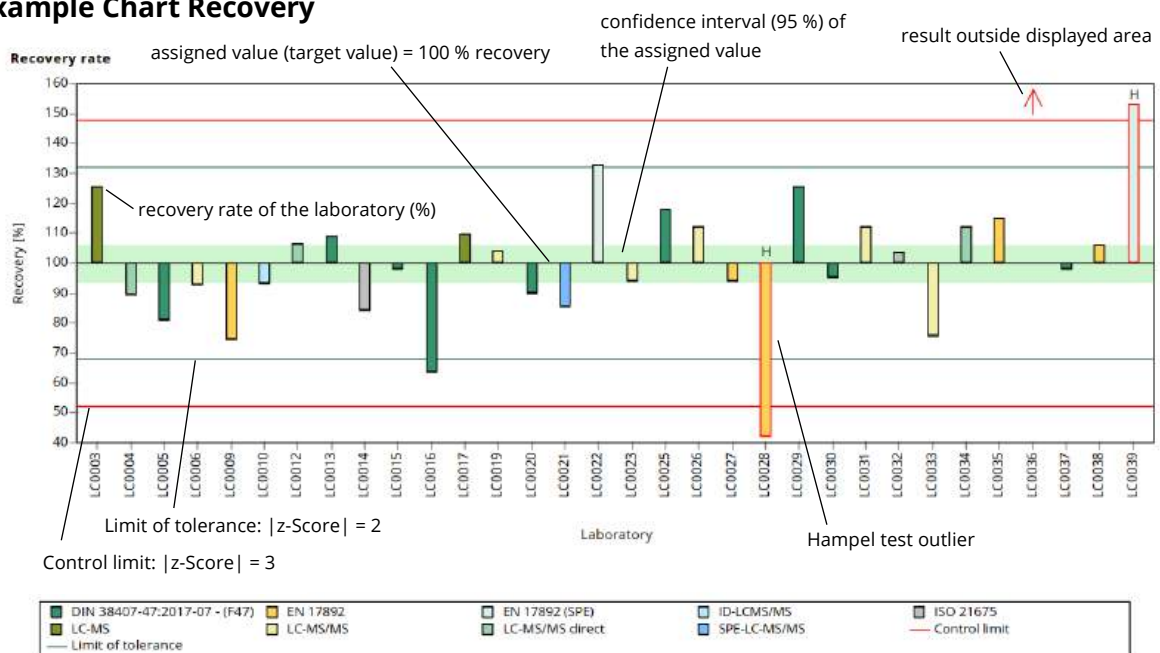
The graphic representation in the report is explained below by means of commented example diagrams.

### Example Chart Results



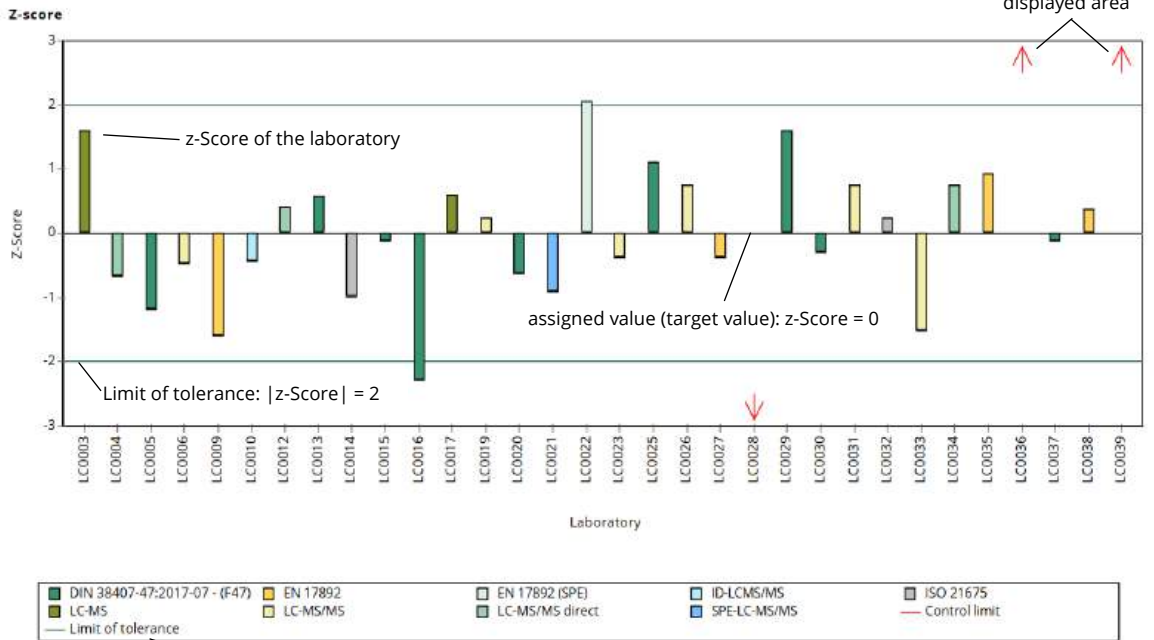
The method information is indicated by different colours.

### Example Chart Recovery



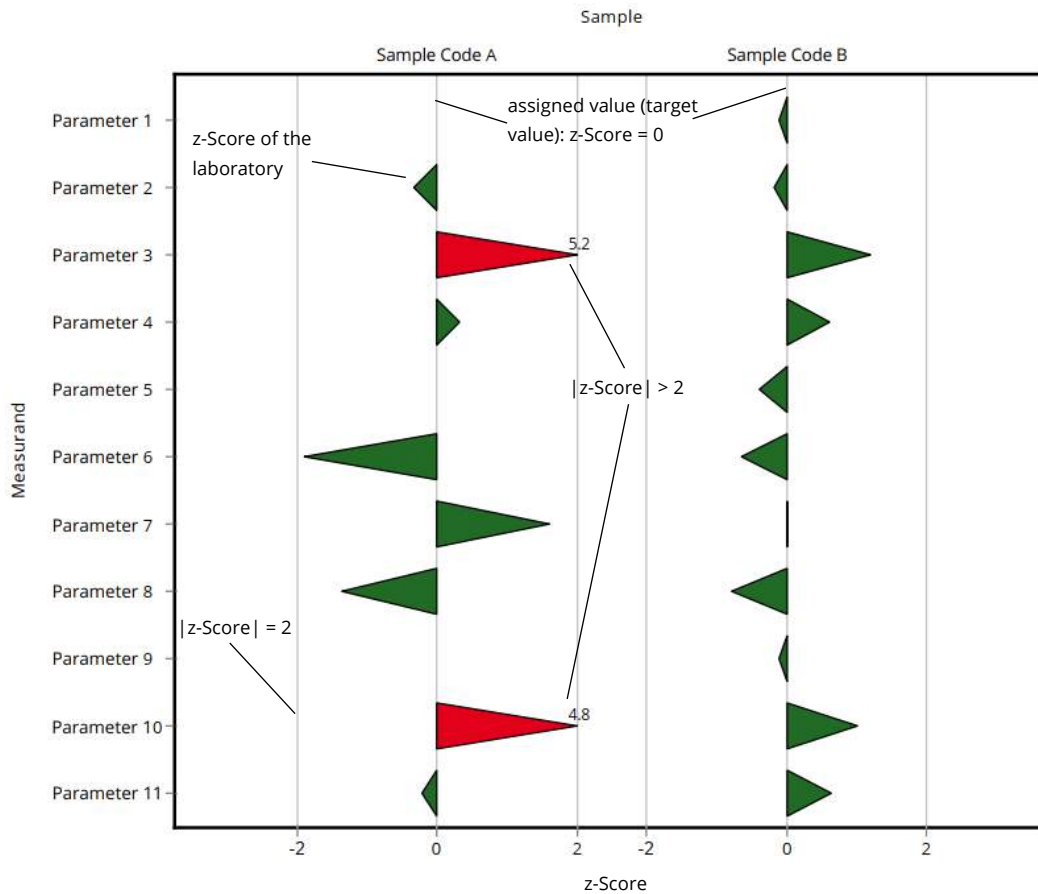
The method information is indicated by different colours.

### Example chart z-Score

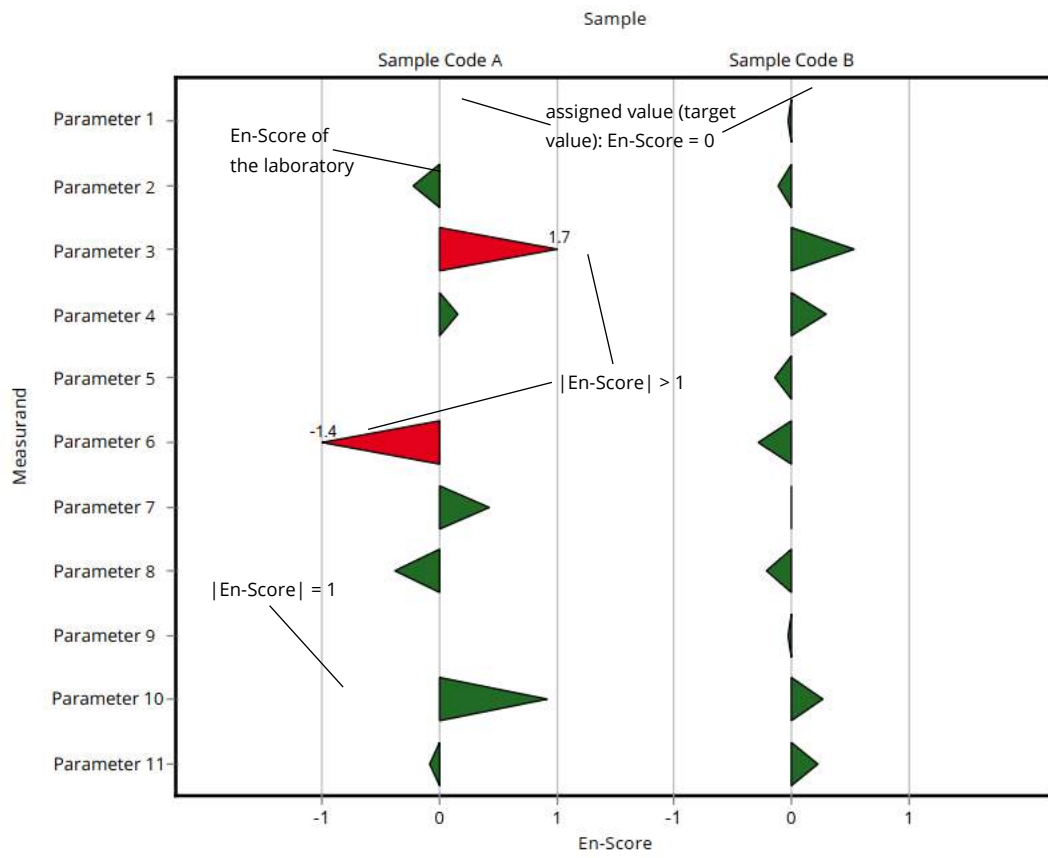


The method information is indicated by different colours.

### 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 $\pm$ U (k=2)	Criterion	Criterion [%]
Benzene	BL14 - BTEX	$\mu\text{g}/\text{tube}$	$2.47 \pm 0.152$	0.345	14
Toluene	BL14 - BTEX	$\mu\text{g}/\text{tube}$	$1.63 \pm 0.249$	0.555	34
Ethylbenzene	BL14 - BTEX	$\mu\text{g}/\text{tube}$	$0.676 \pm 0.137$	0.298	44
o-Xylene *	BL14 - BTEX	$\mu\text{g}/\text{tube}$	- $\pm$ -	-	-
Sum of m-Xylene and p-Xylene *	BL14 - BTEX	$\mu\text{g}/\text{tube}$	- $\pm$ -	-	-
n-Pentane	BL14 - BTEX	$\mu\text{g}/\text{tube}$	$3.91 \pm 1.04$	1.64	42
n-Hexane	BL14 - BTEX	$\mu\text{g}/\text{tube}$	$3.41 \pm 0.57$	0.99	29
n-Heptane	BL14 - BTEX	$\mu\text{g}/\text{tube}$	$2.86 \pm 0.425$	0.773	27
n-Octane	BL14 - BTEX	$\mu\text{g}/\text{tube}$	$1.45 \pm 0.358$	0.654	45
n-Nonane **	BL14 - BTEX	$\mu\text{g}/\text{tube}$	- $\pm$ -	-	-
n-Decane **	BL14 - BTEX	$\mu\text{g}/\text{tube}$	- $\pm$ -	-	-
1,1,1-Trichloroethane	CL13 - CHC	$\mu\text{g}/\text{tube}$	$3.62 \pm 0.3$	0.579	16
cis-1,2-Dichloroethene	CL13 - CHC	$\mu\text{g}/\text{tube}$	$2.43 \pm 0.304$	0.825	34
Tetrachloroethene	CL13 - CHC	$\mu\text{g}/\text{tube}$	$2.15 \pm 0.498$	1.03	48
Tetrachloromethane	CL13 - CHC	$\mu\text{g}/\text{tube}$	$4.48 \pm 0.35$	0.94	21
trans-1,2-Dichloroethene	CL13 - CHC	$\mu\text{g}/\text{tube}$	$2.25 \pm 0.535$	1.04	46
Trichloroethene	CL13 - CHC	$\mu\text{g}/\text{tube}$	$3.02 \pm 0.268$	0.755	25
Trichloromethane	CL13 - CHC	$\mu\text{g}/\text{tube}$	$3.32 \pm 0.233$	0.464	14

\* For the following substances, the calculated mean values MV  $\pm$  U(k=2) based on the data of the accredited laboratories (n) after outlier removal are listed for information.

These can be used for comparison as part of your internal QA measures.

o-Xylene

BL14: MV (n=17, accr.)  $\pm$  U(k=2):  $0.408 \pm 0.111 \mu\text{g}/\text{tube}$

Sum of m-Xylene and p-Xylene

BL14: MV (n=18, accr.)  $\pm$  U(k=2):  $0.915 \pm 0.246 \mu\text{g}/\text{tube}$

\*\* For the following substances, the values of the control laboratory are listed for information:

n-Nonane

BL14:  $<0.5 \mu\text{g}/\text{tube}$

n-Decane

BL14:  $<0.5 \mu\text{g}/\text{tube}$

## 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 [%]
Benzene	BL14 - BTEX	19	0	µg/tube	2.47 ± 0.228	1.78	3.28	0.331	13
Toluene	BL14 - BTEX	20	0	µg/tube	1.63 ± 0.374	0.465	2.74	0.558	34
Ethylbenzene	BL14 - BTEX	19	0	µg/tube	0.676 ± 0.205	0.209	1.16	0.298	44
o-Xylene	BL14 - BTEX	19	0	µg/tube	0.426 ± 0.155	0.109	0.95	0.226	53
Sum of m-Xylene and p-Xylene	BL14 - BTEX	20	0	µg/tube	0.956 ± 0.344	0.157	1.84	0.513	54
n-Pentane	BL14 - BTEX	10	0	µg/tube	3.91 ± 1.56	1.6	7.33	1.64	42
n-Hexane	BL14 - BTEX	12	0	µg/tube	3.41 ± 0.855	1.84	5.27	0.988	29
n-Heptane	BL14 - BTEX	13	0	µg/tube	2.86 ± 0.638	1.62	4.49	0.766	27
n-Octane	BL14 - BTEX	13	0	µg/tube	1.45 ± 0.537	0.64	2.75	0.646	44
n-Nonane	BL14 - BTEX	10	0	µg/tube	0.325 ± 0.288	0.059	1.02	0.304	93
n-Decane	BL14 - BTEX	3	0	µg/tube	- ± -	0.003	0.957	-	-
1,1,1-Trichloroethane	CL13 - CHC	15	2	µg/tube	3.62 ± 0.45	2.53	4.57	0.581	16
cis-1,2-Dichloroethene	CL13 - CHC	17	0	µg/tube	2.43 ± 0.456	1.02	3.47	0.627	26
Tetrachloroethene	CL13 - CHC	17	0	µg/tube	2.15 ± 0.747	0.717	4.1	1.03	48
Tetrachloromethane	CL13 - CHC	16	1	µg/tube	4.48 ± 0.526	3.23	5.93	0.701	16
trans-1,2-Dichloroethene	CL13 - CHC	16	0	µg/tube	2.21 ± 0.763	0.36	3.73	1.02	46
Trichloroethene	CL13 - CHC	17	0	µg/tube	3.02 ± 0.402	2.17	4	0.552	18
Trichloromethane	CL13 - CHC	16	1	µg/tube	3.32 ± 0.349	2.36	4.09	0.465	14

## E7. Parameterorientierte Auswertung / Parameter oriented report

Benzene.....	33
Toluene.....	37
Ethylbenzene .....	41
o-Xylene.....	45
Sum of m-Xylene and p-Xylene.....	47
n-Pentane.....	49
n-Hexane.....	53
n-Heptane .....	57
n-Octane.....	61
n-Nonane .....	65
n-Decane.....	67
1,1,1-Trichloroethane.....	69
cis-1,2-Dichloroethene .....	73
Tetrachloroethene .....	77
Tetrachloromethane .....	81
trans-1,2-Dichloroethene.....	85
Trichloroethene.....	89
Trichloromethane.....	93

## Parameter oriented report

### BL14 - BTEX & C5-C10

#### Benzene

Unit	µg/tube
Assigned value ± U (k=2)	2.47 ± 0.152
Criterion	0.345 (14 %)
Minimum - Maximum	1.78 - 3.28
Control test value ± U (k=2)	2.67 ± 0.935

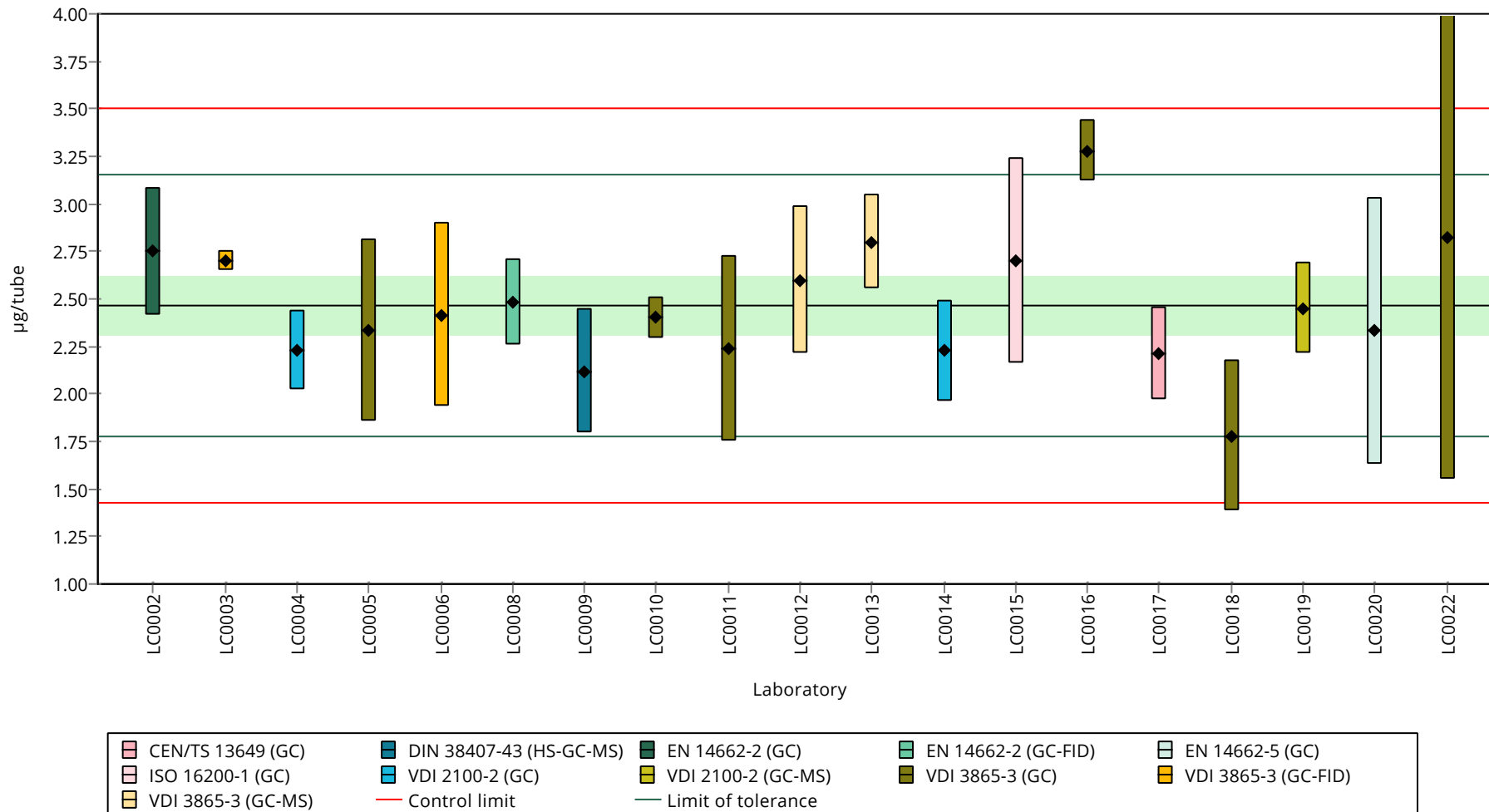
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0002	2.75 ± 0.336	111	0.82	
LC0003	2.7 ± 0.0513	109	0.68	
LC0004	2.23 ± 0.211	90.4	-0.68	
LC0005	2.332 ± 0.48	94.5	-0.39	
LC0006	2.414 ± 0.483	97.9	-0.15	
LC0007	- ± -	-	-	
LC0008	2.48 ± 0.228	101	0.04	
LC0009	2.12 ± 0.33	86	-1	
LC0010	2.4 ± 0.11	97.3	-0.19	
LC0011	2.24 ± 0.49	90.8	-0.66	
LC0012	2.6 ± 0.39	105	0.39	
LC0013	2.8 ± 0.25	114	0.97	
LC0014	2.227 ± 0.264	90.3	-0.69	
LC0015	2.7 ± 0.54	109	0.68	
LC0016	3.278 ± 0.16	133	2.35	
LC0017	2.211 ± 0.245	89.6	-0.74	
LC0018	1.78 ± 0.4	72.2	-1.99	
LC0019	2.45 ± 0.24	99.3	-0.05	
LC0020	2.33 ± 0.7	94.5	-0.4	
LC0022	2.82 ± 1.27	114	1.02	

#### Characteristics of parameter

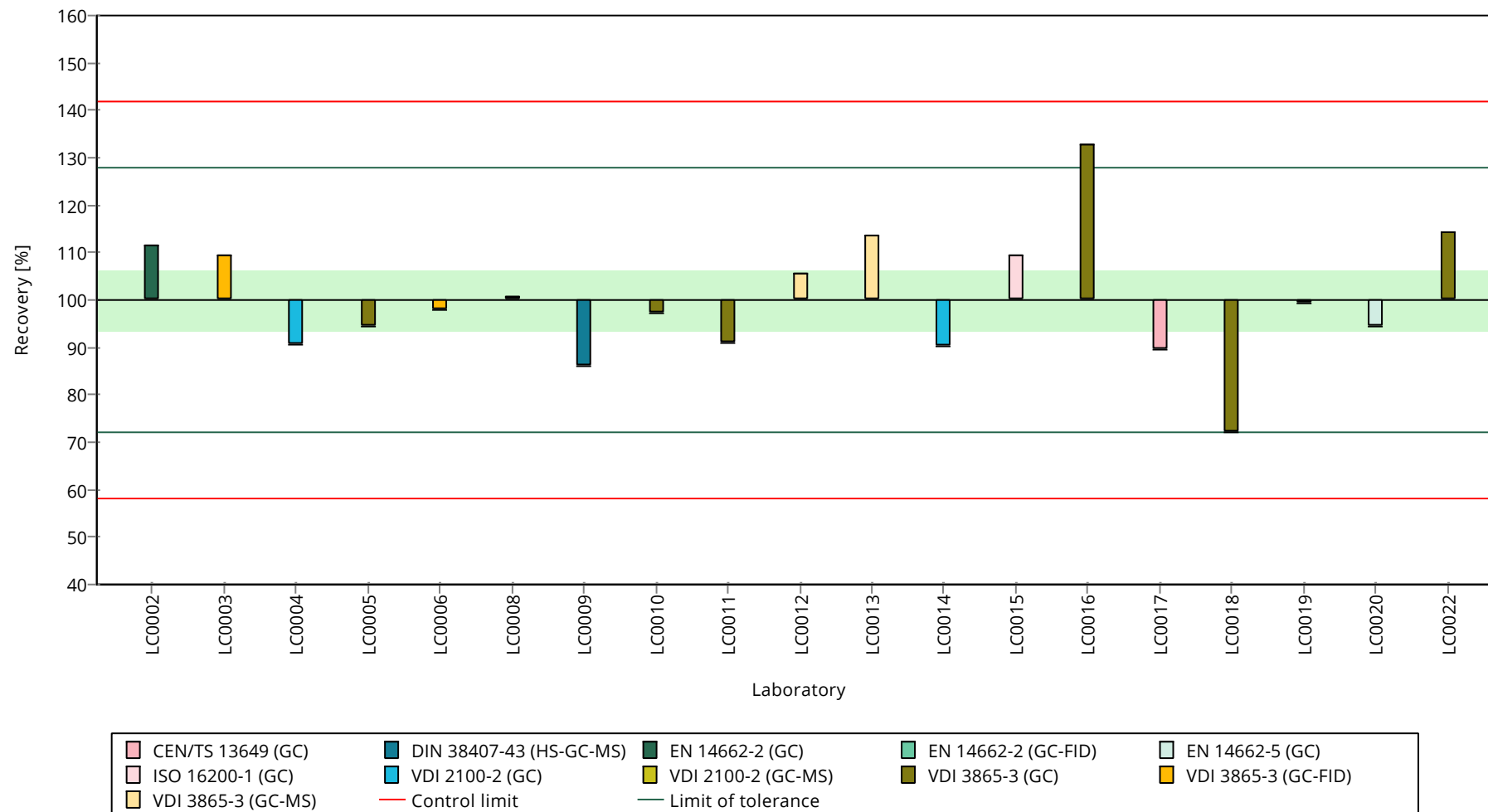
	all results	without outliers	Unit
Mean ± CI (99%)	2.47 ± 0.228	2.47 ± 0.228	µg/tube
Minimum	1.78	1.78	µg/tube
Maximum	3.28	3.28	µg/tube
Standard deviation	0.331	0.331	µg/tube
rel. standard deviation	13.4	13.4	%
n	19	19	-

Graphical presentation of results

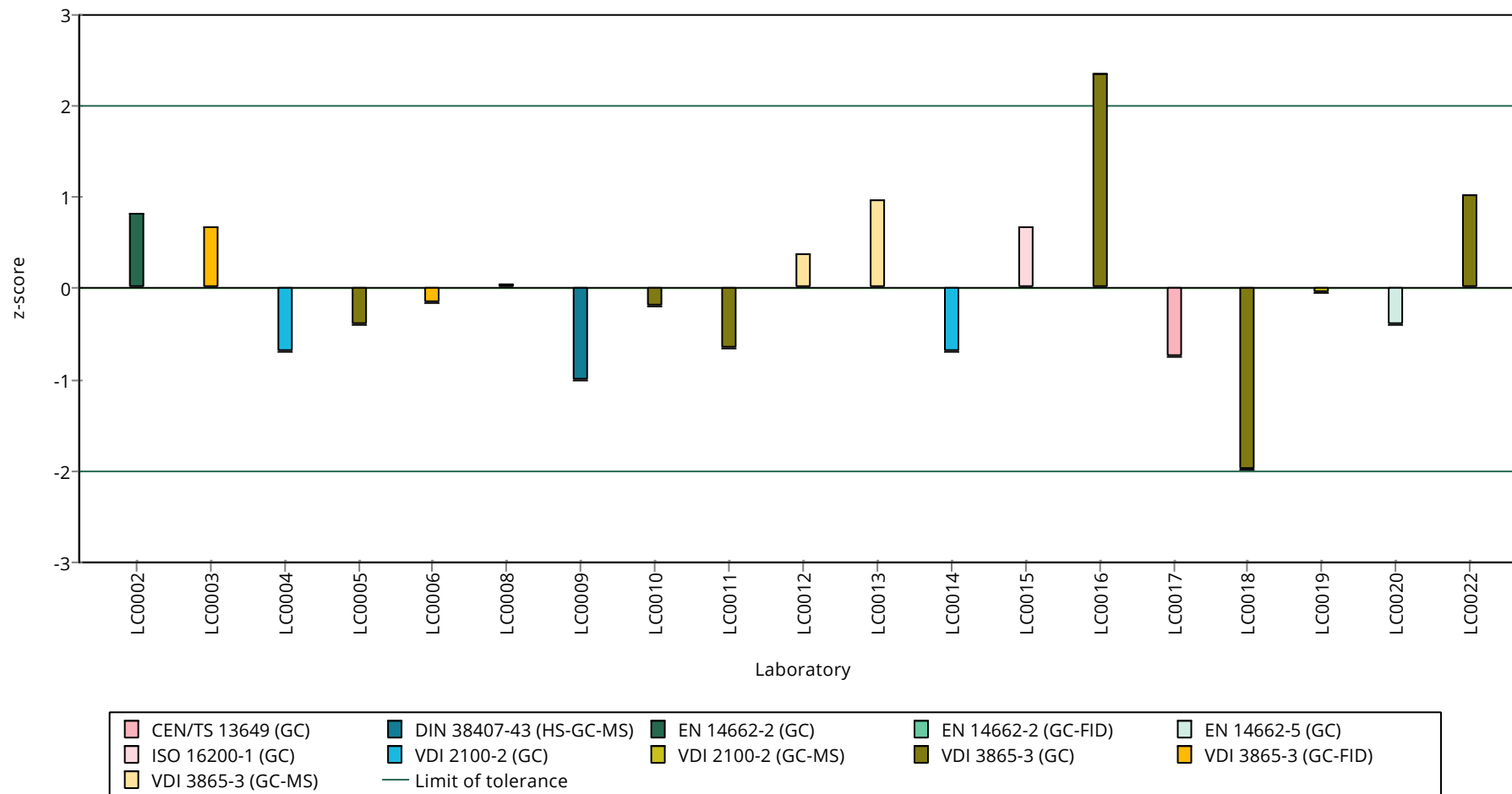
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### Toluene

Unit	µg/tube
Assigned value ± U (k=2)	1.63 ± 0.249
Criterion	0.555 (34 %)
Minimum - Maximum	0.465 - 2.74
Control test value ± U (k=2)	1.73 ± 0.605

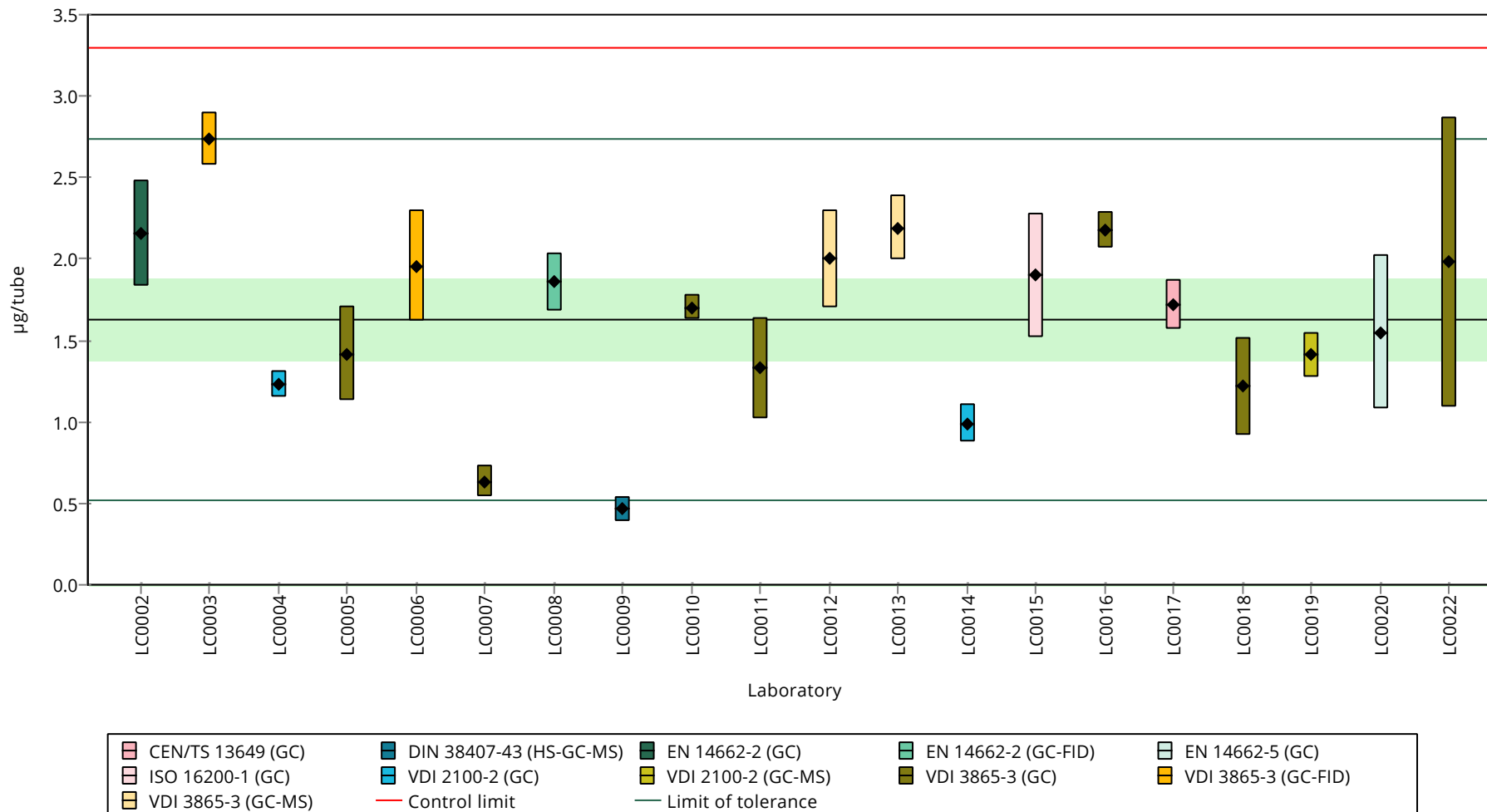
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0002	2.16 ± 0.326	132	0.95	
LC0003	2.74 ± 0.162	168	2	
LC0004	1.23 ± 0.084	75.4	-0.72	
LC0005	1.415 ± 0.29	86.7	-0.39	
LC0006	1.955 ± 0.342	120	0.58	
LC0007	0.633 ± 0.095	38.8	-1.8	
LC0008	1.857 ± 0.182	114	0.41	
LC0009	0.465 ± 0.078	28.5	-2.1	
LC0010	1.7 ± 0.077	104	0.12	
LC0011	1.33 ± 0.31	81.5	-0.54	
LC0012	2 ± 0.3	123	0.66	
LC0013	2.19 ± 0.2	134	1.01	
LC0014	0.992 ± 0.118	60.8	-1.15	
LC0015	1.9 ± 0.38	116	0.48	
LC0016	2.179 ± 0.11	134	0.99	
LC0017	1.721 ± 0.151	105	0.16	
LC0018	1.22 ± 0.3	74.8	-0.74	
LC0019	1.41 ± 0.14	86.4	-0.4	
LC0020	1.55 ± 0.47	95	-0.15	
LC0022	1.98 ± 0.89	121	0.63	

#### Characteristics of parameter

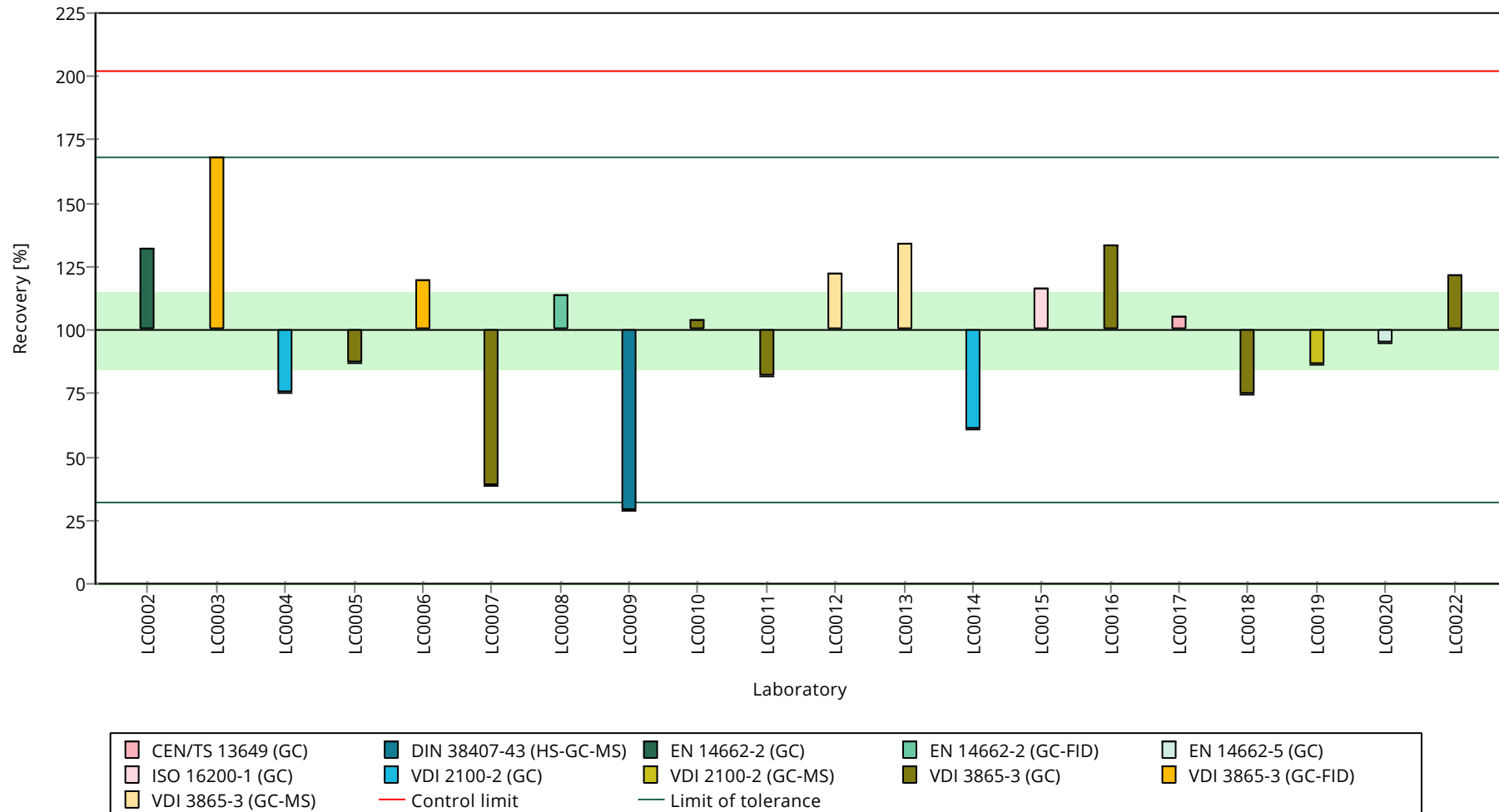
	all results	without outliers	Unit
Mean ± CI (99%)	1.63 ± 0.374	1.63 ± 0.374	µg/tube
Minimum	0.465	0.465	µg/tube
Maximum	2.74	2.74	µg/tube
Standard deviation	0.558	0.558	µg/tube
rel. standard deviation	34.2	34.2	%
n	20	20	-

Graphical presentation of results

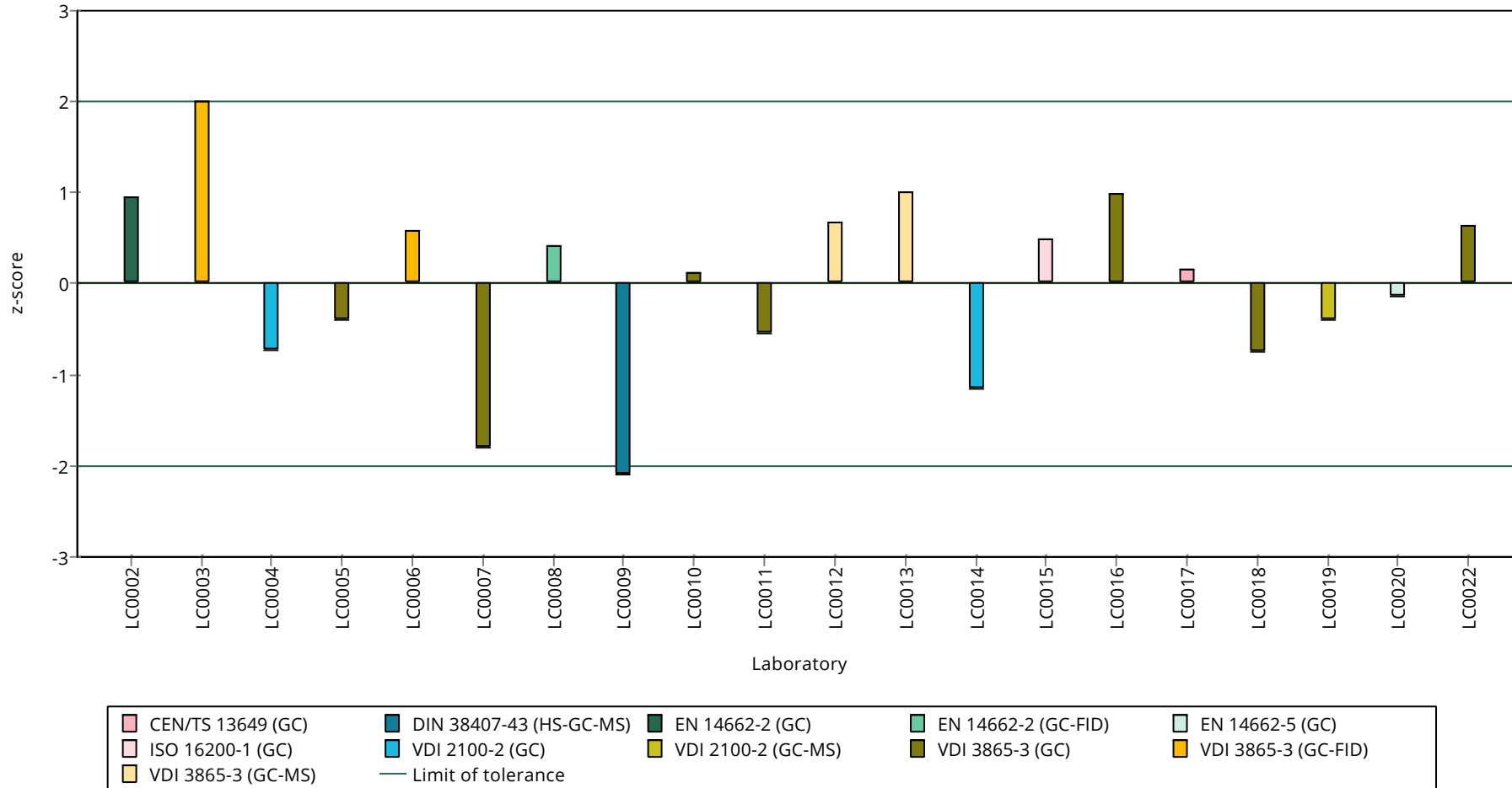
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### Ethylbenzene

Unit	µg/tube
Assigned value ± U (k=2)	0.676 ± 0.137
Criterion	0.298 (44 %)
Minimum - Maximum	0.209 - 1.16
Control test value ± U (k=2)	0.743 ± 0.26

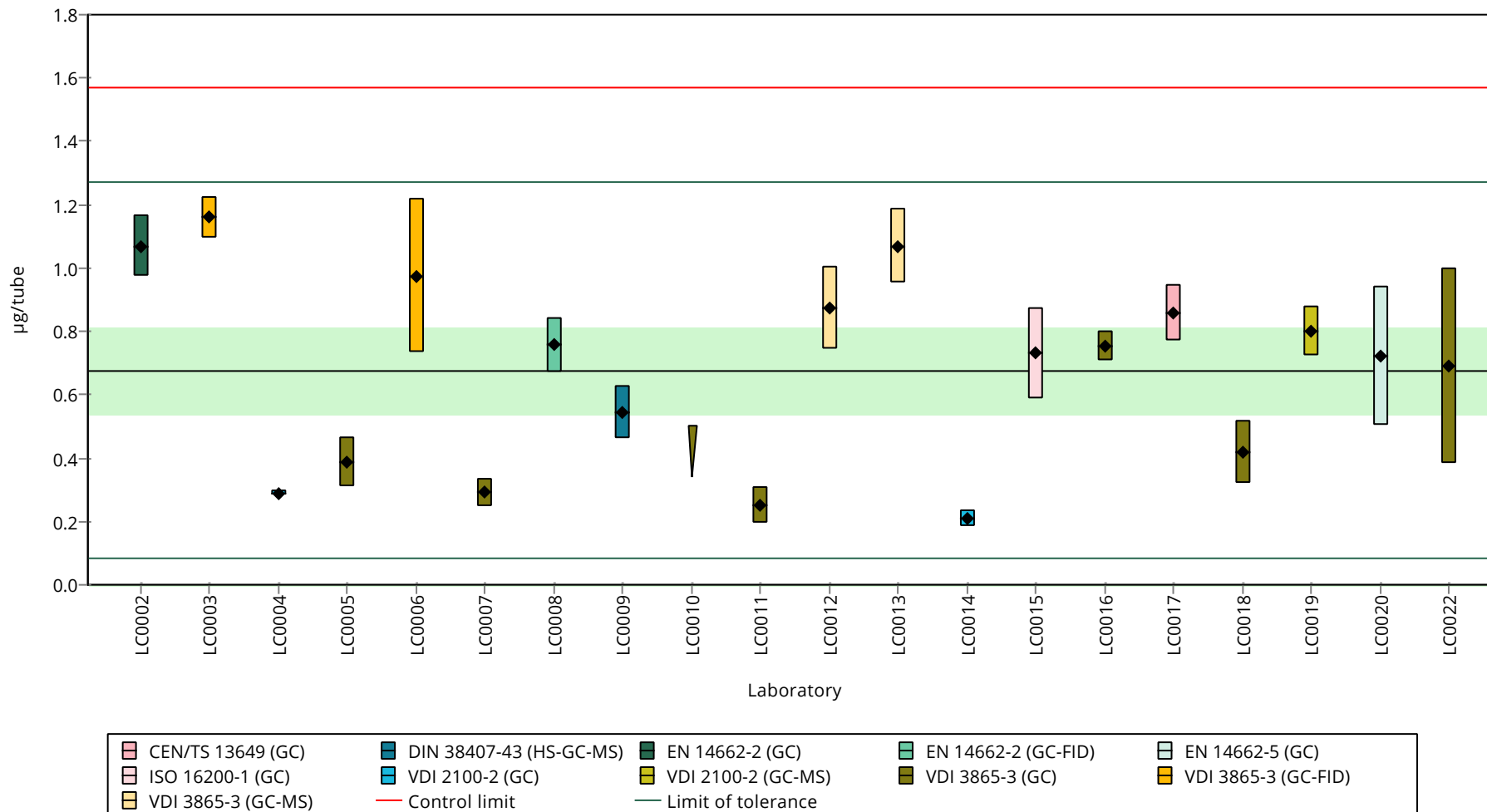
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0002	1.07 ± 0.095	158	1.32	
LC0003	1.16 ± 0.064	171	1.62	
LC0004	0.29 ± 0.009	42.9	-1.3	
LC0005	0.388 ± 0.08	57.4	-0.97	
LC0006	0.974 ± 0.244	144	1	
LC0007	0.291 ± 0.044	43	-1.29	
LC0008	0.757 ± 0.086	112	0.27	
LC0009	0.545 ± 0.085	80.6	-0.44	
LC0010	< 0.5 (LOQ) ± -	-	-	
LC0011	0.251 ± 0.058	37.1	-1.43	
LC0012	0.876 ± 0.131	130	0.67	
LC0013	1.07 ± 0.12	158	1.32	
LC0014	0.209 ± 0.025	30.9	-1.57	
LC0015	0.73 ± 0.146	108	0.18	
LC0016	0.754 ± 0.049	111	0.26	
LC0017	0.856 ± 0.089	127	0.6	
LC0018	0.42 ± 0.1	62.1	-0.86	
LC0019	0.8 ± 0.08	118	0.42	
LC0020	0.721 ± 0.22	107	0.15	
LC0022	0.69 ± 0.31	102	0.05	

#### Characteristics of parameter

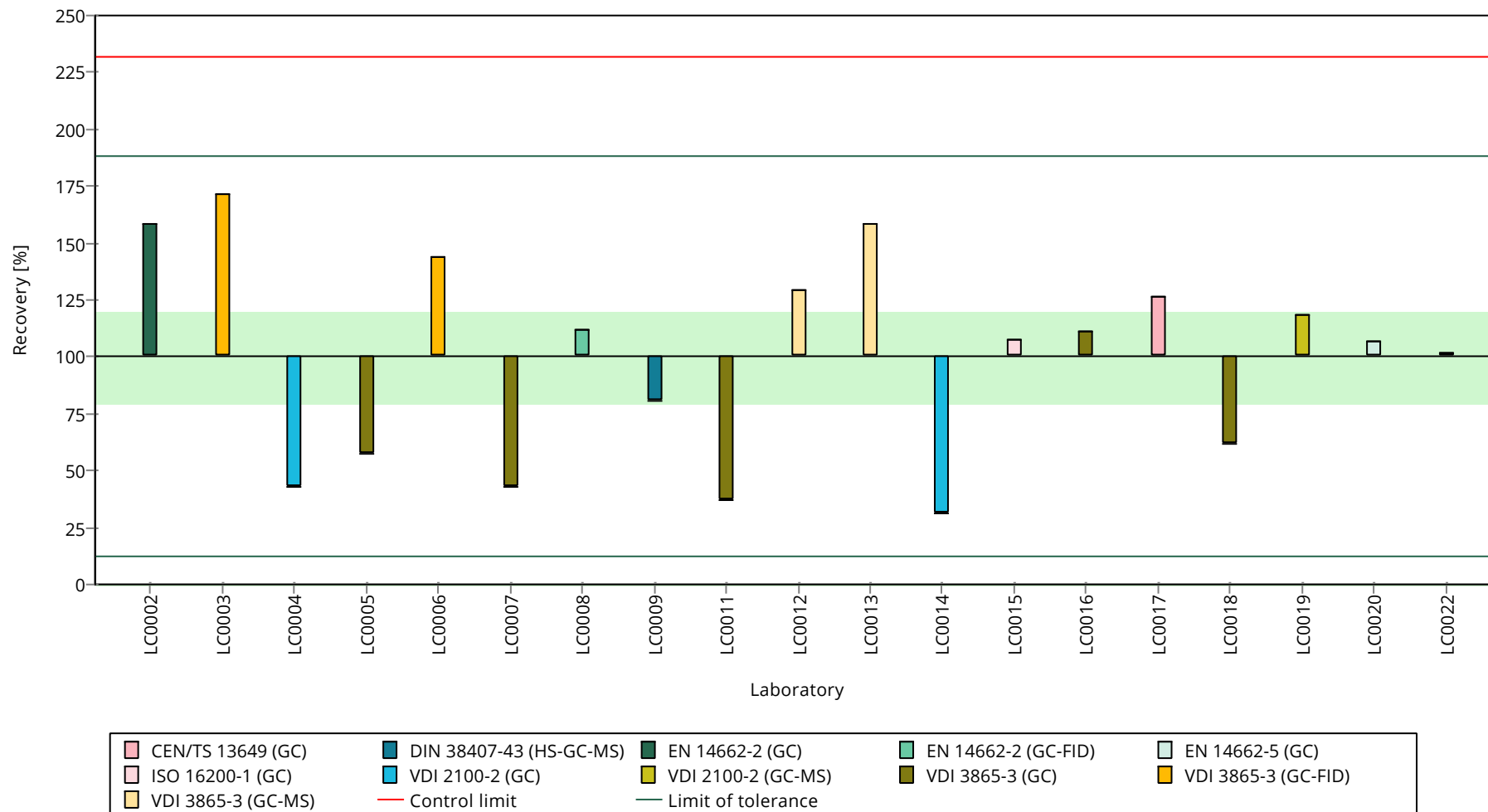
	all results	without outliers	Unit
Mean ± CI (99%)	0.676 ± 0.205	0.676 ± 0.205	µg/tube
Minimum	0.209	0.209	µg/tube
Maximum	1.16	1.16	µg/tube
Standard deviation	0.298	0.298	µg/tube
rel. standard deviation	44.1	44.1	%
n	19	19	-

Graphical presentation of results

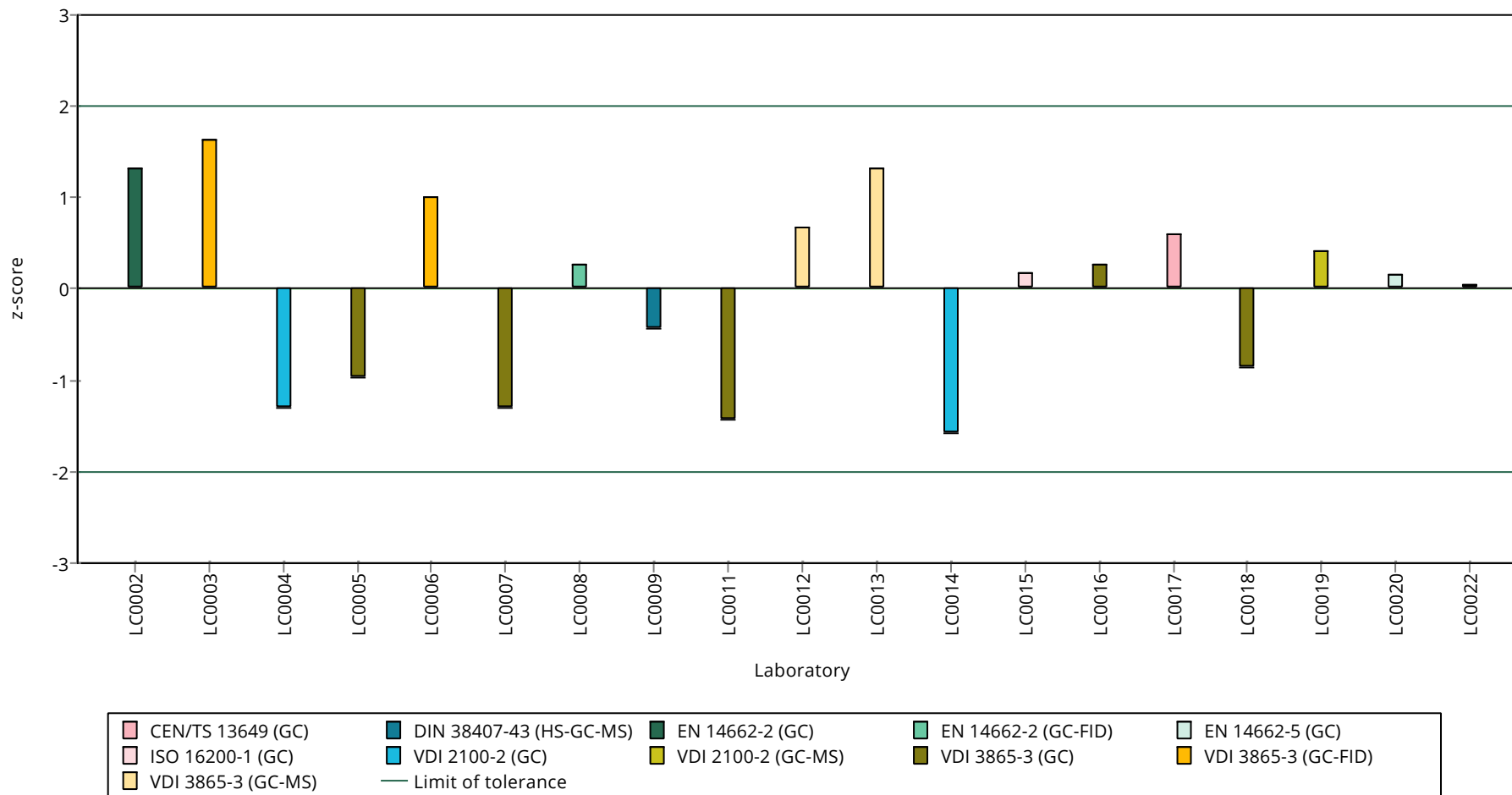
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### o-Xylene \*

Unit  $\mu\text{g}/\text{tube}$   
Assigned value  $\pm U$  (k=2) -  
Criterion -  
Minimum - Maximum 0.109 - 0.95  
Control test value  $\pm U$  (k=2)  $0.47 \pm 0.163$

\* For this substance, the calculated mean value MV  $\pm U$  (k=2) based on the data of the accredited laboratories (n) after outlier removal is listed for information.

It can be used for comparison as part of your internal QA measures.

MV (n=17, accr.)  $\pm U$  (k=2):  $0.408 \pm 0.111 \mu\text{g}/\text{tube}$

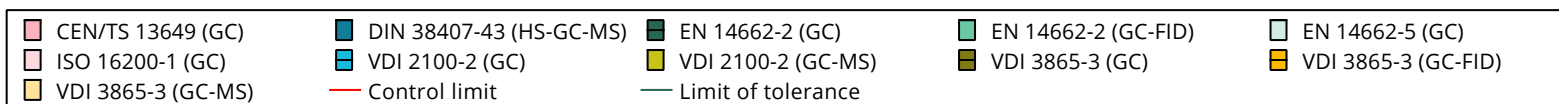
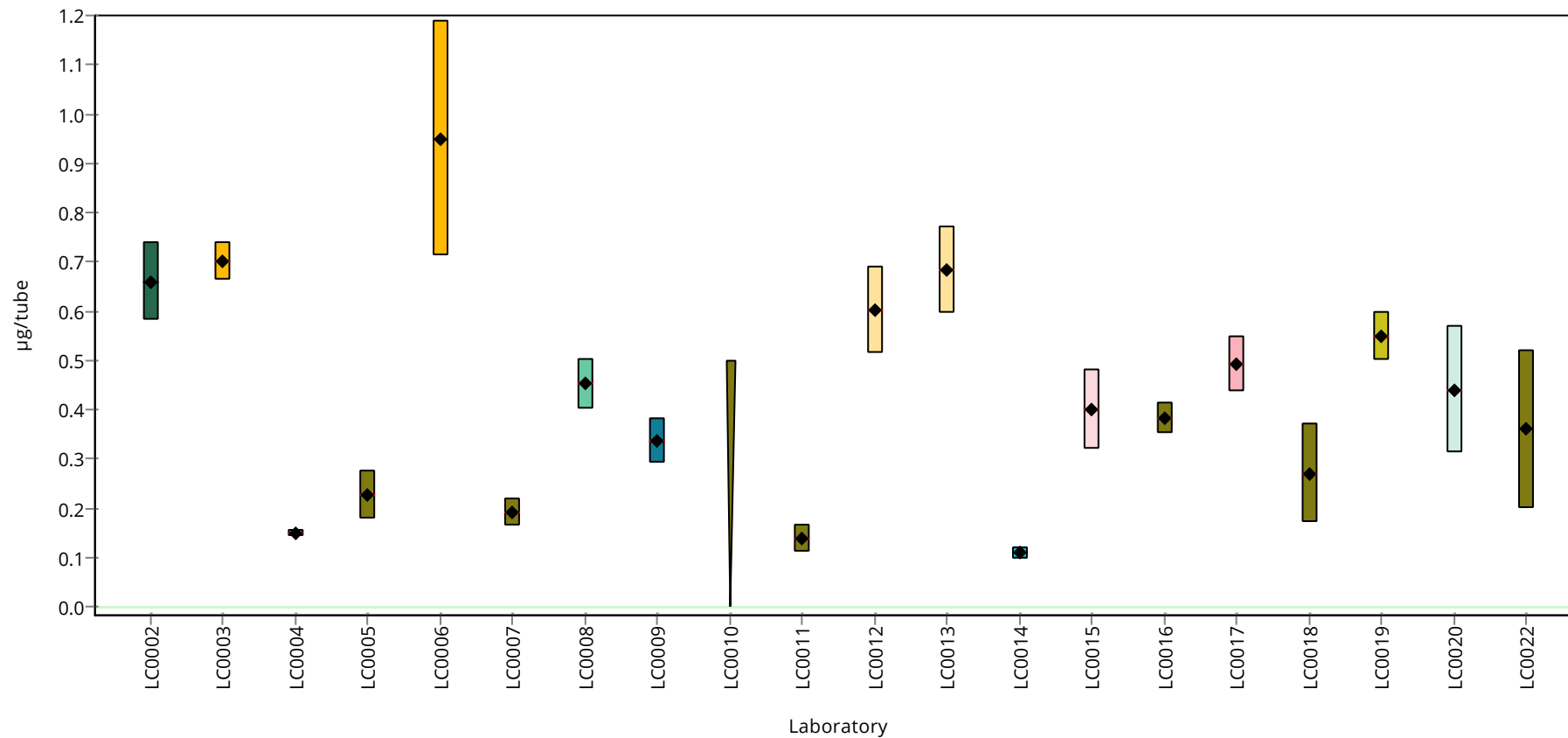
Labcode	Result $\pm U$	Recovery [%]	z-Score	Comments
LC0002	0.66 $\pm$ 0.081	-	-	
LC0003	0.701 $\pm$ 0.039	-	-	
LC0004	0.149 $\pm$ 0.007	-	-	
LC0005	0.227 $\pm$ 0.05	-	-	
LC0006	0.95 $\pm$ 0.238	-	-	
LC0007	0.191 $\pm$ 0.029	-	-	
LC0008	0.452 $\pm$ 0.051	-	-	
LC0009	0.335 $\pm$ 0.046	-	-	
LC0010	< 0.5 (LOQ) $\pm$ -	-	-	
LC0011	0.138 $\pm$ 0.028	-	-	
LC0012	0.602 $\pm$ 0.09	-	-	
LC0013	0.684 $\pm$ 0.089	-	-	
LC0014	0.109 $\pm$ 0.013	-	-	
LC0015	0.4 $\pm$ 0.08	-	-	
LC0016	0.382 $\pm$ 0.031	-	-	
LC0017	0.493 $\pm$ 0.057	-	-	
LC0018	0.27 $\pm$ 0.1	-	-	
LC0019	0.55 $\pm$ 0.05	-	-	
LC0020	0.44 $\pm$ 0.13	-	-	
LC0022	0.36 $\pm$ 0.16	-	-	

#### Characteristics of parameter

	all results	without outliers	Unit
Mean $\pm$ CI (99%)	0.426 $\pm$ 0.155	0.426 $\pm$ 0.155	$\mu\text{g}/\text{tube}$
Minimum	0.109	0.109	$\mu\text{g}/\text{tube}$
Maximum	0.95	0.95	$\mu\text{g}/\text{tube}$
Standard deviation	0.226	0.226	$\mu\text{g}/\text{tube}$
rel. standard deviation	53	53	%
n	19	19	-

Graphical presentation of results

Results



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### Sum of m-Xylene and p-Xylene \*

Unit	µg/tube
Assigned value ± U (k=2)	-
Criterion	-
Minimum - Maximum	0.157 - 1.84
Control test value ± U (k=2)	1.11 ± 0.388

\* For this substance, the calculated mean value MV +/- U(k=2) based on the data of the accredited laboratories (n) after outlier removal is listed for information.

It can be used for comparison as part of your internal QA measures.

MV (n=18, accr.) +/- U(k=2): 0.915 +/- 0.246 µg/tube

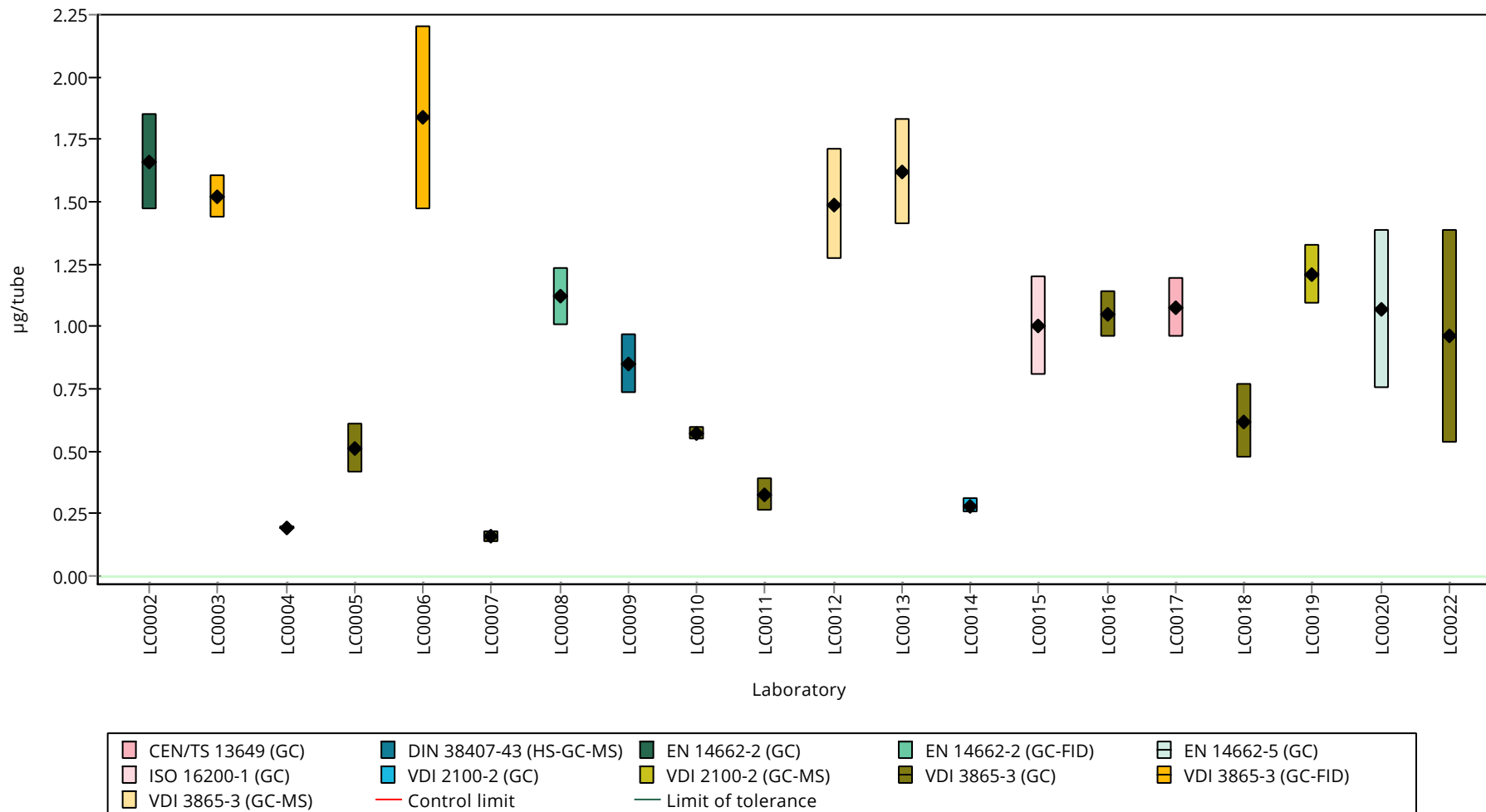
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0002	1.66 ± 0.194	-	-	
LC0003	1.52 ± 0.0836	-	-	
LC0004	0.191 ± 0.006	-	-	
LC0005	0.51 ± 0.1	-	-	
LC0006	1.837 ± 0.367	-	-	
LC0007	0.157 ± 0.024	-	-	
LC0008	1.119 ± 0.115	-	-	
LC0009	0.85 ± 0.12	-	-	
LC0010	0.57 ± 0.026	-	-	
LC0011	0.325 ± 0.065	-	-	
LC0012	1.49 ± 0.22	-	-	
LC0013	1.62 ± 0.21	-	-	
LC0014	0.282 ± 0.033	-	-	
LC0015	1 ± 0.2	-	-	
LC0016	1.048 ± 0.095	-	-	
LC0017	1.076 ± 0.118	-	-	
LC0018	0.62 ± 0.15	-	-	
LC0019	1.21 ± 0.12	-	-	
LC0020	1.07 ± 0.32	-	-	
LC0022	0.96 ± 0.43	-	-	

#### Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	0.956 ± 0.344	0.956 ± 0.344	µg/tube
Minimum	0.157	0.157	µg/tube
Maximum	1.84	1.84	µg/tube
Standard deviation	0.513	0.513	µg/tube
rel. standard deviation	53.6	53.6	%
n	20	20	-

Graphical presentation of results

Results



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### n-Pentane

Unit	µg/tube
Assigned value ± U (k=2)	3.91 ± 1.04
Criterion	1.64 (42 %)
Minimum - Maximum	1.6 - 7.33
Control test value ± U (k=2)	4.00 ± 1.4

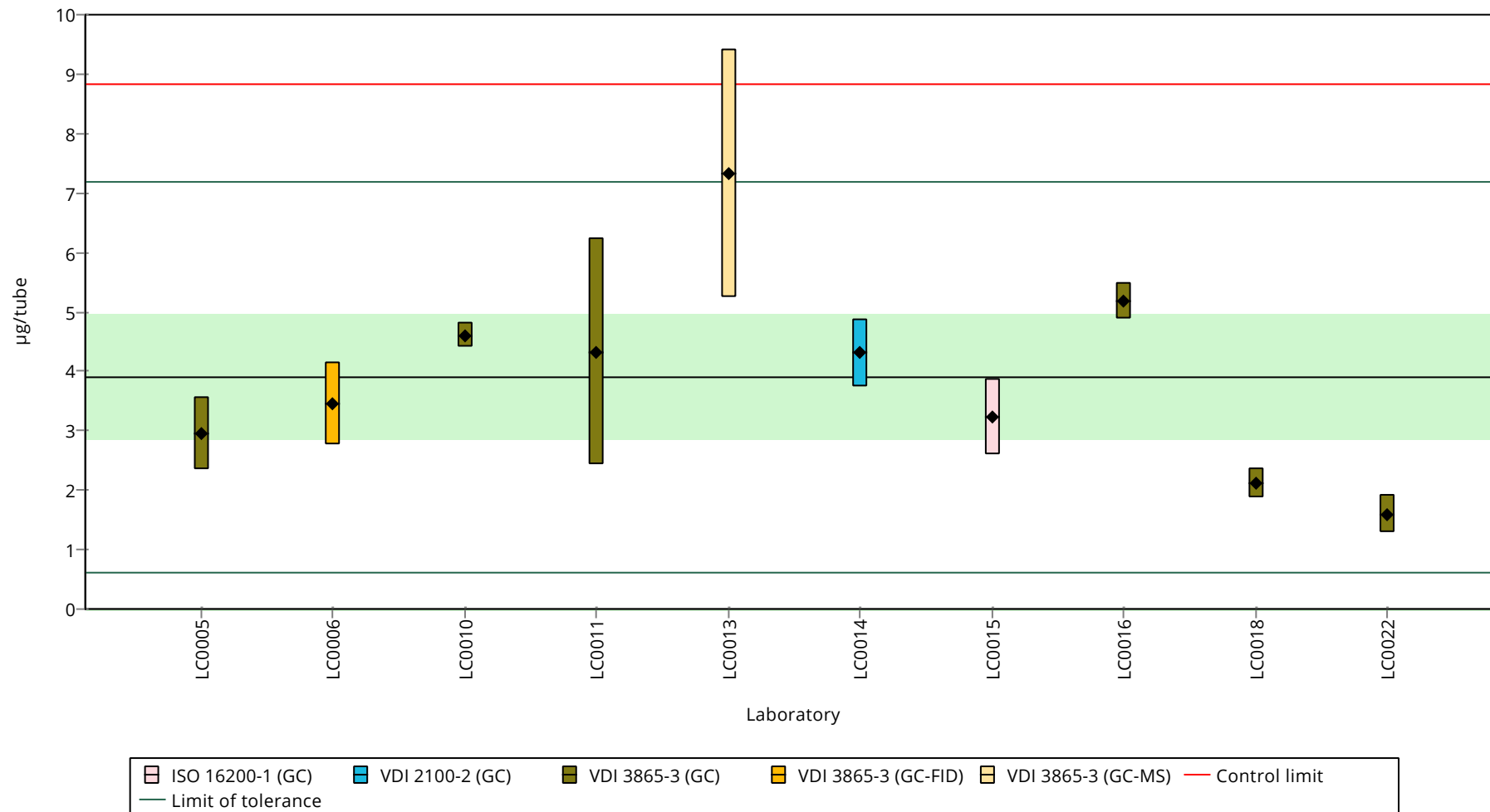
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0002	- ± -	-	-	
LC0003	- ± -	-	-	
LC0004	- ± -	-	-	
LC0005	2.952 ± 0.61	75.5	-0.58	
LC0006	3.453 ± 0.691	88.3	-0.28	
LC0007	- ± -	-	-	
LC0008	- ± -	-	-	
LC0009	- ± -	-	-	
LC0010	4.6 ± 0.21	118	0.42	
LC0011	4.33 ± 1.91	111	0.25	
LC0012	- ± -	-	-	
LC0013	7.33 ± 2.08	187	2.08	
LC0014	4.31 ± 0.577	110	0.24	
LC0015	3.23 ± 0.646	82.6	-0.41	
LC0016	5.179 ± 0.31	132	0.77	
LC0017	- ± -	-	-	
LC0018	2.13 ± 0.25	54.5	-1.08	
LC0019	- ± -	-	-	
LC0020	- ± -	-	-	
LC0022	1.6 ± 0.32	40.9	-1.41	

#### Characteristics of parameter

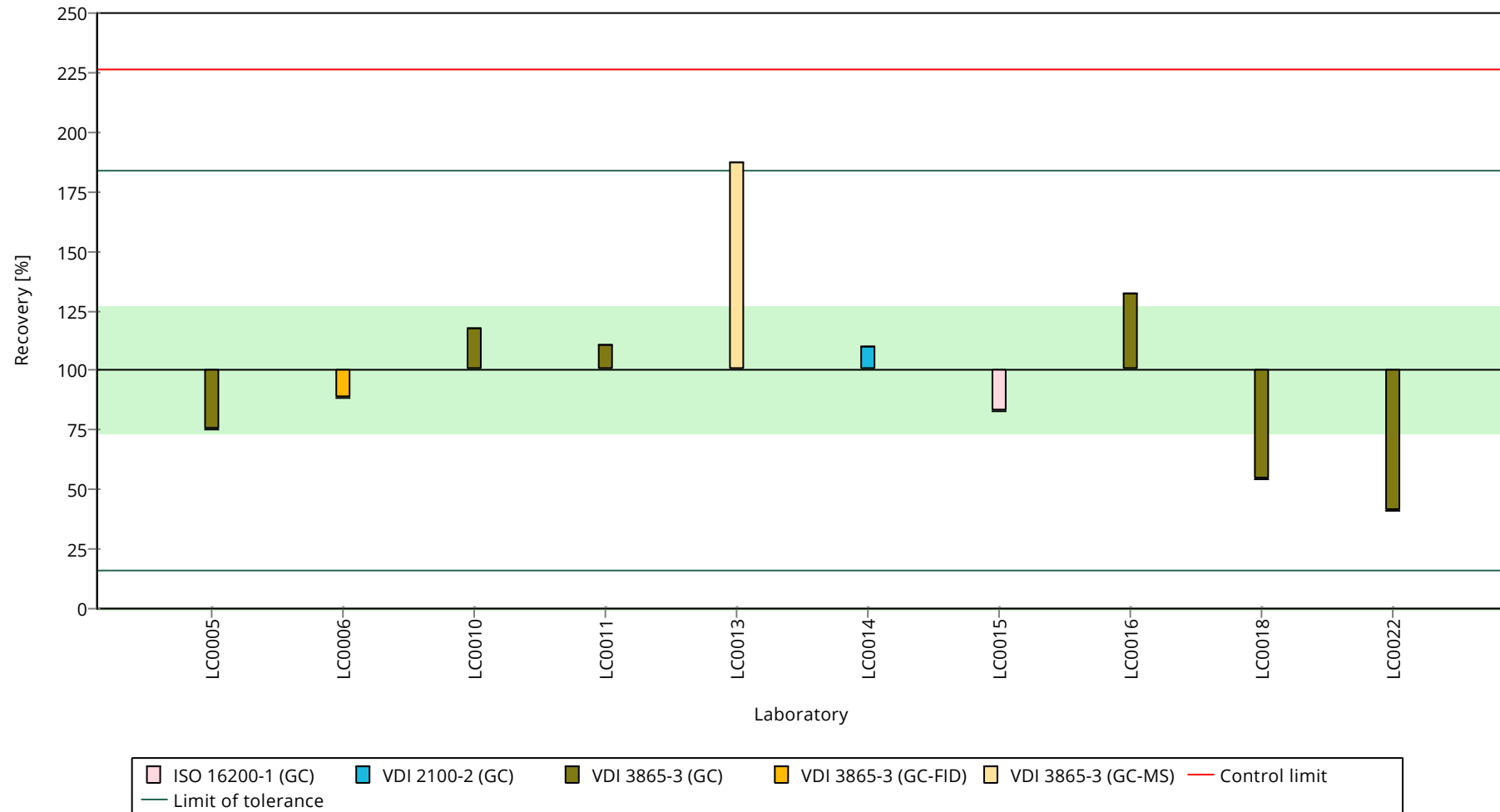
	all results	without outliers	Unit
Mean ± CI (99%)	3.91 ± 1.56	3.91 ± 1.56	µg/tube
Minimum	1.6	1.6	µg/tube
Maximum	7.33	7.33	µg/tube
Standard deviation	1.64	1.64	µg/tube
rel. standard deviation	41.9	41.9	%
n	10	10	-

Graphical presentation of results

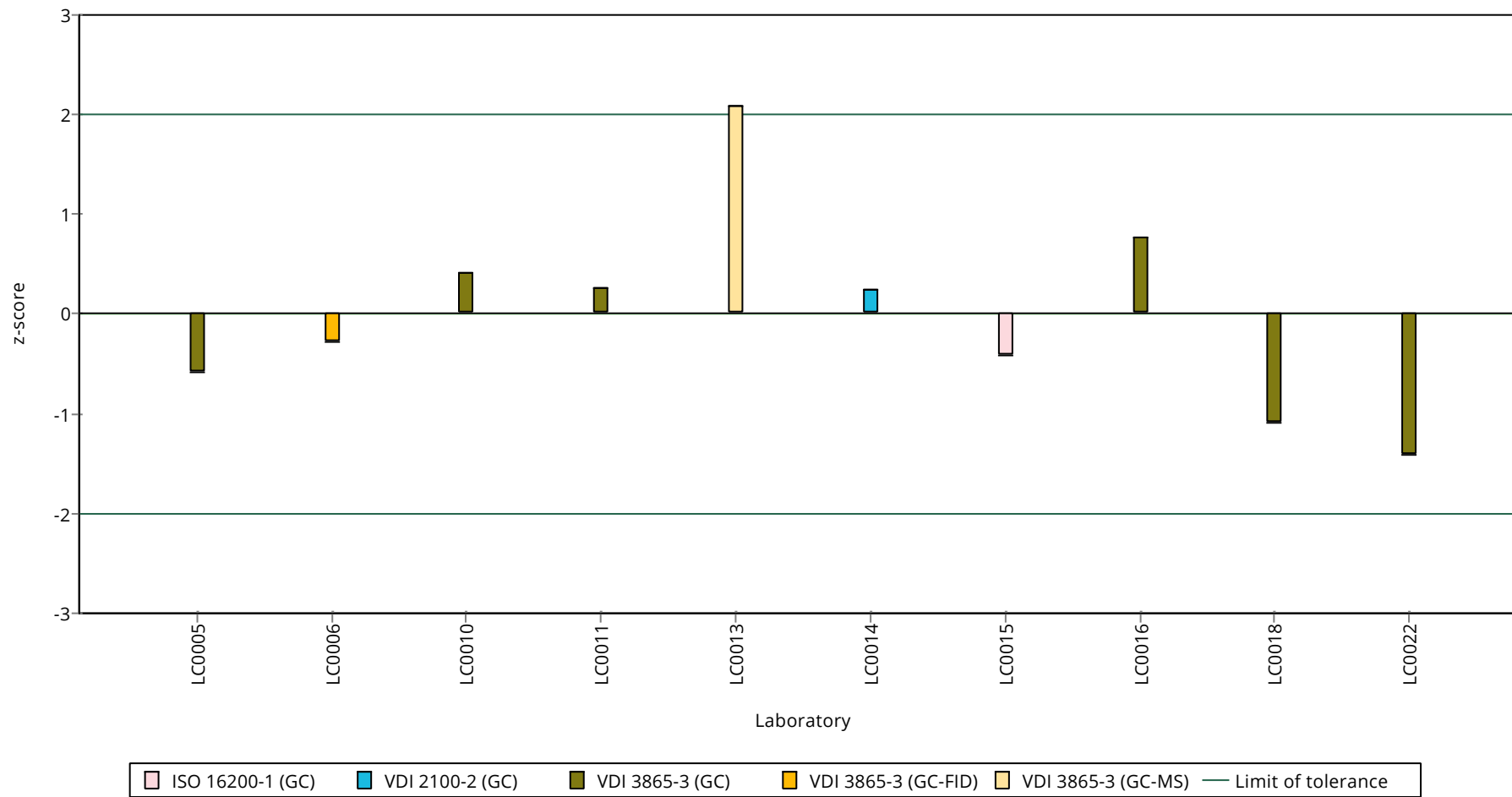
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### n-Hexane

Unit	µg/tube
Assigned value ± U (k=2)	3.41 ± 0.57
Criterion	0.99 (29 %)
Minimum - Maximum	1.84 - 5.27
Control test value ± U (k=2)	4.28 ± 1.5

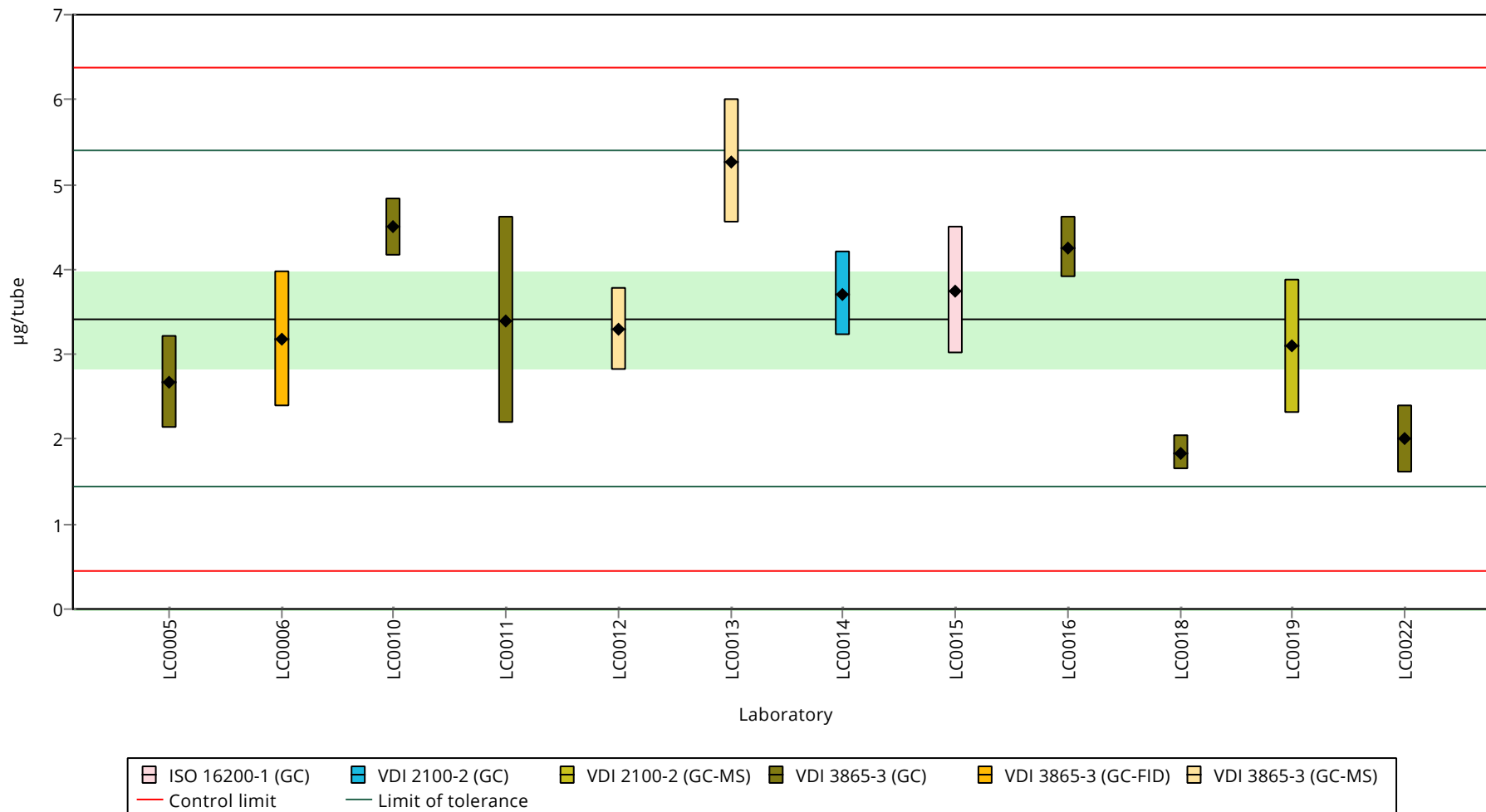
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0002	- ± -	-	-	
LC0003	- ± -	-	-	
LC0004	- ± -	-	-	
LC0005	2.674 ± 0.55	78.3	-0.75	
LC0006	3.179 ± 0.795	93.1	-0.24	
LC0007	- ± -	-	-	
LC0008	- ± -	-	-	
LC0009	- ± -	-	-	
LC0010	4.5 ± 0.34	132	1.1	
LC0011	3.4 ± 1.22	99.6	-0.01	
LC0012	3.29 ± 0.49	96.4	-0.13	
LC0013	5.27 ± 0.73	154	1.87	
LC0014	3.707 ± 0.496	109	0.3	
LC0015	3.75 ± 0.75	110	0.34	
LC0016	4.257 ± 0.36	125	0.85	
LC0017	- ± -	-	-	
LC0018	1.84 ± 0.2	53.9	-1.59	
LC0019	3.1 ± 0.79	90.8	-0.32	
LC0020	- ± -	-	-	
LC0022	2 ± 0.4	58.6	-1.43	

#### Characteristics of parameter

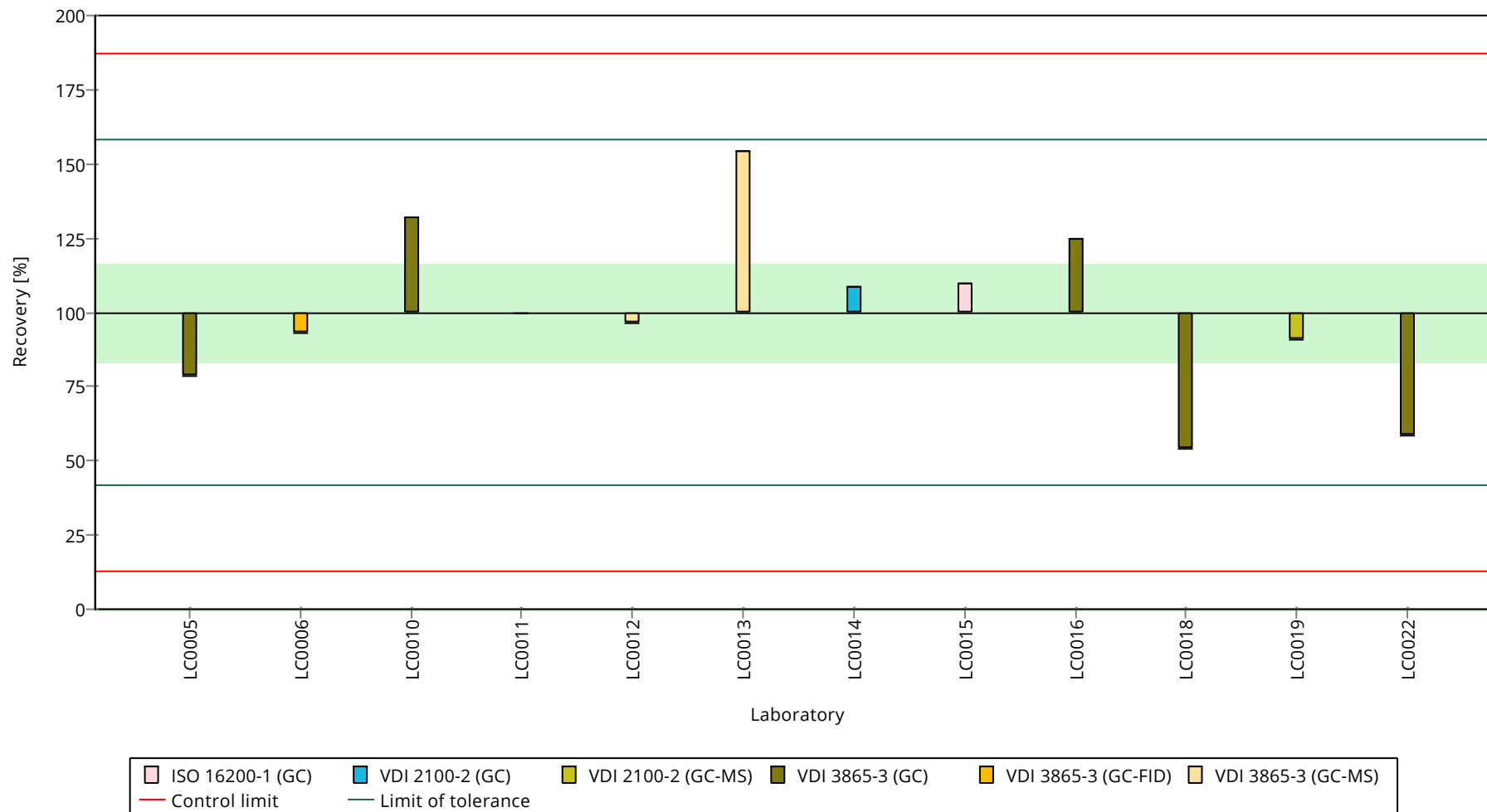
	all results	without outliers	Unit
Mean ± CI (99%)	3.41 ± 0.855	3.41 ± 0.855	µg/tube
Minimum	1.84	1.84	µg/tube
Maximum	5.27	5.27	µg/tube
Standard deviation	0.988	0.988	µg/tube
rel. standard deviation	28.9	28.9	%
n	12	12	-

Graphical presentation of results

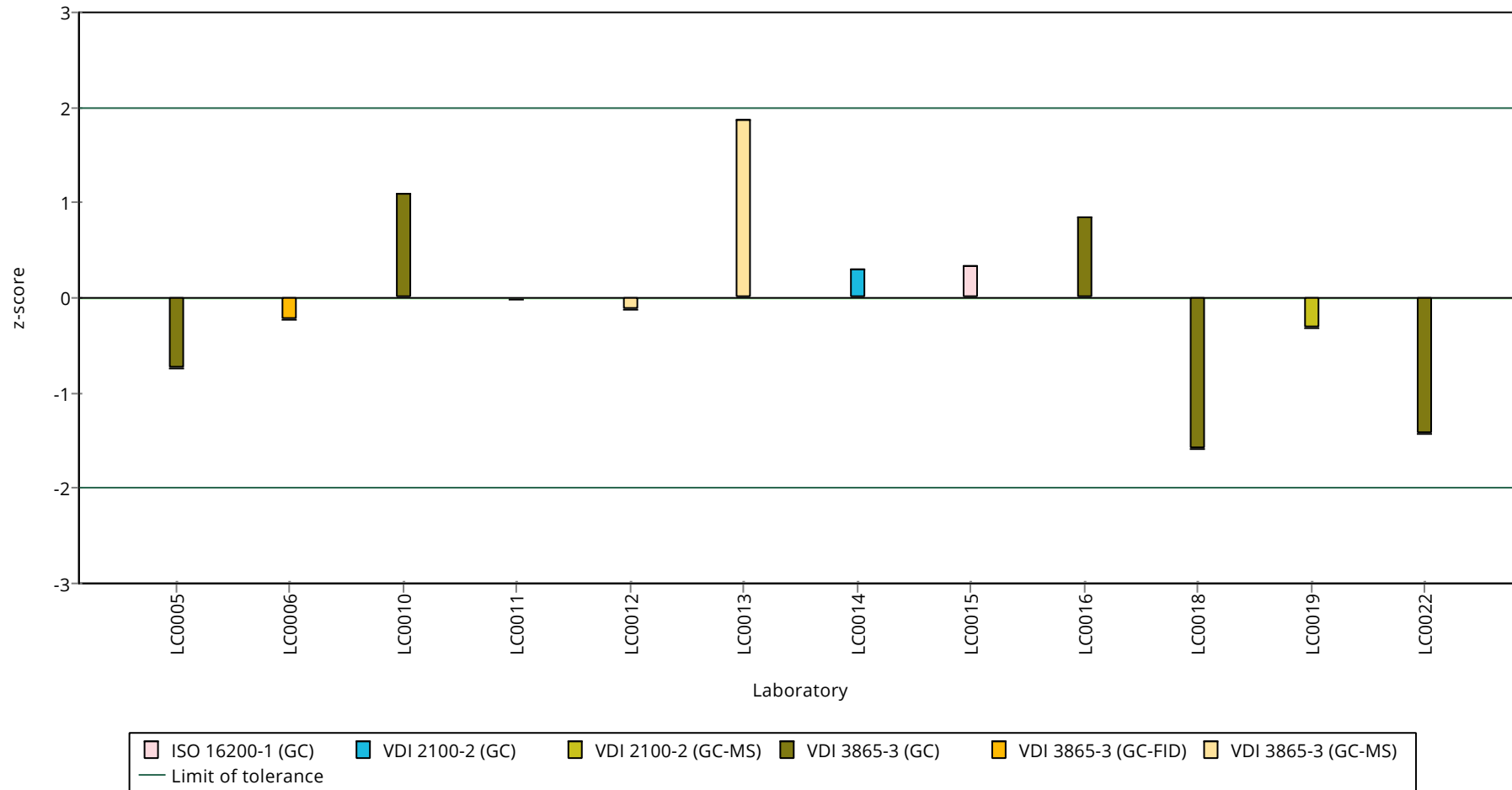
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### n-Heptane

Unit	µg/tube
Assigned value ± U (k=2)	2.86 ± 0.425
Criterion	0.773 (27 %)
Minimum - Maximum	1.62 - 4.49
Control test value ± U (k=2)	3.65 ± 1.28

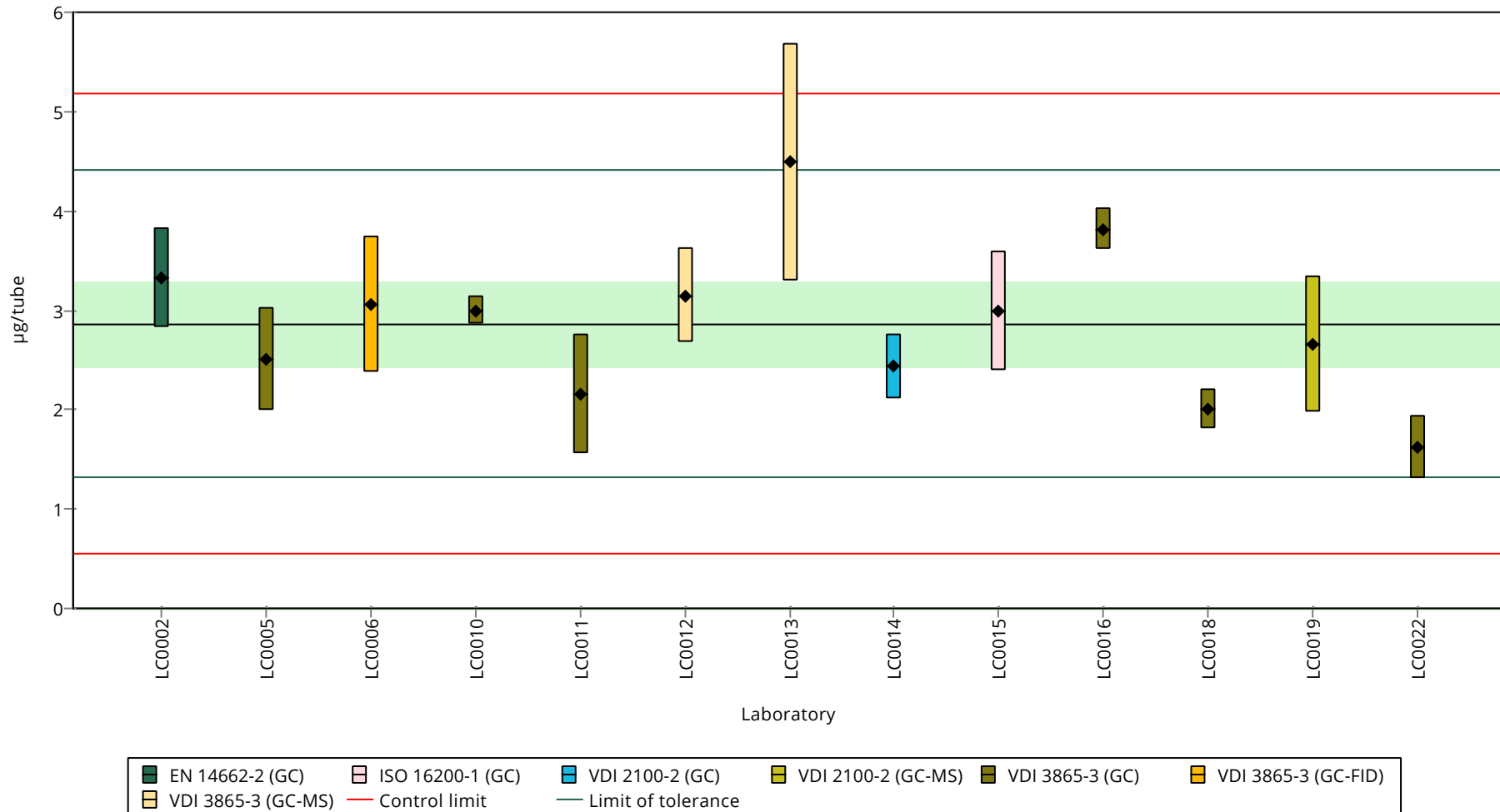
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0002	3.33 ± 0.499	116	0.6	
LC0003	- ± -	-	-	
LC0004	- ± -	-	-	
LC0005	2.507 ± 0.51	87.5	-0.46	
LC0006	3.059 ± 0.688	107	0.25	
LC0007	- ± -	-	-	
LC0008	- ± -	-	-	
LC0009	- ± -	-	-	
LC0010	3 ± 0.15	105	0.18	
LC0011	2.16 ± 0.6	75.4	-0.91	
LC0012	3.15 ± 0.47	110	0.37	
LC0013	4.49 ± 1.19	157	2.1	
LC0014	2.44 ± 0.326	85.2	-0.55	
LC0015	2.99 ± 0.598	104	0.16	
LC0016	3.818 ± 0.21	133	1.23	
LC0017	- ± -	-	-	
LC0018	2.01 ± 0.2	70.2	-1.1	
LC0019	2.66 ± 0.68	92.9	-0.26	
LC0020	- ± -	-	-	
LC0022	1.62 ± 0.32	56.6	-1.61	

#### Characteristics of parameter

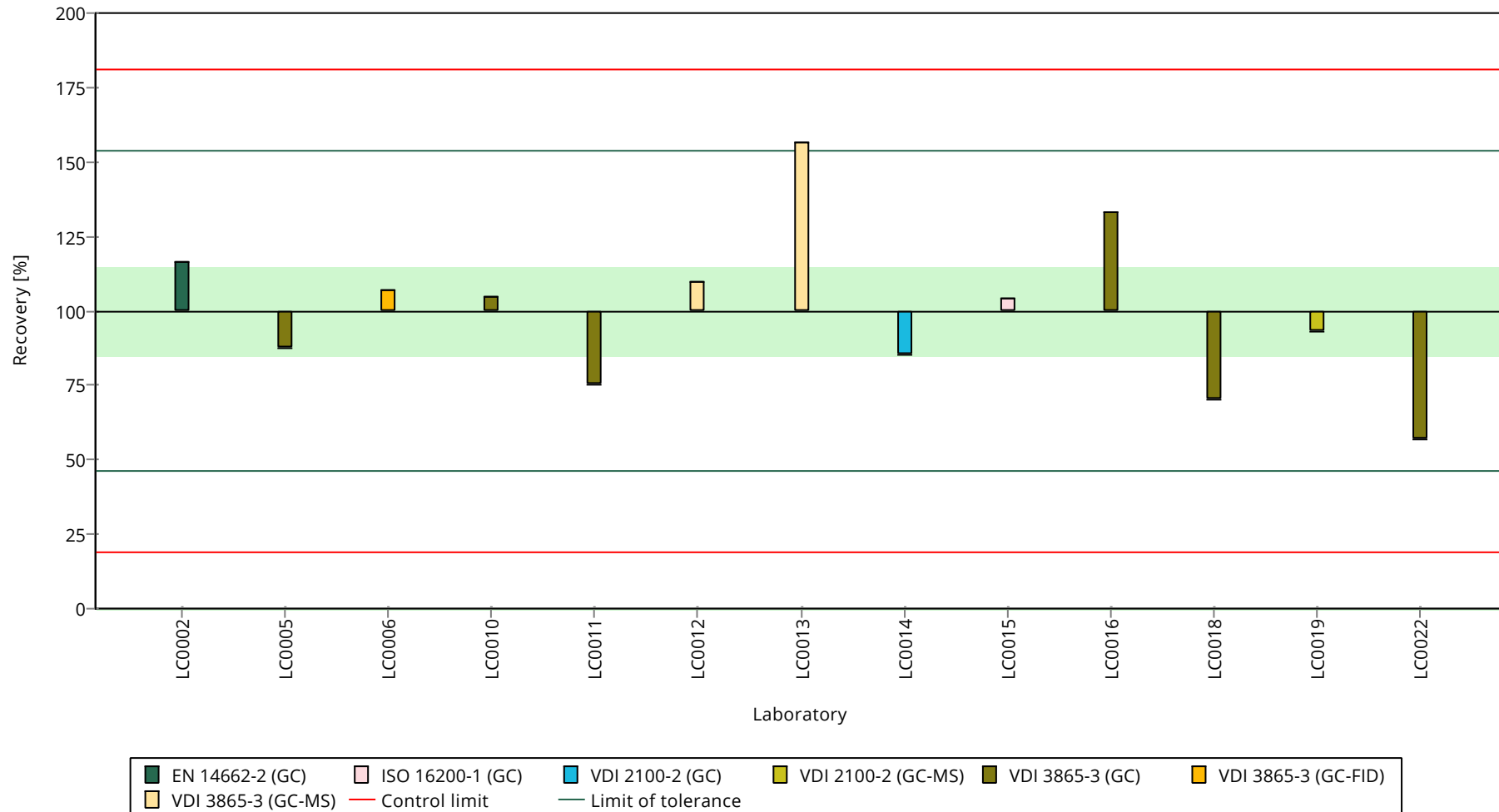
	all results	without outliers	Unit
Mean ± CI (99%)	2.86 ± 0.638	2.86 ± 0.638	µg/tube
Minimum	1.62	1.62	µg/tube
Maximum	4.49	4.49	µg/tube
Standard deviation	0.766	0.766	µg/tube
rel. standard deviation	26.8	26.8	%
n	13	13	-

Graphical presentation of results

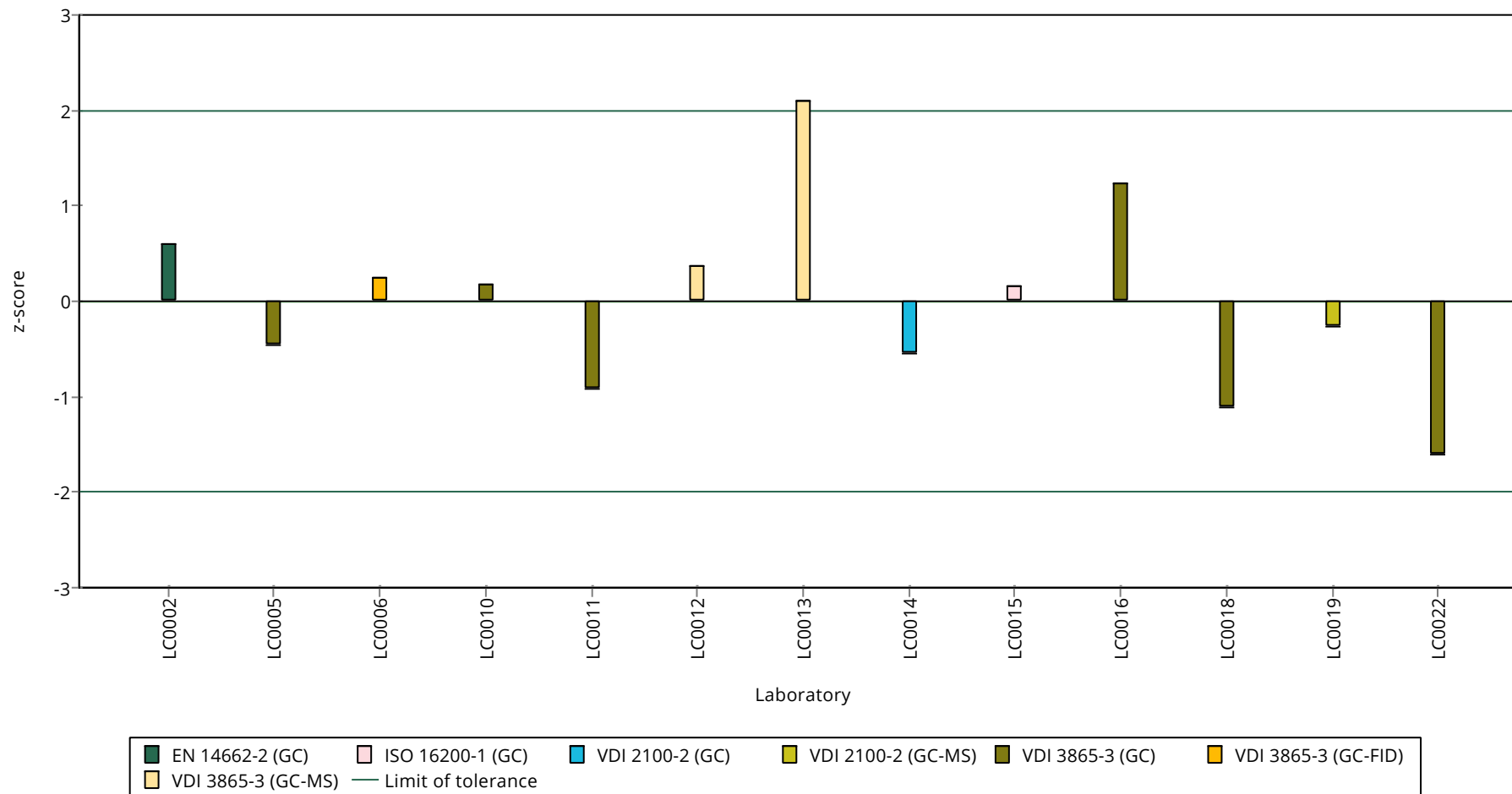
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### n-Octane

Unit	µg/tube
Assigned value ± U (k=2)	1.45 ± 0.358
Criterion	0.654 (45 %)
Minimum - Maximum	0.64 - 2.75
Control test value ± U (k=2)	1.82 ± 0.636

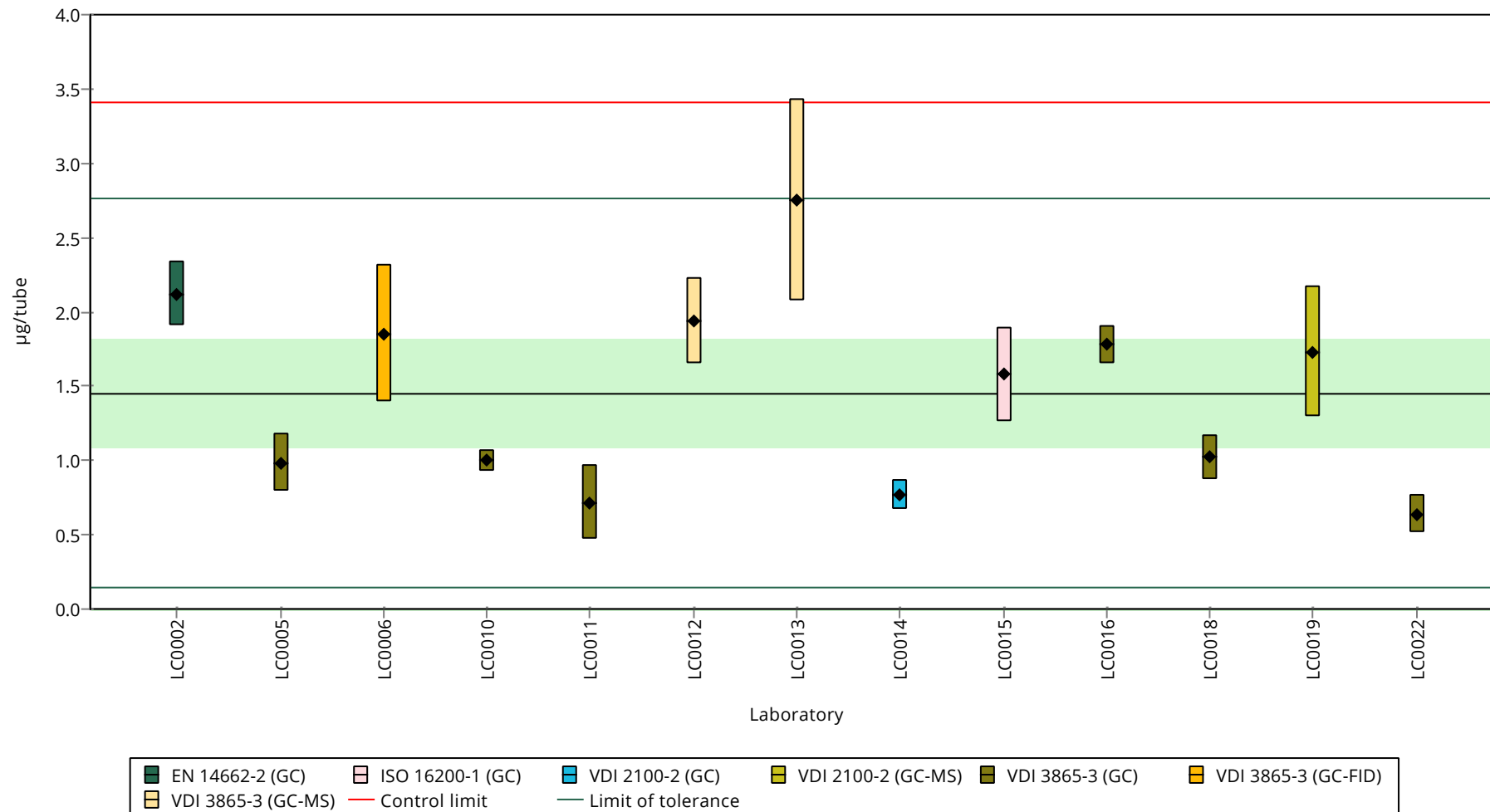
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0002	2.12 ± 0.215	146	1.02	
LC0003	- ± -	-	-	
LC0004	- ± -	-	-	
LC0005	0.986 ± 0.2	67.9	-0.71	
LC0006	1.855 ± 0.464	128	0.62	
LC0007	- ± -	-	-	
LC0008	- ± -	-	-	
LC0009	- ± -	-	-	
LC0010	1 ± 0.075	68.8	-0.69	
LC0011	0.717 ± 0.251	49.4	-1.13	
LC0012	1.94 ± 0.29	134	0.75	
LC0013	2.75 ± 0.68	189	1.98	
LC0014	0.769 ± 0.103	52.9	-1.05	
LC0015	1.58 ± 0.316	109	0.19	
LC0016	1.78 ± 0.13	123	0.5	
LC0017	- ± -	-	-	
LC0018	1.02 ± 0.15	70.2	-0.66	
LC0019	1.73 ± 0.44	119	0.42	
LC0020	- ± -	-	-	
LC0022	0.64 ± 0.13	44.1	-1.24	

#### Characteristics of parameter

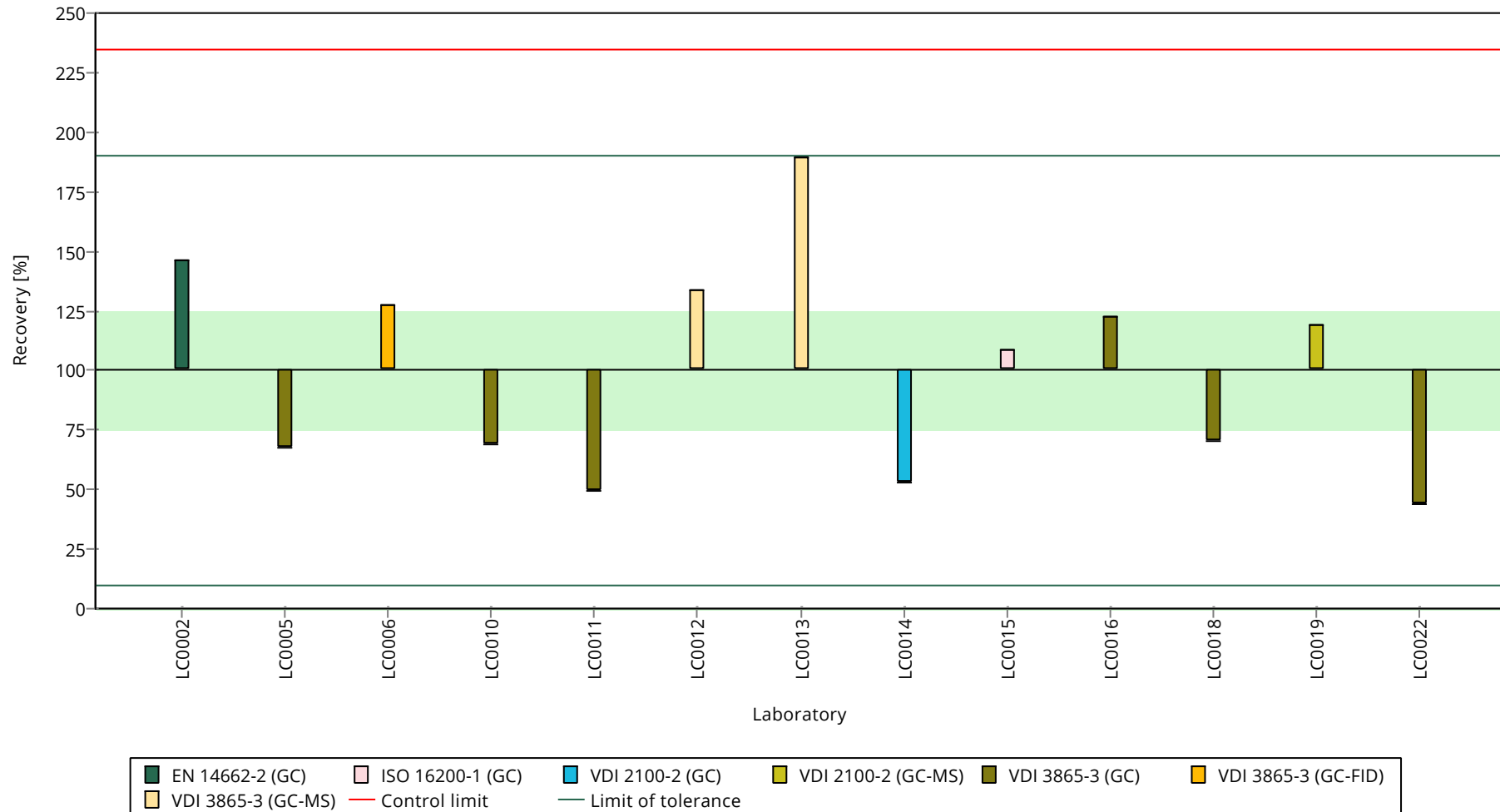
	all results	without outliers	Unit
Mean ± CI (99%)	1.45 ± 0.537	1.45 ± 0.537	µg/tube
Minimum	0.64	0.64	µg/tube
Maximum	2.75	2.75	µg/tube
Standard deviation	0.646	0.646	µg/tube
rel. standard deviation	44.5	44.5	%
n	13	13	-

Graphical presentation of results

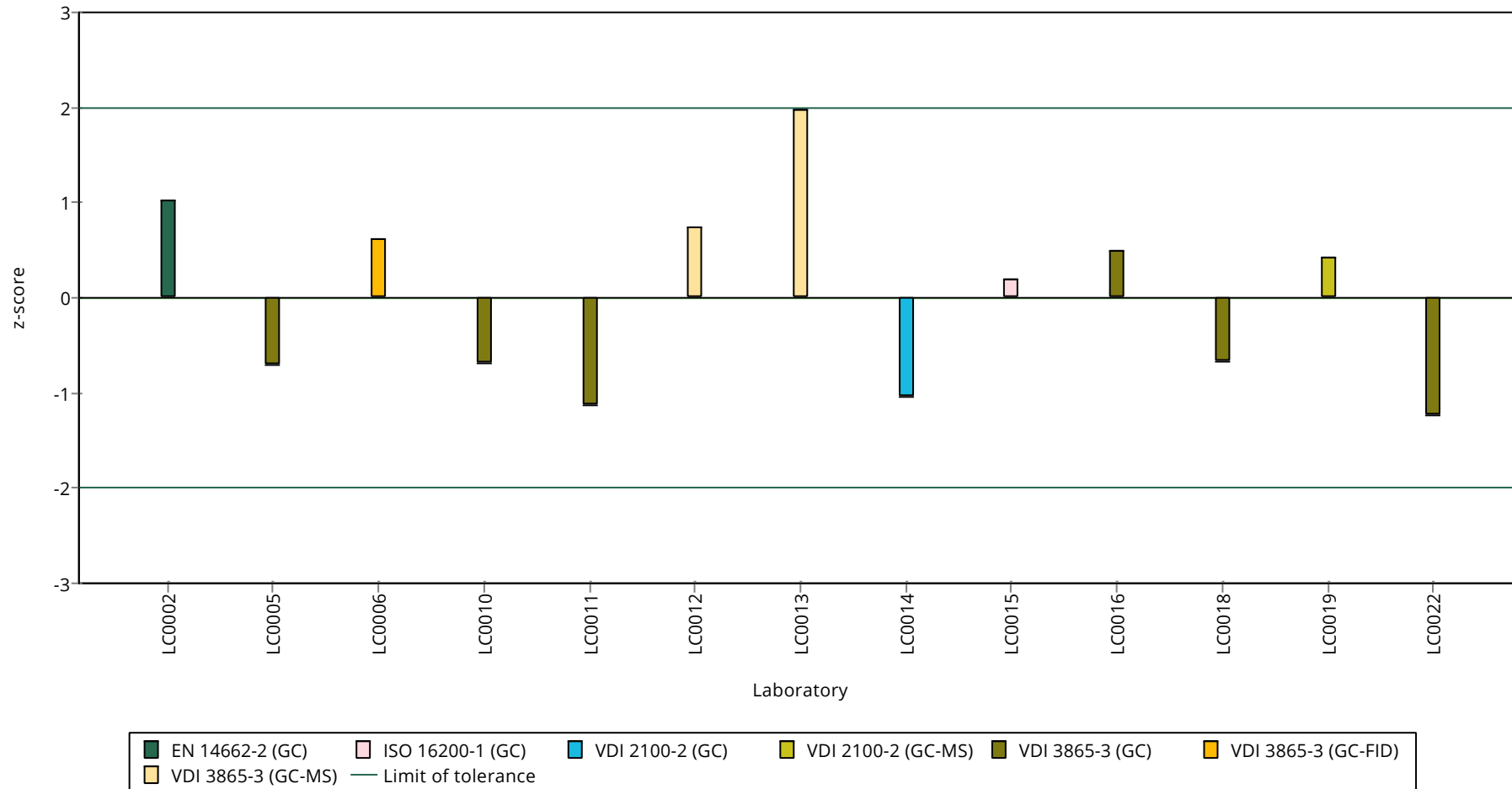
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### n-Nonane \*\*

Unit  $\mu\text{g}/\text{tube}$

Assigned value  $\pm U$  (k=2) -

Criterion -

Minimum - Maximum 0.059 - 1.02

Control test value  $\pm U$  (k=2) <0.50

\*\* For this substance, the value of the control laboratory is listed for information:

<0.5  $\mu\text{g}/\text{tube}$

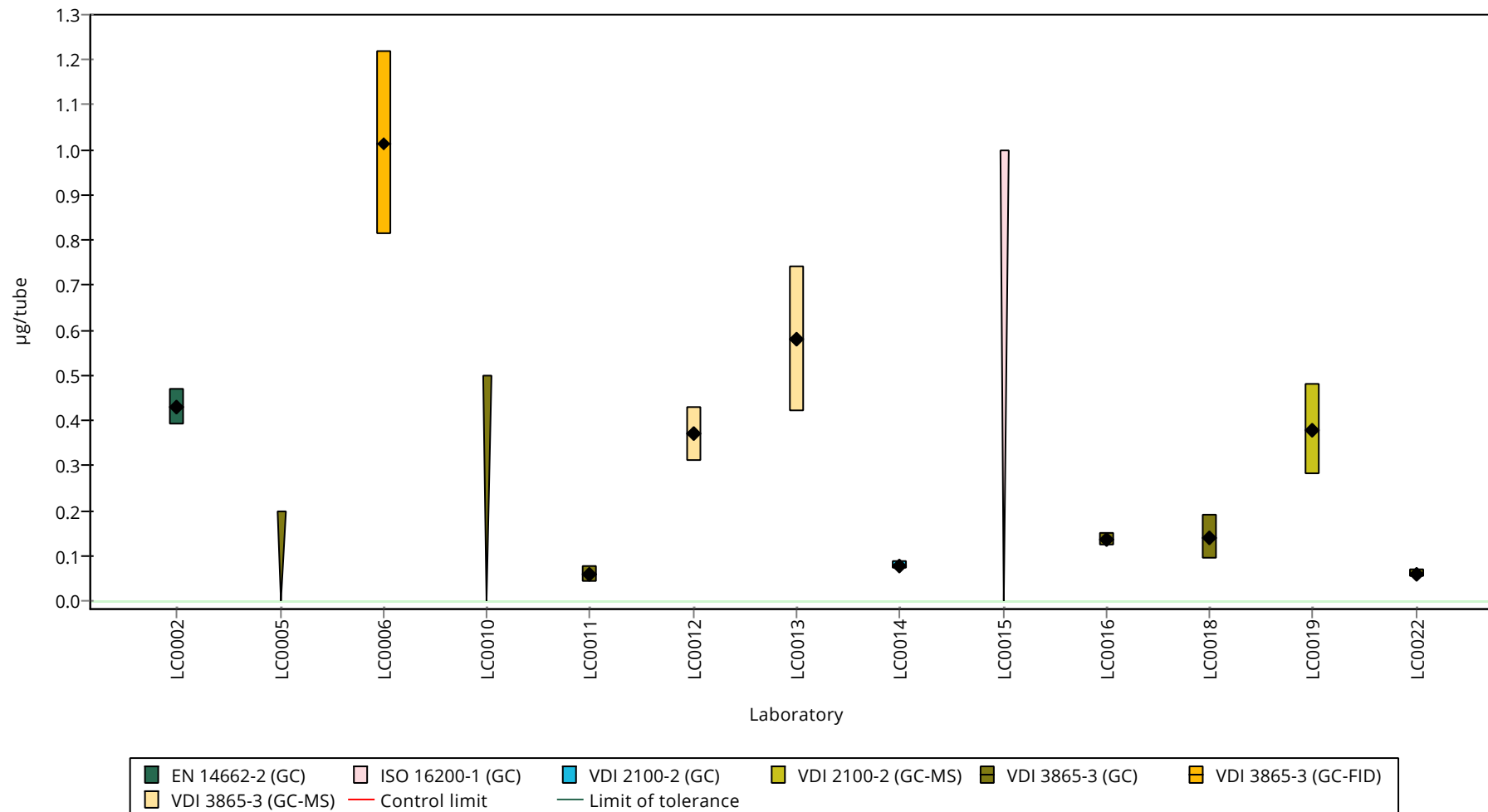
Labcode	Result $\pm U$	Recovery [%]	z-Score	Comments
LC0002	0.43 $\pm$ 0.04	-	-	
LC0003	- $\pm$ -	-	-	
LC0004	- $\pm$ -	-	-	
LC0005	< 0.2 (LOQ) $\pm$ -	-	-	
LC0006	1.015 $\pm$ 0.203	-	-	
LC0007	- $\pm$ -	-	-	
LC0008	- $\pm$ -	-	-	
LC0009	- $\pm$ -	-	-	
LC0010	< 0.5 (LOQ) $\pm$ -	-	-	
LC0011	0.059 $\pm$ 0.017	-	-	
LC0012	0.37 $\pm$ 0.06	-	-	
LC0013	0.58 $\pm$ 0.162	-	-	
LC0014	0.078 $\pm$ 0.01	-	-	
LC0015	< 1 (LOQ) $\pm$ -	-	-	
LC0016	0.136 $\pm$ 0.016	-	-	
LC0017	- $\pm$ -	-	-	
LC0018	0.14 $\pm$ 0.05	-	-	
LC0019	0.38 $\pm$ 0.1	-	-	
LC0020	- $\pm$ -	-	-	
LC0022	0.06 $\pm$ 0.01	-	-	

#### Characteristics of parameter

	all results	without outliers	Unit
Mean $\pm$ CI (99%)	0.325 $\pm$ 0.288	0.325 $\pm$ 0.288	$\mu\text{g}/\text{tube}$
Minimum	0.059	0.059	$\mu\text{g}/\text{tube}$
Maximum	1.02	1.02	$\mu\text{g}/\text{tube}$
Standard deviation	0.304	0.304	$\mu\text{g}/\text{tube}$
rel. standard deviation	93.4	93.4	%
n	10	10	-

**Graphical presentation of results**

**Results**



## Parameter oriented report

### BL14 - BTEX & C5-C10

#### n-Decane \*\*

Unit  $\mu\text{g}/\text{tube}$   
Assigned value  $\pm U$  (k=2) -  
Criterion -  
Minimum - Maximum 0.003 - 0.957  
Control test value  $\pm U$  (k=2) <0.50

\*\* For this substance, the value of the control laboratory is listed for information:  
<0.5  $\mu\text{g}/\text{tube}$

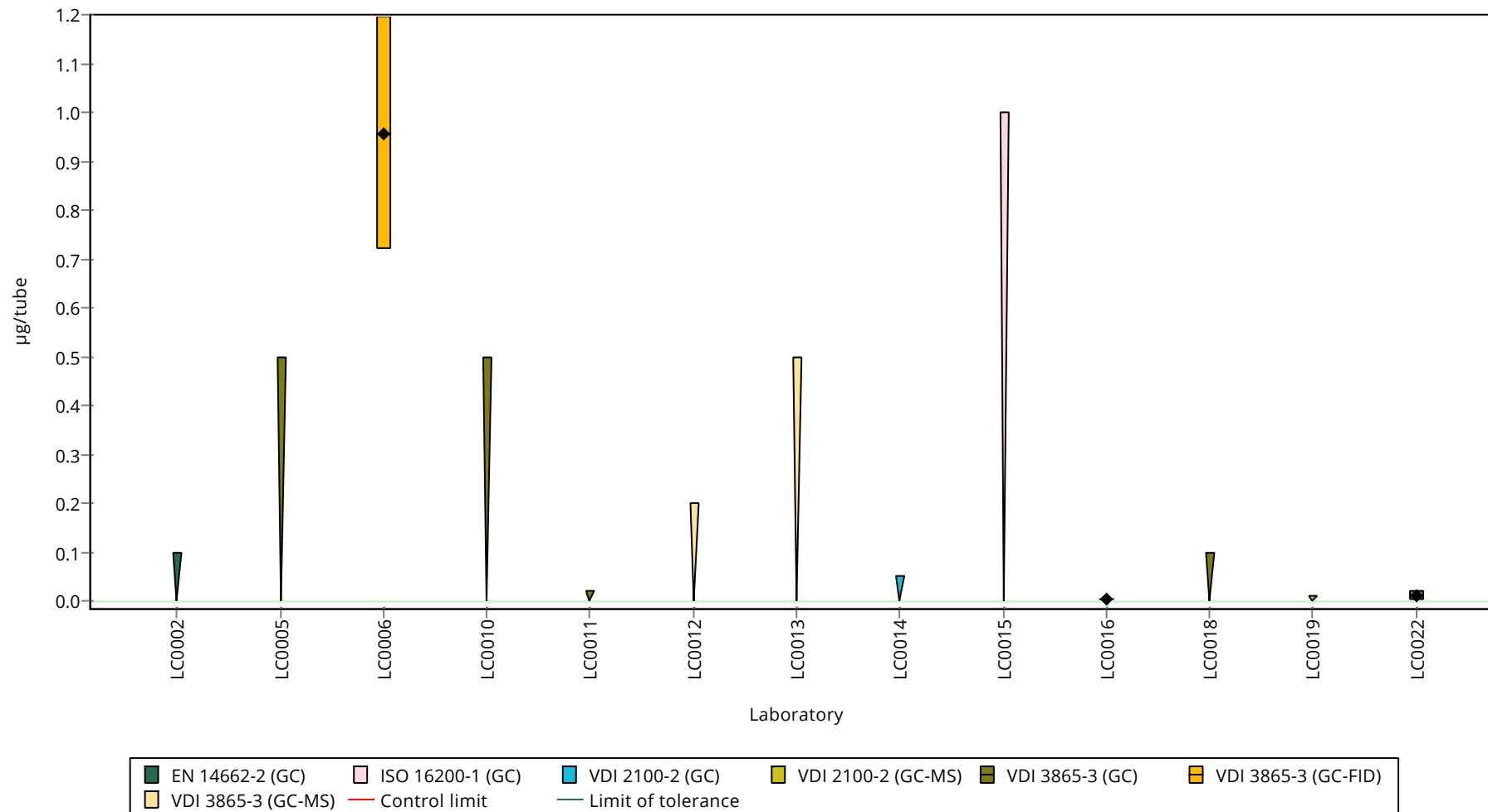
Labcode	Result $\pm U$	Recovery [%]	z-Score	Comments
LC0002	< 0.1 (LOQ) $\pm$ -	-	-	
LC0003	- $\pm$ -	-	-	
LC0004	- $\pm$ -	-	-	
LC0005	< 0.5 (LOQ) $\pm$ -	-	-	
LC0006	0.957 $\pm$ 0.239	-	-	
LC0007	- $\pm$ -	-	-	
LC0008	- $\pm$ -	-	-	
LC0009	- $\pm$ -	-	-	
LC0010	< 0.5 (LOQ) $\pm$ -	-	-	
LC0011	< 0.02 (LOQ) $\pm$ -	-	-	
LC0012	< 0.2 (LOQ) $\pm$ -	-	-	
LC0013	< 0.5 (LOQ) $\pm$ -	-	-	
LC0014	< 0.05 (LOQ) $\pm$ -	-	-	
LC0015	< 1 (LOQ) $\pm$ -	-	-	
LC0016	0.003 $\pm$ 0.0005	-	-	
LC0017	- $\pm$ -	-	-	
LC0018	< 0.1 (LOQ) $\pm$ -	-	-	
LC0019	< 0.01 (LOQ) $\pm$ -	-	-	
LC0020	- $\pm$ -	-	-	
LC0022	0.01 $\pm$ 0.01	-	-	

#### Characteristics of parameter

	all results	without outliers	Unit
Mean $\pm$ CI (99%)	0.323 $\pm$ 0.951	-	$\mu\text{g}/\text{tube}$
Minimum	0.003	0.003	$\mu\text{g}/\text{tube}$
Maximum	0.957	0.957	$\mu\text{g}/\text{tube}$
Standard deviation	0.549	-	$\mu\text{g}/\text{tube}$
rel. standard deviation	170	-	%
n	3	3	-

Graphical presentation of results

Results



## Parameter oriented report

### CL13 - CHC

#### 1,1,1-Trichloroethane

Unit	µg/tube
Assigned value ± U (k=2)	3.62 ± 0.3
Criterion	0.579 (16 %)
Minimum - Maximum	2.53 - 4.57
Control test value ± U (k=2)	4.47 ± 1.57

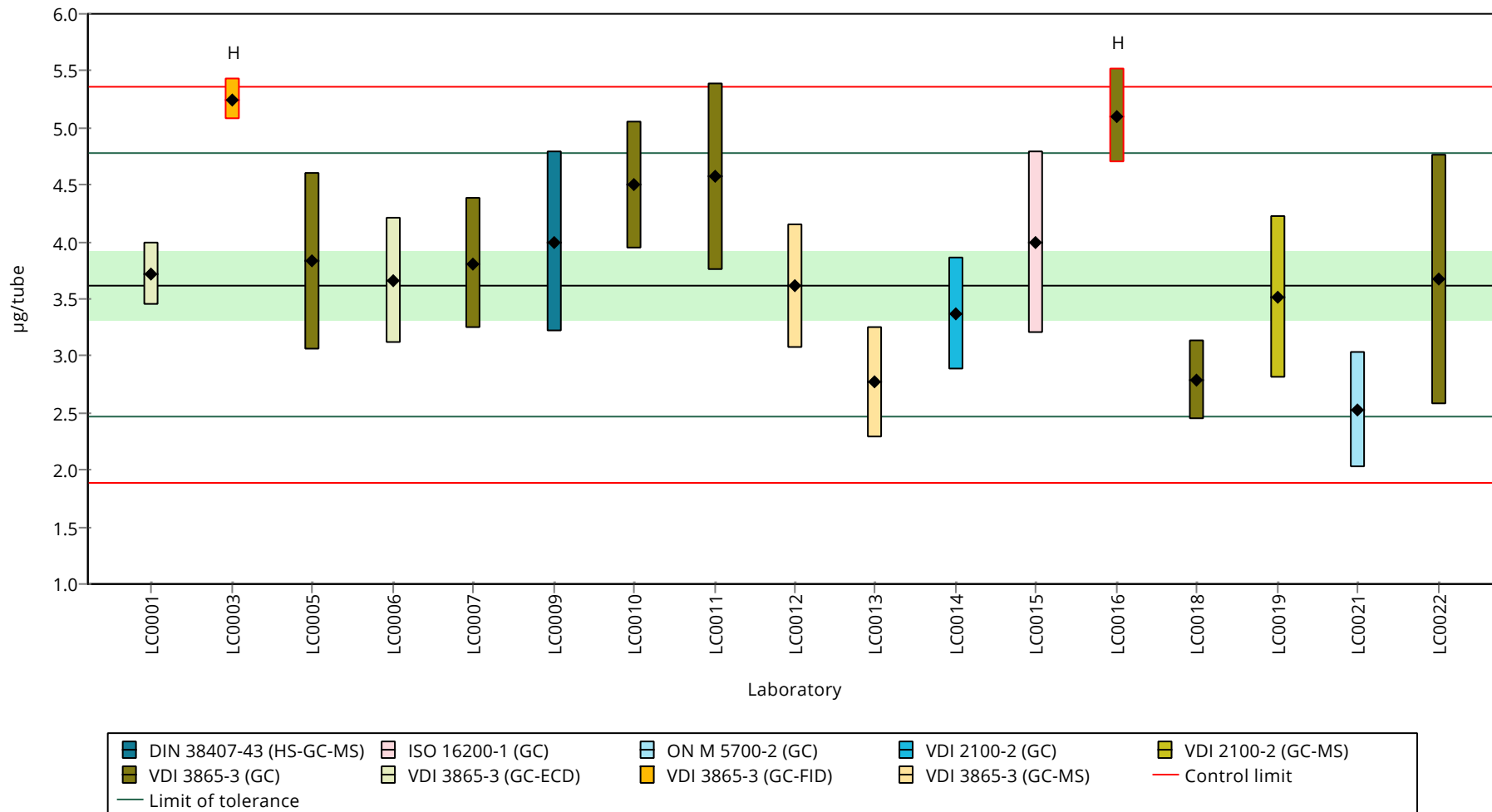
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0001	3.719 ± 0.279	103	0.17	
LC0003	5.25 ± 0.179	145	2.81	H
LC0005	3.83 ± 0.78	106	0.36	
LC0006	3.657 ± 0.549	101	0.06	
LC0007	3.81 ± 0.57	105	0.32	
LC0009	3.995 ± 0.792	110	0.64	
LC0010	4.5 ± 0.56	124	1.52	
LC0011	4.57 ± 0.82	126	1.64	
LC0012	3.61 ± 0.54	99.7	-0.02	
LC0013	2.77 ± 0.49	76.5	-1.47	
LC0014	3.366 ± 0.492	92.9	-0.44	
LC0015	4 ± 0.8	110	0.65	
LC0016	5.106 ± 0.41	141	2.56	H
LC0018	2.79 ± 0.35	77	-1.44	
LC0019	3.51 ± 0.71	96.9	-0.19	
LC0021	2.53 ± 0.51	69.9	-1.88	
LC0022	3.67 ± 1.1	101	0.08	

#### Characteristics of parameter

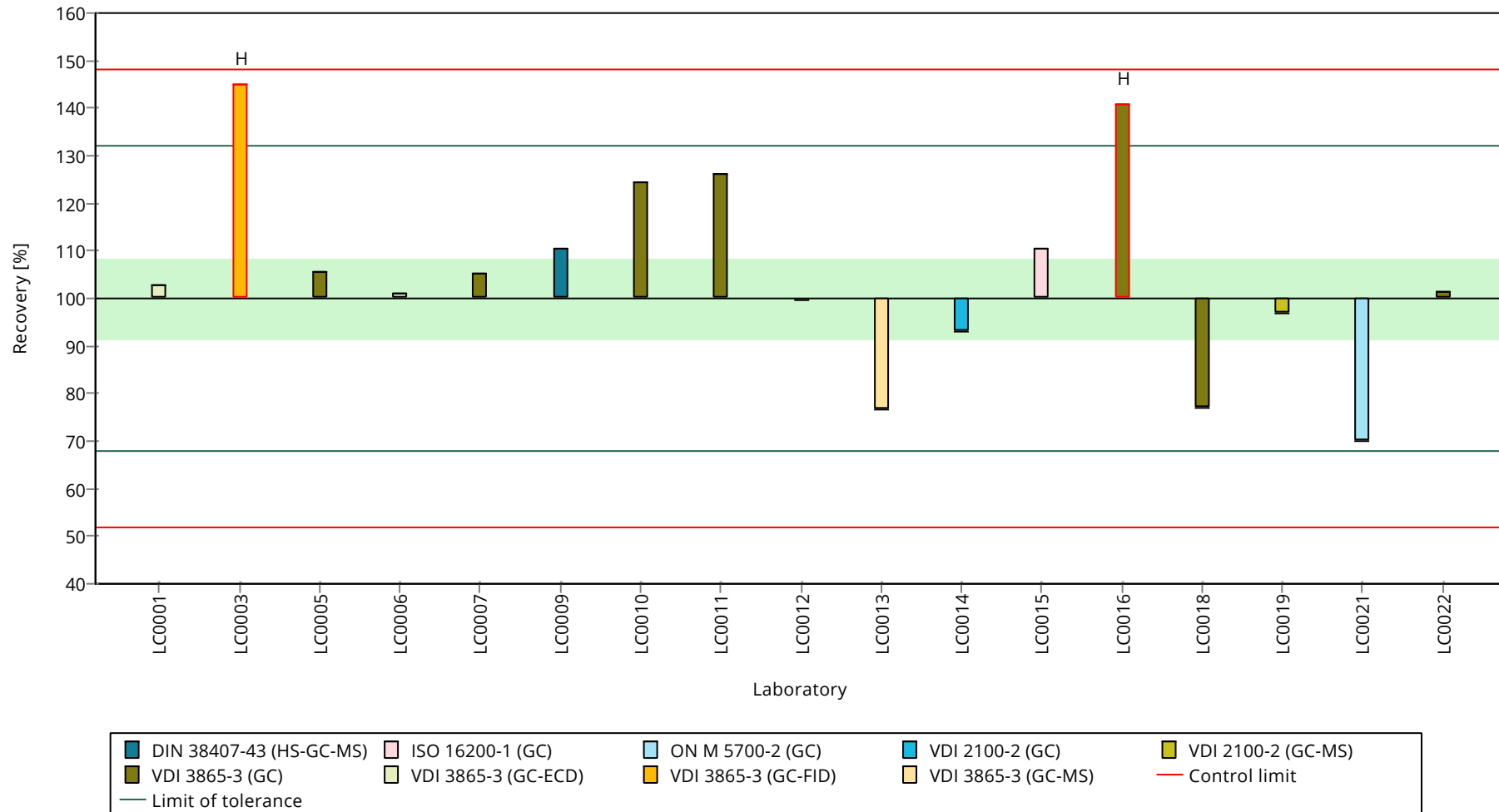
	all results	without outliers	Unit
Mean ± CI (99%)	3.8 ± 0.546	3.62 ± 0.45	µg/tube
Minimum	2.53	2.53	µg/tube
Maximum	5.25	4.57	µg/tube
Standard deviation	0.751	0.581	µg/tube
rel. standard deviation	19.7	16.1	%
n	17	15	-

Graphical presentation of results

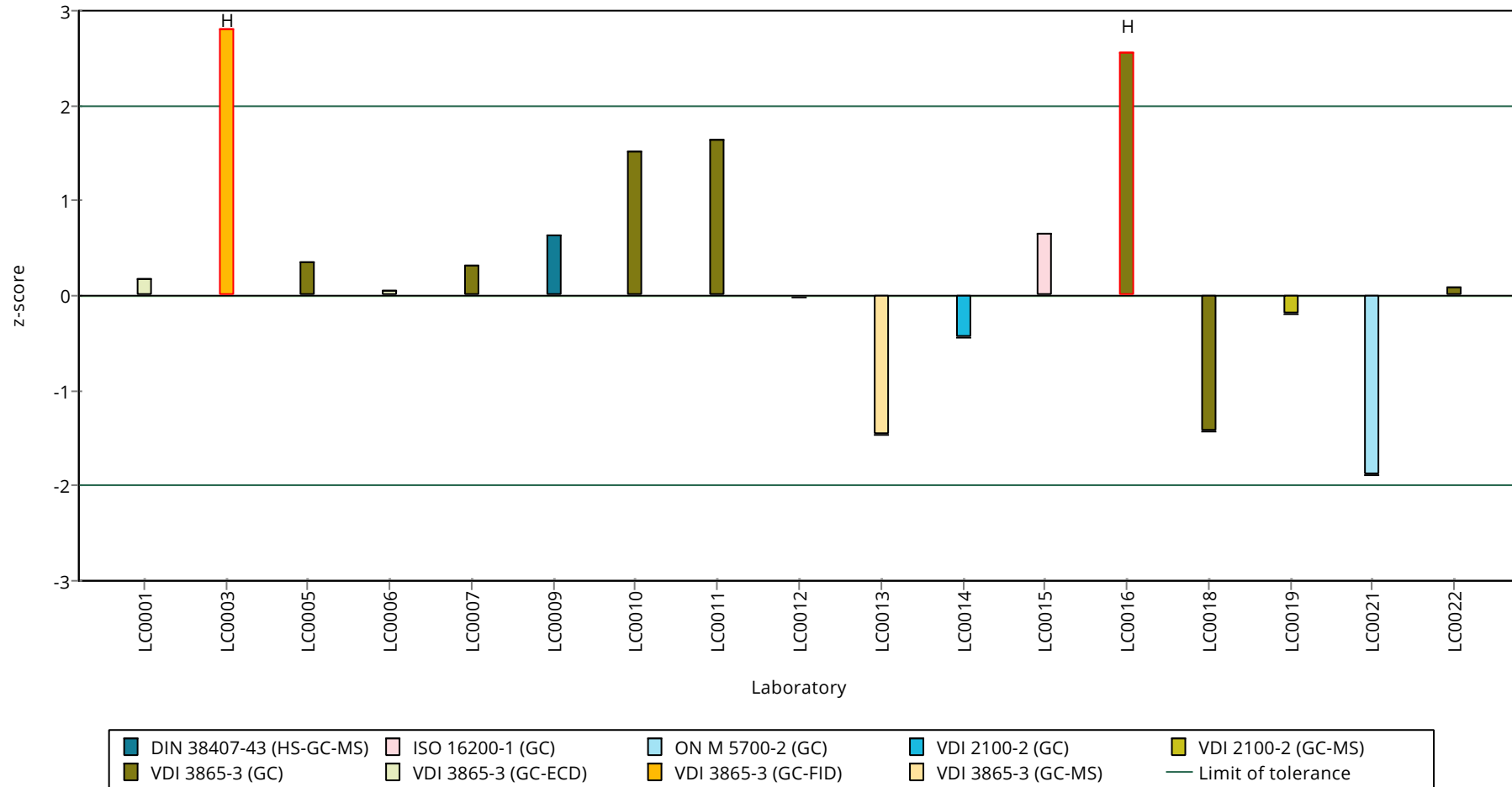
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### CL13 - CHC

#### cis-1,2-Dichloroethene

Unit	µg/tube
Assigned value ± U (k=2)	2.43 ± 0.304
Criterion	0.825 (34 %)
Minimum - Maximum	1.02 - 3.47
Control test value ± U (k=2)	3.36 ± 1.18

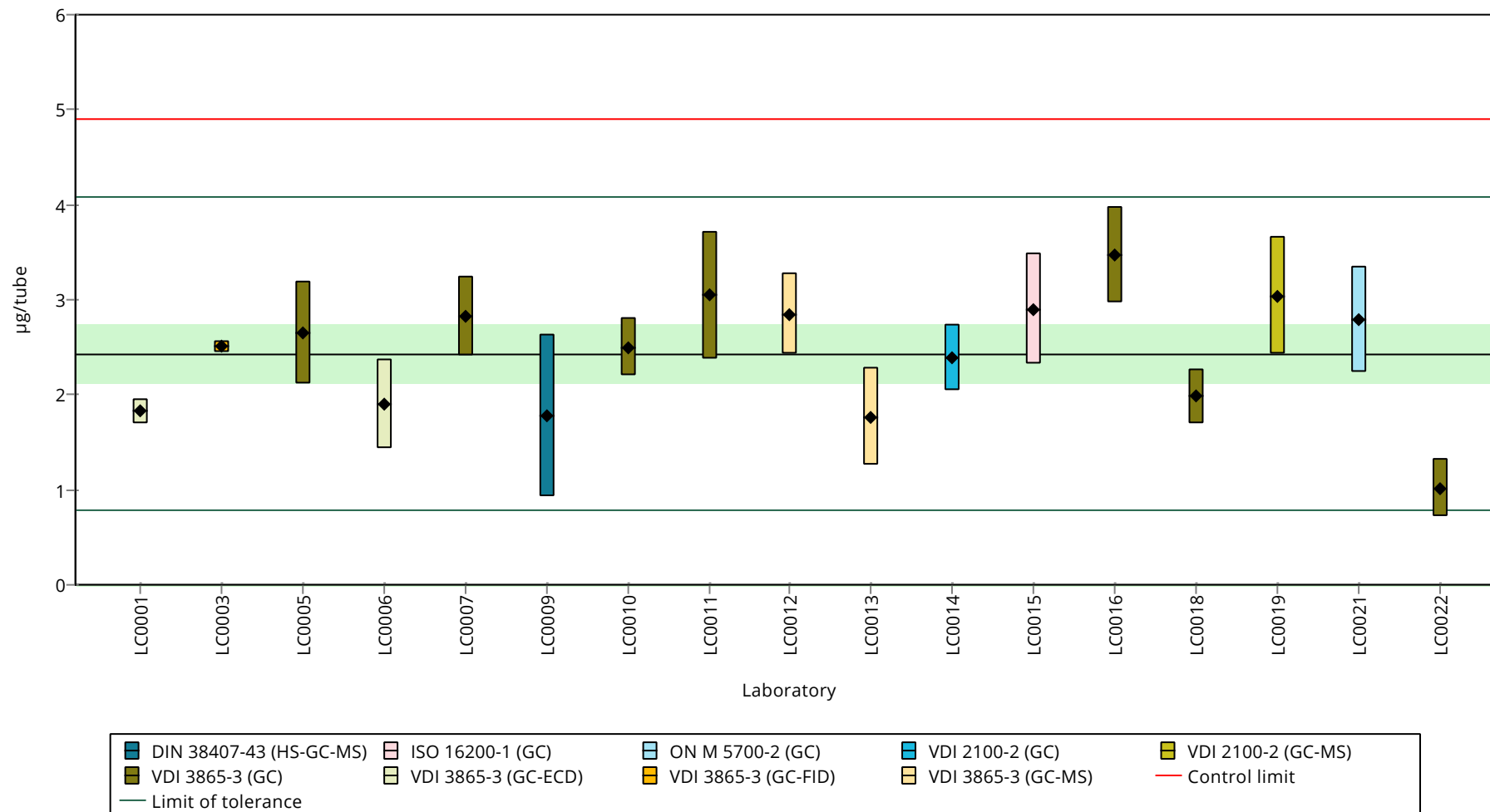
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0001	1.824 ± 0.137	75.2	-0.73	
LC0003	2.51 ± 0.0627	103	0.1	
LC0005	2.658 ± 0.54	110	0.28	
LC0006	1.898 ± 0.475	78.2	-0.64	
LC0007	2.82 ± 0.42	116	0.48	
LC0009	1.775 ± 0.851	73.2	-0.79	
LC0010	2.5 ± 0.31	103	0.09	
LC0011	3.05 ± 0.67	126	0.76	
LC0012	2.85 ± 0.43	117	0.51	
LC0013	1.77 ± 0.52	72.9	-0.8	
LC0014	2.393 ± 0.35	98.6	-0.04	
LC0015	2.9 ± 0.58	120	0.57	
LC0016	3.472 ± 0.5	143	1.27	
LC0018	1.98 ± 0.28	81.6	-0.54	
LC0019	3.04 ± 0.62	125	0.74	
LC0021	2.79 ± 0.56	115	0.44	
LC0022	1.02 ± 0.31	42	-1.7	

#### Characteristics of parameter

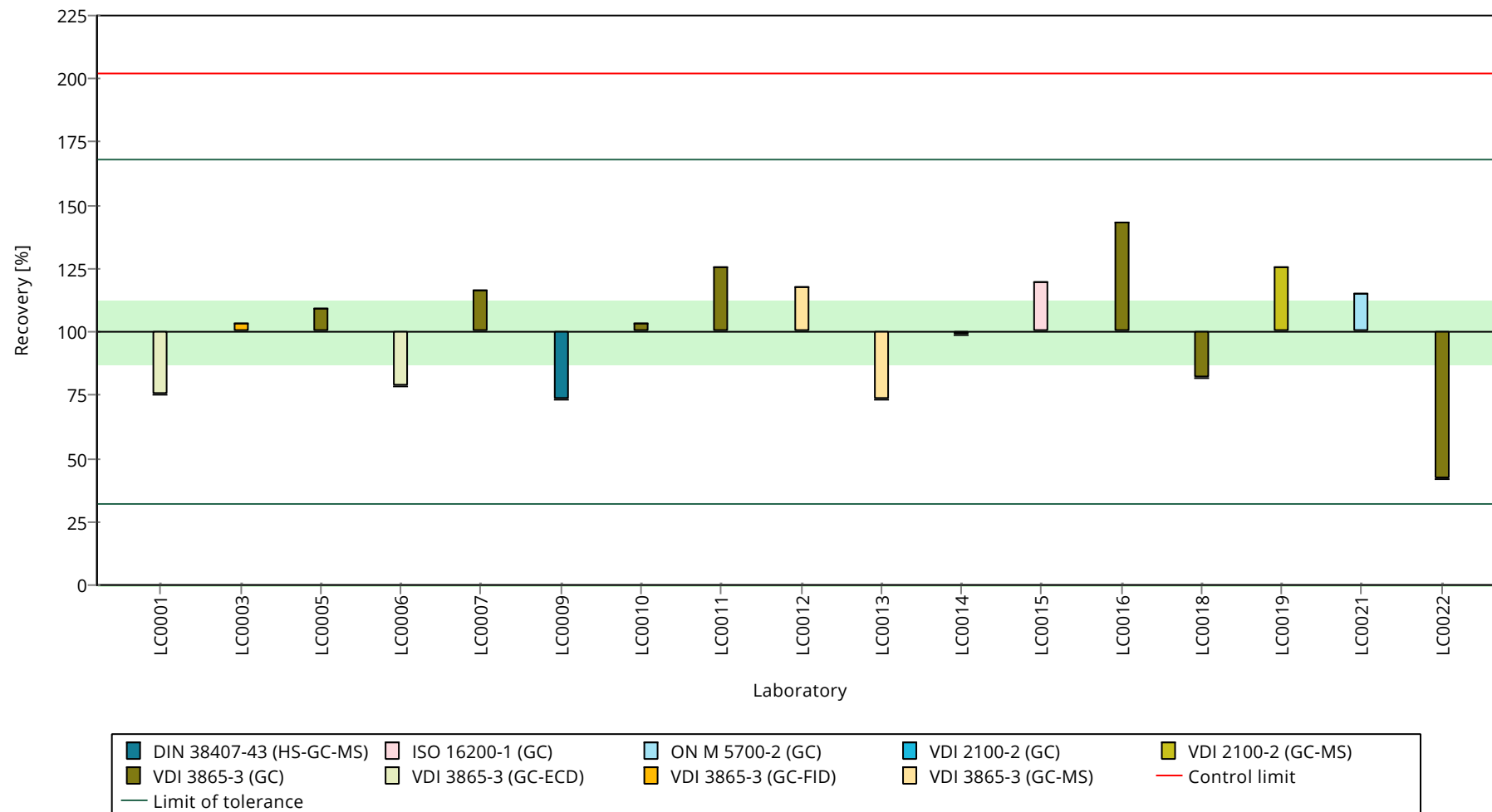
	all results	without outliers	Unit
Mean ± CI (99%)	2.43 ± 0.456	2.43 ± 0.456	µg/tube
Minimum	1.02	1.02	µg/tube
Maximum	3.47	3.47	µg/tube
Standard deviation	0.627	0.627	µg/tube
rel. standard deviation	25.8	25.8	%
n	17	17	-

Graphical presentation of results

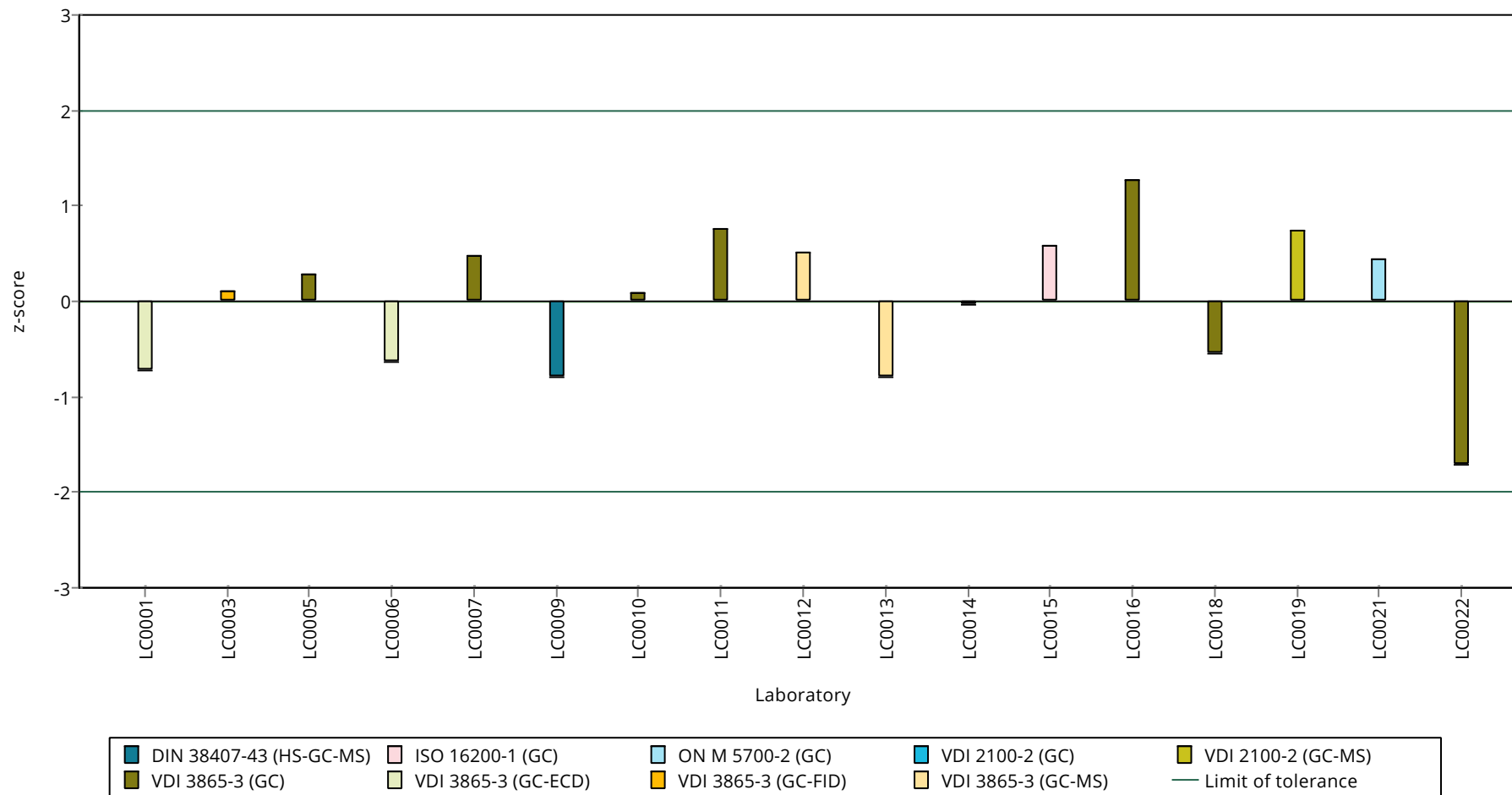
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### CL13 - CHC

#### Tetrachloroethene

Unit	µg/tube
Assigned value ± U (k=2)	2.15 ± 0.498
Criterion	1.03 (48 %)
Minimum - Maximum	0.717 - 4.1
Control test value ± U (k=2)	2.40 ± 0.838

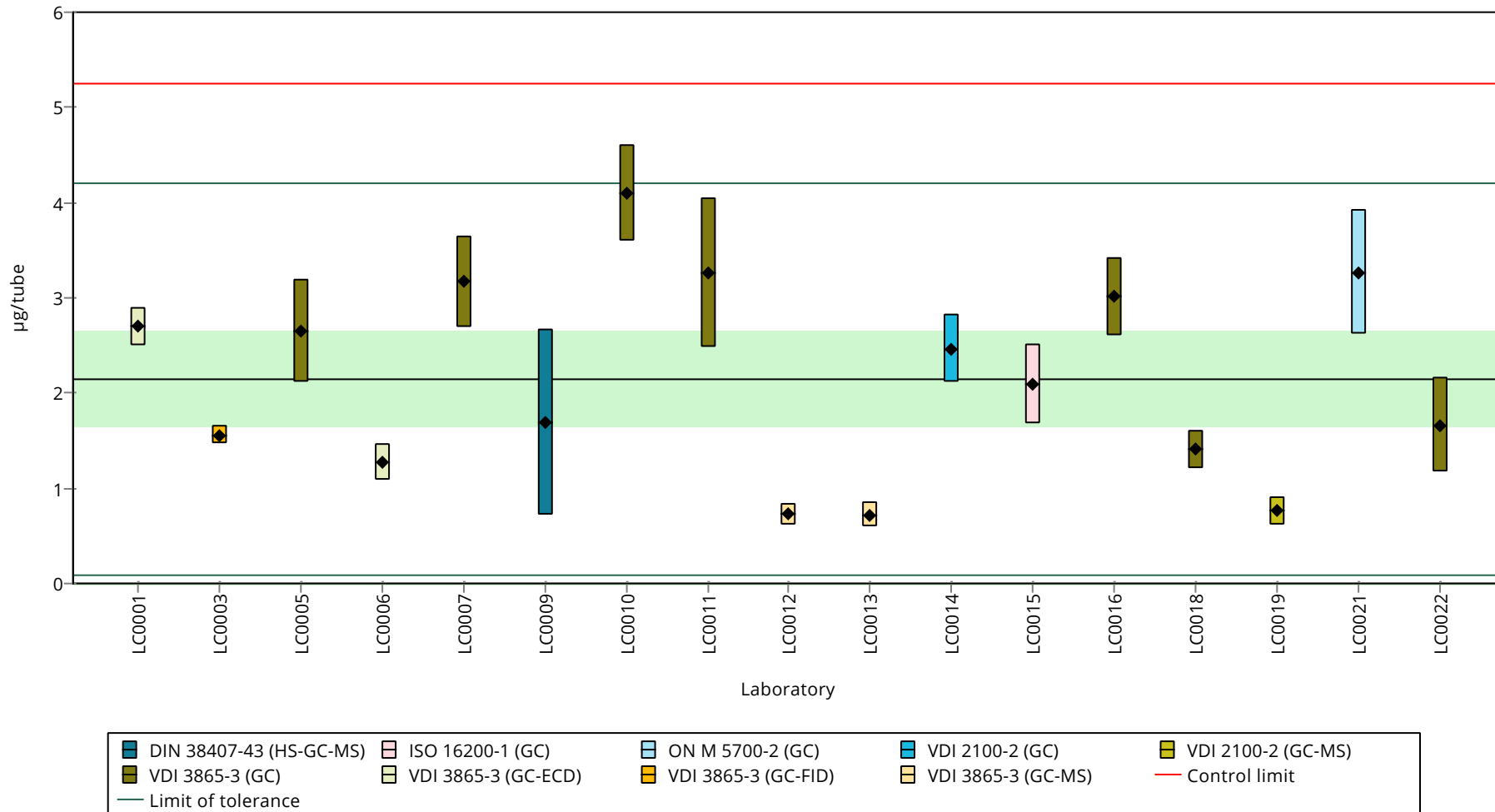
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0001	2.696 ± 0.202	125	0.53	
LC0003	1.56 ± 0.0936	72.6	-0.57	
LC0005	2.652 ± 0.54	123	0.49	
LC0006	1.278 ± 0.192	59.5	-0.84	
LC0007	3.17 ± 0.48	148	0.99	
LC0009	1.69 ± 0.97	78.7	-0.44	
LC0010	4.1 ± 0.51	191	1.89	
LC0011	3.26 ± 0.78	152	1.08	
LC0012	0.725 ± 0.109	33.7	-1.38	
LC0013	0.717 ± 0.129	33.4	-1.39	
LC0014	2.463 ± 0.36	115	0.31	
LC0015	2.1 ± 0.42	97.7	-0.05	
LC0016	3.012 ± 0.41	140	0.84	
LC0018	1.41 ± 0.2	65.6	-0.72	
LC0019	0.76 ± 0.15	35.4	-1.35	
LC0021	3.27 ± 0.65	152	1.09	
LC0022	1.66 ± 0.5	77.3	-0.47	

#### Characteristics of parameter

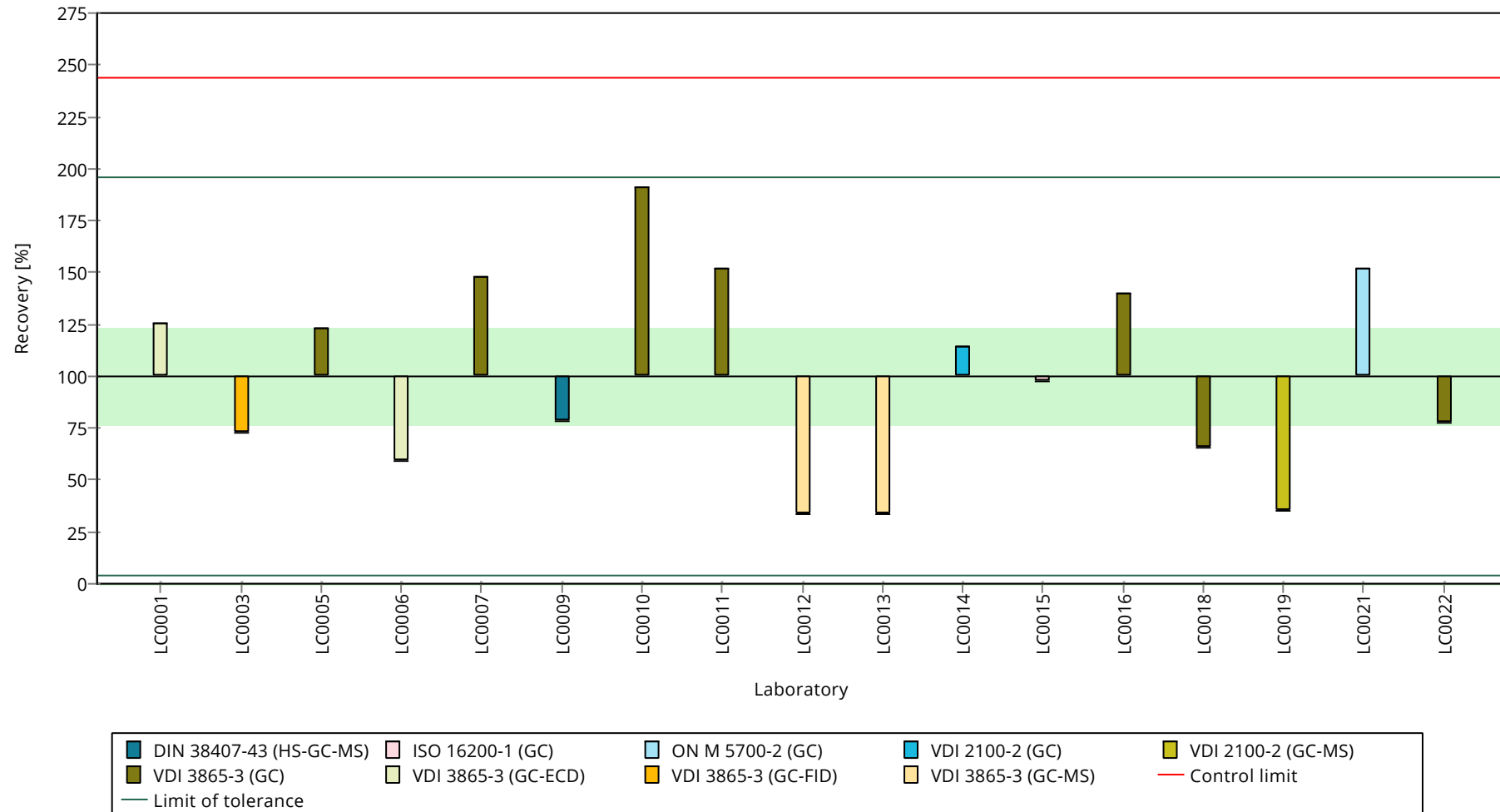
	all results	without outliers	Unit
Mean ± CI (99%)	2.15 ± 0.747	2.15 ± 0.747	µg/tube
Minimum	0.717	0.717	µg/tube
Maximum	4.1	4.1	µg/tube
Standard deviation	1.03	1.03	µg/tube
rel. standard deviation	47.8	47.8	%
n	17	17	-

Graphical presentation of results

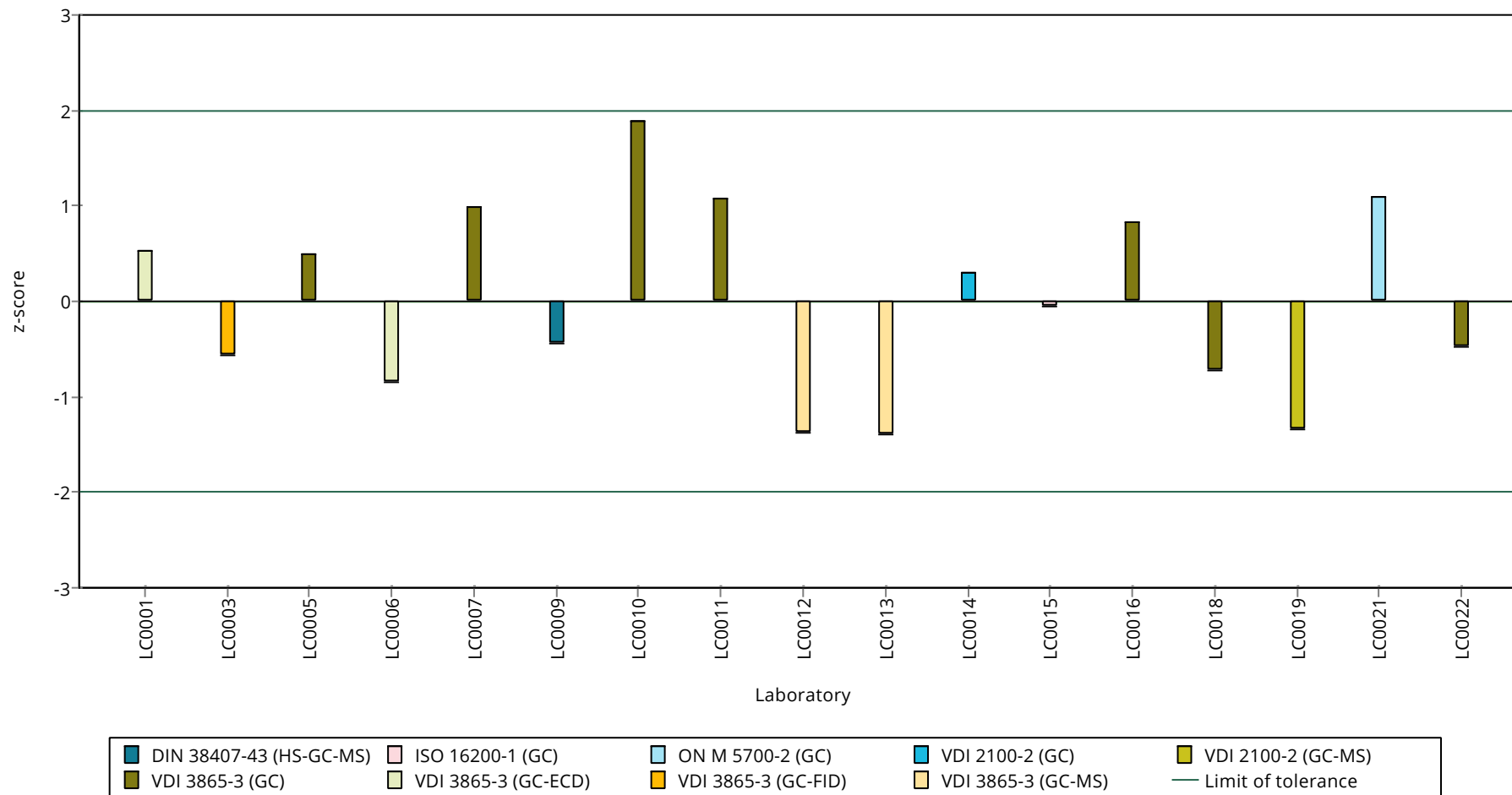
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### CL13 - CHC

#### Tetrachloromethane

Unit	µg/tube
Assigned value ± U (k=2)	4.48 ± 0.35
Criterion	0.94 (21 %)
Minimum - Maximum	3.23 - 5.93
Control test value ± U (k=2)	5.14 ± 1.8

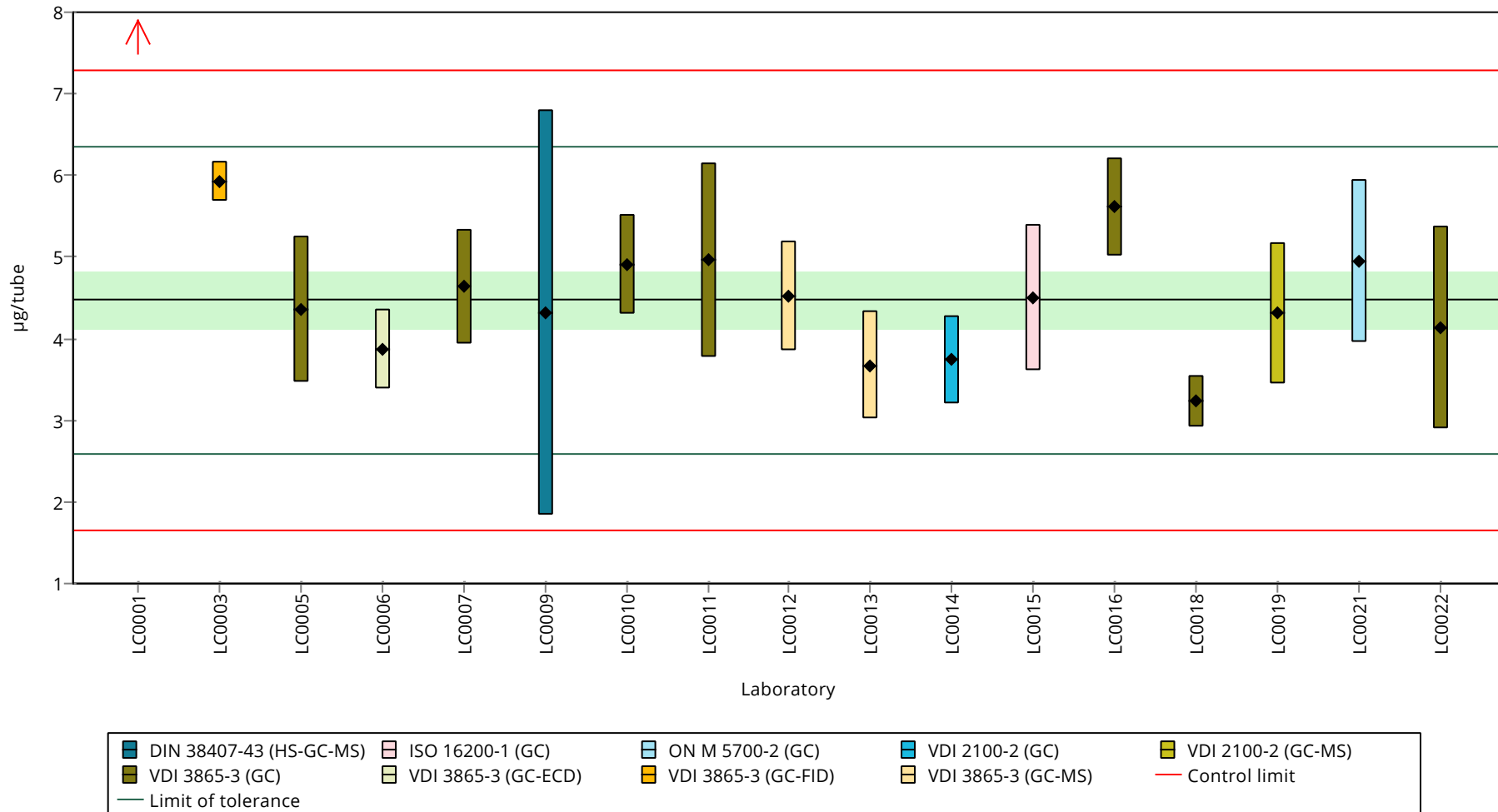
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0001	8.887 ± 0.666	198	4.69	H
LC0003	5.93 ± 0.243	132	1.55	
LC0005	4.36 ± 0.89	97.4	-0.12	
LC0006	3.868 ± 0.484	86.4	-0.65	
LC0007	4.64 ± 0.7	104	0.17	
LC0009	4.31 ± 2.48	96.3	-0.18	
LC0010	4.9 ± 0.61	109	0.45	
LC0011	4.96 ± 1.19	111	0.51	
LC0012	4.52 ± 0.68	101	0.05	
LC0013	3.67 ± 0.66	82	-0.86	
LC0014	3.737 ± 0.547	83.5	-0.79	
LC0015	4.5 ± 0.9	101	0.02	
LC0016	5.61 ± 0.6	125	1.2	
LC0018	3.23 ± 0.31	72.1	-1.33	
LC0019	4.31 ± 0.87	96.3	-0.18	
LC0021	4.95 ± 0.99	111	0.5	
LC0022	4.14 ± 1.24	92.5	-0.36	

#### Characteristics of parameter

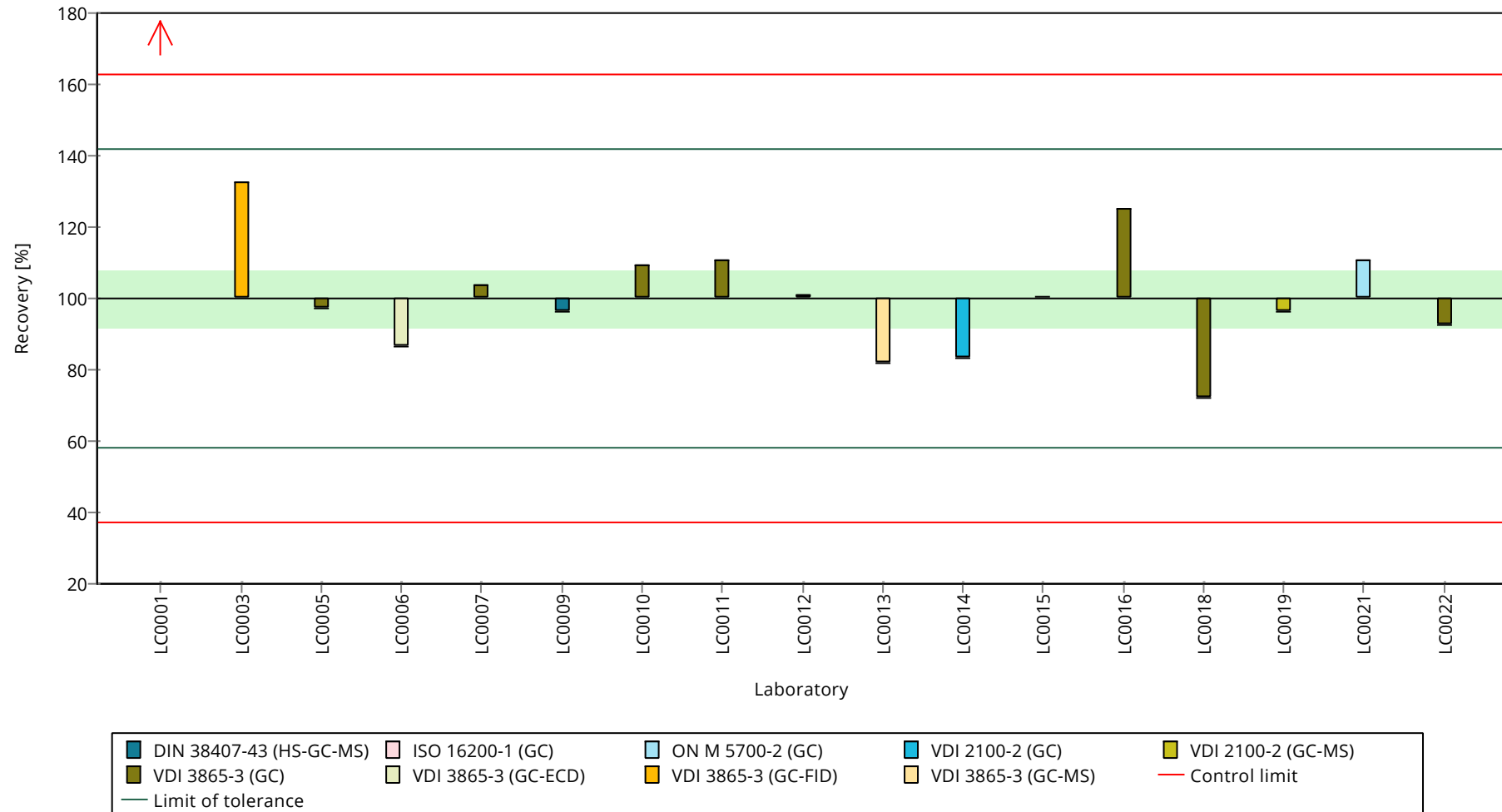
	all results	without outliers	Unit
Mean ± CI (99%)	4.74 ± 0.922	4.48 ± 0.526	µg/tube
Minimum	3.23	3.23	µg/tube
Maximum	8.89	5.93	µg/tube
Standard deviation	1.27	0.701	µg/tube
rel. standard deviation	26.7	15.7	%
n	17	16	-

Graphical presentation of results

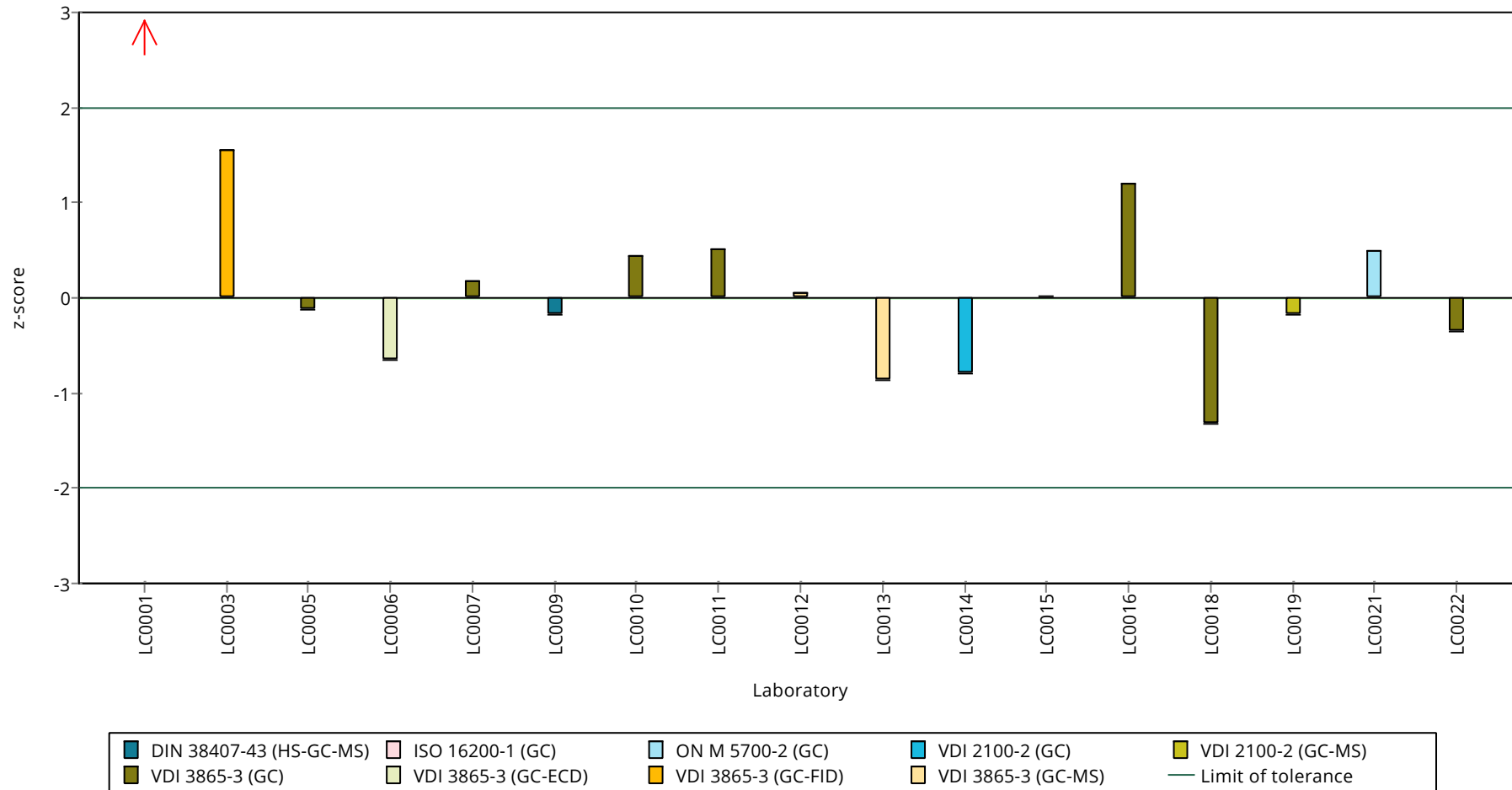
Results



**Recovery rate**



**z-Score**



Parameter oriented report CHC and BTEX & C5-C10 - Sample: CL13, Parameter: trans-1,2-Dichloroethene  
CBL12

## Parameter oriented report

### CL13 - CHC

#### trans-1,2-Dichloroethene

Unit	µg/tube
Assigned value ± U (k=2)	2.25 ± 0.535
Criterion	1.04 (46 %)
Minimum - Maximum	0.36 - 3.73
Control test value ± U (k=2)	3.77 ± 1.32

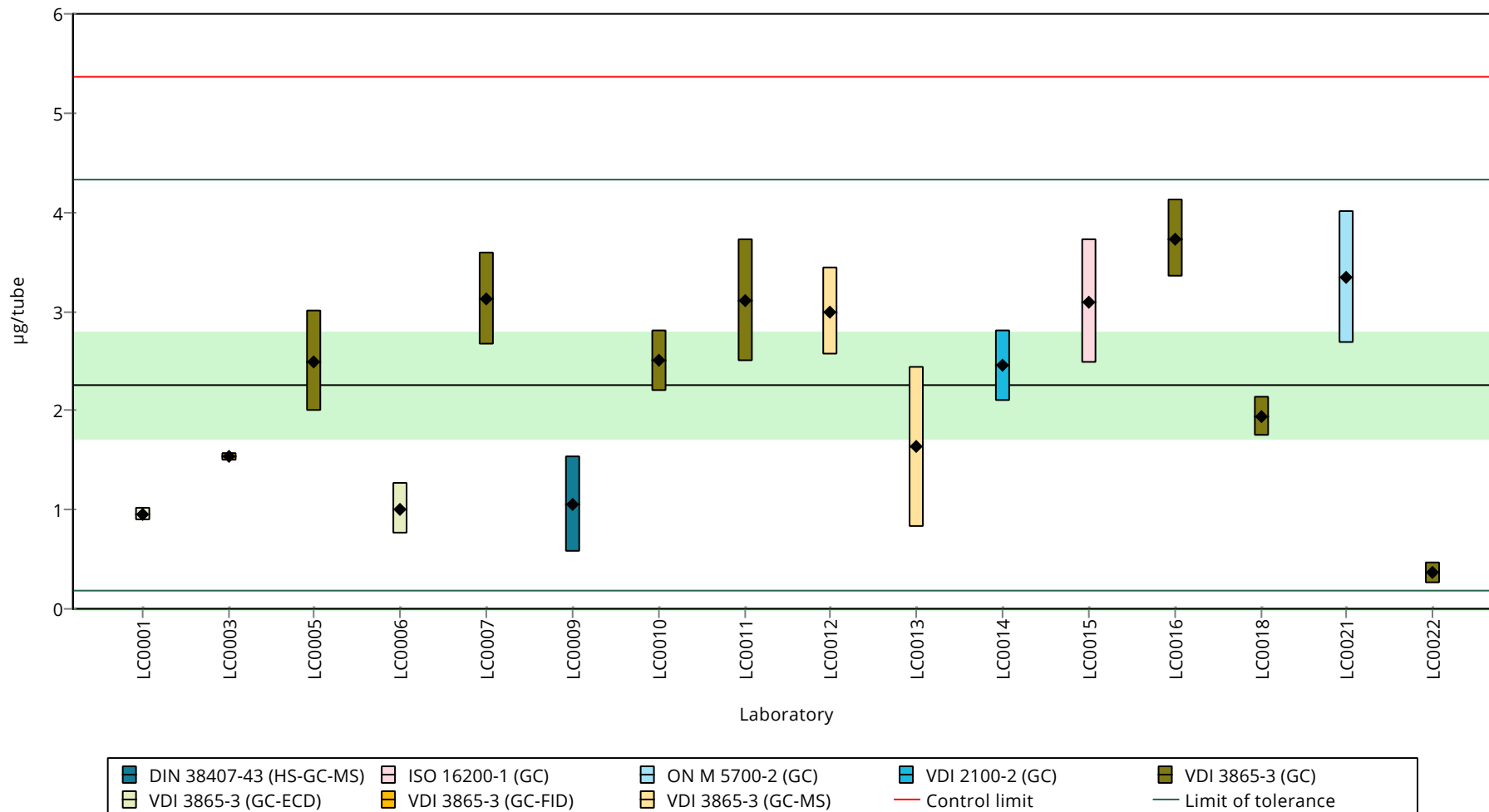
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0001	0.953 ± 0.0715	42.3	-1.25	
LC0003	1.53 ± 0.038	67.9	-0.7	
LC0005	2.497 ± 0.51	111	0.23	
LC0006	1.01 ± 0.252	44.8	-1.2	
LC0007	3.13 ± 0.47	139	0.85	
LC0009	1.055 ± 0.49	46.8	-1.16	
LC0010	2.5 ± 0.31	111	0.24	
LC0011	3.11 ± 0.62	138	0.83	
LC0012	3 ± 0.45	133	0.72	
LC0013	1.63 ± 0.81	72.3	-0.6	
LC0014	2.45 ± 0.358	109	0.19	
LC0015	3.1 ± 0.62	138	0.82	
LC0016	3.733 ± 0.39	166	1.43	
LC0018	1.94 ± 0.2	86.1	-0.3	
LC0019	- ± -	-	-	
LC0021	3.34 ± 0.67	148	1.05	
LC0022	0.36 ± 0.11	16	-1.83	

#### Characteristics of parameter

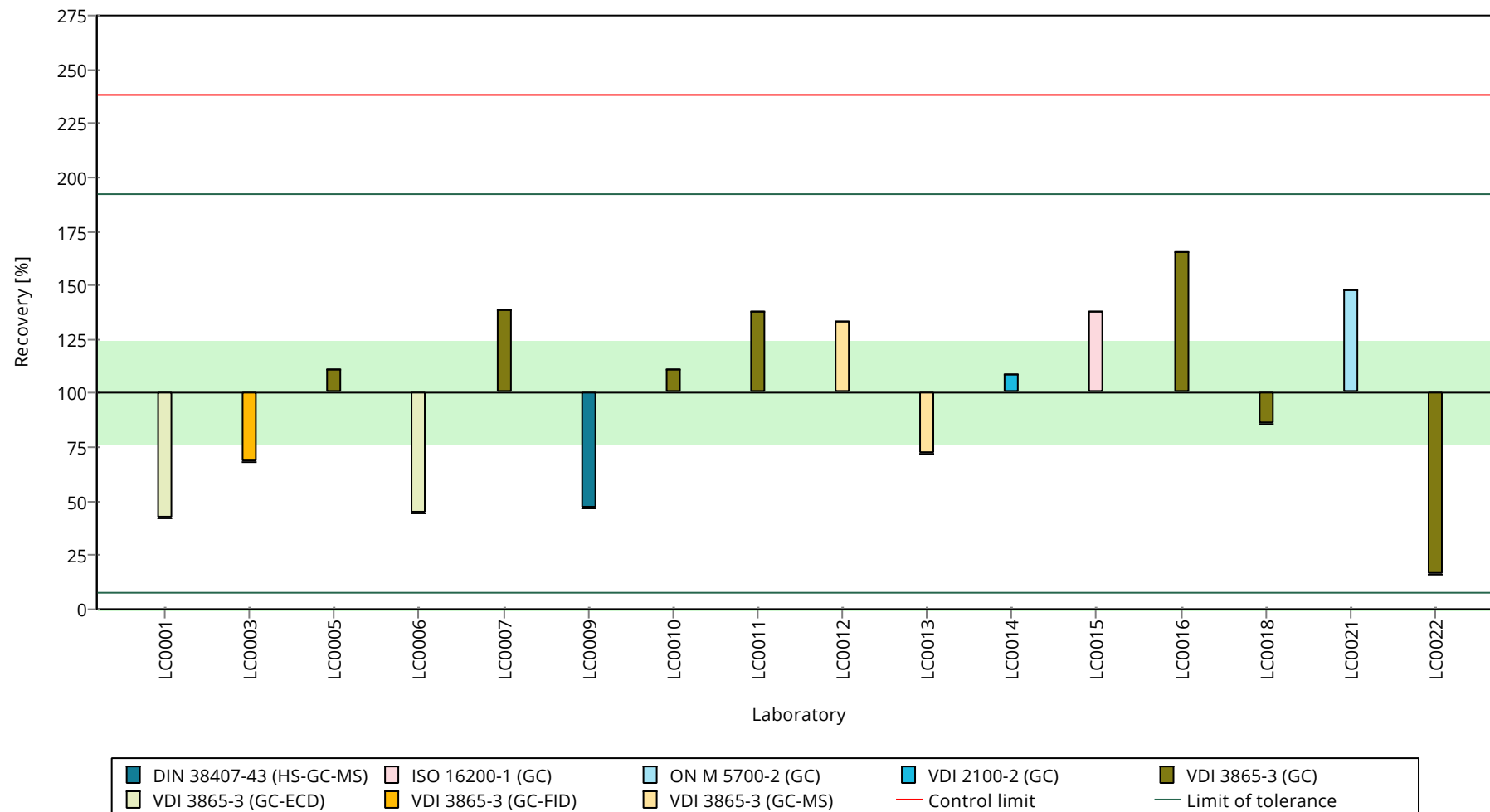
	all results	without outliers	Unit
Mean ± CI (99%)	2.21 ± 0.763	2.21 ± 0.763	µg/tube
Minimum	0.36	0.36	µg/tube
Maximum	3.73	3.73	µg/tube
Standard deviation	1.02	1.02	µg/tube
rel. standard deviation	46.1	46.1	%
n	16	16	-

Graphical presentation of results

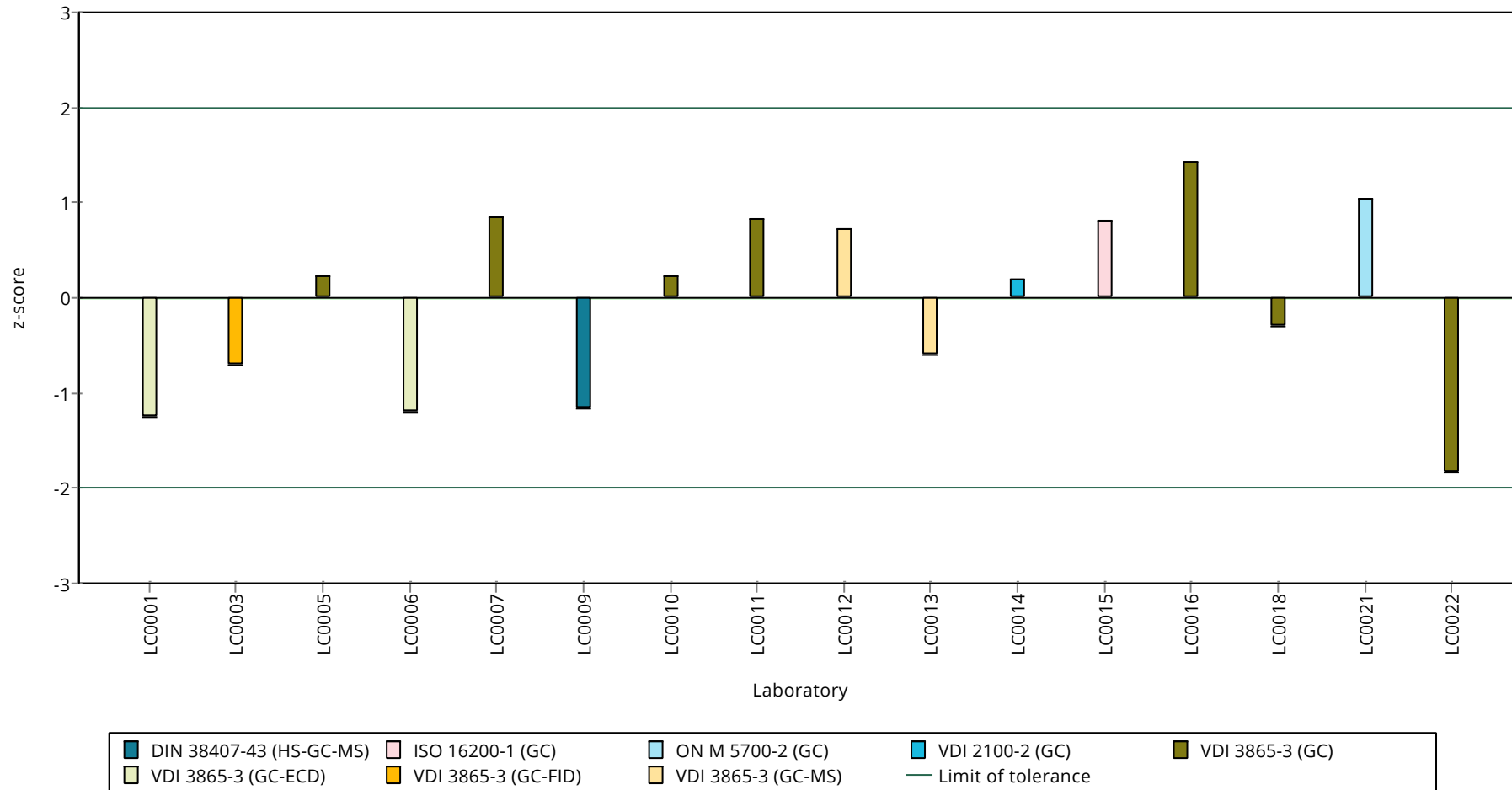
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### CL13 - CHC

#### Trichloroethene

Unit	µg/tube
Assigned value ± U (k=2)	3.02 ± 0.268
Criterion	0.755 (25 %)
Minimum - Maximum	2.17 - 4
Control test value ± U (k=2)	3.33 ± 1.16

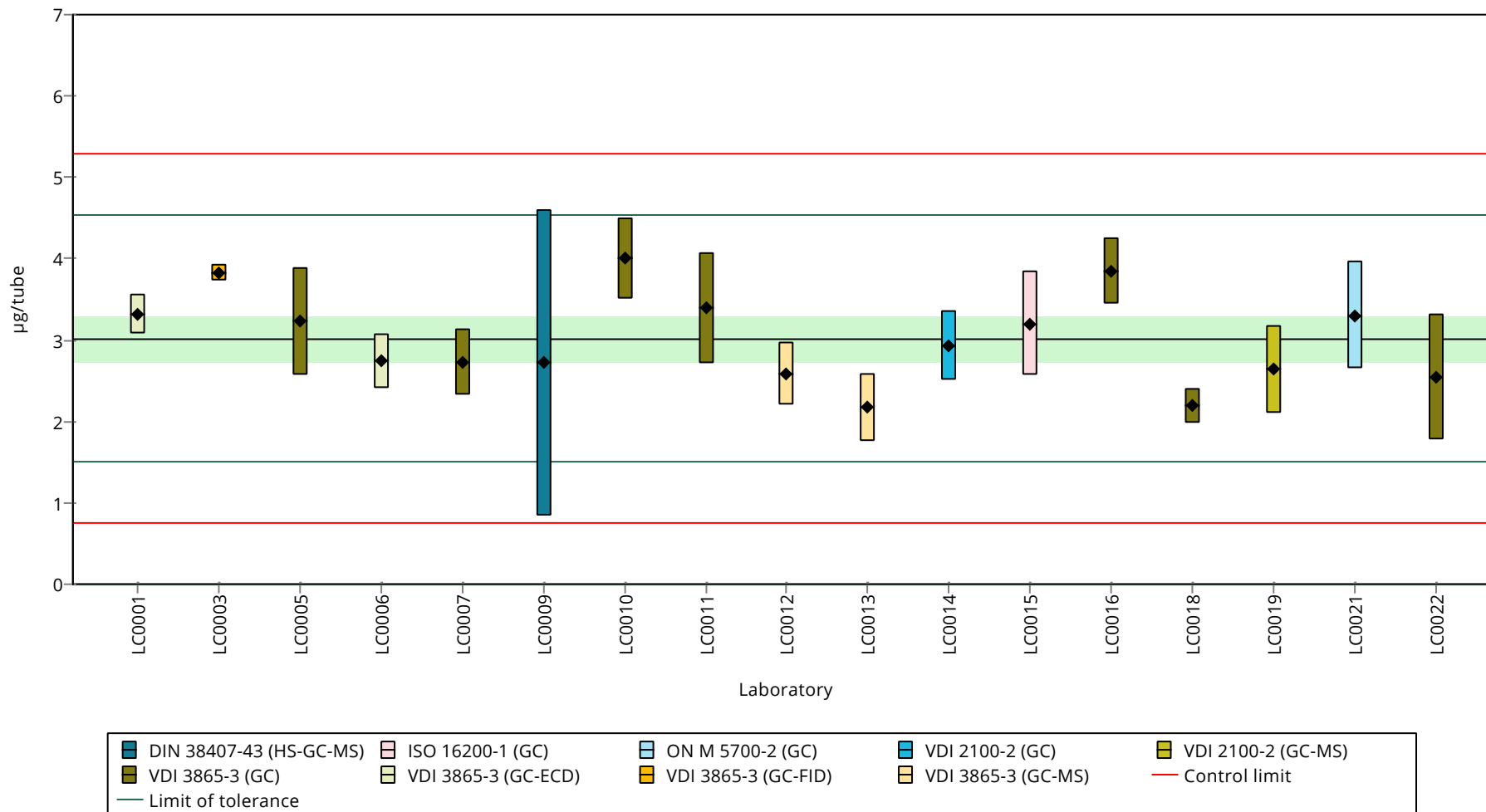
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0001	3.313 ± 0.248	110	0.39	
LC0003	3.82 ± 0.0993	126	1.06	
LC0005	3.226 ± 0.66	107	0.27	
LC0006	2.74 ± 0.342	90.7	-0.37	
LC0007	2.72 ± 0.41	90	-0.4	
LC0009	2.72 ± 1.88	90	-0.4	
LC0010	4 ± 0.5	132	1.3	
LC0011	3.39 ± 0.68	112	0.49	
LC0012	2.59 ± 0.39	85.7	-0.57	
LC0013	2.17 ± 0.42	71.8	-1.13	
LC0014	2.937 ± 0.43	97.2	-0.11	
LC0015	3.2 ± 0.64	106	0.24	
LC0016	3.845 ± 0.4	127	1.09	
LC0018	2.19 ± 0.21	72.5	-1.1	
LC0019	2.64 ± 0.54	87.4	-0.5	
LC0021	3.3 ± 0.66	109	0.37	
LC0022	2.55 ± 0.77	84.4	-0.62	

#### Characteristics of parameter

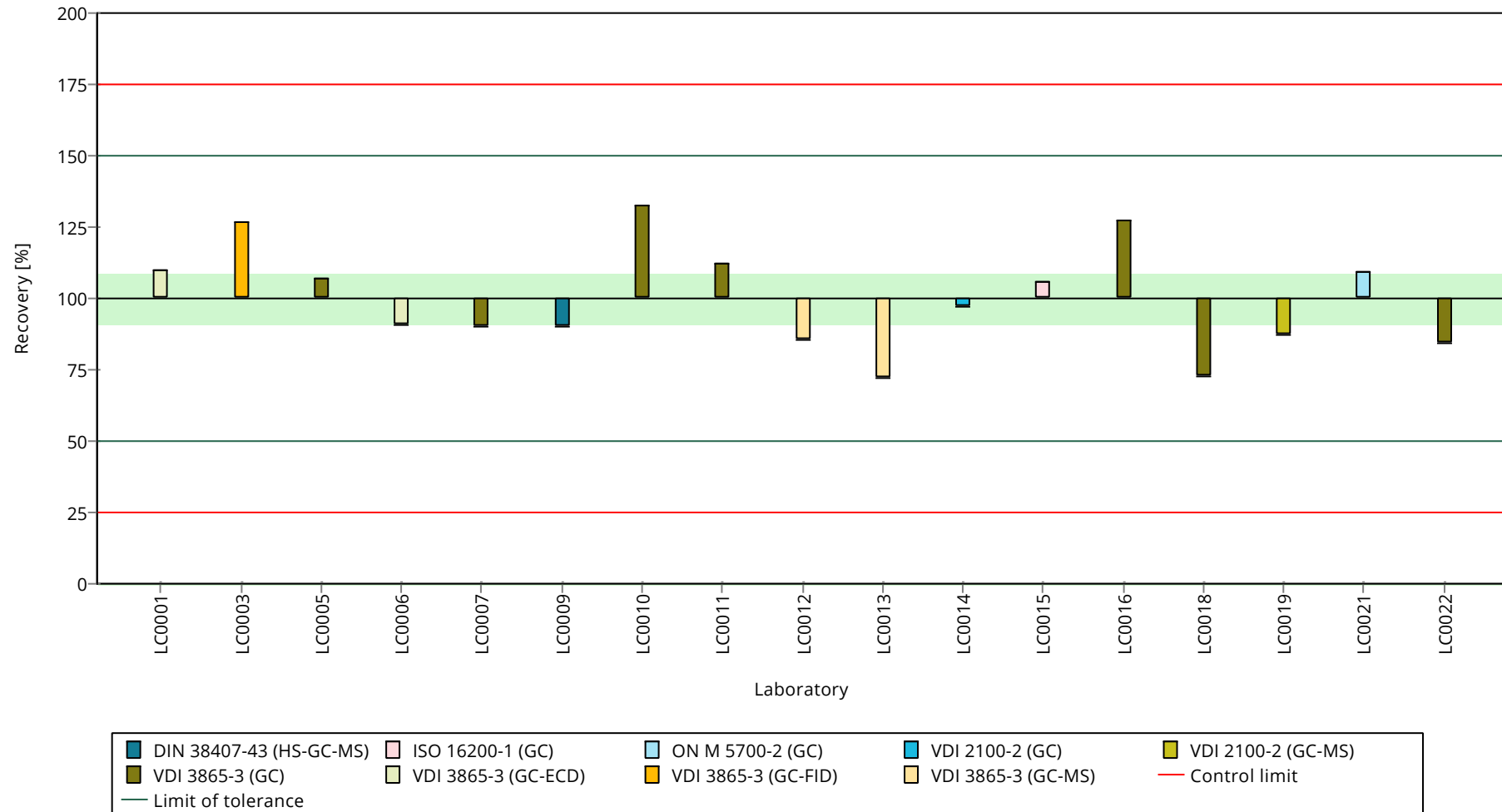
	all results	without outliers	Unit
Mean ± CI (99%)	3.02 ± 0.402	3.02 ± 0.402	µg/tube
Minimum	2.17	2.17	µg/tube
Maximum	4	4	µg/tube
Standard deviation	0.552	0.552	µg/tube
rel. standard deviation	18.3	18.3	%
n	17	17	-

Graphical presentation of results

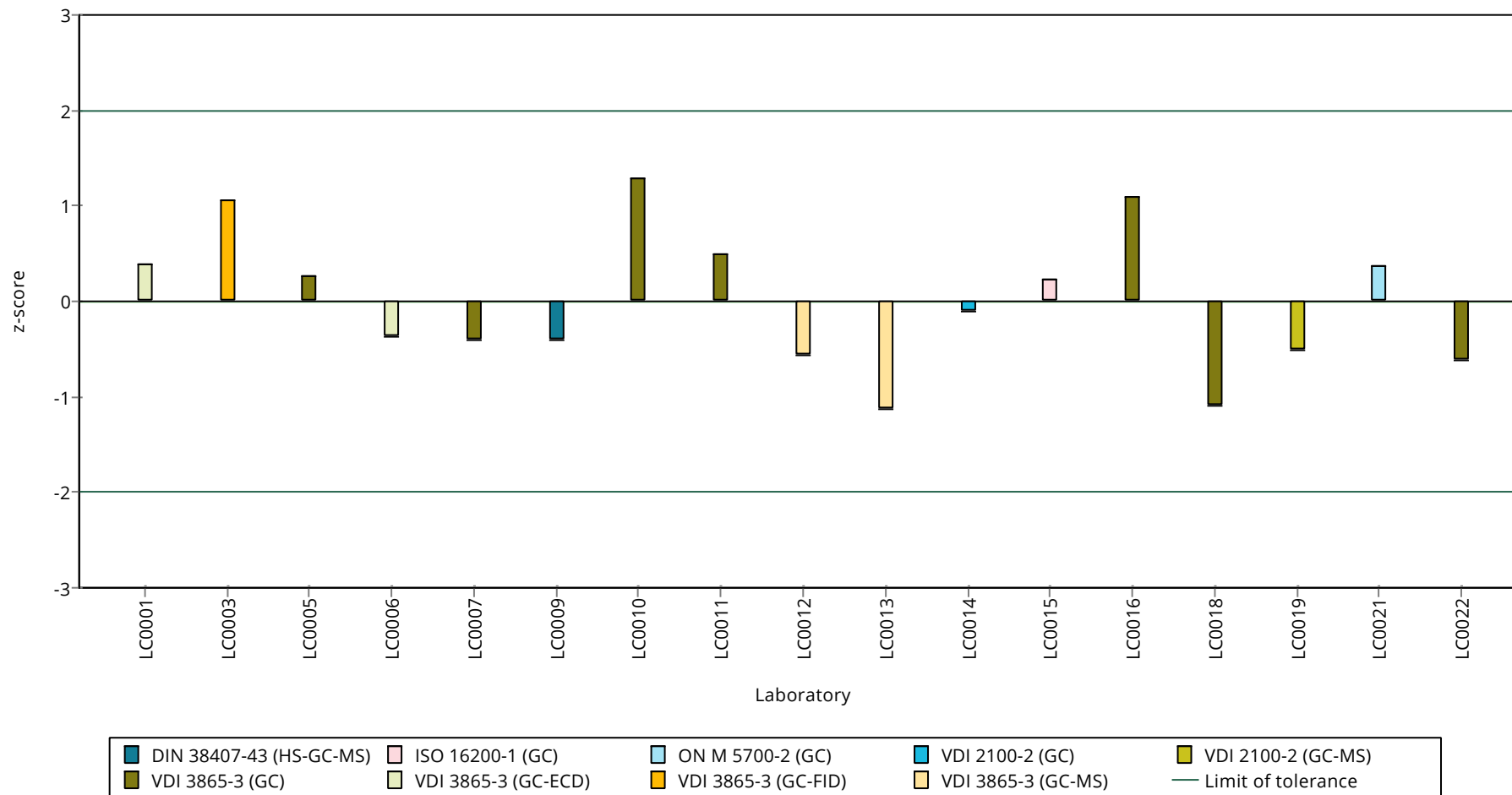
Results



**Recovery rate**



**z-Score**



## Parameter oriented report

### CL13 - CHC

#### Trichloromethane

Unit	µg/tube
Assigned value ± U (k=2)	3.32 ± 0.233
Criterion	0.464 (14 %)
Minimum - Maximum	2.36 - 4.09
Control test value ± U (k=2)	3.87 ± 1.36

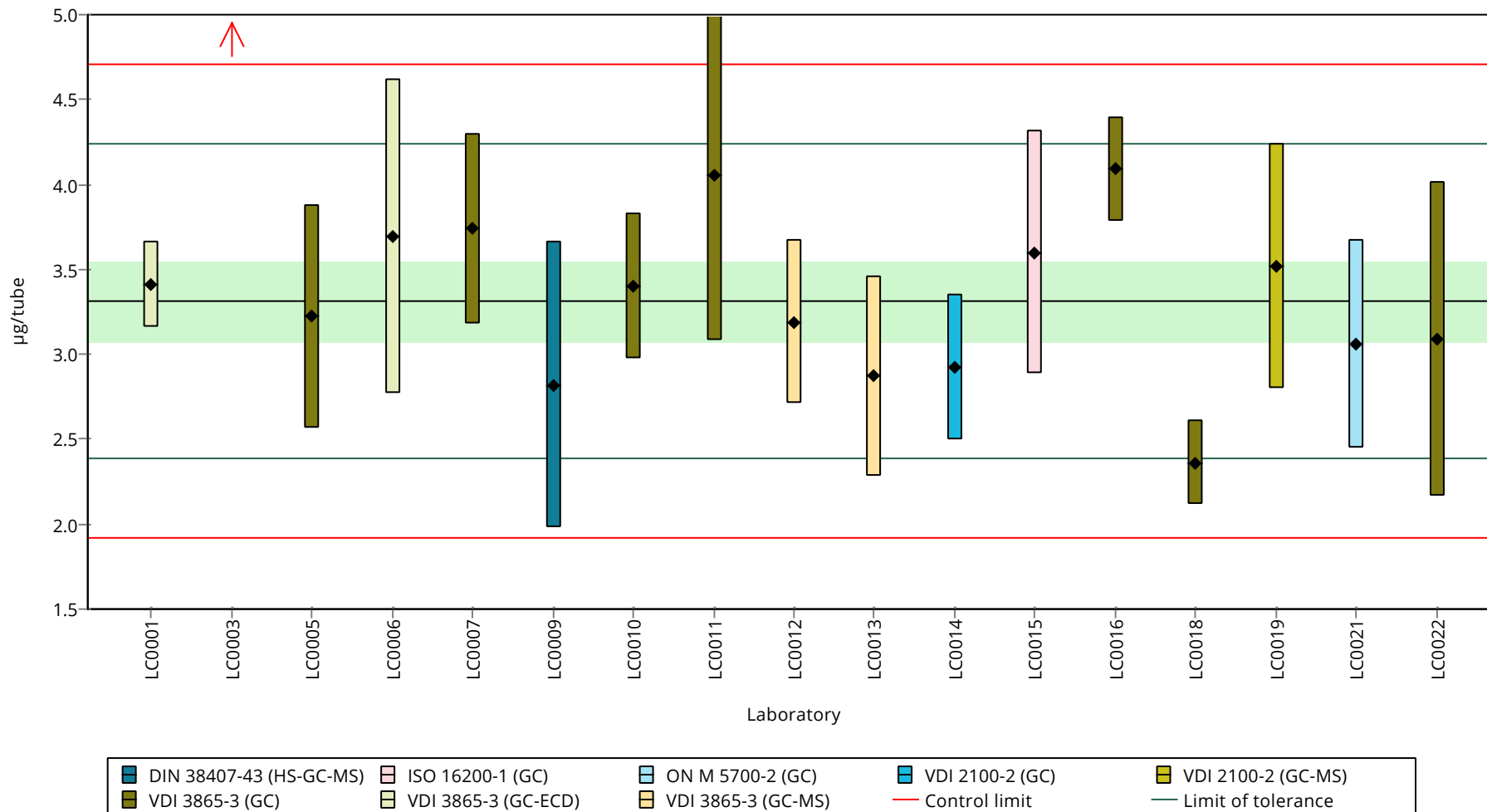
Labcode	Result ± U	Recovery [%]	z-Score	Comments
LC0001	3.411 ± 0.256	103	0.21	
LC0003	6.67 ± 0.227	201	7.23	H
LC0005	3.222 ± 0.66	97.2	-0.2	
LC0006	3.693 ± 0.923	111	0.81	
LC0007	3.74 ± 0.56	113	0.92	
LC0009	2.82 ± 0.84	85.1	-1.07	
LC0010	3.4 ± 0.43	103	0.18	
LC0011	4.05 ± 0.97	122	1.58	
LC0012	3.19 ± 0.48	96.2	-0.27	
LC0013	2.87 ± 0.59	86.6	-0.96	
LC0014	2.927 ± 0.428	88.3	-0.84	
LC0015	3.6 ± 0.72	109	0.61	
LC0016	4.09 ± 0.31	123	1.67	
LC0018	2.36 ± 0.25	71.2	-2.06	
LC0019	3.52 ± 0.72	106	0.44	
LC0021	3.06 ± 0.61	92.3	-0.55	
LC0022	3.09 ± 0.93	93.2	-0.49	

#### Characteristics of parameter

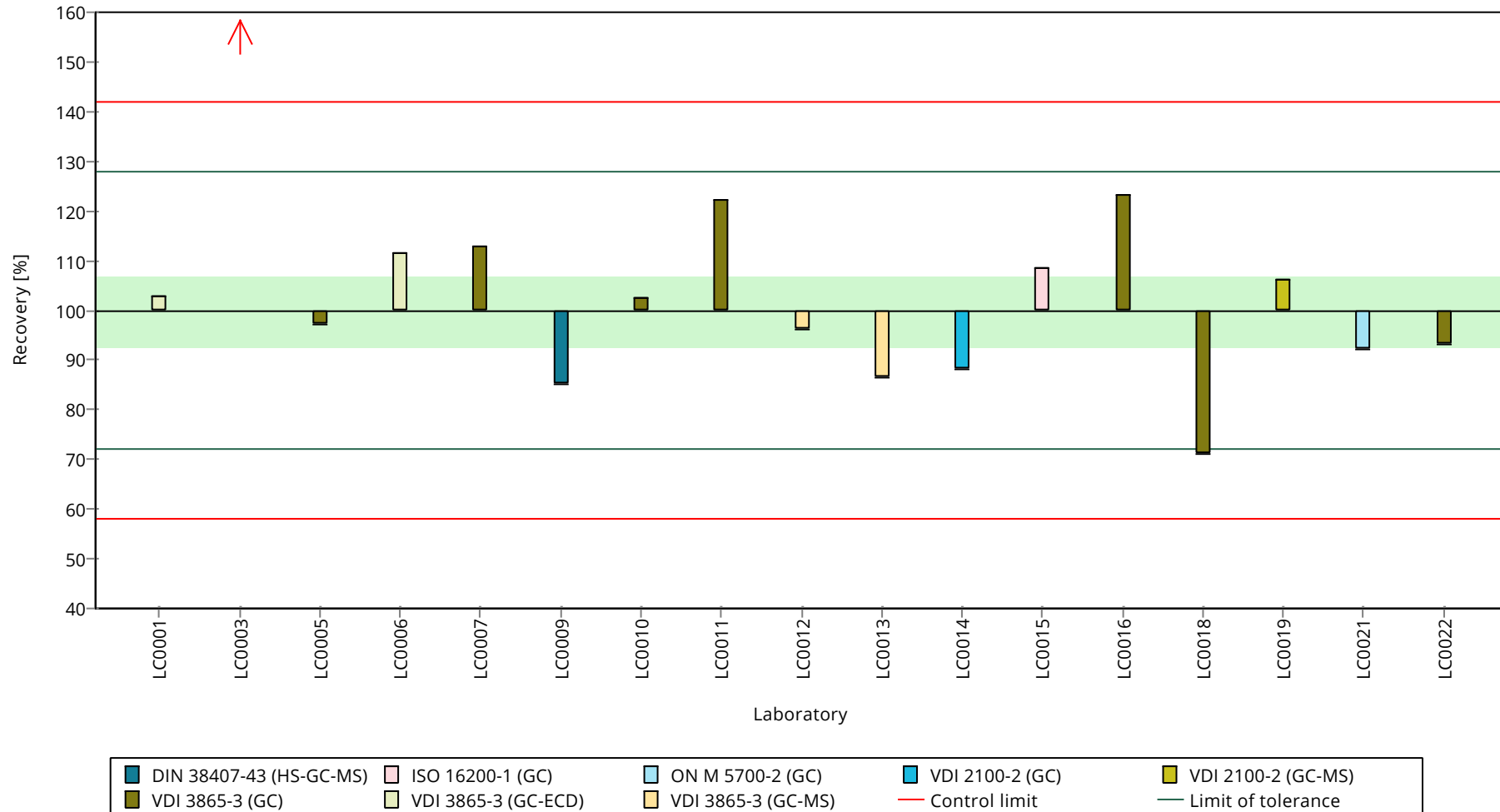
	all results	without outliers	Unit
Mean ± CI (99%)	3.51 ± 0.677	3.32 ± 0.349	µg/tube
Minimum	2.36	2.36	µg/tube
Maximum	6.67	4.09	µg/tube
Standard deviation	0.93	0.465	µg/tube
rel. standard deviation	26.5	14	%
n	17	16	-

Graphical presentation of results

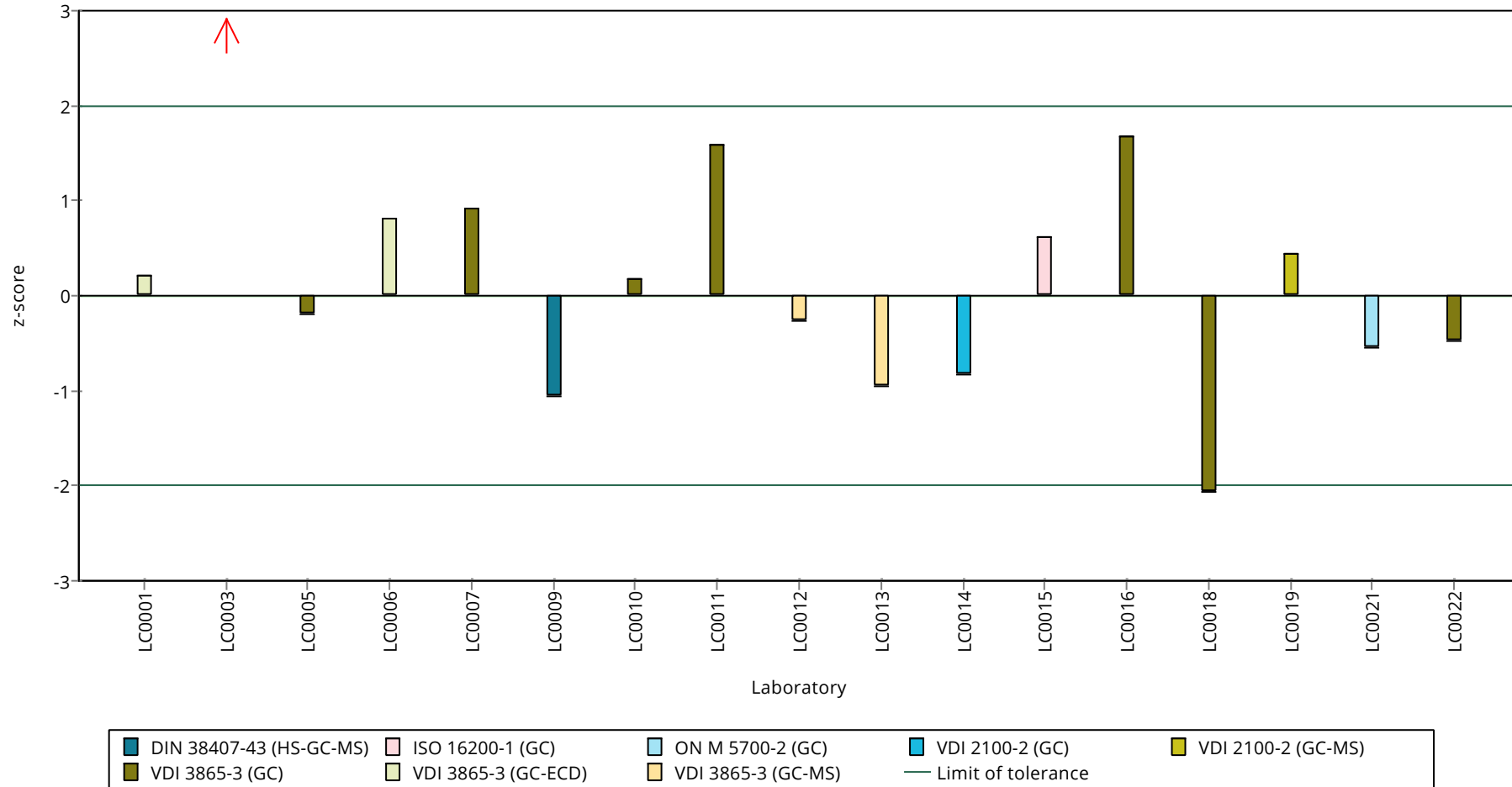
Results



**Recovery rate**



**z-Score**



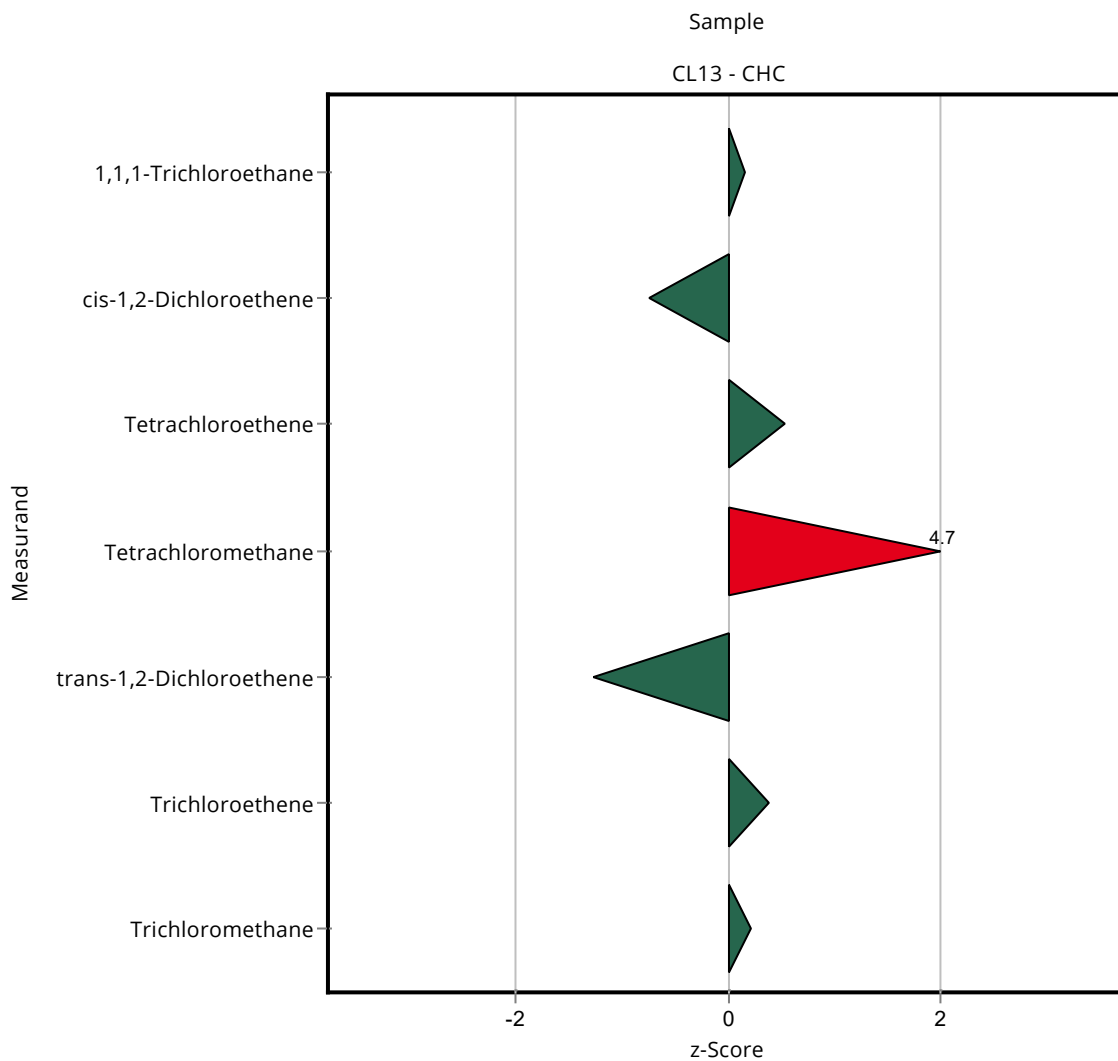
## **E8. Labororientierte Auswertung / Laboratory oriented report**

Die Labororientierte Auswertung ist nach dem Laborcode sortiert.

The laboratory oriented report is sorted by laboratory code.

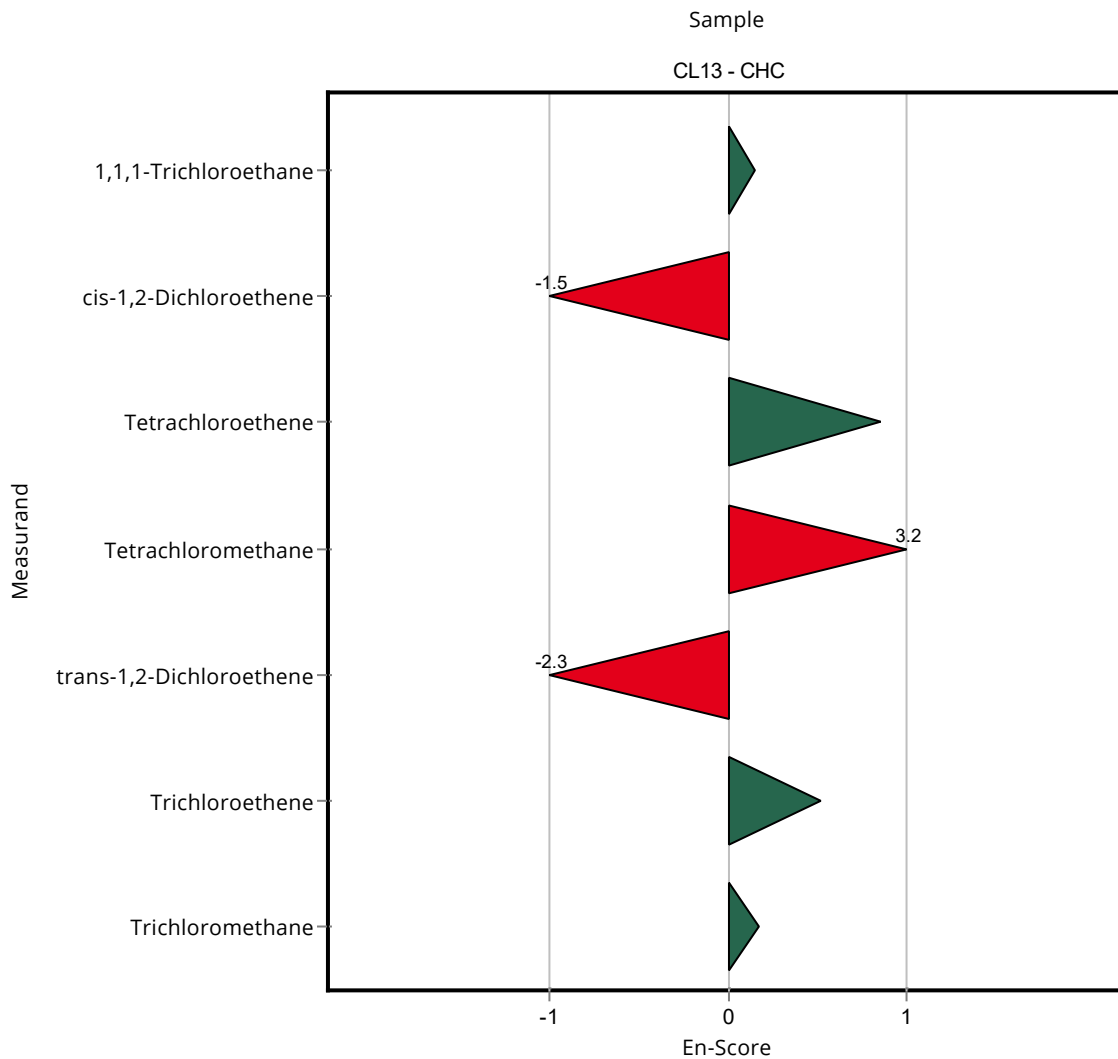
Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.719 $\pm$ 0.279	0.579	103	0.17
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.824 $\pm$ 0.137	0.825	75.2	-0.73
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	2.696 $\pm$ 0.202	1.03	125	0.53
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	8.887 $\pm$ 0.666	0.94	198	4.69
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	0.953 $\pm$ 0.0715	1.04	42.3	-1.25
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.313 $\pm$ 0.248	0.755	110	0.39
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.411 $\pm$ 0.256	0.464	103	0.21



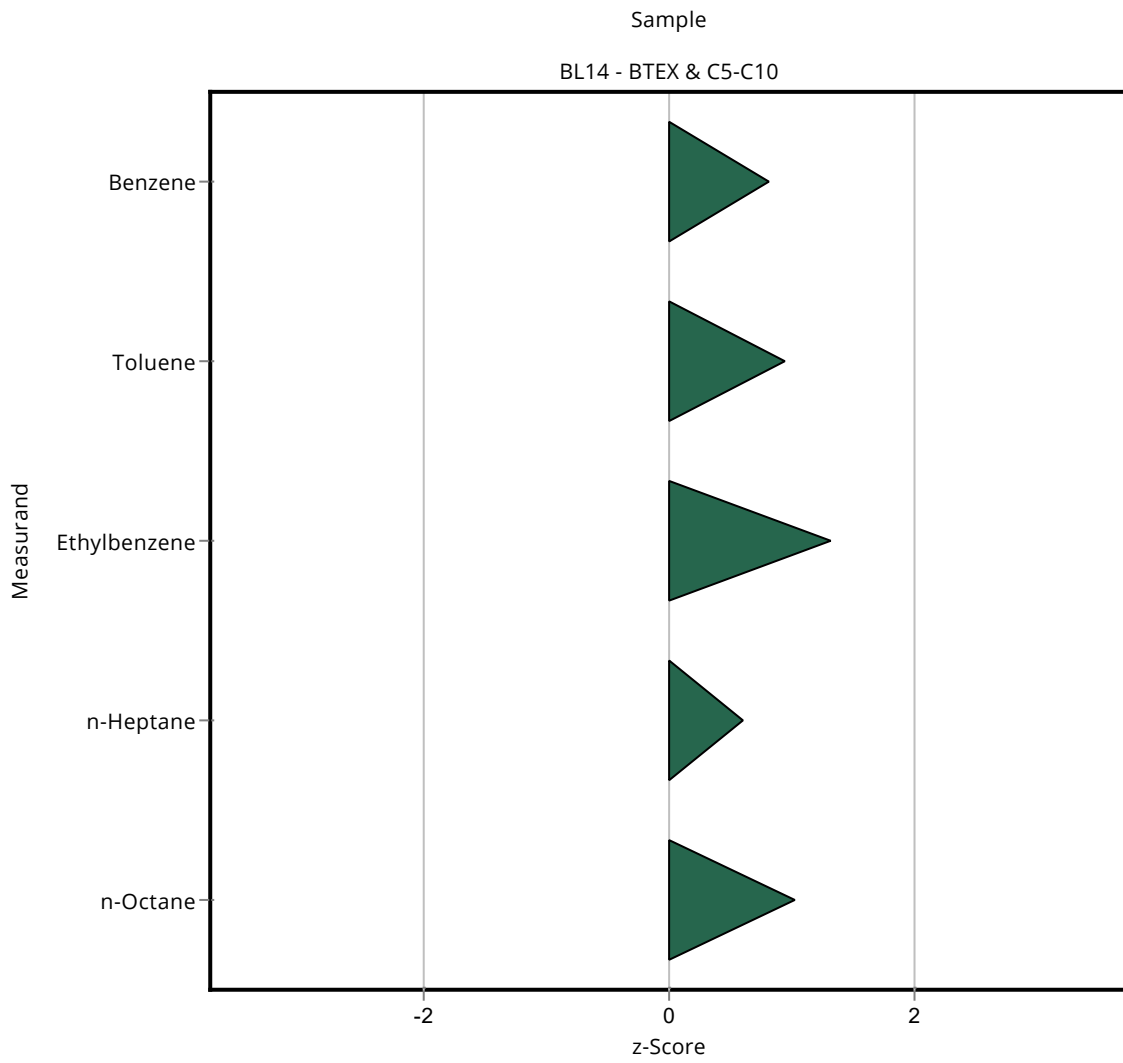
Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.719 $\pm$ 0.279	0.579	103	0.15
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.824 $\pm$ 0.137	0.825	75.2	-1.47
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	2.696 $\pm$ 0.202	1.03	125	0.85
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	8.887 $\pm$ 0.666	0.94	198	3.20
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	0.953 $\pm$ 0.0715	1.04	42.3	-2.35
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.313 $\pm$ 0.248	0.755	110	0.52
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.411 $\pm$ 0.256	0.464	103	0.17



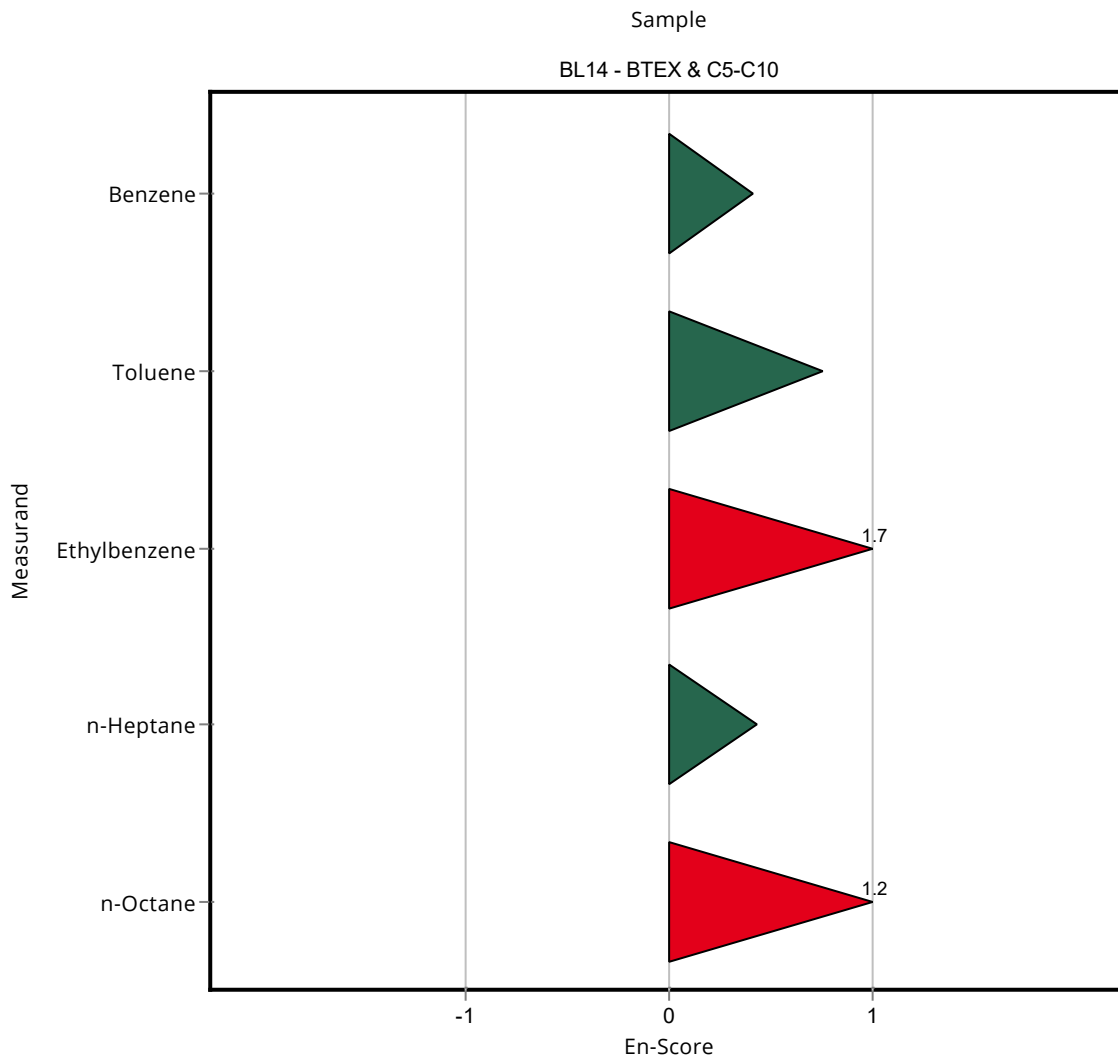
Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.75 $\pm$ 0.336	0.345	111	0.82
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2.16 $\pm$ 0.326	0.555	132	0.95
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	1.07 $\pm$ 0.095	0.298	158	1.32
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.66 $\pm$ 0.081	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.66 $\pm$ 0.194	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3.33 $\pm$ 0.499	0.773	116	0.60
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	2.12 $\pm$ 0.215	0.654	146	1.02
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.43 $\pm$ 0.04	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.1 (LOQ) $\pm$ -	-	-	-



Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.75 $\pm$ 0.336	0.345	111	0.41
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2.16 $\pm$ 0.326	0.555	132	0.76
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	1.07 $\pm$ 0.095	0.298	158	1.68
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.66 $\pm$ 0.081	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.66 $\pm$ 0.194	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3.33 $\pm$ 0.499	0.773	116	0.43
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	2.12 $\pm$ 0.215	0.654	146	1.19
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.43 $\pm$ 0.04	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.1 (LOQ) $\pm$ -	-	-	-

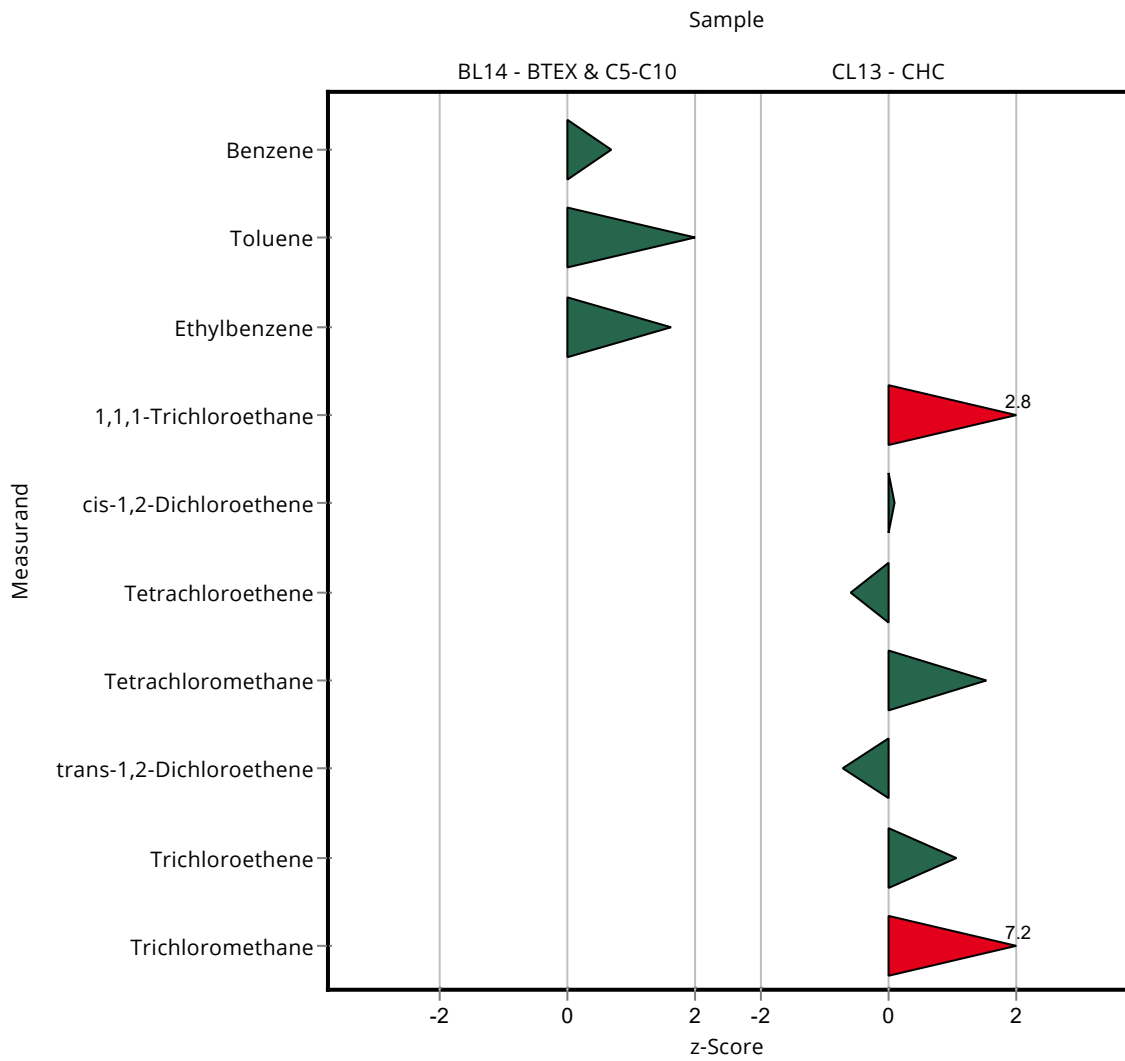


Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.7 $\pm$ 0.0513	0.345	109	0.68
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2.74 $\pm$ 0.162	0.555	168	2.00
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	1.16 $\pm$ 0.064	0.298	171	1.62
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.701 $\pm$ 0.039	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.52 $\pm$ 0.0836	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	5.25 $\pm$ 0.179	0.579	145	2.81
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.51 $\pm$ 0.0627	0.825	103	0.10
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.56 $\pm$ 0.0936	1.03	72.6	-0.57
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	5.93 $\pm$ 0.243	0.94	132	1.55
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.53 $\pm$ 0.038	1.04	67.9	-0.70
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.82 $\pm$ 0.0993	0.755	126	1.06
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	6.67 $\pm$ 0.227	0.464	201	7.23

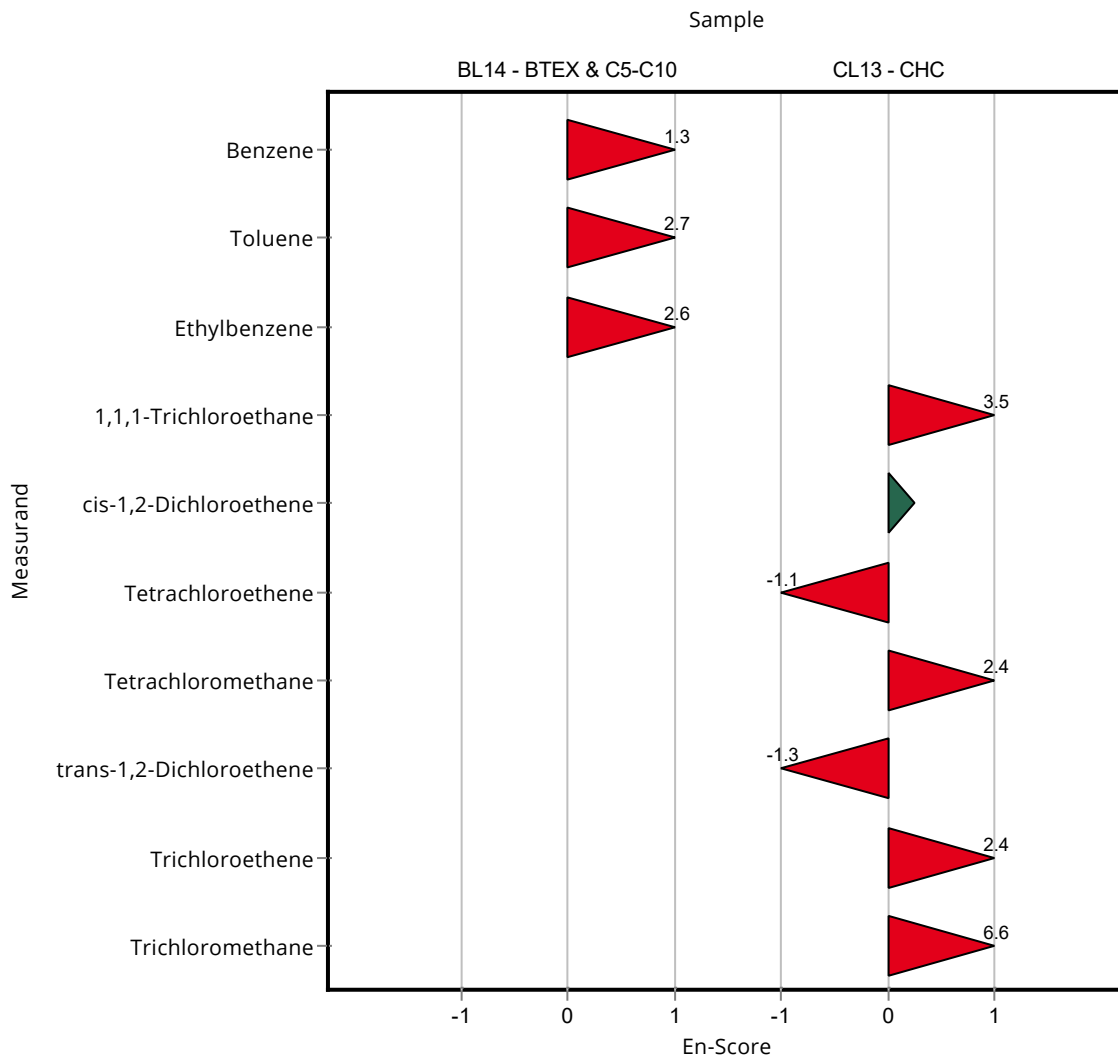


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.7 $\pm$ 0.0513	0.345	109	1.28
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2.74 $\pm$ 0.162	0.555	168	2.71
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	1.16 $\pm$ 0.064	0.298	171	2.58
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.701 $\pm$ 0.039	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.52 $\pm$ 0.0836	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

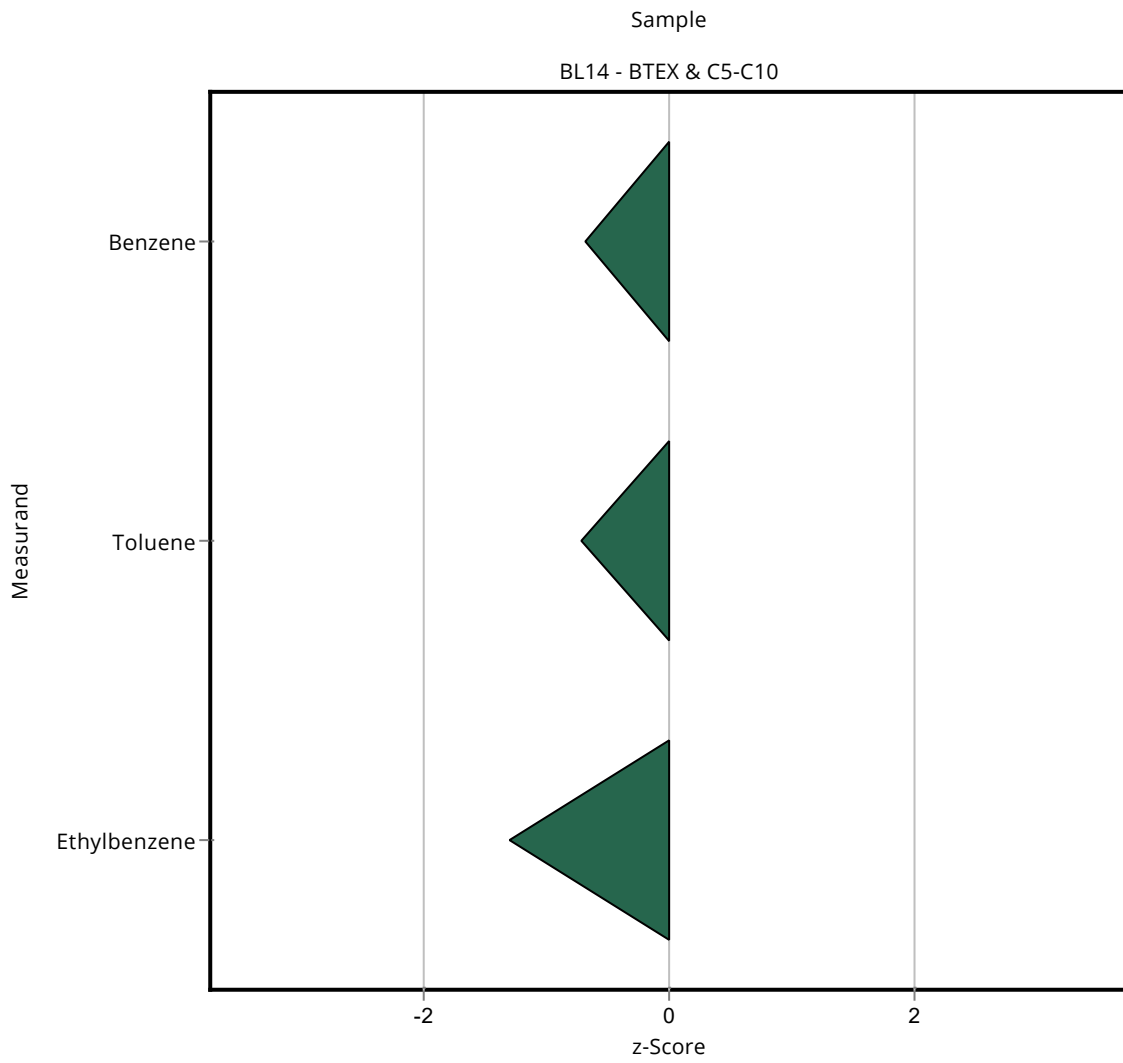
## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	5.25 $\pm$ 0.179	0.579	145	3.48
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.51 $\pm$ 0.0627	0.825	103	0.25
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.56 $\pm$ 0.0936	1.03	72.6	-1.11
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	5.93 $\pm$ 0.243	0.94	132	2.42
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.53 $\pm$ 0.038	1.04	67.9	-1.34
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.82 $\pm$ 0.0993	0.755	126	2.40
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	6.67 $\pm$ 0.227	0.464	201	6.58



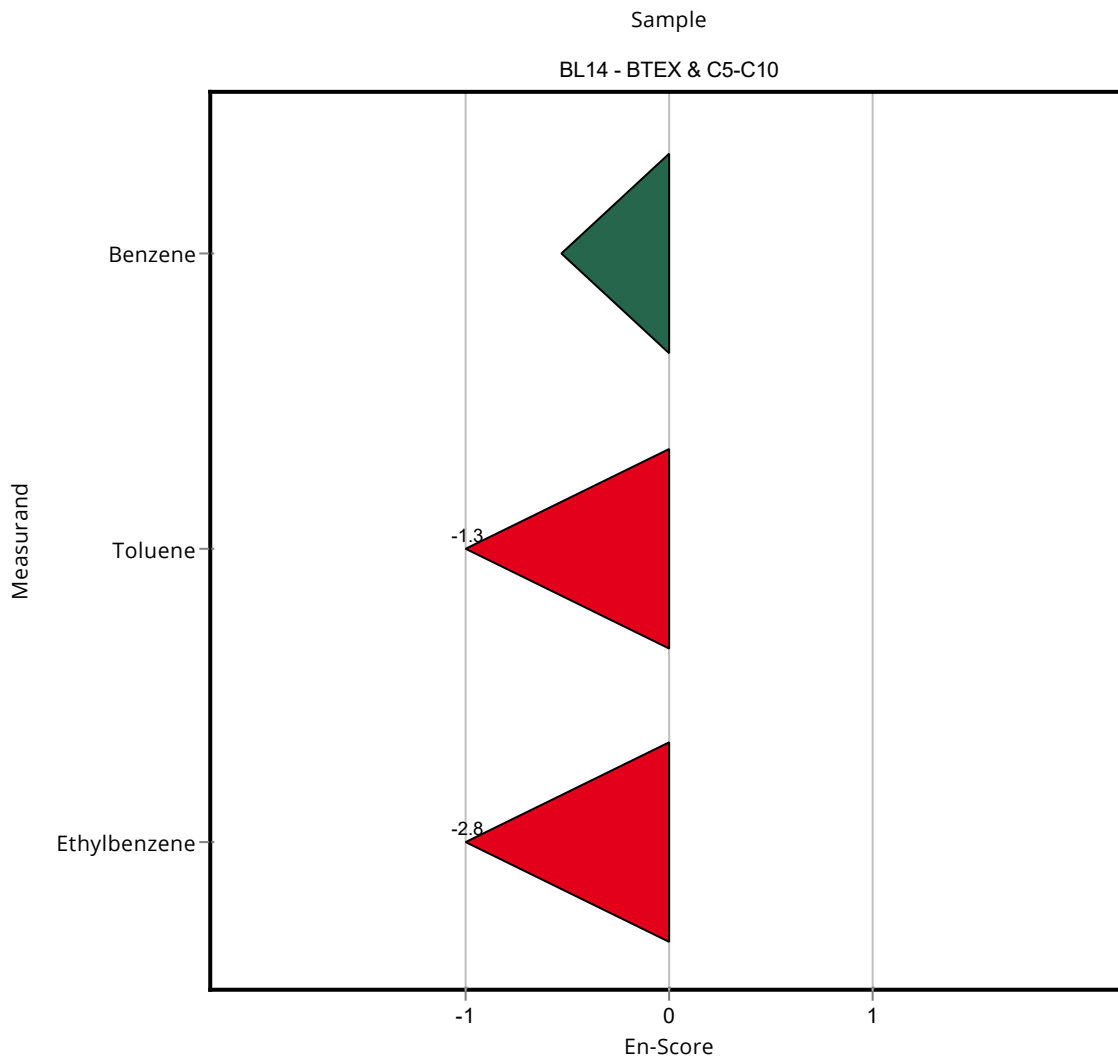
Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.23 $\pm$ 0.211	0.345	90.4	-0.68
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.23 $\pm$ 0.084	0.555	75.4	-0.72
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.29 $\pm$ 0.009	0.298	42.9	-1.30
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.149 $\pm$ 0.007	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.191 $\pm$ 0.006	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-



Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.23 $\pm$ 0.211	0.345	90.4	-0.53
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.23 $\pm$ 0.084	0.555	75.4	-1.33
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.29 $\pm$ 0.009	0.298	42.9	-2.80
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.149 $\pm$ 0.007	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.191 $\pm$ 0.006	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

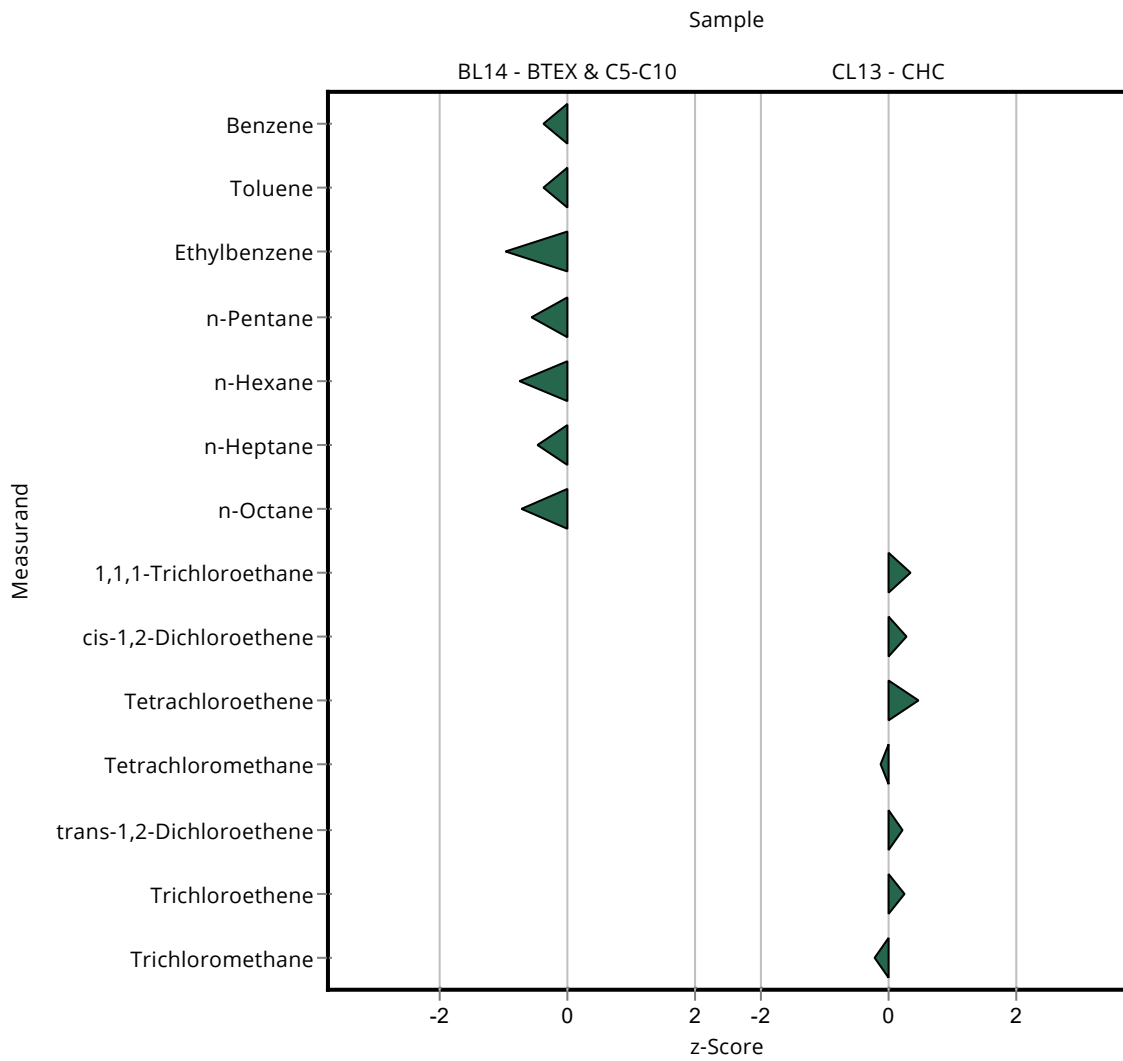


Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.332 $\pm$ 0.48	0.345	94.5	-0.39
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.415 $\pm$ 0.29	0.555	86.7	-0.39
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.388 $\pm$ 0.08	0.298	57.4	-0.97
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.227 $\pm$ 0.05	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.51 $\pm$ 0.1	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	2.952 $\pm$ 0.61	1.64	75.5	-0.58
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	2.674 $\pm$ 0.55	0.99	78.3	-0.75
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.507 $\pm$ 0.51	0.773	87.5	-0.46
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	0.986 $\pm$ 0.2	0.654	67.9	-0.71
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.2 (LOQ) $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-

Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.83 $\pm$ 0.78	0.579	106	0.36
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.658 $\pm$ 0.54	0.825	110	0.28
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	2.652 $\pm$ 0.54	1.03	123	0.49
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.36 $\pm$ 0.89	0.94	97.4	-0.12
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	2.497 $\pm$ 0.51	1.04	111	0.23
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.226 $\pm$ 0.66	0.755	107	0.27
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.222 $\pm$ 0.66	0.464	97.2	-0.20

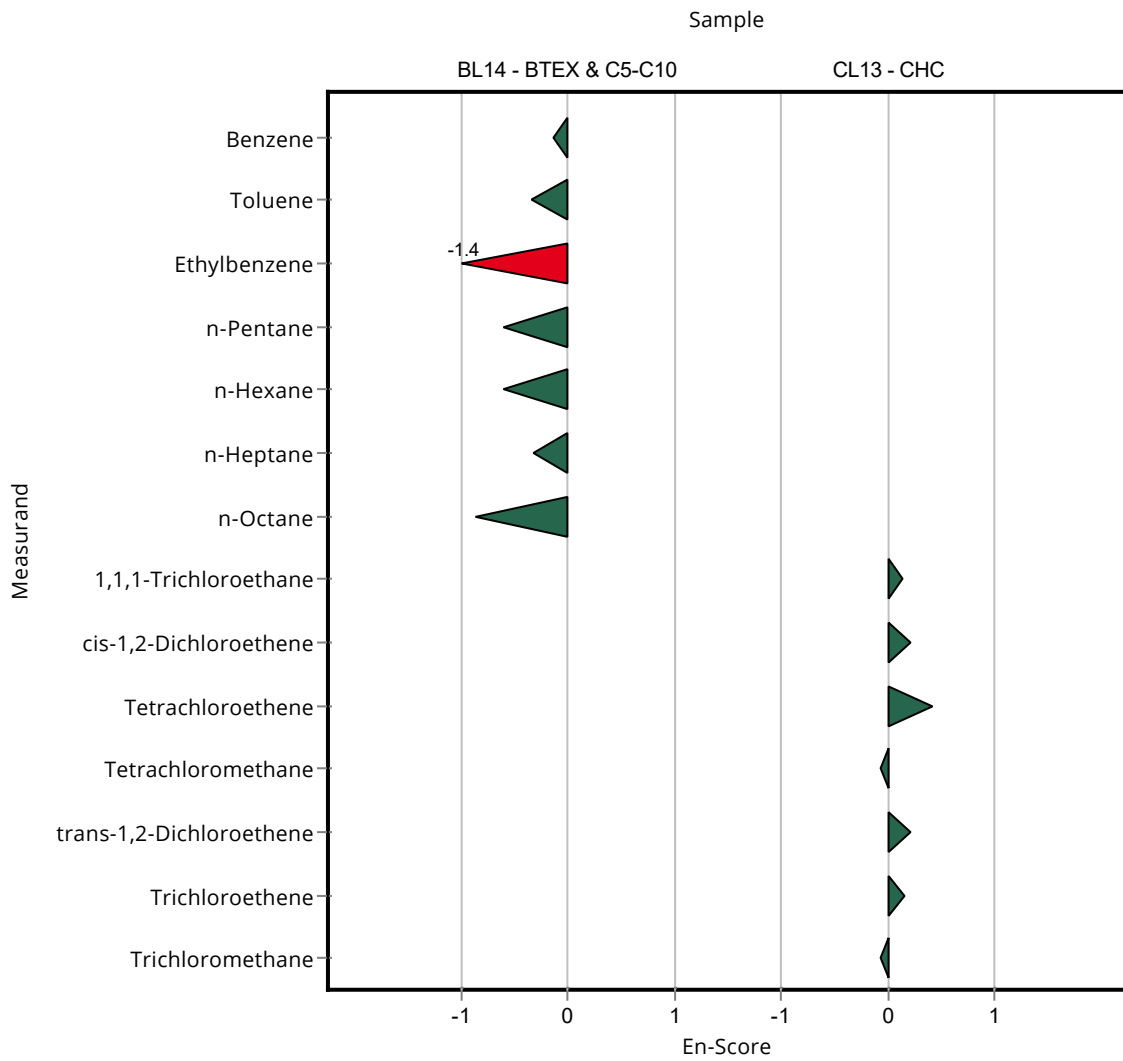


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.332 $\pm$ 0.48	0.345	94.5	-0.14
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.415 $\pm$ 0.29	0.555	86.7	-0.34
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.388 $\pm$ 0.08	0.298	57.4	-1.37
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.227 $\pm$ 0.05	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.51 $\pm$ 0.1	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	2.952 $\pm$ 0.61	1.64	75.5	-0.60
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	2.674 $\pm$ 0.55	0.99	78.3	-0.60
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.507 $\pm$ 0.51	0.773	87.5	-0.32
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	0.986 $\pm$ 0.2	0.654	67.9	-0.87
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.2 (LOQ) $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.83 $\pm$ 0.78	0.579	106	0.13
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.658 $\pm$ 0.54	0.825	110	0.21
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	2.652 $\pm$ 0.54	1.03	123	0.42
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.36 $\pm$ 0.89	0.94	97.4	-0.06
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	2.497 $\pm$ 0.51	1.04	111	0.21
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.226 $\pm$ 0.66	0.755	107	0.15
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.222 $\pm$ 0.66	0.464	97.2	-0.07

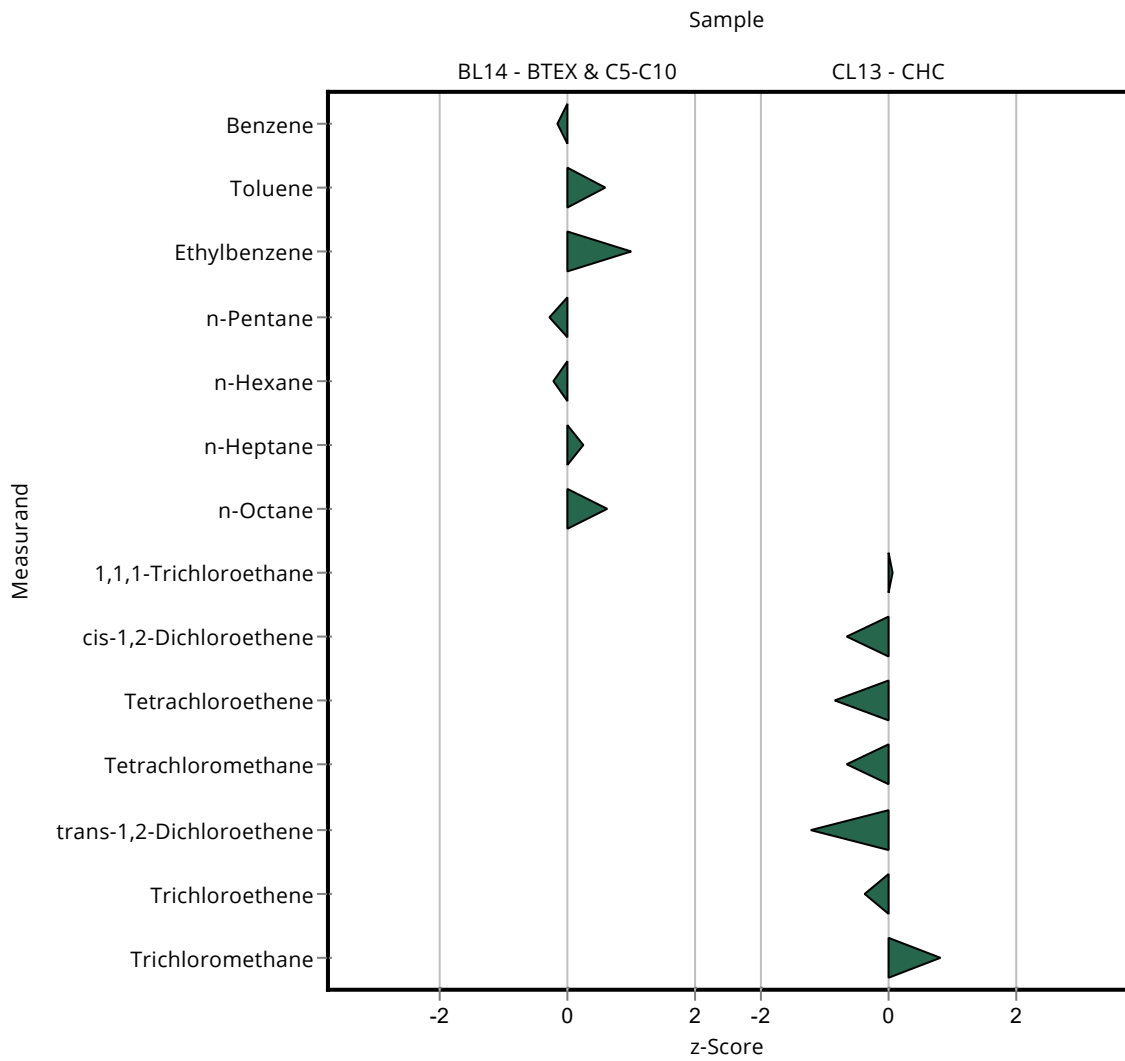


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.414 $\pm$ 0.483	0.345	97.9	-0.15
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.955 $\pm$ 0.342	0.555	120	0.58
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.974 $\pm$ 0.244	0.298	144	1.00
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.95 $\pm$ 0.238	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.837 $\pm$ 0.367	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	3.453 $\pm$ 0.691	1.64	88.3	-0.28
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.179 $\pm$ 0.795	0.99	93.1	-0.24
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3.059 $\pm$ 0.688	0.773	107	0.25
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.855 $\pm$ 0.464	0.654	128	0.62
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.015 $\pm$ 0.203	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.957 $\pm$ 0.239	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.657 $\pm$ 0.549	0.579	101	0.06
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.898 $\pm$ 0.475	0.825	78.2	-0.64
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.278 $\pm$ 0.192	1.03	59.5	-0.84
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	3.868 $\pm$ 0.484	0.94	86.4	-0.65
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.01 $\pm$ 0.252	1.04	44.8	-1.20
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.74 $\pm$ 0.342	0.755	90.7	-0.37
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.693 $\pm$ 0.923	0.464	111	0.81

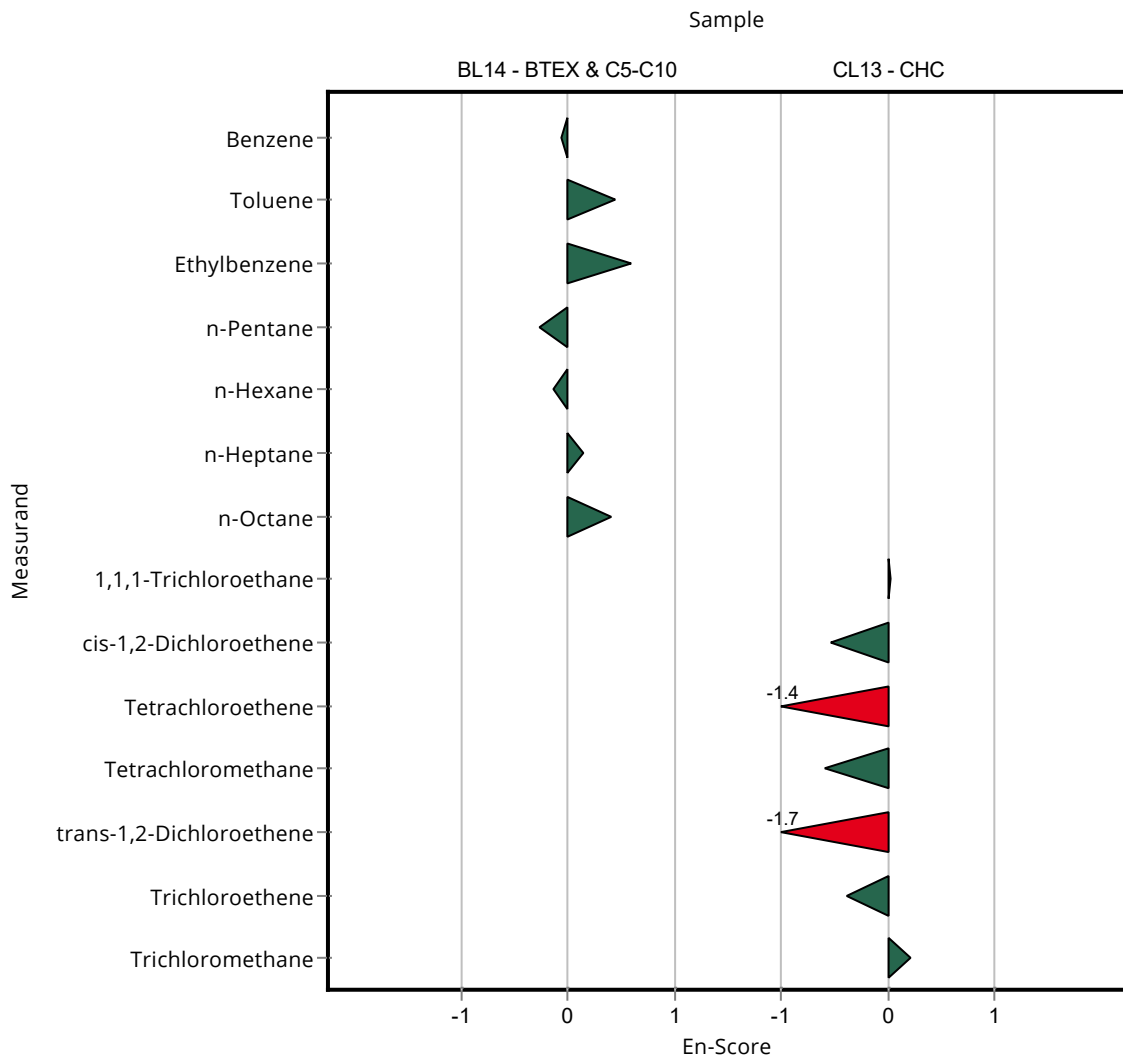


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.414 $\pm$ 0.483	0.345	97.9	-0.05
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.955 $\pm$ 0.342	0.555	120	0.44
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.974 $\pm$ 0.244	0.298	144	0.59
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.95 $\pm$ 0.238	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.837 $\pm$ 0.367	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	3.453 $\pm$ 0.691	1.64	88.3	-0.27
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.179 $\pm$ 0.795	0.99	93.1	-0.14
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3.059 $\pm$ 0.688	0.773	107	0.14
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.855 $\pm$ 0.464	0.654	128	0.40
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.015 $\pm$ 0.203	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.957 $\pm$ 0.239	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.657 $\pm$ 0.549	0.579	101	0.03
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.898 $\pm$ 0.475	0.825	78.2	-0.53
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.278 $\pm$ 0.192	1.03	59.5	-1.38
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	3.868 $\pm$ 0.484	0.94	86.4	-0.59
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.01 $\pm$ 0.252	1.04	44.8	-1.69
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.74 $\pm$ 0.342	0.755	90.7	-0.38
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.693 $\pm$ 0.923	0.464	111	0.20

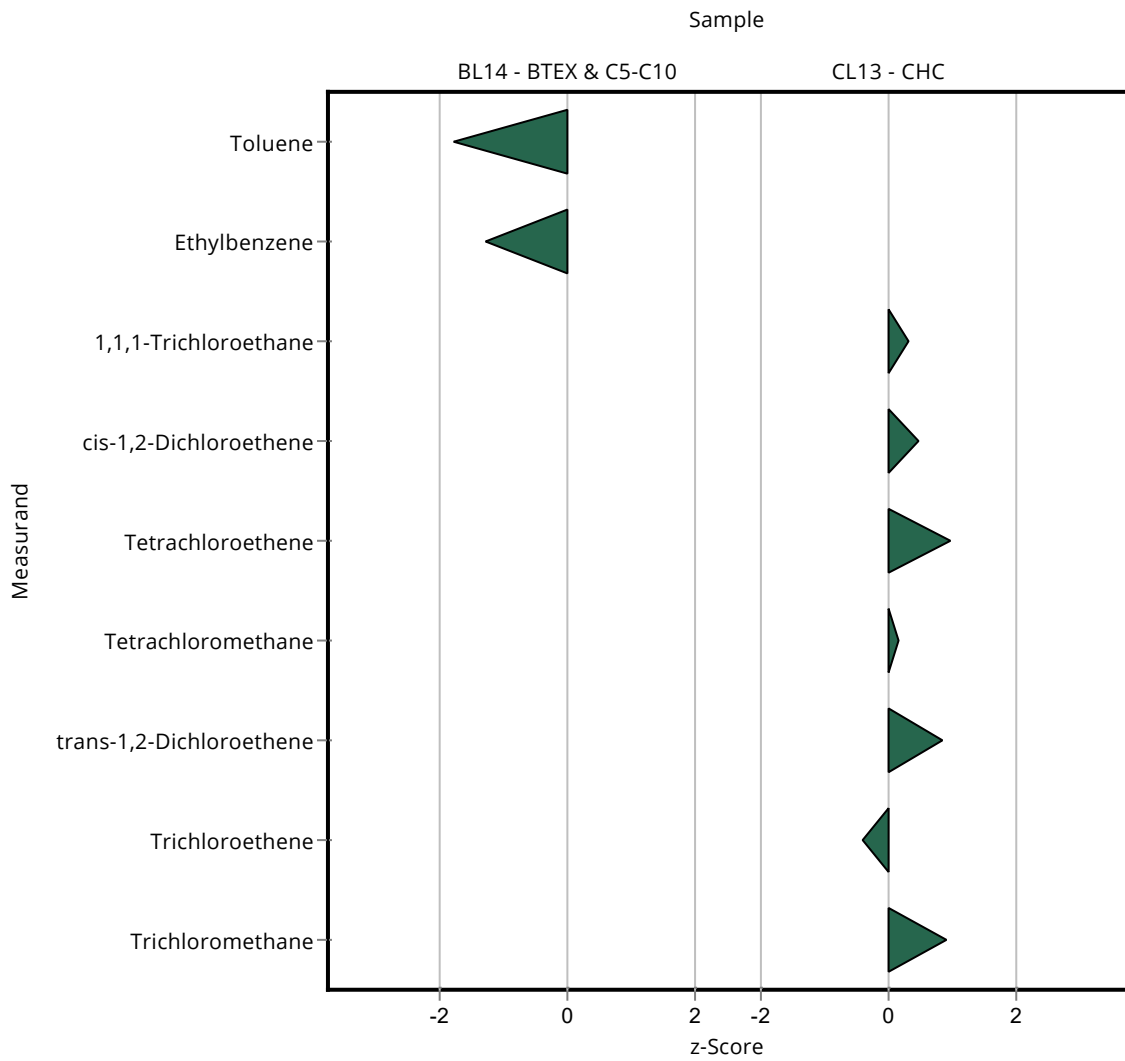


Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	- $\pm$ -	0.345	-	-
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	0.633 $\pm$ 0.095	0.555	38.8	-1.80
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.291 $\pm$ 0.044	0.298	43	-1.29
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.191 $\pm$ 0.029	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.157 $\pm$ 0.024	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.81 $\pm$ 0.57	0.579	105	0.32
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.82 $\pm$ 0.42	0.825	116	0.48
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	3.17 $\pm$ 0.48	1.03	148	0.99
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.64 $\pm$ 0.7	0.94	104	0.17
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.13 $\pm$ 0.47	1.04	139	0.85
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.72 $\pm$ 0.41	0.755	90	-0.40
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.74 $\pm$ 0.56	0.464	113	0.92

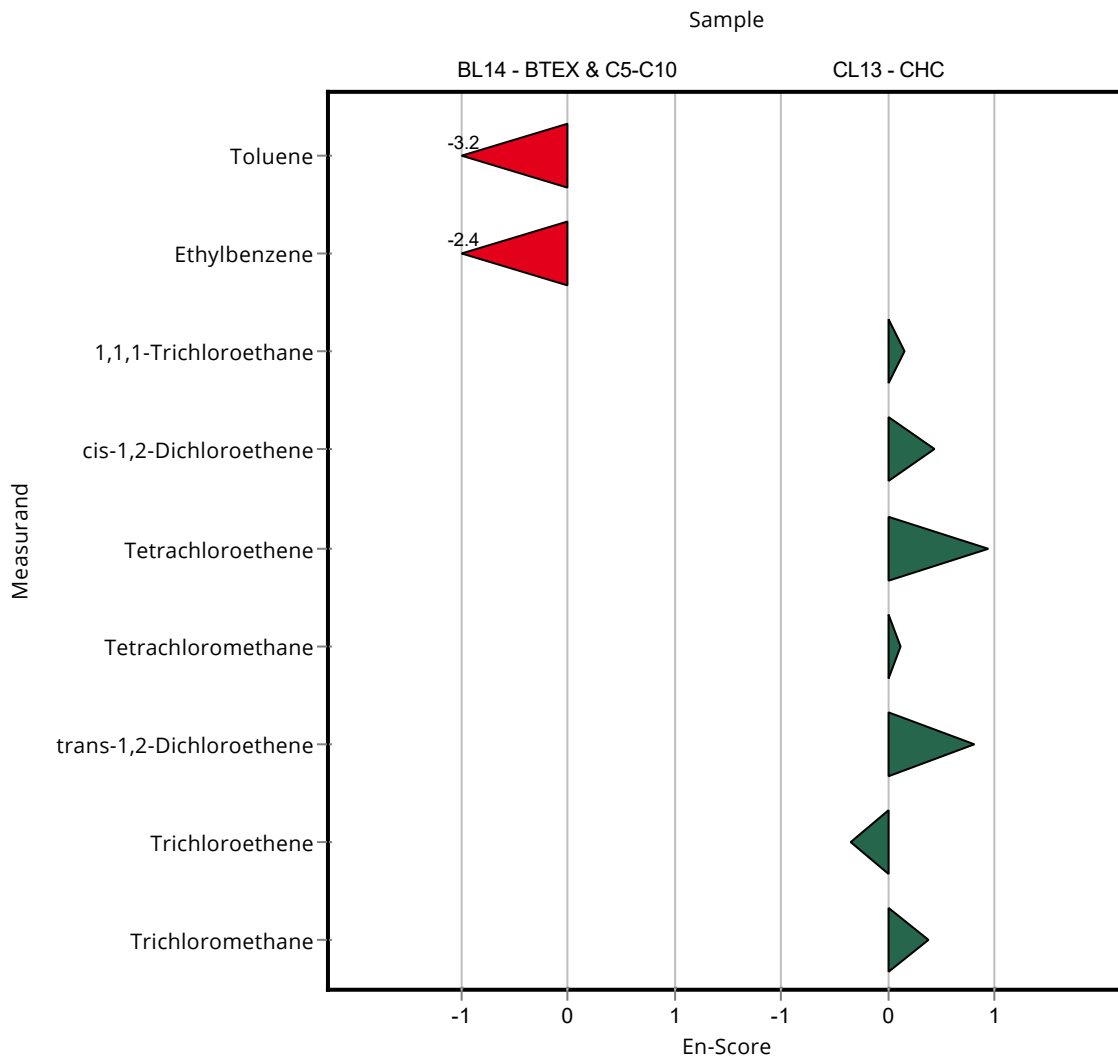


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	- $\pm$ -	0.345	-	-
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	0.633 $\pm$ 0.095	0.555	38.8	-3.18
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.291 $\pm$ 0.044	0.298	43	-2.37
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.191 $\pm$ 0.029	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.157 $\pm$ 0.024	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

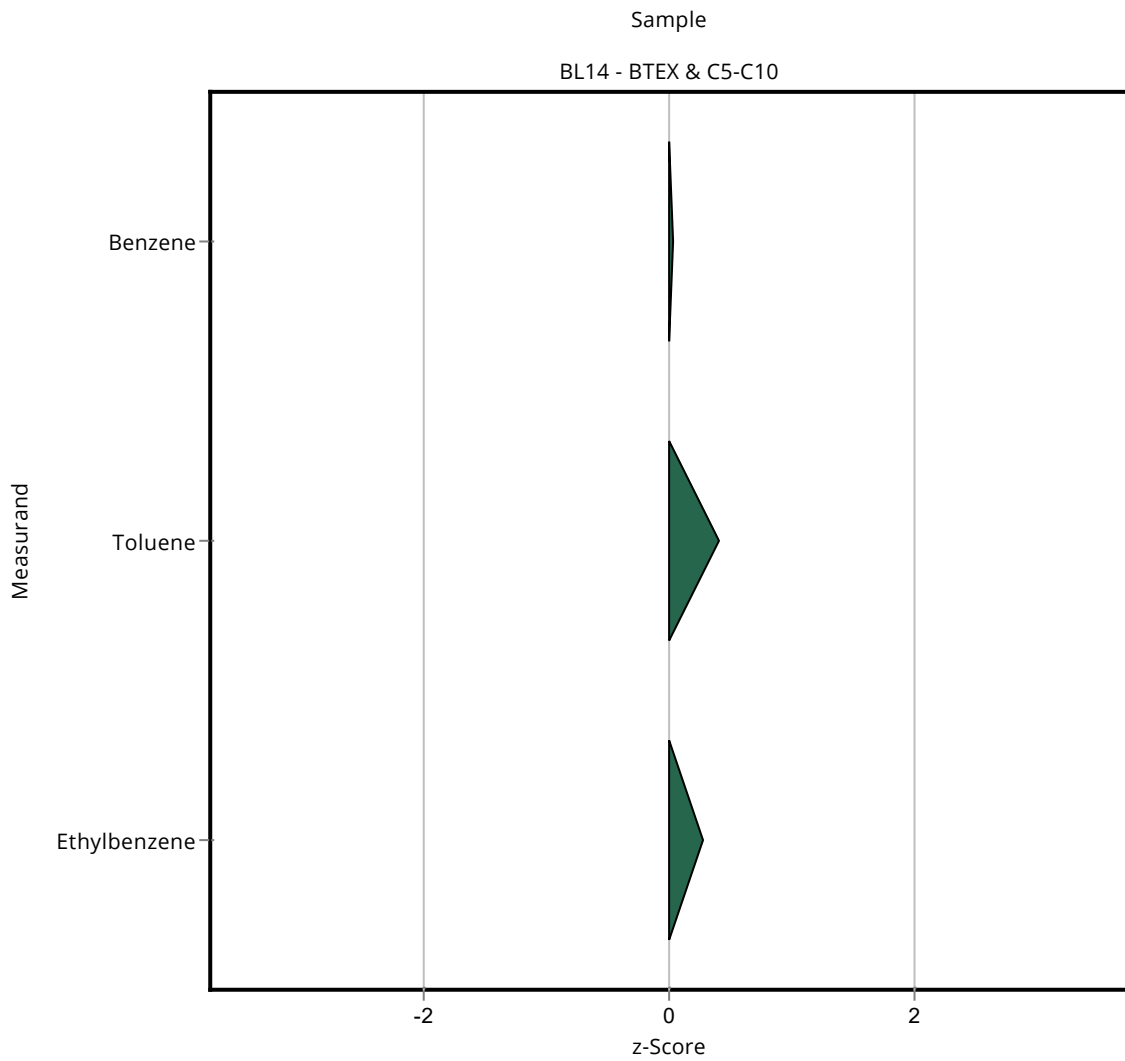
## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.81 $\pm$ 0.57	0.579	105	0.16
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.82 $\pm$ 0.42	0.825	116	0.44
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	3.17 $\pm$ 0.48	1.03	148	0.94
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.64 $\pm$ 0.7	0.94	104	0.11
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.13 $\pm$ 0.47	1.04	139	0.81
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.72 $\pm$ 0.41	0.755	90	-0.35
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.74 $\pm$ 0.56	0.464	113	0.37



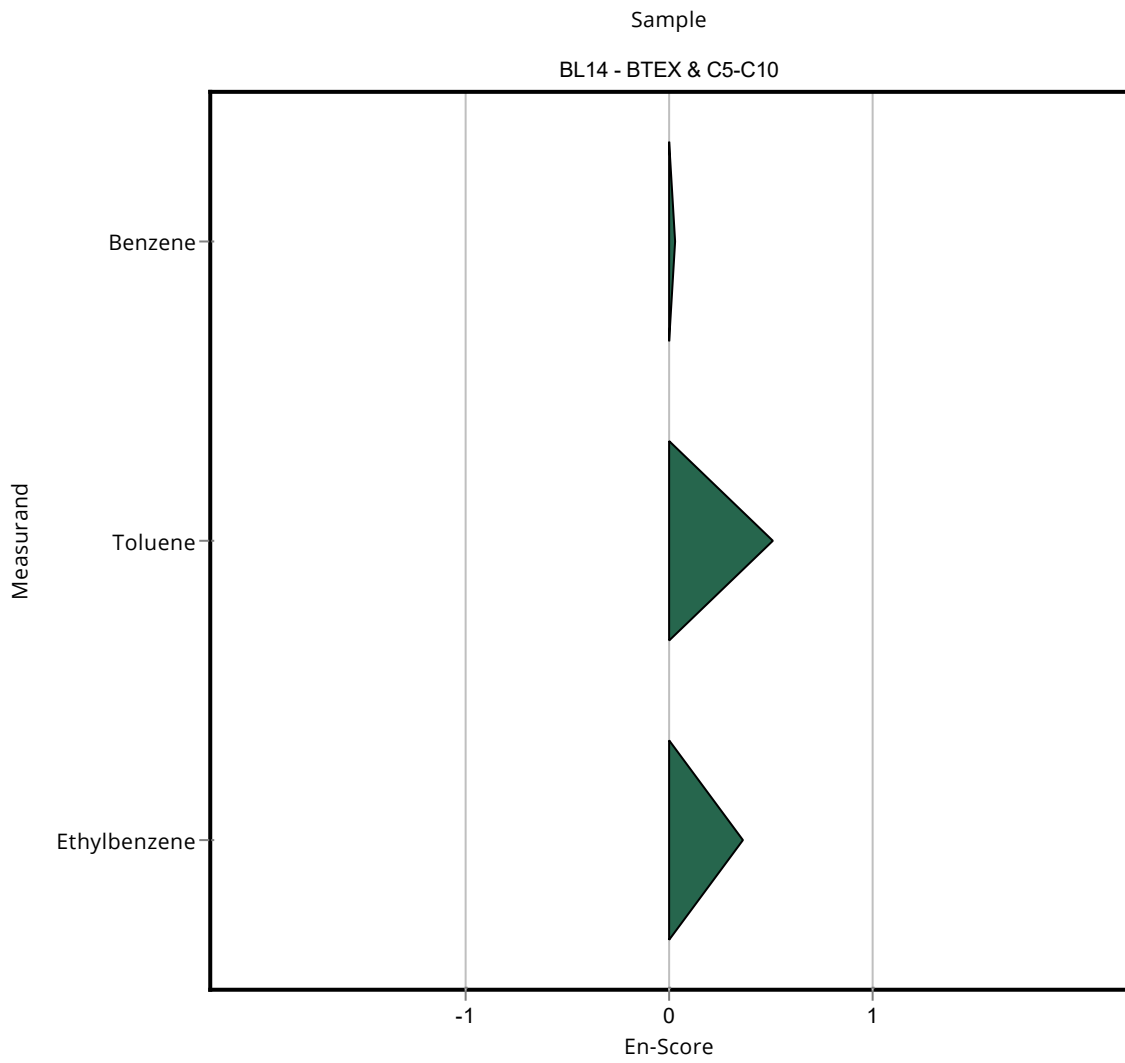
Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.48 $\pm$ 0.228	0.345	101	0.04
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.857 $\pm$ 0.182	0.555	114	0.41
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.757 $\pm$ 0.086	0.298	112	0.27
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.452 $\pm$ 0.051	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.119 $\pm$ 0.115	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-



Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.48 $\pm$ 0.228	0.345	101	0.03
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.857 $\pm$ 0.182	0.555	114	0.51
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.757 $\pm$ 0.086	0.298	112	0.37
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.452 $\pm$ 0.051	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.119 $\pm$ 0.115	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

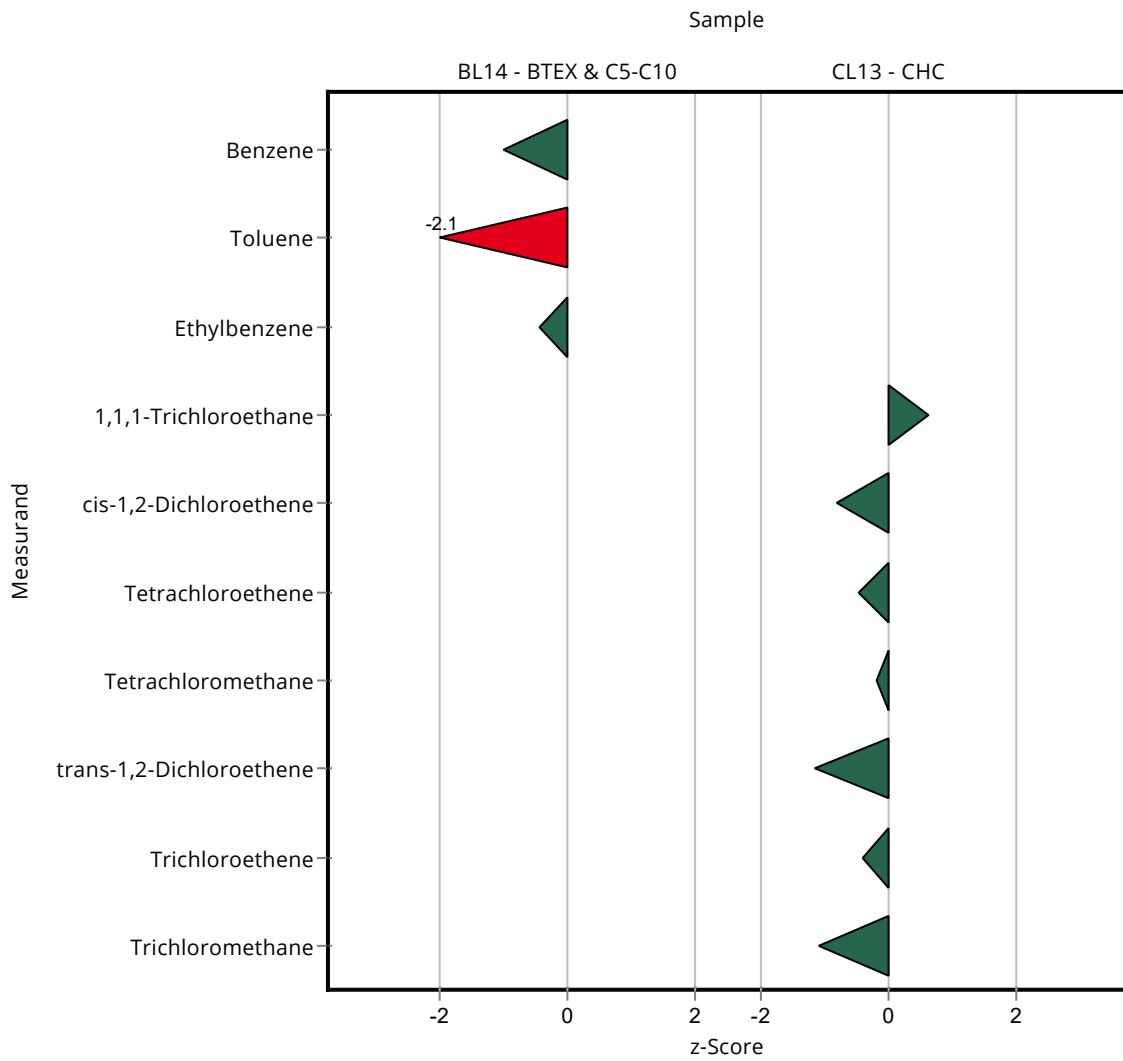


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.12 $\pm$ 0.33	0.345	86	-1.00
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	0.465 $\pm$ 0.078	0.555	28.5	-2.10
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.545 $\pm$ 0.085	0.298	80.6	-0.44
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.335 $\pm$ 0.046	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.85 $\pm$ 0.12	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.995 $\pm$ 0.792	0.579	110	0.64
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.775 $\pm$ 0.851	0.825	73.2	-0.79
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.69 $\pm$ 0.97	1.03	78.7	-0.44
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.31 $\pm$ 2.48	0.94	96.3	-0.18
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.055 $\pm$ 0.49	1.04	46.8	-1.16
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.72 $\pm$ 1.88	0.755	90	-0.40
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	2.82 $\pm$ 0.84	0.464	85.1	-1.07

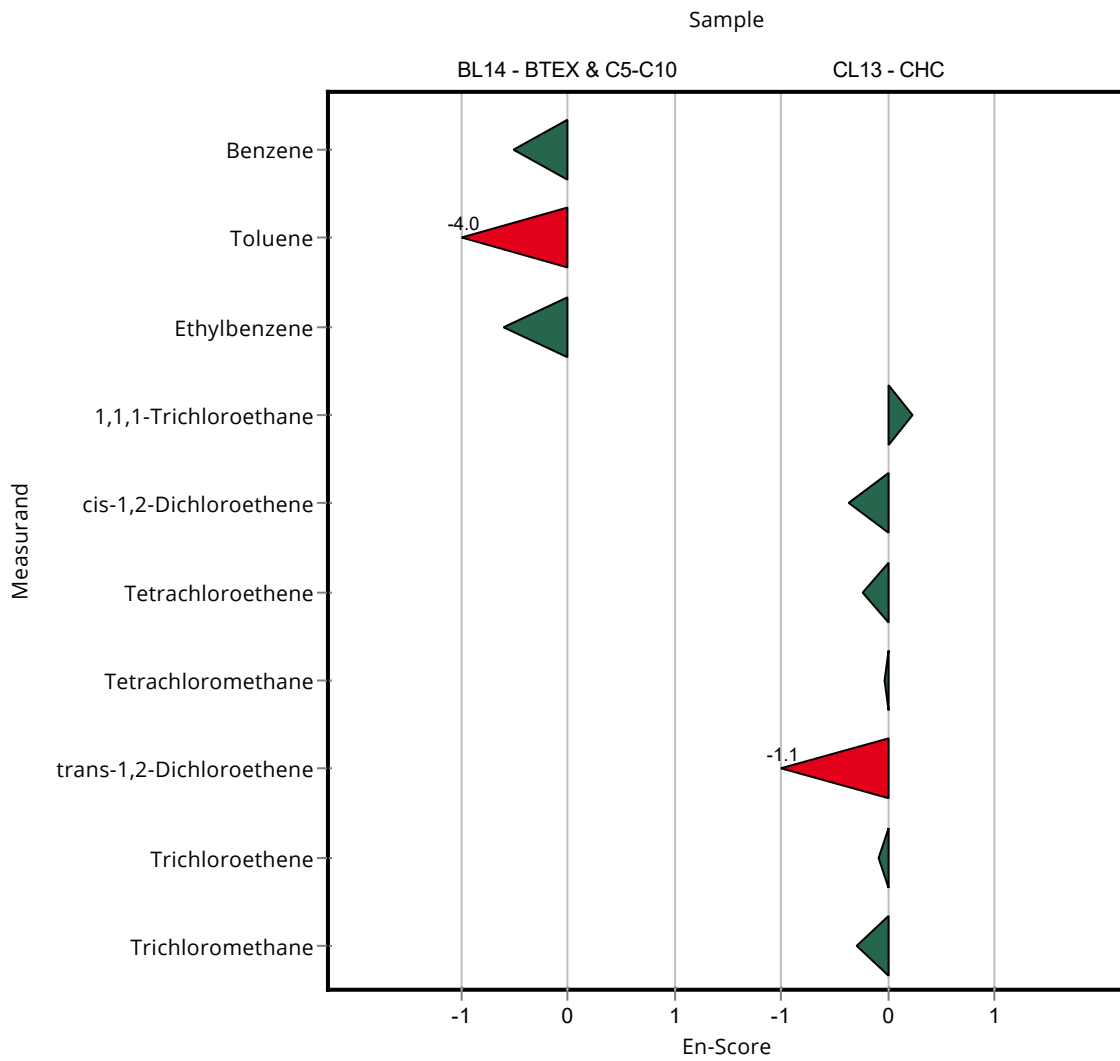


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.12 $\pm$ 0.33	0.345	86	-0.51
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	0.465 $\pm$ 0.078	0.555	28.5	-3.97
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.545 $\pm$ 0.085	0.298	80.6	-0.60
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.335 $\pm$ 0.046	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.85 $\pm$ 0.12	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.995 $\pm$ 0.792	0.579	110	0.23
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.775 $\pm$ 0.851	0.825	73.2	-0.38
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.69 $\pm$ 0.97	1.03	78.7	-0.23
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.31 $\pm$ 2.48	0.94	96.3	-0.03
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.055 $\pm$ 0.49	1.04	46.8	-1.07
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.72 $\pm$ 1.88	0.755	90	-0.08
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	2.82 $\pm$ 0.84	0.464	85.1	-0.29

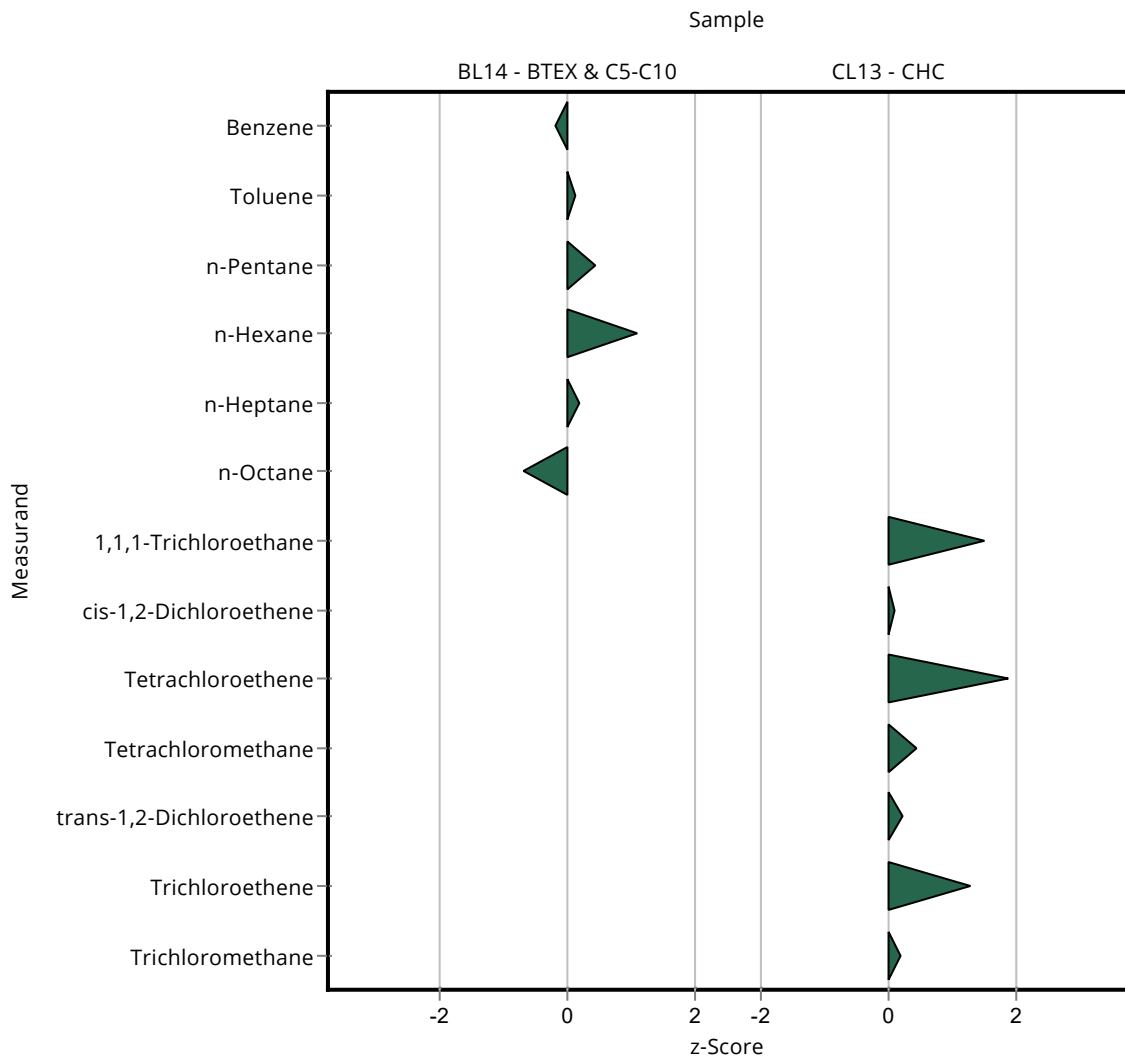


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.4 $\pm$ 0.11	0.345	97.3	-0.19
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.7 $\pm$ 0.077	0.555	104	0.12
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	<0.5 (LOQ) $\pm$ -	0.298	-	-
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.57 $\pm$ 0.026	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	4.6 $\pm$ 0.21	1.64	118	0.42
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	4.5 $\pm$ 0.34	0.99	132	1.10
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3 $\pm$ 0.15	0.773	105	0.18
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1 $\pm$ 0.075	0.654	68.8	-0.69
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	4.5 $\pm$ 0.56	0.579	124	1.52
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.5 $\pm$ 0.31	0.825	103	0.09
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	4.1 $\pm$ 0.51	1.03	191	1.89
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.9 $\pm$ 0.61	0.94	109	0.45
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	2.5 $\pm$ 0.31	1.04	111	0.24
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	4 $\pm$ 0.5	0.755	132	1.30
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.4 $\pm$ 0.43	0.464	103	0.18

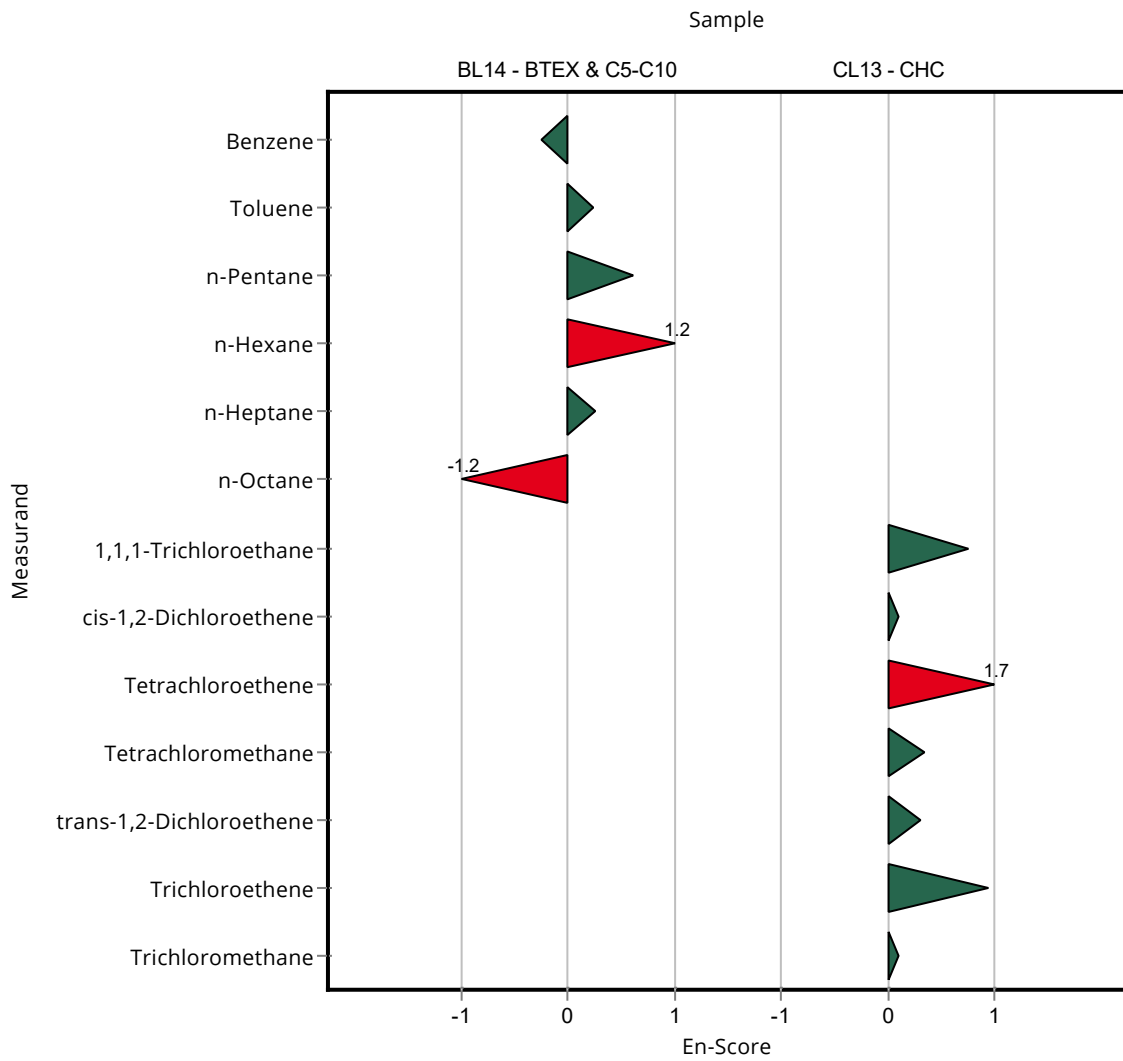


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.4 $\pm$ 0.11	0.345	97.3	-0.25
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.7 $\pm$ 0.077	0.555	104	0.23
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	<0.5 (LOQ) $\pm$ -	0.298	-	-
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.57 $\pm$ 0.026	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	4.6 $\pm$ 0.21	1.64	118	0.62
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	4.5 $\pm$ 0.34	0.99	132	1.22
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3 $\pm$ 0.15	0.773	105	0.26
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1 $\pm$ 0.075	0.654	68.8	-1.17
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	4.5 $\pm$ 0.56	0.579	124	0.76
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.5 $\pm$ 0.31	0.825	103	0.11
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	4.1 $\pm$ 0.51	1.03	191	1.72
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.9 $\pm$ 0.61	0.94	109	0.33
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	2.5 $\pm$ 0.31	1.04	111	0.30
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	4 $\pm$ 0.5	0.755	132	0.95
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.4 $\pm$ 0.43	0.464	103	0.10

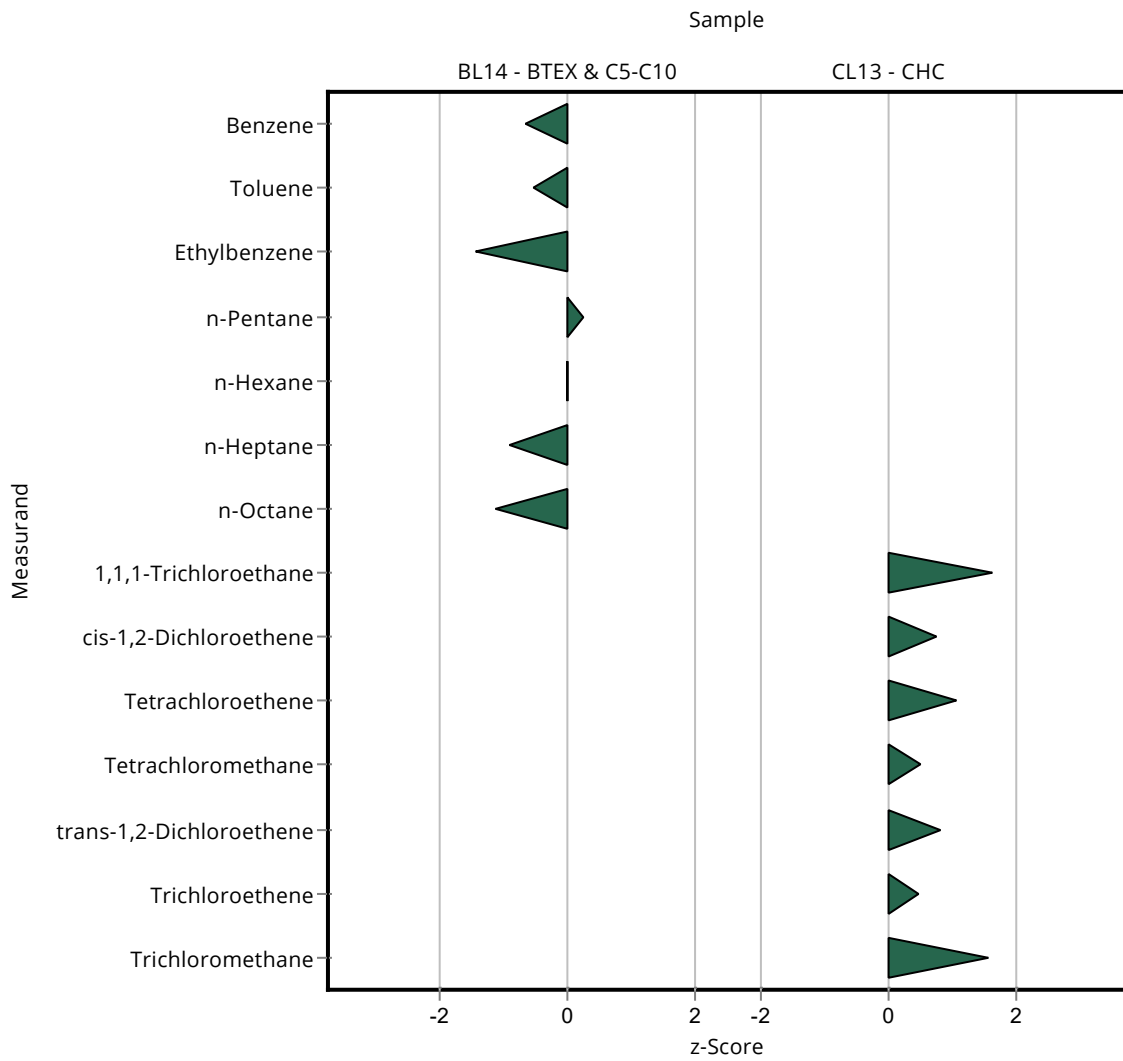


Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.24 $\pm$ 0.49	0.345	90.8	-0.66
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.33 $\pm$ 0.31	0.555	81.5	-0.54
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.251 $\pm$ 0.058	0.298	37.1	-1.43
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.138 $\pm$ 0.028	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.325 $\pm$ 0.065	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	4.33 $\pm$ 1.91	1.64	111	0.25
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.4 $\pm$ 1.22	0.99	99.6	-0.01
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.16 $\pm$ 0.6	0.773	75.4	-0.91
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	0.717 $\pm$ 0.251	0.654	49.4	-1.13
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.059 $\pm$ 0.017	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.02 (LOQ) $\pm$ -	-	-	-

Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	4.57 $\pm$ 0.82	0.579	126	1.64
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	3.05 $\pm$ 0.67	0.825	126	0.76
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	3.26 $\pm$ 0.78	1.03	152	1.08
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.96 $\pm$ 1.19	0.94	111	0.51
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.11 $\pm$ 0.62	1.04	138	0.83
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.39 $\pm$ 0.68	0.755	112	0.49
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	4.05 $\pm$ 0.97	0.464	122	1.58

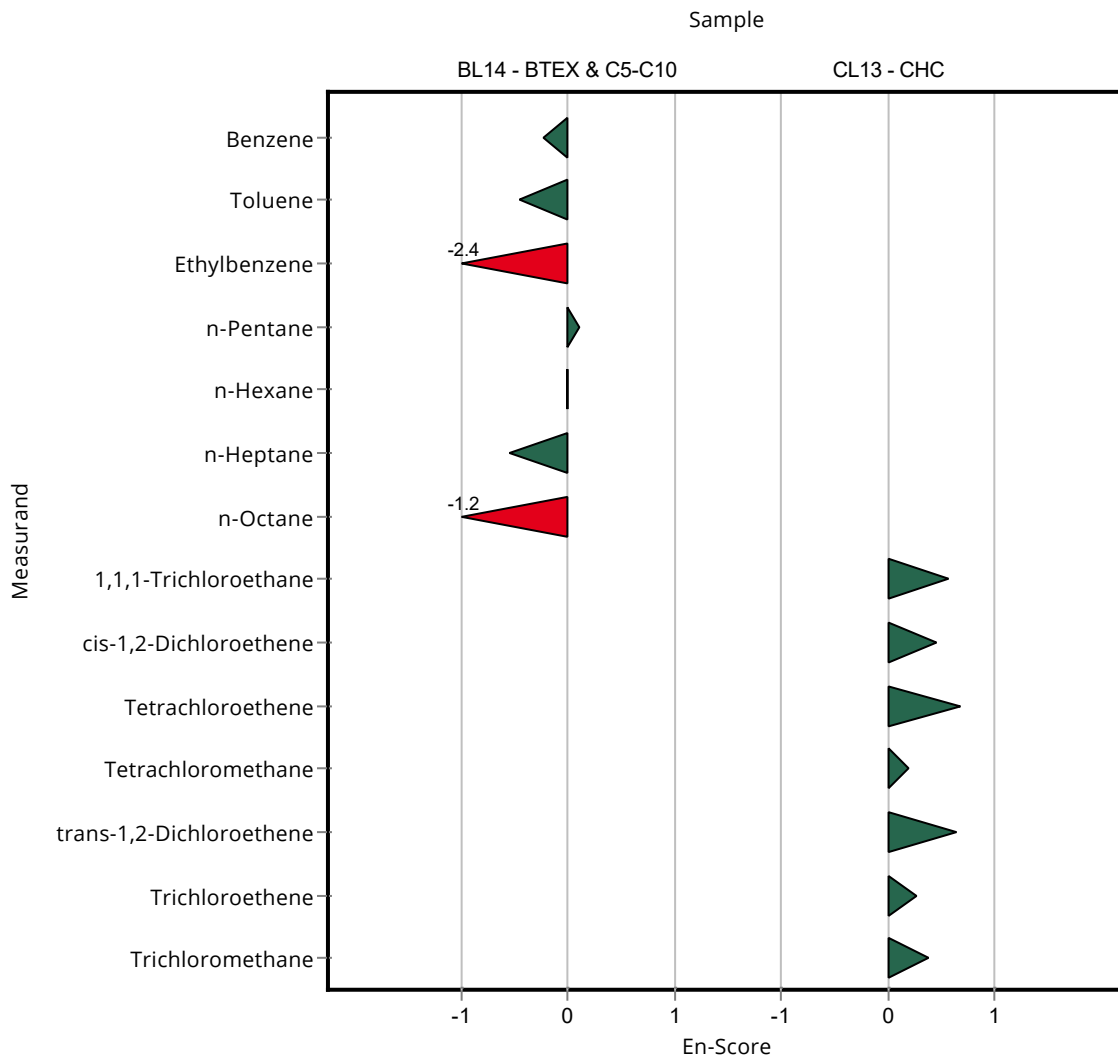


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.24 $\pm$ 0.49	0.345	90.8	-0.23
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.33 $\pm$ 0.31	0.555	81.5	-0.45
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.251 $\pm$ 0.058	0.298	37.1	-2.37
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.138 $\pm$ 0.028	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.325 $\pm$ 0.065	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	4.33 $\pm$ 1.91	1.64	111	0.11
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.4 $\pm$ 1.22	0.99	99.6	-0.01
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.16 $\pm$ 0.6	0.773	75.4	-0.55
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	0.717 $\pm$ 0.251	0.654	49.4	-1.19
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.059 $\pm$ 0.017	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.02 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	4.57 $\pm$ 0.82	0.579	126	0.57
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	3.05 $\pm$ 0.67	0.825	126	0.45
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	3.26 $\pm$ 0.78	1.03	152	0.68
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.96 $\pm$ 1.19	0.94	111	0.20
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.11 $\pm$ 0.62	1.04	138	0.63
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.39 $\pm$ 0.68	0.755	112	0.27
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	4.05 $\pm$ 0.97	0.464	122	0.38

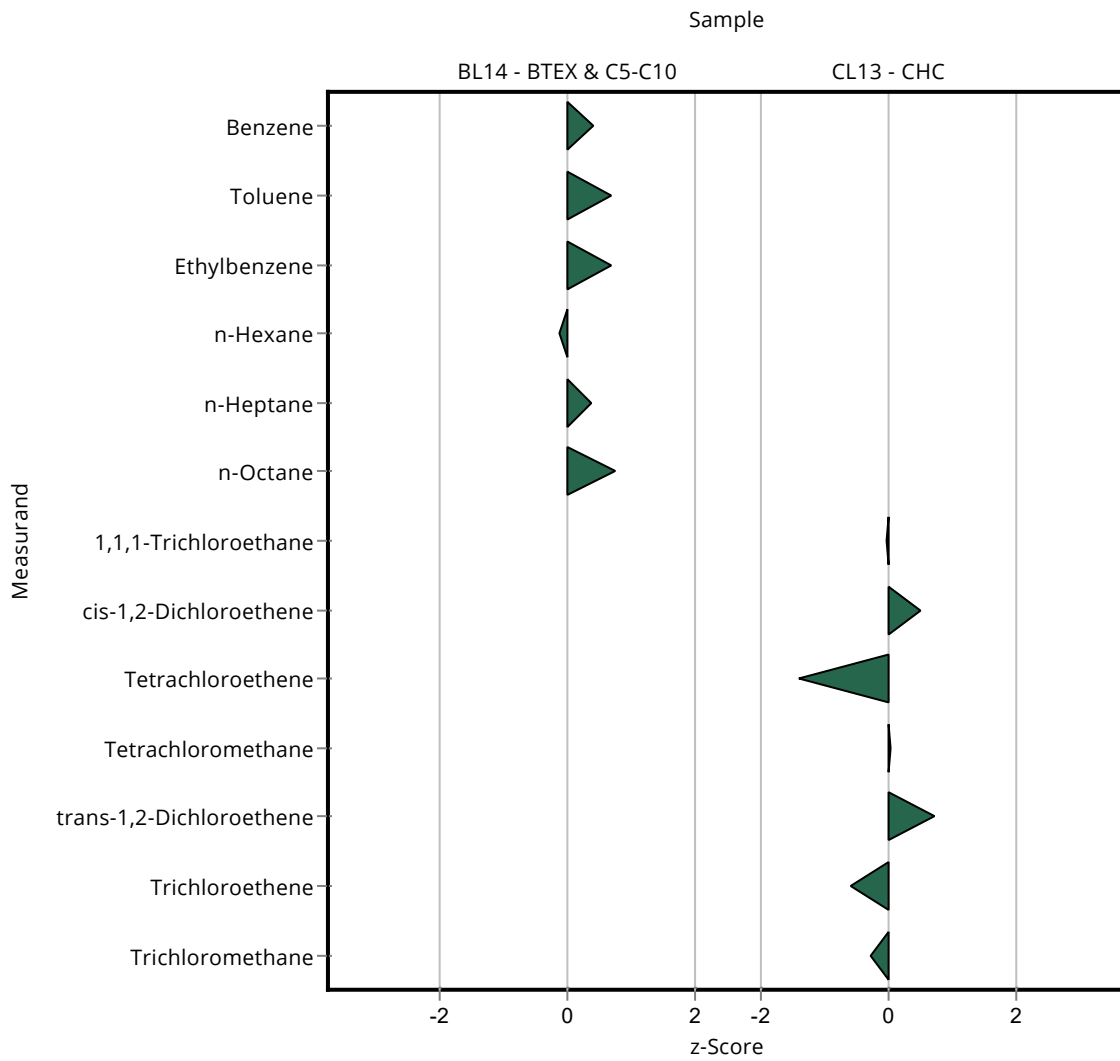


Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.6 $\pm$ 0.39	0.345	105	0.39
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2 $\pm$ 0.3	0.555	123	0.66
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.876 $\pm$ 0.131	0.298	130	0.67
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.602 $\pm$ 0.09	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.49 $\pm$ 0.22	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.29 $\pm$ 0.49	0.99	96.4	-0.13
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3.15 $\pm$ 0.47	0.773	110	0.37
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.94 $\pm$ 0.29	0.654	134	0.75
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.37 $\pm$ 0.06	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.2 (LOQ) $\pm$ -	-	-	-

Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.61 $\pm$ 0.54	0.579	99.7	-0.02
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.85 $\pm$ 0.43	0.825	117	0.51
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	0.725 $\pm$ 0.109	1.03	33.7	-1.38
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.52 $\pm$ 0.68	0.94	101	0.05
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3 $\pm$ 0.45	1.04	133	0.72
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.59 $\pm$ 0.39	0.755	85.7	-0.57
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.19 $\pm$ 0.48	0.464	96.2	-0.27

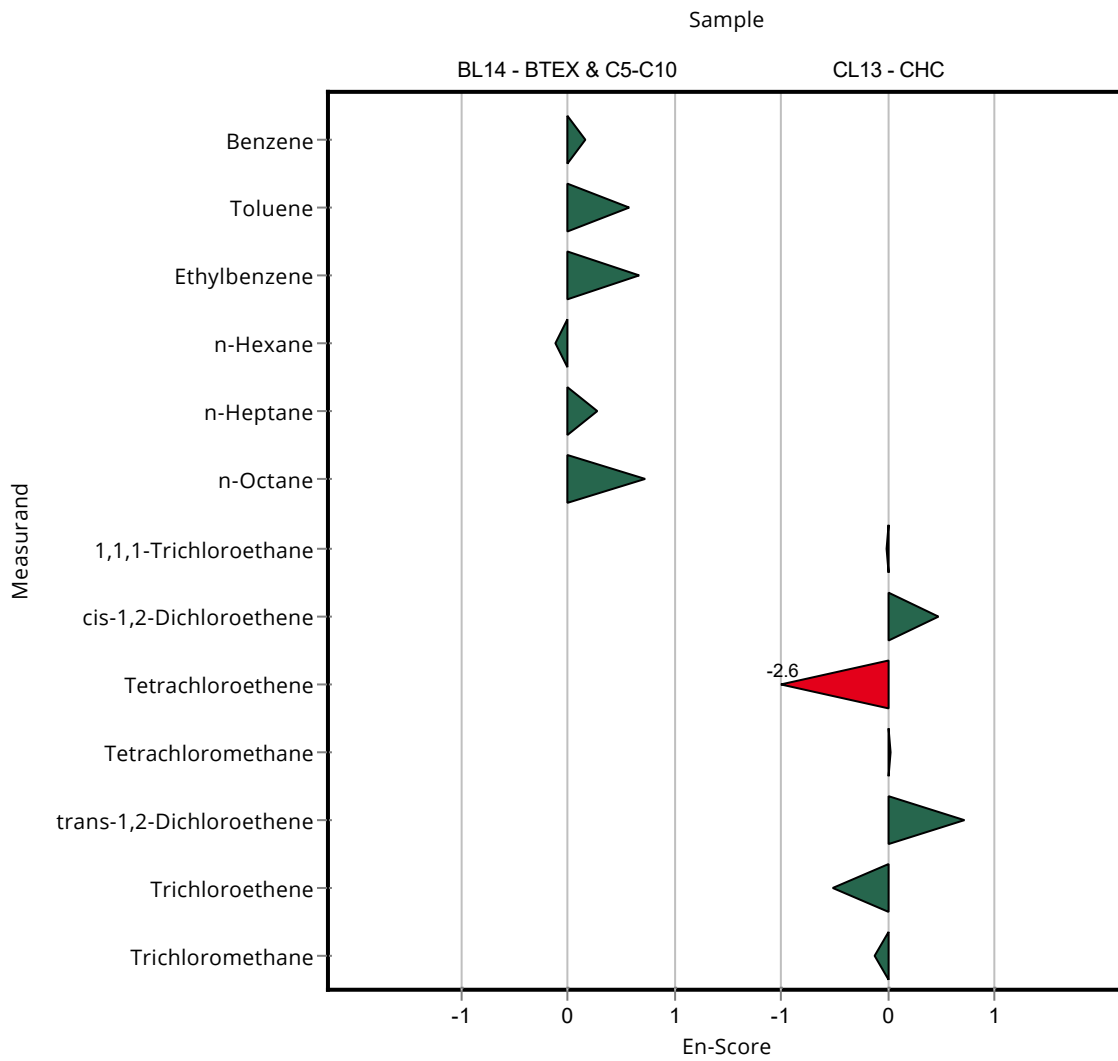


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.6 $\pm$ 0.39	0.345	105	0.17
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2 $\pm$ 0.3	0.555	123	0.57
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.876 $\pm$ 0.131	0.298	130	0.68
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.602 $\pm$ 0.09	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.49 $\pm$ 0.22	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.29 $\pm$ 0.49	0.99	96.4	-0.11
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3.15 $\pm$ 0.47	0.773	110	0.28
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.94 $\pm$ 0.29	0.654	134	0.71
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.37 $\pm$ 0.06	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.2 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.61 $\pm$ 0.54	0.579	99.7	-0.01
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.85 $\pm$ 0.43	0.825	117	0.46
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	0.725 $\pm$ 0.109	1.03	33.7	-2.62
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.52 $\pm$ 0.68	0.94	101	0.03
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3 $\pm$ 0.45	1.04	133	0.71
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.59 $\pm$ 0.39	0.755	85.7	-0.52
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.19 $\pm$ 0.48	0.464	96.2	-0.13

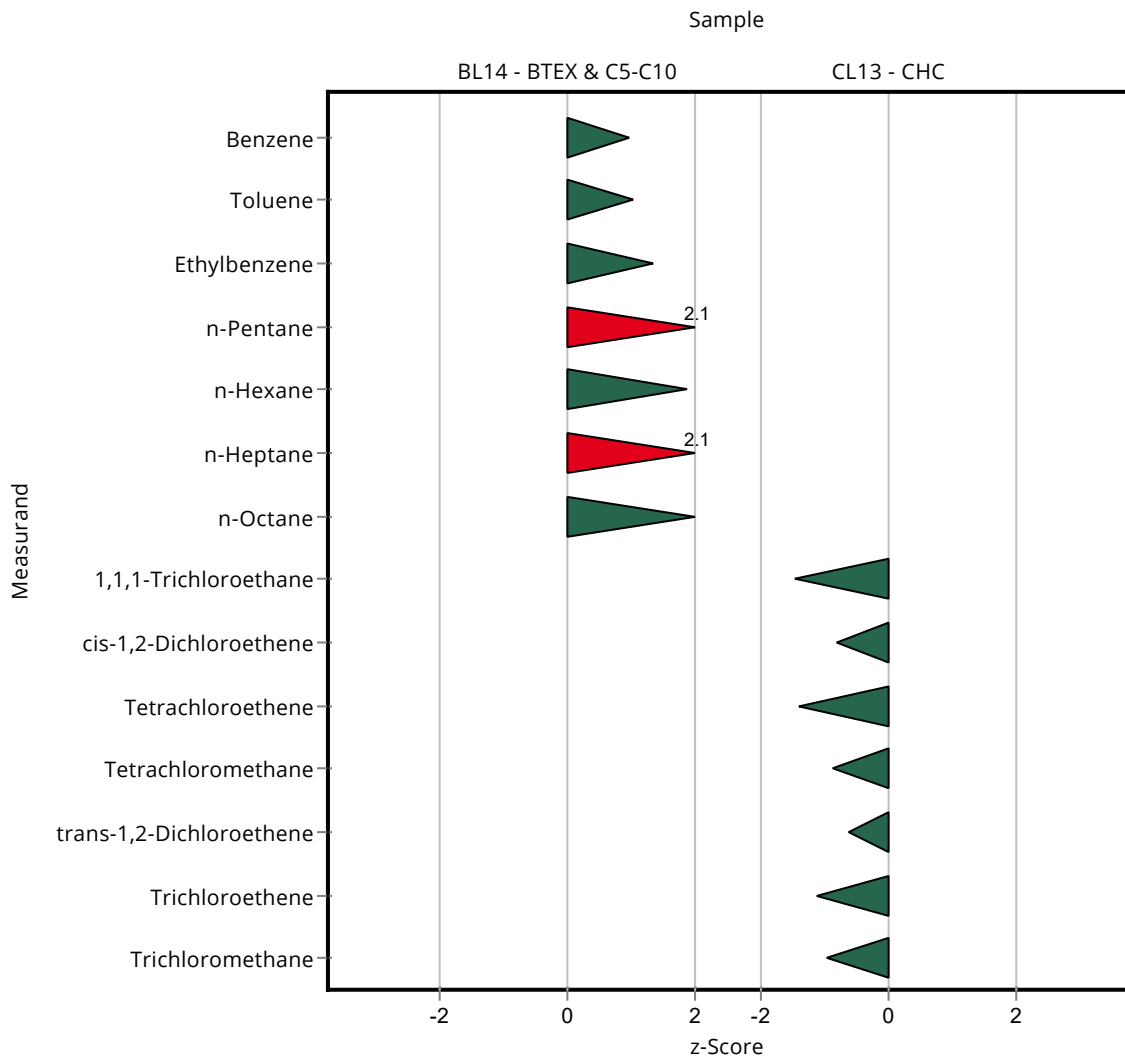


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.8 $\pm$ 0.25	0.345	114	0.97
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2.19 $\pm$ 0.2	0.555	134	1.01
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	1.07 $\pm$ 0.12	0.298	158	1.32
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.684 $\pm$ 0.089	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.62 $\pm$ 0.21	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	7.33 $\pm$ 2.08	1.64	187	2.08
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	5.27 $\pm$ 0.73	0.99	154	1.87
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	4.49 $\pm$ 1.19	0.773	157	2.10
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	2.75 $\pm$ 0.68	0.654	189	1.98
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.58 $\pm$ 0.162	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	2.77 $\pm$ 0.49	0.579	76.5	-1.47
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.77 $\pm$ 0.52	0.825	72.9	-0.80
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	0.717 $\pm$ 0.129	1.03	33.4	-1.39
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	3.67 $\pm$ 0.66	0.94	82	-0.86
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.63 $\pm$ 0.81	1.04	72.3	-0.60
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.17 $\pm$ 0.42	0.755	71.8	-1.13
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	2.87 $\pm$ 0.59	0.464	86.6	-0.96

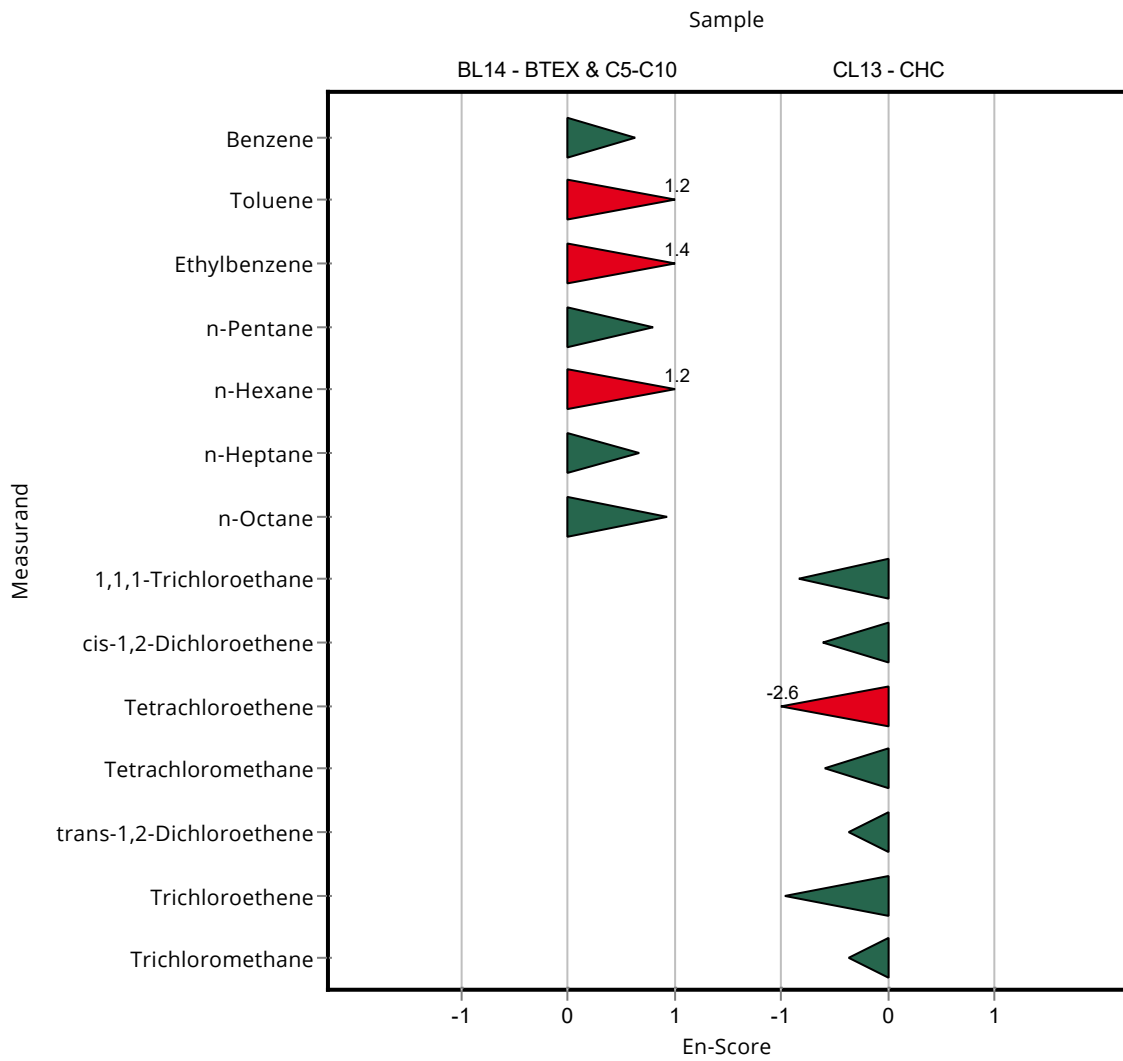


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.8 $\pm$ 0.25	0.345	114	0.64
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2.19 $\pm$ 0.2	0.555	134	1.19
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	1.07 $\pm$ 0.12	0.298	158	1.42
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.684 $\pm$ 0.089	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.62 $\pm$ 0.21	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	7.33 $\pm$ 2.08	1.64	187	0.80
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	5.27 $\pm$ 0.73	0.99	154	1.18
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	4.49 $\pm$ 1.19	0.773	157	0.67
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	2.75 $\pm$ 0.68	0.654	189	0.92
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.58 $\pm$ 0.162	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.5 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	2.77 $\pm$ 0.49	0.579	76.5	-0.83
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.77 $\pm$ 0.52	0.825	72.9	-0.61
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	0.717 $\pm$ 0.129	1.03	33.4	-2.55
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	3.67 $\pm$ 0.66	0.94	82	-0.59
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.63 $\pm$ 0.81	1.04	72.3	-0.37
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.17 $\pm$ 0.42	0.755	71.8	-0.96
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	2.87 $\pm$ 0.59	0.464	86.6	-0.37

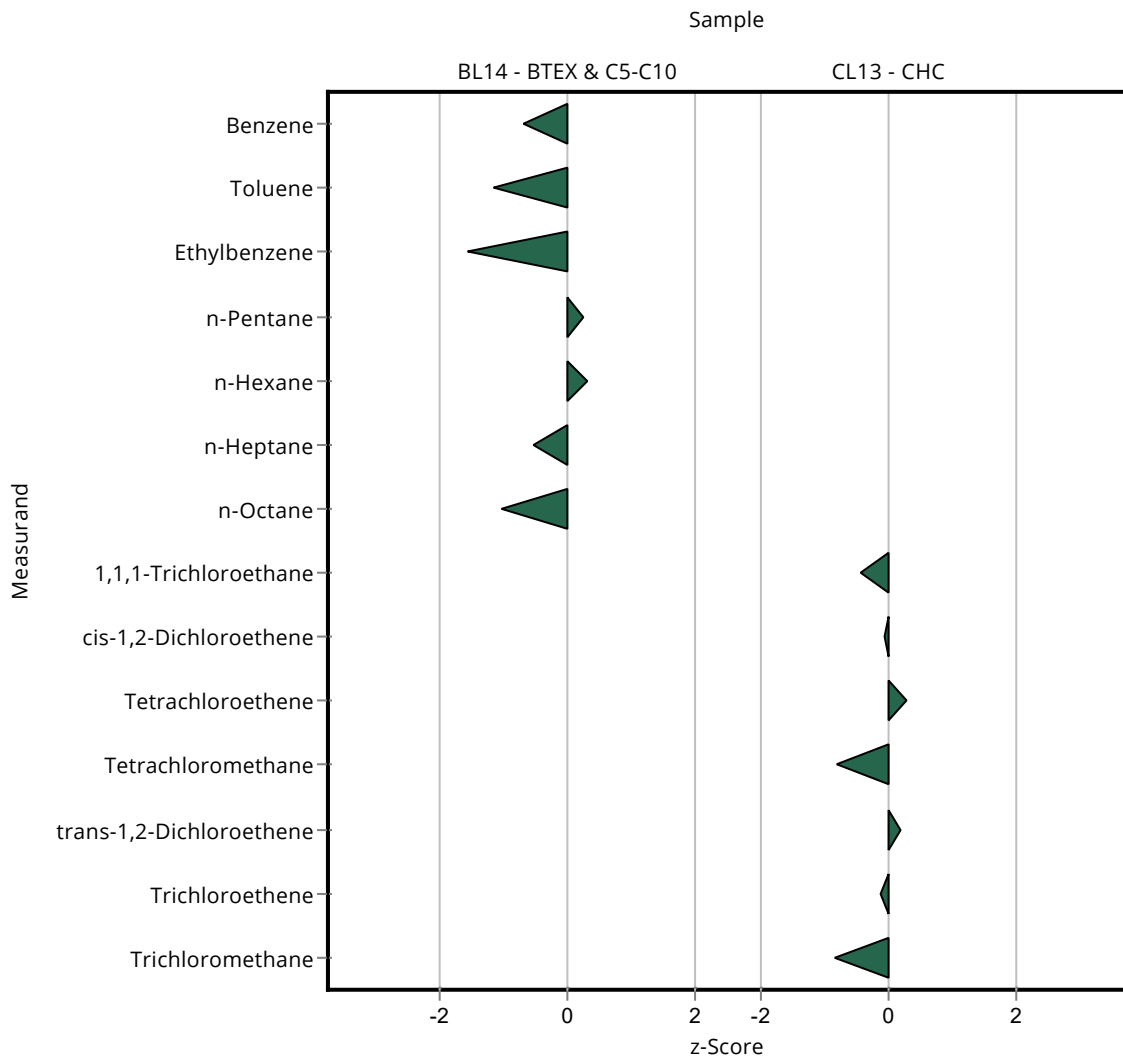


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.227 $\pm$ 0.264	0.345	90.3	-0.69
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	0.992 $\pm$ 0.118	0.555	60.8	-1.15
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.209 $\pm$ 0.025	0.298	30.9	-1.57
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.109 $\pm$ 0.013	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.282 $\pm$ 0.033	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	4.31 $\pm$ 0.577	1.64	110	0.24
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.707 $\pm$ 0.496	0.99	109	0.30
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.44 $\pm$ 0.326	0.773	85.2	-0.55
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	0.769 $\pm$ 0.103	0.654	52.9	-1.05
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.078 $\pm$ 0.01	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.05 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.366 $\pm$ 0.492	0.579	92.9	-0.44
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.393 $\pm$ 0.35	0.825	98.6	-0.04
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	2.463 $\pm$ 0.36	1.03	115	0.31
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	3.737 $\pm$ 0.547	0.94	83.5	-0.79
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	2.45 $\pm$ 0.358	1.04	109	0.19
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.937 $\pm$ 0.43	0.755	97.2	-0.11
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	2.927 $\pm$ 0.428	0.464	88.3	-0.84

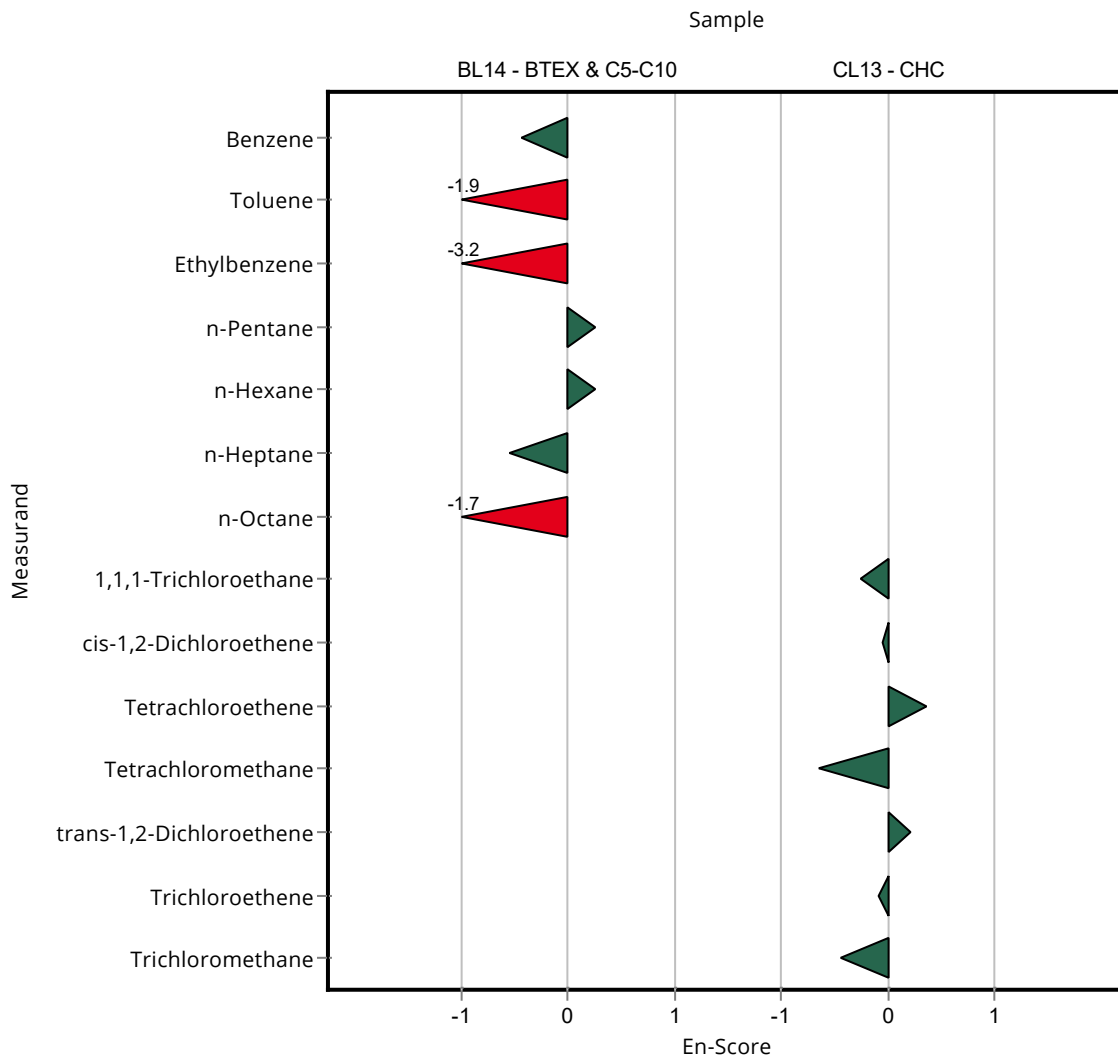


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.227 $\pm$ 0.264	0.345	90.3	-0.44
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	0.992 $\pm$ 0.118	0.555	60.8	-1.86
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.209 $\pm$ 0.025	0.298	30.9	-3.21
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.109 $\pm$ 0.013	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.282 $\pm$ 0.033	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	4.31 $\pm$ 0.577	1.64	110	0.26
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.707 $\pm$ 0.496	0.99	109	0.26
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.44 $\pm$ 0.326	0.773	85.2	-0.54
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	0.769 $\pm$ 0.103	0.654	52.9	-1.65
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.078 $\pm$ 0.01	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.05 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.366 $\pm$ 0.492	0.579	92.9	-0.25
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.393 $\pm$ 0.35	0.825	98.6	-0.04
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	2.463 $\pm$ 0.36	1.03	115	0.36
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	3.737 $\pm$ 0.547	0.94	83.5	-0.64
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	2.45 $\pm$ 0.358	1.04	109	0.22
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.937 $\pm$ 0.43	0.755	97.2	-0.09
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	2.927 $\pm$ 0.428	0.464	88.3	-0.44

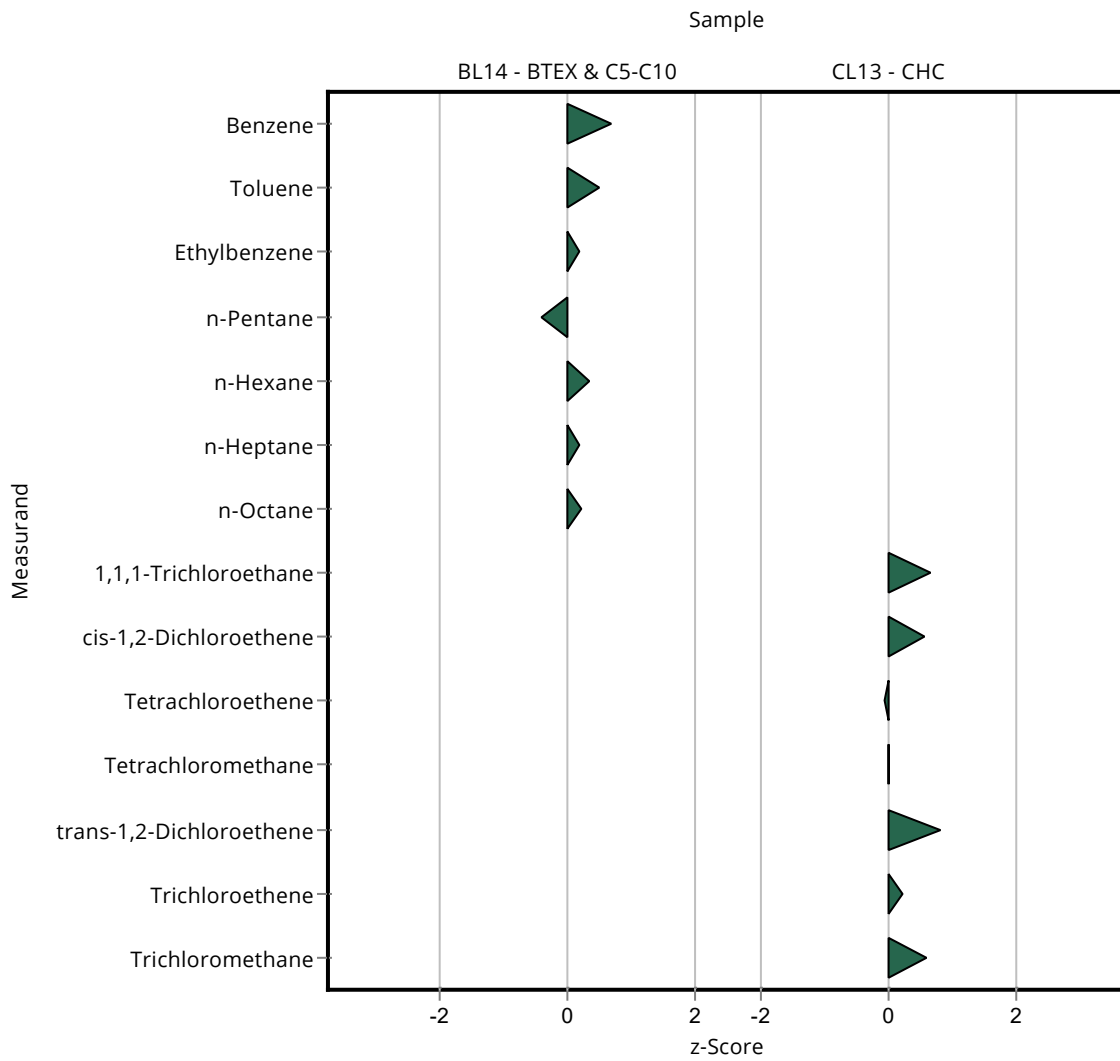


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.7 $\pm$ 0.54	0.345	109	0.68
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.9 $\pm$ 0.38	0.555	116	0.48
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.73 $\pm$ 0.146	0.298	108	0.18
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.4 $\pm$ 0.08	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1 $\pm$ 0.2	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	3.23 $\pm$ 0.646	1.64	82.6	-0.41
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.75 $\pm$ 0.75	0.99	110	0.34
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.99 $\pm$ 0.598	0.773	104	0.16
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.58 $\pm$ 0.316	0.654	109	0.19
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<1 (LOQ) $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<1 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	4 $\pm$ 0.8	0.579	110	0.65
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.9 $\pm$ 0.58	0.825	120	0.57
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	2.1 $\pm$ 0.42	1.03	97.7	-0.05
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.5 $\pm$ 0.9	0.94	101	0.02
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.1 $\pm$ 0.62	1.04	138	0.82
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.2 $\pm$ 0.64	0.755	106	0.24
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.6 $\pm$ 0.72	0.464	109	0.61

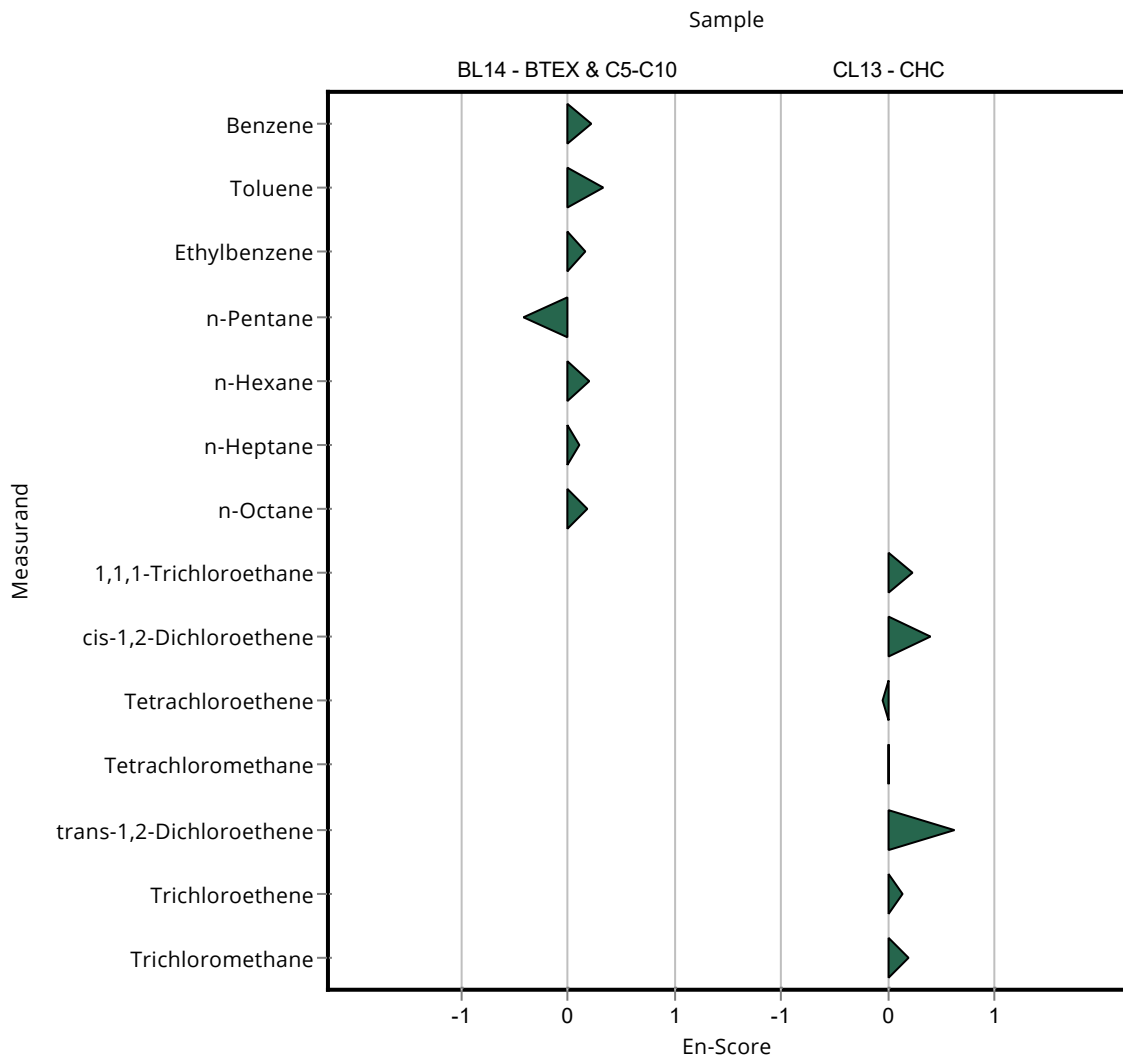


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.7 $\pm$ 0.54	0.345	109	0.21
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.9 $\pm$ 0.38	0.555	116	0.34
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.73 $\pm$ 0.146	0.298	108	0.17
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.4 $\pm$ 0.08	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1 $\pm$ 0.2	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	3.23 $\pm$ 0.646	1.64	82.6	-0.41
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.75 $\pm$ 0.75	0.99	110	0.21
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.99 $\pm$ 0.598	0.773	104	0.10
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.58 $\pm$ 0.316	0.654	109	0.18
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<1 (LOQ) $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<1 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	4 $\pm$ 0.8	0.579	110	0.23
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.9 $\pm$ 0.58	0.825	120	0.39
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	2.1 $\pm$ 0.42	1.03	97.7	-0.05
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.5 $\pm$ 0.9	0.94	101	0.01
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.1 $\pm$ 0.62	1.04	138	0.63
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.2 $\pm$ 0.64	0.755	106	0.14
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.6 $\pm$ 0.72	0.464	109	0.20

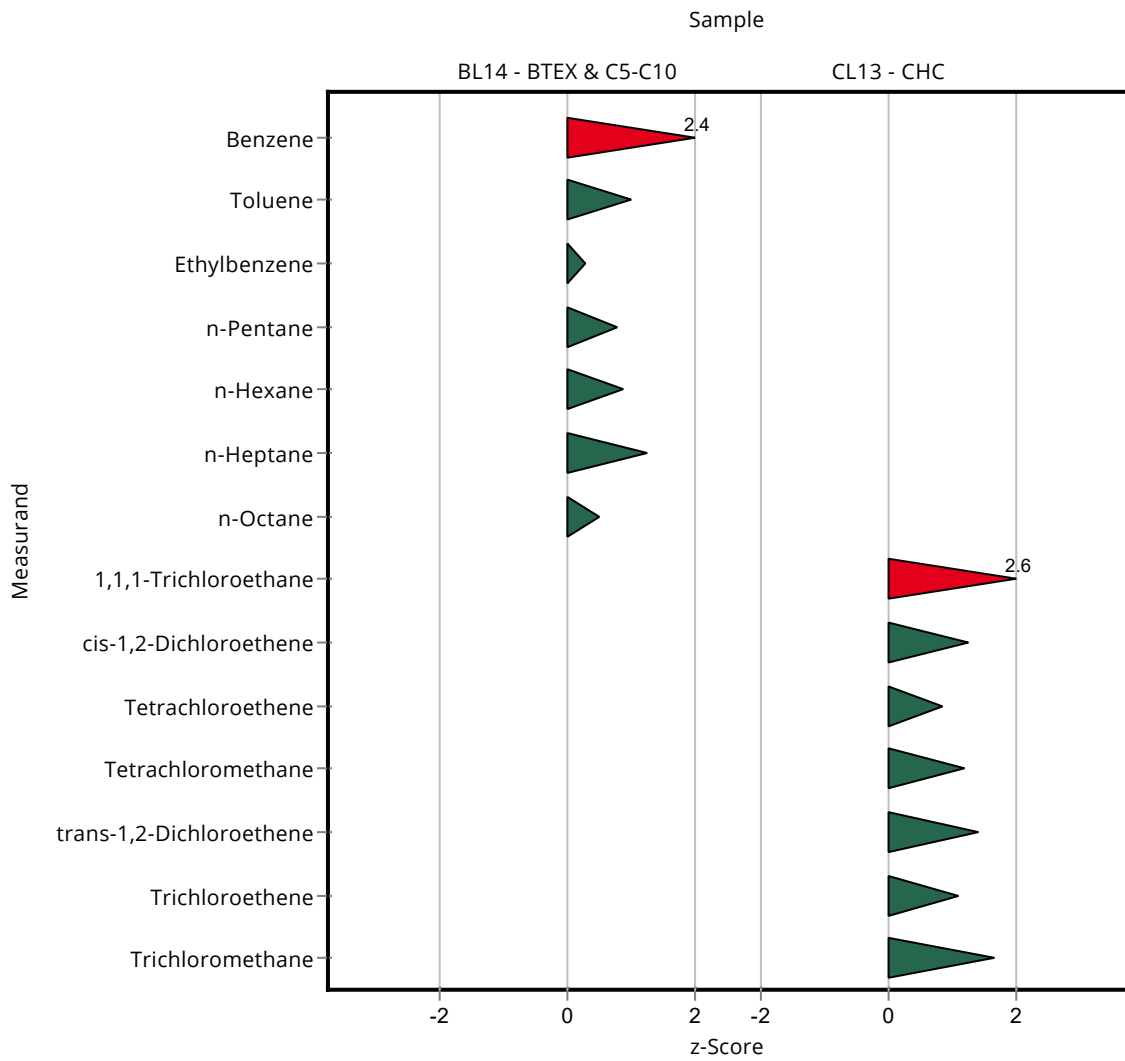


Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	3.278 $\pm$ 0.16	0.345	133	2.35
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2.179 $\pm$ 0.11	0.555	134	0.99
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.754 $\pm$ 0.049	0.298	111	0.26
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.382 $\pm$ 0.031	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.048 $\pm$ 0.095	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	5.179 $\pm$ 0.31	1.64	132	0.77
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	4.257 $\pm$ 0.36	0.99	125	0.85
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3.818 $\pm$ 0.21	0.773	133	1.23
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.78 $\pm$ 0.13	0.654	123	0.50
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.136 $\pm$ 0.016	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.003 $\pm$ 0.0005	-	-	-

Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	5.106 $\pm$ 0.41	0.579	141	2.56
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	3.472 $\pm$ 0.5	0.825	143	1.27
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	3.012 $\pm$ 0.41	1.03	140	0.84
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	5.61 $\pm$ 0.6	0.94	125	1.20
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.733 $\pm$ 0.39	1.04	166	1.43
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.845 $\pm$ 0.4	0.755	127	1.09
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	4.09 $\pm$ 0.31	0.464	123	1.67

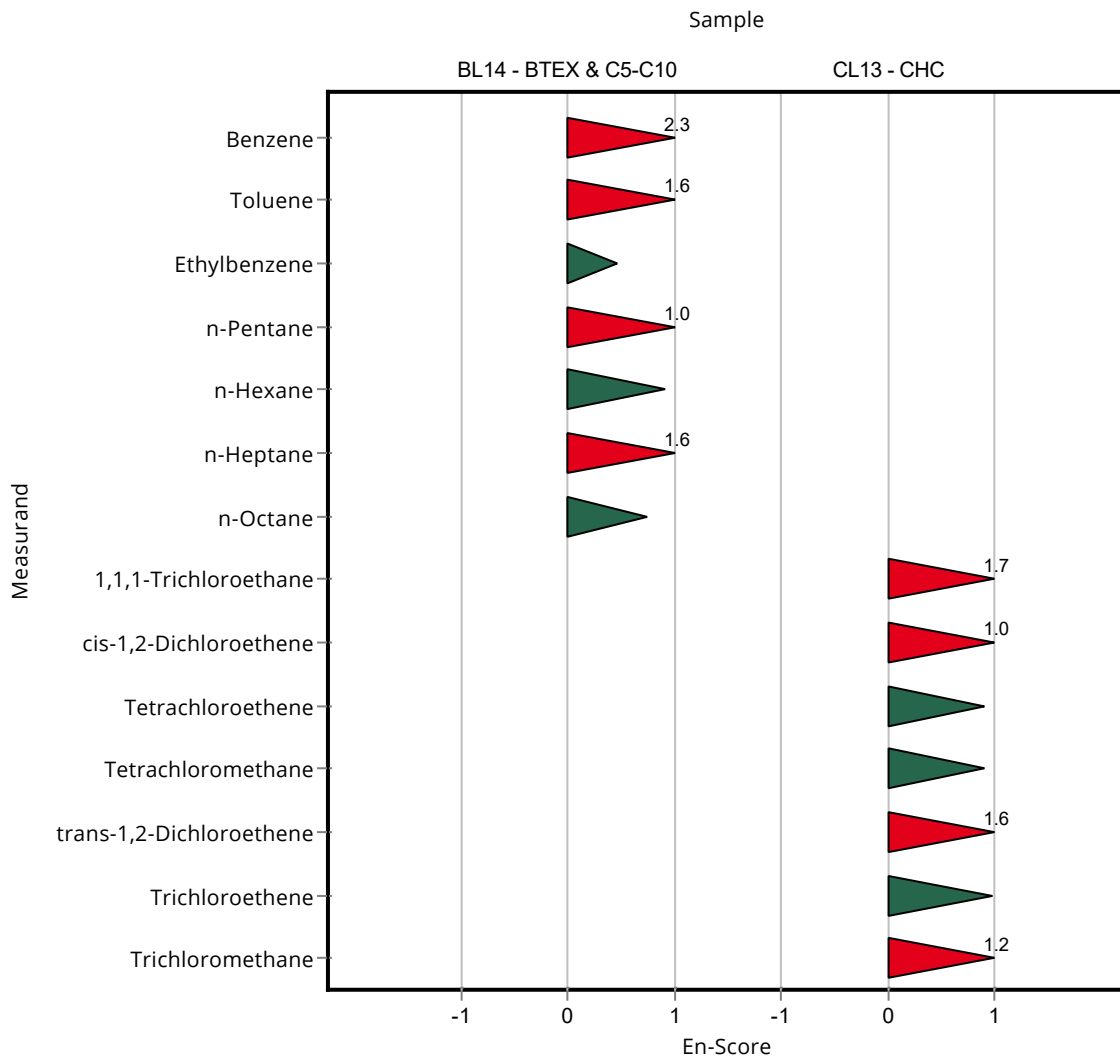


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	3.278 $\pm$ 0.16	0.345	133	2.29
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	2.179 $\pm$ 0.11	0.555	134	1.65
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.754 $\pm$ 0.049	0.298	111	0.46
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.382 $\pm$ 0.031	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.048 $\pm$ 0.095	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	5.179 $\pm$ 0.31	1.64	132	1.05
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	4.257 $\pm$ 0.36	0.99	125	0.92
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	3.818 $\pm$ 0.21	0.773	133	1.60
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.78 $\pm$ 0.13	0.654	123	0.74
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.136 $\pm$ 0.016	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.003 $\pm$ 0.0005	-	-	-

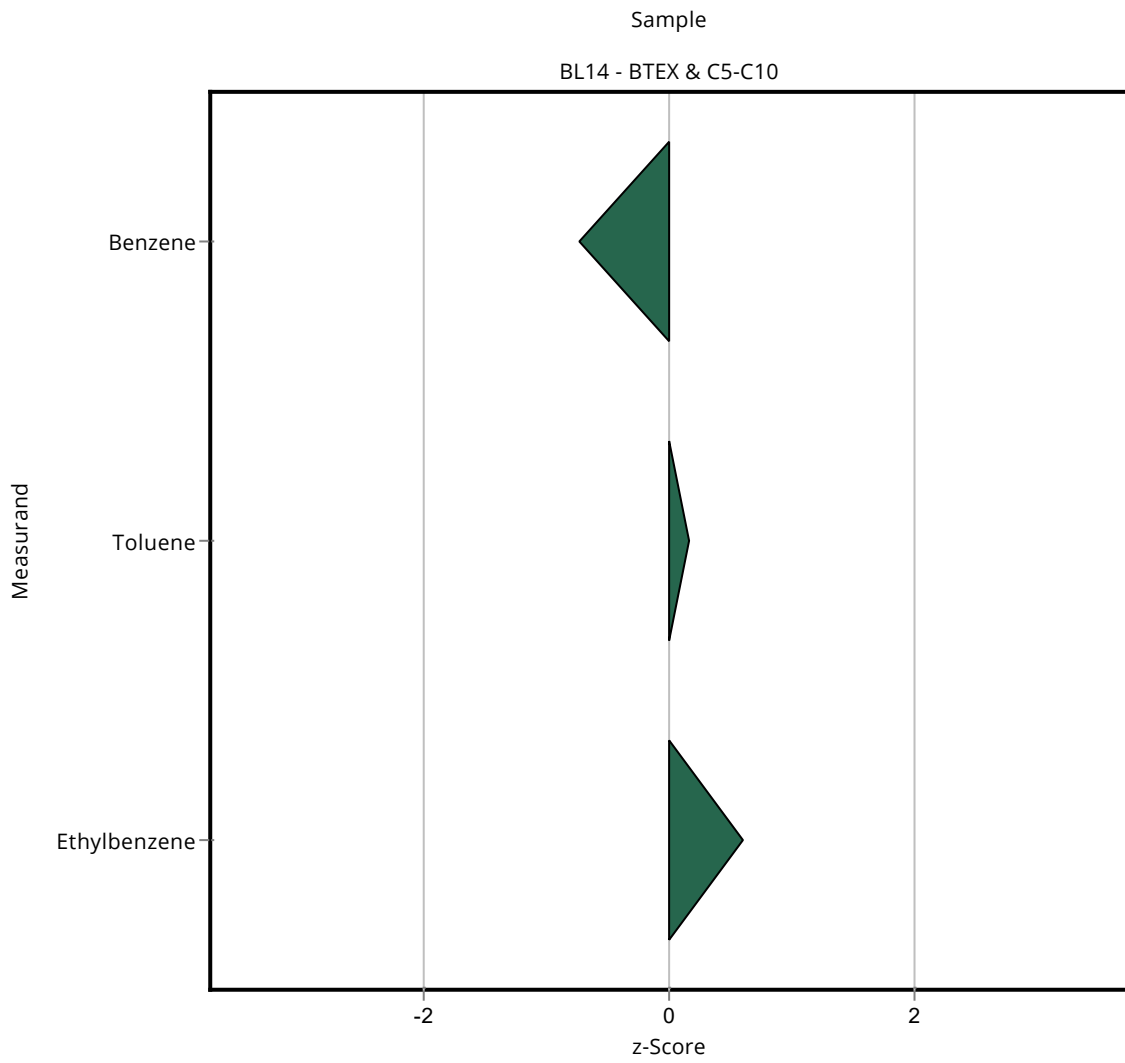
## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	5.106 $\pm$ 0.41	0.579	141	1.70
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	3.472 $\pm$ 0.5	0.825	143	1.00
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	3.012 $\pm$ 0.41	1.03	140	0.90
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	5.61 $\pm$ 0.6	0.94	125	0.91
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.733 $\pm$ 0.39	1.04	166	1.56
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.845 $\pm$ 0.4	0.755	127	0.98
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	4.09 $\pm$ 0.31	0.464	123	1.17



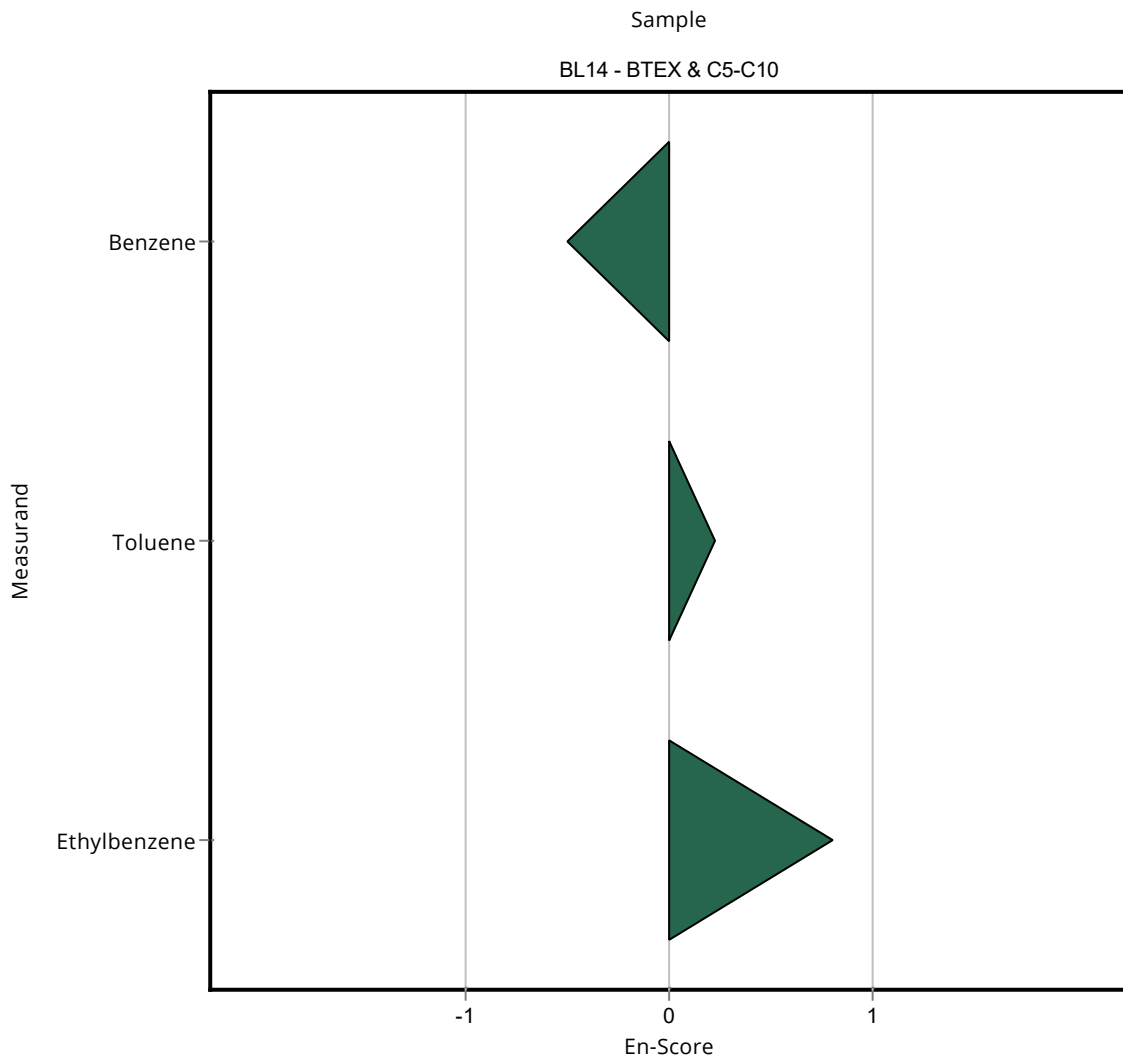
Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.211 $\pm$ 0.245	0.345	89.6	-0.74
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.721 $\pm$ 0.151	0.555	105	0.16
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.856 $\pm$ 0.089	0.298	127	0.60
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.493 $\pm$ 0.057	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.076 $\pm$ 0.118	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-



Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.211 $\pm$ 0.245	0.345	89.6	-0.50
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.721 $\pm$ 0.151	0.555	105	0.23
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.856 $\pm$ 0.089	0.298	127	0.80
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.493 $\pm$ 0.057	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.076 $\pm$ 0.118	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-

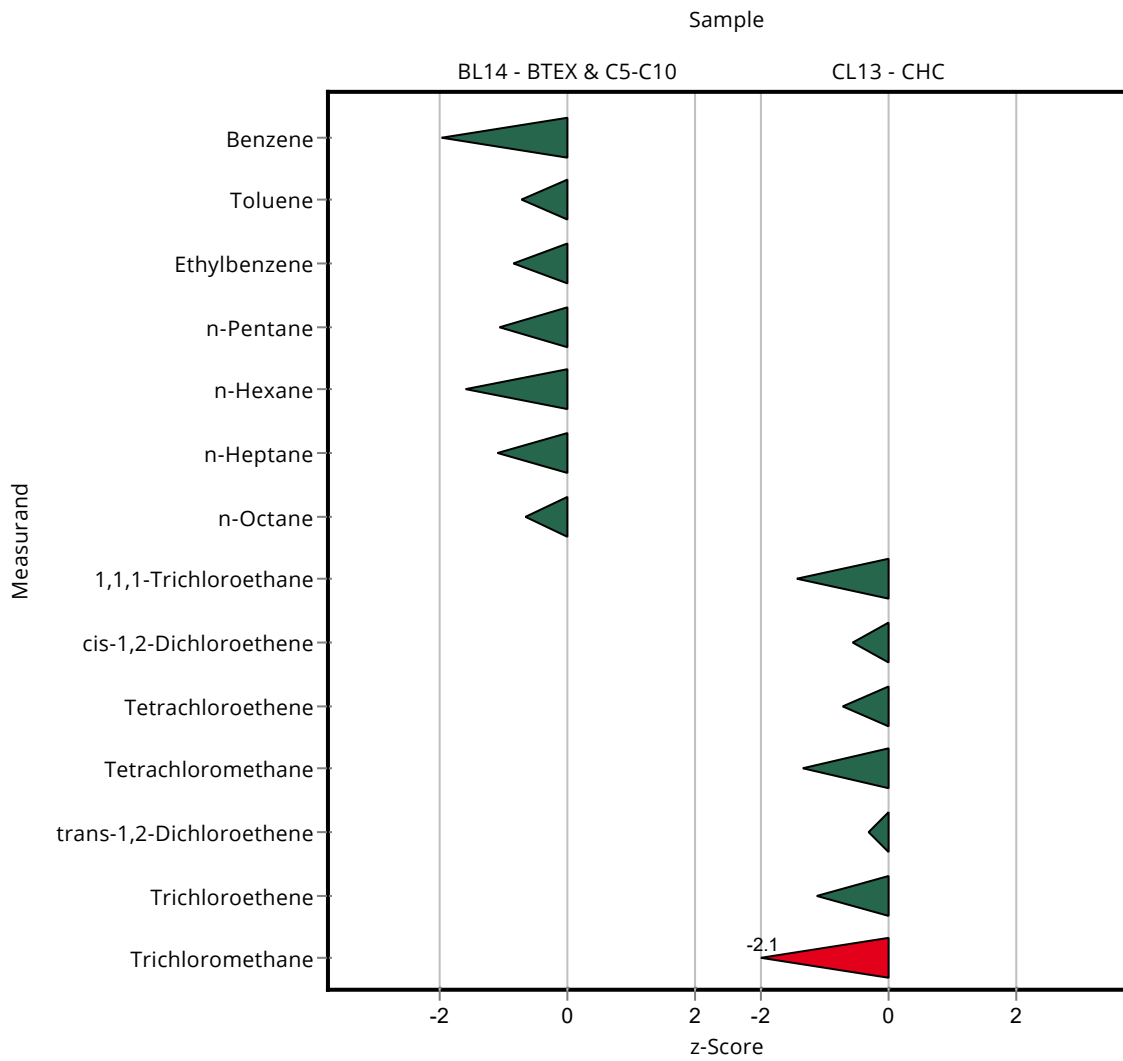


Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	1.78 $\pm$ 0.4	0.345	72.2	-1.99
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.22 $\pm$ 0.3	0.555	74.8	-0.74
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.42 $\pm$ 0.1	0.298	62.1	-0.86
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.27 $\pm$ 0.1	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.62 $\pm$ 0.15	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	2.13 $\pm$ 0.25	1.64	54.5	-1.08
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	1.84 $\pm$ 0.2	0.99	53.9	-1.59
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.01 $\pm$ 0.2	0.773	70.2	-1.10
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.02 $\pm$ 0.15	0.654	70.2	-0.66
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.14 $\pm$ 0.05	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.1 (LOQ) $\pm$ -	-	-	-

Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	2.79 $\pm$ 0.35	0.579	77	-1.44
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.98 $\pm$ 0.28	0.825	81.6	-0.54
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.41 $\pm$ 0.2	1.03	65.6	-0.72
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	3.23 $\pm$ 0.31	0.94	72.1	-1.33
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.94 $\pm$ 0.2	1.04	86.1	-0.30
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.19 $\pm$ 0.21	0.755	72.5	-1.10
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	2.36 $\pm$ 0.25	0.464	71.2	-2.06

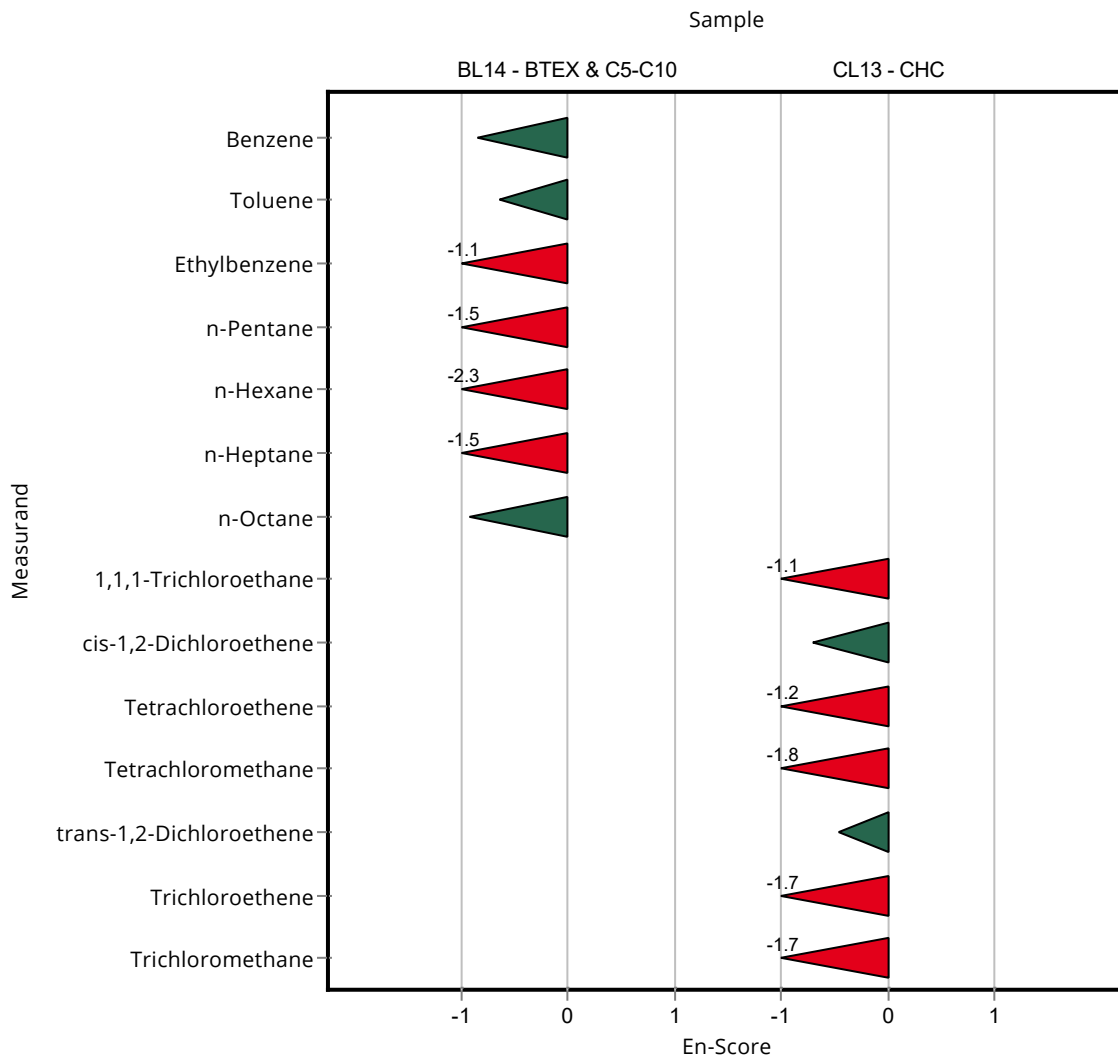


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	1.78 $\pm$ 0.4	0.345	72.2	-0.84
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.22 $\pm$ 0.3	0.555	74.8	-0.63
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.42 $\pm$ 0.1	0.298	62.1	-1.06
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.27 $\pm$ 0.1	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.62 $\pm$ 0.15	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	2.13 $\pm$ 0.25	1.64	54.5	-1.55
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	1.84 $\pm$ 0.2	0.99	53.9	-2.26
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.01 $\pm$ 0.2	0.773	70.2	-1.46
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.02 $\pm$ 0.15	0.654	70.2	-0.93
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.14 $\pm$ 0.05	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.1 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	2.79 $\pm$ 0.35	0.579	77	-1.09
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.98 $\pm$ 0.28	0.825	81.6	-0.70
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.41 $\pm$ 0.2	1.03	65.6	-1.16
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	3.23 $\pm$ 0.31	0.94	72.1	-1.75
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	1.94 $\pm$ 0.2	1.04	86.1	-0.47
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.19 $\pm$ 0.21	0.755	72.5	-1.67
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	2.36 $\pm$ 0.25	0.464	71.2	-1.73

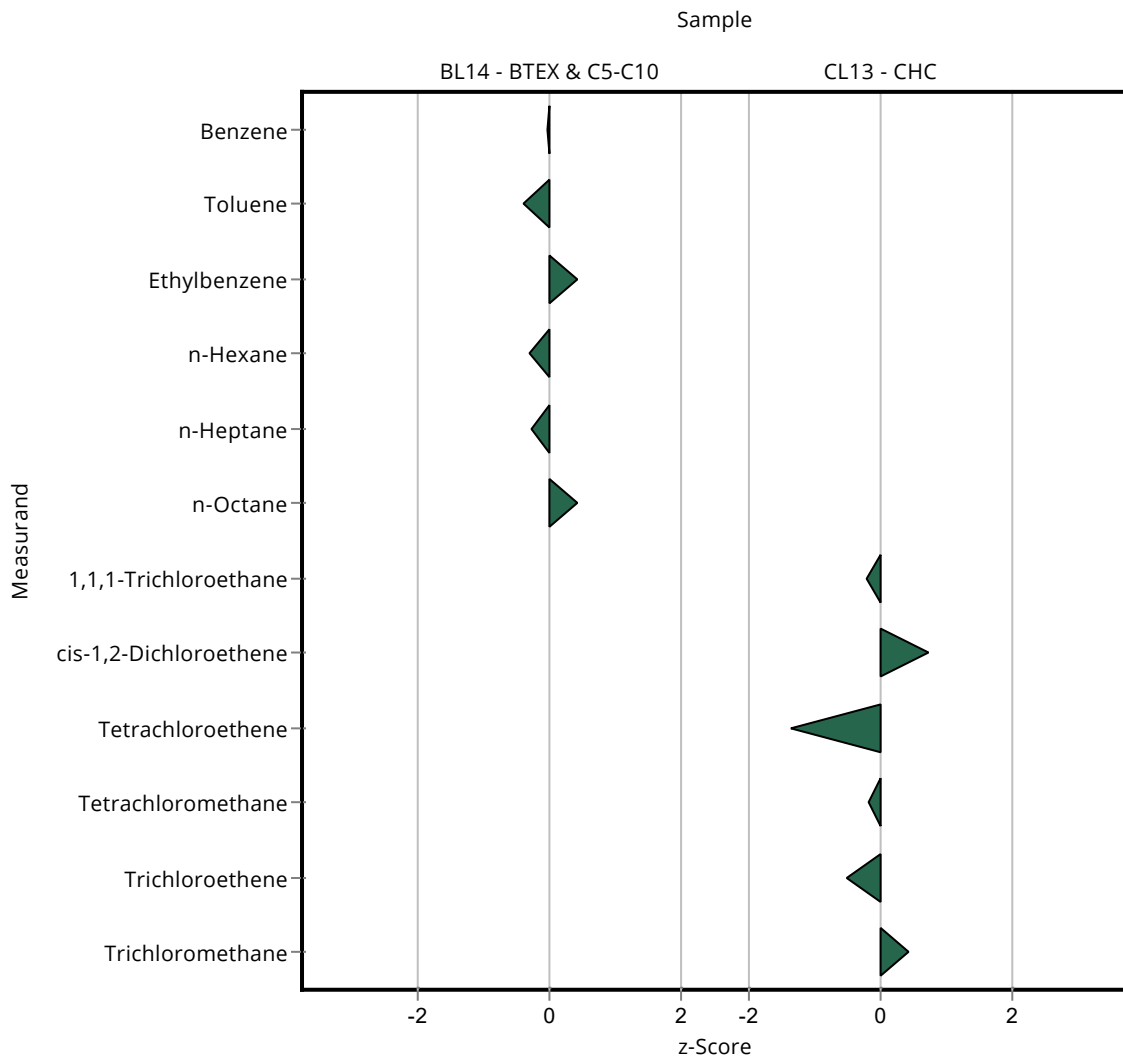


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.45 $\pm$ 0.24	0.345	99.3	-0.05
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.41 $\pm$ 0.14	0.555	86.4	-0.40
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.8 $\pm$ 0.08	0.298	118	0.42
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.55 $\pm$ 0.05	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.21 $\pm$ 0.12	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.1 $\pm$ 0.79	0.99	90.8	-0.32
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.66 $\pm$ 0.68	0.773	92.9	-0.26
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.73 $\pm$ 0.44	0.654	119	0.42
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.38 $\pm$ 0.1	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.01 (LOQ) $\pm$ -	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.51 $\pm$ 0.71	0.579	96.9	-0.19
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	3.04 $\pm$ 0.62	0.825	125	0.74
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	0.76 $\pm$ 0.15	1.03	35.4	-1.35
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.31 $\pm$ 0.87	0.94	96.3	-0.18
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	- $\pm$ -	1.04	-	-
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.64 $\pm$ 0.54	0.755	87.4	-0.50
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.52 $\pm$ 0.72	0.464	106	0.44

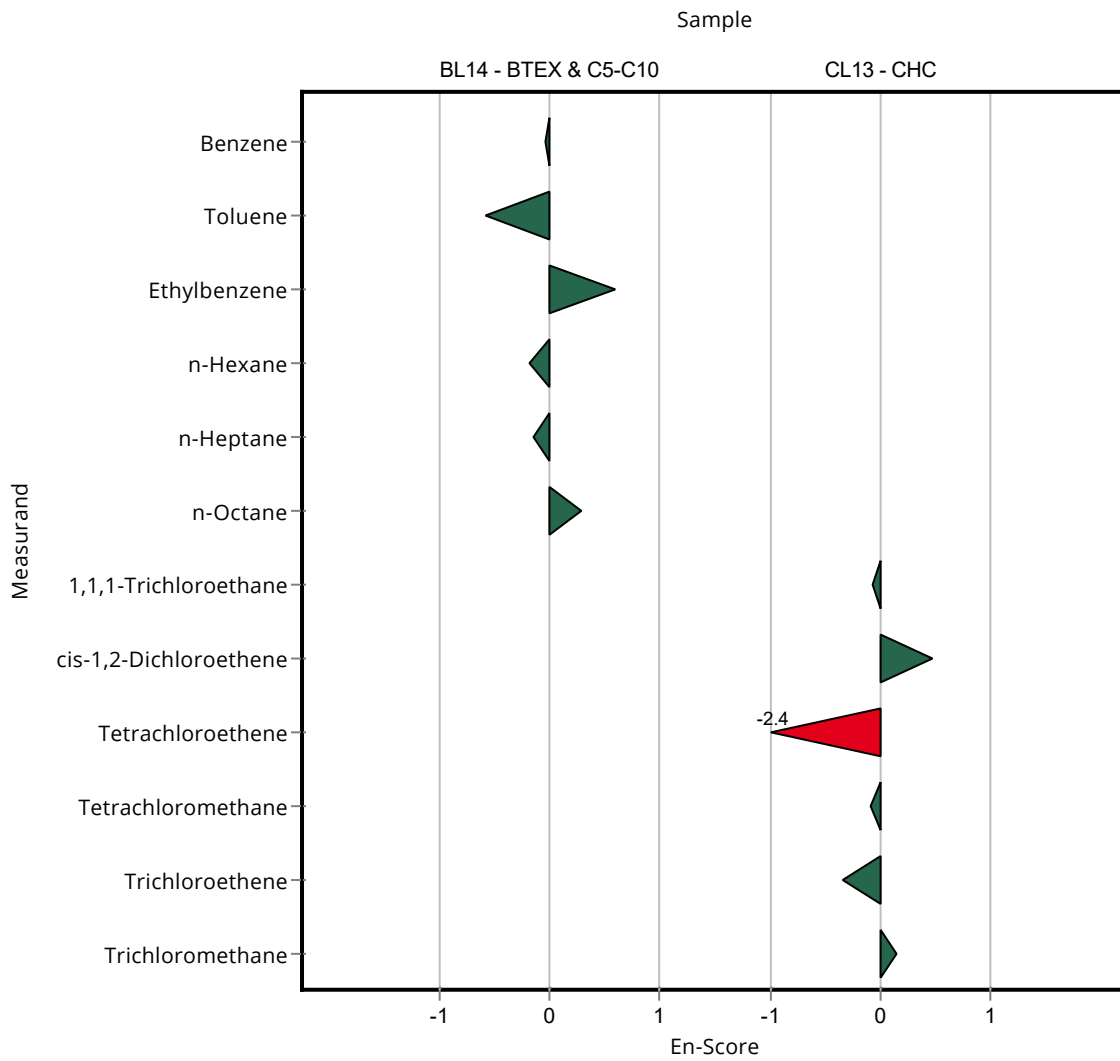


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.45 $\pm$ 0.24	0.345	99.3	-0.03
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.41 $\pm$ 0.14	0.555	86.4	-0.59
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.8 $\pm$ 0.08	0.298	118	0.59
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.55 $\pm$ 0.05	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.21 $\pm$ 0.12	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	3.1 $\pm$ 0.79	0.99	90.8	-0.19
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	2.66 $\pm$ 0.68	0.773	92.9	-0.14
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	1.73 $\pm$ 0.44	0.654	119	0.29
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.38 $\pm$ 0.1	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	<0.01 (LOQ) $\pm$ -	-	-	-

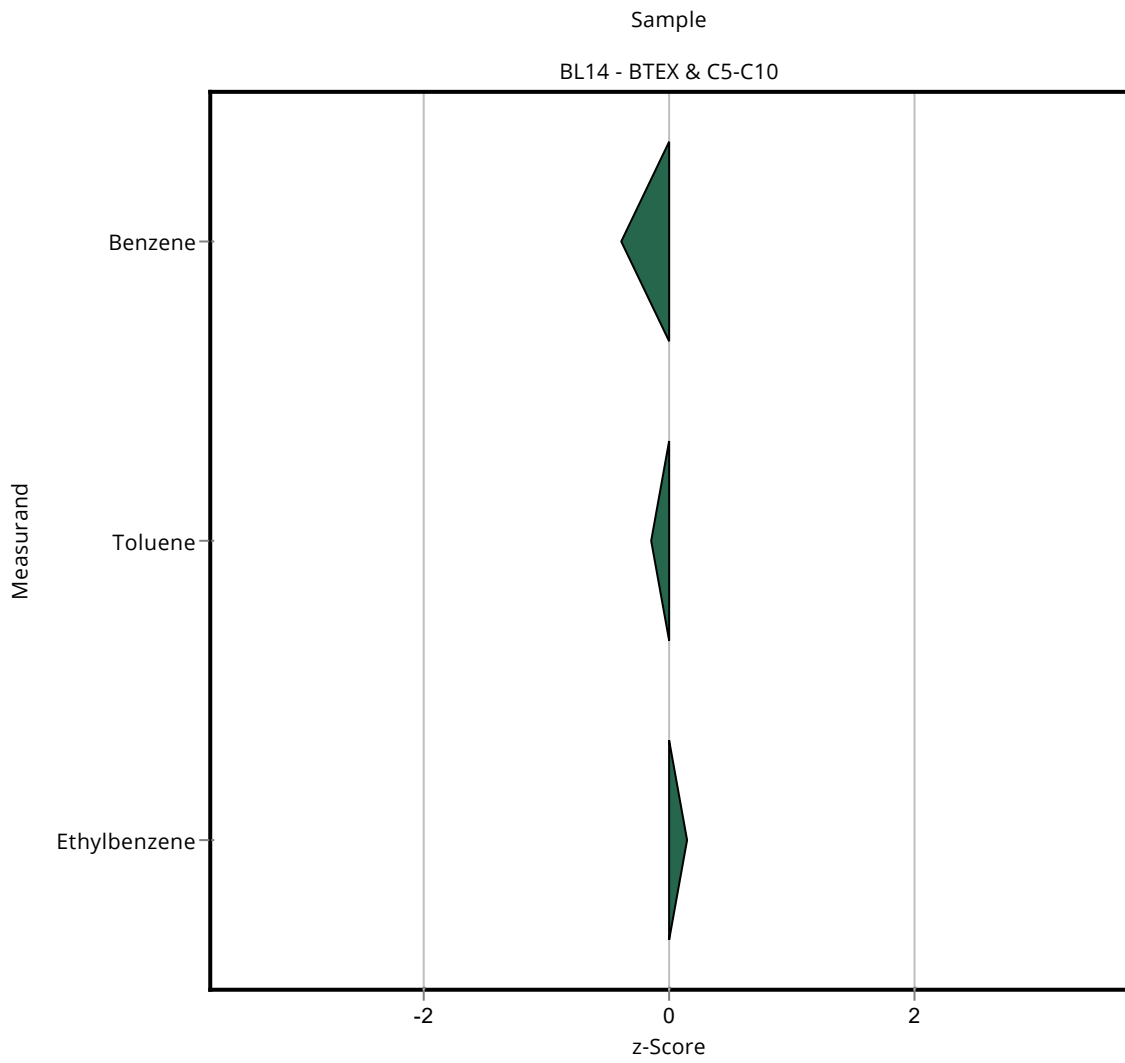
## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.51 $\pm$ 0.71	0.579	96.9	-0.08
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	3.04 $\pm$ 0.62	0.825	125	0.48
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	0.76 $\pm$ 0.15	1.03	35.4	-2.39
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.31 $\pm$ 0.87	0.94	96.3	-0.09
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	- $\pm$ -	1.04	-	-
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.64 $\pm$ 0.54	0.755	87.4	-0.34
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.52 $\pm$ 0.72	0.464	106	0.14



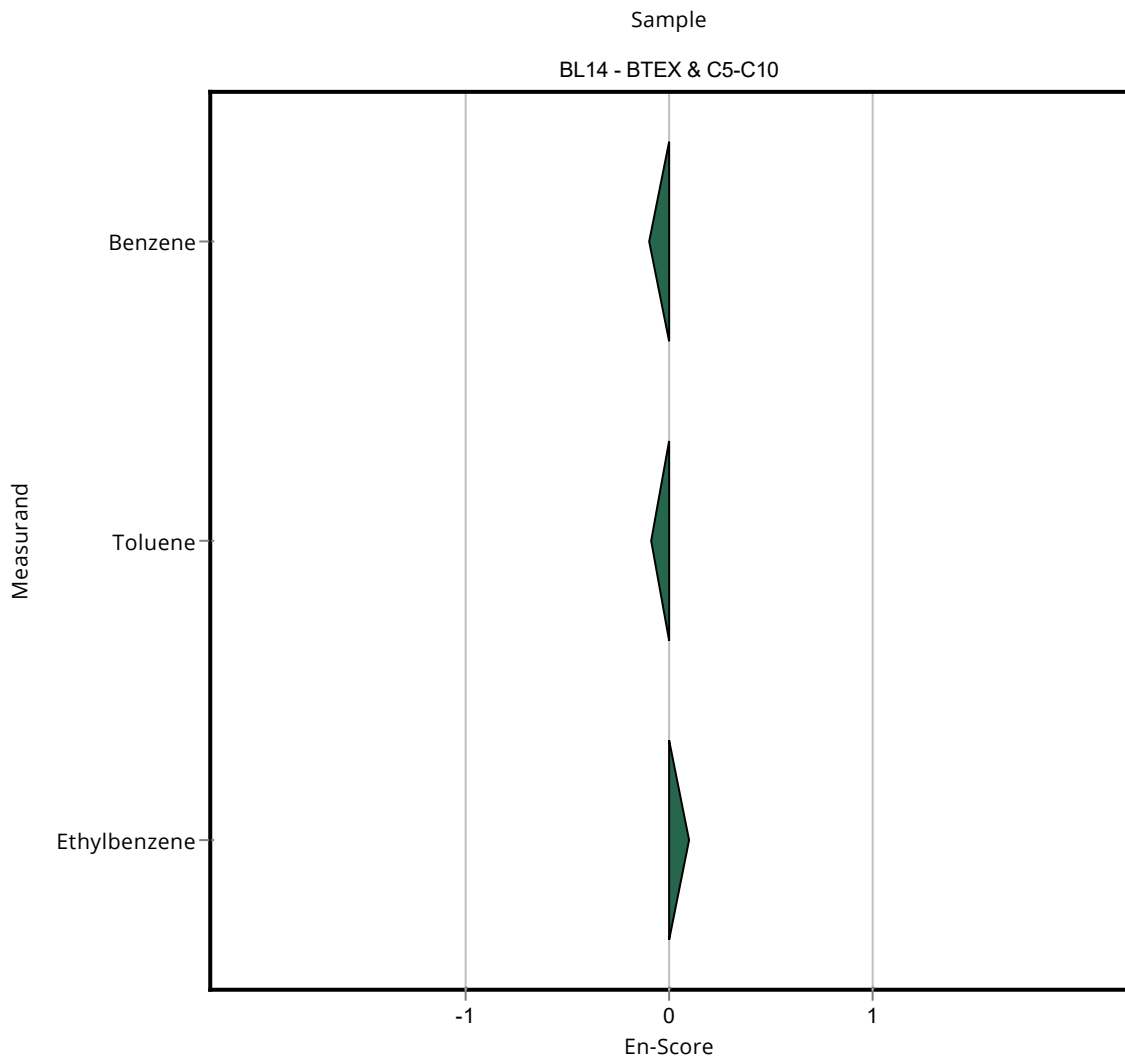
Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.33 $\pm$ 0.7	0.345	94.5	-0.40
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.55 $\pm$ 0.47	0.555	95	-0.15
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.721 $\pm$ 0.22	0.298	107	0.15
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.44 $\pm$ 0.13	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.07 $\pm$ 0.32	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-



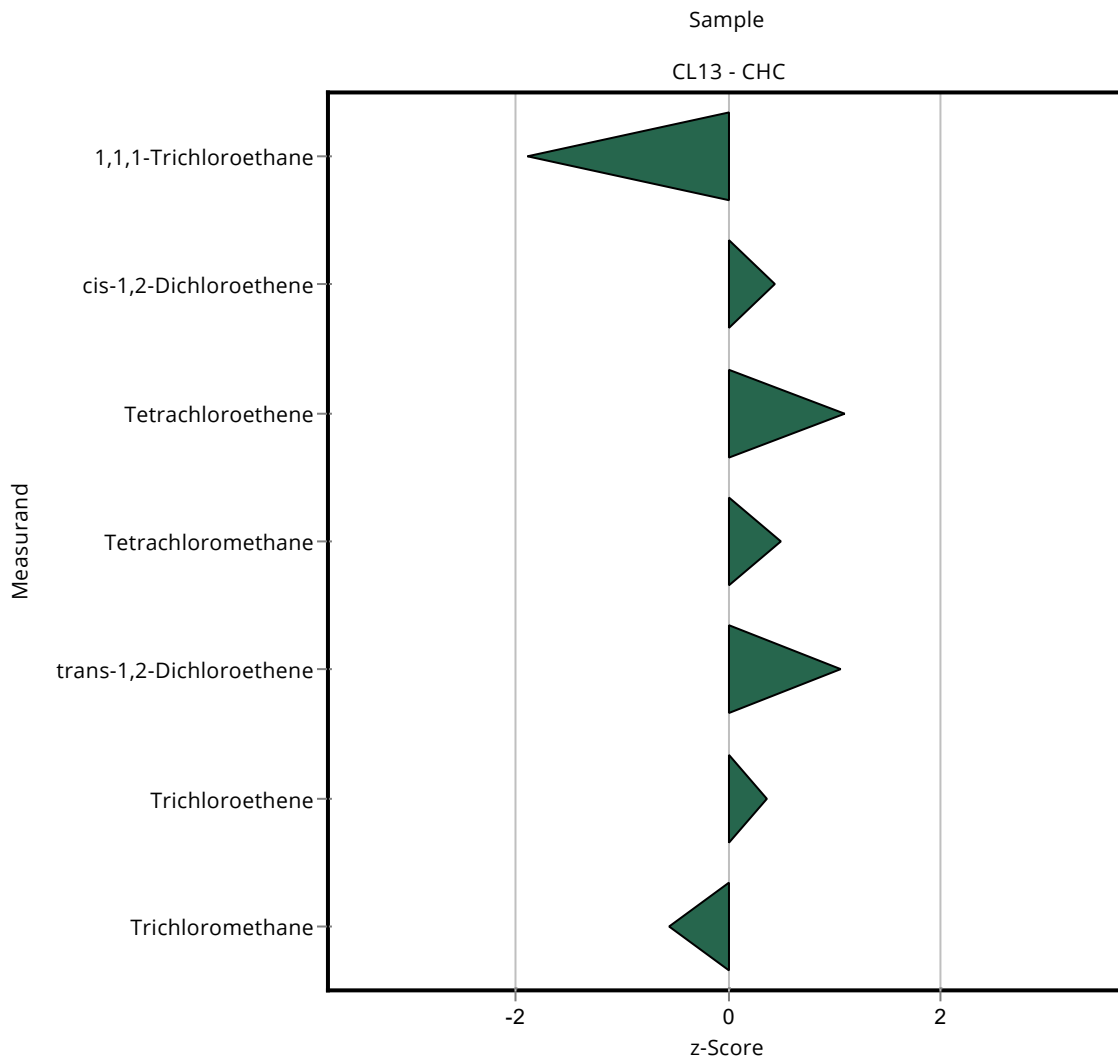
Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.33 $\pm$ 0.7	0.345	94.5	-0.10
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.55 $\pm$ 0.47	0.555	95	-0.08
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.721 $\pm$ 0.22	0.298	107	0.10
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.44 $\pm$ 0.13	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	1.07 $\pm$ 0.32	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	- $\pm$ -	1.64	-	-
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	- $\pm$ -	0.99	-	-
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	- $\pm$ -	0.773	-	-
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	- $\pm$ -	0.654	-	-
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	- $\pm$ -	-	-	-



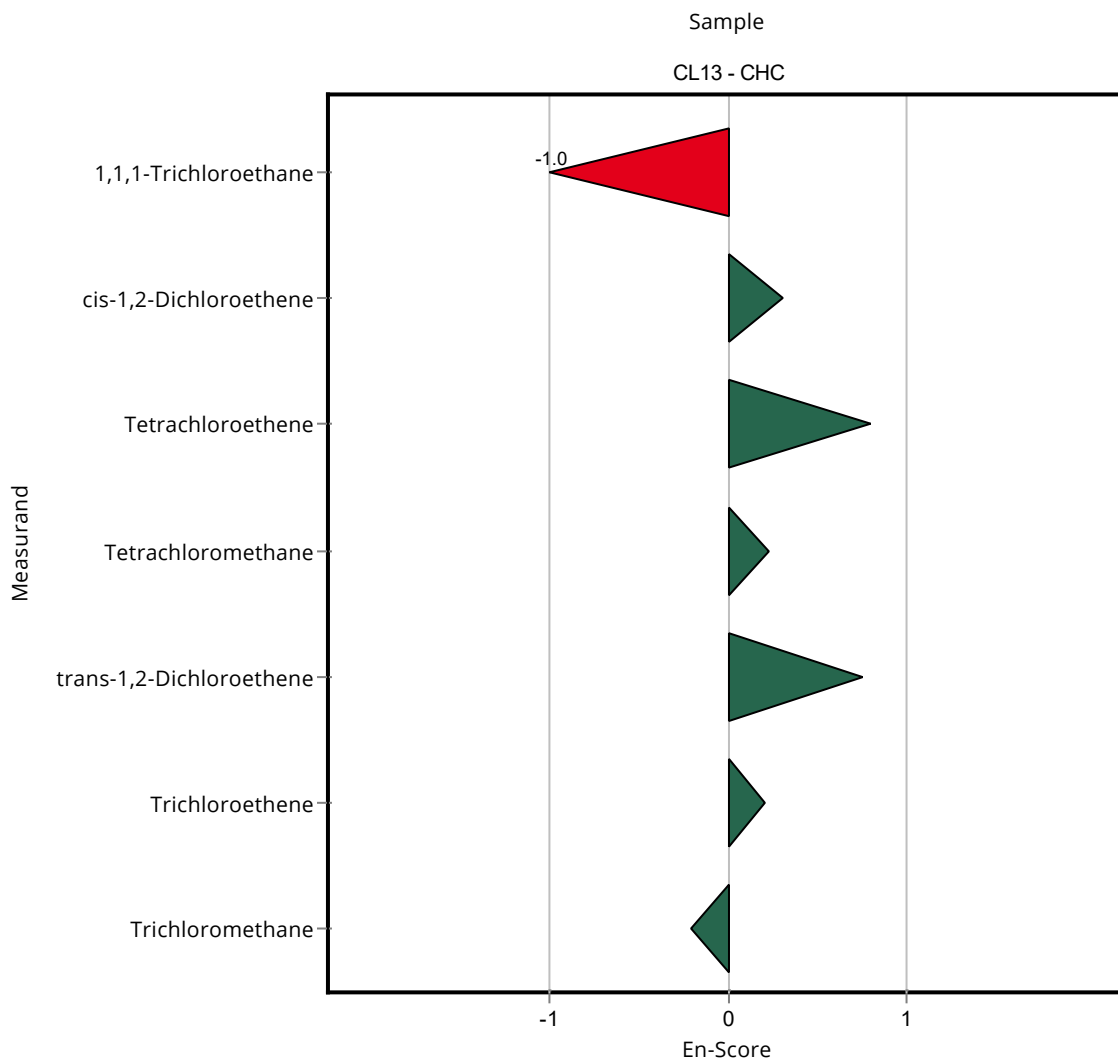
Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	2.53 $\pm$ 0.51	0.579	69.9	-1.88
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.79 $\pm$ 0.56	0.825	115	0.44
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	3.27 $\pm$ 0.65	1.03	152	1.09
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.95 $\pm$ 0.99	0.94	111	0.50
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.34 $\pm$ 0.67	1.04	148	1.05
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.3 $\pm$ 0.66	0.755	109	0.37
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.06 $\pm$ 0.61	0.464	92.3	-0.55



Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	2.53 $\pm$ 0.51	0.579	69.9	-1.03
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	2.79 $\pm$ 0.56	0.825	115	0.31
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	3.27 $\pm$ 0.65	1.03	152	0.81
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.95 $\pm$ 0.99	0.94	111	0.24
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	3.34 $\pm$ 0.67	1.04	148	0.75
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	3.3 $\pm$ 0.66	0.755	109	0.21
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.06 $\pm$ 0.61	0.464	92.3	-0.21

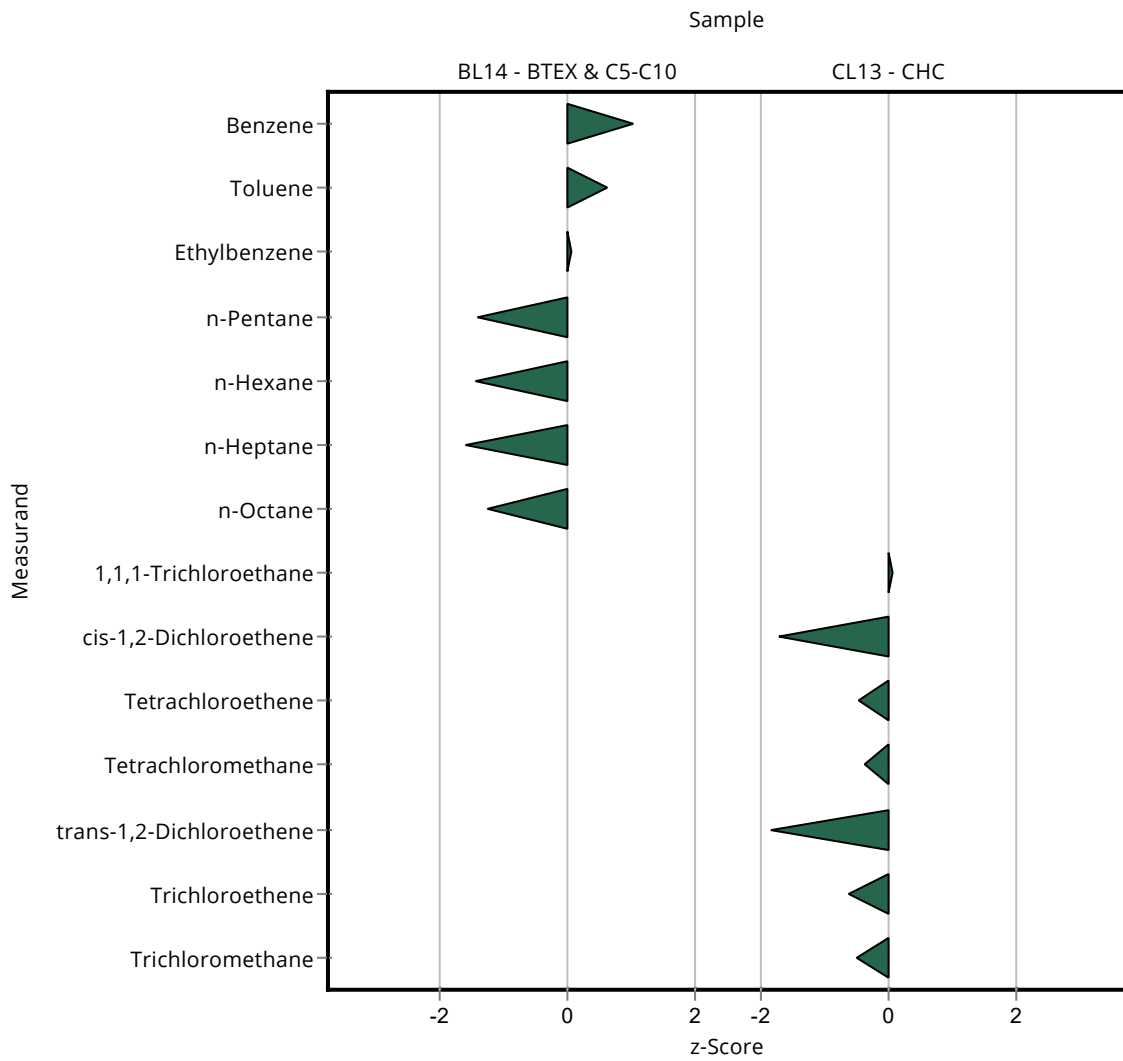


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.82 $\pm$ 1.27	0.345	114	1.02
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.98 $\pm$ 0.89	0.555	121	0.63
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.69 $\pm$ 0.31	0.298	102	0.05
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.36 $\pm$ 0.16	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.96 $\pm$ 0.43	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	1.6 $\pm$ 0.32	1.64	40.9	-1.41
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	2 $\pm$ 0.4	0.99	58.6	-1.43
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	1.62 $\pm$ 0.32	0.773	56.6	-1.61
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	0.64 $\pm$ 0.13	0.654	44.1	-1.24
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.06 $\pm$ 0.01	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.01 $\pm$ 0.01	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	z-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.67 $\pm$ 1.1	0.579	101	0.08
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.02 $\pm$ 0.31	0.825	42	-1.70
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.66 $\pm$ 0.5	1.03	77.3	-0.47
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.14 $\pm$ 1.24	0.94	92.5	-0.36
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	0.36 $\pm$ 0.11	1.04	16	-1.83
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.55 $\pm$ 0.77	0.755	84.4	-0.62
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.09 $\pm$ 0.93	0.464	93.2	-0.49

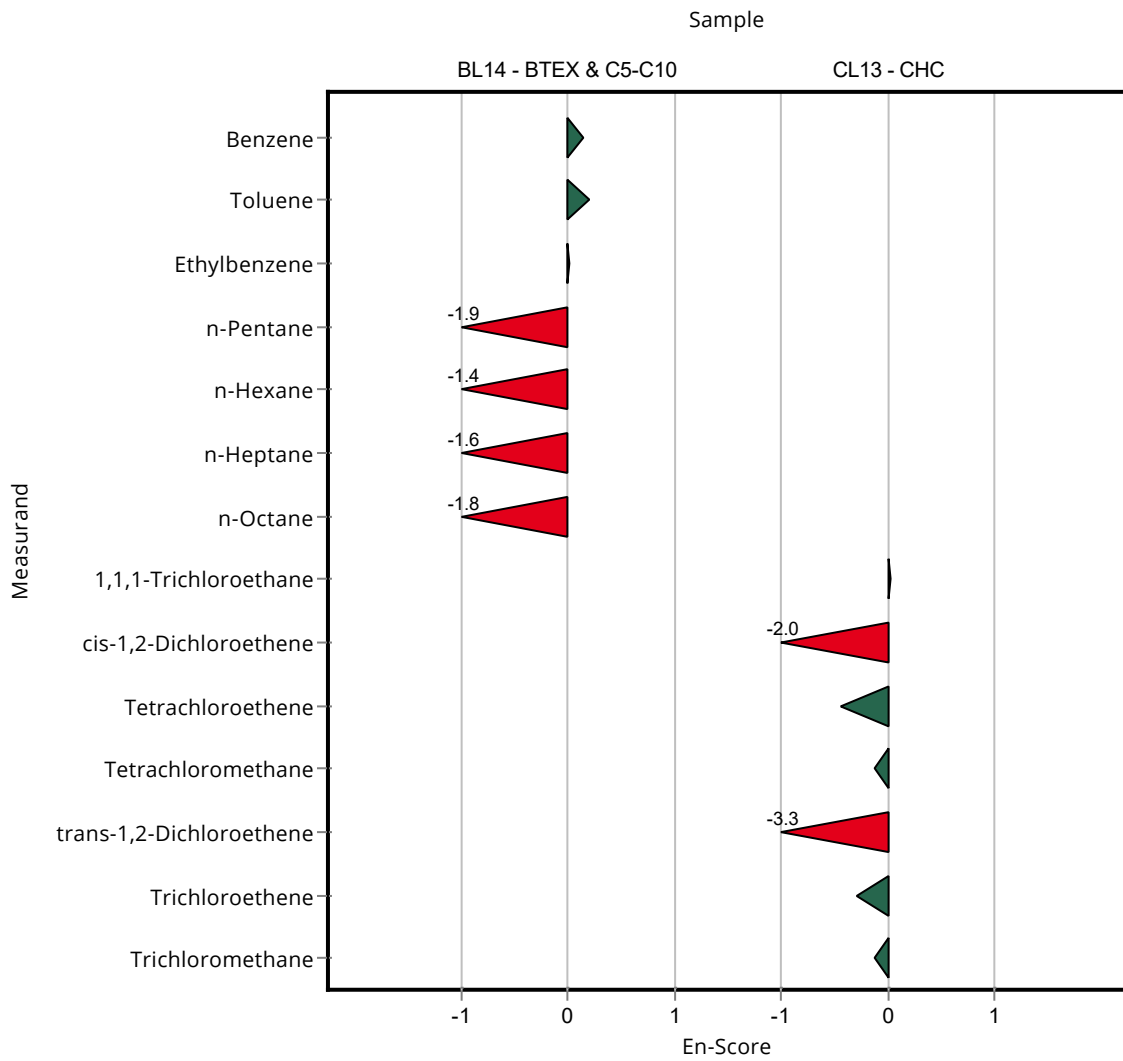


## Sample: BL14

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
Benzene	$\mu\text{g}/\text{tube}$	2.47 $\pm$ 0.152	2.82 $\pm$ 1.27	0.345	114	0.14
Toluene	$\mu\text{g}/\text{tube}$	1.63 $\pm$ 0.249	1.98 $\pm$ 0.89	0.555	121	0.19
Ethylbenzene	$\mu\text{g}/\text{tube}$	0.676 $\pm$ 0.137	0.69 $\pm$ 0.31	0.298	102	0.02
o-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.36 $\pm$ 0.16	-	-	-
Sum of m-Xylene and p-Xylene	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.96 $\pm$ 0.43	-	-	-
n-Pentane	$\mu\text{g}/\text{tube}$	3.91 $\pm$ 1.04	1.6 $\pm$ 0.32	1.64	40.9	-1.90
n-Hexane	$\mu\text{g}/\text{tube}$	3.41 $\pm$ 0.57	2 $\pm$ 0.4	0.99	58.6	-1.44
n-Heptane	$\mu\text{g}/\text{tube}$	2.86 $\pm$ 0.425	1.62 $\pm$ 0.32	0.773	56.6	-1.62
n-Octane	$\mu\text{g}/\text{tube}$	1.45 $\pm$ 0.358	0.64 $\pm$ 0.13	0.654	44.1	-1.84
n-Nonane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.06 $\pm$ 0.01	-	-	-
n-Decane	$\mu\text{g}/\text{tube}$	- $\pm$ -	0.01 $\pm$ 0.01	-	-	-

## Sample: CL13

Parameter	Unit	Assigned $\pm$ U (k=2) value	Result $\pm$ U	Criterion	Recovery [%]	En-Score
1,1,1-Trichloroethane	$\mu\text{g}/\text{tube}$	3.62 $\pm$ 0.3	3.67 $\pm$ 1.1	0.579	101	0.02
cis-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.43 $\pm$ 0.304	1.02 $\pm$ 0.31	0.825	42	-2.04
Tetrachloroethene	$\mu\text{g}/\text{tube}$	2.15 $\pm$ 0.498	1.66 $\pm$ 0.5	1.03	77.3	-0.44
Tetrachloromethane	$\mu\text{g}/\text{tube}$	4.48 $\pm$ 0.35	4.14 $\pm$ 1.24	0.94	92.5	-0.13
trans-1,2-Dichloroethene	$\mu\text{g}/\text{tube}$	2.25 $\pm$ 0.535	0.36 $\pm$ 0.11	1.04	16	-3.27
Trichloroethene	$\mu\text{g}/\text{tube}$	3.02 $\pm$ 0.268	2.55 $\pm$ 0.77	0.755	84.4	-0.30
Trichloromethane	$\mu\text{g}/\text{tube}$	3.32 $\pm$ 0.233	3.09 $\pm$ 0.93	0.464	93.2	-0.12



## E9. Methodenübersicht / Overview of methods

LabCode	Sample	Benzene	Toluene	Ethylbenzene	Sum of m-Xylene and p-Xylene
LC0002	BL14	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	BL14	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
LC0004	BL14	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0005	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0006	BL14	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
LC0007	BL14		VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0008	BL14	EN 14662-2 (GC-FID);	EN 14662-2 (GC-FID);	EN 14662-2 (GC-FID);	EN 14662-2 (GC-FID);
LC0009	BL14	DIN 38407-43 (HS-GC-MS); F43	DIN 38407-43 (HS-GC-MS); F43	DIN 38407-43 (HS-GC-MS); F43	DIN 38407-43 (HS-GC-MS); F43
LC0010	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0011	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0012	BL14	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0013	BL14	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0014	BL14	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0015	BL14	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
LC0016	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0017	BL14	CEN/TS 13649 (GC);	CEN/TS 13649 (GC);	CEN/TS 13649 (GC);	CEN/TS 13649 (GC);
LC0018	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0019	BL14	VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);
LC0020	BL14	EN 14662-5 (GC);	EN 14662-5 (GC);	EN 14662-5 (GC);	EN 14662-5 (GC);
LC0022	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);

LabCode	Sample	o-Xylene	n-Pentane	n-Hexane	n-Heptane
LC0002	BL14	EN 14662-2 (GC); VDI 2100/2			EN 14662-2 (GC); VDI 2100/2
LC0003	BL14	VDI 3865-3 (GC-FID);			
LC0004	BL14	VDI 2100-2 (GC);			
LC0005	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0006	BL14	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
LC0007	BL14	VDI 3865-3 (GC);			
LC0008	BL14	EN 14662-2 (GC-FID);			
LC0009	BL14	DIN 38407-43 (HS-GC-MS); F43			
LC0010	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0011	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0012	BL14	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0013	BL14	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0014	BL14	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0015	BL14	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
LC0016	BL14	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0017	BL14	CEN/TS 13649 (GC);			

<b>LC0018</b>	<b>BL14</b>	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
<b>LC0019</b>	<b>BL14</b>	VDI-2100-2 (GC-MS);		VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);
<b>LC0020</b>	<b>BL14</b>	EN 14662-5 (GC);			
<b>LC0022</b>	<b>BL14</b>	VDI 3865-3 (GC);	VDI 3865-3 (GC); housemethod	VDI 3865-3 (GC); housemethod	VDI 3865-3 (GC); housemethod

<b>LabCode</b>	<b>Sample</b>	<b>n-Octane</b>	<b>n-Nonane</b>	<b>n-Decane</b>
<b>LC0002</b>	<b>BL14</b>	EN 14662-2 (GC); VDI 2100/2	EN 14662-2 (GC); VDI 2100/2	EN 14662-2 (GC); VDI 2100/2
<b>LC0003</b>	<b>BL14</b>			
<b>LC0004</b>	<b>BL14</b>			
<b>LC0005</b>	<b>BL14</b>	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
<b>LC0006</b>	<b>BL14</b>	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
<b>LC0007</b>	<b>BL14</b>			
<b>LC0008</b>	<b>BL14</b>			
<b>LC0009</b>	<b>BL14</b>			
<b>LC0010</b>	<b>BL14</b>	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
<b>LC0011</b>	<b>BL14</b>	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
<b>LC0012</b>	<b>BL14</b>	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
<b>LC0013</b>	<b>BL14</b>	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
<b>LC0014</b>	<b>BL14</b>	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
<b>LC0015</b>	<b>BL14</b>	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
<b>LC0016</b>	<b>BL14</b>	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
<b>LC0017</b>	<b>BL14</b>			
<b>LC0018</b>	<b>BL14</b>	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
<b>LC0019</b>	<b>BL14</b>	VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);
<b>LC0020</b>	<b>BL14</b>			
<b>LC0022</b>	<b>BL14</b>	VDI 3865-3 (GC); housemethod	VDI 3865-3 (GC); housemethod	VDI 3865-3 (GC); housemethod

LabCode	Sample	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	Tetrachloroethene	Tetrachloromethane
LC0001	CL13	VDI 3865-3 (GC-ECD); desorption with benzyl alcohol	VDI 3865-3 (GC-ECD); desorption with benzyl alcohol	VDI 3865-3 (GC-ECD); desorption with benzyl alcohol	VDI 3865-3 (GC-ECD); desorption with benzyl alcohol
LC0003	CL13	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
LC0005	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0006	CL13	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);
LC0007	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0009	CL13	DIN 38407-43 (HS- GC-MS); F43	DIN 38407-43 (HS- GC-MS); F43	DIN 38407-43 (HS-GC- MS); F43	DIN 38407-43 (HS-GC- MS); F43
LC0010	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0011	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0012	CL13	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0013	CL13	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0014	CL13	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0015	CL13	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
LC0016	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0018	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0019	CL13	VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);
LC0021	CL13	ON M 5700-2 (GC);	ON M 5700-2 (GC);	ON M 5700-2 (GC);	ON M 5700-2 (GC);
LC0022	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);

LabCode	Sample	trans-1,2- Dichloroethene	Trichloroethene	Trichloromethane
LC0001	CL13	VDI 3865-3 (GC-ECD); desorption with benzyl alcohol	VDI 3865-3 (GC-ECD); desorption with benzyl alcohol	VDI 3865-3 (GC-ECD); desorption with benzyl alcohol
LC0003	CL13	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);	VDI 3865-3 (GC-FID);
LC0005	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0006	CL13	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);	VDI 3865-3 (GC-ECD);
LC0007	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0009	CL13	DIN 38407-43 (HS- GC-MS); F43	DIN 38407-43 (HS- GC-MS); F43	DIN 38407-43 (HS-GC- MS); F43
LC0010	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0011	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0012	CL13	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0013	CL13	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);	VDI 3865-3 (GC-MS);
LC0014	CL13	VDI 2100-2 (GC);	VDI 2100-2 (GC);	VDI 2100-2 (GC);
LC0015	CL13	ISO 16200-1 (GC);	ISO 16200-1 (GC);	ISO 16200-1 (GC);
LC0016	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0018	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);
LC0019	CL13		VDI-2100-2 (GC-MS);	VDI-2100-2 (GC-MS);
LC0021	CL13	ON M 5700-2 (GC);	ON M 5700-2 (GC);	ON M 5700-2 (GC);
LC0022	CL13	VDI 3865-3 (GC);	VDI 3865-3 (GC);	VDI 3865-3 (GC);