ENVIRONMENT AGENCY AUSTRIA umweltbundesamt

Proficiency Testing Scheme für die Wasseranalytik - Realproben

M145 Metalle

Proficiency Testing Scheme for Water Analysis - natural water samples

M145 Metals and trace elements

BERICHT / REPORT

Probenversand /Sample dispatch: 12.02.2019

Ausgabe/Edition 2 - 27.08.2019

Korrektur ersetzt Ausgabe 1 - 07.08.2019 Corrected version replaces edition 1 – 07.08.2019
Grund: redaktionelle Änderung siehe E.7 Justification of the amendment: editorial changes see E.7 Hinweis: geänderte Passagen sind grau hinterlegt Note: amendments are marked in grey

Dieser Report umfasst 294 Seiten.
This report comprises 294 pages.

Anbieter der Eignungsprüfung / Provider of the proficiency test:
Anschrift / Address: Umweltbundesamt GmbH
Spittelauer Lände 5
1090 Vienna/Austria
E-Mail: ringversuche@umweltbundesamt.at
Tel: +43 (0) 1 31304 4334

Website deutsch: www.umweltbundesamt.at/ringversuche
www.ifatest.at

Website english: www.umweltbundesamt.at/interlaboratory_comparison
www.ifatest.eu

Verantwortlich für die Durchführung der Eignungsprüfungsrunde / Responsible for the implementation of this proficiency test:
Dipl.-Ing. (FH) Sebastian Köppel
Tel.: +43 (0) 1 31304 4334

Verantwortlich für die Freigabe des Berichts / Responsible for authorizing the report:
Dipl.-Ing. Monika Denner
Technische Leitung Eignungsprüfungen für den Bereich chemische Analytik / Technical Management for proficiency tests for chemical analysis

umweltbundesamt	**Unterzeichner**	Monika Christine Denner
	Datum/Zeit-UTC	2019-09-17T17:58:05+02:00
Prüfinformation	Diese Unterschrift ist gemäß §4 Abs.1 SigG der handschriftlichen Unterschrift grundsätzlich rechtlich gleichgestellt. Prüfung unter: http://www.signaturpruefung.gv.at	

Inhaltsverzeichnis / Table of Contents

D1. Beschreibung des Ringversuchs

D1.1. Ausgestaltung und Durchführung

- Anzahl der Anmeldungen: 33
- Anzahl der übermittelten Datensätze: 33
- Probenversand: 12.02.2019
- Einsendeschluss der Daten: 12.03.2019

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

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

D1.2. Beschreibung der Prüfgegenstände

Die Probenahme von Grundwasser und Oberflächenwasser erfolgte am 11.02.2019. Das Probenmaterial umfasste:

- 1 Probe Grundwasser (M145 A)
- 1 Probe Oberflächenwasser (M145 B)

Alle Proben wurden über 0,45 µm Membranfilter filtriert und anschließend bis zur weiteren Verarbeitung bei < 4 °C gelagert. Die o.a. Proben wurden zusätzlich mit einzelnen Substanzen dotiert.

Das Abfüllen der Proben erfolgte unter ständigem Rühren (Rührkessel). Die Proben wurden mit 1% HNO_3 bzw. 1% HCl (nur Abfüllung für Parameter Hg) stabilisiert.

Die homogenen Prüfgegenstände wurden am 12.02.2019 verschickt.

Jedes Teilnehmerlabor erhielt:

- 2 Proben zu je ca. 350 ml, abgefüllt in je 1 x 250 ml LDPE-Flasche und 1 x 100 ml LDPE-Flasche (für Hg).

D1.3. Anweisungen für die Teilnehmer

Aus Stabilitätsgründen wurde empfohlen bis spätestens 20.02.2019 mit den Analysen zu beginnen.

Den Teilnehmern stand die Wahl der Analysenmethode bzw. der verwendeten Norm frei, welche mit ihrem Routineverfahren übereinstimmen sollte.

D1.4. Kontrollanalytik zur Bewertung der Homogenität

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

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

Im Zuge der Auswertung wurde die relative Standardabweichung zwischen den Kontrollprobenabfüllungen bewertet und mit der Vergleichsstandardabweichung beim aktuellen Ringversuch verglichen.
Die Ergebnisse der Kontrollanalytik sind in der parameterorientieren Auswertung (E7) in Form von Mittelwerten ± Messunsicherheit als Kontrollwert (control test value) ± U gelistet (jeweils angegeben als erweiterte Messunsicherheit, k=2).

D1.5. Trendtest zur Bewertung der Stabilität

Die Bewertung der Stabilität der Prüfgegenstände (Realproben) erfolgte auf Basis der Datenstatistik aus den vergangenen Runden für Realproben im Zeitraum 2013 bis 2018.

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

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

D1.6. Ermittlung des zugewiesenen Wertes

Die Ergebnisse der Analysen mussten spätestens bis zum 12.03.2019 beim Veranstalter vorliegen. Später eingehende Werte wurden nicht berücksichtigt.

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

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

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

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

Bei sehr hohen Streuungen der Teilnehmerergebnisse von über 50 % oder bei mangelhafter Rückführbarkeit der statistischen Kenndaten aus den ausreißerbereinigten Ergebnissen der Teilnehmer auf den Mittelwert des Kontrolllabores, kann die Situation auftreten, dass kein zugewiesener Wert für den aktuellen Ringversuch festgelegt werden kann und daher keine Bewertung der Teilnehmerergebnisse für diesen Parameter möglich ist. Ein entsprechender Hinweis wird im Bericht unter E7 bei der informativen Auswertung angebracht. Im Rahmen der internen Qualitätssicherung der Teilnehmer kann ein Vergleich mit den Ergebnissen des Kontrolllabors durchgeführt werden. Diese Vorgehensweise wird bei Anwendung jeweils parameter- und probenbezogen unter Punkt D4 des Berichts dokumentiert.

D2. Kriterien der Leistungsbewertung

D2.1. Leistungskriterium z-Score

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

Die Ermittlung der z-Scores erfolgte gemäß nachfolgender Formel:

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

Dabei ist:

x_i	Messergebnis des teilnehmenden Labors
$\overline{X}$	zugewiesener Wert Sollwert für die Leistungsbewertung der Teilnehmer (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Teilnehmerergebnisse. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben.
Kriterium	Vergleichsstandardabweichung berechnet aus den Statistiken für reale Wasserproben der vorangegangenen Runden im Zeitraum 2013 bis 2018 (RSDpooled) bzw. aus den ausreißerbereinigten Teilnehmerergebnissen (sR) des aktuellen Ringversuchs (falls noch weniger als 6 vorangegangene Runden für A und B-Proben vorlagen). In begründeten Fällen (z.B. Ergebnisse Realproben nahe an Mindestbestimmungsgrenze oder regulatorischer Vorgaben) erfolgt die Festlegung nach Expertenbefund und die Vorgangsweise wird unter Punkt D4 des Berichts beschrieben.

D2.2. Leistungskriterium E_n-Score

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

Die Ermittlung der E_n-Scores erfolgte gemäß nachfolgender Formel:

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

Dabei ist:

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

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

Interpretation der z-Scores:

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

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

Interpretation der E_n-Scores:

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

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

D3. Darstellung und Interpretation der Messergebnisse

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

In der laborientierten Auswertung werden pro Labor in anonymisierter Form die Ergebnisse der einzelnen Labore als Messergebnis ± U sowie die Wiederfindungen

und die ermittelten z-Scores bezugnehmend auf das Kriterium dargestellt. Weiters werden die E_n-Scores unter Berücksichtigung der erweiterten Unsicherheiten in unabhängigen Tabellen ausgegeben. Die laborientierten Auswertungen enthalten jeweils die Bewertungsgrundlagen wie zugewiesener Wert samt erweiterter Messunsicherheit sowie das Kriterium.

Eine Erläuterung zu den Tabellen und Grafiken kann Punkt D5 entnommen werden.

D4. Anmerkungen zur Auswertung

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

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

Als Ergebnis einer Langzeitauswertung über aktuell 6 Eignungsprüfungsrunden (2013 - 2018) in Realproben wurden Kriterien (RSDpool) zur Ergebnisbewertung berechnet. Diese wurden im Zuge der Auswertung, den relativen Vergleichsstandardabweichungen (vR) des aktuellen Ringversuchs gegenübergestellt.

Die aktuelle Eignungsprüfungsrunde brachte für nahezu alle ausgewerteten Parameter relative Vergleichsstandardabweichungen (vR) < 10 % in Bezug auf den zugewiesenen Wert.

Ausnahmen bildeten hier lediglich die Parameter Aluminium in Probe M145 A (vR = 17,7 %) und in Probe M 145 B (vR = 10,4%), Eisen in Probe M 145 A (vR = 12,3%), Nickel in Probe M 145 A (vR= 11,3%) und Blei in Probe M 145 B (vR = 14,7 %) sowie Zink in Probe M 145 B (vR = 12,9 %).

Bei allen Parametern, die sowohl bei der aktuellen Vergleichsstandardabweichung als auch beim berechneten Kriterium der Langzeitauswertung ≤ 15 % lagen, wurde als Kriterium für die Berechnung des z-Scores das jeweils höhere Kriterium gewählt.

Parameter Aluminium, Probe M145 A: Die in der Probe vorliegende Aluminiumkonzentration (zugewiesener Wert = 4,2 µg/l) ist verhältnismäßig gering.

Von 32 Laboren die für diesen Parameter Ergebnisse übermittelten, gaben lediglich 18 Labore einen Wert über der Bestimmungsgrenze des jeweiligen Labors an. Daher wurde für diese Probe als Kriterium die relative Vergleichsstandardabweichung (vR = 17,7 %) des aktuellen Ringversuchs festgelegt.

D5. Erläuterung zu Tabellen und Grafiken

D5.1. Angaben und Abkürzungen in Tabellen

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

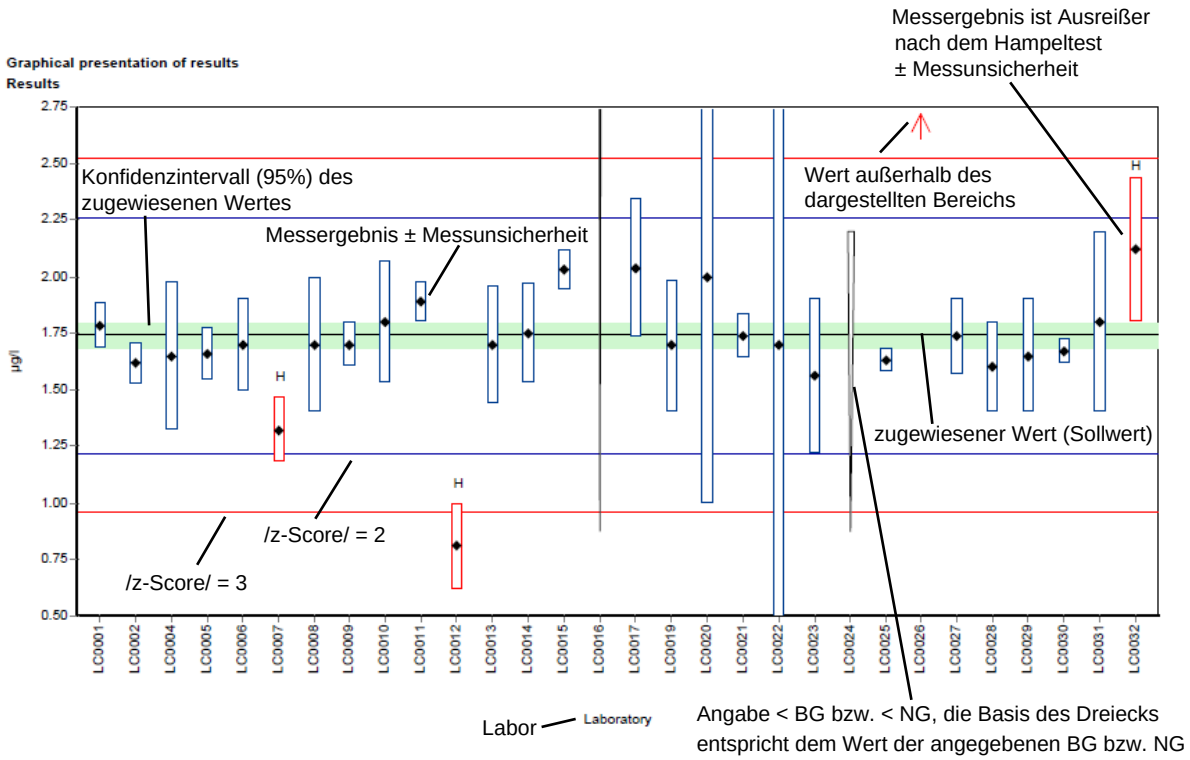
Laborcode	anonymisierte, eindeutige Teilnehmerkennung im jeweiligen Ringversuch
Messwert	einzelne(r) Messwert(e) lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt)
Messergebnis	Für die Bewertung herangezogenes Ergebnis lt. Teilnehmerangabe (maximal 5 Nachkommastellen dargestellt). Bei Eignungsprüfungsrunden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

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

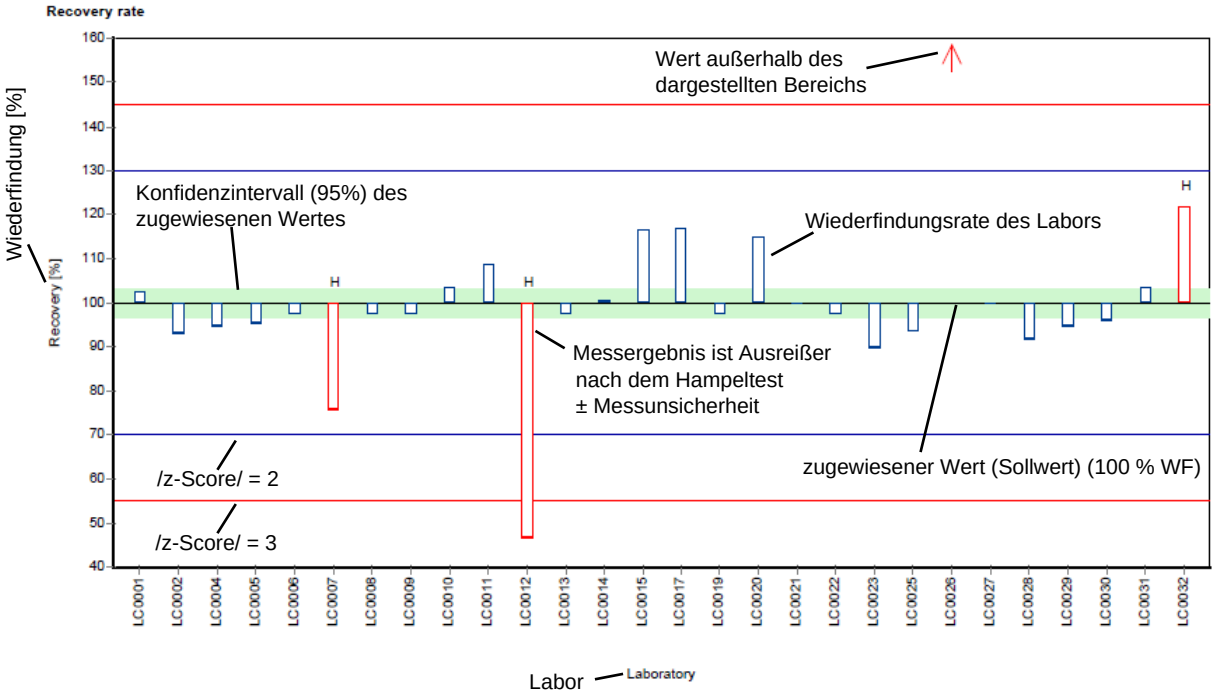
D5.2. Graphische Darstellung der Ergebnisse

Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

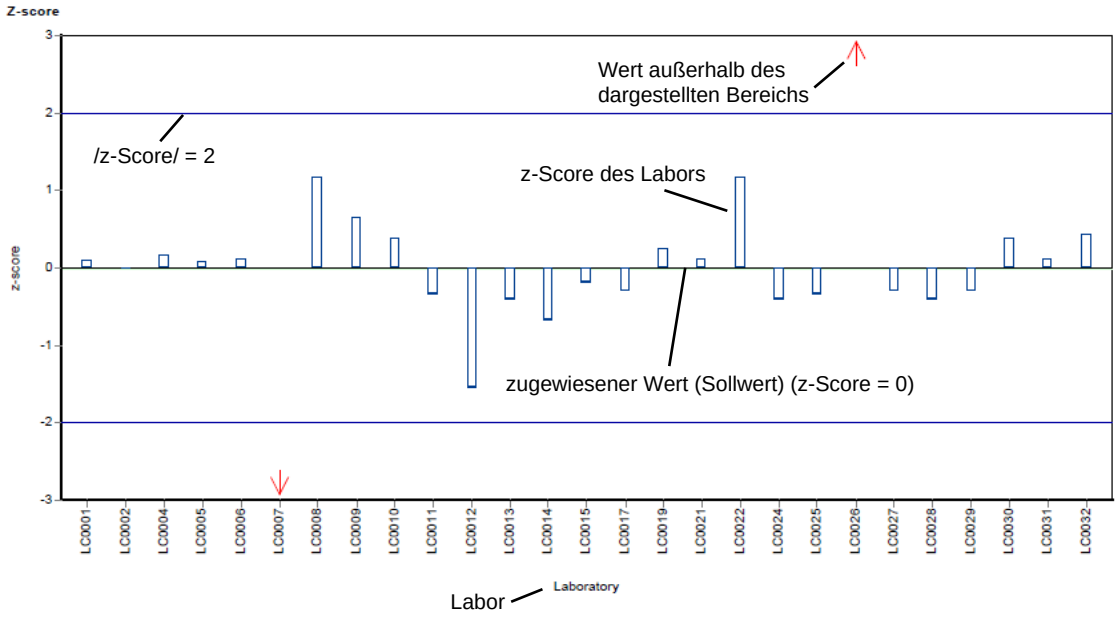
Beispieldiagramm: Messwerte



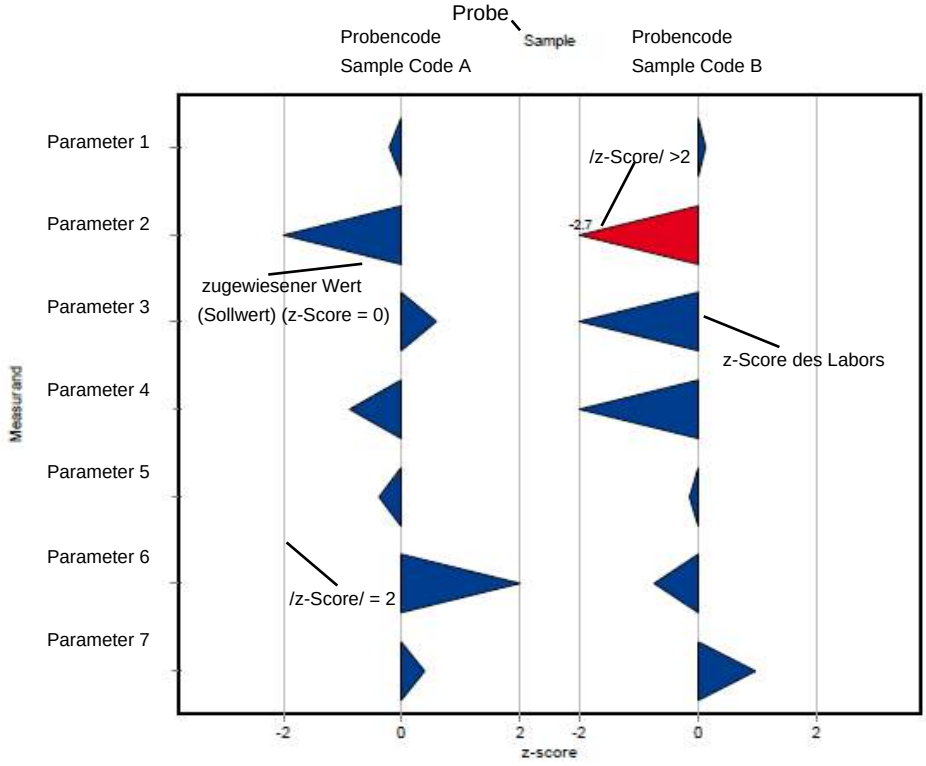
Beispieldiagramm: Wiederfindung zum zugewiesenen Wert



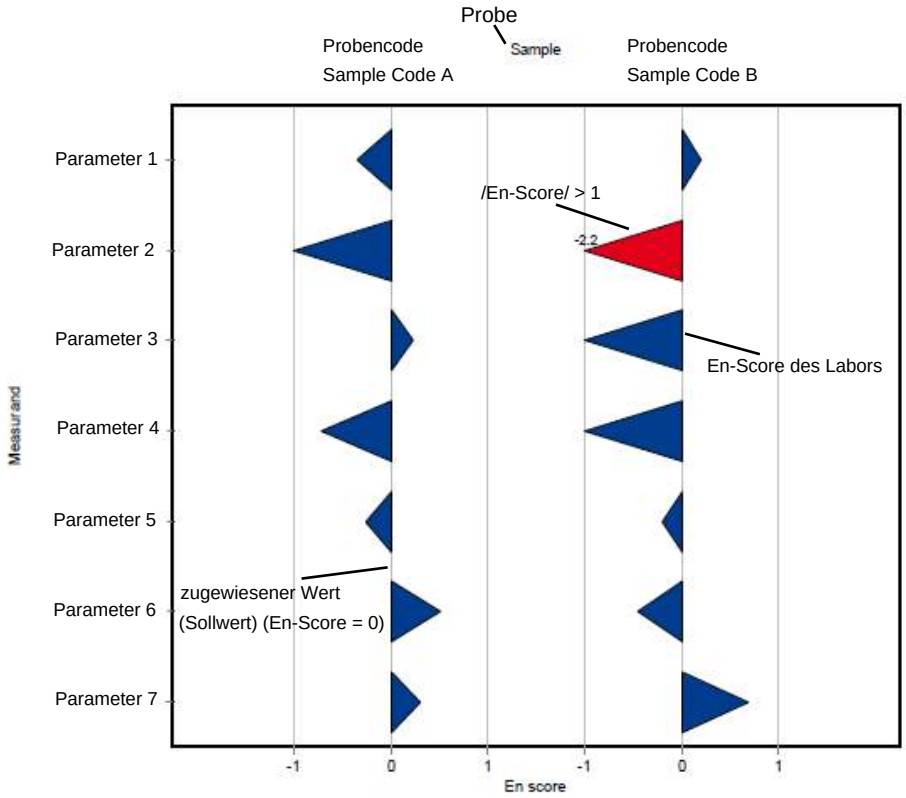
Beispieldiagramm: z-Score



Beispieldiagramm: z-Score (laborientierte Auswertung)



Beispieldiagramm: En-Score (laborientierte Auswertung)



D6. Zusammenfassung

D6.1. Tabelle der zugewiesenen Werte

Parameter	Probe	Einheit	zugewiesener Wert	±	U (k=2)	Kriterium	Kriterium [%]
Aluminium	M145 A	µg/l	4.19	±	0.371	0.741	18
	M145 B	µg/l	8.42	±	0.391	1.26	15
Arsen	M145 A	µg/l	1.81	±	0.0355	0.271	15
	M145 B	µg/l	1.74	±	0.0532	0.261	15
Blei	M145 A	µg/l	1.28	±	0.0432	0.191	15
	M145 B	µg/l	0.338	±	0.0276	0.0507	15
Cadmium	M145 A	µg/l	0.109	±	0.00374	0.012	11
	M145 B	µg/l	0.309	±	0.00659	0.034	11
Chrom	M145 A	µg/l	5.99	±	0.105	0.569	9.5
	M145 B	µg/l	2.33	±	0.0667	0.221	9.5
Eisen	M145 A	µg/l	6.21	±	0.382	0.763	12
	M145 B	µg/l	14.6	±	0.471	1.46	10
Kupfer	M145 A	µg/l	21.3	±	0.391	1.92	9
	M145 B	µg/l	8.17	±	0.2	0.735	9
Mangan	M145 A	µg/l	0.979	±	0.0504	0.0873	8.9
	M145 B	µg/l	7.98	±	0.162	0.583	7.3
Nickel	M145 A	µg/l	1.6	±	0.0753	0.18	11
	M145 B	µg/l	2.77	±	0.0721	0.277	10
Quecksilber	M145 A	µg/l	1.48	±	0.0456	0.222	15
	M145 B	µg/l	1.88	±	0.0561	0.282	15
Selen	M145 A	µg/l	6.61	±	0.164	0.86	13
	M145 B	µg/l	1.26	±	0.0451	0.163	13
Uran	M145 A	µg/l	1.94	±	0.056	0.132	6.8
	M145 B	µg/l	1.3	±	0.0383	0.0899	6.9
Zink	M145 A	µg/l	34.3	±	1.03	2.91	8.5
	M145 B	µg/l	15.8	±	0.77	2.04	13

D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	± VB (99%)	Minimum	Maximum	sR	vR [%]
Aluminium	M145 A	16	2	µg/l	4.19	± 0.556	3.3	6	0.741	18
	M145 B	20	3	µg/l	8.42	± 0.586	7.21	11	0.874	10
Arsen	M145 A	23	5	µg/l	1.81	± 0.0533	1.7	2	0.0852	4.7
	M145 B	24	4	µg/l	1.74	± 0.0797	1.56	2.04	0.13	7.5
Blei	M145 A	25	2	µg/l	1.28	± 0.0648	0.98	1.5	0.108	8.5
	M145 B	13	3	µg/l	0.338	± 0.0415	0.269	0.43	0.0498	15
Cadmium	M145 A	15	4	µg/l	0.109	± 0.00561	0.1	0.13	0.00724	6.6
	M145 B	21	3	µg/l	0.309	± 0.00988	0.28	0.34	0.0151	4.9
Chrom	M145 A	27	2	µg/l	5.99	± 0.157	5.3	6.49	0.272	4.5
	M145 B	26	2	µg/l	2.33	± 0.1	2	2.68	0.17	7.3
Eisen	M145 A	16	2	µg/l	6.21	± 0.572	4.79	7.7	0.763	12
	M145 B	25	4	µg/l	14.6	± 0.706	12.7	17.3	1.18	8.1
Kupfer	M145 A	25	4	µg/l	21.3	± 0.587	19.7	24.2	0.978	4.6
	M145 B	25	4	µg/l	8.17	± 0.3	7	9	0.501	6.1
Mangan	M145 A	12	6	µg/l	0.979	± 0.0756	0.89	1.18	0.0873	8.9
	M145 B	24	1	µg/l	7.98	± 0.243	7	8.77	0.396	5
Nickel	M145 A	23	5	µg/l	1.6	± 0.113	1.28	2.03	0.18	11
	M145 B	25	3	µg/l	2.77	± 0.108	2.4	3.23	0.18	6.5
Quecksilber	M145 A Hg	24	3	µg/l	1.48	± 0.0685	1.18	1.66	0.112	7.5
	M145 B Hg	23	4	µg/l	1.88	± 0.0841	1.51	2.2	0.134	7.1
Selen	M145 A	22	3	µg/l	6.61	± 0.245	5.7	7.1	0.384	5.8
	M145 B	20	2	µg/l	1.26	± 0.0676	1.09	1.47	0.101	8
Uran	M145 A	22	2	µg/l	1.94	± 0.0841	1.59	2.1	0.131	6.8
	M145 B	22	1	µg/l	1.3	± 0.0575	1.05	1.42	0.0899	6.9
Zink	M145 A	26	4	µg/l	34.3	± 1.54	29	42	2.62	7.6
	M145 B	28	2	µg/l	15.8	± 1.15	12.3	21	2.04	13

E1. Description of the proficiency test

E1.1. Design and implementation

- Number of registrations: 33
- Number of submitted data records: 33
- Dispatch of samples: 12th February 2019
- Closing date for submission of data: 12th March 2019

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

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

E1.2. Description of the proficiency test items

The sampling of ground water and surface water was carried out on 11th February 2019.

The following samples were made available

- 1 sample ground water (M145 A)
- 1 sample surface water (M145 B)

Both samples were filtered using 0.45 µm membrane disc filters and stored at < 4 °C until further processing. The samples were partly spiked with specific substances.

The samples were filled into bottles under continuous stirring (stirring vessel) and stabilized by addition of 1 % HNO_3 and 1 % HCl (for Hg only), respectively.

The homogeneous proficiency test items were dispatched on 12th February 2019.

Each participant received:

- 2 samples each approx. 350 ml, filled in 1 x 250 ml LDPE bottle and 1 x 100 ml LDPE bottle (for Hg) respectively.

E1.3. Instructions for the participants

For reasons of stability, it was recommended to start the analysis by the 20th February 2019 at the latest.

The participants are expected to use the test method or measurement method of their choice, which should be consistent with their routine procedures.

E1.4. Control testing for homogeneity evaluation

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

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

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

In the parameter-oriented evaluation (E7), the results of the control testing are given in the form of arithmetic means of the detected concentrations ± expanded measurement uncertainty as control test value ± U (expanded uncertainty, k=2).

E1.5. Trend test for stability evaluation

The evaluation of stability of the proficiency test items was performed using the data statistics of the results of previous proficiency testing rounds for real water samples of the period from 2013 to 2018.

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

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

According to the data obtained in course of the previous rounds for real water samples from 2013 to 2018 and based on the trend test evaluation of the actual round the stability of the test items for proficiency testing of real water samples can be confirmed for the recommended analysis period until deadline for submission of data.

E1.6. Determination of the assigned values

The analytical results had to be made available to the organiser not later than 12th March 2019. Any values received at a later date were not considered.

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

After plausibility assessment an outlier test according to Hampel was performed to identify outliers. Values identified as conspicuous by this outlier test method 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 DIN ISO 5725-2. A statistical evaluation of proficiency testing data was only carried out if at least 6 valid results per parameter were available. Results < LOQ or < LOD are not included in the calculation for the assigned value.

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

In exceptional cases for real water samples might occur, that no assigned value based on participants' results can be calculated and no evaluation of the results of the participants can be made: E.g. if there are very large variations in the participant results (vR > 50 %) and/or if the traceability of the calculated mean of all participants after removal of outliers to the mean of control testing is insufficient.

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

E2. Criteria of performance evaluation

E2.1. Performance criterion z-Score

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

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

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

In this context,

x_i	is the measurement value (result) of the participating laboratory;
$\overline{X}$	assigned value the target value for the assessment of the performance of the participants (3 significant digits), normally the average value of the participants‘ results after removal of outliers; if this approach is not applicable, the target value is assigned according to the procedure given in section E4;
Criteria	is the reproducibility standard deviation calculated from previous rounds for proficiency testing for real water samples from 2013 to 2018 (as RSD pooled) or from the participants‘ results after removal of outliers (sR) in the current round (if less than 6 previous rounds for the parameters of real water samples A and B are available). Where justified (e.g. results for real water samples are close to minimum quantification limit or in case of regulatory requirements) the criteria is defined by expert judgement and the procedure is clearly described in section E4 of the report.

E2.2. Performance criterion E_n-Score

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

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

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

In this context,

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

$\overline{X}$ assigned value
the target value for the assessment of the performance of the participants (3 significant digits), normally the average value of the participants' results after removal of outliers; if this approach is not applicable, the target value is assigned according to the procedure given in section E4;

U(x_i) expanded measurement uncertainty for the result of the participating laboratory

U($\bar{X}$) expanded measurment uncertainty for the assigned value

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

Interpretation of z -Scores:

- |z-Score| ≤ 2.0 good result
- 2.0 < |z-Score| < 3.0 questionable result
- |z-Score| ≥ 3.0 not satisfactory result

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

Interpretation of E_n-Scores:

- |E_n-Score| ≤ 1.0 satisfactory performance
- |E_n-Score| > 1.0 not satisfactory performance

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

E3. Representation and interpretation of measurement results

The parameter-oriented report provides the measurement values (results) including uncertainty (± U), recovery rate, calculated z-Score and the outliers in tabular form. The results listed in the table are also represented graphically.

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

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

An annotation of the tables and graphics is given in section E5.

E4. Explanatory notes

As explained in section E2, the z-Score can also be calculated using the reproducibility standard deviation, calculated from the participants' results (after removal of outliers) in the relevant test round. It might occur that the z-Score between -2 and 2 covers a large range of measurement values when the variance of the results is high. On the other hand, the range of good results can be very narrow, when the variation of the participants' results is small.

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

As a result of a long-term evaluation of 6 proficiency testing rounds (2013 - 2018) in real samples, evaluation criteria (RSDpool) were calculated.

These criteria were compared with the relative reproducibility standard deviation (vR) of the current proficiency testing.

For most of the evaluated parameters in the current proficiency testing round the relative reproducibility standard deviation (vR) was less than 10% relative to the assigned value. The only exceptions were the parameters Aluminium in sample M145 A (vR = 17.7 %) and in sample M 145 B (vR = 10.4%), Iron in sample M 145 A (vR = 12.3%), Nickel in sample M 145 A (vR= 11,3%) and Lead in sample M 145 B (vR = 14.7 %) as well as Zinc in sample M 145 B (vR = 12.9 %).

For all parameters were both, the reproducibility standard deviation of the current proficiency testing round as well as the calculated criterion of the long-term evaluation was ≤ 15 %, the higher criterion was chosen to calculate the z-scores.

Parameter Aluminium, sample M145 A: The aluminium concentration in the sample (assigned value = 4.2 µg/l) is relatively low.
Out of 32 laboratories reporting results for this parameter, only 18 laboratories reported a value above their limit of quantification.
Therefore, the criterion for Aluminium in M 145 A was defined as relative reproducibility standard deviation (vR = 17.7 %) of the current proficiency testing round.

E5. Annotations on tables and charts

E5.1. Information and abbreviations in tables

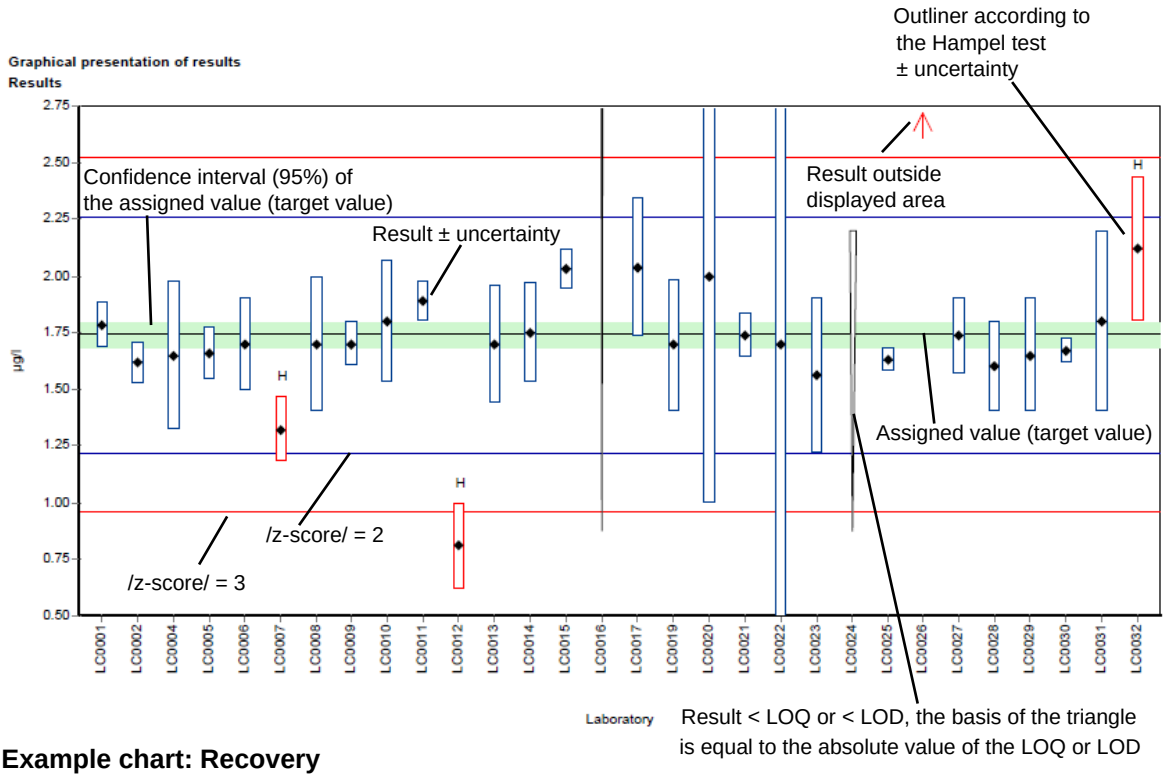
Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/l)
Assigned value	Target value for proficiency assessment of the participants (3 significant digits)
U (k=2)	Expanded uncertainty (k=2) of the assigned value (3 significant digits)
Criteria	Specified value for the dertermination of the z-score in the given unit (3 significant digits)
Criteria [%]	Specified value for the dertermination of the z-score in % of the assigned value (3 significant digits)
Mean	Mean of the participants results, without outliers (3 significant digits)
CI (99 %)	99% confidence interval (3 significant digits)
Minimum	Minimum of all submitted results, after removal of outliers (3 significant digits)
Maximum	Maximum of all submitted results, after removal of outliers (3 significant digits)
SD	Reproducibility standard deviation, calculated from the participants results, after removal of outliers (3 significant digits)
RSD %	Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, after removal of outliers (2 significant digits)
Control test value ± U (k=2)	Mean of control test value ± expanded measurement uncertainty (3 significant digits)
Labcode	Laboratory identifier (anonymized)
Result	Result as indicated by participant (max. 5 decimal places)
± U	uncertainty as indicated by participant (max. 5 decimal places)

LOQ	Limit of quantification
LOD	Limit of detection
Recovery	Recovery rate in % based on assigned value (target value) (3 significant digits, max. one decimal place given)
z-Score	Deviation of result based on the assigned value (target value) given as a multiple of the criteria (3 significant digits, max. 2 decimal places given)
E_n-Score	Deviation of result based on the assigned value (target value) given as a multiple of the combined expanded measurement uncertainty of the participant's results and expanded measurement uncertainty for the assigned value (3 significant digits, max. 2 decimal places given). Note: E_n-Score assessment takes into account the measurement uncertainty of the participants.
-	No data available or no calculation possible
Comments	Comment on the respective result (e.g. H, FN, FP)
H	Outlier according to Hampel-Test
FN	False negative – for a result < LOQ or result < LOD: The absolute value of the LOQ or LOD fulfils the condition of an outlier according to the Hampel test.
FP	False positive – for parameters where no target value is available because of a too low analyte content (n < 6): Result that exceeds the median of the absolute values of the transmitted LOQs or LODs by more than 100 %.
Standard deviation	Reproducibility standard deviation, calculated from the participants results (3 significant digits)
Rel. standard deviation	Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, (3 significant digits)
n	Number of results

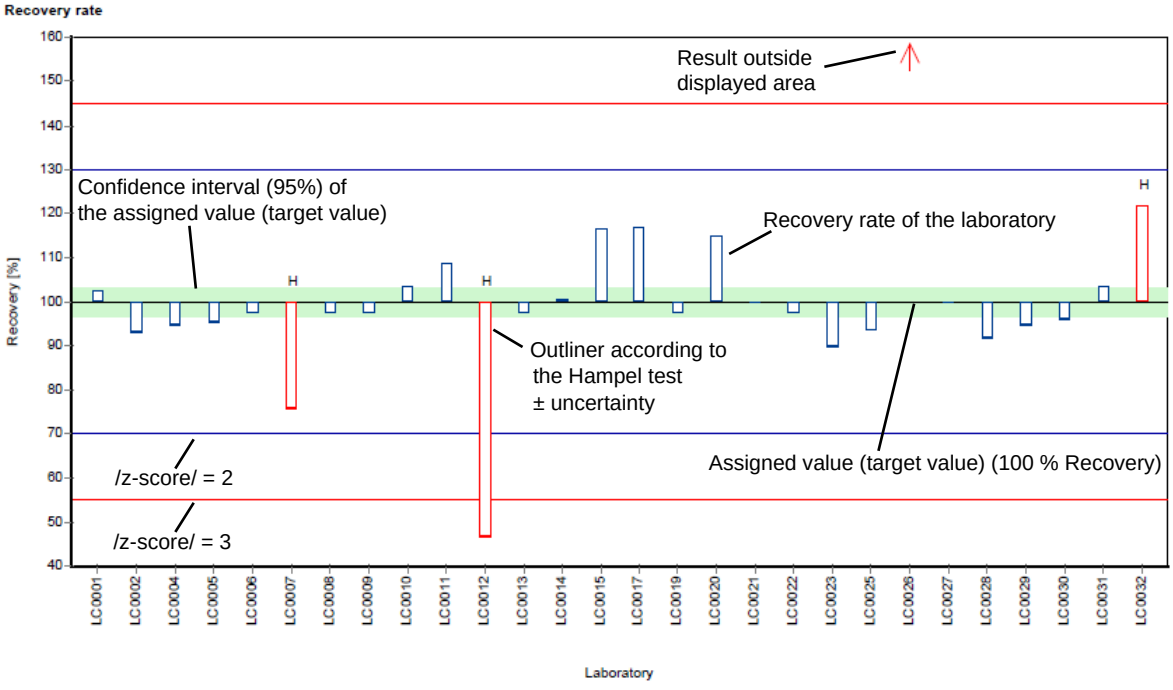
E5.2. Graphical presentation of results

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

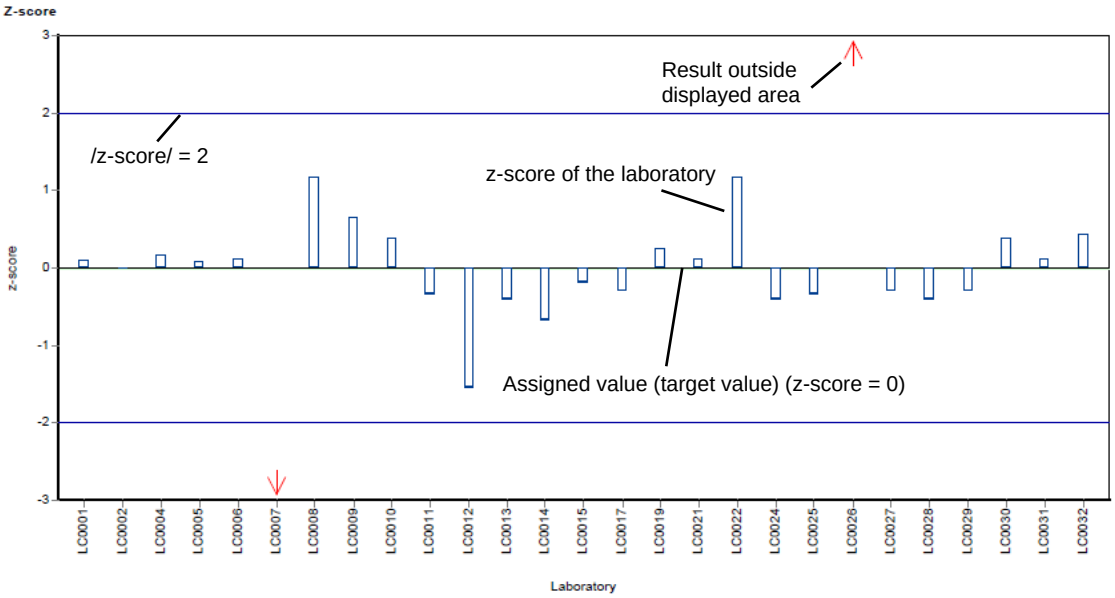
Example chart: Results



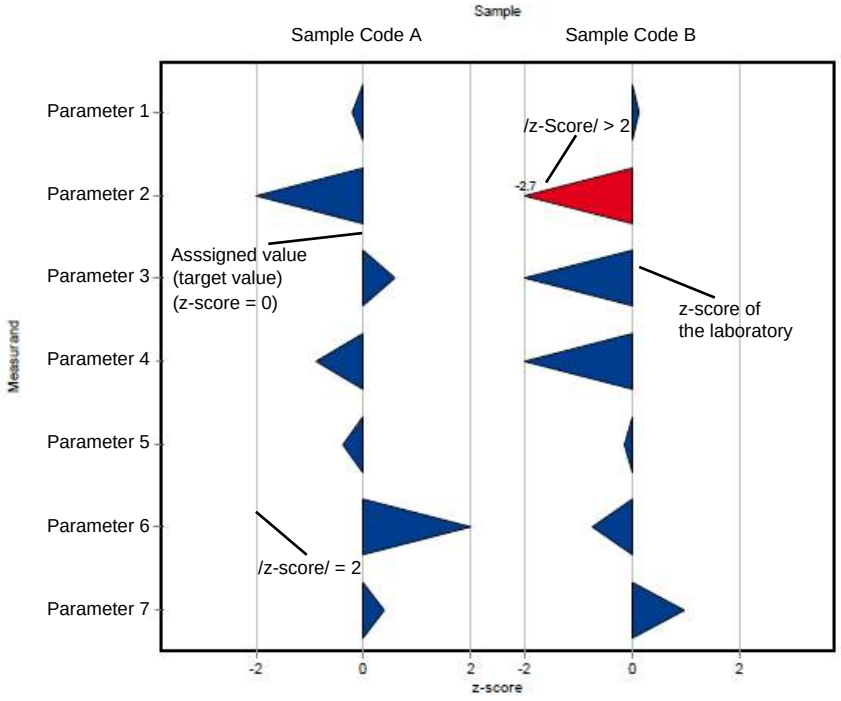
Example chart: Recovery



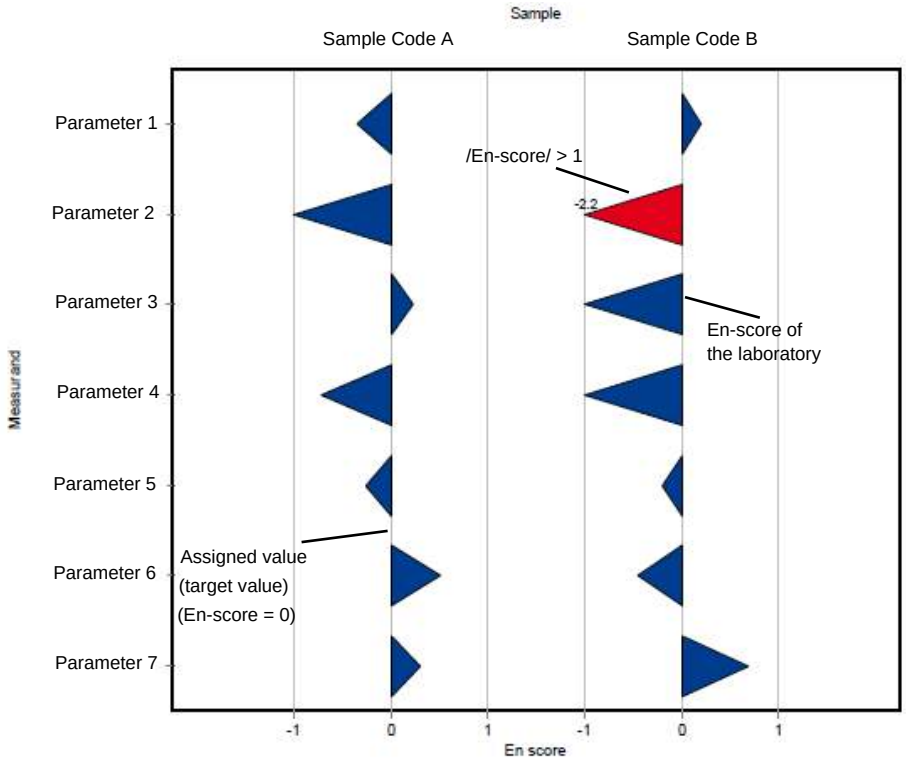
Example chart: z-score



Example chart: z-score (laboratory oriented report)



Example chart: En-score (laboratory oriented report)



E6. Summary

E6.1. Table of assigned values

Parameter	Sample	Unit	Assigned value	±	U (k=2)	Criteria	Criteria [%]
Aluminium	M145 A	µg/l	4.19	±	0.371	0.741	18
	M145 B	µg/l	8.42	±	0.391	1.26	15
Arsenic	M145 A	µg/l	1.81	±	0.0355	0.271	15
	M145 B	µg/l	1.74	±	0.0532	0.261	15
Lead	M145 A	µg/l	1.28	±	0.0432	0.191	15
	M145 B	µg/l	0.338	±	0.0276	0.0507	15
Cadmium	M145 A	µg/l	0.109	±	0.00374	0.012	11
	M145 B	µg/l	0.309	±	0.00659	0.034	11
Chromium	M145 A	µg/l	5.99	±	0.105	0.569	9.5
	M145 B	µg/l	2.33	±	0.0667	0.221	9.5
Iron	M145 A	µg/l	6.21	±	0.382	0.763	12
	M145 B	µg/l	14.6	±	0.471	1.46	10
Copper	M145 A	µg/l	21.3	±	0.391	1.92	9
	M145 B	µg/l	8.17	±	0.2	0.735	9
Manganese	M145 A	µg/l	0.979	±	0.0504	0.0873	8.9
	M145 B	µg/l	7.98	±	0.162	0.583	7.3
Nickel	M145 A	µg/l	1.6	±	0.0753	0.18	11
	M145 B	µg/l	2.77	±	0.0721	0.277	10
Mercury	M145 A	µg/l	1.48	±	0.0456	0.222	15
	M145 B	µg/l	1.88	±	0.0561	0.282	15
Selenium	M145 A	µg/l	6.61	±	0.164	0.86	13
	M145 B	µg/l	1.26	±	0.0451	0.163	13
Uranium	M145 A	µg/l	1.94	±	0.056	0.132	6.8
	M145 B	µg/l	1.3	±	0.0383	0.0899	6.9
Zinc	M145 A	µg/l	34.3	±	1.03	2.91	8.5
	M145 B	µg/l	15.8	±	0.77	2.04	13

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 [%]
Aluminium	M145 A	16	2	µg/l	4.19	± 0.556	3.3	6	0.741	18
	M145 B	20	3	µg/l	8.42	± 0.586	7.21	11	0.874	10
Arsenic	M145 A	23	5	µg/l	1.81	± 0.0533	1.7	2	0.0852	4.7
	M145 B	24	4	µg/l	1.74	± 0.0797	1.56	2.04	0.13	7.5
Lead	M145 A	25	2	µg/l	1.28	± 0.0648	0.98	1.5	0.108	8.5
	M145 B	13	3	µg/l	0.338	± 0.0415	0.269	0.43	0.0498	15
Cadmium	M145 A	15	4	µg/l	0.109	± 0.00561	0.1	0.13	0.00724	6.6
	M145 B	21	3	µg/l	0.309	± 0.00988	0.28	0.34	0.0151	4.9
Chromium	M145 A	27	2	µg/l	5.99	± 0.157	5.3	6.49	0.272	4.5
	M145 B	26	2	µg/l	2.33	± 0.1	2	2.68	0.17	7.3
Iron	M145 A	16	2	µg/l	6.21	± 0.572	4.79	7.7	0.763	12
	M145 B	25	4	µg/l	14.6	± 0.706	12.7	17.3	1.18	8.1
Copper	M145 A	25	4	µg/l	21.3	± 0.587	19.7	24.2	0.978	4.6
	M145 B	25	4	µg/l	8.17	± 0.3	7	9	0.501	6.1
Manganese	M145 A	12	6	µg/l	0.979	± 0.0756	0.89	1.18	0.0873	8.9
	M145 B	24	1	µg/l	7.98	± 0.243	7	8.77	0.396	5
Nickel	M145 A	23	5	µg/l	1.6	± 0.113	1.28	2.03	0.18	11
	M145 B	25	3	µg/l	2.77	± 0.108	2.4	3.23	0.18	6.5
Mercury	M145 A Hg	24	3	µg/l	1.48	± 0.0685	1.18	1.66	0.112	7.5
	M145 B Hg	23	4	µg/l	1.88	± 0.0841	1.51	2.2	0.134	7.1
Selenium	M145 A	22	3	µg/l	6.61	± 0.245	5.7	7.1	0.384	5.8
	M145 B	20	2	µg/l	1.26	± 0.0676	1.09	1.47	0.101	8
Uranium	M145 A	22	2	µg/l	1.94	± 0.0841	1.59	2.1	0.131	6.8
	M145 B	22	1	µg/l	1.3	± 0.0575	1.05	1.42	0.0899	6.9
Zinc	M145 A	26	4	µg/l	34.3	± 1.54	29	42	2.62	7.6
	M145 B	28	2	µg/l	15.8	± 1.15	12.3	21	2.04	13

E7. Parameterorientierte Auswertung / Parameter oriented report

Parameter oriented report

M145 A

Aluminium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~4.19 ± 0.741~~
Minimum - Maximum	3.3 - 6
Control test value ± U	3.41 ± 0.312

Unit	µg/l
Assigned value ± U (k=2)	4.19 ± 0.371
Criterion	0.741 (18 %)
Minimum - Maximum	3.3 - 6
Control test value ± U (k=2)	3.41 ± 0.312

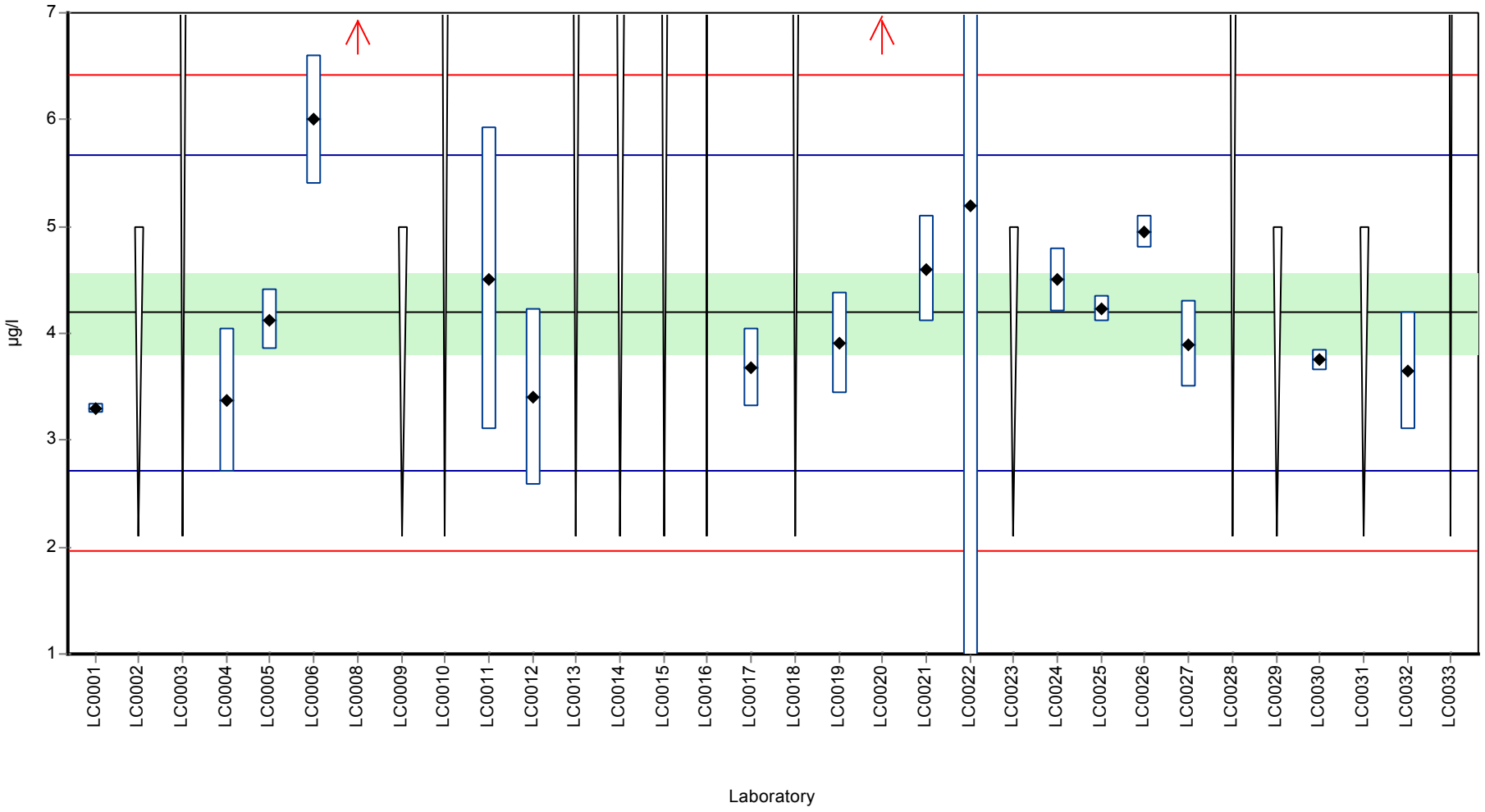
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	3.297	0.048	78.6	-1.21	
LC0002	< 5 (LOQ)	-	-	-	
LC0003	< 10 (LOQ)	-	-	-	
LC0004	3.37	0.67	80.4	-1.11	
LC0005	4.13	0.29	98.5	-0.08	
LC0006	6	0.6	143	2.44	
LC0007	-	-	-	-	
LC0008	7.5	1	179	4.46	H
LC0009	<5 (LOD)	-	-	-	
LC0010	< 10 (LOQ)	-	-	-	
LC0011	4.51	1.42	108	0.43	
LC0012	3.4	0.83	81.1	-1.07	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	< 8 (LOQ)	-	-	-	
LC0015	< 10 (LOQ)	-	-	-	
LC0016	< 400 (LOQ)	-	-	-	
LC0017	3.68	0.37	87.8	-0.69	
LC0018	< 10 (LOQ)	-	-	-	
LC0019	3.9126	0.473	93.3	-0.38	
LC0020	7	2	167	3.79	H
LC0021	4.6	0.5	110	0.55	
LC0022	5.2	5.3	124	1.36	
LC0023	< 5 (LOQ)	-	-	-	
LC0024	4.5	0.3	107	0.41	
LC0025	4.23	0.12	101	0.05	
LC0026	4.949	0.146	118	1.02	
LC0027	3.9	0.4	93	-0.4	
LC0028	< 10 (LOQ)	-	-	-	
LC0029	< 5 (LOQ)	-	-	-	
LC0030	3.75	0.098	89.4	-0.6	
LC0031	< 5 (LOQ)	-	-	-	
LC0032	3.65	0.5475	87.1	-0.73	
LC0033	< 20 (LOQ)	-	-	-	

Characteristics of parameter

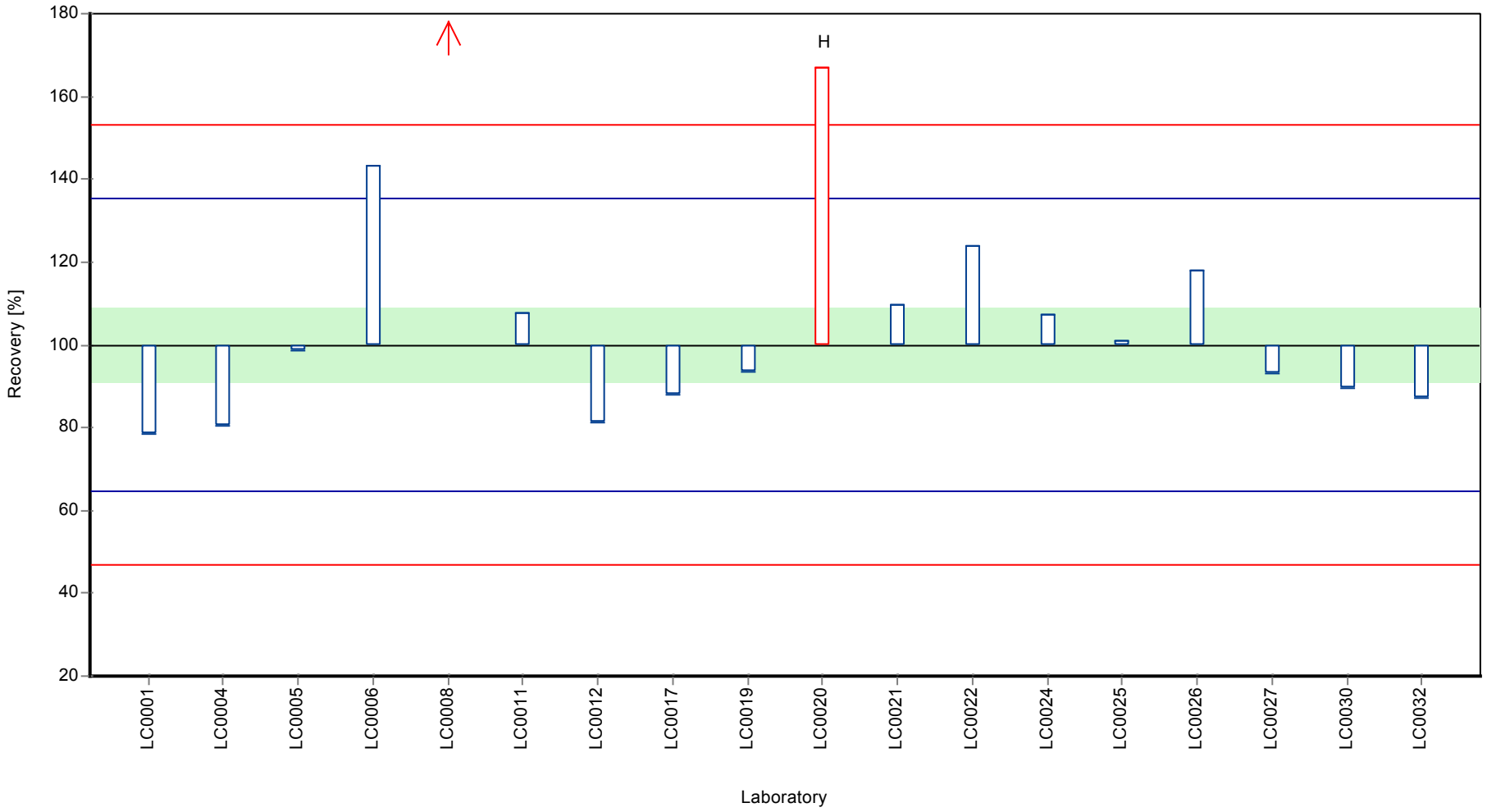
	all results	without outliers	Unit
Mean ± CI (99%)	4.53 ± 0.857	4.19 ± 0.556	µg/l
Minimum	3.3	3.3	µg/l
Maximum	7.5	6	µg/l
Standard deviation	1.21	0.741	µg/l
rel. standard deviation	26.8	17.7	%
n	18	16	-

Graphical presentation of results

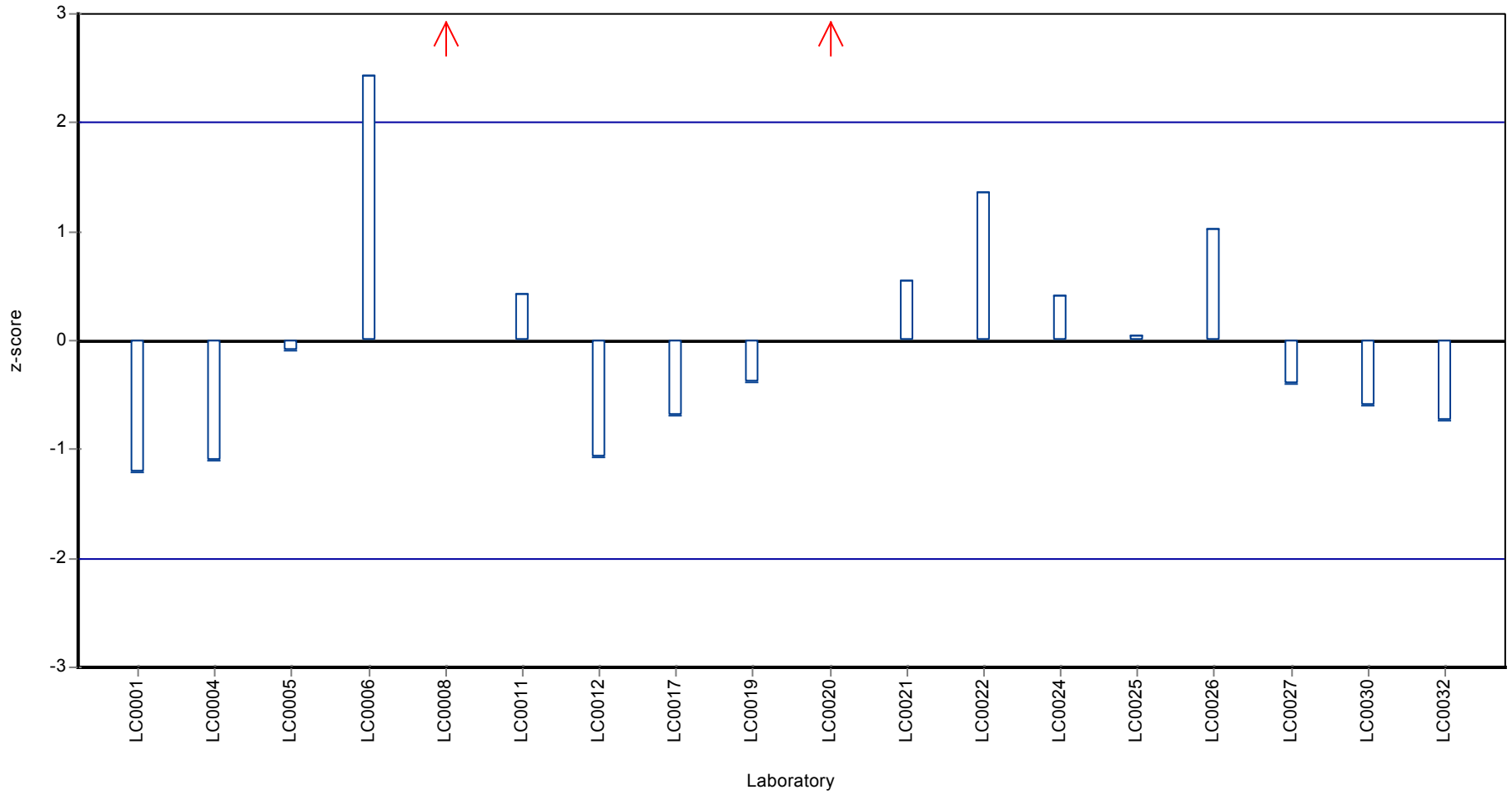
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0004
LC0005
LC0006
LC0008
LC0011
LC0012
LC0017
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
LC0026
LC0027
LC0030
LC0032
Laboratory

Parameter oriented report

M145 B

Aluminium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~8.42 ± 1.26~~
Minimum - Maximum	7.21 - 11
Control test value ± U	6.63 ± 0.448

Unit	µg/l
Assigned value ± U (k=2)	8.42 ± 0.391
Criterion	1.26 (15 %)
Minimum - Maximum	7.21 - 11
Control test value ± U (k=2)	6.63 ± 0.448

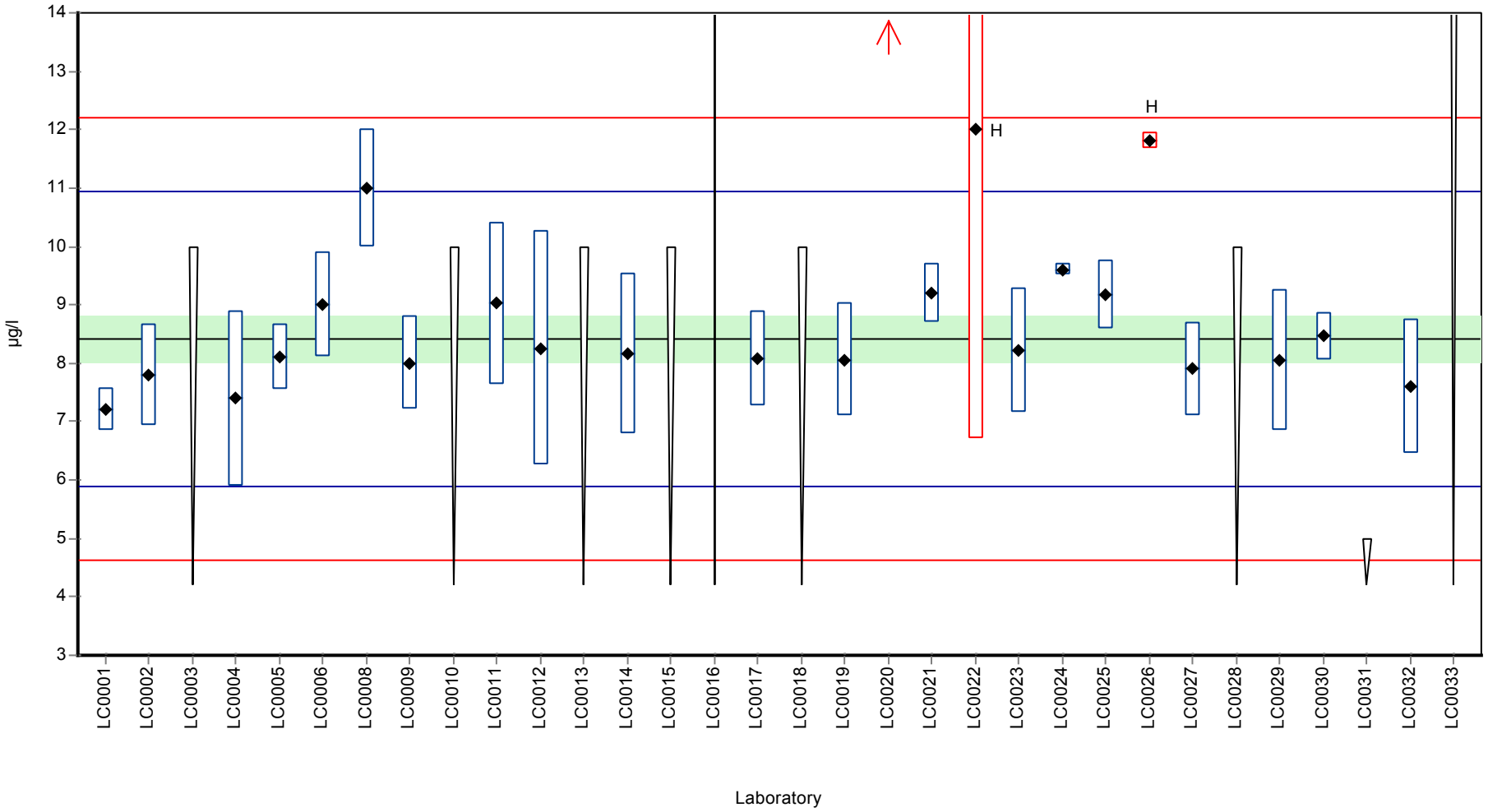
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	7.215	0.357	85.7	-0.95	
LC0002	7.807	0.867	92.8	-0.48	
LC0003	< 10 (LOQ)	-	-	-	
LC0004	7.4	1.5	87.9	-0.81	
LC0005	8.11	0.57	96.4	-0.24	
LC0006	9	0.9	107	0.46	
LC0007	-	-	-	-	
LC0008	11	1	131	2.05	
LC0009	8	0.8	95.1	-0.33	
LC0010	< 10 (LOQ)	-	-	-	
LC0011	9.02	1.38	107	0.48	
LC0012	8.26	2	98.1	-0.12	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	8.16	1.38	97	-0.2	
LC0015	< 10 (LOQ)	-	-	-	
LC0016	< 400 (LOQ)	-	-	-	
LC0017	8.07	0.81	95.9	-0.27	
LC0018	< 10 (LOQ)	-	-	-	
LC0019	8.0644	0.976	95.8	-0.28	
LC0020	14	3	166	4.42	H
LC0021	9.2	0.5	109	0.62	
LC0022	12	5.3	143	2.84	H
LC0023	8.23	1.069	97.8	-0.15	
LC0024	9.6	0.1	114	0.94	
LC0025	9.17	0.58	109	0.6	
LC0026	11.807	0.146	140	2.69	H
LC0027	7.9	0.8	93.9	-0.41	
LC0028	< 10 (LOQ)	-	-	-	
LC0029	8.05	1.21	95.7	-0.29	
LC0030	8.46	0.409	101	0.04	
LC0031	< 5 (LOQ)	-	-	-	
LC0032	7.6	1.14	90.3	-0.65	
LC0033	< 20 (LOQ)	-	-	-	

Characteristics of parameter

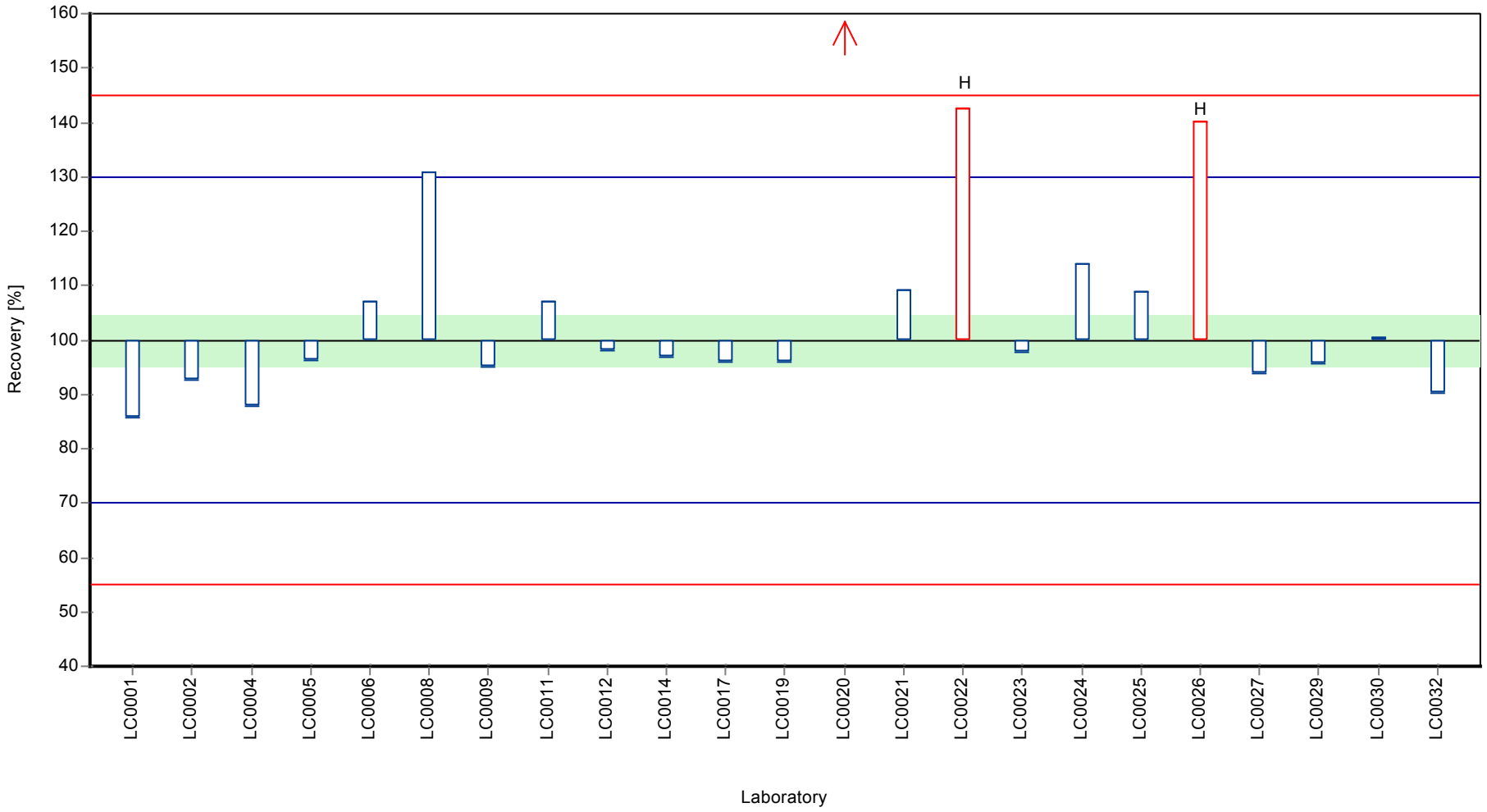
	all results	without outliers	Unit
Mean ± CI (99%)	8.96 ± 1.06	8.42 ± 0.586	µg/l
Minimum	7.21	7.21	µg/l
Maximum	14	11	µg/l
Standard deviation	1.69	0.874	µg/l
rel. standard deviation	18.9	10.4	%
n	23	20	-

Graphical presentation of results

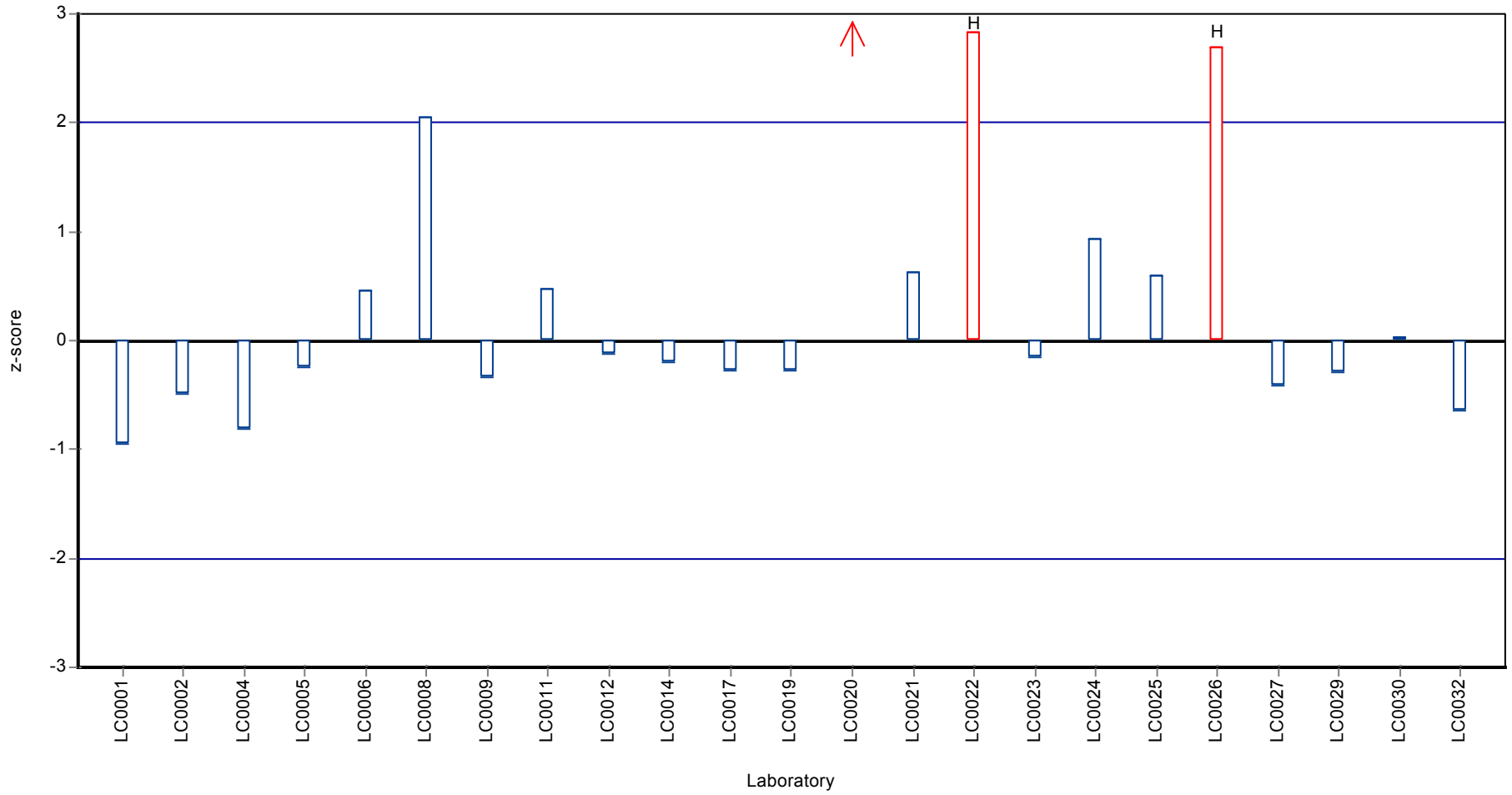
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
H
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0011
LC0012
LC0014
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0029
LC0030
LC0032
Laboratory

Parameter oriented report

M145 A

Arsenic

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.81 ± 0.271~~
Minimum - Maximum	1.7 - 2
Control test value ± U	1.92 ± 0.0903

Unit	µg/l
Assigned value ± U (k=2)	1.81 ± 0.0355
Criterion	0.271 (15 %)
Minimum - Maximum	1.7 - 2
Control test value ± U (k=2)	1.92 ± 0.0903

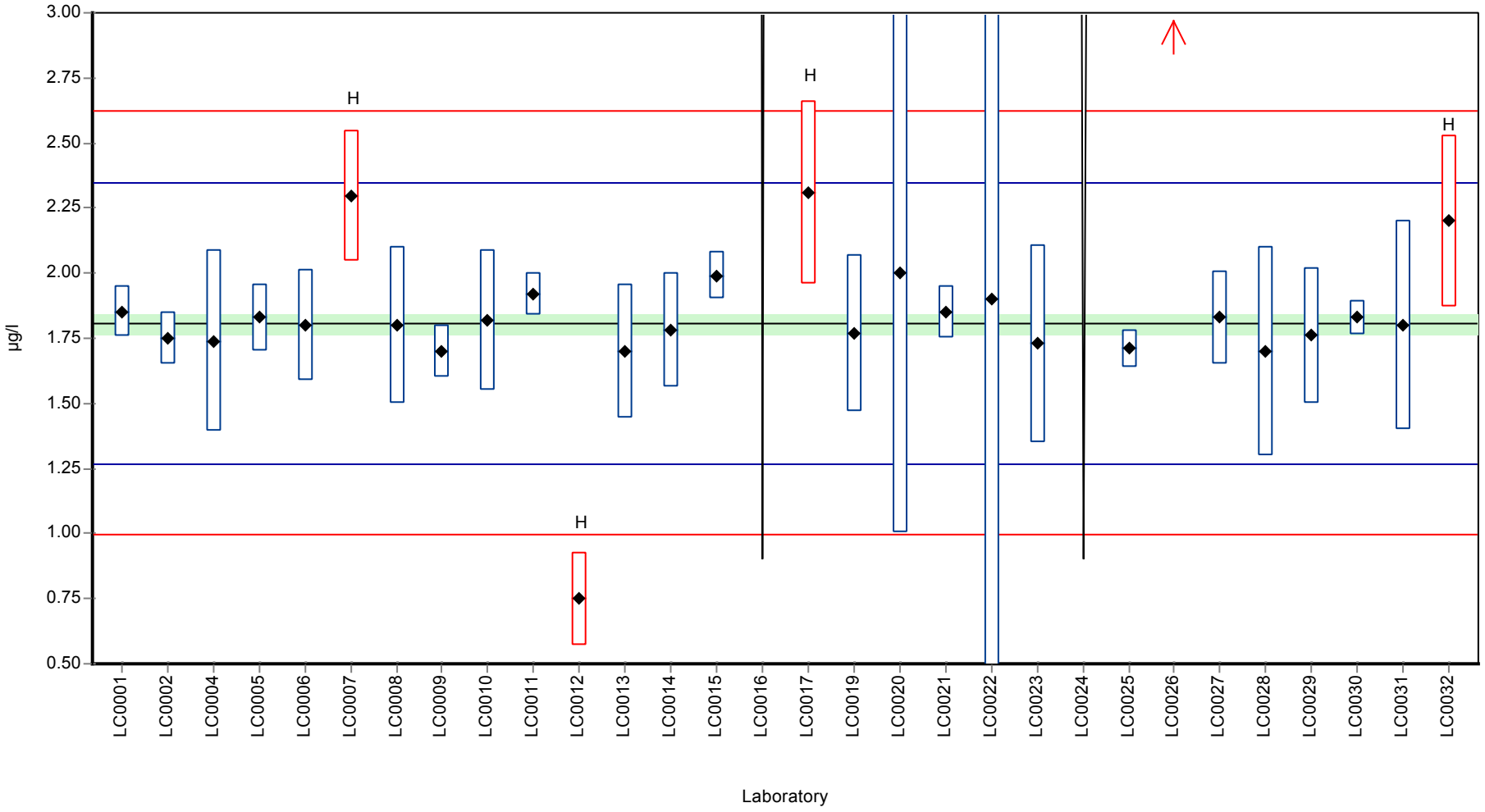
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.853	0.098	103	0.17	
LC0002	1.75	0.098	96.8	-0.21	
LC0003	-	-	-	-	
LC0004	1.74	0.35	96.3	-0.25	
LC0005	1.83	0.13	101	0.08	
LC0006	1.8	0.216	99.6	-0.03	
LC0007	2.295	0.252	127	1.8	H
LC0008	1.8	0.3	99.6	-0.03	
LC0009	1.7	0.1	94.1	-0.4	
LC0010	1.82	0.27	101	0.05	
LC0011	1.92	0.08	106	0.42	
LC0012	0.75	0.18	41.5	-3.9	H
LC0013	1.7	0.26	94.1	-0.4	
LC0014	1.78	0.22	98.5	-0.1	
LC0015	1.99	0.09	110	0.68	
LC0016	< 10 (LOQ)	-	-	-	
LC0017	2.31	0.35	128	1.86	H
LC0018	-	-	-	-	
LC0019	1.7688	0.302	97.9	-0.14	
LC0020	2	1	111	0.71	
LC0021	1.85	0.1	102	0.16	
LC0022	1.9	2.2	105	0.34	
LC0023	1.73	0.381	95.7	-0.28	
LC0024	< 4.8 (LOQ)	-	-	-	
LC0025	1.71	0.07	94.6	-0.36	
LC0026	6.436	1.034	356	17.1	H
LC0027	1.83	0.18	101	0.08	
LC0028	1.7	0.4	94.1	-0.4	
LC0029	1.76	0.26	97.4	-0.17	
LC0030	1.83	0.067	101	0.08	
LC0031	1.8	0.4	99.6	-0.03	
LC0032	2.2	0.33	122	1.45	H
LC0033	-	-	-	-	

Characteristics of parameter

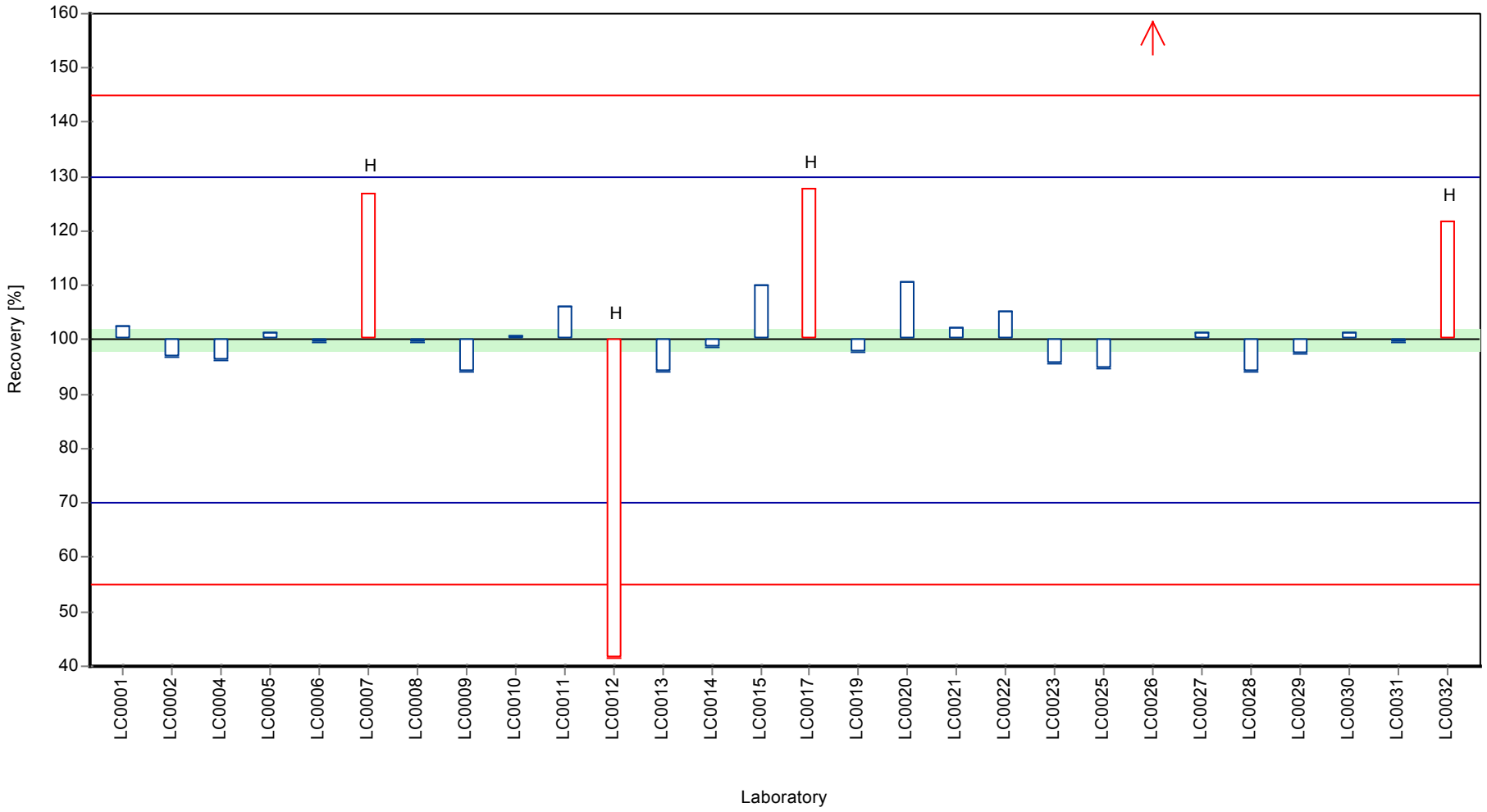
	all results	without outliers	Unit
Mean ± CI (99%)	1.98 ± 0.517	1.81 ± 0.0533	µg/l
Minimum	0.75	1.7	µg/l
Maximum	6.44	2	µg/l
Standard deviation	0.912	0.0852	µg/l
rel. standard deviation	46	4.72	%
n	28	23	-

Graphical presentation of results

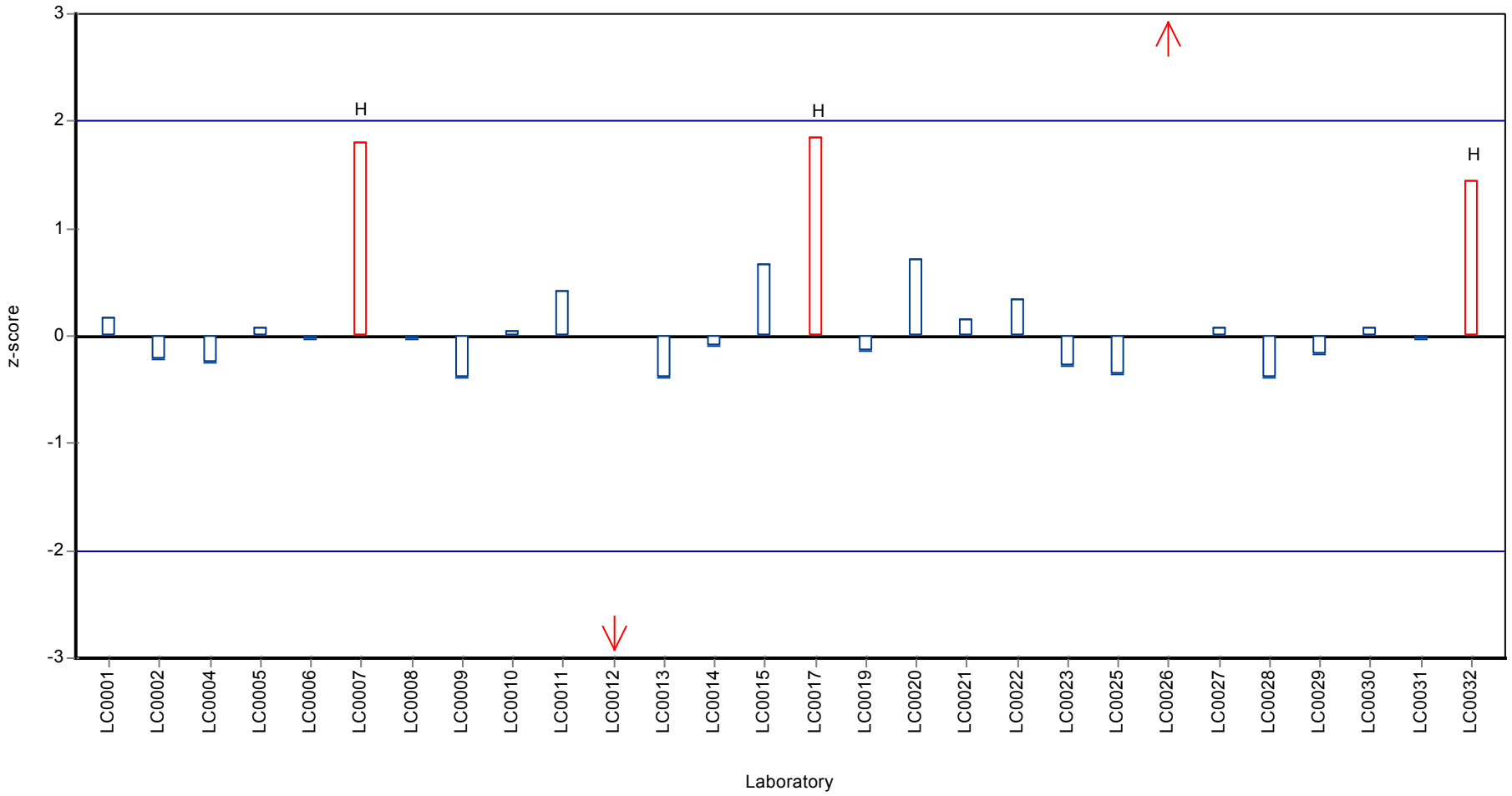
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
H
H
LC0001
LC0002
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 B

Arsenic

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.74 ± 0.261~~
Minimum - Maximum	1.56 - 2.04
Control test value ± U	1.87 ± 0.11

Unit	µg/l
Assigned value ± U (k=2)	1.74 ± 0.0532
Criterion	0.261 (15 %)
Minimum - Maximum	1.56 - 2.04
Control test value ± U (k=2)	1.87 ± 0.11

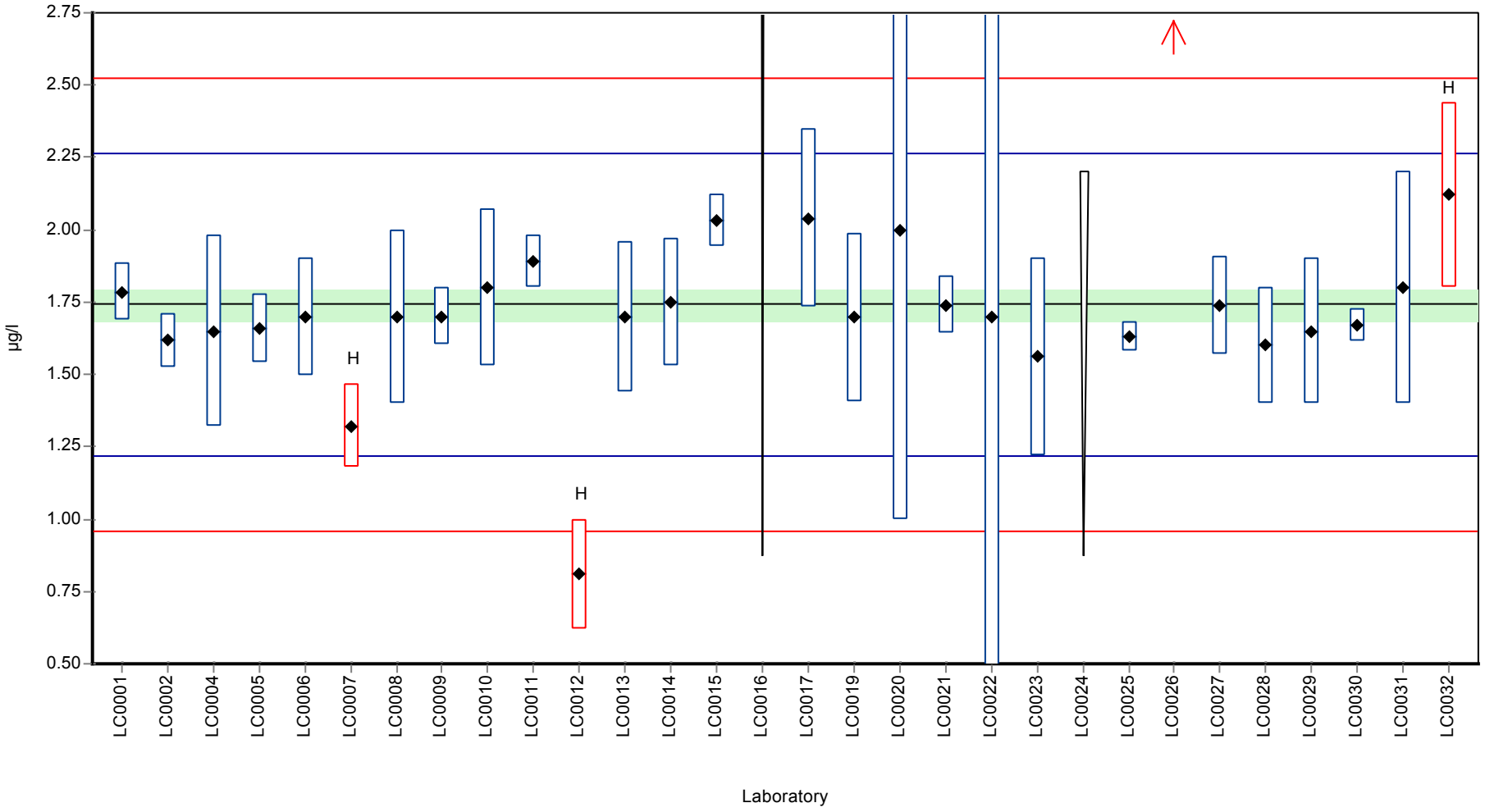
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.786	0.097	103	0.17	
LC0002	1.617	0.091	92.8	-0.48	
LC0003	-	-	-	-	
LC0004	1.65	0.33	94.7	-0.35	
LC0005	1.66	0.12	95.3	-0.31	
LC0006	1.7	0.204	97.6	-0.16	
LC0007	1.321	0.145	75.8	-1.61	H
LC0008	1.7	0.3	97.6	-0.16	
LC0009	1.7	0.1	97.6	-0.16	
LC0010	1.8	0.27	103	0.22	
LC0011	1.89	0.09	108	0.57	
LC0012	0.81	0.19	46.5	-3.57	H
LC0013	1.7	0.26	97.6	-0.16	
LC0014	1.75	0.22	100	0.03	
LC0015	2.03	0.09	117	1.1	
LC0016	< 10 (LOQ)	-	-	-	
LC0017	2.04	0.31	117	1.14	
LC0018	-	-	-	-	
LC0019	1.6973	0.29	97.4	-0.17	
LC0020	2	1	115	0.99	
LC0021	1.74	0.1	99.9	-0.01	
LC0022	1.7	2.2	97.6	-0.16	
LC0023	1.56	0.343	89.5	-0.7	
LC0024	< 2.2 (LOQ)	-	-	-	
LC0025	1.63	0.05	93.6	-0.43	
LC0026	5.933	1.034	341	16	H
LC0027	1.74	0.17	99.9	-0.01	
LC0028	1.6	0.2	91.8	-0.54	
LC0029	1.65	0.25	94.7	-0.35	
LC0030	1.67	0.055	95.9	-0.28	
LC0031	1.8	0.4	103	0.22	
LC0032	2.12	0.318	122	1.45	H
LC0033	-	-	-	-	

Characteristics of parameter

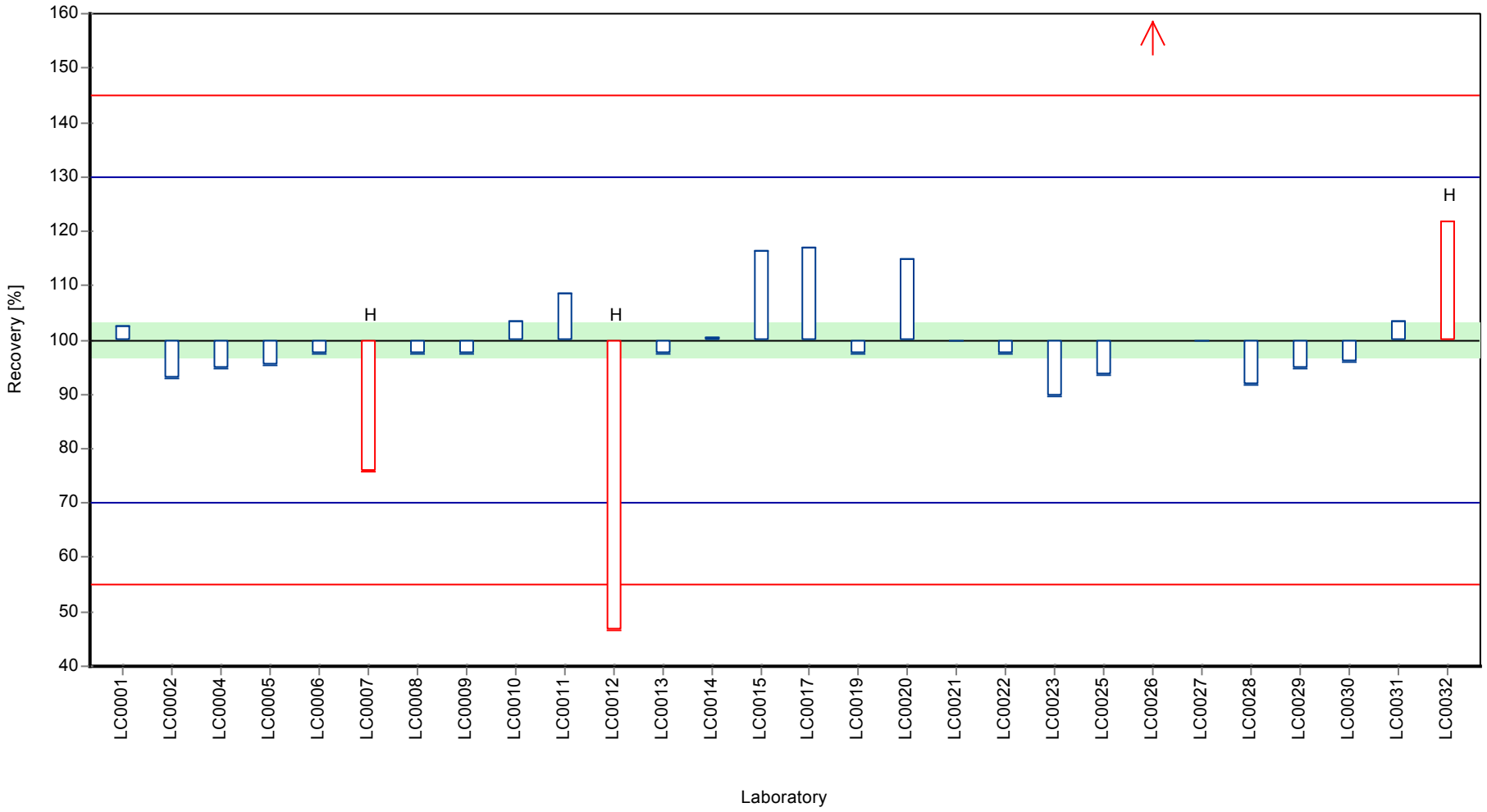
	all results	without outliers	Unit
Mean ± CI (99%)	1.86 ± 0.473	1.74 ± 0.0797	µg/l
Minimum	0.81	1.56	µg/l
Maximum	5.93	2.04	µg/l
Standard deviation	0.834	0.13	µg/l
rel. standard deviation	44.9	7.48	%
n	28	24	-

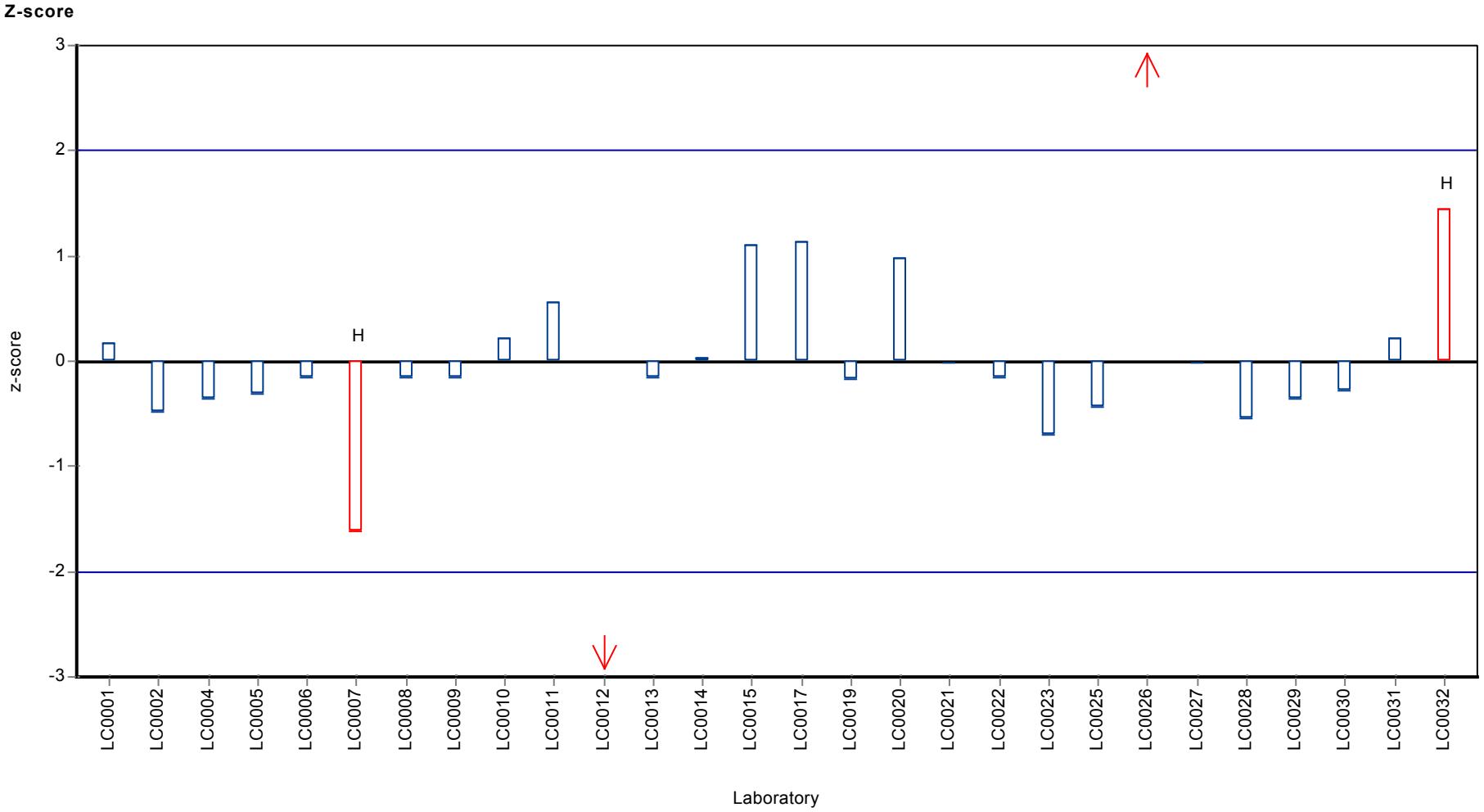
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
H
H
LC0001
LC0002
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 A

Lead

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.28 ± 0.191~~
Minimum - Maximum	0.98 - 1.5
Control test value ± U	1.25 ± 0.0703

Unit	µg/l
Assigned value ± U (k=2)	1.28 ± 0.0432
Criterion	0.191 (15 %)
Minimum - Maximum	0.98 - 1.5
Control test value ± U (k=2)	1.25 ± 0.0703

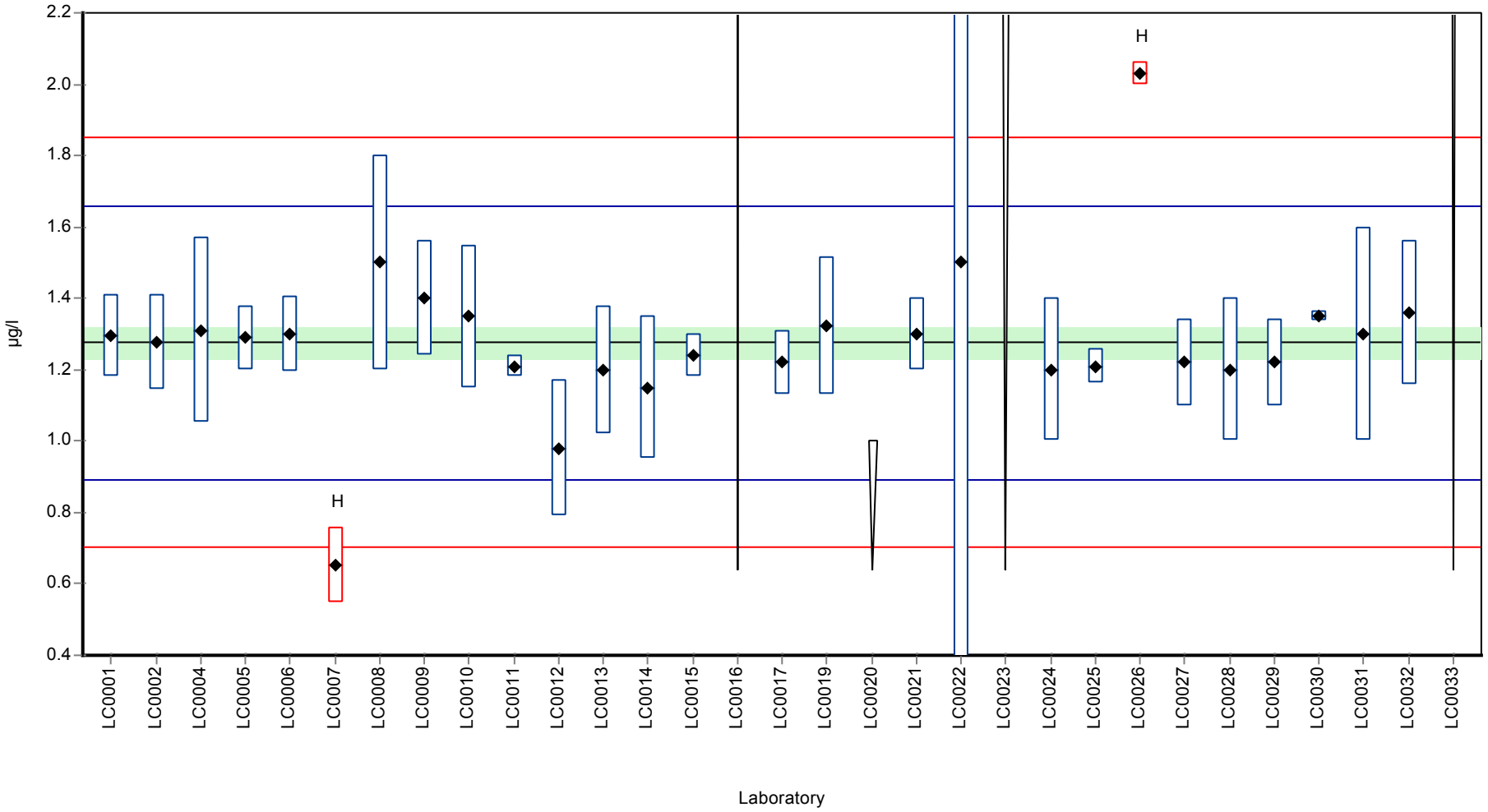
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.294	0.114	101	0.09	
LC0002	1.277	0.135	100	0.00	
LC0003	-	-	-	-	
LC0004	1.31	0.26	103	0.18	
LC0005	1.29	0.09	101	0.07	
LC0006	1.3	0.104	102	0.13	
LC0007	0.652	0.104	51.1	-3.26	H
LC0008	1.5	0.3	118	1.17	
LC0009	1.4	0.16	110	0.65	
LC0010	1.35	0.2	106	0.39	
LC0011	1.21	0.03	94.8	-0.35	
LC0012	0.98	0.19	76.8	-1.55	
LC0013	1.2	0.18	94	-0.4	
LC0014	1.15	0.2	90.1	-0.66	
LC0015	1.24	0.06	97.2	-0.19	
LC0016	< 600 (LOQ)	-	-	-	
LC0017	1.22	0.09	95.6	-0.29	
LC0018	-	-	-	-	
LC0019	1.3229	0.193	104	0.24	
LC0020	< 1 (LOQ)	-	-	-	
LC0021	1.3	0.1	102	0.13	
LC0022	1.5	1.6	118	1.17	
LC0023	< 3 (LOQ)	-	-	-	
LC0024	1.2	0.2	94	-0.4	
LC0025	1.21	0.05	94.8	-0.35	
LC0026	2.031	0.031	159	3.94	H
LC0027	1.22	0.12	95.6	-0.29	
LC0028	1.2	0.2	94	-0.4	
LC0029	1.22	0.12	95.6	-0.29	
LC0030	1.35	0.015	106	0.39	
LC0031	1.3	0.3	102	0.13	
LC0032	1.36	0.204	107	0.44	
LC0033	< 6 (LOQ)	-	-	-	

Characteristics of parameter

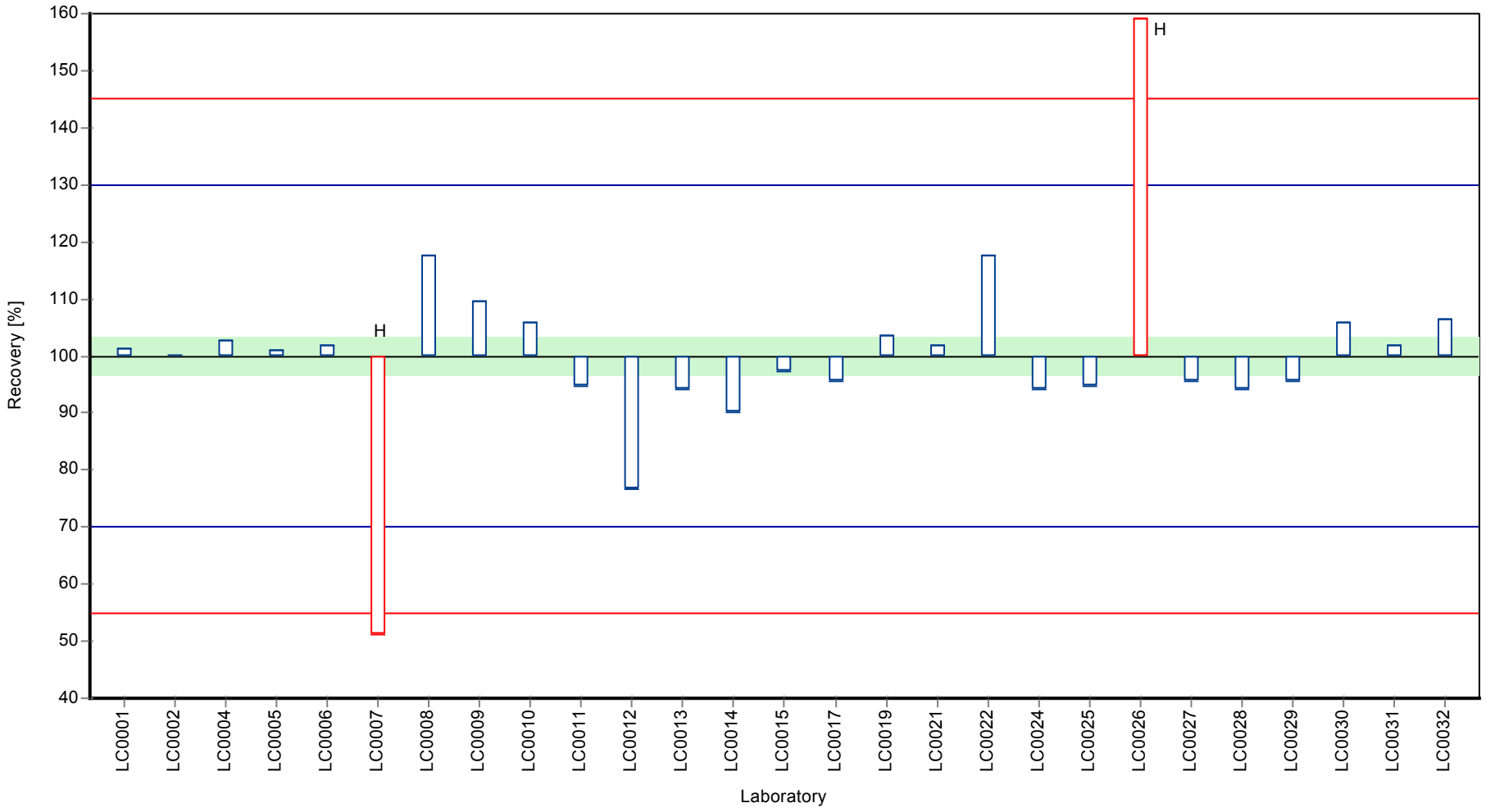
	all results	without outliers	Unit
Mean ± CI (99%)	1.28 ± 0.126	1.28 ± 0.0648	µg/l
Minimum	0.652	0.98	µg/l
Maximum	2.03	1.5	µg/l
Standard deviation	0.218	0.108	µg/l
rel. standard deviation	17	8.46	%
n	27	25	-

Graphical presentation of results

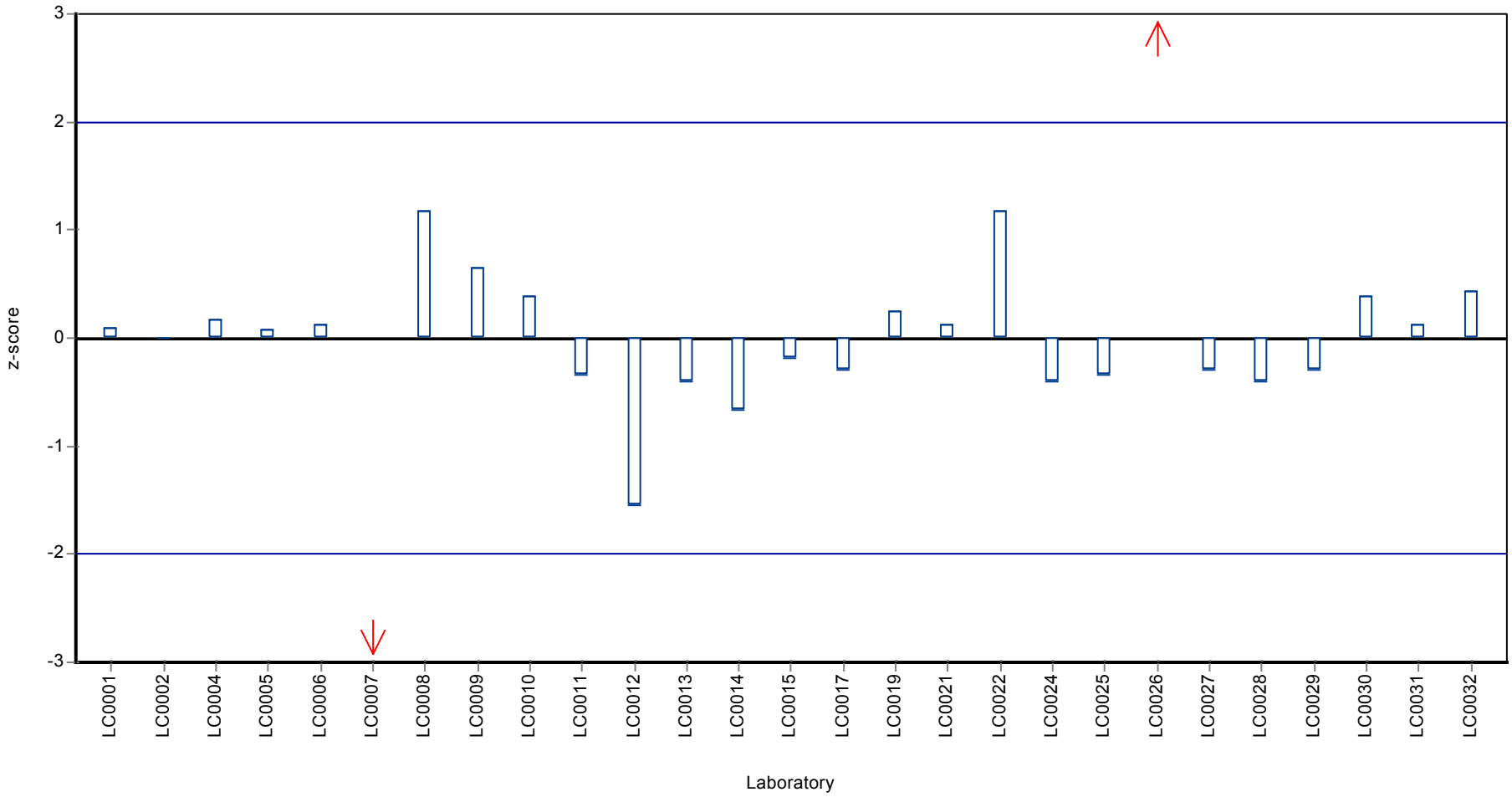
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0007
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0021
LC0022
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 B

Lead

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~0.338 ± 0.0507~~
Minimum - Maximum	0.269 - 0.43
Control test value ± U	0.275 ± 0.0249

Unit	µg/l
Assigned value ± U (k=2)	0.338 ± 0.0276
Criterion	0.0507 (15 %)
Minimum - Maximum	0.269 - 0.43
Control test value ± U (k=2)	0.275 ± 0.0249

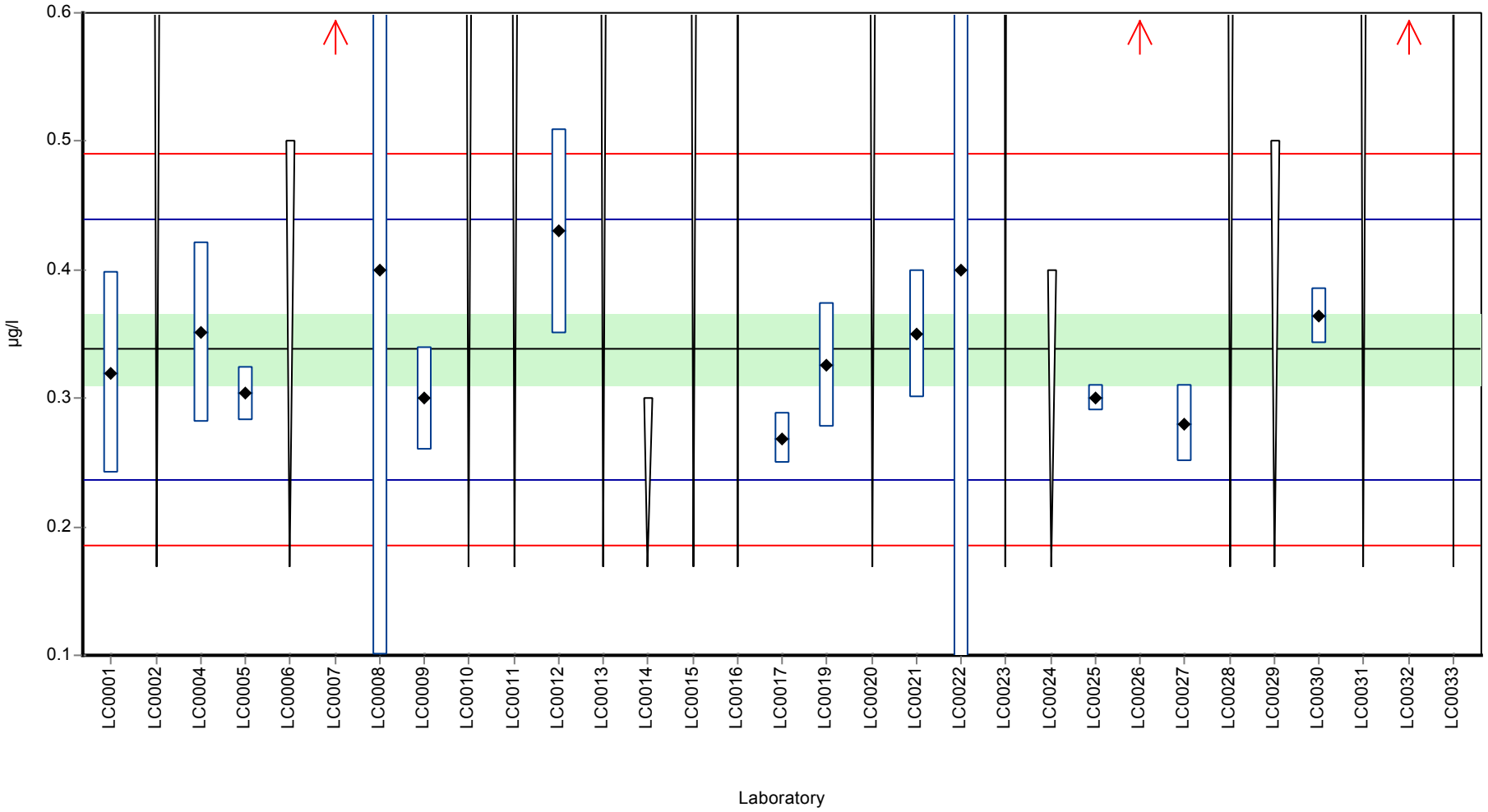
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	0.32	0.079	94.7	-0.35	
LC0002	< 1 (LOQ)	-	-	-	
LC0003	-	-	-	-	
LC0004	0.351	0.07	104	0.26	
LC0005	0.304	0.021	89.9	-0.67	
LC0006	< 0.5 (LOQ)	-	-	-	
LC0007	0.689	0.11	204	6.92	H
LC0008	0.4	0.3	118	1.22	
LC0009	0.3	0.04	88.8	-0.75	
LC0010	< 1 (LOQ)	-	-	-	
LC0011	< 1 (LOQ)	-	-	-	
LC0012	0.43	0.08	127	1.82	
LC0013	< 1 (LOQ)	-	-	-	
LC0014	< 0.3 (LOQ)	-	-	-	
LC0015	< 1 (LOQ)	-	-	-	
LC0016	< 600 (LOQ)	-	-	-	
LC0017	0.269	0.02	79.6	-1.36	
LC0018	-	-	-	-	
LC0019	0.32562	0.048	96.3	-0.24	
LC0020	< 1 (LOQ)	-	-	-	
LC0021	0.35	0.05	104	0.24	
LC0022	0.4	1.6	118	1.22	
LC0023	< 3 (LOQ)	-	-	-	
LC0024	< 0.4 (LOQ)	-	-	-	
LC0025	0.3	0.01	88.8	-0.75	
LC0026	0.654	0.031	194	6.23	H
LC0027	0.28	0.03	82.8	-1.14	
LC0028	< 1 (LOQ)	-	-	-	
LC0029	< 0.5 (LOQ)	-	-	-	
LC0030	0.364	0.022	108	0.51	
LC0031	< 1 (LOQ)	-	-	-	
LC0032	2.38	0.357	704	40.3	H
LC0033	< 6 (LOQ)	-	-	-	

Characteristics of parameter

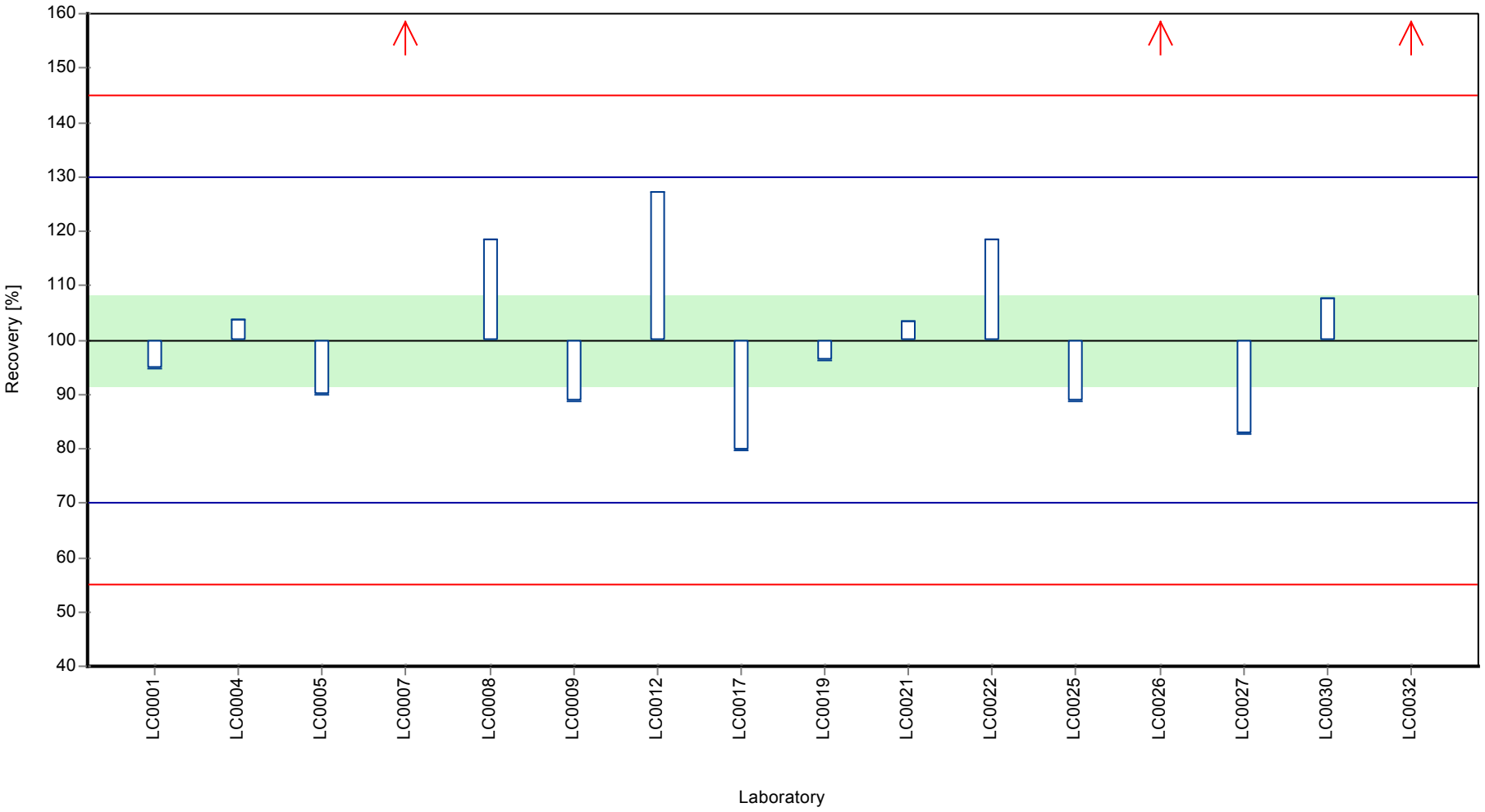
	all results	without outliers	Unit
Mean ± CI (99%)	0.507 ± 0.386	0.338 ± 0.0415	µg/l
Minimum	0.269	0.269	µg/l
Maximum	2.38	0.43	µg/l
Standard deviation	0.514	0.0498	µg/l
rel. standard deviation	101	14.7	%
n	16	13	-

Graphical presentation of results

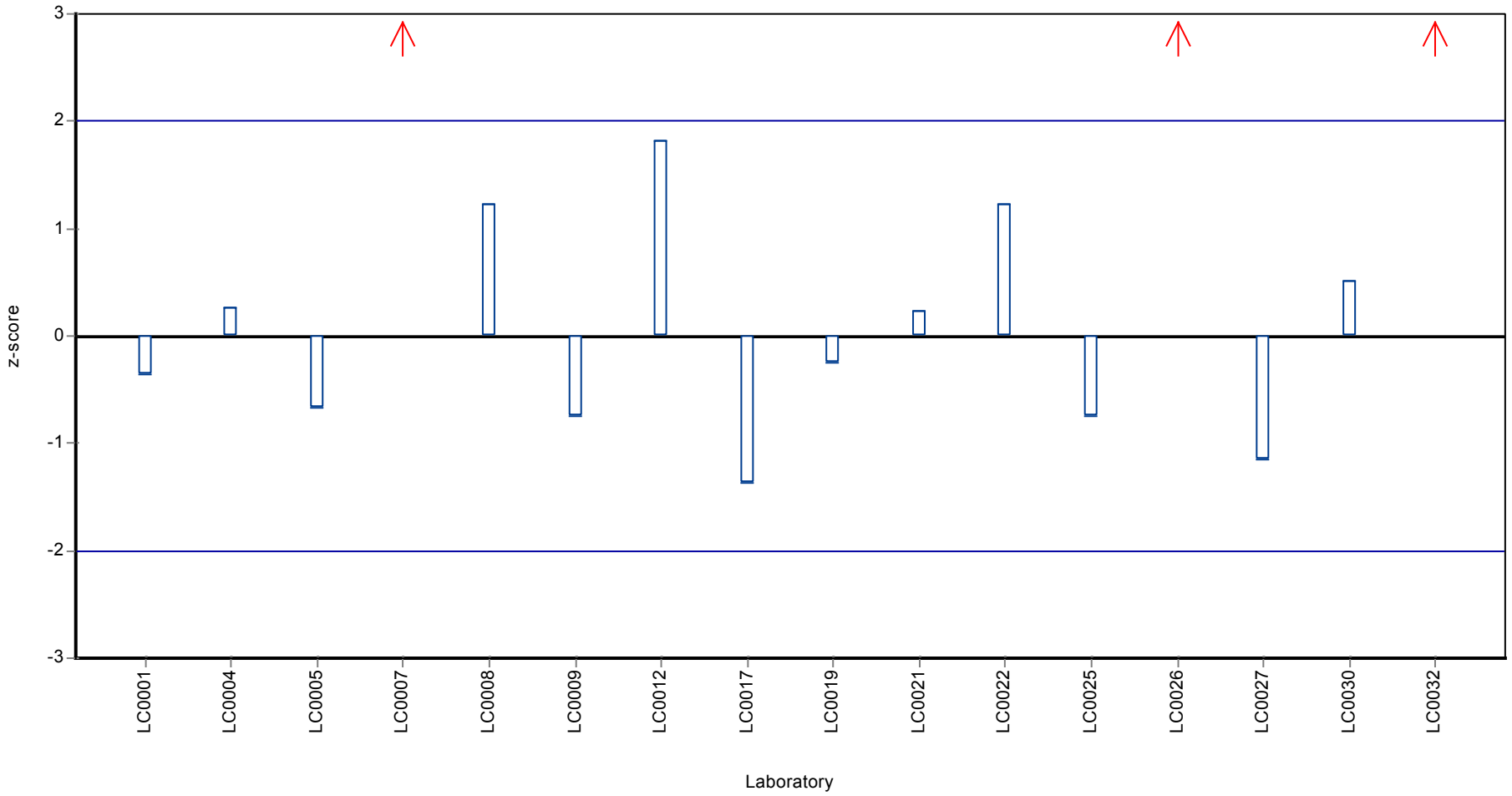
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0004
LC0005
LC0007
LC0008
LC0009
LC0012
LC0017
LC0019
LC0021
LC0022
LC0025
LC0026
LC0027
LC0030
LC0032
Laboratory

Parameter oriented report

M145 A

Cadmium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~0.109 ± 0.012~~
Minimum - Maximum	0.1 - 0.13
Control test value ± U	0.103 ± 0.00529

Unit	µg/l
Assigned value ± U (k=2)	0.109 ± 0.00374
Criterion	0.012 (11 %)
Minimum - Maximum	0.1 - 0.13
Control test value ± U (k=2)	0.103 ± 0.00529

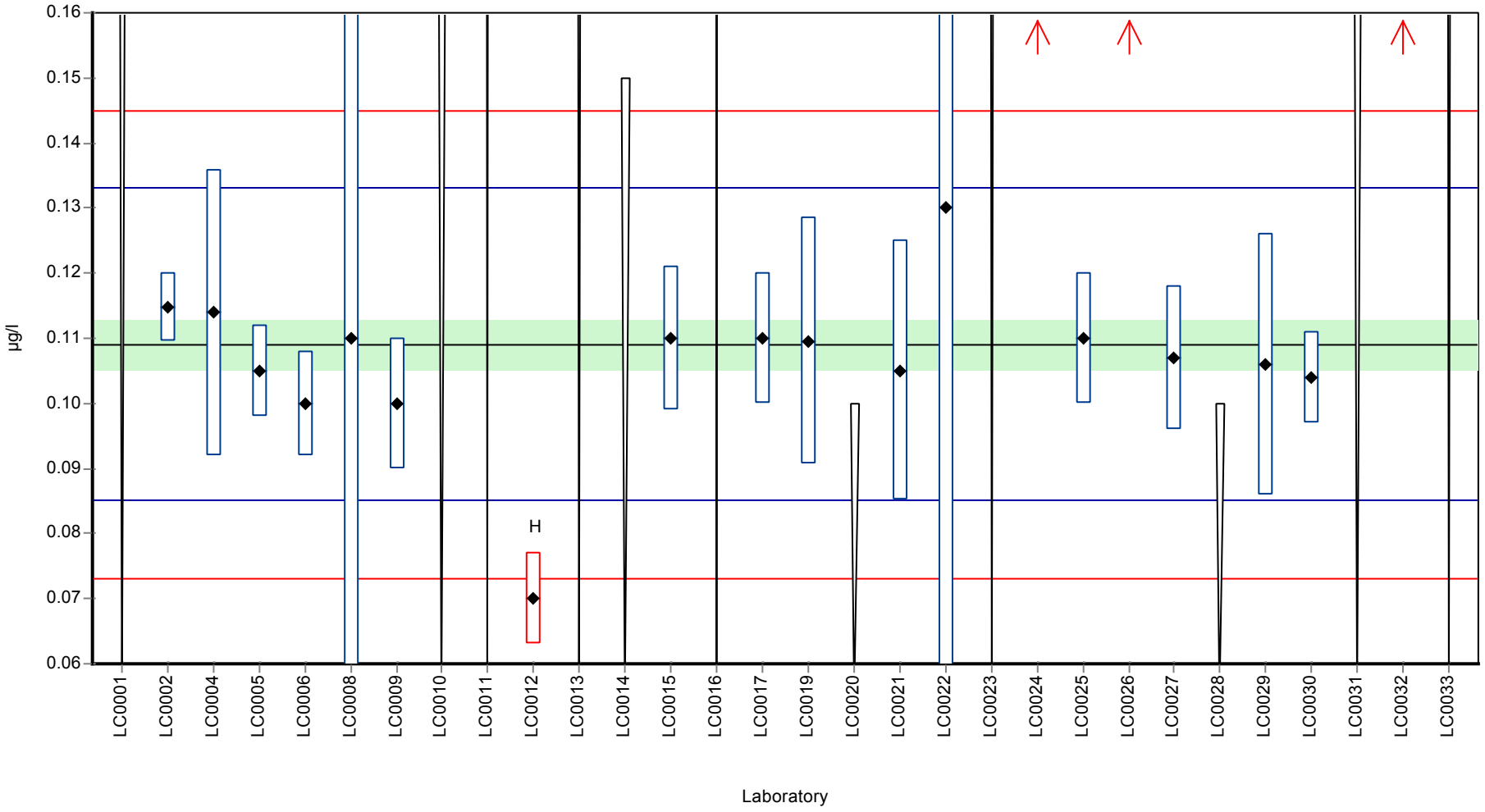
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 0.249 (LOQ)	-	-	-	
LC0002	0.1147	0.0053	105	0.47	
LC0003	-	-	-	-	
LC0004	0.114	0.022	105	0.42	
LC0005	0.105	0.007	96.3	-0.34	
LC0006	0.1	0.008	91.7	-0.75	
LC0007	-	-	-	-	
LC0008	0.11	0.1	101	0.08	
LC0009	0.1	0.01	91.7	-0.75	
LC0010	< 0.2 (LOQ)	-	-	-	
LC0011	< 1 (LOQ)	-	-	-	
LC0012	0.07	0.007	64.2	-3.25	H
LC0013	< 0.5 (LOQ)	-	-	-	
LC0014	< 0.15 (LOQ)	-	-	-	
LC0015	0.11	0.011	101	0.08	
LC0016	< 2 (LOQ)	-	-	-	
LC0017	0.11	0.01	101	0.08	
LC0018	-	-	-	-	
LC0019	0.10957	0.019	101	0.05	
LC0020	< 0.1 (LOQ)	-	-	-	
LC0021	0.105	0.02	96.3	-0.34	
LC0022	0.13	1.9	119	1.75	
LC0023	< 0.5 (LOQ)	-	-	-	
LC0024	0.5	0.1	459	32.6	H
LC0025	0.11	0.01	101	0.08	
LC0026	0.417	0.017	383	25.7	H
LC0027	0.107	0.011	98.1	-0.17	
LC0028	< 0.1 (LOQ)	-	-	-	
LC0029	0.106	0.02	97.2	-0.25	
LC0030	0.104	0.007	95.4	-0.42	
LC0031	< 0.2 (LOQ)	-	-	-	
LC0032	1.08	0.162	991	81	H
LC0033	< 0.5 (LOQ)	-	-	-	

Characteristics of parameter

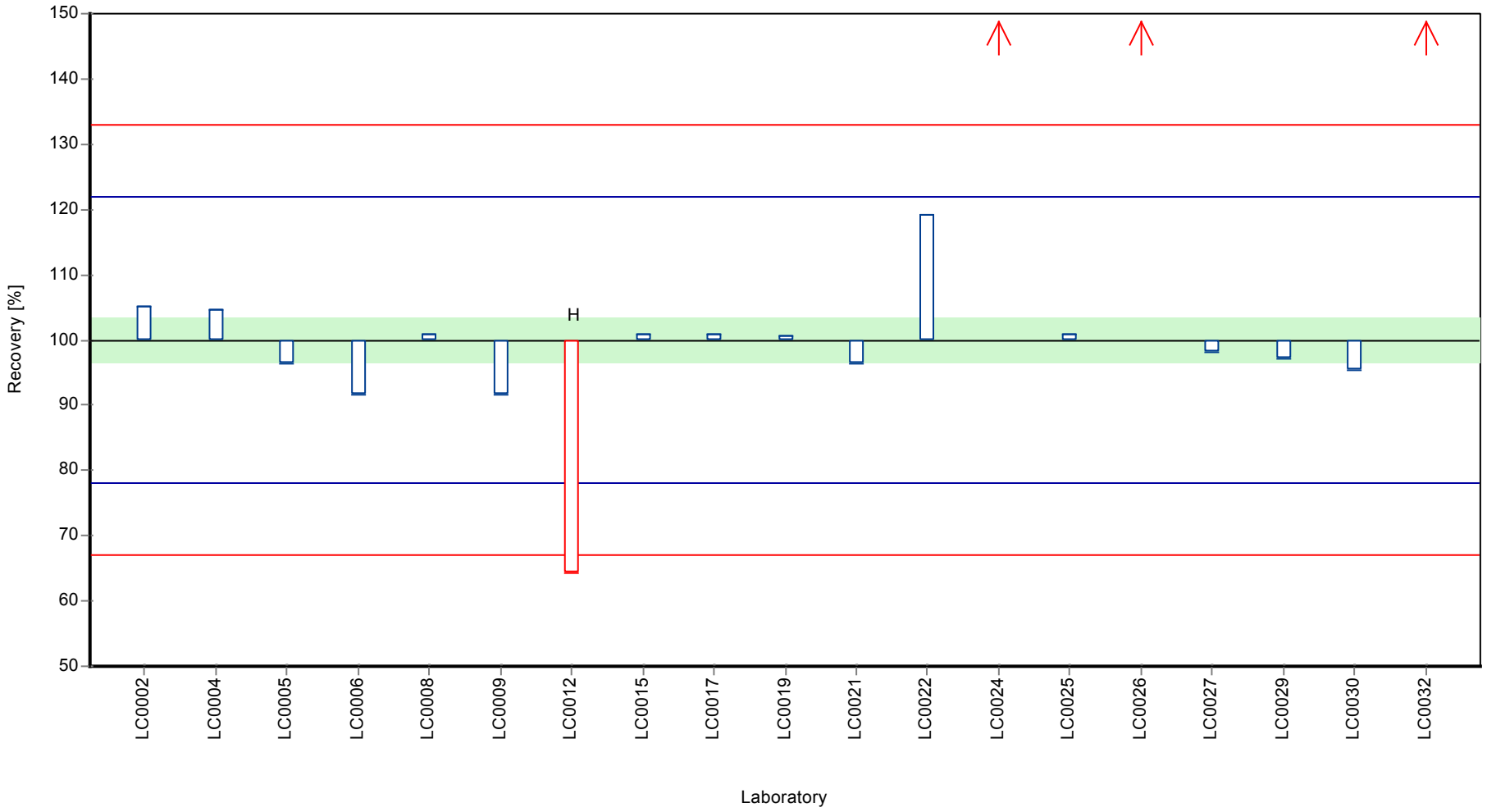
	all results	without outliers	Unit
Mean ± CI (99%)	0.195 ± 0.166	0.109 ± 0.00561	µg/l
Minimum	0.07	0.1	µg/l
Maximum	1.08	0.13	µg/l
Standard deviation	0.242	0.00724	µg/l
rel. standard deviation	124	6.65	%
n	19	15	-

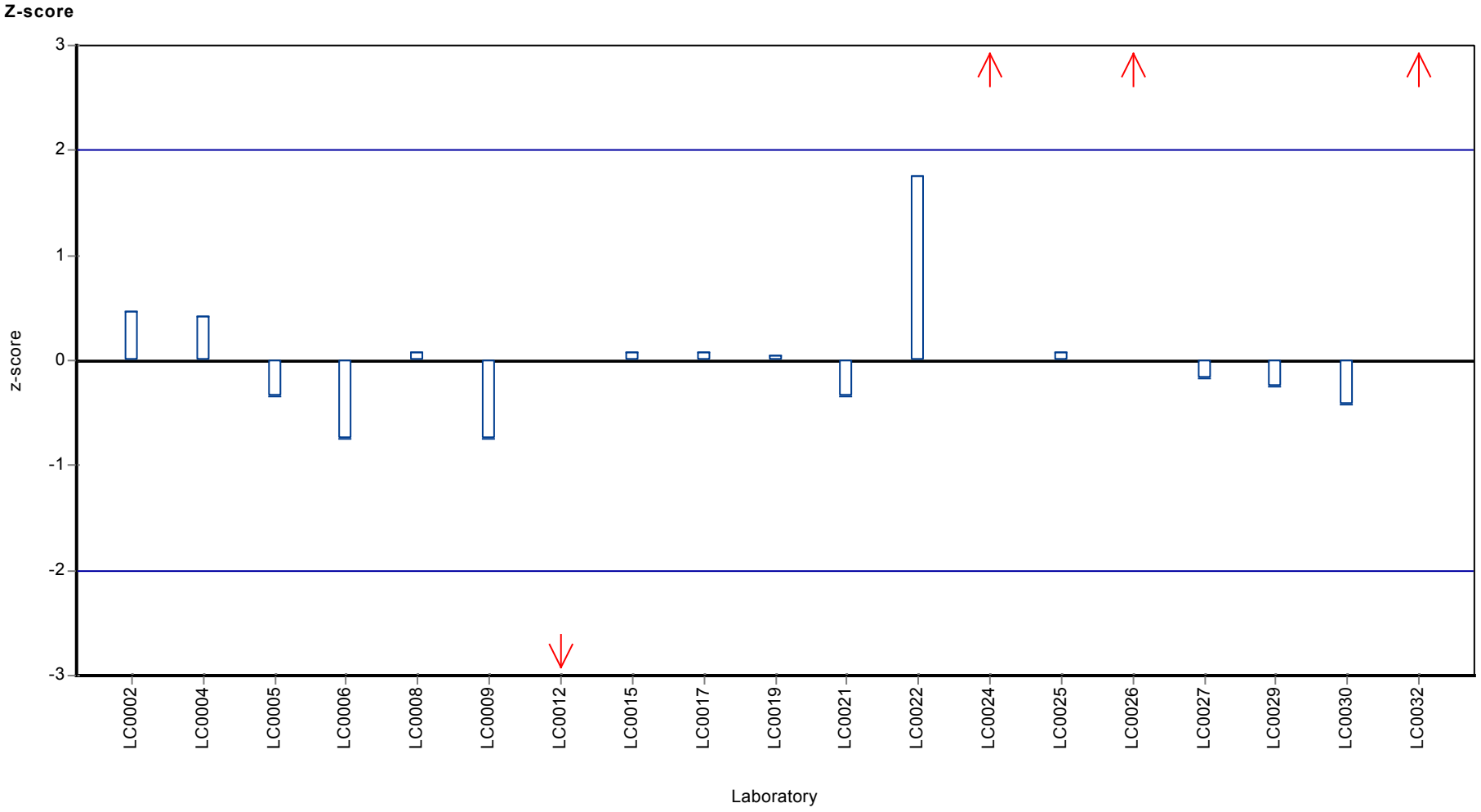
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0012
LC0015
LC0017
LC0019
LC0021
LC0022
LC0024
LC0025
LC0026
LC0027
LC0029
LC0030
LC0032
Laboratory

Parameter oriented report

M145 B

Cadmium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~0.309 ± 0.034~~
Minimum - Maximum	0.28 - 0.34
Control test value ± U	0.274 ± 0.0228

Unit	µg/l
Assigned value ± U (k=2)	0.309 ± 0.00659
Criterion	0.034 (11 %)
Minimum - Maximum	0.28 - 0.34
Control test value ± U (k=2)	0.274 ± 0.0228

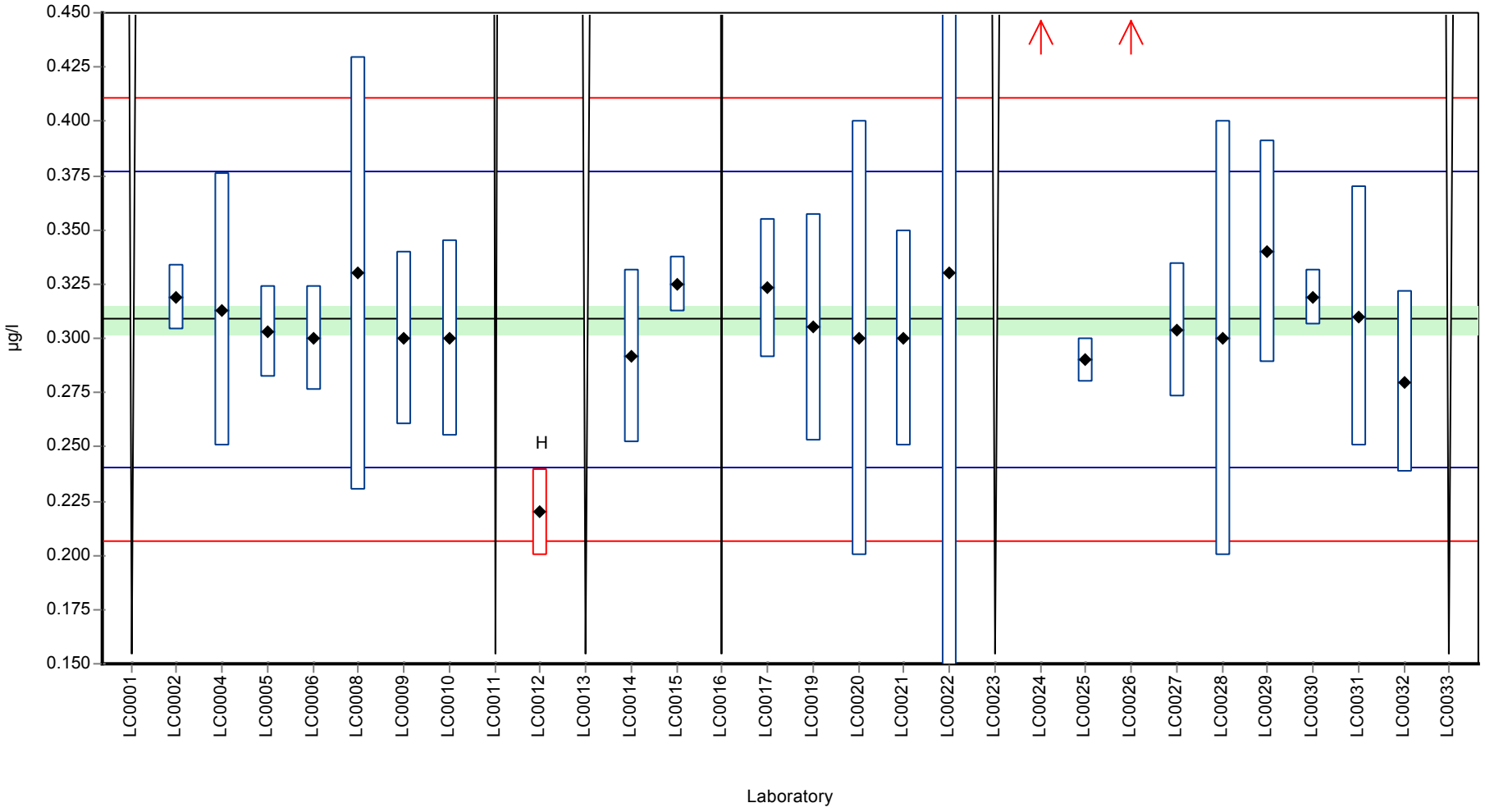
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	< 0.537 (LOQ)	-	-	-	
LC0002	0.3187	0.0149	103	0.29	
LC0003	-	-	-	-	
LC0004	0.313	0.063	101	0.13	
LC0005	0.303	0.021	98.2	-0.17	
LC0006	0.3	0.024	97.2	-0.26	
LC0007	-	-	-	-	
LC0008	0.33	0.1	107	0.63	
LC0009	0.3	0.04	97.2	-0.26	
LC0010	0.3	0.045	97.2	-0.26	
LC0011	< 1 (LOQ)	-	-	-	
LC0012	0.22	0.02	71.3	-2.61	H
LC0013	< 0.5 (LOQ)	-	-	-	
LC0014	0.292	0.04	94.6	-0.49	
LC0015	0.325	0.013	105	0.48	
LC0016	< 2 (LOQ)	-	-	-	
LC0017	0.323	0.032	105	0.42	
LC0018	-	-	-	-	
LC0019	0.30512	0.0525	98.8	-0.11	
LC0020	0.3	0.1	97.2	-0.26	
LC0021	0.3	0.05	97.2	-0.26	
LC0022	0.33	1.9	107	0.63	
LC0023	< 0.5 (LOQ)	-	-	-	
LC0024	0.6	0.1	194	8.58	H
LC0025	0.29	0.01	93.9	-0.55	
LC0026	0.698	0.017	226	11.5	H
LC0027	0.304	0.031	98.5	-0.14	
LC0028	0.3	0.1	97.2	-0.26	
LC0029	0.34	0.051	110	0.92	
LC0030	0.319	0.013	103	0.3	
LC0031	0.31	0.06	100	0.04	
LC0032	0.28	0.042	90.7	-0.84	
LC0033	< 0.5 (LOQ)	-	-	-	

Characteristics of parameter

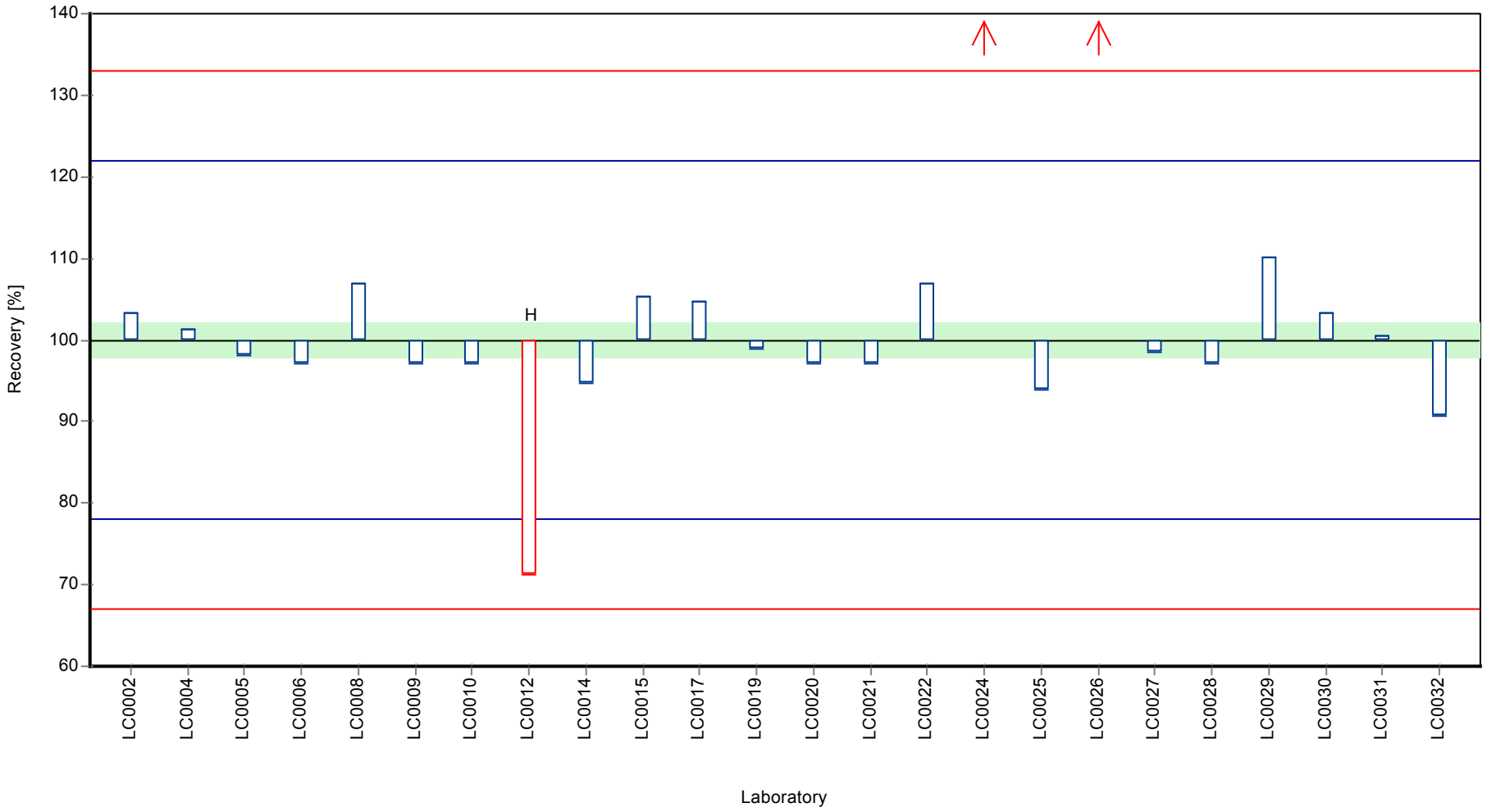
	all results	without outliers	Unit
Mean ± CI (99%)	0.333 ± 0.0618	0.309 ± 0.00988	µg/l
Minimum	0.22	0.28	µg/l
Maximum	0.698	0.34	µg/l
Standard deviation	0.101	0.0151	µg/l
rel. standard deviation	30.3	4.89	%
n	24	21	-

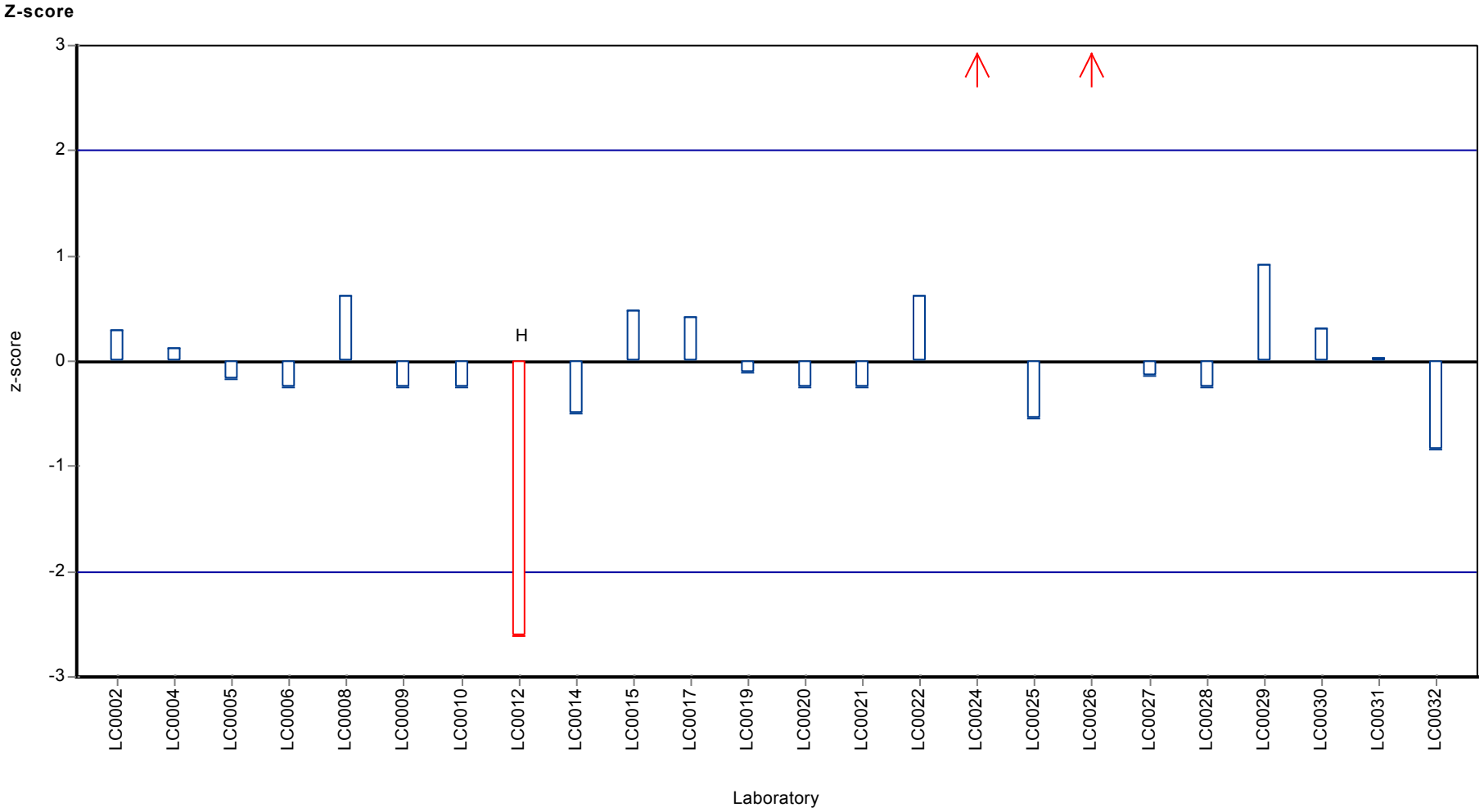
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
H
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0012
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 A

Chromium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~5.99 ± 0.569~~
Minimum - Maximum	5.3 - 6.49
Control test value ± U	5.79 ± 0.28

Unit	µg/l
Assigned value ± U (k=2)	5.99 ± 0.105
Criterion	0.569 (9.5 %)
Minimum - Maximum	5.3 - 6.49
Control test value ± U (k=2)	5.79 ± 0.28

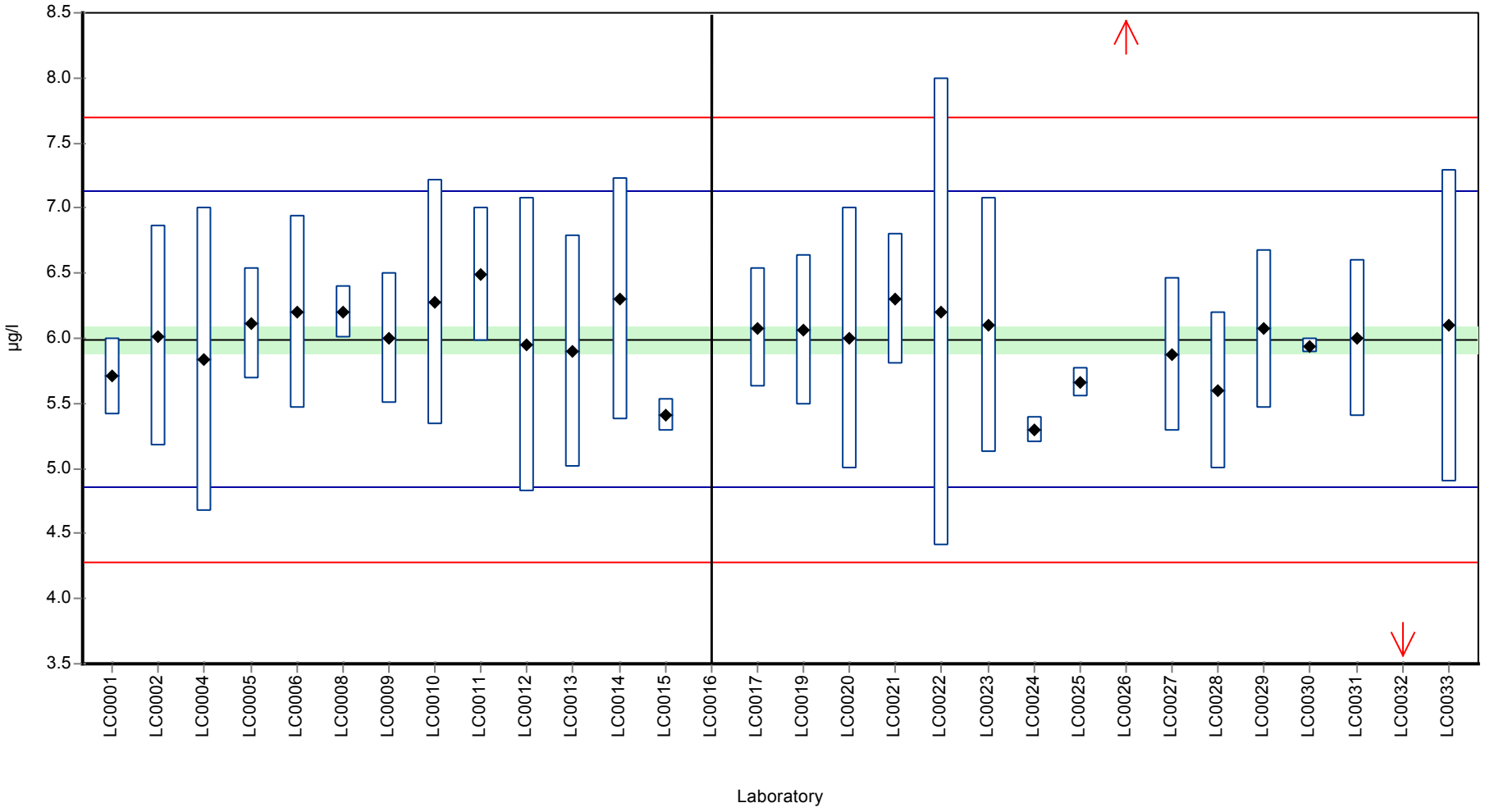
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	5.705	0.293	95.3	-0.5	
LC0002	6.013	0.848	100	0.04	
LC0003	-	-	-	-	
LC0004	5.84	1.17	97.5	-0.26	
LC0005	6.11	0.43	102	0.21	
LC0006	6.2	0.744	104	0.37	
LC0007	-	-	-	-	
LC0008	6.2	0.2	104	0.37	
LC0009	6	0.5	100	0.02	
LC0010	6.28	0.94	105	0.51	
LC0011	6.49	0.52	108	0.88	
LC0012	5.95	1.13	99.4	-0.07	
LC0013	5.9	0.89	98.5	-0.16	
LC0014	6.3	0.93	105	0.55	
LC0015	5.41	0.12	90.3	-1.02	
LC0016	< 40 (LOQ)	-	-	-	
LC0017	6.08	0.46	102	0.16	
LC0018	-	-	-	-	
LC0019	6.0661	0.576	101	0.14	
LC0020	6	1	100	0.02	
LC0021	6.3	0.5	105	0.55	
LC0022	6.2	1.8	104	0.37	
LC0023	6.1	0.976	102	0.2	
LC0024	5.3	0.1	88.5	-1.21	
LC0025	5.66	0.11	94.5	-0.58	
LC0026	9.391	0.267	157	5.98	H
LC0027	5.88	0.59	98.2	-0.19	
LC0028	5.6	0.6	93.5	-0.68	
LC0029	6.07	0.61	101	0.14	
LC0030	5.94	0.056	99.2	-0.09	
LC0031	6	0.6	100	0.02	
LC0032	0.11	0.0165	1.8	-10.3	H
LC0033	6.1	1.2	102	0.2	

Characteristics of parameter

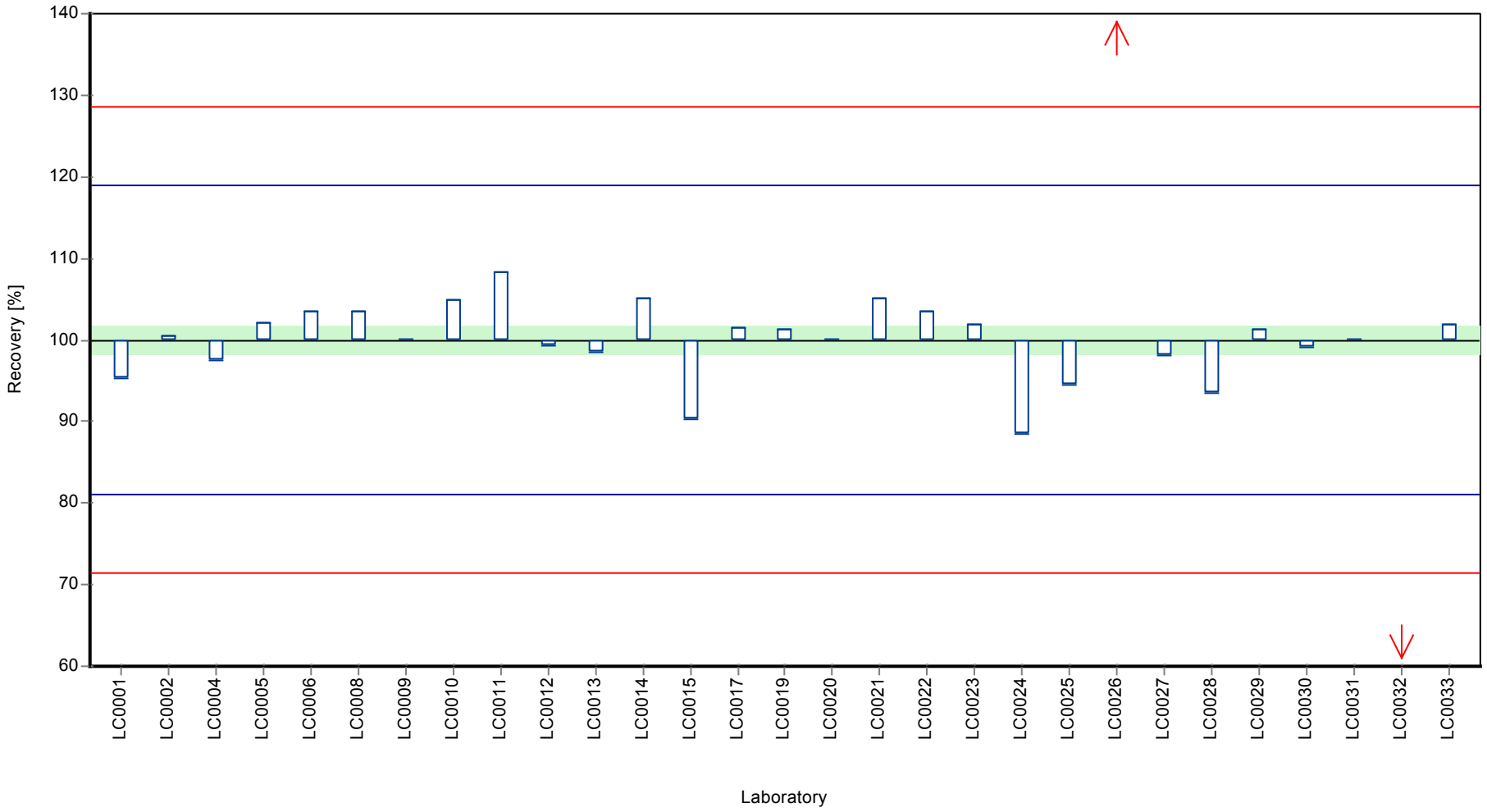
	all results	without outliers	Unit
Mean ± CI (99%)	5.9 ± 0.728	5.99 ± 0.157	µg/l
Minimum	0.11	5.3	µg/l
Maximum	9.39	6.49	µg/l
Standard deviation	1.31	0.272	µg/l
rel. standard deviation	22.1	4.54	%
n	29	27	-

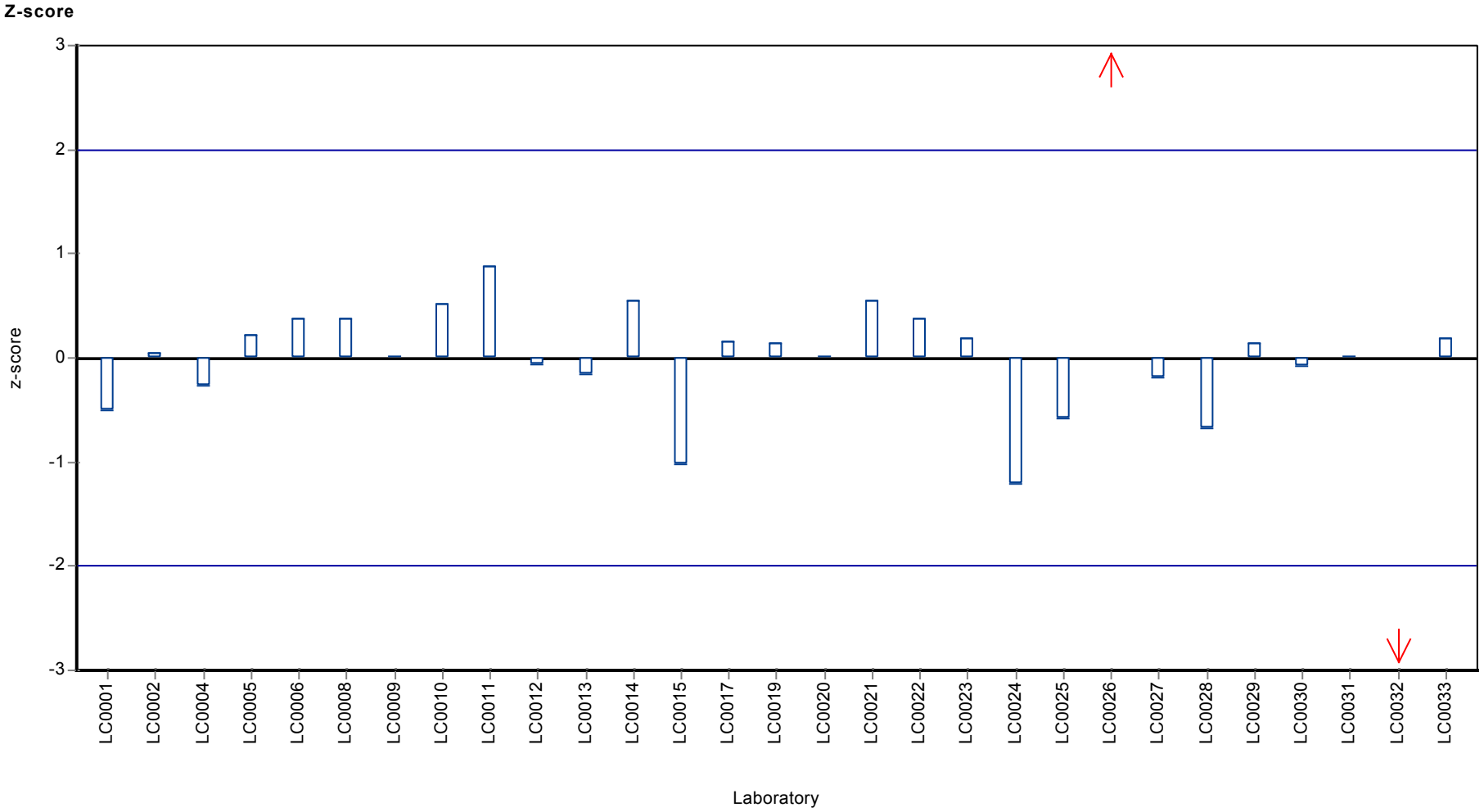
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
LC0033
Laboratory

Parameter oriented report

M145 B

Chromium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~2.33 ± 0.221~~
Minimum - Maximum	2 - 2.68
Control test value ± U	1.99 ± 0.131

Unit	µg/l
Assigned value ± U (k=2)	2.33 ± 0.0667
Criterion	0.221 (9.5 %)
Minimum - Maximum	2 - 2.68
Control test value ± U (k=2)	1.99 ± 0.131

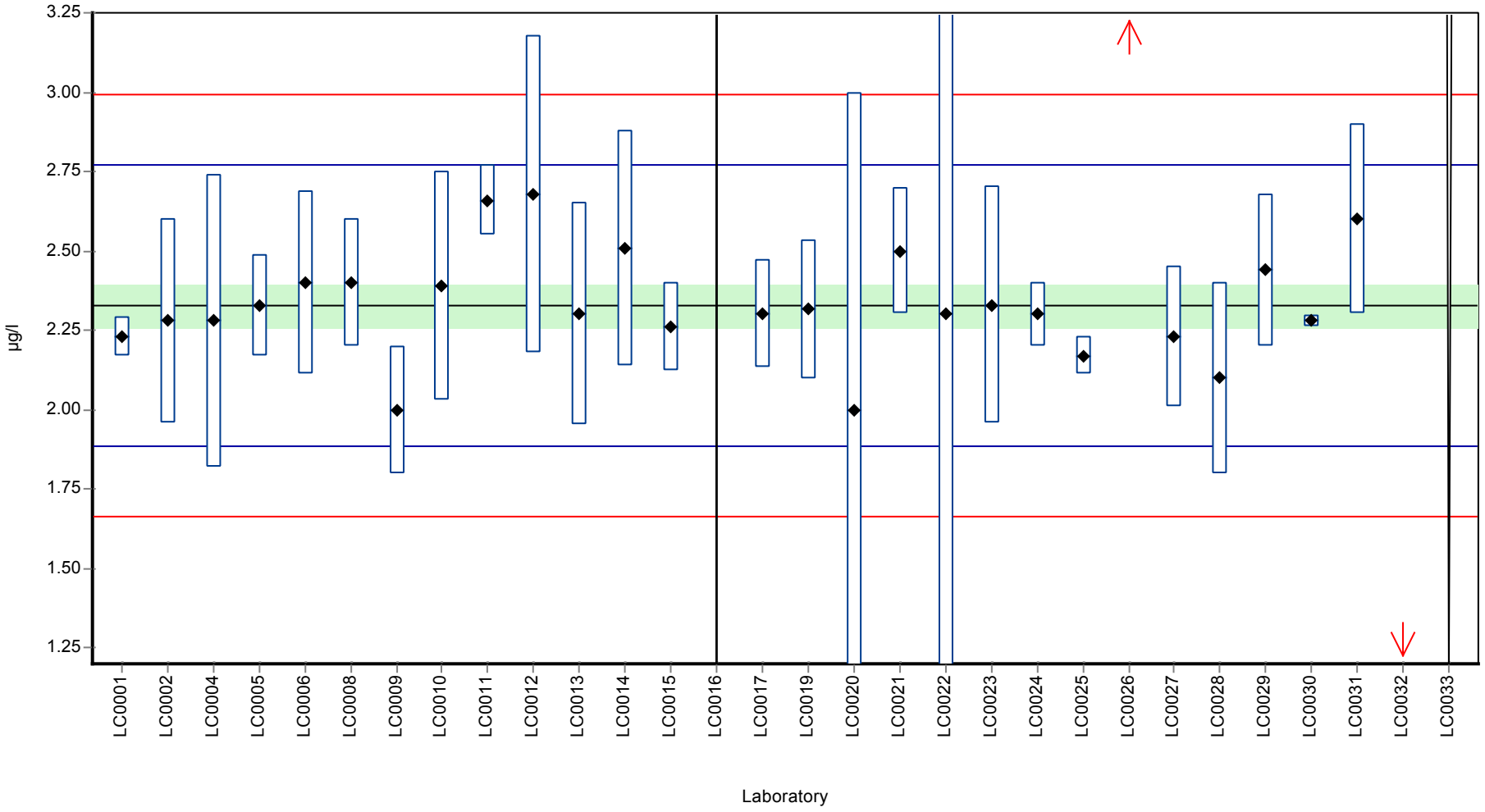
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	2.229	0.062	95.7	-0.46	
LC0002	2.28	0.321	97.8	-0.23	
LC0003	-	-	-	-	
LC0004	2.28	0.46	97.8	-0.23	
LC0005	2.33	0.16	100	0	
LC0006	2.4	0.288	103	0.32	
LC0007	-	-	-	-	
LC0008	2.4	0.2	103	0.32	
LC0009	2	0.2	85.8	-1.49	
LC0010	2.39	0.36	103	0.27	
LC0011	2.66	0.11	114	1.49	
LC0012	2.68	0.5	115	1.58	
LC0013	2.3	0.35	98.7	-0.14	
LC0014	2.51	0.37	108	0.81	
LC0015	2.26	0.14	97	-0.32	
LC0016	< 40 (LOQ)	-	-	-	
LC0017	2.3	0.17	98.7	-0.14	
LC0018	-	-	-	-	
LC0019	2.3161	0.22	99.4	-0.06	
LC0020	2	1	85.8	-1.49	
LC0021	2.5	0.2	107	0.77	
LC0022	2.3	1.8	98.7	-0.14	
LC0023	2.33	0.373	100	0	
LC0024	2.3	0.1	98.7	-0.14	
LC0025	2.17	0.06	93.1	-0.72	
LC0026	4.199	0.267	180	8.44	H
LC0027	2.23	0.22	95.7	-0.45	
LC0028	2.1	0.3	90.1	-1.04	
LC0029	2.44	0.24	105	0.5	
LC0030	2.28	0.017	97.8	-0.23	
LC0031	2.6	0.3	112	1.22	
LC0032	0.29	0.0435	12.4	-9.22	H
LC0033	< 5 (LOQ)	-	-	-	

Characteristics of parameter

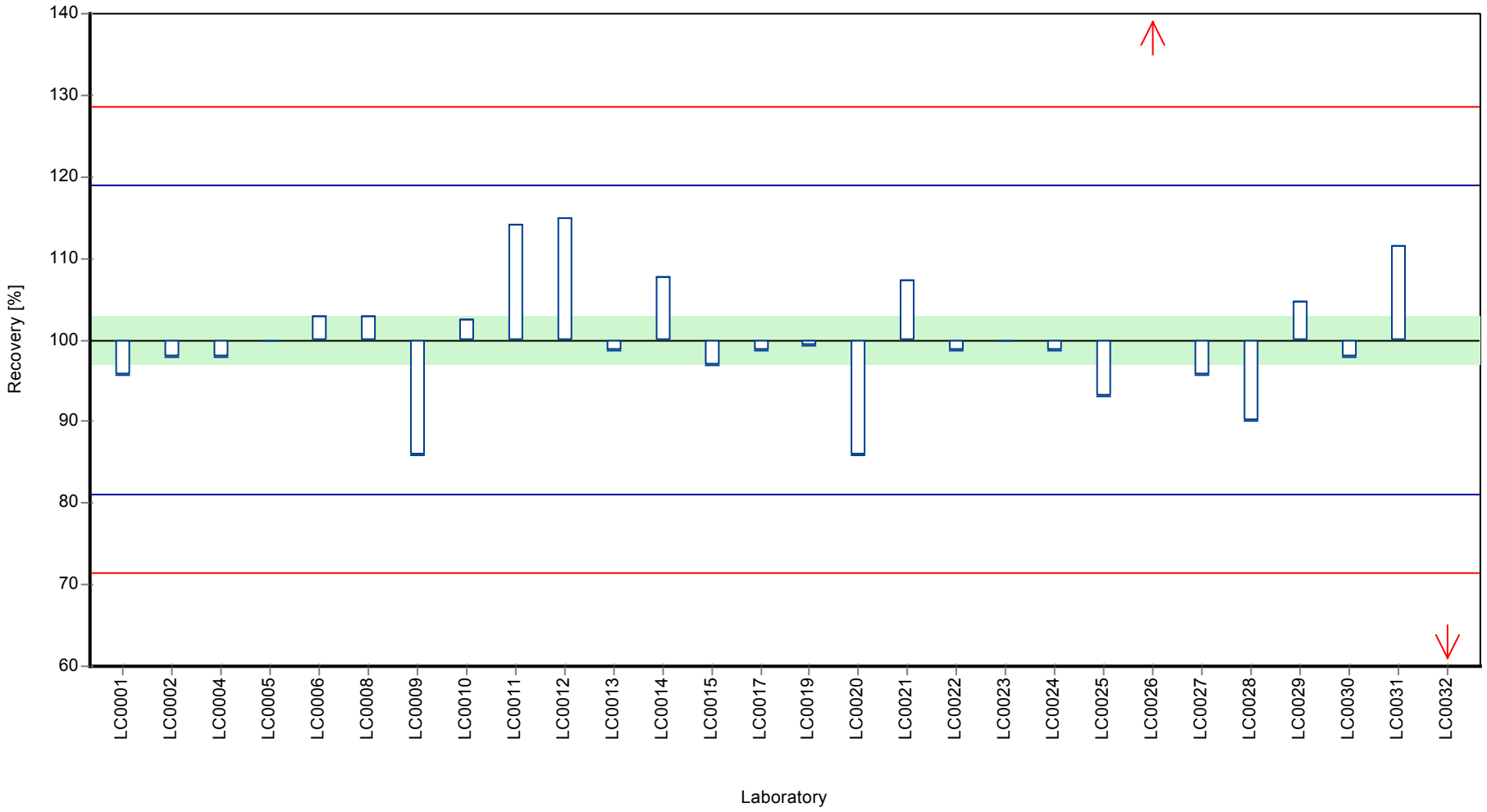
	all results	without outliers	Unit
Mean ± CI (99%)	2.32 ± 0.316	2.33 ± 0.1	µg/l
Minimum	0.29	2	µg/l
Maximum	4.2	2.68	µg/l
Standard deviation	0.557	0.17	µg/l
rel. standard deviation	24	7.3	%
n	28	26	-

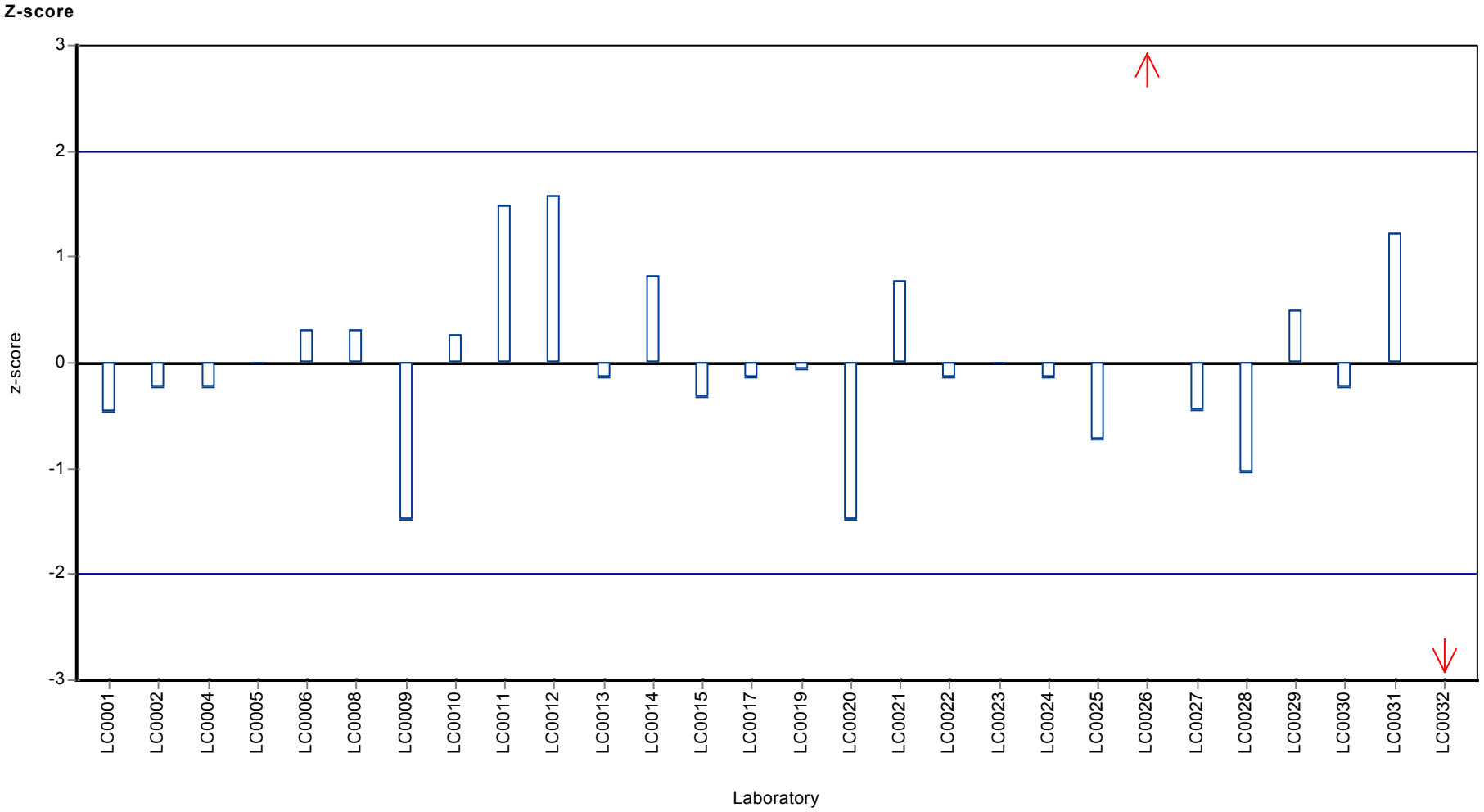
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 A

Iron

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~6.21 ± 0.763~~
Minimum - Maximum	4.79 - 7.7
Control test value ± U	5.82 ± 0.453

Unit	µg/l
Assigned value ± U (k=2)	6.21 ± 0.382
Criterion	0.763 (12 %)
Minimum - Maximum	4.79 - 7.7
Control test value ± U (k=2)	5.82 ± 0.453

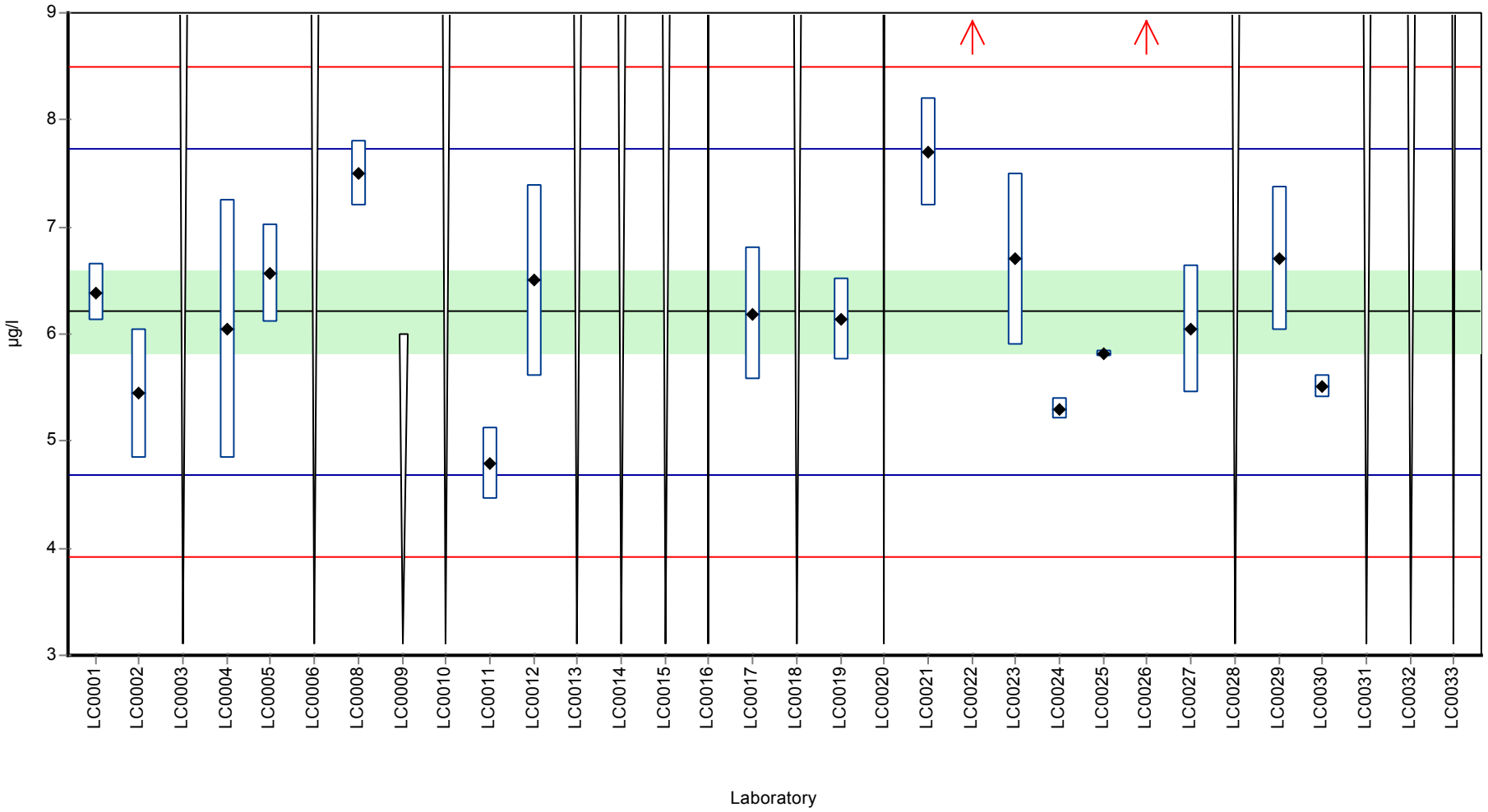
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6.388	0.271	103	0.23	
LC0002	5.447	0.605	87.7	-1	
LC0003	< 10 (LOQ)	-	-	-	
LC0004	6.05	1.21	97.4	-0.21	
LC0005	6.56	0.46	106	0.46	
LC0006	< 10 (LOQ)	-	-	-	
LC0007	-	-	-	-	
LC0008	7.5	0.3	121	1.69	
LC0009	<6 (LOD)	-	-	-	
LC0010	< 10 (LOQ)	-	-	-	
LC0011	4.79	0.33	77.2	-1.86	
LC0012	6.5	0.9	105	0.38	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	< 10 (LOQ)	-	-	-	
LC0015	< 10 (LOQ)	-	-	-	
LC0016	< 200 (LOQ)	-	-	-	
LC0017	6.19	0.62	99.7	-0.02	
LC0018	< 10 (LOQ)	-	-	-	
LC0019	6.1381	0.387	98.9	-0.09	
LC0020	< 50 (LOQ)	-	-	-	
LC0021	7.7	0.5	124	1.96	
LC0022	13	0.2	209	8.9	H
LC0023	6.7	0.804	108	0.64	
LC0024	5.3	0.1	85.4	-1.19	
LC0025	5.81	0.03	93.6	-0.52	
LC0026	9.584	0.174	154	4.42	H
LC0027	6.05	0.6	97.4	-0.21	
LC0028	< 10 (LOQ)	-	-	-	
LC0029	6.7	0.67	108	0.64	
LC0030	5.51	0.112	88.8	-0.92	
LC0031	< 10 (LOQ)	-	-	-	
LC0032	< 10 (LOQ)	-	-	-	
LC0033	< 20 (LOQ)	-	-	-	

Characteristics of parameter

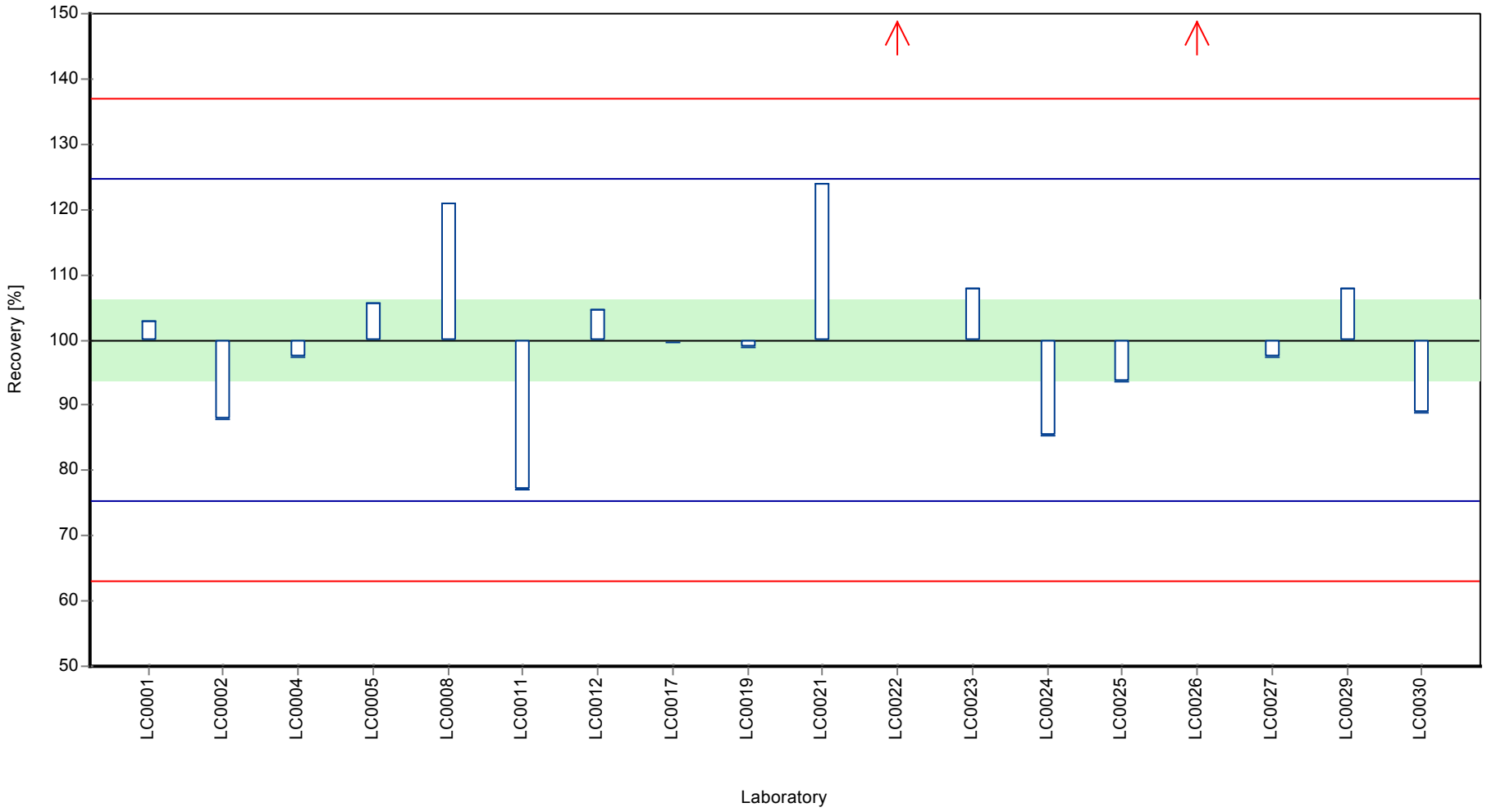
	all results	without outliers	Unit
Mean ± CI (99%)	6.77 ± 1.33	6.21 ± 0.572	µg/l
Minimum	4.79	4.79	µg/l
Maximum	13	7.7	µg/l
Standard deviation	1.89	0.763	µg/l
rel. standard deviation	27.9	12.3	%
n	18	16	-

Graphical presentation of results

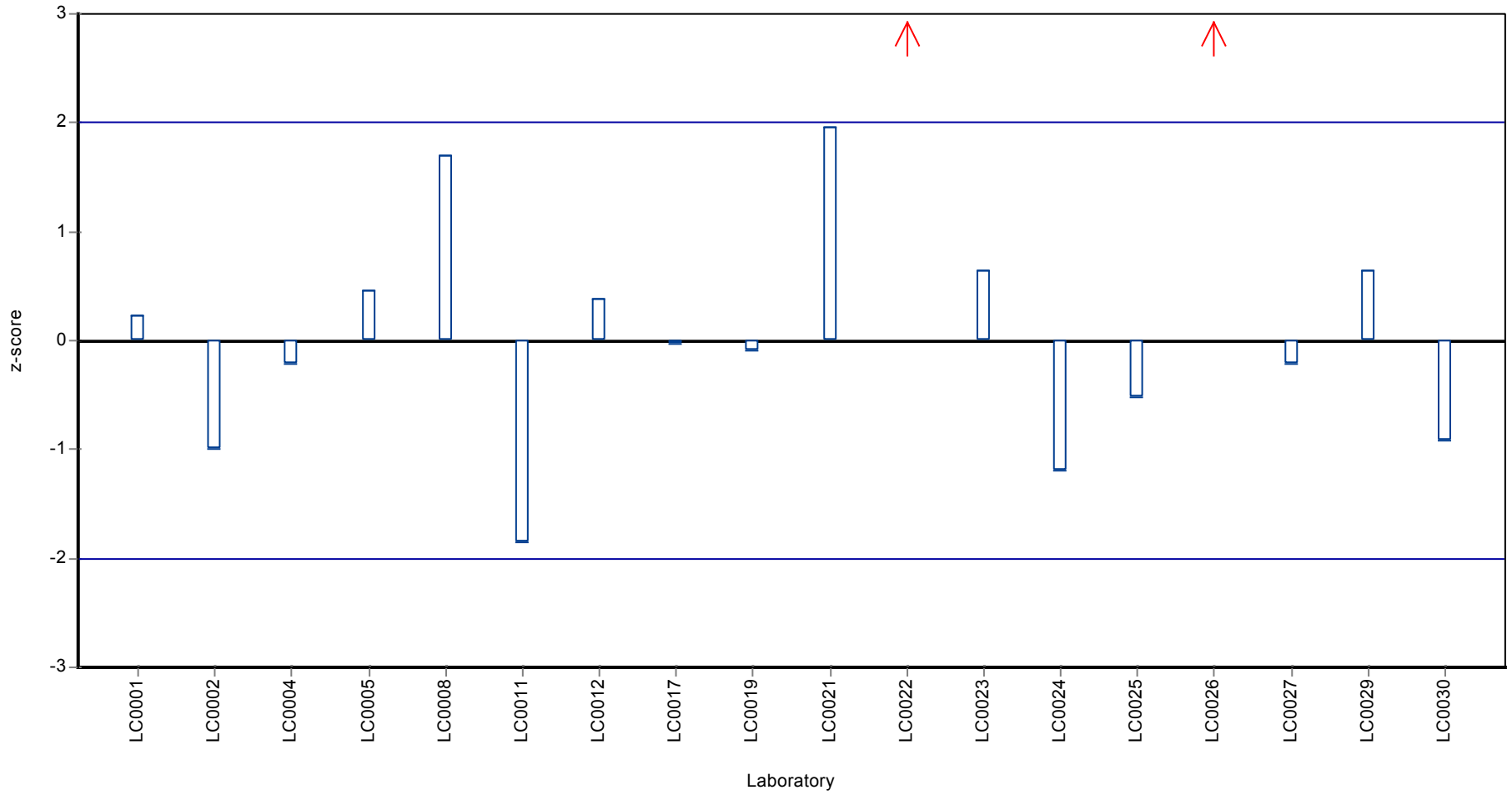
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0008
LC0011
LC0012
LC0017
LC0019
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0029
LC0030
Laboratory

Parameter oriented report

M145 B

Iron

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~14.6 ± 1.46~~
Minimum - Maximum	12.7 - 17.3
Control test value ± U	11.8 ± 0.85

Unit	µg/l
Assigned value ± U (k=2)	14.6 ± 0.471
Criterion	1.46 (10 %)
Minimum - Maximum	12.7 - 17.3
Control test value ± U (k=2)	11.8 ± 0.85

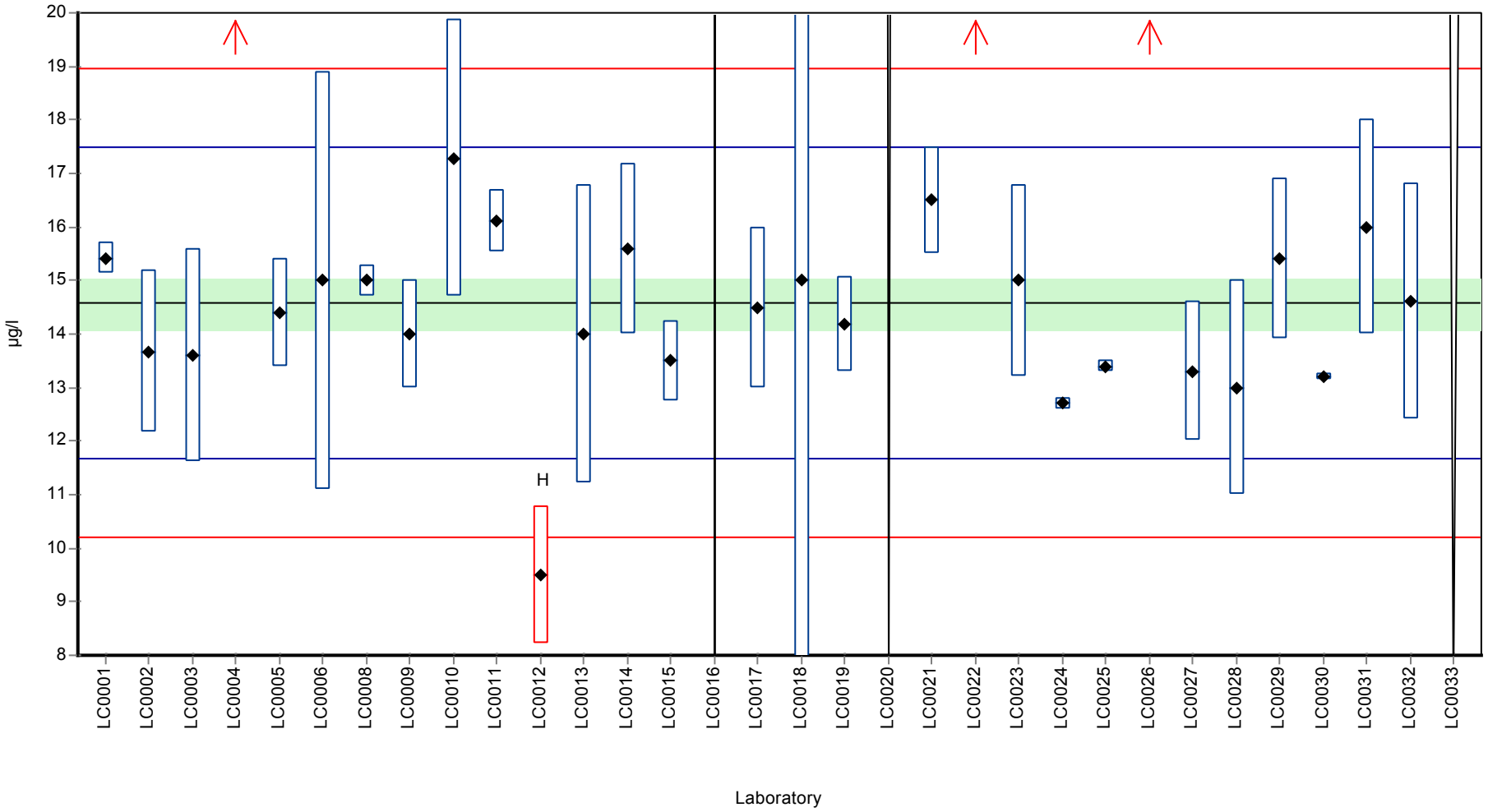
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	15.411	0.29	106	0.57	
LC0002	13.67	1.52	93.8	-0.62	
LC0003	13.6	2	93.3	-0.67	
LC0004	20.5	4.1	141	4.07	H
LC0005	14.4	1	98.8	-0.12	
LC0006	15	3.9	103	0.29	
LC0007	-	-	-	-	
LC0008	15	0.3	103	0.29	
LC0009	14	1	96.1	-0.39	
LC0010	17.28	2.59	119	1.86	
LC0011	16.11	0.58	111	1.05	
LC0012	9.5	1.3	65.2	-3.48	H
LC0013	14	2.8	96.1	-0.39	
LC0014	15.6	1.59	107	0.7	
LC0015	13.5	0.76	92.6	-0.74	
LC0016	< 200 (LOQ)	-	-	-	
LC0017	14.5	1.5	99.5	-0.05	
LC0018	15	10	103	0.29	
LC0019	14.174	0.893	97.3	-0.28	
LC0020	< 50 (LOQ)	-	-	-	
LC0021	16.5	1	113	1.32	
LC0022	21	0.2	144	4.41	H
LC0023	15	1.8	103	0.29	
LC0024	12.7	0.1	87.1	-1.29	
LC0025	13.4	0.1	91.9	-0.81	
LC0026	22.493	0.174	154	5.43	H
LC0027	13.3	1.3	91.3	-0.87	
LC0028	13	2	89.2	-1.08	
LC0029	15.4	1.5	106	0.57	
LC0030	13.2	0.058	90.6	-0.94	
LC0031	16	2	110	0.98	
LC0032	14.61	2.1915	100	0.02	
LC0033	< 20 (LOQ)	-	-	-	

Characteristics of parameter

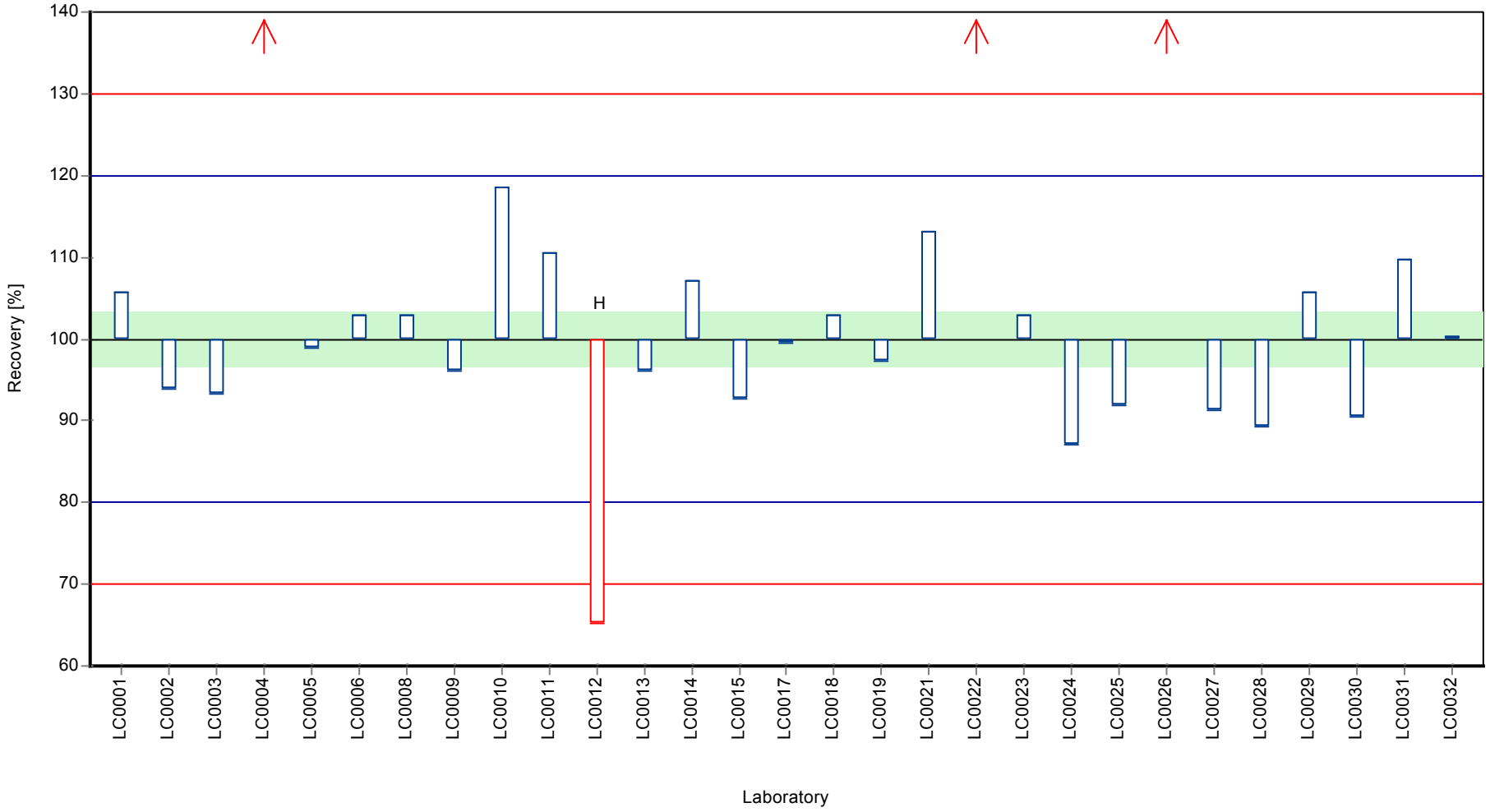
	all results	without outliers	Unit
Mean ± CI (99%)	15.1 ± 1.45	14.6 ± 0.706	µg/l
Minimum	9.5	12.7	µg/l
Maximum	22.5	17.3	µg/l
Standard deviation	2.61	1.18	µg/l
rel. standard deviation	17.3	8.08	%
n	29	25	-

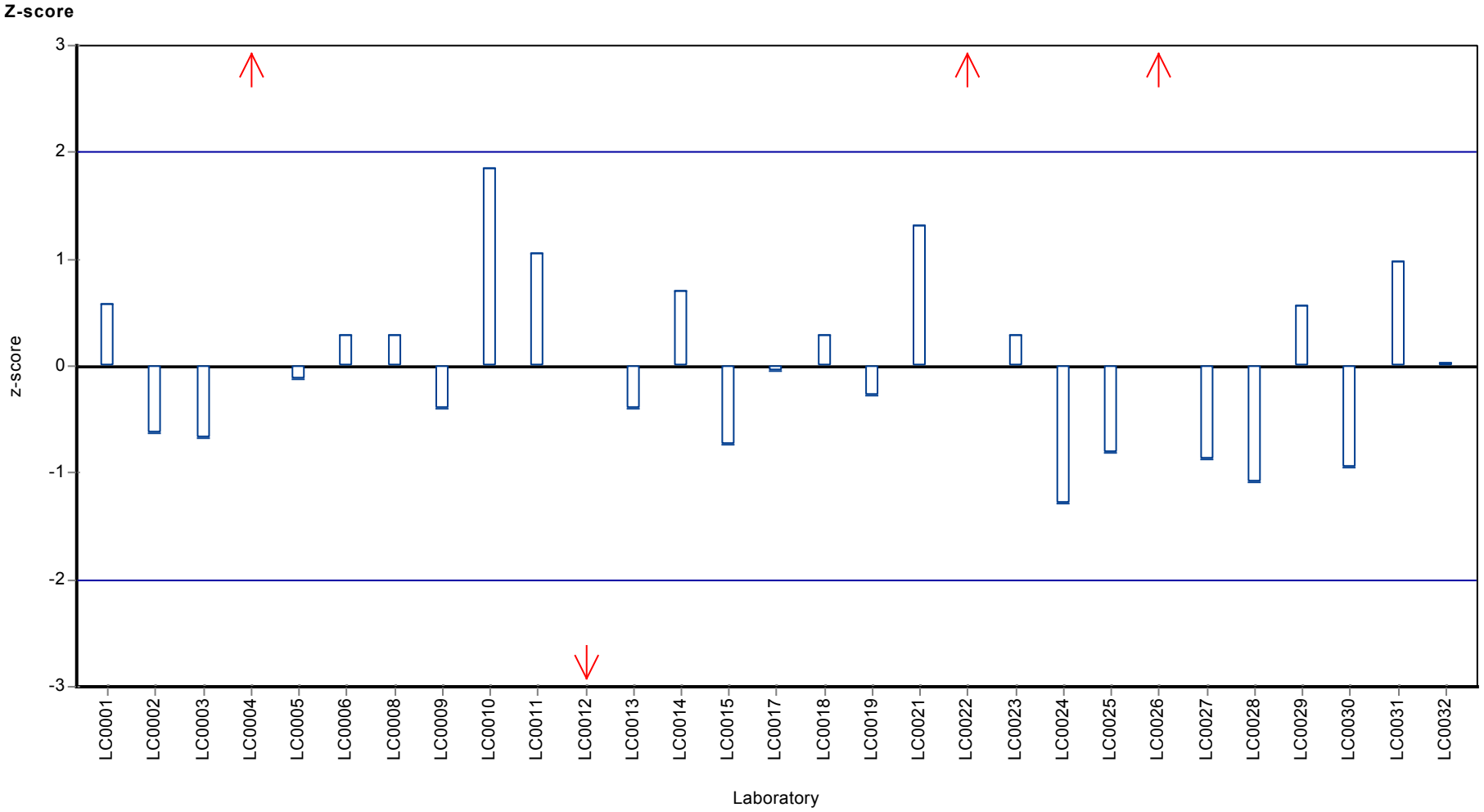
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0003
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
LC0019
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 A

Copper

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~21.3 ± 1.92~~
Minimum - Maximum	19.7 - 24.2
Control test value ± U	20.5 ± 1.67

Unit	µg/l
Assigned value ± U (k=2)	21.3 ± 0.391
Criterion	1.92 (9 %)
Minimum - Maximum	19.7 - 24.2
Control test value ± U (k=2)	20.5 ± 1.67

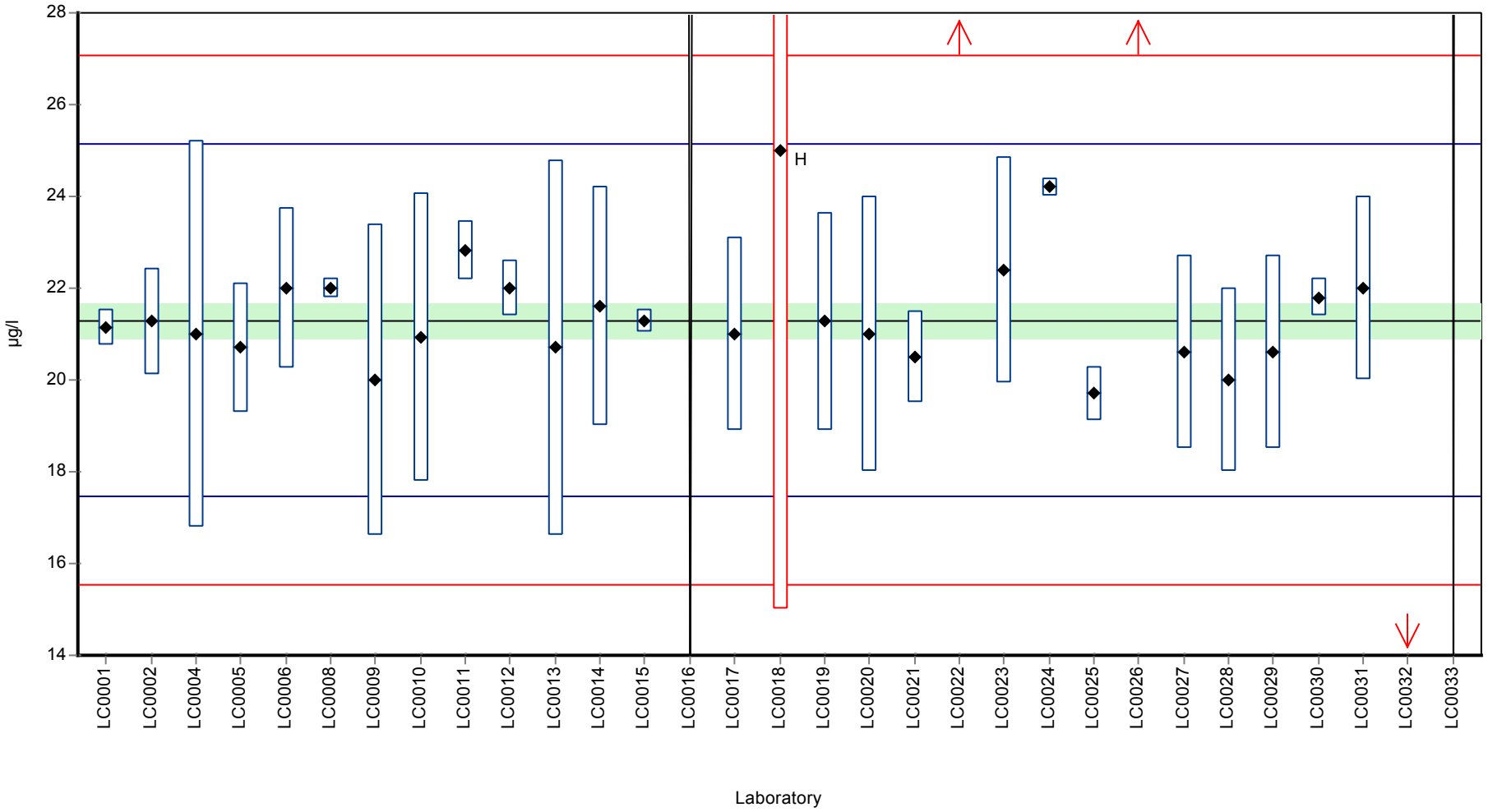
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	21.148	0.391	99.3	-0.08	
LC0002	21.28	1.16	99.9	-0.01	
LC0003	-	-	-	-	
LC0004	21	4.2	98.6	-0.16	
LC0005	20.7	1.4	97.2	-0.31	
LC0006	22	1.76	103	0.36	
LC0007	-	-	-	-	
LC0008	22	0.2	103	0.36	
LC0009	20	3.4	93.9	-0.68	
LC0010	20.93	3.14	98.3	-0.19	
LC0011	22.83	0.65	107	0.8	
LC0012	22	0.6	103	0.36	
LC0013	20.7	4.1	97.2	-0.31	
LC0014	21.6	2.6	101	0.15	
LC0015	21.3	0.25	100	0.00	
LC0016	< 60 (LOQ)	-	-	-	
LC0017	21	2.1	98.6	-0.16	
LC0018	25	10	117	1.93	H
LC0019	21.275	2.383	99.9	-0.01	
LC0020	21	3	98.6	-0.16	
LC0021	20.5	1	96.2	-0.42	
LC0022	53	1.5	249	16.5	H
LC0023	22.4	2.467	105	0.57	
LC0024	24.2	0.2	114	1.51	
LC0025	19.7	0.6	92.5	-0.84	
LC0026	43.721	0.308	205	11.7	H
LC0027	20.6	2.1	96.7	-0.37	
LC0028	20	2	93.9	-0.68	
LC0029	20.6	2.1	96.7	-0.37	
LC0030	21.8	0.404	102	0.26	
LC0031	22	2	103	0.36	
LC0032	5.26	0.789	24.7	-8.37	H
LC0033	< 150 (LOQ)	-	-	-	

Characteristics of parameter

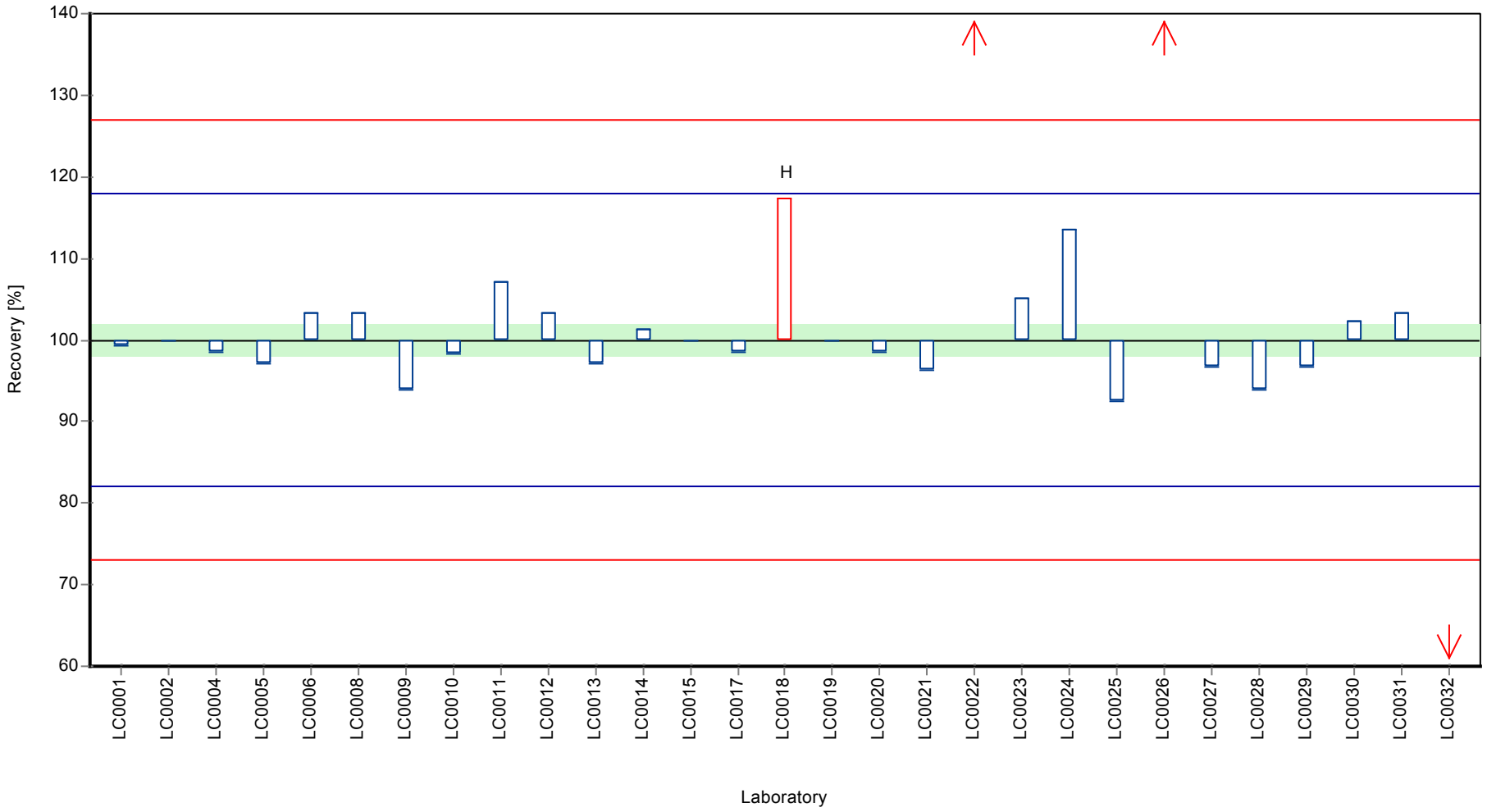
	all results	without outliers	Unit
Mean ± CI (99%)	22.7 ± 4.39	21.3 ± 0.587	µg/l
Minimum	5.26	19.7	µg/l
Maximum	53	24.2	µg/l
Standard deviation	7.89	0.978	µg/l
rel. standard deviation	34.7	4.59	%
n	29	25	-

Graphical presentation of results

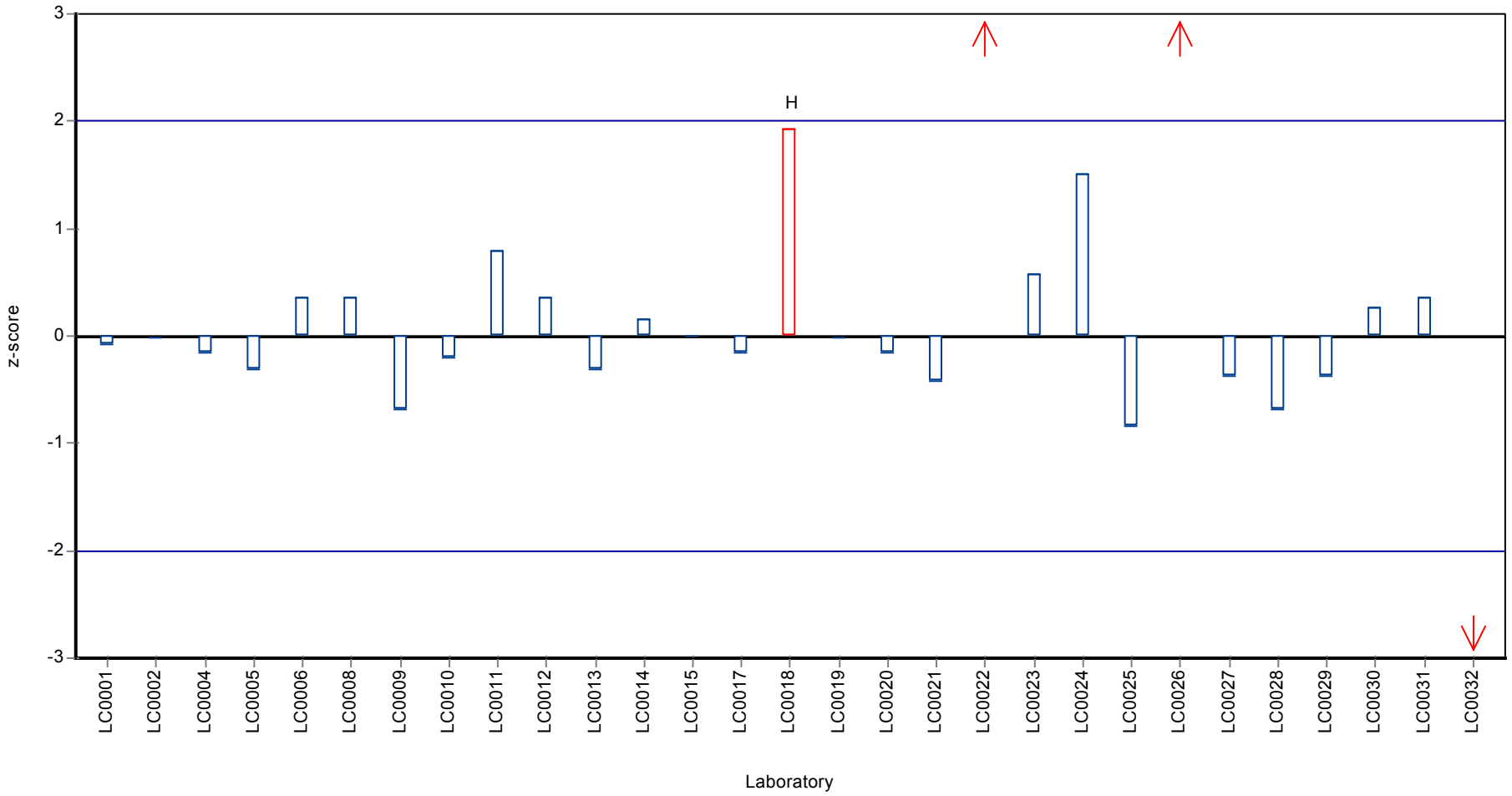
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 B

Copper

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~8.17 ± 0.735~~
Minimum - Maximum	7 - 9
Control test value ± U	7.2 ± 0.67

Unit	µg/l
Assigned value ± U (k=2)	8.17 ± 0.2
Criterion	0.735 (9 %)
Minimum - Maximum	7 - 9
Control test value ± U (k=2)	7.2 ± 0.67

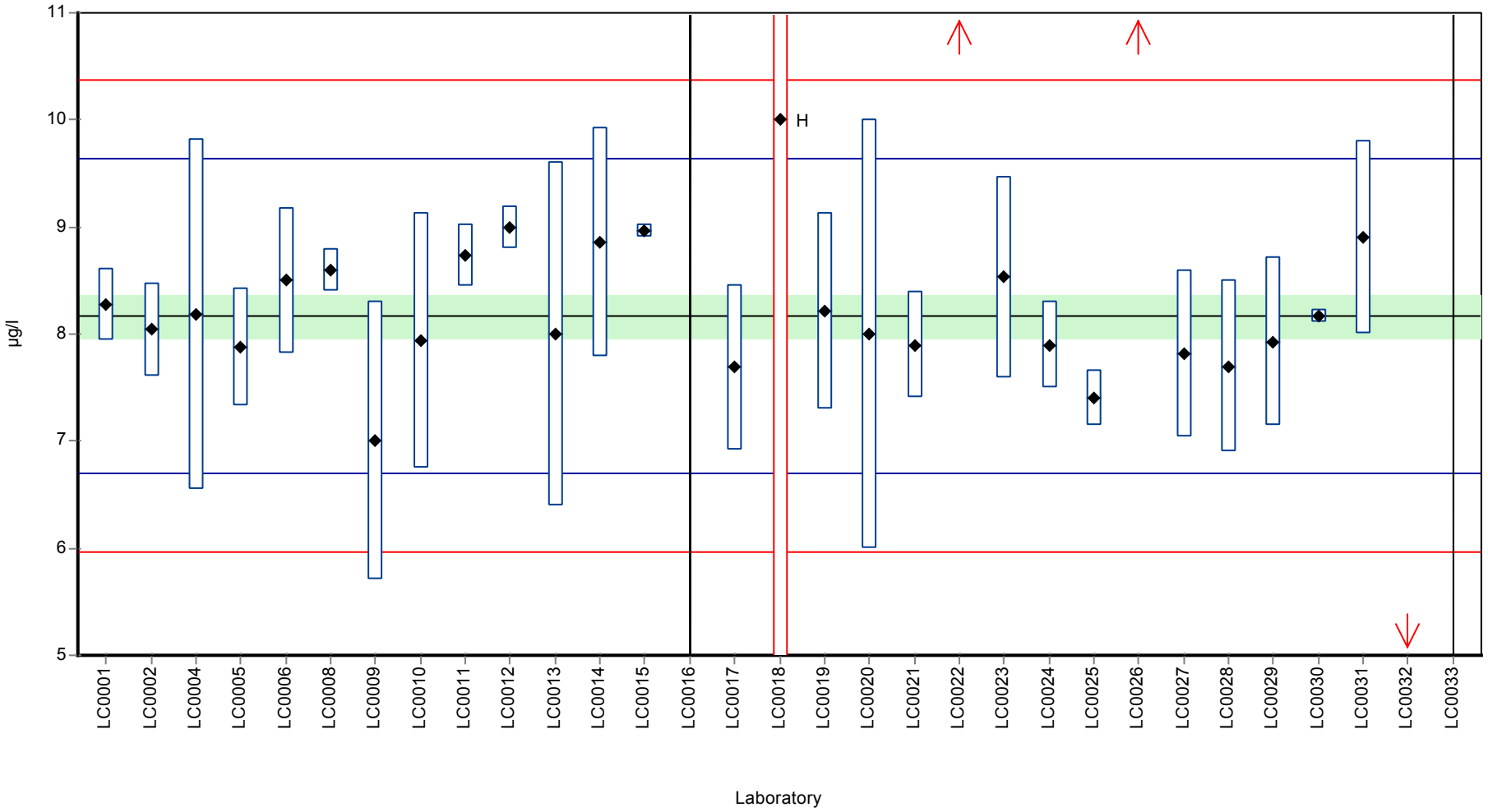
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	8.28	0.334	101	0.15	
LC0002	8.04	0.439	98.5	-0.17	
LC0003	-	-	-	-	
LC0004	8.18	1.64	100	0.02	
LC0005	7.88	0.55	96.5	-0.39	
LC0006	8.5	0.68	104	0.46	
LC0007	-	-	-	-	
LC0008	8.6	0.2	105	0.59	
LC0009	7	1.3	85.7	-1.59	
LC0010	7.94	1.19	97.2	-0.31	
LC0011	8.74	0.29	107	0.78	
LC0012	9	0.2	110	1.14	
LC0013	8	1.6	98	-0.23	
LC0014	8.86	1.07	109	0.94	
LC0015	8.96	0.06	110	1.08	
LC0016	< 60 (LOQ)	-	-	-	
LC0017	7.69	0.77	94.2	-0.65	
LC0018	10	10	122	2.5	H
LC0019	8.2147	0.92	101	0.07	
LC0020	8	2	98	-0.23	
LC0021	7.9	0.5	96.7	-0.36	
LC0022	19	1.5	233	14.7	H
LC0023	8.53	0.938	104	0.5	
LC0024	7.9	0.4	96.7	-0.36	
LC0025	7.41	0.26	90.7	-1.03	
LC0026	16.235	0.308	199	11	H
LC0027	7.82	0.78	95.8	-0.47	
LC0028	7.7	0.8	94.3	-0.63	
LC0029	7.93	0.79	97.1	-0.32	
LC0030	8.17	0.056	100	0.01	
LC0031	8.9	0.9	109	1	
LC0032	2.05	0.3075	25.1	-8.32	H
LC0033	< 150 (LOQ)	-	-	-	

Characteristics of parameter

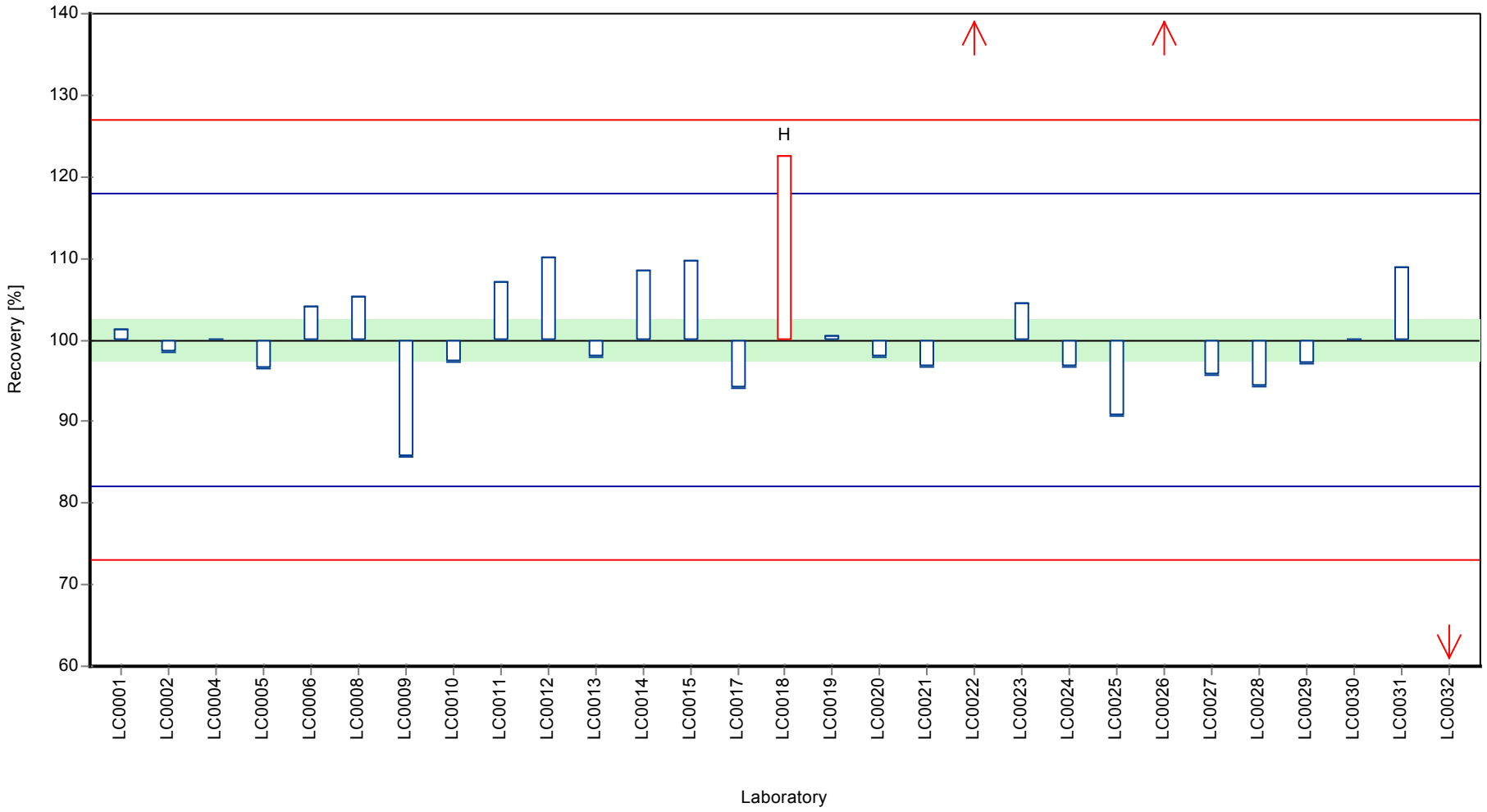
	all results	without outliers	Unit
Mean ± CI (99%)	8.67 ± 1.57	8.17 ± 0.3	µg/l
Minimum	2.05	7	µg/l
Maximum	19	9	µg/l
Standard deviation	2.82	0.501	µg/l
rel. standard deviation	32.5	6.13	%
n	29	25	-

Graphical presentation of results

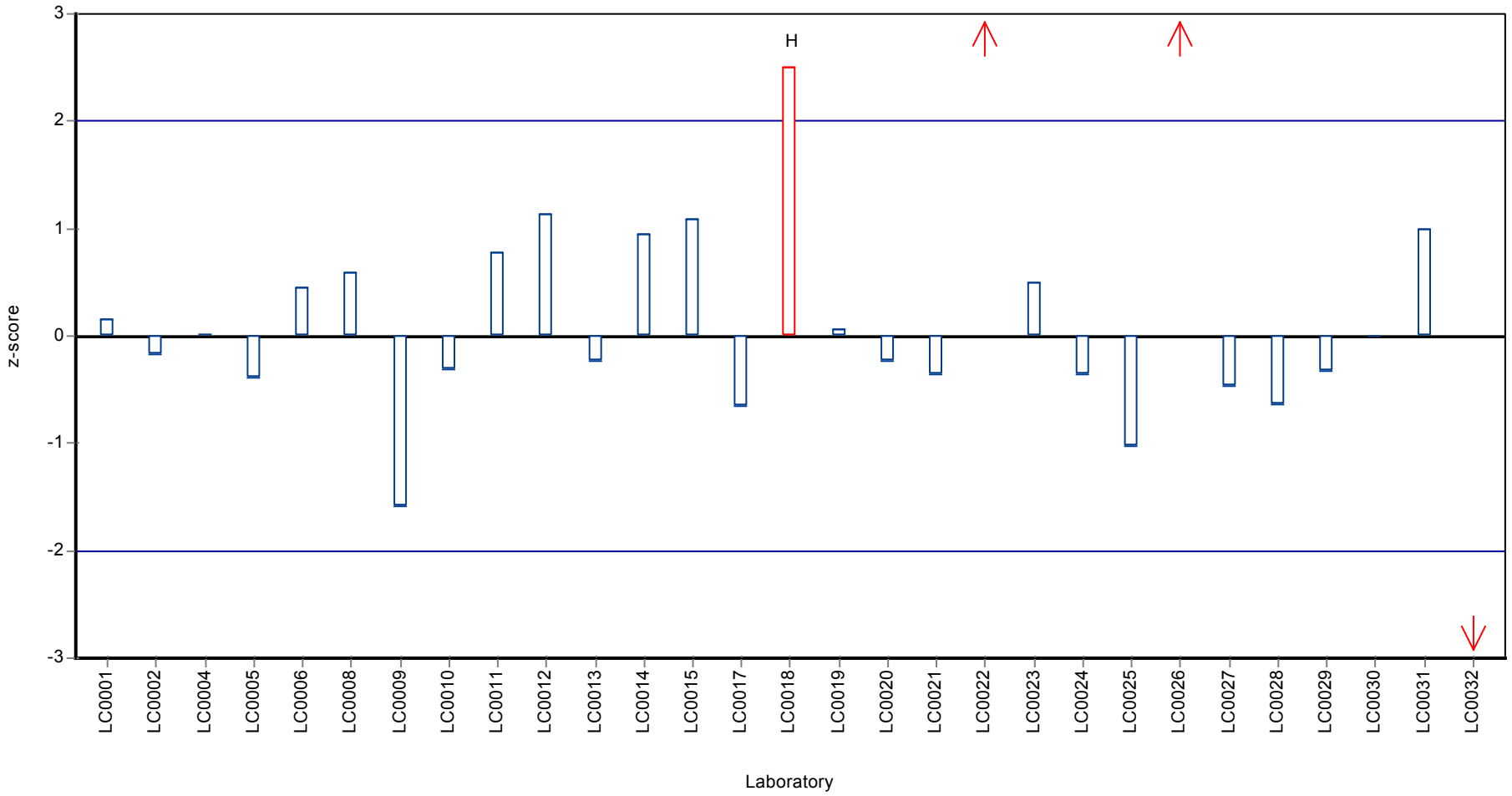
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 A

Manganese

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~0.979 ± 0.0873~~
Minimum - Maximum	0.89 - 1.18
Control test value ± U	0.902 ± 0.0443

Unit	µg/l
Assigned value ± U (k=2)	0.979 ± 0.0504
Criterion	0.0873 (8.9 %)
Minimum - Maximum	0.89 - 1.18
Control test value ± U (k=2)	0.902 ± 0.0443

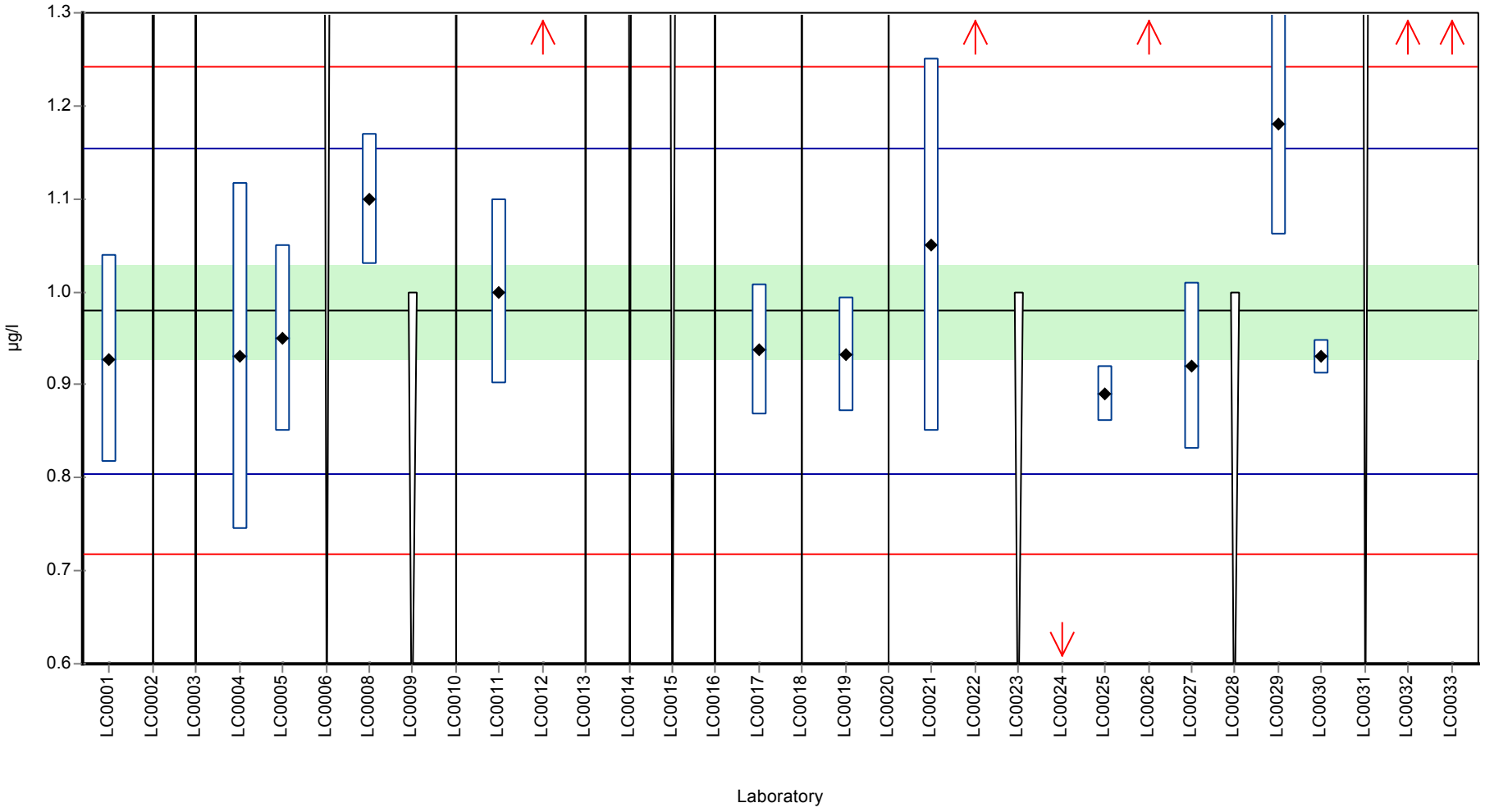
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	0.928	0.111	94.8	-0.59	
LC0002	< 5 (LOQ)	-	-	-	
LC0003	< 10 (LOQ)	-	-	-	
LC0004	0.931	0.186	95.1	-0.55	
LC0005	0.95	0.1	97	-0.33	
LC0006	< 2 (LOQ)	-	-	-	
LC0007	-	-	-	-	
LC0008	1.1	0.07	112	1.38	
LC0009	<1 (LOD)	-	-	-	
LC0010	< 10 (LOQ)	-	-	-	
LC0011	1	0.1	102	0.24	
LC0012	2	0.4	204	11.7	H
LC0013	< 10 (LOQ)	-	-	-	
LC0014	< 4.1 (LOQ)	-	-	-	
LC0015	<2 (LOD)	-	-	-	
LC0016	< 40 (LOQ)	-	-	-	
LC0017	0.938	0.07	95.8	-0.47	
LC0018	< 10 (LOQ)	-	-	-	
LC0019	0.93301	0.0616	95.3	-0.53	
LC0020	< 20 (LOQ)	-	-	-	
LC0021	1.05	0.2	107	0.81	
LC0022	1.5	2.6	153	5.96	H
LC0023	< 1 (LOQ)	-	-	-	
LC0024	0.5	0.1	51.1	-5.49	H
LC0025	0.89	0.03	90.9	-1.02	
LC0026	1.544	0.021	158	6.47	H
LC0027	0.92	0.09	94	-0.68	
LC0028	< 1 (LOQ)	-	-	-	
LC0029	1.18	0.12	121	2.3	
LC0030	0.93	0.019	95	-0.56	
LC0031	< 2 (LOQ)	-	-	-	
LC0032	19.29	2.8935	1970	210	H
LC0033	2.2	0.3	225	14	H

Characteristics of parameter

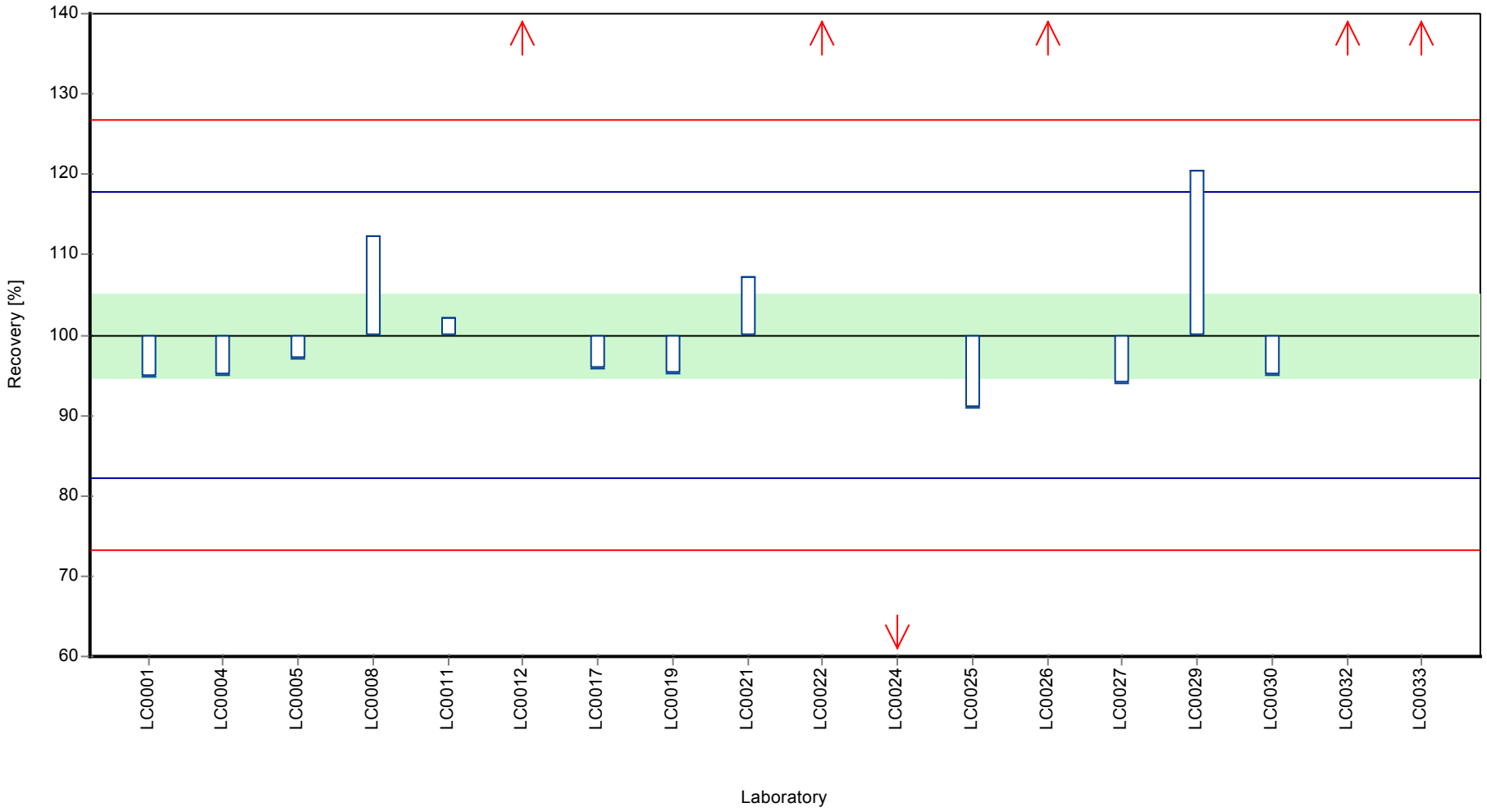
	all results	without outliers	Unit
Mean ± CI (99%)	2.15 ± 3.04	0.979 ± 0.0756	µg/l
Minimum	0.5	0.89	µg/l
Maximum	19.3	1.18	µg/l
Standard deviation	4.3	0.0873	µg/l
rel. standard deviation	199	8.92	%
n	18	12	-

Graphical presentation of results

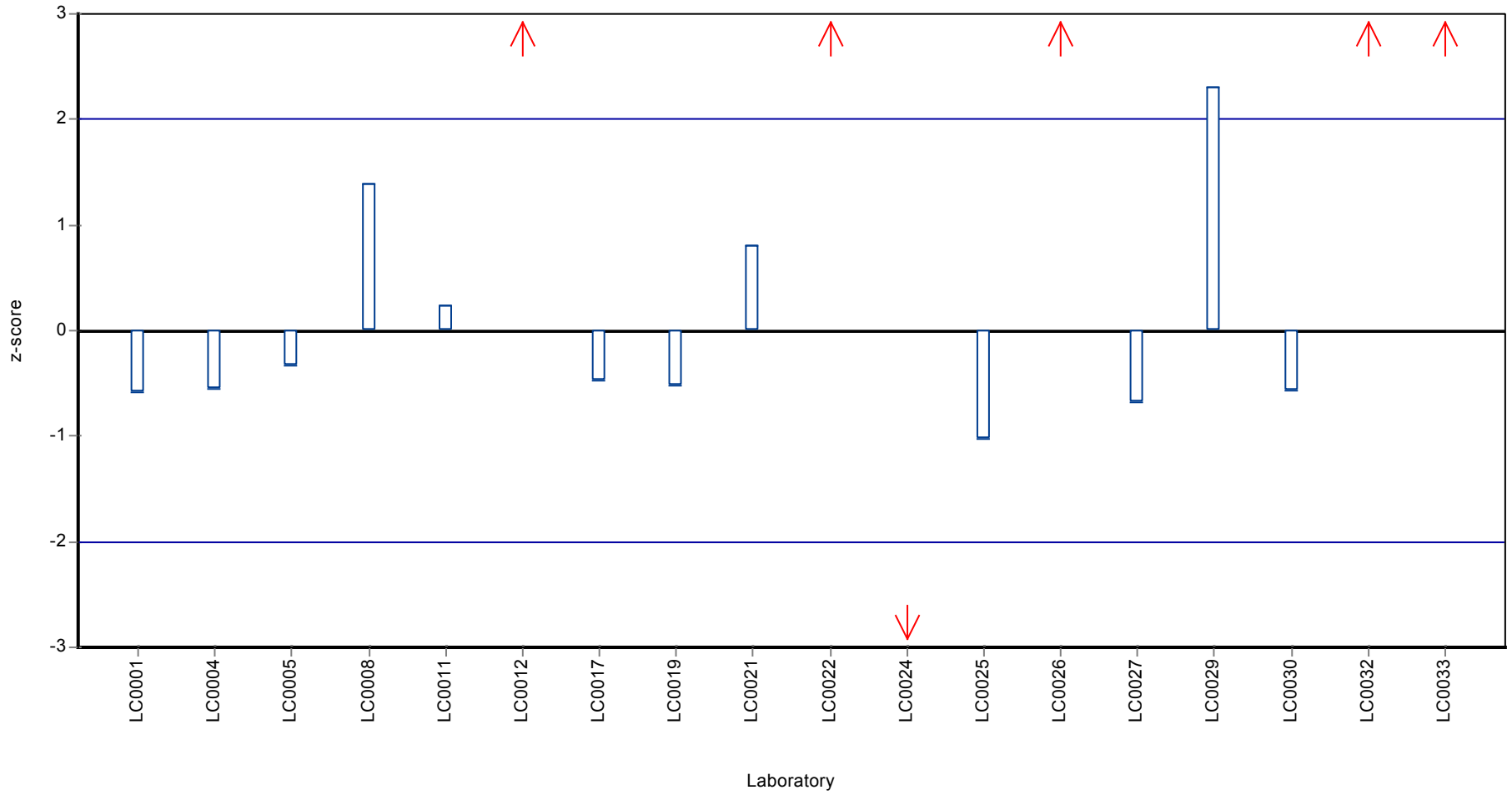
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0004
LC0005
LC0008
LC0011
LC0012
LC0017
LC0019
LC0021
LC0022
LC0024
LC0025
LC0026
LC0027
LC0029
LC0030
LC0032
LC0033
Laboratory

Parameter oriented report

M145 B

Manganese

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~7.98 ± 0.583~~
Minimum - Maximum	7 - 8.77
Control test value ± U	6.77 ± 0.554

Unit	µg/l
Assigned value ± U (k=2)	7.98 ± 0.162
Criterion	0.583 (7.3 %)
Minimum - Maximum	7 - 8.77
Control test value ± U (k=2)	6.77 ± 0.554

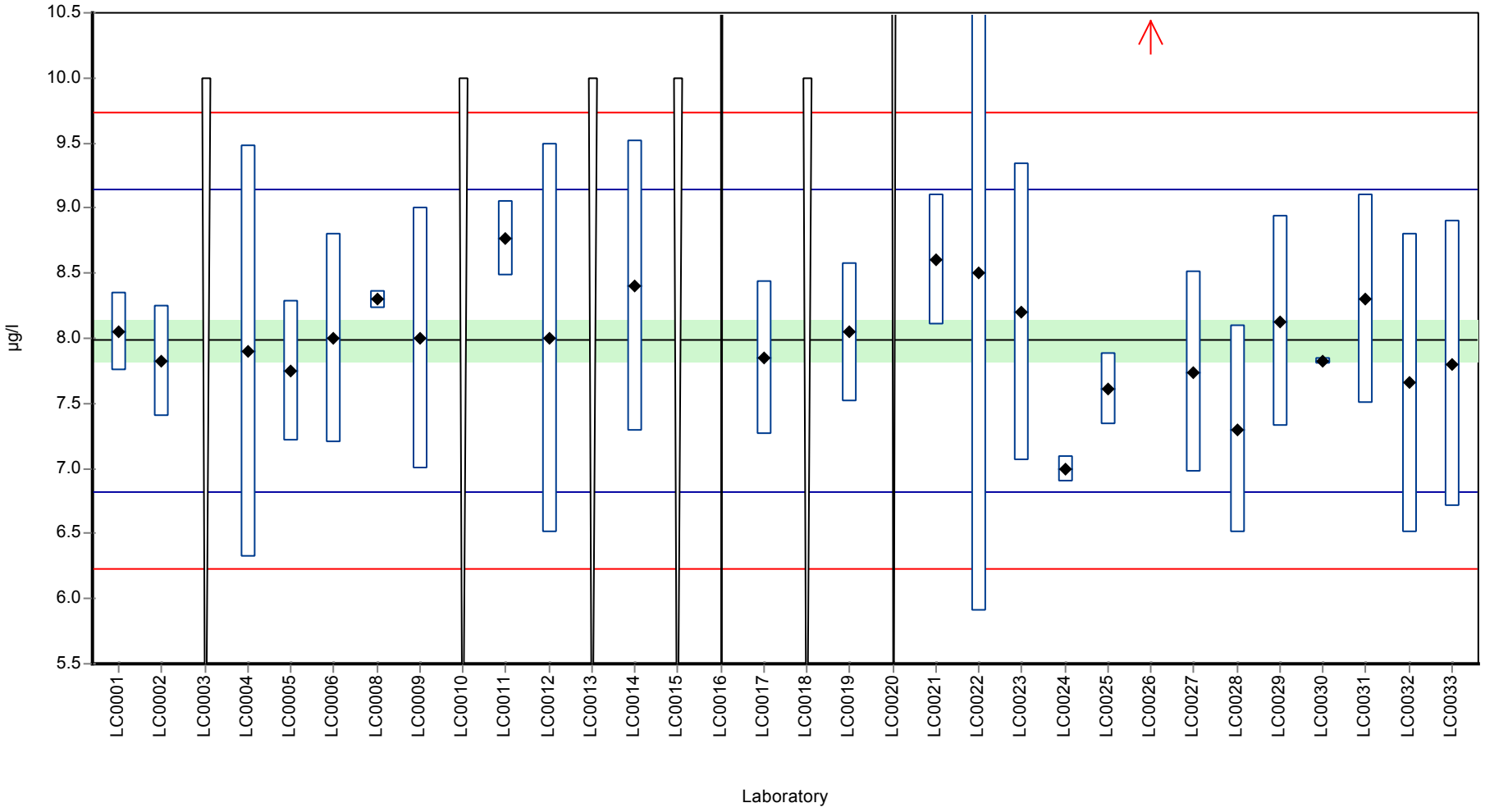
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	8.049	0.298	101	0.12	
LC0002	7.827	0.427	98.1	-0.27	
LC0003	< 10 (LOQ)	-	-	-	
LC0004	7.9	1.58	99	-0.14	
LC0005	7.75	0.54	97.1	-0.4	
LC0006	8	0.8	100	0.03	
LC0007	-	-	-	-	
LC0008	8.3	0.07	104	0.55	
LC0009	8	1	100	0.03	
LC0010	< 10 (LOQ)	-	-	-	
LC0011	8.77	0.29	110	1.35	
LC0012	8	1.5	100	0.03	
LC0013	< 10 (LOQ)	-	-	-	
LC0014	8.4	1.12	105	0.72	
LC0015	< 10 (LOQ)	-	-	-	
LC0016	< 40 (LOQ)	-	-	-	
LC0017	7.85	0.59	98.4	-0.23	
LC0018	< 10 (LOQ)	-	-	-	
LC0019	8.0443	0.531	101	0.11	
LC0020	< 20 (LOQ)	-	-	-	
LC0021	8.6	0.5	108	1.06	
LC0022	8.5	2.6	106	0.89	
LC0023	8.2	1.148	103	0.38	
LC0024	7	0.1	87.7	-1.68	
LC0025	7.61	0.28	95.3	-0.64	
LC0026	11.569	0.021	145	6.16	H
LC0027	7.74	0.77	97	-0.41	
LC0028	7.3	0.8	91.5	-1.17	
LC0029	8.13	0.81	102	0.26	
LC0030	7.83	0.025	98.1	-0.26	
LC0031	8.3	0.8	104	0.55	
LC0032	7.66	1.149	96	-0.55	
LC0033	7.8	1.1	97.7	-0.31	

Characteristics of parameter

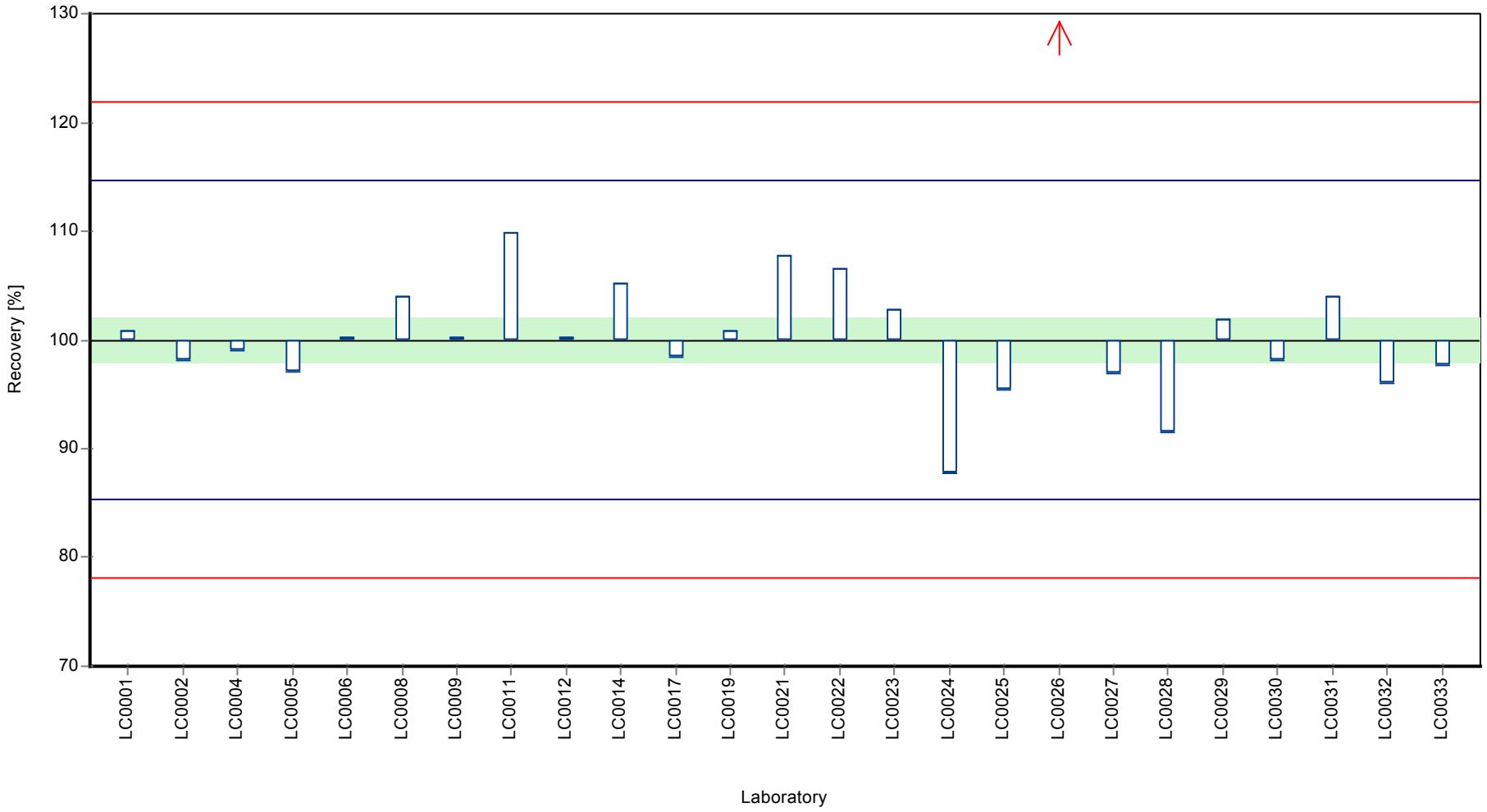
	all results	without outliers	Unit
Mean ± CI (99%)	8.13 ± 0.489	7.98 ± 0.243	µg/l
Minimum	7	7	µg/l
Maximum	11.6	8.77	µg/l
Standard deviation	0.816	0.396	µg/l
rel. standard deviation	10	4.97	%
n	25	24	-

Graphical presentation of results

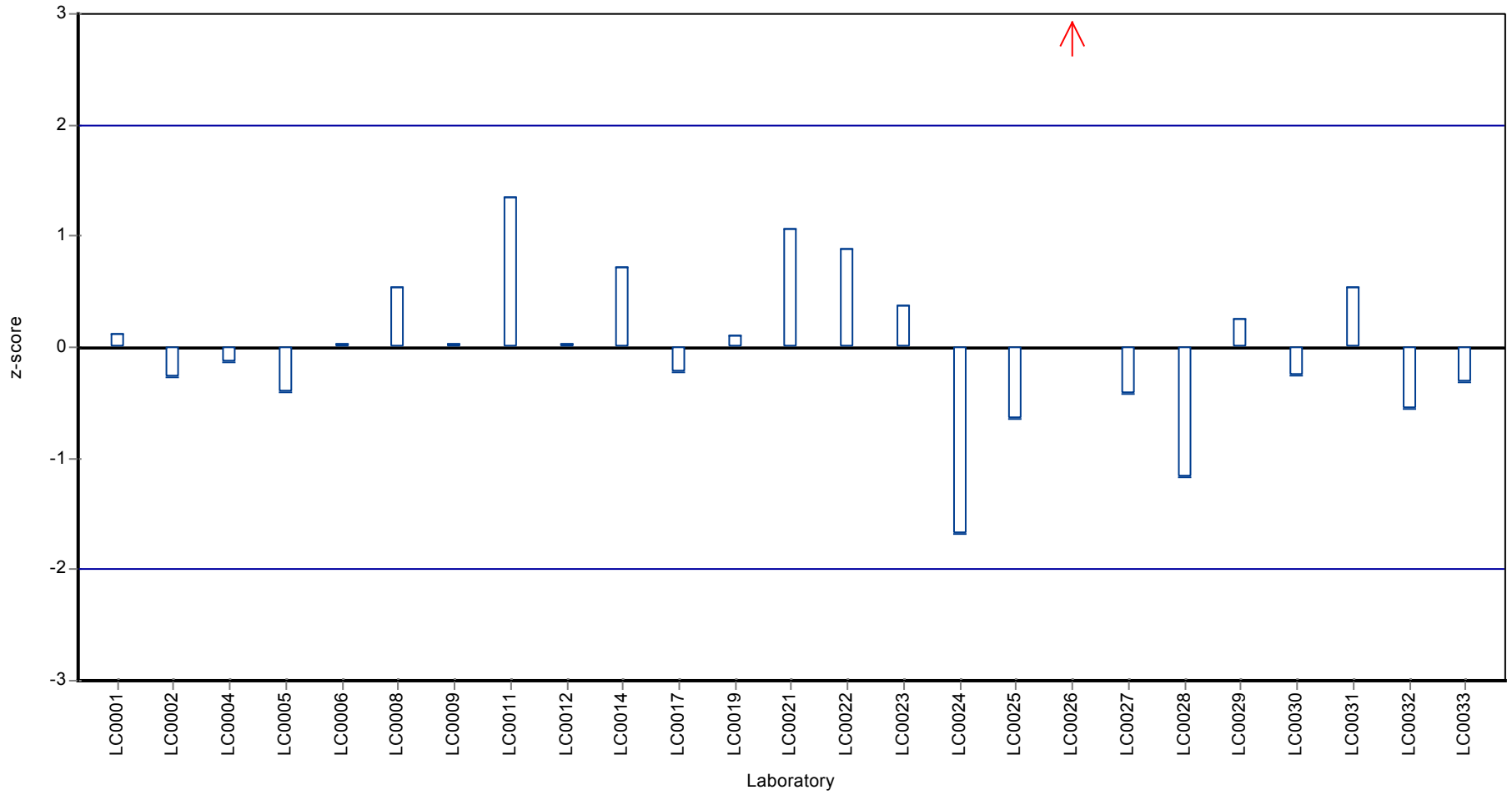
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0011
LC0012
LC0014
LC0017
LC0019
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
LC0033
Laboratory

Parameter oriented report

M145 A

Nickel

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.6 ± 0.18~~
Minimum - Maximum	1.28 - 2.03
Control test value ± U	1.5 ± 0.066

Unit	µg/l
Assigned value ± U (k=2)	1.6 ± 0.0753
Criterion	0.18 (11 %)
Minimum - Maximum	1.28 - 2.03
Control test value ± U (k=2)	1.5 ± 0.066

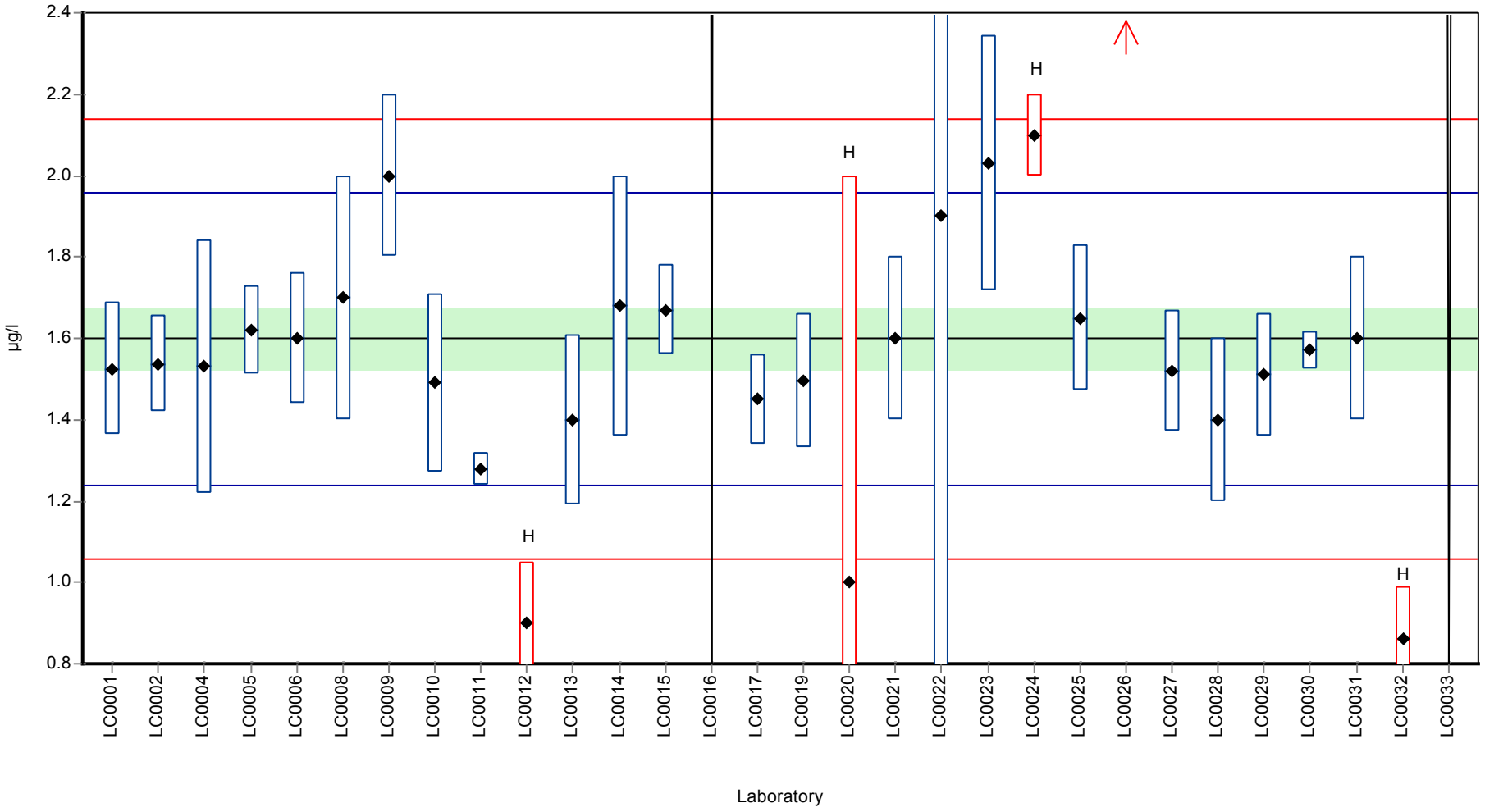
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.525	0.164	95.4	-0.41	
LC0002	1.537	0.118	96.2	-0.34	
LC0003	-	-	-	-	
LC0004	1.53	0.31	95.7	-0.38	
LC0005	1.62	0.11	101	0.12	
LC0006	1.6	0.16	100	0.01	
LC0007	-	-	-	-	
LC0008	1.7	0.3	106	0.56	
LC0009	2	0.2	125	2.23	
LC0010	1.49	0.22	93.2	-0.6	
LC0011	1.28	0.04	80.1	-1.76	
LC0012	0.9	0.15	56.3	-3.87	H
LC0013	1.4	0.21	87.6	-1.1	
LC0014	1.68	0.32	105	0.45	
LC0015	1.67	0.11	104	0.4	
LC0016	< 10 (LOQ)	-	-	-	
LC0017	1.45	0.11	90.7	-0.82	
LC0018	-	-	-	-	
LC0019	1.4964	0.165	93.6	-0.56	
LC0020	1	1	62.6	-3.32	H
LC0021	1.6	0.2	100	0.01	
LC0022	1.9	2.4	119	1.67	
LC0023	2.03	0.315	127	2.39	
LC0024	2.1	0.1	131	2.78	H
LC0025	1.65	0.18	103	0.29	
LC0026	2.447	0.021	153	4.7	H
LC0027	1.52	0.15	95.1	-0.43	
LC0028	1.4	0.2	87.6	-1.1	
LC0029	1.51	0.15	94.5	-0.49	
LC0030	1.57	0.046	98.2	-0.16	
LC0031	1.6	0.2	100	0.01	
LC0032	0.86	0.129	53.8	-4.09	H
LC0033	< 5 (LOQ)	-	-	-	

Characteristics of parameter

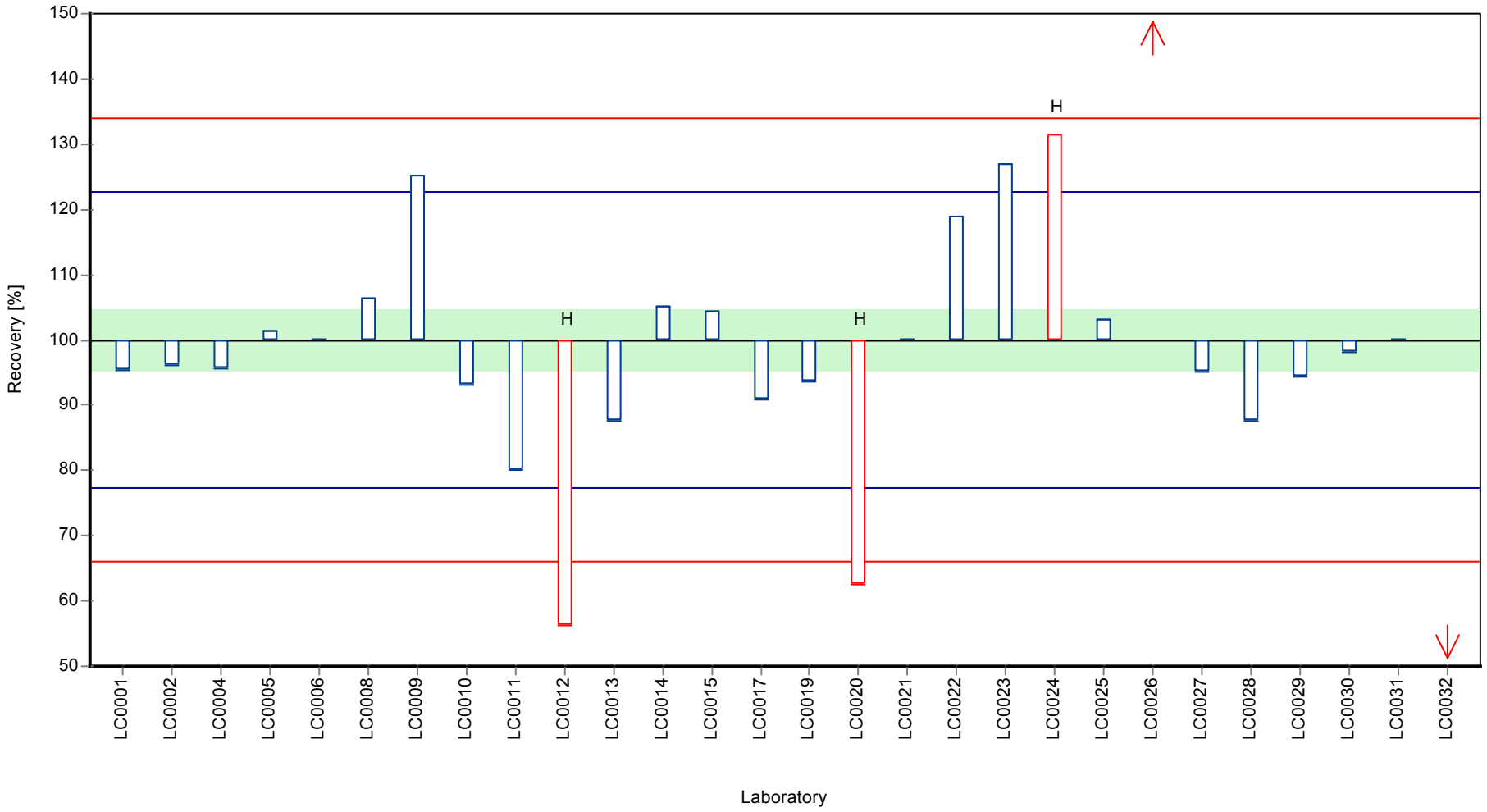
	all results	without outliers	Unit
Mean ± CI (99%)	1.57 ± 0.191	1.6 ± 0.113	µg/l
Minimum	0.86	1.28	µg/l
Maximum	2.45	2.03	µg/l
Standard deviation	0.337	0.18	µg/l
rel. standard deviation	21.4	11.3	%
n	28	23	-

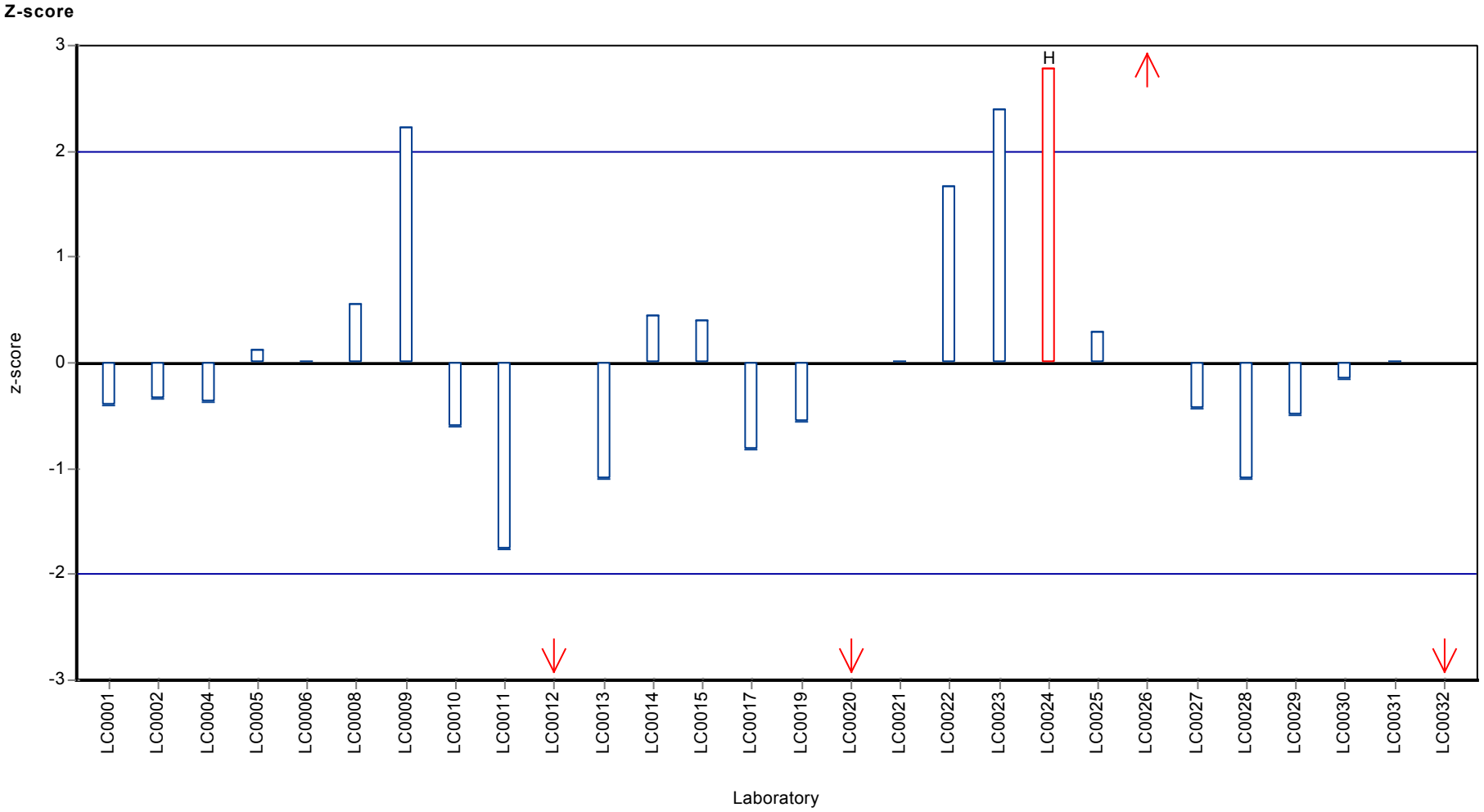
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
H
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 B

Nickel

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~2.77 ± 0.277~~
Minimum - Maximum	2.4 - 3.23
Control test value ± U	2.31 ± 0.187

Unit	µg/l
Assigned value ± U (k=2)	2.77 ± 0.0721
Criterion	0.277 (10 %)
Minimum - Maximum	2.4 - 3.23
Control test value ± U (k=2)	2.31 ± 0.187

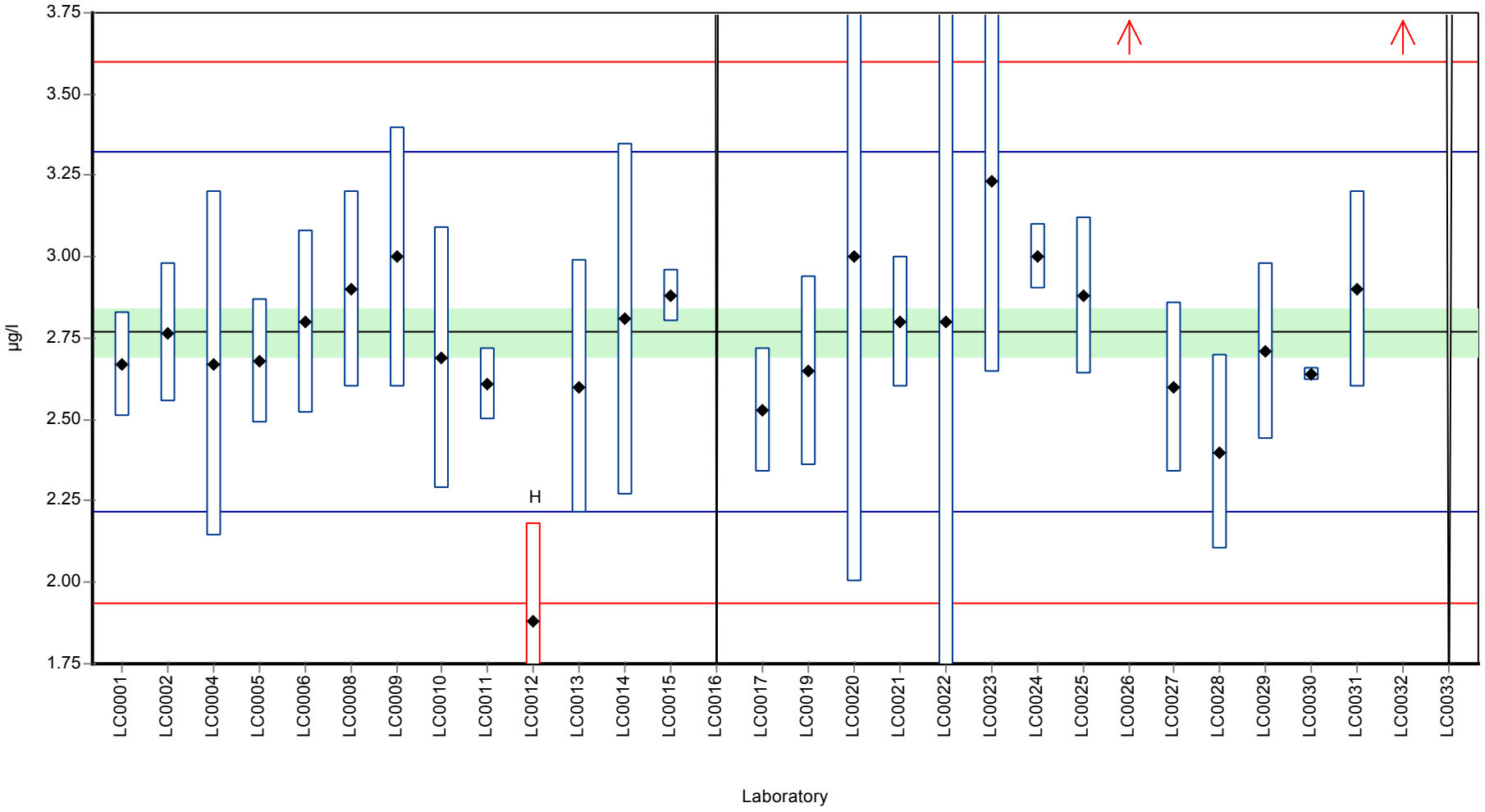
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	2.669	0.16	96.4	-0.36	
LC0002	2.767	0.212	99.9	-0.01	
LC0003	-	-	-	-	
LC0004	2.67	0.53	96.4	-0.36	
LC0005	2.68	0.19	96.8	-0.32	
LC0006	2.8	0.28	101	0.11	
LC0007	-	-	-	-	
LC0008	2.9	0.3	105	0.47	
LC0009	3	0.4	108	0.84	
LC0010	2.69	0.4	97.2	-0.28	
LC0011	2.61	0.11	94.3	-0.57	
LC0012	1.88	0.3	67.9	-3.21	H
LC0013	2.6	0.39	93.9	-0.61	
LC0014	2.81	0.54	101	0.15	
LC0015	2.88	0.08	104	0.4	
LC0016	< 10 (LOQ)	-	-	-	
LC0017	2.53	0.19	91.4	-0.86	
LC0018	-	-	-	-	
LC0019	2.6498	0.291	95.7	-0.43	
LC0020	3	1	108	0.84	
LC0021	2.8	0.2	101	0.11	
LC0022	2.8	2.4	101	0.11	
LC0023	3.23	0.587	117	1.67	
LC0024	3	0.1	108	0.84	
LC0025	2.88	0.24	104	0.4	
LC0026	3.95	0.021	143	4.27	H
LC0027	2.6	0.26	93.9	-0.61	
LC0028	2.4	0.3	86.7	-1.33	
LC0029	2.71	0.27	97.9	-0.21	
LC0030	2.64	0.02	95.4	-0.47	
LC0031	2.9	0.3	105	0.47	
LC0032	7.23	1.0845	261	16.1	H
LC0033	< 5 (LOQ)	-	-	-	

Characteristics of parameter

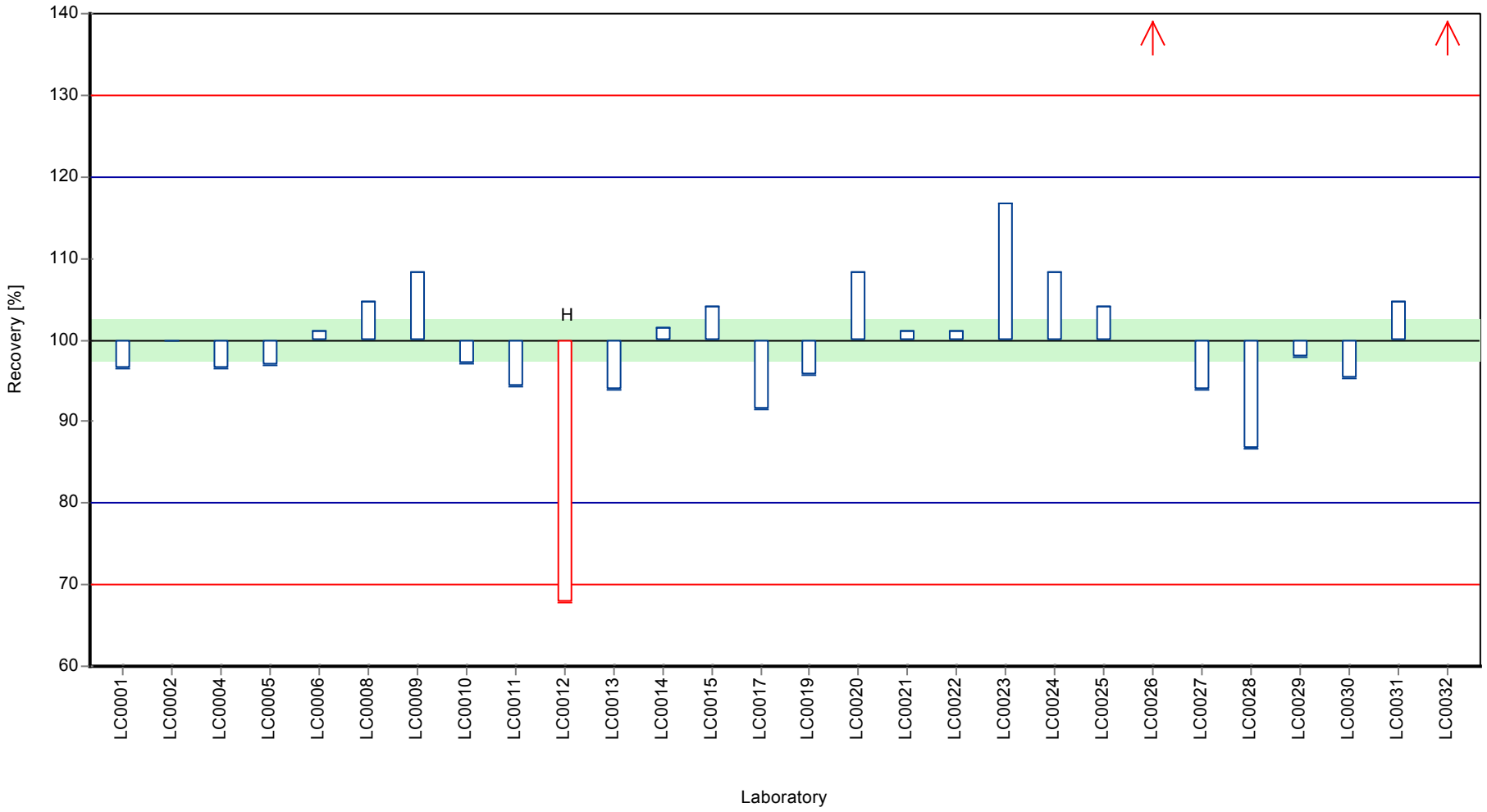
	all results	without outliers	Unit
Mean ± CI (99%)	2.94 ± 0.512	2.77 ± 0.108	µg/l
Minimum	1.88	2.4	µg/l
Maximum	7.23	3.23	µg/l
Standard deviation	0.904	0.18	µg/l
rel. standard deviation	30.8	6.51	%
n	28	25	-

Graphical presentation of results

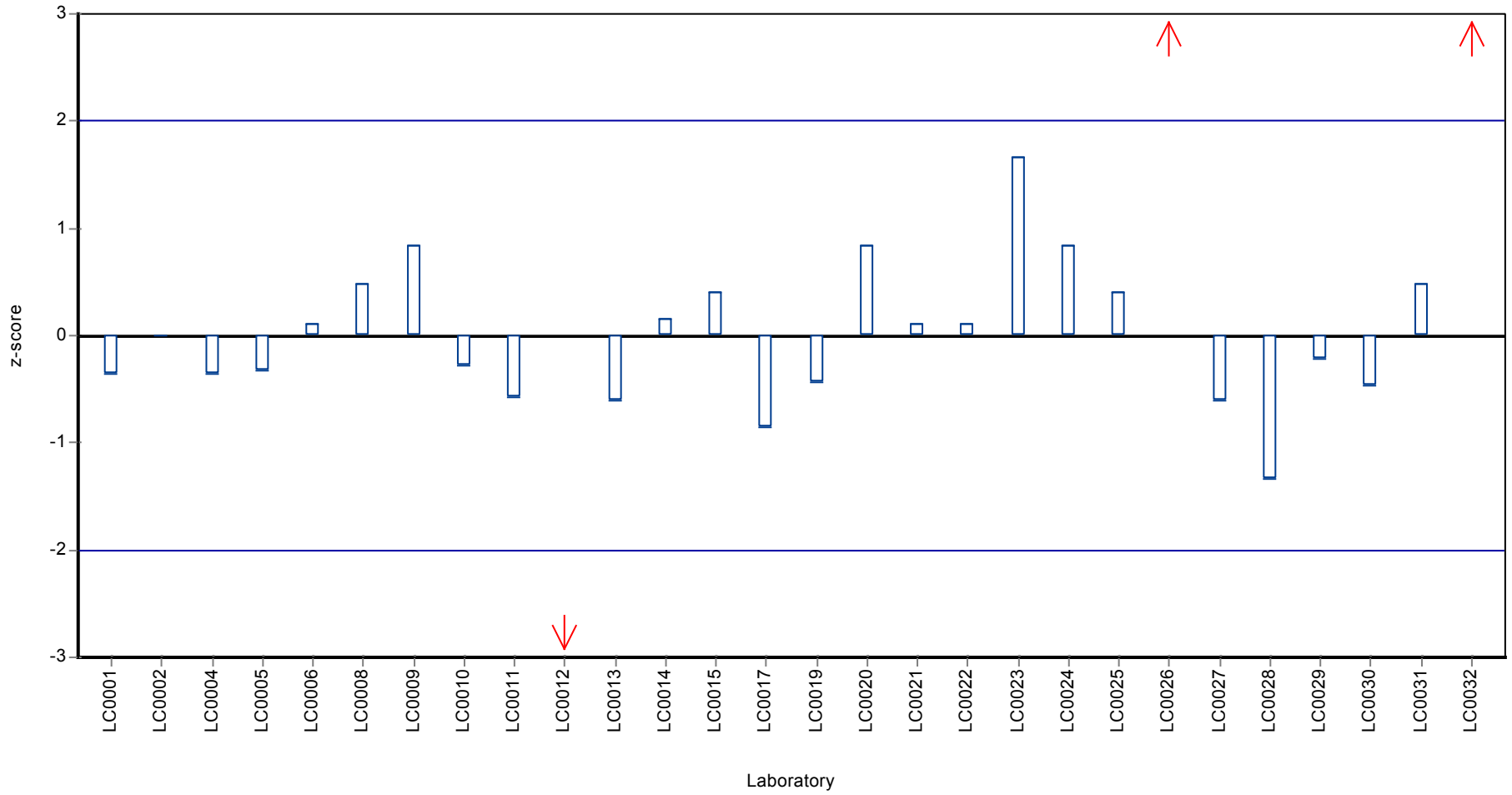
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 A Hg

Mercury

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.48 ± 0.222~~
Minimum - Maximum	1.18 - 1.66
Control test value ± U	1.55 ± 0.0608

Unit	µg/l
Assigned value ± U (k=2)	1.48 ± 0.0456
Criterion	0.222 (15 %)
Minimum - Maximum	1.18 - 1.66
Control test value ± U (k=2)	1.55 ± 0.0608

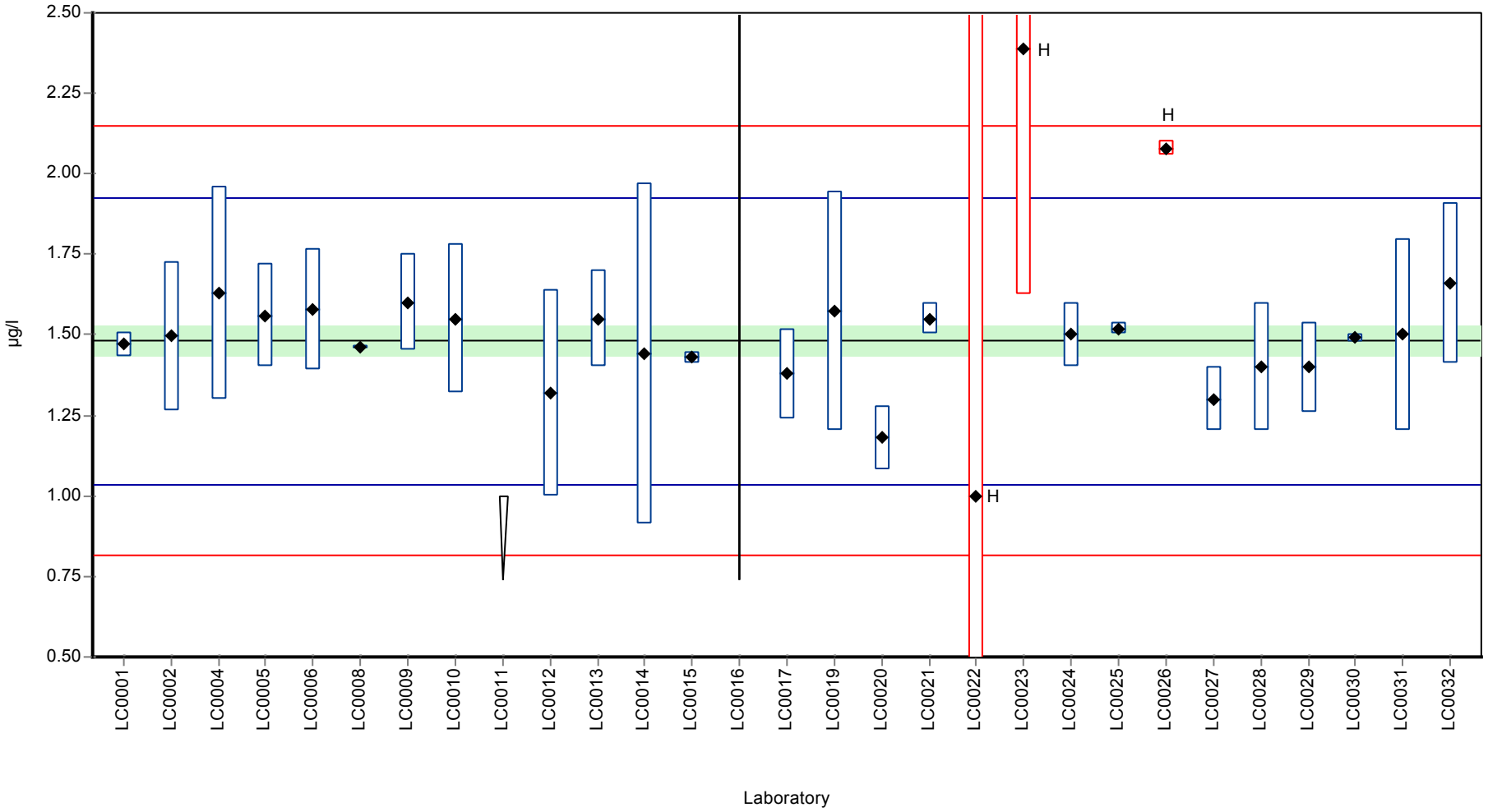
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.47	0.039	99.3	-0.05	
LC0002	1.496	0.232	101	0.07	
LC0003	-	-	-	-	
LC0004	1.63	0.33	110	0.67	
LC0005	1.56	0.16	105	0.36	
LC0006	1.58	0.1896	107	0.45	
LC0007	-	-	-	-	
LC0008	1.46	0.005	98.6	-0.09	
LC0009	1.6	0.15	108	0.54	
LC0010	1.55	0.233	105	0.31	
LC0011	< 1 (LOQ)	-	-	-	
LC0012	1.32	0.32	89.1	-0.72	
LC0013	1.55	0.15	105	0.31	
LC0014	1.44	0.53	97.2	-0.18	
LC0015	1.43	0.019	96.6	-0.23	
LC0016	<20 (LOD)	-	-	-	
LC0017	1.38	0.14	93.2	-0.45	
LC0018	-	-	-	-	
LC0019	1.574	0.373	106	0.42	
LC0020	1.18	0.1	79.7	-1.35	
LC0021	1.55	0.05	105	0.31	
LC0022	1	1.8	67.5	-2.16	H
LC0023	2.39	0.766	161	4.09	H
LC0024	1.5	0.1	101	0.09	
LC0025	1.52	0.02	103	0.18	
LC0026	2.08	0.021	140	2.7	H
LC0027	1.3	0.1	87.8	-0.81	
LC0028	1.4	0.2	94.5	-0.36	
LC0029	1.4	0.14	94.5	-0.36	
LC0030	1.49	0.015	101	0.04	
LC0031	1.5	0.3	101	0.09	
LC0032	1.66	0.249	112	0.81	
LC0033	-	-	-	-	

Characteristics of parameter

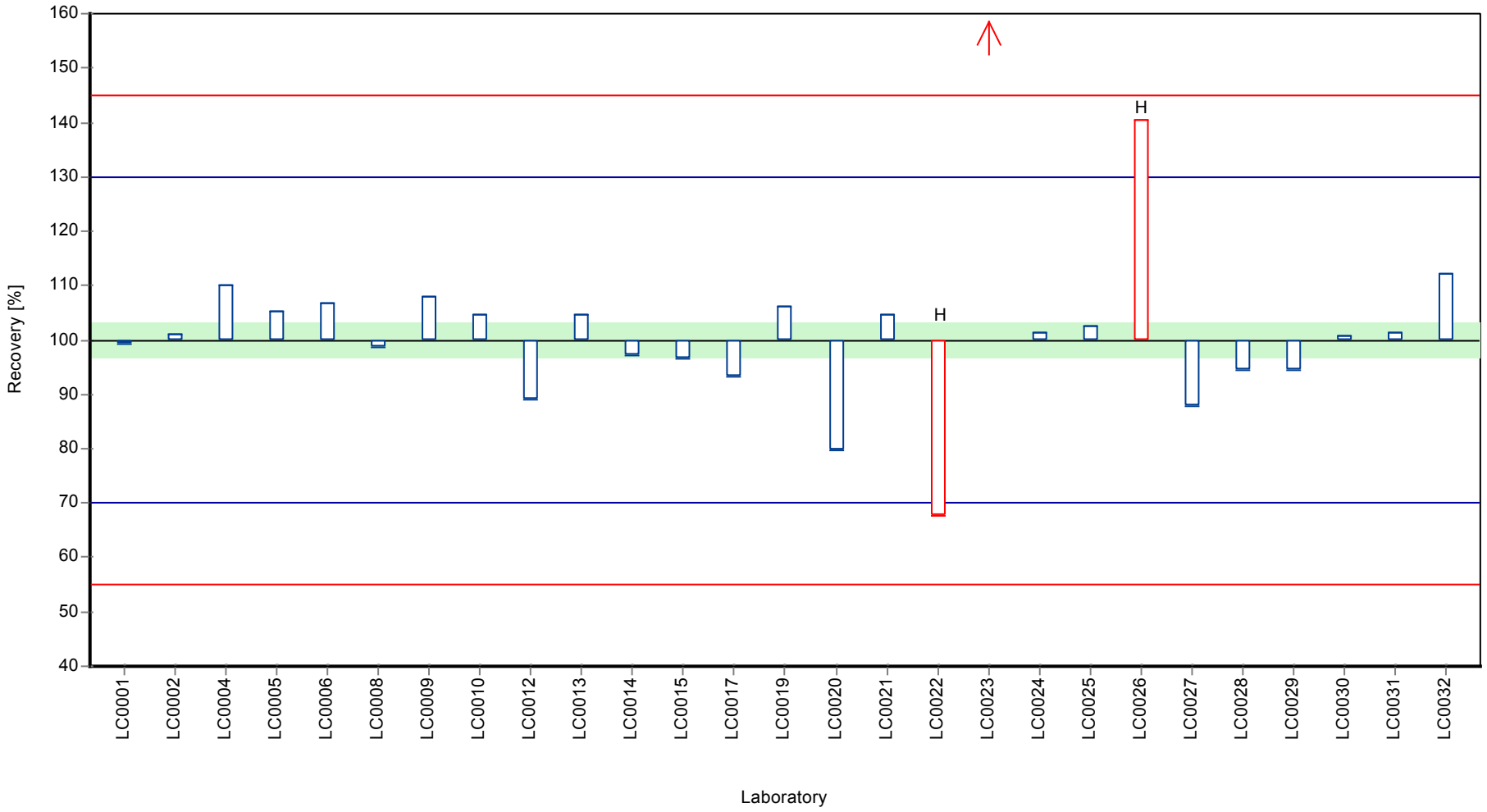
	all results	without outliers	Unit
Mean ± CI (99%)	1.52 ± 0.146	1.48 ± 0.0685	µg/l
Minimum	1	1.18	µg/l
Maximum	2.39	1.66	µg/l
Standard deviation	0.253	0.112	µg/l
rel. standard deviation	16.7	7.55	%
n	27	24	-

Graphical presentation of results

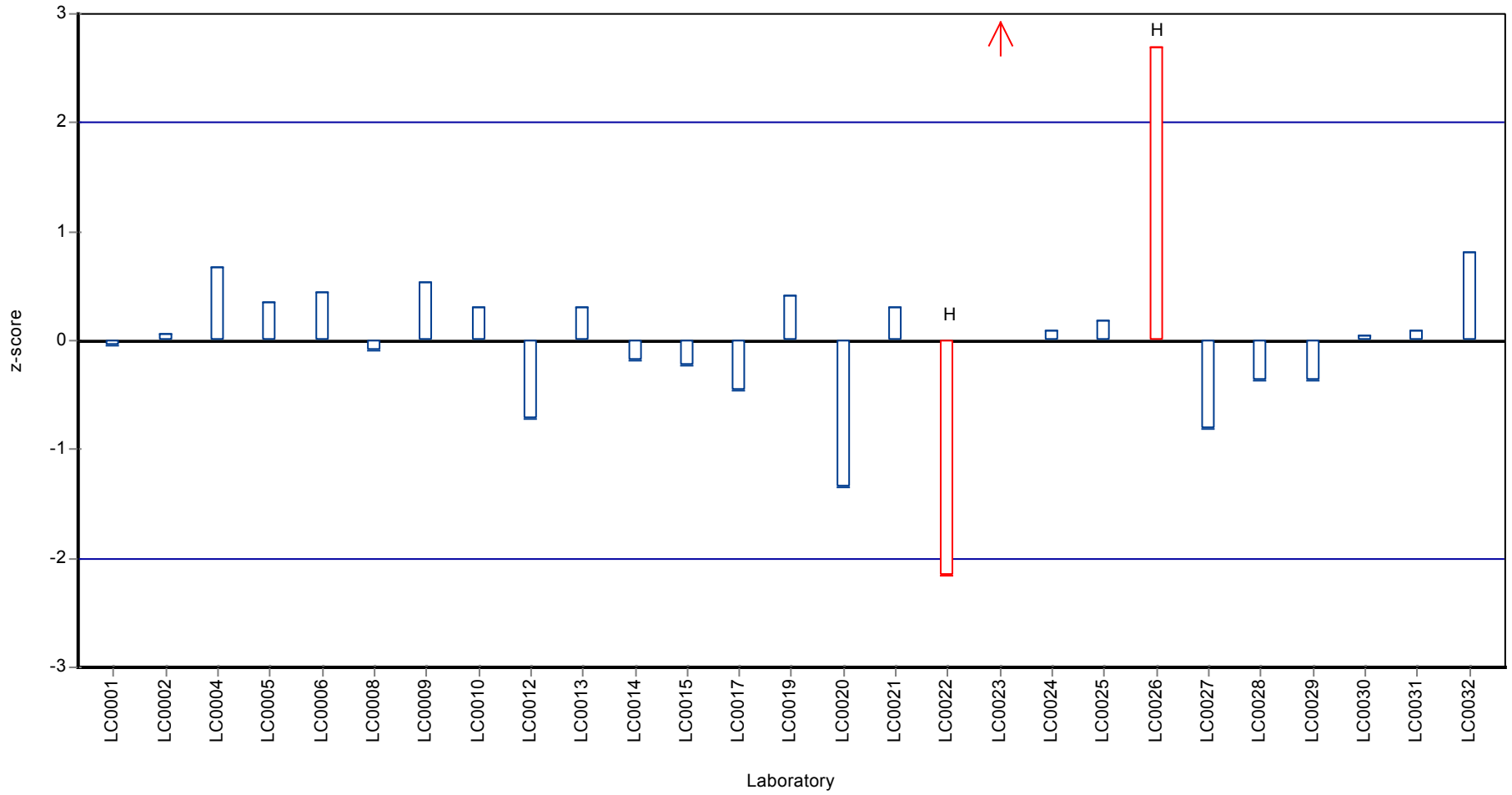
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
H
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 B Hg

Mercury

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.88 ± 0.282~~
Minimum - Maximum	1.51 - 2.2
Control test value ± U	1.80 ± 0.0617

Unit	µg/l
Assigned value ± U (k=2)	1.88 ± 0.0561
Criterion	0.282 (15 %)
Minimum - Maximum	1.51 - 2.2
Control test value ± U (k=2)	1.80 ± 0.0617

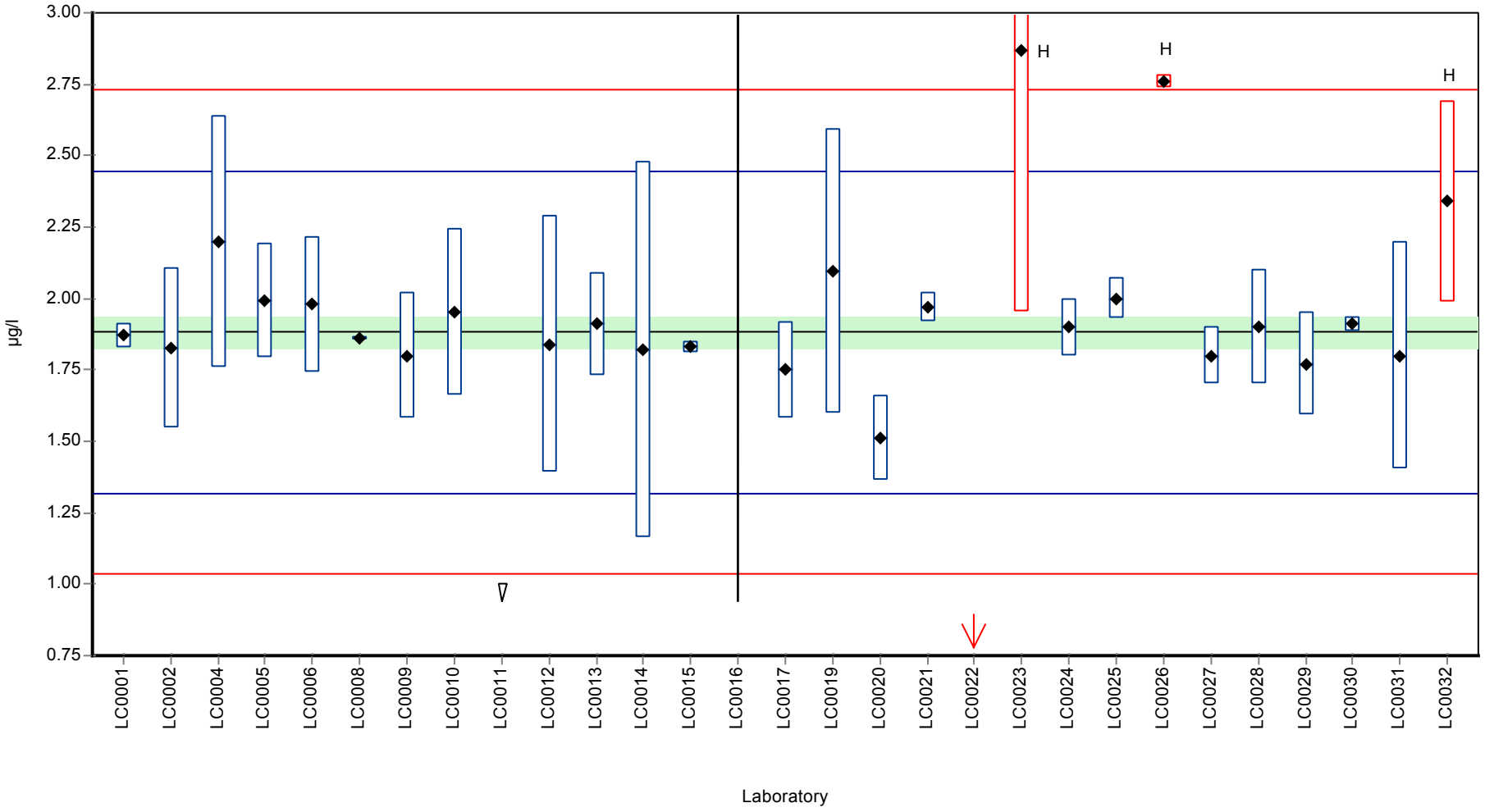
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.87	0.041	99.4	-0.04	
LC0002	1.826	0.283	97	-0.2	
LC0003	-	-	-	-	
LC0004	2.2	0.44	117	1.13	
LC0005	1.99	0.2	106	0.38	
LC0006	1.98	0.2376	105	0.35	
LC0007	-	-	-	-	
LC0008	1.86	0.005	98.8	-0.08	
LC0009	1.8	0.22	95.6	-0.29	
LC0010	1.95	0.292	104	0.24	
LC0011	< 1 (LOQ)	-	-	-	FN
LC0012	1.84	0.45	97.8	-0.15	
LC0013	1.91	0.18	101	0.1	
LC0014	1.82	0.66	96.7	-0.22	
LC0015	1.83	0.02	97.2	-0.18	
LC0016	<20 (LOD)	-	-	-	
LC0017	1.75	0.17	93	-0.47	
LC0018	-	-	-	-	
LC0019	2.0969	0.497	111	0.76	
LC0020	1.51	0.15	80.2	-1.32	
LC0021	1.97	0.05	105	0.31	
LC0022	0.71	1.8	37.7	-4.15	H
LC0023	2.87	0.917	153	3.5	H
LC0024	1.9	0.1	101	0.06	
LC0025	2	0.07	106	0.42	
LC0026	2.76	0.021	147	3.11	H
LC0027	1.8	0.1	95.6	-0.29	
LC0028	1.9	0.2	101	0.06	
LC0029	1.77	0.18	94.1	-0.4	
LC0030	1.91	0.025	101	0.1	
LC0031	1.8	0.4	95.6	-0.29	
LC0032	2.34	0.351	124	1.62	H
LC0033	-	-	-	-	

Characteristics of parameter

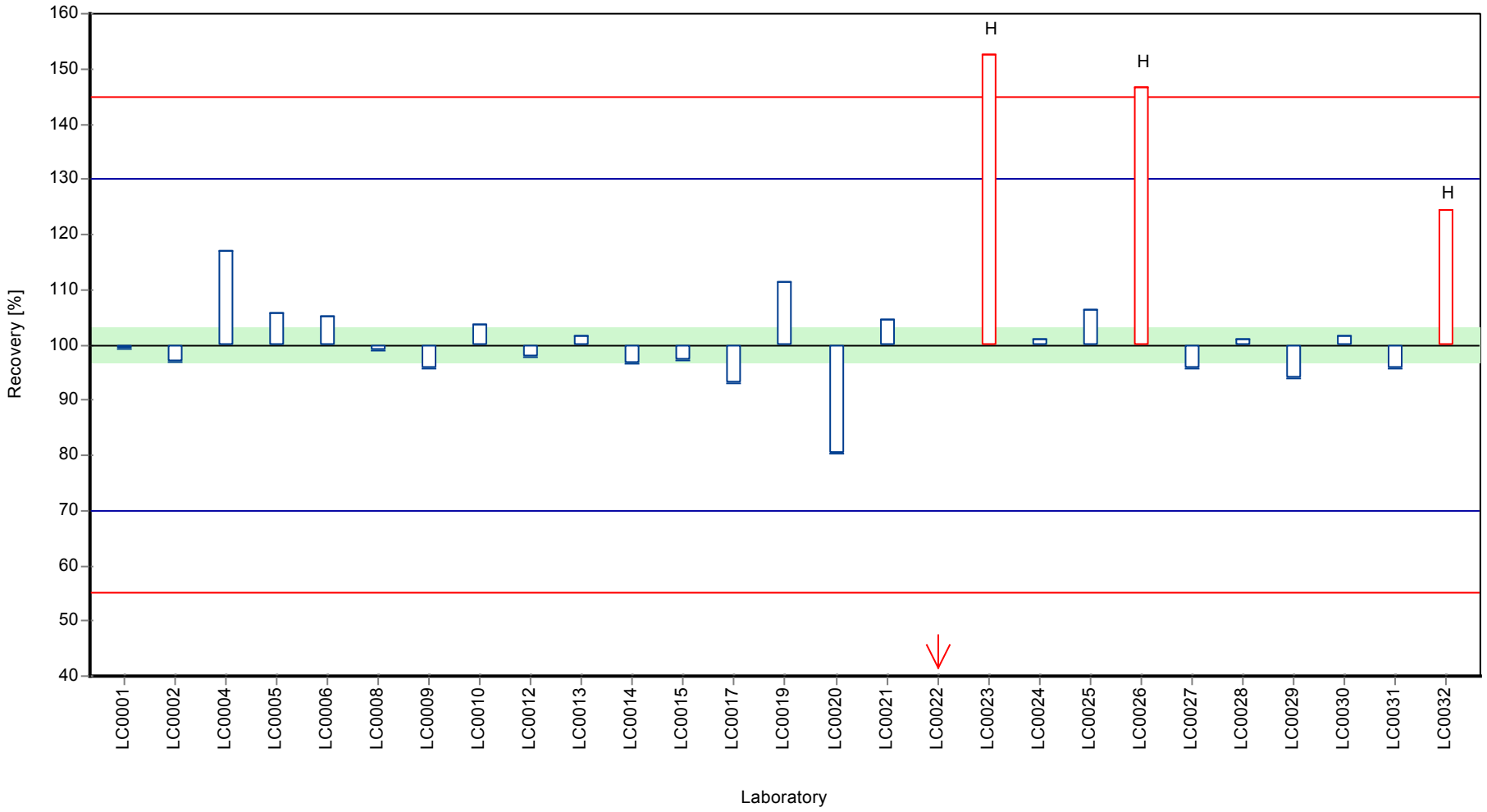
	all results	without outliers	Unit
Mean ± CI (99%)	1.92 ± 0.217	1.88 ± 0.0841	µg/l
Minimum	0.71	1.51	µg/l
Maximum	2.87	2.2	µg/l
Standard deviation	0.376	0.134	µg/l
rel. standard deviation	19.5	7.14	%
n	27	23	-

Graphical presentation of results

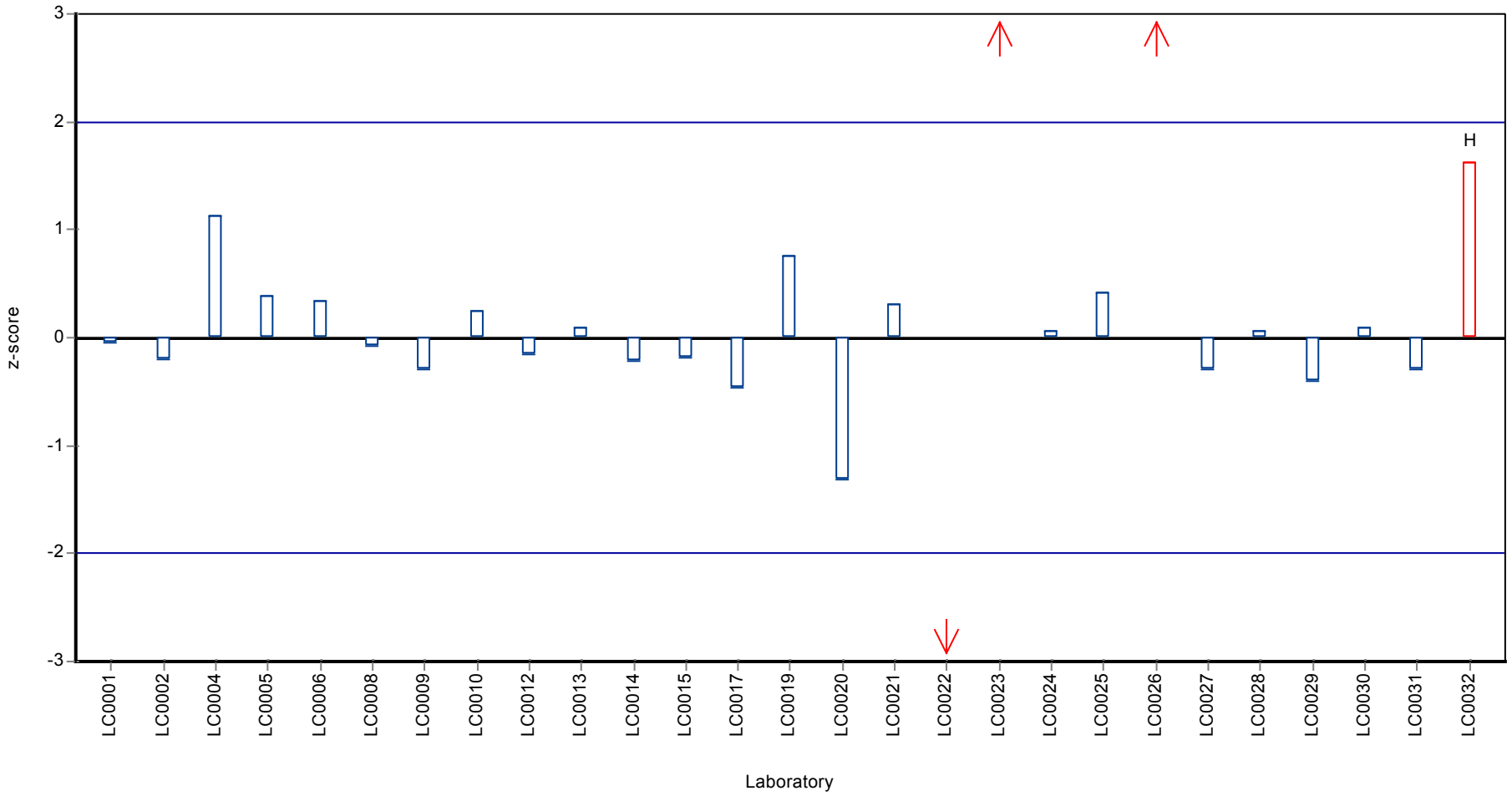
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 A

Selenium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~6.61 ± 0.86~~
Minimum - Maximum	5.7 - 7.1
Control test value ± U	6.99 ± 1.05

Unit	µg/l
Assigned value ± U (k=2)	6.61 ± 0.164
Criterion	0.86 (13 %)
Minimum - Maximum	5.7 - 7.1
Control test value ± U (k=2)	6.99 ± 1.05

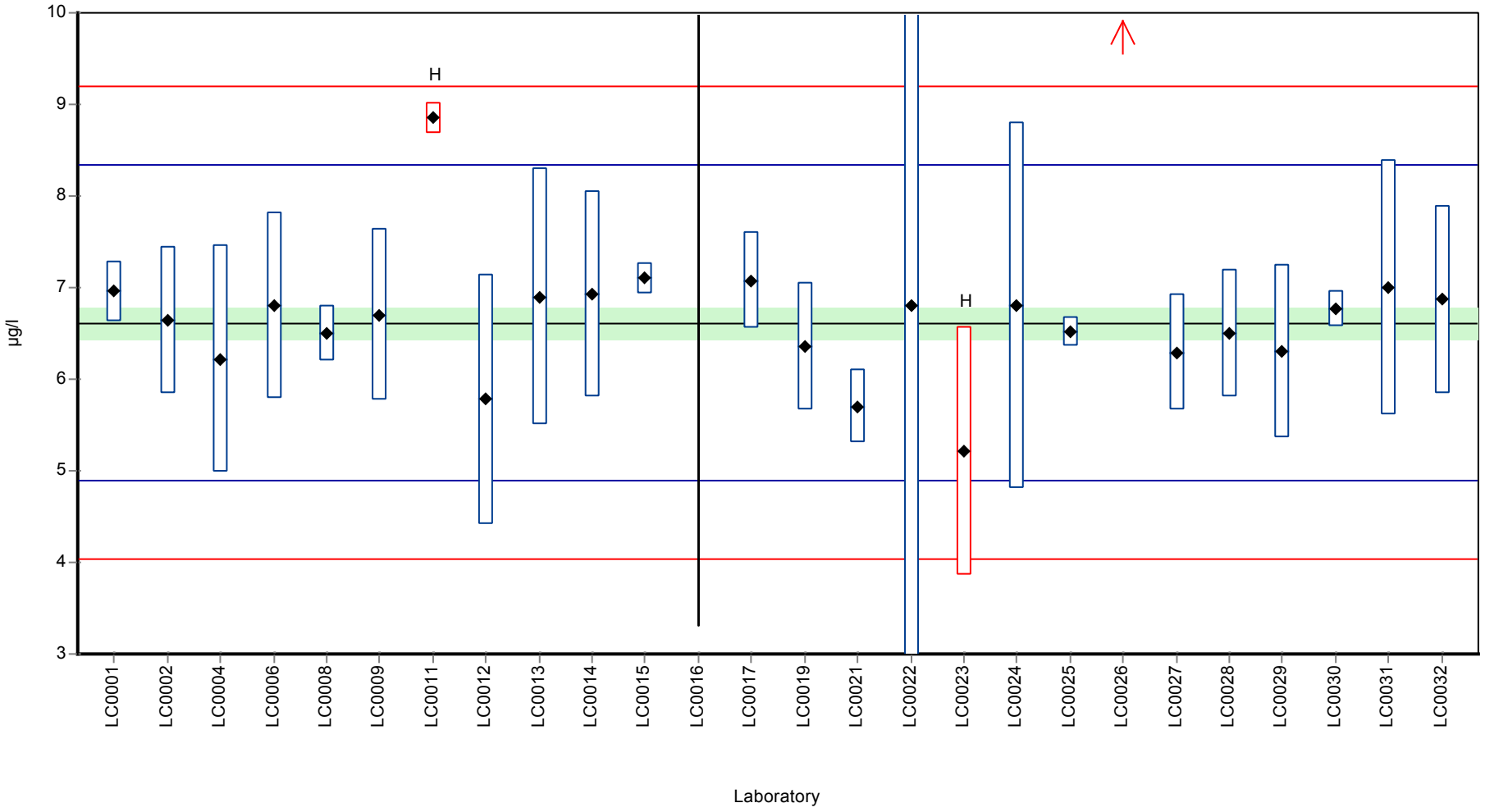
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	6.96	0.333	105	0.4	
LC0002	6.643	0.797	100	0.03	
LC0003	-	-	-	-	
LC0004	6.22	1.24	94	-0.46	
LC0005	-	-	-	-	
LC0006	6.8	1.02	103	0.22	
LC0007	-	-	-	-	
LC0008	6.5	0.3	98.3	-0.13	
LC0009	6.7	0.94	101	0.1	
LC0010	-	-	-	-	
LC0011	8.85	0.17	134	2.6	H
LC0012	5.78	1.37	87.4	-0.97	
LC0013	6.9	1.4	104	0.33	
LC0014	6.93	1.13	105	0.37	
LC0015	7.1	0.17	107	0.56	
LC0016	< 100 (LOQ)	-	-	-	
LC0017	7.08	0.53	107	0.54	
LC0018	-	-	-	-	
LC0019	6.3557	0.699	96.1	-0.3	
LC0020	-	-	-	-	
LC0021	5.7	0.4	86.2	-1.06	
LC0022	6.8	6.2	103	0.22	
LC0023	5.21	1.354	78.8	-1.63	H
LC0024	6.8	2	103	0.22	
LC0025	6.52	0.16	98.6	-0.11	
LC0026	127.014	0.095	1920	140	H
LC0027	6.29	0.63	95.1	-0.38	
LC0028	6.5	0.7	98.3	-0.13	
LC0029	6.3	0.95	95.3	-0.36	
LC0030	6.76	0.196	102	0.17	
LC0031	7	1.4	106	0.45	
LC0032	6.87	1.0305	104	0.3	
LC0033	-	-	-	-	

Characteristics of parameter

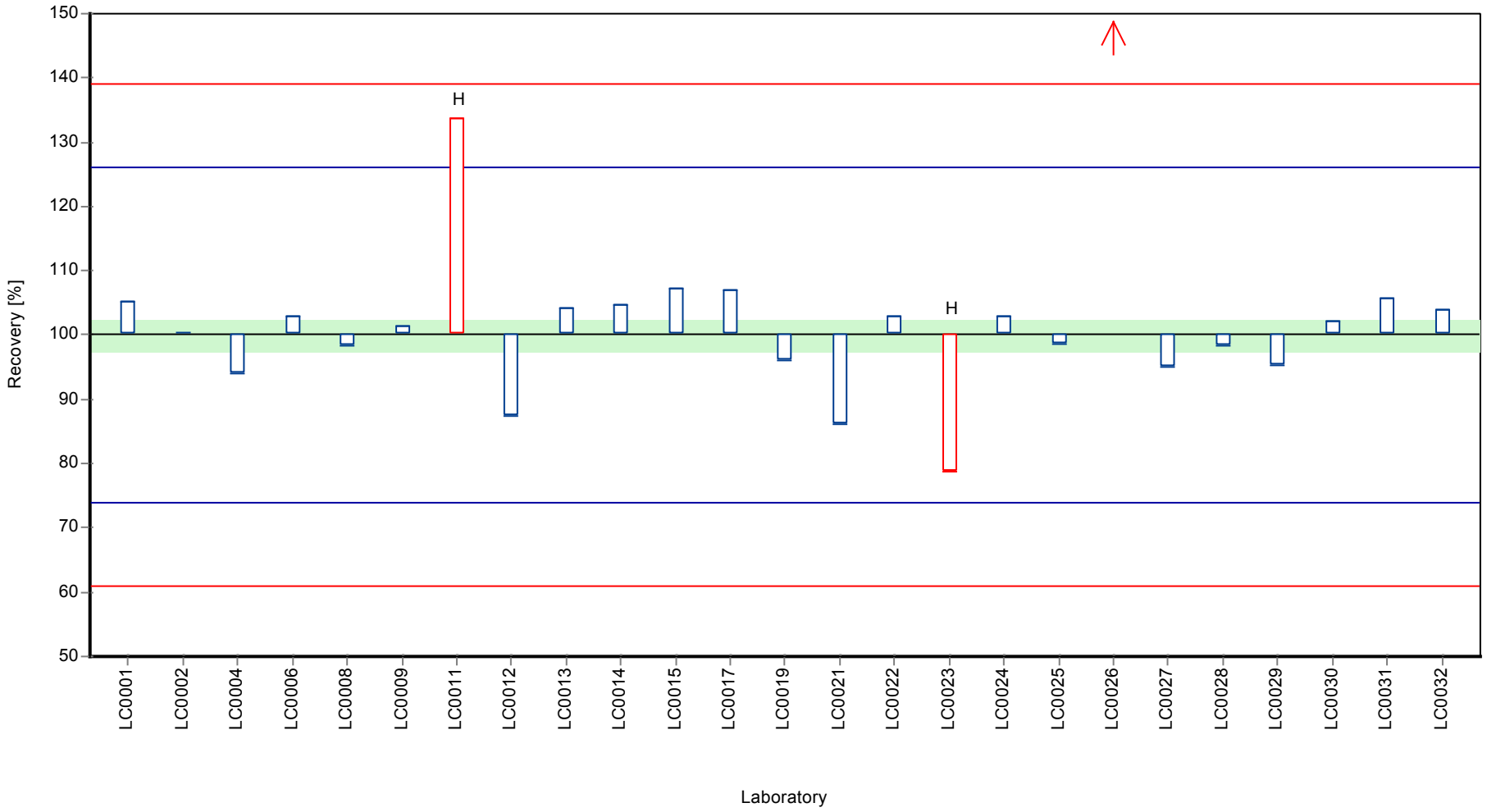
	all results	without outliers	Unit
Mean ± CI (99%)	11.5 ± 14.4	6.61 ± 0.245	µg/l
Minimum	5.21	5.7	µg/l
Maximum	127	7.1	µg/l
Standard deviation	24.1	0.384	µg/l
rel. standard deviation	210	5.8	%
n	25	22	-

Graphical presentation of results

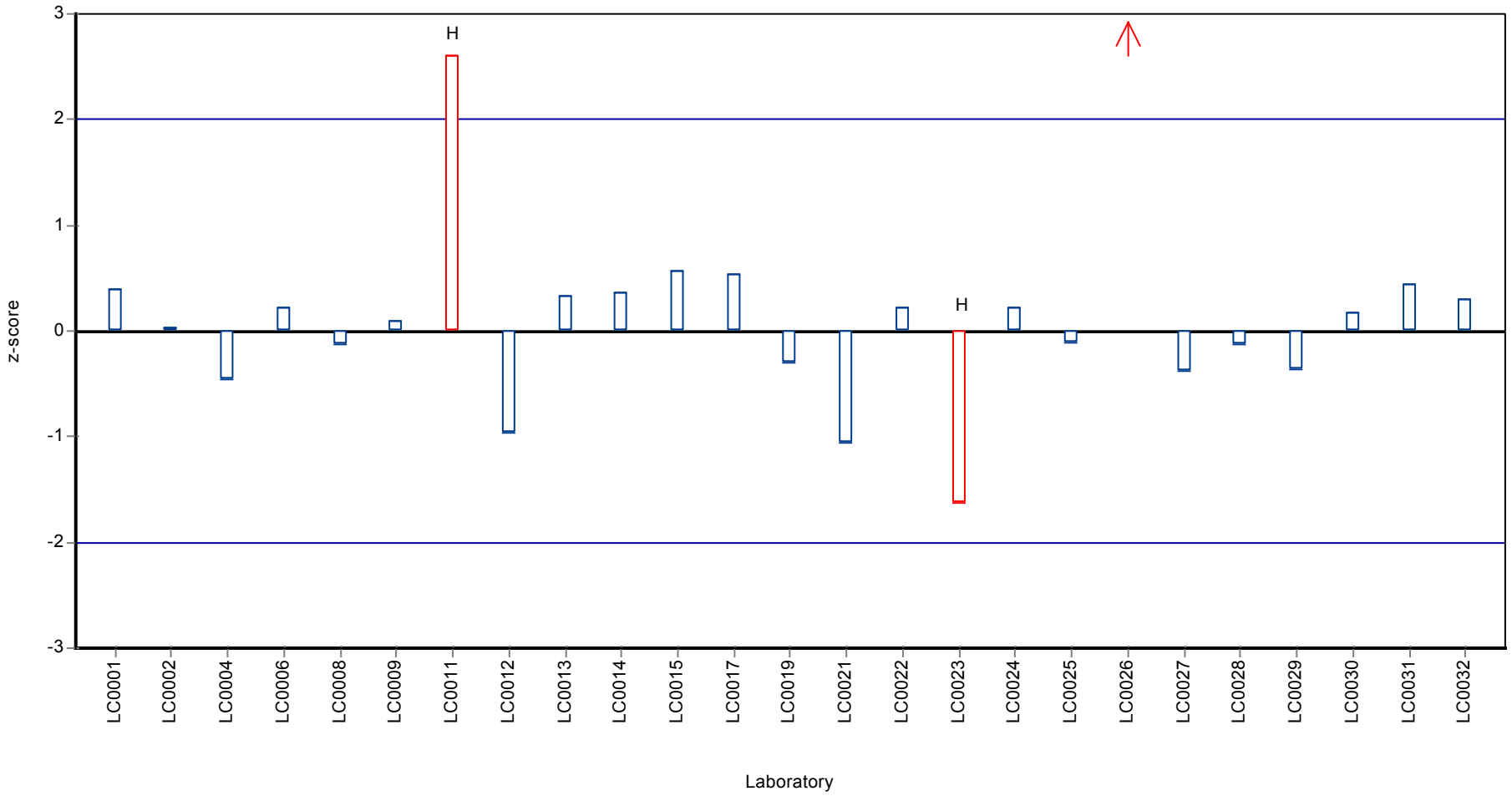
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
H
H
LC0001
LC0002
LC0004
LC0006
LC0008
LC0009
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 B

Selenium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.26 ± 0.163~~
Minimum - Maximum	1.09 - 1.47
Control test value ± U	1.58 ± 0.244

Unit	µg/l
Assigned value ± U (k=2)	1.26 ± 0.0451
Criterion	0.163 (13 %)
Minimum - Maximum	1.09 - 1.47
Control test value ± U (k=2)	1.58 ± 0.244

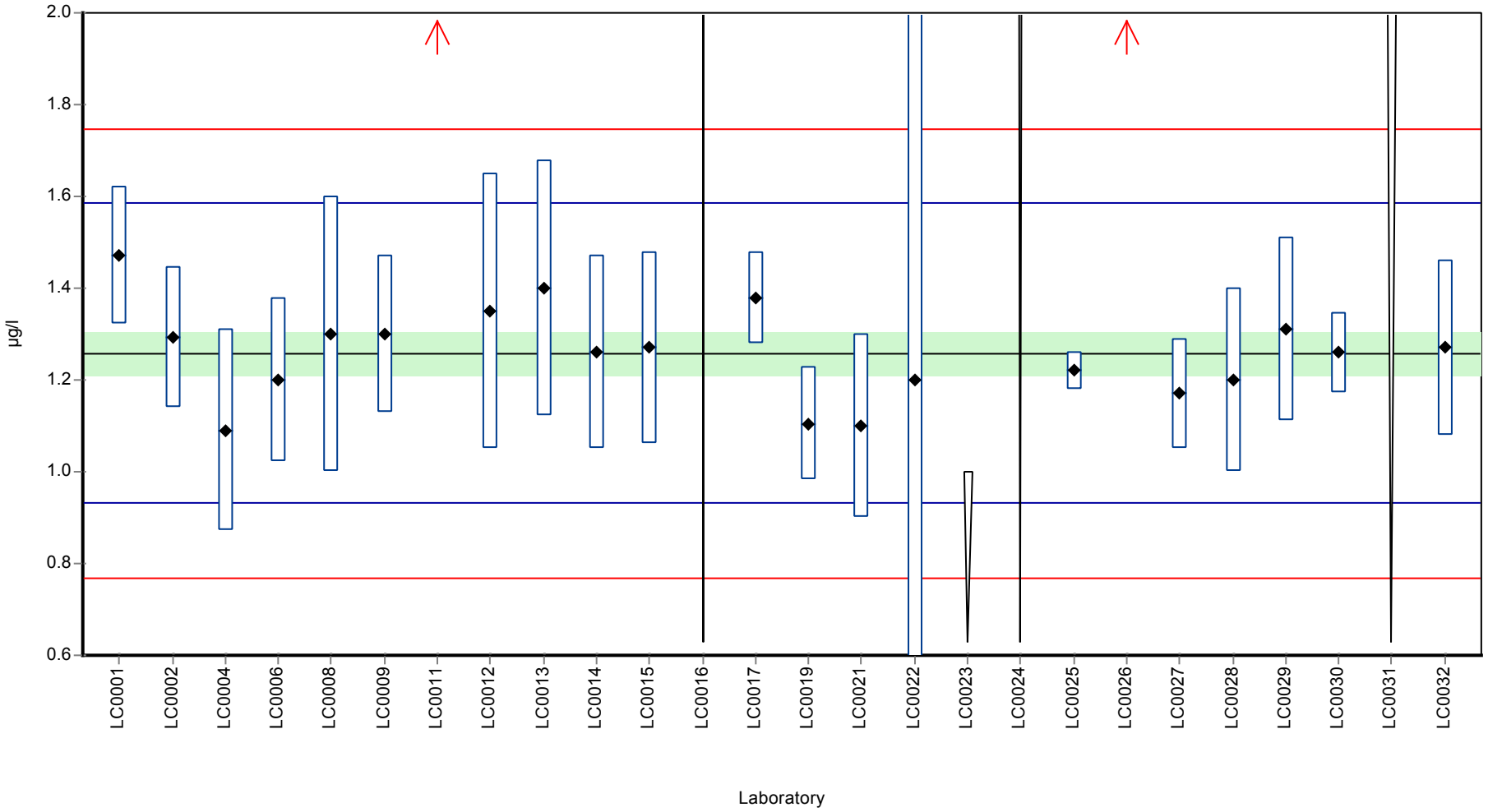
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.472	0.151	117	1.31	
LC0002	1.293	0.155	103	0.22	
LC0003	-	-	-	-	
LC0004	1.09	0.22	86.7	-1.02	
LC0005	-	-	-	-	
LC0006	1.2	0.18	95.4	-0.35	
LC0007	-	-	-	-	
LC0008	1.3	0.3	103	0.26	
LC0009	1.3	0.17	103	0.26	
LC0010	-	-	-	-	
LC0011	2.16	0.09	172	5.52	H
LC0012	1.35	0.3	107	0.57	
LC0013	1.4	0.28	111	0.87	
LC0014	1.26	0.21	100	0.02	
LC0015	1.27	0.21	101	0.08	
LC0016	< 100 (LOQ)	-	-	-	
LC0017	1.38	0.1	110	0.75	
LC0018	-	-	-	-	
LC0019	1.1049	0.122	87.9	-0.93	
LC0020	-	-	-	-	
LC0021	1.1	0.2	87.5	-0.96	
LC0022	1.2	6.2	95.4	-0.35	
LC0023	< 1 (LOQ)	-	-	-	
LC0024	< 5.6 (LOQ)	-	-	-	
LC0025	1.22	0.04	97	-0.23	
LC0026	18.981	0.095	1510	108	H
LC0027	1.17	0.12	93	-0.54	
LC0028	1.2	0.2	95.4	-0.35	
LC0029	1.31	0.2	104	0.32	
LC0030	1.26	0.087	100	0.02	
LC0031	< 2 (LOQ)	-	-	-	
LC0032	1.27	0.1905	101	0.08	
LC0033	-	-	-	-	

Characteristics of parameter

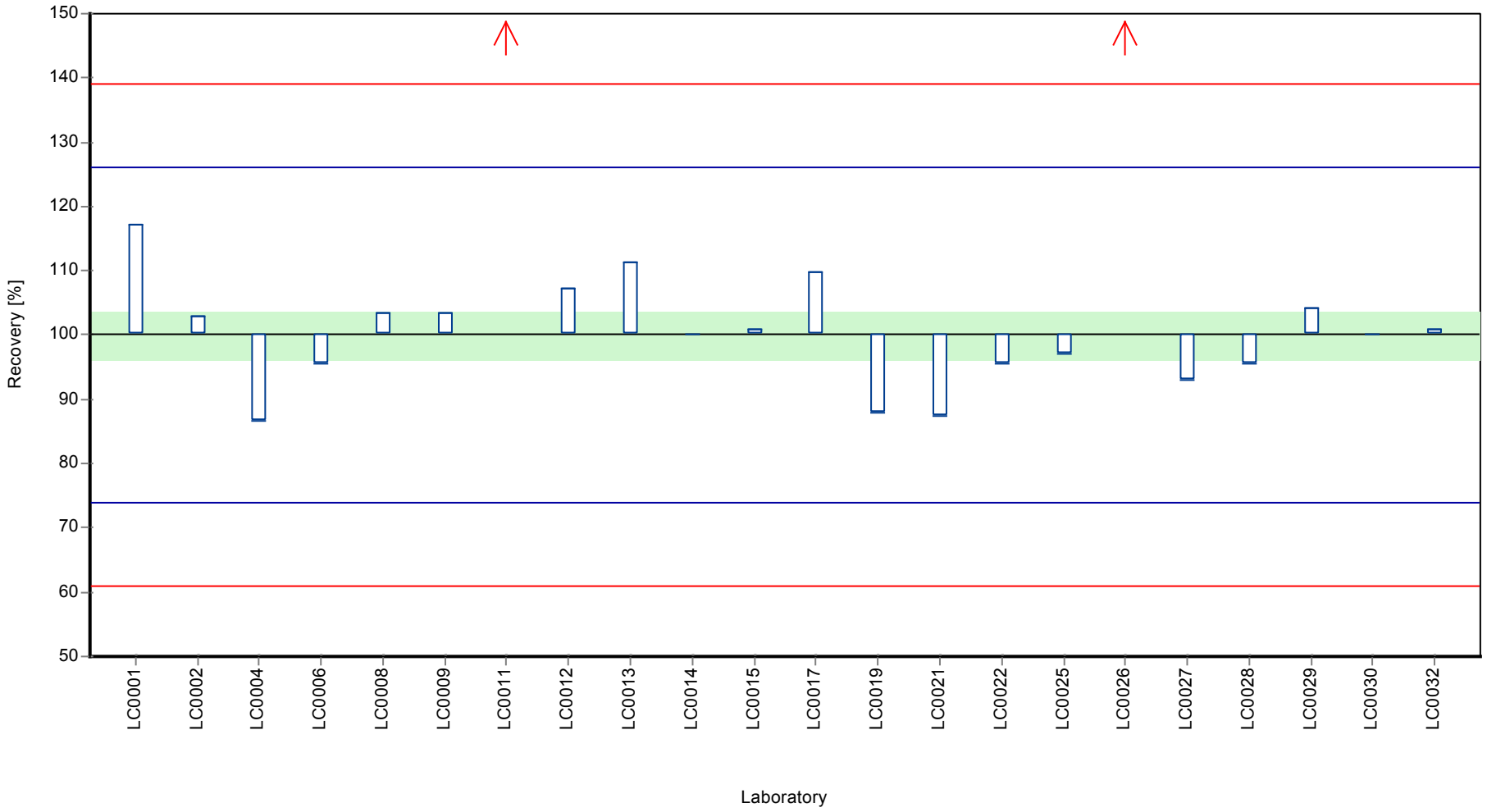
	all results	without outliers	Unit
Mean ± CI (99%)	2.1 ± 2.41	1.26 ± 0.0676	µg/l
Minimum	1.09	1.09	µg/l
Maximum	19	1.47	µg/l
Standard deviation	3.78	0.101	µg/l
rel. standard deviation	179	8.01	%
n	22	20	-

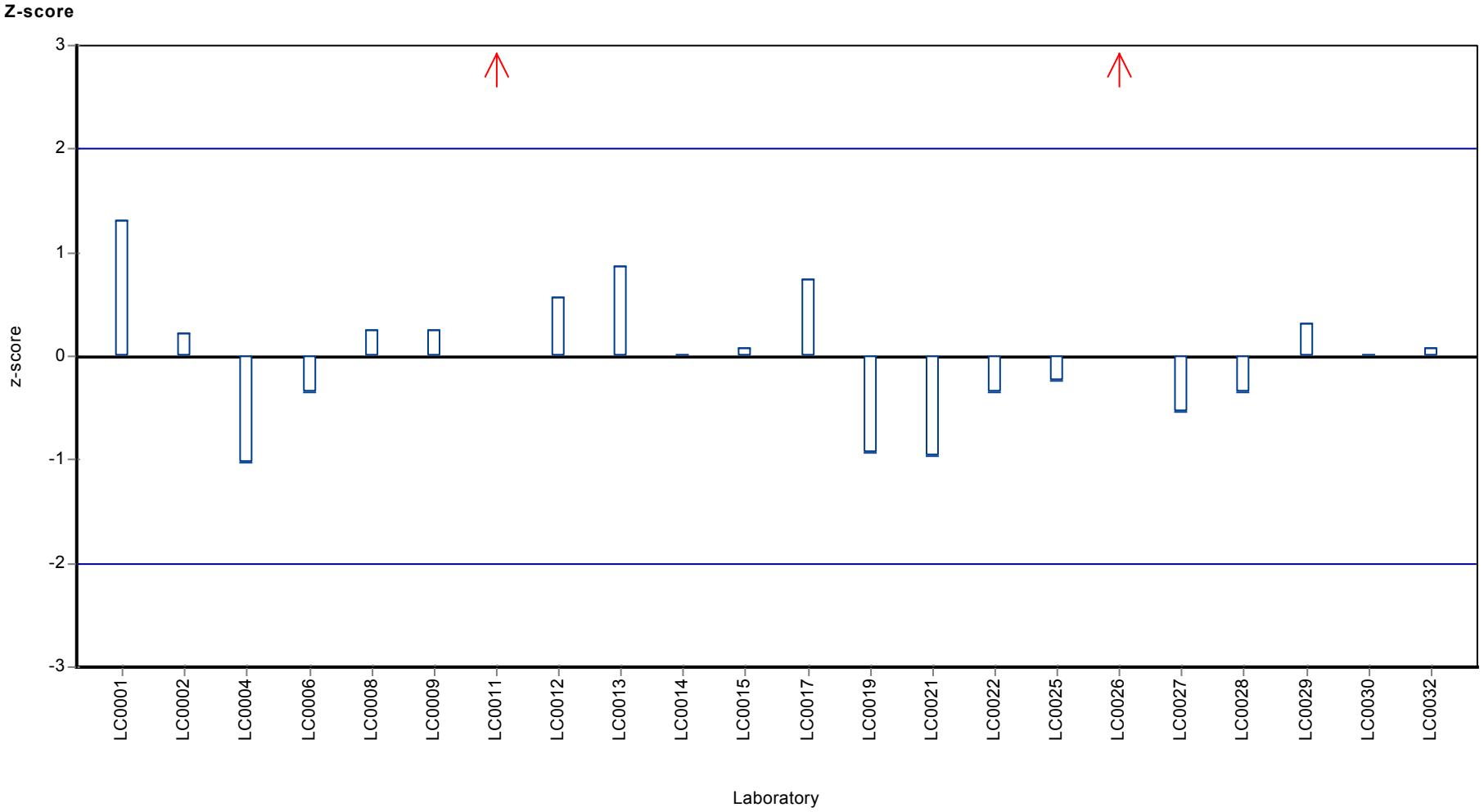
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0006
LC0008
LC0009
LC0011
LC0012
LC0013
LC0014
LC0015
LC0017
LC0019
LC0021
LC0022
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0032
Laboratory

Parameter oriented report

M145 A

Uranium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.94 ± 0.132~~
Minimum - Maximum	1.59 - 2.1
Control test value ± U	1.98 ± 0.184

Unit	µg/l
Assigned value ± U (k=2)	1.94 ± 0.056
Criterion	0.132 (6.8 %)
Minimum - Maximum	1.59 - 2.1
Control test value ± U (k=2)	1.98 ± 0.184

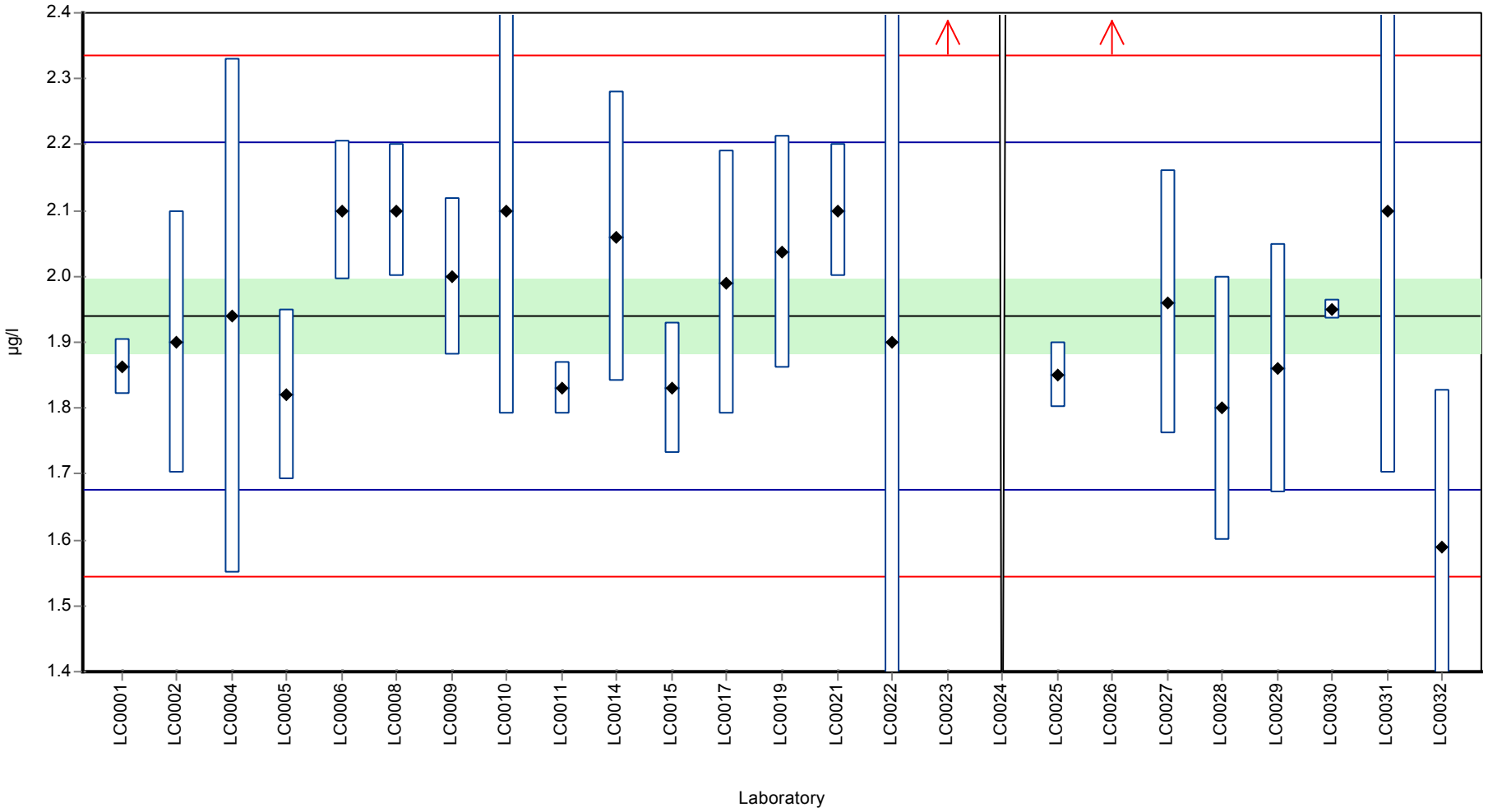
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.862	0.042	96	-0.59	
LC0002	1.9	0.2	97.9	-0.3	
LC0003	-	-	-	-	
LC0004	1.94	0.39	100	0	
LC0005	1.82	0.13	93.8	-0.91	
LC0006	2.1	0.105	108	1.22	
LC0007	-	-	-	-	
LC0008	2.1	0.1	108	1.22	
LC0009	2	0.12	103	0.46	
LC0010	2.1	0.31	108	1.22	
LC0011	1.83	0.04	94.3	-0.84	
LC0012	-	-	-	-	
LC0013	-	-	-	-	
LC0014	2.06	0.22	106	0.91	
LC0015	1.83	0.1	94.3	-0.84	
LC0016	-	-	-	-	
LC0017	1.99	0.2	103	0.38	
LC0018	-	-	-	-	
LC0019	2.0363	0.177	105	0.73	
LC0020	-	-	-	-	
LC0021	2.1	0.1	108	1.22	
LC0022	1.9	6.5	97.9	-0.3	
LC0023	2.63	0.395	136	5.25	H
LC0024	< 3 (LOQ)	-	-	-	
LC0025	1.85	0.05	95.4	-0.68	
LC0026	2.654	0.016	137	5.43	H
LC0027	1.96	0.2	101	0.15	
LC0028	1.8	0.2	92.8	-1.06	
LC0029	1.86	0.19	95.9	-0.61	
LC0030	1.95	0.015	101	0.08	
LC0031	2.1	0.4	108	1.22	
LC0032	1.59	0.2385	82	-2.66	
LC0033	-	-	-	-	

Characteristics of parameter

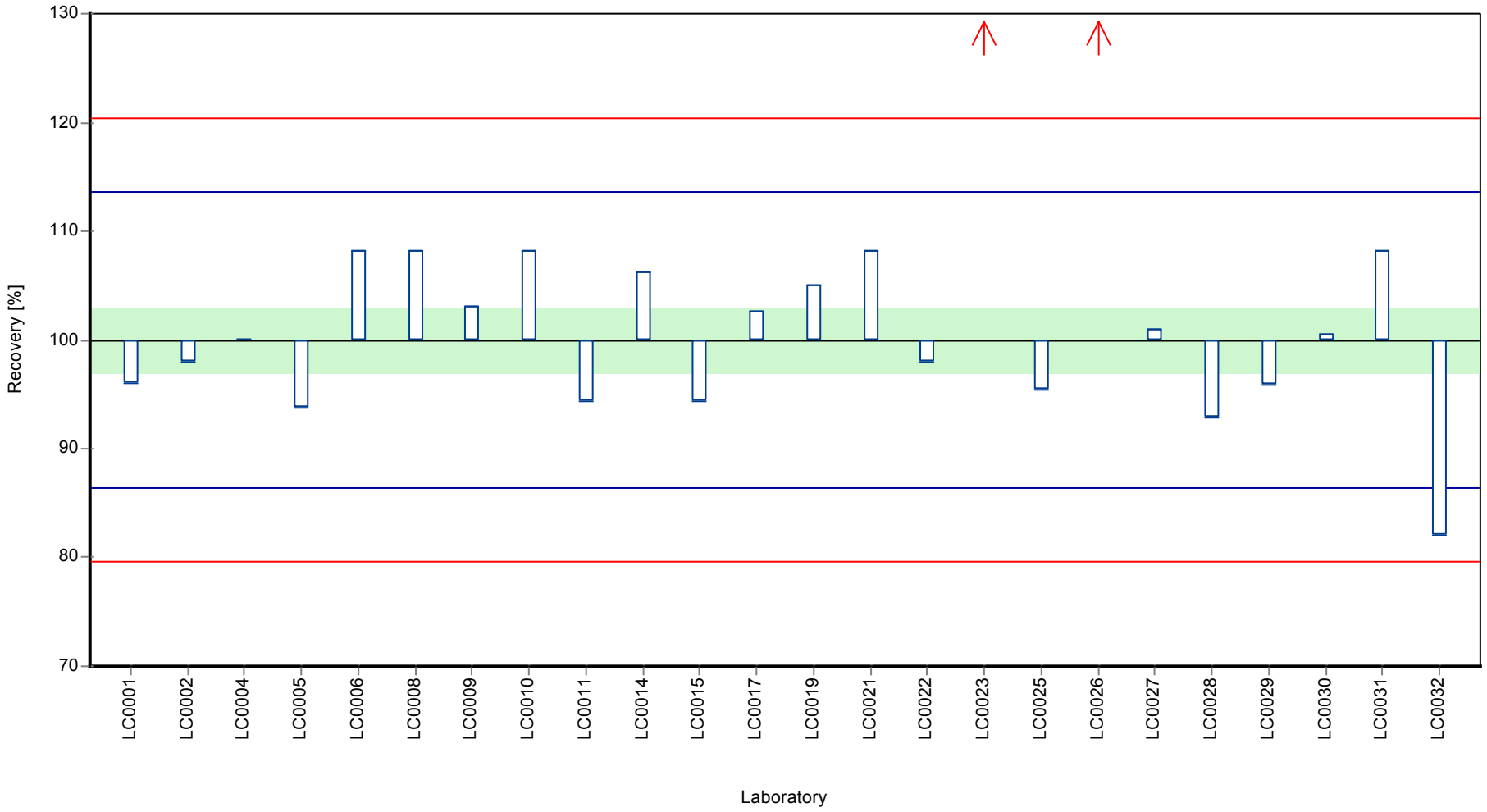
	all results	without outliers	Unit
Mean ± CI (99%)	2 ± 0.144	1.94 ± 0.0841	µg/l
Minimum	1.59	1.59	µg/l
Maximum	2.65	2.1	µg/l
Standard deviation	0.235	0.131	µg/l
rel. standard deviation	11.7	6.78	%
n	24	22	-

Graphical presentation of results

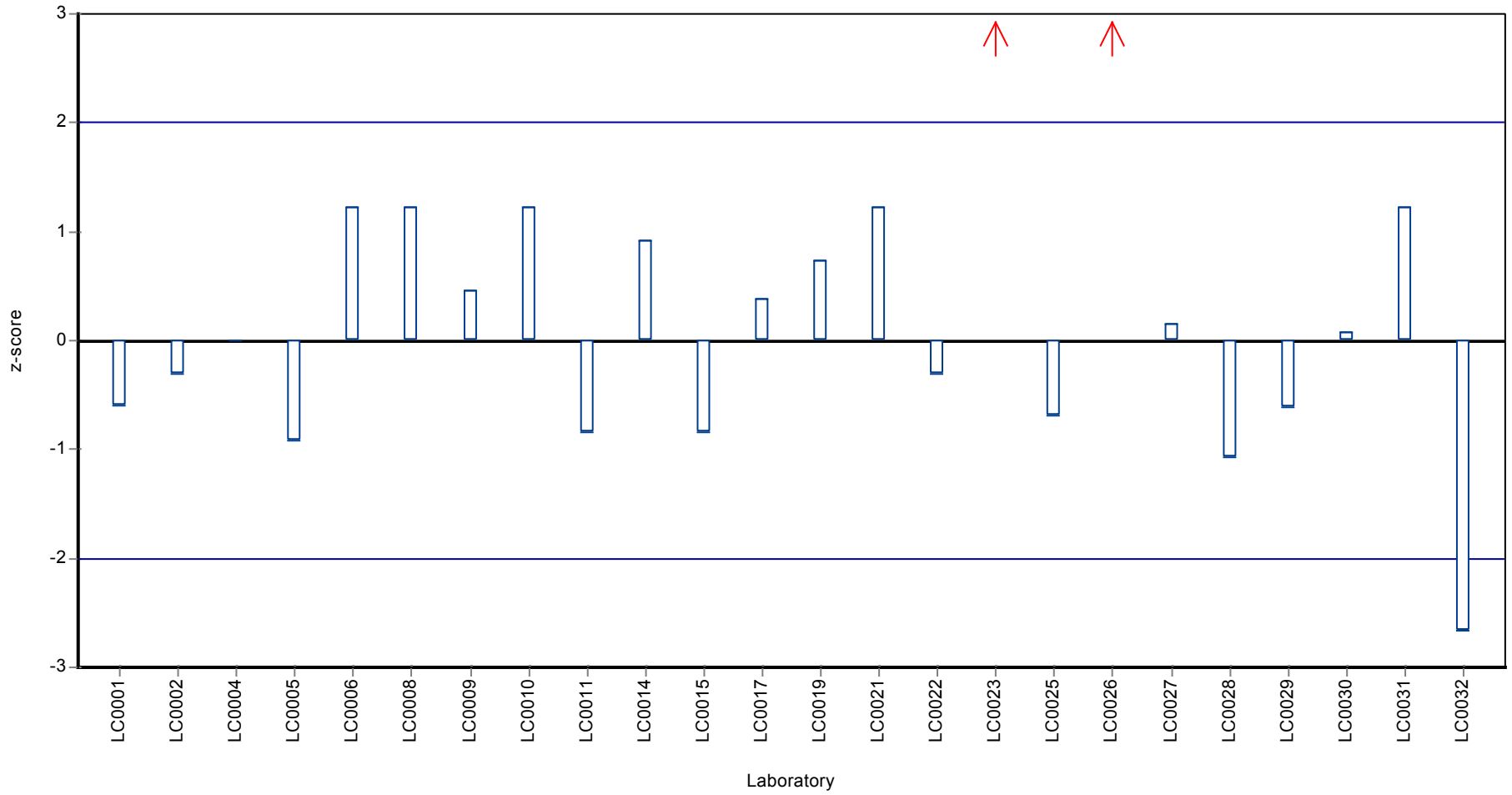
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0014
LC0015
LC0017
LC0019
LC0021
LC0022
LC0023
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 B

Uranium

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~1.3 ± 0.0899~~
Minimum - Maximum	1.05 - 1.42
Control test value ± U	1.26 ± 0.125

Unit	µg/l
Assigned value ± U (k=2)	1.3 ± 0.0383
Criterion	0.0899 (6.9 %)
Minimum - Maximum	1.05 - 1.42
Control test value ± U (k=2)	1.26 ± 0.125

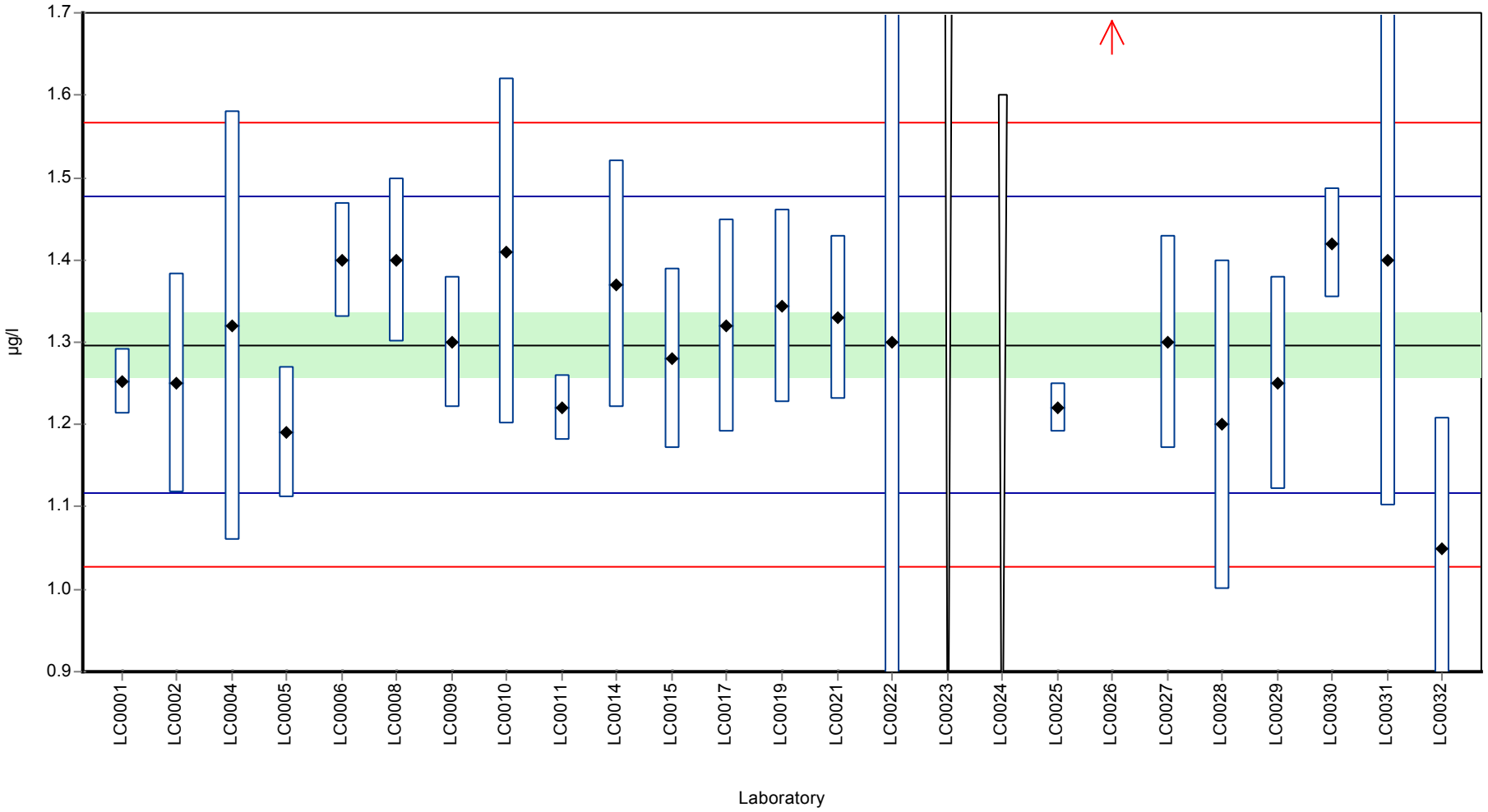
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1.253	0.04	96.6	-0.49	
LC0002	1.25	0.133	96.4	-0.52	
LC0003	-	-	-	-	
LC0004	1.32	0.26	102	0.26	
LC0005	1.19	0.08	91.8	-1.19	
LC0006	1.4	0.07	108	1.15	
LC0007	-	-	-	-	
LC0008	1.4	0.1	108	1.15	
LC0009	1.3	0.08	100	0.04	
LC0010	1.41	0.21	109	1.26	
LC0011	1.22	0.04	94.1	-0.85	
LC0012	-	-	-	-	
LC0013	-	-	-	-	
LC0014	1.37	0.15	106	0.82	
LC0015	1.28	0.11	98.7	-0.18	
LC0016	-	-	-	-	
LC0017	1.32	0.13	102	0.26	
LC0018	-	-	-	-	
LC0019	1.3434	0.117	104	0.52	
LC0020	-	-	-	-	
LC0021	1.33	0.1	103	0.37	
LC0022	1.3	6.5	100	0.04	
LC0023	< 2 (LOQ)	-	-	-	
LC0024	< 1.6 (LOQ)	-	-	-	
LC0025	1.22	0.03	94.1	-0.85	
LC0026	1.797	0.016	139	5.57	H
LC0027	1.3	0.13	100	0.04	
LC0028	1.2	0.2	92.5	-1.08	
LC0029	1.25	0.13	96.4	-0.52	
LC0030	1.42	0.067	110	1.37	
LC0031	1.4	0.3	108	1.15	
LC0032	1.05	0.1575	81	-2.74	
LC0033	-	-	-	-	

Characteristics of parameter

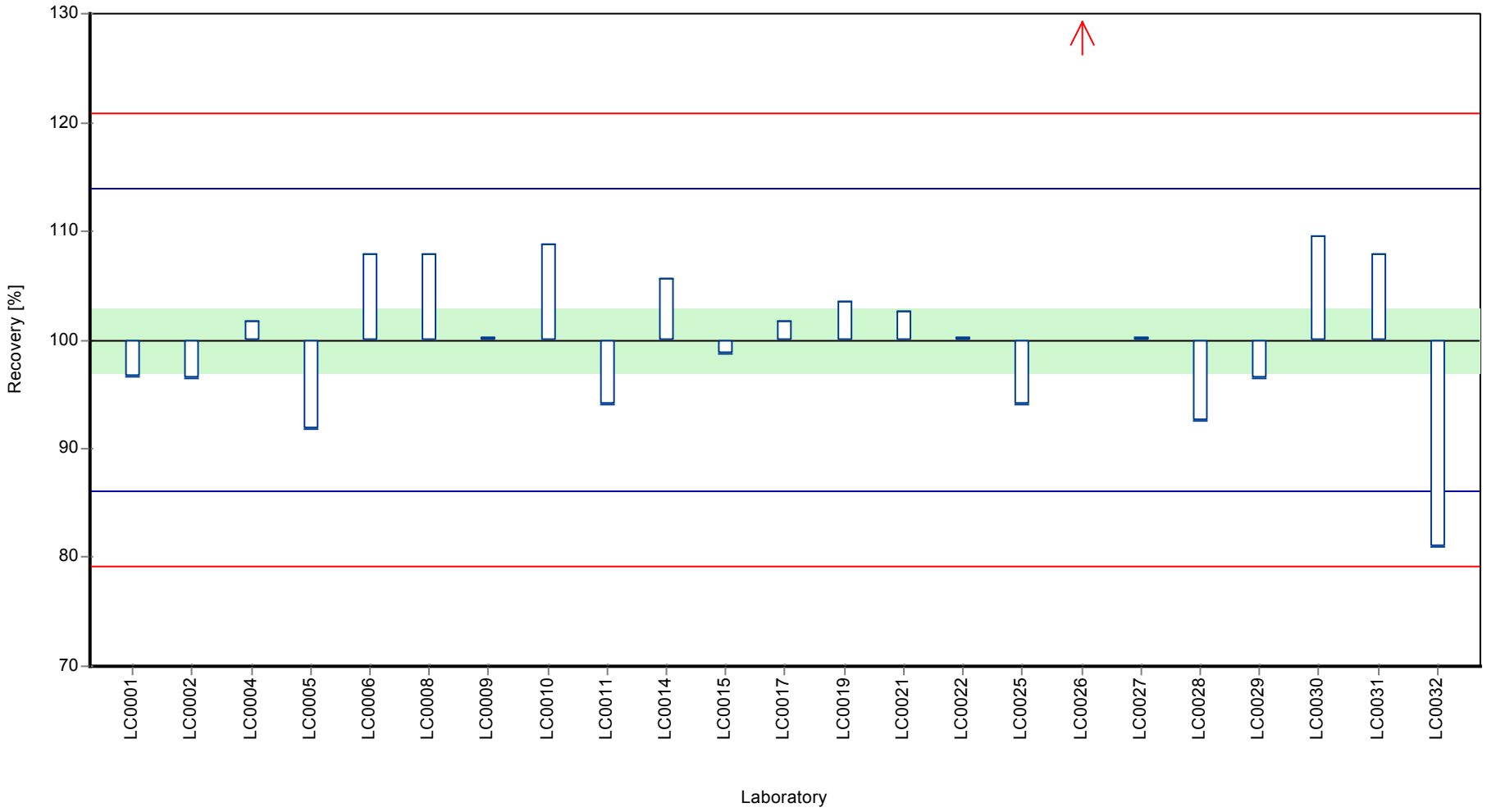
	all results	without outliers	Unit
Mean ± CI (99%)	1.32 ± 0.0853	1.3 ± 0.0575	µg/l
Minimum	1.05	1.05	µg/l
Maximum	1.8	1.42	µg/l
Standard deviation	0.136	0.0899	µg/l
rel. standard deviation	10.3	6.93	%
n	23	22	-

Graphical presentation of results

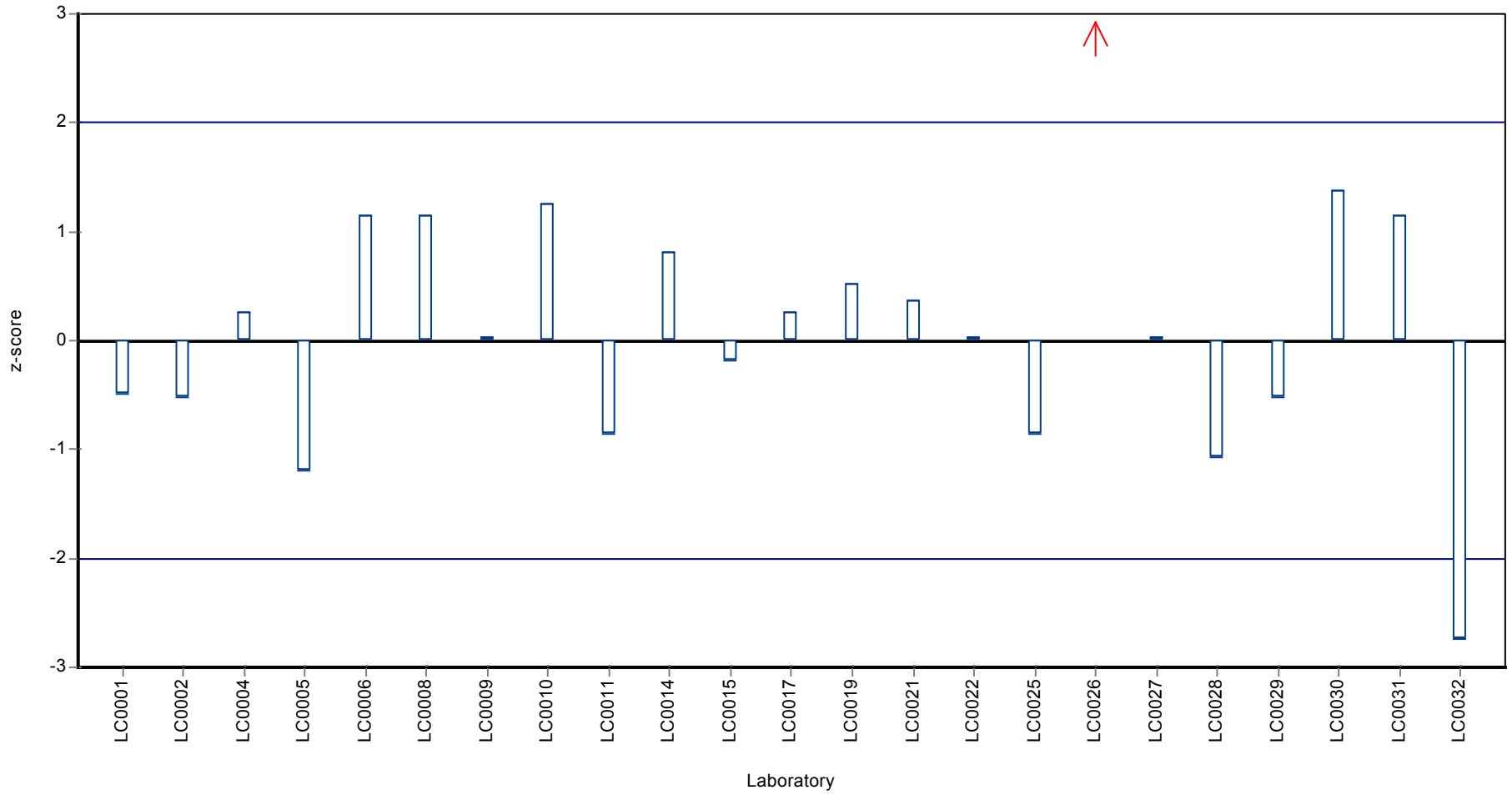
Results



Recovery rate



Z-score


3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0014
LC0015
LC0017
LC0019
LC0021
LC0022
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 A

Zinc

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~34.3 ± 2.91~~
Minimum - Maximum	29 - 42
Control test value ± U	32.8 ± 2.85

Unit	µg/l
Assigned value ± U (k=2)	34.3 ± 1.03
Criterion	2.91 (8.5 %)
Minimum - Maximum	29 - 42
Control test value ± U (k=2)	32.8 ± 2.85

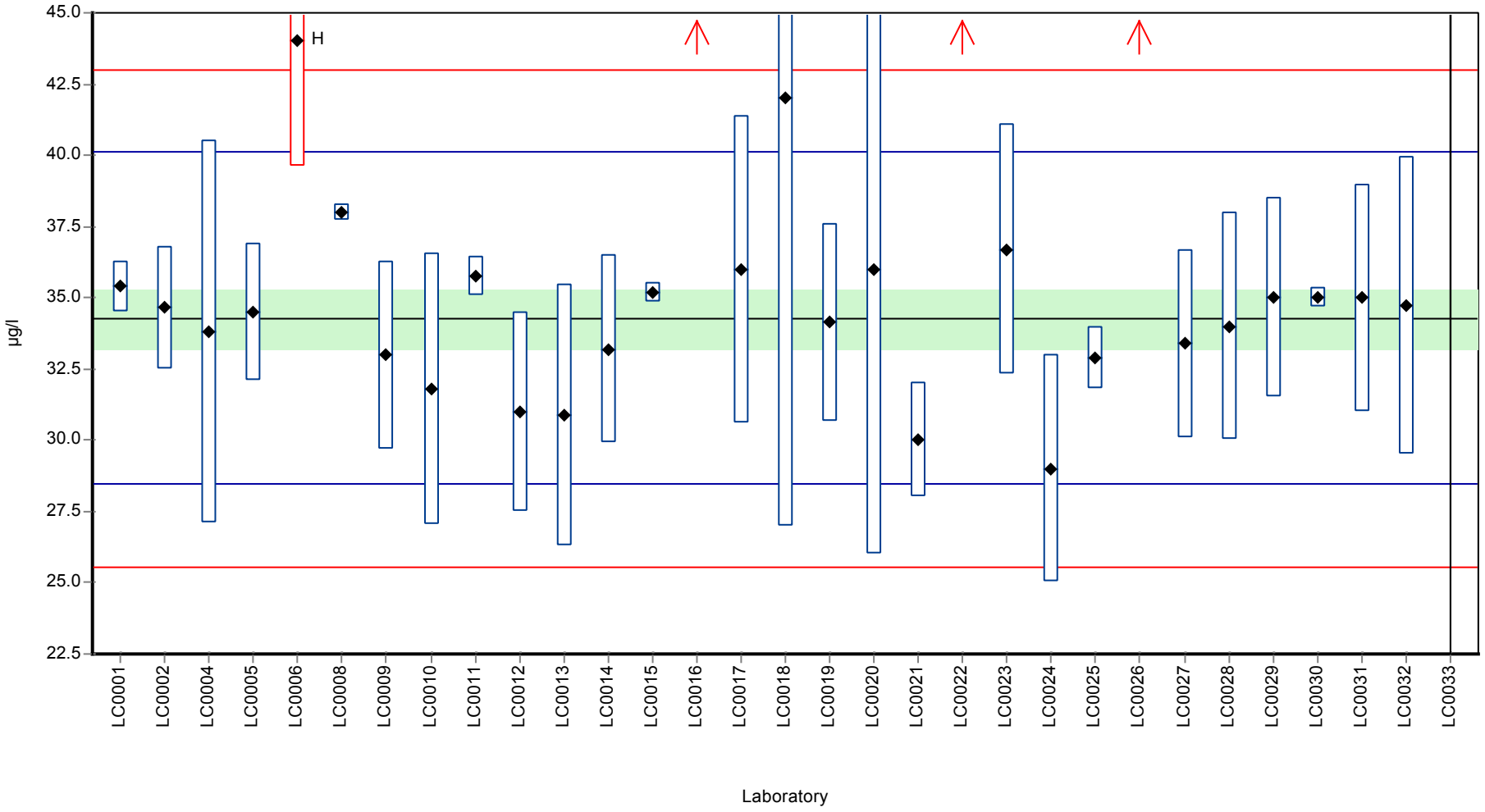
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	35.392	0.88	103	0.38	
LC0002	34.66	2.16	101	0.13	
LC0003	-	-	-	-	
LC0004	33.8	6.7	98.6	-0.16	
LC0005	34.5	2.4	101	0.08	
LC0006	44	4.4	128	3.34	H
LC0007	-	-	-	-	
LC0008	38	0.3	111	1.28	
LC0009	33	3.3	96.3	-0.44	
LC0010	31.82	4.77	92.8	-0.84	
LC0011	35.76	0.67	104	0.51	
LC0012	31	3.5	90.5	-1.12	
LC0013	30.9	4.6	90.2	-1.16	
LC0014	33.2	3.32	96.9	-0.37	
LC0015	35.2	0.34	103	0.32	
LC0016	188	20	549	52.8	H
LC0017	36	5.4	105	0.59	
LC0018	42	15	123	2.65	
LC0019	34.142	3.48	99.6	-0.04	
LC0020	36	10	105	0.59	
LC0021	30	2	87.5	-1.47	
LC0022	49	1	143	5.06	H
LC0023	36.7	4.407	107	0.83	
LC0024	29	4	84.6	-1.81	
LC0025	32.9	1.1	96	-0.47	
LC0026	65.914	0.028	192	10.9	H
LC0027	33.4	3.3	97.5	-0.3	
LC0028	34	4	99.2	-0.09	
LC0029	35	3.5	102	0.25	
LC0030	35	0.351	102	0.25	
LC0031	35	4	102	0.25	
LC0032	34.72	5.208	101	0.15	
LC0033	< 500 (LOQ)	-	-	-	

Characteristics of parameter

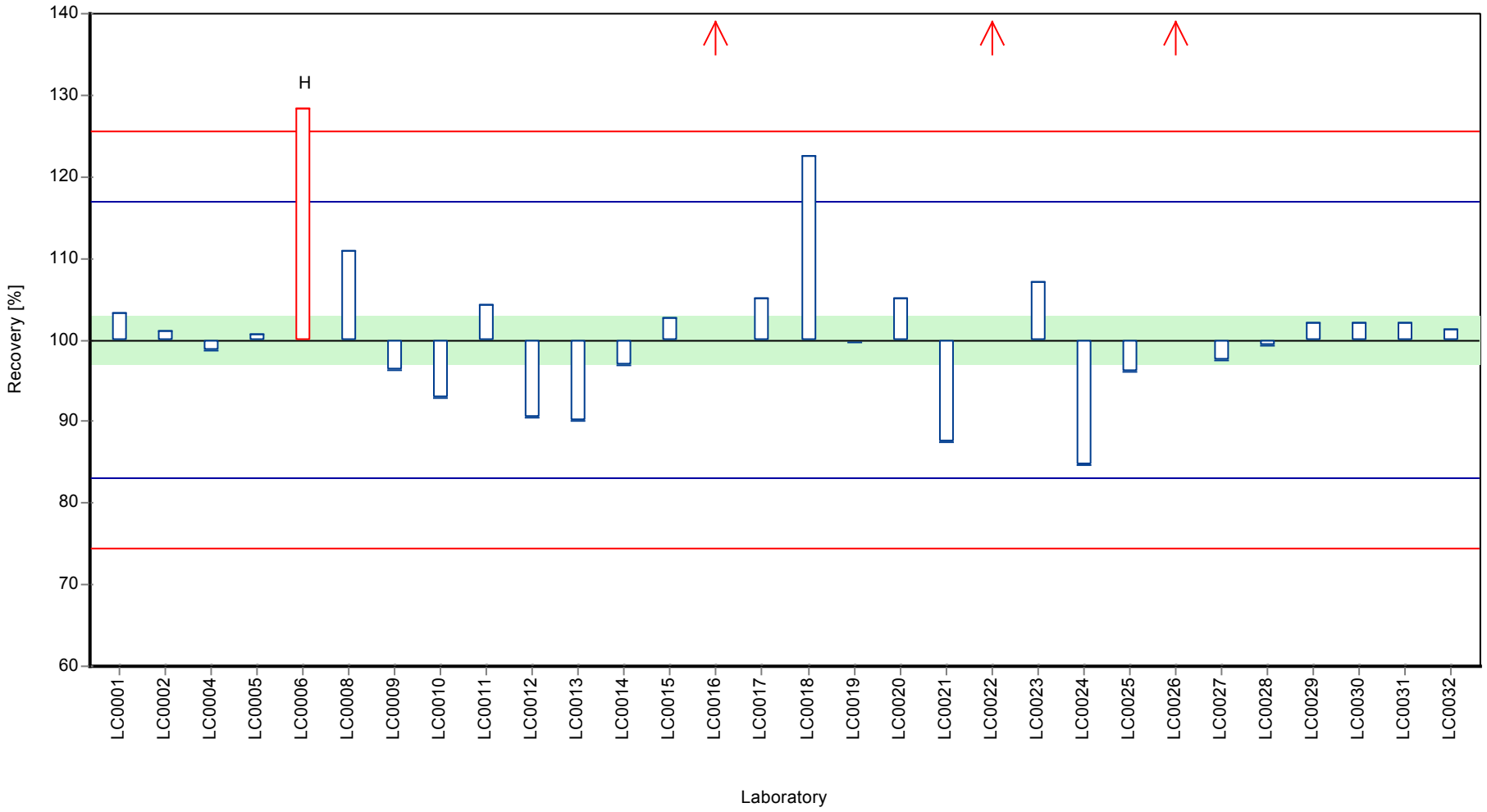
	all results	without outliers	Unit
Mean ± CI (99%)	41.3 ± 15.6	34.3 ± 1.54	µg/l
Minimum	29	29	µg/l
Maximum	188	42	µg/l
Standard deviation	28.6	2.62	µg/l
rel. standard deviation	69.2	7.65	%
n	30	26	-

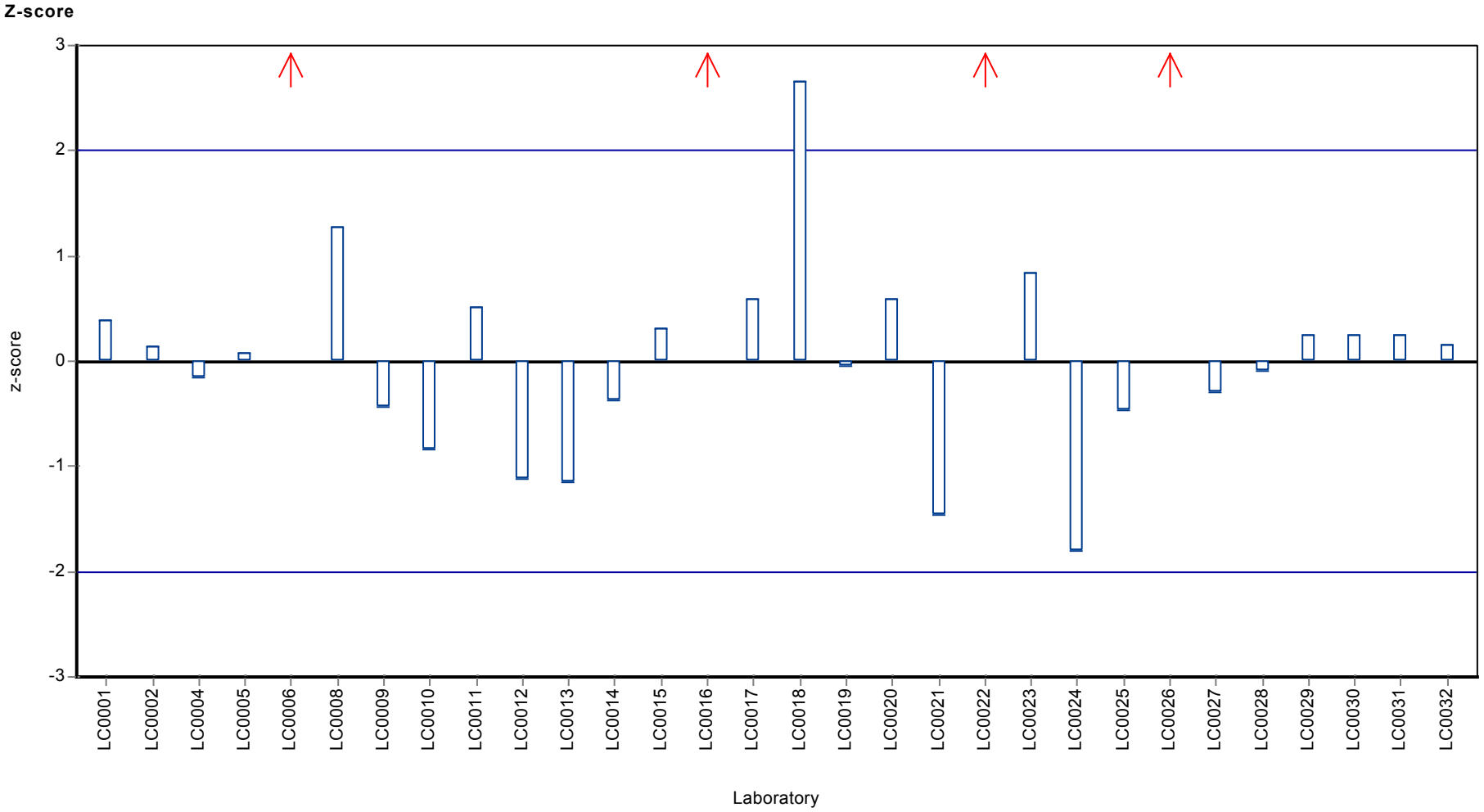
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

Parameter oriented report

M145 B

Zinc

Unit	µg/l
~~Assigned value ± U (k=2)~~	~~15.8 ± 2.04~~
Minimum - Maximum	12.3 - 21
Control test value ± U	13.8 ± 1.32

Unit	µg/l
Assigned value ± U (k=2)	15.8 ± 0.77
Criterion	2.04 (13 %)
Minimum - Maximum	12.3 - 21
Control test value ± U (k=2)	13.8 ± 1.32

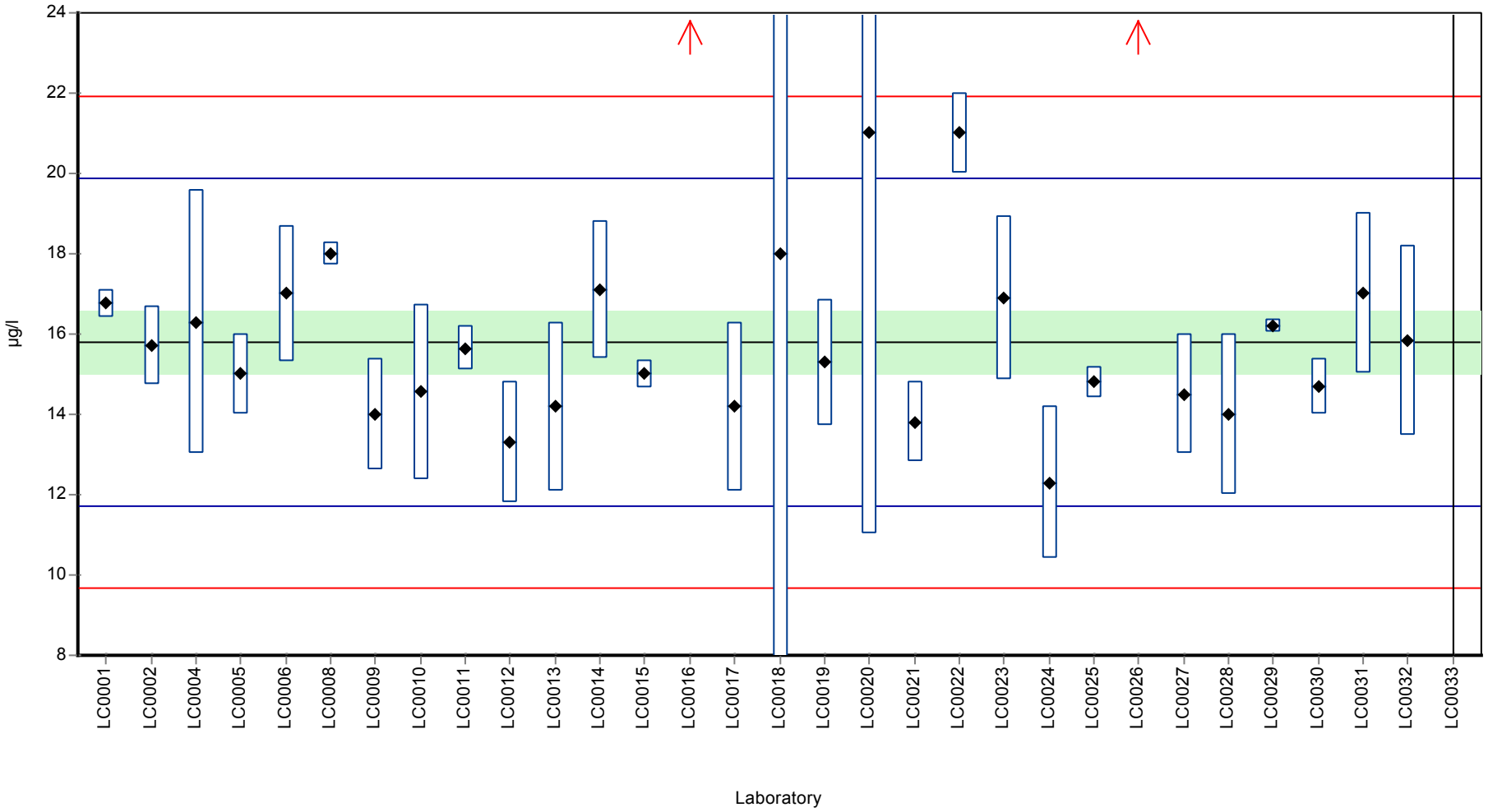
Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	16.764	0.352	106	0.48	
LC0002	15.73	0.982	99.6	-0.03	
LC0003	-	-	-	-	
LC0004	16.3	3.3	103	0.25	
LC0005	15	1	95	-0.39	
LC0006	17	1.7	108	0.59	
LC0007	-	-	-	-	
LC0008	18	0.3	114	1.08	
LC0009	14	1.4	88.7	-0.88	
LC0010	14.56	2.18	92.2	-0.6	
LC0011	15.65	0.56	99.1	-0.07	
LC0012	13.3	1.5	84.2	-1.22	
LC0013	14.2	2.1	89.9	-0.78	
LC0014	17.1	1.71	108	0.64	
LC0015	15	0.35	95	-0.39	
LC0016	189	20	1200	85	H
LC0017	14.2	2.1	89.9	-0.78	
LC0018	18	15	114	1.08	
LC0019	15.292	1.56	96.8	-0.24	
LC0020	21	10	133	2.56	
LC0021	13.8	1	87.4	-0.98	
LC0022	21	1	133	2.56	
LC0023	16.9	2.028	107	0.55	
LC0024	12.3	1.9	77.9	-1.71	
LC0025	14.8	0.4	93.7	-0.49	
LC0026	28.673	0.028	182	6.32	H
LC0027	14.5	1.5	91.8	-0.63	
LC0028	14	2	88.7	-0.88	
LC0029	16.2	0.16	103	0.2	
LC0030	14.7	0.702	93.1	-0.54	
LC0031	17	2	108	0.59	
LC0032	15.84	2.376	100	0.02	
LC0033	< 500 (LOQ)	-	-	-	

Characteristics of parameter

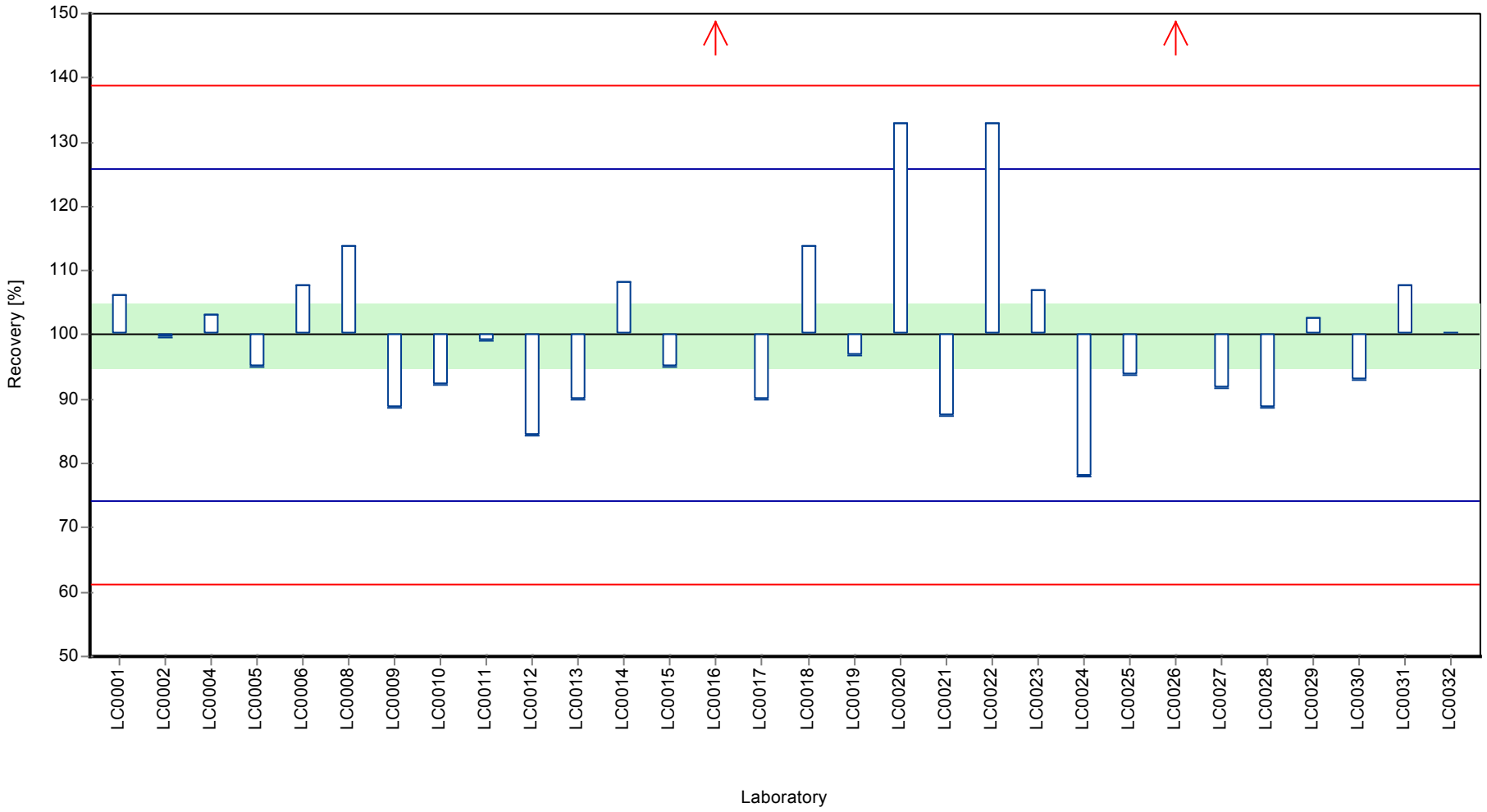
	all results	without outliers	Unit
Mean ± CI (99%)	22 ± 17.4	15.8 ± 1.15	µg/l
Minimum	12.3	12.3	µg/l
Maximum	189	21	µg/l
Standard deviation	31.7	2.04	µg/l
rel. standard deviation	144	12.9	%
n	30	28	-

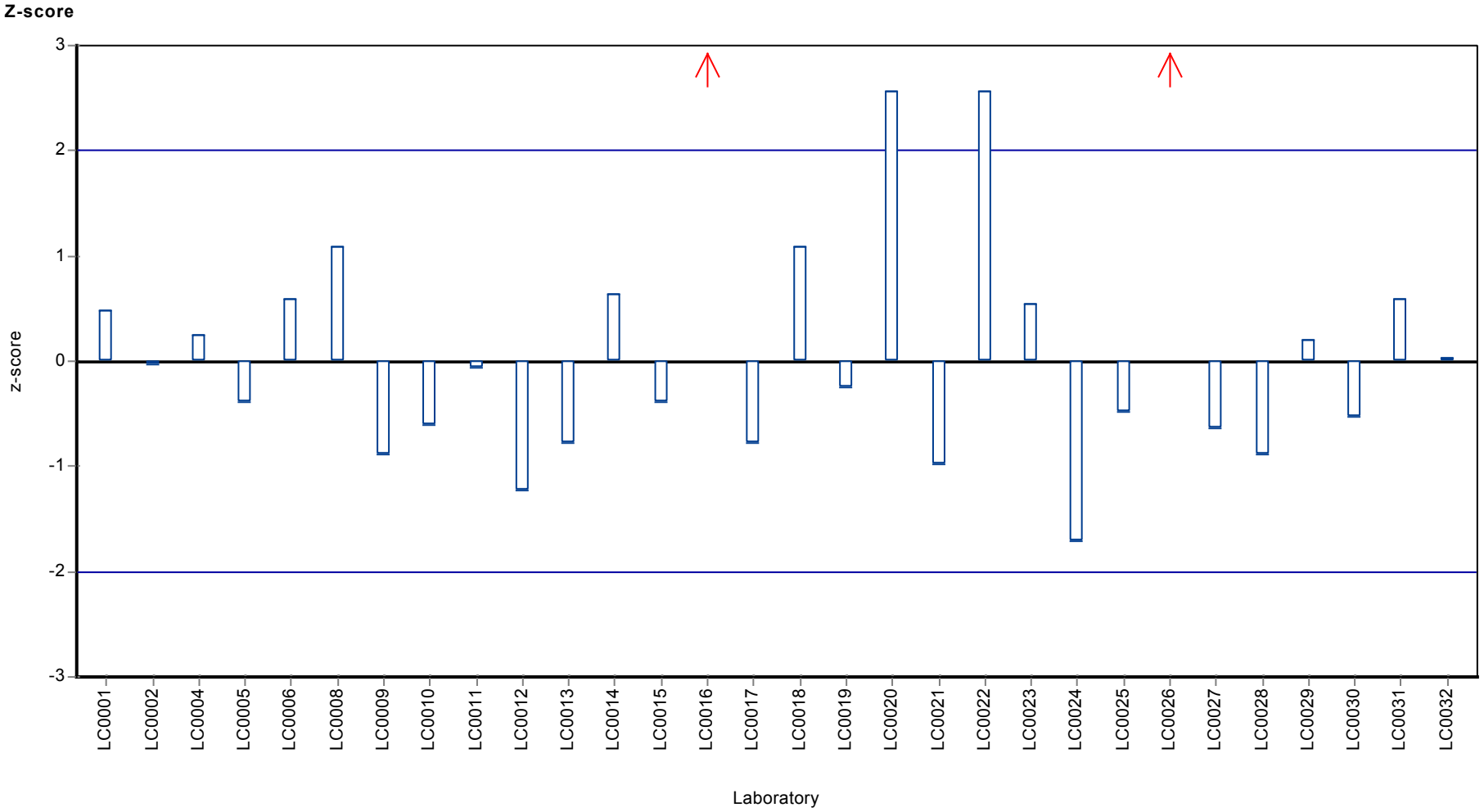
Graphical presentation of results

Results



Recovery rate




Z-score
3
2
1
0
-1
-2
-3
z-score
LC0001
LC0002
LC0004
LC0005
LC0006
LC0008
LC0009
LC0010
LC0011
LC0012
LC0013
LC0014
LC0015
LC0016
LC0017
LC0018
LC0019
LC0020
LC0021
LC0022
LC0023
LC0024
LC0025
LC0026
LC0027
LC0028
LC0029
LC0030
LC0031
LC0032
Laboratory

E8. Labororientierte Auswertung / Laboratory oriented report

Die Labororientierte Auswertung ist nach dem Laborcode sortiert.

The laboratory oriented report is sorted by laboratory code.

Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	3.297 ± 0.048	0.741	78.6	-1.21
Arsenic	µg/l	1.81 ± 0.0355	1.853 ± 0.098	0.271	103	0.17
Lead	µg/l	1.28 ± 0.0432	1.294 ± 0.114	0.191	101	0.09
Cadmium	µg/l	0.109 ± 0.00374	<0.249 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	5.705 ± 0.293	0.569	95.3	-0.50
Iron	µg/l	6.21 ± 0.382	6.388 ± 0.271	0.763	103	0.23
Copper	µg/l	21.3 ± 0.391	21.148 ± 0.391	1.92	99.3	-0.08
Manganese	µg/l	0.979 ± 0.0504	0.928 ± 0.111	0.0873	94.8	-0.59
Nickel	µg/l	1.6 ± 0.0753	1.525 ± 0.164	0.18	95.4	-0.41
Selenium	µg/l	6.61 ± 0.164	6.96 ± 0.333	0.86	105	0.40
Uranium	µg/l	1.94 ± 0.056	1.862 ± 0.042	0.132	96	-0.59
Zinc	µg/l	34.3 ± 1.03	35.392 ± 0.88	2.91	103	0.38

Sample: M145AHG

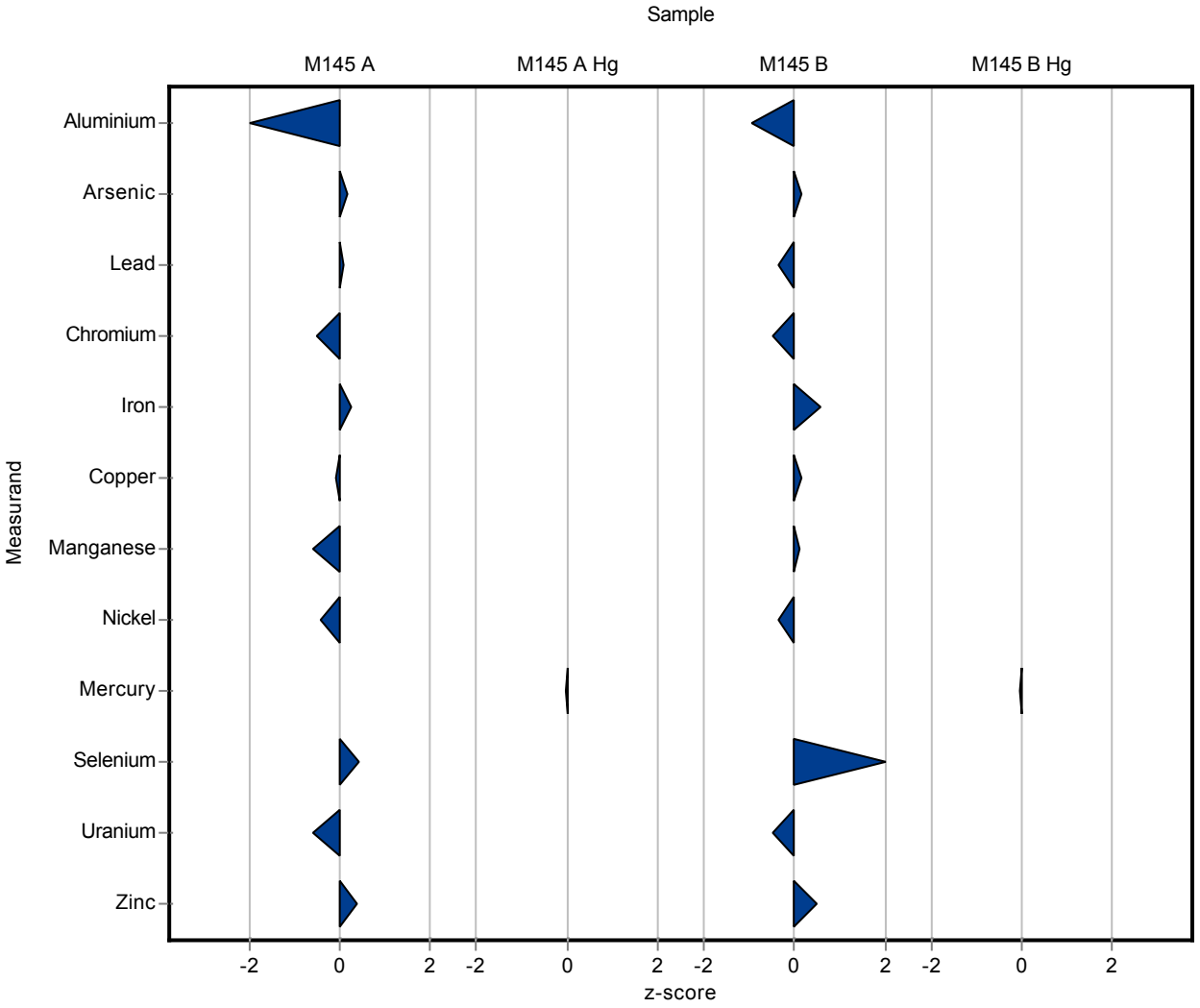
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.47 ± 0.039	0.222	99.3	-0.05

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	7.215 ± 0.357	1.26	85.7	-0.95
Arsenic	µg/l	1.74 ± 0.0532	1.786 ± 0.097	0.261	103	0.17
Lead	µg/l	0.338 ± 0.0276	0.32 ± 0.079	0.0507	94.7	-0.35
Cadmium	µg/l	0.309 ± 0.00659	<0.537 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	2.229 ± 0.062	0.221	95.7	-0.46
Iron	µg/l	14.6 ± 0.471	15.411 ± 0.29	1.46	106	0.57
Copper	µg/l	8.17 ± 0.2	8.28 ± 0.334	0.735	101	0.15
Manganese	µg/l	7.98 ± 0.162	8.049 ± 0.298	0.583	101	0.12
Nickel	µg/l	2.77 ± 0.0721	2.669 ± 0.16	0.277	96.4	-0.36
Selenium	µg/l	1.26 ± 0.0451	1.472 ± 0.151	0.163	117	1.31
Uranium	µg/l	1.3 ± 0.0383	1.253 ± 0.04	0.0899	96.6	-0.49
Zinc	µg/l	15.8 ± 0.77	16.764 ± 0.352	2.04	106	0.48

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.87 ± 0.041	0.282	99.4	-0.04



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	3.297 ± 0.048	0.741	78.6	-2.34
Arsenic	µg/l	1.81 ± 0.0355	1.853 ± 0.098	0.271	103	0.23
Lead	µg/l	1.28 ± 0.0432	1.294 ± 0.114	0.191	101	0.08
Cadmium	µg/l	0.109 ± 0.00374	<0.249 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	5.705 ± 0.293	0.569	95.3	-0.48
Iron	µg/l	6.21 ± 0.382	6.388 ± 0.271	0.763	103	0.27
Copper	µg/l	21.3 ± 0.391	21.148 ± 0.391	1.92	99.3	-0.18
Manganese	µg/l	0.979 ± 0.0504	0.928 ± 0.111	0.0873	94.8	-0.23
Nickel	µg/l	1.6 ± 0.0753	1.525 ± 0.164	0.18	95.4	-0.22
Selenium	µg/l	6.61 ± 0.164	6.96 ± 0.333	0.86	105	0.50
Uranium	µg/l	1.94 ± 0.056	1.862 ± 0.042	0.132	96	-0.77
Zinc	µg/l	34.3 ± 1.03	35.392 ± 0.88	2.91	103	0.55

Sample: M145AHG

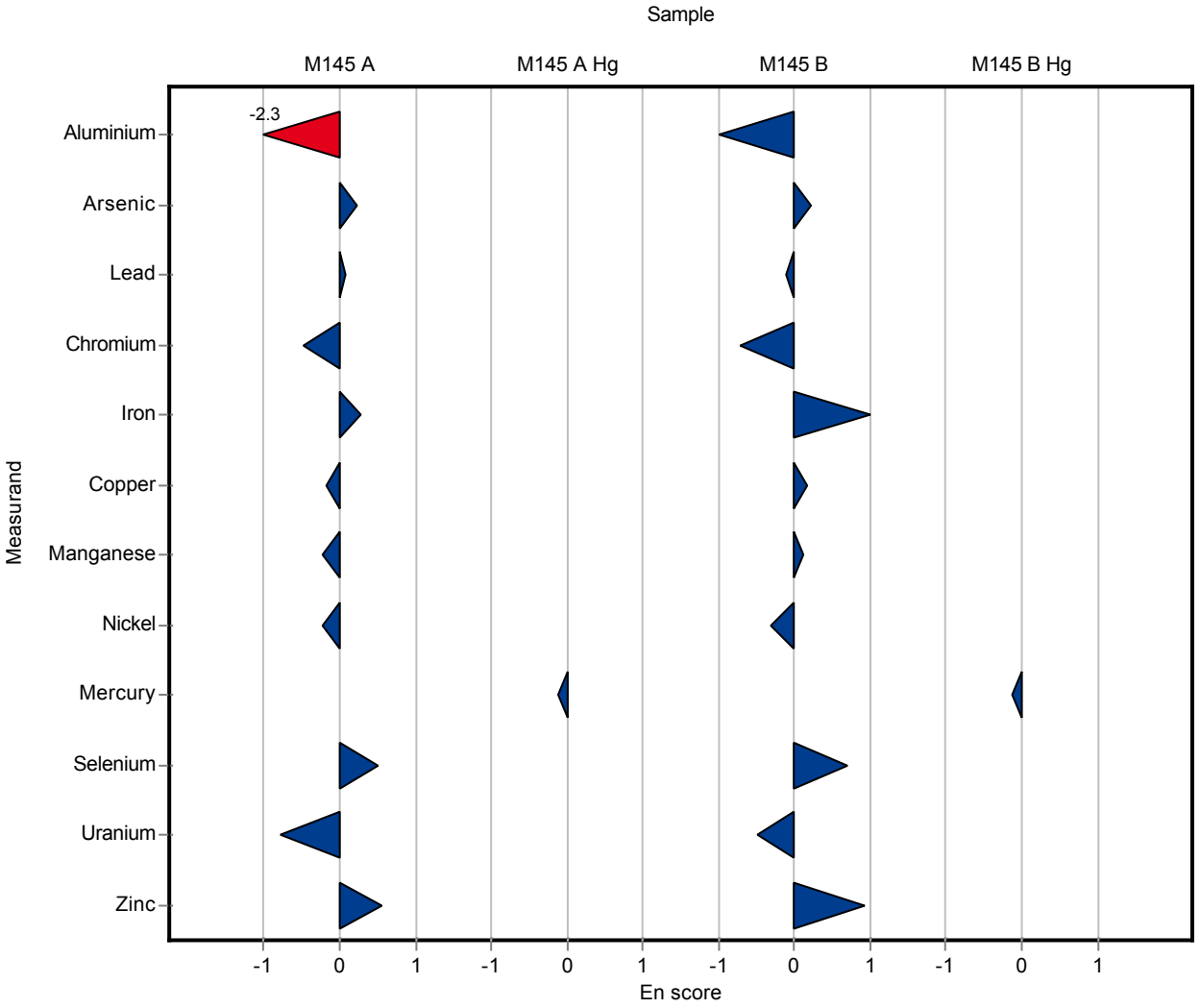
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.47 ± 0.039	0.222	99.3	-0.12

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	7.215 ± 0.357	1.26	85.7	-1.48
Arsenic	µg/l	1.74 ± 0.0532	1.786 ± 0.097	0.261	103	0.22
Lead	µg/l	0.338 ± 0.0276	0.32 ± 0.079	0.0507	94.7	-0.11
Cadmium	µg/l	0.309 ± 0.00659	<0.537 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	2.229 ± 0.062	0.221	95.7	-0.72
Iron	µg/l	14.6 ± 0.471	15.411 ± 0.29	1.46	106	1.12
Copper	µg/l	8.17 ± 0.2	8.28 ± 0.334	0.735	101	0.16
Manganese	µg/l	7.98 ± 0.162	8.049 ± 0.298	0.583	101	0.11
Nickel	µg/l	2.77 ± 0.0721	2.669 ± 0.16	0.277	96.4	-0.30
Selenium	µg/l	1.26 ± 0.0451	1.472 ± 0.151	0.163	117	0.70
Uranium	µg/l	1.3 ± 0.0383	1.253 ± 0.04	0.0899	96.6	-0.49
Zinc	µg/l	15.8 ± 0.77	16.764 ± 0.352	2.04	106	0.93

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.87 ± 0.041	0.282	99.4	-0.12



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.75 ± 0.098	0.271	96.8	-0.21
Lead	µg/l	1.28 ± 0.0432	1.277 ± 0.135	0.191	100	0.00
Cadmium	µg/l	0.109 ± 0.00374	0.1147 ± 0.0053	0.012	105	0.47
Chromium	µg/l	5.99 ± 0.105	6.013 ± 0.848	0.569	100	0.04
Iron	µg/l	6.21 ± 0.382	5.447 ± 0.605	0.763	87.7	-1.00
Copper	µg/l	21.3 ± 0.391	21.28 ± 1.16	1.92	99.9	-0.01
Manganese	µg/l	0.979 ± 0.0504	<5 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.537 ± 0.118	0.18	96.2	-0.34
Selenium	µg/l	6.61 ± 0.164	6.643 ± 0.797	0.86	100	0.03
Uranium	µg/l	1.94 ± 0.056	1.9 ± 0.2	0.132	97.9	-0.30
Zinc	µg/l	34.3 ± 1.03	34.66 ± 2.16	2.91	101	0.13

Sample: M145AHG

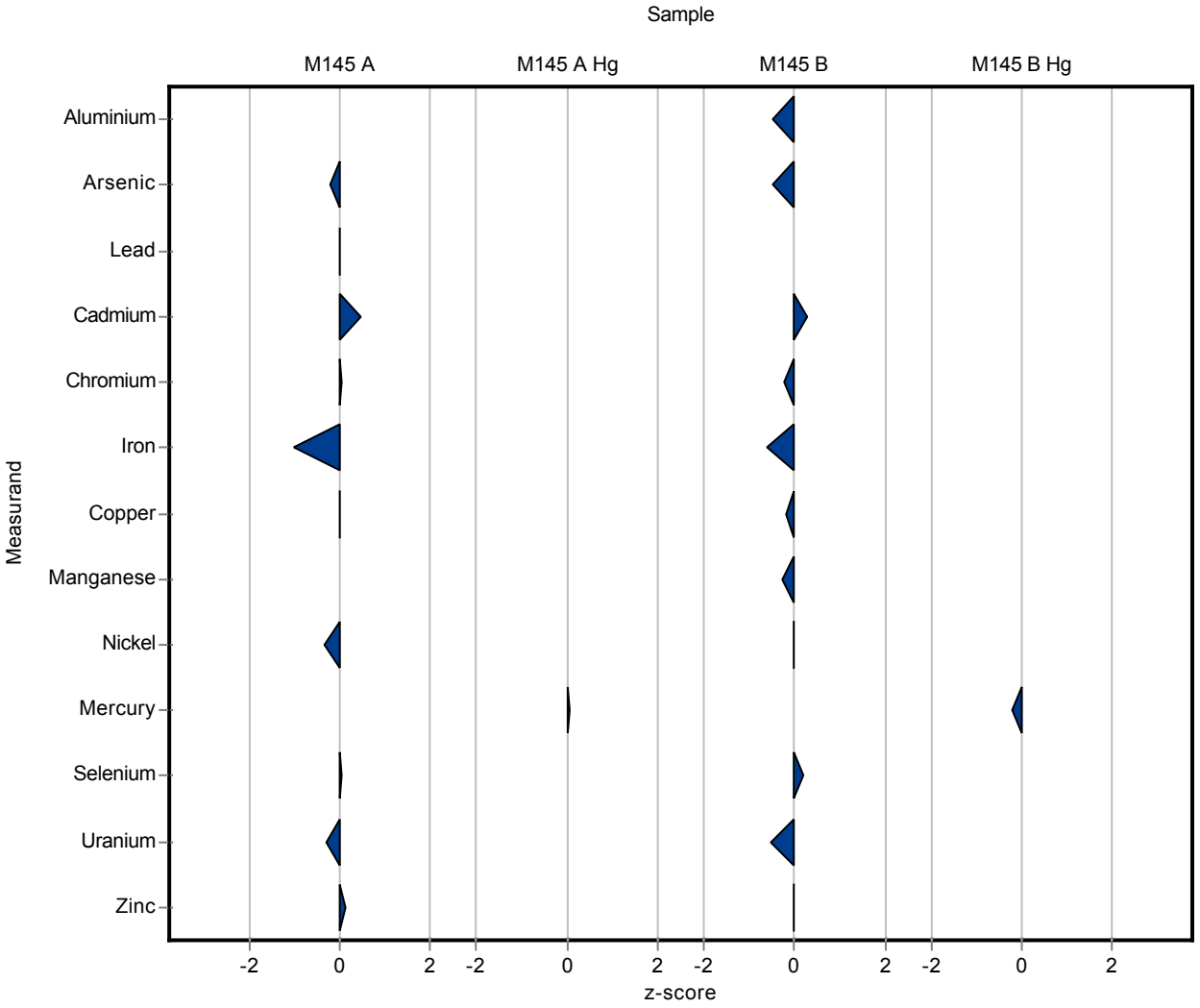
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.496 ± 0.232	0.222	101	0.07

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	7.807 ± 0.867	1.26	92.8	-0.48
Arsenic	µg/l	1.74 ± 0.0532	1.617 ± 0.091	0.261	92.8	-0.48
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3187 ± 0.0149	0.034	103	0.29
Chromium	µg/l	2.33 ± 0.0667	2.28 ± 0.321	0.221	97.8	-0.23
Iron	µg/l	14.6 ± 0.471	13.67 ± 1.52	1.46	93.8	-0.62
Copper	µg/l	8.17 ± 0.2	8.04 ± 0.439	0.735	98.5	-0.17
Manganese	µg/l	7.98 ± 0.162	7.827 ± 0.427	0.583	98.1	-0.27
Nickel	µg/l	2.77 ± 0.0721	2.767 ± 0.212	0.277	99.9	-0.01
Selenium	µg/l	1.26 ± 0.0451	1.293 ± 0.155	0.163	103	0.22
Uranium	µg/l	1.3 ± 0.0383	1.25 ± 0.133	0.0899	96.4	-0.52
Zinc	µg/l	15.8 ± 0.77	15.73 ± 0.982	2.04	99.6	-0.03

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.826 ± 0.283	0.282	97	-0.20



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.75 ± 0.098	0.271	96.8	-0.29
Lead	µg/l	1.28 ± 0.0432	1.277 ± 0.135	0.191	100	0.00
Cadmium	µg/l	0.109 ± 0.00374	0.1147 ± 0.0053	0.012	105	0.51
Chromium	µg/l	5.99 ± 0.105	6.013 ± 0.848	0.569	100	0.01
Iron	µg/l	6.21 ± 0.382	5.447 ± 0.605	0.763	87.7	-0.60
Copper	µg/l	21.3 ± 0.391	21.28 ± 1.16	1.92	99.9	-0.01
Manganese	µg/l	0.979 ± 0.0504	<5 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.537 ± 0.118	0.18	96.2	-0.25
Selenium	µg/l	6.61 ± 0.164	6.643 ± 0.797	0.86	100	0.02
Uranium	µg/l	1.94 ± 0.056	1.9 ± 0.2	0.132	97.9	-0.10
Zinc	µg/l	34.3 ± 1.03	34.66 ± 2.16	2.91	101	0.09

Sample: M145AHG

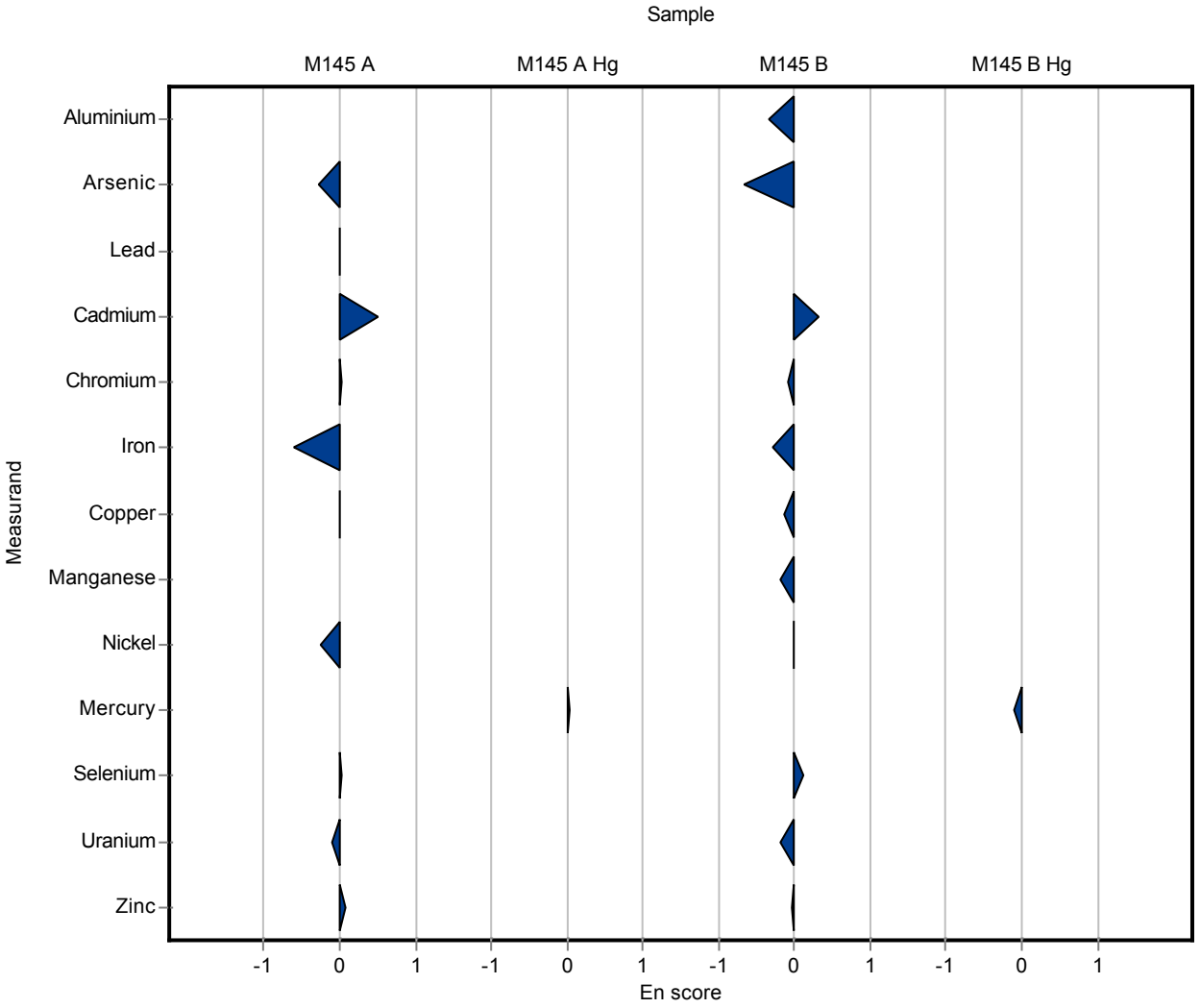
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.496 ± 0.232	0.222	101	0.03

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	7.807 ± 0.867	1.26	92.8	-0.34
Arsenic	µg/l	1.74 ± 0.0532	1.617 ± 0.091	0.261	92.8	-0.66
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3187 ± 0.0149	0.034	103	0.33
Chromium	µg/l	2.33 ± 0.0667	2.28 ± 0.321	0.221	97.8	-0.08
Iron	µg/l	14.6 ± 0.471	13.67 ± 1.52	1.46	93.8	-0.29
Copper	µg/l	8.17 ± 0.2	8.04 ± 0.439	0.735	98.5	-0.14
Manganese	µg/l	7.98 ± 0.162	7.827 ± 0.427	0.583	98.1	-0.18
Nickel	µg/l	2.77 ± 0.0721	2.767 ± 0.212	0.277	99.9	0.00
Selenium	µg/l	1.26 ± 0.0451	1.293 ± 0.155	0.163	103	0.11
Uranium	µg/l	1.3 ± 0.0383	1.25 ± 0.133	0.0899	96.4	-0.17
Zinc	µg/l	15.8 ± 0.77	15.73 ± 0.982	2.04	99.6	-0.03

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.826 ± 0.283	0.282	97	-0.10



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	- ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	- ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	- ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	- ± -	0.569	-	-
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	- ± -	1.92	-	-
Manganese	µg/l	0.979 ± 0.0504	<10 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	- ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	- ± -	2.91	-	-

Sample: M145AHG

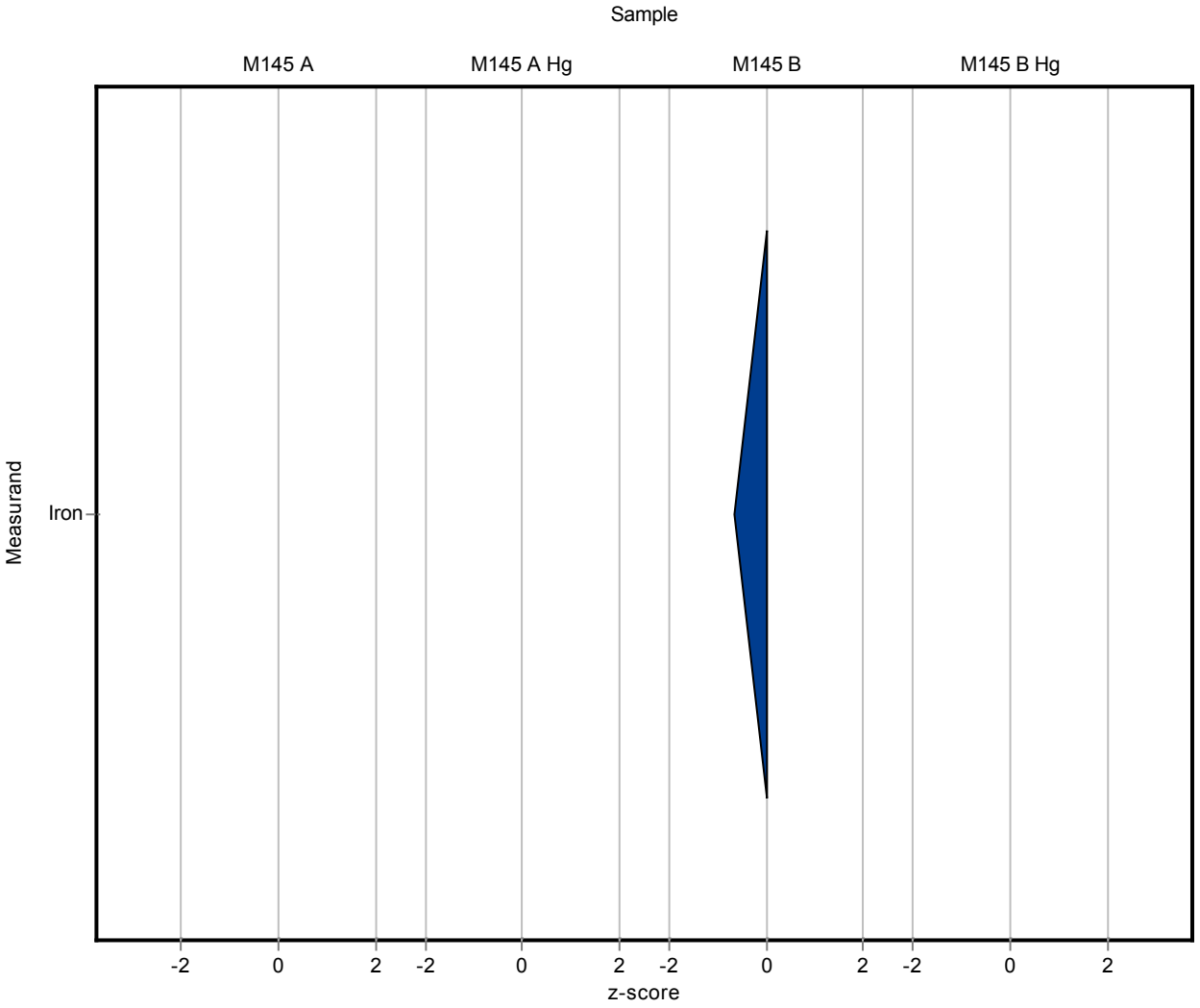
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	- ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	- ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	- ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	- ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	- ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	13.6 ± 2	1.46	93.3	-0.67
Copper	µg/l	8.17 ± 0.2	- ± -	0.735	-	-
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	- ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	- ± -	2.04	-	-

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	- ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	- ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	- ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	- ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	- ± -	0.569	-	-
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	- ± -	1.92	-	-
Manganese	µg/l	0.979 ± 0.0504	<10 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	- ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	- ± -	2.91	-	-

Sample: M145AHG

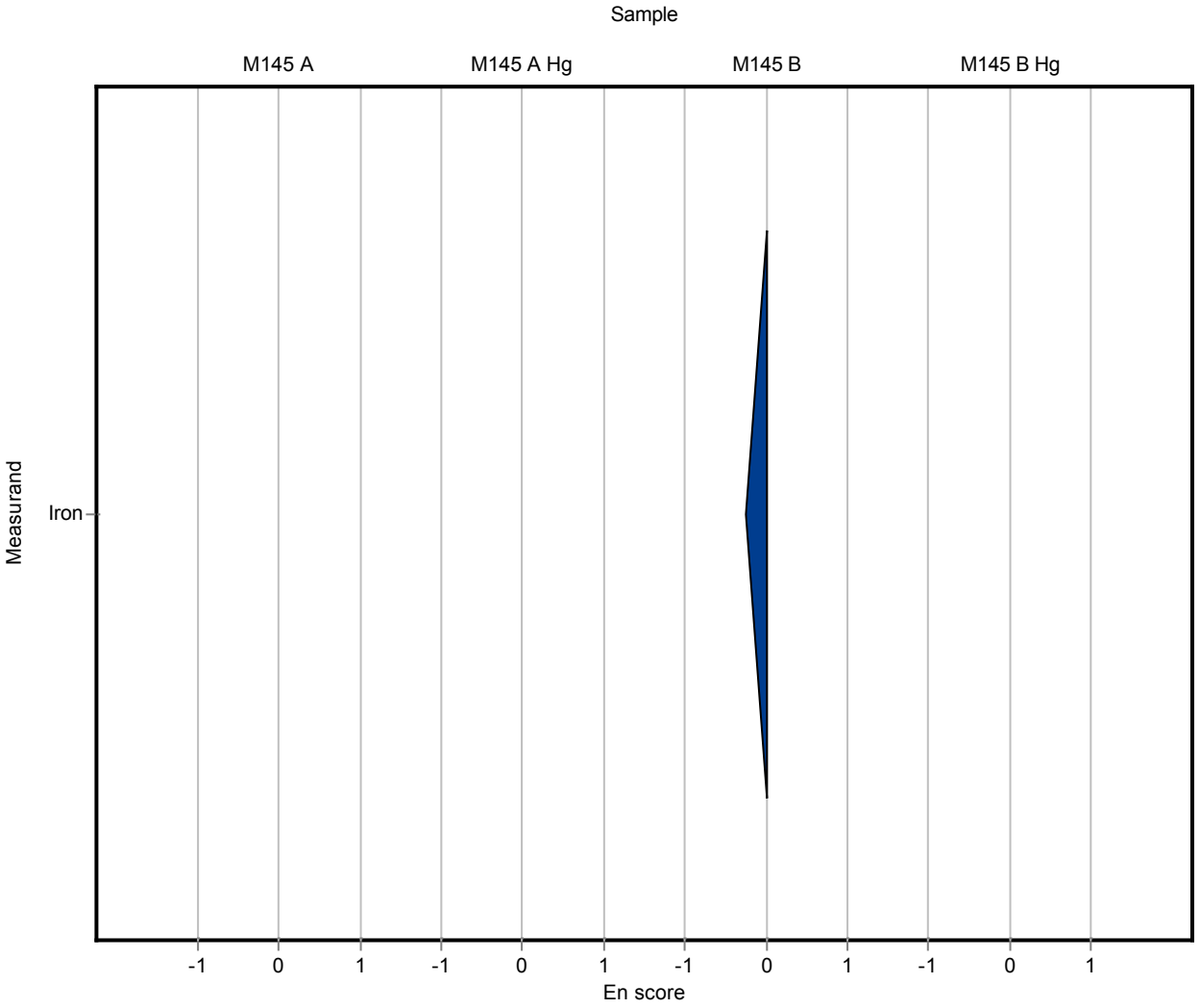
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	- ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	- ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	- ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	- ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	- ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	13.6 ± 2	1.46	93.3	-0.24
Copper	µg/l	8.17 ± 0.2	- ± -	0.735	-	-
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	- ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	- ± -	2.04	-	-

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	- ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	3.37 ± 0.67	0.741	80.4	-1.11
Arsenic	µg/l	1.81 ± 0.0355	1.74 ± 0.35	0.271	96.3	-0.25
Lead	µg/l	1.28 ± 0.0432	1.31 ± 0.26	0.191	103	0.18
Cadmium	µg/l	0.109 ± 0.00374	0.114 ± 0.022	0.012	105	0.42
Chromium	µg/l	5.99 ± 0.105	5.84 ± 1.17	0.569	97.5	-0.26
Iron	µg/l	6.21 ± 0.382	6.05 ± 1.21	0.763	97.4	-0.21
Copper	µg/l	21.3 ± 0.391	21 ± 4.2	1.92	98.6	-0.16
Manganese	µg/l	0.979 ± 0.0504	0.931 ± 0.186	0.0873	95.1	-0.55
Nickel	µg/l	1.6 ± 0.0753	1.53 ± 0.31	0.18	95.7	-0.38
Selenium	µg/l	6.61 ± 0.164	6.22 ± 1.24	0.86	94	-0.46
Uranium	µg/l	1.94 ± 0.056	1.94 ± 0.39	0.132	100	0.00
Zinc	µg/l	34.3 ± 1.03	33.8 ± 6.7	2.91	98.6	-0.16

Sample: M145AHG

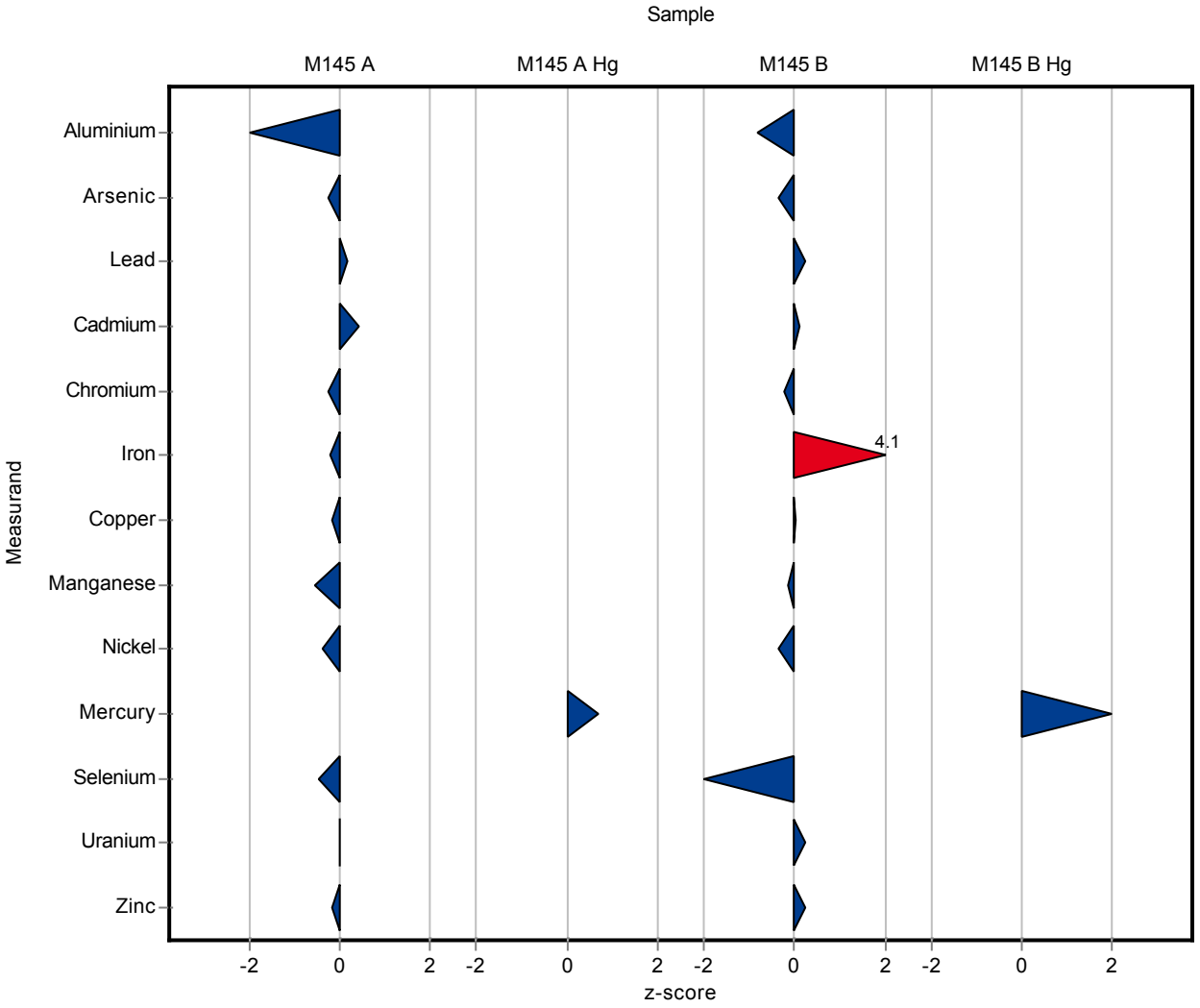
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.63 ± 0.33	0.222	110	0.67

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	7.4 ± 1.5	1.26	87.9	-0.81
Arsenic	µg/l	1.74 ± 0.0532	1.65 ± 0.33	0.261	94.7	-0.35
Lead	µg/l	0.338 ± 0.0276	0.351 ± 0.07	0.0507	104	0.26
Cadmium	µg/l	0.309 ± 0.00659	0.313 ± 0.063	0.034	101	0.13
Chromium	µg/l	2.33 ± 0.0667	2.28 ± 0.46	0.221	97.8	-0.23
Iron	µg/l	14.6 ± 0.471	20.5 ± 4.1	1.46	141	4.07
Copper	µg/l	8.17 ± 0.2	8.18 ± 1.64	0.735	100	0.02
Manganese	µg/l	7.98 ± 0.162	7.9 ± 1.58	0.583	99	-0.14
Nickel	µg/l	2.77 ± 0.0721	2.67 ± 0.53	0.277	96.4	-0.36
Selenium	µg/l	1.26 ± 0.0451	1.09 ± 0.22	0.163	86.7	-1.02
Uranium	µg/l	1.3 ± 0.0383	1.32 ± 0.26	0.0899	102	0.26
Zinc	µg/l	15.8 ± 0.77	16.3 ± 3.3	2.04	103	0.25

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	2.2 ± 0.44	0.282	117	1.13



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	3.37 ± 0.67	0.741	80.4	-0.59
Arsenic	µg/l	1.81 ± 0.0355	1.74 ± 0.35	0.271	96.3	-0.10
Lead	µg/l	1.28 ± 0.0432	1.31 ± 0.26	0.191	103	0.06
Cadmium	µg/l	0.109 ± 0.00374	0.114 ± 0.022	0.012	105	0.11
Chromium	µg/l	5.99 ± 0.105	5.84 ± 1.17	0.569	97.5	-0.06
Iron	µg/l	6.21 ± 0.382	6.05 ± 1.21	0.763	97.4	-0.06
Copper	µg/l	21.3 ± 0.391	21 ± 4.2	1.92	98.6	-0.04
Manganese	µg/l	0.979 ± 0.0504	0.931 ± 0.186	0.0873	95.1	-0.13
Nickel	µg/l	1.6 ± 0.0753	1.53 ± 0.31	0.18	95.7	-0.11
Selenium	µg/l	6.61 ± 0.164	6.22 ± 1.24	0.86	94	-0.16
Uranium	µg/l	1.94 ± 0.056	1.94 ± 0.39	0.132	100	0.00
Zinc	µg/l	34.3 ± 1.03	33.8 ± 6.7	2.91	98.6	-0.04

Sample: M145AHG

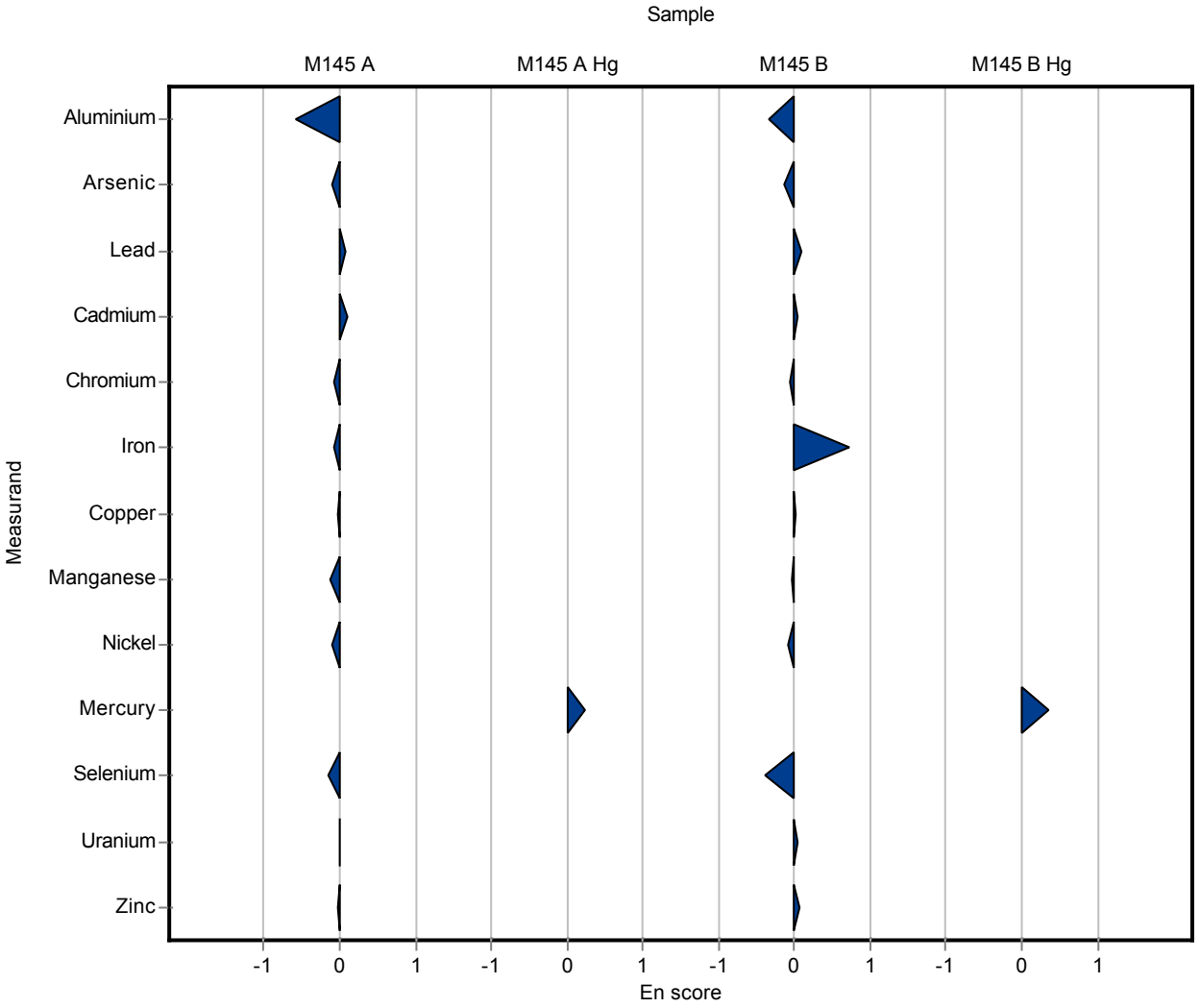
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.63 ± 0.33	0.222	110	0.23

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	7.4 ± 1.5	1.26	87.9	-0.34
Arsenic	µg/l	1.74 ± 0.0532	1.65 ± 0.33	0.261	94.7	-0.14
Lead	µg/l	0.338 ± 0.0276	0.351 ± 0.07	0.0507	104	0.09
Cadmium	µg/l	0.309 ± 0.00659	0.313 ± 0.063	0.034	101	0.03
Chromium	µg/l	2.33 ± 0.0667	2.28 ± 0.46	0.221	97.8	-0.05
Iron	µg/l	14.6 ± 0.471	20.5 ± 4.1	1.46	141	0.72
Copper	µg/l	8.17 ± 0.2	8.18 ± 1.64	0.735	100	0.00
Manganese	µg/l	7.98 ± 0.162	7.9 ± 1.58	0.583	99	-0.03
Nickel	µg/l	2.77 ± 0.0721	2.67 ± 0.53	0.277	96.4	-0.09
Selenium	µg/l	1.26 ± 0.0451	1.09 ± 0.22	0.163	86.7	-0.38
Uranium	µg/l	1.3 ± 0.0383	1.32 ± 0.26	0.0899	102	0.04
Zinc	µg/l	15.8 ± 0.77	16.3 ± 3.3	2.04	103	0.08

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	2.2 ± 0.44	0.282	117	0.36



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	4.13 ± 0.29	0.741	98.5	-0.08
Arsenic	µg/l	1.81 ± 0.0355	1.83 ± 0.13	0.271	101	0.08
Lead	µg/l	1.28 ± 0.0432	1.29 ± 0.09	0.191	101	0.07
Cadmium	µg/l	0.109 ± 0.00374	0.105 ± 0.007	0.012	96.3	-0.34
Chromium	µg/l	5.99 ± 0.105	6.11 ± 0.43	0.569	102	0.21
Iron	µg/l	6.21 ± 0.382	6.56 ± 0.46	0.763	106	0.46
Copper	µg/l	21.3 ± 0.391	20.7 ± 1.4	1.92	97.2	-0.31
Manganese	µg/l	0.979 ± 0.0504	0.95 ± 0.1	0.0873	97	-0.33
Nickel	µg/l	1.6 ± 0.0753	1.62 ± 0.11	0.18	101	0.12
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	1.82 ± 0.13	0.132	93.8	-0.91
Zinc	µg/l	34.3 ± 1.03	34.5 ± 2.4	2.91	101	0.08

Sample: M145AHG

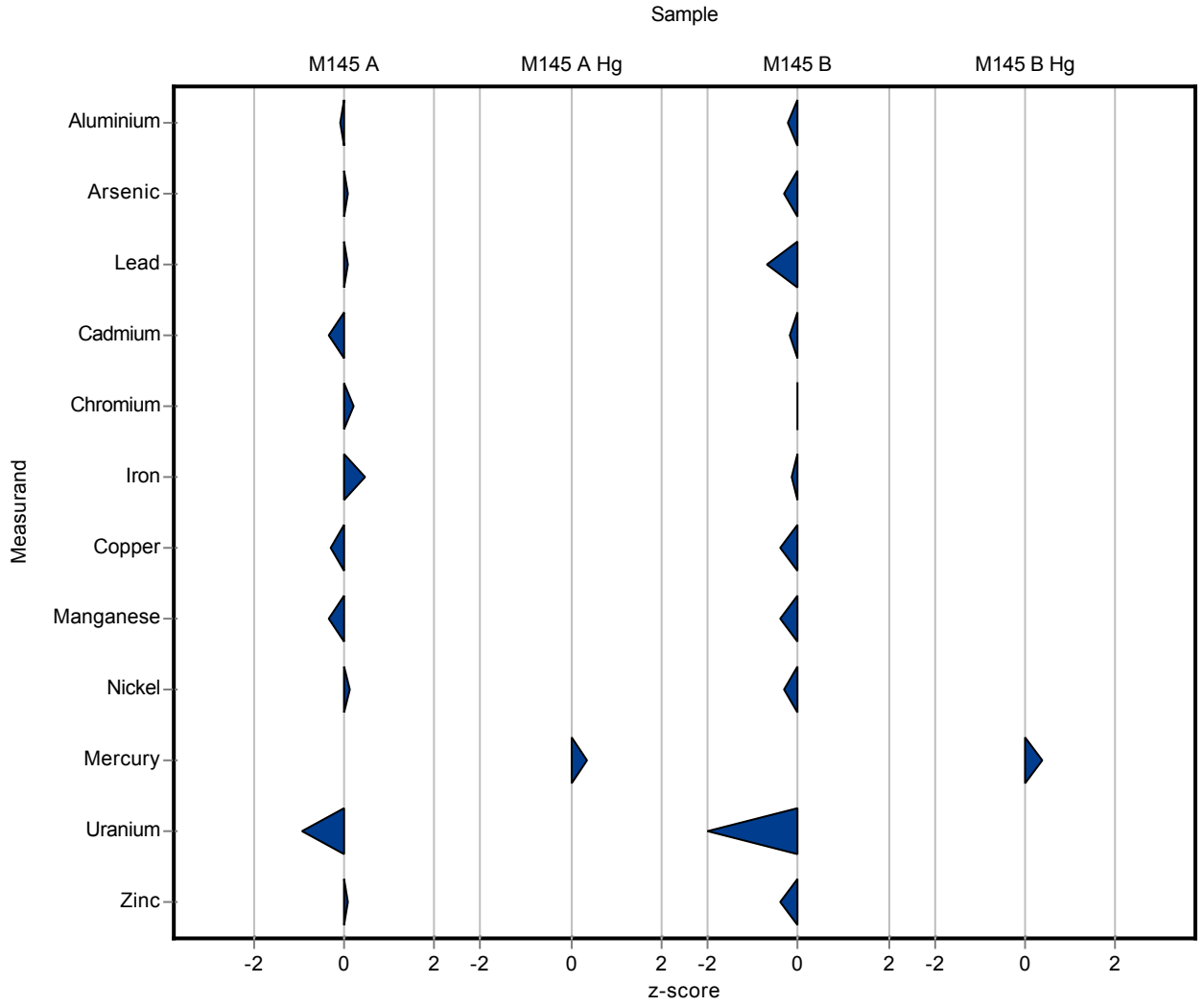
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.56 ± 0.16	0.222	105	0.36

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8.11 ± 0.57	1.26	96.4	-0.24
Arsenic	µg/l	1.74 ± 0.0532	1.66 ± 0.12	0.261	95.3	-0.31
Lead	µg/l	0.338 ± 0.0276	0.304 ± 0.021	0.0507	89.9	-0.67
Cadmium	µg/l	0.309 ± 0.00659	0.303 ± 0.021	0.034	98.2	-0.17
Chromium	µg/l	2.33 ± 0.0667	2.33 ± 0.16	0.221	100	0.00
Iron	µg/l	14.6 ± 0.471	14.4 ± 1	1.46	98.8	-0.12
Copper	µg/l	8.17 ± 0.2	7.88 ± 0.55	0.735	96.5	-0.39
Manganese	µg/l	7.98 ± 0.162	7.75 ± 0.54	0.583	97.1	-0.40
Nickel	µg/l	2.77 ± 0.0721	2.68 ± 0.19	0.277	96.8	-0.32
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	1.19 ± 0.08	0.0899	91.8	-1.19
Zinc	µg/l	15.8 ± 0.77	15 ± 1	2.04	95	-0.39

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.99 ± 0.2	0.282	106	0.38



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	4.13 ± 0.29	0.741	98.5	-0.09
Arsenic	µg/l	1.81 ± 0.0355	1.83 ± 0.13	0.271	101	0.09
Lead	µg/l	1.28 ± 0.0432	1.29 ± 0.09	0.191	101	0.07
Cadmium	µg/l	0.109 ± 0.00374	0.105 ± 0.007	0.012	96.3	-0.28
Chromium	µg/l	5.99 ± 0.105	6.11 ± 0.43	0.569	102	0.14
Iron	µg/l	6.21 ± 0.382	6.56 ± 0.46	0.763	106	0.35
Copper	µg/l	21.3 ± 0.391	20.7 ± 1.4	1.92	97.2	-0.21
Manganese	µg/l	0.979 ± 0.0504	0.95 ± 0.1	0.0873	97	-0.14
Nickel	µg/l	1.6 ± 0.0753	1.62 ± 0.11	0.18	101	0.09
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	1.82 ± 0.13	0.132	93.8	-0.45
Zinc	µg/l	34.3 ± 1.03	34.5 ± 2.4	2.91	101	0.05

Sample: M145AHG

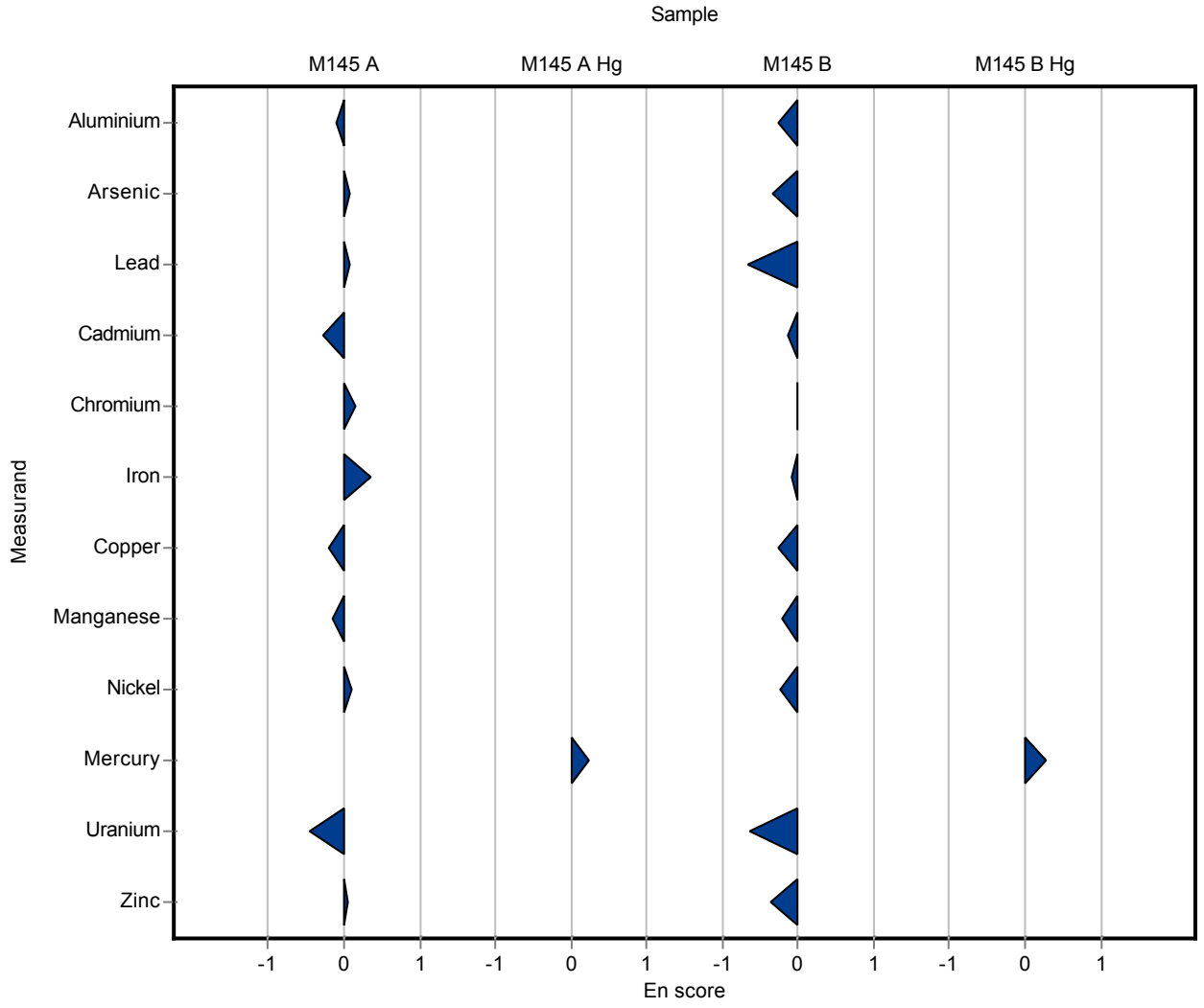
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.56 ± 0.16	0.222	105	0.24

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8.11 ± 0.57	1.26	96.4	-0.25
Arsenic	µg/l	1.74 ± 0.0532	1.66 ± 0.12	0.261	95.3	-0.33
Lead	µg/l	0.338 ± 0.0276	0.304 ± 0.021	0.0507	89.9	-0.68
Cadmium	µg/l	0.309 ± 0.00659	0.303 ± 0.021	0.034	98.2	-0.13
Chromium	µg/l	2.33 ± 0.0667	2.33 ± 0.16	0.221	100	0.00
Iron	µg/l	14.6 ± 0.471	14.4 ± 1	1.46	98.8	-0.08
Copper	µg/l	8.17 ± 0.2	7.88 ± 0.55	0.735	96.5	-0.26
Manganese	µg/l	7.98 ± 0.162	7.75 ± 0.54	0.583	97.1	-0.21
Nickel	µg/l	2.77 ± 0.0721	2.68 ± 0.19	0.277	96.8	-0.23
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	1.19 ± 0.08	0.0899	91.8	-0.65
Zinc	µg/l	15.8 ± 0.77	15 ± 1	2.04	95	-0.37

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.99 ± 0.2	0.282	106	0.27



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	6 ± 0.6	0.741	143	2.44
Arsenic	µg/l	1.81 ± 0.0355	1.8 ± 0.216	0.271	99.6	-0.03
Lead	µg/l	1.28 ± 0.0432	1.3 ± 0.104	0.191	102	0.13
Cadmium	µg/l	0.109 ± 0.00374	0.1 ± 0.008	0.012	91.7	-0.75
Chromium	µg/l	5.99 ± 0.105	6.2 ± 0.744	0.569	104	0.37
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	22 ± 1.76	1.92	103	0.36
Manganese	µg/l	0.979 ± 0.0504	<2 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.6 ± 0.16	0.18	100	0.01
Selenium	µg/l	6.61 ± 0.164	6.8 ± 1.02	0.86	103	0.22
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.105	0.132	108	1.22
Zinc	µg/l	34.3 ± 1.03	44 ± 4.4	2.91	128	3.34

Sample: M145AHG

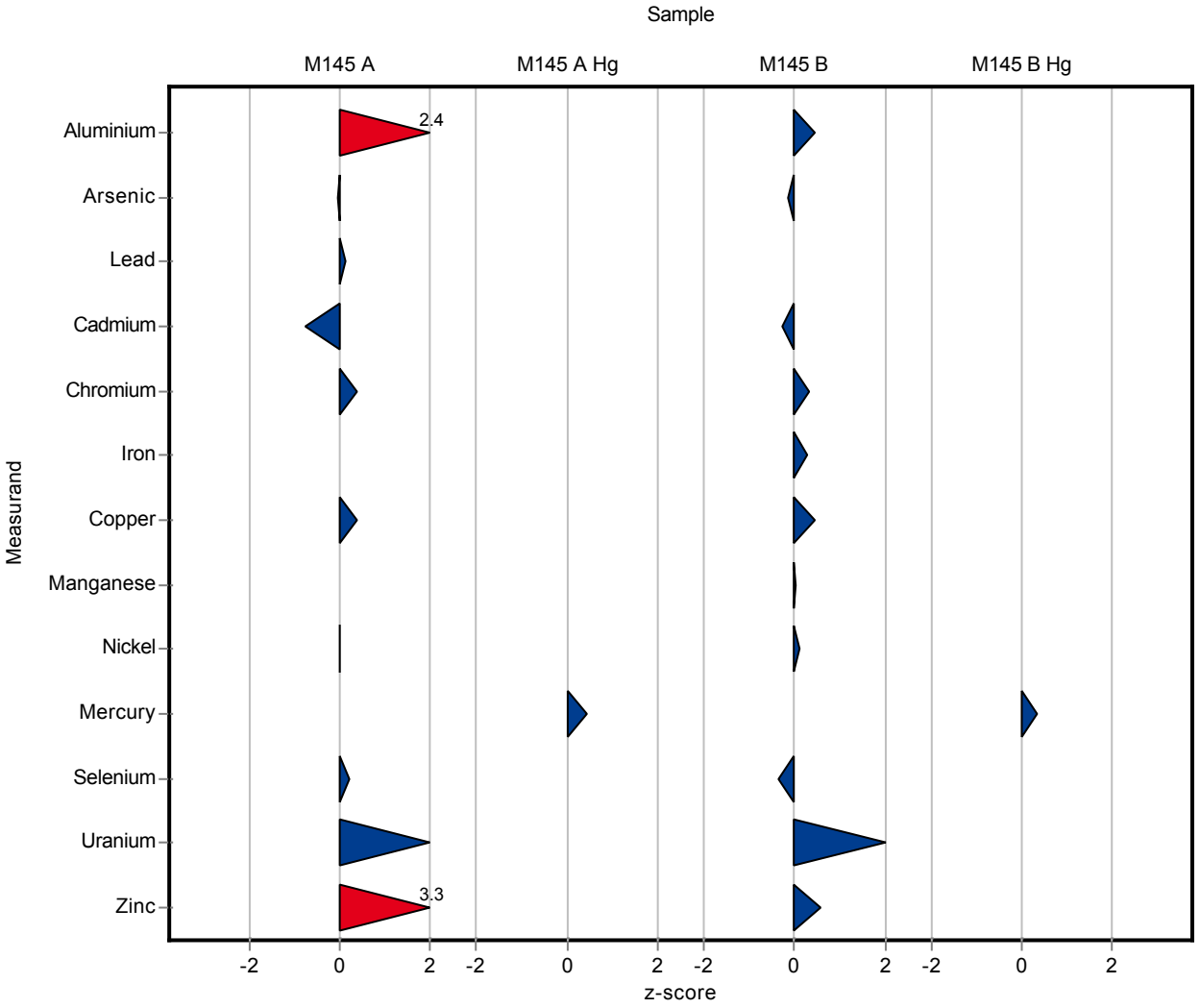
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.58 ± 0.1896	0.222	107	0.45

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	9 ± 0.9	1.26	107	0.46
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 0.204	0.261	97.6	-0.16
Lead	µg/l	0.338 ± 0.0276	<0.5 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.024	0.034	97.2	-0.26
Chromium	µg/l	2.33 ± 0.0667	2.4 ± 0.288	0.221	103	0.32
Iron	µg/l	14.6 ± 0.471	15 ± 3.9	1.46	103	0.29
Copper	µg/l	8.17 ± 0.2	8.5 ± 0.68	0.735	104	0.46
Manganese	µg/l	7.98 ± 0.162	8 ± 0.8	0.583	100	0.03
Nickel	µg/l	2.77 ± 0.0721	2.8 ± 0.28	0.277	101	0.11
Selenium	µg/l	1.26 ± 0.0451	1.2 ± 0.18	0.163	95.4	-0.35
Uranium	µg/l	1.3 ± 0.0383	1.4 ± 0.07	0.0899	108	1.15
Zinc	µg/l	15.8 ± 0.77	17 ± 1.7	2.04	108	0.59

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.98 ± 0.2376	0.282	105	0.35



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	6 ± 0.6	0.741	143	1.44
Arsenic	µg/l	1.81 ± 0.0355	1.8 ± 0.216	0.271	99.6	-0.02
Lead	µg/l	1.28 ± 0.0432	1.3 ± 0.104	0.191	102	0.11
Cadmium	µg/l	0.109 ± 0.00374	0.1 ± 0.008	0.012	91.7	-0.55
Chromium	µg/l	5.99 ± 0.105	6.2 ± 0.744	0.569	104	0.14
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	22 ± 1.76	1.92	103	0.20
Manganese	µg/l	0.979 ± 0.0504	<2 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.6 ± 0.16	0.18	100	0.01
Selenium	µg/l	6.61 ± 0.164	6.8 ± 1.02	0.86	103	0.09
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.105	0.132	108	0.74
Zinc	µg/l	34.3 ± 1.03	44 ± 4.4	2.91	128	1.10

Sample: M145AHG

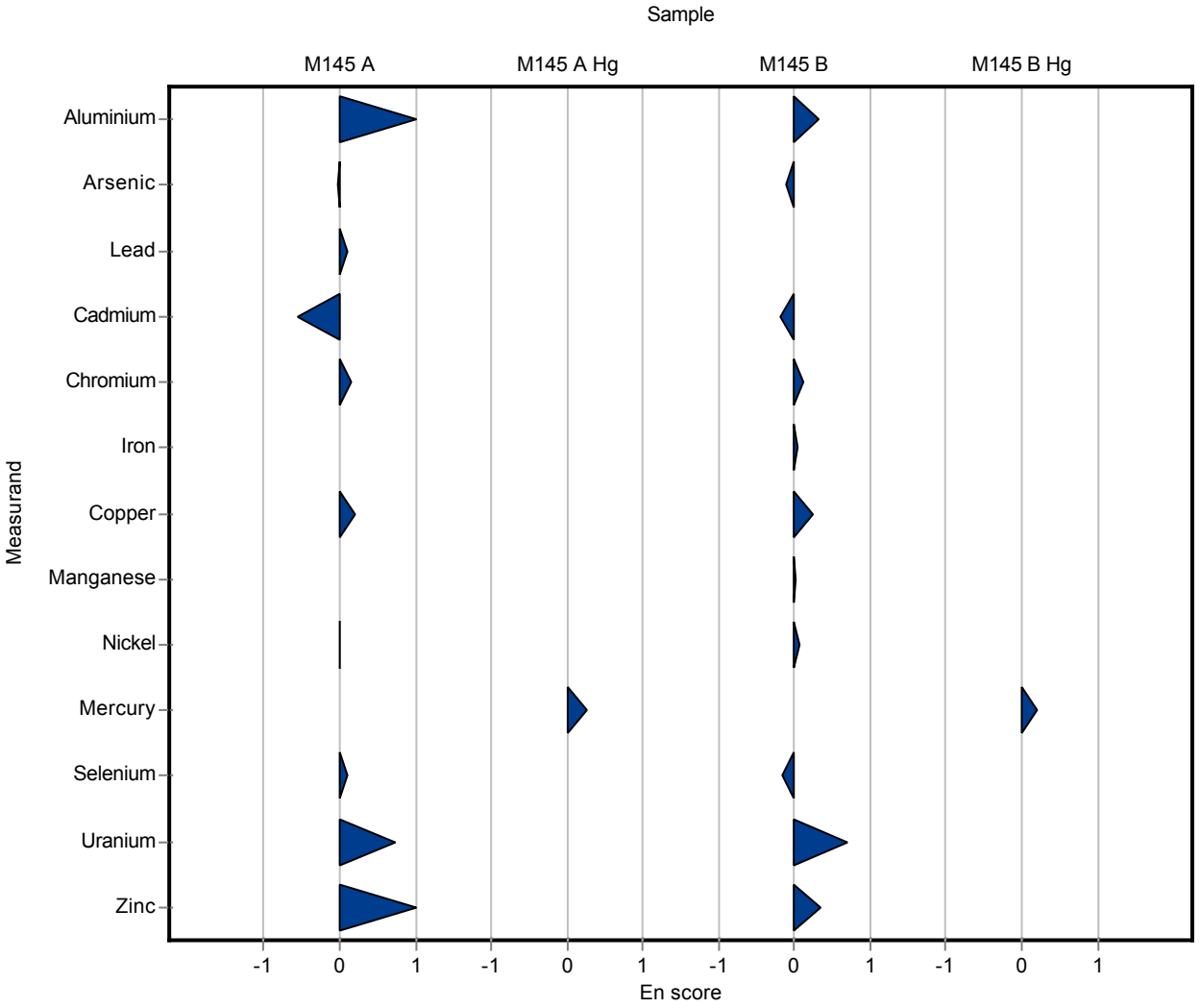
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.58 ± 0.1896	0.222	107	0.26

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	9 ± 0.9	1.26	107	0.32
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 0.204	0.261	97.6	-0.10
Lead	µg/l	0.338 ± 0.0276	<0.5 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.024	0.034	97.2	-0.18
Chromium	µg/l	2.33 ± 0.0667	2.4 ± 0.288	0.221	103	0.12
Iron	µg/l	14.6 ± 0.471	15 ± 3.9	1.46	103	0.05
Copper	µg/l	8.17 ± 0.2	8.5 ± 0.68	0.735	104	0.24
Manganese	µg/l	7.98 ± 0.162	8 ± 0.8	0.583	100	0.01
Nickel	µg/l	2.77 ± 0.0721	2.8 ± 0.28	0.277	101	0.06
Selenium	µg/l	1.26 ± 0.0451	1.2 ± 0.18	0.163	95.4	-0.16
Uranium	µg/l	1.3 ± 0.0383	1.4 ± 0.07	0.0899	108	0.71
Zinc	µg/l	15.8 ± 0.77	17 ± 1.7	2.04	108	0.35

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.98 ± 0.2376	0.282	105	0.20



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	- ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	2.295 ± 0.252	0.271	127	1.80
Lead	µg/l	1.28 ± 0.0432	0.652 ± 0.104	0.191	51.1	-3.26
Cadmium	µg/l	0.109 ± 0.00374	- ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	- ± -	0.569	-	-
Iron	µg/l	6.21 ± 0.382	- ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	- ± -	1.92	-	-
Manganese	µg/l	0.979 ± 0.0504	- ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	- ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	- ± -	2.91	-	-

Sample: M145AHG

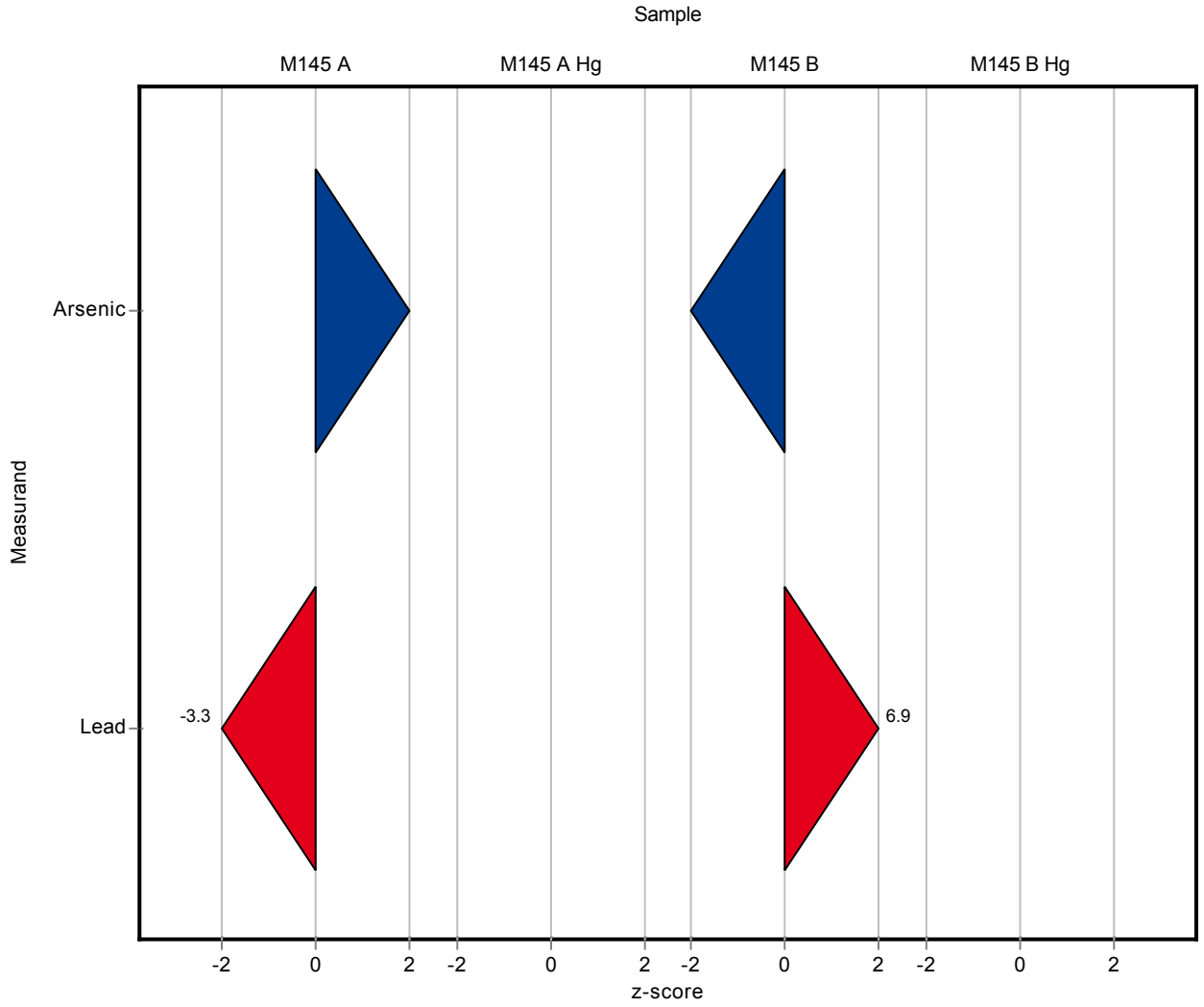
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	- ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	- ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.321 ± 0.145	0.261	75.8	-1.61
Lead	µg/l	0.338 ± 0.0276	0.689 ± 0.11	0.0507	204	6.92
Cadmium	µg/l	0.309 ± 0.00659	- ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	- ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	- ± -	1.46	-	-
Copper	µg/l	8.17 ± 0.2	- ± -	0.735	-	-
Manganese	µg/l	7.98 ± 0.162	- ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	- ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	- ± -	2.04	-	-

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	- ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	- ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	2.295 ± 0.252	0.271	127	0.97
Lead	µg/l	1.28 ± 0.0432	0.652 ± 0.104	0.191	51.1	-2.94
Cadmium	µg/l	0.109 ± 0.00374	- ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	- ± -	0.569	-	-
Iron	µg/l	6.21 ± 0.382	- ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	- ± -	1.92	-	-
Manganese	µg/l	0.979 ± 0.0504	- ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	- ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	- ± -	2.91	-	-

Sample: M145AHG

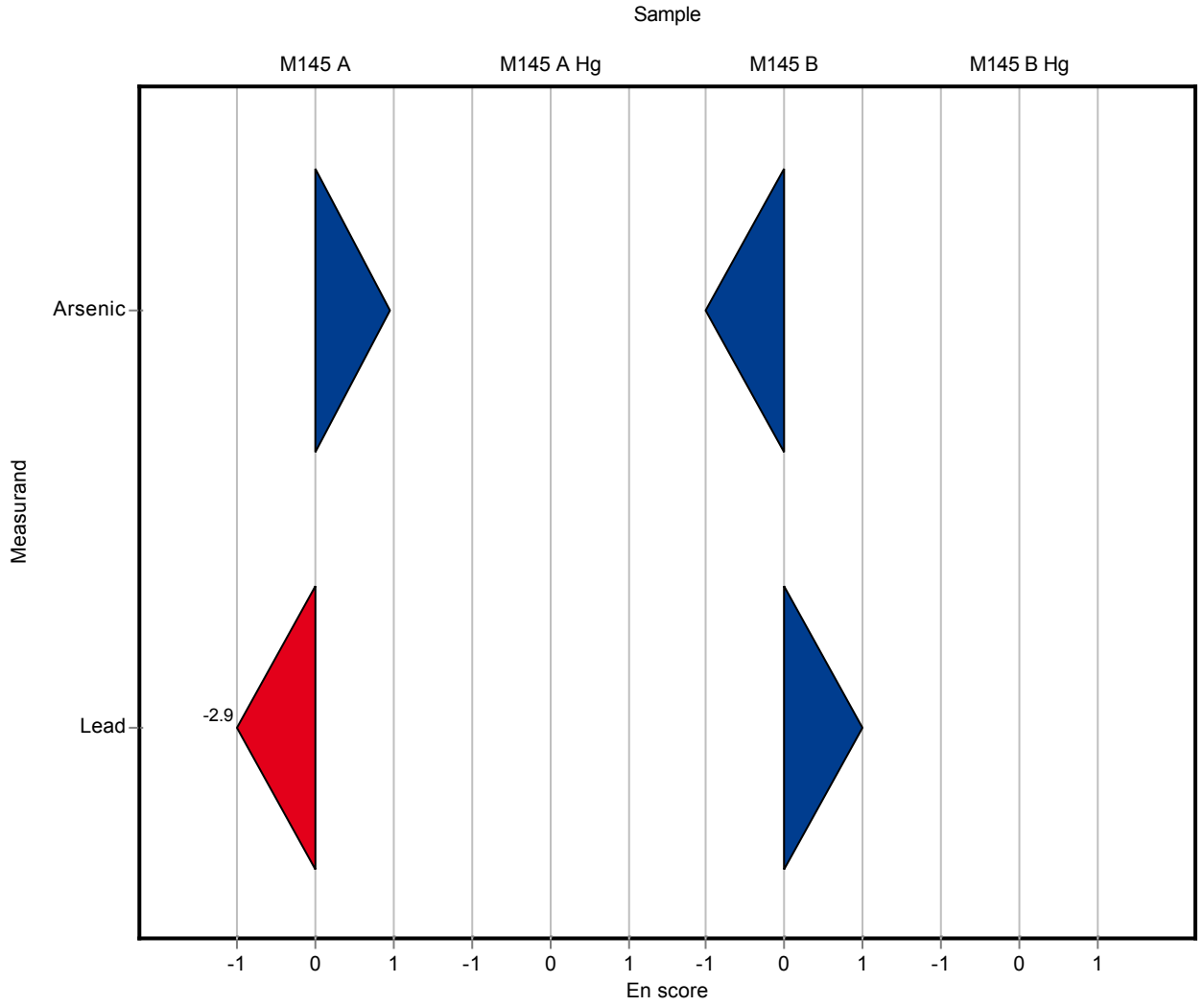
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	- ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	- ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.321 ± 0.145	0.261	75.8	-1.43
Lead	µg/l	0.338 ± 0.0276	0.689 ± 0.11	0.0507	204	1.58
Cadmium	µg/l	0.309 ± 0.00659	- ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	- ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	- ± -	1.46	-	-
Copper	µg/l	8.17 ± 0.2	- ± -	0.735	-	-
Manganese	µg/l	7.98 ± 0.162	- ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	- ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	- ± -	2.04	-	-

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	- ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	7.5 ± 1	0.741	179	4.46
Arsenic	µg/l	1.81 ± 0.0355	1.8 ± 0.3	0.271	99.6	-0.03
Lead	µg/l	1.28 ± 0.0432	1.5 ± 0.3	0.191	118	1.17
Cadmium	µg/l	0.109 ± 0.00374	0.11 ± 0.1	0.012	101	0.08
Chromium	µg/l	5.99 ± 0.105	6.2 ± 0.2	0.569	104	0.37
Iron	µg/l	6.21 ± 0.382	7.5 ± 0.3	0.763	121	1.69
Copper	µg/l	21.3 ± 0.391	22 ± 0.2	1.92	103	0.36
Manganese	µg/l	0.979 ± 0.0504	1.1 ± 0.07	0.0873	112	1.38
Nickel	µg/l	1.6 ± 0.0753	1.7 ± 0.3	0.18	106	0.56
Selenium	µg/l	6.61 ± 0.164	6.5 ± 0.3	0.86	98.3	-0.13
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.1	0.132	108	1.22
Zinc	µg/l	34.3 ± 1.03	38 ± 0.3	2.91	111	1.28

Sample: M145AHG

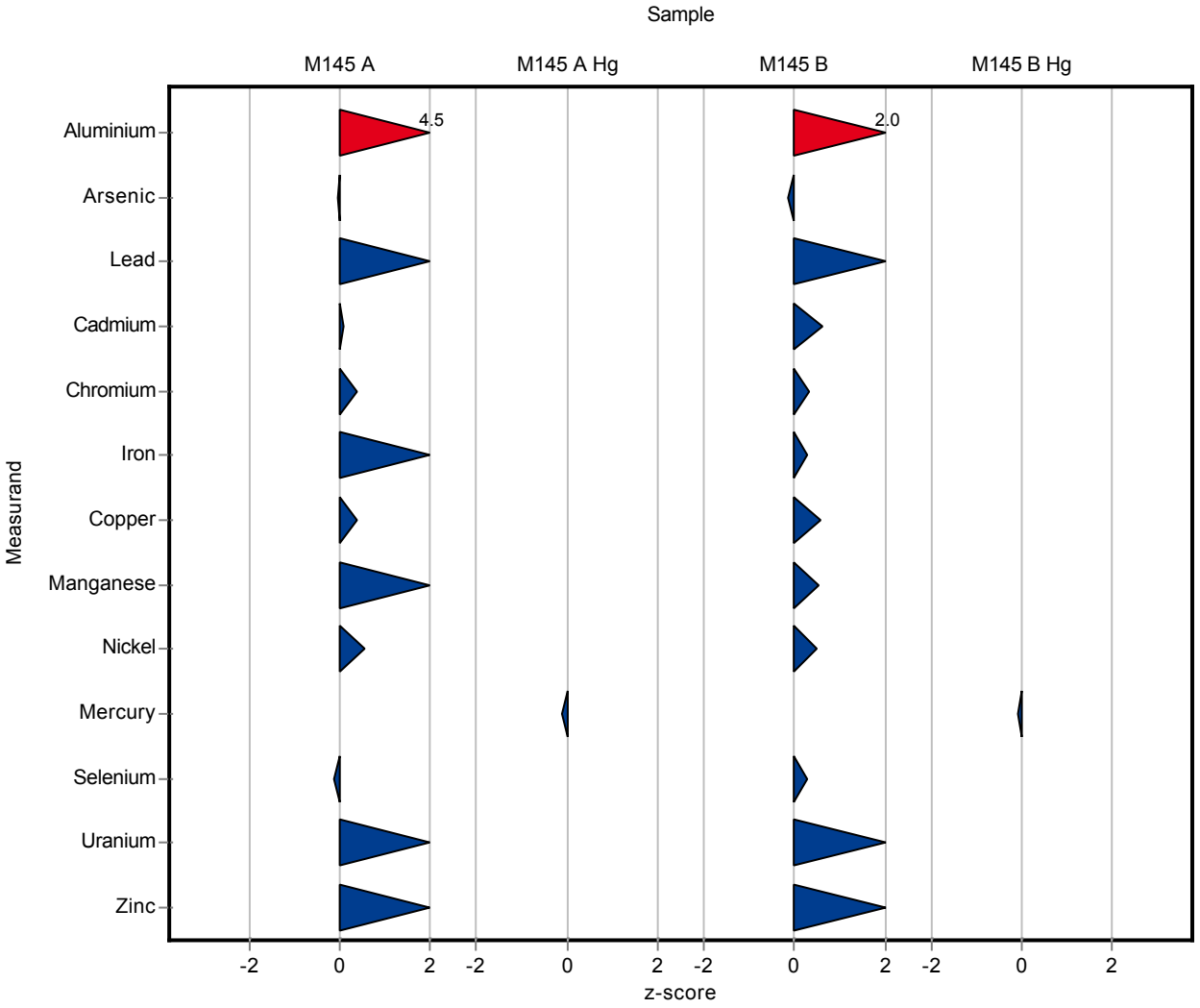
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.46 ± 0.005	0.222	98.6	-0.09

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	11 ± 1	1.26	131	2.05
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 0.3	0.261	97.6	-0.16
Lead	µg/l	0.338 ± 0.0276	0.4 ± 0.3	0.0507	118	1.22
Cadmium	µg/l	0.309 ± 0.00659	0.33 ± 0.1	0.034	107	0.63
Chromium	µg/l	2.33 ± 0.0667	2.4 ± 0.2	0.221	103	0.32
Iron	µg/l	14.6 ± 0.471	15 ± 0.3	1.46	103	0.29
Copper	µg/l	8.17 ± 0.2	8.6 ± 0.2	0.735	105	0.59
Manganese	µg/l	7.98 ± 0.162	8.3 ± 0.07	0.583	104	0.55
Nickel	µg/l	2.77 ± 0.0721	2.9 ± 0.3	0.277	105	0.47
Selenium	µg/l	1.26 ± 0.0451	1.3 ± 0.3	0.163	103	0.26
Uranium	µg/l	1.3 ± 0.0383	1.4 ± 0.1	0.0899	108	1.15
Zinc	µg/l	15.8 ± 0.77	18 ± 0.3	2.04	114	1.08

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.86 ± 0.005	0.282	98.8	-0.08



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	7.5 ± 1	0.741	179	1.63
Arsenic	µg/l	1.81 ± 0.0355	1.8 ± 0.3	0.271	99.6	-0.01
Lead	µg/l	1.28 ± 0.0432	1.5 ± 0.3	0.191	118	0.37
Cadmium	µg/l	0.109 ± 0.00374	0.11 ± 0.1	0.012	101	0.00
Chromium	µg/l	5.99 ± 0.105	6.2 ± 0.2	0.569	104	0.51
Iron	µg/l	6.21 ± 0.382	7.5 ± 0.3	0.763	121	1.82
Copper	µg/l	21.3 ± 0.391	22 ± 0.2	1.92	103	1.25
Manganese	µg/l	0.979 ± 0.0504	1.1 ± 0.07	0.0873	112	0.81
Nickel	µg/l	1.6 ± 0.0753	1.7 ± 0.3	0.18	106	0.17
Selenium	µg/l	6.61 ± 0.164	6.5 ± 0.3	0.86	98.3	-0.18
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.1	0.132	108	0.77
Zinc	µg/l	34.3 ± 1.03	38 ± 0.3	2.91	111	3.13

Sample: M145AHG

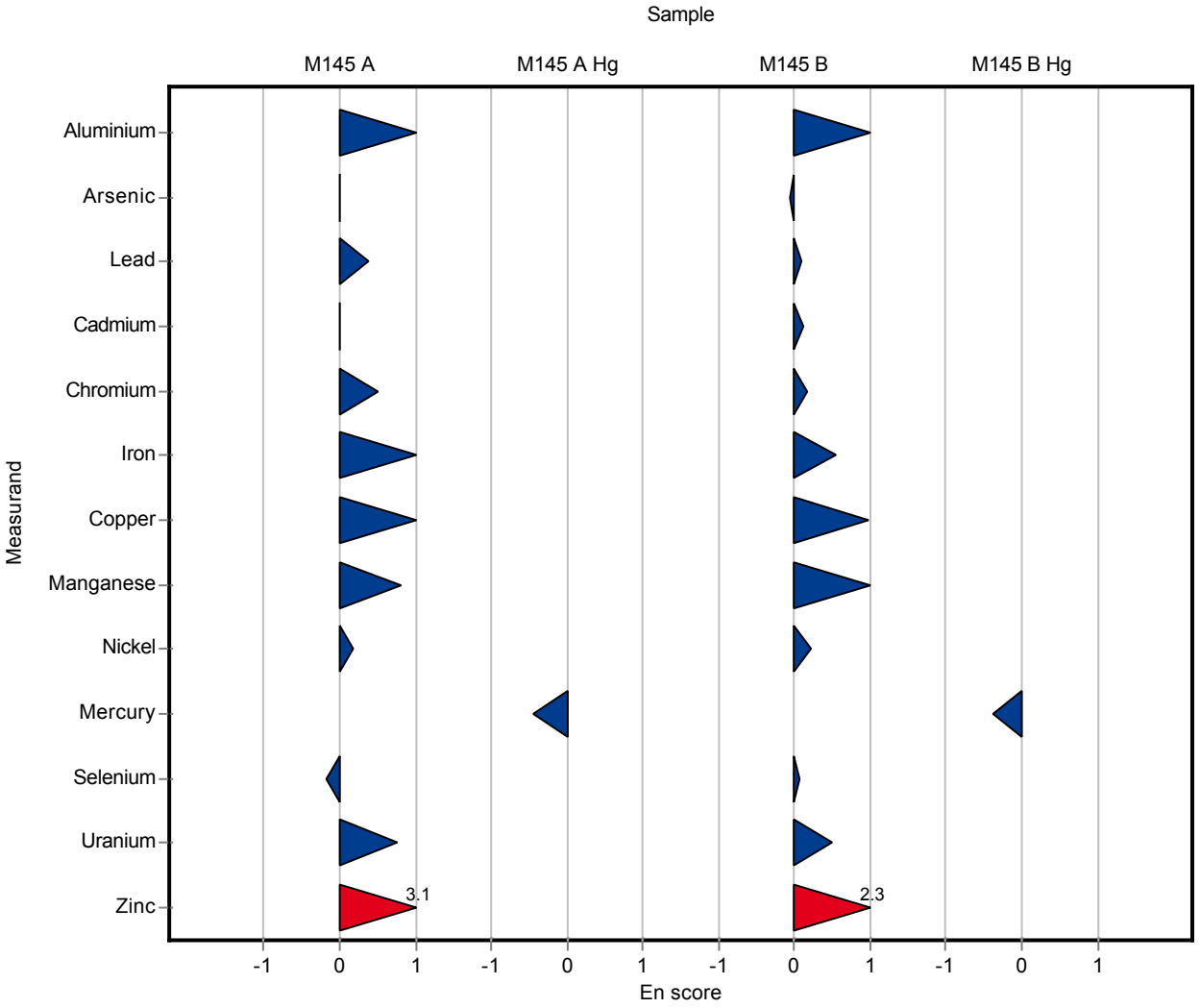
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.46 ± 0.005	0.222	98.6	-0.45

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	11 ± 1	1.26	131	1.27
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 0.3	0.261	97.6	-0.07
Lead	µg/l	0.338 ± 0.0276	0.4 ± 0.3	0.0507	118	0.10
Cadmium	µg/l	0.309 ± 0.00659	0.33 ± 0.1	0.034	107	0.11
Chromium	µg/l	2.33 ± 0.0667	2.4 ± 0.2	0.221	103	0.17
Iron	µg/l	14.6 ± 0.471	15 ± 0.3	1.46	103	0.56
Copper	µg/l	8.17 ± 0.2	8.6 ± 0.2	0.735	105	0.97
Manganese	µg/l	7.98 ± 0.162	8.3 ± 0.07	0.583	104	1.49
Nickel	µg/l	2.77 ± 0.0721	2.9 ± 0.3	0.277	105	0.22
Selenium	µg/l	1.26 ± 0.0451	1.3 ± 0.3	0.163	103	0.07
Uranium	µg/l	1.3 ± 0.0383	1.4 ± 0.1	0.0899	108	0.51
Zinc	µg/l	15.8 ± 0.77	18 ± 0.3	2.04	114	2.26

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.86 ± 0.005	0.282	98.8	-0.38



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOD) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.7 ± 0.1	0.271	94.1	-0.40
Lead	µg/l	1.28 ± 0.0432	1.4 ± 0.16	0.191	110	0.65
Cadmium	µg/l	0.109 ± 0.00374	0.1 ± 0.01	0.012	91.7	-0.75
Chromium	µg/l	5.99 ± 0.105	6 ± 0.5	0.569	100	0.02
Iron	µg/l	6.21 ± 0.382	<6 (LOD) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	20 ± 3.4	1.92	93.9	-0.68
Manganese	µg/l	0.979 ± 0.0504	<1 (LOD) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	2 ± 0.2	0.18	125	2.23
Selenium	µg/l	6.61 ± 0.164	6.7 ± 0.94	0.86	101	0.10
Uranium	µg/l	1.94 ± 0.056	2 ± 0.12	0.132	103	0.46
Zinc	µg/l	34.3 ± 1.03	33 ± 3.3	2.91	96.3	-0.44

Sample: M145AHG

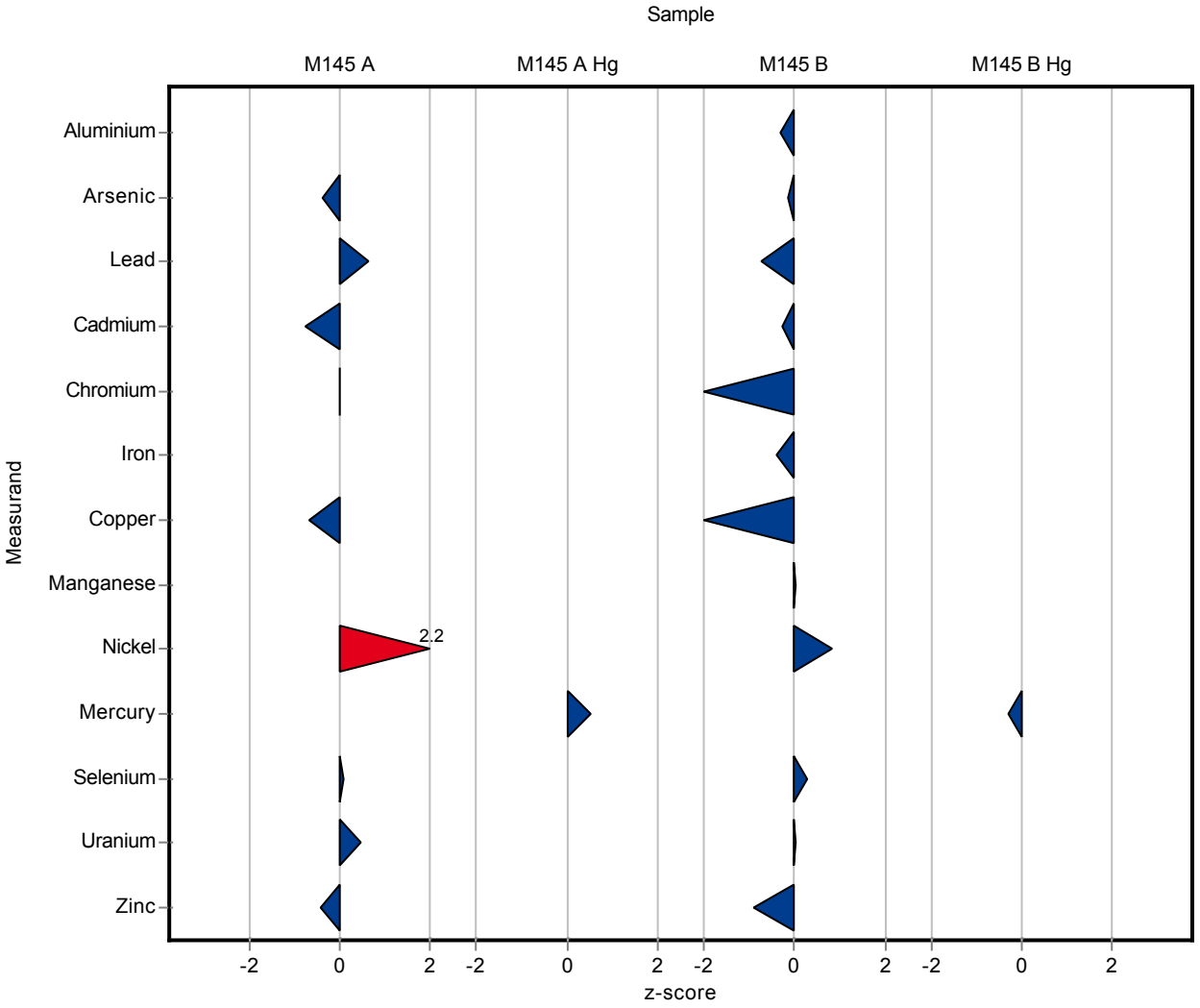
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.6 ± 0.15	0.222	108	0.54

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8 ± 0.8	1.26	95.1	-0.33
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 0.1	0.261	97.6	-0.16
Lead	µg/l	0.338 ± 0.0276	0.3 ± 0.04	0.0507	88.8	-0.75
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.04	0.034	97.2	-0.26
Chromium	µg/l	2.33 ± 0.0667	2 ± 0.2	0.221	85.8	-1.49
Iron	µg/l	14.6 ± 0.471	14 ± 1	1.46	96.1	-0.39
Copper	µg/l	8.17 ± 0.2	7 ± 1.3	0.735	85.7	-1.59
Manganese	µg/l	7.98 ± 0.162	8 ± 1	0.583	100	0.03
Nickel	µg/l	2.77 ± 0.0721	3 ± 0.4	0.277	108	0.84
Selenium	µg/l	1.26 ± 0.0451	1.3 ± 0.17	0.163	103	0.26
Uranium	µg/l	1.3 ± 0.0383	1.3 ± 0.08	0.0899	100	0.04
Zinc	µg/l	15.8 ± 0.77	14 ± 1.4	2.04	88.7	-0.88

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.8 ± 0.22	0.282	95.6	-0.29



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOD) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.7 ± 0.1	0.271	94.1	-0.53
Lead	µg/l	1.28 ± 0.0432	1.4 ± 0.16	0.191	110	0.38
Cadmium	µg/l	0.109 ± 0.00374	0.1 ± 0.01	0.012	91.7	-0.44
Chromium	µg/l	5.99 ± 0.105	6 ± 0.5	0.569	100	0.01
Iron	µg/l	6.21 ± 0.382	<6 (LOD) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	20 ± 3.4	1.92	93.9	-0.19
Manganese	µg/l	0.979 ± 0.0504	<1 (LOD) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	2 ± 0.2	0.18	125	0.99
Selenium	µg/l	6.61 ± 0.164	6.7 ± 0.94	0.86	101	0.05
Uranium	µg/l	1.94 ± 0.056	2 ± 0.12	0.132	103	0.24
Zinc	µg/l	34.3 ± 1.03	33 ± 3.3	2.91	96.3	-0.19

Sample: M145AHG

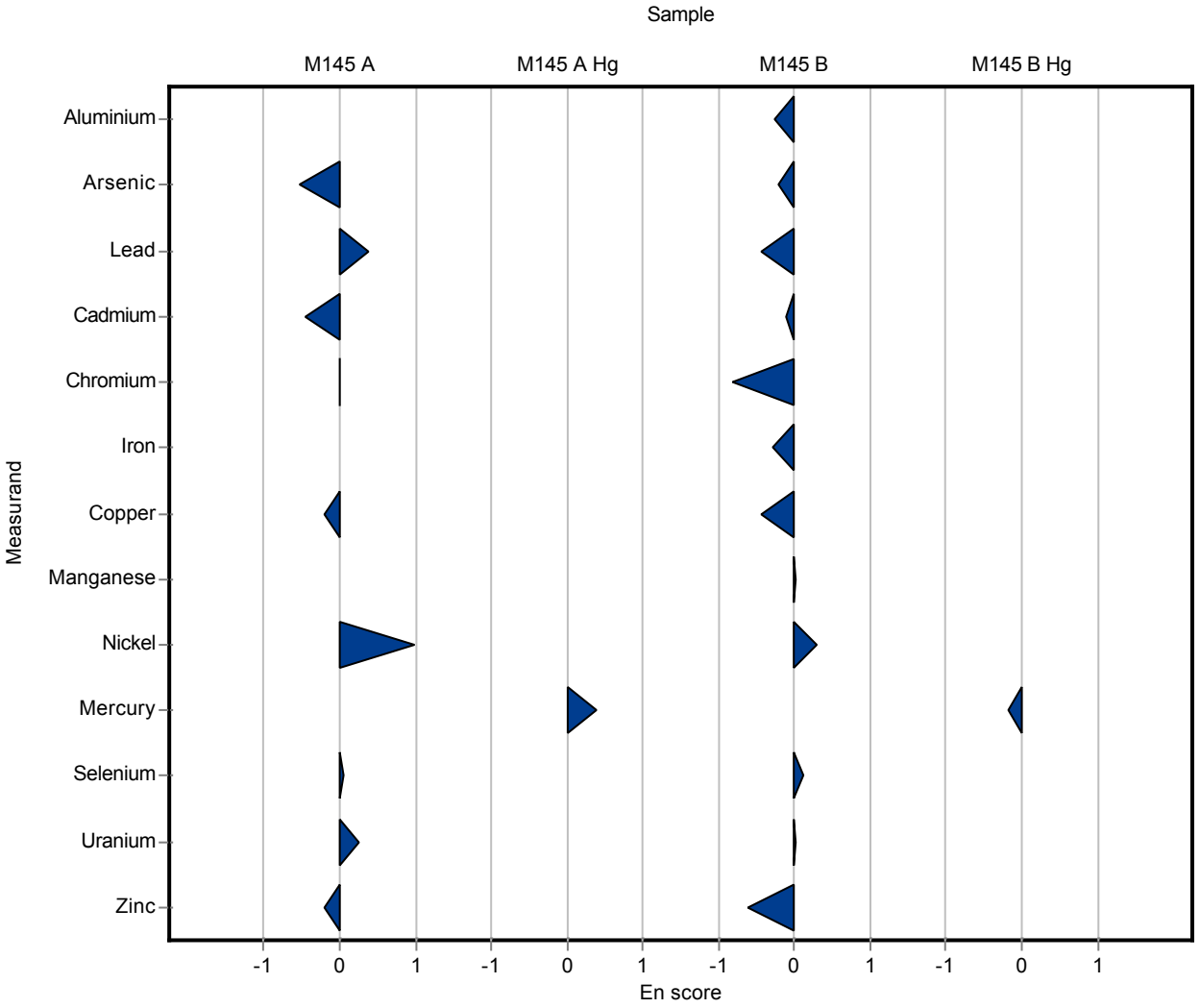
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.6 ± 0.15	0.222	108	0.39

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8 ± 0.8	1.26	95.1	-0.25
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 0.1	0.261	97.6	-0.20
Lead	µg/l	0.338 ± 0.0276	0.3 ± 0.04	0.0507	88.8	-0.45
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.04	0.034	97.2	-0.11
Chromium	µg/l	2.33 ± 0.0667	2 ± 0.2	0.221	85.8	-0.81
Iron	µg/l	14.6 ± 0.471	14 ± 1	1.46	96.1	-0.28
Copper	µg/l	8.17 ± 0.2	7 ± 1.3	0.735	85.7	-0.45
Manganese	µg/l	7.98 ± 0.162	8 ± 1	0.583	100	0.01
Nickel	µg/l	2.77 ± 0.0721	3 ± 0.4	0.277	108	0.29
Selenium	µg/l	1.26 ± 0.0451	1.3 ± 0.17	0.163	103	0.12
Uranium	µg/l	1.3 ± 0.0383	1.3 ± 0.08	0.0899	100	0.02
Zinc	µg/l	15.8 ± 0.77	14 ± 1.4	2.04	88.7	-0.62

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.8 ± 0.22	0.282	95.6	-0.18



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.82 ± 0.27	0.271	101	0.05
Lead	µg/l	1.28 ± 0.0432	1.35 ± 0.2	0.191	106	0.39
Cadmium	µg/l	0.109 ± 0.00374	<0.2 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.28 ± 0.94	0.569	105	0.51
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	20.93 ± 3.14	1.92	98.3	-0.19
Manganese	µg/l	0.979 ± 0.0504	<10 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.49 ± 0.22	0.18	93.2	-0.60
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.31	0.132	108	1.22
Zinc	µg/l	34.3 ± 1.03	31.82 ± 4.77	2.91	92.8	-0.84

Sample: M145AHG

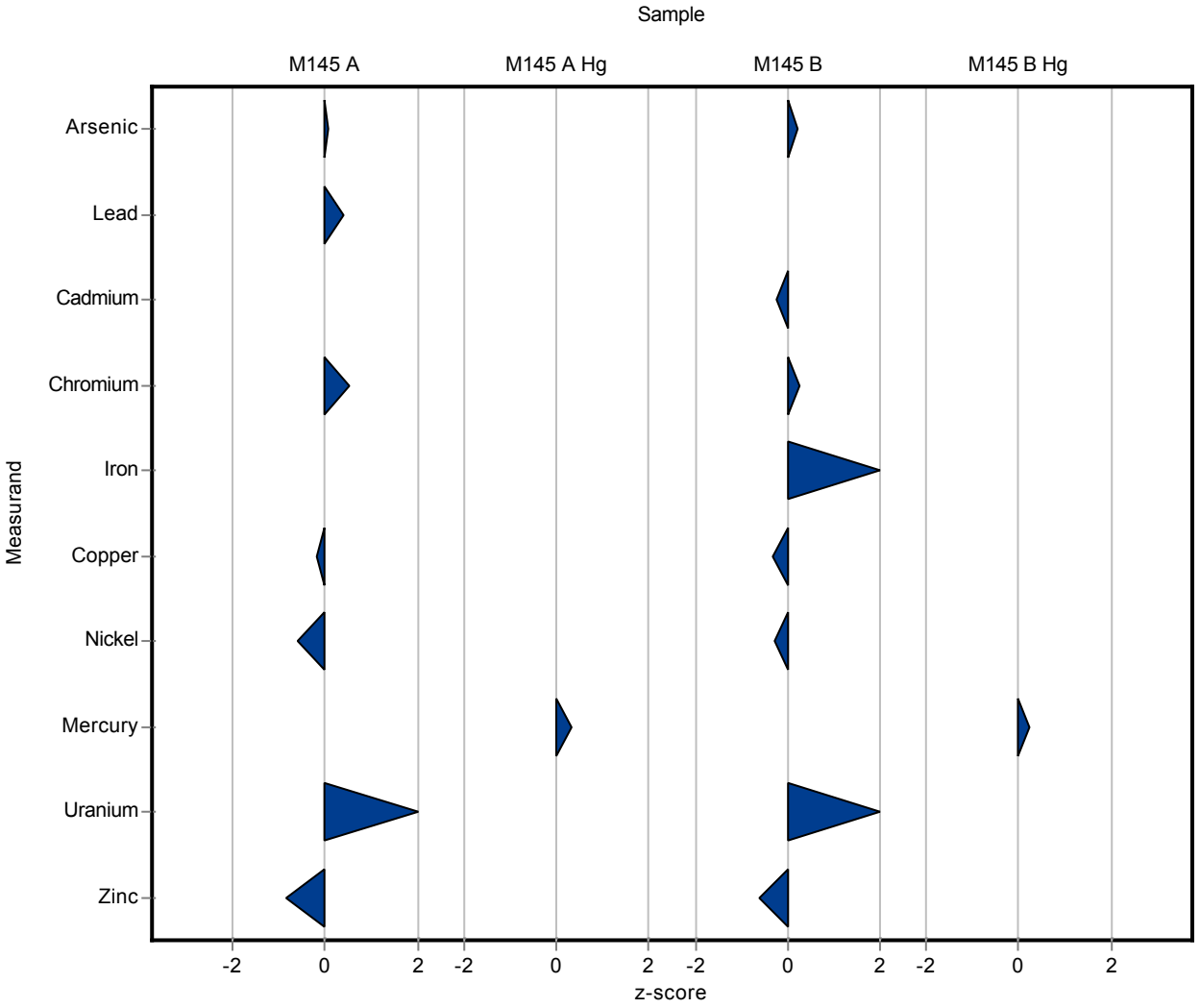
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.55 ± 0.233	0.222	105	0.31

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.8 ± 0.27	0.261	103	0.22
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.045	0.034	97.2	-0.26
Chromium	µg/l	2.33 ± 0.0667	2.39 ± 0.36	0.221	103	0.27
Iron	µg/l	14.6 ± 0.471	17.28 ± 2.59	1.46	119	1.86
Copper	µg/l	8.17 ± 0.2	7.94 ± 1.19	0.735	97.2	-0.31
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	2.69 ± 0.4	0.277	97.2	-0.28
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	1.41 ± 0.21	0.0899	109	1.26
Zinc	µg/l	15.8 ± 0.77	14.56 ± 2.18	2.04	92.2	-0.60

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.95 ± 0.292	0.282	104	0.24



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.82 ± 0.27	0.271	101	0.02
Lead	µg/l	1.28 ± 0.0432	1.35 ± 0.2	0.191	106	0.18
Cadmium	µg/l	0.109 ± 0.00374	<0.2 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.28 ± 0.94	0.569	105	0.15
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	20.93 ± 3.14	1.92	98.3	-0.06
Manganese	µg/l	0.979 ± 0.0504	<10 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.49 ± 0.22	0.18	93.2	-0.24
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.31	0.132	108	0.26
Zinc	µg/l	34.3 ± 1.03	31.82 ± 4.77	2.91	92.8	-0.26

Sample: M145AHG

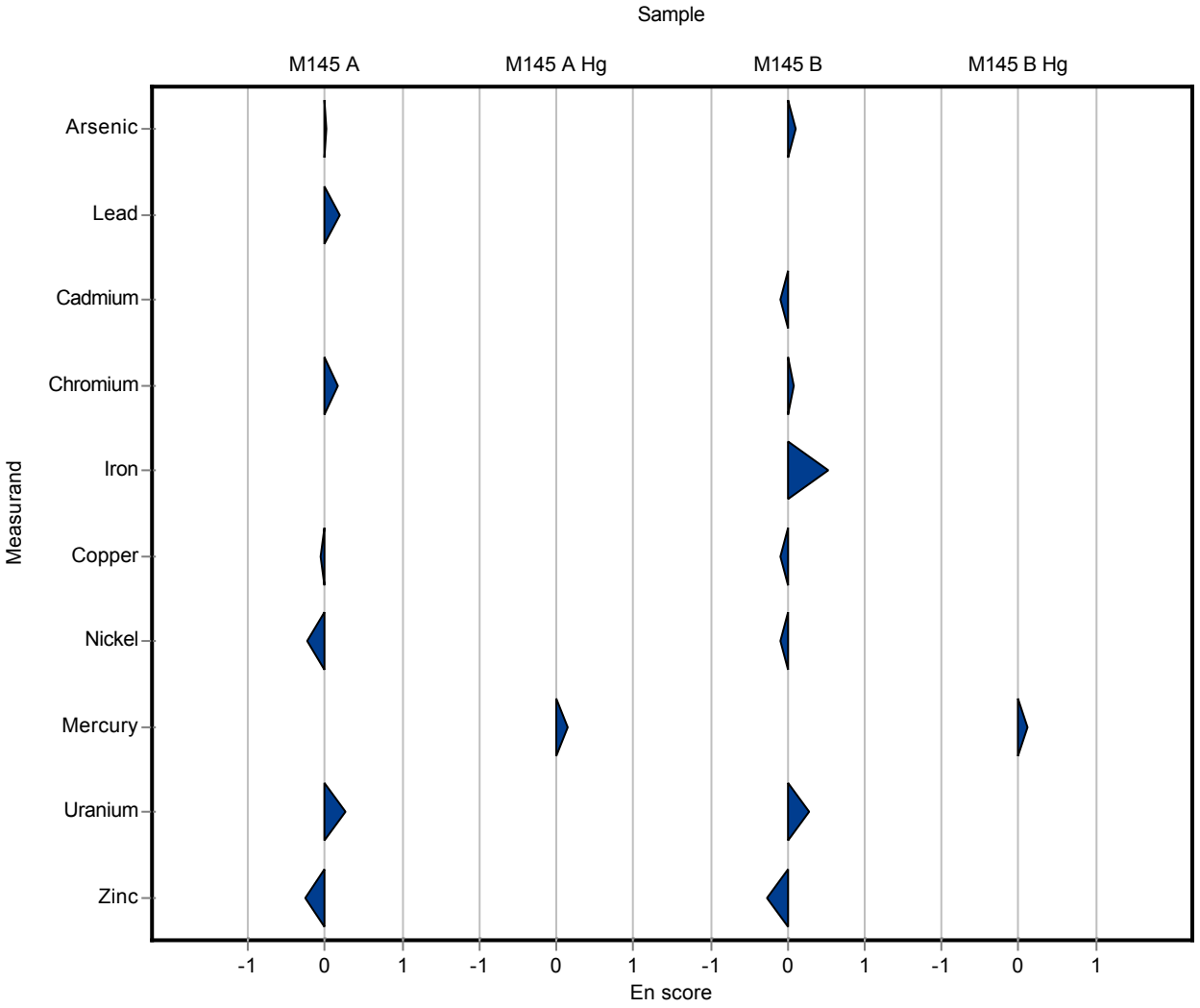
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.55 ± 0.233	0.222	105	0.15

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.8 ± 0.27	0.261	103	0.11
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.045	0.034	97.2	-0.10
Chromium	µg/l	2.33 ± 0.0667	2.39 ± 0.36	0.221	103	0.08
Iron	µg/l	14.6 ± 0.471	17.28 ± 2.59	1.46	119	0.52
Copper	µg/l	8.17 ± 0.2	7.94 ± 1.19	0.735	97.2	-0.09
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	2.69 ± 0.4	0.277	97.2	-0.10
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	1.41 ± 0.21	0.0899	109	0.27
Zinc	µg/l	15.8 ± 0.77	14.56 ± 2.18	2.04	92.2	-0.28

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.95 ± 0.292	0.282	104	0.12



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	4.51 ± 1.42	0.741	108	0.43
Arsenic	µg/l	1.81 ± 0.0355	1.92 ± 0.08	0.271	106	0.42
Lead	µg/l	1.28 ± 0.0432	1.21 ± 0.03	0.191	94.8	-0.35
Cadmium	µg/l	0.109 ± 0.00374	<1 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.49 ± 0.52	0.569	108	0.88
Iron	µg/l	6.21 ± 0.382	4.79 ± 0.33	0.763	77.2	-1.86
Copper	µg/l	21.3 ± 0.391	22.83 ± 0.65	1.92	107	0.80
Manganese	µg/l	0.979 ± 0.0504	1 ± 0.1	0.0873	102	0.24
Nickel	µg/l	1.6 ± 0.0753	1.28 ± 0.04	0.18	80.1	-1.76
Selenium	µg/l	6.61 ± 0.164	8.85 ± 0.17	0.86	134	2.60
Uranium	µg/l	1.94 ± 0.056	1.83 ± 0.04	0.132	94.3	-0.84
Zinc	µg/l	34.3 ± 1.03	35.76 ± 0.67	2.91	104	0.51

Sample: M145AHG

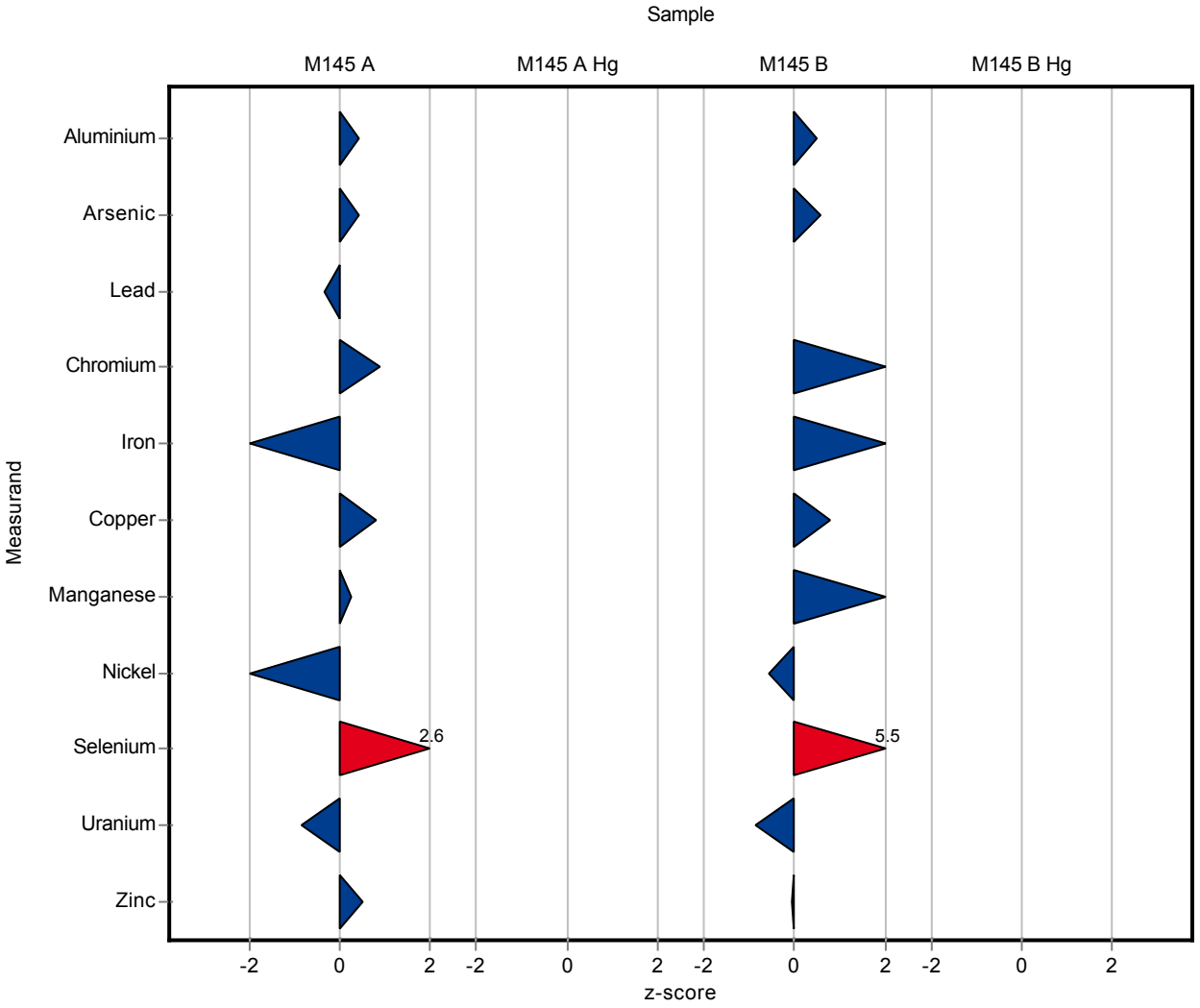
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	<1 (LOQ) ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	9.02 ± 1.38	1.26	107	0.48
Arsenic	µg/l	1.74 ± 0.0532	1.89 ± 0.09	0.261	108	0.57
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<1 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	2.66 ± 0.11	0.221	114	1.49
Iron	µg/l	14.6 ± 0.471	16.11 ± 0.58	1.46	111	1.05
Copper	µg/l	8.17 ± 0.2	8.74 ± 0.29	0.735	107	0.78
Manganese	µg/l	7.98 ± 0.162	8.77 ± 0.29	0.583	110	1.35
Nickel	µg/l	2.77 ± 0.0721	2.61 ± 0.11	0.277	94.3	-0.57
Selenium	µg/l	1.26 ± 0.0451	2.16 ± 0.09	0.163	172	5.52
Uranium	µg/l	1.3 ± 0.0383	1.22 ± 0.04	0.0899	94.1	-0.85
Zinc	µg/l	15.8 ± 0.77	15.65 ± 0.56	2.04	99.1	-0.07

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	<1 (LOQ) ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	4.51 ± 1.42	0.741	108	0.11
Arsenic	µg/l	1.81 ± 0.0355	1.92 ± 0.08	0.271	106	0.69
Lead	µg/l	1.28 ± 0.0432	1.21 ± 0.03	0.191	94.8	-0.90
Cadmium	µg/l	0.109 ± 0.00374	<1 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.49 ± 0.52	0.569	108	0.48
Iron	µg/l	6.21 ± 0.382	4.79 ± 0.33	0.763	77.2	-1.86
Copper	µg/l	21.3 ± 0.391	22.83 ± 0.65	1.92	107	1.13
Manganese	µg/l	0.979 ± 0.0504	1 ± 0.1	0.0873	102	0.10
Nickel	µg/l	1.6 ± 0.0753	1.28 ± 0.04	0.18	80.1	-2.90
Selenium	µg/l	6.61 ± 0.164	8.85 ± 0.17	0.86	134	5.93
Uranium	µg/l	1.94 ± 0.056	1.83 ± 0.04	0.132	94.3	-1.13
Zinc	µg/l	34.3 ± 1.03	35.76 ± 0.67	2.91	104	0.88

Sample: M145AHG

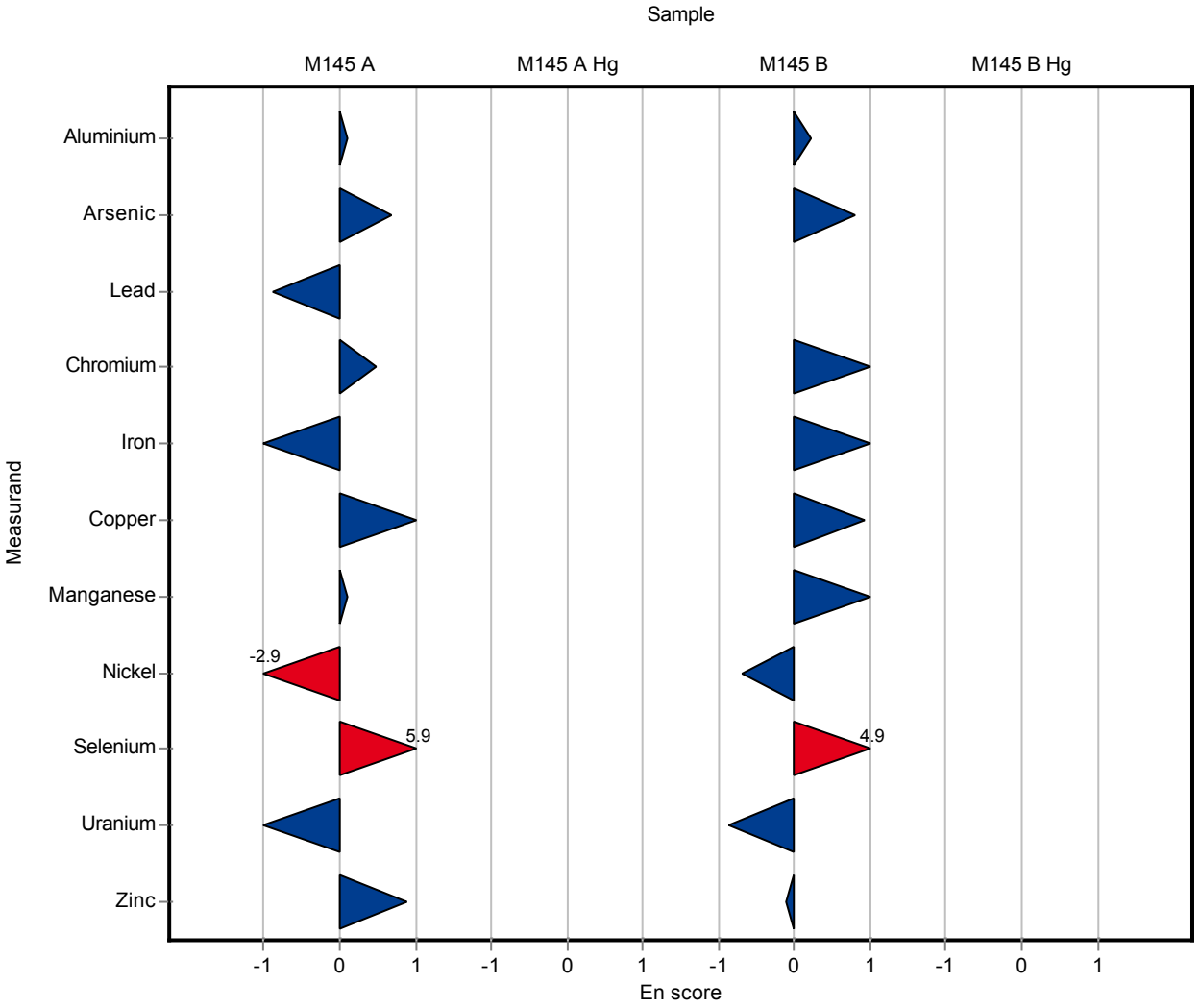
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	<1 (LOQ) ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	9.02 ± 1.38	1.26	107	0.22
Arsenic	µg/l	1.74 ± 0.0532	1.89 ± 0.09	0.261	108	0.79
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<1 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	2.66 ± 0.11	0.221	114	1.43
Iron	µg/l	14.6 ± 0.471	16.11 ± 0.58	1.46	111	1.23
Copper	µg/l	8.17 ± 0.2	8.74 ± 0.29	0.735	107	0.94
Manganese	µg/l	7.98 ± 0.162	8.77 ± 0.29	0.583	110	1.31
Nickel	µg/l	2.77 ± 0.0721	2.61 ± 0.11	0.277	94.3	-0.69
Selenium	µg/l	1.26 ± 0.0451	2.16 ± 0.09	0.163	172	4.86
Uranium	µg/l	1.3 ± 0.0383	1.22 ± 0.04	0.0899	94.1	-0.86
Zinc	µg/l	15.8 ± 0.77	15.65 ± 0.56	2.04	99.1	-0.10

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	<1 (LOQ) ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	3.4 ± 0.83	0.741	81.1	-1.07
Arsenic	µg/l	1.81 ± 0.0355	0.75 ± 0.18	0.271	41.5	-3.90
Lead	µg/l	1.28 ± 0.0432	0.98 ± 0.19	0.191	76.8	-1.55
Cadmium	µg/l	0.109 ± 0.00374	0.07 ± 0.007	0.012	64.2	-3.25
Chromium	µg/l	5.99 ± 0.105	5.95 ± 1.13	0.569	99.4	-0.07
Iron	µg/l	6.21 ± 0.382	6.5 ± 0.9	0.763	105	0.38
Copper	µg/l	21.3 ± 0.391	22 ± 0.6	1.92	103	0.36
Manganese	µg/l	0.979 ± 0.0504	2 ± 0.4	0.0873	204	11.70
Nickel	µg/l	1.6 ± 0.0753	0.9 ± 0.15	0.18	56.3	-3.87
Selenium	µg/l	6.61 ± 0.164	5.78 ± 1.37	0.86	87.4	-0.97
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	31 ± 3.5	2.91	90.5	-1.12

Sample: M145AHG

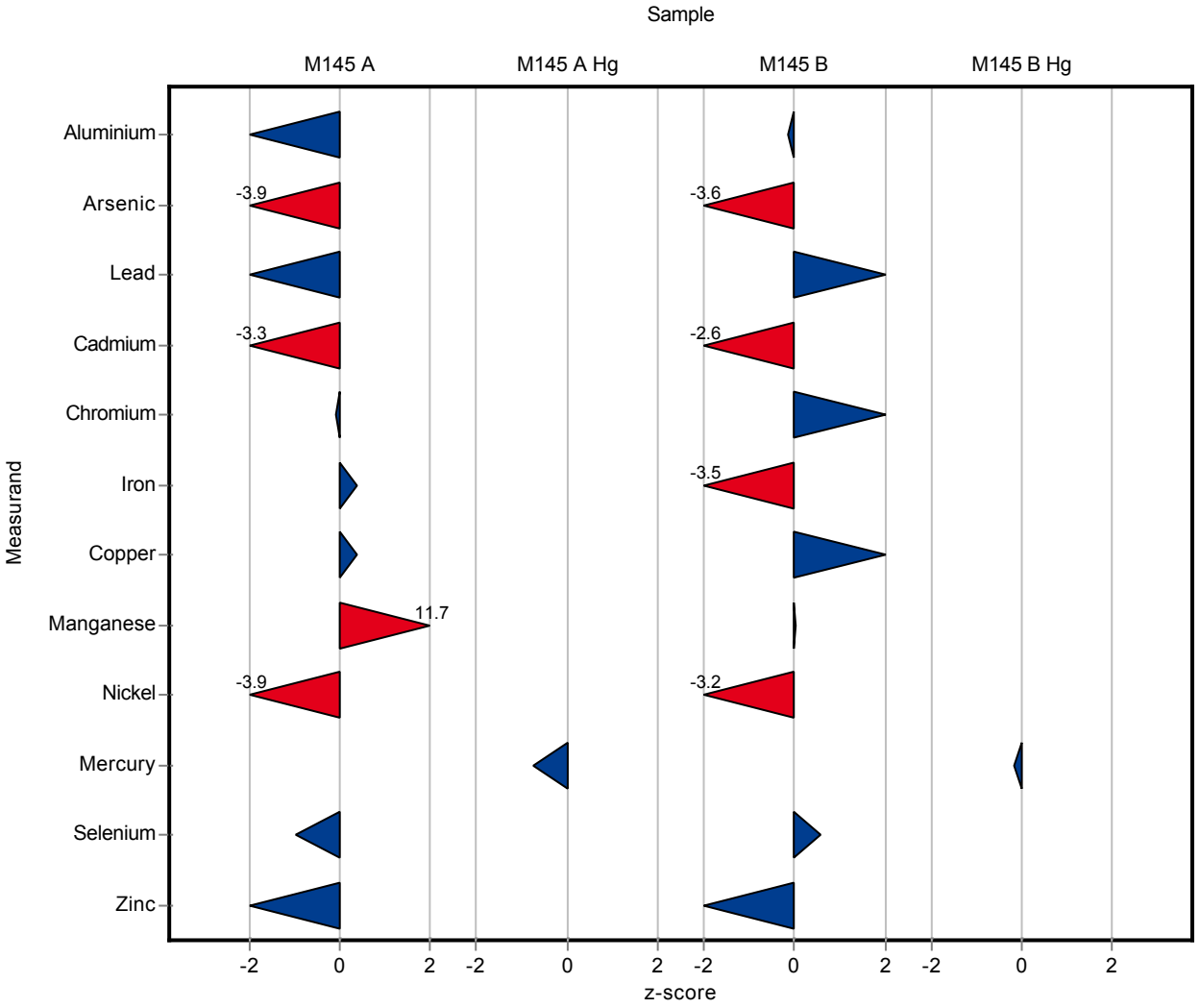
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.32 ± 0.32	0.222	89.1	-0.72

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8.26 ± 2	1.26	98.1	-0.12
Arsenic	µg/l	1.74 ± 0.0532	0.81 ± 0.19	0.261	46.5	-3.57
Lead	µg/l	0.338 ± 0.0276	0.43 ± 0.08	0.0507	127	1.82
Cadmium	µg/l	0.309 ± 0.00659	0.22 ± 0.02	0.034	71.3	-2.61
Chromium	µg/l	2.33 ± 0.0667	2.68 ± 0.5	0.221	115	1.58
Iron	µg/l	14.6 ± 0.471	9.5 ± 1.3	1.46	65.2	-3.48
Copper	µg/l	8.17 ± 0.2	9 ± 0.2	0.735	110	1.14
Manganese	µg/l	7.98 ± 0.162	8 ± 1.5	0.583	100	0.03
Nickel	µg/l	2.77 ± 0.0721	1.88 ± 0.3	0.277	67.9	-3.21
Selenium	µg/l	1.26 ± 0.0451	1.35 ± 0.3	0.163	107	0.57
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	13.3 ± 1.5	2.04	84.2	-1.22

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.84 ± 0.45	0.282	97.8	-0.15



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	3.4 ± 0.83	0.741	81.1	-0.47
Arsenic	µg/l	1.81 ± 0.0355	0.75 ± 0.18	0.271	41.5	-2.92
Lead	µg/l	1.28 ± 0.0432	0.98 ± 0.19	0.191	76.8	-0.77
Cadmium	µg/l	0.109 ± 0.00374	0.07 ± 0.007	0.012	64.2	-2.69
Chromium	µg/l	5.99 ± 0.105	5.95 ± 1.13	0.569	99.4	-0.02
Iron	µg/l	6.21 ± 0.382	6.5 ± 0.9	0.763	105	0.16
Copper	µg/l	21.3 ± 0.391	22 ± 0.6	1.92	103	0.55
Manganese	µg/l	0.979 ± 0.0504	2 ± 0.4	0.0873	204	1.27
Nickel	µg/l	1.6 ± 0.0753	0.9 ± 0.15	0.18	56.3	-2.26
Selenium	µg/l	6.61 ± 0.164	5.78 ± 1.37	0.86	87.4	-0.30
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	31 ± 3.5	2.91	90.5	-0.46

Sample: M145AHG

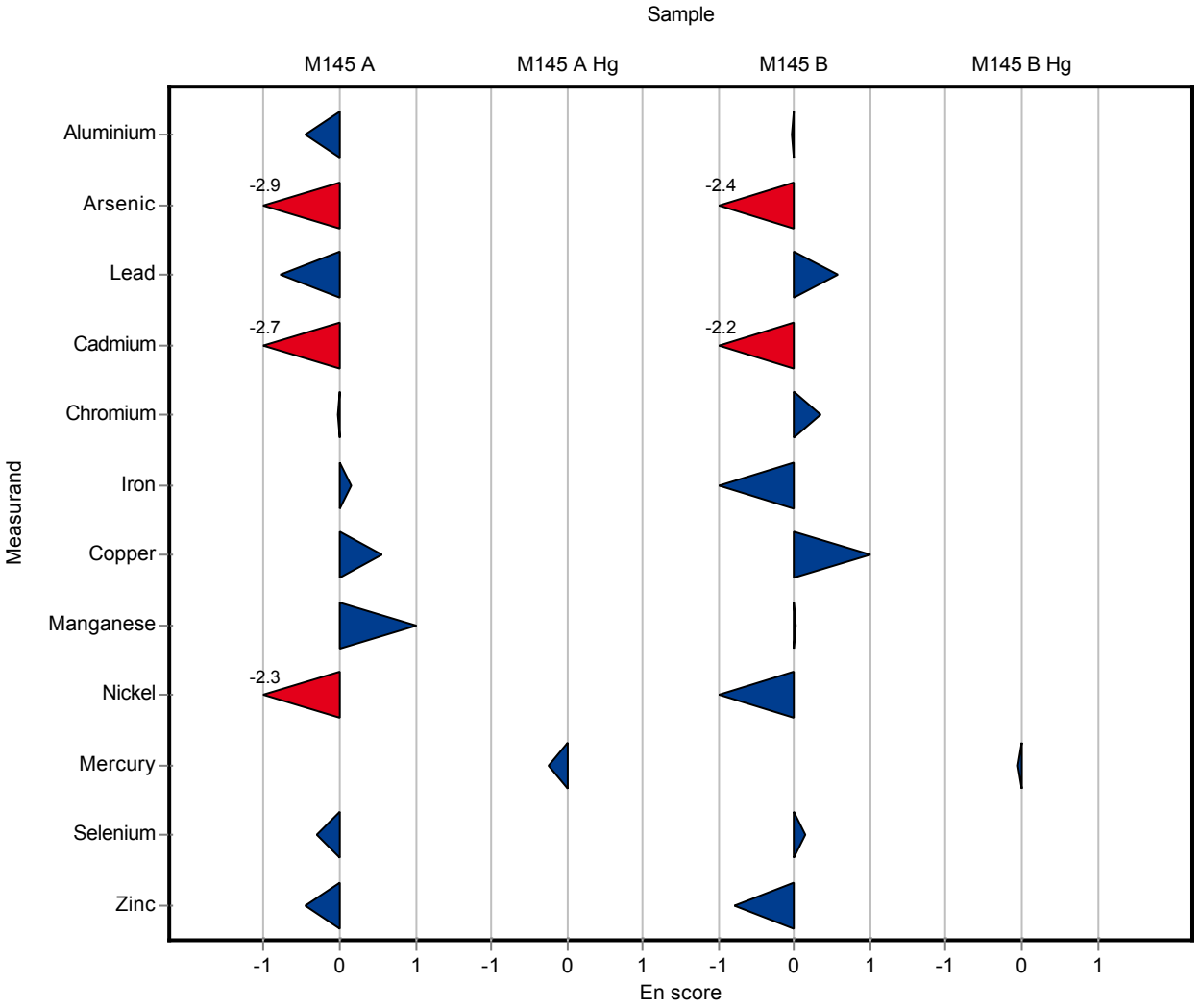
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.32 ± 0.32	0.222	89.1	-0.25

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8.26 ± 2	1.26	98.1	-0.04
Arsenic	µg/l	1.74 ± 0.0532	0.81 ± 0.19	0.261	46.5	-2.43
Lead	µg/l	0.338 ± 0.0276	0.43 ± 0.08	0.0507	127	0.57
Cadmium	µg/l	0.309 ± 0.00659	0.22 ± 0.02	0.034	71.3	-2.19
Chromium	µg/l	2.33 ± 0.0667	2.68 ± 0.5	0.221	115	0.35
Iron	µg/l	14.6 ± 0.471	9.5 ± 1.3	1.46	65.2	-1.92
Copper	µg/l	8.17 ± 0.2	9 ± 0.2	0.735	110	1.86
Manganese	µg/l	7.98 ± 0.162	8 ± 1.5	0.583	100	0.01
Nickel	µg/l	2.77 ± 0.0721	1.88 ± 0.3	0.277	67.9	-1.47
Selenium	µg/l	1.26 ± 0.0451	1.35 ± 0.3	0.163	107	0.15
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	13.3 ± 1.5	2.04	84.2	-0.80

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.84 ± 0.45	0.282	97.8	-0.05



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.7 ± 0.26	0.271	94.1	-0.40
Lead	µg/l	1.28 ± 0.0432	1.2 ± 0.18	0.191	94	-0.40
Cadmium	µg/l	0.109 ± 0.00374	<0.5 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	5.9 ± 0.89	0.569	98.5	-0.16
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	20.7 ± 4.1	1.92	97.2	-0.31
Manganese	µg/l	0.979 ± 0.0504	<10 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.4 ± 0.21	0.18	87.6	-1.10
Selenium	µg/l	6.61 ± 0.164	6.9 ± 1.4	0.86	104	0.33
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	30.9 ± 4.6	2.91	90.2	-1.16

Sample: M145AHG

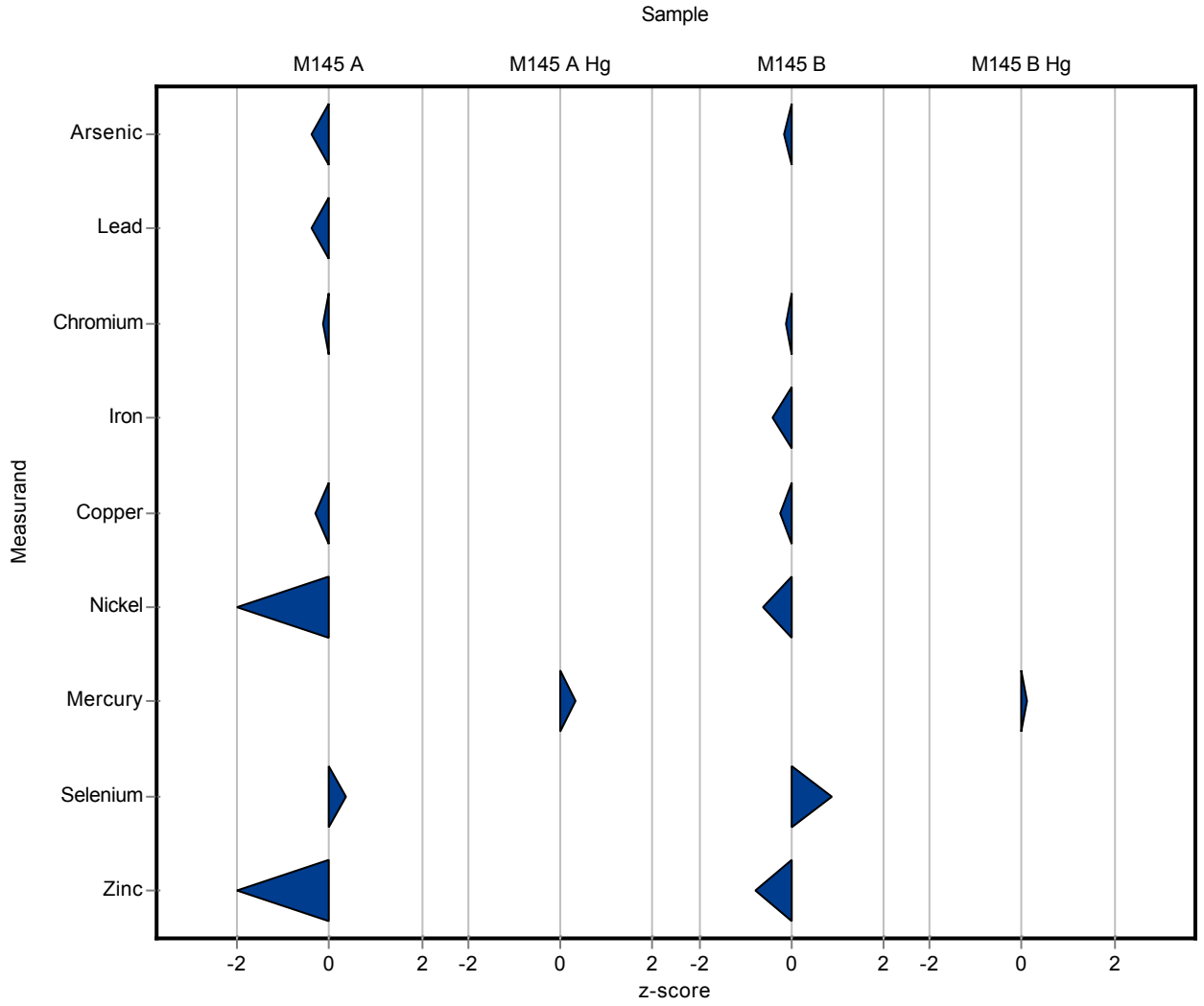
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.55 ± 0.15	0.222	105	0.31

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 0.26	0.261	97.6	-0.16
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<0.5 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	2.3 ± 0.35	0.221	98.7	-0.14
Iron	µg/l	14.6 ± 0.471	14 ± 2.8	1.46	96.1	-0.39
Copper	µg/l	8.17 ± 0.2	8 ± 1.6	0.735	98	-0.23
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	2.6 ± 0.39	0.277	93.9	-0.61
Selenium	µg/l	1.26 ± 0.0451	1.4 ± 0.28	0.163	111	0.87
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	14.2 ± 2.1	2.04	89.9	-0.78

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.91 ± 0.18	0.282	101	0.10



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.7 ± 0.26	0.271	94.1	-0.20
Lead	µg/l	1.28 ± 0.0432	1.2 ± 0.18	0.191	94	-0.21
Cadmium	µg/l	0.109 ± 0.00374	<0.5 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	5.9 ± 0.89	0.569	98.5	-0.05
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	20.7 ± 4.1	1.92	97.2	-0.07
Manganese	µg/l	0.979 ± 0.0504	<10 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.4 ± 0.21	0.18	87.6	-0.46
Selenium	µg/l	6.61 ± 0.164	6.9 ± 1.4	0.86	104	0.10
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	30.9 ± 4.6	2.91	90.2	-0.36

Sample: M145AHG

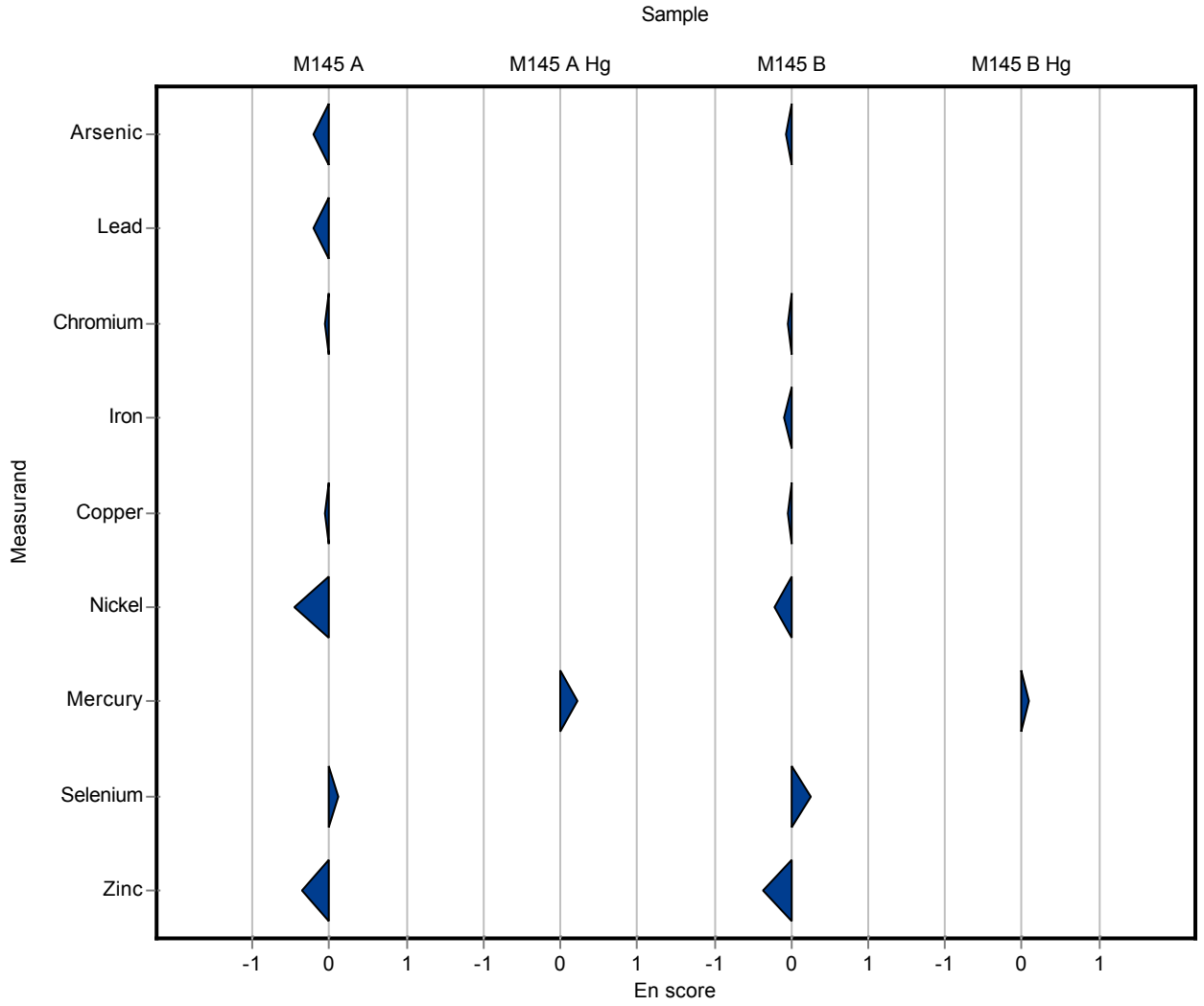
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.55 ± 0.15	0.222	105	0.23

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 0.26	0.261	97.6	-0.08
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<0.5 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	2.3 ± 0.35	0.221	98.7	-0.04
Iron	µg/l	14.6 ± 0.471	14 ± 2.8	1.46	96.1	-0.10
Copper	µg/l	8.17 ± 0.2	8 ± 1.6	0.735	98	-0.05
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	2.6 ± 0.39	0.277	93.9	-0.21
Selenium	µg/l	1.26 ± 0.0451	1.4 ± 0.28	0.163	111	0.25
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	14.2 ± 2.1	2.04	89.9	-0.37

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.91 ± 0.18	0.282	101	0.08



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<8 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.78 ± 0.22	0.271	98.5	-0.10
Lead	µg/l	1.28 ± 0.0432	1.15 ± 0.2	0.191	90.1	-0.66
Cadmium	µg/l	0.109 ± 0.00374	<0.15 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.3 ± 0.93	0.569	105	0.55
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	21.6 ± 2.6	1.92	101	0.15
Manganese	µg/l	0.979 ± 0.0504	<4.1 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.68 ± 0.32	0.18	105	0.45
Selenium	µg/l	6.61 ± 0.164	6.93 ± 1.13	0.86	105	0.37
Uranium	µg/l	1.94 ± 0.056	2.06 ± 0.22	0.132	106	0.91
Zinc	µg/l	34.3 ± 1.03	33.2 ± 3.32	2.91	96.9	-0.37

Sample: M145AHG

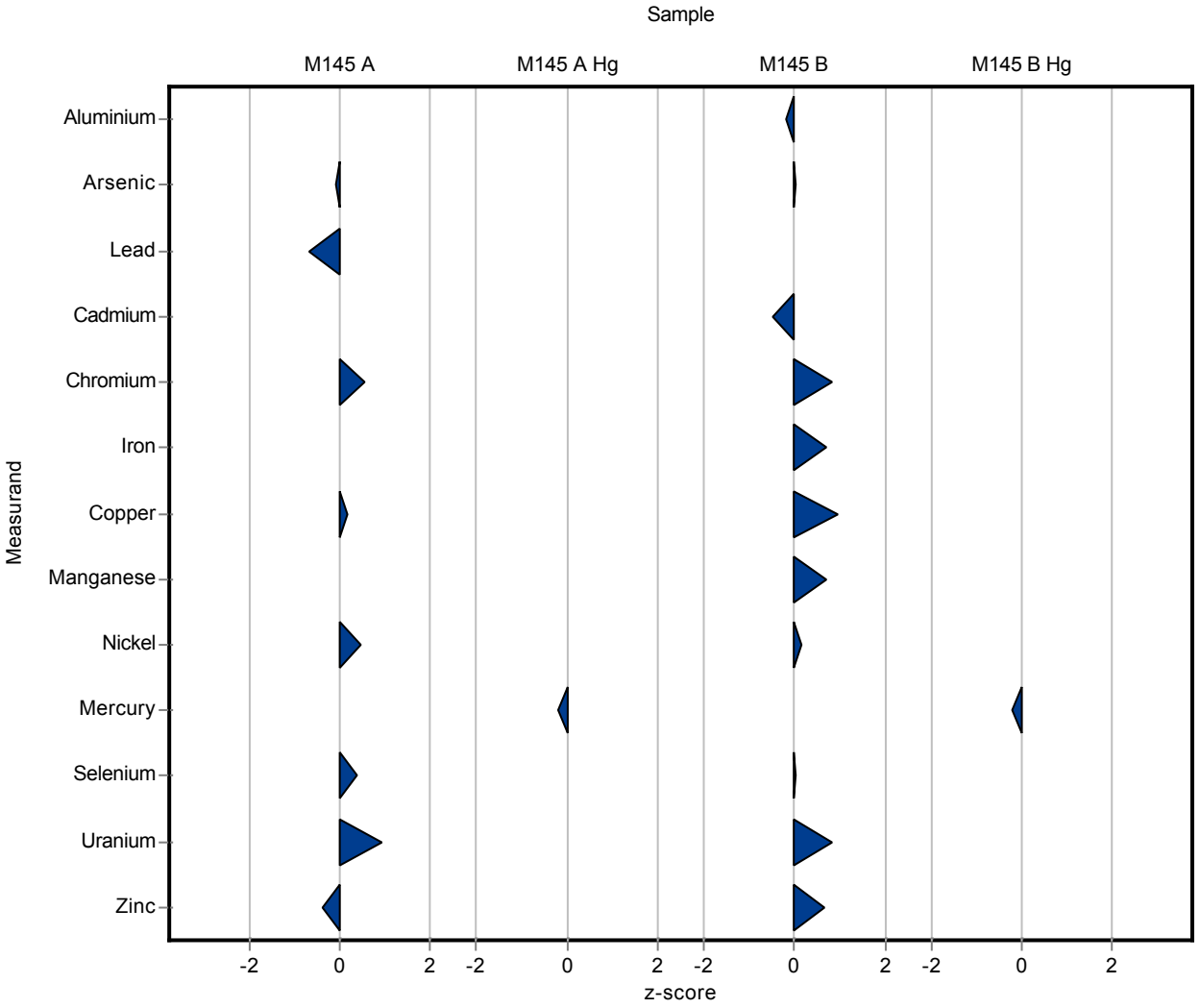
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.44 ± 0.53	0.222	97.2	-0.18

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8.16 ± 1.38	1.26	97	-0.20
Arsenic	µg/l	1.74 ± 0.0532	1.75 ± 0.22	0.261	100	0.03
Lead	µg/l	0.338 ± 0.0276	<0.3 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.292 ± 0.04	0.034	94.6	-0.49
Chromium	µg/l	2.33 ± 0.0667	2.51 ± 0.37	0.221	108	0.81
Iron	µg/l	14.6 ± 0.471	15.6 ± 1.59	1.46	107	0.70
Copper	µg/l	8.17 ± 0.2	8.86 ± 1.07	0.735	109	0.94
Manganese	µg/l	7.98 ± 0.162	8.4 ± 1.12	0.583	105	0.72
Nickel	µg/l	2.77 ± 0.0721	2.81 ± 0.54	0.277	101	0.15
Selenium	µg/l	1.26 ± 0.0451	1.26 ± 0.21	0.163	100	0.02
Uranium	µg/l	1.3 ± 0.0383	1.37 ± 0.15	0.0899	106	0.82
Zinc	µg/l	15.8 ± 0.77	17.1 ± 1.71	2.04	108	0.64

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.82 ± 0.66	0.282	96.7	-0.22



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<8 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.78 ± 0.22	0.271	98.5	-0.06
Lead	µg/l	1.28 ± 0.0432	1.15 ± 0.2	0.191	90.1	-0.31
Cadmium	µg/l	0.109 ± 0.00374	<0.15 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.3 ± 0.93	0.569	105	0.17
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	21.6 ± 2.6	1.92	101	0.06
Manganese	µg/l	0.979 ± 0.0504	<4.1 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.68 ± 0.32	0.18	105	0.13
Selenium	µg/l	6.61 ± 0.164	6.93 ± 1.13	0.86	105	0.14
Uranium	µg/l	1.94 ± 0.056	2.06 ± 0.22	0.132	106	0.27
Zinc	µg/l	34.3 ± 1.03	33.2 ± 3.32	2.91	96.9	-0.16

Sample: M145AHG

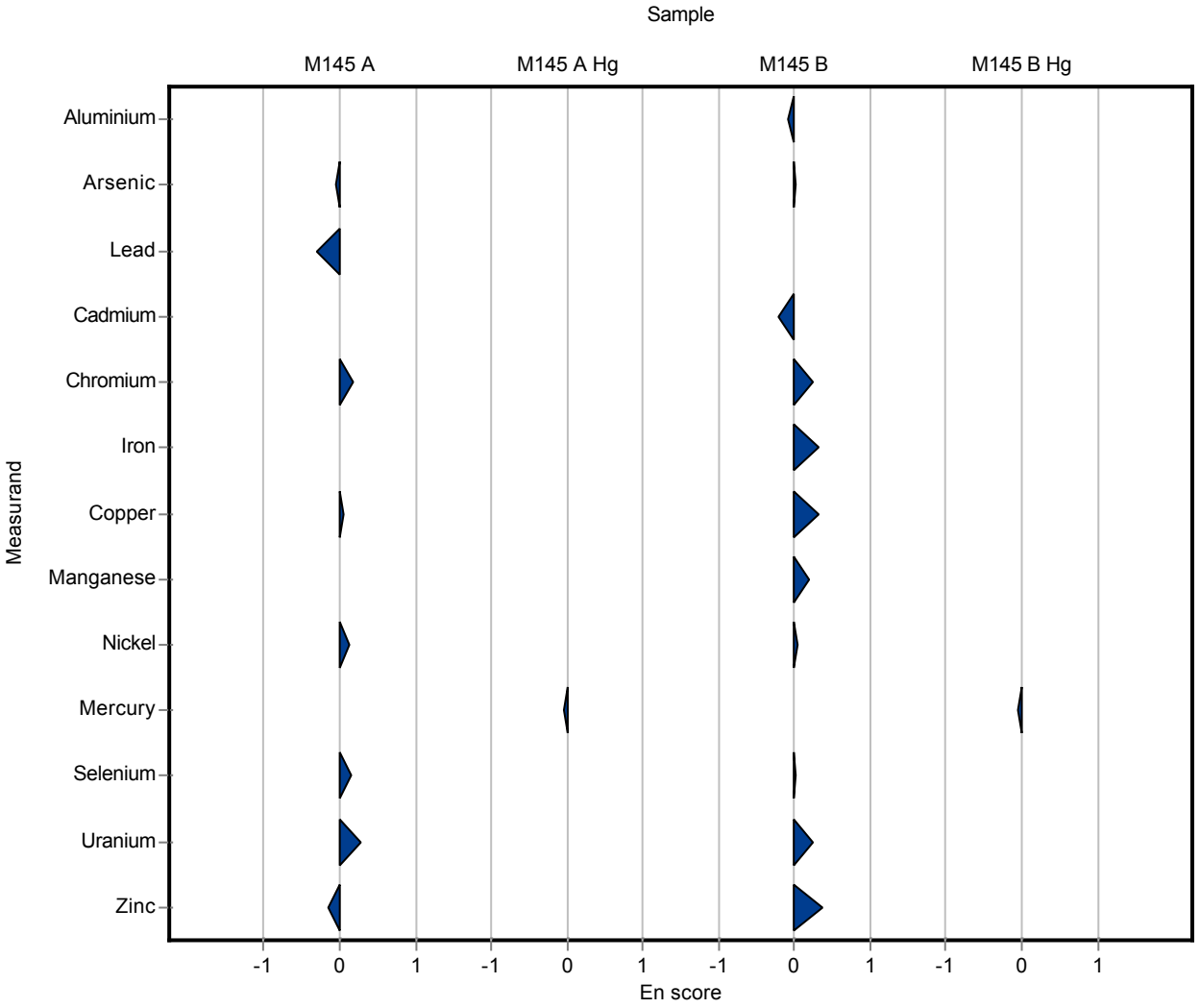
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.44 ± 0.53	0.222	97.2	-0.04

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8.16 ± 1.38	1.26	97	-0.09
Arsenic	µg/l	1.74 ± 0.0532	1.75 ± 0.22	0.261	100	0.02
Lead	µg/l	0.338 ± 0.0276	<0.3 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.292 ± 0.04	0.034	94.6	-0.21
Chromium	µg/l	2.33 ± 0.0667	2.51 ± 0.37	0.221	108	0.24
Iron	µg/l	14.6 ± 0.471	15.6 ± 1.59	1.46	107	0.32
Copper	µg/l	8.17 ± 0.2	8.86 ± 1.07	0.735	109	0.32
Manganese	µg/l	7.98 ± 0.162	8.4 ± 1.12	0.583	105	0.19
Nickel	µg/l	2.77 ± 0.0721	2.81 ± 0.54	0.277	101	0.04
Selenium	µg/l	1.26 ± 0.0451	1.26 ± 0.21	0.163	100	0.01
Uranium	µg/l	1.3 ± 0.0383	1.37 ± 0.15	0.0899	106	0.24
Zinc	µg/l	15.8 ± 0.77	17.1 ± 1.71	2.04	108	0.37

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.82 ± 0.66	0.282	96.7	-0.05



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.99 ± 0.09	0.271	110	0.68
Lead	µg/l	1.28 ± 0.0432	1.24 ± 0.06	0.191	97.2	-0.19
Cadmium	µg/l	0.109 ± 0.00374	0.11 ± 0.011	0.012	101	0.08
Chromium	µg/l	5.99 ± 0.105	5.41 ± 0.12	0.569	90.3	-1.02
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	21.3 ± 0.25	1.92	100	0.00
Manganese	µg/l	0.979 ± 0.0504	<2 (LOD) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.67 ± 0.11	0.18	104	0.40
Selenium	µg/l	6.61 ± 0.164	7.1 ± 0.17	0.86	107	0.56
Uranium	µg/l	1.94 ± 0.056	1.83 ± 0.1	0.132	94.3	-0.84
Zinc	µg/l	34.3 ± 1.03	35.2 ± 0.34	2.91	103	0.32

Sample: M145AHG

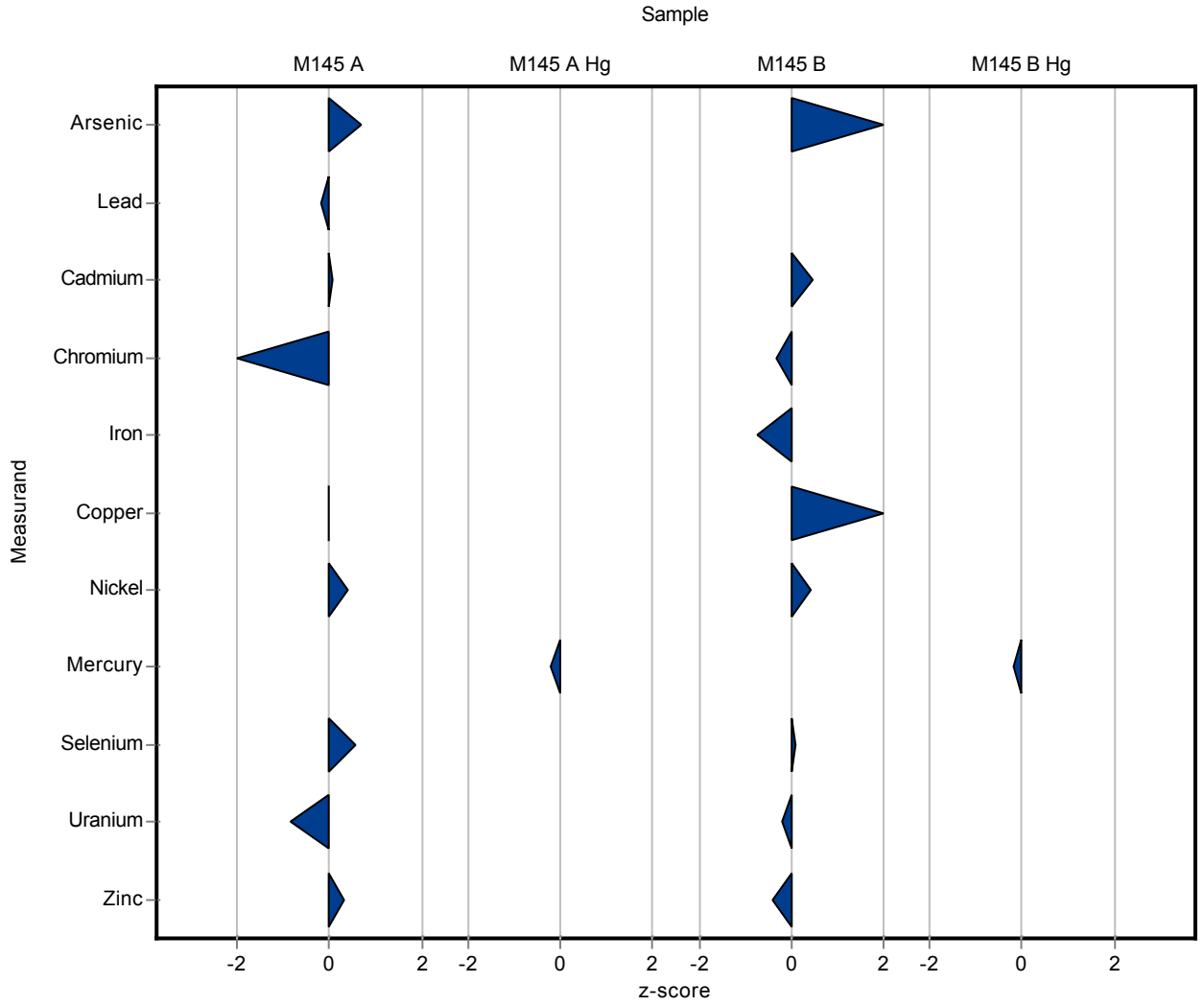
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.43 ± 0.019	0.222	96.6	-0.23

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	2.03 ± 0.09	0.261	117	1.10
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.325 ± 0.013	0.034	105	0.48
Chromium	µg/l	2.33 ± 0.0667	2.26 ± 0.14	0.221	97	-0.32
Iron	µg/l	14.6 ± 0.471	13.5 ± 0.76	1.46	92.6	-0.74
Copper	µg/l	8.17 ± 0.2	8.96 ± 0.06	0.735	110	1.08
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	2.88 ± 0.08	0.277	104	0.40
Selenium	µg/l	1.26 ± 0.0451	1.27 ± 0.21	0.163	101	0.08
Uranium	µg/l	1.3 ± 0.0383	1.28 ± 0.11	0.0899	98.7	-0.18
Zinc	µg/l	15.8 ± 0.77	15 ± 0.35	2.04	95	-0.39

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.83 ± 0.02	0.282	97.2	-0.18



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.99 ± 0.09	0.271	110	1.00
Lead	µg/l	1.28 ± 0.0432	1.24 ± 0.06	0.191	97.2	-0.28
Cadmium	µg/l	0.109 ± 0.00374	0.11 ± 0.011	0.012	101	0.04
Chromium	µg/l	5.99 ± 0.105	5.41 ± 0.12	0.569	90.3	-2.21
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	21.3 ± 0.25	1.92	100	0.00
Manganese	µg/l	0.979 ± 0.0504	<2 (LOD) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.67 ± 0.11	0.18	104	0.31
Selenium	µg/l	6.61 ± 0.164	7.1 ± 0.17	0.86	107	1.29
Uranium	µg/l	1.94 ± 0.056	1.83 ± 0.1	0.132	94.3	-0.53
Zinc	µg/l	34.3 ± 1.03	35.2 ± 0.34	2.91	103	0.75

Sample: M145AHG

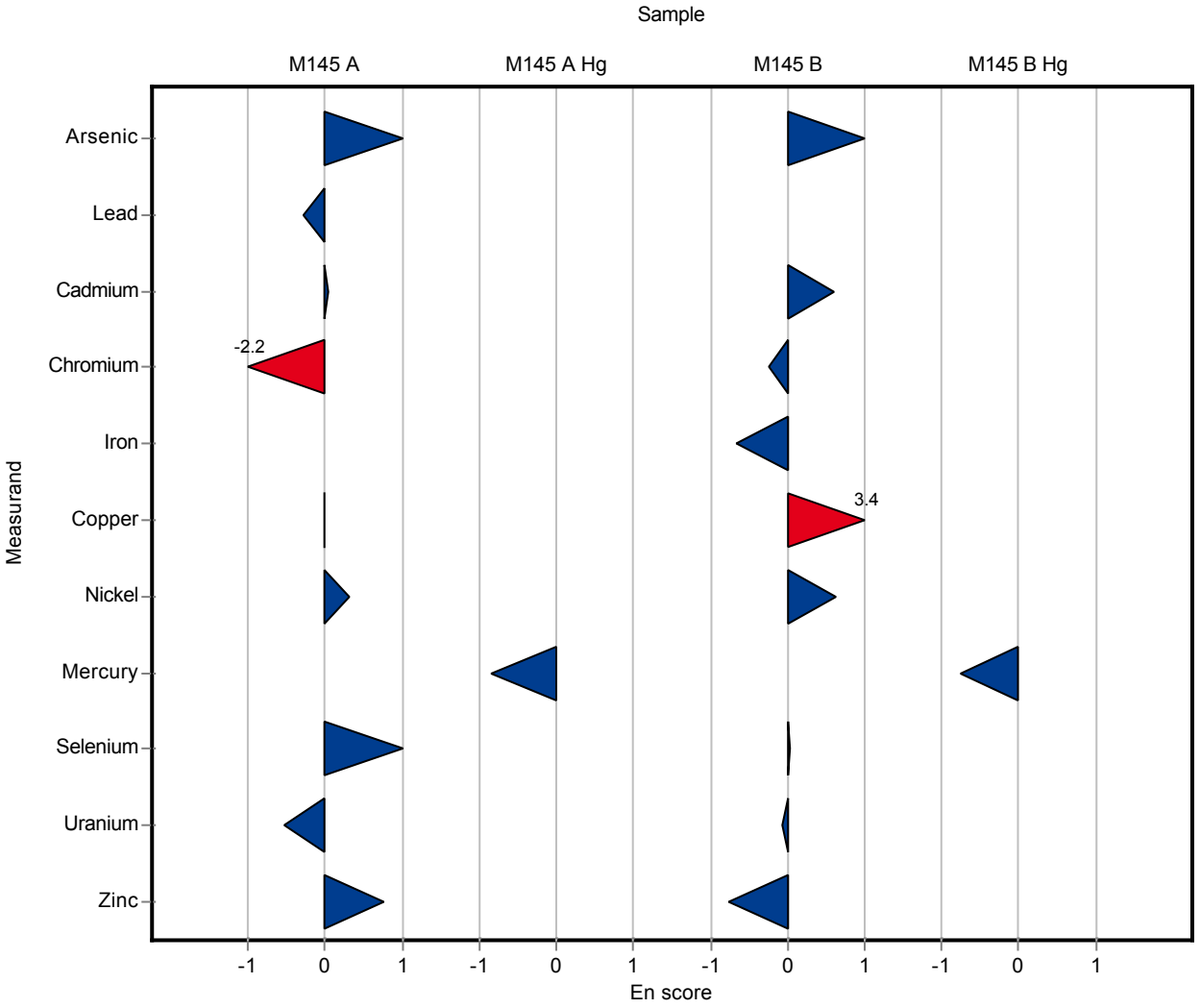
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.43 ± 0.019	0.222	96.6	-0.86

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	2.03 ± 0.09	0.261	117	1.53
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.325 ± 0.013	0.034	105	0.61
Chromium	µg/l	2.33 ± 0.0667	2.26 ± 0.14	0.221	97	-0.24
Iron	µg/l	14.6 ± 0.471	13.5 ± 0.76	1.46	92.6	-0.68
Copper	µg/l	8.17 ± 0.2	8.96 ± 0.06	0.735	110	3.40
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	2.88 ± 0.08	0.277	104	0.64
Selenium	µg/l	1.26 ± 0.0451	1.27 ± 0.21	0.163	101	0.03
Uranium	µg/l	1.3 ± 0.0383	1.28 ± 0.11	0.0899	98.7	-0.07
Zinc	µg/l	15.8 ± 0.77	15 ± 0.35	2.04	95	-0.76

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.83 ± 0.02	0.282	97.2	-0.75



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<400 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	<10 (LOQ) ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	<600 (LOQ) ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	<2 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	<40 (LOQ) ± -	0.569	-	-
Iron	µg/l	6.21 ± 0.382	<200 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	<60 (LOQ) ± -	1.92	-	-
Manganese	µg/l	0.979 ± 0.0504	<40 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	<10 (LOQ) ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	<100 (LOQ) ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	188 ± 20	2.91	549	52.80

Sample: M145AHG

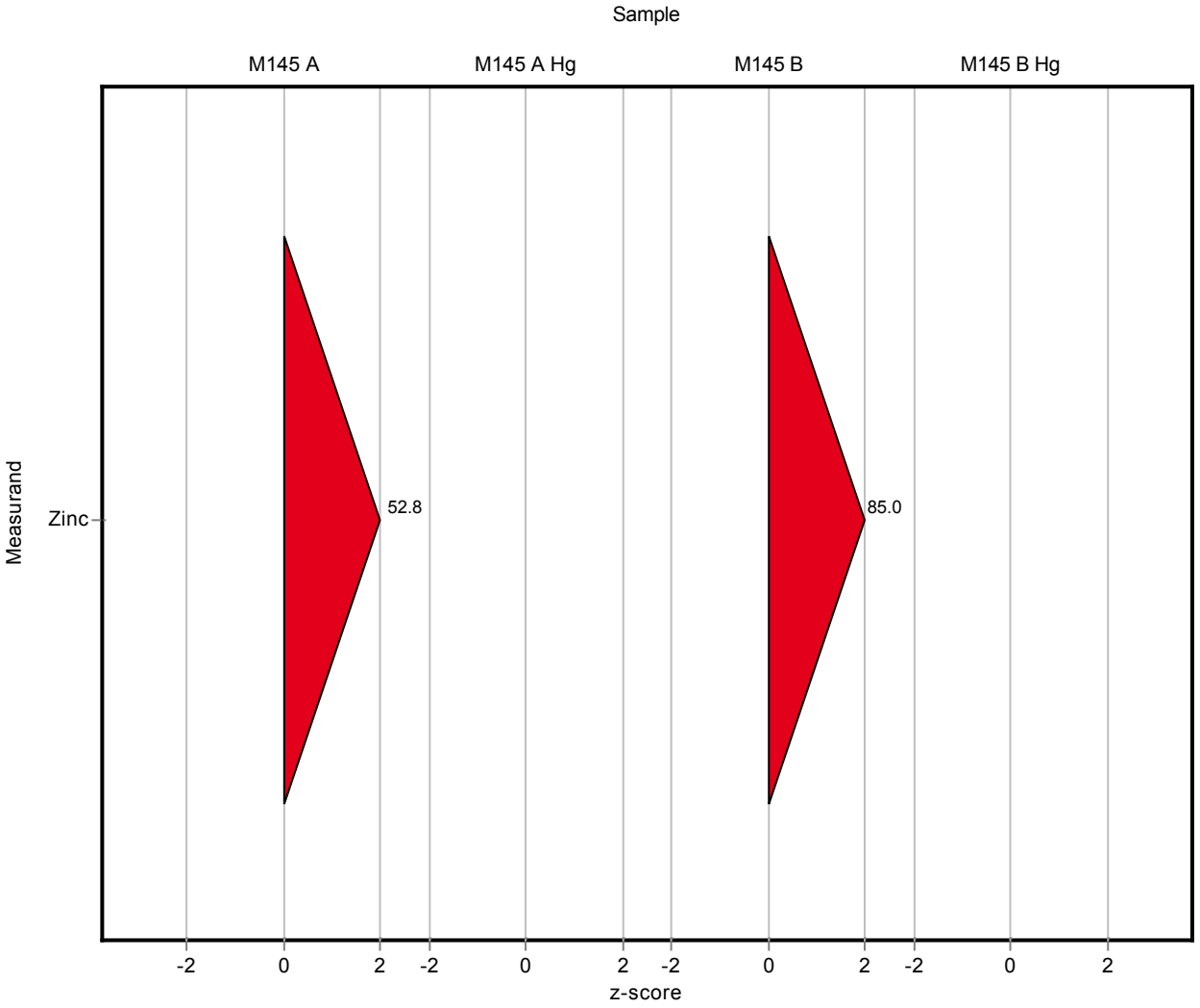
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	<20 (LOD) ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<400 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	<10 (LOQ) ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	<600 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<2 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	<40 (LOQ) ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	<200 (LOQ) ± -	1.46	-	-
Copper	µg/l	8.17 ± 0.2	<60 (LOQ) ± -	0.735	-	-
Manganese	µg/l	7.98 ± 0.162	<40 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	<10 (LOQ) ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	<100 (LOQ) ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	189 ± 20	2.04	1200	85.00

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	<20 (LOD) ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<400 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	<10 (LOQ) ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	<600 (LOQ) ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	<2 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	<40 (LOQ) ± -	0.569	-	-
Iron	µg/l	6.21 ± 0.382	<200 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	<60 (LOQ) ± -	1.92	-	-
Manganese	µg/l	0.979 ± 0.0504	<40 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	<10 (LOQ) ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	<100 (LOQ) ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	188 ± 20	2.91	549	3.84

Sample: M145AHG

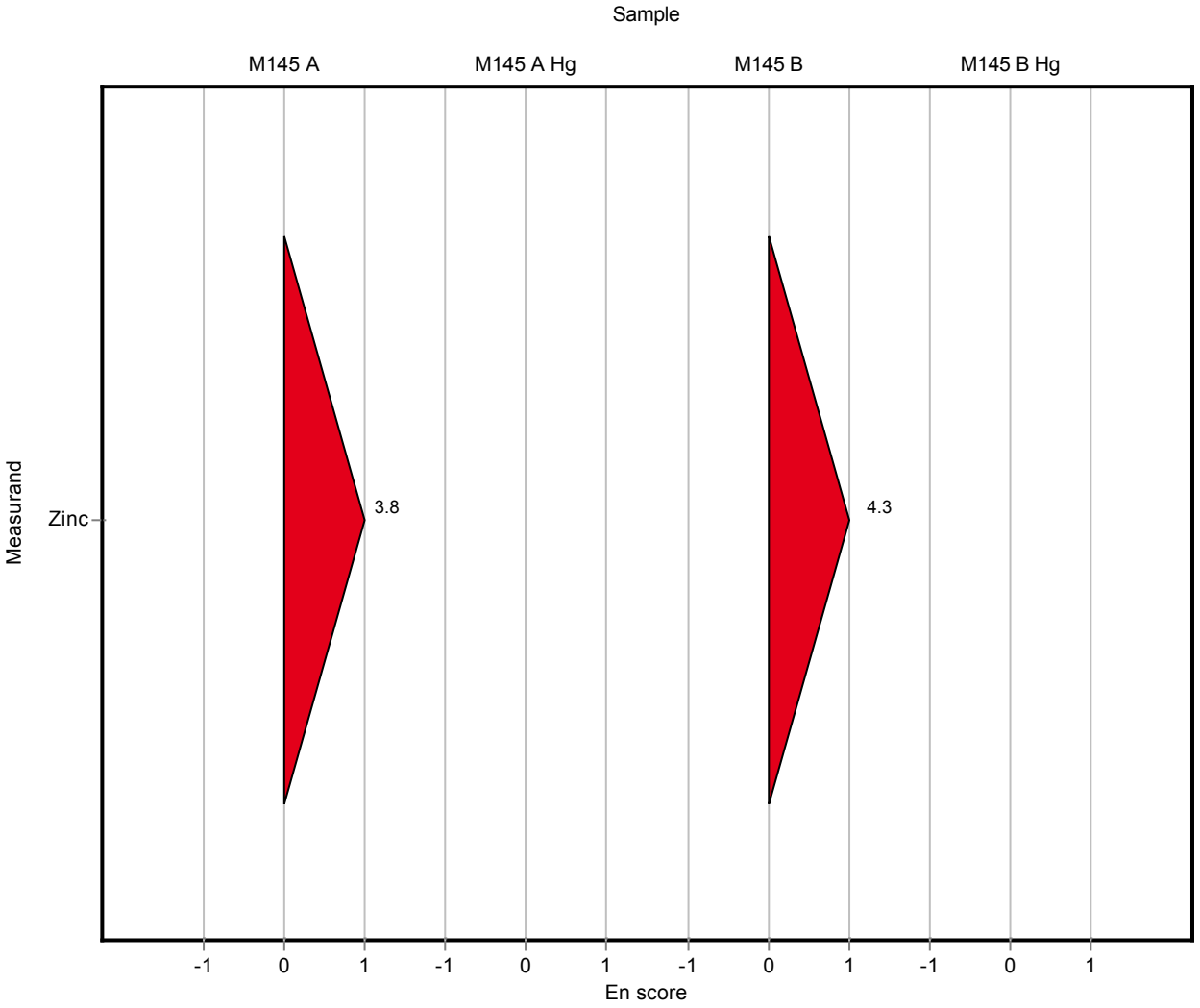
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	<20 (LOD) ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<400 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	<10 (LOQ) ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	<600 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<2 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	<40 (LOQ) ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	<200 (LOQ) ± -	1.46	-	-
Copper	µg/l	8.17 ± 0.2	<60 (LOQ) ± -	0.735	-	-
Manganese	µg/l	7.98 ± 0.162	<40 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	<10 (LOQ) ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	<100 (LOQ) ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	189 ± 20	2.04	1200	4.33

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	<20 (LOD) ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	3.68 ± 0.37	0.741	87.8	-0.69
Arsenic	µg/l	1.81 ± 0.0355	2.31 ± 0.35	0.271	128	1.86
Lead	µg/l	1.28 ± 0.0432	1.22 ± 0.09	0.191	95.6	-0.29
Cadmium	µg/l	0.109 ± 0.00374	0.11 ± 0.01	0.012	101	0.08
Chromium	µg/l	5.99 ± 0.105	6.08 ± 0.46	0.569	102	0.16
Iron	µg/l	6.21 ± 0.382	6.19 ± 0.62	0.763	99.7	-0.02
Copper	µg/l	21.3 ± 0.391	21 ± 2.1	1.92	98.6	-0.16
Manganese	µg/l	0.979 ± 0.0504	0.938 ± 0.07	0.0873	95.8	-0.47
Nickel	µg/l	1.6 ± 0.0753	1.45 ± 0.11	0.18	90.7	-0.82
Selenium	µg/l	6.61 ± 0.164	7.08 ± 0.53	0.86	107	0.54
Uranium	µg/l	1.94 ± 0.056	1.99 ± 0.2	0.132	103	0.38
Zinc	µg/l	34.3 ± 1.03	36 ± 5.4	2.91	105	0.59

Sample: M145AHG

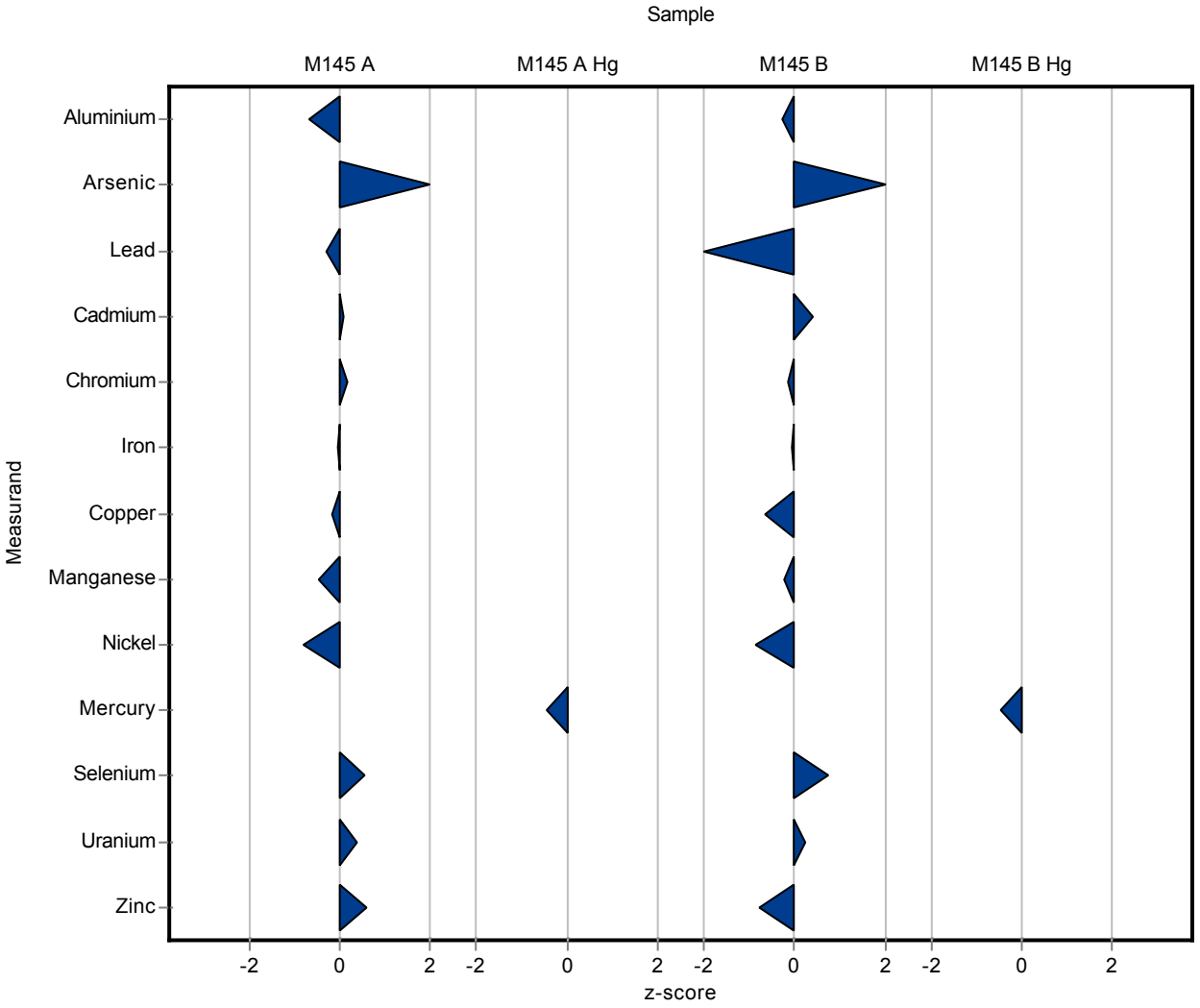
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.38 ± 0.14	0.222	93.2	-0.45

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8.07 ± 0.81	1.26	95.9	-0.27
Arsenic	µg/l	1.74 ± 0.0532	2.04 ± 0.31	0.261	117	1.14
Lead	µg/l	0.338 ± 0.0276	0.269 ± 0.02	0.0507	79.6	-1.36
Cadmium	µg/l	0.309 ± 0.00659	0.323 ± 0.032	0.034	105	0.42
Chromium	µg/l	2.33 ± 0.0667	2.3 ± 0.17	0.221	98.7	-0.14
Iron	µg/l	14.6 ± 0.471	14.5 ± 1.5	1.46	99.5	-0.05
Copper	µg/l	8.17 ± 0.2	7.69 ± 0.77	0.735	94.2	-0.65
Manganese	µg/l	7.98 ± 0.162	7.85 ± 0.59	0.583	98.4	-0.23
Nickel	µg/l	2.77 ± 0.0721	2.53 ± 0.19	0.277	91.4	-0.86
Selenium	µg/l	1.26 ± 0.0451	1.38 ± 0.1	0.163	110	0.75
Uranium	µg/l	1.3 ± 0.0383	1.32 ± 0.13	0.0899	102	0.26
Zinc	µg/l	15.8 ± 0.77	14.2 ± 2.1	2.04	89.9	-0.78

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.75 ± 0.17	0.282	93	-0.47



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	3.68 ± 0.37	0.741	87.8	-0.62
Arsenic	µg/l	1.81 ± 0.0355	2.31 ± 0.35	0.271	128	0.72
Lead	µg/l	1.28 ± 0.0432	1.22 ± 0.09	0.191	95.6	-0.30
Cadmium	µg/l	0.109 ± 0.00374	0.11 ± 0.01	0.012	101	0.05
Chromium	µg/l	5.99 ± 0.105	6.08 ± 0.46	0.569	102	0.10
Iron	µg/l	6.21 ± 0.382	6.19 ± 0.62	0.763	99.7	-0.01
Copper	µg/l	21.3 ± 0.391	21 ± 2.1	1.92	98.6	-0.07
Manganese	µg/l	0.979 ± 0.0504	0.938 ± 0.07	0.0873	95.8	-0.28
Nickel	µg/l	1.6 ± 0.0753	1.45 ± 0.11	0.18	90.7	-0.64
Selenium	µg/l	6.61 ± 0.164	7.08 ± 0.53	0.86	107	0.43
Uranium	µg/l	1.94 ± 0.056	1.99 ± 0.2	0.132	103	0.12
Zinc	µg/l	34.3 ± 1.03	36 ± 5.4	2.91	105	0.16

Sample: M145AHG

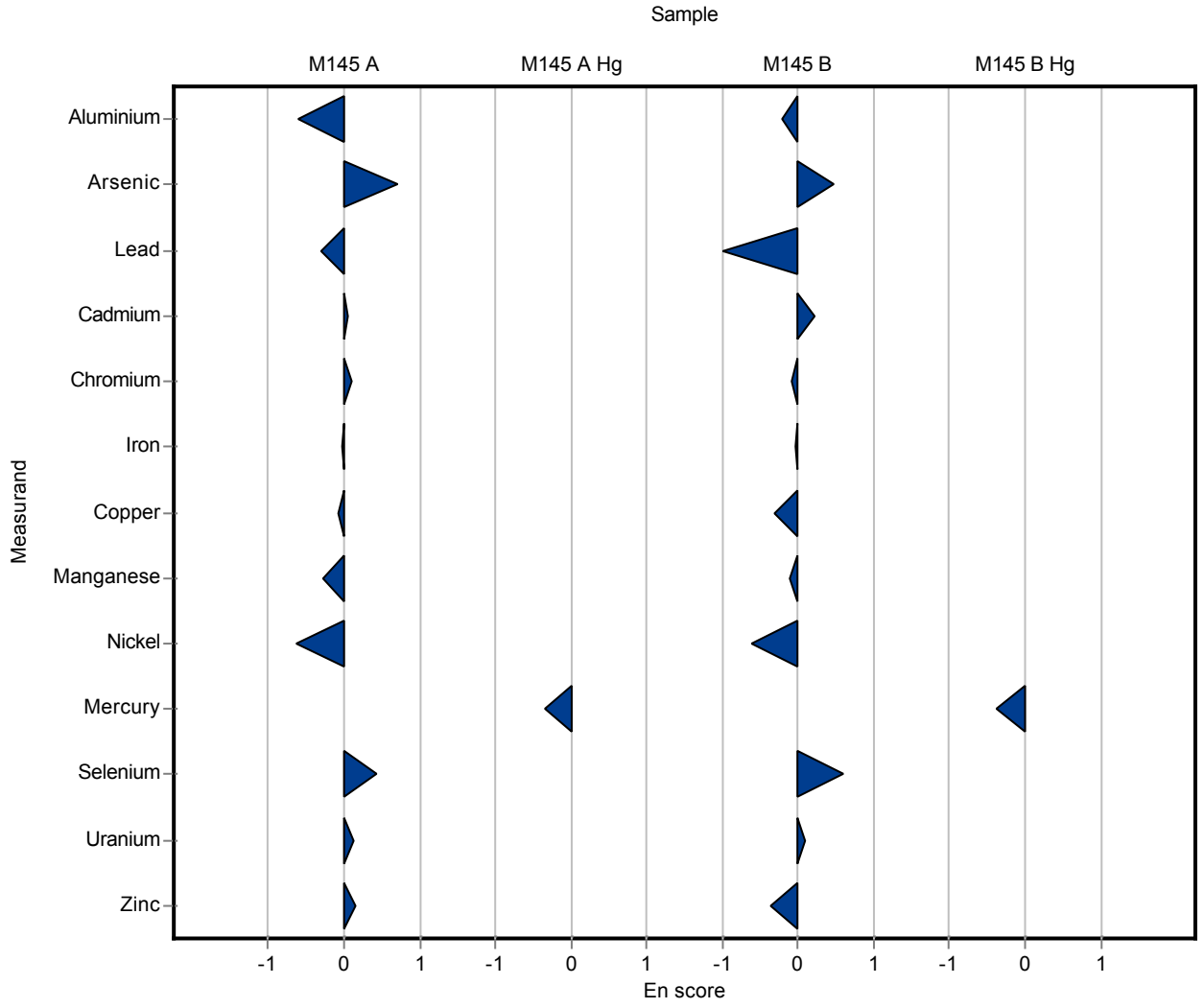
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.38 ± 0.14	0.222	93.2	-0.35

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8.07 ± 0.81	1.26	95.9	-0.21
Arsenic	µg/l	1.74 ± 0.0532	2.04 ± 0.31	0.261	117	0.48
Lead	µg/l	0.338 ± 0.0276	0.269 ± 0.02	0.0507	79.6	-1.42
Cadmium	µg/l	0.309 ± 0.00659	0.323 ± 0.032	0.034	105	0.22
Chromium	µg/l	2.33 ± 0.0667	2.3 ± 0.17	0.221	98.7	-0.09
Iron	µg/l	14.6 ± 0.471	14.5 ± 1.5	1.46	99.5	-0.02
Copper	µg/l	8.17 ± 0.2	7.69 ± 0.77	0.735	94.2	-0.31
Manganese	µg/l	7.98 ± 0.162	7.85 ± 0.59	0.583	98.4	-0.11
Nickel	µg/l	2.77 ± 0.0721	2.53 ± 0.19	0.277	91.4	-0.62
Selenium	µg/l	1.26 ± 0.0451	1.38 ± 0.1	0.163	110	0.60
Uranium	µg/l	1.3 ± 0.0383	1.32 ± 0.13	0.0899	102	0.09
Zinc	µg/l	15.8 ± 0.77	14.2 ± 2.1	2.04	89.9	-0.37

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.75 ± 0.17	0.282	93	-0.38



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	- ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	- ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	- ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	- ± -	0.569	-	-
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	25 ± 10	1.92	117	1.93
Manganese	µg/l	0.979 ± 0.0504	<10 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	- ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	42 ± 15	2.91	123	2.65

Sample: M145AHG

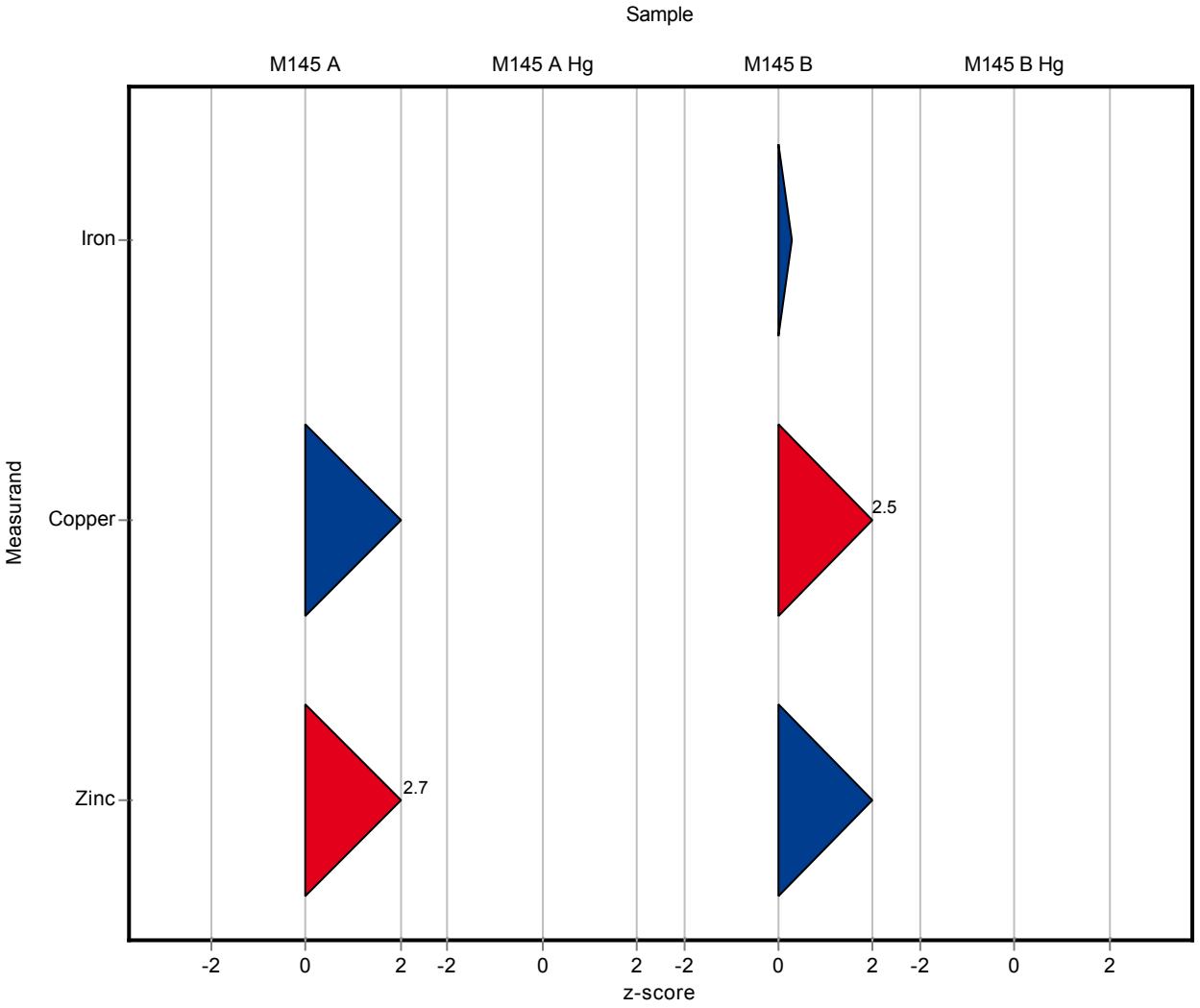
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	- ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	- ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	- ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	- ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	- ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	15 ± 10	1.46	103	0.29
Copper	µg/l	8.17 ± 0.2	10 ± 10	0.735	122	2.50
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	- ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	18 ± 15	2.04	114	1.08

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	- ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	- ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	- ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	- ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	- ± -	0.569	-	-
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	25 ± 10	1.92	117	0.18
Manganese	µg/l	0.979 ± 0.0504	<10 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	- ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	42 ± 15	2.91	123	0.26

Sample: M145AHG

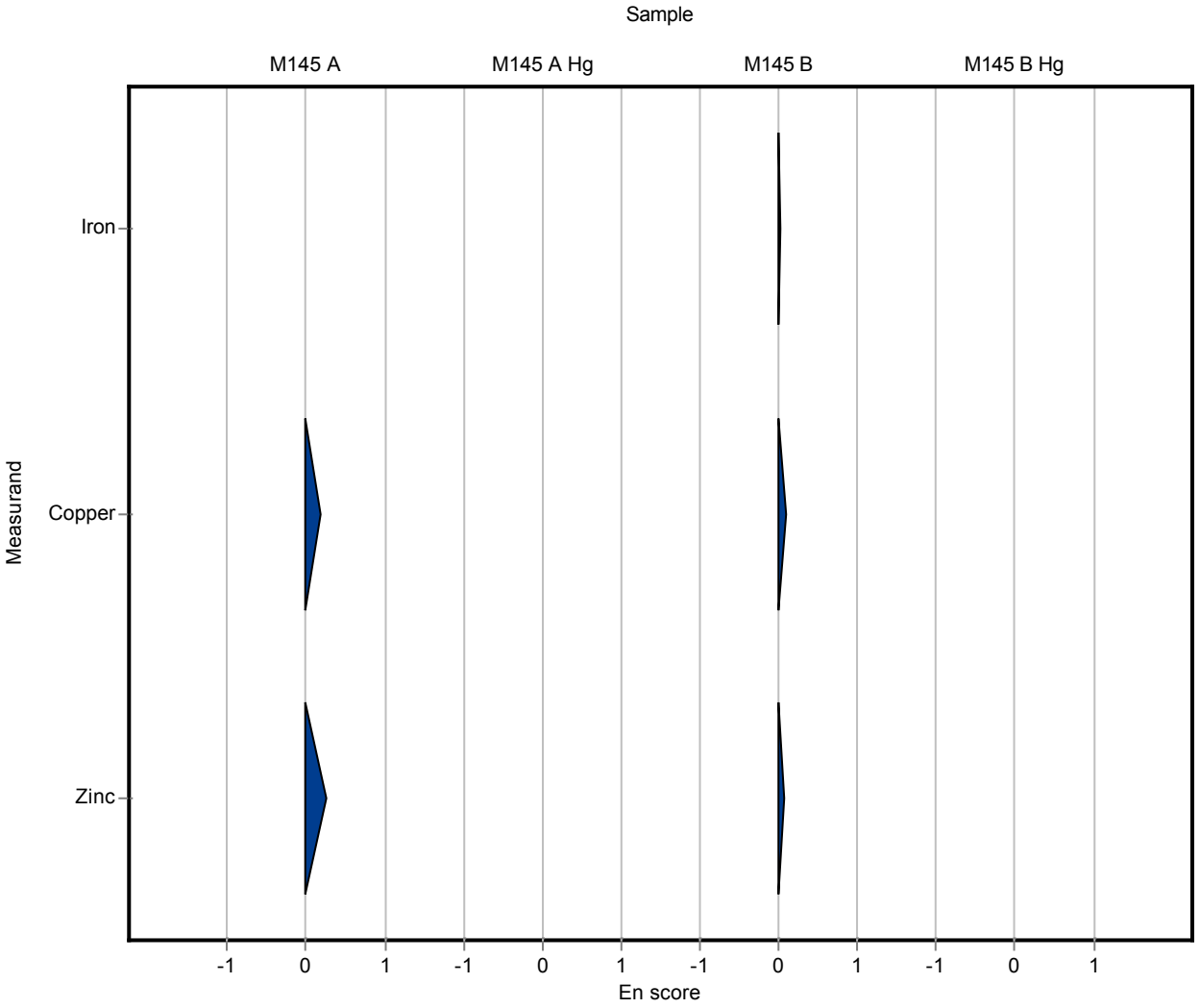
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	- ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	- ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	- ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	- ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	- ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	15 ± 10	1.46	103	0.02
Copper	µg/l	8.17 ± 0.2	10 ± 10	0.735	122	0.09
Manganese	µg/l	7.98 ± 0.162	<10 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	- ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	18 ± 15	2.04	114	0.07

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	- ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	3.9126 ± 0.473	0.741	93.3	-0.38
Arsenic	µg/l	1.81 ± 0.0355	1.7688 ± 0.302	0.271	97.9	-0.14
Lead	µg/l	1.28 ± 0.0432	1.3229 ± 0.193	0.191	104	0.24
Cadmium	µg/l	0.109 ± 0.00374	0.10957 ± 0.019	0.012	101	0.05
Chromium	µg/l	5.99 ± 0.105	6.0661 ± 0.576	0.569	101	0.14
Iron	µg/l	6.21 ± 0.382	6.1381 ± 0.387	0.763	98.9	-0.09
Copper	µg/l	21.3 ± 0.391	21.275 ± 2.383	1.92	99.9	-0.01
Manganese	µg/l	0.979 ± 0.0504	0.93301 ± 0.0616	0.0873	95.3	-0.53
Nickel	µg/l	1.6 ± 0.0753	1.4964 ± 0.165	0.18	93.6	-0.56
Selenium	µg/l	6.61 ± 0.164	6.3557 ± 0.699	0.86	96.1	-0.30
Uranium	µg/l	1.94 ± 0.056	2.0363 ± 0.177	0.132	105	0.73
Zinc	µg/l	34.3 ± 1.03	34.142 ± 3.48	2.91	99.6	-0.04

Sample: M145AHG

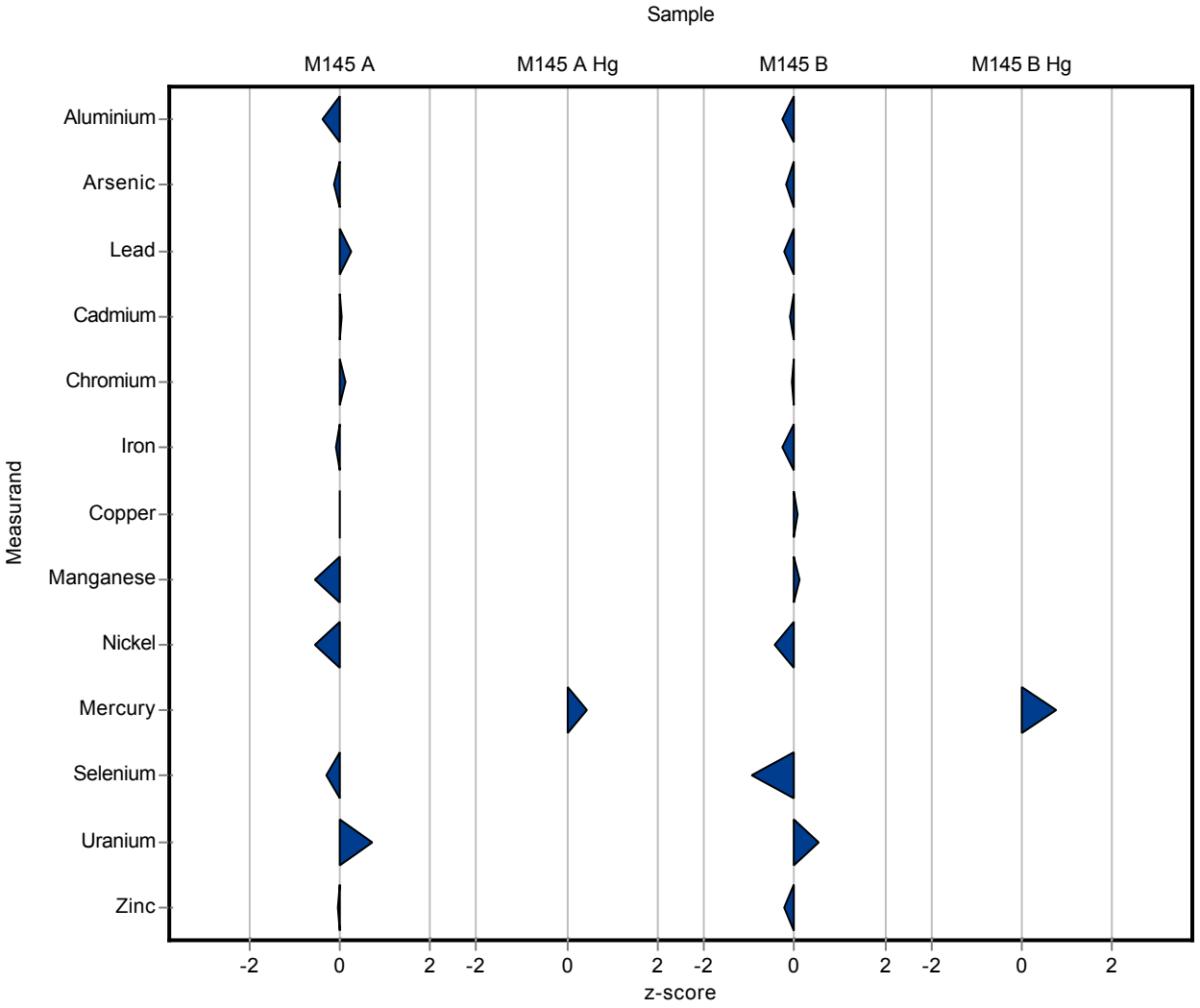
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.574 ± 0.373	0.222	106	0.42

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8.0644 ± 0.976	1.26	95.8	-0.28
Arsenic	µg/l	1.74 ± 0.0532	1.6973 ± 0.29	0.261	97.4	-0.17
Lead	µg/l	0.338 ± 0.0276	0.32562 ± 0.048	0.0507	96.3	-0.24
Cadmium	µg/l	0.309 ± 0.00659	0.30512 ± 0.0525	0.034	98.8	-0.11
Chromium	µg/l	2.33 ± 0.0667	2.3161 ± 0.22	0.221	99.4	-0.06
Iron	µg/l	14.6 ± 0.471	14.174 ± 0.893	1.46	97.3	-0.28
Copper	µg/l	8.17 ± 0.2	8.2147 ± 0.92	0.735	101	0.07
Manganese	µg/l	7.98 ± 0.162	8.0443 ± 0.531	0.583	101	0.11
Nickel	µg/l	2.77 ± 0.0721	2.6498 ± 0.291	0.277	95.7	-0.43
Selenium	µg/l	1.26 ± 0.0451	1.1049 ± 0.122	0.163	87.9	-0.93
Uranium	µg/l	1.3 ± 0.0383	1.3434 ± 0.117	0.0899	104	0.52
Zinc	µg/l	15.8 ± 0.77	15.292 ± 1.56	2.04	96.8	-0.24

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	2.0969 ± 0.497	0.282	111	0.76



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	3.9126 ± 0.473	0.741	93.3	-0.28
Arsenic	µg/l	1.81 ± 0.0355	1.7688 ± 0.302	0.271	97.9	-0.06
Lead	µg/l	1.28 ± 0.0432	1.3229 ± 0.193	0.191	104	0.12
Cadmium	µg/l	0.109 ± 0.00374	0.10957 ± 0.019	0.012	101	0.01
Chromium	µg/l	5.99 ± 0.105	6.0661 ± 0.576	0.569	101	0.07
Iron	µg/l	6.21 ± 0.382	6.1381 ± 0.387	0.763	98.9	-0.08
Copper	µg/l	21.3 ± 0.391	21.275 ± 2.383	1.92	99.9	-0.01
Manganese	µg/l	0.979 ± 0.0504	0.93301 ± 0.0616	0.0873	95.3	-0.35
Nickel	µg/l	1.6 ± 0.0753	1.4964 ± 0.165	0.18	93.6	-0.30
Selenium	µg/l	6.61 ± 0.164	6.3557 ± 0.699	0.86	96.1	-0.18
Uranium	µg/l	1.94 ± 0.056	2.0363 ± 0.177	0.132	105	0.27
Zinc	µg/l	34.3 ± 1.03	34.142 ± 3.48	2.91	99.6	-0.02

Sample: M145AHG

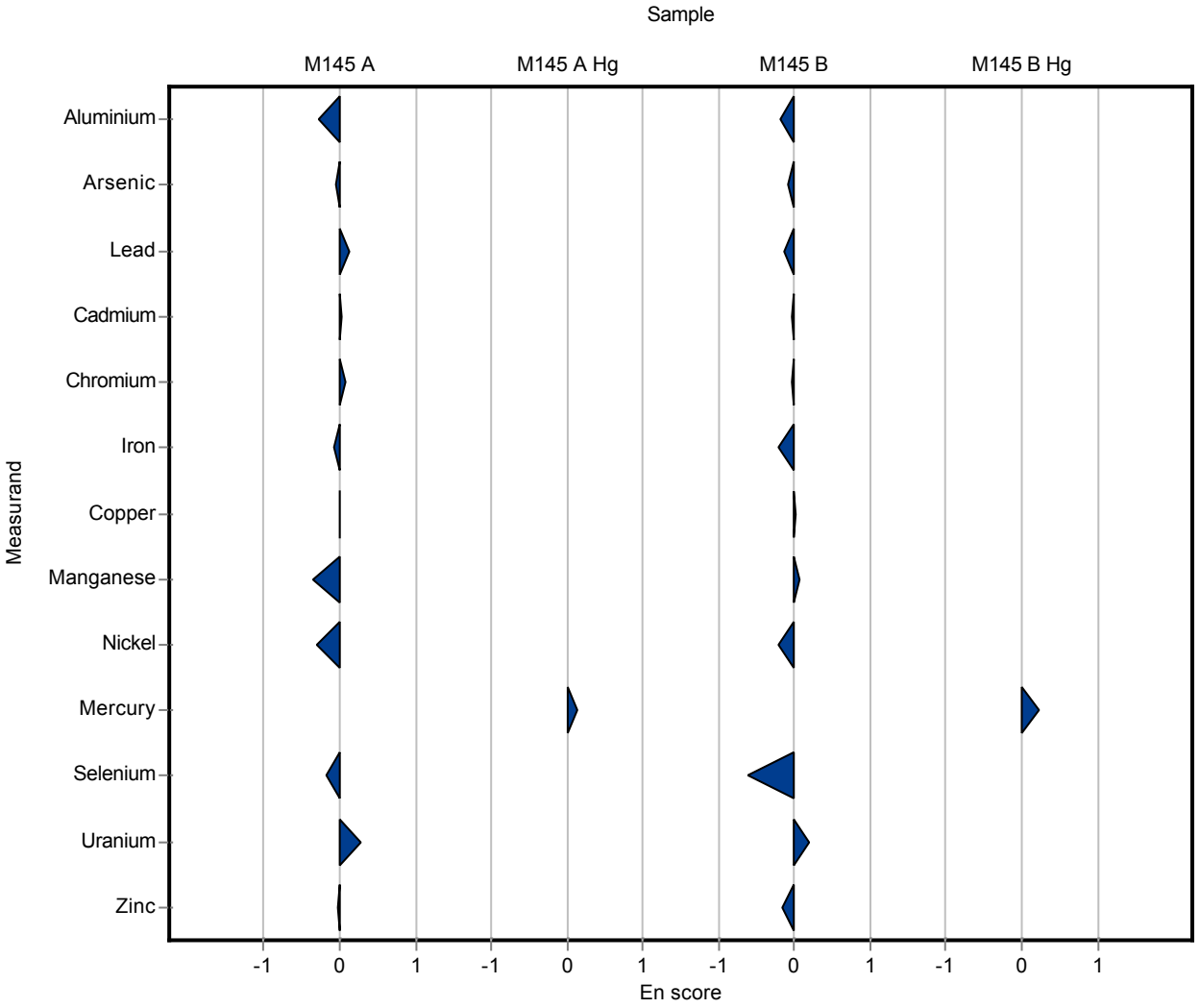
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.574 ± 0.373	0.222	106	0.13

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8.0644 ± 0.976	1.26	95.8	-0.18
Arsenic	µg/l	1.74 ± 0.0532	1.6973 ± 0.29	0.261	97.4	-0.08
Lead	µg/l	0.338 ± 0.0276	0.32562 ± 0.048	0.0507	96.3	-0.12
Cadmium	µg/l	0.309 ± 0.00659	0.30512 ± 0.0525	0.034	98.8	-0.03
Chromium	µg/l	2.33 ± 0.0667	2.3161 ± 0.22	0.221	99.4	-0.03
Iron	µg/l	14.6 ± 0.471	14.174 ± 0.893	1.46	97.3	-0.22
Copper	µg/l	8.17 ± 0.2	8.2147 ± 0.92	0.735	101	0.03
Manganese	µg/l	7.98 ± 0.162	8.0443 ± 0.531	0.583	101	0.06
Nickel	µg/l	2.77 ± 0.0721	2.6498 ± 0.291	0.277	95.7	-0.20
Selenium	µg/l	1.26 ± 0.0451	1.1049 ± 0.122	0.163	87.9	-0.61
Uranium	µg/l	1.3 ± 0.0383	1.3434 ± 0.117	0.0899	104	0.20
Zinc	µg/l	15.8 ± 0.77	15.292 ± 1.56	2.04	96.8	-0.15

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	2.0969 ± 0.497	0.282	111	0.22



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	7 ± 2	0.741	167	3.79
Arsenic	µg/l	1.81 ± 0.0355	2 ± 1	0.271	111	0.71
Lead	µg/l	1.28 ± 0.0432	<1 (LOQ) ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	<0.1 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6 ± 1	0.569	100	0.02
Iron	µg/l	6.21 ± 0.382	<50 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	21 ± 3	1.92	98.6	-0.16
Manganese	µg/l	0.979 ± 0.0504	<20 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1 ± 1	0.18	62.6	-3.32
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	36 ± 10	2.91	105	0.59

Sample: M145AHG

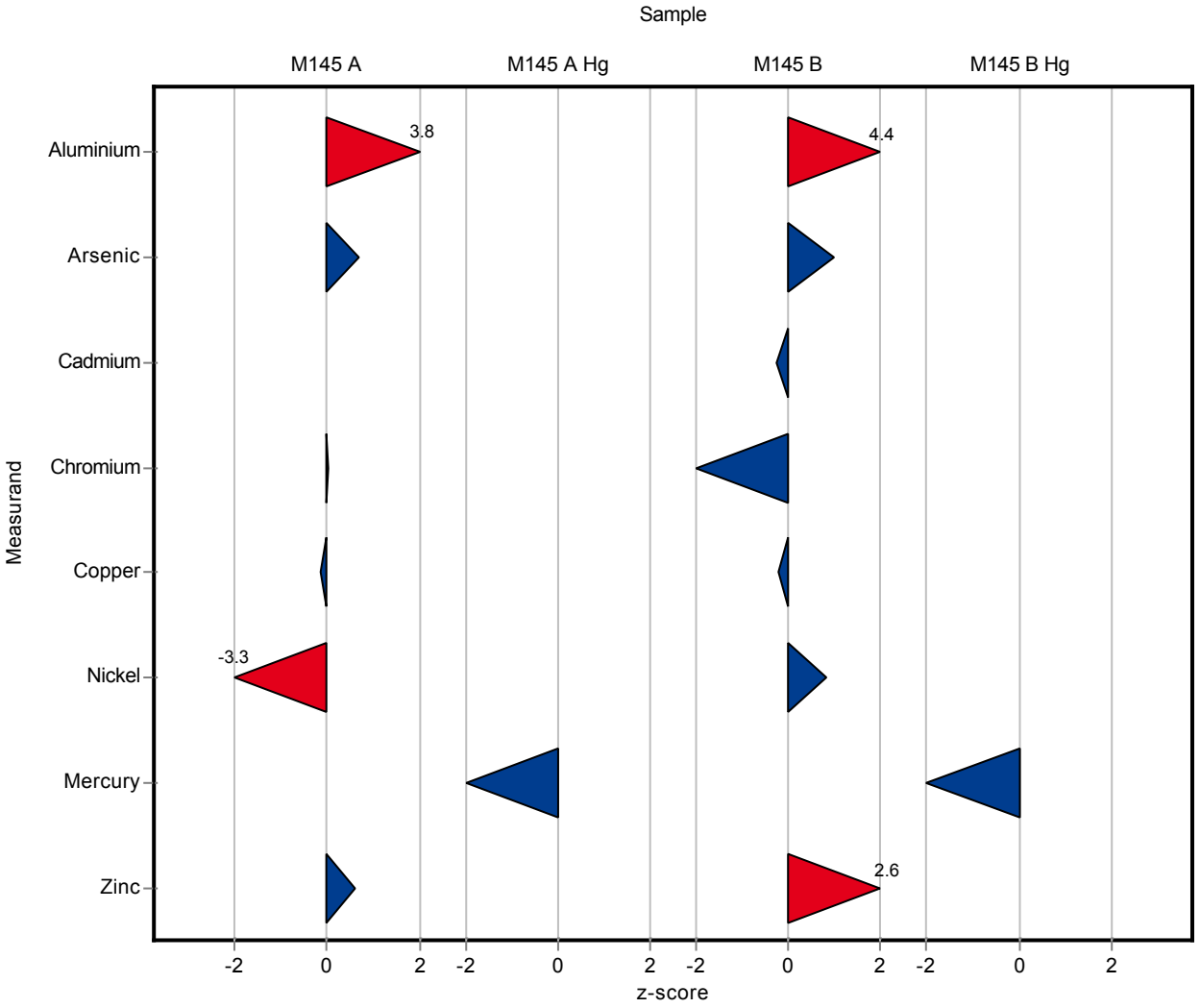
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.18 ± 0.1	0.222	79.7	-1.35

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	14 ± 3	1.26	166	4.42
Arsenic	µg/l	1.74 ± 0.0532	2 ± 1	0.261	115	0.99
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.1	0.034	97.2	-0.26
Chromium	µg/l	2.33 ± 0.0667	2 ± 1	0.221	85.8	-1.49
Iron	µg/l	14.6 ± 0.471	<50 (LOQ) ± -	1.46	-	-
Copper	µg/l	8.17 ± 0.2	8 ± 2	0.735	98	-0.23
Manganese	µg/l	7.98 ± 0.162	<20 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	3 ± 1	0.277	108	0.84
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	21 ± 10	2.04	133	2.56

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.51 ± 0.15	0.282	80.2	-1.32



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	7 ± 2	0.741	167	0.70
Arsenic	µg/l	1.81 ± 0.0355	2 ± 1	0.271	111	0.10
Lead	µg/l	1.28 ± 0.0432	<1 (LOQ) ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	<0.1 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6 ± 1	0.569	100	0.01
Iron	µg/l	6.21 ± 0.382	<50 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	21 ± 3	1.92	98.6	-0.05
Manganese	µg/l	0.979 ± 0.0504	<20 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1 ± 1	0.18	62.6	-0.30
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	36 ± 10	2.91	105	0.09

Sample: M145AHG

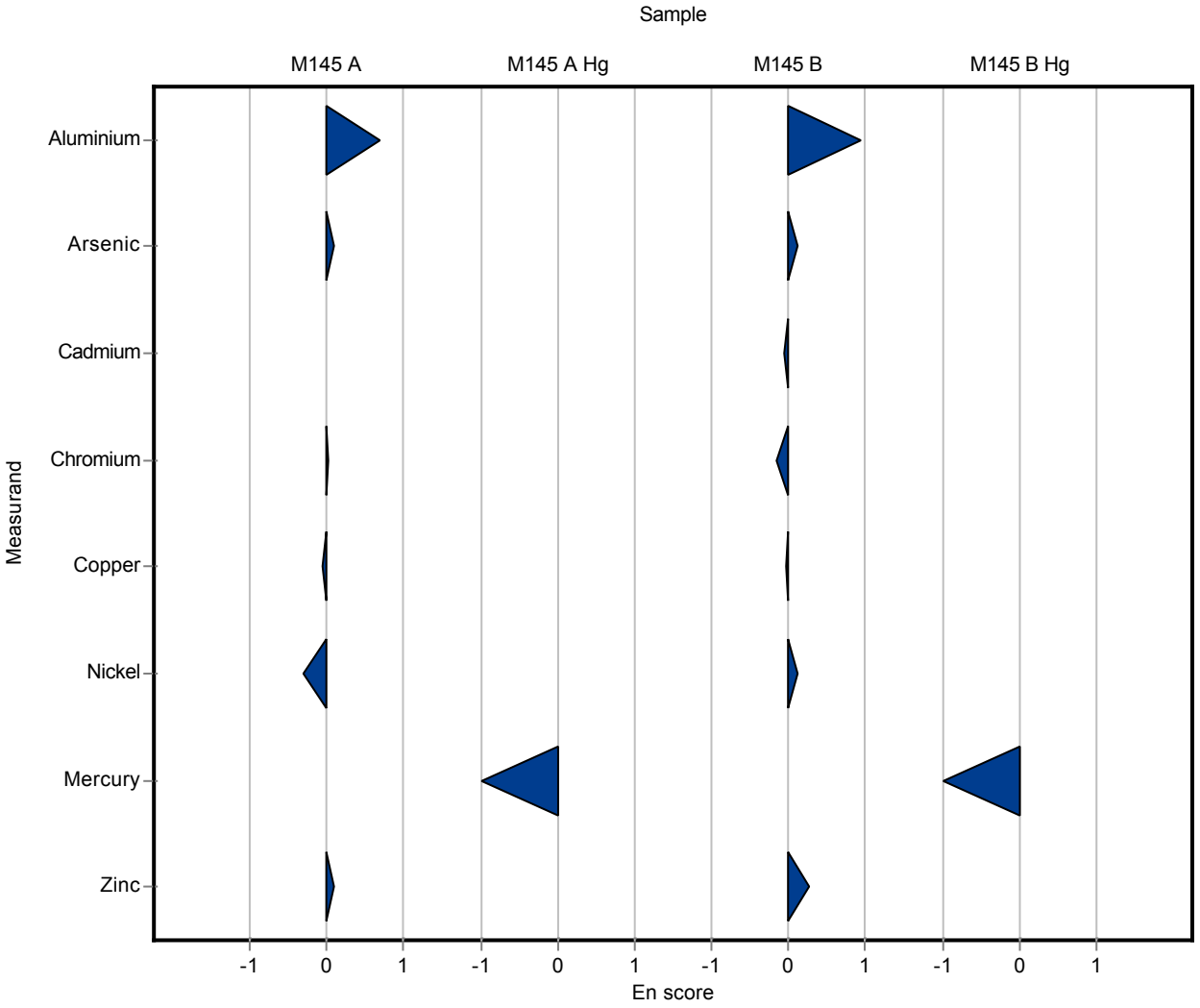
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.18 ± 0.1	0.222	79.7	-1.47

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	14 ± 3	1.26	166	0.93
Arsenic	µg/l	1.74 ± 0.0532	2 ± 1	0.261	115	0.13
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.1	0.034	97.2	-0.04
Chromium	µg/l	2.33 ± 0.0667	2 ± 1	0.221	85.8	-0.17
Iron	µg/l	14.6 ± 0.471	<50 (LOQ) ± -	1.46	-	-
Copper	µg/l	8.17 ± 0.2	8 ± 2	0.735	98	-0.04
Manganese	µg/l	7.98 ± 0.162	<20 (LOQ) ± -	0.583	-	-
Nickel	µg/l	2.77 ± 0.0721	3 ± 1	0.277	108	0.12
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	21 ± 10	2.04	133	0.26

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.51 ± 0.15	0.282	80.2	-1.22



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	4.6 ± 0.5	0.741	110	0.55
Arsenic	µg/l	1.81 ± 0.0355	1.85 ± 0.1	0.271	102	0.16
Lead	µg/l	1.28 ± 0.0432	1.3 ± 0.1	0.191	102	0.13
Cadmium	µg/l	0.109 ± 0.00374	0.105 ± 0.02	0.012	96.3	-0.34
Chromium	µg/l	5.99 ± 0.105	6.3 ± 0.5	0.569	105	0.55
Iron	µg/l	6.21 ± 0.382	7.7 ± 0.5	0.763	124	1.96
Copper	µg/l	21.3 ± 0.391	20.5 ± 1	1.92	96.2	-0.42
Manganese	µg/l	0.979 ± 0.0504	1.05 ± 0.2	0.0873	107	0.81
Nickel	µg/l	1.6 ± 0.0753	1.6 ± 0.2	0.18	100	0.01
Selenium	µg/l	6.61 ± 0.164	5.7 ± 0.4	0.86	86.2	-1.06
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.1	0.132	108	1.22
Zinc	µg/l	34.3 ± 1.03	30 ± 2	2.91	87.5	-1.47

Sample: M145AHG

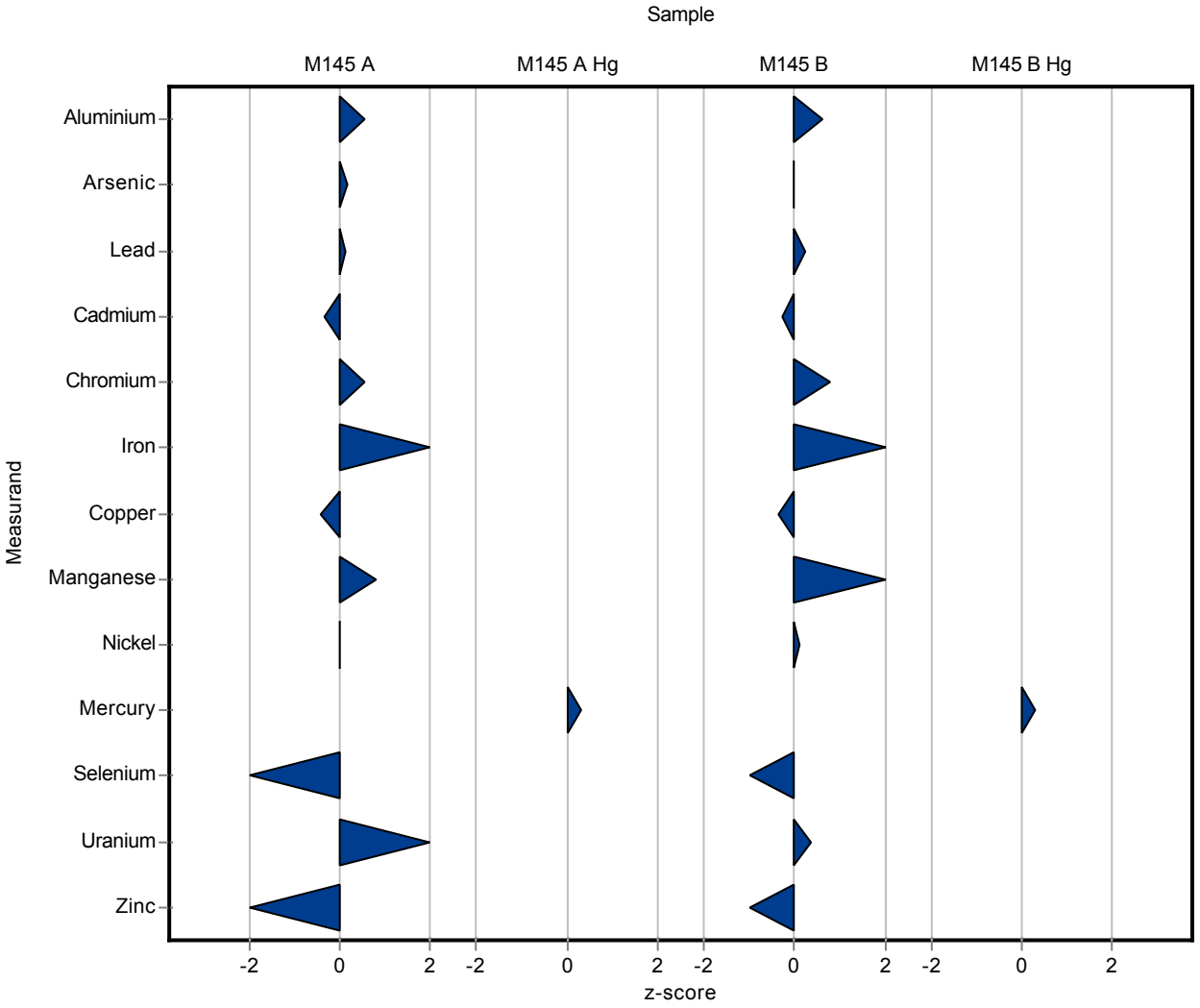
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.55 ± 0.05	0.222	105	0.31

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	9.2 ± 0.5	1.26	109	0.62
Arsenic	µg/l	1.74 ± 0.0532	1.74 ± 0.1	0.261	99.9	-0.01
Lead	µg/l	0.338 ± 0.0276	0.35 ± 0.05	0.0507	104	0.24
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.05	0.034	97.2	-0.26
Chromium	µg/l	2.33 ± 0.0667	2.5 ± 0.2	0.221	107	0.77
Iron	µg/l	14.6 ± 0.471	16.5 ± 1	1.46	113	1.32
Copper	µg/l	8.17 ± 0.2	7.9 ± 0.5	0.735	96.7	-0.36
Manganese	µg/l	7.98 ± 0.162	8.6 ± 0.5	0.583	108	1.06
Nickel	µg/l	2.77 ± 0.0721	2.8 ± 0.2	0.277	101	0.11
Selenium	µg/l	1.26 ± 0.0451	1.1 ± 0.2	0.163	87.5	-0.96
Uranium	µg/l	1.3 ± 0.0383	1.33 ± 0.1	0.0899	103	0.37
Zinc	µg/l	15.8 ± 0.77	13.8 ± 1	2.04	87.4	-0.98

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.97 ± 0.05	0.282	105	0.31



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	4.6 ± 0.5	0.741	110	0.38
Arsenic	µg/l	1.81 ± 0.0355	1.85 ± 0.1	0.271	102	0.21
Lead	µg/l	1.28 ± 0.0432	1.3 ± 0.1	0.191	102	0.12
Cadmium	µg/l	0.109 ± 0.00374	0.105 ± 0.02	0.012	96.3	-0.10
Chromium	µg/l	5.99 ± 0.105	6.3 ± 0.5	0.569	105	0.31
Iron	µg/l	6.21 ± 0.382	7.7 ± 0.5	0.763	124	1.39
Copper	µg/l	21.3 ± 0.391	20.5 ± 1	1.92	96.2	-0.39
Manganese	µg/l	0.979 ± 0.0504	1.05 ± 0.2	0.0873	107	0.18
Nickel	µg/l	1.6 ± 0.0753	1.6 ± 0.2	0.18	100	0.00
Selenium	µg/l	6.61 ± 0.164	5.7 ± 0.4	0.86	86.2	-1.12
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.1	0.132	108	0.77
Zinc	µg/l	34.3 ± 1.03	30 ± 2	2.91	87.5	-1.03

Sample: M145AHG

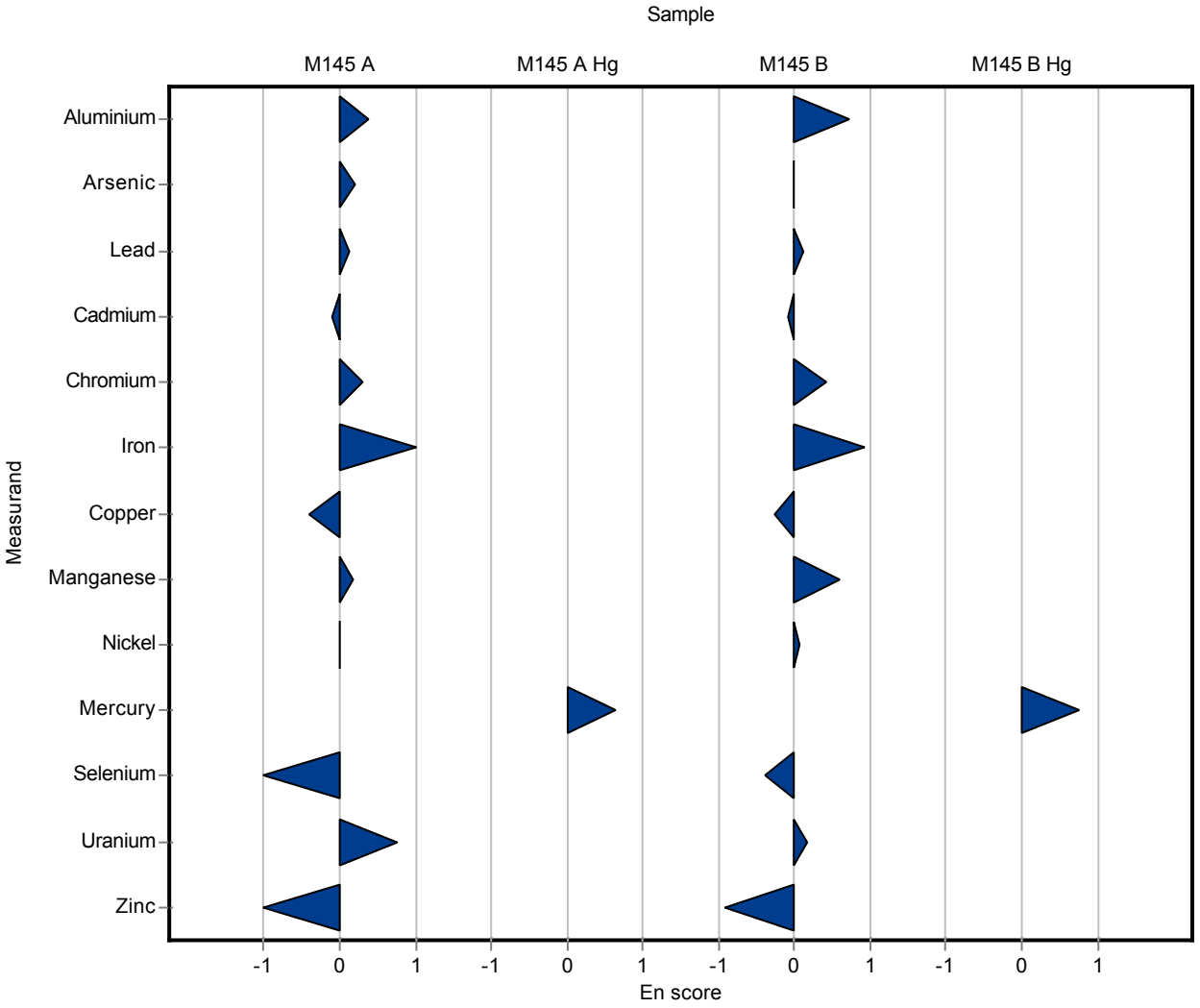
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.55 ± 0.05	0.222	105	0.63

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	9.2 ± 0.5	1.26	109	0.73
Arsenic	µg/l	1.74 ± 0.0532	1.74 ± 0.1	0.261	99.9	-0.01
Lead	µg/l	0.338 ± 0.0276	0.35 ± 0.05	0.0507	104	0.12
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.05	0.034	97.2	-0.09
Chromium	µg/l	2.33 ± 0.0667	2.5 ± 0.2	0.221	107	0.42
Iron	µg/l	14.6 ± 0.471	16.5 ± 1	1.46	113	0.94
Copper	µg/l	8.17 ± 0.2	7.9 ± 0.5	0.735	96.7	-0.26
Manganese	µg/l	7.98 ± 0.162	8.6 ± 0.5	0.583	108	0.61
Nickel	µg/l	2.77 ± 0.0721	2.8 ± 0.2	0.277	101	0.08
Selenium	µg/l	1.26 ± 0.0451	1.1 ± 0.2	0.163	87.5	-0.39
Uranium	µg/l	1.3 ± 0.0383	1.33 ± 0.1	0.0899	103	0.16
Zinc	µg/l	15.8 ± 0.77	13.8 ± 1	2.04	87.4	-0.93

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.97 ± 0.05	0.282	105	0.77



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	5.2 ± 5.3	0.741	124	1.36
Arsenic	µg/l	1.81 ± 0.0355	1.9 ± 2.2	0.271	105	0.34
Lead	µg/l	1.28 ± 0.0432	1.5 ± 1.6	0.191	118	1.17
Cadmium	µg/l	0.109 ± 0.00374	0.13 ± 1.9	0.012	119	1.75
Chromium	µg/l	5.99 ± 0.105	6.2 ± 1.8	0.569	104	0.37
Iron	µg/l	6.21 ± 0.382	13 ± 0.2	0.763	209	8.90
Copper	µg/l	21.3 ± 0.391	53 ± 1.5	1.92	249	16.50
Manganese	µg/l	0.979 ± 0.0504	1.5 ± 2.6	0.0873	153	5.96
Nickel	µg/l	1.6 ± 0.0753	1.9 ± 2.4	0.18	119	1.67
Selenium	µg/l	6.61 ± 0.164	6.8 ± 6.2	0.86	103	0.22
Uranium	µg/l	1.94 ± 0.056	1.9 ± 6.5	0.132	97.9	-0.30
Zinc	µg/l	34.3 ± 1.03	49 ± 1	2.91	143	5.06

Sample: M145AHG

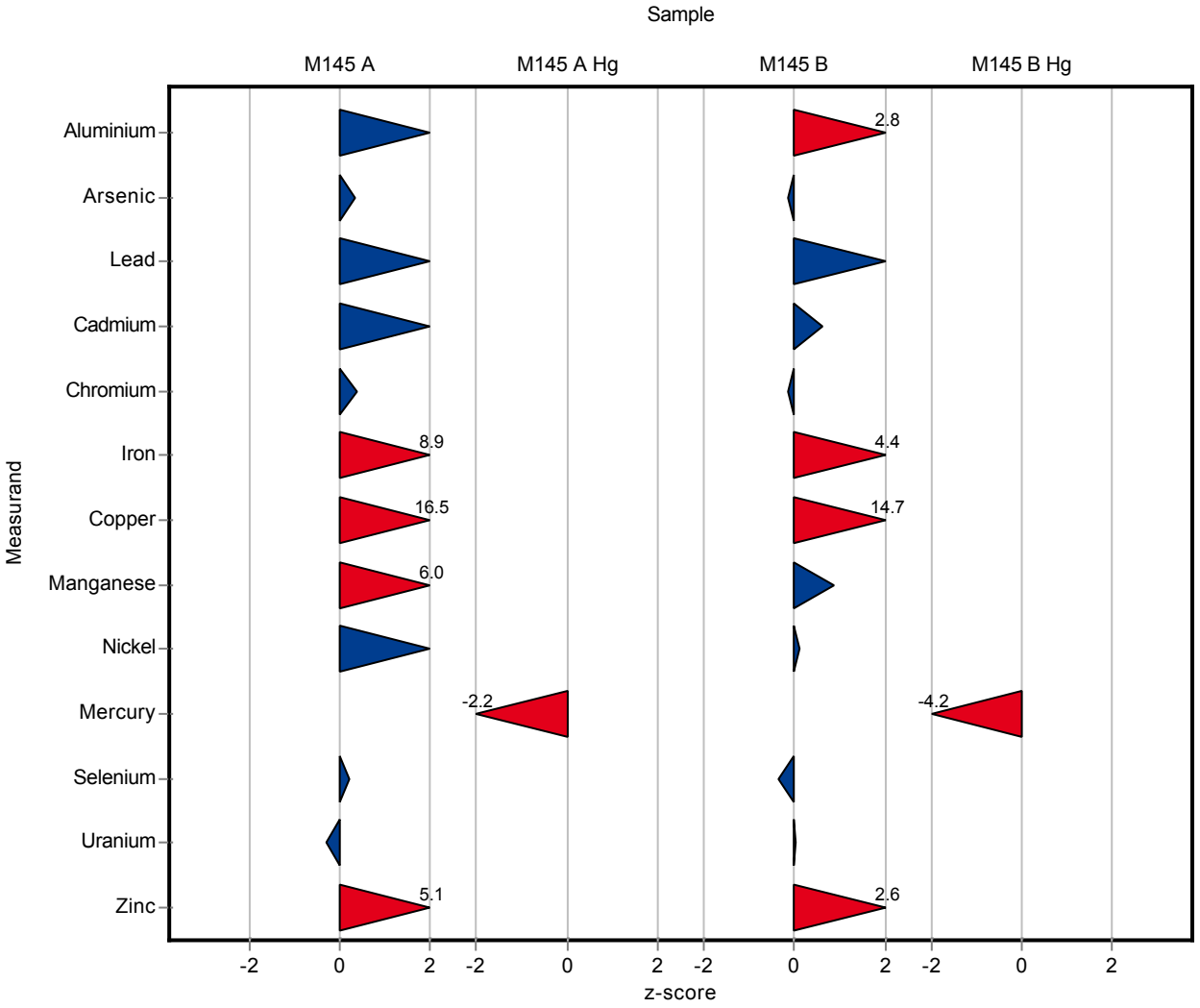
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1 ± 1.8	0.222	67.5	-2.16

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	12 ± 5.3	1.26	143	2.84
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 2.2	0.261	97.6	-0.16
Lead	µg/l	0.338 ± 0.0276	0.4 ± 1.6	0.0507	118	1.22
Cadmium	µg/l	0.309 ± 0.00659	0.33 ± 1.9	0.034	107	0.63
Chromium	µg/l	2.33 ± 0.0667	2.3 ± 1.8	0.221	98.7	-0.14
Iron	µg/l	14.6 ± 0.471	21 ± 0.2	1.46	144	4.41
Copper	µg/l	8.17 ± 0.2	19 ± 1.5	0.735	233	14.70
Manganese	µg/l	7.98 ± 0.162	8.5 ± 2.6	0.583	106	0.89
Nickel	µg/l	2.77 ± 0.0721	2.8 ± 2.4	0.277	101	0.11
Selenium	µg/l	1.26 ± 0.0451	1.2 ± 6.2	0.163	95.4	-0.35
Uranium	µg/l	1.3 ± 0.0383	1.3 ± 6.5	0.0899	100	0.04
Zinc	µg/l	15.8 ± 0.77	21 ± 1	2.04	133	2.56

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	0.71 ± 1.8	0.282	37.7	-4.15



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	5.2 ± 5.3	0.741	124	0.10
Arsenic	µg/l	1.81 ± 0.0355	1.9 ± 2.2	0.271	105	0.02
Lead	µg/l	1.28 ± 0.0432	1.5 ± 1.6	0.191	118	0.07
Cadmium	µg/l	0.109 ± 0.00374	0.13 ± 1.9	0.012	119	0.01
Chromium	µg/l	5.99 ± 0.105	6.2 ± 1.8	0.569	104	0.06
Iron	µg/l	6.21 ± 0.382	13 ± 0.2	0.763	209	12.30
Copper	µg/l	21.3 ± 0.391	53 ± 1.5	1.92	249	10.50
Manganese	µg/l	0.979 ± 0.0504	1.5 ± 2.6	0.0873	153	0.10
Nickel	µg/l	1.6 ± 0.0753	1.9 ± 2.4	0.18	119	0.06
Selenium	µg/l	6.61 ± 0.164	6.8 ± 6.2	0.86	103	0.01
Uranium	µg/l	1.94 ± 0.056	1.9 ± 6.5	0.132	97.9	0.00
Zinc	µg/l	34.3 ± 1.03	49 ± 1	2.91	143	6.55

Sample: M145AHG

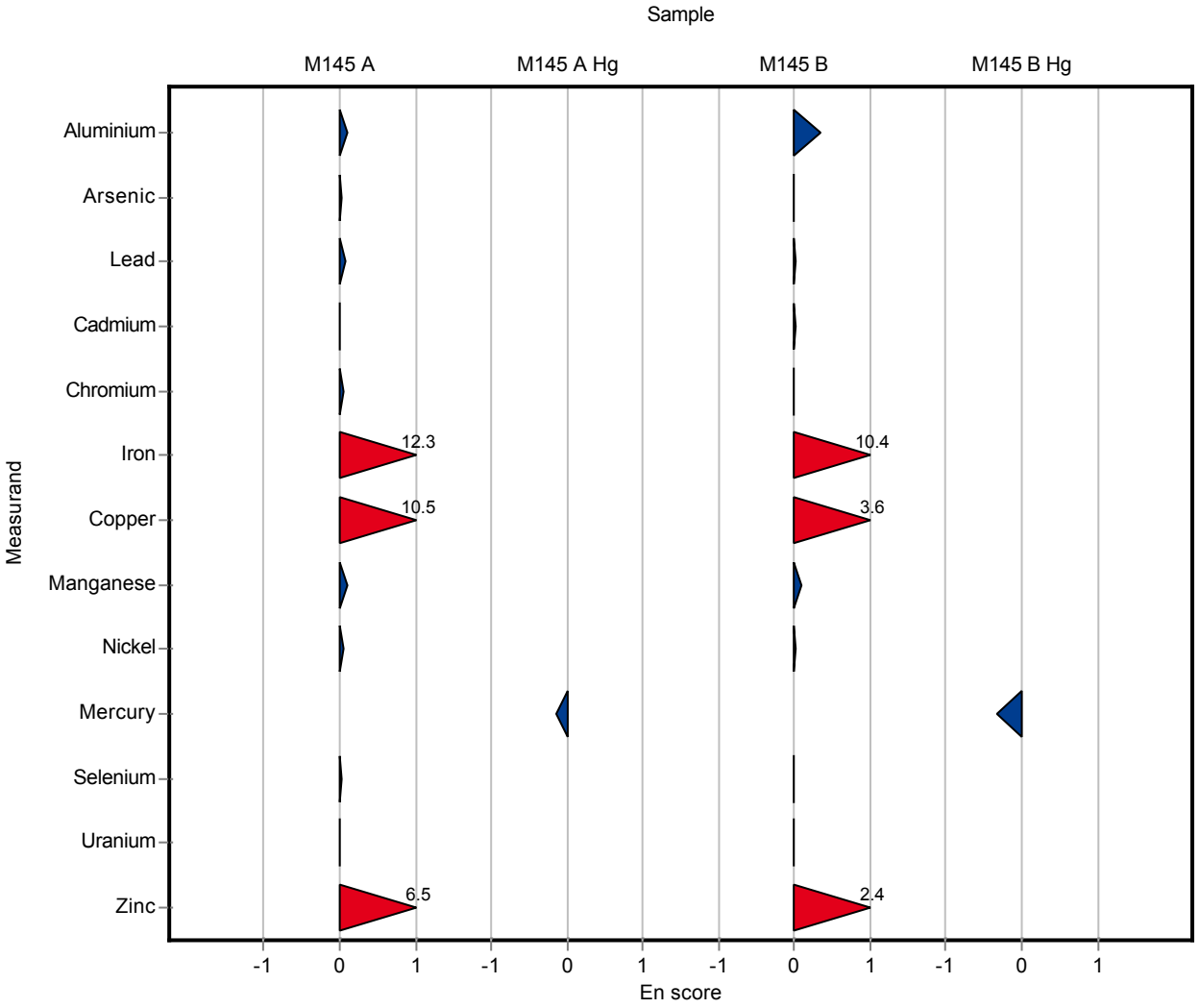
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1 ± 1.8	0.222	67.5	-0.13

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	12 ± 5.3	1.26	143	0.34
Arsenic	µg/l	1.74 ± 0.0532	1.7 ± 2.2	0.261	97.6	-0.01
Lead	µg/l	0.338 ± 0.0276	0.4 ± 1.6	0.0507	118	0.02
Cadmium	µg/l	0.309 ± 0.00659	0.33 ± 1.9	0.034	107	0.01
Chromium	µg/l	2.33 ± 0.0667	2.3 ± 1.8	0.221	98.7	-0.01
Iron	µg/l	14.6 ± 0.471	21 ± 0.2	1.46	144	10.40
Copper	µg/l	8.17 ± 0.2	19 ± 1.5	0.735	233	3.60
Manganese	µg/l	7.98 ± 0.162	8.5 ± 2.6	0.583	106	0.10
Nickel	µg/l	2.77 ± 0.0721	2.8 ± 2.4	0.277	101	0.01
Selenium	µg/l	1.26 ± 0.0451	1.2 ± 6.2	0.163	95.4	0.00
Uranium	µg/l	1.3 ± 0.0383	1.3 ± 6.5	0.0899	100	0.00
Zinc	µg/l	15.8 ± 0.77	21 ± 1	2.04	133	2.43

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	0.71 ± 1.8	0.282	37.7	-0.33



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.73 ± 0.381	0.271	95.7	-0.28
Lead	µg/l	1.28 ± 0.0432	<3 (LOQ) ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	<0.5 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.1 ± 0.976	0.569	102	0.20
Iron	µg/l	6.21 ± 0.382	6.7 ± 0.804	0.763	108	0.64
Copper	µg/l	21.3 ± 0.391	22.4 ± 2.467	1.92	105	0.57
Manganese	µg/l	0.979 ± 0.0504	<1 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	2.03 ± 0.315	0.18	127	2.39
Selenium	µg/l	6.61 ± 0.164	5.21 ± 1.354	0.86	78.8	-1.63
Uranium	µg/l	1.94 ± 0.056	2.63 ± 0.395	0.132	136	5.25
Zinc	µg/l	34.3 ± 1.03	36.7 ± 4.407	2.91	107	0.83

Sample: M145AHG

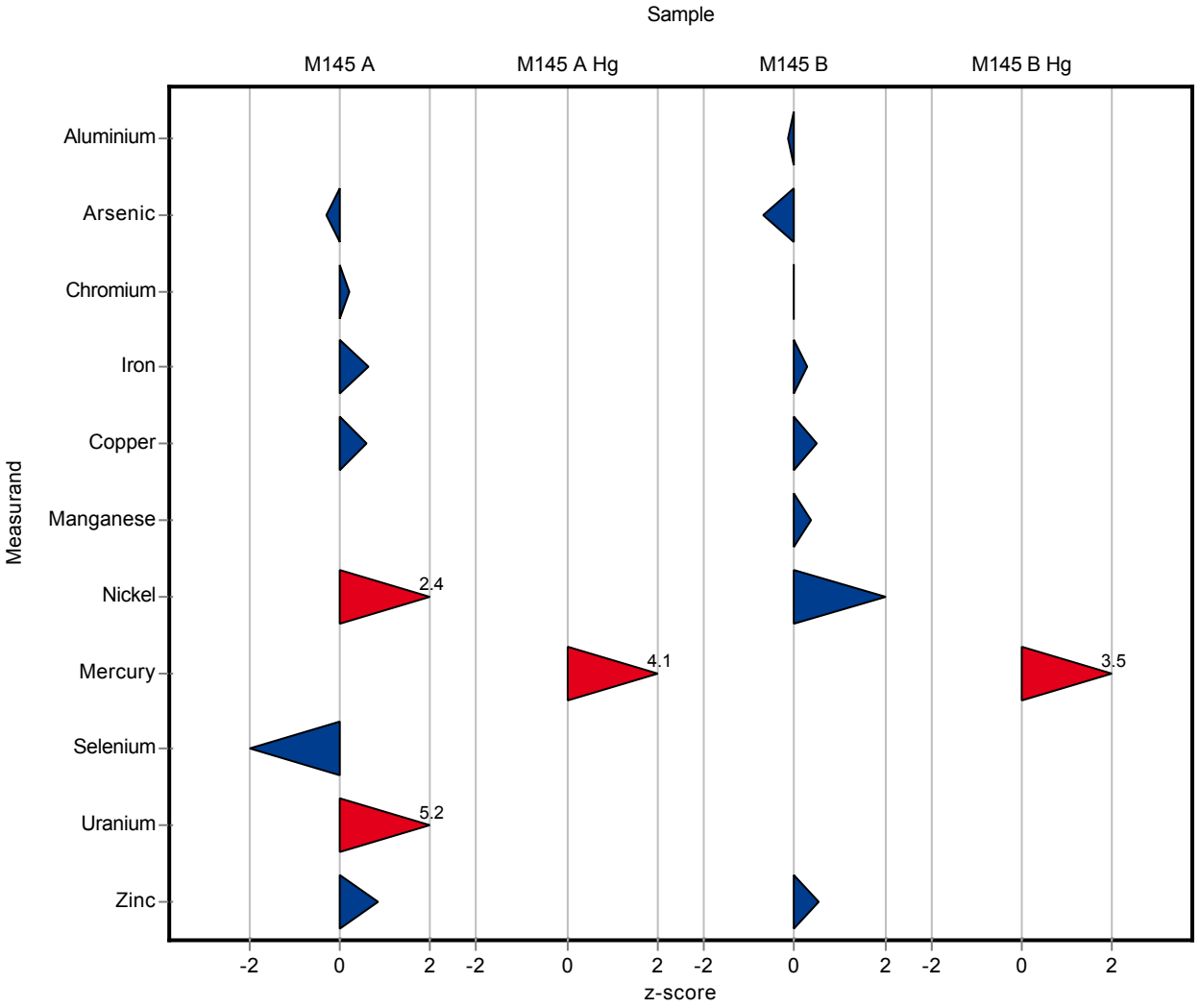
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	2.39 ± 0.766	0.222	161	4.09

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8.23 ± 1.069	1.26	97.8	-0.15
Arsenic	µg/l	1.74 ± 0.0532	1.56 ± 0.343	0.261	89.5	-0.70
Lead	µg/l	0.338 ± 0.0276	<3 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<0.5 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	2.33 ± 0.373	0.221	100	0.00
Iron	µg/l	14.6 ± 0.471	15 ± 1.8	1.46	103	0.29
Copper	µg/l	8.17 ± 0.2	8.53 ± 0.938	0.735	104	0.50
Manganese	µg/l	7.98 ± 0.162	8.2 ± 1.148	0.583	103	0.38
Nickel	µg/l	2.77 ± 0.0721	3.23 ± 0.587	0.277	117	1.67
Selenium	µg/l	1.26 ± 0.0451	<1 (LOQ) ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	<2 (LOQ) ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	16.9 ± 2.028	2.04	107	0.55

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	2.87 ± 0.917	0.282	153	3.50



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.73 ± 0.381	0.271	95.7	-0.10
Lead	µg/l	1.28 ± 0.0432	<3 (LOQ) ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	<0.5 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.1 ± 0.976	0.569	102	0.06
Iron	µg/l	6.21 ± 0.382	6.7 ± 0.804	0.763	108	0.30
Copper	µg/l	21.3 ± 0.391	22.4 ± 2.467	1.92	105	0.22
Manganese	µg/l	0.979 ± 0.0504	<1 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	2.03 ± 0.315	0.18	127	0.68
Selenium	µg/l	6.61 ± 0.164	5.21 ± 1.354	0.86	78.8	-0.52
Uranium	µg/l	1.94 ± 0.056	2.63 ± 0.395	0.132	136	0.87
Zinc	µg/l	34.3 ± 1.03	36.7 ± 4.407	2.91	107	0.27

Sample: M145AHG

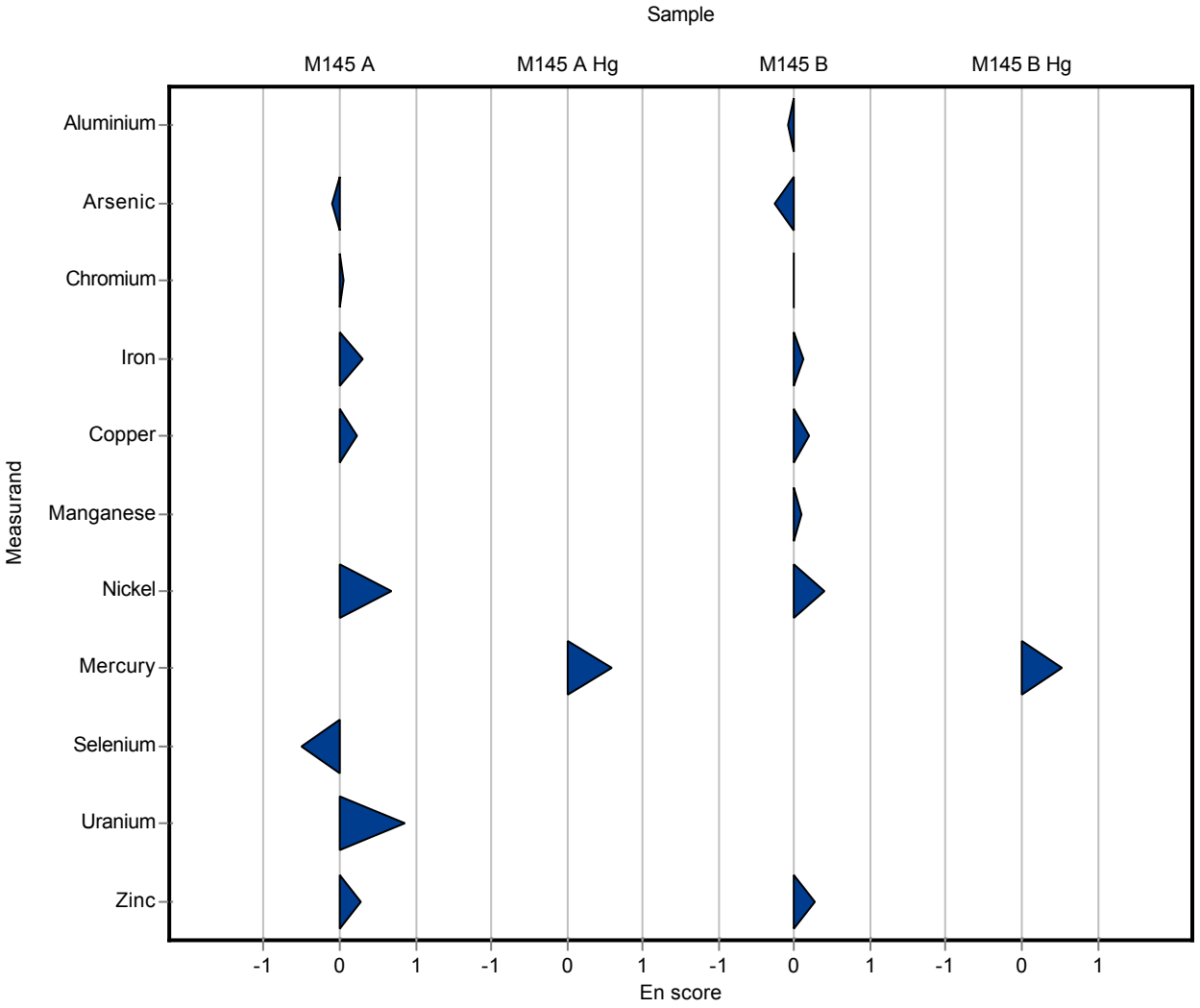
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	2.39 ± 0.766	0.222	161	0.59

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8.23 ± 1.069	1.26	97.8	-0.09
Arsenic	µg/l	1.74 ± 0.0532	1.56 ± 0.343	0.261	89.5	-0.27
Lead	µg/l	0.338 ± 0.0276	<3 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<0.5 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	2.33 ± 0.373	0.221	100	0.00
Iron	µg/l	14.6 ± 0.471	15 ± 1.8	1.46	103	0.12
Copper	µg/l	8.17 ± 0.2	8.53 ± 0.938	0.735	104	0.19
Manganese	µg/l	7.98 ± 0.162	8.2 ± 1.148	0.583	103	0.09
Nickel	µg/l	2.77 ± 0.0721	3.23 ± 0.587	0.277	117	0.39
Selenium	µg/l	1.26 ± 0.0451	<1 (LOQ) ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	<2 (LOQ) ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	16.9 ± 2.028	2.04	107	0.27

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	2.87 ± 0.917	0.282	153	0.54



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	4.5 ± 0.3	0.741	107	0.41
Arsenic	µg/l	1.81 ± 0.0355	<4.8 (LOQ) ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	1.2 ± 0.2	0.191	94	-0.40
Cadmium	µg/l	0.109 ± 0.00374	0.5 ± 0.1	0.012	459	32.60
Chromium	µg/l	5.99 ± 0.105	5.3 ± 0.1	0.569	88.5	-1.21
Iron	µg/l	6.21 ± 0.382	5.3 ± 0.1	0.763	85.4	-1.19
Copper	µg/l	21.3 ± 0.391	24.2 ± 0.2	1.92	114	1.51
Manganese	µg/l	0.979 ± 0.0504	0.5 ± 0.1	0.0873	51.1	-5.49
Nickel	µg/l	1.6 ± 0.0753	2.1 ± 0.1	0.18	131	2.78
Selenium	µg/l	6.61 ± 0.164	6.8 ± 2	0.86	103	0.22
Uranium	µg/l	1.94 ± 0.056	<3 (LOQ) ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	29 ± 4	2.91	84.6	-1.81

Sample: M145AHG

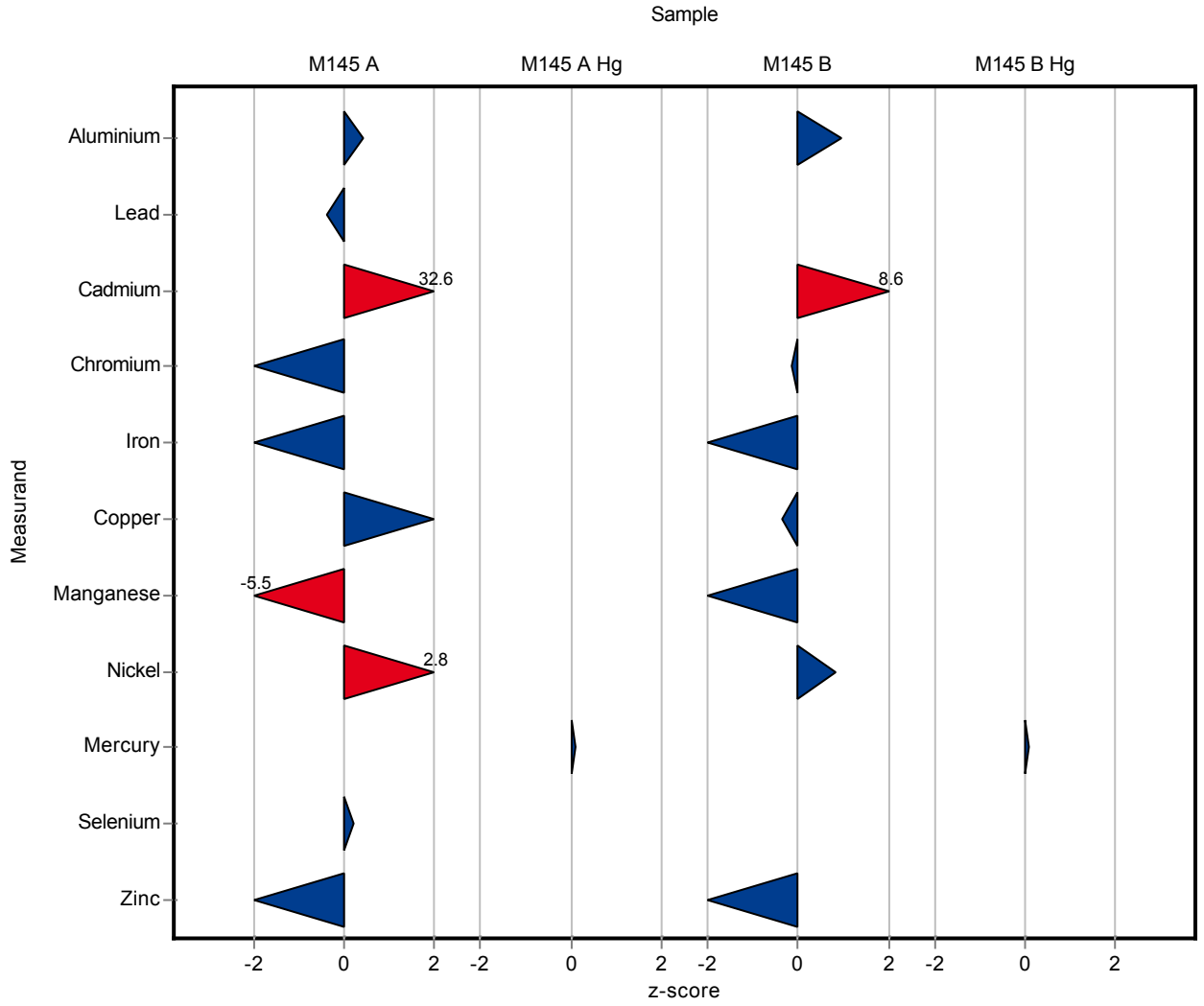
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.5 ± 0.1	0.222	101	0.09

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	9.6 ± 0.1	1.26	114	0.94
Arsenic	µg/l	1.74 ± 0.0532	<2.2 (LOQ) ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	<0.4 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.6 ± 0.1	0.034	194	8.58
Chromium	µg/l	2.33 ± 0.0667	2.3 ± 0.1	0.221	98.7	-0.14
Iron	µg/l	14.6 ± 0.471	12.7 ± 0.1	1.46	87.1	-1.29
Copper	µg/l	8.17 ± 0.2	7.9 ± 0.4	0.735	96.7	-0.36
Manganese	µg/l	7.98 ± 0.162	7 ± 0.1	0.583	87.7	-1.68
Nickel	µg/l	2.77 ± 0.0721	3 ± 0.1	0.277	108	0.84
Selenium	µg/l	1.26 ± 0.0451	<5.6 (LOQ) ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	<1.6 (LOQ) ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	12.3 ± 1.9	2.04	77.9	-1.71

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.9 ± 0.1	0.282	101	0.06



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	4.5 ± 0.3	0.741	107	0.44
Arsenic	µg/l	1.81 ± 0.0355	<4.8 (LOQ) ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	1.2 ± 0.2	0.191	94	-0.19
Cadmium	µg/l	0.109 ± 0.00374	0.5 ± 0.1	0.012	459	1.95
Chromium	µg/l	5.99 ± 0.105	5.3 ± 0.1	0.569	88.5	-3.05
Iron	µg/l	6.21 ± 0.382	5.3 ± 0.1	0.763	85.4	-2.11
Copper	µg/l	21.3 ± 0.391	24.2 ± 0.2	1.92	114	5.18
Manganese	µg/l	0.979 ± 0.0504	0.5 ± 0.1	0.0873	51.1	-2.32
Nickel	µg/l	1.6 ± 0.0753	2.1 ± 0.1	0.18	131	2.35
Selenium	µg/l	6.61 ± 0.164	6.8 ± 2	0.86	103	0.05
Uranium	µg/l	1.94 ± 0.056	<3 (LOQ) ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	29 ± 4	2.91	84.6	-0.65

Sample: M145AHG

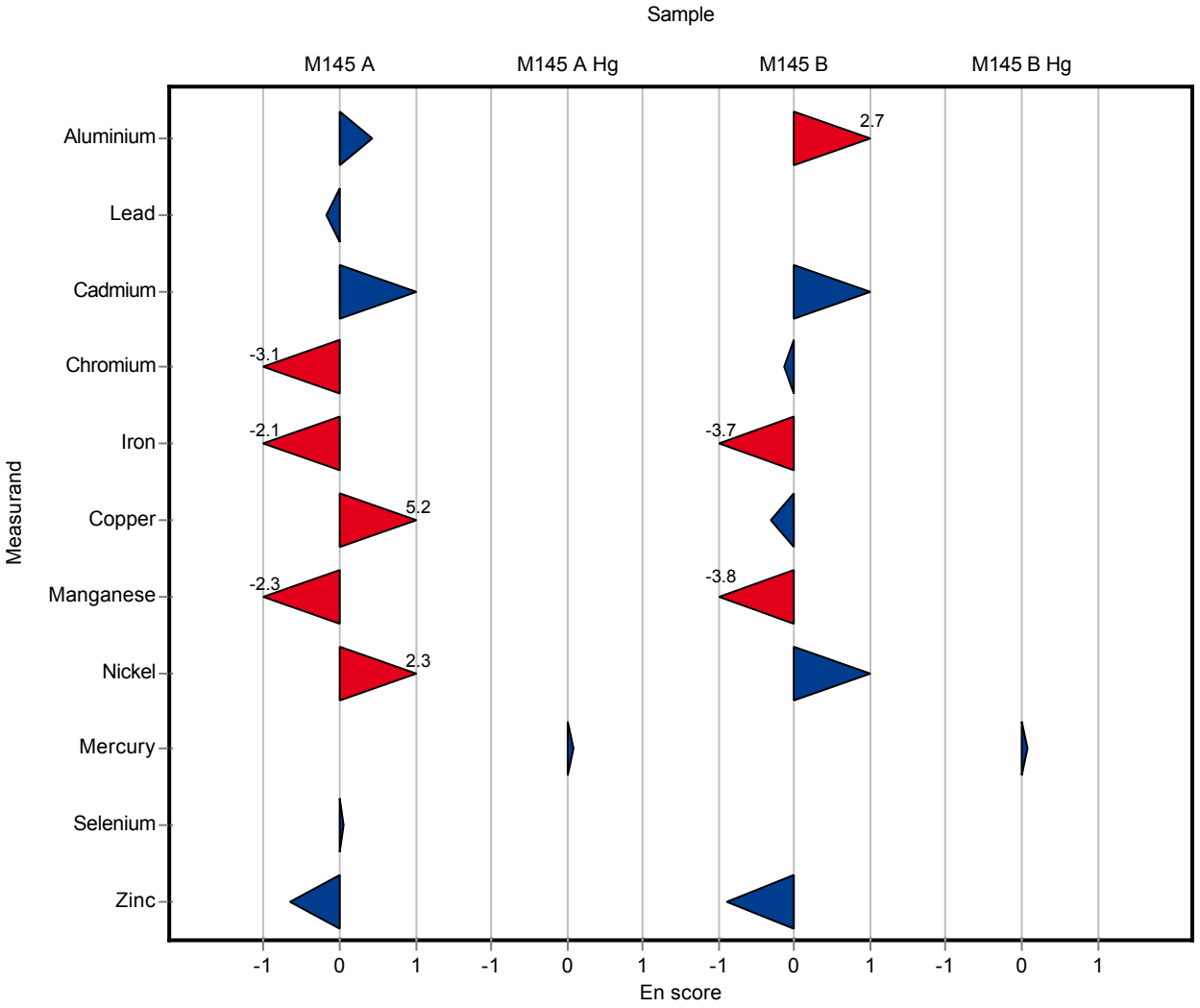
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.5 ± 0.1	0.222	101	0.09

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	9.6 ± 0.1	1.26	114	2.70
Arsenic	µg/l	1.74 ± 0.0532	<2.2 (LOQ) ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	<0.4 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.6 ± 0.1	0.034	194	1.46
Chromium	µg/l	2.33 ± 0.0667	2.3 ± 0.1	0.221	98.7	-0.14
Iron	µg/l	14.6 ± 0.471	12.7 ± 0.1	1.46	87.1	-3.66
Copper	µg/l	8.17 ± 0.2	7.9 ± 0.4	0.735	96.7	-0.32
Manganese	µg/l	7.98 ± 0.162	7 ± 0.1	0.583	87.7	-3.82
Nickel	µg/l	2.77 ± 0.0721	3 ± 0.1	0.277	108	1.09
Selenium	µg/l	1.26 ± 0.0451	<5.6 (LOQ) ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	<1.6 (LOQ) ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	12.3 ± 1.9	2.04	77.9	-0.90

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.9 ± 0.1	0.282	101	0.09



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	4.23 ± 0.12	0.741	101	0.05
Arsenic	µg/l	1.81 ± 0.0355	1.71 ± 0.07	0.271	94.6	-0.36
Lead	µg/l	1.28 ± 0.0432	1.21 ± 0.05	0.191	94.8	-0.35
Cadmium	µg/l	0.109 ± 0.00374	0.11 ± 0.01	0.012	101	0.08
Chromium	µg/l	5.99 ± 0.105	5.66 ± 0.11	0.569	94.5	-0.58
Iron	µg/l	6.21 ± 0.382	5.81 ± 0.03	0.763	93.6	-0.52
Copper	µg/l	21.3 ± 0.391	19.7 ± 0.6	1.92	92.5	-0.84
Manganese	µg/l	0.979 ± 0.0504	0.89 ± 0.03	0.0873	90.9	-1.02
Nickel	µg/l	1.6 ± 0.0753	1.65 ± 0.18	0.18	103	0.29
Selenium	µg/l	6.61 ± 0.164	6.52 ± 0.16	0.86	98.6	-0.11
Uranium	µg/l	1.94 ± 0.056	1.85 ± 0.05	0.132	95.4	-0.68
Zinc	µg/l	34.3 ± 1.03	32.9 ± 1.1	2.91	96	-0.47

Sample: M145AHG

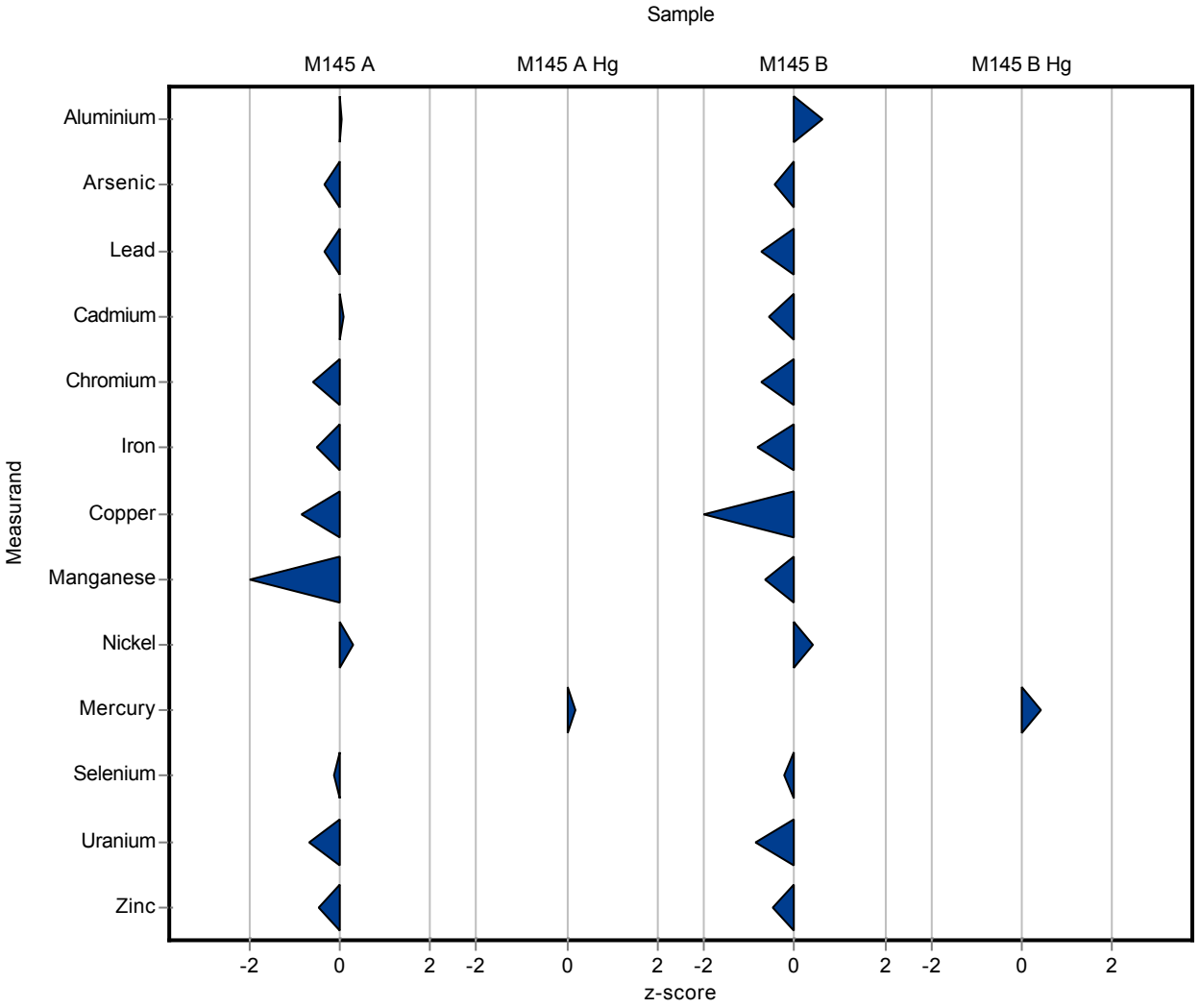
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.52 ± 0.02	0.222	103	0.18

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	9.17 ± 0.58	1.26	109	0.60
Arsenic	µg/l	1.74 ± 0.0532	1.63 ± 0.05	0.261	93.6	-0.43
Lead	µg/l	0.338 ± 0.0276	0.3 ± 0.01	0.0507	88.8	-0.75
Cadmium	µg/l	0.309 ± 0.00659	0.29 ± 0.01	0.034	93.9	-0.55
Chromium	µg/l	2.33 ± 0.0667	2.17 ± 0.06	0.221	93.1	-0.72
Iron	µg/l	14.6 ± 0.471	13.4 ± 0.1	1.46	91.9	-0.81
Copper	µg/l	8.17 ± 0.2	7.41 ± 0.26	0.735	90.7	-1.03
Manganese	µg/l	7.98 ± 0.162	7.61 ± 0.28	0.583	95.3	-0.64
Nickel	µg/l	2.77 ± 0.0721	2.88 ± 0.24	0.277	104	0.40
Selenium	µg/l	1.26 ± 0.0451	1.22 ± 0.04	0.163	97	-0.23
Uranium	µg/l	1.3 ± 0.0383	1.22 ± 0.03	0.0899	94.1	-0.85
Zinc	µg/l	15.8 ± 0.77	14.8 ± 0.4	2.04	93.7	-0.49

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	2 ± 0.07	0.282	106	0.42



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	4.23 ± 0.12	0.741	101	0.09
Arsenic	µg/l	1.81 ± 0.0355	1.71 ± 0.07	0.271	94.6	-0.67
Lead	µg/l	1.28 ± 0.0432	1.21 ± 0.05	0.191	94.8	-0.61
Cadmium	µg/l	0.109 ± 0.00374	0.11 ± 0.01	0.012	101	0.05
Chromium	µg/l	5.99 ± 0.105	5.66 ± 0.11	0.569	94.5	-1.35
Iron	µg/l	6.21 ± 0.382	5.81 ± 0.03	0.763	93.6	-1.03
Copper	µg/l	21.3 ± 0.391	19.7 ± 0.6	1.92	92.5	-1.27
Manganese	µg/l	0.979 ± 0.0504	0.89 ± 0.03	0.0873	90.9	-1.14
Nickel	µg/l	1.6 ± 0.0753	1.65 ± 0.18	0.18	103	0.14
Selenium	µg/l	6.61 ± 0.164	6.52 ± 0.16	0.86	98.6	-0.26
Uranium	µg/l	1.94 ± 0.056	1.85 ± 0.05	0.132	95.4	-0.78
Zinc	µg/l	34.3 ± 1.03	32.9 ± 1.1	2.91	96	-0.56

Sample: M145AHG

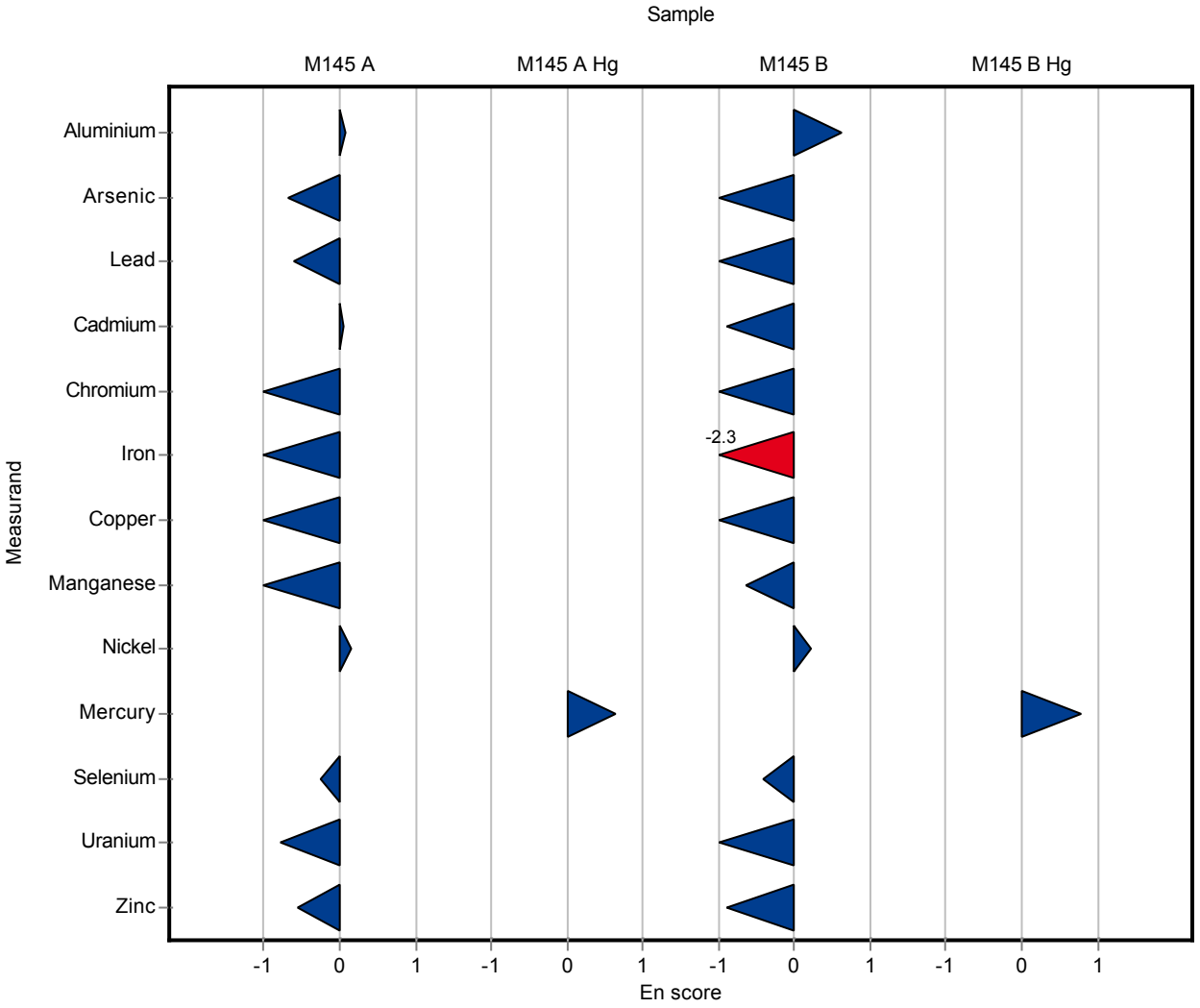
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.52 ± 0.02	0.222	103	0.65

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	9.17 ± 0.58	1.26	109	0.62
Arsenic	µg/l	1.74 ± 0.0532	1.63 ± 0.05	0.261	93.6	-0.99
Lead	µg/l	0.338 ± 0.0276	0.3 ± 0.01	0.0507	88.8	-1.11
Cadmium	µg/l	0.309 ± 0.00659	0.29 ± 0.01	0.034	93.9	-0.89
Chromium	µg/l	2.33 ± 0.0667	2.17 ± 0.06	0.221	93.1	-1.17
Iron	µg/l	14.6 ± 0.471	13.4 ± 0.1	1.46	91.9	-2.30
Copper	µg/l	8.17 ± 0.2	7.41 ± 0.26	0.735	90.7	-1.36
Manganese	µg/l	7.98 ± 0.162	7.61 ± 0.28	0.583	95.3	-0.64
Nickel	µg/l	2.77 ± 0.0721	2.88 ± 0.24	0.277	104	0.23
Selenium	µg/l	1.26 ± 0.0451	1.22 ± 0.04	0.163	97	-0.41
Uranium	µg/l	1.3 ± 0.0383	1.22 ± 0.03	0.0899	94.1	-1.08
Zinc	µg/l	15.8 ± 0.77	14.8 ± 0.4	2.04	93.7	-0.89

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	2 ± 0.07	0.282	106	0.78



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	4.949 ± 0.146	0.741	118	1.02
Arsenic	µg/l	1.81 ± 0.0355	6.436 ± 1.034	0.271	356	17.10
Lead	µg/l	1.28 ± 0.0432	2.031 ± 0.031	0.191	159	3.94
Cadmium	µg/l	0.109 ± 0.00374	0.417 ± 0.017	0.012	383	25.70
Chromium	µg/l	5.99 ± 0.105	9.391 ± 0.267	0.569	157	5.98
Iron	µg/l	6.21 ± 0.382	9.584 ± 0.174	0.763	154	4.42
Copper	µg/l	21.3 ± 0.391	43.721 ± 0.308	1.92	205	11.70
Manganese	µg/l	0.979 ± 0.0504	1.544 ± 0.021	0.0873	158	6.47
Nickel	µg/l	1.6 ± 0.0753	2.447 ± 0.021	0.18	153	4.70
Selenium	µg/l	6.61 ± 0.164	127.014 ± 0.095	0.86	1920	140.00
Uranium	µg/l	1.94 ± 0.056	2.654 ± 0.016	0.132	137	5.43
Zinc	µg/l	34.3 ± 1.03	65.914 ± 0.028	2.91	192	10.90

Sample: M145AHG

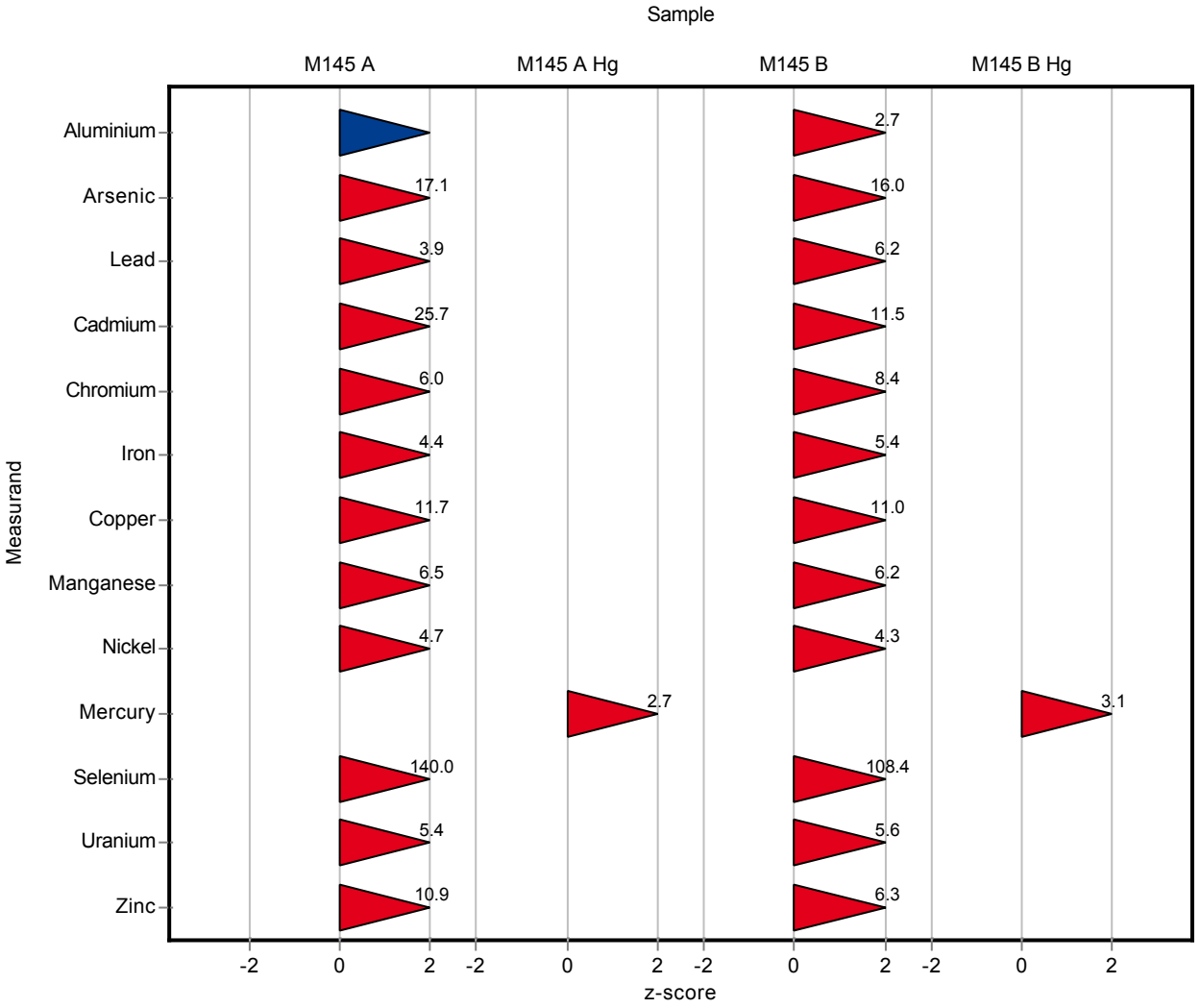
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	2.08 ± 0.021	0.222	140	2.70

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	11.807 ± 0.146	1.26	140	2.69
Arsenic	µg/l	1.74 ± 0.0532	5.933 ± 1.034	0.261	341	16.00
Lead	µg/l	0.338 ± 0.0276	0.654 ± 0.031	0.0507	194	6.23
Cadmium	µg/l	0.309 ± 0.00659	0.698 ± 0.017	0.034	226	11.50
Chromium	µg/l	2.33 ± 0.0667	4.199 ± 0.267	0.221	180	8.44
Iron	µg/l	14.6 ± 0.471	22.493 ± 0.174	1.46	154	5.43
Copper	µg/l	8.17 ± 0.2	16.235 ± 0.308	0.735	199	11.00
Manganese	µg/l	7.98 ± 0.162	11.569 ± 0.021	0.583	145	6.16
Nickel	µg/l	2.77 ± 0.0721	3.95 ± 0.021	0.277	143	4.27
Selenium	µg/l	1.26 ± 0.0451	18.981 ± 0.095	0.163	1510	108.00
Uranium	µg/l	1.3 ± 0.0383	1.797 ± 0.016	0.0899	139	5.57
Zinc	µg/l	15.8 ± 0.77	28.673 ± 0.028	2.04	182	6.32

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	2.76 ± 0.021	0.282	147	3.11



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	4.949 ± 0.146	0.741	118	1.60
Arsenic	µg/l	1.81 ± 0.0355	6.436 ± 1.034	0.271	356	2.24
Lead	µg/l	1.28 ± 0.0432	2.031 ± 0.031	0.191	159	9.99
Cadmium	µg/l	0.109 ± 0.00374	0.417 ± 0.017	0.012	383	9.00
Chromium	µg/l	5.99 ± 0.105	9.391 ± 0.267	0.569	157	6.25
Iron	µg/l	6.21 ± 0.382	9.584 ± 0.174	0.763	154	6.54
Copper	µg/l	21.3 ± 0.391	43.721 ± 0.308	1.92	205	30.70
Manganese	µg/l	0.979 ± 0.0504	1.544 ± 0.021	0.0873	158	8.61
Nickel	µg/l	1.6 ± 0.0753	2.447 ± 0.021	0.18	153	9.85
Selenium	µg/l	6.61 ± 0.164	127.014 ± 0.095	0.86	1920	480.00
Uranium	µg/l	1.94 ± 0.056	2.654 ± 0.016	0.132	137	11.10
Zinc	µg/l	34.3 ± 1.03	65.914 ± 0.028	2.91	192	30.70

Sample: M145AHG

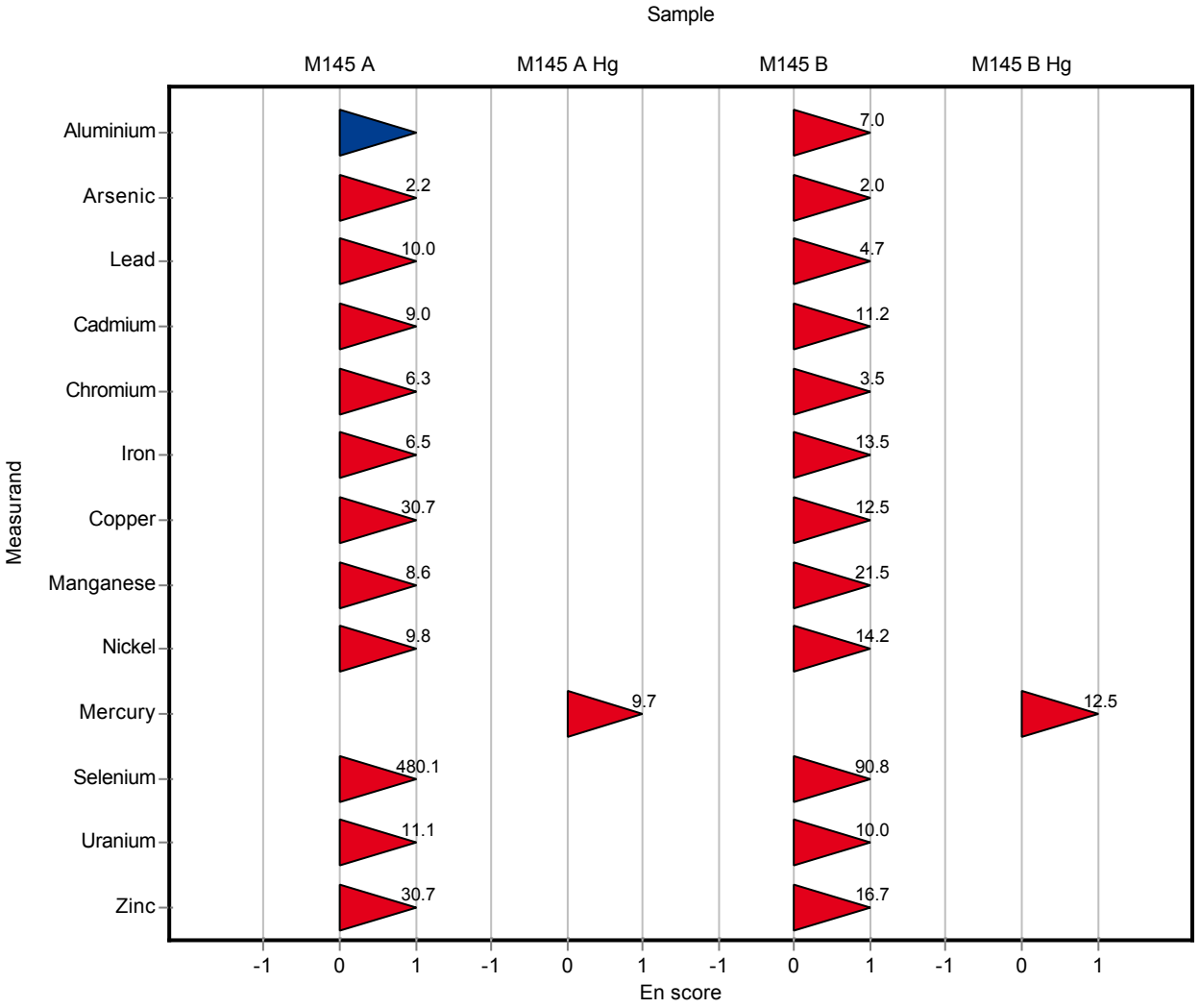
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	2.08 ± 0.021	0.222	140	9.66

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	11.807 ± 0.146	1.26	140	6.95
Arsenic	µg/l	1.74 ± 0.0532	5.933 ± 1.034	0.261	341	2.03
Lead	µg/l	0.338 ± 0.0276	0.654 ± 0.031	0.0507	194	4.66
Cadmium	µg/l	0.309 ± 0.00659	0.698 ± 0.017	0.034	226	11.20
Chromium	µg/l	2.33 ± 0.0667	4.199 ± 0.267	0.221	180	3.47
Iron	µg/l	14.6 ± 0.471	22.493 ± 0.174	1.46	154	13.50
Copper	µg/l	8.17 ± 0.2	16.235 ± 0.308	0.735	199	12.50
Manganese	µg/l	7.98 ± 0.162	11.569 ± 0.021	0.583	145	21.50
Nickel	µg/l	2.77 ± 0.0721	3.95 ± 0.021	0.277	143	14.20
Selenium	µg/l	1.26 ± 0.0451	18.981 ± 0.095	0.163	1510	90.80
Uranium	µg/l	1.3 ± 0.0383	1.797 ± 0.016	0.0899	139	10.00
Zinc	µg/l	15.8 ± 0.77	28.673 ± 0.028	2.04	182	16.70

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	2.76 ± 0.021	0.282	147	12.50



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	3.9 ± 0.4	0.741	93	-0.40
Arsenic	µg/l	1.81 ± 0.0355	1.83 ± 0.18	0.271	101	0.08
Lead	µg/l	1.28 ± 0.0432	1.22 ± 0.12	0.191	95.6	-0.29
Cadmium	µg/l	0.109 ± 0.00374	0.107 ± 0.011	0.012	98.1	-0.17
Chromium	µg/l	5.99 ± 0.105	5.88 ± 0.59	0.569	98.2	-0.19
Iron	µg/l	6.21 ± 0.382	6.05 ± 0.6	0.763	97.4	-0.21
Copper	µg/l	21.3 ± 0.391	20.6 ± 2.1	1.92	96.7	-0.37
Manganese	µg/l	0.979 ± 0.0504	0.92 ± 0.09	0.0873	94	-0.68
Nickel	µg/l	1.6 ± 0.0753	1.52 ± 0.15	0.18	95.1	-0.43
Selenium	µg/l	6.61 ± 0.164	6.29 ± 0.63	0.86	95.1	-0.38
Uranium	µg/l	1.94 ± 0.056	1.96 ± 0.2	0.132	101	0.15
Zinc	µg/l	34.3 ± 1.03	33.4 ± 3.3	2.91	97.5	-0.30

Sample: M145AHG

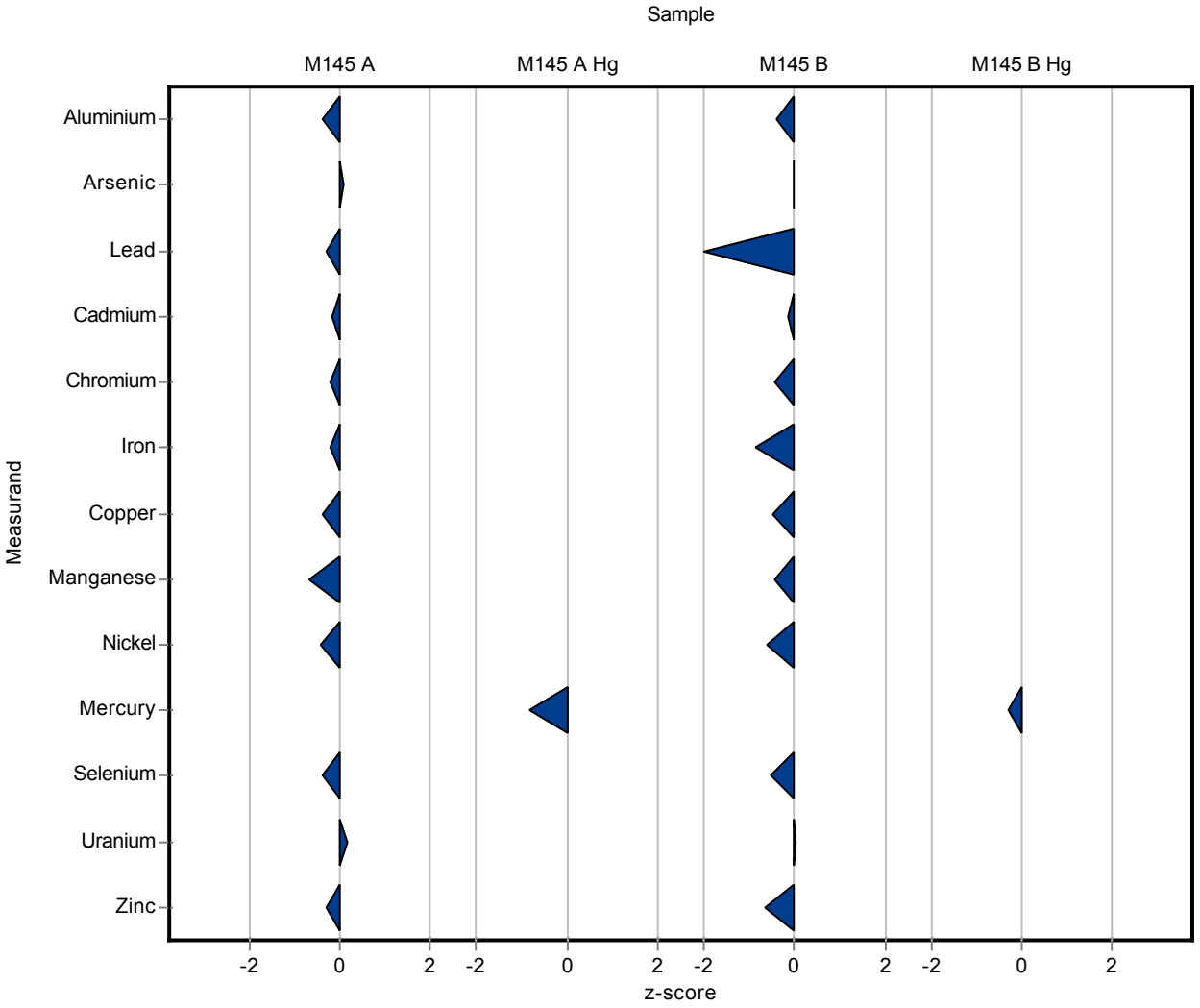
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.3 ± 0.1	0.222	87.8	-0.81

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	7.9 ± 0.8	1.26	93.9	-0.41
Arsenic	µg/l	1.74 ± 0.0532	1.74 ± 0.17	0.261	99.9	-0.01
Lead	µg/l	0.338 ± 0.0276	0.28 ± 0.03	0.0507	82.8	-1.14
Cadmium	µg/l	0.309 ± 0.00659	0.304 ± 0.031	0.034	98.5	-0.14
Chromium	µg/l	2.33 ± 0.0667	2.23 ± 0.22	0.221	95.7	-0.45
Iron	µg/l	14.6 ± 0.471	13.3 ± 1.3	1.46	91.3	-0.87
Copper	µg/l	8.17 ± 0.2	7.82 ± 0.78	0.735	95.8	-0.47
Manganese	µg/l	7.98 ± 0.162	7.74 ± 0.77	0.583	97	-0.41
Nickel	µg/l	2.77 ± 0.0721	2.6 ± 0.26	0.277	93.9	-0.61
Selenium	µg/l	1.26 ± 0.0451	1.17 ± 0.12	0.163	93	-0.54
Uranium	µg/l	1.3 ± 0.0383	1.3 ± 0.13	0.0899	100	0.04
Zinc	µg/l	15.8 ± 0.77	14.5 ± 1.5	2.04	91.8	-0.63

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.8 ± 0.1	0.282	95.6	-0.29



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	3.9 ± 0.4	0.741	93	-0.33
Arsenic	µg/l	1.81 ± 0.0355	1.83 ± 0.18	0.271	101	0.06
Lead	µg/l	1.28 ± 0.0432	1.22 ± 0.12	0.191	95.6	-0.23
Cadmium	µg/l	0.109 ± 0.00374	0.107 ± 0.011	0.012	98.1	-0.09
Chromium	µg/l	5.99 ± 0.105	5.88 ± 0.59	0.569	98.2	-0.09
Iron	µg/l	6.21 ± 0.382	6.05 ± 0.6	0.763	97.4	-0.13
Copper	µg/l	21.3 ± 0.391	20.6 ± 2.1	1.92	96.7	-0.17
Manganese	µg/l	0.979 ± 0.0504	0.92 ± 0.09	0.0873	94	-0.32
Nickel	µg/l	1.6 ± 0.0753	1.52 ± 0.15	0.18	95.1	-0.25
Selenium	µg/l	6.61 ± 0.164	6.29 ± 0.63	0.86	95.1	-0.26
Uranium	µg/l	1.94 ± 0.056	1.96 ± 0.2	0.132	101	0.05
Zinc	µg/l	34.3 ± 1.03	33.4 ± 3.3	2.91	97.5	-0.13

Sample: M145AHG

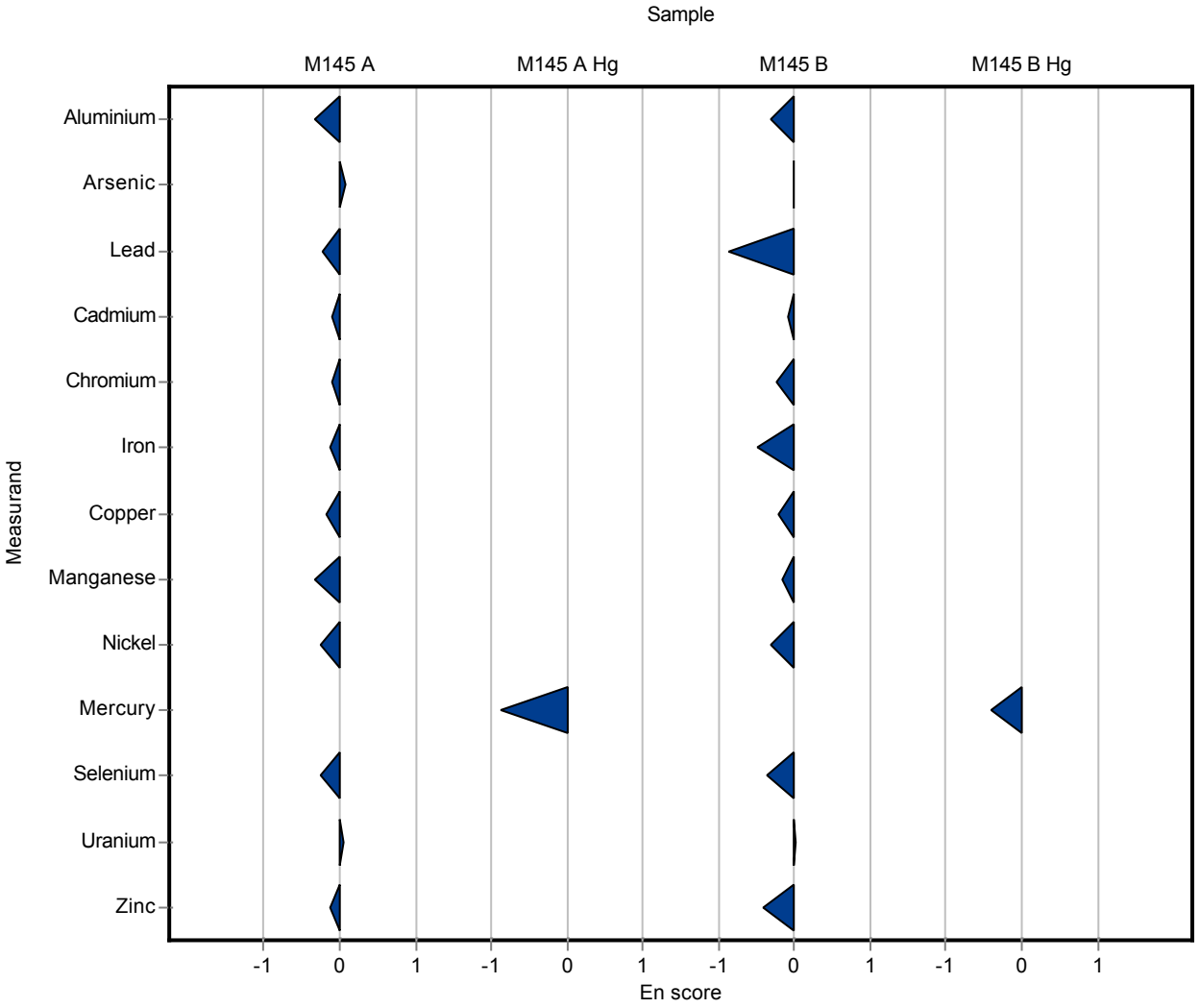
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.3 ± 0.1	0.222	87.8	-0.88

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	7.9 ± 0.8	1.26	93.9	-0.31
Arsenic	µg/l	1.74 ± 0.0532	1.74 ± 0.17	0.261	99.9	-0.01
Lead	µg/l	0.338 ± 0.0276	0.28 ± 0.03	0.0507	82.8	-0.88
Cadmium	µg/l	0.309 ± 0.00659	0.304 ± 0.031	0.034	98.5	-0.08
Chromium	µg/l	2.33 ± 0.0667	2.23 ± 0.22	0.221	95.7	-0.23
Iron	µg/l	14.6 ± 0.471	13.3 ± 1.3	1.46	91.3	-0.48
Copper	µg/l	8.17 ± 0.2	7.82 ± 0.78	0.735	95.8	-0.22
Manganese	µg/l	7.98 ± 0.162	7.74 ± 0.77	0.583	97	-0.16
Nickel	µg/l	2.77 ± 0.0721	2.6 ± 0.26	0.277	93.9	-0.32
Selenium	µg/l	1.26 ± 0.0451	1.17 ± 0.12	0.163	93	-0.36
Uranium	µg/l	1.3 ± 0.0383	1.3 ± 0.13	0.0899	100	0.01
Zinc	µg/l	15.8 ± 0.77	14.5 ± 1.5	2.04	91.8	-0.42

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.8 ± 0.1	0.282	95.6	-0.39



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.7 ± 0.4	0.271	94.1	-0.40
Lead	µg/l	1.28 ± 0.0432	1.2 ± 0.2	0.191	94	-0.40
Cadmium	µg/l	0.109 ± 0.00374	<0.1 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	5.6 ± 0.6	0.569	93.5	-0.68
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	20 ± 2	1.92	93.9	-0.68
Manganese	µg/l	0.979 ± 0.0504	<1 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.4 ± 0.2	0.18	87.6	-1.10
Selenium	µg/l	6.61 ± 0.164	6.5 ± 0.7	0.86	98.3	-0.13
Uranium	µg/l	1.94 ± 0.056	1.8 ± 0.2	0.132	92.8	-1.06
Zinc	µg/l	34.3 ± 1.03	34 ± 4	2.91	99.2	-0.09

Sample: M145AHG

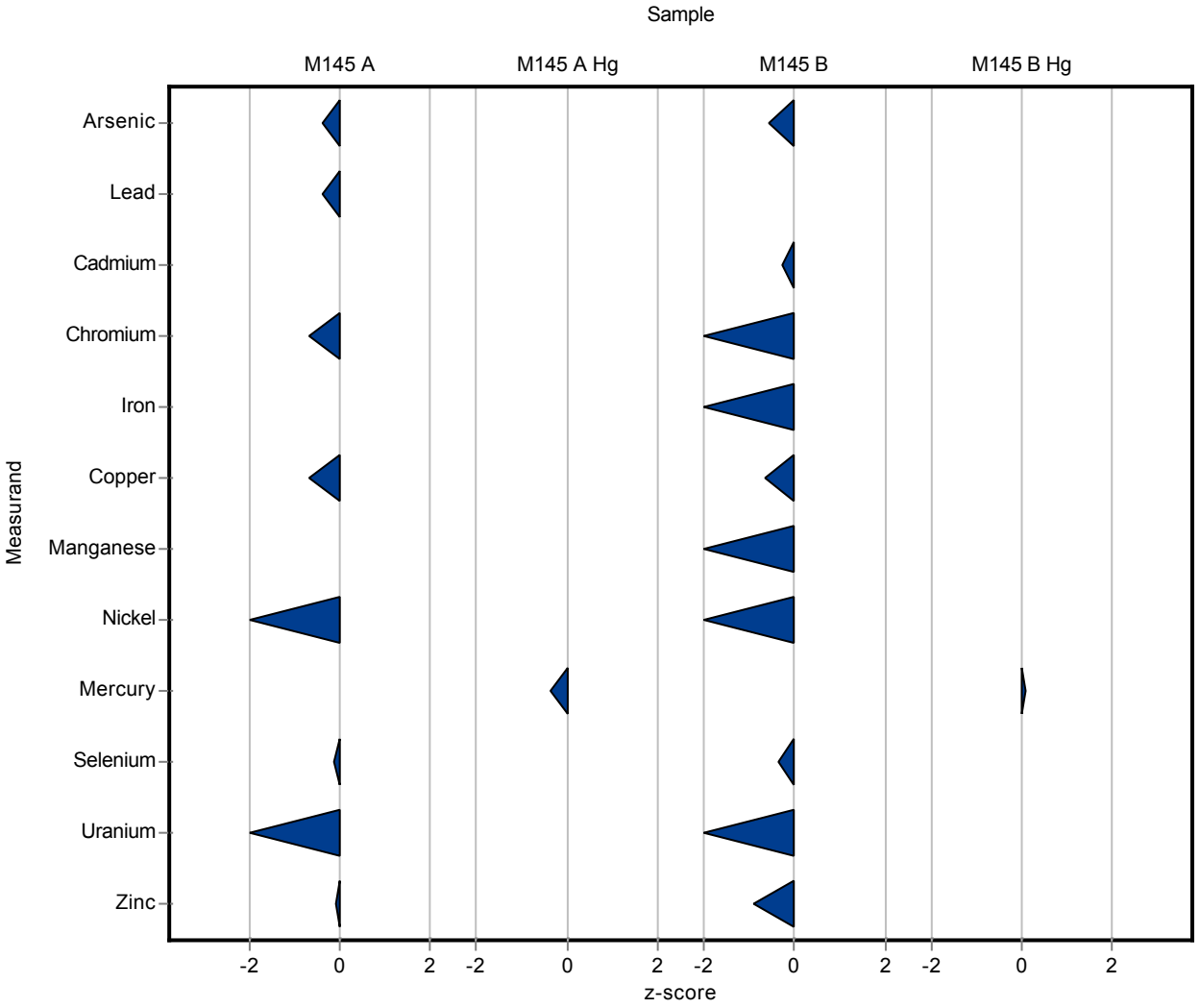
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.4 ± 0.2	0.222	94.5	-0.36

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.6 ± 0.2	0.261	91.8	-0.54
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.1	0.034	97.2	-0.26
Chromium	µg/l	2.33 ± 0.0667	2.1 ± 0.3	0.221	90.1	-1.04
Iron	µg/l	14.6 ± 0.471	13 ± 2	1.46	89.2	-1.08
Copper	µg/l	8.17 ± 0.2	7.7 ± 0.8	0.735	94.3	-0.63
Manganese	µg/l	7.98 ± 0.162	7.3 ± 0.8	0.583	91.5	-1.17
Nickel	µg/l	2.77 ± 0.0721	2.4 ± 0.3	0.277	86.7	-1.33
Selenium	µg/l	1.26 ± 0.0451	1.2 ± 0.2	0.163	95.4	-0.35
Uranium	µg/l	1.3 ± 0.0383	1.2 ± 0.2	0.0899	92.5	-1.08
Zinc	µg/l	15.8 ± 0.77	14 ± 2	2.04	88.7	-0.88

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.9 ± 0.2	0.282	101	0.06



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<10 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.7 ± 0.4	0.271	94.1	-0.13
Lead	µg/l	1.28 ± 0.0432	1.2 ± 0.2	0.191	94	-0.19
Cadmium	µg/l	0.109 ± 0.00374	<0.1 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	5.6 ± 0.6	0.569	93.5	-0.32
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	20 ± 2	1.92	93.9	-0.32
Manganese	µg/l	0.979 ± 0.0504	<1 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.4 ± 0.2	0.18	87.6	-0.49
Selenium	µg/l	6.61 ± 0.164	6.5 ± 0.7	0.86	98.3	-0.08
Uranium	µg/l	1.94 ± 0.056	1.8 ± 0.2	0.132	92.8	-0.35
Zinc	µg/l	34.3 ± 1.03	34 ± 4	2.91	99.2	-0.03

Sample: M145AHG

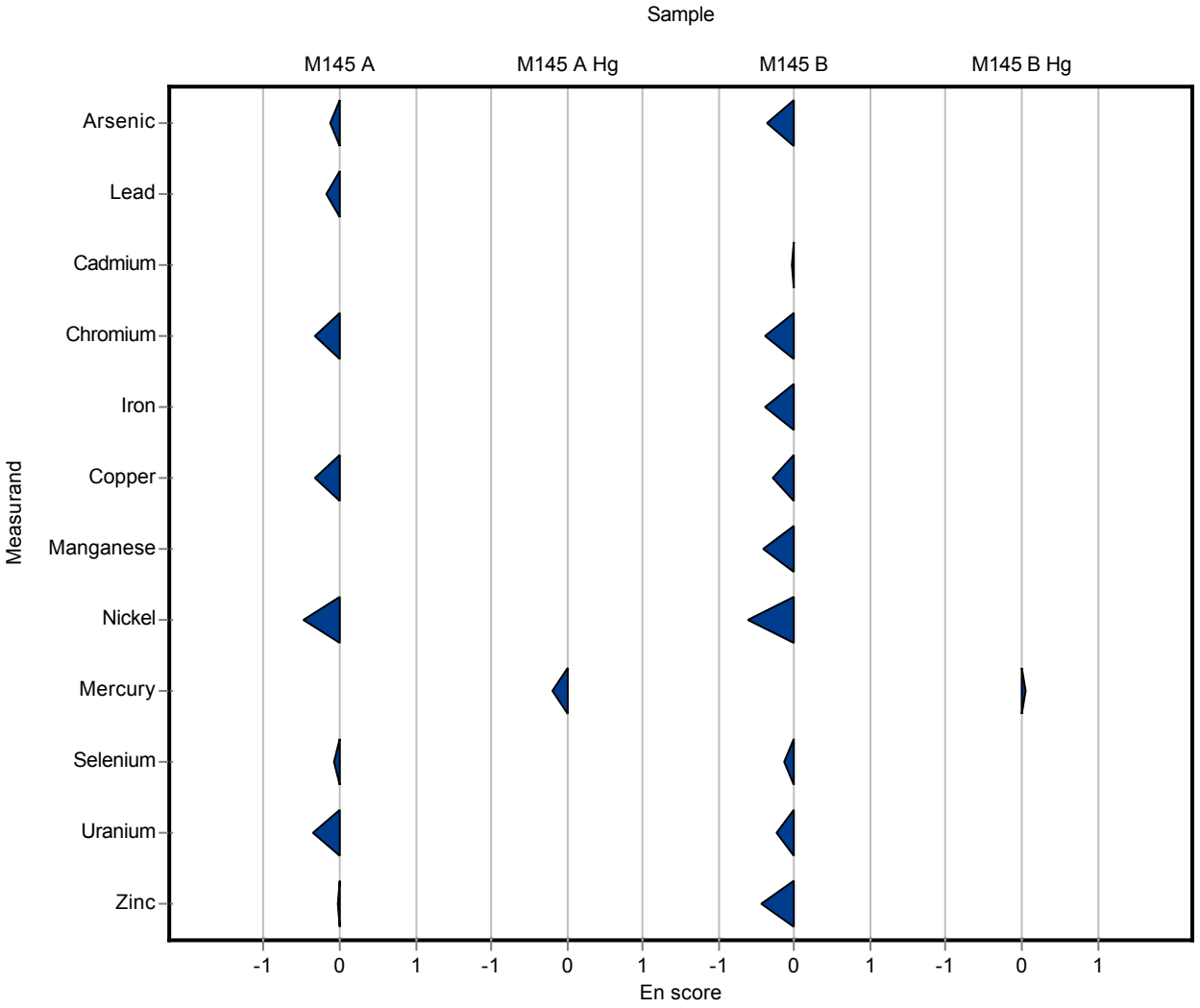
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.4 ± 0.2	0.222	94.5	-0.20

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<10 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.6 ± 0.2	0.261	91.8	-0.35
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.3 ± 0.1	0.034	97.2	-0.04
Chromium	µg/l	2.33 ± 0.0667	2.1 ± 0.3	0.221	90.1	-0.38
Iron	µg/l	14.6 ± 0.471	13 ± 2	1.46	89.2	-0.39
Copper	µg/l	8.17 ± 0.2	7.7 ± 0.8	0.735	94.3	-0.29
Manganese	µg/l	7.98 ± 0.162	7.3 ± 0.8	0.583	91.5	-0.42
Nickel	µg/l	2.77 ± 0.0721	2.4 ± 0.3	0.277	86.7	-0.61
Selenium	µg/l	1.26 ± 0.0451	1.2 ± 0.2	0.163	95.4	-0.14
Uranium	µg/l	1.3 ± 0.0383	1.2 ± 0.2	0.0899	92.5	-0.24
Zinc	µg/l	15.8 ± 0.77	14 ± 2	2.04	88.7	-0.44

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.9 ± 0.2	0.282	101	0.04



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.76 ± 0.26	0.271	97.4	-0.17
Lead	µg/l	1.28 ± 0.0432	1.22 ± 0.12	0.191	95.6	-0.29
Cadmium	µg/l	0.109 ± 0.00374	0.106 ± 0.02	0.012	97.2	-0.25
Chromium	µg/l	5.99 ± 0.105	6.07 ± 0.61	0.569	101	0.14
Iron	µg/l	6.21 ± 0.382	6.7 ± 0.67	0.763	108	0.64
Copper	µg/l	21.3 ± 0.391	20.6 ± 2.1	1.92	96.7	-0.37
Manganese	µg/l	0.979 ± 0.0504	1.18 ± 0.12	0.0873	121	2.30
Nickel	µg/l	1.6 ± 0.0753	1.51 ± 0.15	0.18	94.5	-0.49
Selenium	µg/l	6.61 ± 0.164	6.3 ± 0.95	0.86	95.3	-0.36
Uranium	µg/l	1.94 ± 0.056	1.86 ± 0.19	0.132	95.9	-0.61
Zinc	µg/l	34.3 ± 1.03	35 ± 3.5	2.91	102	0.25

Sample: M145AHG

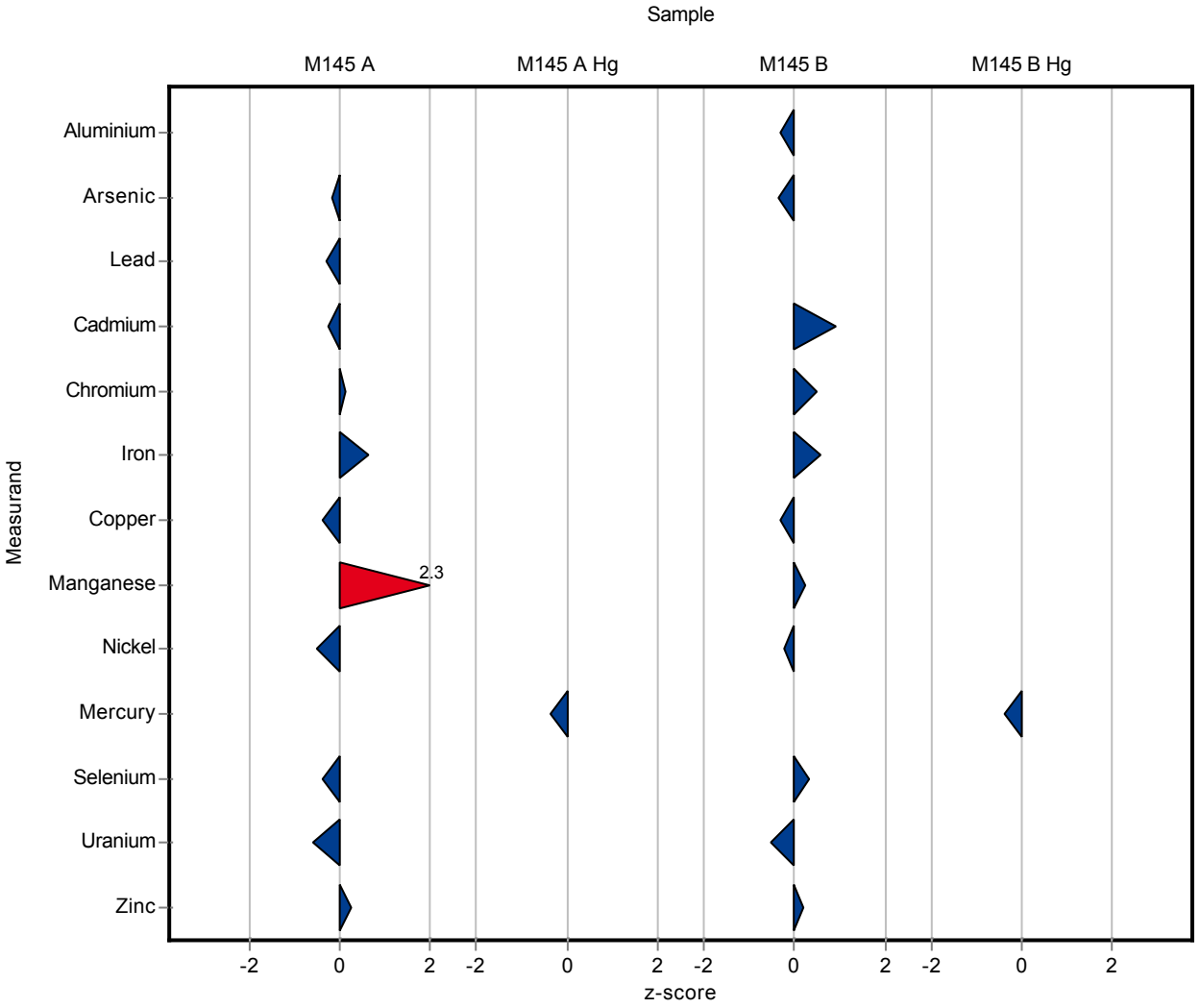
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.4 ± 0.14	0.222	94.5	-0.36

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8.05 ± 1.21	1.26	95.7	-0.29
Arsenic	µg/l	1.74 ± 0.0532	1.65 ± 0.25	0.261	94.7	-0.35
Lead	µg/l	0.338 ± 0.0276	<0.5 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.34 ± 0.051	0.034	110	0.92
Chromium	µg/l	2.33 ± 0.0667	2.44 ± 0.24	0.221	105	0.50
Iron	µg/l	14.6 ± 0.471	15.4 ± 1.5	1.46	106	0.57
Copper	µg/l	8.17 ± 0.2	7.93 ± 0.79	0.735	97.1	-0.32
Manganese	µg/l	7.98 ± 0.162	8.13 ± 0.81	0.583	102	0.26
Nickel	µg/l	2.77 ± 0.0721	2.71 ± 0.27	0.277	97.9	-0.21
Selenium	µg/l	1.26 ± 0.0451	1.31 ± 0.2	0.163	104	0.32
Uranium	µg/l	1.3 ± 0.0383	1.25 ± 0.13	0.0899	96.4	-0.52
Zinc	µg/l	15.8 ± 0.77	16.2 ± 0.16	2.04	103	0.20

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.77 ± 0.18	0.282	94.1	-0.40



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.76 ± 0.26	0.271	97.4	-0.09
Lead	µg/l	1.28 ± 0.0432	1.22 ± 0.12	0.191	95.6	-0.23
Cadmium	µg/l	0.109 ± 0.00374	0.106 ± 0.02	0.012	97.2	-0.08
Chromium	µg/l	5.99 ± 0.105	6.07 ± 0.61	0.569	101	0.07
Iron	µg/l	6.21 ± 0.382	6.7 ± 0.67	0.763	108	0.35
Copper	µg/l	21.3 ± 0.391	20.6 ± 2.1	1.92	96.7	-0.17
Manganese	µg/l	0.979 ± 0.0504	1.18 ± 0.12	0.0873	121	0.82
Nickel	µg/l	1.6 ± 0.0753	1.51 ± 0.15	0.18	94.5	-0.28
Selenium	µg/l	6.61 ± 0.164	6.3 ± 0.95	0.86	95.3	-0.17
Uranium	µg/l	1.94 ± 0.056	1.86 ± 0.19	0.132	95.9	-0.21
Zinc	µg/l	34.3 ± 1.03	35 ± 3.5	2.91	102	0.10

Sample: M145AHG

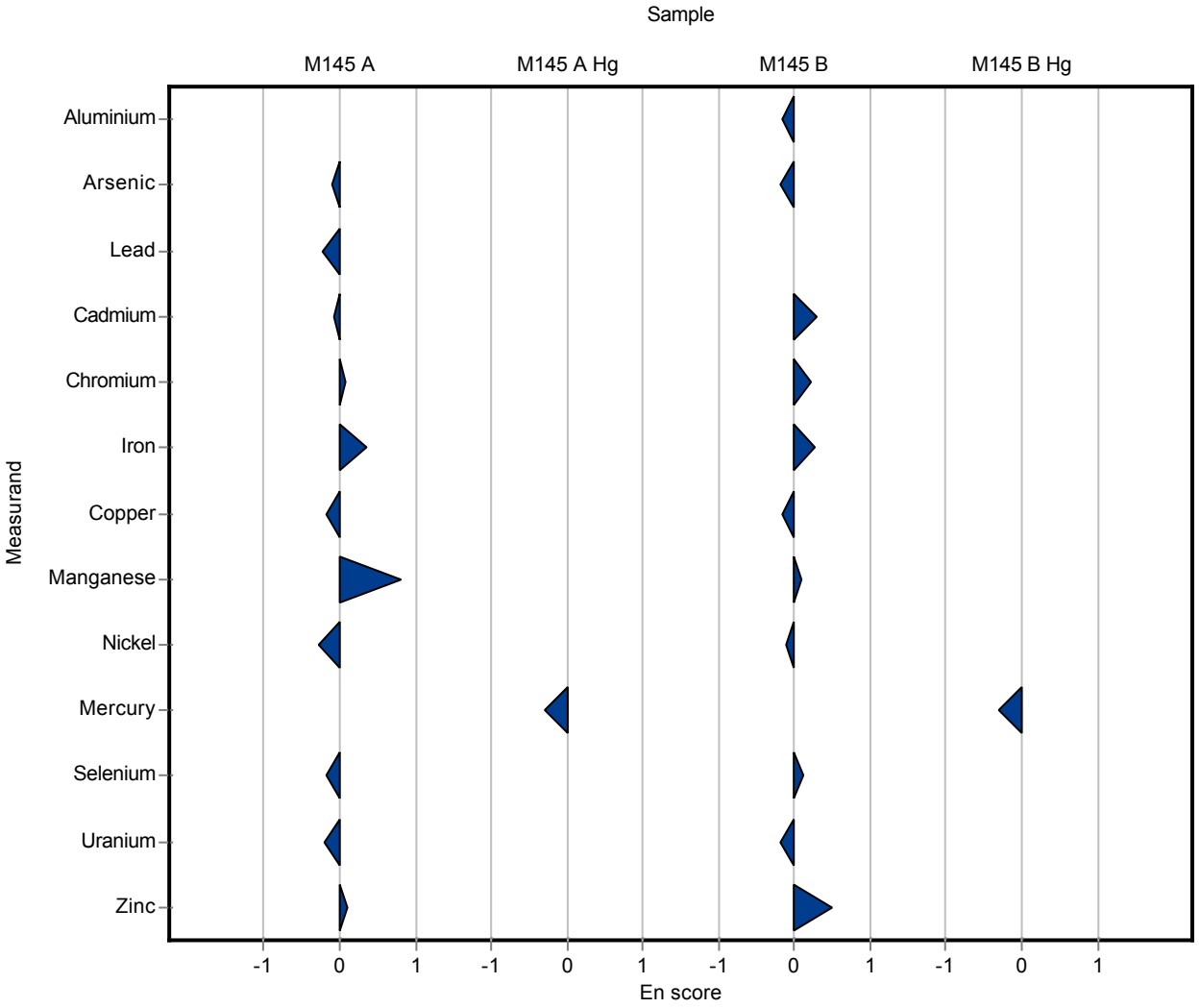
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.4 ± 0.14	0.222	94.5	-0.28

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8.05 ± 1.21	1.26	95.7	-0.15
Arsenic	µg/l	1.74 ± 0.0532	1.65 ± 0.25	0.261	94.7	-0.18
Lead	µg/l	0.338 ± 0.0276	<0.5 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.34 ± 0.051	0.034	110	0.31
Chromium	µg/l	2.33 ± 0.0667	2.44 ± 0.24	0.221	105	0.23
Iron	µg/l	14.6 ± 0.471	15.4 ± 1.5	1.46	106	0.27
Copper	µg/l	8.17 ± 0.2	7.93 ± 0.79	0.735	97.1	-0.15
Manganese	µg/l	7.98 ± 0.162	8.13 ± 0.81	0.583	102	0.09
Nickel	µg/l	2.77 ± 0.0721	2.71 ± 0.27	0.277	97.9	-0.11
Selenium	µg/l	1.26 ± 0.0451	1.31 ± 0.2	0.163	104	0.13
Uranium	µg/l	1.3 ± 0.0383	1.25 ± 0.13	0.0899	96.4	-0.18
Zinc	µg/l	15.8 ± 0.77	16.2 ± 0.16	2.04	103	0.49

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.77 ± 0.18	0.282	94.1	-0.31



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	3.75 ± 0.098	0.741	89.4	-0.60
Arsenic	µg/l	1.81 ± 0.0355	1.83 ± 0.067	0.271	101	0.08
Lead	µg/l	1.28 ± 0.0432	1.35 ± 0.015	0.191	106	0.39
Cadmium	µg/l	0.109 ± 0.00374	0.104 ± 0.007	0.012	95.4	-0.42
Chromium	µg/l	5.99 ± 0.105	5.94 ± 0.056	0.569	99.2	-0.09
Iron	µg/l	6.21 ± 0.382	5.51 ± 0.112	0.763	88.8	-0.92
Copper	µg/l	21.3 ± 0.391	21.8 ± 0.404	1.92	102	0.26
Manganese	µg/l	0.979 ± 0.0504	0.93 ± 0.019	0.0873	95	-0.56
Nickel	µg/l	1.6 ± 0.0753	1.57 ± 0.046	0.18	98.2	-0.16
Selenium	µg/l	6.61 ± 0.164	6.76 ± 0.196	0.86	102	0.17
Uranium	µg/l	1.94 ± 0.056	1.95 ± 0.015	0.132	101	0.08
Zinc	µg/l	34.3 ± 1.03	35 ± 0.351	2.91	102	0.25

Sample: M145AHG

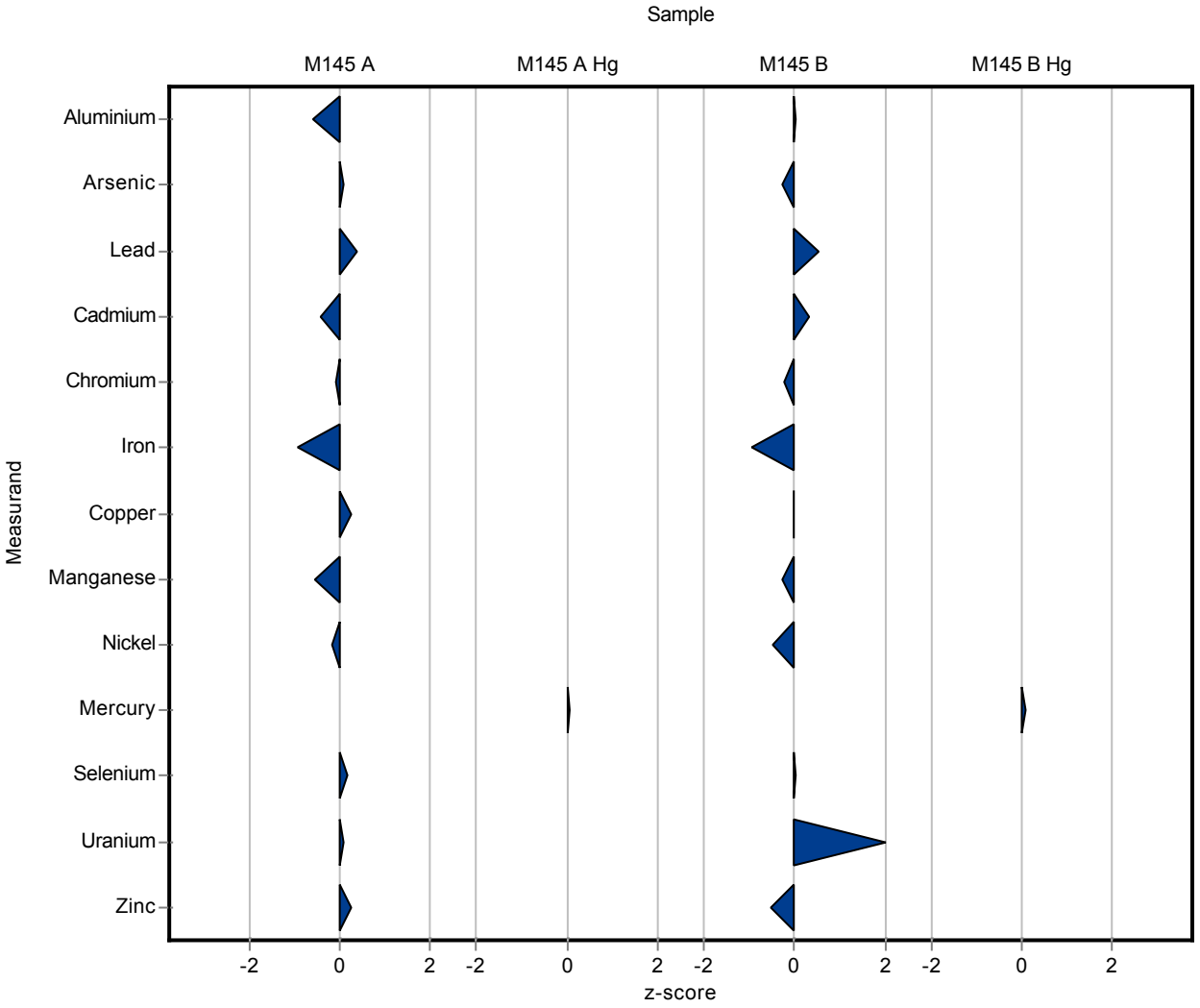
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.49 ± 0.015	0.222	101	0.04

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	8.46 ± 0.409	1.26	101	0.04
Arsenic	µg/l	1.74 ± 0.0532	1.67 ± 0.055	0.261	95.9	-0.28
Lead	µg/l	0.338 ± 0.0276	0.364 ± 0.022	0.0507	108	0.51
Cadmium	µg/l	0.309 ± 0.00659	0.319 ± 0.013	0.034	103	0.30
Chromium	µg/l	2.33 ± 0.0667	2.28 ± 0.017	0.221	97.8	-0.23
Iron	µg/l	14.6 ± 0.471	13.2 ± 0.058	1.46	90.6	-0.94
Copper	µg/l	8.17 ± 0.2	8.17 ± 0.056	0.735	100	0.01
Manganese	µg/l	7.98 ± 0.162	7.83 ± 0.025	0.583	98.1	-0.26
Nickel	µg/l	2.77 ± 0.0721	2.64 ± 0.02	0.277	95.4	-0.47
Selenium	µg/l	1.26 ± 0.0451	1.26 ± 0.087	0.163	100	0.02
Uranium	µg/l	1.3 ± 0.0383	1.42 ± 0.067	0.0899	110	1.37
Zinc	µg/l	15.8 ± 0.77	14.7 ± 0.702	2.04	93.1	-0.54

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.91 ± 0.025	0.282	101	0.10



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	3.75 ± 0.098	0.741	89.4	-1.06
Arsenic	µg/l	1.81 ± 0.0355	1.83 ± 0.067	0.271	101	0.17
Lead	µg/l	1.28 ± 0.0432	1.35 ± 0.015	0.191	106	1.40
Cadmium	µg/l	0.109 ± 0.00374	0.104 ± 0.007	0.012	95.4	-0.35
Chromium	µg/l	5.99 ± 0.105	5.94 ± 0.056	0.569	99.2	-0.32
Iron	µg/l	6.21 ± 0.382	5.51 ± 0.112	0.763	88.8	-1.58
Copper	µg/l	21.3 ± 0.391	21.8 ± 0.404	1.92	102	0.55
Manganese	µg/l	0.979 ± 0.0504	0.93 ± 0.019	0.0873	95	-0.78
Nickel	µg/l	1.6 ± 0.0753	1.57 ± 0.046	0.18	98.2	-0.24
Selenium	µg/l	6.61 ± 0.164	6.76 ± 0.196	0.86	102	0.34
Uranium	µg/l	1.94 ± 0.056	1.95 ± 0.015	0.132	101	0.16
Zinc	µg/l	34.3 ± 1.03	35 ± 0.351	2.91	102	0.58

Sample: M145AHG

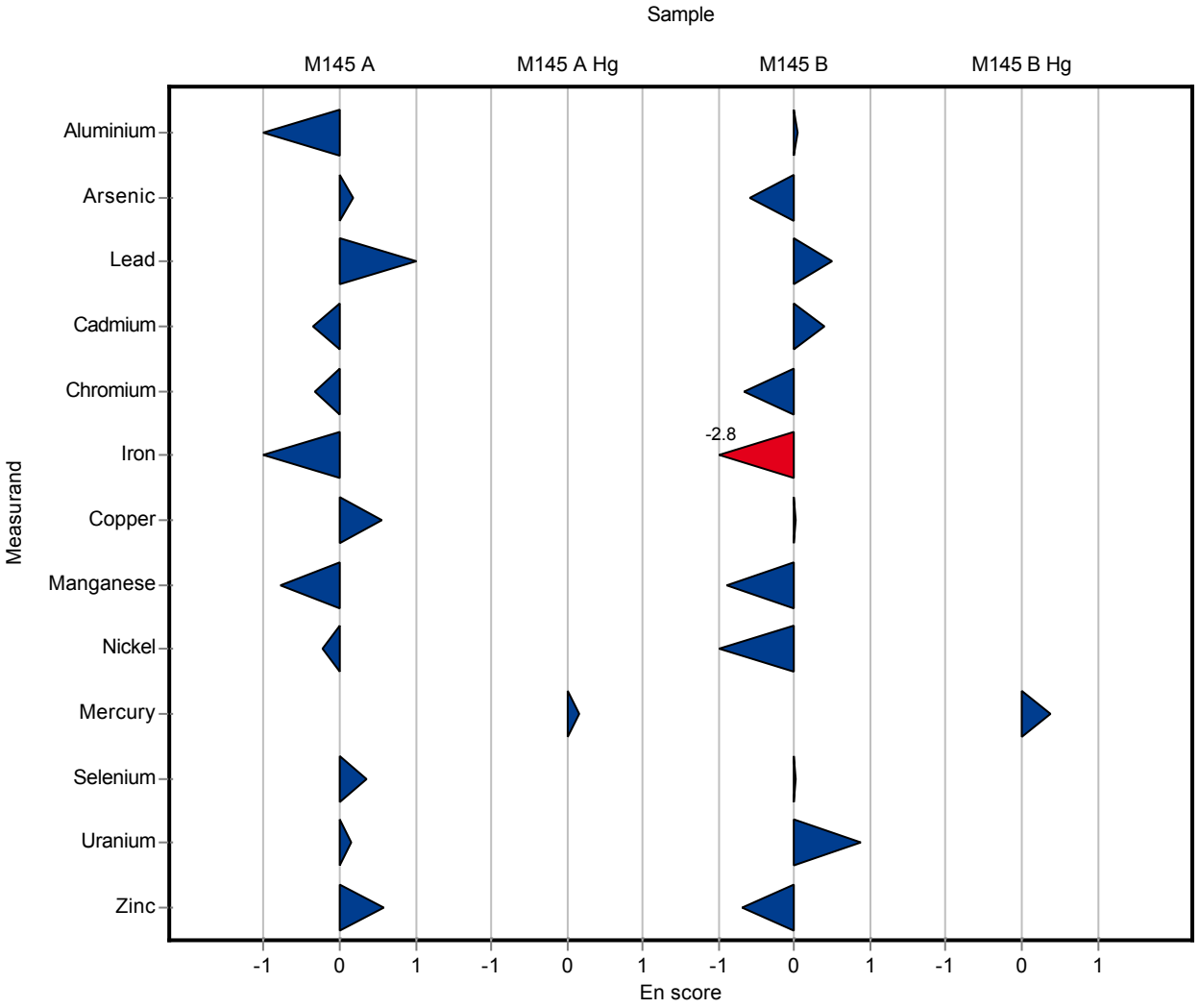
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.49 ± 0.015	0.222	101	0.17

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	8.46 ± 0.409	1.26	101	0.05
Arsenic	µg/l	1.74 ± 0.0532	1.67 ± 0.055	0.261	95.9	-0.59
Lead	µg/l	0.338 ± 0.0276	0.364 ± 0.022	0.0507	108	0.50
Cadmium	µg/l	0.309 ± 0.00659	0.319 ± 0.013	0.034	103	0.38
Chromium	µg/l	2.33 ± 0.0667	2.28 ± 0.017	0.221	97.8	-0.67
Iron	µg/l	14.6 ± 0.471	13.2 ± 0.058	1.46	90.6	-2.83
Copper	µg/l	8.17 ± 0.2	8.17 ± 0.056	0.735	100	0.02
Manganese	µg/l	7.98 ± 0.162	7.83 ± 0.025	0.583	98.1	-0.90
Nickel	µg/l	2.77 ± 0.0721	2.64 ± 0.02	0.277	95.4	-1.56
Selenium	µg/l	1.26 ± 0.0451	1.26 ± 0.087	0.163	100	0.01
Uranium	µg/l	1.3 ± 0.0383	1.42 ± 0.067	0.0899	110	0.89
Zinc	µg/l	15.8 ± 0.77	14.7 ± 0.702	2.04	93.1	-0.68

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.91 ± 0.025	0.282	101	0.38



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.8 ± 0.4	0.271	99.6	-0.03
Lead	µg/l	1.28 ± 0.0432	1.3 ± 0.3	0.191	102	0.13
Cadmium	µg/l	0.109 ± 0.00374	<0.2 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6 ± 0.6	0.569	100	0.02
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	22 ± 2	1.92	103	0.36
Manganese	µg/l	0.979 ± 0.0504	<2 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.6 ± 0.2	0.18	100	0.01
Selenium	µg/l	6.61 ± 0.164	7 ± 1.4	0.86	106	0.45
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.4	0.132	108	1.22
Zinc	µg/l	34.3 ± 1.03	35 ± 4	2.91	102	0.25

Sample: M145AHG

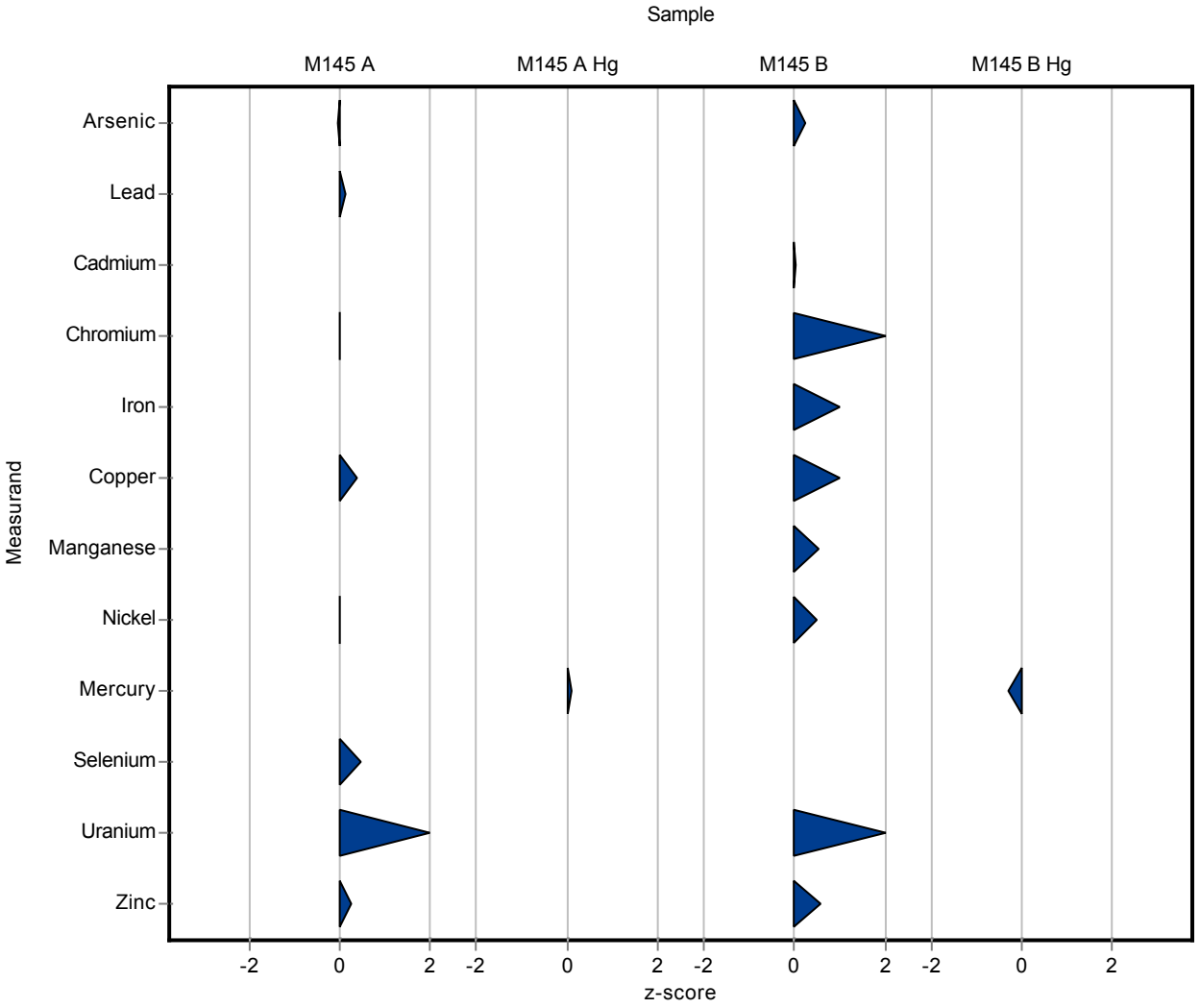
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.5 ± 0.3	0.222	101	0.09

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<5 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.8 ± 0.4	0.261	103	0.22
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.31 ± 0.06	0.034	100	0.04
Chromium	µg/l	2.33 ± 0.0667	2.6 ± 0.3	0.221	112	1.22
Iron	µg/l	14.6 ± 0.471	16 ± 2	1.46	110	0.98
Copper	µg/l	8.17 ± 0.2	8.9 ± 0.9	0.735	109	1.00
Manganese	µg/l	7.98 ± 0.162	8.3 ± 0.8	0.583	104	0.55
Nickel	µg/l	2.77 ± 0.0721	2.9 ± 0.3	0.277	105	0.47
Selenium	µg/l	1.26 ± 0.0451	<2 (LOQ) ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	1.4 ± 0.3	0.0899	108	1.15
Zinc	µg/l	15.8 ± 0.77	17 ± 2	2.04	108	0.59

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	1.8 ± 0.4	0.282	95.6	-0.29



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<5 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	1.8 ± 0.4	0.271	99.6	-0.01
Lead	µg/l	1.28 ± 0.0432	1.3 ± 0.3	0.191	102	0.04
Cadmium	µg/l	0.109 ± 0.00374	<0.2 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6 ± 0.6	0.569	100	0.01
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	22 ± 2	1.92	103	0.17
Manganese	µg/l	0.979 ± 0.0504	<2 (LOQ) ± -	0.0873	-	-
Nickel	µg/l	1.6 ± 0.0753	1.6 ± 0.2	0.18	100	0.00
Selenium	µg/l	6.61 ± 0.164	7 ± 1.4	0.86	106	0.14
Uranium	µg/l	1.94 ± 0.056	2.1 ± 0.4	0.132	108	0.20
Zinc	µg/l	34.3 ± 1.03	35 ± 4	2.91	102	0.09

Sample: M145AHG

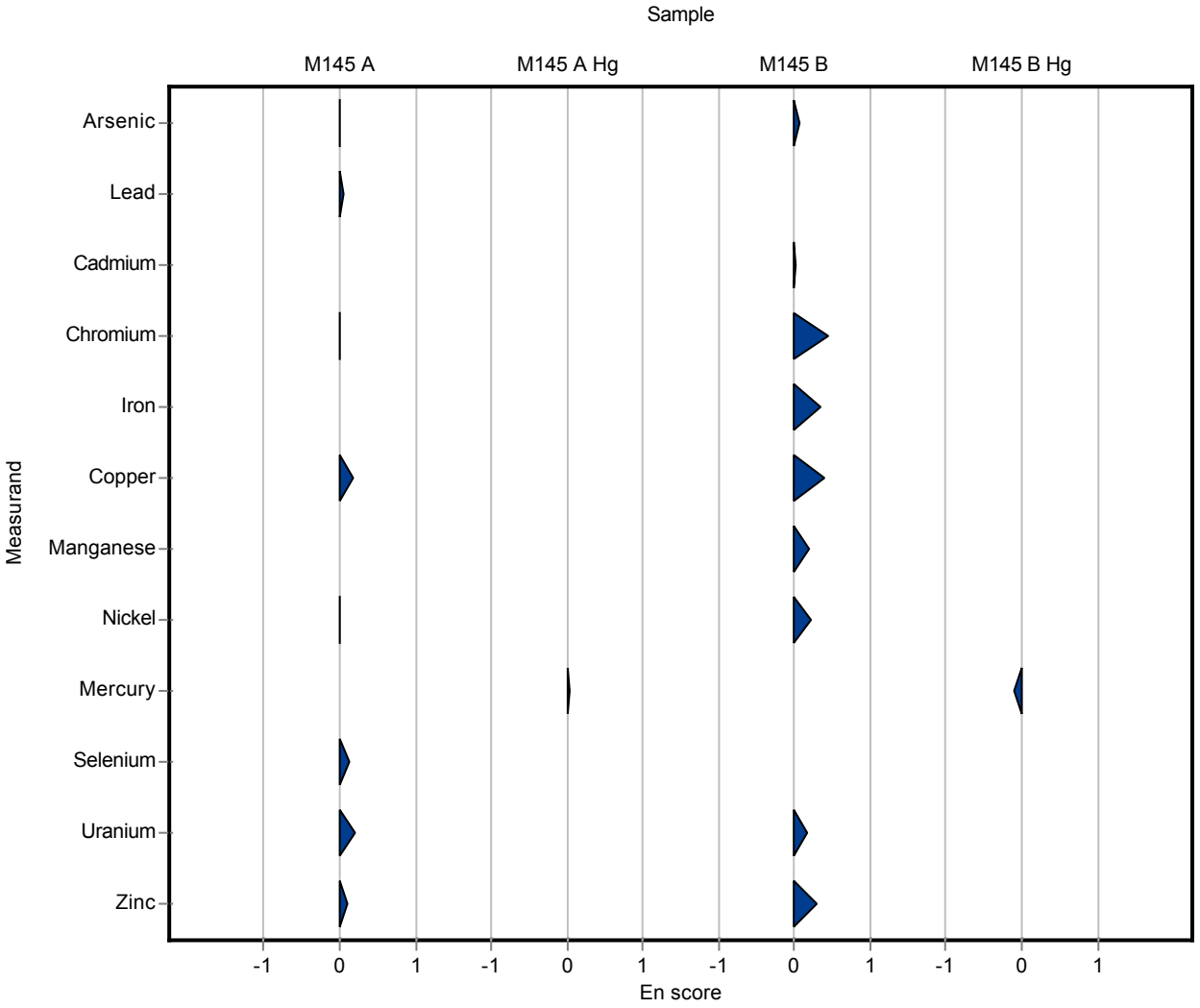
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.5 ± 0.3	0.222	101	0.03

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<5 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	1.8 ± 0.4	0.261	103	0.07
Lead	µg/l	0.338 ± 0.0276	<1 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	0.31 ± 0.06	0.034	100	0.01
Chromium	µg/l	2.33 ± 0.0667	2.6 ± 0.3	0.221	112	0.45
Iron	µg/l	14.6 ± 0.471	16 ± 2	1.46	110	0.35
Copper	µg/l	8.17 ± 0.2	8.9 ± 0.9	0.735	109	0.41
Manganese	µg/l	7.98 ± 0.162	8.3 ± 0.8	0.583	104	0.20
Nickel	µg/l	2.77 ± 0.0721	2.9 ± 0.3	0.277	105	0.22
Selenium	µg/l	1.26 ± 0.0451	<2 (LOQ) ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	1.4 ± 0.3	0.0899	108	0.17
Zinc	µg/l	15.8 ± 0.77	17 ± 2	2.04	108	0.30

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	1.8 ± 0.4	0.282	95.6	-0.10



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	3.65 ± 0.5475	0.741	87.1	-0.73
Arsenic	µg/l	1.81 ± 0.0355	2.2 ± 0.33	0.271	122	1.45
Lead	µg/l	1.28 ± 0.0432	1.36 ± 0.204	0.191	107	0.44
Cadmium	µg/l	0.109 ± 0.00374	1.08 ± 0.162	0.012	991	81.00
Chromium	µg/l	5.99 ± 0.105	0.11 ± 0.0165	0.569	1.84	-10.30
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	5.26 ± 0.789	1.92	24.7	-8.37
Manganese	µg/l	0.979 ± 0.0504	19.29 ± 2.8935	0.0873	1970	210.00
Nickel	µg/l	1.6 ± 0.0753	0.86 ± 0.129	0.18	53.8	-4.09
Selenium	µg/l	6.61 ± 0.164	6.87 ± 1.0305	0.86	104	0.30
Uranium	µg/l	1.94 ± 0.056	1.59 ± 0.2385	0.132	82	-2.66
Zinc	µg/l	34.3 ± 1.03	34.72 ± 5.208	2.91	101	0.15

Sample: M145AHG

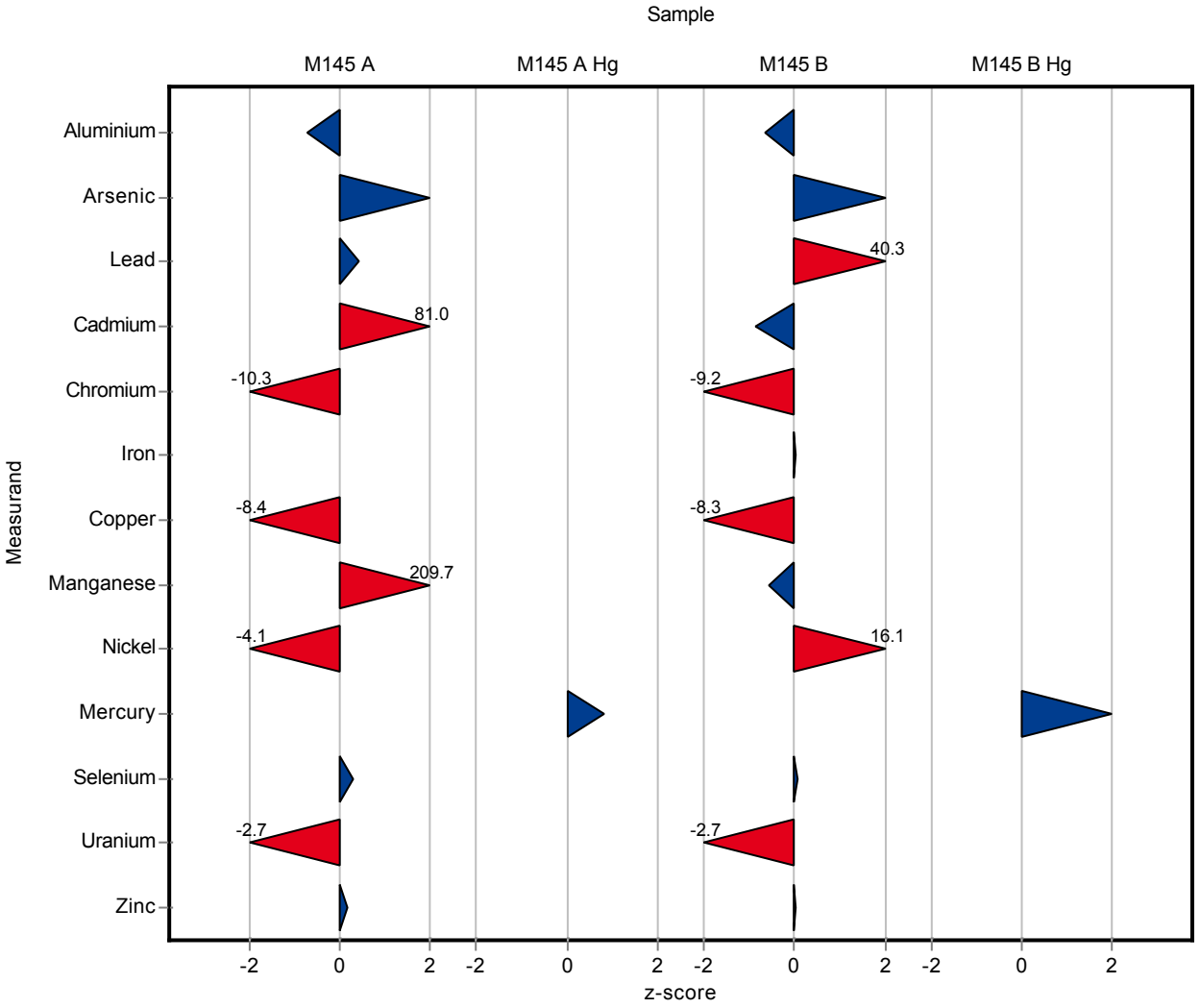
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	1.66 ± 0.249	0.222	112	0.81

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	7.6 ± 1.14	1.26	90.3	-0.65
Arsenic	µg/l	1.74 ± 0.0532	2.12 ± 0.318	0.261	122	1.45
Lead	µg/l	0.338 ± 0.0276	2.38 ± 0.357	0.0507	704	40.30
Cadmium	µg/l	0.309 ± 0.00659	0.28 ± 0.042	0.034	90.7	-0.84
Chromium	µg/l	2.33 ± 0.0667	0.29 ± 0.0435	0.221	12.4	-9.22
Iron	µg/l	14.6 ± 0.471	14.61 ± 2.1915	1.46	100	0.02
Copper	µg/l	8.17 ± 0.2	2.05 ± 0.3075	0.735	25.1	-8.32
Manganese	µg/l	7.98 ± 0.162	7.66 ± 1.149	0.583	96	-0.55
Nickel	µg/l	2.77 ± 0.0721	7.23 ± 1.0845	0.277	261	16.10
Selenium	µg/l	1.26 ± 0.0451	1.27 ± 0.1905	0.163	101	0.08
Uranium	µg/l	1.3 ± 0.0383	1.05 ± 0.1575	0.0899	81	-2.74
Zinc	µg/l	15.8 ± 0.77	15.84 ± 2.376	2.04	100	0.02

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	2.34 ± 0.351	0.282	124	1.62



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	3.65 ± 0.5475	0.741	87.1	-0.47
Arsenic	µg/l	1.81 ± 0.0355	2.2 ± 0.33	0.271	122	0.59
Lead	µg/l	1.28 ± 0.0432	1.36 ± 0.204	0.191	107	0.20
Cadmium	µg/l	0.109 ± 0.00374	1.08 ± 0.162	0.012	991	3.00
Chromium	µg/l	5.99 ± 0.105	0.11 ± 0.0165	0.569	1.84	-53.60
Iron	µg/l	6.21 ± 0.382	<10 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	5.26 ± 0.789	1.92	24.7	-9.87
Manganese	µg/l	0.979 ± 0.0504	19.29 ± 2.8935	0.0873	1970	3.16
Nickel	µg/l	1.6 ± 0.0753	0.86 ± 0.129	0.18	53.8	-2.75
Selenium	µg/l	6.61 ± 0.164	6.87 ± 1.0305	0.86	104	0.12
Uranium	µg/l	1.94 ± 0.056	1.59 ± 0.2385	0.132	82	-0.73
Zinc	µg/l	34.3 ± 1.03	34.72 ± 5.208	2.91	101	0.04

Sample: M145AHG

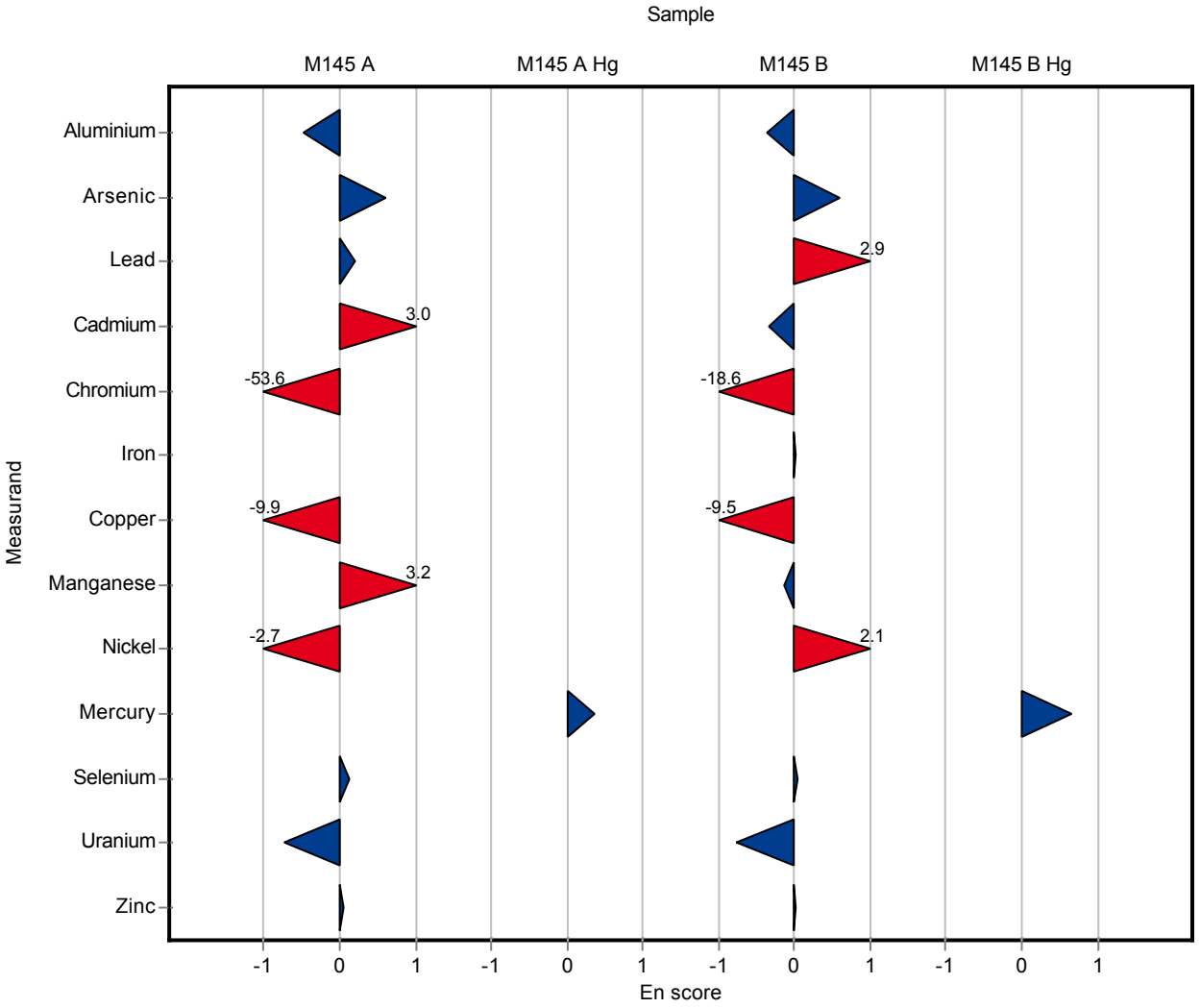
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	1.66 ± 0.249	0.222	112	0.36

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	7.6 ± 1.14	1.26	90.3	-0.35
Arsenic	µg/l	1.74 ± 0.0532	2.12 ± 0.318	0.261	122	0.59
Lead	µg/l	0.338 ± 0.0276	2.38 ± 0.357	0.0507	704	2.86
Cadmium	µg/l	0.309 ± 0.00659	0.28 ± 0.042	0.034	90.7	-0.34
Chromium	µg/l	2.33 ± 0.0667	0.29 ± 0.0435	0.221	12.4	-18.60
Iron	µg/l	14.6 ± 0.471	14.61 ± 2.1915	1.46	100	0.01
Copper	µg/l	8.17 ± 0.2	2.05 ± 0.3075	0.735	25.1	-9.46
Manganese	µg/l	7.98 ± 0.162	7.66 ± 1.149	0.583	96	-0.14
Nickel	µg/l	2.77 ± 0.0721	7.23 ± 1.0845	0.277	261	2.06
Selenium	µg/l	1.26 ± 0.0451	1.27 ± 0.1905	0.163	101	0.03
Uranium	µg/l	1.3 ± 0.0383	1.05 ± 0.1575	0.0899	81	-0.78
Zinc	µg/l	15.8 ± 0.77	15.84 ± 2.376	2.04	100	0.01

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	2.34 ± 0.351	0.282	124	0.65



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	4.19 ± 0.371	<20 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	- ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	<6 (LOQ) ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	<0.5 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.1 ± 1.2	0.569	102	0.20
Iron	µg/l	6.21 ± 0.382	<20 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	<150 (LOQ) ± -	1.92	-	-
Manganese	µg/l	0.979 ± 0.0504	2.2 ± 0.3	0.0873	225	14.00
Nickel	µg/l	1.6 ± 0.0753	<5 (LOQ) ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	<500 (LOQ) ± -	2.91	-	-

Sample: M145AHG

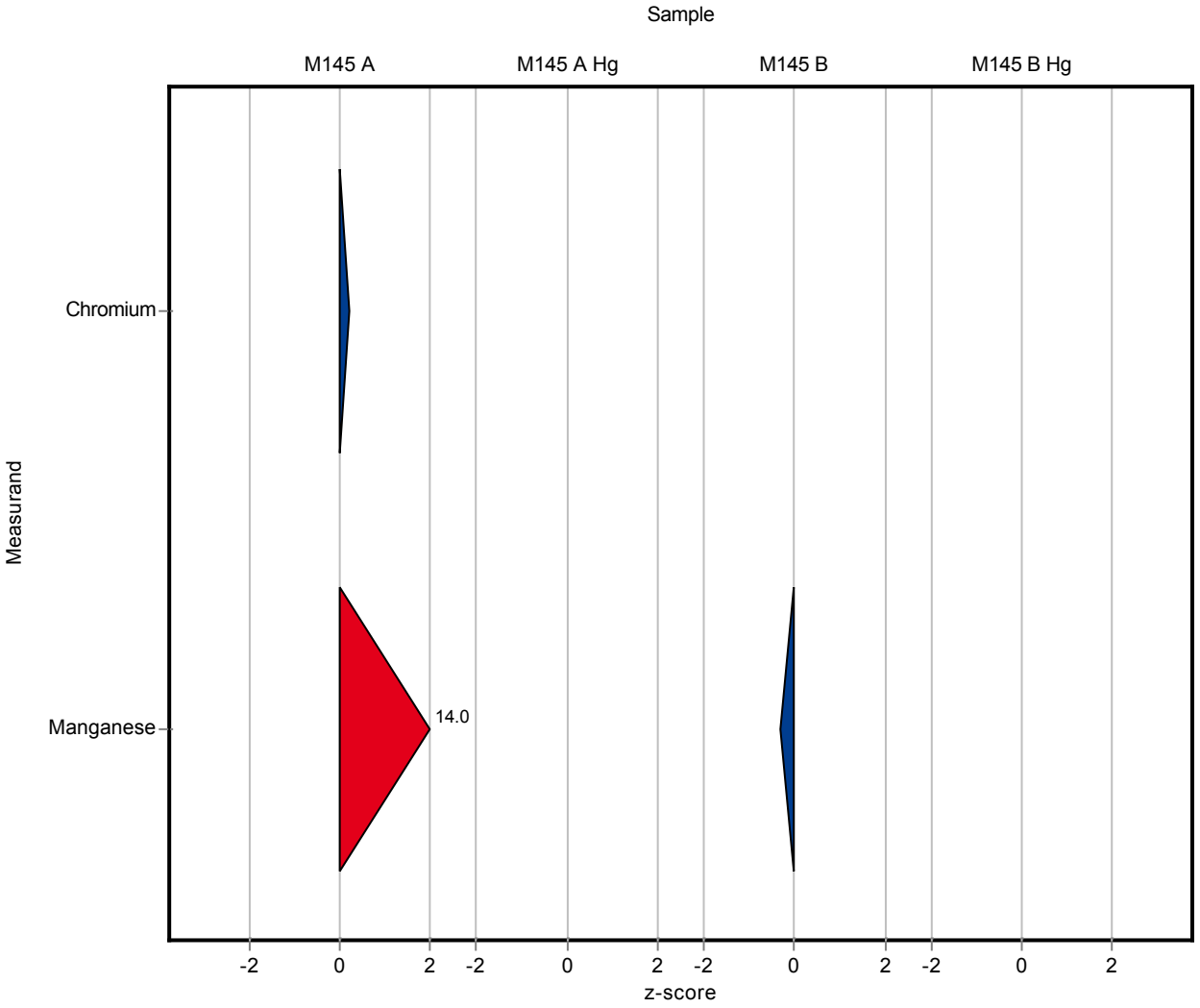
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.48 ± 0.0456	- ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Aluminium	µg/l	8.42 ± 0.391	<20 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	- ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	<6 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<0.5 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	<5 (LOQ) ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	<20 (LOQ) ± -	1.46	-	-
Copper	µg/l	8.17 ± 0.2	<150 (LOQ) ± -	0.735	-	-
Manganese	µg/l	7.98 ± 0.162	7.8 ± 1.1	0.583	97.7	-0.31
Nickel	µg/l	2.77 ± 0.0721	<5 (LOQ) ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	<500 (LOQ) ± -	2.04	-	-

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	z-Score
Mercury	µg/l	1.88 ± 0.0561	- ± -	0.282	-	-



Sample: M145A

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	4.19 ± 0.371	<20 (LOQ) ± -	0.741	-	-
Arsenic	µg/l	1.81 ± 0.0355	- ± -	0.271	-	-
Lead	µg/l	1.28 ± 0.0432	<6 (LOQ) ± -	0.191	-	-
Cadmium	µg/l	0.109 ± 0.00374	<0.5 (LOQ) ± -	0.012	-	-
Chromium	µg/l	5.99 ± 0.105	6.1 ± 1.2	0.569	102	0.05
Iron	µg/l	6.21 ± 0.382	<20 (LOQ) ± -	0.763	-	-
Copper	µg/l	21.3 ± 0.391	<150 (LOQ) ± -	1.92	-	-
Manganese	µg/l	0.979 ± 0.0504	2.2 ± 0.3	0.0873	225	2.03
Nickel	µg/l	1.6 ± 0.0753	<5 (LOQ) ± -	0.18	-	-
Selenium	µg/l	6.61 ± 0.164	- ± -	0.86	-	-
Uranium	µg/l	1.94 ± 0.056	- ± -	0.132	-	-
Zinc	µg/l	34.3 ± 1.03	<500 (LOQ) ± -	2.91	-	-

Sample: M145AHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.48 ± 0.0456	- ± -	0.222	-	-

Sample: M145B

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Aluminium	µg/l	8.42 ± 0.391	<20 (LOQ) ± -	1.26	-	-
Arsenic	µg/l	1.74 ± 0.0532	- ± -	0.261	-	-
Lead	µg/l	0.338 ± 0.0276	<6 (LOQ) ± -	0.0507	-	-
Cadmium	µg/l	0.309 ± 0.00659	<0.5 (LOQ) ± -	0.034	-	-
Chromium	µg/l	2.33 ± 0.0667	<5 (LOQ) ± -	0.221	-	-
Iron	µg/l	14.6 ± 0.471	<20 (LOQ) ± -	1.46	-	-
Copper	µg/l	8.17 ± 0.2	<150 (LOQ) ± -	0.735	-	-
Manganese	µg/l	7.98 ± 0.162	7.8 ± 1.1	0.583	97.7	-0.08
Nickel	µg/l	2.77 ± 0.0721	<5 (LOQ) ± -	0.277	-	-
Selenium	µg/l	1.26 ± 0.0451	- ± -	0.163	-	-
Uranium	µg/l	1.3 ± 0.0383	- ± -	0.0899	-	-
Zinc	µg/l	15.8 ± 0.77	<500 (LOQ) ± -	2.04	-	-

Sample: M145BHG

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criteria	Recovery [%]	En-Score
Mercury	µg/l	1.88 ± 0.0561	- ± -	0.282	-	-