umweltbundesamt
ENVIRONMENT AGENCY AUSTRIA

Proficiency Testing Scheme für die Umweltanalytik

AB12 Abfall nach der Deponie-VO (Eluat Ionen)

Proficiency Testing Scheme for Environmental Analysis

AB12 Waste according to landfill directive (eluate ions)

BERICHT / REPORT

Probenversand / Sample dispatch: 20.09.2022

Ausgabe/Edition 1: 07.11.2022

Dieser Report umfasst 210 Seiten.
This report comprises 210 pages.

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	Datum/Zeit-UTC	2022-11-07T11:15:45+01:00
Prüfinformation	Diese Unterschrift ist gemäß EU Verordnung Nr. 910/2014 (eIDAS) der handschriftlichen Unterschrift grundsätzlich rechtlich gleichgestellt. Prüfung unter: http://www.signaturpruefung.gv.at	

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D1. Beschreibung des Ringversuchs

D1.1. Ausgestaltung und Durchführung

- Anzahl der Anmeldungen: 31
- Anzahl der übermittelten Datensätze: 30
- Probenversand: 20.09.2022
- Einsendeschluss der Daten: 18.10.2022

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

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

D1.2. Beschreibung der Prüfgegenstände

Als Probenmaterial diente ein Abfalleluat (Mischung Aushubmaterial, Rauchgasreinigungsrückstand).

Das Probenmaterial umfasste:

- 2 Proben Eluat (AB12 und AB12TOC)

Um homogene Probeneluate zu erzielen, wurde die Herstellung der Eluatprobe bereits am 11.07.2022 begonnen (gemäß ÖNORM EN 12457-4 L/S=10 l/kg TM). Nach der Elution wurde das Eluat über einen 0,45 µm Membranfilter am 15.09.2022 filtriert. Danach wurden die Proben bis zur Abfüllung gekühlt gelagert (4 +/-3°C).

Die o.a. Proben wurden im Rührkessel unter ständigem Rühren zusätzlich mit einzelnen Substanzen dotiert.

Das Abfüllen der Proben erfolgte unter ständigem Rühren (Rührkessel Die Stabilisierung erfolgte durch Kühlung bzw. durch Zusatz von Salzsäure (Probe AB12TOC, final 1 % HCl). Die Probe AB12 wurde durch Kühlung stabilisiert (kein Zusatz). Die homogenen Prüfgegenstände wurden am 20.09.2022 verschickt.

Jedes Teilnehmerlabor erhielt:

- 2 Proben (insgesamt 600 ml), abgefüllt in je 1 x 100ml LDPE-Flasche (Probe AB12TOC) und in je 1 x 500ml PET-Flasche

D1.3. Anweisungen für die Teilnehmenden

Aus Stabilitätsgründen wurde empfohlen bis spätestens 28.09.2022 mit den Analysen zu beginnen.

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

D1.4. Kontrollanalytik zur Bewertung der Homogenität

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

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

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

D1.5. Trendtest zur Bewertung der Stabilität

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

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

D1.6. Ermittlung des zugewiesenen Wertes

Die Ergebnisse der Analysen mussten spätestens bis zum 18.10.2022 beim Veranstalter vorliegen. Später eingehende Werte wurden nicht berücksichtigt.

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

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

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

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

Bei sehr hohen Streuungen der Ergebnisse der Teilnehmenden von über 50 % oder bei mangelhafter Rückführbarkeit der statistischen Kenndaten aus den ausreißerbereinigten Ergebnissen der Teilnehmenden auf den Mittelwert des Kontrolllabores bzw. einer zu geringen Anzahl an ausreißerbereinigten Ergebnissen über die Gruppe der akkreditierten Labore, kann die Situation auftreten, dass kein zugewiesener Wert für den aktuellen Ringversuch festgelegt werden kann und daher keine Bewertung der Ergebnisse der Teilnehmenden für diesen Parameter möglich ist (vergleiche PO4-P beim ggst. Ringversuch). Ein entsprechender Hinweis wird im Bericht unter E7 bei der informativen Auswertung angebracht. Im Rahmen der internen Qualitätssicherung der Teilnehmenden kann ein Vergleich mit den Ergebnissen des Kontrolllabors durchgeführt werden. Diese Vorgehensweise wird bei Anwendung jeweils parameter- und probenbezogen unter Punkt D4 des Berichts dokumentiert.

D2. Kriterien der Leistungsbewertung

D2.1. Leistungskriterium z-Score

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

Die Ermittlung der z-Scores erfolgte gemäß nachfolgender Formel:

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

Dabei ist:

x_i	Messergebnis des teilnehmenden Labors
$\overline{X}$	zugewiesener Wert Sollwert für die Leistungsbewertung der Teilnehmenden (angegeben auf 3 signifikante Stellen); im Regelfall: ausreißerbereinigter Mittelwert der Ergebnisse der Teilnehmenden. Eine davon abweichende Vorgehensweise wird unter Punkt D4 des Berichts beschrieben.
Kriterium	Vergleichsstandardabweichung berechnet aus den Statistiken der ausreißerbereinigten Teilnehmerergebnissen (sR) des aktuellen Ringversuchs. In begründeten Fällen (z.B. Ergebnisse Realproben nahe an Mindestbestimmungsgrenze oder regulatorischer Vorgaben) erfolgt die Festlegung nach Expertenbefund und die Vorgangsweise wird unter Punkt D4 des Berichts beschrieben.

D2.2. Leistungskriterium E_n-Score

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

Die Ermittlung der E_n-Scores erfolgte gemäß nachfolgender Formel:

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

Dabei ist:

x_i	Messergebnis des teilnehmenden Labors

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

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

Interpretation der z-Scores:

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

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

Interpretation der E_n-Scores:

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

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

D3. Darstellung und Interpretation der Messergebnisse

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

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

jeweils die Bewertungsgrundlagen wie zugewiesener Wert samt erweiterter Messunsicherheit sowie das Kriterium.

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

D4. Anmerkungen zur Auswertung

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

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

Parameter Abdampfrückstand, NH4 (als N), NO2 (als N), NO3 (als N), Sulfat (als SO4), Chlorid, elektr. Leitfähigkeit (25 °C) bei Probe AB12 und Parameter TOC (als C) bei Probe AB12TOC: Bei diesen Parametern erfolgt die Berechnung der Scores nach D2. Die Kriterien für NO2-N, Sulfat und Chlorid wurden aufgerundet.

Parameter pH-Wert und Fluorid bei Probe AB12: Die auf Basis der Ergebnisse der Teilnehmenden berechneten Sollwerte lagen außerhalb der Messunsicherheit des Kontrollwertes und es ist über das Kontrolllabor keine Rückführbarkeit möglich. Der zugewiesene Wert wurde daher über die ausreißerbereinigten Mittelwerte aus der Gruppe der akkreditierten Teilnehmenden berechnet. Das Kriterium für den pH-Wert wurde auf 2 % aufgerundet.

Parameter PO4 (als P) Probe AB12: Aufgrund der starken Unterschiede zwischen den abgegebenen Ergebnissen über der jeweiligen Bestimmungsgrenze (Minimum–Maximum: 0.0013–0.163 mg/l PO4 (als P)) wurde kein zugewiesener Wert definiert. Für diesen Parameter empfehlen wir im Rahmen der internen Qualitätssicherung einen Vergleich mit dem informativen Mittelwert über die Ergebnisse der akkreditierten Teilnehmenden (n=11): 0.087 +/- 0.0247 mg/l U(k=2).

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 Teilnehmenden (angegeben auf 3 signifikante Stellen)
U (k=2)	erweiterte Unsicherheit (k=2) des zugewiesenen Wertes, (angegeben auf 3 signifikante Stellen)
Kriterium	Vorgabewert zur Ermittlung des z-Scores in der angegebenen Einheit (angegeben auf 3 signifikante Stellen)
Kriterium [%]	Vorgabewert zur Ermittlung des z-Scores in % des zugewiesenen Wertes (angegeben auf 2 signifikante Stellen)
Mittelwert	Ausreißerbereinigter Mittelwert über die Ergebnisse der Teilnehmenden (angegeben auf 3 signifikante Stellen)
VB (99%)	99 % Vertrauensbereich (angegeben auf 3 signifikante Stellen)
Minimum	Minimales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
Maximum	Maximales abgegebenes Messergebnis, ausreißerbereinigt (angegeben auf 3 signifikante Stellen)
sR	Vergleichsstandardabweichung, berechnet aus den ausreißerbereinigten Ergebnissen der Teilnehmenden des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)
vR	relative Vergleichsstandardabweichung in %, berechnet aus den ausreißerbereinigten Ergebnissen der Teilnehmenden des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 2 signifikante Stellen)
Kontrollwert ±	Mittelwert der Kontrollmessungen des Veranstalters ±
U (k=2)	erweiterte Ergebnisunsicherheit des Kontrollwertes (jeweils angegeben auf 3 signifikante Stellen)
Laborcode	anonymisierte, eindeutige Kennung des teilnehmenden Labors im jeweiligen Ringversuch
Messwert	einzelne(r) Messwert(e) lt. Angabe der Teilnehmenden (maximal 5 Nachkommastellen dargestellt)
Messergebnis	Für die Bewertung herangezogenes Ergebnis lt. Angabe der Teilnehmenden (maximal 5 Nachkommastellen

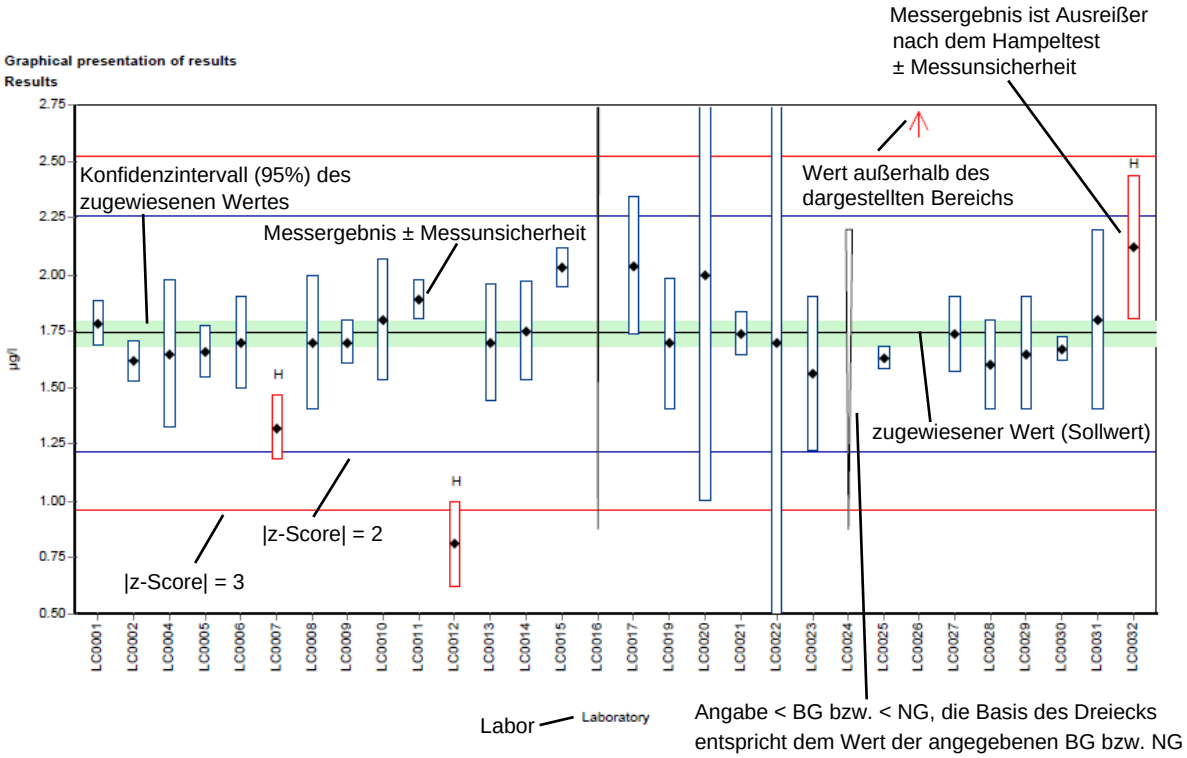
	dargestellt). Bei Eignungsprüfungsrunden mit Vorgabe von unabhängigen Mehrfachbestimmungen, entspricht dies dem berechneten Mittelwert aus den einzelnen Messwerten der Teilnehmenden.
± U	kombinierte Messunsicherheit ohne Erweiterungsfaktor (k=1) lt. Angabe der Teilnehmenden (maximal 5 Nachkommastellen dargestellt)
BG	Bestimmungsgrenze
NG	Nachweisgrenze
WF	Wiederfindungsrate in %, bezogen auf den zugewiesenen Wert (angegeben auf 3 signifikante Stellen, dargestellt maximal 1 Nachkommastelle)
MW	Mittelwert
z-Score	Abweichung des Messergebnisses zum zugewiesenen Wert, ausgedrückt als Vielfaches des Kriteriums (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen)
E_n-Score	Abweichung des Messergebnisses zum zugewiesenen Wert, ausgedrückt als Vielfaches der kombinierten Messunsicherheiten, bestehend aus erweiterter Unsicherheit des zugewiesenen Wertes und der erweiterten Unsicherheit der Messergebnisse der Teilnehmenden (angegeben auf 3 signifikante Stellen, dargestellt maximal 2 Nachkommastellen). Beim E_n-Score erfolgt die Berücksichtigung der Messunsicherheit der Teilnehmenden.
-	Keine Daten übermittelt bzw. keine Berechnung möglich
Anmerkungen	Anmerkungen zum jeweiligen Messergebnis (z.B. H, FN, FP)
H	Ausreißer nach dem Hampel-Test
FN	Falsch negativ – Messergebnis kleiner Bestimmungs- bzw. Nachweisgrenze dessen Betrag die Bedingungen eines Ausreißers nach dem Hampeltest erfüllt.
FP	Falsch positiv – Falls aufgrund des geringen Analytgehalts kein zugewiesener Wert ermittelt werden kann (n < 6), wird der Median der Beträge der übermittelten Nachweis- bzw. Bestimmungsgrenzen ermittelt. Als falsch positiv wird ein Messergebnis bewertet, welches diesen Median um mehr als 100 % übersteigt.
Standardabweichung	Vergleichsstandardabweichung berechnet aus den Ergebnissen der Teilnehmenden des aktuellen Ringversuchs (angegeben auf 3 signifikante Stellen)

rel. Standardabweichung	relative Vergleichsstandardabweichung in %, berechnet aus den Ergebnissen der Teilnehmenden des aktuellen Ringversuchs bezogen auf den Mittelwert (angegeben auf 3 signifikante Stellen)
n	Anzahl der Messergebnisse
*	Kennzeichnung für Hinweise zur Erläuterung

D5.2. Graphische Darstellung der Ergebnisse

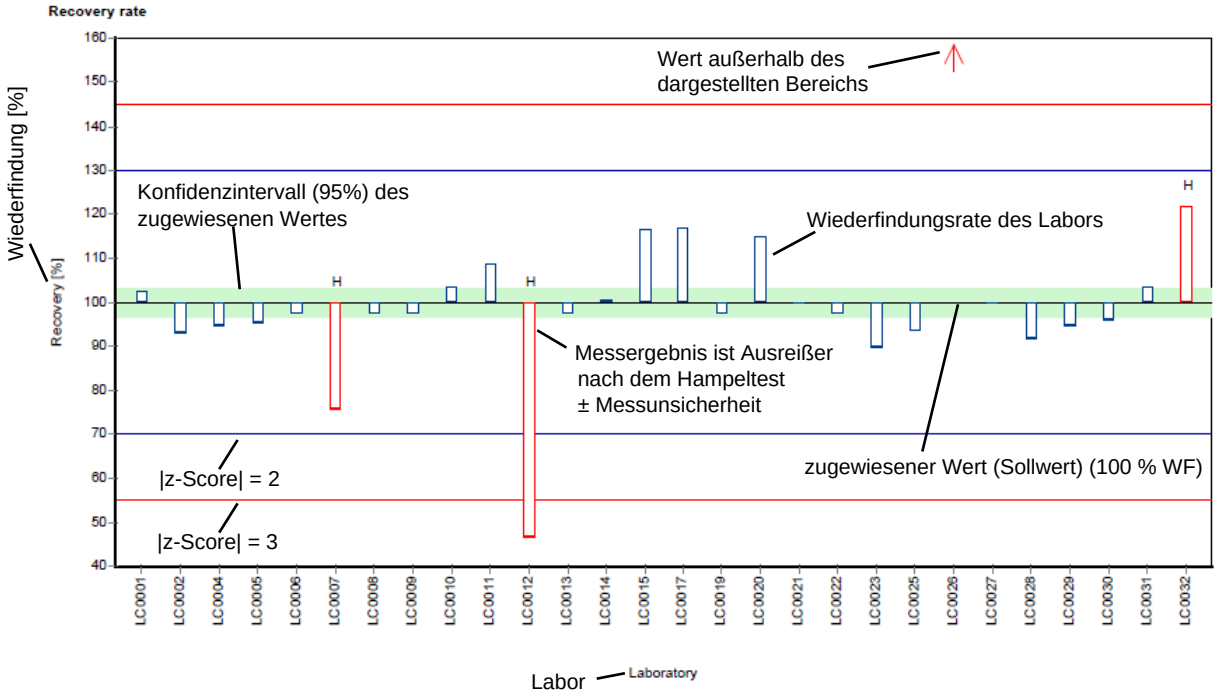
Nachfolgend wird die graphische Darstellung anhand von kommentierten Beispieldiagrammen erläutert.

Beispieldiagramm: Messwerte



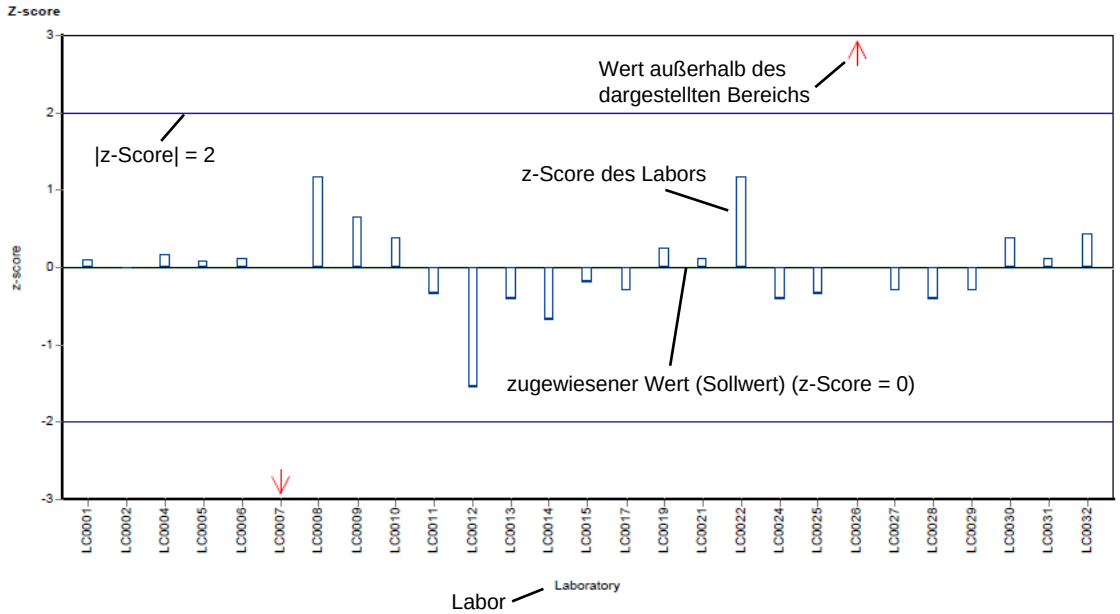
Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: Wiederfindung zum zugewiesenen Wert



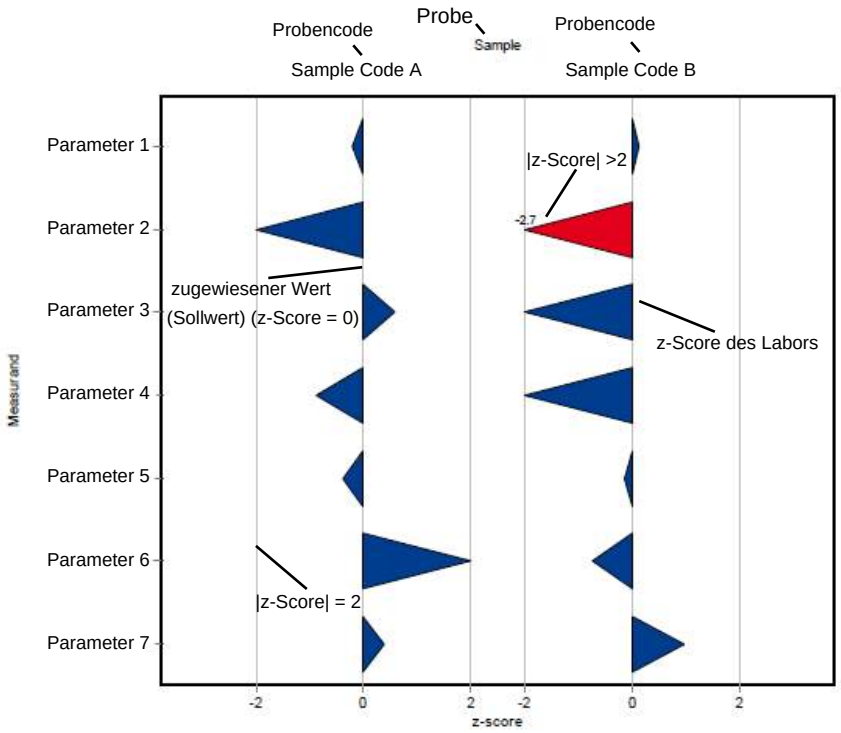
Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: z-Score

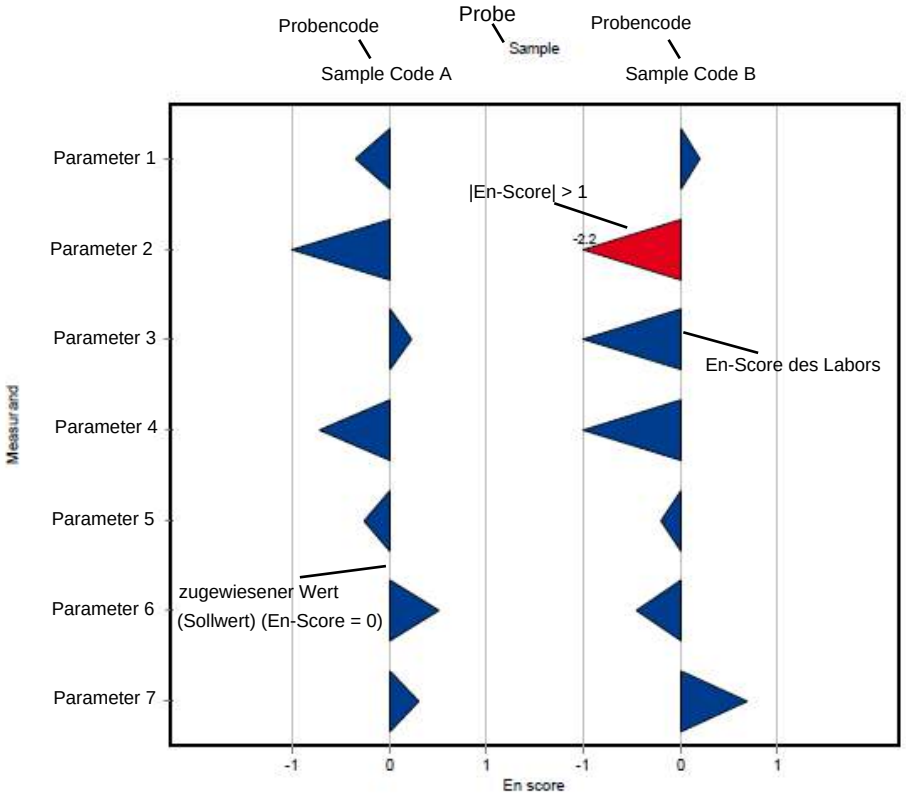


Unterschiedliche Analysenmethoden werden mit unterschiedlichen Farben kenntlich gemacht.

Beispieldiagramm: z-Score (laborientierte Auswertung)



Beispieldiagramm: En-Score (laborientierte Auswertung)



D6. Zusammenfassung

D6.1. Tabelle der zugewiesenen Werte

Parameter	Probe	Einheit	zugewiesener Wert	±	U (k=2)	Kriterium	Kriterium [%]
Chlorid	AB12	mg/l	1520	±	17.9	76.1	5
elektr. Leitfähigkeit (25°C)	AB12	mS/m	510	±	4.26	10.2	2
Abdampfrückstand	AB12	mg/l	3750	±	258	674	18
Fluorid	AB12	mg/l	0.304	±	0.0494	0.107	35
NH4 (als N)	AB12	mg/l	0.329	±	0.0105	0.027	8.2
NO2 (als N)	AB12	mg/l	0.0321	±	0.00121	0.00273	8.5
NO3 (als N)	AB12	mg/l	2.3	±	0.0615	0.138	6
pH-Wert	AB12		7.92	±	0.0475	0.158	2
PO4 (als P)*	AB12	mg/l	-	±	-	-	-
Sulfat (als SO4)	AB12	mg/l	116	±	1.93	5.8	5
TOC (als C)	AB12 - TOC	mg/l	13.6	±	0.398	0.98	7.2

* Zur Bewertung im Rahmen der internen QS wird ein Vergleich mit dem informativen Mittelwert empfohlen:
AB12 PO4 (als P): 0.087 +/- 0.0247 mg/l U(k=2)

D6.2. Zusammenfassung der ausreißerbereinigten Ringversuchsergebnisse

Parameter	Probe	Anzahl Labors für Berechnung	Anzahl Ausreißer Labors	Einheit	Mittelwert	± VB (99%)	Minimum	Maximum	sR	vR [%]
Chlorid	AB12	25	3	mg/l	1520	± 26.9	1430	1620	44.8	2.9
elektr. Leitfähigkeit (25°C)	AB12	23	7	mS/m	510	± 6.39	479	529	10.2	2
Abdampfrückstand	AB12	27	1	mg/l	3750	± 387	2520	5150	671	18
Fluorid	AB12	19	0	mg/l	0.304	± 0.0741	0.0941	0.48	0.108	35
NH4 (als N)	AB12	26	0	mg/l	0.329	± 0.0158	0.287	0.399	0.0269	8.2
NO2 (als N)	AB12	20	1	mg/l	0.0321	± 0.00181	0.0268	0.0385	0.0027	8.4
NO3 (als N)	AB12	20	5	mg/l	2.3	± 0.0923	2.05	2.63	0.138	6
pH-Wert	AB12	28	1		7.92	± 0.0686	7.62	8.15	0.121	1.5
PO4 (als P)	AB12	13	0	mg/l	0.0863	± 0.0415	0.0013	0.163	0.0499	58
Sulfat (als SO4)	AB12	28	1	mg/l	116	± 2.9	105	126	5.11	4.4
TOC (als C)	AB12 - TOC	24	3	mg/l	13.6	± 0.597	10.6	15.3	0.975	7.2

E1. Description of the proficiency test

E1.1. Design and implementation

- Number of registrations: 31
- Number of submitted data records: 30
- Dispatch of samples: 20th September 2022
- Closing date for submission of data: 18th October 2022

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 sample material was waste eluate (mixture of excavated material, flue gas cleaning residue).

The following samples were made available:

- 2 samples eluate (AB12 and AB12TOC)

To guarantee homogenous samples, the production of the eluate samples was started on 11th of July 2022 (eluate according to ÖNORM EN 12457-4; s : l = 1:10). After the elution, the eluate was filtered using 0.45 µm membrane disc filters on 15th of September 2022. Afterwards, the samples were stored at 4 +/- 3°C until further processing.

The samples were partly spiked with specific substances under continuous stirring in the stirring vessel.

The samples were filled into bottles under continuous stirring (stirring vessel) and sample AB12TOC was stabilized by cooling and by addition of hydrochloric acid (final concentration 1 % HCI). Sample AB12 was stabilized by cooling.

The homogeneous proficiency test items were dispatched on 20th September 2022.

Each participant received:

- 2 samples (altogether 600ml), filled in 1 x 100 ml LDPE bottle (Sample AB12TOC) and 1 x 500 ml PET bottle

E1.3. Instructions for the participants

For reasons of stability, it was recommended to start the analysis by the 28th September 2022 at the latest.

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

E1.4. Control testing for homogeneity evaluation

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

The determination of all parameters was performed at an external laboratory (accredited according to EN ISO/IEC 17025) in subcontract (anonymous submission) and testing was performed close to the time of sample dispatch.

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

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

E1.5. Trend test for stability evaluation

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

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

According to data obtained from previous rounds and based on the trend test evaluation of the current round, the stability of the test items for proficiency testing of real 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 18th October 2022. Any values received at a later date were not considered.

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

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

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

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

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

For real samples in some exceptional cases it might occur, that no assigned value based on participants' results can be calculated and no evaluation of the participants results can be made (see PO4-P at the current round). E.g due to large variations in the participant results (vR > 50 %) and/or insufficient traceability of the calculated mean of all participants after outlier-clearing to the mean of control testing or if the number of results (without outliers) of the group of accredited testing laboratories is too low.

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

E2. Criteria of performance evaluation

E2.1. Performance criterion z-Score

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

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

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

In this context,

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

E2.2. Performance criterion E_n-Score

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

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

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

In this context,

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

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

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

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

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

Interpretation of z-Scores:

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

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

Interpretation of E_n-Scores:

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

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

E3. Representation and interpretation of measurement results

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

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

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

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

E4. Explanatory notes

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

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

Parameters evaporation residue, NH4 (as N), NO2 (as N), NO3 (as N), sulfate (as SO4), chloride, electrical conductivity (25 °C) for sample AB12 and parameter TOC (as C) for sample AB12TOC:
Scores for all listed parameters were calculated according to E2. The criteria for NO2-N, sulfate and chloride were rounded up.

Parameters pH-Value and fluoride for sample AB12:
The assigned values calculated based on the participant results were outside of the measurement uncertainty of the control test value and thus traceability could not be proven by this procedure. Therefore, new assigned values were defined by the group of accredited participating laboratories after outlier-assessment. The criterion for pH was rounded up to 2 %

Parameter PO4 (as P) for sample AB12: Due to the observed differences between the submitted results above the limit of quantification (LOQ) (minimum–maximum: 0.0013–0.163 mg/l PO4 (as P), no assigned value was defined. For this parameter we recommend a comparison with the informative mean value over the results of the accredited participants (n=11) within your internal quality assurance measures: 0.087 +/- 0.0247 mg/l U(k=2).

E5. Annotations on tables and charts

E5.1. Information and abbreviations in tables

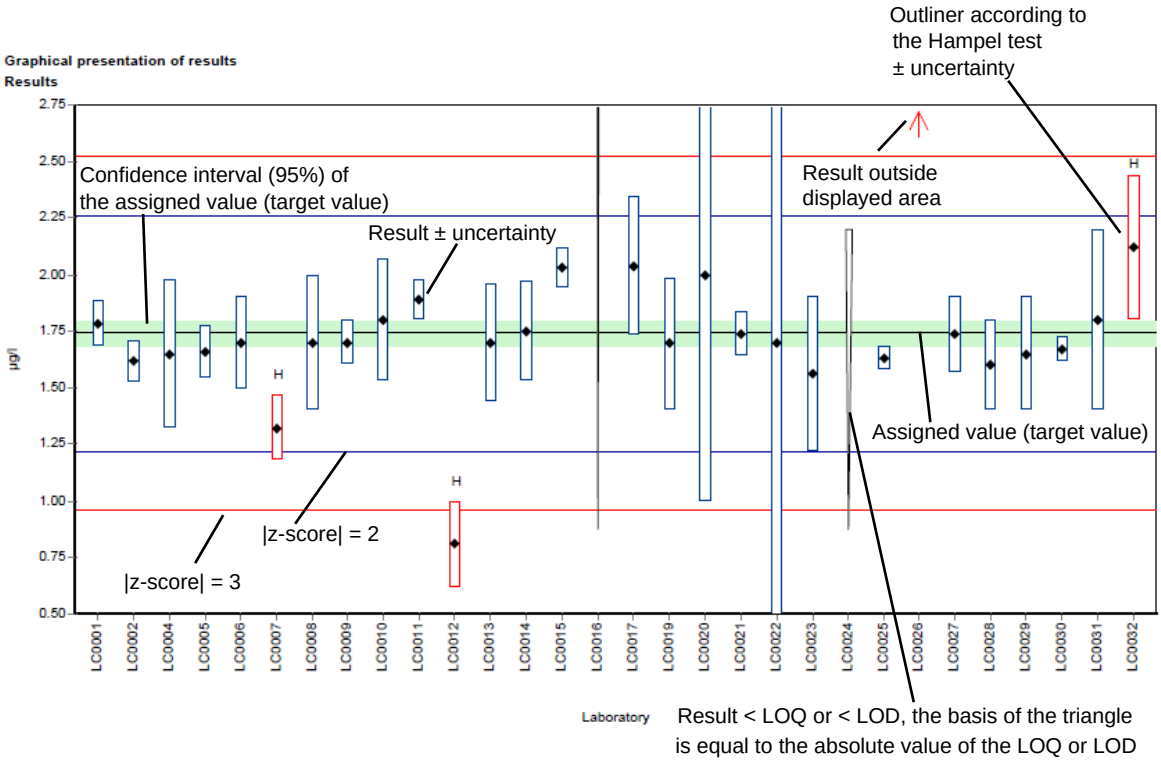
Parameter	Analyte identifier
Sample	Sample identifier
Unit	Given unit for result and uncertainty (e.g. µg/l)
Assigned value	Target value for proficiency assessment of the participants (3 significant digits)
U (k=2)	Expanded uncertainty (k=2) of the assigned value (3 significant digits)
Criteria	Specified value for the determination of the z-score in the given unit (3 significant digits)
Criteria [%]	Specified value for the determination of the z-score in % of the assigned value (2 significant digits)
Mean	Mean of the participants results, without outliers (3 significant digits)
CI (99 %)	99 % confidence interval (3 significant digits)
Minimum	Minimum of all submitted results, after removal of outliers (3 significant digits)
Maximum	Maximum of all submitted results, after removal of outliers (3 significant digits)
SD	Reproducibility standard deviation, calculated from the participants results, after removal of outliers (3 significant digits)
RSD %	Reproducibility standard deviation, calculated from the participants results relative to the target value, given in %, after removal of outliers (2 significant digits)
Control test value ± U (k=2)	Mean of control test value ± expanded measurement uncertainty (3 significant digits)
Labcode	Laboratory identifier (anonymized)
Result	Result as indicated by participant (max. 5 decimal places)
± U	combined measurement uncertainty without expansion factor (k=1), as indicated by participant (max. 5 decimal places)
LOQ	Limit of quantification
LOD	Limit of detection
Recovery	Recovery rate in % based on assigned value (target value) (3 significant digits, max. one decimal place given)
z-Score	Deviation of result based on the assigned value (target value) given as a multiple of the criteria (3 significant digits, max. 2 decimal places given)

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

E5.2. Graphical presentation of results

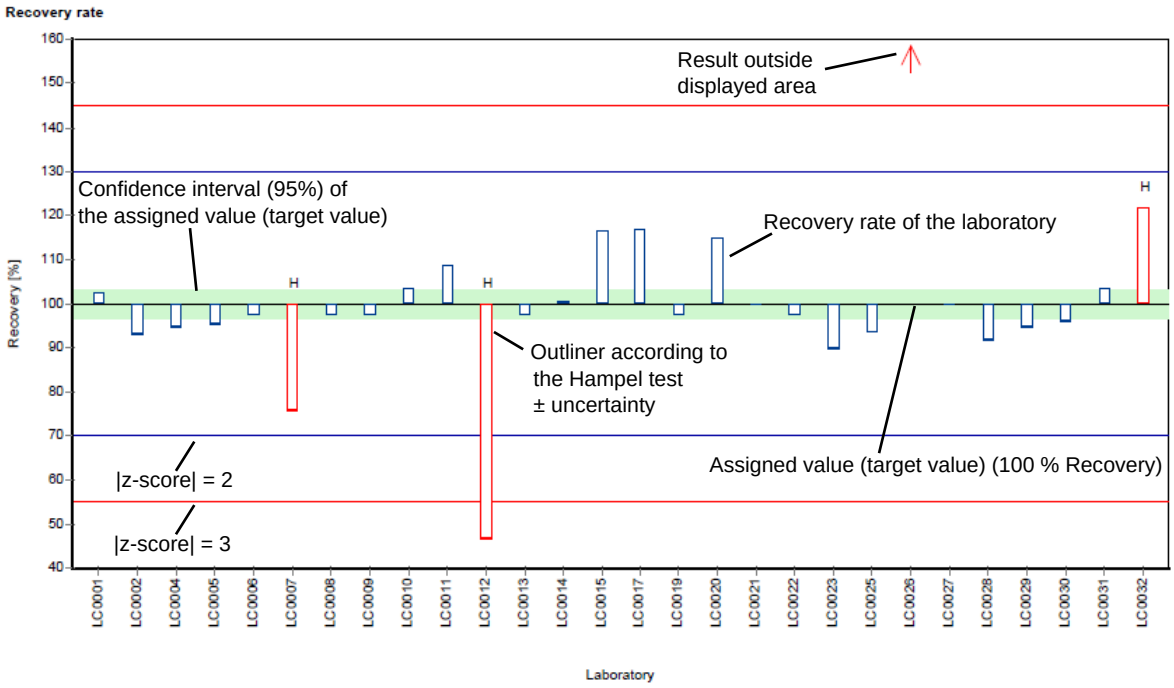
The graphic representation in the report is explained below by means of commented example diagrams:

Example chart: Results



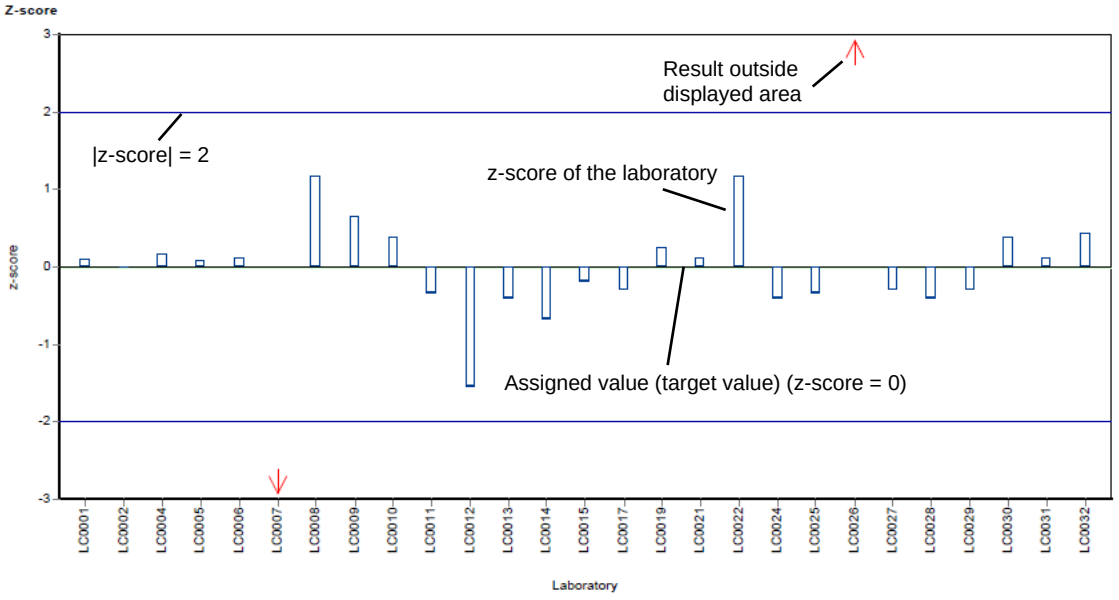
Different analysis methods are represented with different colors.

Example chart: Recovery



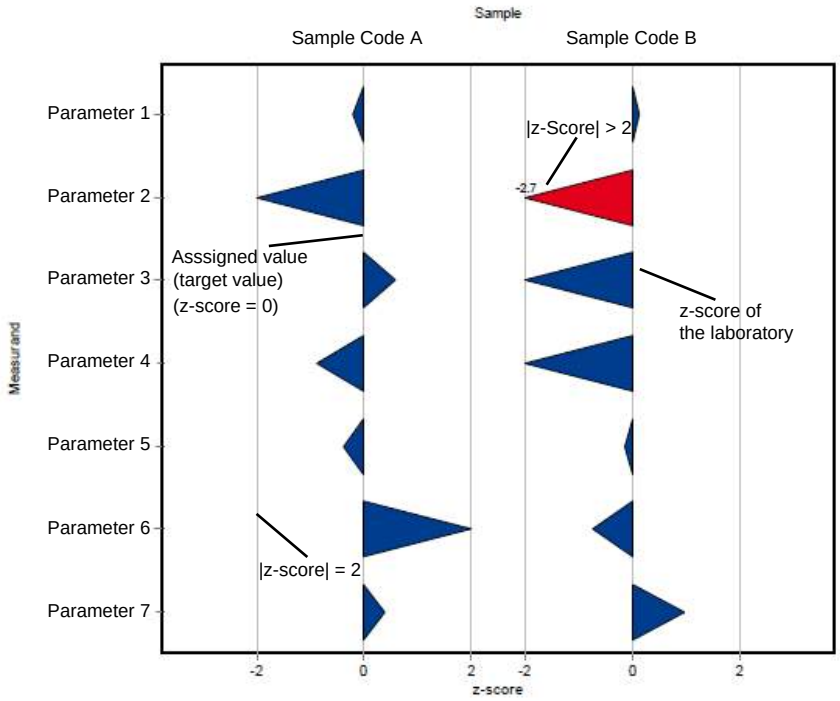
Different analysis methods are represented with different colors.

Example chart: z-score

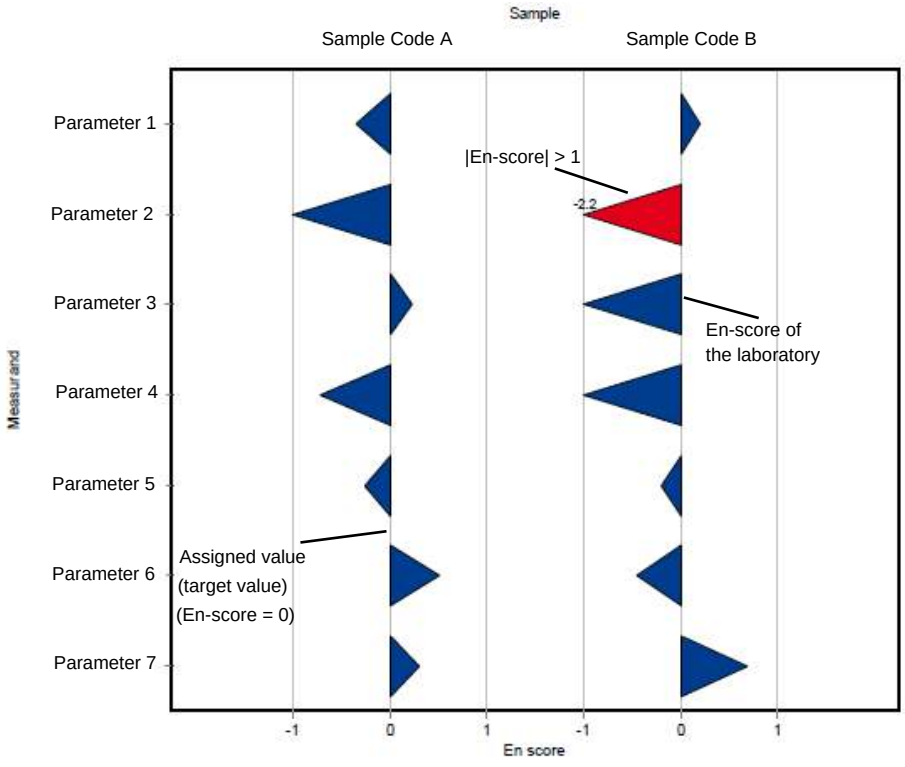


Different analysis methods are represented with different colors.

Example chart: z-score (laboratory oriented report)



Example chart: En-score (laboratory oriented report)



E6. Summary

E6.1. Table of assigned values

Parameter	Sample	Unit	Assigned value	±	U (k=2)	Criterion	Criterion [%]
Chloride	AB12	mg/l	1520	±	17.9	76.1	5
El. conductivity (25°C)	AB12	mS/m	510	±	4.26	10.2	2
Evaporation residue	AB12	mg/l	3750	±	258	674	18
Fluoride	AB12	mg/l	0.304	±	0.0494	0.107	35
NH4 (as N)	AB12	mg/l	0.329	±	0.0105	0.027	8.2
NO2 (as N)	AB12	mg/l	0.0321	±	0.00121	0.00273	8.5
NO3 (as N)	AB12	mg/l	2.3	±	0.0615	0.138	6
pH-value	AB12		7.92	±	0.0475	0.158	2
PO4 (as P)*	AB12	mg/l	-	±	-	-	-
Sulfate (as SO4)	AB12	mg/l	116	±	1.93	5.8	5
TOC (as C)	AB12 - TOC	mg/l	13.6	±	0.398	0.98	7.2

* Evaluation within your internal QA measures is recommended by comparison with the informative mean value:
AB12 PO4 (as P): 0.087 +/- 0.0247 mg/l U(k=2)

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 [%]
Chloride	AB12	25	3	mg/l	1520	± 26.9	1430	1620	44.8	2.9
El. conductivity (25°C)	AB12	23	7	mS/m	510	± 6.39	479	529	10.2	2
Evaporation residue	AB12	27	1	mg/l	3750	± 387	2520	5150	671	18
Fluoride	AB12	19	0	mg/l	0.304	± 0.0741	0.0941	0.48	0.108	35
NH4 (as N)	AB12	26	0	mg/l	0.329	± 0.0158	0.287	0.399	0.0269	8.2
NO2 (as N)	AB12	20	1	mg/l	0.0321	± 0.00181	0.0268	0.0385	0.0027	8.4
NO3 (as N)	AB12	20	5	mg/l	2.3	± 0.0923	2.05	2.63	0.138	6
pH-value	AB12	28	1		7.92	± 0.0686	7.62	8.15	0.121	1.5
PO4 (as P)	AB12	13	0	mg/l	0.0863	± 0.0415	0.0013	0.163	0.0499	58
Sulfate (as SO4)	AB12	28	1	mg/l	116	± 2.9	105	126	5.11	4.4
TOC (as C)	AB12 - TOC	24	3	mg/l	13.6	± 0.597	10.6	15.3	0.975	7.2

E7. Parameterorientierte Auswertung / Parameter oriented report

Parameter oriented report

AB12

Chloride

Unit	mg/l
Assigned value ± U (k=2)	1520 ± 17.9
Criterion	76.1 (5 %)
Minimum - Maximum	1430 - 1620
Control test value ± U (k=2)	1590.0 ± 159

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	1518.809	151.881	99.8	-0.04	
LC0002	1680	19.9	110	2.08	H
LC0003	-	-	-	-	
LC0004	1427	71.35	93.8	-1.25	
LC0005	1517	45.5	99.7	-0.06	
LC0006	1620	211	106	1.29	
LC0007	1520	113	99.9	-0.02	
LC0008	1512	85	99.4	-0.13	
LC0009	1551	155	102	0.38	
LC0010	-	-	-	-	
LC0011	1447	45	95.1	-0.98	
LC0012	1490	197.3	97.9	-0.42	
LC0013	1365	96	89.7	-2.06	H
LC0014	1500	69	98.6	-0.29	
LC0015	1565	110	103	0.57	
LC0016	1323	4.077	86.9	-2.61	H
LC0017	1510	29.45	99.2	-0.15	
LC0018	1507	76	99	-0.19	
LC0019	1540	5.77	101	0.24	
LC0020	1550	101	102	0.37	
LC0021	-	-	-	-	
LC0022	1570	160	103	0.63	
LC0023	1554.53	25	102	0.43	
LC0024	1502	105	98.7	-0.26	
LC0025	1544.645	124	102	0.3	
LC0026	1541	46	101	0.25	
LC0027	1496	42.6	98.3	-0.34	
LC0028	1461.599	430	96	-0.79	
LC0029	1474	156	96.9	-0.63	
LC0030	1605	108.7	105	1.09	
LC0031	1520	100	99.9	-0.02	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

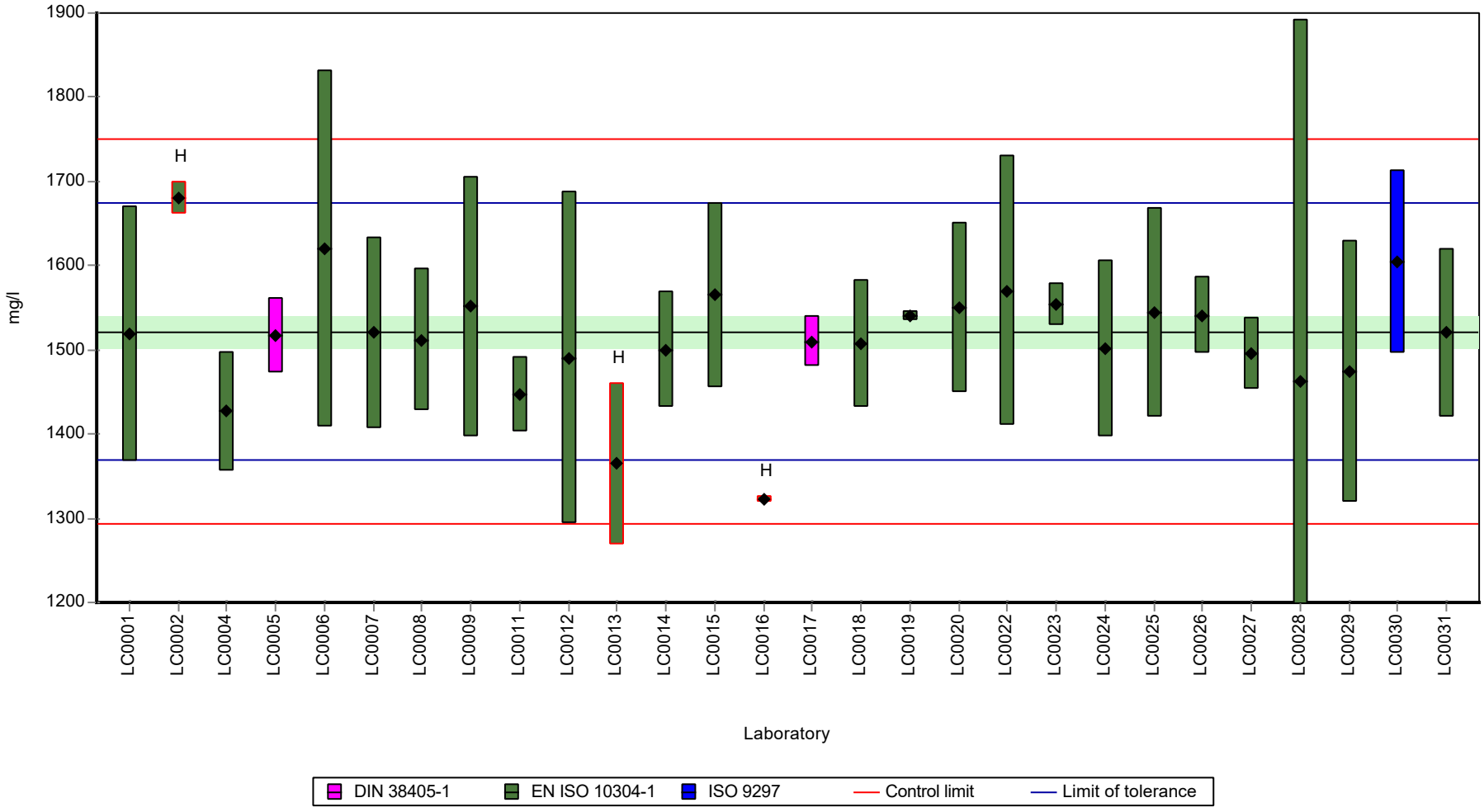
Sample: AB12, Parameter: Chloride

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	1510 ± 40.2	1520 ± 26.9	mg/l
Minimum	1320	1430	mg/l
Maximum	1680	1620	mg/l
Standard deviation	71	44.8	mg/l
rel. standard deviation	4.68	2.95	%
n	28	25	-

Graphical presentation of results

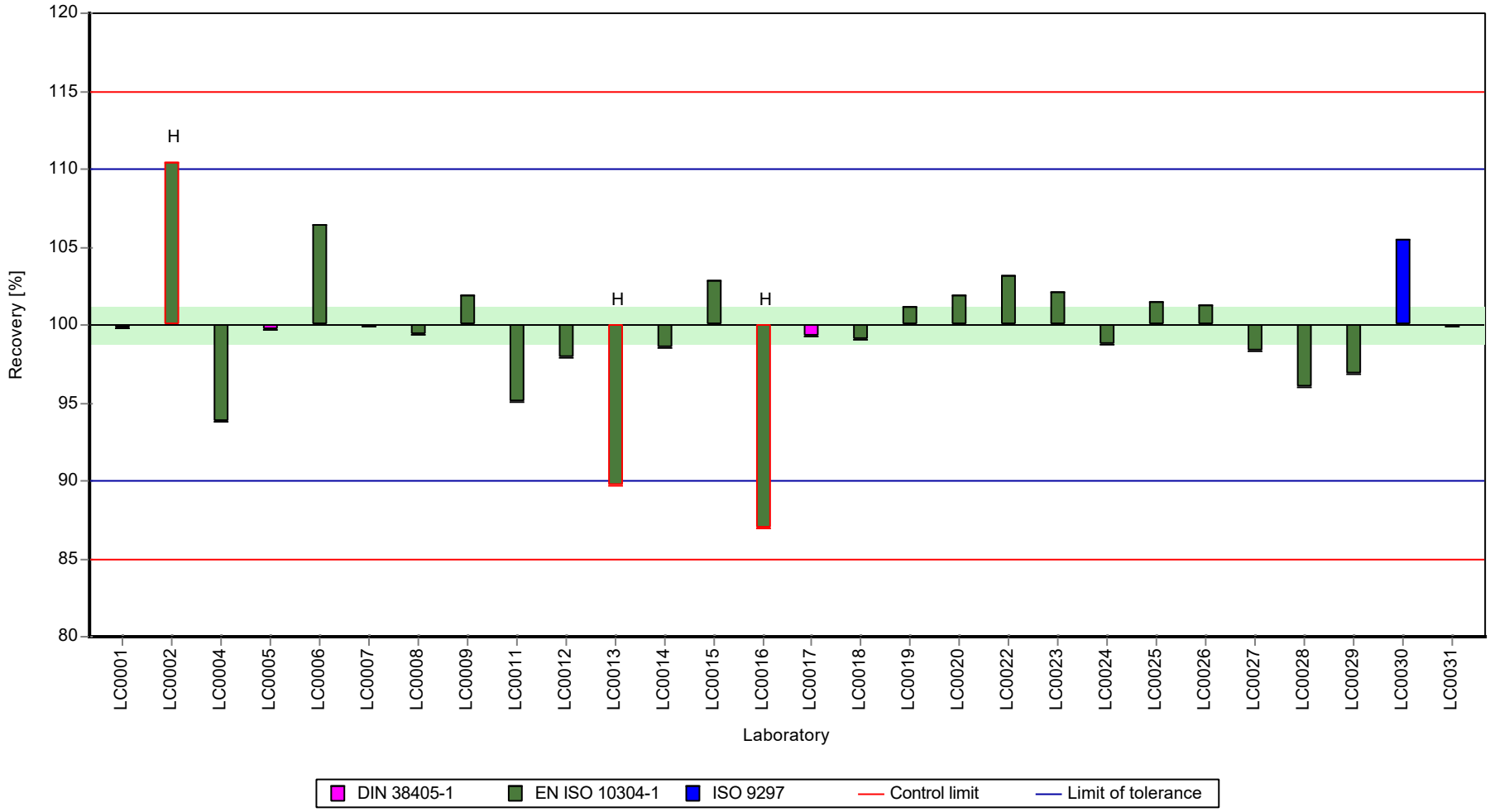
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

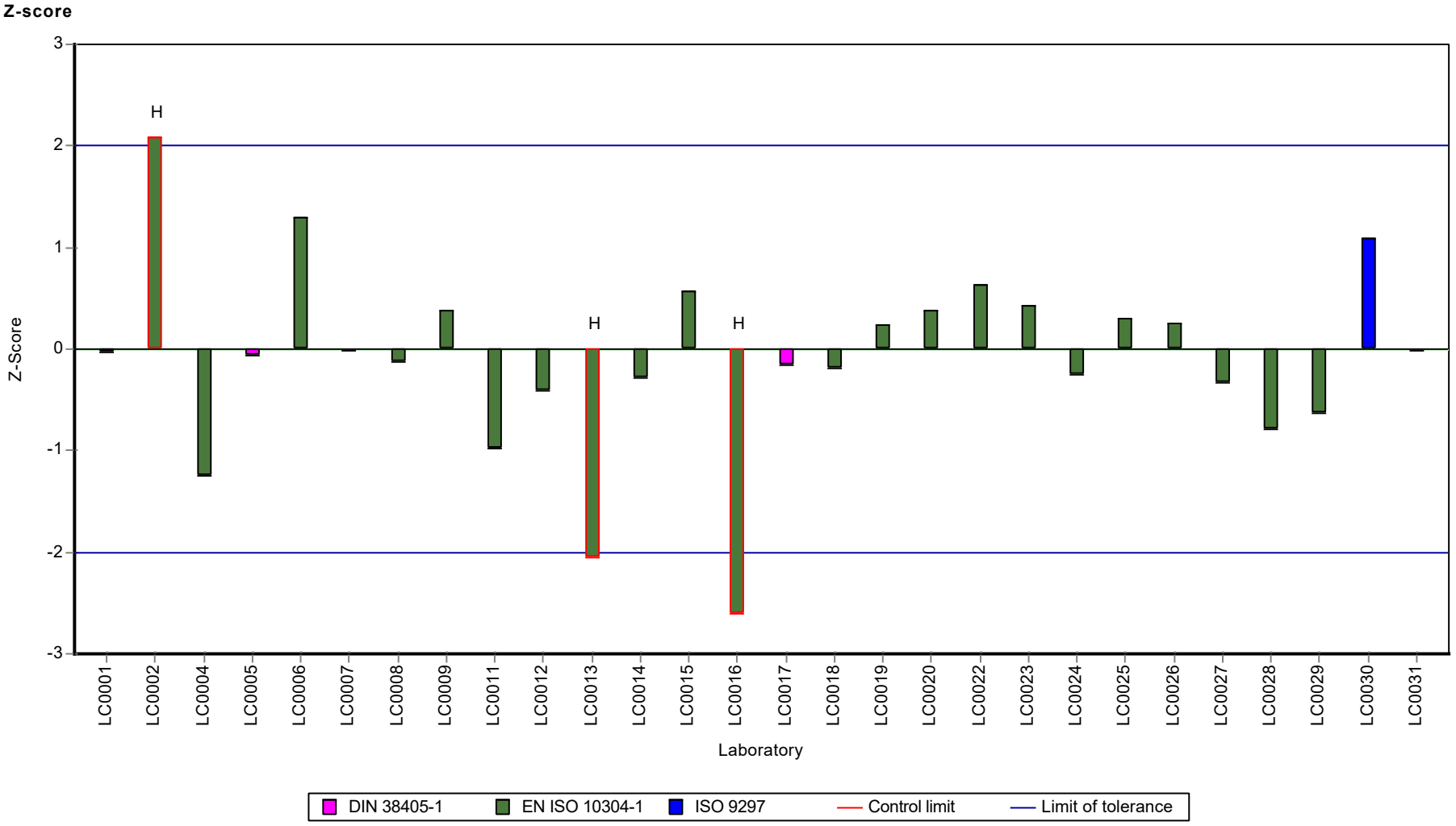
Sample: AB12, Parameter: Chloride

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: Chloride



Parameter oriented report

AB12

El. conductivity (25°C)

Unit	mS/m
Assigned value ± U (k=2)	510 ± 4.26
Criterion	10.2 (2 %)
Minimum - Maximum	479 - 529
Control test value ± U (k=2)	518.0 ± 10.4

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	5.162	0.5	1	-49.44	H
LC0002	475	7.6	93.1	-3.45	H
LC0003	-	-	-	-	
LC0004	522	26	102	1.16	
LC0005	518	62.2	102	0.76	
LC0006	512	51	100	0.18	
LC0007	513	3	101	0.27	
LC0008	500	30	98	-1	
LC0009	521	52	102	1.06	
LC0010	513	206	101	0.27	
LC0011	510	2.7	100	-0.02	
LC0012	509.2	4.837	99.8	-0.1	
LC0013	514.5	0.5	101	0.42	
LC0014	520	1.8	102	0.96	
LC0015	5100	76	1000	449.28	H
LC0016	513.3	7.77	101	0.3	
LC0017	450.1	9.002	88.2	-5.88	H
LC0018	513	15	101	0.27	
LC0019	508	0.577	99.6	-0.21	
LC0020	479	8	93.9	-3.05	
LC0021	5.093	0.255	1	-49.44	H
LC0022	504	50	98.8	-0.61	
LC0023	510.5	25	100	0.03	
LC0024	493	14.8	96.6	-1.68	
LC0025	512	20	100	0.18	
LC0026	510	11	100	-0.02	
LC0027	529	14.2	104	1.84	
LC0028	0.504	0.15	0.1	-49.89	H
LC0029	505	29.1	99	-0.51	
LC0030	0.00052	0.00002	0	-49.94	H
LC0031	505	7.5	99	-0.51	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

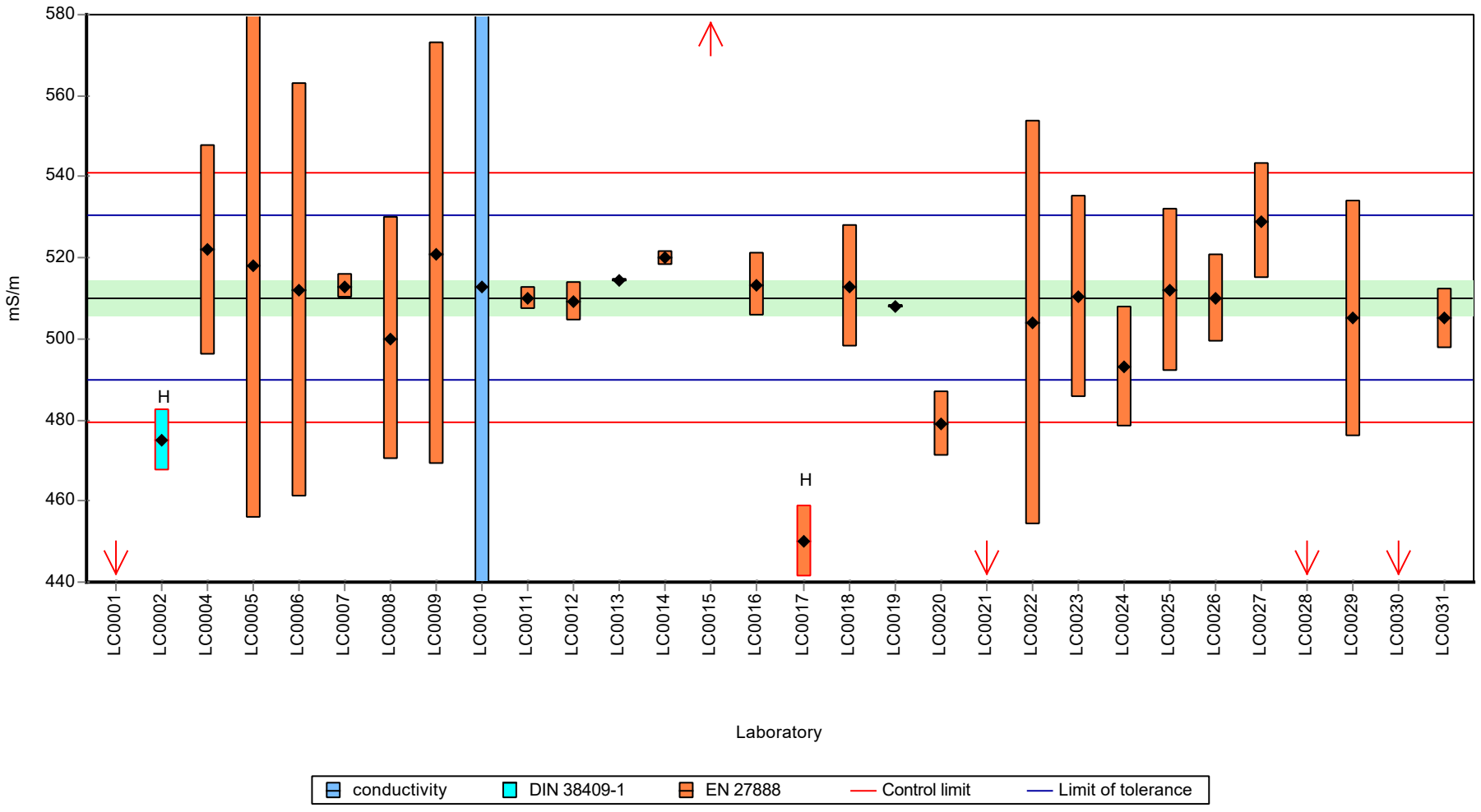
Sample: AB12, Parameter: El. conductivity (25°C)

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	592 ± 476	510 ± 6.39	mS/m
Minimum	0.000518	479	mS/m
Maximum	5100	529	mS/m
Standard deviation	869	10.2	mS/m
rel. standard deviation	147	2	%
n	30	23	-

Graphical presentation of results

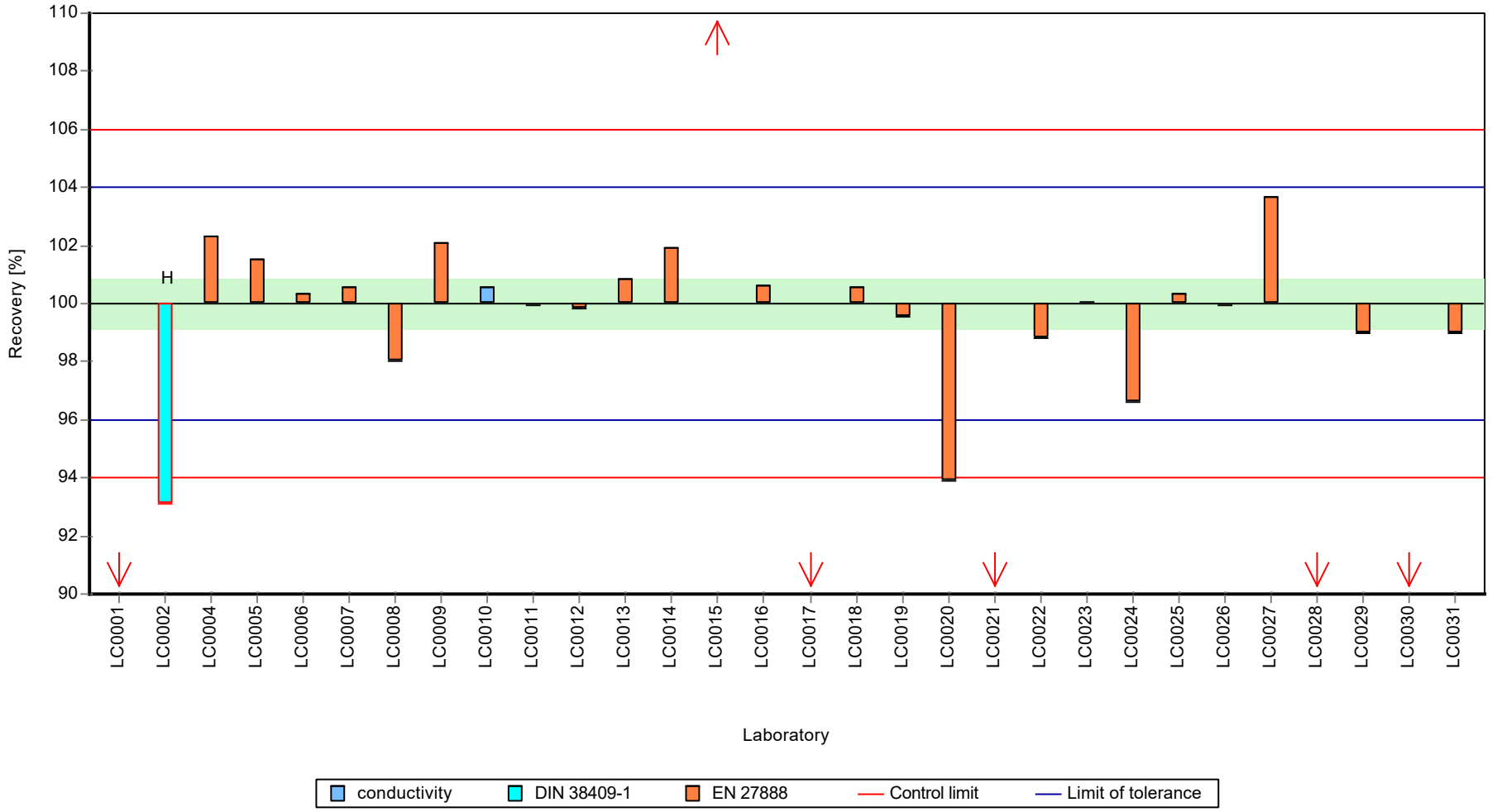
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

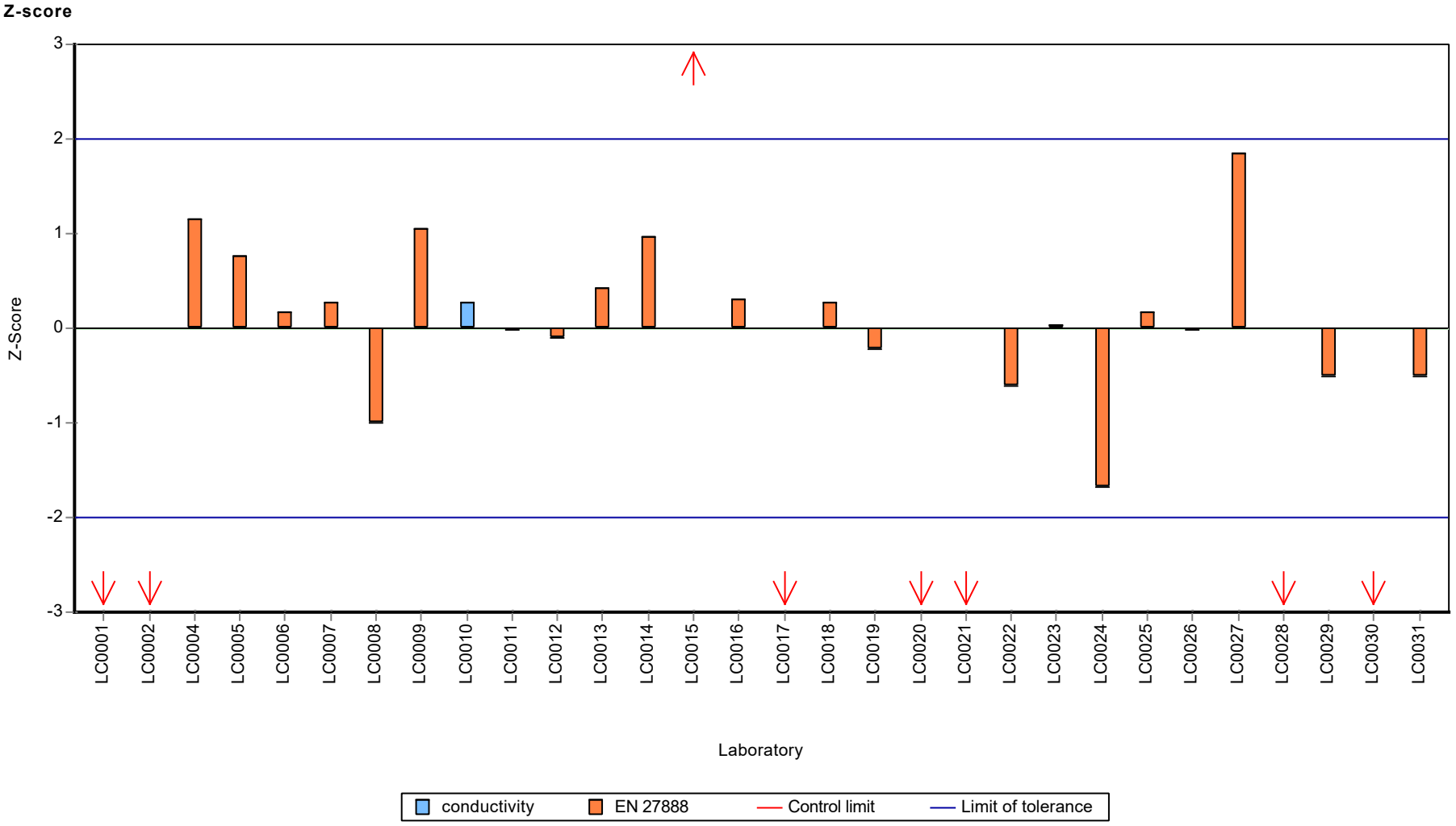
Sample: AB12, Parameter: El. conductivity (25°C)

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: El. conductivity (25°C)



Parameter oriented report

AB12

Evaporation residue

Unit	mg/l
Assigned value ± U (k=2)	3750 ± 258
Criterion	674 (18 %)
Minimum - Maximum	2520 - 5150
Control test value ± U (k=2)	3440.0 ± 344

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	4657	72	124	1.35	
LC0003	-	-	-	-	
LC0004	4301	215	115	0.82	
LC0005	3370	337	90	-0.56	
LC0006	3580	716	95.6	-0.25	
LC0007	3480	20	92.9	-0.39	
LC0008	3306	132	88.3	-0.65	
LC0009	2924	292	78.1	-1.22	
LC0010	4453	1920	119	1.05	
LC0011	3757	420	100	0.02	
LC0012	3740	40.01	99.9	-0.01	
LC0013	3914	5	104	0.25	
LC0014	4560	33.7	122	1.21	
LC0015	4365	349	117	0.92	
LC0016	3730	159.4	99.6	-0.02	
LC0017	3120	62.4	83.3	-0.93	
LC0018	3250	163	86.8	-0.74	
LC0019	3040	70.7	81.2	-1.05	
LC0020	31650	63	845	41.39	H
LC0021	5150	1300	137	2.08	
LC0022	3430	340	91.6	-0.47	
LC0023	3230	32.3	86.2	-0.76	
LC0024	3086	154	82.4	-0.98	
LC0025	3573	714	95.4	-0.26	
LC0026	3224	65	86.1	-0.77	
LC0027	-	-	-	-	
LC0028	2516.5	80	67.2	-1.82	
LC0029	4796	490	128	1.56	
LC0030	3809	123.4	102	0.09	
LC0031	4770	50	127	1.52	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

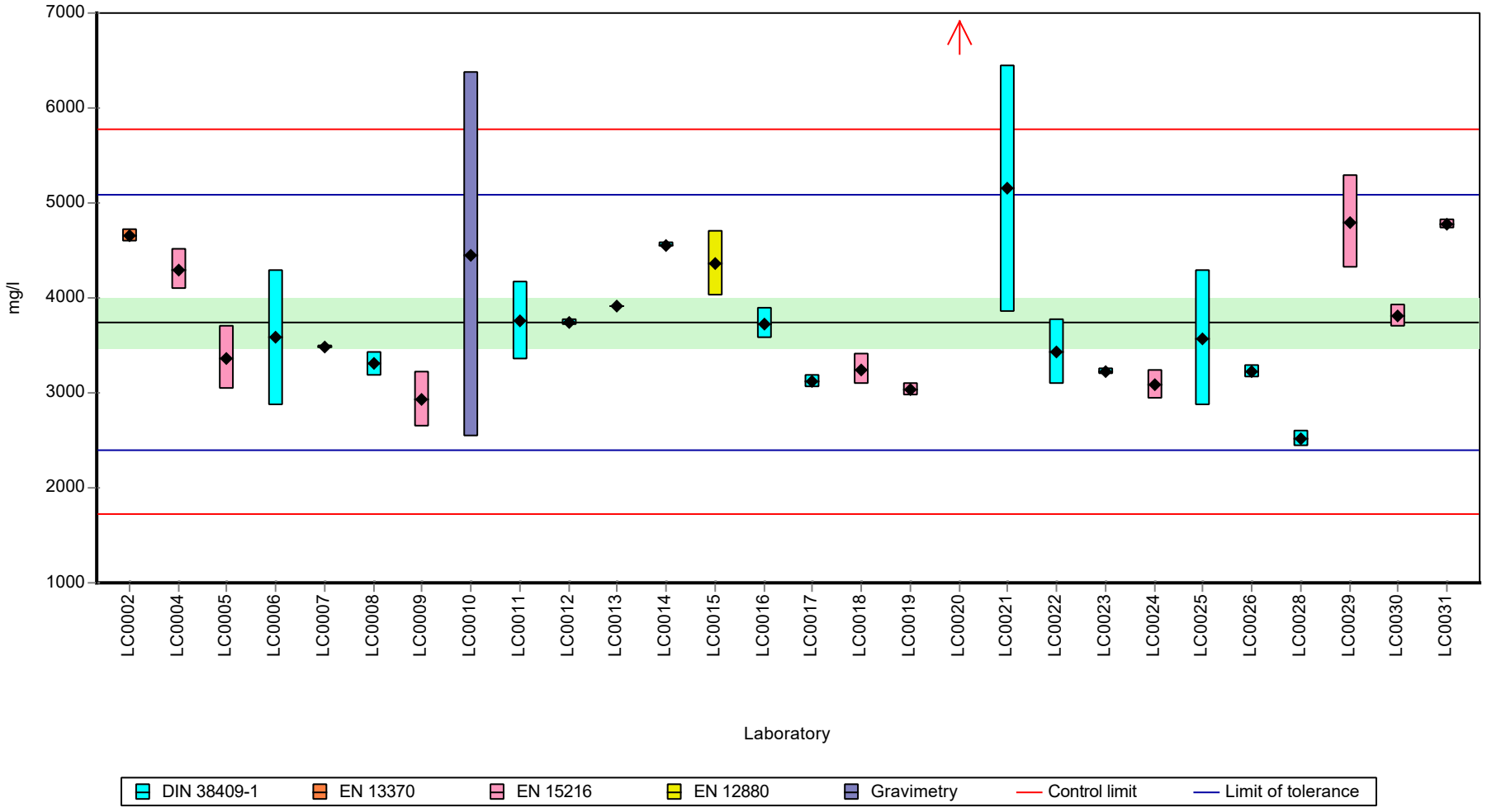
Sample: AB12, Parameter: Evaporation residue

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	4740 ± 3010	3750 ± 387	mg/l
Minimum	2520	2520	mg/l
Maximum	31700	5150	mg/l
Standard deviation	5310	671	mg/l
rel. standard deviation	112	17.9	%
n	28	27	-

Graphical presentation of results

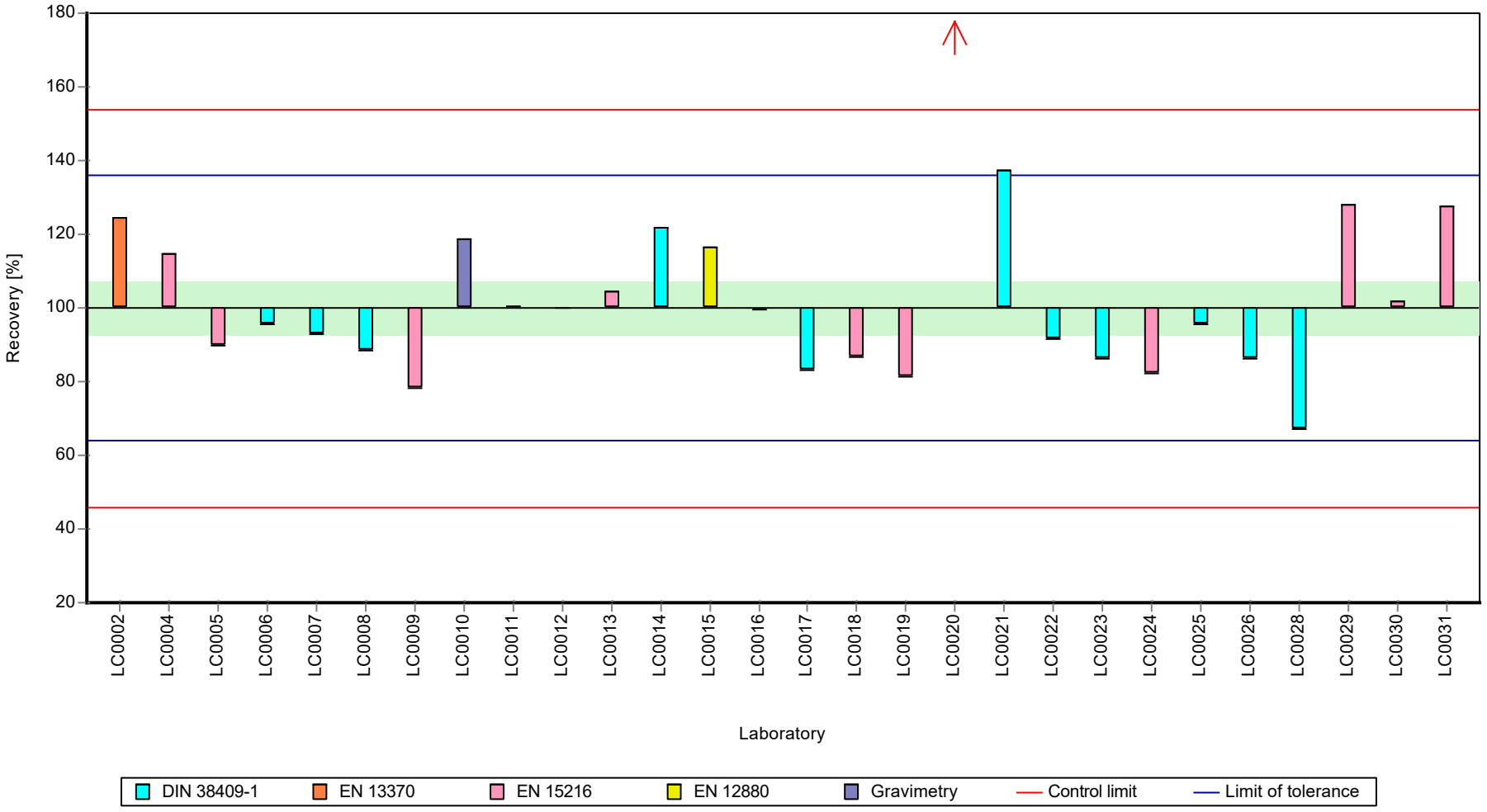
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

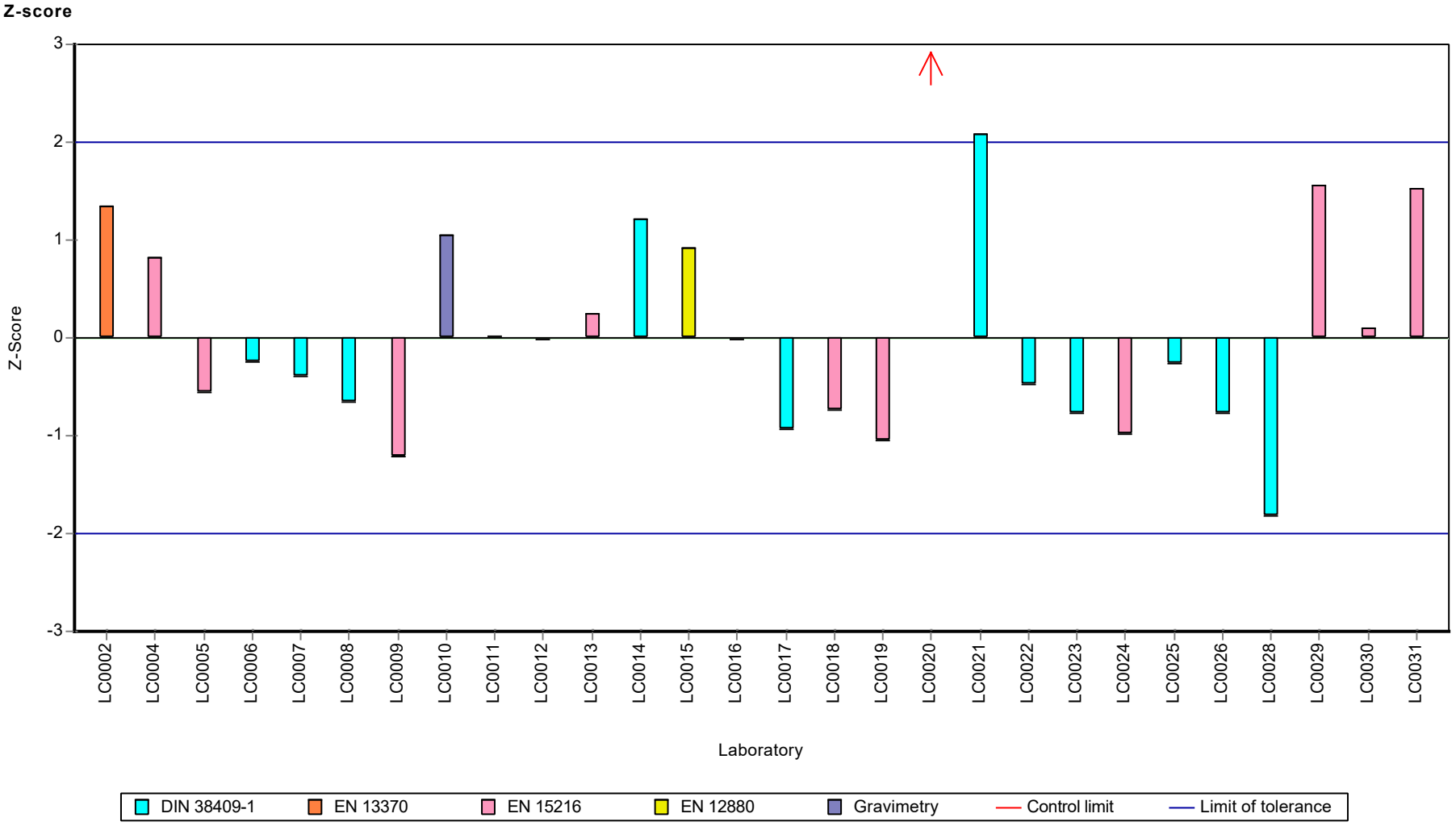
Sample: AB12, Parameter: Evaporation residue

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: Evaporation residue



Parameter oriented report

AB12

Fluoride

Unit	mg/l
Assigned value ± U (k=2)	0.304 ± 0.0494
Criterion	0.107 (35 %)
Minimum - Maximum	0.0941 - 0.48
Control test value ± U (k=2)	0.2460 ± 0.0492

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	0.319	0.032	105	0.14	
LC0002	< 1 (LOQ)	-	-	-	
LC0003	-	-	-	-	
LC0004	0.0941	0.0047	30.9	-1.97	
LC0005	-	-	-	-	
LC0006	0.48	0.096	158	1.65	
LC0007	0.168	0.01	55.2	-1.28	
LC0008	< 0.5 (LOQ)	-	-	-	
LC0009	0.28	0.03	92	-0.23	
LC0010	-	-	-	-	
LC0011	0.265	0.045	87.1	-0.37	
LC0012	0.228	0.0129	74.9	-0.72	
LC0013	-	-	-	-	
LC0014	< 0.1 (LOQ)	-	-	-	
LC0015	< 0.5 (LOQ)	-	-	-	
LC0016	< 0.2 (LOQ)	-	-	-	
LC0017	0.174	0.0085	57.2	-1.22	
LC0018	0.42	0.07	138	1.09	
LC0019	0.312	0.006	103	0.07	
LC0020	0.47	0.028	154	1.56	
LC0021	-	-	-	-	
LC0022	0.367	0.037	121	0.59	
LC0023	0.286	0.009	94	-0.17	
LC0024	< 0.5 (LOQ)	-	-	-	
LC0025	0.317	0.0285	104	0.12	
LC0026	0.34	0.03	112	0.33	
LC0027	0.253	0.0241	83.1	-0.48	
LC0028	0.179	0.054	58.8	-1.18	
LC0029	0.425	0.059	140	1.13	
LC0030	-	-	-	-	
LC0031	0.405	0.025	133	0.95	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

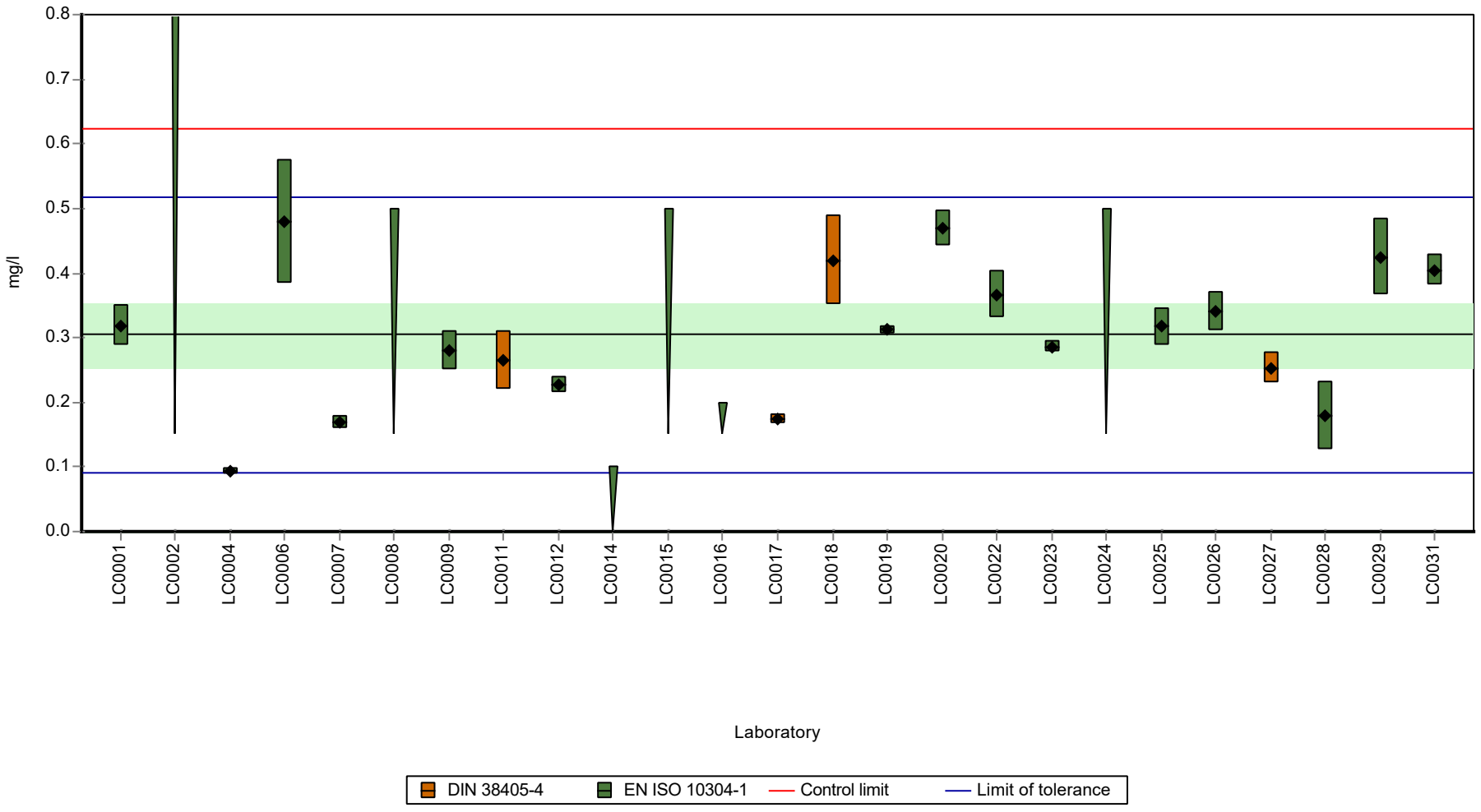
Sample: AB12, Parameter: Fluoride

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	0.304 ± 0.0741	0.304 ± 0.0741	mg/l
Minimum	0.0941	0.0941	mg/l
Maximum	0.48	0.48	mg/l
Standard deviation	0.108	0.108	mg/l
rel. standard deviation	35.4	35.4	%
n	19	19	-

Graphical presentation of results

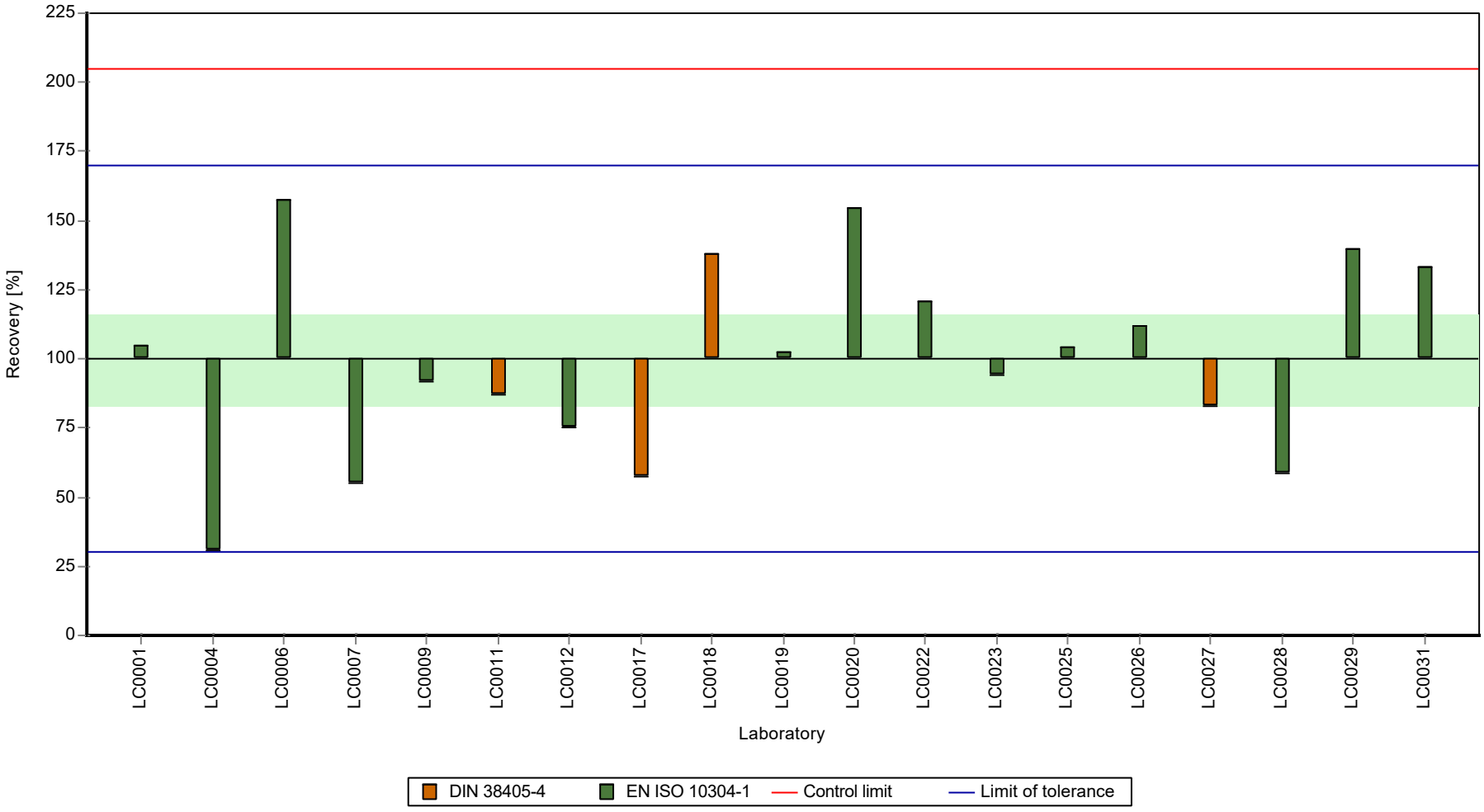
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

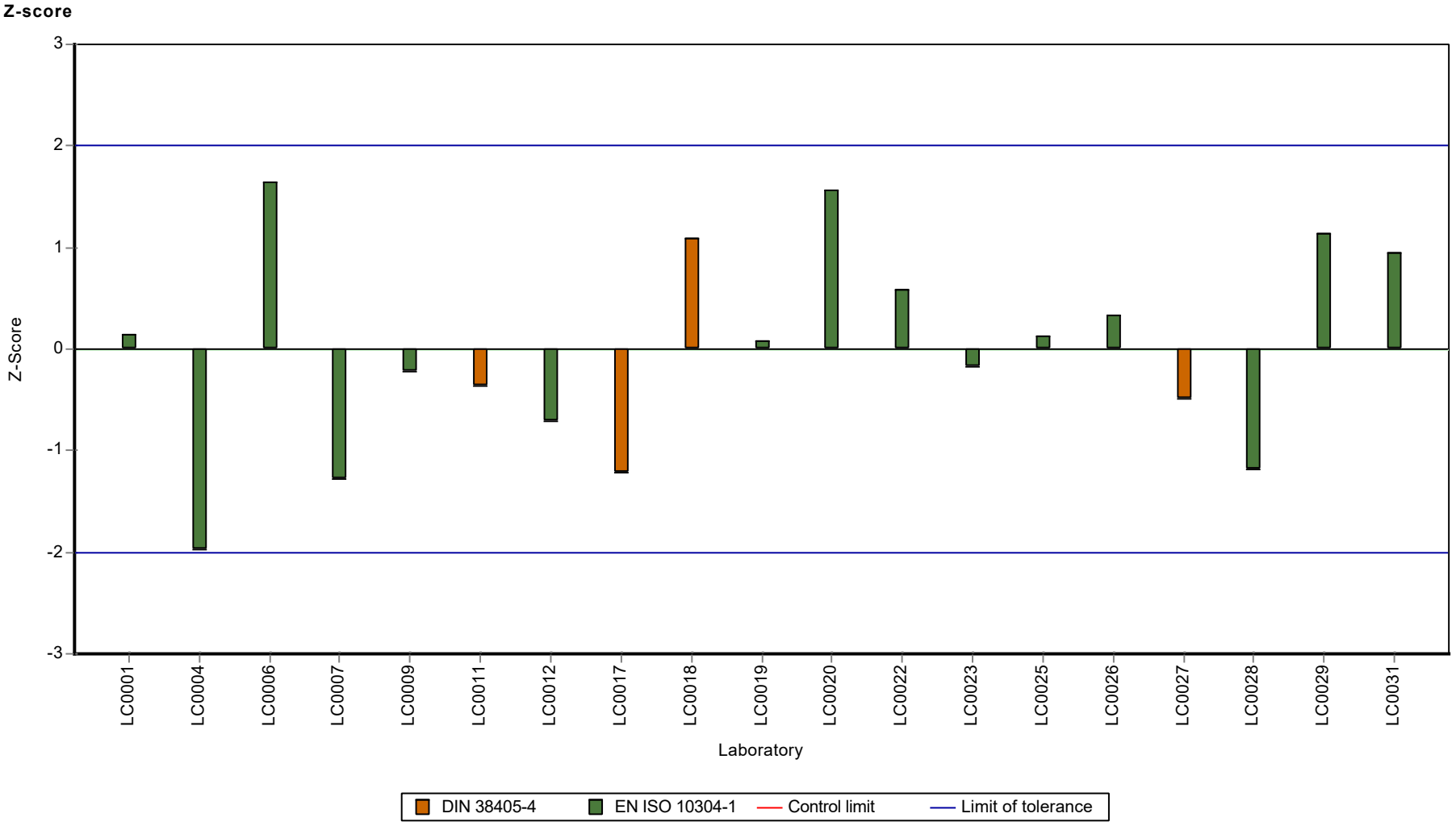
Sample: AB12, Parameter: Fluoride

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: Fluoride



Parameter oriented report

AB12

NH4 (as N)

Unit	mg/l
Assigned value ± U (k=2)	0.329 ± 0.0105
Criterion	0.027 (8.2 %)
Minimum - Maximum	0.287 - 0.399
Control test value ± U (k=2)	0.350 ± 0.035

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	0.33	0.02	100	0.03	
LC0003	-	-	-	-	
LC0004	0.309	0.015	93.9	-0.74	
LC0005	0.36	0.043	109	1.15	
LC0006	0.318	0.057	96.6	-0.41	
LC0007	0.308	0.031	93.6	-0.78	
LC0008	0.35	0.13	106	0.78	
LC0009	0.313	0.03	95.1	-0.6	
LC0010	0.323	0.144	98.2	-0.22	
LC0011	-	-	-	-	
LC0012	0.34	0.0399	103	0.41	
LC0013	0.3392	0.005	103	0.38	
LC0014	0.3	0.067	91.2	-1.08	
LC0015	0.342	0.034	104	0.48	
LC0016	0.287	0.00318	87.2	-1.56	
LC0017	0.36	0.02556	109	1.15	
LC0018	0.38	0.04	115	1.89	
LC0019	0.319	0.002	96.9	-0.37	
LC0020	0.3	0.02	91.2	-1.08	
LC0021	-	-	-	-	
LC0022	0.313	0.031	95.1	-0.6	
LC0023	0.3	0.02	91.2	-1.08	
LC0024	0.301	0.0271	91.5	-1.04	
LC0025	0.3553	0.028	108	0.97	
LC0026	0.31	0.02	94.2	-0.71	
LC0027	0.331	0.004	101	0.07	
LC0028	0.399	0.04	121	2.59	
LC0029	0.33	0.049	100	0.03	
LC0030	-	-	-	-	
LC0031	0.338	0.05	103	0.33	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

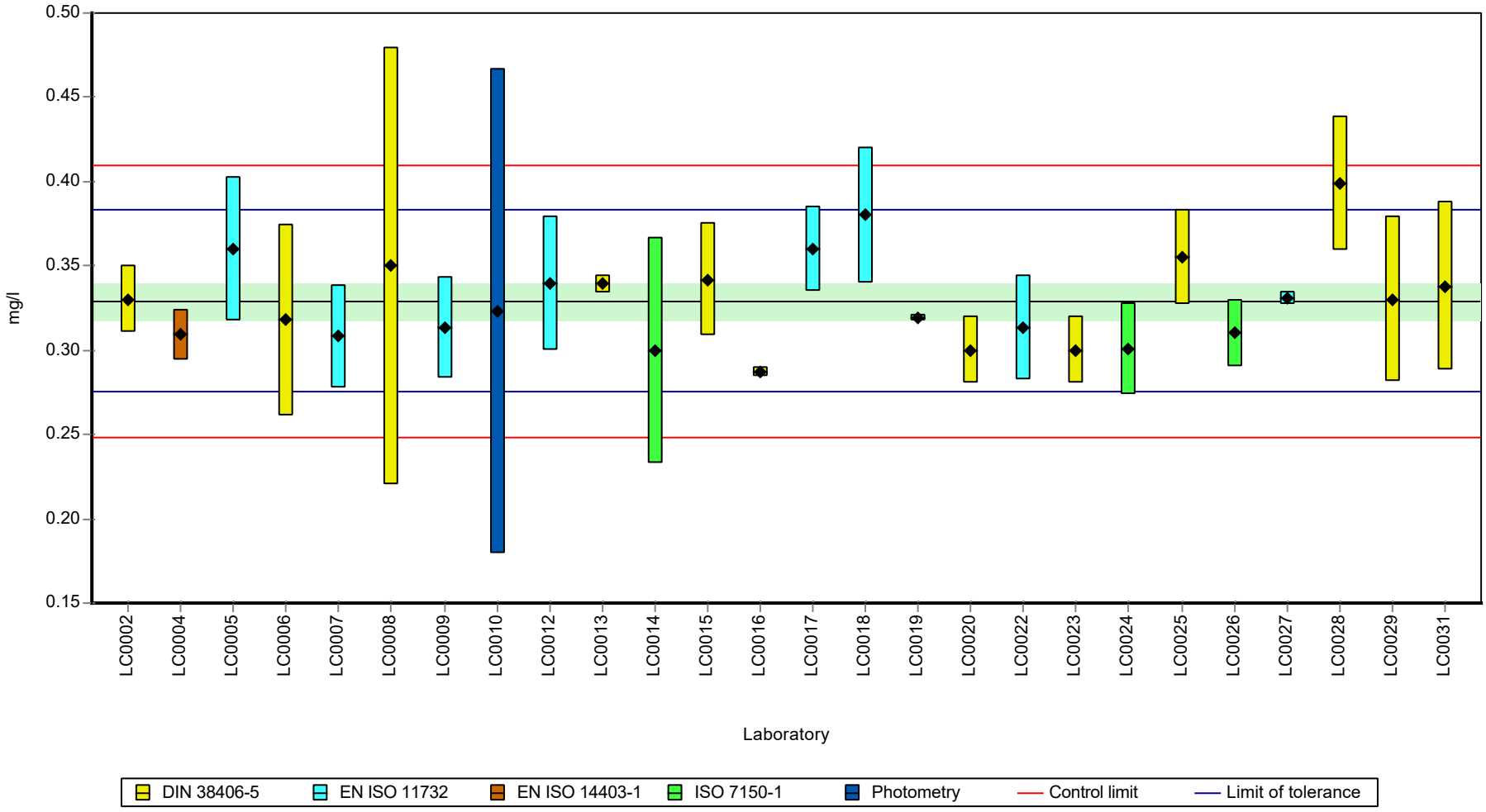
Sample: AB12, Parameter: NH4 (as N)

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	0.329 ± 0.0158	0.329 ± 0.0158	mg/l
Minimum	0.287	0.287	mg/l
Maximum	0.399	0.399	mg/l
Standard deviation	0.0269	0.0269	mg/l
rel. standard deviation	8.17	8.17	%
n	26	26	-

Graphical presentation of results

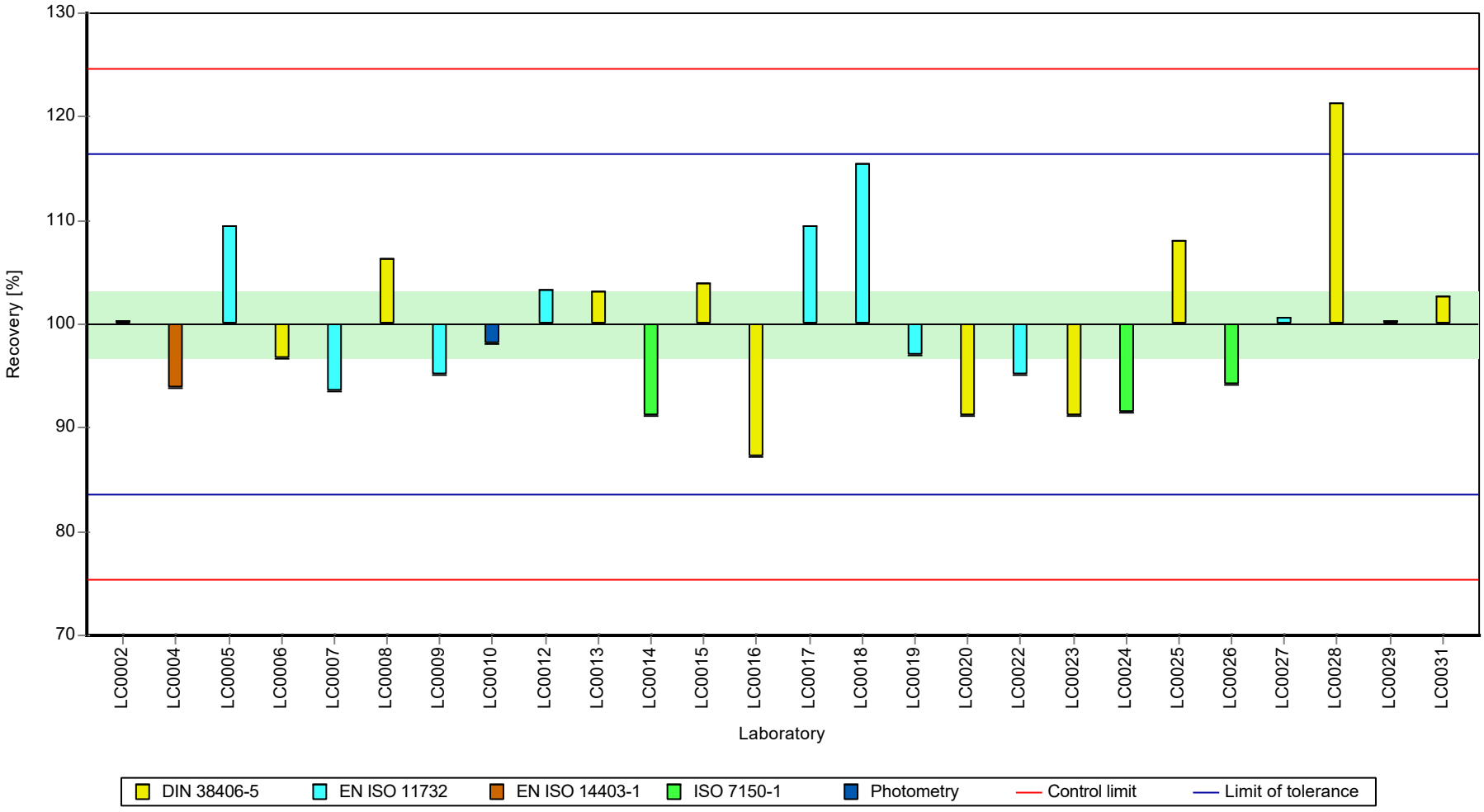
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

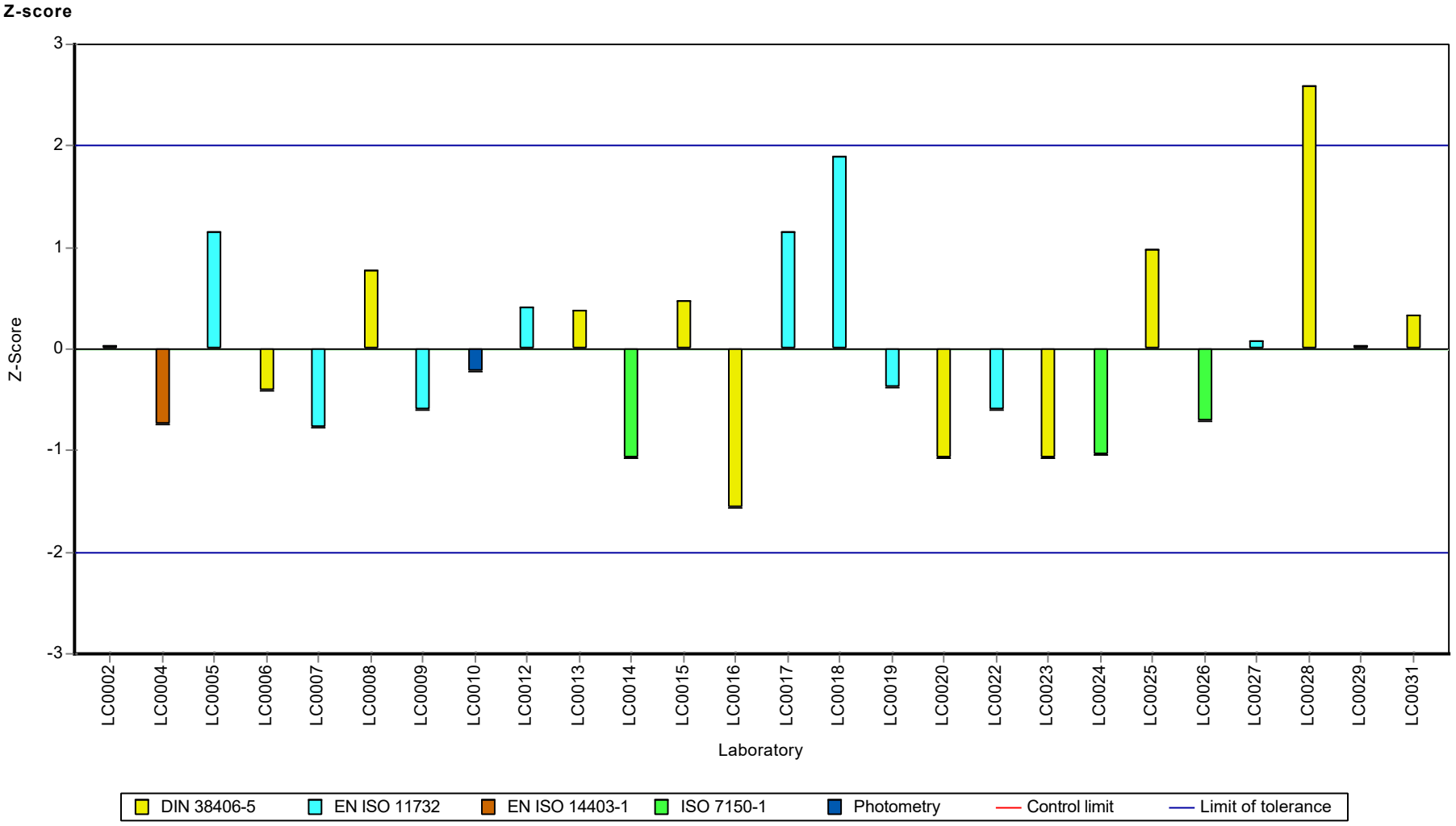
Sample: AB12, Parameter: NH4 (as N)

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: NH4 (as N)



Parameter oriented report

AB12

NO2 (as N)

Unit	mg/l
Assigned value ± U (k=2)	0.0321 ± 0.00121
Criterion	0.00273 (8.5 %)
Minimum - Maximum	0.0268 - 0.0385
Control test value ± U (k=2)	0.030 ± 0.003

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	< 0.1 (LOQ)	-	-	-	
LC0003	-	-	-	-	
LC0004	0.03	0.0015	93.3	-0.79	
LC0005	0.03	0.006	93.3	-0.79	
LC0006	0.032	0.004	99.5	-0.05	
LC0007	0.035	0.002	109	1.04	
LC0008	0.034	0.013	106	0.68	
LC0009	0.0326	0.003	101	0.17	
LC0010	0.0334	0.0148	104	0.46	
LC0011	-	-	-	-	
LC0012	0.0355	0.00368	110	1.23	
LC0013	0.03355	0.0005	104	0.51	
LC0014	0.03	0.0055	93.3	-0.79	
LC0015	0.032	0.003	99.5	-0.05	
LC0016	0.0268	0.00066	83.4	-1.96	
LC0017	0.02	0.0019	62.2	-4.45	H
LC0018	< 0.05 (LOQ)	-	-	-	
LC0019	0.0326	0.001	101	0.17	
LC0020	0.03	0.0004	93.3	-0.79	
LC0021	-	-	-	-	
LC0022	0.0289	0.0029	89.9	-1.19	
LC0023	0.035	0.001	109	1.04	
LC0024	0.032	0.00352	99.5	-0.05	
LC0025	0.0385	0.003	120	2.32	
LC0026	-	-	-	-	
LC0027	-	-	-	-	
LC0028	-	-	-	-	
LC0029	0.03	0.004	93.3	-0.79	
LC0030	-	-	-	-	
LC0031	0.0311	0.0025	96.7	-0.38	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

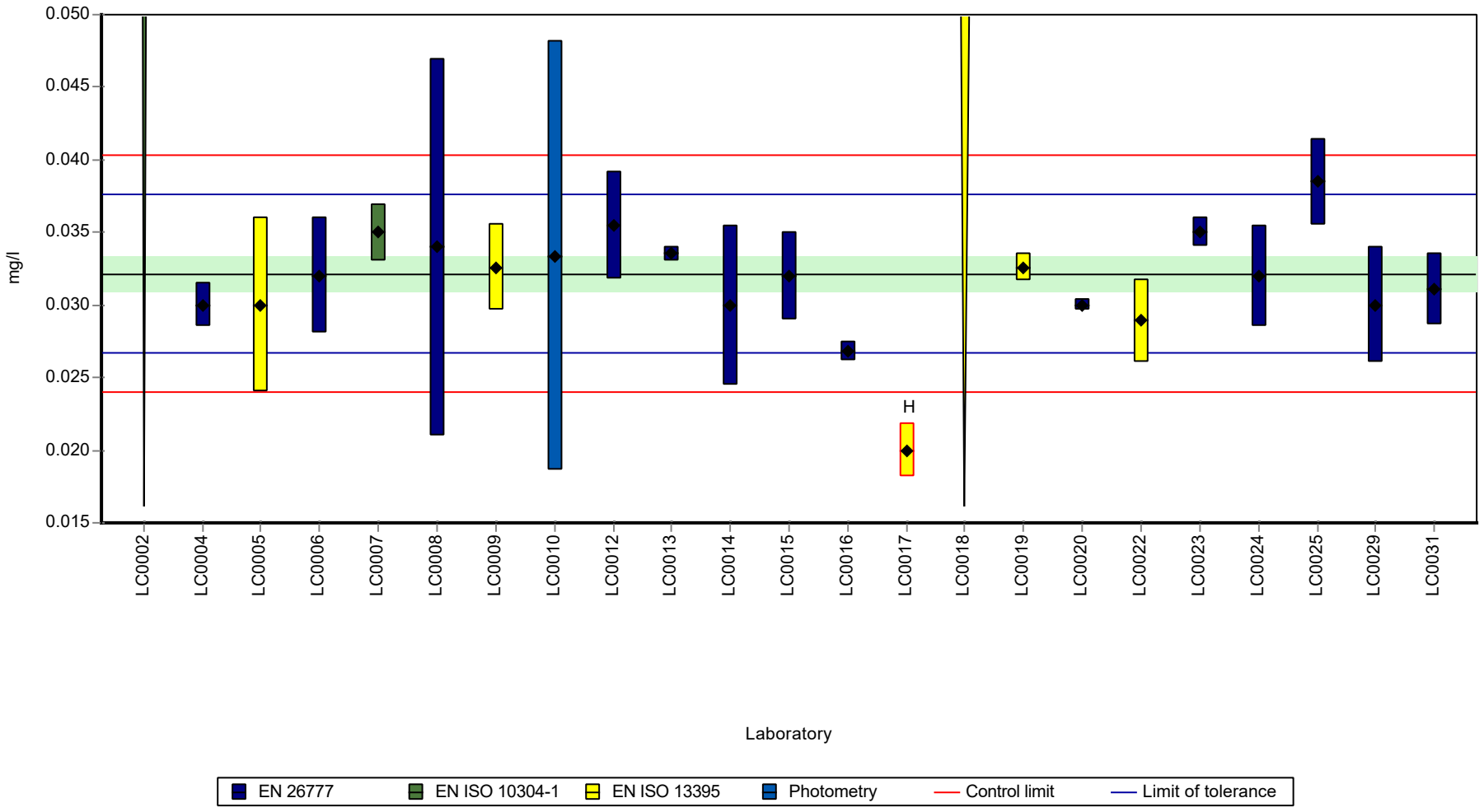
Sample: AB12, Parameter: NO2 (as N)

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	0.0316 ± 0.00245	0.0321 ± 0.00181	mg/l
Minimum	0.02	0.0268	mg/l
Maximum	0.0385	0.0385	mg/l
Standard deviation	0.00374	0.0027	mg/l
rel. standard deviation	11.8	8.4	%
n	21	20	-

Graphical presentation of results

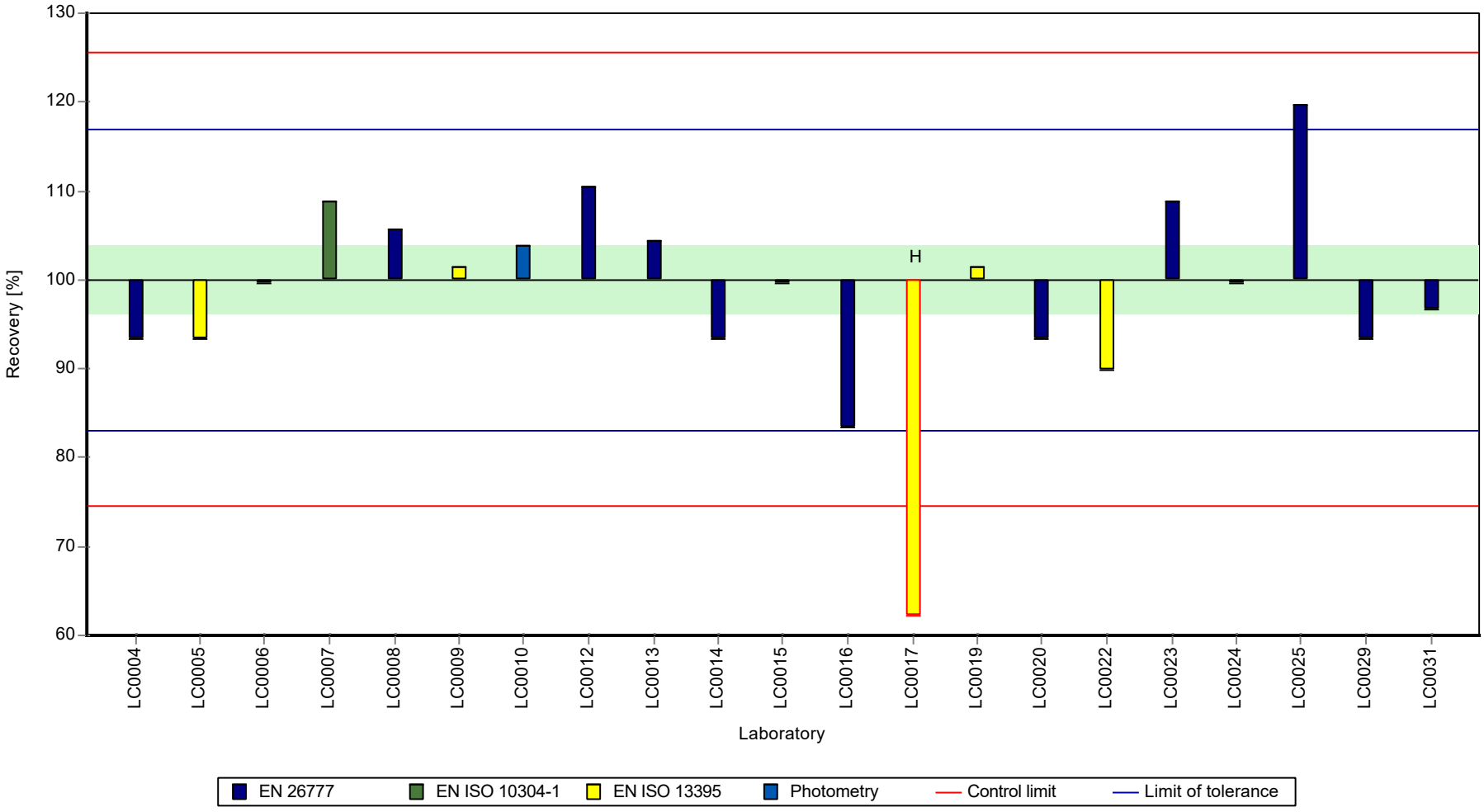
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

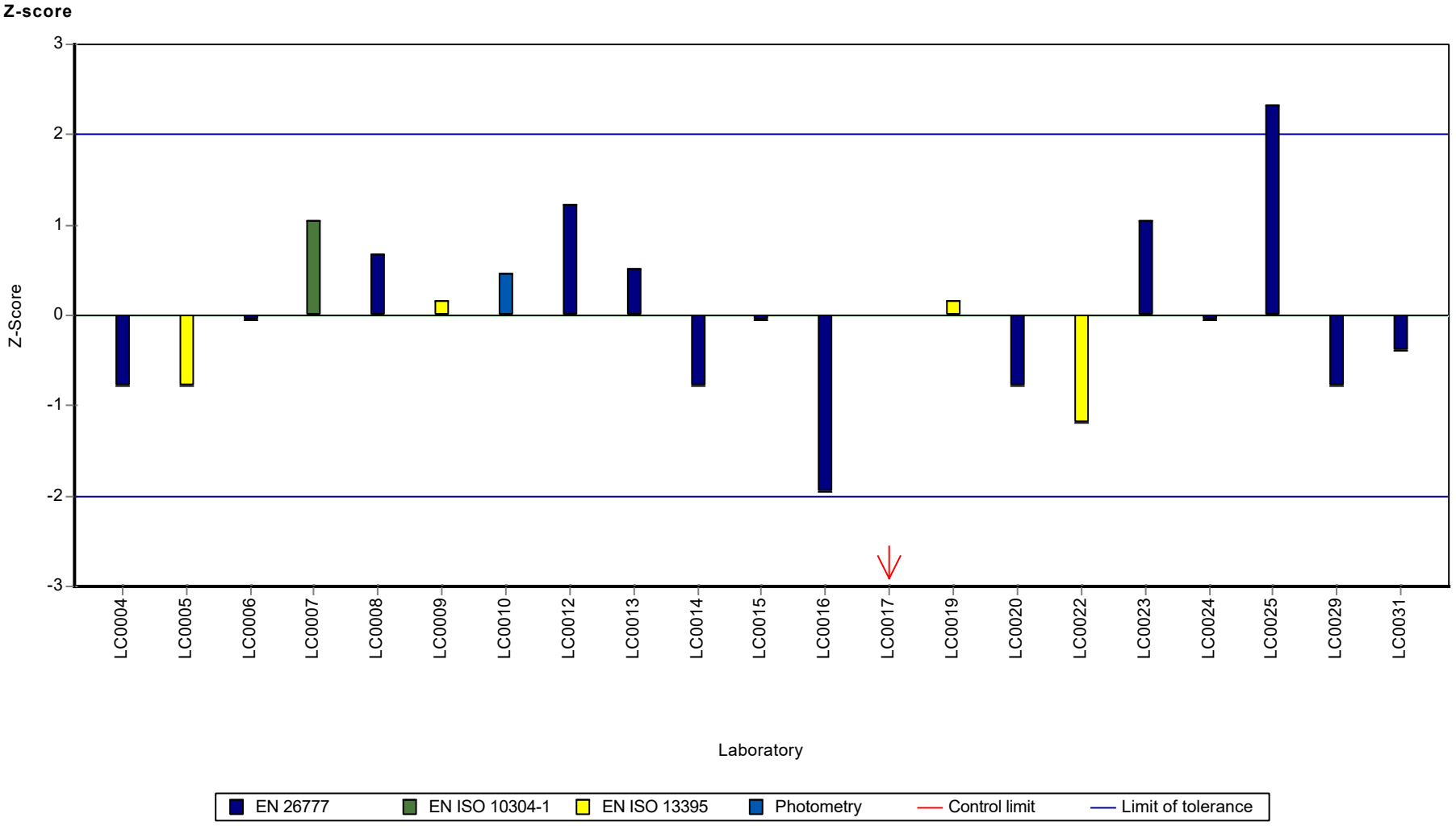
Sample: AB12, Parameter: NO2 (as N)

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: NO2 (as N)



Parameter oriented report

AB12

NO3 (as N)

Unit	mg/l
Assigned value ± U (k=2)	2.3 ± 0.0615
Criterion	0.138 (6 %)
Minimum - Maximum	2.05 - 2.63
Control test value ± U (k=2)	2.480 ± 0.298

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	9.4	0.3	408	51.33	H
LC0003	-	-	-	-	
LC0004	1.905	0.0095	82.7	-2.89	H
LC0005	2.29	0.344	99.4	-0.1	
LC0006	2.3	0.25	99.8	-0.03	
LC0007	2.37	0.08	103	0.48	
LC0008	1.82	0.072	79	-3.5	H
LC0009	2.2	0.2	95.5	-0.75	
LC0010	2.42	1.1	105	0.84	
LC0011	-	-	-	-	
LC0012	2.35	0.052	102	0.33	
LC0013	1.6451	0.02	71.4	-4.77	H
LC0014	2.2	0.099	95.5	-0.75	
LC0015	2.62	0.19	114	2.28	
LC0016	2.05	0.0075	89	-1.84	
LC0017	2.267	0.1065	98.4	-0.27	
LC0018	2.2	0.22	95.5	-0.75	
LC0019	2.21	0.035	95.9	-0.68	
LC0020	2.3	0.09	99.8	-0.03	
LC0021	-	-	-	-	
LC0022	2.31	0.23	100	0.04	
LC0023	2.629	0.05	114	2.35	
LC0024	2.19	0.131	95	-0.83	
LC0025	2.272	0.2	98.6	-0.23	
LC0026	2.22	0.07	96.3	-0.61	
LC0027	-	-	-	-	
LC0028	2.305	0.69	100	0.01	
LC0029	2.38	0.25	103	0.55	
LC0030	-	-	-	-	
LC0031	1.86	0.06	80.7	-3.21	H

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

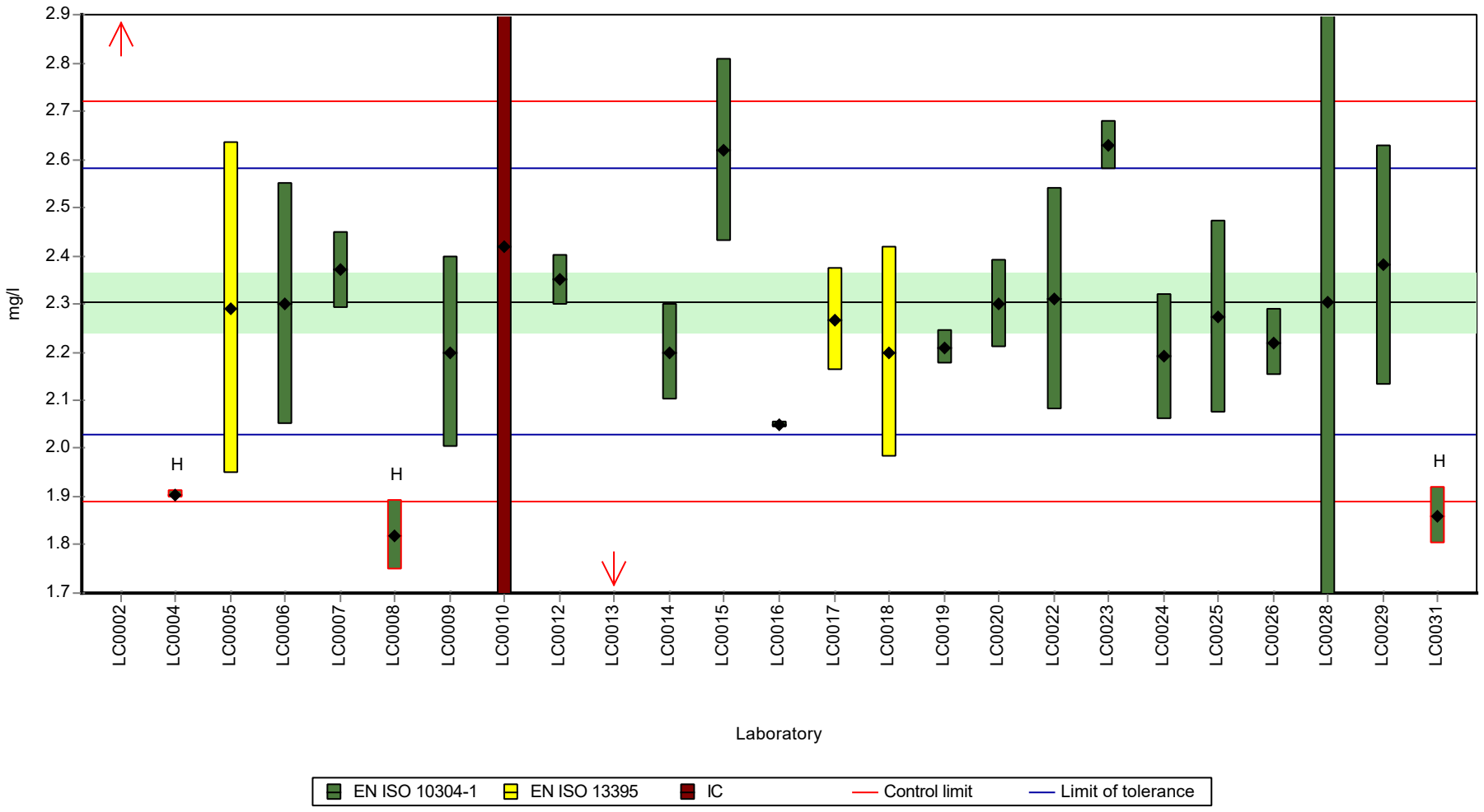
Sample: AB12, Parameter: NO3 (as N)

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	2.51 ± 0.872	2.3 ± 0.0923	mg/l
Minimum	1.65	2.05	mg/l
Maximum	9.4	2.63	mg/l
Standard deviation	1.45	0.138	mg/l
rel. standard deviation	57.9	5.97	%
n	25	20	-

Graphical presentation of results

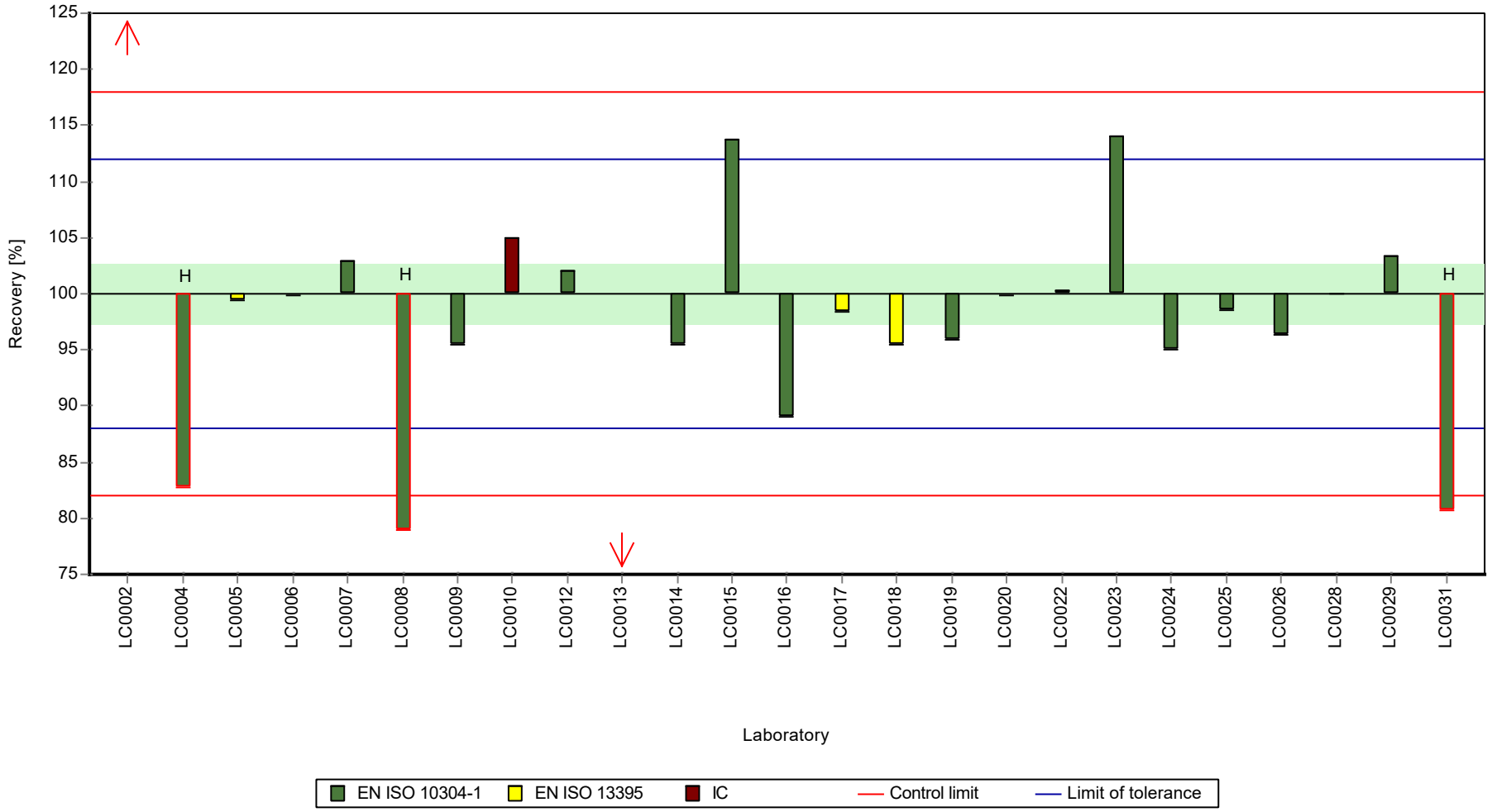
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

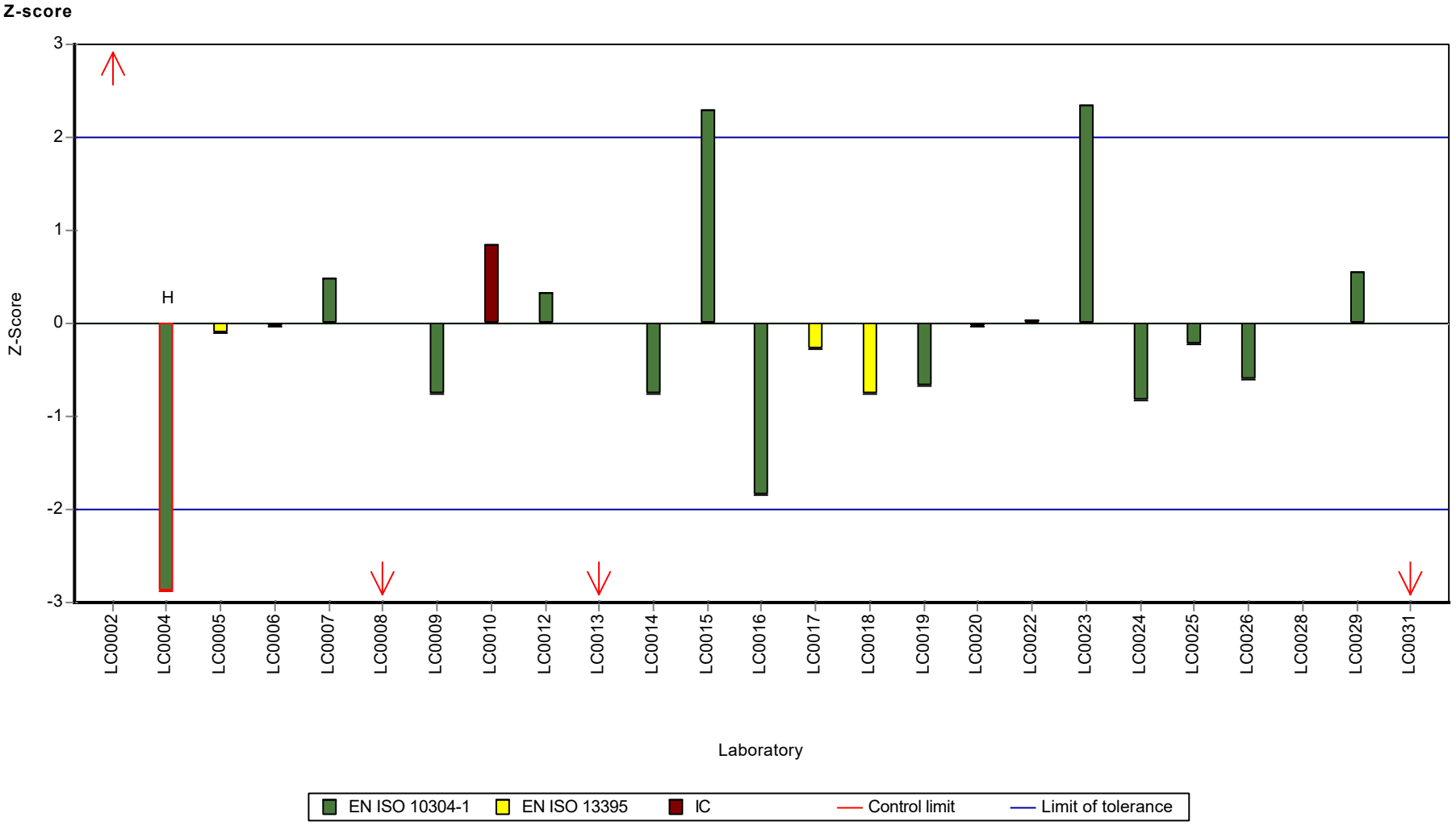
Sample: AB12, Parameter: NO3 (as N)

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: NO3 (as N)



Parameter oriented report

AB12

pH-value

Unit	
Assigned value ± U (k=2)	7.92 ± 0.0475
Criterion	0.158 (2 %)
Minimum - Maximum	7.62 - 8.15
Control test value ± U (k=2)	8.29 ± 0.05

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	7.9	0.2	99.7	-0.13	
LC0002	7.9	0.3	99.7	-0.13	
LC0003	-	-	-	-	
LC0004	7.91	0.4	99.9	-0.06	
LC0005	7.75	0.31	97.9	-1.07	
LC0006	7.86	0.05	99.2	-0.38	
LC0007	8.02	0.04	101	0.63	
LC0008	8.15	0.33	103	1.45	
LC0009	8.15	0.4	103	1.45	
LC0010	7.83	0.2	98.9	-0.57	
LC0011	7.67	0.25	96.8	-1.58	
LC0012	7.981	0.036	101	0.39	
LC0013	7.49	0.05	94.6	-2.71	H
LC0014	7.9	0.046	99.7	-0.13	
LC0015	8	0.16	101	0.51	
LC0016	8.08	0.049	102	1.01	
LC0017	7.89	0.027	99.6	-0.19	
LC0018	7.91	0.3	99.9	-0.06	
LC0019	8.01	0.025	101	0.57	
LC0020	7.98	0.2	101	0.38	
LC0021	-	-	-	-	
LC0022	8.04	0.2	102	0.76	
LC0023	7.89	0.06	99.6	-0.19	
LC0024	7.85	0.236	99.1	-0.44	
LC0025	7.62	0.07	96.2	-1.89	
LC0026	8	0.1	101	0.51	
LC0027	7.93	0.13	100	0.06	
LC0028	7.896	0.4	99.7	-0.15	
LC0029	7.92	0.39	100	0	
LC0030	7.85	0.12	99.1	-0.44	
LC0031	7.85	0.1	99.1	-0.44	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

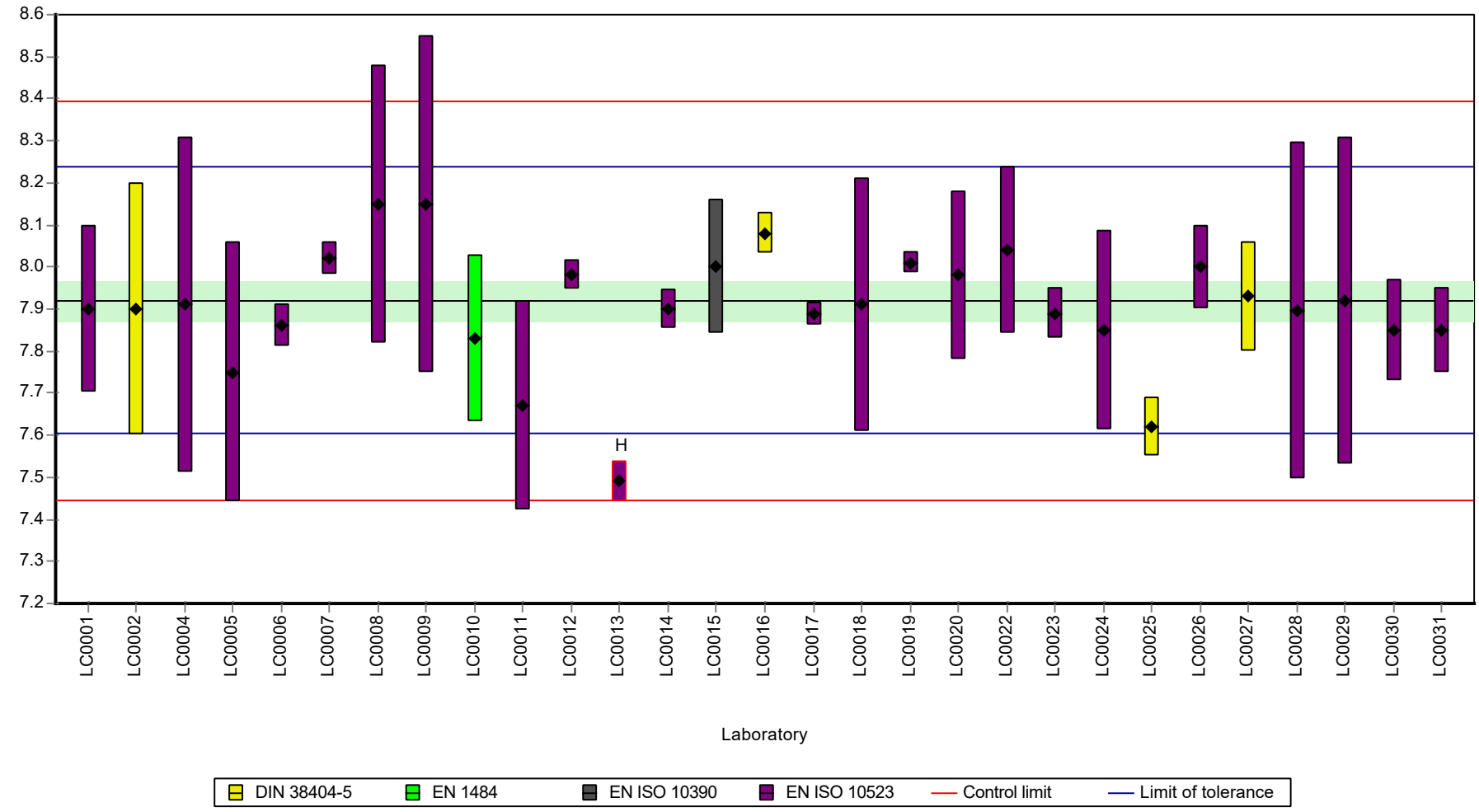
Sample: AB12, Parameter: pH-value

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	7.9 ± 0.0797	7.92 ± 0.0686	
Minimum	7.49	7.62	
Maximum	8.15	8.15	
Standard deviation	0.143	0.121	
rel. standard deviation	1.81	1.53	%
n	29	28	-

Graphical presentation of results

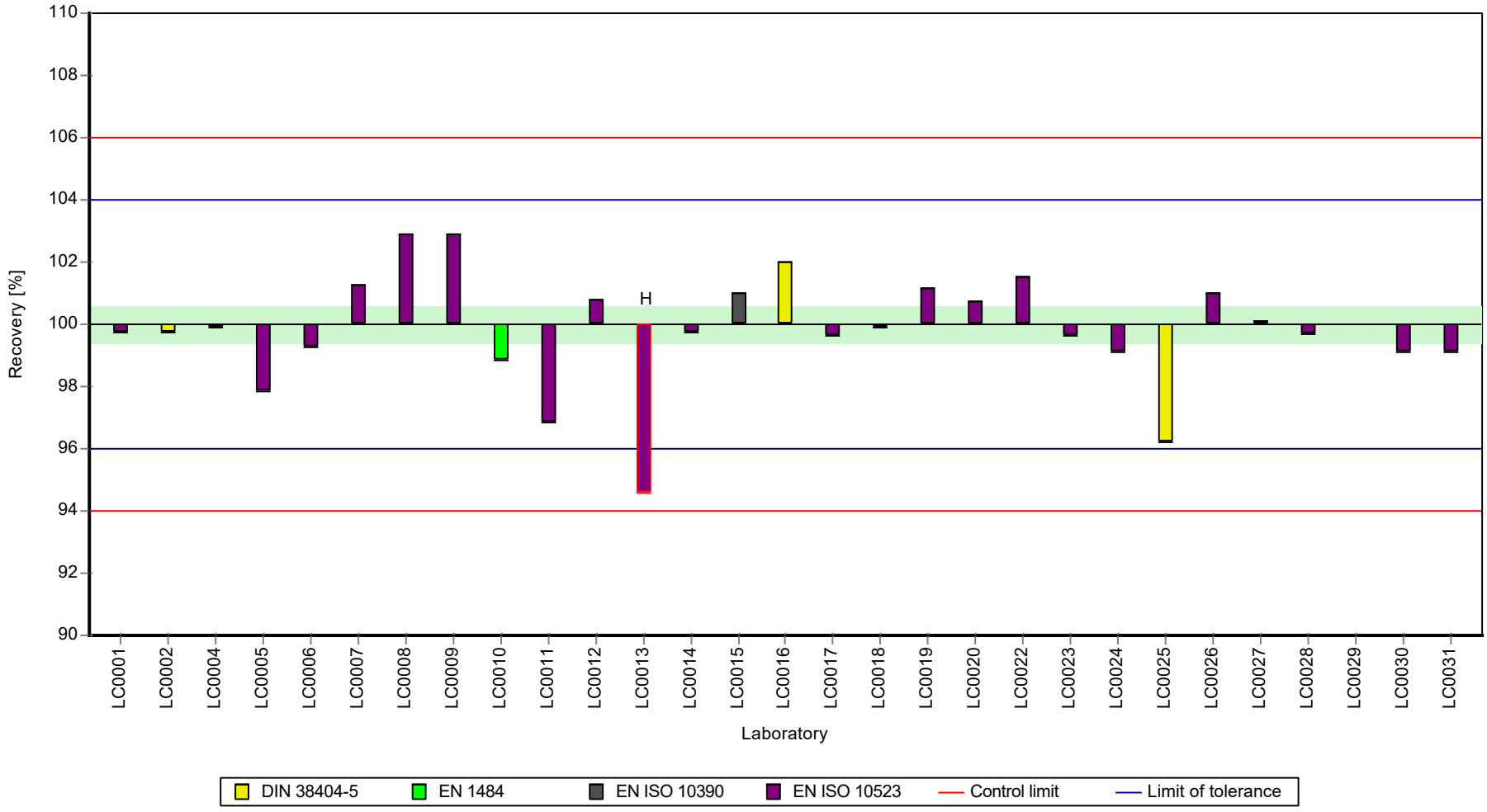
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

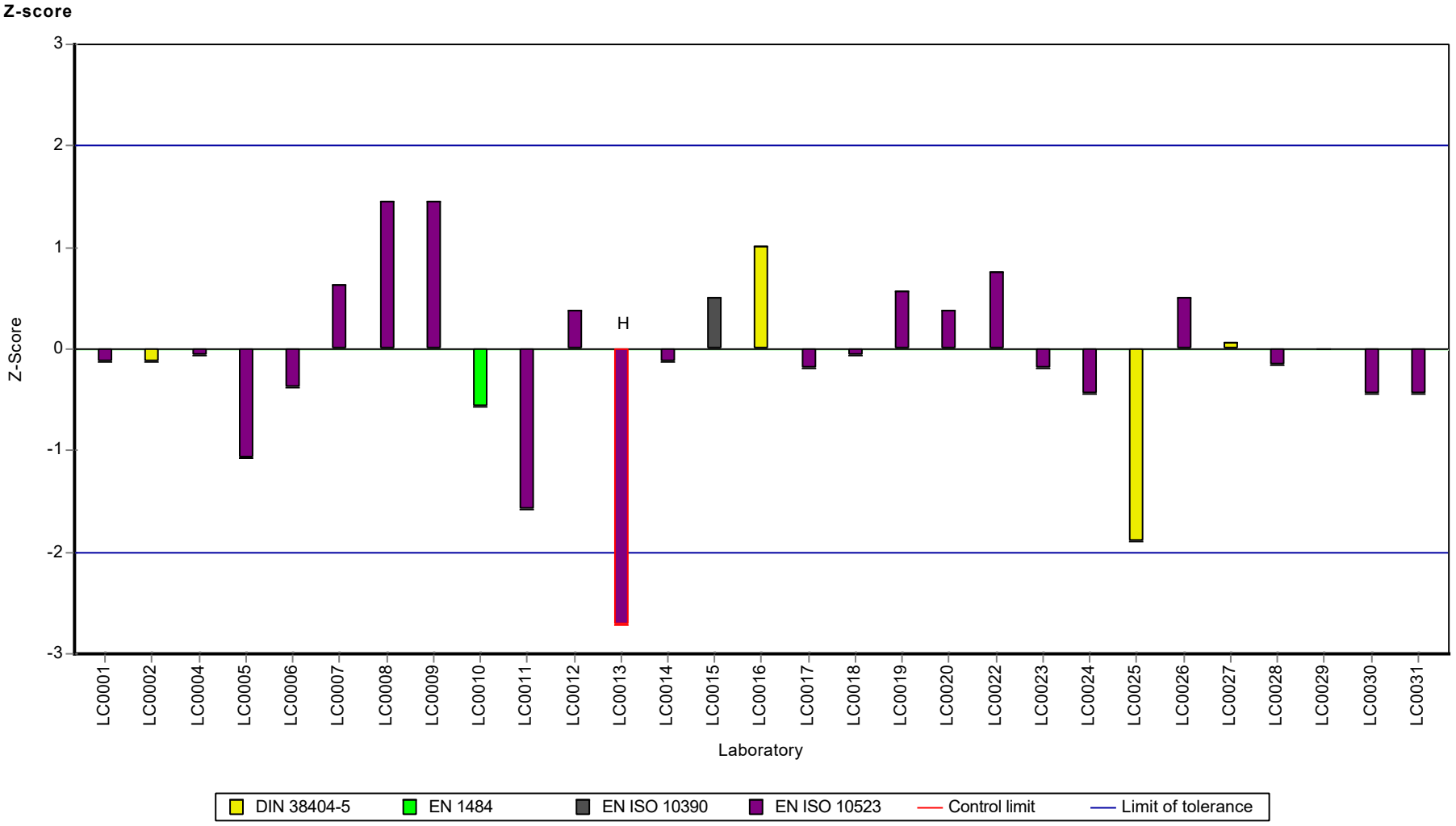
Sample: AB12, Parameter: pH-value

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: pH-value



Parameter oriented report

AB12

PO4 (as P)

Unit	mg/l
Assigned value ± U (k=2)	-
Criterion	-
Minimum - Maximum	0.0013 - 0.163
Control test value ± U (k=2)	< 0.03

Evaluation within your internal QA measures is recommended by comparison with the informative mean value: 0.087 +/- 0.0247 mg/l U(k=2)

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	-	-	-	-	
LC0002	< 0.1 (LOQ)	-	-	-	
LC0003	-	-	-	-	
LC0004	< 0.002 (LOQ)	-	-	-	
LC0005	0.08	0.012	-	-	
LC0006	< 0.2 (LOQ)	-	-	-	
LC0007	0.094	0.006	-	-	
LC0008	< 0.015 (LOQ)	-	-	-	
LC0009	< 0.01 (LOQ)	-	-	-	
LC0010	0.108	0.048	-	-	
LC0011	-	-	-	-	
LC0012	0.09	0.004	-	-	
LC0013	-	-	-	-	
LC0014	0.006	0.0011	-	-	
LC0015	0.1	0.009	-	-	
LC0016	< 0.016 (LOQ)	-	-	-	
LC0017	0.019	0.00076	-	-	
LC0018	< 0.2 (LOQ)	-	-	-	
LC0019	< 0.005 (LOQ)	-	-	-	
LC0020	< 0.02 (LOQ)	-	-	-	
LC0021	-	-	-	-	
LC0022	< 0.003 (LOQ)	-	-	-	
LC0023	0.121	0.004	-	-	
LC0024	0.0013	0.0004	-	-	
LC0025	0.1358	0.02	-	-	
LC0026	< 0.05 (LOQ)	-	-	-	
LC0027	-	-	-	-	
LC0028	0.163	0.054	-	-	
LC0029	0.123	0.025	-	-	
LC0030	-	-	-	-	
LC0031	0.0811	0.005	-	-	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

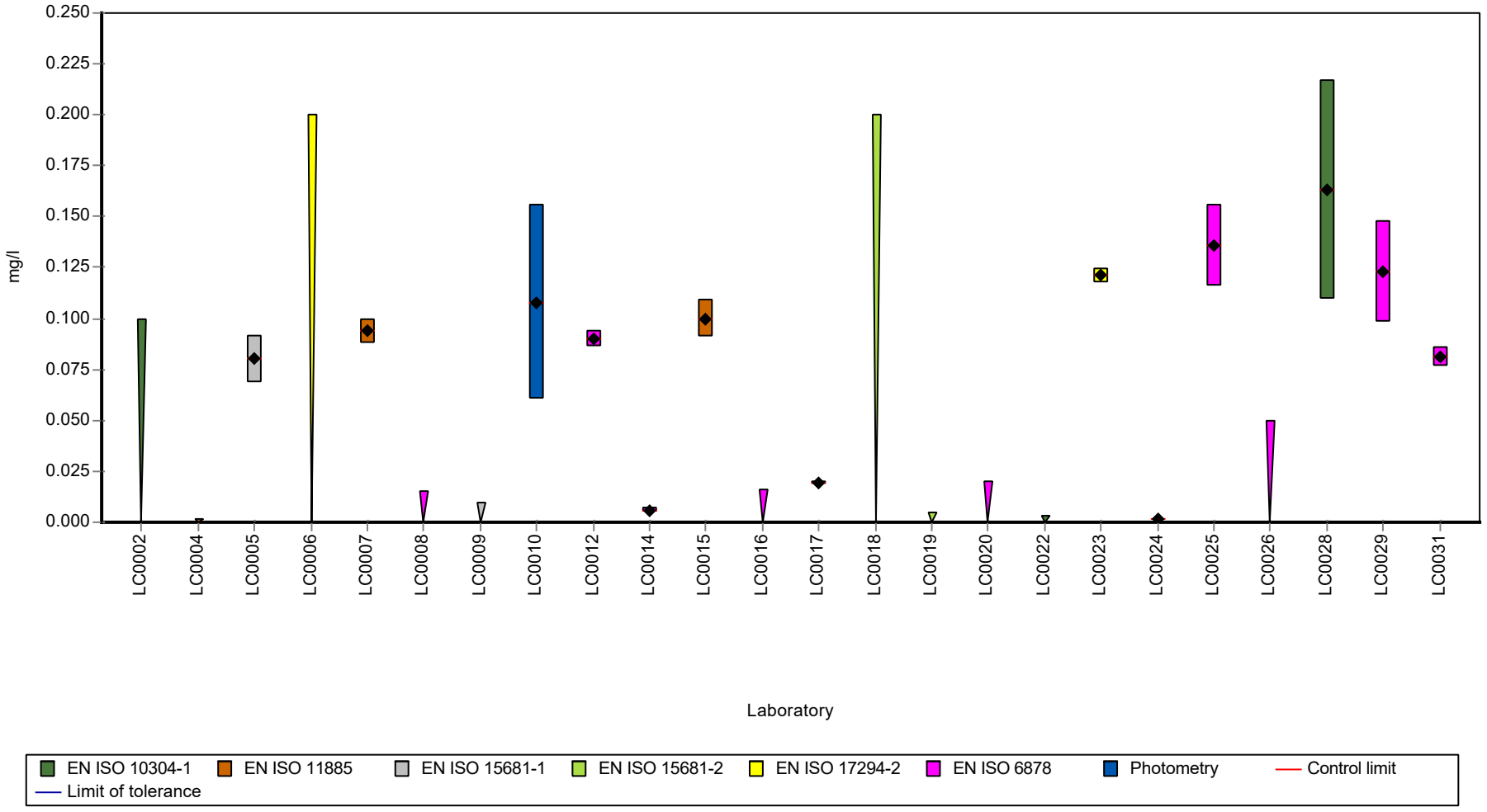
Sample: AB12, Parameter: PO4 (as P)

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	0.0863 ± 0.0415	-	mg/l
Minimum	0.0013	-	mg/l
Maximum	0.163	-	mg/l
Standard deviation	0.0499	-	mg/l
rel. standard deviation	57.8	-	%
n	13	(13)	-

Graphical presentation of results

Results



Parameter oriented report

AB12

Sulfate (as SO4)

Unit	mg/l
Assigned value ± U (k=2)	116 ± 1.93
Criterion	5.8 (5 %)
Minimum - Maximum	105 - 126
Control test value ± U (k=2)	124.0 ± 18.5

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	112.356	11.236	96.9	-0.63	
LC0002	139.9	14	121	4.12	H
LC0003	-	-	-	-	
LC0004	117.92	5.9	102	0.33	
LC0005	108	10.8	93.1	-1.38	
LC0006	115	25.3	99.1	-0.17	
LC0007	121	7	104	0.86	
LC0008	120	8.4	103	0.69	
LC0009	116	12	100	0	
LC0010	115	51	99.1	-0.17	
LC0011	110	6.2	94.8	-1.03	
LC0012	119	2.47	103	0.52	
LC0013	119.9	8.4	103	0.67	
LC0014	110	6.2	94.8	-1.03	
LC0015	118	9.4	102	0.35	
LC0016	114.6	5	98.8	-0.24	
LC0017	117.4	2.348	101	0.24	
LC0018	124	8	107	1.38	
LC0019	115	0.577	99.1	-0.17	
LC0020	113	6	97.4	-0.52	
LC0021	-	-	-	-	
LC0022	107	11	92.2	-1.55	
LC0023	116.78	4.67	101	0.14	
LC0024	116	6.96	100	0	
LC0025	118.958	11.896	103	0.51	
LC0026	112.5	3.4	97	-0.6	
LC0027	119	2.51	103	0.52	
LC0028	105.498	35	90.9	-1.81	
LC0029	115	16	99.1	-0.17	
LC0030	125	10.63	108	1.55	
LC0031	126	5	109	1.72	

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

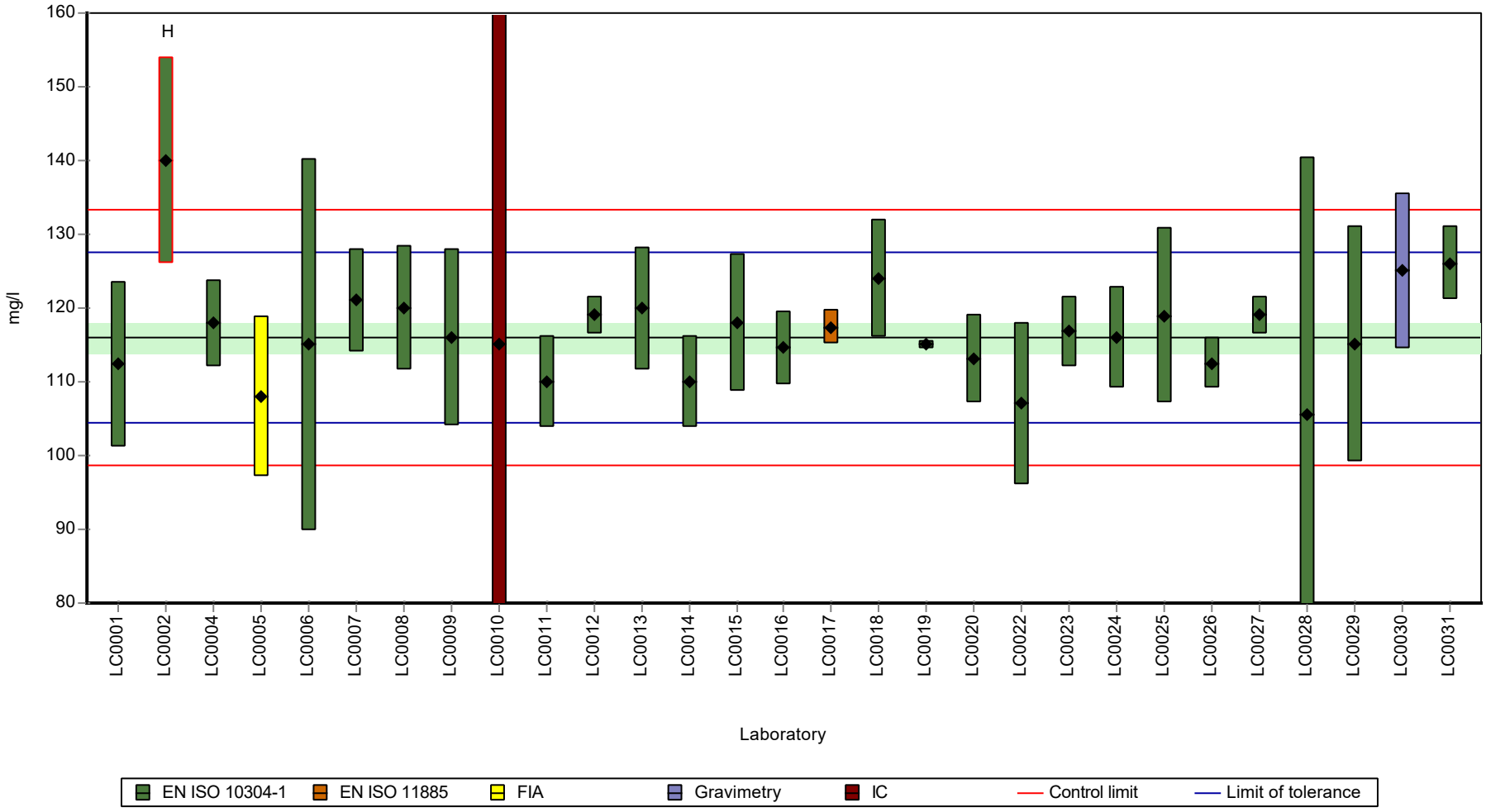
Sample: AB12, Parameter: Sulfate (as SO4)

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	117 ± 3.73	116 ± 2.9	mg/l
Minimum	105	105	mg/l
Maximum	140	126	mg/l
Standard deviation	6.7	5.11	mg/l
rel. standard deviation	5.74	4.41	%
n	29	28	-

Graphical presentation of results

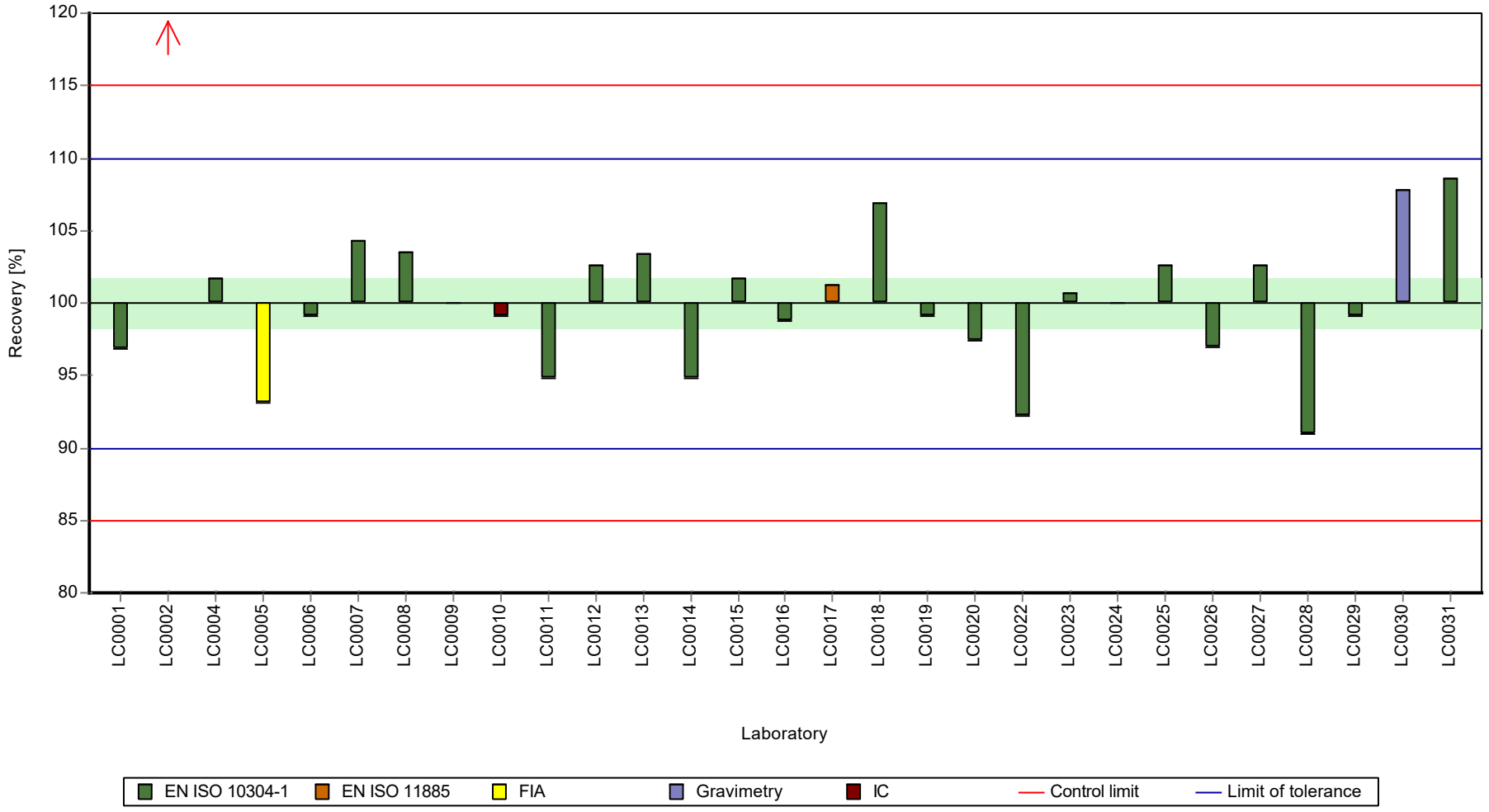
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

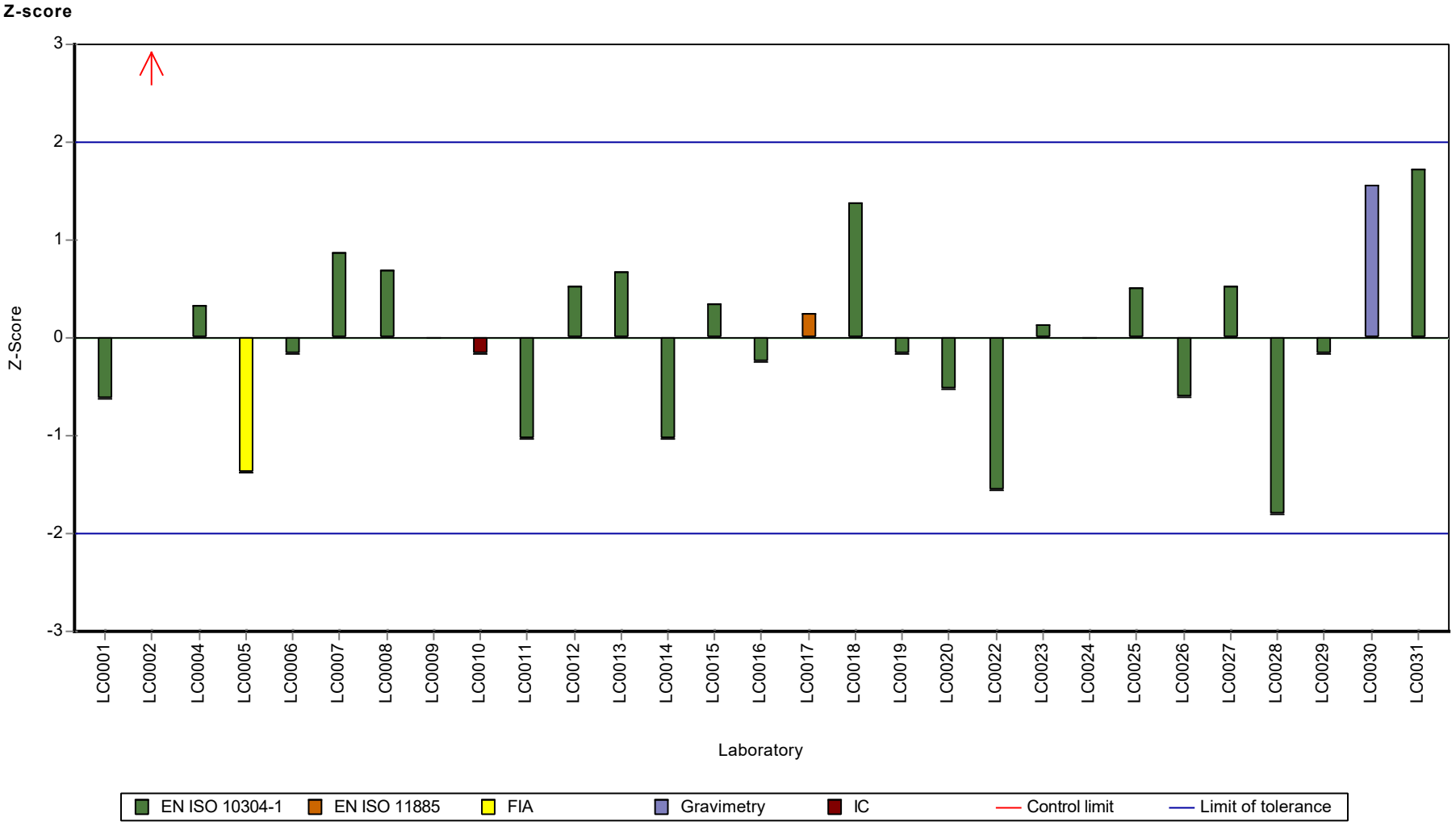
Sample: AB12, Parameter: Sulfate (as SO4)

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12, Parameter: Sulfate (as SO4)



Parameter oriented report

AB12 - TOC

TOC (as C)

Unit	mg/l
Assigned value ± U (k=2)	13.6 ± 0.398
Criterion	0.98 (7.2 %)
Minimum - Maximum	10.6 - 15.3
Control test value ± U (k=2)	13.00 ± 3.25

Labcode	Result	± U	Recovery [%]	z-score	Comments
LC0001	13	0.65	95.5	-0.63	
LC0002	10.2	0.3	74.9	-3.49	H
LC0003	-	-	-	-	
LC0004	14.095	0.705	104	0.49	
LC0005	-	-	-	-	
LC0006	14	3.1	103	0.39	
LC0007	14.73	0.15	108	1.14	
LC0008	-	-	-	-	
LC0009	13.4	1	98.4	-0.22	
LC0010	13.4	6	98.4	-0.22	
LC0011	13.1	2	96.2	-0.53	
LC0012	13.4	0.52	98.4	-0.22	
LC0013	12.73	0.1	93.5	-0.9	
LC0014	14	3	103	0.39	
LC0015	14.6	1.46	107	1	
LC0016	10.63	0.155	78.1	-3.05	
LC0017	9.12	1.824	67	-4.59	H
LC0018	14	1.4	103	0.39	
LC0019	12.8	0.306	94	-0.83	
LC0020	14.4	0.8	106	0.8	
LC0021	14.42	3.6	106	0.82	
LC0022	12.9	1.3	94.7	-0.73	
LC0023	14.375	2.88	106	0.77	
LC0024	15.3	1.68	112	1.72	
LC0025	12.3	1.23	90.3	-1.34	
LC0026	13.8	1.3	101	0.19	
LC0027	13.6	1.16	99.9	-0.02	
LC0028	14.5	1.5	106	0.9	
LC0029	13.33	0.665	97.9	-0.29	
LC0030	-	-	-	-	
LC0031	9.38	0.5	68.9	-4.32	H

Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

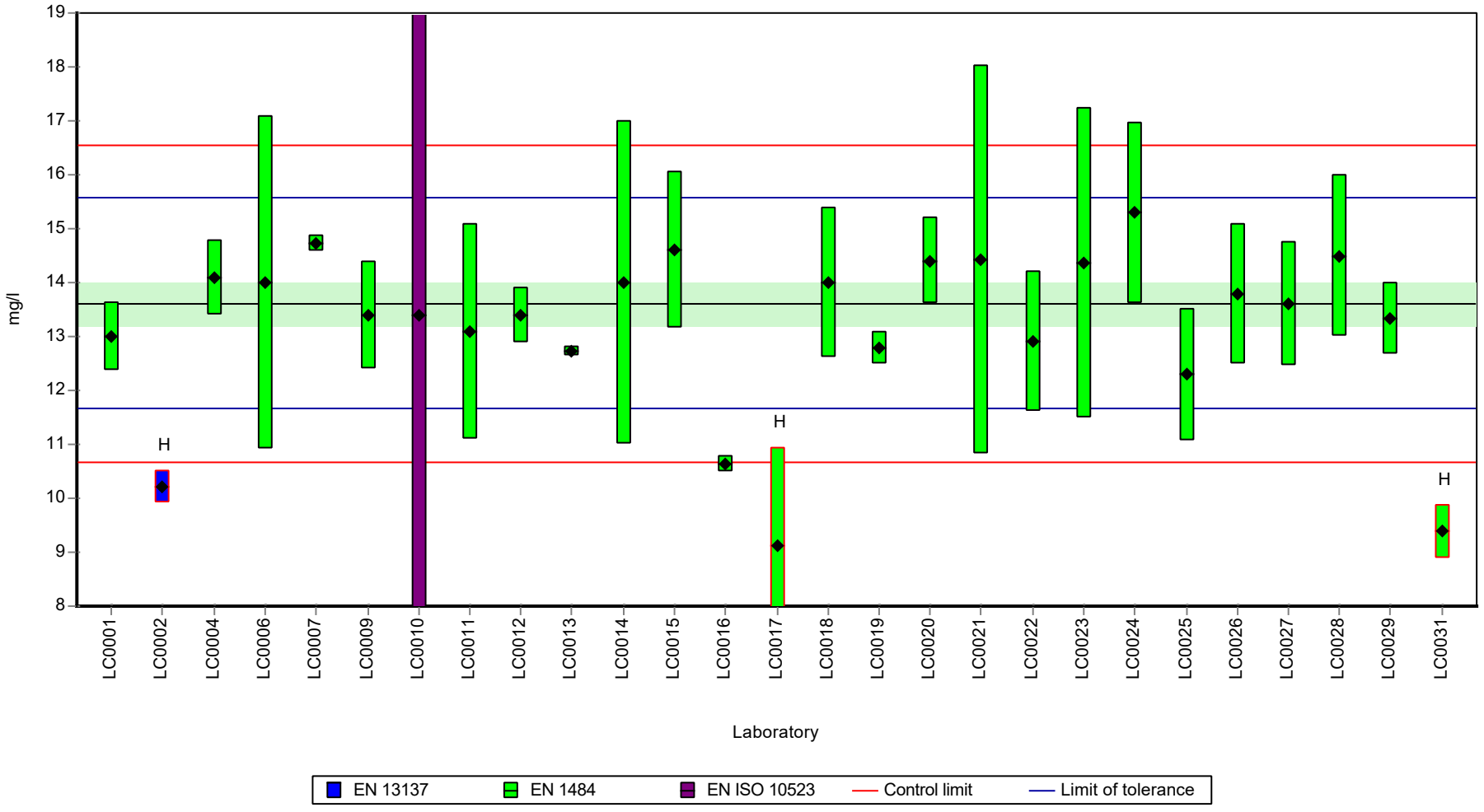
Sample: AB12TOC, Parameter: TOC (as C)

Characteristics of parameter

	all results	without outliers	Unit
Mean ± CI (99%)	13.2 ± 0.922	13.6 ± 0.597	mg/l
Minimum	9.12	10.6	mg/l
Maximum	15.3	15.3	mg/l
Standard deviation	1.6	0.975	mg/l
rel. standard deviation	12.1	7.16	%
n	27	24	-

Graphical presentation of results

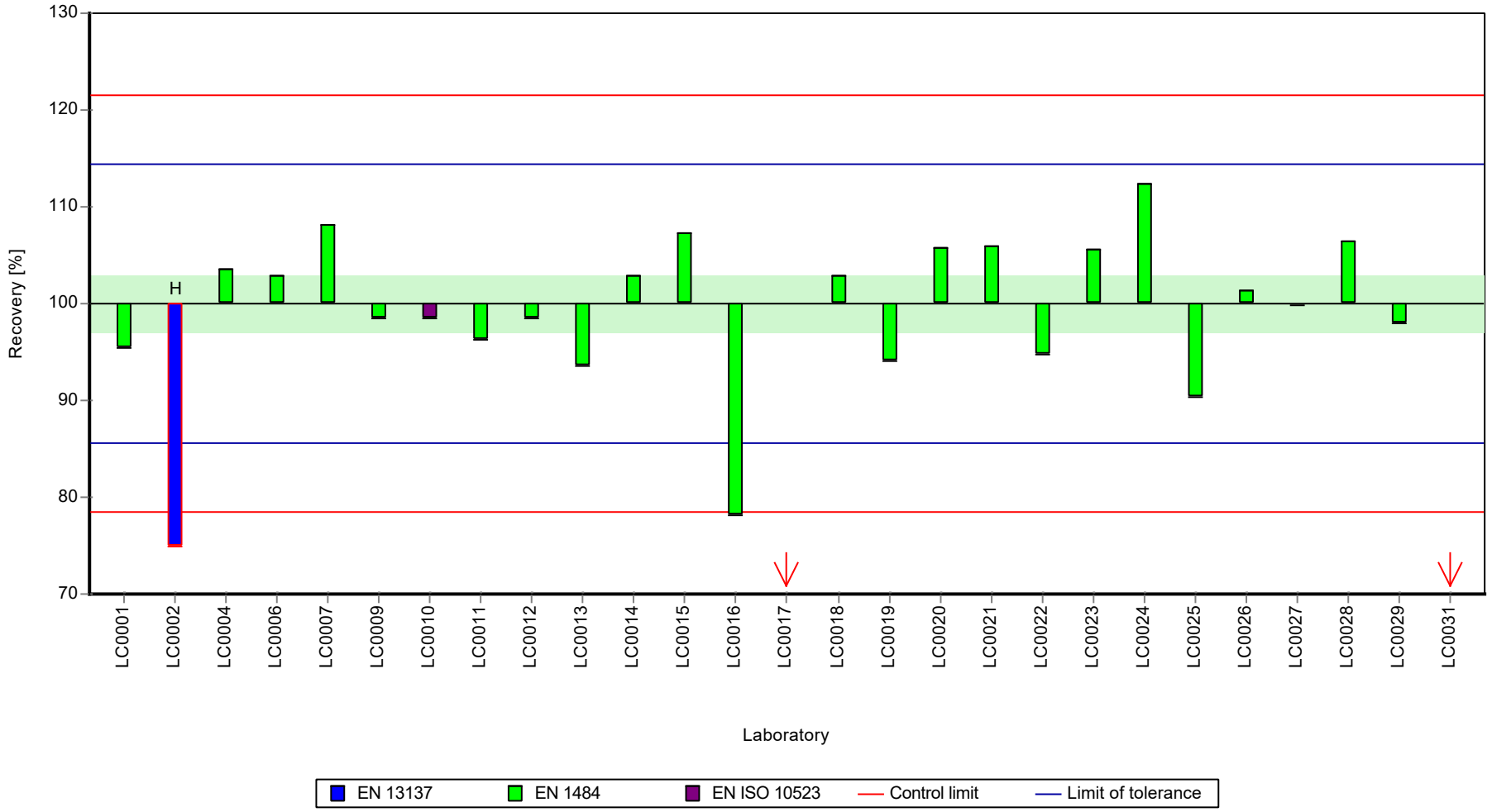
Results



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

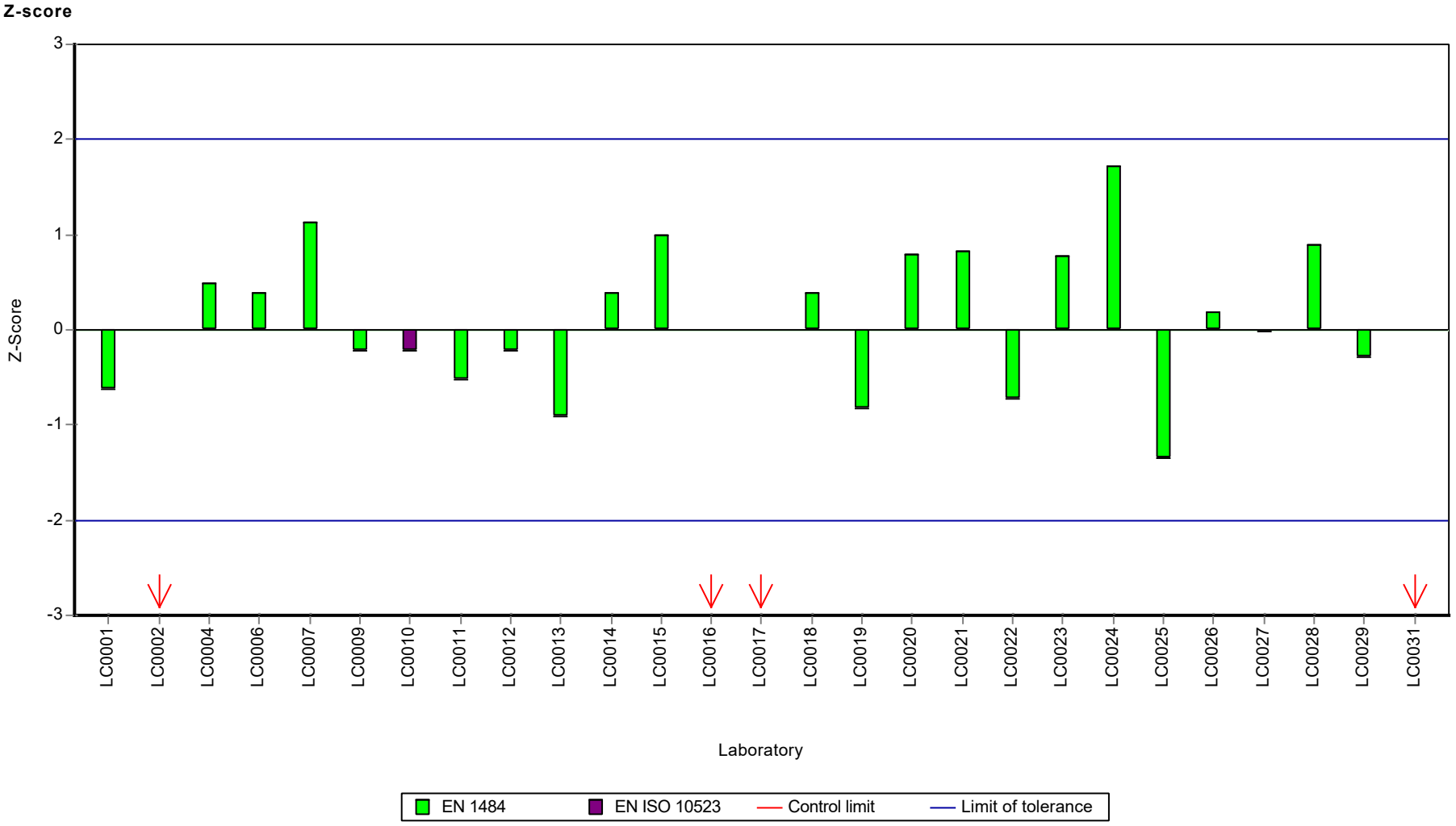
Sample: AB12TOC, Parameter: TOC (as C)

Recovery rate



Parameter oriented report Waste acc to landfill directive (eluate ions) - AB12

Sample: AB12TOC, Parameter: TOC (as C)



E8. Laborientierte Auswertung / Laboratory oriented report

Die Laborientierte Auswertung ist nach dem Laborcode sortiert.

The laboratory oriented report is sorted by laboratory code.

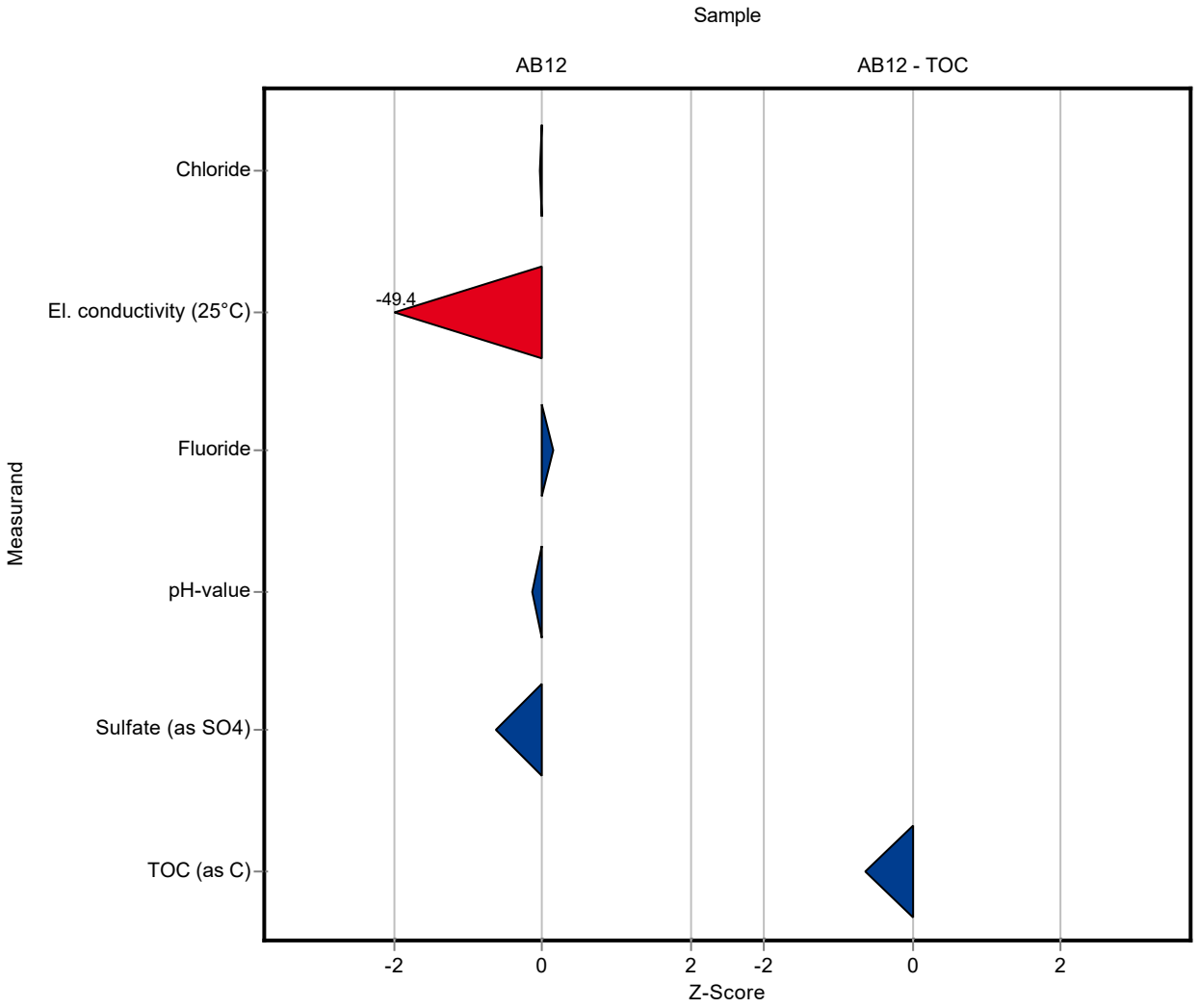
Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0001

Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1518.809 ± 151.881	76.1	99.8	-0.04
El. conductivity (25°C)	mS/m	510 ± 4.26	5.162 ± 0.5	10.2	1.01	-49.44
Evaporation residue	mg/l	3750 ± 258	- ± -	674	-	-
Fluoride	mg/l	0.304 ± 0.0494	0.319 ± 0.032	0.107	105	0.14
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	7.9 ± 0.2	0.158	99.7	-0.13
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	112.356 ± 11.236	5.8	96.9	-0.63

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	13 ± 0.65	0.98	95.5	-0.63


Sample
AB12
AB12 - TOC
Chloride
El. conductivity (25°C)
-49.4
Fluoride
pH-value
Sulfate (as SO4)
TOC (as C)
Measurand
-2
0
2
-2
0
2
Z-Score

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0001

Sample: AB12

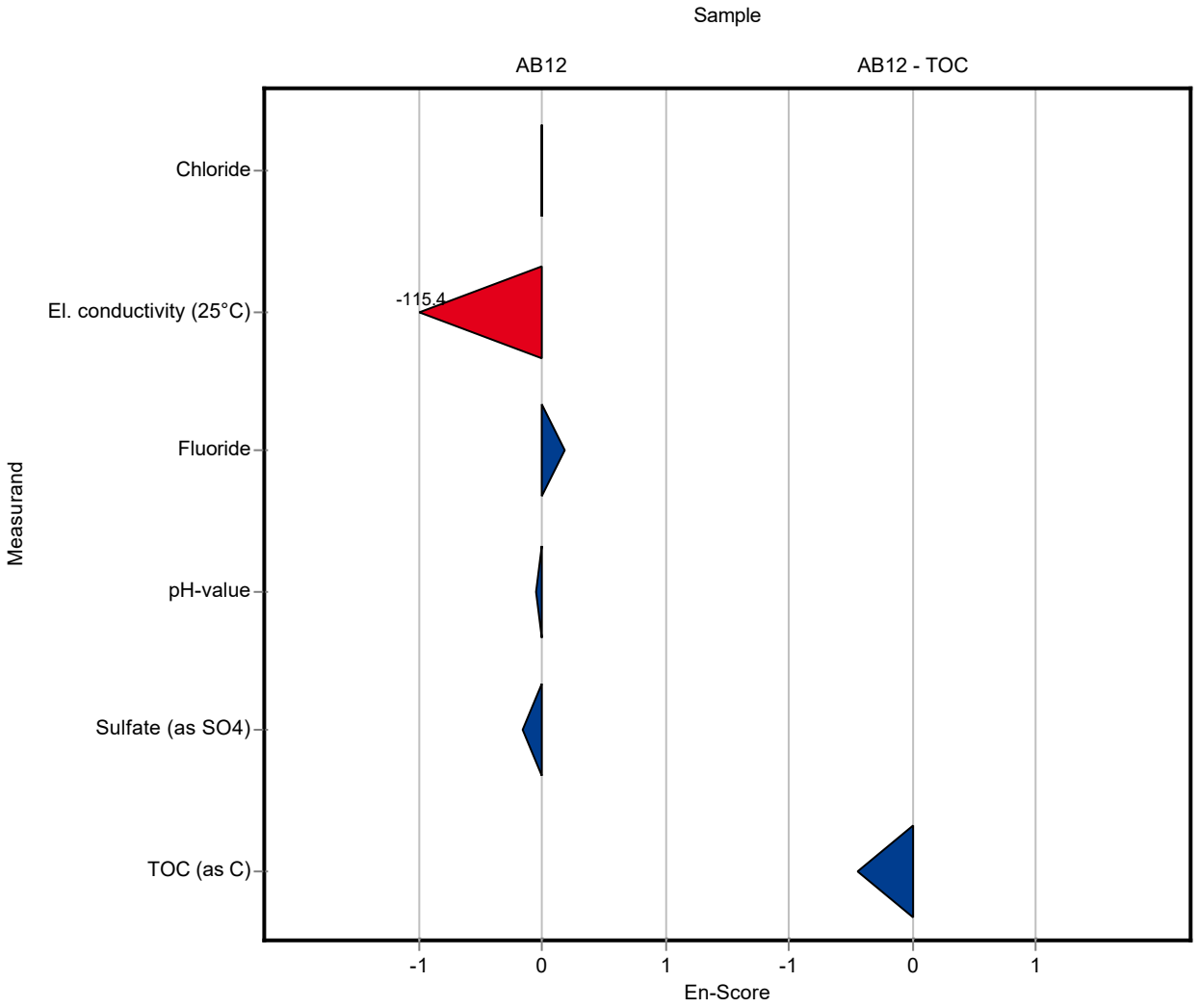
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1518.809 ± 151.881	76.1	99.8	-0.01
El. conductivity (25°C)	mS/m	510 ± 4.26	5.162 ± 0.5	10.2	1.01	-115.41
Evaporation residue	mg/l	3750 ± 258	- ± -	674	-	-
Fluoride	mg/l	0.304 ± 0.0494	0.319 ± 0.032	0.107	105	0.18
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	7.9 ± 0.2	0.158	99.7	-0.05
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	112.356 ± 11.236	5.8	96.9	-0.16

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	13 ± 0.65	0.98	95.5	-0.45

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0001



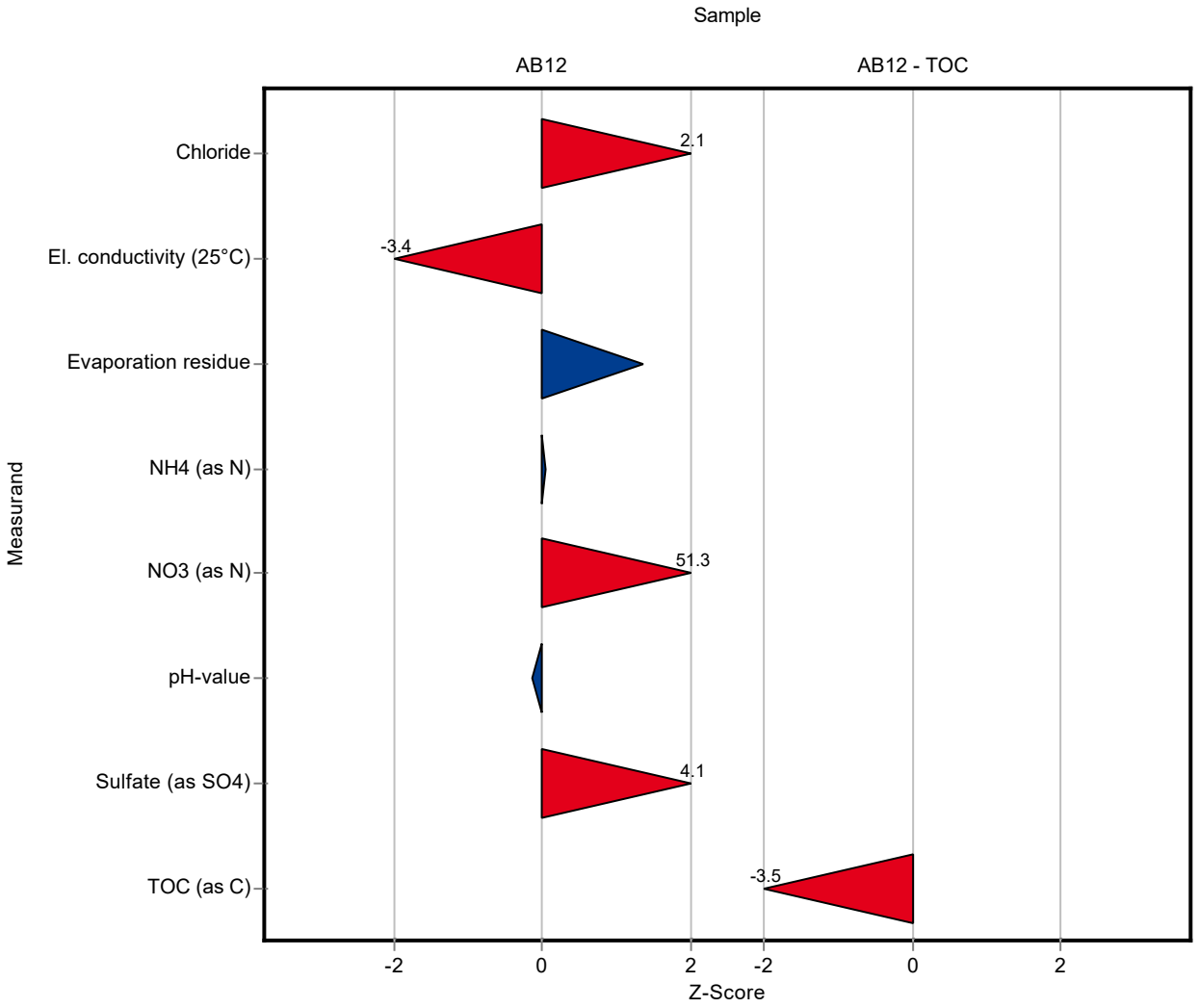
Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0002

Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1680 ± 19.9	76.1	110	2.08
El. conductivity (25°C)	mS/m	510 ± 4.26	475 ± 7.6	10.2	93.1	-3.45
Evaporation residue	mg/l	3750 ± 258	4657 ± 72	674	124	1.35
Fluoride	mg/l	0.304 ± 0.0494	<1 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.33 ± 0.02	0.027	100	0.03
NO2 (as N)	mg/l	0.0321 ± 0.00121	<0.1 (LOQ) ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	9.4 ± 0.3	0.138	408	51.33
pH-value		7.92 ± 0.0475	7.9 ± 0.3	0.158	99.7	-0.13
PO4 (as P)	mg/l	- ± -	<0.1 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	139.9 ± 14	5.8	121	4.12

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	10.2 ± 0.3	0.98	74.9	-3.49


Sample
AB12
AB12 - TOC
Chloride
El. conductivity (25°C)
Evaporation residue
NH4 (as N)
NO3 (as N)
pH-value
Sulfate (as SO4)
TOC (as C)
Measurand
2.1
-3.4
51.3
4.1
-3.5
-2
0
2
-2
0
2
Z-Score

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0002

Sample: AB12

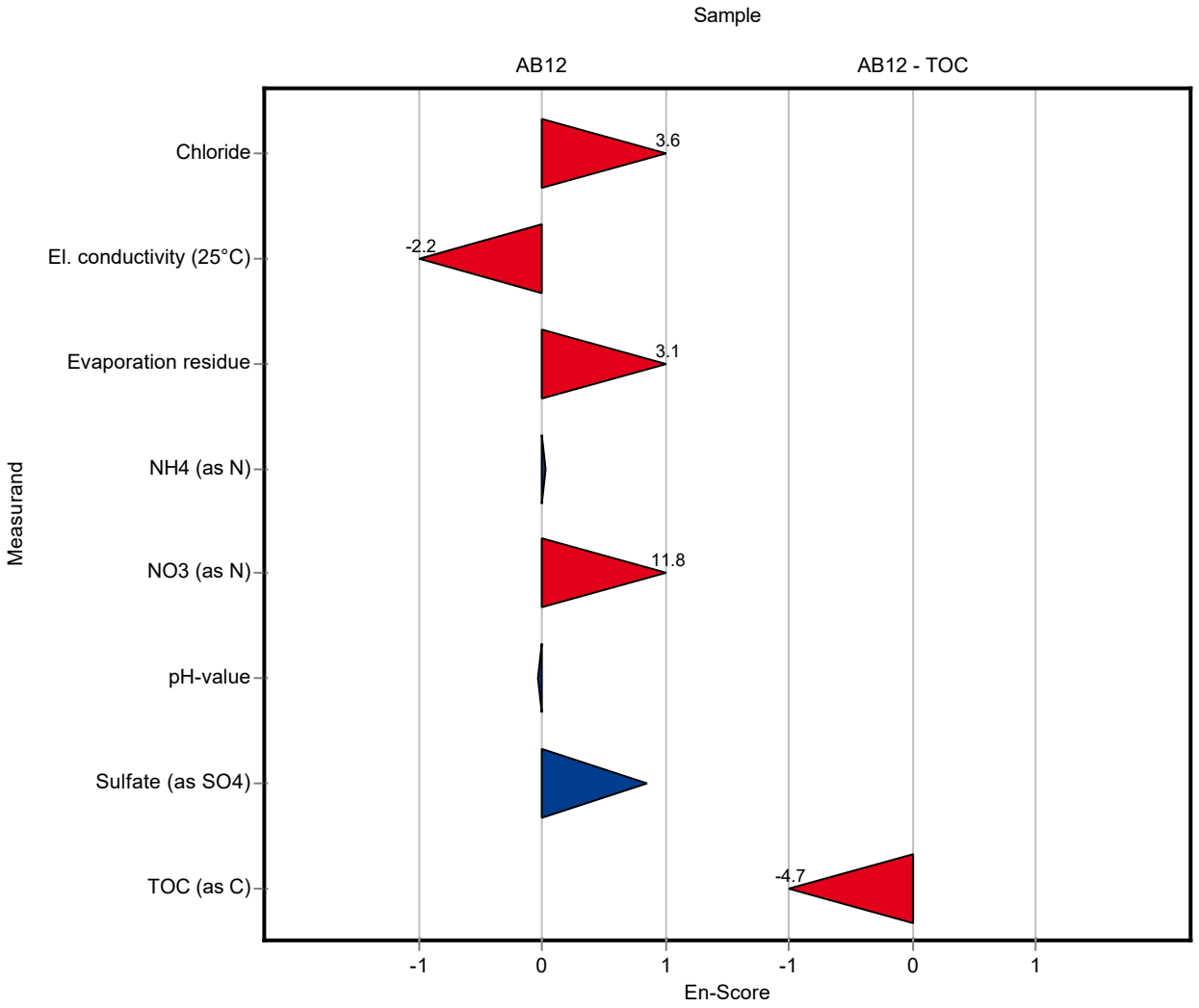
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1680 ± 19.9	76.1	110	3.63
El. conductivity (25°C)	mS/m	510 ± 4.26	475 ± 7.6	10.2	93.1	-2.23
Evaporation residue	mg/l	3750 ± 258	4657 ± 72	674	124	3.08
Fluoride	mg/l	0.304 ± 0.0494	<1 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.33 ± 0.02	0.027	100	0.02
NO2 (as N)	mg/l	0.0321 ± 0.00121	<0.1 (LOQ) ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	9.4 ± 0.3	0.138	408	11.76
pH-value		7.92 ± 0.0475	7.9 ± 0.3	0.158	99.7	-0.03
PO4 (as P)	mg/l	- ± -	<0.1 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	139.9 ± 14	5.8	121	0.85

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	10.2 ± 0.3	0.98	74.9	-4.75

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0002



Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	- ± -	76.1	-	-
El. conductivity (25°C)	mS/m	510 ± 4.26	- ± -	10.2	-	-
Evaporation residue	mg/l	3750 ± 258	- ± -	674	-	-
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	- ± -	0.158	-	-
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	- ± -	5.8	-	-

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	- ± -	0.98	-	-

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0003

Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	- ± -	76.1	-	-
El. conductivity (25°C)	mS/m	510 ± 4.26	- ± -	10.2	-	-
Evaporation residue	mg/l	3750 ± 258	- ± -	674	-	-
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	- ± -	0.158	-	-
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	- ± -	5.8	-	-

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	- ± -	0.98	-	-

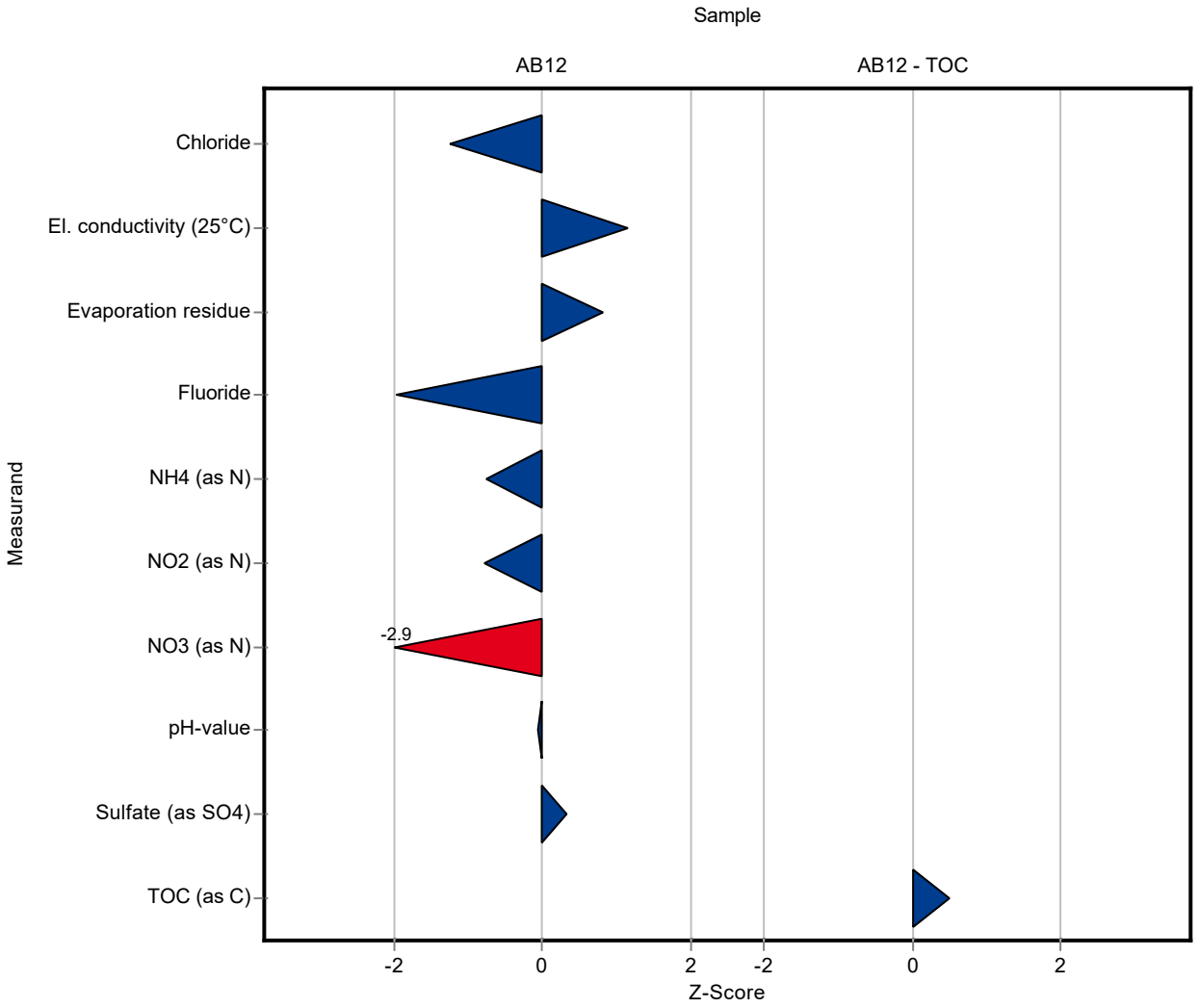
Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0004

Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1427 ± 71.35	76.1	93.8	-1.25
El. conductivity (25°C)	mS/m	510 ± 4.26	522 ± 26	10.2	102	1.16
Evaporation residue	mg/l	3750 ± 258	4301 ± 215	674	115	0.82
Fluoride	mg/l	0.304 ± 0.0494	0.0941 ± 0.0047	0.107	30.9	-1.97
NH4 (as N)	mg/l	0.329 ± 0.0105	0.309 ± 0.015	0.027	93.9	-0.74
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.0015	0.00273	93.3	-0.79
NO3 (as N)	mg/l	2.3 ± 0.0615	1.905 ± 0.0095	0.138	82.7	-2.89
pH-value		7.92 ± 0.0475	7.91 ± 0.4	0.158	99.9	-0.06
PO4 (as P)	mg/l	- ± -	<0.002 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	117.92 ± 5.9	5.8	102	0.33

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.095 ± 0.705	0.98	104	0.49


Sample
AB12
AB12 - TOC
Chloride
El. conductivity (25°C)
Evaporation residue
Fluoride
NH4 (as N)
NO2 (as N)
NO3 (as N)
pH-value
Sulfate (as SO4)
TOC (as C)
Measurand
-2.9
-2
0
2
-2
0
2
Z-Score

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0004

Sample: AB12

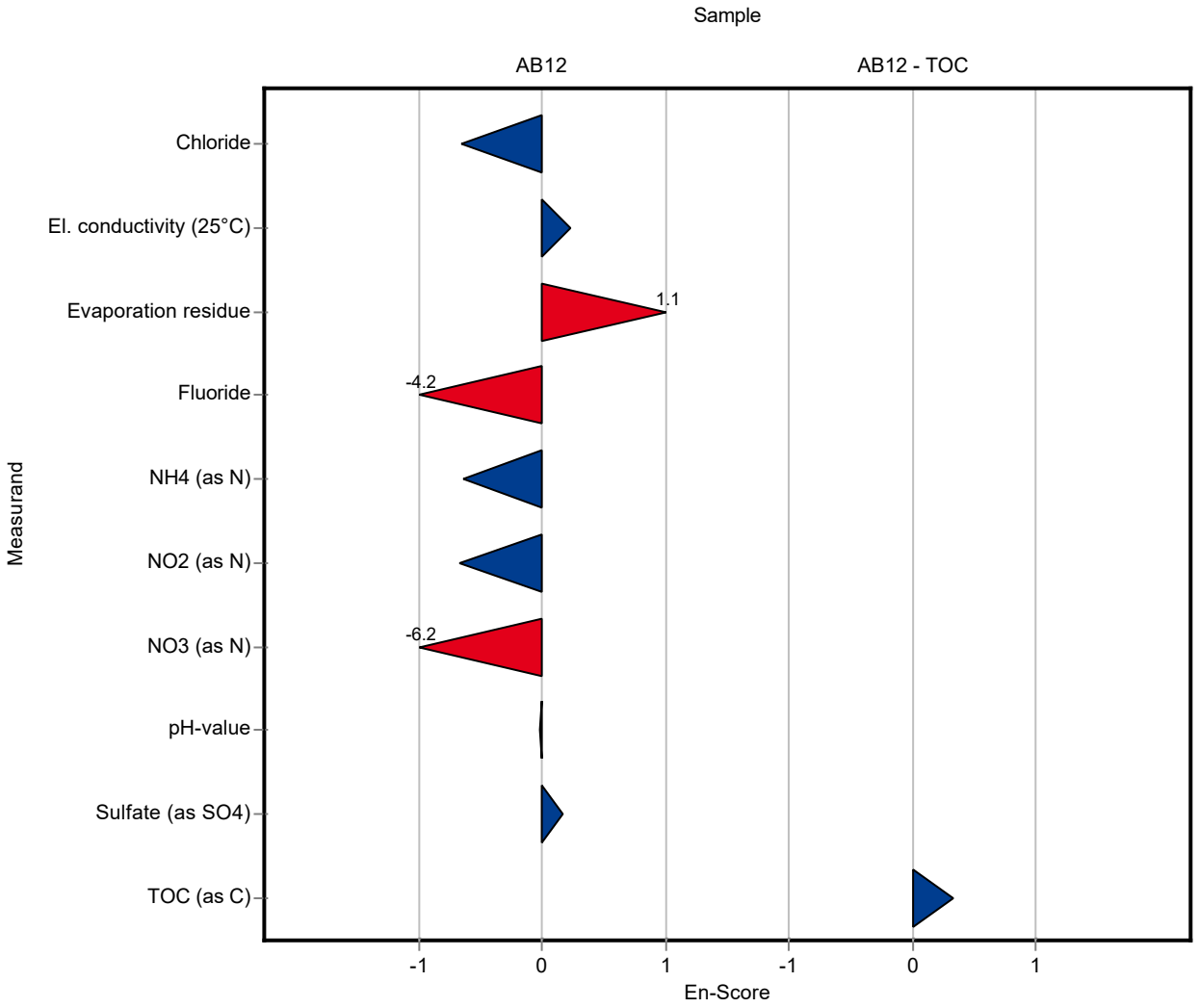
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1427 ± 71.35	76.1	93.8	-0.66
El. conductivity (25°C)	mS/m	510 ± 4.26	522 ± 26	10.2	102	0.23
Evaporation residue	mg/l	3750 ± 258	4301 ± 215	674	115	1.11
Fluoride	mg/l	0.304 ± 0.0494	0.0941 ± 0.0047	0.107	30.9	-4.18
NH4 (as N)	mg/l	0.329 ± 0.0105	0.309 ± 0.015	0.027	93.9	-0.63
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.0015	0.00273	93.3	-0.66
NO3 (as N)	mg/l	2.3 ± 0.0615	1.905 ± 0.0095	0.138	82.7	-6.20
pH-value		7.92 ± 0.0475	7.91 ± 0.4	0.158	99.9	-0.01
PO4 (as P)	mg/l	- ± -	<0.002 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	117.92 ± 5.9	5.8	102	0.16

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.095 ± 0.705	0.98	104	0.33

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0004



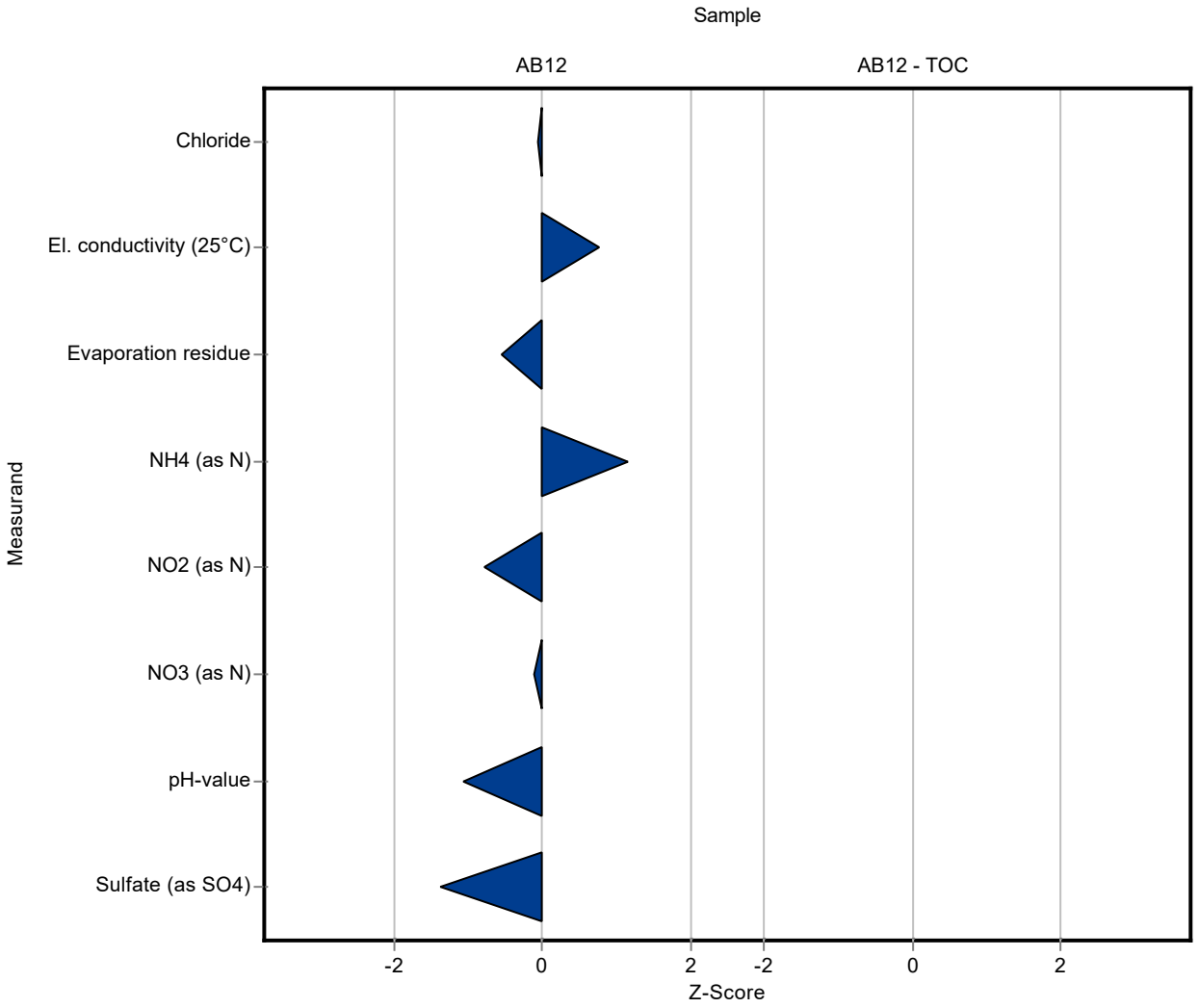
Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0005

Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1517 ± 45.5	76.1	99.7	-0.06
El. conductivity (25°C)	mS/m	510 ± 4.26	518 ± 62.2	10.2	102	0.76
Evaporation residue	mg/l	3750 ± 258	3370 ± 337	674	90	-0.56
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.36 ± 0.043	0.027	109	1.15
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.006	0.00273	93.3	-0.79
NO3 (as N)	mg/l	2.3 ± 0.0615	2.29 ± 0.344	0.138	99.4	-0.10
pH-value		7.92 ± 0.0475	7.75 ± 0.31	0.158	97.9	-1.07
PO4 (as P)	mg/l	- ± -	0.08 ± 0.012	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	108 ± 10.8	5.8	93.1	-1.38

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	- ± -	0.98	-	-


Sample
AB12
AB12 - TOC
Chloride
El. conductivity (25°C)
Evaporation residue
NH4 (as N)
NO2 (as N)
NO3 (as N)
pH-value
Sulfate (as SO4)
Measurand
-2
0
2
-2
0
2
Z-Score

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0005

Sample: AB12

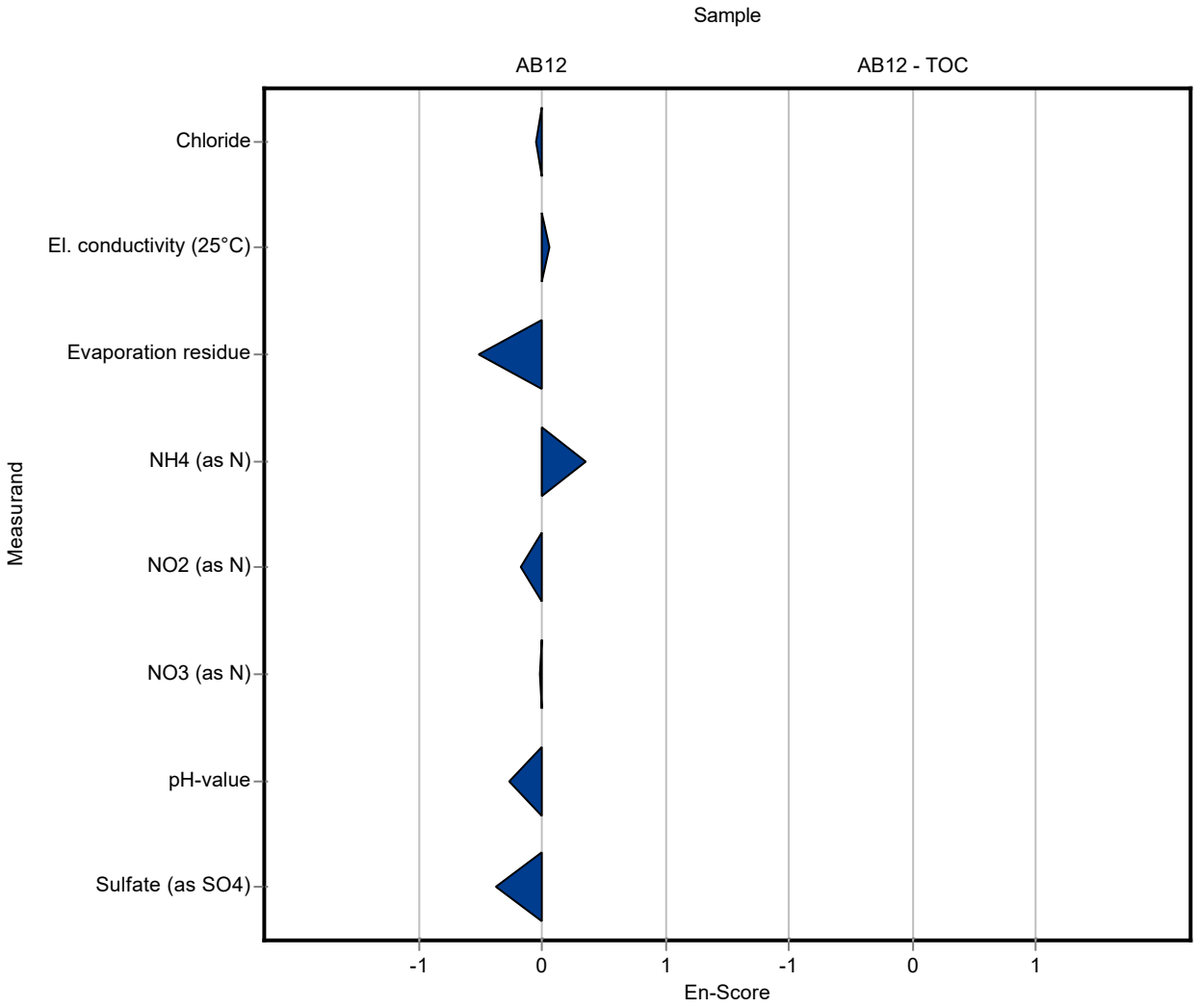
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1517 ± 45.5	76.1	99.7	-0.05
El. conductivity (25°C)	mS/m	510 ± 4.26	518 ± 62.2	10.2	102	0.06
Evaporation residue	mg/l	3750 ± 258	3370 ± 337	674	90	-0.52
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.36 ± 0.043	0.027	109	0.36
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.006	0.00273	93.3	-0.18
NO3 (as N)	mg/l	2.3 ± 0.0615	2.29 ± 0.344	0.138	99.4	-0.02
pH-value		7.92 ± 0.0475	7.75 ± 0.31	0.158	97.9	-0.27
PO4 (as P)	mg/l	- ± -	0.08 ± 0.012	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	108 ± 10.8	5.8	93.1	-0.37

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	- ± -	0.98	-	-

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0005



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0006

Sample: AB12

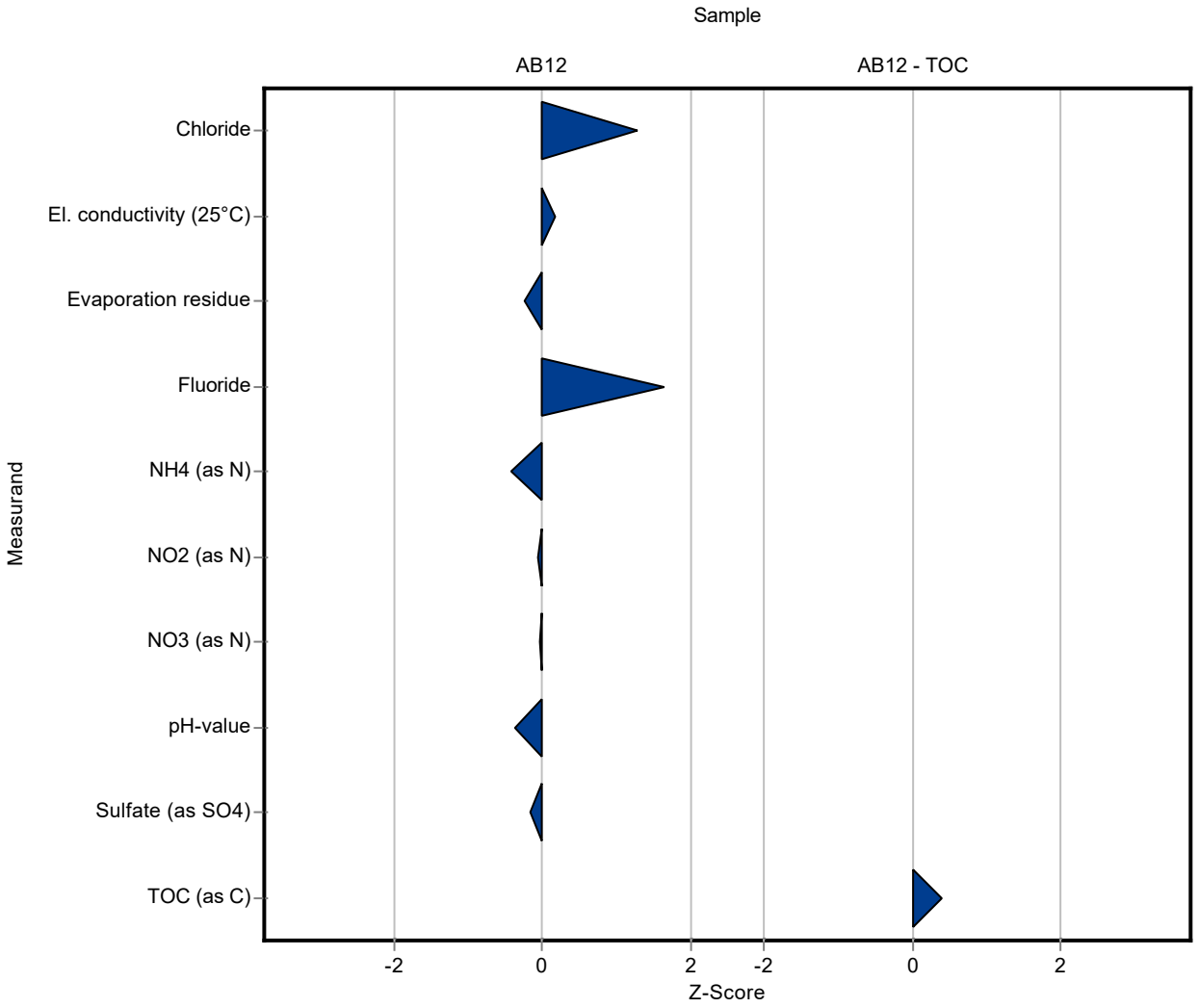
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1620 ± 211	76.1	106	1.29
El. conductivity (25°C)	mS/m	510 ± 4.26	512 ± 51	10.2	100	0.18
Evaporation residue	mg/l	3750 ± 258	3580 ± 716	674	95.6	-0.25
Fluoride	mg/l	0.304 ± 0.0494	0.48 ± 0.096	0.107	158	1.65
NH4 (as N)	mg/l	0.329 ± 0.0105	0.318 ± 0.057	0.027	96.6	-0.41
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.032 ± 0.004	0.00273	99.5	-0.05
NO3 (as N)	mg/l	2.3 ± 0.0615	2.3 ± 0.25	0.138	99.8	-0.03
pH-value		7.92 ± 0.0475	7.86 ± 0.05	0.158	99.2	-0.38
PO4 (as P)	mg/l	- ± -	<0.2 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	115 ± 25.3	5.8	99.1	-0.17

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14 ± 3.1	0.98	103	0.39

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0006



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0006

Sample: AB12

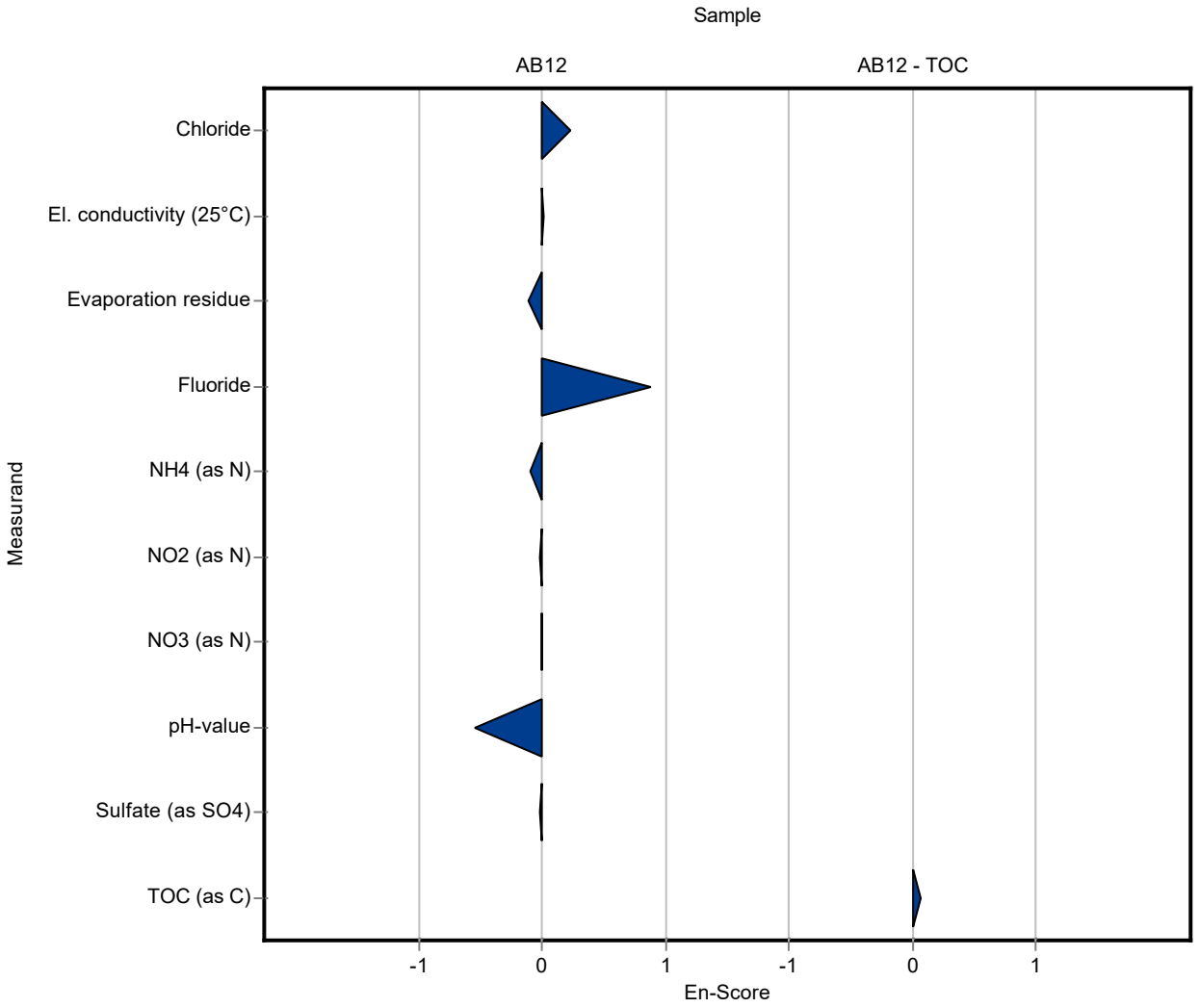
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1620 ± 211	76.1	106	0.23
El. conductivity (25°C)	mS/m	510 ± 4.26	512 ± 51	10.2	100	0.02
Evaporation residue	mg/l	3750 ± 258	3580 ± 716	674	95.6	-0.11
Fluoride	mg/l	0.304 ± 0.0494	0.48 ± 0.096	0.107	158	0.89
NH4 (as N)	mg/l	0.329 ± 0.0105	0.318 ± 0.057	0.027	96.6	-0.10
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.032 ± 0.004	0.00273	99.5	-0.02
NO3 (as N)	mg/l	2.3 ± 0.0615	2.3 ± 0.25	0.138	99.8	-0.01
pH-value		7.92 ± 0.0475	7.86 ± 0.05	0.158	99.2	-0.54
PO4 (as P)	mg/l	- ± -	<0.2 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	115 ± 25.3	5.8	99.1	-0.02

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14 ± 3.1	0.98	103	0.06

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0006



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0007

Sample: AB12

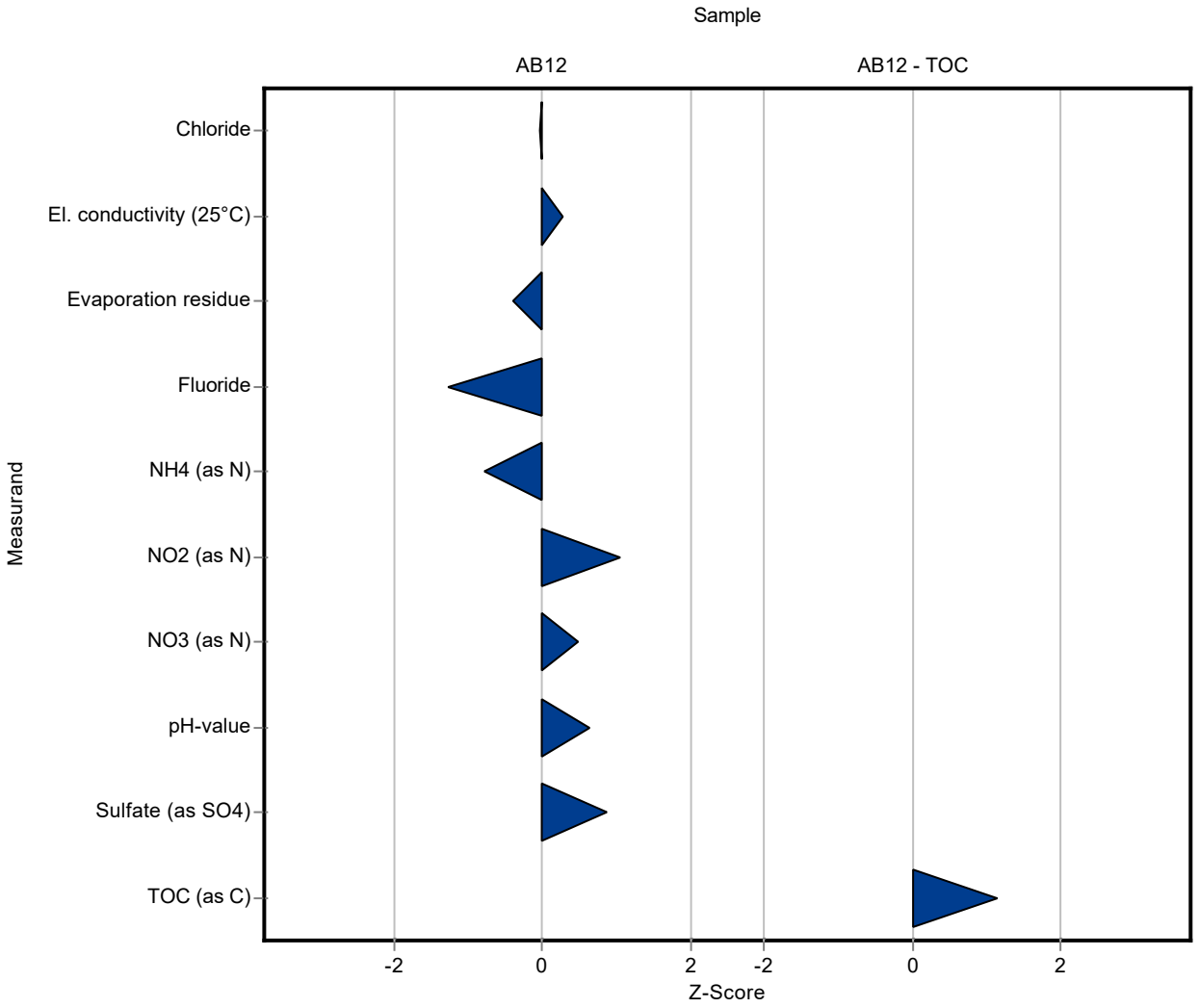
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1520 ± 113	76.1	99.9	-0.02
El. conductivity (25°C)	mS/m	510 ± 4.26	513 ± 3	10.2	101	0.27
Evaporation residue	mg/l	3750 ± 258	3480 ± 20	674	92.9	-0.39
Fluoride	mg/l	0.304 ± 0.0494	0.168 ± 0.01	0.107	55.2	-1.28
NH4 (as N)	mg/l	0.329 ± 0.0105	0.308 ± 0.031	0.027	93.6	-0.78
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.035 ± 0.002	0.00273	109	1.04
NO3 (as N)	mg/l	2.3 ± 0.0615	2.37 ± 0.08	0.138	103	0.48
pH-value		7.92 ± 0.0475	8.02 ± 0.04	0.158	101	0.63
PO4 (as P)	mg/l	- ± -	0.094 ± 0.006	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	121 ± 7	5.8	104	0.86

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.73 ± 0.15	0.98	108	1.14

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0007



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0007

Sample: AB12

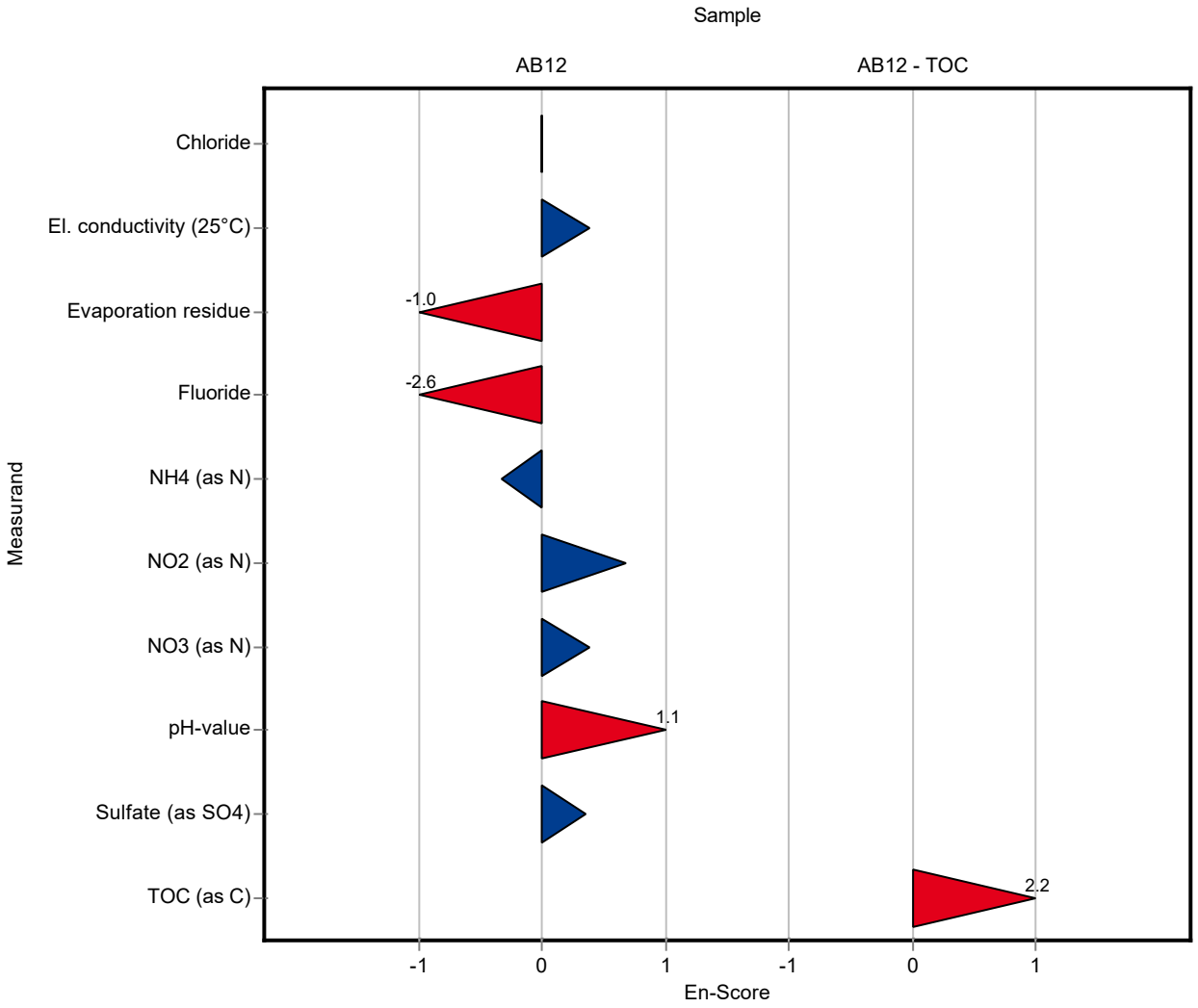
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1520 ± 113	76.1	99.9	-0.01
El. conductivity (25°C)	mS/m	510 ± 4.26	513 ± 3	10.2	101	0.38
Evaporation residue	mg/l	3750 ± 258	3480 ± 20	674	92.9	-1.02
Fluoride	mg/l	0.304 ± 0.0494	0.168 ± 0.01	0.107	55.2	-2.56
NH4 (as N)	mg/l	0.329 ± 0.0105	0.308 ± 0.031	0.027	93.6	-0.33
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.035 ± 0.002	0.00273	109	0.68
NO3 (as N)	mg/l	2.3 ± 0.0615	2.37 ± 0.08	0.138	103	0.38
pH-value		7.92 ± 0.0475	8.02 ± 0.04	0.158	101	1.08
PO4 (as P)	mg/l	- ± -	0.094 ± 0.006	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	121 ± 7	5.8	104	0.35

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.73 ± 0.15	0.98	108	2.23

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0007



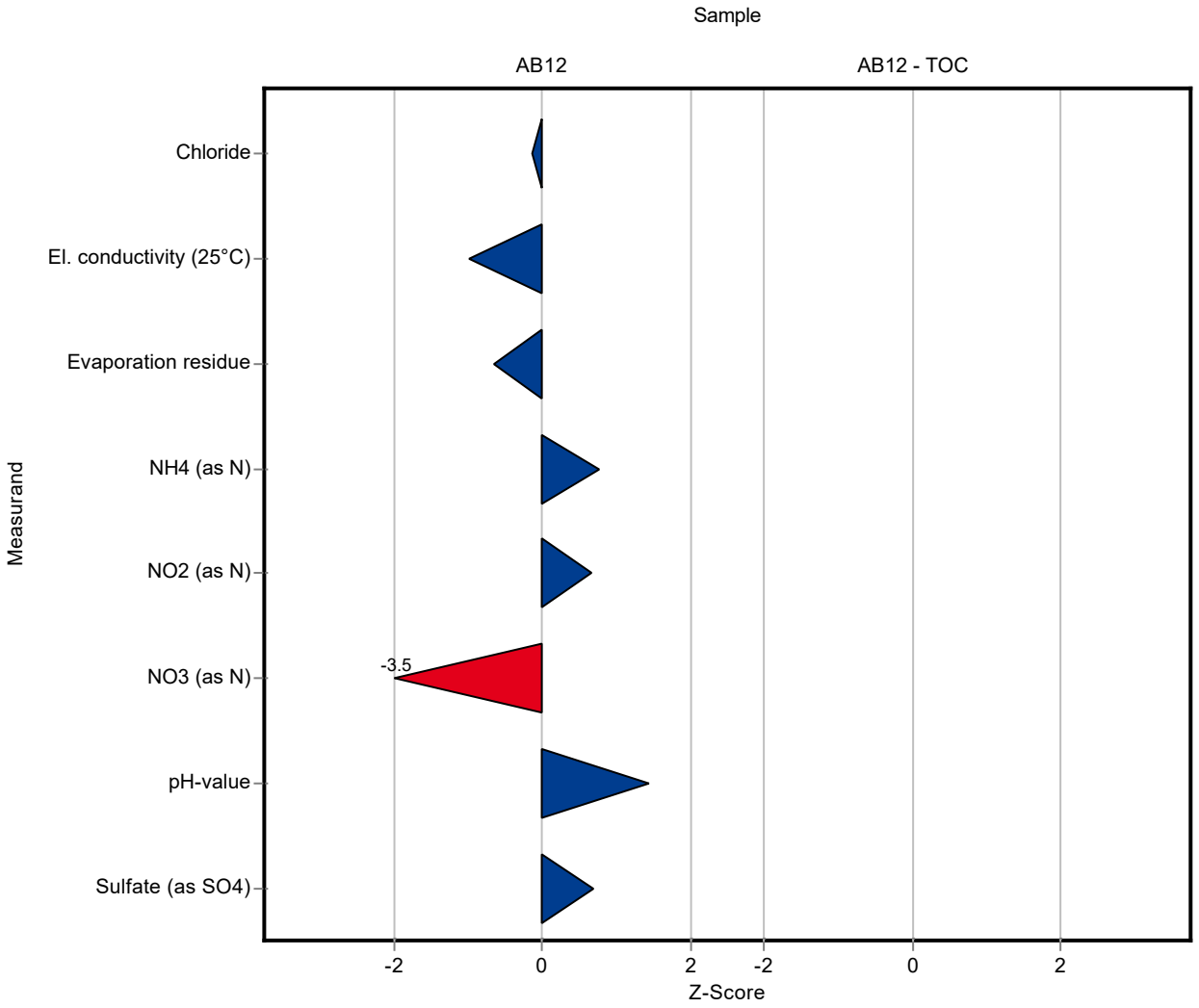
Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0008

Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1512 ± 85	76.1	99.4	-0.13
El. conductivity (25°C)	mS/m	510 ± 4.26	500 ± 30	10.2	98	-1.00
Evaporation residue	mg/l	3750 ± 258	3306 ± 132	674	88.3	-0.65
Fluoride	mg/l	0.304 ± 0.0494	<0.5 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.35 ± 0.13	0.027	106	0.78
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.034 ± 0.013	0.00273	106	0.68
NO3 (as N)	mg/l	2.3 ± 0.0615	1.82 ± 0.072	0.138	79	-3.50
pH-value		7.92 ± 0.0475	8.15 ± 0.33	0.158	103	1.45
PO4 (as P)	mg/l	- ± -	<0.015 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	120 ± 8.4	5.8	103	0.69

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	- ± -	0.98	-	-


Sample
AB12
AB12 - TOC
Chloride
El. conductivity (25°C)
Evaporation residue
NH4 (as N)
NO2 (as N)
NO3 (as N)
pH-value
Sulfate (as SO4)
Measurand
-3.5
-2
0
2
-2
0
2
Z-Score

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0008

Sample: AB12

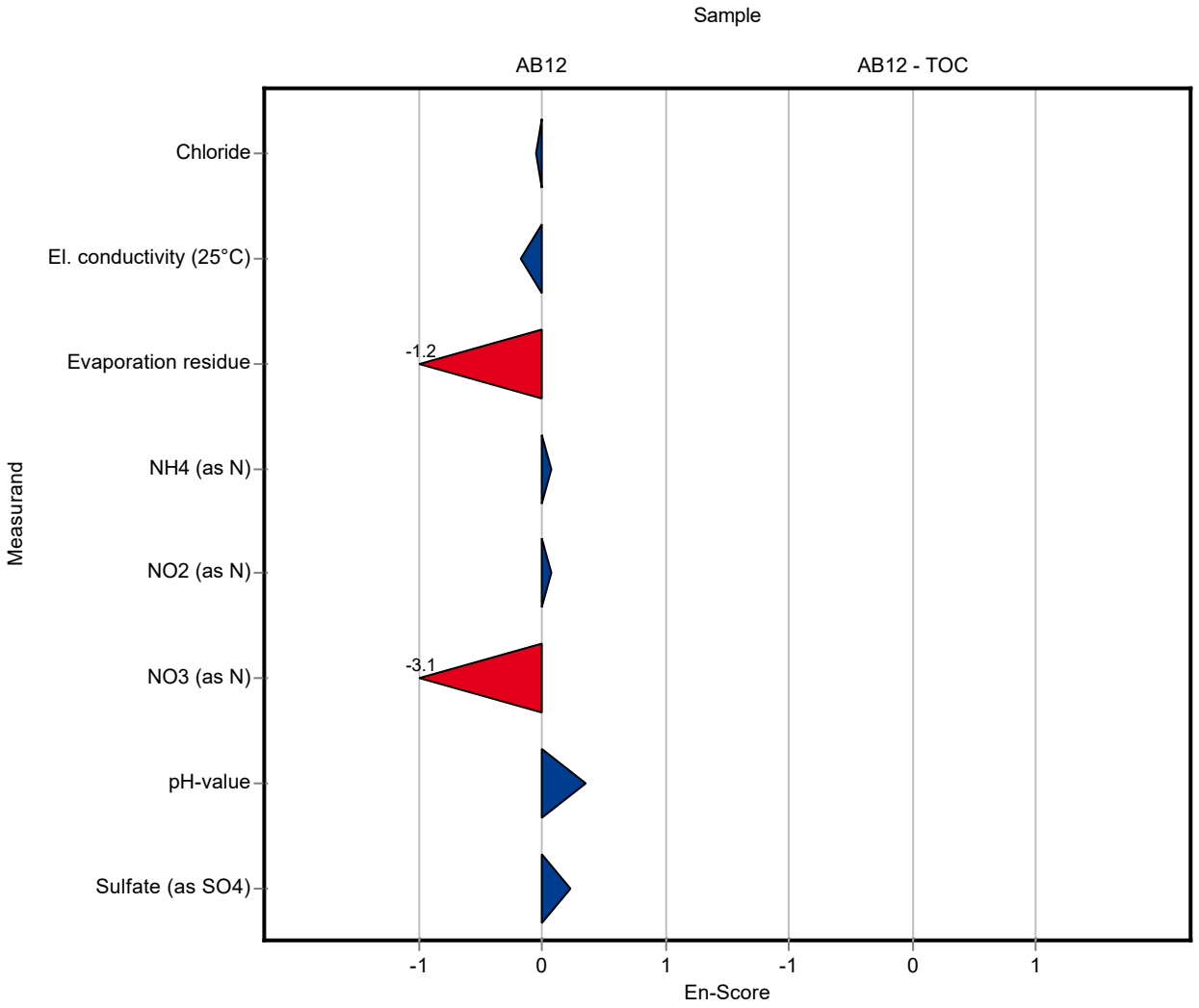
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1512 ± 85	76.1	99.4	-0.06
El. conductivity (25°C)	mS/m	510 ± 4.26	500 ± 30	10.2	98	-0.17
Evaporation residue	mg/l	3750 ± 258	3306 ± 132	674	88.3	-1.19
Fluoride	mg/l	0.304 ± 0.0494	<0.5 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.35 ± 0.13	0.027	106	0.08
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.034 ± 0.013	0.00273	106	0.07
NO3 (as N)	mg/l	2.3 ± 0.0615	1.82 ± 0.072	0.138	79	-3.09
pH-value		7.92 ± 0.0475	8.15 ± 0.33	0.158	103	0.35
PO4 (as P)	mg/l	- ± -	<0.015 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	120 ± 8.4	5.8	103	0.24

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	- ± -	0.98	-	-

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0008



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0009

Sample: AB12

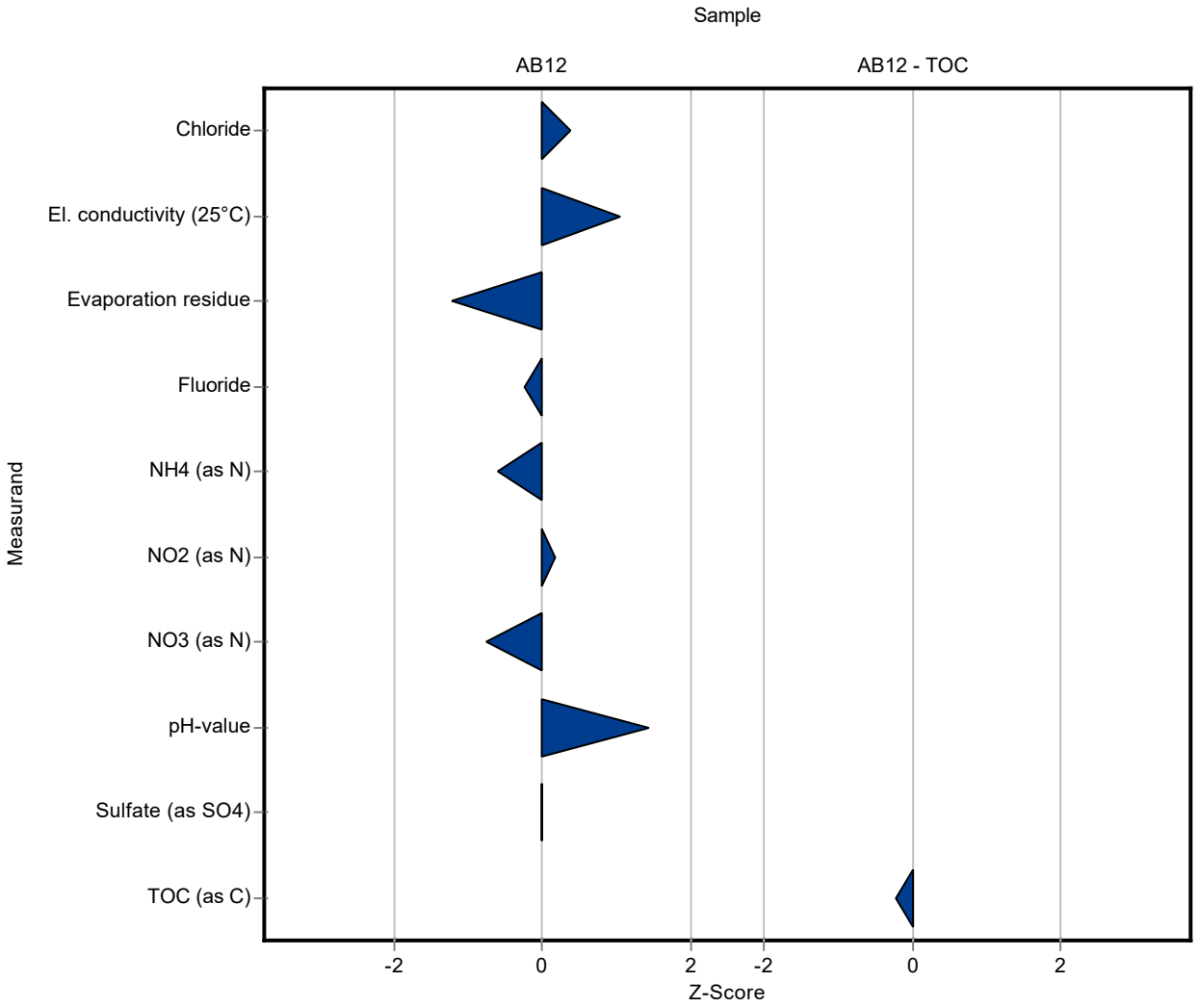
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1551 ± 155	76.1	102	0.38
El. conductivity (25°C)	mS/m	510 ± 4.26	521 ± 52	10.2	102	1.06
Evaporation residue	mg/l	3750 ± 258	2924 ± 292	674	78.1	-1.22
Fluoride	mg/l	0.304 ± 0.0494	0.28 ± 0.03	0.107	92	-0.23
NH4 (as N)	mg/l	0.329 ± 0.0105	0.313 ± 0.03	0.027	95.1	-0.60
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0326 ± 0.003	0.00273	101	0.17
NO3 (as N)	mg/l	2.3 ± 0.0615	2.2 ± 0.2	0.138	95.5	-0.75
pH-value		7.92 ± 0.0475	8.15 ± 0.4	0.158	103	1.45
PO4 (as P)	mg/l	- ± -	<0.01 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	116 ± 12	5.8	100	0.00

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.4 ± 1	0.98	98.4	-0.22

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0009



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0009

Sample: AB12

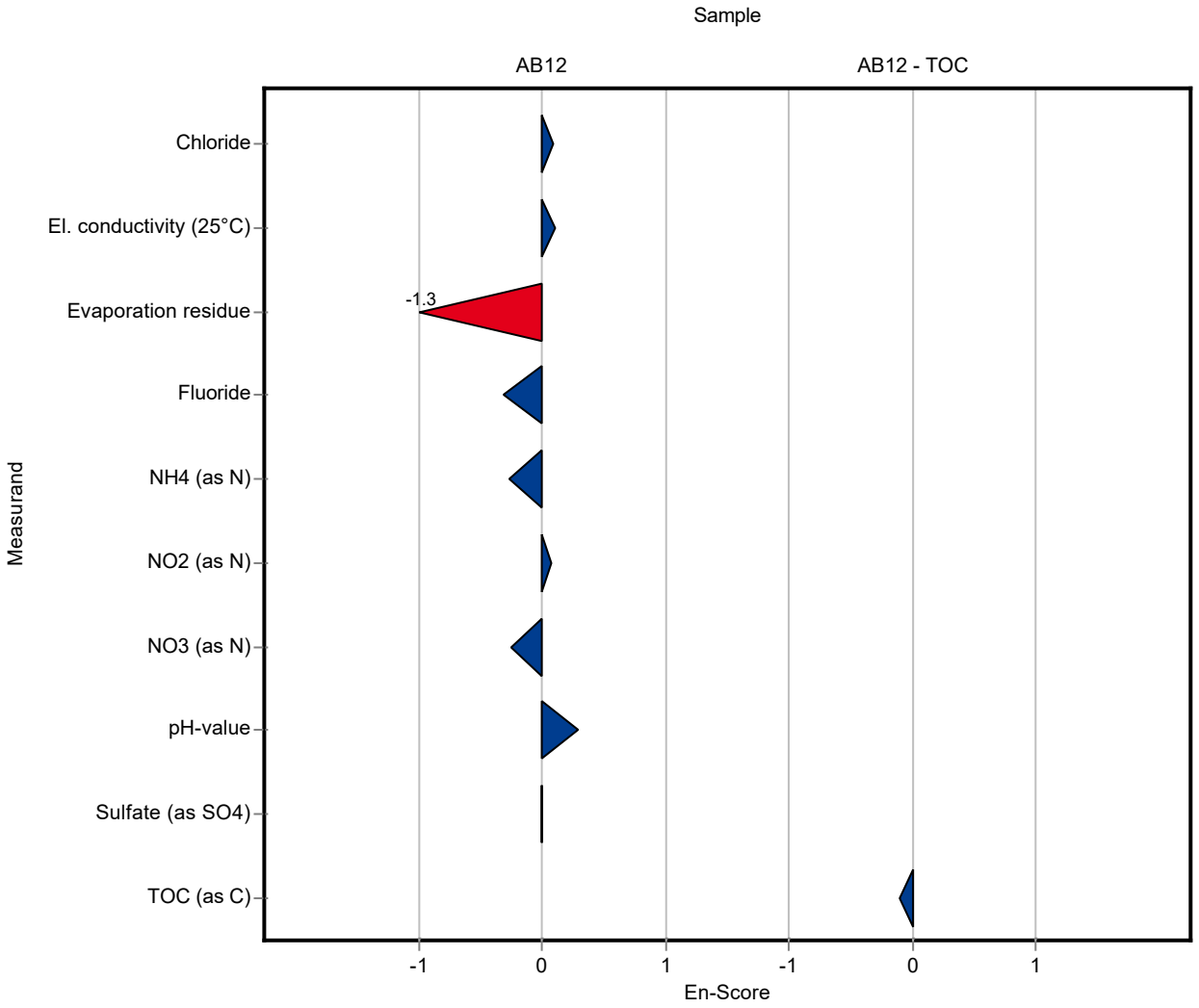
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1551 ± 155	76.1	102	0.09
El. conductivity (25°C)	mS/m	510 ± 4.26	521 ± 52	10.2	102	0.10
Evaporation residue	mg/l	3750 ± 258	2924 ± 292	674	78.1	-1.29
Fluoride	mg/l	0.304 ± 0.0494	0.28 ± 0.03	0.107	92	-0.31
NH4 (as N)	mg/l	0.329 ± 0.0105	0.313 ± 0.03	0.027	95.1	-0.26
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0326 ± 0.003	0.00273	101	0.07
NO3 (as N)	mg/l	2.3 ± 0.0615	2.2 ± 0.2	0.138	95.5	-0.26
pH-value		7.92 ± 0.0475	8.15 ± 0.4	0.158	103	0.29
PO4 (as P)	mg/l	- ± -	<0.01 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	116 ± 12	5.8	100	0.00

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.4 ± 1	0.98	98.4	-0.11

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0009



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0010

Sample: AB12

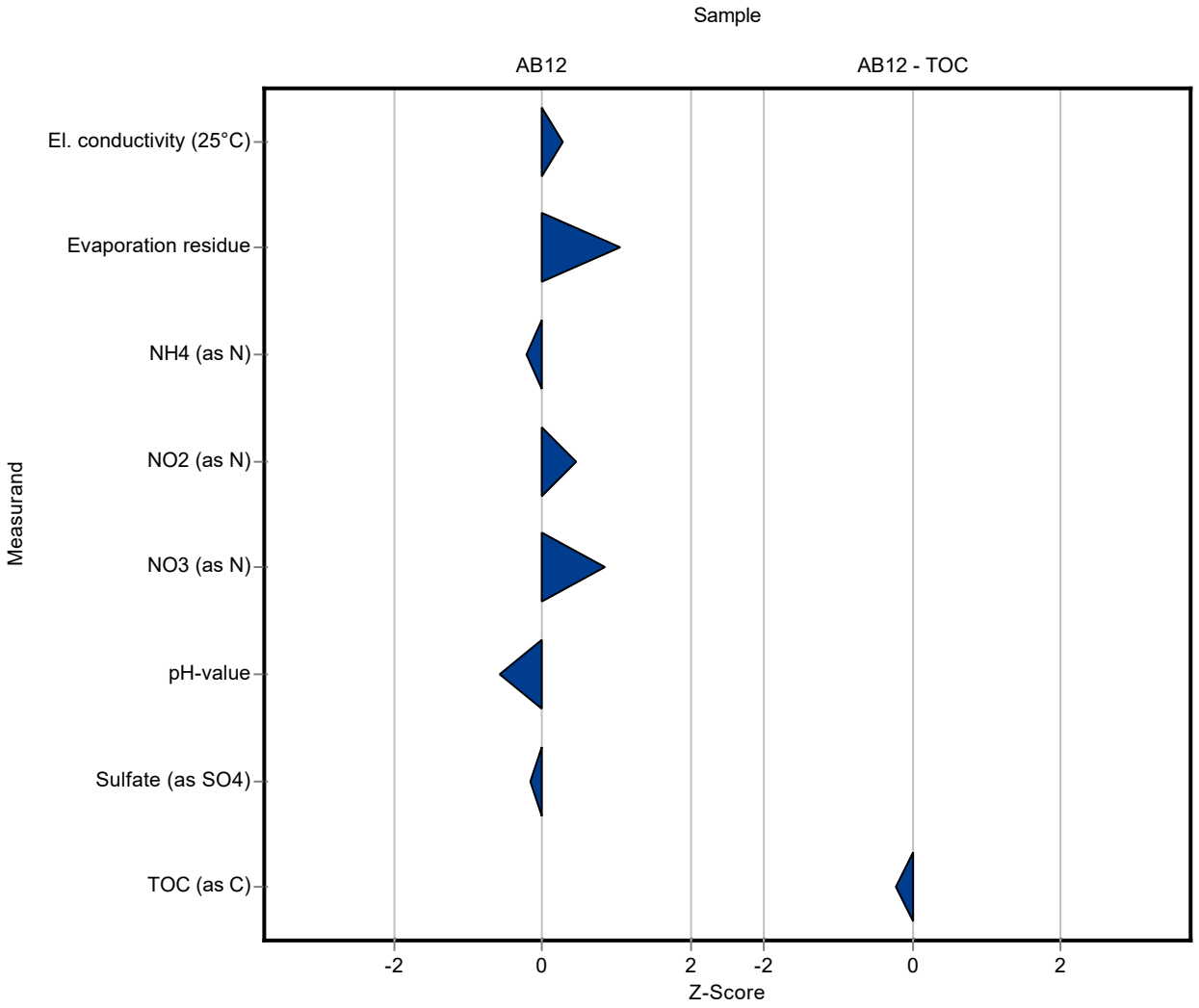
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	- ± -	76.1	-	-
El. conductivity (25°C)	mS/m	510 ± 4.26	513 ± 206	10.2	101	0.27
Evaporation residue	mg/l	3750 ± 258	4453 ± 1920	674	119	1.05
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.323 ± 0.144	0.027	98.2	-0.22
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0334 ± 0.0148	0.00273	104	0.46
NO3 (as N)	mg/l	2.3 ± 0.0615	2.42 ± 1.1	0.138	105	0.84
pH-value		7.92 ± 0.0475	7.83 ± 0.2	0.158	98.9	-0.57
PO4 (as P)	mg/l	- ± -	0.108 ± 0.048	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	115 ± 51	5.8	99.1	-0.17

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.4 ± 6	0.98	98.4	-0.22

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0010



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0010

Sample: AB12

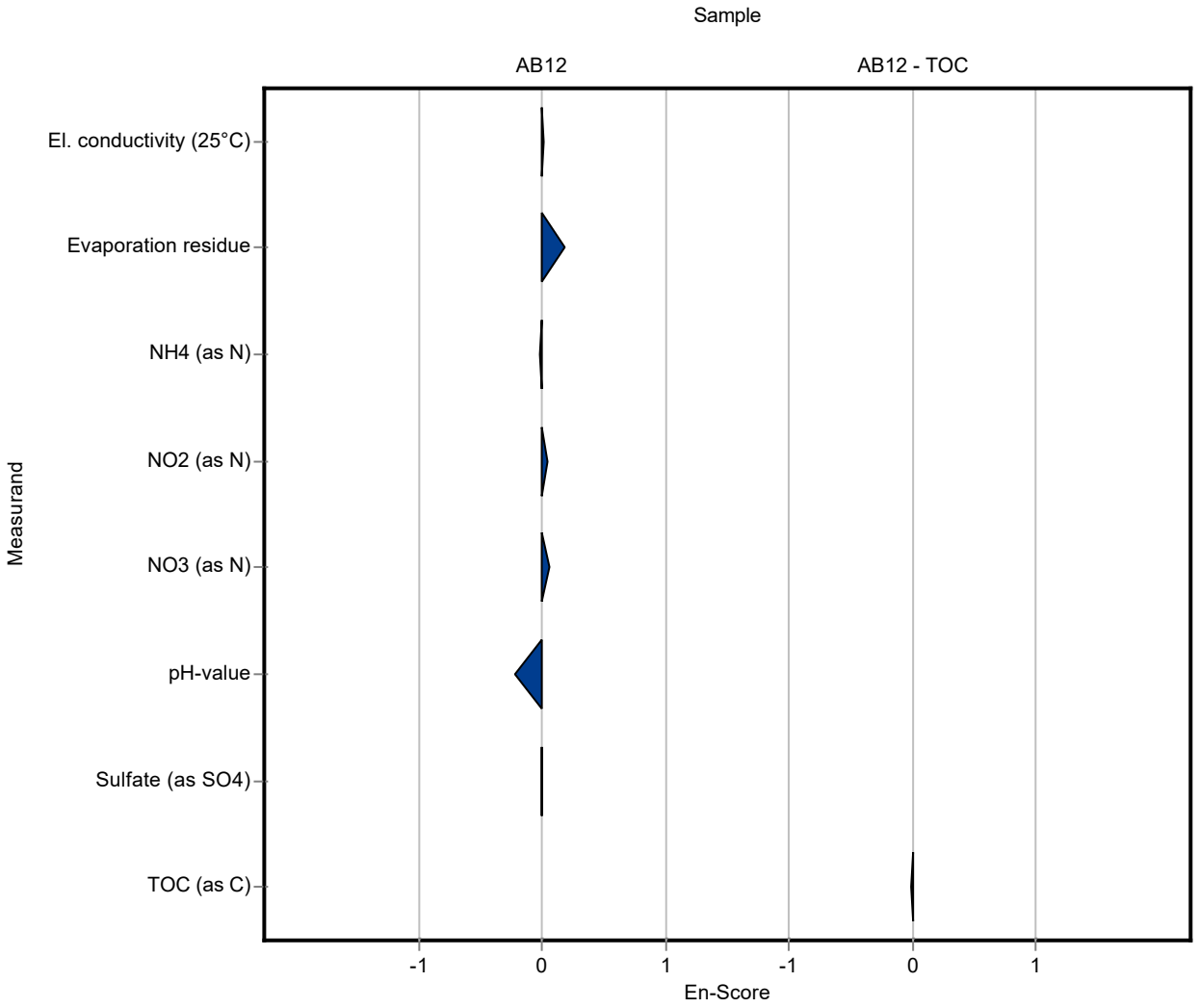
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	- ± -	76.1	-	-
El. conductivity (25°C)	mS/m	510 ± 4.26	513 ± 206	10.2	101	0.01
Evaporation residue	mg/l	3750 ± 258	4453 ± 1920	674	119	0.18
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.323 ± 0.144	0.027	98.2	-0.02
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0334 ± 0.0148	0.00273	104	0.04
NO3 (as N)	mg/l	2.3 ± 0.0615	2.42 ± 1.1	0.138	105	0.05
pH-value		7.92 ± 0.0475	7.83 ± 0.2	0.158	98.9	-0.22
PO4 (as P)	mg/l	- ± -	0.108 ± 0.048	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	115 ± 51	5.8	99.1	-0.01

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.4 ± 6	0.98	98.4	-0.02

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0010



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0011

Sample: AB12

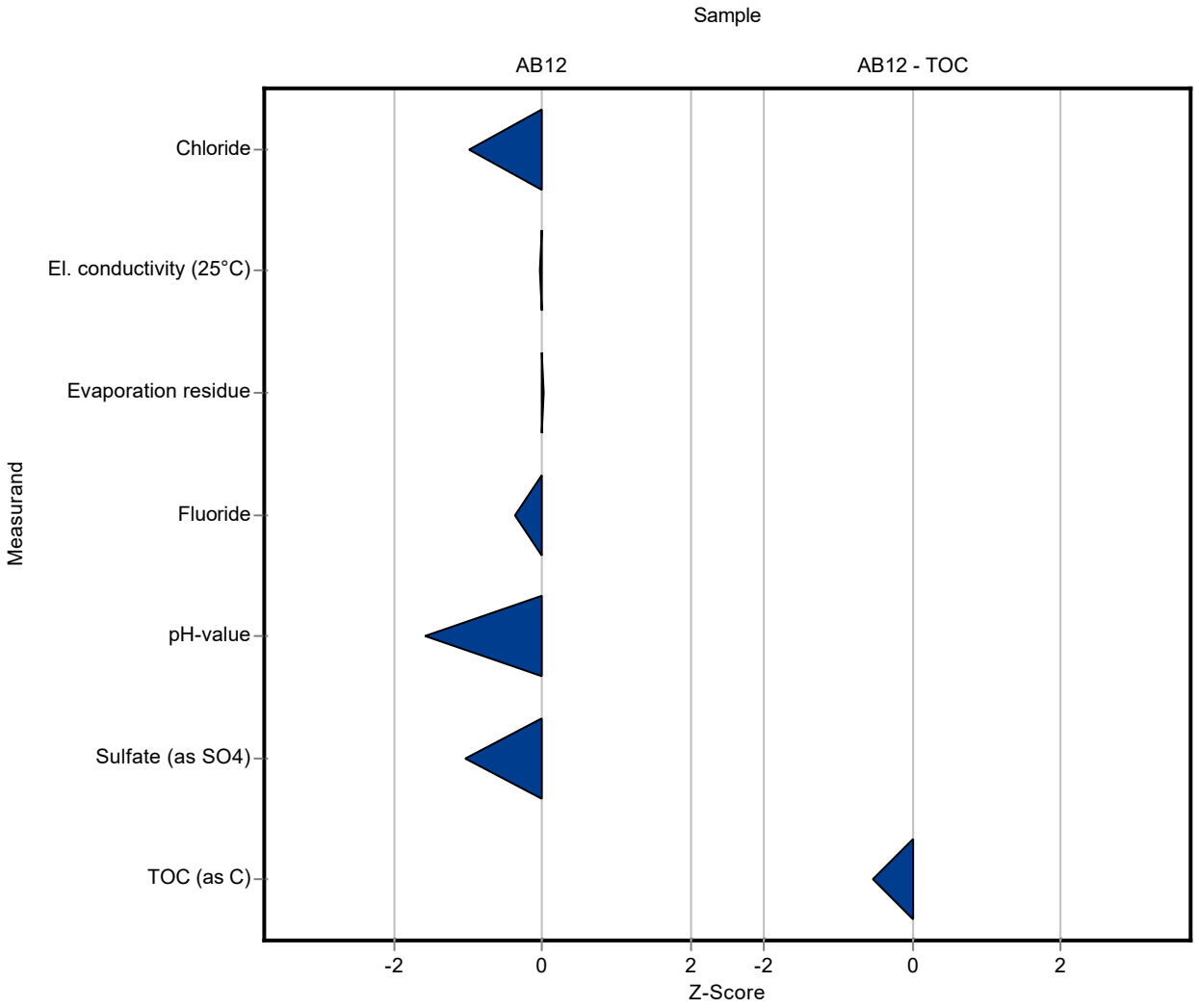
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1447 ± 45	76.1	95.1	-0.98
El. conductivity (25°C)	mS/m	510 ± 4.26	510 ± 2.7	10.2	100	-0.02
Evaporation residue	mg/l	3750 ± 258	3757 ± 420	674	100	0.02
Fluoride	mg/l	0.304 ± 0.0494	0.265 ± 0.045	0.107	87.1	-0.37
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	7.67 ± 0.25	0.158	96.8	-1.58
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	110 ± 6.2	5.8	94.8	-1.03

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.1 ± 2	0.98	96.2	-0.53

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0011



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0011

Sample: AB12

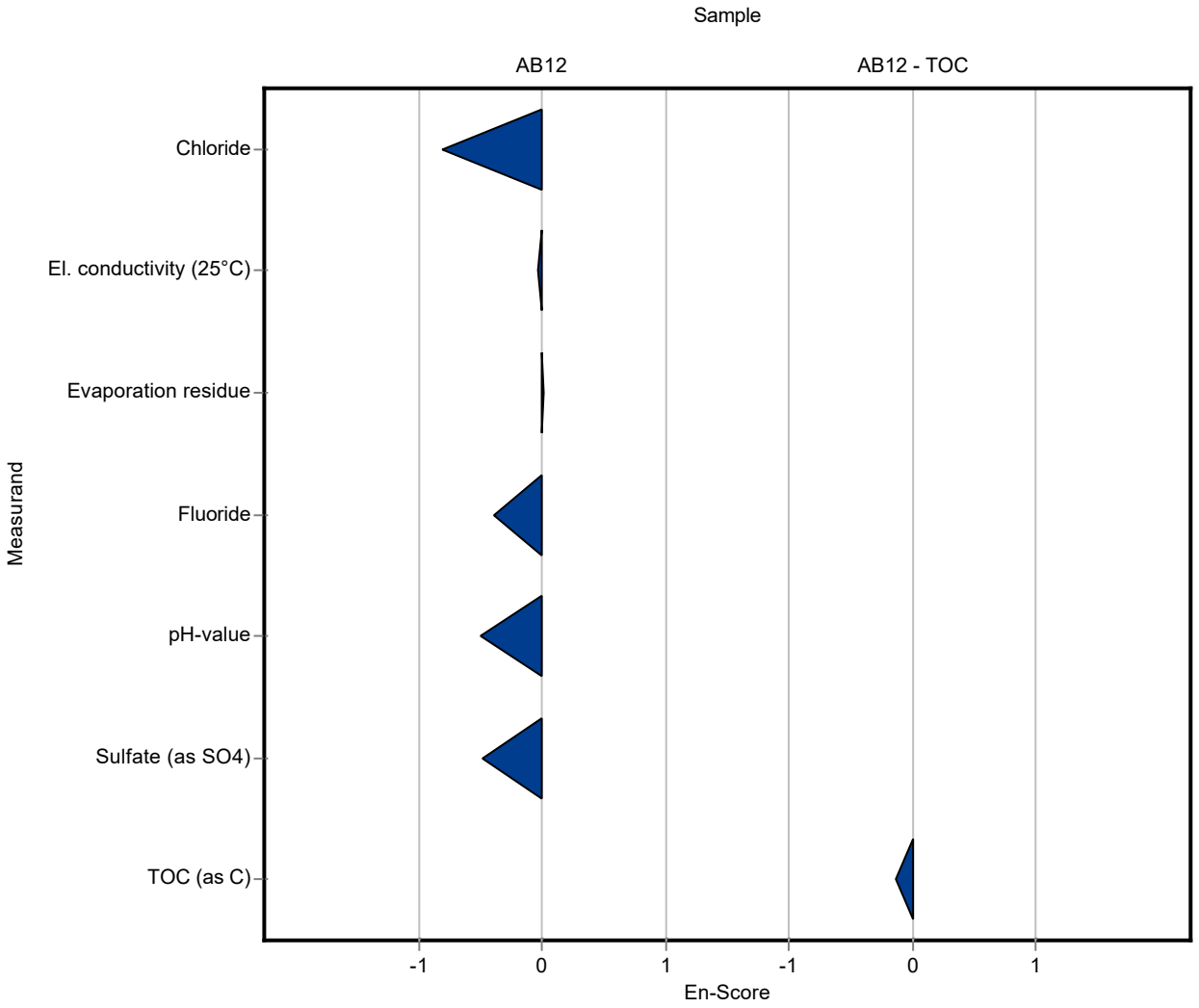
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1447 ± 45	76.1	95.1	-0.81
El. conductivity (25°C)	mS/m	510 ± 4.26	510 ± 2.7	10.2	100	-0.03
Evaporation residue	mg/l	3750 ± 258	3757 ± 420	674	100	0.01
Fluoride	mg/l	0.304 ± 0.0494	0.265 ± 0.045	0.107	87.1	-0.38
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	7.67 ± 0.25	0.158	96.8	-0.50
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	110 ± 6.2	5.8	94.8	-0.48

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.1 ± 2	0.98	96.2	-0.13

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0011



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0012

Sample: AB12

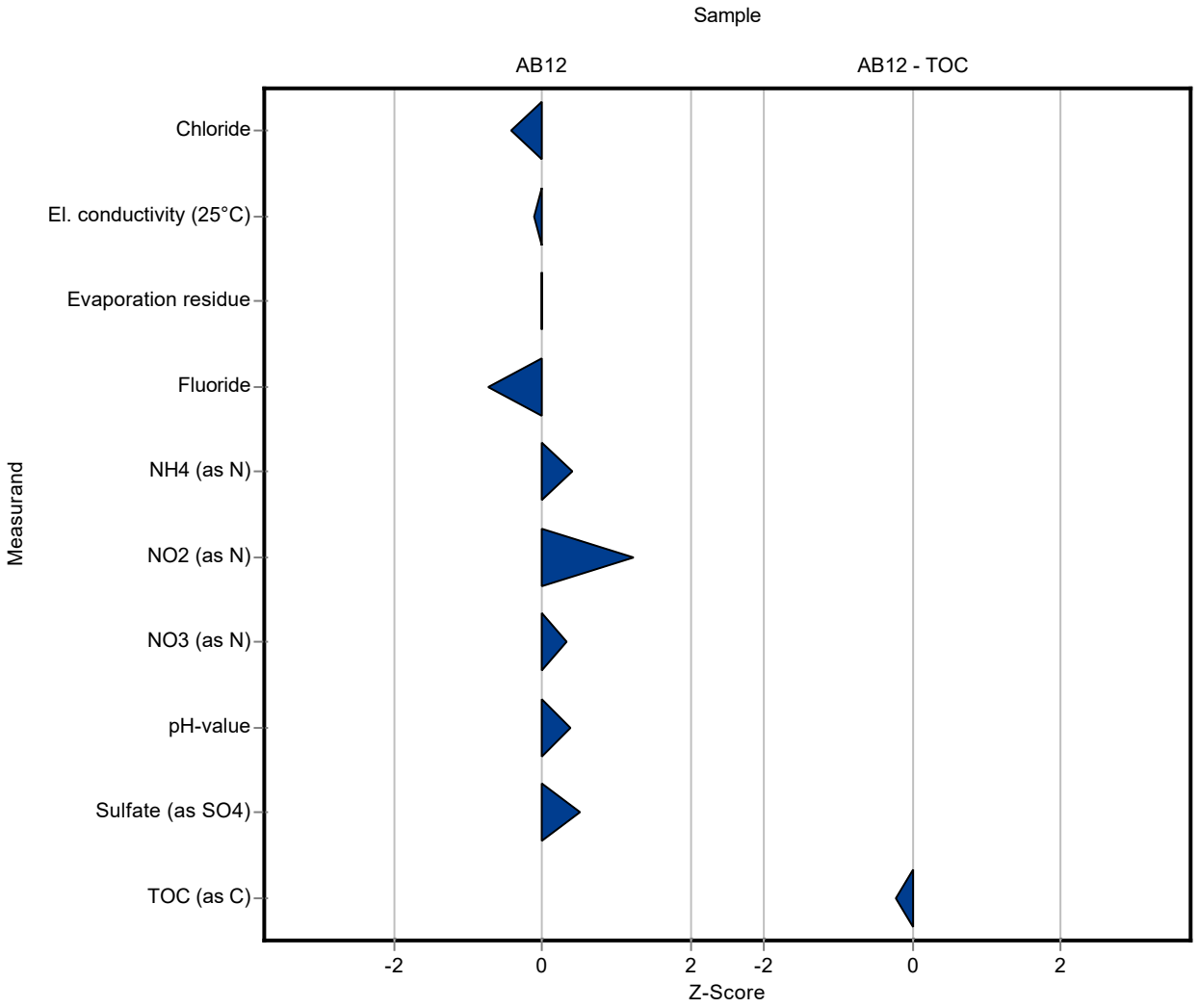
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1490 ± 197.3	76.1	97.9	-0.42
El. conductivity (25°C)	mS/m	510 ± 4.26	509.2 ± 4.837	10.2	99.8	-0.10
Evaporation residue	mg/l	3750 ± 258	3740 ± 40.01	674	99.9	-0.01
Fluoride	mg/l	0.304 ± 0.0494	0.228 ± 0.0129	0.107	74.9	-0.72
NH4 (as N)	mg/l	0.329 ± 0.0105	0.34 ± 0.0399	0.027	103	0.41
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0355 ± 0.00368	0.00273	110	1.23
NO3 (as N)	mg/l	2.3 ± 0.0615	2.35 ± 0.052	0.138	102	0.33
pH-value		7.92 ± 0.0475	7.981 ± 0.036	0.158	101	0.39
PO4 (as P)	mg/l	- ± -	0.09 ± 0.004	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	119 ± 2.47	5.8	103	0.52

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.4 ± 0.52	0.98	98.4	-0.22

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0012



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0012

Sample: AB12

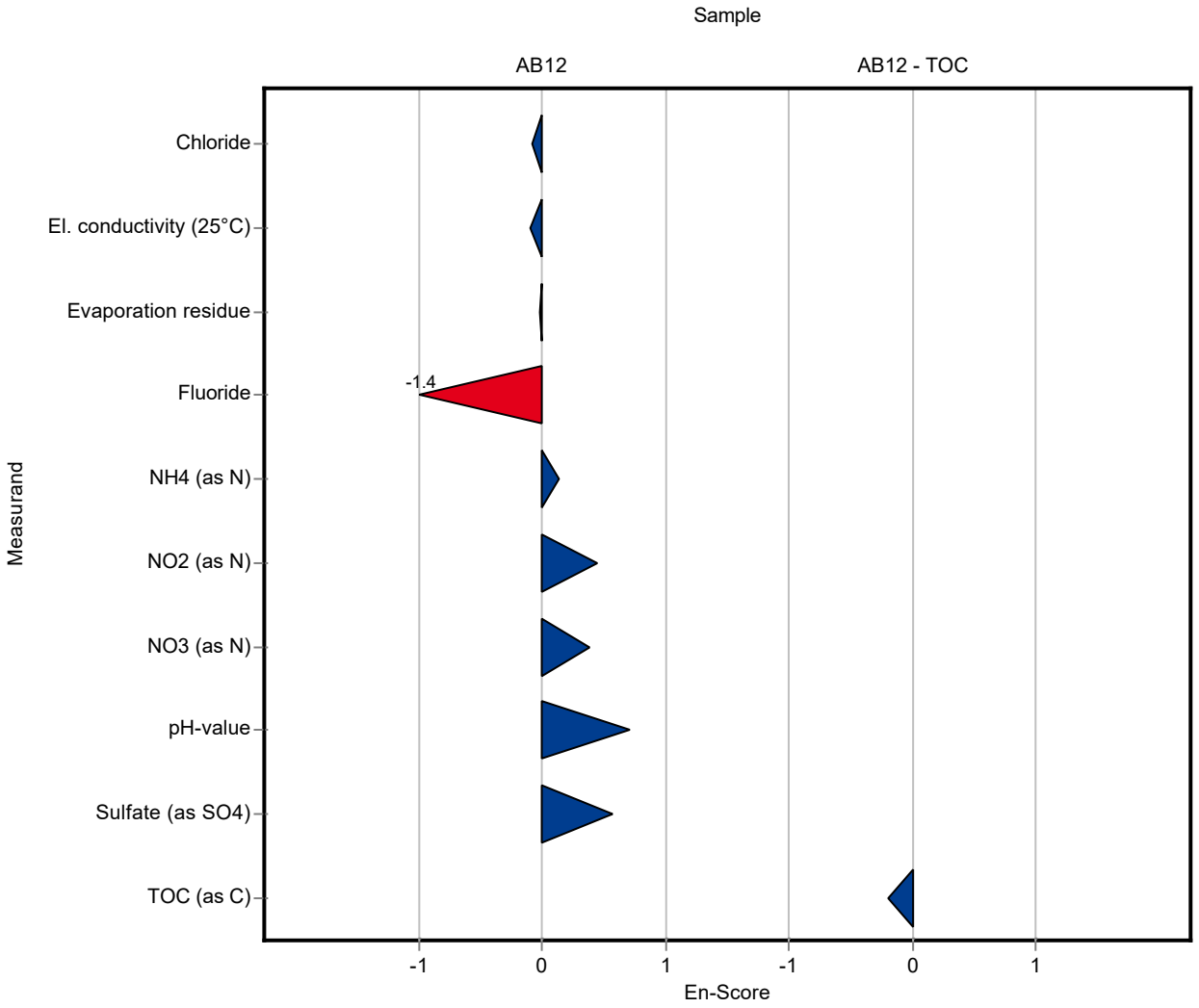
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1490 ± 197.3	76.1	97.9	-0.08
El. conductivity (25°C)	mS/m	510 ± 4.26	509.2 ± 4.837	10.2	99.8	-0.09
Evaporation residue	mg/l	3750 ± 258	3740 ± 40.01	674	99.9	-0.02
Fluoride	mg/l	0.304 ± 0.0494	0.228 ± 0.0129	0.107	74.9	-1.37
NH4 (as N)	mg/l	0.329 ± 0.0105	0.34 ± 0.0399	0.027	103	0.14
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0355 ± 0.00368	0.00273	110	0.45
NO3 (as N)	mg/l	2.3 ± 0.0615	2.35 ± 0.052	0.138	102	0.38
pH-value		7.92 ± 0.0475	7.981 ± 0.036	0.158	101	0.71
PO4 (as P)	mg/l	- ± -	0.09 ± 0.004	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	119 ± 2.47	5.8	103	0.57

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.4 ± 0.52	0.98	98.4	-0.19

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0012



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0013

Sample: AB12

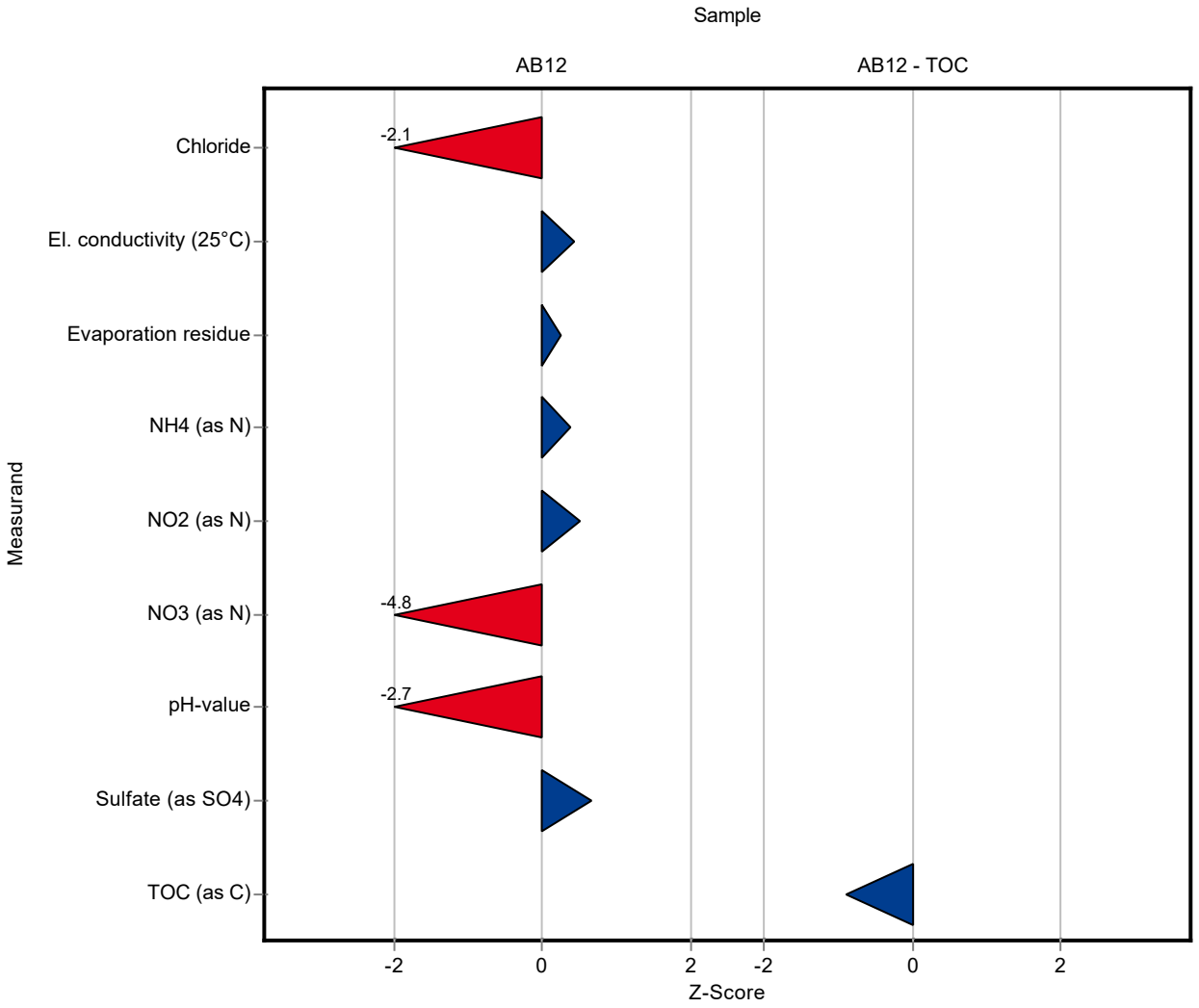
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1365 ± 96	76.1	89.7	-2.06
El. conductivity (25°C)	mS/m	510 ± 4.26	514.5 ± 0.5	10.2	101	0.42
Evaporation residue	mg/l	3750 ± 258	3914 ± 5	674	104	0.25
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3392 ± 0.005	0.027	103	0.38
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03355 ± 0.0005	0.00273	104	0.51
NO3 (as N)	mg/l	2.3 ± 0.0615	1.6451 ± 0.02	0.138	71.4	-4.77
pH-value		7.92 ± 0.0475	7.49 ± 0.05	0.158	94.6	-2.71
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	119.9 ± 8.4	5.8	103	0.67

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	12.73 ± 0.1	0.98	93.5	-0.90

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0013



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0013

Sample: AB12

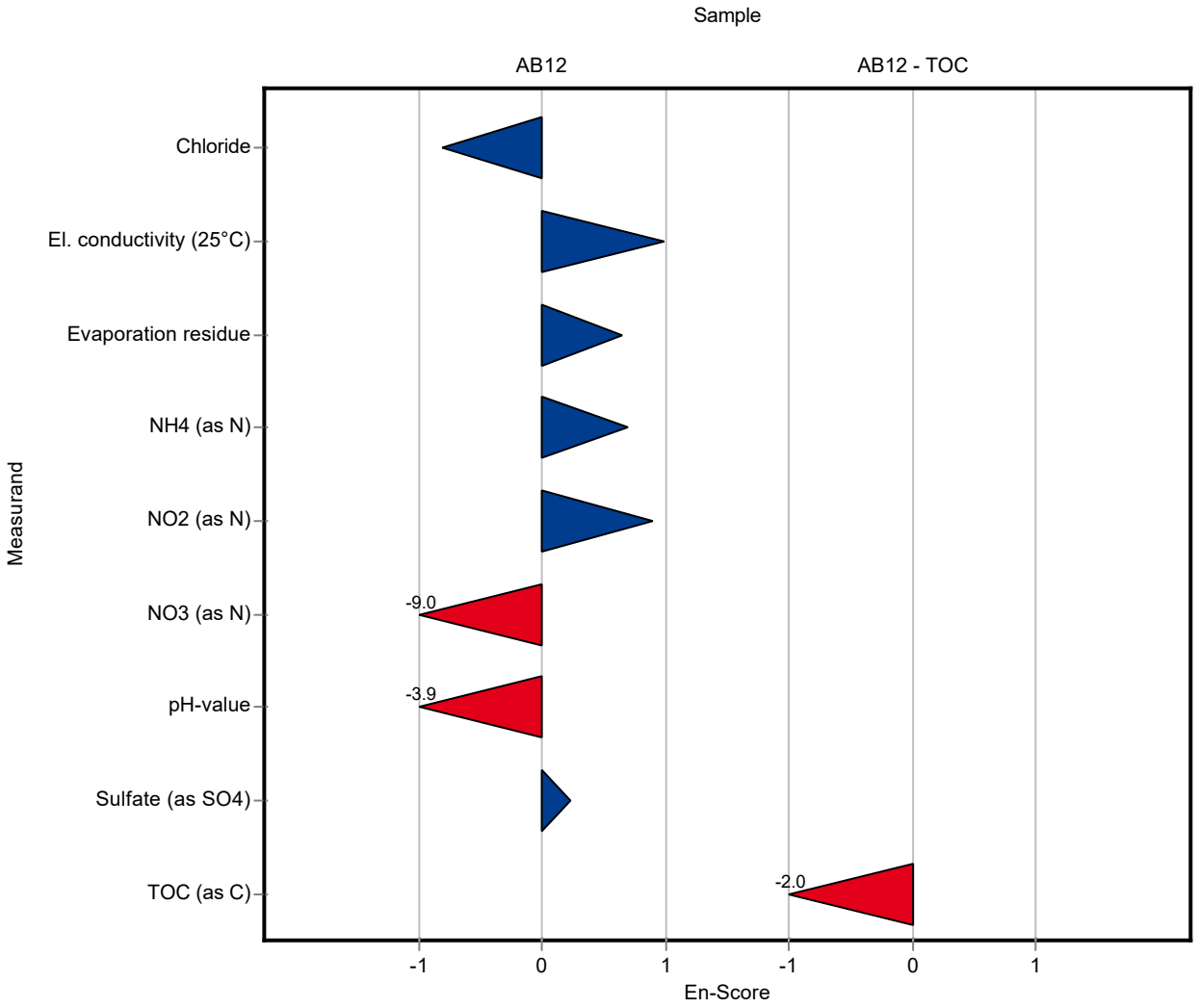
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1365 ± 96	76.1	89.7	-0.81
El. conductivity (25°C)	mS/m	510 ± 4.26	514.5 ± 0.5	10.2	101	0.98
Evaporation residue	mg/l	3750 ± 258	3914 ± 5	674	104	0.65
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3392 ± 0.005	0.027	103	0.70
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03355 ± 0.0005	0.00273	104	0.89
NO3 (as N)	mg/l	2.3 ± 0.0615	1.6451 ± 0.02	0.138	71.4	-8.98
pH-value		7.92 ± 0.0475	7.49 ± 0.05	0.158	94.6	-3.88
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	119.9 ± 8.4	5.8	103	0.23

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	12.73 ± 0.1	0.98	93.5	-1.99

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0013



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0014

Sample: AB12

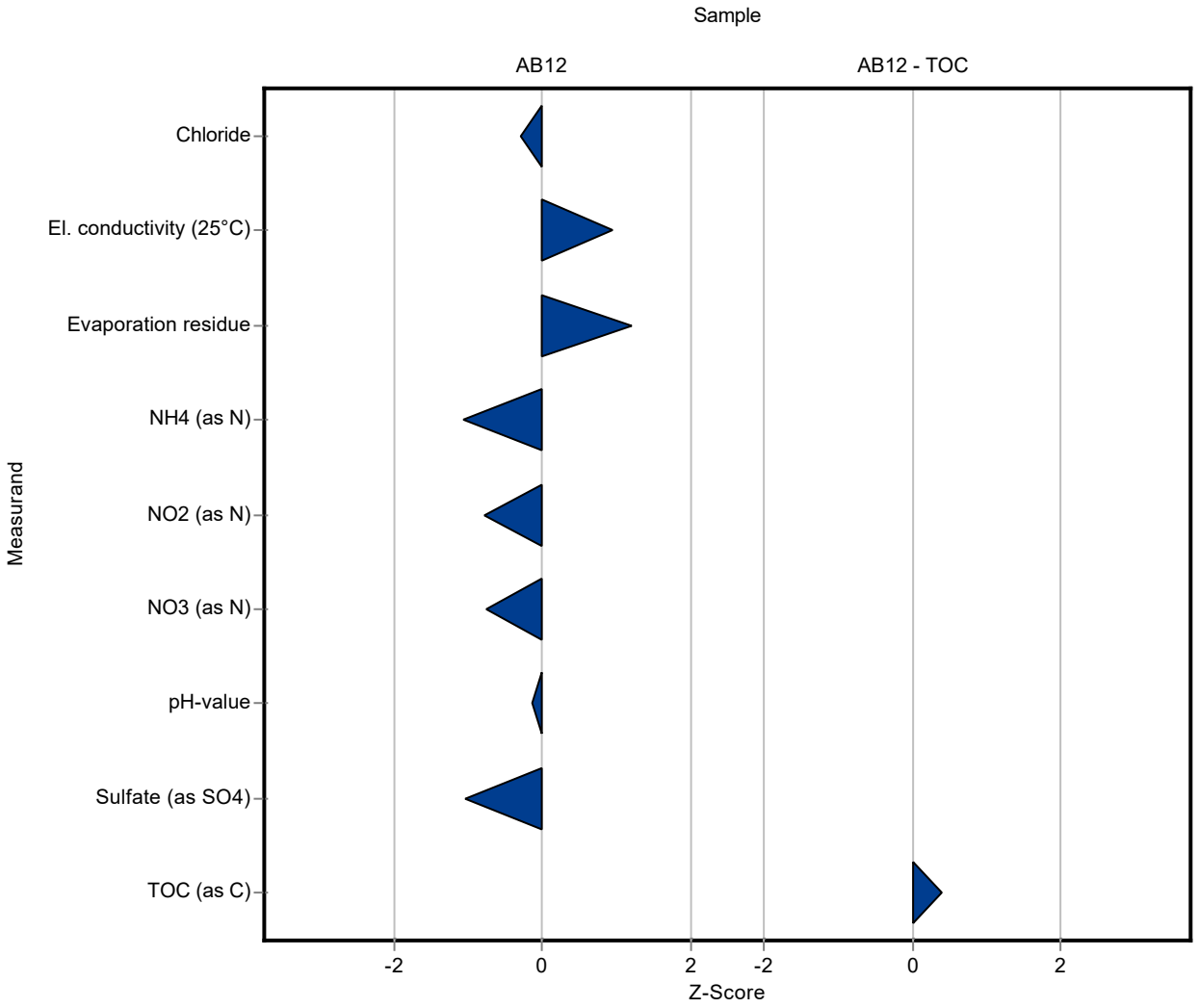
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1500 ± 69	76.1	98.6	-0.29
El. conductivity (25°C)	mS/m	510 ± 4.26	520 ± 1.8	10.2	102	0.96
Evaporation residue	mg/l	3750 ± 258	4560 ± 33.7	674	122	1.21
Fluoride	mg/l	0.304 ± 0.0494	<0.1 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3 ± 0.067	0.027	91.2	-1.08
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.0055	0.00273	93.3	-0.79
NO3 (as N)	mg/l	2.3 ± 0.0615	2.2 ± 0.099	0.138	95.5	-0.75
pH-value		7.92 ± 0.0475	7.9 ± 0.046	0.158	99.7	-0.13
PO4 (as P)	mg/l	- ± -	0.006 ± 0.0011	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	110 ± 6.2	5.8	94.8	-1.03

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14 ± 3	0.98	103	0.39

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0014



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0014

Sample: AB12

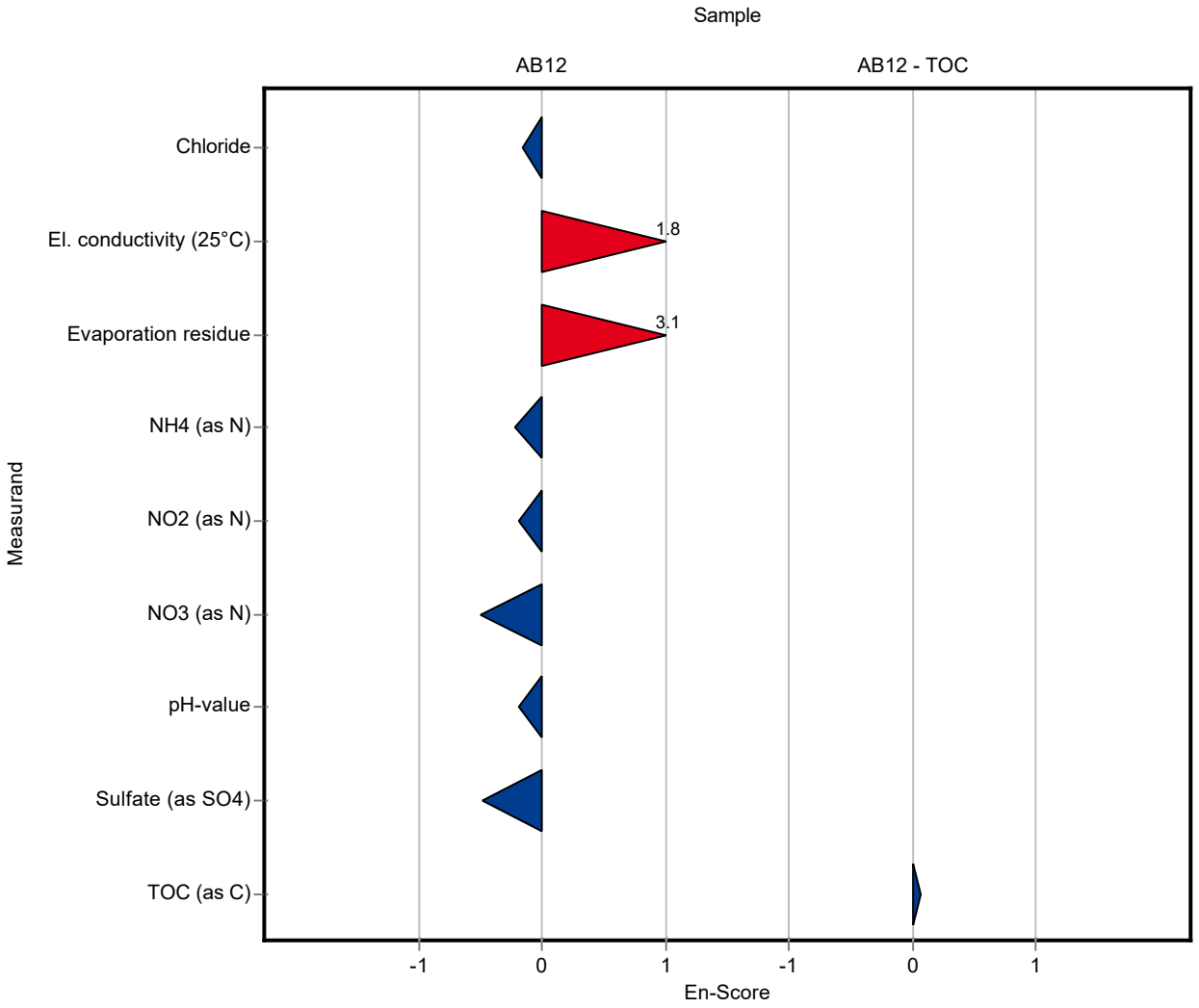
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1500 ± 69	76.1	98.6	-0.16
El. conductivity (25°C)	mS/m	510 ± 4.26	520 ± 1.8	10.2	102	1.76
Evaporation residue	mg/l	3750 ± 258	4560 ± 33.7	674	122	3.05
Fluoride	mg/l	0.304 ± 0.0494	<0.1 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3 ± 0.067	0.027	91.2	-0.22
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.0055	0.00273	93.3	-0.19
NO3 (as N)	mg/l	2.3 ± 0.0615	2.2 ± 0.099	0.138	95.5	-0.50
pH-value		7.92 ± 0.0475	7.9 ± 0.046	0.158	99.7	-0.19
PO4 (as P)	mg/l	- ± -	0.006 ± 0.0011	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	110 ± 6.2	5.8	94.8	-0.48

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14 ± 3	0.98	103	0.06

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0014



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0015

Sample: AB12

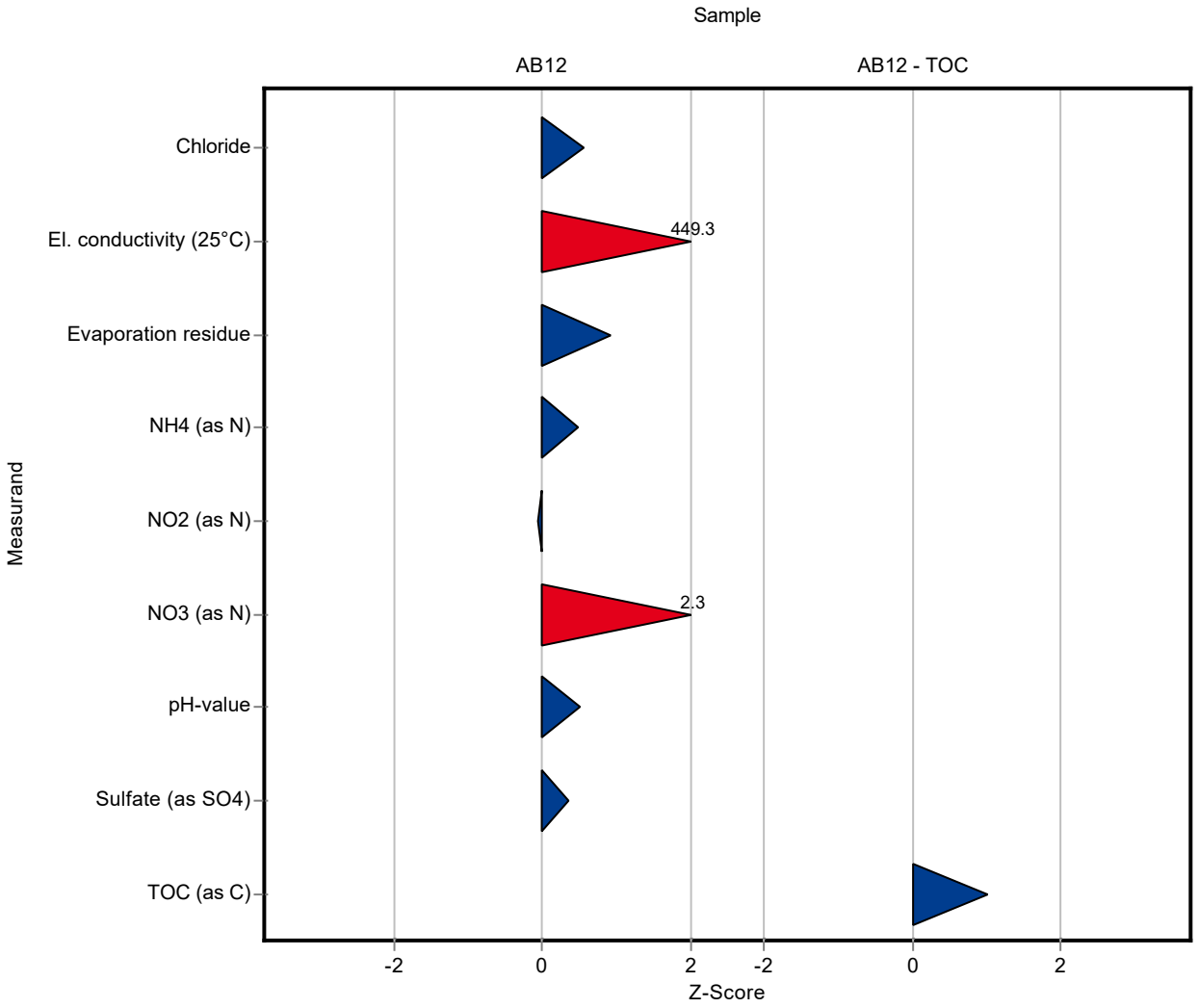
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1565 ± 110	76.1	103	0.57
El. conductivity (25°C)	mS/m	510 ± 4.26	5100 ± 76	10.2	1000	449.28
Evaporation residue	mg/l	3750 ± 258	4365 ± 349	674	117	0.92
Fluoride	mg/l	0.304 ± 0.0494	<0.5 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.342 ± 0.034	0.027	104	0.48
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.032 ± 0.003	0.00273	99.5	-0.05
NO3 (as N)	mg/l	2.3 ± 0.0615	2.62 ± 0.19	0.138	114	2.28
pH-value		7.92 ± 0.0475	8 ± 0.16	0.158	101	0.51
PO4 (as P)	mg/l	- ± -	0.1 ± 0.009	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	118 ± 9.4	5.8	102	0.35

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.6 ± 1.46	0.98	107	1.00

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0015



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0015

Sample: AB12

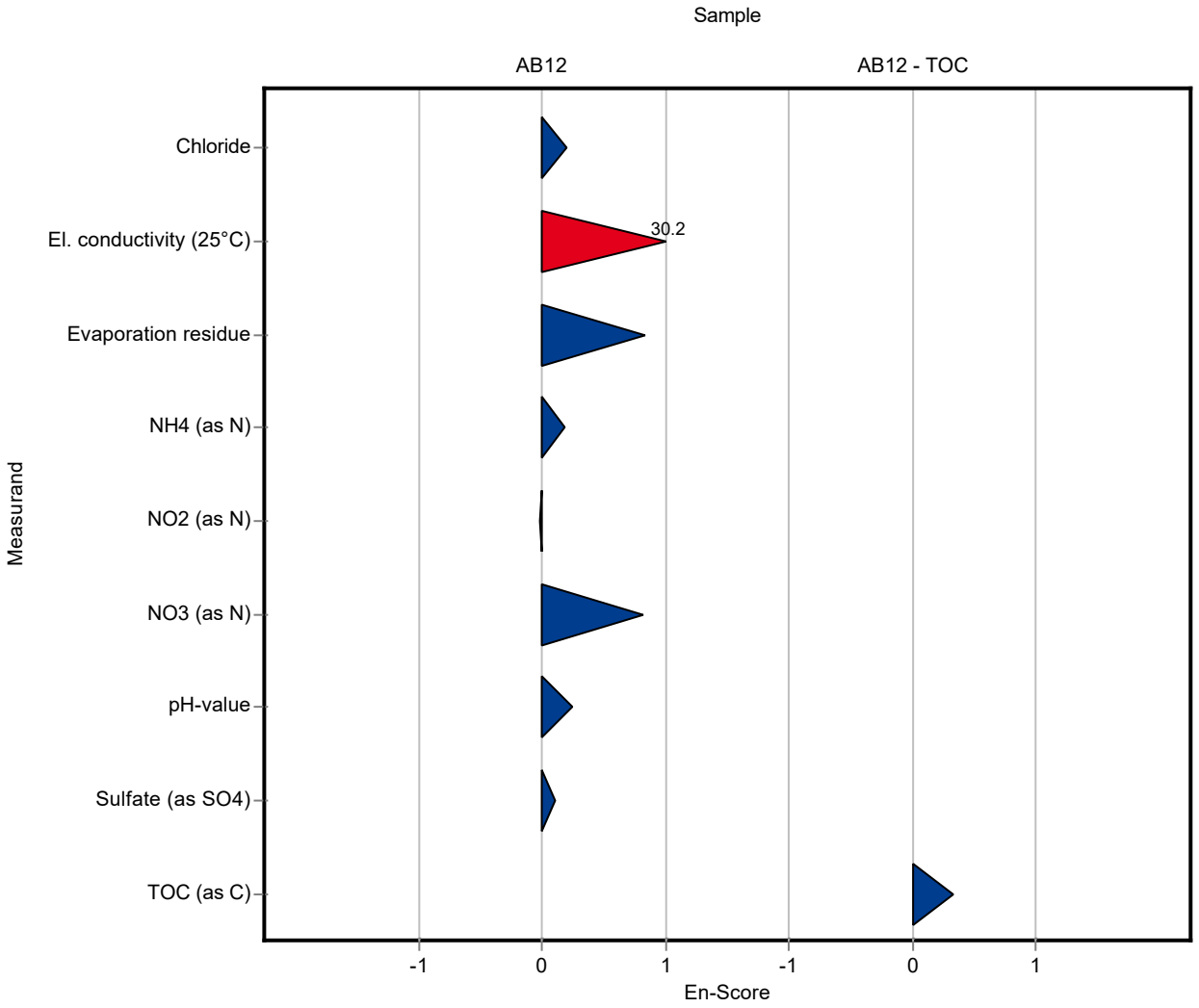
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1565 ± 110	76.1	103	0.20
El. conductivity (25°C)	mS/m	510 ± 4.26	5100 ± 76	10.2	1000	30.18
Evaporation residue	mg/l	3750 ± 258	4365 ± 349	674	117	0.83
Fluoride	mg/l	0.304 ± 0.0494	<0.5 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.342 ± 0.034	0.027	104	0.19
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.032 ± 0.003	0.00273	99.5	-0.02
NO3 (as N)	mg/l	2.3 ± 0.0615	2.62 ± 0.19	0.138	114	0.82
pH-value		7.92 ± 0.0475	8 ± 0.16	0.158	101	0.25
PO4 (as P)	mg/l	- ± -	0.1 ± 0.009	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	118 ± 9.4	5.8	102	0.11

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.6 ± 1.46	0.98	107	0.33

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0015



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0016

Sample: AB12

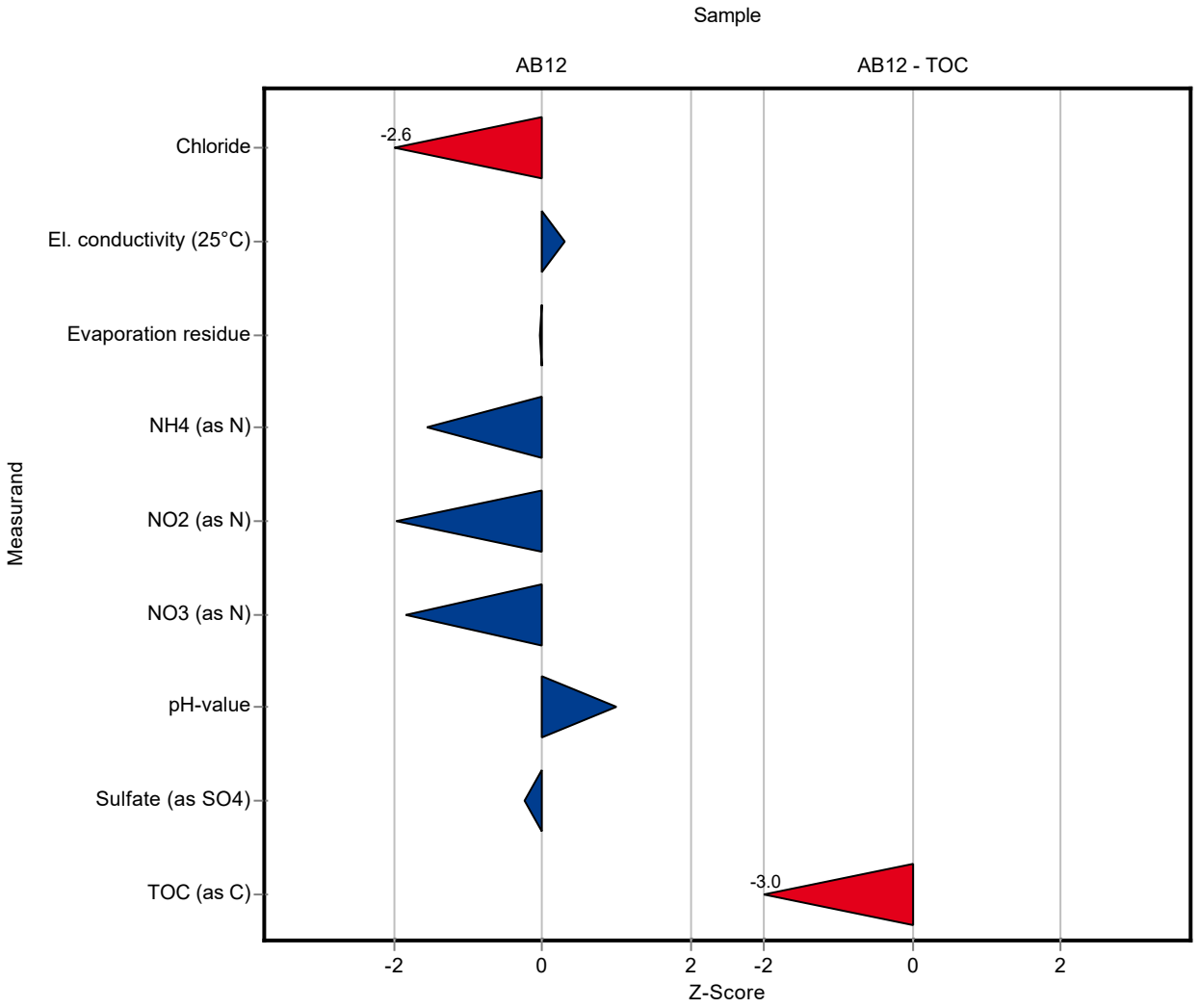
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1323 ± 4.077	76.1	86.9	-2.61
El. conductivity (25°C)	mS/m	510 ± 4.26	513.3 ± 7.77	10.2	101	0.30
Evaporation residue	mg/l	3750 ± 258	3730 ± 159.4	674	99.6	-0.02
Fluoride	mg/l	0.304 ± 0.0494	<0.2 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.287 ± 0.00318	0.027	87.2	-1.56
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0268 ± 0.00066	0.00273	83.4	-1.96
NO3 (as N)	mg/l	2.3 ± 0.0615	2.05 ± 0.0075	0.138	89	-1.84
pH-value		7.92 ± 0.0475	8.08 ± 0.049	0.158	102	1.01
PO4 (as P)	mg/l	- ± -	<0.016 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	114.6 ± 5	5.8	98.8	-0.24

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	10.63 ± 0.155	0.98	78.1	-3.05

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0016



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0016

Sample: AB12

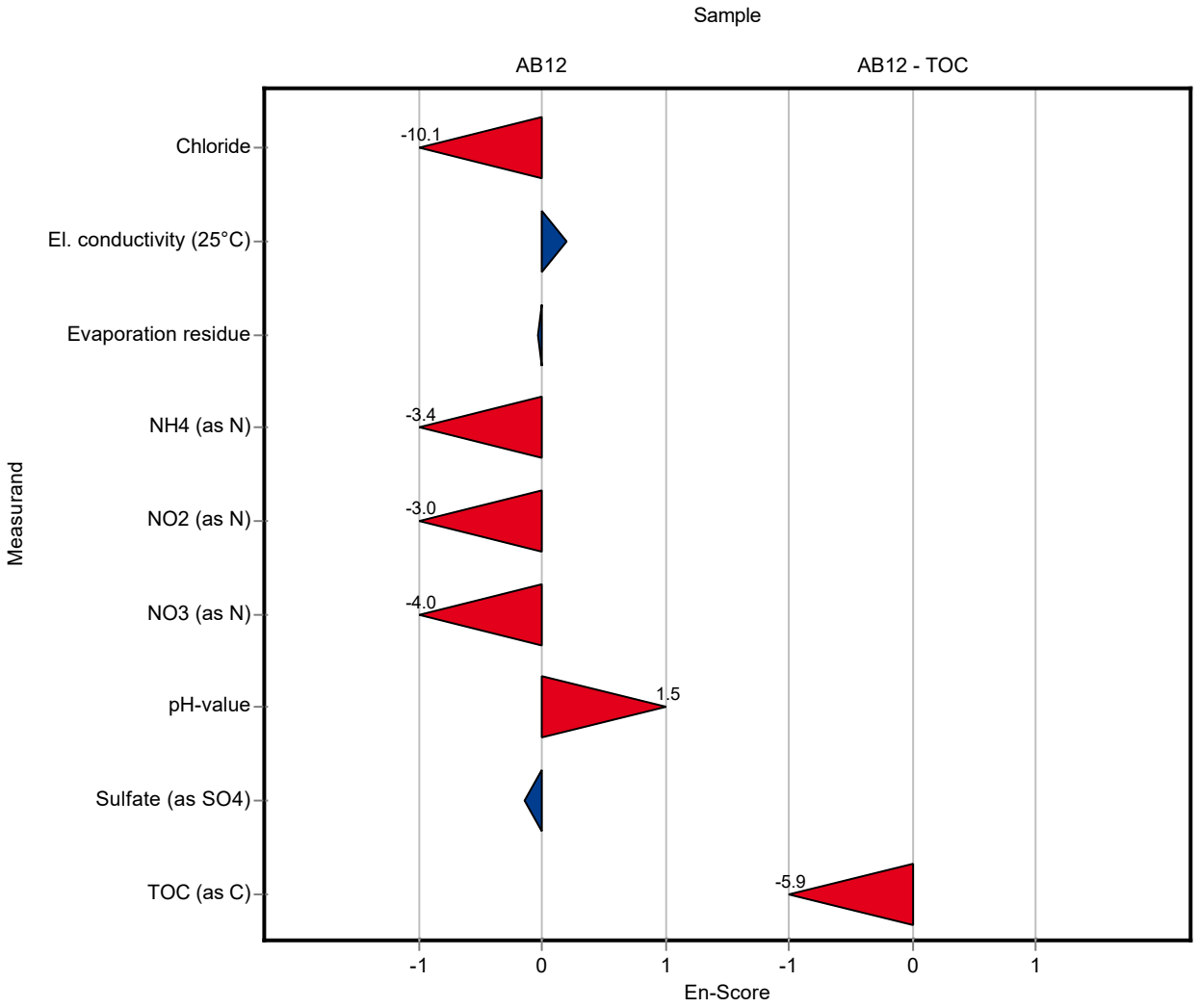
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1323 ± 4.077	76.1	86.9	-10.09
El. conductivity (25°C)	mS/m	510 ± 4.26	513.3 ± 7.77	10.2	101	0.19
Evaporation residue	mg/l	3750 ± 258	3730 ± 159.4	674	99.6	-0.04
Fluoride	mg/l	0.304 ± 0.0494	<0.2 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.287 ± 0.00318	0.027	87.2	-3.41
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0268 ± 0.00066	0.00273	83.4	-2.99
NO3 (as N)	mg/l	2.3 ± 0.0615	2.05 ± 0.0075	0.138	89	-4.01
pH-value		7.92 ± 0.0475	8.08 ± 0.049	0.158	102	1.47
PO4 (as P)	mg/l	- ± -	<0.016 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	114.6 ± 5	5.8	98.8	-0.14

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	10.63 ± 0.155	0.98	78.1	-5.92

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0016



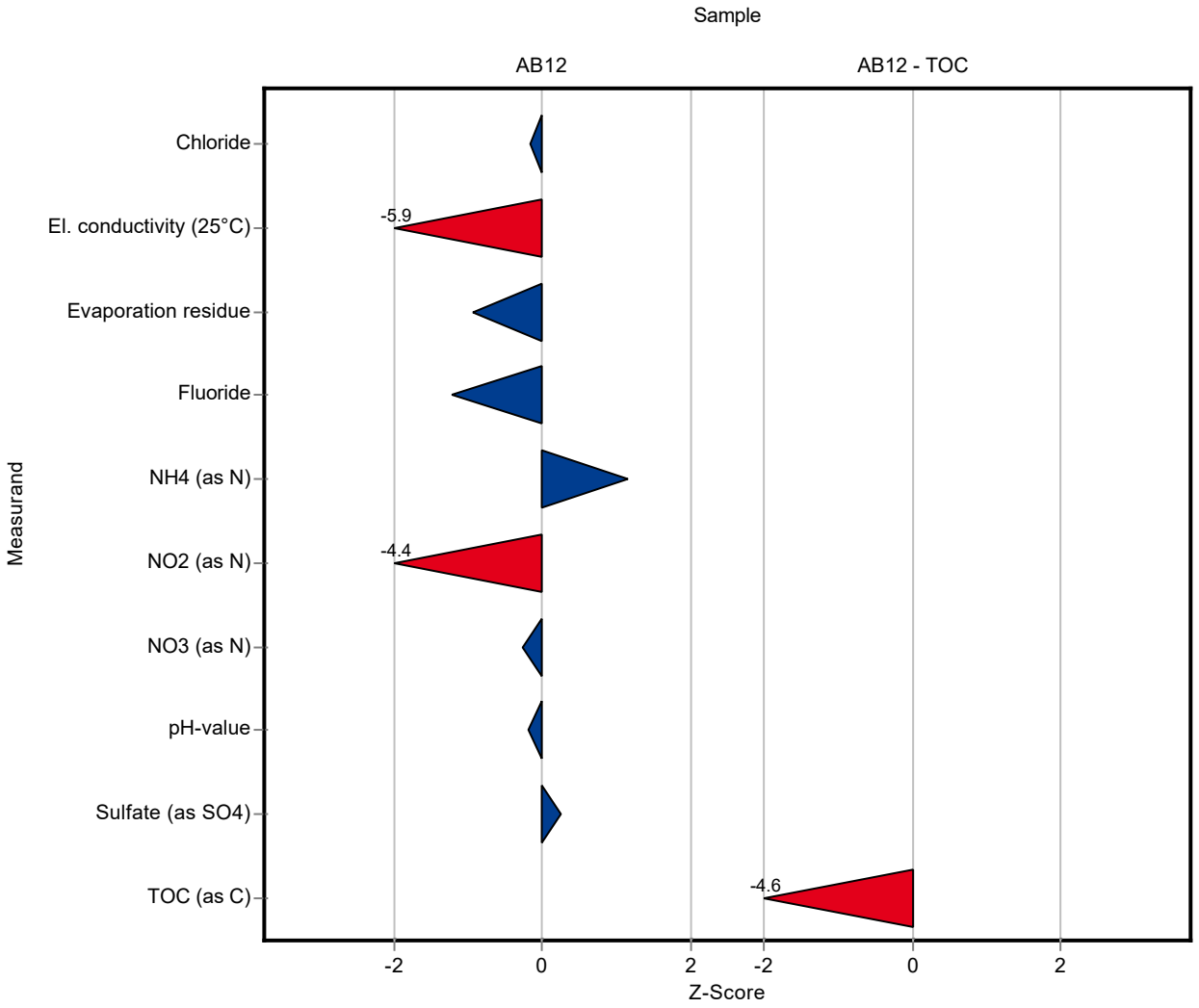
Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0017

Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1510 ± 29.45	76.1	99.2	-0.15
El. conductivity (25°C)	mS/m	510 ± 4.26	450.1 ± 9.002	10.2	88.2	-5.88
Evaporation residue	mg/l	3750 ± 258	3120 ± 62.4	674	83.3	-0.93
Fluoride	mg/l	0.304 ± 0.0494	0.174 ± 0.0085	0.107	57.2	-1.22
NH4 (as N)	mg/l	0.329 ± 0.0105	0.36 ± 0.02556	0.027	109	1.15
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.02 ± 0.0019	0.00273	62.2	-4.45
NO3 (as N)	mg/l	2.3 ± 0.0615	2.267 ± 0.1065	0.138	98.4	-0.27
pH-value		7.92 ± 0.0475	7.89 ± 0.027	0.158	99.6	-0.19
PO4 (as P)	mg/l	- ± -	0.019 ± 0.00076	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	117.4 ± 2.348	5.8	101	0.24

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	9.12 ± 1.824	0.98	67	-4.59


Sample
AB12
AB12 - TOC
Chloride
El. conductivity (25°C)
Evaporation residue
Fluoride
NH4 (as N)
NO2 (as N)
NO3 (as N)
pH-value
Sulfate (as SO4)
TOC (as C)
Measurand
-5.9
-4.4
-4.6
-2
0
2
-2
0
2
Z-Score

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0017

Sample: AB12

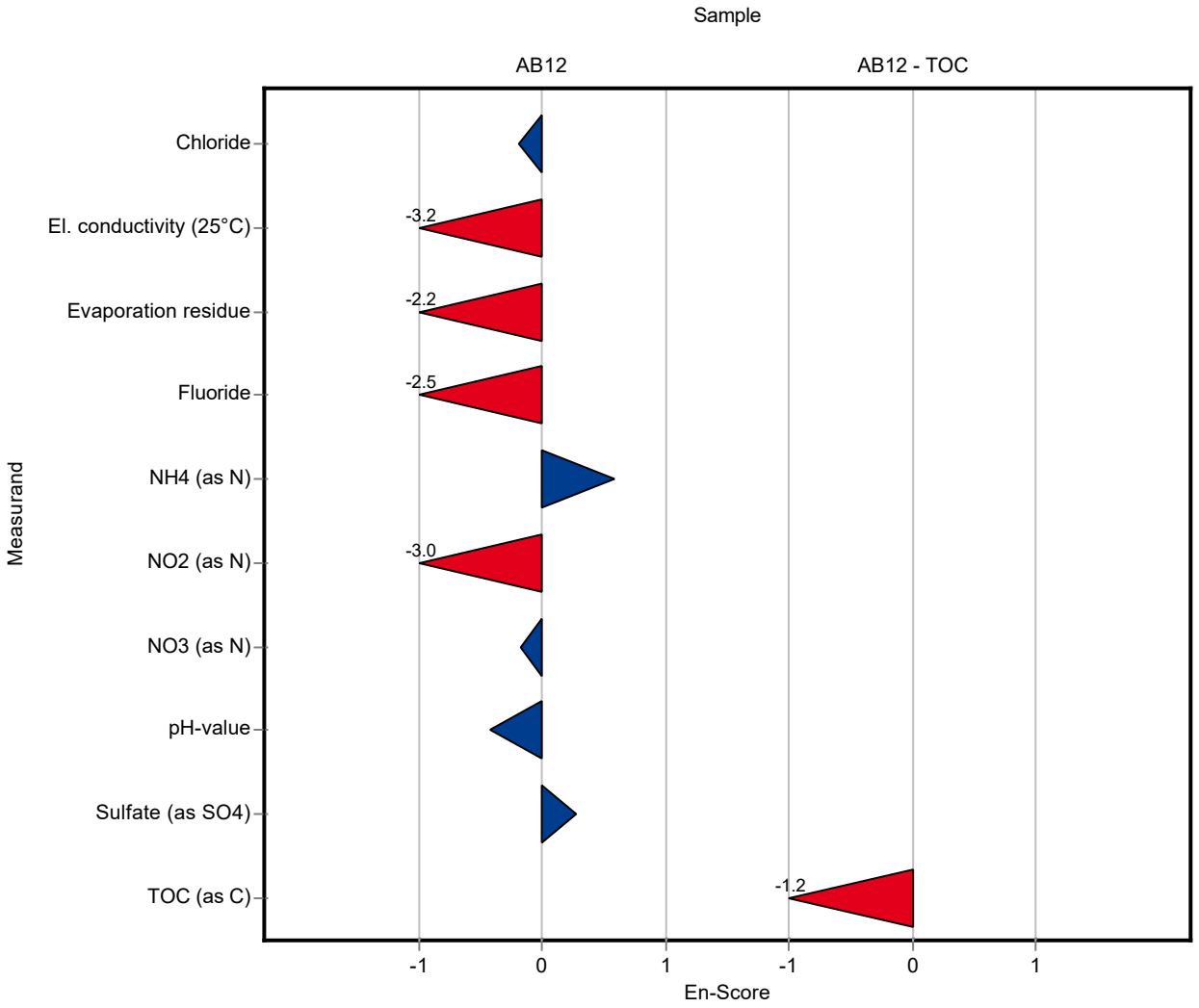
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1510 ± 29.45	76.1	99.2	-0.19
El. conductivity (25°C)	mS/m	510 ± 4.26	450.1 ± 9.002	10.2	88.2	-3.25
Evaporation residue	mg/l	3750 ± 258	3120 ± 62.4	674	83.3	-2.18
Fluoride	mg/l	0.304 ± 0.0494	0.174 ± 0.0085	0.107	57.2	-2.50
NH4 (as N)	mg/l	0.329 ± 0.0105	0.36 ± 0.02556	0.027	109	0.59
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.02 ± 0.0019	0.00273	62.2	-3.05
NO3 (as N)	mg/l	2.3 ± 0.0615	2.267 ± 0.1065	0.138	98.4	-0.17
pH-value		7.92 ± 0.0475	7.89 ± 0.027	0.158	99.6	-0.42
PO4 (as P)	mg/l	- ± -	0.019 ± 0.00076	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	117.4 ± 2.348	5.8	101	0.28

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	9.12 ± 1.824	0.98	67	-1.23

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0017



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0018

Sample: AB12

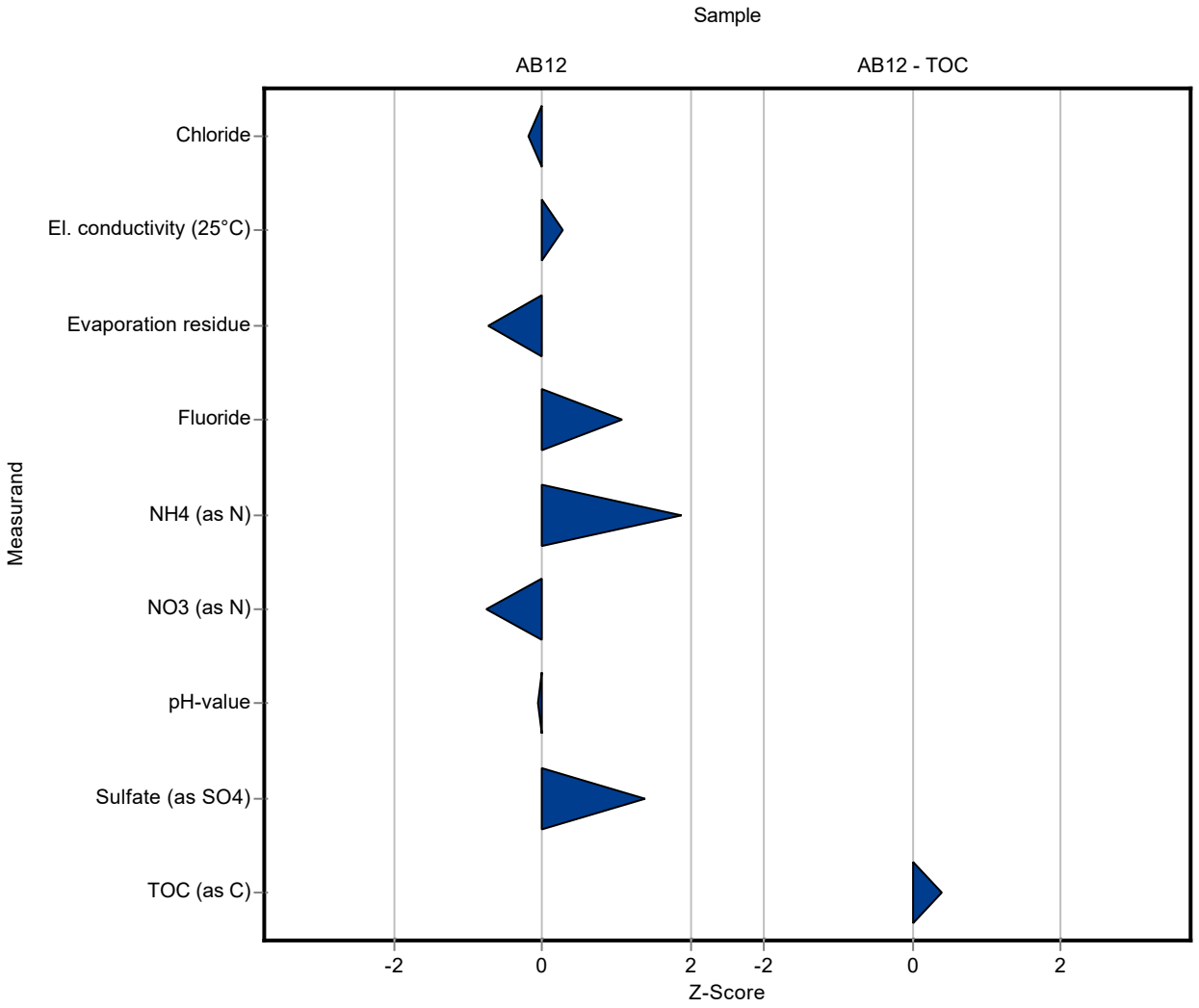
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1507 ± 76	76.1	99	-0.19
El. conductivity (25°C)	mS/m	510 ± 4.26	513 ± 15	10.2	101	0.27
Evaporation residue	mg/l	3750 ± 258	3250 ± 163	674	86.8	-0.74
Fluoride	mg/l	0.304 ± 0.0494	0.42 ± 0.07	0.107	138	1.09
NH4 (as N)	mg/l	0.329 ± 0.0105	0.38 ± 0.04	0.027	115	1.89
NO2 (as N)	mg/l	0.0321 ± 0.00121	<0.05 (LOQ) ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	2.2 ± 0.22	0.138	95.5	-0.75
pH-value		7.92 ± 0.0475	7.91 ± 0.3	0.158	99.9	-0.06
PO4 (as P)	mg/l	- ± -	<0.2 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	124 ± 8	5.8	107	1.38

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14 ± 1.4	0.98	103	0.39

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0018



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0018

Sample: AB12

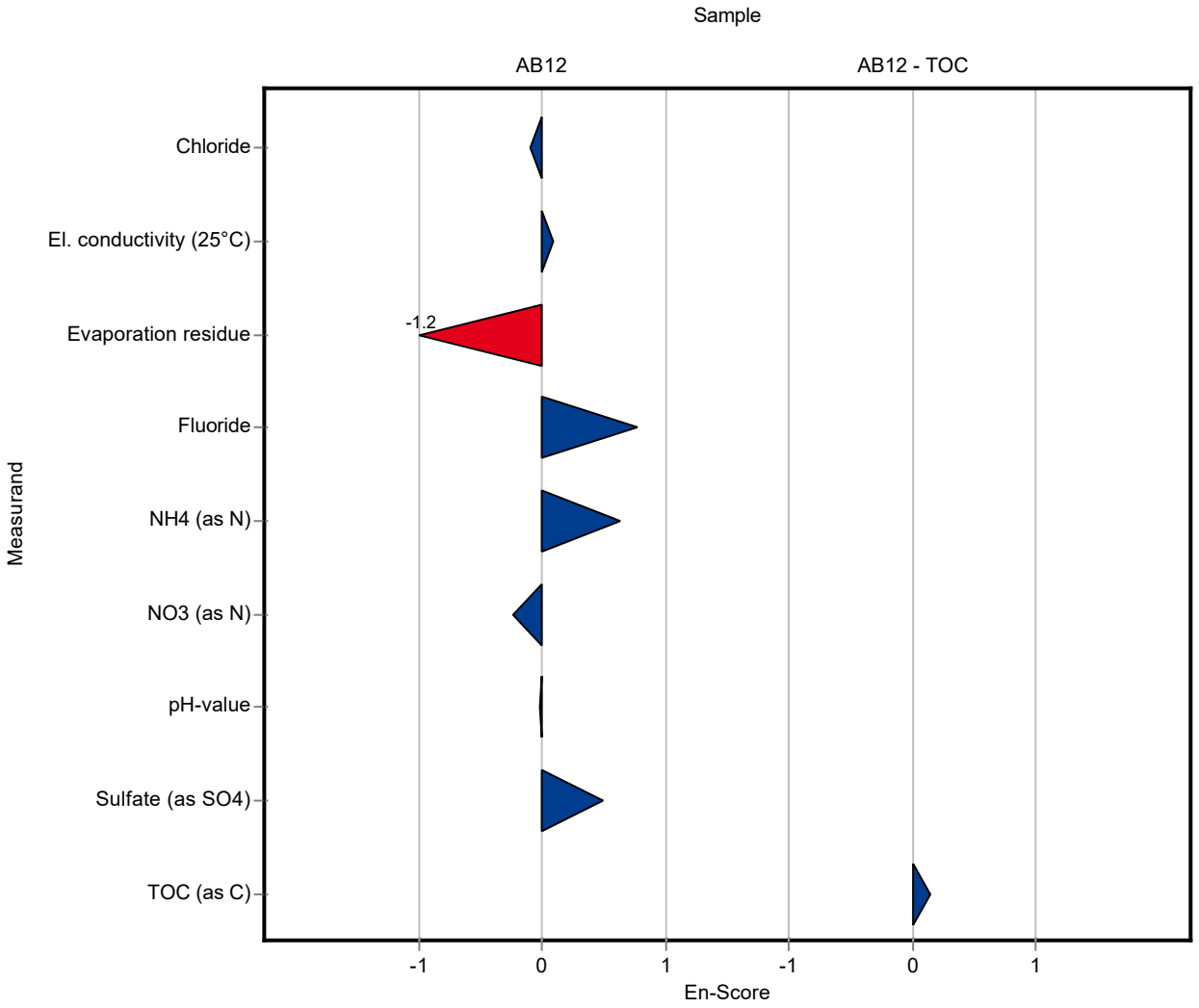
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1507 ± 76	76.1	99	-0.10
El. conductivity (25°C)	mS/m	510 ± 4.26	513 ± 15	10.2	101	0.09
Evaporation residue	mg/l	3750 ± 258	3250 ± 163	674	86.8	-1.19
Fluoride	mg/l	0.304 ± 0.0494	0.42 ± 0.07	0.107	138	0.78
NH4 (as N)	mg/l	0.329 ± 0.0105	0.38 ± 0.04	0.027	115	0.63
NO2 (as N)	mg/l	0.0321 ± 0.00121	<0.05 (LOQ) ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	2.2 ± 0.22	0.138	95.5	-0.23
pH-value		7.92 ± 0.0475	7.91 ± 0.3	0.158	99.9	-0.02
PO4 (as P)	mg/l	- ± -	<0.2 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	124 ± 8	5.8	107	0.50

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14 ± 1.4	0.98	103	0.14

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0018



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0019

Sample: AB12

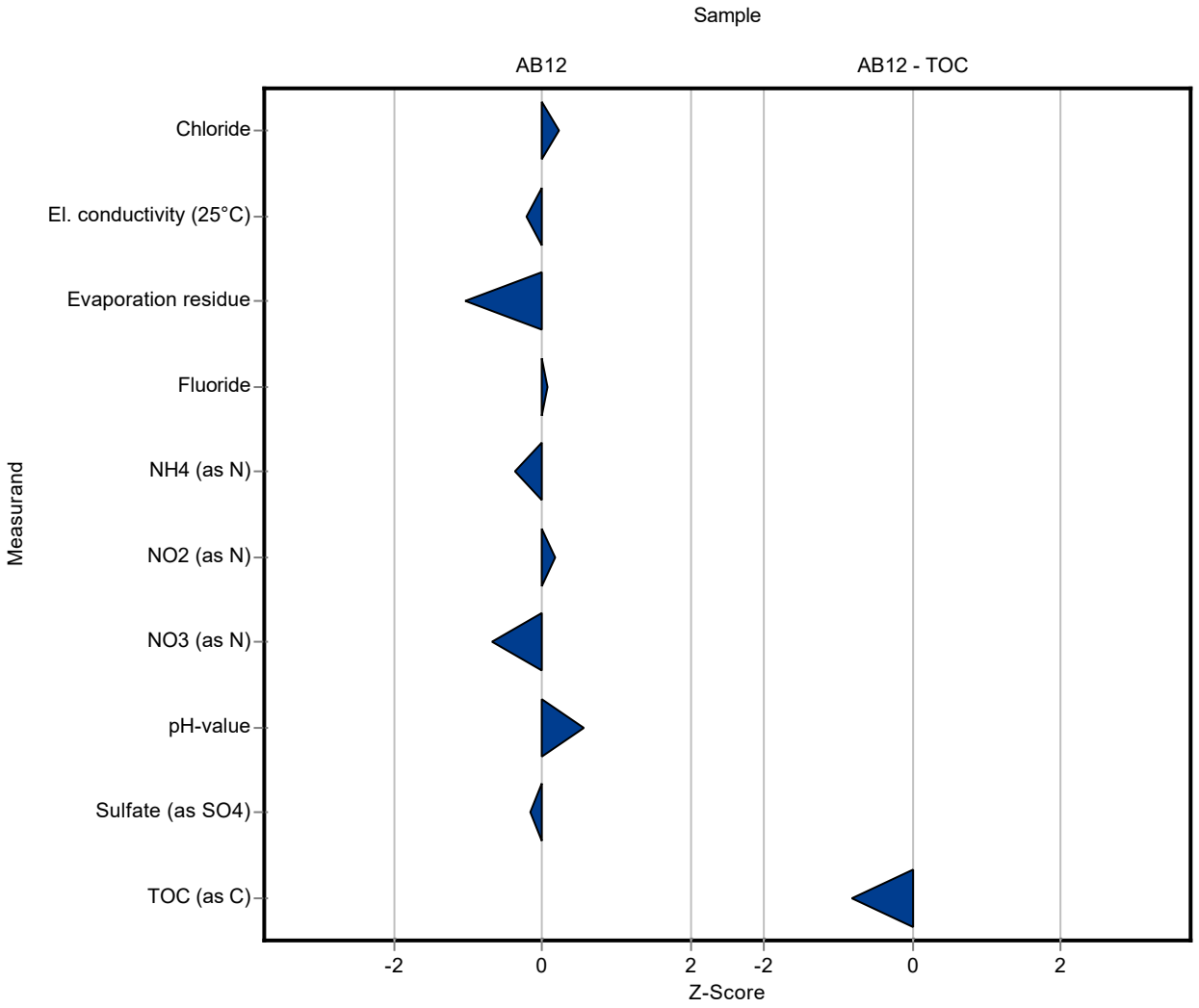
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1540 ± 5.77	76.1	101	0.24
El. conductivity (25°C)	mS/m	510 ± 4.26	508 ± 0.577	10.2	99.6	-0.21
Evaporation residue	mg/l	3750 ± 258	3040 ± 70.7	674	81.2	-1.05
Fluoride	mg/l	0.304 ± 0.0494	0.312 ± 0.006	0.107	103	0.07
NH4 (as N)	mg/l	0.329 ± 0.0105	0.319 ± 0.002	0.027	96.9	-0.37
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0326 ± 0.001	0.00273	101	0.17
NO3 (as N)	mg/l	2.3 ± 0.0615	2.21 ± 0.035	0.138	95.9	-0.68
pH-value		7.92 ± 0.0475	8.01 ± 0.025	0.158	101	0.57
PO4 (as P)	mg/l	- ± -	<0.005 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	115 ± 0.577	5.8	99.1	-0.17

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	12.8 ± 0.306	0.98	94	-0.83

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0019



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0019

Sample: AB12

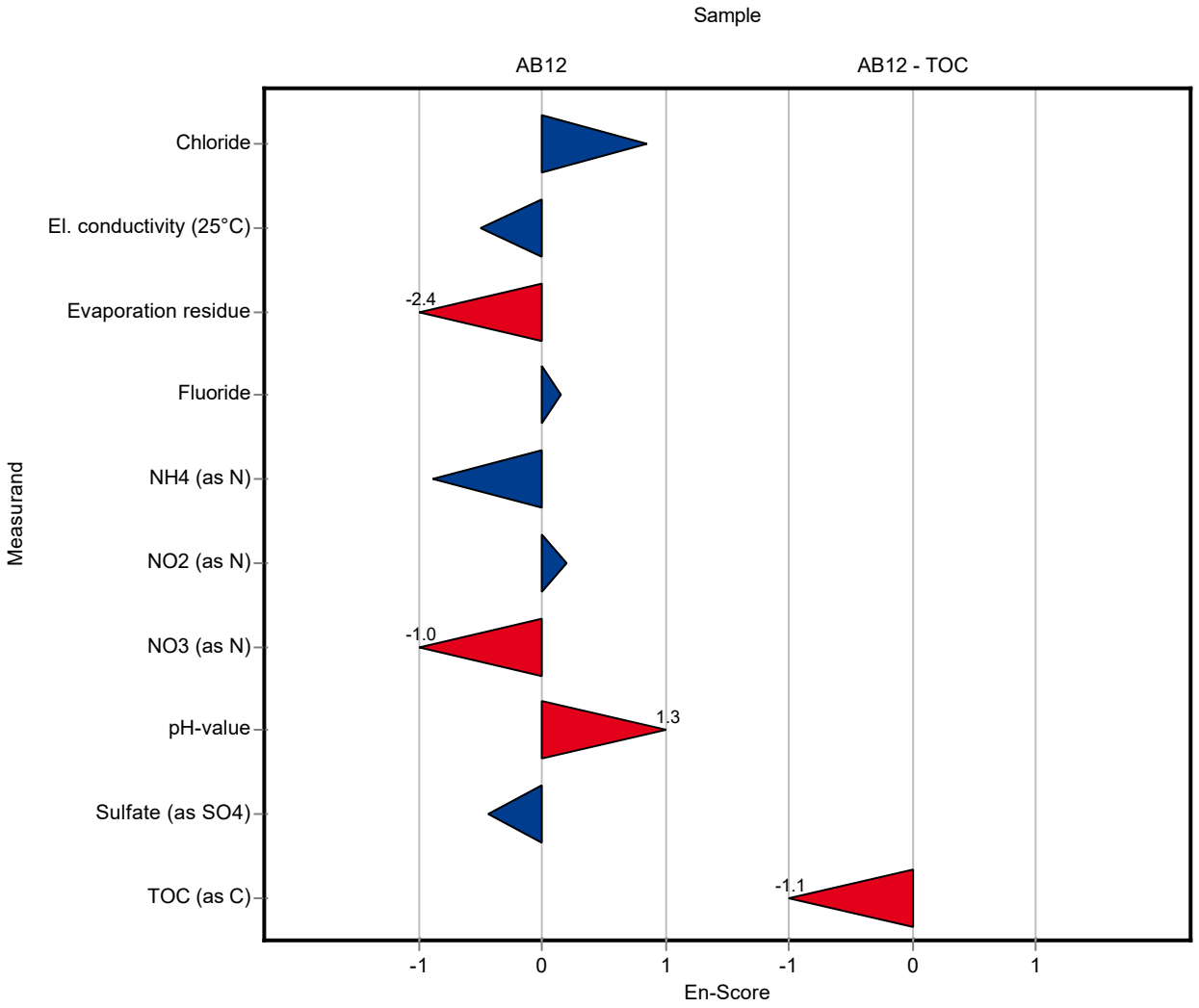
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1540 ± 5.77	76.1	101	0.86
El. conductivity (25°C)	mS/m	510 ± 4.26	508 ± 0.577	10.2	99.6	-0.50
Evaporation residue	mg/l	3750 ± 258	3040 ± 70.7	674	81.2	-2.40
Fluoride	mg/l	0.304 ± 0.0494	0.312 ± 0.006	0.107	103	0.15
NH4 (as N)	mg/l	0.329 ± 0.0105	0.319 ± 0.002	0.027	96.9	-0.89
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0326 ± 0.001	0.00273	101	0.19
NO3 (as N)	mg/l	2.3 ± 0.0615	2.21 ± 0.035	0.138	95.9	-1.01
pH-value		7.92 ± 0.0475	8.01 ± 0.025	0.158	101	1.31
PO4 (as P)	mg/l	- ± -	<0.005 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	115 ± 0.577	5.8	99.1	-0.44

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	12.8 ± 0.306	0.98	94	-1.12

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0019



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0020

Sample: AB12

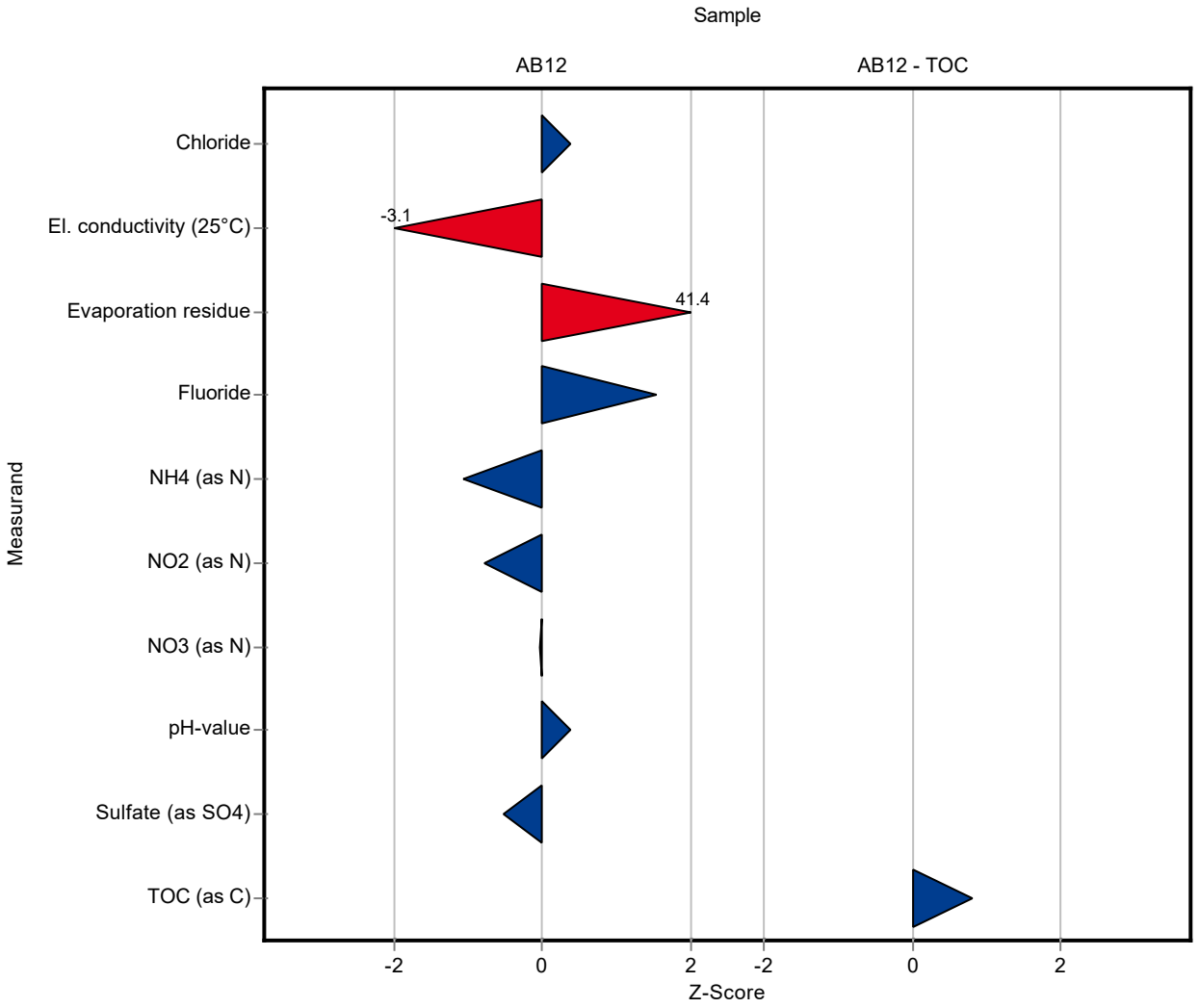
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1550 ± 101	76.1	102	0.37
El. conductivity (25°C)	mS/m	510 ± 4.26	479 ± 8	10.2	93.9	-3.05
Evaporation residue	mg/l	3750 ± 258	31650 ± 63	674	845	41.39
Fluoride	mg/l	0.304 ± 0.0494	0.47 ± 0.028	0.107	154	1.56
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3 ± 0.02	0.027	91.2	-1.08
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.0004	0.00273	93.3	-0.79
NO3 (as N)	mg/l	2.3 ± 0.0615	2.3 ± 0.09	0.138	99.8	-0.03
pH-value		7.92 ± 0.0475	7.98 ± 0.2	0.158	101	0.38
PO4 (as P)	mg/l	- ± -	<0.02 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	113 ± 6	5.8	97.4	-0.52

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.4 ± 0.8	0.98	106	0.80

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0020



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0020

Sample: AB12

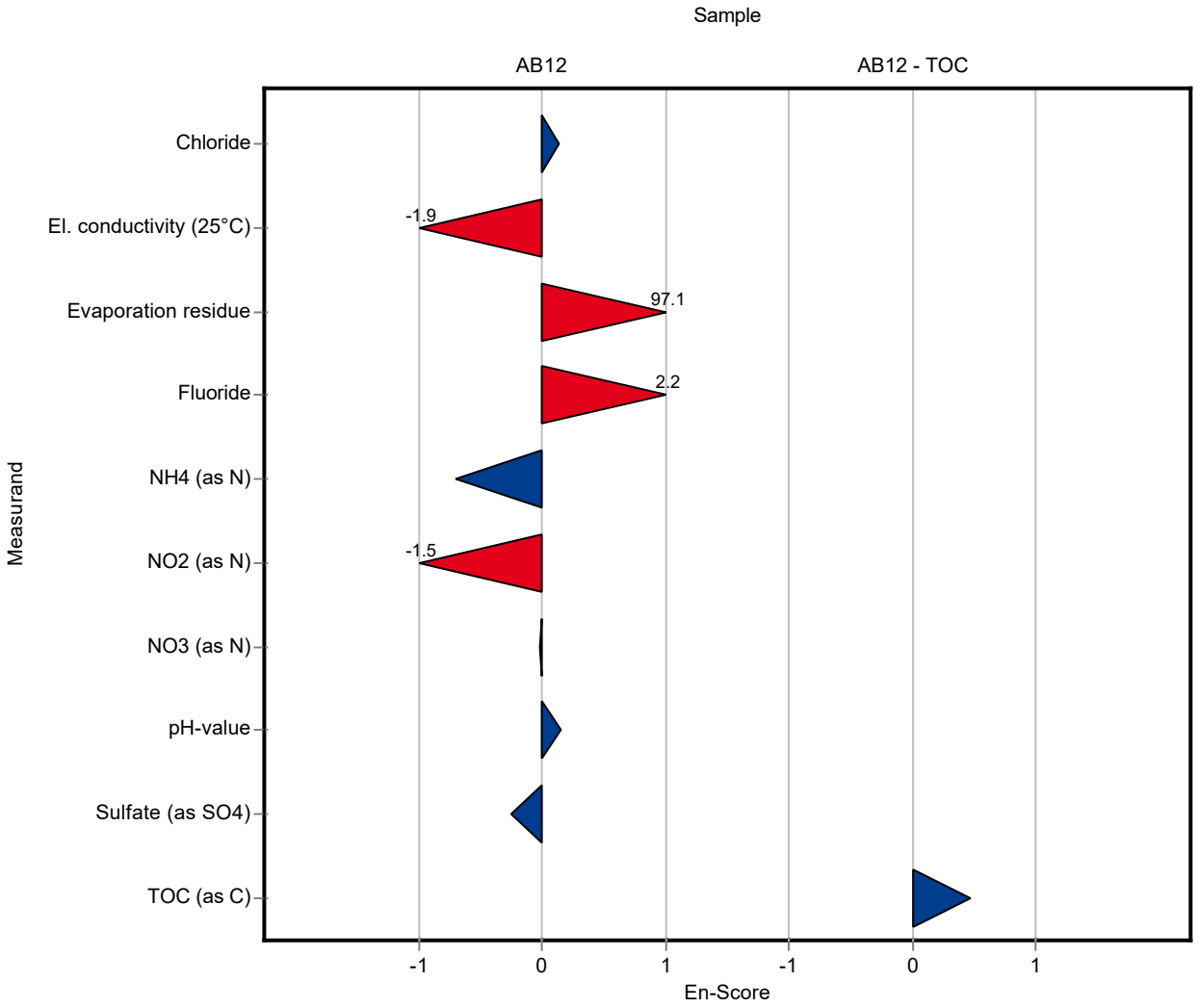
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1550 ± 101	76.1	102	0.14
El. conductivity (25°C)	mS/m	510 ± 4.26	479 ± 8	10.2	93.9	-1.88
Evaporation residue	mg/l	3750 ± 258	31650 ± 63	674	845	97.13
Fluoride	mg/l	0.304 ± 0.0494	0.47 ± 0.028	0.107	154	2.22
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3 ± 0.02	0.027	91.2	-0.70
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.0004	0.00273	93.3	-1.48
NO3 (as N)	mg/l	2.3 ± 0.0615	2.3 ± 0.09	0.138	99.8	-0.02
pH-value		7.92 ± 0.0475	7.98 ± 0.2	0.158	101	0.15
PO4 (as P)	mg/l	- ± -	<0.02 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	113 ± 6	5.8	97.4	-0.25

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.4 ± 0.8	0.98	106	0.47

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0020



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0021

Sample: AB12

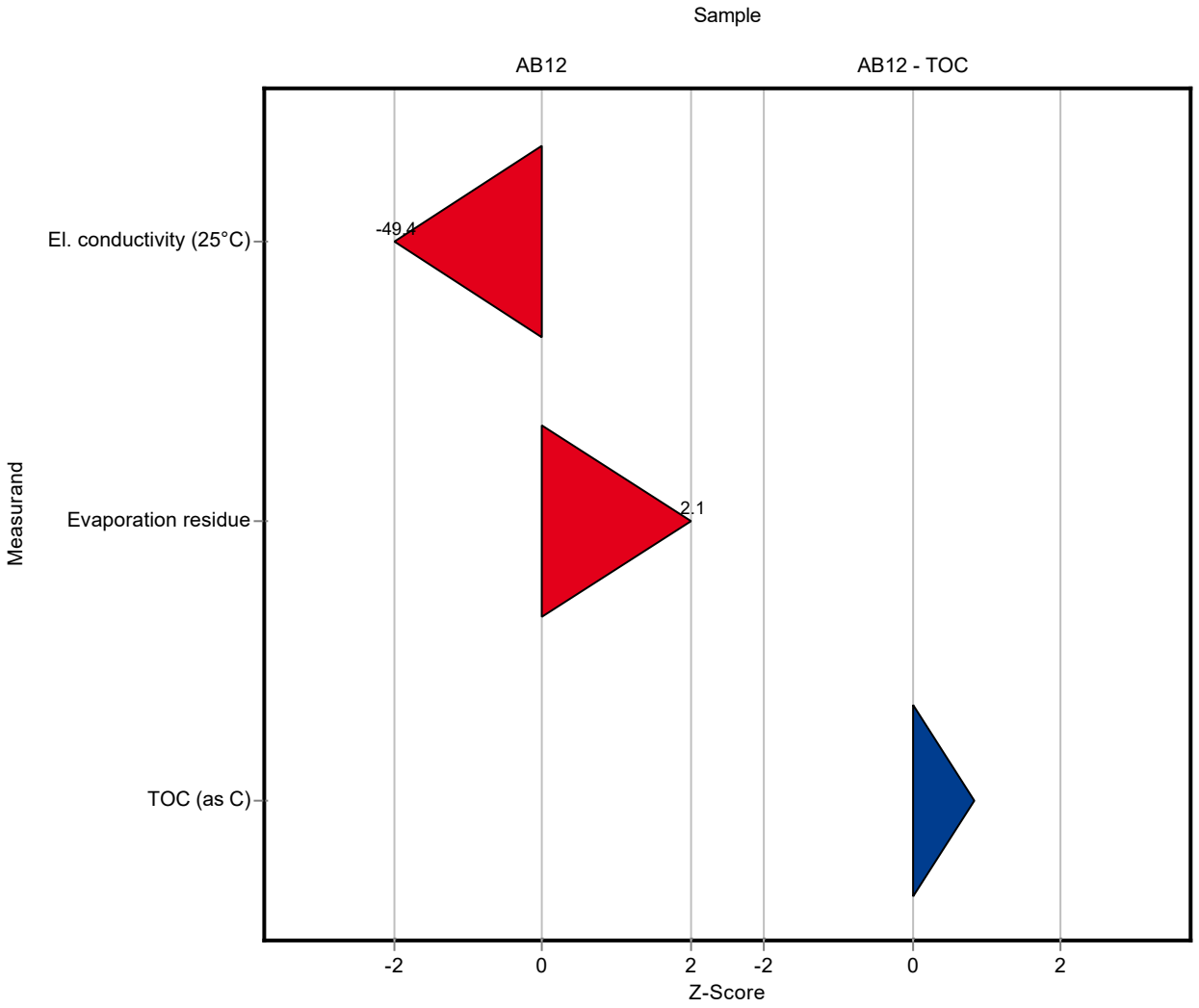
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	- ± -	76.1	-	-
El. conductivity (25°C)	mS/m	510 ± 4.26	5.093 ± 0.255	10.2	0.998	-49.44
Evaporation residue	mg/l	3750 ± 258	5150 ± 1300	674	137	2.08
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	- ± -	0.158	-	-
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	- ± -	5.8	-	-

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.42 ± 3.6	0.98	106	0.82

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0021



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0021

Sample: AB12

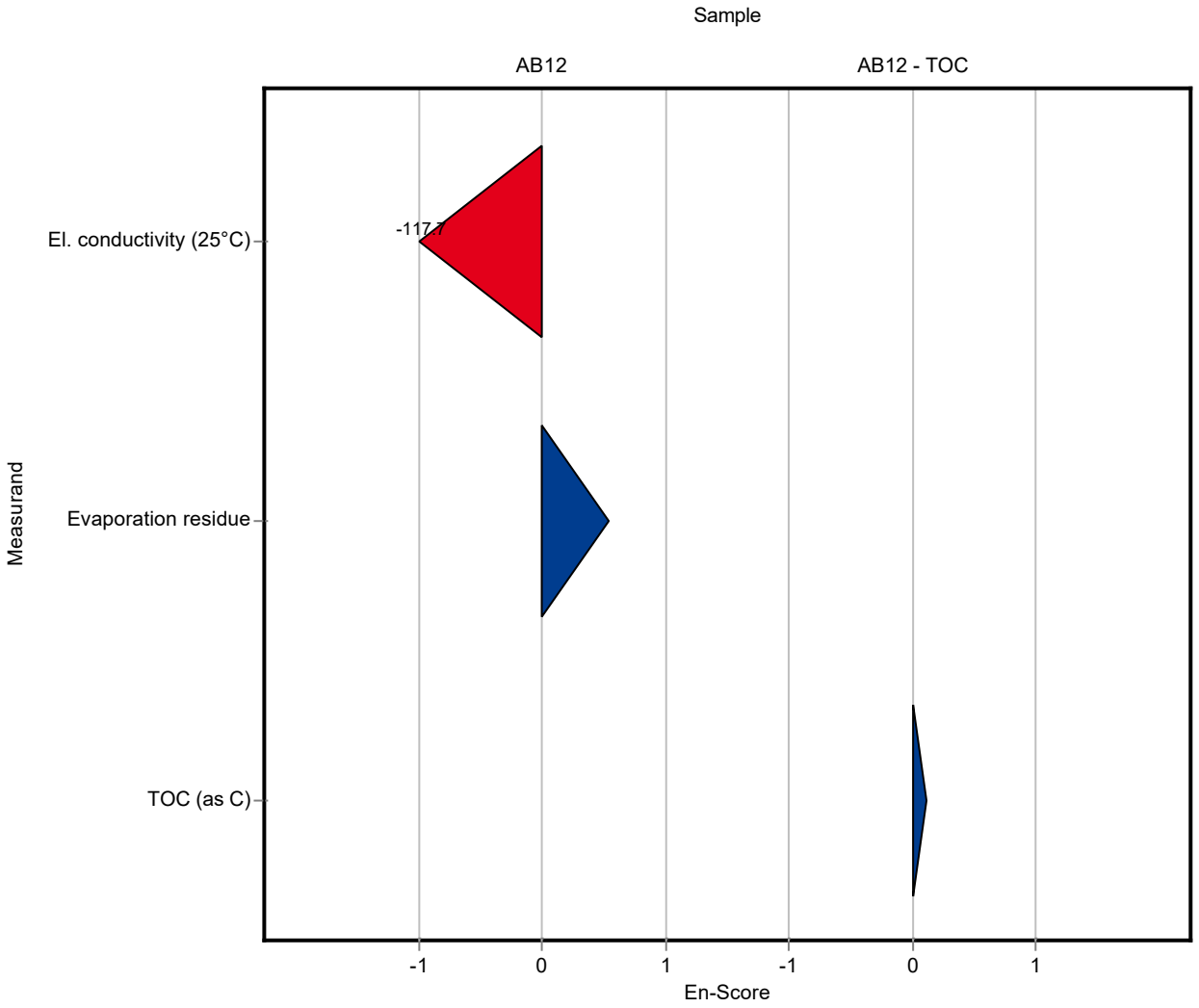
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	- ± -	76.1	-	-
El. conductivity (25°C)	mS/m	510 ± 4.26	5.093 ± 0.255	10.2	0.998	-117.72
Evaporation residue	mg/l	3750 ± 258	5150 ± 1300	674	137	0.54
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	- ± -	0.158	-	-
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	- ± -	5.8	-	-

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.42 ± 3.6	0.98	106	0.11

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0021



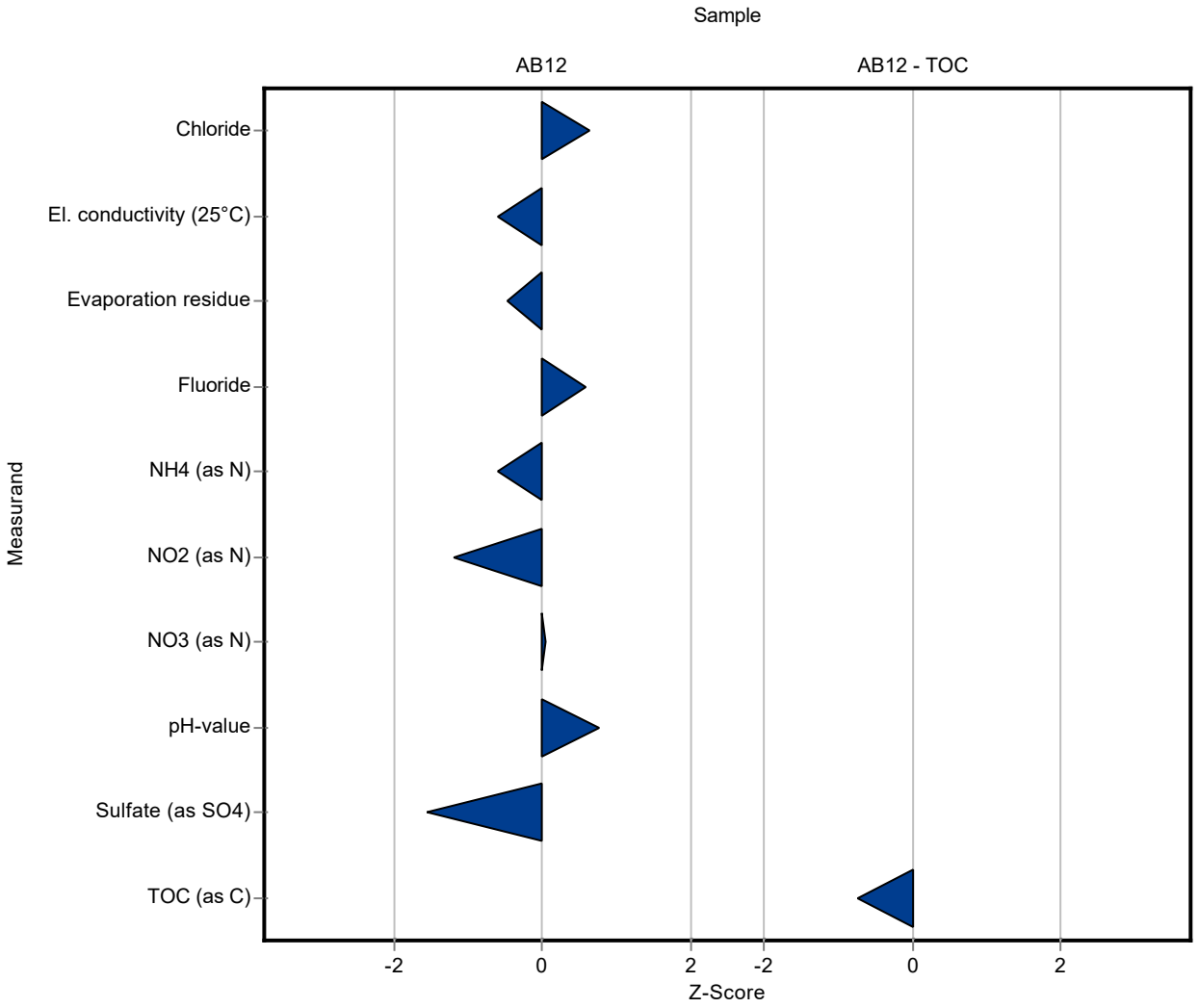
Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0022

Sample: AB12

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1570 ± 160	76.1	103	0.63
El. conductivity (25°C)	mS/m	510 ± 4.26	504 ± 50	10.2	98.8	-0.61
Evaporation residue	mg/l	3750 ± 258	3430 ± 340	674	91.6	-0.47
Fluoride	mg/l	0.304 ± 0.0494	0.367 ± 0.037	0.107	121	0.59
NH4 (as N)	mg/l	0.329 ± 0.0105	0.313 ± 0.031	0.027	95.1	-0.60
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0289 ± 0.0029	0.00273	89.9	-1.19
NO3 (as N)	mg/l	2.3 ± 0.0615	2.31 ± 0.23	0.138	100	0.04
pH-value		7.92 ± 0.0475	8.04 ± 0.2	0.158	102	0.76
PO4 (as P)	mg/l	- ± -	<0.003 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	107 ± 11	5.8	92.2	-1.55

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	12.9 ± 1.3	0.98	94.7	-0.73


Sample
AB12
AB12 - TOC
Chloride
El. conductivity (25°C)
Evaporation residue
Fluoride
NH4 (as N)
NO2 (as N)
NO3 (as N)
pH-value
Sulfate (as SO4)
TOC (as C)
Measurand
-2
0
2
-2
0
2
Z-Score

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0022

Sample: AB12

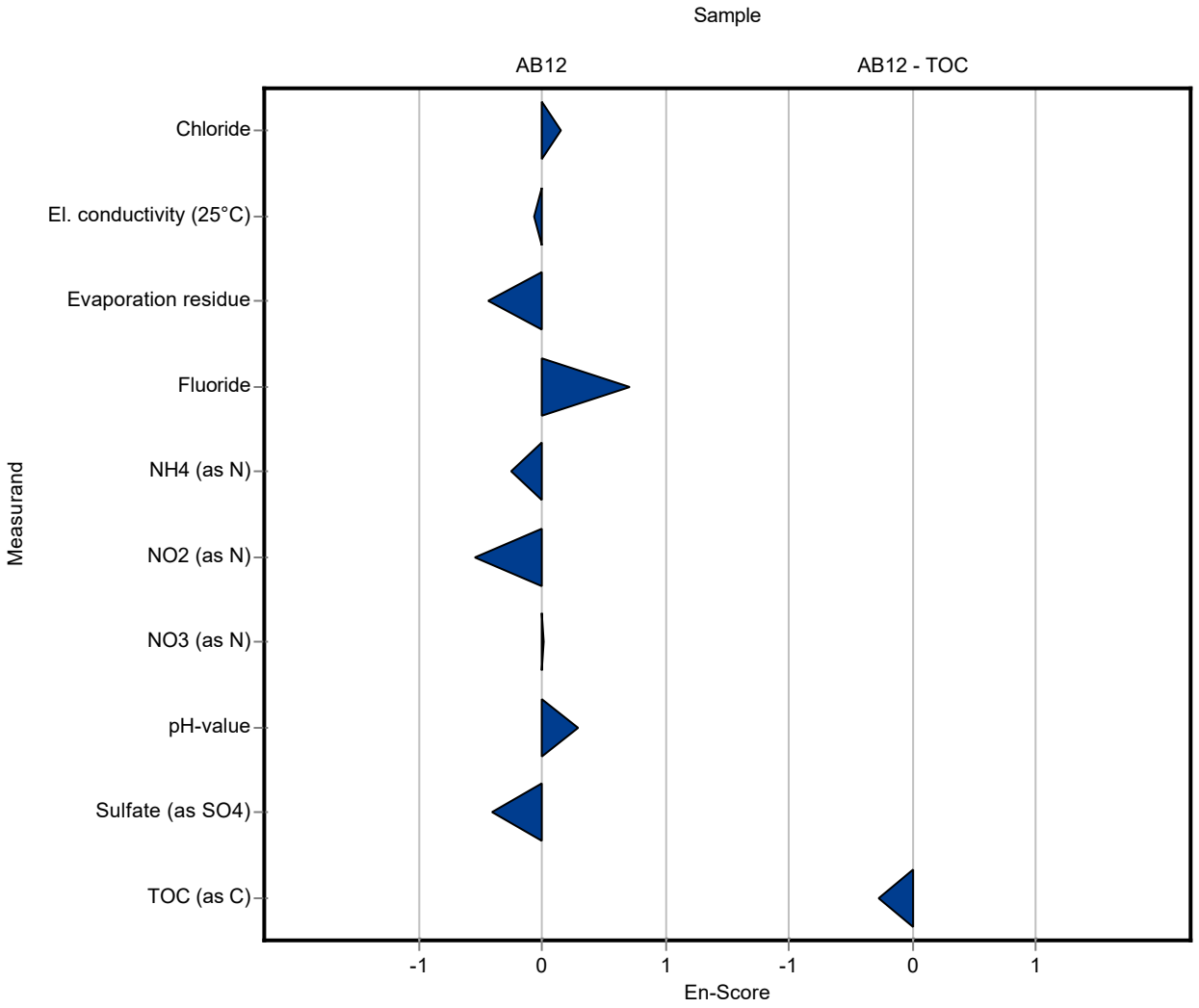
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1570 ± 160	76.1	103	0.15
El. conductivity (25°C)	mS/m	510 ± 4.26	504 ± 50	10.2	98.8	-0.06
Evaporation residue	mg/l	3750 ± 258	3430 ± 340	674	91.6	-0.43
Fluoride	mg/l	0.304 ± 0.0494	0.367 ± 0.037	0.107	121	0.70
NH4 (as N)	mg/l	0.329 ± 0.0105	0.313 ± 0.031	0.027	95.1	-0.26
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0289 ± 0.0029	0.00273	89.9	-0.55
NO3 (as N)	mg/l	2.3 ± 0.0615	2.31 ± 0.23	0.138	100	0.01
pH-value		7.92 ± 0.0475	8.04 ± 0.2	0.158	102	0.30
PO4 (as P)	mg/l	- ± -	<0.003 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	107 ± 11	5.8	92.2	-0.41

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	12.9 ± 1.3	0.98	94.7	-0.27

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0022



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0023

Sample: AB12

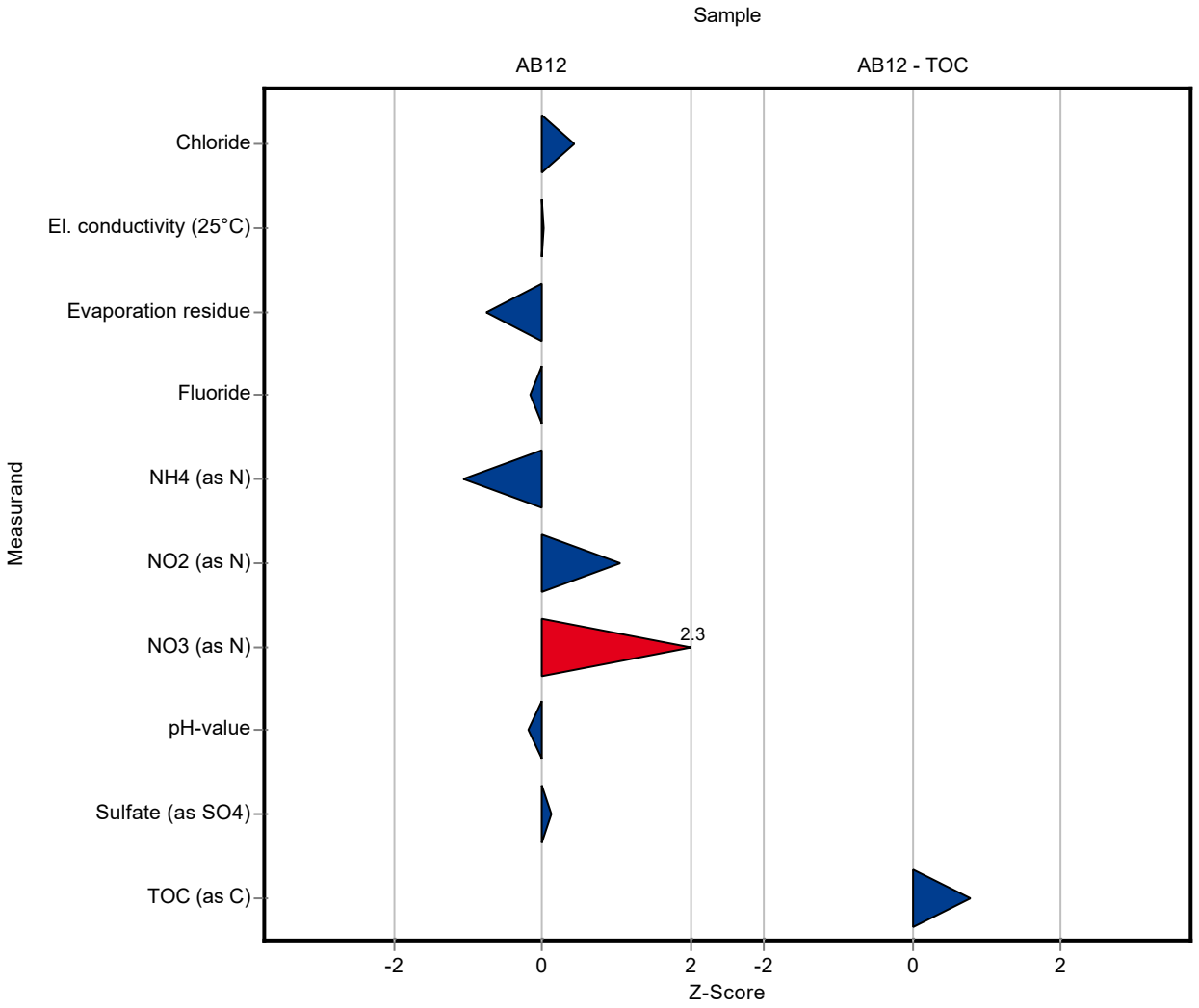
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1554.53 ± 25	76.1	102	0.43
El. conductivity (25°C)	mS/m	510 ± 4.26	510.5 ± 25	10.2	100	0.03
Evaporation residue	mg/l	3750 ± 258	3230 ± 32.3	674	86.2	-0.76
Fluoride	mg/l	0.304 ± 0.0494	0.286 ± 0.009	0.107	94	-0.17
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3 ± 0.02	0.027	91.2	-1.08
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.035 ± 0.001	0.00273	109	1.04
NO3 (as N)	mg/l	2.3 ± 0.0615	2.629 ± 0.05	0.138	114	2.35
pH-value		7.92 ± 0.0475	7.89 ± 0.06	0.158	99.6	-0.19
PO4 (as P)	mg/l	- ± -	0.121 ± 0.004	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	116.78 ± 4.67	5.8	101	0.14

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.375 ± 2.88	0.98	106	0.77

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0023



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0023

Sample: AB12

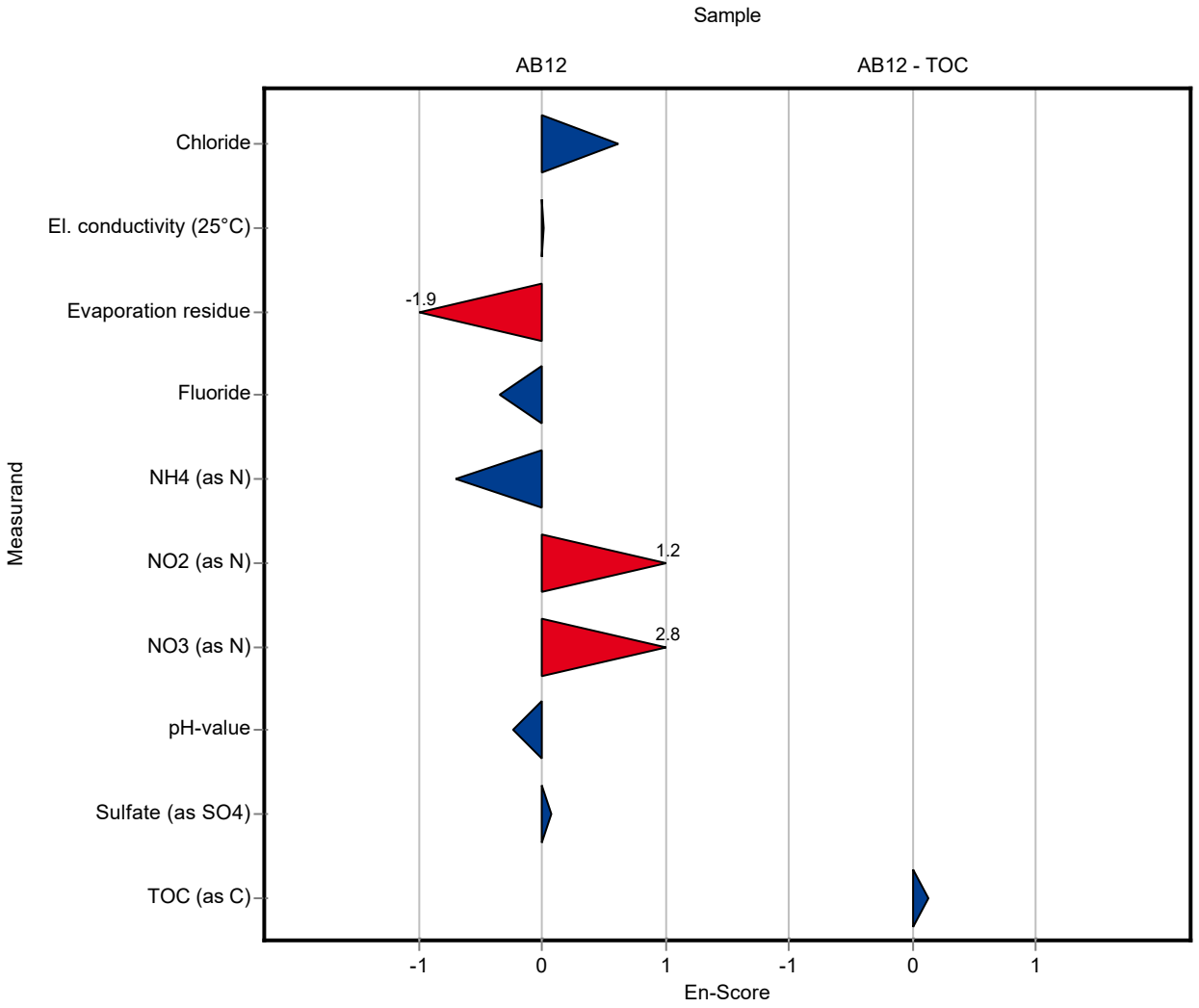
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1554.53 ± 25	76.1	102	0.62
El. conductivity (25°C)	mS/m	510 ± 4.26	510.5 ± 25	10.2	100	0.01
Evaporation residue	mg/l	3750 ± 258	3230 ± 32.3	674	86.2	-1.94
Fluoride	mg/l	0.304 ± 0.0494	0.286 ± 0.009	0.107	94	-0.35
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3 ± 0.02	0.027	91.2	-0.70
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.035 ± 0.001	0.00273	109	1.22
NO3 (as N)	mg/l	2.3 ± 0.0615	2.629 ± 0.05	0.138	114	2.77
pH-value		7.92 ± 0.0475	7.89 ± 0.06	0.158	99.6	-0.23
PO4 (as P)	mg/l	- ± -	0.121 ± 0.004	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	116.78 ± 4.67	5.8	101	0.08

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.375 ± 2.88	0.98	106	0.13

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0023



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0024

Sample: AB12

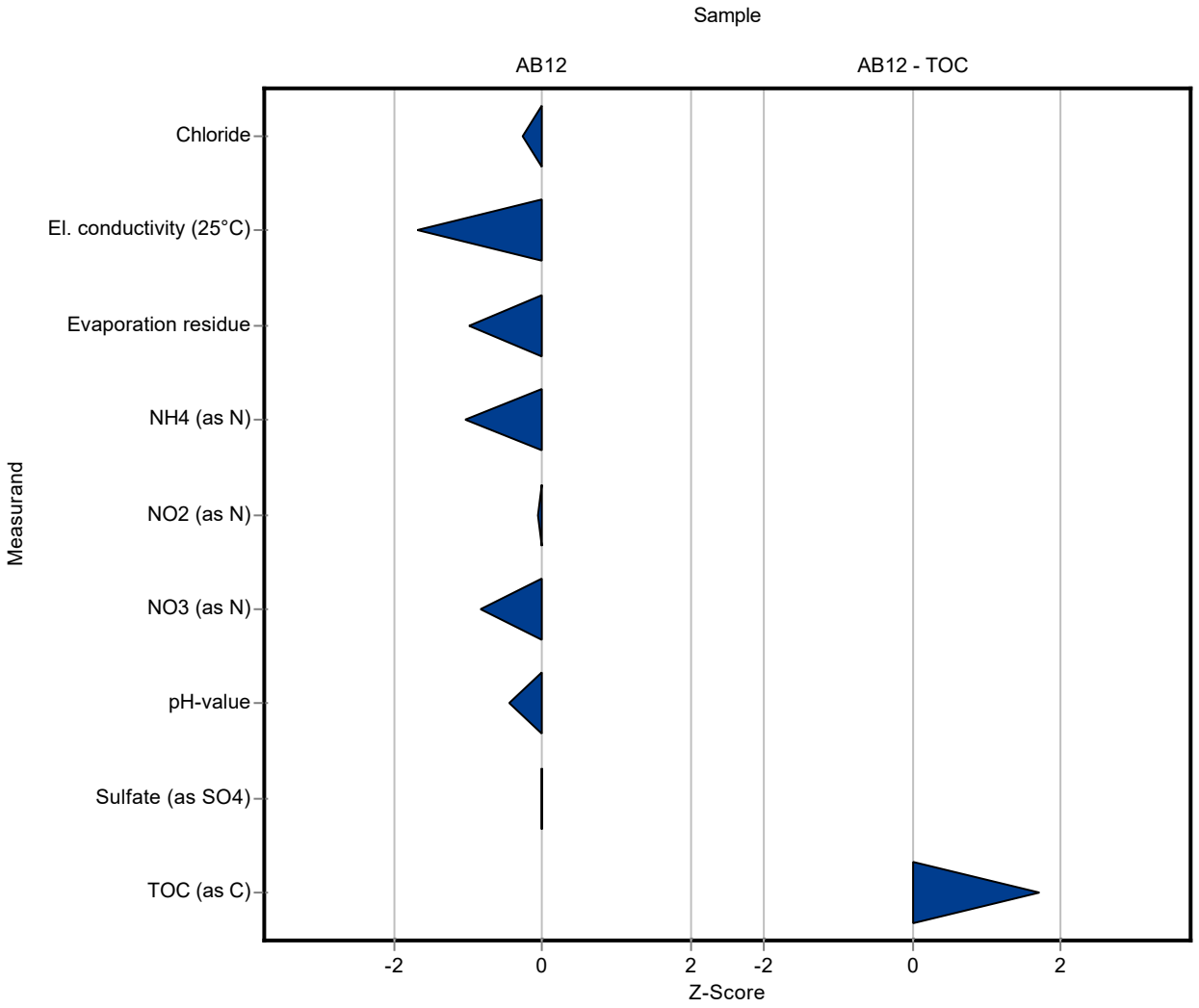
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1502 ± 105	76.1	98.7	-0.26
El. conductivity (25°C)	mS/m	510 ± 4.26	493 ± 14.8	10.2	96.6	-1.68
Evaporation residue	mg/l	3750 ± 258	3086 ± 154	674	82.4	-0.98
Fluoride	mg/l	0.304 ± 0.0494	<0.5 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.301 ± 0.0271	0.027	91.5	-1.04
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.032 ± 0.00352	0.00273	99.5	-0.05
NO3 (as N)	mg/l	2.3 ± 0.0615	2.19 ± 0.131	0.138	95	-0.83
pH-value		7.92 ± 0.0475	7.85 ± 0.236	0.158	99.1	-0.44
PO4 (as P)	mg/l	- ± -	0.0013 ± 0.0004	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	116 ± 6.96	5.8	100	0.00

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	15.3 ± 1.68	0.98	112	1.72

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0024



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0024

Sample: AB12

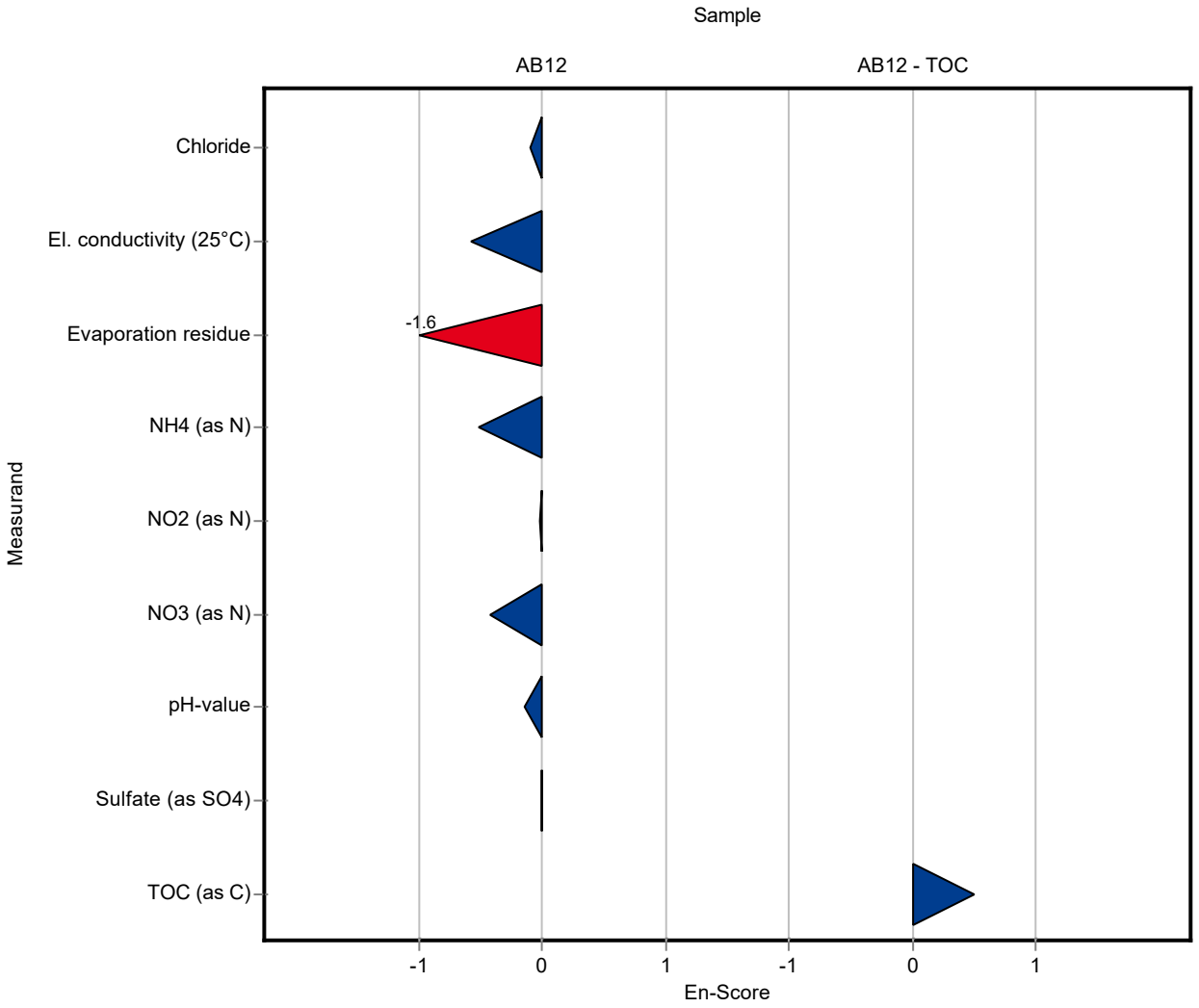
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1502 ± 105	76.1	98.7	-0.09
El. conductivity (25°C)	mS/m	510 ± 4.26	493 ± 14.8	10.2	96.6	-0.58
Evaporation residue	mg/l	3750 ± 258	3086 ± 154	674	82.4	-1.64
Fluoride	mg/l	0.304 ± 0.0494	<0.5 (LOQ) ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	0.301 ± 0.0271	0.027	91.5	-0.51
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.032 ± 0.00352	0.00273	99.5	-0.02
NO3 (as N)	mg/l	2.3 ± 0.0615	2.19 ± 0.131	0.138	95	-0.42
pH-value		7.92 ± 0.0475	7.85 ± 0.236	0.158	99.1	-0.15
PO4 (as P)	mg/l	- ± -	0.0013 ± 0.0004	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	116 ± 6.96	5.8	100	0.00

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	15.3 ± 1.68	0.98	112	0.50

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0024



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0025

Sample: AB12

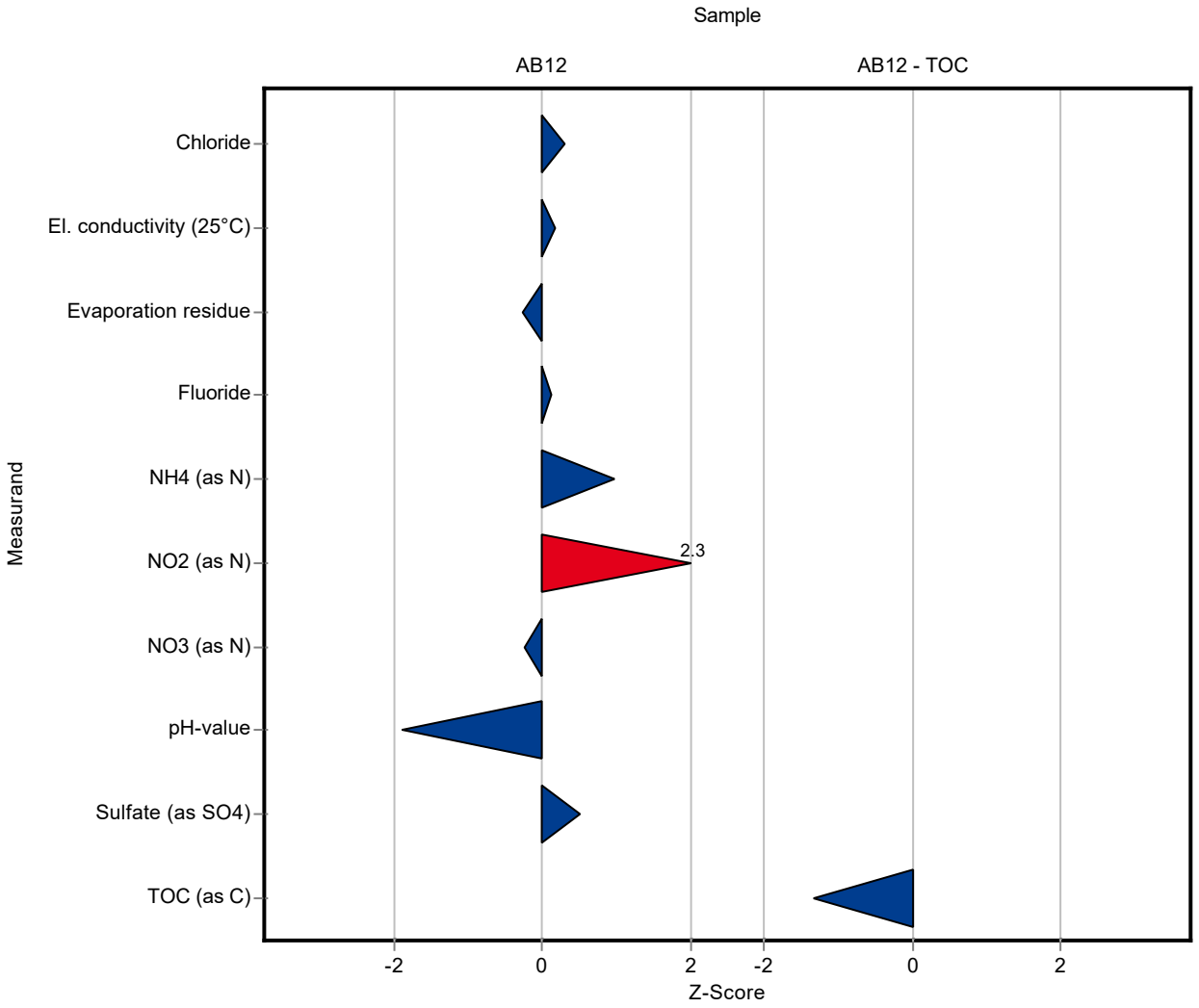
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1544.645 ± 124	76.1	102	0.30
El. conductivity (25°C)	mS/m	510 ± 4.26	512 ± 20	10.2	100	0.18
Evaporation residue	mg/l	3750 ± 258	3573 ± 714	674	95.4	-0.26
Fluoride	mg/l	0.304 ± 0.0494	0.317 ± 0.0285	0.107	104	0.12
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3553 ± 0.028	0.027	108	0.97
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0385 ± 0.003	0.00273	120	2.32
NO3 (as N)	mg/l	2.3 ± 0.0615	2.272 ± 0.2	0.138	98.6	-0.23
pH-value		7.92 ± 0.0475	7.62 ± 0.07	0.158	96.2	-1.89
PO4 (as P)	mg/l	- ± -	0.1358 ± 0.02	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	118.958 ± 11.896	5.8	103	0.51

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	12.3 ± 1.23	0.98	90.3	-1.34

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0025



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0025

Sample: AB12

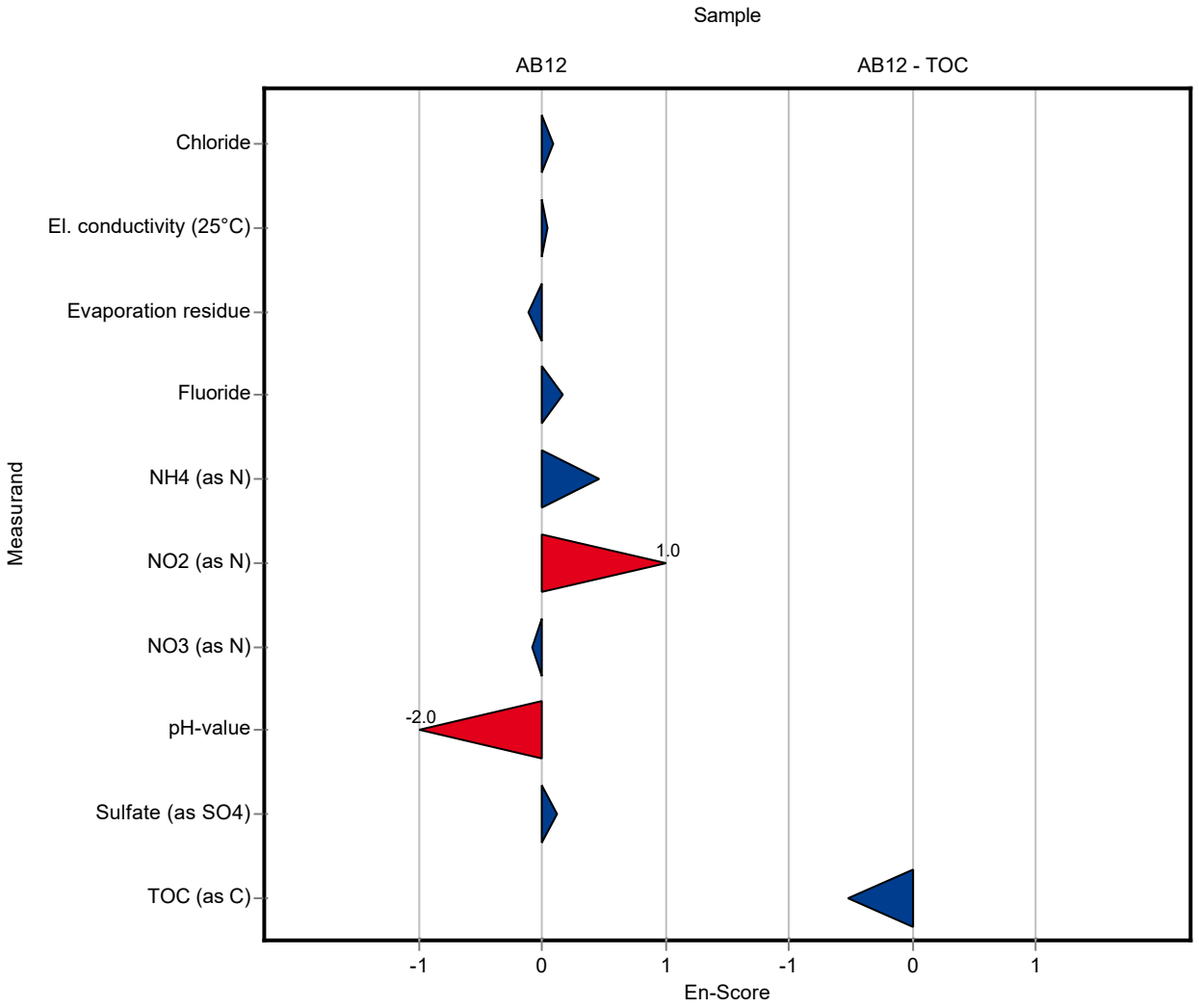
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1544.645 ± 124	76.1	102	0.09
El. conductivity (25°C)	mS/m	510 ± 4.26	512 ± 20	10.2	100	0.04
Evaporation residue	mg/l	3750 ± 258	3573 ± 714	674	95.4	-0.12
Fluoride	mg/l	0.304 ± 0.0494	0.317 ± 0.0285	0.107	104	0.17
NH4 (as N)	mg/l	0.329 ± 0.0105	0.3553 ± 0.028	0.027	108	0.46
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0385 ± 0.003	0.00273	120	1.04
NO3 (as N)	mg/l	2.3 ± 0.0615	2.272 ± 0.2	0.138	98.6	-0.08
pH-value		7.92 ± 0.0475	7.62 ± 0.07	0.158	96.2	-2.03
PO4 (as P)	mg/l	- ± -	0.1358 ± 0.02	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	118.958 ± 11.896	5.8	103	0.12

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	12.3 ± 1.23	0.98	90.3	-0.53

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0025



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0026

Sample: AB12

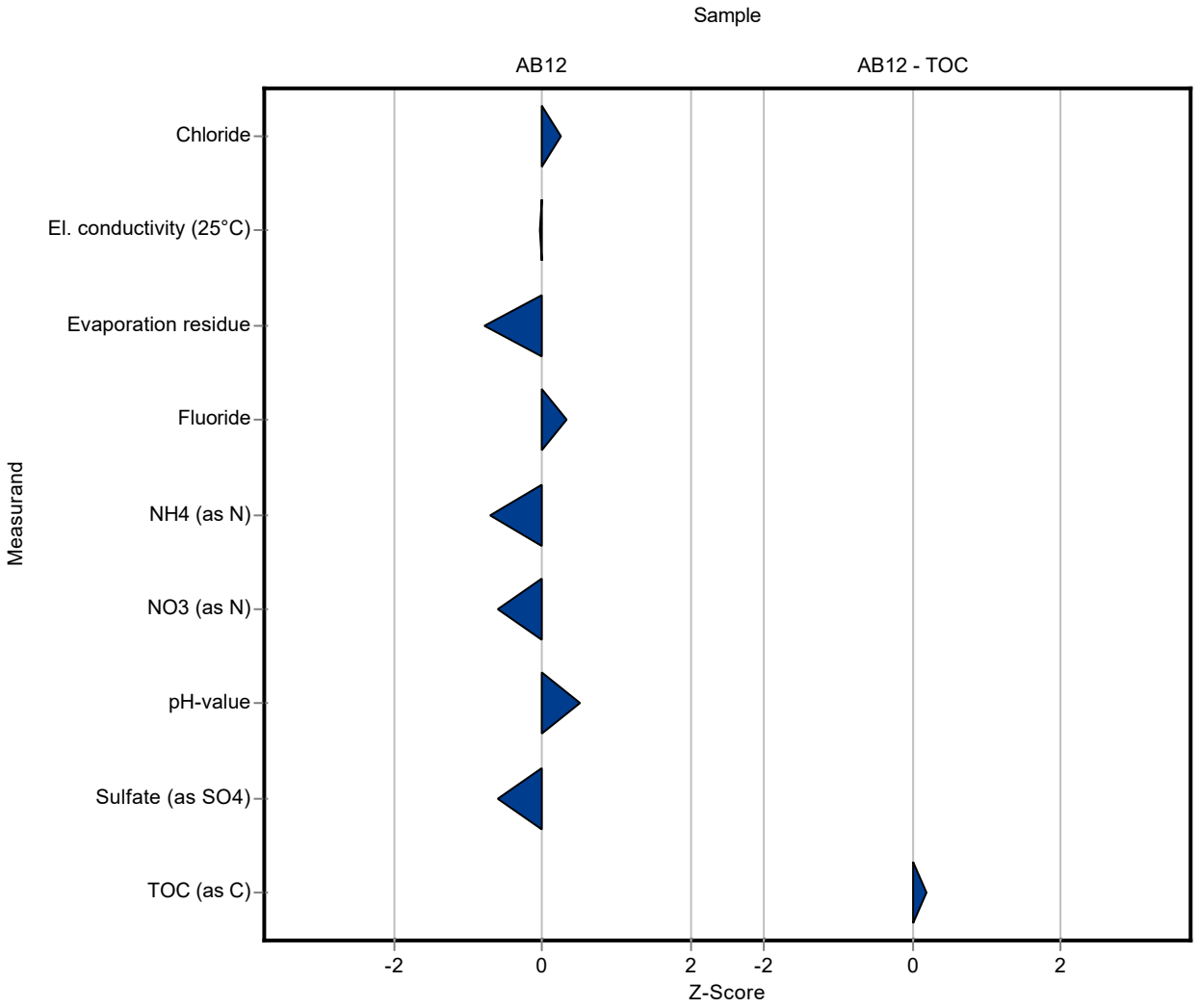
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1541 ± 46	76.1	101	0.25
El. conductivity (25°C)	mS/m	510 ± 4.26	510 ± 11	10.2	100	-0.02
Evaporation residue	mg/l	3750 ± 258	3224 ± 65	674	86.1	-0.77
Fluoride	mg/l	0.304 ± 0.0494	0.34 ± 0.03	0.107	112	0.33
NH4 (as N)	mg/l	0.329 ± 0.0105	0.31 ± 0.02	0.027	94.2	-0.71
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	2.22 ± 0.07	0.138	96.3	-0.61
pH-value		7.92 ± 0.0475	8 ± 0.1	0.158	101	0.51
PO4 (as P)	mg/l	- ± -	<0.05 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	112.5 ± 3.4	5.8	97	-0.60

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.8 ± 1.3	0.98	101	0.19

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0026



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0026

Sample: AB12

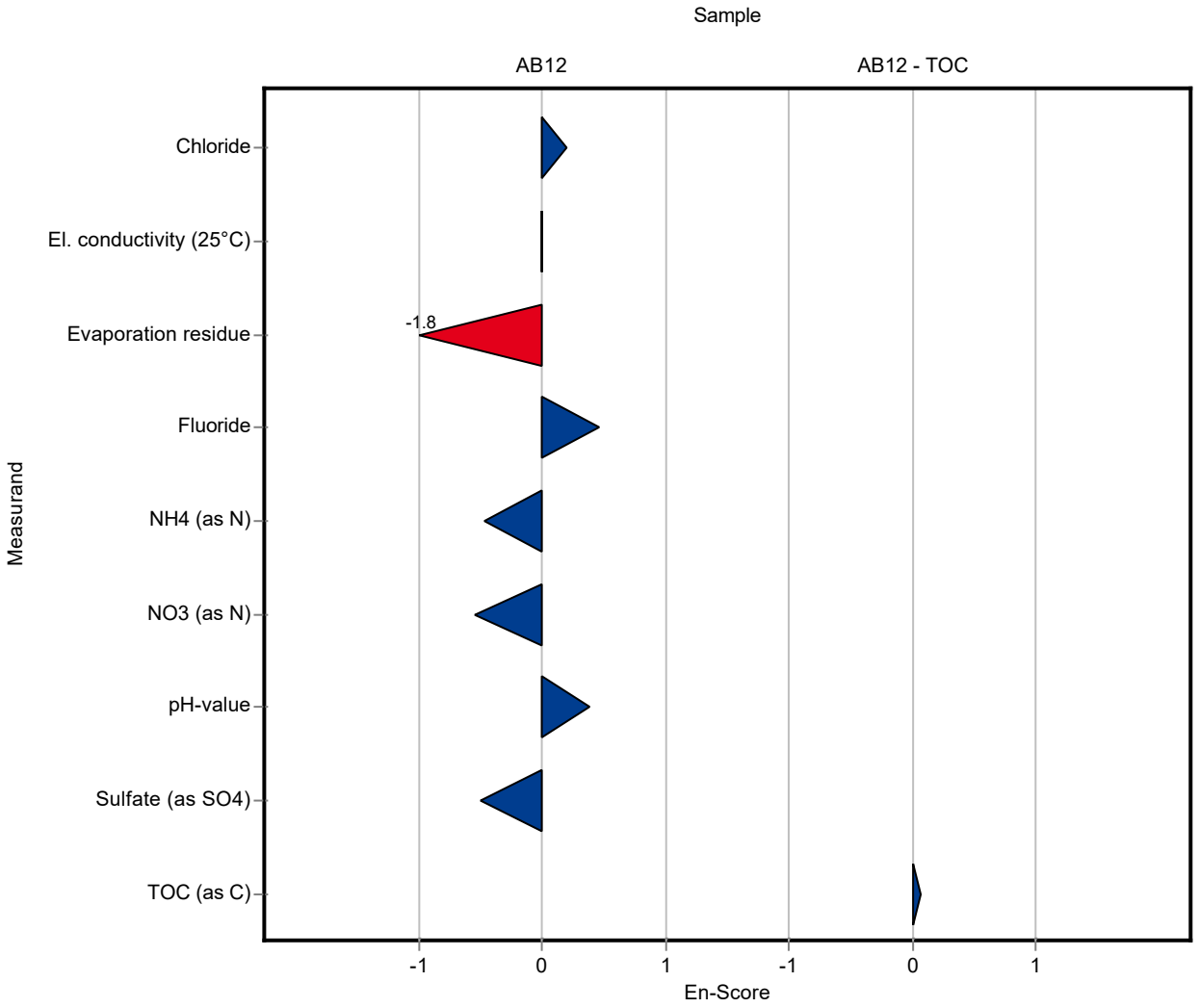
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1541 ± 46	76.1	101	0.21
El. conductivity (25°C)	mS/m	510 ± 4.26	510 ± 11	10.2	100	-0.01
Evaporation residue	mg/l	3750 ± 258	3224 ± 65	674	86.1	-1.80
Fluoride	mg/l	0.304 ± 0.0494	0.34 ± 0.03	0.107	112	0.46
NH4 (as N)	mg/l	0.329 ± 0.0105	0.31 ± 0.02	0.027	94.2	-0.46
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	2.22 ± 0.07	0.138	96.3	-0.55
pH-value		7.92 ± 0.0475	8 ± 0.1	0.158	101	0.39
PO4 (as P)	mg/l	- ± -	<0.05 (LOQ) ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	112.5 ± 3.4	5.8	97	-0.49

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.8 ± 1.3	0.98	101	0.07

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0026



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0027

Sample: AB12

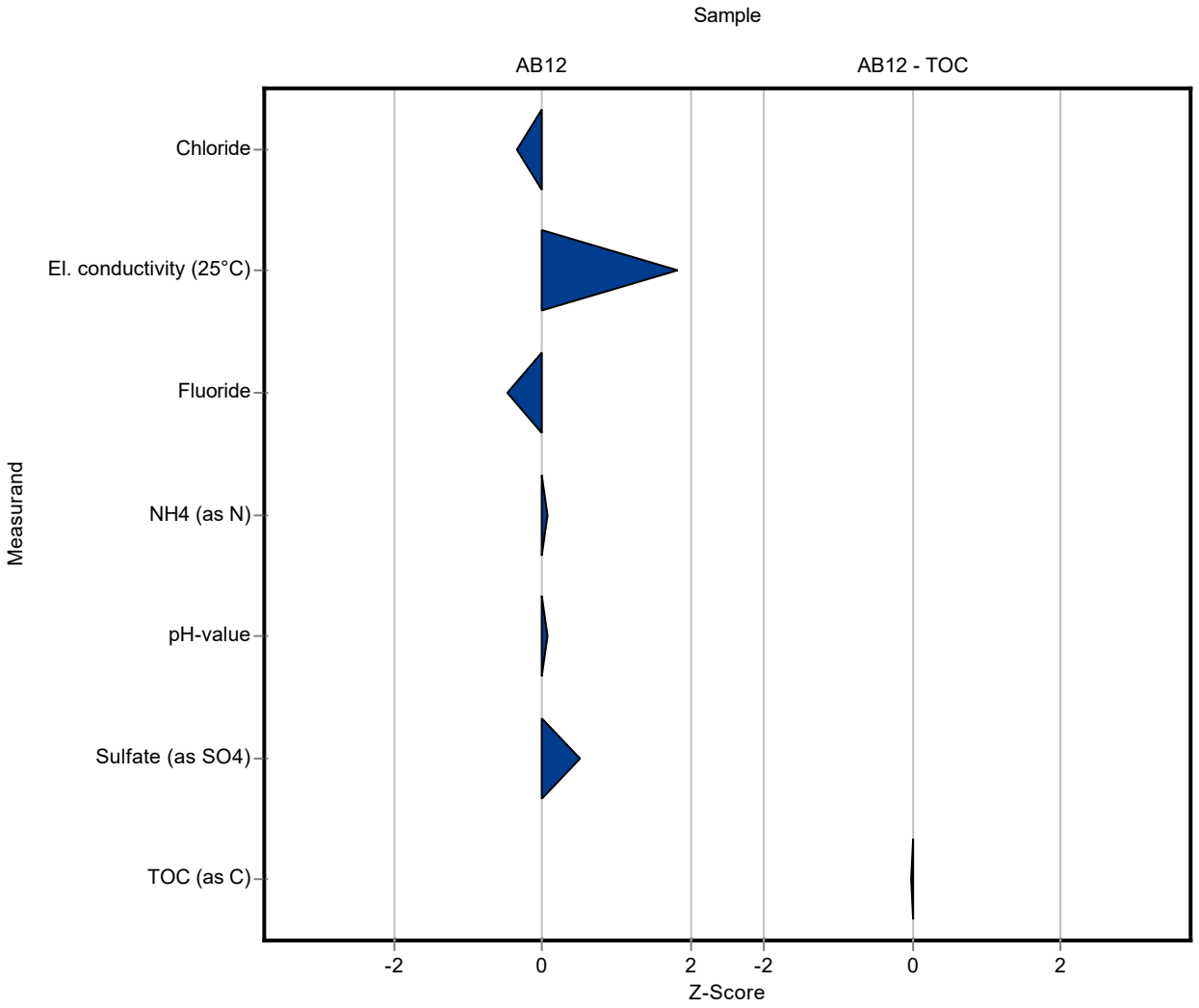
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1496 ± 42.6	76.1	98.3	-0.34
El. conductivity (25°C)	mS/m	510 ± 4.26	529 ± 14.2	10.2	104	1.84
Evaporation residue	mg/l	3750 ± 258	- ± -	674	-	-
Fluoride	mg/l	0.304 ± 0.0494	0.253 ± 0.0241	0.107	83.1	-0.48
NH4 (as N)	mg/l	0.329 ± 0.0105	0.331 ± 0.004	0.027	101	0.07
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	7.93 ± 0.13	0.158	100	0.06
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	119 ± 2.51	5.8	103	0.52

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.6 ± 1.16	0.98	99.9	-0.02

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0027



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0027

Sample: AB12

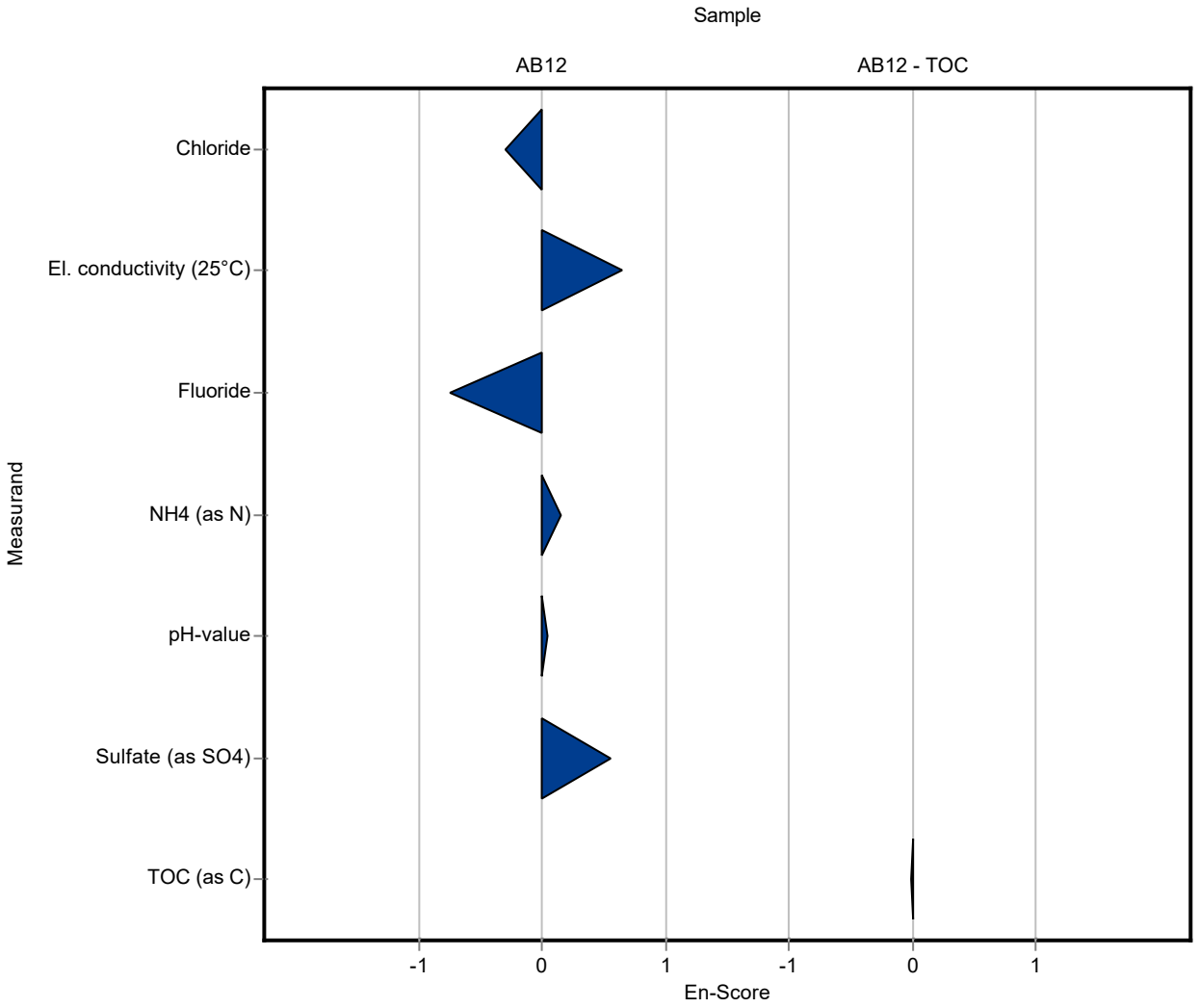
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1496 ± 42.6	76.1	98.3	-0.30
El. conductivity (25°C)	mS/m	510 ± 4.26	529 ± 14.2	10.2	104	0.65
Evaporation residue	mg/l	3750 ± 258	- ± -	674	-	-
Fluoride	mg/l	0.304 ± 0.0494	0.253 ± 0.0241	0.107	83.1	-0.74
NH4 (as N)	mg/l	0.329 ± 0.0105	0.331 ± 0.004	0.027	101	0.15
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	7.93 ± 0.13	0.158	100	0.04
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	119 ± 2.51	5.8	103	0.56

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.6 ± 1.16	0.98	99.9	-0.01

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0027



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0028

Sample: AB12

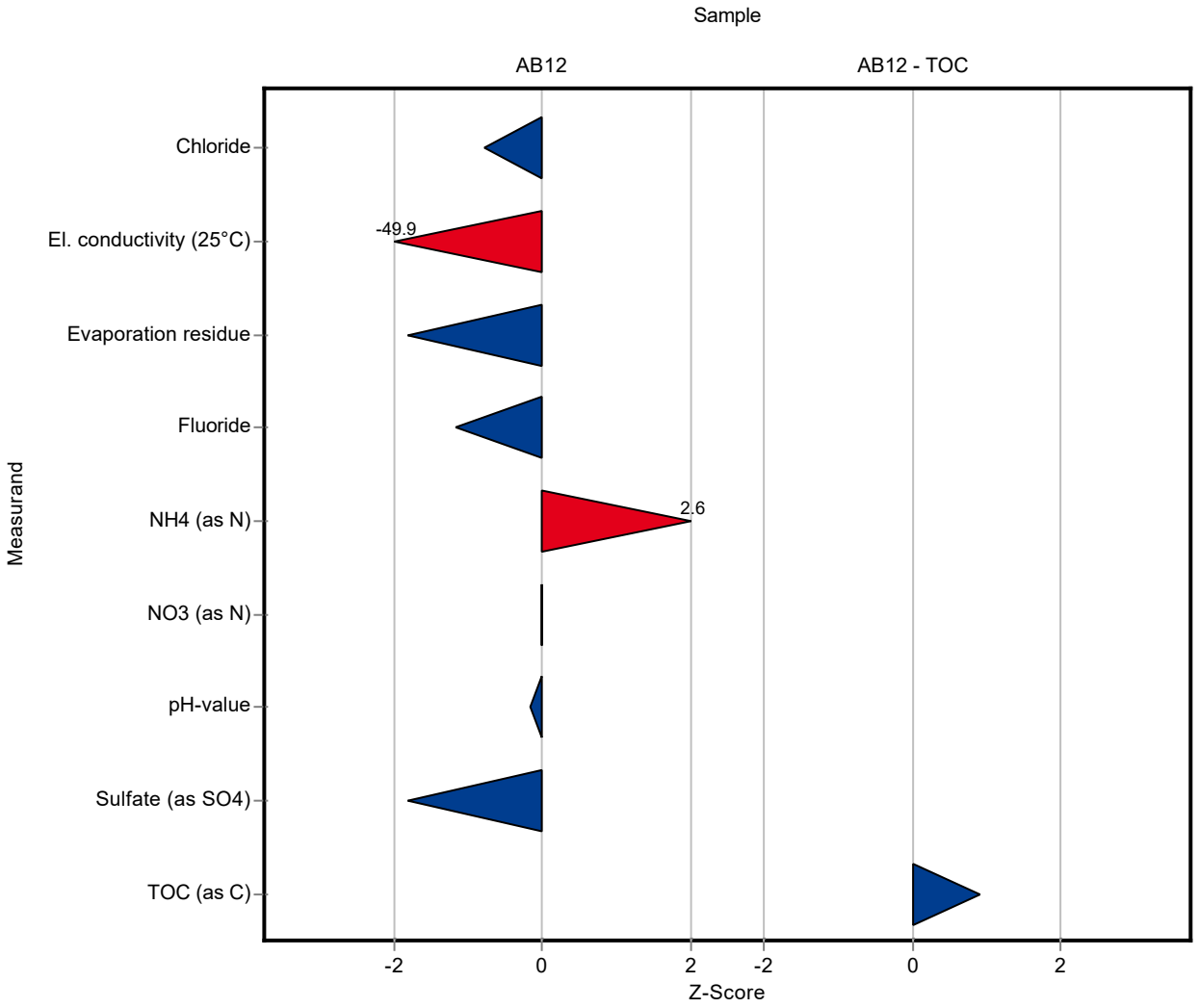
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1461.599 ± 430	76.1	96	-0.79
El. conductivity (25°C)	mS/m	510 ± 4.26	0.504 ± 0.15	10.2	0.0988	-49.89
Evaporation residue	mg/l	3750 ± 258	2516.5 ± 80	674	67.2	-1.82
Fluoride	mg/l	0.304 ± 0.0494	0.179 ± 0.054	0.107	58.8	-1.18
NH4 (as N)	mg/l	0.329 ± 0.0105	0.399 ± 0.04	0.027	121	2.59
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	2.305 ± 0.69	0.138	100	0.01
pH-value		7.92 ± 0.0475	7.896 ± 0.4	0.158	99.7	-0.15
PO4 (as P)	mg/l	- ± -	0.163 ± 0.054	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	105.498 ± 35	5.8	90.9	-1.81

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.5 ± 1.5	0.98	106	0.90

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0028



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0028

Sample: AB12

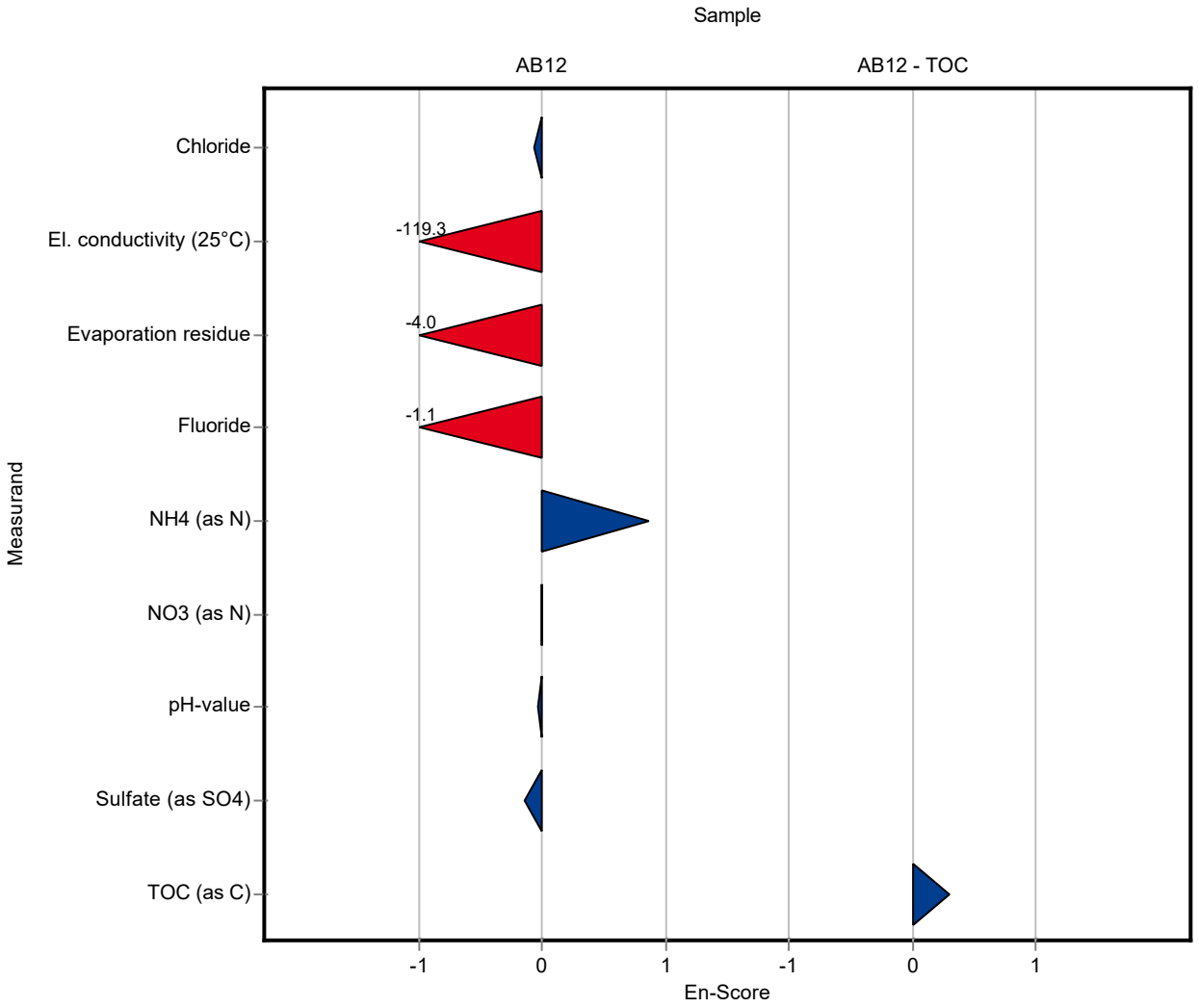
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1461.599 ± 430	76.1	96	-0.07
El. conductivity (25°C)	mS/m	510 ± 4.26	0.504 ± 0.15	10.2	0.0988	-119.34
Evaporation residue	mg/l	3750 ± 258	2516.5 ± 80	674	67.2	-4.05
Fluoride	mg/l	0.304 ± 0.0494	0.179 ± 0.054	0.107	58.8	-1.06
NH4 (as N)	mg/l	0.329 ± 0.0105	0.399 ± 0.04	0.027	121	0.87
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	2.305 ± 0.69	0.138	100	0.00
pH-value		7.92 ± 0.0475	7.896 ± 0.4	0.158	99.7	-0.03
PO4 (as P)	mg/l	- ± -	0.163 ± 0.054	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	105.498 ± 35	5.8	90.9	-0.15

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	14.5 ± 1.5	0.98	106	0.29

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0028



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0029

Sample: AB12

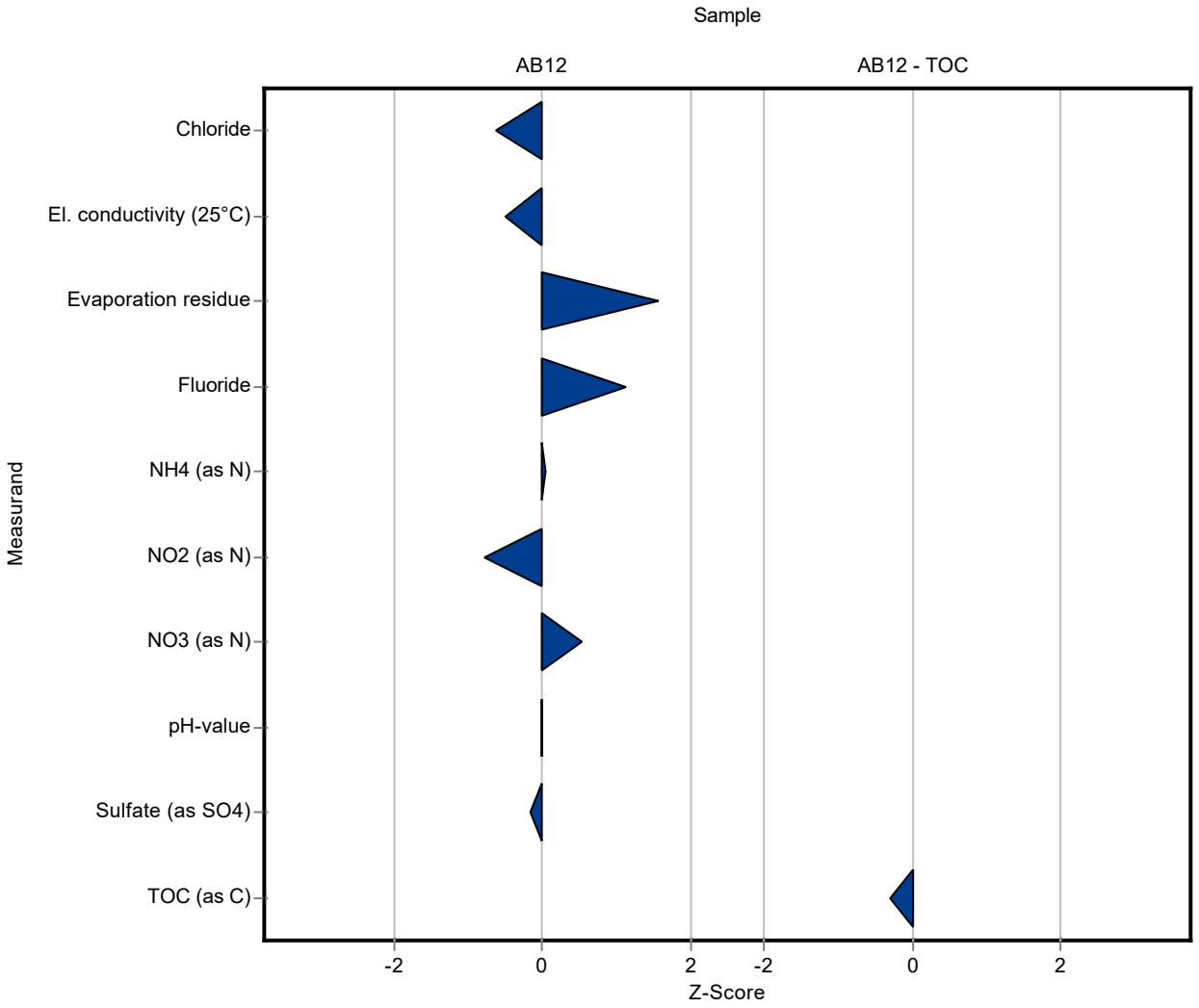
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1474 ± 156	76.1	96.9	-0.63
El. conductivity (25°C)	mS/m	510 ± 4.26	505 ± 29.1	10.2	99	-0.51
Evaporation residue	mg/l	3750 ± 258	4796 ± 490	674	128	1.56
Fluoride	mg/l	0.304 ± 0.0494	0.425 ± 0.059	0.107	140	1.13
NH4 (as N)	mg/l	0.329 ± 0.0105	0.33 ± 0.049	0.027	100	0.03
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.004	0.00273	93.3	-0.79
NO3 (as N)	mg/l	2.3 ± 0.0615	2.38 ± 0.25	0.138	103	0.55
pH-value		7.92 ± 0.0475	7.92 ± 0.39	0.158	100	0.00
PO4 (as P)	mg/l	- ± -	0.123 ± 0.025	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	115 ± 16	5.8	99.1	-0.17

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.33 ± 0.665	0.98	97.9	-0.29

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0029



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0029

Sample: AB12

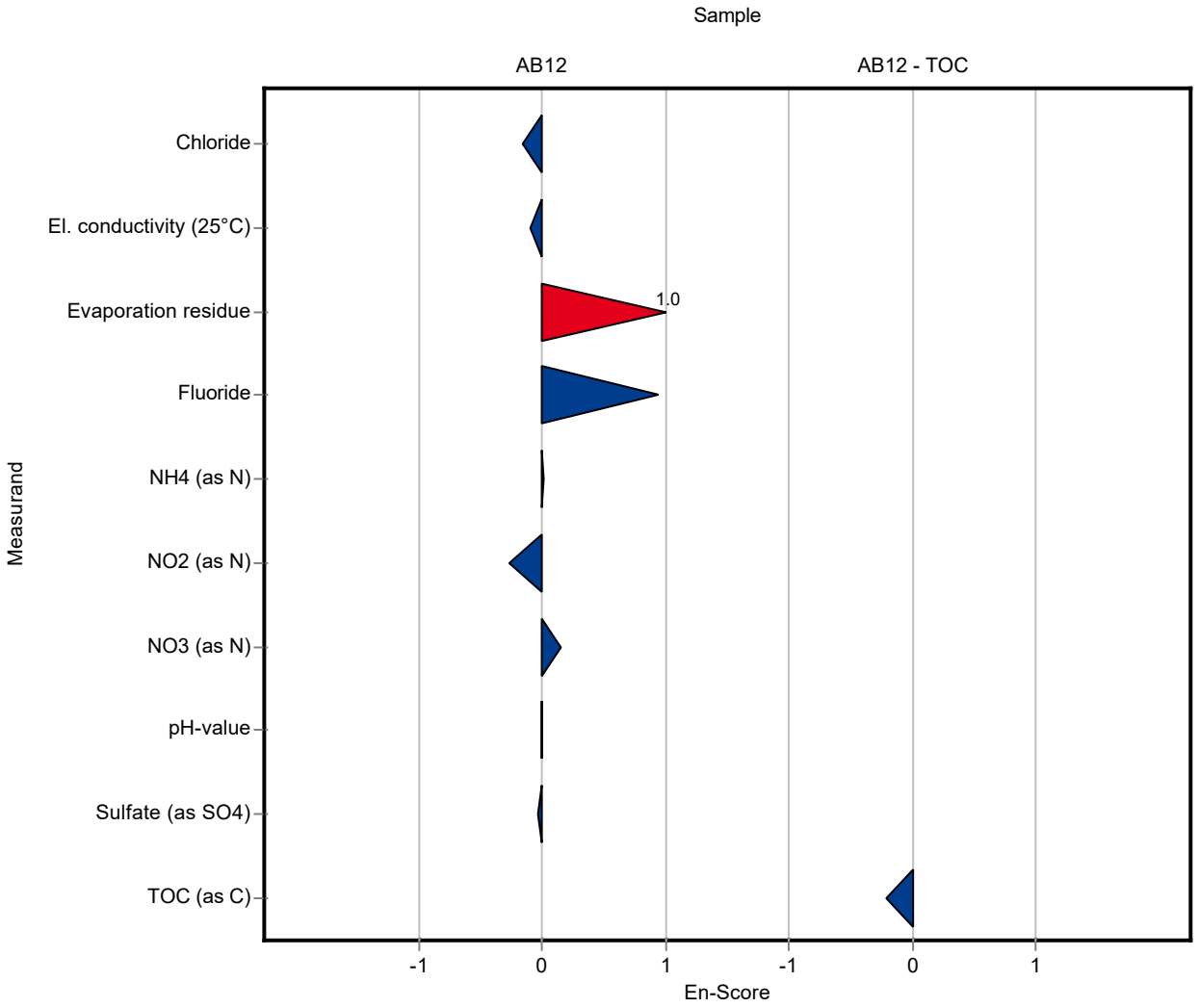
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1474 ± 156	76.1	96.9	-0.15
El. conductivity (25°C)	mS/m	510 ± 4.26	505 ± 29.1	10.2	99	-0.09
Evaporation residue	mg/l	3750 ± 258	4796 ± 490	674	128	1.04
Fluoride	mg/l	0.304 ± 0.0494	0.425 ± 0.059	0.107	140	0.94
NH4 (as N)	mg/l	0.329 ± 0.0105	0.33 ± 0.049	0.027	100	0.01
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.03 ± 0.004	0.00273	93.3	-0.27
NO3 (as N)	mg/l	2.3 ± 0.0615	2.38 ± 0.25	0.138	103	0.15
pH-value		7.92 ± 0.0475	7.92 ± 0.39	0.158	100	0.00
PO4 (as P)	mg/l	- ± -	0.123 ± 0.025	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	115 ± 16	5.8	99.1	-0.03

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	13.33 ± 0.665	0.98	97.9	-0.21

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0029



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0030

Sample: AB12

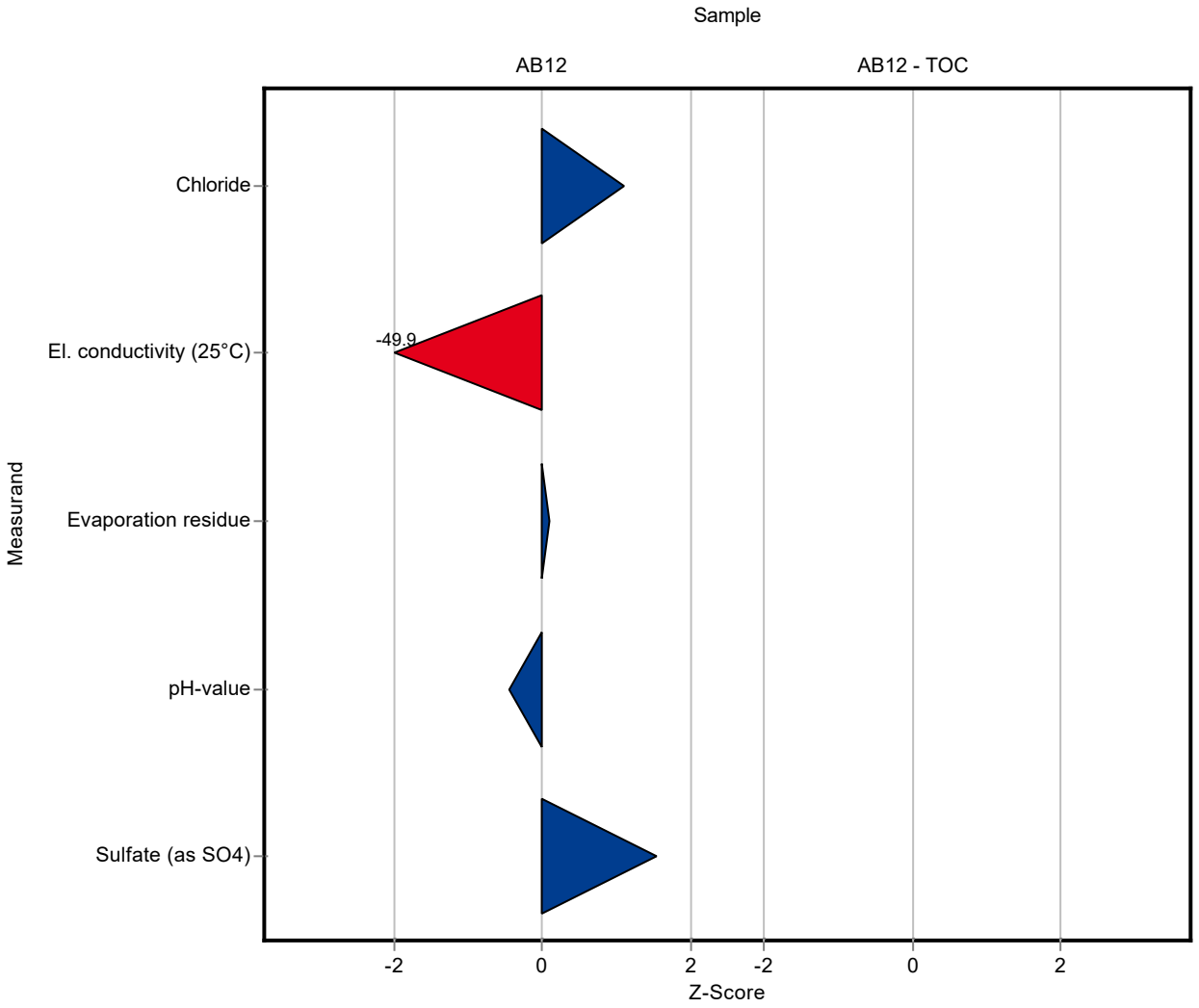
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1605 ± 108.7	76.1	105	1.09
El. conductivity (25°C)	mS/m	510 ± 4.26	0.000518 ± 0.000025	10.2	0.000102	-49.94
Evaporation residue	mg/l	3750 ± 258	3809 ± 123.4	674	102	0.09
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	7.85 ± 0.12	0.158	99.1	-0.44
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	125 ± 10.63	5.8	108	1.55

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	- ± -	0.98	-	-

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0030



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0030

Sample: AB12

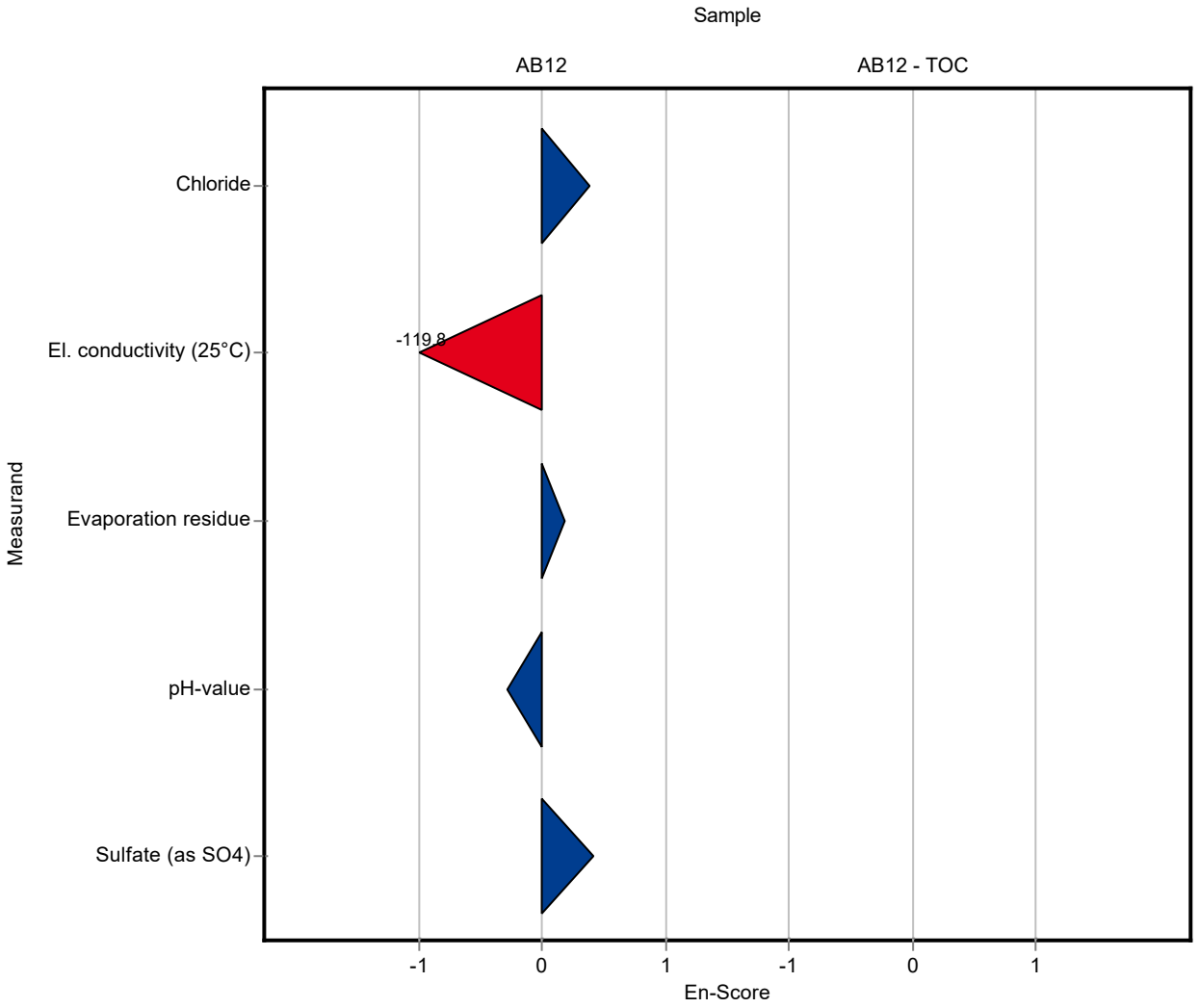
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1605 ± 108.7	76.1	105	0.38
El. conductivity (25°C)	mS/m	510 ± 4.26	0.000518 ± 0.000025	10.2	0.000102	-119.75
Evaporation residue	mg/l	3750 ± 258	3809 ± 123.4	674	102	0.18
Fluoride	mg/l	0.304 ± 0.0494	- ± -	0.107	-	-
NH4 (as N)	mg/l	0.329 ± 0.0105	- ± -	0.027	-	-
NO2 (as N)	mg/l	0.0321 ± 0.00121	- ± -	0.00273	-	-
NO3 (as N)	mg/l	2.3 ± 0.0615	- ± -	0.138	-	-
pH-value		7.92 ± 0.0475	7.85 ± 0.12	0.158	99.1	-0.29
PO4 (as P)	mg/l	- ± -	- ± -	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	125 ± 10.63	5.8	108	0.42

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	- ± -	0.98	-	-

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0030



Summary of results Waste acc to landfill directive (eluate ions) - AB12 Labcode: LC0031

Sample: AB12

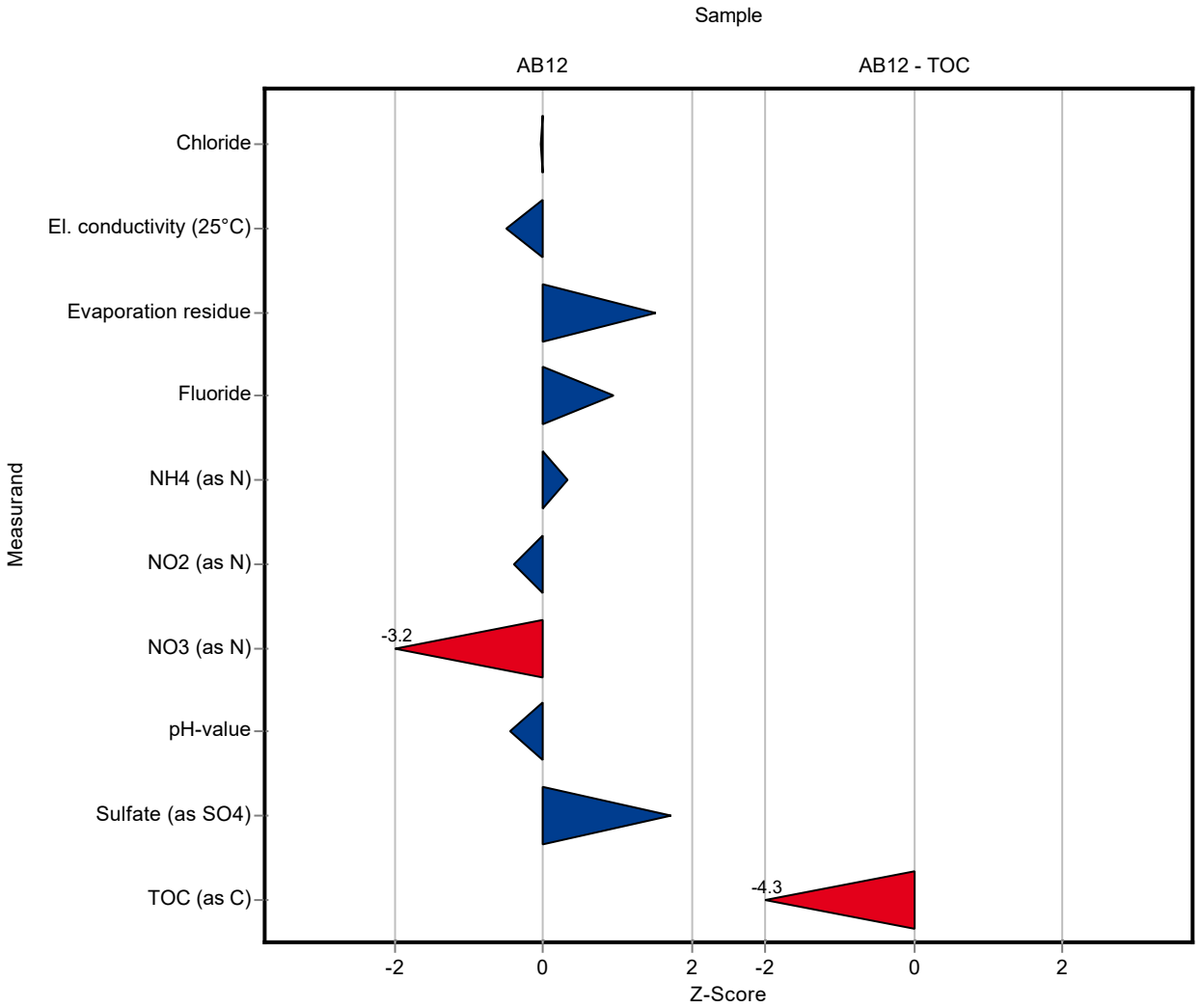
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
Chloride	mg/l	1520 ± 17.9	1520 ± 100	76.1	99.9	-0.02
El. conductivity (25°C)	mS/m	510 ± 4.26	505 ± 7.5	10.2	99	-0.51
Evaporation residue	mg/l	3750 ± 258	4770 ± 50	674	127	1.52
Fluoride	mg/l	0.304 ± 0.0494	0.405 ± 0.025	0.107	133	0.95
NH4 (as N)	mg/l	0.329 ± 0.0105	0.338 ± 0.05	0.027	103	0.33
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0311 ± 0.0025	0.00273	96.7	-0.38
NO3 (as N)	mg/l	2.3 ± 0.0615	1.86 ± 0.06	0.138	80.7	-3.21
pH-value		7.92 ± 0.0475	7.85 ± 0.1	0.158	99.1	-0.44
PO4 (as P)	mg/l	- ± -	0.0811 ± 0.005	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	126 ± 5	5.8	109	1.72

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	z-Score
TOC (as C)	mg/l	13.6 ± 0.398	9.38 ± 0.5	0.98	68.9	-4.32

Summary of results Waste acc to landfill directive (eluate ions) - AB12

Labcode: LC0031



Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0031

Sample: AB12

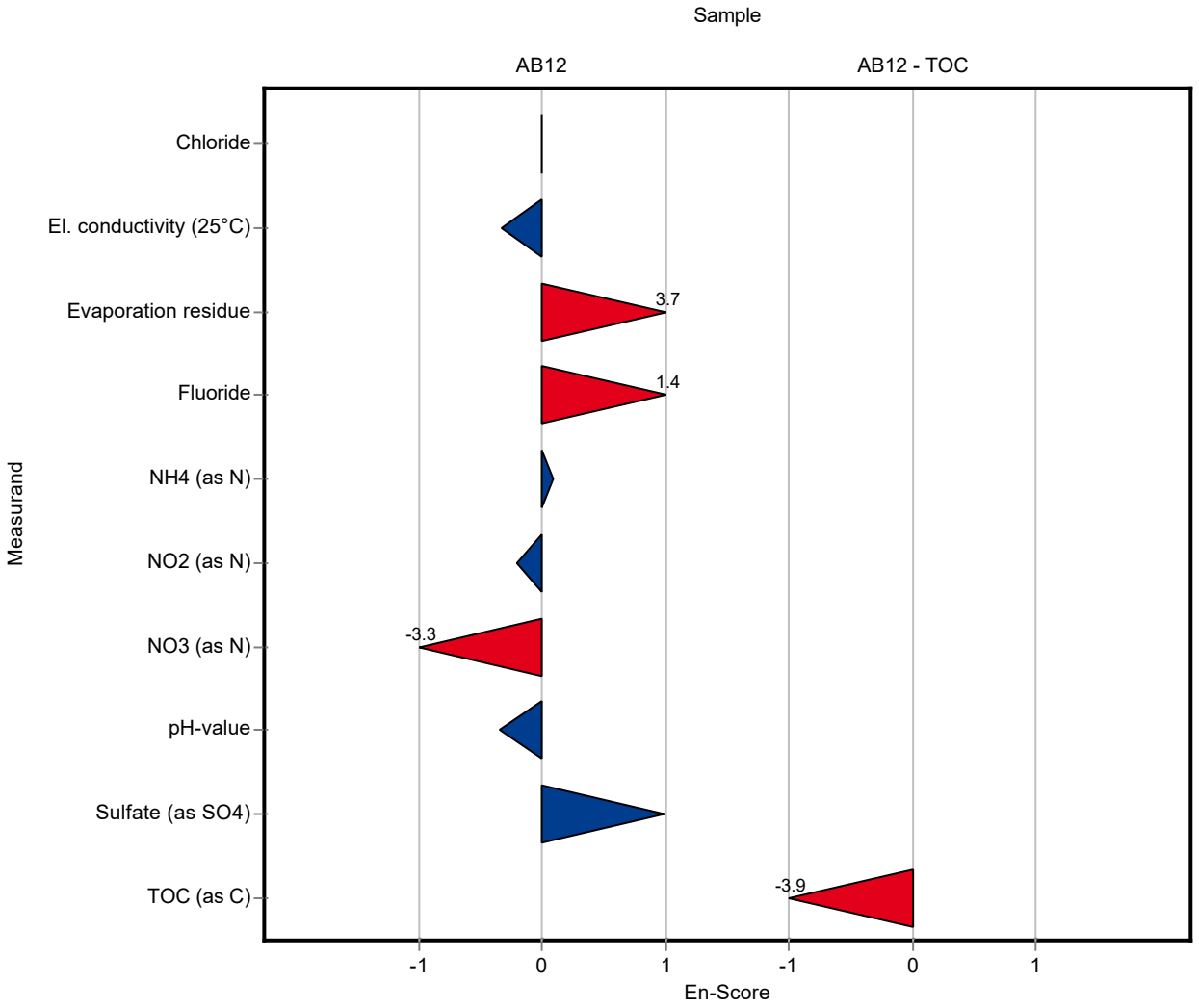
Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
Chloride	mg/l	1520 ± 17.9	1520 ± 100	76.1	99.9	-0.01
El. conductivity (25°C)	mS/m	510 ± 4.26	505 ± 7.5	10.2	99	-0.33
Evaporation residue	mg/l	3750 ± 258	4770 ± 50	674	127	3.70
Fluoride	mg/l	0.304 ± 0.0494	0.405 ± 0.025	0.107	133	1.43
NH4 (as N)	mg/l	0.329 ± 0.0105	0.338 ± 0.05	0.027	103	0.09
NO2 (as N)	mg/l	0.0321 ± 0.00121	0.0311 ± 0.0025	0.00273	96.7	-0.20
NO3 (as N)	mg/l	2.3 ± 0.0615	1.86 ± 0.06	0.138	80.7	-3.29
pH-value		7.92 ± 0.0475	7.85 ± 0.1	0.158	99.1	-0.34
PO4 (as P)	mg/l	- ± -	0.0811 ± 0.005	-	-	-
Sulfate (as SO4)	mg/l	116 ± 1.93	126 ± 5	5.8	109	0.98

Sample: AB12TOC

Parameter	Unit	Assigned value ± U (k=2)	Result ± U	Criterion	Recovery [%]	En-Score
TOC (as C)	mg/l	13.6 ± 0.398	9.38 ± 0.5	0.98	68.9	-3.94

Summary of results Waste acc to landfill directive (eluate ions) - AB12 - En-Score

Labcode: LC0031



E9. Methodenübersicht / Overview of methods

LabCode	Sample	Chloride	El. conductivity (25°C)	Sulfate (as SO4)	pH-value	Evaporation residue	Fluoride
LC0001	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;		EN ISO 10304-1;
LC0002	AB12	EN ISO 10304-1; IC	DIN 38409-1;	EN ISO 10304-1; IC	DIN 38404-5;	EN 13370;	EN ISO 10304-1; IC
LC0003	AB12						
LC0004	AB12	EN ISO 10304-1;	EN 27888; C8	EN ISO 10304-1;	EN ISO 10523; C5	EN 15216;	EN ISO 10304-1;
LC0005	AB12	DIN 38405-1; D1; potentiometrically	EN 27888; C8	FIA; MLE SO4M2AC	EN ISO 10523; C5	EN 15216; Gravimetry	
LC0006	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	DIN 38409-1; H1	EN ISO 10304-1;
LC0007	AB12	EN ISO 10304-1; D20	EN 27888; Conductometry	EN ISO 10304-1; D20	EN ISO 10523; electrochemistry	DIN 38409-1; H1; Gravimetry	EN ISO 10304-1; D20
LC0008	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523; DIN 19268	DIN 38409-1;	EN ISO 10304-1;
LC0009	AB12	EN ISO 10304-1; IC	EN 27888;	EN ISO 10304-1; IC	EN ISO 10523;	EN 15216;	EN ISO 10304-1; IC
LC0010	AB12		Conductivity;	IC;	EN 1484;	Gravimetry;	
LC0011	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	DIN 38409-1; H1	DIN 38405-4; D4
LC0012	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	DIN 38409-1;	EN ISO 10304-1;
LC0013	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	EN 15216;	
LC0014	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	DIN 38409-1;	EN ISO 10304-1;
LC0015	AB12	EN ISO 10304-1;	ISO 11265;	EN ISO 10304-1;	EN ISO 10390;	EN 12880;	EN ISO 10304-1;
LC0016	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	DIN 38404-5; C5	DIN 38409-1; H1	EN ISO 10304-1;
LC0017	AB12	DIN 38405-1; D1-2	EN 27888; C8	EN ISO 11885; E22	EN ISO 10523; C5	DIN 38409-1; H1	DIN 38405-4; D4-1
LC0018	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	EN 15216;	DIN 38405-4;
LC0019	AB12	EN ISO 10304-1; IC	EN 27888;	EN ISO 10304-1; IC	EN ISO 10523;	EN 15216;	EN ISO 10304-1; IC
LC0020	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	DIN 38409-1;	EN ISO 10304-1;
LC0021	AB12		EN 27888; C8			DIN 38409-1; H	
LC0022	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	DIN 38409-1;	EN ISO 10304-1;
LC0023	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523; C5	DIN 38409-1; H1-1	EN ISO 10304-1;
LC0024	AB12	EN ISO 10304-1; IC	EN 27888; Elektrochemistry	EN ISO 10304-1; IC	EN ISO 10523; electrochemistry	EN 15216; Volumetry; Gravimetry;	EN ISO 10304-1; IC
LC0025	AB12	EN ISO 10304-1;	EN 27888; C8	EN ISO 10304-1;	DIN 38404-5; C5	DIN 38409-1; H1-2	EN ISO 10304-1;
LC0026	AB12	EN ISO 10304-1; AV040	EN 27888; AV018	EN ISO 10304-1; AV040	EN ISO 10523; AV017	DIN 38409-1; AV069	EN ISO 10304-1; AV040
LC0027	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	DIN 38404-5;		DIN 38405-4;
LC0028	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	DIN 38409-1;	EN ISO 10304-1;
LC0029	AB12	EN ISO 10304-1; D20	EN 27888; C8	EN ISO 10304-1; D20	EN ISO 10523;	EN 15216;	EN ISO 10304-1; D20
LC0030	AB12	ISO 9297;	EN 27888;	Gravimetry; STAS 8601-1970; Gravimetric method (BaCl2)	EN ISO 10523;	EN 15216;	
LC0031	AB12	EN ISO 10304-1;	EN 27888;	EN ISO 10304-1;	EN ISO 10523;	EN 15216;	EN ISO 10304-1;

LabCode	Sample	NH4 (as N)	PO4 (as P)	NO3 (as N)	NO2 (as N)	TOC (as C)
LC0001	AB12					EN 1484;
LC0002	AB12	DIN 38406-5; E5-1/UV-Vis	EN ISO 10304-1; IC	EN ISO 10304-1; IC	EN ISO 10304-1; IC	EN 13137;
LC0003	AB12					
LC0004	AB12	EN ISO 14403-1; D2	EN ISO 11885;	EN ISO 10304-1;	EN 26777;	EN 1484; H3
LC0005	AB12	EN ISO 11732; E23; FIA	EN ISO 15681-1; D45, FIA	EN ISO 13395; D28; FIA	EN ISO 13395; D28; FIA	
LC0006	AB12	DIN 38406-5; E5	EN ISO 17294-2;	EN ISO 10304-1;	EN 26777;	EN 1484;
LC0007	AB12	EN ISO 11732; E23	EN ISO 11885; E22; ICP-OES	EN ISO 10304-1; D20	EN ISO 10304-1; D20	EN 1484; H3; thermal oxidation
LC0008	AB12	DIN 38406-5; ISO 7150-1	EN ISO 6878;	EN ISO 10304-1;	EN 26777;	
LC0009	AB12	EN ISO 11732;	EN ISO 15681-1;	EN ISO 10304-1; IC	EN ISO 13395;	EN 1484;
LC0010	AB12	Photometry;	Photometry;	IC;	Photometry;	EN ISO 10523;
LC0011	AB12					EN 1484;
LC0012	AB12	EN ISO 11732;	EN ISO 6878;	EN ISO 10304-1;	EN 26777;	EN 1484;
LC0013	AB12	DIN 38406-5;		DIN 38405-9;	EN 26777;	EN 1484;
LC0014	AB12	ISO 7150-1;	EN ISO 6878;	EN ISO 10304-1;	EN 26777;	EN 1484;
LC0015	AB12	DIN 38406-5; E5	EN ISO 11885;	EN ISO 10304-1;	EN 26777;	EN 1484;
LC0016	AB12	DIN 38406-5; E5-1	EN ISO 6878;	EN ISO 10304-1;	EN 26777;	EN 1484;
LC0017	AB12	EN ISO 11732; E23	EN ISO 15681-2; D46	EN ISO 13395; D28	EN ISO 13395; D28	EN 1484; H3
LC0018	AB12	EN ISO 11732;	EN ISO 15681-2;	EN ISO 13395;	EN ISO 13395;	EN 1484;
LC0019	AB12	EN ISO 11732; CFA	EN ISO 15681-2; CFA	EN ISO 10304-1; IC	EN ISO 13395; CFA	EN 1484;
LC0020	AB12	DIN 38406-5;	EN ISO 6878;	EN ISO 10304-1;	EN 26777;	EN 1484;
LC0021	AB12					EN 1484;
LC0022	AB12	EN ISO 11732;	EN ISO 10304-1;	EN ISO 10304-1;	EN ISO 13395;	EN 1484;
LC0023	AB12	DIN 38406-5; E5-1	EN ISO 17294-2;	EN ISO 10304-1;	EN 26777; D10	EN 1484;
LC0024	AB12	ISO 7150-1; UV-VIS	EN ISO 15681-2; CFA	EN ISO 10304-1; IC	EN 26777; UV-VIS	EN 1484; TOC/TIC/CSB/BSB5
LC0025	AB12	DIN 38406-5; E5	EN ISO 6878;	EN ISO 10304-1;	EN 26777;	EN 1484;
LC0026	AB12	ISO 7150-1; AV038	EN ISO 6878; AV043	EN ISO 10304-1; AV040		EN 1484; AV060
LC0027	AB12	EN ISO 11732;				EN 1484;
LC0028	AB12	DIN 38406-5;	EN ISO 10304-1;	EN ISO 10304-1;	EN ISO 10304-1;	EN 1484;
LC0029	AB12	DIN 38406-5; E5	EN ISO 6878; D11	EN ISO 10304-1; D20	EN 26777; D10	EN 1484; H3
LC0030	AB12					
LC0031	AB12	DIN 38406-5;	EN ISO 6878;	EN ISO 10304-1;	EN 26777;	EN 1484;