Test Group Summary Report
C73 Residual Solvents in Oil
October 2025 PT Round

Issued: November 28, 2025

PTC | Proficiency Testing Canada

Table of Contents

1.0 The Proficiency Testing Report 1

2.0 Definitions 1

3.0 Scoring System 1

3.1 Homogeneity and Stability Assessment 2

3.2 The z score 2

3.2 Composite (PT) Score 2

3.3 Identifying Bias 2

3.4 Deviations from Evaluation Procedure 3

4.0 PT Round Specific Data Summary 3

4.1 Summary statistics 3

4.2 *z* - Score Plots 3

4.3 kernel density plots 3

4.4 stability and homogeneity Plots 3

4.5 Box-and-Whisker Plots 3

4.6 Historic Comparison Plot 3

Annex A Summary by Analyte 4

1.0 The Proficiency Testing Report

The Proficiency Testing Report consists of two parts.

- *PTC Proficiency Testing Report*: This report contains participant-specific data and other confidential information. This report is emailed to participants at the end of the PT round.
- *Test Group Summary Report*: A Test Group Summary Report is created for each quantified test group at the end of the PT round. These reports contain more detailed information on the round than is found in the participant-specific PTC Proficiency Testing Report. These reports do not contain any confidential information and are made available on the PTC web site.

2.0 Definitions

The participant-specific PTC Proficiency Testing Report contains some terms that new participants may not be familiar with.

Code:	The registration code that is unique to each analyte that a participant is registered for.
App:	If a participant is accredited by CALA, this three-digit number is the appendix number that the accredited method is assigned to.
N:	The number of participants results that were used to calculate the summary statistics. This excludes qualified data (e.g., <) and any results that were flagged as outliers.
Assigned:	The Assigned Value is the robust mean of the reported results, outliers excluded. This is often referred to as the "target" value.
± u:	The uncertainty of the assigned value.
Reported:	The result reported by the participant.
s:	The Standard Deviation of Proficiency Assessment (SDPA). This value is used to determine the acceptance limits for the PT evaluation.
z-Score:	A value assigned to each reported result that is a measure of the degree to which it deviates from the Assigned Value.
Score:	The composite score of the four results reported for each analyte. It is normalized to a score out of 100.
Bias:	A flag assigned if bias is detected using the re-scaled *z*-score procedure.

3.0 Scoring System

Participant performance is evaluated for each proficiency testing sample by a quantitative method that is consistent with ISO/IEC 17043 - *Conformity assessment- General requirements for the competence of proficiency testing providers*, the *International Harmonized Protocol for Proficiency Testing of (Chemical) Analytical Laboratories* (2006), and ISO 13528:2015 *Statistical methods for use in proficiency testing by interlaboratory comparisons*.

The following is a brief description of the evaluation procedure used by PTC. The detailed evaluation procedure is described in PROC09 – PT Evaluation *Procedure*, which is available on the PTC website www.PTCanada.org).

3.1 HOMOGENEITY AND STABILITY ASSESSMENT

Homogeneity and stability are assessed using participant data. Regression analysis is performed on reported result against order of sample production (Homogeneity) and reported result against date of analysis (Stability). If the slope is significantly different than zero for either then the Standard Deviation of Proficiency Assessment (s) is increased to minimize the impact.

3.2 THE Z SCORE

A "z-score" is calculated for each reported result as follows:

$$z - Score = \frac{(x - \bar{X})}{SDPA}$$

where: x = participant result;
$\overline{X}$ = the Assigned Value;
SDPA = the Standard Deviation for Proficiency Assessment.

The assigned value $\overline{X}$ is generally estimated from the inter-laboratory Robust mean after outliers due to obvious gross errors (e.g., reported in wrong units) have been removed.

The Standard Deviation for Proficiency Assessment, s, is determined as follows:

- The inter-laboratory Robust standard deviation ($Stdev_{rob}$) is calculated using reported results, obvious outliers removed;
- The regression equation standard deviation ($Stdev_{reg}$) is estimated from regression equations derived from previous studies (see PROC11- *PT Regression Equations* for details);
- The SDPA is the higher of $Stdev_{rob}$ and $Stdev_{reg}$;
- When a laboratory reports its detection limit, s will be estimated using a pooled variance procedure that uses both the inter-laboratory data and the reported detection limit.

3.2 COMPOSITE (PT) SCORE

Since each PT round involves four or two separate samples of distinct concentration for each test, it is necessary to calculate a composite PT score for each test to determine overall performance. The composite score is calculated by first averaging the absolute *z*-scores for the four results and then calculating a final score as 100 + (-15 x avg |z|).

Acceptable PT Scores equal or exceed 70.

3.3 IDENTIFYING BIAS

The proficiency testing report provides flags for bias. These are determined using the re-scaled *z*-score procedure.

$$RSZ = \frac{\sum z}{\sqrt{N}}$$

where *z* = the z- score
N = the number of samples

Flags are assigned for each test group/parameter combination as follows:

RSZ ≥ -2 and ≤ 2 no flag assigned

RSZ > 2	H (High)
RSZ > 3	VH (Very High)
RSZ < -2	L (LOW)
RSZ < -3	VL (Very Low)

3.4 DEVIATIONS FROM EVALUATION PROCEDURE

Other than changes to the Standard Deviation of Proficiency Assessment due to homogeneity or stability flags, any deviation from the published evaluation procedure is described on the cover page(s) of the final *PTC Proficiency Testing Report*.

4.0 PT Round Specific Data Summary

The following pages provide more detailed information about the PT round indicated in the cover page of this report than is found in the participant-specific PTC Proficiency Testing Report. The graphical representations and the statistical summaries are based upon the data after outliers have been removed.

4.1 SUMMARY STATISTICS

In addition to some of the statistics found in the customer reports, this table includes additional summary statistics such as Median, different measures of dispersion, the number of outliers removed, the number of results in the Questionable range (|z| between 2 and 3) and the Unacceptable range (z > 3), and whether a data set was flagged for Homogeneity or Stability. This section also includes sorted scatter plots of the data for each sample.

4.2 *z* - SCORE PLOTS

The z -scores for each sample are ranked in increasing order and plotted. When the data is normally distributed, the plot should show a slight sigmoidal curve, with an equal number of points above zero as below. Each bar in these plots is colour-coded to indicate the analytical method used by the participant.

4.3 KERNEL DENSITY PLOTS

Kernel density plots are generated for each data set. These plots are a graphical way to represent the overall data distribution and are used to visualize possible deviations from normality and unimodality.

4.4 STABILITY AND HOMOGENEITY PLOTS

Plots of reported result against analysis date, and reported result against order of bottling are displayed, along with the regression line. These regression analyses are used to determine if the SDPA should be adjusted due to homogeneity or stability.

4.5 BOX-AND-WHISKER PLOTS

Box-and-Whisker plots are another way to display the distribution of the data. The box denotes the first and third quartile and the whiskers are the 5th and 95th percentile.

4.6 HISTORIC COMPARISON PLOT

The Historic Comparison Plot is a plot of robust mean against robust standard deviation for the previous ten PT rounds as well as the current PT round. This plot can be used to identify possible changes in the sample formulation.

1-Butanol (n-Butanol)

Summary Statistics

Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	4840			
Robust Mean µg/g	4590			
Uncertainty of the Assigned Value µg/g	763			
Robust Standard Deviation µg/g	1220			
Regression Standard Deviation µg/g				
Stability Flag	Stability			
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2260			
Flagged Outliers	1	2	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

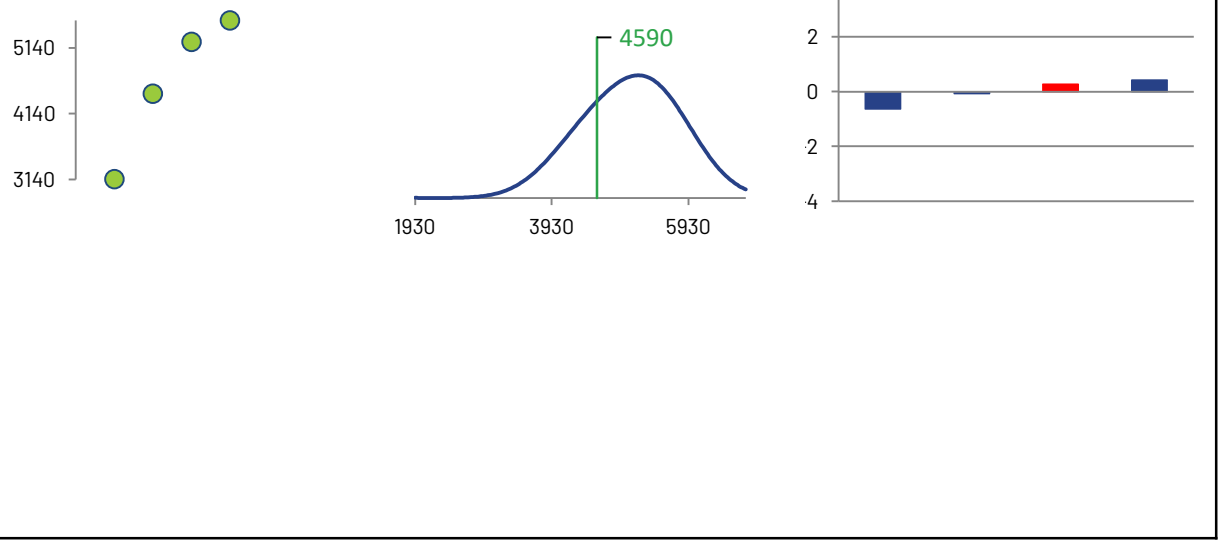
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots

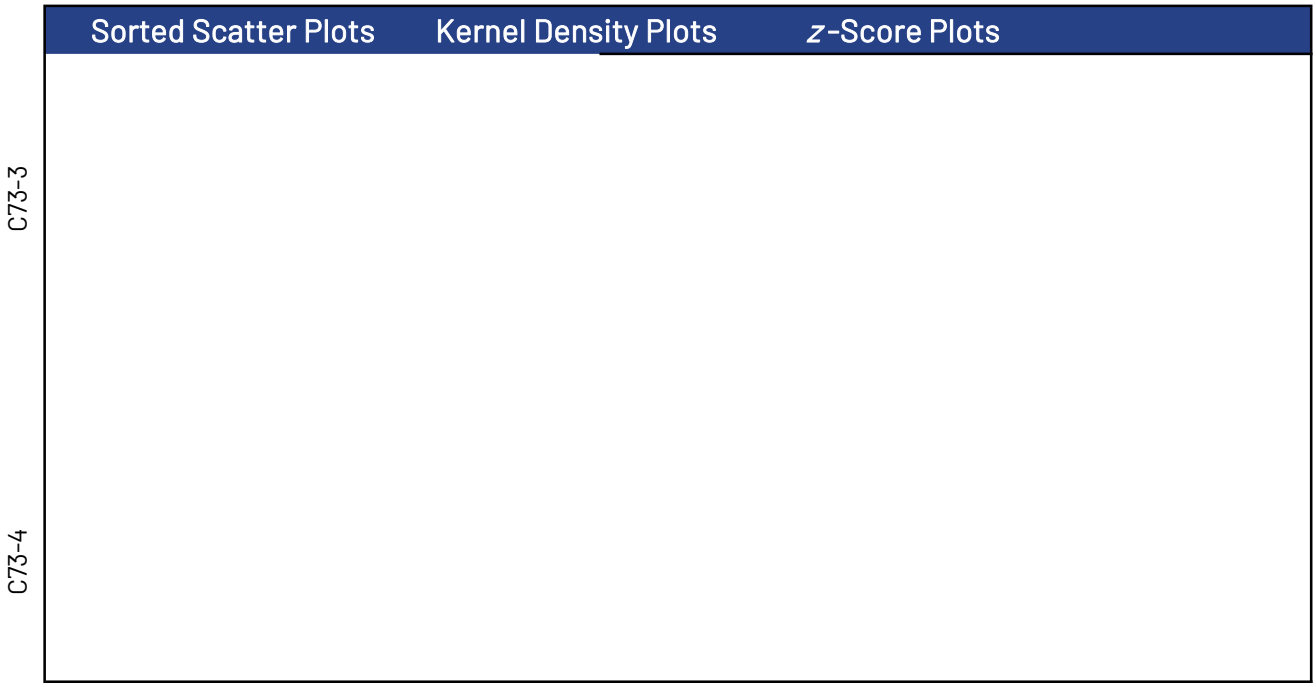
C73-1

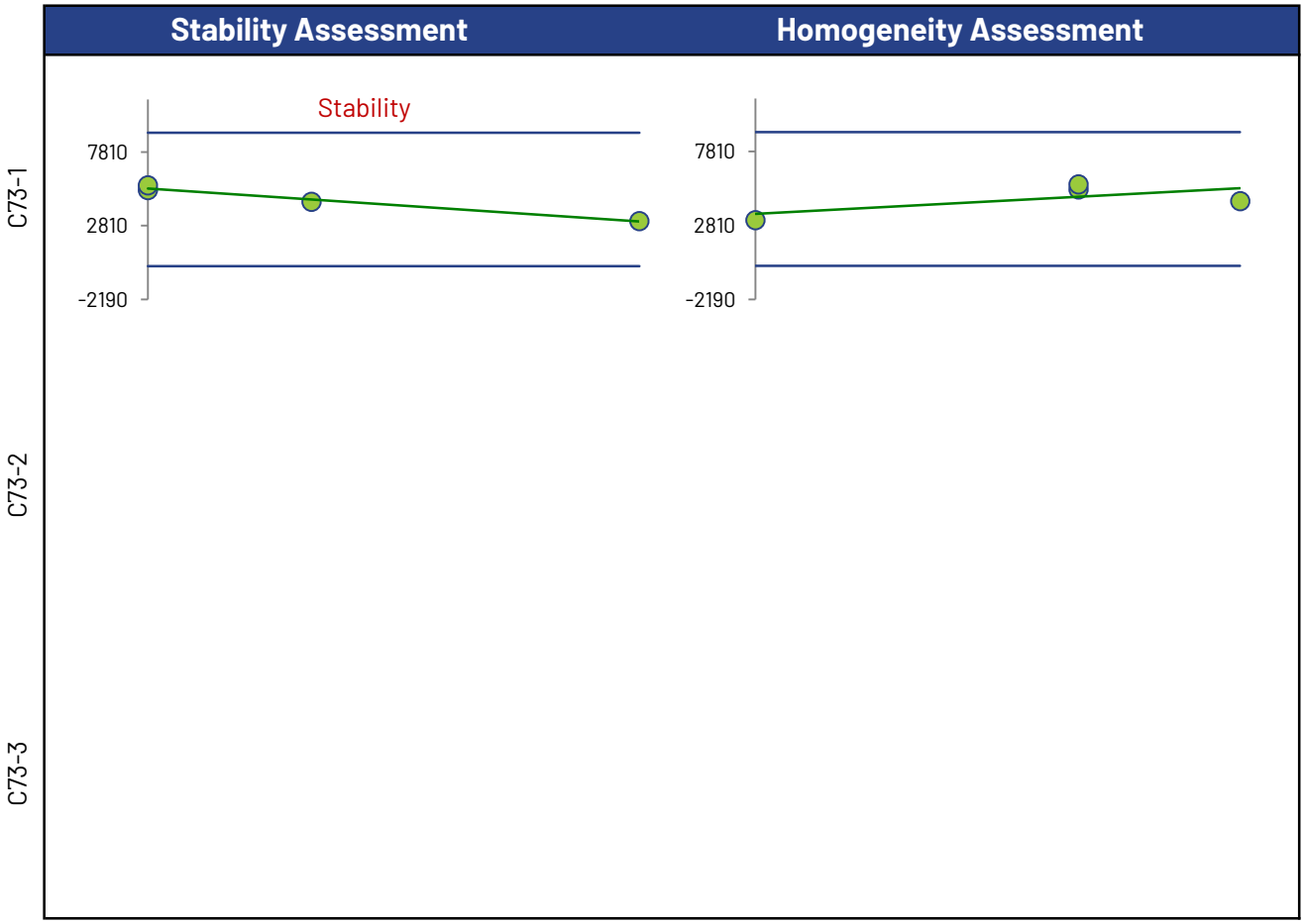
C73-2



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

1-Butanol (n-Butanol)





1-Butanol (n-Butanol)

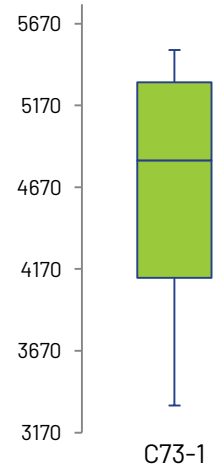
C73-4

Stability Assessment	Homogeneity Assessment

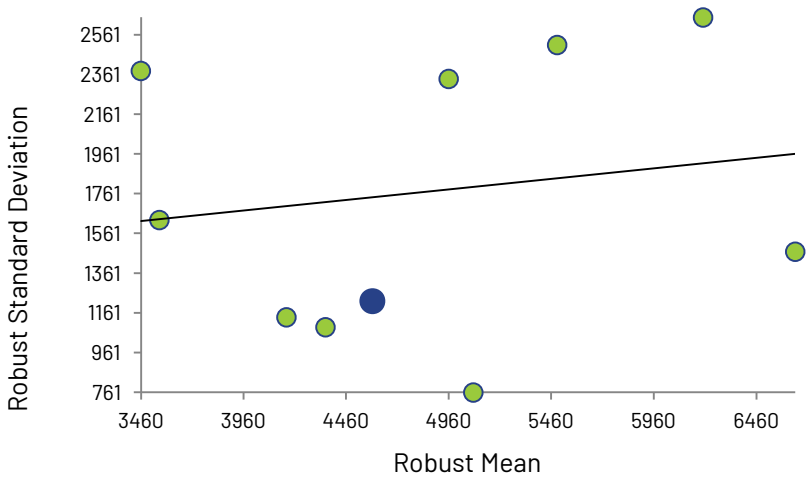
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



1-Pentanol

Summary Statistics

Not Spiked

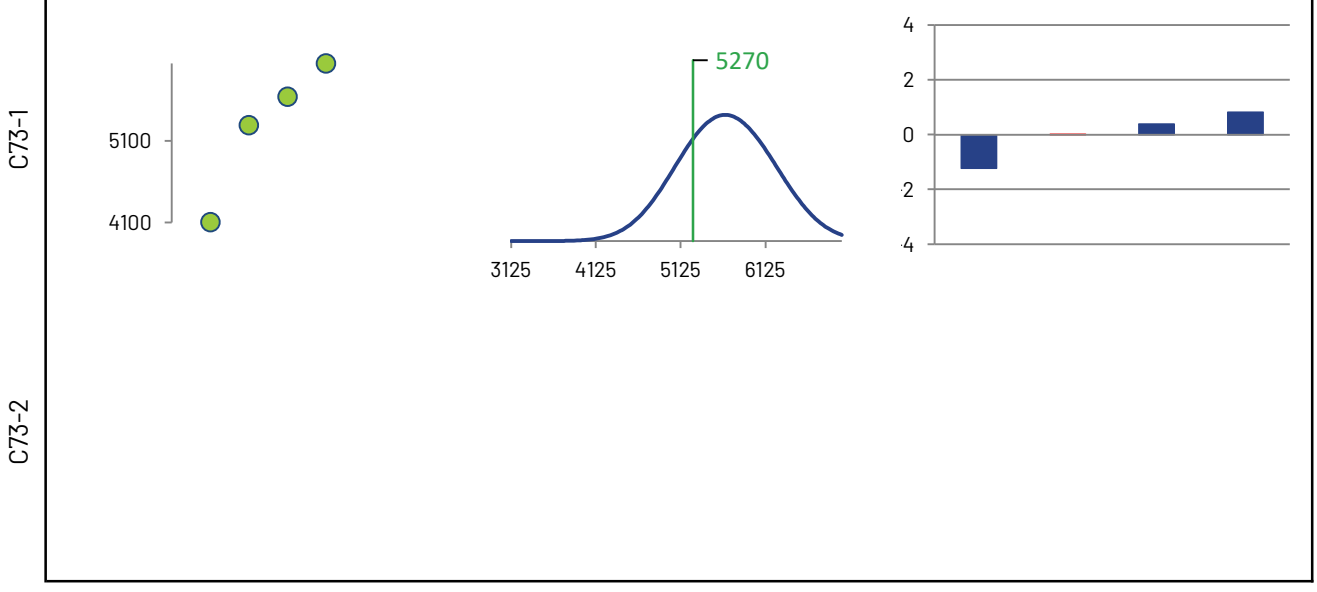
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	5470			
Robust Mean µg/g	5270			
Uncertainty of the Assigned Value µg/g	595			
Robust Standard Deviation µg/g	952			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	952			
Flagged Outliers	1	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

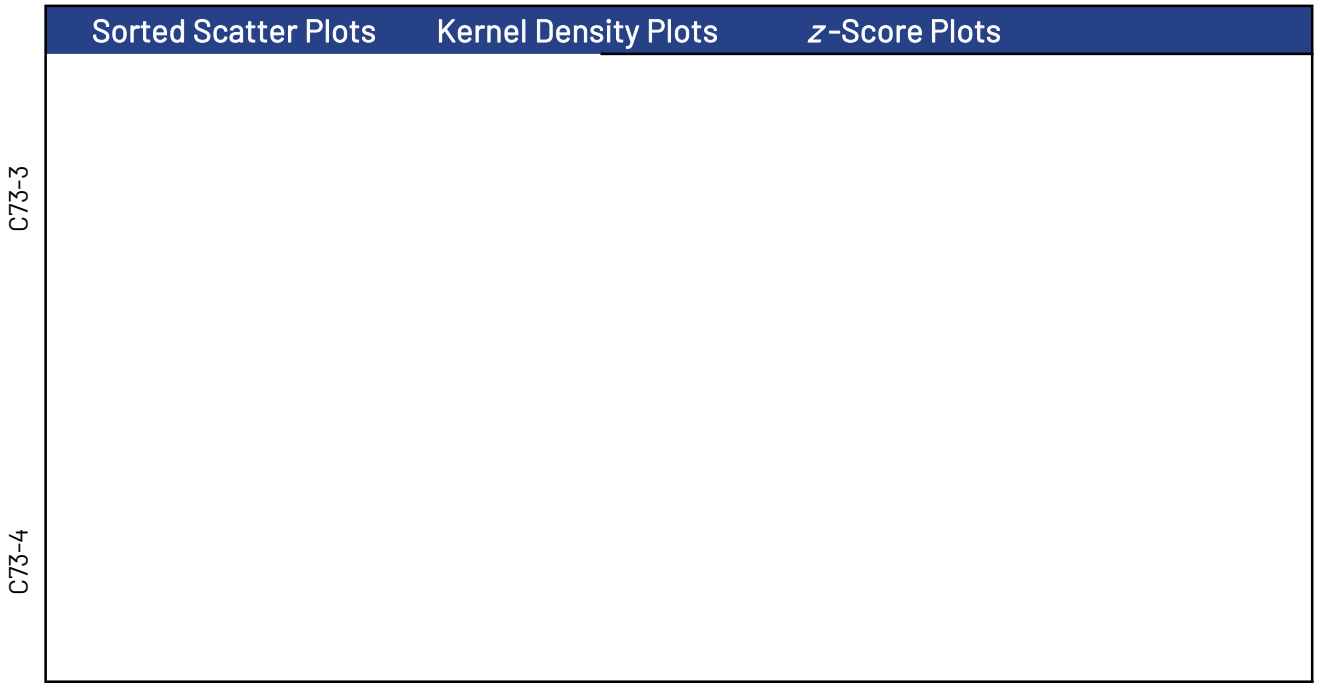
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

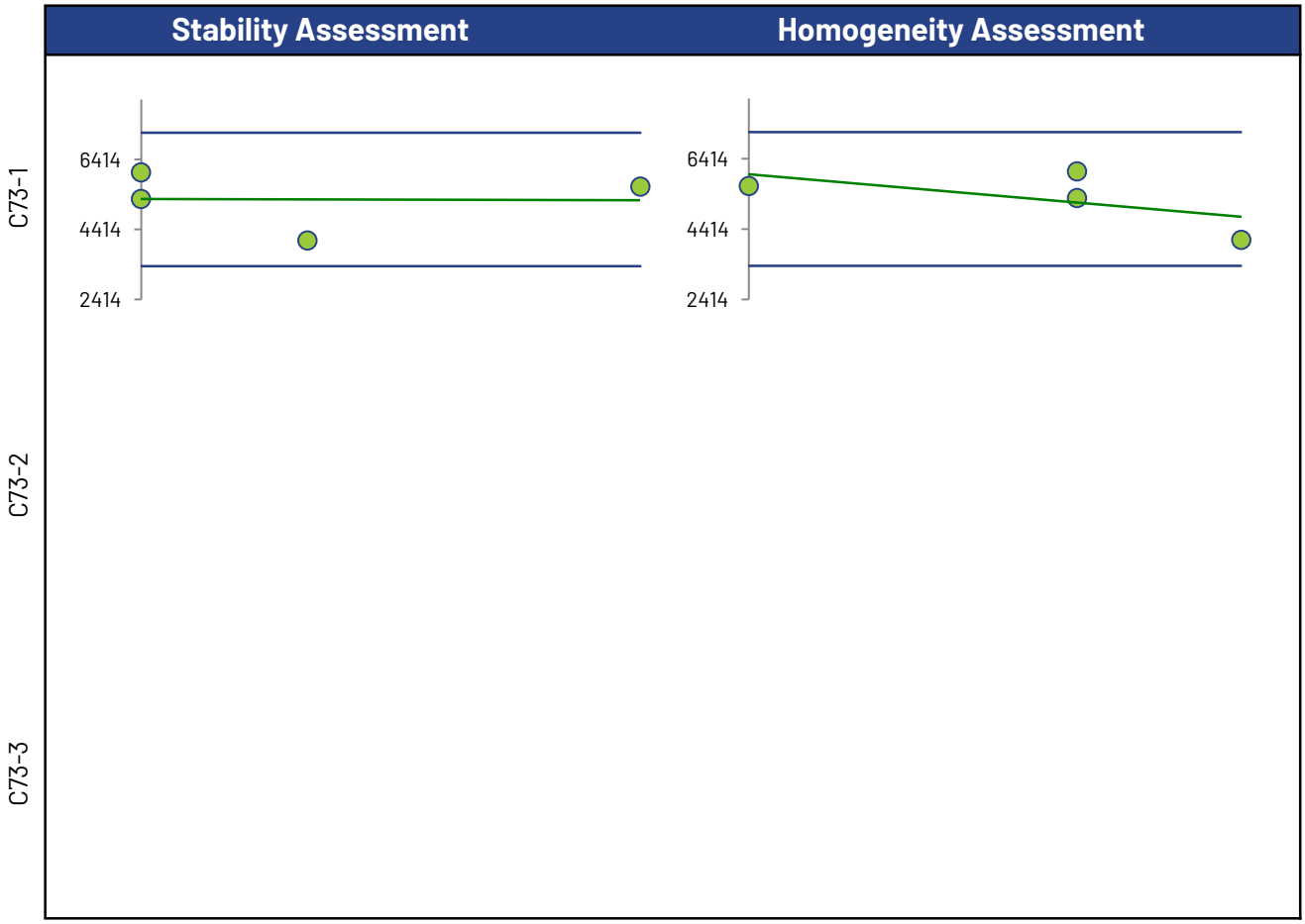
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

1-Pentanol


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
6414
4414
2414
6414
4414
2414
C73-1
C73-2
C73-3

1-Pentanol

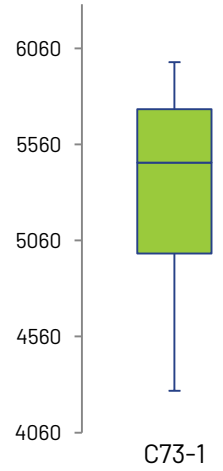
C73-4

Stability Assessment	Homogeneity Assessment

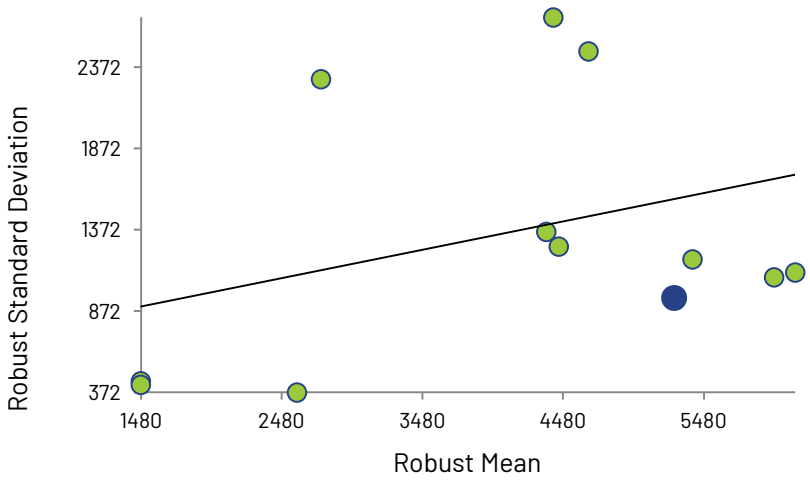
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



1-Propanol (Propanol)

Summary Statistics

Not Spiked

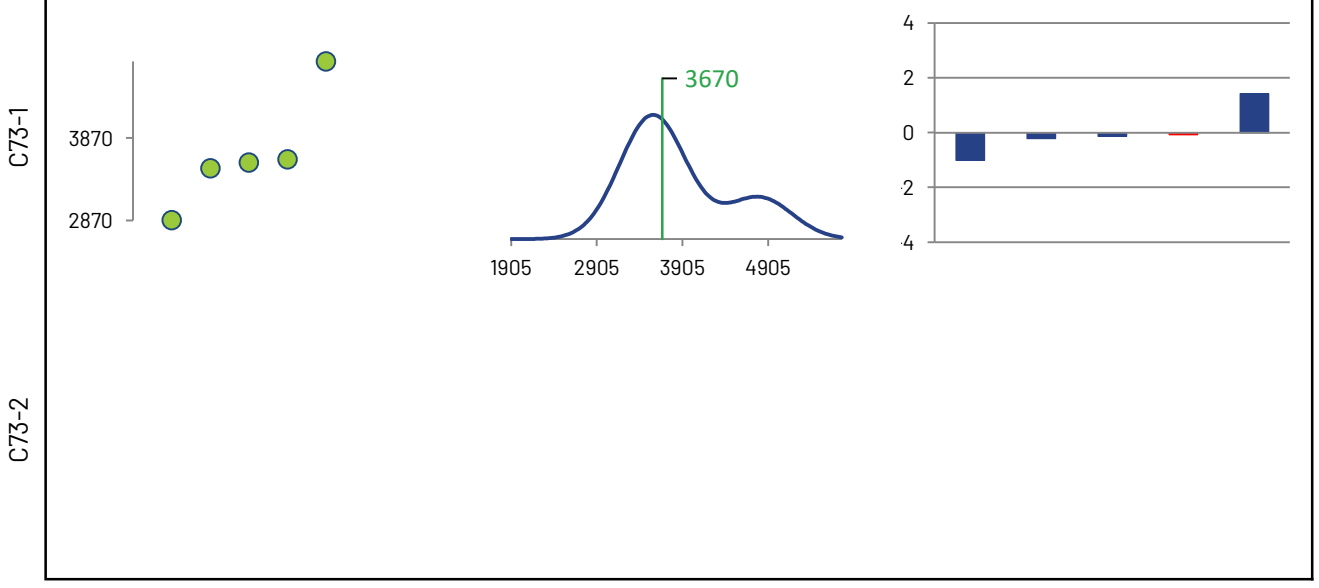
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	5	0	0	0
Median µg/g	3570			
Robust Mean µg/g	3670			
Uncertainty of the Assigned Value µg/g	444			
Robust Standard Deviation µg/g	794			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	794			
Flagged Outliers	1	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	4	0	0	0
GC/FID (Red)	1	0	0	0

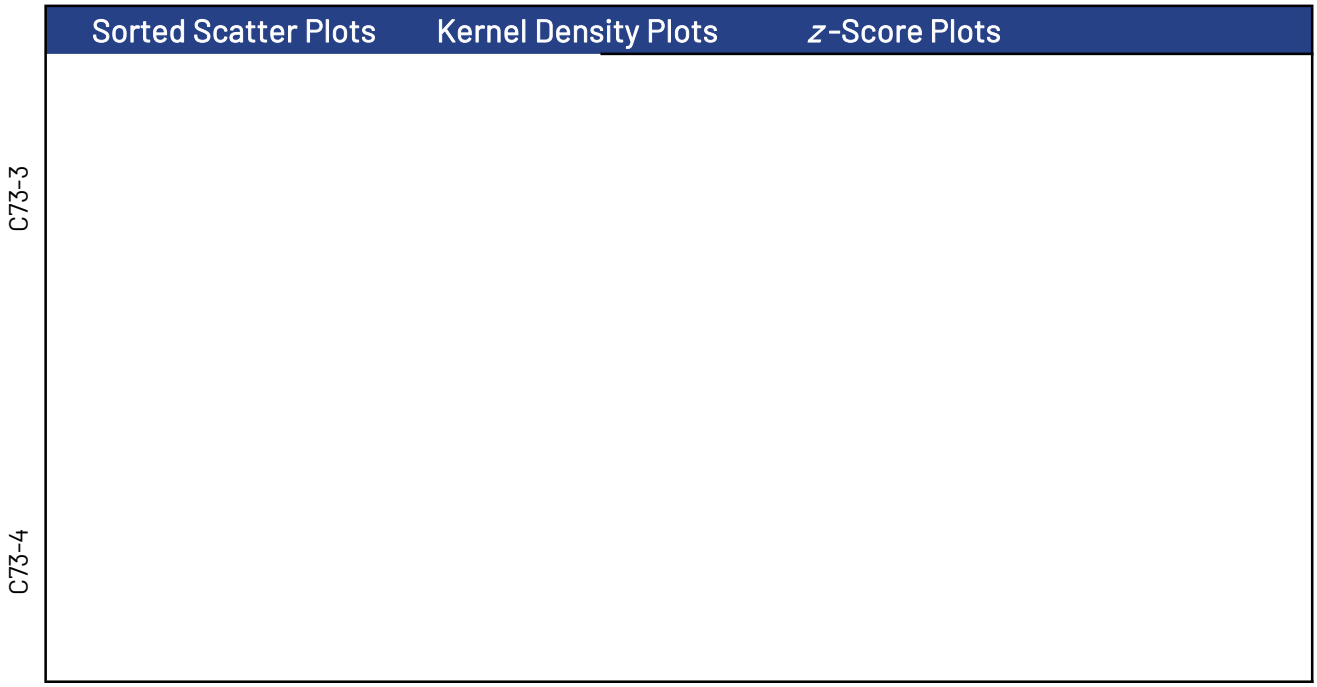
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

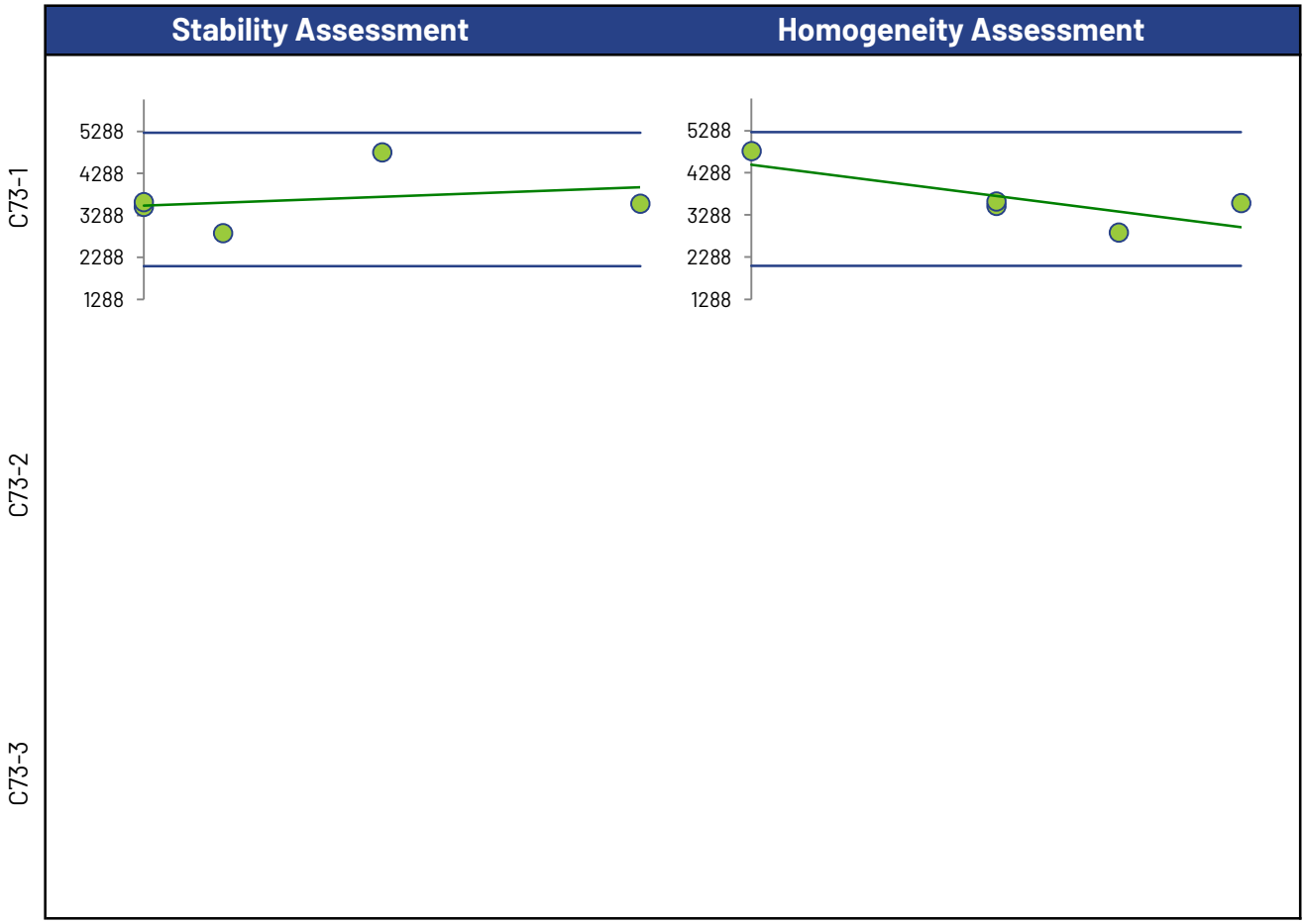
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

1-Propanol (Propanol)





1-Propanol (Propanol)

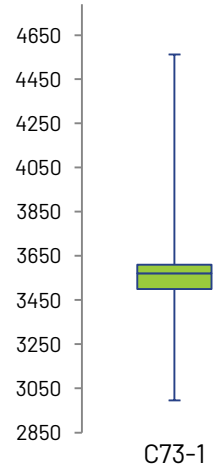
C73-4

Stability Assessment	Homogeneity Assessment

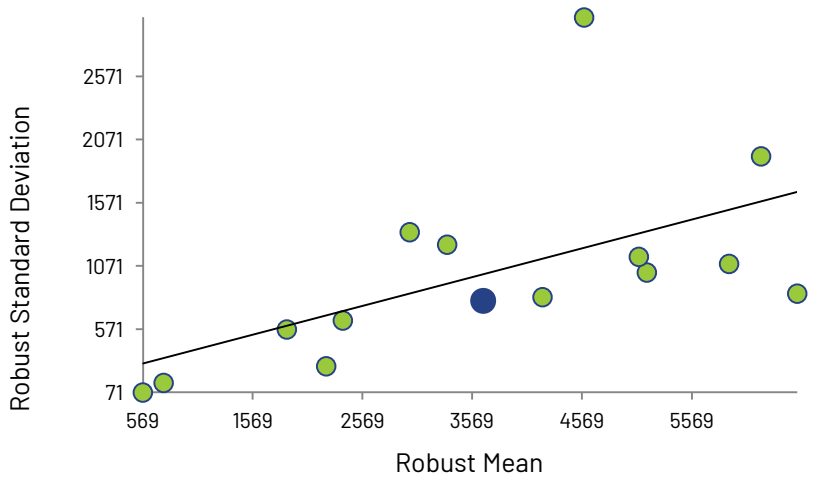
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



2-Butanol

Summary Statistics

Not Spiked

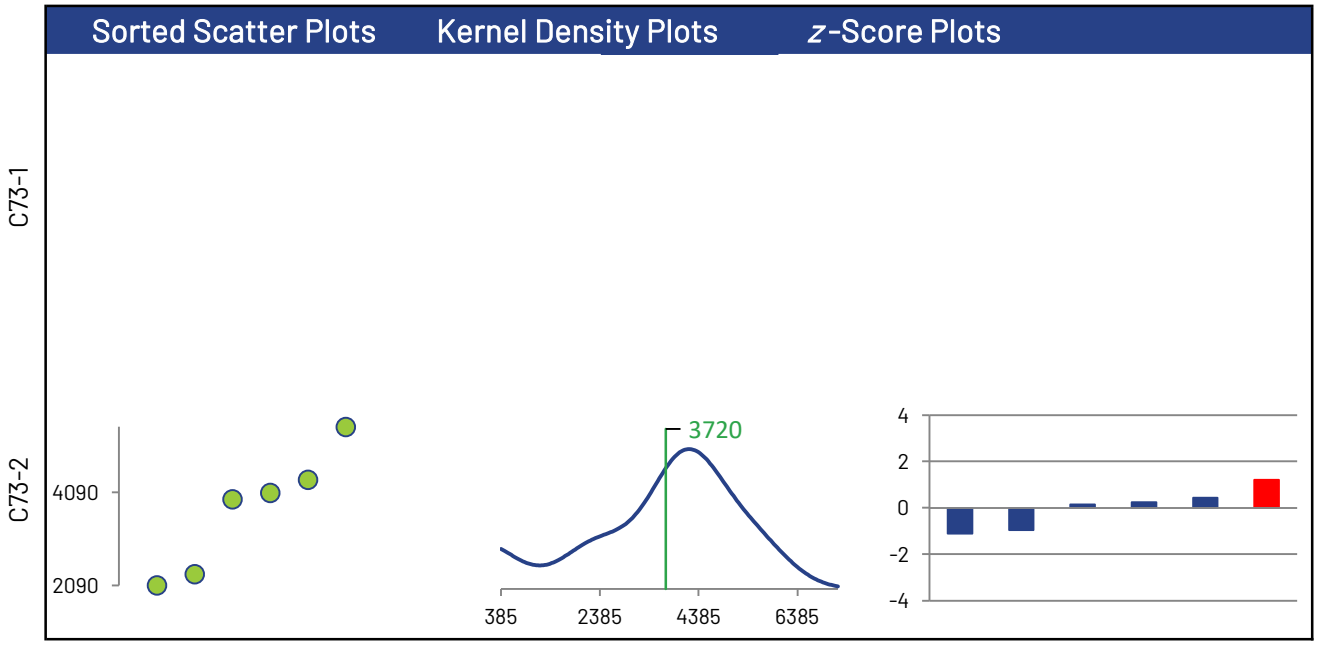
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	6	0	0
Median µg/g		4010		
Robust Mean µg/g		3720		
Uncertainty of the Assigned Value µg/g		750		
Robust Standard Deviation µg/g		1470		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		1470		
Flagged Outliers	1	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	5	0	0
GC/FID (Red)	0	1	0	0

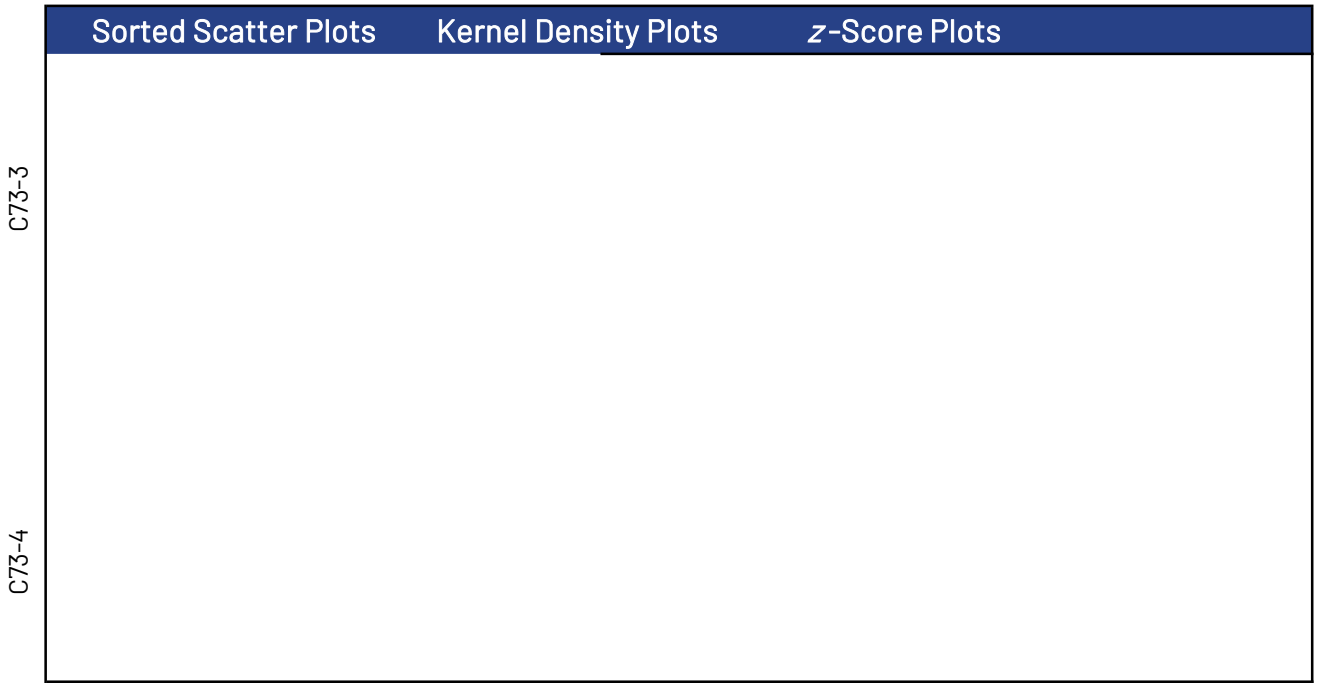
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

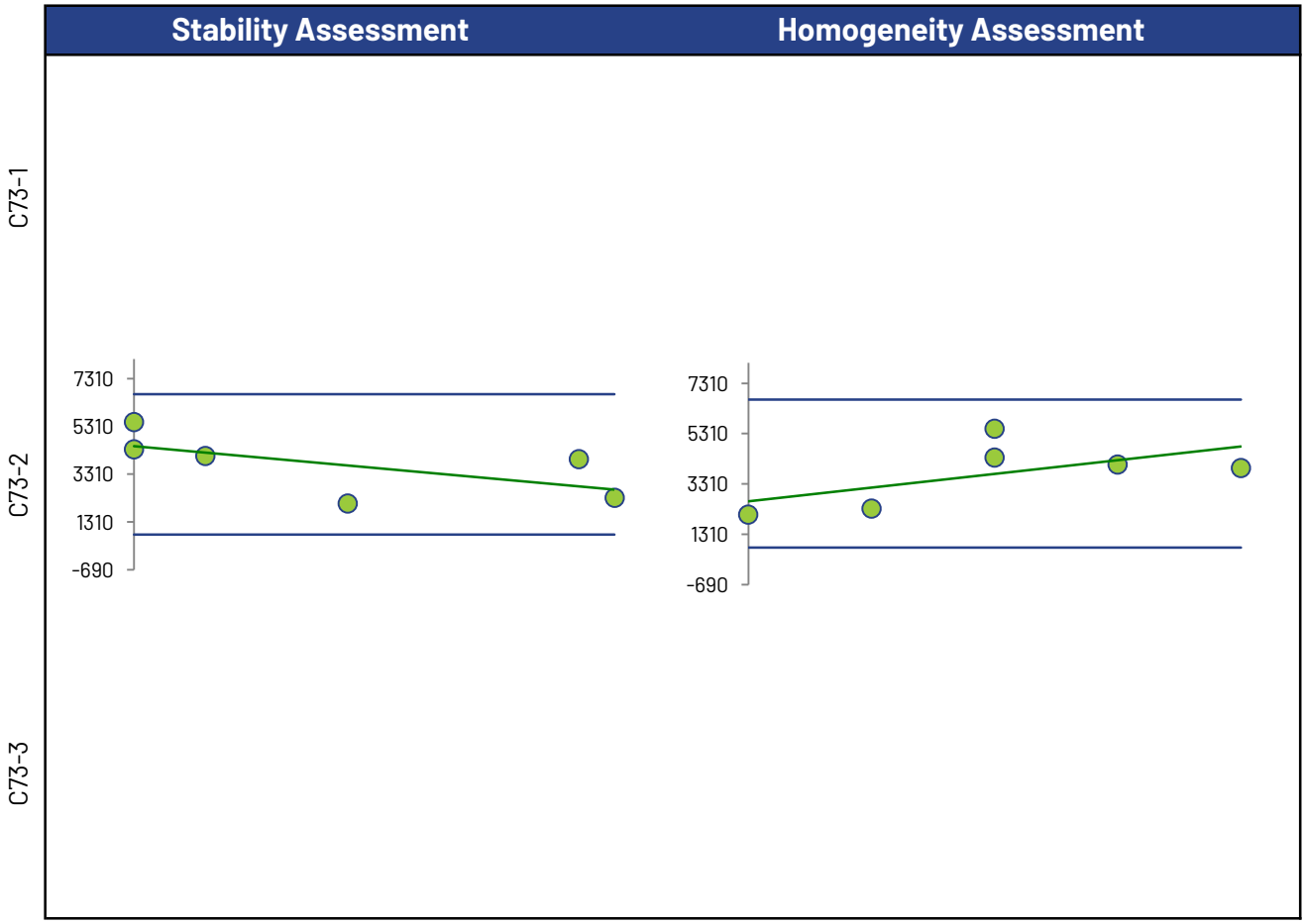
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

2-Butanol


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
C73-1
C73-2
C73-3
7310
5310
3310
1310
-690
7310
5310
3310
1310
-690

2-Butanol

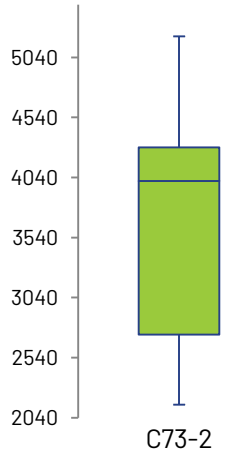
C73-4

Stability Assessment	Homogeneity Assessment

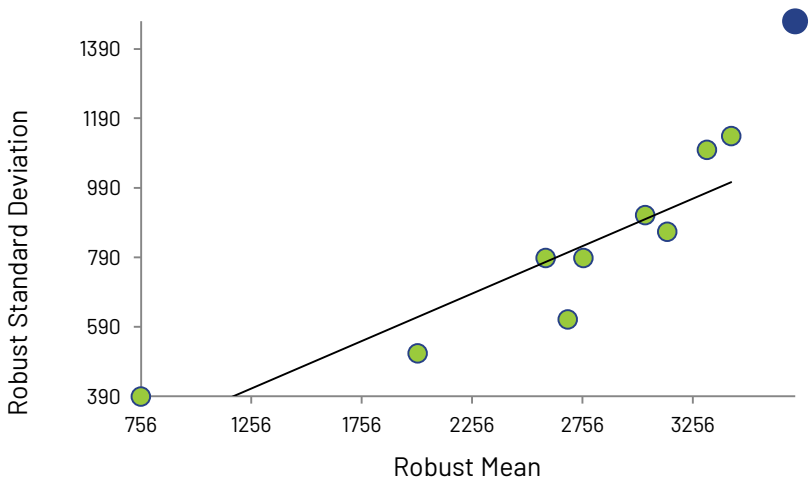
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



2-Butanone (Methyl ethyl ketone, MEK)

Summary Statistics

Not Spiked

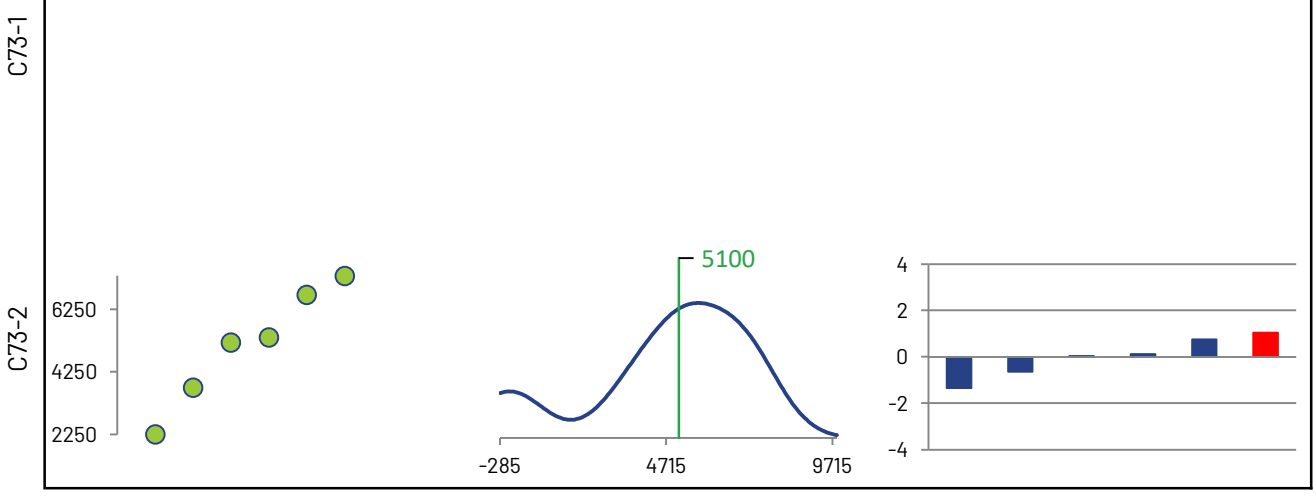
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	6	0	0
Median µg/g		5270		
Robust Mean µg/g		5100		
Uncertainty of the Assigned Value µg/g		1080		
Robust Standard Deviation µg/g		2120		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		2120		
Flagged Outliers	1	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	5	0	0
GC/FID (Red)	0	1	0	0

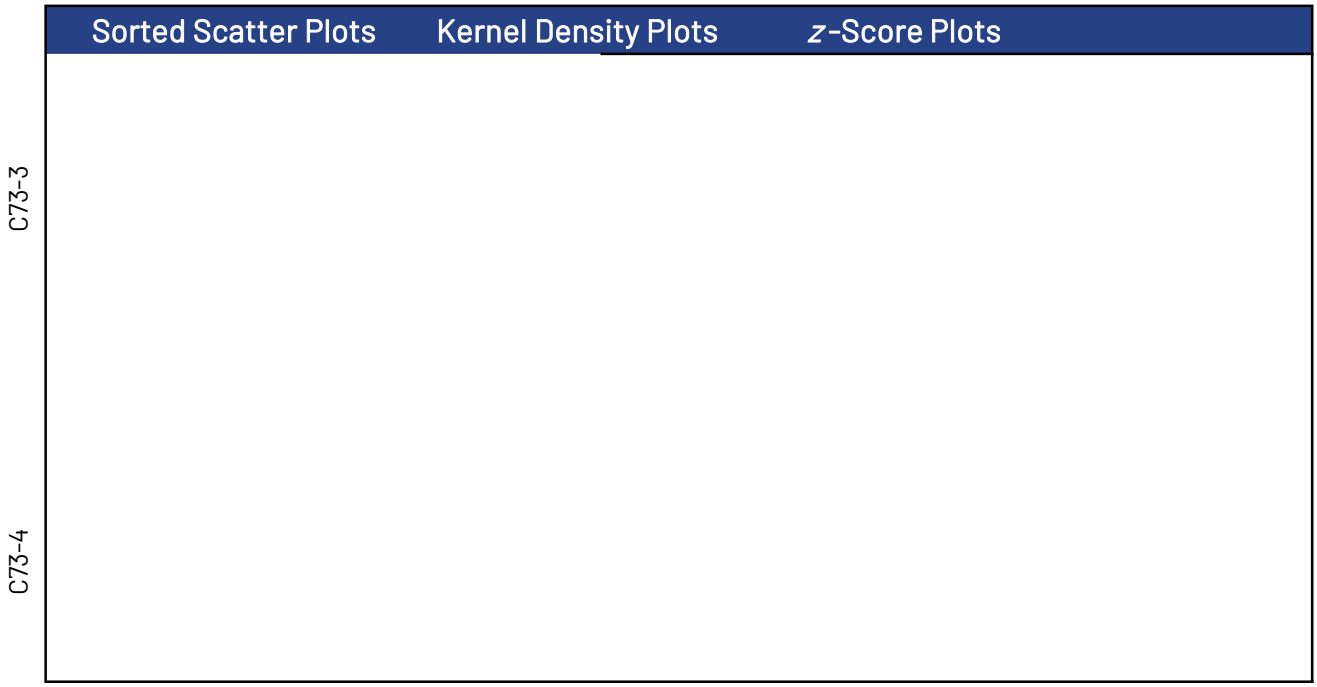
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

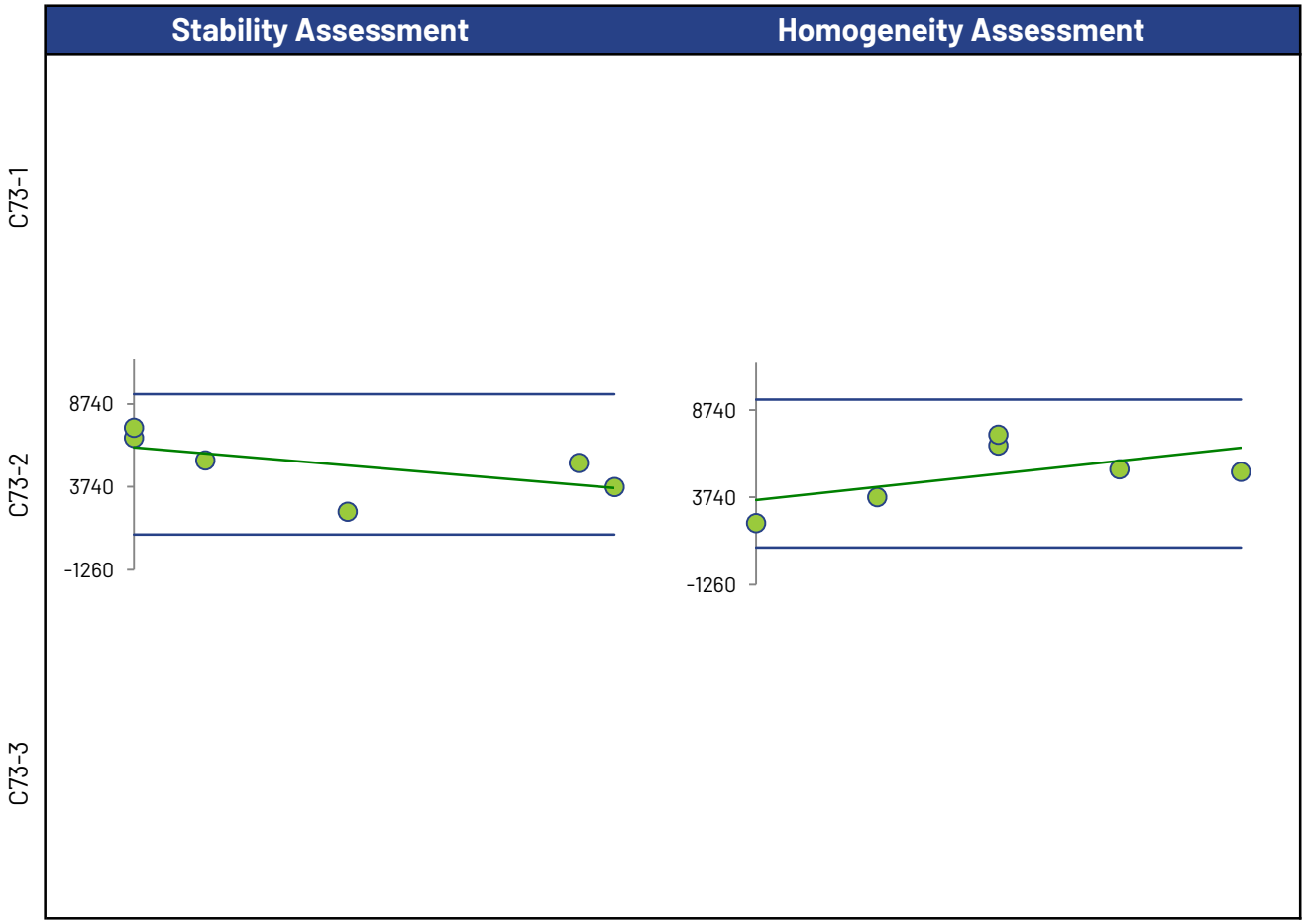
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

2-Butanone (Methyl ethyl ketone, MEK)





2-Butanone (Methyl ethyl ketone, MEK)

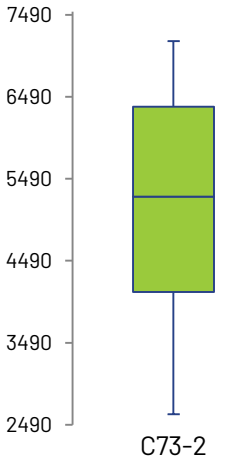
C73-4

Stability Assessment	Homogeneity Assessment

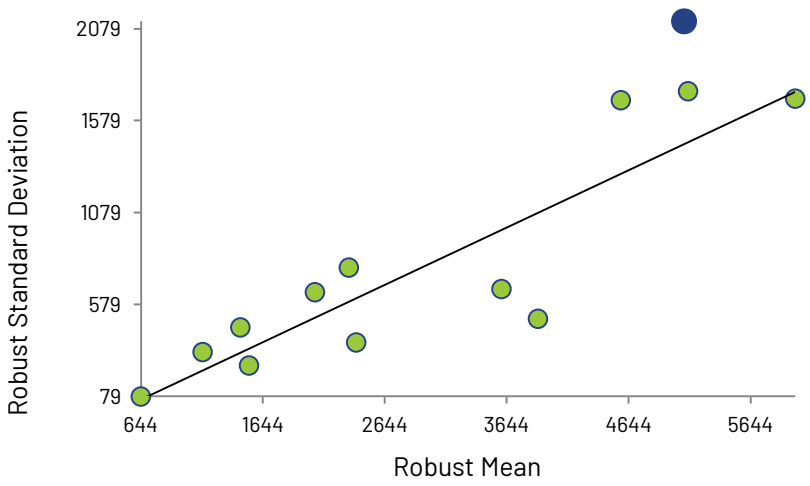
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



2-Propanol (Isopropyl alcohol)

Summary Statistics

Not Spiked

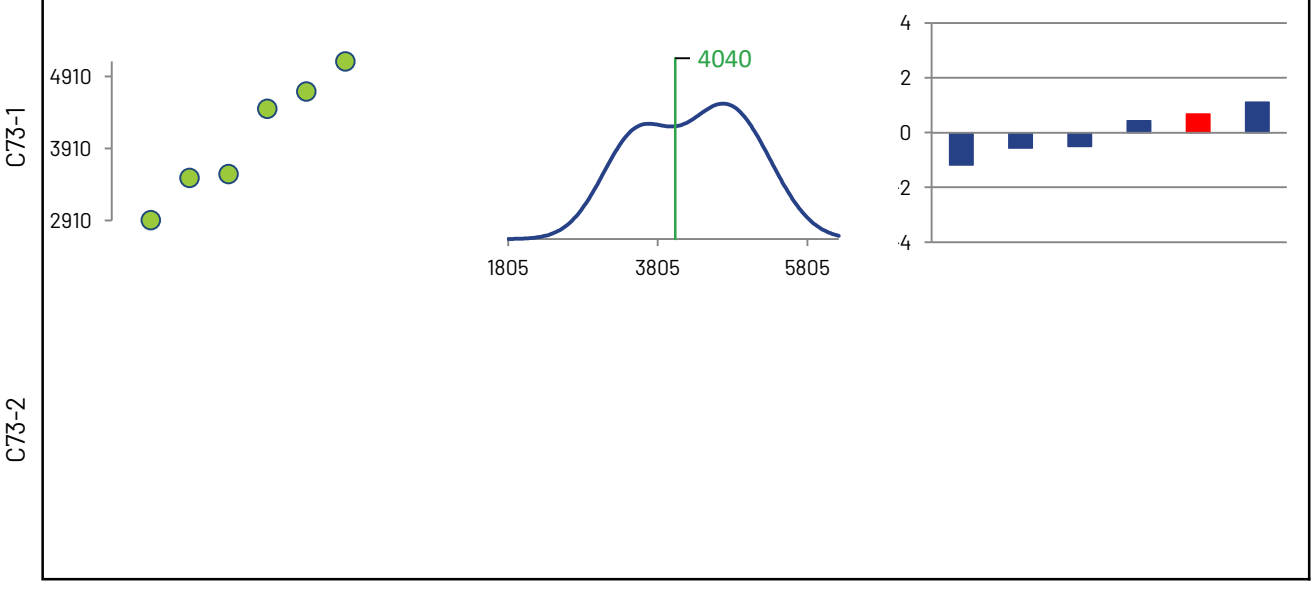
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	6	0	0	0
Median µg/g	4010			
Robust Mean µg/g	4040			
Uncertainty of the Assigned Value µg/g	490			
Robust Standard Deviation µg/g	960			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	960			
Flagged Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	0	0	0
GC/FID (Red)	1	0	0	0

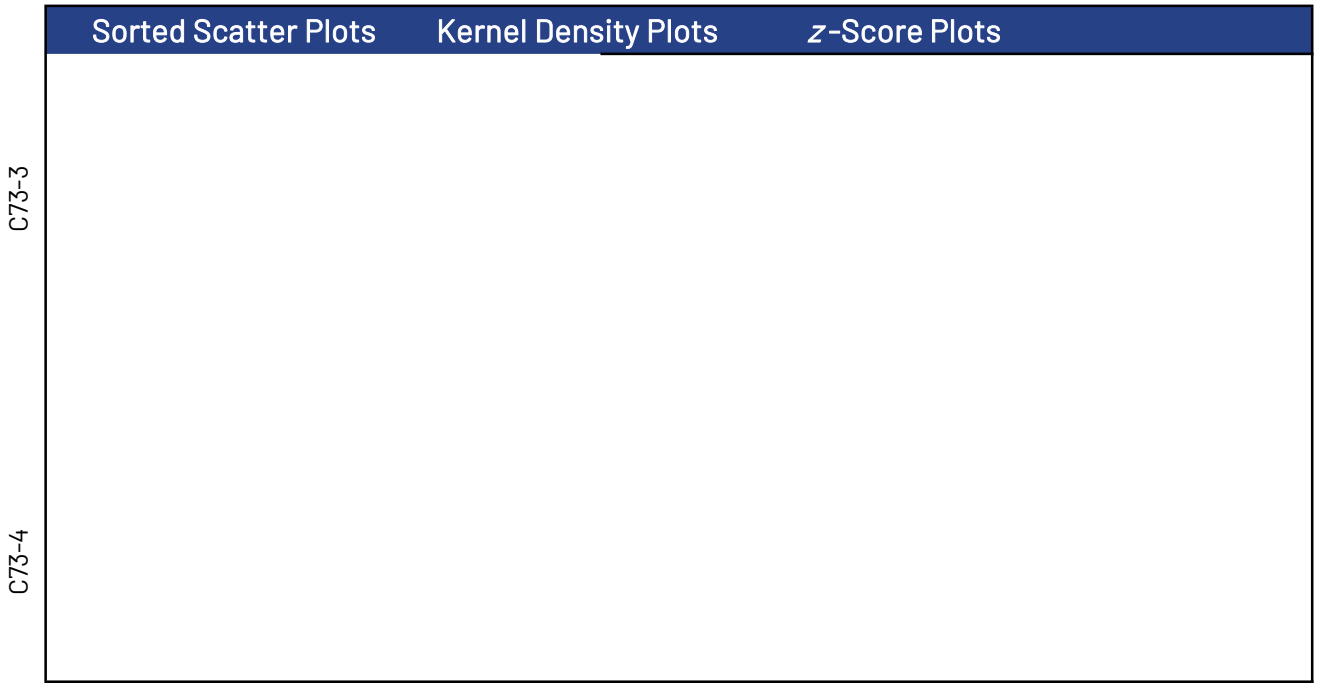
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

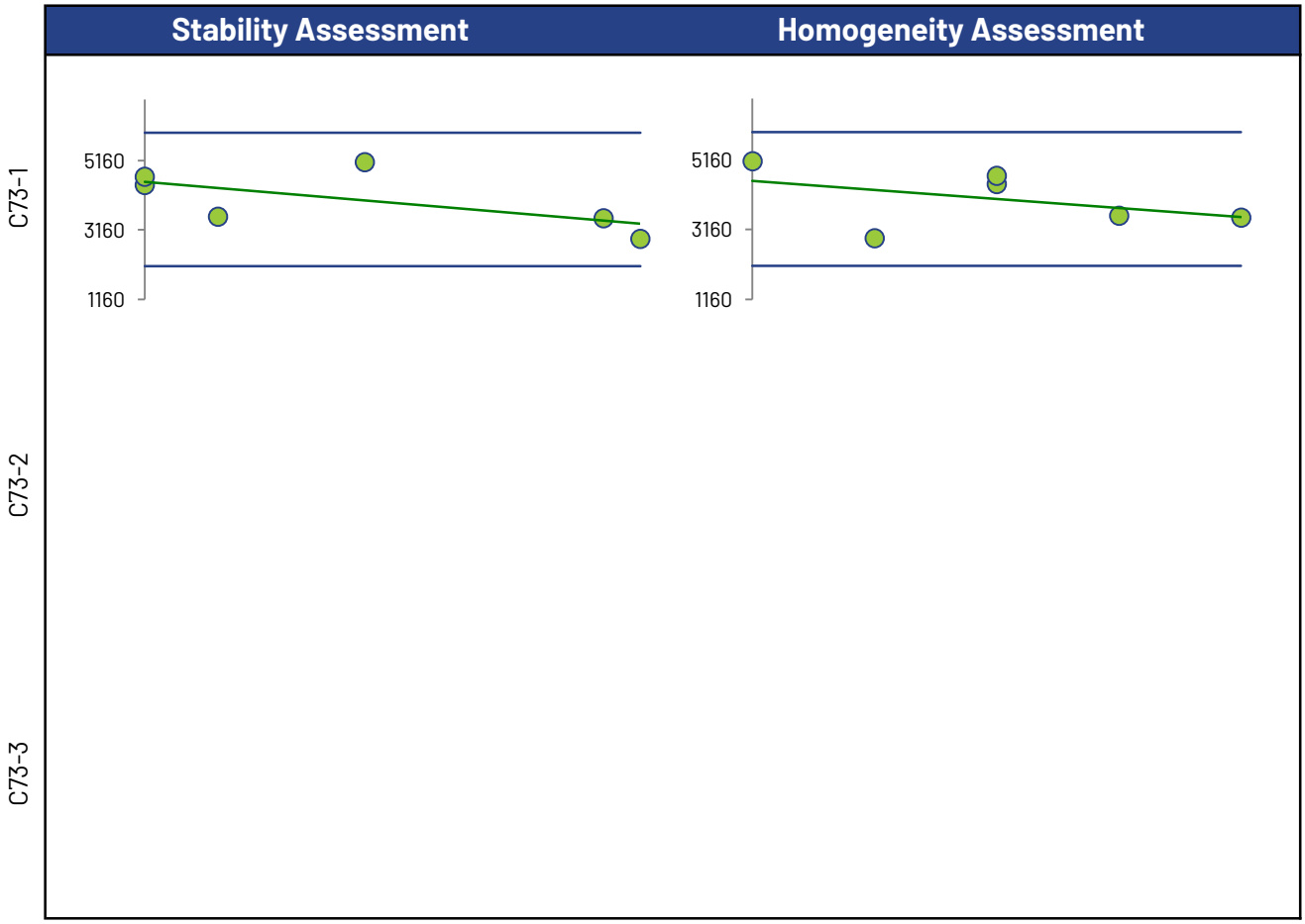
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

2-Propanol (Isopropyl alcohol)





2-Propanol (Isopropyl alcohol)

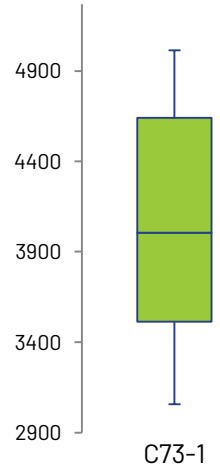
C73-4

Stability Assessment	Homogeneity Assessment

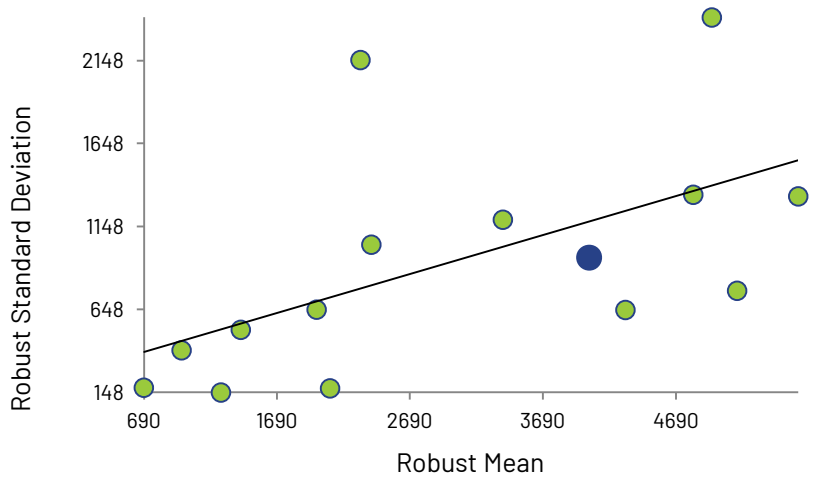
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



3-Methyl-1-butanol

Summary Statistics

Not Spiked

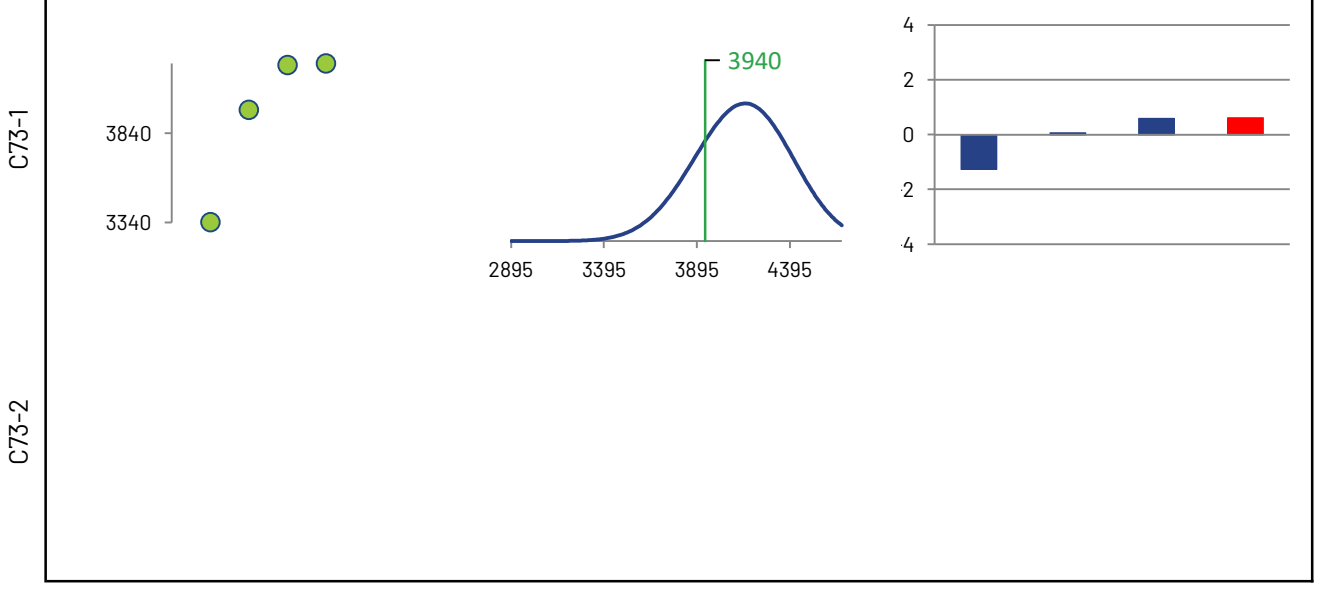
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	4100			
Robust Mean µg/g	3940			
Uncertainty of the Assigned Value µg/g	296			
Robust Standard Deviation µg/g	474			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	474			
Flagged Outliers	1	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

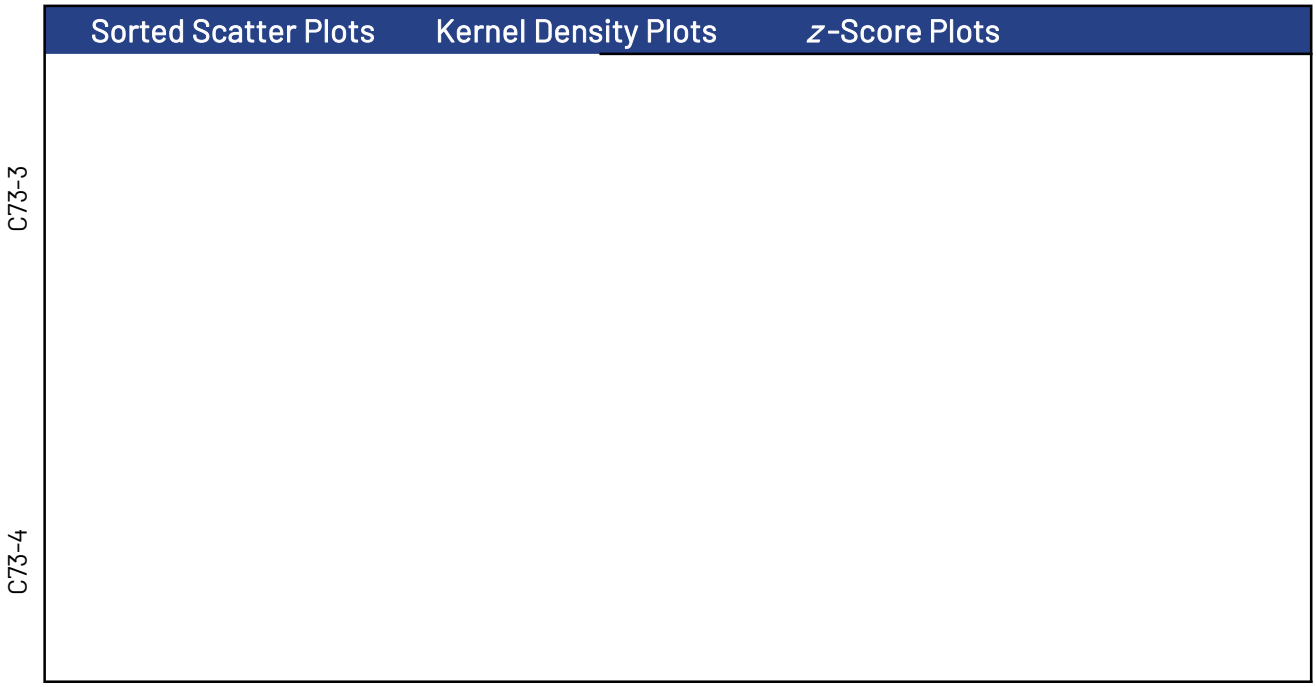
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

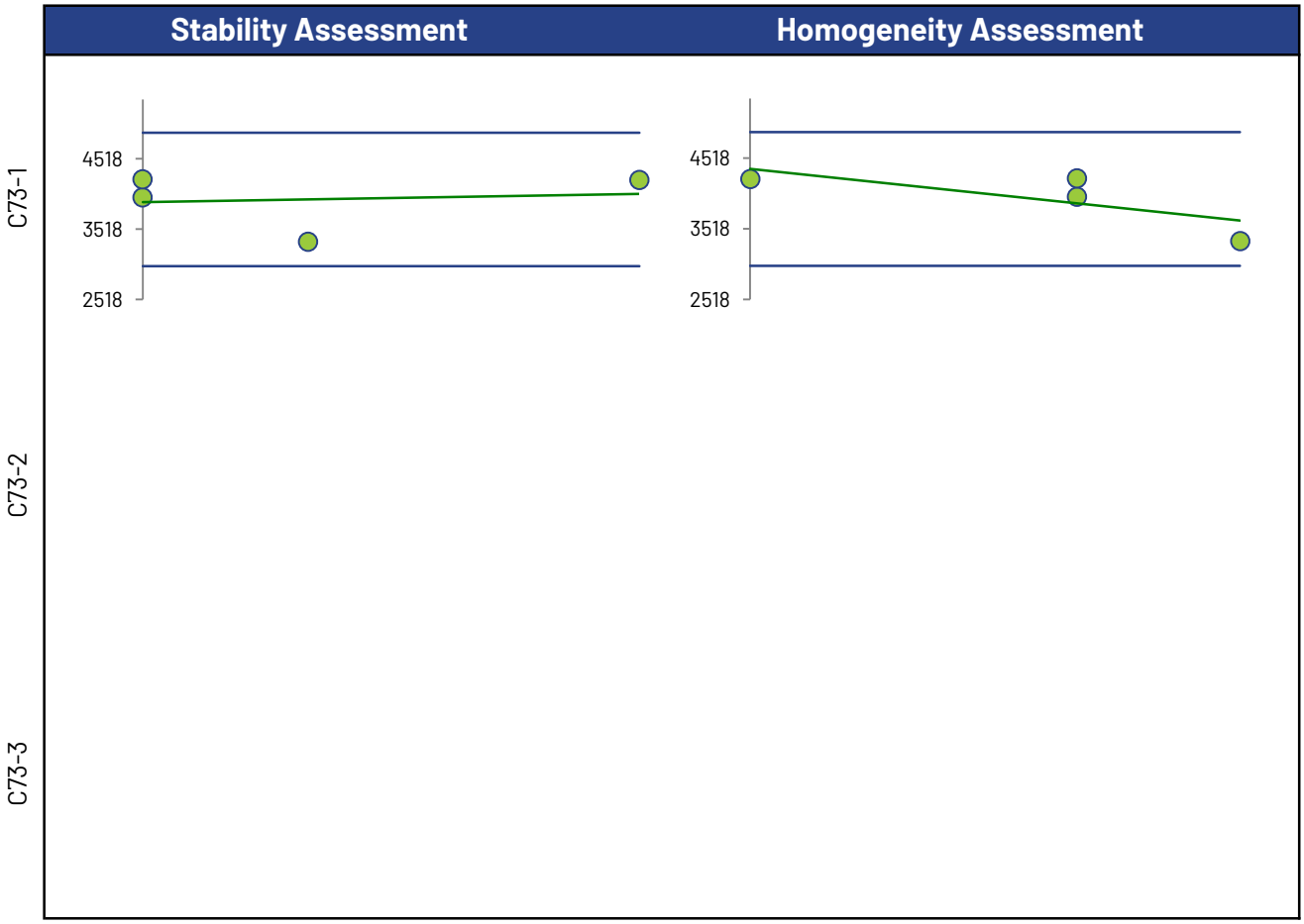
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

3-Methyl-1-butanol





3-Methyl-1-butanol

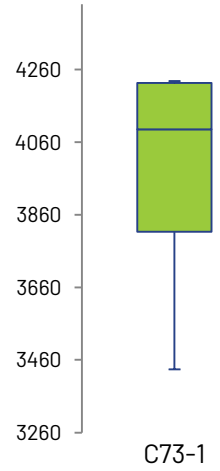
C73-4

Stability Assessment	Homogeneity Assessment

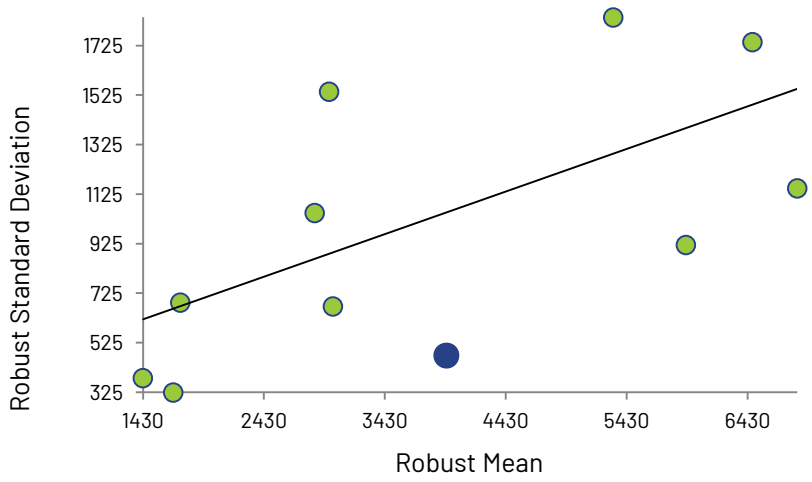
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Acetone (2-Propanone)

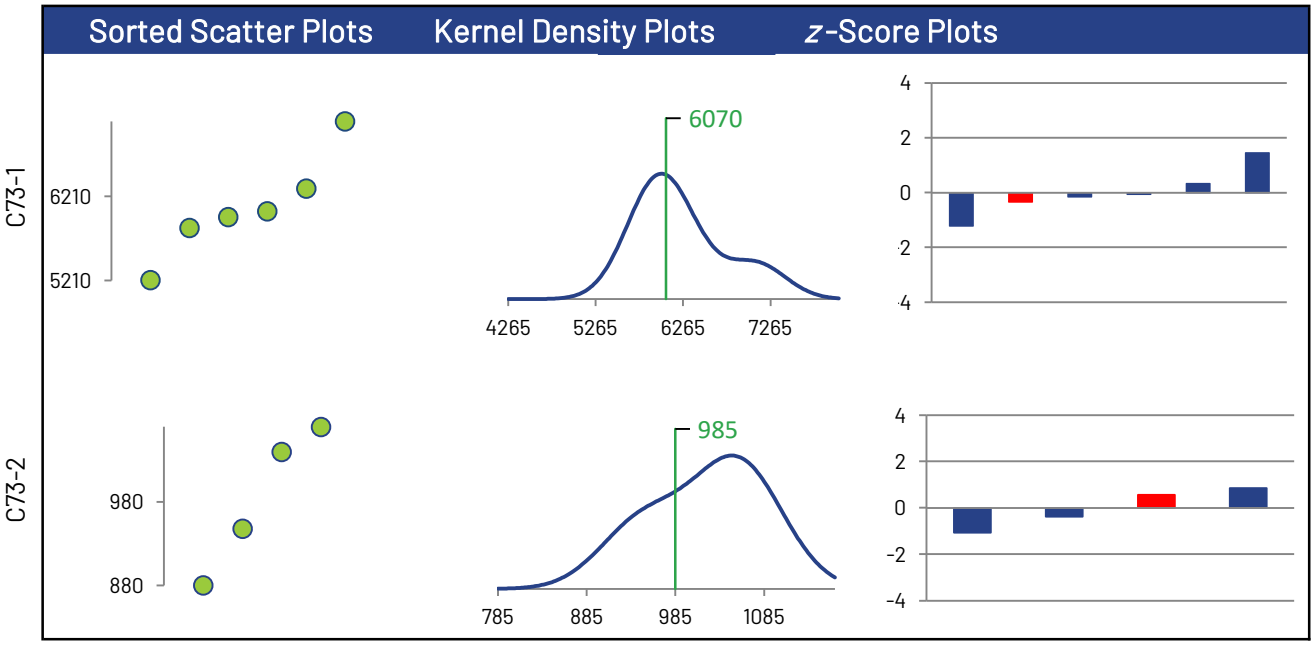
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	6	4	0	0
Median µg/g	6000	994		
Robust Mean µg/g	6070	985		
Uncertainty of the Assigned Value µg/g	359	61.6		
Robust Standard Deviation µg/g	704	98.5		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	704	98.5		
Flagged Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

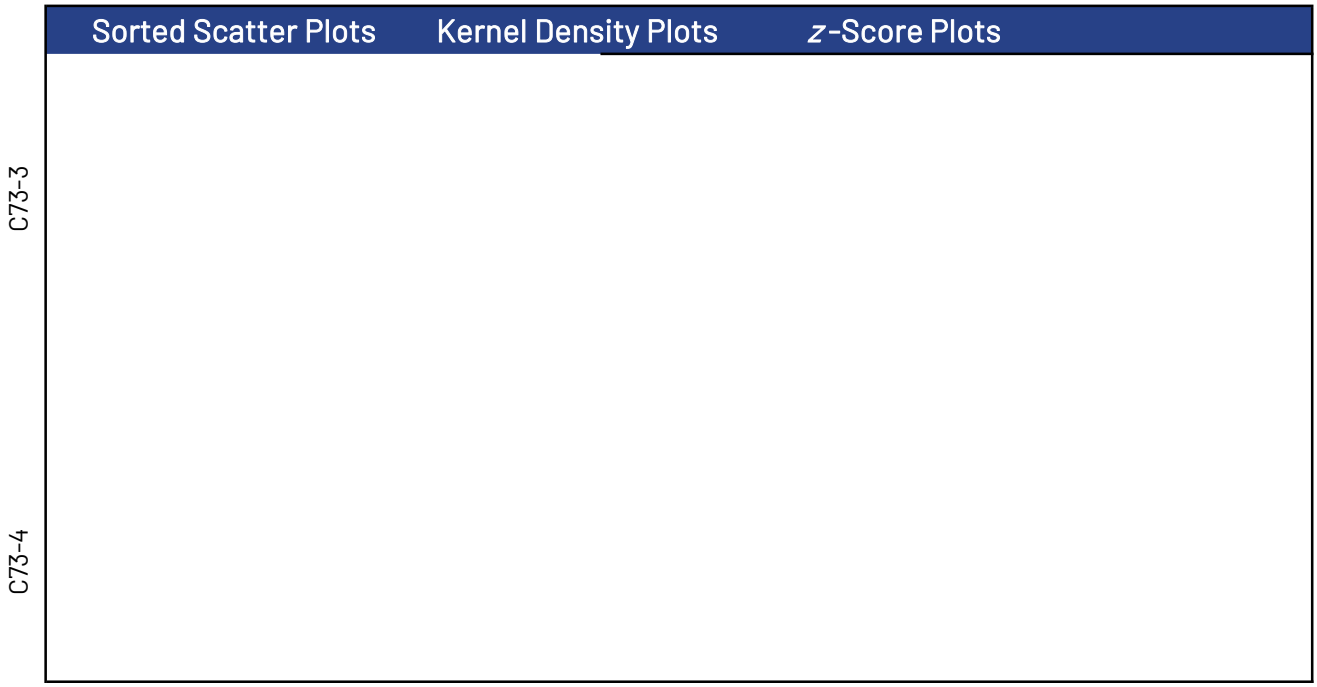
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	3	0	0
GC/FID (Red)	1	1	0	0

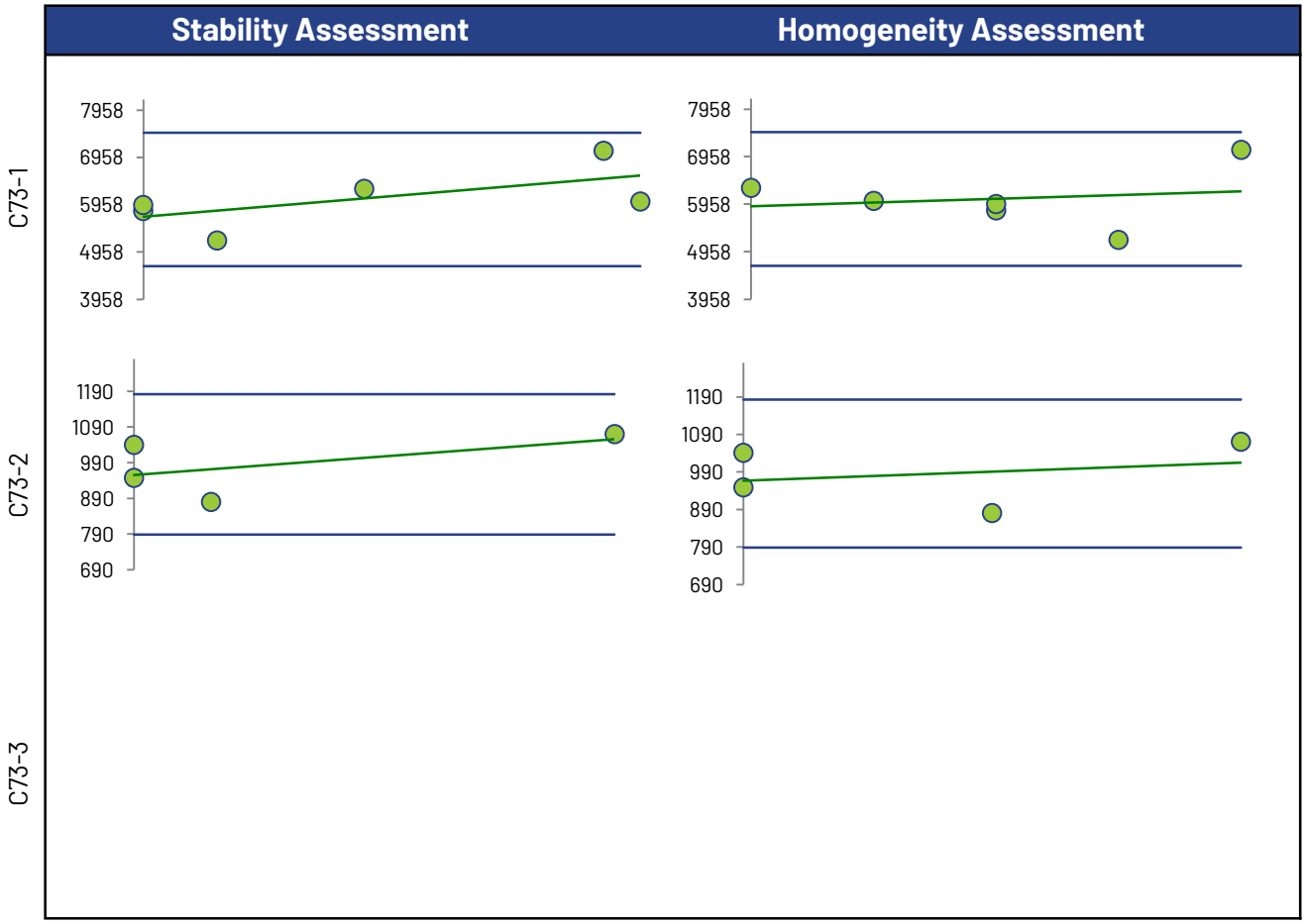
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Acetone (2-Propanone)





Acetone (2-Propanone)

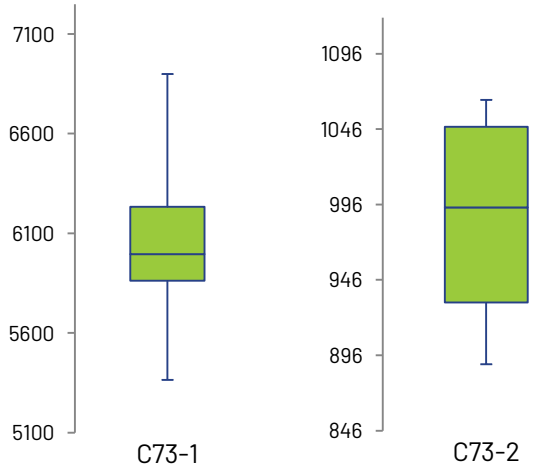
C73-4

Stability Assessment	Homogeneity Assessment

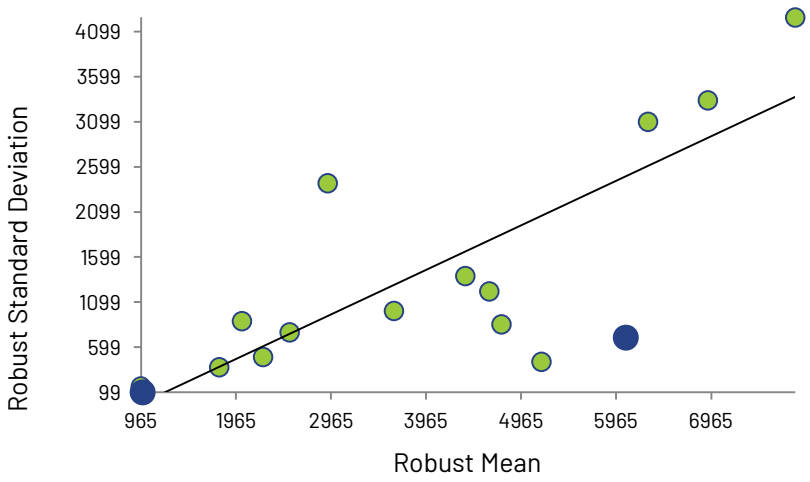
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Anisole

Summary Statistics

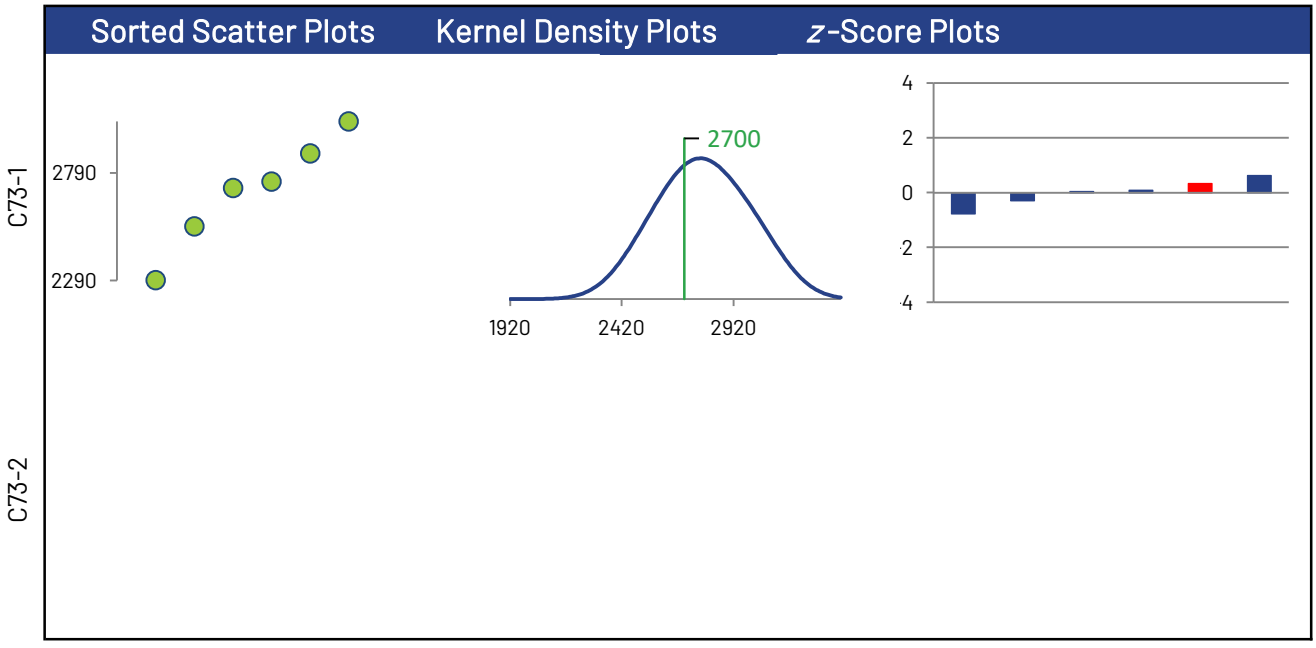
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	6	0	0	0
Median µg/g	2740			
Robust Mean µg/g	2700			
Uncertainty of the Assigned Value µg/g	151			
Robust Standard Deviation µg/g	295			
Regression Standard Deviation µg/g				
Stability Flag	Stability			
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	527			
Flagged Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

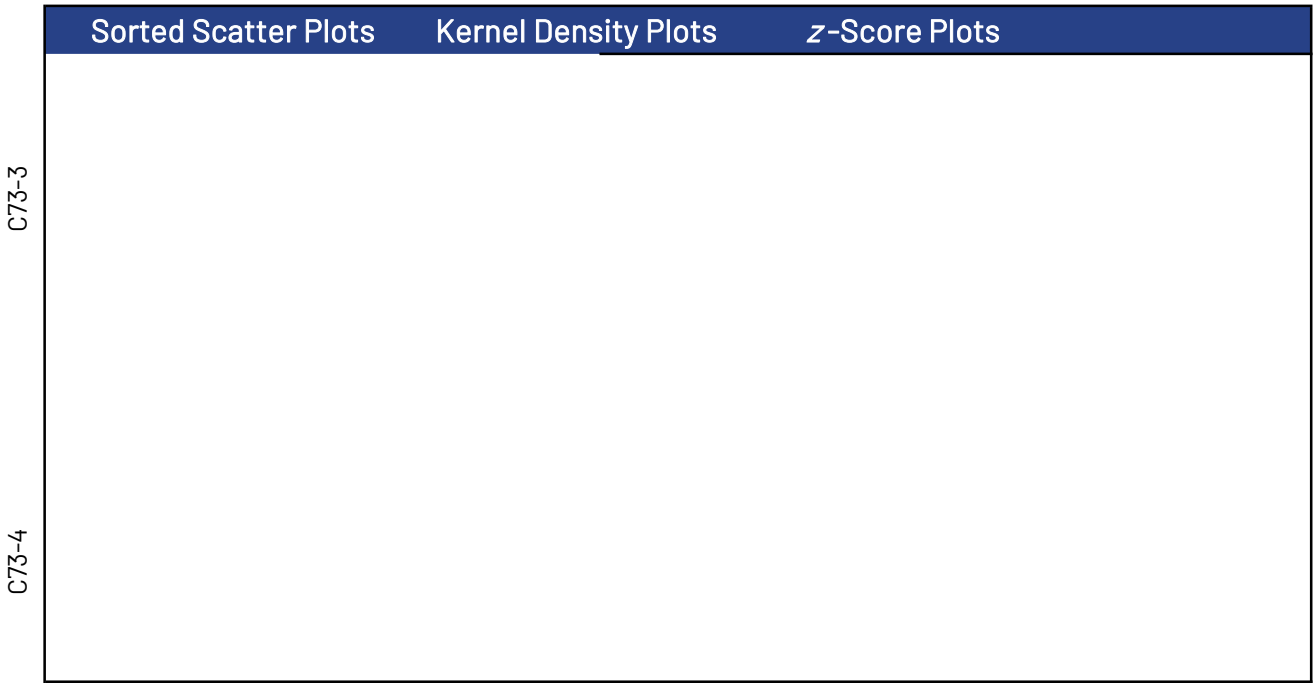
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	0	0	0
GC/FID (Red)	1	0	0	0

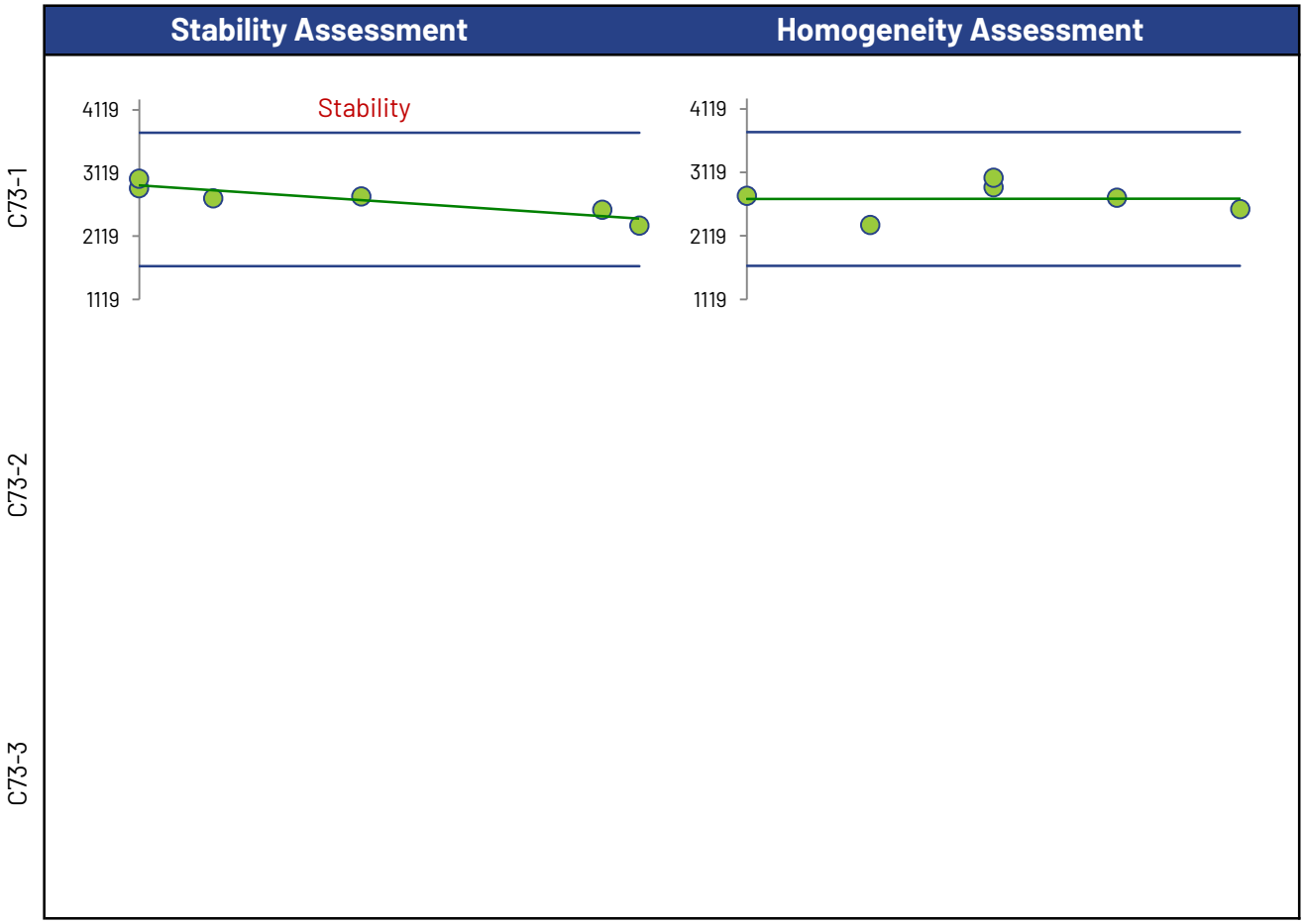
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Anisole


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
Stability
4119
3119
2119
1119
4119
3119
2119
1119
C73-1
C73-2
C73-3

Anisole

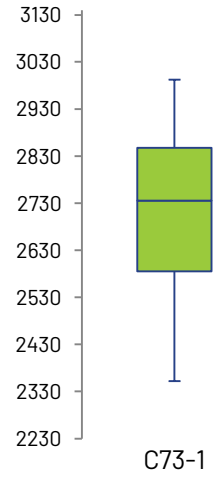
C73-4

Stability Assessment	Homogeneity Assessment

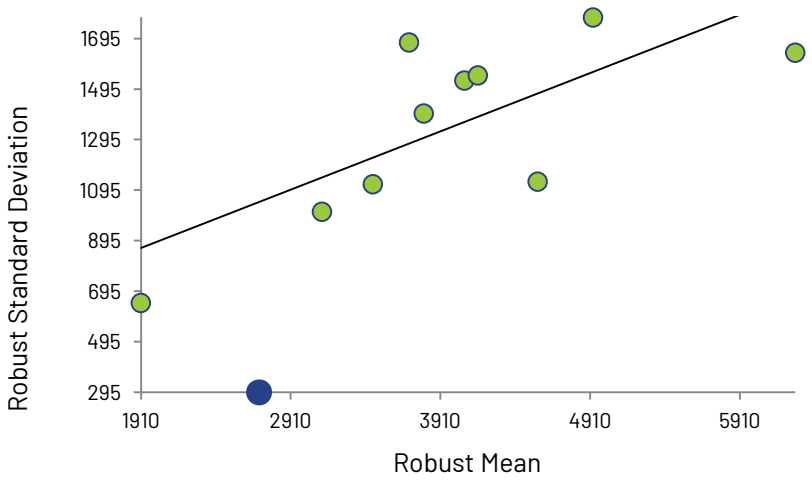
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Butane

Summary Statistics

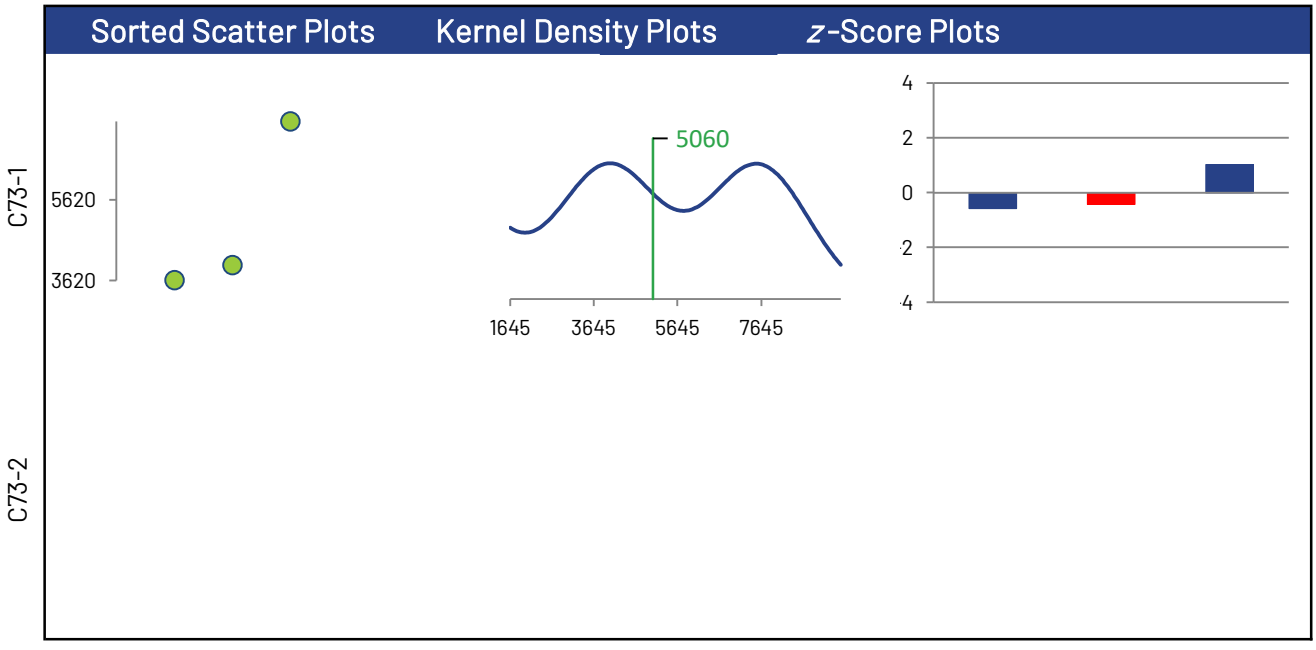
Excluded **Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	3	0	0	0
Median µg/g	4000			
Robust Mean µg/g	5060			
Uncertainty of the Assigned Value µg/g	1780			
Robust Standard Deviation µg/g	2470			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2470			
Flagged Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

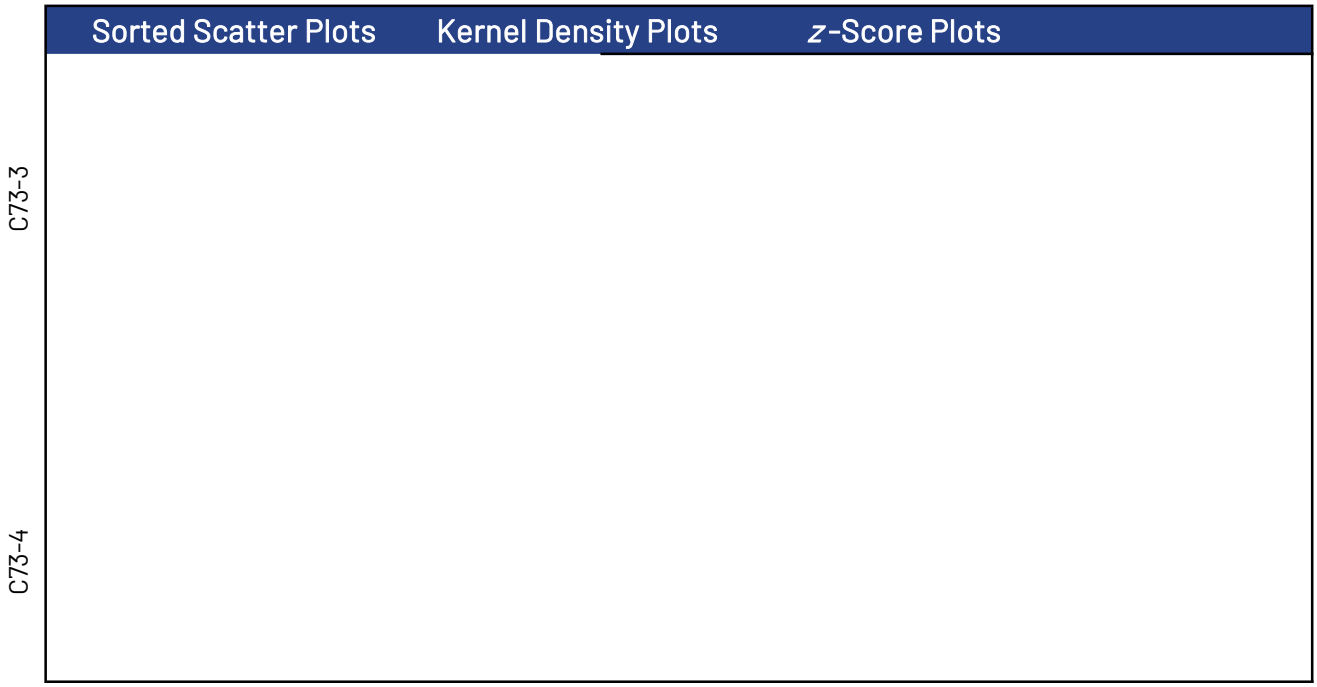
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	2	0	0	0
GC/FID (Red)	1	0	0	0

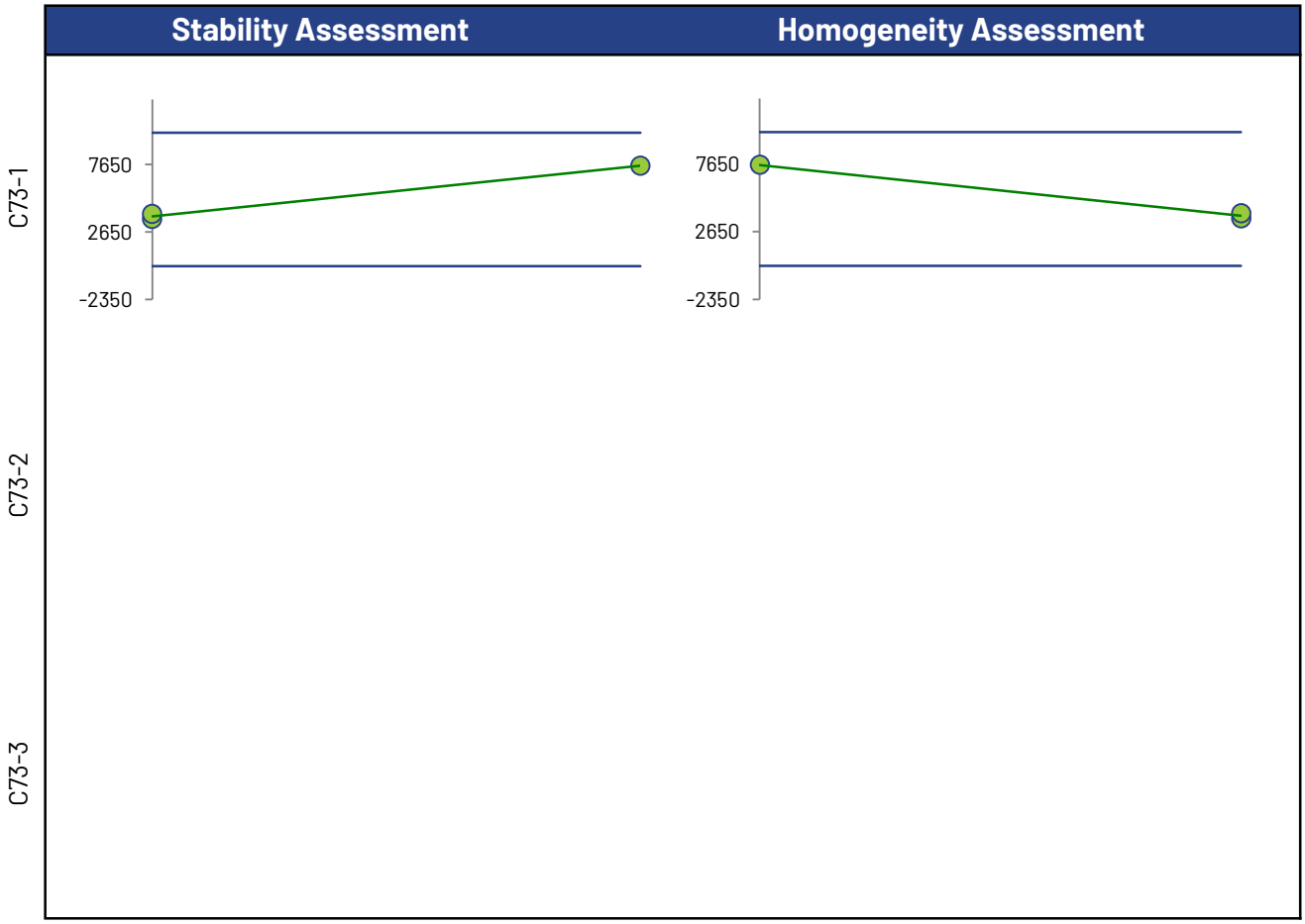
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Butane


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
7650
2650
-2350
7650
2650
-2350
C73-1
C73-2
C73-3

Butane

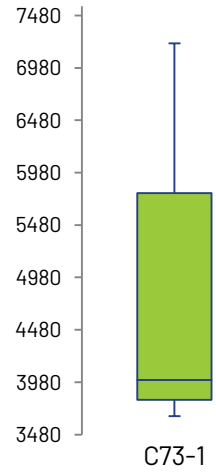
C73-4

Stability Assessment	Homogeneity Assessment

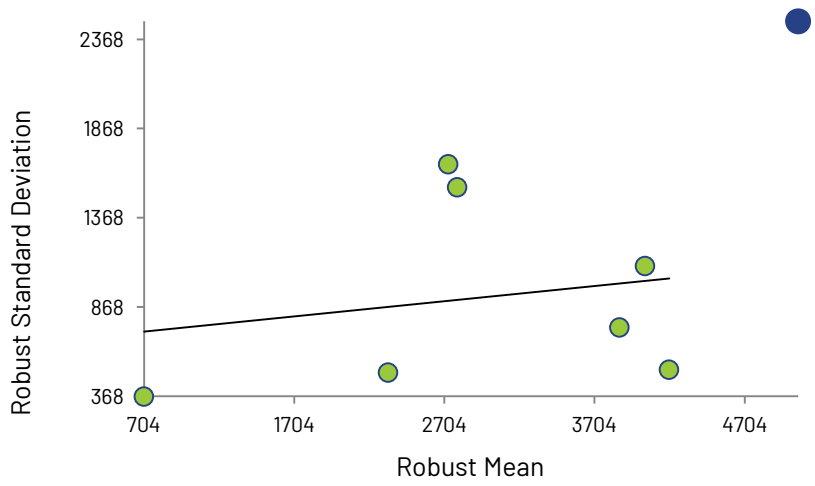
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Butyl acetate

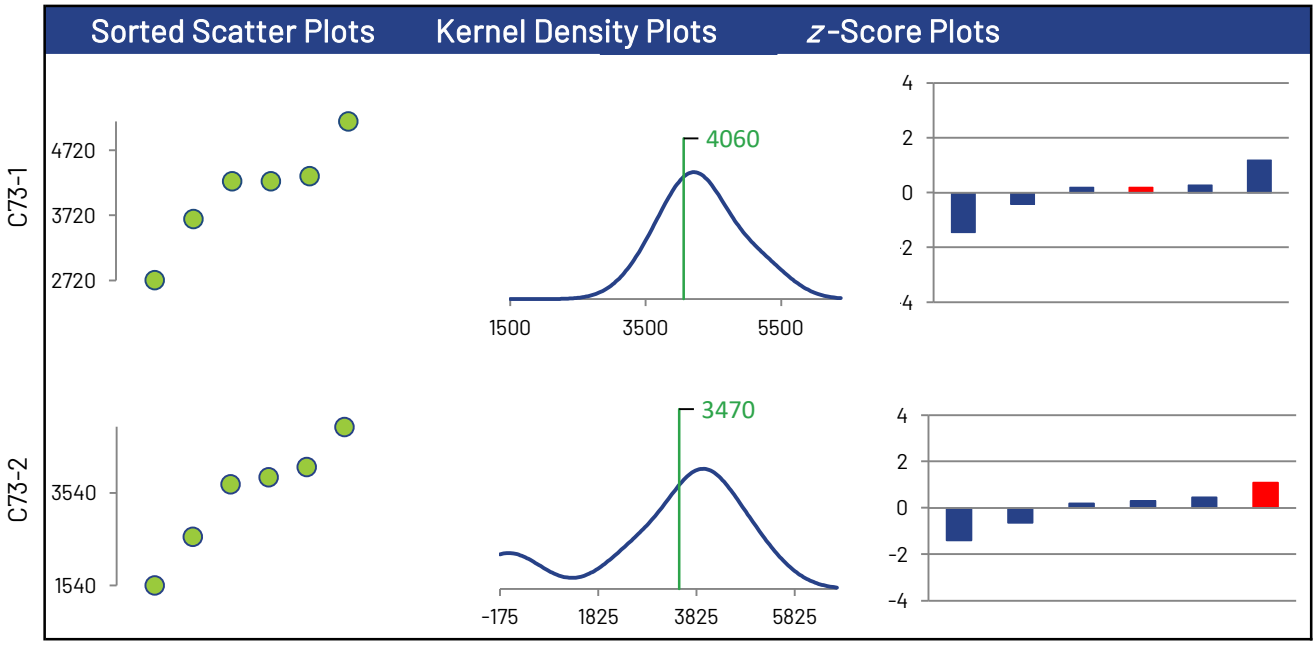
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	6	6	0	0
Median µg/g	4240	3810		
Robust Mean µg/g	4060	3470		
Uncertainty of the Assigned Value µg/g	470	704		
Robust Standard Deviation µg/g	921	1380		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	921	1380		
Flagged Outliers	0	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

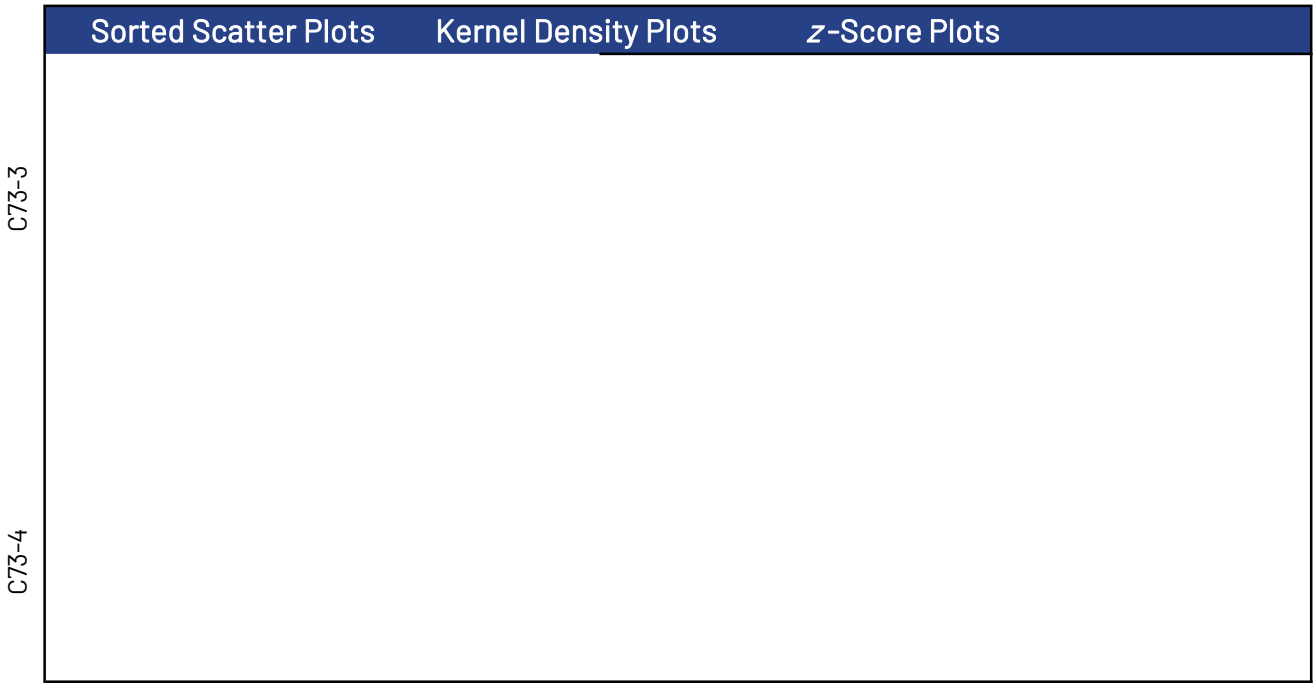
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	5	0	0
GC/FID (Red)	1	1	0	0

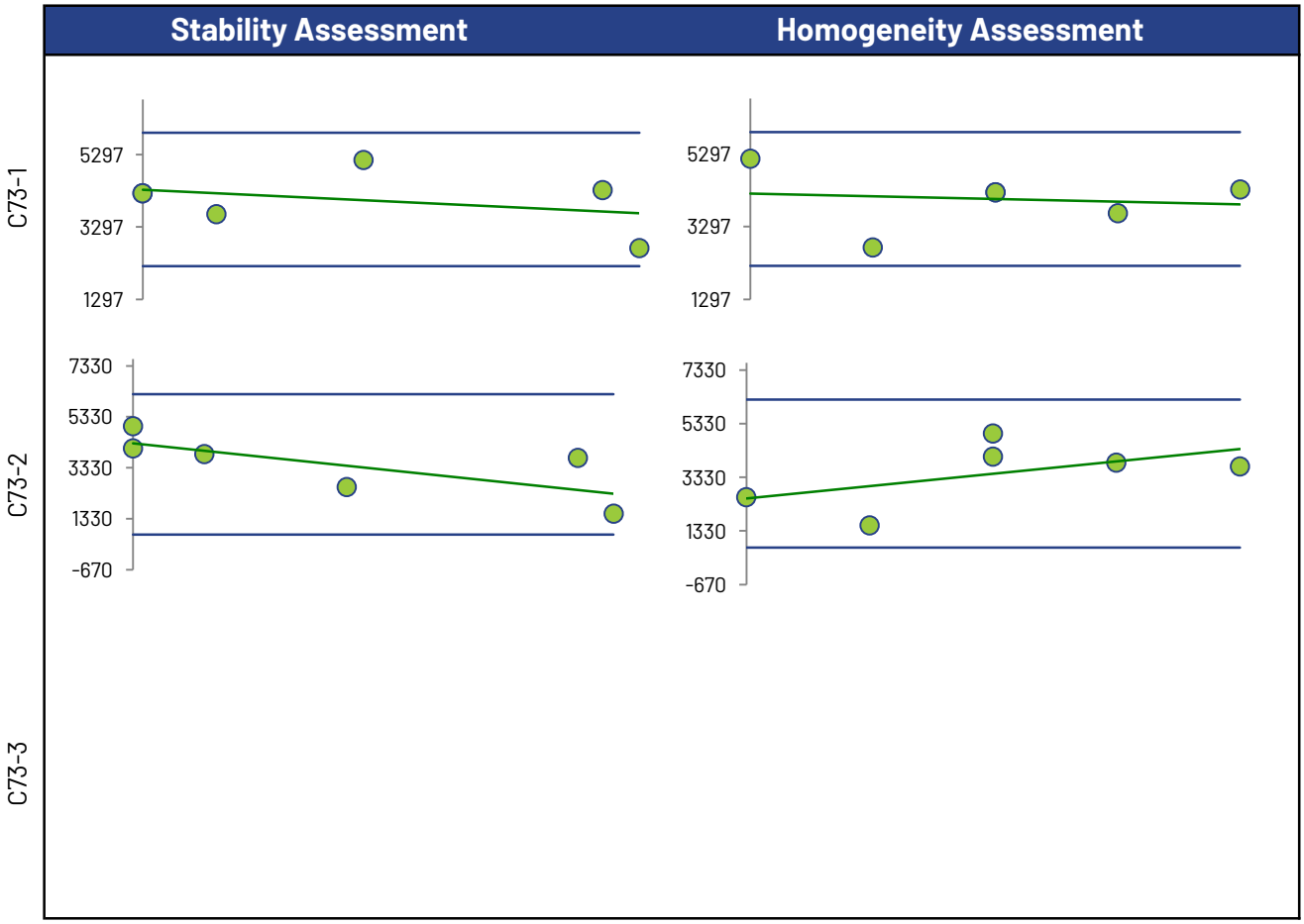
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Butyl acetate





Butyl acetate

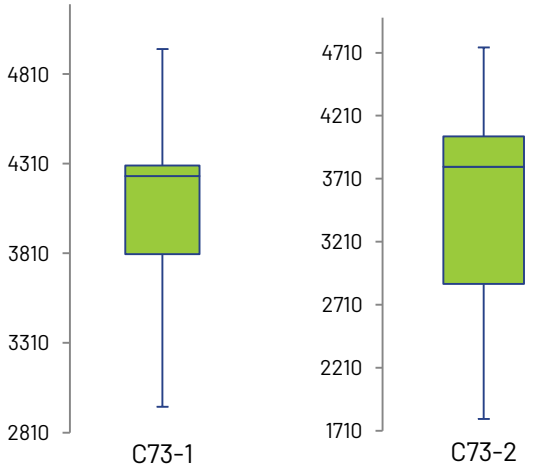
C73-4

Stability Assessment	Homogeneity Assessment

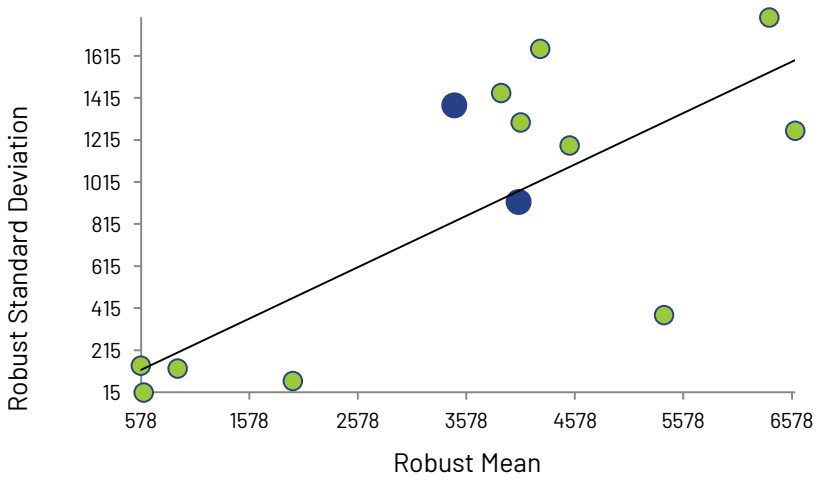
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Dimethyl sulfoxide

Summary Statistics

Excluded **Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	0	0	0
Median µg/g				
Robust Mean µg/g				
Uncertainty of the Assigned Value µg/g				
Robust Standard Deviation µg/g				
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g				
Flagged Outliers	2	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

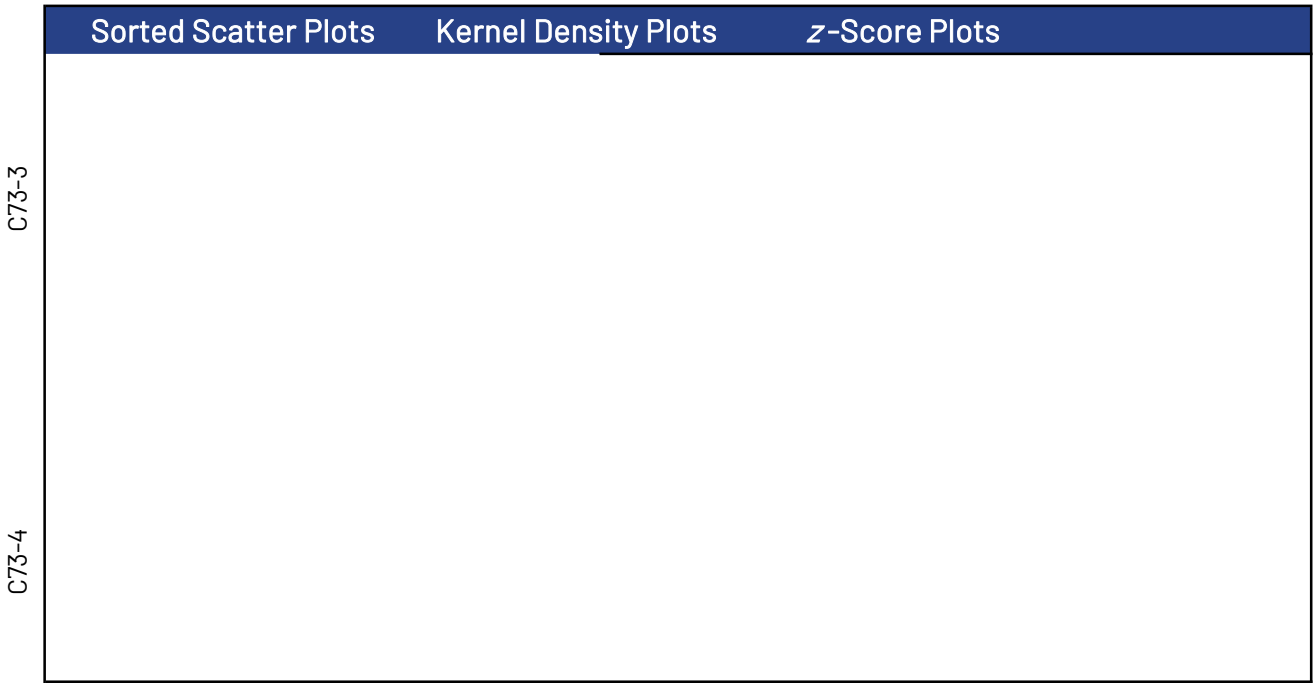
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots

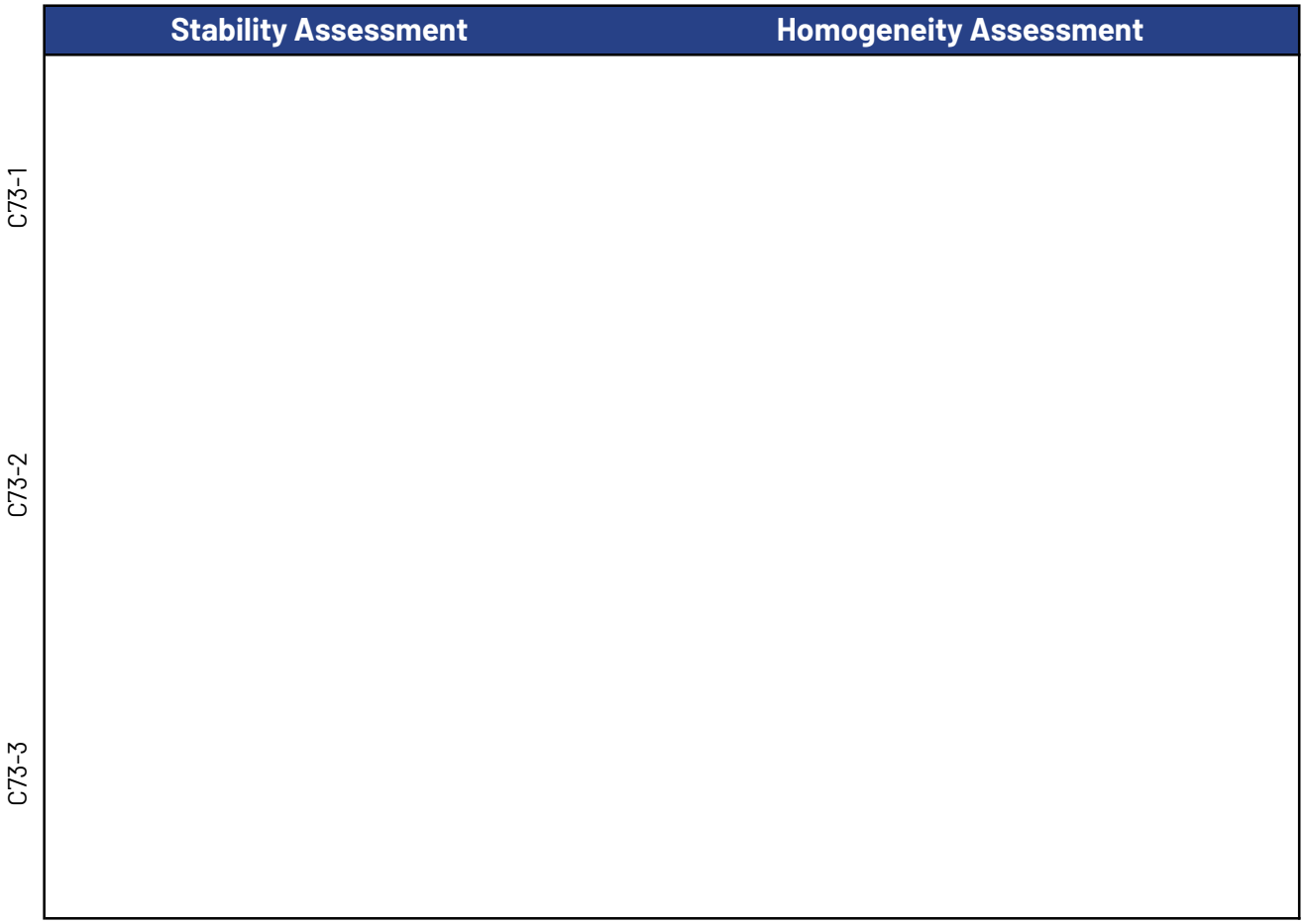
C73-1

C73-2

* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Dimethyl sulfoxide





Dimethyl sulfoxide

C73-4

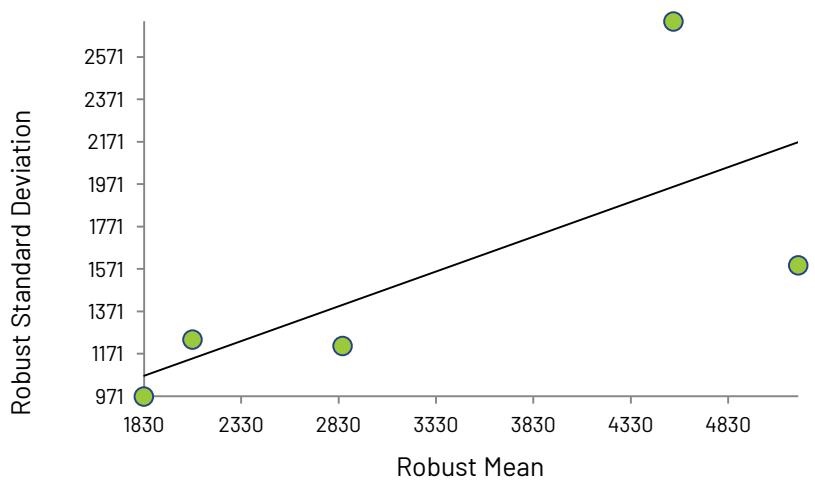
Stability Assessment	Homogeneity Assessment

Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots

Current Round (blue) Compared to Historic Rounds (green)



Ethanol

Summary Statistics

Not Spiked

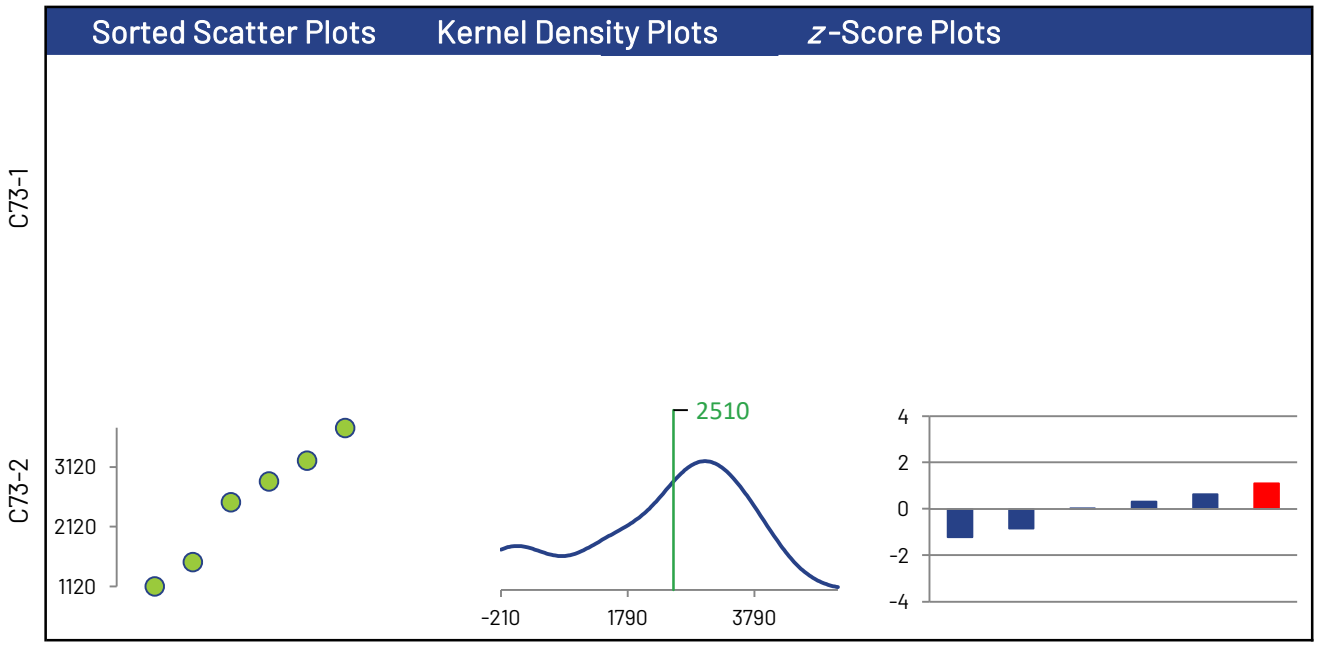
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	6	0	0
Median µg/g		2710		
Robust Mean µg/g		2510		
Uncertainty of the Assigned Value µg/g		587		
Robust Standard Deviation µg/g		1150		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		1150		
Flagged Outliers	1	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	5	0	0
GC/FID (Red)	0	1	0	0

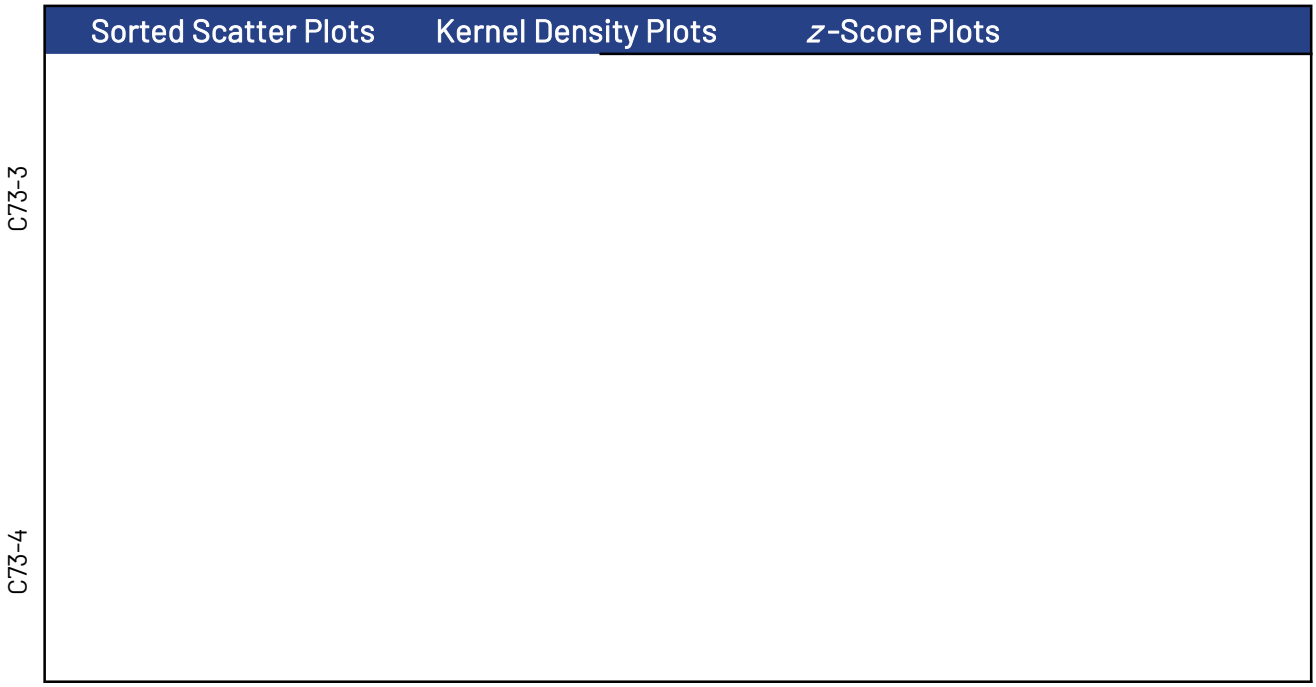
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

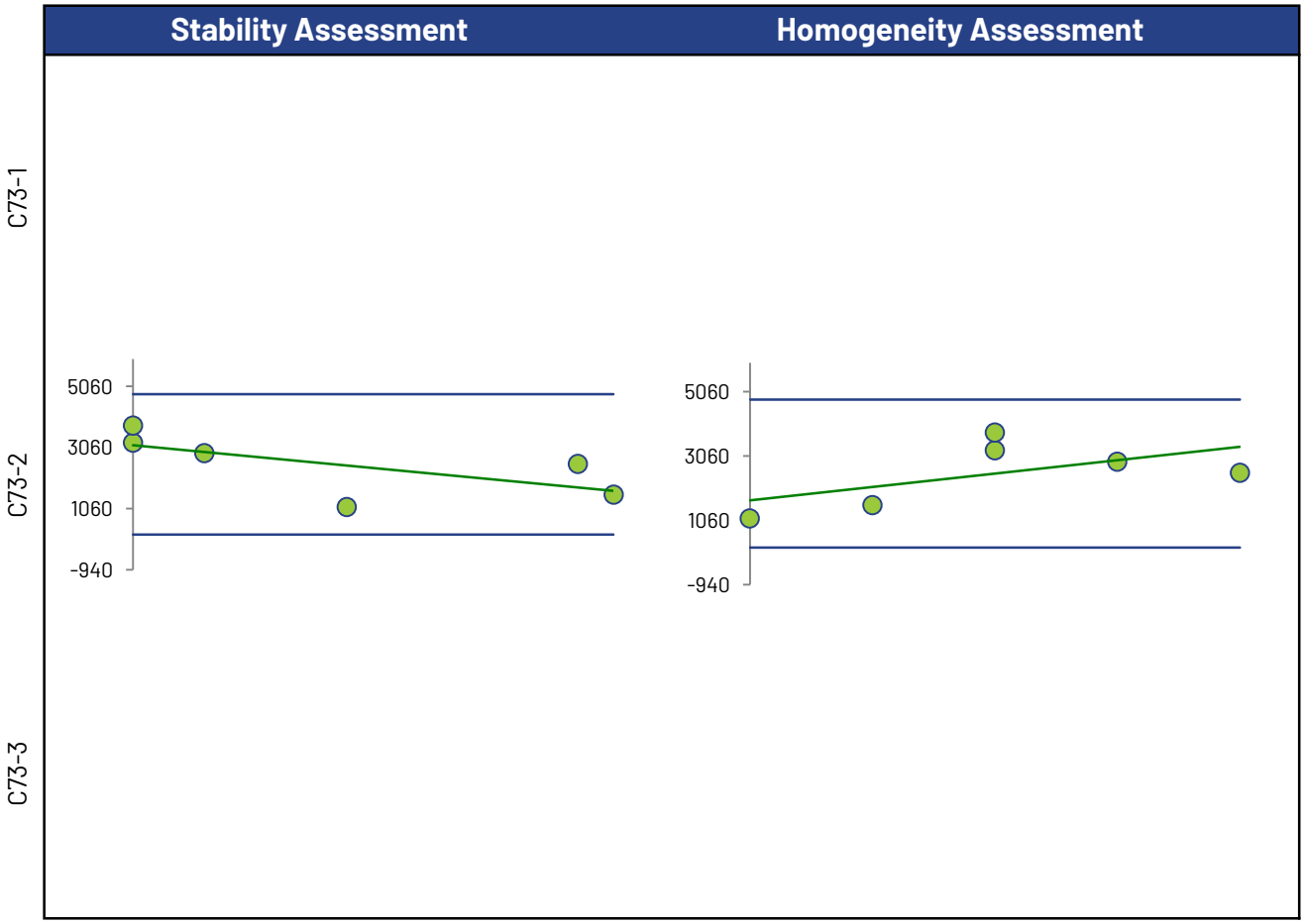
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Ethanol


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
C73-1
C73-2
C73-3
5060
3060
1060
-940
5060
3060
1060
-940

Ethanol

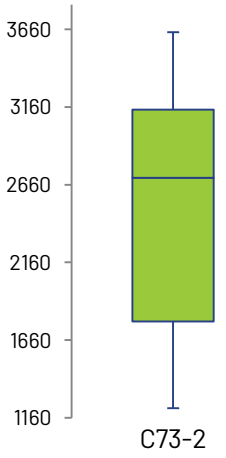
C73-4

Stability Assessment	Homogeneity Assessment

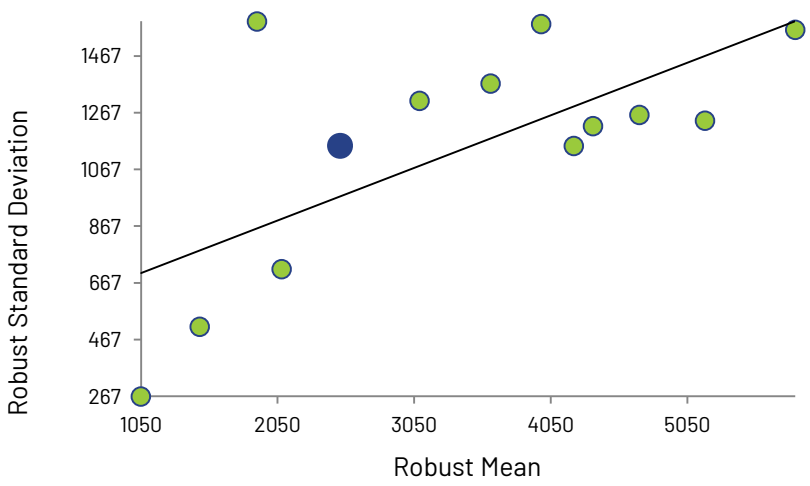
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Ethyl acetate

Summary Statistics

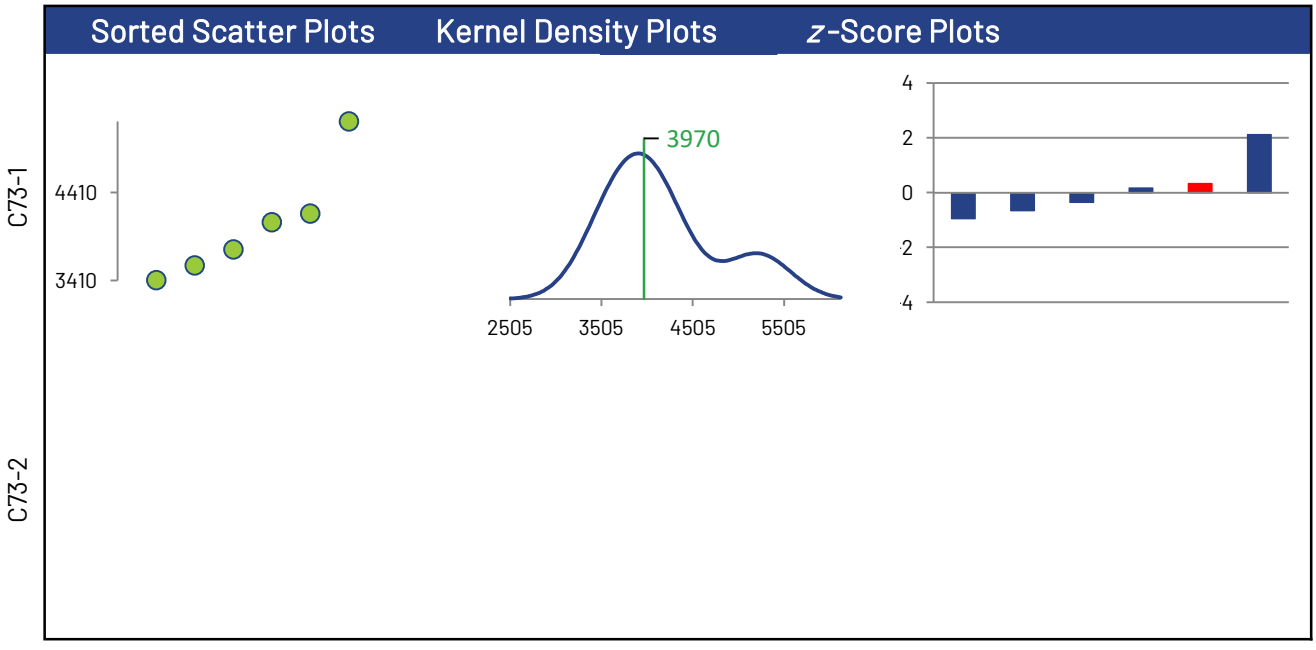
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	6	0	0	0
Median µg/g	3920			
Robust Mean µg/g	3970			
Uncertainty of the Assigned Value µg/g	301			
Robust Standard Deviation µg/g	589			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	589			
Flagged Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	1	0	0	0
Failure Rate %*	16.7			

Methods Used

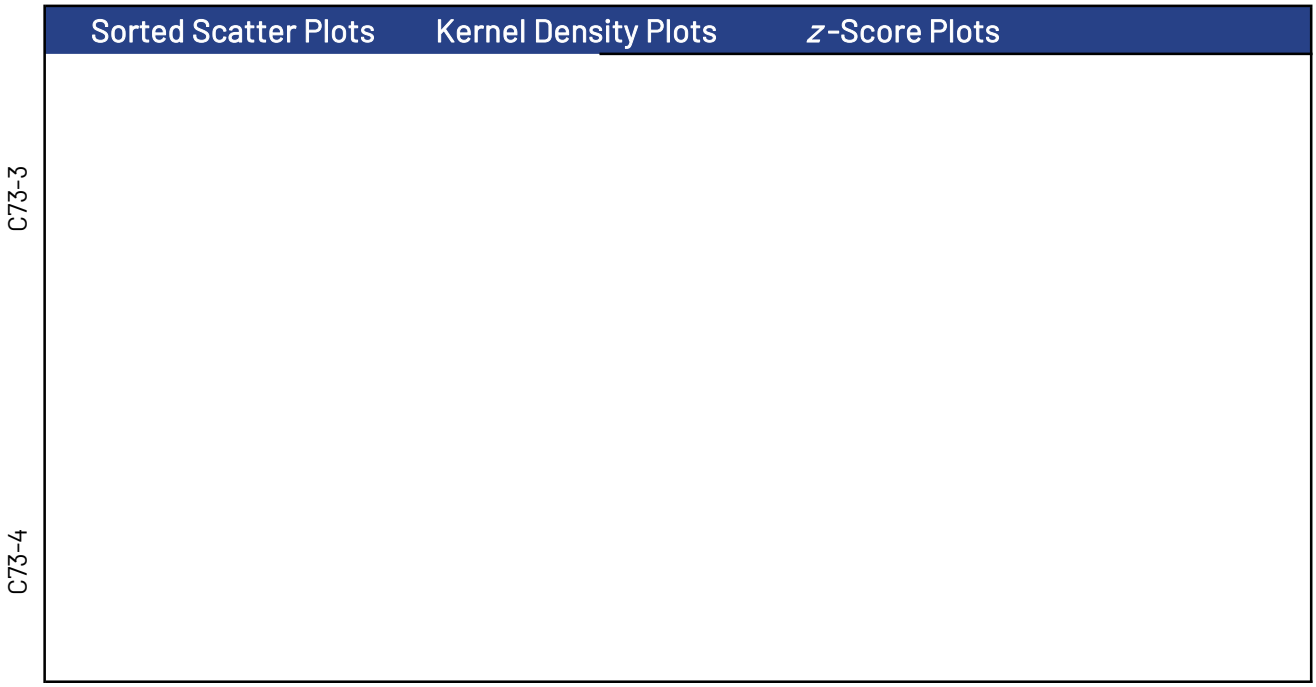
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	0	0	0
GC/FID (Red)	1	0	0	0

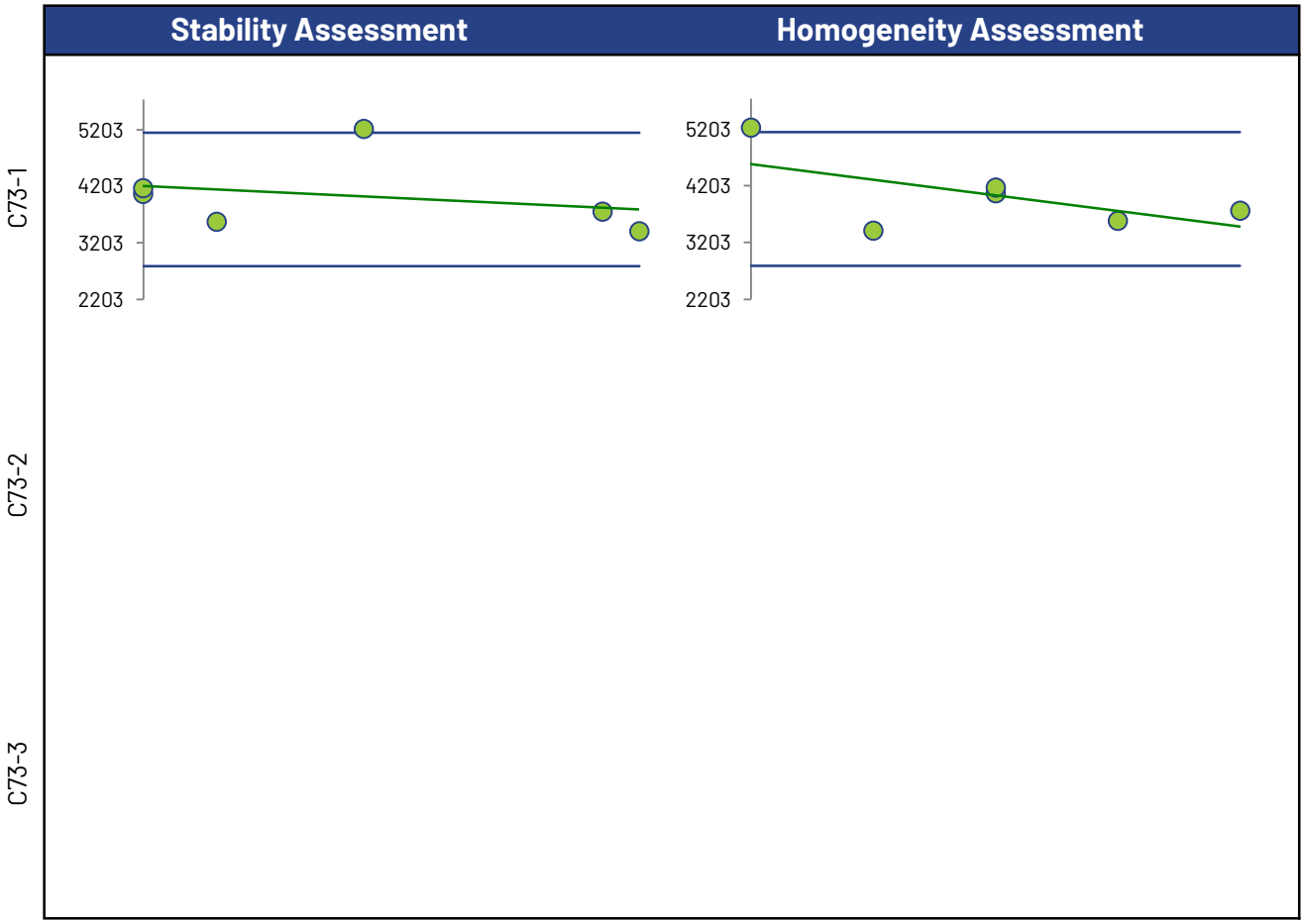
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Ethyl acetate





Ethyl acetate

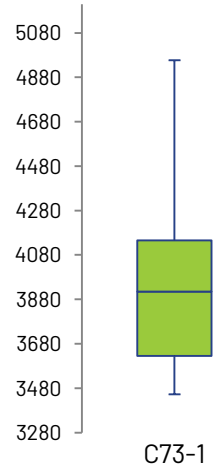
C73-4

Stability Assessment	Homogeneity Assessment

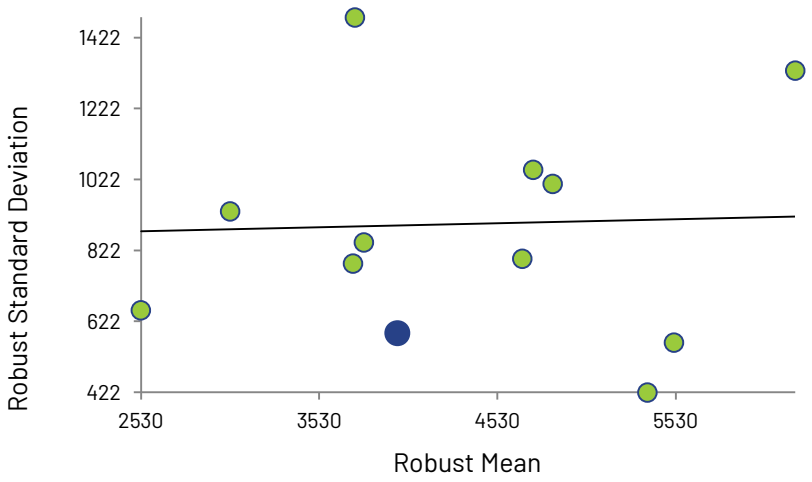
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Ethyl ether

Summary Statistics

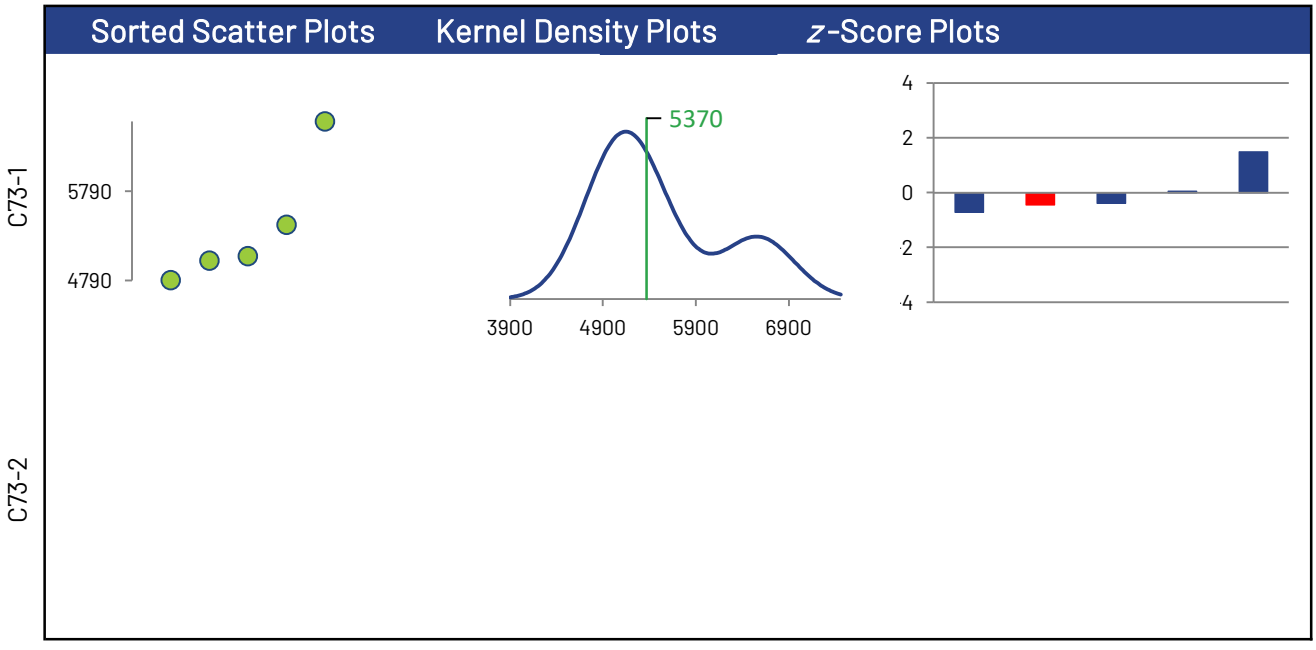
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	5	0	0	0
Median µg/g	5060			
Robust Mean µg/g	5370			
Uncertainty of the Assigned Value µg/g	449			
Robust Standard Deviation µg/g	803			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	803			
Flagged Outliers	0	2	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

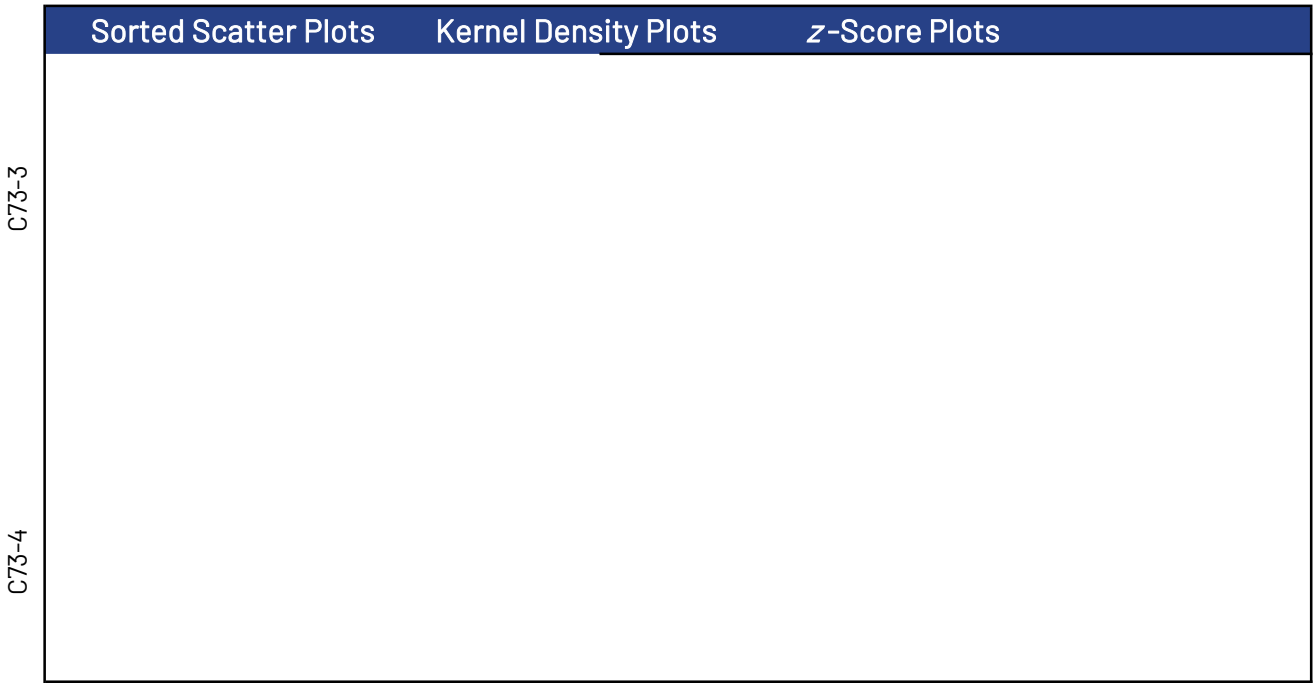
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	4	0	0	0
GC/FID (Red)	1	0	0	0

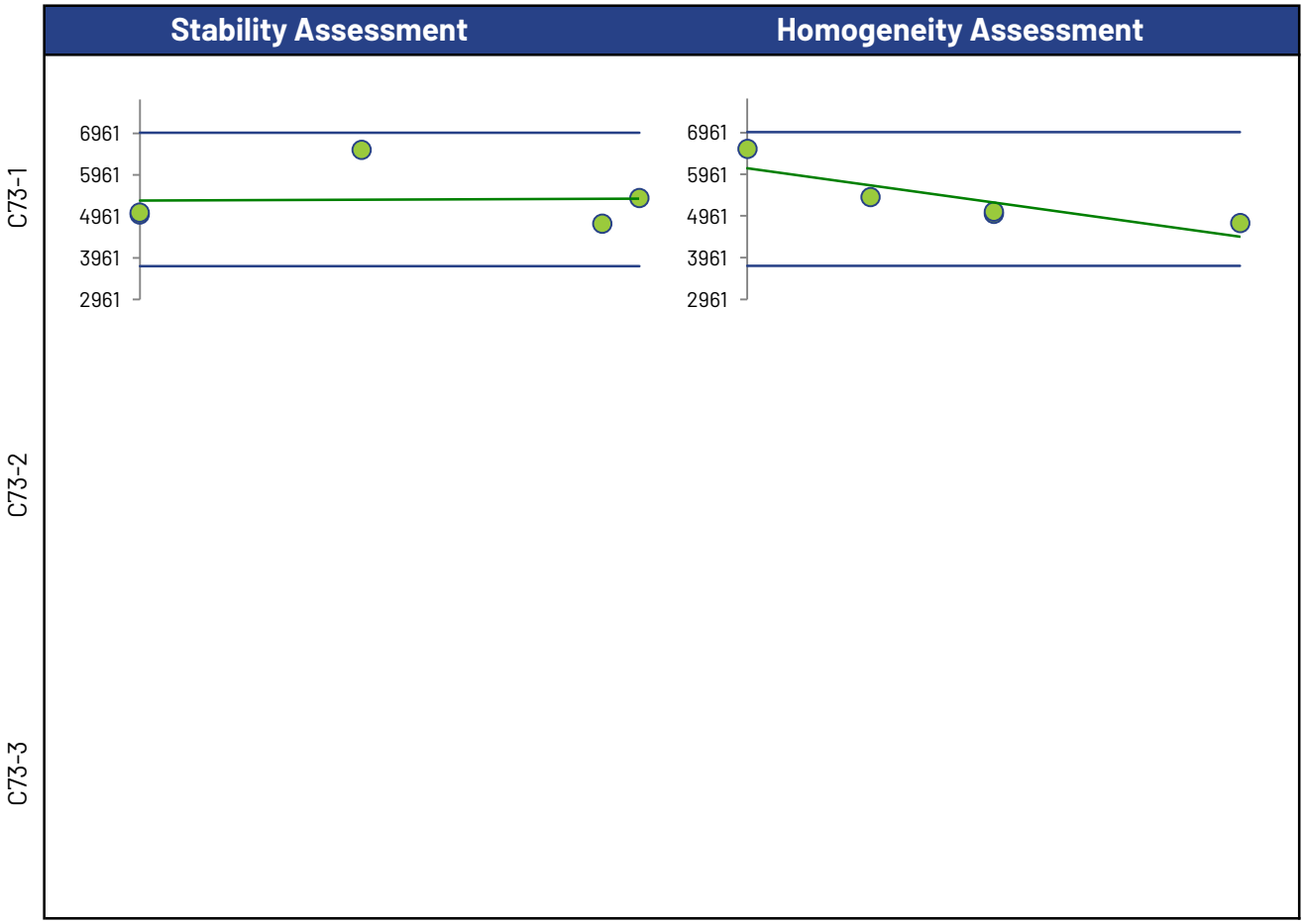
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Ethyl ether


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
6961
5961
4961
3961
2961
C73-1
C73-2
C73-3

Ethyl ether

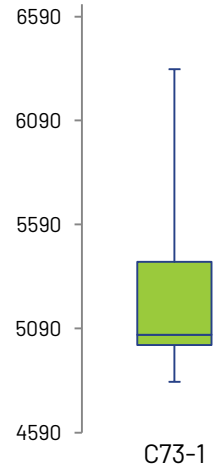
C73-4

Stability Assessment	Homogeneity Assessment

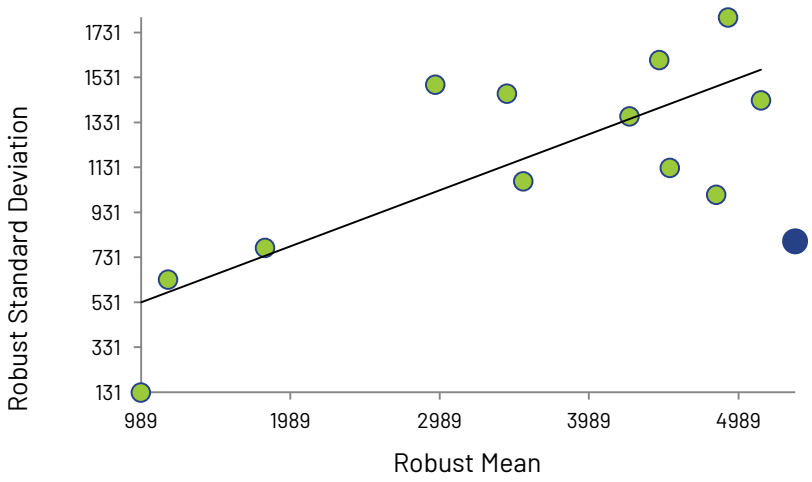
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Heptane

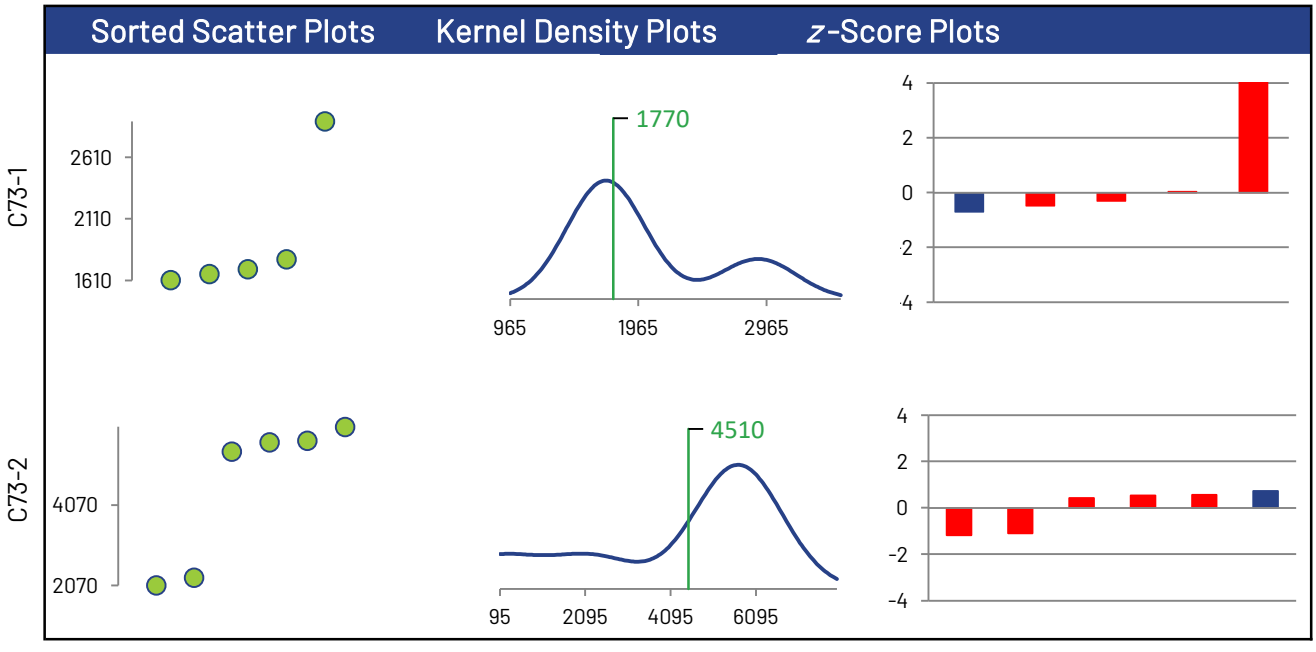
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	5	6	0	0
Median µg/g	1700	5520		
Robust Mean µg/g	1770	4510		
Uncertainty of the Assigned Value µg/g	127	1060		
Robust Standard Deviation µg/g	228	2070		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	228	2070		
Flagged Outliers	1	0	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	16.7			

Methods Used

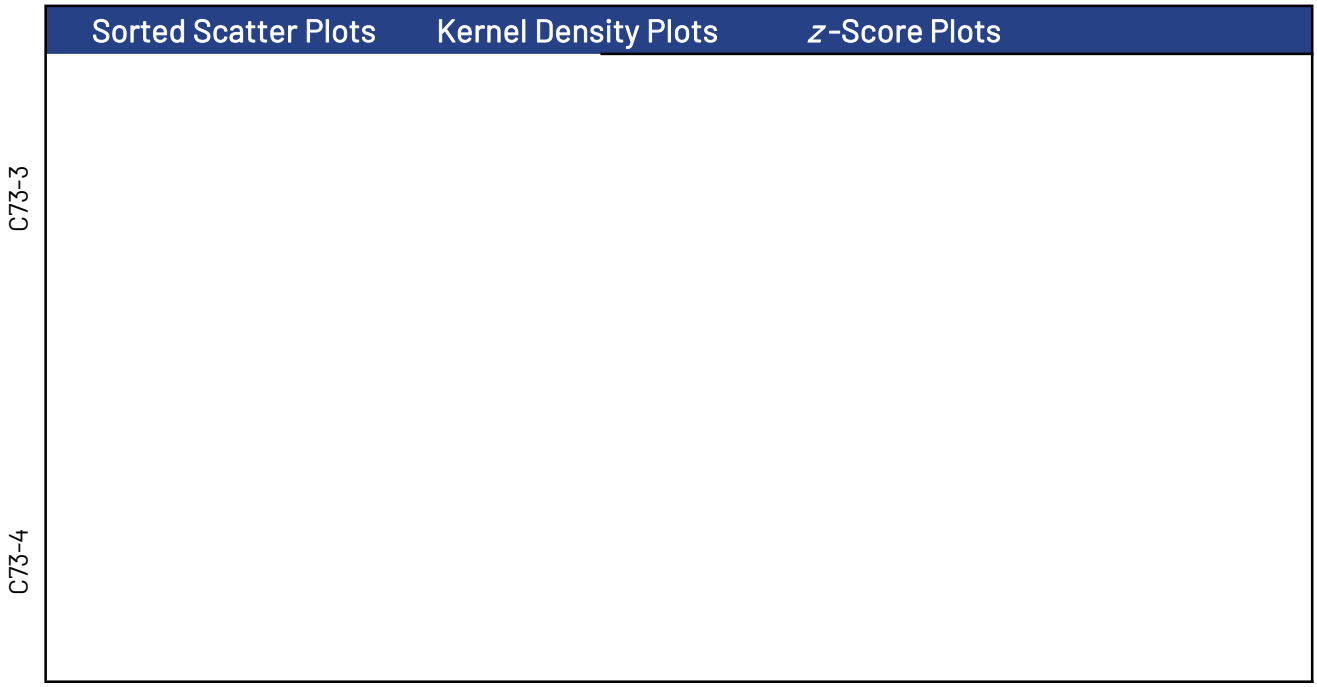
Method	C73-1	C73-2	C73-3	C73-4
GC/FID (Blue)	1	1	0	0
GC/MS (Red)	4	5	0	0

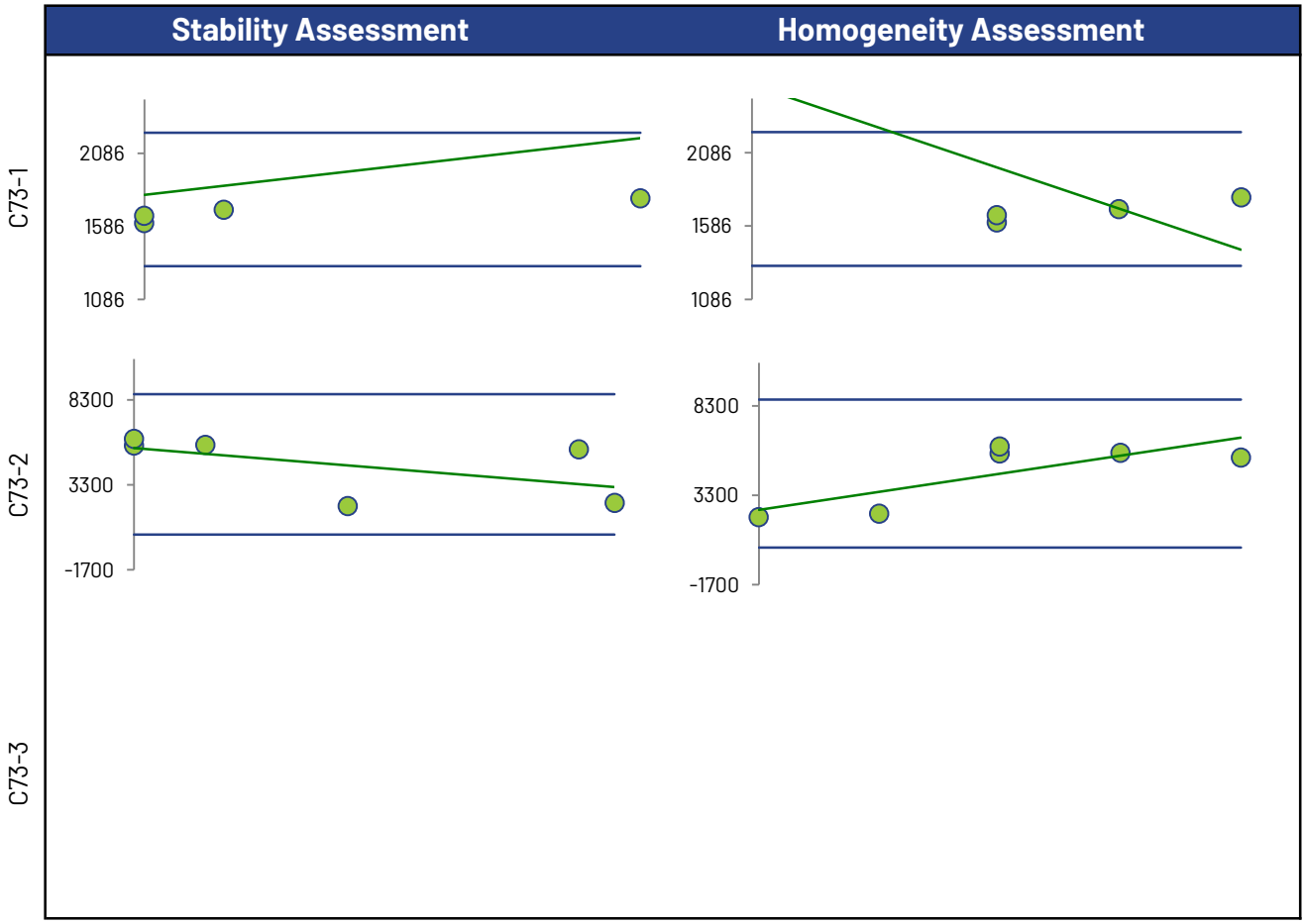
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Heptane


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
C73-1
C73-2
C73-3
2086
1586
1086
8300
3300
-1700

Heptane

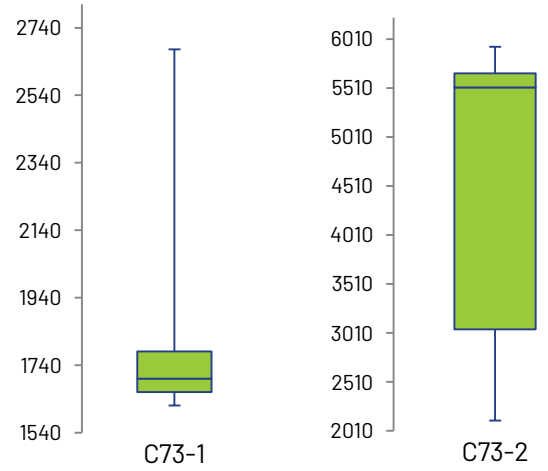
C73-4

Stability Assessment	Homogeneity Assessment

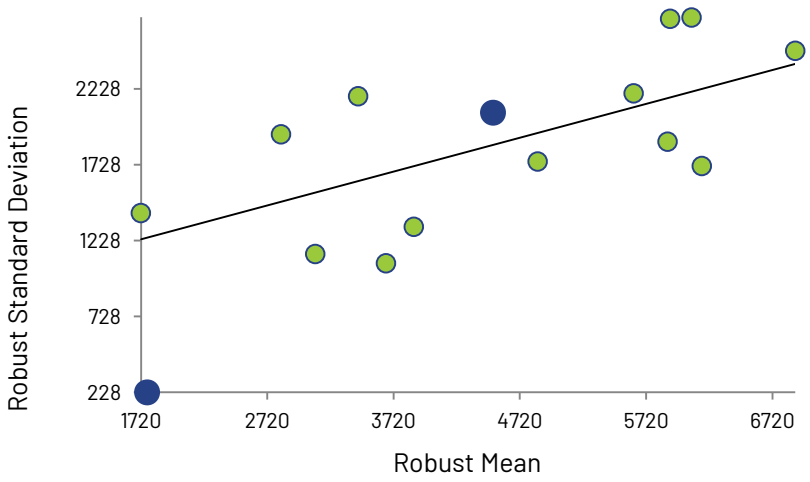
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Isobutanol (2-Methyl-1-propanol)

Summary Statistics

Not Spiked

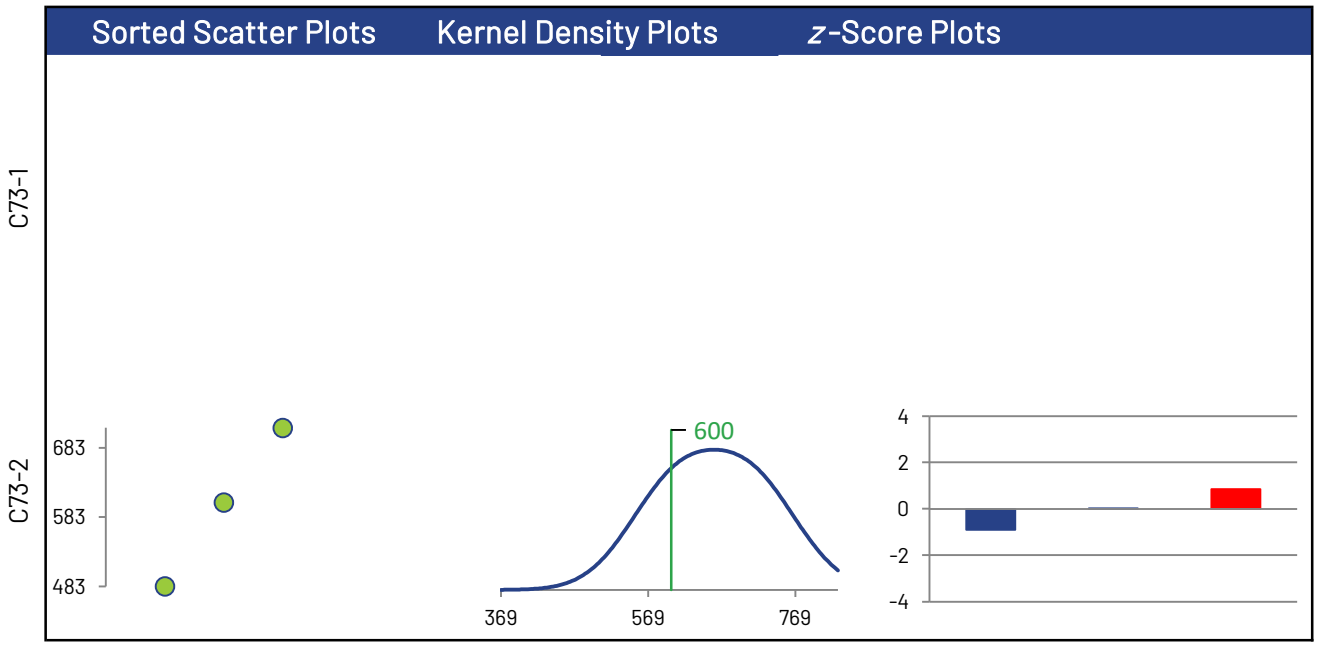
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	3	0	0
Median µg/g		604		
Robust Mean µg/g		600		
Uncertainty of the Assigned Value µg/g		93.8		
Robust Standard Deviation µg/g		130		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		130		
Flagged Outliers	1	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	2	0	0
GC/FID (Red)	0	1	0	0

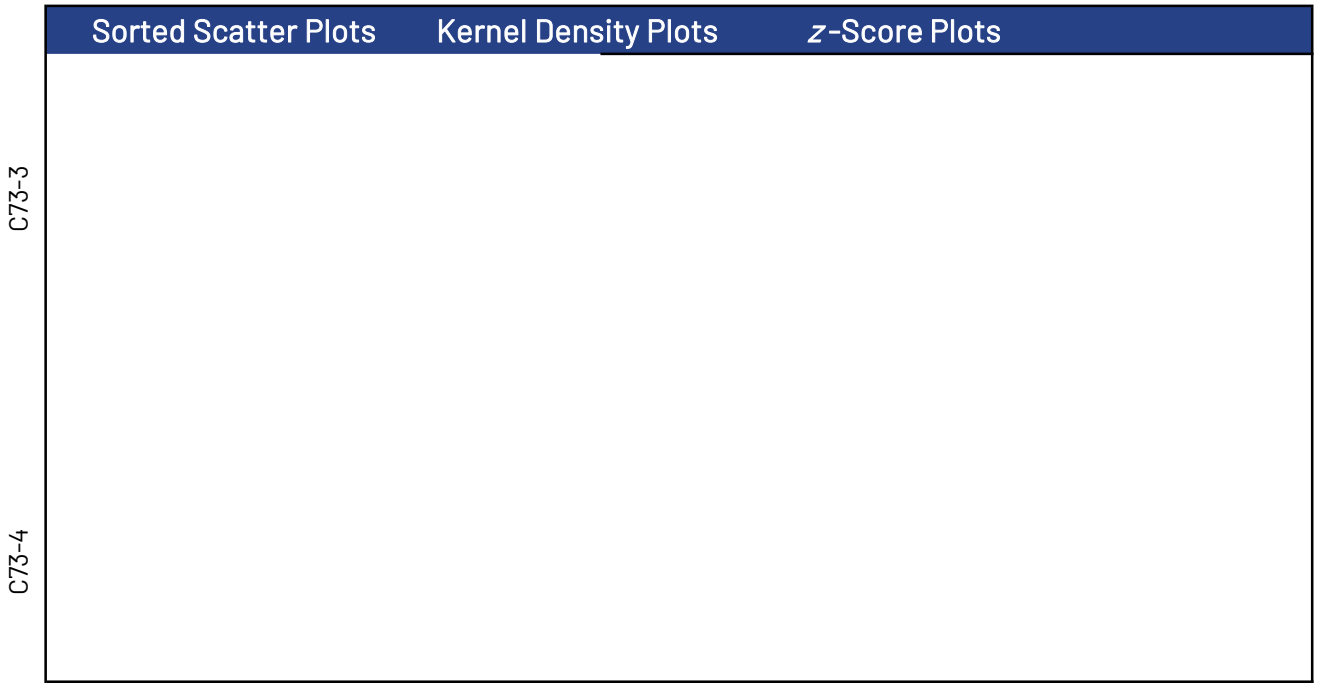
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

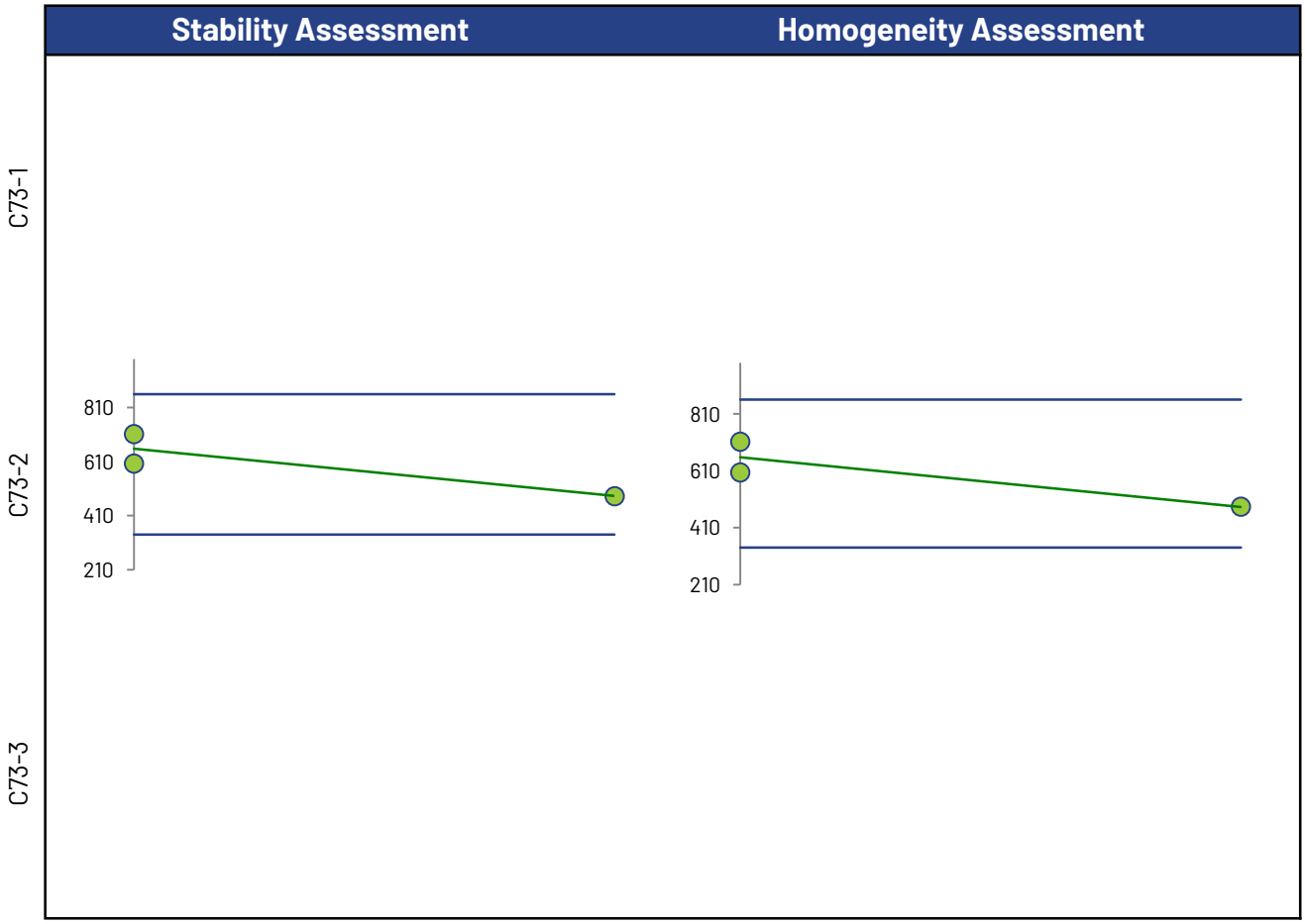
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Isobutanol (2-Methyl-1-propanol)





Isobutanol (2-Methyl-1-propanol)

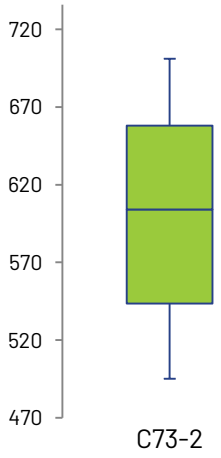
C73-4

Stability Assessment	Homogeneity Assessment

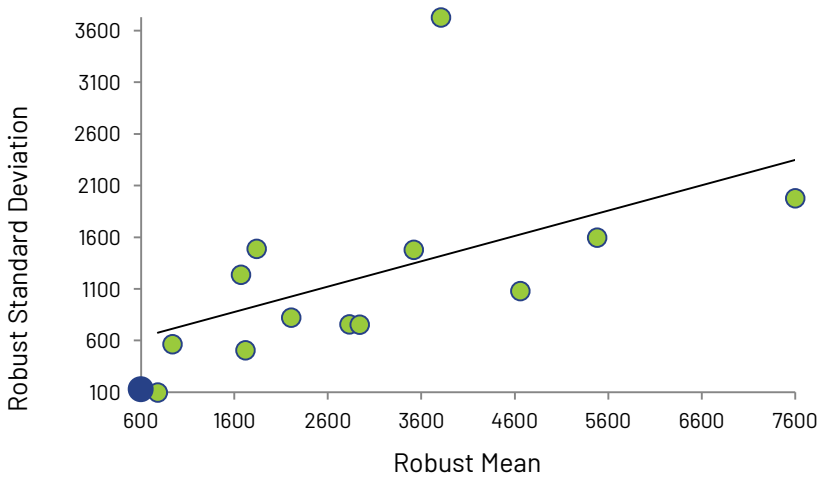
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Isobutyl acetate

Summary Statistics

Not Spiked

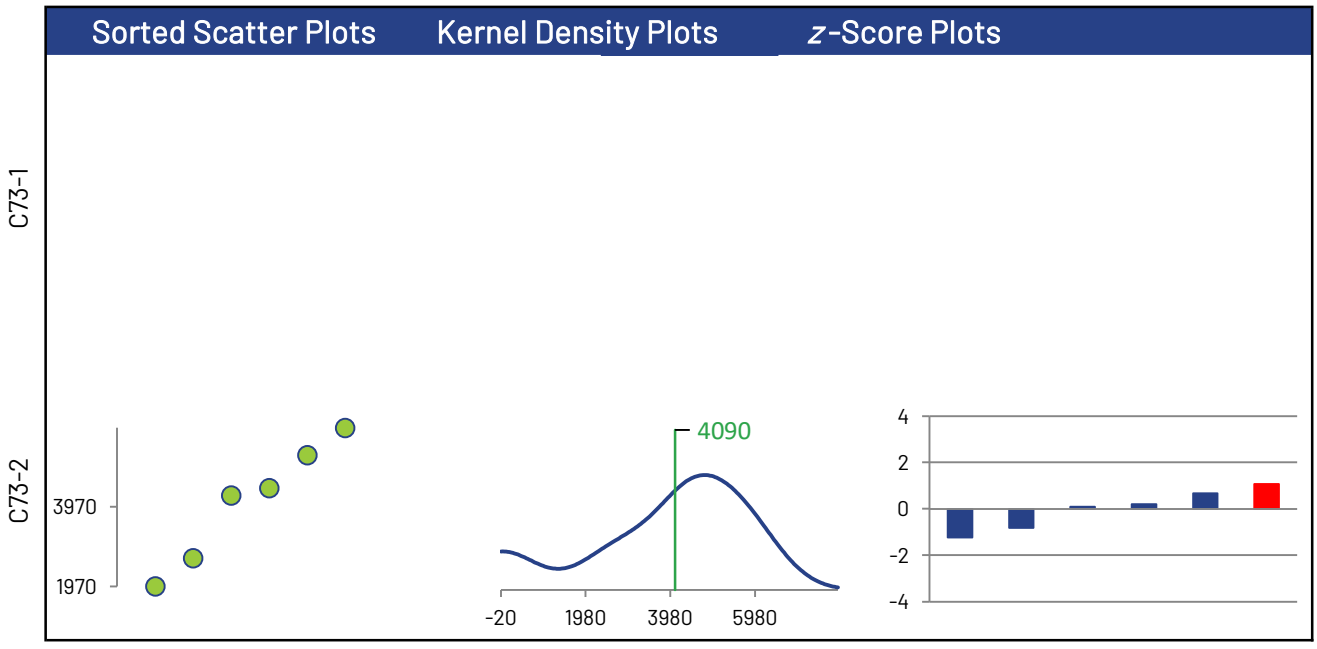
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	6	0	0
Median µg/g		4350		
Robust Mean µg/g		4090		
Uncertainty of the Assigned Value µg/g		878		
Robust Standard Deviation µg/g		1720		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		1720		
Flagged Outliers	1	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	5	0	0
GC/FID (Red)	0	1	0	0

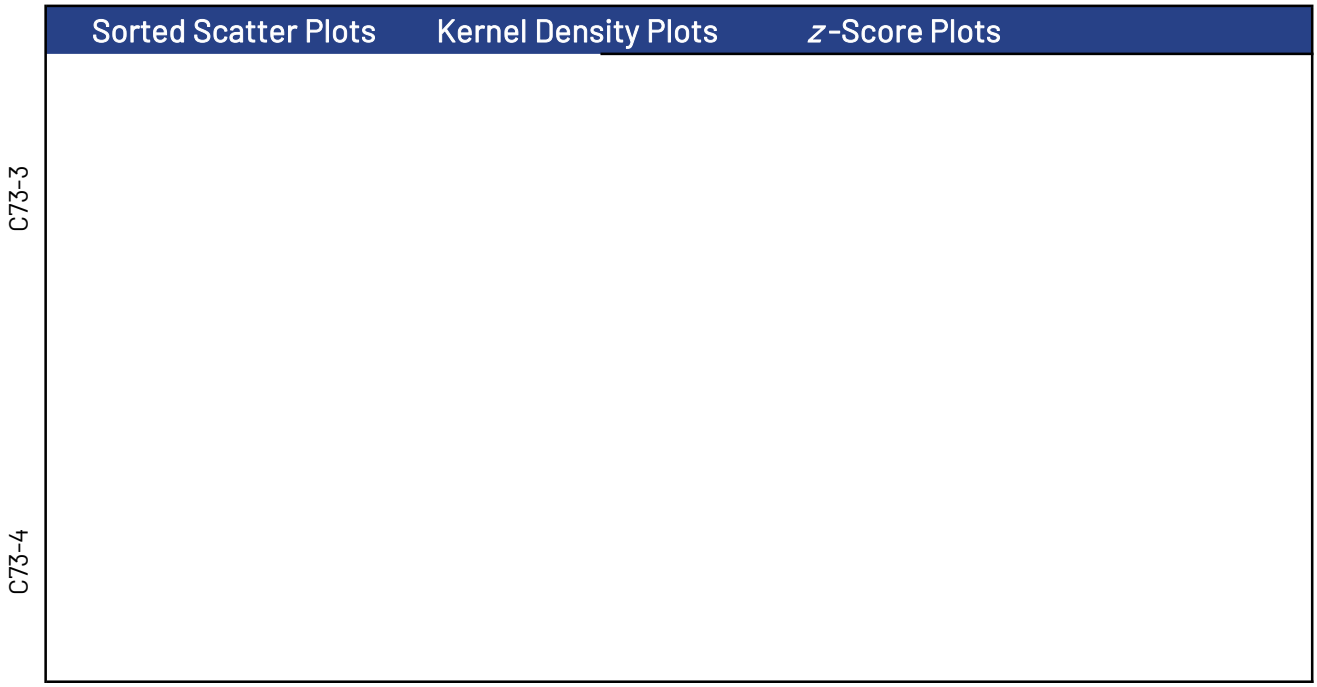
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

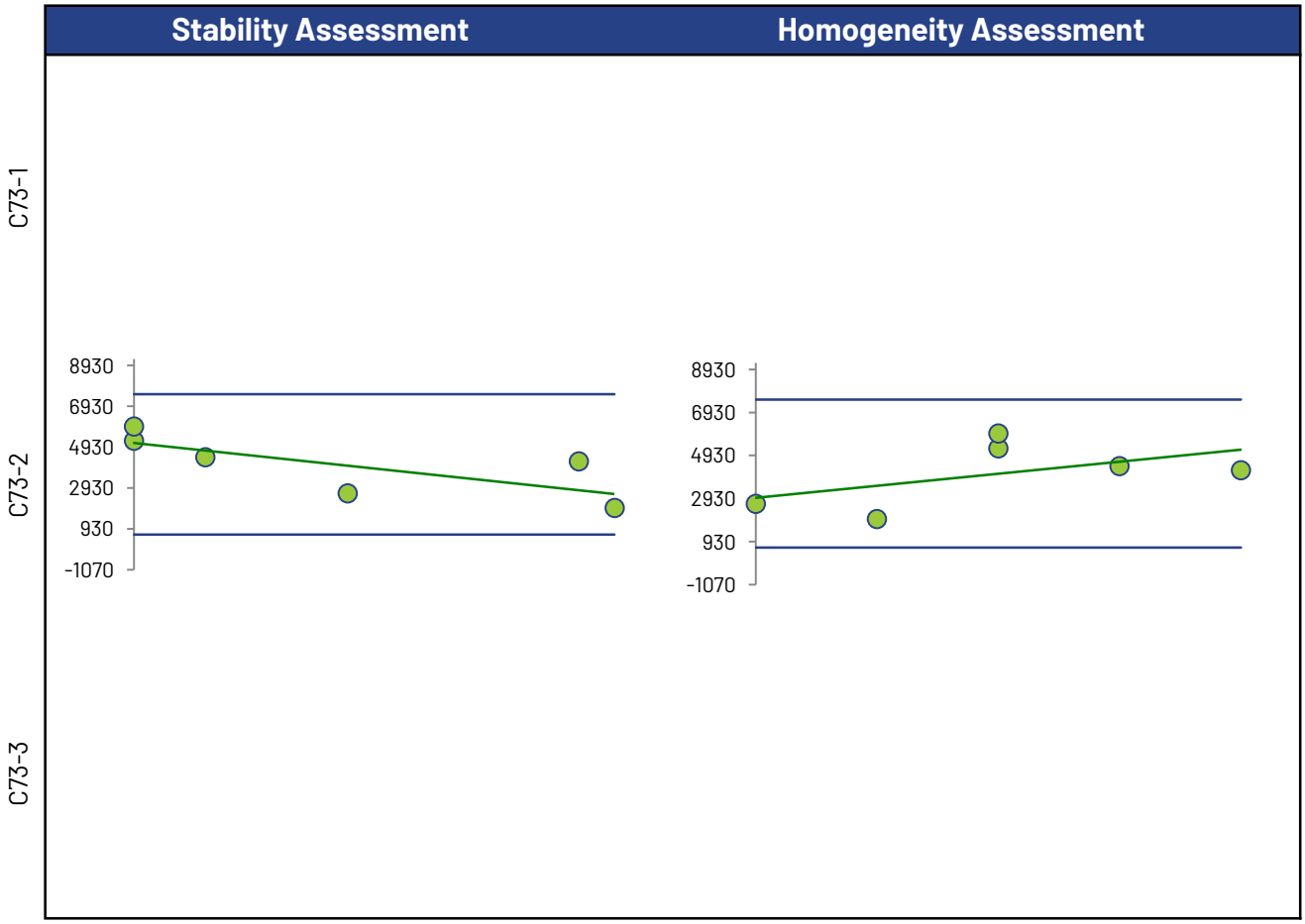
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Isobutyl acetate





Isobutyl acetate

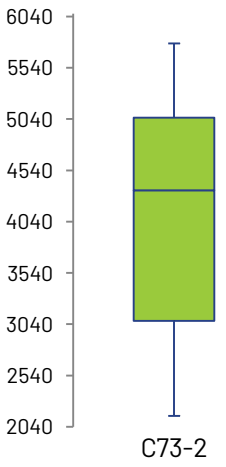
C73-4

Stability Assessment	Homogeneity Assessment

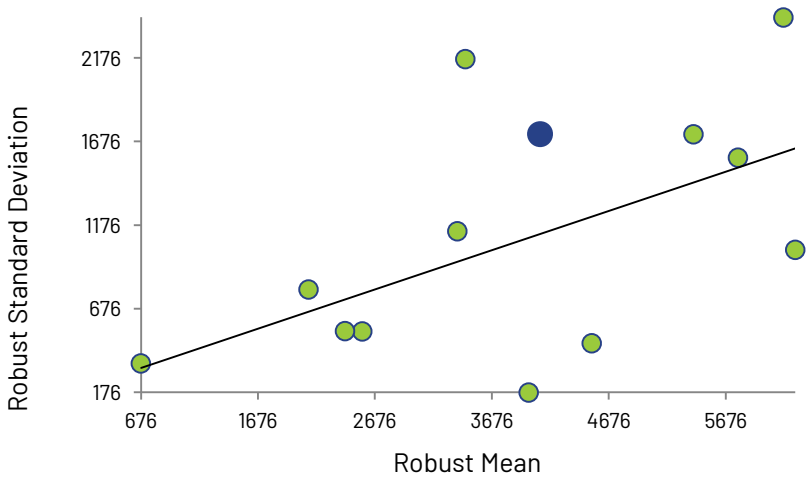
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Isopropyl acetate

Summary Statistics

Not Spiked

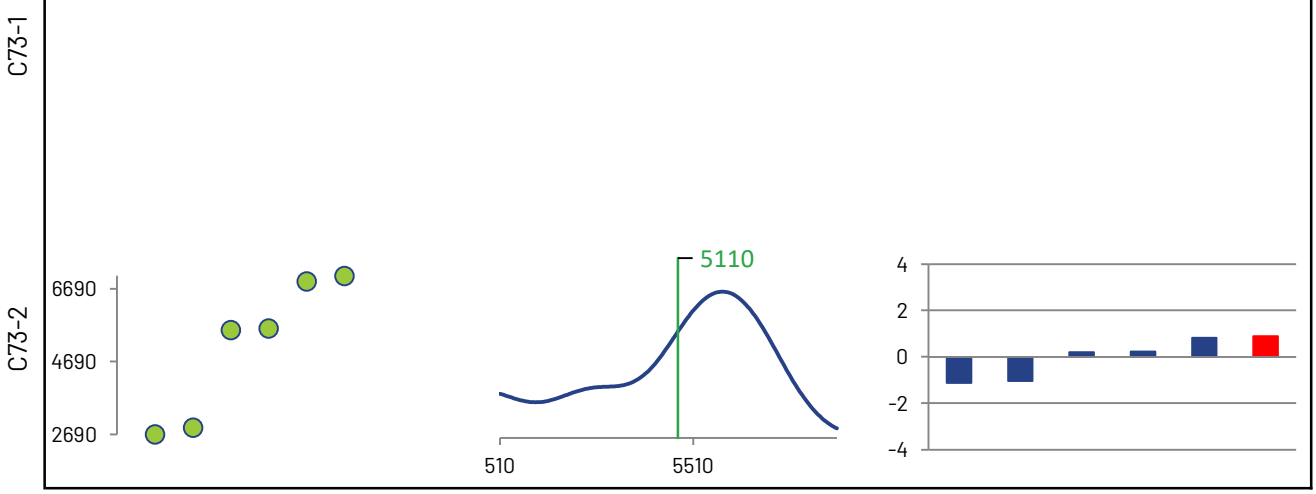
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	6	0	0
Median µg/g		5580		
Robust Mean µg/g		5110		
Uncertainty of the Assigned Value µg/g		1110		
Robust Standard Deviation µg/g		2170		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		2170		
Flagged Outliers	1	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	5	0	0
GC/FID (Red)	0	1	0	0

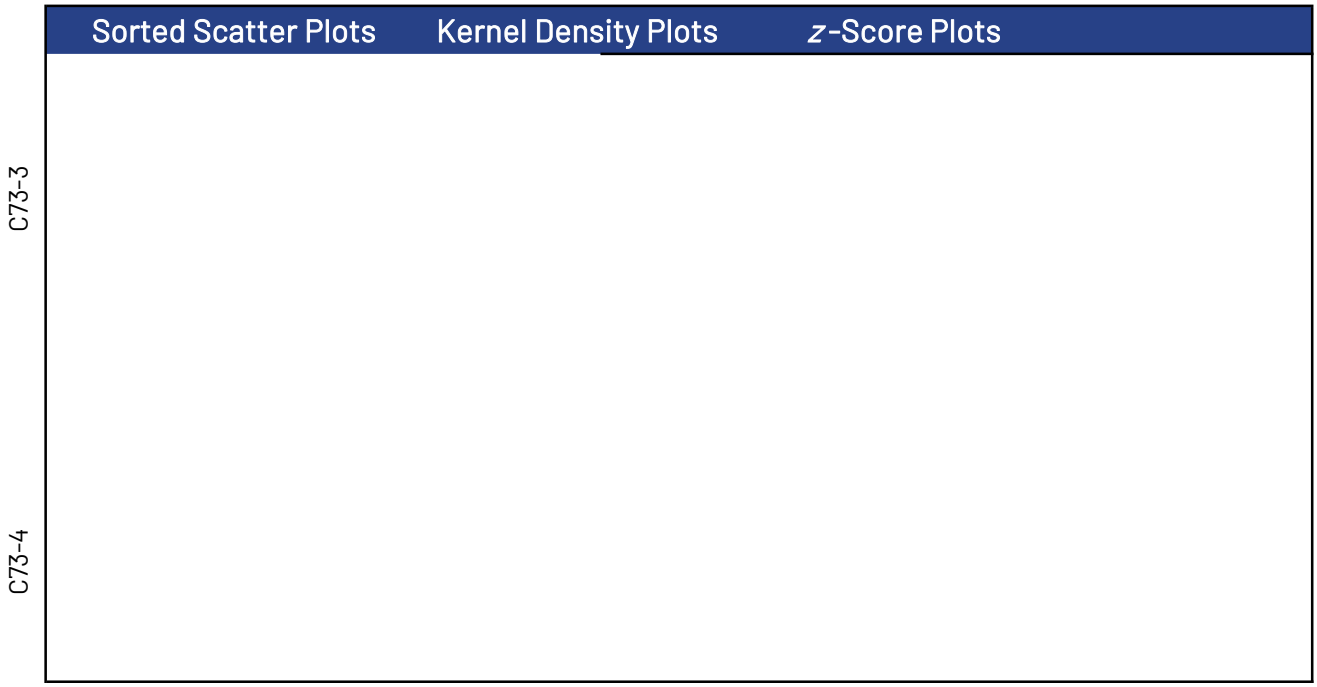
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

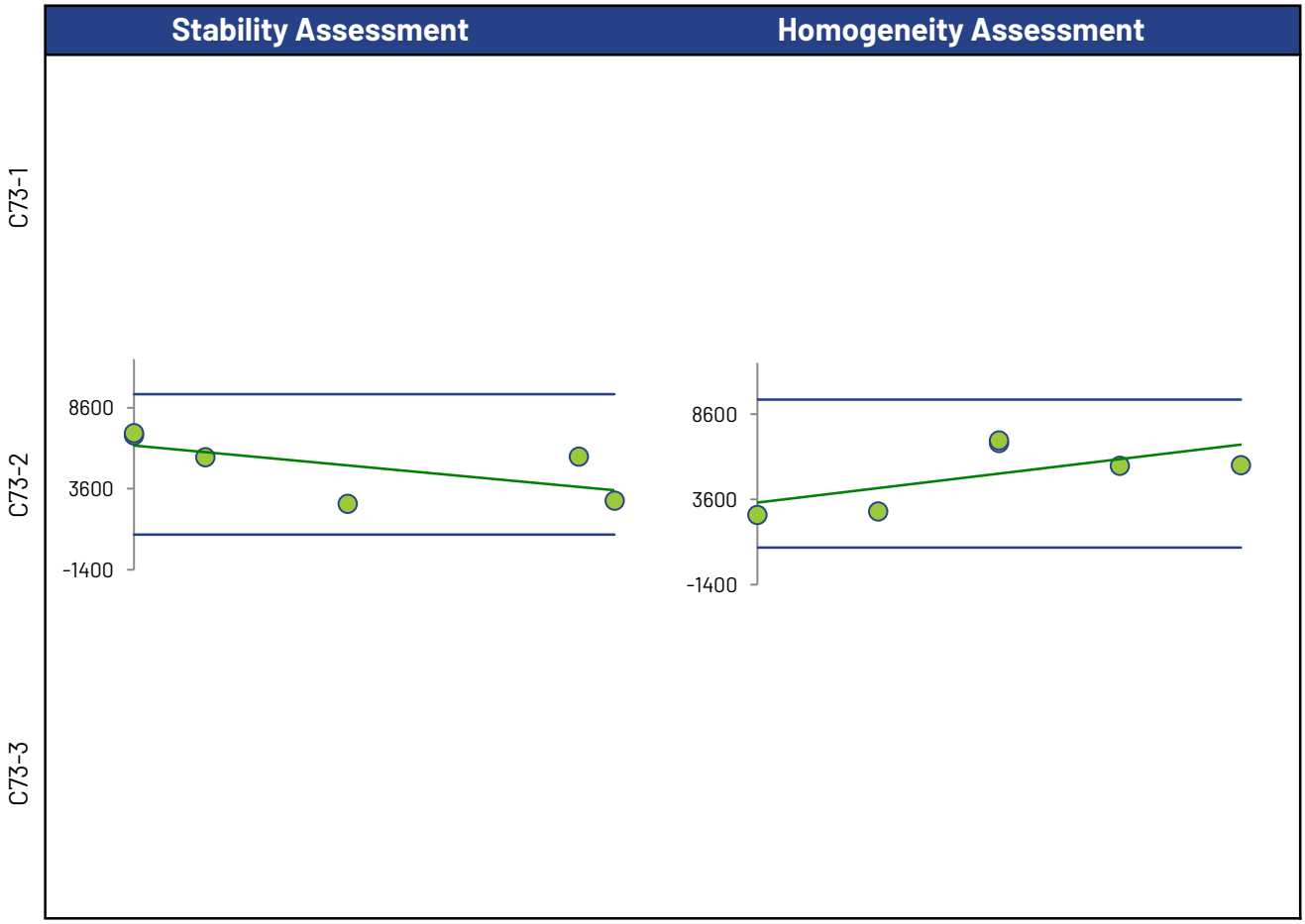
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Isopropyl acetate





Isopropyl acetate

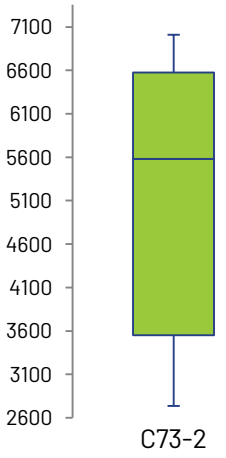
C73-4

Stability Assessment	Homogeneity Assessment

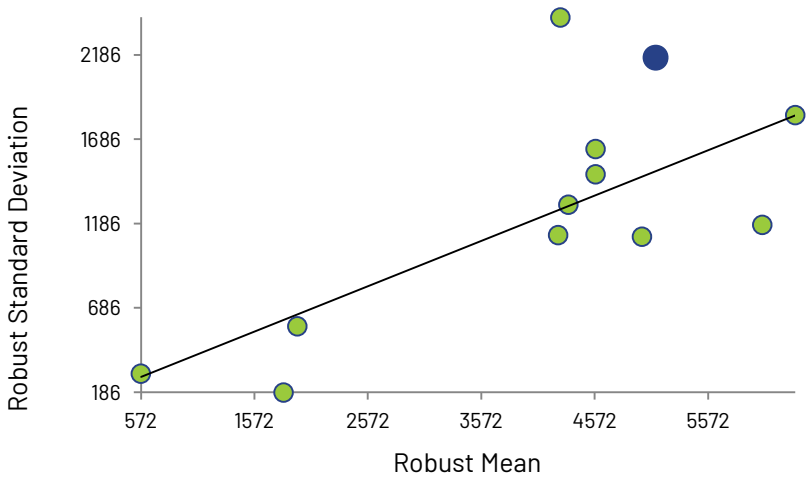
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Methyl acetate

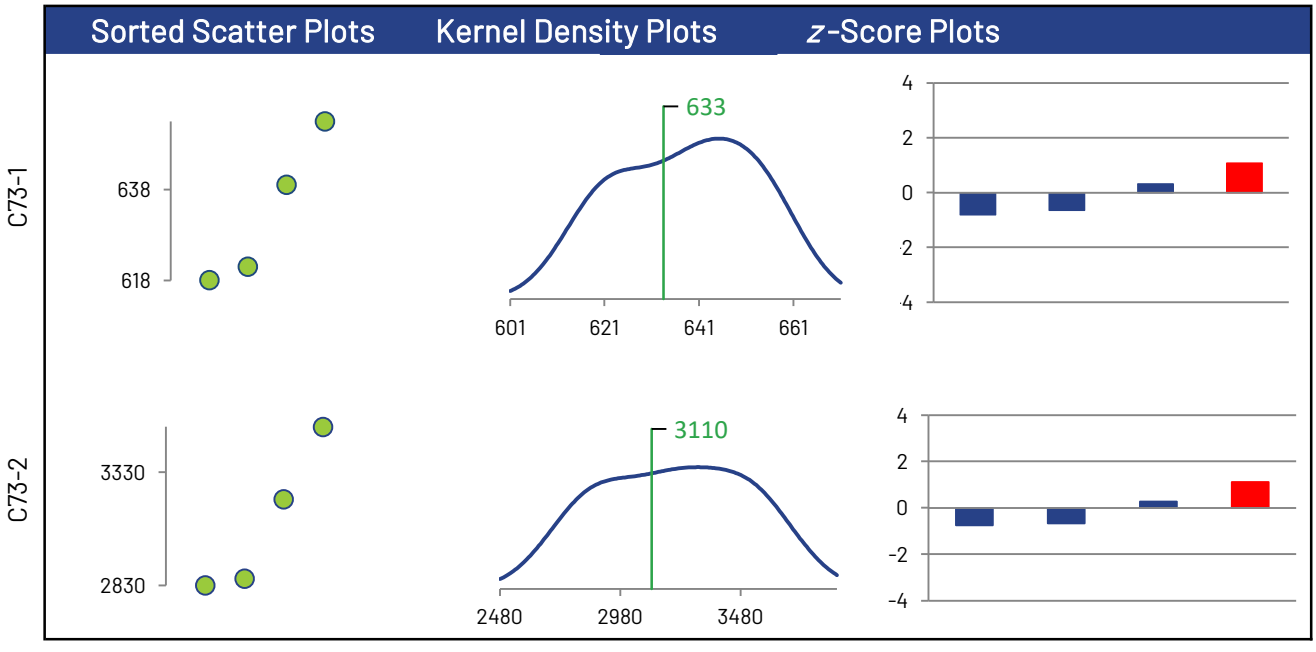
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	4	0	0
Median µg/g	630	3040		
Robust Mean µg/g	633	3110		
Uncertainty of the Assigned Value µg/g	11.6	234		
Robust Standard Deviation µg/g	18.6	375		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	18.6	375		
Flagged Outliers	1	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

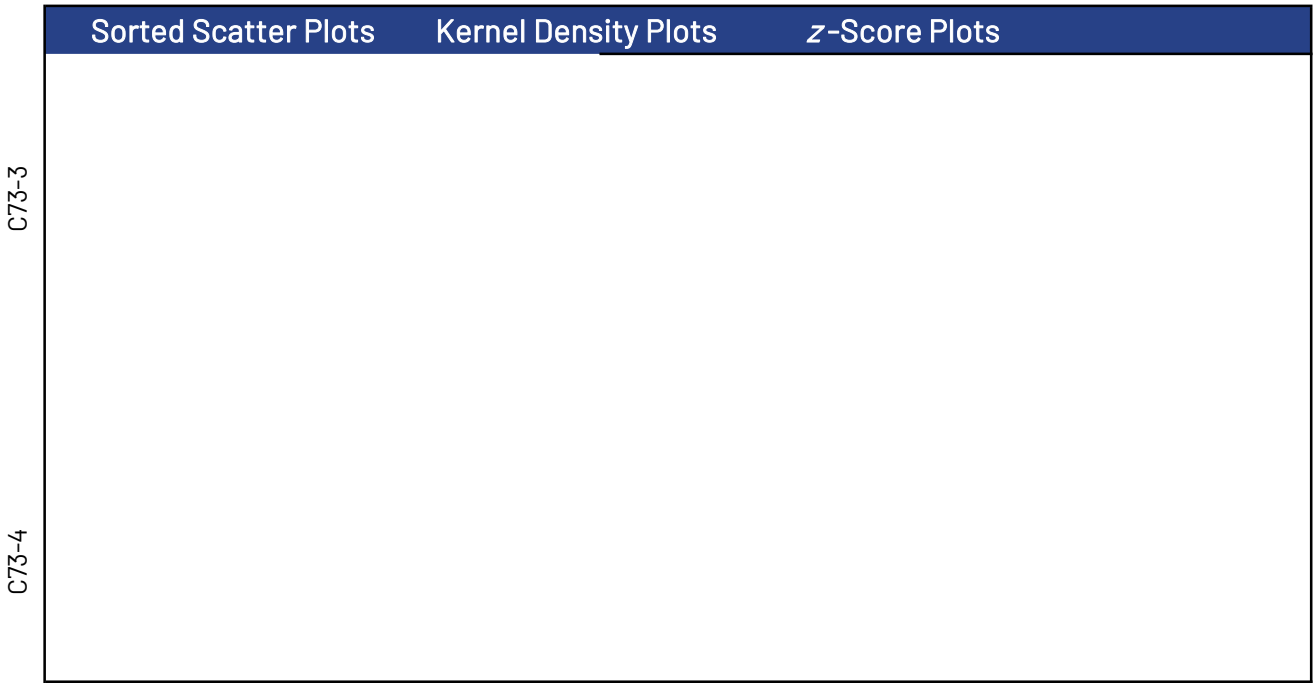
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	3	0	0
GC/FID (Red)	1	1	0	0

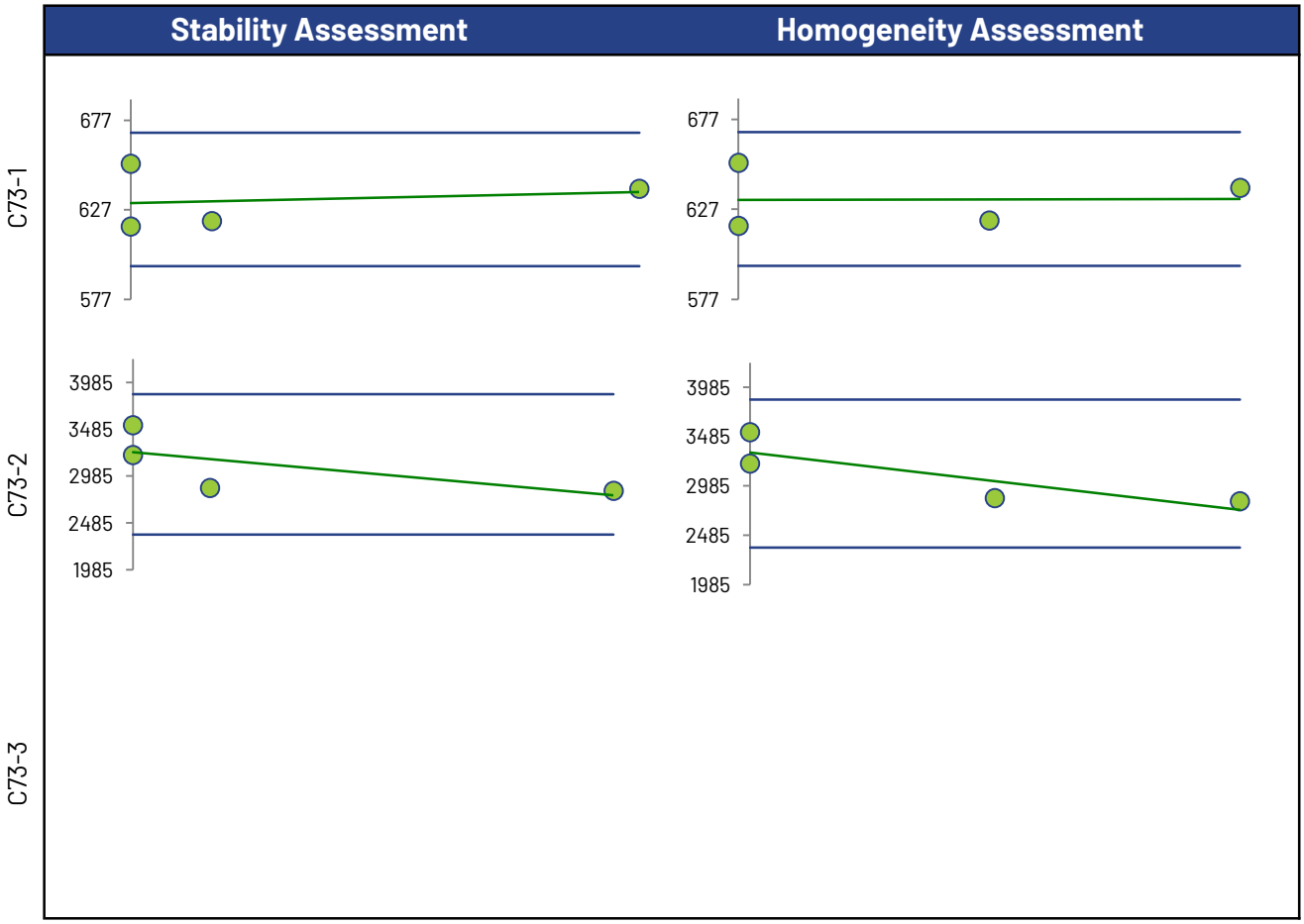
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Methyl acetate





Methyl acetate

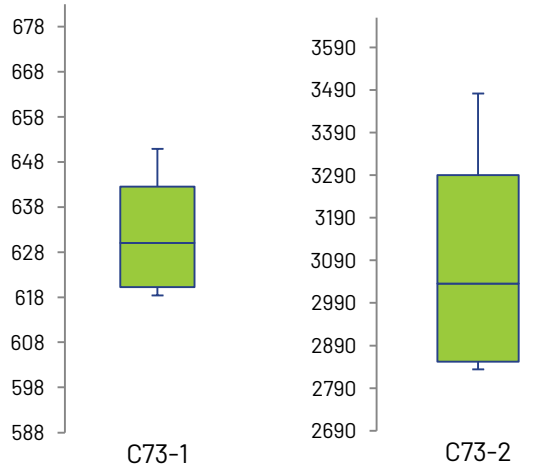
C73-4

Stability Assessment	Homogeneity Assessment

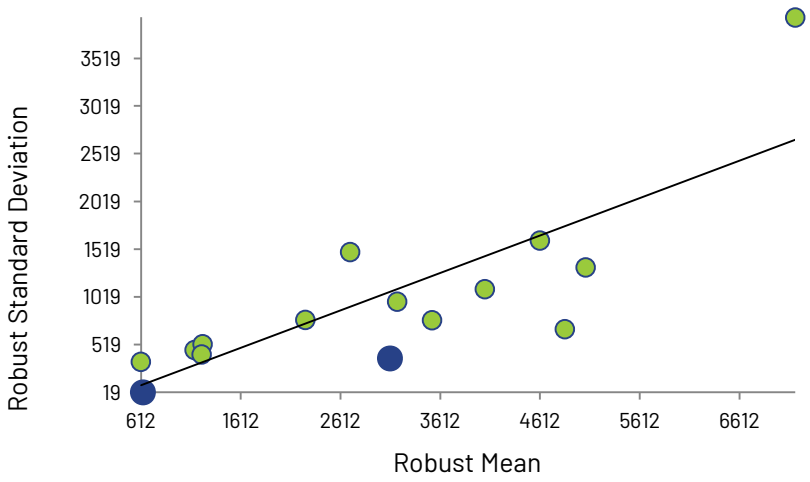
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Pentane

Summary Statistics

Not Spiked

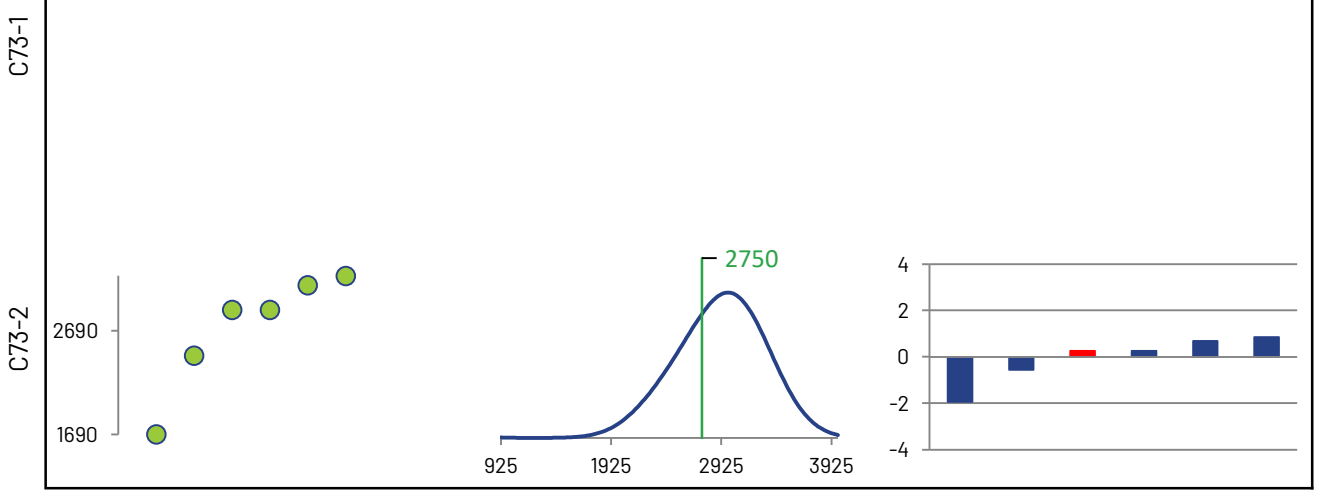
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	6	0	0
Median µg/g		2890		
Robust Mean µg/g		2750		
Uncertainty of the Assigned Value µg/g		280		
Robust Standard Deviation µg/g		548		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		548		
Flagged Outliers	1	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	5	0	0
GC/FID (Red)	0	1	0	0

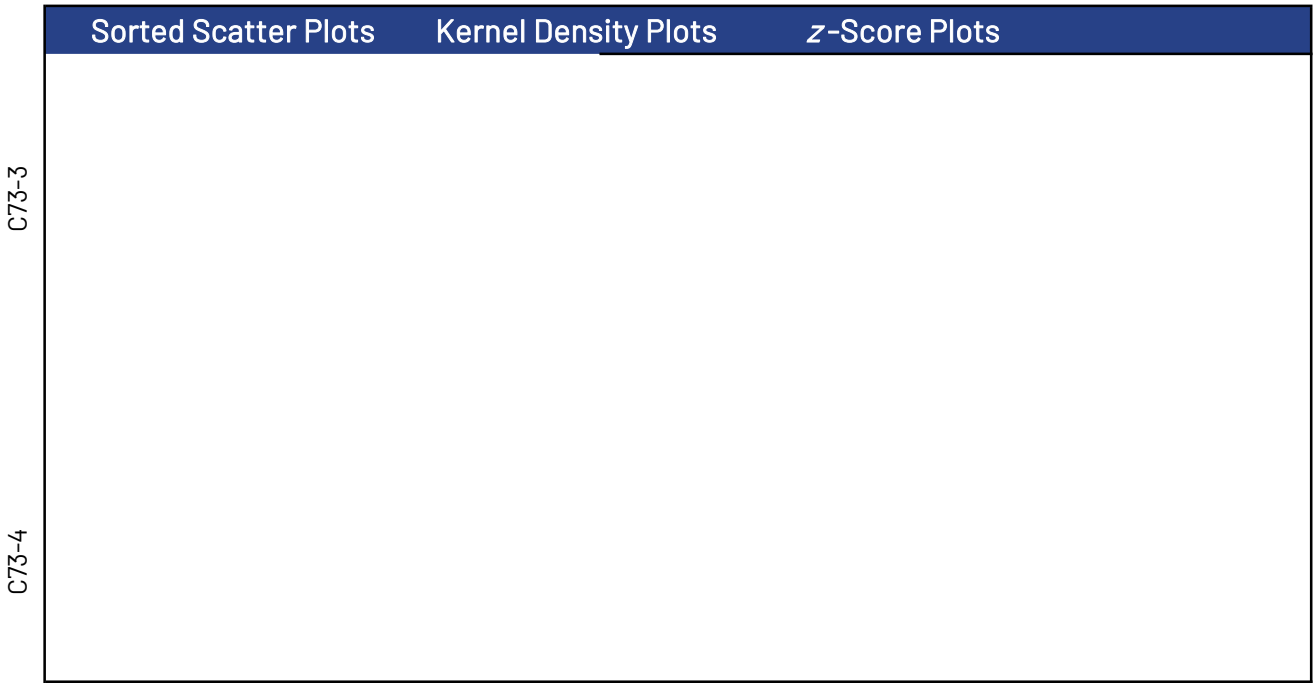
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

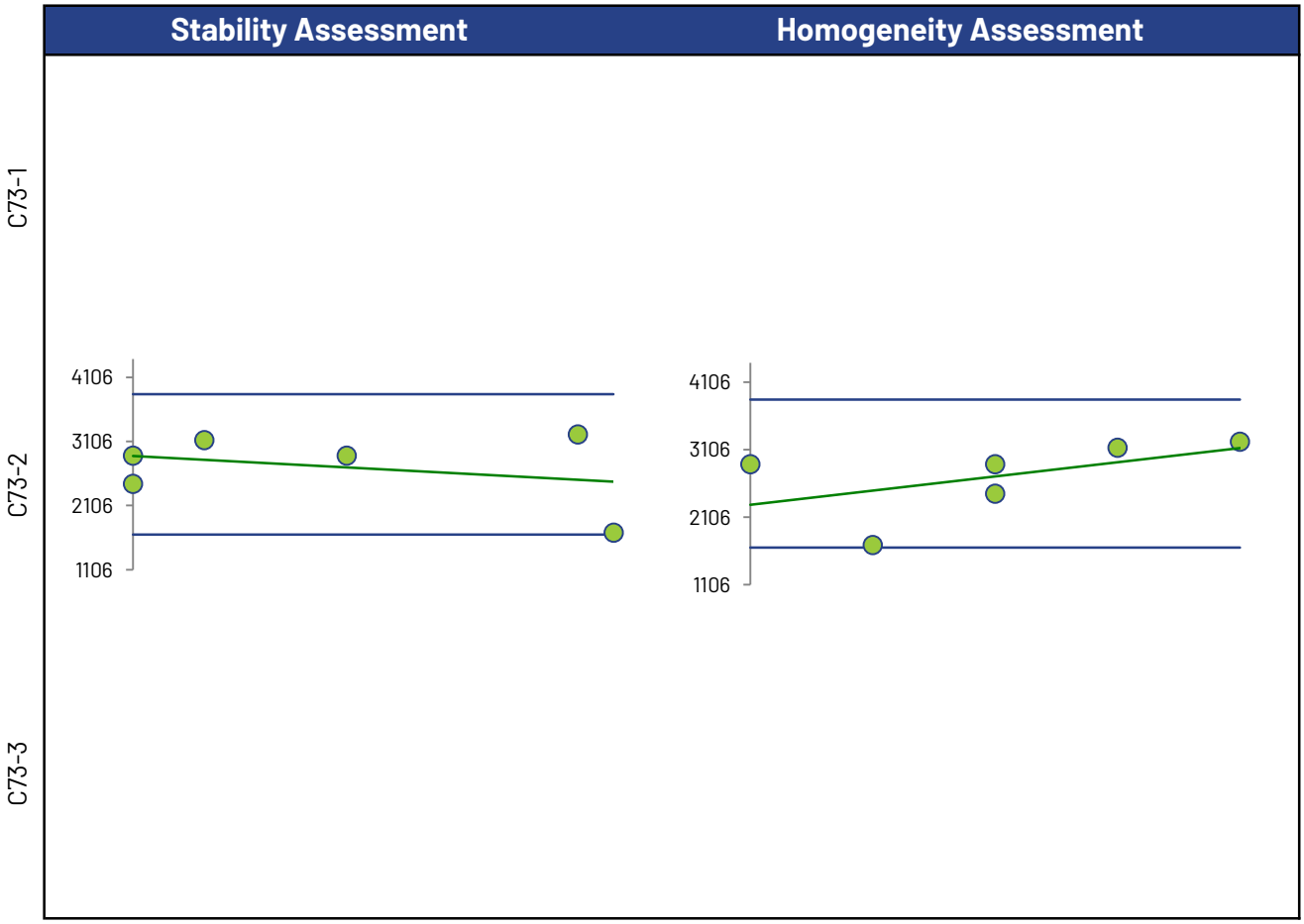
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Pentane


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
C73-1
C73-2
C73-3
4106
3106
2106
1106
4106
3106
2106
1106

Pentane

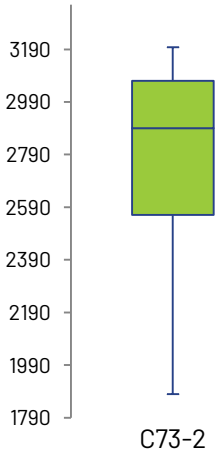
C73-4

Stability Assessment	Homogeneity Assessment

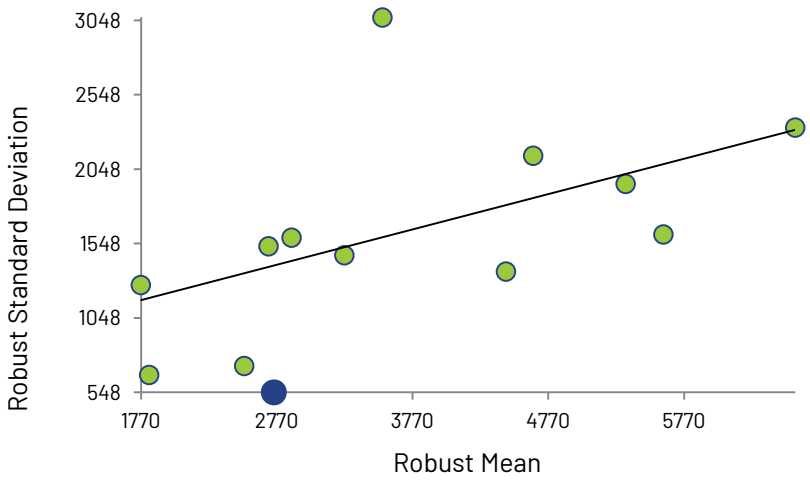
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Propane

Summary Statistics

Not Spiked

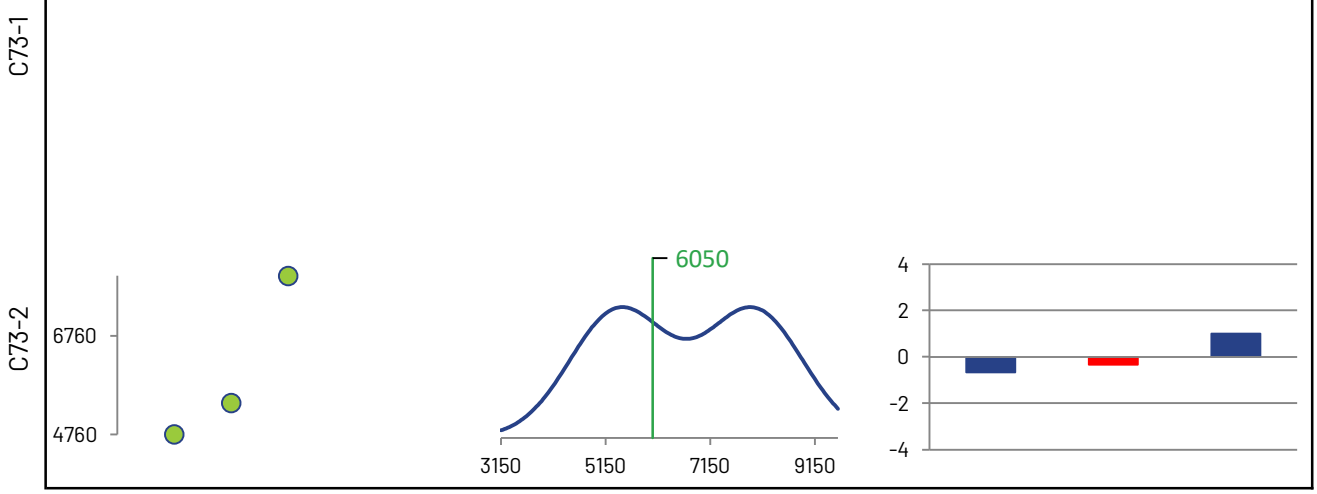
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	3	0	0
Median µg/g		5400		
Robust Mean µg/g		6050		
Uncertainty of the Assigned Value µg/g		1390		
Robust Standard Deviation µg/g		1930		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		1930		
Flagged Outliers	1	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	2	0	0
GC/FID (Red)	0	1	0	0

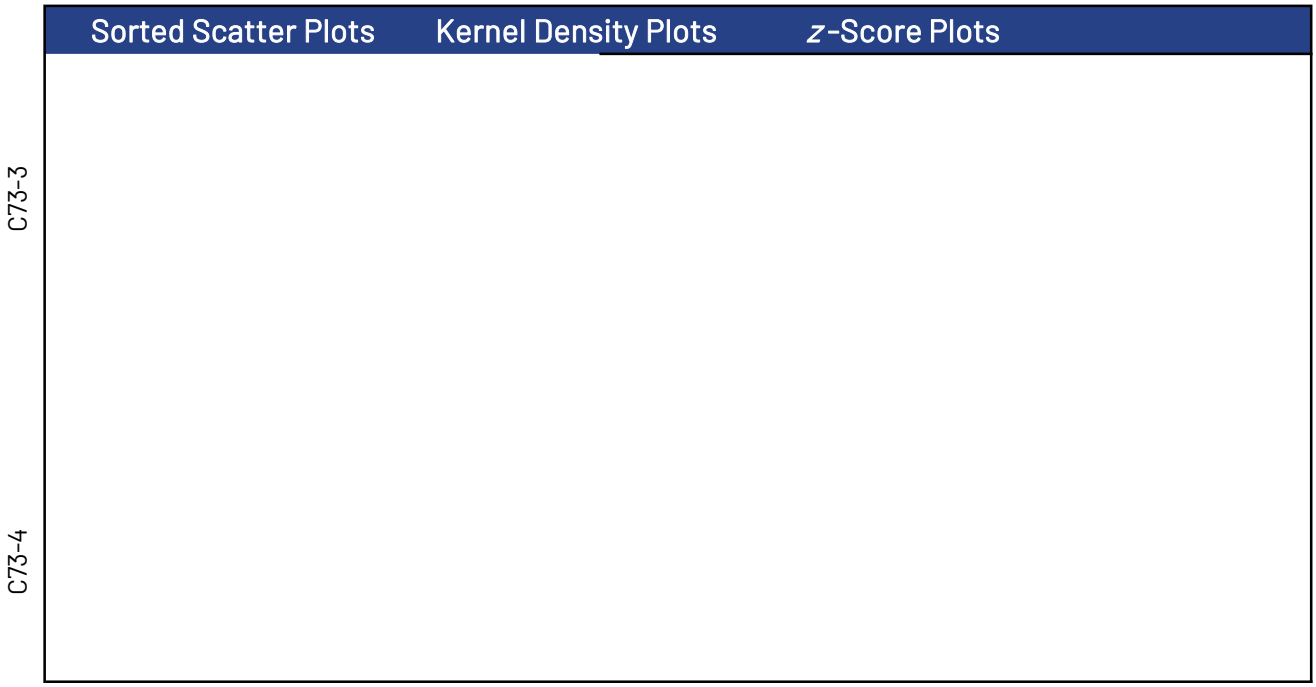
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

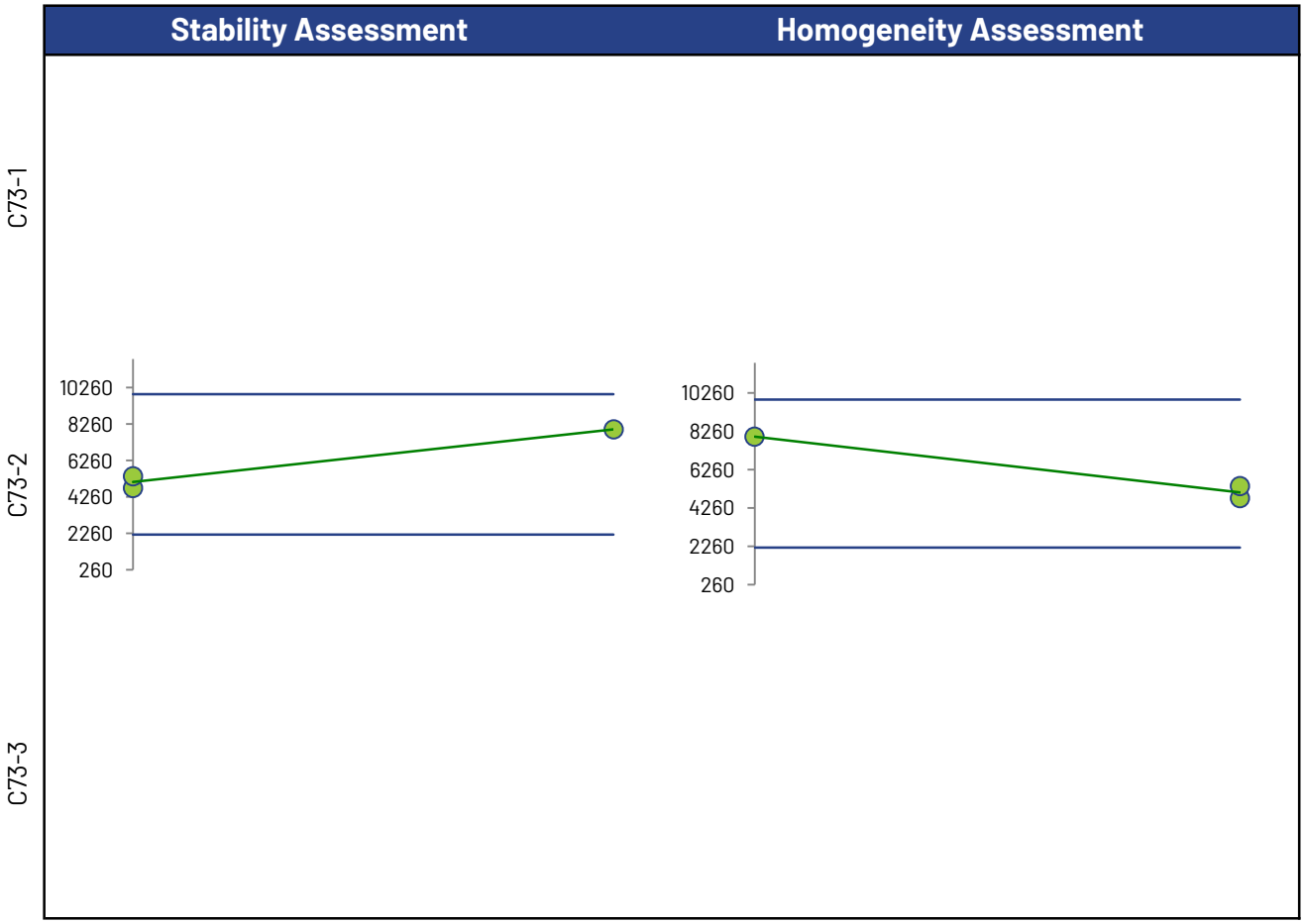
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Propane


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C73-3
C73-4


Stability Assessment
Homogeneity Assessment
C73-1
C73-2
C73-3
10260
8260
6260
4260
2260
260
10260
8260
6260
4260
2260
260

Propane

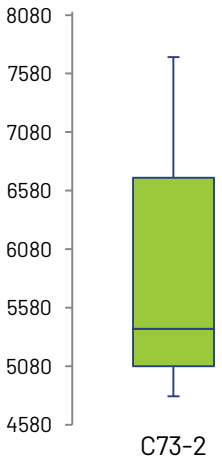
C73-4

Stability Assessment	Homogeneity Assessment

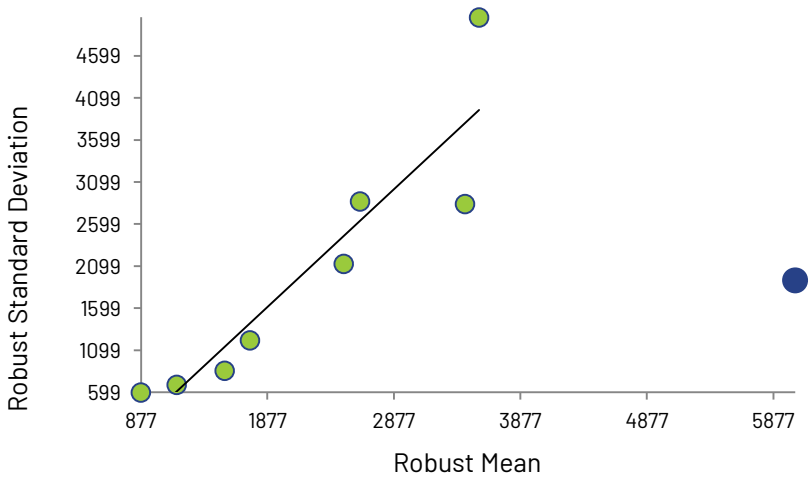
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Propyl acetate

Summary Statistics

Not Spiked

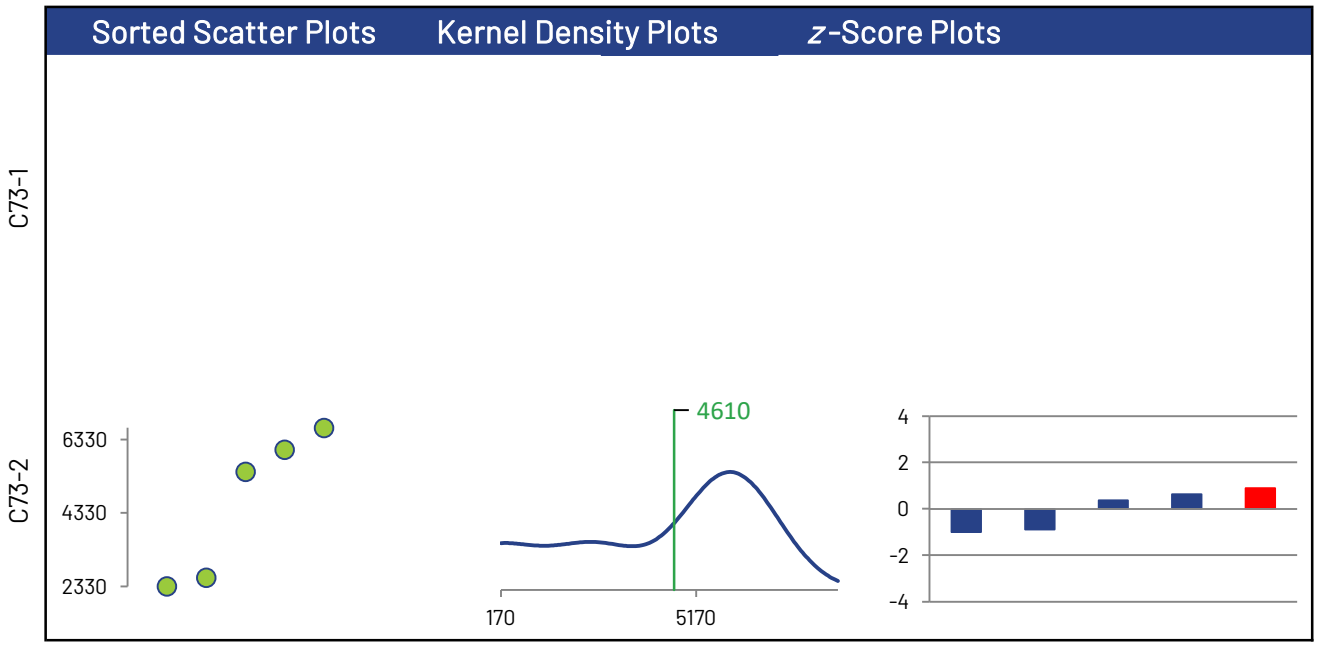
Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	5	0	0
Median µg/g		5450		
Robust Mean µg/g		4610		
Uncertainty of the Assigned Value µg/g		1280		
Robust Standard Deviation µg/g		2290		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		2290		
Flagged Outliers	1	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	4	0	0
GC/FID (Red)	0	1	0	0

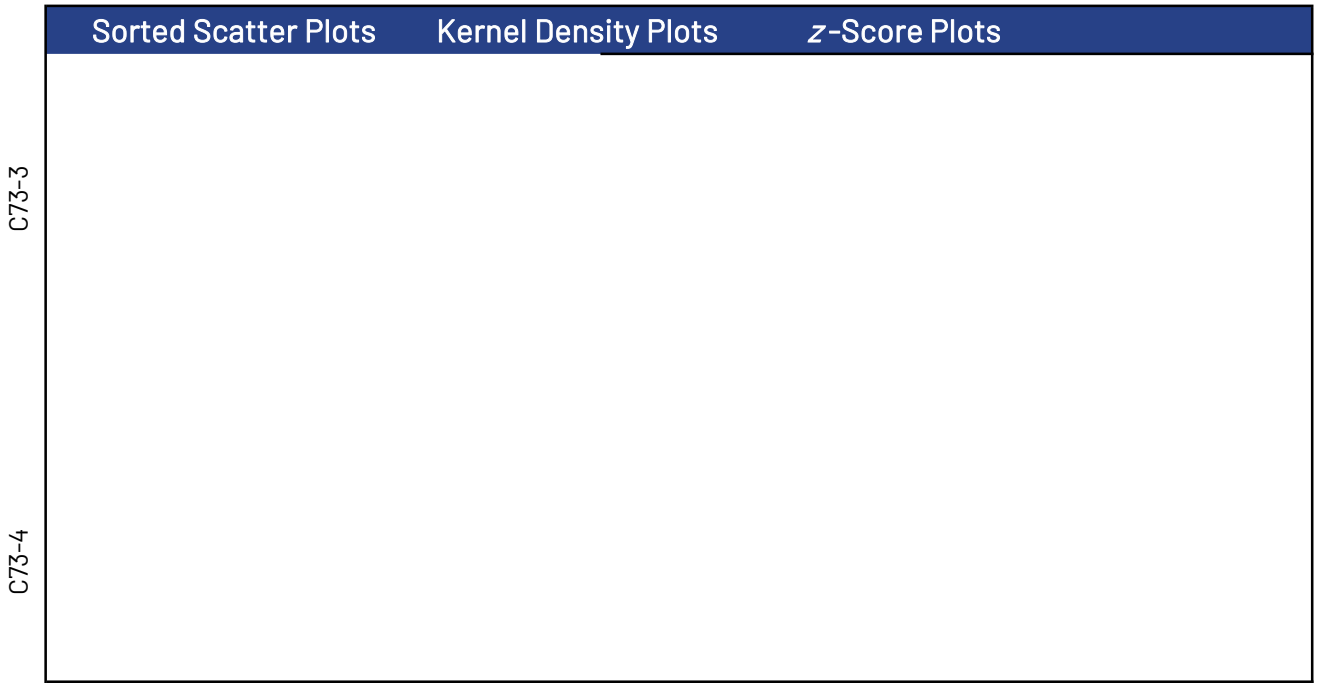
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

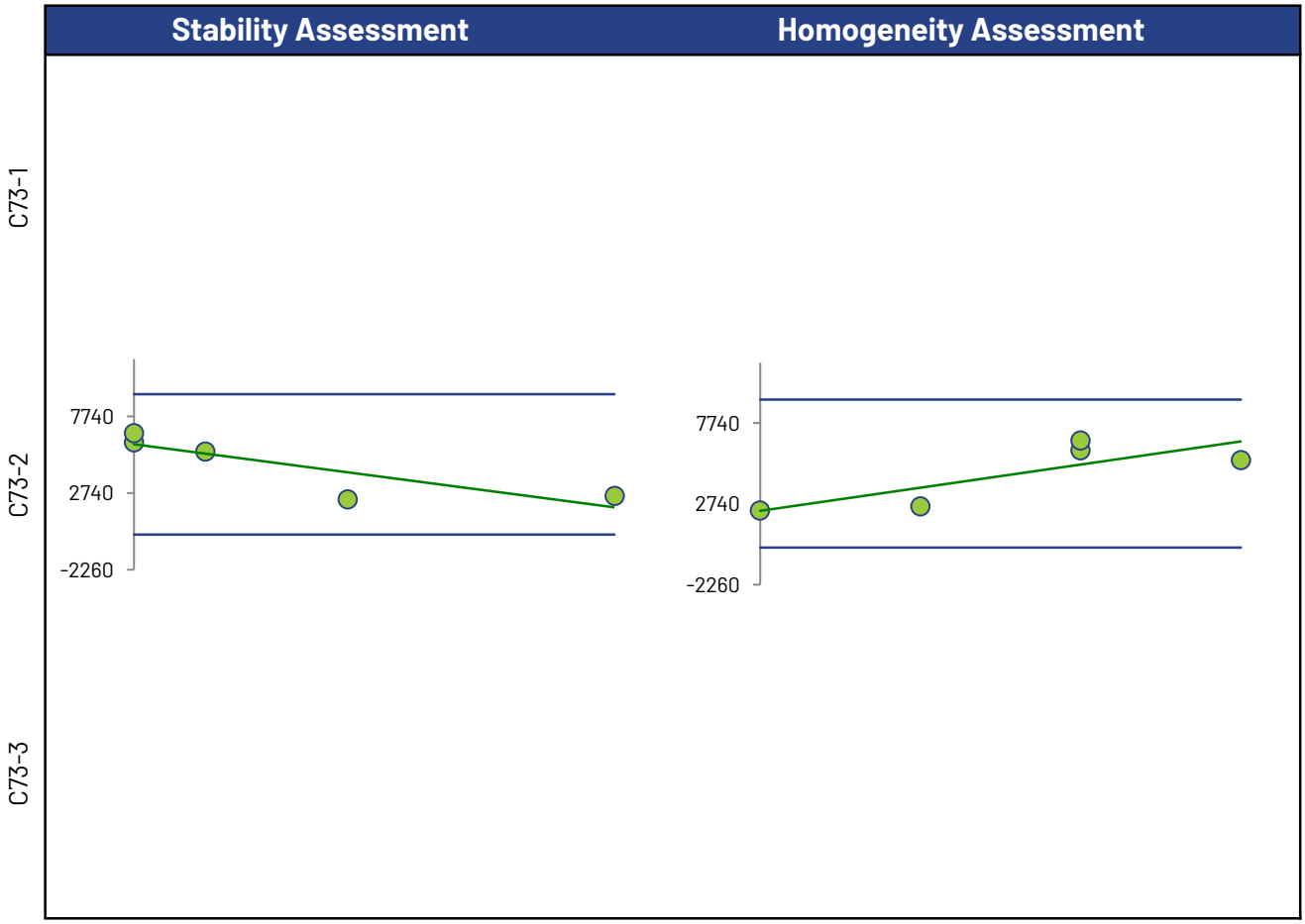
Sorted Scatter Plots | Kernel Density Plots | *z*-Score Plots



* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Propyl acetate





Propyl acetate

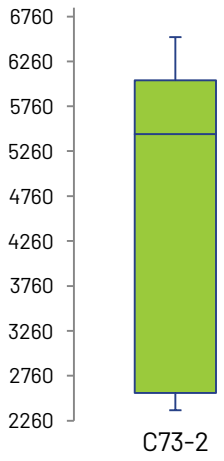
C73-4

Stability Assessment	Homogeneity Assessment

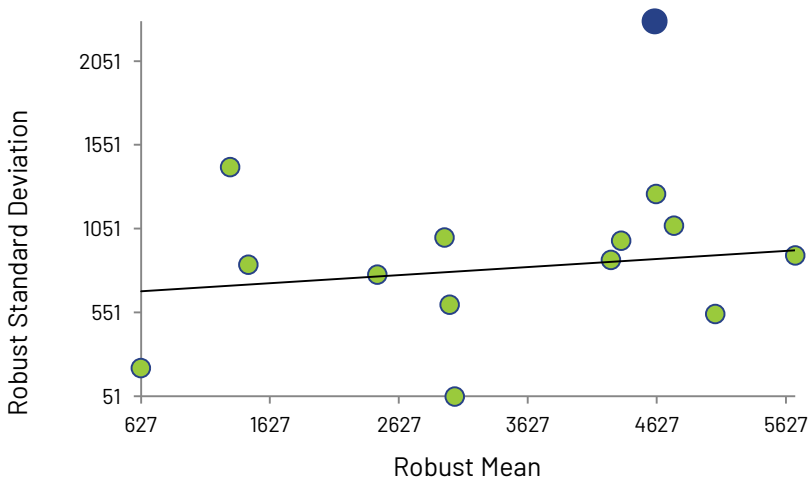
Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots



Current Round (blue) Compared to Historic Rounds (green)



Triethylamine

Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
	Excluded	Excluded		
No. of results used for summary statistics	0	0	0	0
Median µg/g				
Robust Mean µg/g				
Uncertainty of the Assigned Value µg/g				
Robust Standard Deviation µg/g				
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g				
Flagged Outliers	2	2	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0
Failure Rate %*	0.0			

Methods Used

Method	C73-1	C73-2	C73-3	C73-4

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

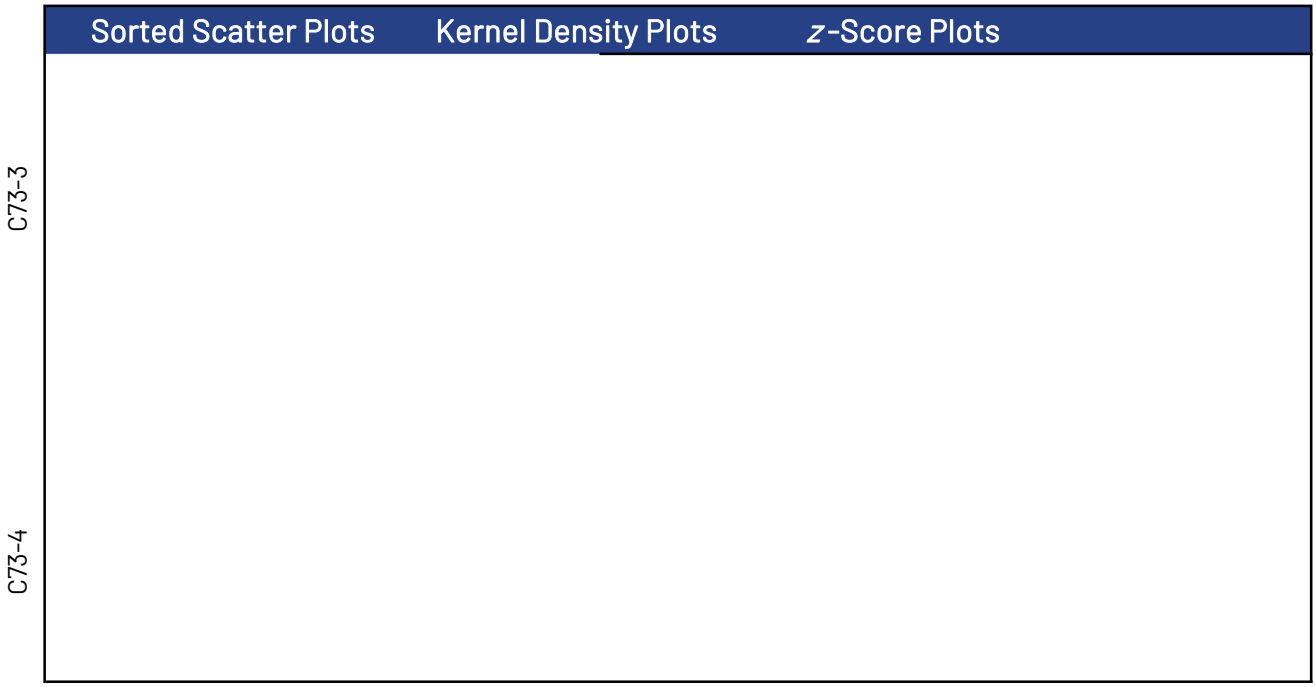
Sorted Scatter Plots	Kernel Density Plots	*z*-Score Plots

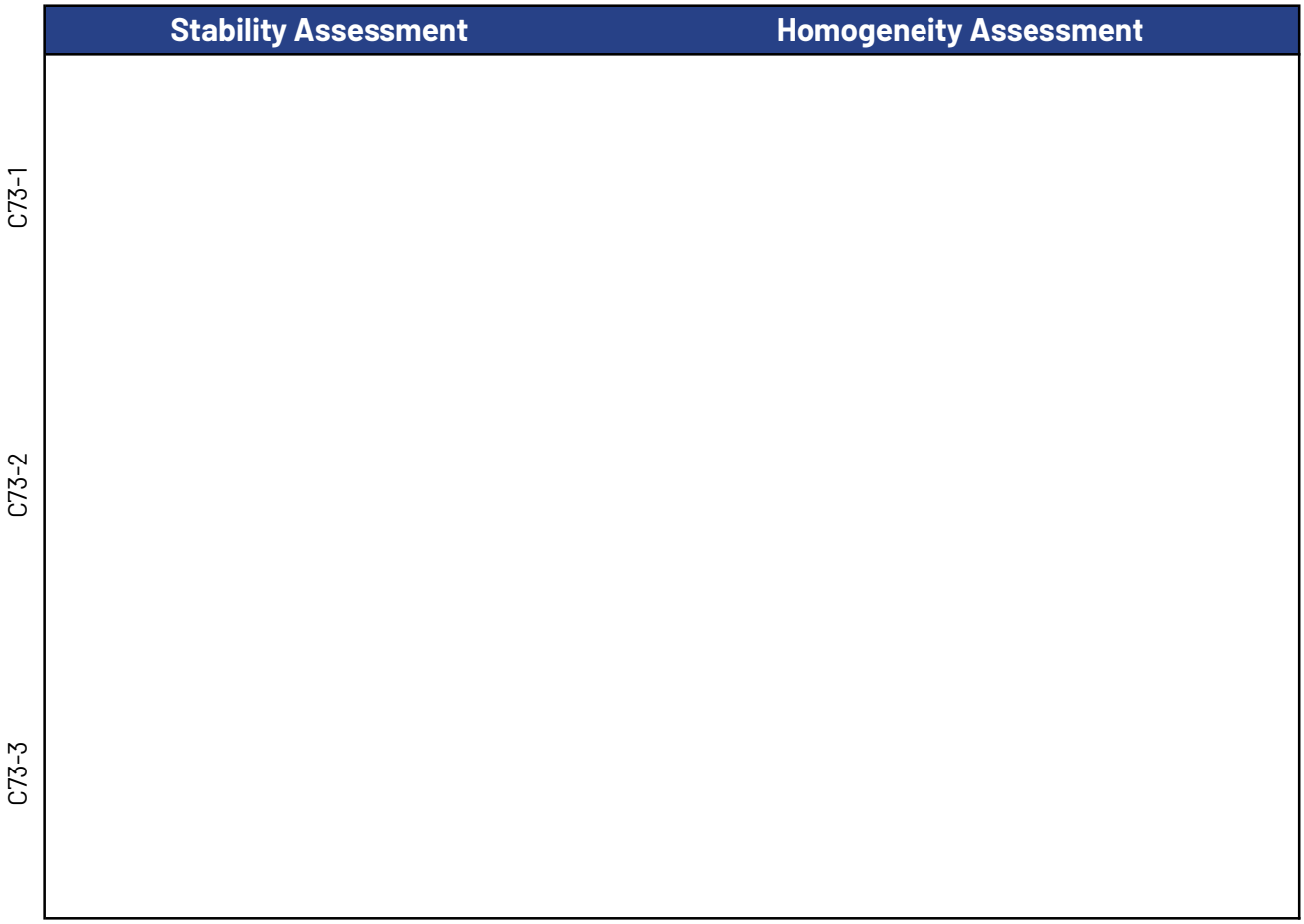
C73-1

C73-2

* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

Triethylamine





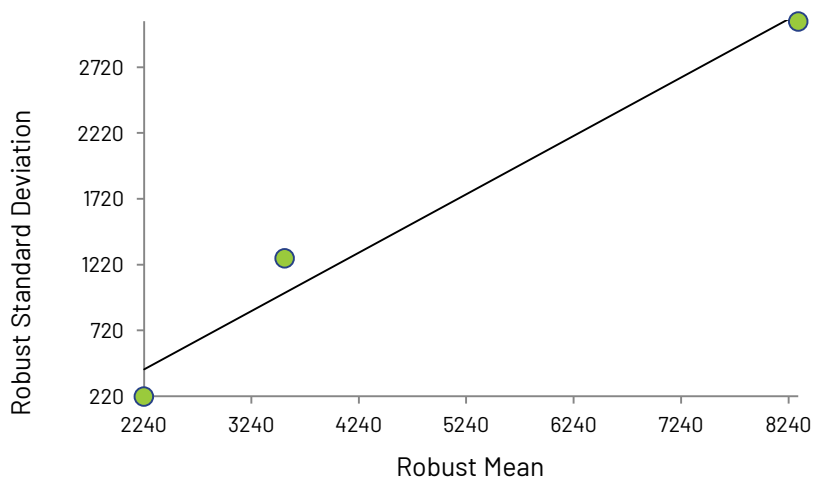
Triethylamine

C73-4

Stability Assessment	Homogeneity Assessment

Stability assessments are regression analysis of reported result against date of analysis.

Homogeneity assessments are regression analysis of reported result against bottling order.

Box and Whisker Plots

Current Round (blue) Compared to Historic Rounds (green)