Test Group Summary Report

C16 Volatile Organic Compounds in Water

January 2026 PT Round

Issued: March 2, 2026

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 $\geq$ -2 and $\leq$ 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.

1,1,1-Trichloroethane

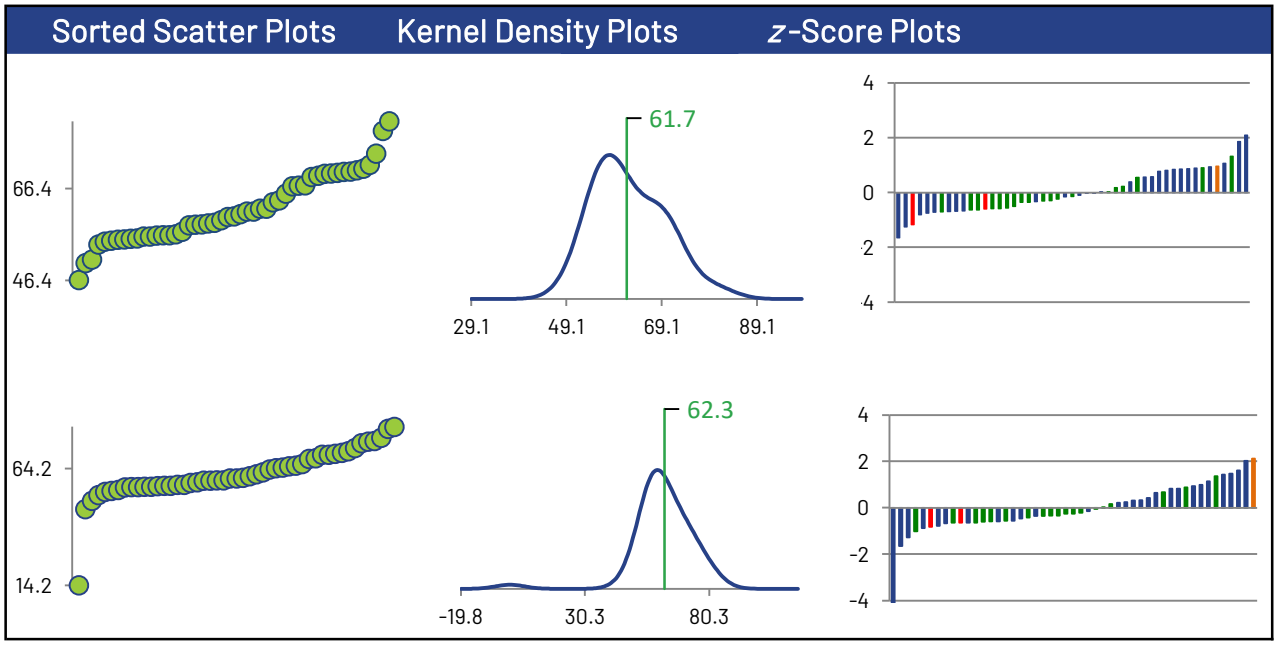
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	49	49	48	49
Median µg/L	60.3	60.0	13.6	105
Robust Mean µg/L	61.7	62.3	13.7	107
Uncdrtainty of the Assigned Value µg/L	1.35	1.53	0.321	1.98
Robust Standard Deviation µg/L	7.57	8.54	1.78	11.1
Regression Standard Deviation µg/L	9.26	9.35	2.05	16.0
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	9.26	9.35	2.05	16.0
Flagged Outliers	0	0	1	0
|z|>3.0	0	1	1	0
2<|z|<3	1	2	3	0
Failure Rate %*	2.0			

Methods Used

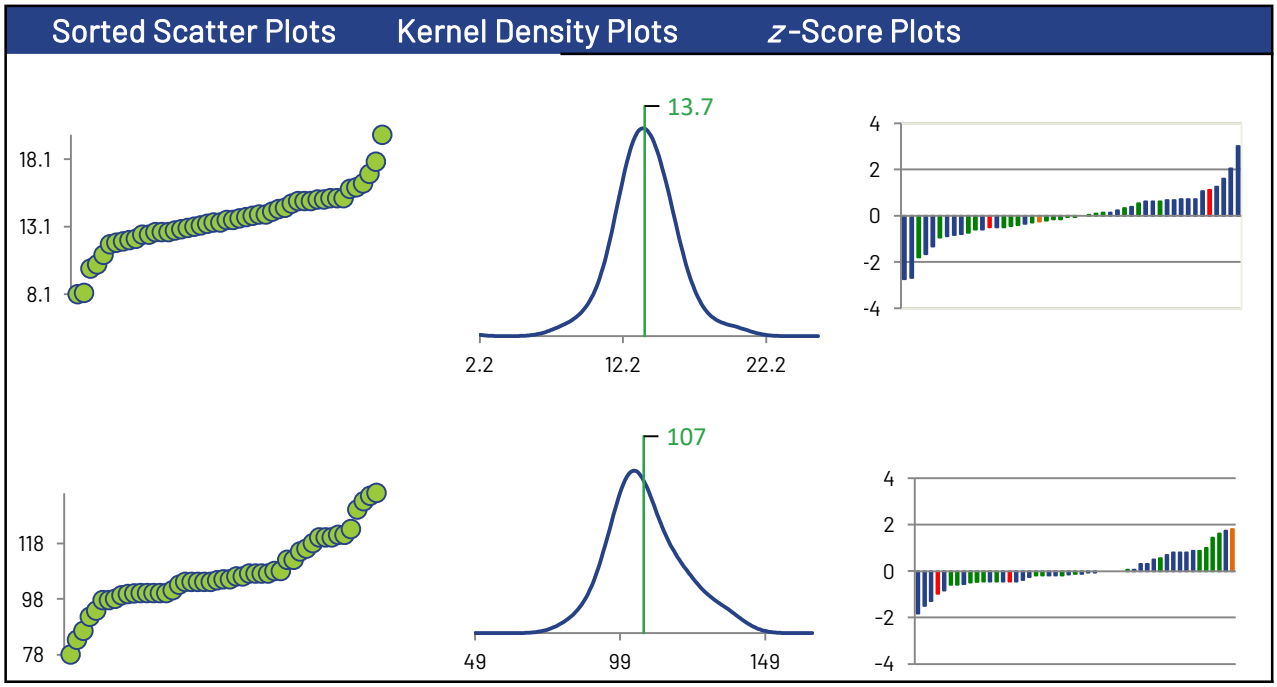
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	27	27	26	27
GC/MS (Red)	2	2	2	2
GC/MS - HEADSPACE (Green)	19	19	19	19
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1

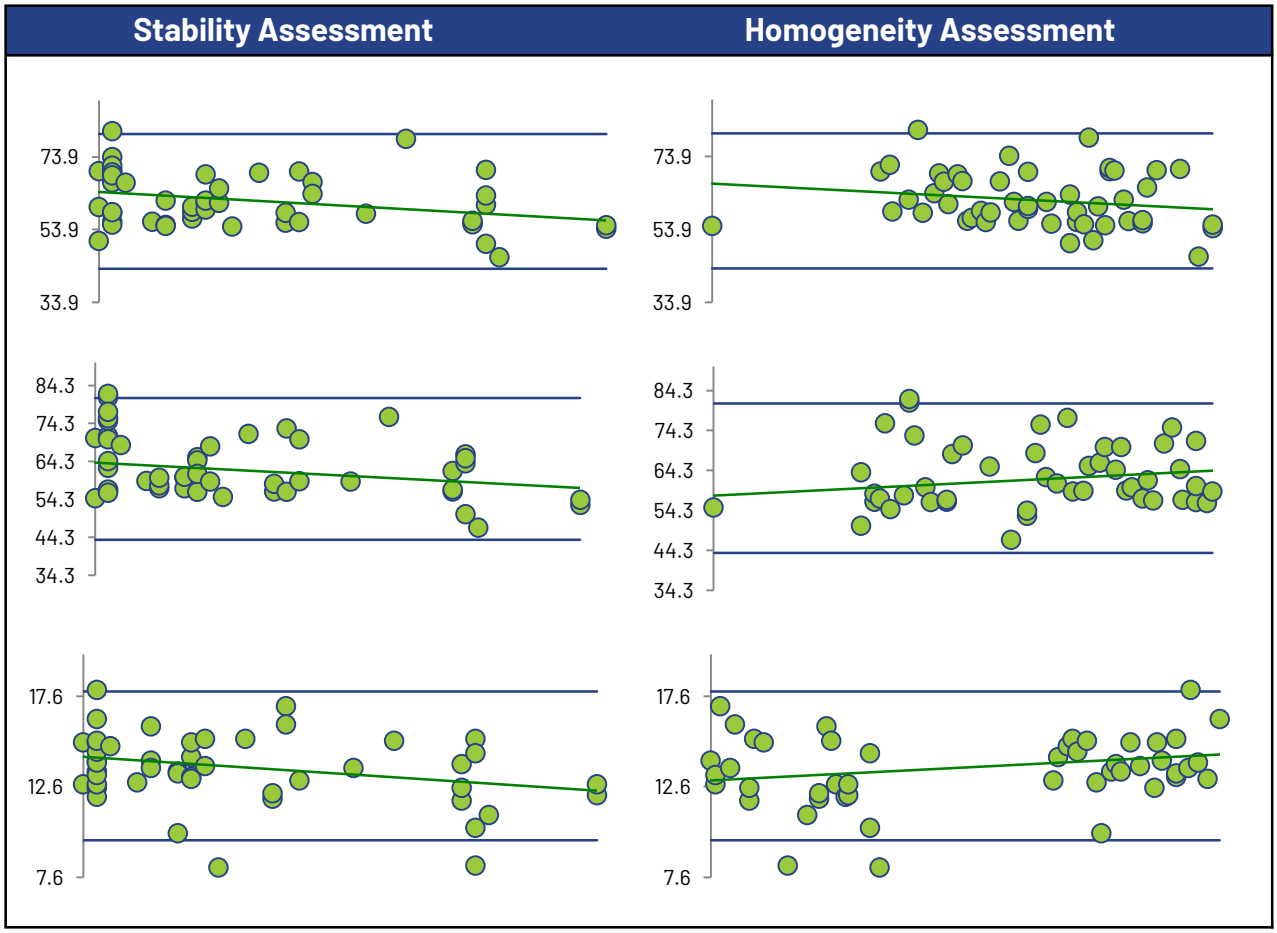
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

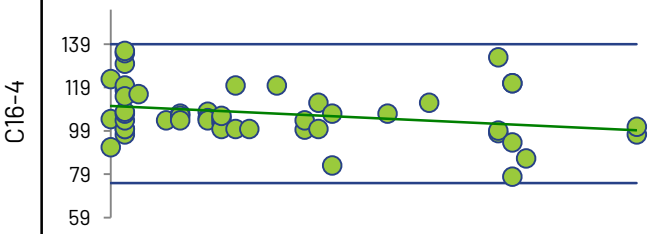
1,1,1-Trichloroethane

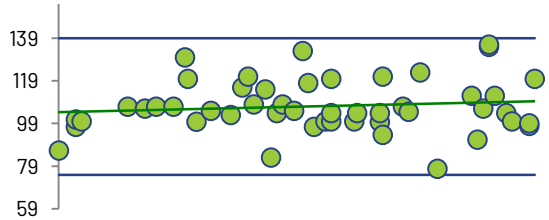




1,1,1-Trichloroethane

Stability Assessment	Homogeneity Assessment

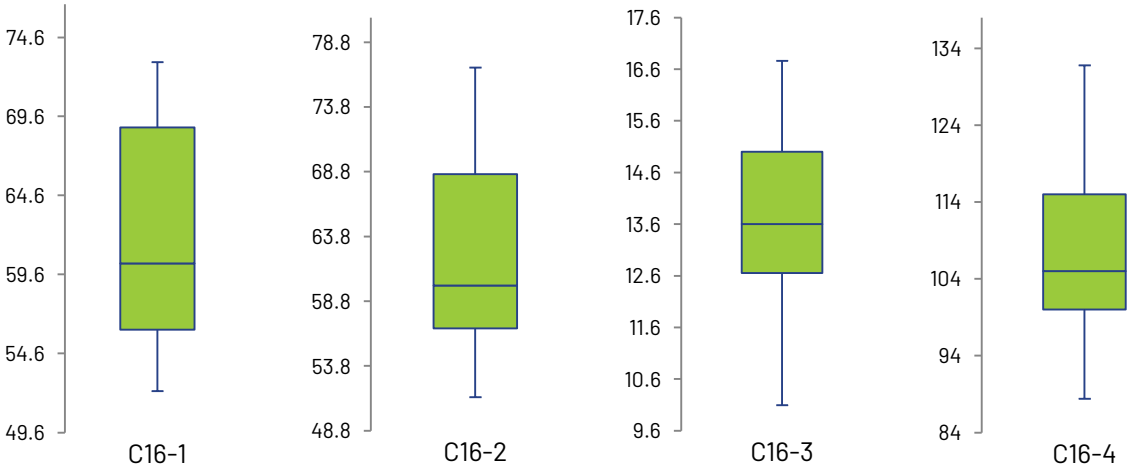




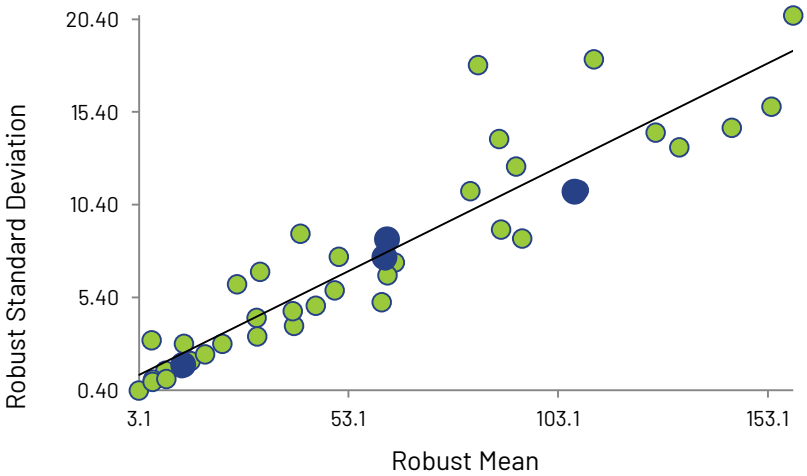
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,1,2,2-Tetrachloroethane

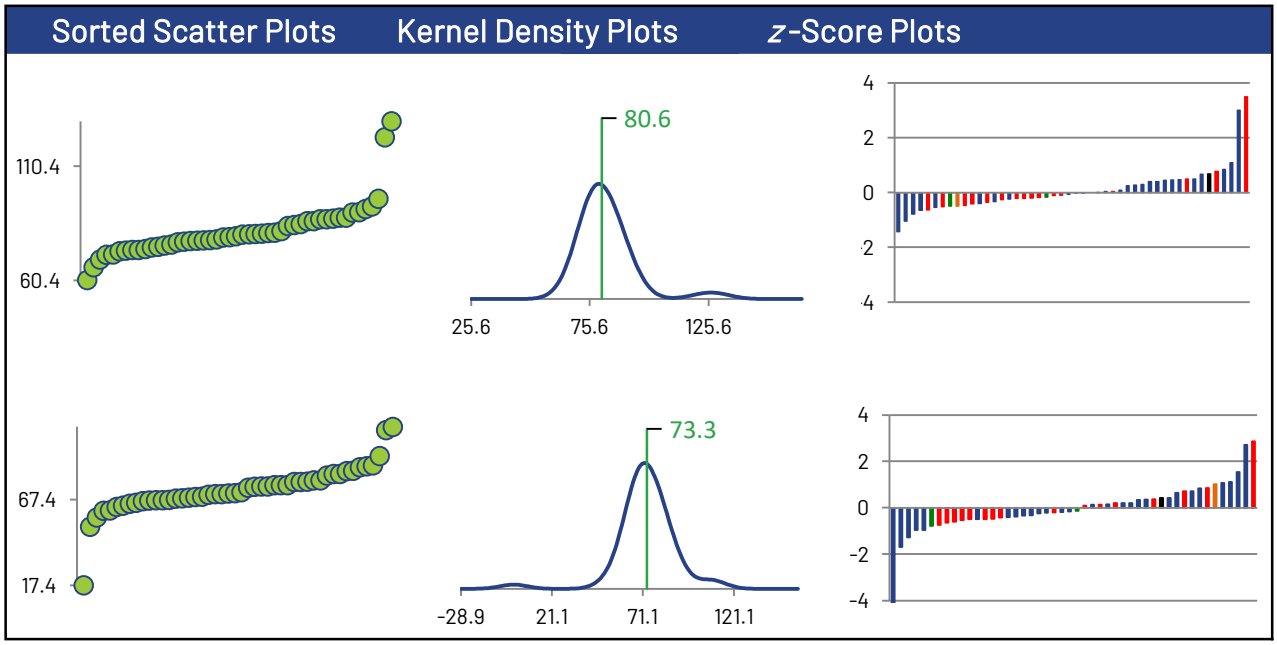
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	48	48	47	48
Median µg/L	80.0	71.6	16.3	134
Robust Mean µg/L	80.6	73.3	16.7	136
Uncdrtainty of the Assigned Value µg/L	1.39	1.74	0.536	2.94
Robust Standard Deviation µg/L	7.70	9.65	2.94	16.3
Regression Standard Deviation µg/L	14.1	12.8	2.92	23.9
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	14.1	12.8	2.94	23.9
Flagged Outliers	0	0	1	0
|z|>3.0	2	1	2	1
2<|z|<3	0	2	1	1
Failure Rate %*	6.3			

Methods Used

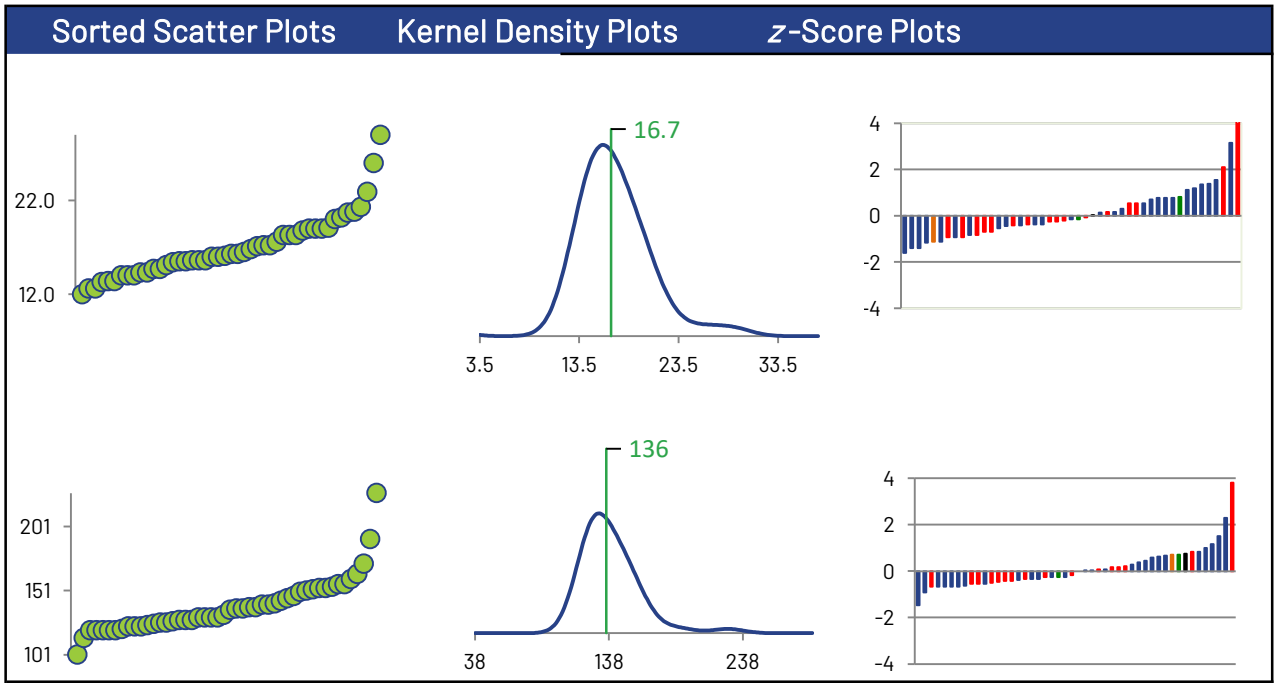
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	28	28	27	28
GC/MS - HEADSPACE (Red)	16	16	16	16
GC/MS (Green)	2	2	2	2
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1
GC/MS/MS - HEADSPACE (Black)	1	1	1	1

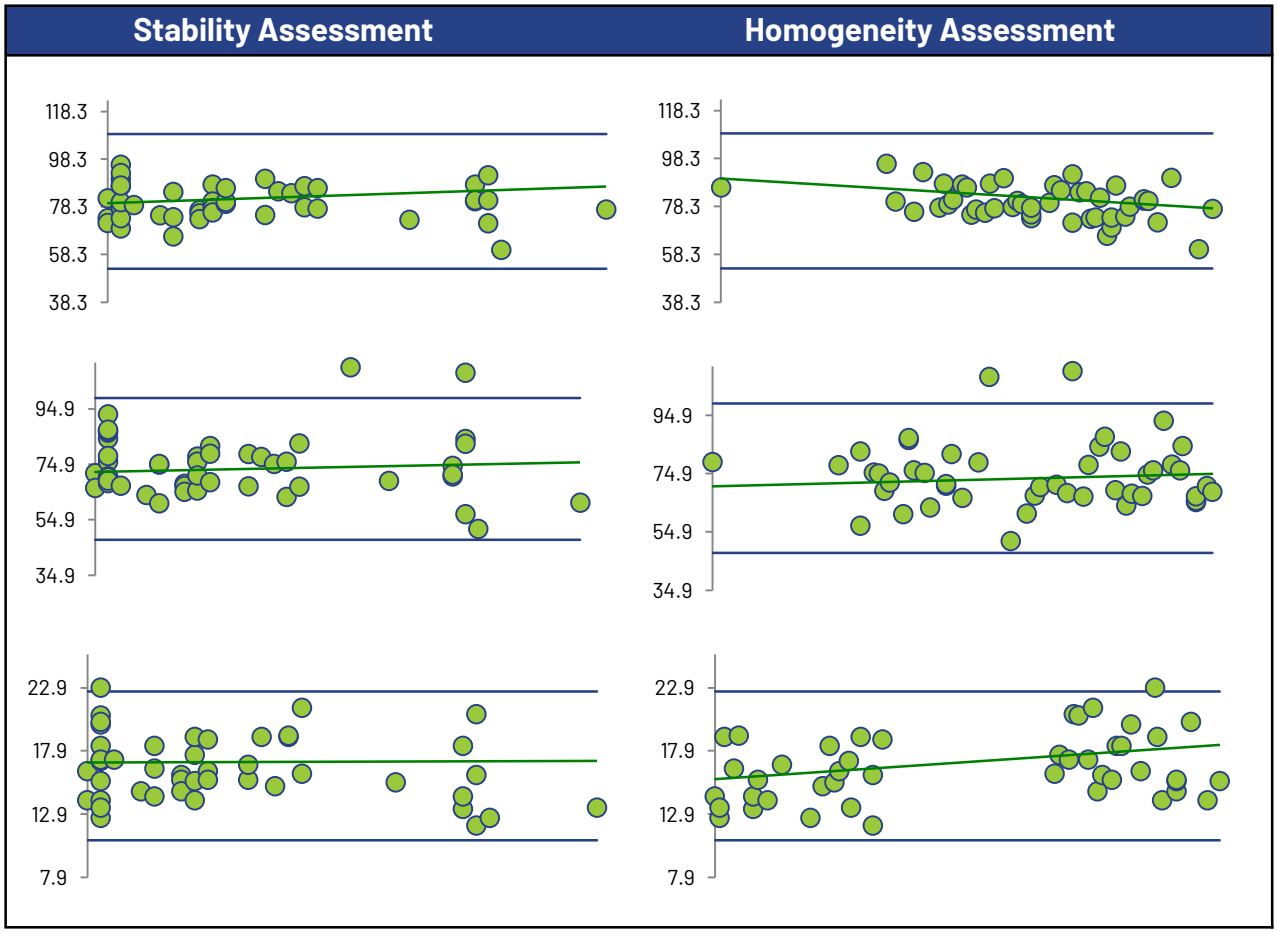
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

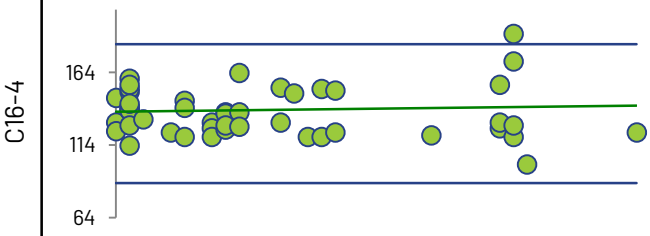
1,1,2,2-Tetrachloroethane



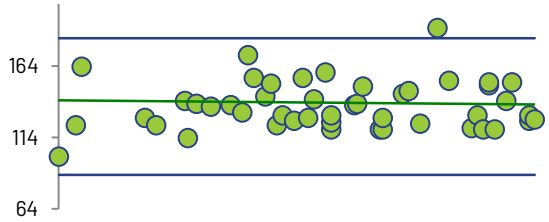


1,1,2,2-Tetrachloroethane

Stability Assessment



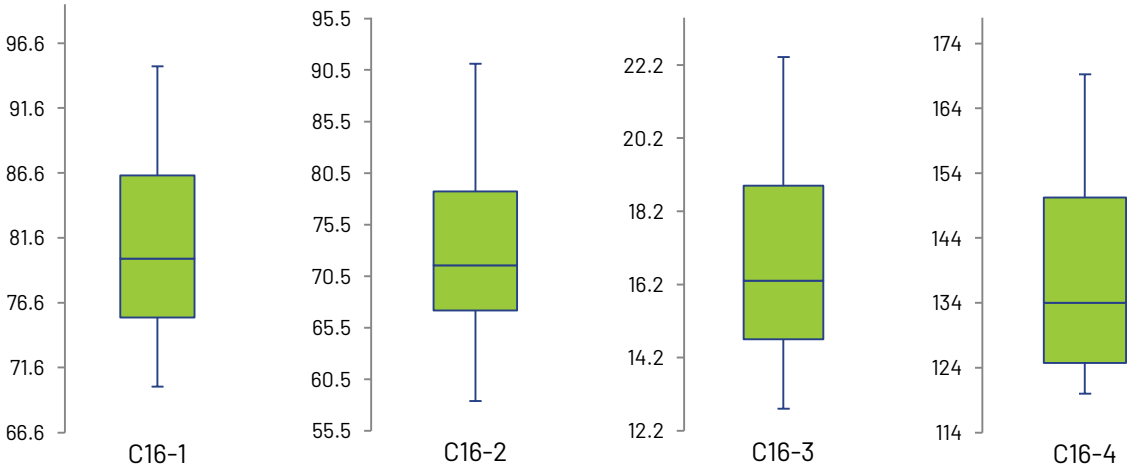
Homogeneity Assessment



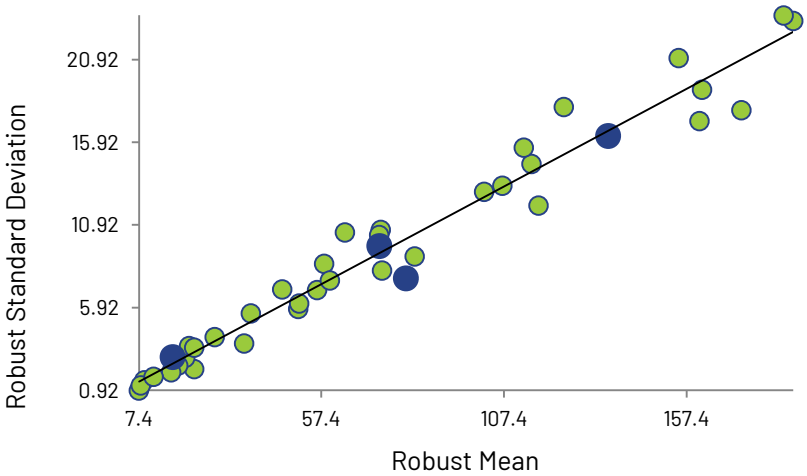
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,1,2-Trichloroethane

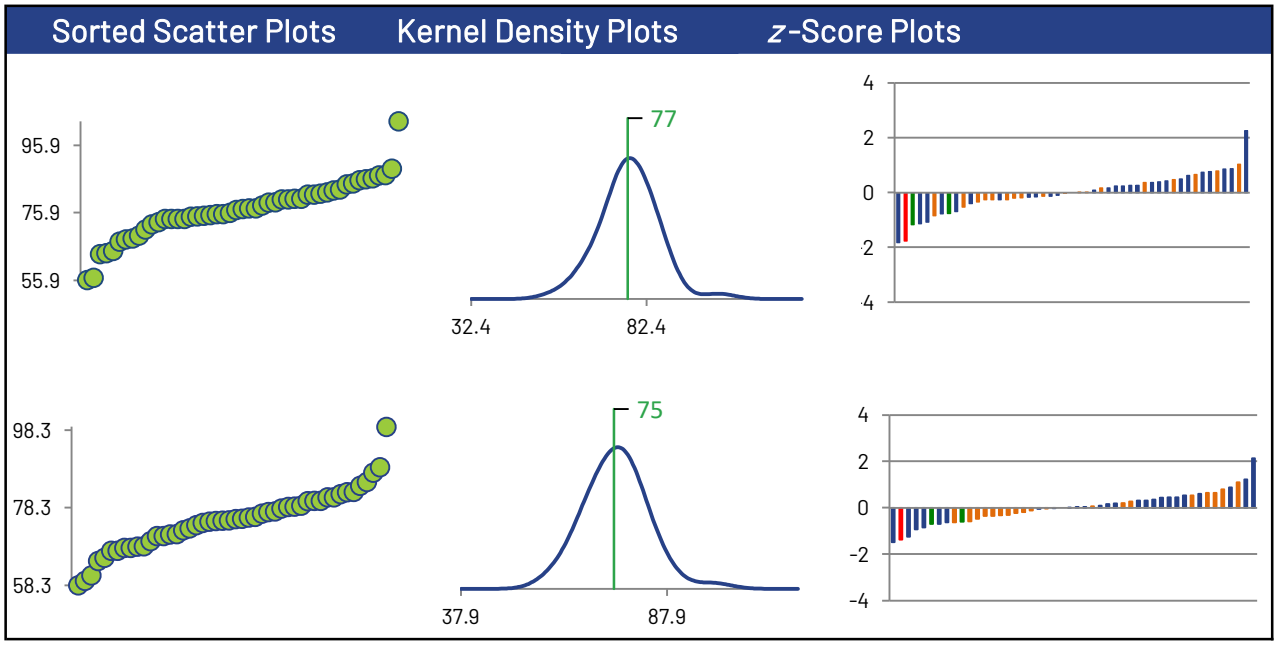
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	49	48	48	49
Median µg/L	77.0	75.3	17.4	138
Robust Mean µg/L	77.0	75.0	17.1	138
Uncdrtainty of the Assigned Value µg/L	1.32	1.28	0.390	1.86
Robust Standard Deviation µg/L	7.38	7.08	2.16	10.4
Regression Standard Deviation µg/L	11.5	11.3	2.57	20.7
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	11.5	11.3	2.57	20.7
Flagged Outliers	0	1	1	0
|z|>3.0	0	0	1	0
2<|z|<3	1	1	2	1
Failure Rate %*	4.1			

Methods Used

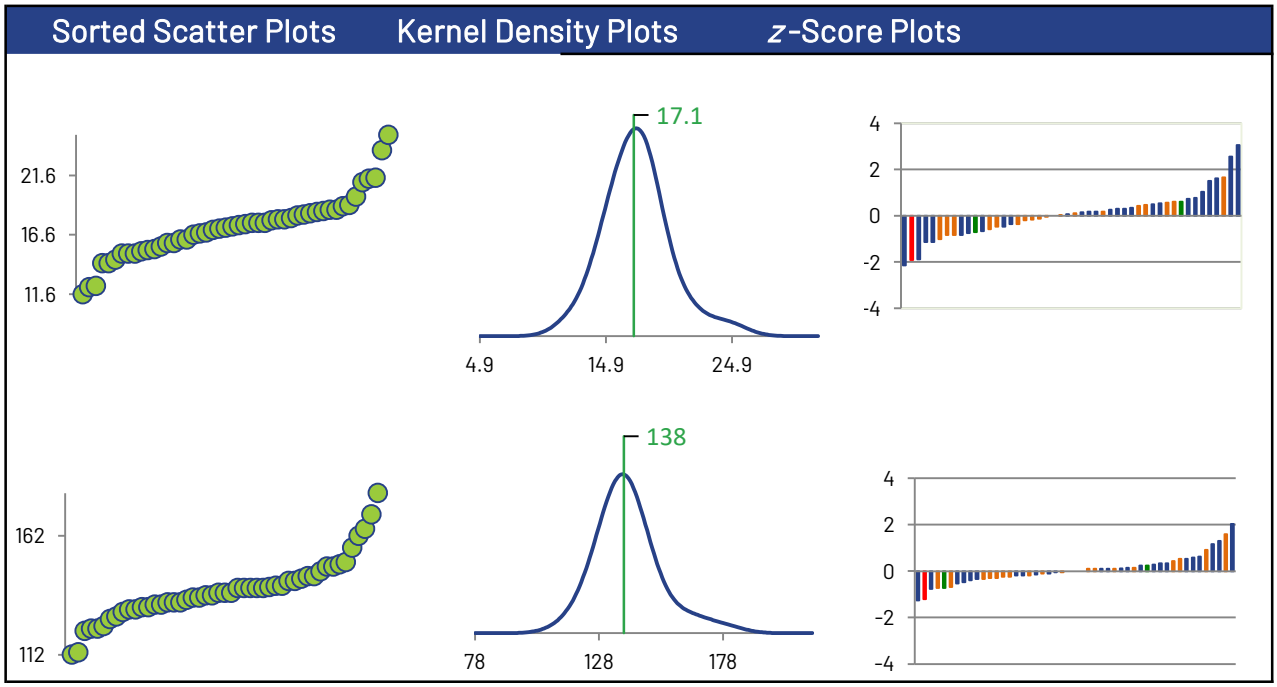
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	27	26	26	27
GC/FID - PURGE AND TRAP (Red)	1	1	1	1
GC/MS (Green)	2	2	2	2
GC/MS - HEADSPACE (Orange)	19	19	19	19

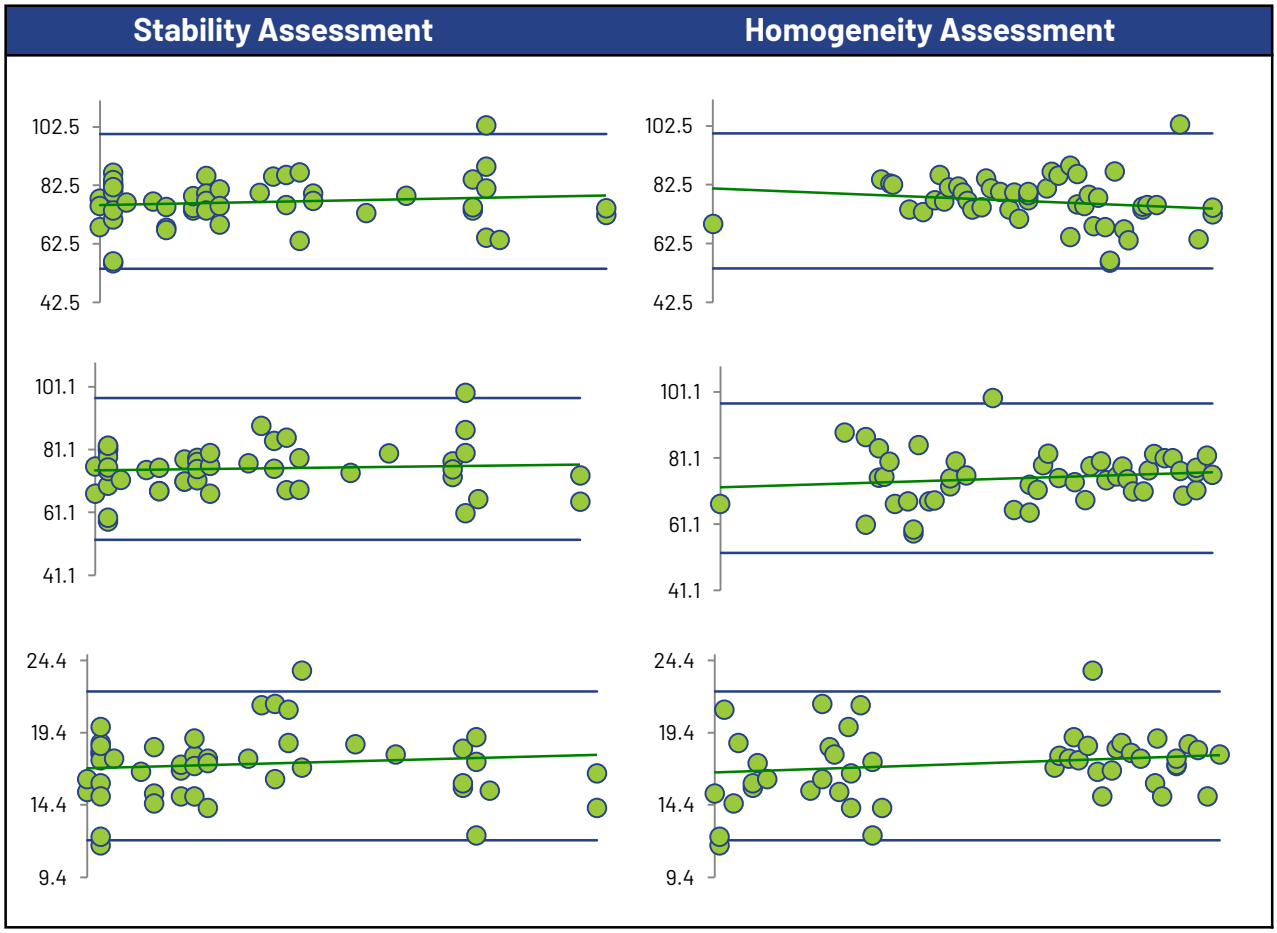
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

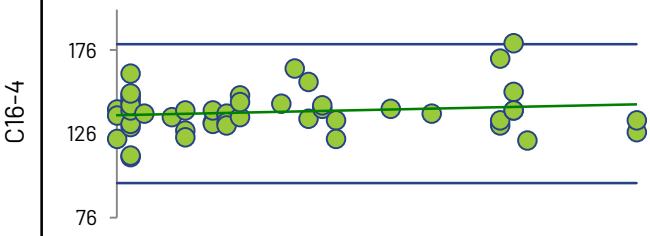
1,1,2-Trichloroethane



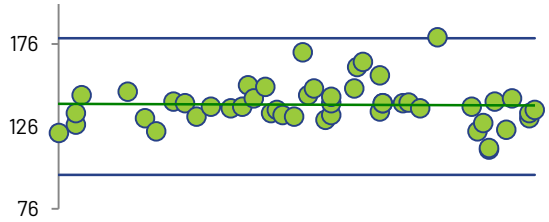


1,1,2-Trichloroethane

Stability Assessment



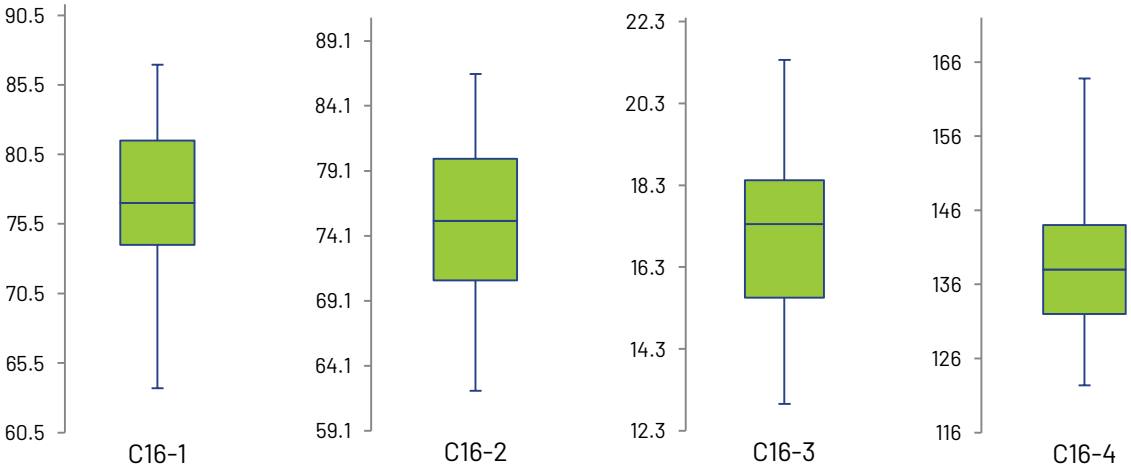
Homogeneity Assessment



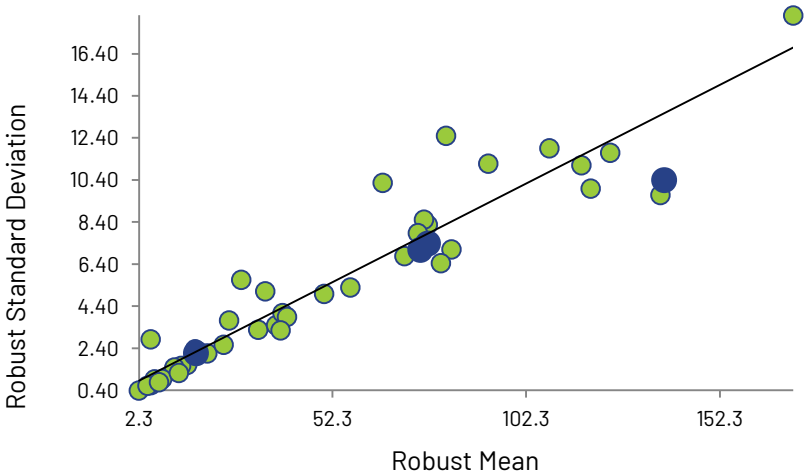
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,1-Dichloroethane

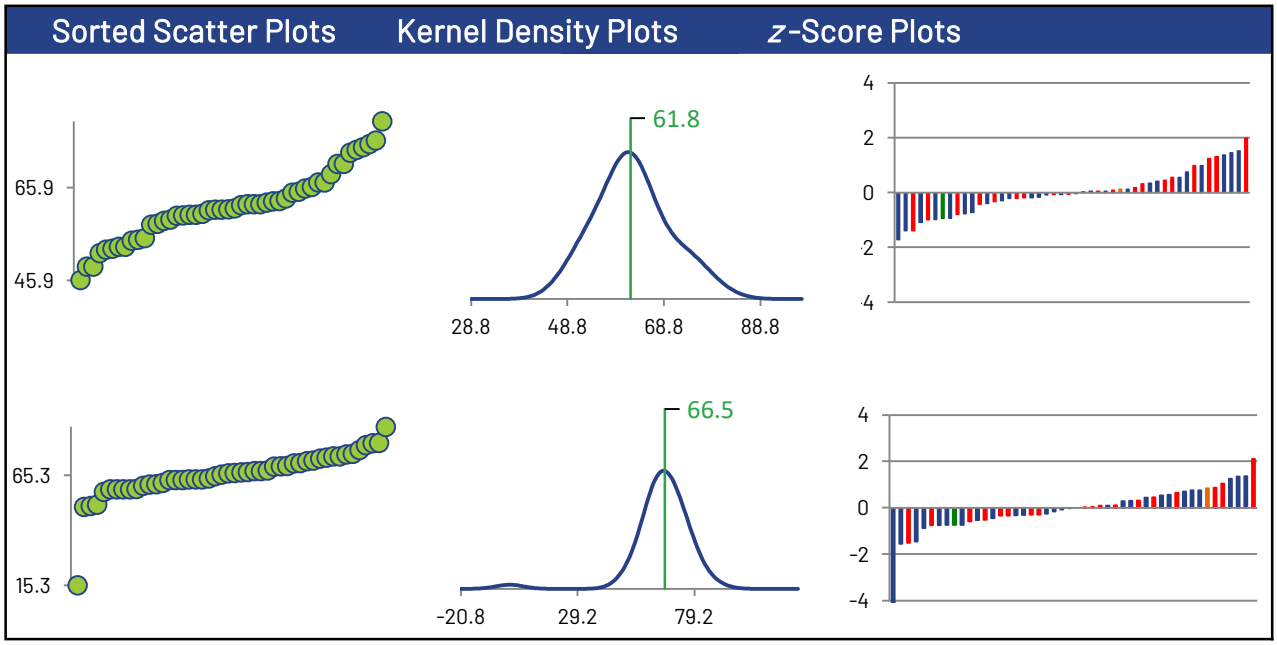
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	48	48	47	48
Median µg/L	61.3	66.4	14.8	114
Robust Mean µg/L	61.8	66.5	14.7	114
Uncdrtainty of the Assigned Value µg/L	1.39	1.40	0.357	2.24
Robust Standard Deviation µg/L	7.71	7.76	1.96	12.4
Regression Standard Deviation µg/L	9.26	9.97	2.21	17.1
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	9.26	9.97	2.21	17.1
Flagged Outliers	0	0	1	0
|z|>3.0	0	1	0	0
2<|z|<3	0	1	2	0
Failure Rate %*	2.1			

Methods Used

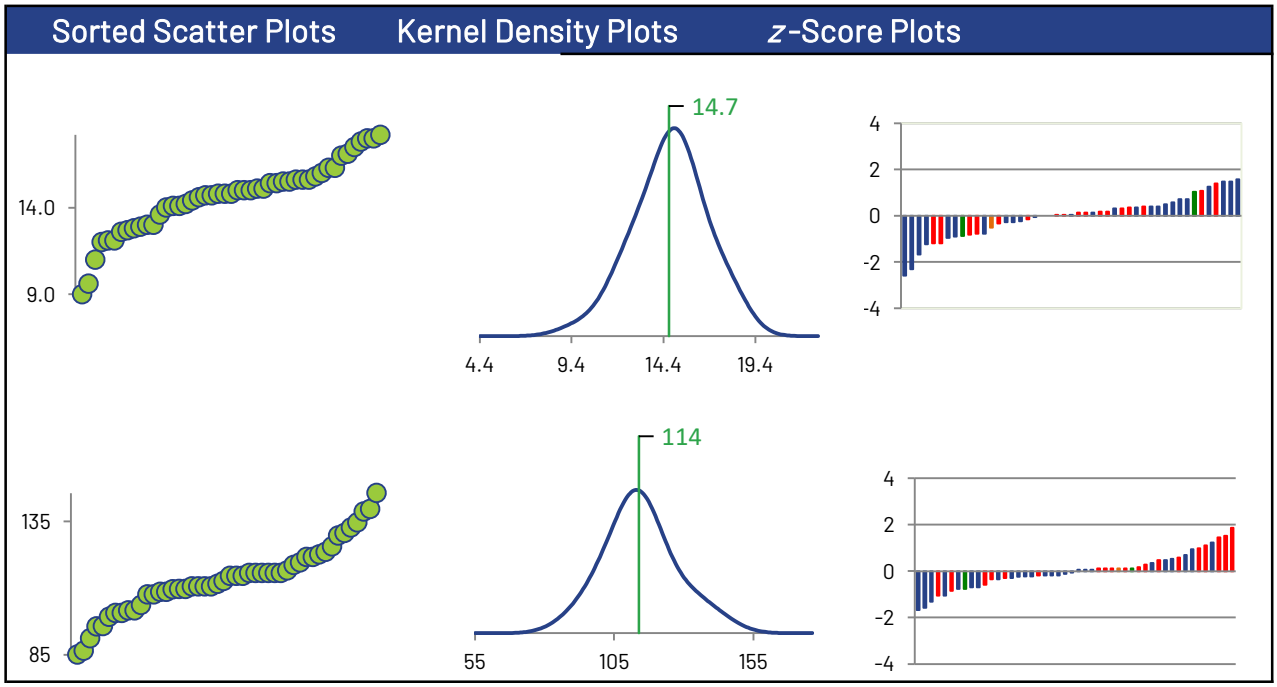
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	26	26	25	26
GC/MS - HEADSPACE (Red)	19	19	19	19
GC/MS (Green)	2	2	2	2
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1

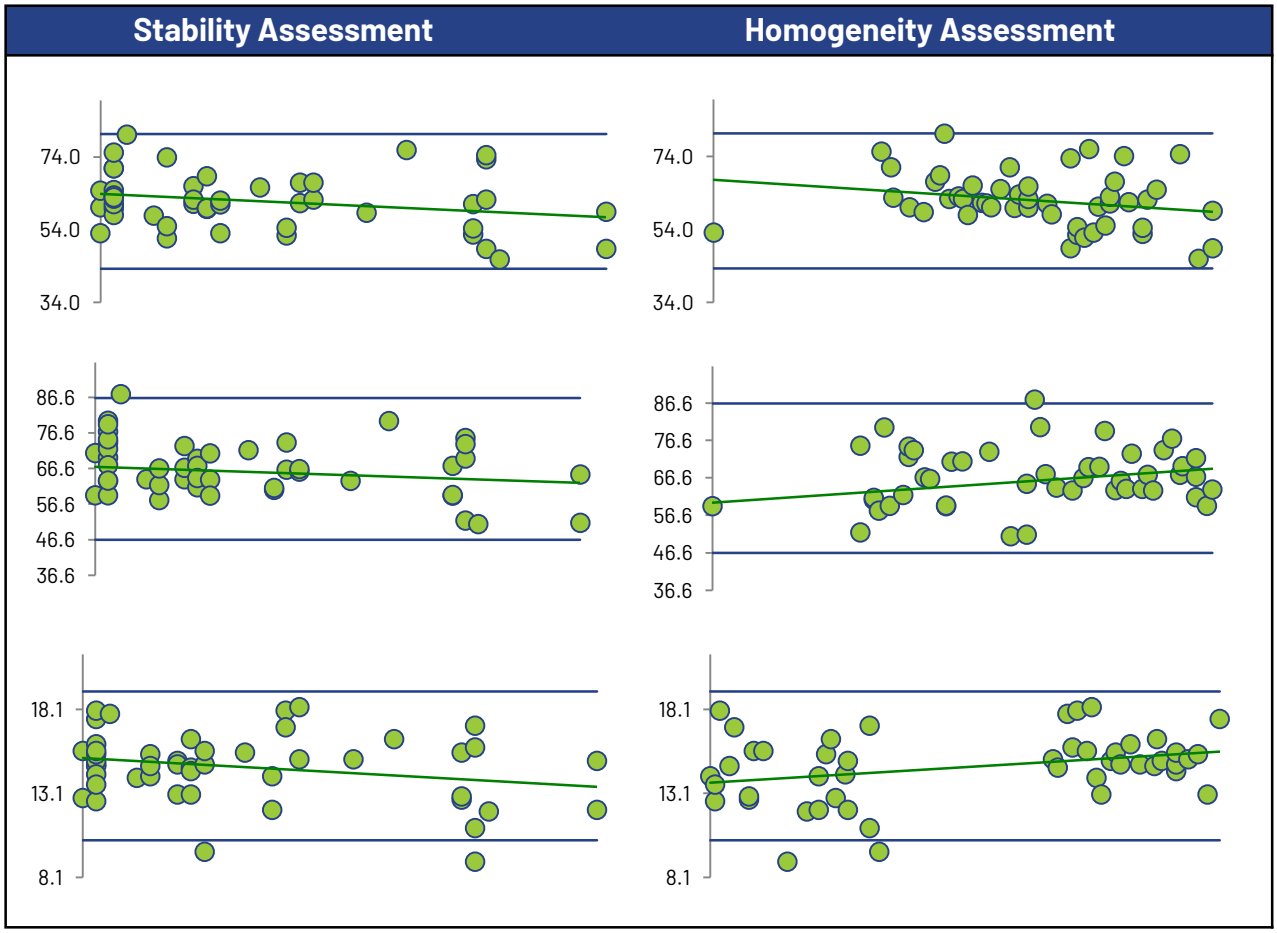
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

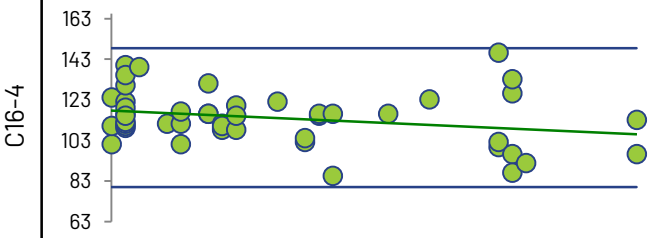
1,1-Dichloroethane



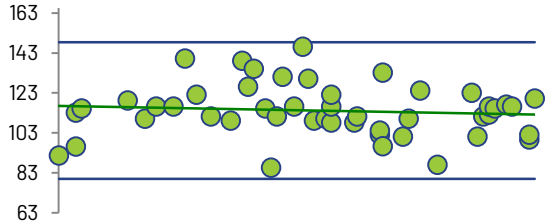


1,1-Dichloroethane

Stability Assessment



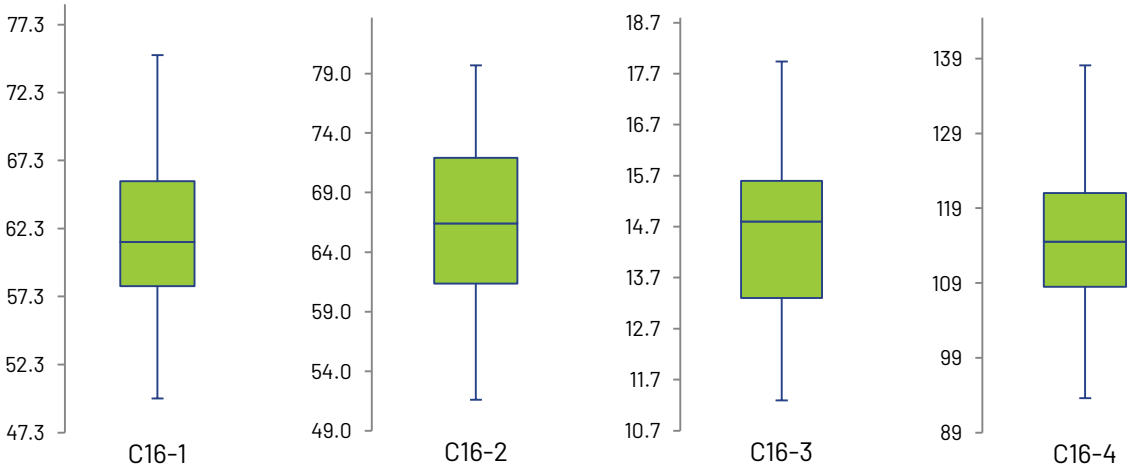
Homogeneity Assessment



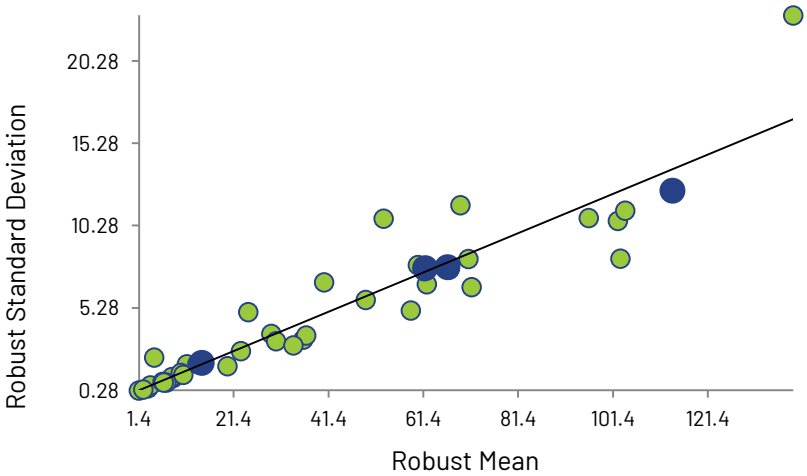
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,1-dichloroethylene

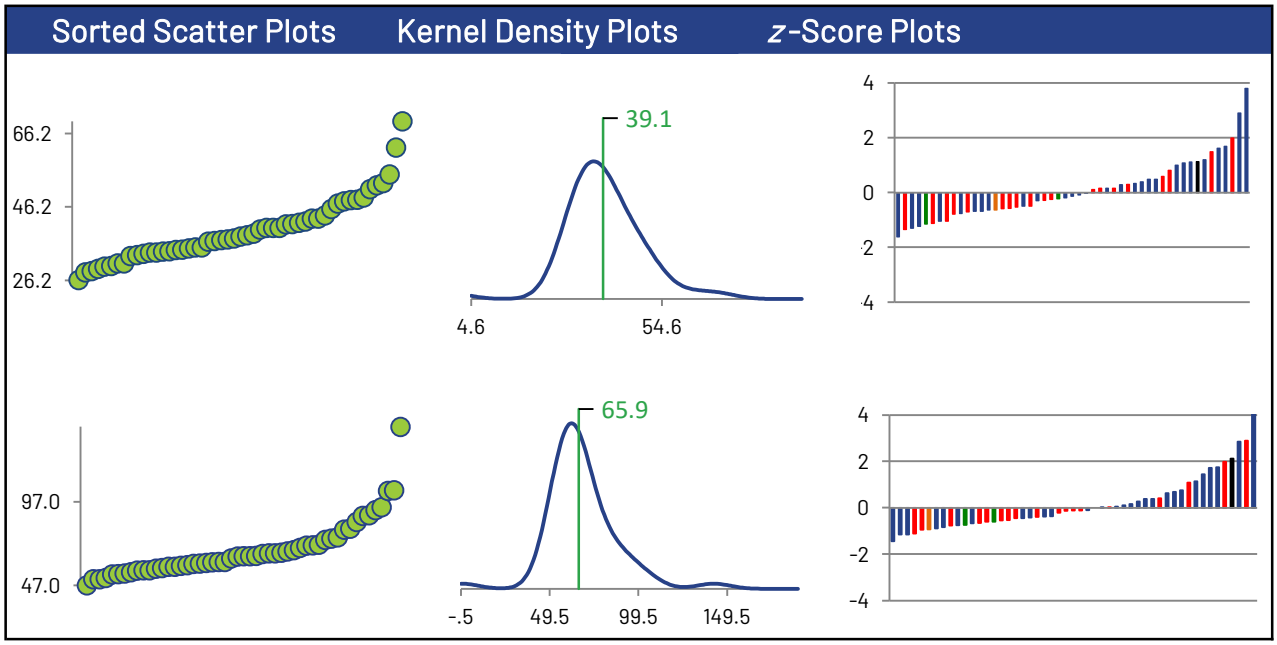
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	51	51	50	51
Median µg/L	38.1	64.4	15.3	103
Robust Mean µg/L	39.1	65.9	15.3	104
Uncdrtainty of the Assigned Value µg/L	1.40	2.17	0.472	2.96
Robust Standard Deviation µg/L	7.98	12.4	2.67	16.9
Regression Standard Deviation µg/L	7.82	13.2	3.06	20.9
Stability Flag			Stability	
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	7.98	13.2	3.36	20.9
Flagged Outliers	0	0	1	0
|z|>3.0	1	1	0	2
2<|z|<3	1	3	1	3
Failure Rate %*	5.9			

Methods Used

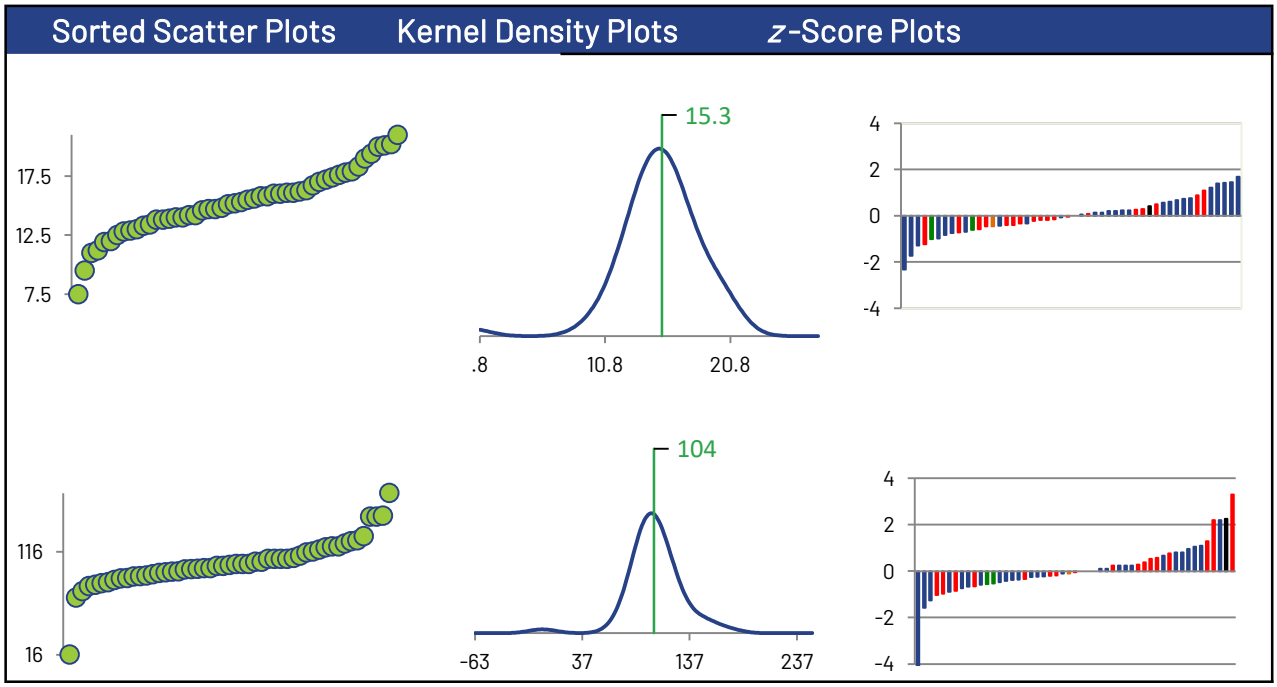
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	28	28	27	28
GC/MS - HEADSPACE (Red)	19	19	19	19
GC/MS (Green)	2	2	2	2
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

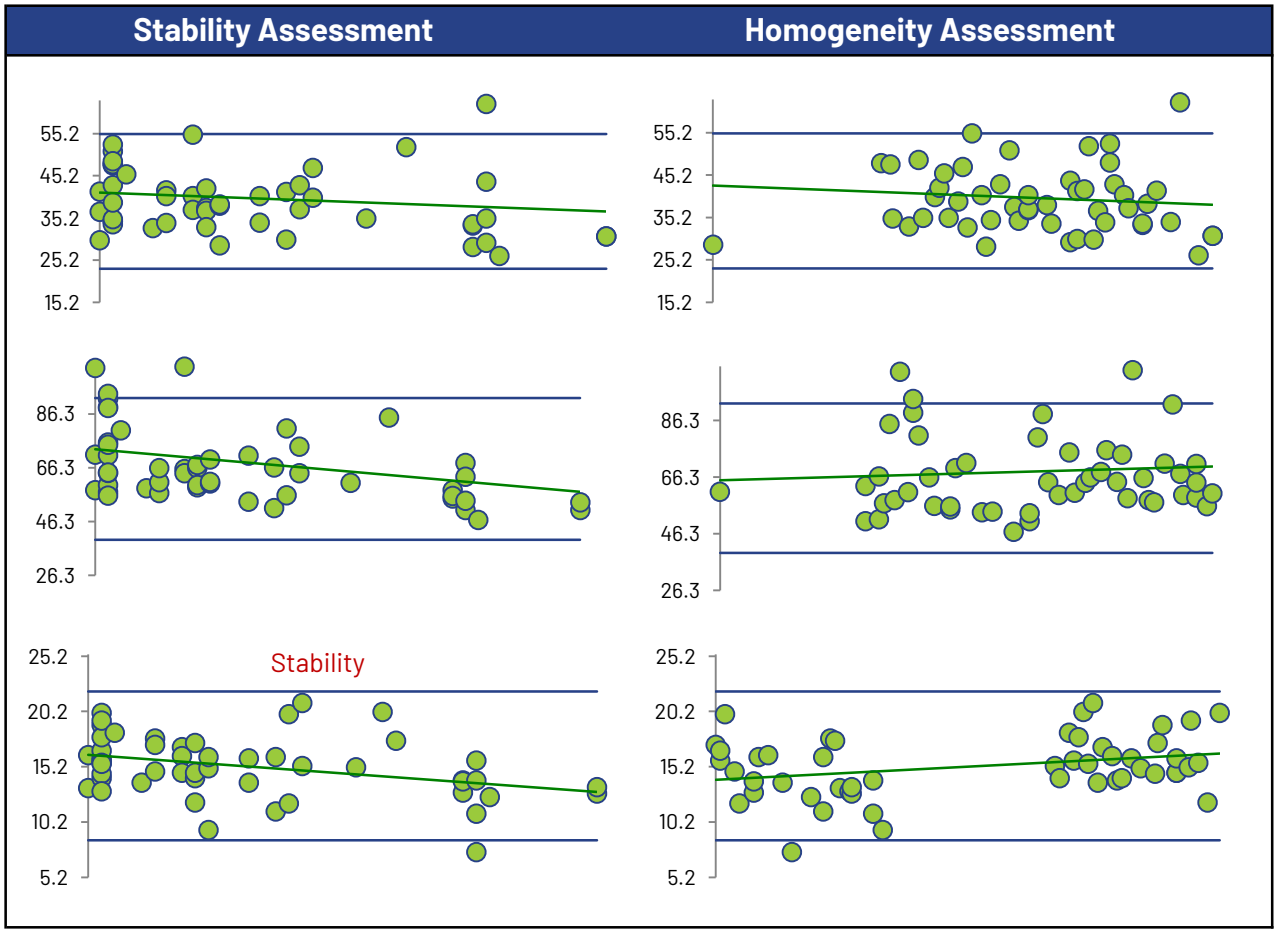
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

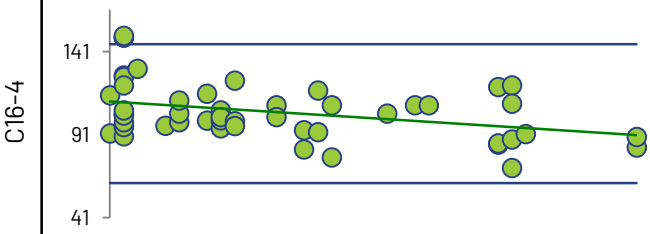
1,1-dichloroethylene



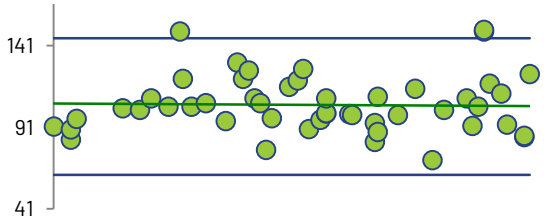


1,1-dichloroethylene

Stability Assessment



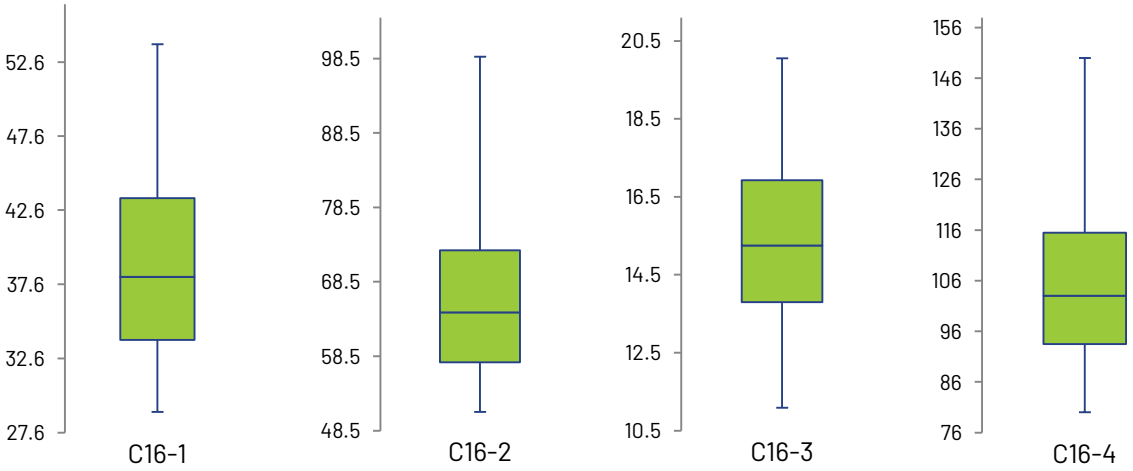
Homogeneity Assessment



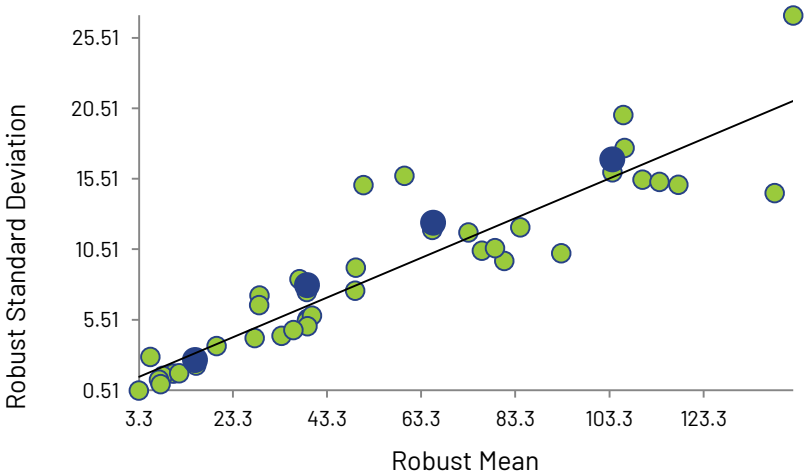
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,2-Dichlorobenzene

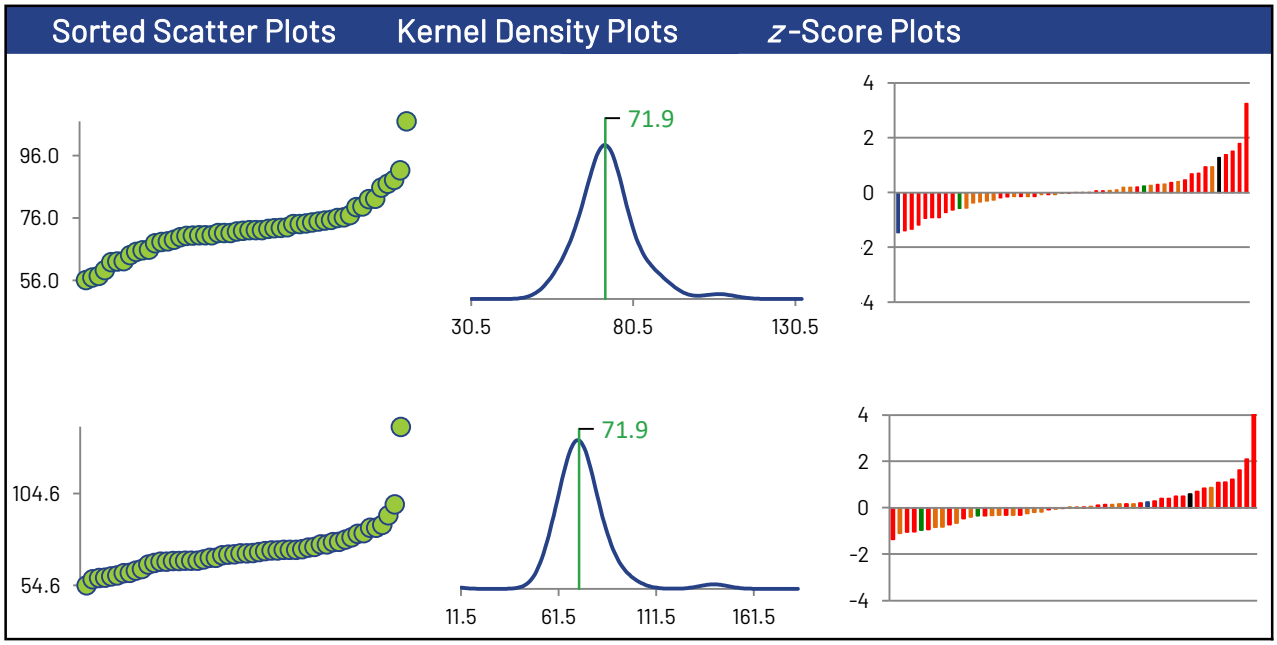
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	52	52	51	51
Median µg/L	71.9	72.1	16.2	130
Robust Mean µg/L	71.9	71.9	16.2	129
Uncdrtainty of the Assigned Value µg/L	1.23	1.57	0.452	2.42
Robust Standard Deviation µg/L	7.12	9.04	2.58	13.8
Regression Standard Deviation µg/L	10.8	10.8	2.43	19.3
Stability Flag		Stability		
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	10.8	12.8	2.58	19.3
Flagged Outliers	0	0	1	1
|z|>3.0	1	1	2	0
2<|z|<3	0	1	3	2
Failure Rate %*	5.8			

Methods Used

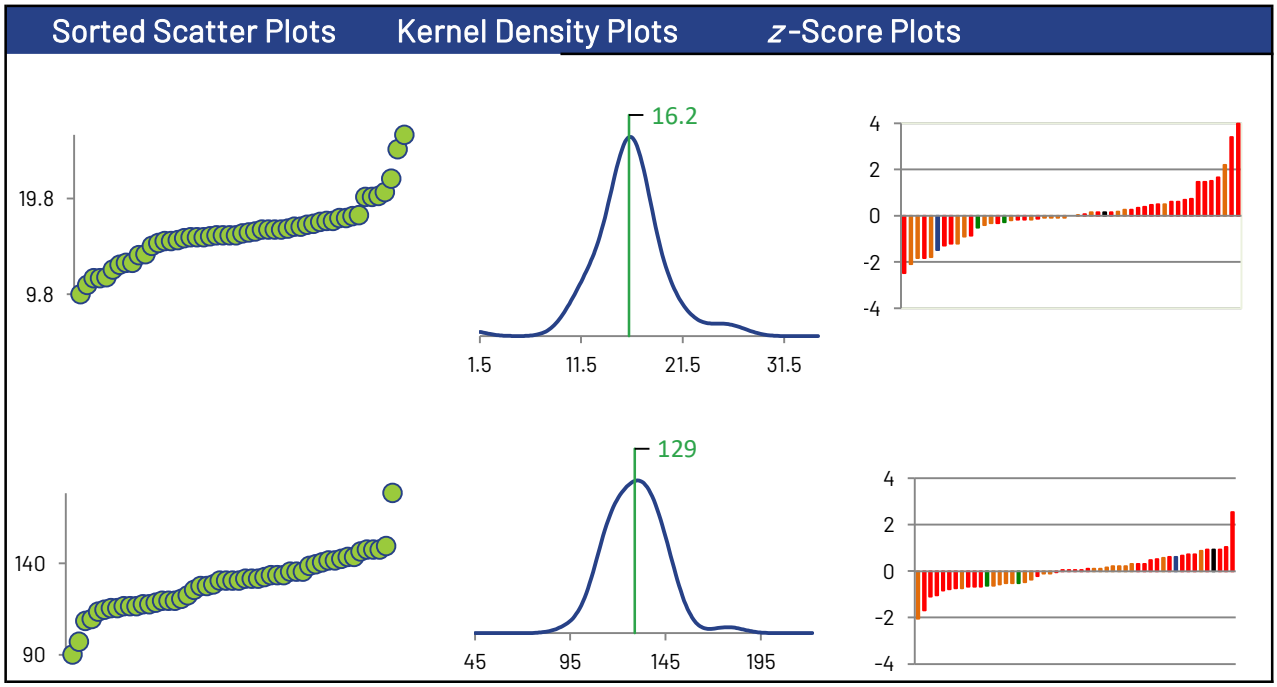
Method	C16-1	C16-2	C16-3	C16-4
GC/FID - PURGE AND TRAP (Blue)	1	1	1	1
GC/MS - PURGE AND TRAP (Red)	29	29	28	28
GC/MS (Green)	2	2	2	2
GC/MS - HEADSPACE (Orange)	19	19	19	19
GC/MS/MS - HEADSPACE (Black)	1	1	1	1

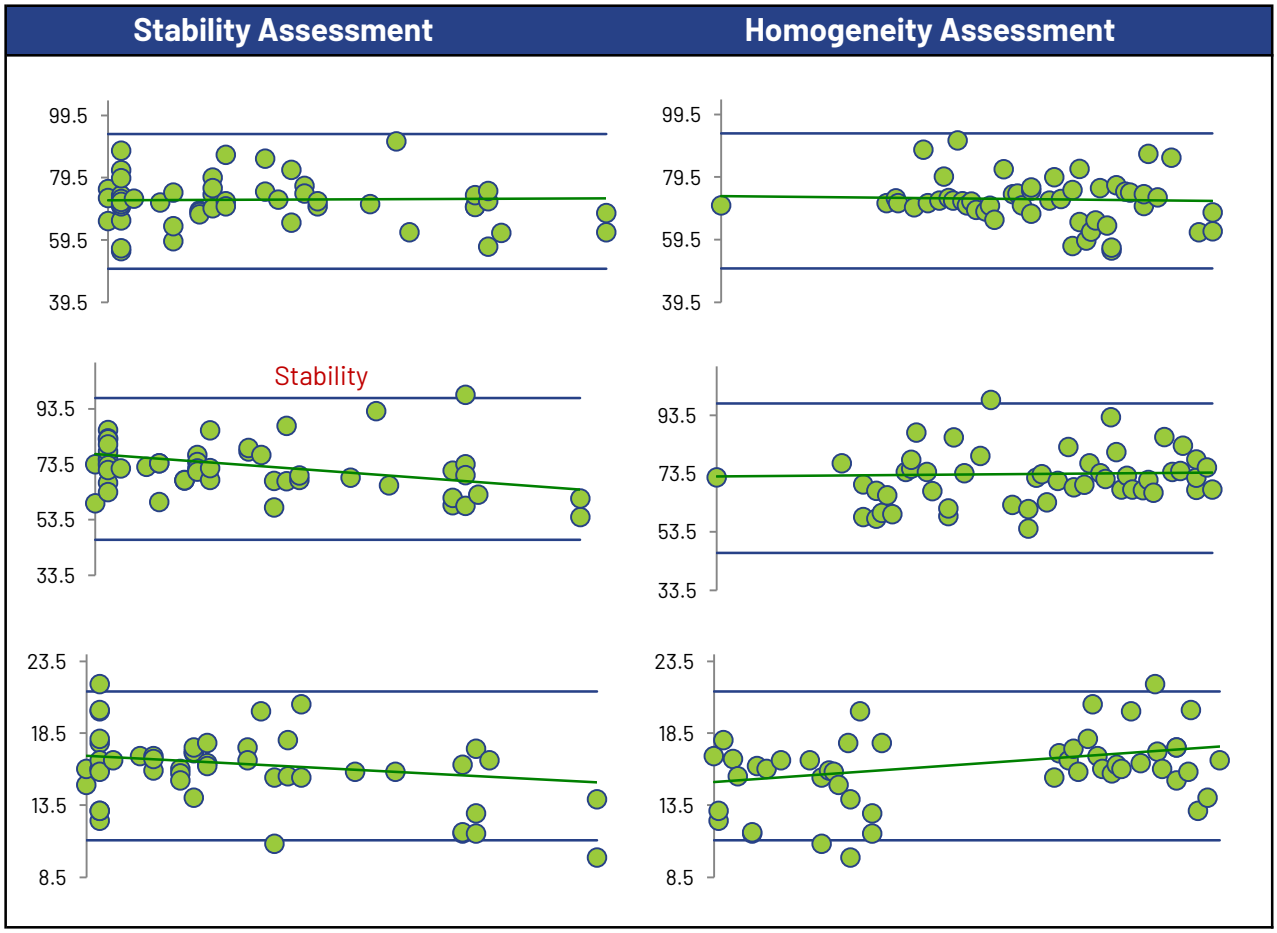
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

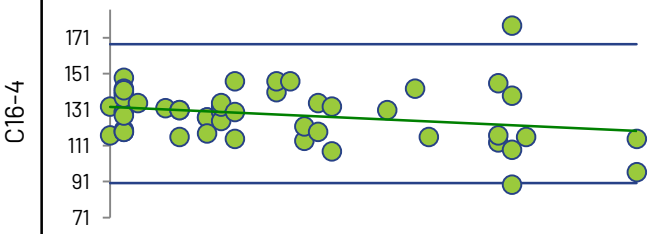
1,2-Dichlorobenzene



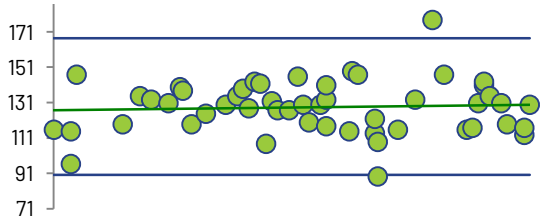


1,2-Dichlorobenzene

Stability Assessment



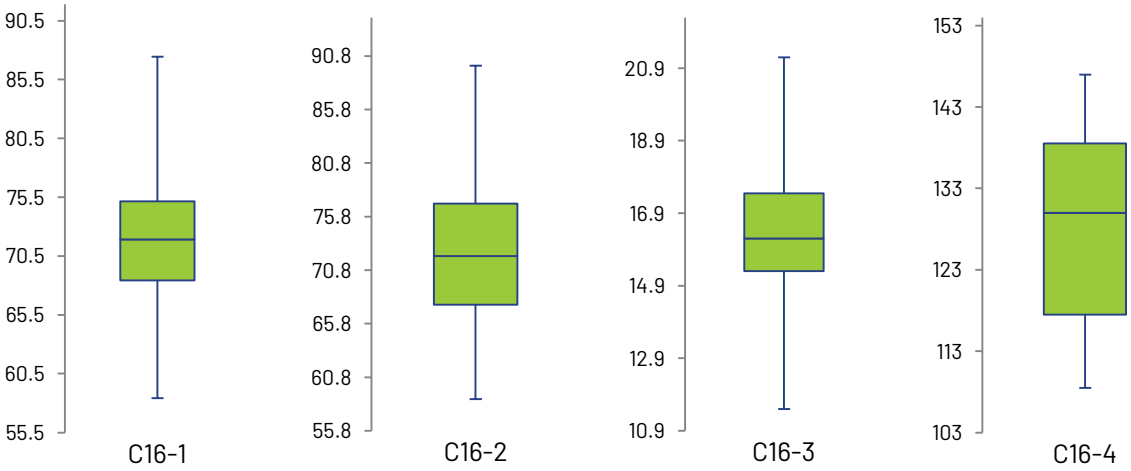
Homogeneity Assessment



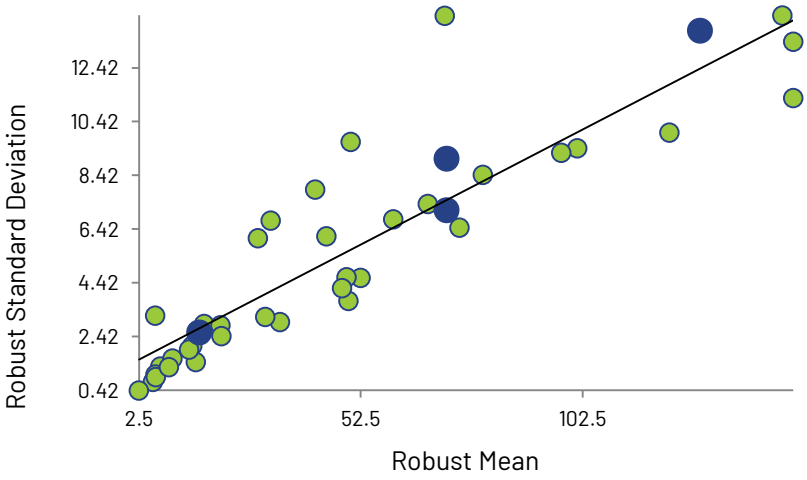
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,2-Dichloroethane

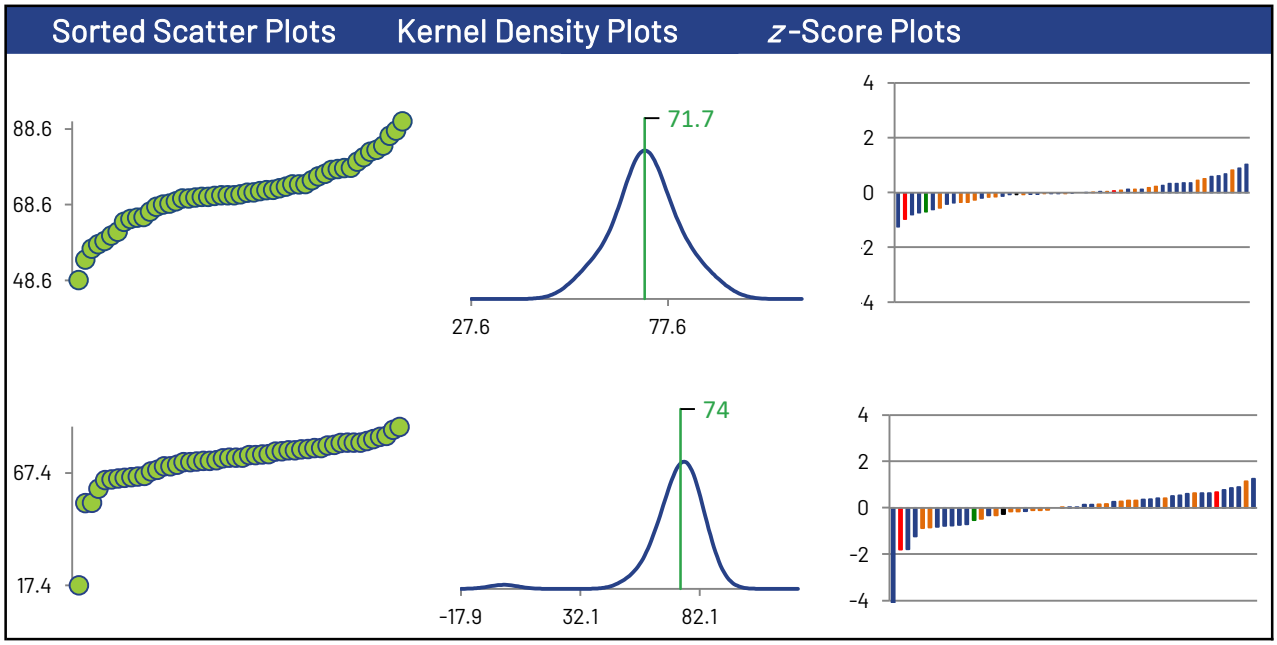
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	51	50	50	51
Median µg/L	71.3	74.3	17.1	134
Robust Mean µg/L	71.7	74.0	17.0	135
Uncdrtainty of the Assigned Value µg/L	1.37	1.31	0.445	2.38
Robust Standard Deviation µg/L	7.80	7.42	2.52	13.6
Regression Standard Deviation µg/L	10.8	11.1	2.55	20.3
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	18.3	11.1	2.55	20.3
Flagged Outliers	0	1	1	0
|z|>3.0	0	1	1	0
2<|z|<3	0	0	2	1
Failure Rate %*	3.9			

Methods Used

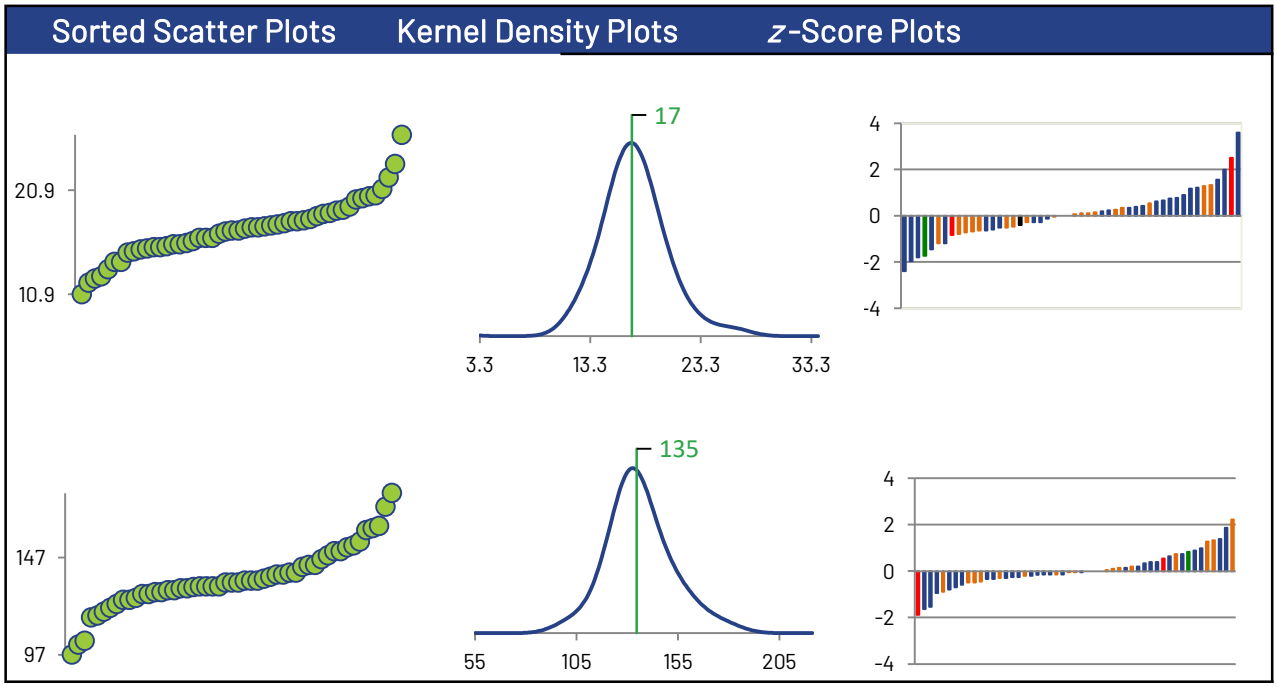
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	28	27	27	28
GC/MS (Red)	2	2	2	2
GC/FID - PURGE AND TRAP (Green)	1	1	1	1
GC/MS - HEADSPACE (Orange)	19	19	19	19
GC/MS/MS - HEADSPACE (Black)	1	1	1	1

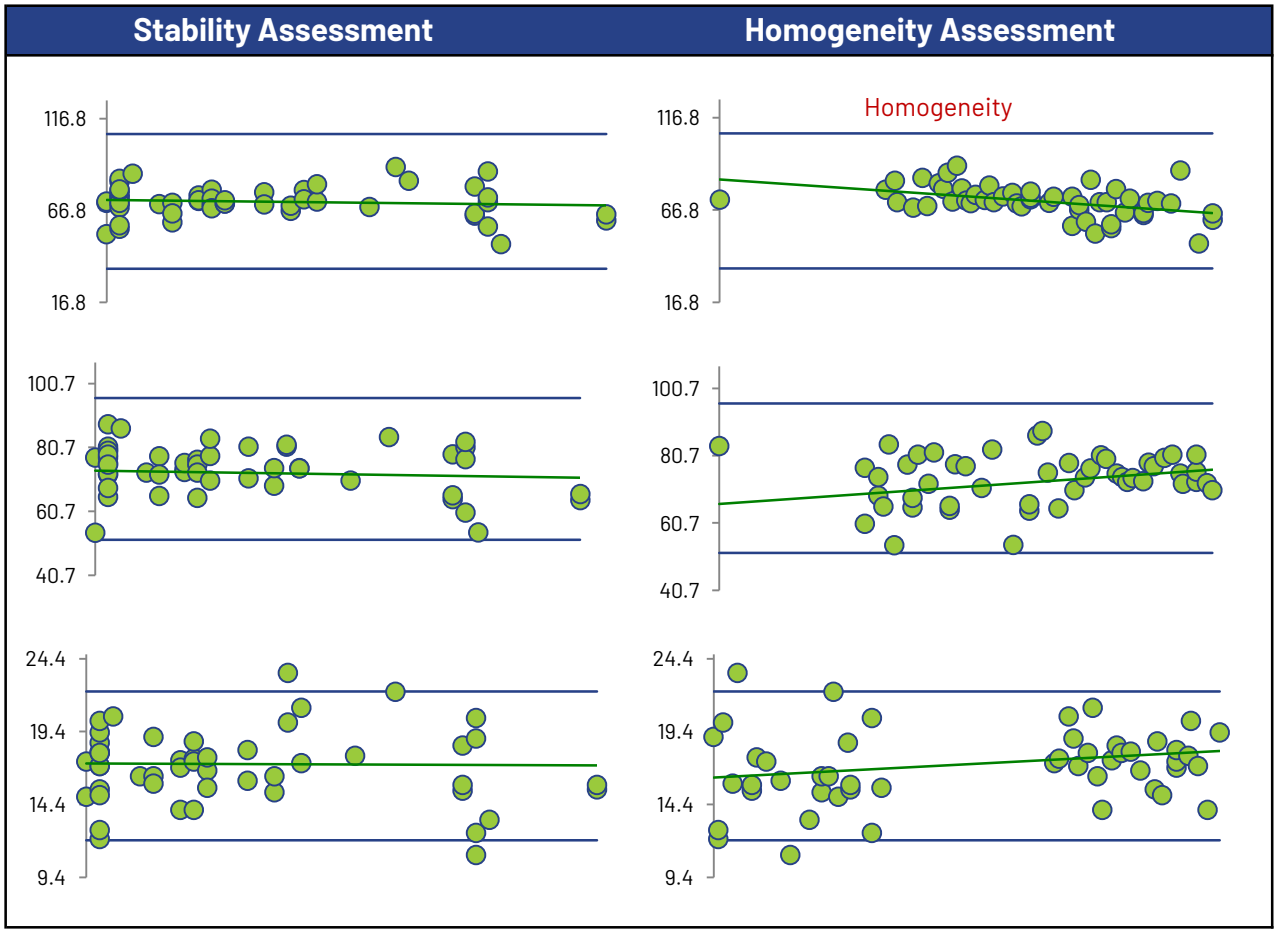
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

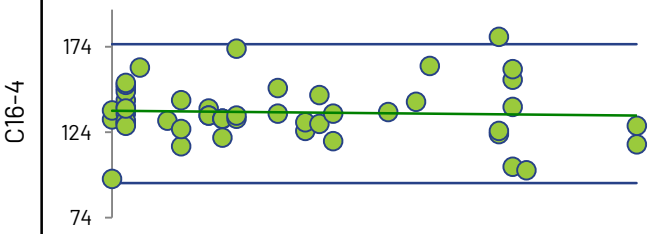
1,2-Dichloroethane



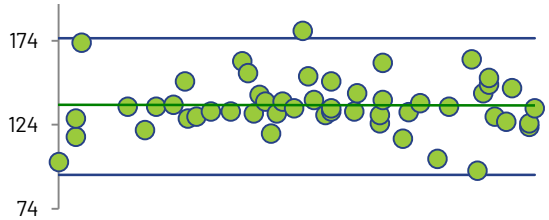


1,2-Dichloroethane

Stability Assessment



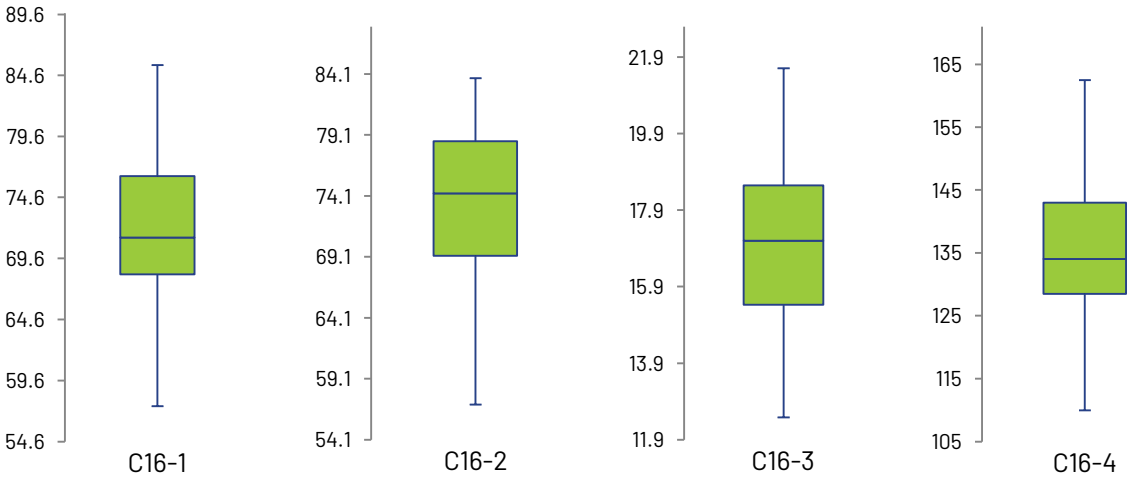
Homogeneity Assessment



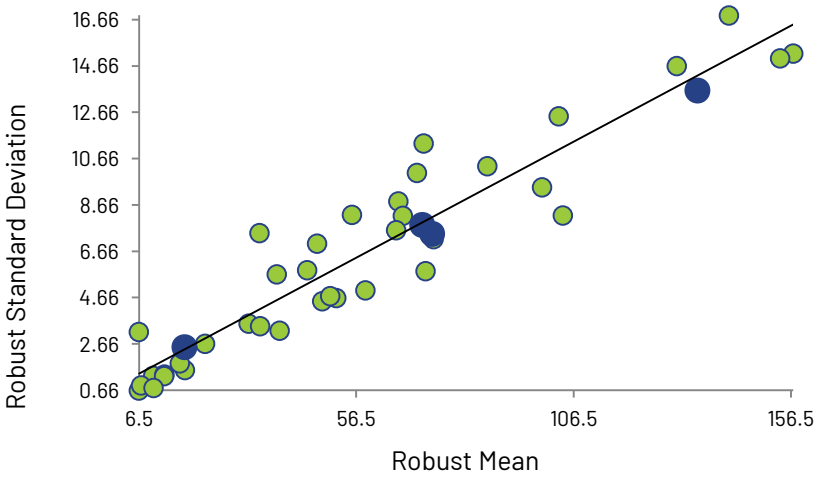
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,2-Dichloropropane

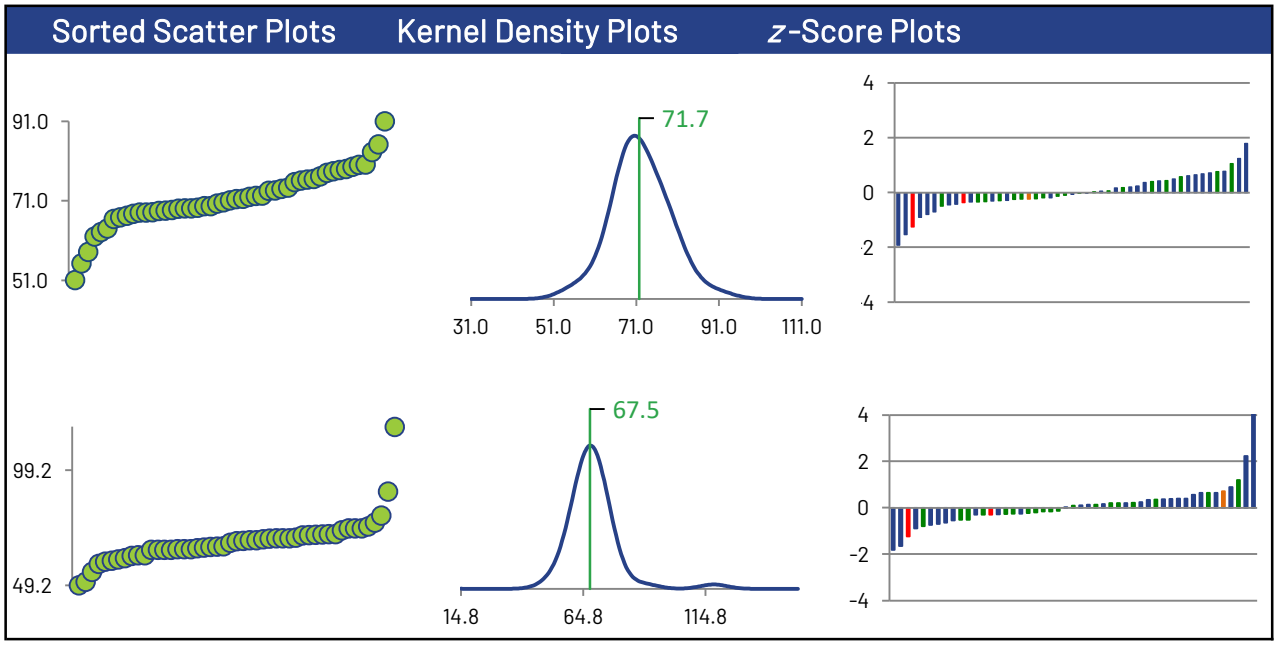
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	49	49	48	48
Median µg/L	71.1	68.4	15.0	119
Robust Mean µg/L	71.7	67.5	14.7	118
Uncdrtainty of the Assigned Value µg/L	1.12	1.07	0.318	1.98
Robust Standard Deviation µg/L	6.26	5.98	1.76	11.0
Regression Standard Deviation µg/L	10.8	10.1	2.20	17.8
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	10.8	10.1	2.20	17.8
Flagged Outliers	0	0	1	1
|z|>3.0	0	1	0	0
2<|z|<3	0	1	2	2
Failure Rate %*	4.1			

Methods Used

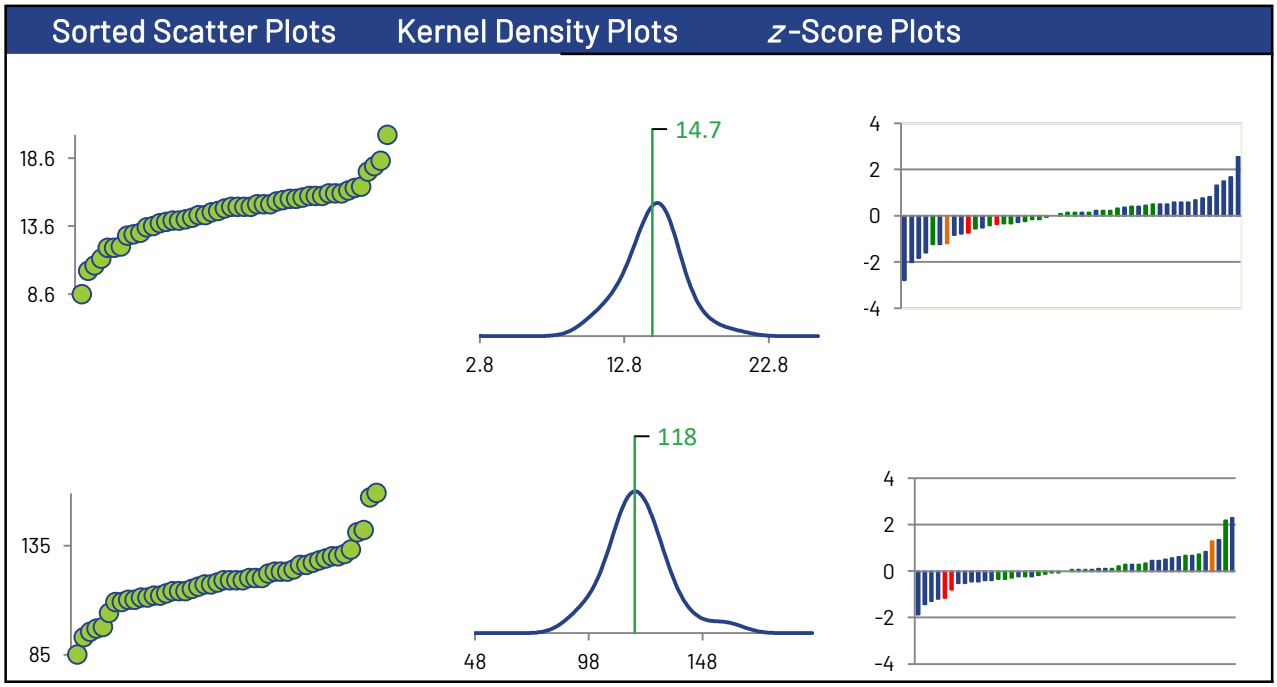
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	27	27	26	26
GC/MS (Red)	2	2	2	2
GC/MS - HEADSPACE (Green)	19	19	19	19
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1

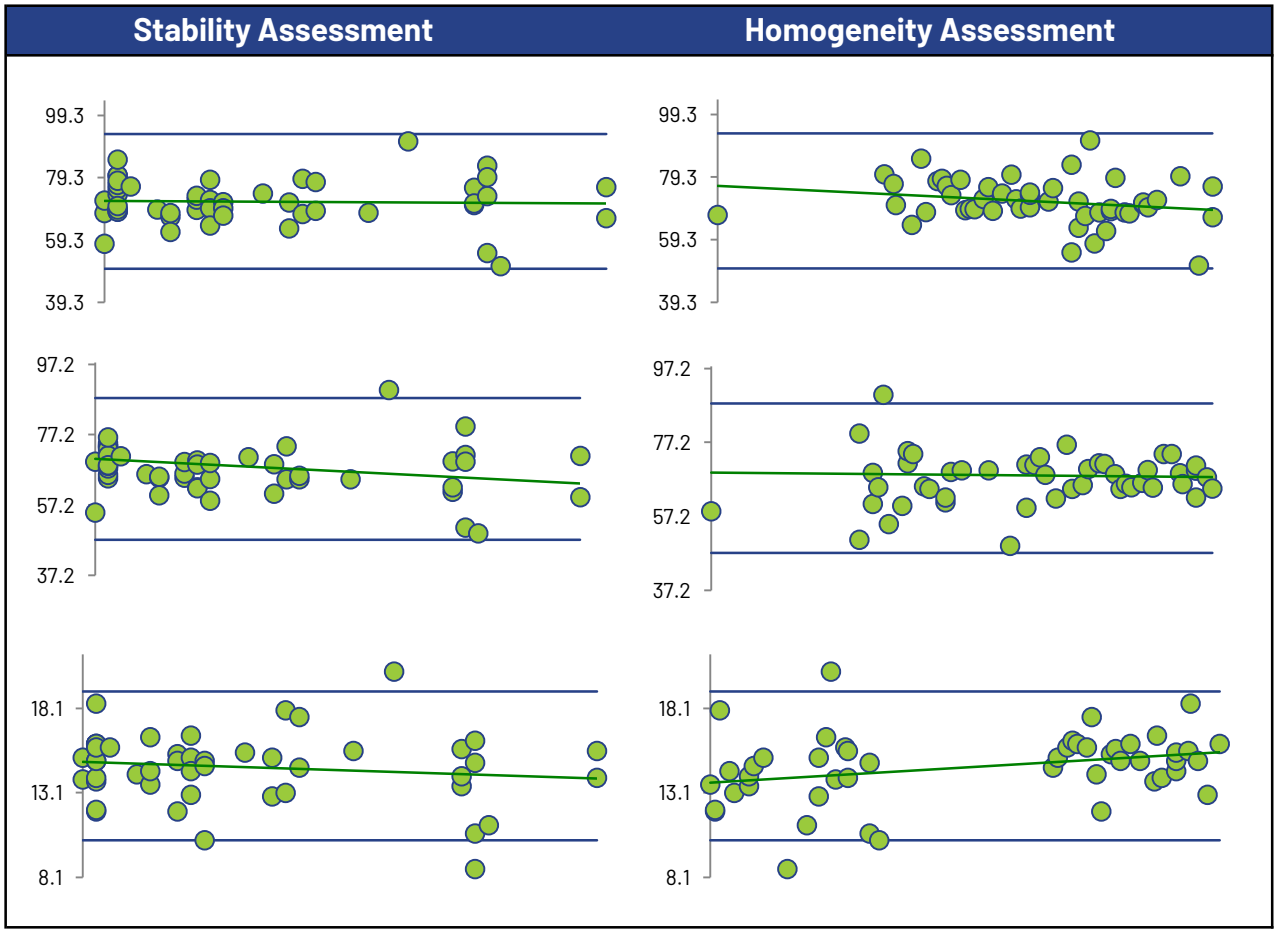
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

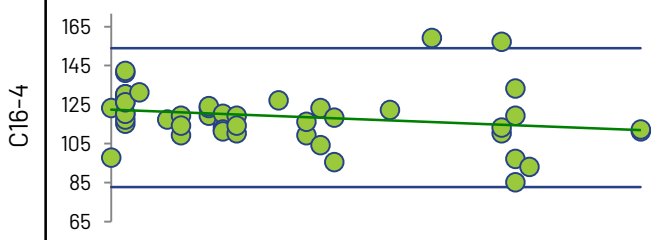
1,2-Dichloropropane



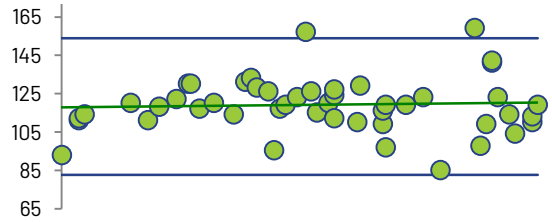


1,2-Dichloropropane

Stability Assessment



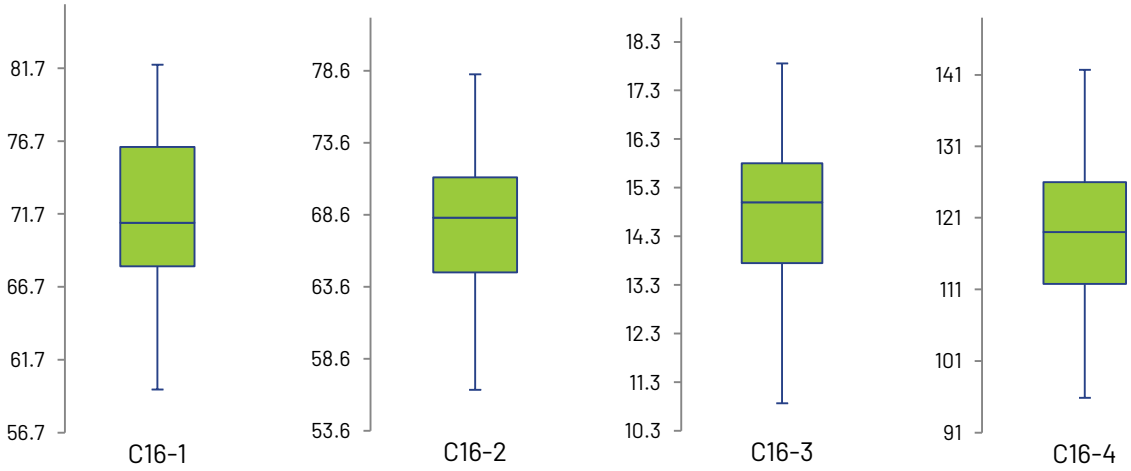
Homogeneity Assessment



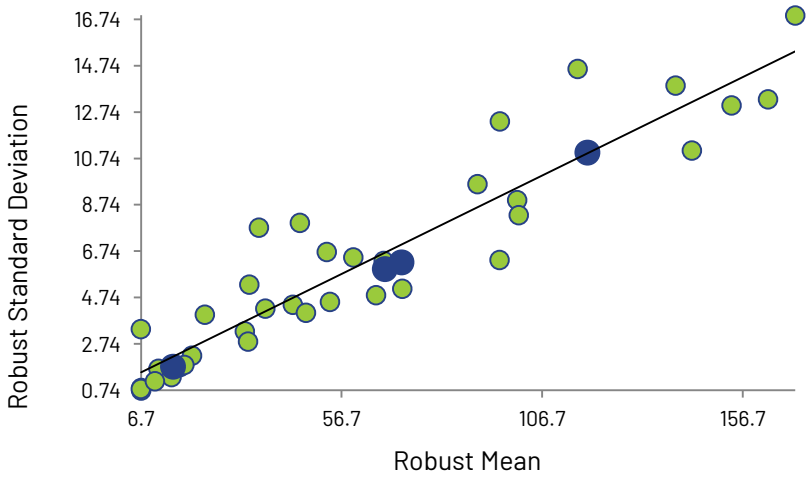
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,3-Dichlorobenzene

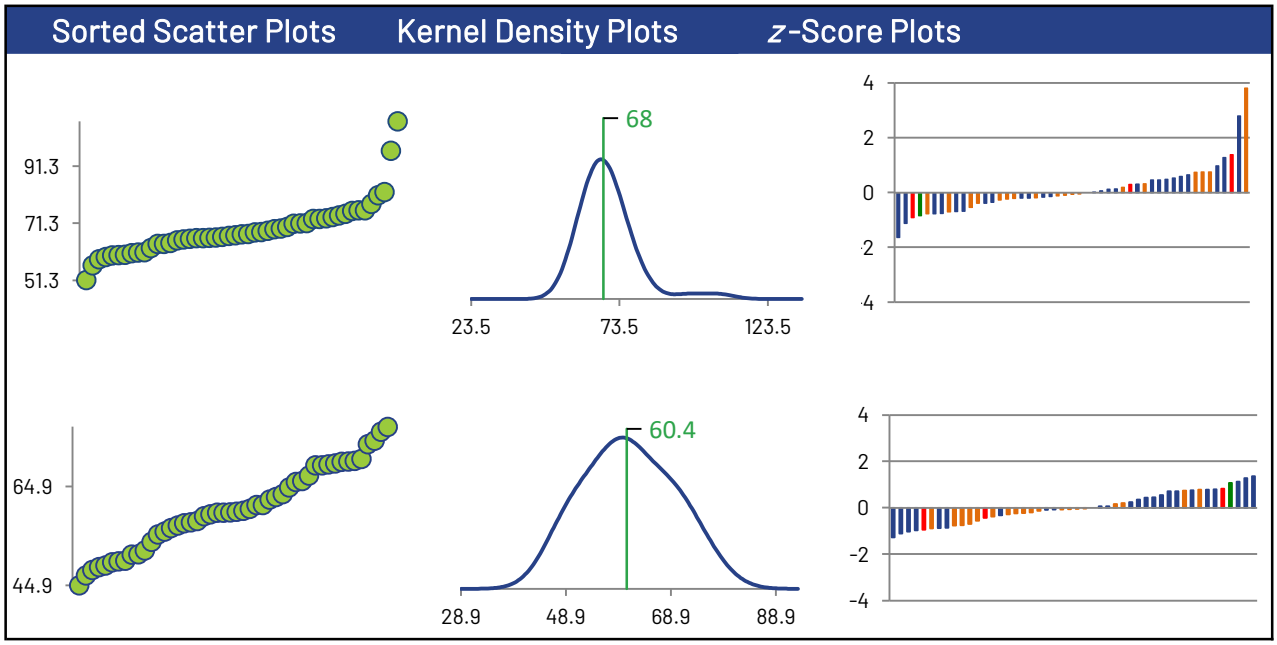
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	49	48	48	49
Median µg/L	67.4	59.8	13.5	109
Robust Mean µg/L	68.0	60.4	13.4	106
Uncdrtainty of the Assigned Value µg/L	1.22	1.67	0.332	2.29
Robust Standard Deviation µg/L	6.82	9.23	1.84	12.8
Regression Standard Deviation µg/L	10.2	9.06	2.01	15.9
Stability Flag		Stability	Stability	
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	10.2	12.2	2.84	15.9
Flagged Outliers	0	1	1	0
|z|>3.0	1	0	0	0
2<|z|<3	1	0	1	3
Failure Rate %*	4.1			

Methods Used

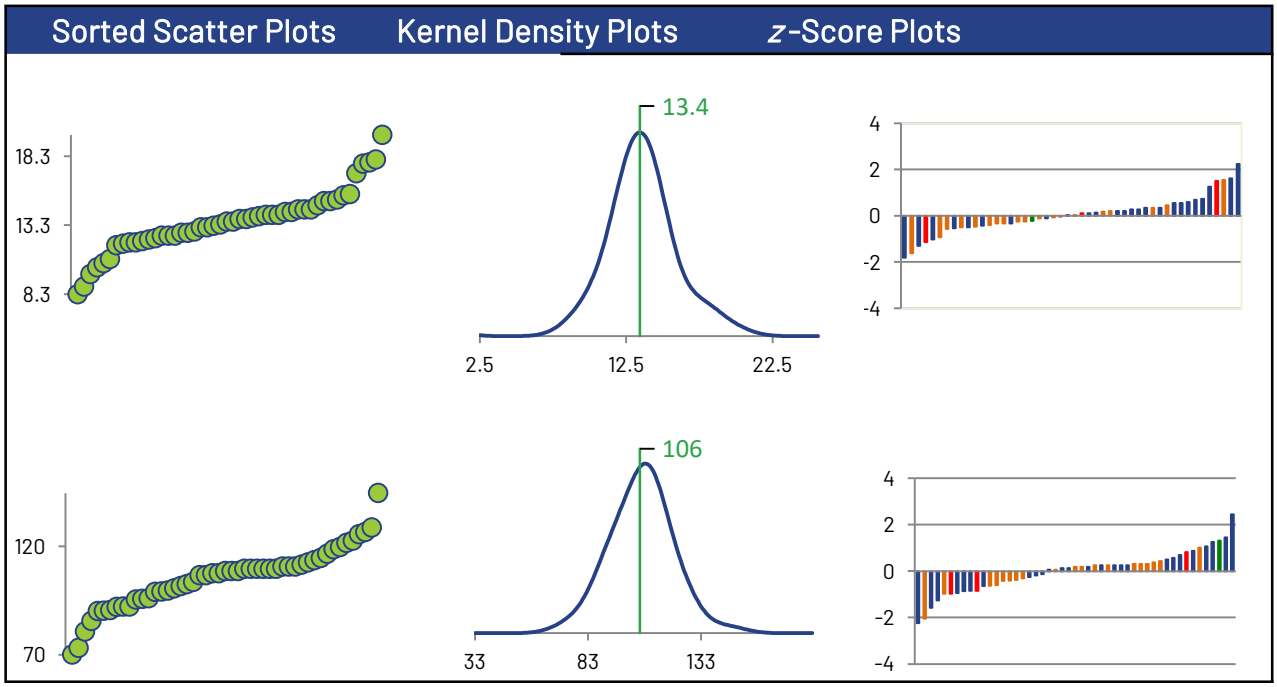
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	26	25	25	26
GC/MS (Red)	3	3	3	3
GC/FID - PURGE AND TRAP (Green)	1	1	1	1
GC/MS - HEADSPACE (Orange)	19	19	19	19

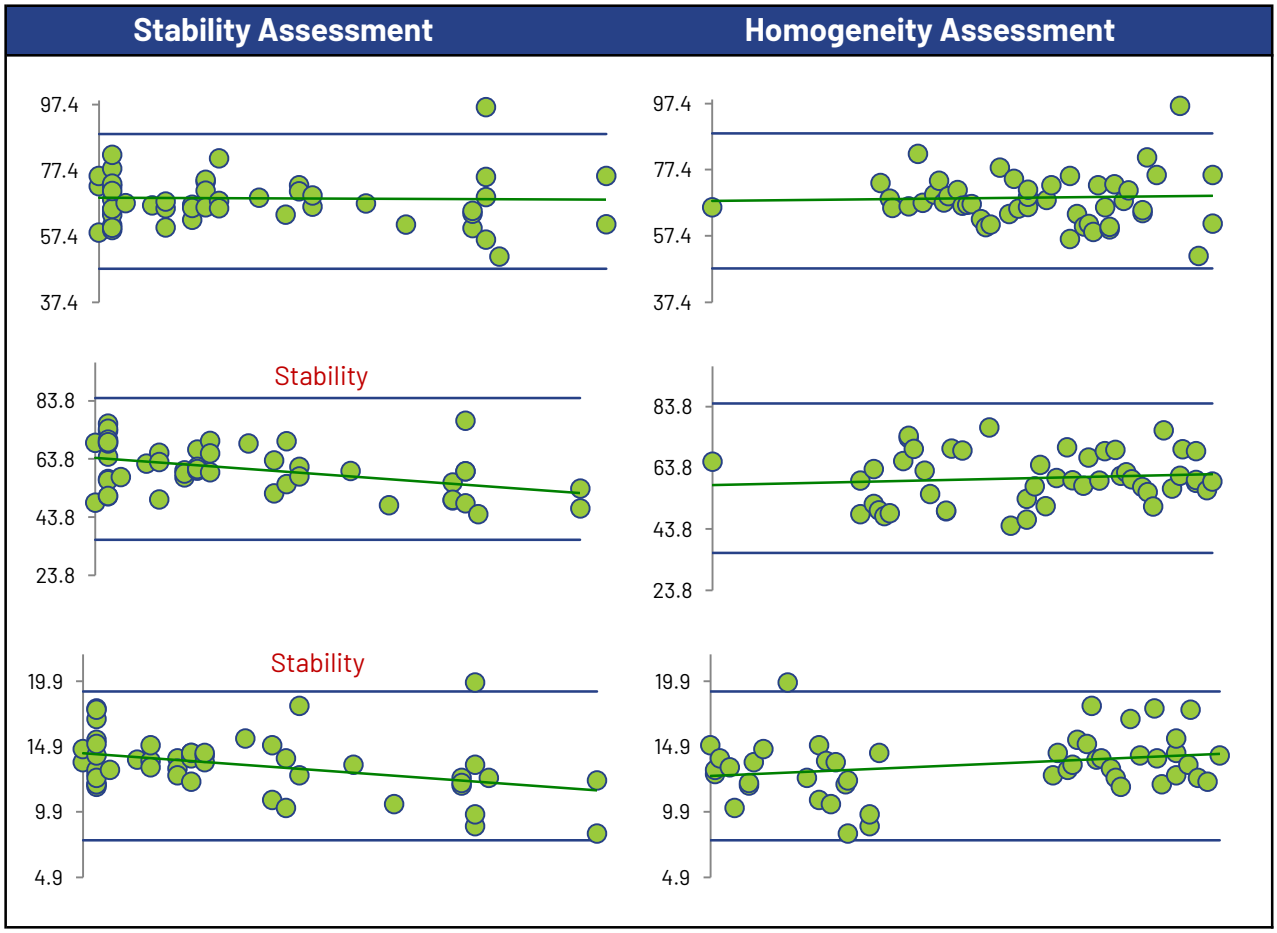
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

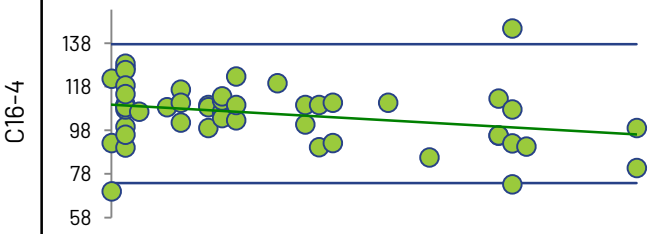
1,3-Dichlorobenzene



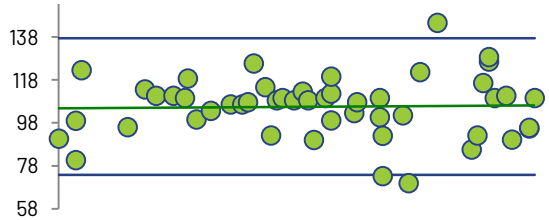


1,3-Dichlorobenzene

Stability Assessment



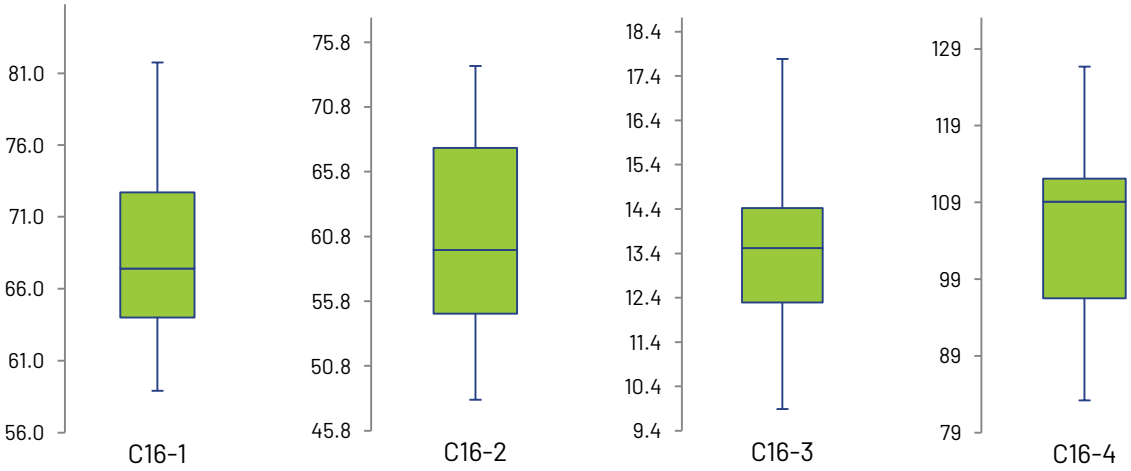
Homogeneity Assessment



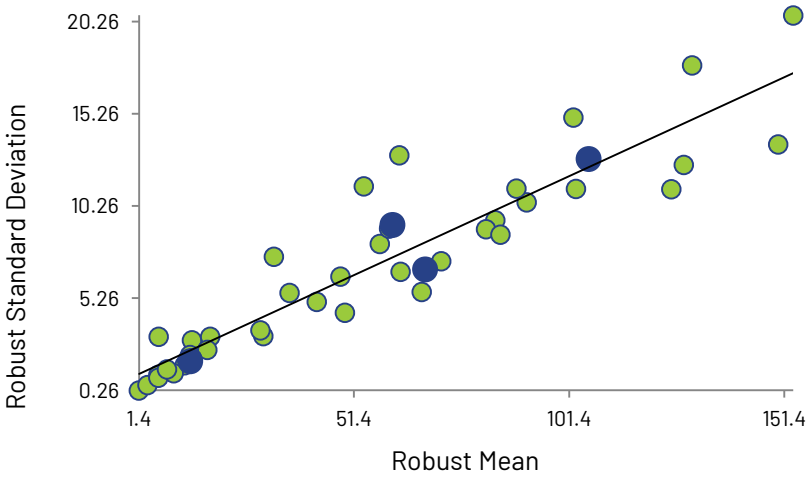
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1,4-Dichlorobenzene

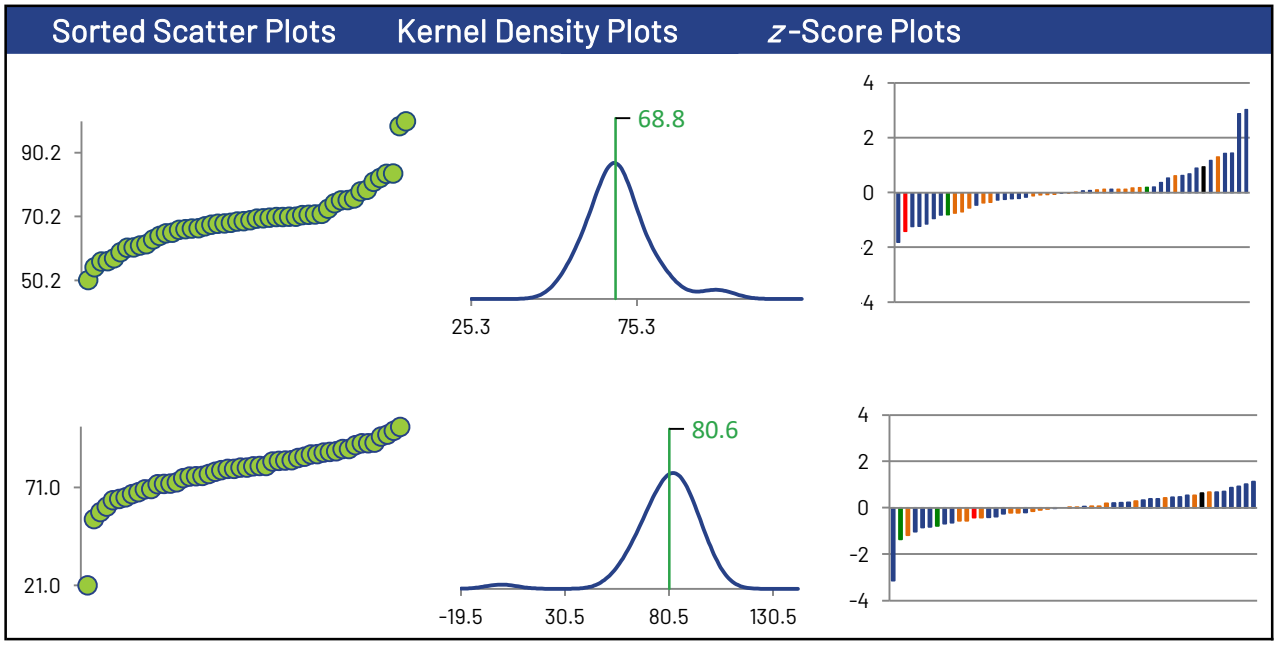
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	50	50	49	50
Median µg/L	68.9	81.2	18.7	150
Robust Mean µg/L	68.8	80.6	18.3	144
Uncdrtainty of the Assigned Value µg/L	1.40	2.10	0.575	3.39
Robust Standard Deviation µg/L	7.94	11.9	3.22	19.2
Regression Standard Deviation µg/L	10.3	12.1	2.74	21.6
Stability Flag				
Homogeneity Flag		Homogeneity	Homogeneity	
Standard Deviation Used (SDPA) µg/L	10.3	19.0	3.56	21.6
Flagged Outliers	0	0	1	0
|z|>3.0	1	1	0	0
2<|z|<3	1	0	2	2
Failure Rate %*	4.0			

Methods Used

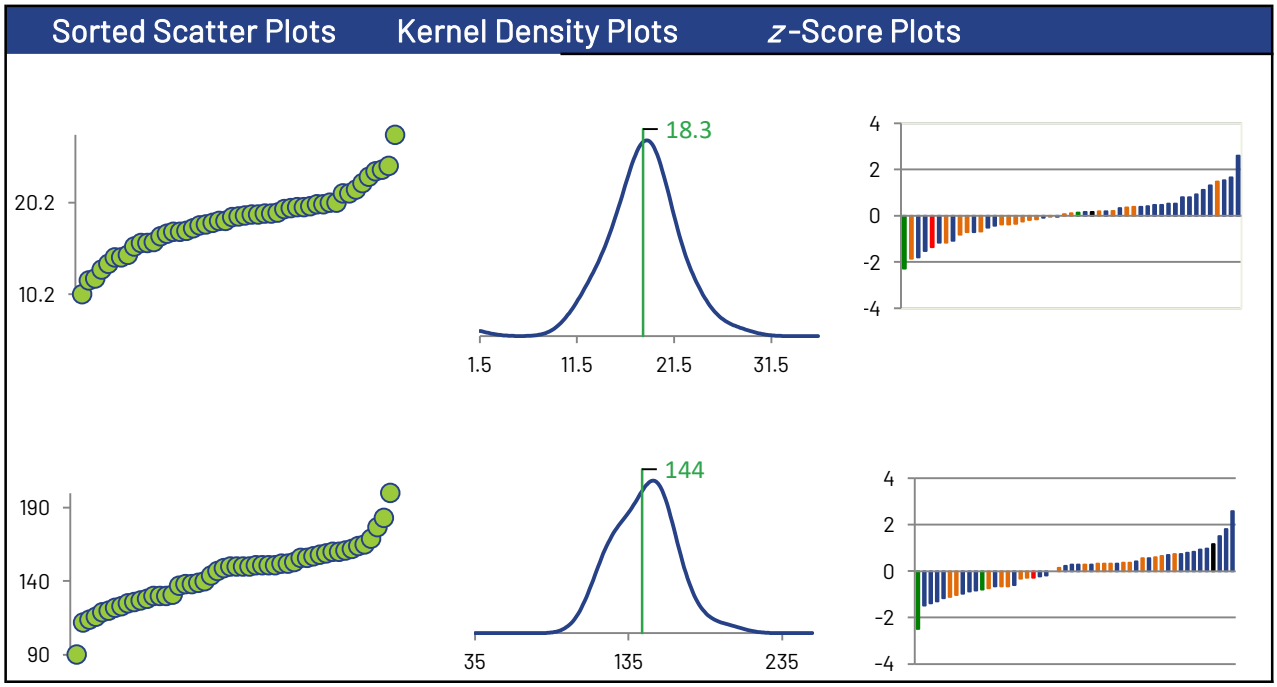
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	27	27	26	27
GC/FID - PURGE AND TRAP (Red)	1	1	1	1
GC/MS (Green)	2	2	2	2
GC/MS - HEADSPACE (Orange)	19	19	19	19
GC/MS/MS - HEADSPACE (Black)	1	1	1	1

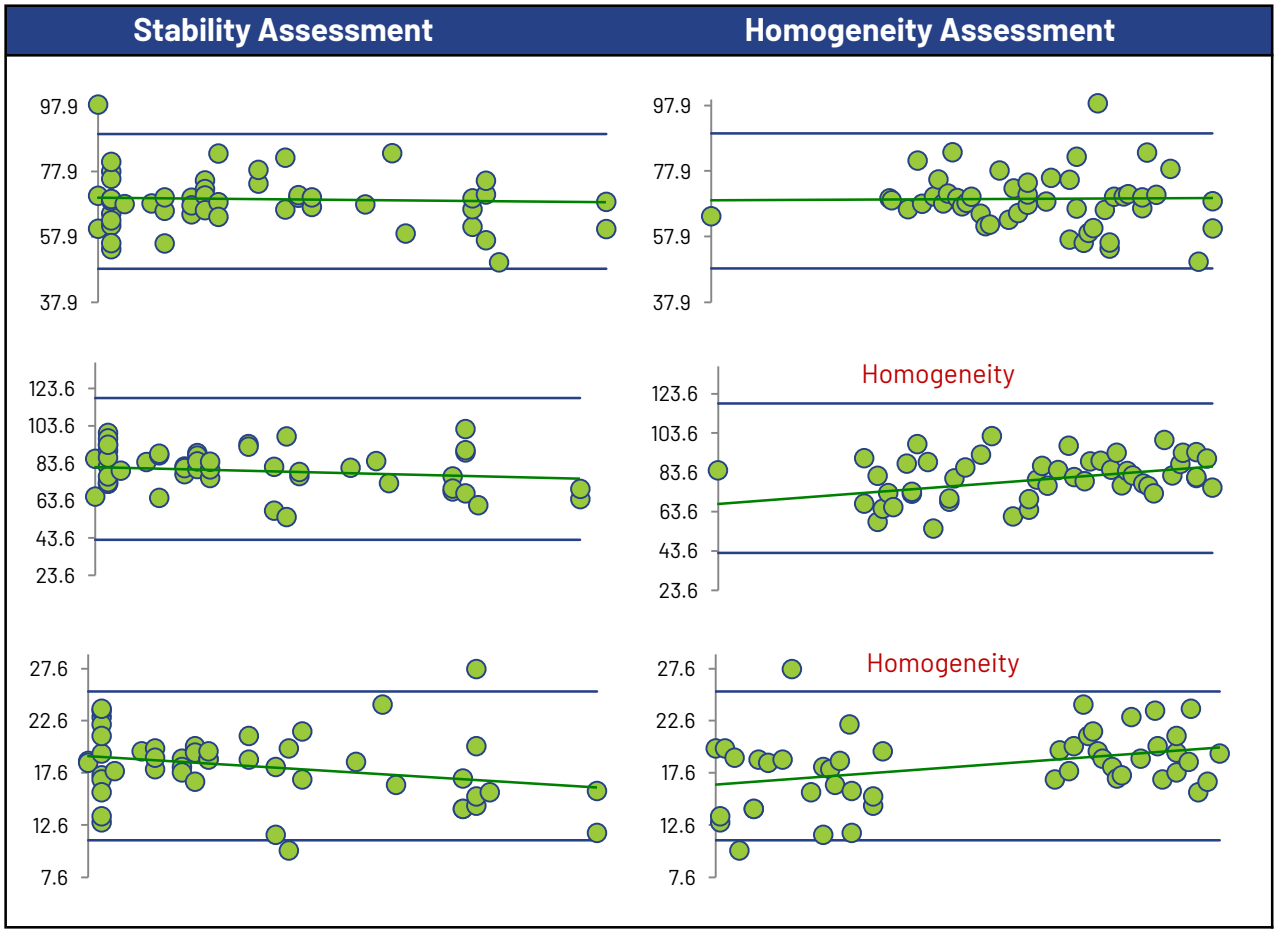
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

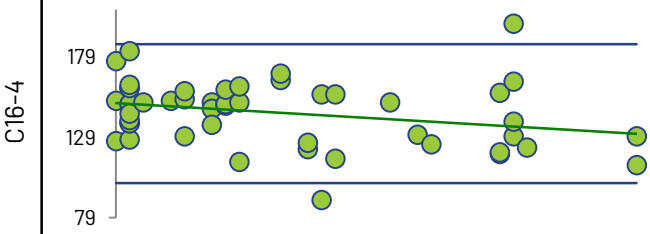
1,4-Dichlorobenzene



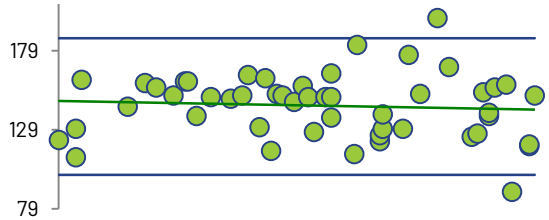


1,4-Dichlorobenzene

Stability Assessment



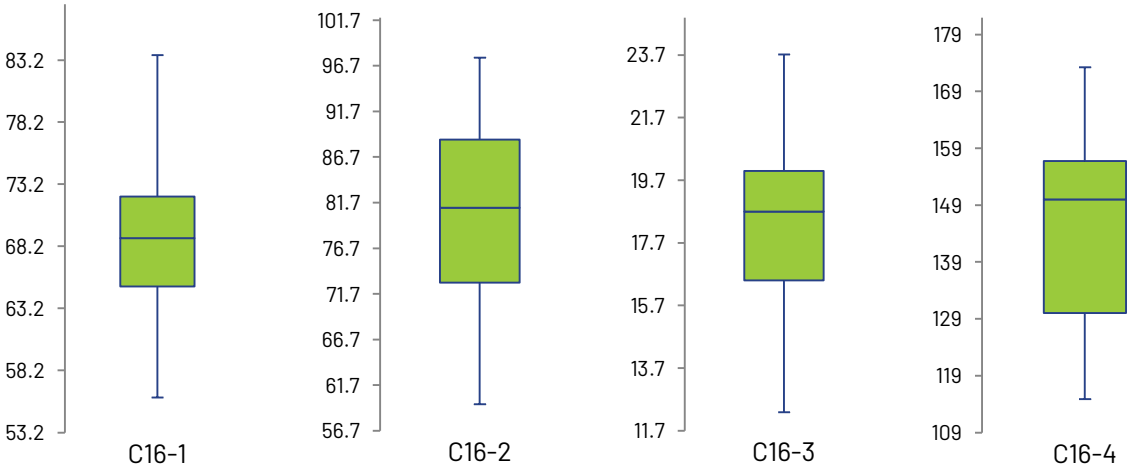
Homogeneity Assessment



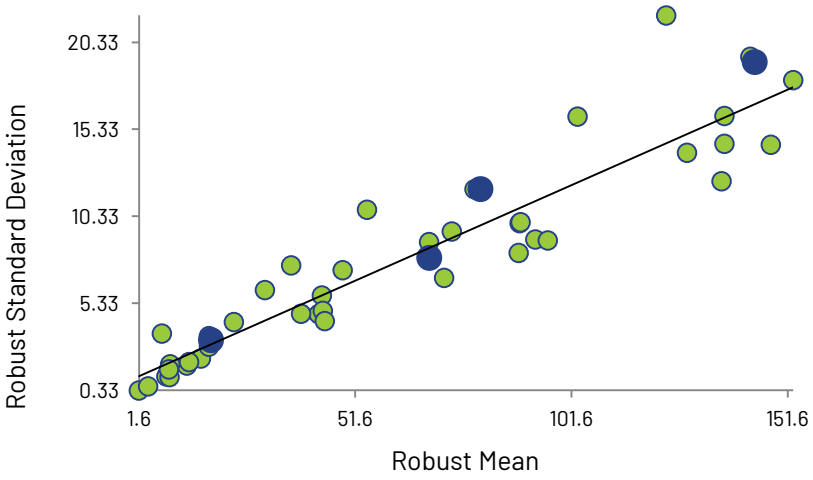
Stability assessments are regression analysis of reported result against date of analysis.

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)

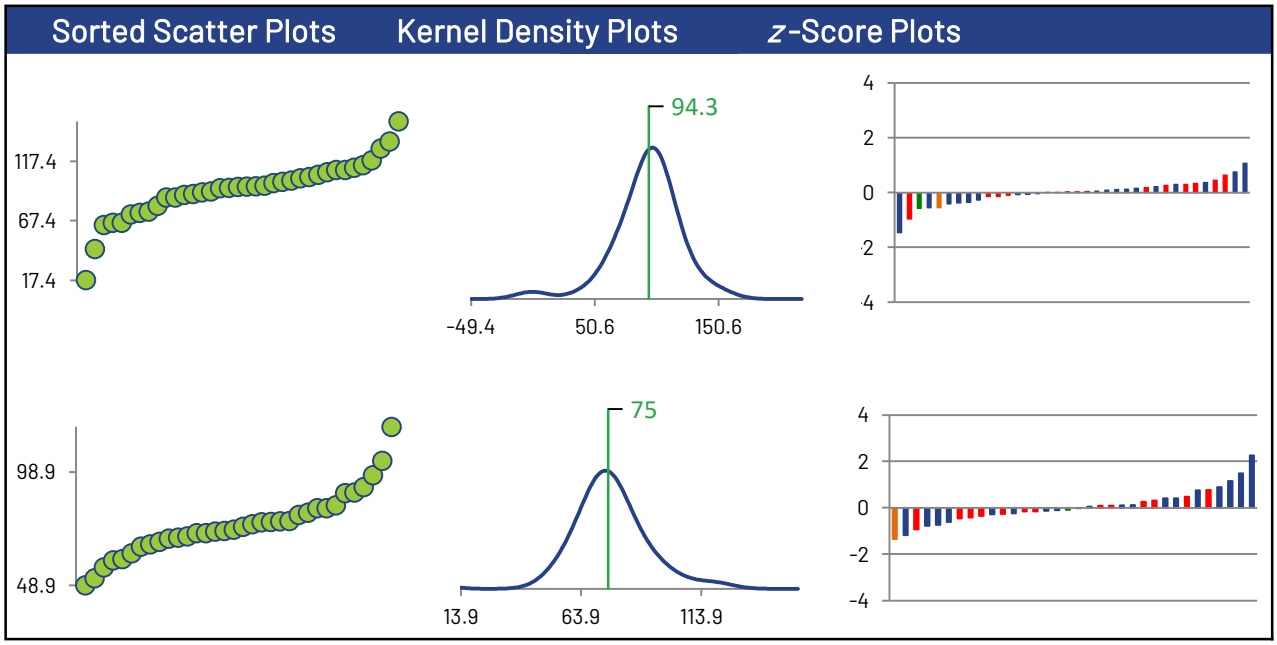
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	36	34	29	36
Median µg/L	95.9	74.2	18.7	139
Robust Mean µg/L	94.3	75.0	18.3	139
Uncdrtainty of the Assigned Value µg/L	4.23	2.68	1.06	4.88
Robust Standard Deviation µg/L	20.3	12.5	4.57	23.4
Regression Standard Deviation µg/L	24.0	19.5	6.30	34.4
Stability Flag				
Homogeneity Flag	Homogeneity		Homogeneity	
Standard Deviation Used (SDPA) µg/L	52.8	19.5	7.21	34.4
Flagged Outliers	0	0	1	0
|z|>3.0	0	0	0	0
2<|z|<3	0	1	0	0
Failure Rate %*	2.8			

Methods Used

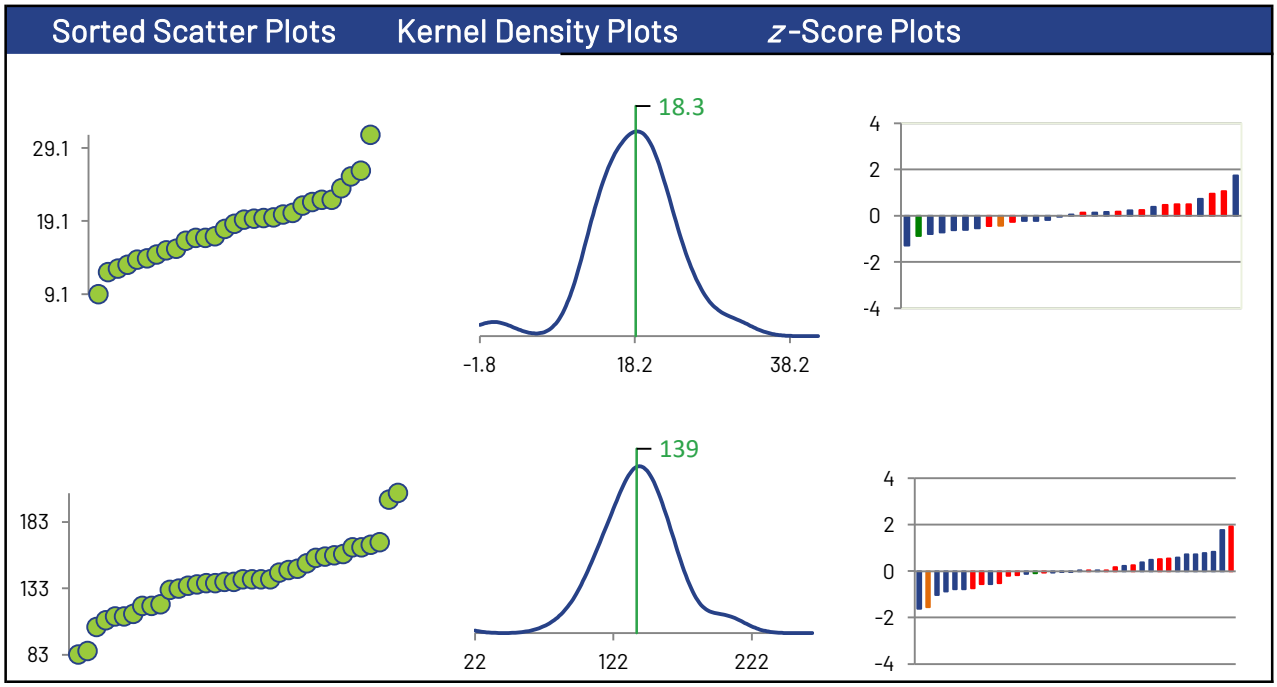
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	21	19	17	21
GC/MS - HEADSPACE (Red)	13	13	10	13
GC/FID - PURGE AND TRAP (Green)	1	1	1	1
GC/MS (Orange)	1	1	1	1

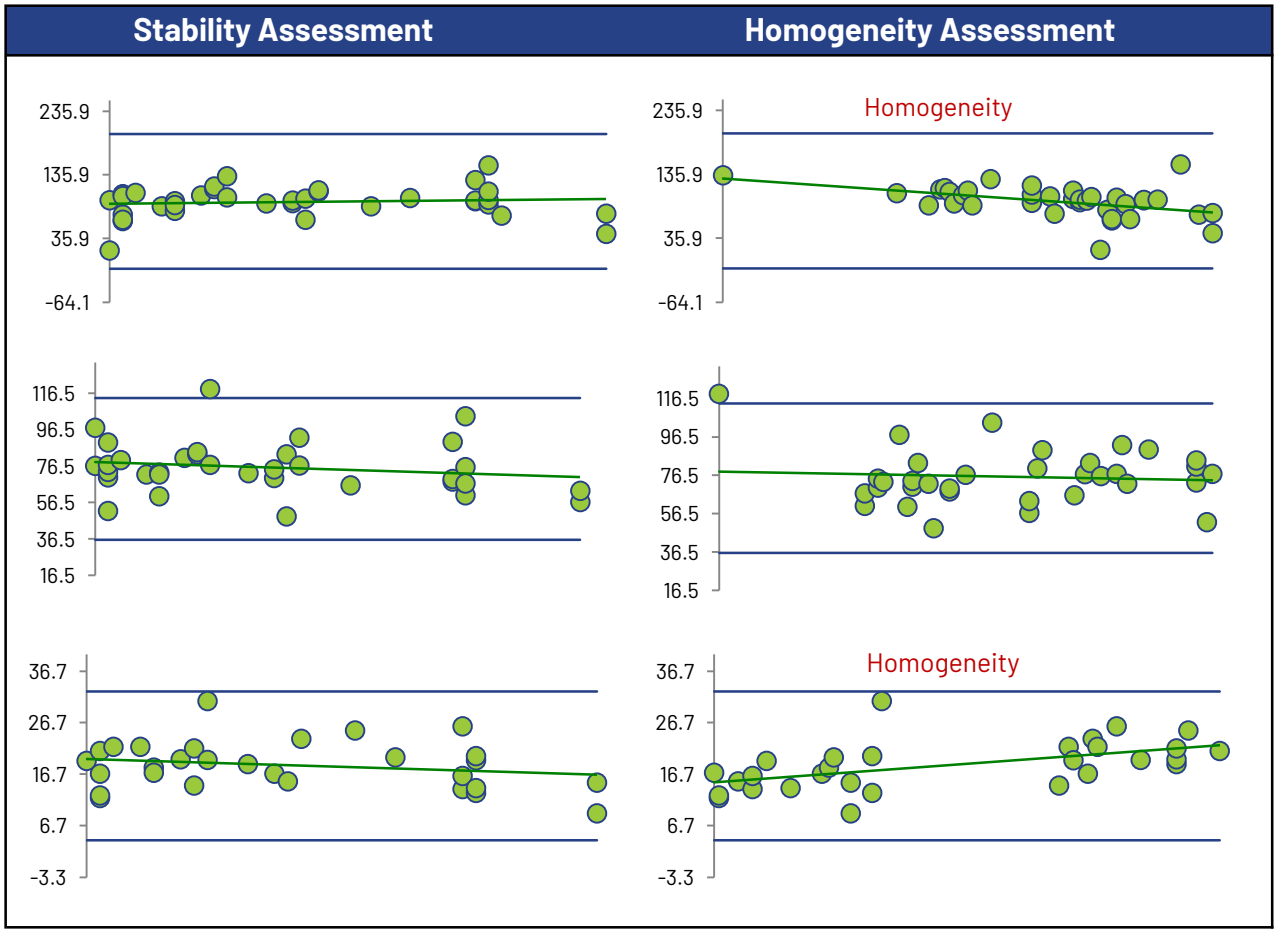
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

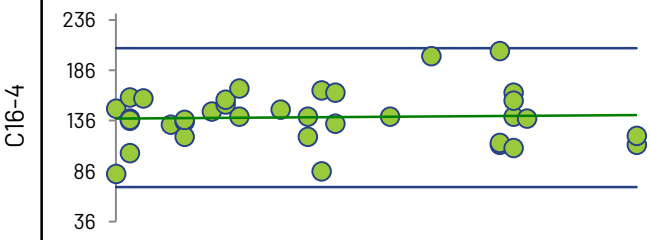
Acetone (2-Propanone)



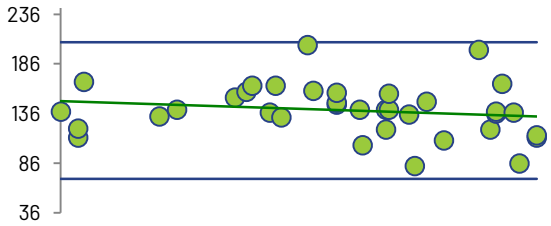


Acetone (2-Propanone)

Stability Assessment



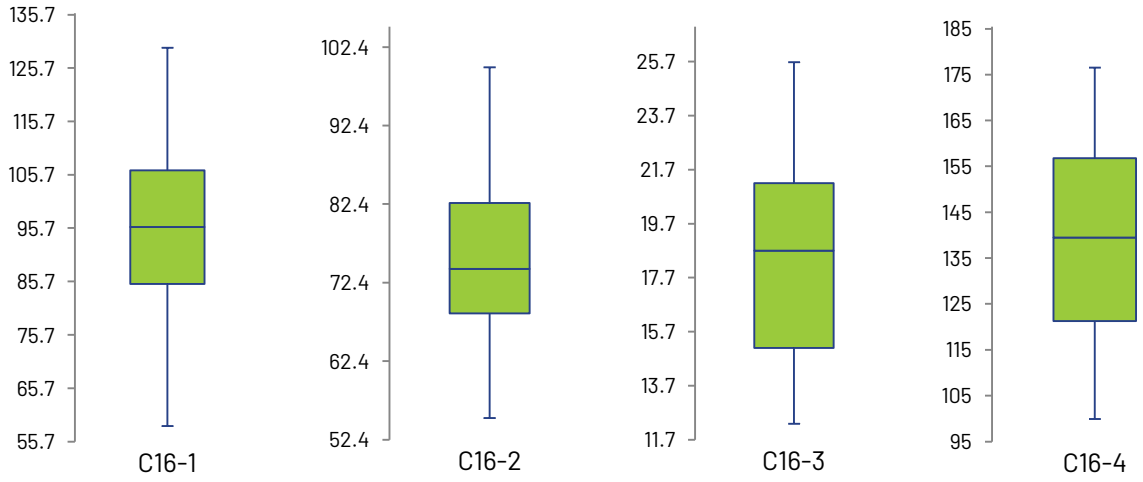
Homogeneity Assessment



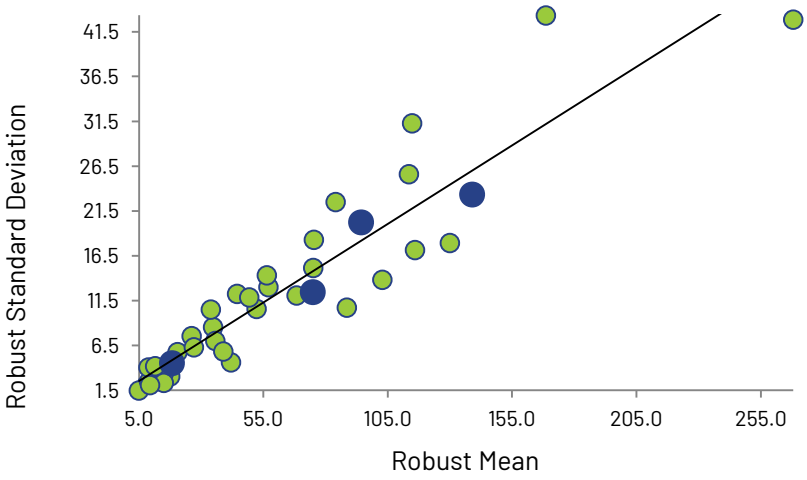
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Benzene

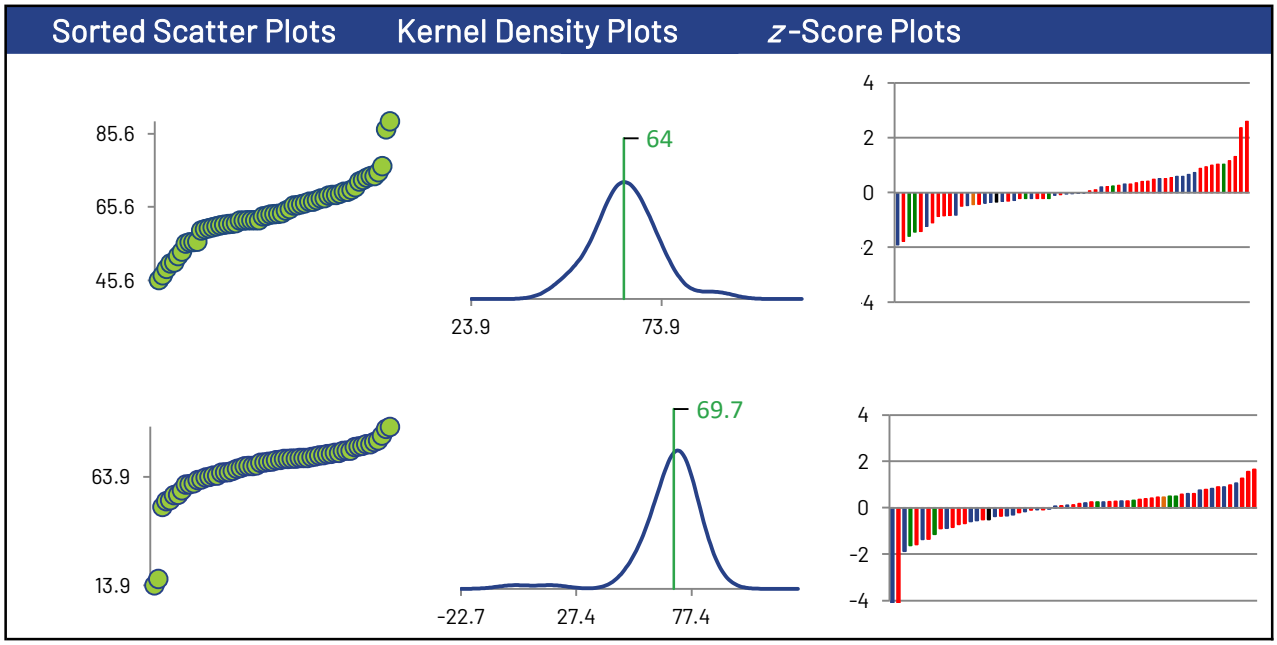
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	61	61	60	61
Median µg/L	63.6	71.0	15.6	122
Robust Mean µg/L	64.0	69.7	15.5	122
Uncdrtainty of the Assigned Value µg/L	1.18	1.31	0.300	2.40
Robust Standard Deviation µg/L	7.39	8.19	1.86	15.0
Regression Standard Deviation µg/L	9.61	10.5	2.32	18.3
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	9.61	10.5	2.32	18.3
Flagged Outliers	1	1	2	1
|z|>3.0	0	2	1	0
2<|z|<3	2	0	4	0
Failure Rate %*	6.5			

Methods Used

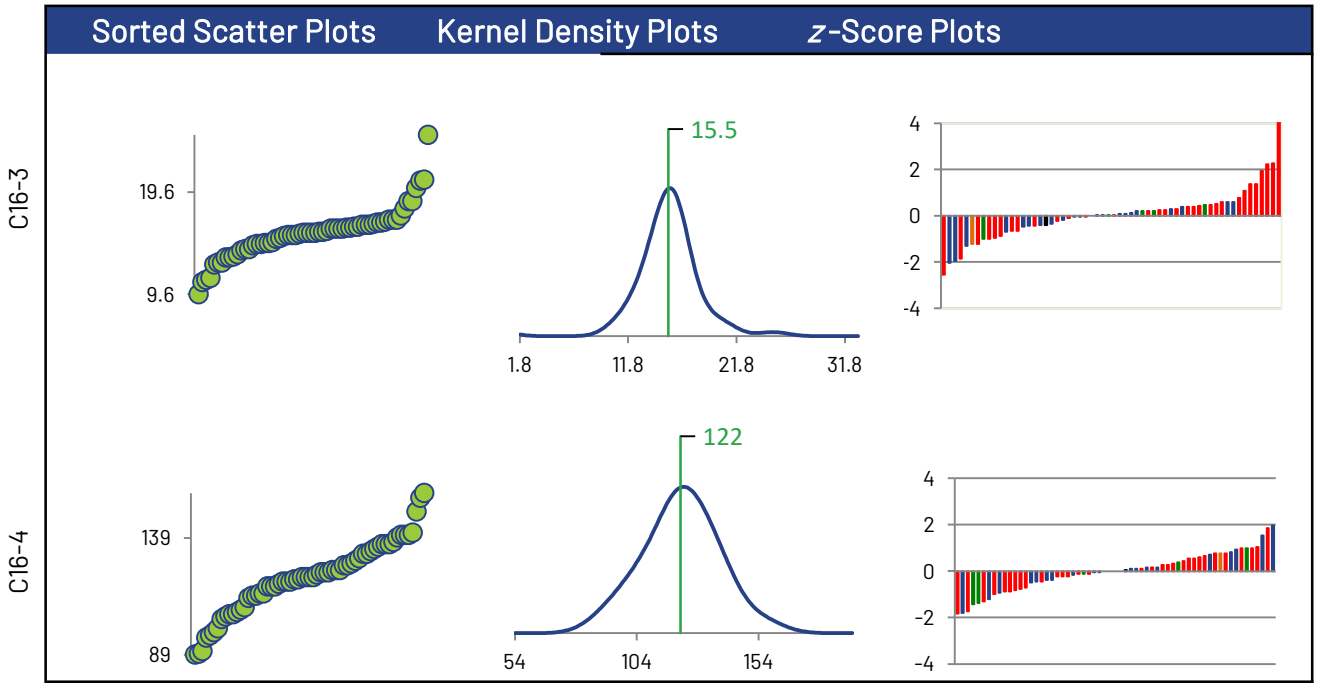
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - HEADSPACE (Blue)	21	22	21	21
GC/MS - PURGE AND TRAP (Red)	32	31	31	32
GC/MS (Green)	6	6	6	6
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1
GC/MS/MS - HEADSPACE (Black)	1	1	1	1

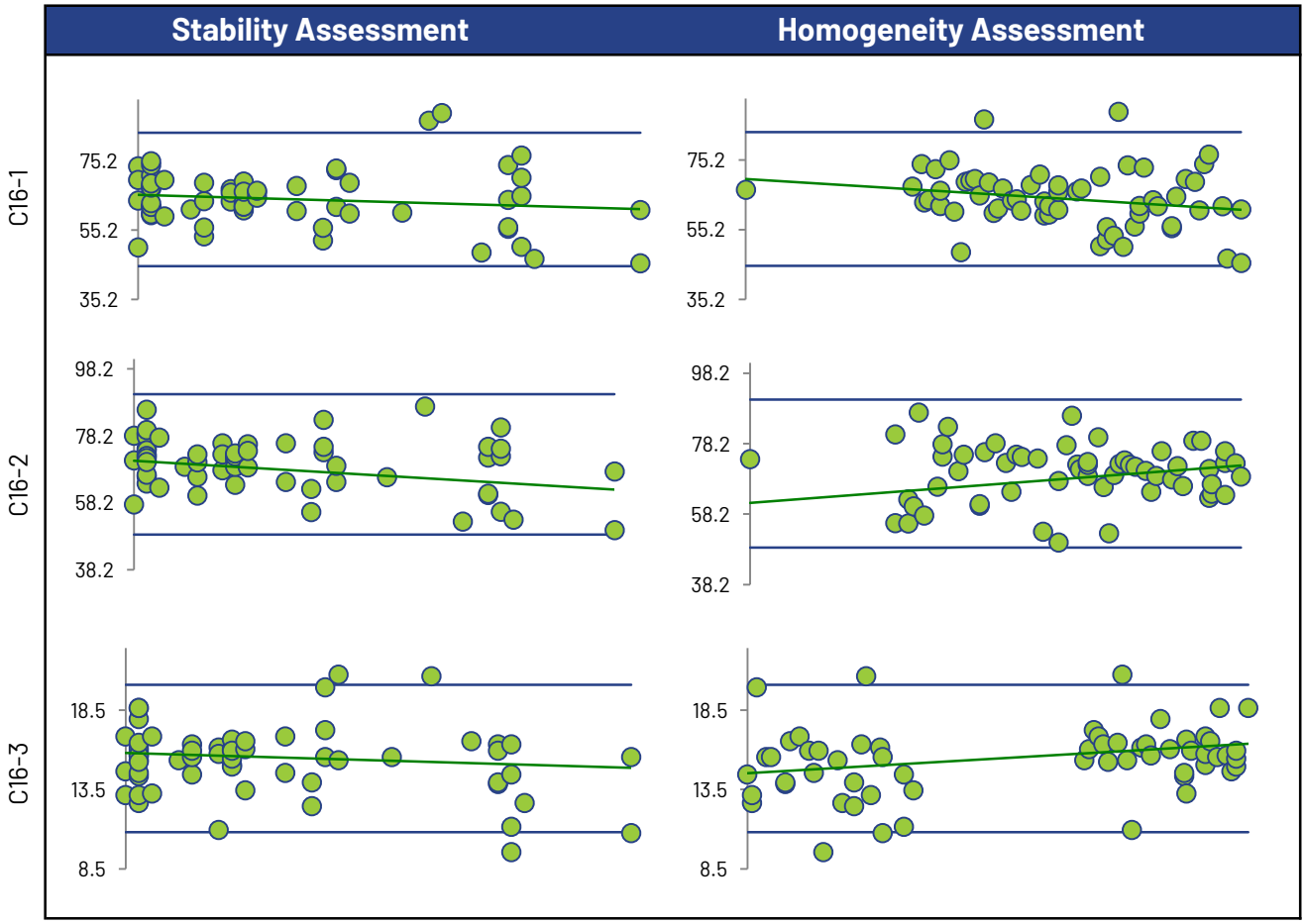
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

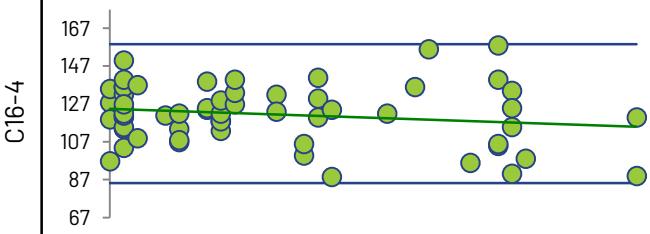
Benzene


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C16-3
19.6
9.6
15.5
1.8
11.8
21.8
31.8
4
2
0
-2
-4
C16-4
139
89
122
54
104
154

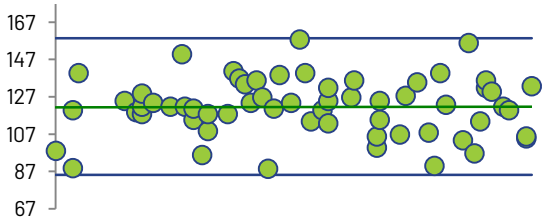

Stability Assessment
Homogeneity Assessment
C16-1
75.2
55.2
35.2
C16-2
98.2
78.2
58.2
38.2
C16-3
18.5
13.5
8.5

Benzene

Stability Assessment



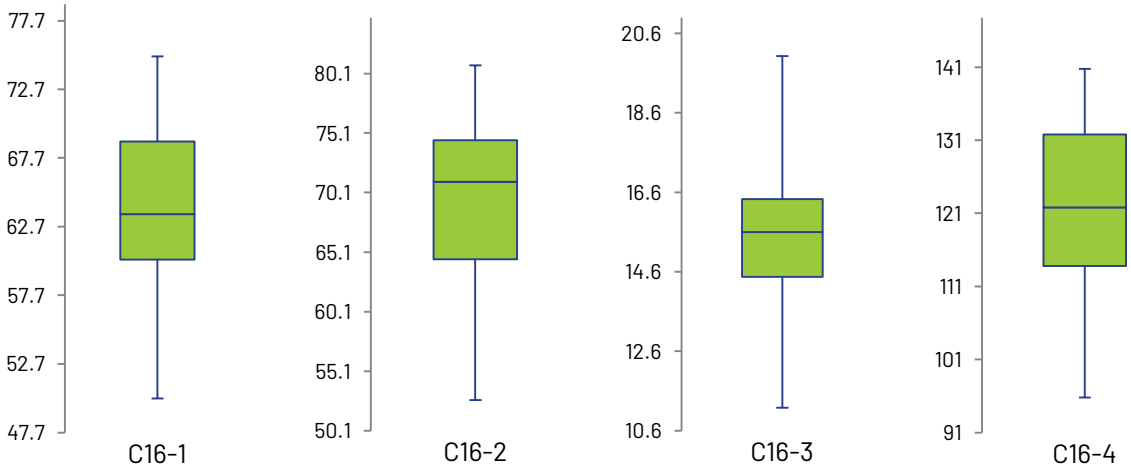
Homogeneity Assessment



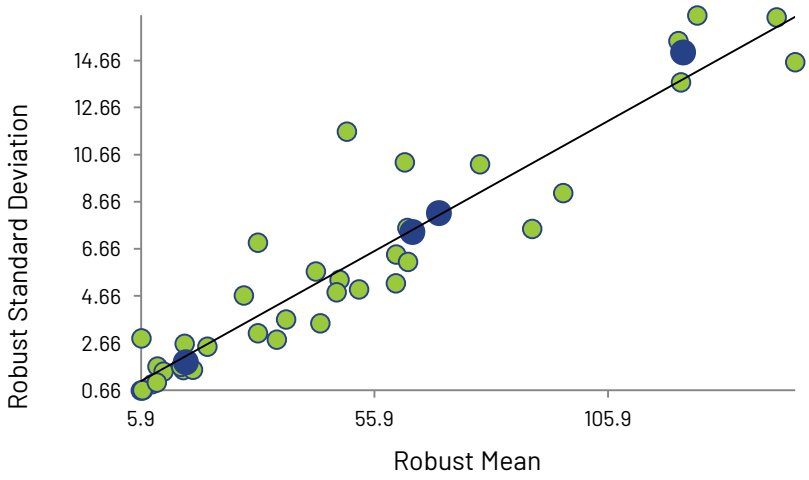
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Bromodichloromethane

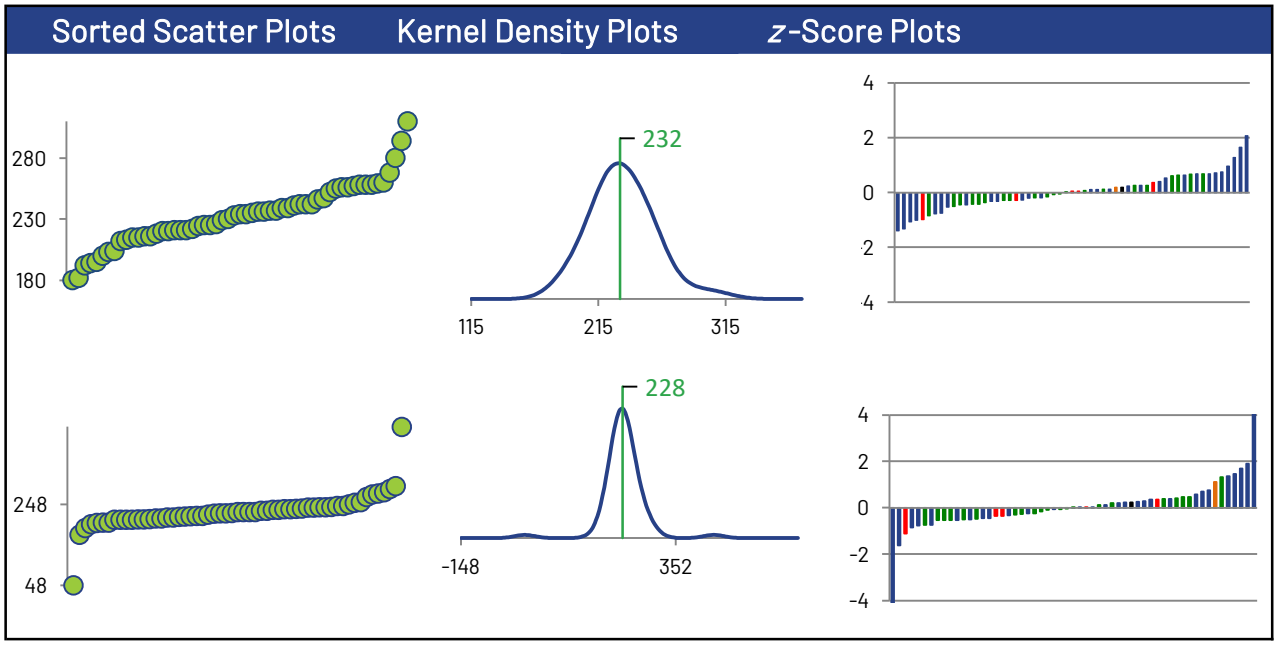
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	57	57	56	57
Median µg/L	234	229	51.1	415
Robust Mean µg/L	232	228	50.8	413
Uncdrtainty of the Assigned Value µg/L	3.89	3.54	1.04	7.37
Robust Standard Deviation µg/L	23.5	21.4	6.23	44.5
Regression Standard Deviation µg/L	34.8	34.2	7.62	61.9
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	37.5	34.2	7.62	61.9
Flagged Outliers	0	0	1	0
|z|>3.0	0	2	0	0
2<|z|<3	1	0	5	1
Failure Rate %*	3.5			

Methods Used

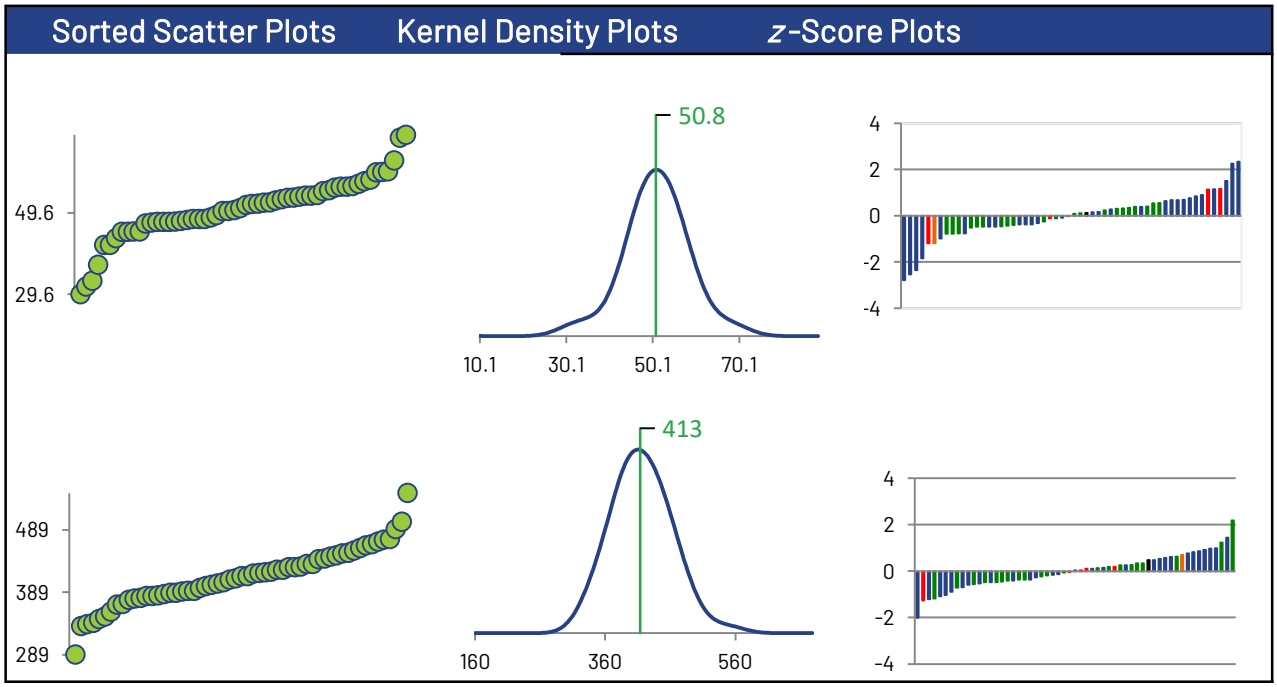
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	29	29	28	29
GC/MS (Red)	5	5	5	5
GC/MS - HEADSPACE (Green)	21	21	21	21
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1
GC/MS/MS - HEADSPACE (Black)	1	1	1	1

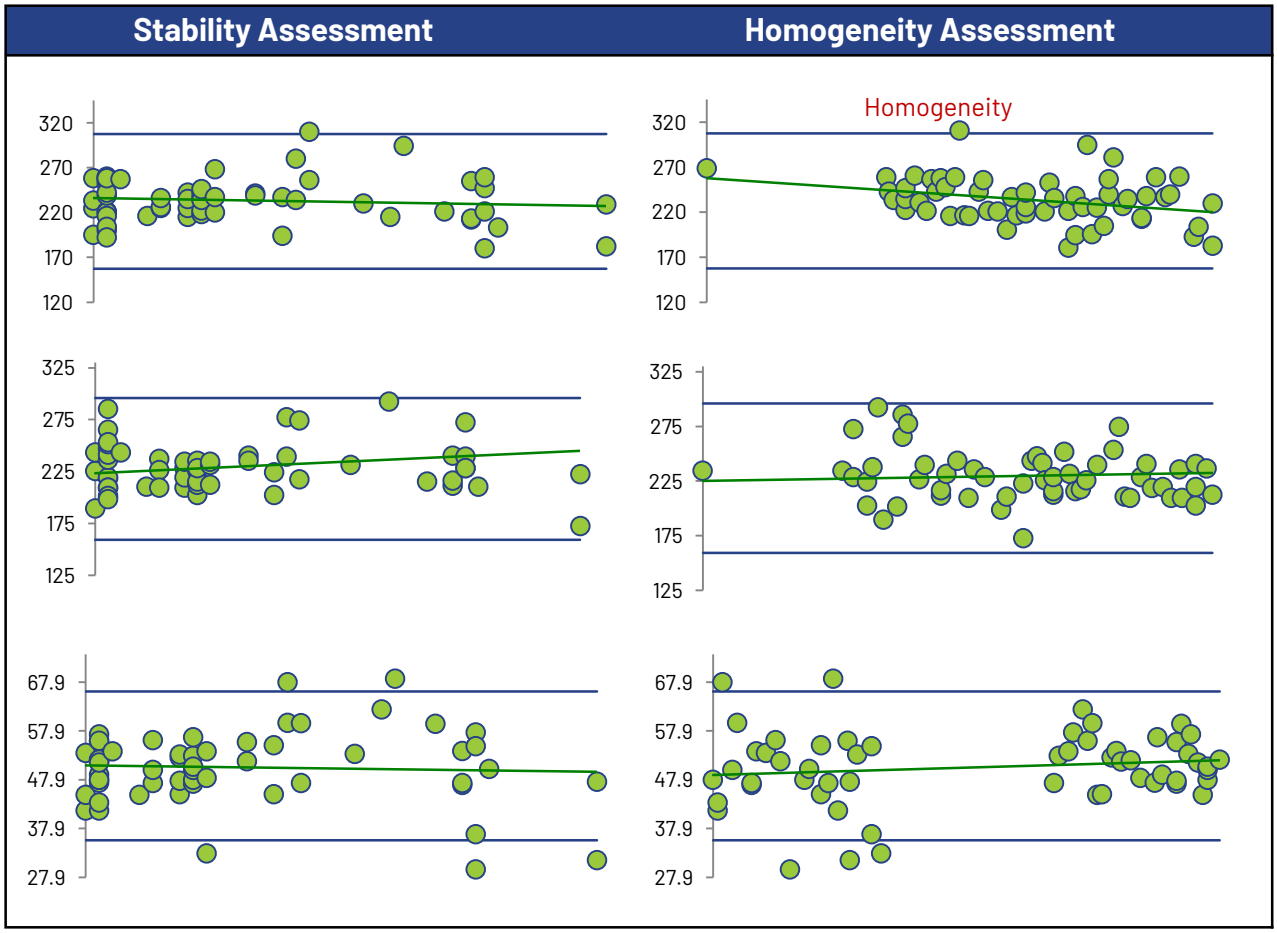
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

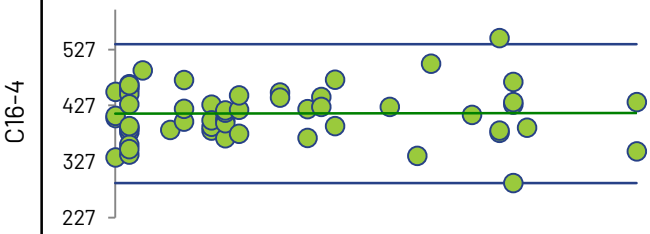
Bromodichloromethane



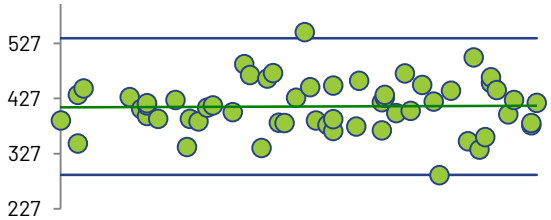


Bromodichloromethane

Stability Assessment



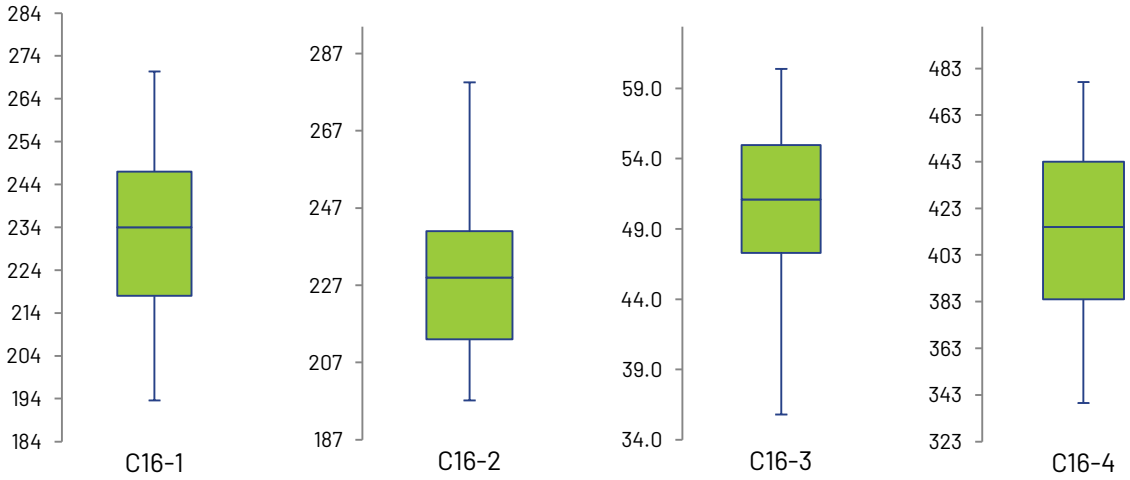
Homogeneity Assessment



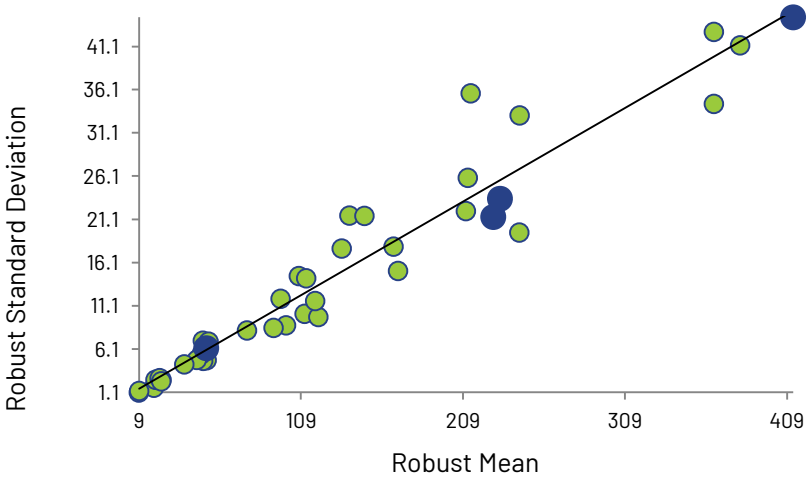
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Bromoform

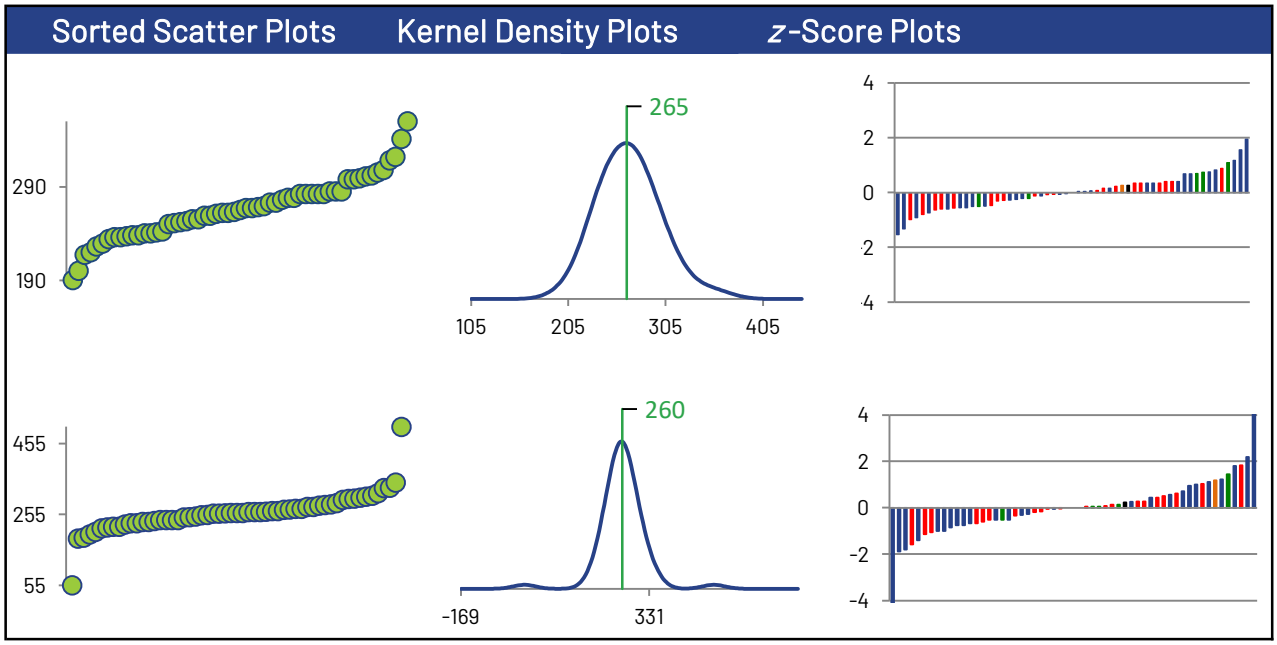
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	57	57	56	57
Median µg/L	265	260	57.3	471
Robust Mean µg/L	265	260	57.8	475
Uncdrtainty of the Assigned Value µg/L	5.05	5.98	1.61	7.91
Robust Standard Deviation µg/L	30.5	36.1	9.61	47.8
Regression Standard Deviation µg/L	39.8	38.9	8.67	71.3
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	48.7	38.9	9.61	71.3
Flagged Outliers	0	0	1	0
|z|>3.0	0	2	0	0
2<|z|<3	0	1	4	2
Failure Rate %*	5.3			

Methods Used

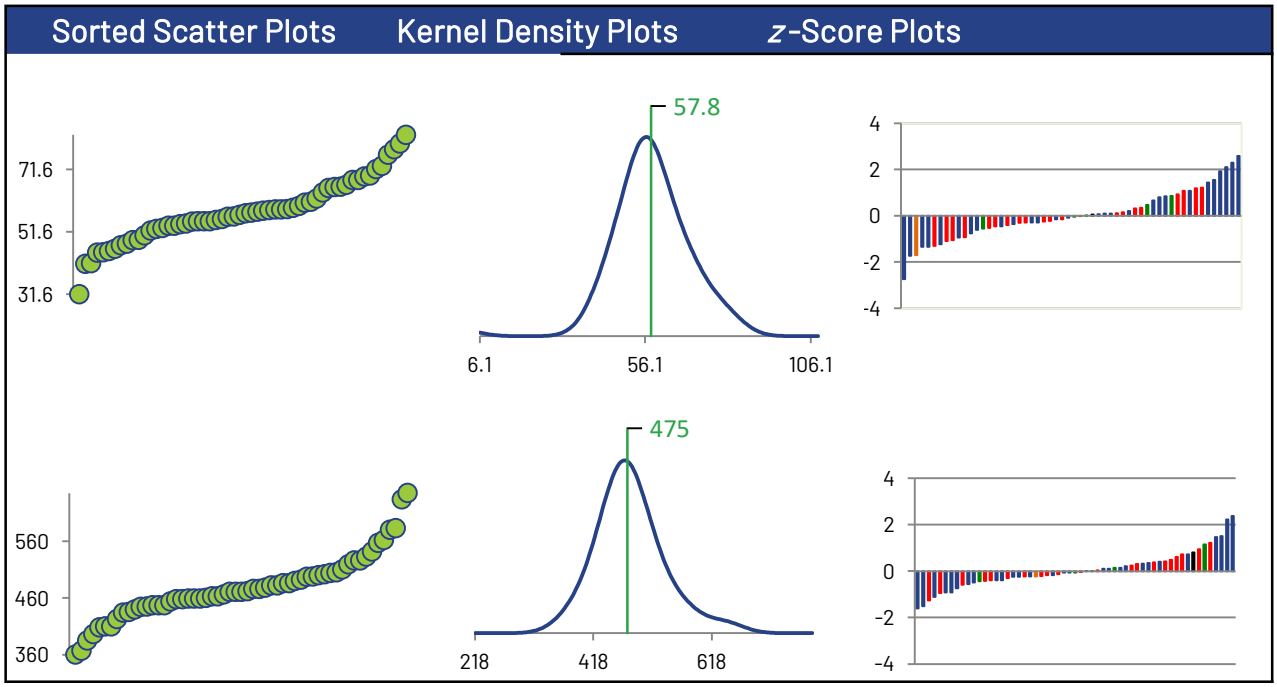
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	29	29	28	29
GC/MS - HEADSPACE (Red)	21	21	21	21
GC/MS (Green)	5	5	5	5
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1
GC/MS/MS - HEADSPACE (Black)	1	1	1	1

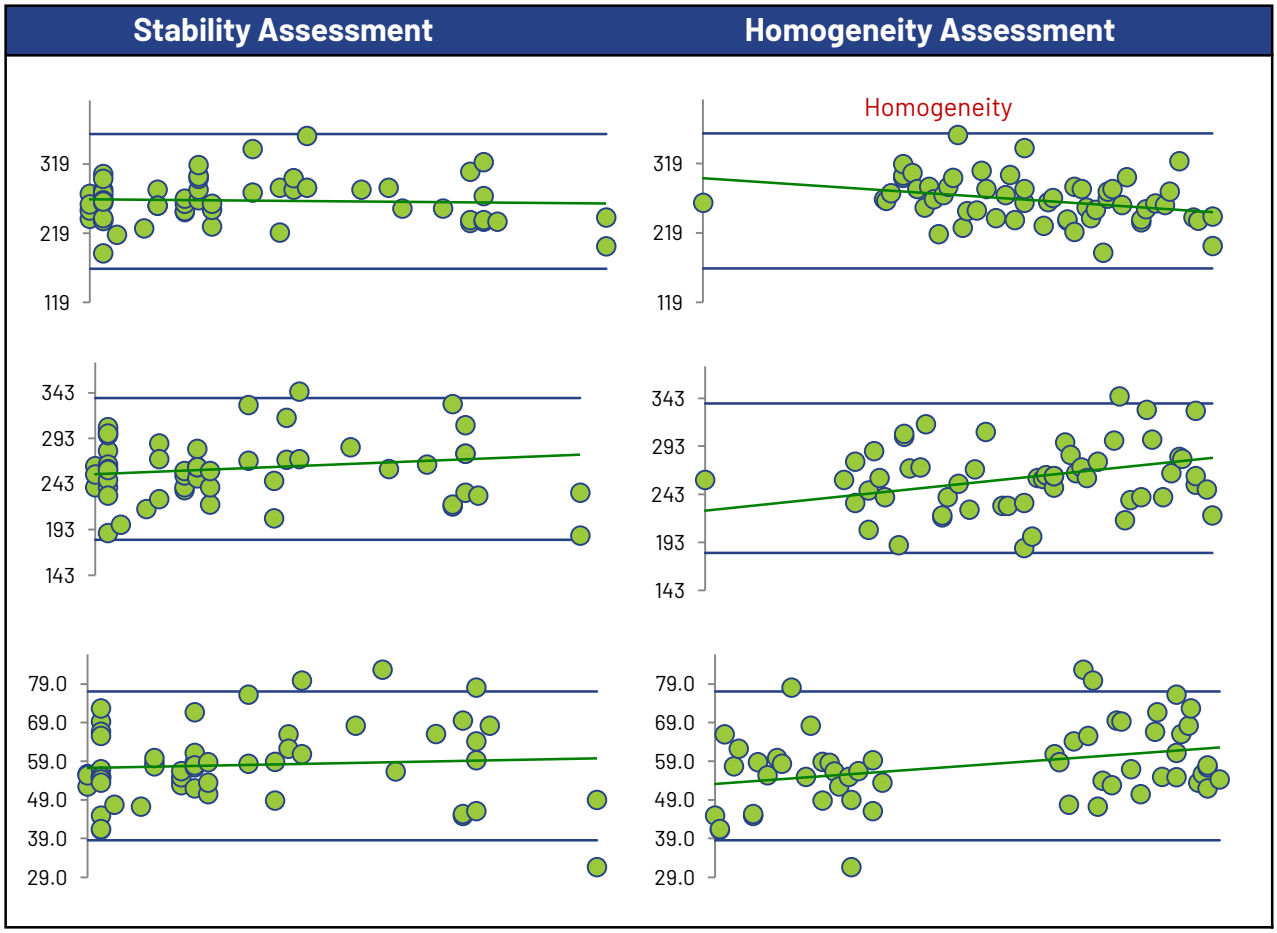
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

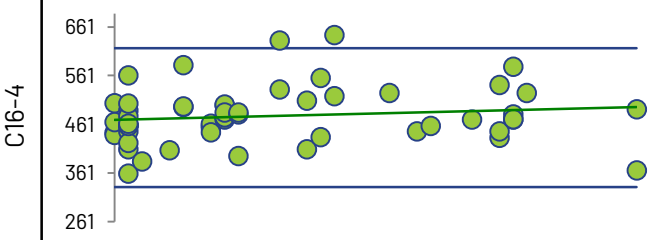
Bromoform


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C16-3
71.6
51.6
31.6
57.8
6.1
56.1
106.1
4
2
0
-2
-4
C16-4
560
460
360
475
218
418
618
4
2
0
-2
-4

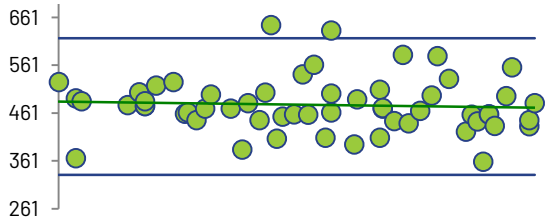

Stability Assessment
Homogeneity Assessment
Homogeneity
C16-1
319
219
119
C16-2
343
293
243
193
143
C16-3
79.0
69.0
59.0
49.0
39.0
29.0

Bromoform

Stability Assessment



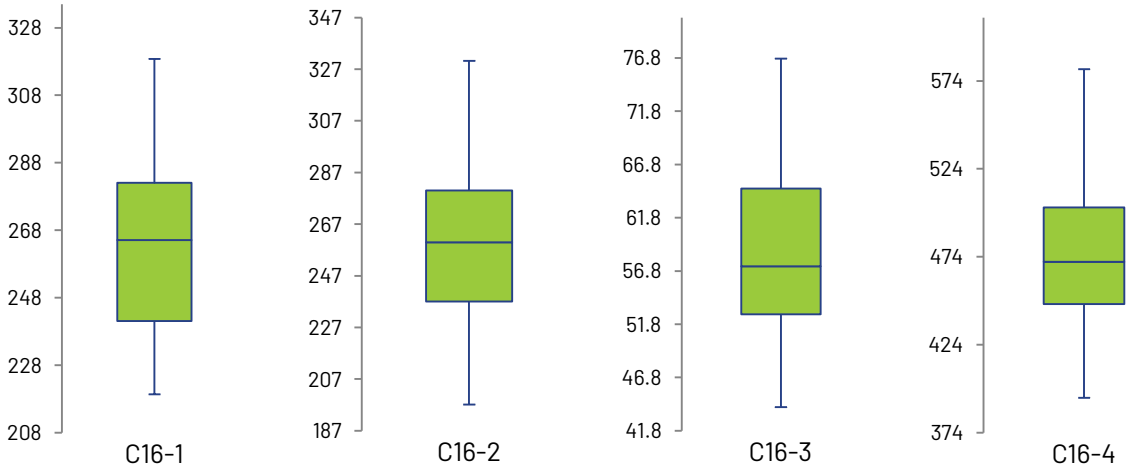
Homogeneity Assessment



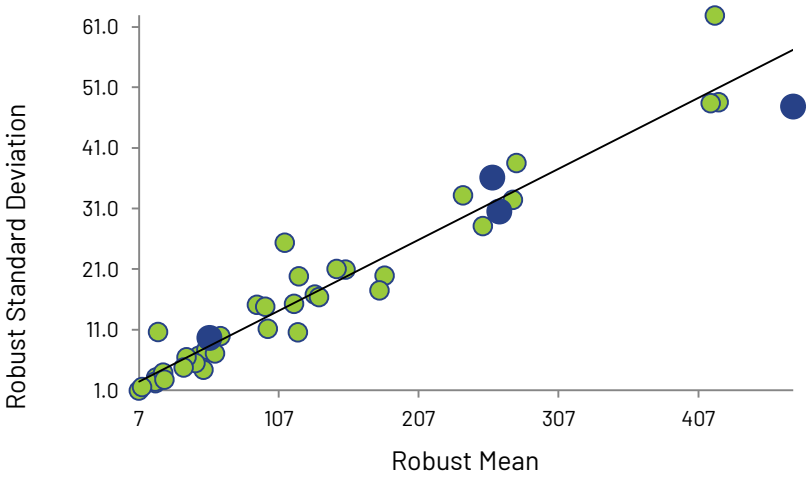
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Carbon tetrachloride

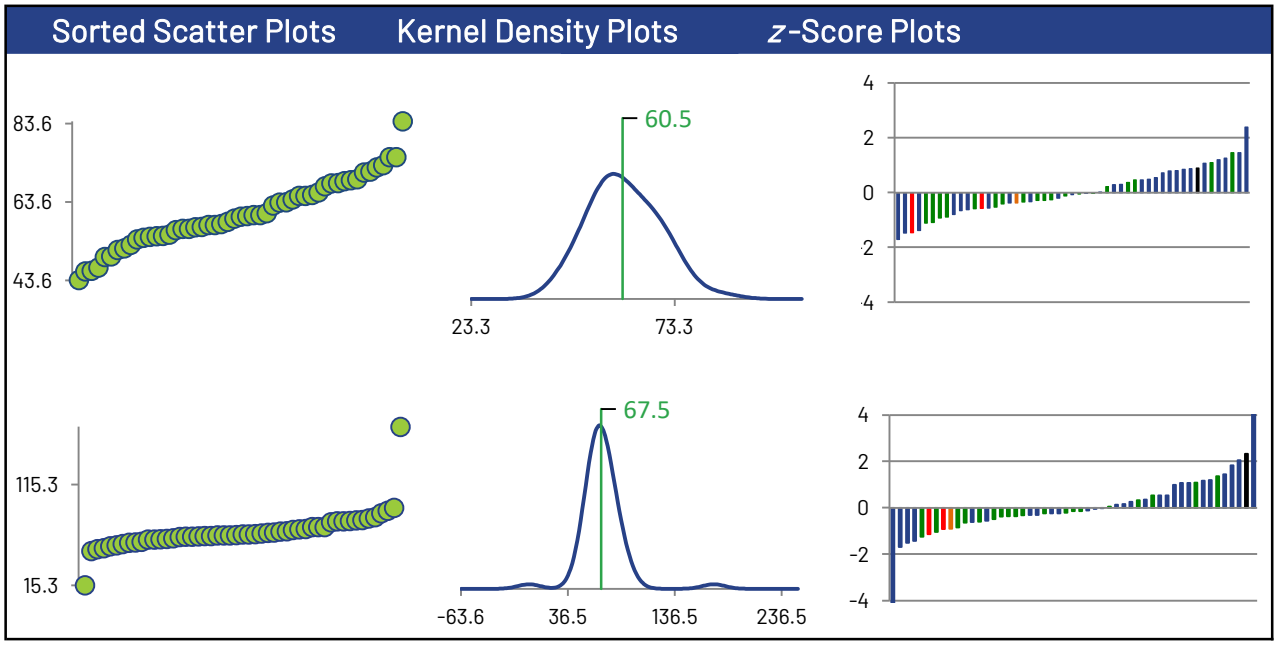
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	51	51	50	51
Median µg/L	59.8	66.0	14.8	115
Robust Mean µg/L	60.5	67.5	14.8	117
Uncdrtainty of the Assigned Value µg/L	1.55	1.87	0.424	2.87
Robust Standard Deviation µg/L	8.87	10.7	2.40	16.4
Regression Standard Deviation µg/L	9.07	10.1	2.22	17.5
Stability Flag	Stability			
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	9.91	10.7	2.40	17.5
Flagged Outliers	0	0	1	0
|z|>3.0	0	2	1	0
2<|z|<3	1	2	3	1
Failure Rate %*	3.9			

Methods Used

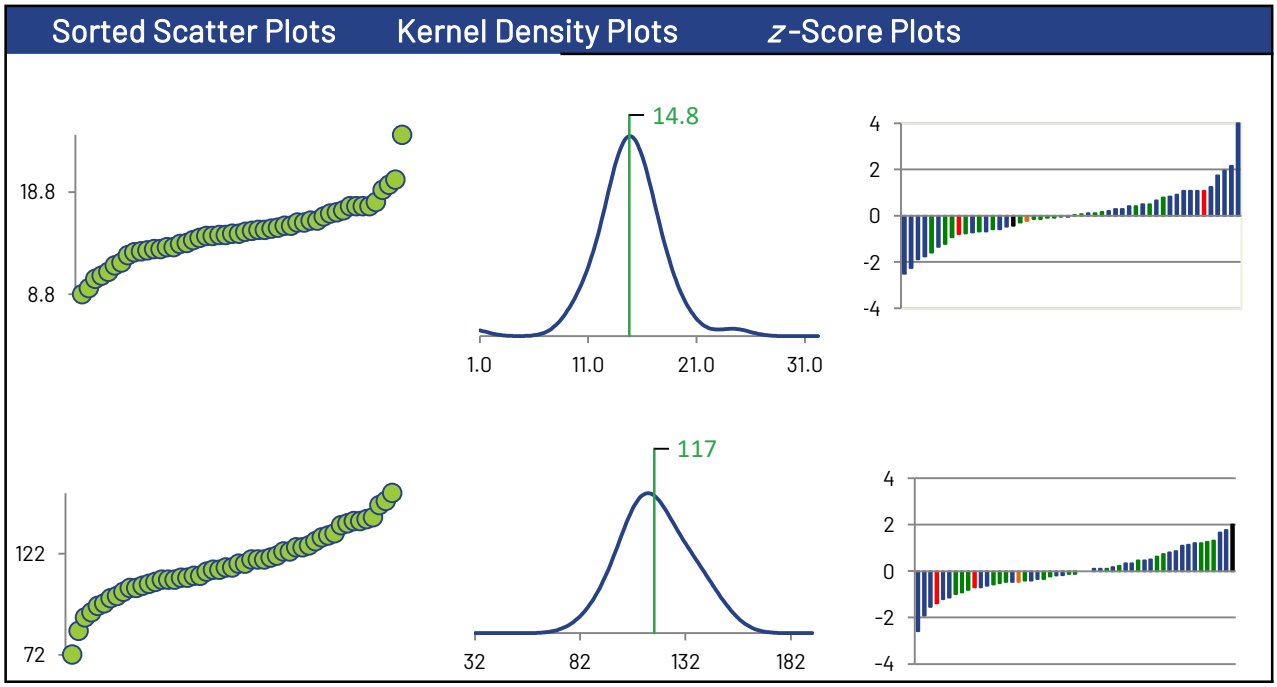
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	28	28	27	28
GC/MS (Red)	2	2	2	2
GC/MS - HEADSPACE (Green)	19	19	19	19
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

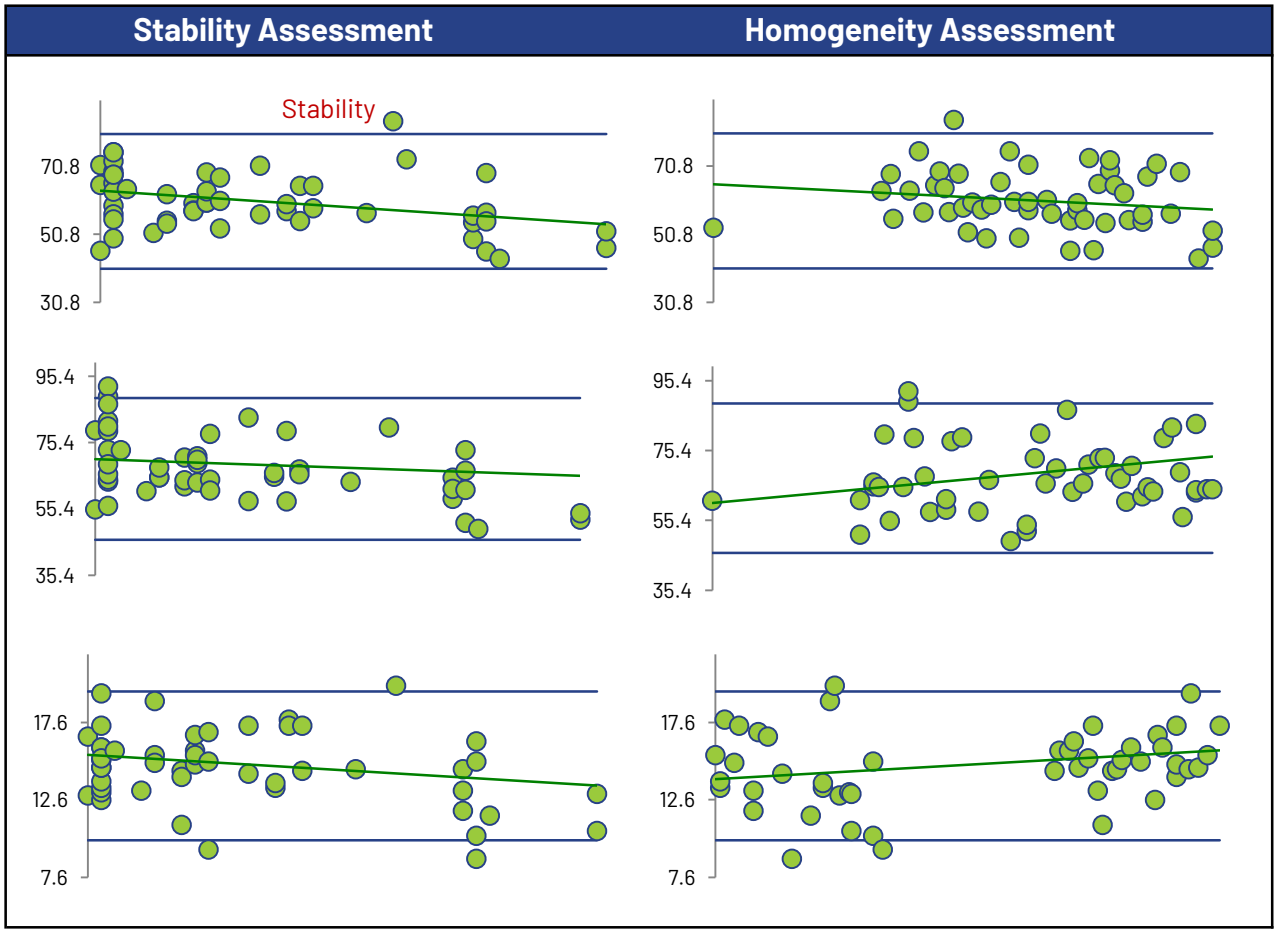
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

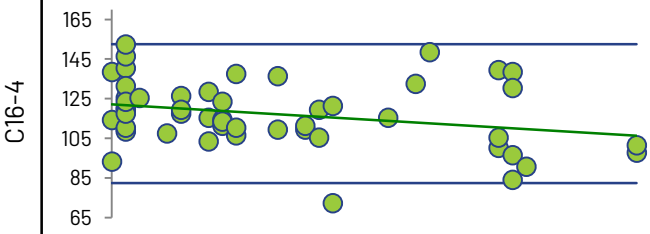
Carbon tetrachloride



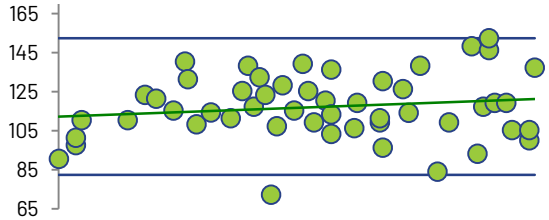


Carbon tetrachloride

Stability Assessment



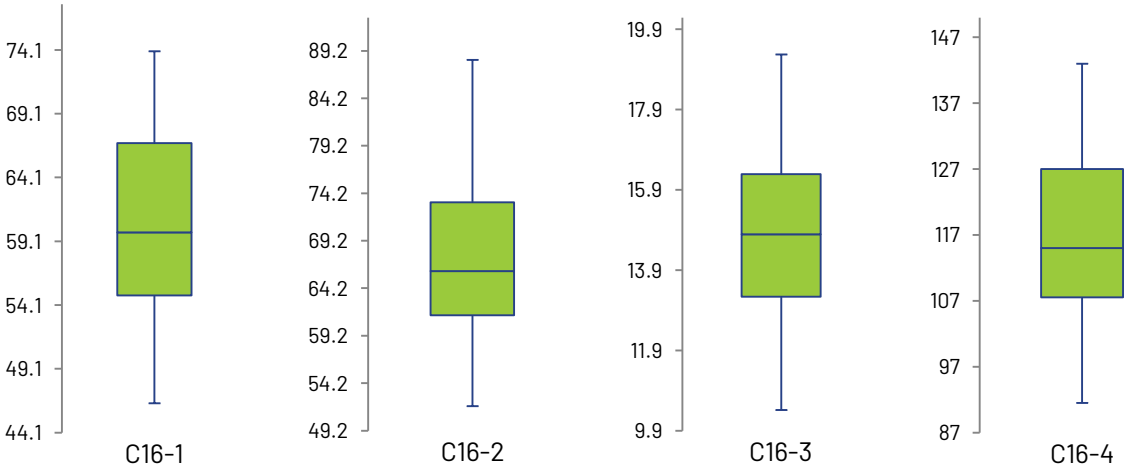
Homogeneity Assessment



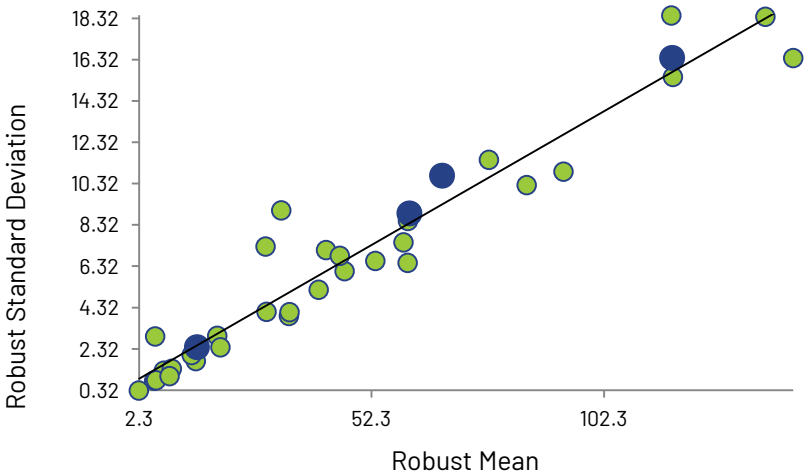
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Chlorobenzene

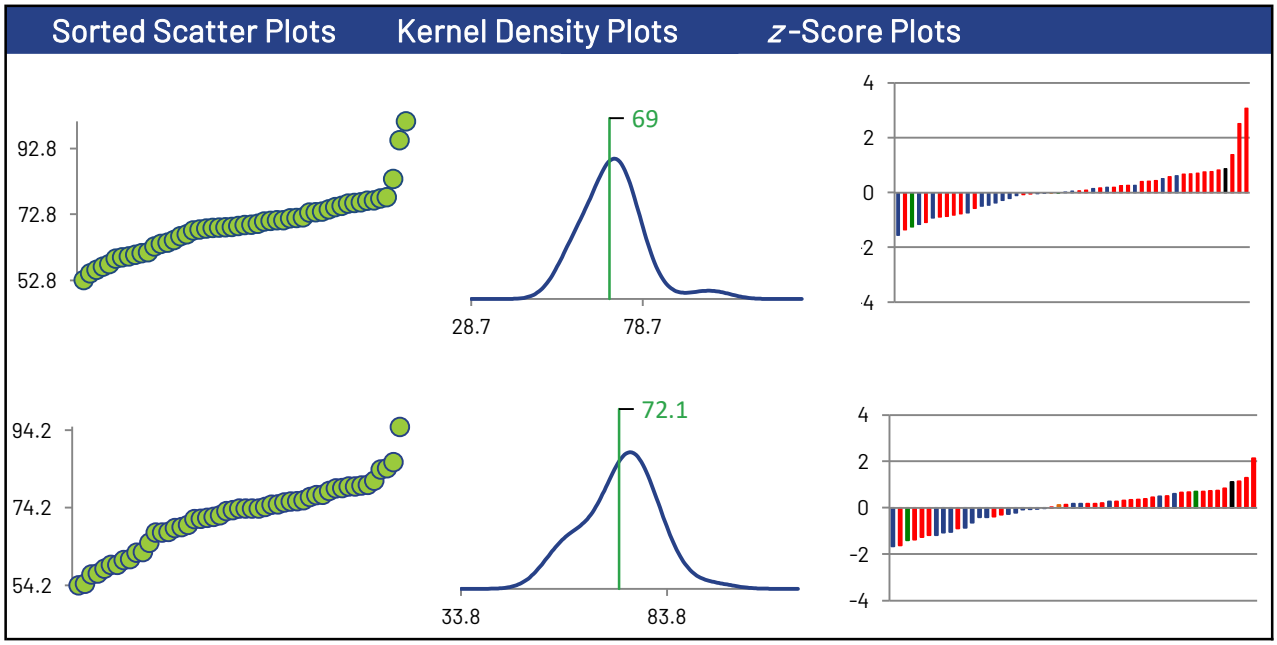
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	51	51	51	52
Median µg/L	69.5	74.0	16.1	129
Robust Mean µg/L	69.0	72.1	16.0	129
Uncdrtainty of the Assigned Value µg/L	1.33	1.55	0.333	2.69
Robust Standard Deviation µg/L	7.61	8.88	1.90	15.5
Regression Standard Deviation µg/L	10.4	10.8	2.40	19.3
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	10.4	10.8	2.40	19.3
Flagged Outliers	1	1	1	0
|z|>3.0	1	0	2	0
2<|z|<3	1	1	1	1
Failure Rate %*	5.8			

Methods Used

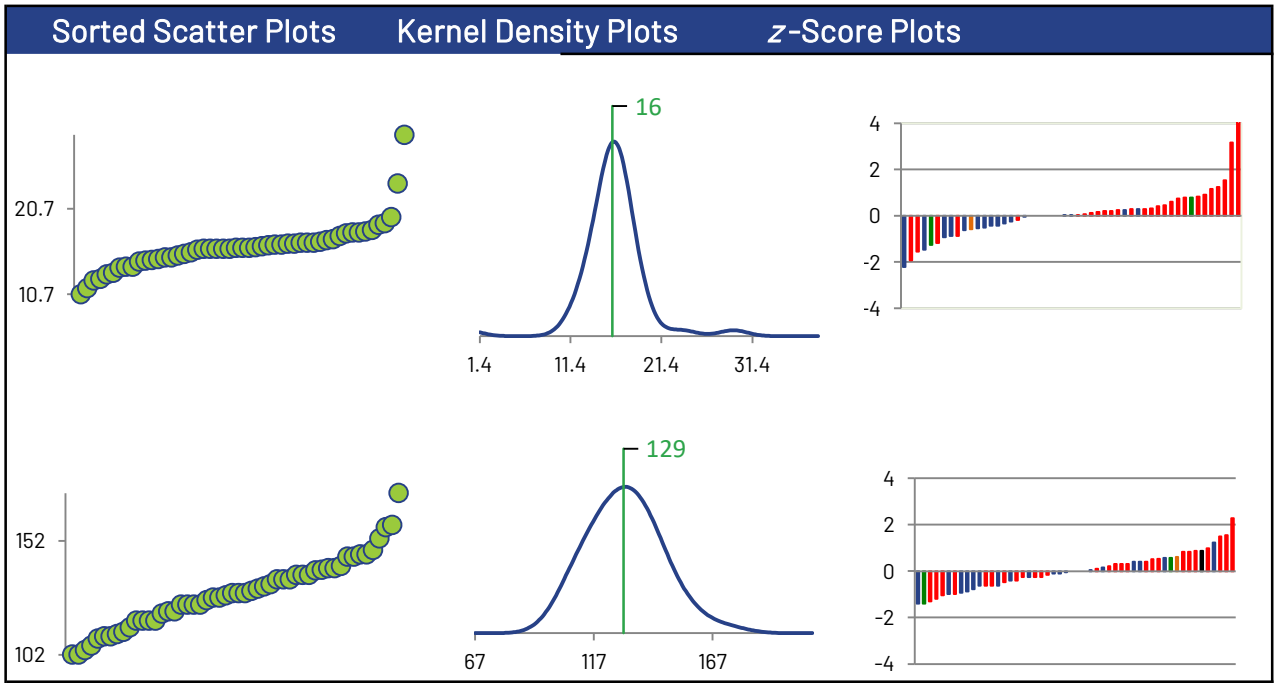
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - HEADSPACE (Blue)	19	19	19	19
GC/MS - PURGE AND TRAP (Red)	28	28	28	29
GC/MS (Green)	2	2	2	2
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

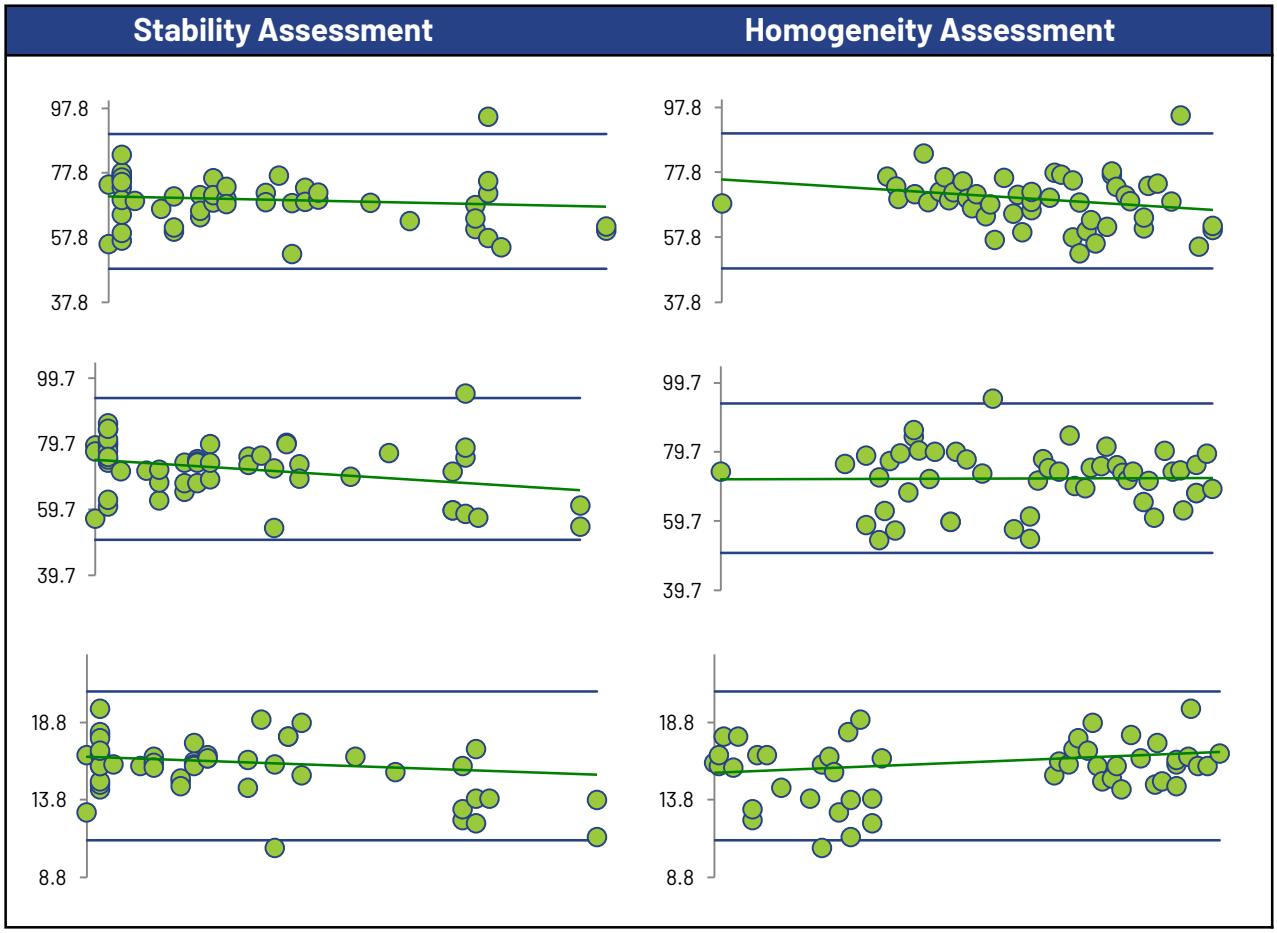
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

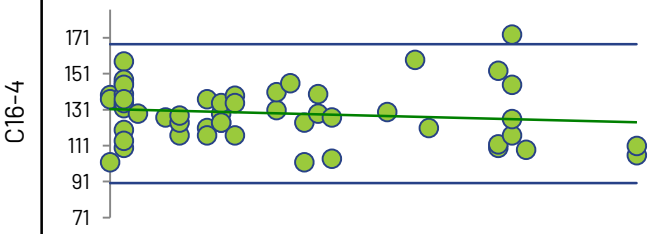
Chlorobenzene



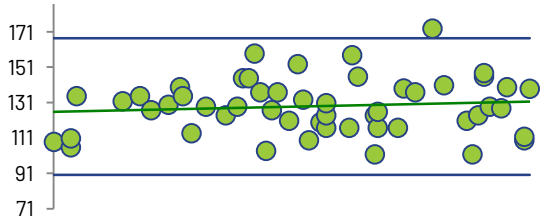


Chlorobenzene

Stability Assessment



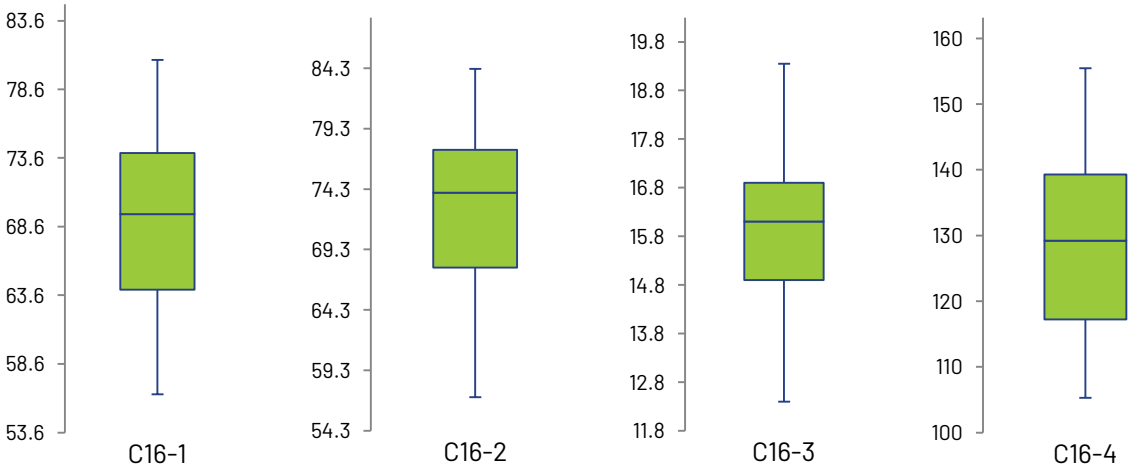
Homogeneity Assessment



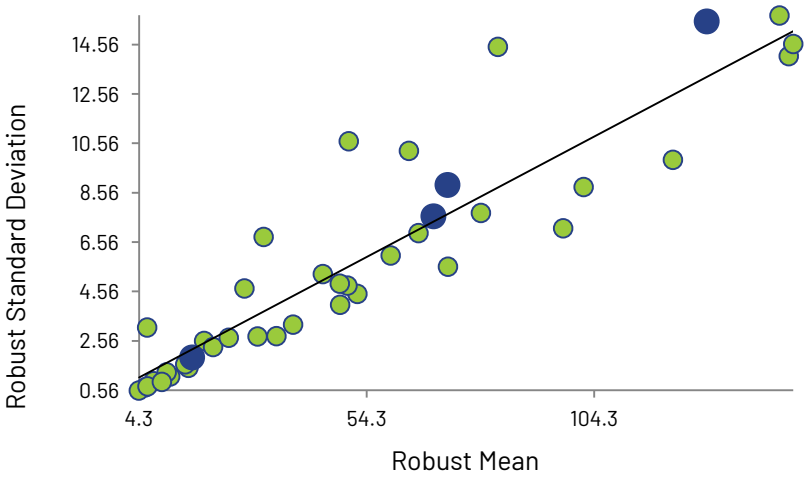
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Chlorodibromomethane

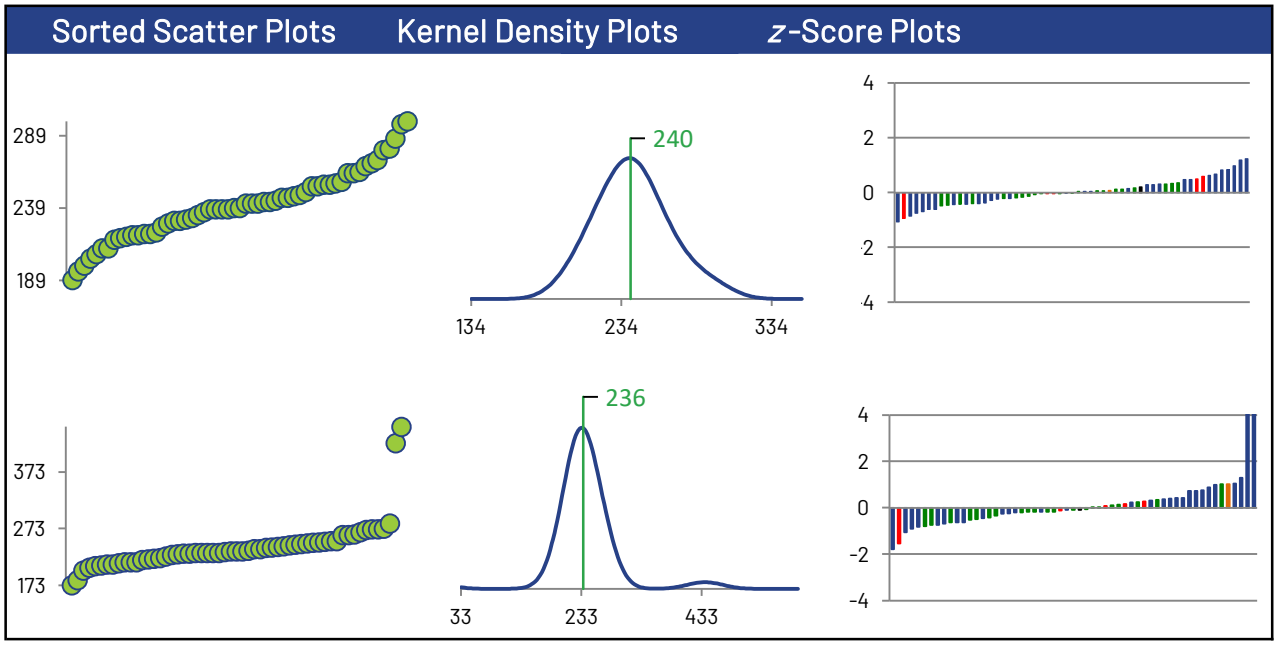
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	57	57	56	56
Median µg/L	239	233	51.2	428
Robust Mean µg/L	240	236	51.8	425
Uncdrtainty of the Assigned Value µg/L	3.89	3.97	0.932	6.08
Robust Standard Deviation µg/L	23.5	24.0	5.58	36.4
Regression Standard Deviation µg/L	36.0	35.4	7.78	63.7
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	47.8	35.4	7.78	63.7
Flagged Outliers	0	0	1	1
|z|>3.0	0	2	0	0
2<|z|<3	0	0	2	0
Failure Rate %*	3.5			

Methods Used

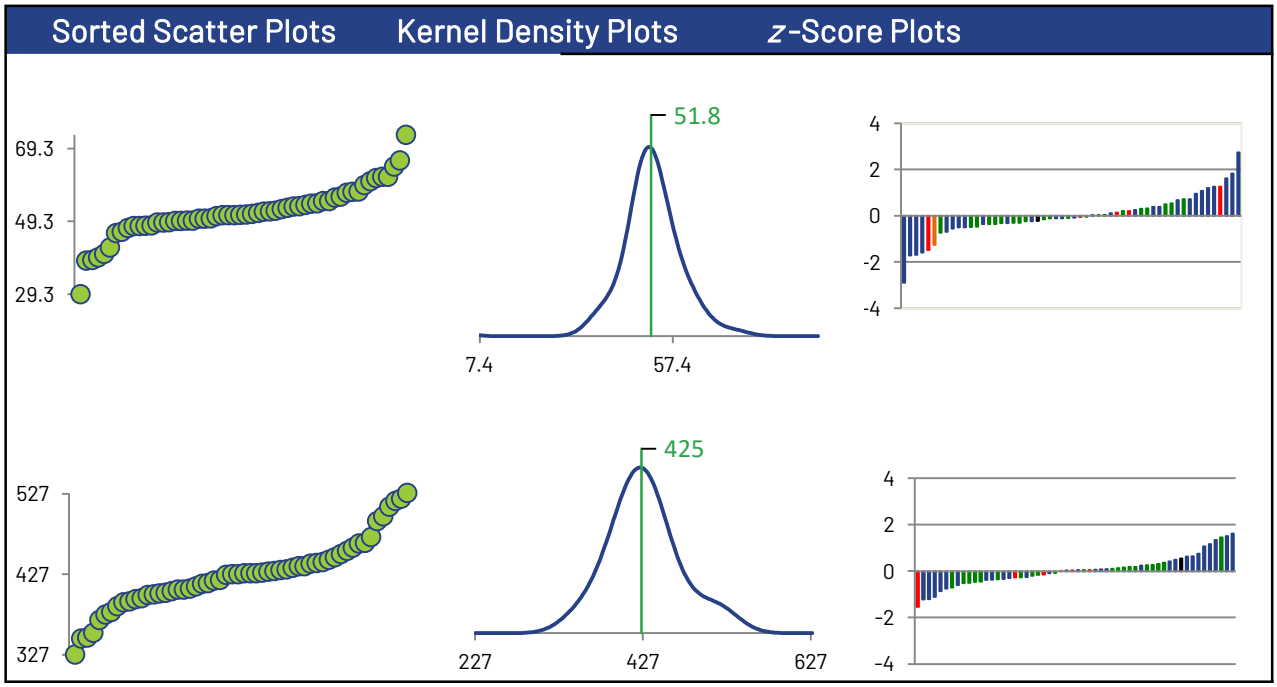
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	29	29	28	28
GC/MS (Red)	5	5	5	5
GC/MS - HEADSPACE (Green)	21	21	21	21
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1
GC/MS/MS - HEADSPACE (Black)	1	1	1	1

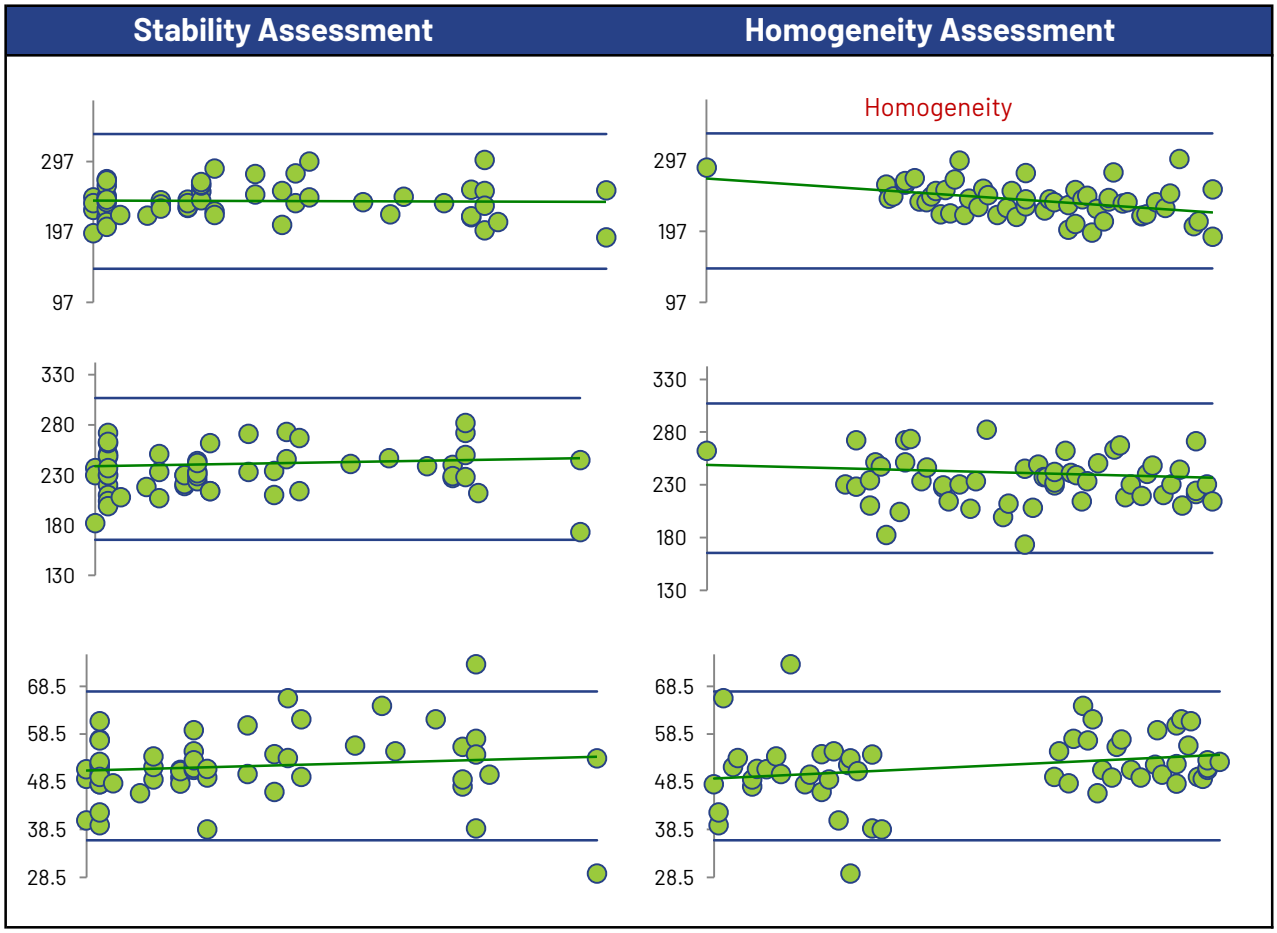
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

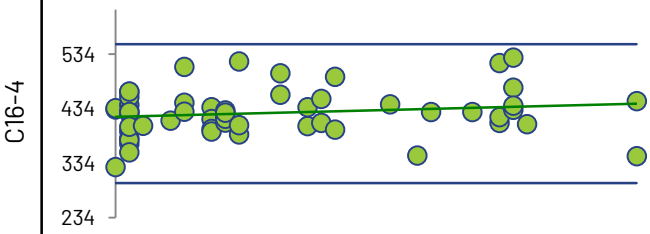
Chlorodibromomethane



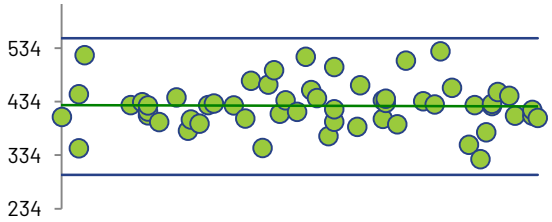


Chlorodibromomethane

Stability Assessment



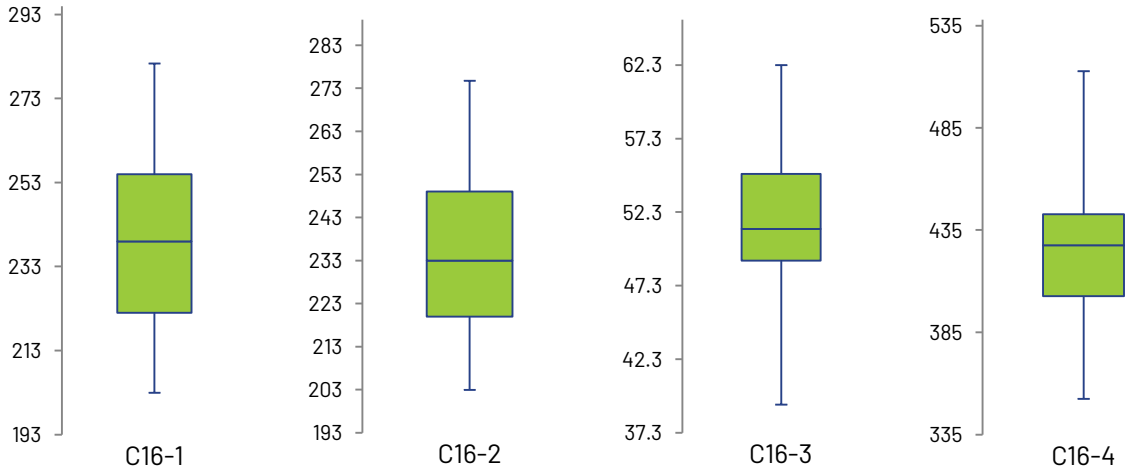
Homogeneity Assessment



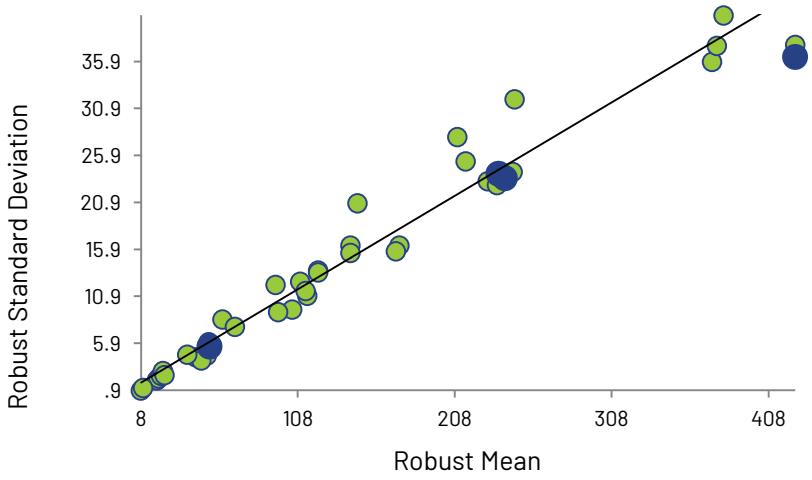
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Chloroform

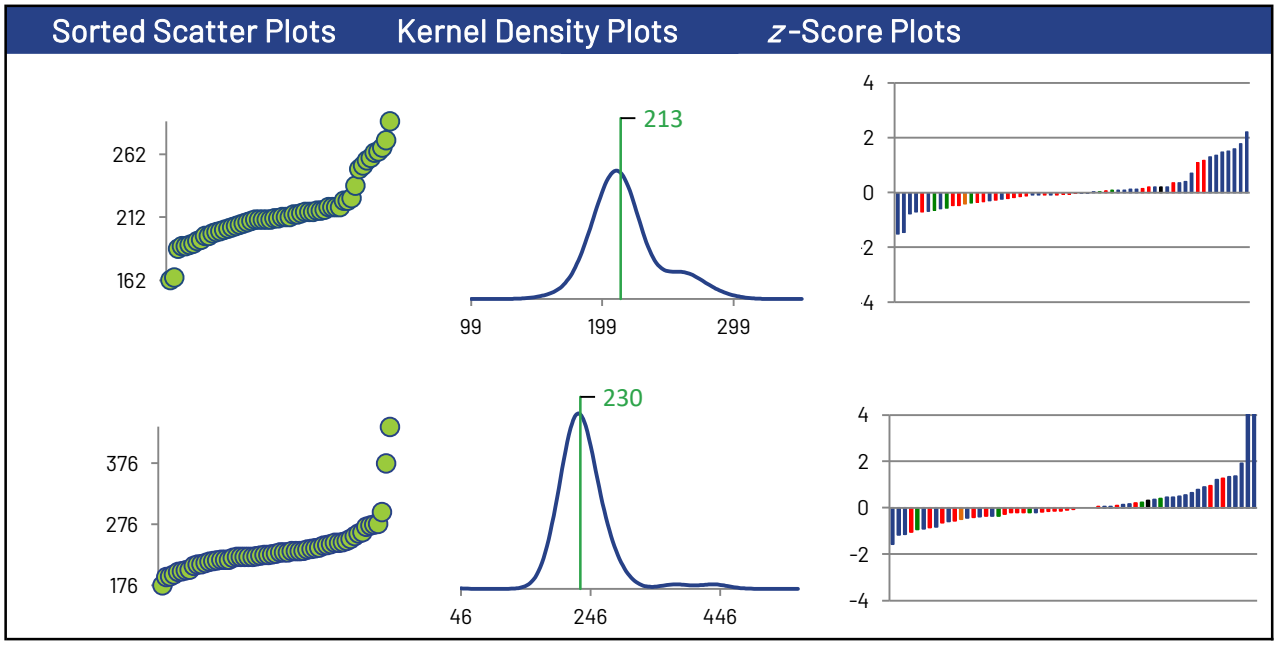
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	58	59	58	59
Median µg/L	212	228	51.0	398
Robust Mean µg/L	213	230	52.3	399
Uncdrtainty of the Assigned Value µg/L	2.99	3.91	0.944	5.71
Robust Standard Deviation µg/L	18.2	24.0	5.75	35.1
Regression Standard Deviation µg/L	31.9	34.6	7.85	59.9
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	33.8	34.6	7.85	59.9
Flagged Outliers	1	0	1	0
|z|>3.0	0	2	0	0
2<|z|<3	1	0	3	2
Failure Rate %*	3.4			

Methods Used

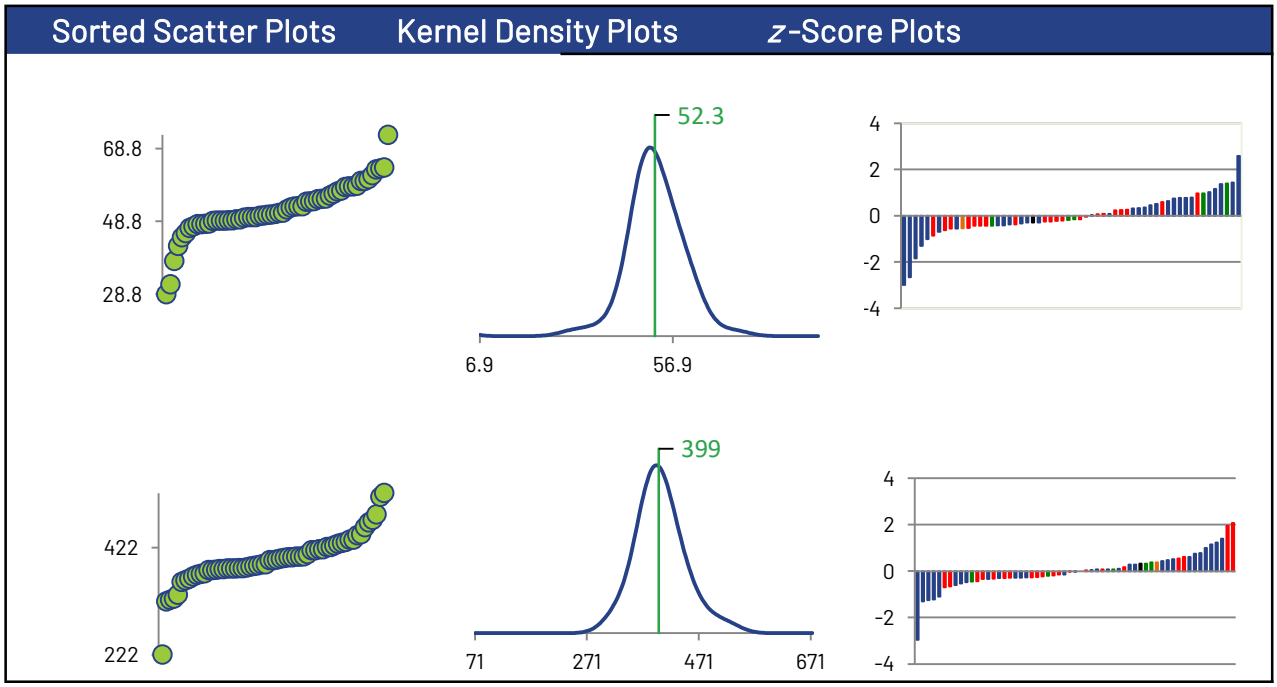
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	30	31	30	31
GC/MS - HEADSPACE (Red)	21	21	21	21
GC/MS (Green)	5	5	5	5
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

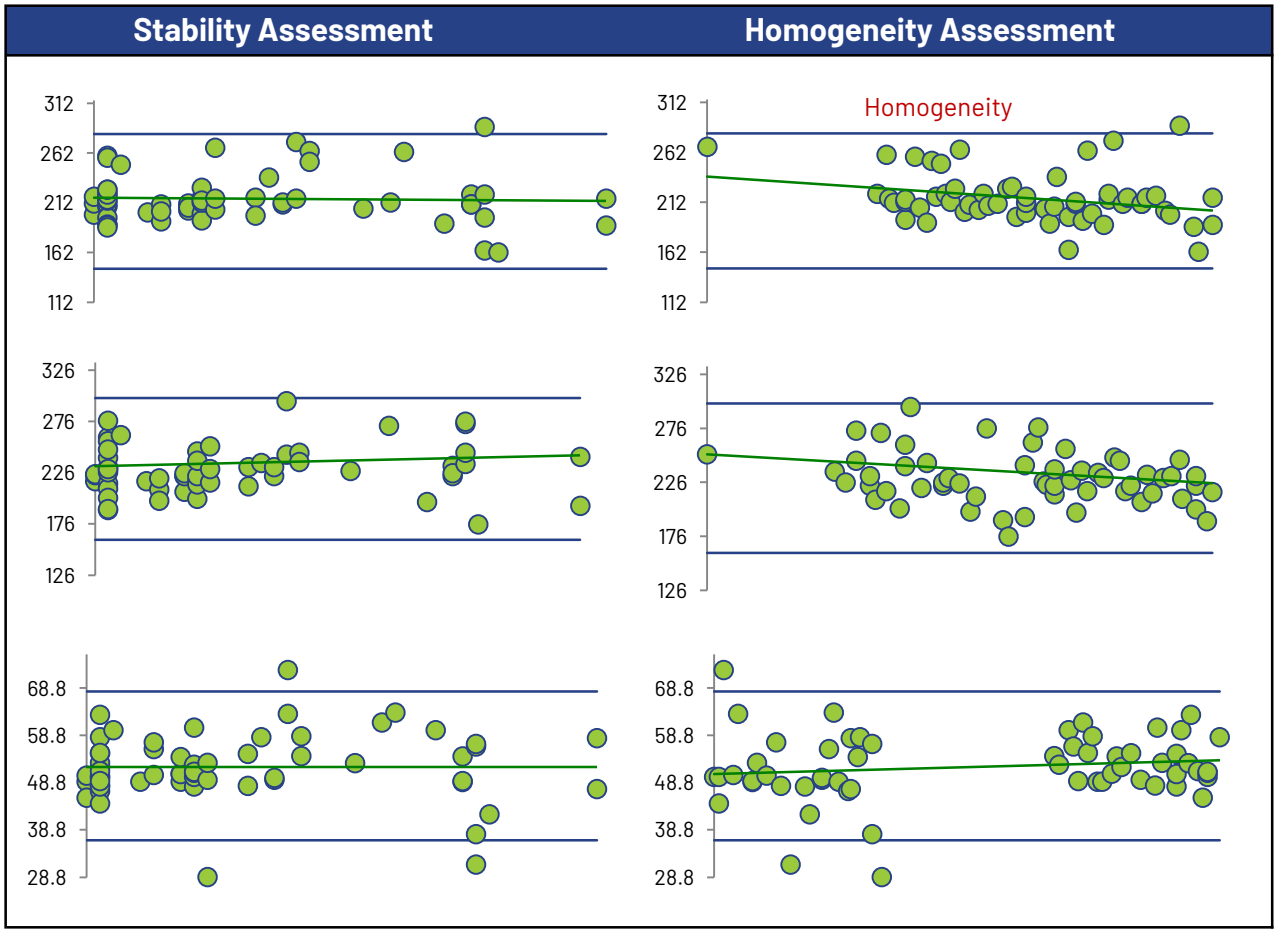
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

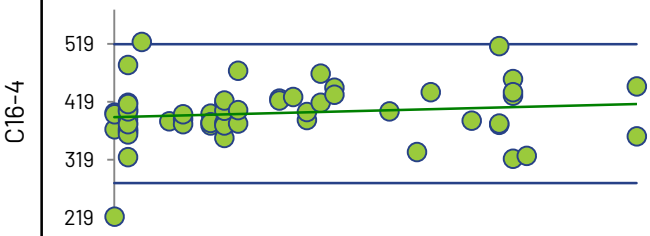
Chloroform


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C16-3
68.8
48.8
28.8
52.3
6.9
56.9
4
2
0
-2
-4
C16-4
422
222
399
71
271
471
671

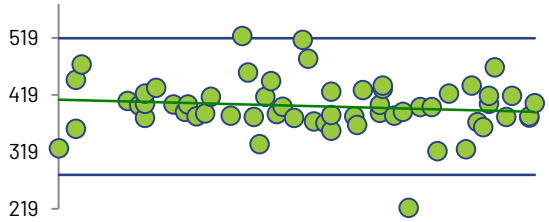

Stability Assessment
Homogeneity Assessment
Homogeneity
C16-1
312
262
212
162
112
C16-2
326
276
226
176
126
C16-3
68.8
58.8
48.8
38.8
28.8

Chloroform

Stability Assessment



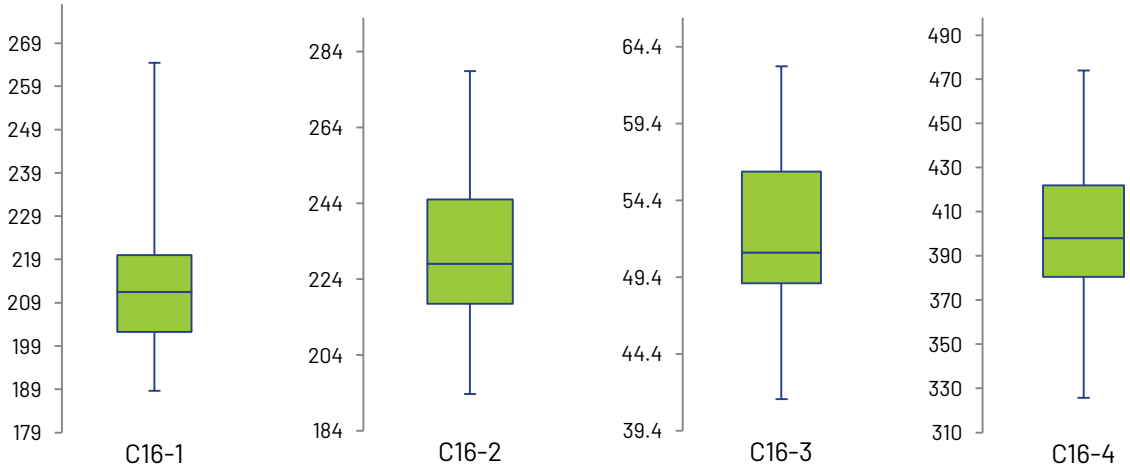
Homogeneity Assessment



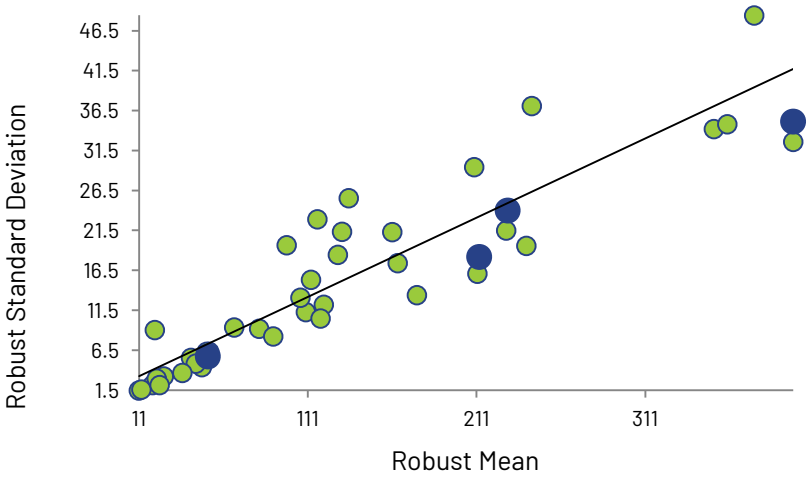
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



cis-1,2-Dichloroethylene

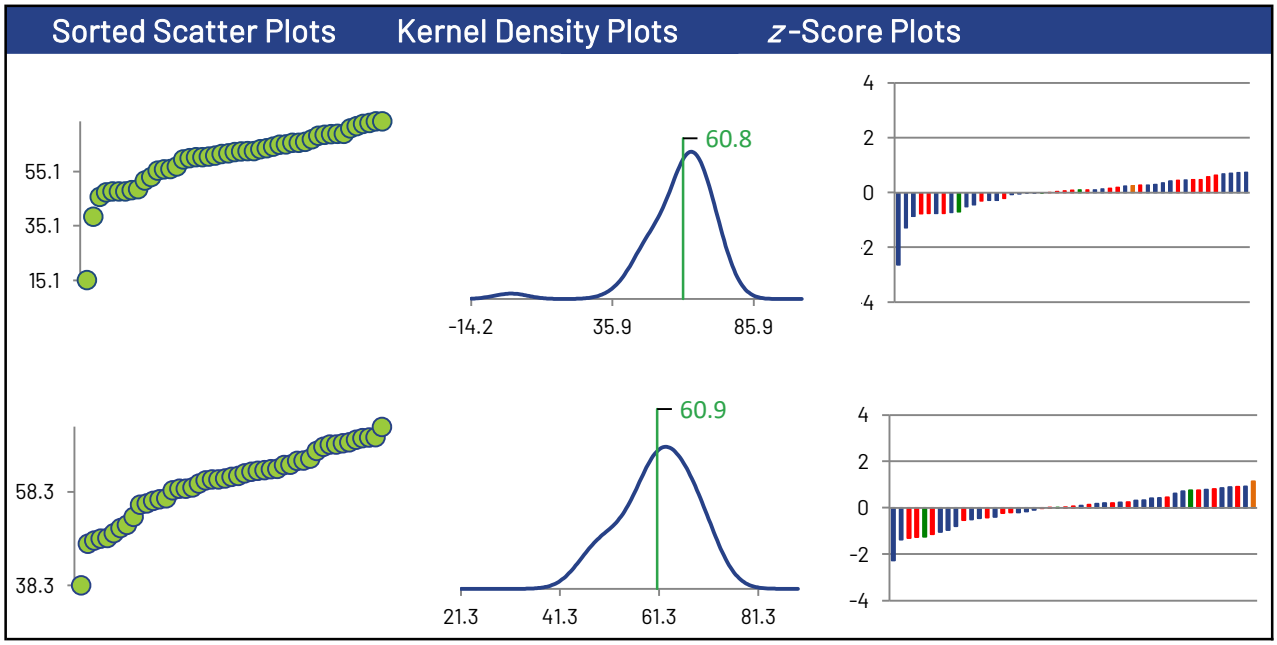
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	47	47	46	47
Median µg/L	62.3	61.6	13.7	106
Robust Mean µg/L	60.8	60.9	13.3	104
Uncdrtainty of the Assigned Value µg/L	1.72	1.38	0.346	2.79
Robust Standard Deviation µg/L	9.42	7.56	1.88	15.3
Regression Standard Deviation µg/L	9.11	9.13	2.00	15.6
Stability Flag		Stability		Stability
Homogeneity Flag	Homogeneity		Homogeneity	
Standard Deviation Used (SDPA) µg/L	17.3	10.0	2.58	16.4
Flagged Outliers	0	0	1	0
|z|>3.0	0	0	0	0
2<|z|<3	1	1	2	2
Failure Rate %*	2.1			

Methods Used

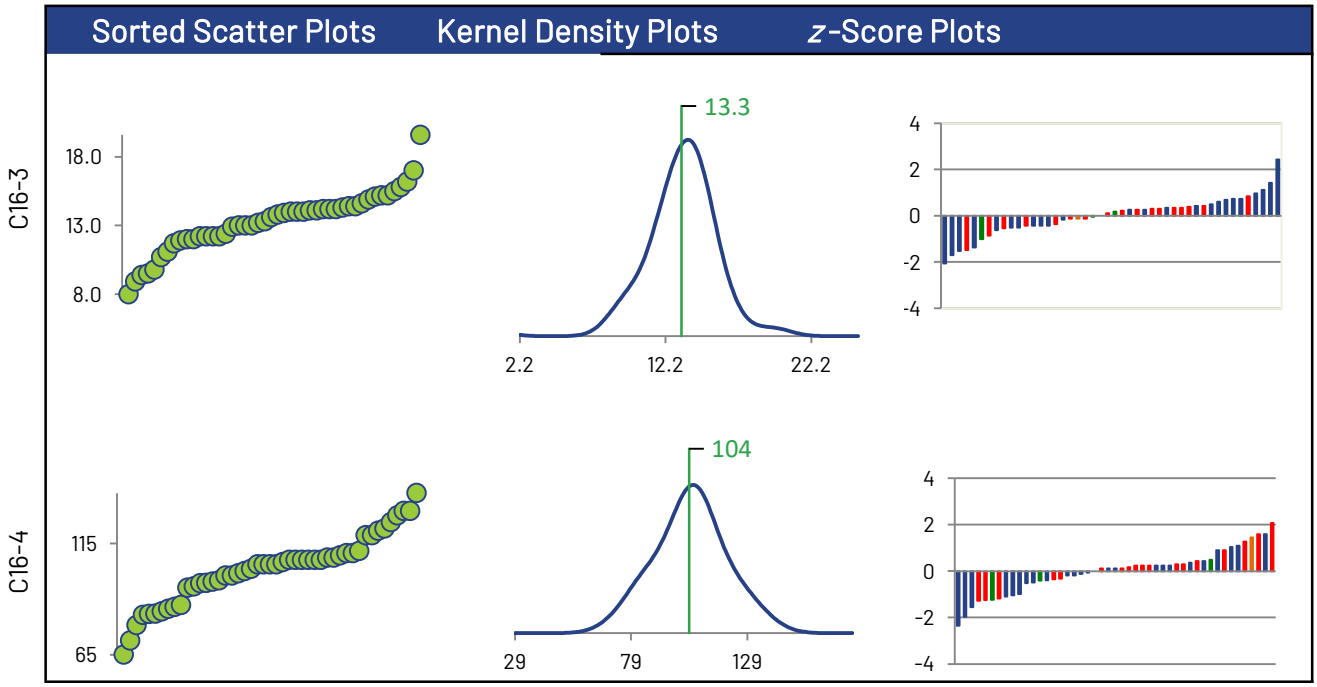
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	25	25	24	25
GC/MS - HEADSPACE (Red)	18	18	18	18
GC/MS (Green)	3	3	3	3
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1

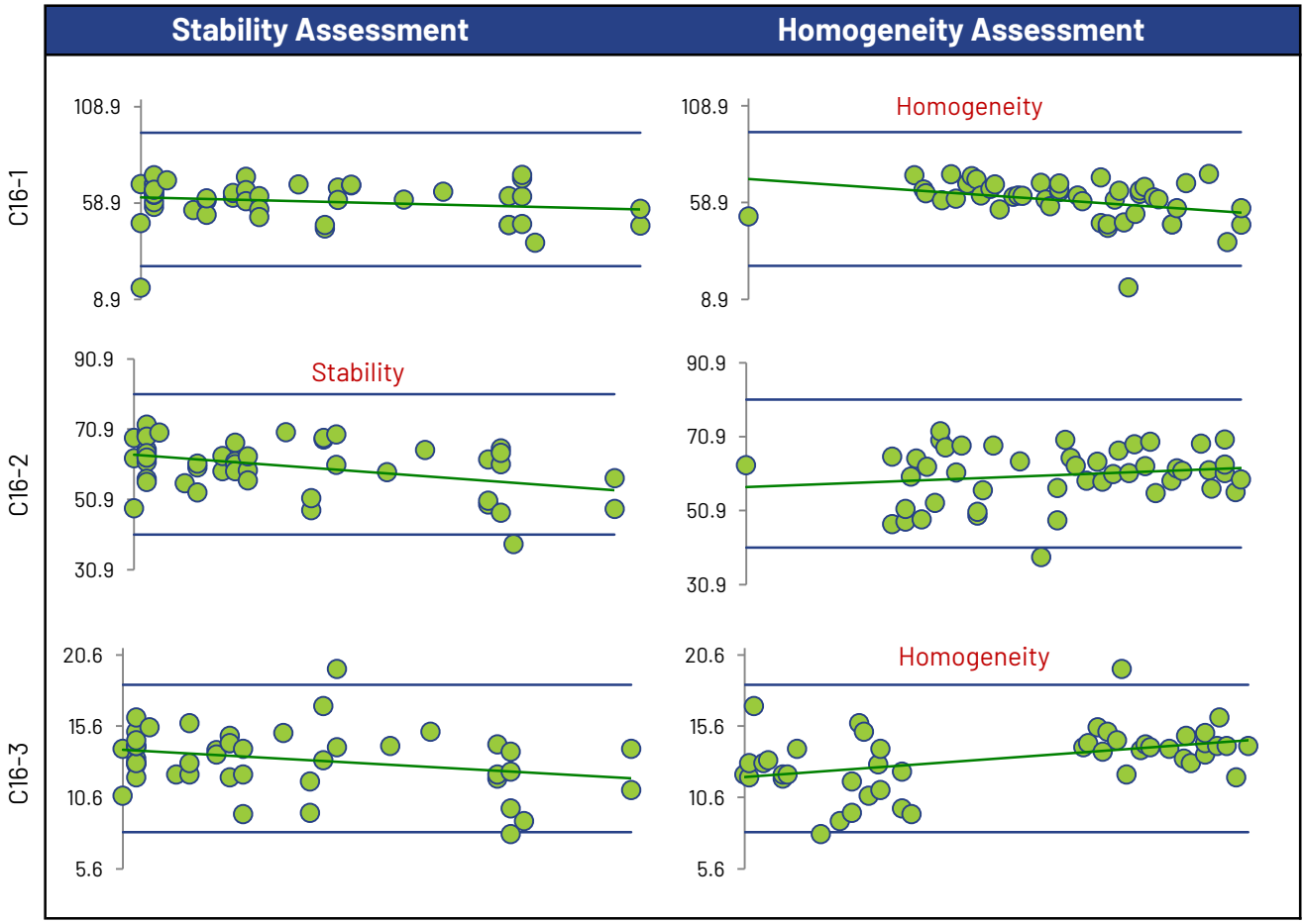
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

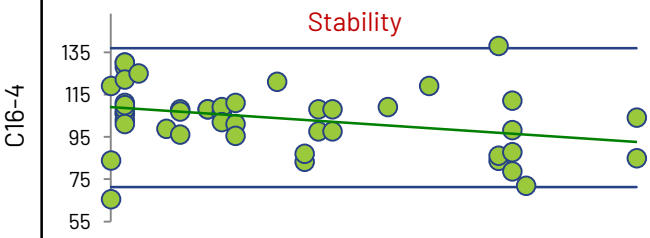
cis-1,2-Dichloroethylene



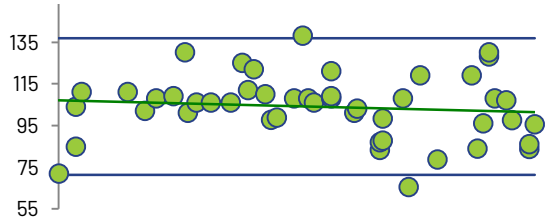


cis-1,2-Dichloroethylene

Stability Assessment



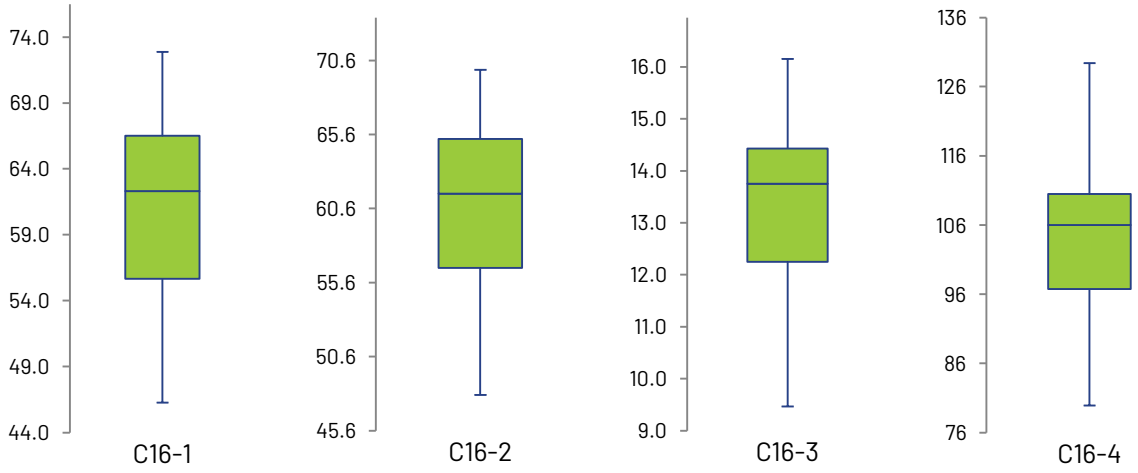
Homogeneity Assessment



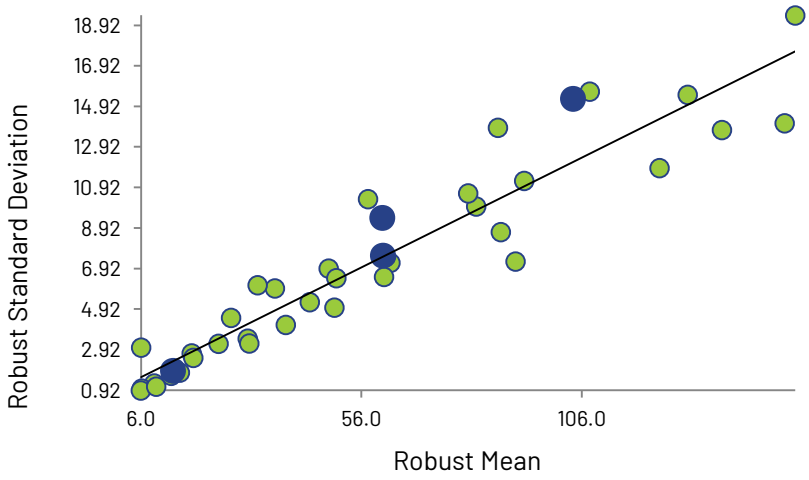
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



cis-1,3-Dichloropropene

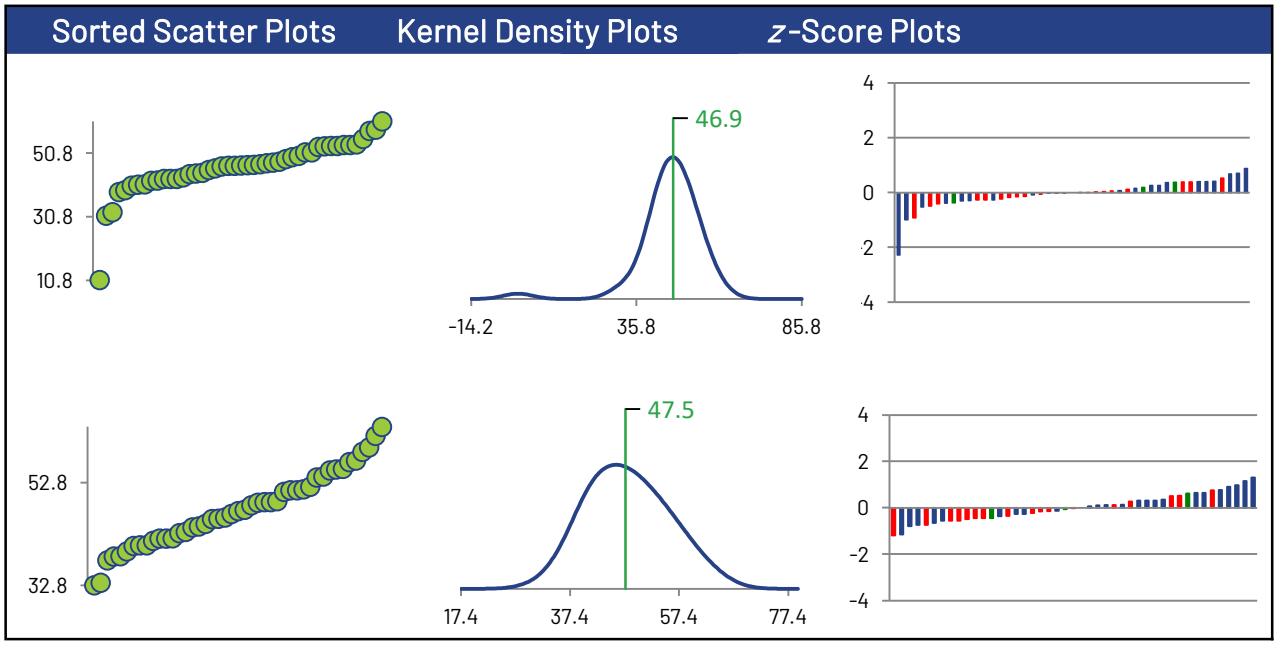
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	45	45	44	45
Median µg/L	46.9	47.3	10.3	84.5
Robust Mean µg/L	46.9	47.5	10.0	84.6
Uncdrtainty of the Assigned Value µg/L	1.14	1.42	0.345	2.20
Robust Standard Deviation µg/L	6.14	7.63	1.83	11.8
Regression Standard Deviation µg/L	7.03	7.13	1.50	12.7
Stability Flag		Stability	Stability	Stability
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	15.8	12.4	2.72	19.8
Flagged Outliers	0	0	1	0
|z|>3.0	0	0	0	0
2<|z|<3	1	0	1	0
Failure Rate %*	2.2			

Methods Used

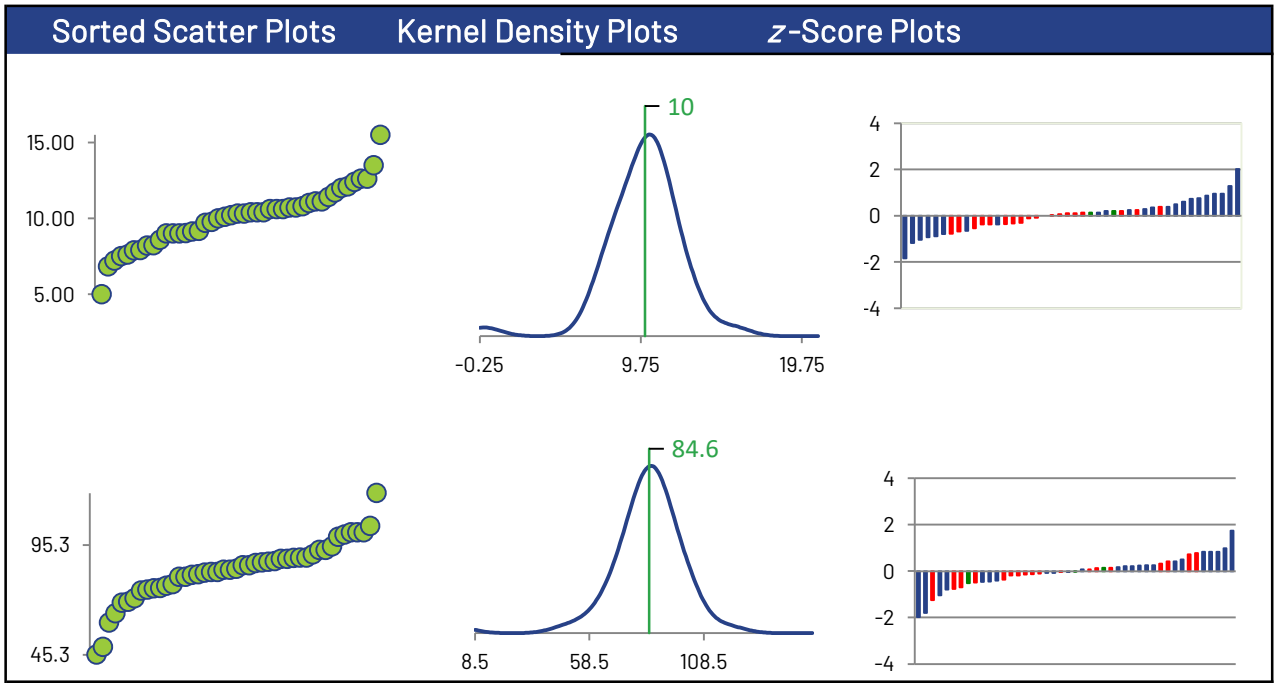
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	24	24	23	24
GC/MS - HEADSPACE (Red)	18	18	18	18
GC/MS (Green)	3	3	3	3

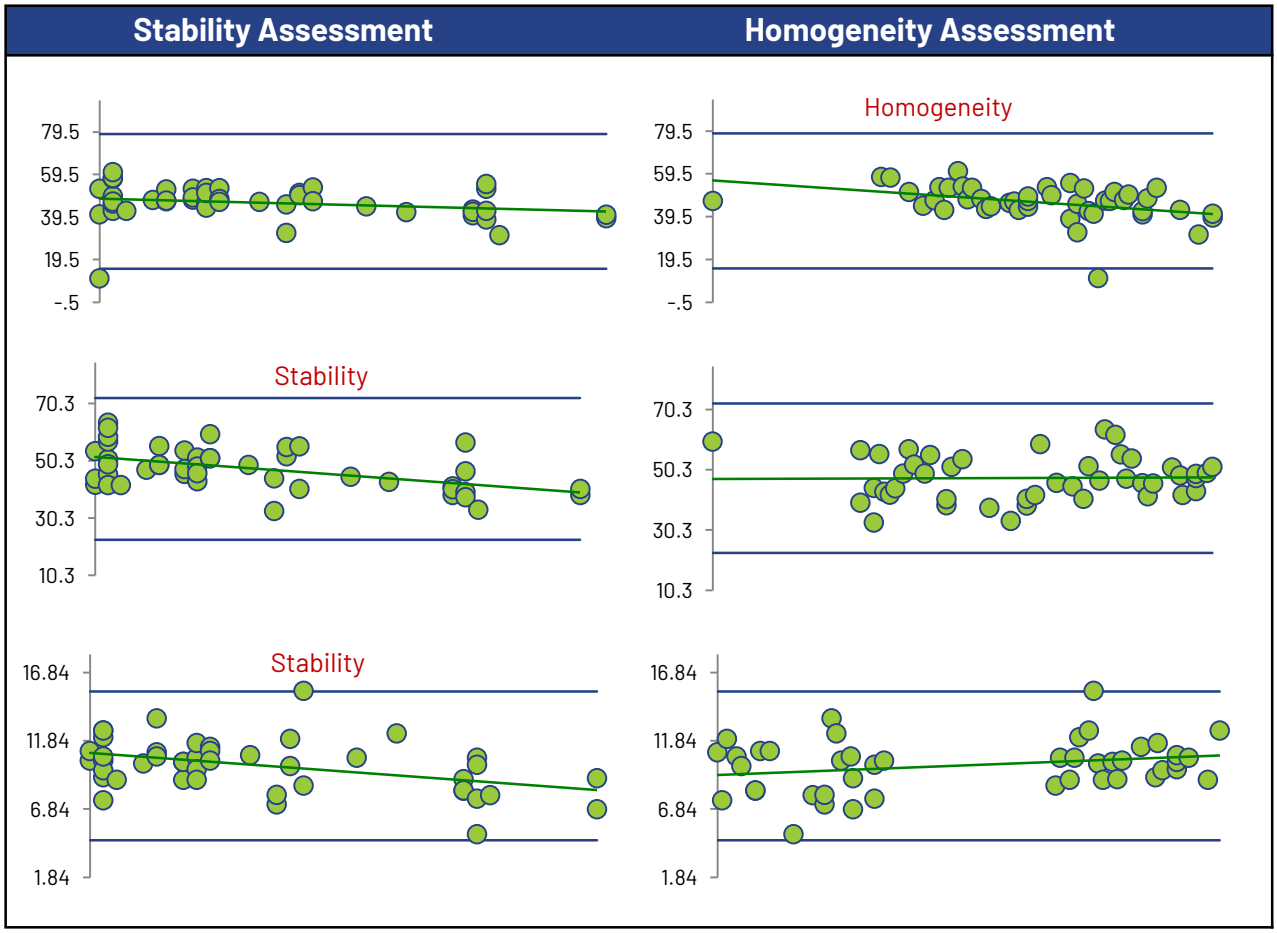
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

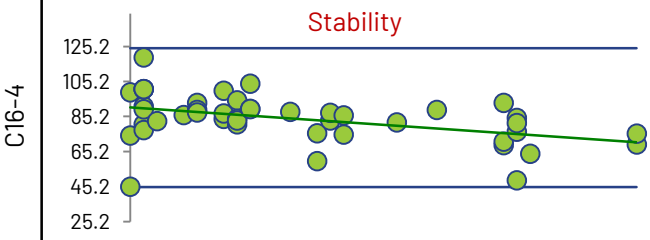
cis-1,3-Dichloropropene



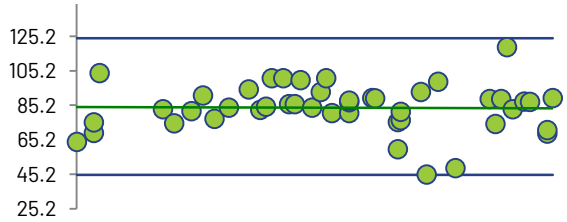


cis-1,3-Dichloropropene

Stability Assessment



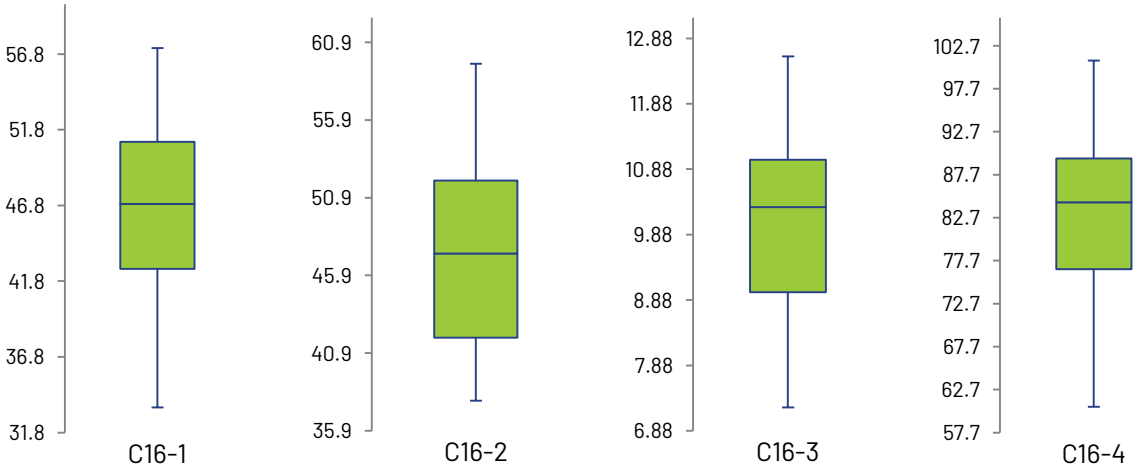
Homogeneity Assessment



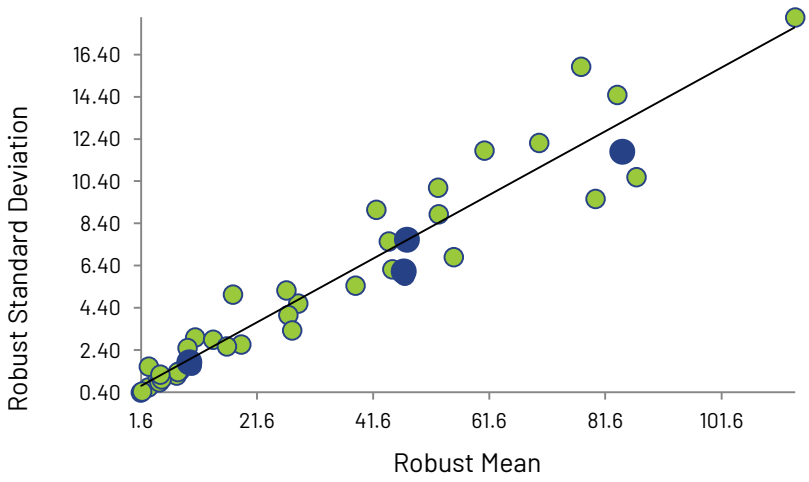
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Dichloromethane

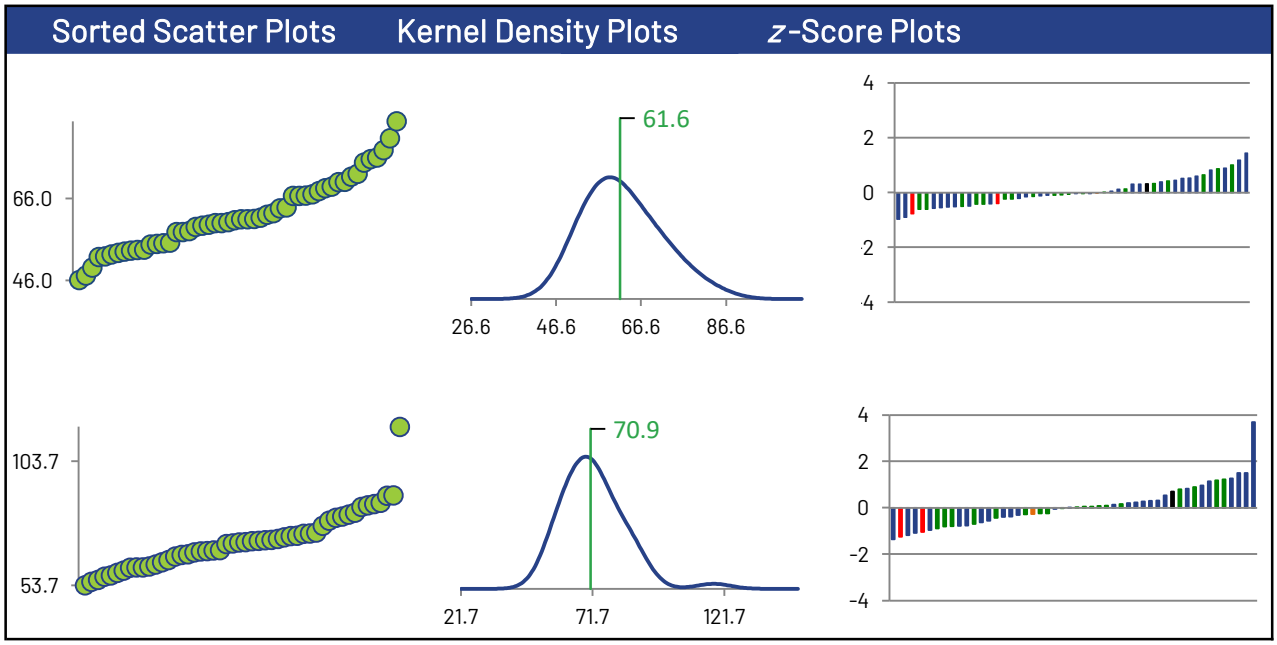
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	50	50	49	51
Median µg/L	60.8	71.1	18.2	119
Robust Mean µg/L	61.6	70.9	18.4	119
Uncdrtainty of the Assigned Value µg/L	1.59	1.93	0.498	2.91
Robust Standard Deviation µg/L	9.00	10.9	2.79	16.6
Regression Standard Deviation µg/L	10.8	12.4	3.23	20.8
Stability Flag		Stability		
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	16.1	12.7	3.23	20.8
Flagged Outliers	1	1	2	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	2	2
Failure Rate %*	5.9			

Methods Used

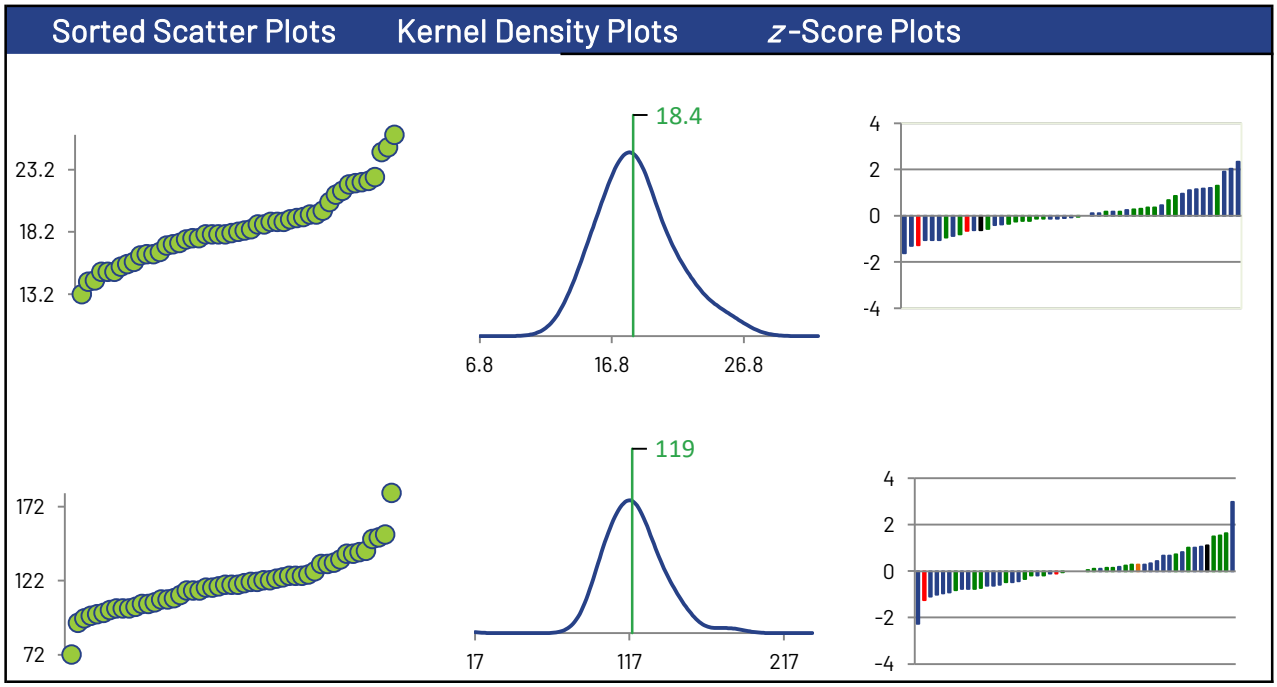
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	27	27	26	28
GC/MS (Red)	2	2	2	2
GC/MS - HEADSPACE (Green)	19	19	19	19
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

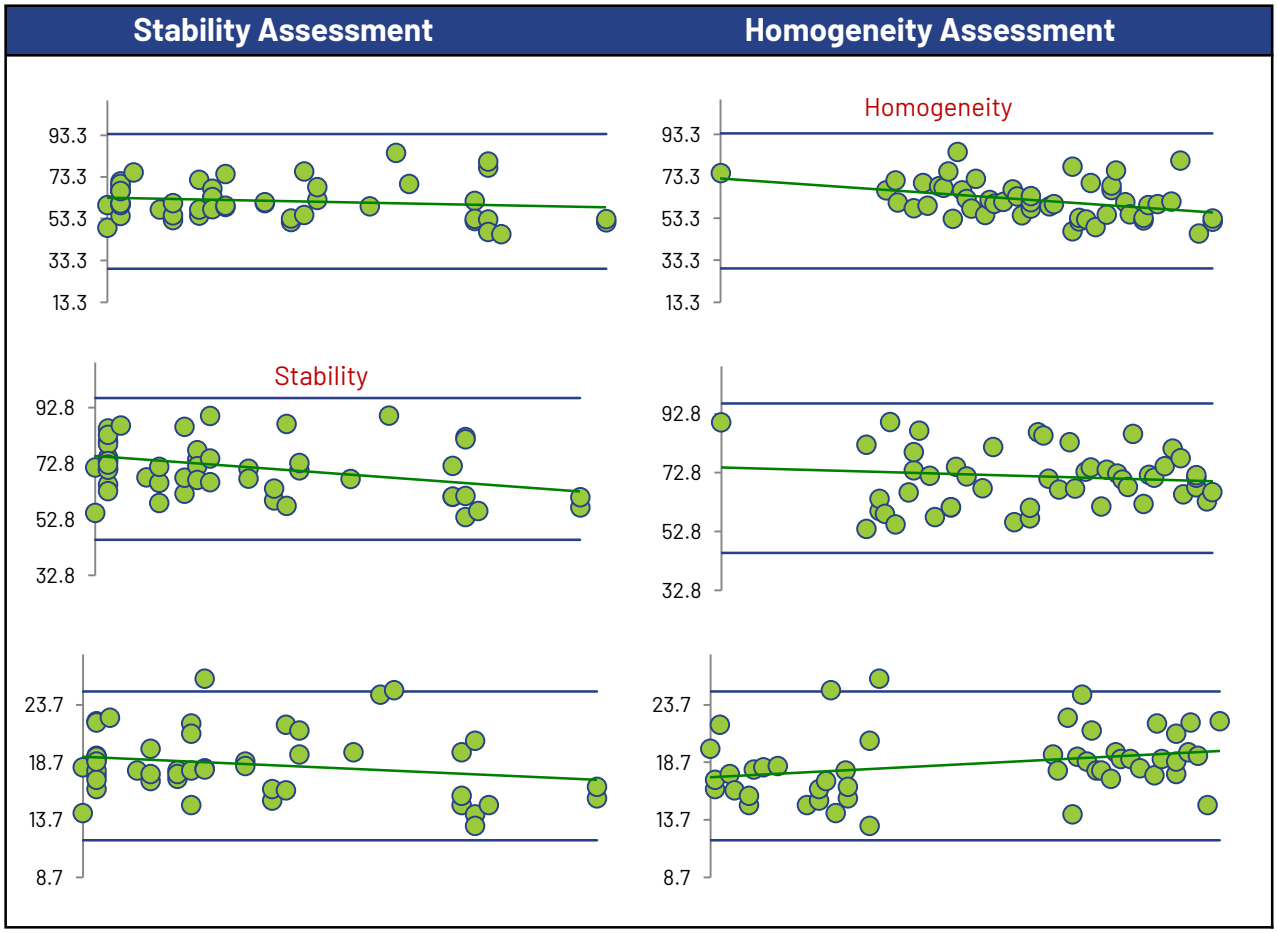
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

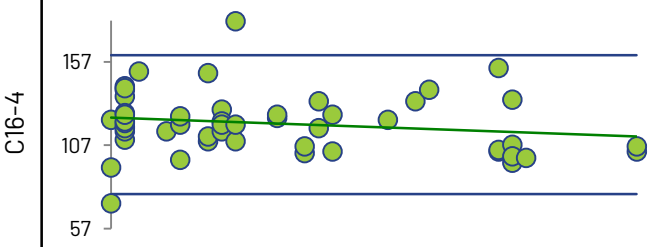
Dichloromethane



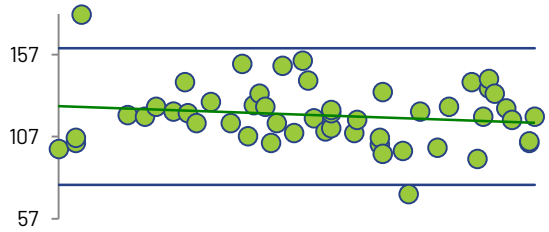


Dichloromethane

Stability Assessment



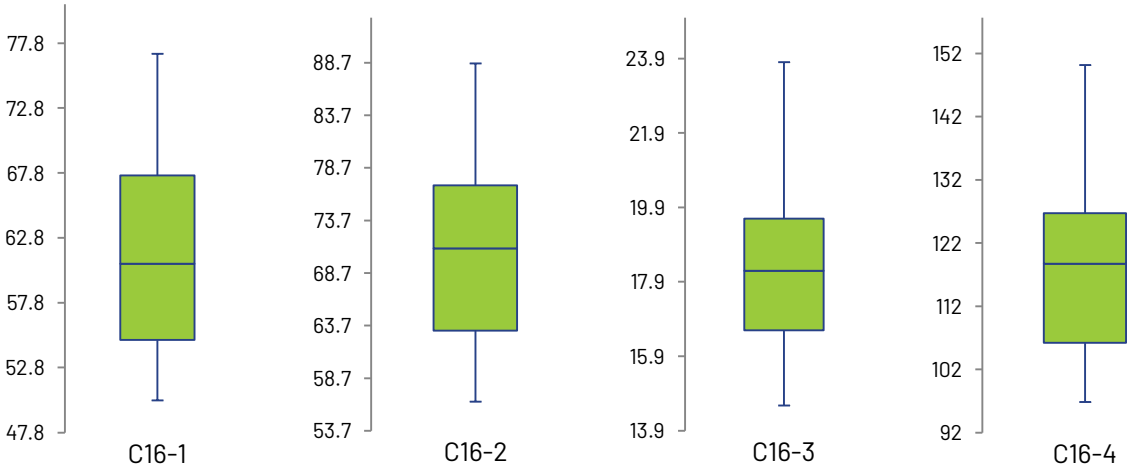
Homogeneity Assessment



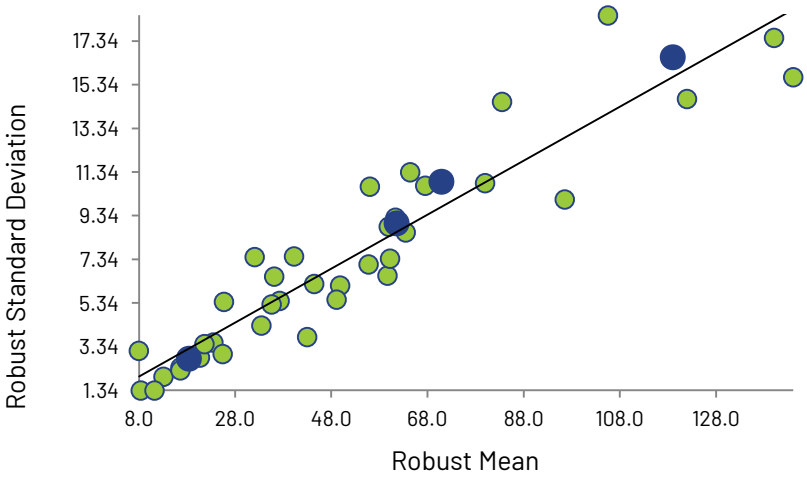
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Ethylbenzene

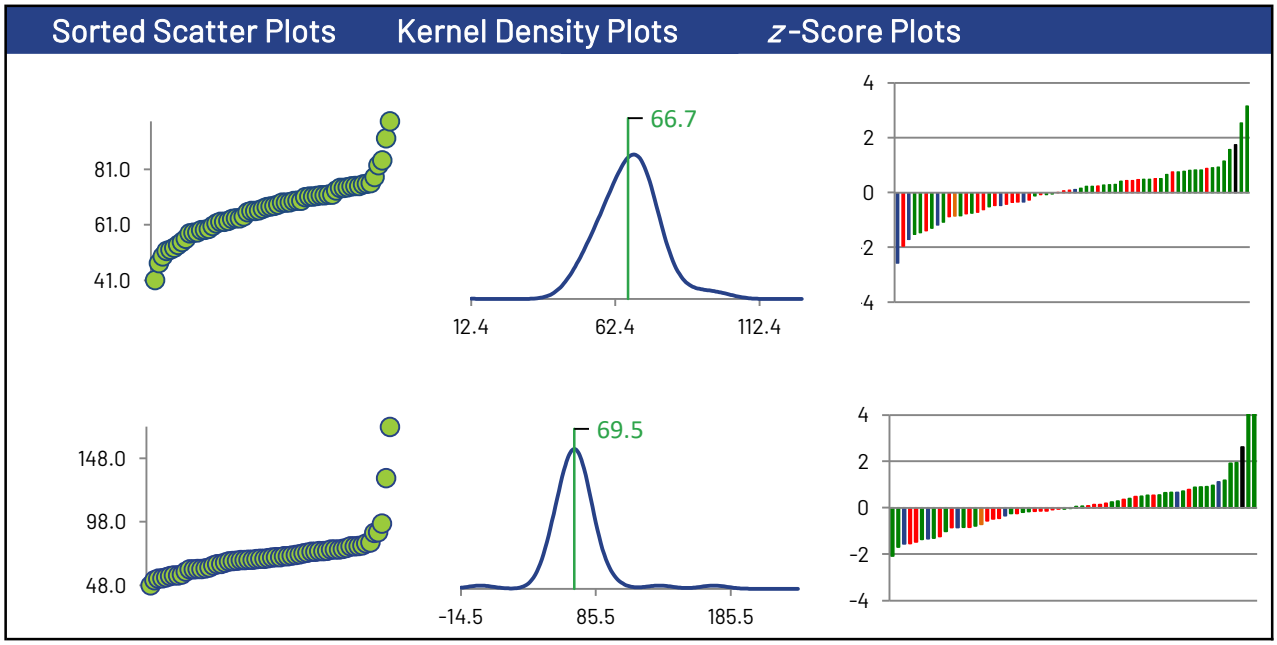
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	62	62	61	61
Median µg/L	67.7	69.7	15.1	121
Robust Mean µg/L	66.7	69.5	15.2	121
Uncdrtainty of the Assigned Value µg/L	1.43	1.59	0.354	2.40
Robust Standard Deviation µg/L	8.99	9.99	2.21	15.0
Regression Standard Deviation µg/L	10.0	10.4	2.27	18.2
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	10.0	10.4	2.27	18.2
Flagged Outliers	0	0	1	1
|z|>3.0	1	2	2	0
2<|z|<3	2	2	2	2
Failure Rate %*	4.8			

Methods Used

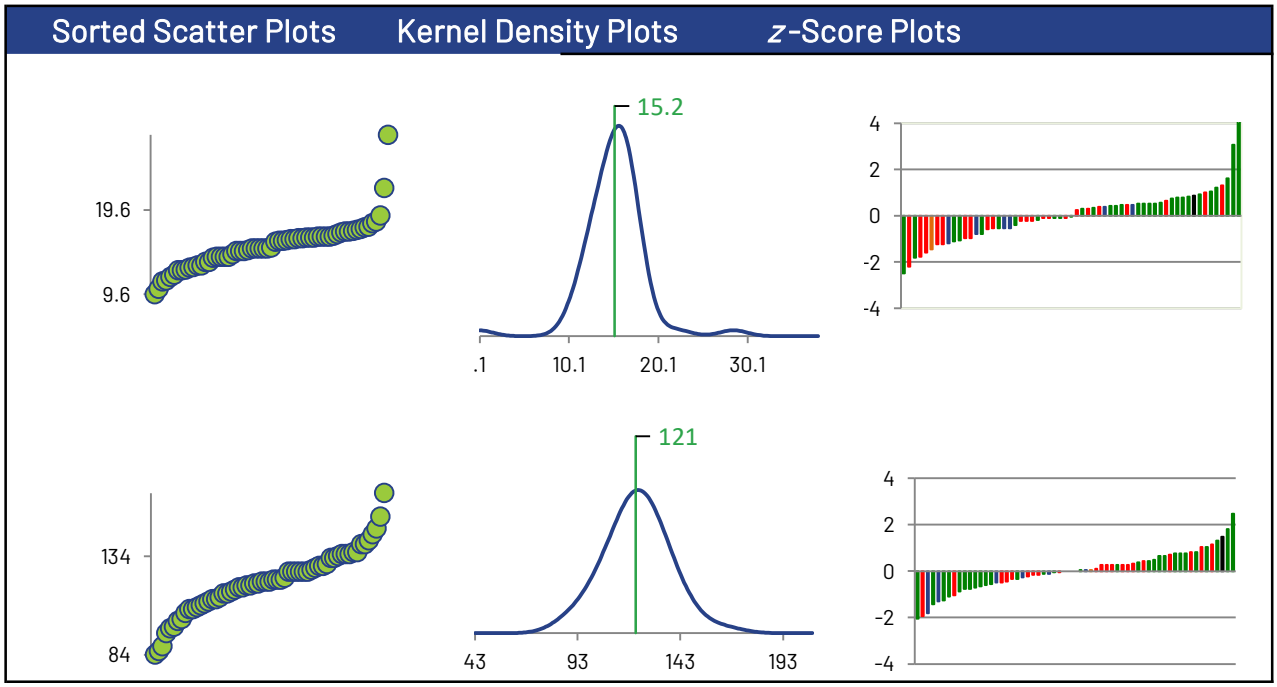
Method	C16-1	C16-2	C16-3	C16-4
GC/MS (Blue)	6	6	6	6
GC/MS - HEADSPACE (Red)	22	22	22	22
GC/MS - PURGE AND TRAP (Green)	32	32	31	31
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

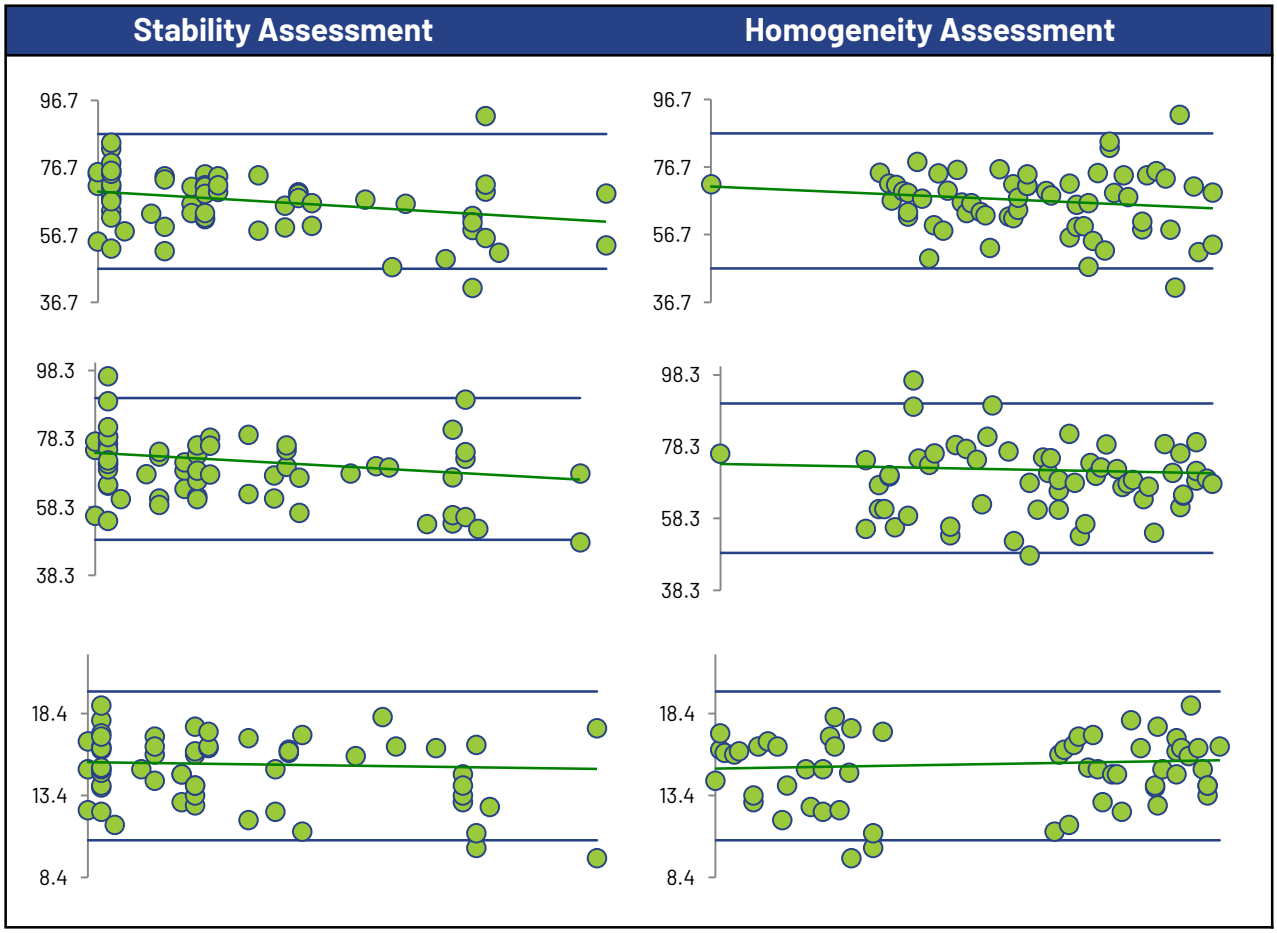
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

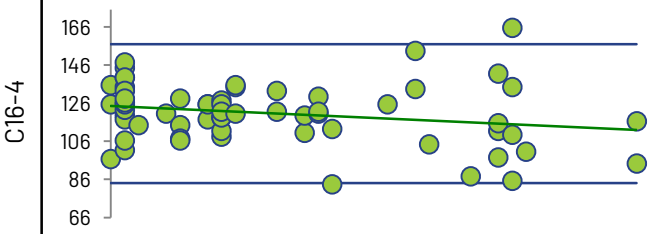
Ethylbenzene



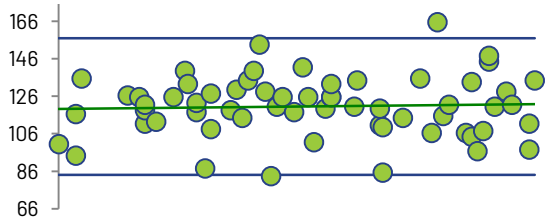


Ethylbenzene

Stability Assessment



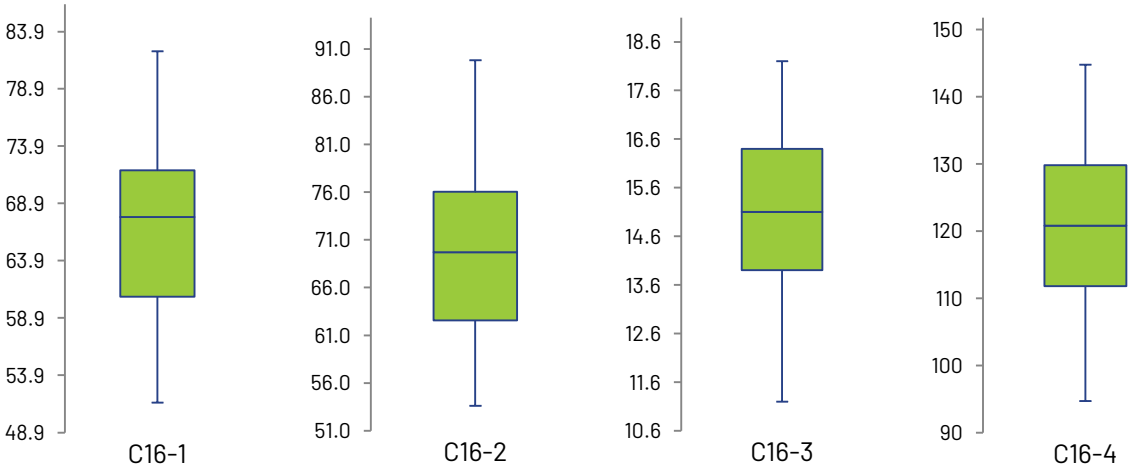
Homogeneity Assessment



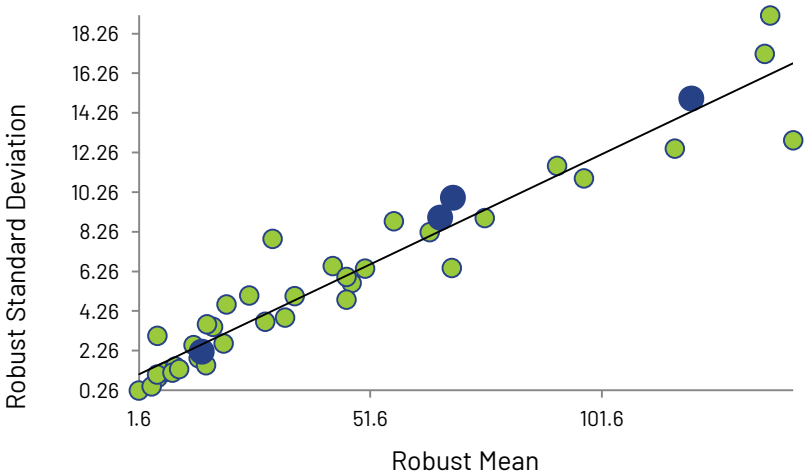
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Ethylene Dibromide

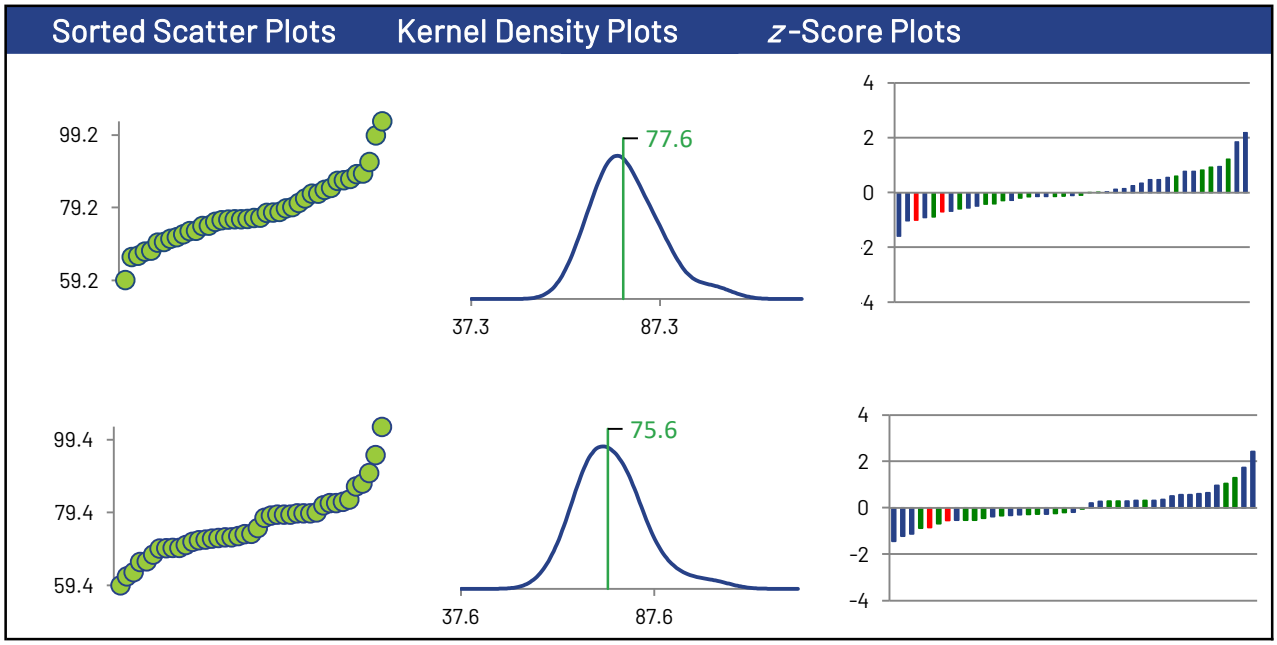
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	41	41	40	40
Median µg/L	76.3	73.6	17.2	137
Robust Mean µg/L	77.6	75.6	17.3	139
Uncdrtainty of the Assigned Value µg/L	1.62	1.54	0.387	2.49
Robust Standard Deviation µg/L	8.28	7.88	1.96	12.6
Regression Standard Deviation µg/L	11.6	11.3	2.59	20.8
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	11.6	11.3	2.59	20.8
Flagged Outliers	0	0	1	1
|z|>3.0	0	0	0	0
2<|z|<3	1	1	2	1
Failure Rate %*	4.9			

Methods Used

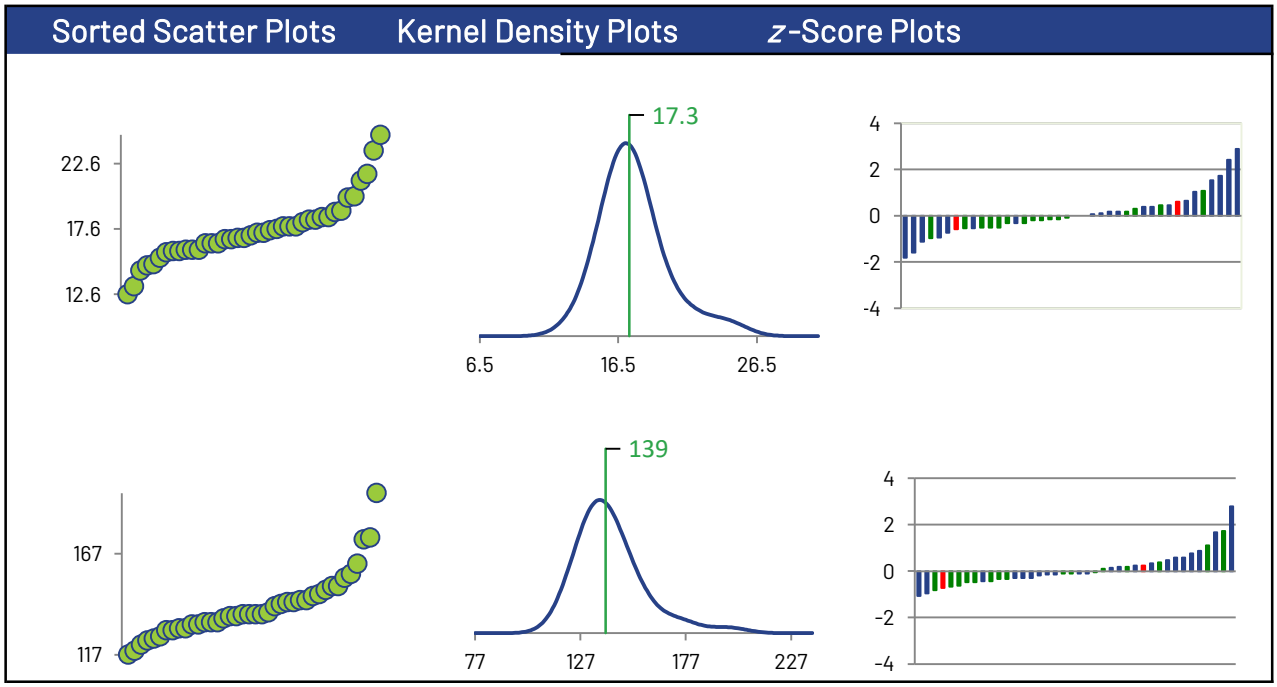
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	23	23	22	22
GC/MS (Red)	2	2	2	2
GC/MS - HEADSPACE (Green)	16	16	16	16

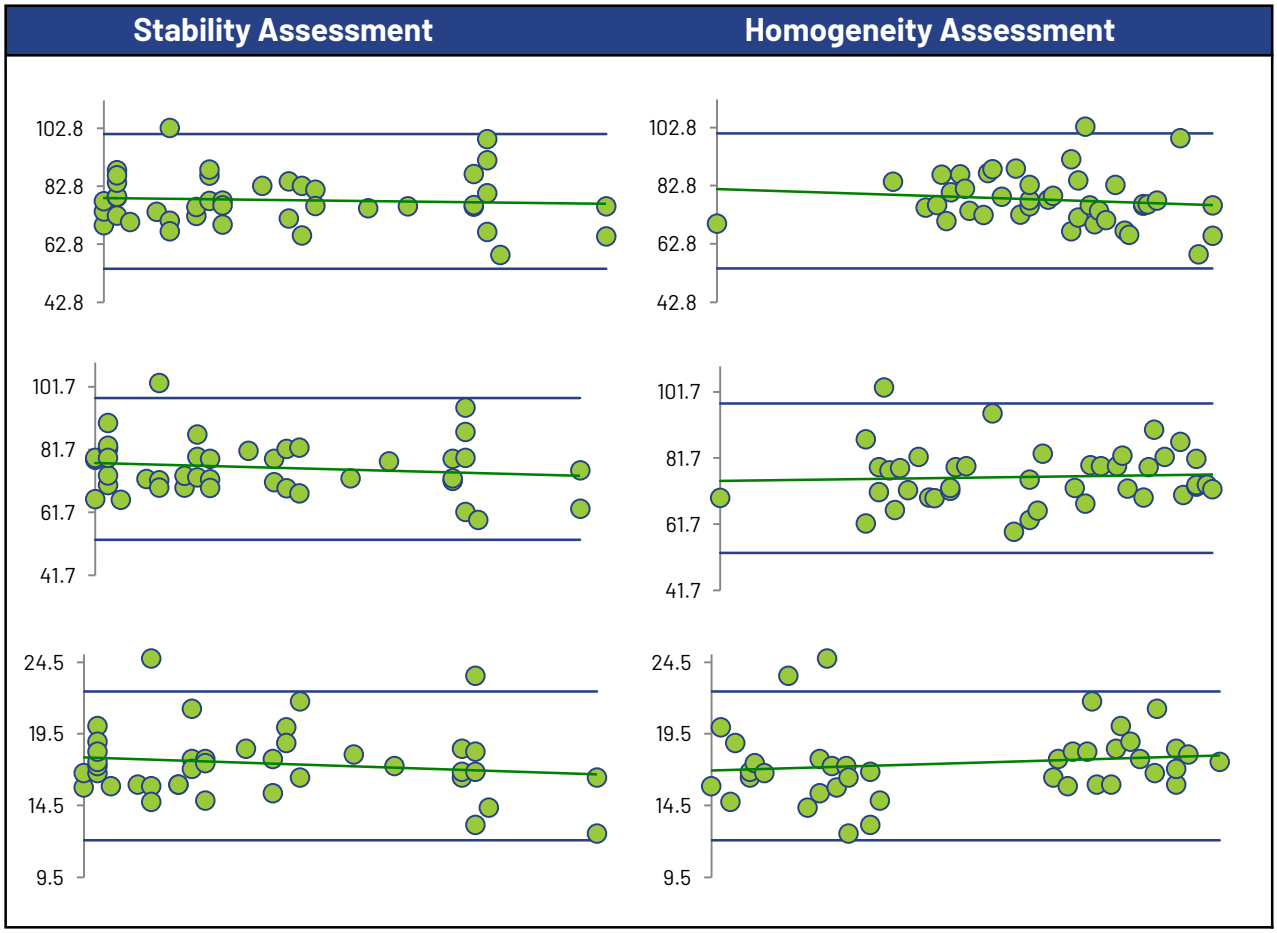
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

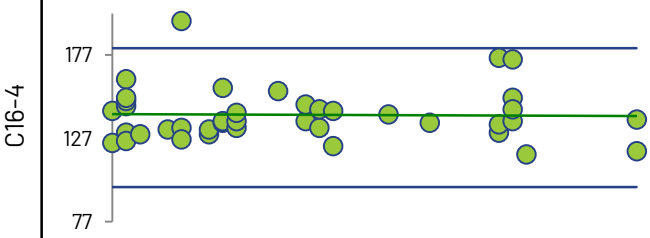
Ethylene Dibromide



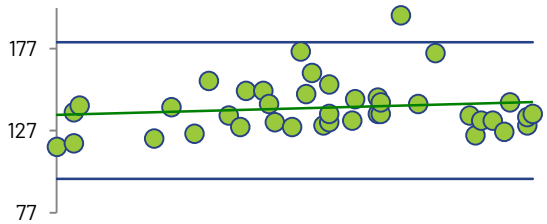


Ethylene Dibromide

Stability Assessment



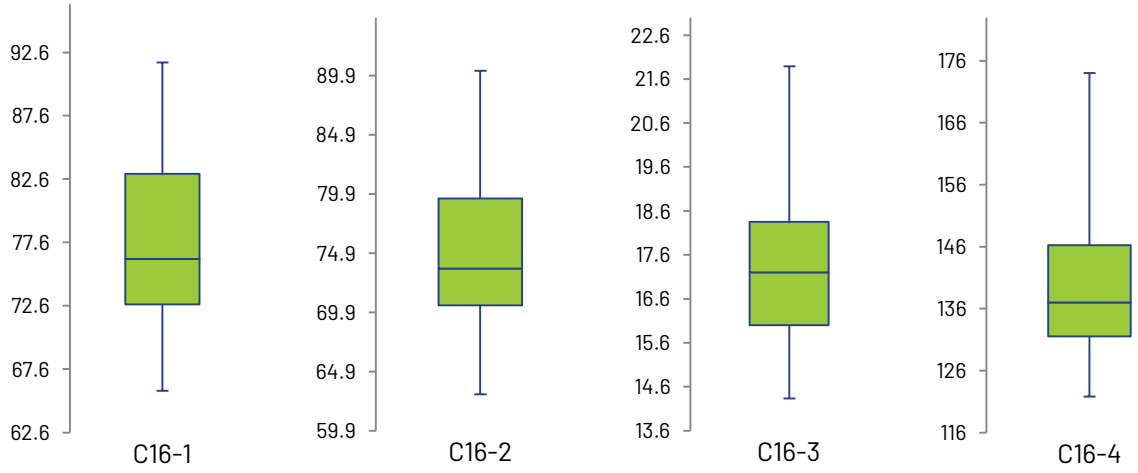
Homogeneity Assessment



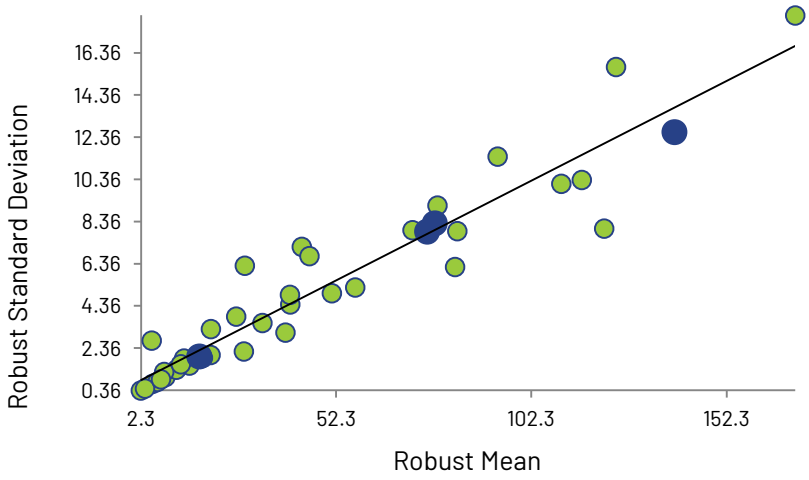
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



m,p-Xylene

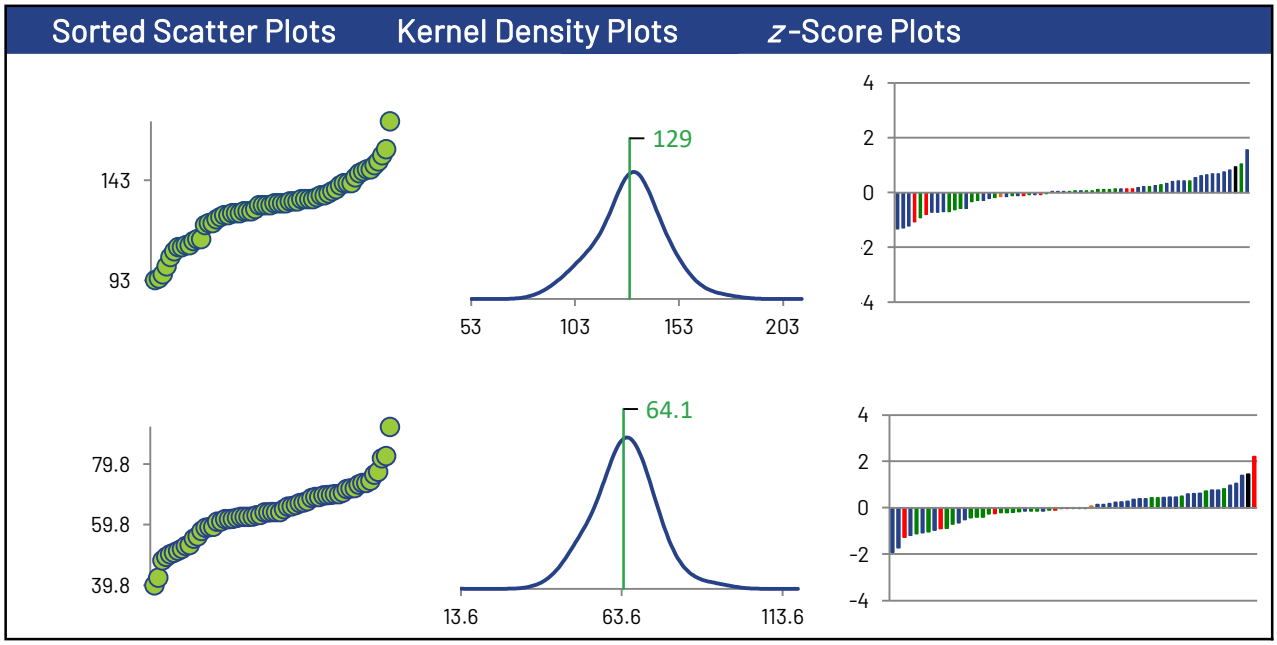
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	62	61	61	61
Median µg/L	131	64.0	14.0	113
Robust Mean µg/L	129	64.1	14.0	114
Uncdrtainty of the Assigned Value µg/L	2.38	1.41	0.386	2.16
Robust Standard Deviation µg/L	15.0	8.83	2.41	13.5
Regression Standard Deviation µg/L	19.4	9.62	2.10	17.1
Stability Flag	Stability	Stability		
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	27.6	12.7	2.41	17.1
Flagged Outliers	0	1	1	1
|z|>3.0	0	0	1	1
2<|z|<3	0	1	1	2
Failure Rate %*	3.2			

Methods Used

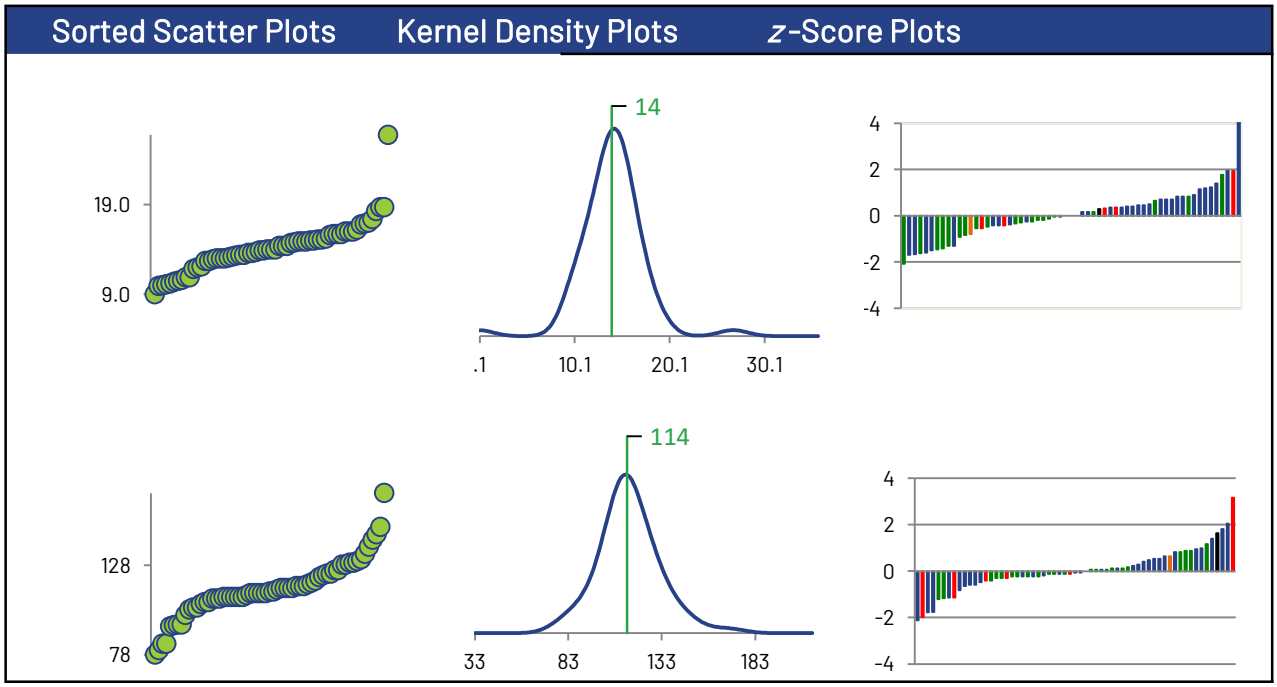
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	32	31	31	31
GC/MS (Red)	6	6	6	6
GC/MS - HEADSPACE (Green)	22	22	22	22
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

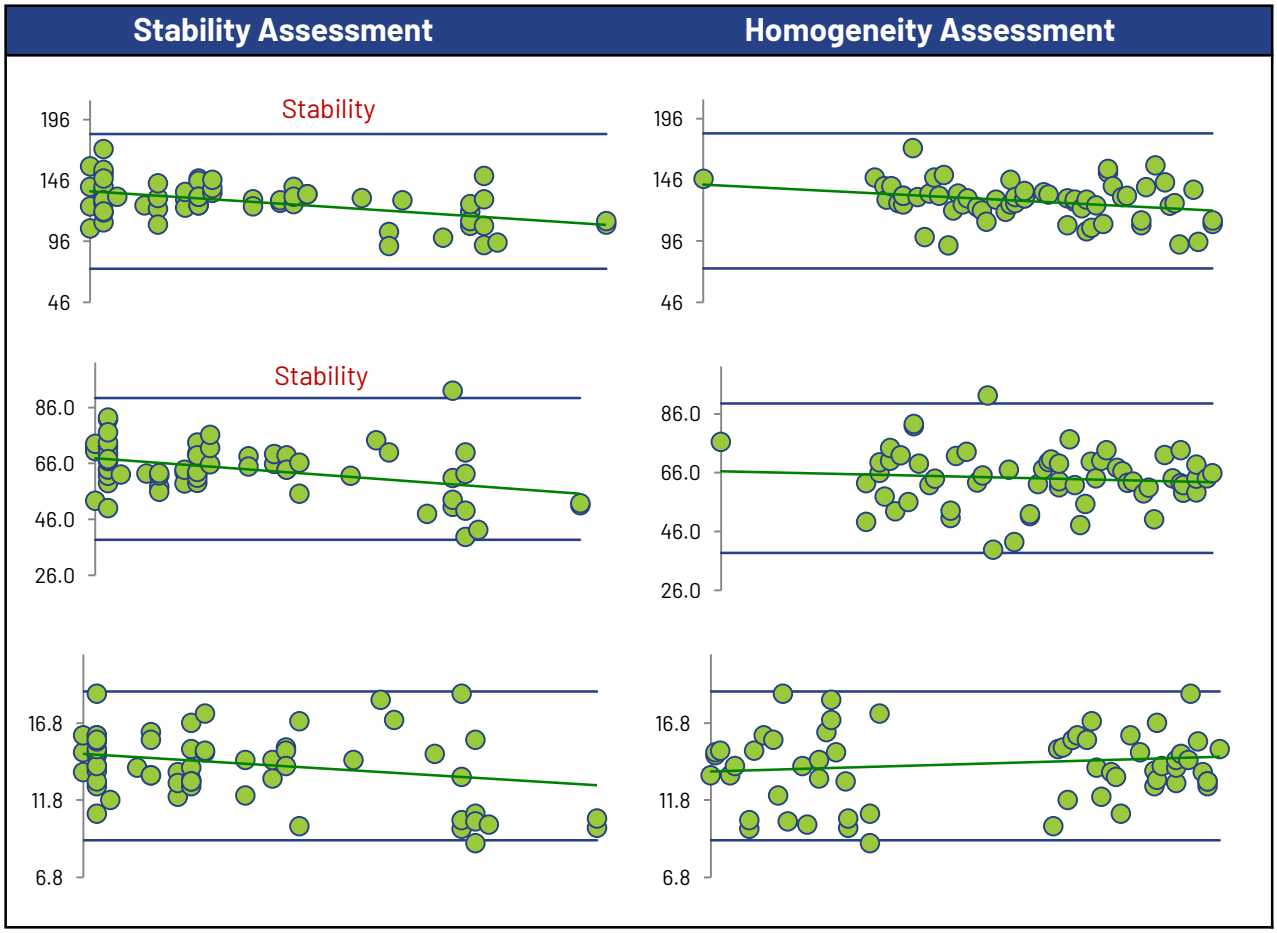
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

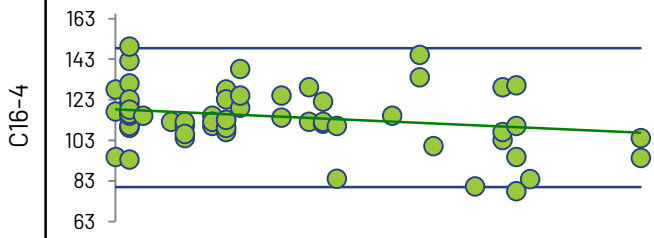
m,p-Xylene


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C16-3
19.0
9.0
14
.1
10.1
20.1
30.1
4
2
0
-2
-4
C16-4
128
78
114
33
83
133
183

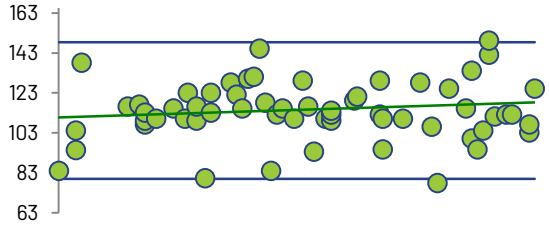

Stability Assessment
Homogeneity Assessment
C16-1
Stability
196
146
96
46
C16-2
86.0
66.0
46.0
26.0
C16-3
16.8
11.8
6.8

m,p-Xylene

Stability Assessment



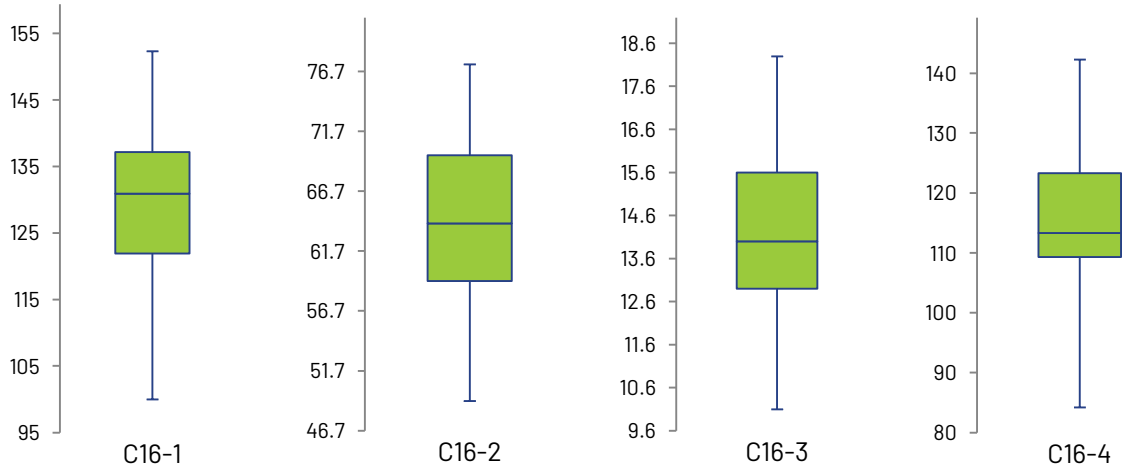
Homogeneity Assessment



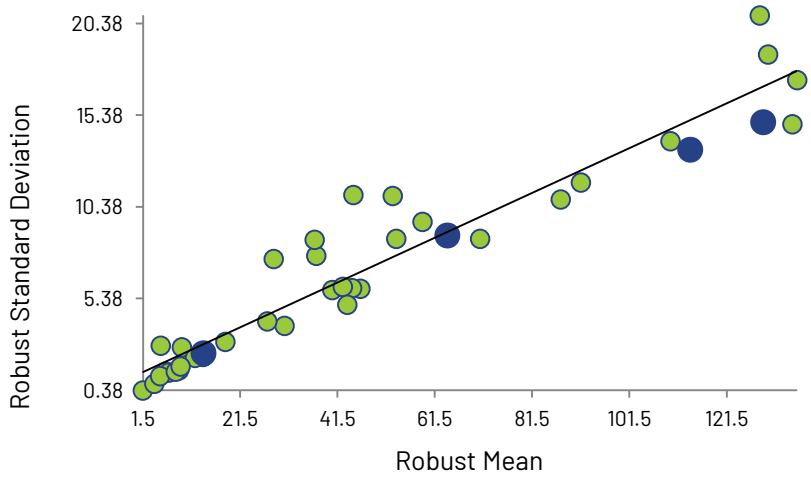
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Methyl ethyl ketone

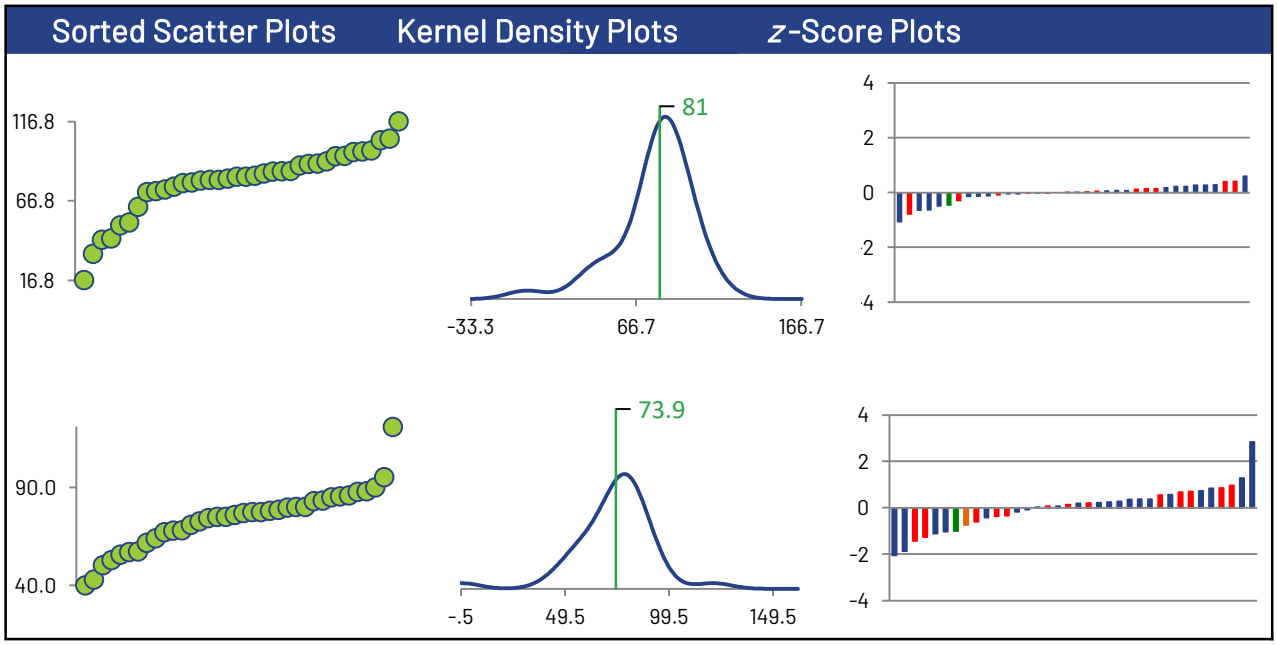
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	36	36	29	36
Median µg/L	82.1	76.5	19.5	142
Robust Mean µg/L	81.0	73.9	18.5	139
Uncdrtainty of the Assigned Value µg/L	3.63	2.92	1.10	4.92
Robust Standard Deviation µg/L	17.4	14.0	4.75	23.6
Regression Standard Deviation µg/L	18.2	16.6	4.17	31.4
Stability Flag				
Homogeneity Flag	Homogeneity		Homogeneity	
Standard Deviation Used (SDPA) µg/L	60.0	16.6	7.11	31.4
Flagged Outliers	0	0	1	0
|z|>3.0	0	0	0	0
2<|z|<3	0	2	0	1
Failure Rate %*	2.8			

Methods Used

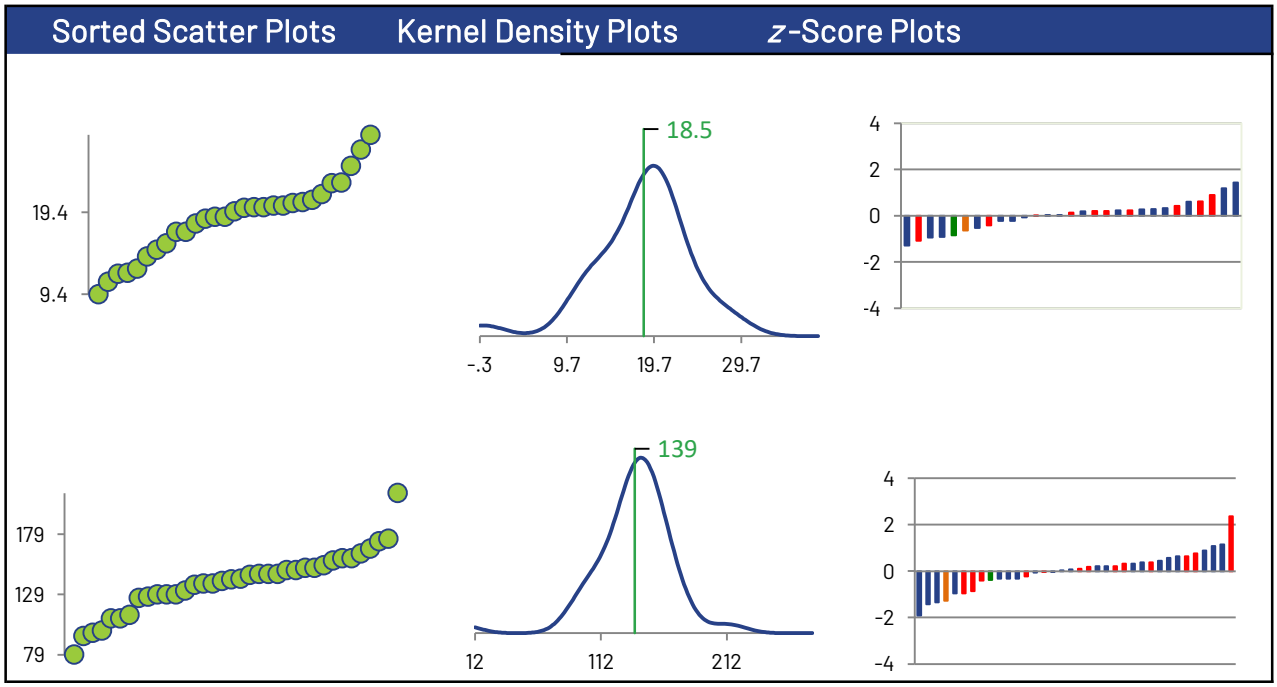
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	21	21	17	21
GC/MS - HEADSPACE (Red)	13	13	10	13
GC/FID - PURGE AND TRAP (Green)	1	1	1	1
GC/MS (Orange)	1	1	1	1

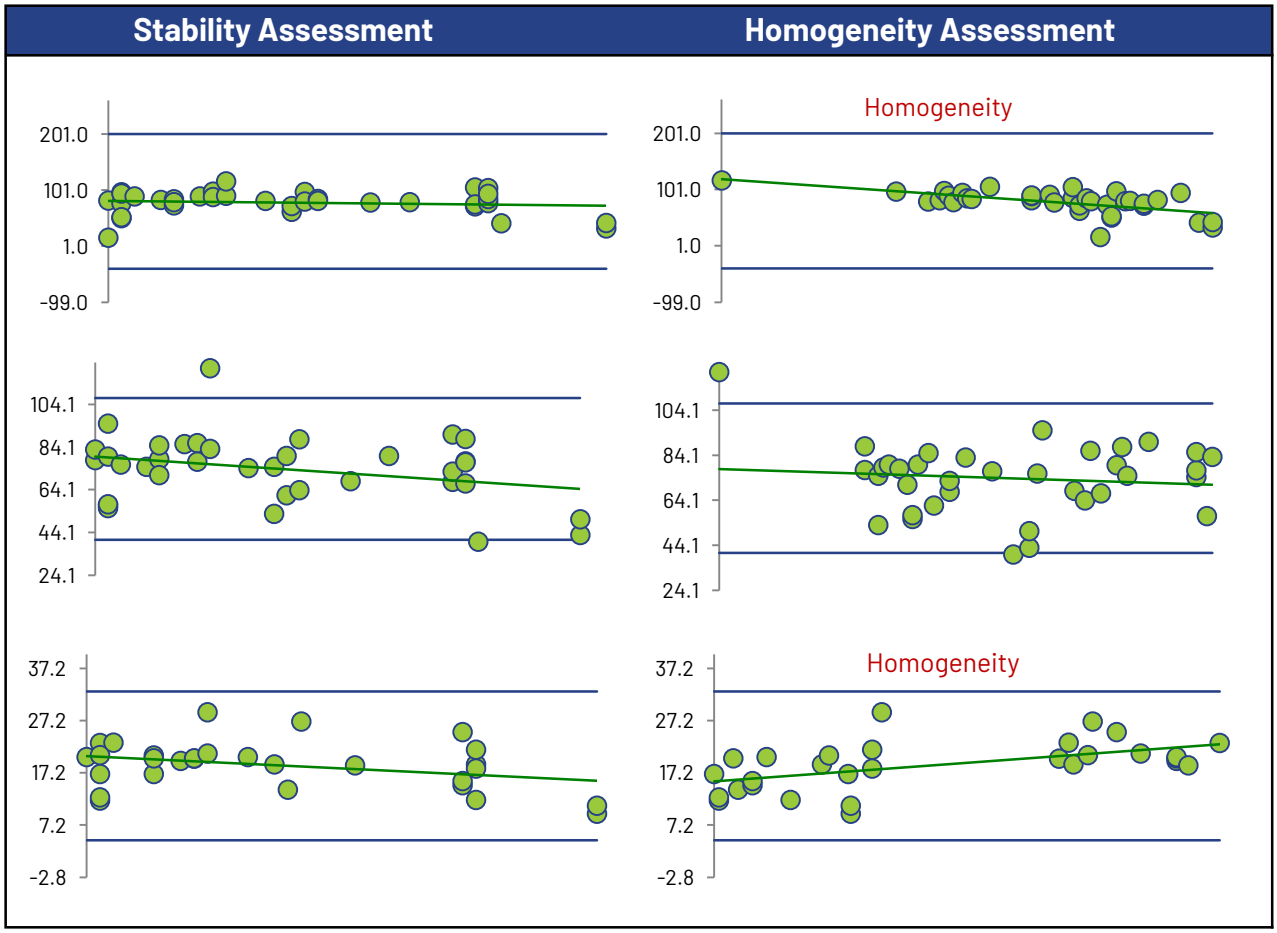
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

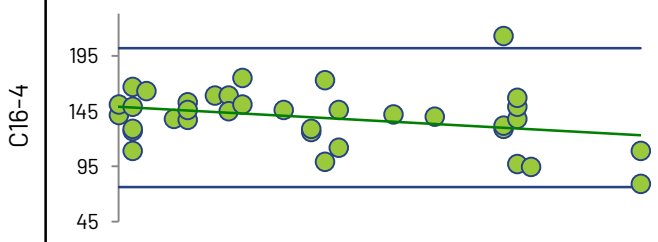
Methyl ethyl ketone



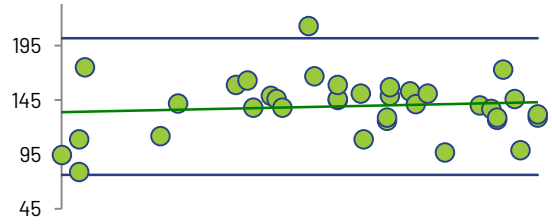


Methyl ethyl ketone

Stability Assessment



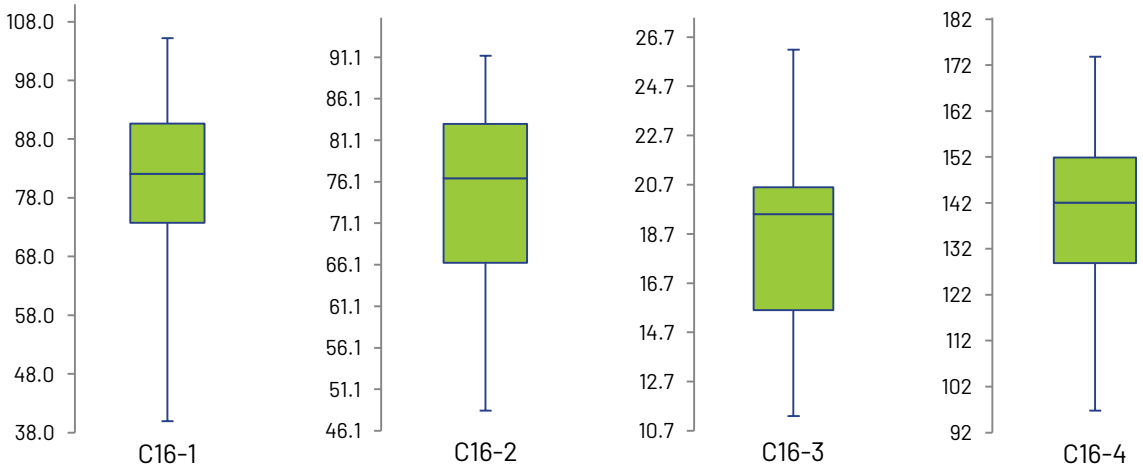
Homogeneity Assessment



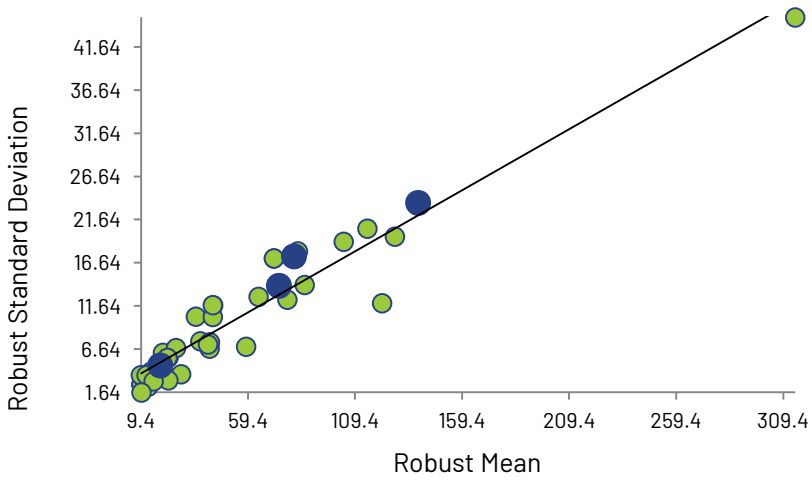
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Methyl isobutyl ketone (MIBK)

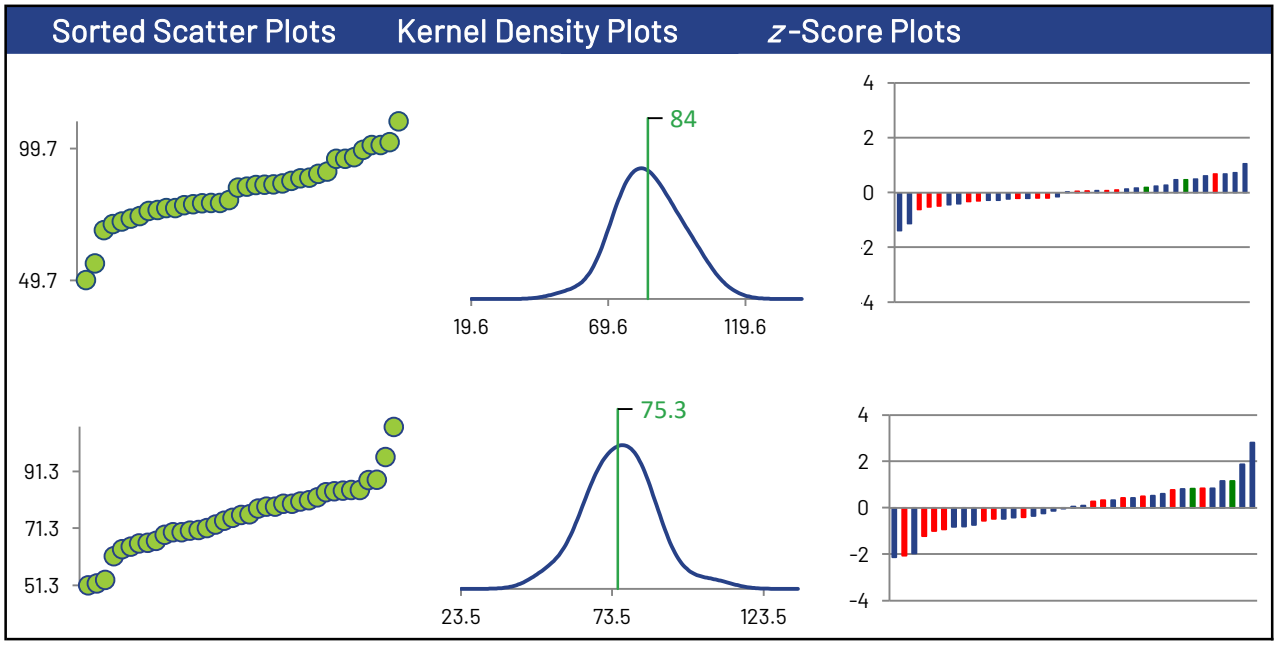
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	36	37	27	37
Median µg/L	85.0	76.0	17.5	141
Robust Mean µg/L	84.0	75.3	17.8	143
Uncdrtainty of the Assigned Value µg/L	2.46	2.12	0.729	3.60
Robust Standard Deviation µg/L	11.8	10.3	3.03	17.5
Regression Standard Deviation µg/L	12.6	11.3	2.68	21.4
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	24.6	11.3	3.03	21.4
Flagged Outliers	1	0	1	0
|z|>3.0	0	0	0	1
2<|z|<3	0	3	1	2
Failure Rate %*	0.0			

Methods Used

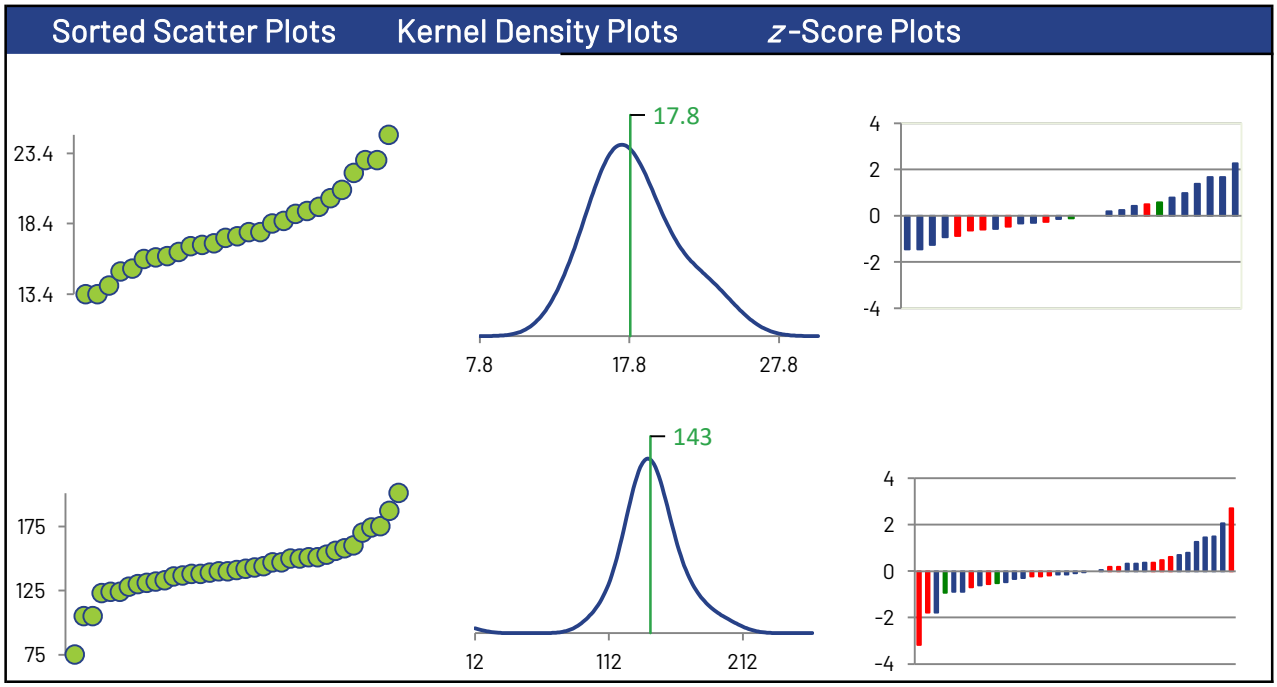
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	21	22	18	22
GC/MS - HEADSPACE (Red)	13	13	7	13
GC/MS (Green)	2	2	2	2

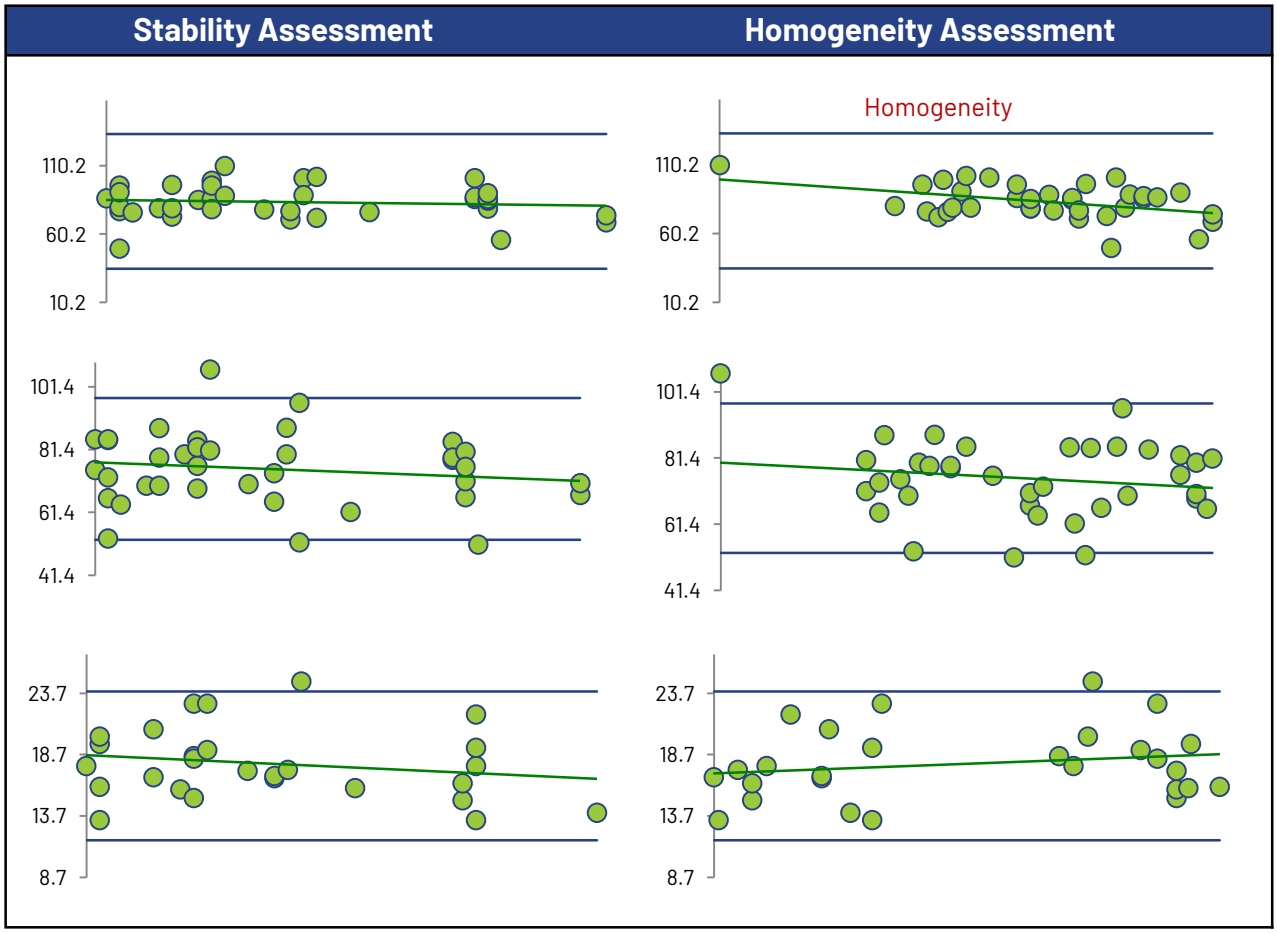
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

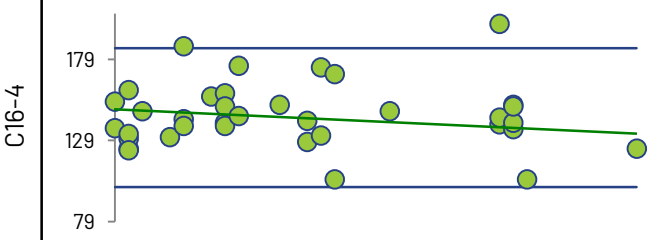
Methyl isobutyl ketone (MIBK)



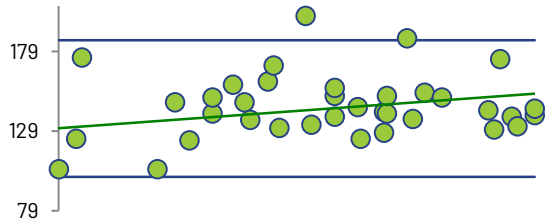


Methyl isobutyl ketone (MIBK)

Stability Assessment



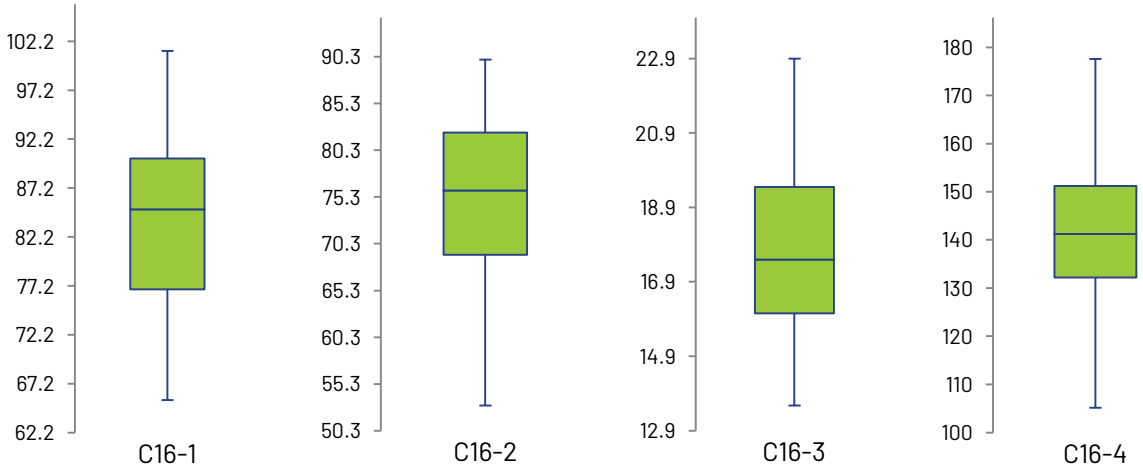
Homogeneity Assessment



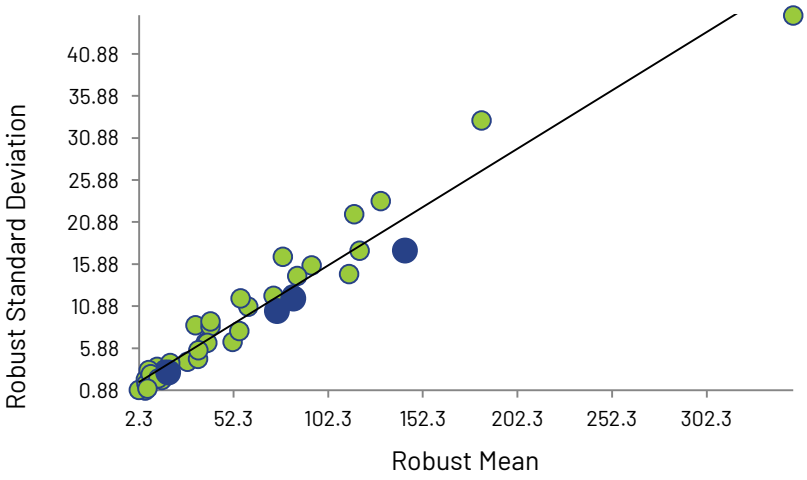
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Methyl t-butyl ether

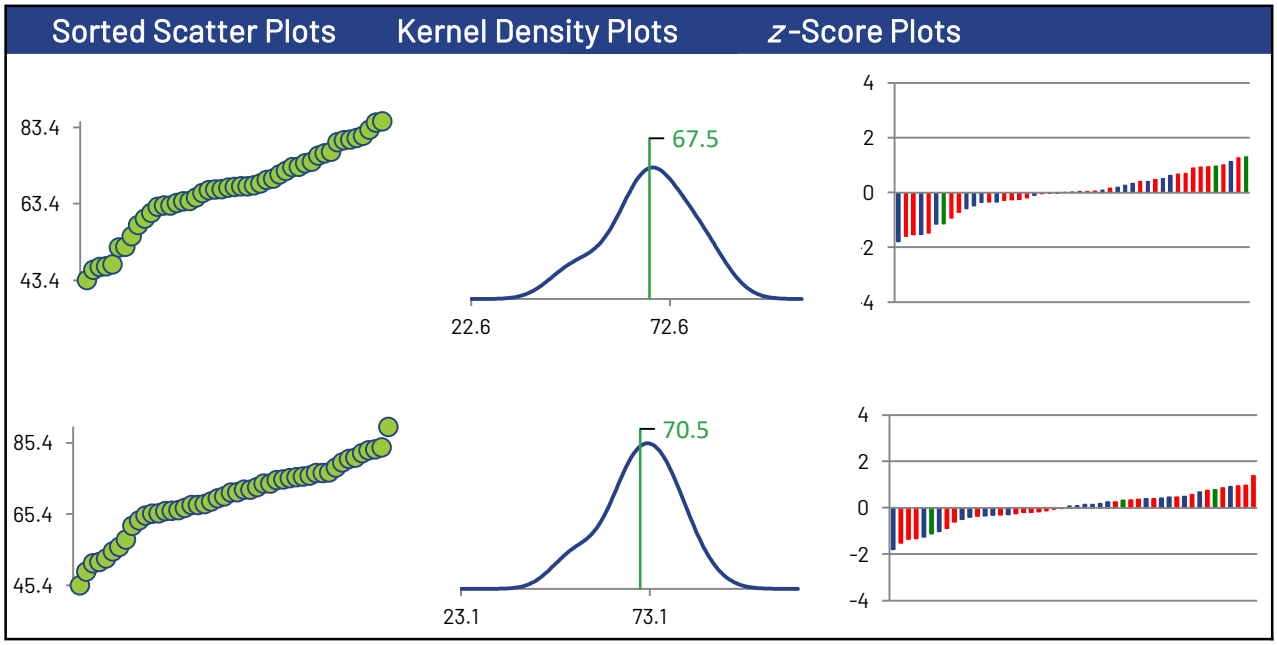
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	47	48	47	48
Median µg/L	67.8	71.6	16.8	131
Robust Mean µg/L	67.5	70.5	16.5	127
Uncdrtainty of the Assigned Value µg/L	2.02	1.77	0.532	3.39
Robust Standard Deviation µg/L	11.1	9.82	2.92	18.8
Regression Standard Deviation µg/L	13.5	14.1	3.30	25.4
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	13.5	14.1	3.30	25.4
Flagged Outliers	1	0	1	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	1	0
Failure Rate %*	2.1			

Methods Used

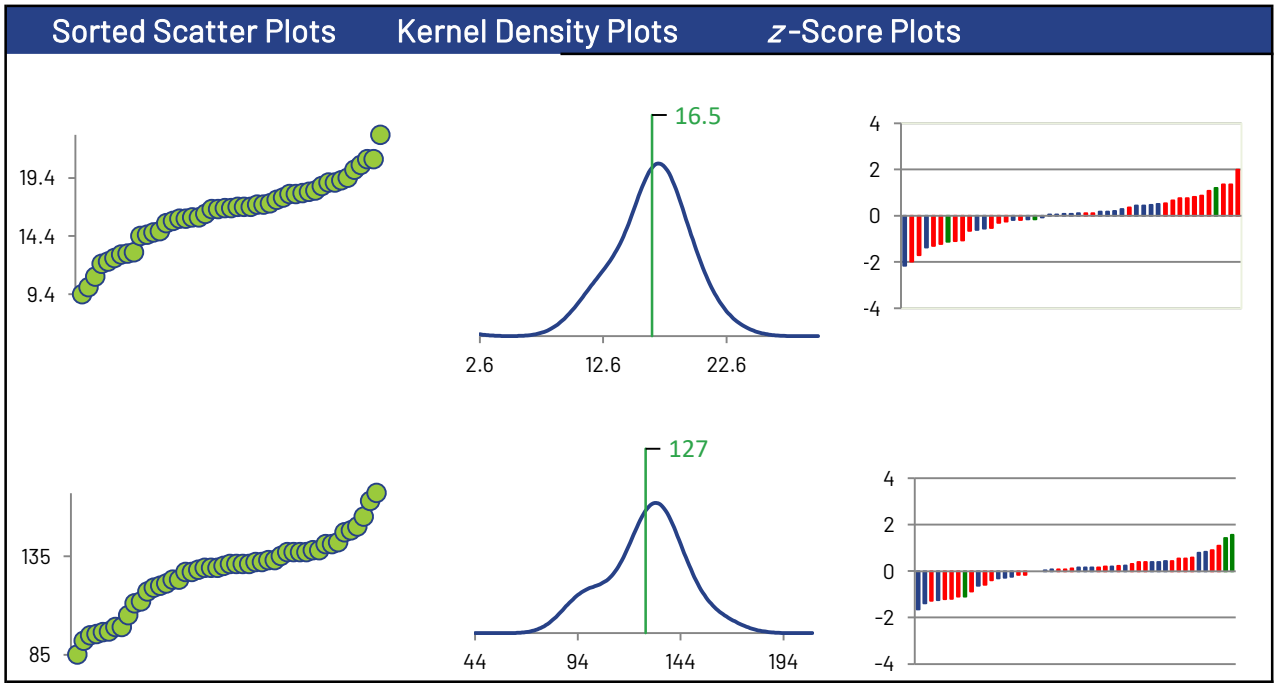
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - HEADSPACE (Blue)	20	20	20	20
GC/MS - PURGE AND TRAP (Red)	24	25	24	25
GC/MS (Green)	3	3	3	3

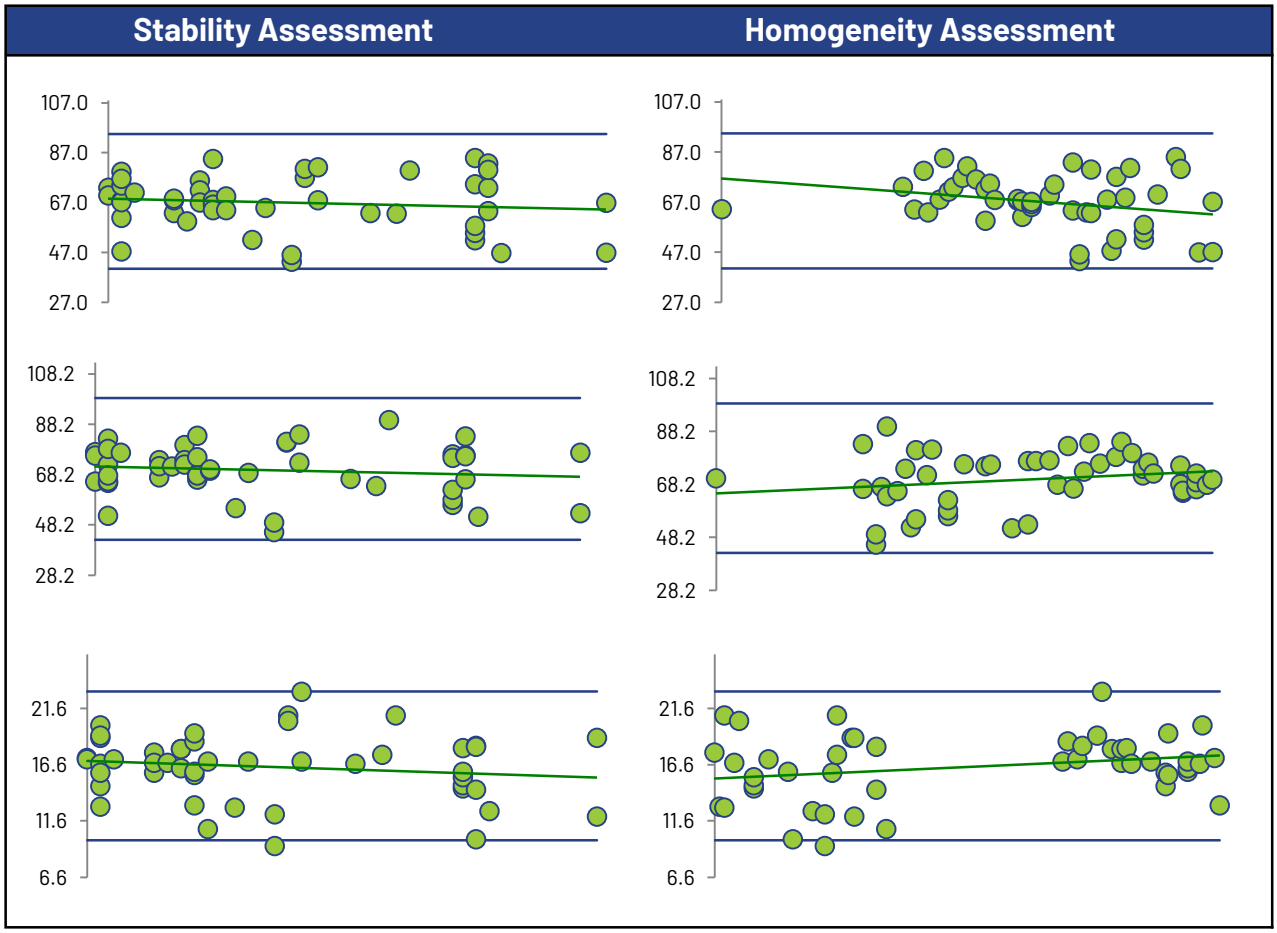
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

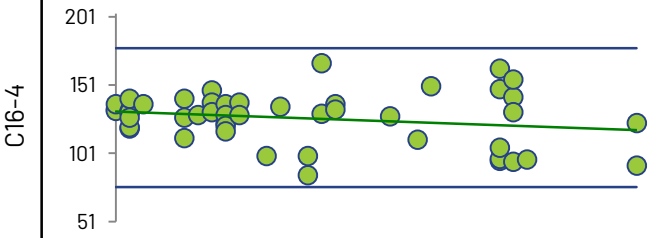
Methyl t-butyl ether



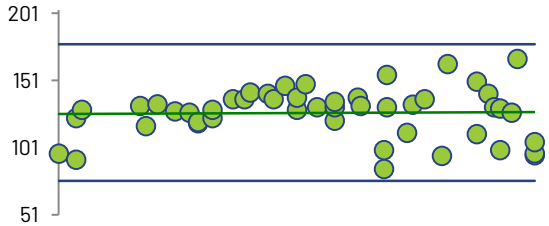


Methyl t-butyl ether

Stability Assessment



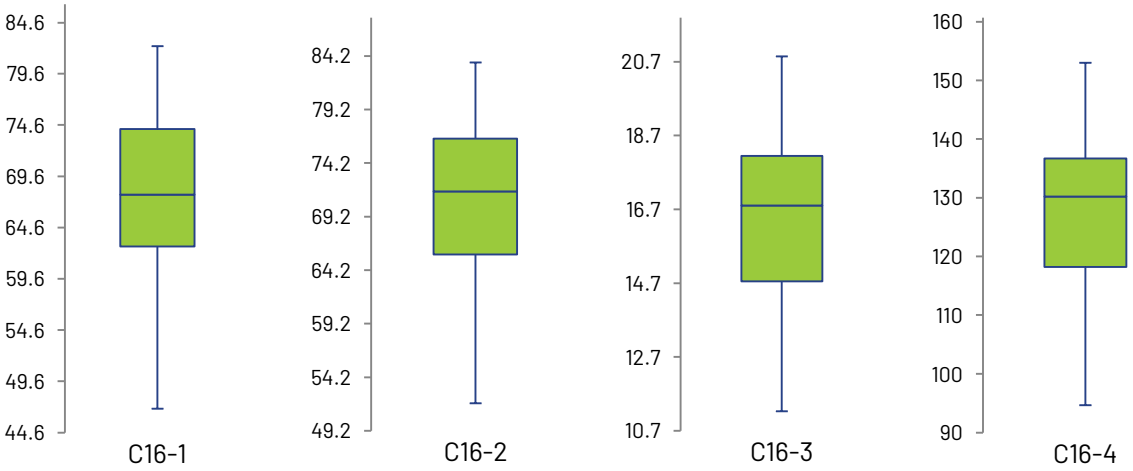
Homogeneity Assessment



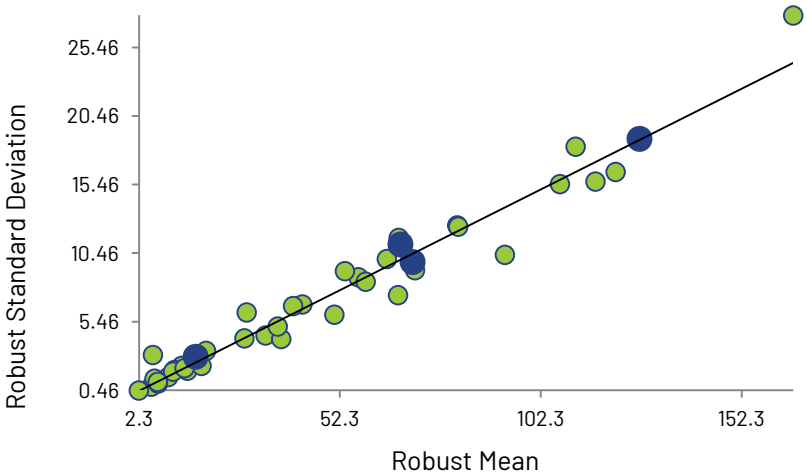
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



o-xylene

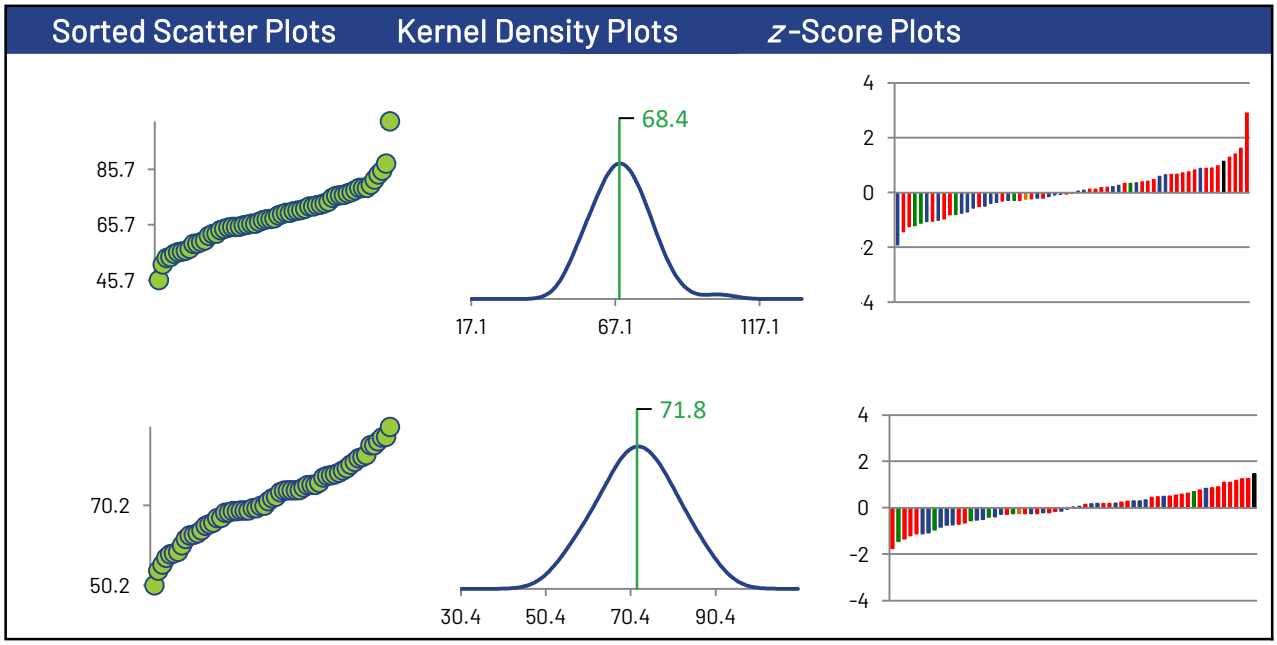
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	61	61	61	62
Median µg/L	68.0	72.0	16.0	129
Robust Mean µg/L	68.4	71.8	15.8	128
Uncdrtainty of the Assigned Value µg/L	1.53	1.51	0.386	2.78
Robust Standard Deviation µg/L	9.58	9.46	2.41	17.5
Regression Standard Deviation µg/L	10.3	10.8	2.37	19.2
Stability Flag	Stability	Stability		
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	11.9	12.4	2.41	19.2
Flagged Outliers	1	1	1	0
|z|>3.0	0	0	1	0
2<|z|<3	1	0	3	2
Failure Rate %*	3.2			

Methods Used

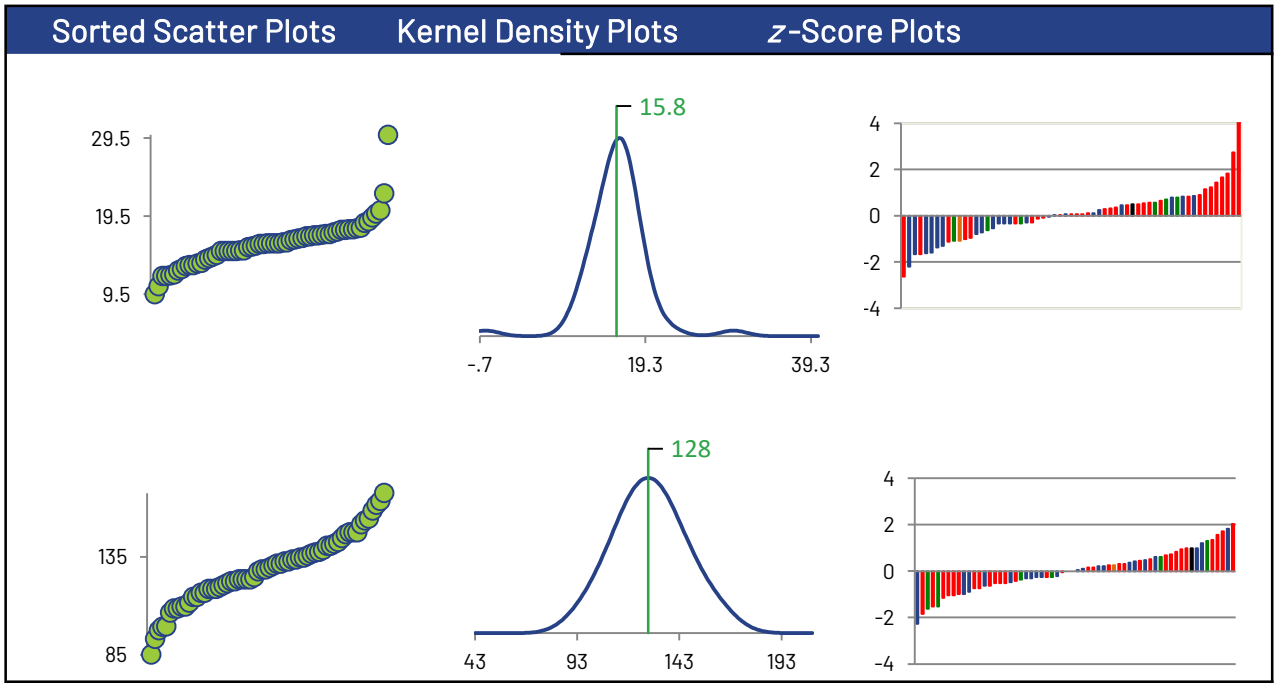
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - HEADSPACE (Blue)	22	22	22	22
GC/MS - PURGE AND TRAP (Red)	31	31	31	32
GC/MS (Green)	6	6	6	6
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

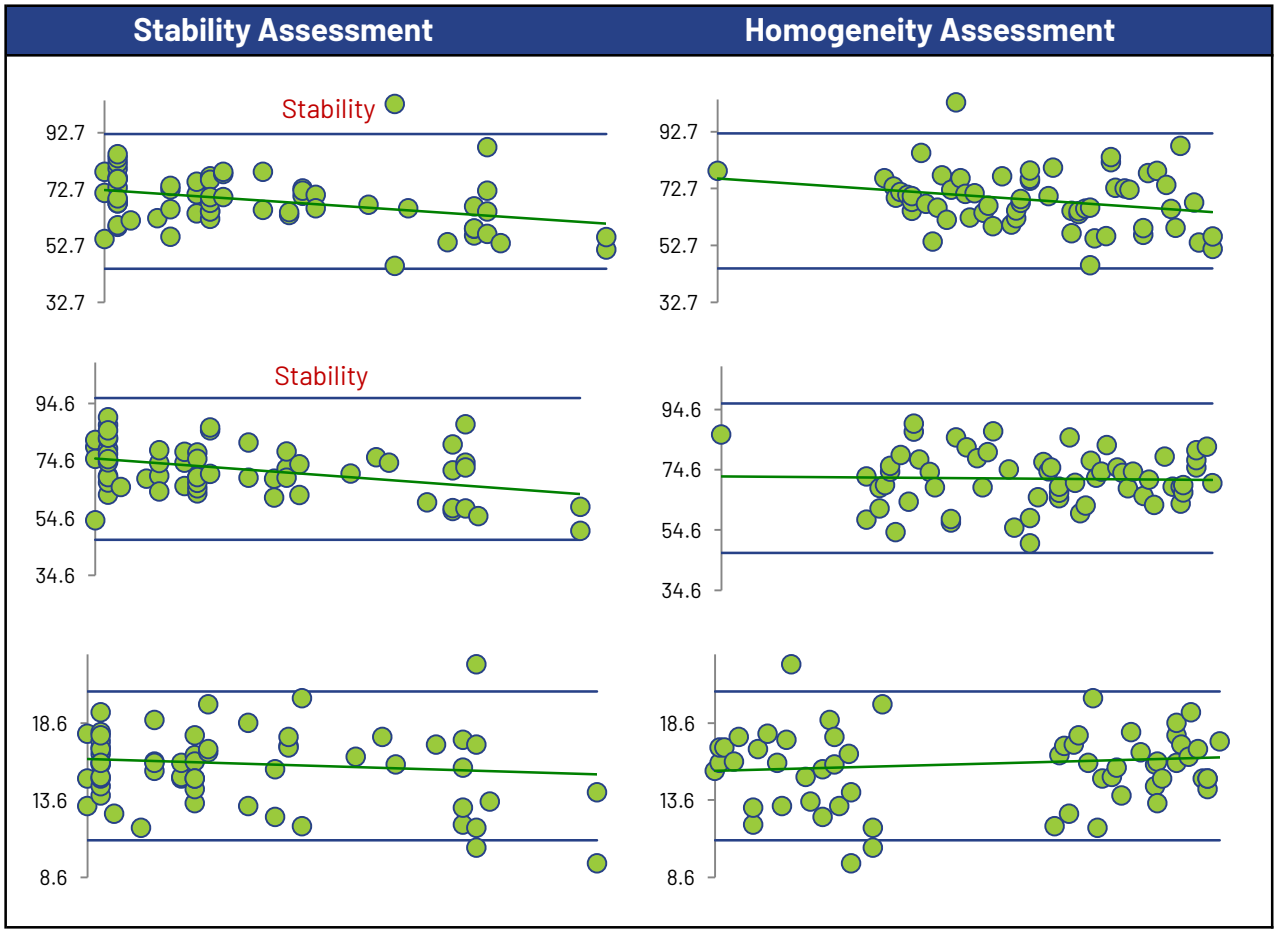
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

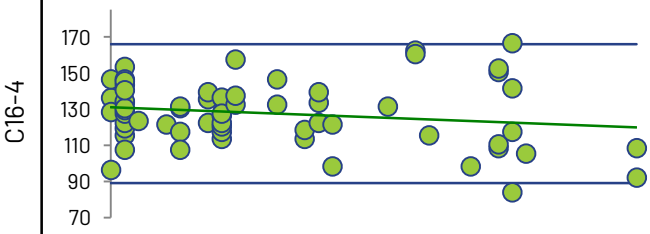
o-xylene


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C16-3
29.5
19.5
9.5
15.8
-.7
19.3
39.3
4
2
0
-2
-4
C16-4
135
85
128
43
93
143
193

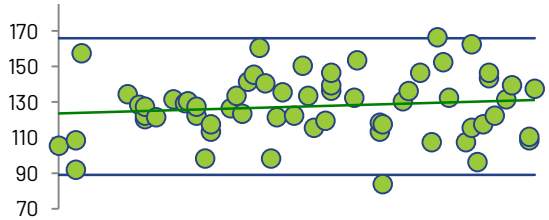

Stability Assessment
Homogeneity Assessment
C16-1
Stability
92.7
72.7
52.7
32.7
C16-2
94.6
74.6
54.6
34.6
C16-3
18.6
13.6
8.6

o-xylene

Stability Assessment



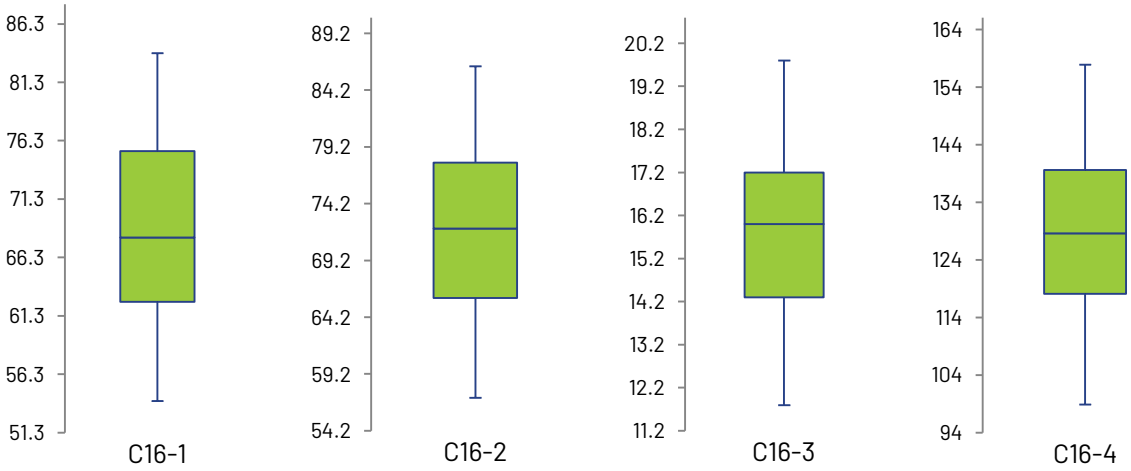
Homogeneity Assessment



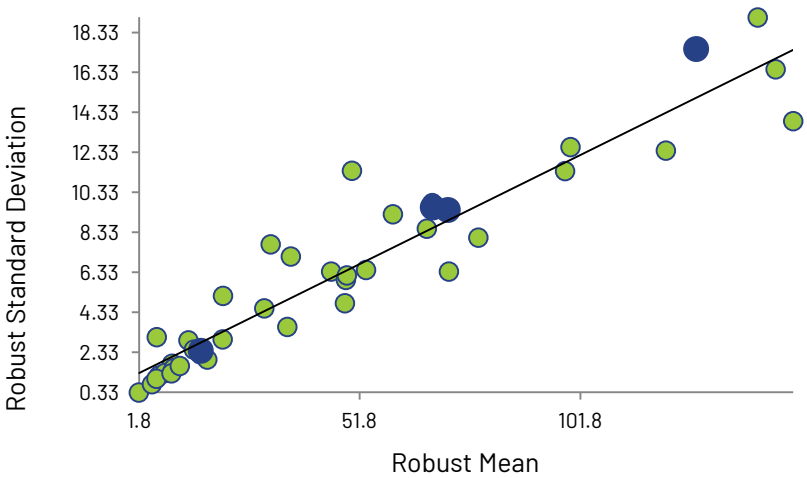
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Styrene

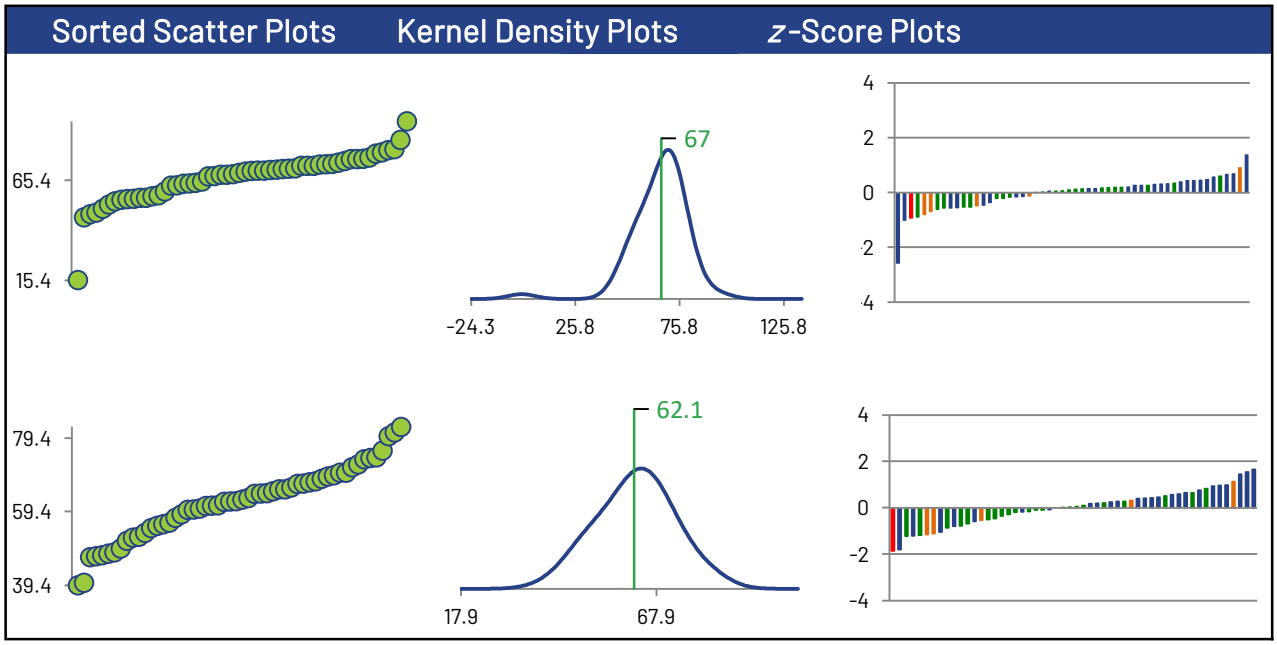
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	54	54	53	54
Median µg/L	69.3	62.5	13.8	114
Robust Mean µg/L	67.0	62.1	13.4	113
Uncdrtainty of the Assigned Value µg/L	1.74	1.70	0.477	2.76
Robust Standard Deviation µg/L	10.2	10.0	2.78	16.2
Regression Standard Deviation µg/L	10.0	9.31	2.00	17.0
Stability Flag		Stability		Stability
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	20.1	12.3	2.78	19.5
Flagged Outliers	0	0	1	0
|z|>3.0	0	0	0	0
2<|z|<3	1	0	1	2
Failure Rate %*	1.9			

Methods Used

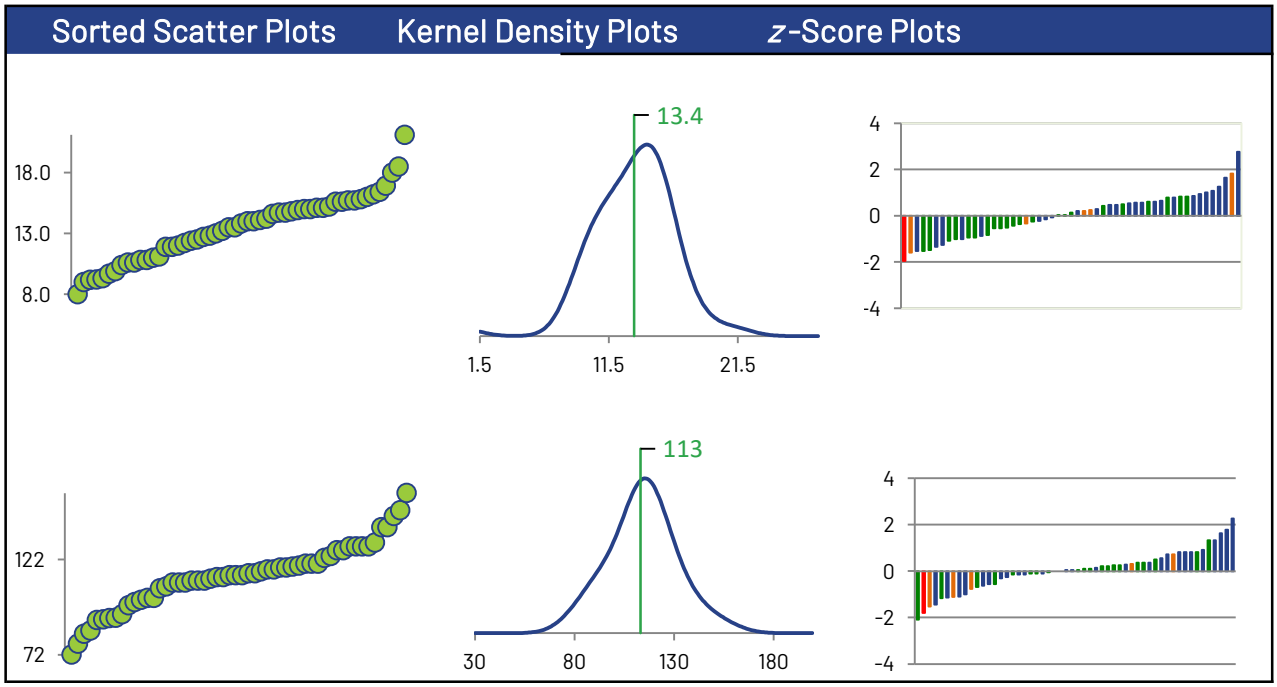
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	26	26	25	26
GC/PID (Red)	1	1	1	1
GC/MS - HEADSPACE (Green)	22	22	22	22
GC/MS (Orange)	5	5	5	5

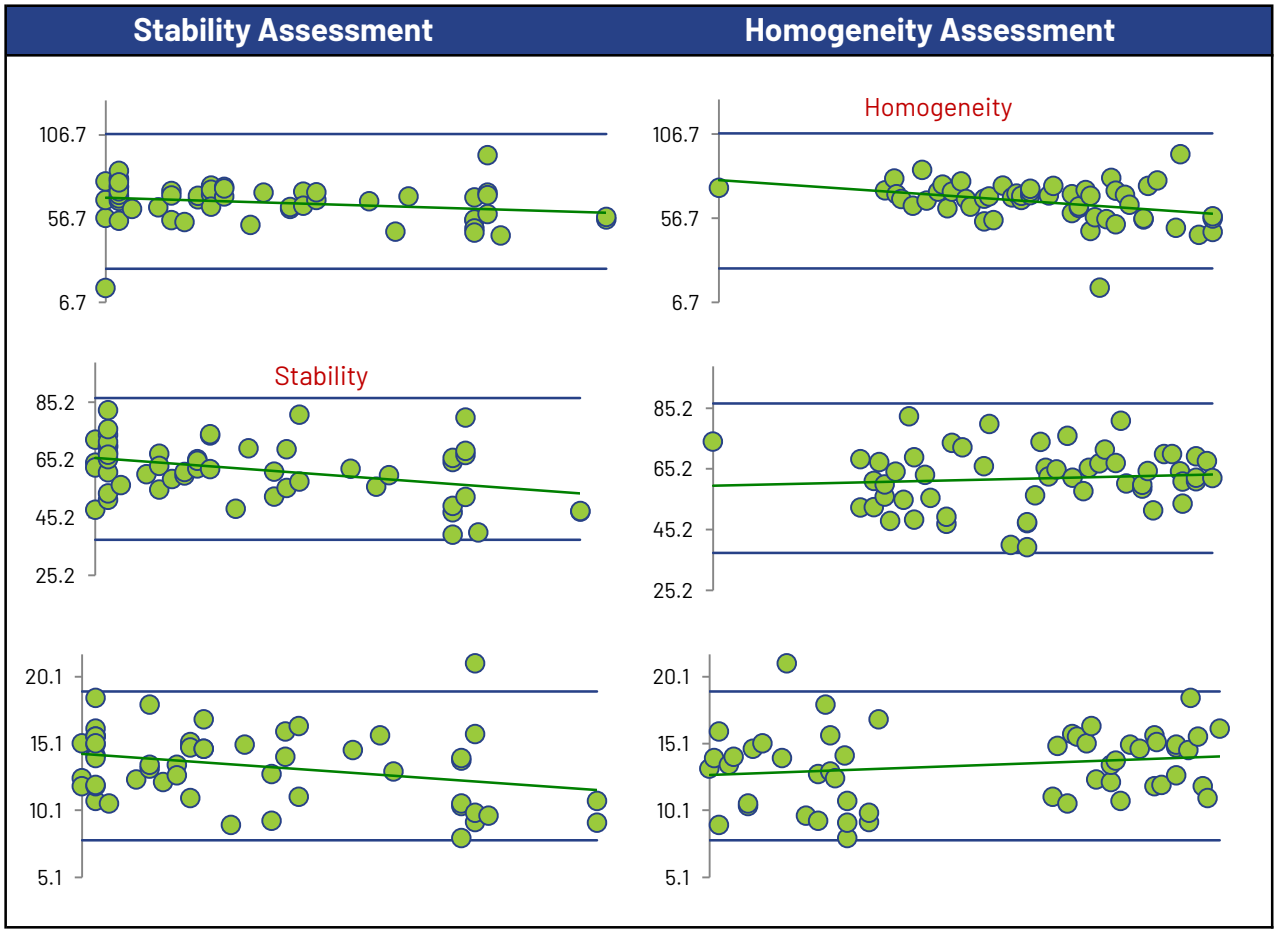
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

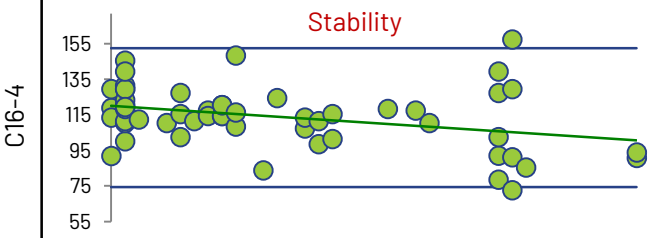
Styrene


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C16-3
18.0
13.0
8.0
13.4
1.5
11.5
21.5
4
2
0
-2
-4
C16-4
122
72
113
30
80
130
180

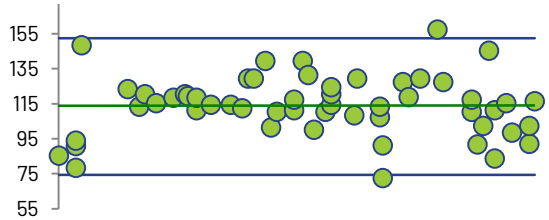

Stability Assessment
Homogeneity Assessment
C16-1
106.7
56.7
6.7
Homogeneity
C16-2
Stability
85.2
65.2
45.2
25.2
C16-3
20.1
15.1
10.1
5.1

Styrene

Stability Assessment



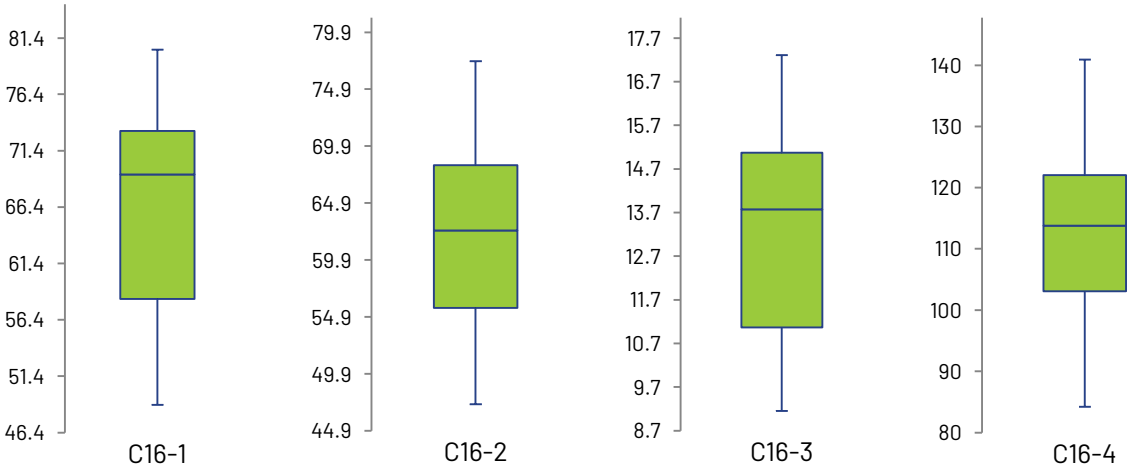
Homogeneity Assessment



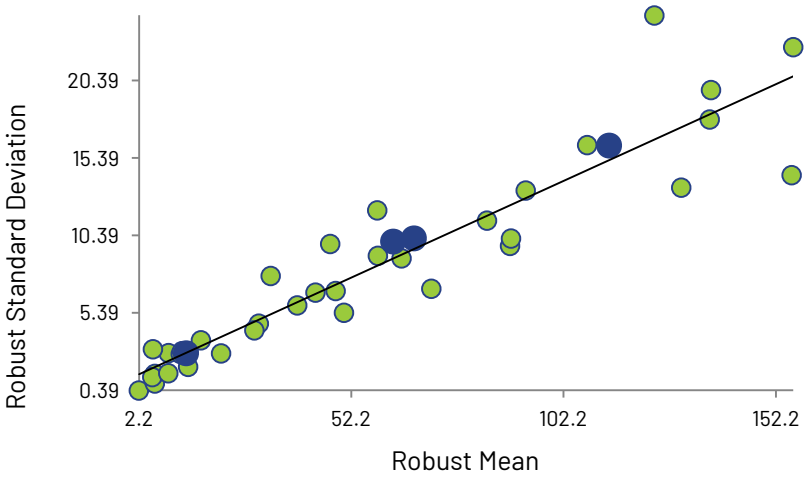
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Tetrachloroethylene

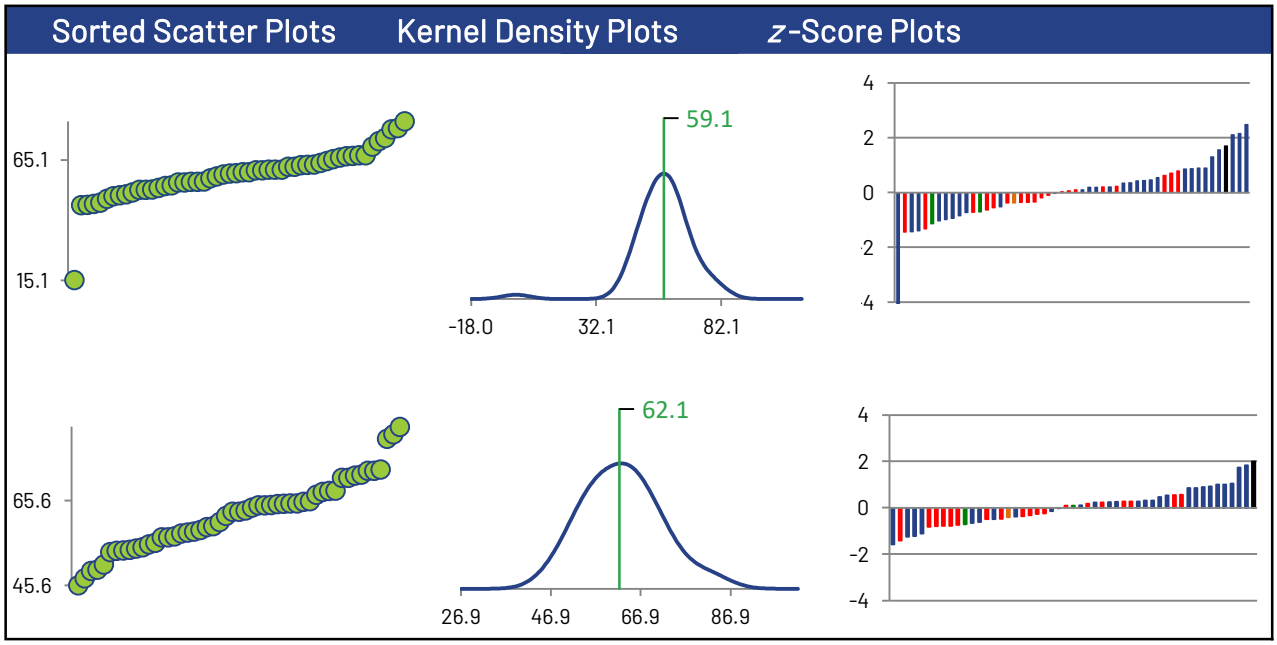
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	52	51	51	52
Median µg/L	59.8	63.0	13.9	110
Robust Mean µg/L	59.1	62.1	13.7	110
Uncdrtainty of the Assigned Value µg/L	1.46	1.48	0.327	2.67
Robust Standard Deviation µg/L	8.42	8.46	1.87	15.4
Regression Standard Deviation µg/L	8.87	9.31	2.06	16.5
Stability Flag		Stability		
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	8.87	10.5	2.06	16.5
Flagged Outliers	0	1	1	0
|z|>3.0	1	0	1	0
2<|z|<3	3	0	4	2
Failure Rate %*	5.8			

Methods Used

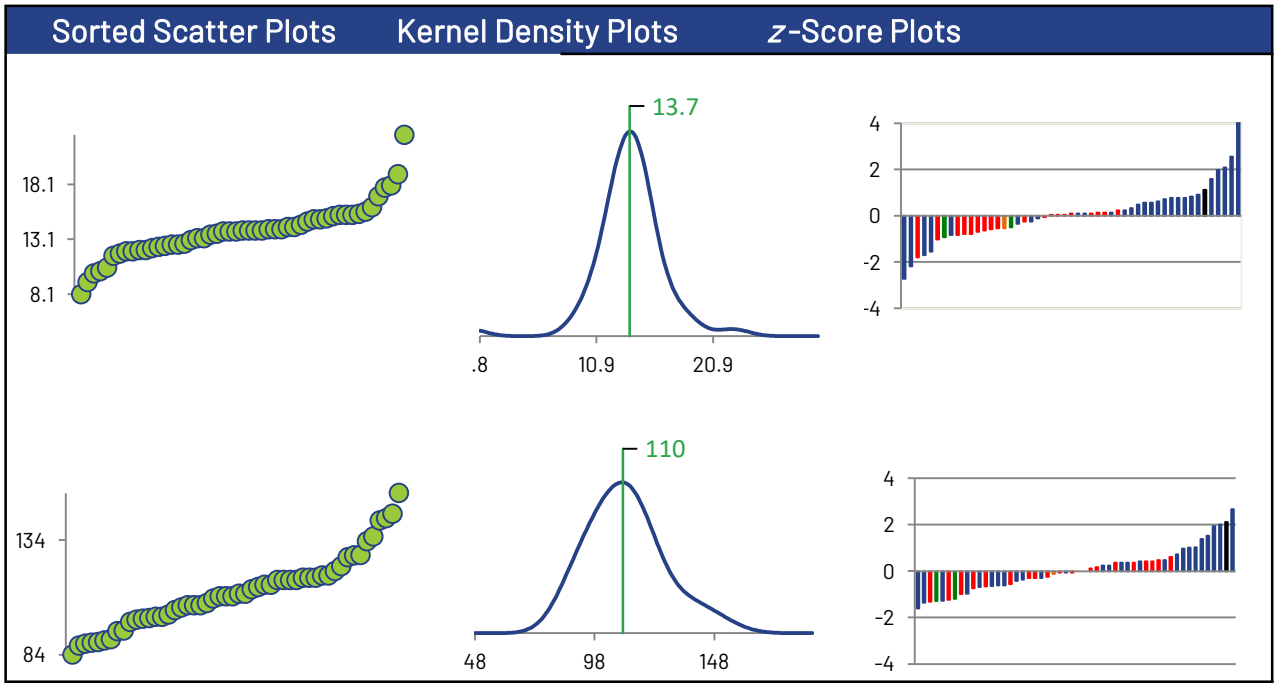
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	29	28	28	29
GC/MS - HEADSPACE (Red)	19	19	19	19
GC/MS (Green)	2	2	2	2
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

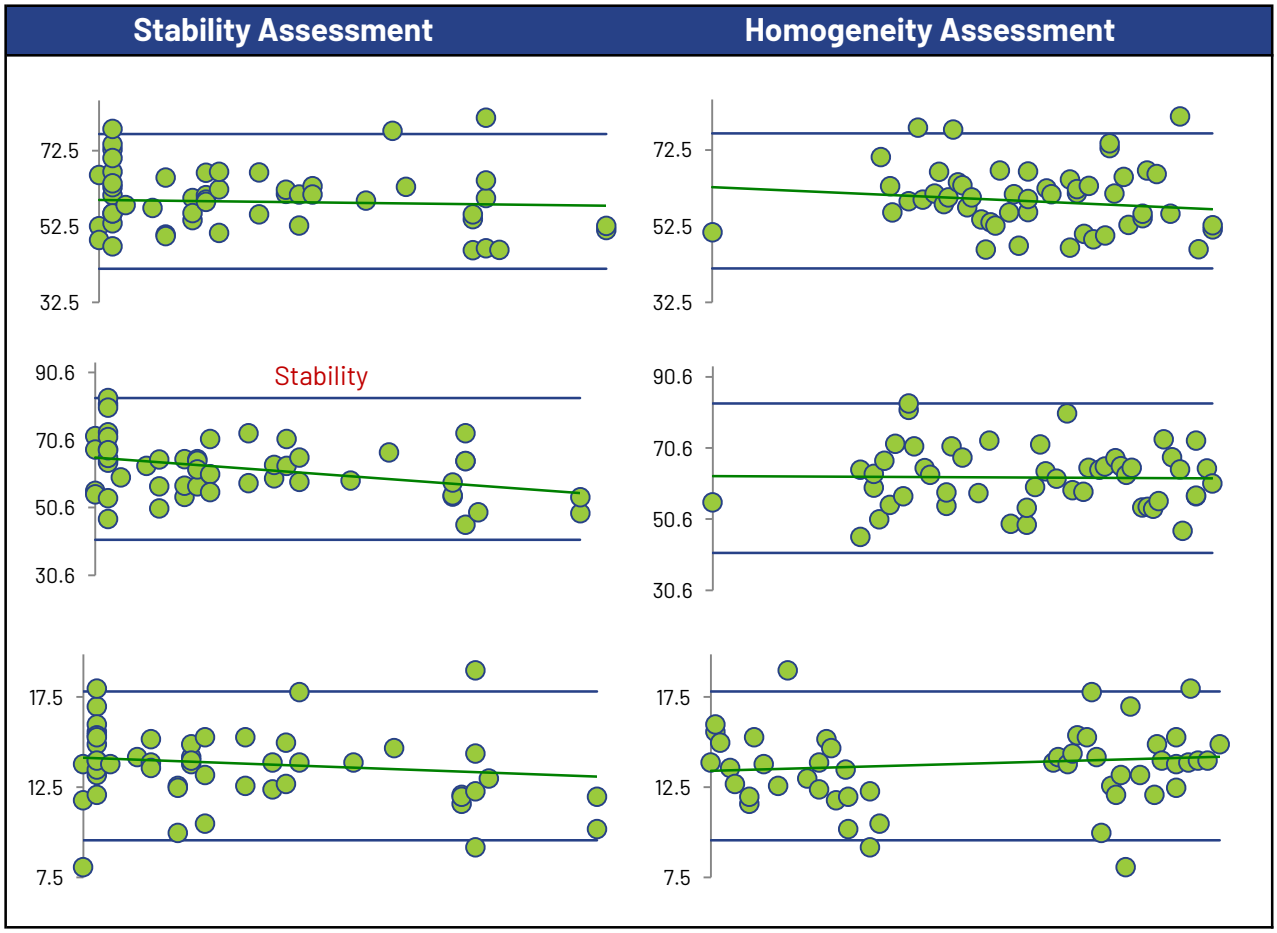
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

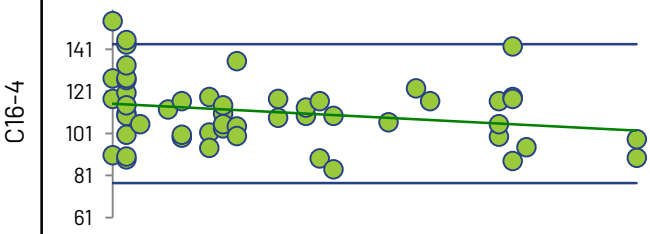
Tetrachloroethylene

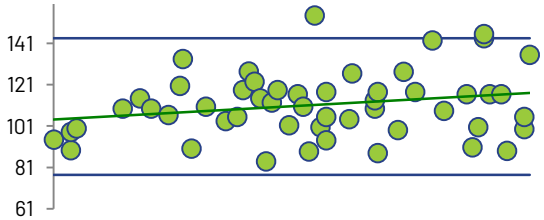




Tetrachloroethylene

Stability Assessment	Homogeneity Assessment

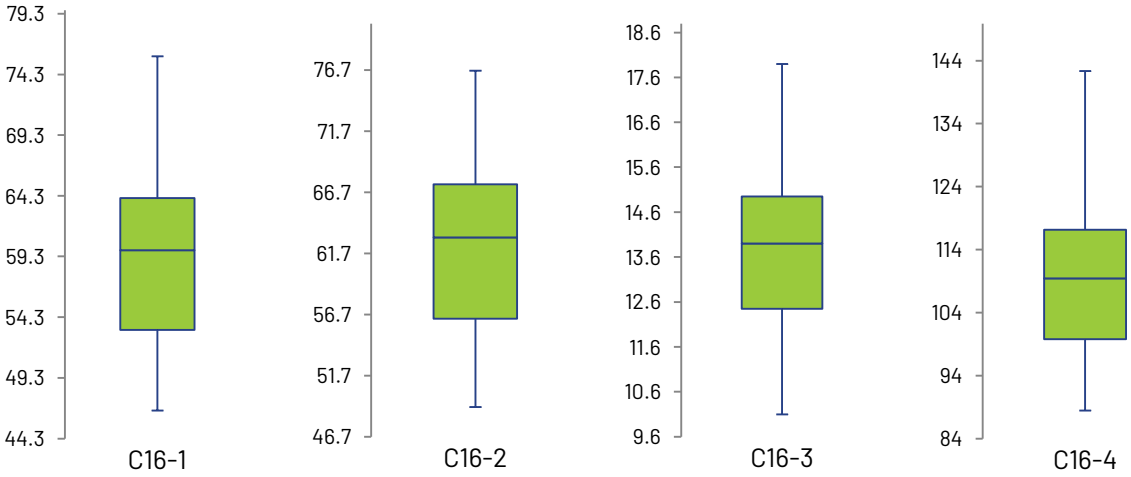




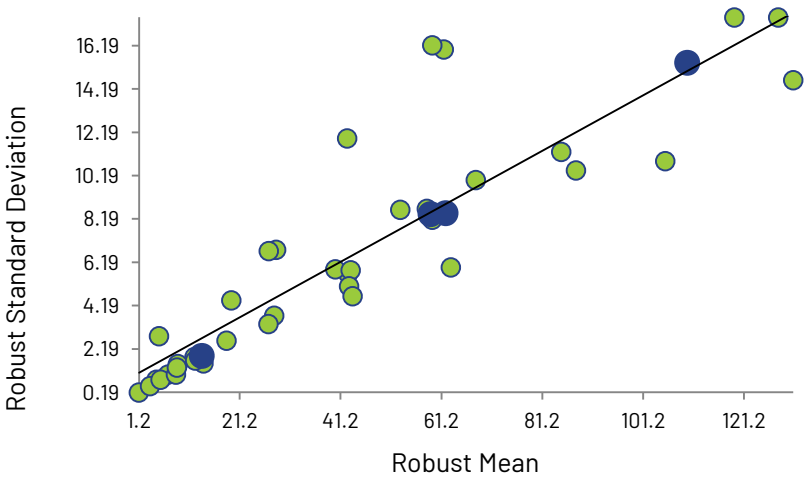
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Toluene

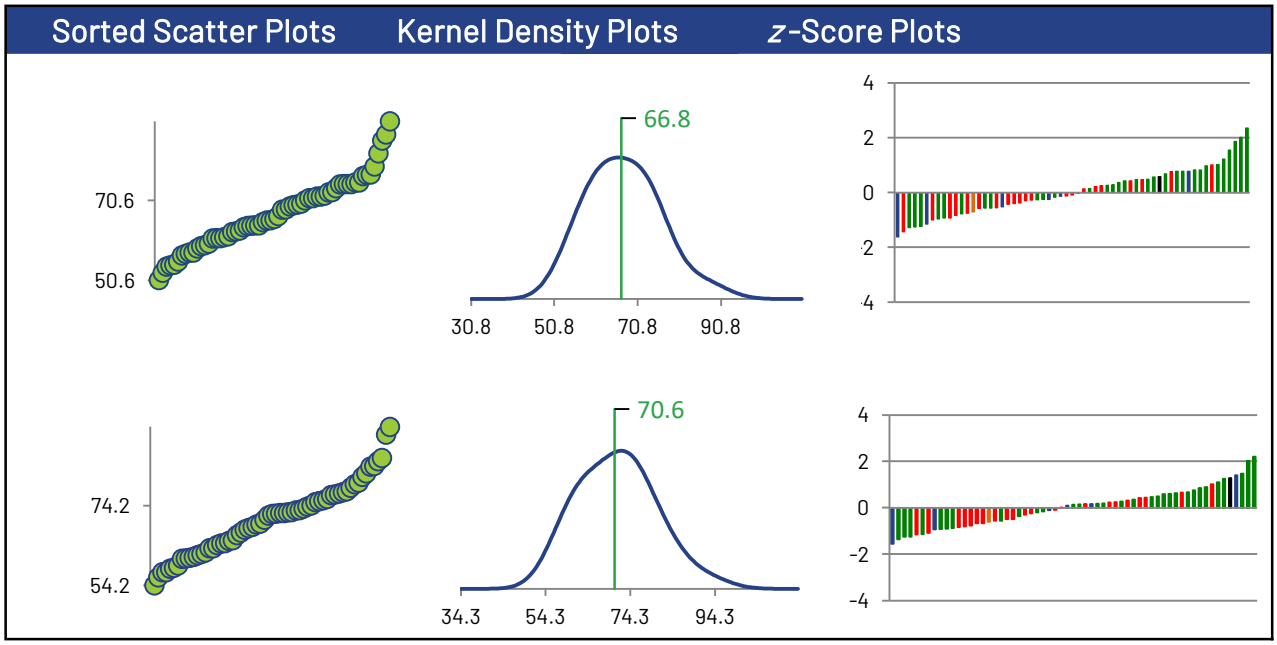
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	61	61	61	62
Median µg/L	65.9	72.1	15.8	125
Robust Mean µg/L	66.8	70.6	15.6	124
Uncdrtainty of the Assigned Value µg/L	1.40	1.49	0.323	2.35
Robust Standard Deviation µg/L	8.75	9.33	2.02	14.8
Regression Standard Deviation µg/L	10.0	10.6	2.33	18.6
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	10.0	10.6	2.33	18.6
Flagged Outliers	1	1	1	0
|z|>3.0	0	0	1	0
2<|z|<3	2	2	1	2
Failure Rate %*	4.8			

Methods Used

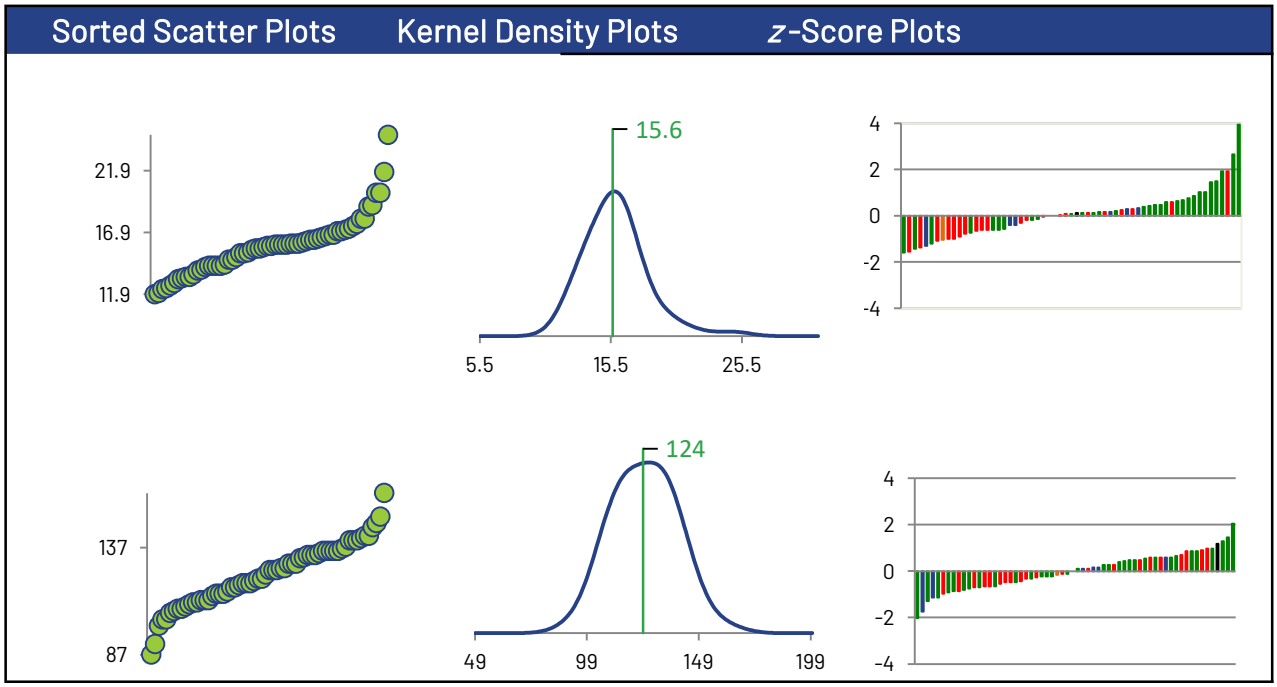
Method	C16-1	C16-2	C16-3	C16-4
GC/MS (Blue)	6	6	6	6
GC/MS - HEADSPACE (Red)	22	22	22	22
GC/MS - PURGE AND TRAP (Green)	31	31	31	32
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

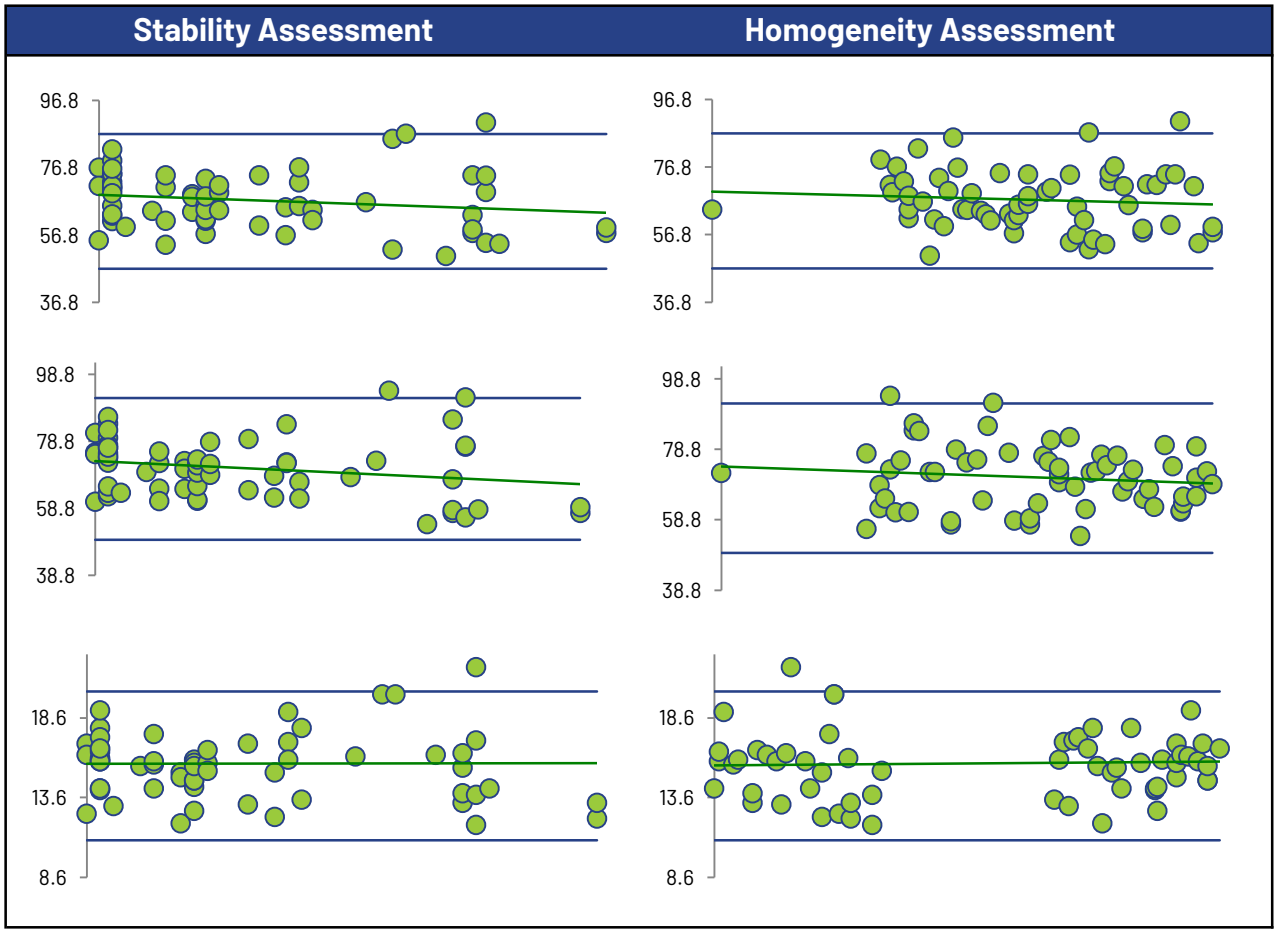
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

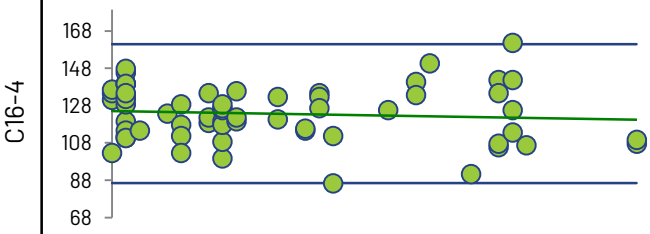
Toluene


Sorted Scatter Plots
Kernel Density Plots
z-Score Plots
C16-3
21.9
16.9
11.9
15.6
5.5
15.5
25.5
4
2
0
-2
-4
C16-4
137
87
124
49
99
149
199

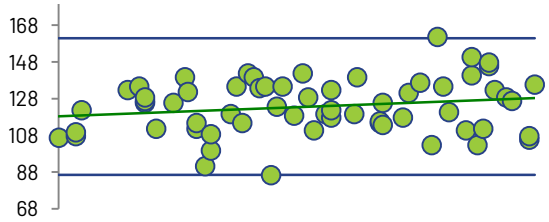

Stability Assessment
Homogeneity Assessment
C16-1
96.8
76.8
56.8
36.8
C16-2
98.8
78.8
58.8
38.8
C16-3
18.6
13.6
8.6

Toluene

Stability Assessment



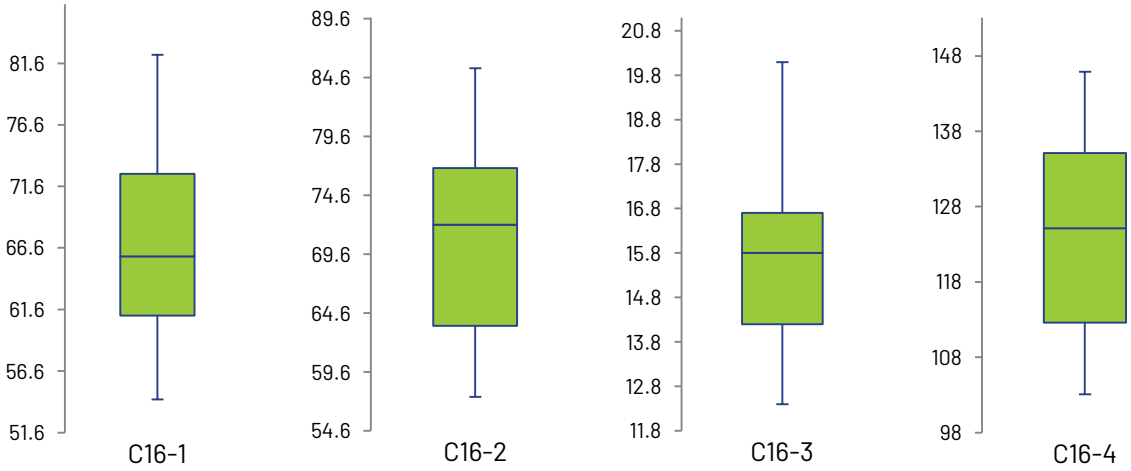
Homogeneity Assessment



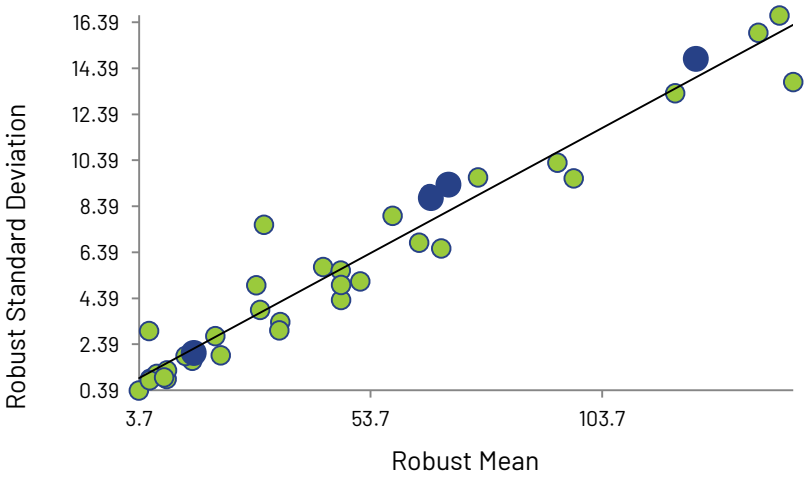
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



trans-1,2-Dichloroethylene

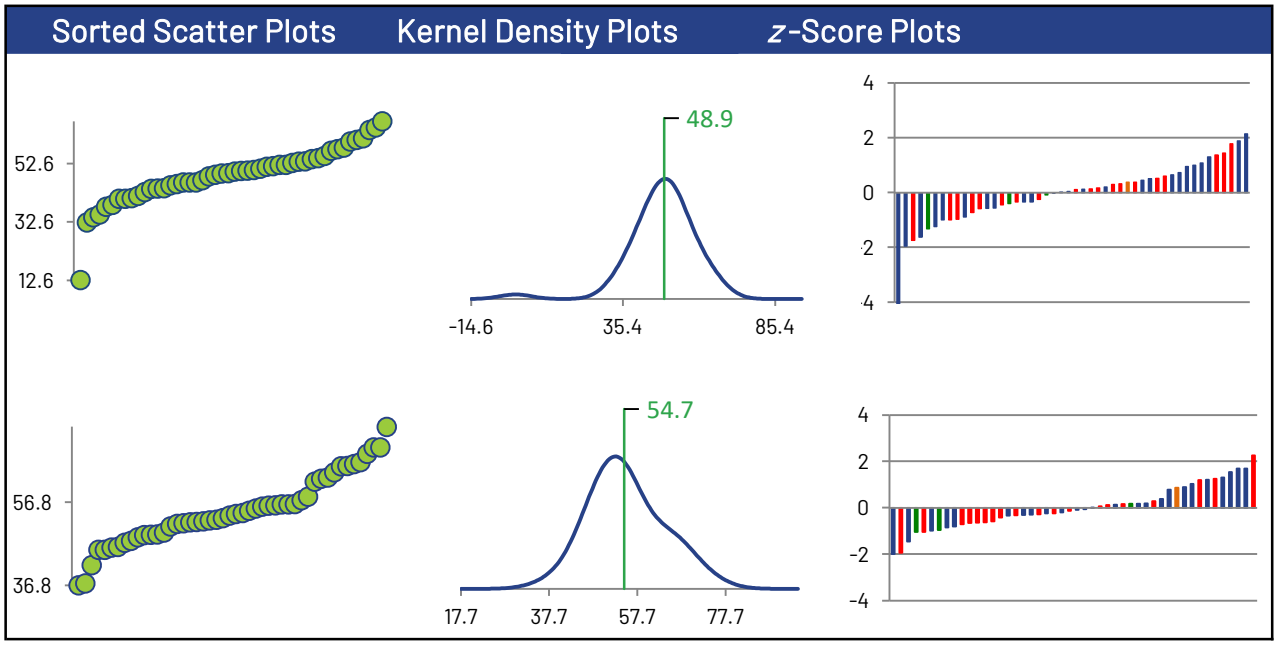
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	48	48	47	48
Median µg/L	49.5	53.8	12.2	92.4
Robust Mean µg/L	48.9	54.7	12.1	92.3
Uncdrtainty of the Assigned Value µg/L	1.53	1.51	0.381	2.44
Robust Standard Deviation µg/L	8.46	8.38	2.09	13.5
Regression Standard Deviation µg/L	7.34	8.20	1.82	13.8
Stability Flag		Stability		Stability
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	8.46	8.99	2.09	15.7
Flagged Outliers	0	0	1	0
|z|>3.0	1	0	0	0
2<|z|<3	1	1	6	4
Failure Rate %*	6.3			

Methods Used

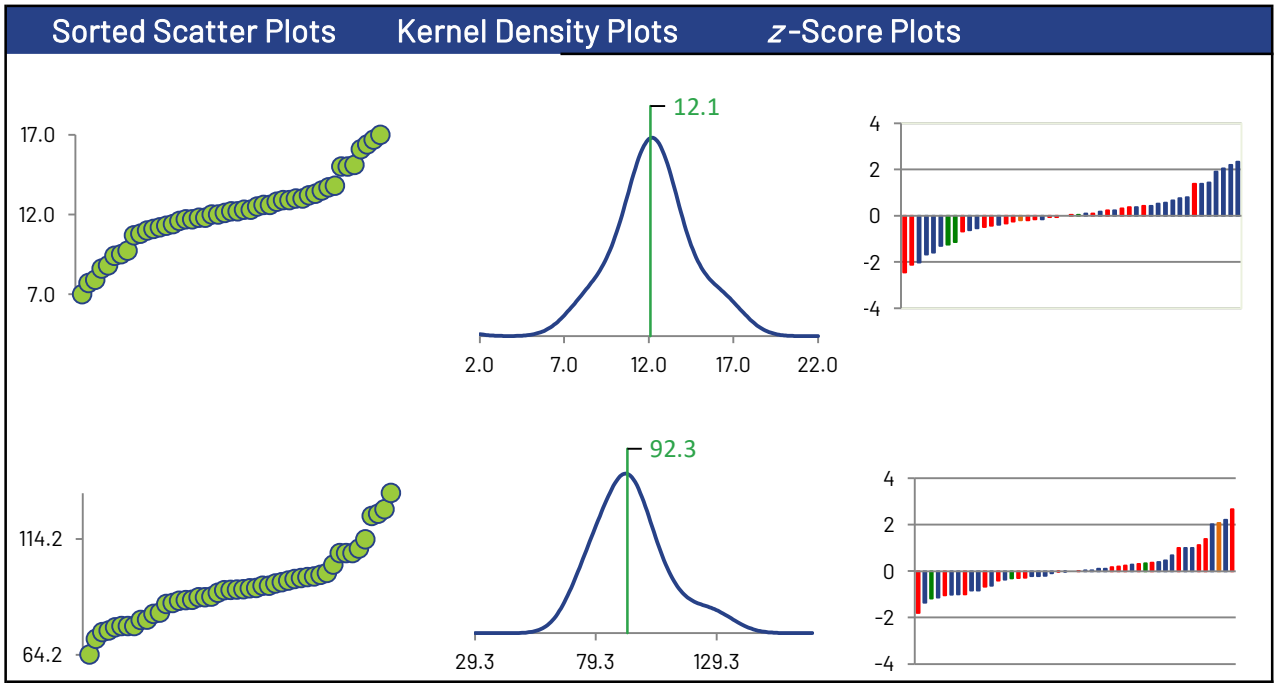
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	25	25	24	25
GC/MS - HEADSPACE (Red)	19	19	19	19
GC/MS (Green)	3	3	3	3
GC/FID - PURGE AND TRAP (Orange)	1	1	1	1

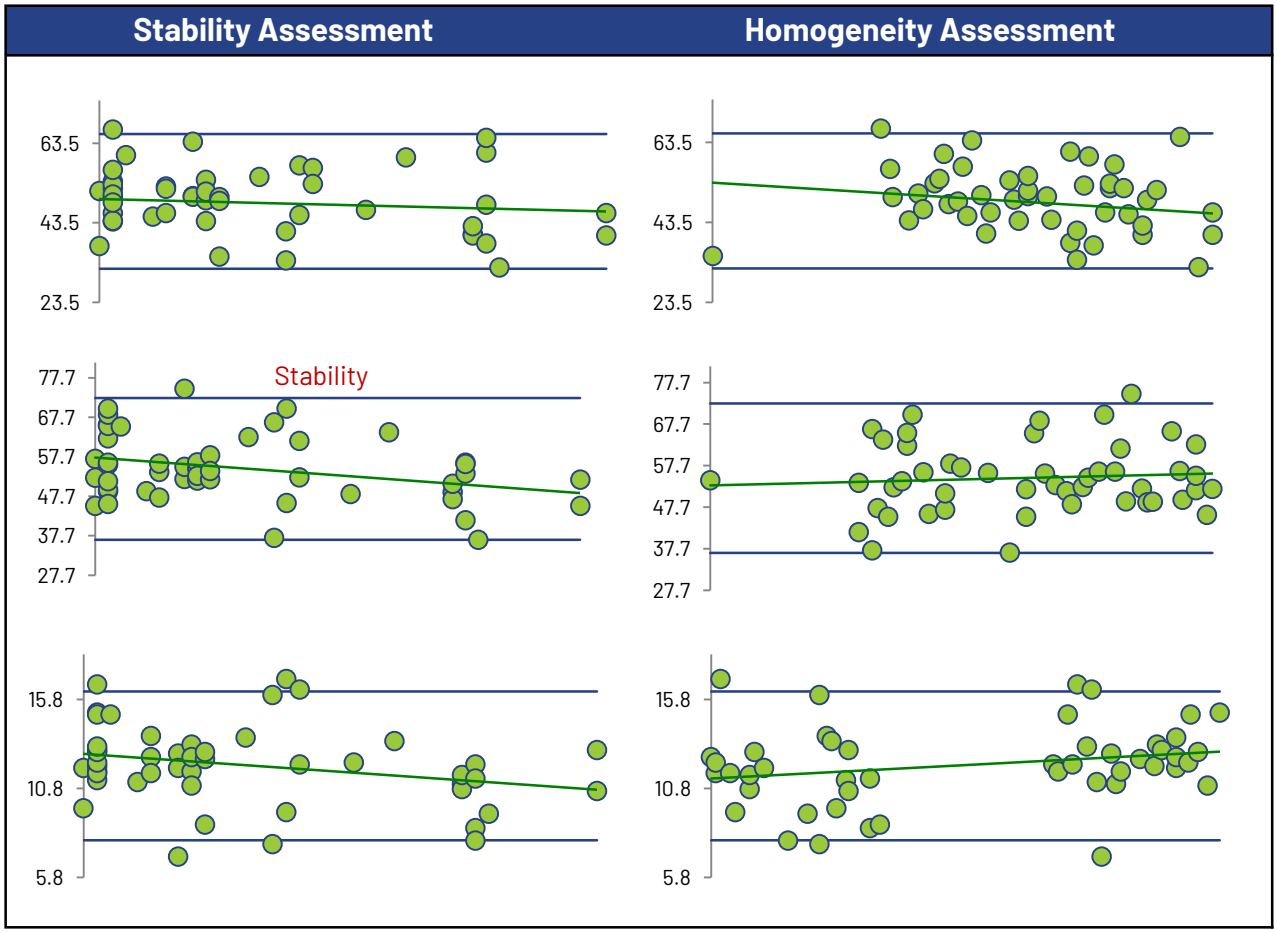
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

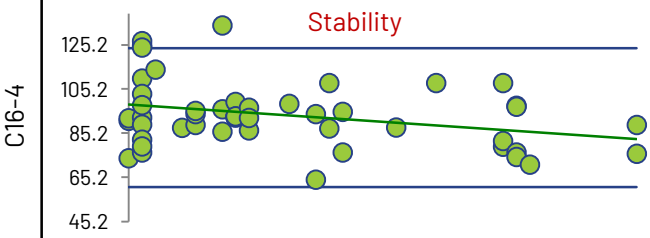
trans-1,2-Dichloroethylene



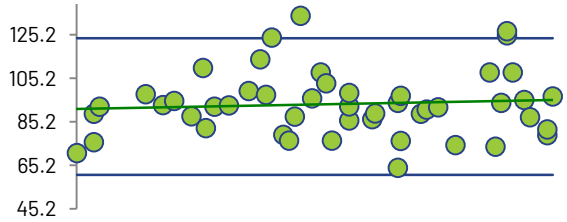


trans-1,2-Dichloroethylene

Stability Assessment



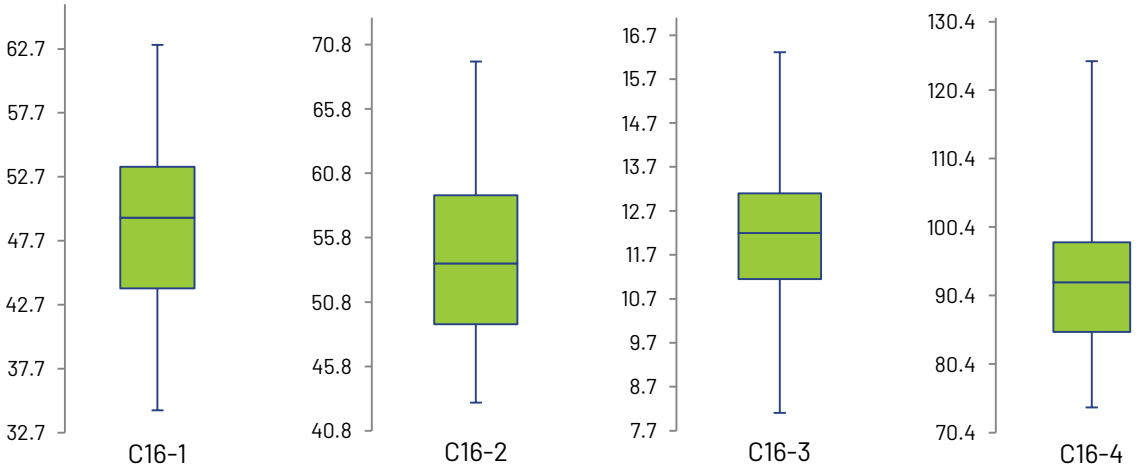
Homogeneity Assessment



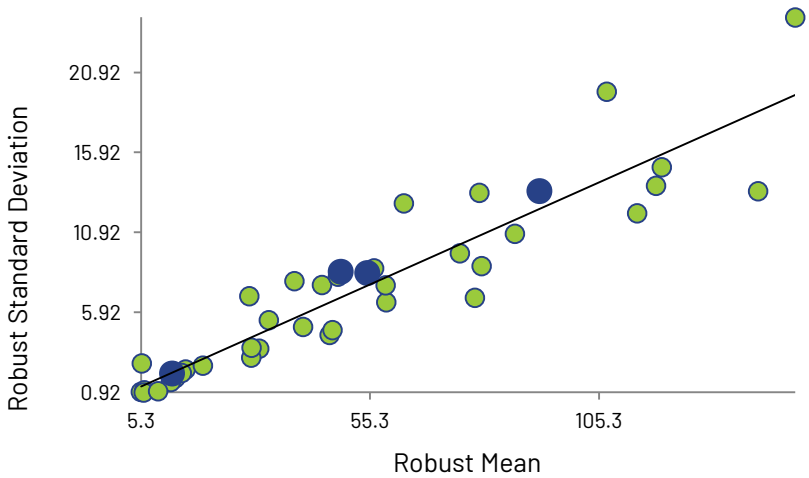
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



trans-1,3-Dichloropropene

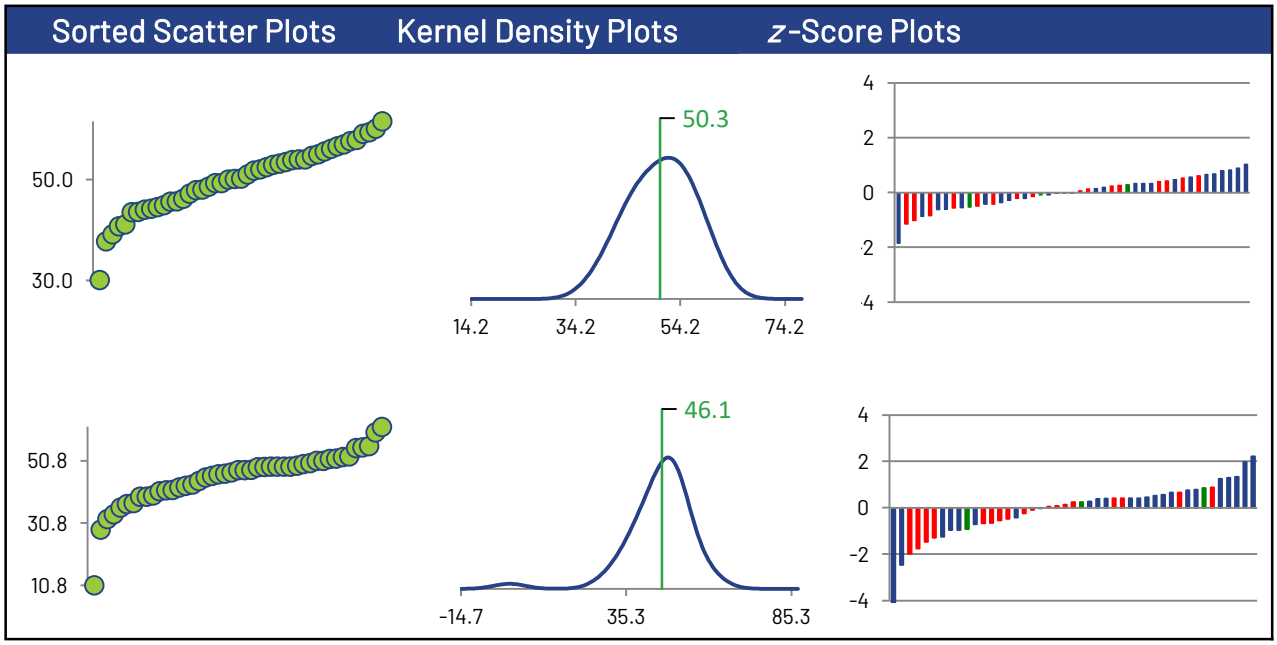
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	45	45	44	45
Median µg/L	50.2	47.9	10.4	85.3
Robust Mean µg/L	50.3	46.1	10.0	83.5
Uncdrtainty of the Assigned Value µg/L	1.24	1.32	0.360	2.12
Robust Standard Deviation µg/L	6.68	7.07	1.91	11.4
Regression Standard Deviation µg/L	7.55	6.91	1.50	12.5
Stability Flag			Stability	Stability
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	11.0	7.07	2.01	17.6
Flagged Outliers	0	0	1	0
|z|>3.0	0	1	1	0
2<|z|<3	0	2	0	0
Failure Rate %*	2.2			

Methods Used

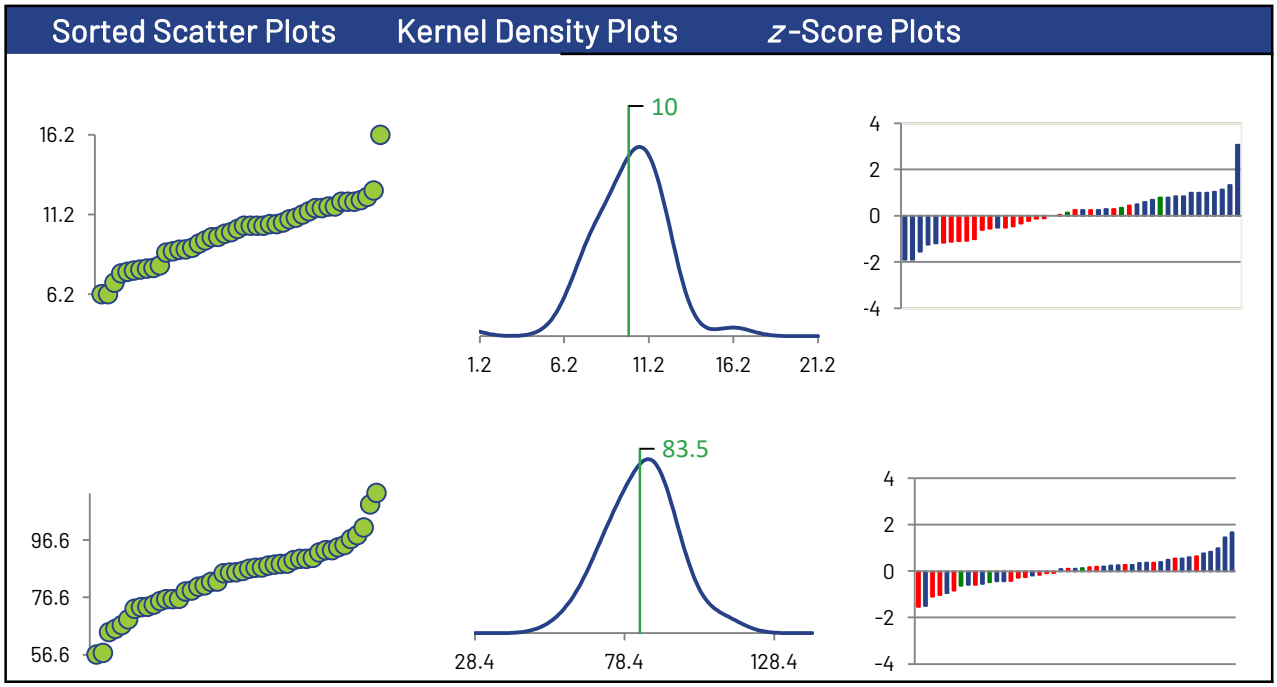
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	24	24	23	24
GC/MS - HEADSPACE (Red)	18	18	18	18
GC/MS (Green)	3	3	3	3

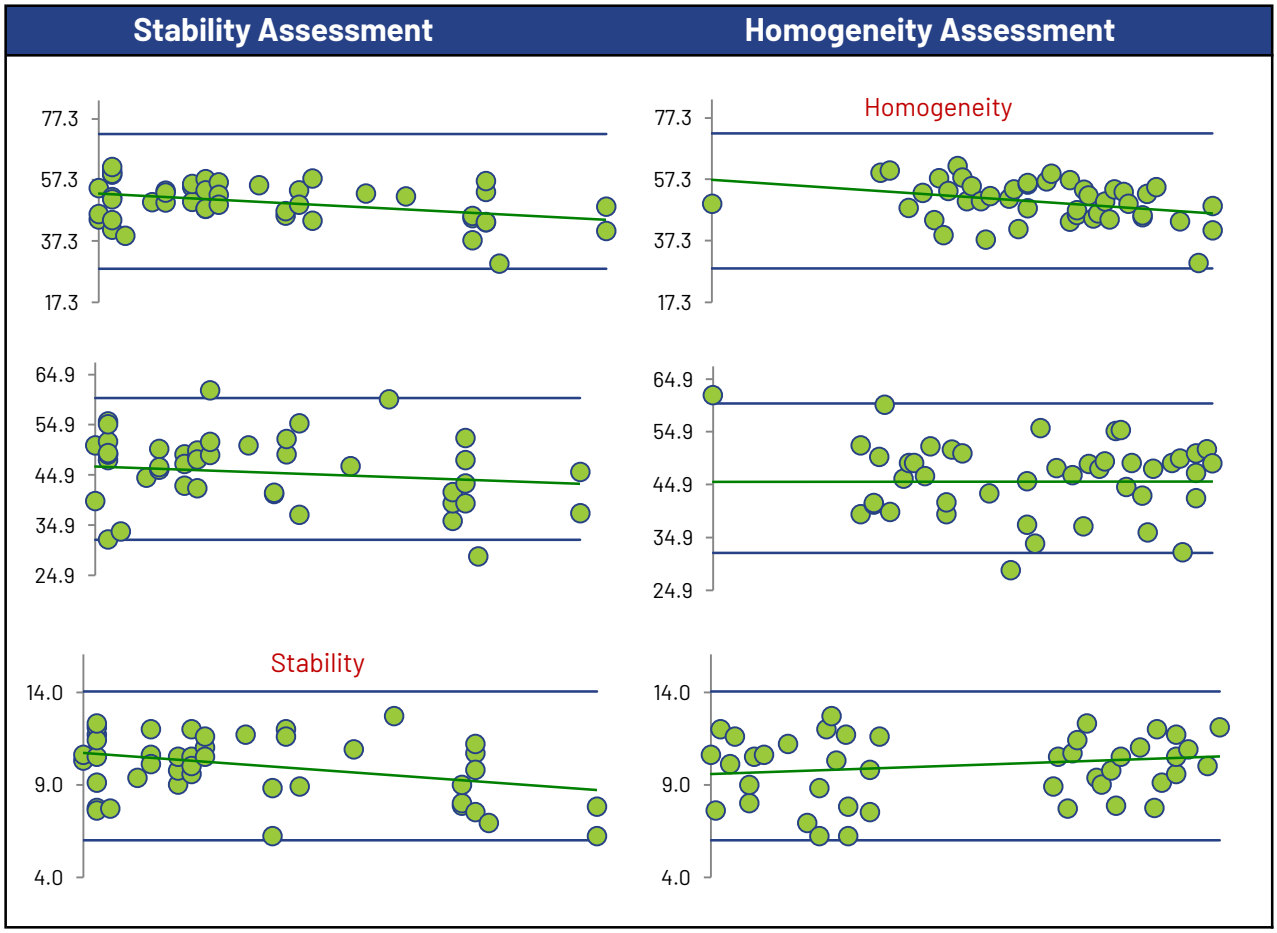
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

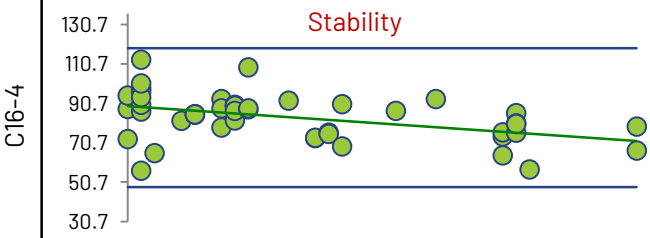
trans-1,3-Dichloropropene



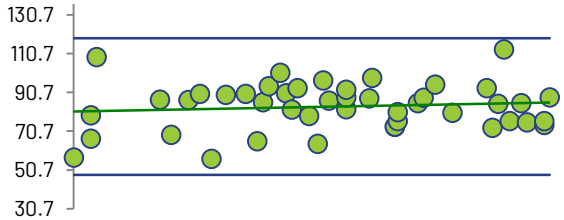


trans-1,3-Dichloropropene

Stability Assessment



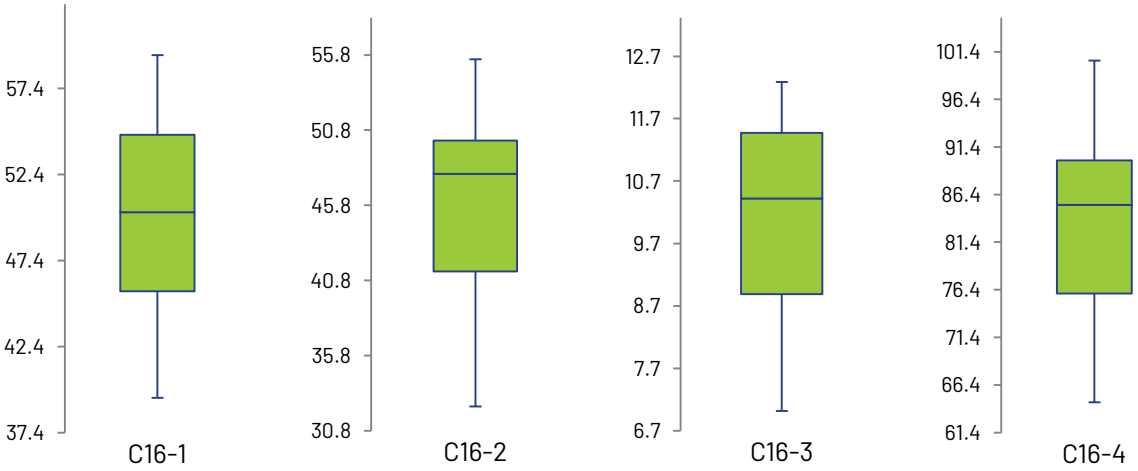
Homogeneity Assessment



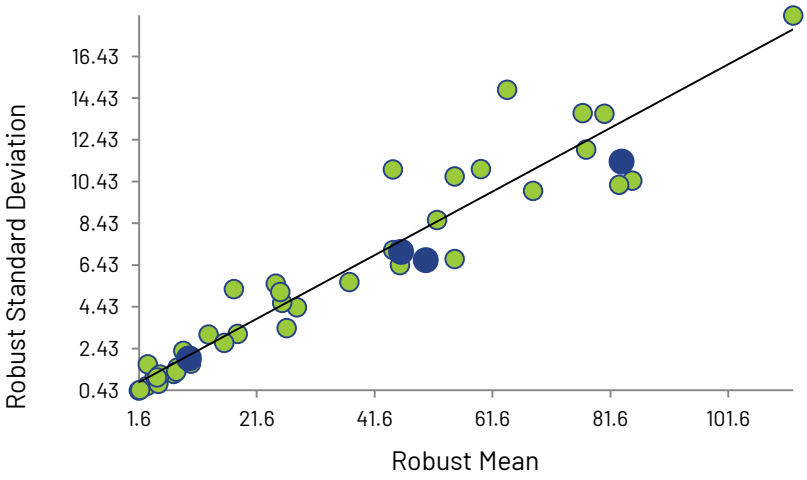
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Trichloroethylene

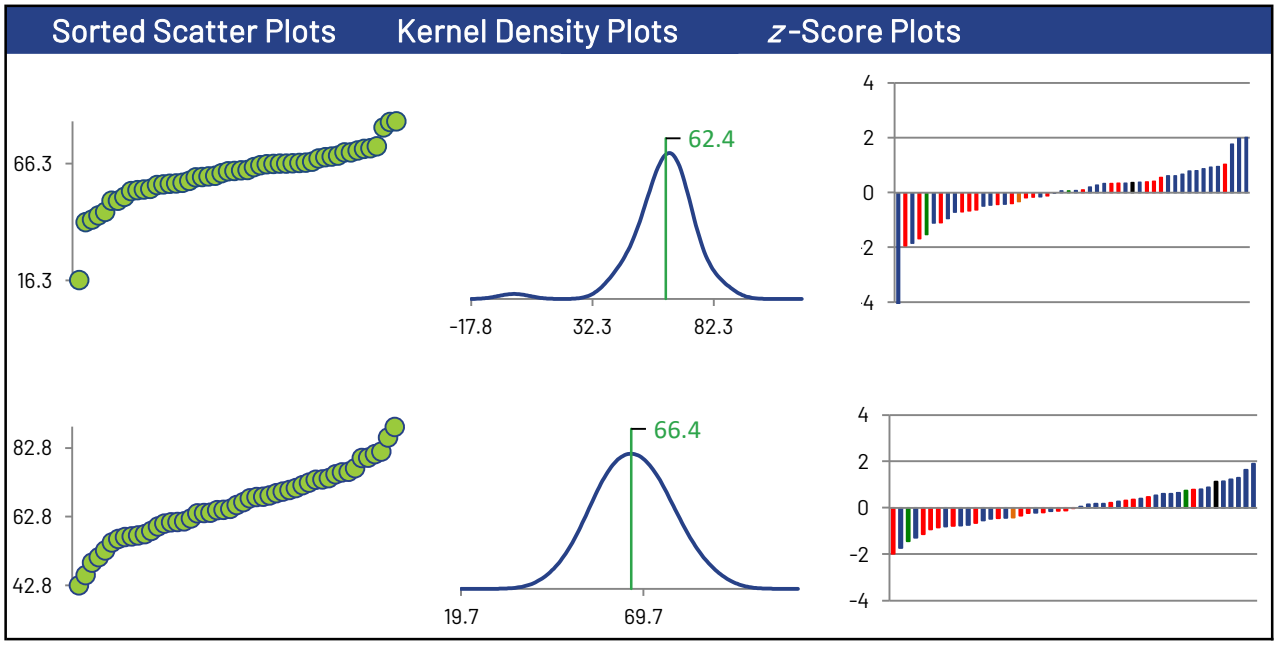
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	50	49	49	50
Median µg/L	63.2	66.2	14.4	116
Robust Mean µg/L	62.4	66.4	14.3	114
Uncdrtainty of the Assigned Value µg/L	1.61	1.82	0.398	2.62
Robust Standard Deviation µg/L	9.10	10.2	2.23	14.8
Regression Standard Deviation µg/L	10.9	11.6	2.50	20.0
Stability Flag		Stability		
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	10.9	11.9	2.50	20.0
Flagged Outliers	0	1	1	0
|z|>3.0	1	0	1	0
2<|z|<3	1	0	2	0
Failure Rate %*	4.0			

Methods Used

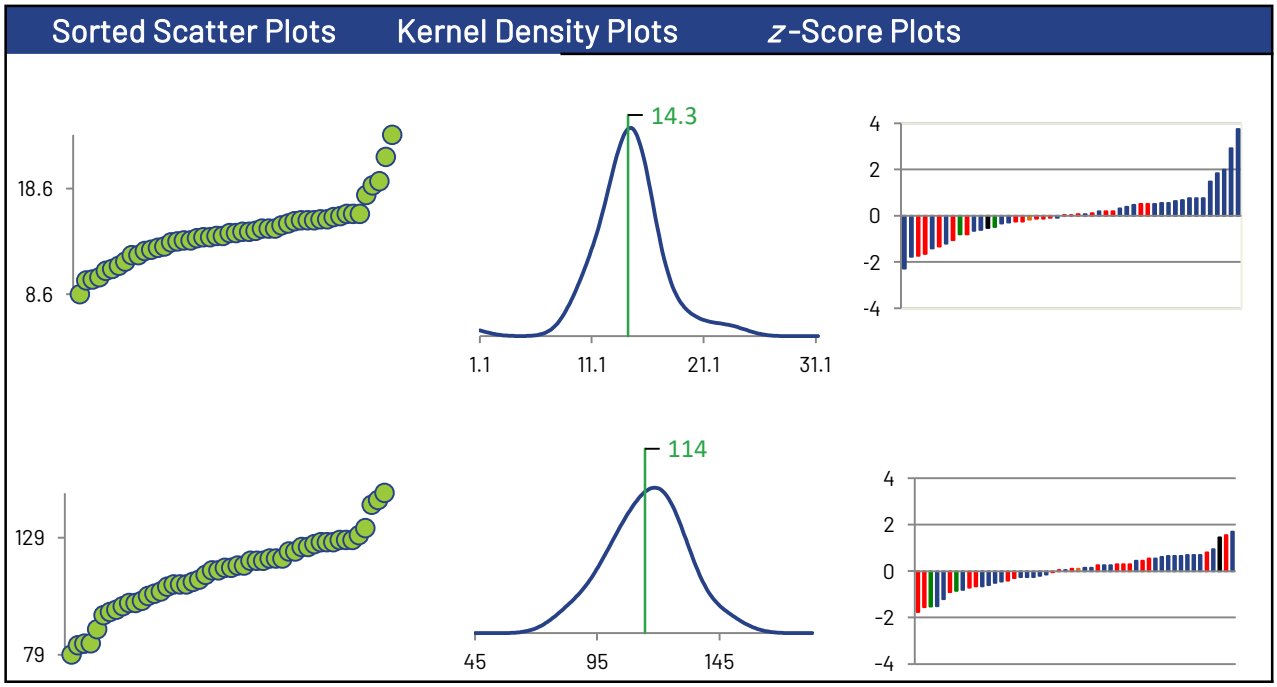
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	28	27	27	28
GC/MS - HEADSPACE (Red)	18	18	18	18
GC/MS (Green)	2	2	2	2
GC/MS/MS - HEADSPACE (Orange)	1	1	1	1
GC/FID - PURGE AND TRAP (Black)	1	1	1	1

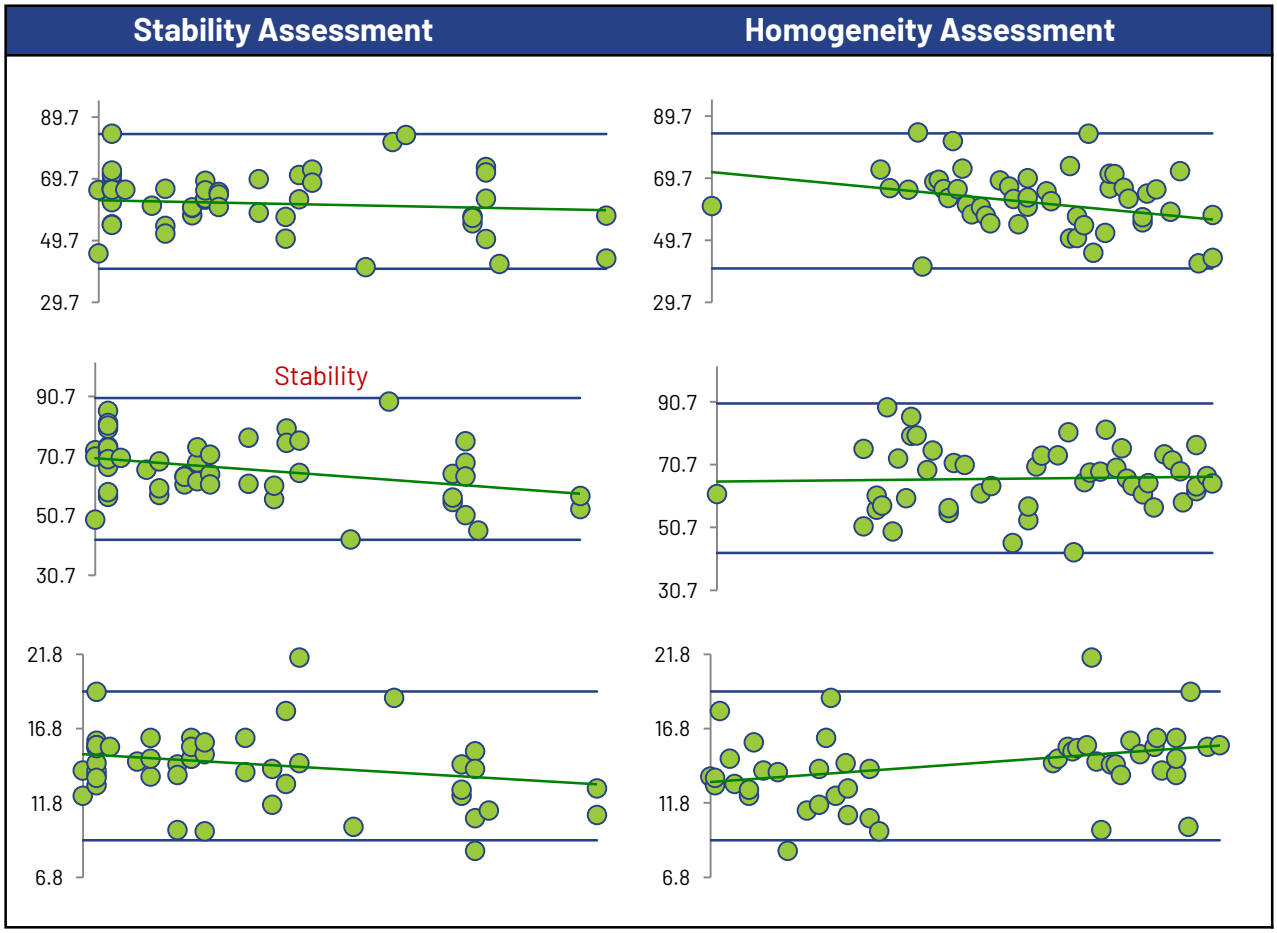
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

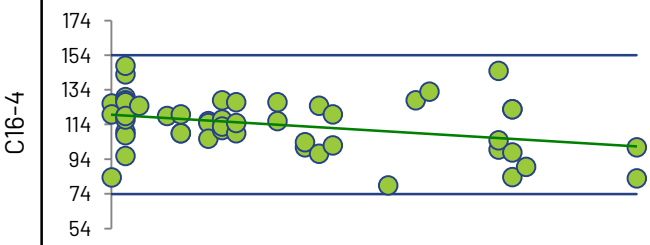
Trichloroethylene



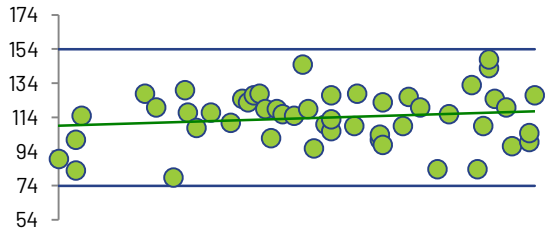


Trichloroethylene

Stability Assessment



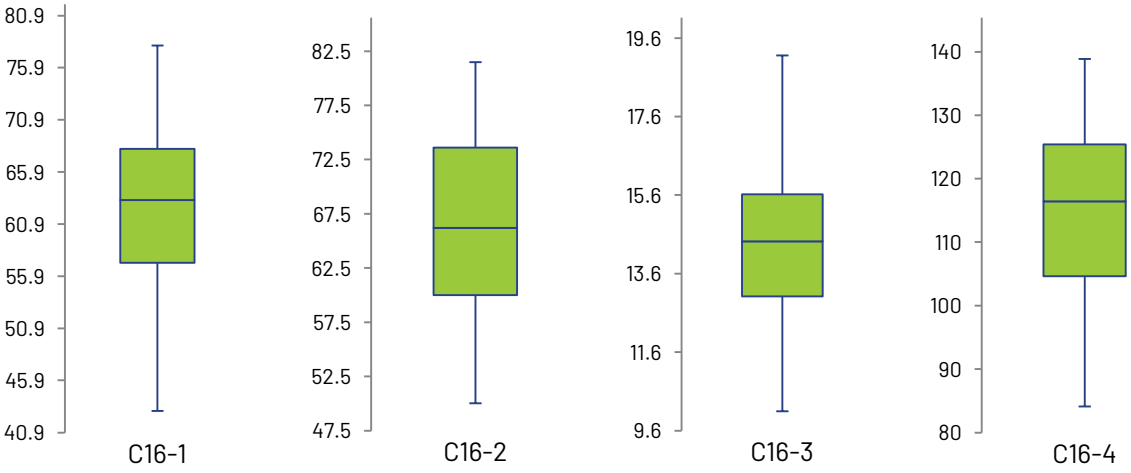
Homogeneity Assessment



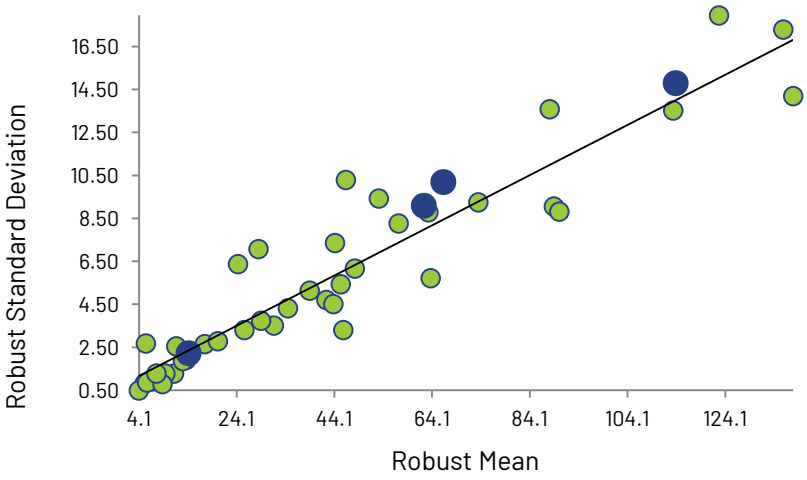
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Trichlorofluoromethane

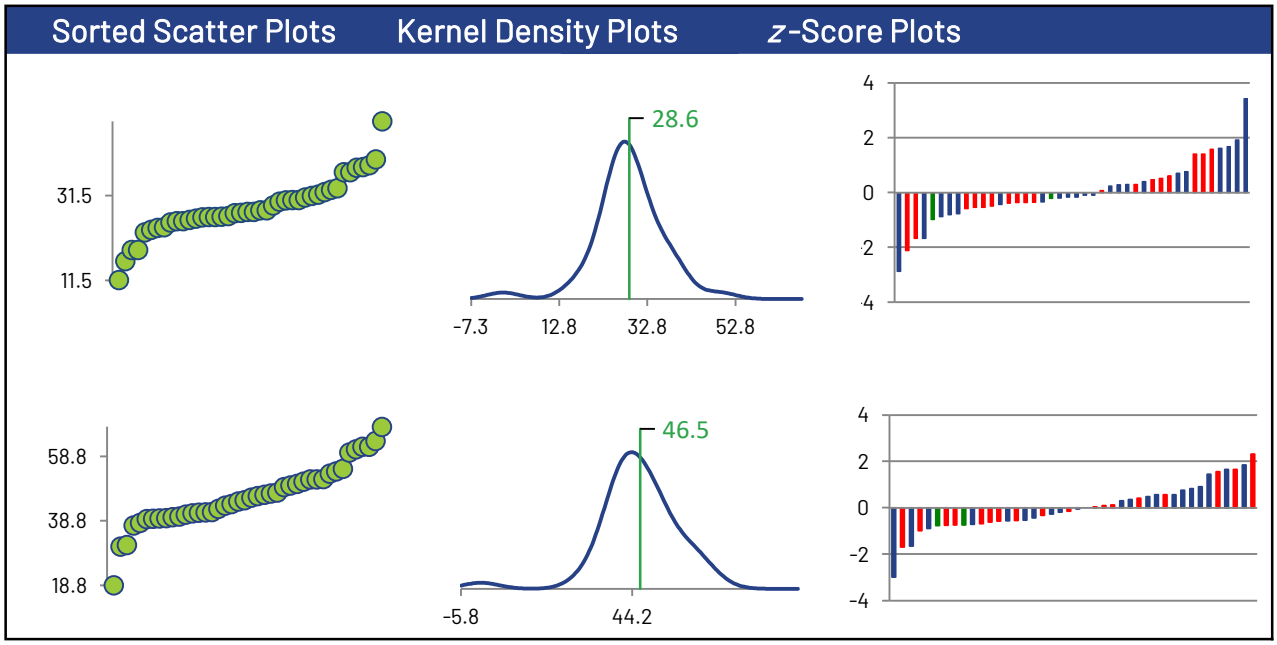
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	42	42	42	42
Median µg/L	27.6	45.6	11.3	70.7
Robust Mean µg/L	28.6	46.5	11.2	71.8
Uncdrtainty of the Assigned Value µg/L	1.15	1.71	0.409	2.28
Robust Standard Deviation µg/L	5.94	8.86	2.12	11.8
Regression Standard Deviation µg/L	5.73	9.29	2.23	14.4
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/L	5.94	9.29	2.23	14.4
Flagged Outliers	0	0	0	0
|z|>3.0	1	0	1	0
2<|z|<3	2	2	1	3
Failure Rate %*	4.8			

Methods Used

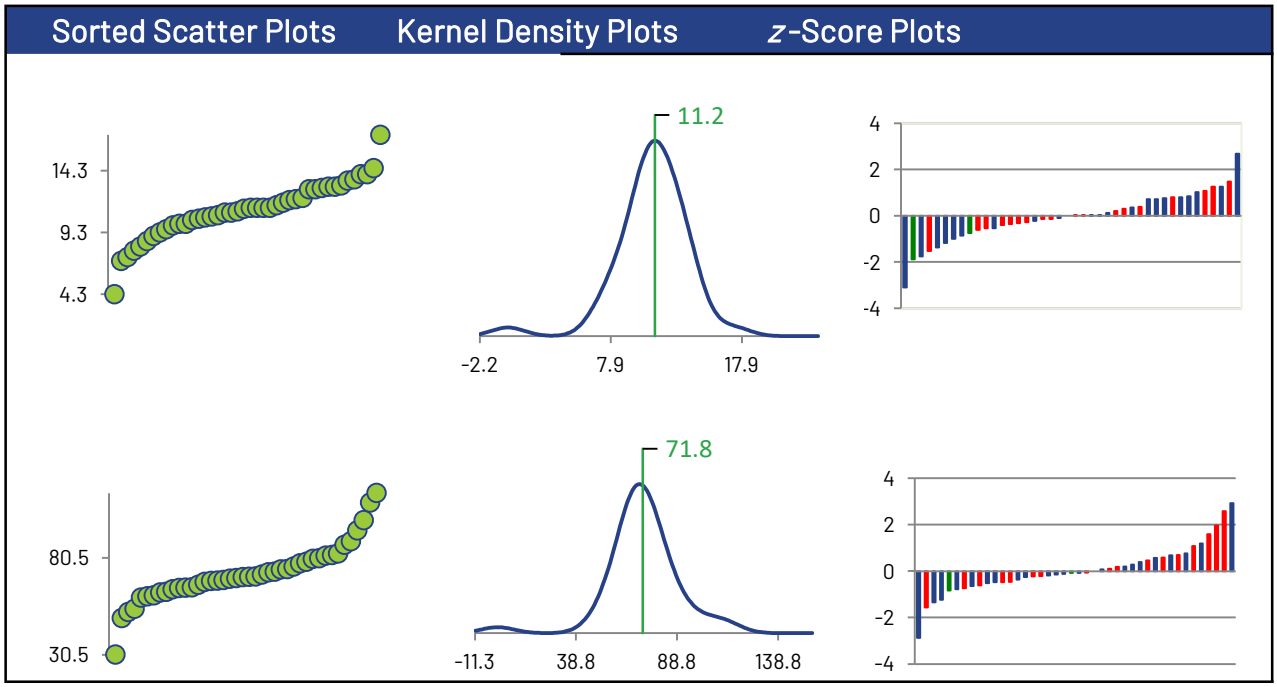
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	22	22	22	22
GC/MS - HEADSPACE (Red)	18	18	18	18
GC/MS (Green)	2	2	2	2

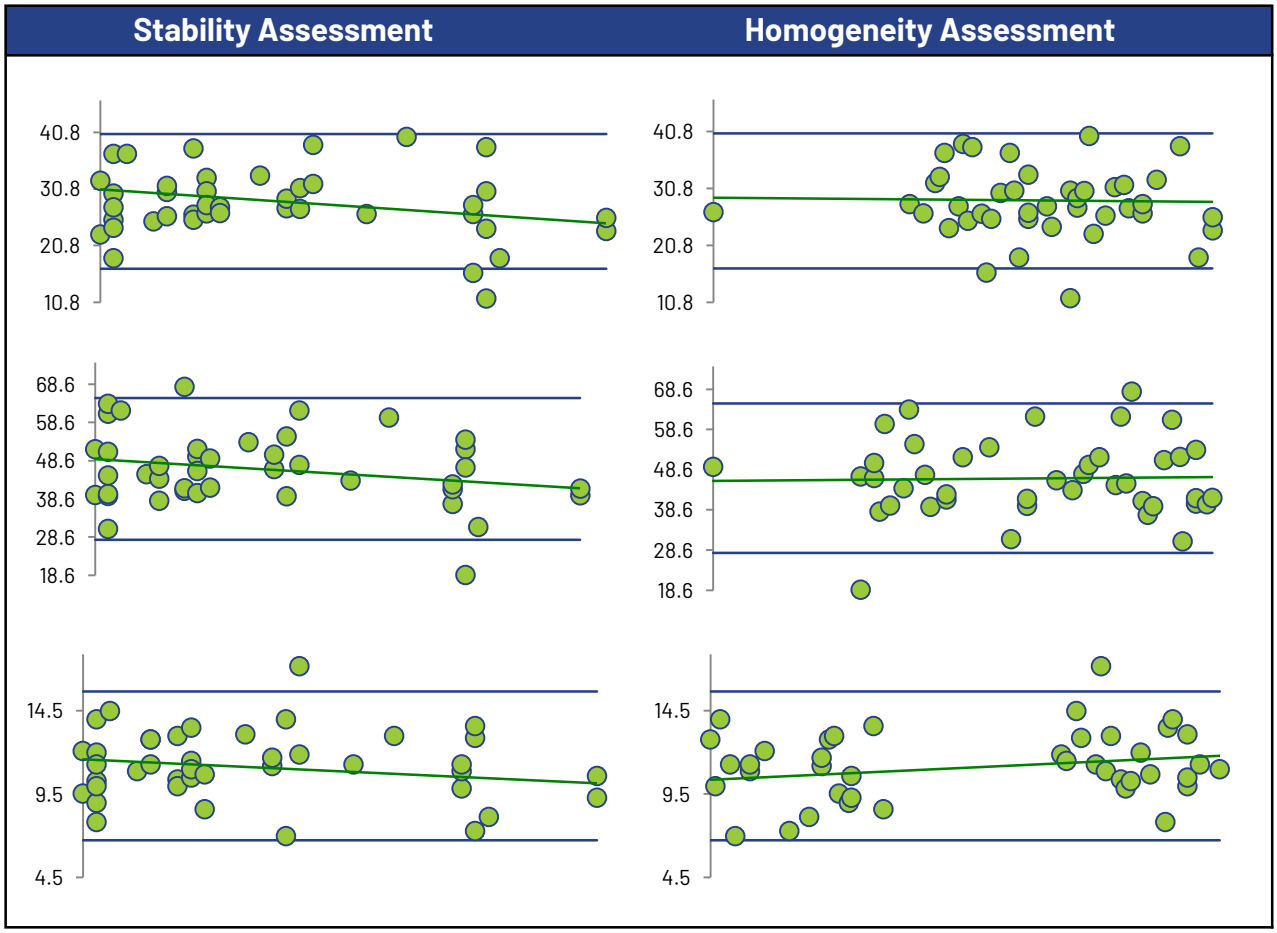
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

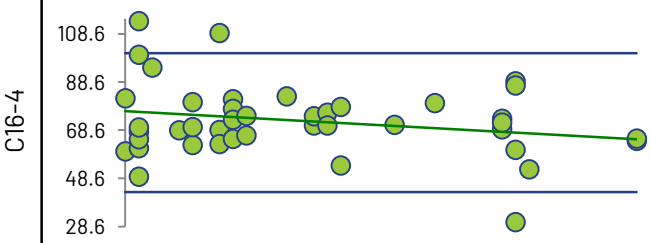
Trichlorofluoromethane



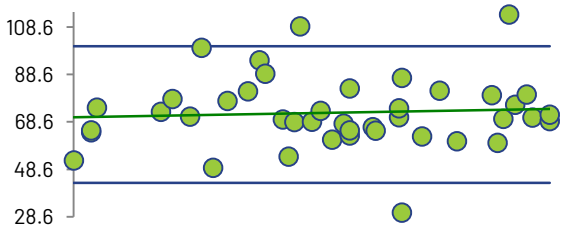


Trichlorofluoromethane

Stability Assessment



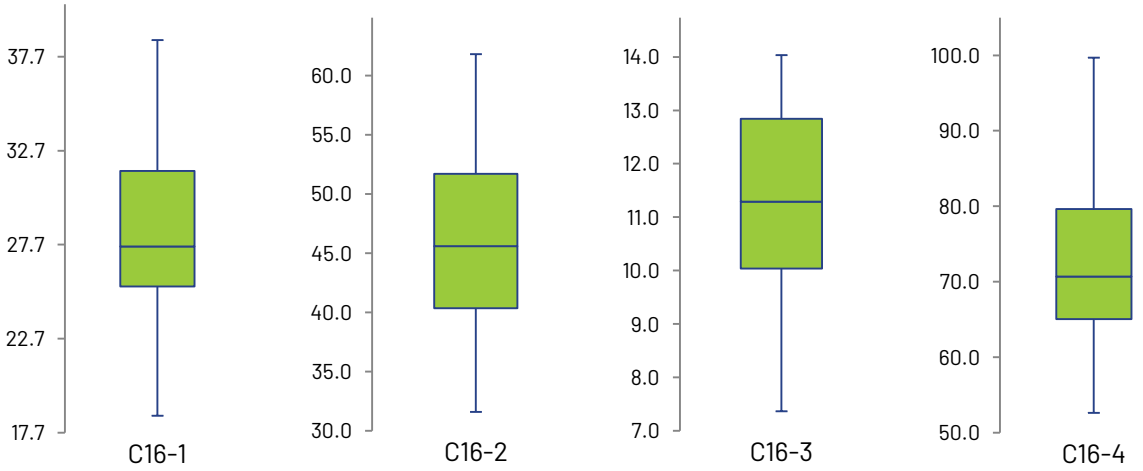
Homogeneity Assessment



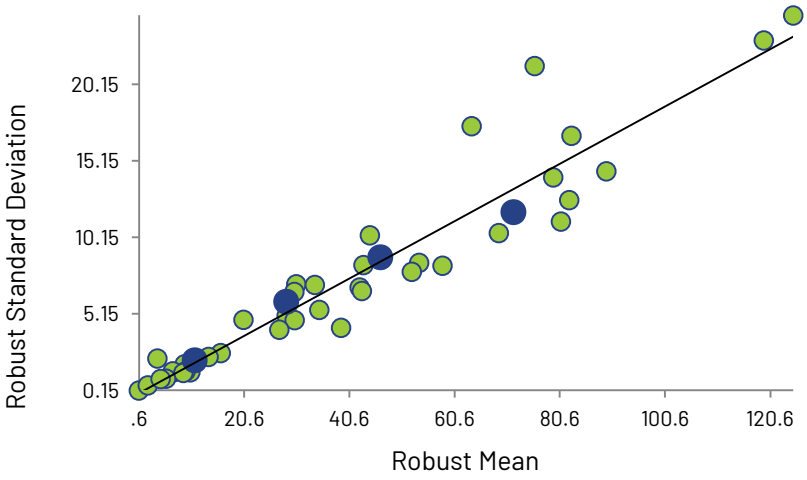
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



Vinyl Chloride

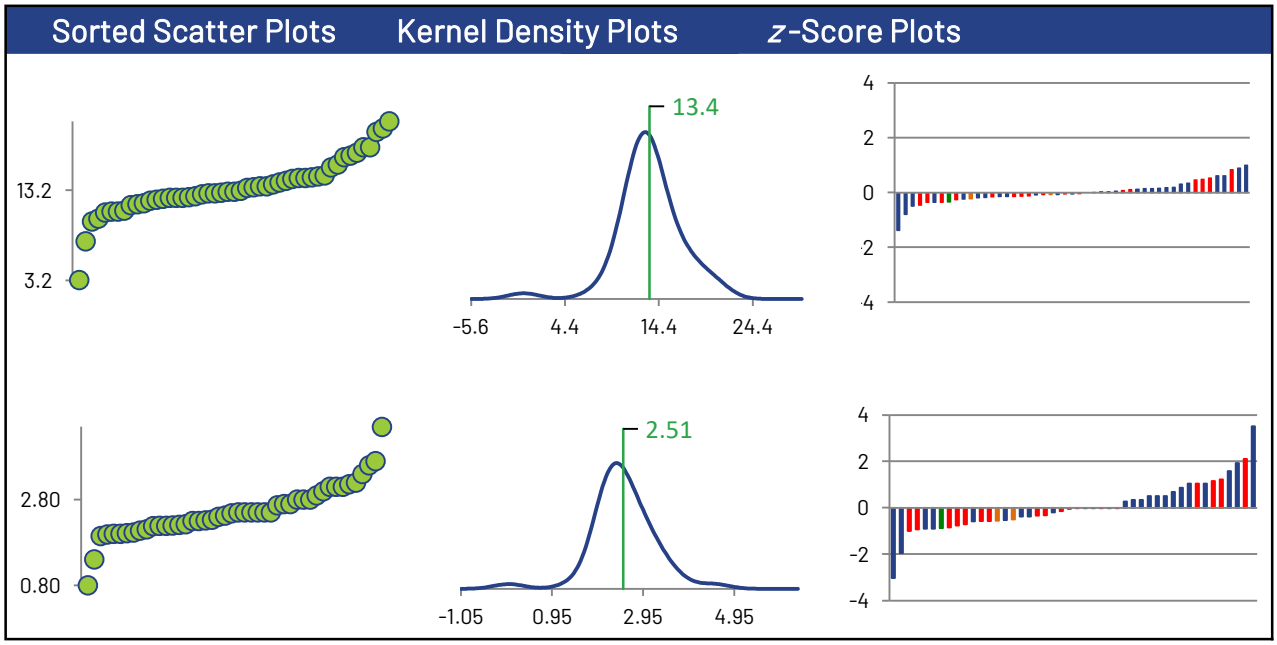
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
No. of results used for summary statistics	49	46	43	46
Median µg/L	13.0	2.49	1.02	2.99
Robust Mean µg/L	13.4	2.51	1.05	3.01
Uncdrtainty of the Assigned Value µg/L	0.448	0.0922	0.0362	0.108
Robust Standard Deviation µg/L	2.51	0.500	0.190	0.585
Regression Standard Deviation µg/L	3.02	0.565	0.237	0.677
Stability Flag			Stability	Stability
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA) µg/L	7.41	0.565	0.266	0.739
Flagged Outliers	0	0	1	0
|z|>3.0	0	2	1	0
2<|z|<3	0	1	2	3
Failure Rate %*	4.1			

Methods Used

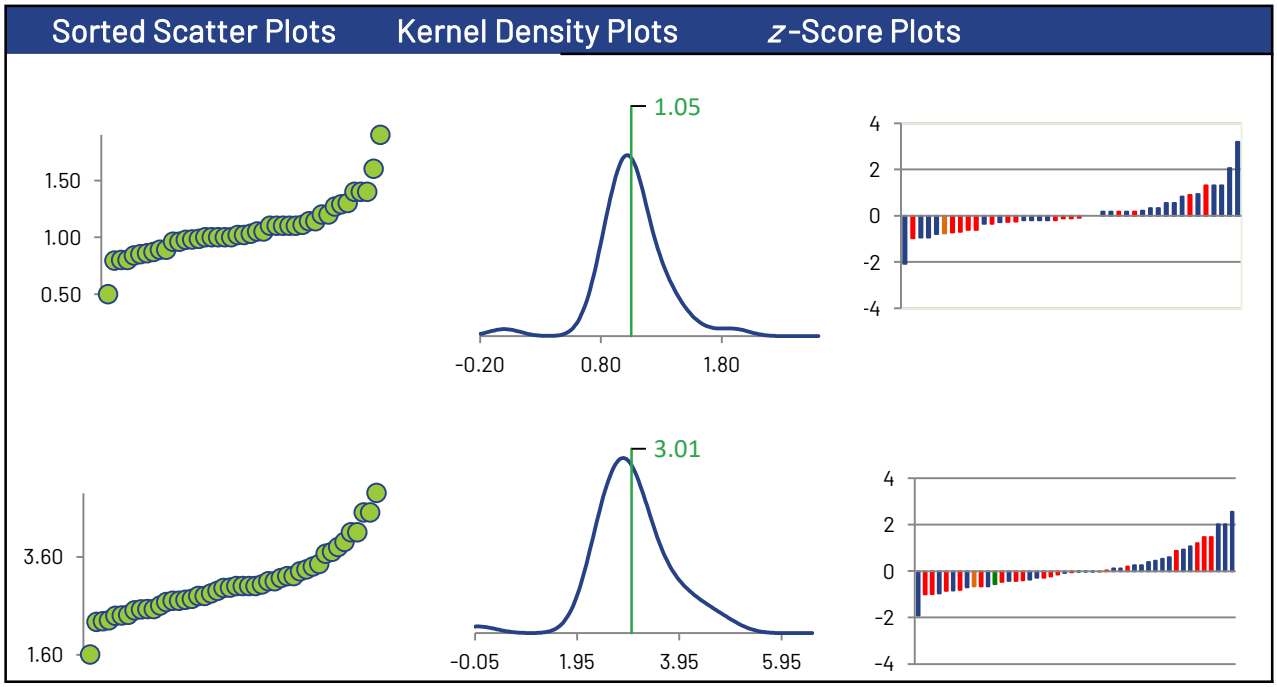
Method	C16-1	C16-2	C16-3	C16-4
GC/MS - PURGE AND TRAP (Blue)	28	25	25	25
GC/MS - HEADSPACE (Red)	18	18	17	18
GC/MS/MS - HEADSPACE (Green)	1	1	0	1
GC/MS (Orange)	2	2	1	2

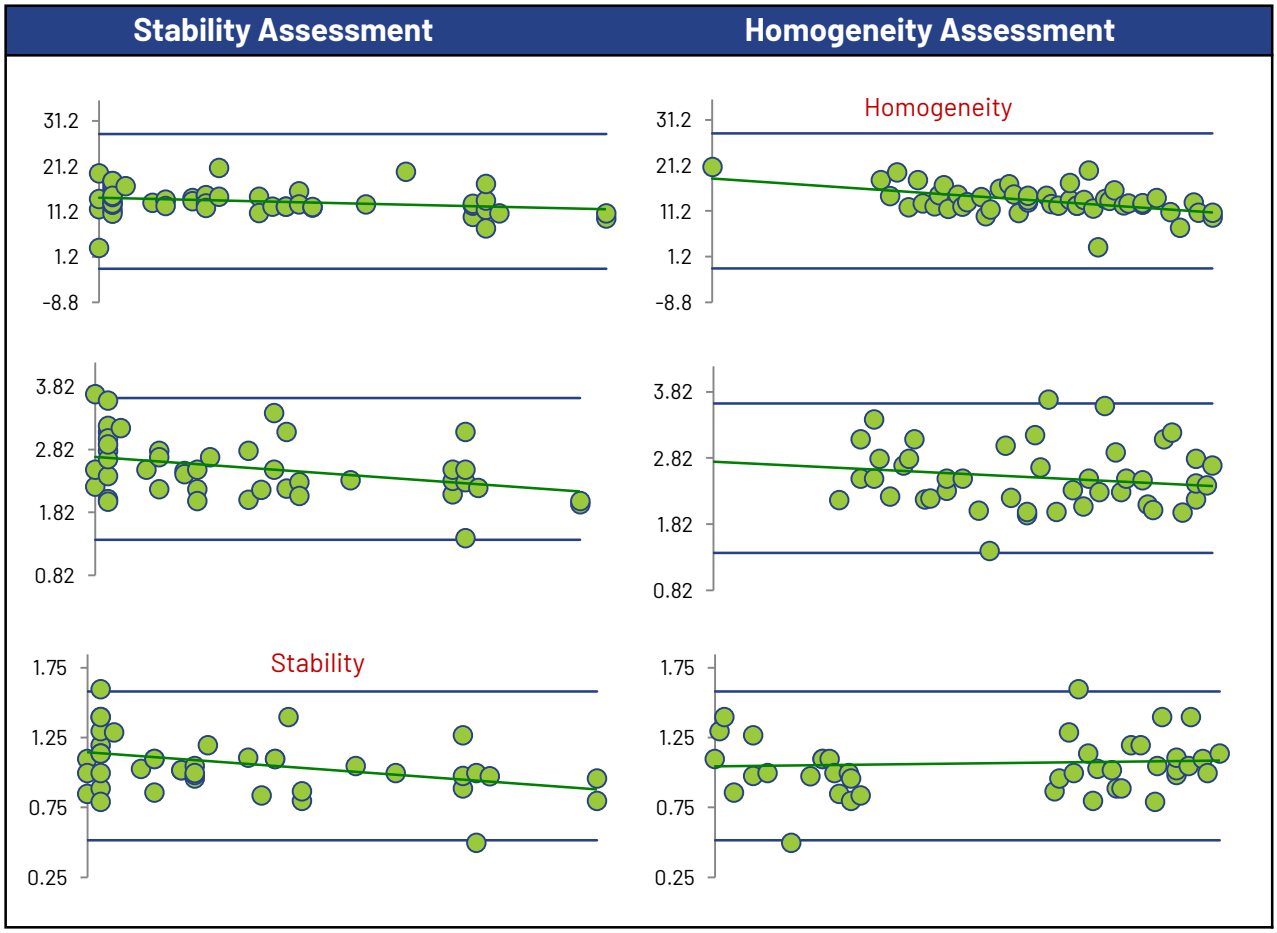
All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



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

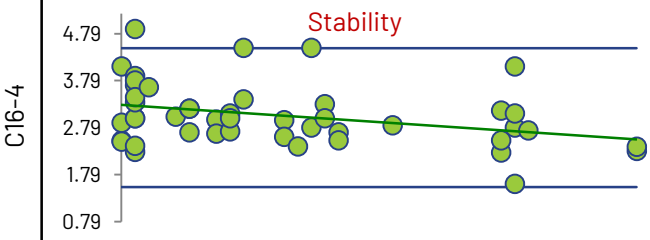
Vinyl Chloride



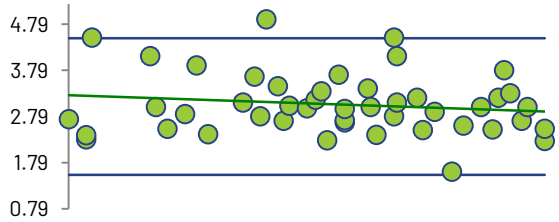


Vinyl Chloride

Stability Assessment



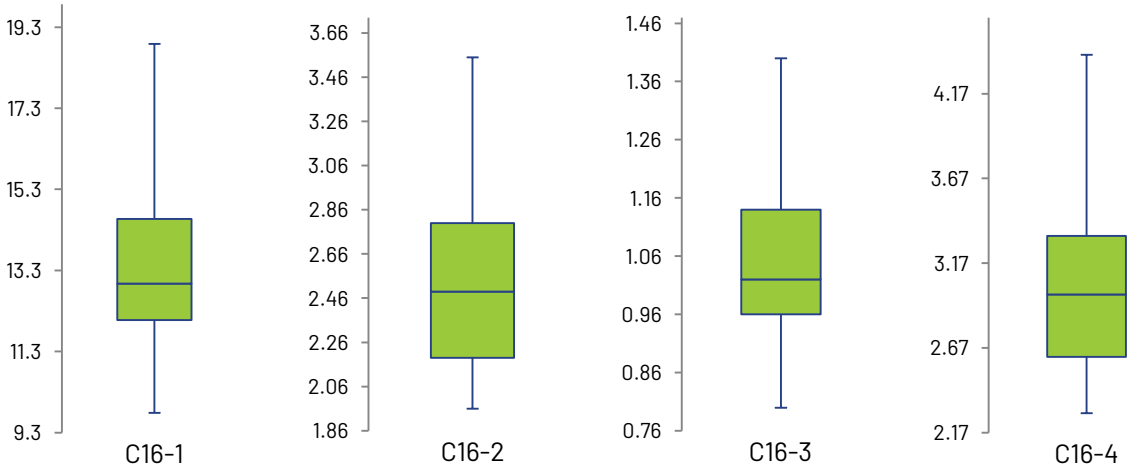
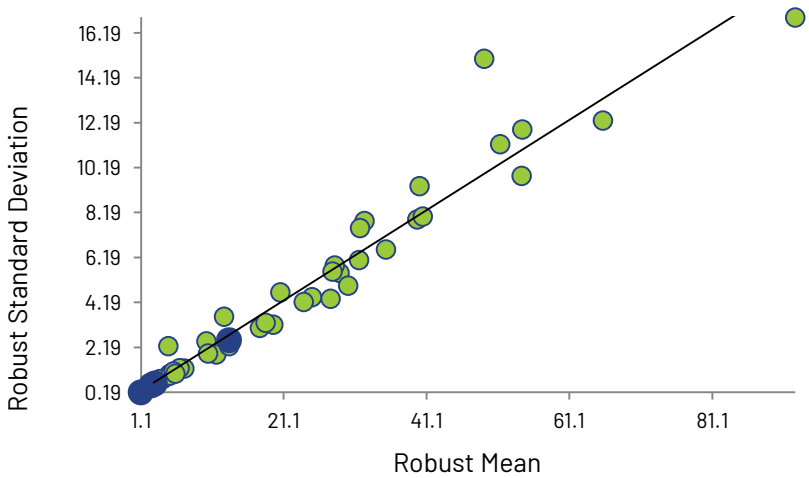
Homogeneity Assessment



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)