Test Group Summary Report
C73 Residual Solvents in Hemp Oil
March 2024 PT Round

Issued: May 8, 2024

PTC | Proficiency Testing Canada

Table of Contents

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.
$\pm u$:	The uncertainty of the assigned value.
Reported:	The result reported by the participant.
s:	The Standard Deviation of Proficiency Assessment (SDPA). This value is used to determine the acceptance limits for the PT evaluation.
z-Score:	A value assigned to each reported result that is a measure of the degree to which it deviates from the Assigned Value.
Score:	The composite score of the four results reported for each analyte. It is normalized to a score out of 100.
Bias:	A flag assigned if bias is detected using the re-scaled *z*-score procedure.

3.0 Scoring System

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

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

3.1 HOMOGENEITY AND STABILITY ASSESSMENT

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

3.2 THE Z SCORE

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

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

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

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

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

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

3.2 COMPOSITE (PT) SCORE

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

Acceptable PT Scores equal or exceed 70.

3.3 IDENTIFYING BIAS

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

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

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

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

RSZ ≥ -2 and ≤ 2	no flag assigned
RSZ > 2	H (High)
RSZ > 3	VH (Very High)
RSZ < -2	L (LOW)
RSZ < -3	VL (Very Low)

3.4 DEVIATIONS FROM EVALUATION PROCEDURE

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

4.0 PT Round Specific Data Summary

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

4.1 SUMMARY STATISTICS

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

4.2 *z*- SCORE PLOTS

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

4.3 KERNEL DENSITY PLOTS

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

4.4 STABILITY AND HOMOGENEITY PLOTS

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

4.5 BOX-AND-WHISKER PLOTS

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

4.6 HISTORIC COMPARISON PLOT

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

1-BUTANOL (N-BUTANOL)

Summary Statistics

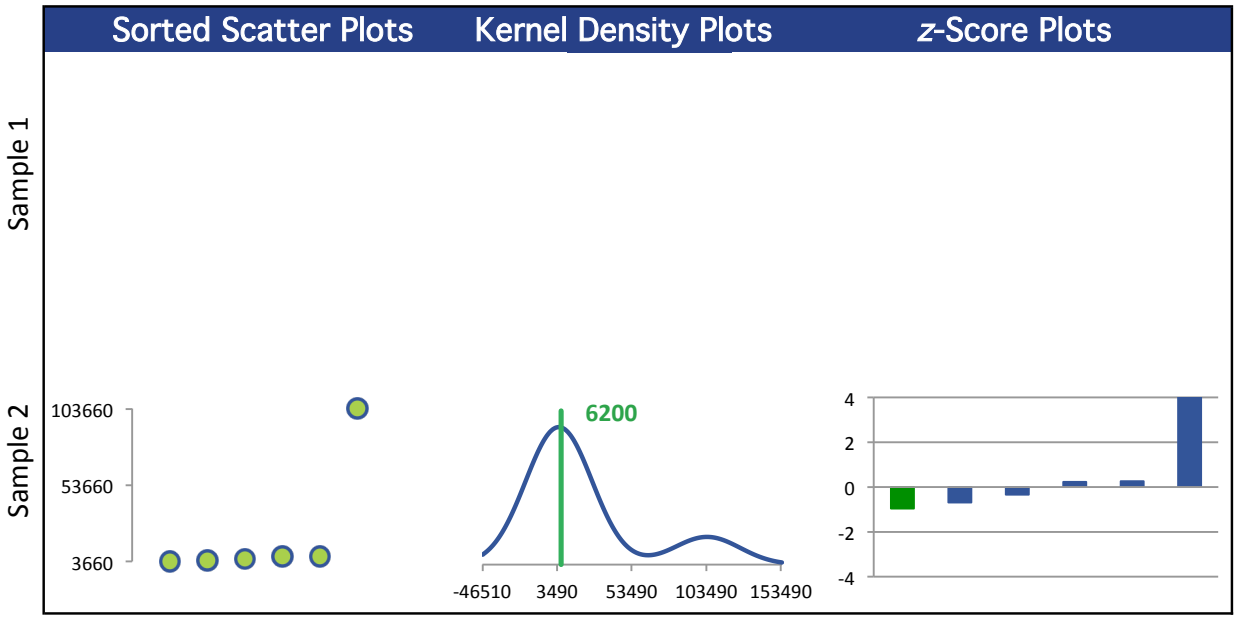
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	6	0	0
Median µg/g		6060		
Robust Mean µg/g		6200		
U µg/g		1350		
Robust Standard Deviation µg/g		2650		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		2650		
Outliers	2	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

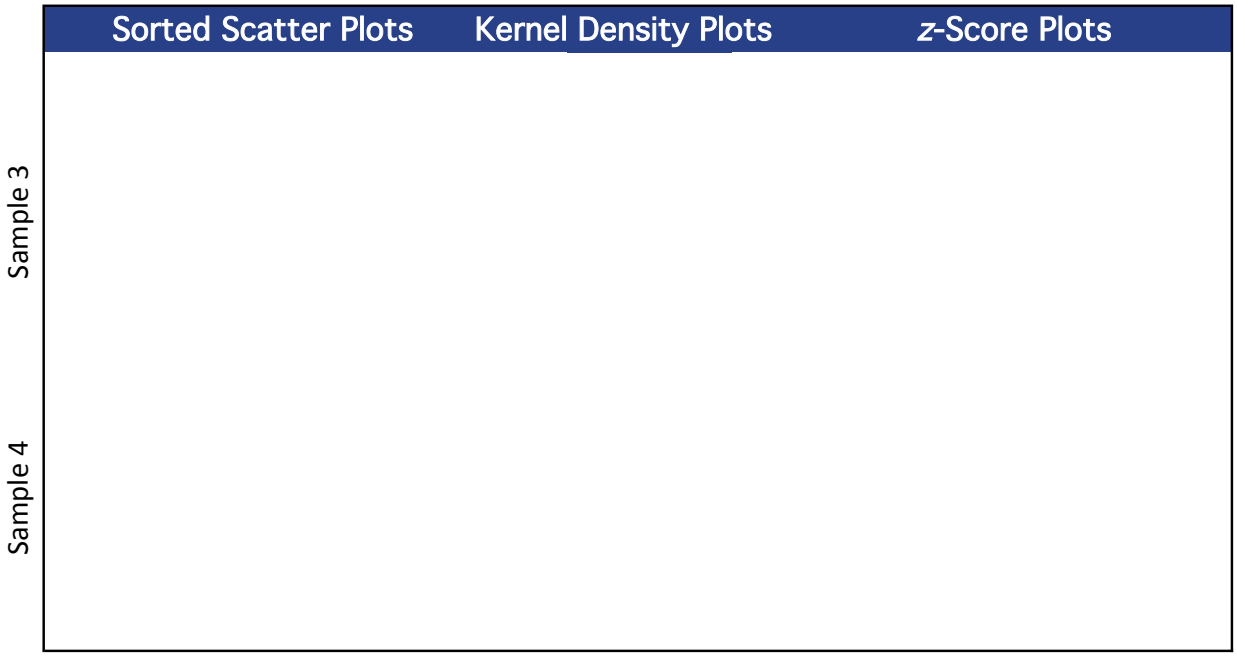
Methods Used

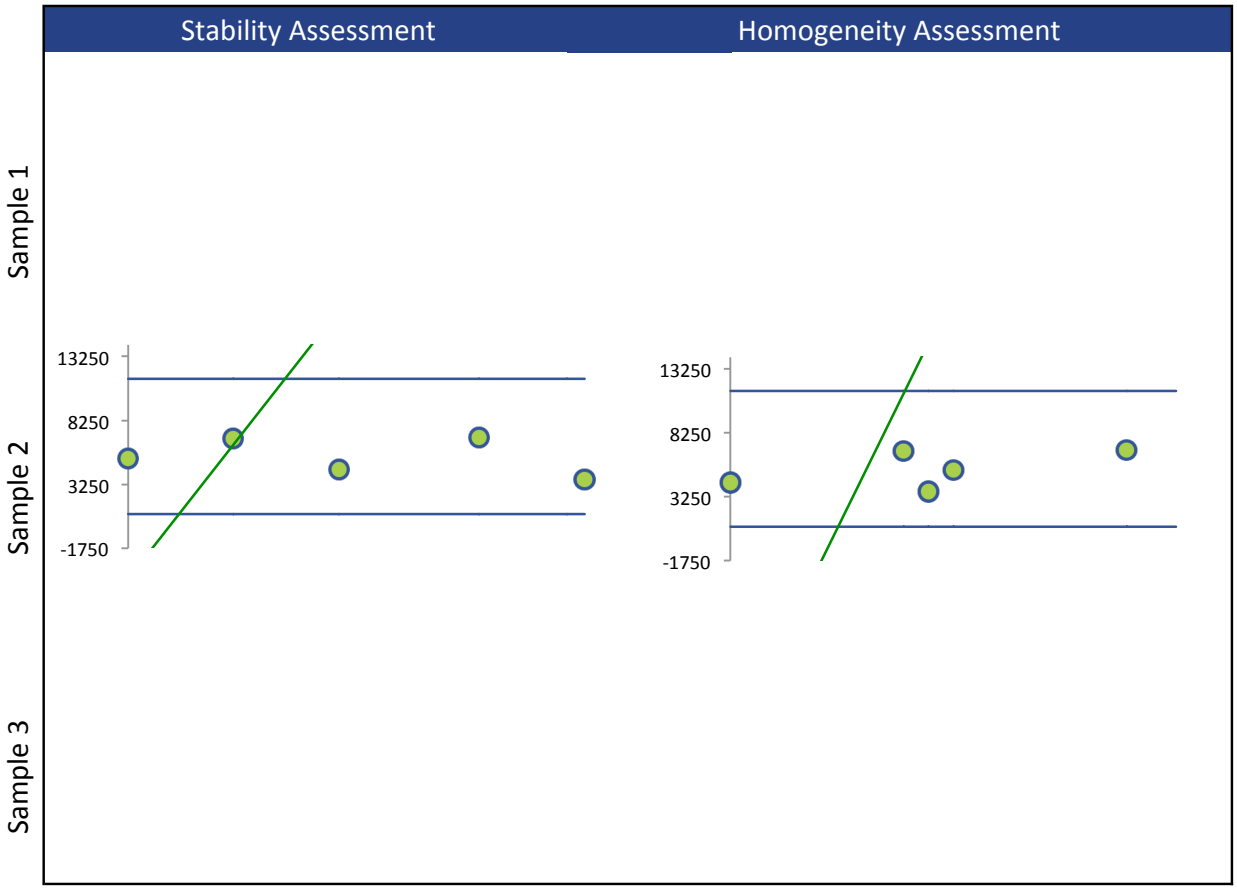
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	6	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



1-BUTANOL (N-BUTANOL)





1-BUTANOL (N-BUTANOL)

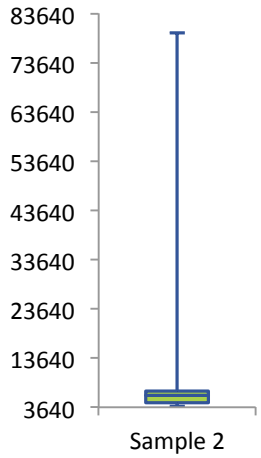
Sample 4

Stability Assessment	Homogeneity Assessment

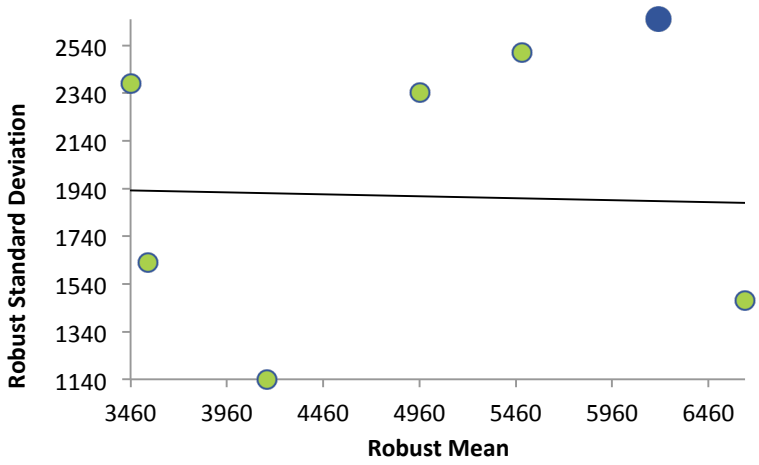
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1-PENTANOL

Summary Statistics

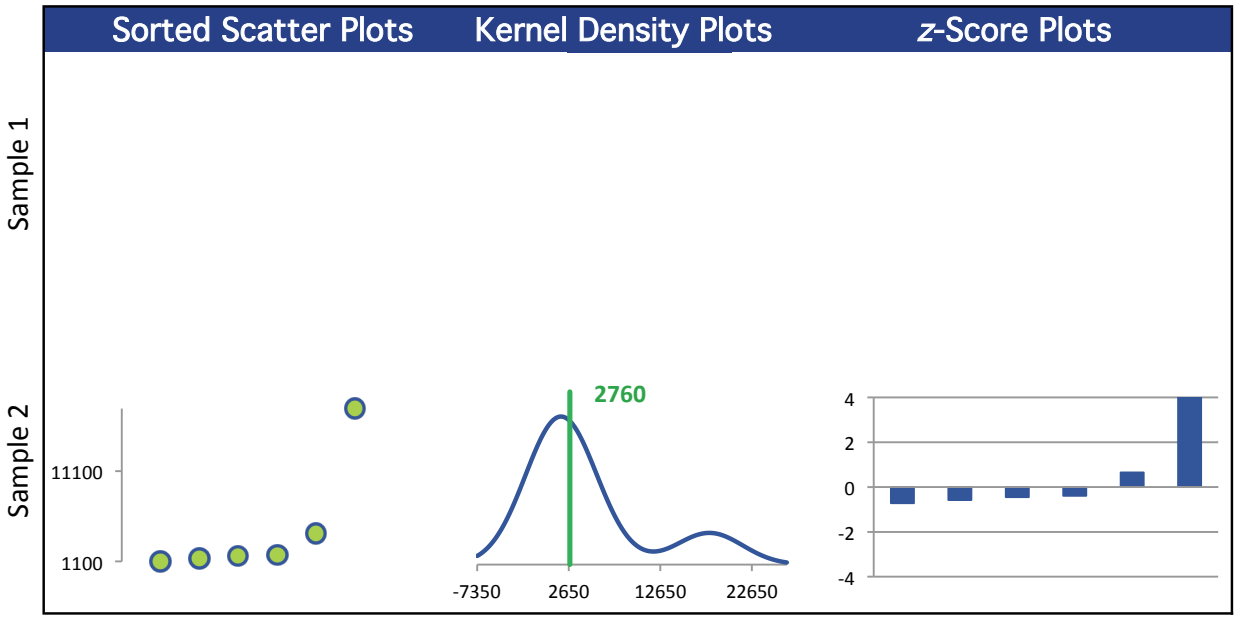
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	6	0	0
Median µg/g		1800		
Robust Mean µg/g		2760		
U µg/g		1170		
Robust Standard Deviation µg/g		2300		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		2300		
Outliers	3	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

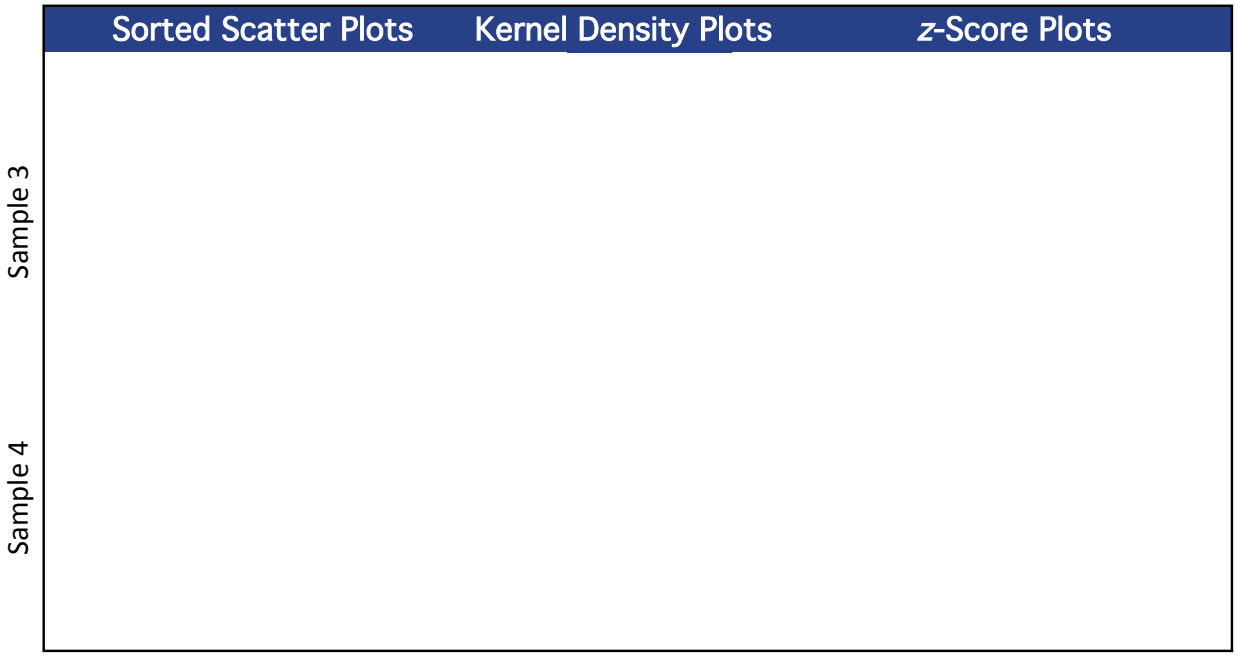
Methods Used

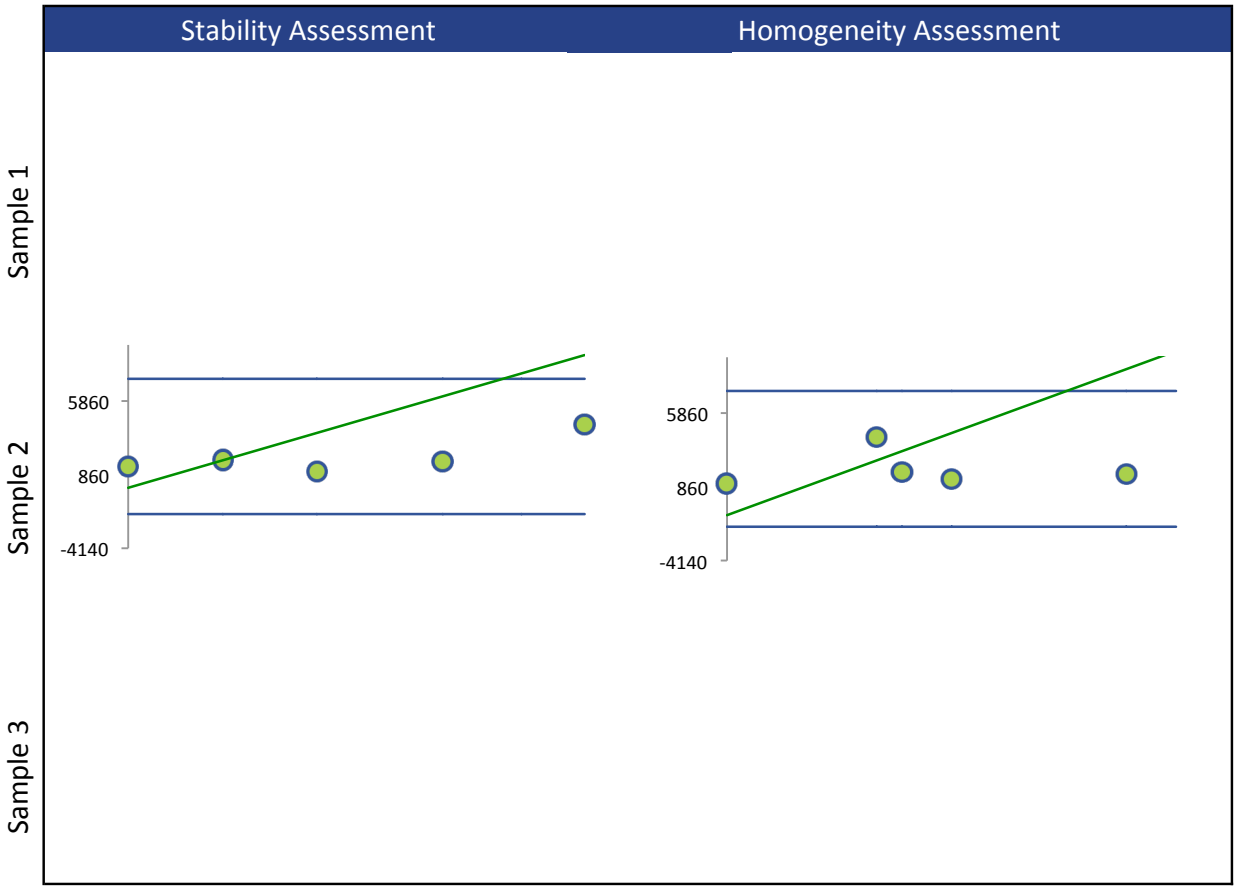
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	4	0	0
GC/FID (Red)	0	2	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



1-PENTANOL


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
5860
860
-4140
5860
860
-4140

1-PENTANOL

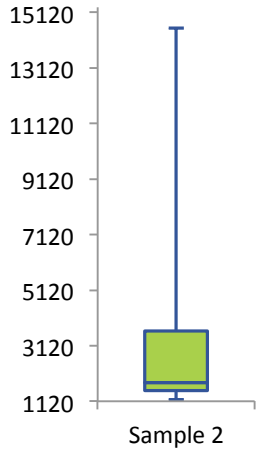
Stability Assessment	Homogeneity Assessment

Sample 4

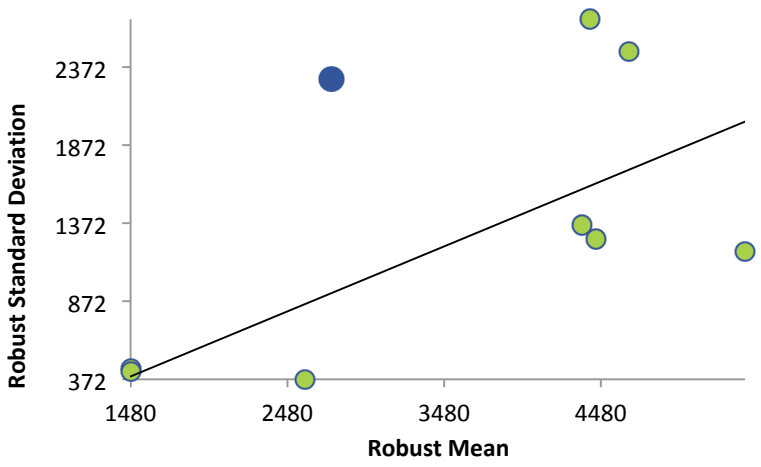
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1-PROPANOL (PROPANOL)

Summary Statistics

Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	9	0	0	0
Median µg/g	5820			
Robust Mean µg/g	6420			
U µg/g	1240			
Robust Standard Deviation µg/g	2970			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2970			
Outliers	0	2	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0

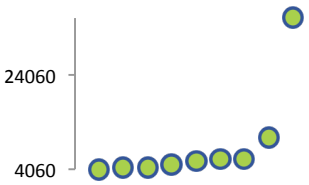
Methods Used

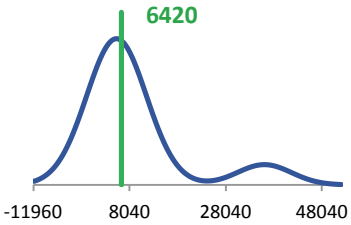
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	0	0	0
GC/FID (Red)	3	0	0	0

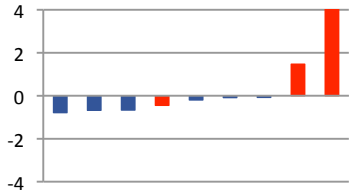
All summary stats and the plots below are based on the data excluding any flagged outliers

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

Sample 1

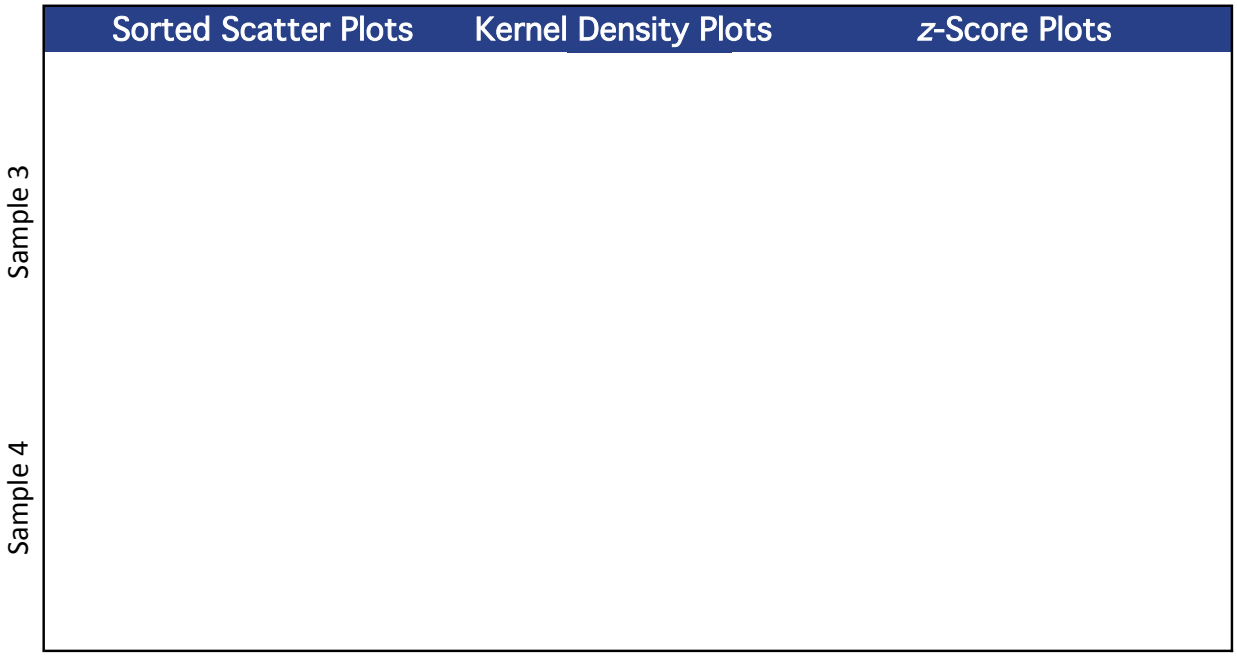


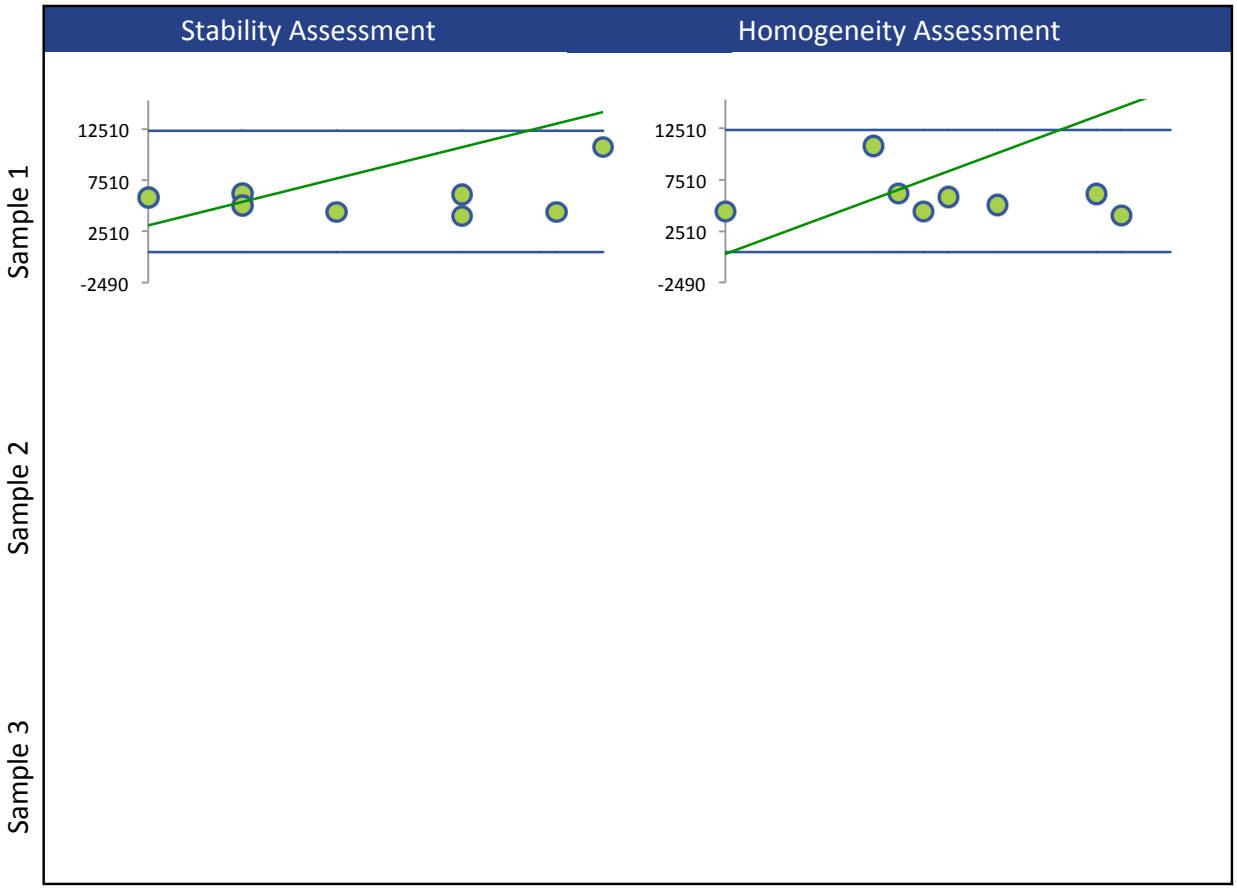




Sample 2

1-PROPANOL (PROPANOL)





1-PROPANOL (PROPANOL)

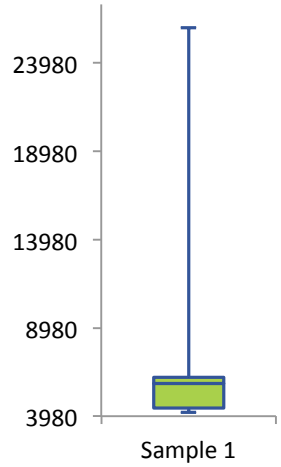
Sample 4

Stability Assessment	Homogeneity Assessment

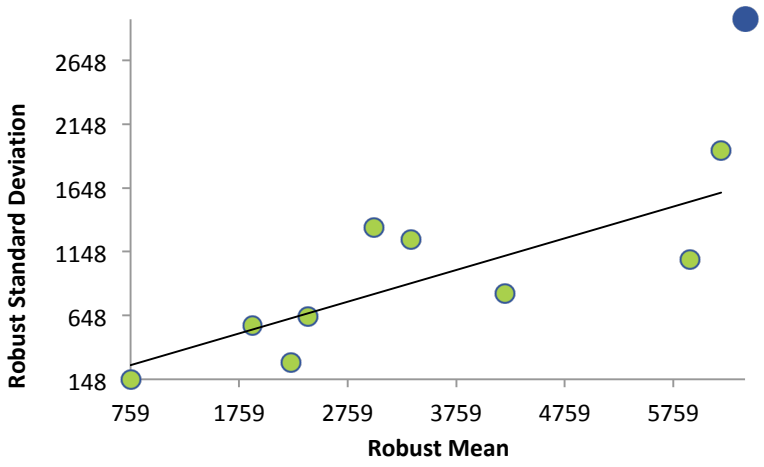
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



2-BUTANOL

Summary Statistics

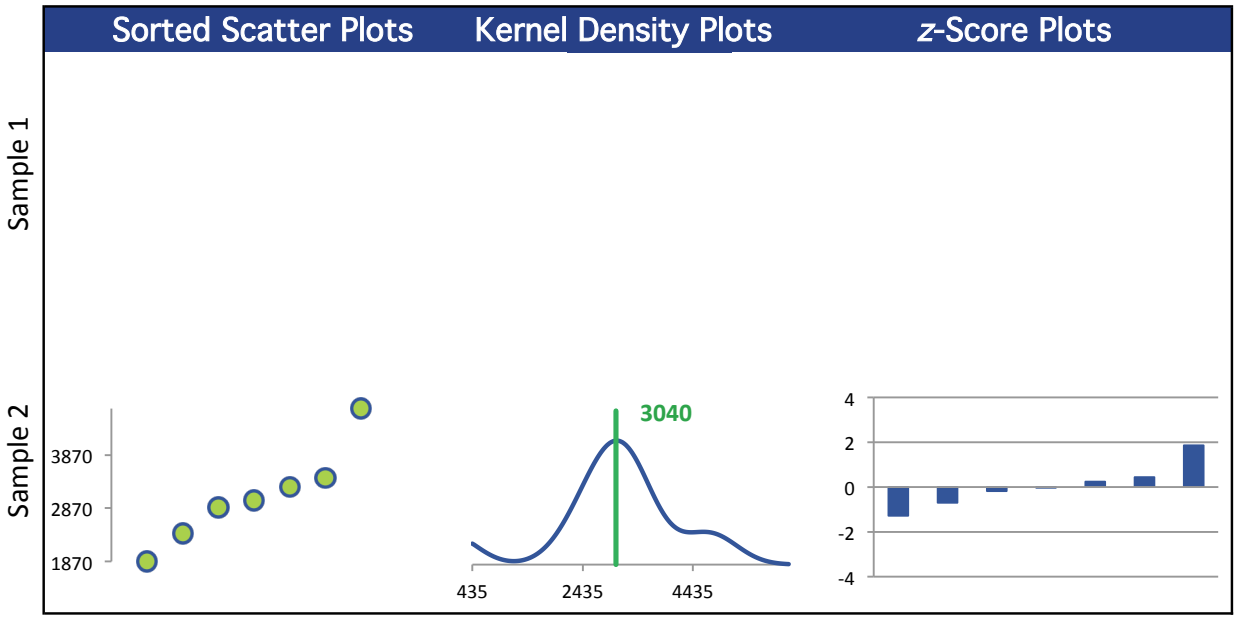
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	7	0	0
Median µg/g		3010		
Robust Mean µg/g		3040		
U µg/g		431		
Robust Standard Deviation µg/g		912		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		912		
Outliers	2	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

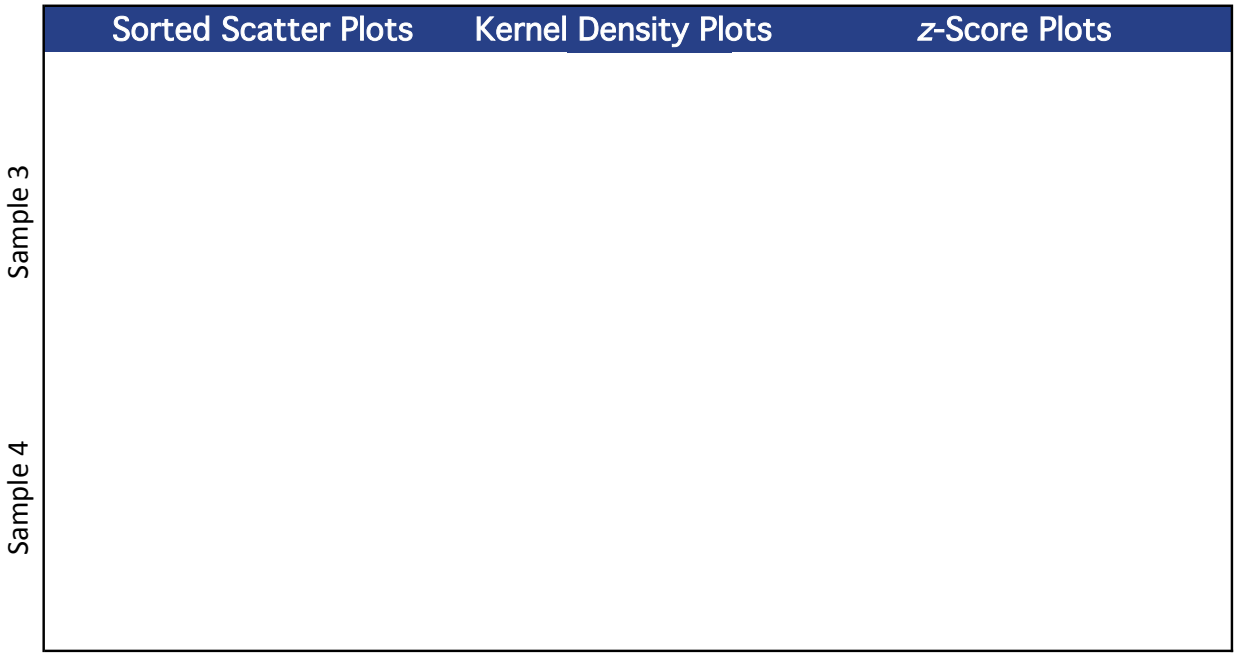
Methods Used

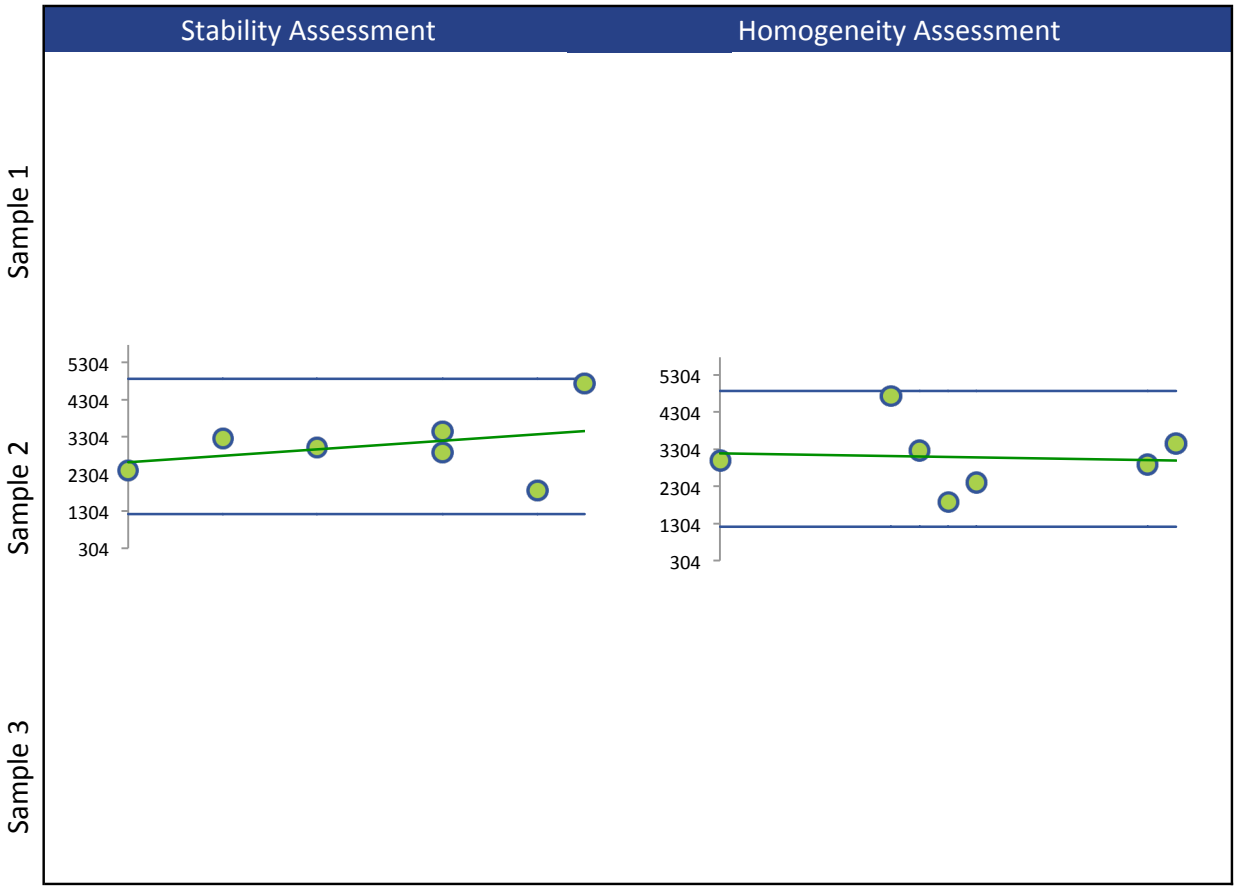
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	7	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



2-BUTANOL


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
5304
4304
3304
2304
1304
304
5304
4304
3304
2304
1304
304

2-BUTANOL

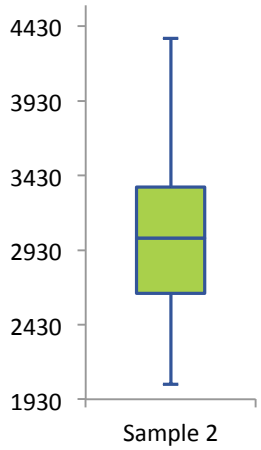
Sample 4

Stability Assessment	Homogeneity Assessment

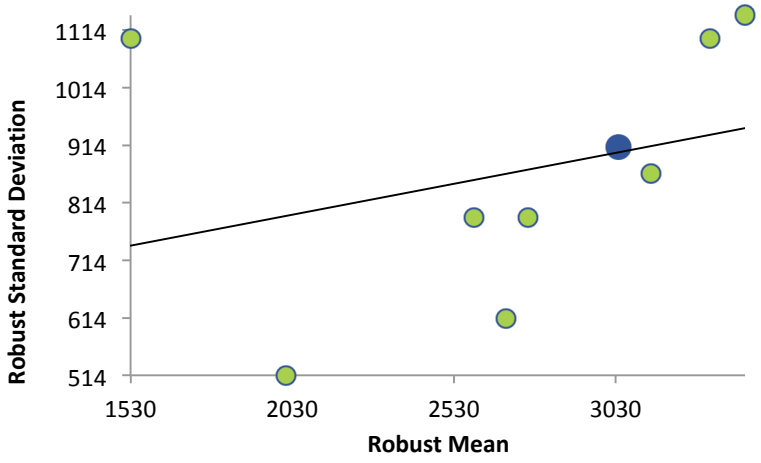
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



2-BUTANONE (METHYL ETHYL KETONE, MEK)

Summary Statistics

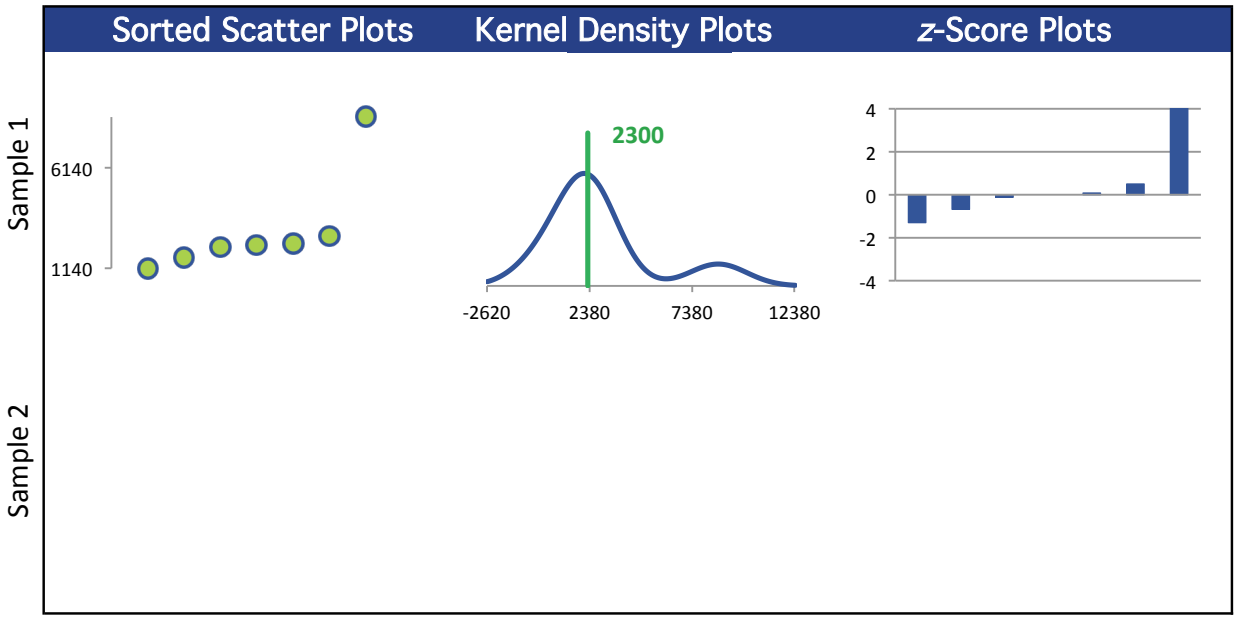
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	7	0	0	0
Median µg/g	2300			
Robust Mean µg/g	2300			
U µg/g	422			
Robust Standard Deviation µg/g	893			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	893			
Outliers	0	2	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0

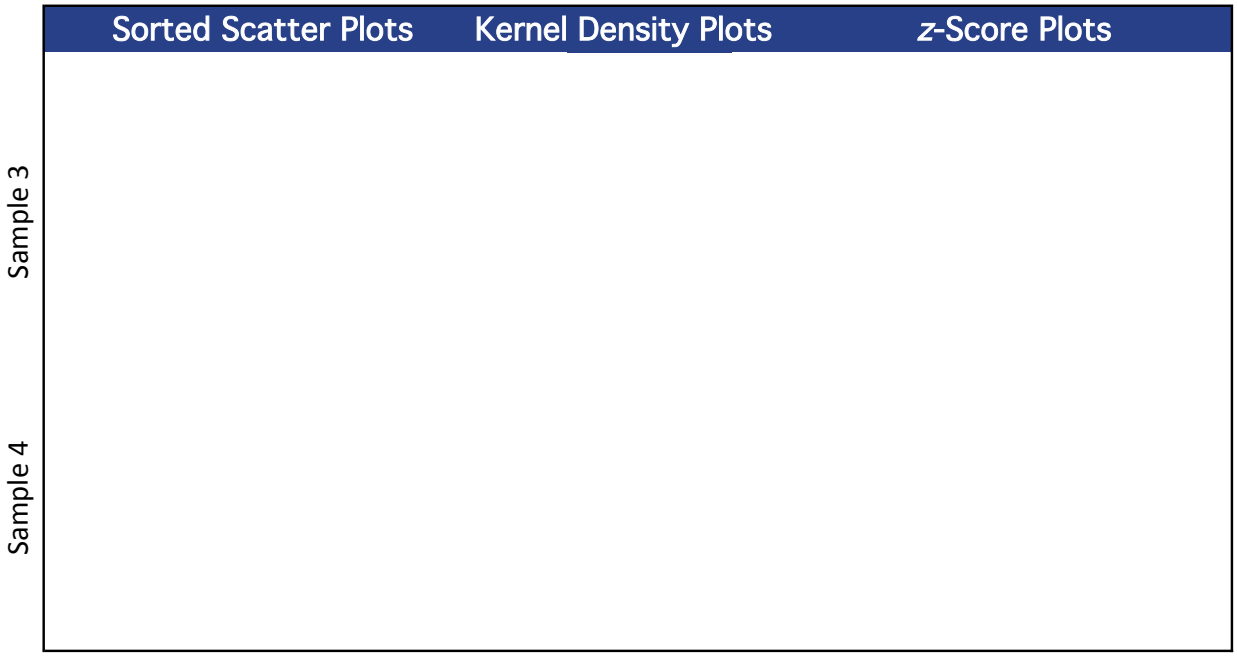
Methods Used

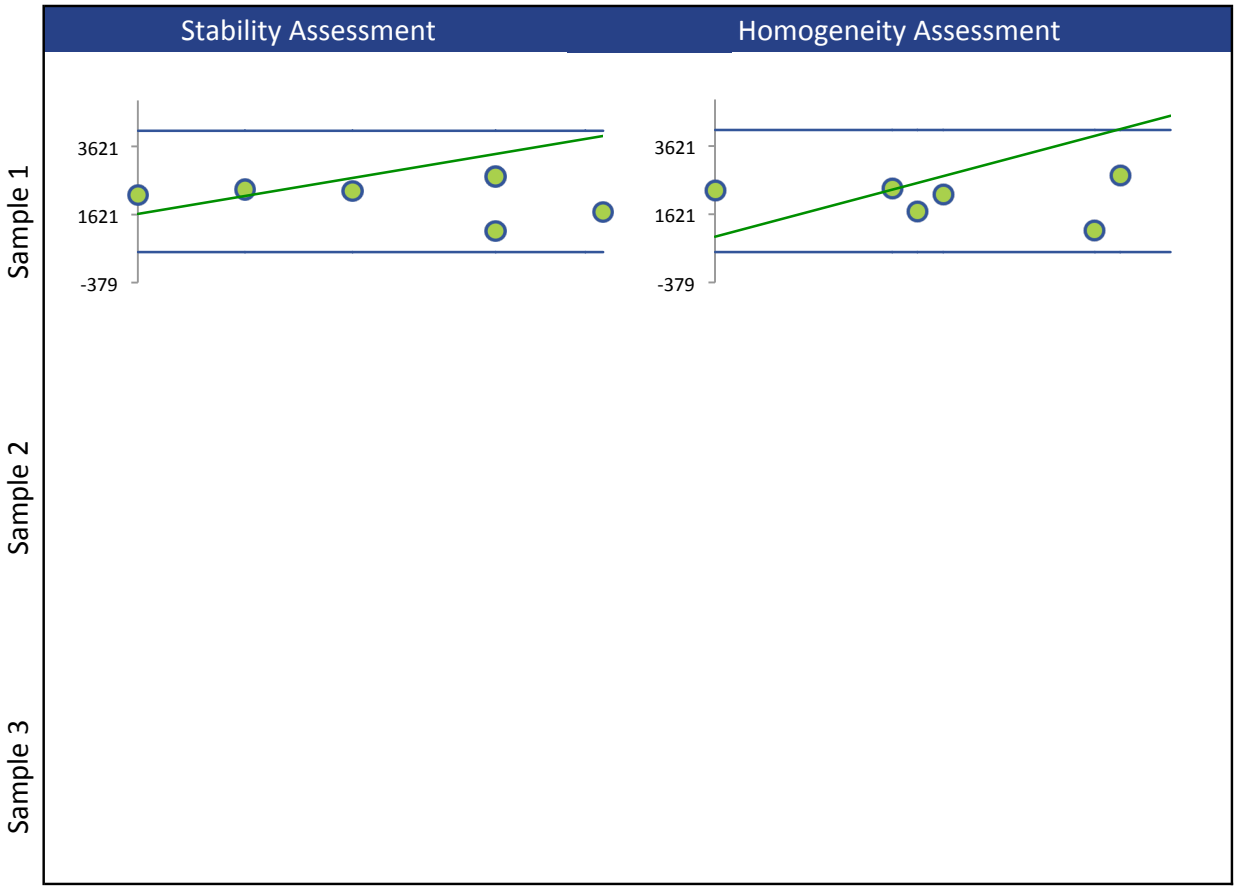
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	7	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



2-BUTANONE (METHYL ETHYL KETONE, MEK)





2-BUTANONE (METHYL ETHYL KETONE, MEK)

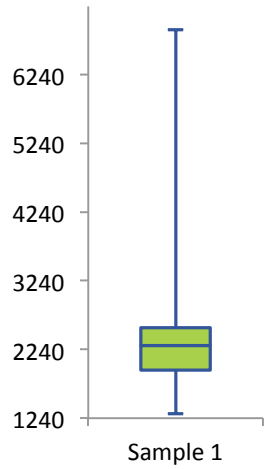
Sample 4

Stability Assessment	Homogeneity Assessment

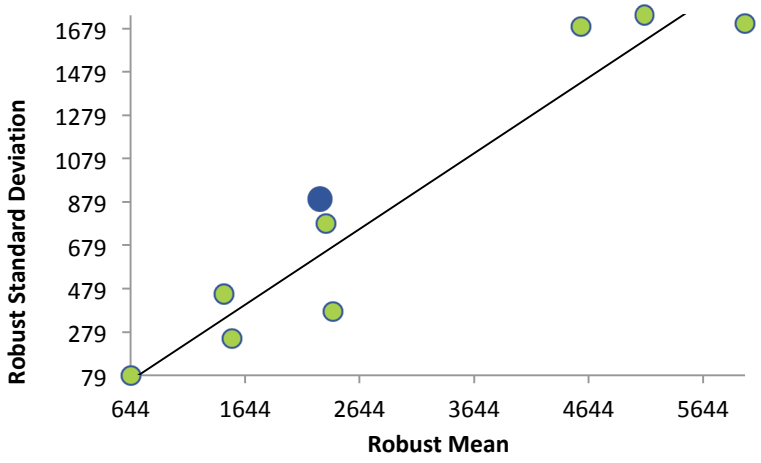
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



2-PROPANOL (ISOPROPYL ALCOHOL)

Summary Statistics

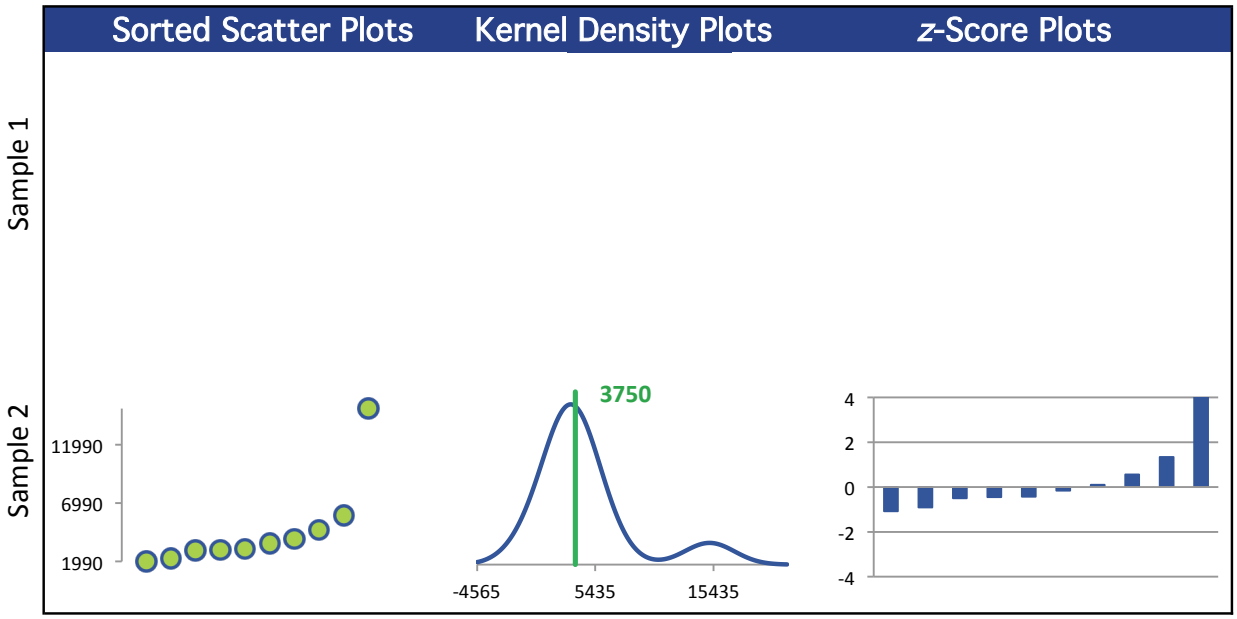
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	10	0	0
Median µg/g		3270		
Robust Mean µg/g		3750		
U µg/g		644		
Robust Standard Deviation µg/g		1630		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		1630		
Outliers	3	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

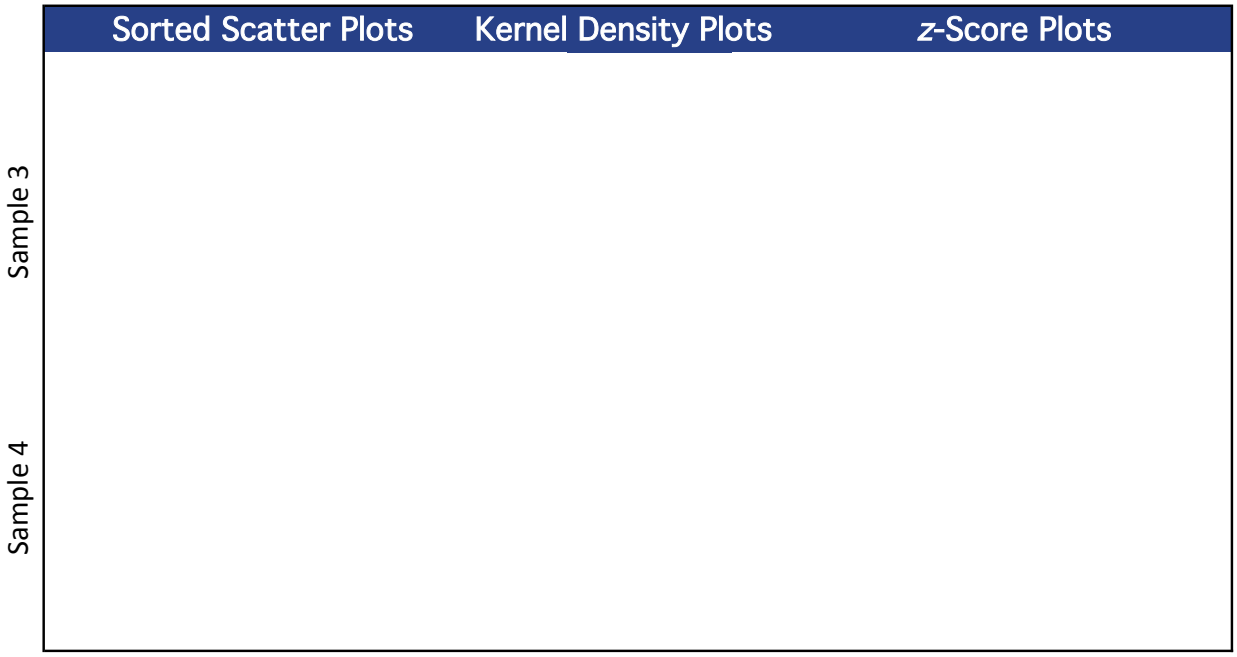
Methods Used

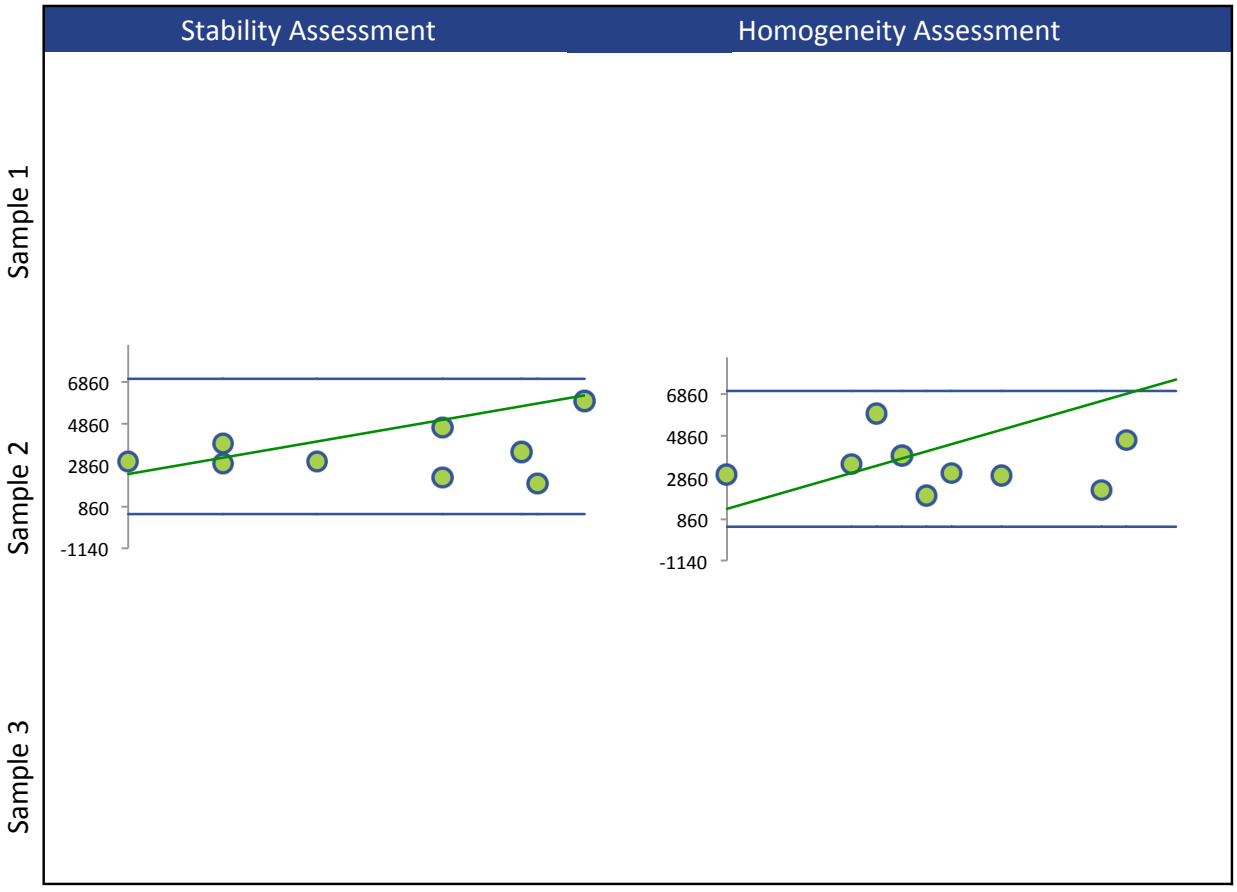
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	6	0	0
GC/FID (Red)	0	4	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



2-PROPANOL (ISOPROPYL ALCOHOL)





2-PROPANOL (ISOPROPYL ALCOHOL)

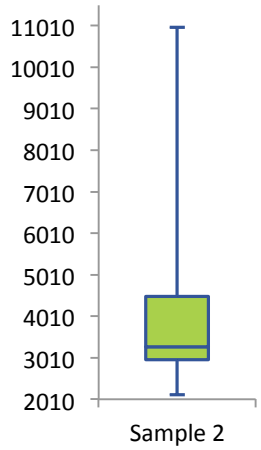
Sample 4

Stability Assessment	Homogeneity Assessment

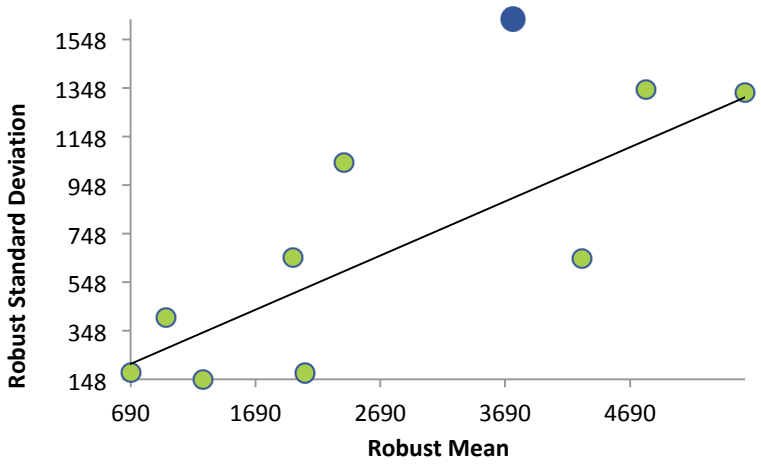
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



3-METHYL-1-BUTANOL

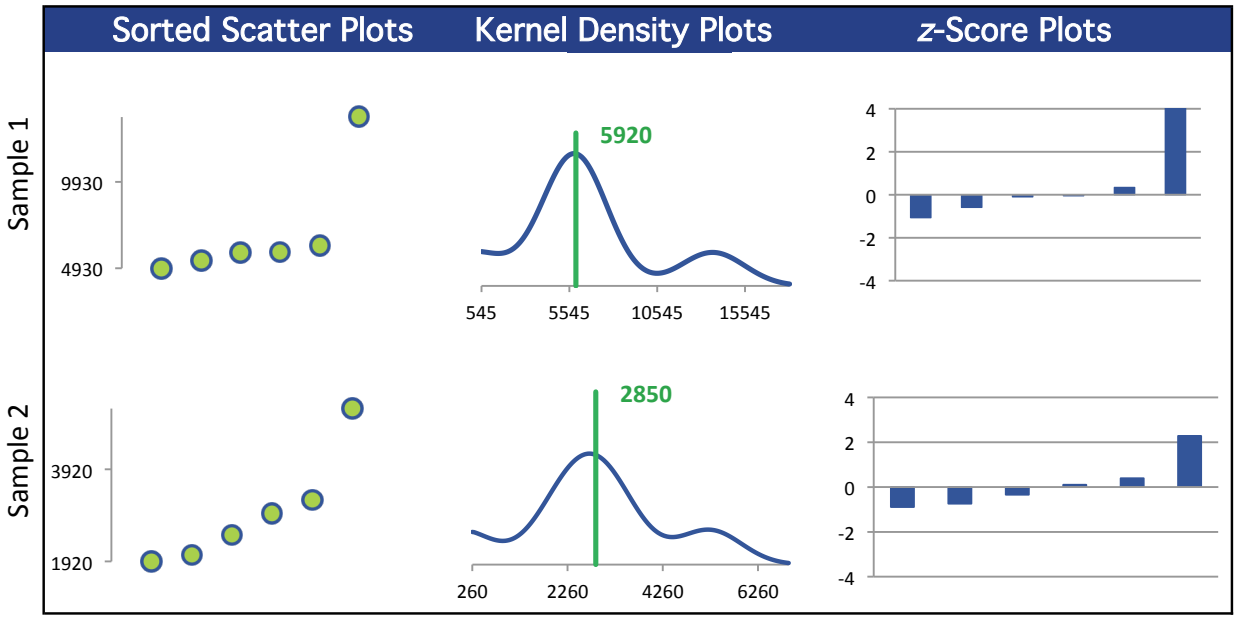
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	6	6	0	0
Median µg/g	5850	2730		
Robust Mean µg/g	5920	2850		
U µg/g	470	536		
Robust Standard Deviation µg/g	921	1050		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	921	1050		
Outliers	1	1	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	1	0	0

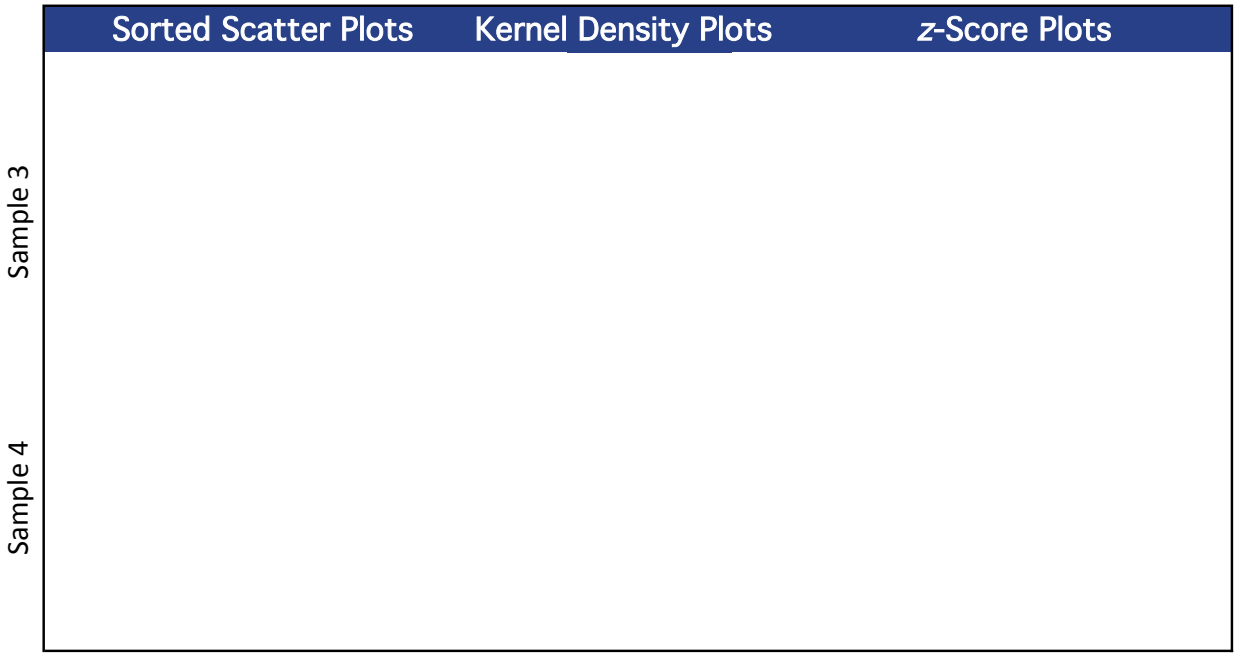
Methods Used

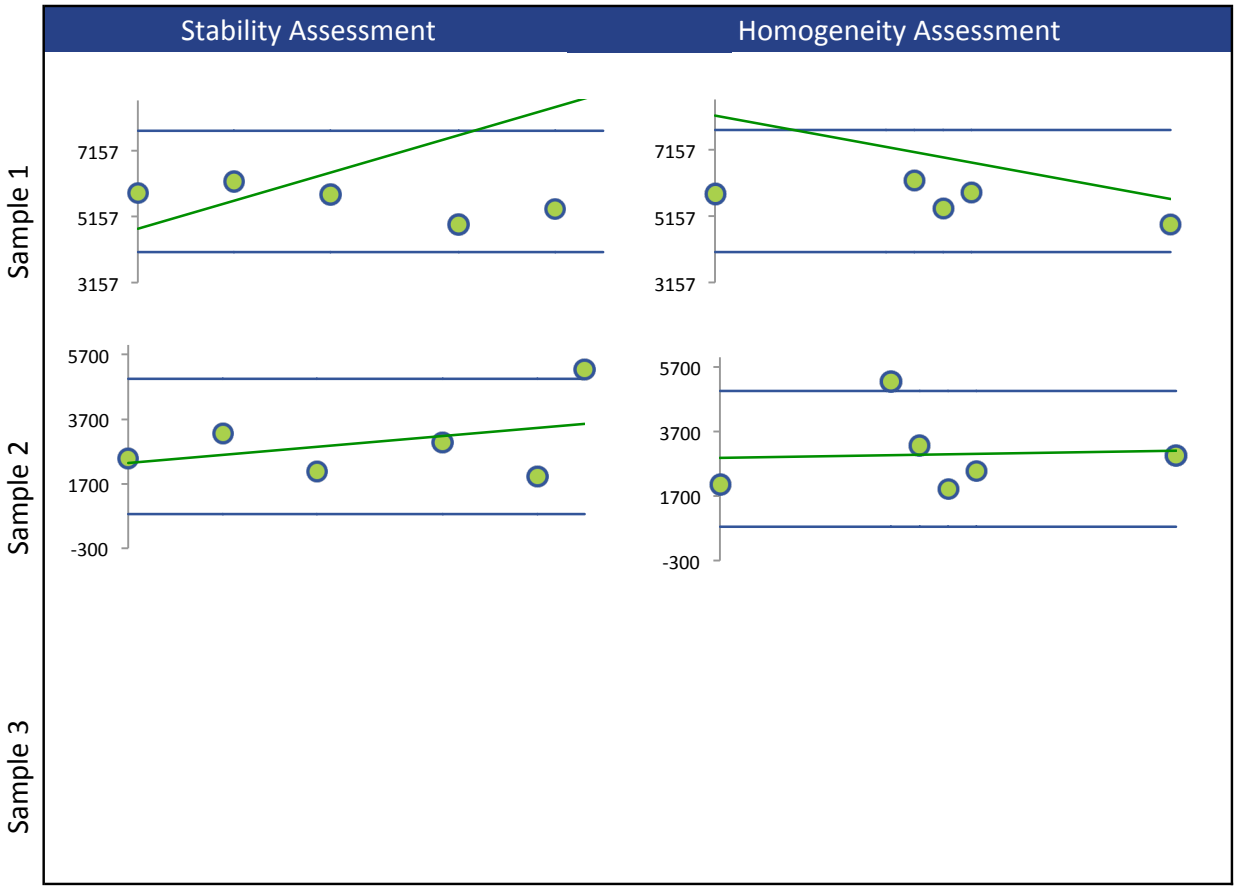
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	6	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



3-METHYL-1-BUTANOL





3-METHYL-1-BUTANOL

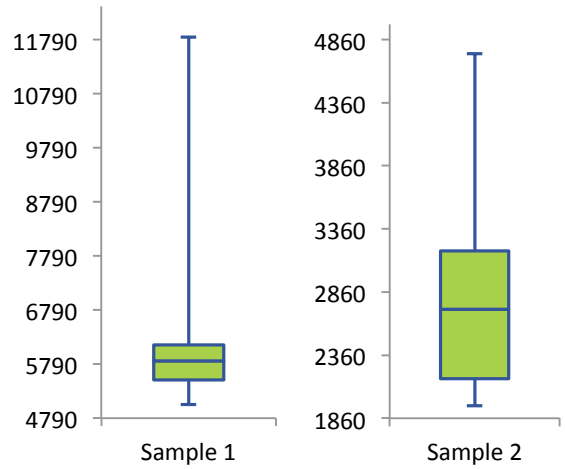
Sample 4

Stability Assessment	Homogeneity Assessment

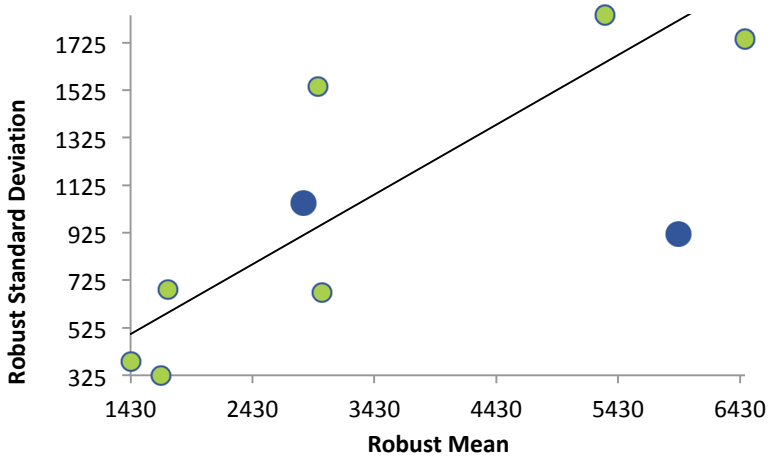
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ACETONE (2-PROPANONE)

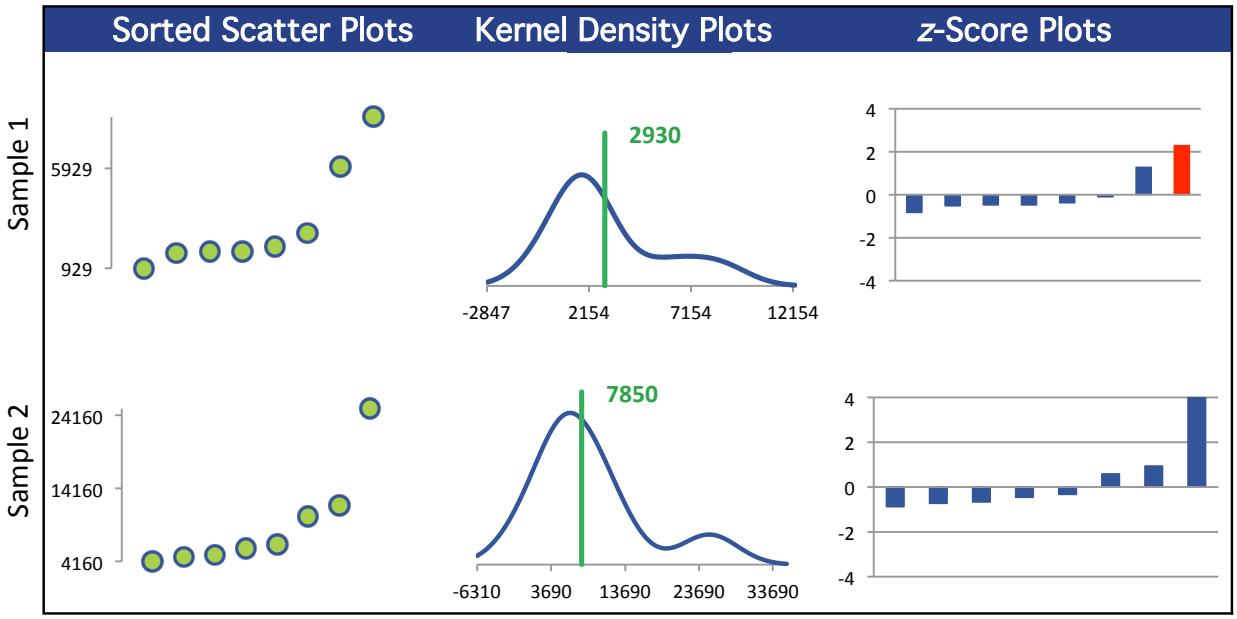
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	8	0	0
Median µg/g	1890	6230		
Robust Mean µg/g	2930	7850		
U µg/g	1070	1880		
Robust Standard Deviation µg/g	2420	4260		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2420	4260		
Outliers	0	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	1	0	0	0

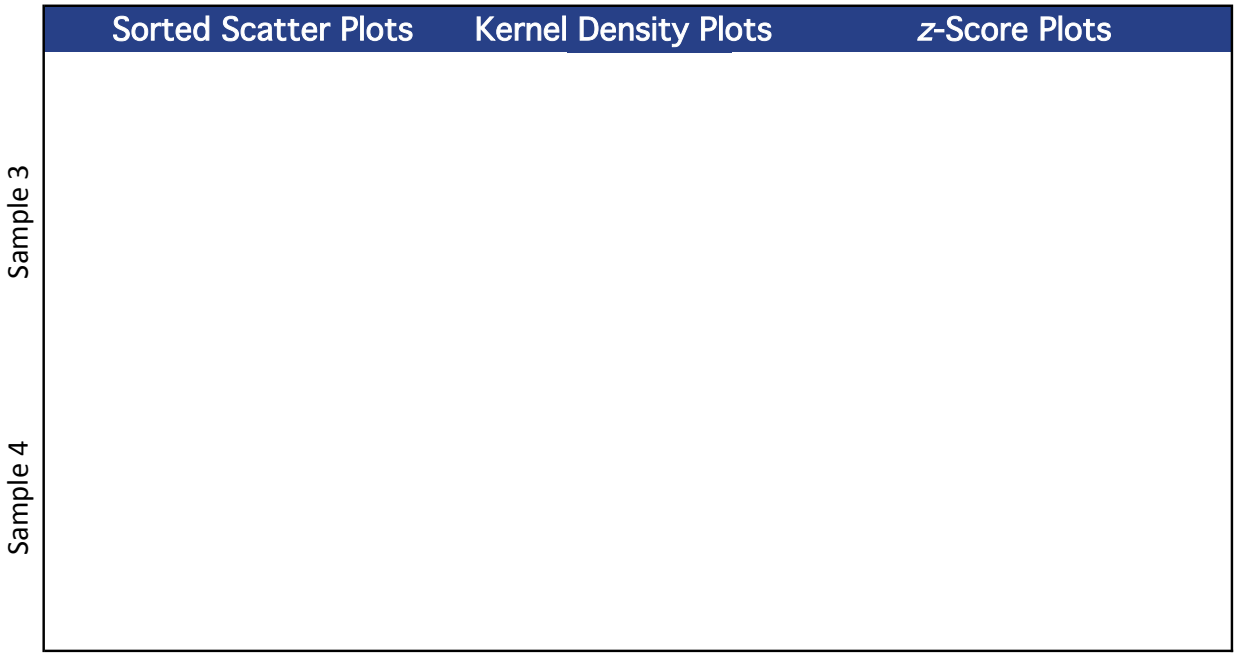
Methods Used

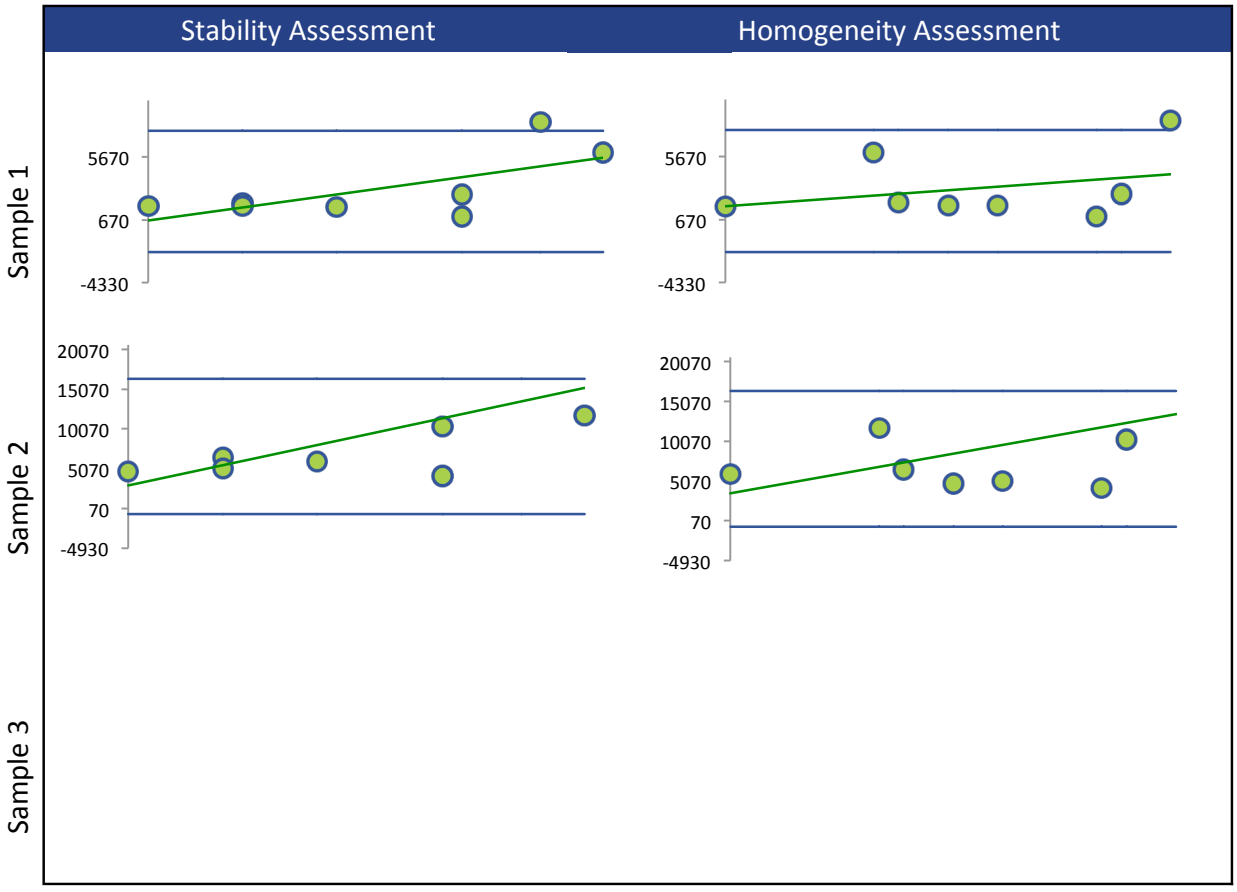
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	5	0	0
GC/FID (Red)	3	3	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ACETONE (2-PROPANONE)





ACETONE (2-PROPANONE)

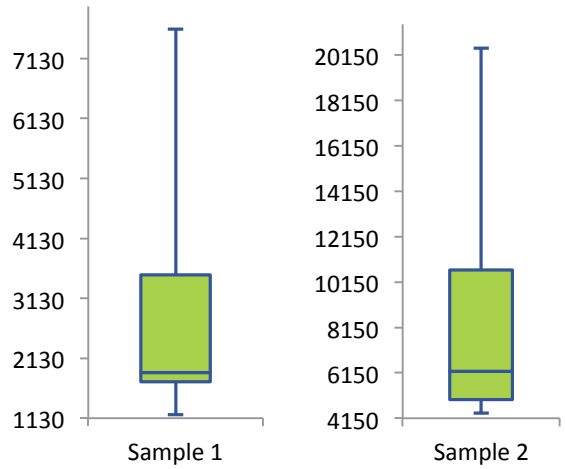
Sample 4

Stability Assessment	Homogeneity Assessment

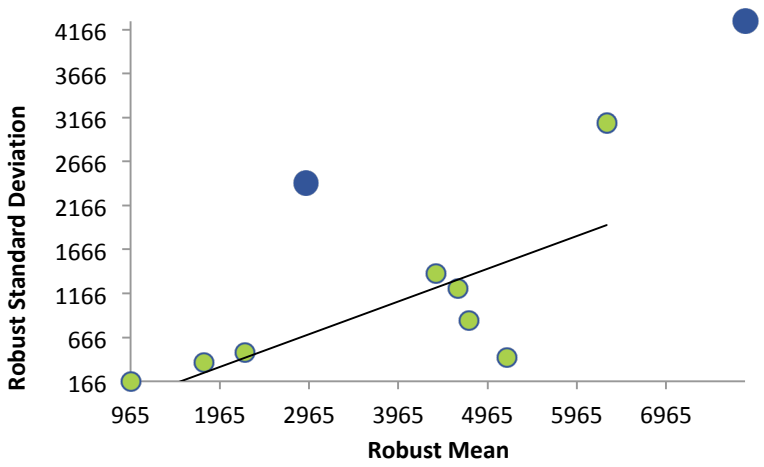
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ANISOLE

Summary Statistics

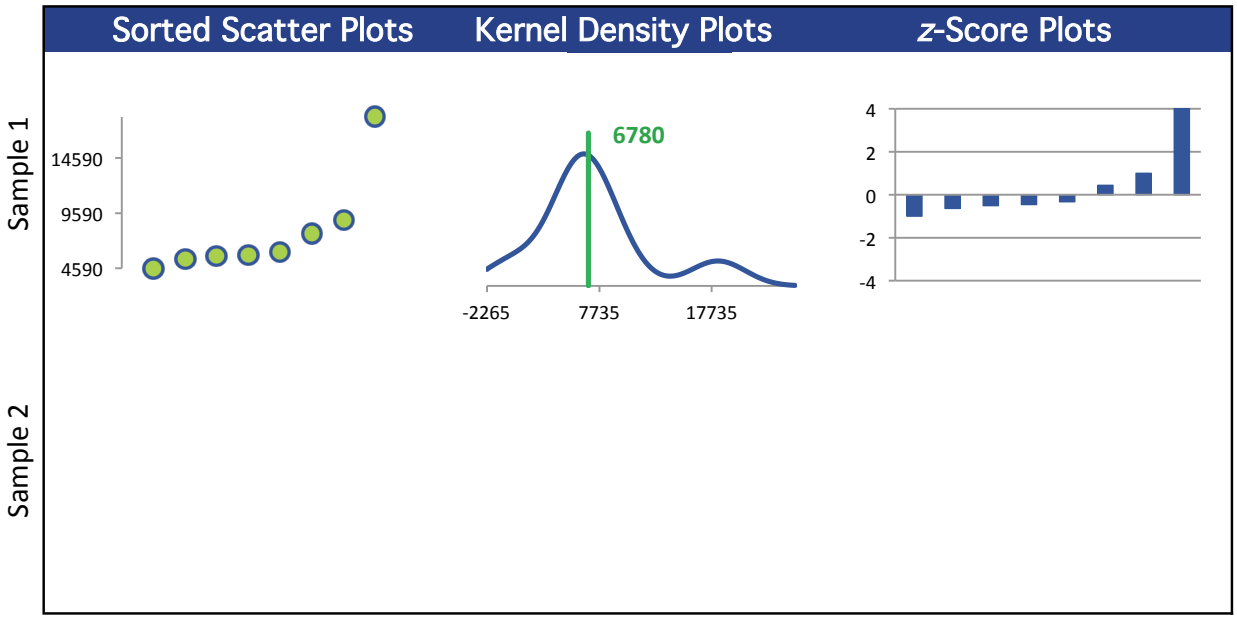
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	0	0	0
Median µg/g	5920			
Robust Mean µg/g	6780			
U µg/g	968			
Robust Standard Deviation µg/g	2190			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2190			
Outliers	0	1	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0

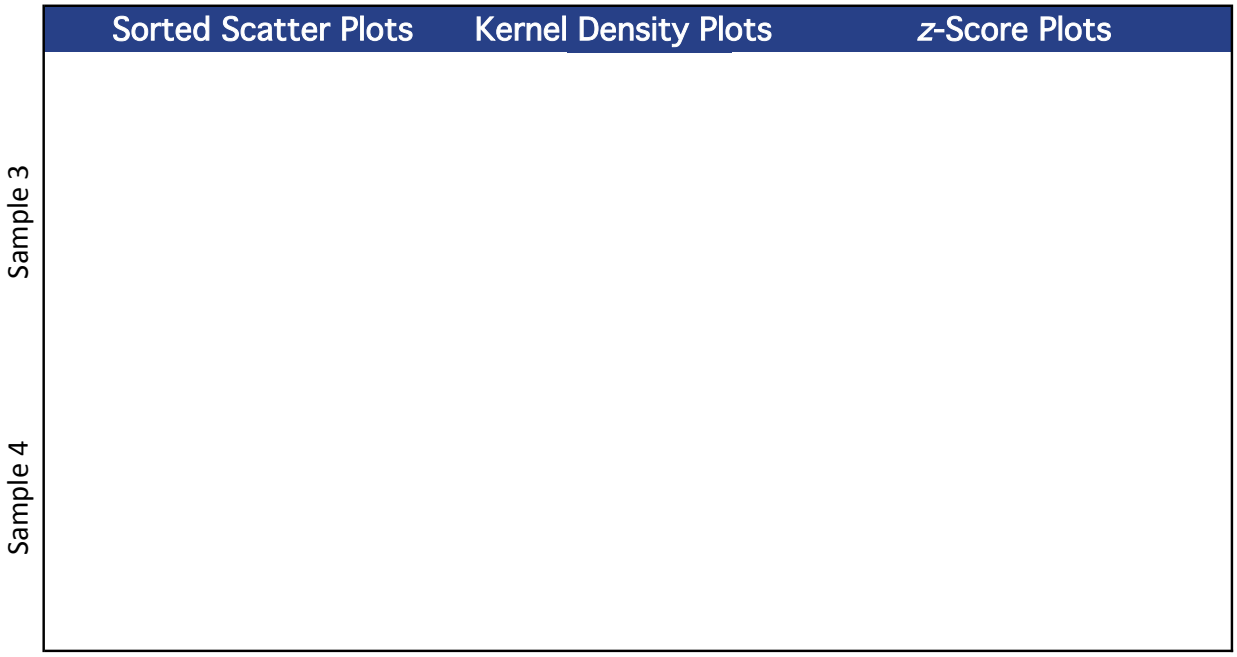
Methods Used

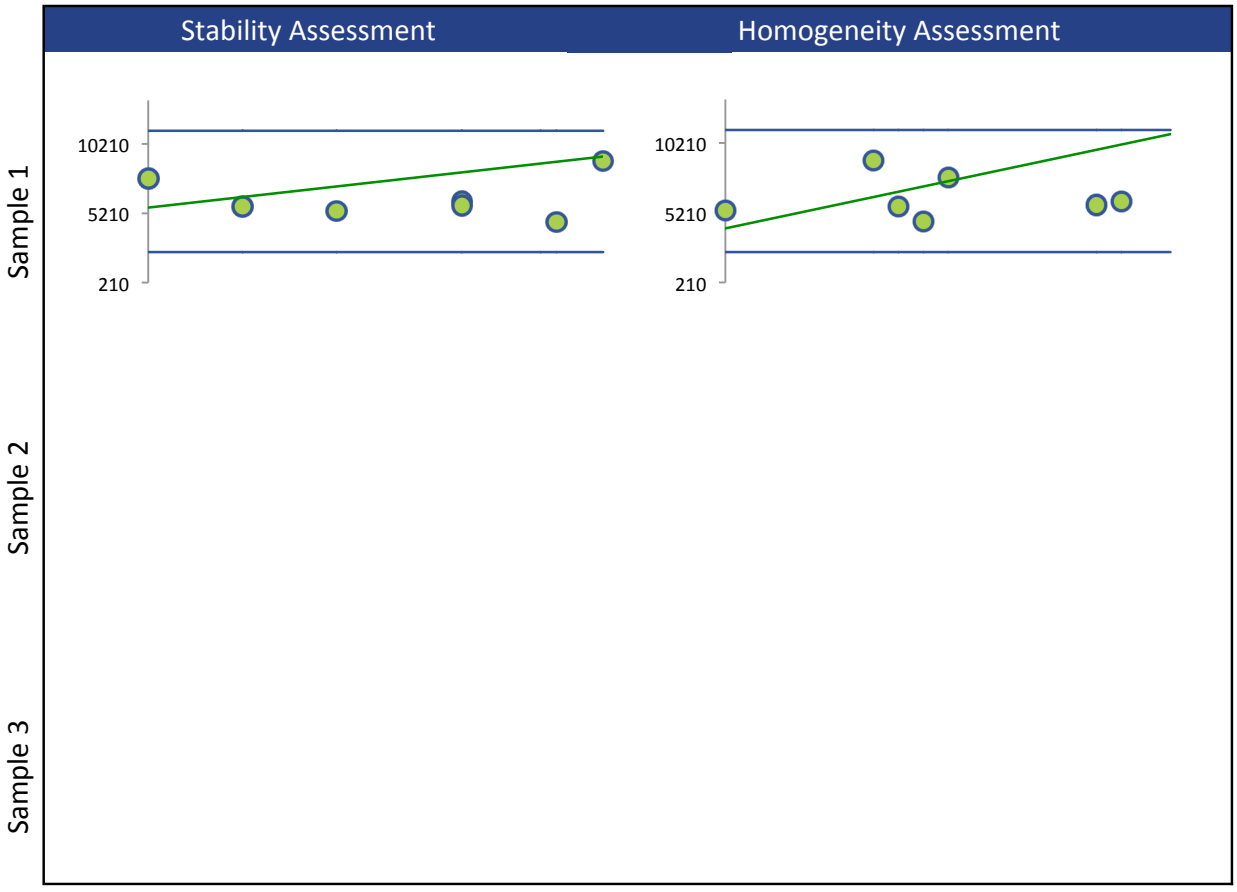
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	8	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ANISOLE


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


Stability Assessment
Homogeneity Assessment
10210
5210
210
10210
5210
210
Sample 1
Sample 2
Sample 3

ANISOLE

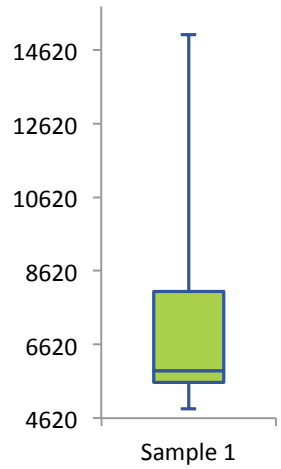
Sample 4

Stability Assessment	Homogeneity Assessment

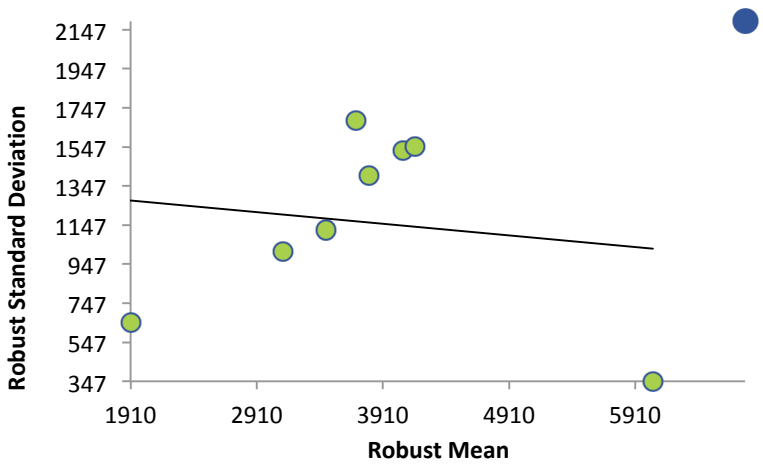
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



BUTANE

Summary Statistics

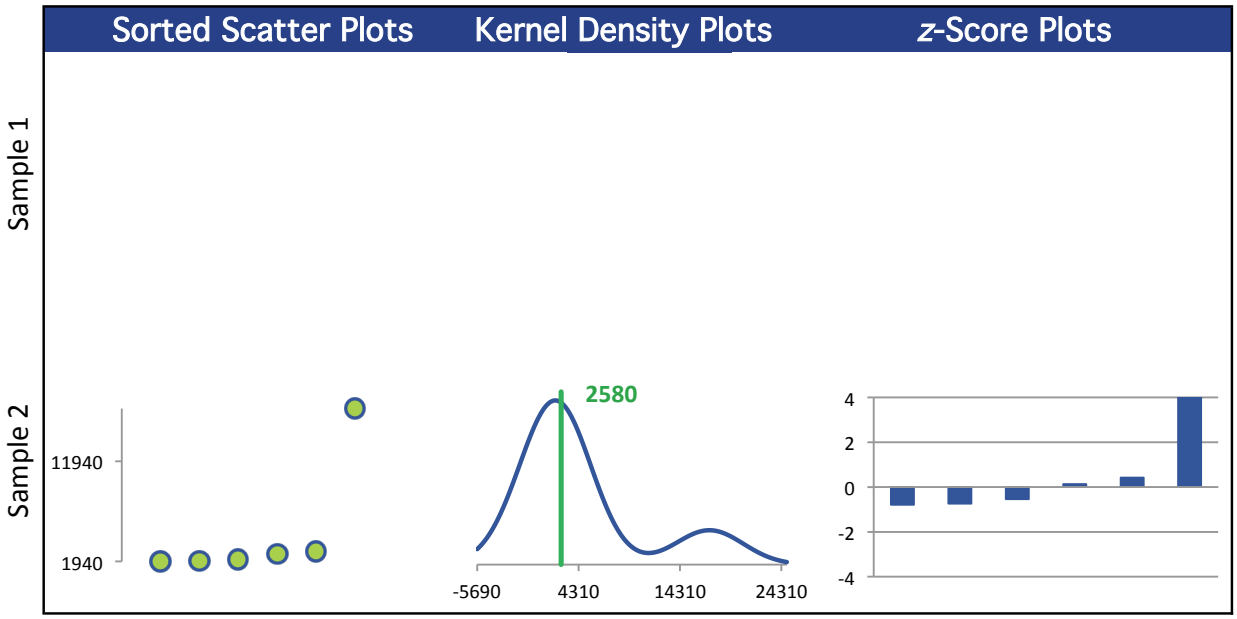
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	6	0	0
Median µg/g		2420		
Robust Mean µg/g		2580		
U µg/g		416		
Robust Standard Deviation µg/g		815		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		815		
Outliers	3	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

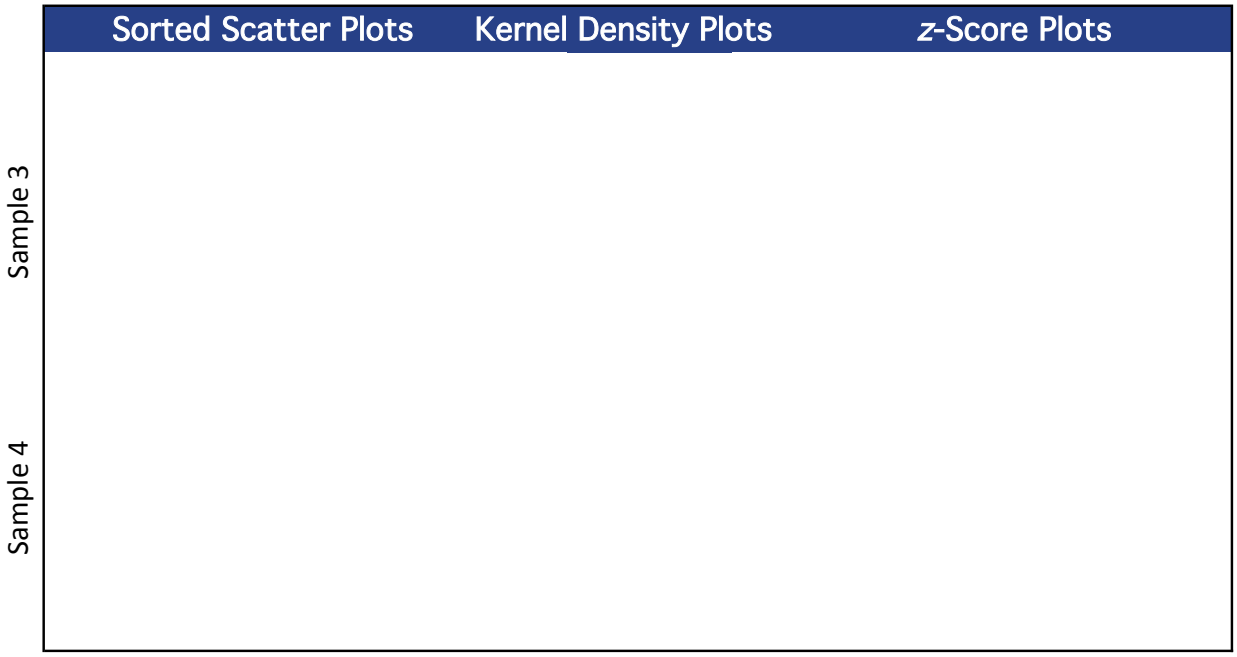
Methods Used

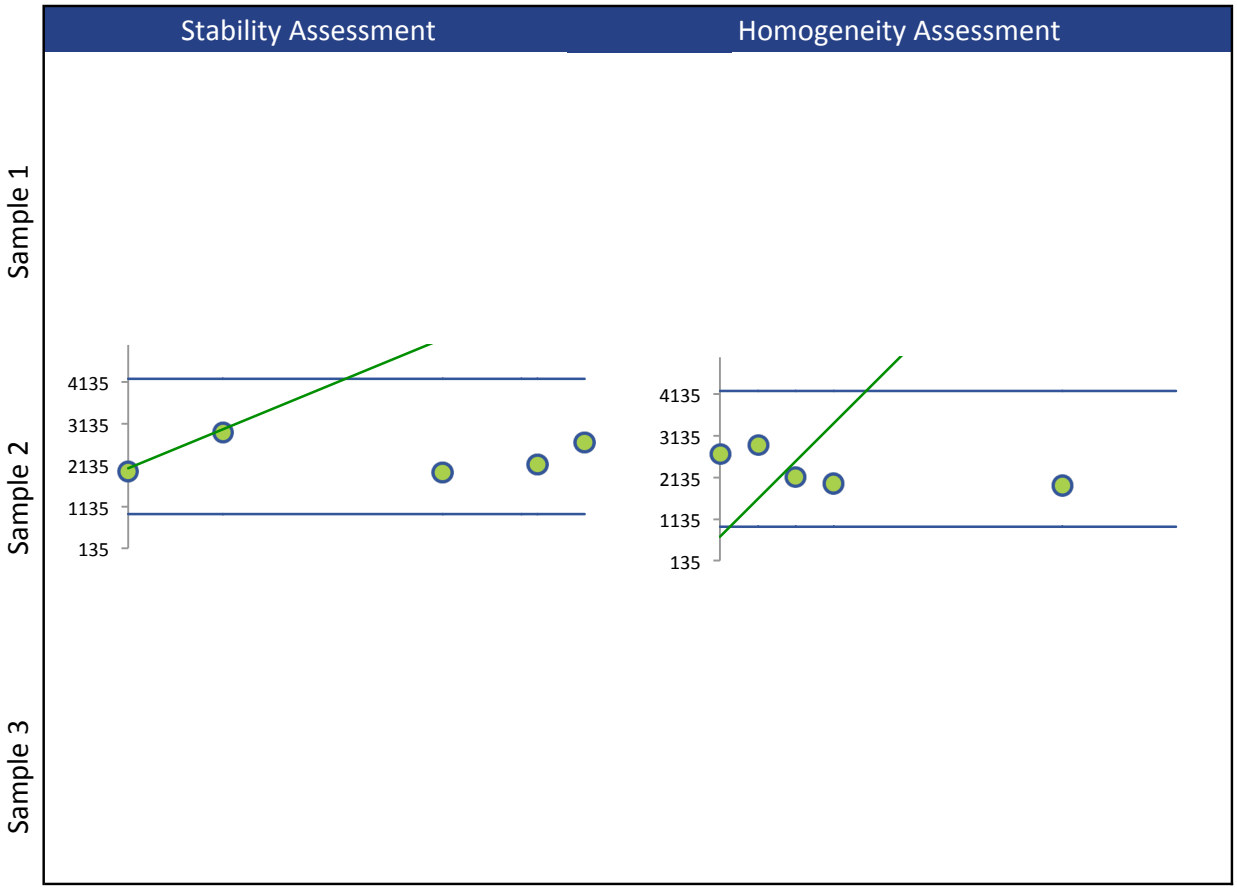
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	6	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



BUTANE


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
4135
3135
2135
1135
135
4135
3135
2135
1135
135

BUTANE

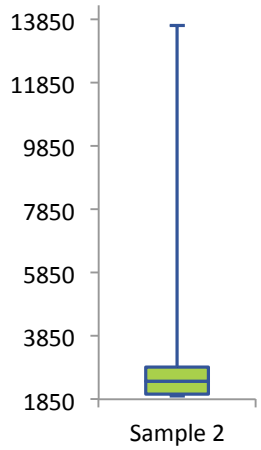
Sample 4

Stability Assessment	Homogeneity Assessment

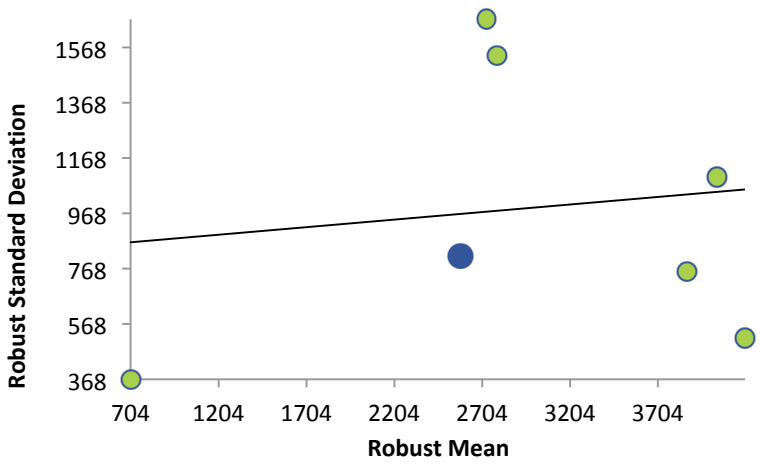
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



BUTYL ACETATE

Summary Statistics

Not Spiked

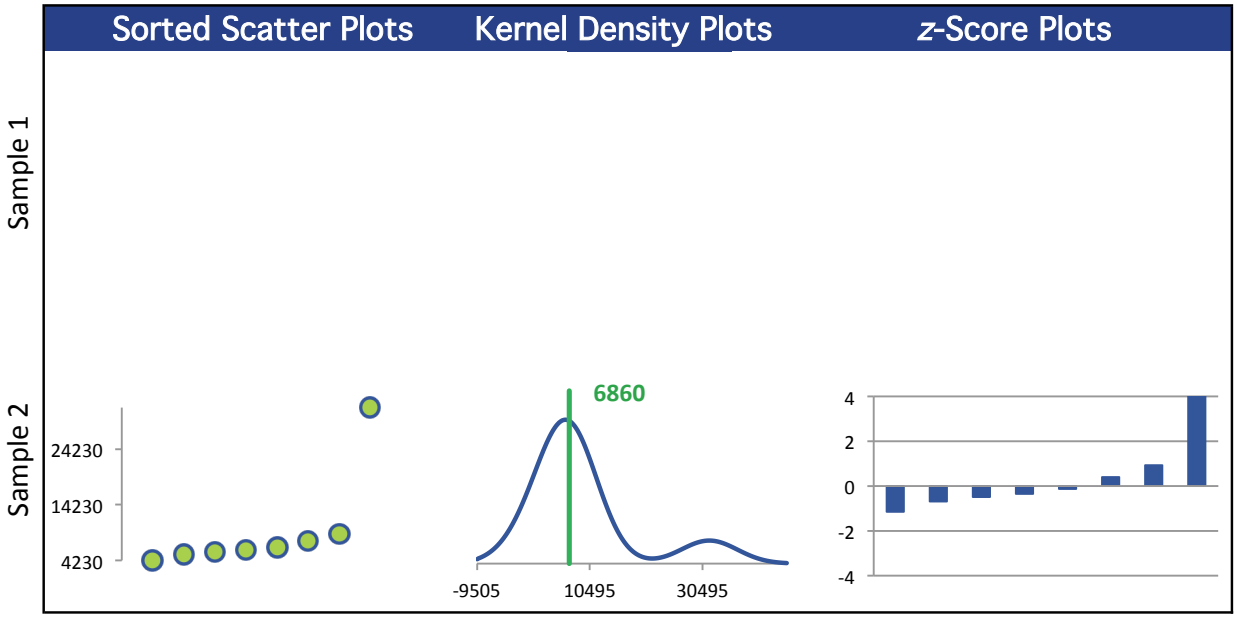
Statistic	C73-1	C73-2	C73-3	C73-4
N	0	8	0	0
Median µg/g		6310		
Robust Mean µg/g		6860		
U µg/g		1010		
Robust Standard Deviation µg/g		2290		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		2290		
Outliers	2	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

Methods Used

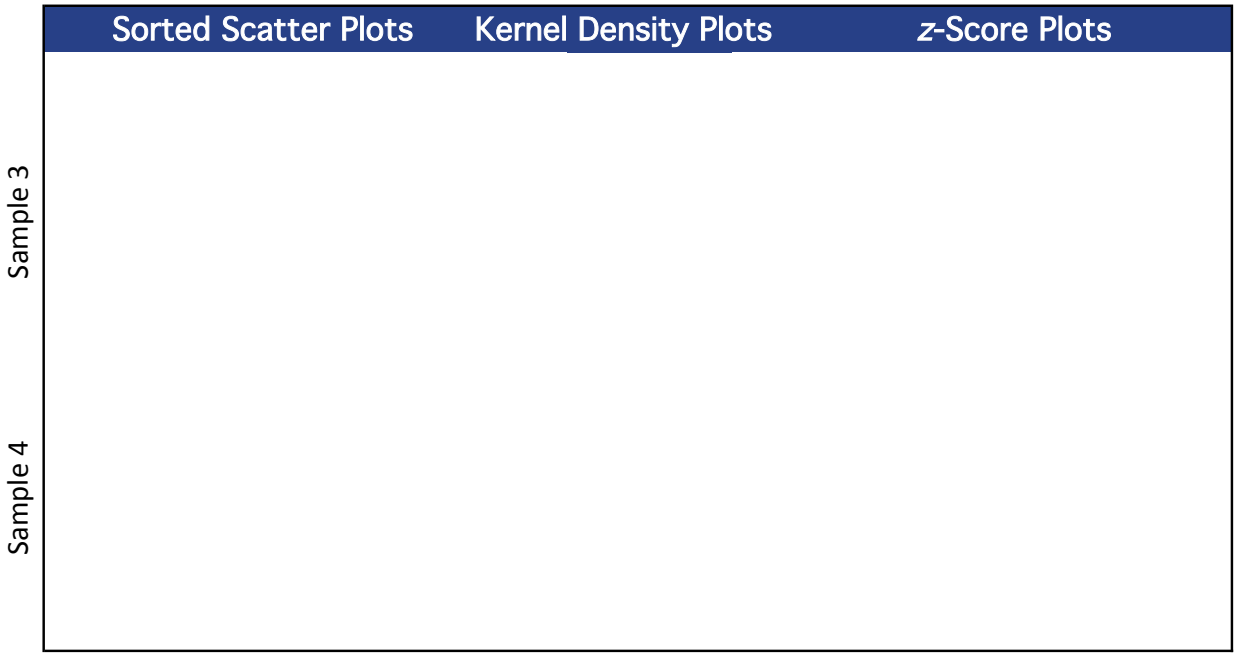
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	8	0	0

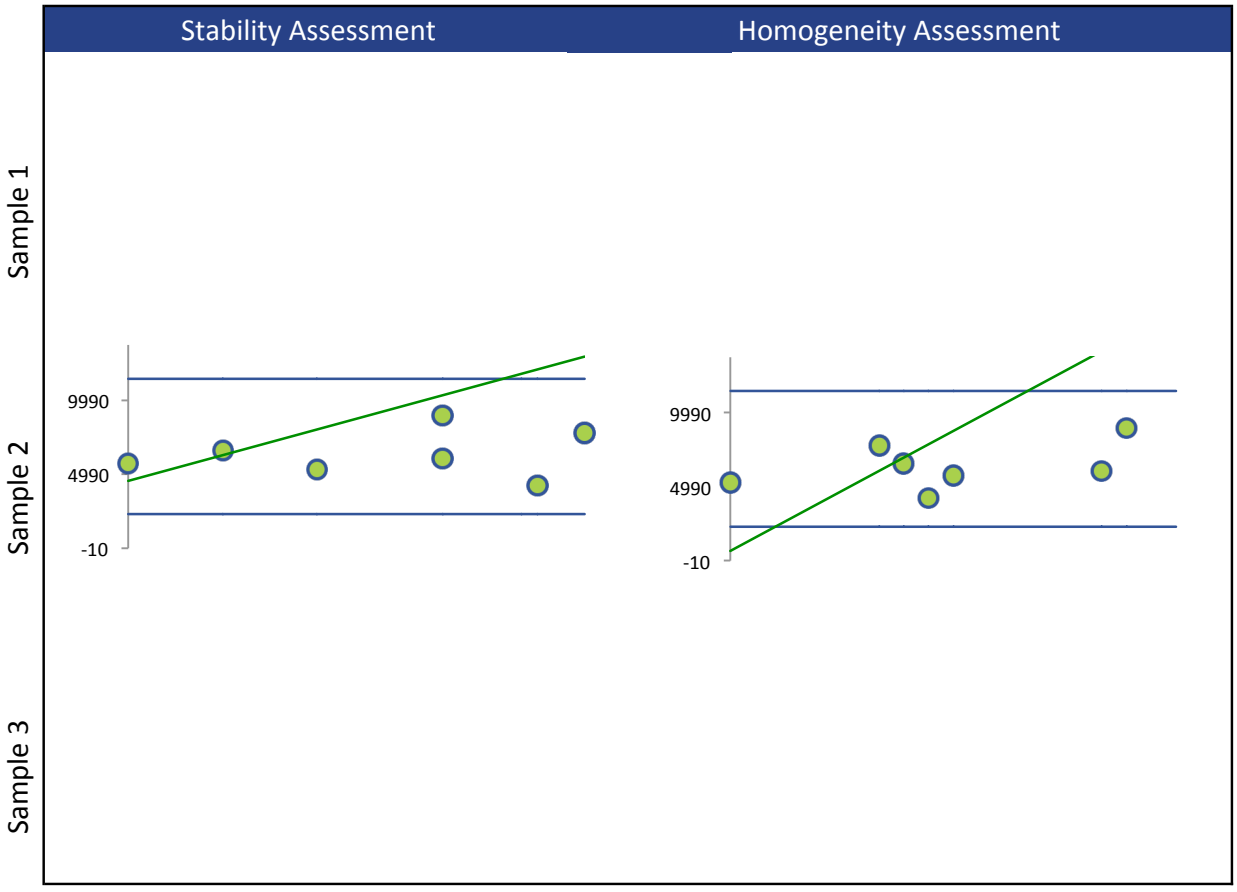
All summary stats and the plots below are based on the data excluding any flagged outliers

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



BUTYL ACETATE





BUTYL ACETATE

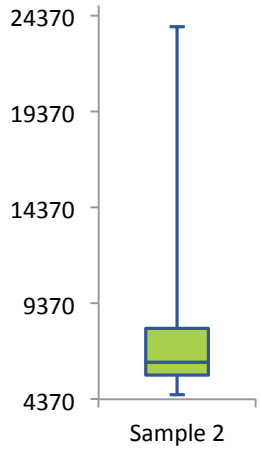
Sample 4

Stability Assessment	Homogeneity Assessment

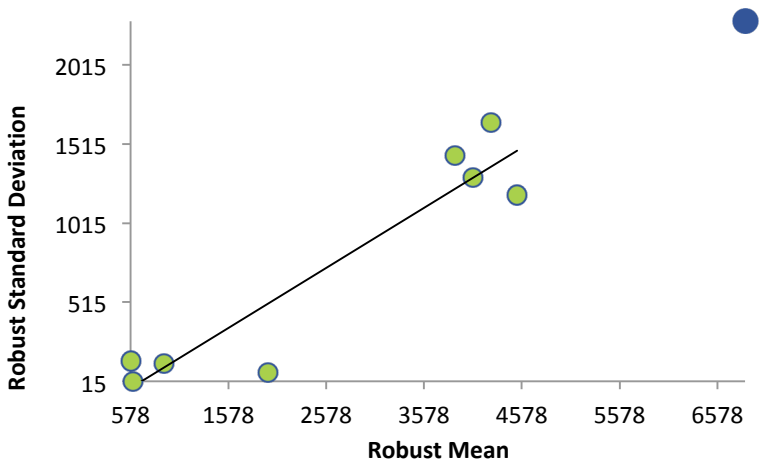
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



DIMETHYL SULFOXIDE

Summary Statistics

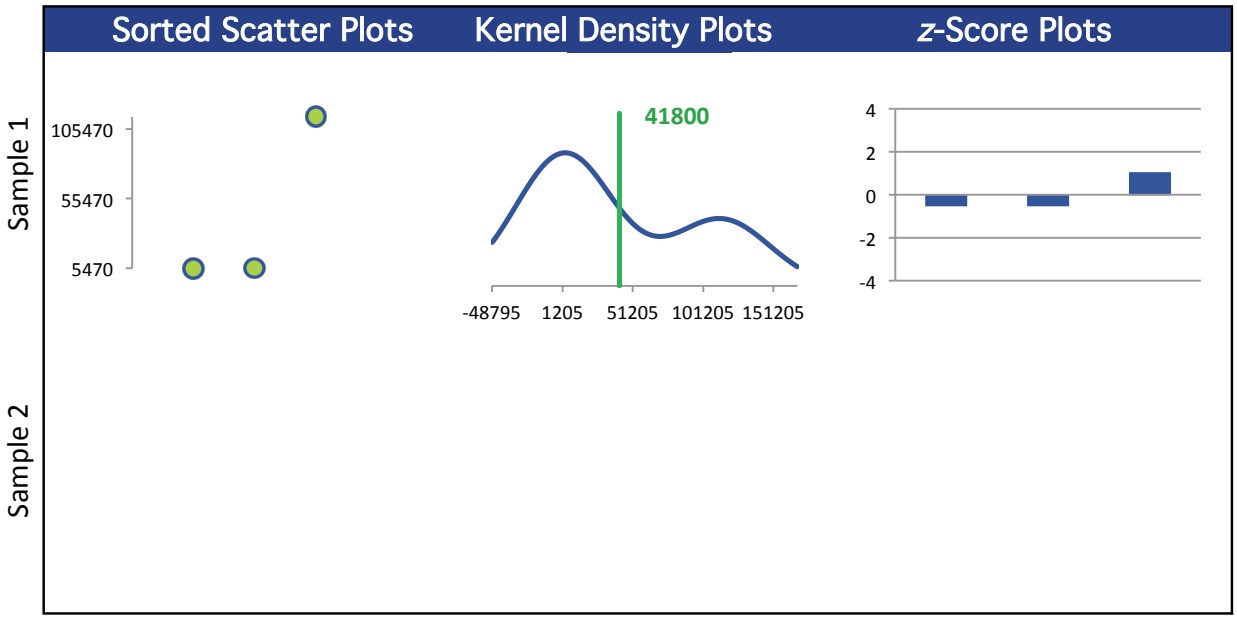
Excluded **Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
N	3	0	0	0
Median µg/g	5810			
Robust Mean µg/g	41800			
U µg/g	51200			
Robust Standard Deviation µg/g	70900			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	70900			
Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

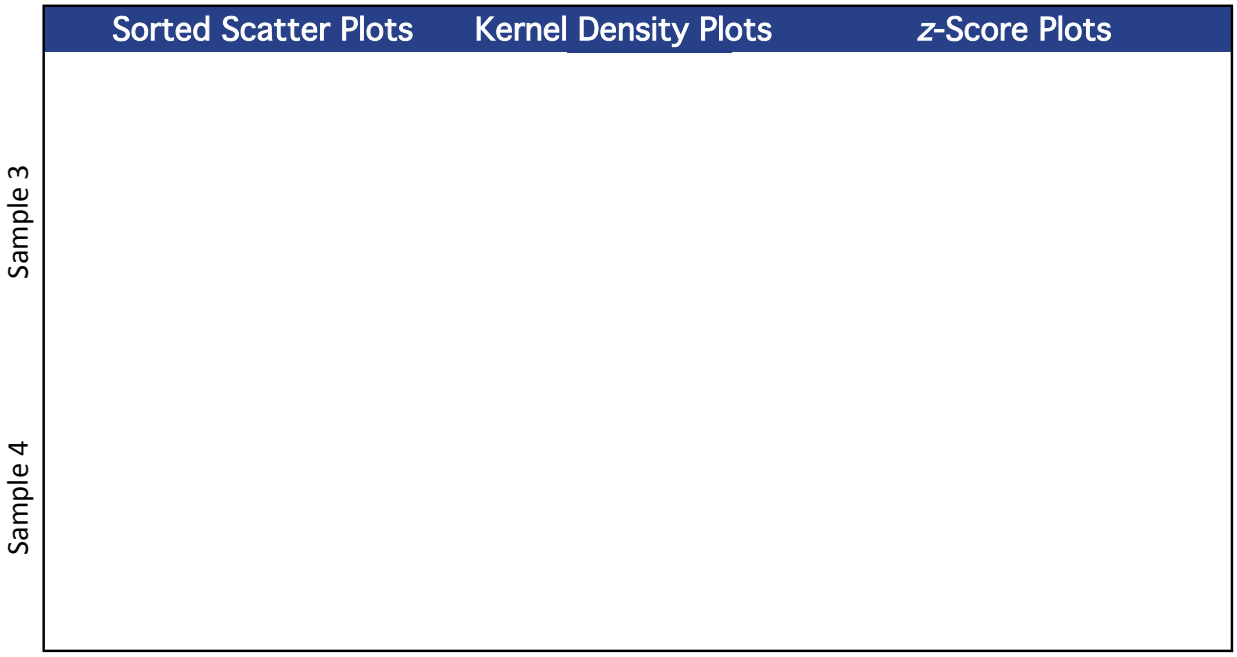
Methods Used

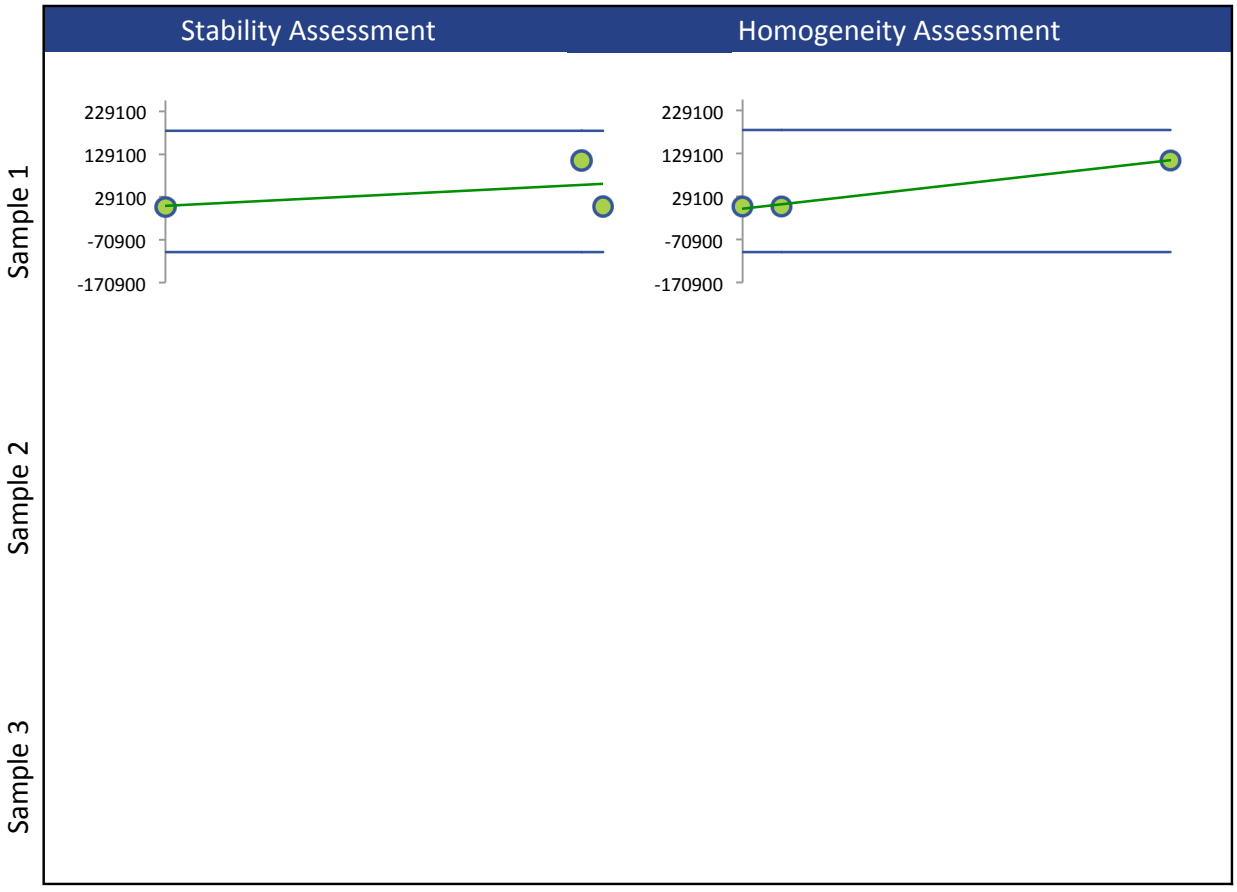
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



DIMETHYL SULFOXIDE





DIMETHYL SULFOXIDE

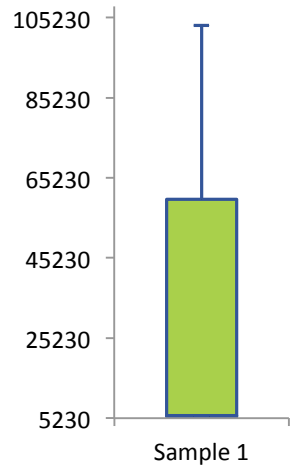
Sample 4

Stability Assessment	Homogeneity Assessment

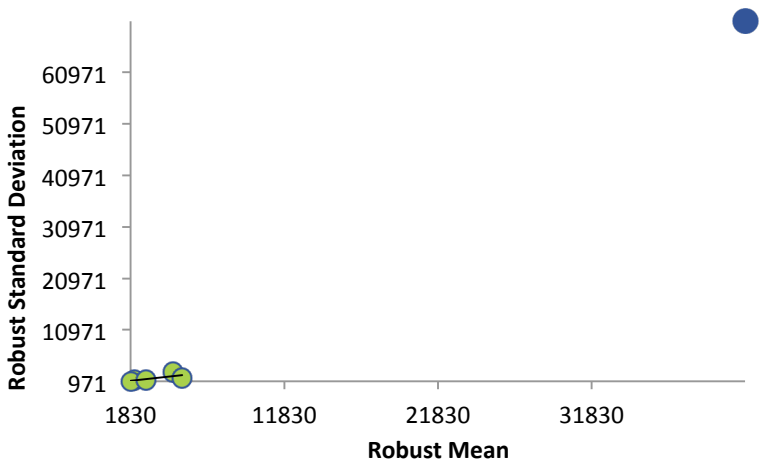
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ETHANOL

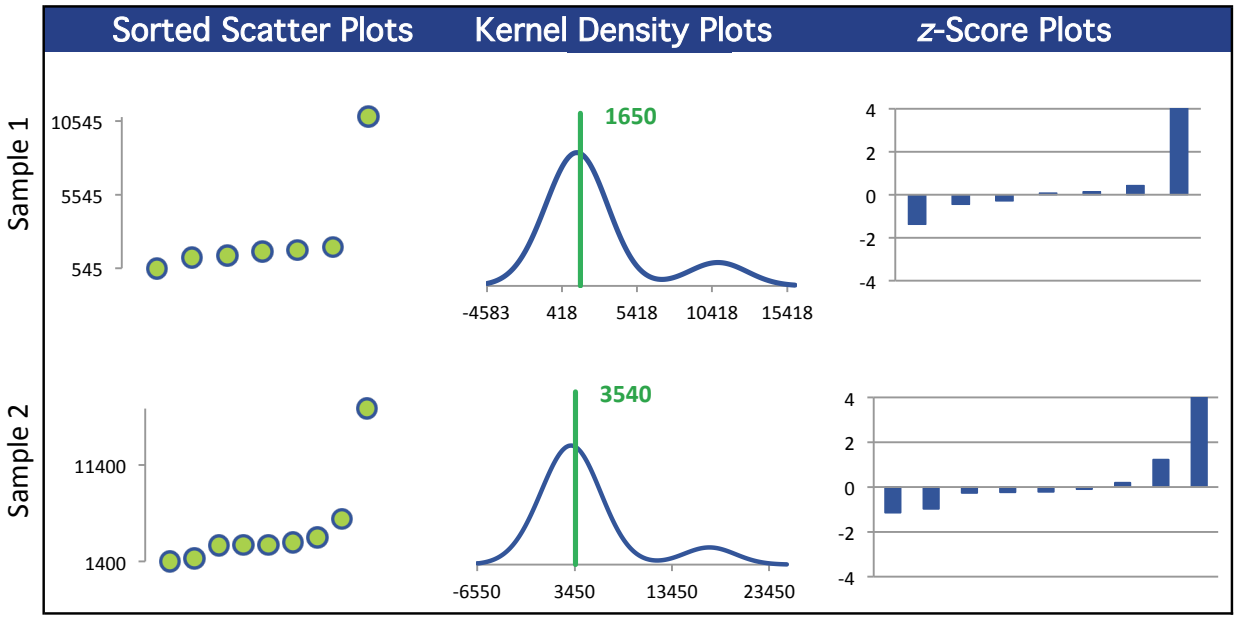
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	7	9	0	0
Median µg/g	1710	3150		
Robust Mean µg/g	1650	3540		
U µg/g	377	779		
Robust Standard Deviation µg/g	798	1870		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	798	1870		
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	0	0	0	0

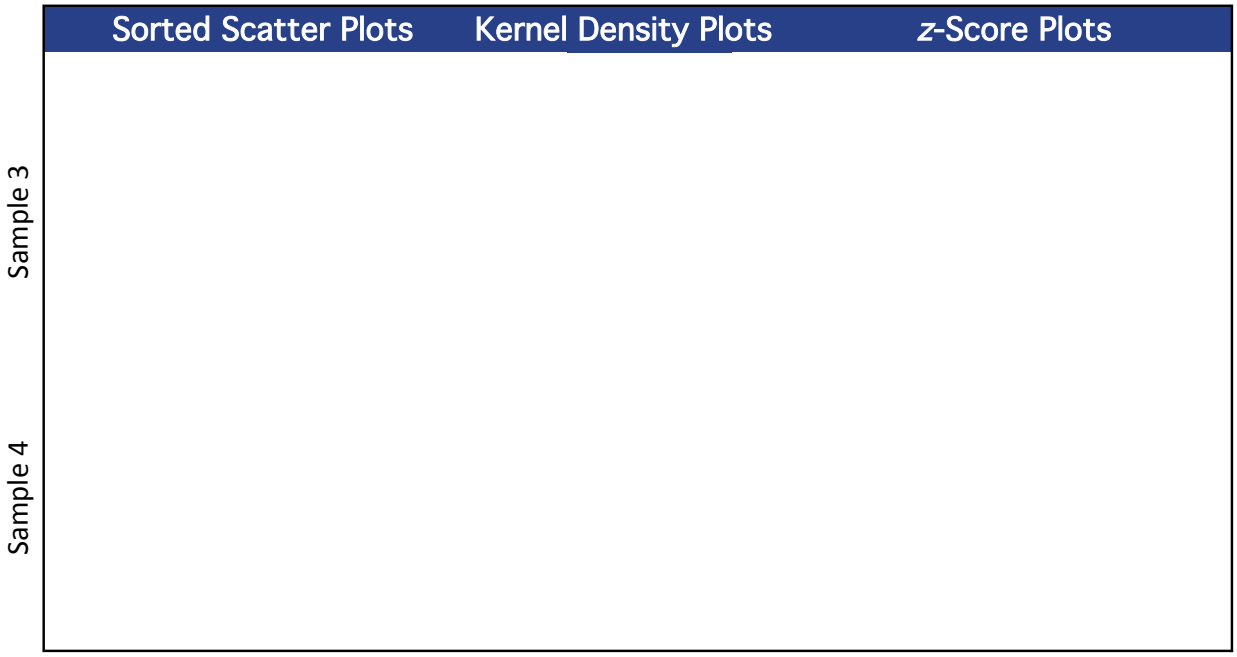
Methods Used

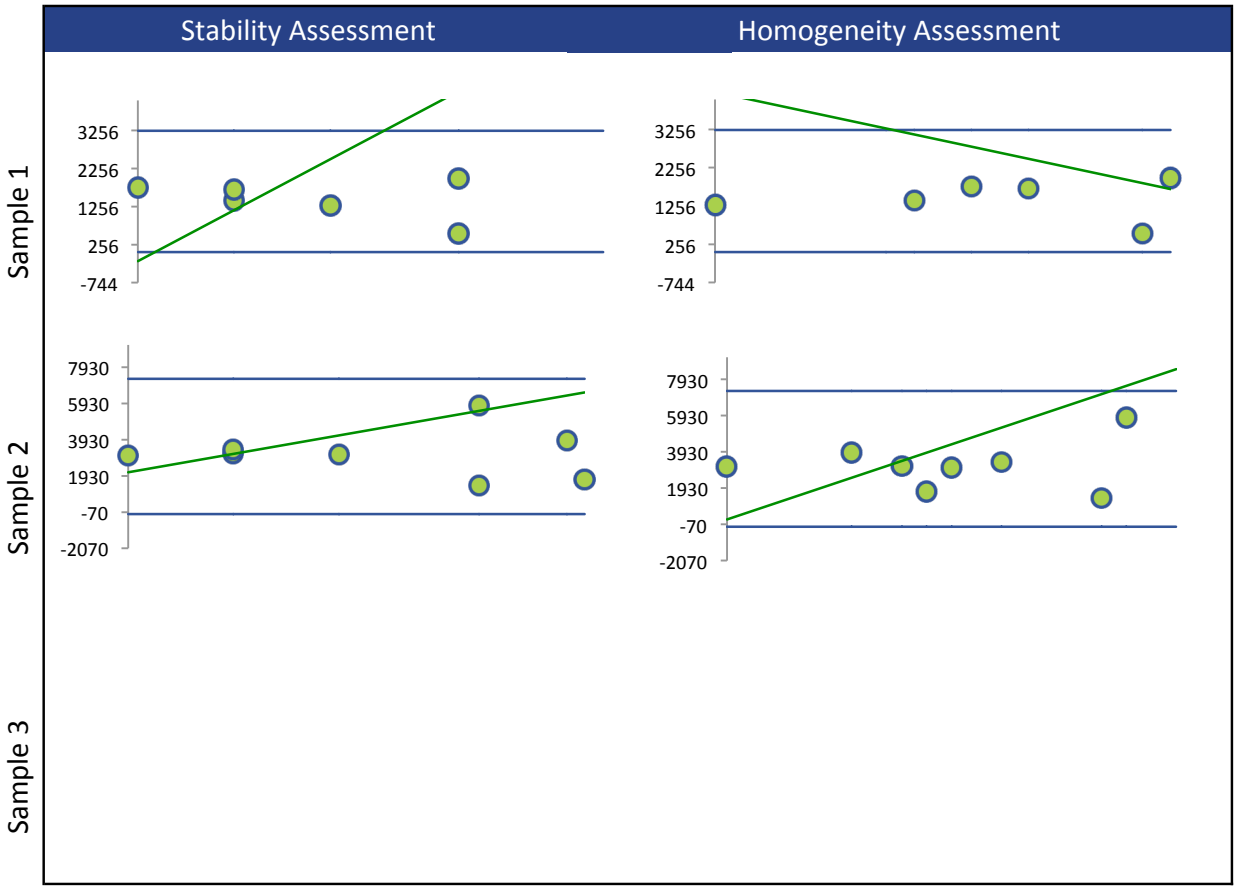
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	6	0	0
GC/FID (Red)	2	3	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ETHANOL


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
3256
2256
1256
256
-744
7930
5930
3930
1930
-70
-2070

ETHANOL

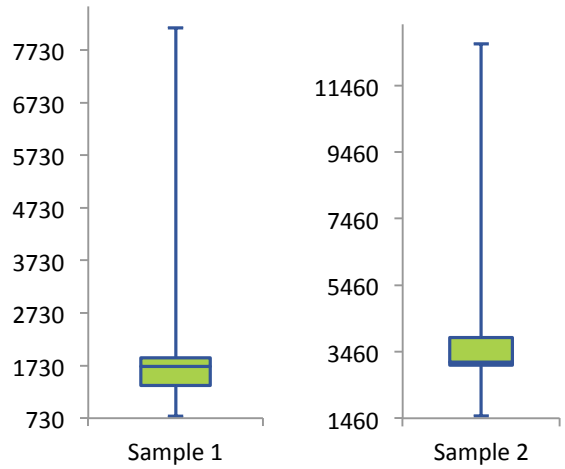
Sample 4

Stability Assessment	Homogeneity Assessment

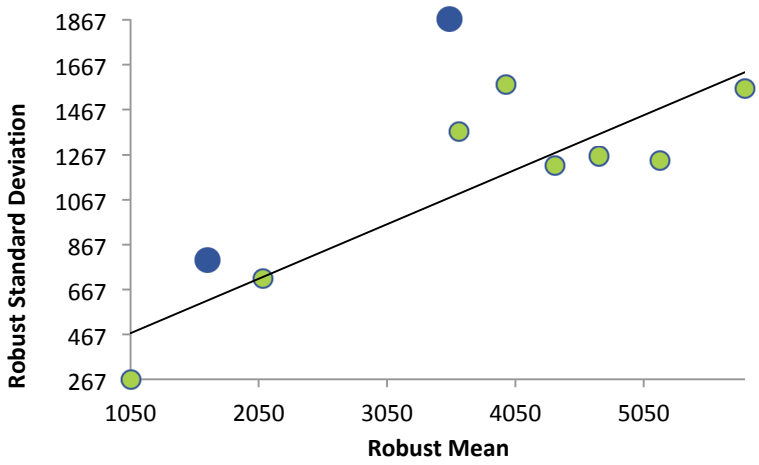
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ETHYL ACETATE

Summary Statistics

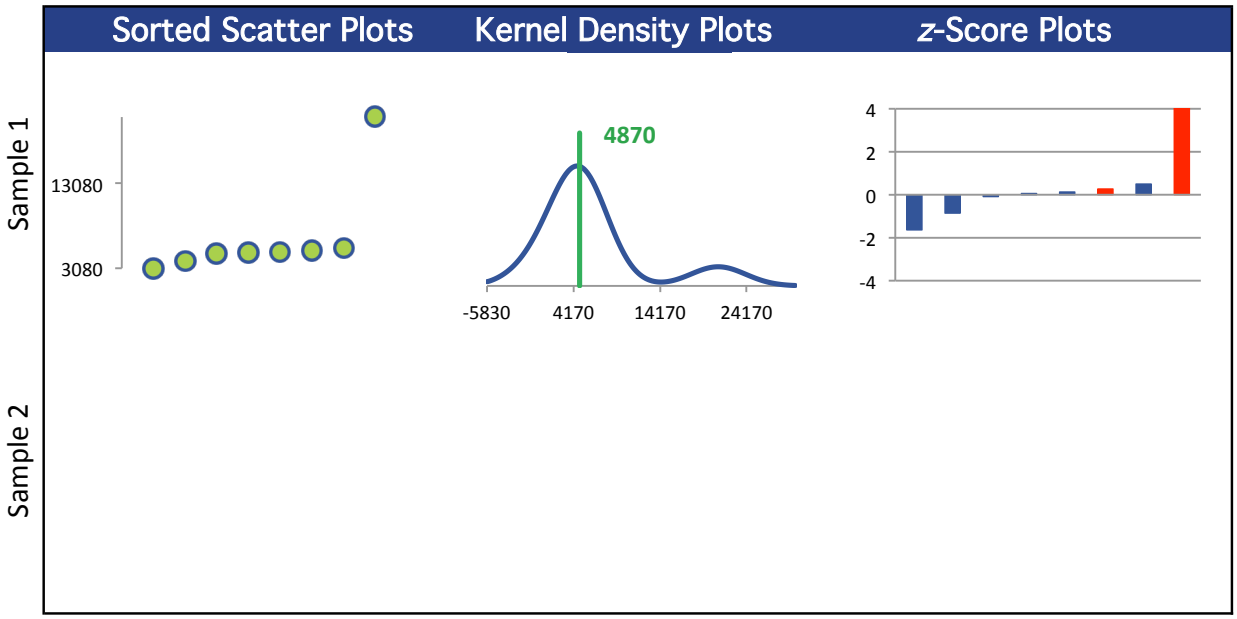
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	0	0	0
Median µg/g	4970			
Robust Mean µg/g	4870			
U µg/g	482			
Robust Standard Deviation µg/g	1090			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1090			
Outliers	0	3	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0

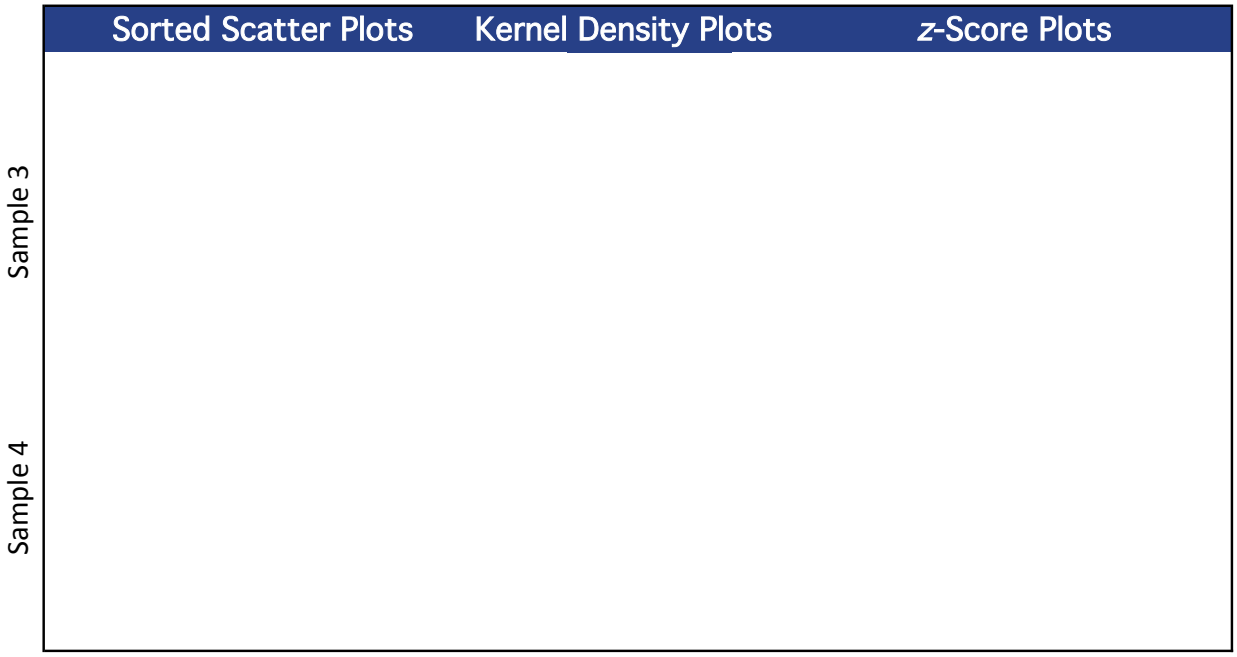
Methods Used

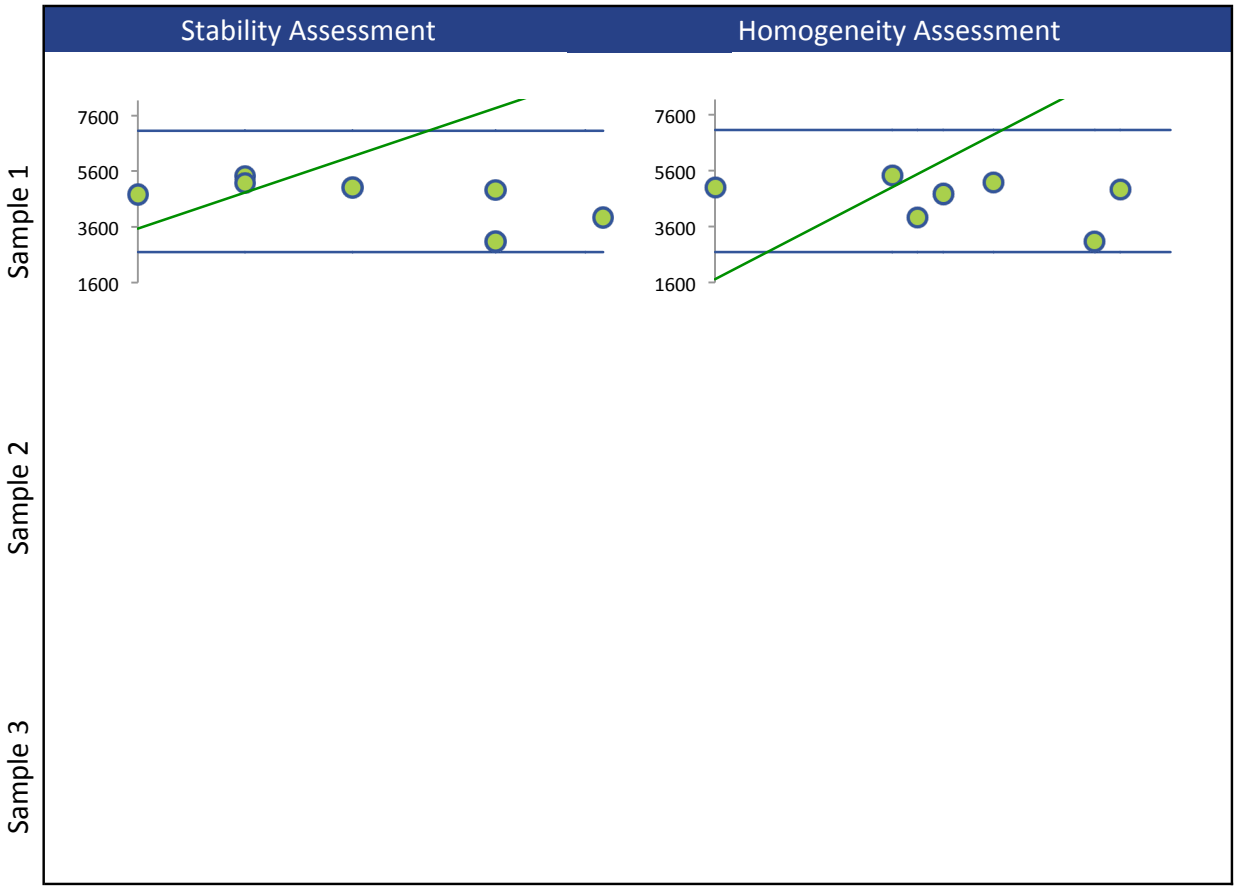
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	0	0	0
GC/FID (Red)	2	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ETHYL ACETATE





ETHYL ACETATE

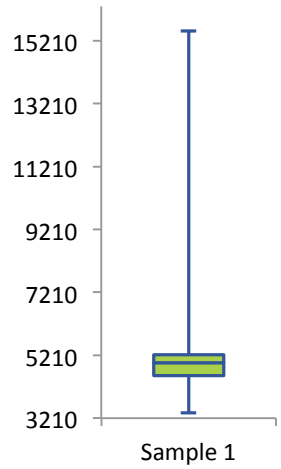
Sample 4

Stability Assessment	Homogeneity Assessment

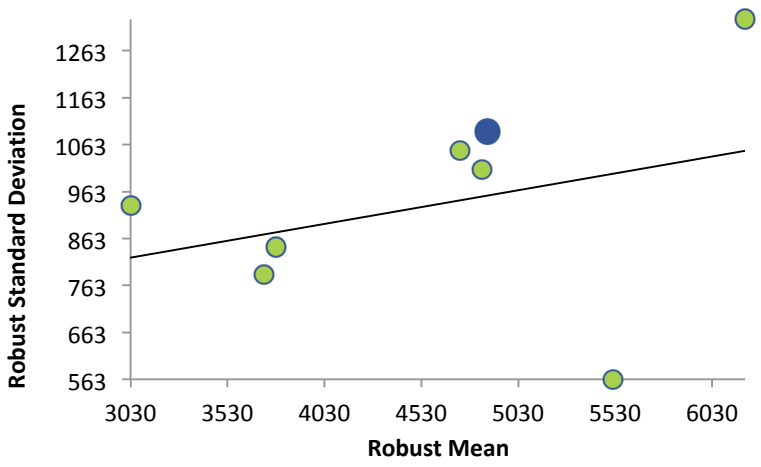
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ETHYL ETHER

Summary Statistics

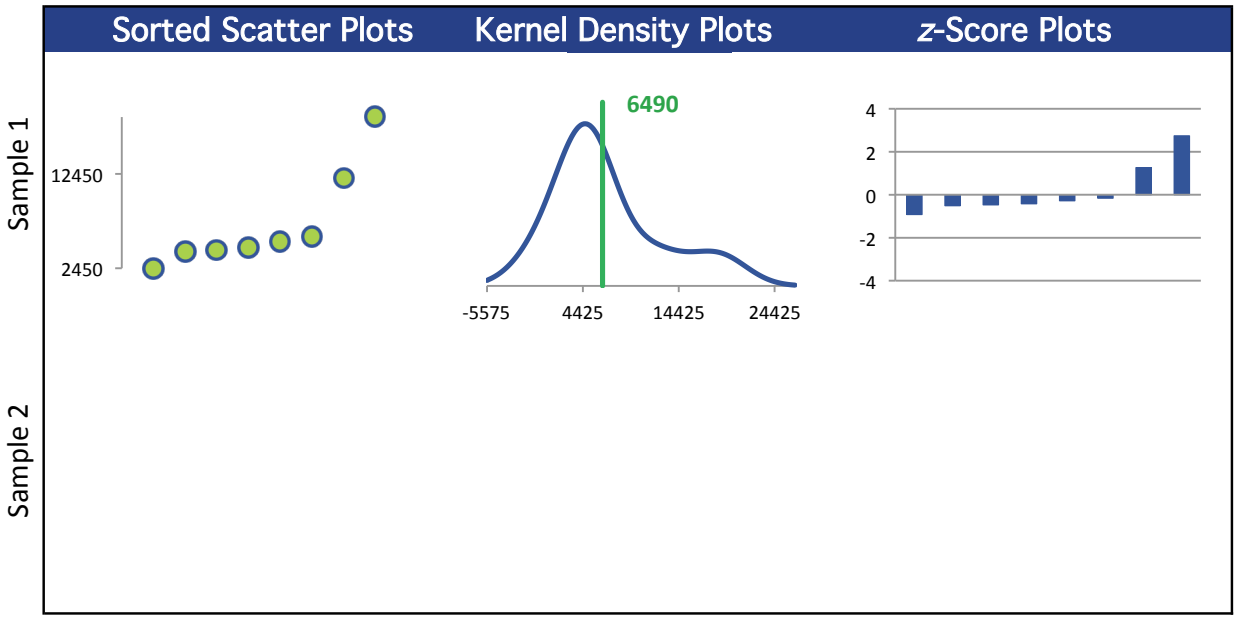
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	0	0	0
Median µg/g	4970			
Robust Mean µg/g	6490			
U µg/g	1940			
Robust Standard Deviation µg/g	4380			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	4380			
Outliers	0	3	0	0
|z|>3.0	0	0	0	0
2<|z|<3	1	0	0	0

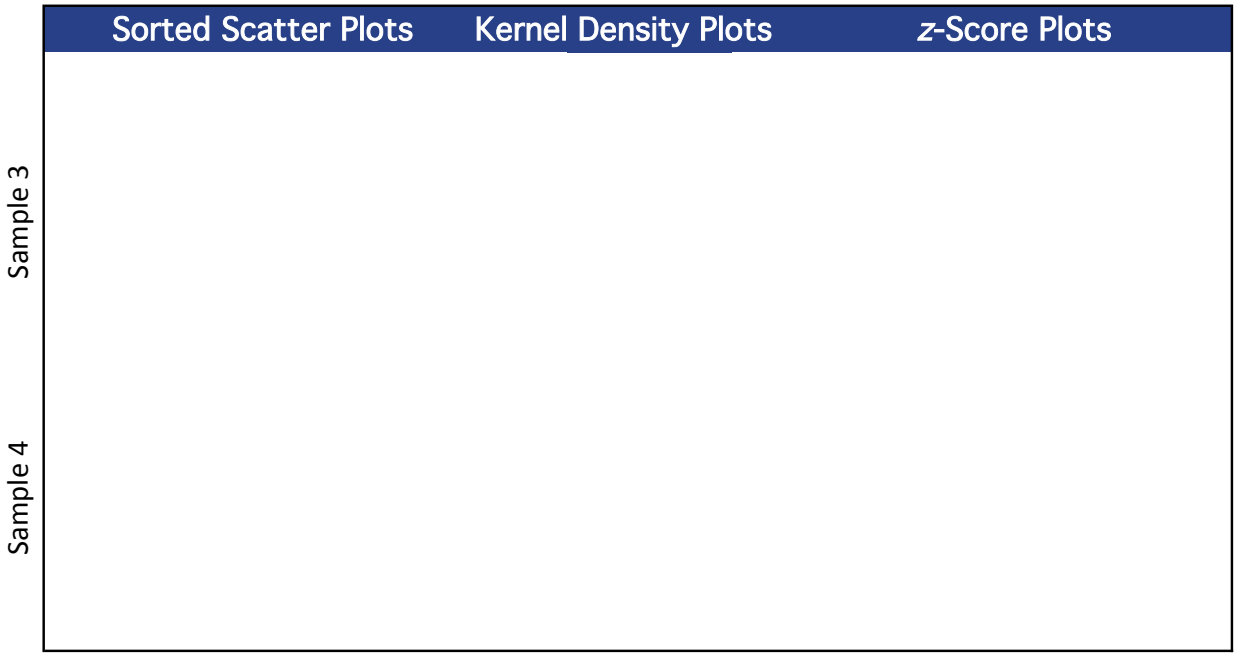
Methods Used

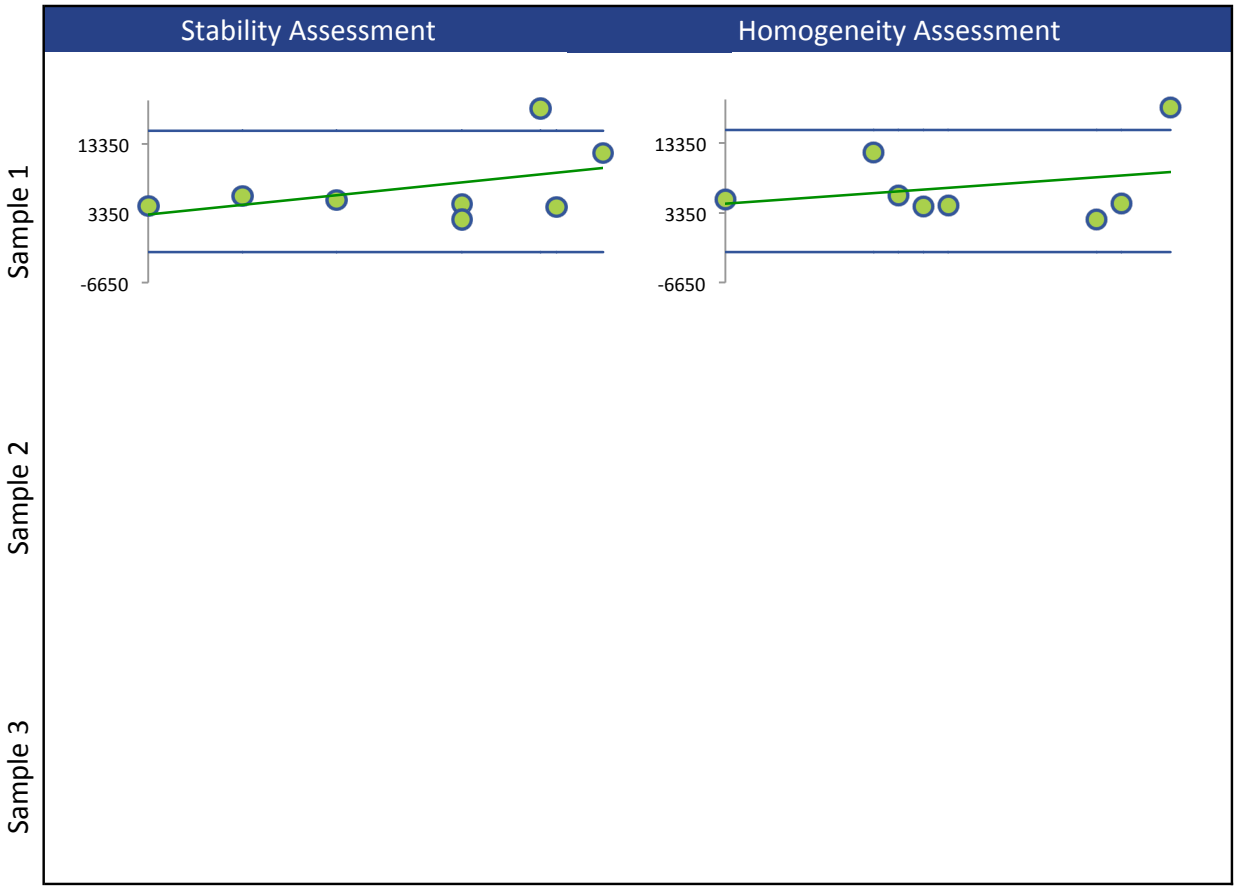
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	8	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ETHYL ETHER


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


Stability Assessment
Homogeneity Assessment
13350
3350
-6650
13350
3350
-6650
Sample 1
Sample 2
Sample 3

ETHYL ETHER

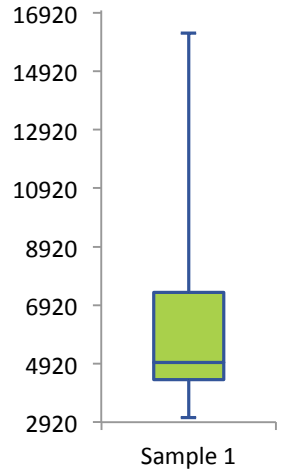
Sample 4

Stability Assessment	Homogeneity Assessment

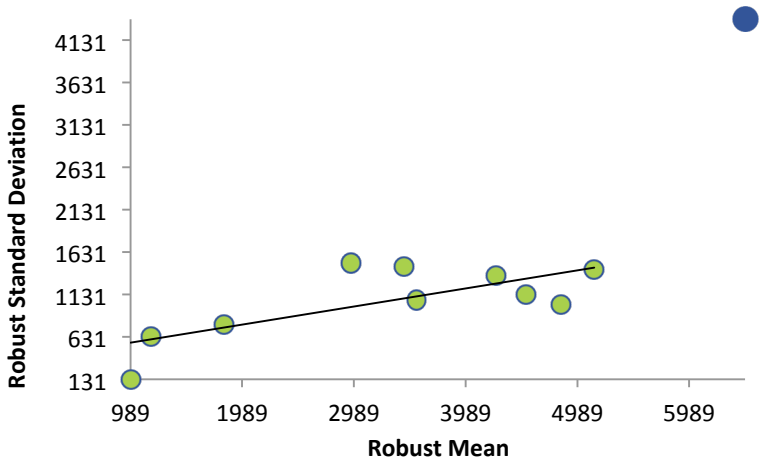
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



HEPTANE

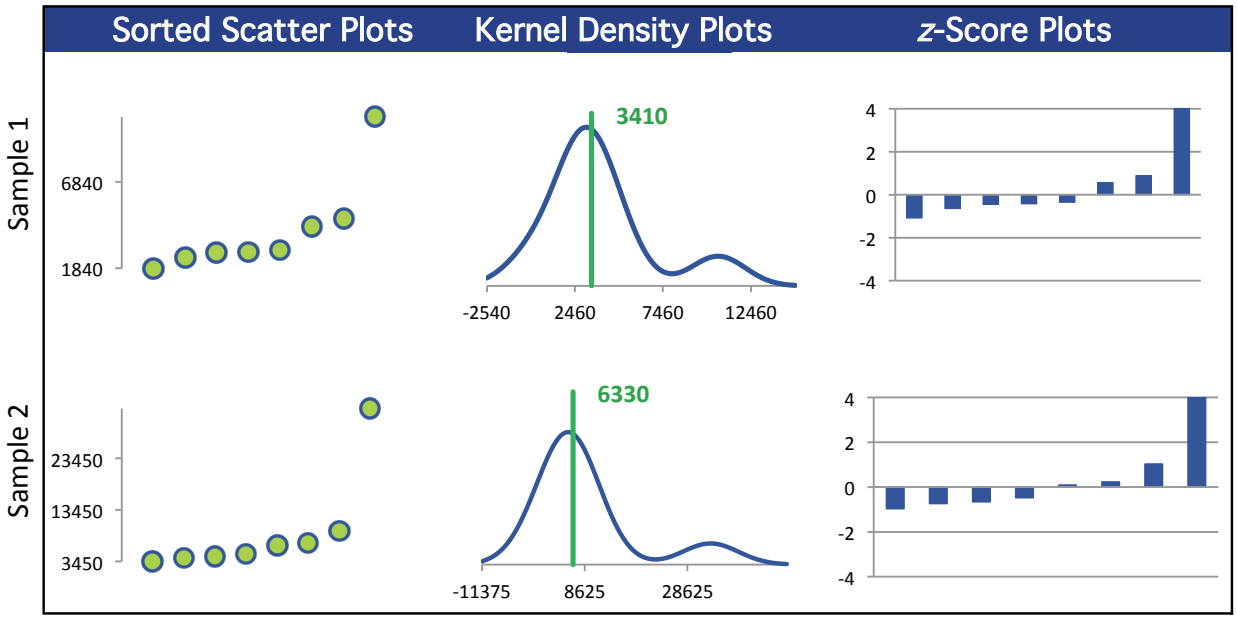
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	8	0	0
Median µg/g	2850	5740		
Robust Mean µg/g	3410	6330		
U µg/g	645	1330		
Robust Standard Deviation µg/g	1460	3000		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1460	3000		
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	0	0	0	0

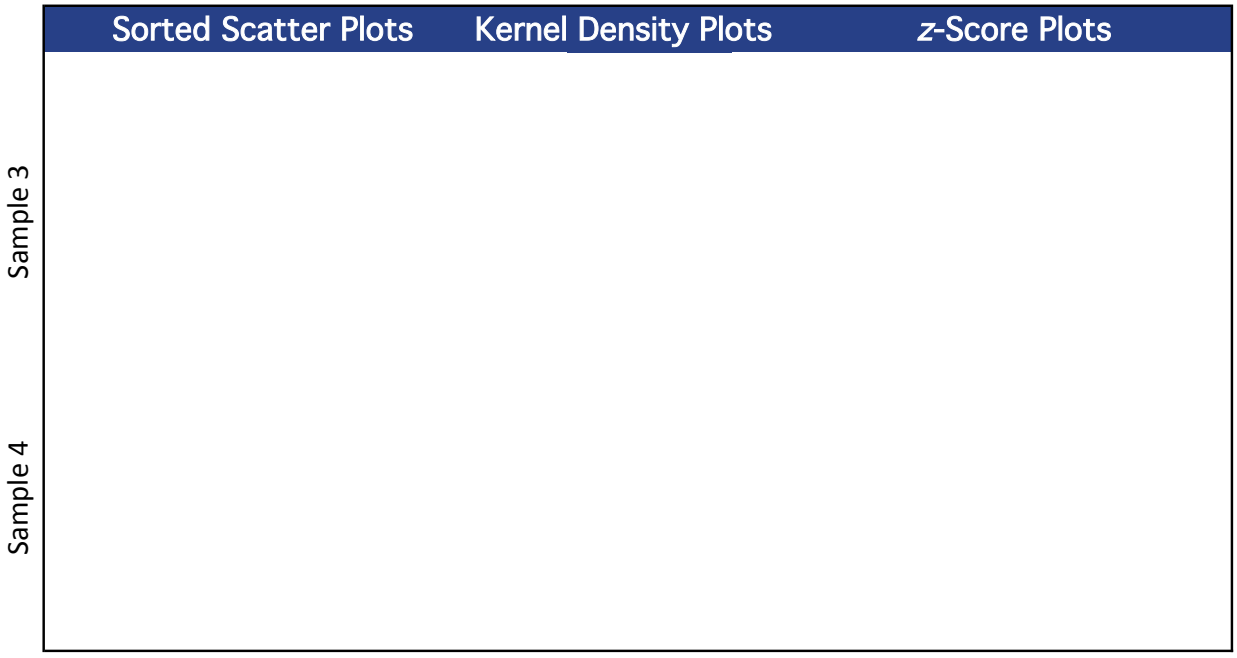
Methods Used

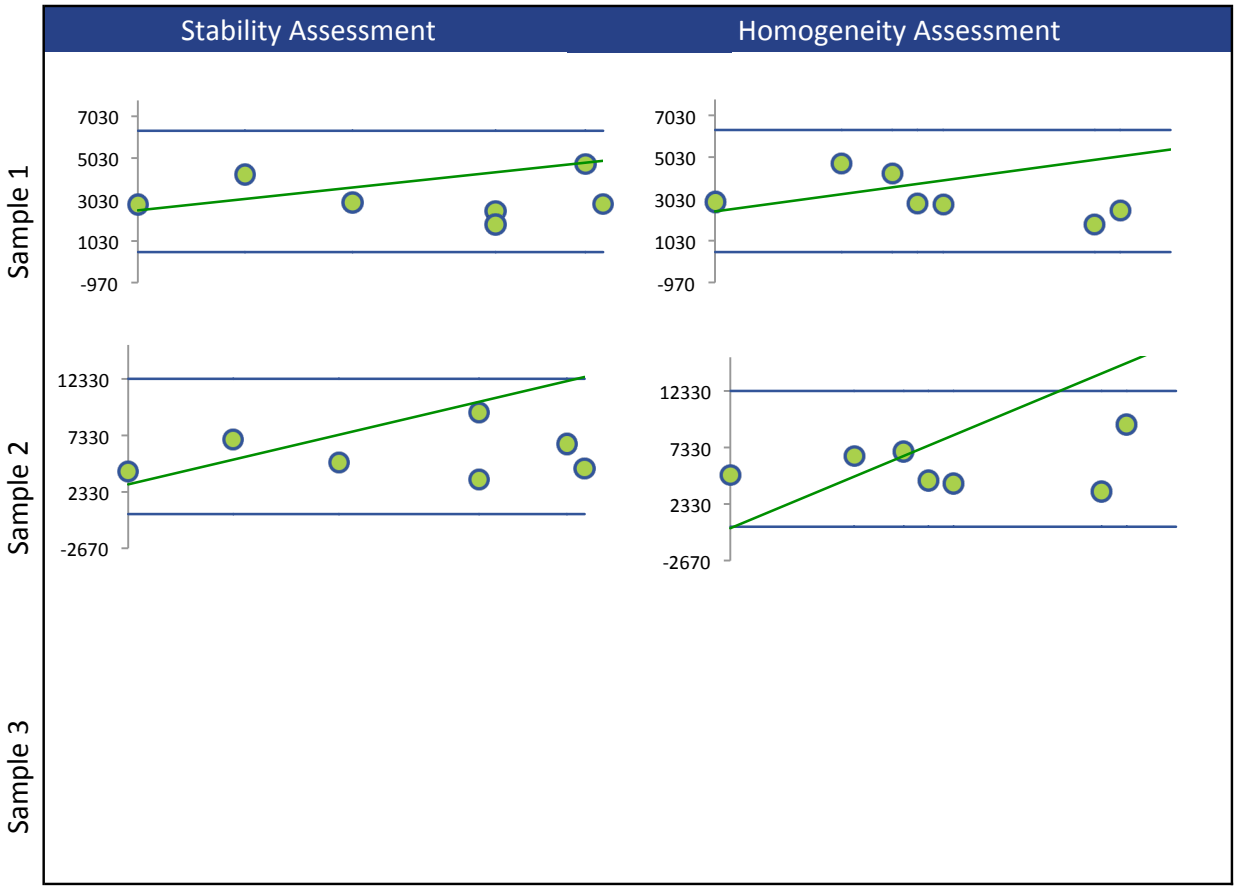
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	6	0	0
GC/FID (Red)	2	2	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



HEPTANE


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
7030
5030
3030
1030
-970
12330
7330
2330
-2670

HEPTANE

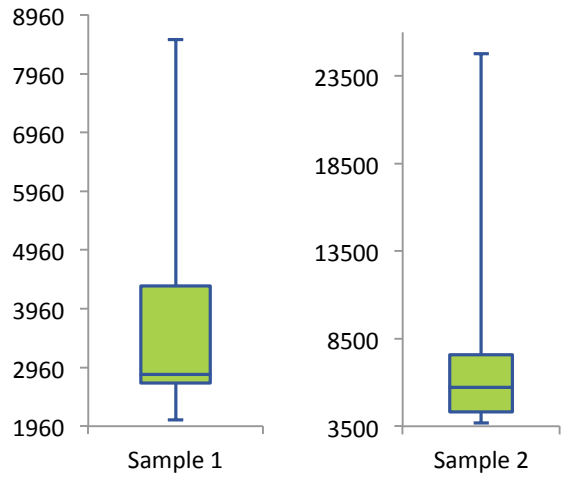
Sample 4

Stability Assessment	Homogeneity Assessment

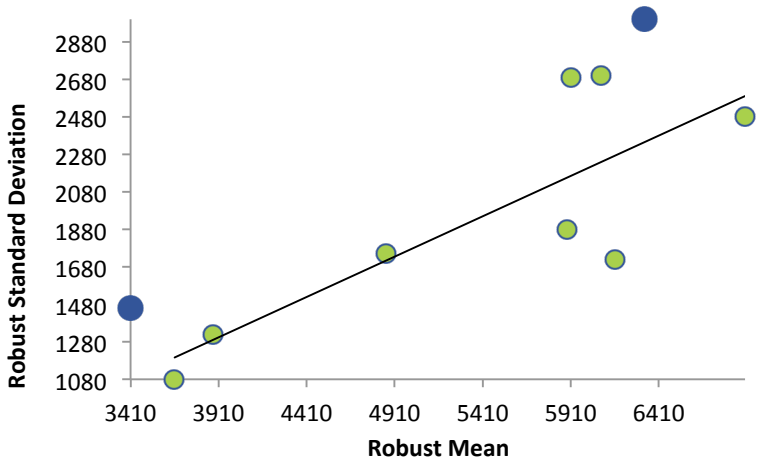
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ISOBUTANOL (2-METHYL-1-PROPANOL)

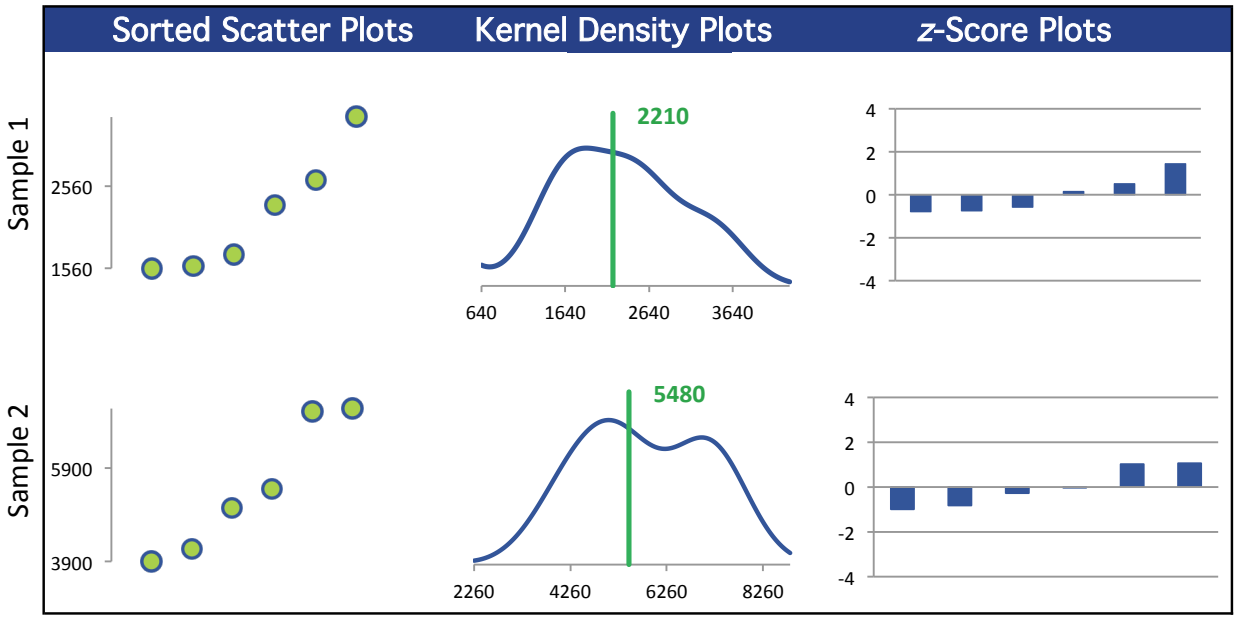
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	6	6	0	0
Median µg/g	2030	5260		
Robust Mean µg/g	2210	5480		
U µg/g	421	816		
Robust Standard Deviation µg/g	825	1600		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	825	1600		
Outliers	1	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

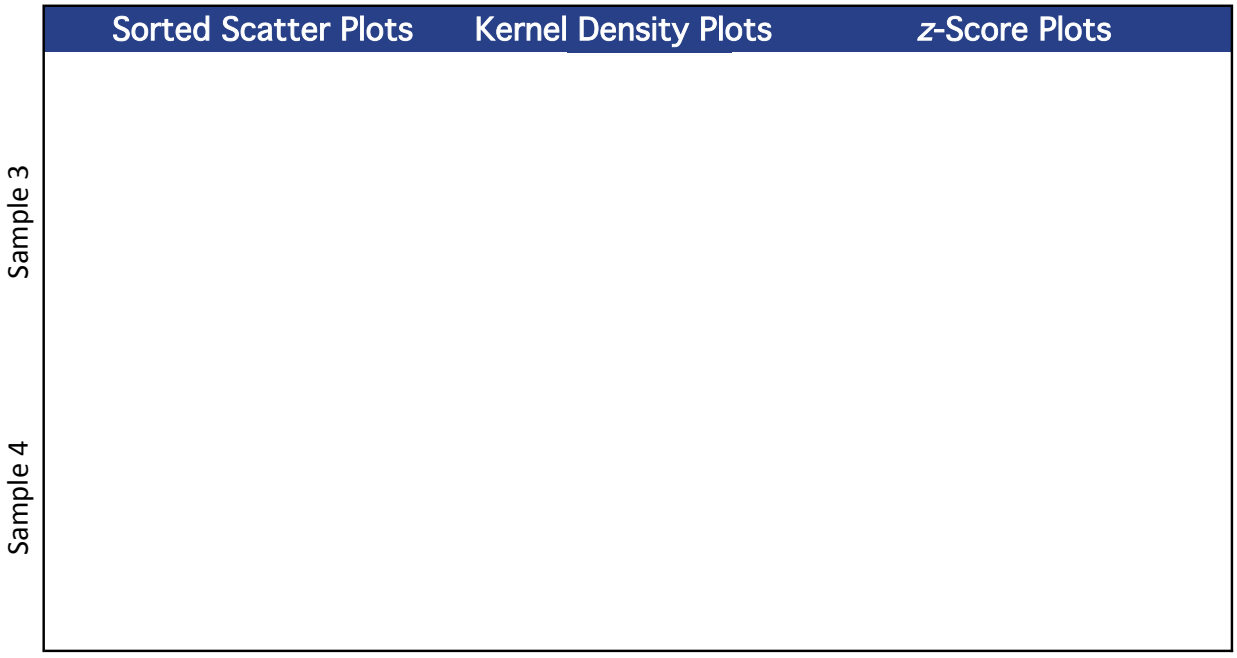
Methods Used

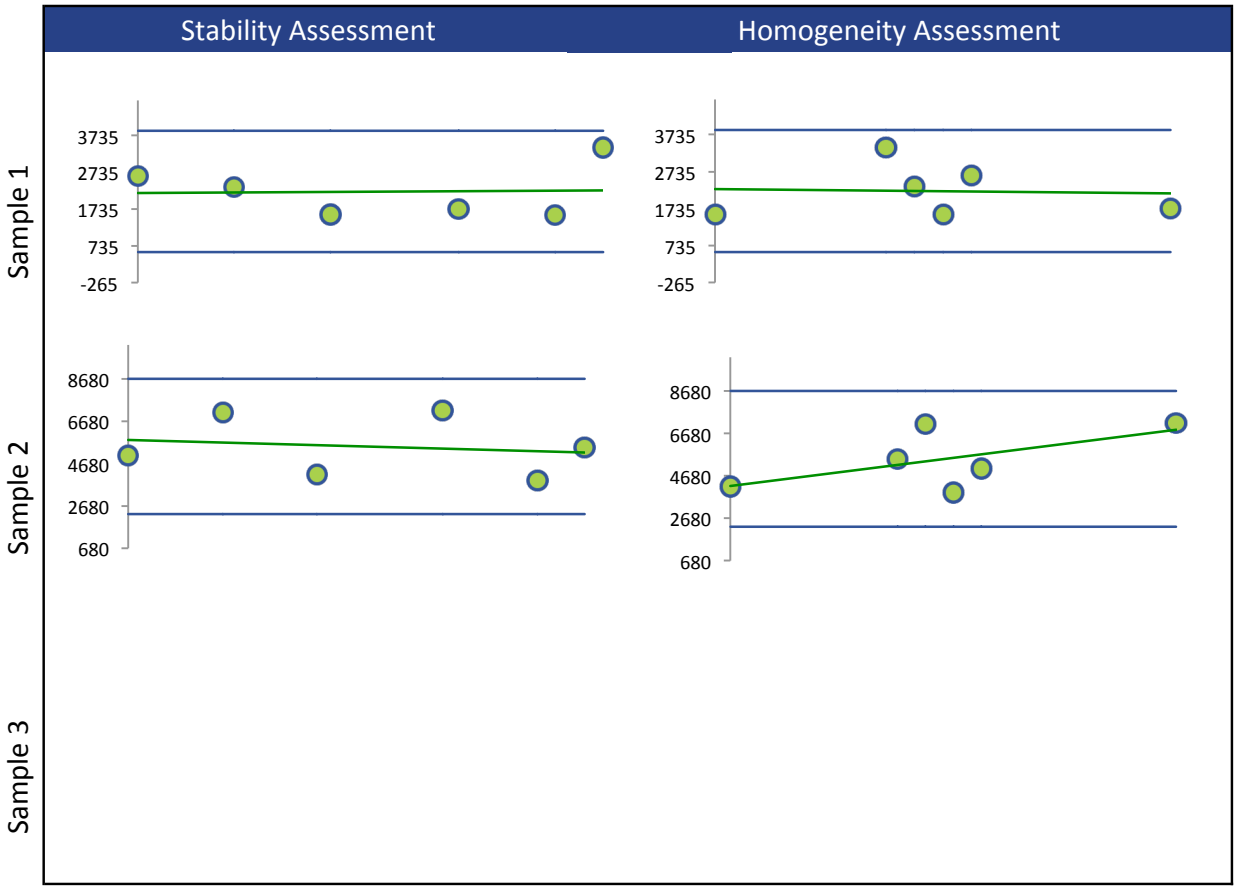
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	6	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ISOBUTANOL (2-METHYL-1-PROPANOL)





ISOBUTANOL (2-METHYL-1-PROPANOL)

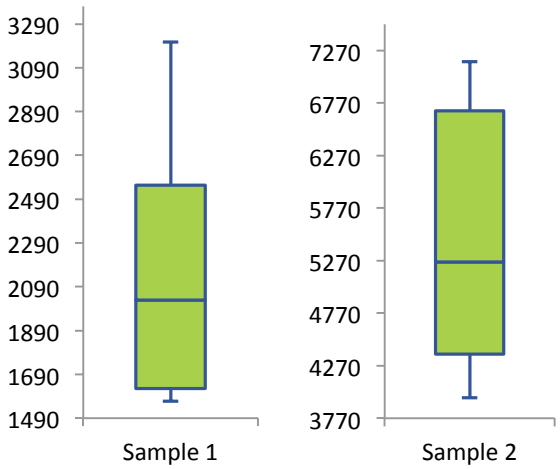
Sample 4

Stability Assessment	Homogeneity Assessment

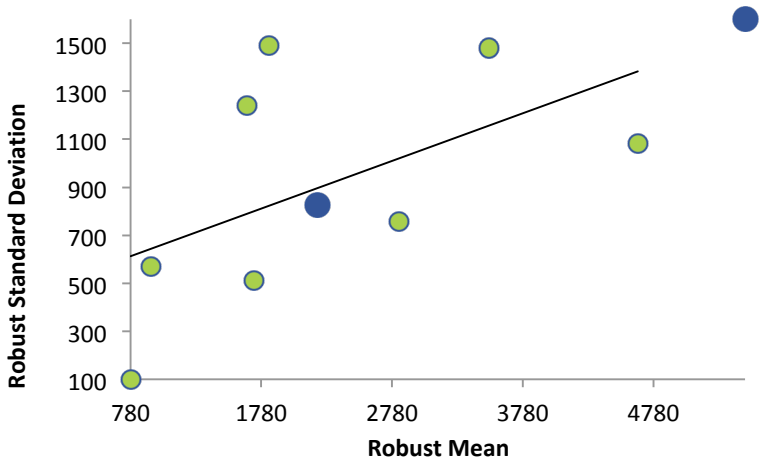
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ISOBUTYL ACETATE

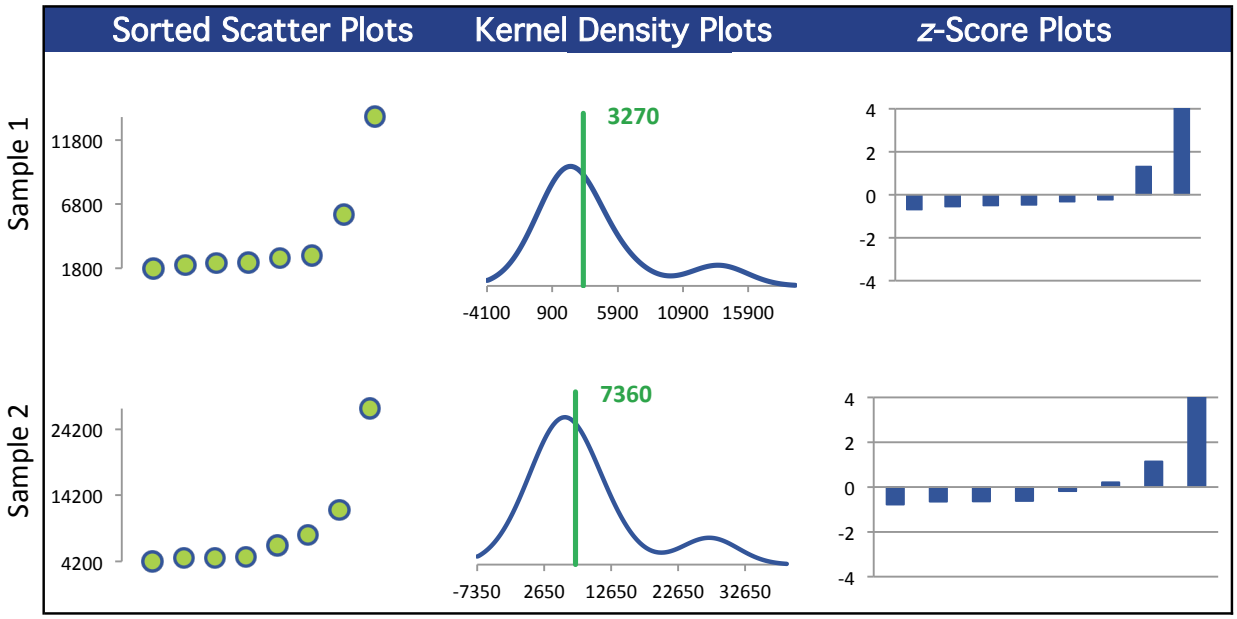
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	8	0	0
Median µg/g	2420	5740		
Robust Mean µg/g	3270	7360		
U µg/g	924	1790		
Robust Standard Deviation µg/g	2090	4060		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2090	4060		
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	0	0	0	0

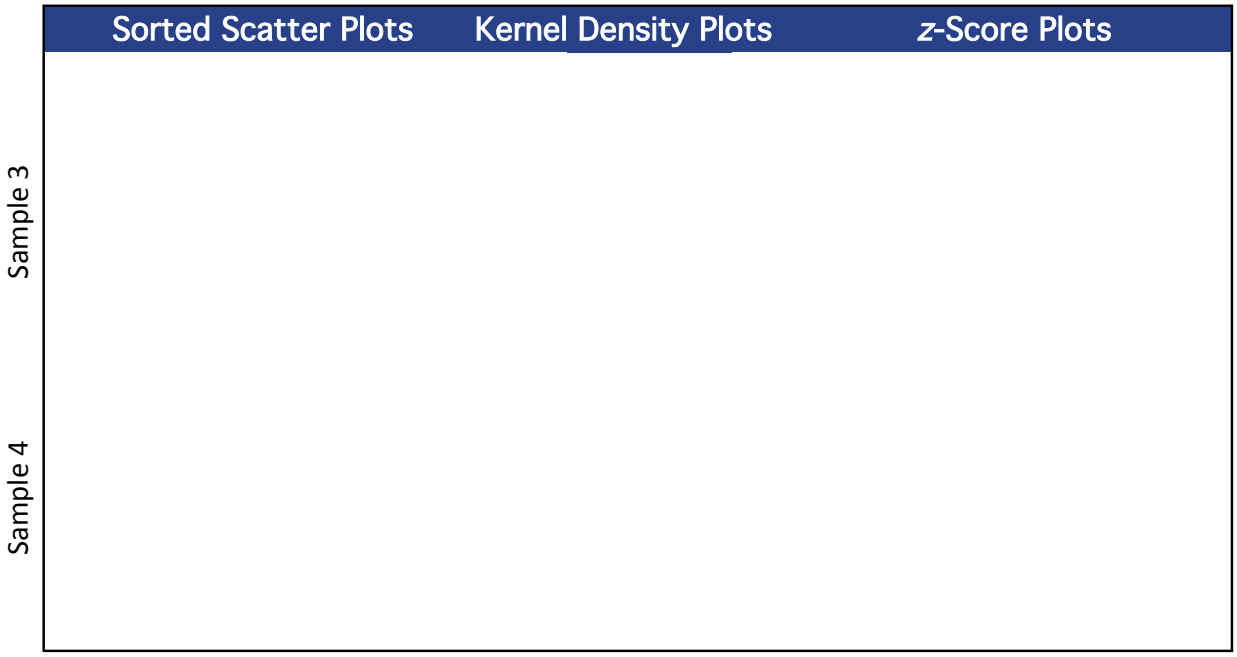
Methods Used

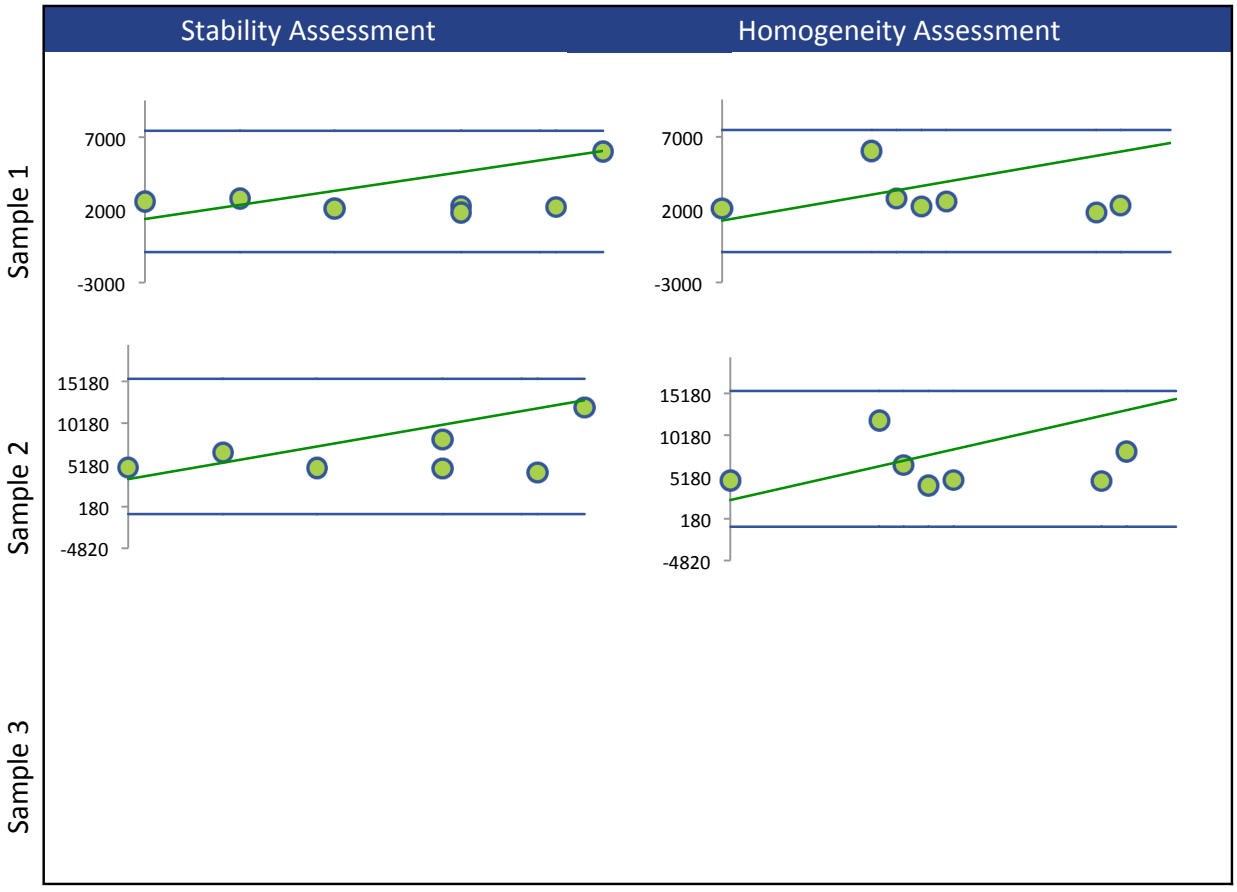
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	8	8	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ISOBUTYL ACETATE





ISOBUTYL ACETATE

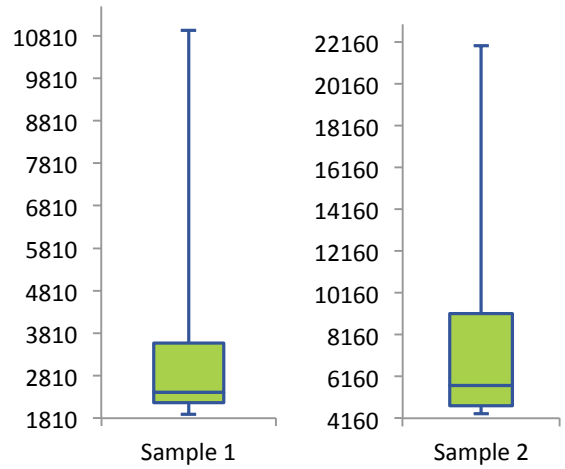
Sample 4

Stability Assessment	Homogeneity Assessment

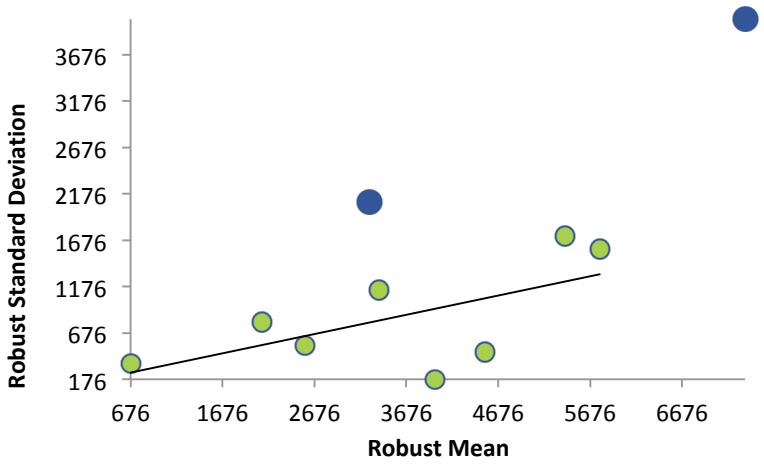
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ISOPROPYL ACETATE

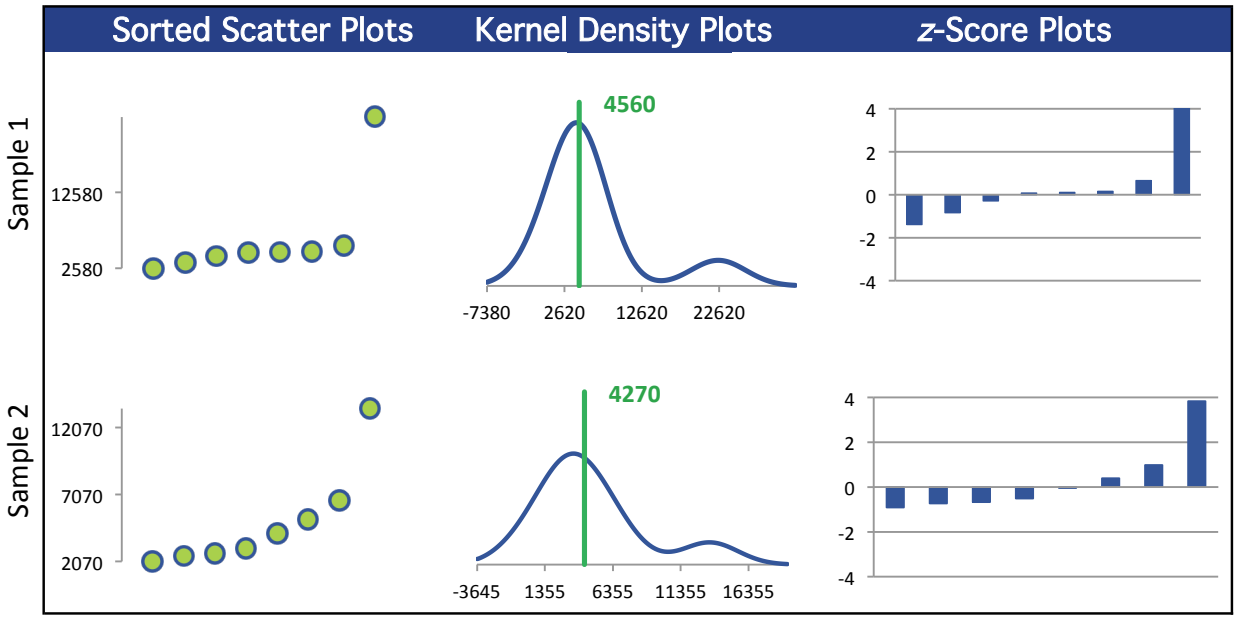
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	8	0	0
Median µg/g	4700	3600		
Robust Mean µg/g	4560	4270		
U µg/g	628	1070		
Robust Standard Deviation µg/g	1420	2410		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1420	2410		
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	0	0	0	0

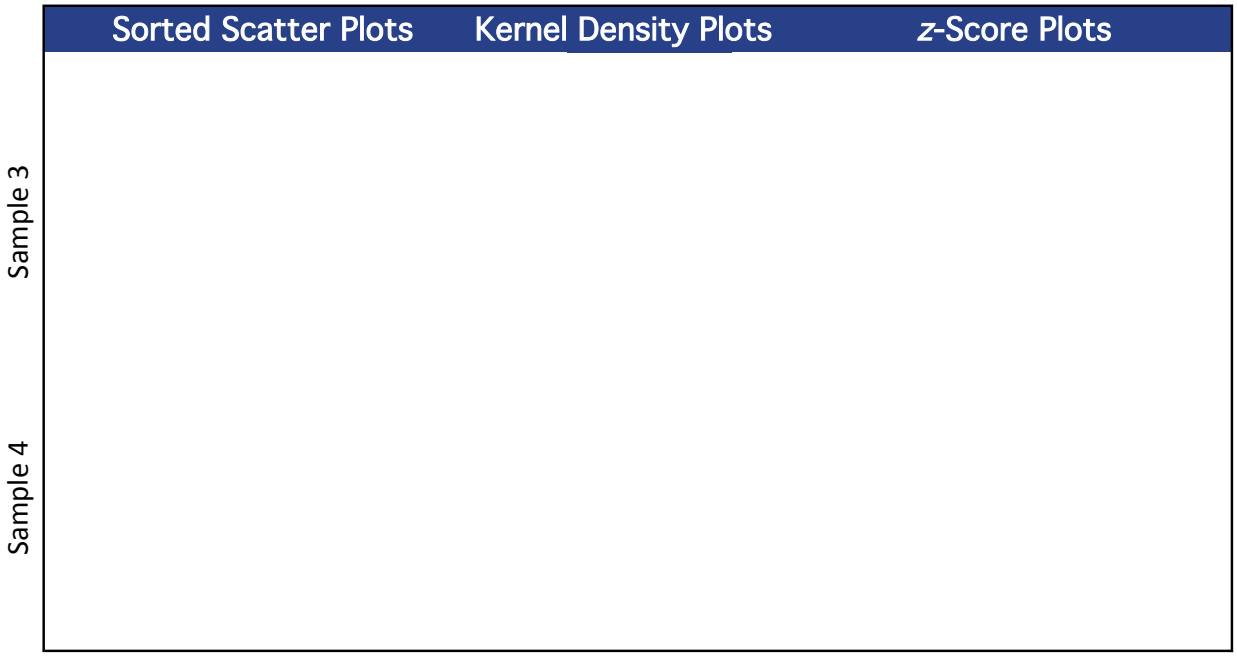
Methods Used

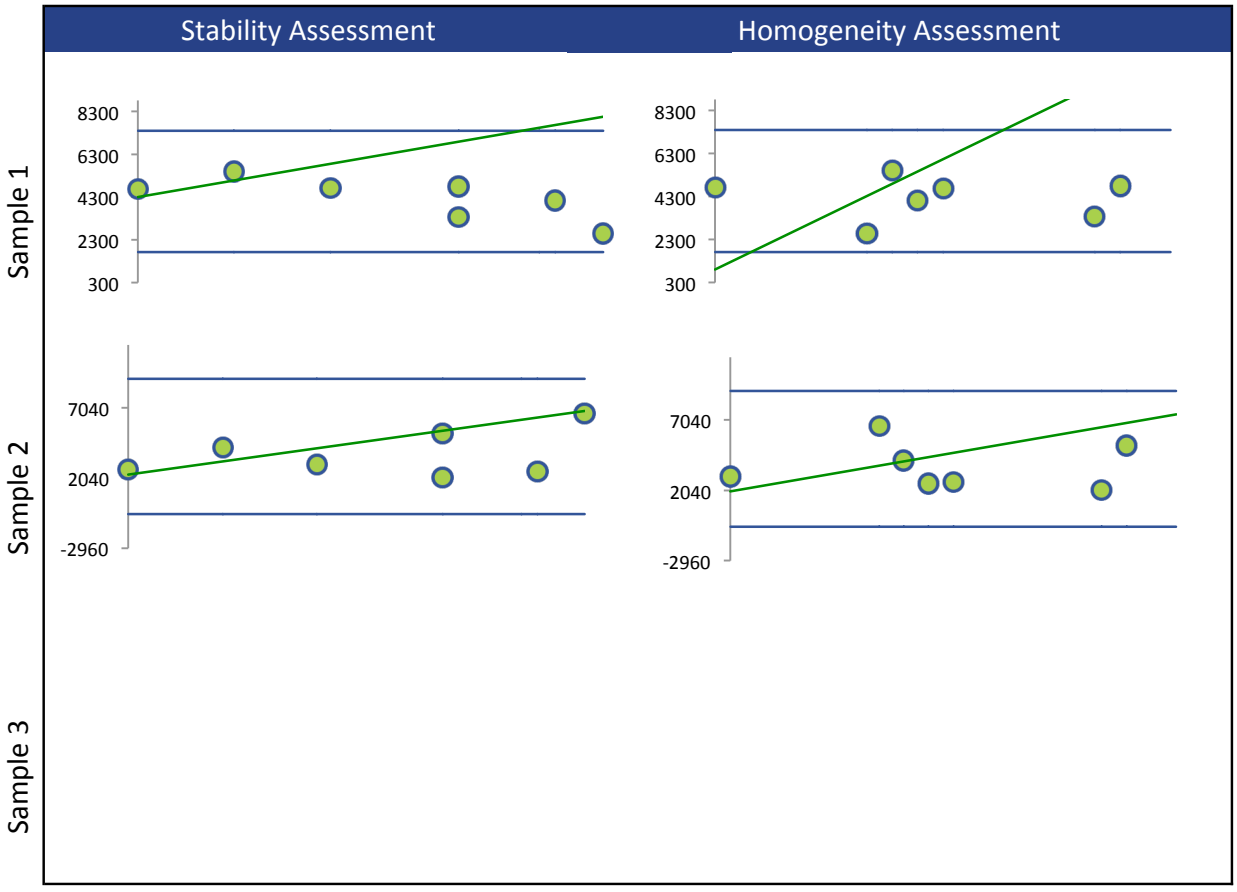
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	8	8	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ISOPROPYL ACETATE





ISOPROPYL ACETATE

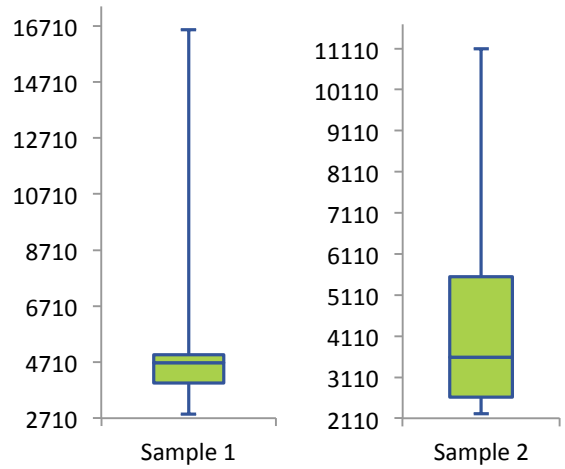
Sample 4

Stability Assessment	Homogeneity Assessment

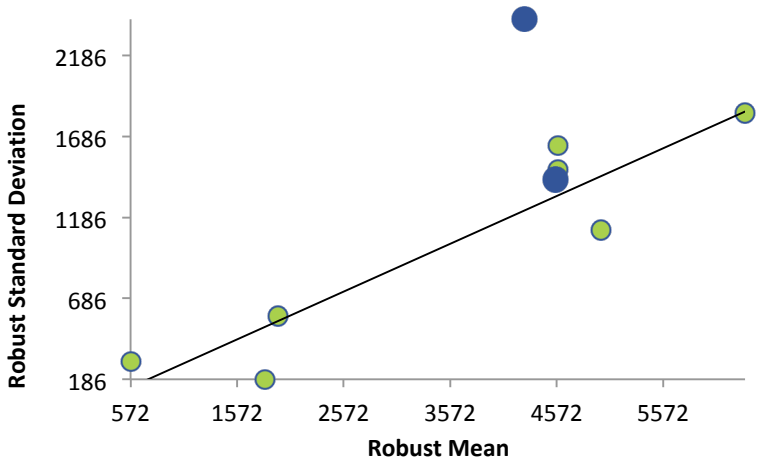
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



METHYL ACETATE

Summary Statistics

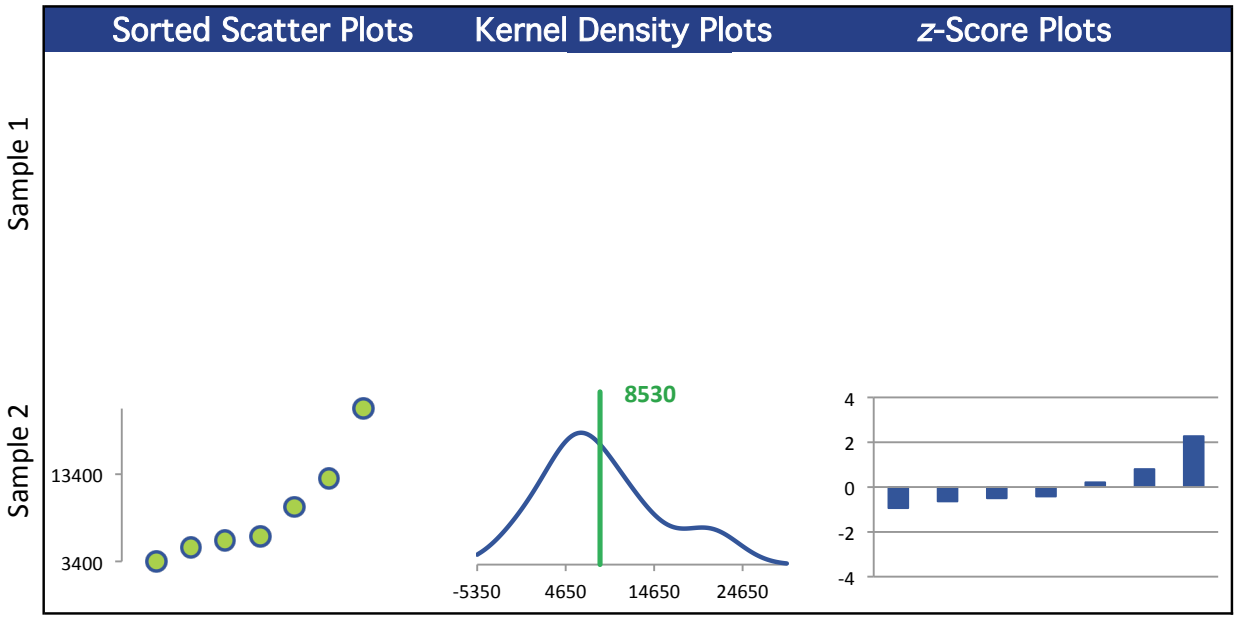
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	7	0	0
Median µg/g		6250		
Robust Mean µg/g		8530		
U µg/g		2570		
Robust Standard Deviation µg/g		5450		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		5450		
Outliers	0	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	1	0	0

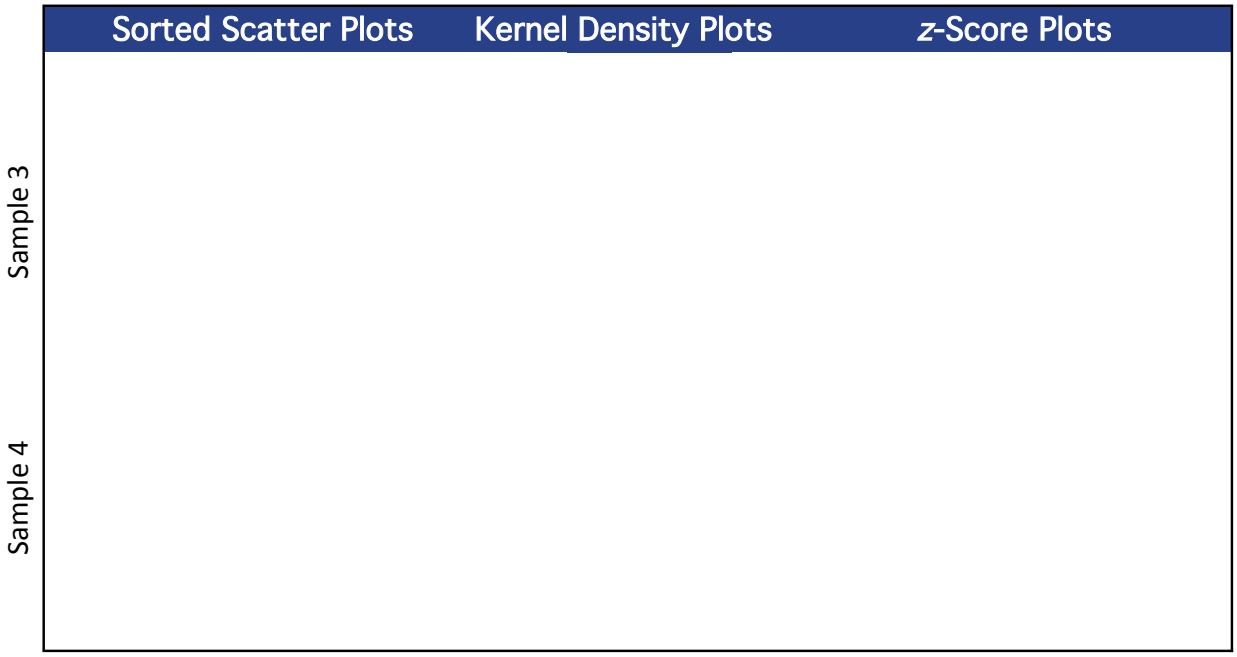
Methods Used

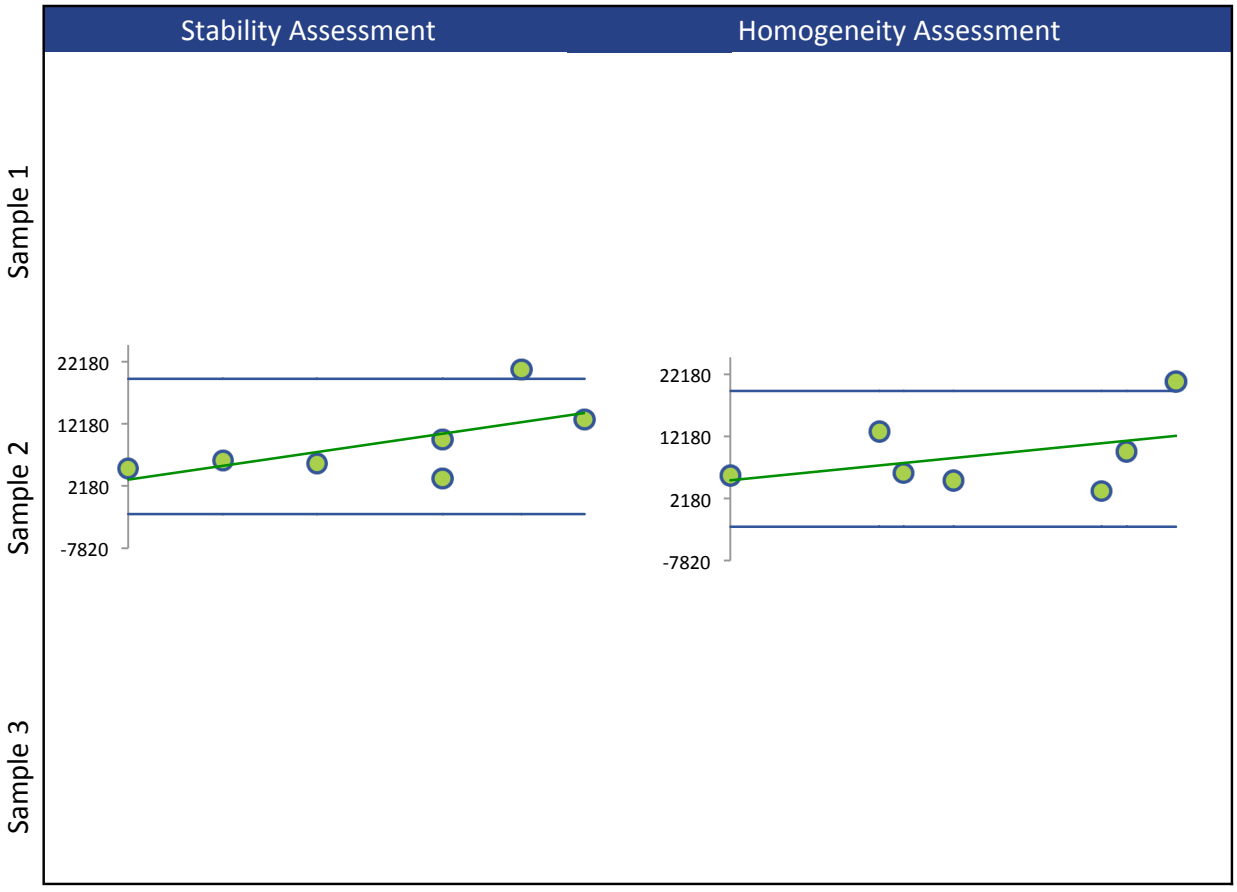
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	7	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



METHYL ACETATE





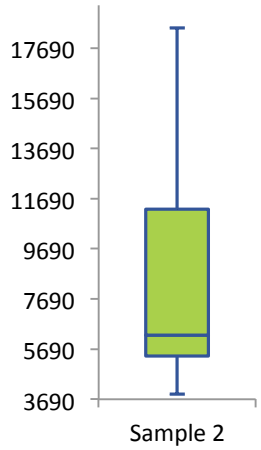
METHYL ACETATE

	Stability Assessment	Homogeneity Assessment
Sample 4		

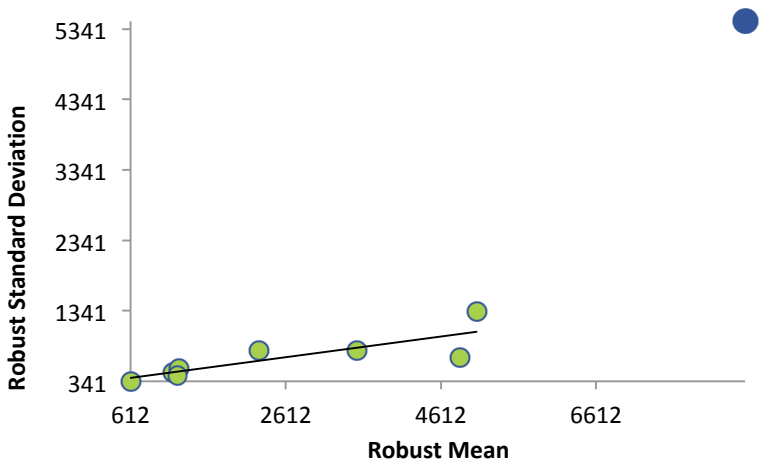
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



PENTANE

Summary Statistics

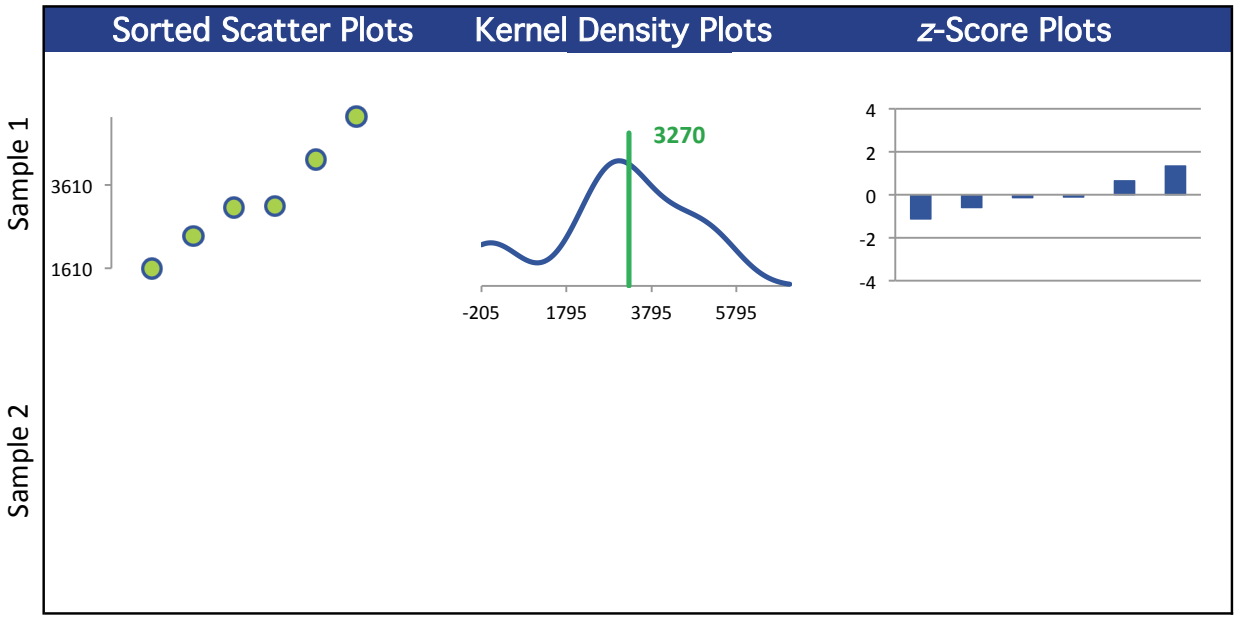
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	6	0	0	0
Median µg/g	3090			
Robust Mean µg/g	3270			
U µg/g	750			
Robust Standard Deviation µg/g	1470			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1470			
Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

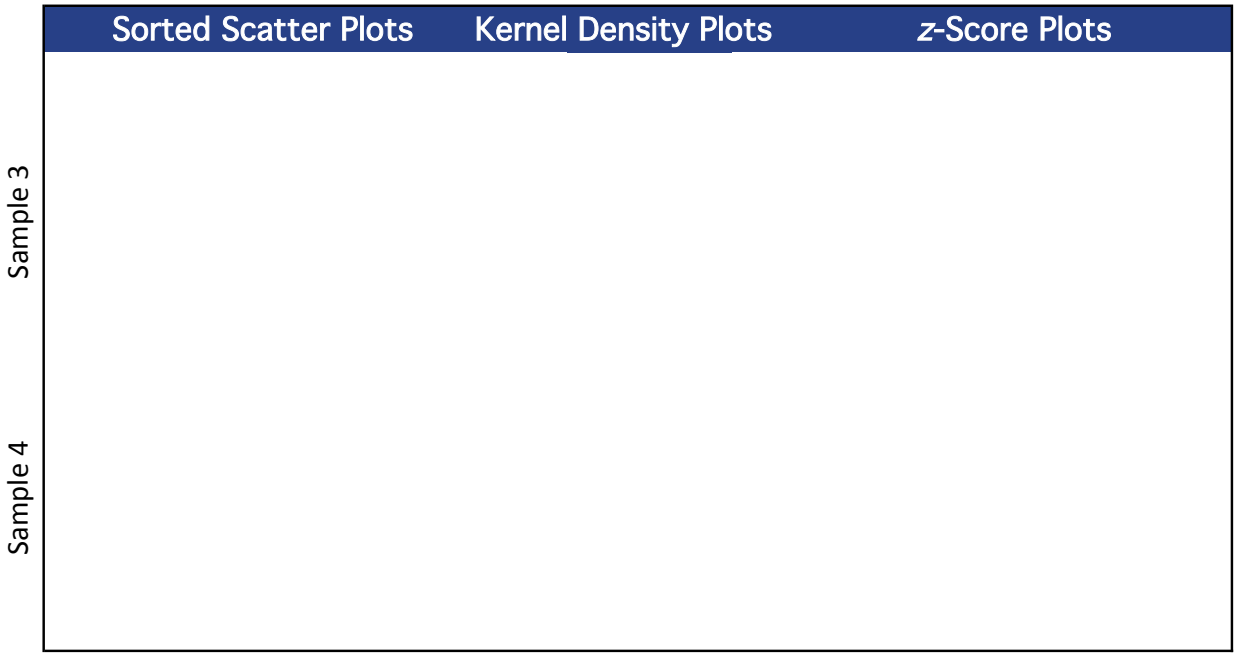
Methods Used

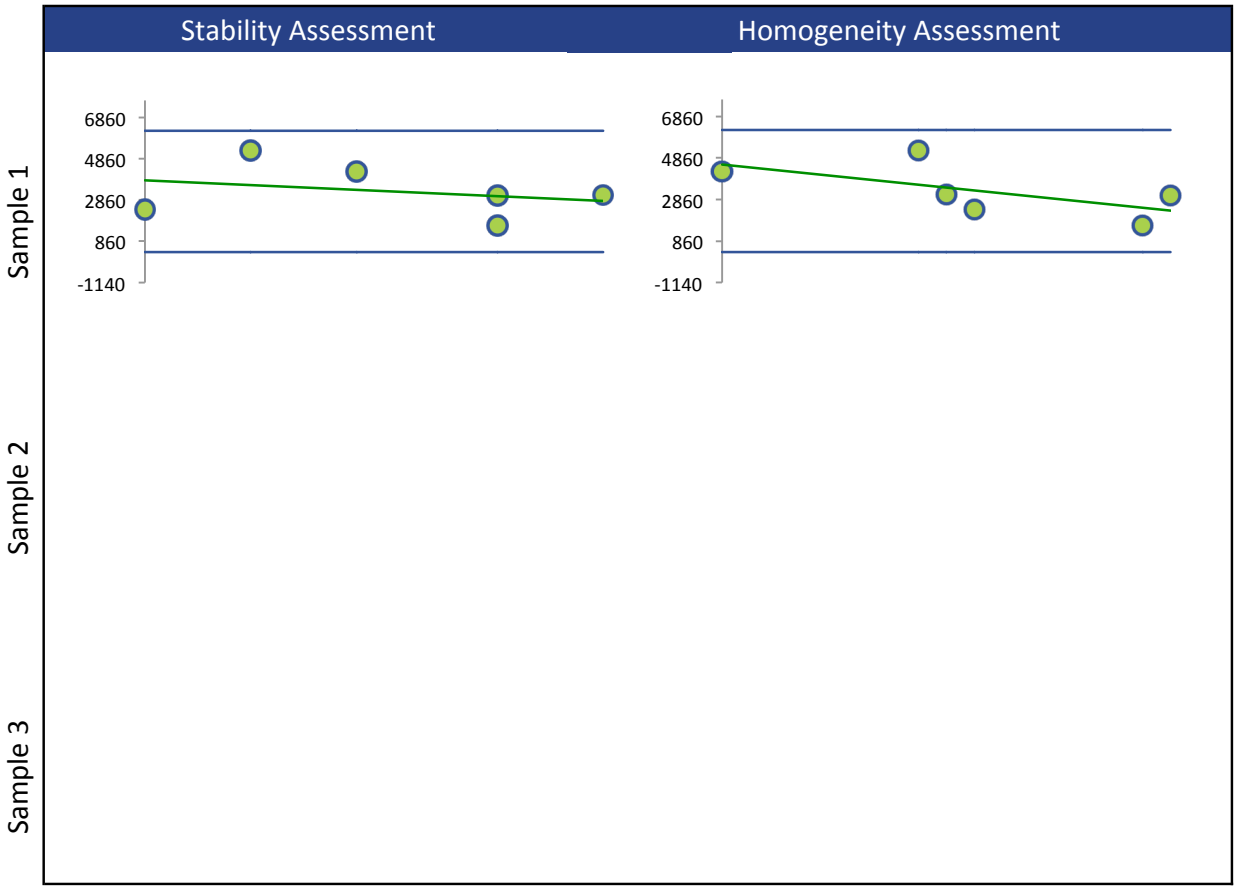
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



PENTANE


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


Stability Assessment
Homogeneity Assessment
6860
4860
2860
860
-1140
6860
4860
2860
860
-1140
Sample 1
Sample 2
Sample 3

PENTANE

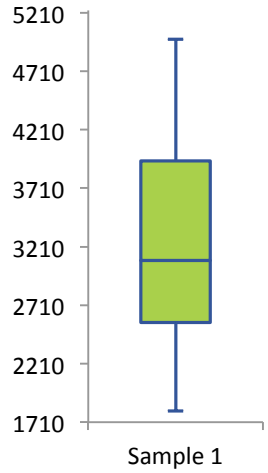
Sample 4

Stability Assessment	Homogeneity Assessment

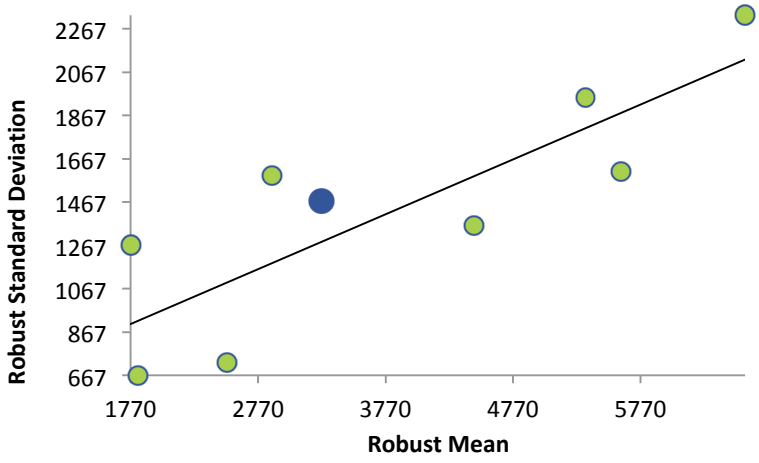
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



PROPANE

Summary Statistics

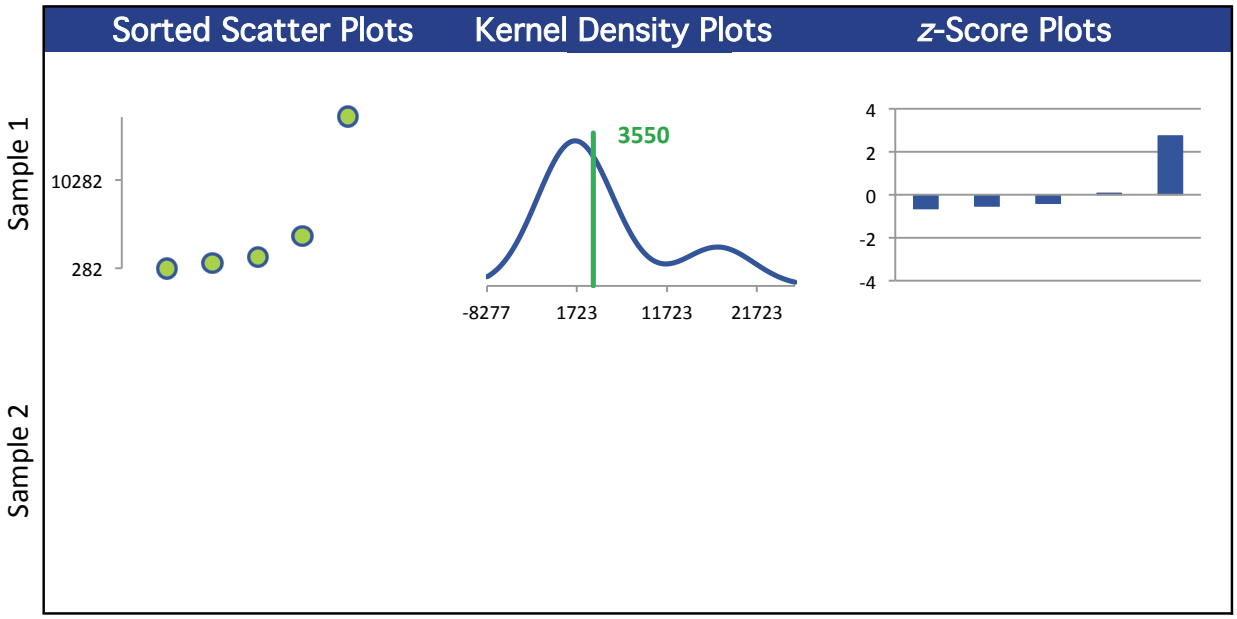
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	5	0	0	0
Median µg/g	1540			
Robust Mean µg/g	3550			
U µg/g	2830			
Robust Standard Deviation µg/g	5060			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	5060			
Outliers	0	2	0	0
|z|>3.0	0	0	0	0
2<|z|<3	1	0	0	0

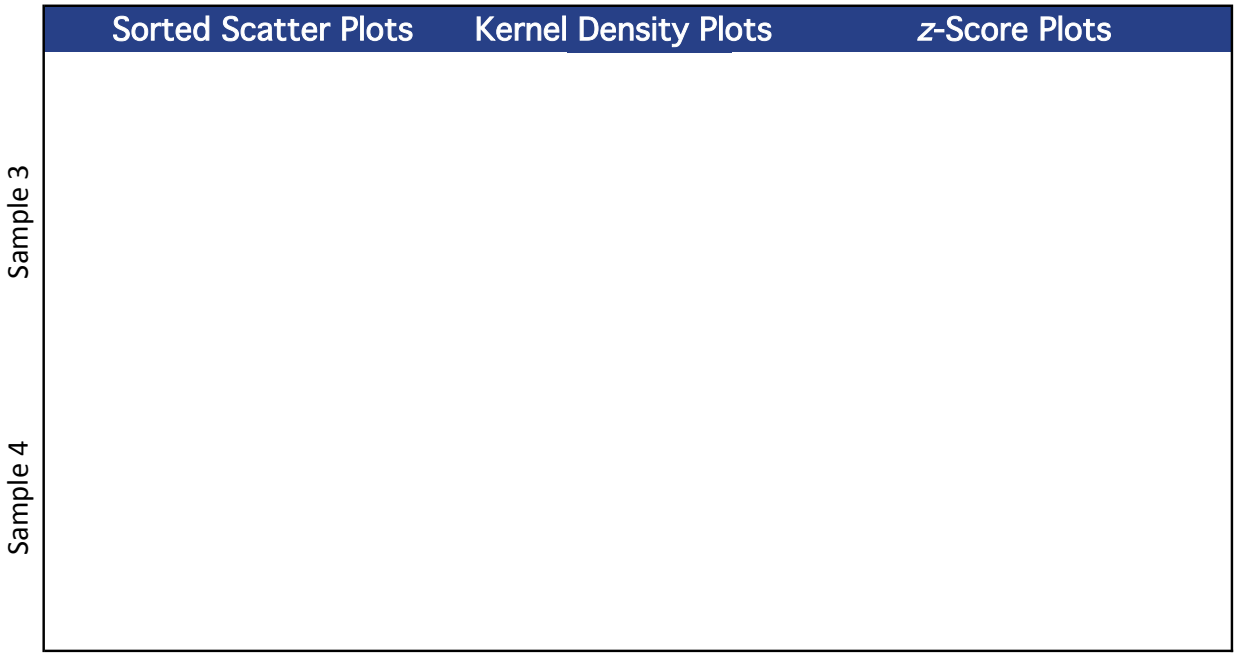
Methods Used

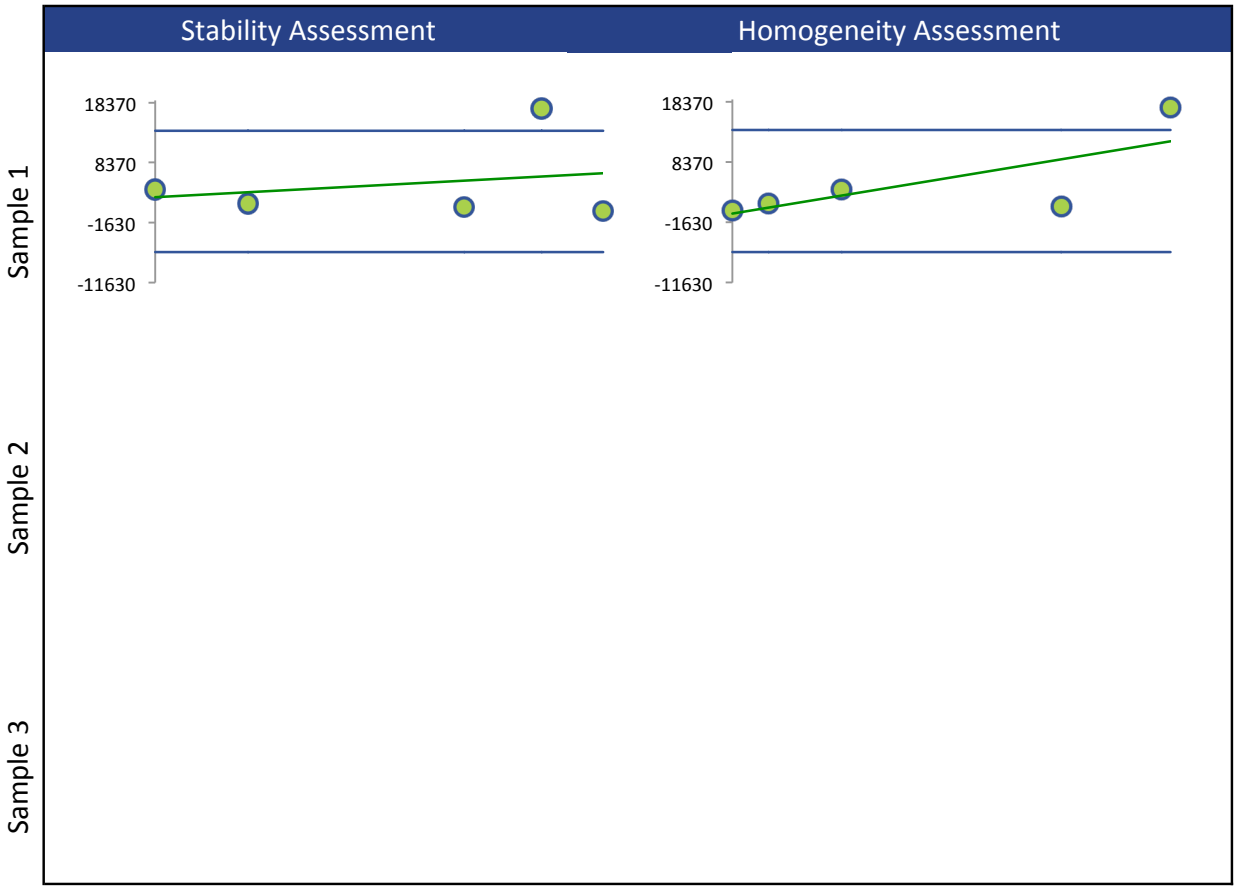
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



PROPANE


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


Stability Assessment
Homogeneity Assessment
18370
8370
-1630
-11630
18370
8370
-1630
-11630
Sample 1
Sample 2
Sample 3

PROPANE

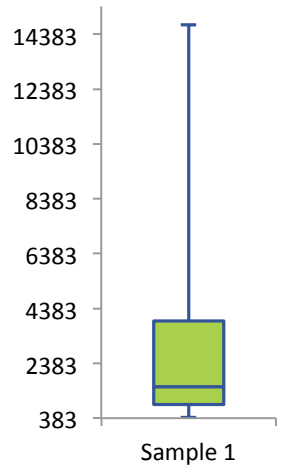
Sample 4

Stability Assessment	Homogeneity Assessment

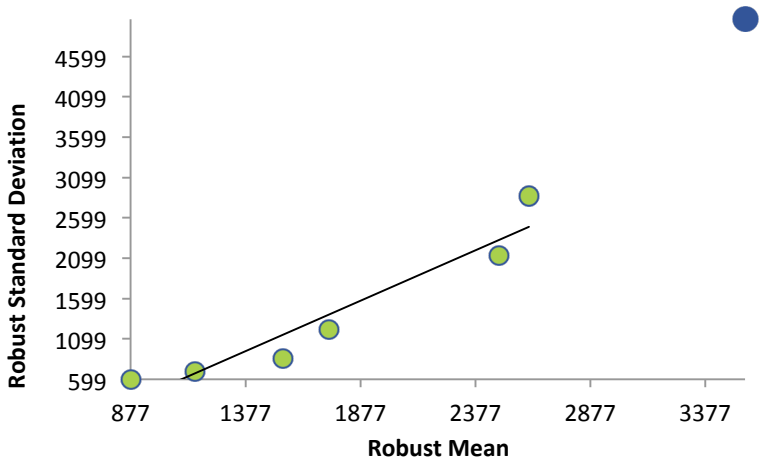
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



PROPYL ACETATE

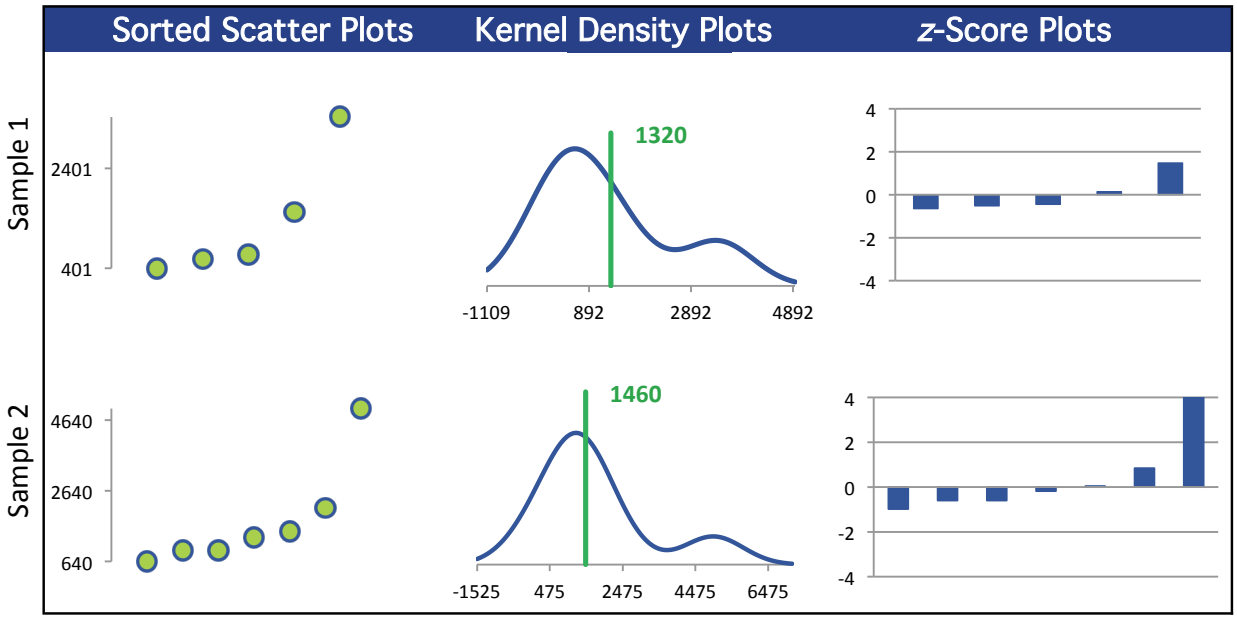
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	5	7	0	0
Median µg/g	680	1310		
Robust Mean µg/g	1320	1460		
U µg/g	794	396		
Robust Standard Deviation µg/g	1420	838		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1420	838		
Outliers	0	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

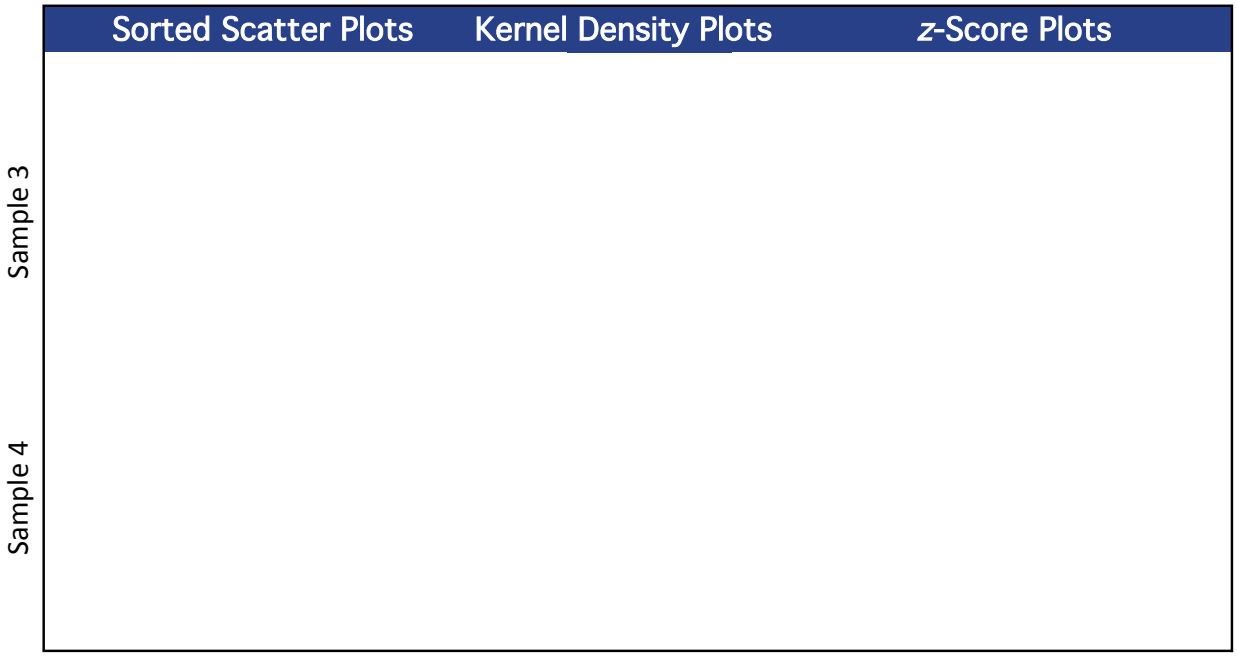
Methods Used

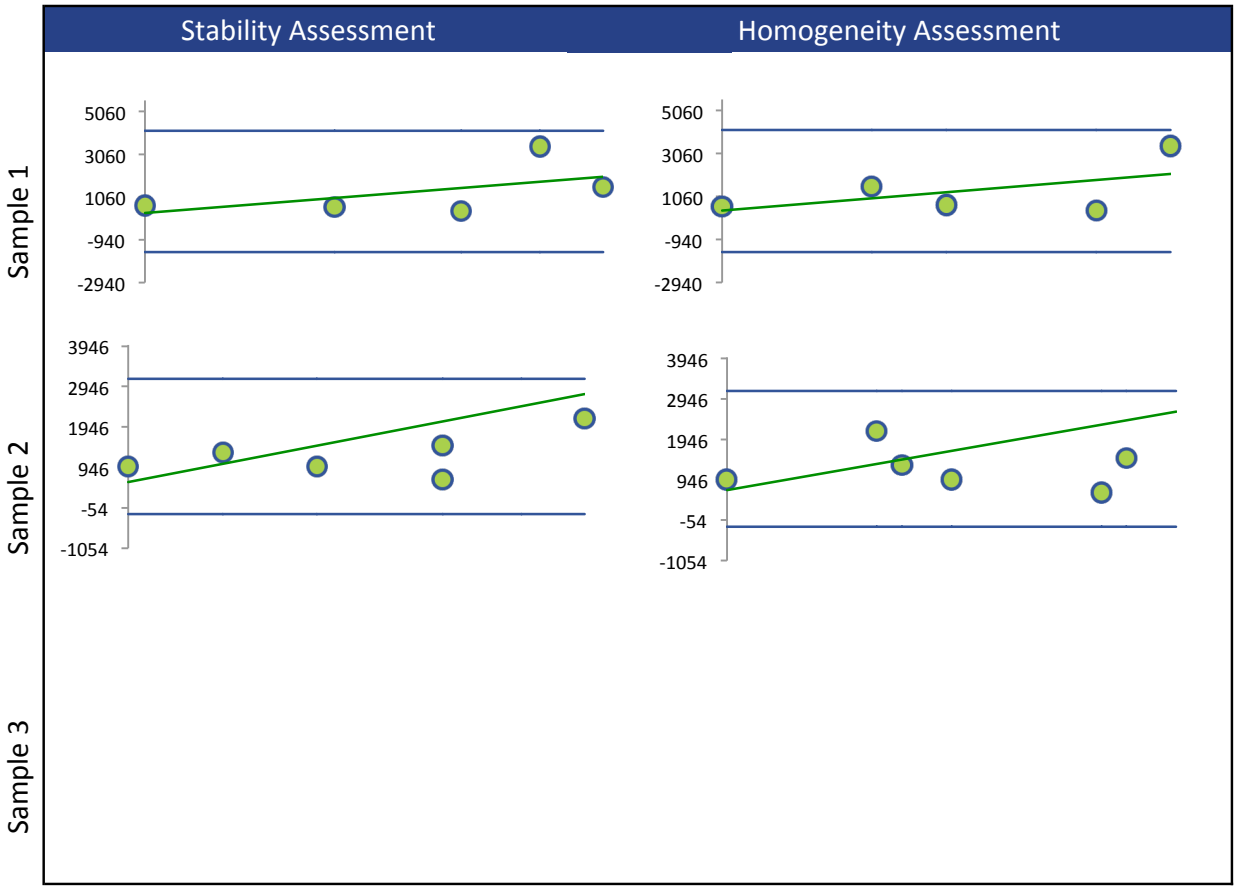
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	7	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



PROPYL ACETATE





PROPYL ACETATE

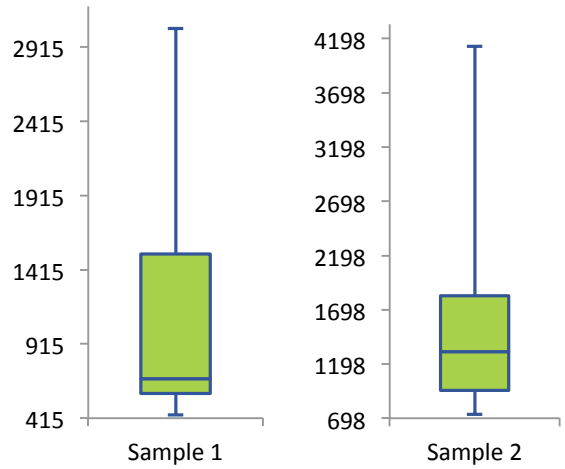
Sample 4

Stability Assessment	Homogeneity Assessment

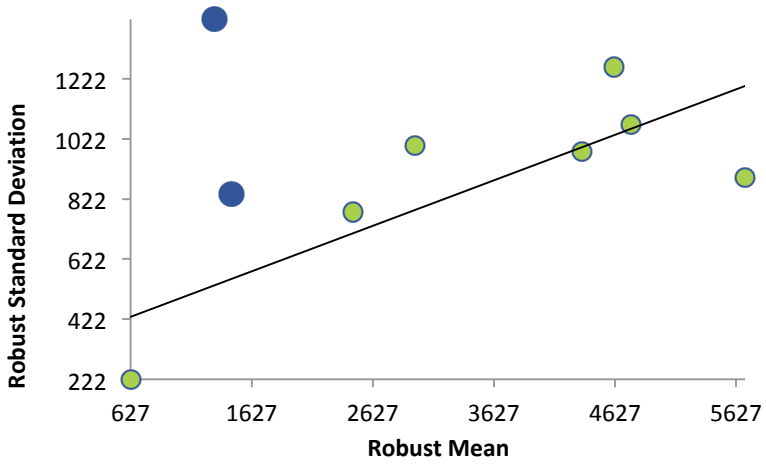
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1-PENTANOL

Summary Statistics

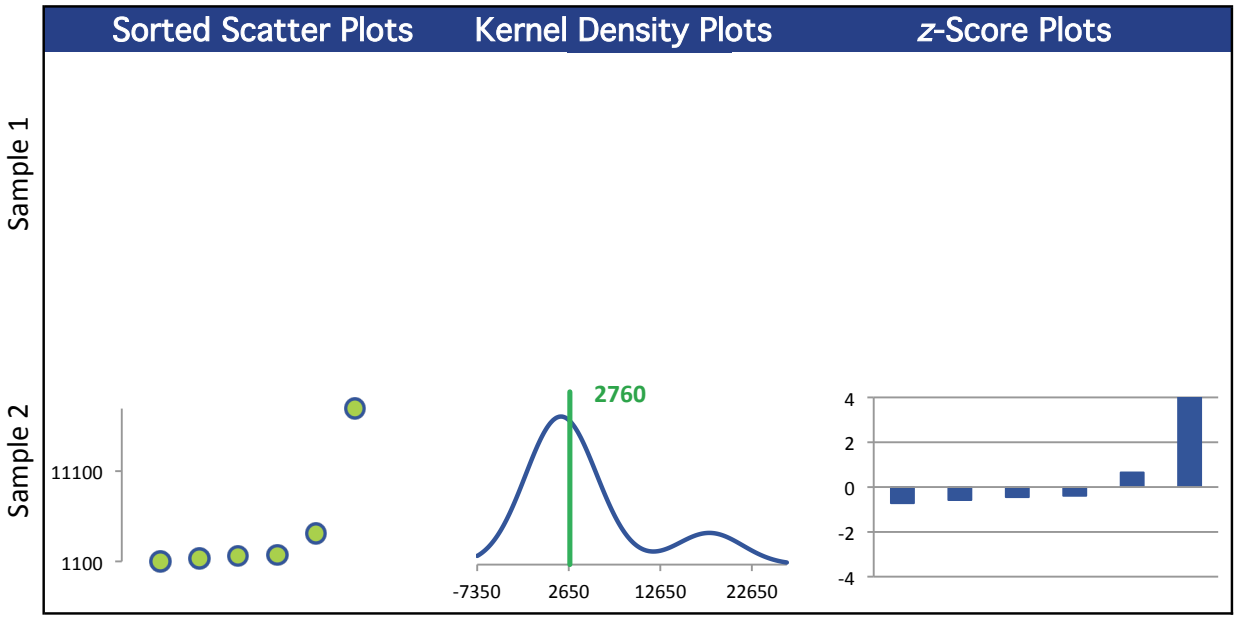
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	6	0	0
Median µg/g		1800		
Robust Mean µg/g		2760		
U µg/g		1170		
Robust Standard Deviation µg/g		2300		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		2300		
Outliers	3	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

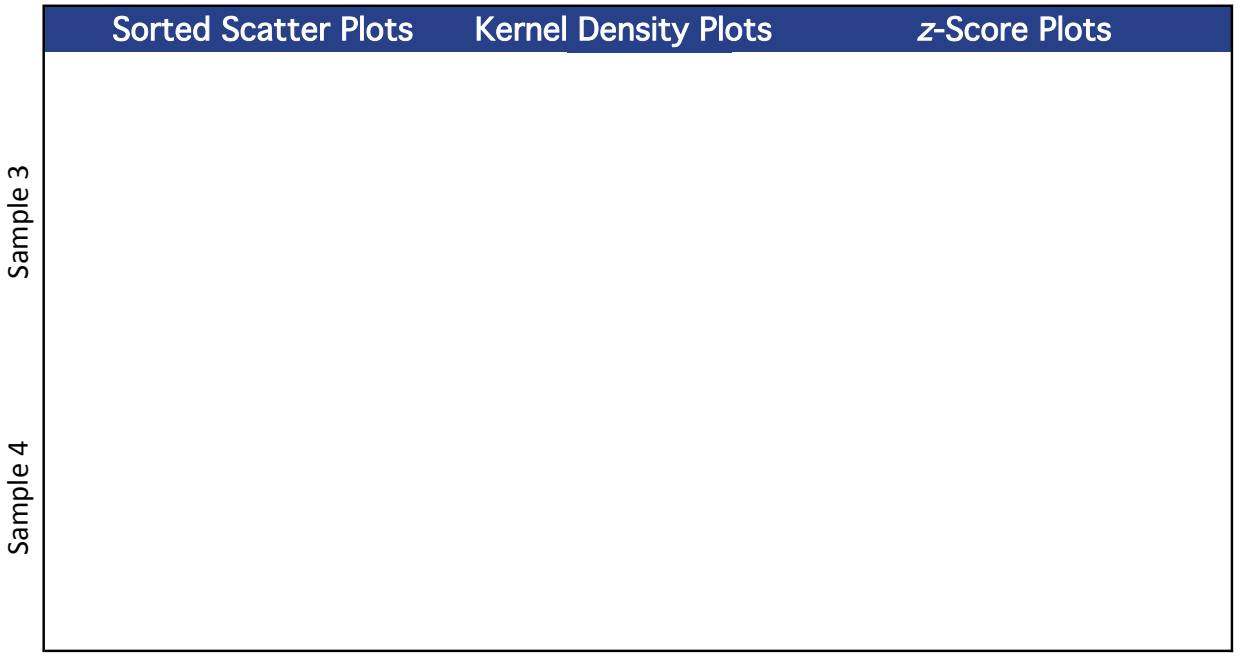
Methods Used

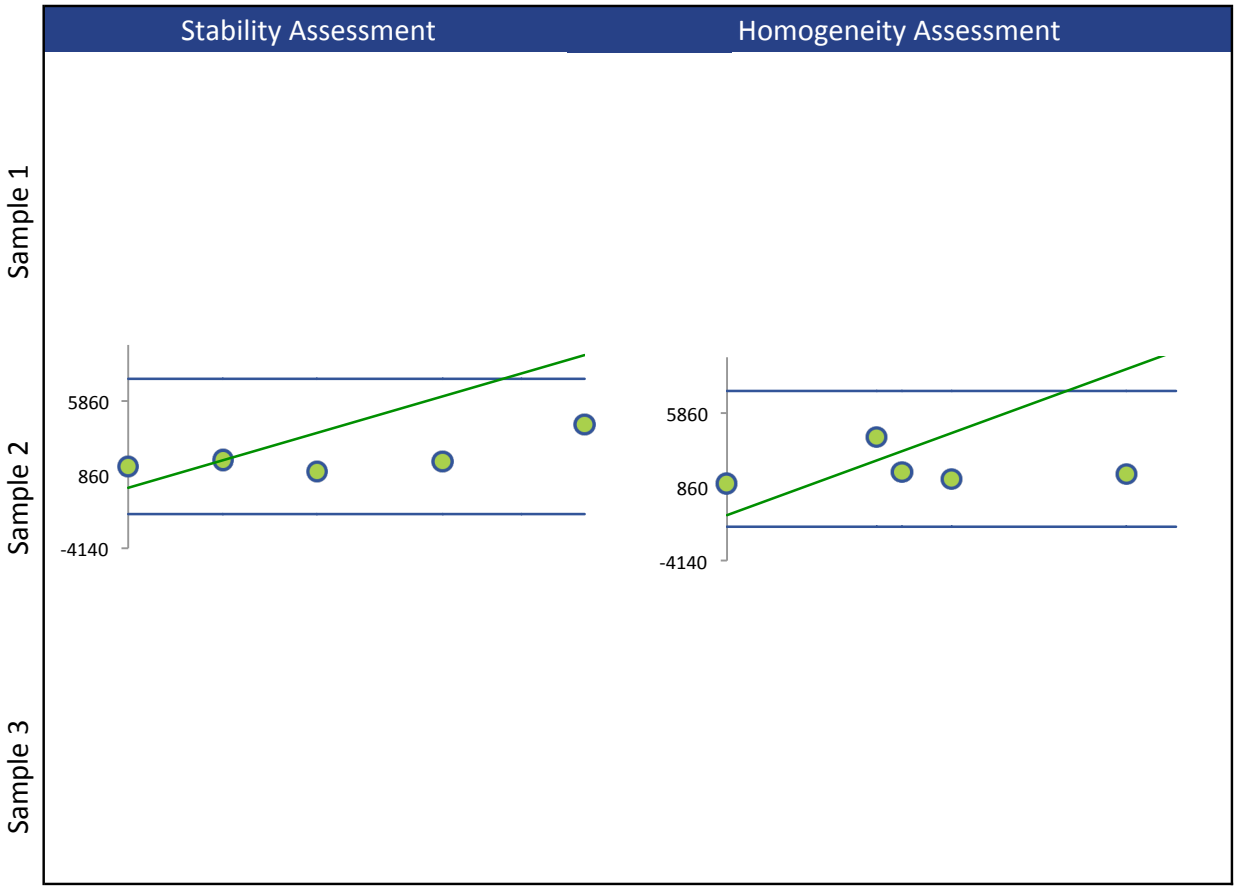
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	4	0	0
GC/FID (Red)	0	2	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



1-PENTANOL


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
5860
860
-4140
5860
860
-4140

1-PENTANOL

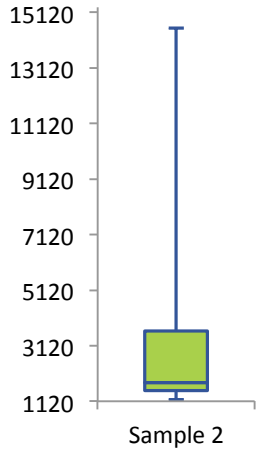
Stability Assessment	Homogeneity Assessment

Sample 4

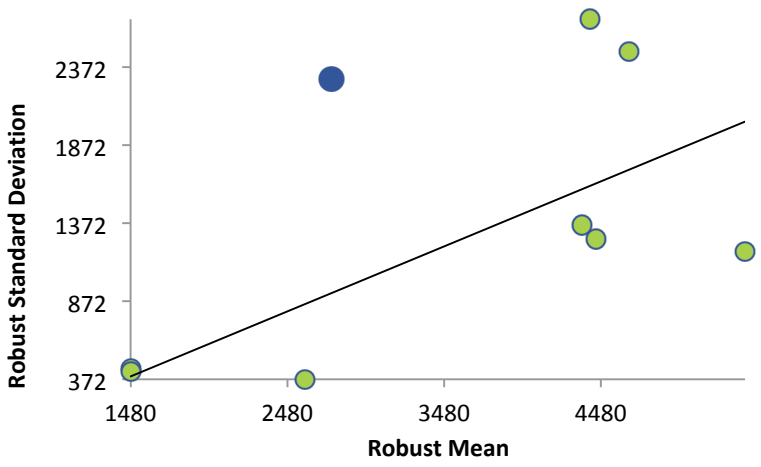
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



1-PROPANOL (PROPANOL)

Summary Statistics

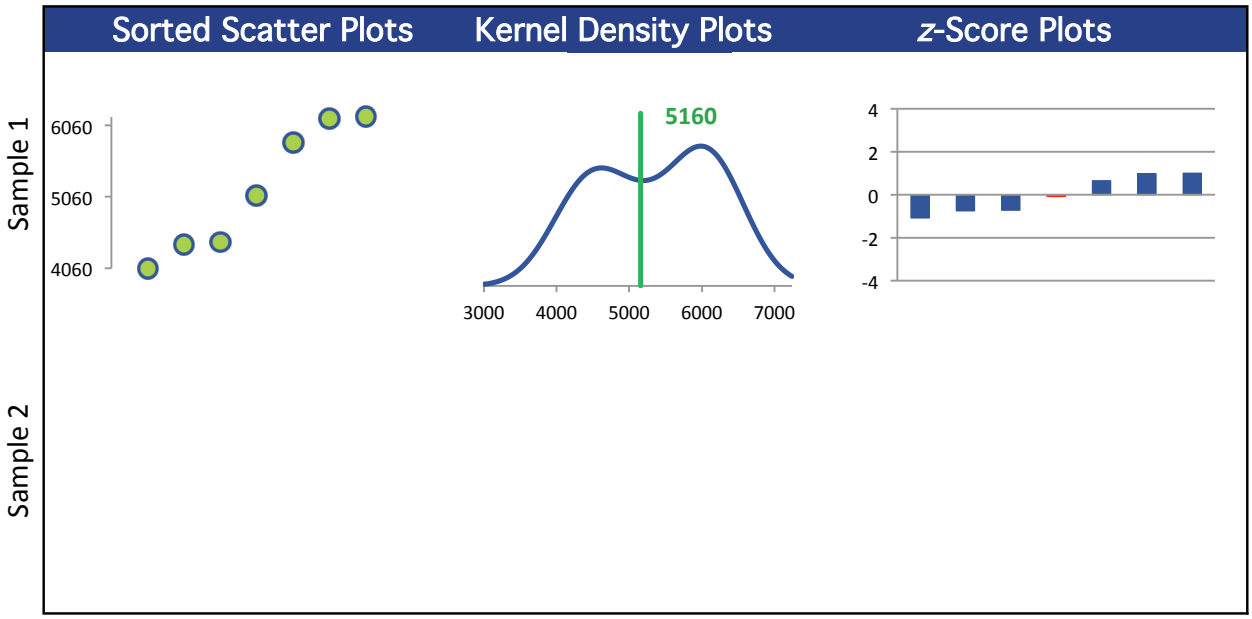
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	7	0	0	0
Median µg/g	5080			
Robust Mean µg/g	5160			
U µg/g	482			
Robust Standard Deviation µg/g	1020			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1020			
Outliers	2	2	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

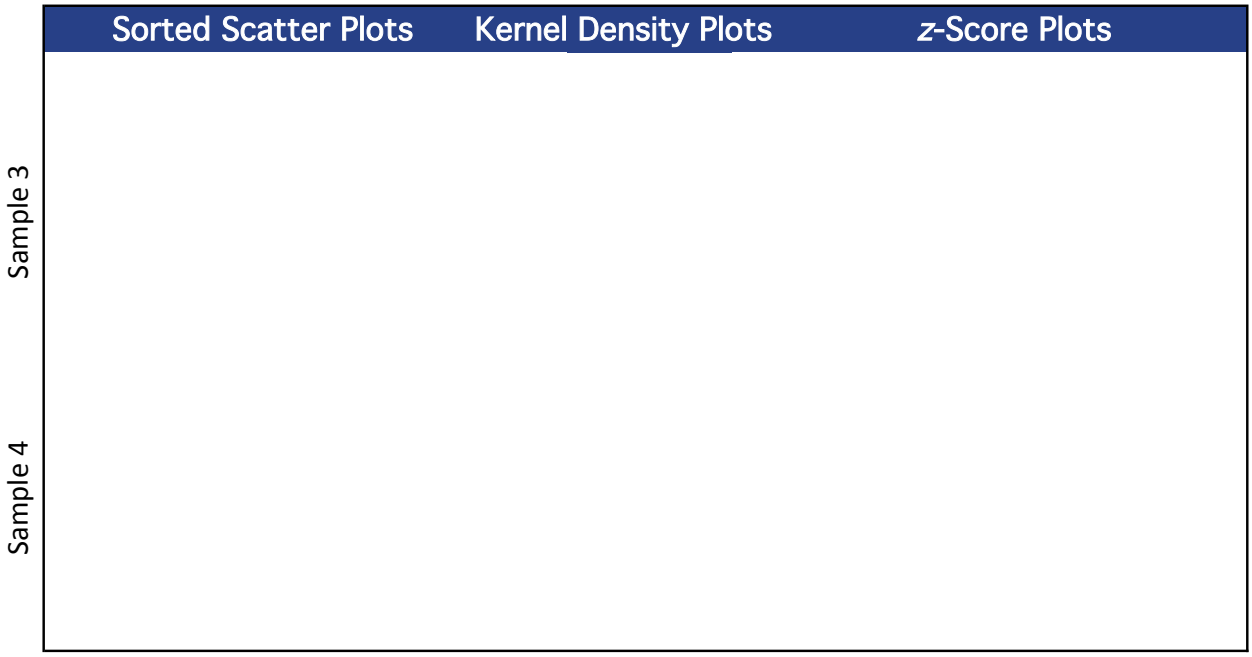
Methods Used

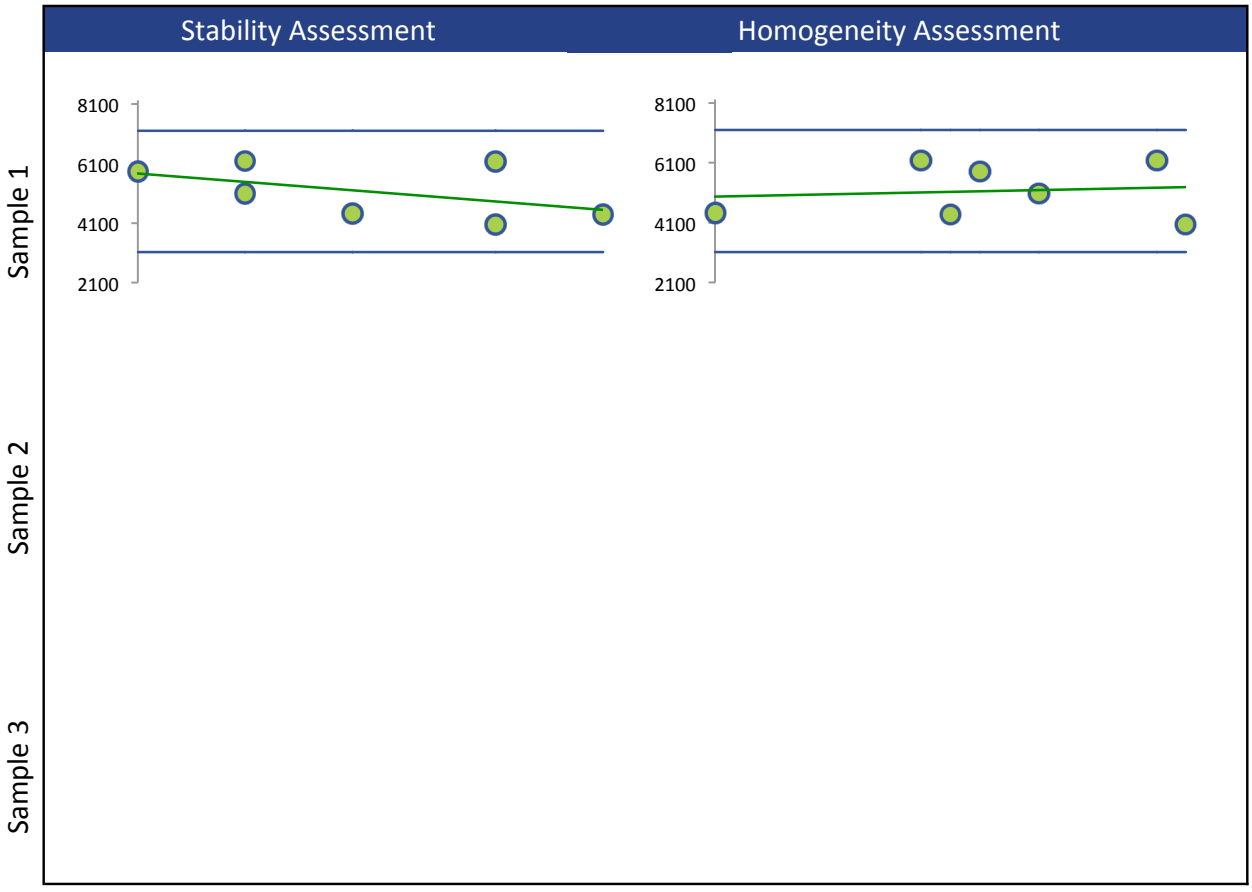
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



1-PROPANOL (PROPANOL)





1-PROPANOL (PROPANOL)

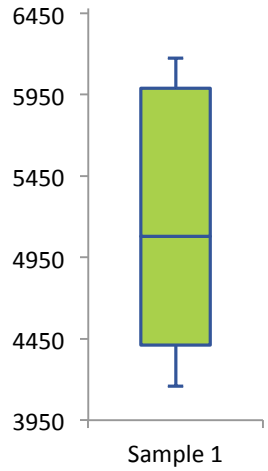
Sample 4

Stability Assessment	Homogeneity Assessment

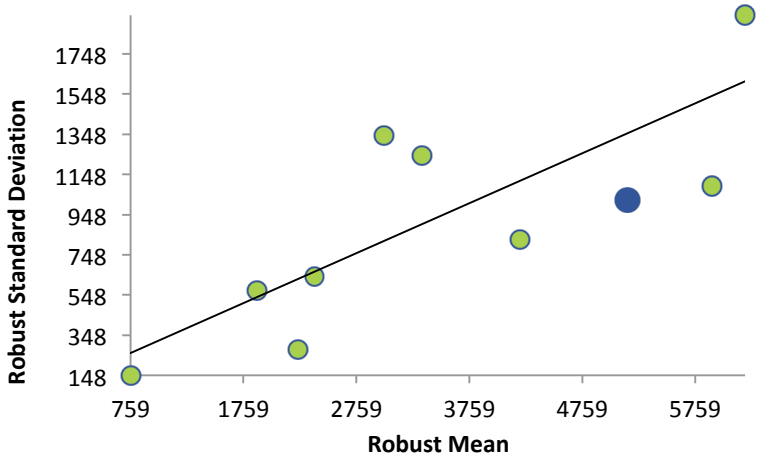
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



2-BUTANOL

Summary Statistics

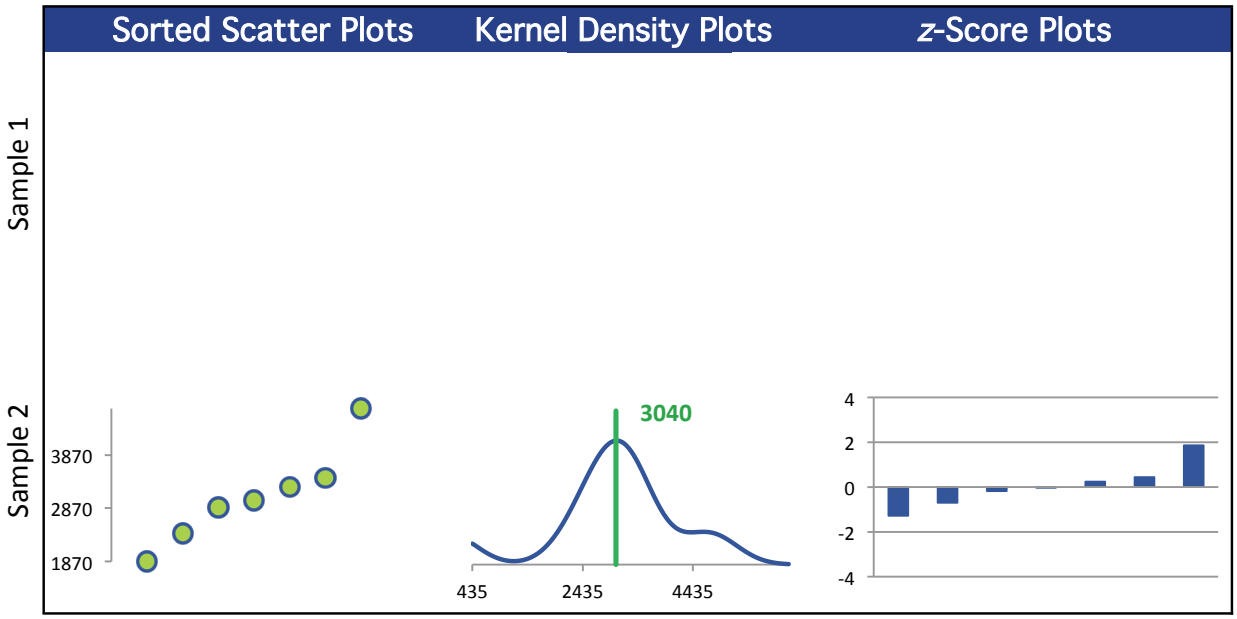
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	7	0	0
Median µg/g		3010		
Robust Mean µg/g		3040		
U µg/g		431		
Robust Standard Deviation µg/g		912		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		912		
Outliers	2	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

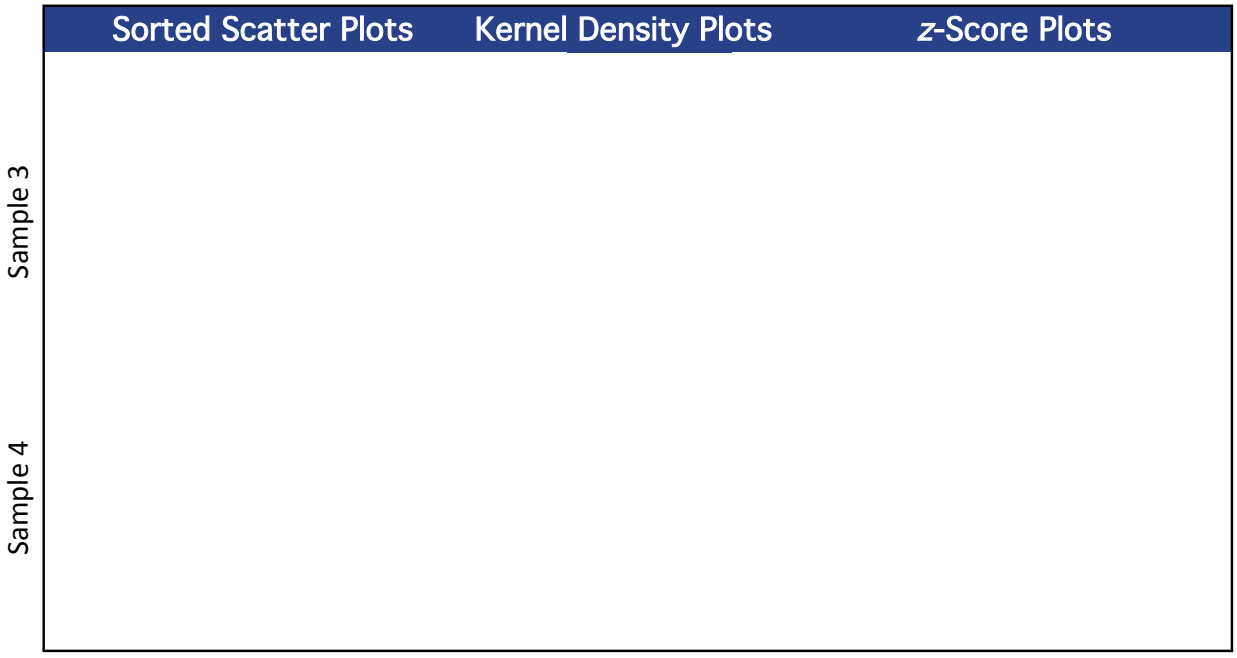
Methods Used

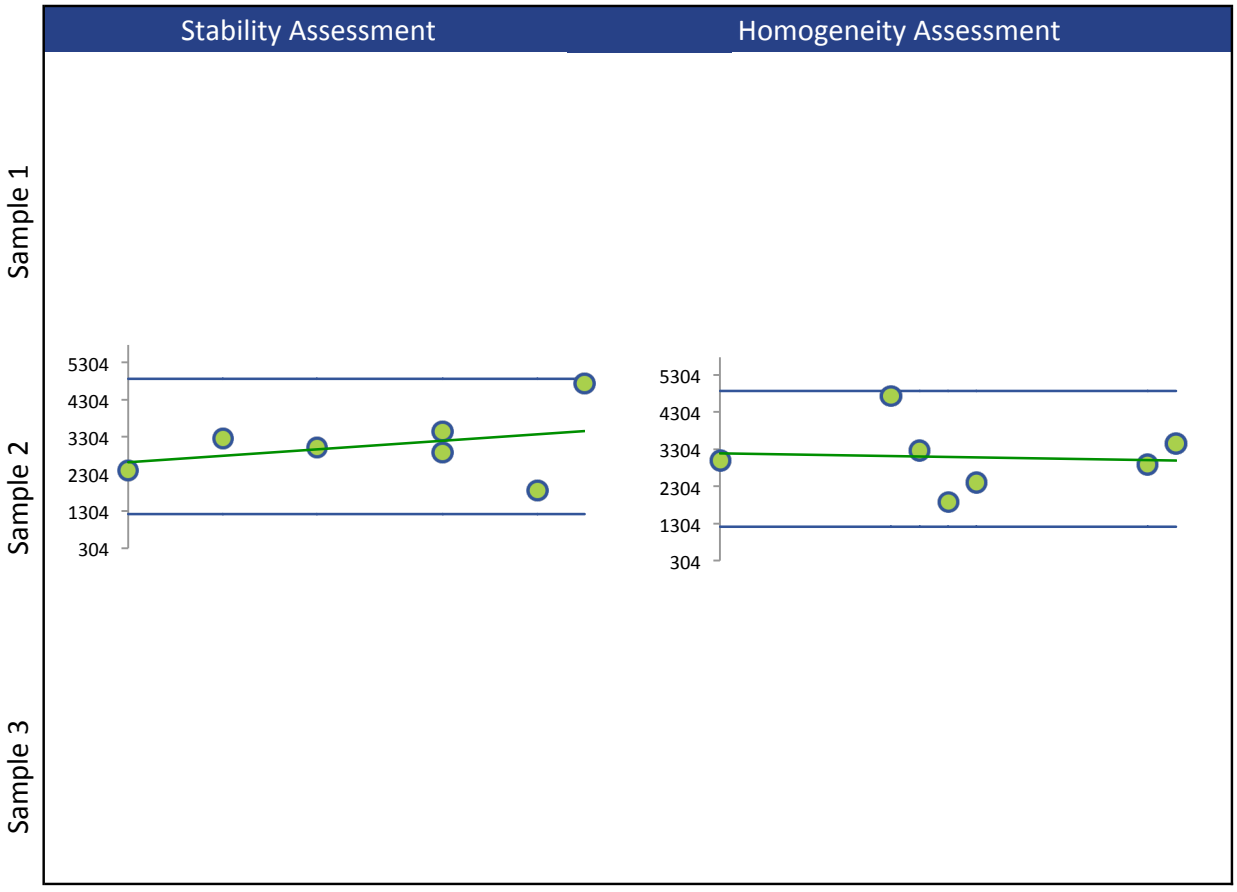
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	7	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



2-BUTANOL


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
5304
4304
3304
2304
1304
304
5304
4304
3304
2304
1304
304

2-BUTANOL

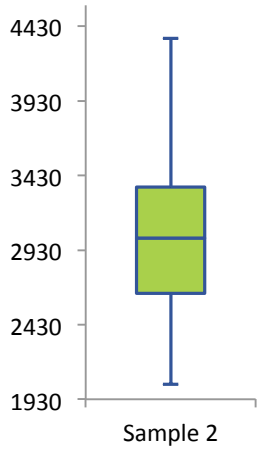
Sample 4

Stability Assessment	Homogeneity Assessment

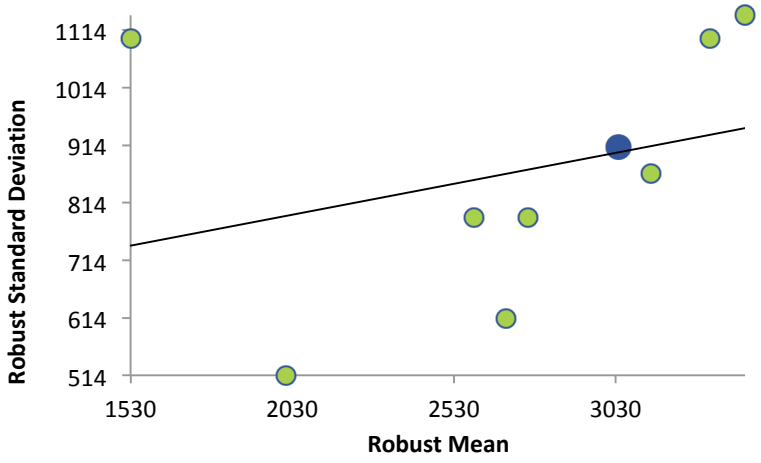
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



2-BUTANONE (METHYL ETHYL KETONE, MEK)

Summary Statistics

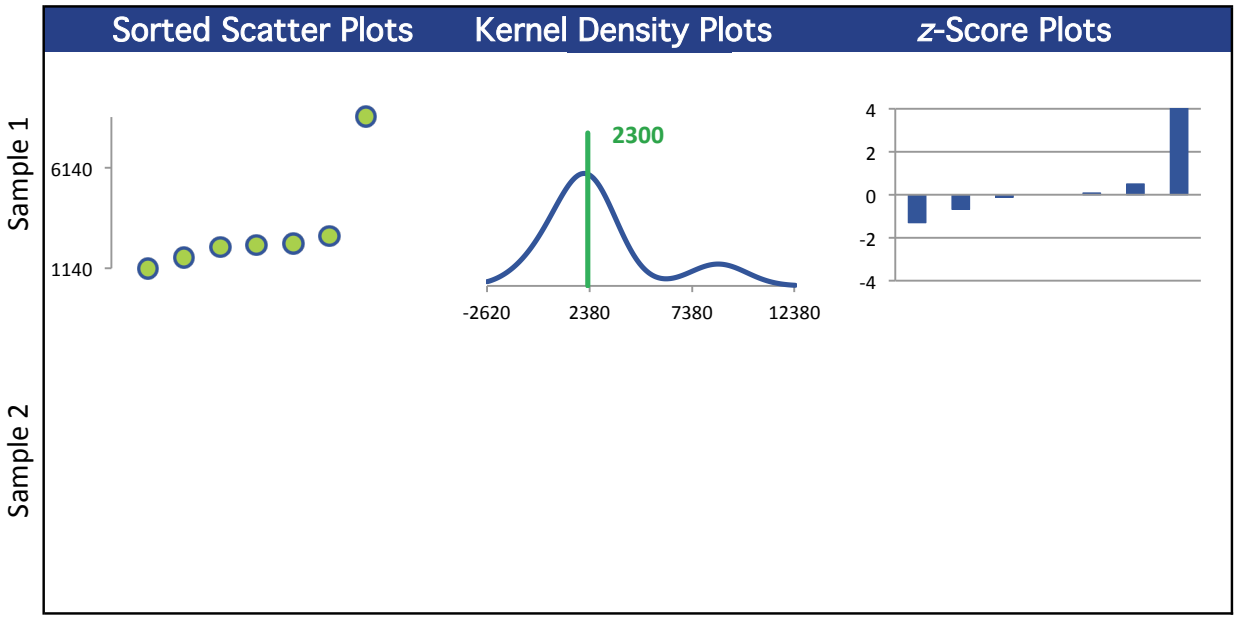
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	7	0	0	0
Median µg/g	2300			
Robust Mean µg/g	2300			
U µg/g	422			
Robust Standard Deviation µg/g	893			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	893			
Outliers	0	2	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0

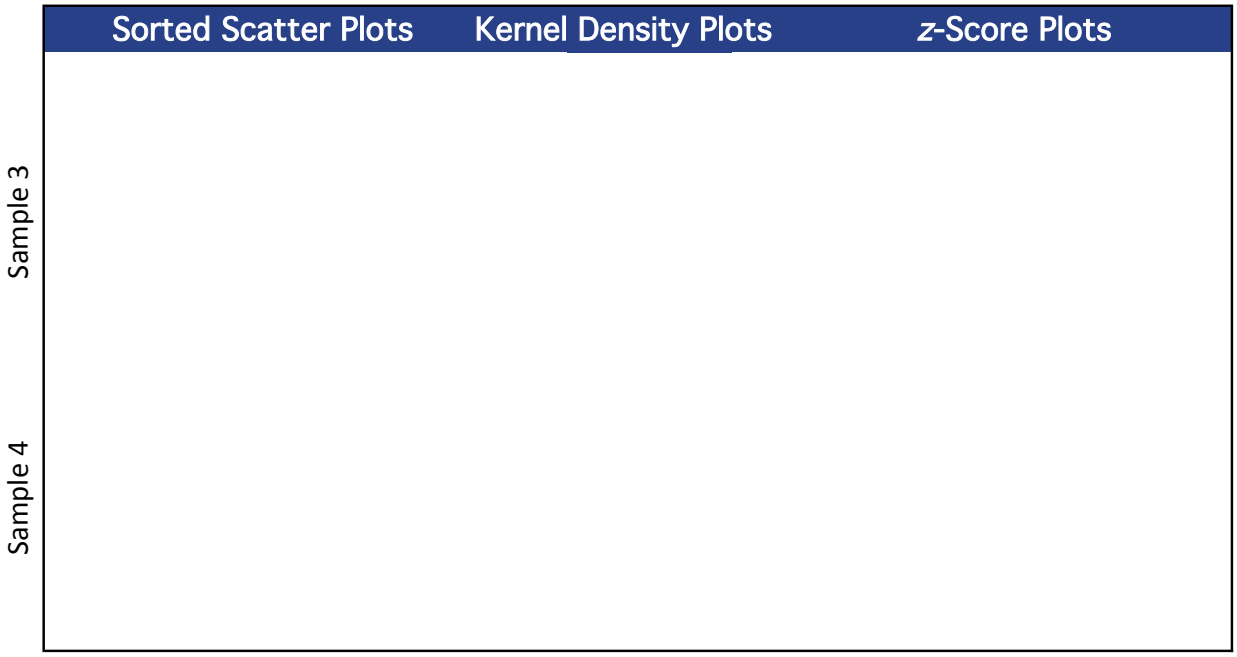
Methods Used

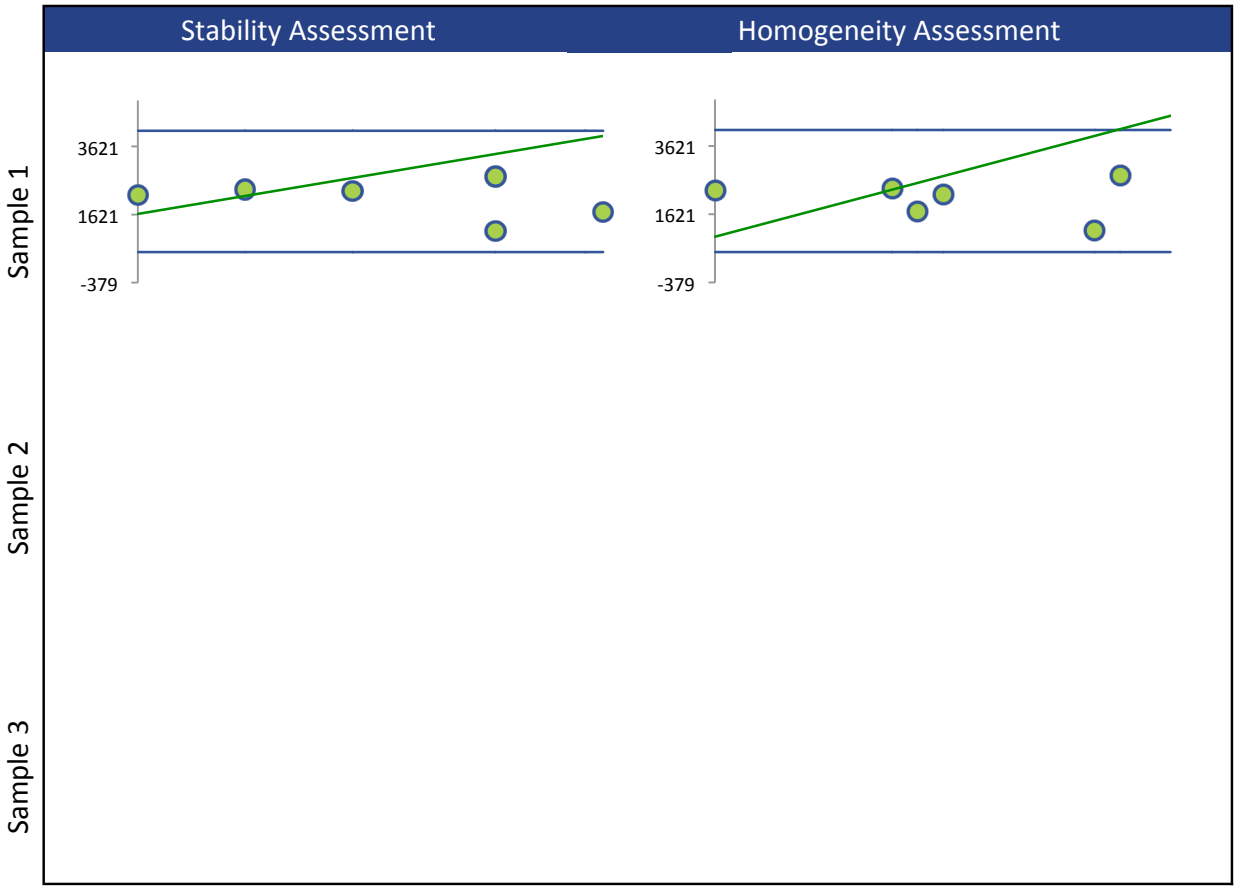
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	7	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



2-BUTANONE (METHYL ETHYL KETONE, MEK)





2-BUTANONE (METHYL ETHYL KETONE, MEK)

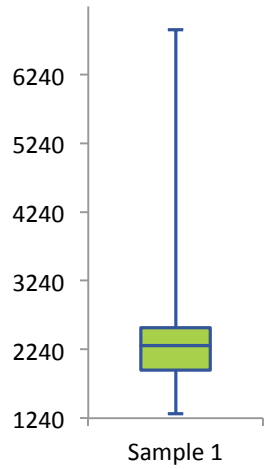
Sample 4

Stability Assessment	Homogeneity Assessment

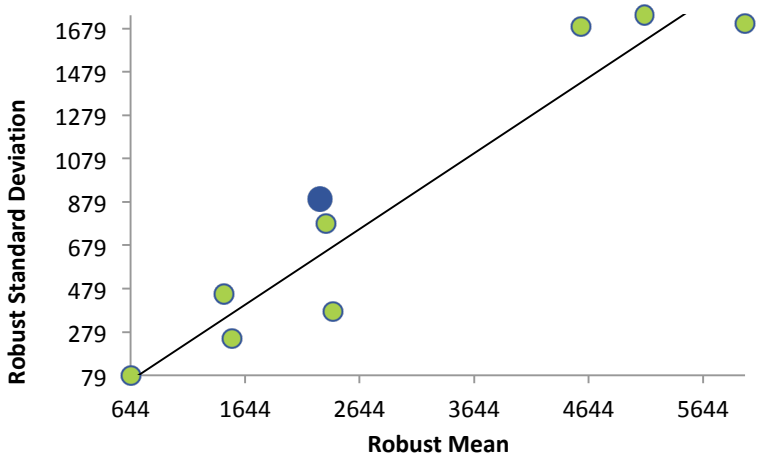
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



2-PROPANOL (ISOPROPYL ALCOHOL)

Summary Statistics

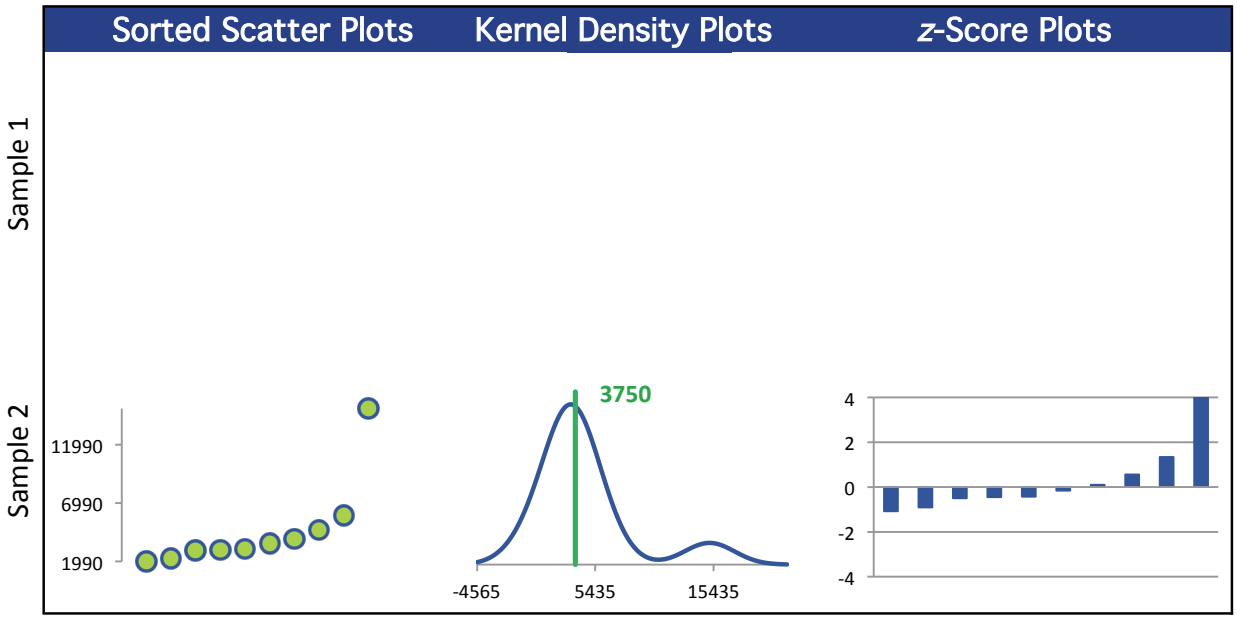
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	10	0	0
Median µg/g		3270		
Robust Mean µg/g		3750		
U µg/g		644		
Robust Standard Deviation µg/g		1630		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		1630		
Outliers	3	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

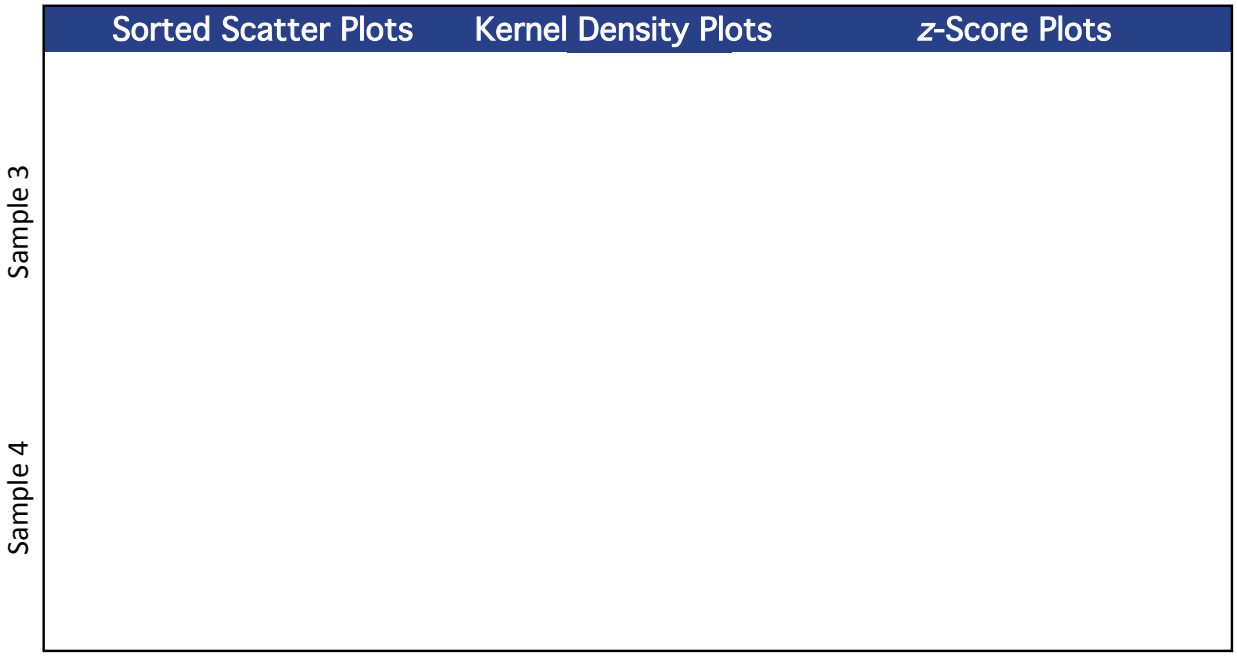
Methods Used

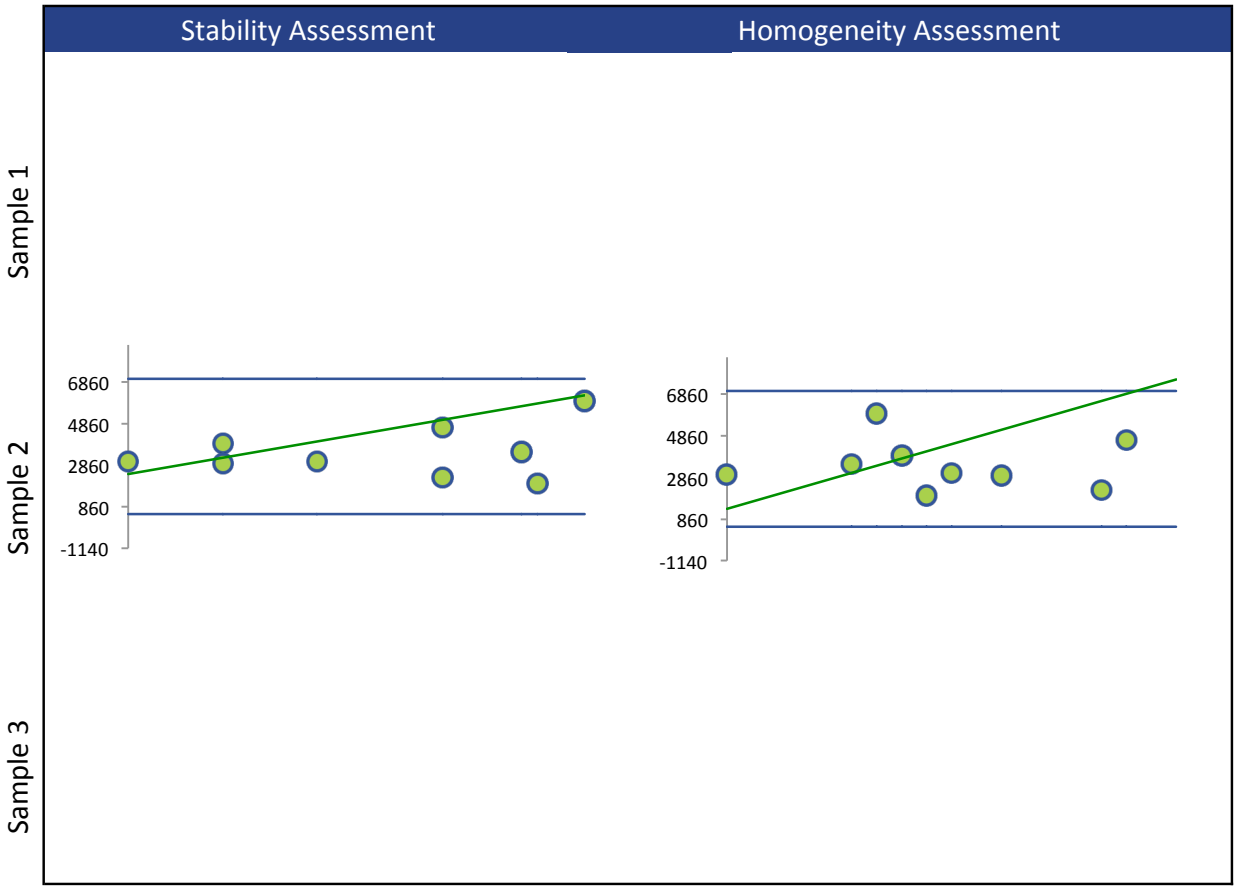
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	6	0	0
GC/FID (Red)	0	4	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



2-PROPANOL (ISOPROPYL ALCOHOL)





2-PROPANOL (ISOPROPYL ALCOHOL)

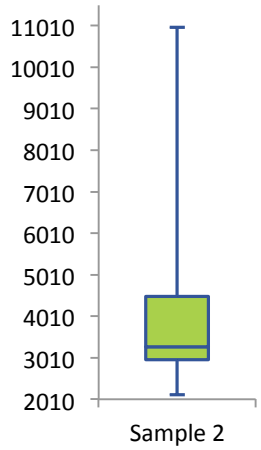
Sample 4

Stability Assessment	Homogeneity Assessment

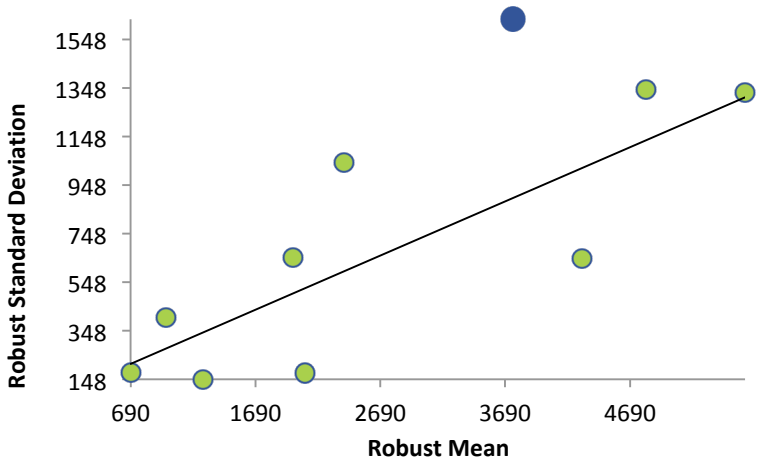
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



3-METHYL-1-BUTANOL

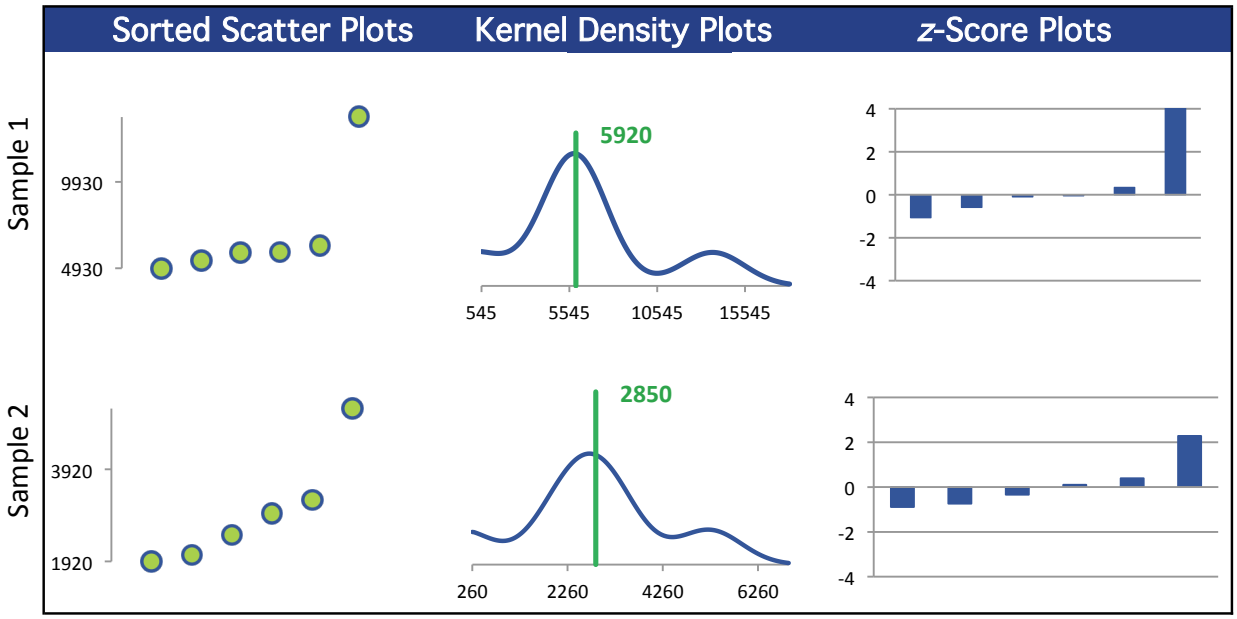
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	6	6	0	0
Median µg/g	5850	2730		
Robust Mean µg/g	5920	2850		
U µg/g	470	536		
Robust Standard Deviation µg/g	921	1050		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	921	1050		
Outliers	1	1	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	1	0	0

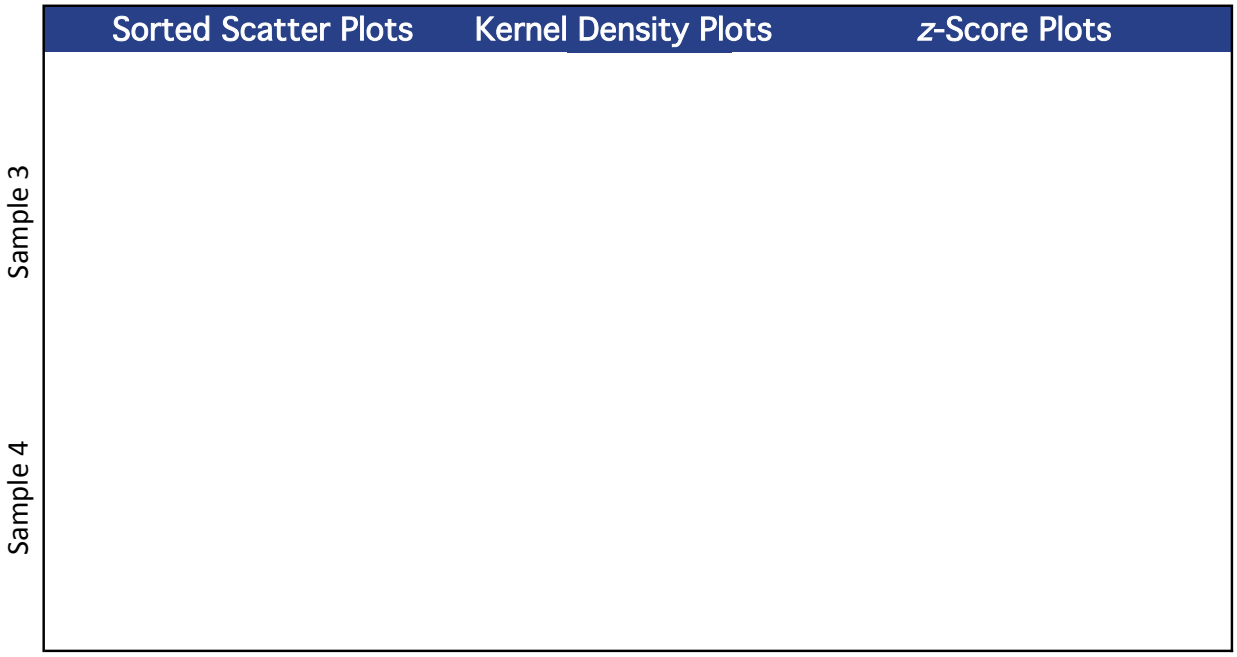
Methods Used

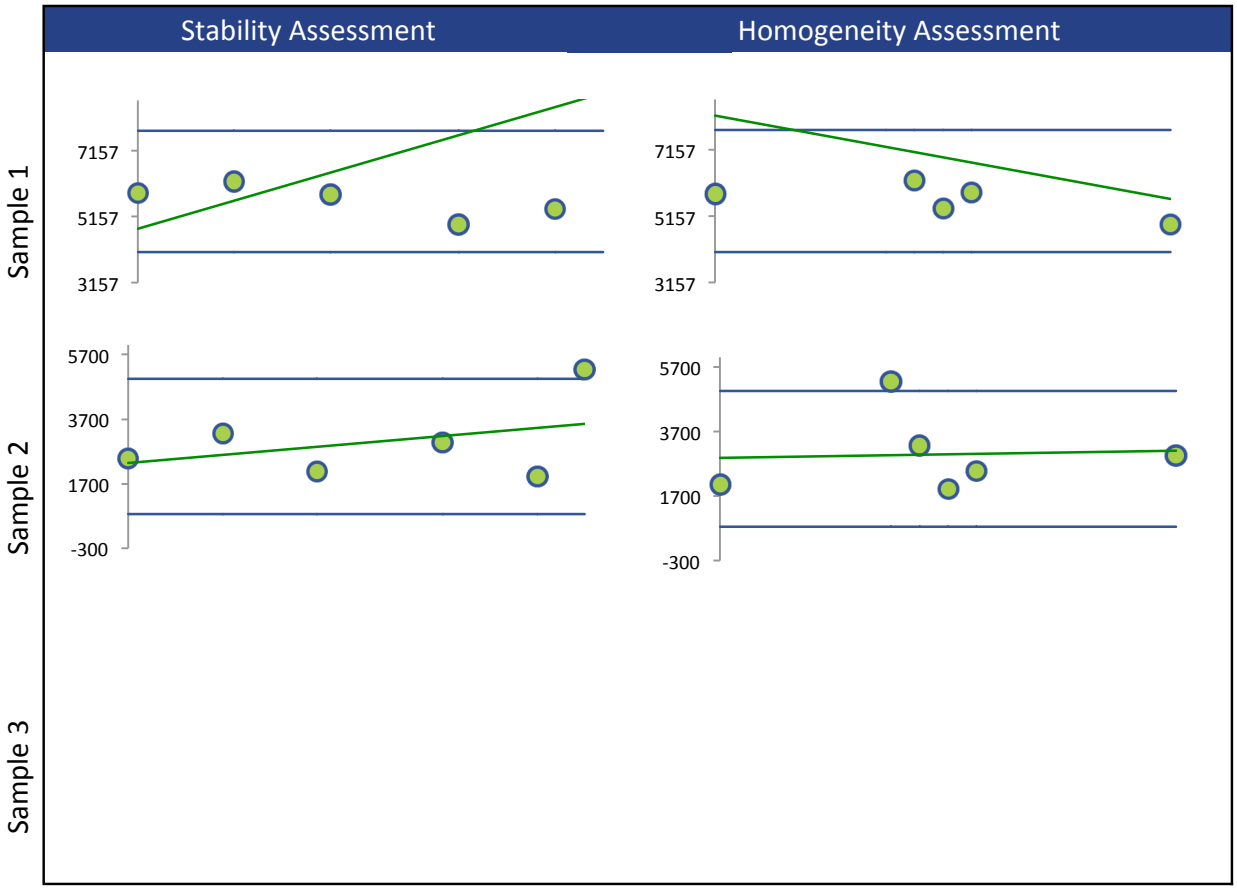
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	6	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



3-METHYL-1-BUTANOL





3-METHYL-1-BUTANOL

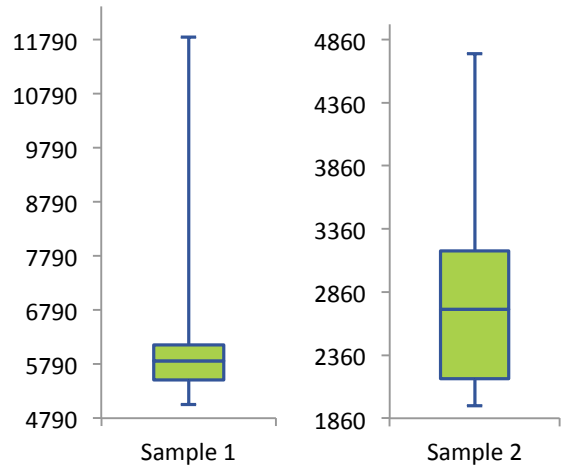
Sample 4

Stability Assessment	Homogeneity Assessment

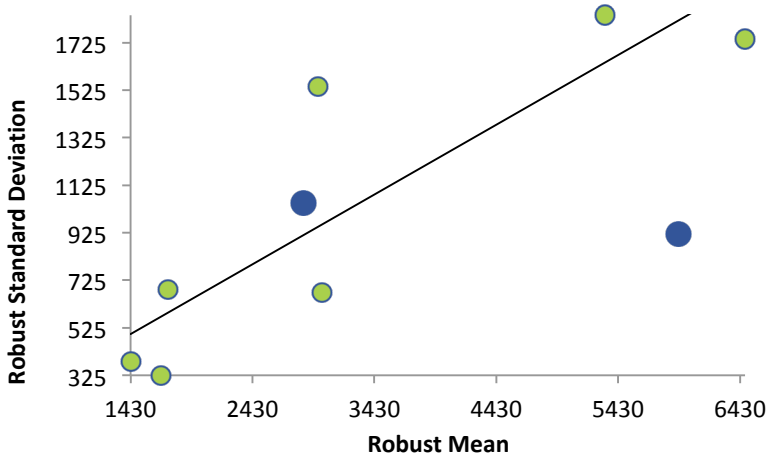
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ACETONE (2-PROPANONE)

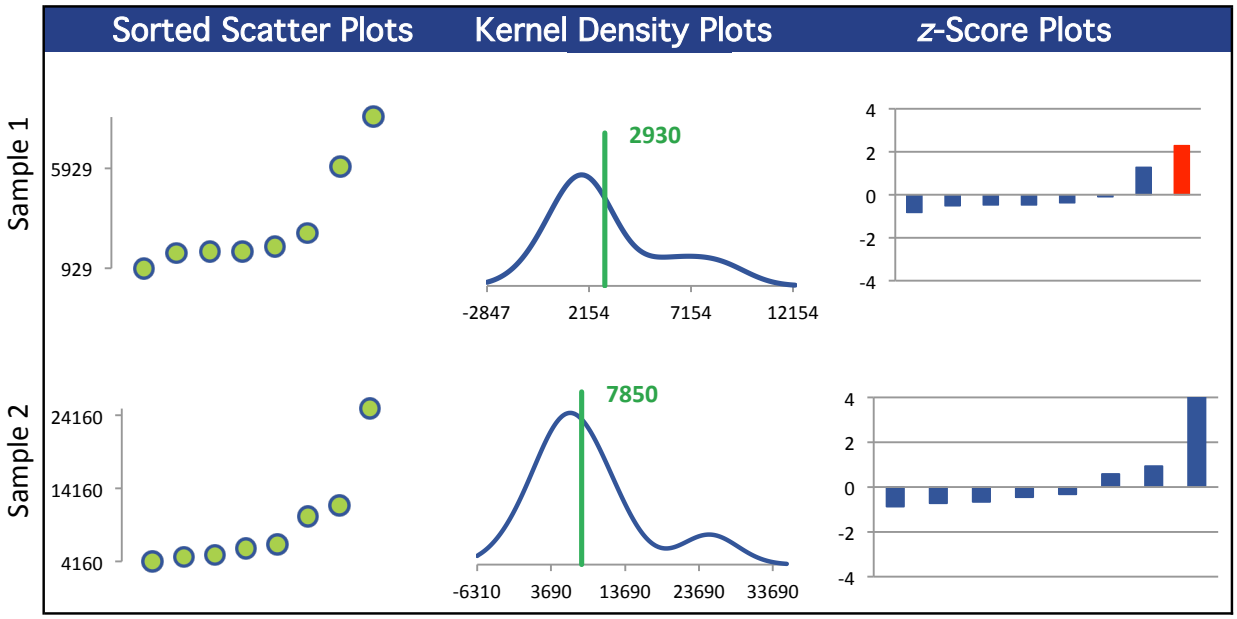
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	8	0	0
Median µg/g	1890	6230		
Robust Mean µg/g	2930	7850		
U µg/g	1070	1880		
Robust Standard Deviation µg/g	2420	4260		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2420	4260		
Outliers	0	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	1	0	0	0

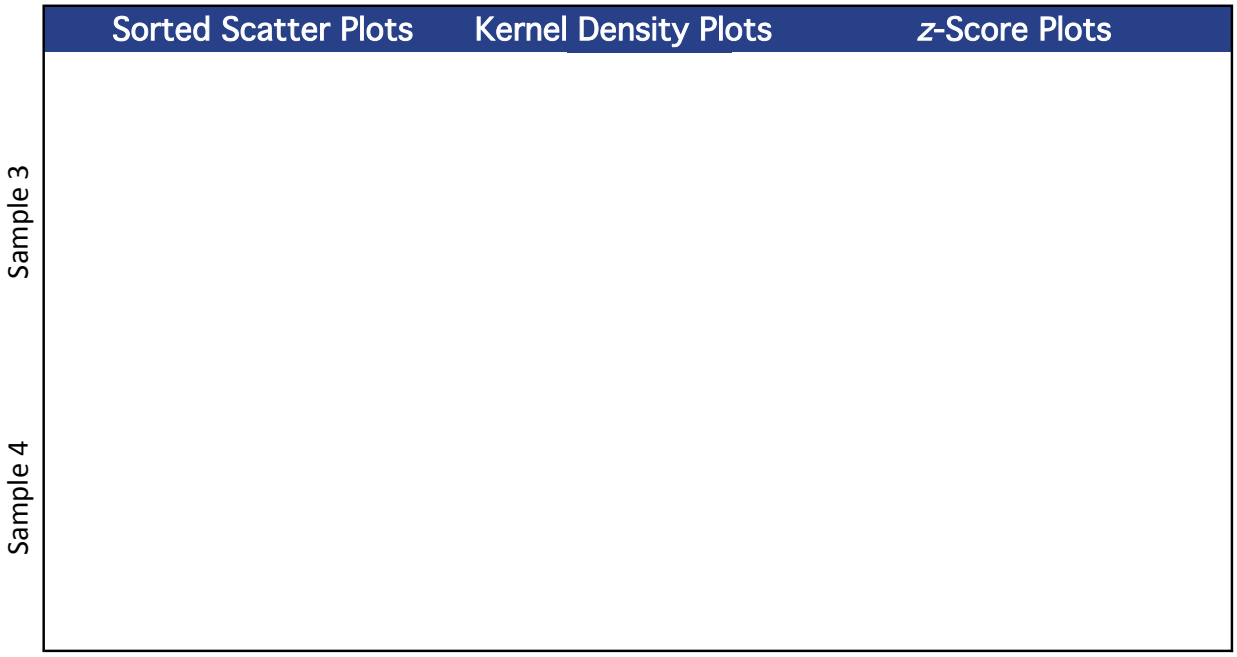
Methods Used

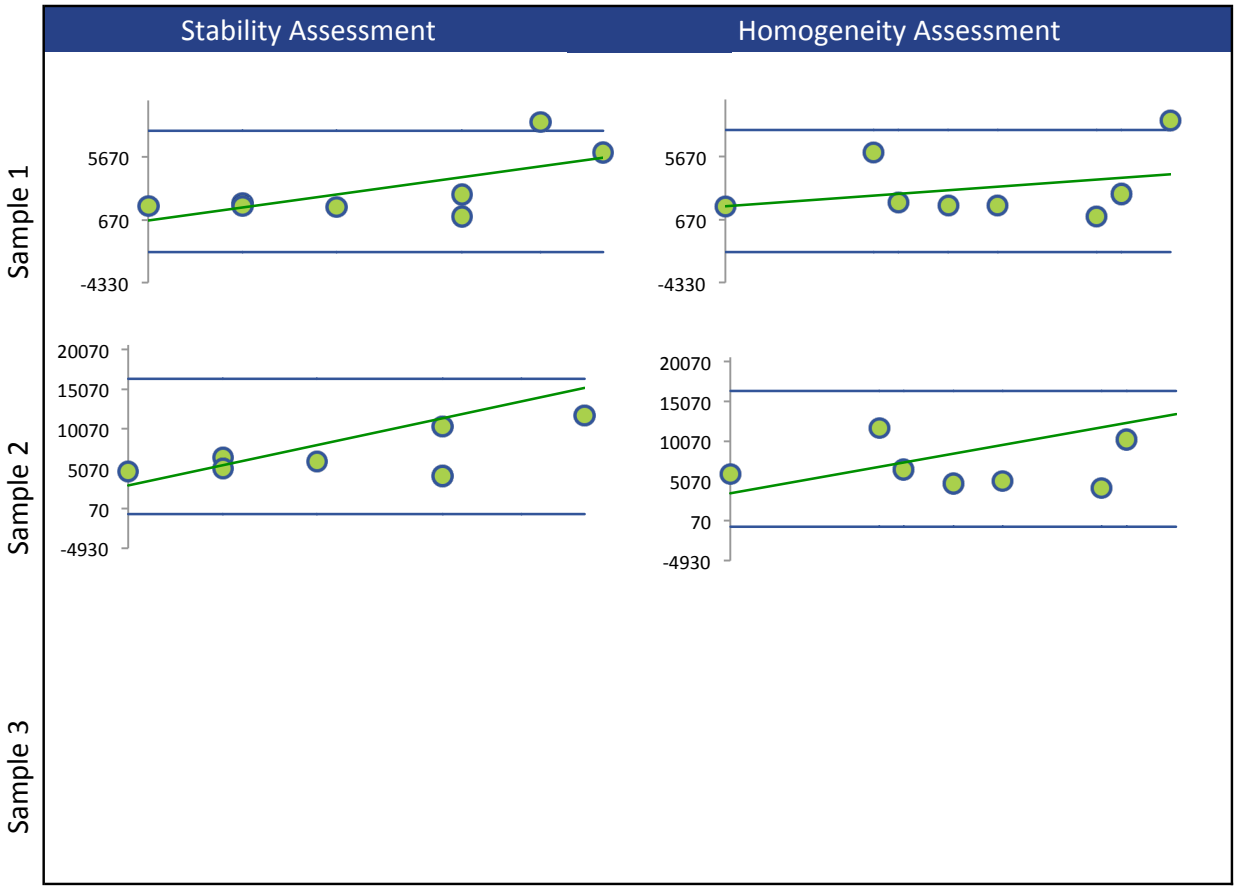
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	5	0	0
GC/FID (Red)	3	3	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ACETONE (2-PROPANONE)





ACETONE (2-PROPANONE)

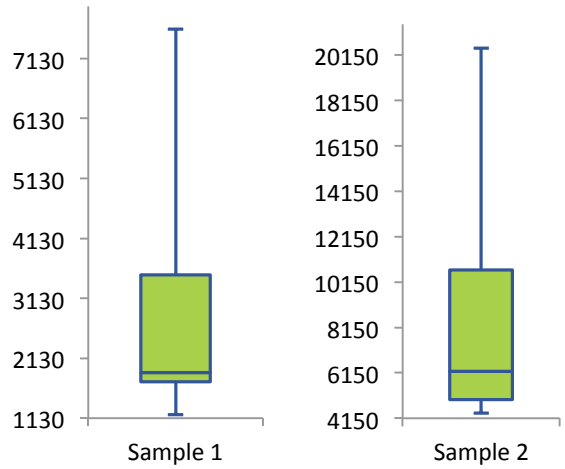
Sample 4

Stability Assessment	Homogeneity Assessment

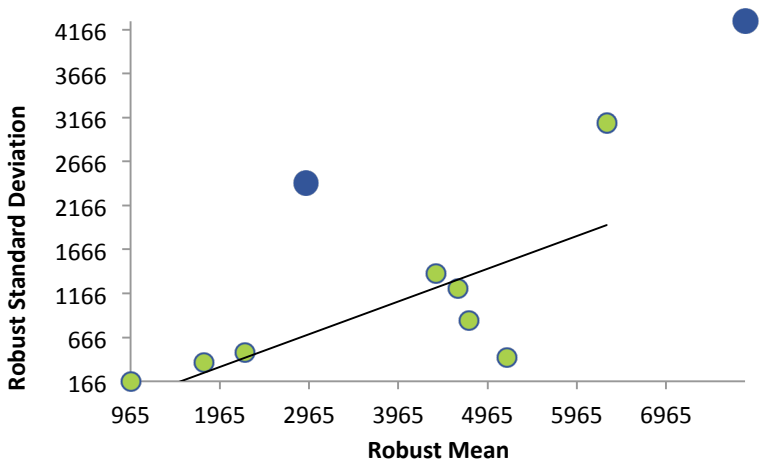
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ANISOLE

Summary Statistics

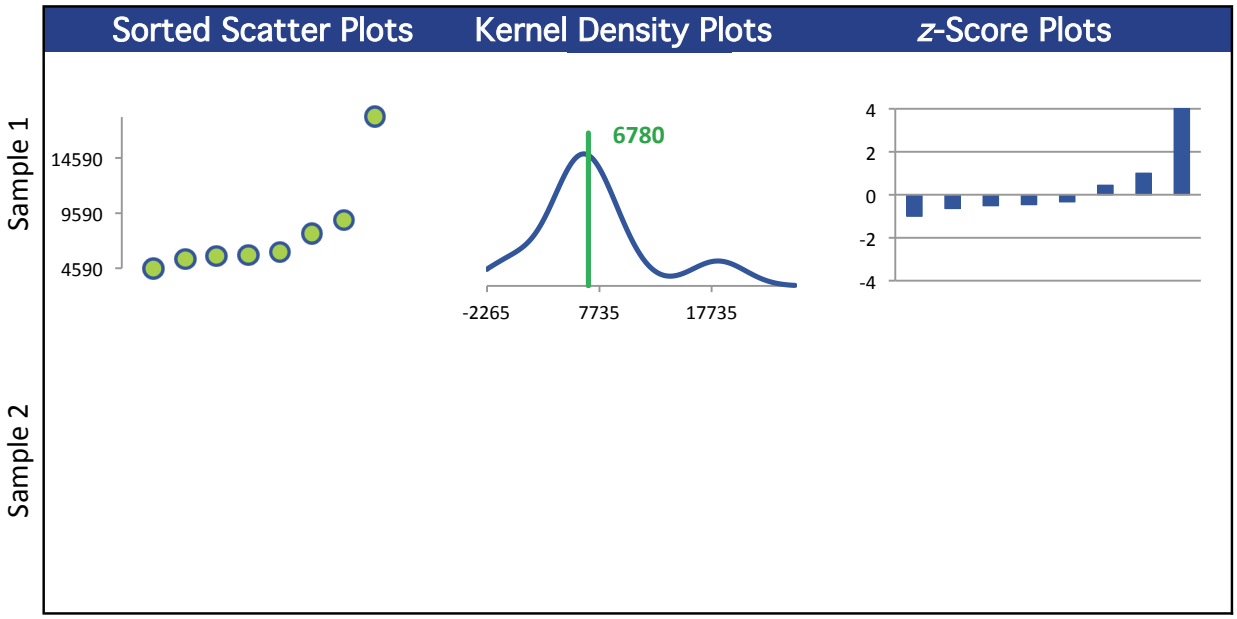
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	0	0	0
Median µg/g	5920			
Robust Mean µg/g	6780			
U µg/g	968			
Robust Standard Deviation µg/g	2190			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2190			
Outliers	0	1	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0

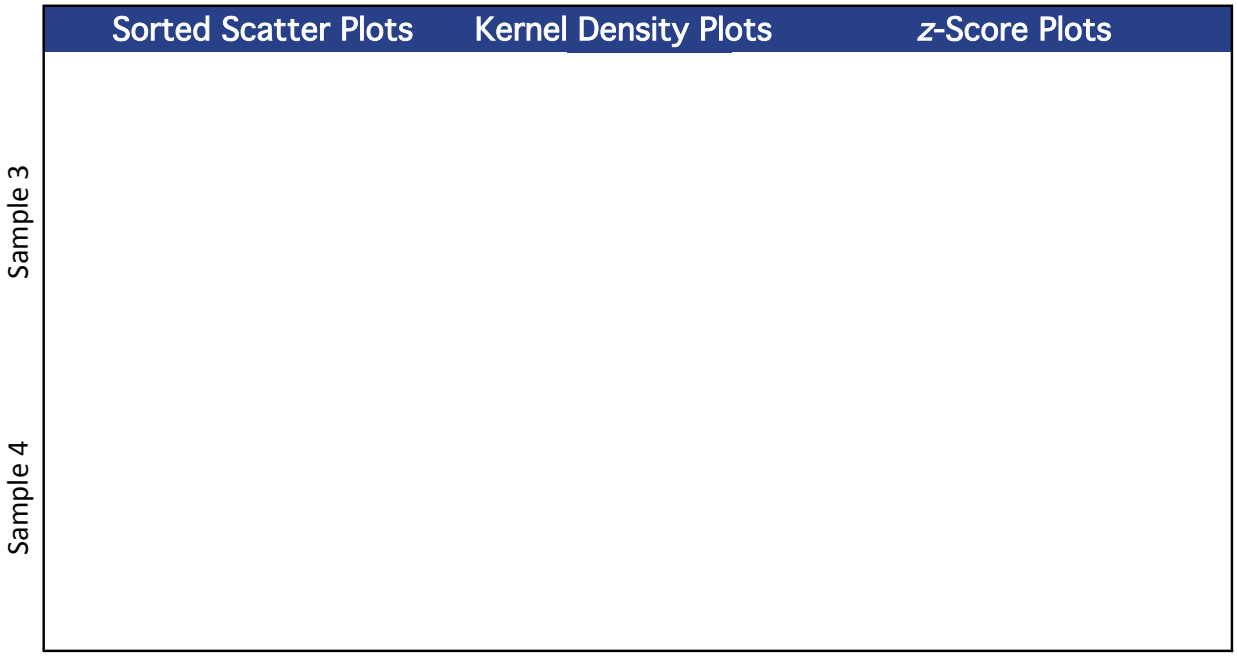
Methods Used

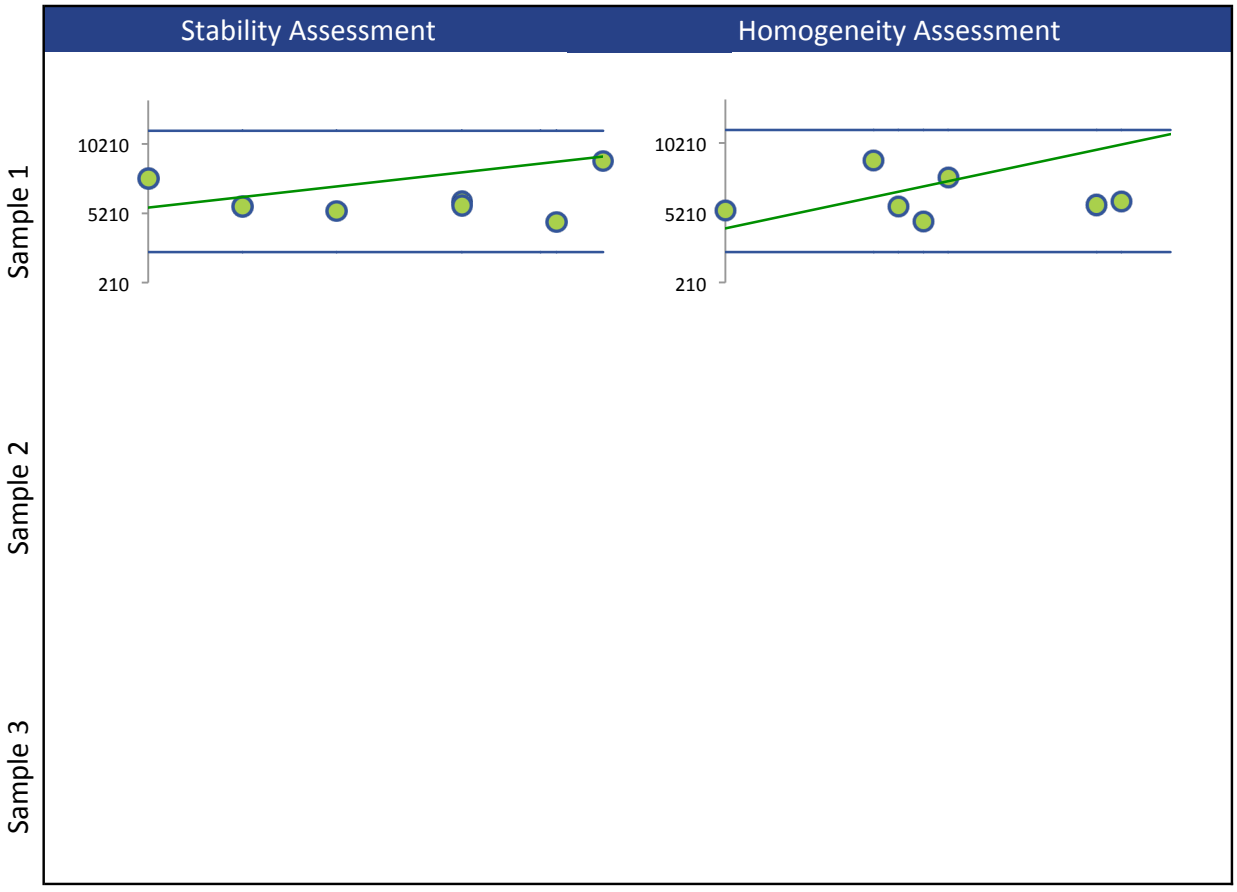
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	8	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ANISOLE


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


Stability Assessment
Homogeneity Assessment
10210
5210
210
10210
5210
210
Sample 1
Sample 2
Sample 3

ANISOLE

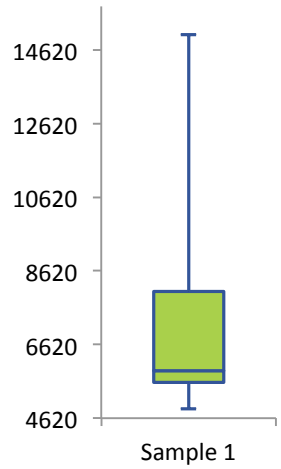
Sample 4

Stability Assessment	Homogeneity Assessment

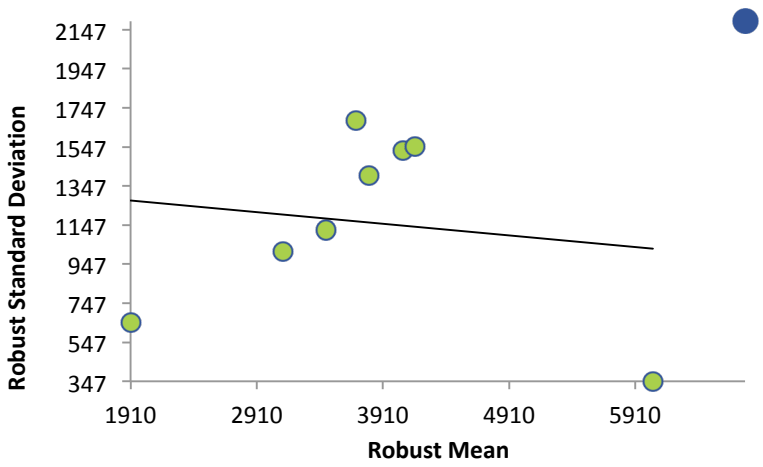
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



BUTANE

Summary Statistics

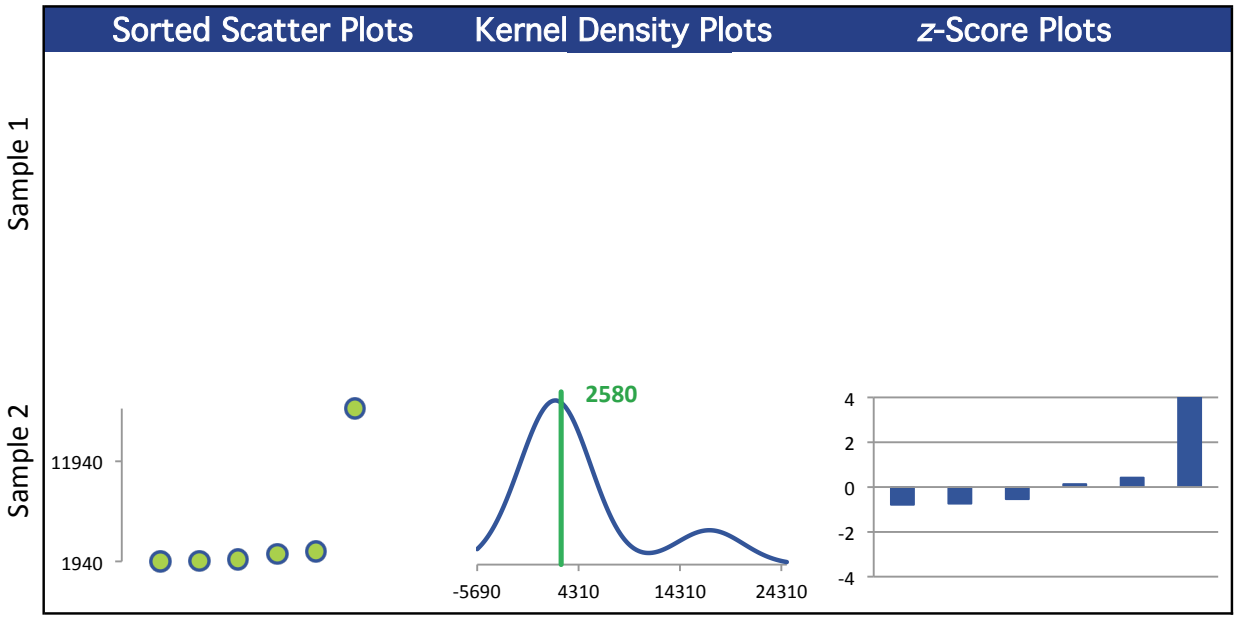
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	6	0	0
Median µg/g		2420		
Robust Mean µg/g		2580		
U µg/g		416		
Robust Standard Deviation µg/g		815		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		815		
Outliers	3	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

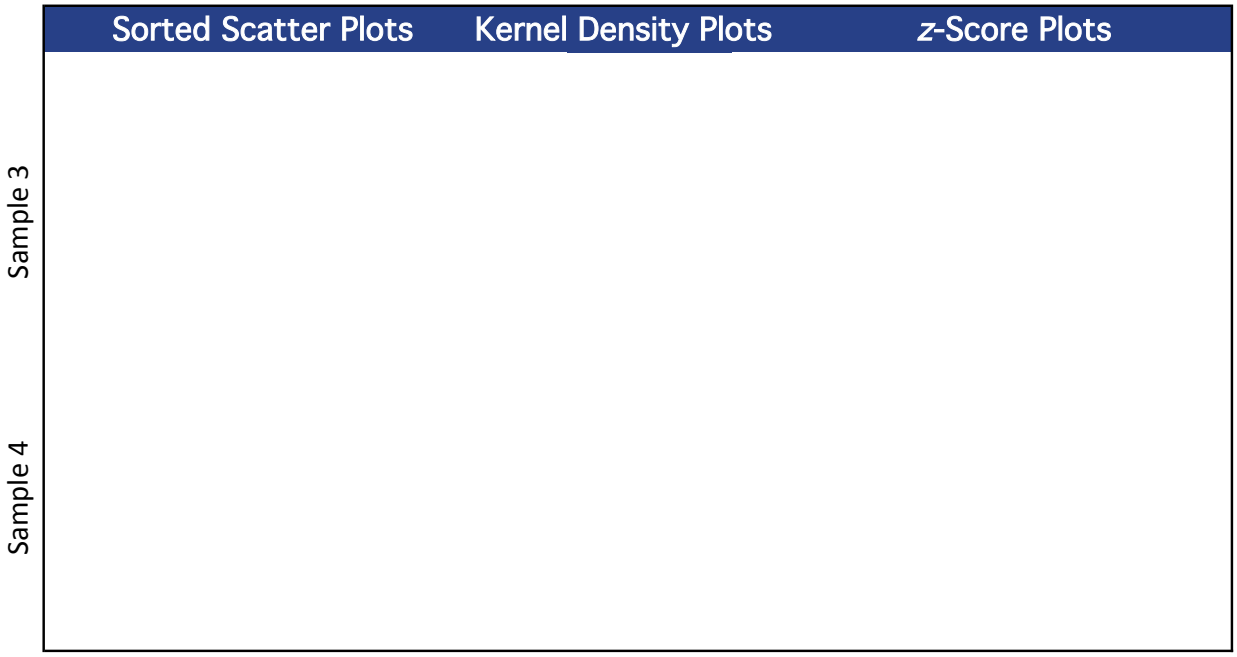
Methods Used

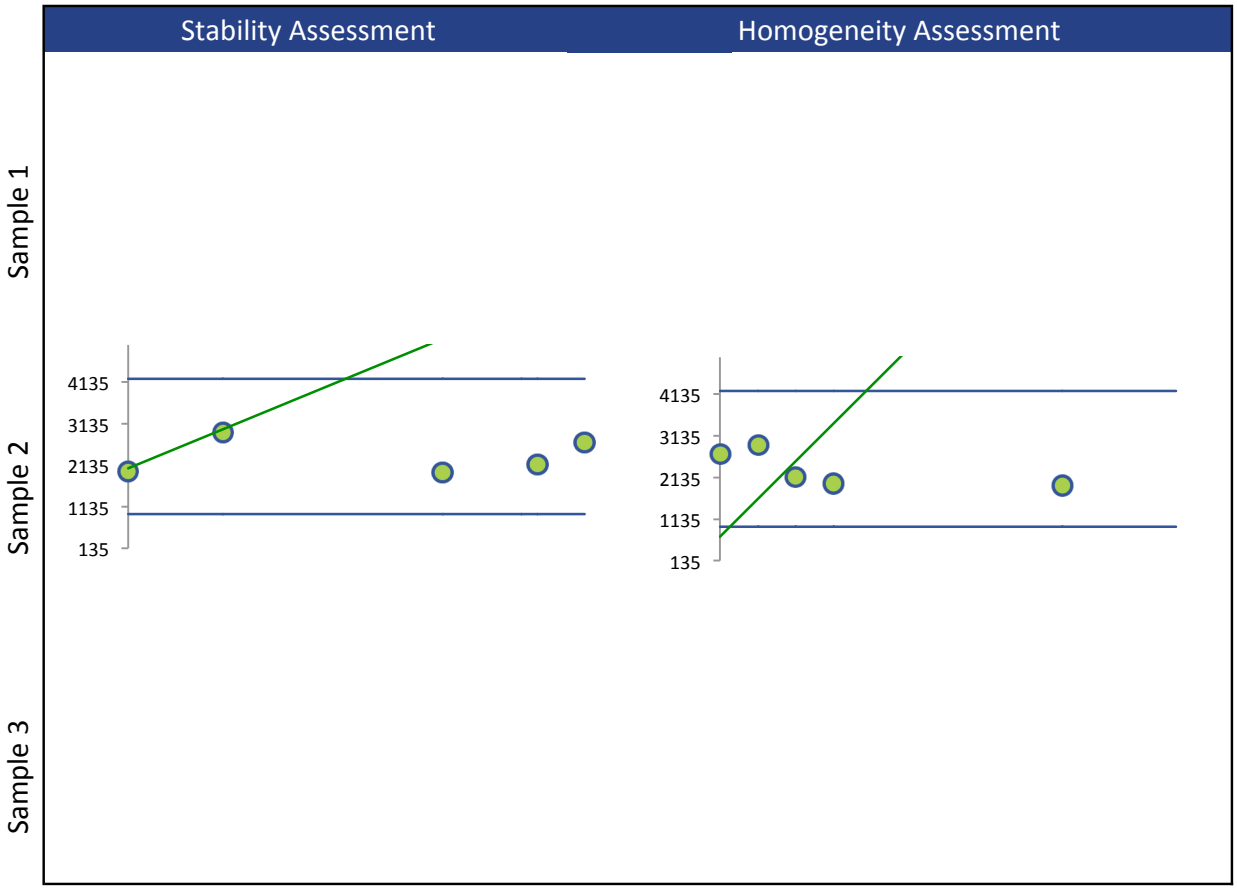
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	6	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



BUTANE


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
4135
3135
2135
1135
135
4135
3135
2135
1135
135

BUTANE

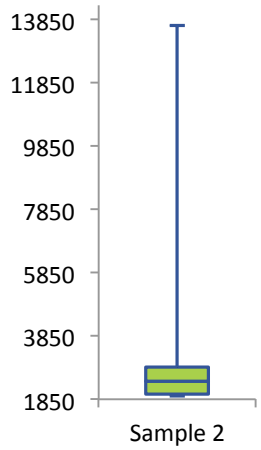
Sample 4

Stability Assessment	Homogeneity Assessment

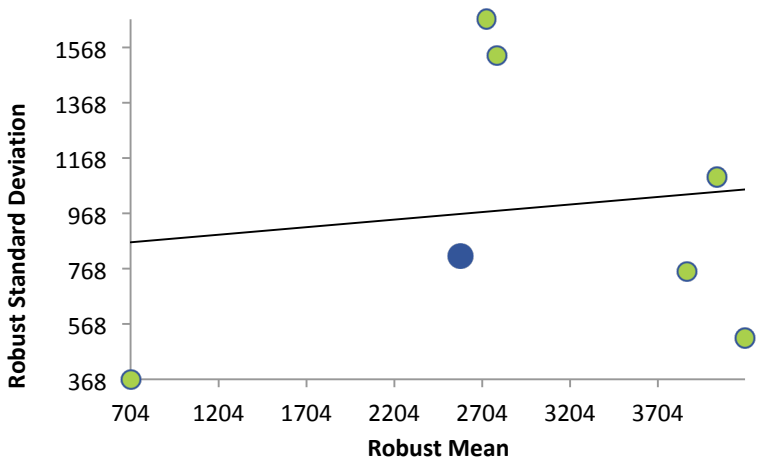
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



BUTYL ACETATE

Summary Statistics

Not Spiked

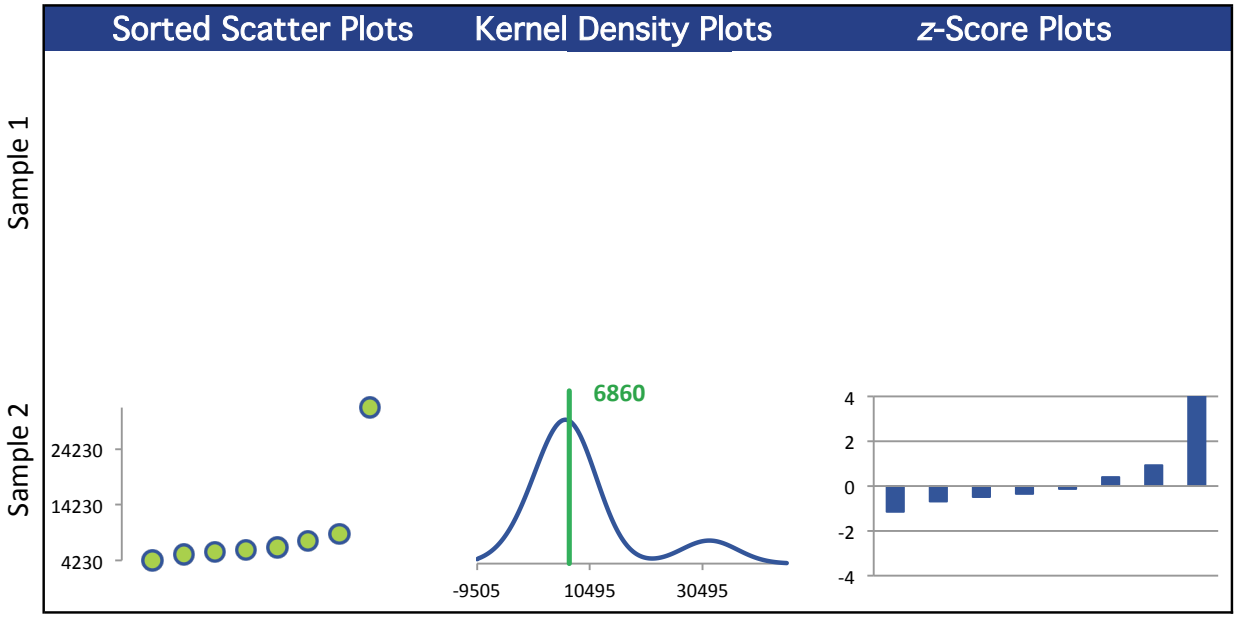
Statistic	C73-1	C73-2	C73-3	C73-4
N	0	8	0	0
Median µg/g		6310		
Robust Mean µg/g		6860		
U µg/g		1010		
Robust Standard Deviation µg/g		2290		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		2290		
Outliers	2	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

Methods Used

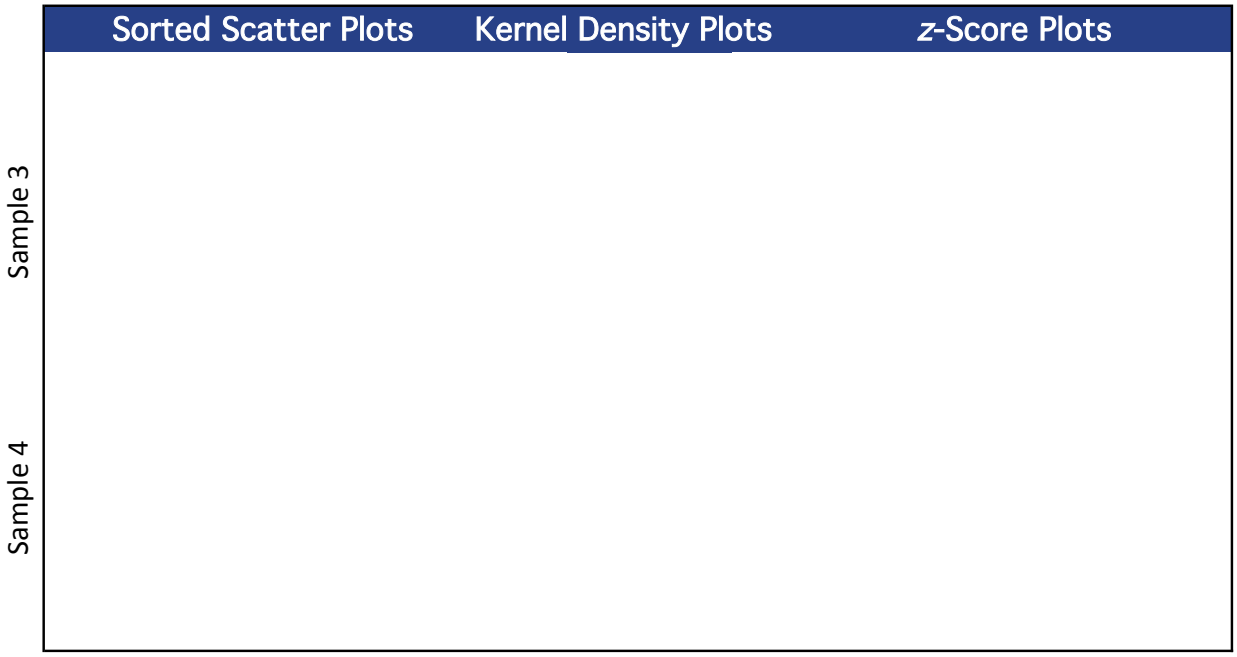
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	8	0	0

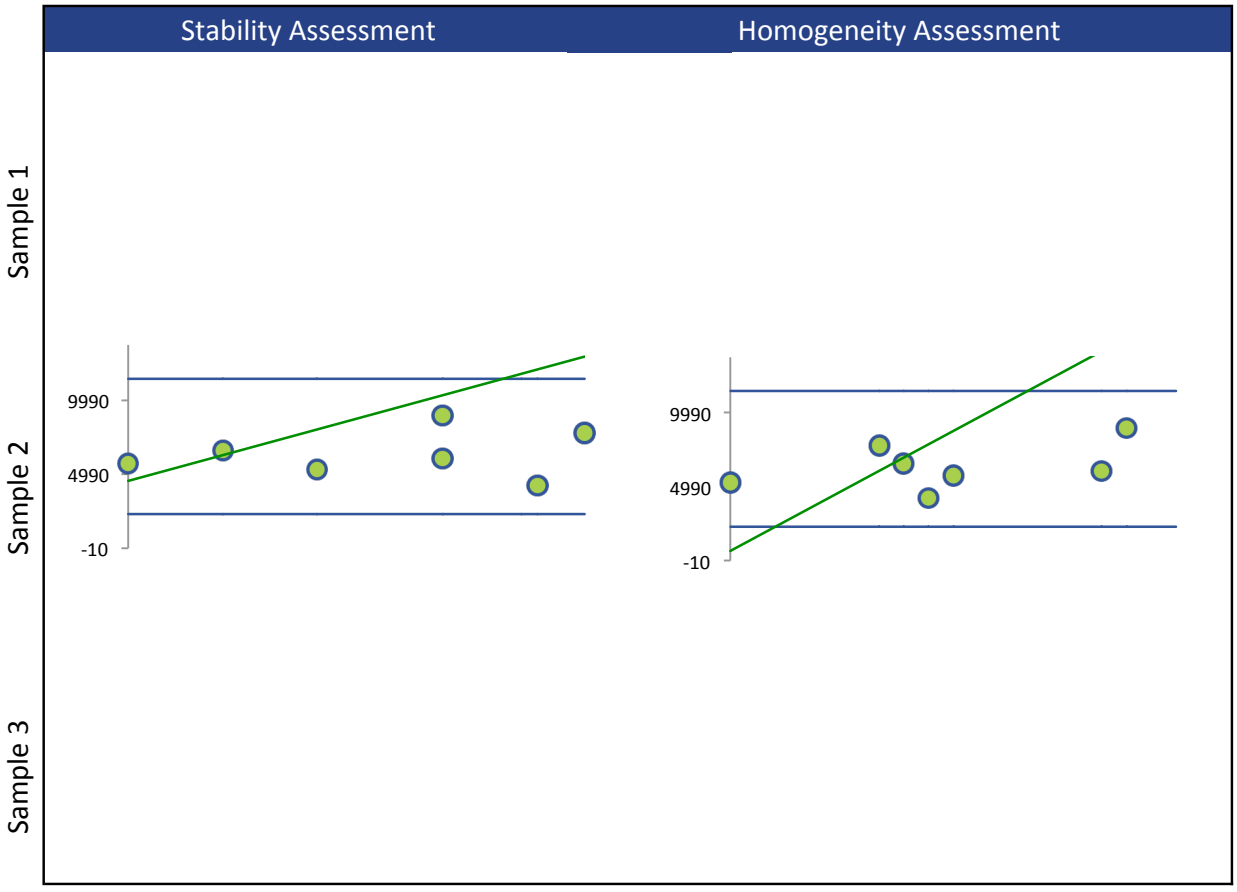
All summary stats and the plots below are based on the data excluding any flagged outliers

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



BUTYL ACETATE





BUTYL ACETATE

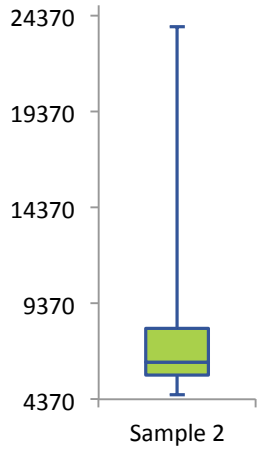
Sample 4

Stability Assessment	Homogeneity Assessment

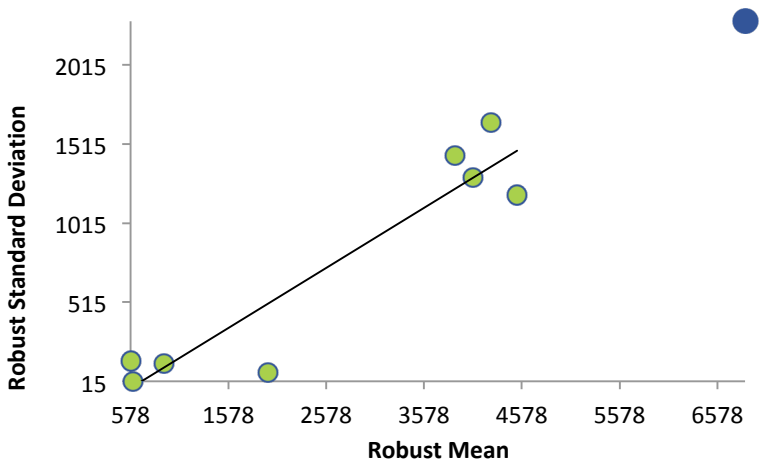
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



DIMETHYL SULFOXIDE

Summary Statistics

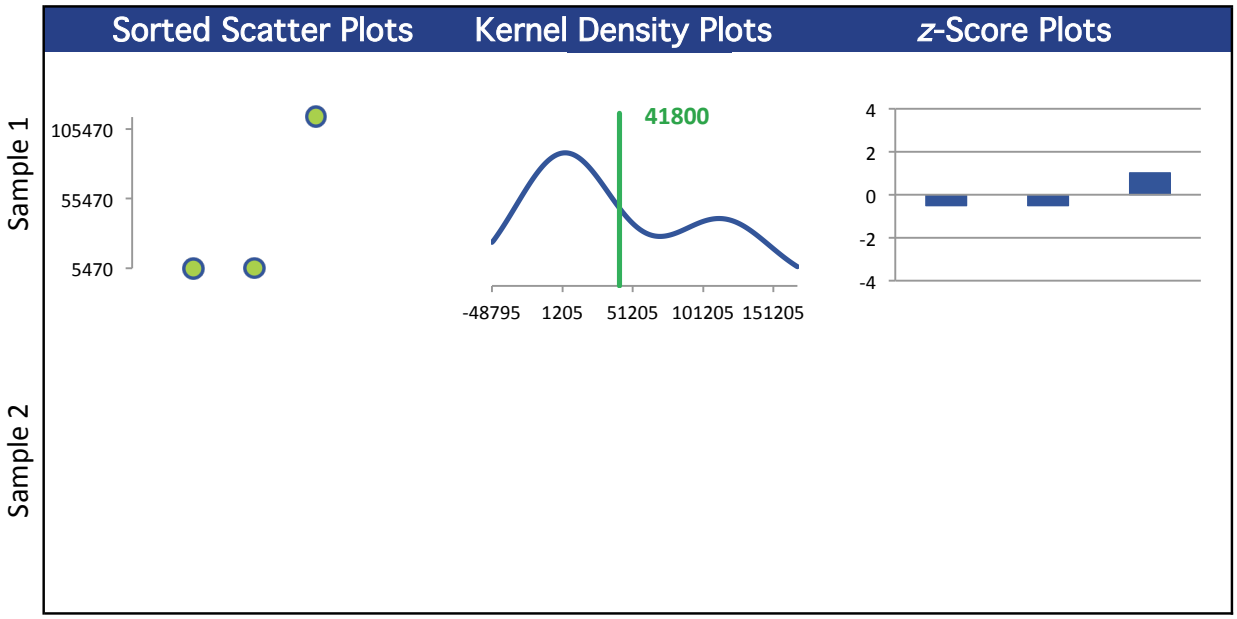
Excluded **Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
N	3	0	0	0
Median µg/g	5810			
Robust Mean µg/g	41800			
U µg/g	51200			
Robust Standard Deviation µg/g	70900			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	70900			
Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

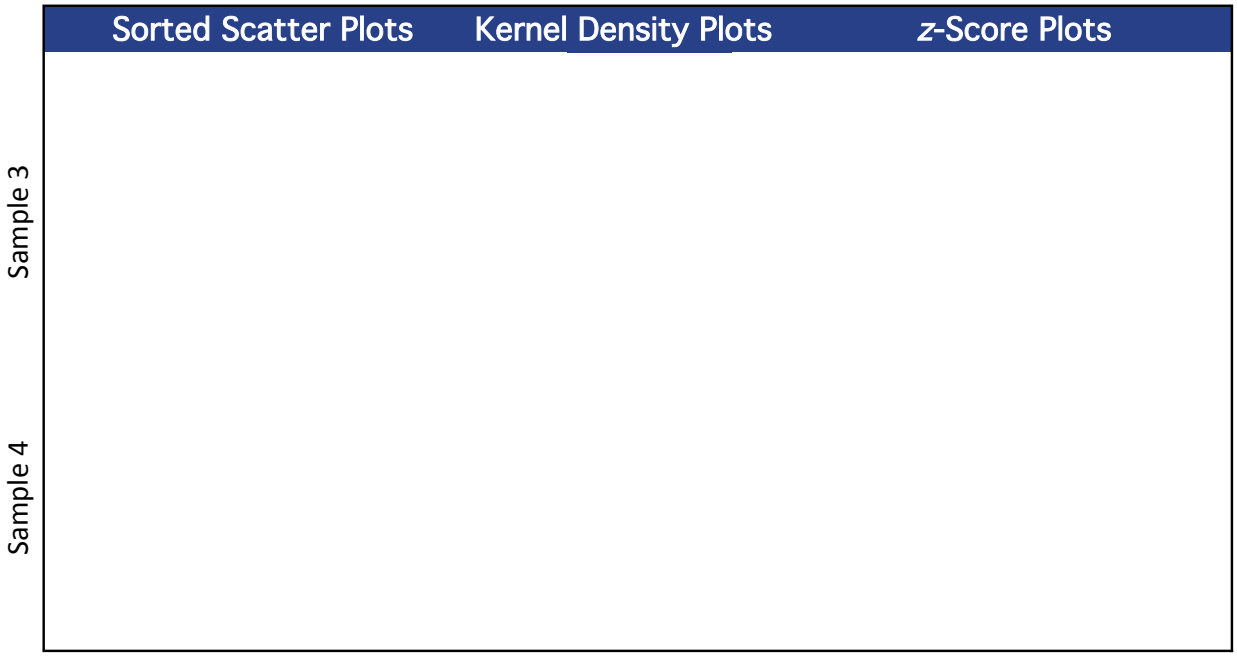
Methods Used

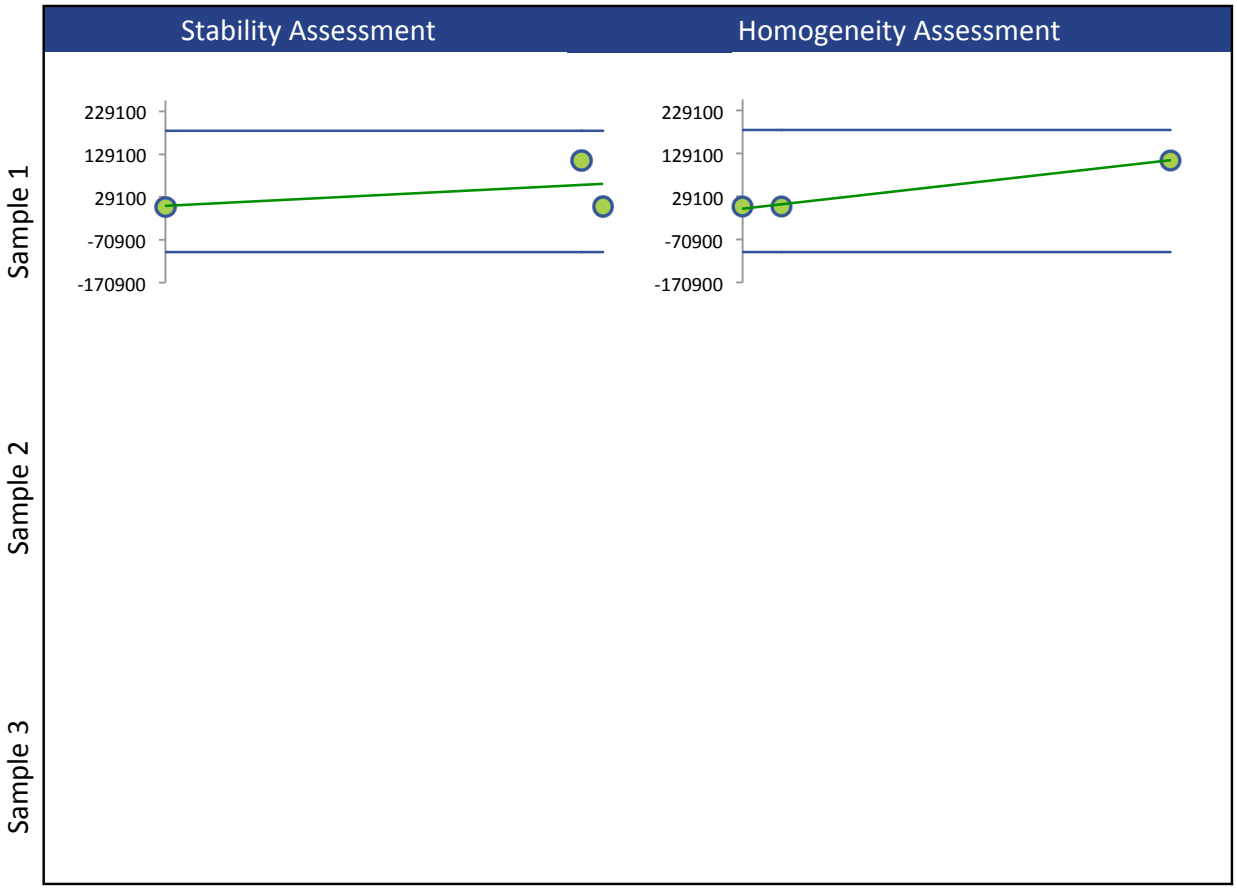
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



DIMETHYL SULFOXIDE





DIMETHYL SULFOXIDE

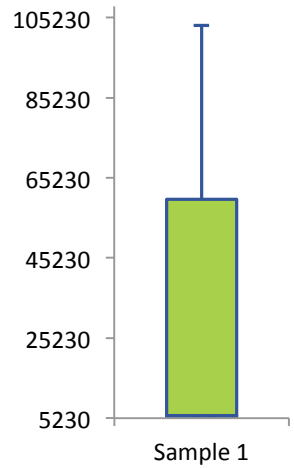
Sample 4

Stability Assessment	Homogeneity Assessment

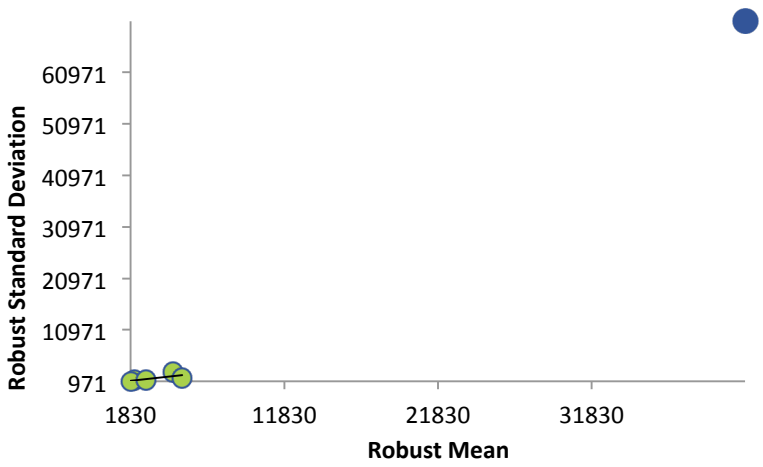
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ETHANOL

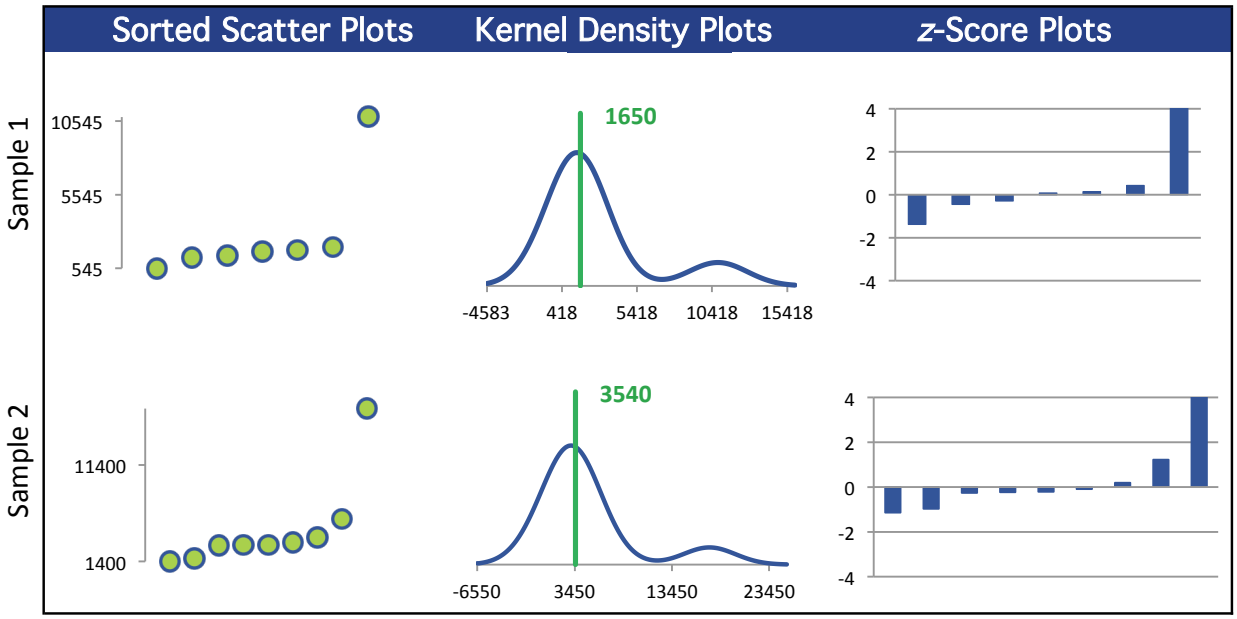
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	7	9	0	0
Median µg/g	1710	3150		
Robust Mean µg/g	1650	3540		
U µg/g	377	779		
Robust Standard Deviation µg/g	798	1870		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	798	1870		
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	0	0	0	0

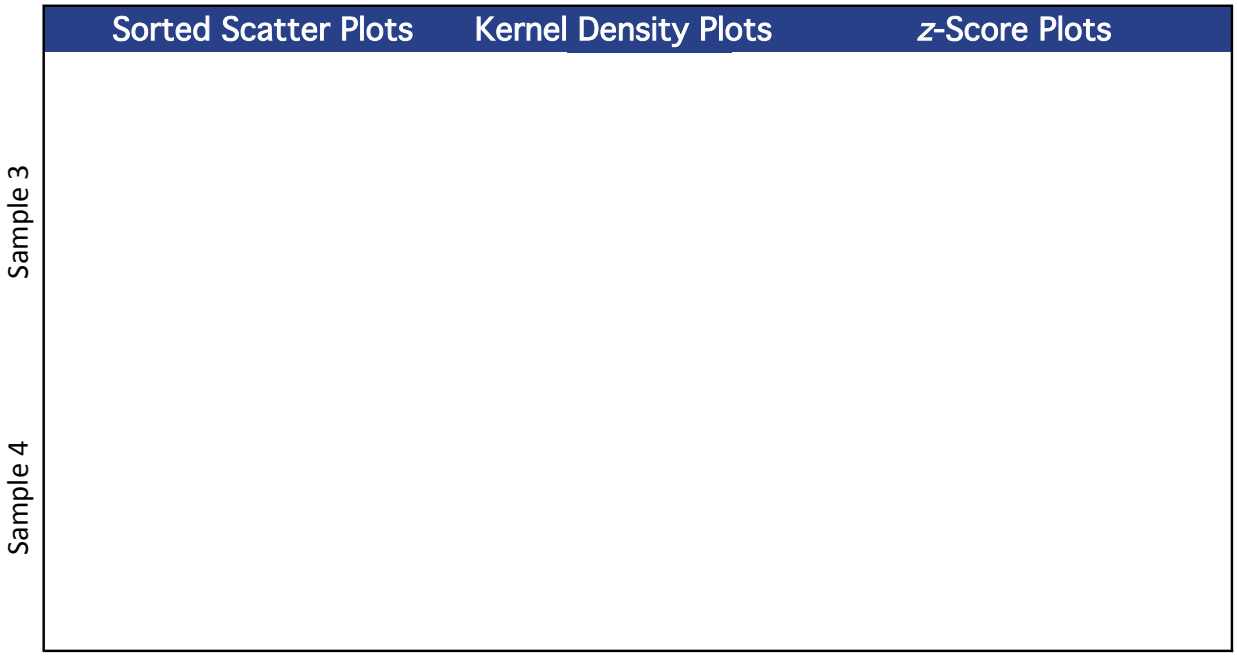
Methods Used

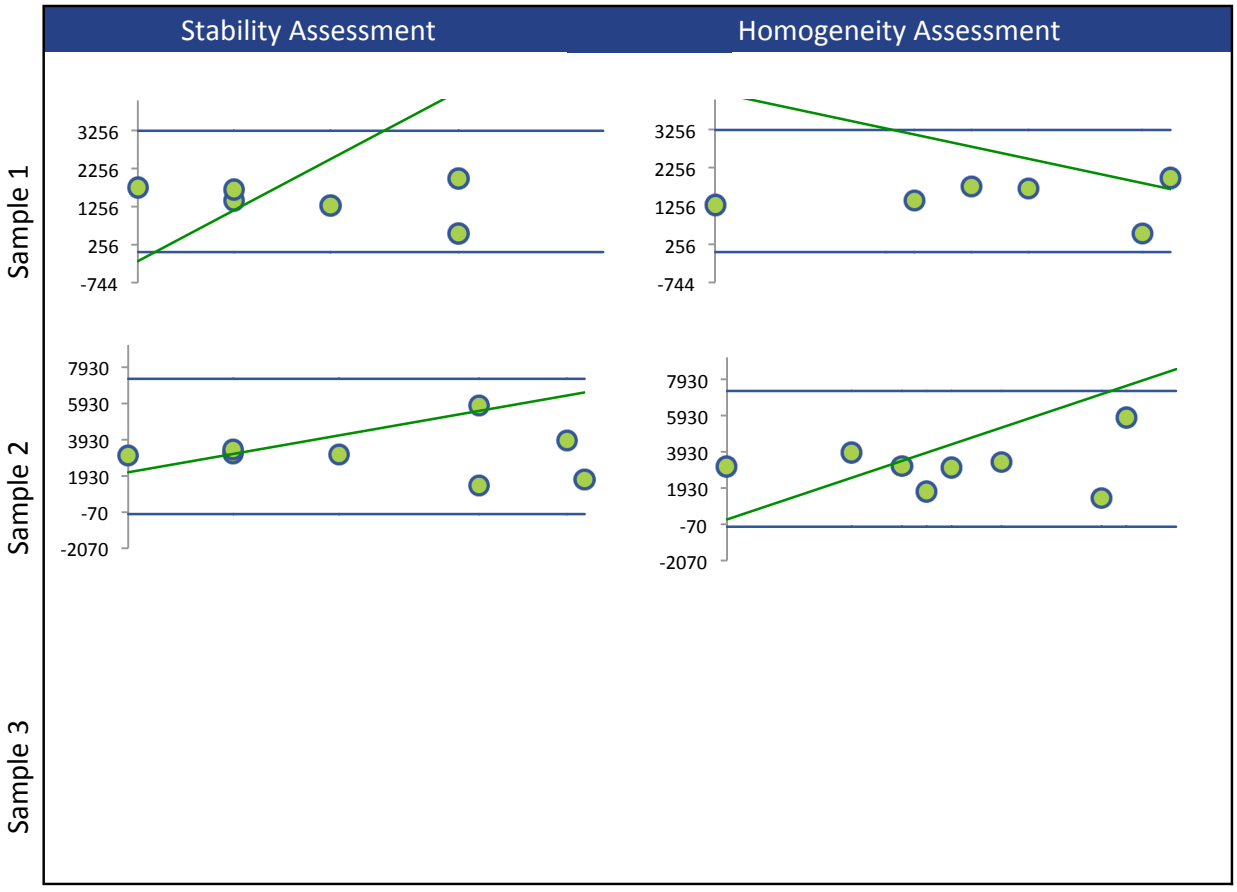
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	6	0	0
GC/FID (Red)	2	3	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ETHANOL


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
3256
2256
1256
256
-744
7930
5930
3930
1930
-70
-2070

ETHANOL

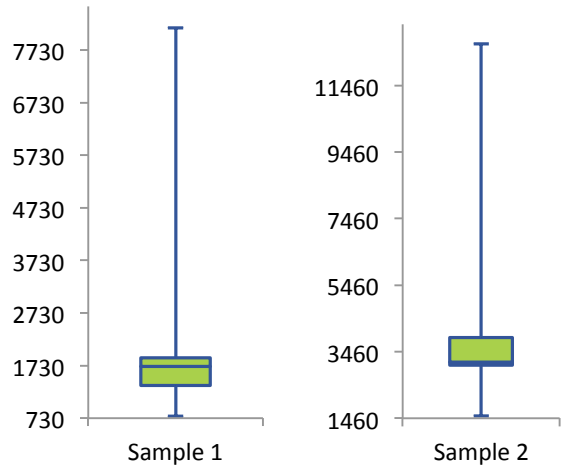
Sample 4

Stability Assessment	Homogeneity Assessment

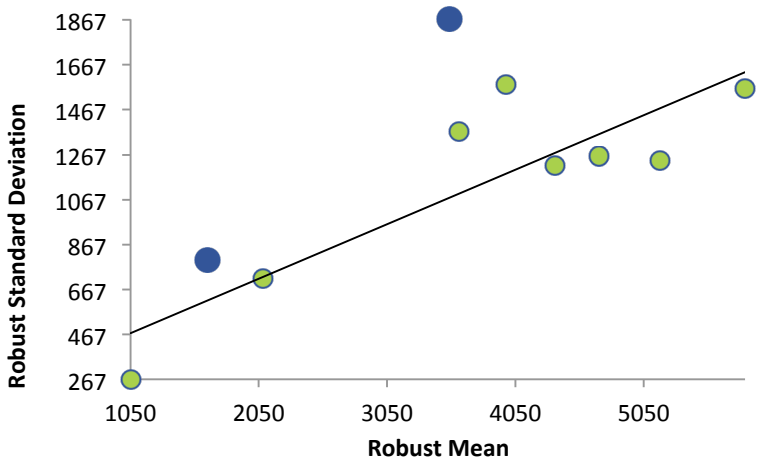
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ETHYL ACETATE

Summary Statistics

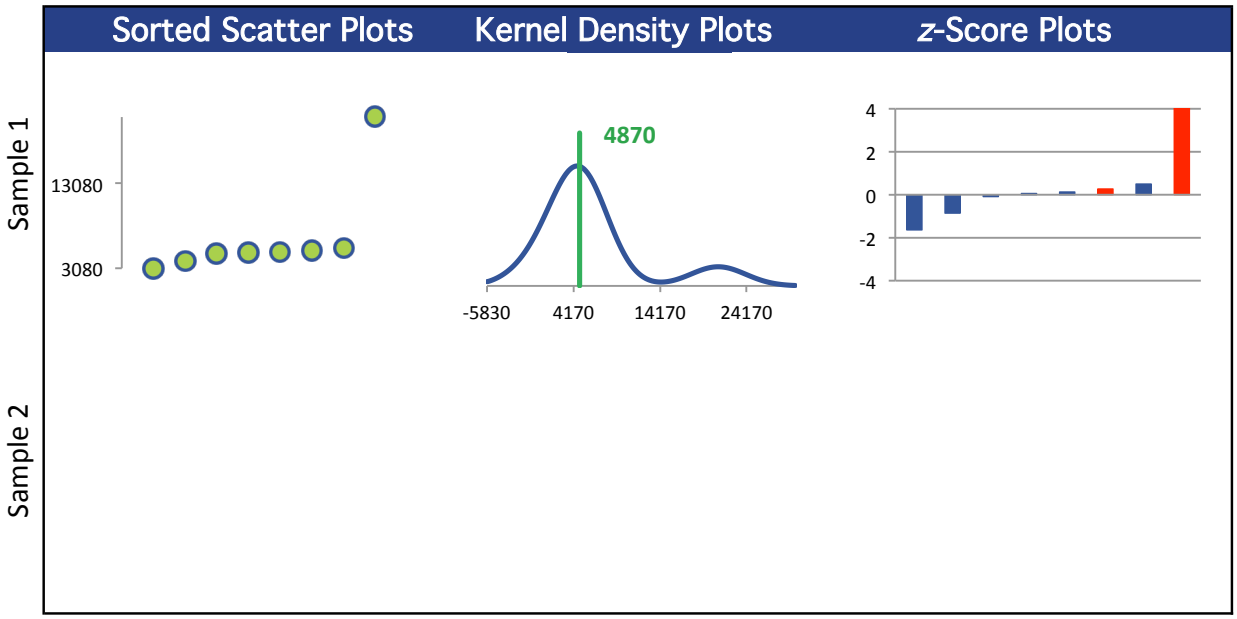
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	0	0	0
Median µg/g	4970			
Robust Mean µg/g	4870			
U µg/g	482			
Robust Standard Deviation µg/g	1090			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1090			
Outliers	0	3	0	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0

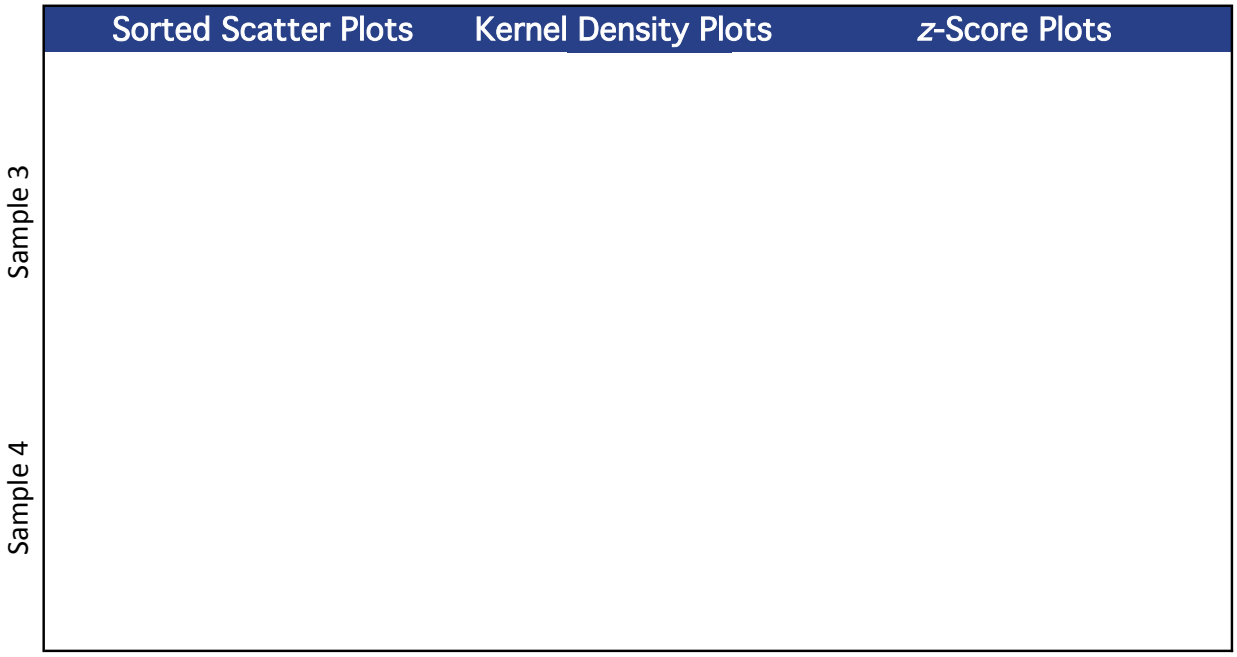
Methods Used

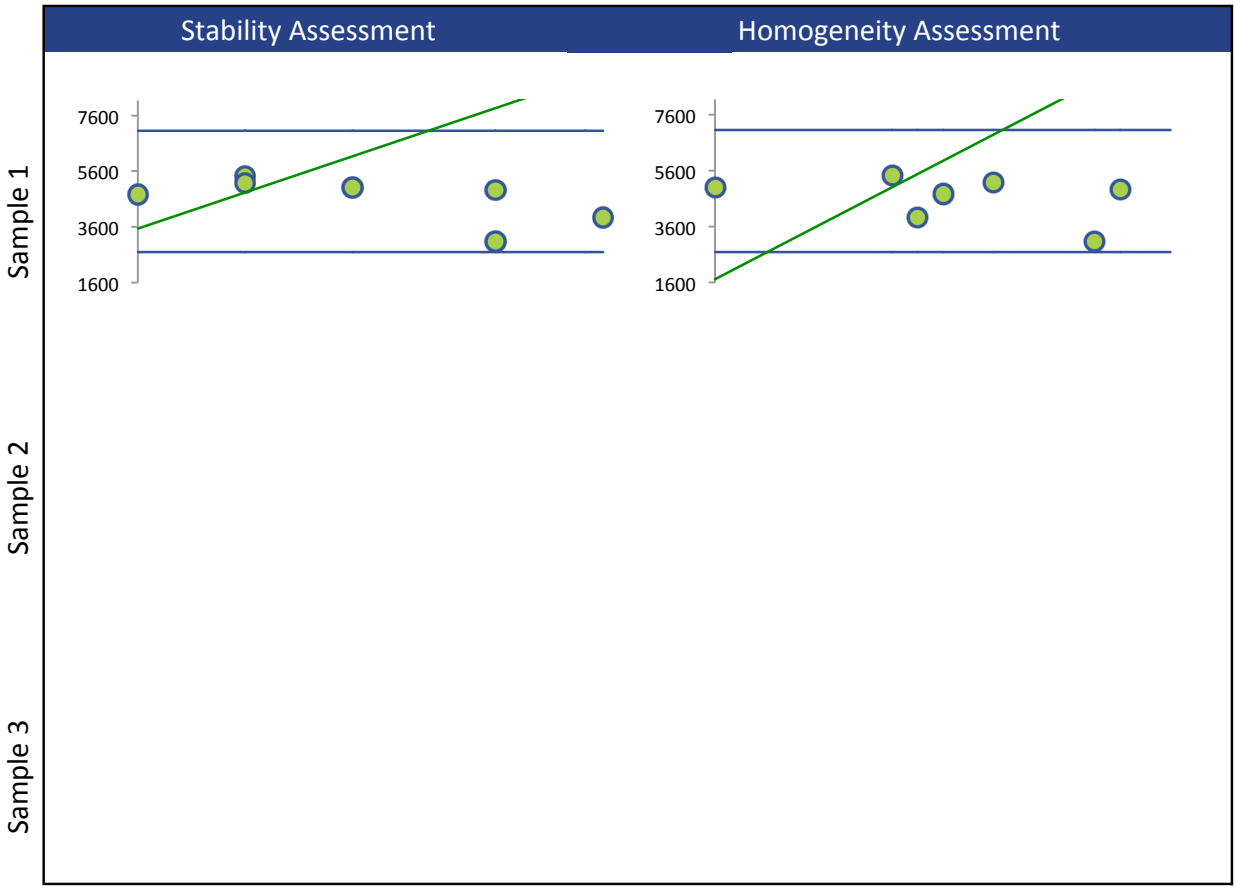
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	0	0	0
GC/FID (Red)	2	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ETHYL ACETATE





ETHYL ACETATE

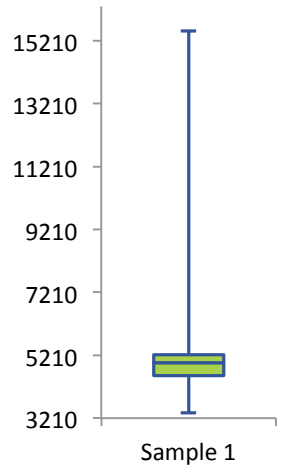
Sample 4

Stability Assessment	Homogeneity Assessment

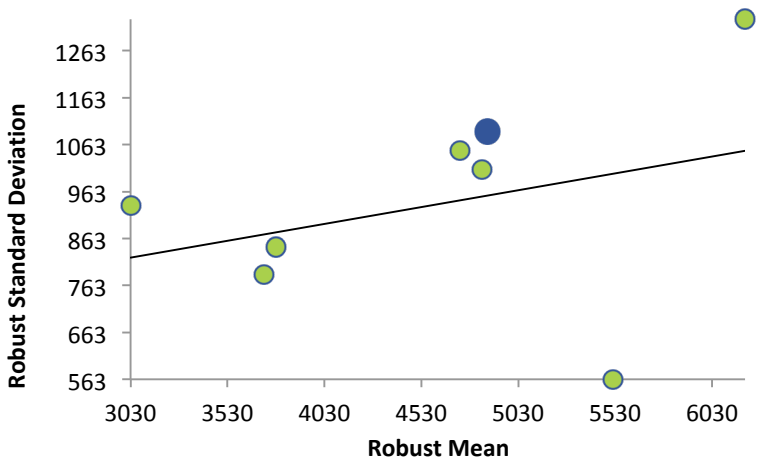
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ETHYL ETHER

Summary Statistics

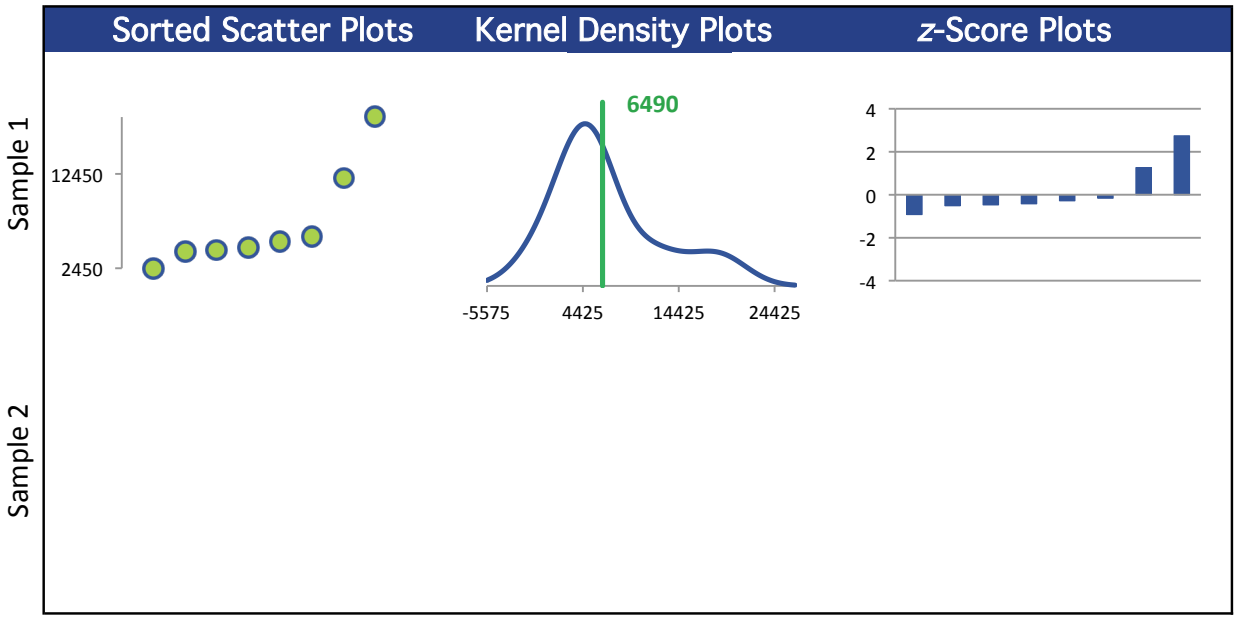
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	0	0	0
Median µg/g	4970			
Robust Mean µg/g	6490			
U µg/g	1940			
Robust Standard Deviation µg/g	4380			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	4380			
Outliers	0	3	0	0
|z|>3.0	0	0	0	0
2<|z|<3	1	0	0	0

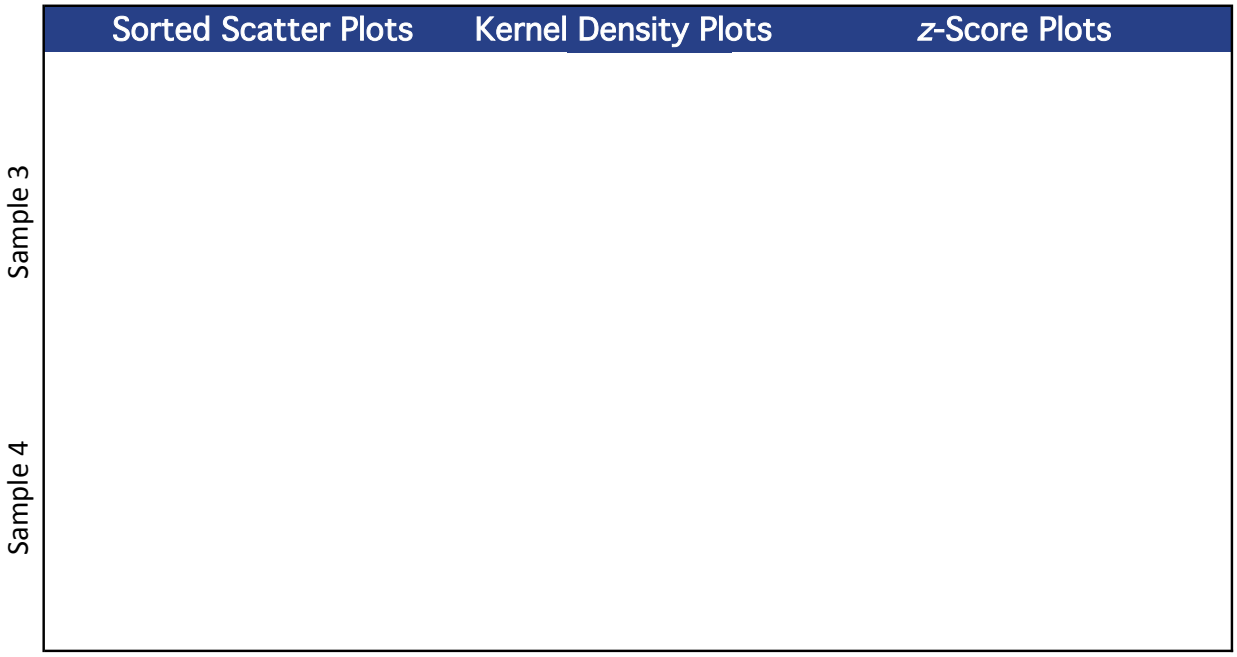
Methods Used

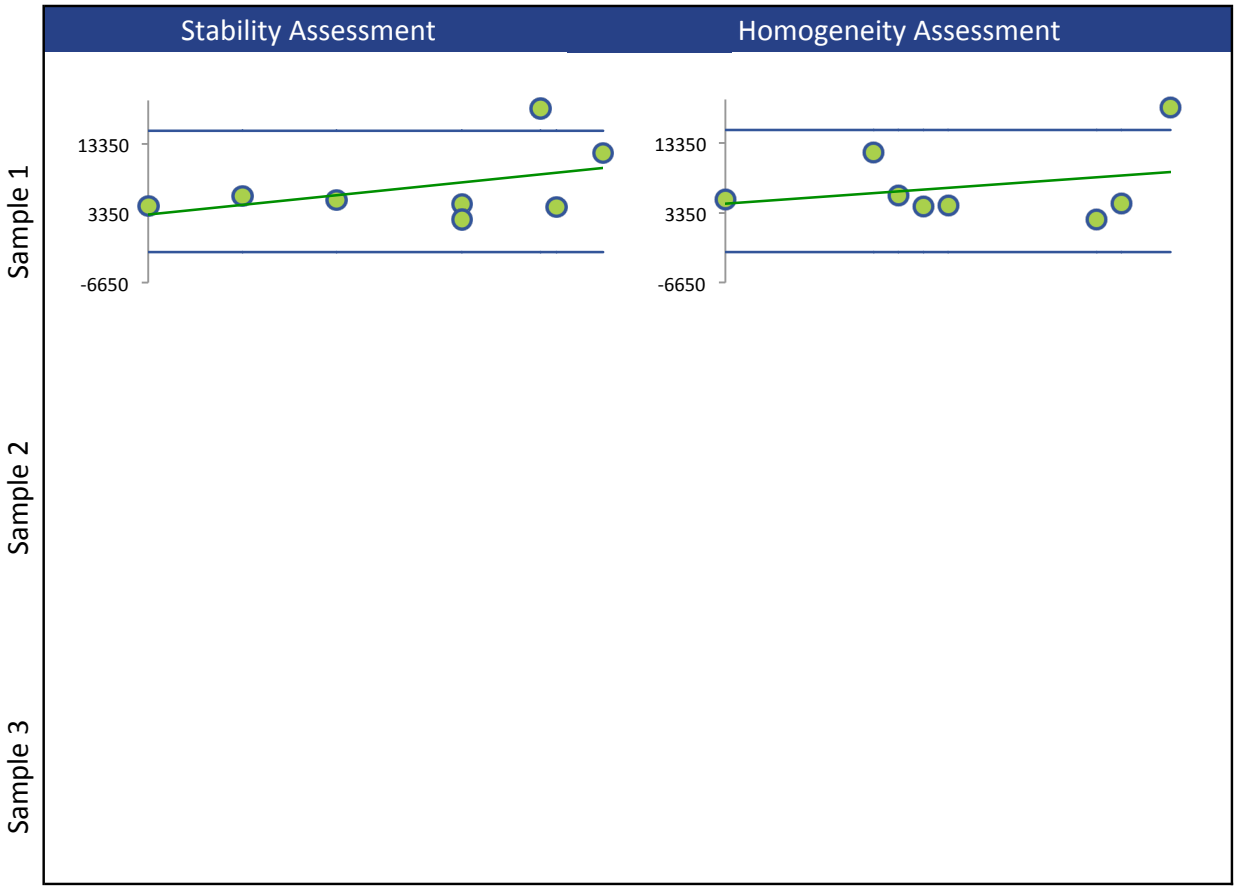
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	8	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ETHYL ETHER


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


Stability Assessment
Homogeneity Assessment
13350
3350
-6650
13350
3350
-6650
Sample 1
Sample 2
Sample 3

ETHYL ETHER

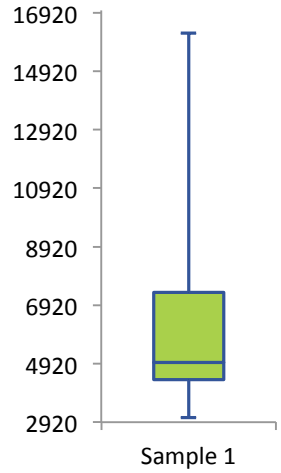
Sample 4

Stability Assessment	Homogeneity Assessment

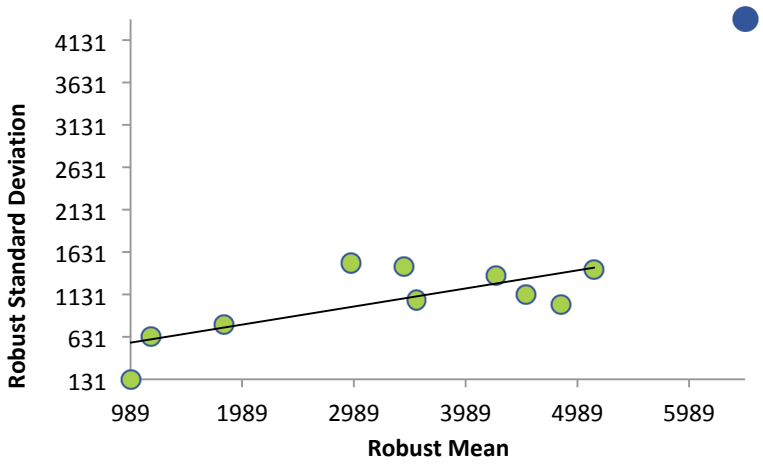
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



HEPTANE

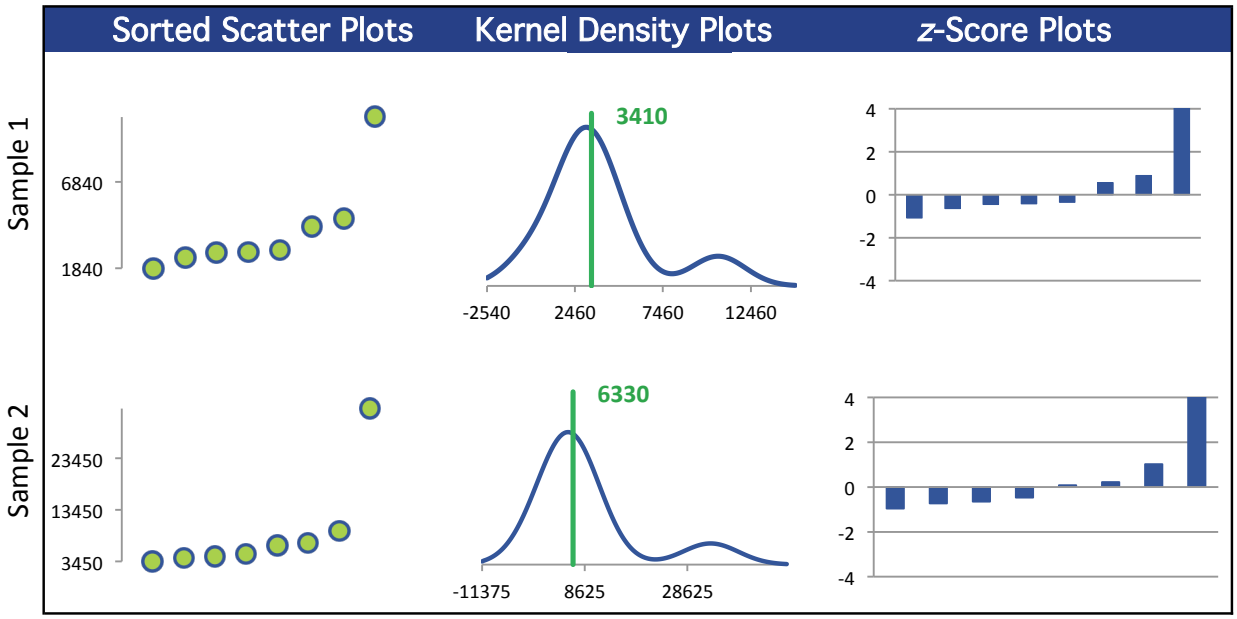
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	8	0	0
Median µg/g	2850	5740		
Robust Mean µg/g	3410	6330		
U µg/g	645	1330		
Robust Standard Deviation µg/g	1460	3000		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1460	3000		
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	0	0	0	0

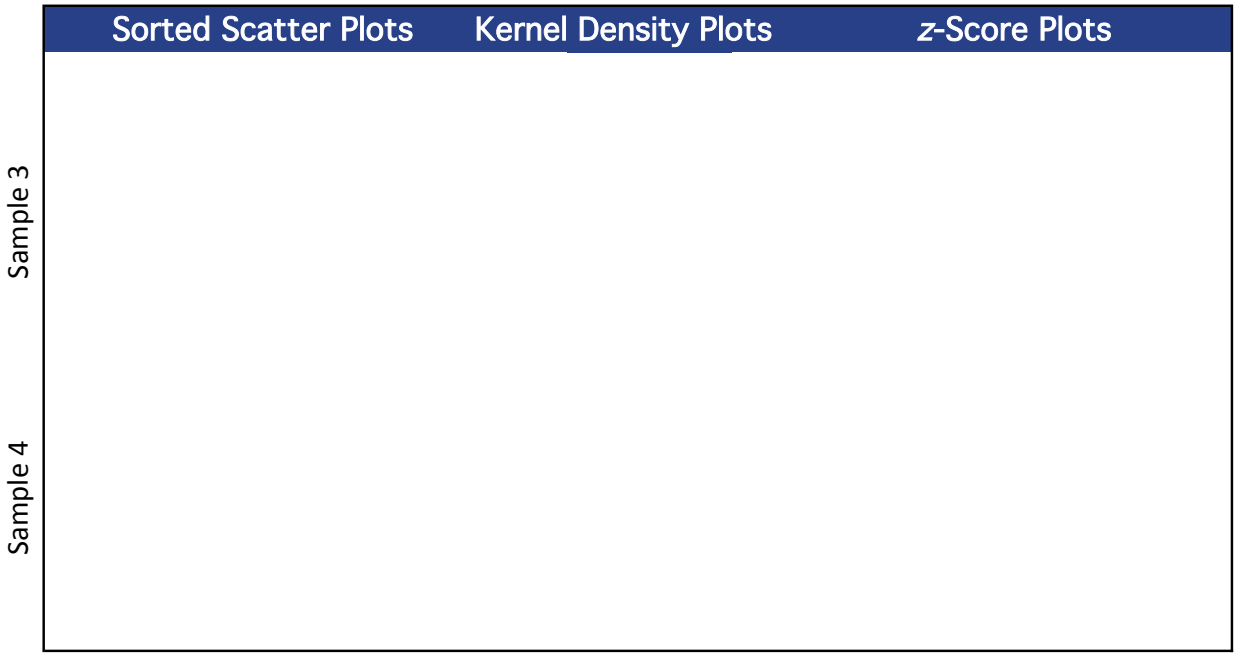
Methods Used

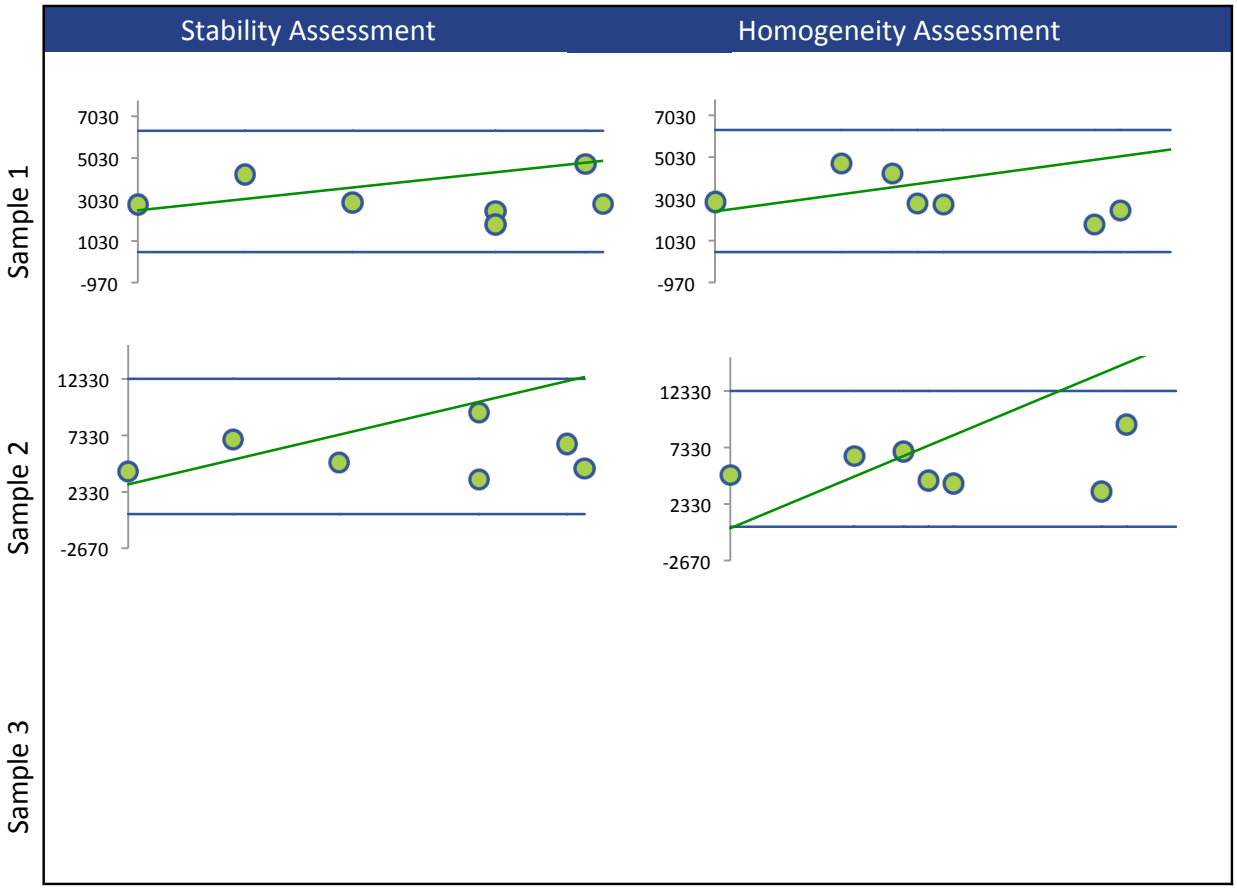
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	6	0	0
GC/FID (Red)	2	2	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



HEPTANE


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


Stability Assessment
Homogeneity Assessment
Sample 1
Sample 2
Sample 3
7030
5030
3030
1030
-970
12330
7330
2330
-2670

HEPTANE

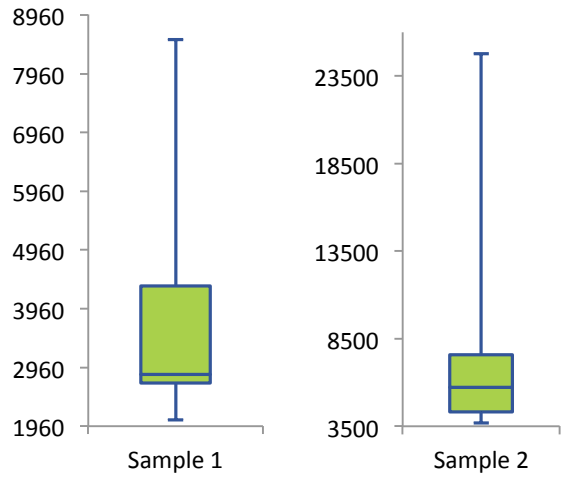
Sample 4

Stability Assessment	Homogeneity Assessment

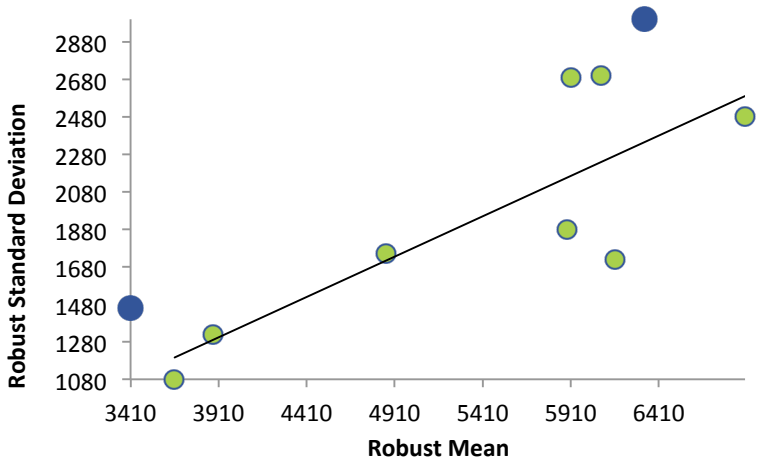
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ISOBUTANOL (2-METHYL-1-PROPANOL)

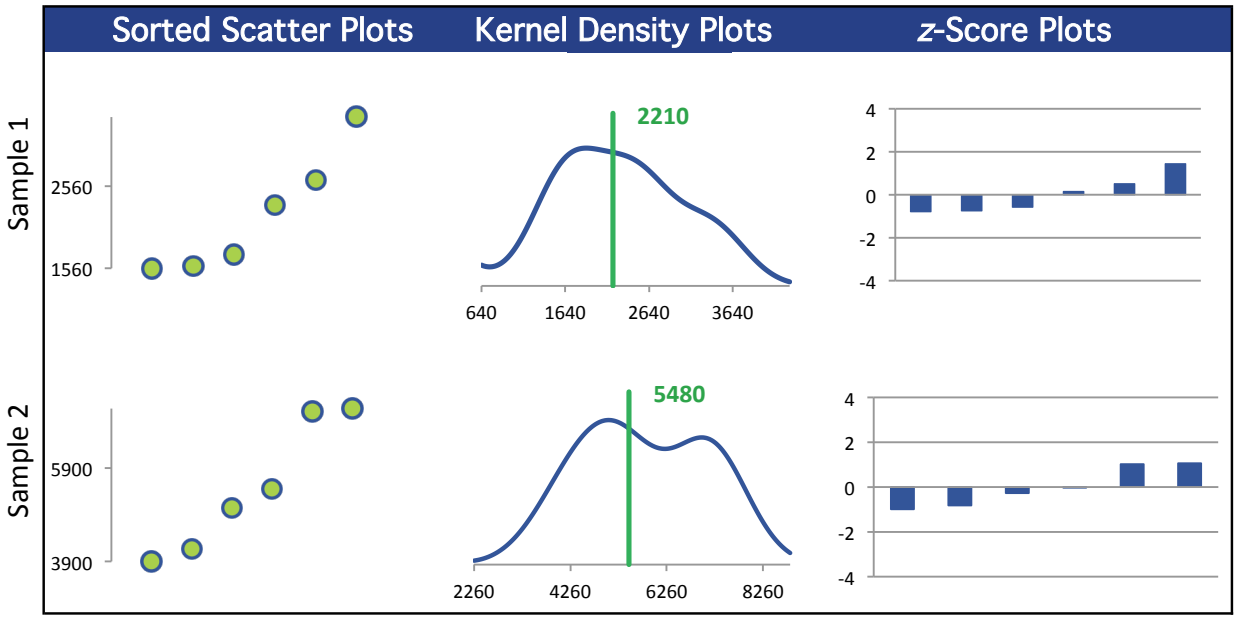
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	6	6	0	0
Median µg/g	2030	5260		
Robust Mean µg/g	2210	5480		
U µg/g	421	816		
Robust Standard Deviation µg/g	825	1600		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	825	1600		
Outliers	1	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

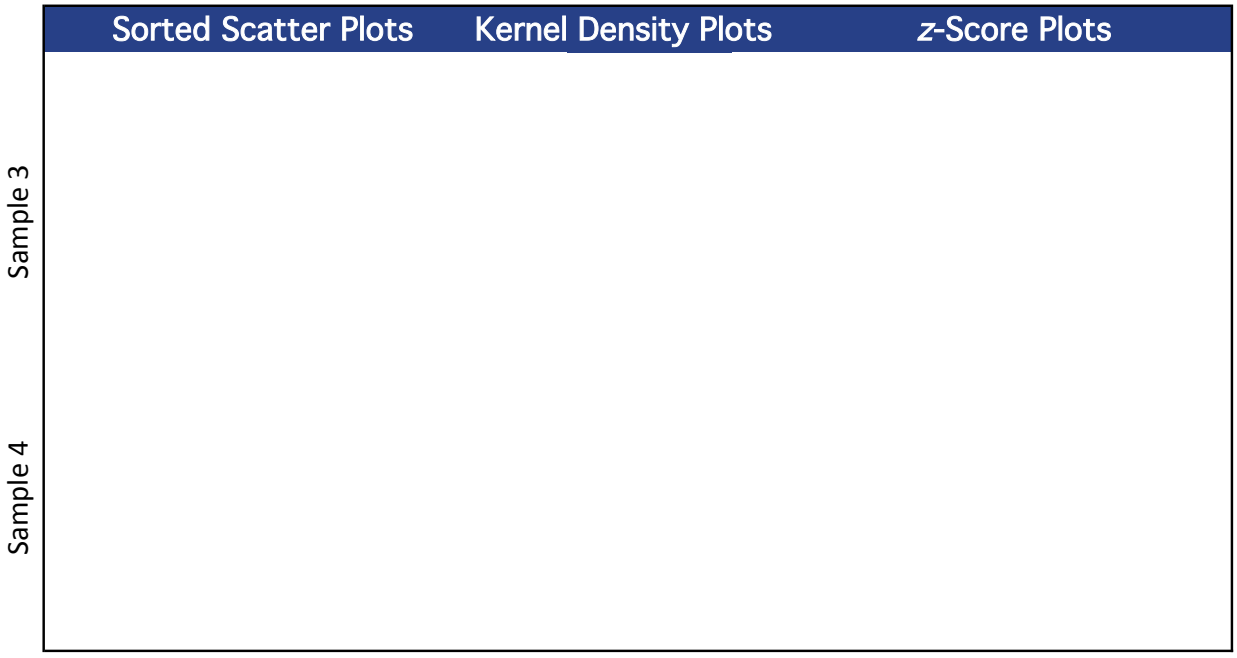
Methods Used

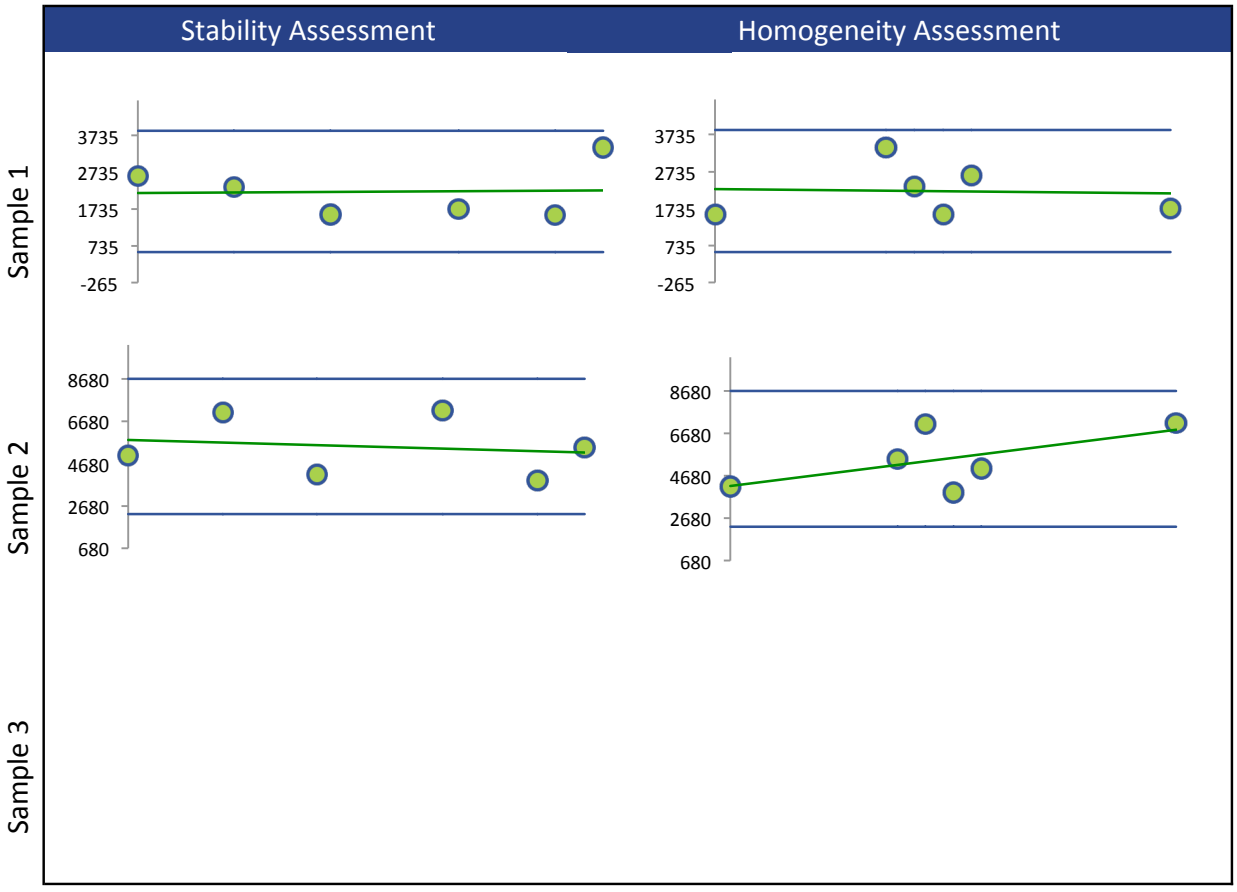
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	6	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ISOBUTANOL (2-METHYL-1-PROPANOL)





ISOBUTANOL (2-METHYL-1-PROPANOL)

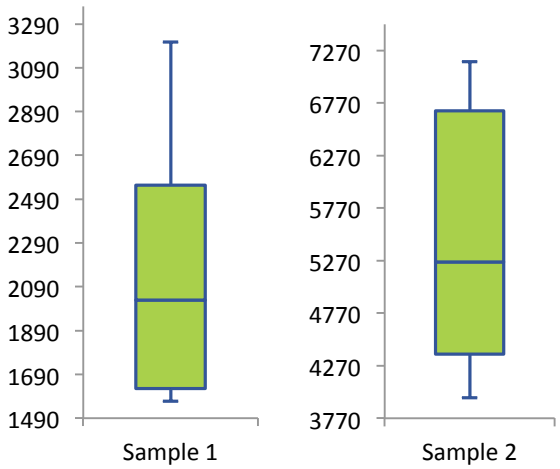
Sample 4

Stability Assessment	Homogeneity Assessment

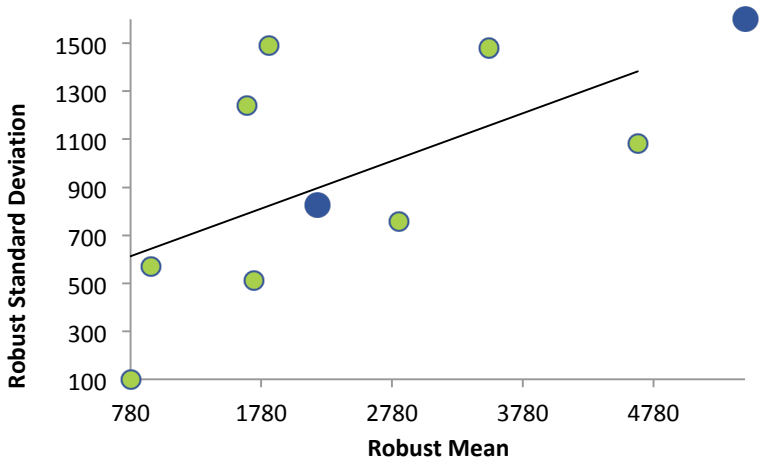
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ISOBUTYL ACETATE

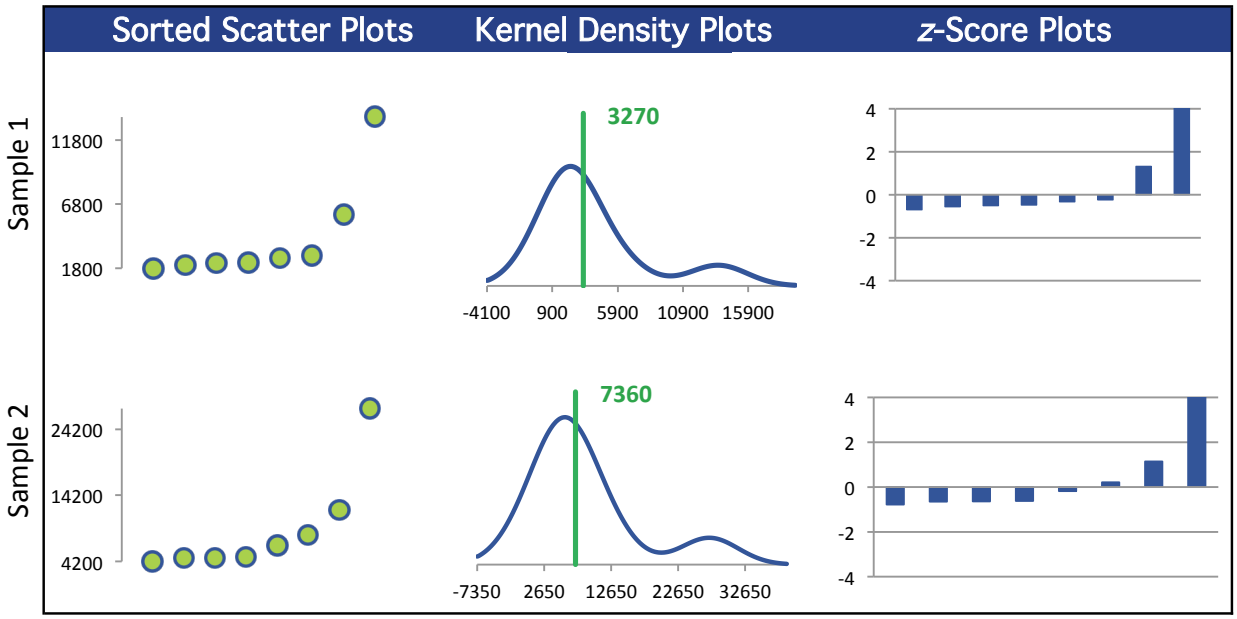
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	8	0	0
Median µg/g	2420	5740		
Robust Mean µg/g	3270	7360		
U µg/g	924	1790		
Robust Standard Deviation µg/g	2090	4060		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	2090	4060		
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	0	0	0	0

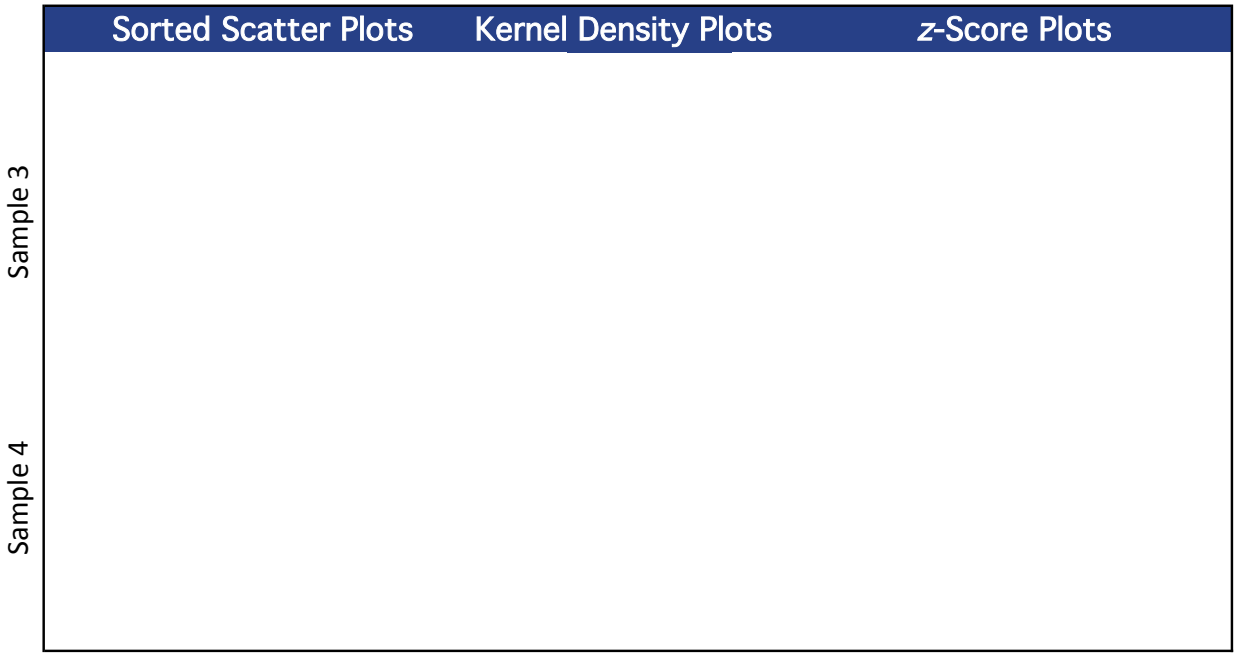
Methods Used

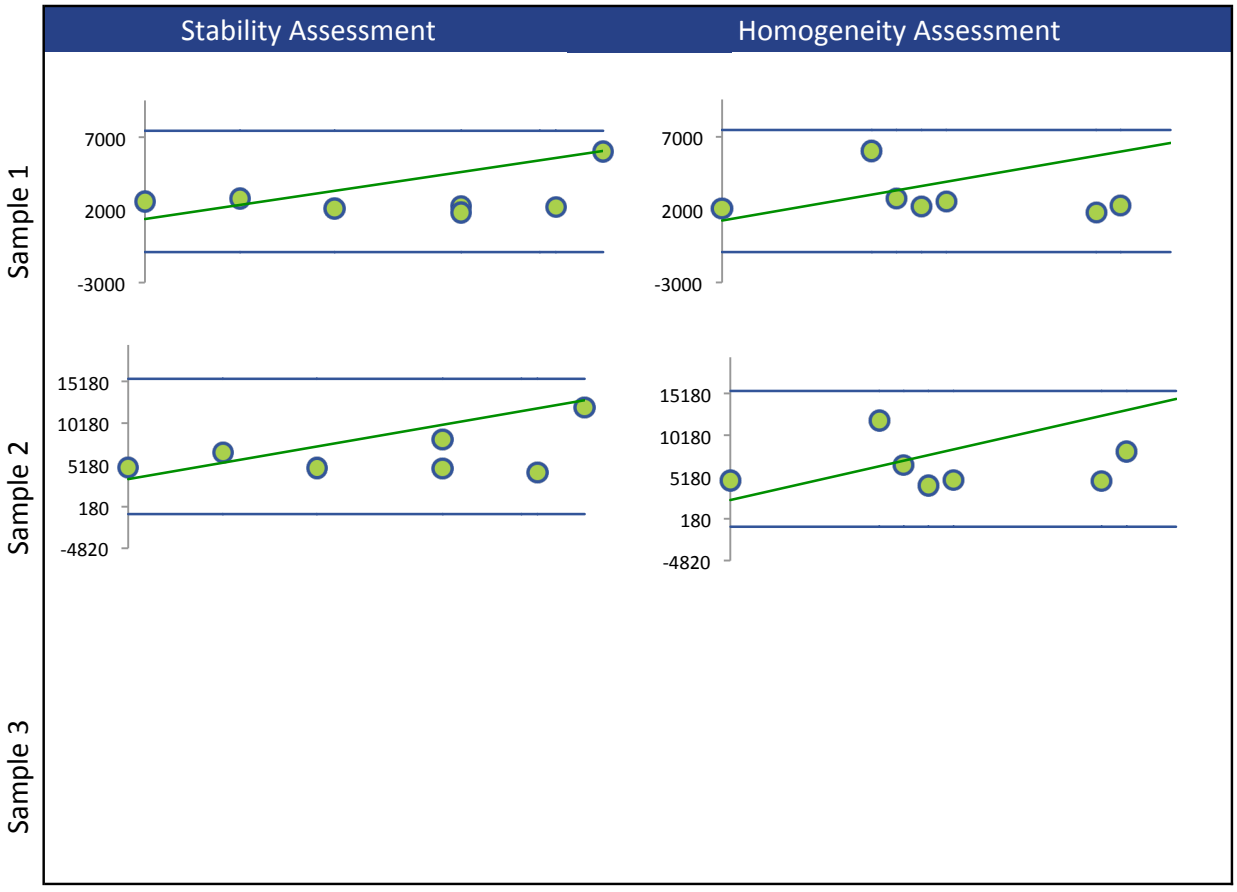
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	8	8	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ISOBUTYL ACETATE





ISOBUTYL ACETATE

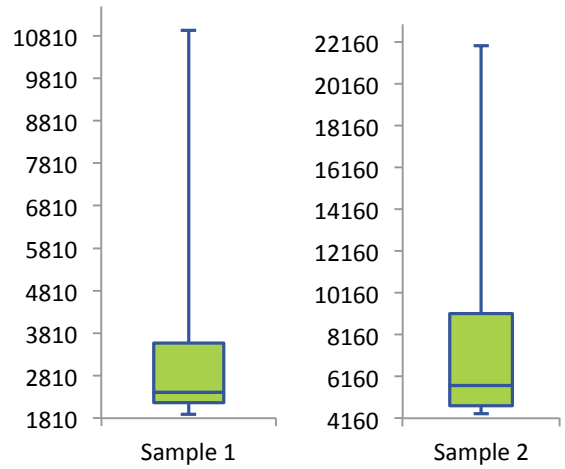
Sample 4

Stability Assessment	Homogeneity Assessment

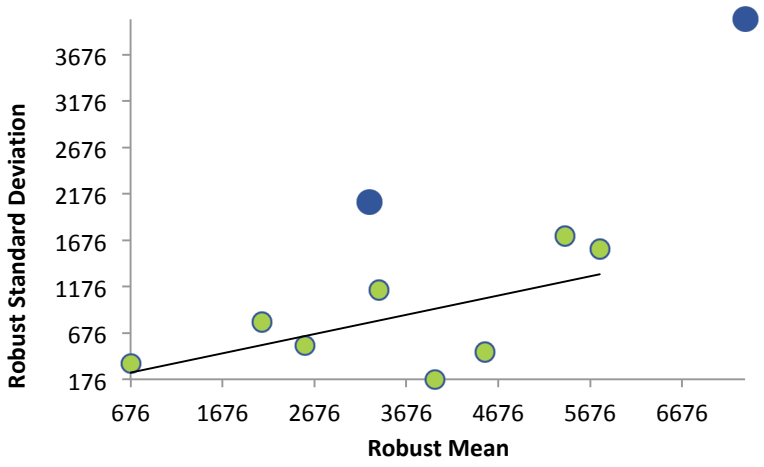
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



ISOPROPYL ACETATE

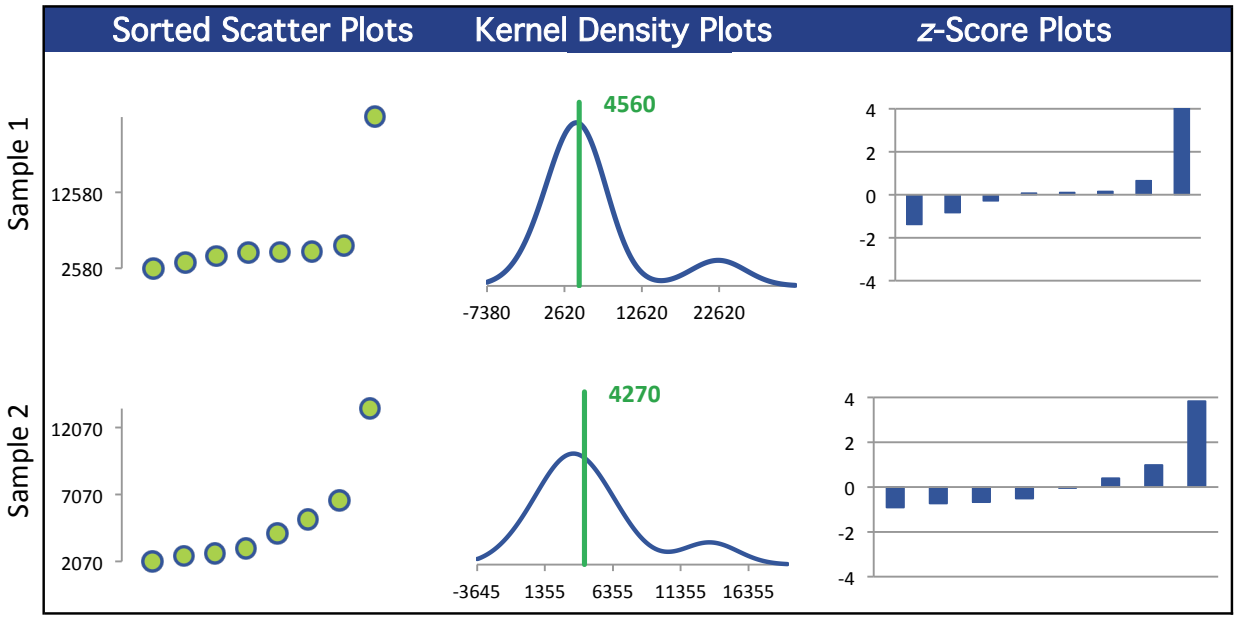
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	8	8	0	0
Median µg/g	4700	3600		
Robust Mean µg/g	4560	4270		
U µg/g	628	1070		
Robust Standard Deviation µg/g	1420	2410		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1420	2410		
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	0	0	0	0

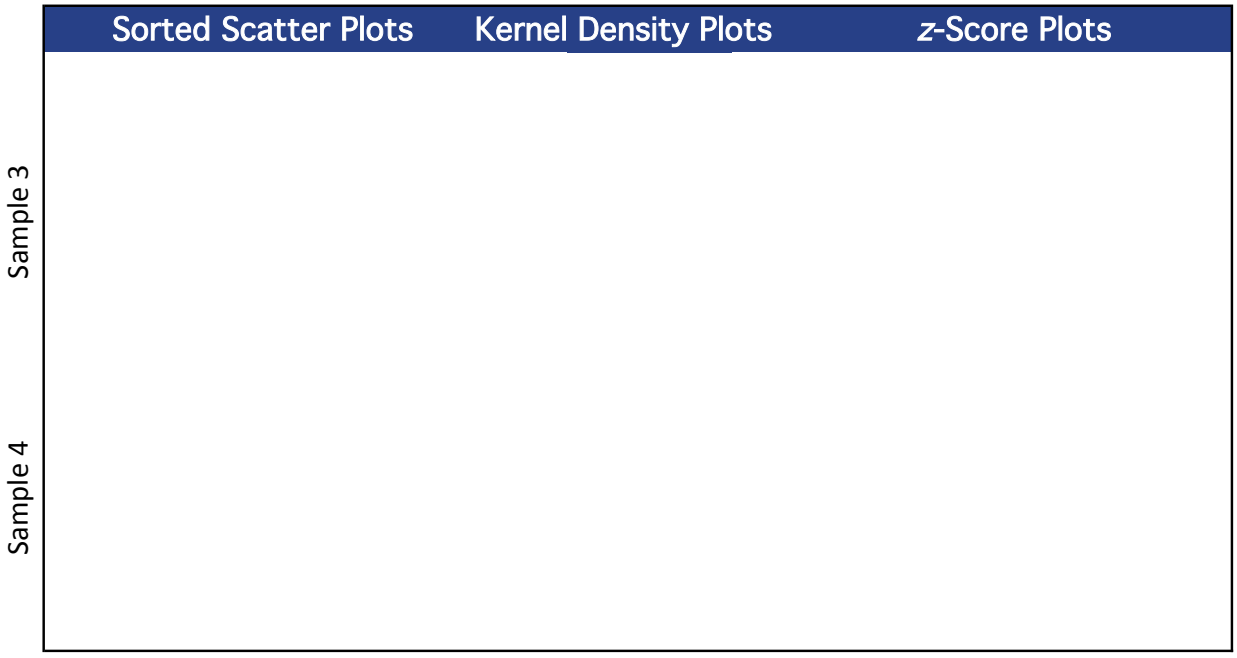
Methods Used

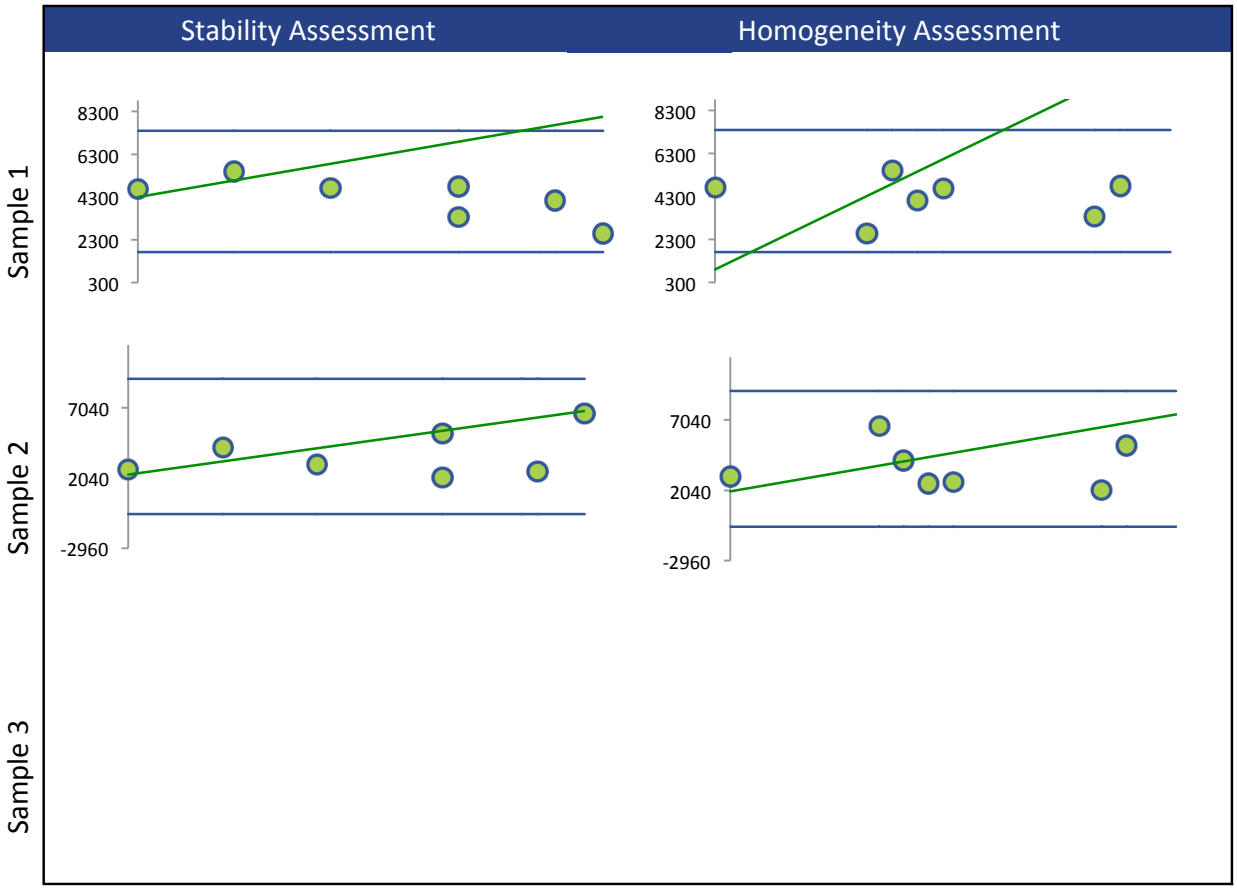
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	8	8	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



ISOPROPYL ACETATE





ISOPROPYL ACETATE

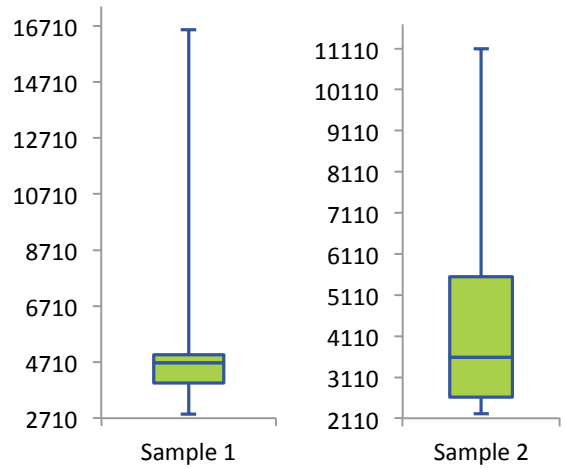
Sample 4

Stability Assessment	Homogeneity Assessment

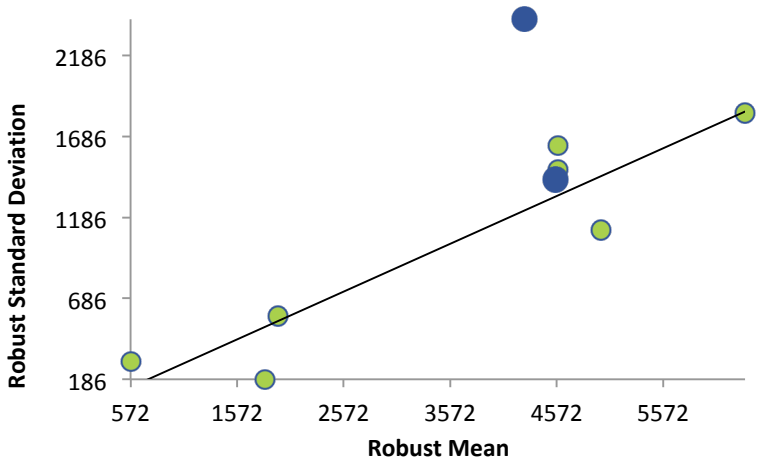
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



METHYL ACETATE

Summary Statistics

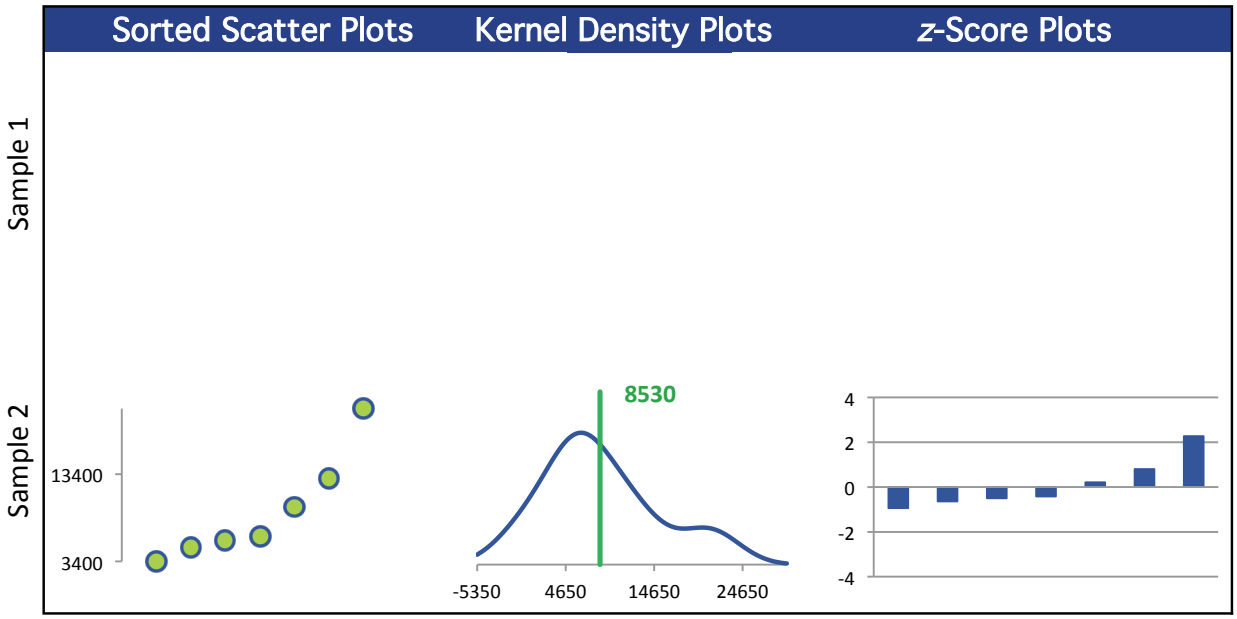
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	0	7	0	0
Median µg/g		6250		
Robust Mean µg/g		8530		
U µg/g		2570		
Robust Standard Deviation µg/g		5450		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		5450		
Outliers	0	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	1	0	0

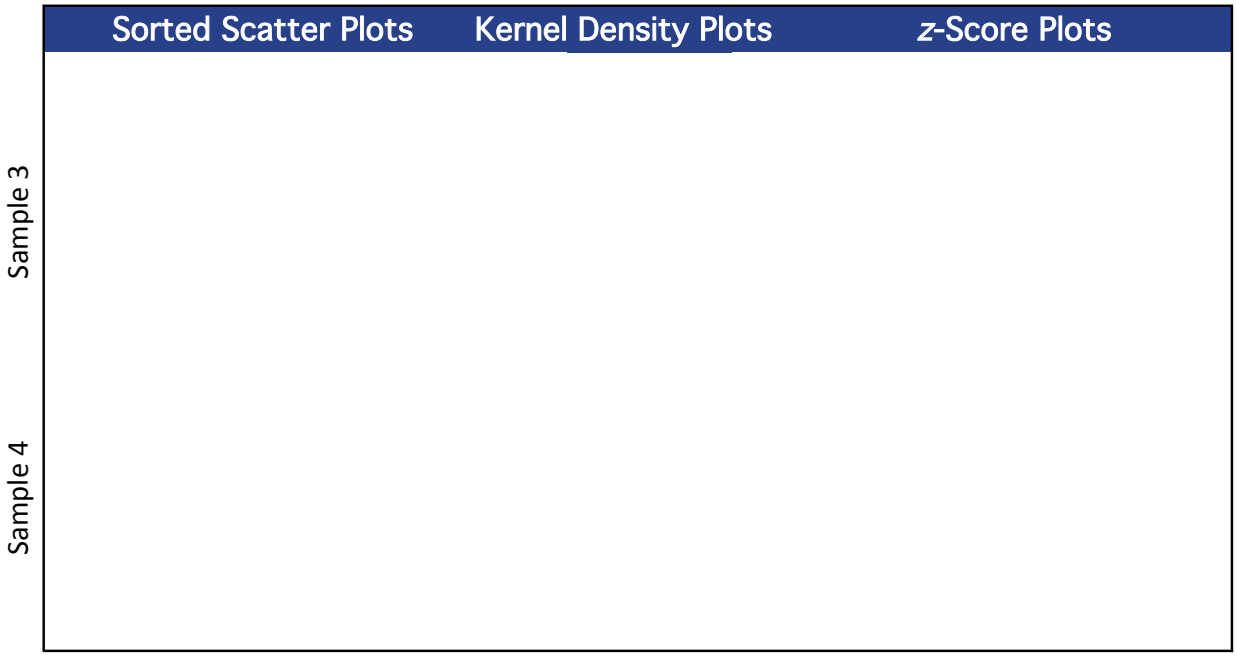
Methods Used

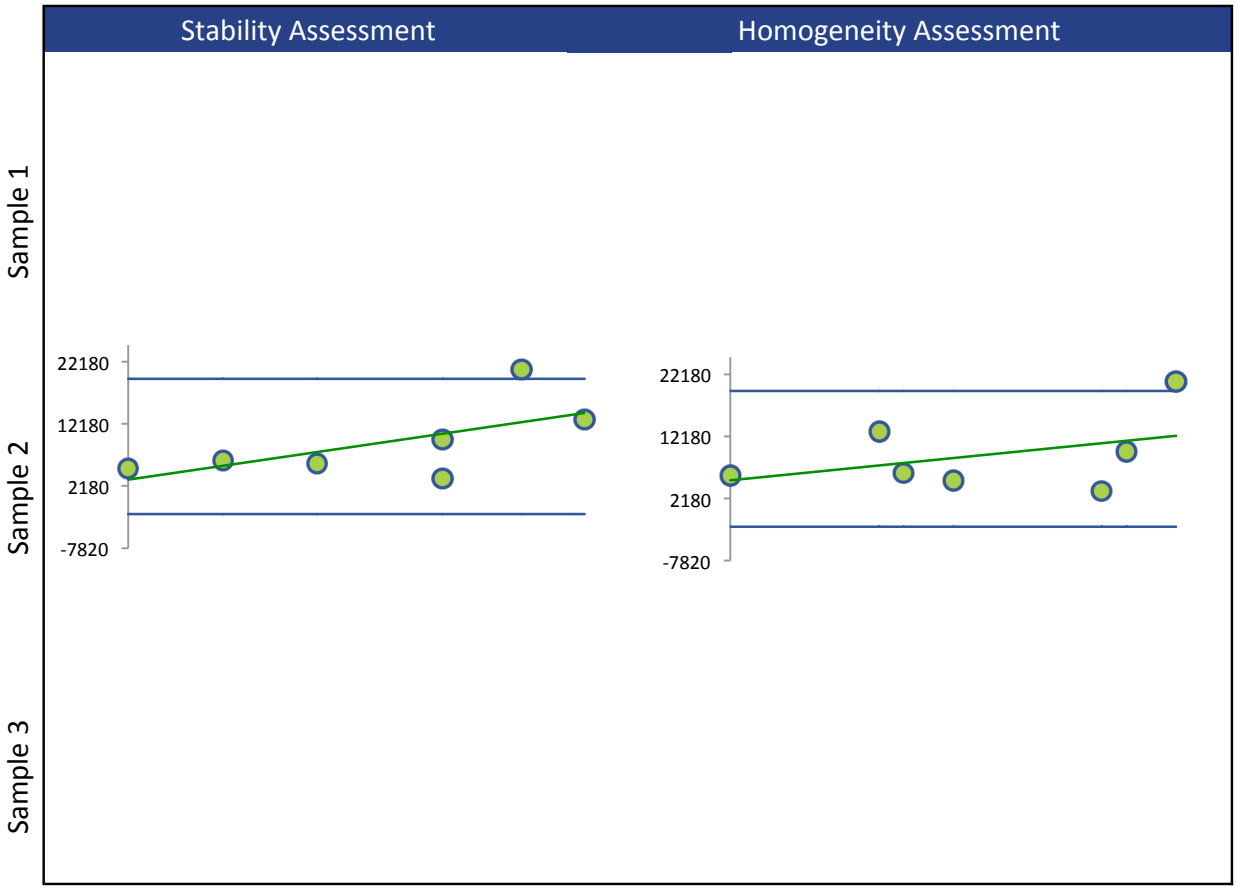
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	7	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



METHYL ACETATE





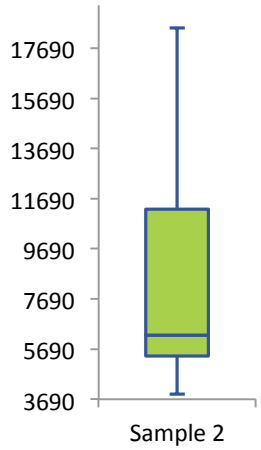
METHYL ACETATE

	Stability Assessment	Homogeneity Assessment
Sample 4		

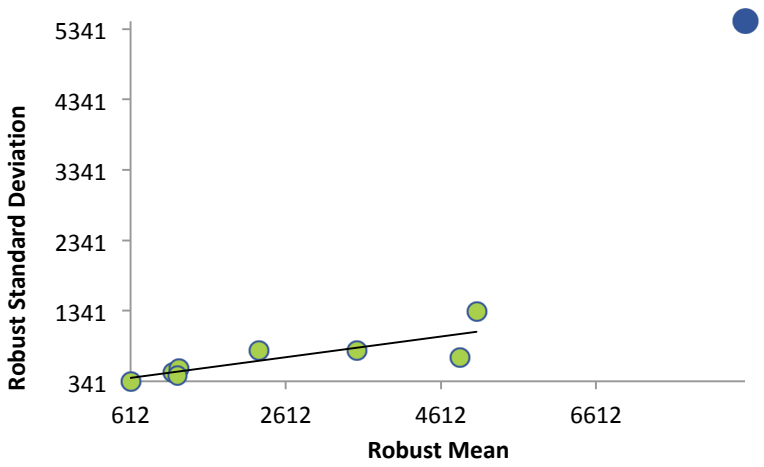
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



PENTANE

Summary Statistics

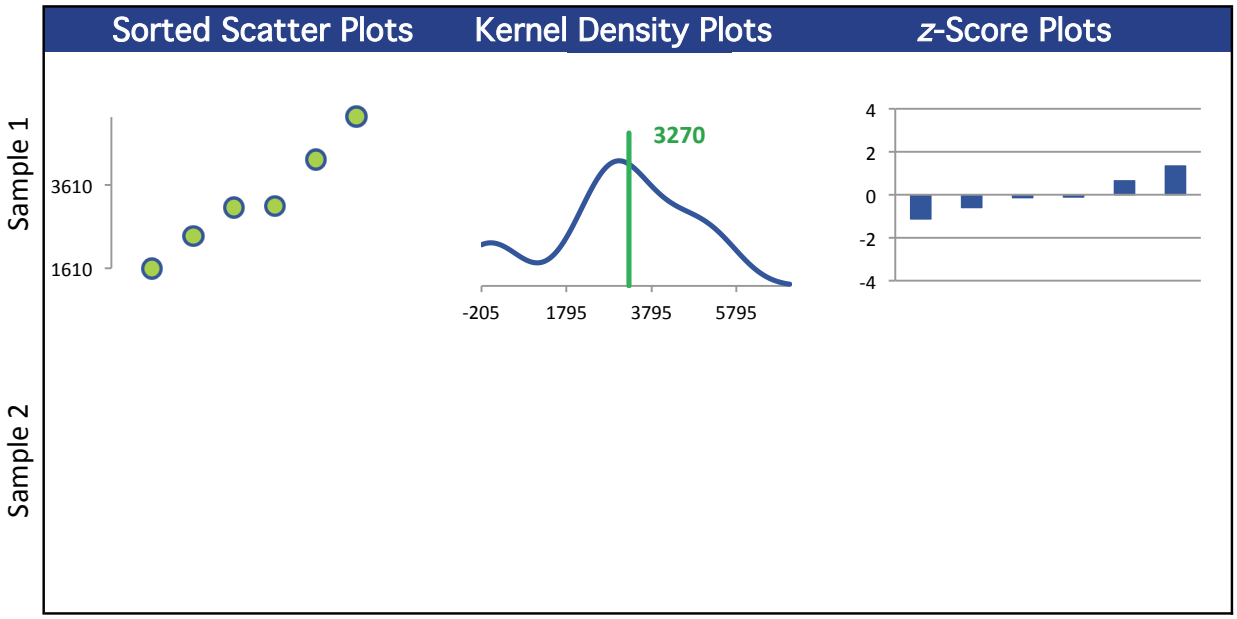
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	6	0	0	0
Median µg/g	3090			
Robust Mean µg/g	3270			
U µg/g	750			
Robust Standard Deviation µg/g	1470			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1470			
Outliers	0	1	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

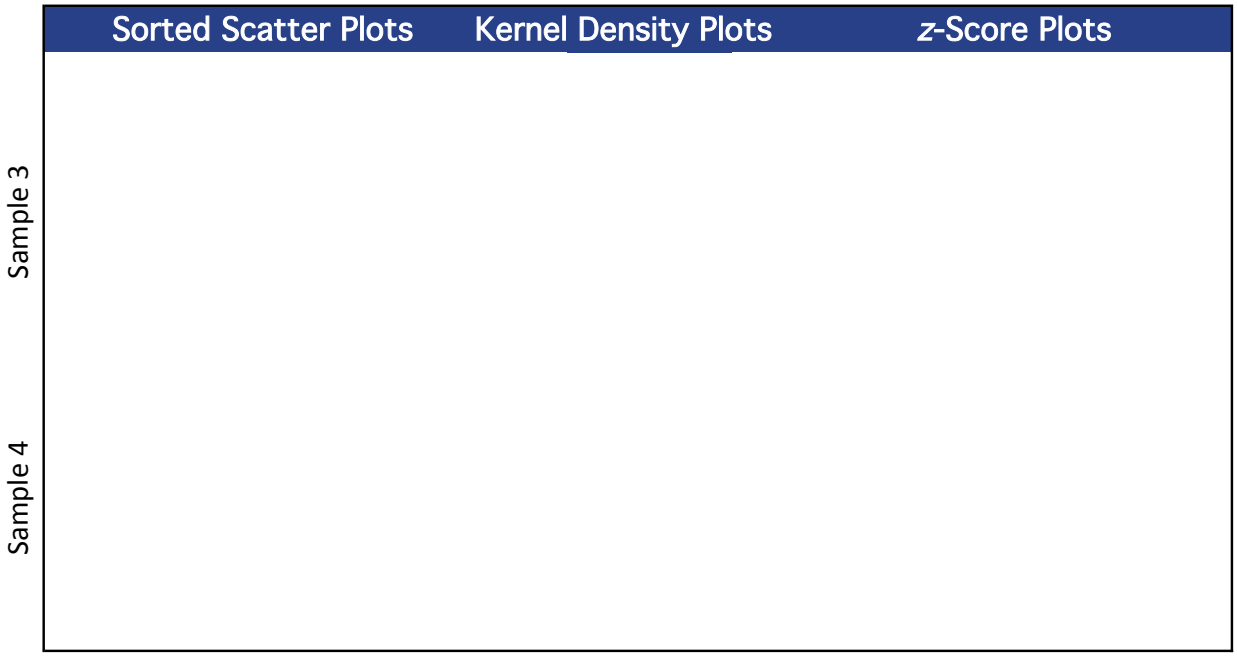
Methods Used

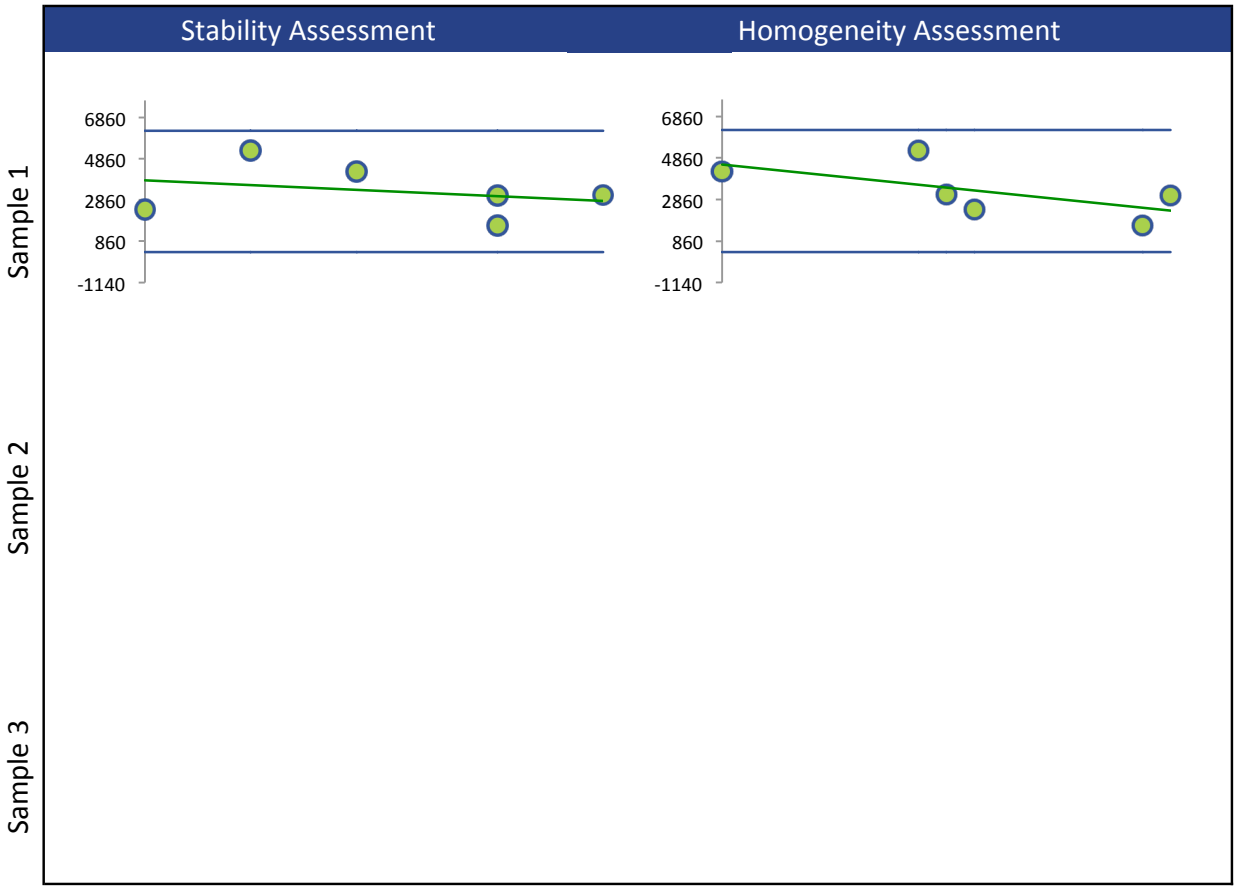
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	6	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



PENTANE


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


Stability Assessment
Homogeneity Assessment
6860
4860
2860
860
-1140
6860
4860
2860
860
-1140
Sample 1
Sample 2
Sample 3

PENTANE

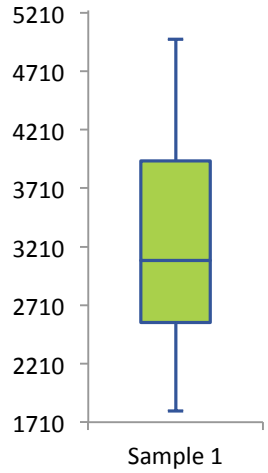
Sample 4

Stability Assessment	Homogeneity Assessment

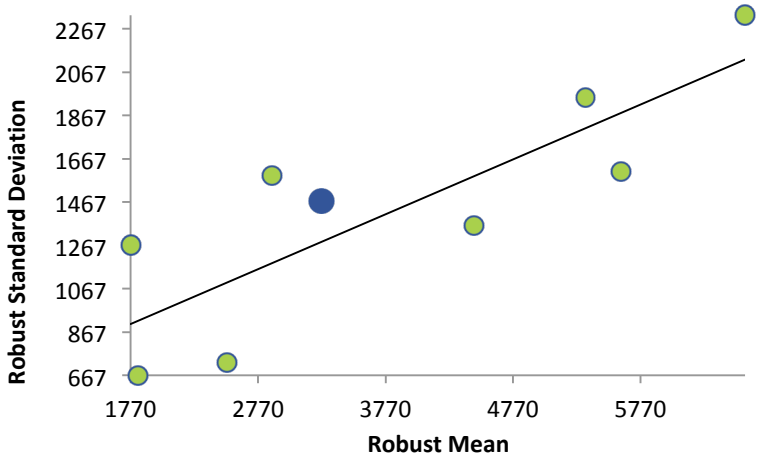
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



PROPANE

Summary Statistics

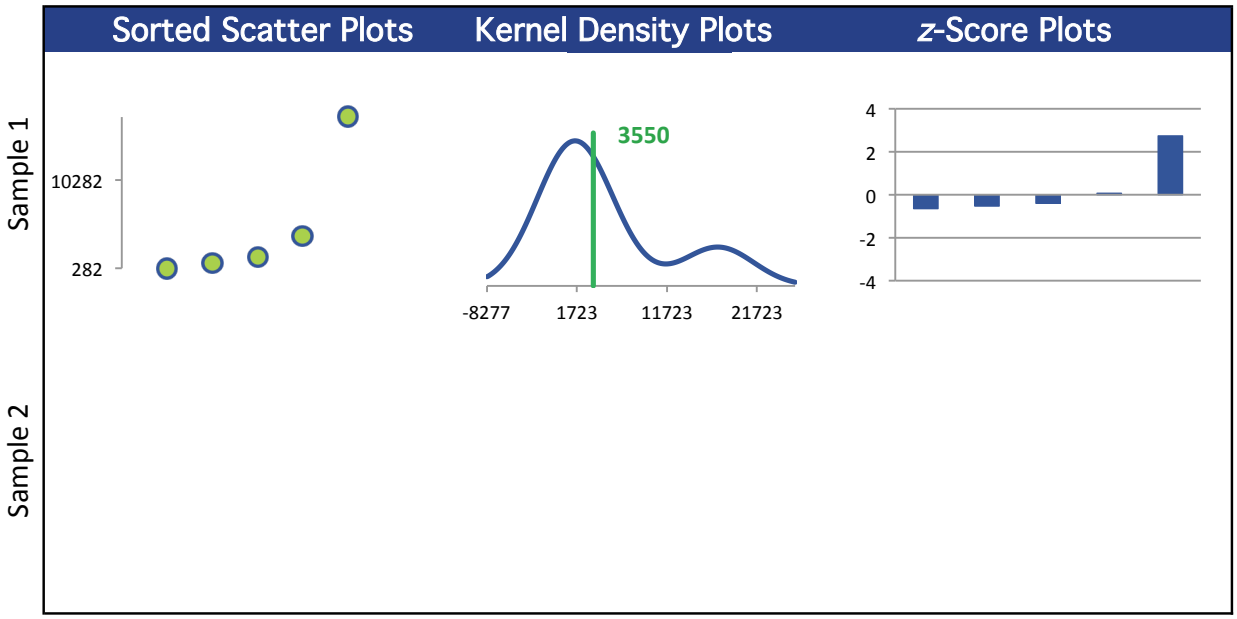
Not Spiked

Statistic	C73-1	C73-2	C73-3	C73-4
N	5	0	0	0
Median µg/g	1540			
Robust Mean µg/g	3550			
U µg/g	2830			
Robust Standard Deviation µg/g	5060			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	5060			
Outliers	0	2	0	0
|z|>3.0	0	0	0	0
2<|z|<3	1	0	0	0

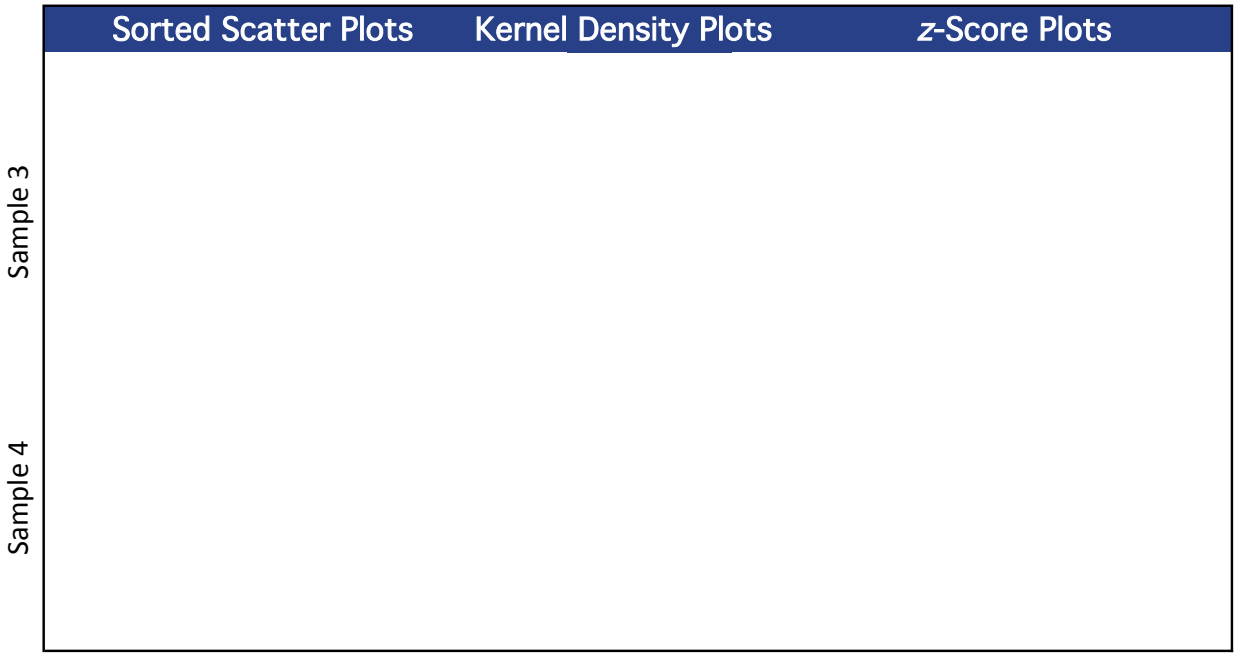
Methods Used

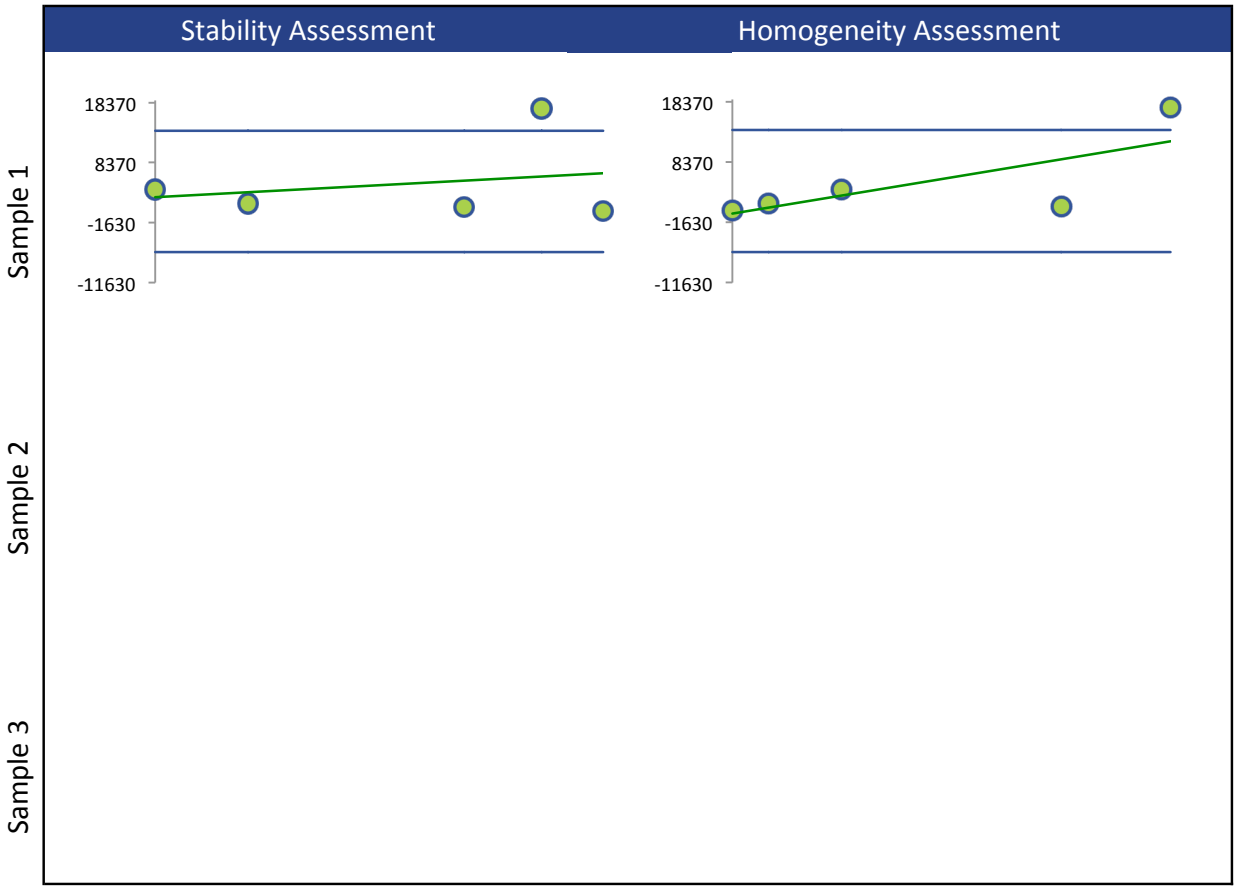
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	0	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



PROPANE


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


Stability Assessment
Homogeneity Assessment
18370
8370
-1630
-11630
18370
8370
-1630
-11630
Sample 1
Sample 2
Sample 3

PROPANE

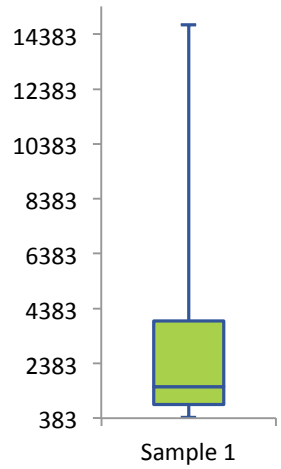
Sample 4

Stability Assessment	Homogeneity Assessment

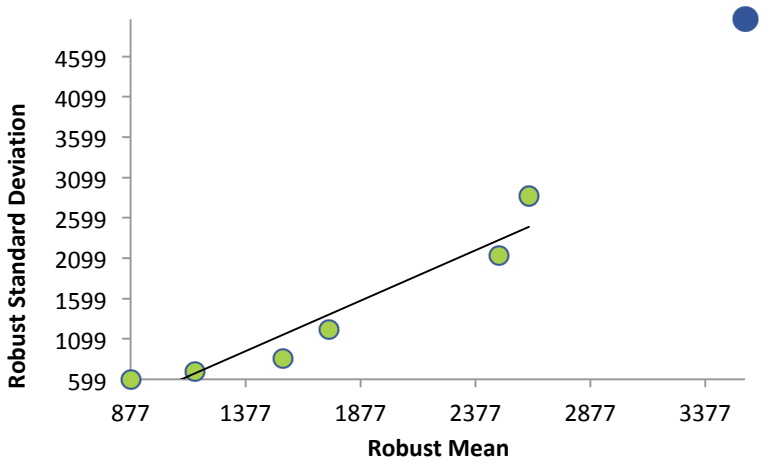
Stability assessments are regression analysis of reported result against date of analysis.

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

Box and Whisker Plots



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



PROPYL ACETATE

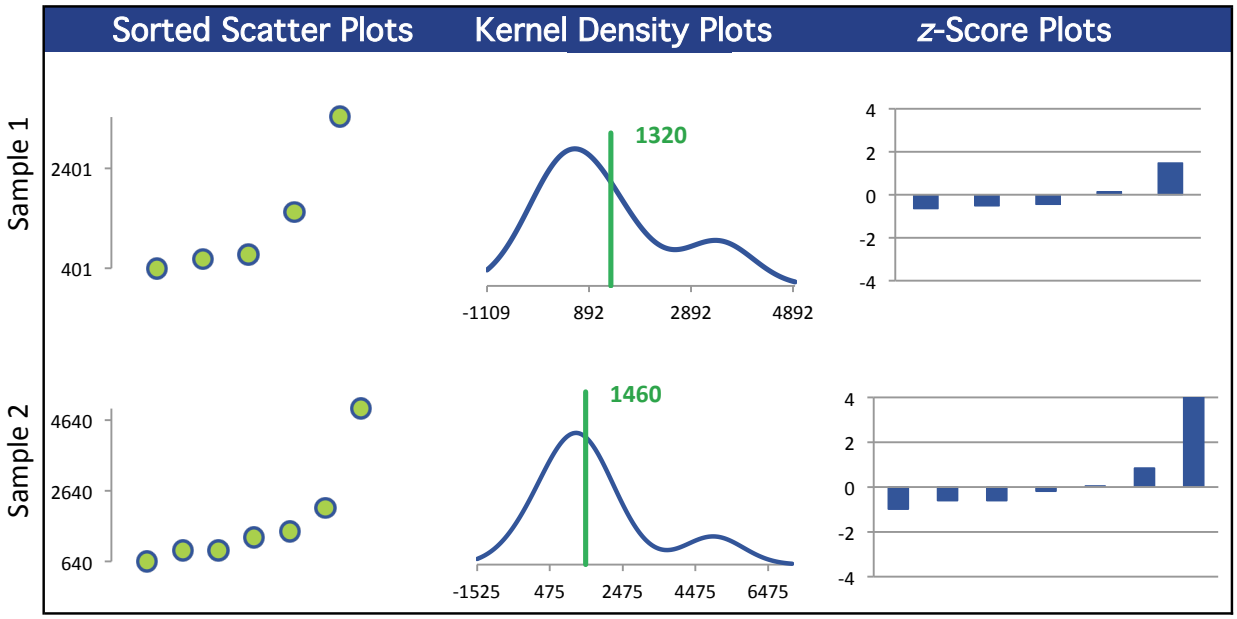
Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
N	5	7	0	0
Median µg/g	680	1310		
Robust Mean µg/g	1320	1460		
U µg/g	794	396		
Robust Standard Deviation µg/g	1420	838		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1420	838		
Outliers	0	0	0	0
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

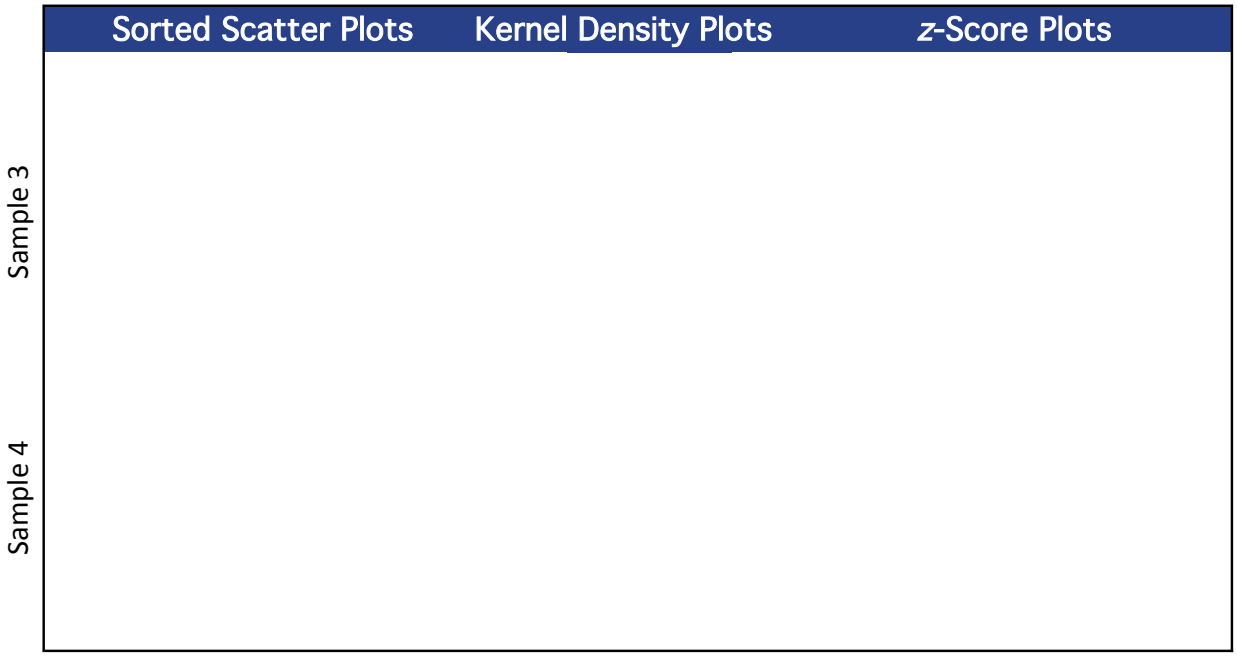
Methods Used

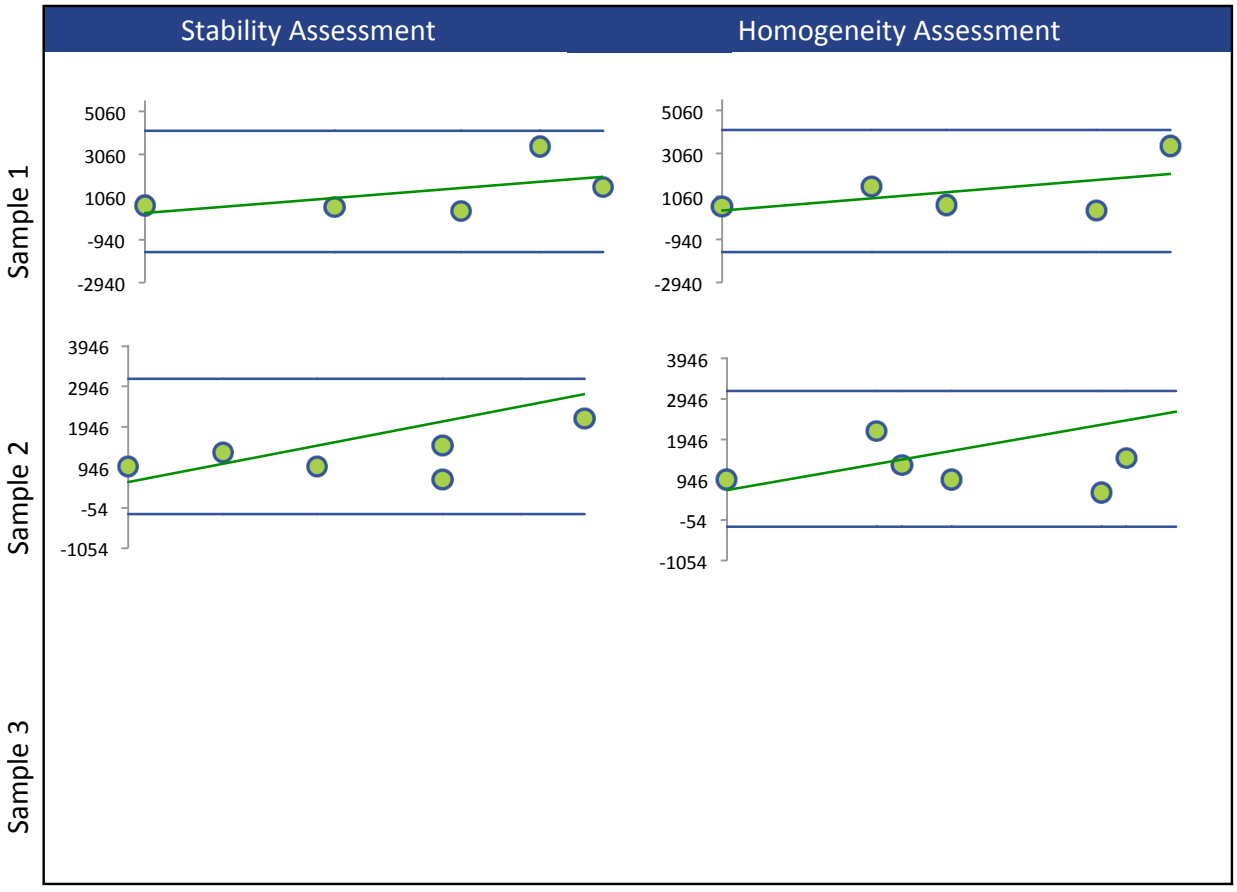
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	5	7	0	0

All summary stats and the plots below are based on the data excluding any flagged outliers



PROPYL ACETATE





PROPYL ACETATE

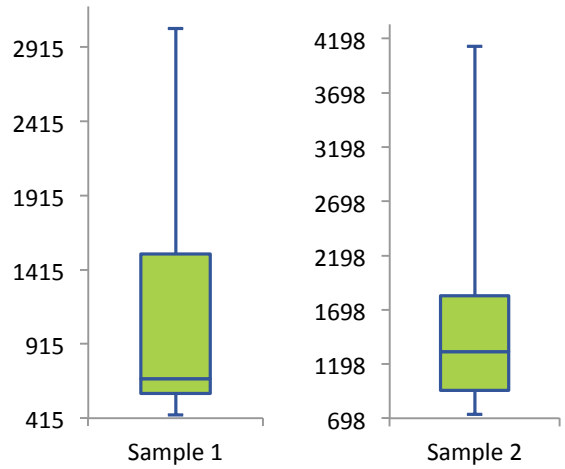
Sample 4

Stability Assessment	Homogeneity Assessment

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

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

Box and Whisker Plots



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