

# Test Group Summary Report

## C71 Pesticides in Cannabis

### October 2024 PT Round

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**Issued: November 27, 2024**

## Table of Contents

1.0	The Proficiency Testing Report .....	1
2.0	Definitions .....	1
3.0	Scoring System .....	1
3.1	Homogeneity and Stability Assessment .....	2
3.2	The z score .....	2
3.2	Composite (PT) Score .....	2
3.3	Identifying Bias .....	2
3.4	Deviations from Evaluation Procedure .....	3
4.0	PT Round Specific Data Summary .....	3
4.1	Summary statistics .....	3
4.2	z- Score Plots .....	3
4.3	kernel density plots .....	3
4.4	stability and homogeneity Plots .....	3
4.5	Box-and-Whisker Plots .....	3
4.6	Historic Comparison Plot .....	3
	Annex A Summary by Analyte .....	4

## 1.0 The Proficiency Testing Report

The Proficiency Testing Report consists of two parts.

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

## 2.0 Definitions

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

<i>Code</i> :	The registration code that is unique to each analyte that a participant is registered for.
<i>App</i> :	If a participant is accredited by CALA, this three-digit number is the appendix number that the accredited method is assigned to.
<i>N</i> :	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.
<i>Assigned</i> :	The Assigned Value is the robust mean of the reported results, outliers excluded. This is often referred to as the “target” value.
<i>± u</i> :	The uncertainty of the assigned value.
<i>Reported</i> :	The result reported by the participant.
<i>s</i> :	The Standard Deviation of Proficiency Assessment (SDPA). This value is used to determine the acceptance limits for the PT evaluation.
<i>z-Score</i> :	A value assigned to each reported result that is a measure of the degree to which it deviates from the Assigned Value.
<i>Score</i> :	The composite score of the four results reported for each analyte. It is normalized to a score out of 100.
<i>Bias</i> :	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](http://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:

$$z - Score = \frac{(x - \bar{X})}{SDPA} \quad \text{where: } x = \text{participant result;} \\ \bar{X} = \text{the Assigned Value;} \\ SDPA = \text{the Standard Deviation for Proficiency Assessment.}$$

The assigned value  $\bar{X}$  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  $100 + (-15 \times \text{avg } |z|)$ .

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.

$$RSZ = \frac{\sum z}{\sqrt{N}} \quad \text{where } z = \text{the z- score} \\ N = \text{the number of samples}$$

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

$RSZ \geq -2$ and $\leq 2$	no flag assigned
$RSZ > 2$	H (High)
$RSZ > 3$	VH (Very High)
$RSZ < -2$	L (LOW)
$RSZ < -3$	VL (Very Low)



### 3.4 DEVIATIONS FROM EVALUATION PROCEDURE

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

## 4.0 PT Round Specific Data Summary

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

### 4.1 SUMMARY STATISTICS

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

### 4.2 z- SCORE PLOTS

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

### 4.3 KERNEL DENSITY PLOTS

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

### 4.4 STABILITY AND HOMOGENEITY PLOTS

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

### 4.5 BOX-AND-WHISKER PLOTS

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

## ACEPHATE

## Summary Statistics

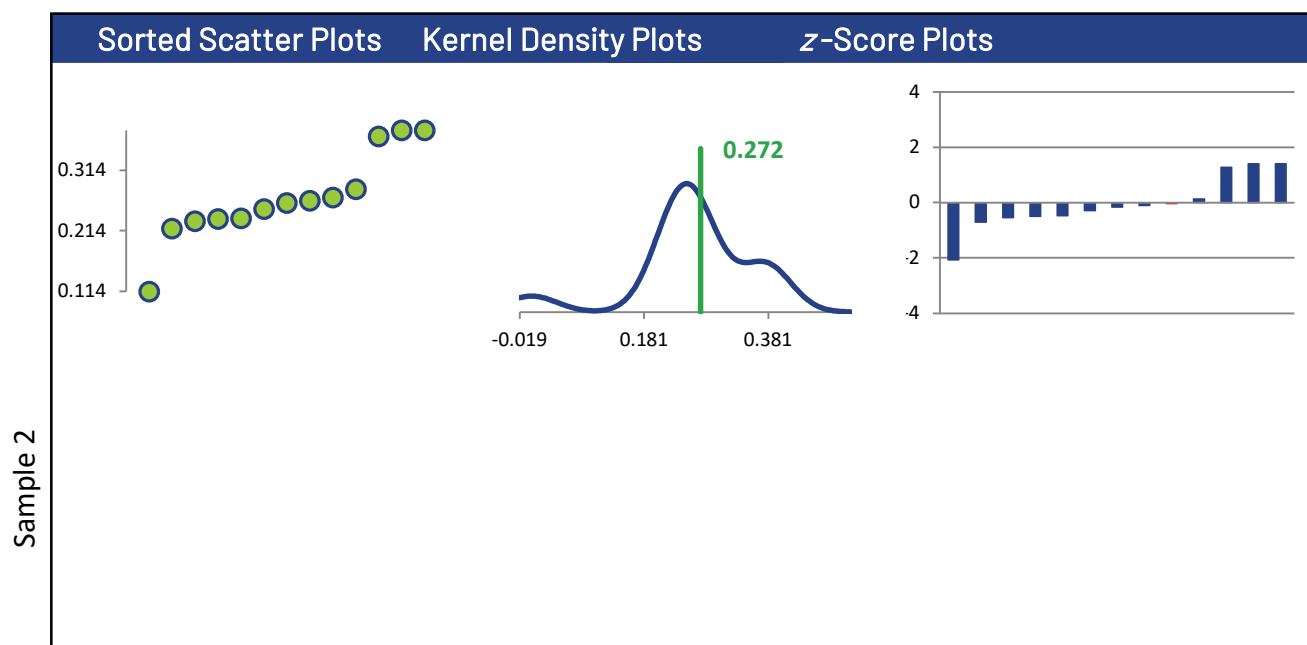
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	0.260			
Robust Mean µg/g	0.272			
U µg/g	0.0265			
Robust Standard Deviation µg/g	0.0764			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.0764			
Outliers	0	3	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	1	0	0	0

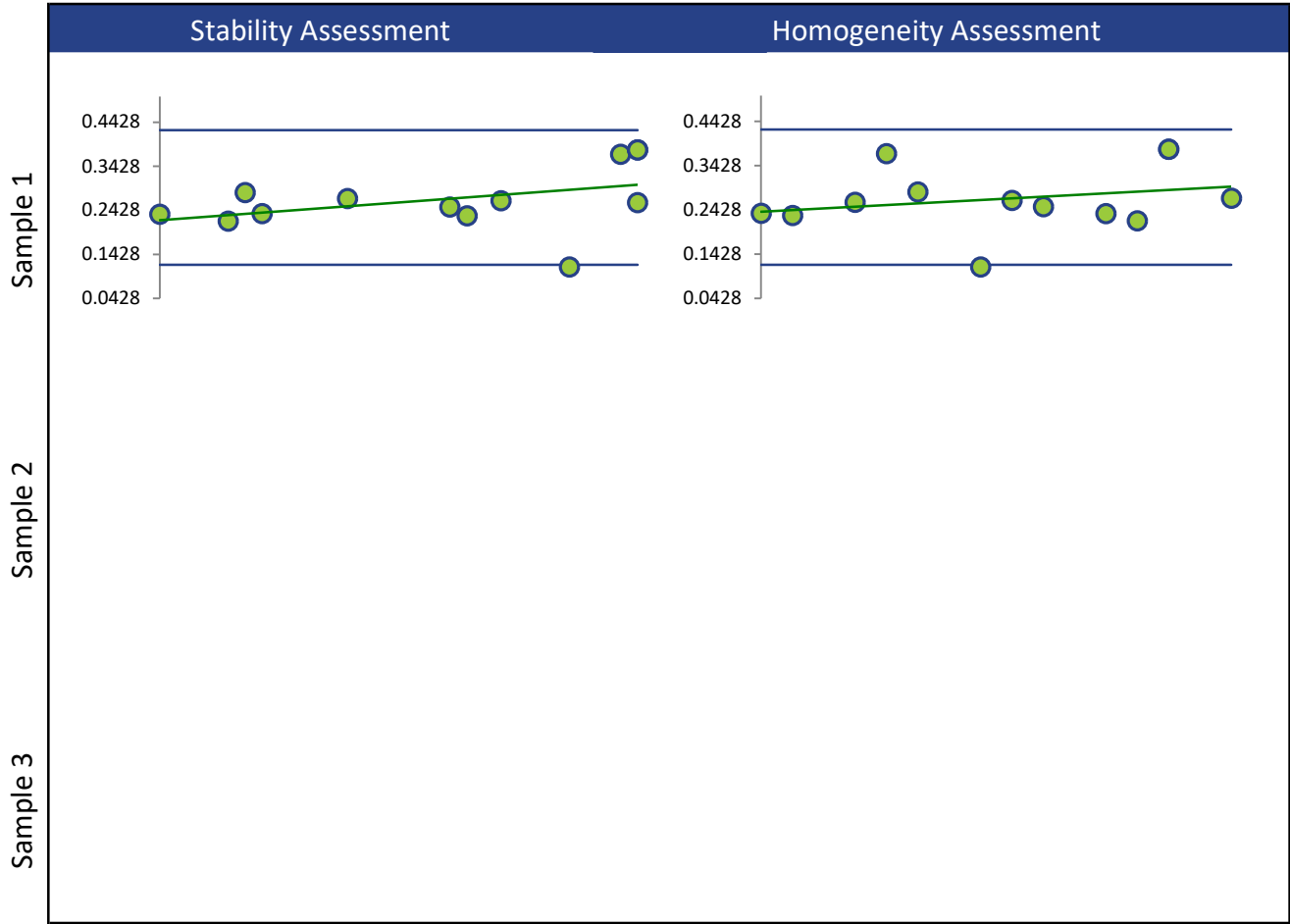
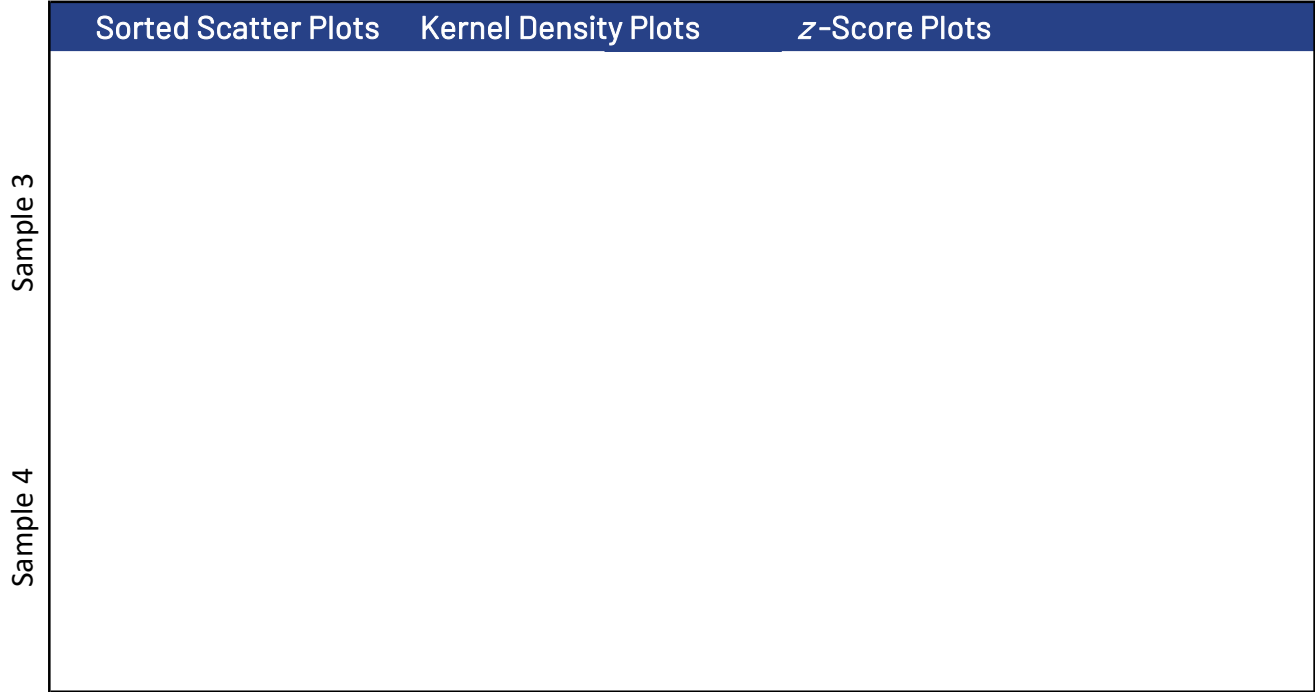
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	12	0	0	0
LC/MS (Red)	1	0	0	0

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



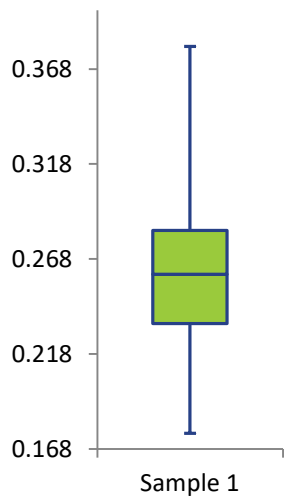
ACEPHATE



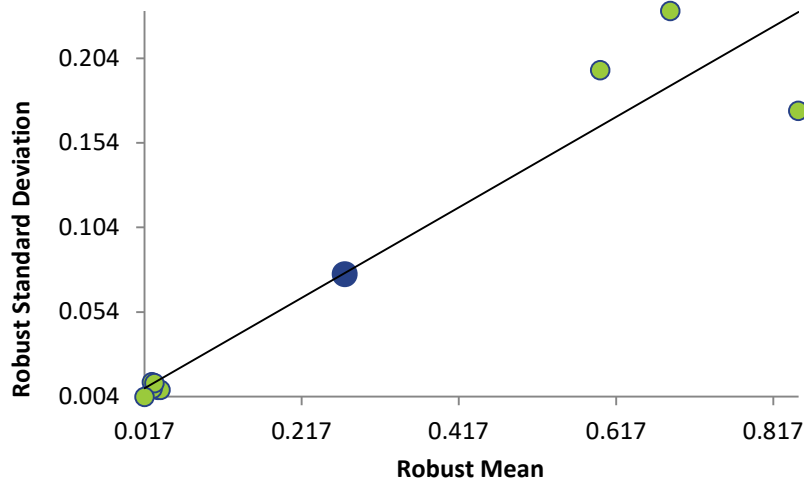
ACEPHATE

	Stability Assessment	Homogeneity Assessment
Sample 4	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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



## ALDICARB

## Summary Statistics

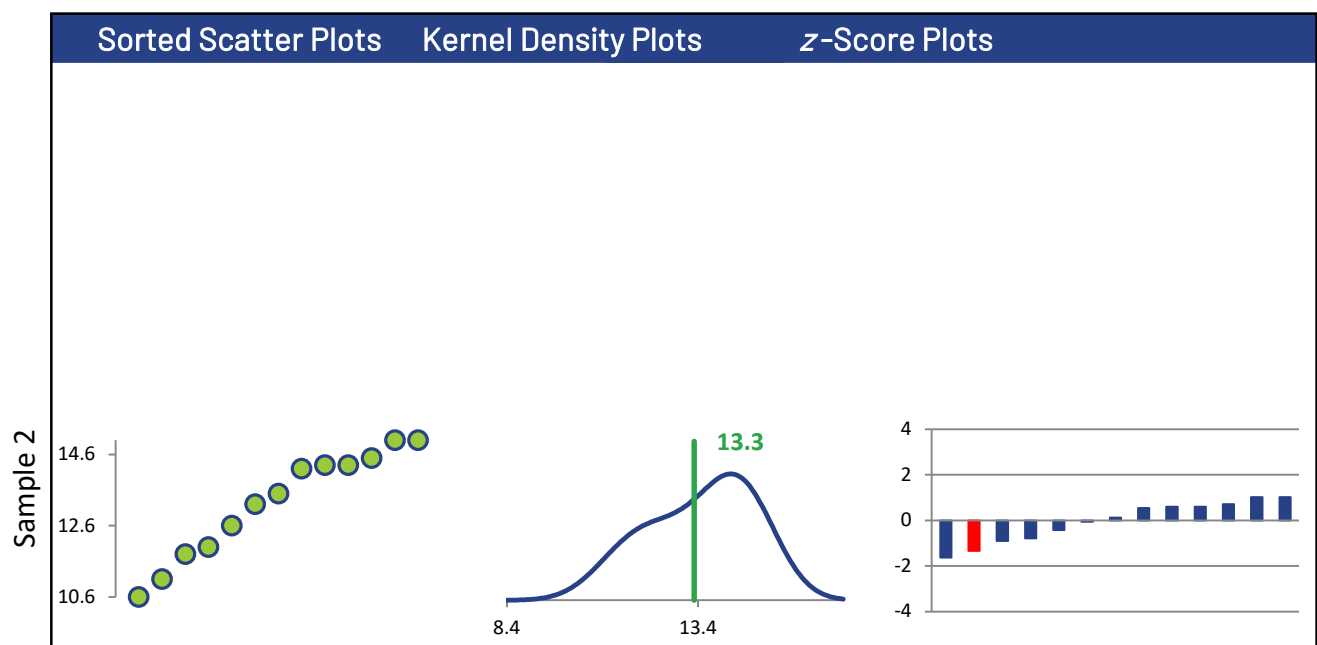
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		13.5		
Robust Mean µg/g		13.3		
U µg/g		0.576		
Robust Standard Deviation µg/g		1.66		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		1.66		
Outliers	3	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

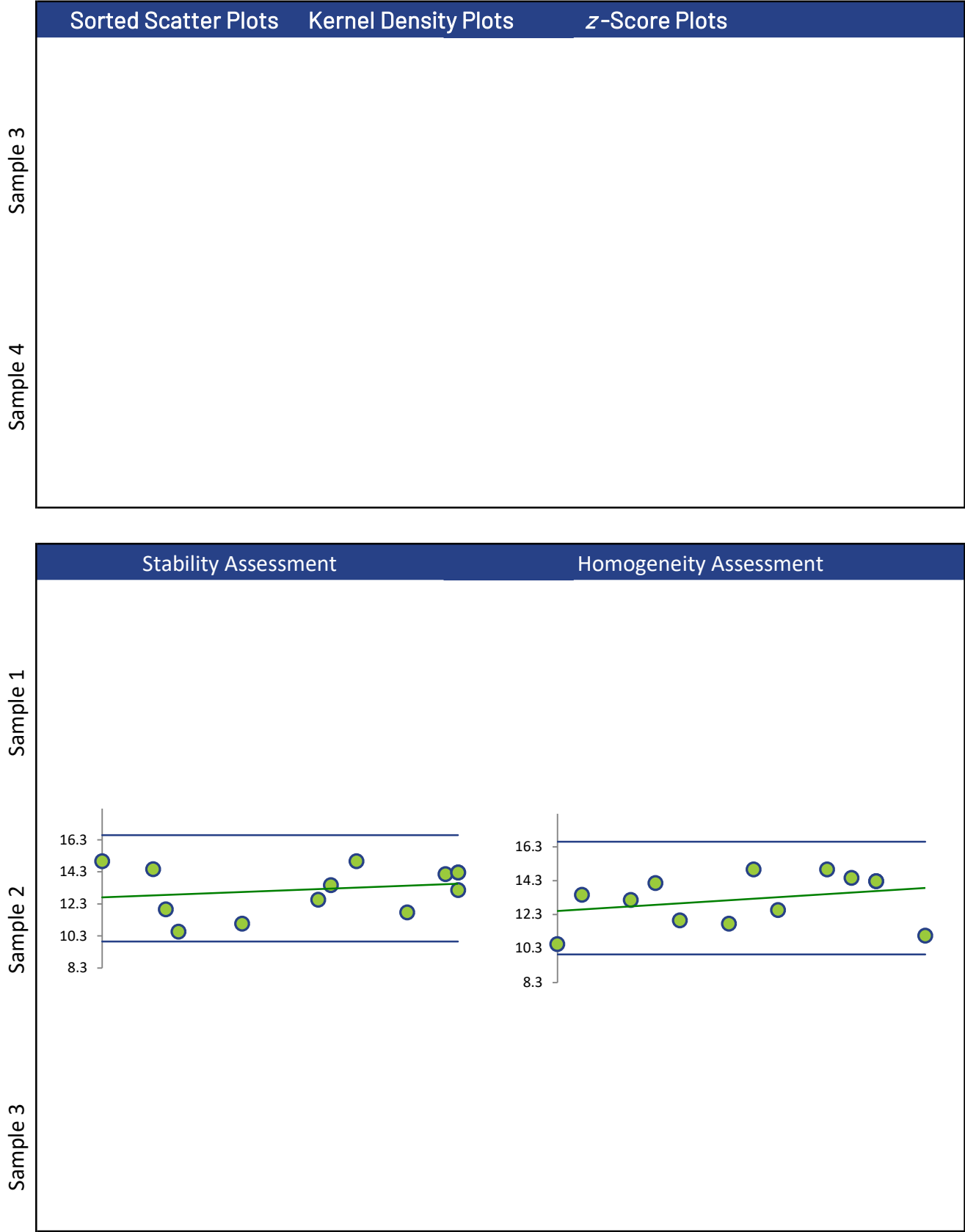
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	12	0	0
LC/MS (Red)	0	1	0	0

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



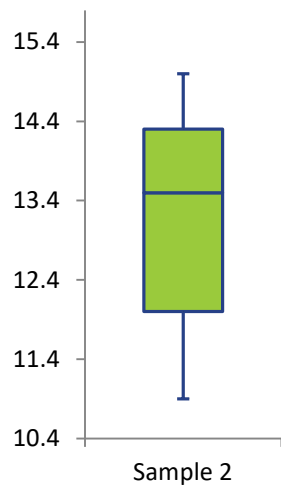
ALDICARB



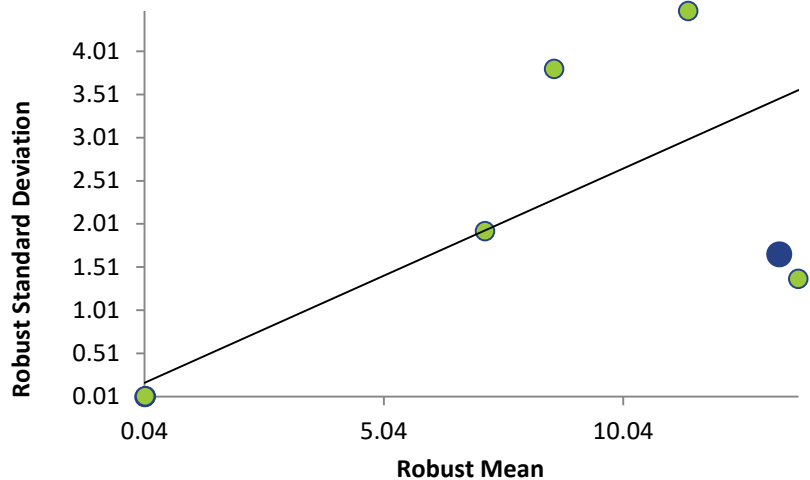
ALDICARB

	Stability Assessment	Homogeneity Assessment
Sample 4	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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



## AZOXYSTROBIN

## Summary Statistics

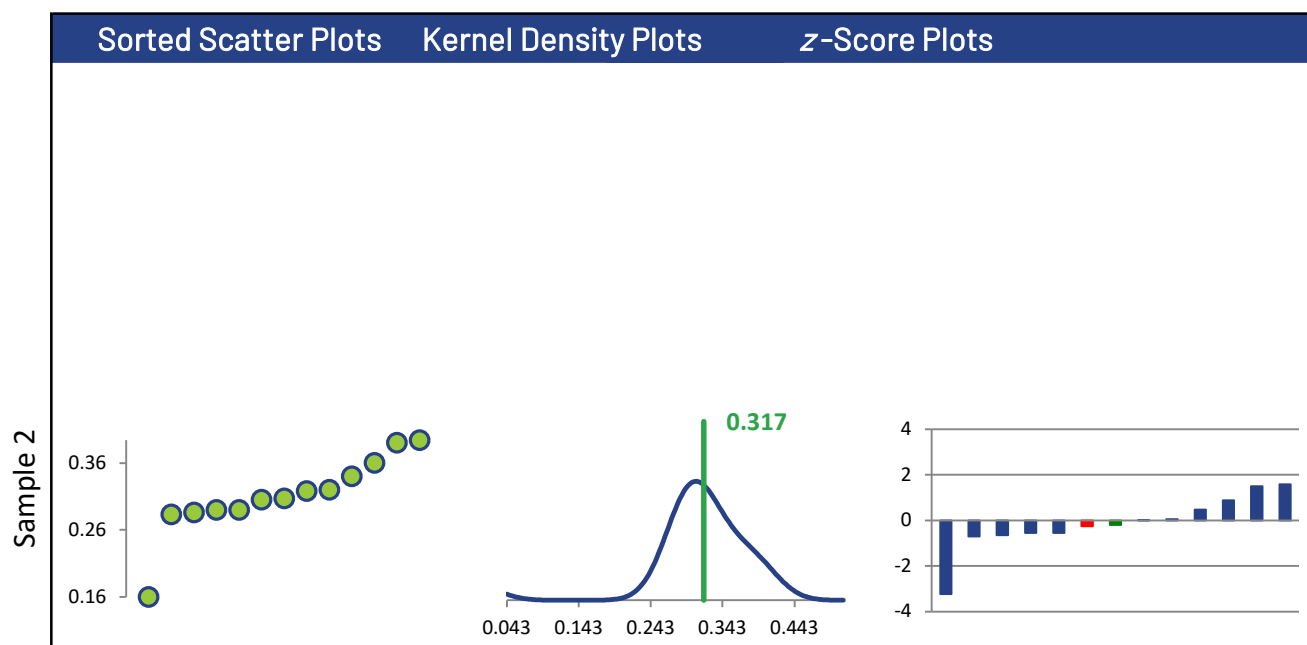
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		0.307		
Robust Mean µg/g		0.317		
U µg/g		0.0169		
Robust Standard Deviation µg/g		0.0488		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.0488		
Outliers	3	0	0	0
$ z  > 3.0$	0	1	0	0
$2 <  z  < 3$	0	0	0	0

## Methods Used

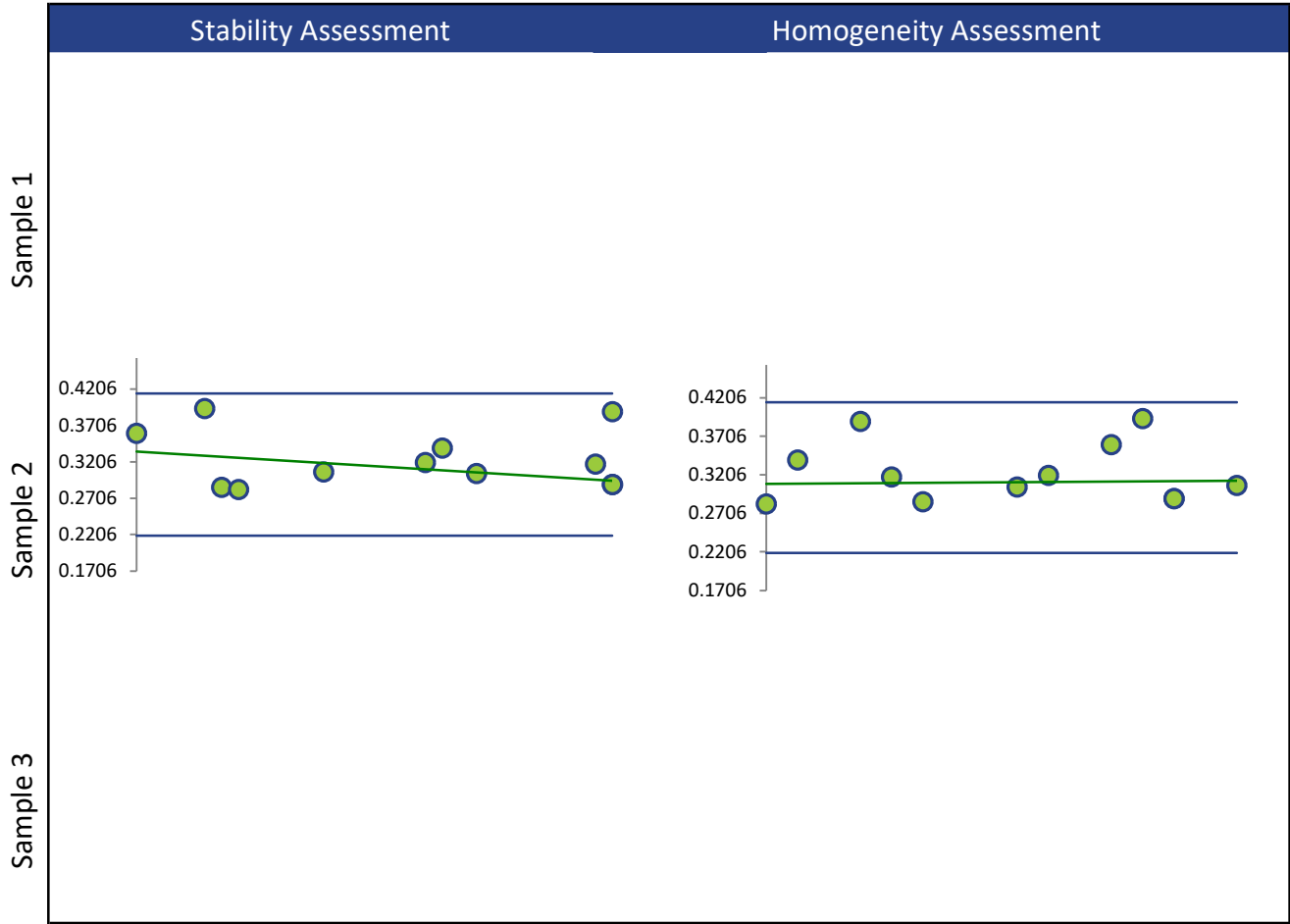
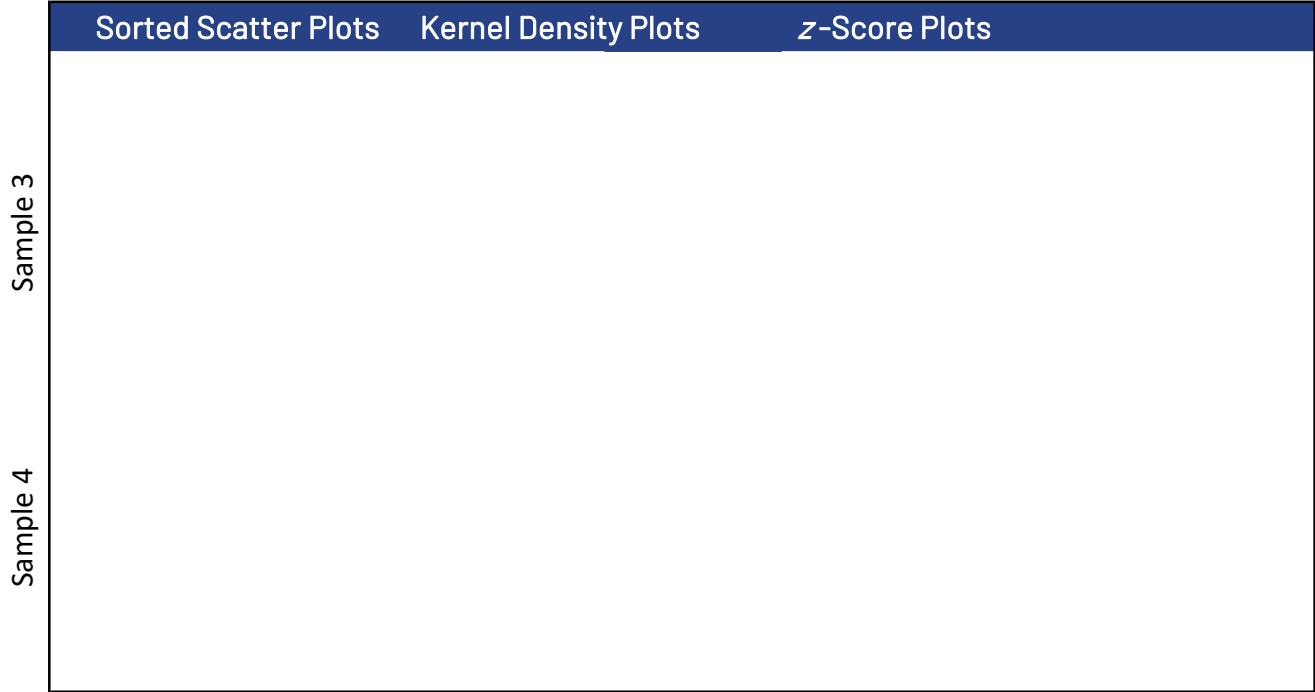
Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	11	0	0
GC/MS/MS (Red)	0	1	0	0
LC/MS (Green)	0	1	0	0

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





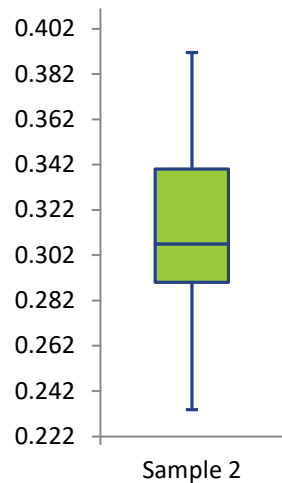
AZOXYSTROBIN



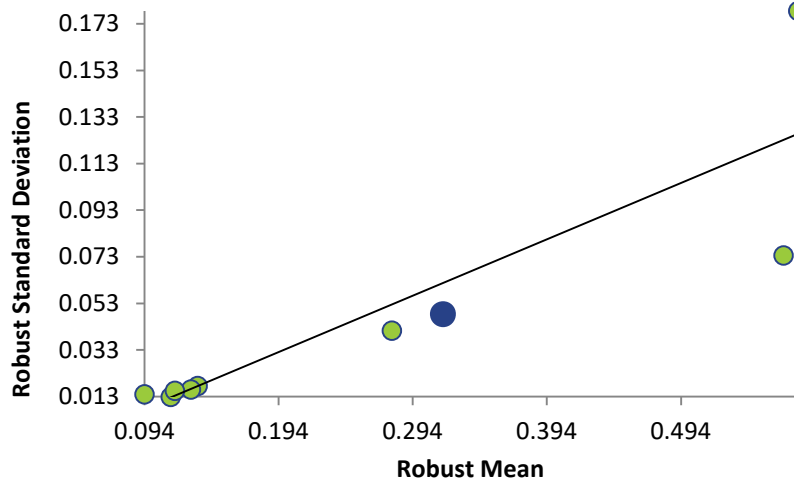
AZOXYSTROBIN

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)



## BIFENAZATE

## Summary Statistics

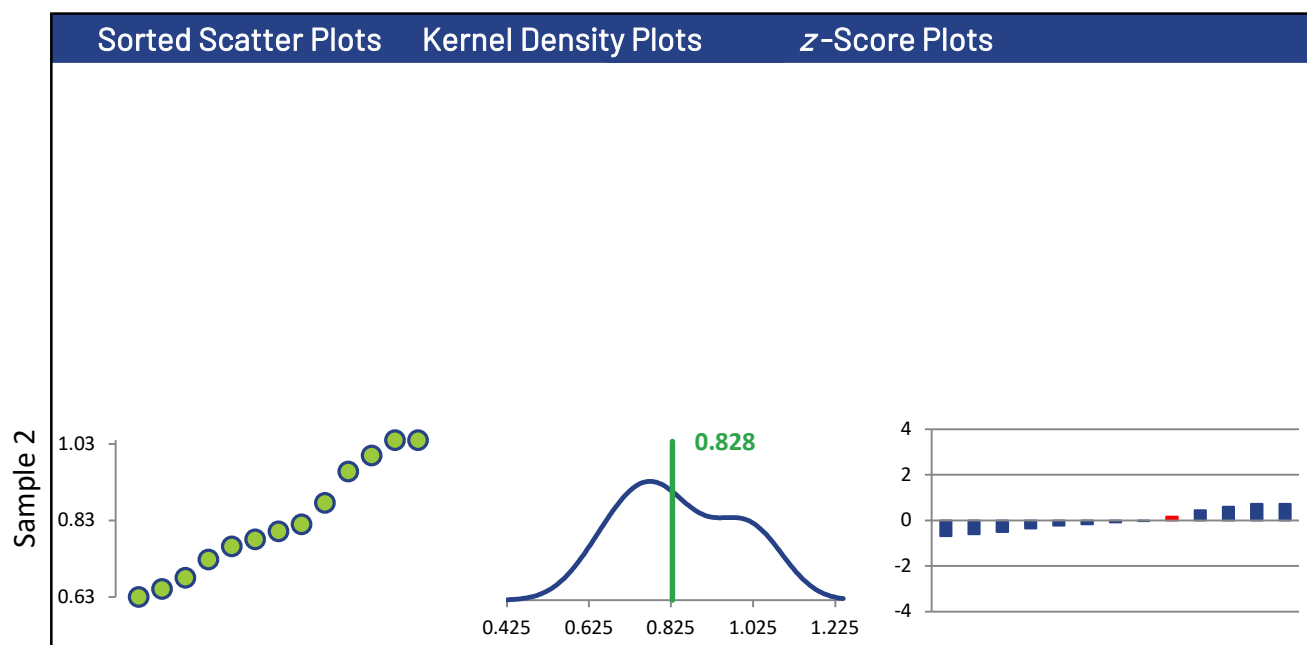
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		0.801		
Robust Mean µg/g		0.828		
U µg/g		0.0565		
Robust Standard Deviation µg/g		0.163		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag		Homogeneity		
Standard Deviation Used (SDPA) µg/g		0.289		
Outliers	3	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

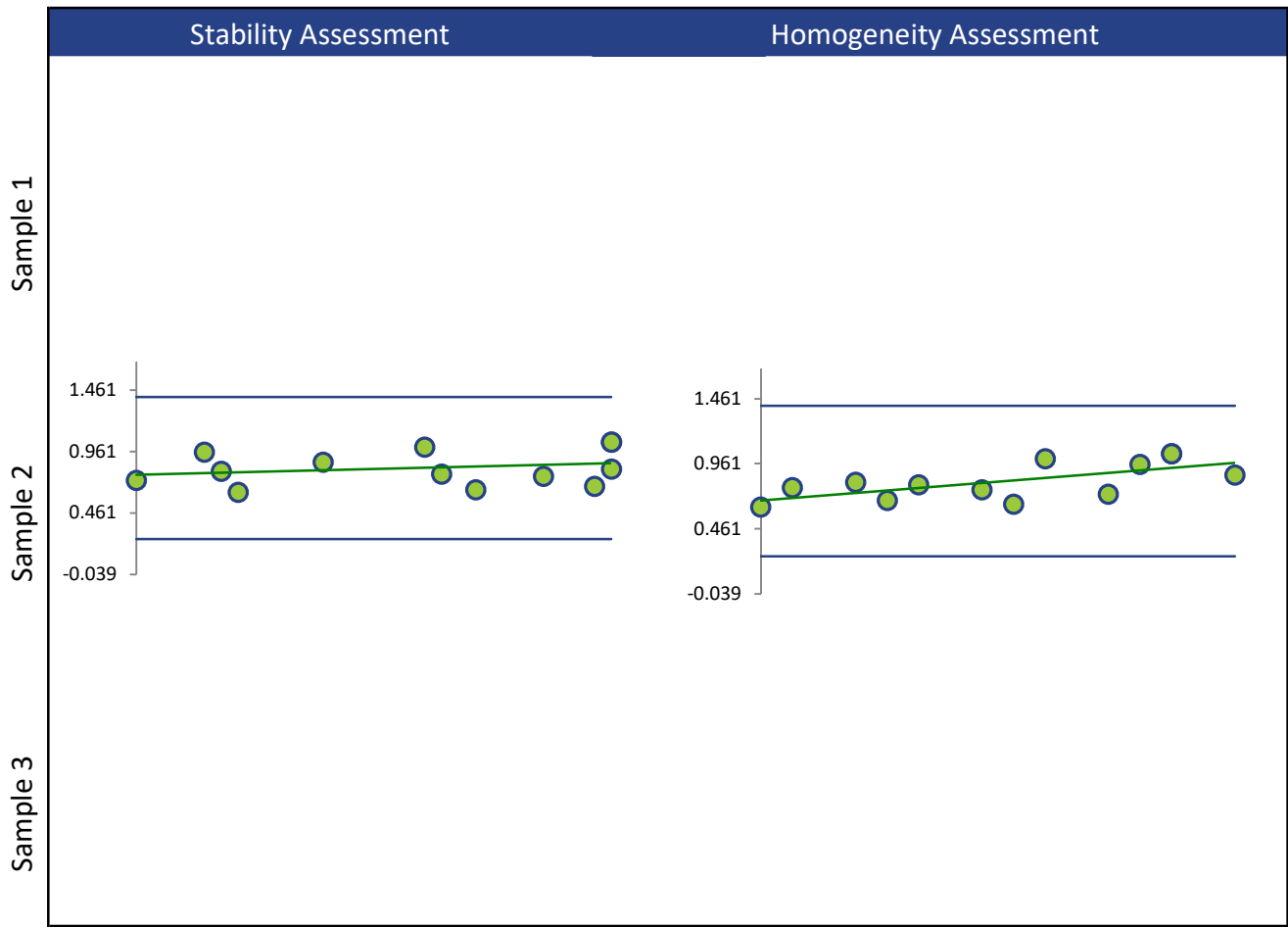
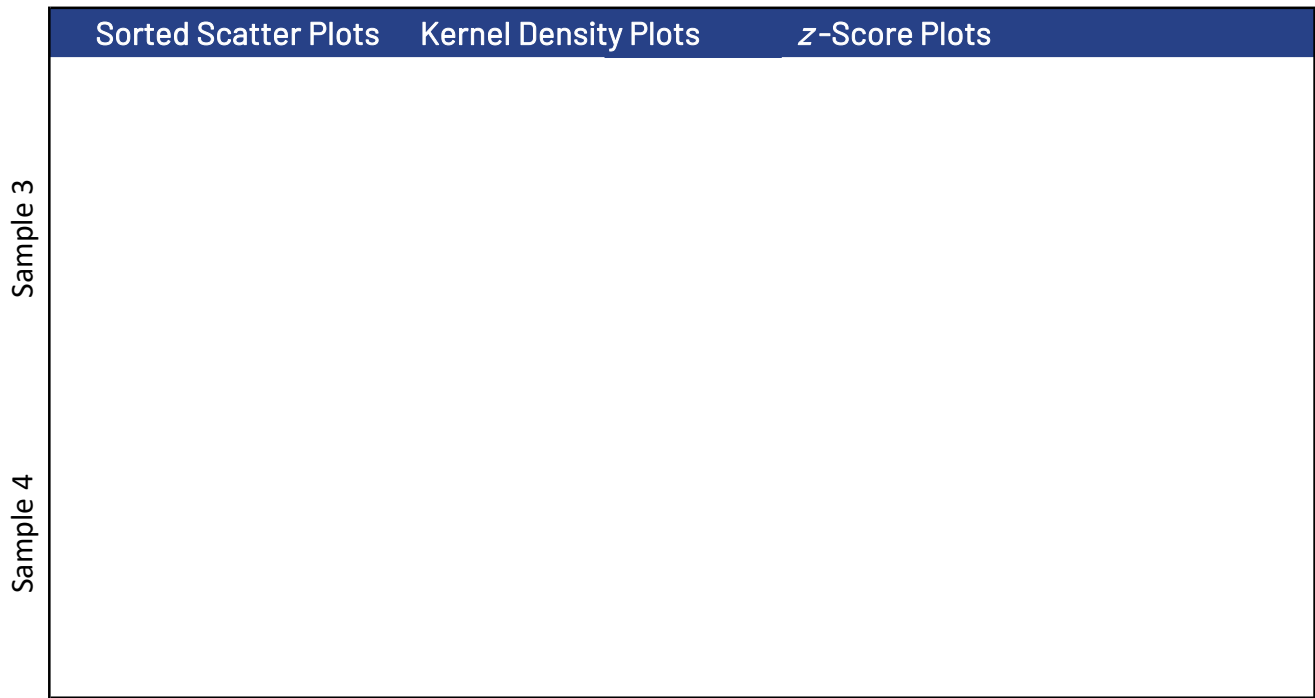
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	12	0	0
LC/MS (Red)	0	1	0	0

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



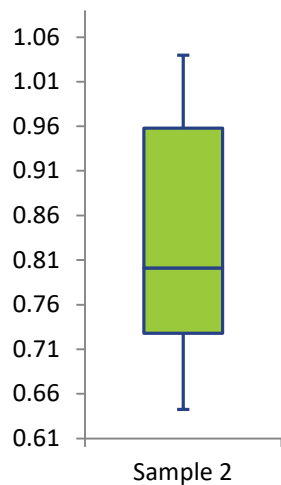
BIFENAZATE



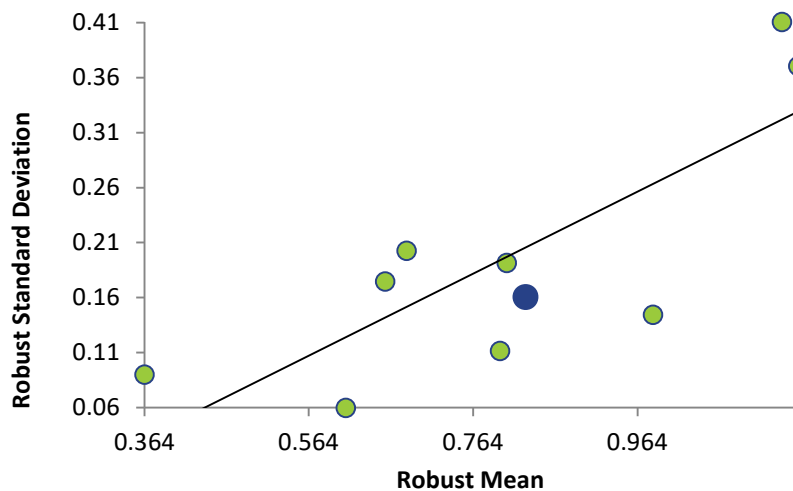
BIFENAZATE

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)



## BOSCALID

## Summary Statistics

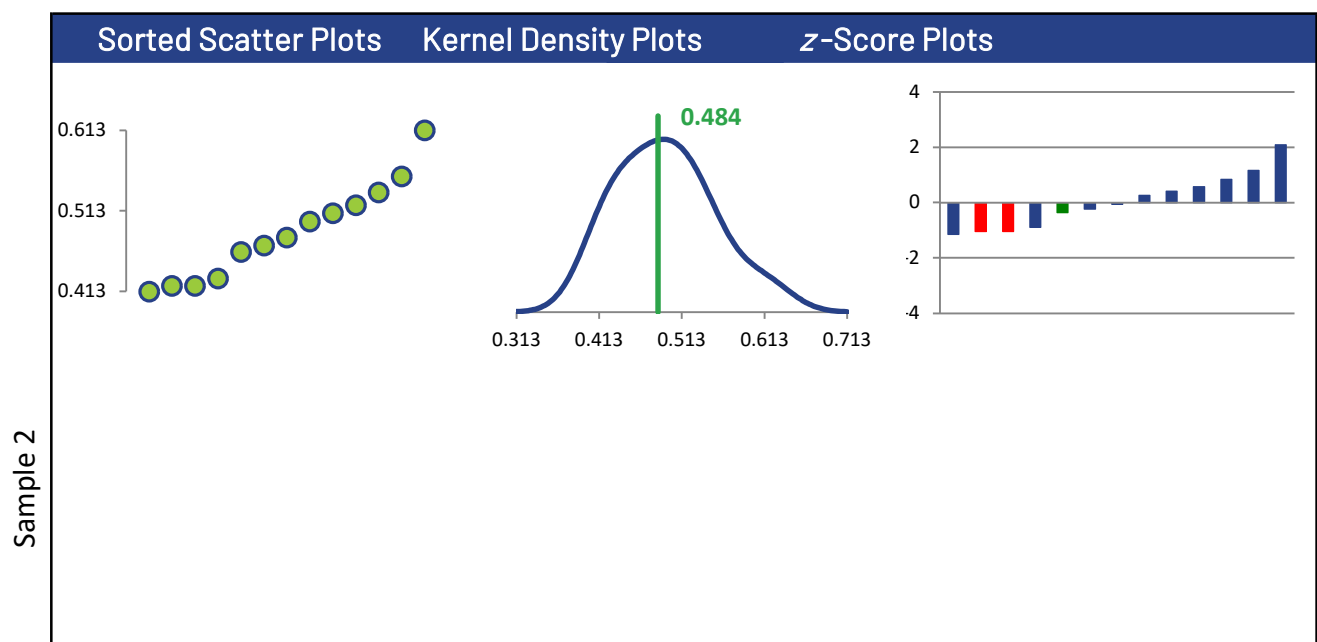
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	0.480			
Robust Mean µg/g	0.484			
U µg/g	0.0214			
Robust Standard Deviation µg/g	0.0618			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.0618			
Outliers	0	3	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	1	0	0	0

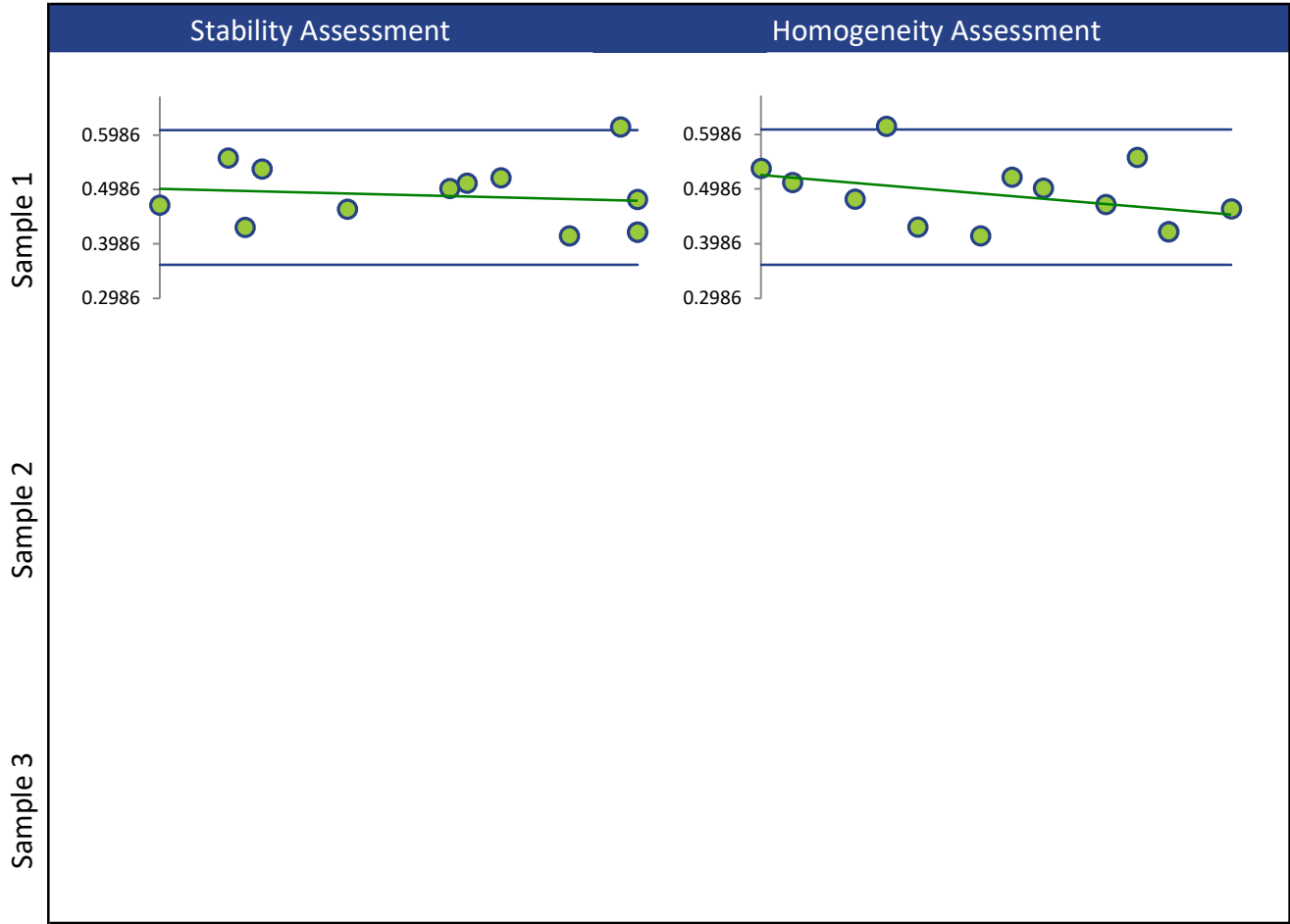
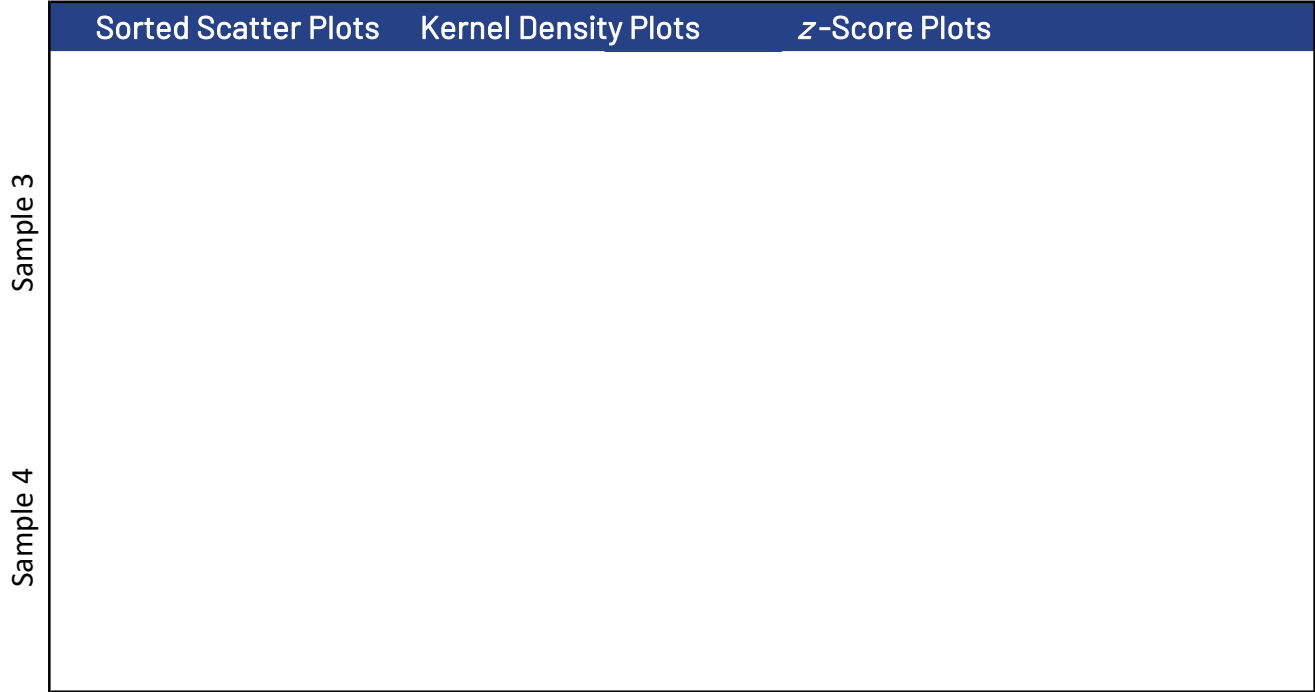
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	10	0	0	0
GC/MS/MS (Red)	2	0	0	0
LC/MS (Green)	1	0	0	0

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



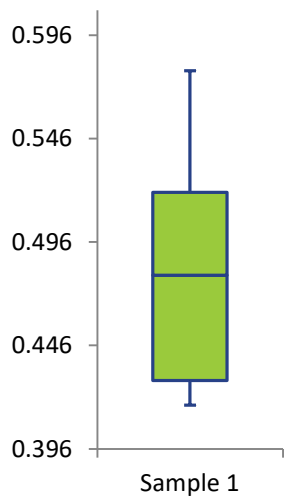
BOSCALID



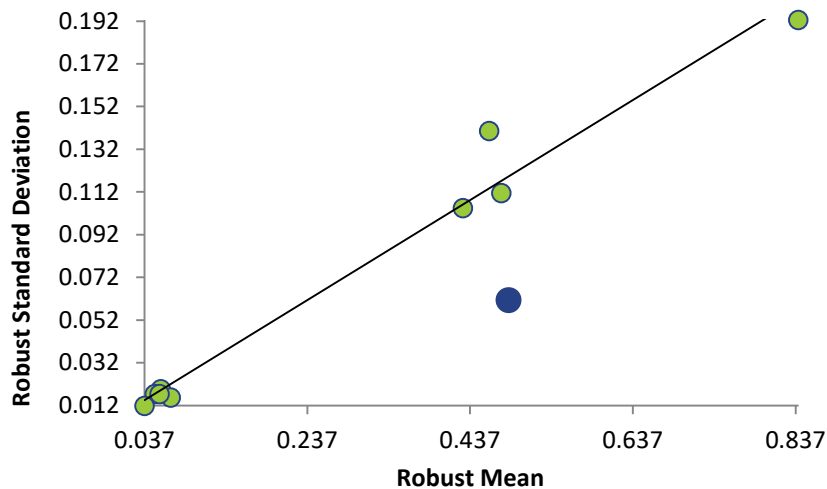
BOSCALID

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)





## CARBARYL

## Summary Statistics

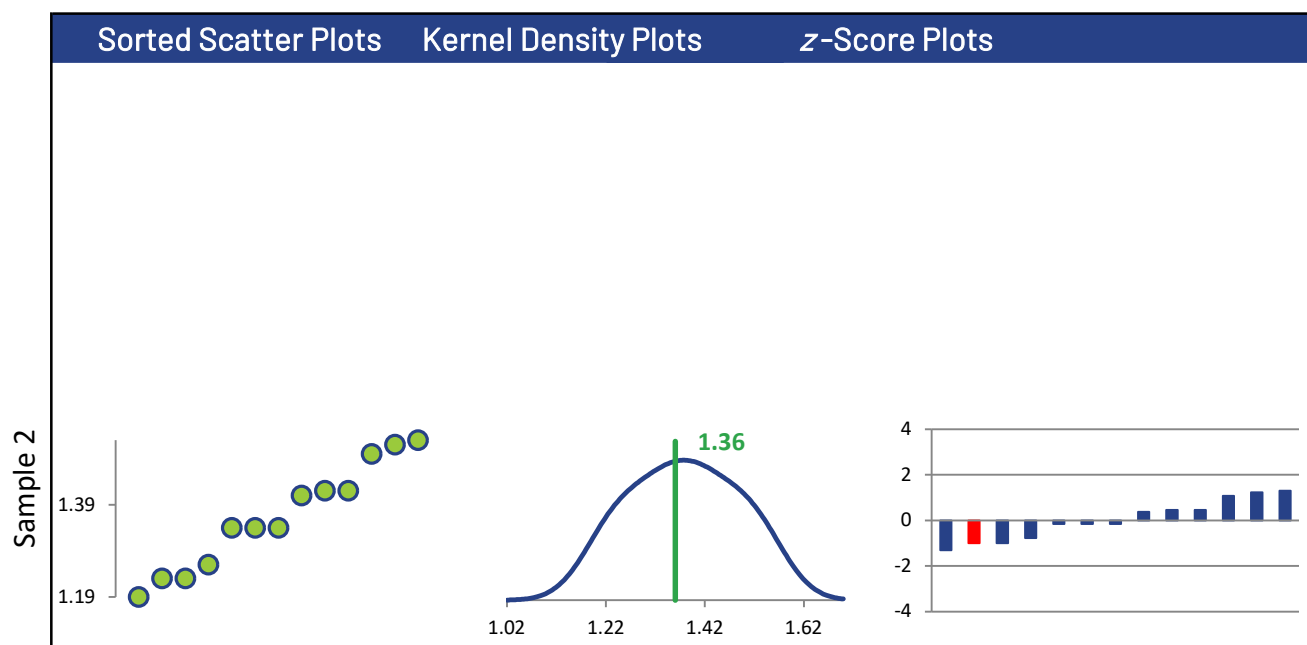
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		1.34		
Robust Mean µg/g		1.36		
U µg/g		0.0451		
Robust Standard Deviation µg/g		0.130		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.130		
Outliers	3	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

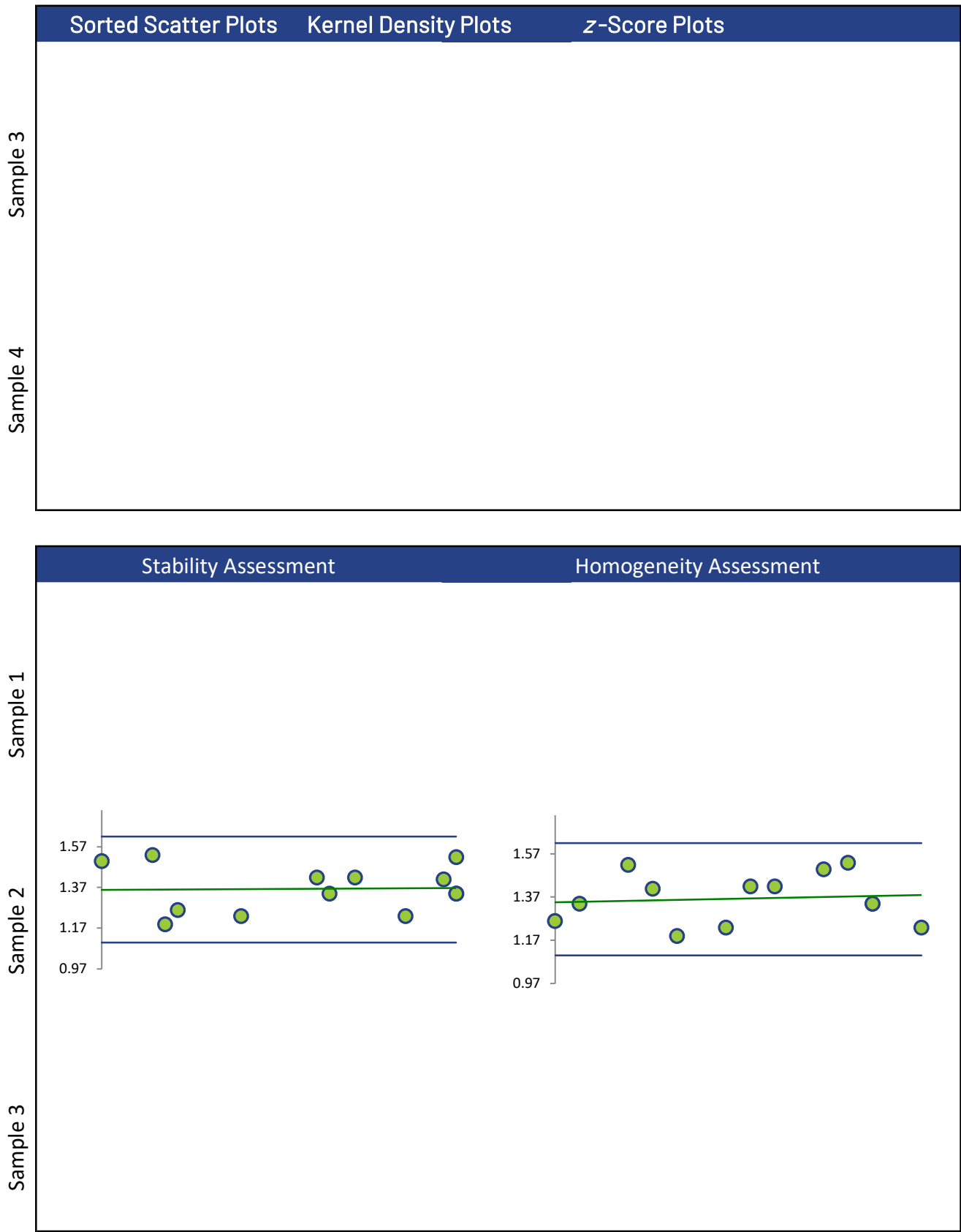
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	12	0	0
LC/MS (Red)	0	1	0	0

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



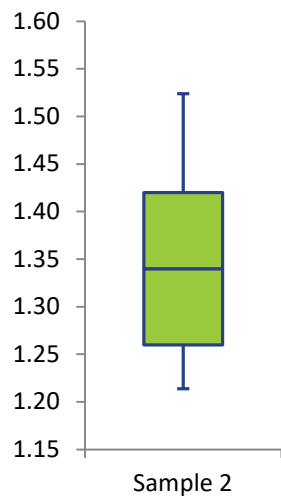
CARBARYL



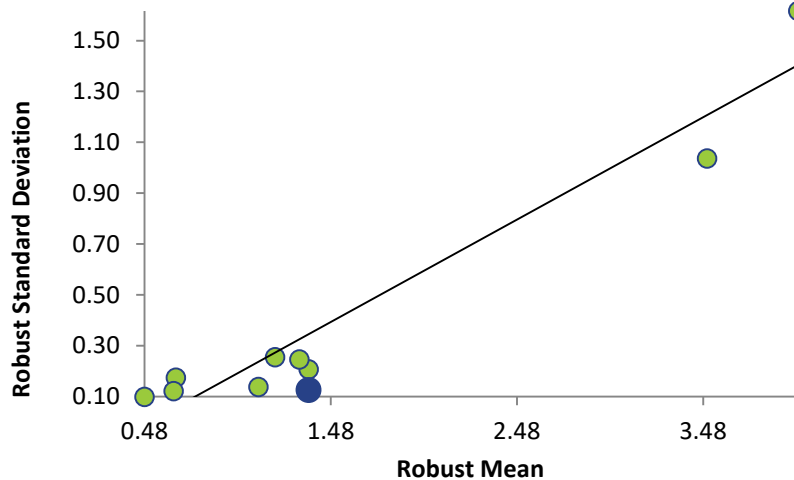
CARBARYL

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)



## CARBOFURAN

## Summary Statistics

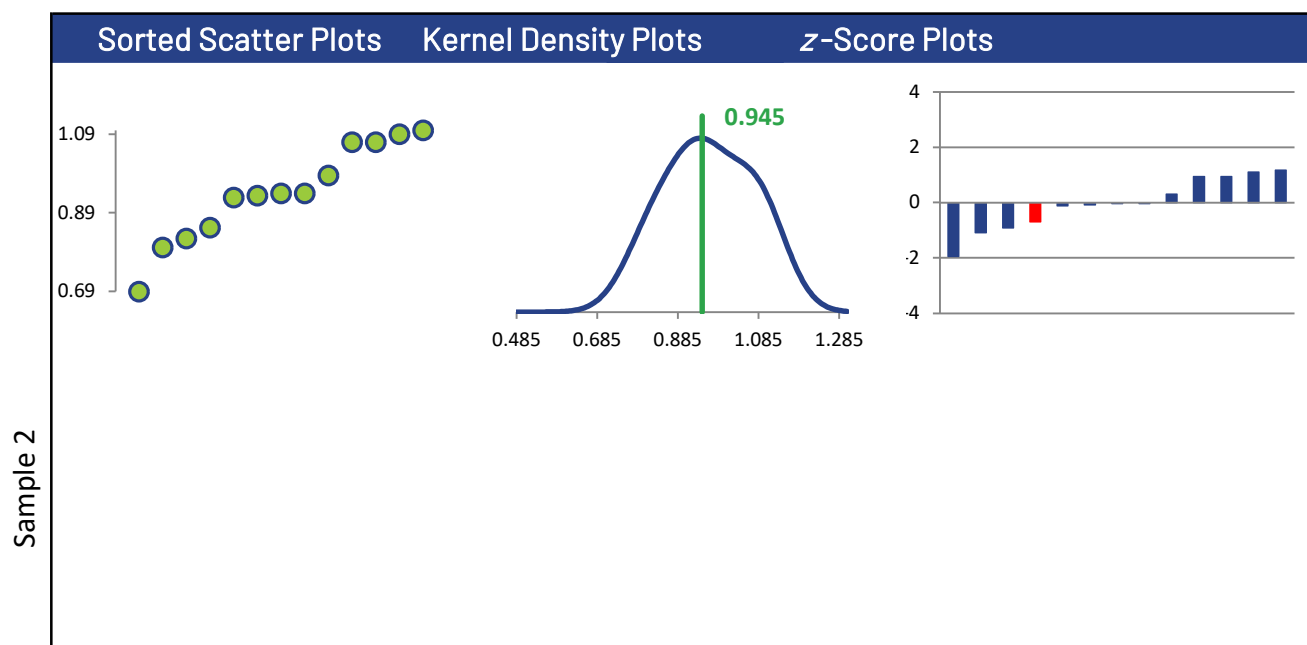
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	0.940			
Robust Mean µg/g	0.945			
U µg/g	0.0454			
Robust Standard Deviation µg/g	0.131			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.131			
Outliers	0	4	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

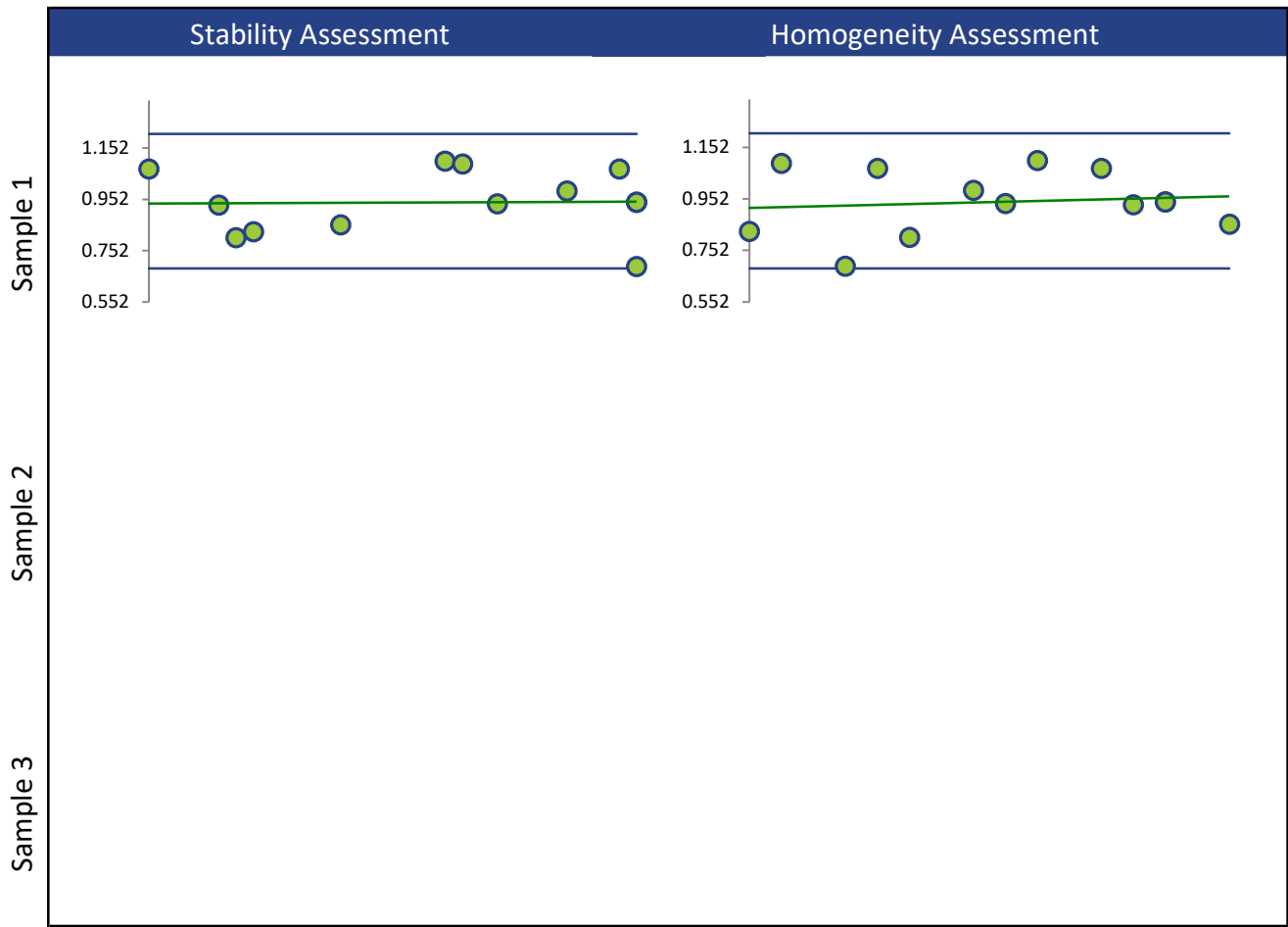
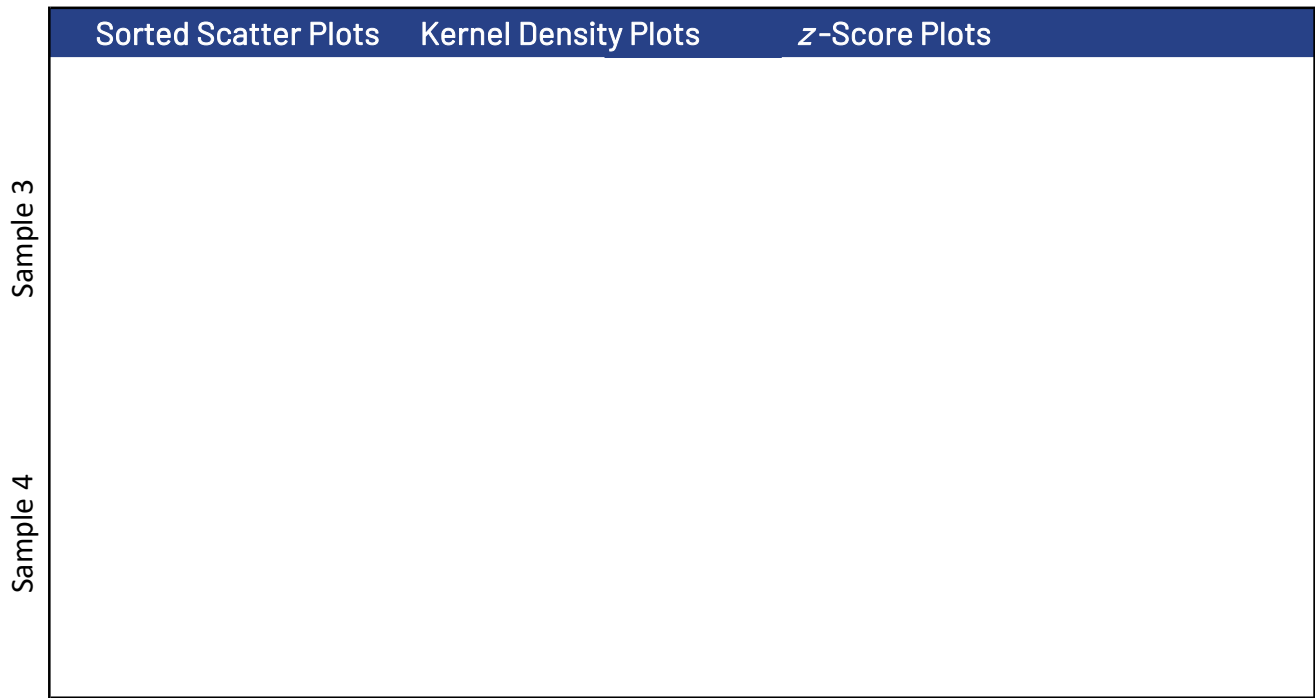
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	12	0	0	0
LC/MS (Red)	1	0	0	0

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



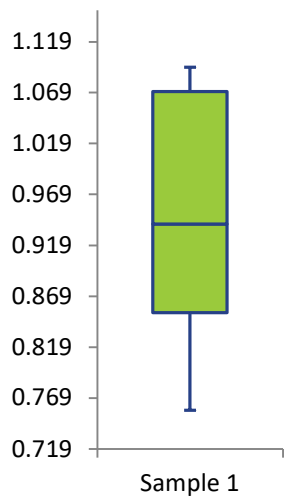
CARBOFURAN



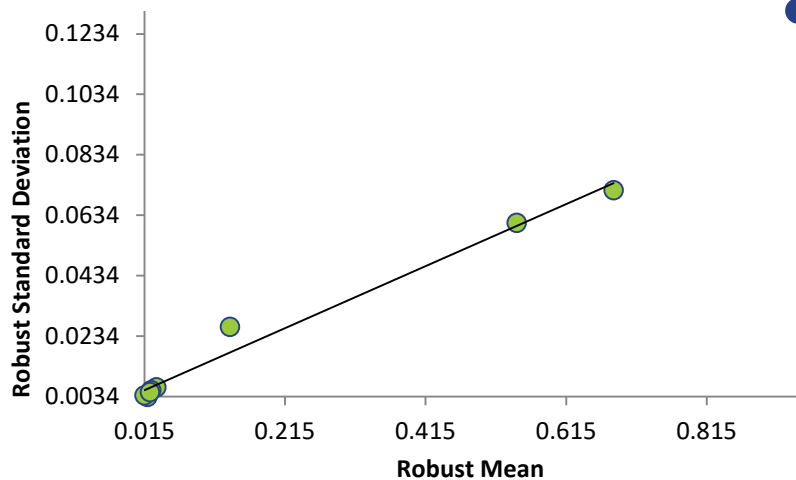
CARBOFURAN

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)



## DIAZINON

## Summary Statistics

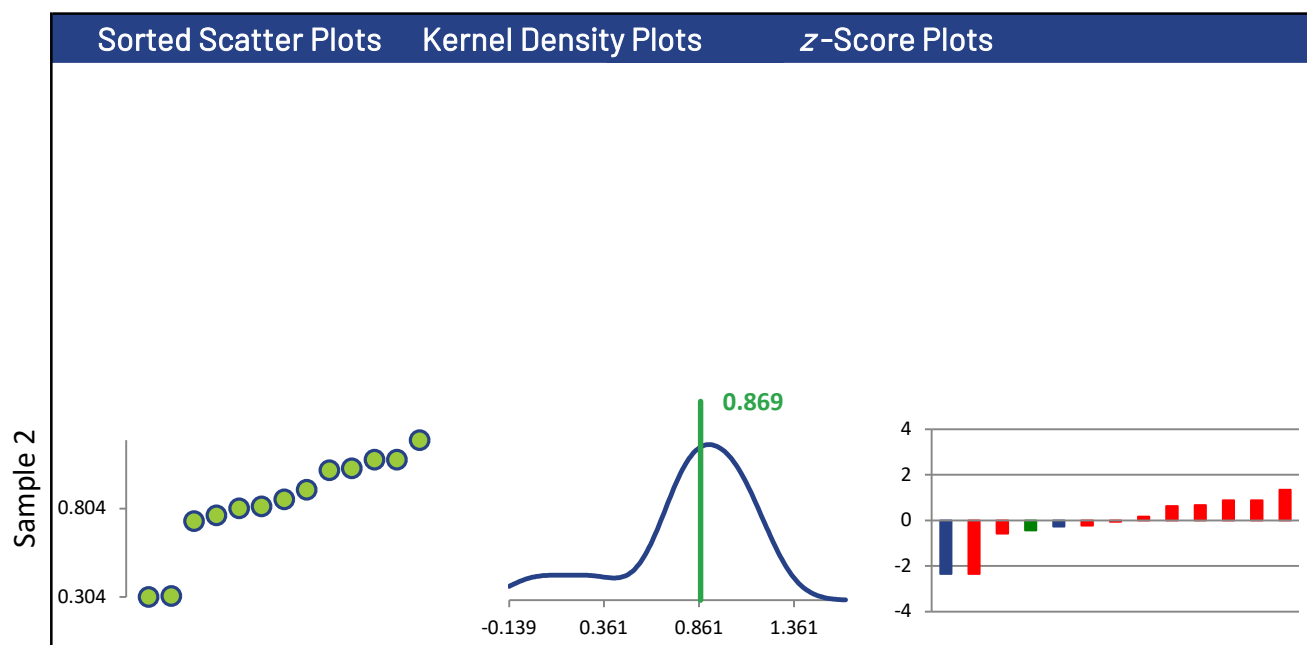
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		0.855		
Robust Mean µg/g		0.869		
U µg/g		0.0832		
Robust Standard Deviation µg/g		0.240		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.240		
Outliers	3	0	0	0
z >3.0	0	0	0	0
2< z <3	0	2	0	0

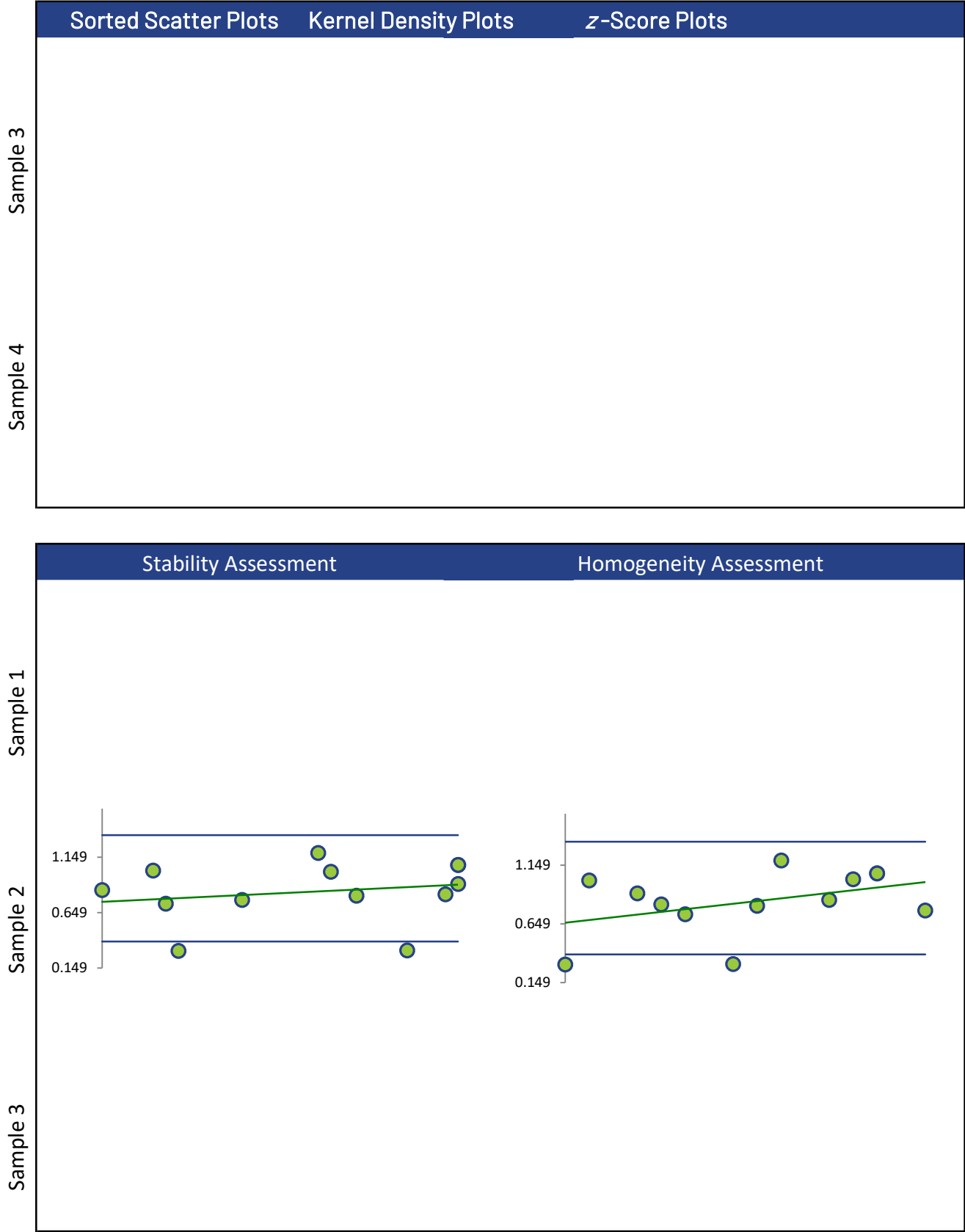
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
GC/MS/MS (Blue)	0	2	0	0
LC-MS/MS (Red)	0	10	0	0
LC/MS (Green)	0	1	0	0

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



DIAZINON

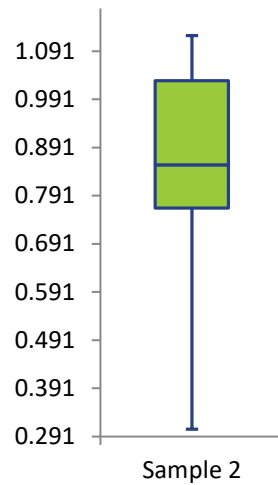




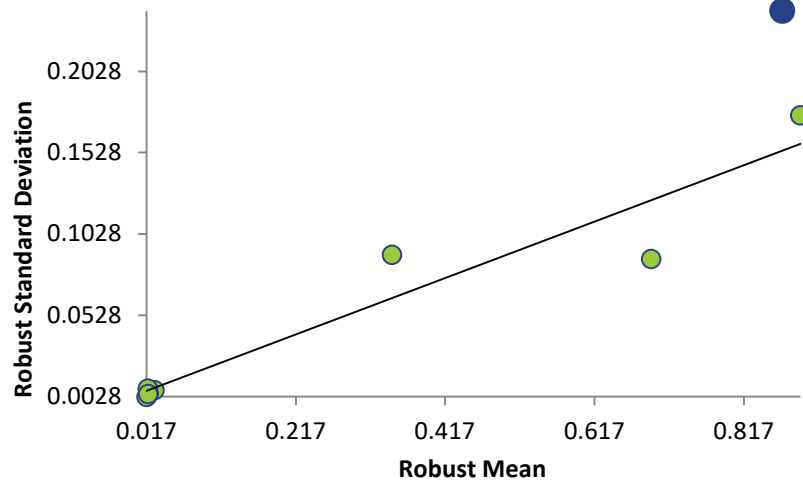
DIAZINON

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)



## DICHLORVOS (DDVP)

## Summary Statistics

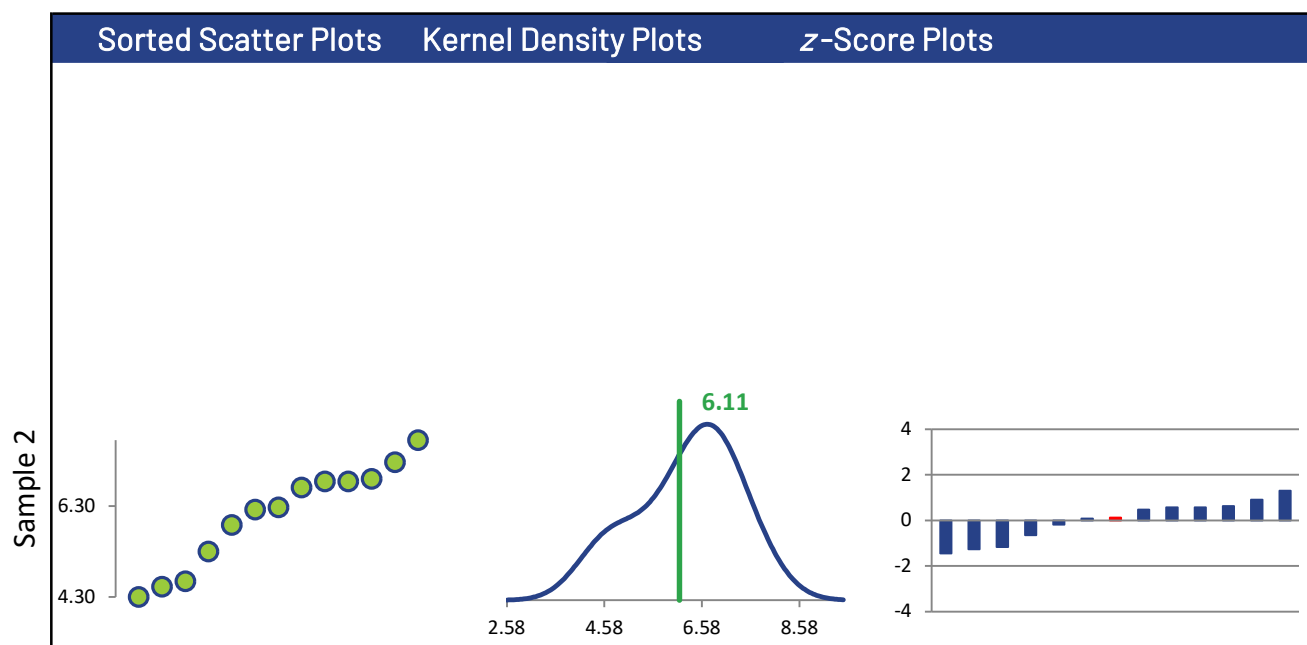
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		6.27		
Robust Mean µg/g		6.11		
U µg/g		0.437		
Robust Standard Deviation µg/g		1.26		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		1.26		
Outliers	3	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

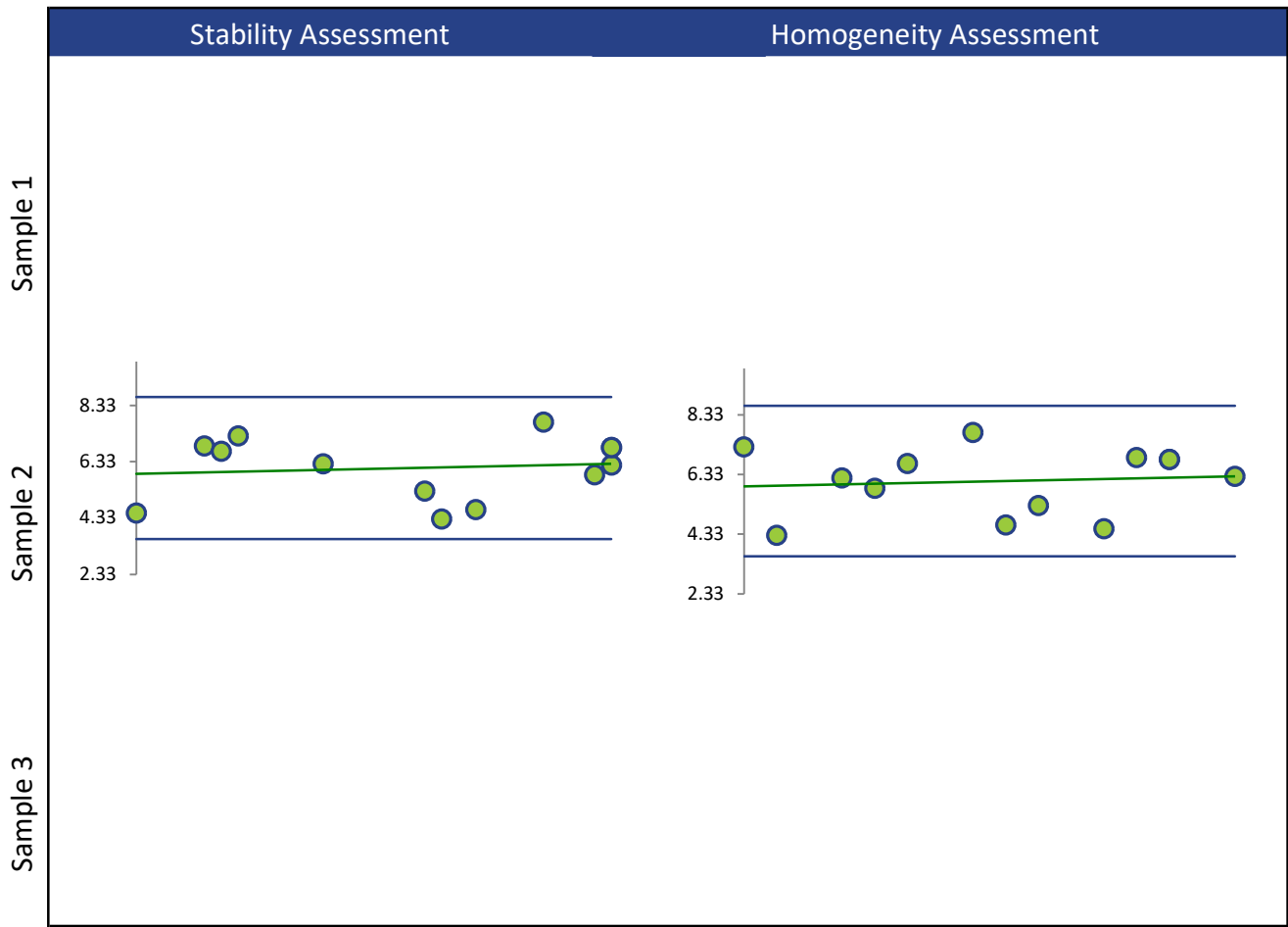
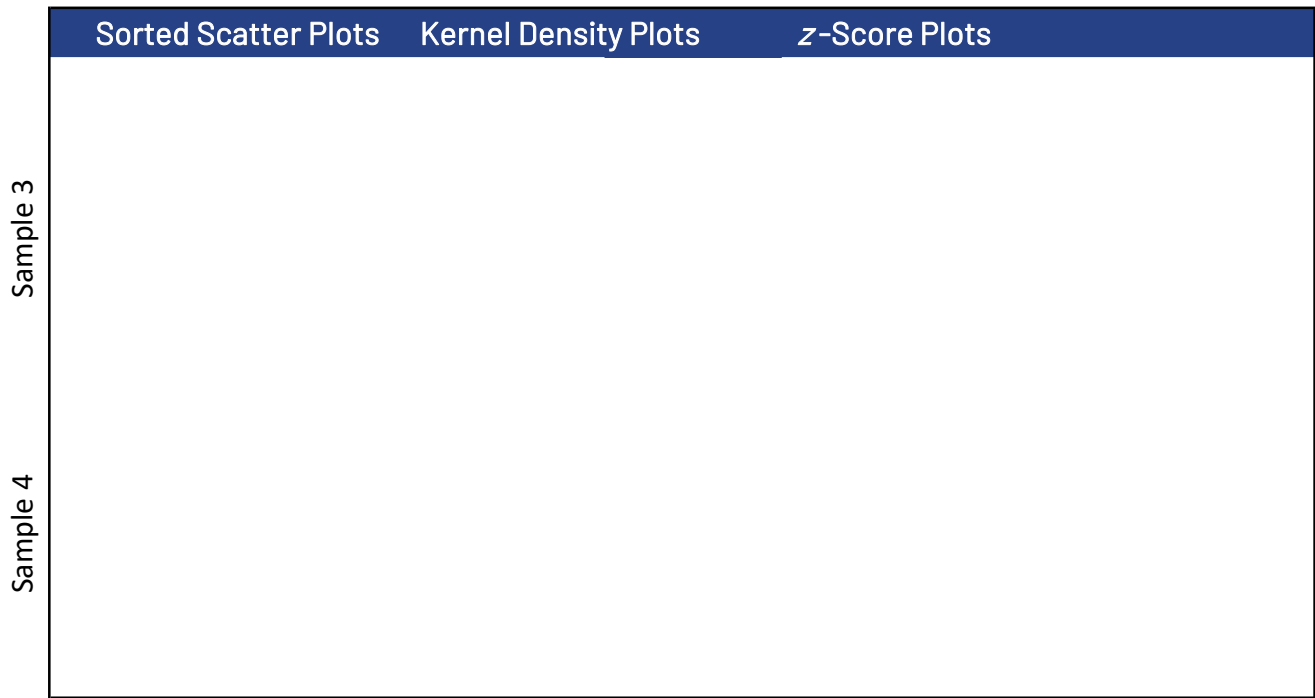
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	12	0	0
LC/MS (Red)	0	1	0	0

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



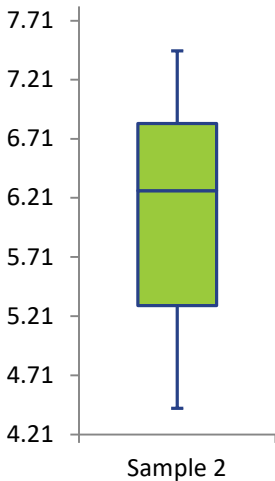
DICHLORVOS (DDVP)



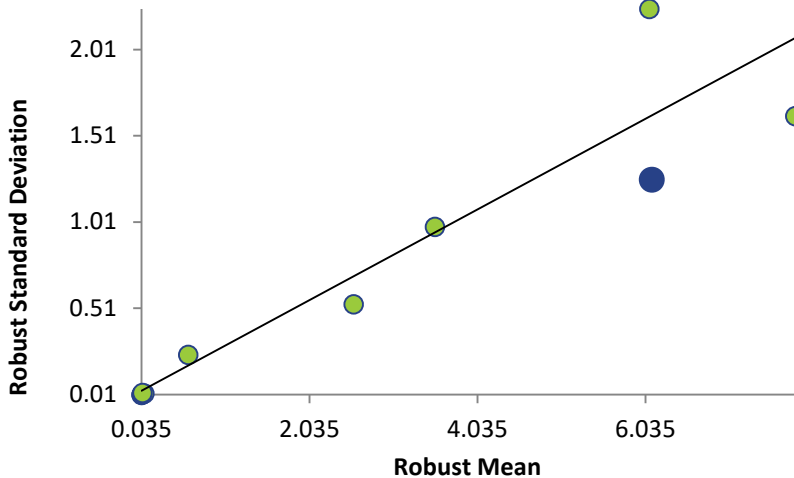
DICHLORVOS (DDVP)

Stability Assessment		Homogeneity Assessment	
Sample 4			
	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>		

Box and Whisker Plots



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



## DIMETHOATE

## Summary Statistics

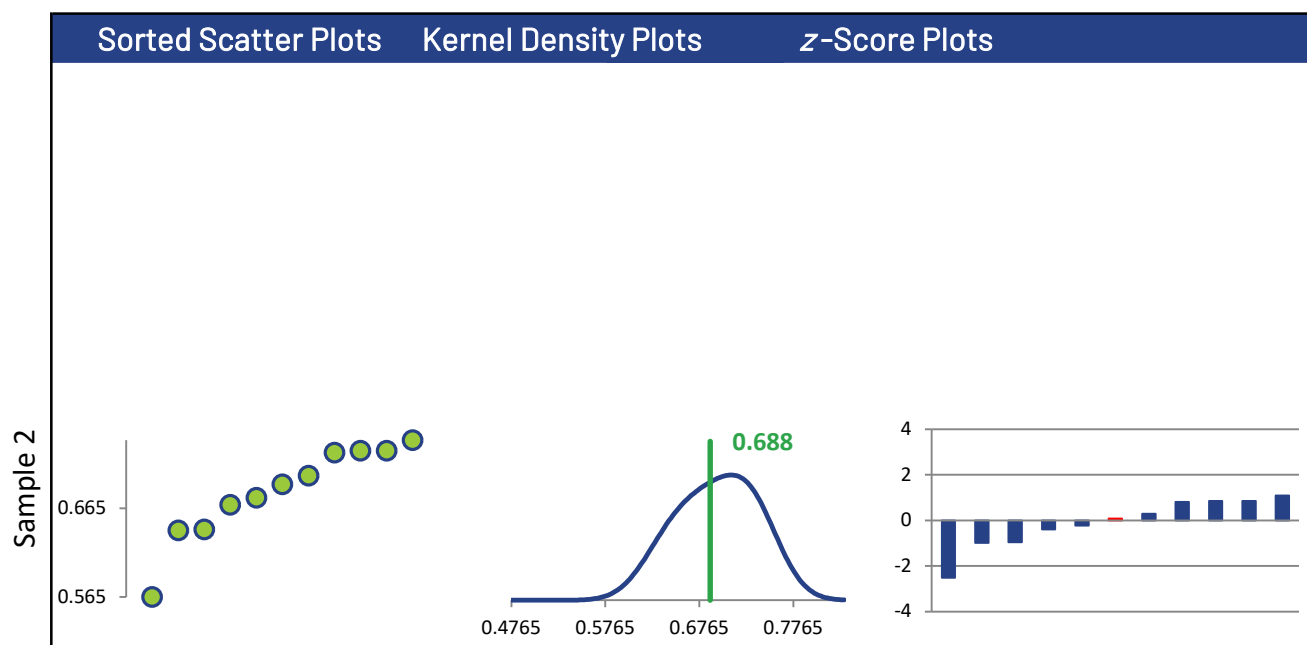
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	11	0	0
Median µg/g		0.692		
Robust Mean µg/g		0.688		
U µg/g		0.0185		
Robust Standard Deviation µg/g		0.0490		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.0490		
Outliers	3	2	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	1	0	0

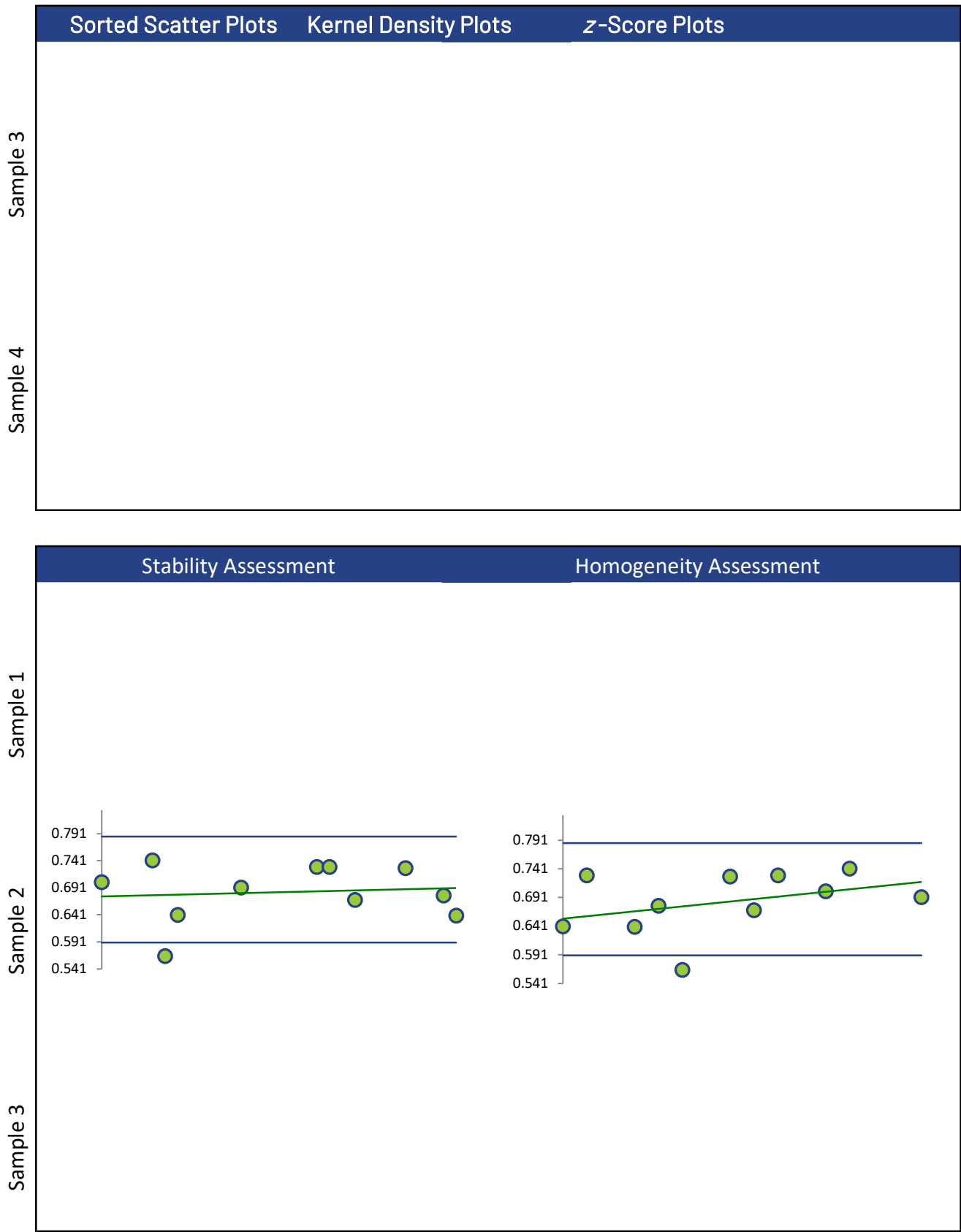
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	10	0	0
LC/MS (Red)	0	1	0	0

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



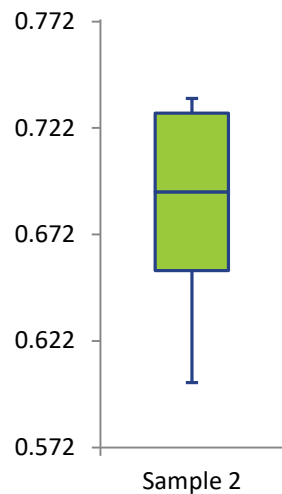
DIMETHOATE



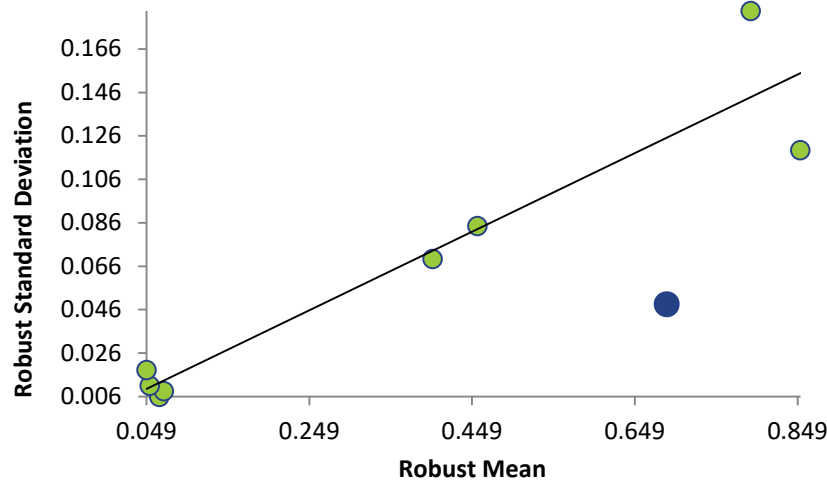
DIMETHOATE

	Stability Assessment	Homogeneity Assessment
Sample 4	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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



## ETHOPROPHOS

## Summary Statistics

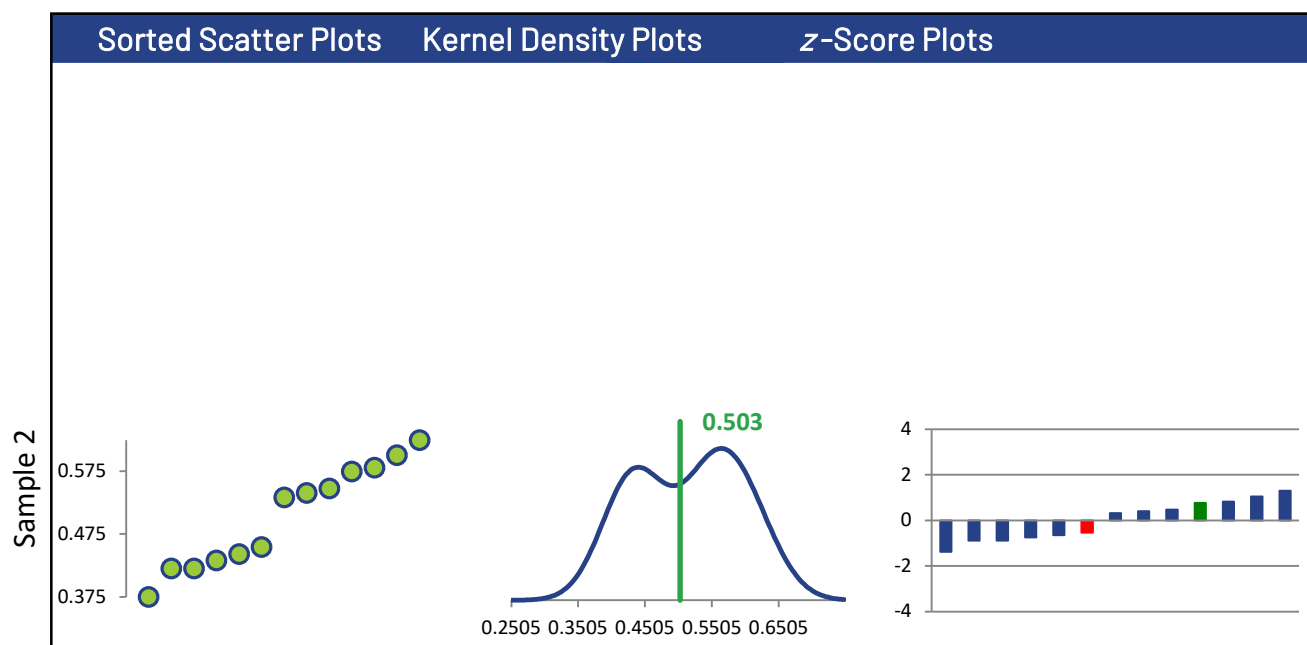
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		0.533		
Robust Mean µg/g		0.503		
U µg/g		0.0322		
Robust Standard Deviation µg/g		0.0928		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.0928		
Outliers	3	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

## Methods Used

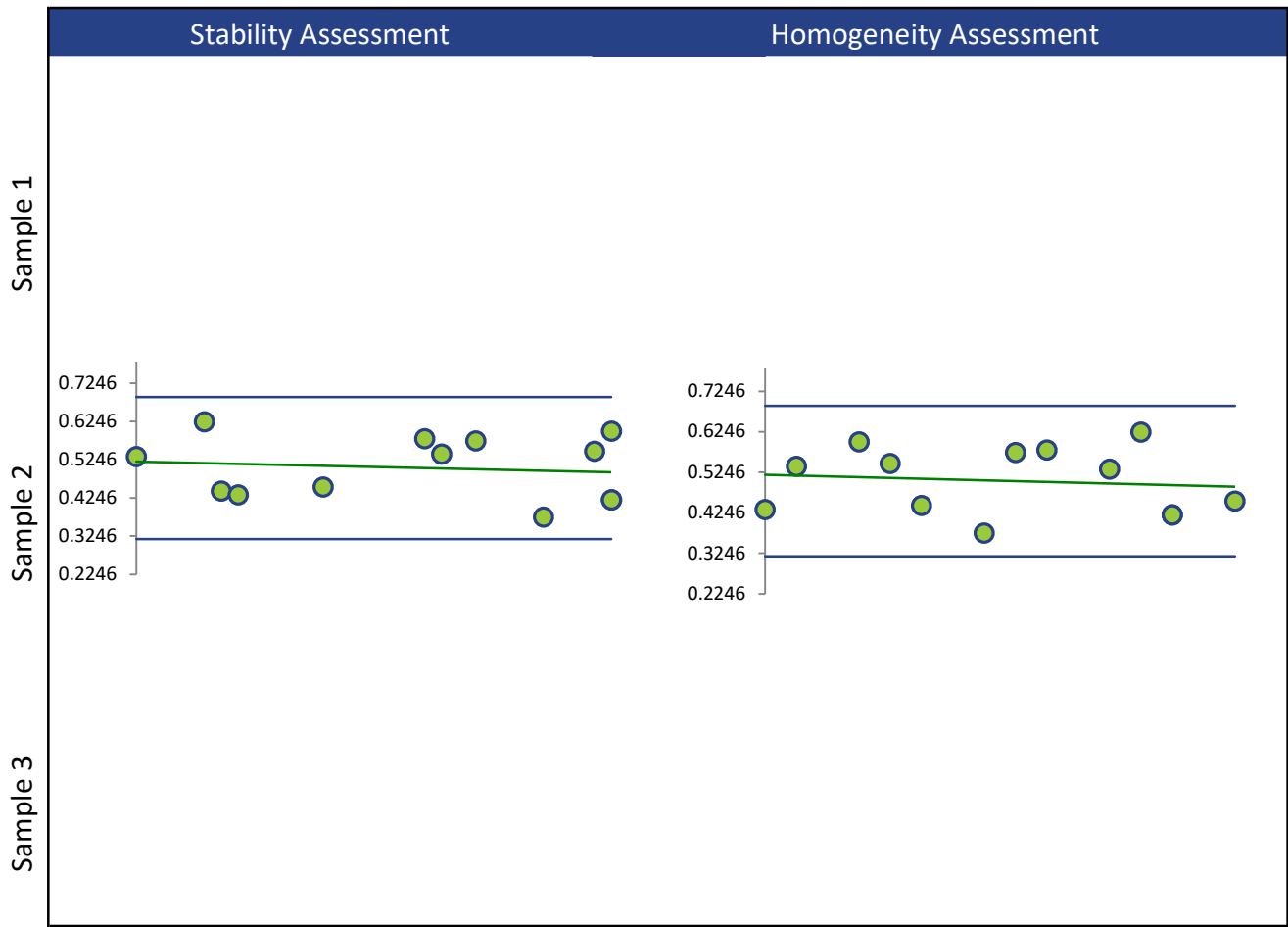
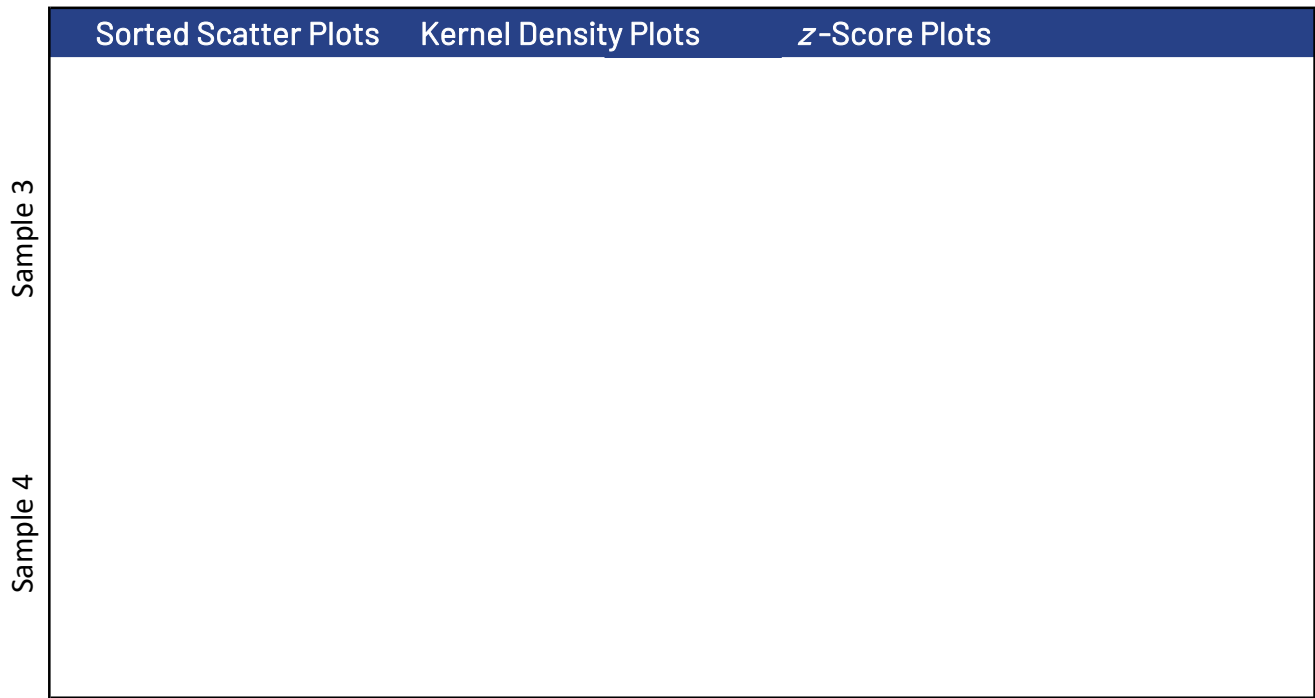
Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	11	0	0
LC/MS (Red)	0	1	0	0
GC/MS/MS (Green)	0	1	0	0

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





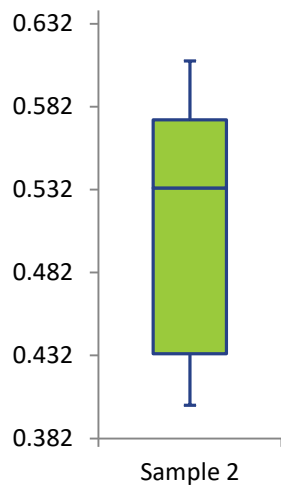
ETHOPROPHOS



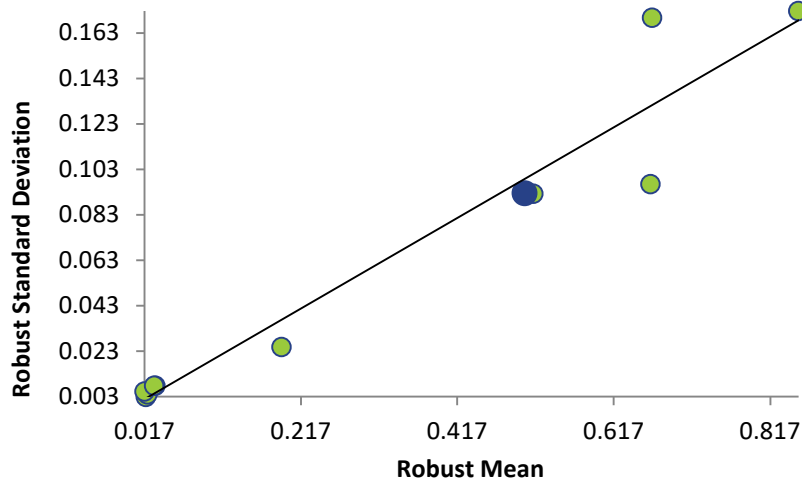
ETHOPROPHOS

Stability Assessment		Homogeneity Assessment	
Sample 4			
	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>		

Box and Whisker Plots



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



## ETOXAZOLE

## Summary Statistics

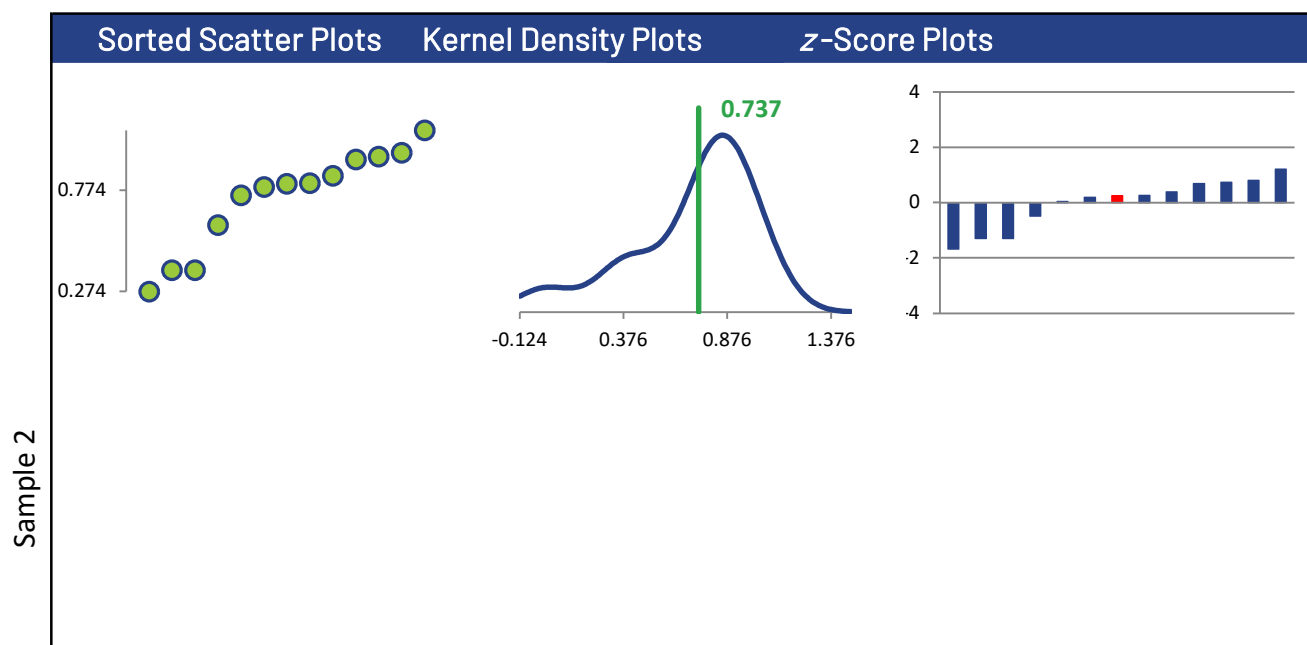
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	0.807			
Robust Mean µg/g	0.737			
U µg/g	0.0953			
Robust Standard Deviation µg/g	0.275			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.275			
Outliers	0	3	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

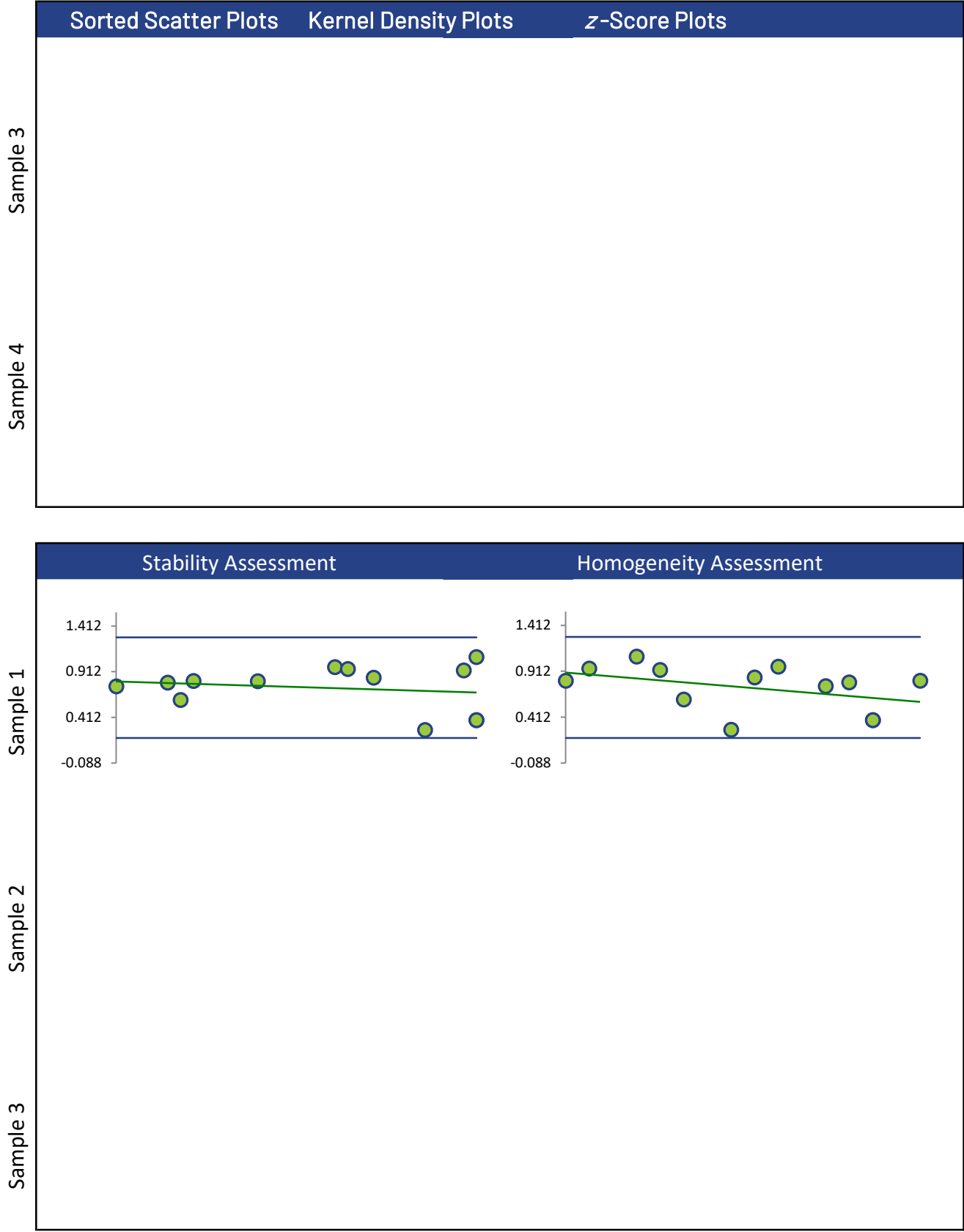
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	12	0	0	0
LC/MS (Red)	1	0	0	0

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



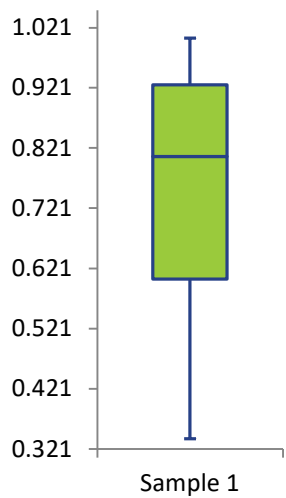
ETOXAZOLE



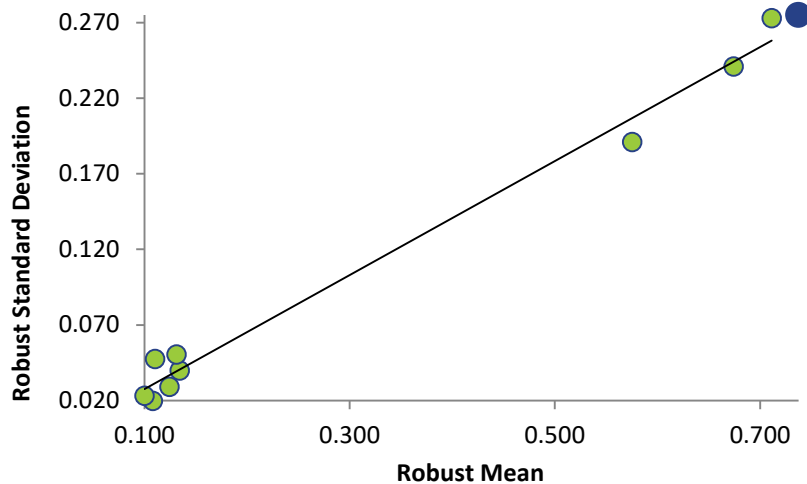
ETOXAZOLE

	Stability Assessment	Homogeneity Assessment
Sample 4	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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



## FIPRONIL

## Summary Statistics

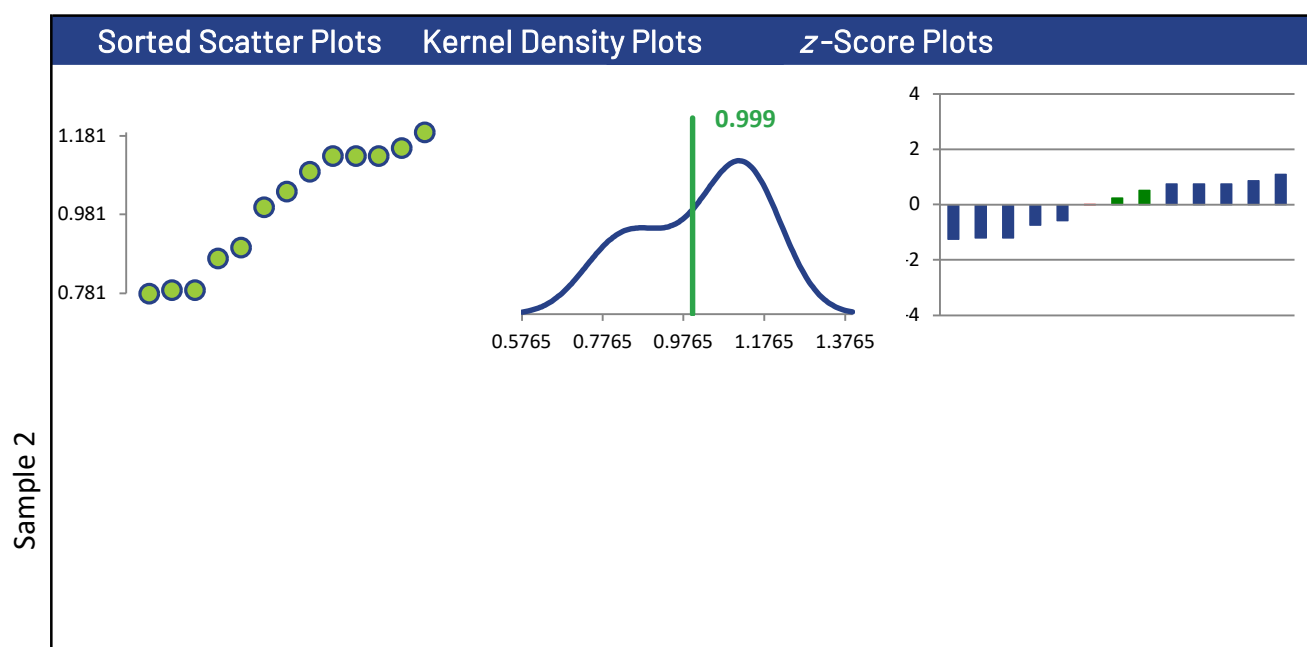
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	1.04			
Robust Mean µg/g	0.999			
U µg/g	0.0603			
Robust Standard Deviation µg/g	0.174			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.174			
Outliers	0	3	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

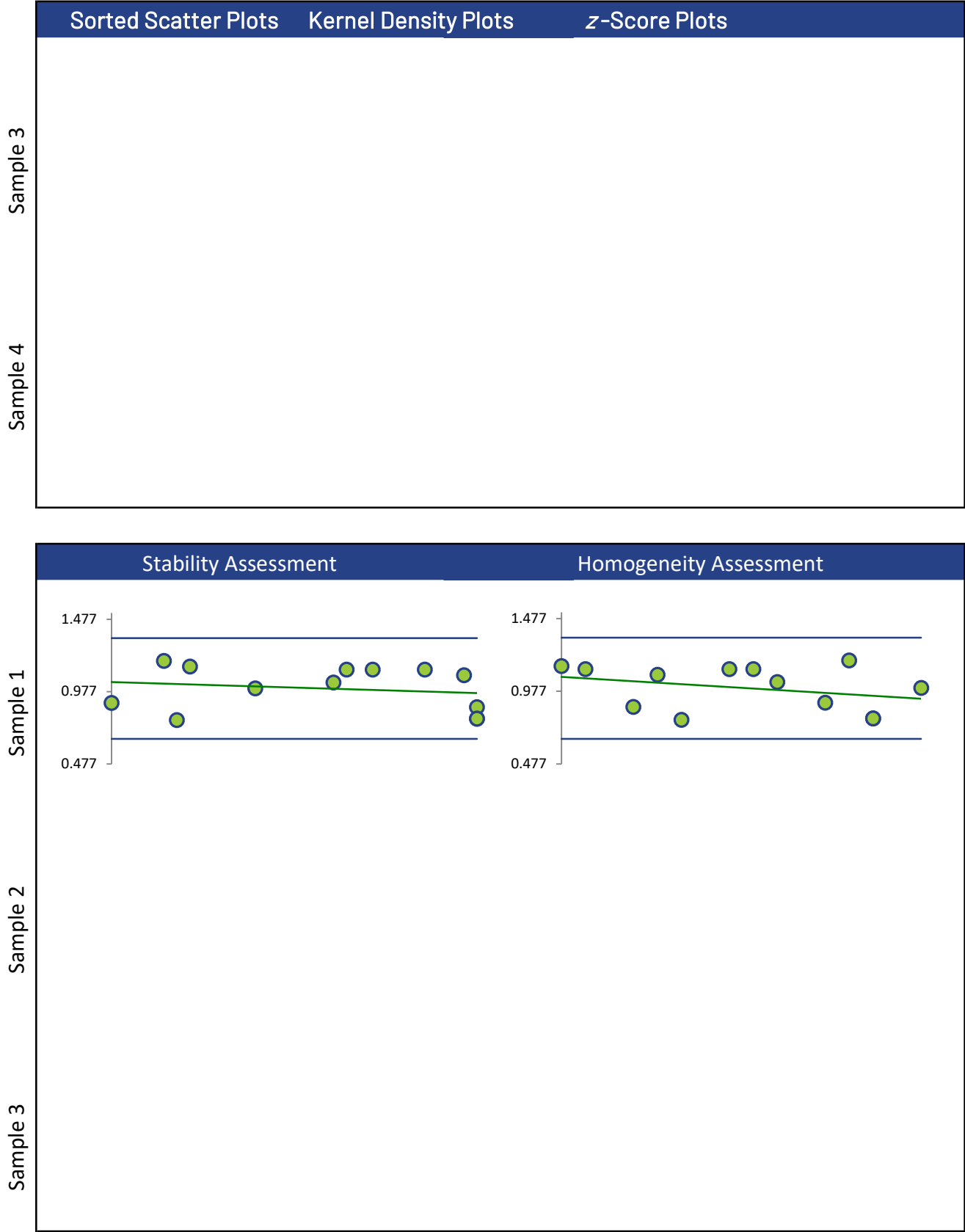
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	10	0	0	0
LC/MS (Red)	1	0	0	0
GC/MS/MS (Green)	2	0	0	0

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



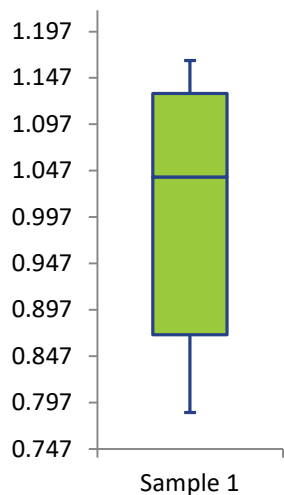
FIPRONIL



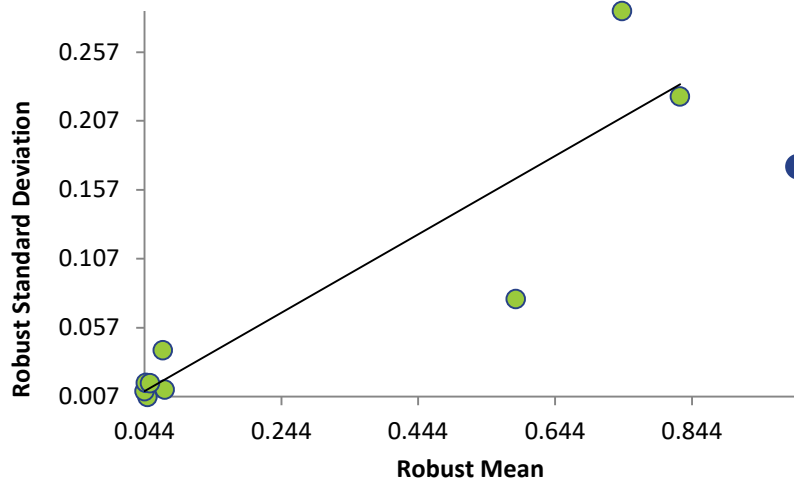
FIPRONIL

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)





## FLUDIOXONIL

## Summary Statistics

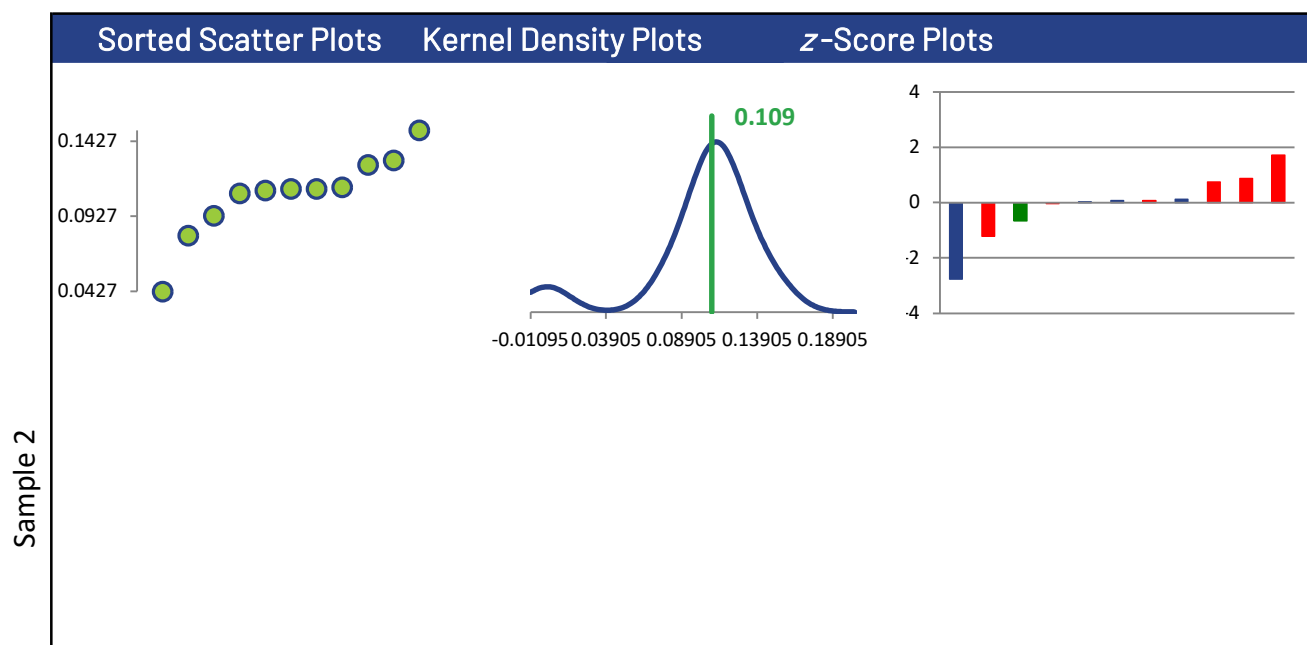
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	11	0	0	0
Median µg/g	0.111			
Robust Mean µg/g	0.109			
U µg/g	0.00901			
Robust Standard Deviation µg/g	0.0239			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.0239			
Outliers	2	3	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	1	0	0	0

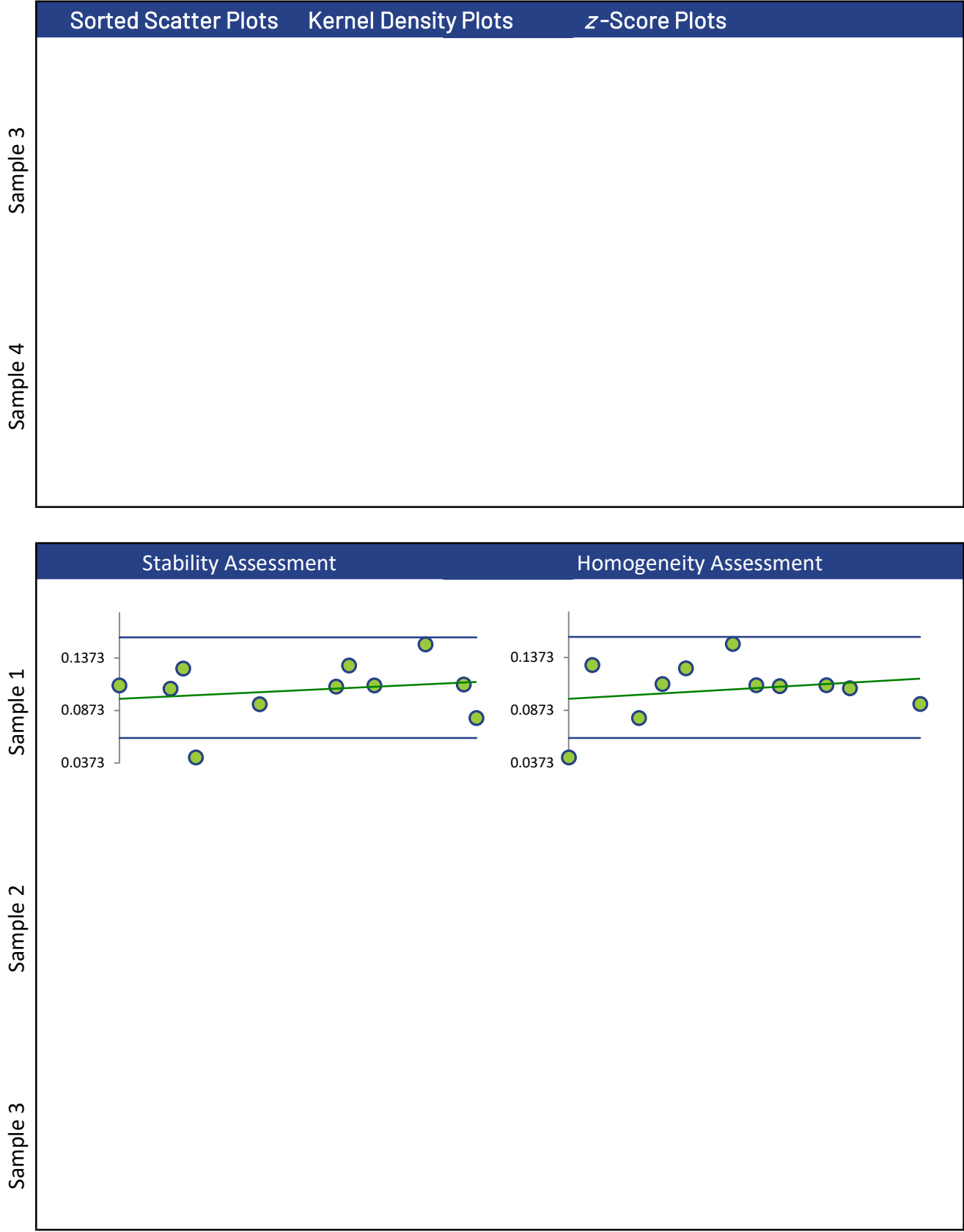
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
GC/MS/MS (Blue)	4	0	0	0
LC-MS/MS (Red)	6	0	0	0
LC/MS (Green)	1	0	0	0

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



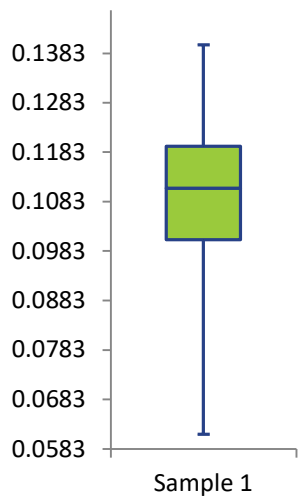
FLUDIOXONIL



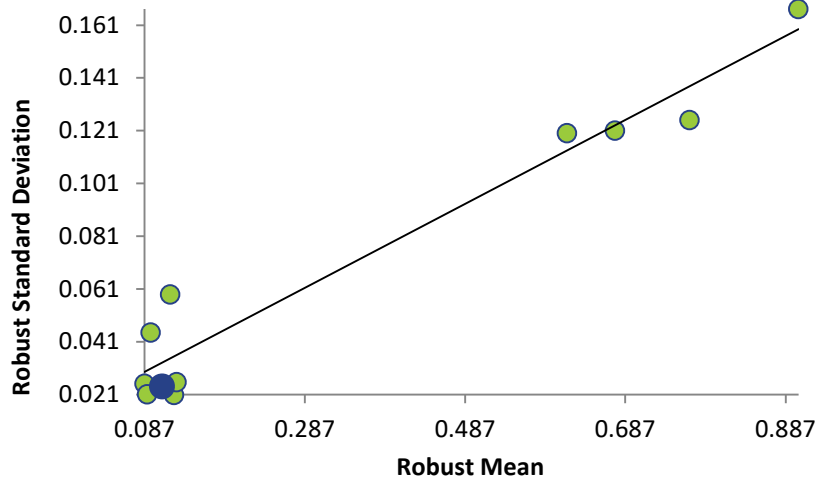
FLUDIOXONIL

	Stability Assessment	Homogeneity Assessment
Sample 4	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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



IMIDACLOPRID

Summary Statistics

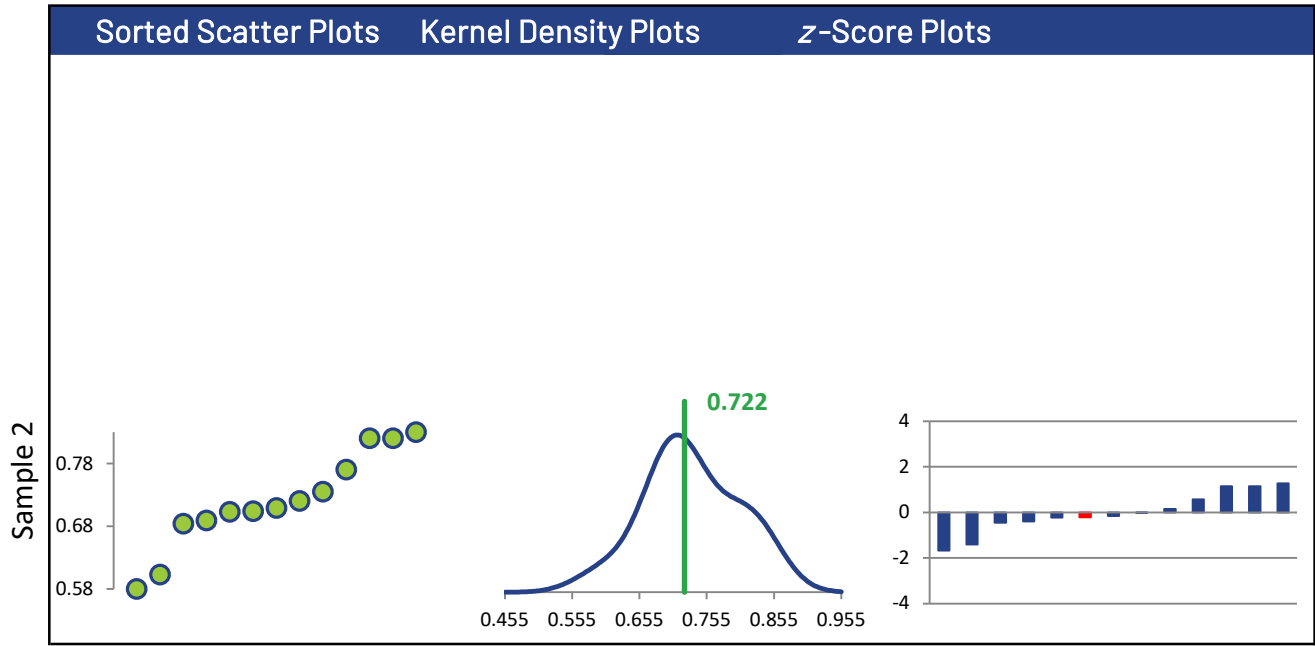
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		0.709		
Robust Mean µg/g		0.722		
U µg/g		0.0294		
Robust Standard Deviation µg/g		0.0849		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.0849		
Outliers	3	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0

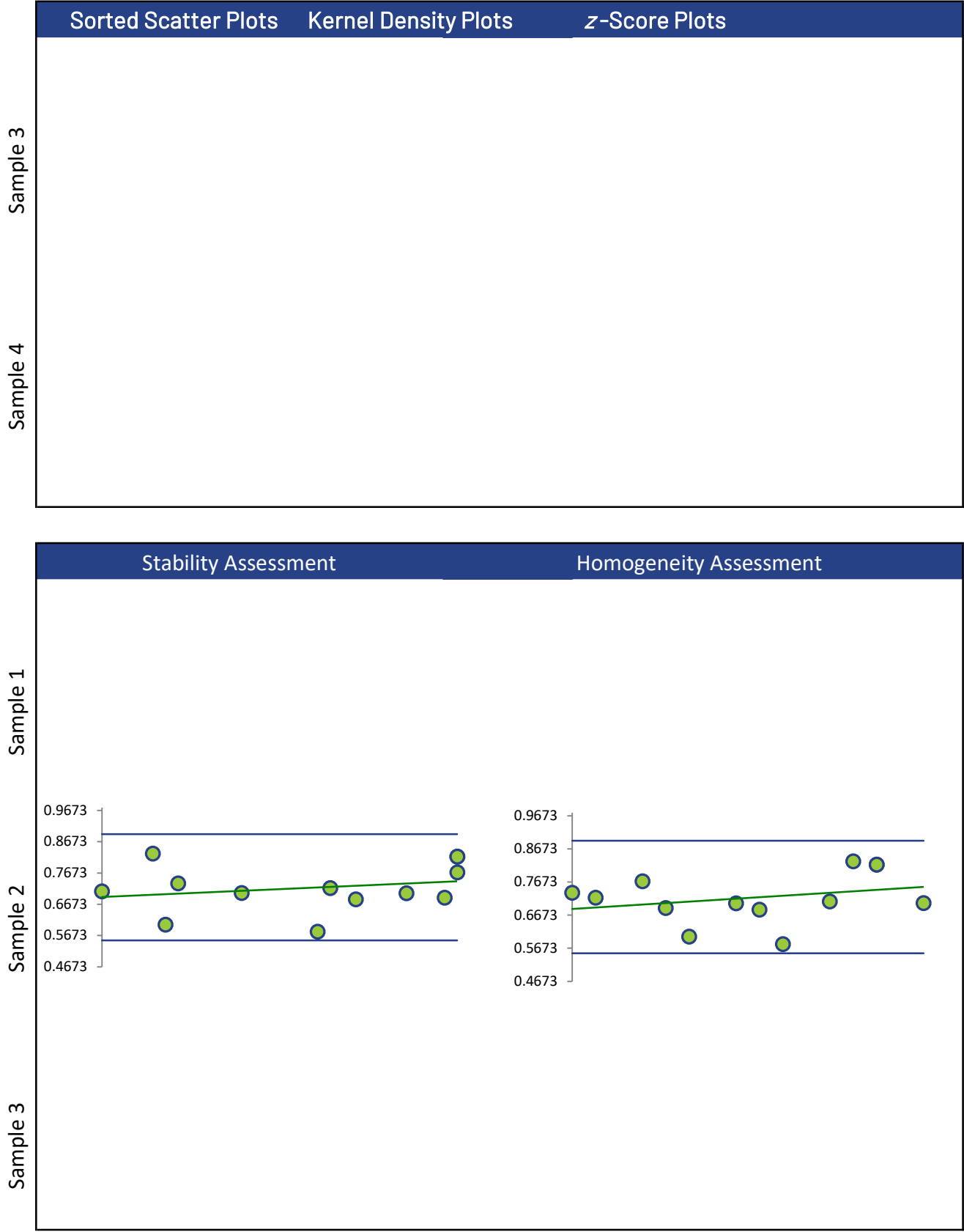
Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	12	0	0
LC/MS (Red)	0	1	0	0

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



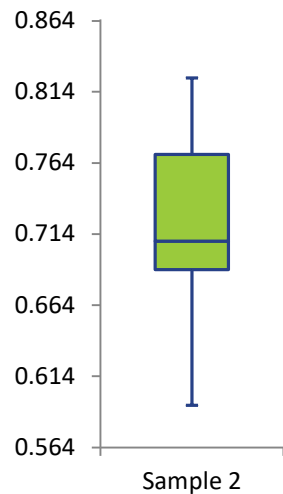
IMIDACLOPRID



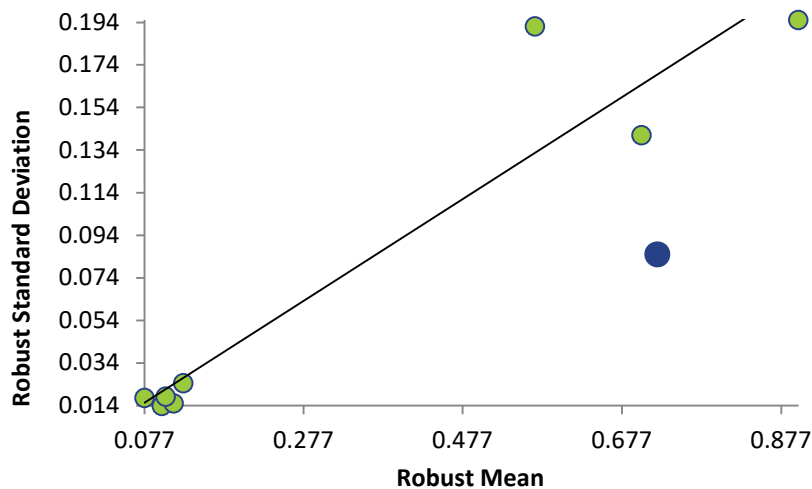
IMIDACLOPRID

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)



## MALATHION

## Summary Statistics

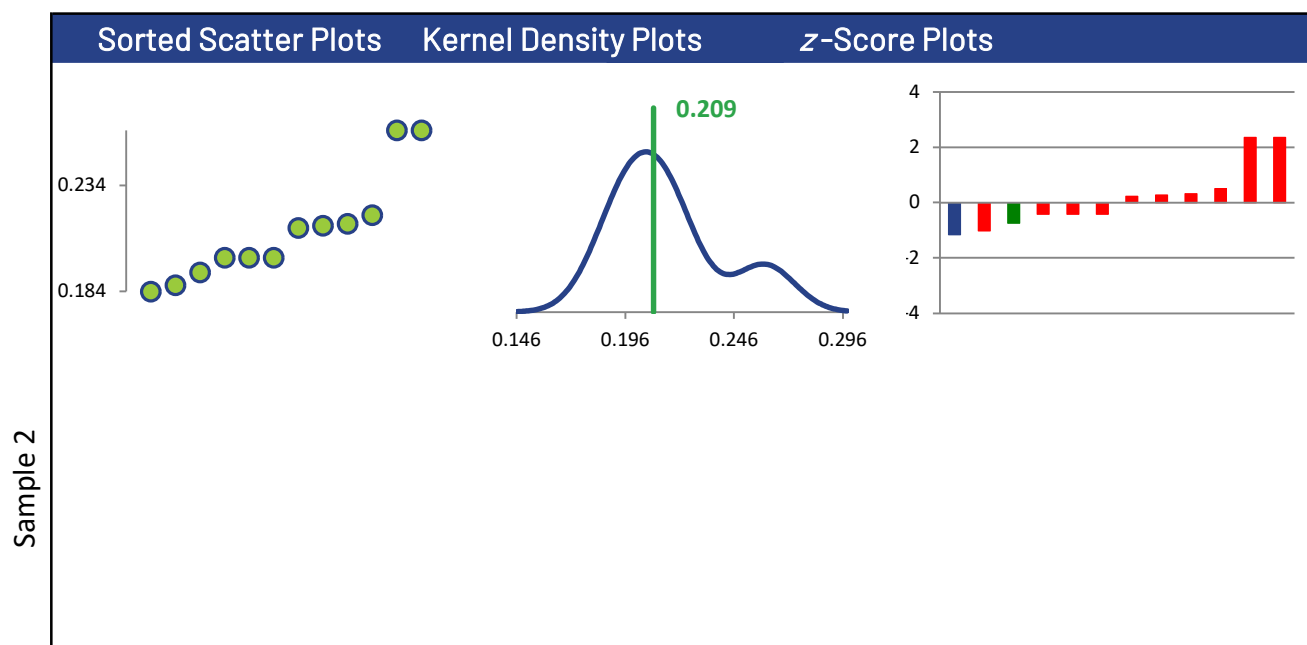
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	12	0	0	0
Median µg/g	0.207			
Robust Mean µg/g	0.209			
U µg/g	0.00779			
Robust Standard Deviation µg/g	0.0216			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.0216			
Outliers	0	3	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	2	0	0	0

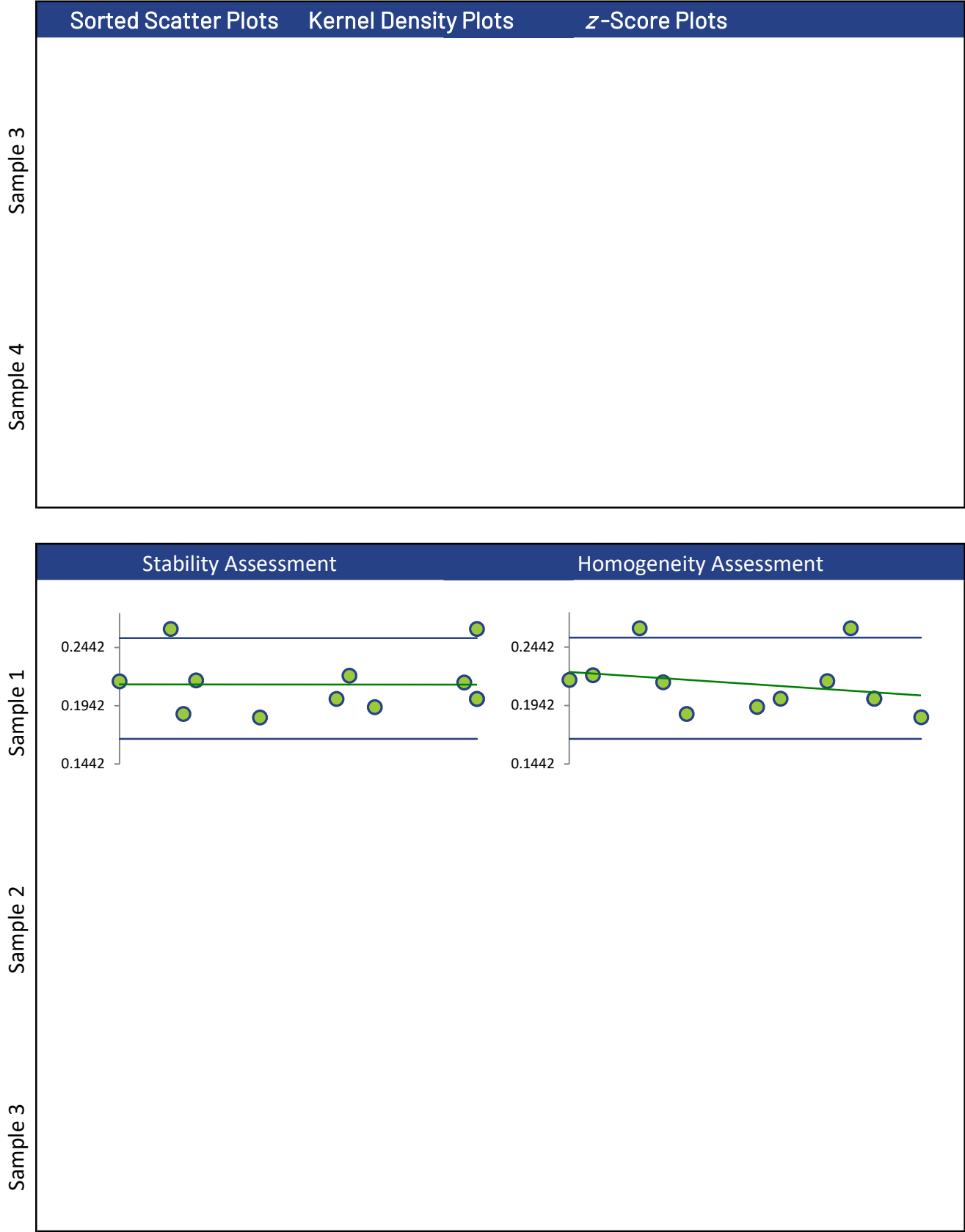
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC/MS (Blue)	1	0	0	0
LC-MS/MS (Red)	10	0	0	0
GC/MS/MS (Green)	1	0	0	0

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



MALATHION

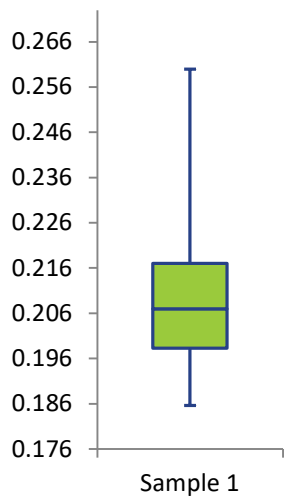




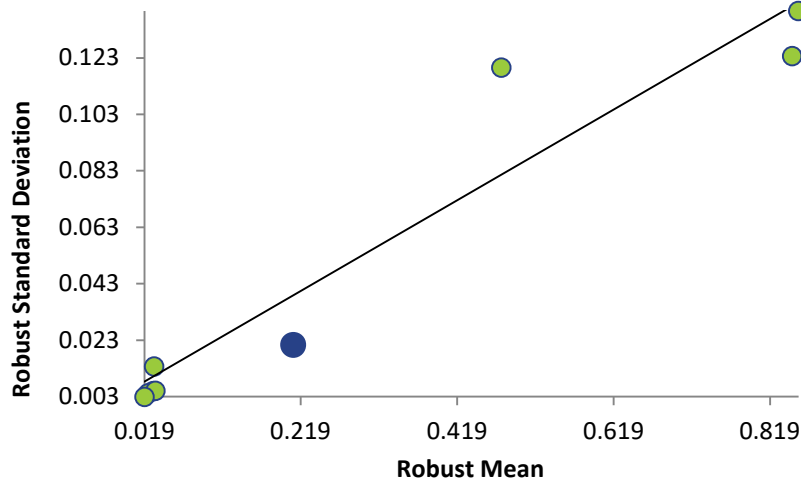
MALATHION

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)



## METALAXYL

## Summary Statistics

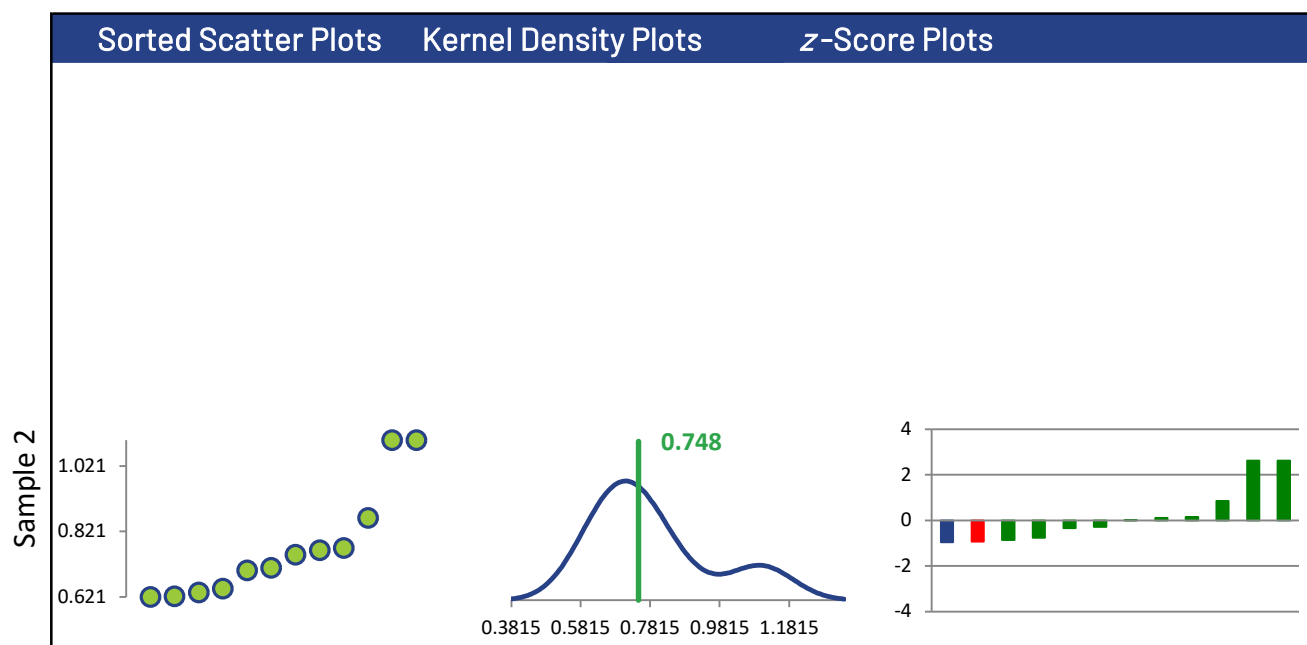
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	12	0	0
Median µg/g		0.730		
Robust Mean µg/g		0.748		
U µg/g		0.0484		
Robust Standard Deviation µg/g		0.134		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.134		
Outliers	4	0	0	0
z >3.0	0	0	0	0
2< z <3	0	2	0	0

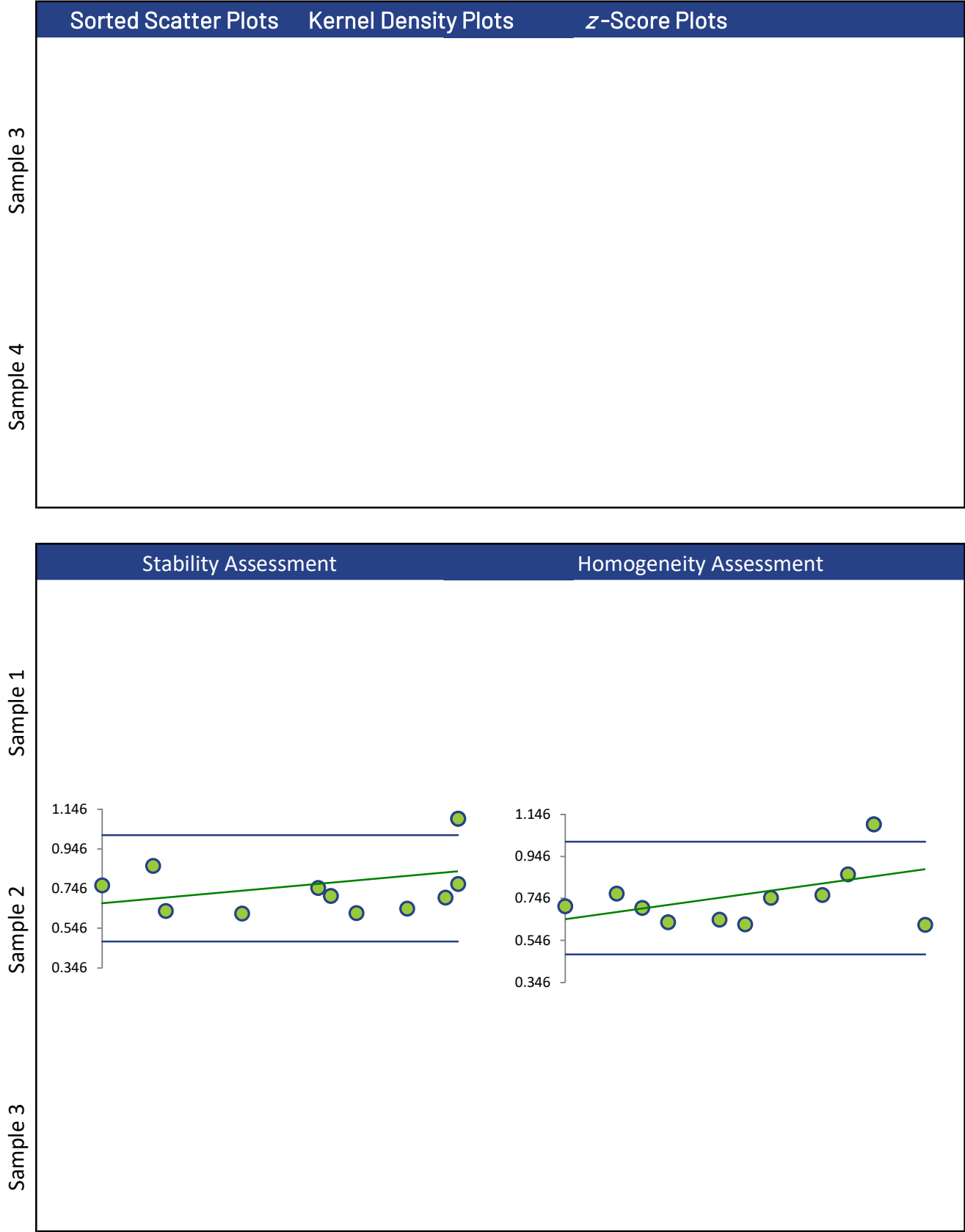
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC/MS (Blue)	0	1	0	0
GC/MS/MS (Red)	0	1	0	0
LC-MS/MS (Green)	0	10	0	0

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



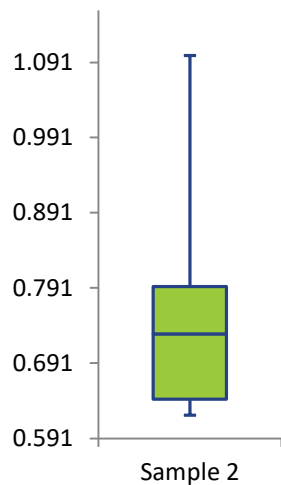
METALAXYL



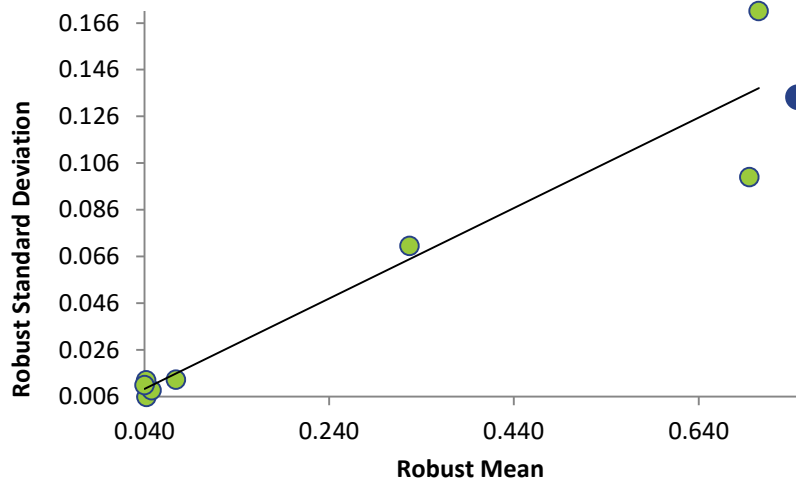
METALAXYL

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)



## METHIOCARB

## Summary Statistics

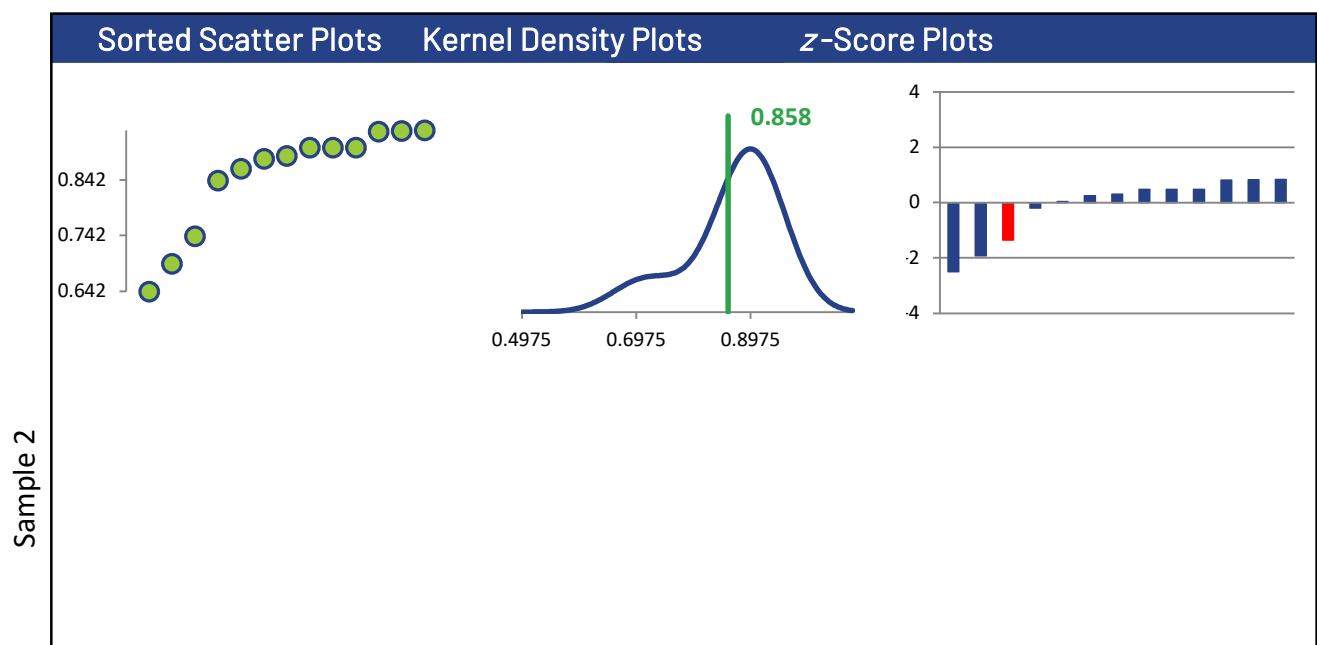
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	0.885			
Robust Mean µg/g	0.858			
U µg/g	0.0299			
Robust Standard Deviation µg/g	0.0863			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.0863			
Outliers	0	3	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	1	0	0	0

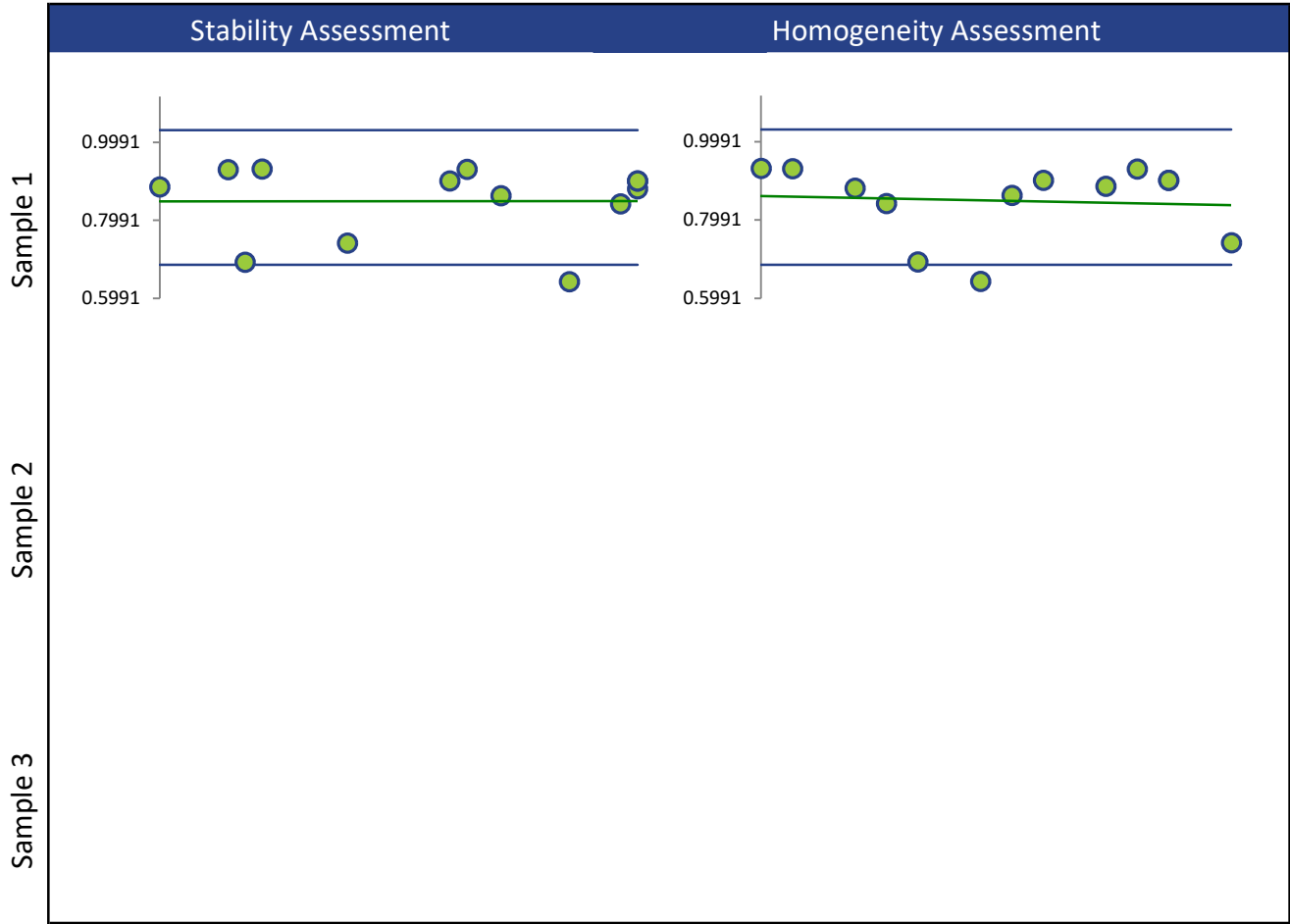
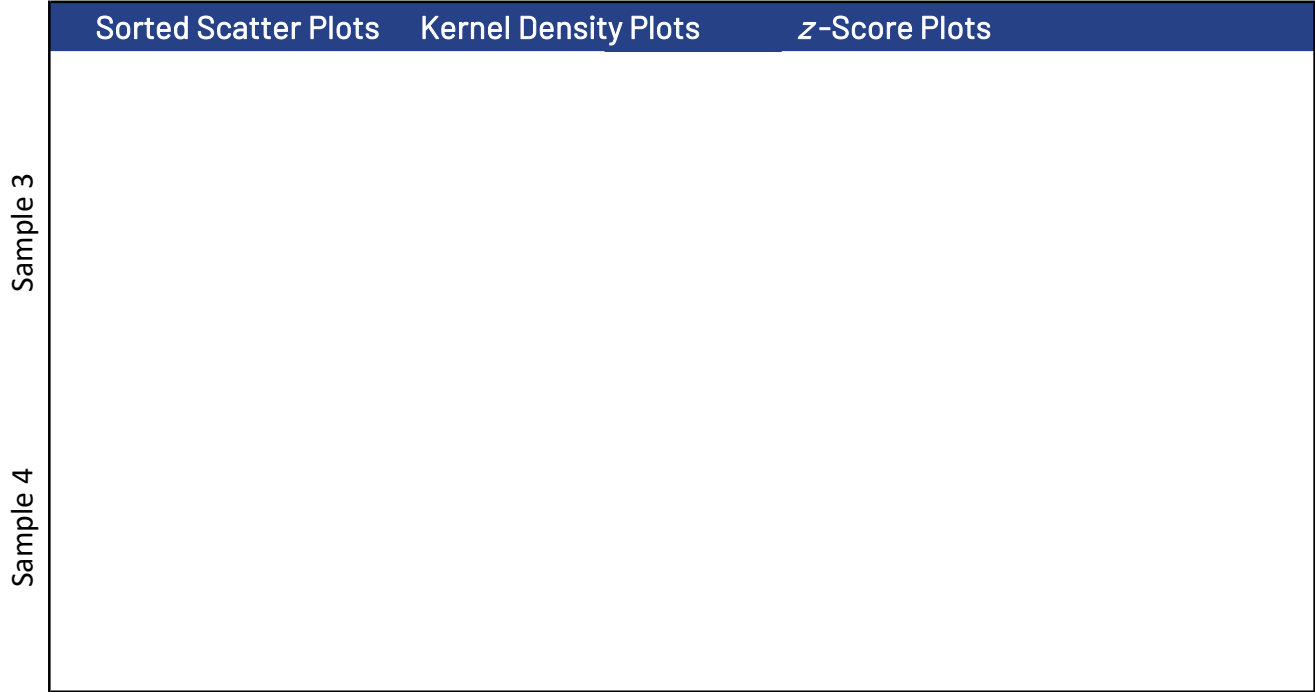
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	12	0	0	0
LC/MS (Red)	1	0	0	0

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



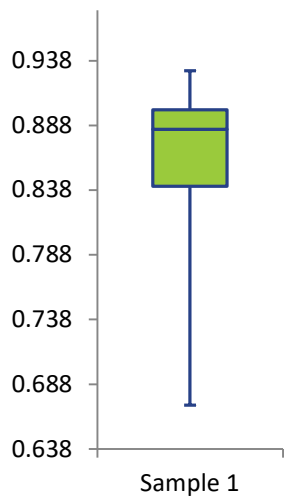
METHIOCARB



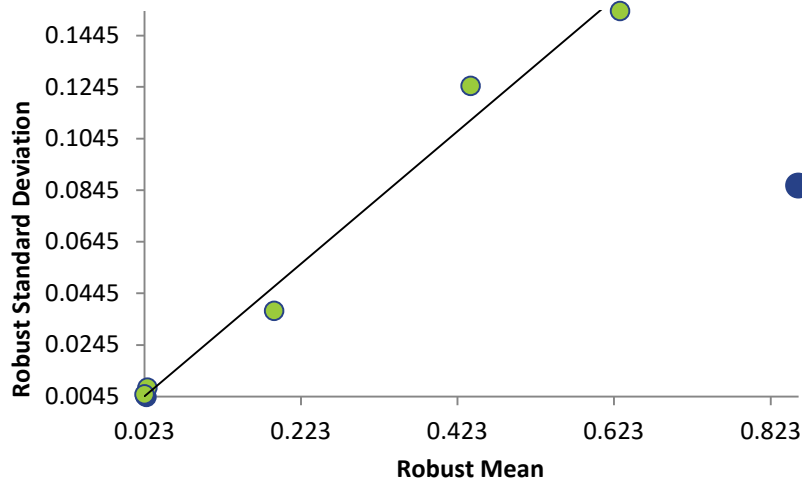
METHIOCARB

	Stability Assessment	Homogeneity Assessment
Sample 4	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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



## METHOMYL

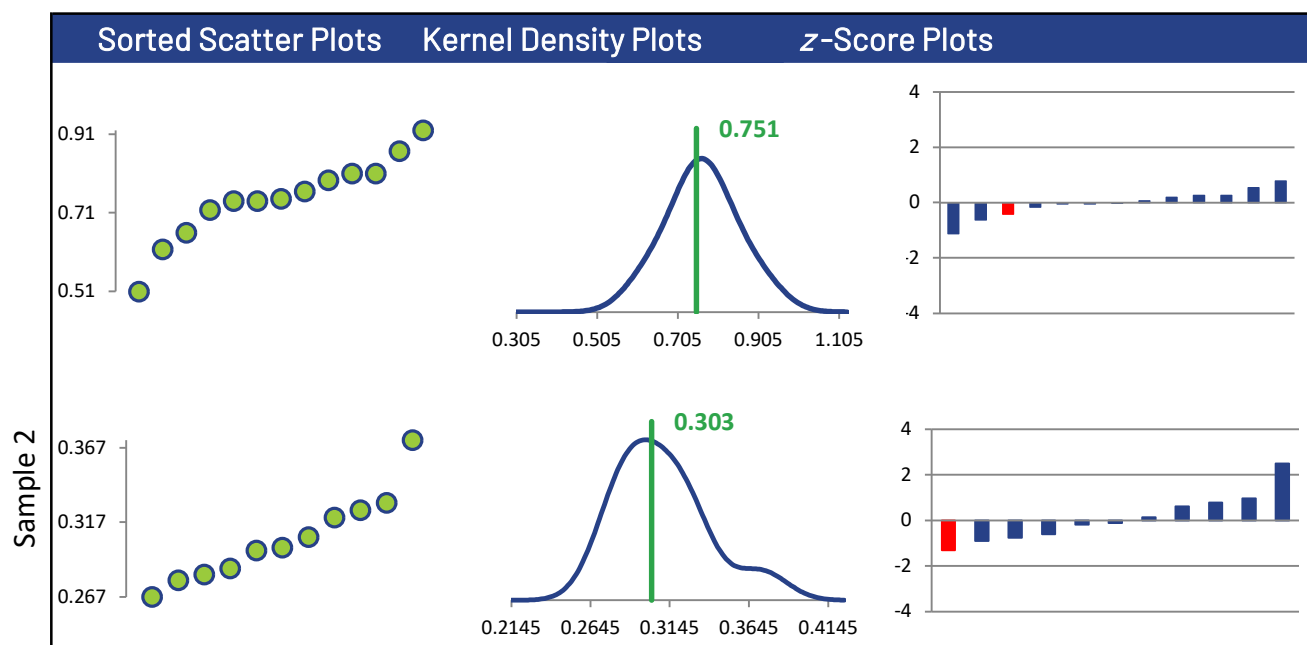
## Summary Statistics

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	11	0	0
Median µg/g	0.746	0.300		
Robust Mean µg/g	0.751	0.303		
U µg/g	0.0354	0.0104		
Robust Standard Deviation µg/g	0.102	0.0277		
Regression Standard Deviation µg/g				
Stability Flag	Stability			
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.215	0.0277		
Outliers	0	2	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	1	0	0

## Methods Used

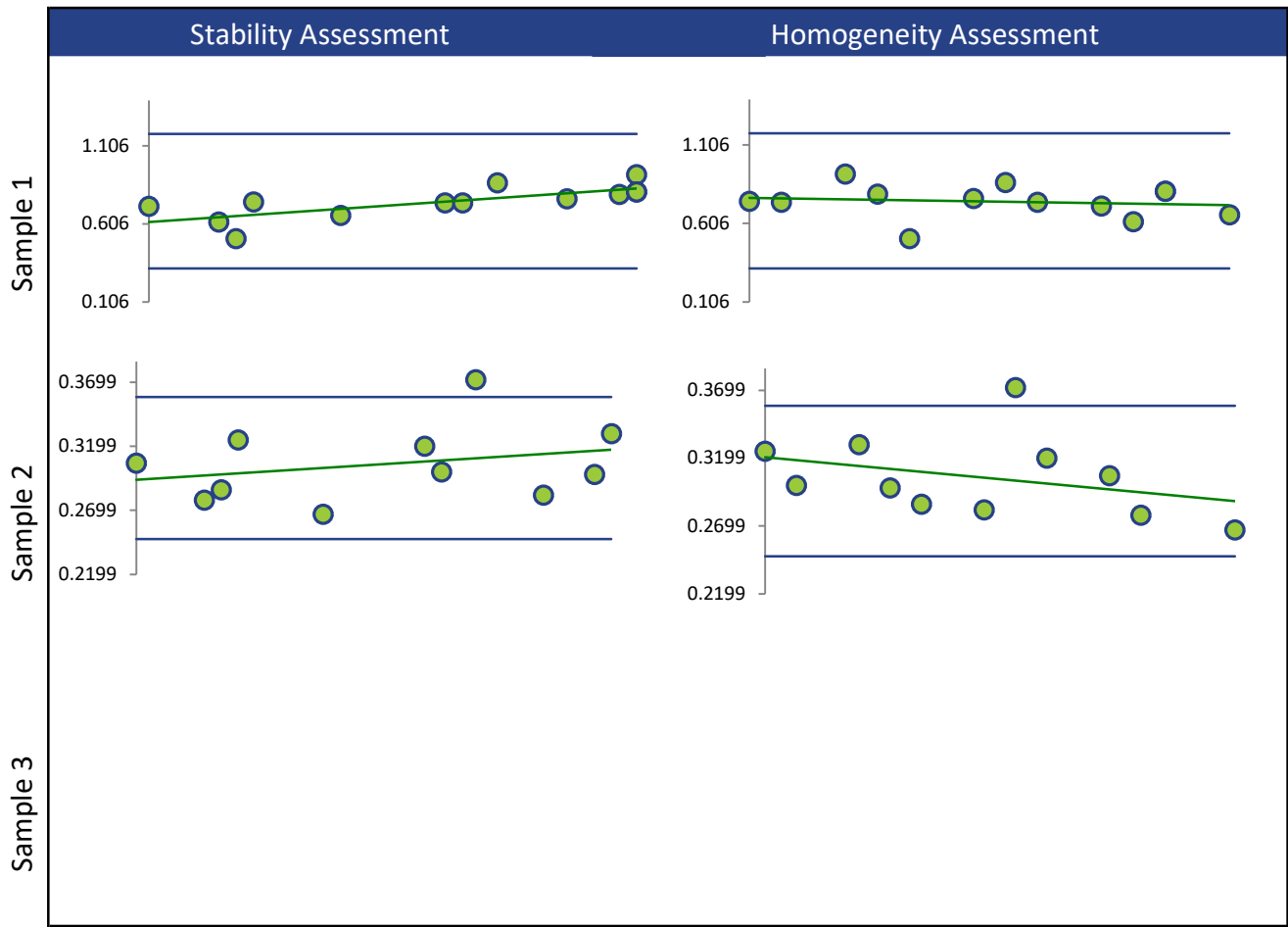
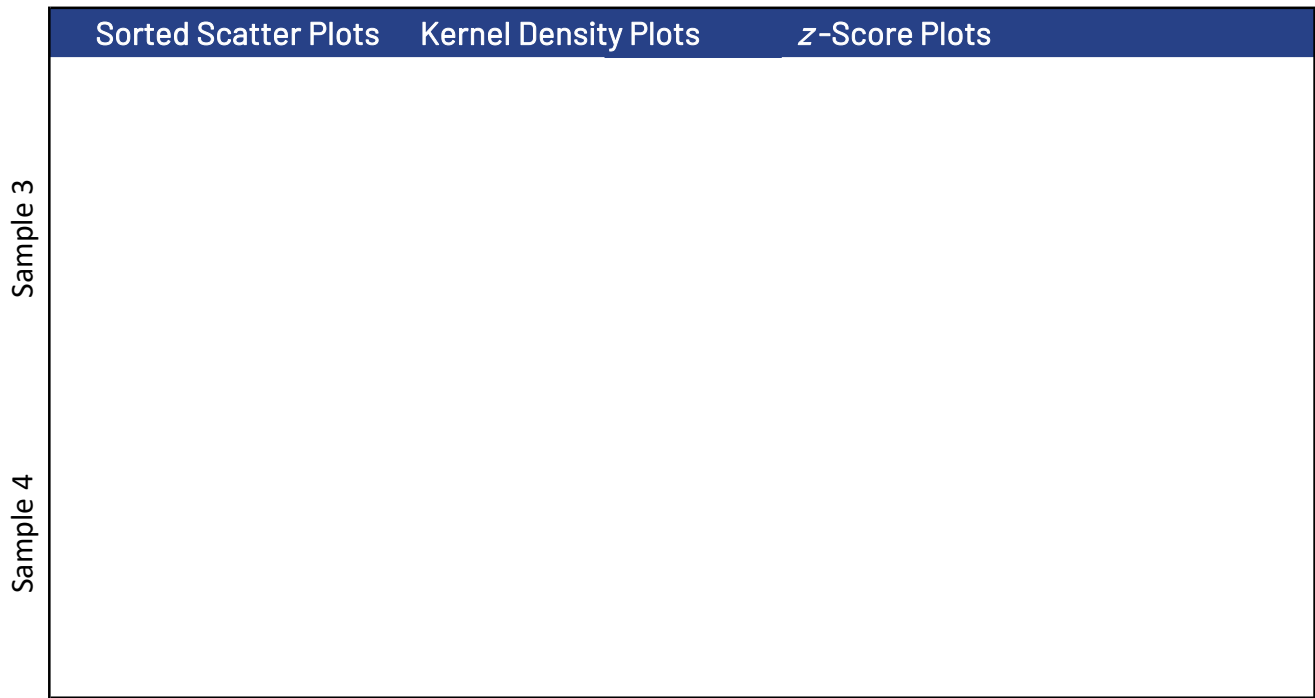
Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	12	10	0	0
LC/MS (Red)	1	1	0	0

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





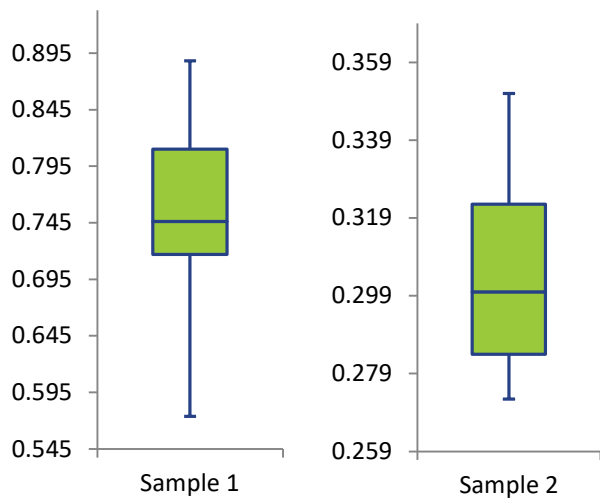
METHOMYL



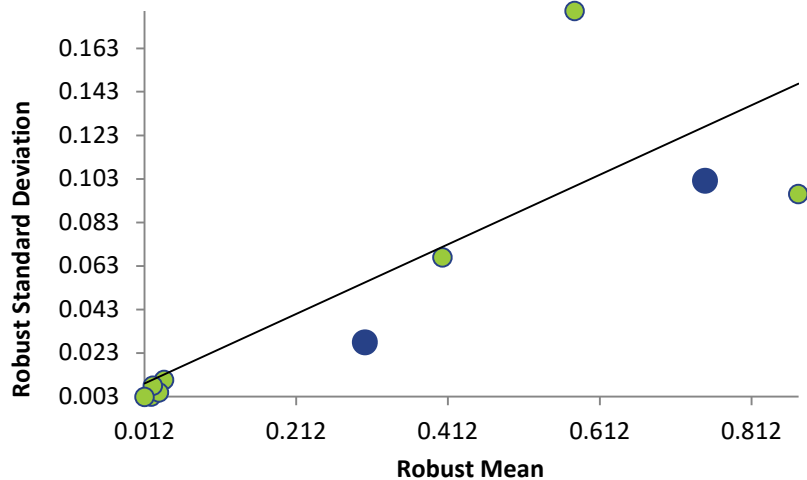
METHOMYL

Sample 4	Stability Assessment	Homogeneity Assessment
	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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



MYCLOBUTANIL

Summary Statistics

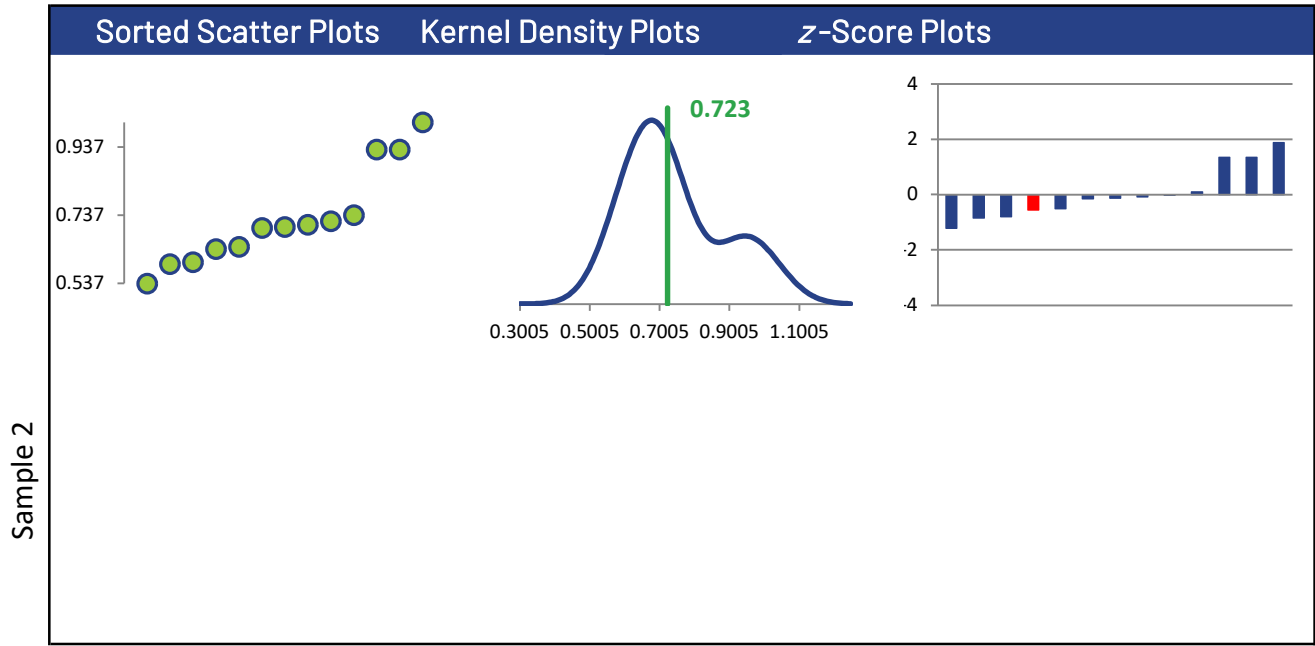
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	0.703			
Robust Mean µg/g	0.723			
U µg/g	0.0530			
Robust Standard Deviation µg/g	0.153			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.153			
Outliers	0	3	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0

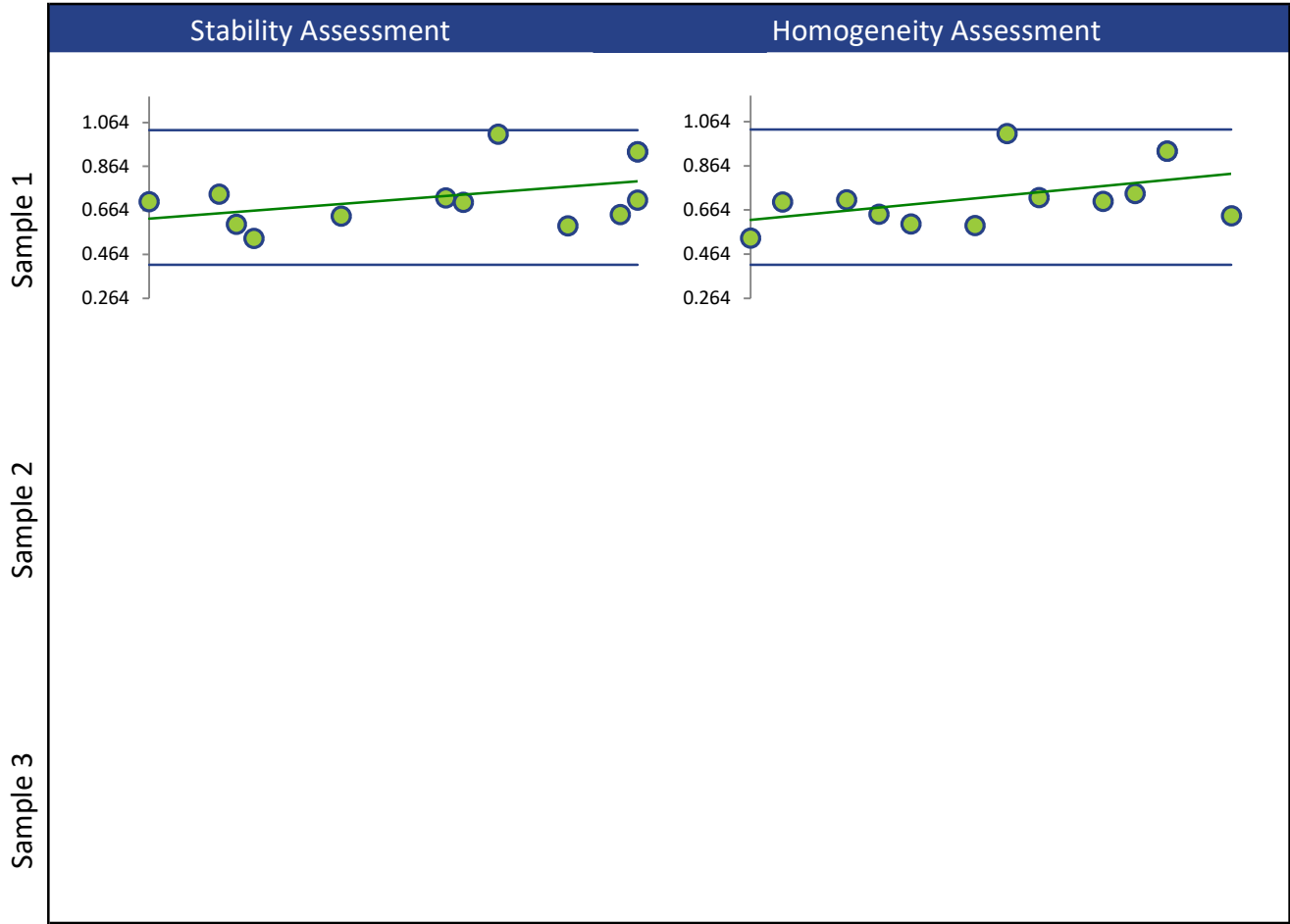
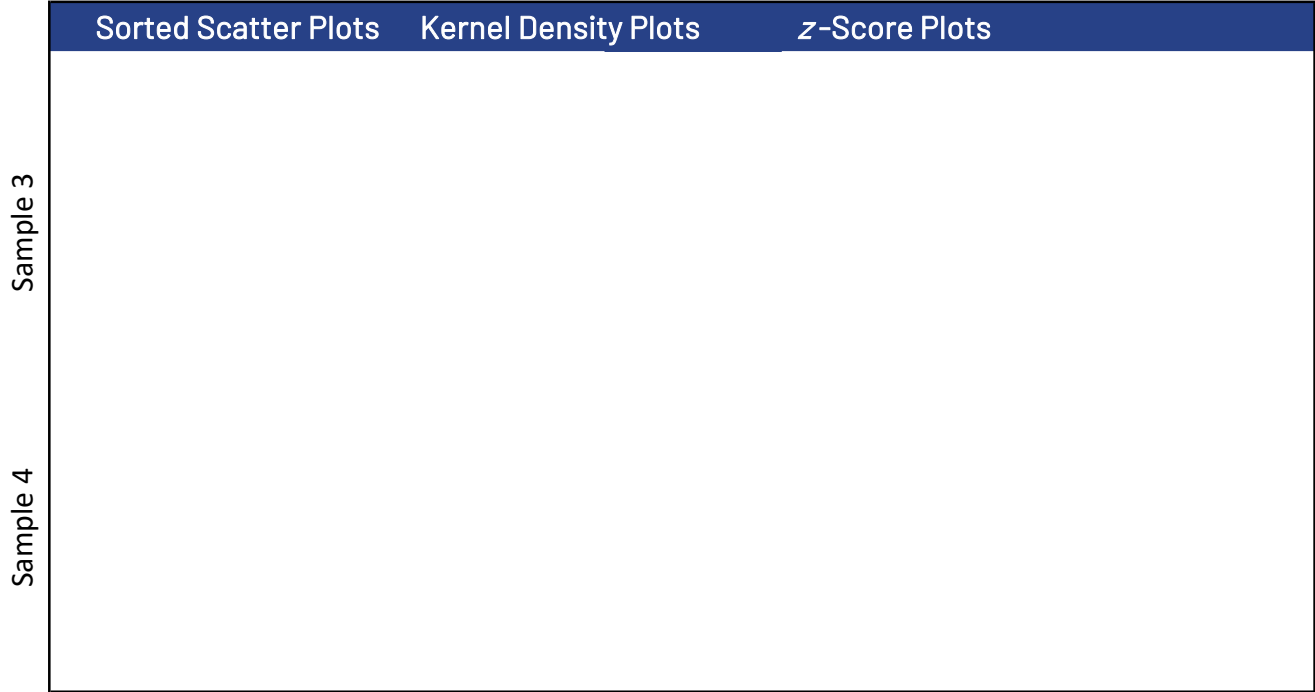
Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	12	0	0	0
LC/MS (Red)	1	0	0	0

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



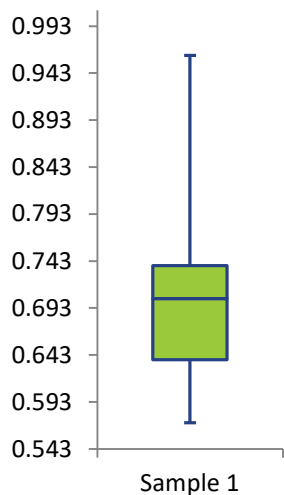
MYCLOBUTANIL



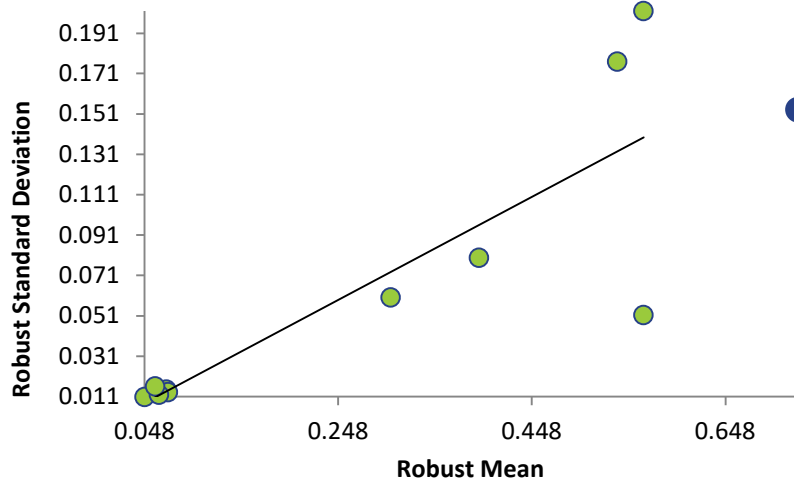
MYCLOBUTANIL

	Stability Assessment	Homogeneity Assessment
Sample 4	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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



## OXAMYL

## Summary Statistics

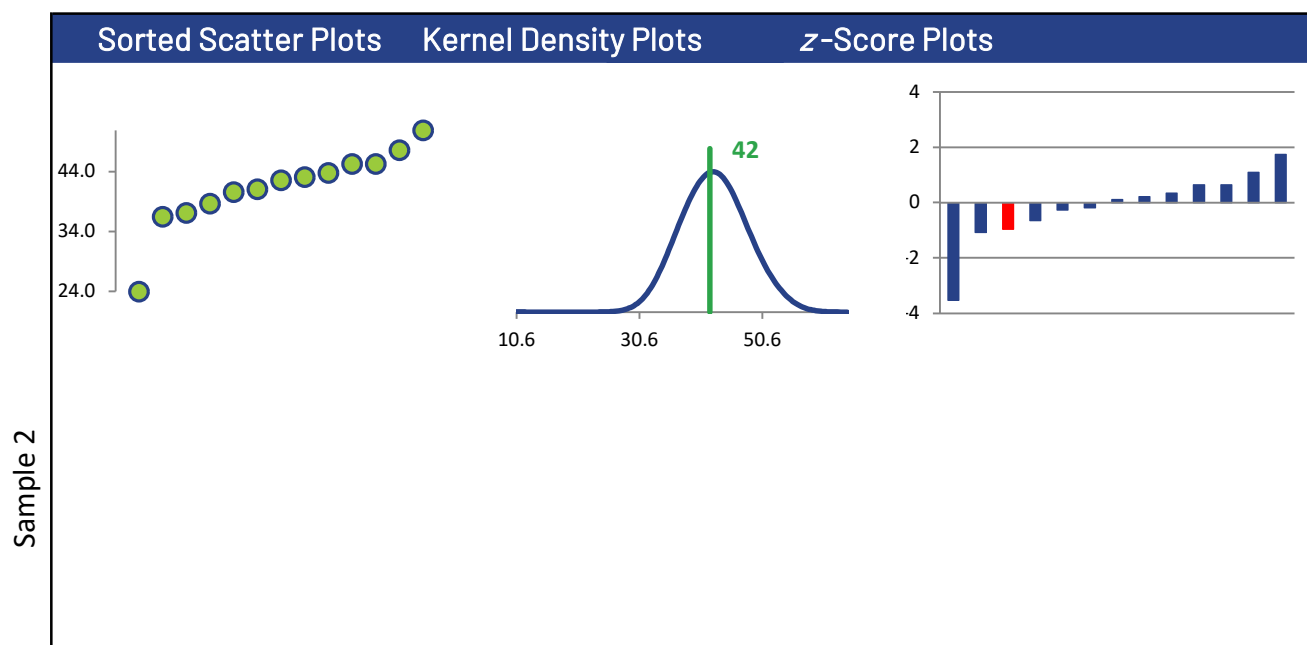
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	42.6			
Robust Mean µg/g	42.0			
U µg/g	1.77			
Robust Standard Deviation µg/g	5.10			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	5.10			
Outliers	0	3	0	0
$ z  > 3.0$	1	0	0	0
$2 <  z  < 3$	0	0	0	0

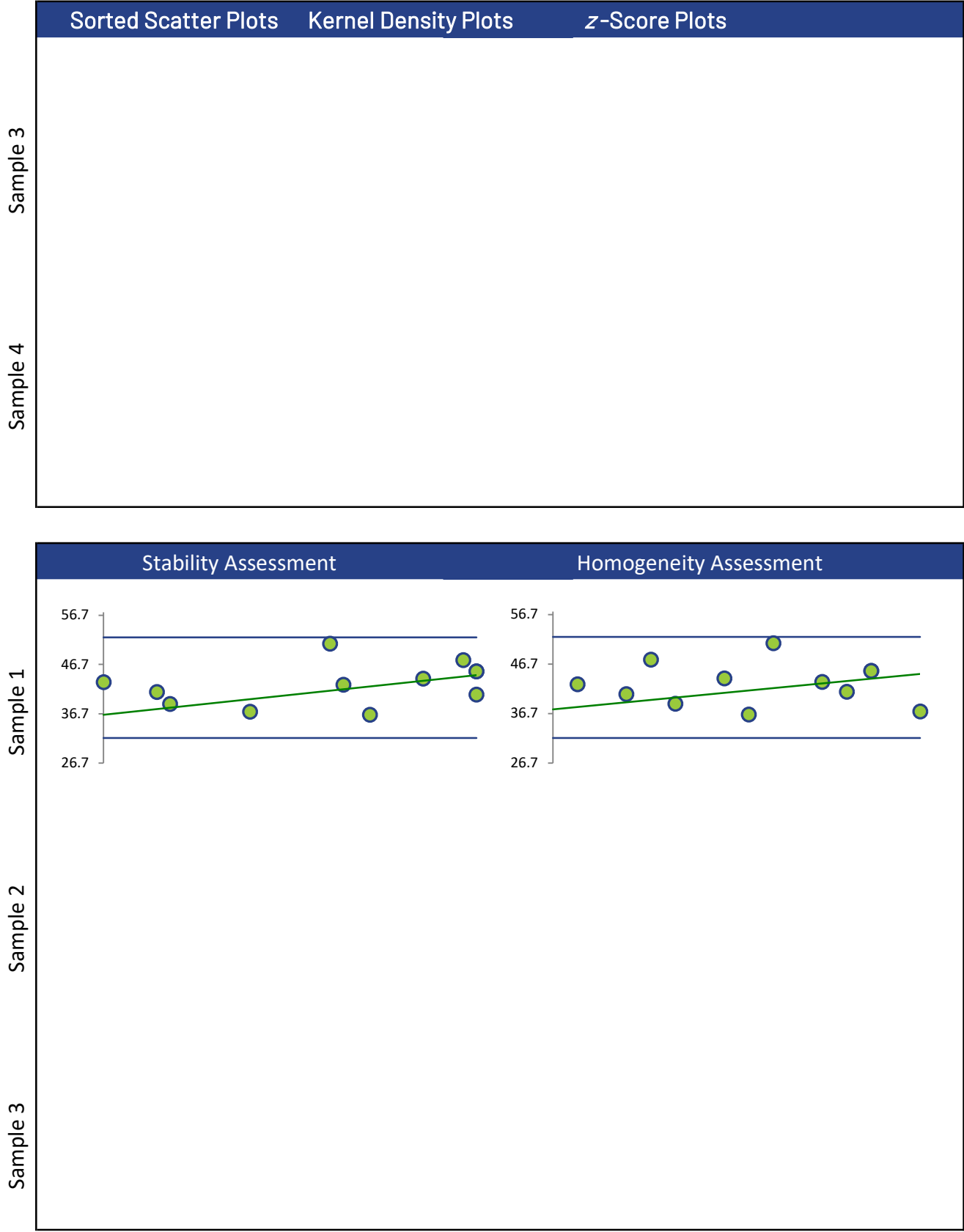
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	12	0	0	0
LC/MS (Red)	1	0	0	0

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



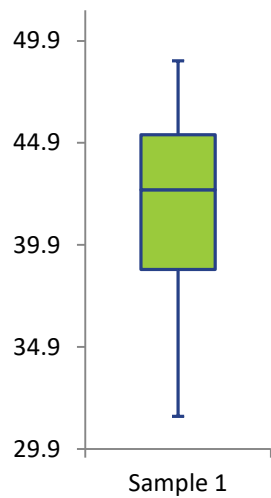
OXAMYL



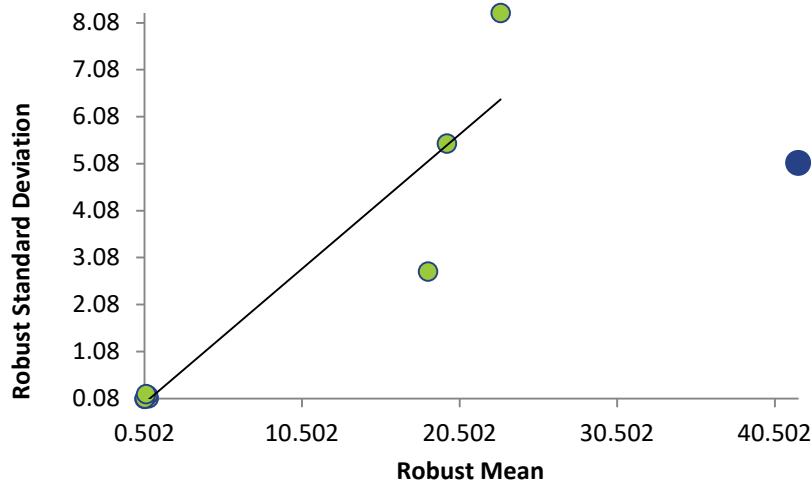
OXAMYL

	Stability Assessment	Homogeneity Assessment
Sample 4	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

Box and Whisker Plots



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





## PACLOBUTRAZOL

## Summary Statistics

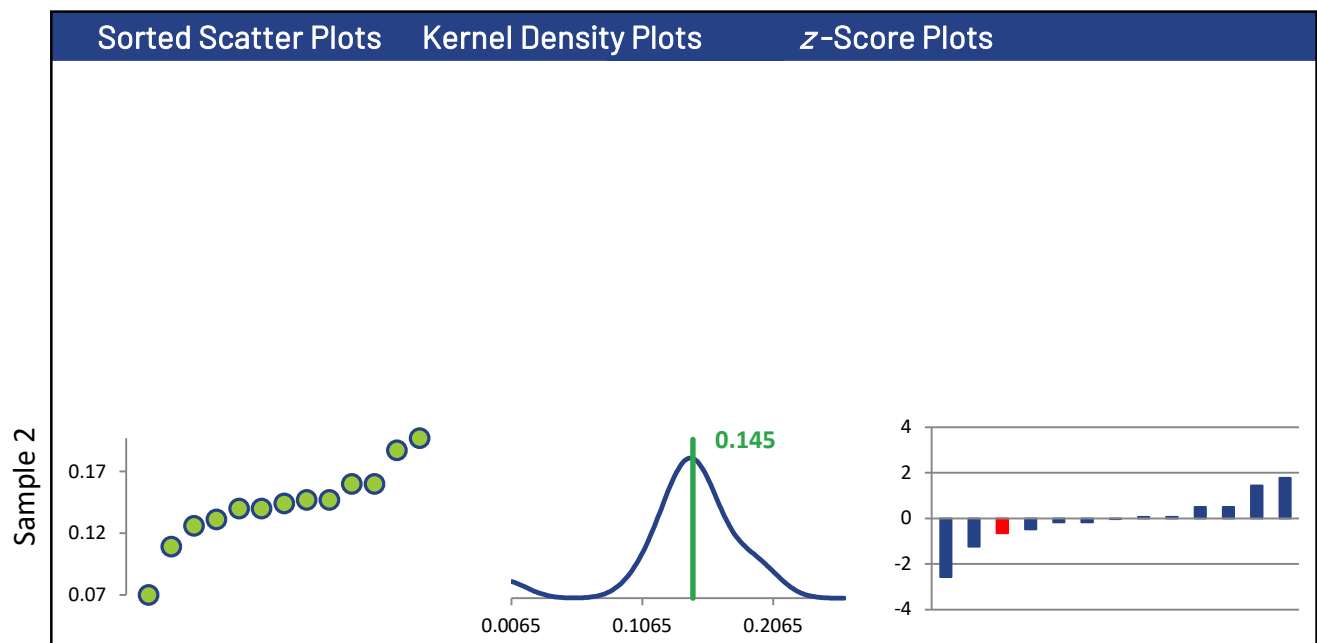
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		0.144		
Robust Mean µg/g		0.145		
U µg/g		0.0101		
Robust Standard Deviation µg/g		0.0292		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.0292		
Outliers	3	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	1	0	0

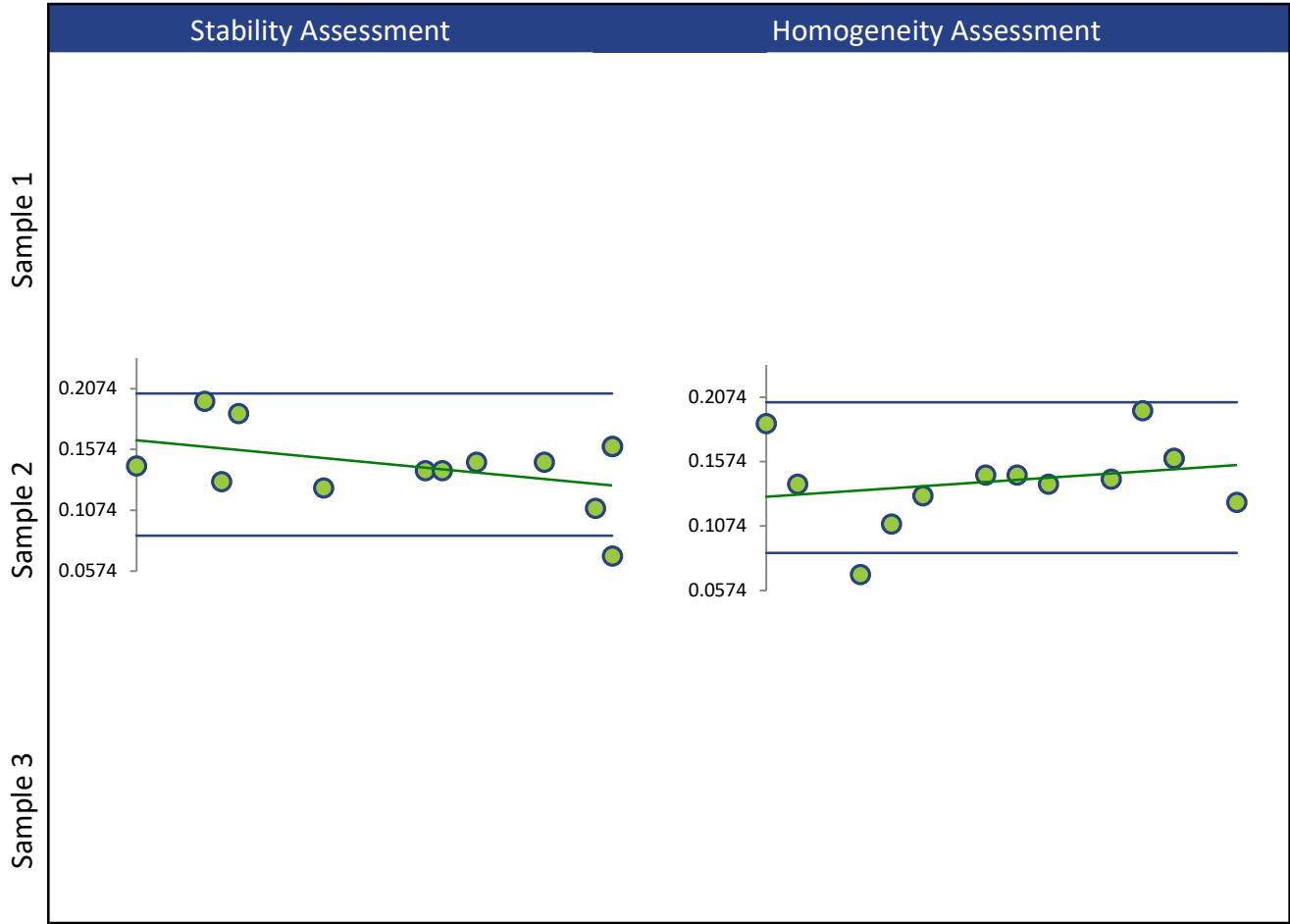
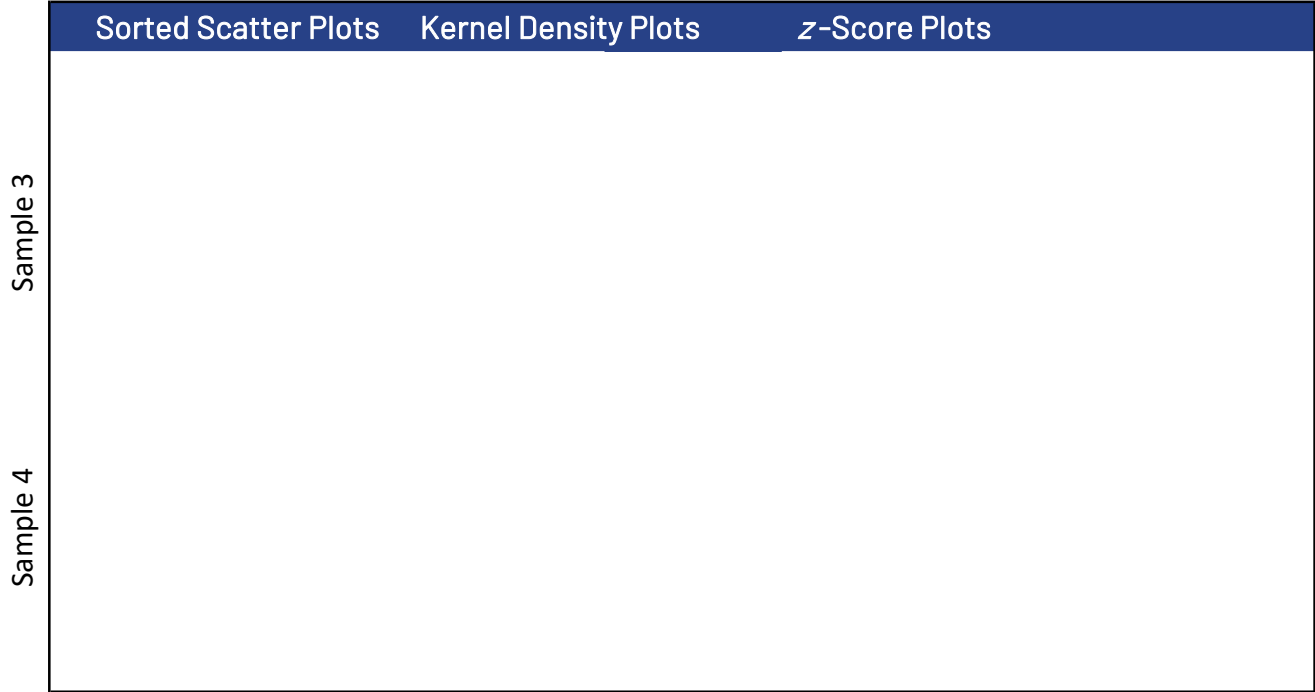
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	12	0	0
LC/MS (Red)	0	1	0	0

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



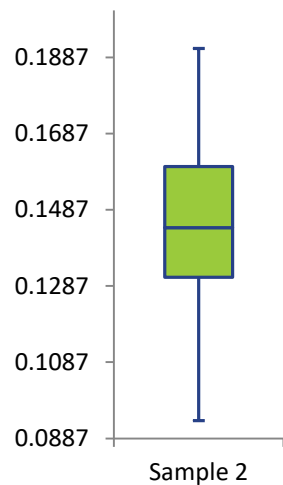
PACLOBUTRAZOL



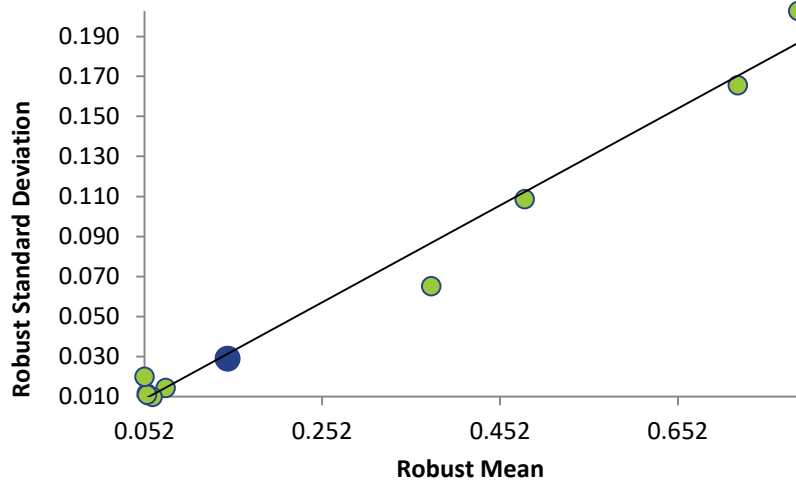
PACLOBUTRAZOL

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)



## PROPOXUR (BAYGON)

## Summary Statistics

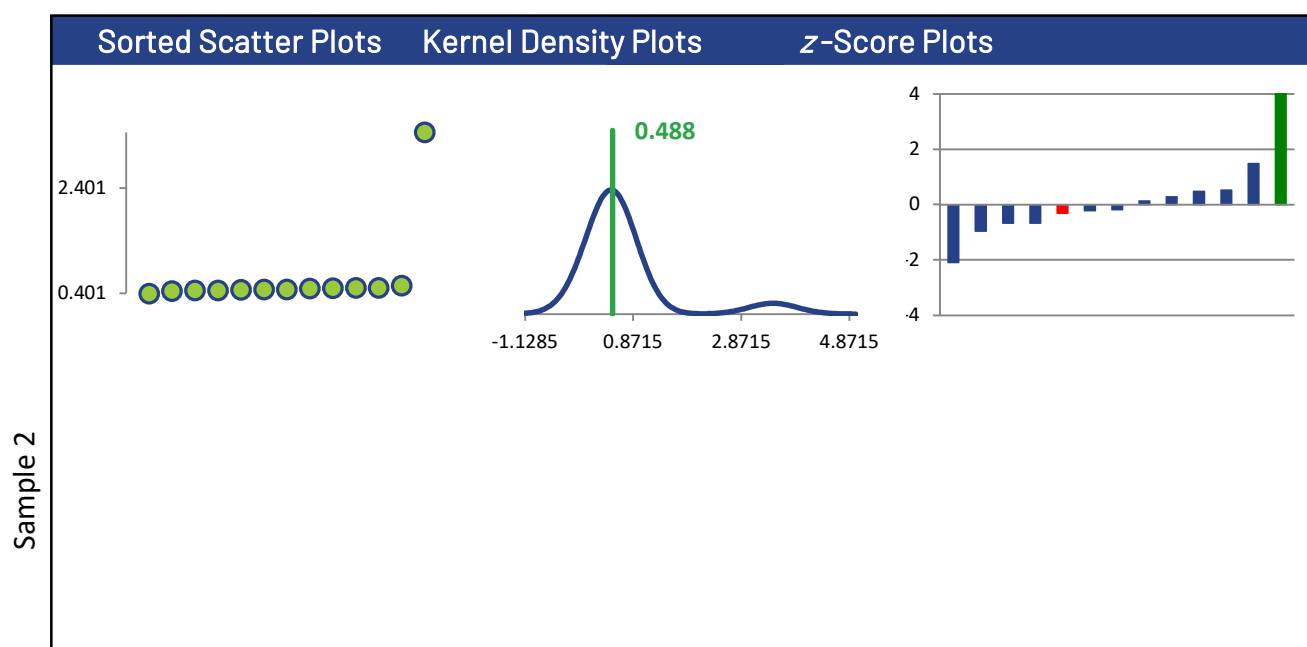
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	0.480			
Robust Mean µg/g	0.488			
U µg/g	0.0145			
Robust Standard Deviation µg/g	0.0417			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.0417			
Outliers	0	3	0	0
$ z  > 3.0$	1	0	0	0
$2 <  z  < 3$	1	0	0	0

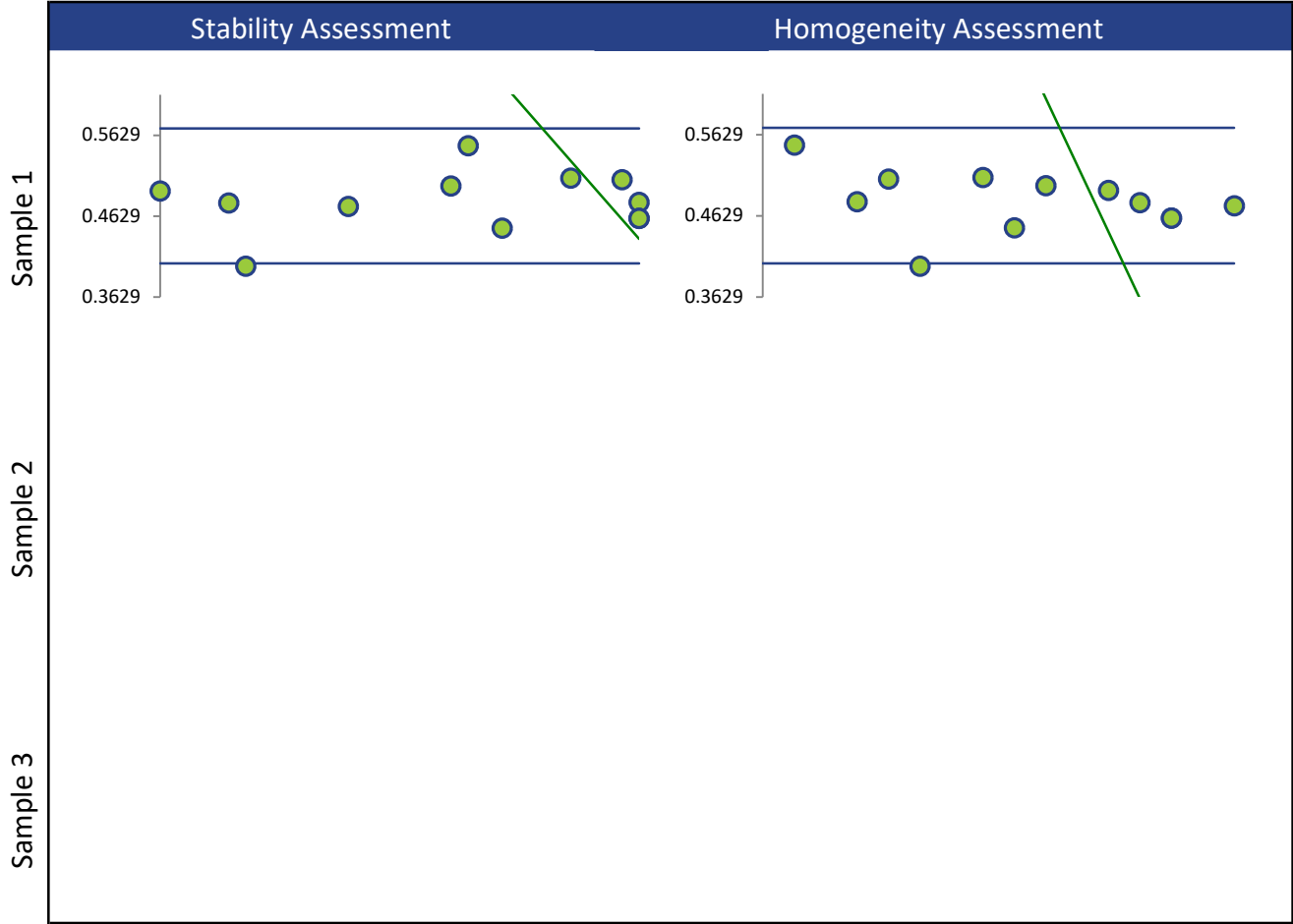
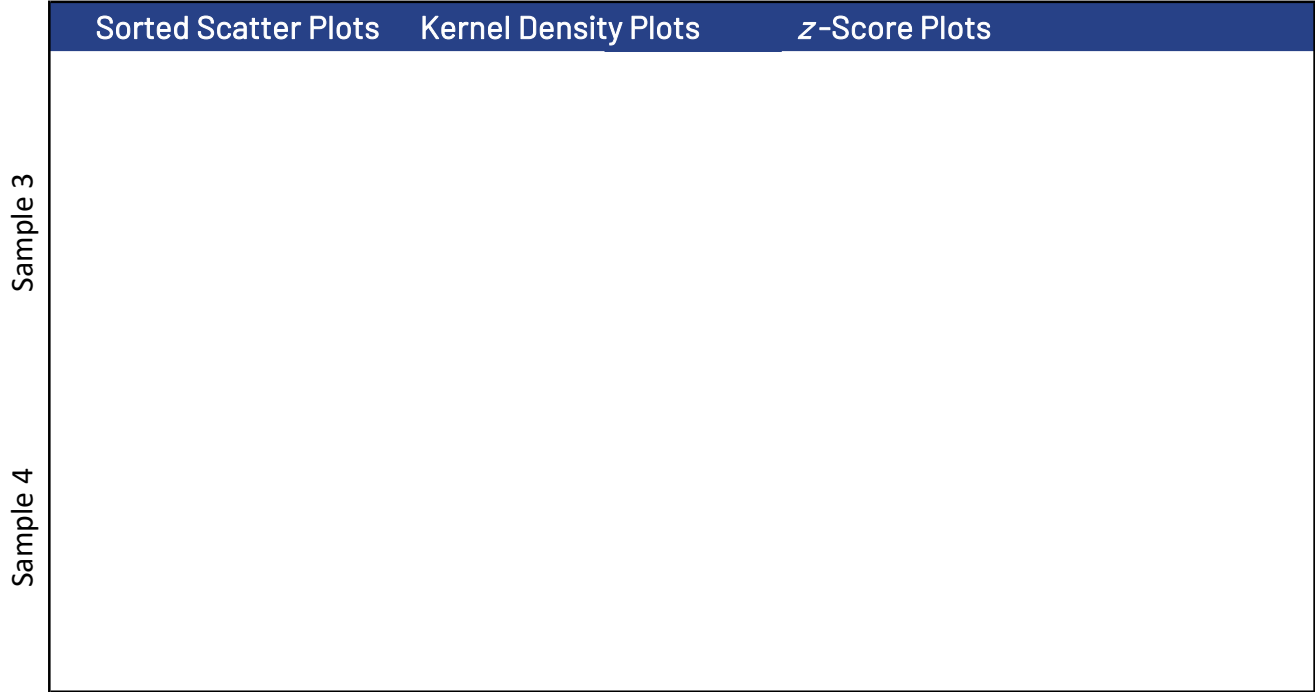
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	11	0	0	0
LC/MS (Red)	1	0	0	0
GC/MS/MS (Green)	1	0	0	0

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



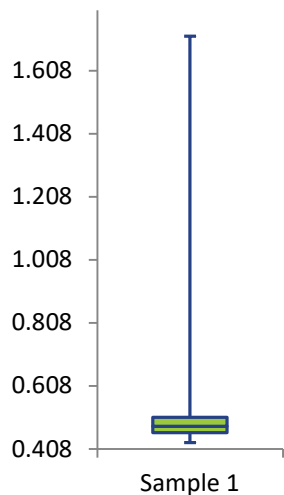
PROPOXUR (BAYGON)



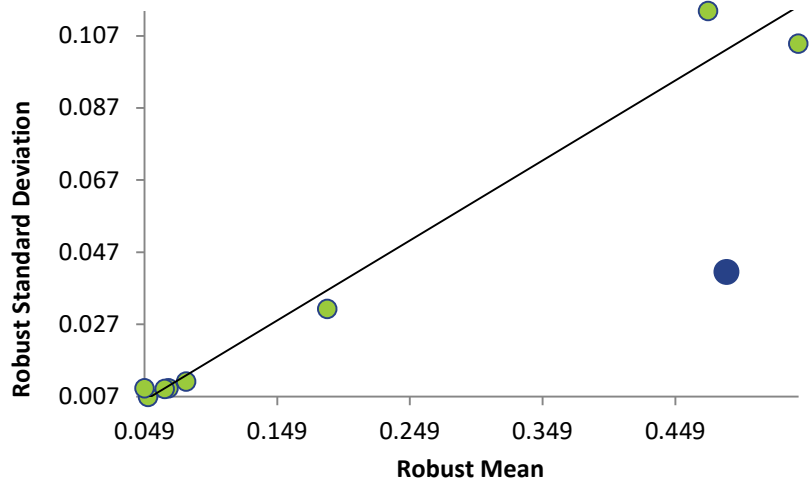
PROPOXUR (BAYGON)

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)



## SPIROMESIFEN

## Summary Statistics

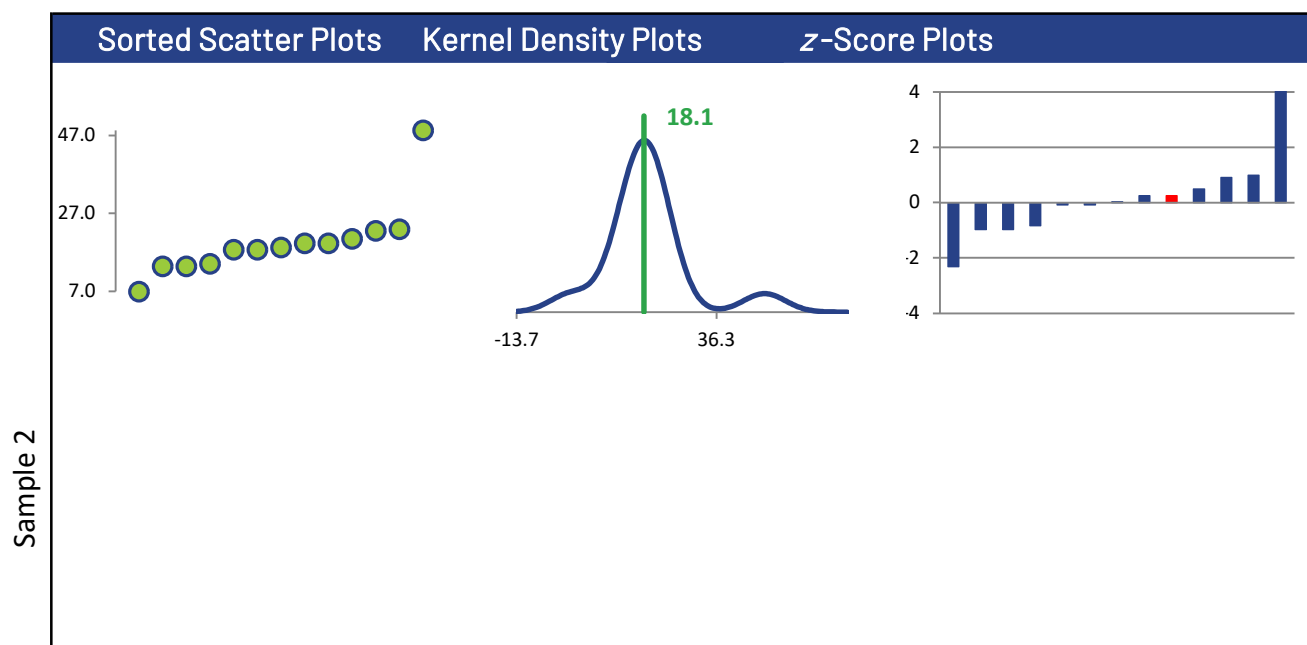
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	13	0	0	0
Median µg/g	18.3			
Robust Mean µg/g	18.1			
U µg/g	1.67			
Robust Standard Deviation µg/g	4.83			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	4.83			
Outliers	0	3	0	0
$ z  > 3.0$	1	0	0	0
$2 <  z  < 3$	1	0	0	0

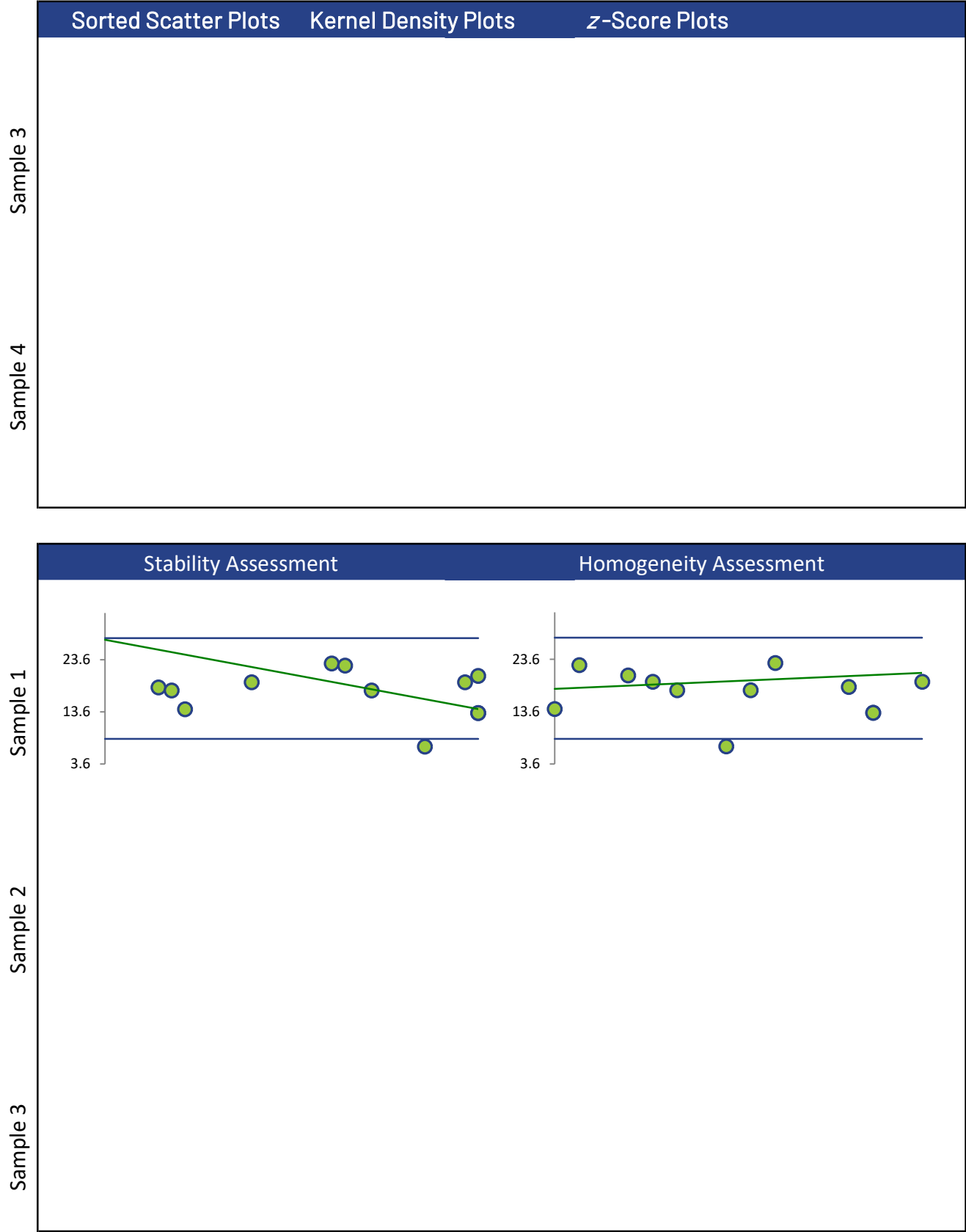
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	12	0	0	0
LC/MS (Red)	1	0	0	0

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



SPIROMESIFEN

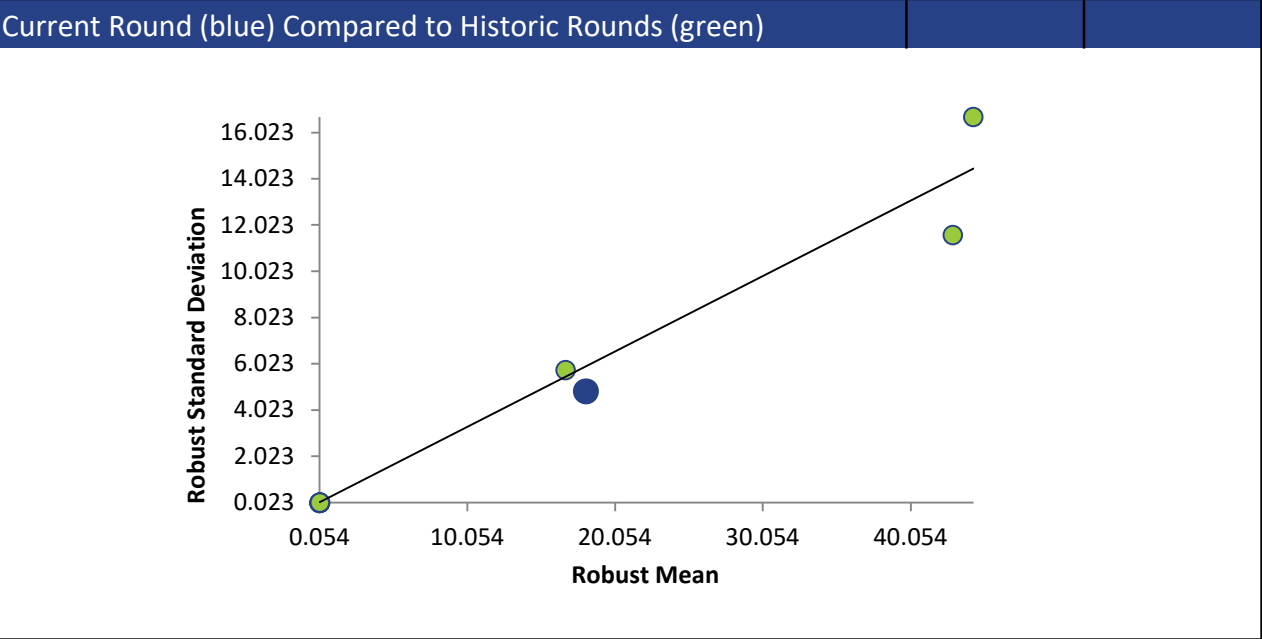
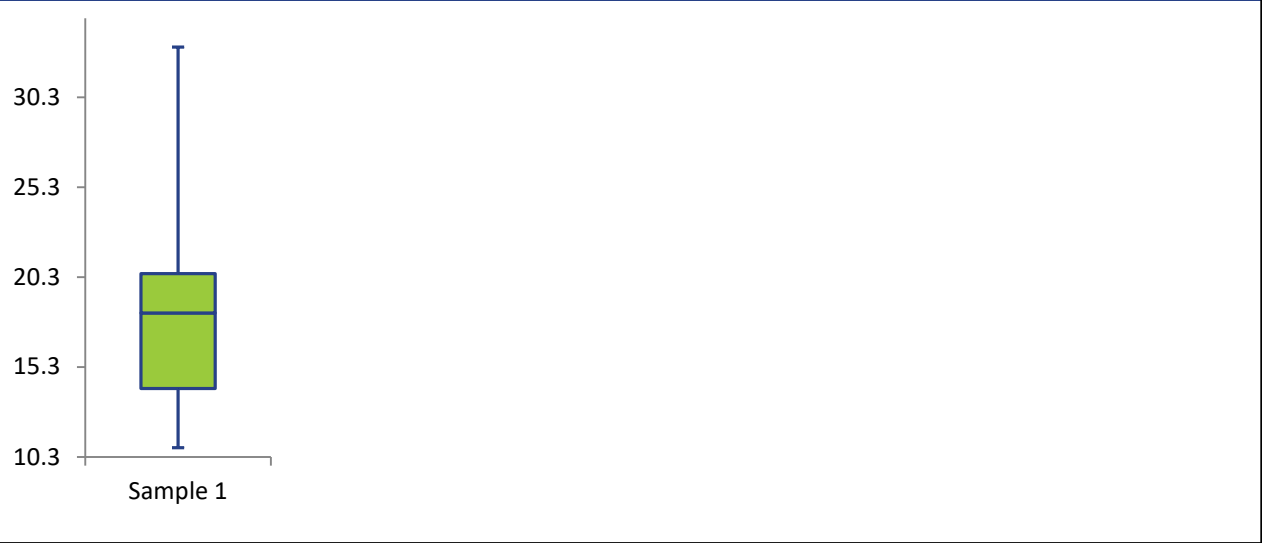




SPIROMESIFEN

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



## SPIROTETRAMAT

## Summary Statistics

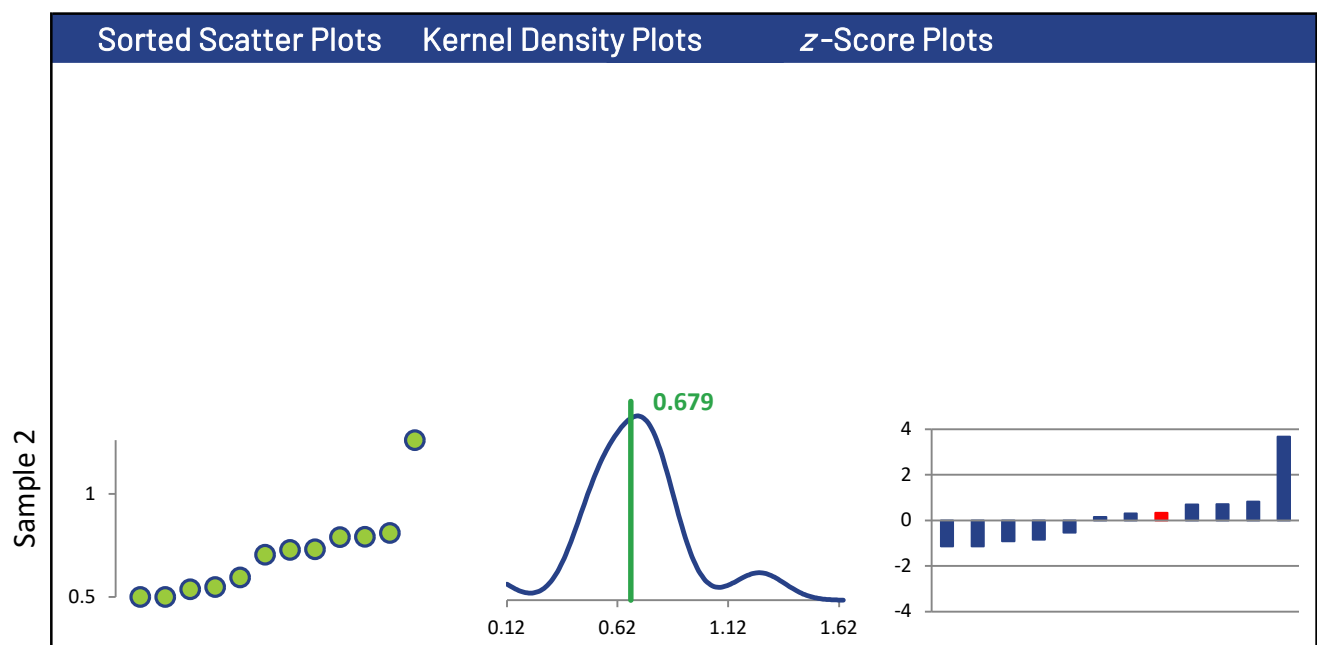
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	12	0	0
Median µg/g		0.716		
Robust Mean µg/g		0.679		
U µg/g		0.0570		
Robust Standard Deviation µg/g		0.158		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.158		
Outliers	3	0	0	0
z >3.0	0	1	0	0
2< z <3	0	0	0	0

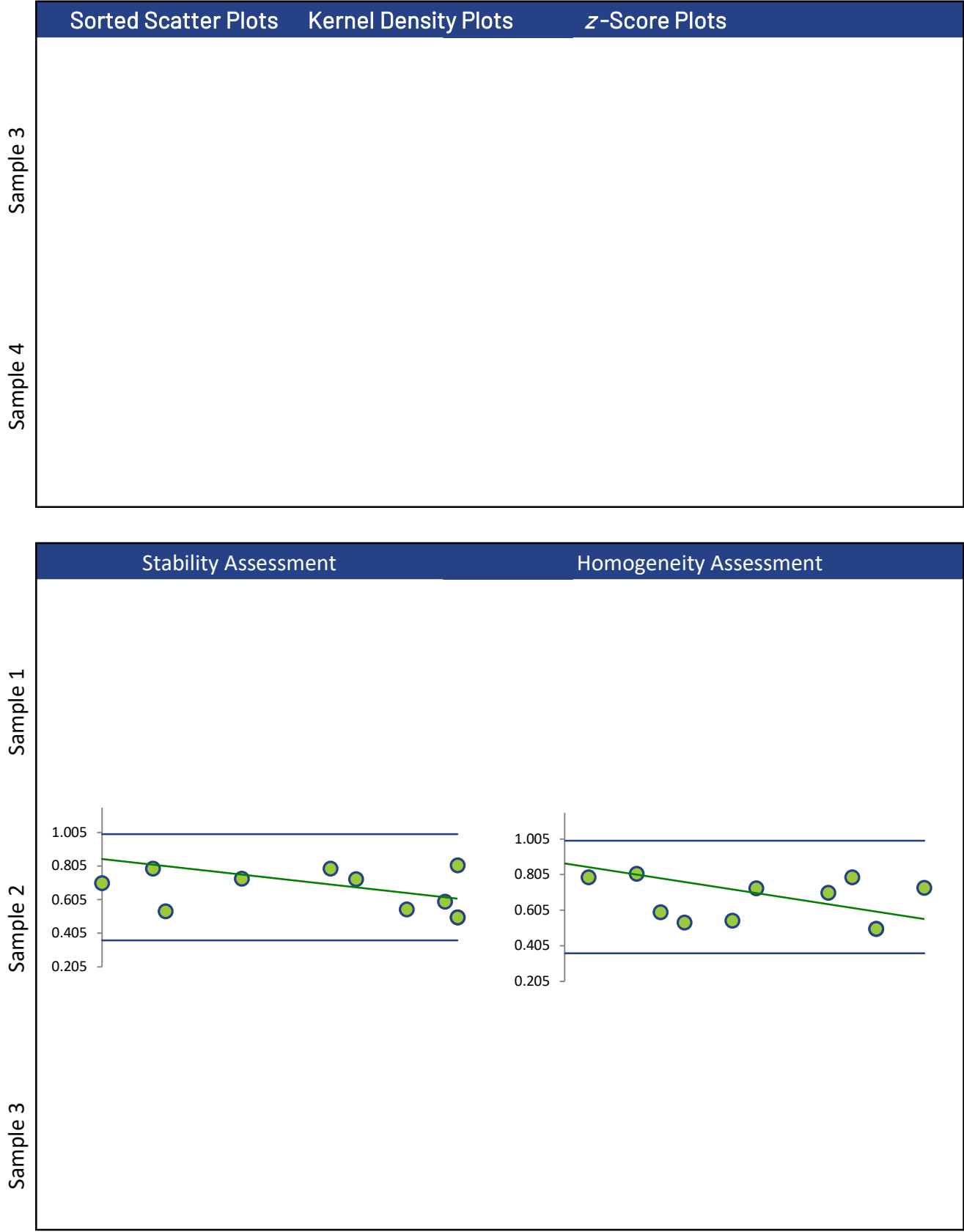
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	11	0	0
LC/MS (Red)	0	1	0	0

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



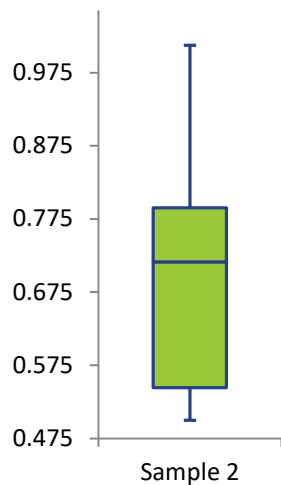
SPIROTETRAMAT



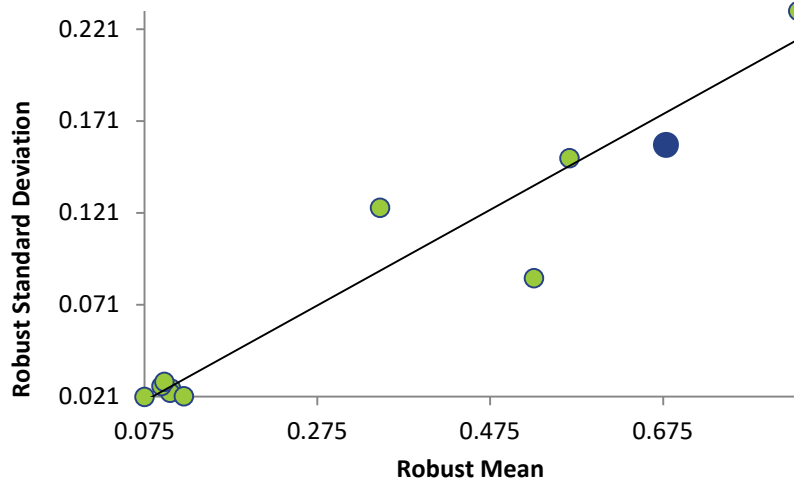
SPIROTETRAMAT

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)



## THIAMETHOXAM

## Summary Statistics

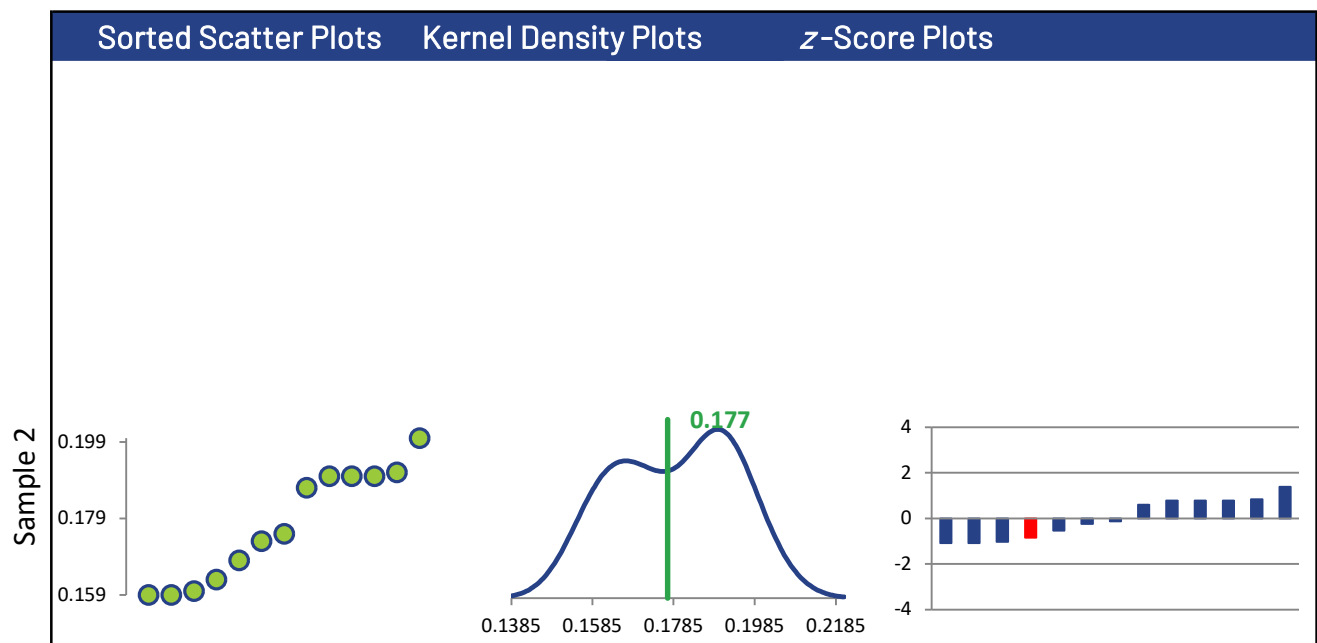
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	0	13	0	0
Median µg/g		0.175		
Robust Mean µg/g		0.177		
U µg/g		0.00576		
Robust Standard Deviation µg/g		0.0166		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		0.0166		
Outliers	3	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0

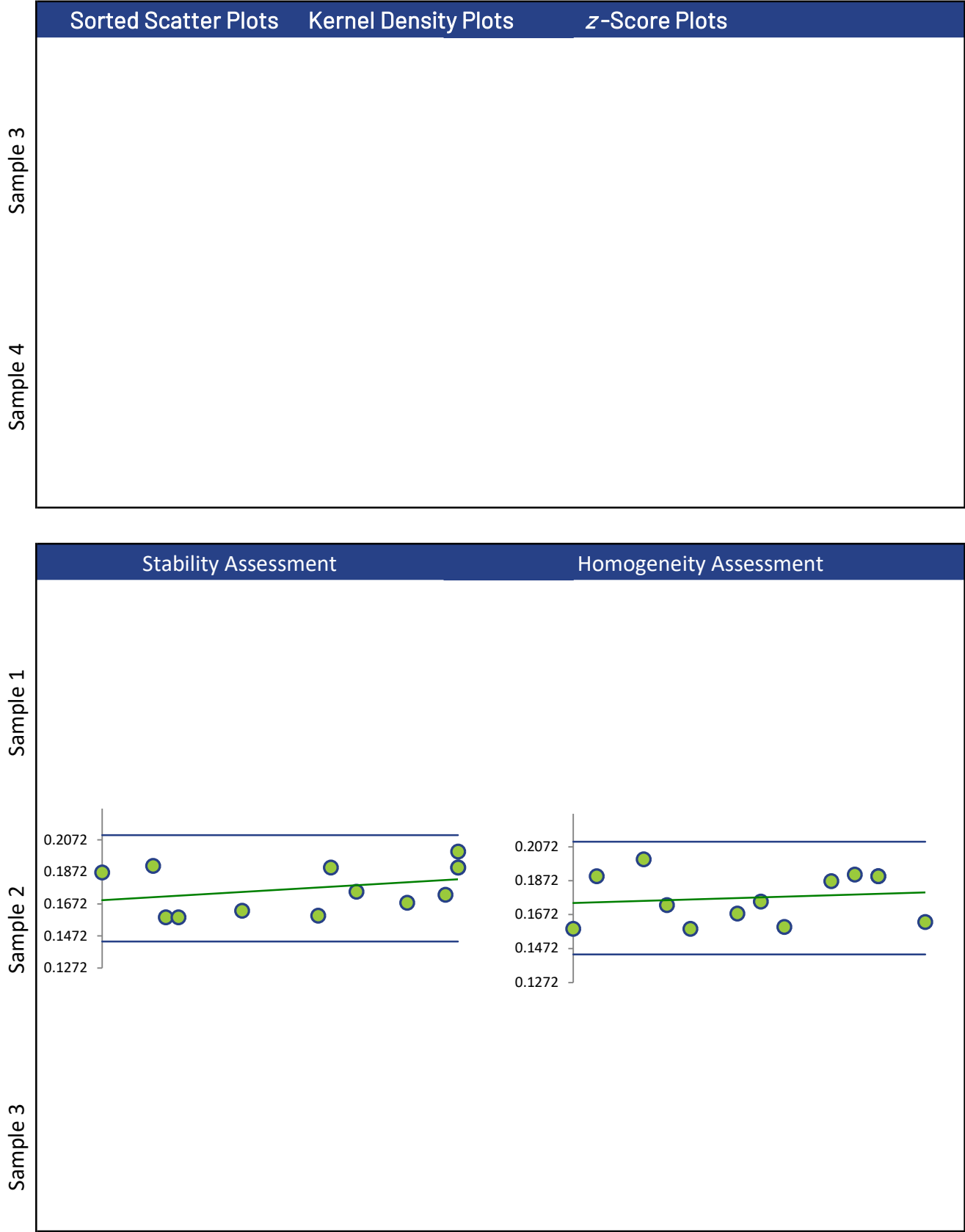
## Methods Used

Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	0	12	0	0
LC/MS (Red)	0	1	0	0

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



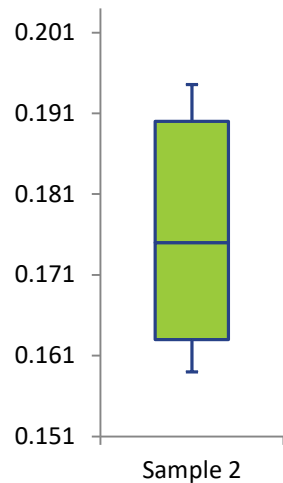
THIAMETHOXAM



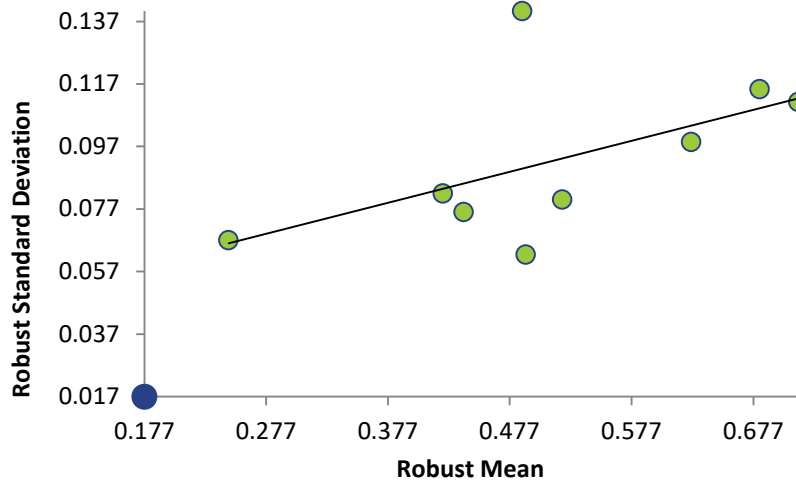
THIAMETHOXAM

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)



TRIFLOXYSTROBIN

Summary Statistics

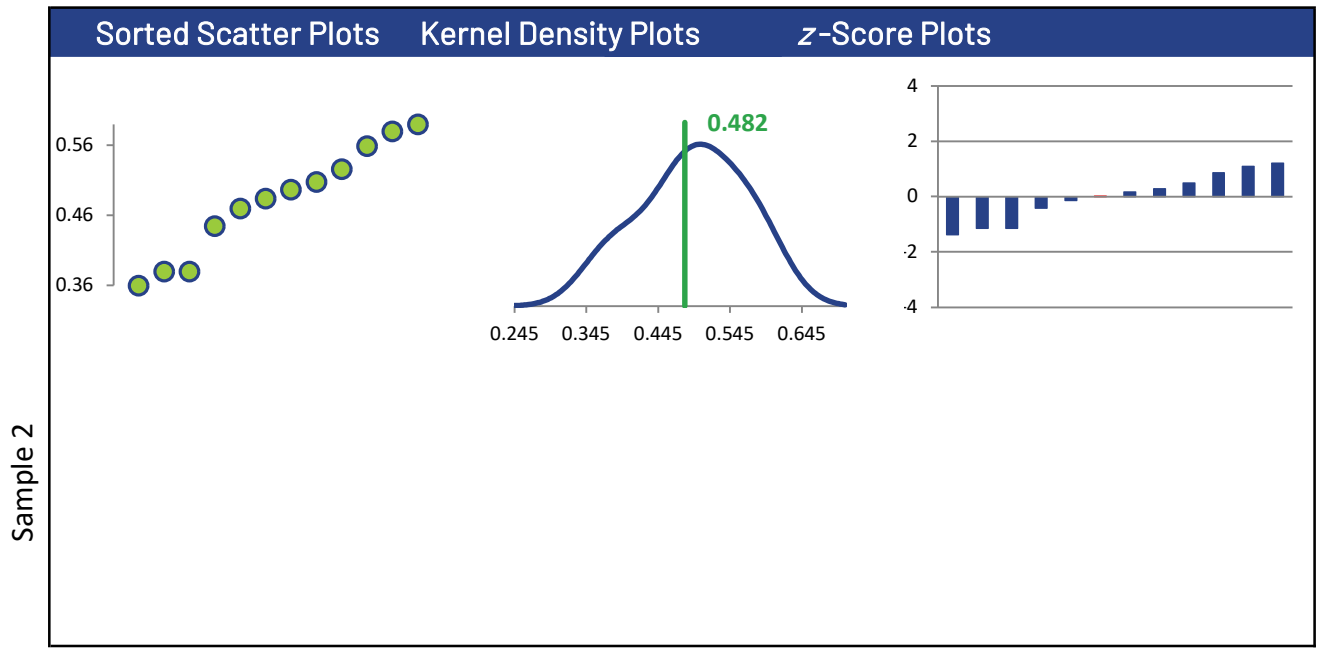
Not Spiked

Statistic	C71-1	C71-2	C71-3	C71-4
N	12	0	0	0
Median µg/g	0.491			
Robust Mean µg/g	0.482			
U µg/g	0.0320			
Robust Standard Deviation µg/g	0.0887			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	0.0887			
Outliers	1	3	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0

Methods Used

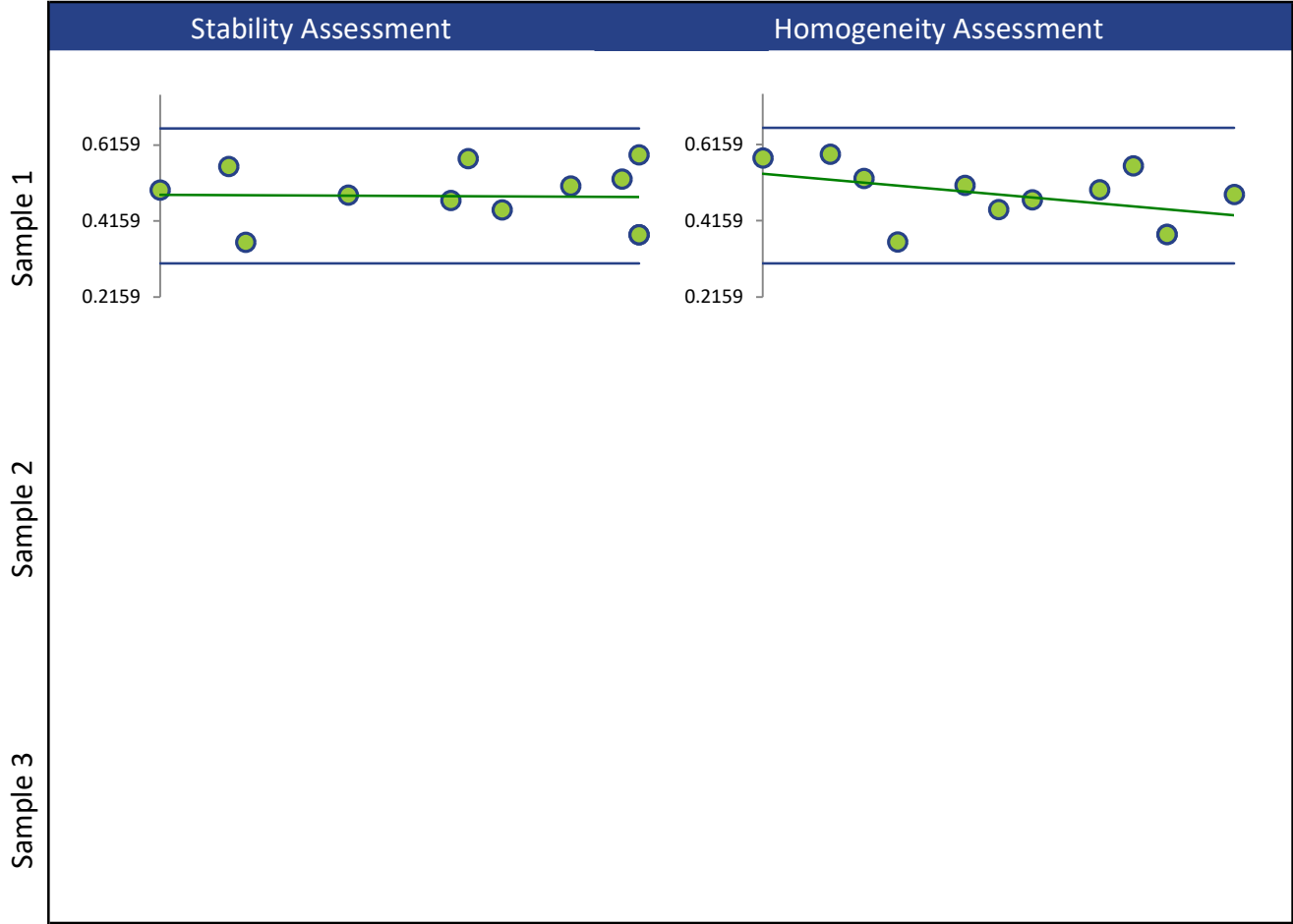
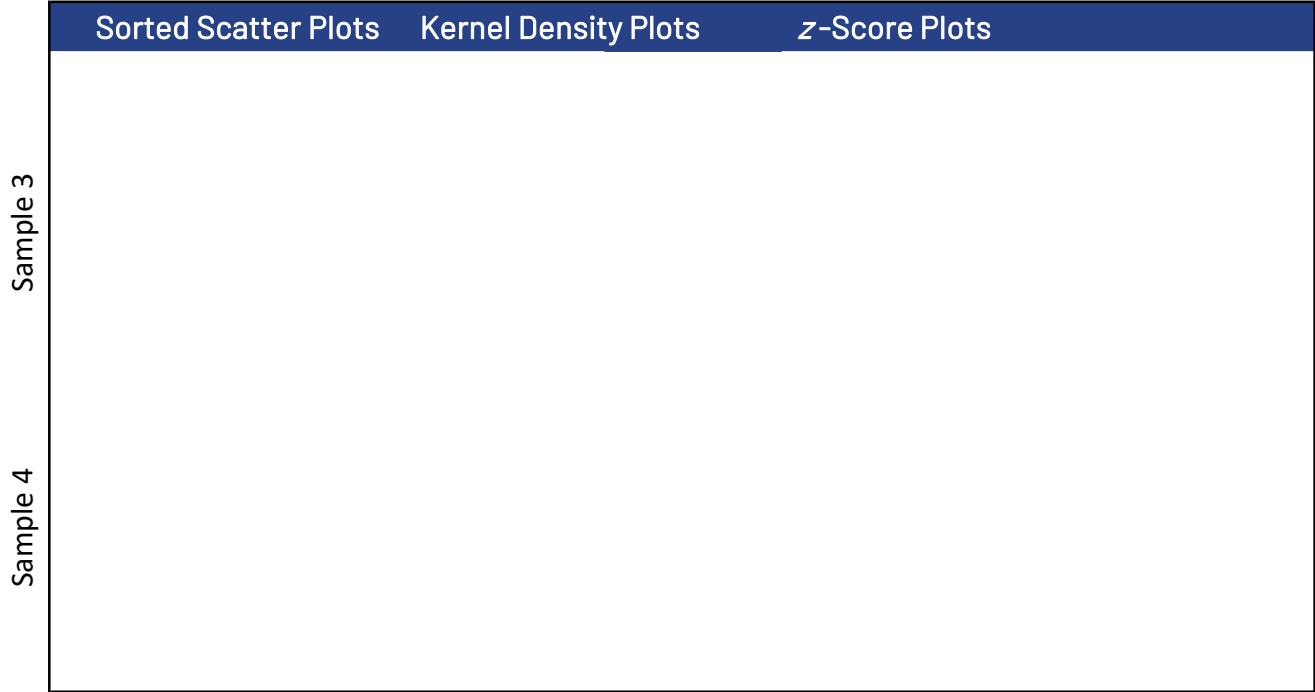
Method	C71-1	C71-2	C71-3	C71-4
LC-MS/MS (Blue)	11	0	0	0
LC/MS (Red)	1	0	0	0

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





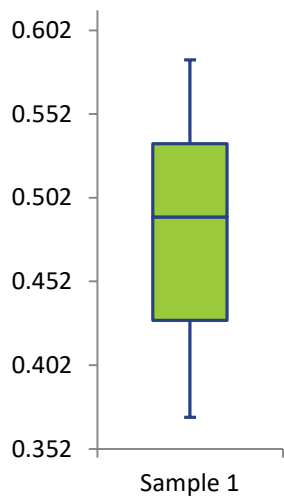
TRIFLOXYSTROBIN



TRIFLOXYSTROBIN

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)

