Test Group Summary Report

C16 Volatile Organic Compounds in Water

January 2021 PT Round (Shipped in March)

Issued: April 23, 2021

PTC | Proficiency Testing Canada

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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 are 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 17043:2010 *Conformity assessment — General requirements for proficiency testing*, 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.

1,1,1-TRICHLOROETHANE

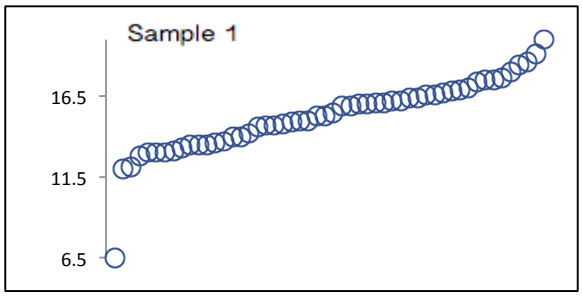
Summary Statistics

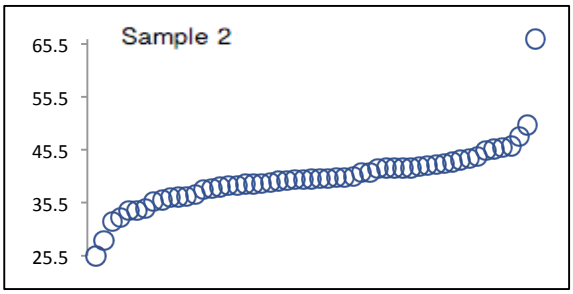
Statistic	C16-1	C16-2	C16-3	C16-4
N	52	54	54	54
Median	15.4	40.1	94.8	144
Robust Mean	15.4	40.1	94.2	145
U	0.35	0.70	1.51	2.43
Robust Standard Deviation	2.04	4.14	8.88	14.3
Regression Standard Deviation	2.30	6.02	14.1	21.7
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA)	2.55	6.02	14.1	21.7
Outliers	2	0	0	0
|z|>3.0	1	1	1	1
2<|z|<3	0	1	2	0

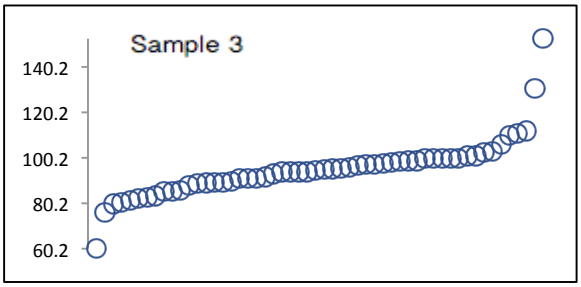
Methods Used

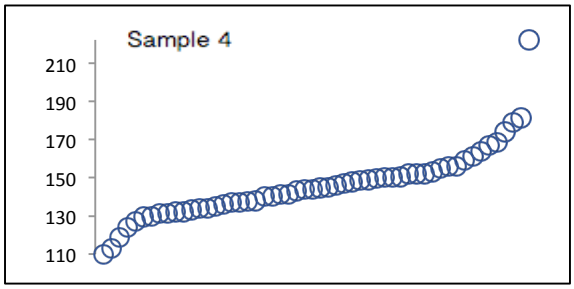
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	28	29	29	29
HS-GCMS	19	20	20	20
GC/MSE	1	1	1	1
P/T-FID	2	2	2	2
P/T-GCECD	1	1	1	1
GC/MS1	1	1	1	1

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



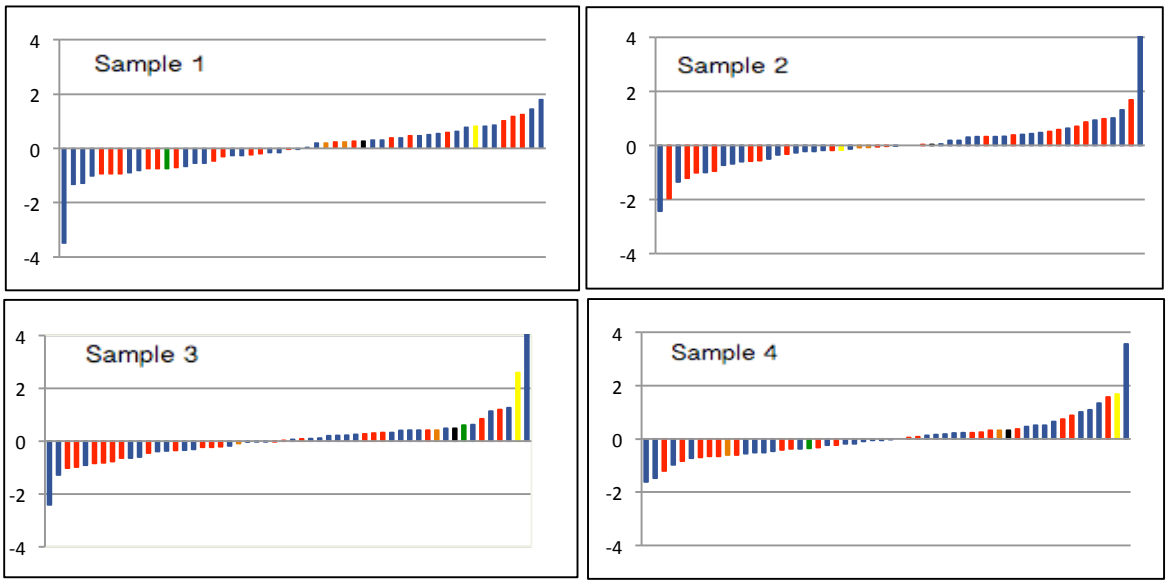




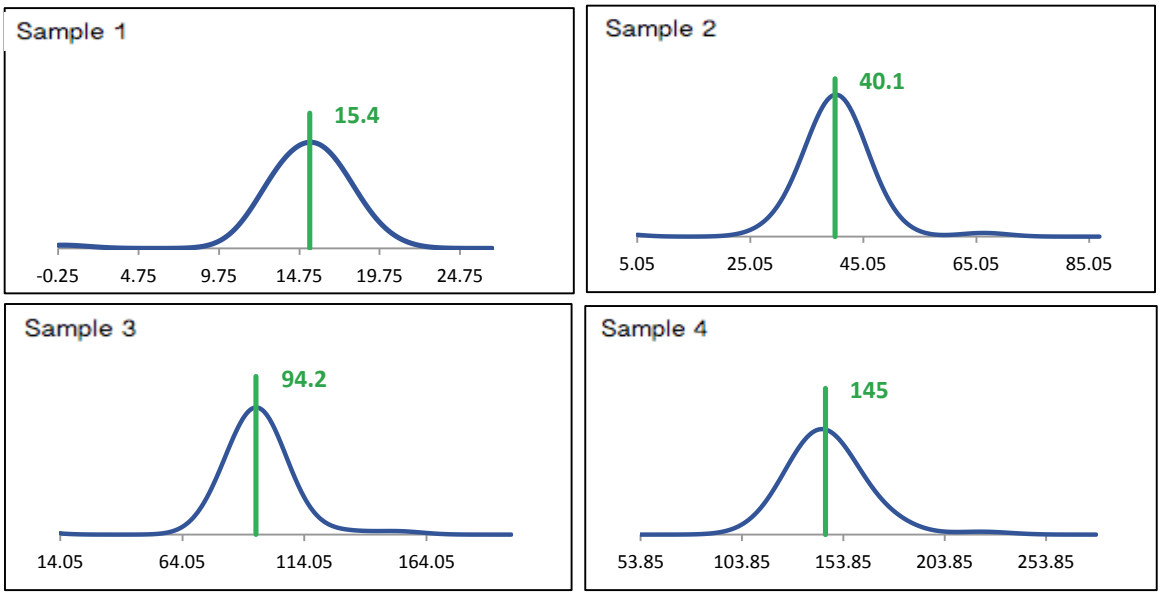


1,1,1-TRICHLOROETHANE

z-Score Plots

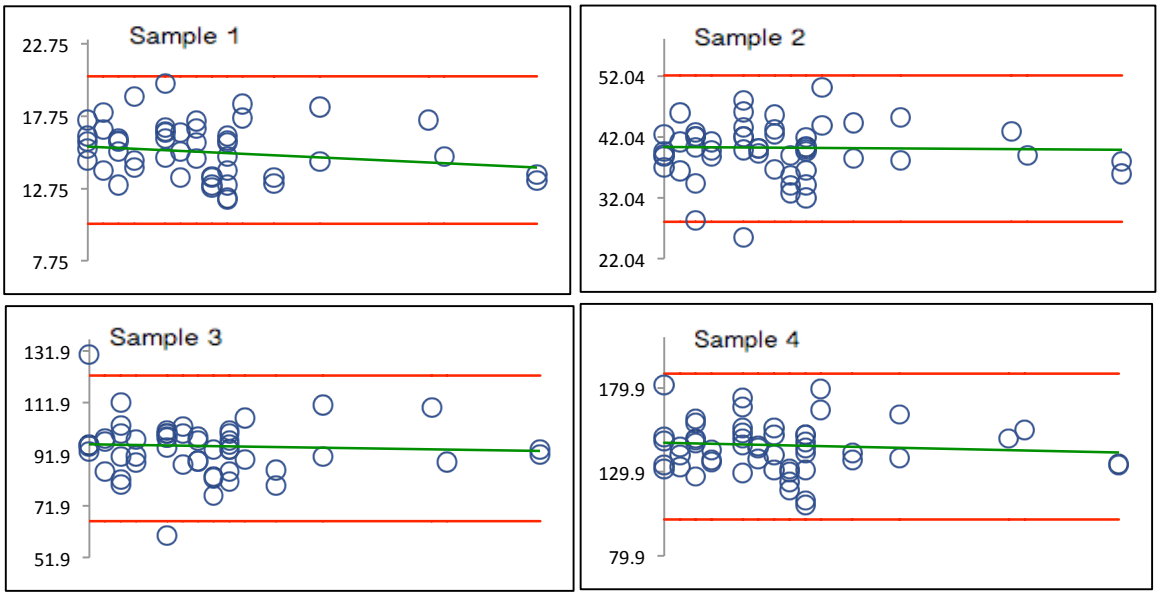


Kernel Density Plots



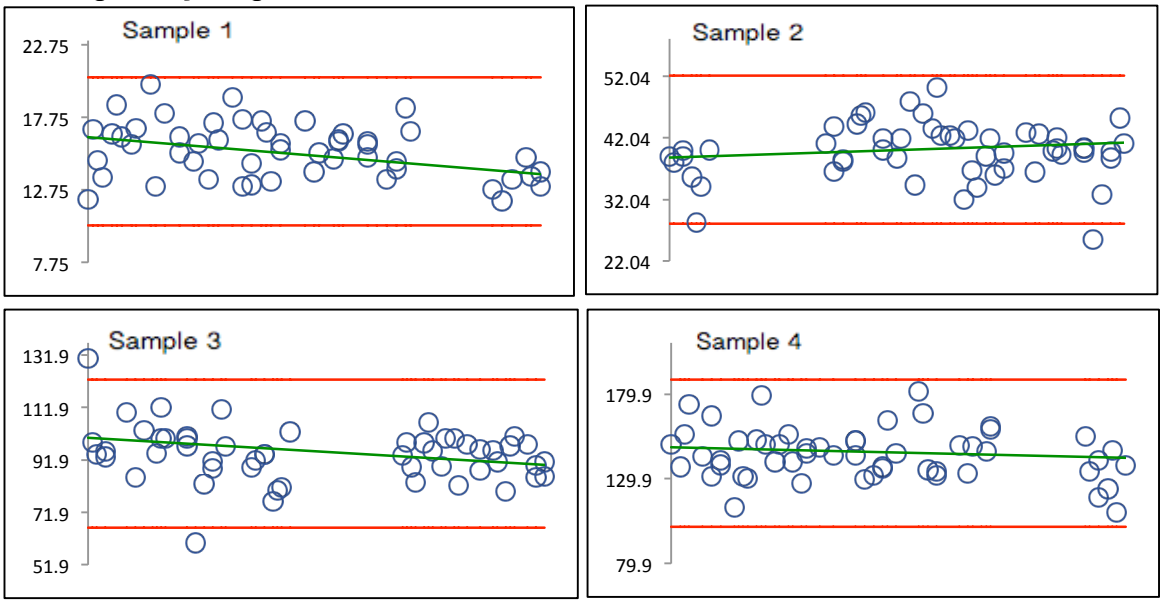
1,1,1-TRICHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,1,2,2-TETRACHLOROETHANE

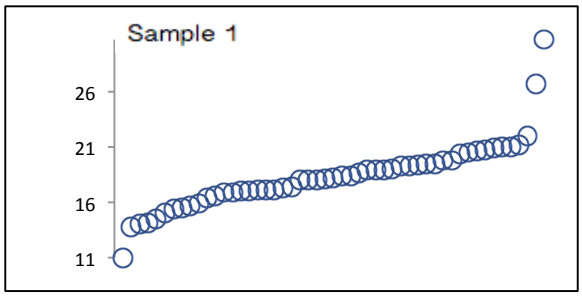
Summary Statistics

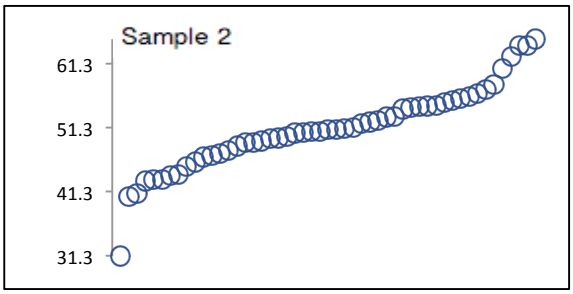
Statistic	C16-1	C16-2	C16-3	C16-4
N	51	51	51	51
Median	18.2	51.0	116	169
Robust Mean	18.2	51.1	115	172
U	0.43	1.02	2.56	3.13
Robust Standard Deviation	2.43	5.85	14.6	17.9
Regression Standard Deviation	3.18	8.94	20.1	30.2
Stability Flag			Stability	
Homogeneity Flag				
Standard Deviation Used (SDPA)	3.18	8.94	23.0	30.2
Outliers	1	1	1	1
|z|>3.0	1	0	0	0
2<|z|<3	2	1	0	2

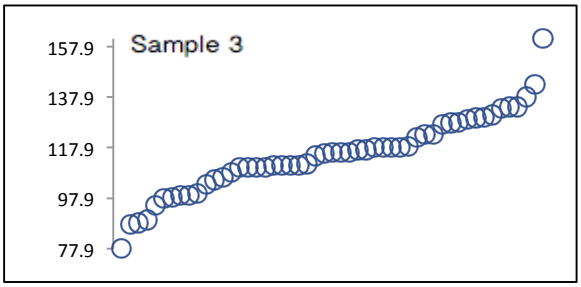
Methods Used

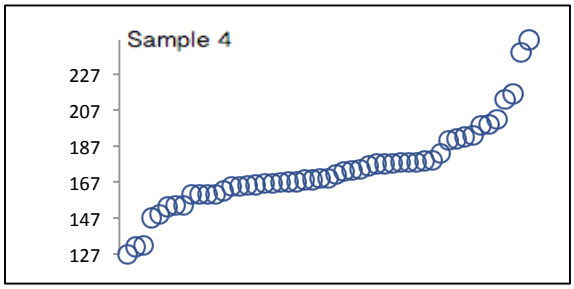
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	16	16	16	16
P/T-GCMS	29	29	29	29
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1
GC/MSE	1	1	1	1
P/T-GCECD	1	1	1	1
GC/MS1	1	1	1	1

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



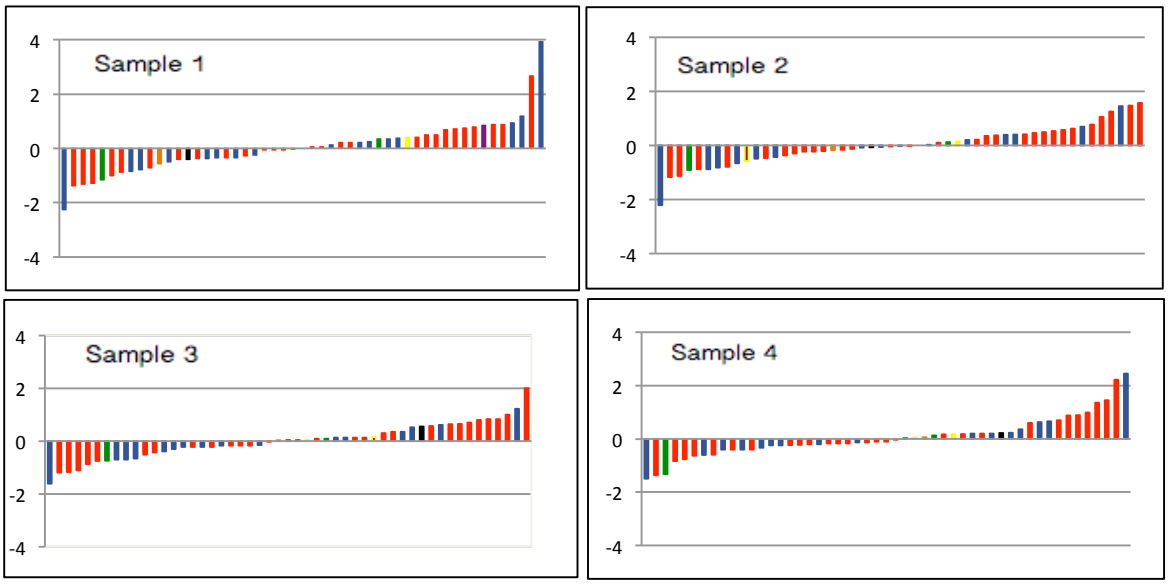




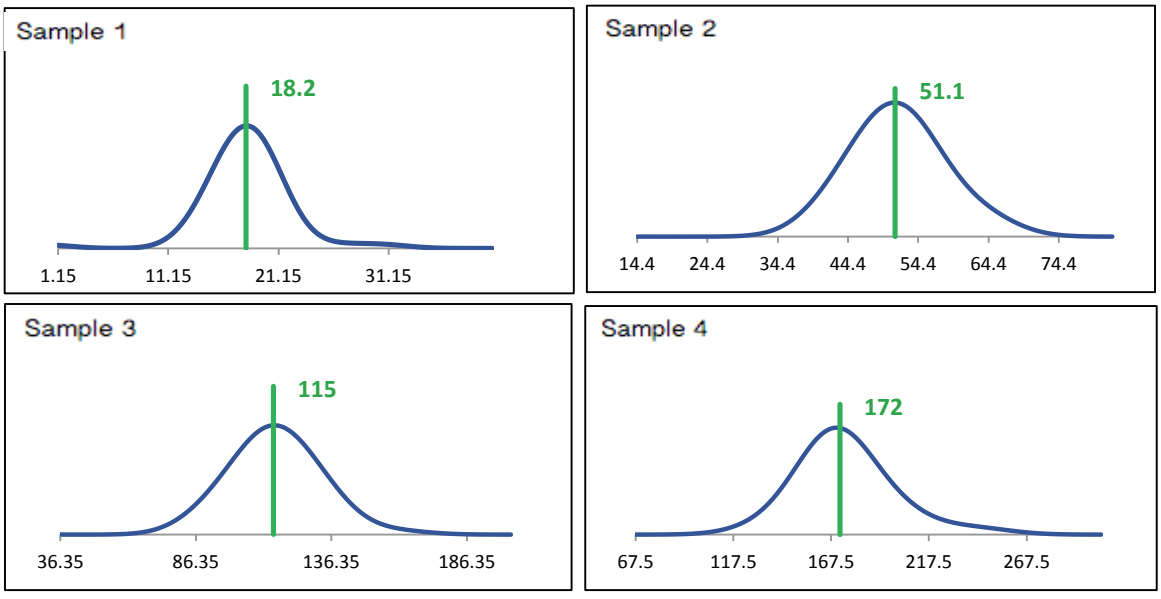


1,1,2,2-TETRACHLOROETHANE

z-Score Plots

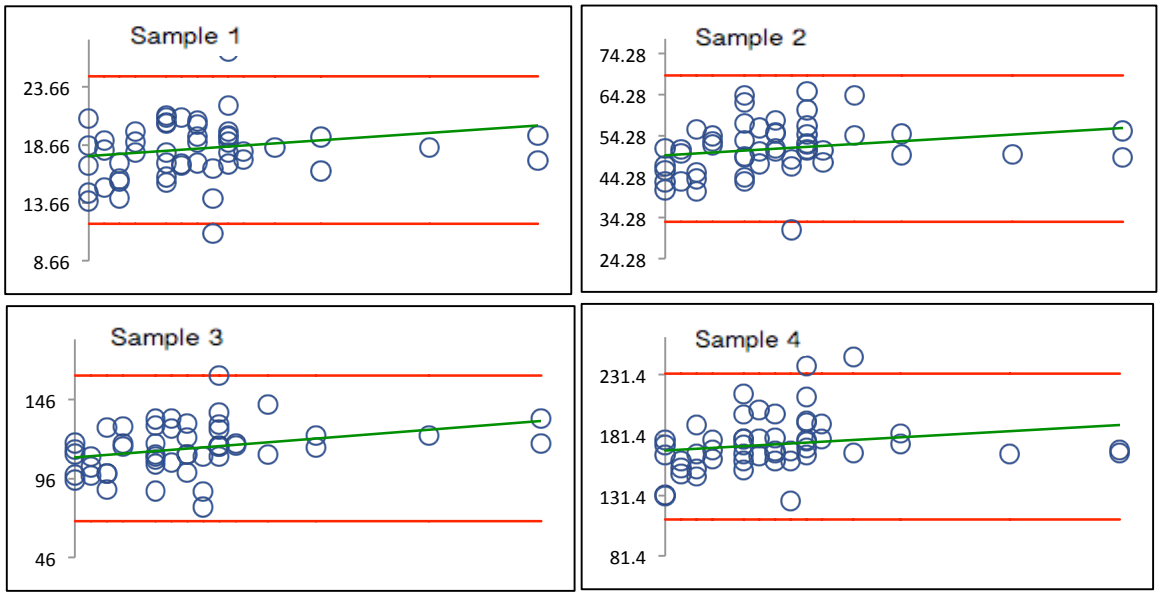


Kernel Density Plots



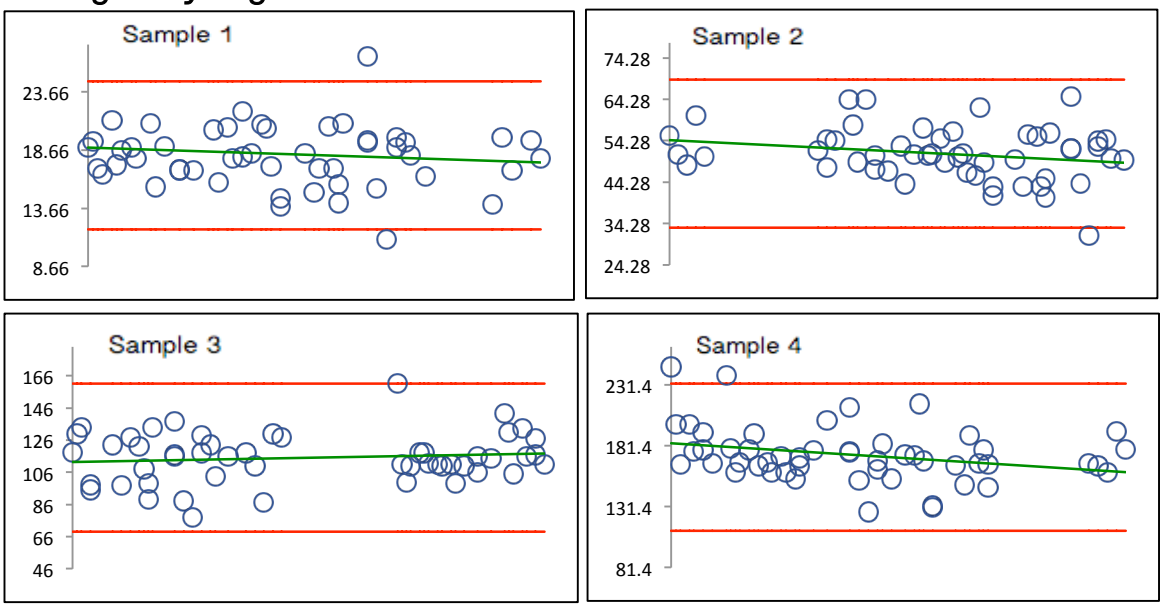
1,1,2,2-TETRACHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,1,2-TRICHLOROETHANE

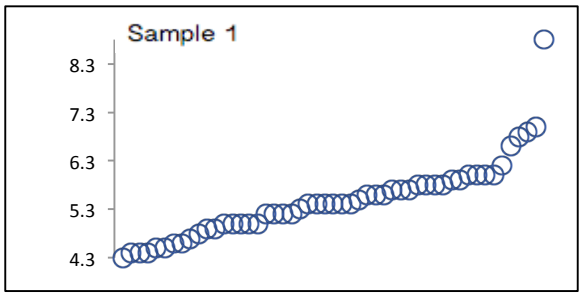
Summary Statistics

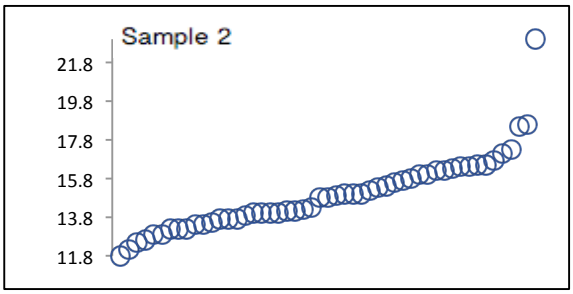
Statistic	C16-1	C16-2	C16-3	C16-4
N	51	51	51	51
Median	5.40	14.8	32.8	51.0
Robust Mean	5.40	14.8	33.3	50.3
U	0.12	0.29	0.61	0.92
Robust Standard Deviation	0.682	1.68	3.46	5.23
Regression Standard Deviation	0.810	2.22	4.99	7.55
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	0.810	2.22	4.99	7.55
Outliers	0	0	0	0
|z|>3.0	1	1	1	1
2<|z|<3	0	0	0	0

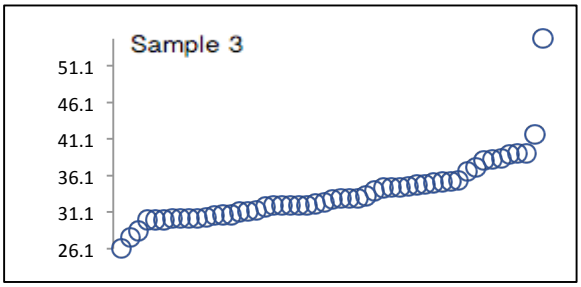
Methods Used

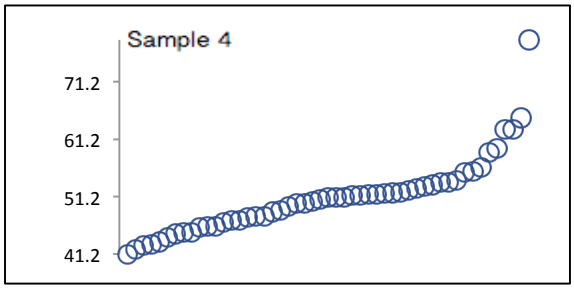
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	29	29	29	29
HS-GCMS	19	19	19	19
GC/MSE	1	1	1	1
P/T-FID	1	1	1	1
GC/MS1	1	1	1	1

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



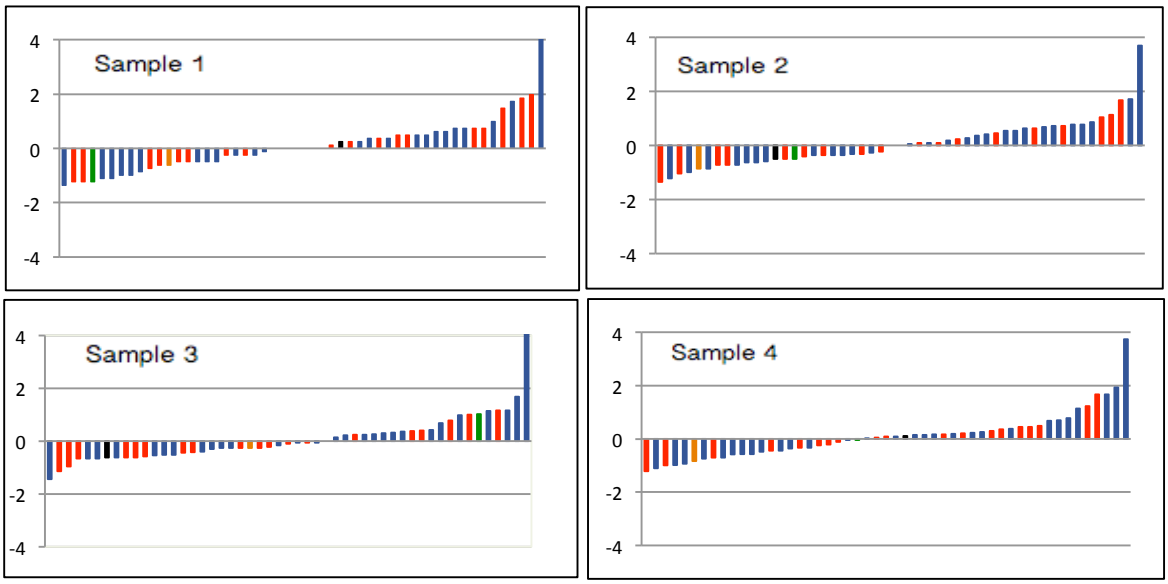




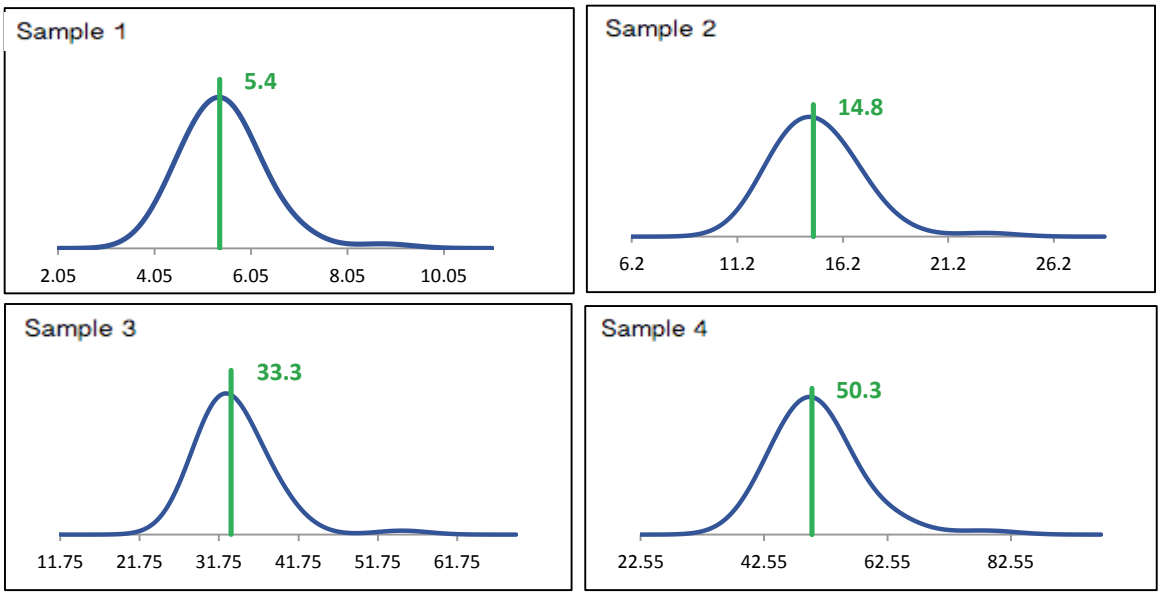


1,1,2-TRICHLOROETHANE

z-Score Plots

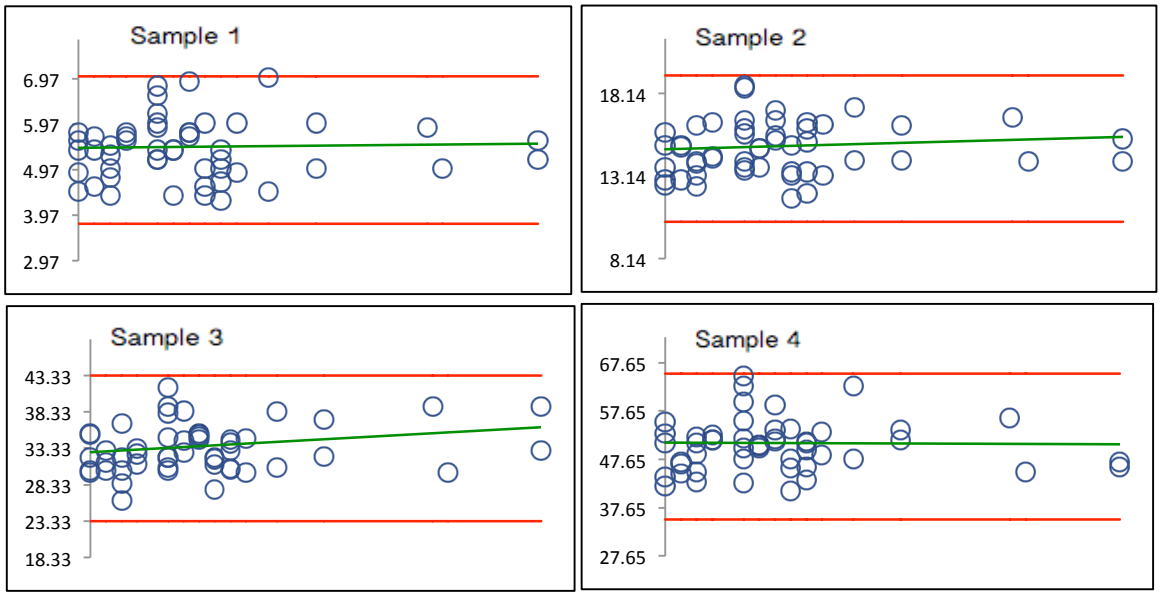


Kernel Density Plots



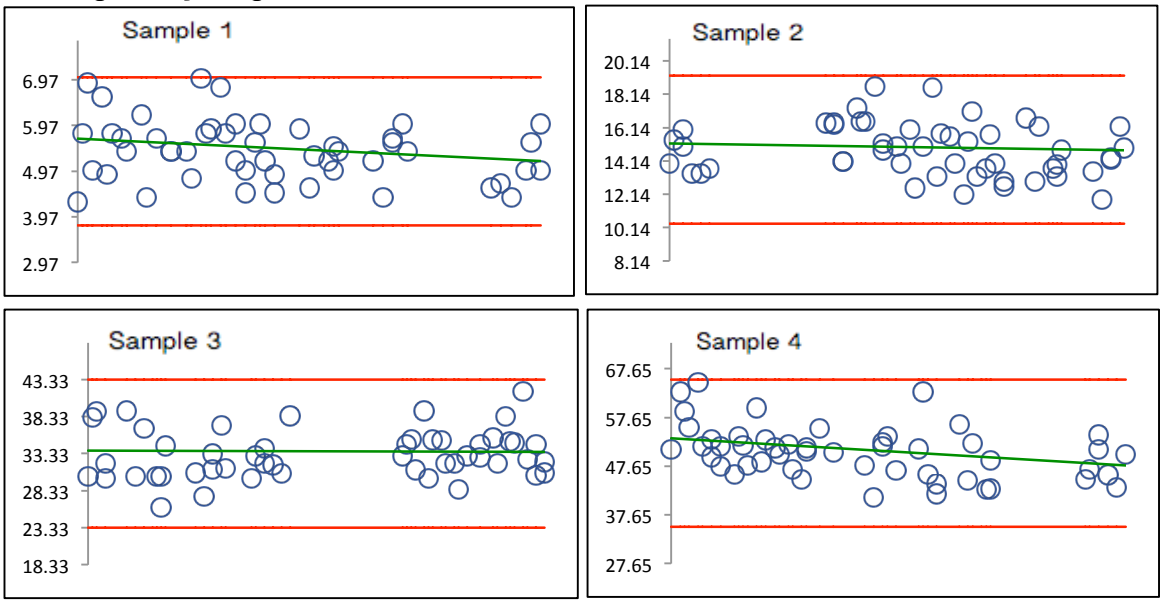
1,1,2-TRICHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,1-DICHLOROETHANE

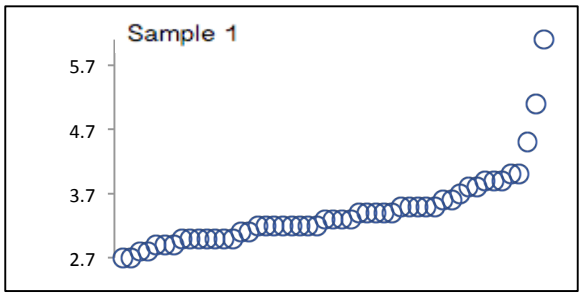
Summary Statistics

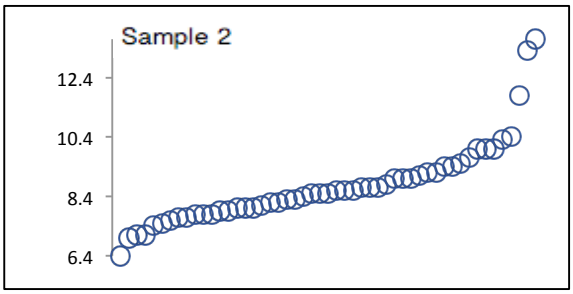
Statistic	C16-1	C16-2	C16-3	C16-4
N	51	51	51	51
Median	3.30	8.50	19.9	30.2
Robust Mean	3.34	8.60	20.1	30.4
U	0.07	0.18	0.31	0.57
Robust Standard Deviation	0.417	1.04	1.76	3.28
Regression Standard Deviation	0.501	1.29	3.01	4.56
Stability Flag				
Homogeneity Flag				Homogeneity
Standard Deviation Used (SDPA)	0.501	1.29	3.01	4.67
Outliers	0	0	0	0
|z|>3.0	2	2	1	1
2<|z|<3	1	1	2	2

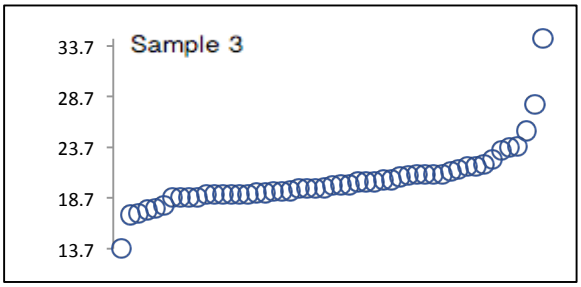
Methods Used

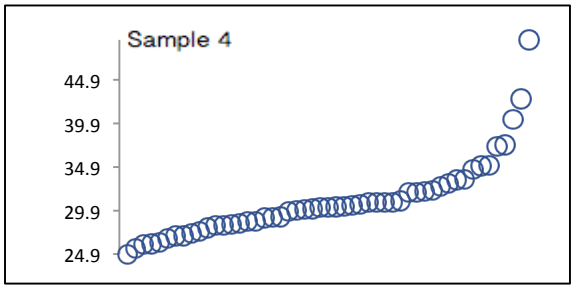
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	29	29	29	29
GC/MSE	2	2	2	2
HS-GCMS	19	19	19	19
P/T-FID	1	1	1	1

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



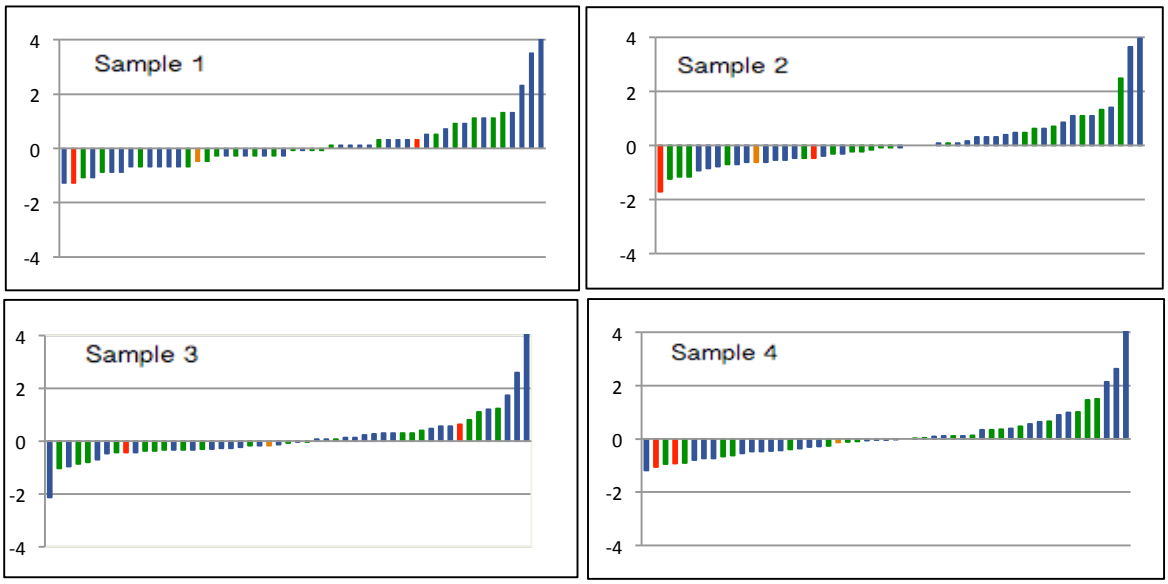




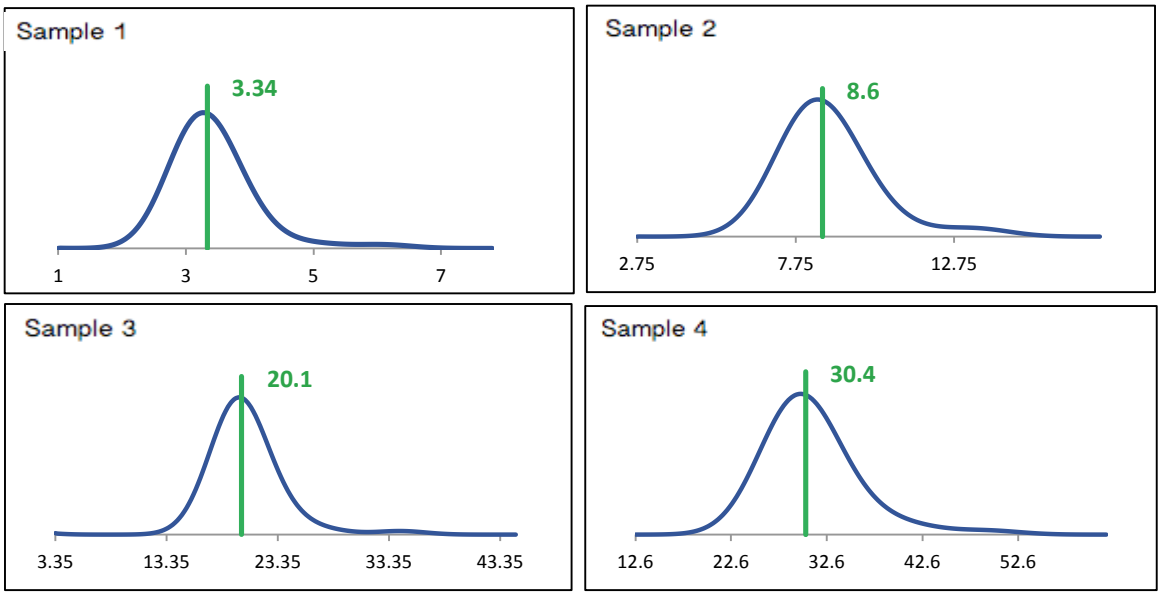


1,1-DICHLOROETHANE

z-Score Plots

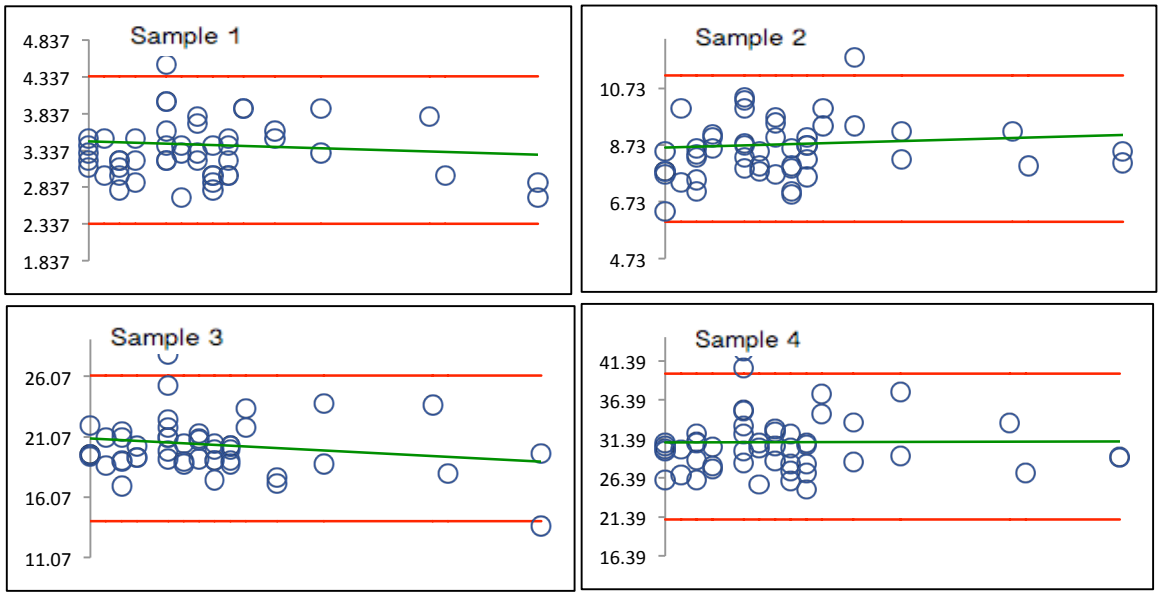


Kernel Density Plots



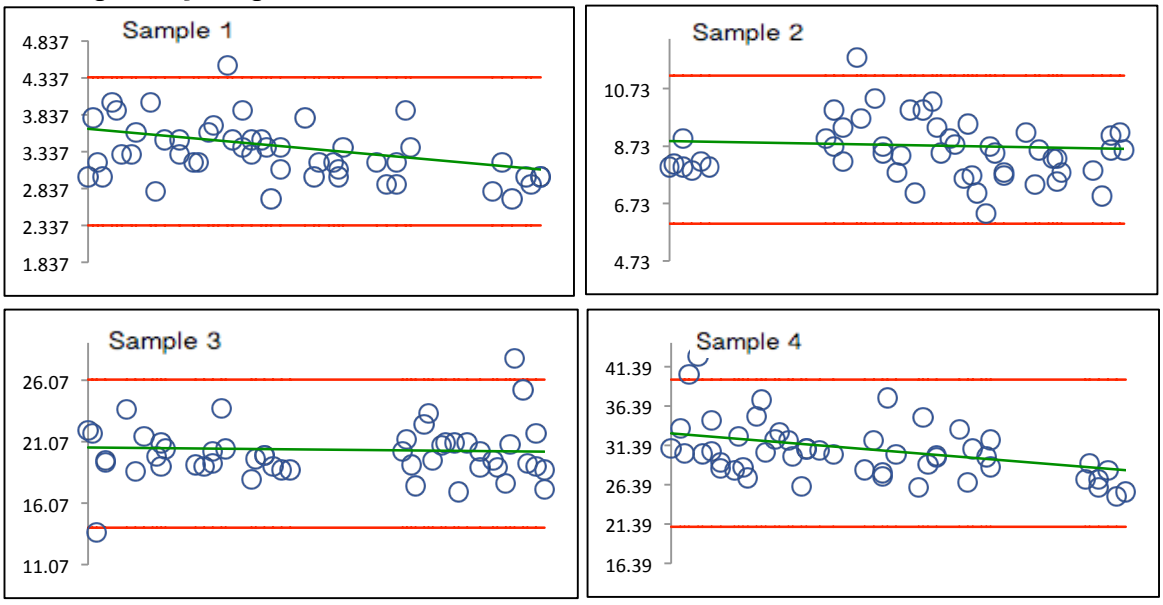
1,1-DICHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,1-DICHLOROETHYLENE

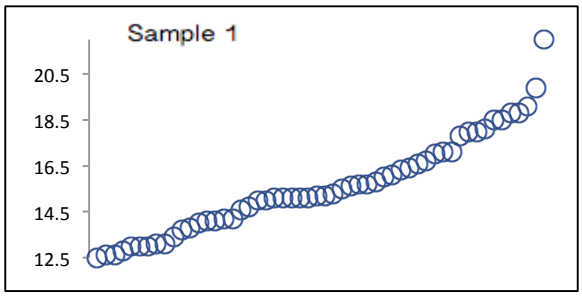
Summary Statistics

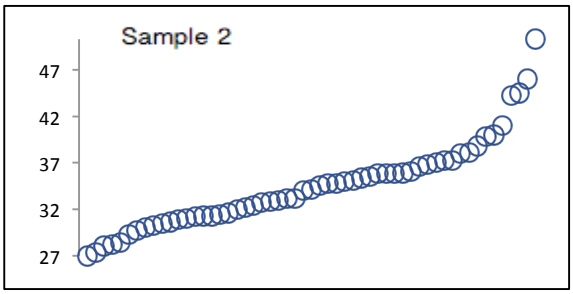
Statistic	C16-1	C16-2	C16-3	C16-4
N	54	55	55	55
Median	15.2	34.1	92.3	144
Robust Mean	15.5	34.1	94.5	142
U	0.37	0.71	1.90	3.07
Robust Standard Deviation	2.18	4.20	11.3	18.2
Regression Standard Deviation	3.10	6.82	18.9	28.4
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	3.10	6.82	18.9	28.4
Outliers	1	0	0	0
|z|>3.0	0	0	0	1
2<|z|<3	1	1	0	0

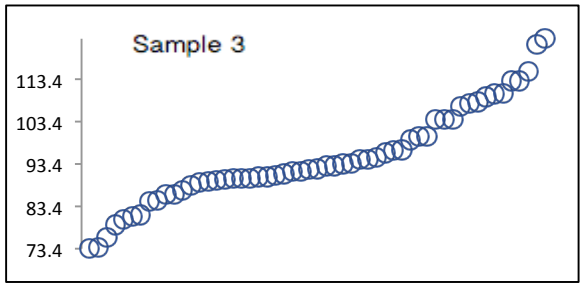
Methods Used

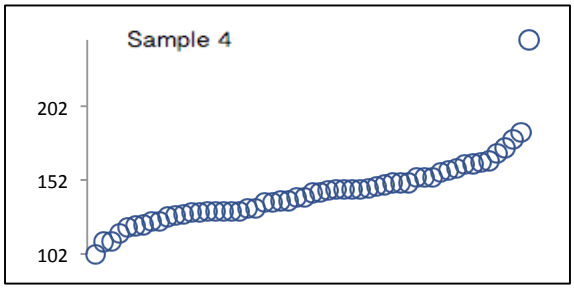
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	30	30	30	30
HS-GCMS	19	20	20	20
P/T-FID	2	2	2	2
GC/MS1	1	1	1	1
GC/MSE	1	1	1	1
GC/MS/MSHEAD	1	1	1	1

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



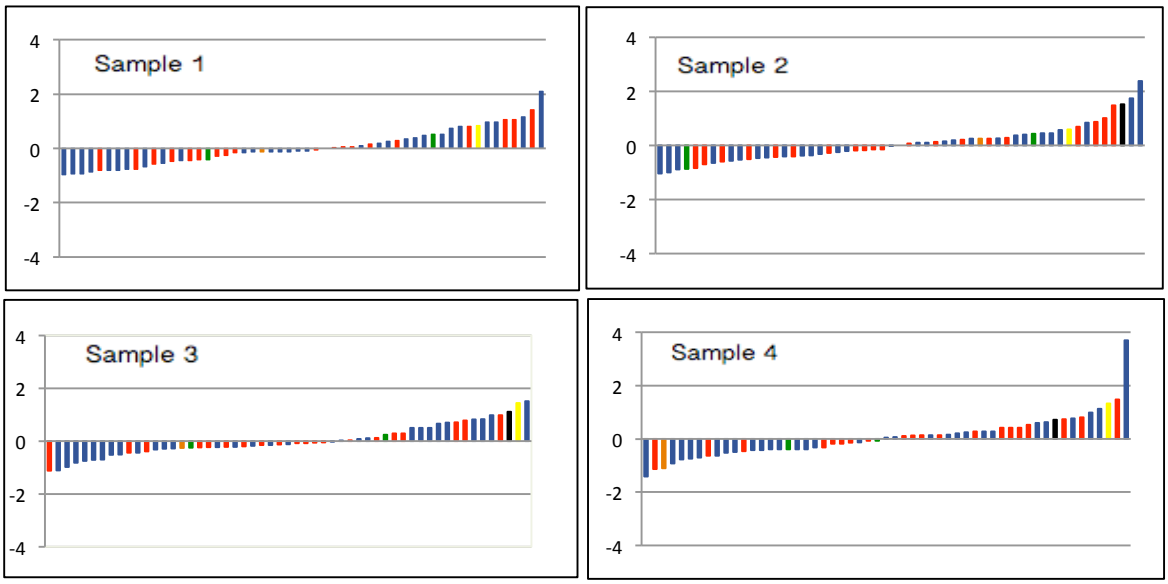




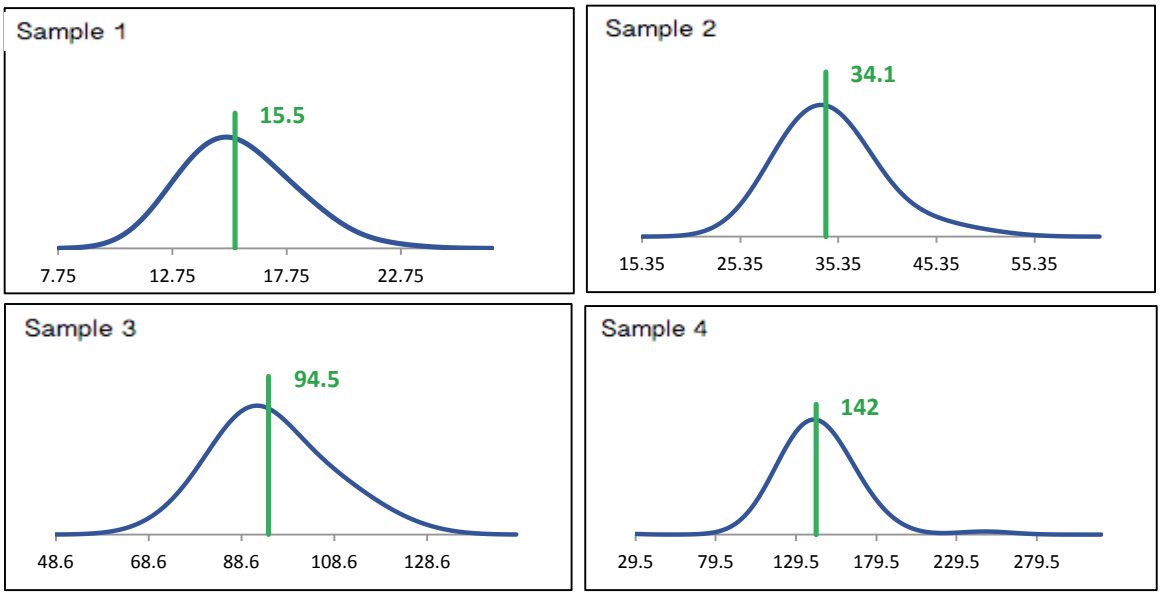


1,1-DICHLOROETHYLENE

z-Score Plots

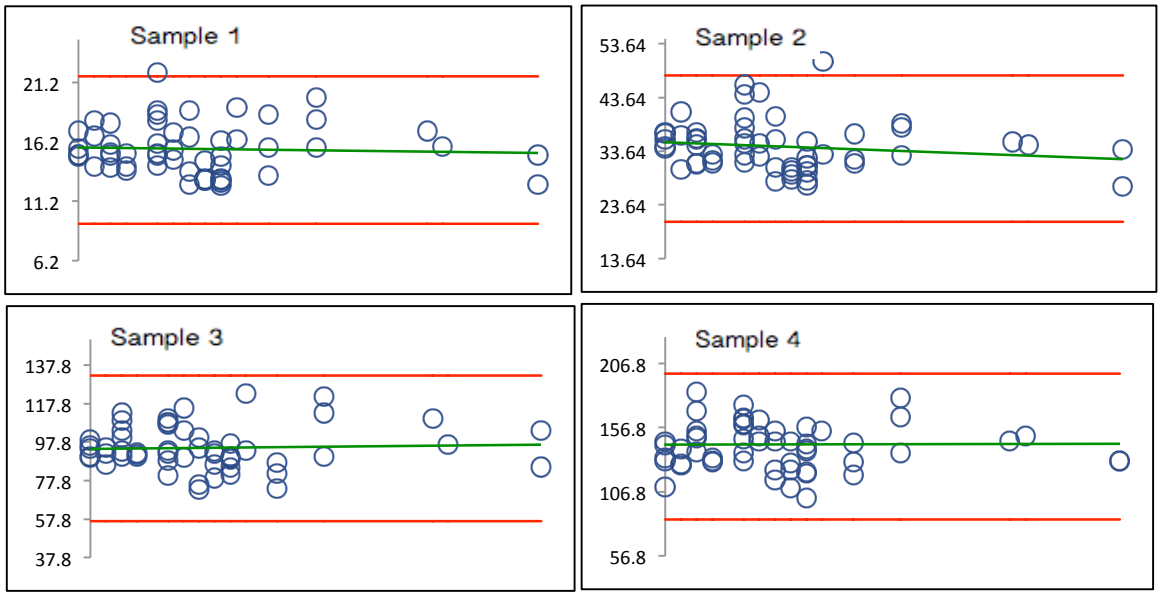


Kernel Density Plots



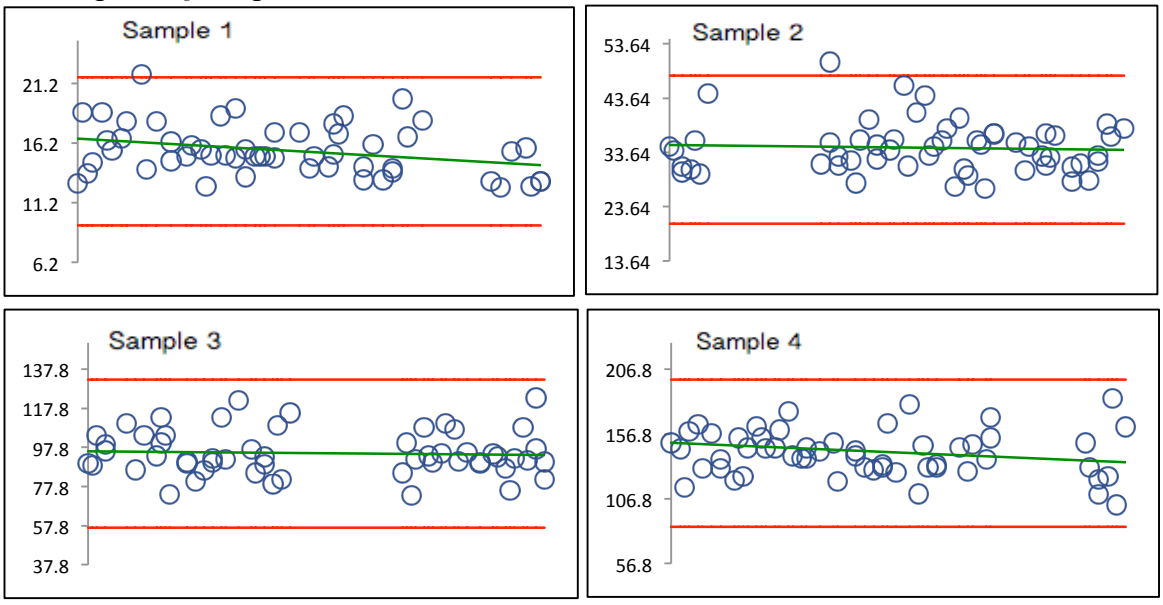
1,1-DICHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,2-DICHLOROBENZENE

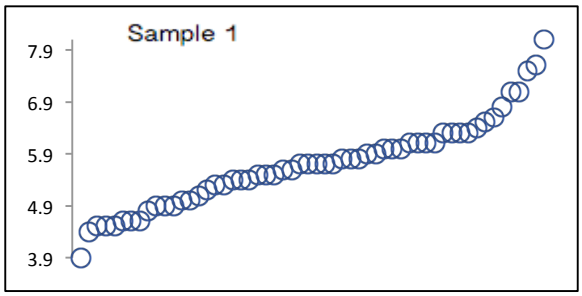
Summary Statistics

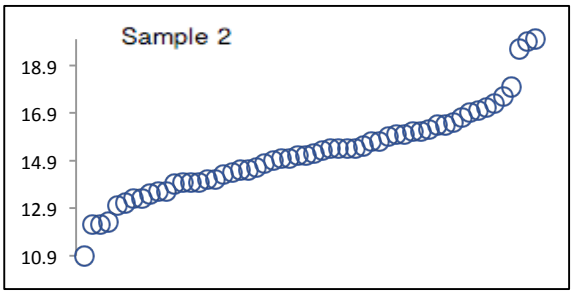
Statistic	C16-1	C16-2	C16-3	C16-4
N	56	56	56	56
Median	5.70	15.2	34.3	53.0
Robust Mean	5.65	15.1	34.2	52.6
U	0.14	0.28	0.53	0.81
Robust Standard Deviation	0.819	1.65	3.19	4.82
Regression Standard Deviation	0.848	2.27	5.13	7.89
Stability Flag				
Homogeneity Flag				Homogeneity
Standard Deviation Used (SDPA)	0.848	2.27	5.13	8.15
Outliers	0	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	4	2	2	1

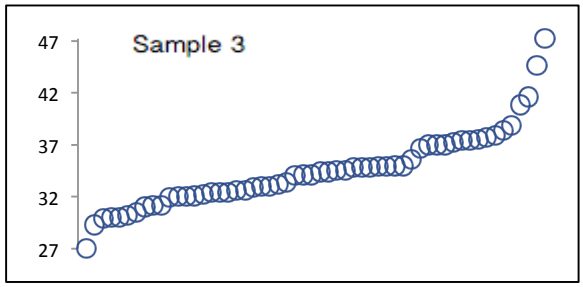
Methods Used

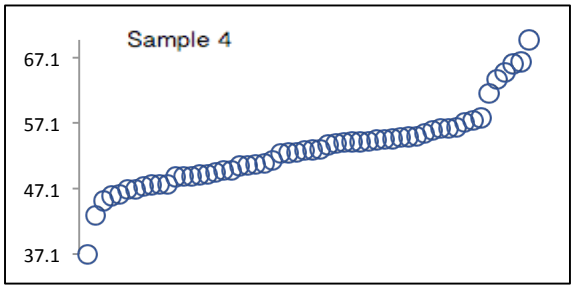
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	32	32	32	32
HS-GCMS	19	19	19	19
GC/MS1	1	1	1	1
GC/MSE	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	2	2	2	2

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



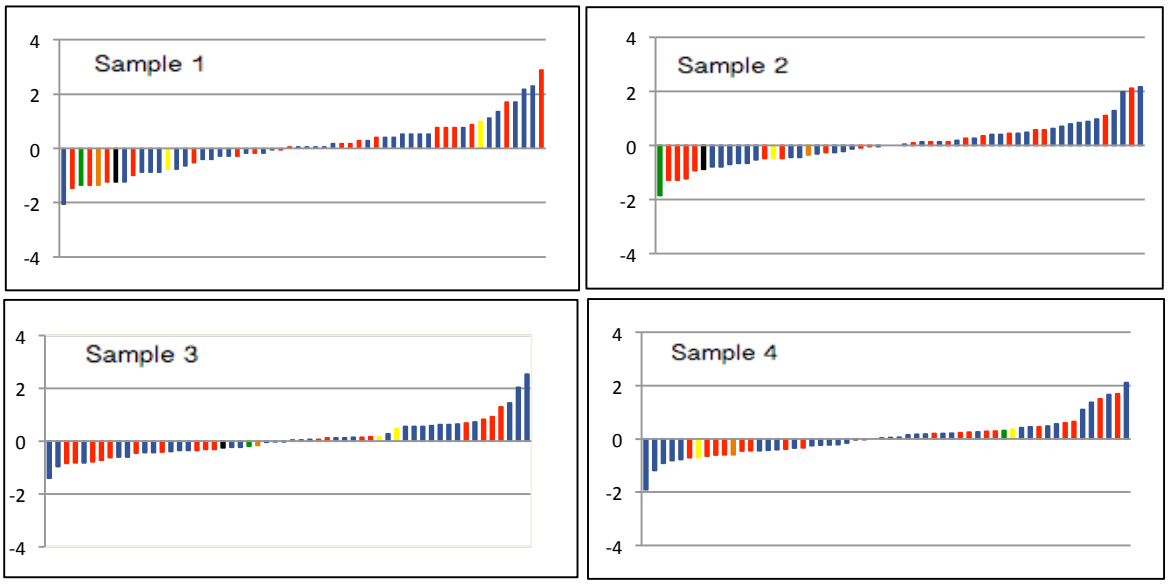




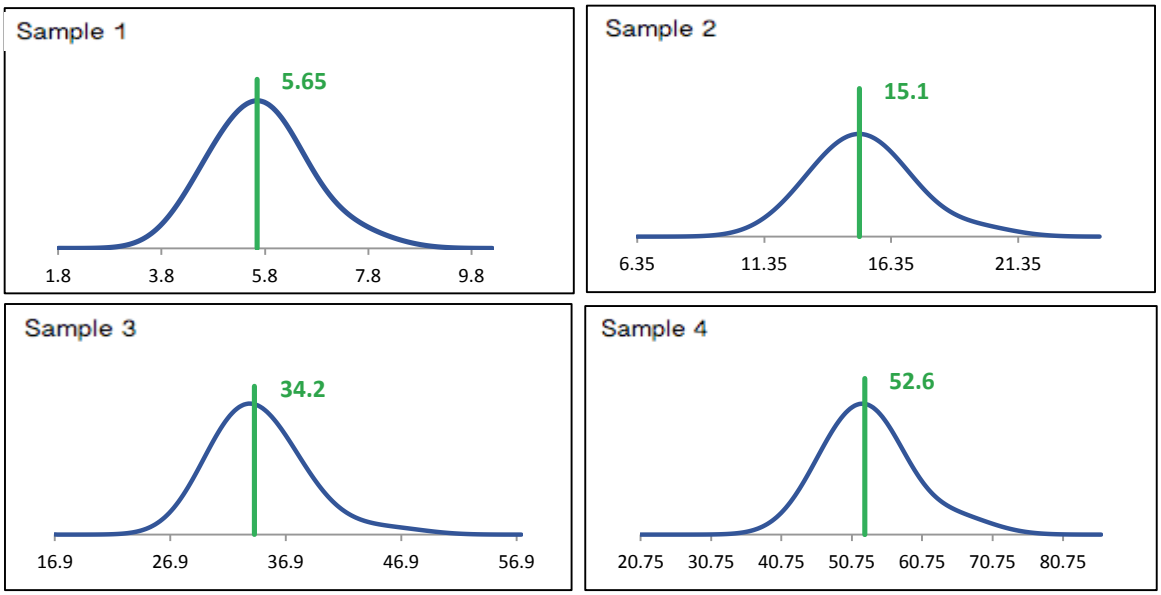


1,2-DICHLOROBENZENE

z-Score Plots

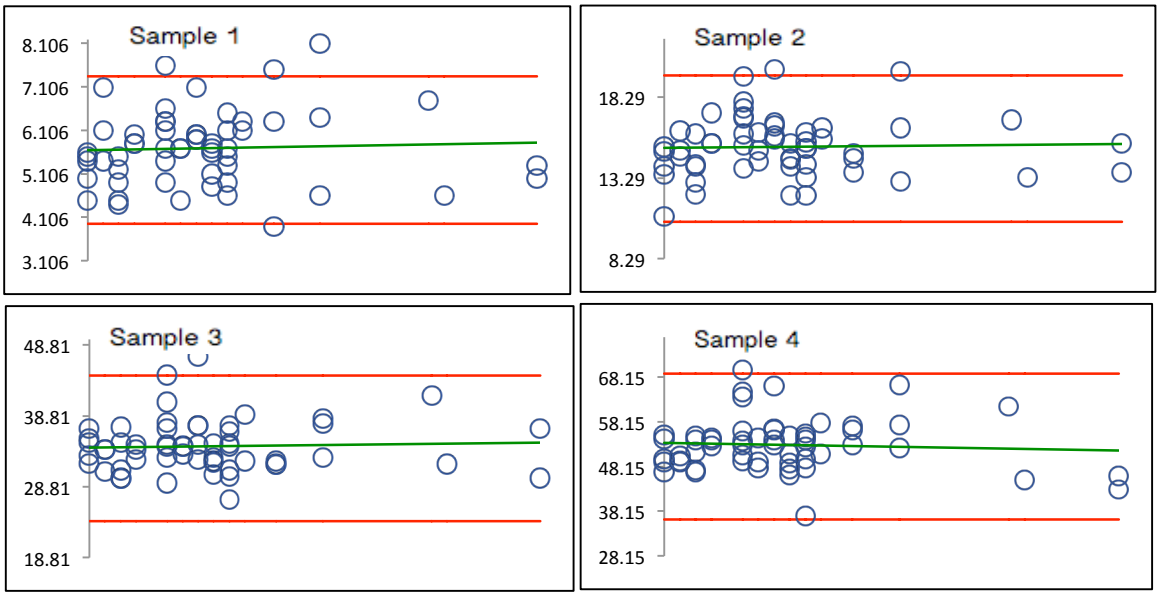


Kernel Density Plots



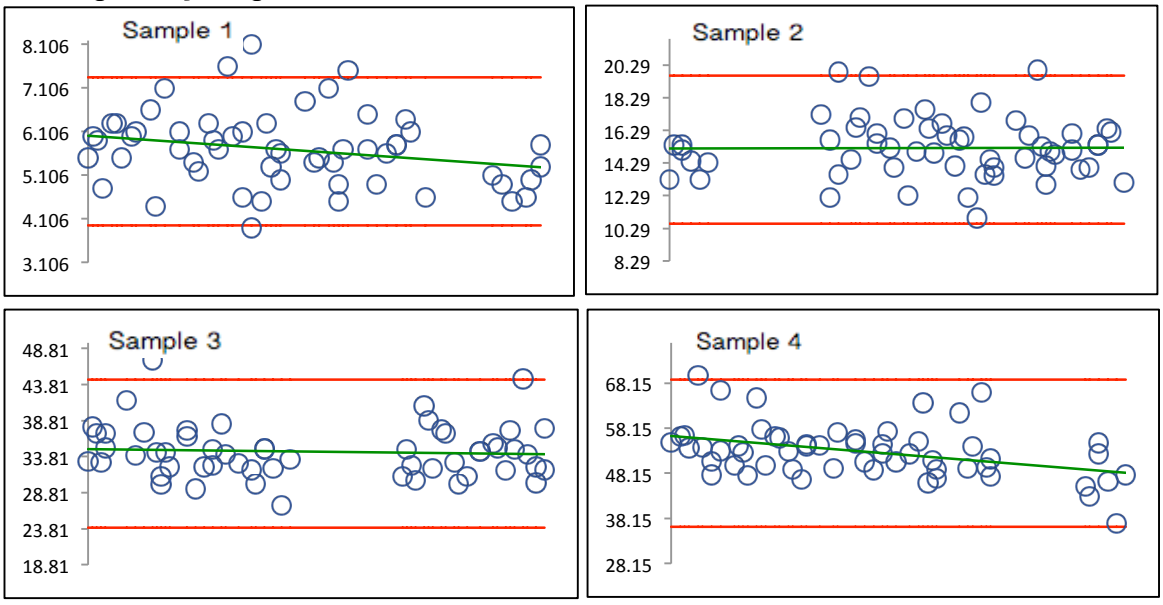
1,2-DICHLOROBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,2-DICHLOROETHANE

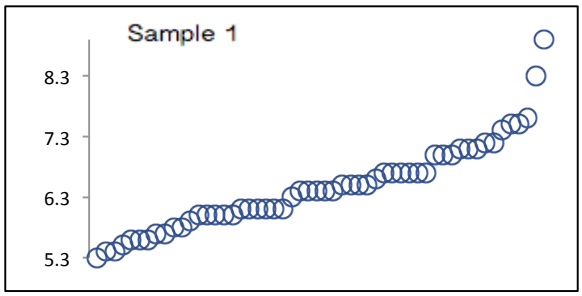
Summary Statistics

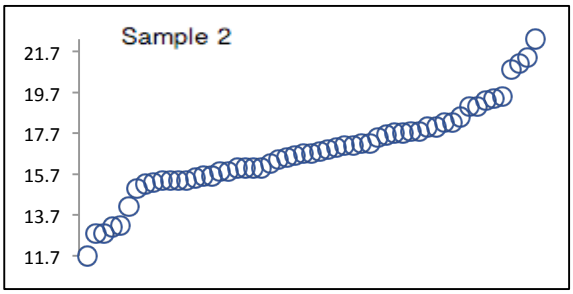
Statistic	C16-1	C16-2	C16-3	C16-4
N	54	55	55	55
Median	6.40	16.7	38.5	57.7
Robust Mean	6.42	16.8	38.9	58.4
U	0.12	0.32	0.64	1.15
Robust Standard Deviation	0.701	1.89	3.80	6.82
Regression Standard Deviation	0.963	2.52	5.83	8.75
Stability Flag			Stability	
Homogeneity Flag				
Standard Deviation Used (SDPA)	0.963	2.52	6.99	8.75
Outliers	0	0	0	0
|z|>3.0	0	0	0	1
2<|z|<3	1	2	2	1

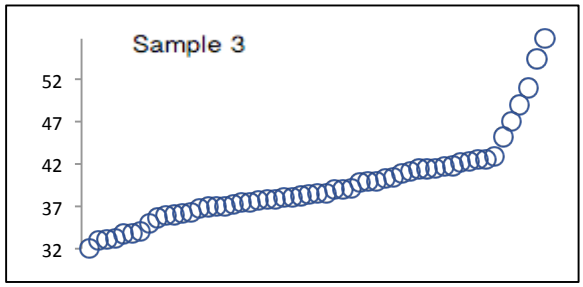
Methods Used

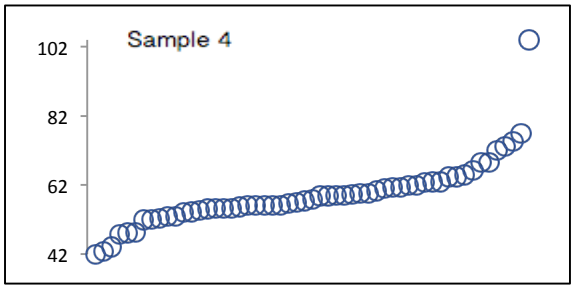
Method	C16-1	C16-2	C16-3	C16-4
P/T-FID	1	1	1	1
HS-GCMS	19	20	20	20
P/T-GCMS	31	31	31	31
GC/MSE	2	2	2	2
GC/MS/MSHEAD	1	1	1	1

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



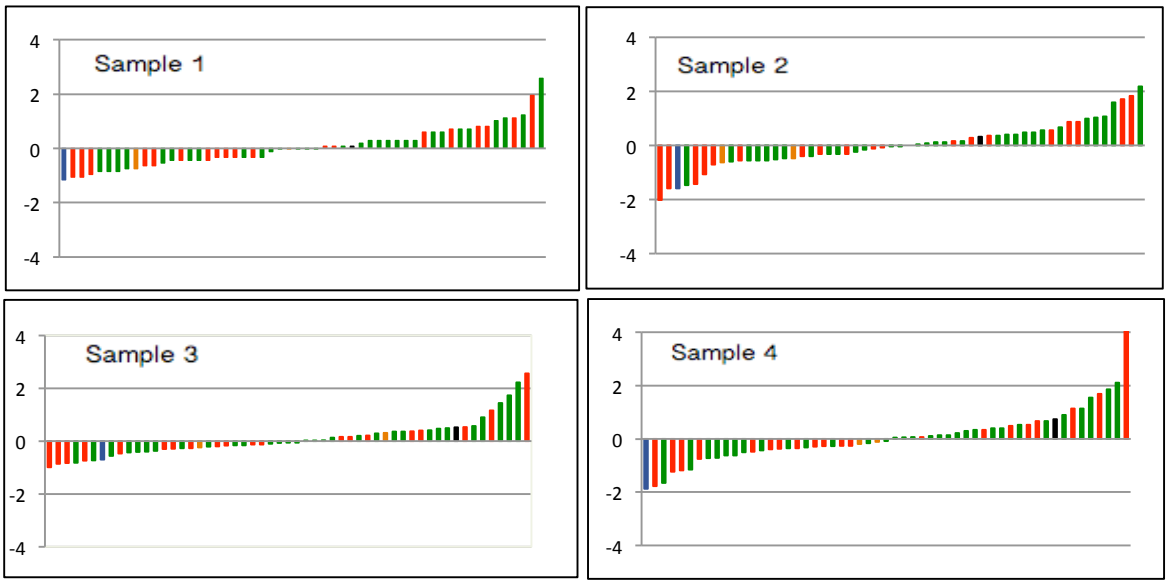




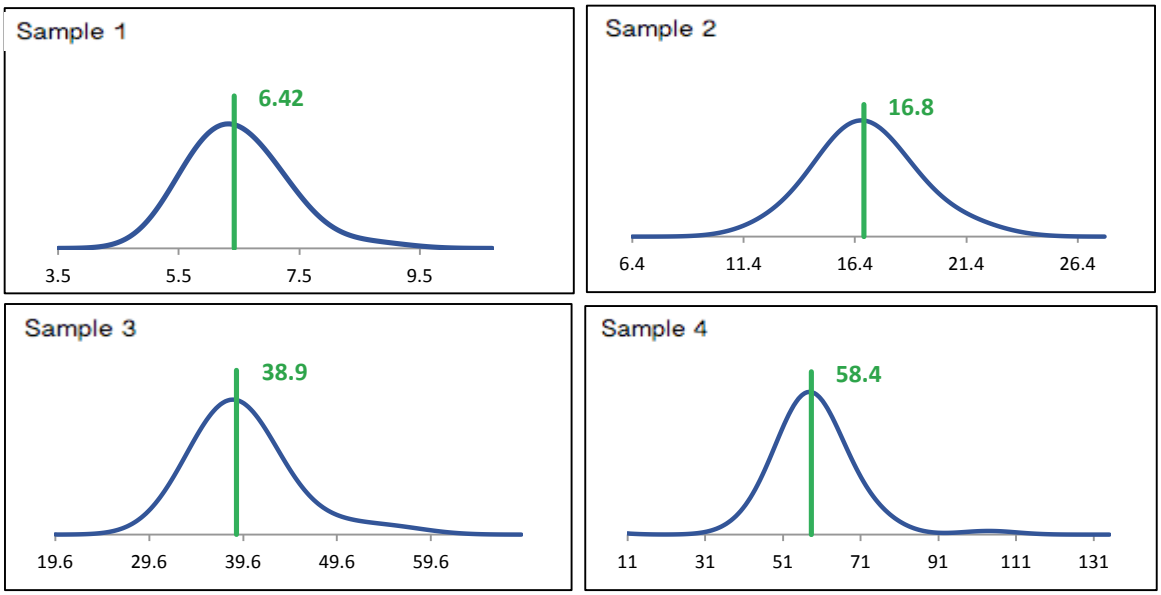


1,2-DICHLOROETHANE

z-Score Plots

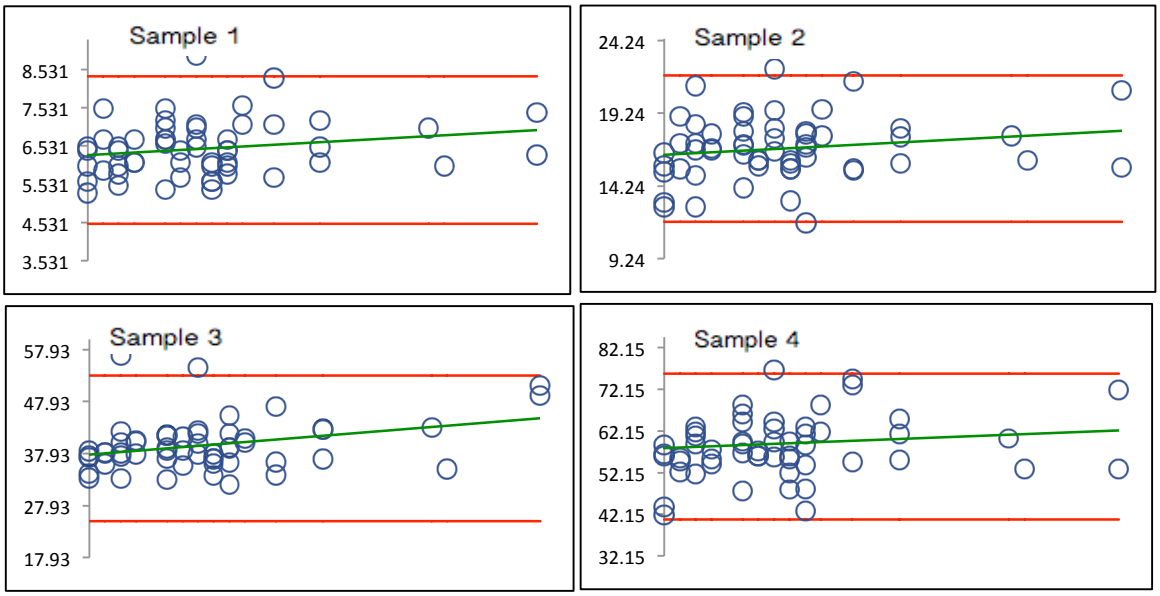


Kernel Density Plots



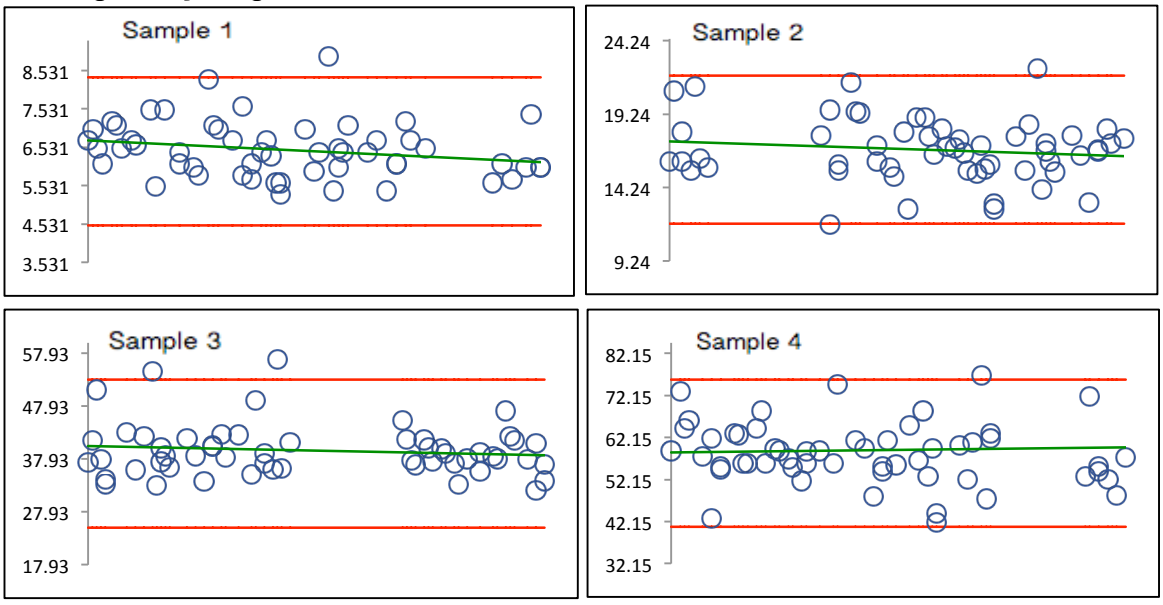
1,2-DICHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,2-DICHLOROPROPANE

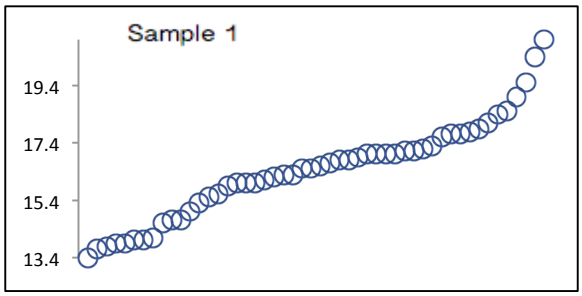
Summary Statistics

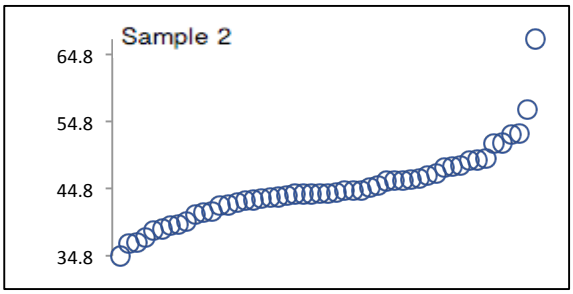
Statistic	C16-1	C16-2	C16-3	C16-4
N	50	51	50	50
Median	16.6	44.1	100	153
Robust Mean	16.4	44.5	101	154
U	0.31	0.78	1.47	2.30
Robust Standard Deviation	1.75	4.44	8.31	13.0
Regression Standard Deviation	2.46	6.68	15.1	23.1
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	2.46	6.68	15.1	23.1
Outliers	1	0	1	1
|z|>3.0	0	1	0	0
2<|z|<3	0	0	0	0

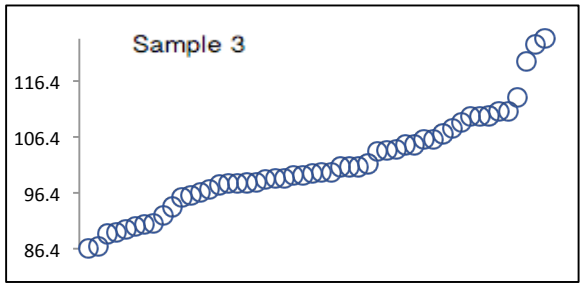
Methods Used

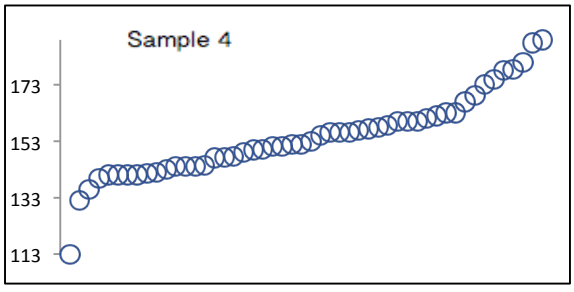
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	18	18	18	18
P/T-GCMS	28	29	28	28
GC/MSE	1	1	1	1
GC/MS1	1	1	1	1
P/T-FID	2	2	2	2

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



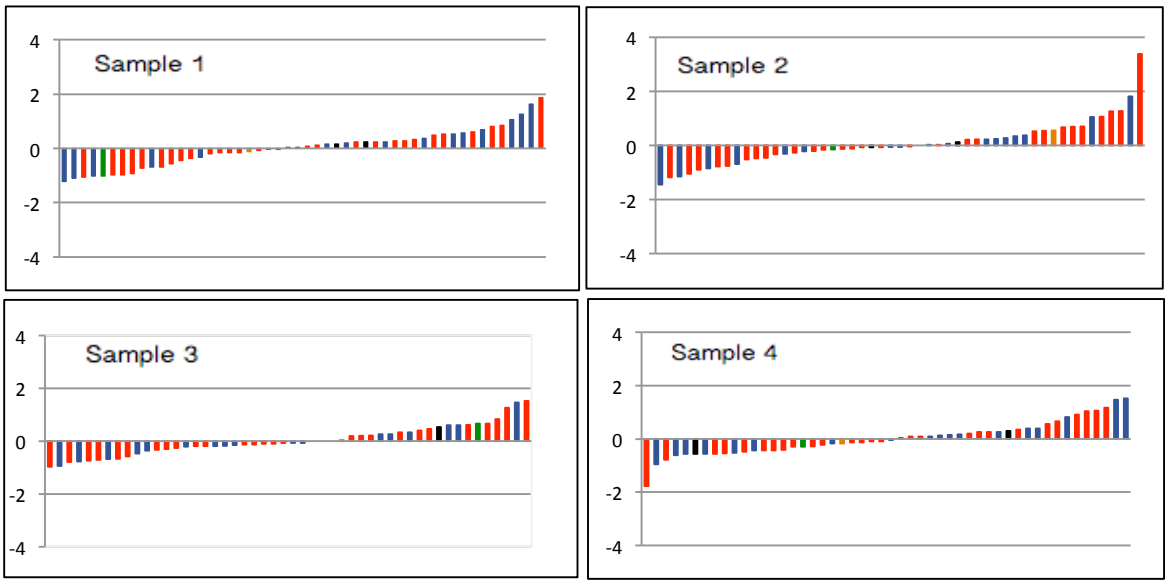




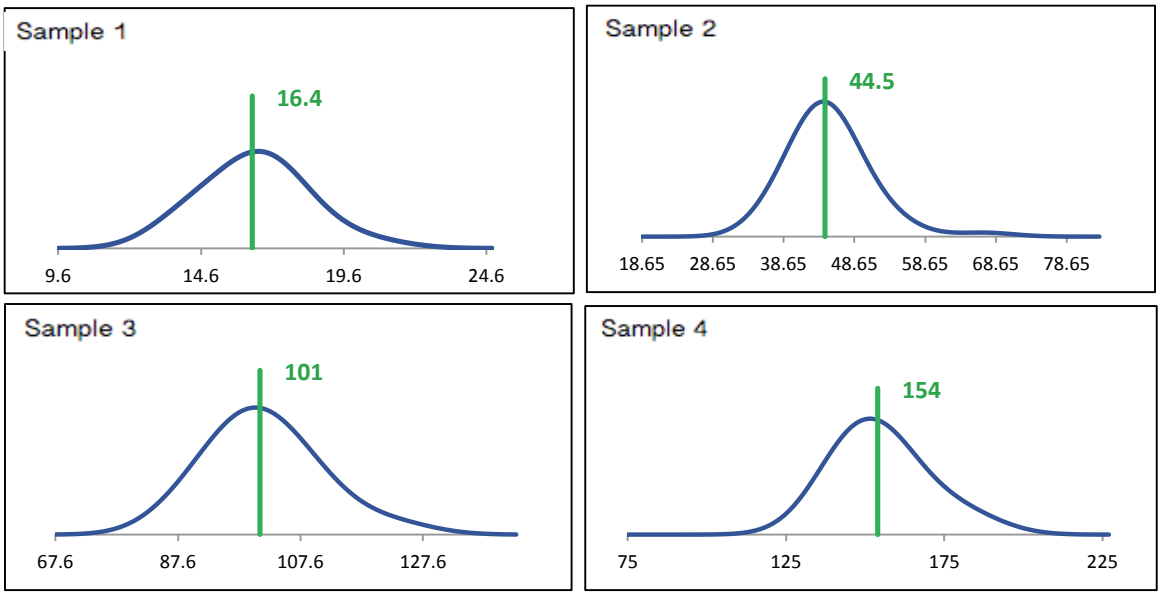


1,2-DICHLOROPROPANE

z-Score Plots

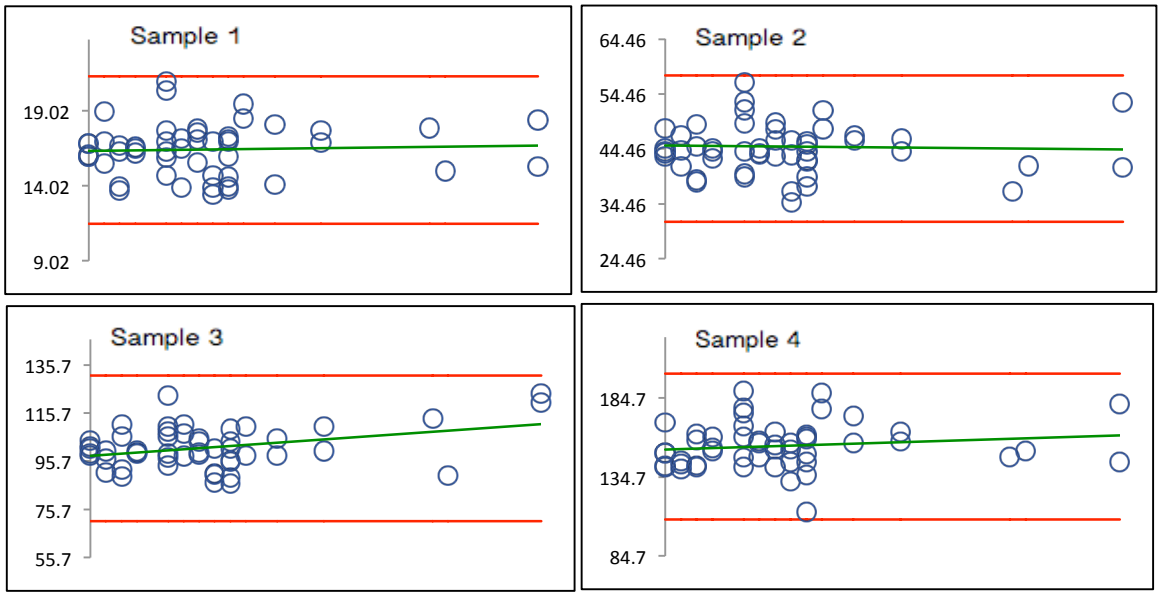


Kernel Density Plots



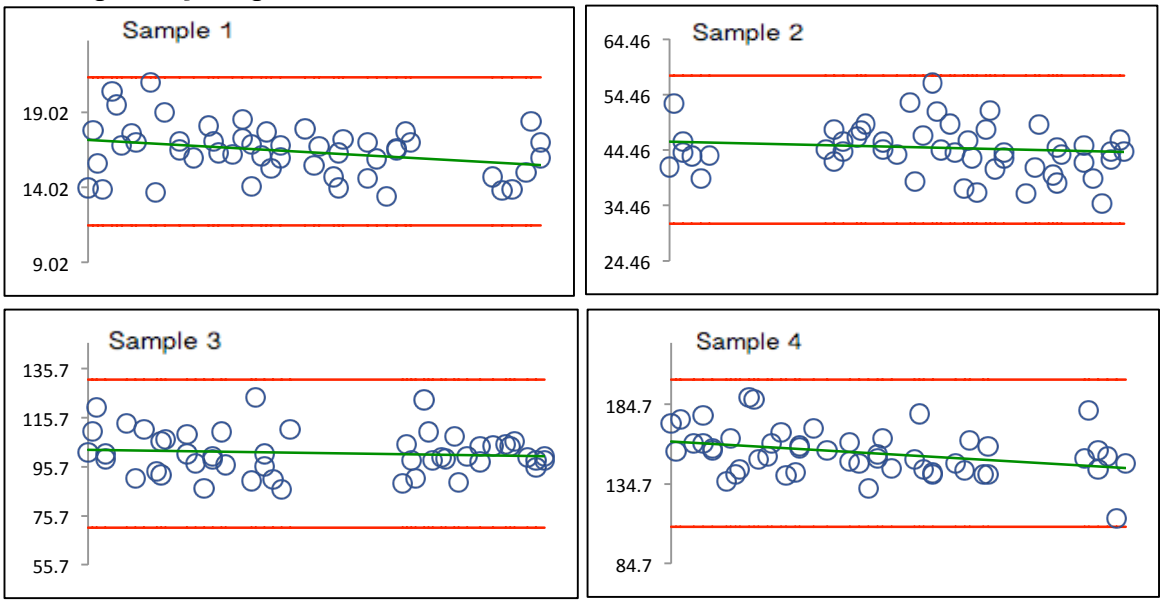
1,2-DICHLOROPROPANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,3-DICHLOROBENZENE

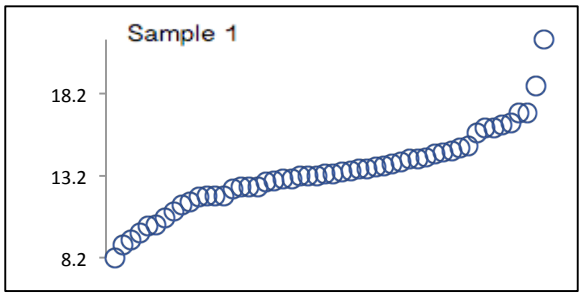
Summary Statistics

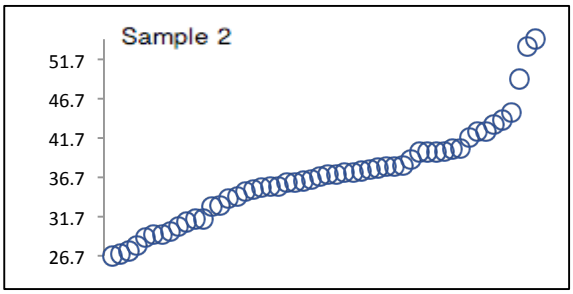
Statistic	C16-1	C16-2	C16-3	C16-4
N	52	52	52	51
Median	13.3	36.9	85.2	127
Robust Mean	13.3	36.5	84.3	128
U	0.38	0.96	1.65	2.19
Robust Standard Deviation	2.19	5.55	9.49	12.5
Regression Standard Deviation	2.00	5.47	12.6	19.2
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	2.19	5.55	12.6	19.2
Outliers	0	0	0	1
|z|>3.0	1	2	0	0
2<|z|<3	2	1	2	2

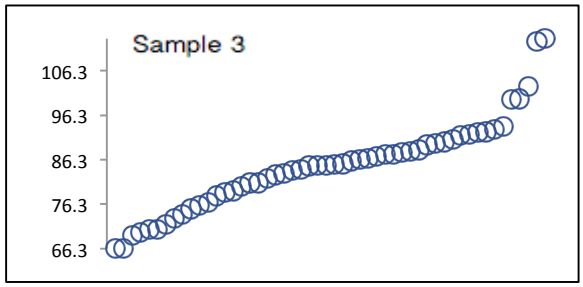
Methods Used

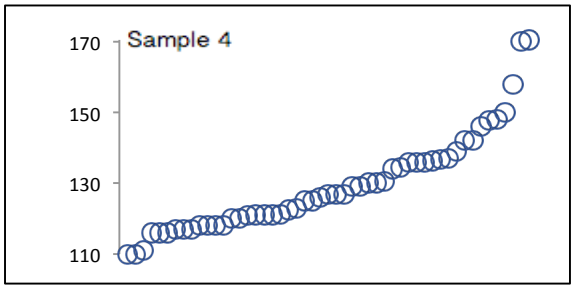
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	18	18	18	17
P/T-GCMS	28	28	28	28
GC/MS1	2	2	2	2
P/T-FID	2	2	2	2
GC/MSE	1	1	1	1
GC/FID-1	1	1	1	1

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



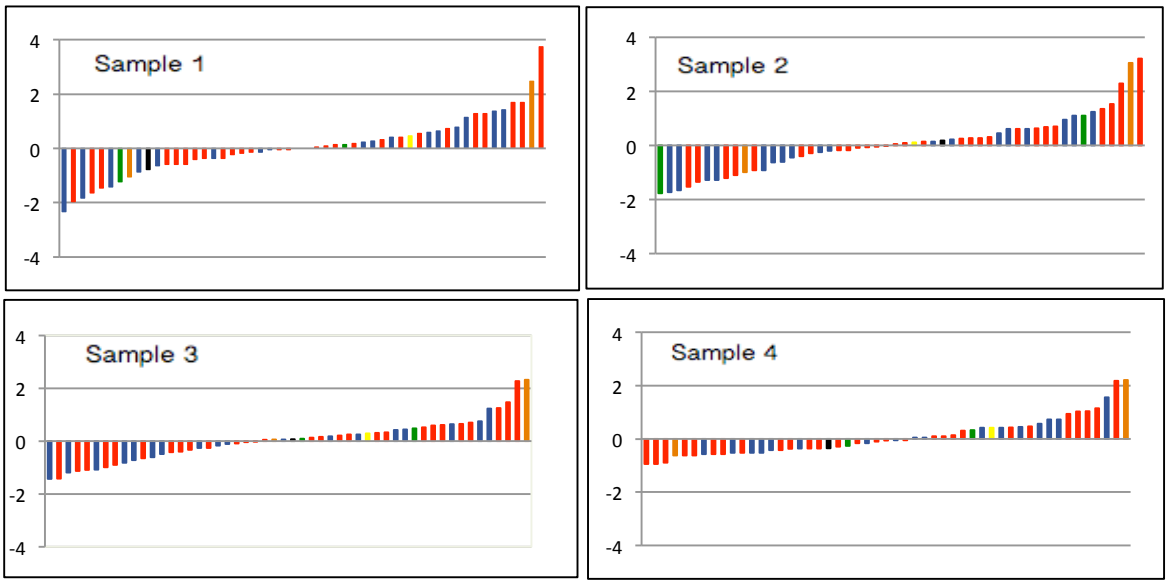




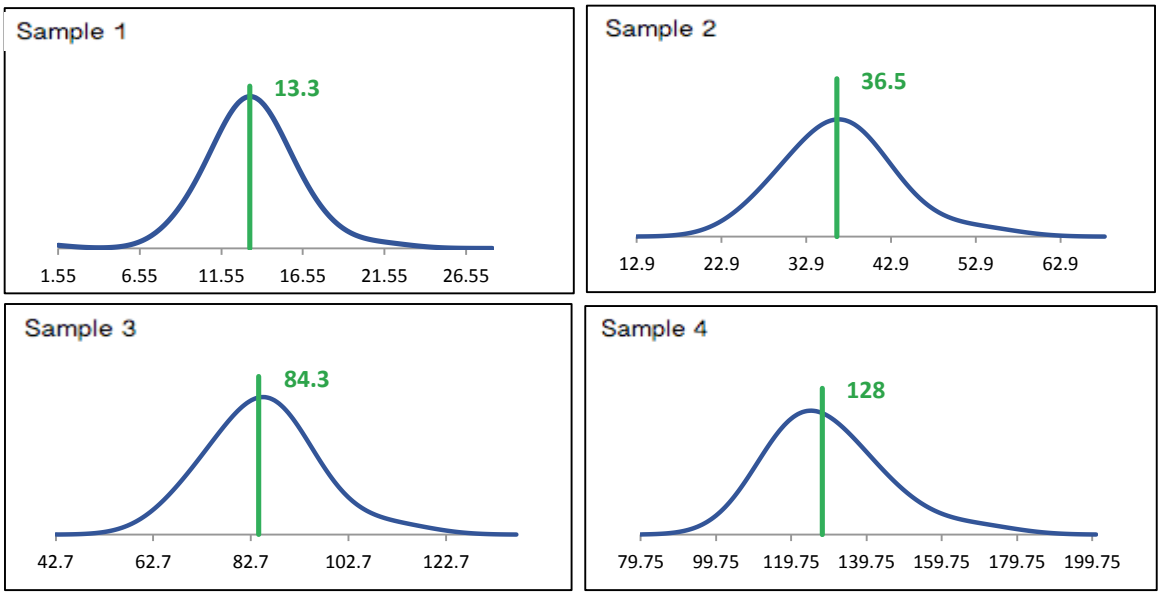


1,3-DICHLOROBENZENE

z-Score Plots

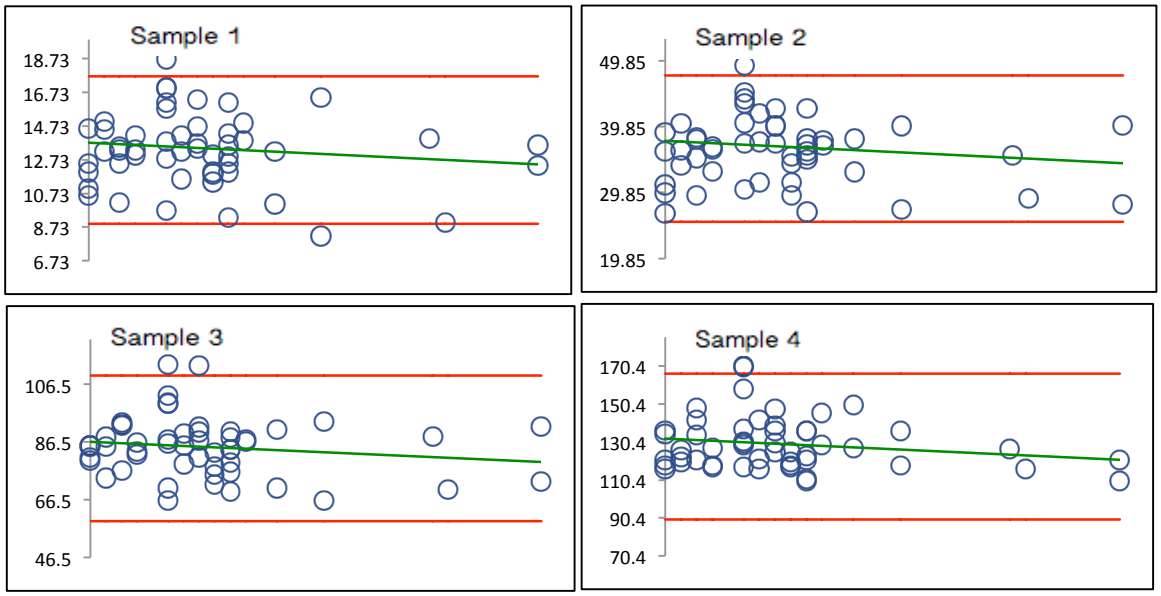


Kernel Density Plots



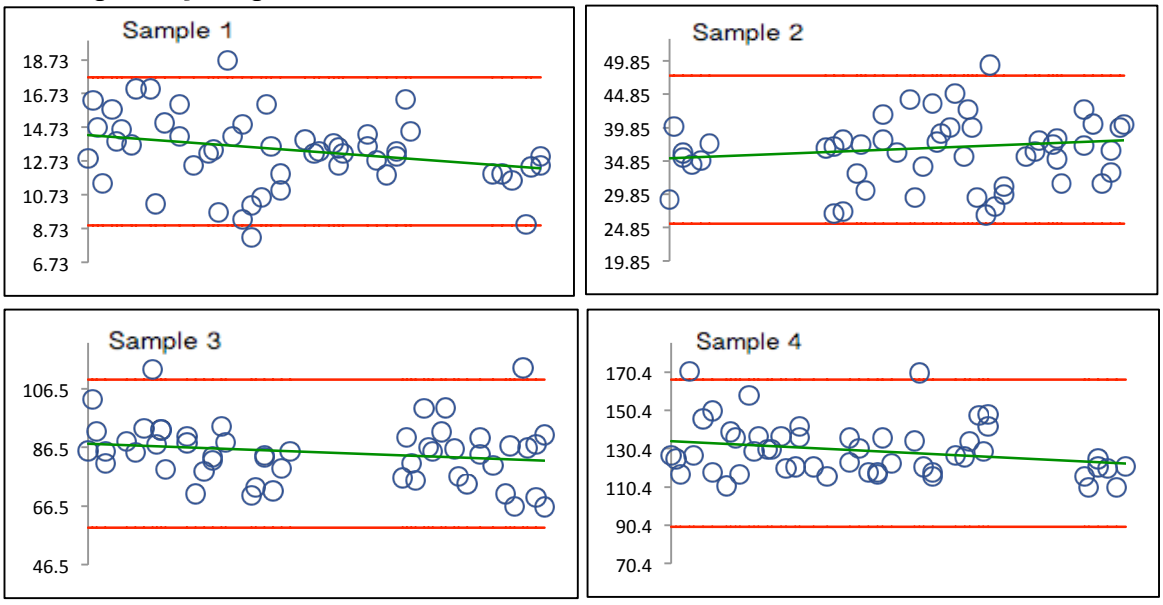
1,3-DICHLOROBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

1,4-DICHLOROBENZENE

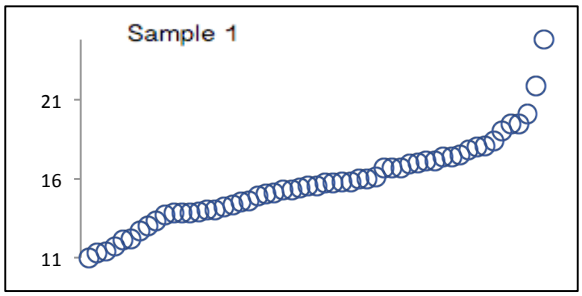
Summary Statistics

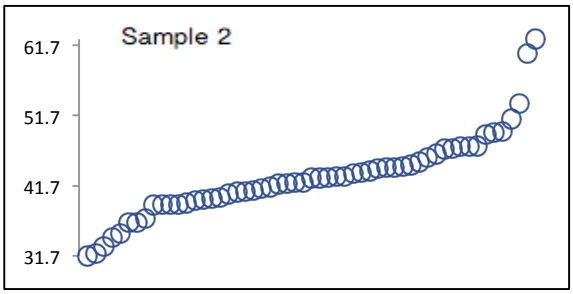
Statistic	C16-1	C16-2	C16-3	C16-4
N	55	55	55	55
Median	15.5	42.8	97.8	149
Robust Mean	15.6	42.6	96.2	147
U	0.42	0.81	1.52	2.49
Robust Standard Deviation	2.46	4.83	8.99	14.8
Regression Standard Deviation	2.34	6.39	14.4	22.1
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA)	2.64	6.39	14.4	22.1
Outliers	0	0	0	0
|z|>3.0	1	1	0	0
2<|z|<3	1	1	1	0

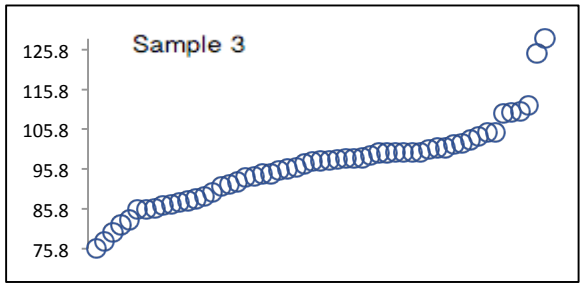
Methods Used

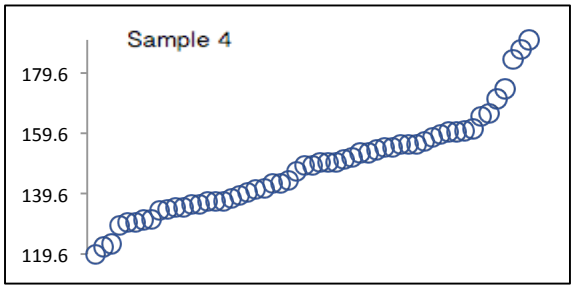
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	31	31	31	31
GC/MSE	1	1	1	1
GC/MS1	1	1	1	1
HS-GCMS	19	19	19	19
GC/MS/MSHEAD	1	1	1	1
P/T-FID	2	2	2	2

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



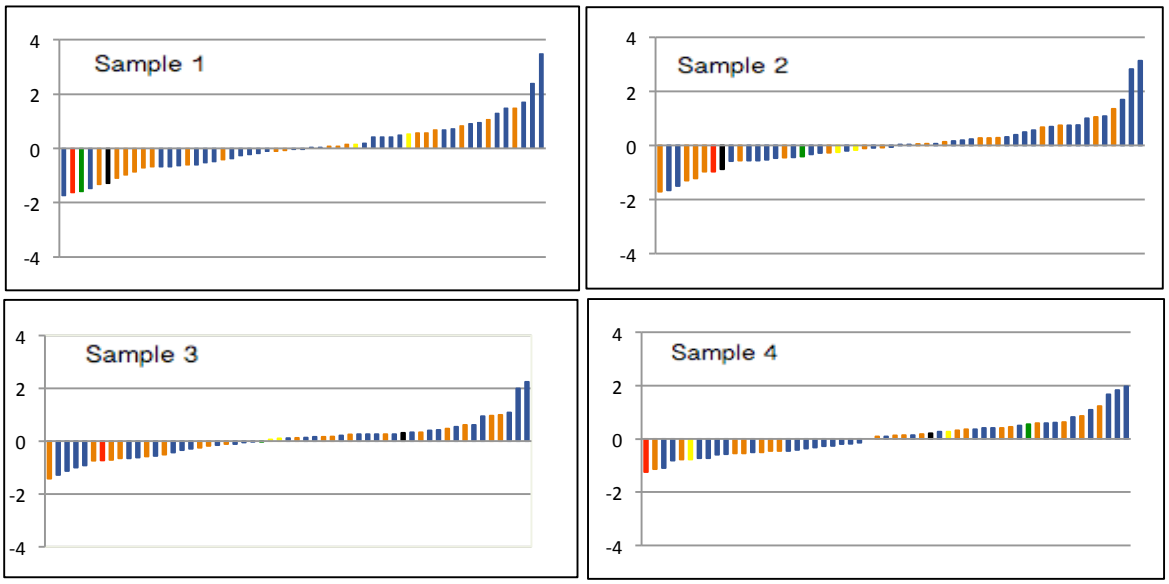




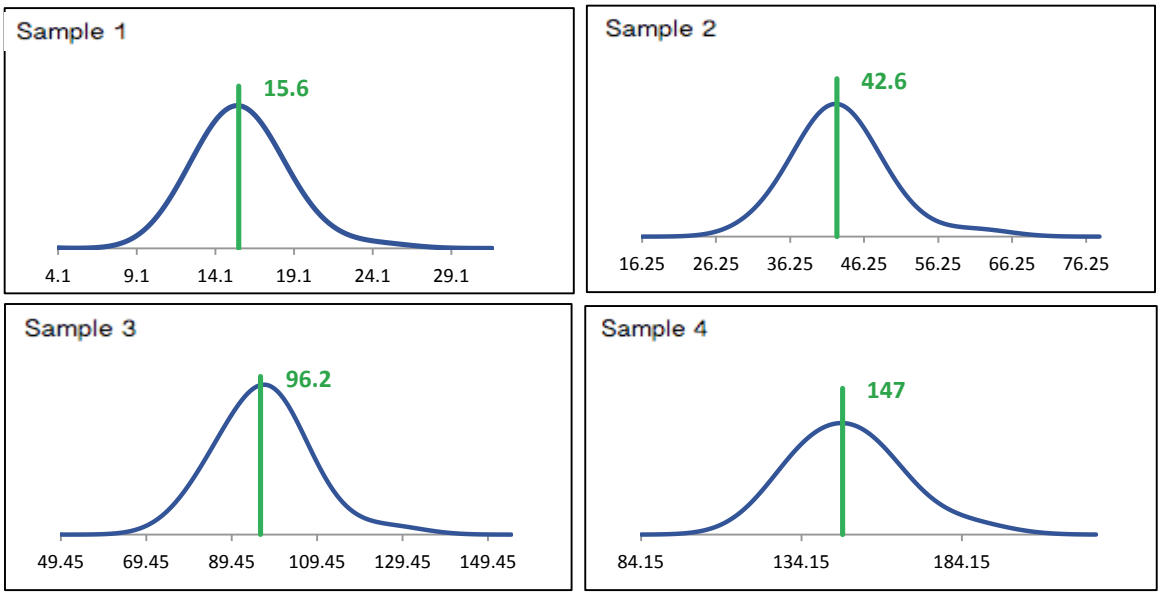


1,4-DICHLOROBENZENE

z-Score Plots

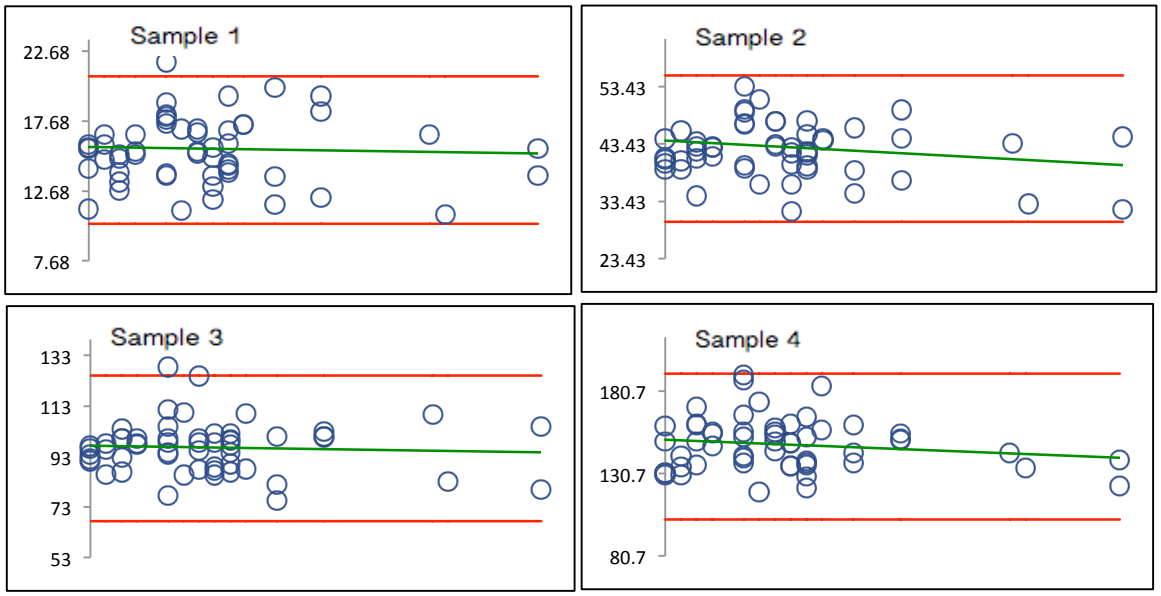


Kernel Density Plots



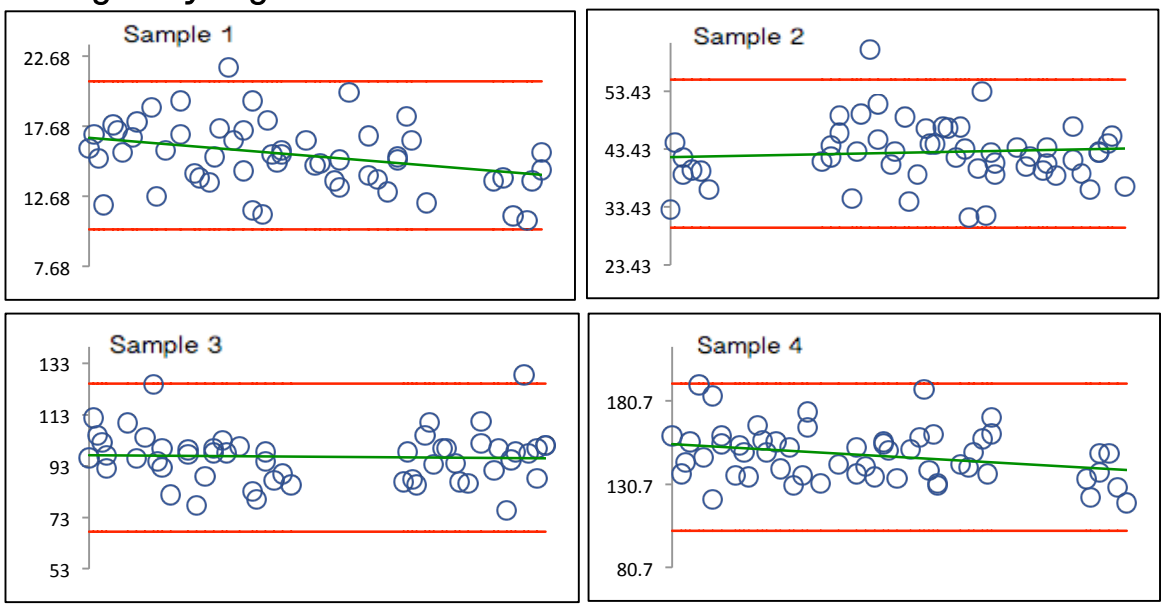
1,4-DICHLOROBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

ACETONE (2-PROPANONE)

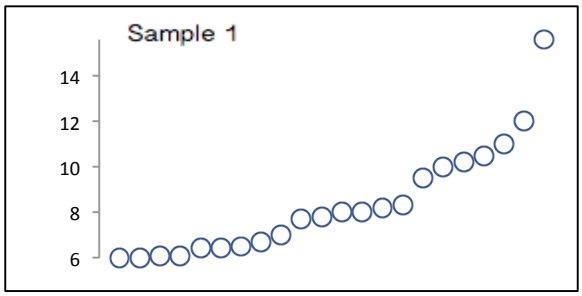
Summary Statistics

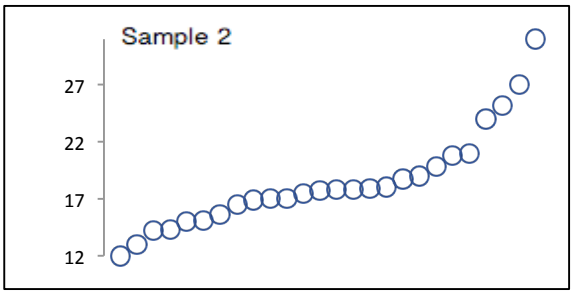
Statistic	C16-1	C16-2	C16-3	C16-4
N	22	26	29	31
Median	7.90	17.8	36.0	53.4
Robust Mean	8.14	17.9	36.3	53.1
U	0.57	0.86	1.80	2.58
Robust Standard Deviation	2.12	3.52	7.76	11.5
Regression Standard Deviation	3.95	6.23	10.5	14.4
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	3.95	6.23	10.5	14.4
Outliers	0	0	0	0
|z|>3.0	0	0	1	2
2<|z|<3	0	1	1	1

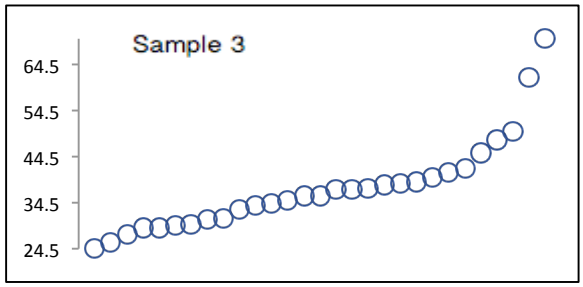
Methods Used

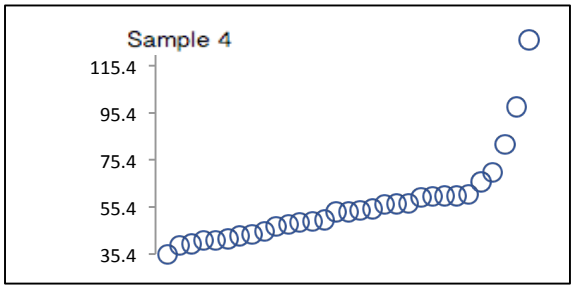
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	16	17	19	20
HS-GCMS	5	8	9	10
P/T-FID	1	1	1	1

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



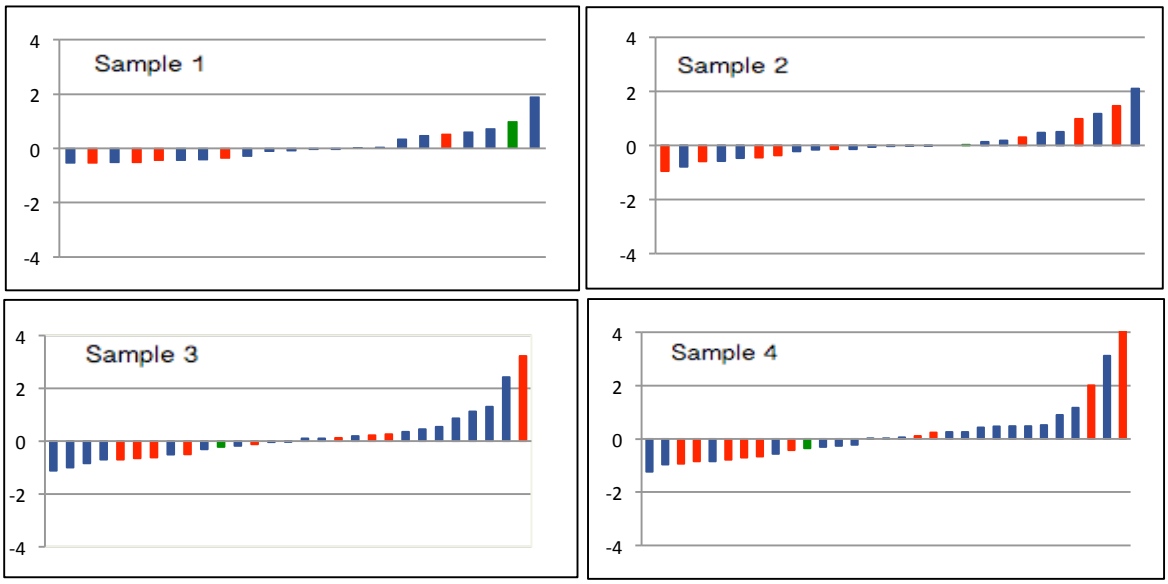




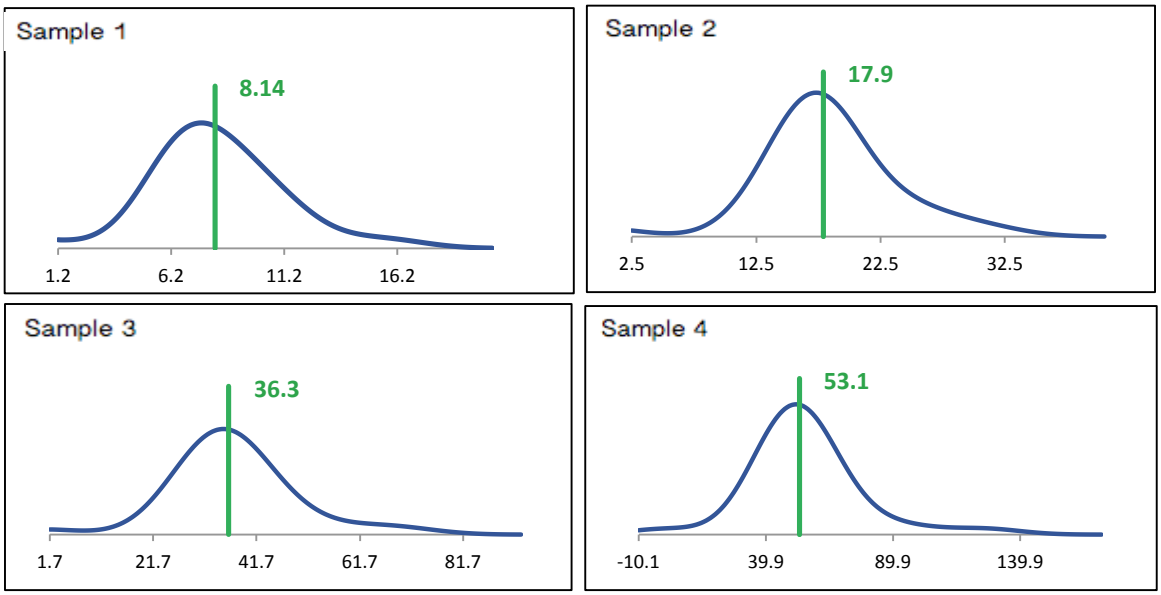


ACETONE (2-PROPANONE)

z-Score Plots

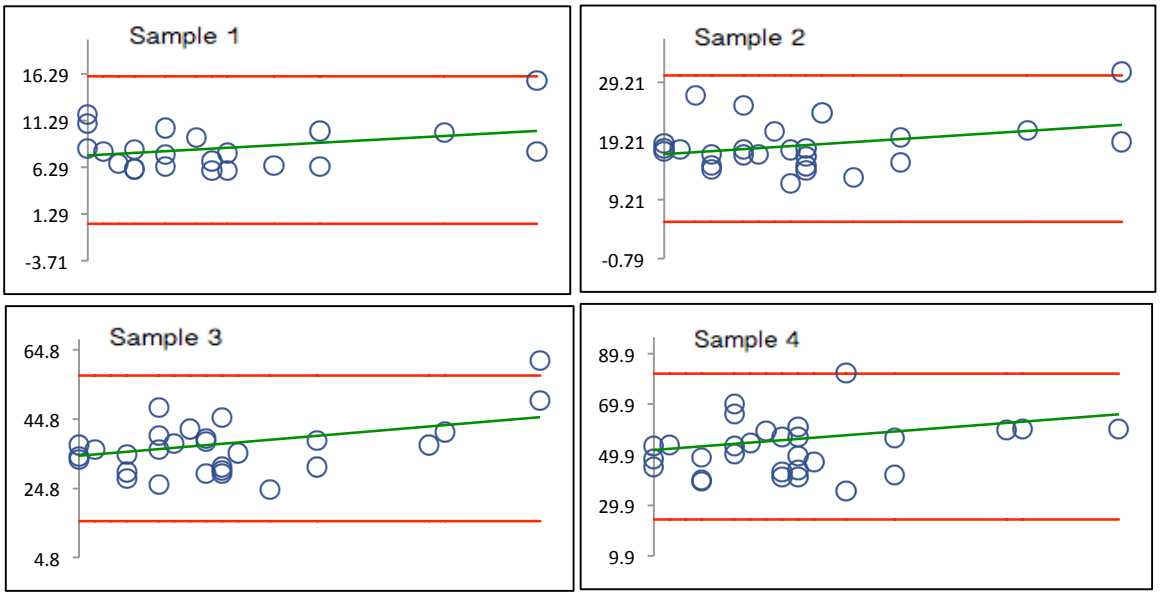


Kernel Density Plots



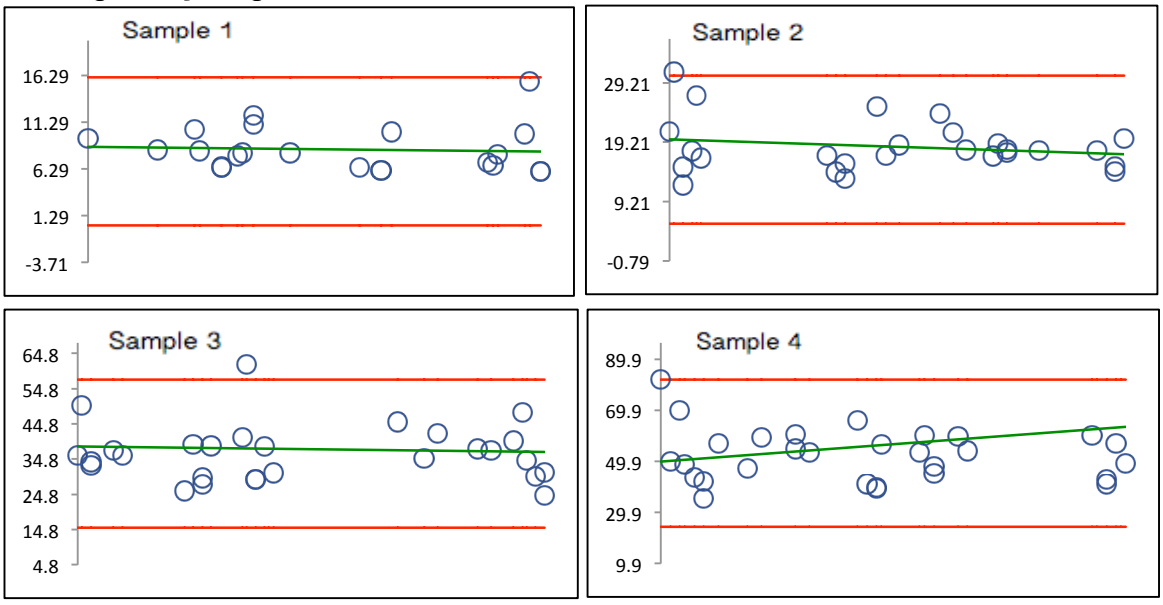
ACETONE (2-PROPANONE)

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

BENZENE

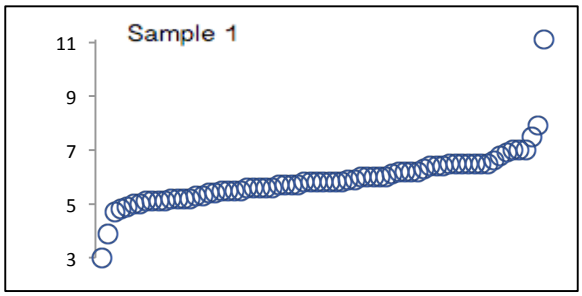
Summary Statistics

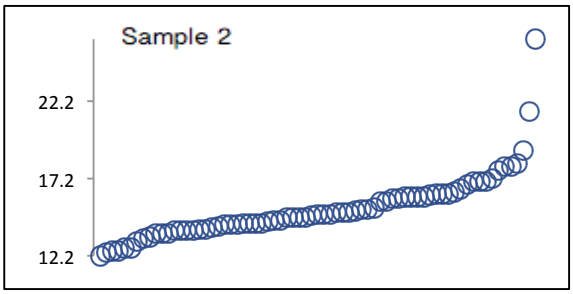
Statistic	C16-1	C16-2	C16-3	C16-4
N	71	71	70	70
Median	5.80	14.9	35.1	52.6
Robust Mean	5.85	15.0	35.0	52.7
U	0.10	0.24	0.44	0.76
Robust Standard Deviation	0.697	1.61	2.92	5.07
Regression Standard Deviation	0.878	2.25	5.26	7.91
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	0.88	2.25	5.26	7.91
Outliers	0	0	1	1
|z|>3.0	2	1	1	1
2<|z|<3	2	1	0	0

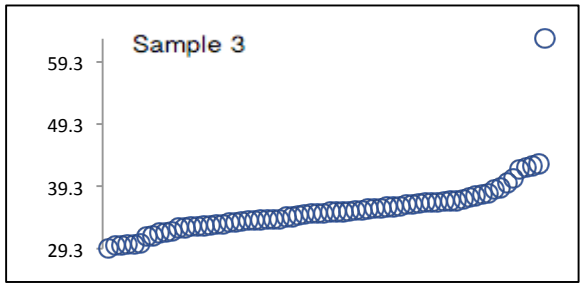
Methods Used

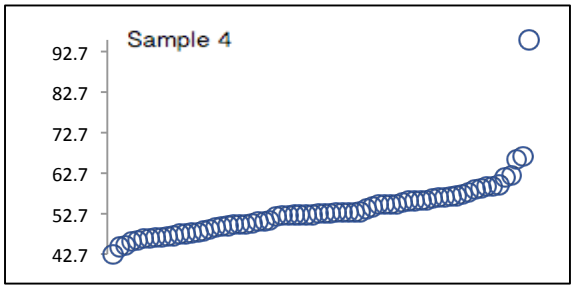
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	25	25	25	24
P/T-GCMS	34	34	33	34
GC/MSE	1	1	1	1
GC/MS1	6	6	6	6
HS-GCF	1	1	1	1
P/T-FID	3	3	3	3
GC/MS/MSHEAD	1	1	1	1

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



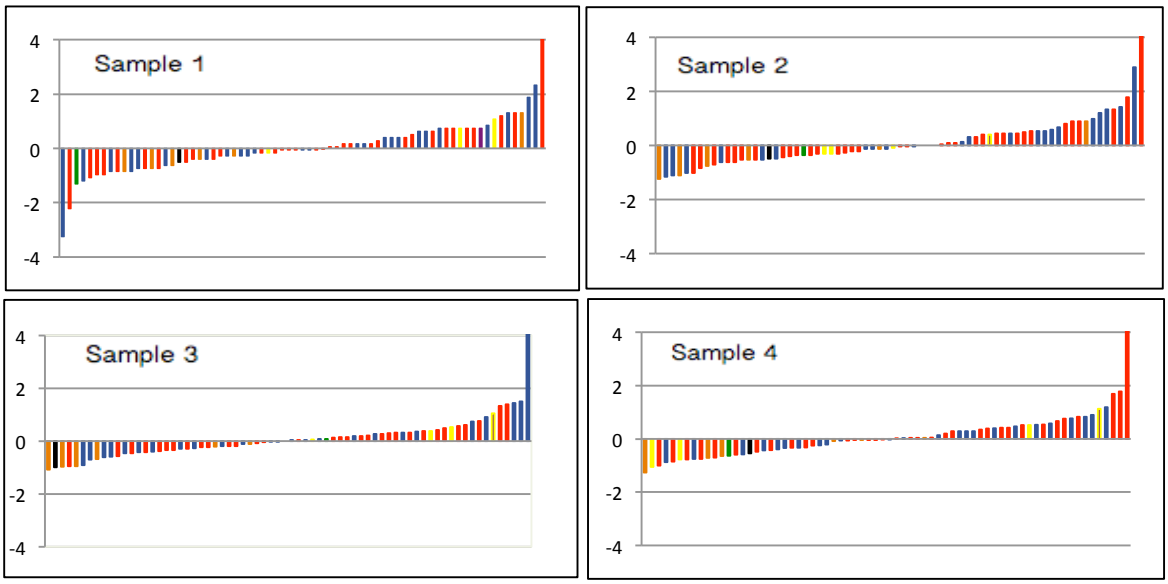




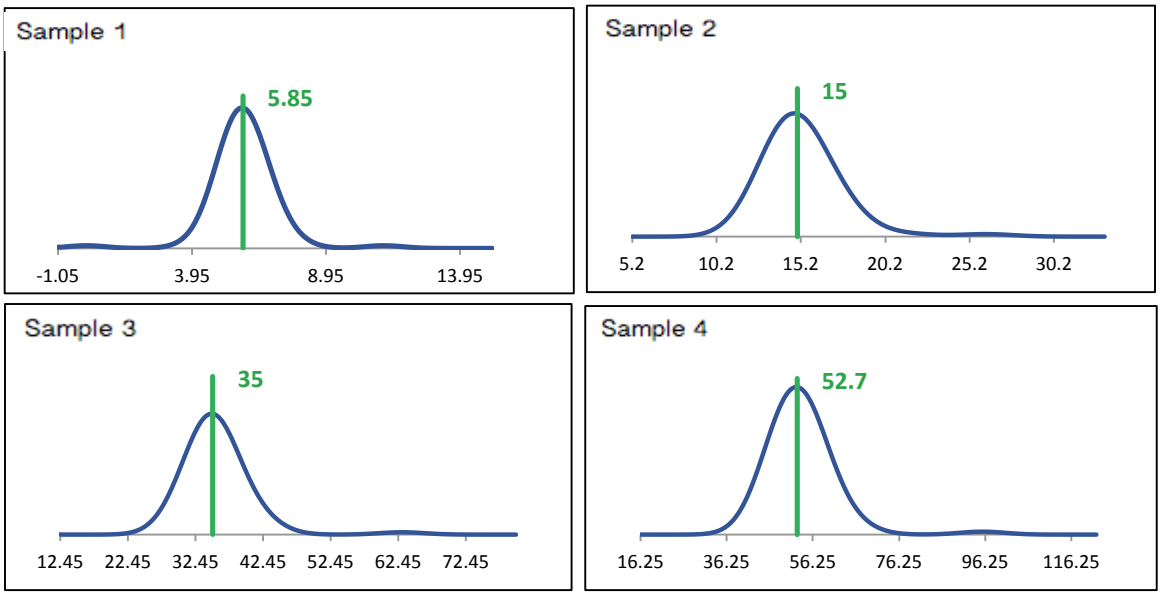


BENZENE

z-Score Plots

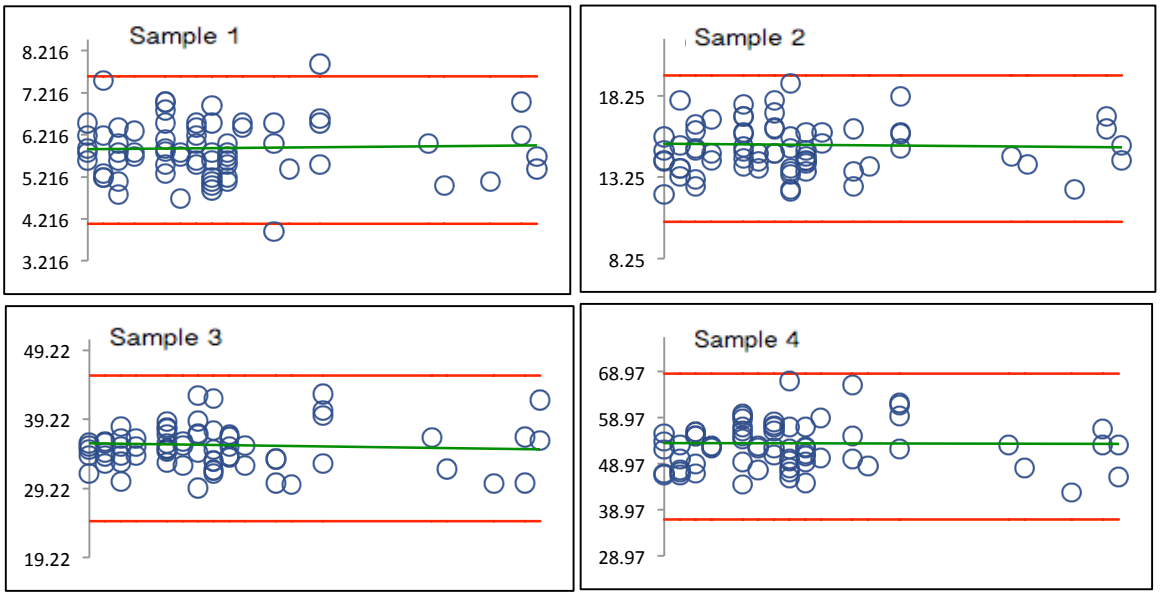


Kernel Density Plots



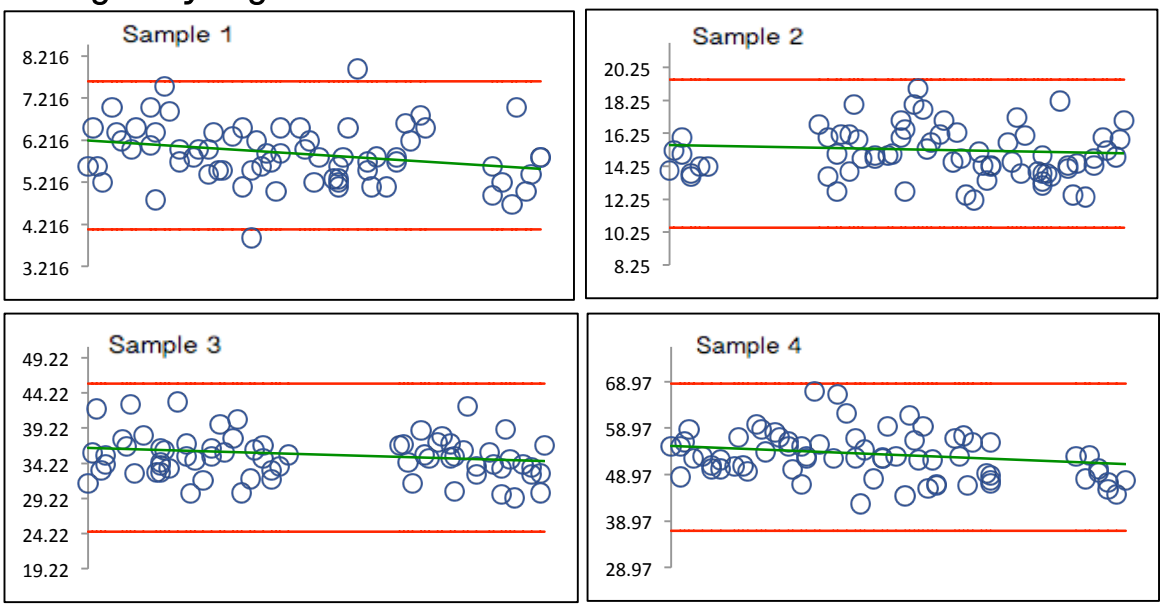
BENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

BROMODICHLOROMETHANE

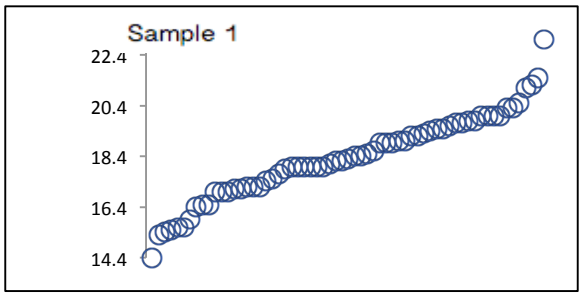
Summary Statistics

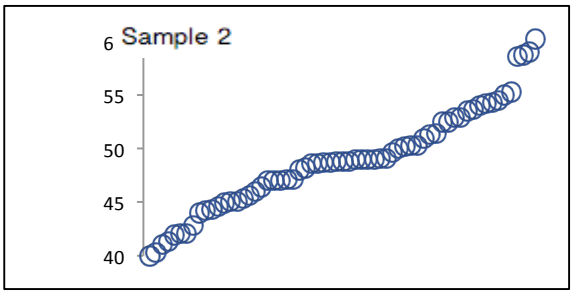
Statistic	C16-1	C16-2	C16-3	C16-4
N	63	63	63	63
Median	18.3	48.8	112	169
Robust Mean	18.4	48.7	111	169
U	0.27	0.75	1.61	2.39
Robust Standard Deviation	1.68	4.76	10.2	15.2
Regression Standard Deviation	2.75	7.31	16.7	25.4
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	2.75	7.31	16.7	25.4
Outliers	0	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

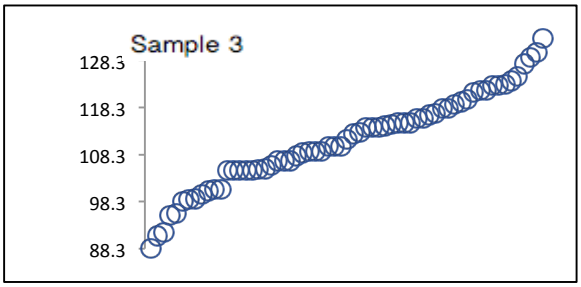
Methods Used

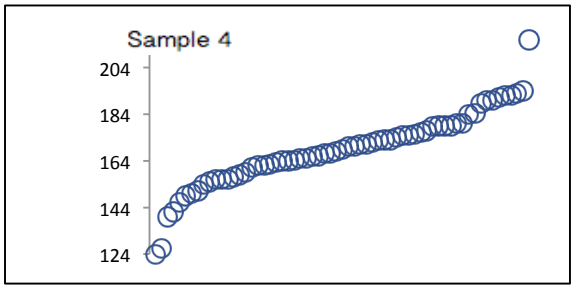
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	31	31	31	31
HS-GCMS	21	21	21	21
GC/MSE	1	1	1	1
GC/ECD-1	1	1	1	1
GC/MS1	4	4	4	4
P/T-FID	2	2	2	2
P/T-GCECD	2	2	2	2

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



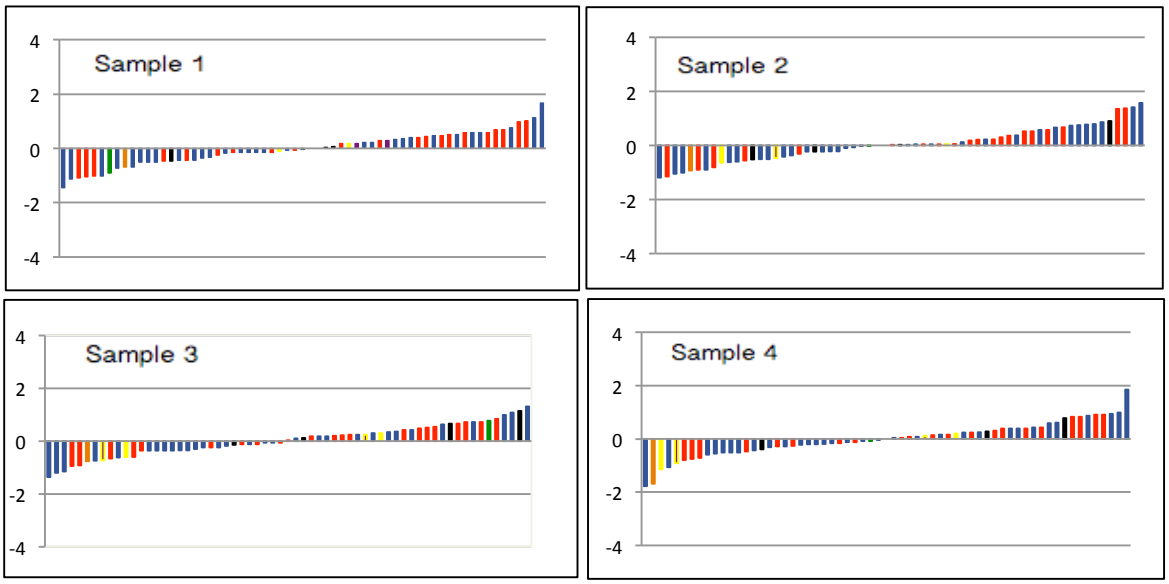




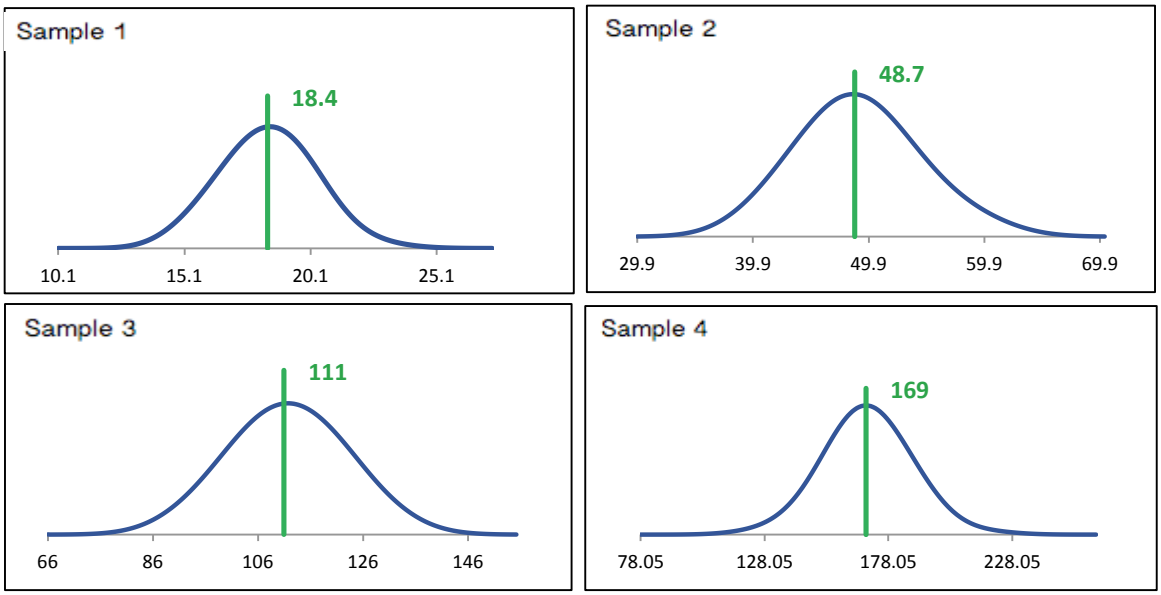


BROMODICHLOROMETHANE

z-Score Plots

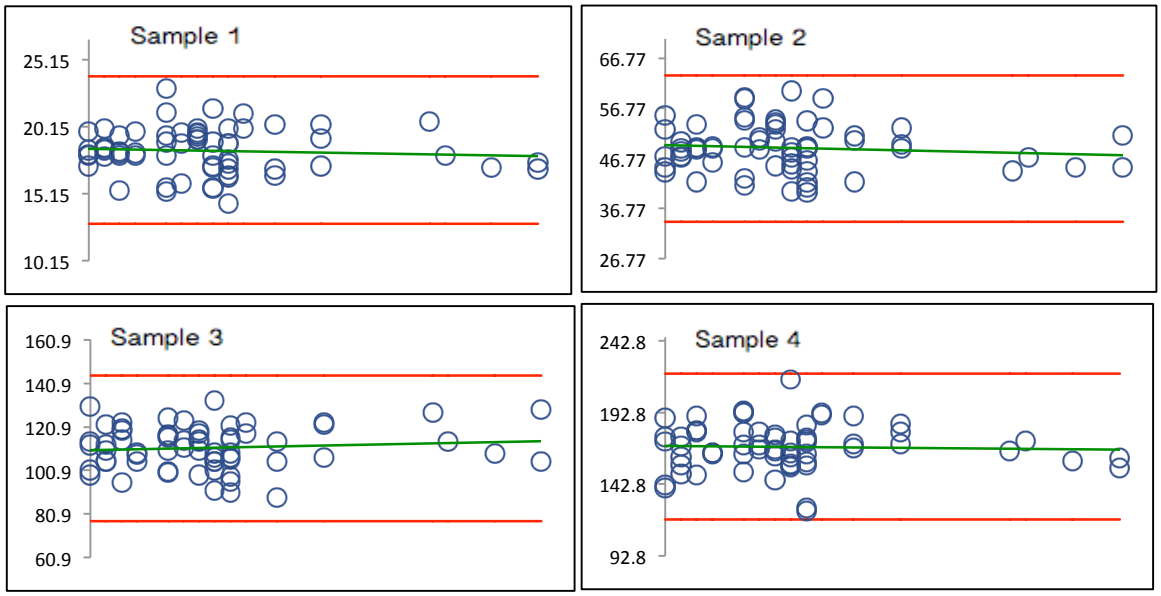


Kernel Density Plots



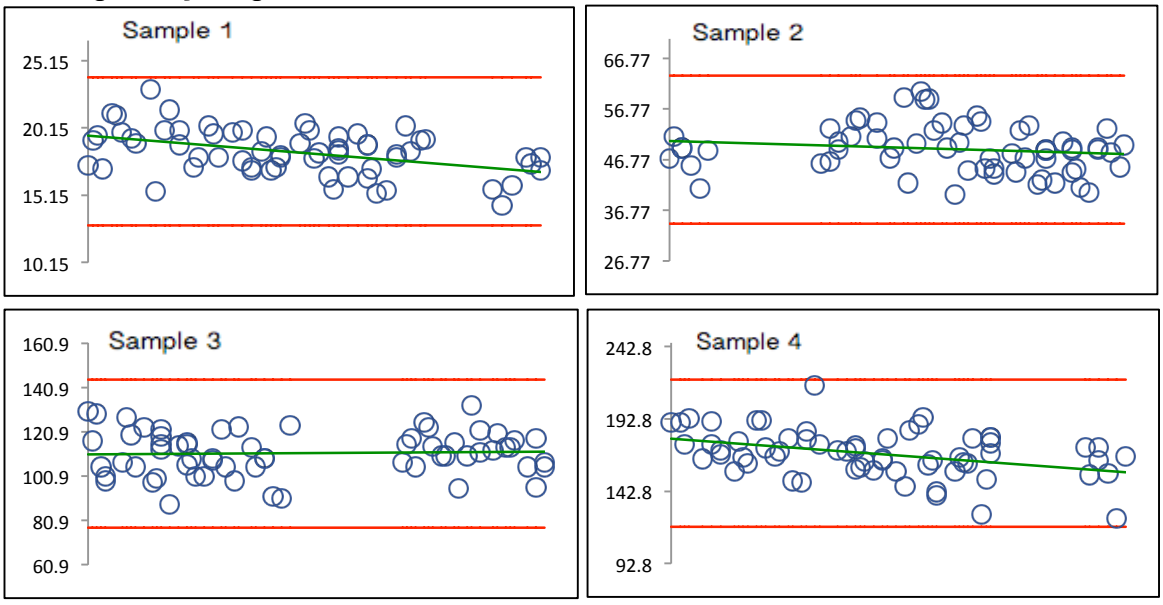
BROMODICHLOROMETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

BROMOFORM

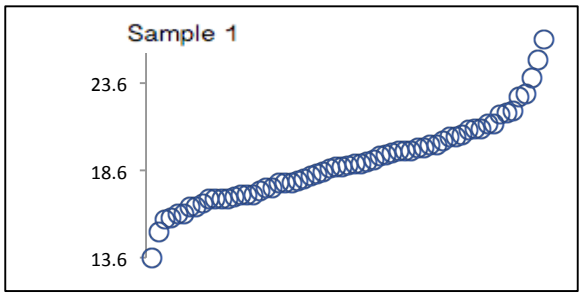
Summary Statistics

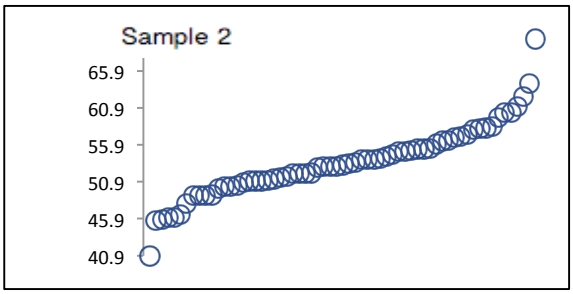
Statistic	C16-1	C16-2	C16-3	C16-4
N	63	63	62	63
Median	18.9	53.2	120	183
Robust Mean	18.9	53.4	121	183
U	0.35	0.70	1.68	3.13
Robust Standard Deviation	2.20	4.41	10.6	19.9
Regression Standard Deviation	2.84	8.01	18.1	27.4
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA)	3.26	8.01	18.1	27.4
Outliers	0	0	1	0
|z|>3.0	0	0	0	0
2<|z|<3	1	1	0	1

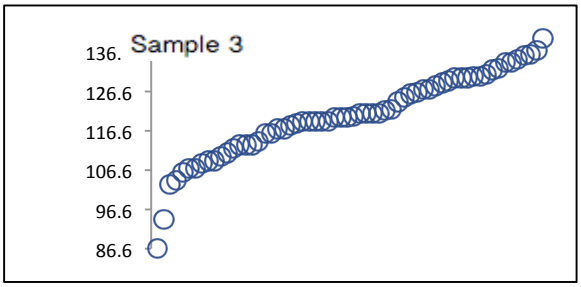
Methods Used

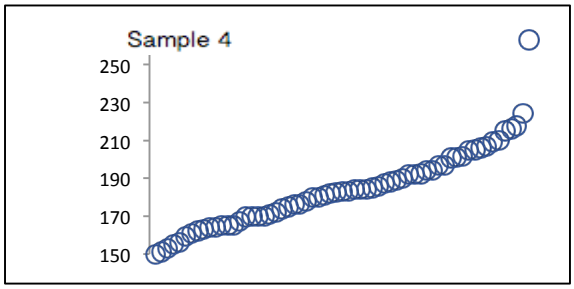
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	21	21	21	21
P/T-GCMS	31	31	30	31
GC/MSE	1	1	1	1
GC/MS1	4	4	4	4
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1
GC/ECD-1	1	1	1	1

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



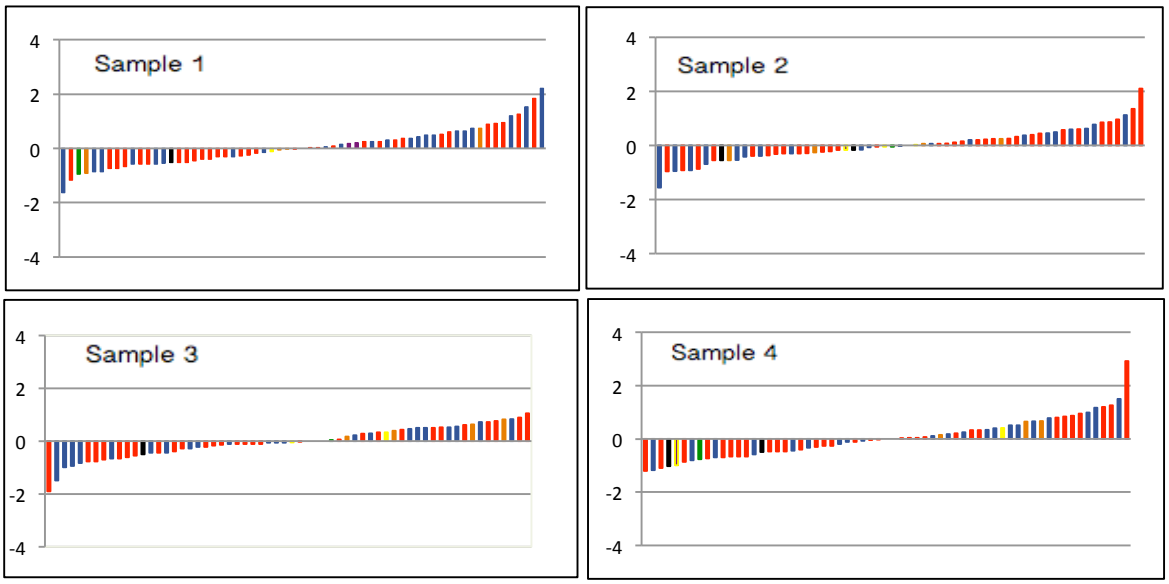




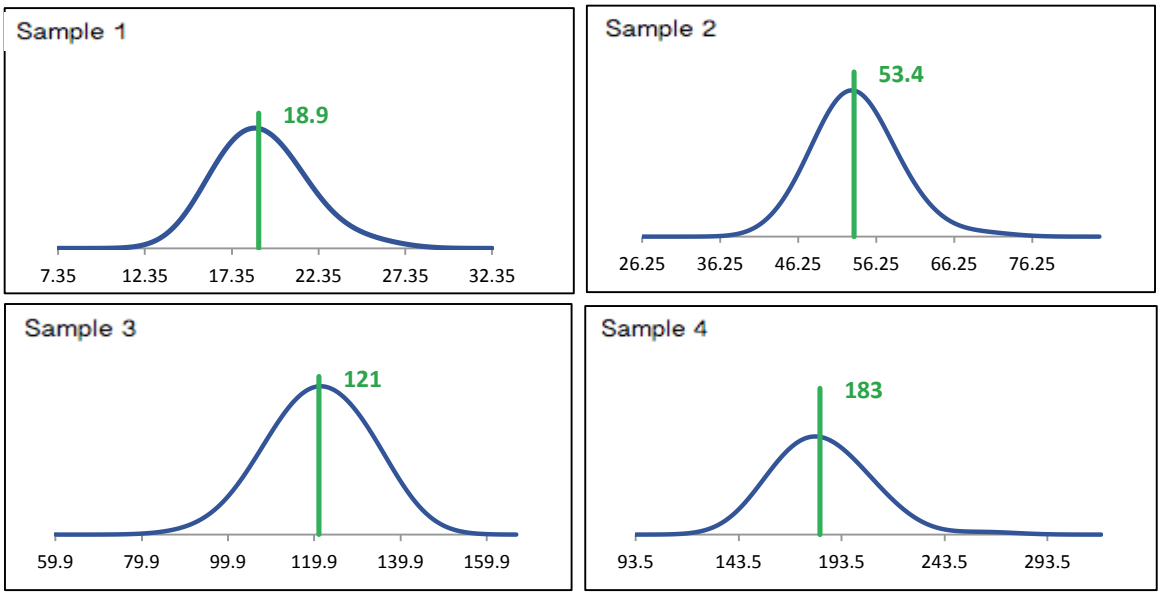


BROMOFORM

z-Score Plots

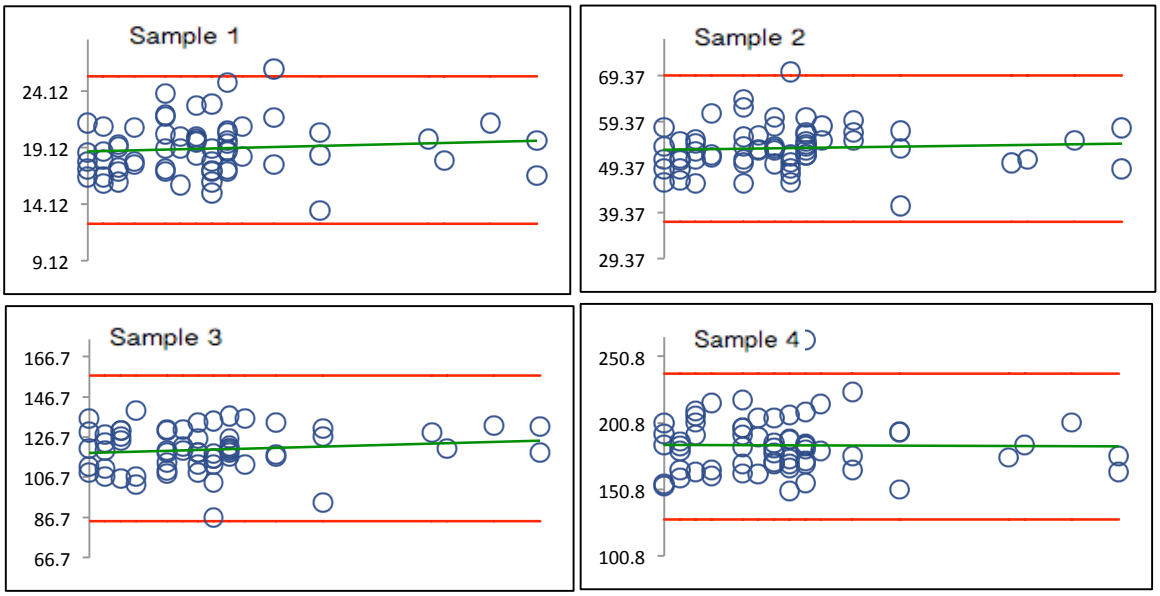


Kernel Density Plots



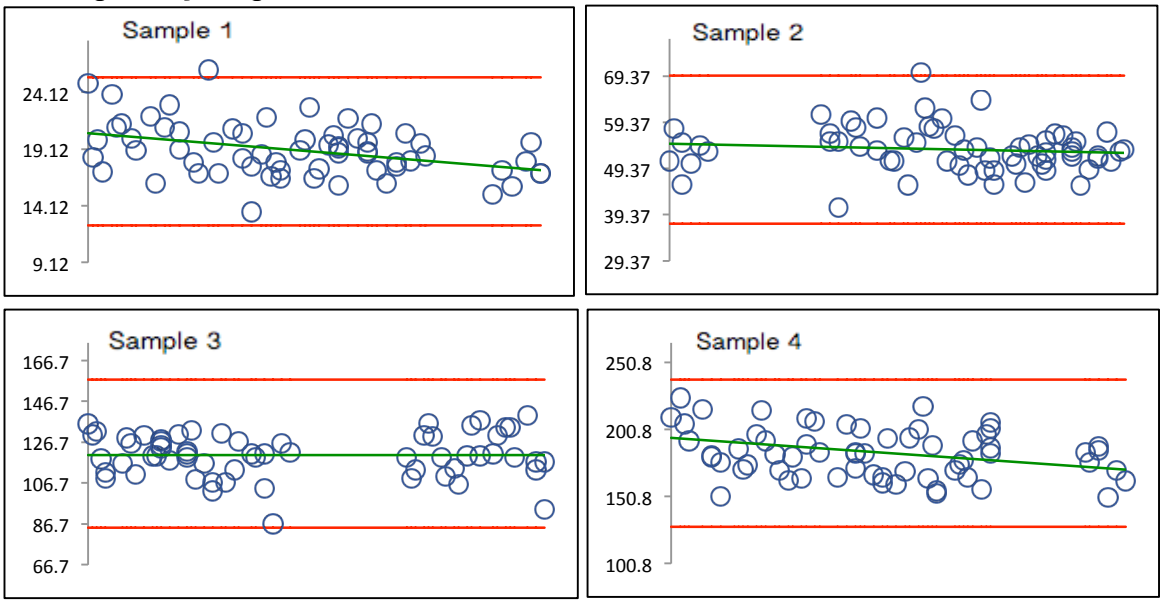
BROMOFORM

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

CARBON TETRACHLORIDE

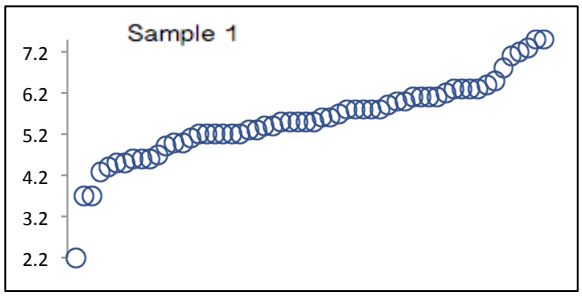
Summary Statistics

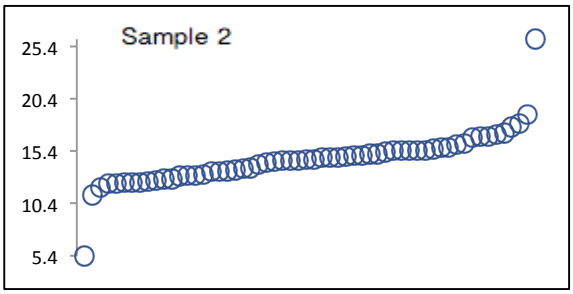
Statistic	C16-1	C16-2	C16-3	C16-4
N	58	58	57	57
Median	5.50	14.6	34.4	52.9
Robust Mean	5.56	14.5	34.5	53.1
U	0.14	0.30	0.65	1.09
Robust Standard Deviation	0.842	1.82	3.93	6.59
Regression Standard Deviation	0.834	2.18	5.18	7.97
Stability Flag				
Homogeneity Flag	Homogeneity			Homogeneity
Standard Deviation Used (SDPA)	1.16	2.18	5.18	8.89
Outliers	0	0	1	1
|z|>3.0	0	2	0	0
2<|z|<3	1	1	0	0

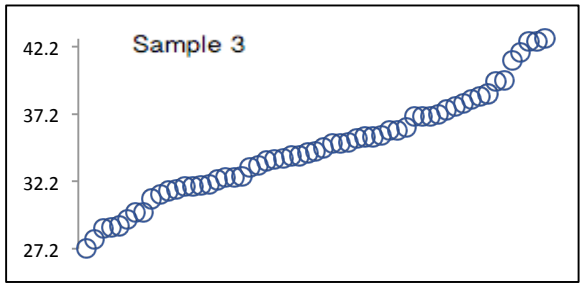
Methods Used

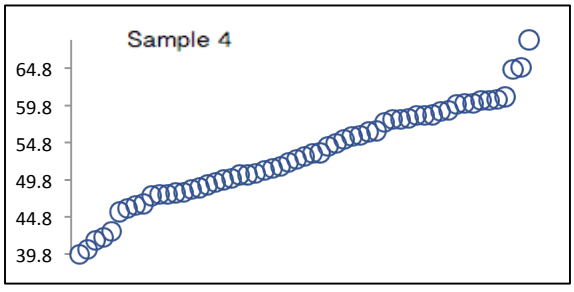
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	32	32	32	32
HS-GCMS	20	20	19	19
GC/MSE	1	1	1	1
P/T-FID	2	2	2	2
GC/MS1	1	1	1	1
P/T-GCECD	1	1	1	1
GC/MS/MSHEAD	1	1	1	1

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



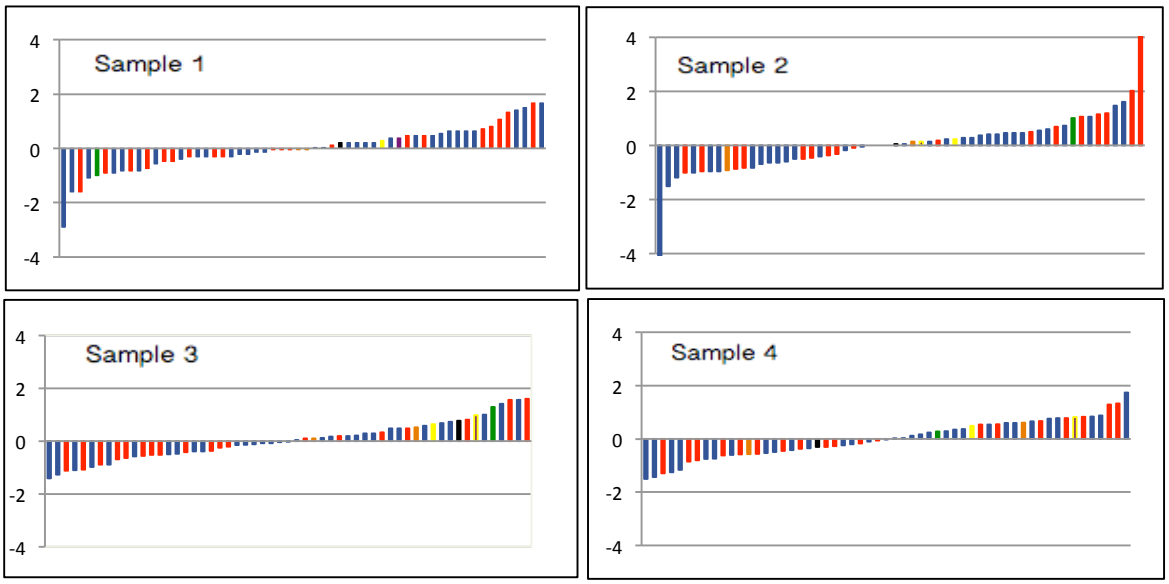




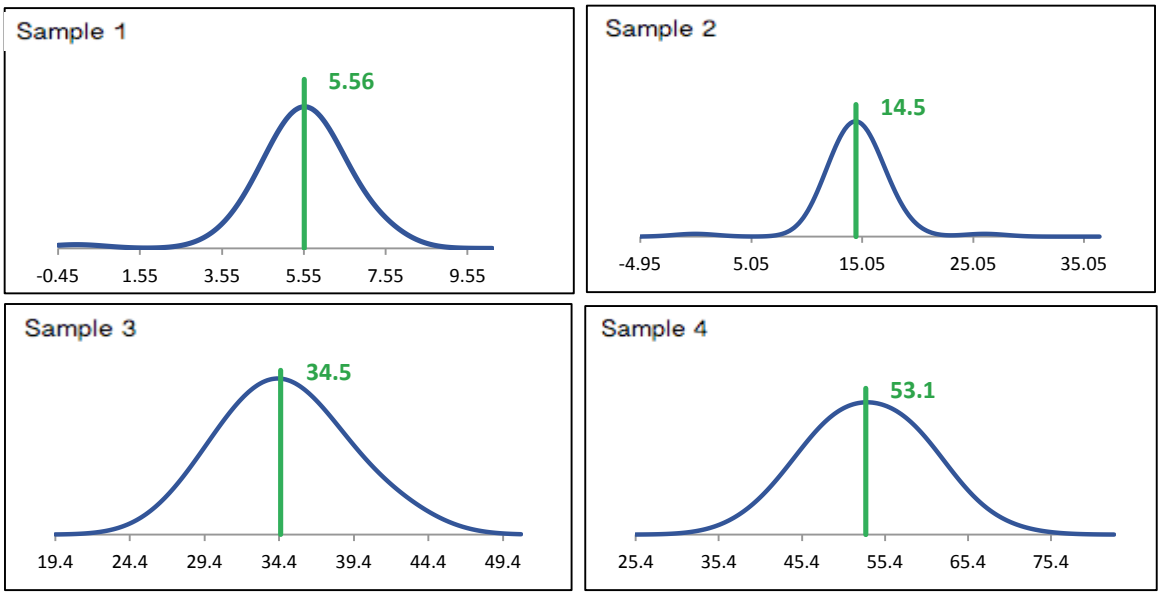


CARBON TETRACHLORIDE

z-Score Plots

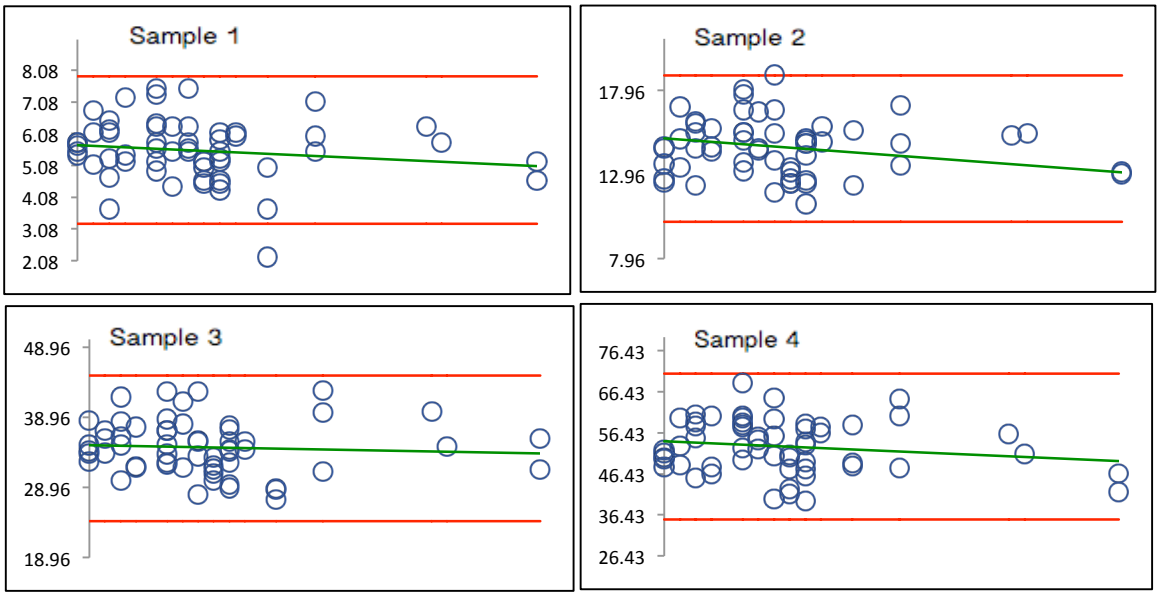


Kernel Density Plots



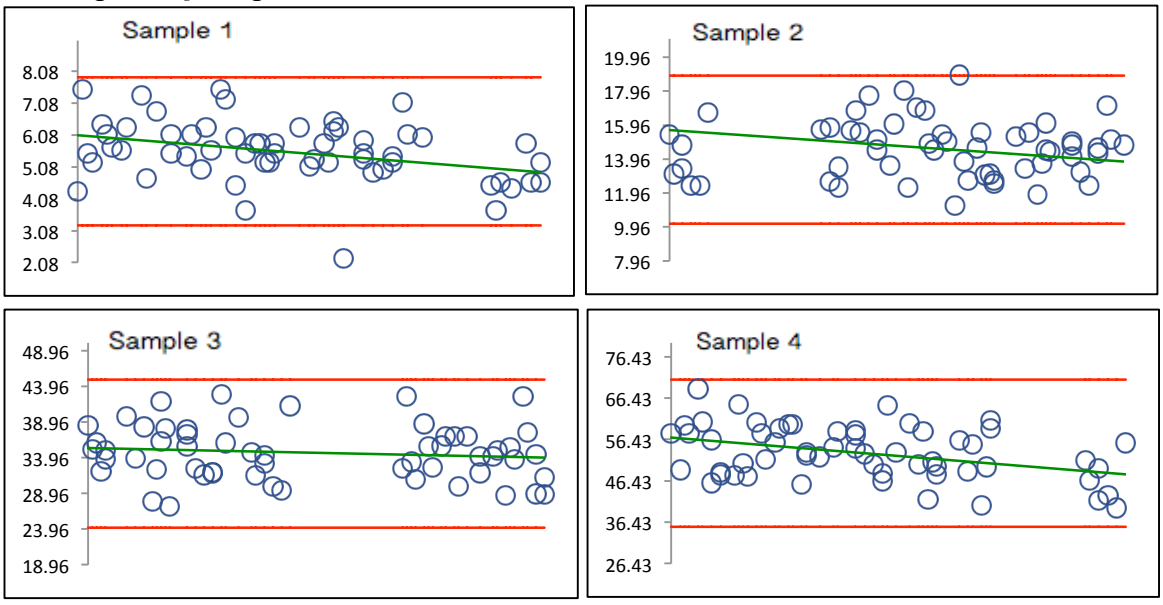
CARBON TETRACHLORIDE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

CHLOROBENZENE

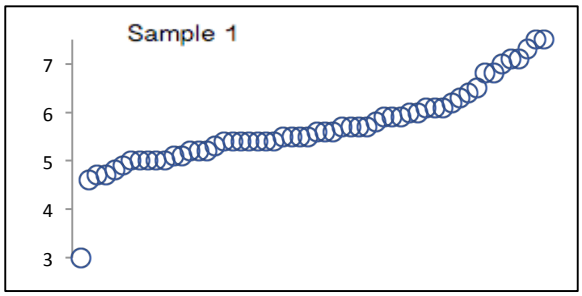
Summary Statistics

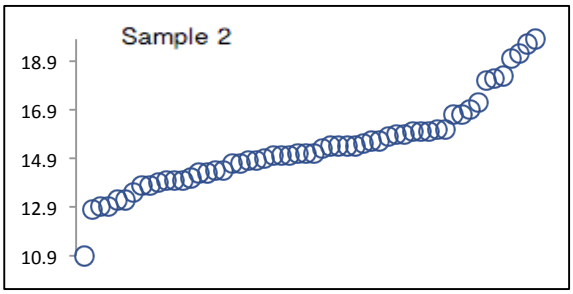
Statistic	C16-1	C16-2	C16-3	C16-4
N	56	56	56	54
Median	5.55	15.1	34.3	52.7
Robust Mean	5.66	15.2	34.6	52.3
U	0.12	0.26	0.48	0.76
Robust Standard Deviation	0.710	1.55	2.90	4.47
Regression Standard Deviation	0.848	2.28	5.19	7.84
Stability Flag				
Homogeneity Flag	Homogeneity			Homogeneity
Standard Deviation Used (SDPA)	1.20	2.28	5.19	8.08
Outliers	0	0	0	2
|z|>3.0	0	0	1	0
2<|z|<3	1	1	0	1

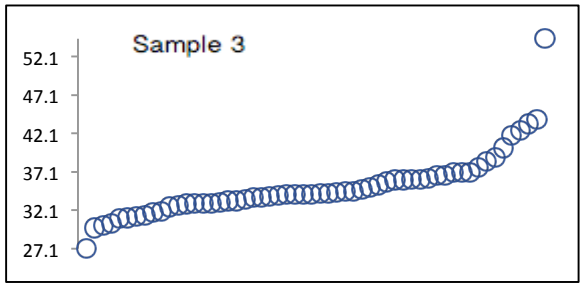
Methods Used

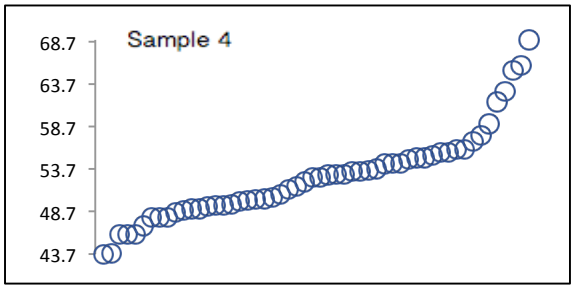
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	20	20	20	19
P/T-GCMS	31	31	31	30
GC/MSE	1	1	1	1
GC/MS1	1	1	1	1
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1

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



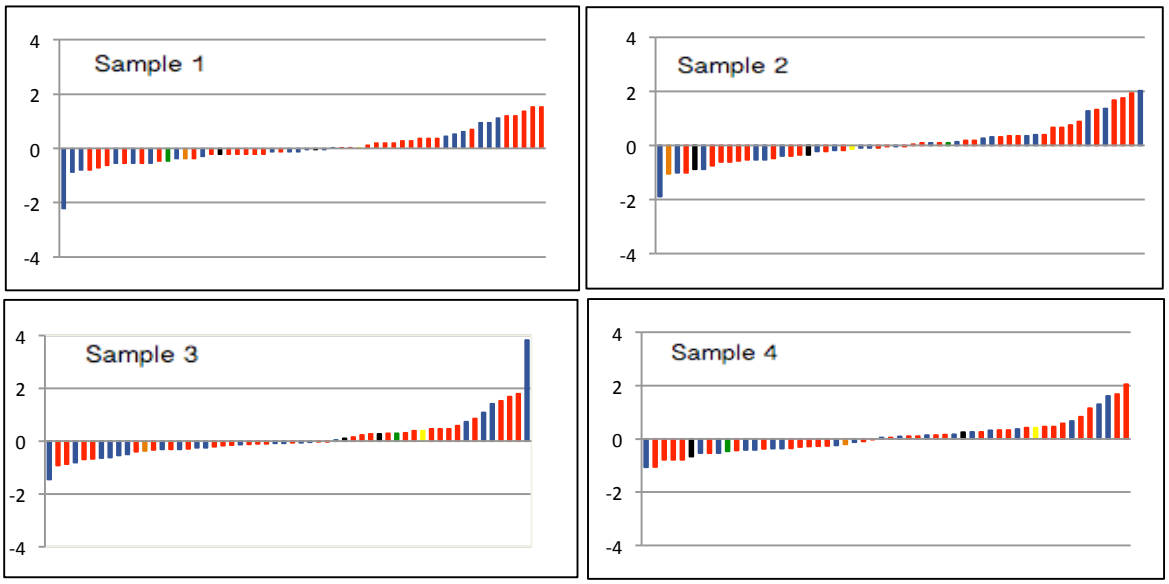




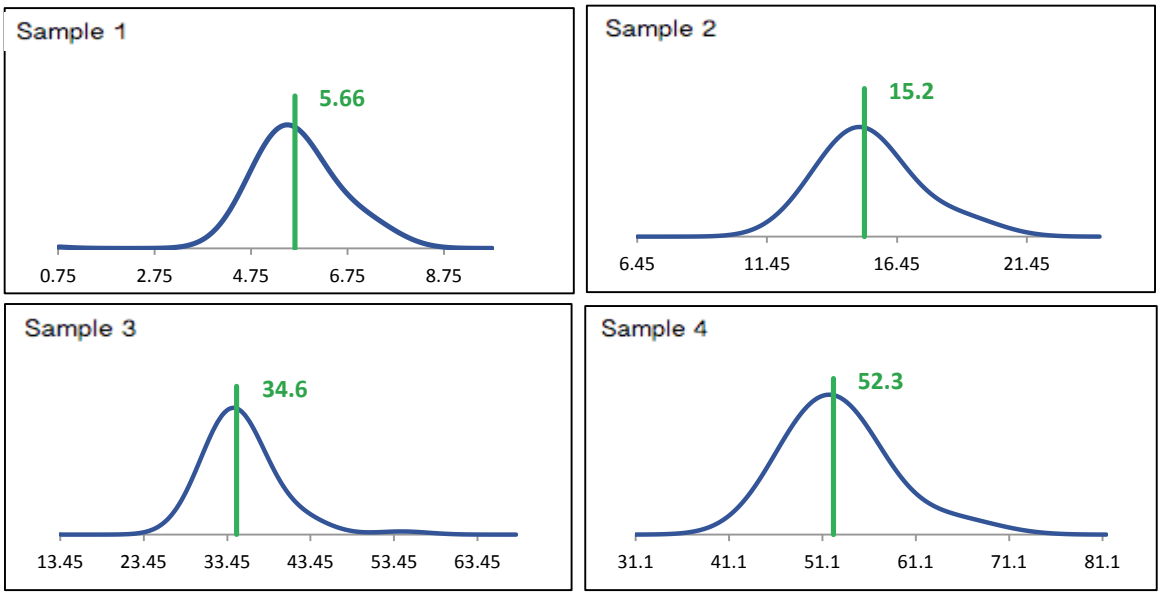


CHLOROBENZENE

z-Score Plots

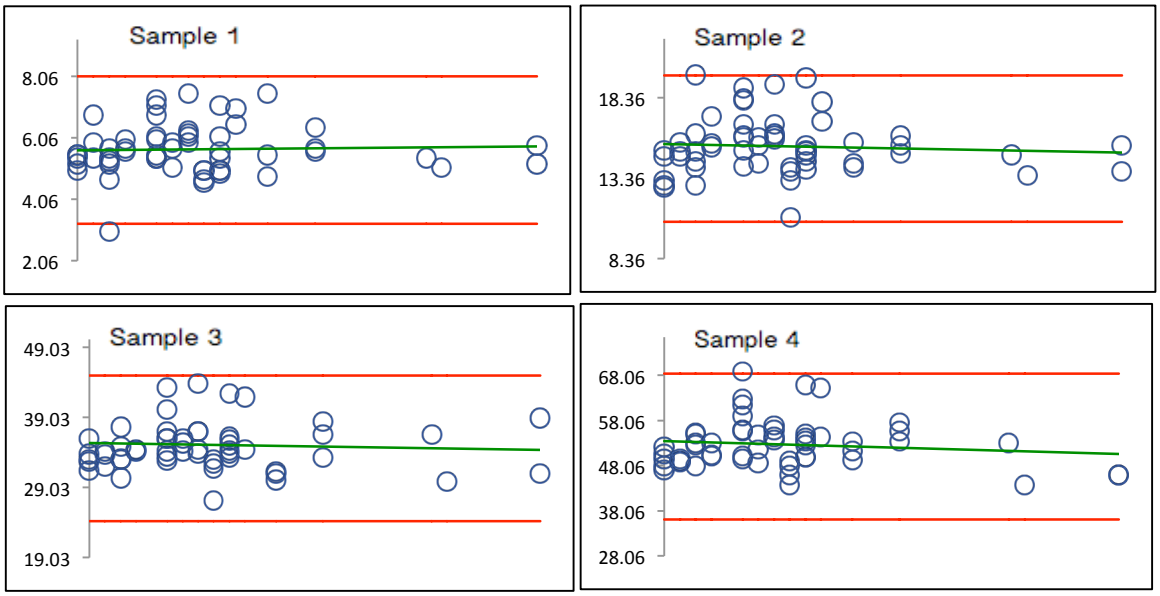


Kernel Density Plots



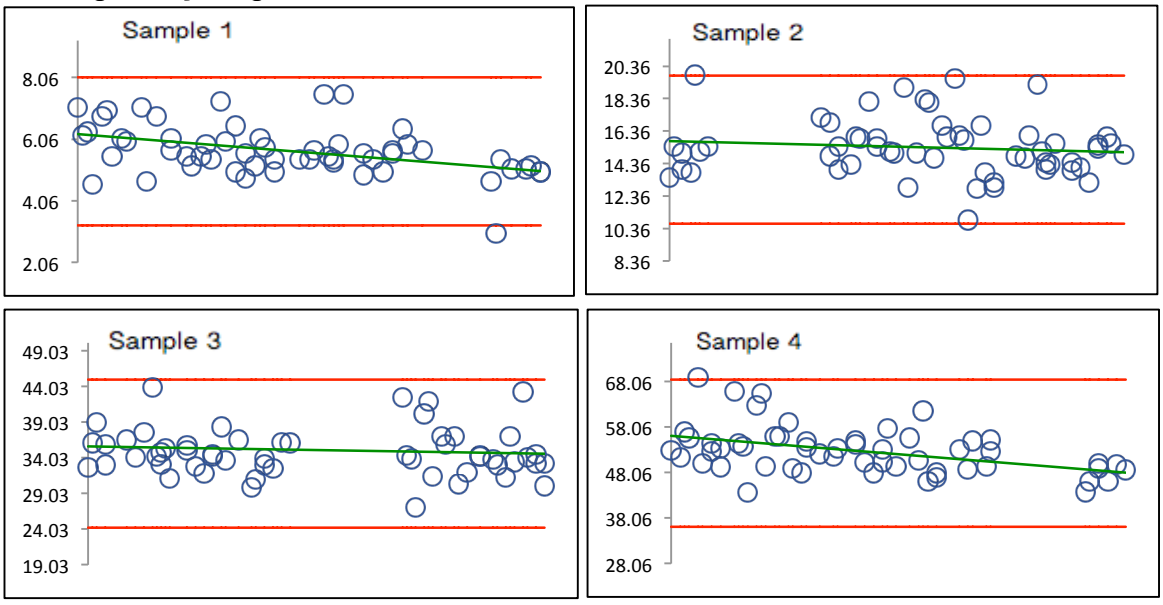
CHLOROBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

CHLORODIBROMOMETHANE

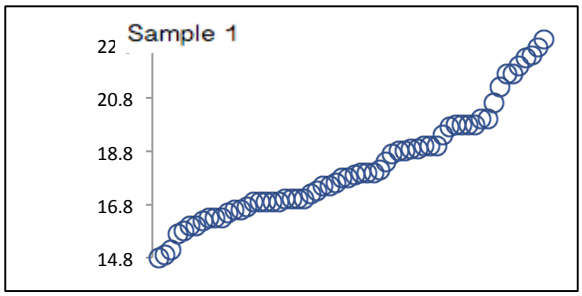
Summary Statistics

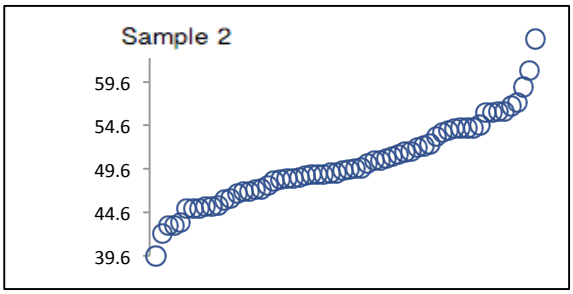
Statistic	C16-1	C16-2	C16-3	C16-4
N	62	62	62	62
Median	17.9	49.5	114	172
Robust Mean	18.1	50.0	114	173
U	0.32	0.74	1.75	2.60
Robust Standard Deviation	2.01	4.65	11.0	16.4
Regression Standard Deviation	2.72	7.50	17.1	25.9
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA)	3.03	7.50	17.1	25.9
Outliers	0	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	1

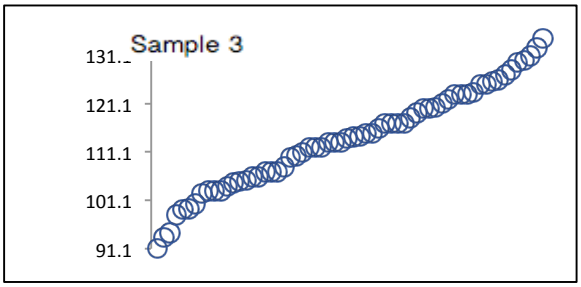
Methods Used

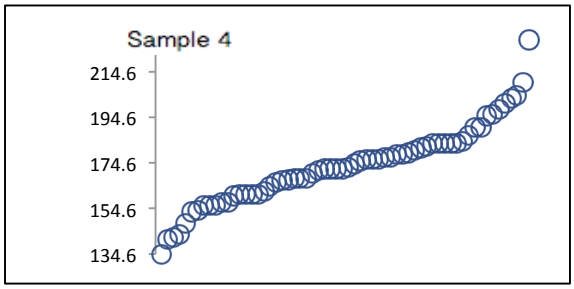
Method	C16-1	C16-2	C16-3	C16-4
GC/MSE	1	1	1	1
HS-GCMS	21	21	21	21
P/T-GCMS	30	30	30	30
GC/MS1	4	4	4	4
GC/ECD-1	1	1	1	1
P/T-FID	2	2	2	2
P/T-GCECD	2	2	2	2

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



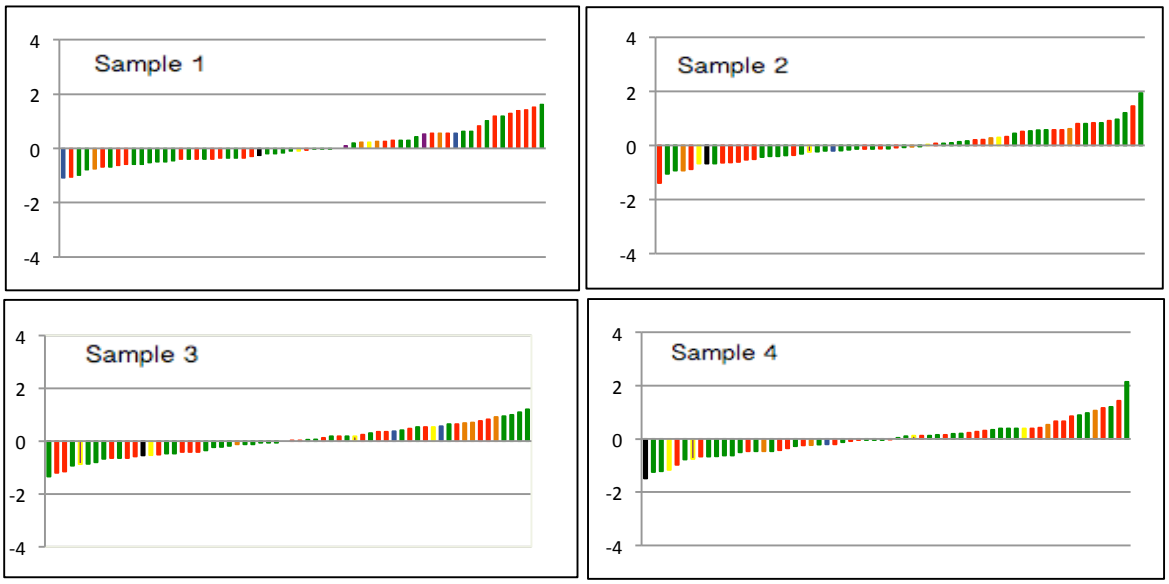




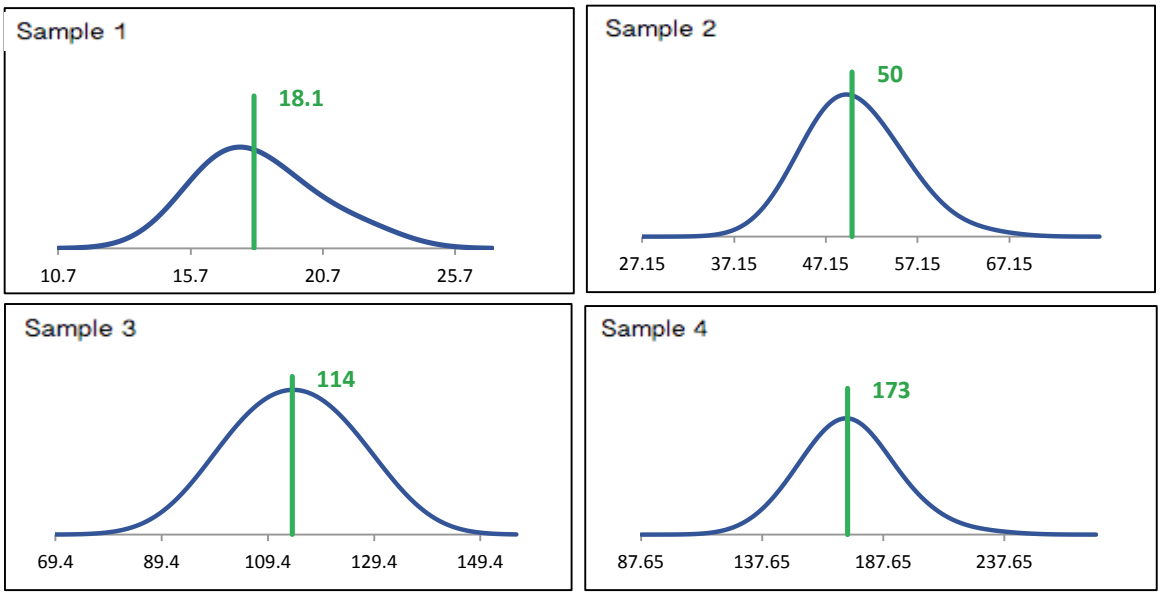


CHLORODIBROMOMETHANE

z-Score Plots

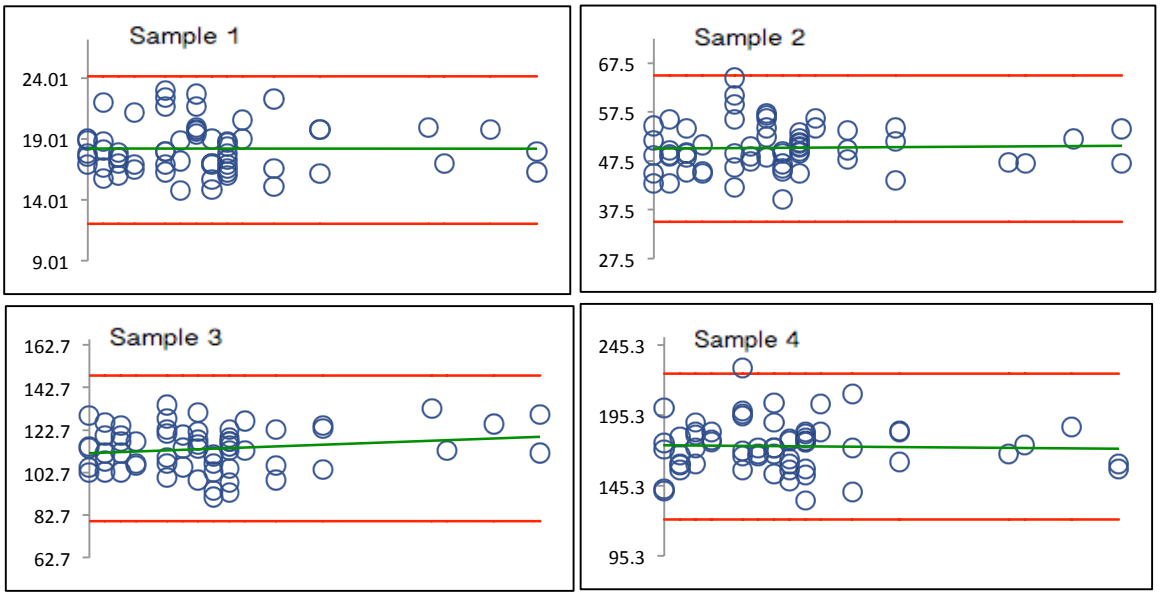


Kernel Density Plots



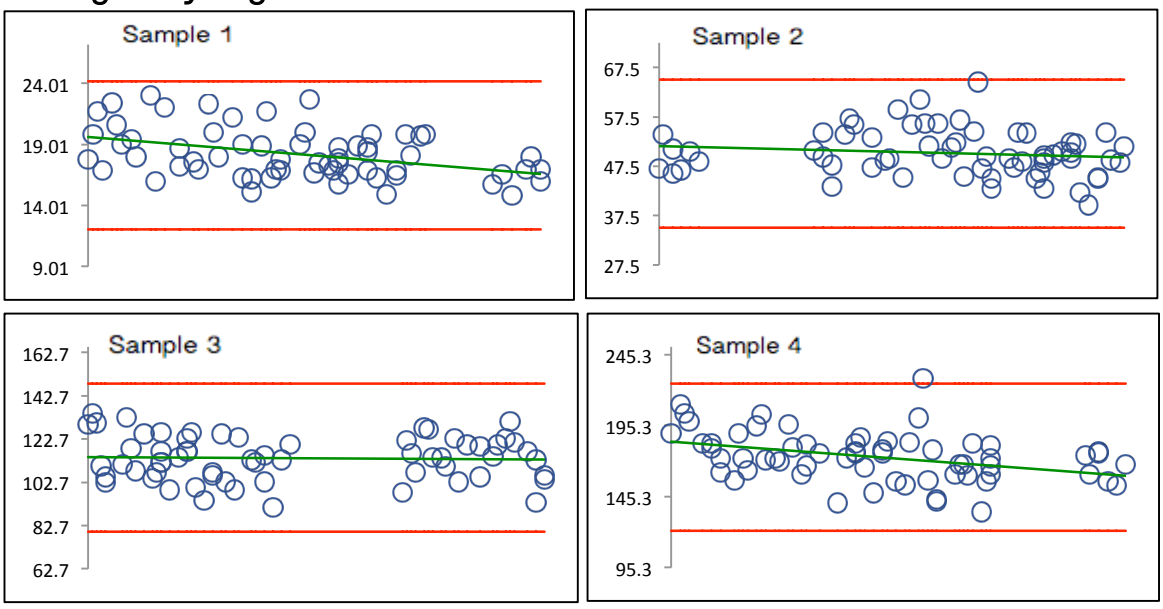
CHLORODIBROMOMETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

CHLOROFORM

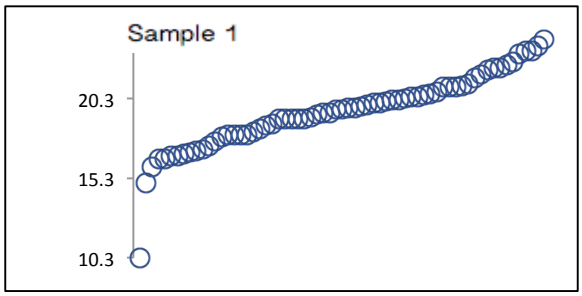
Summary Statistics

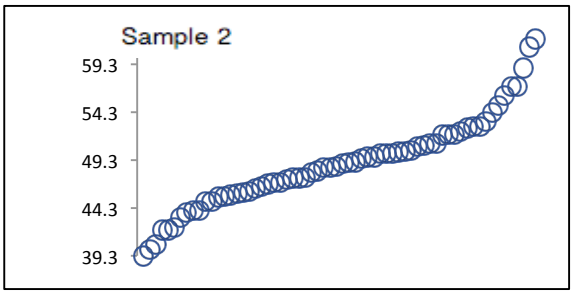
Statistic	C16-1	C16-2	C16-3	C16-4
N	65	64	64	66
Median	19.6	48.8	110	163
Robust Mean	19.5	48.7	110	164
U	0.34	0.69	1.77	2.78
Robust Standard Deviation	2.21	4.40	11.3	18.1
Regression Standard Deviation	2.93	7.31	16.5	24.6
Stability Flag				
Homogeneity Flag	Homogeneity			Homogeneity
Standard Deviation Used (SDPA)	3.00	7.31	16.5	32.5
Outliers	1	2	2	0
|z|>3.0	1	0	0	0
2<|z|<3	0	0	0	0

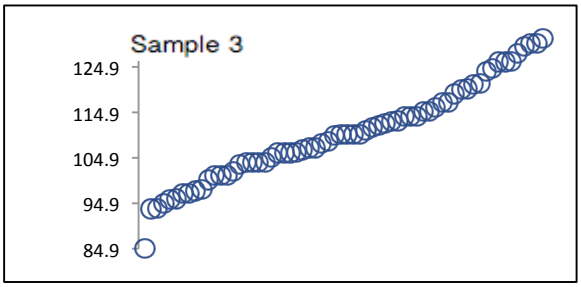
Methods Used

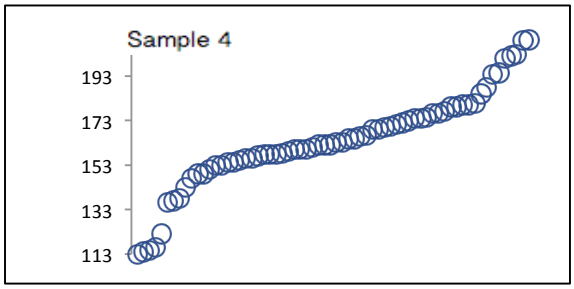
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	33	32	32	33
HS-GCMS	21	21	21	22
GC/ECD-1	1	1	1	1
GC/MSE	1	1	1	1
P/T-GCECD	2	2	2	2
GC/MS1	4	4	4	4
P/T-FID	2	2	2	2

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



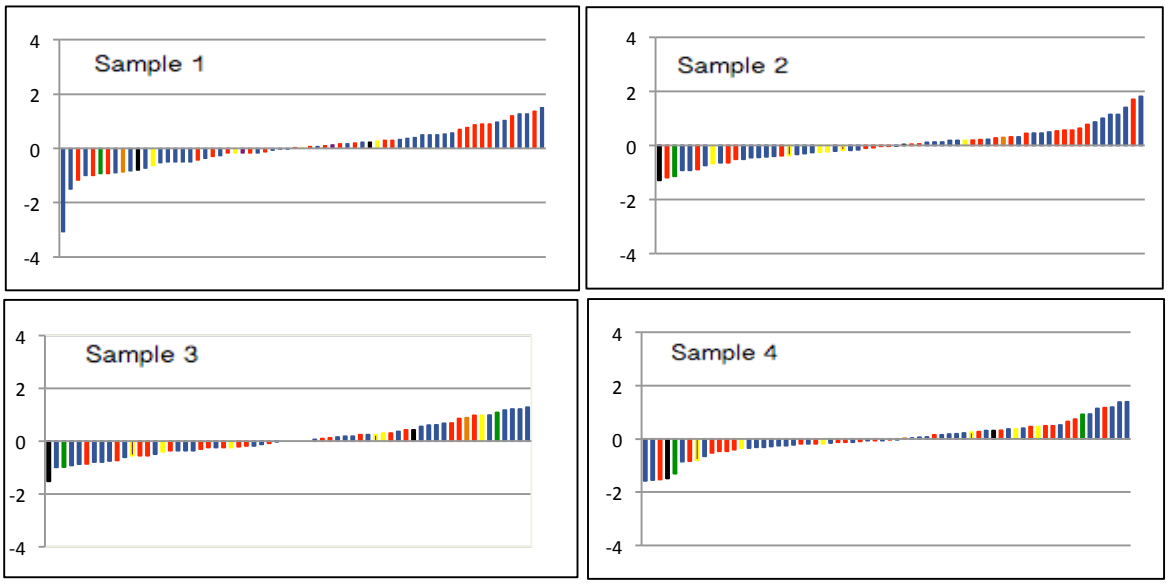




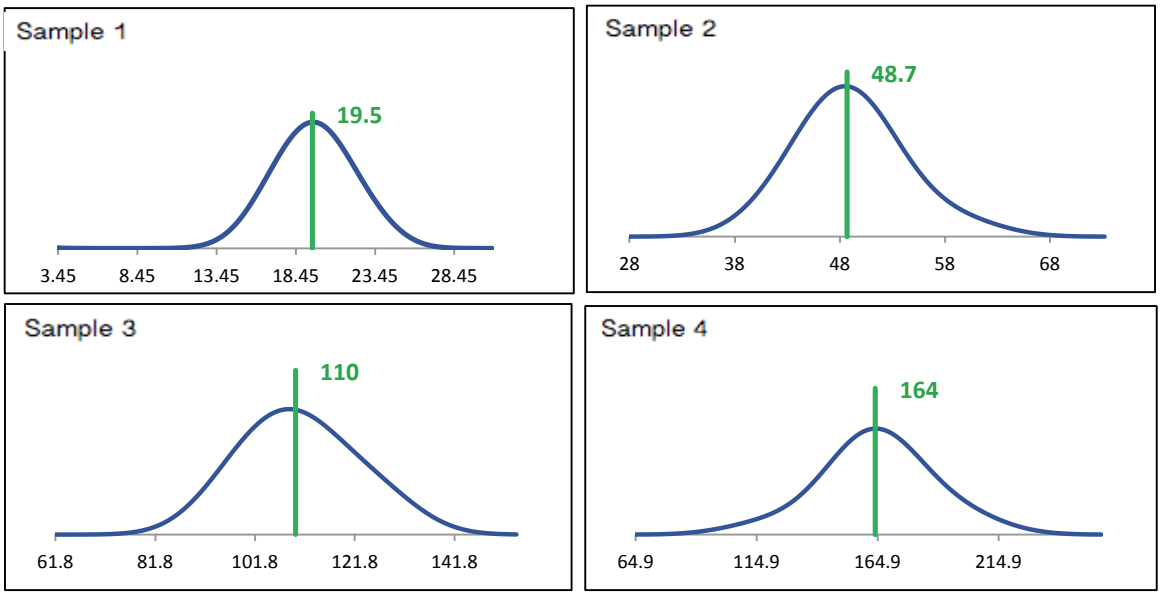


CHLOROFORM

z-Score Plots

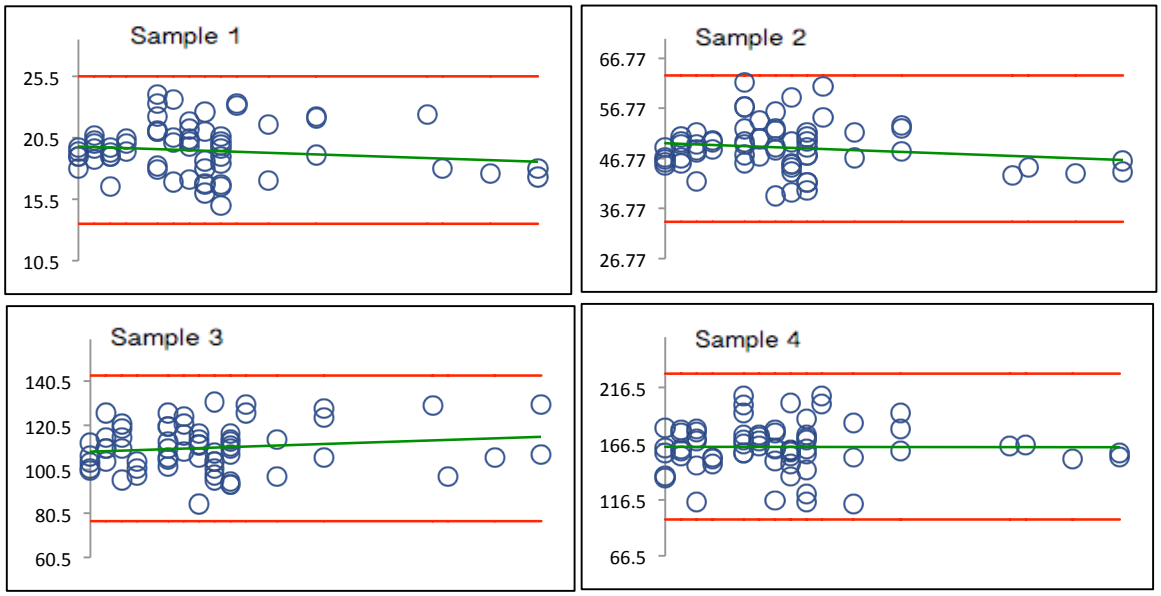


Kernel Density Plots



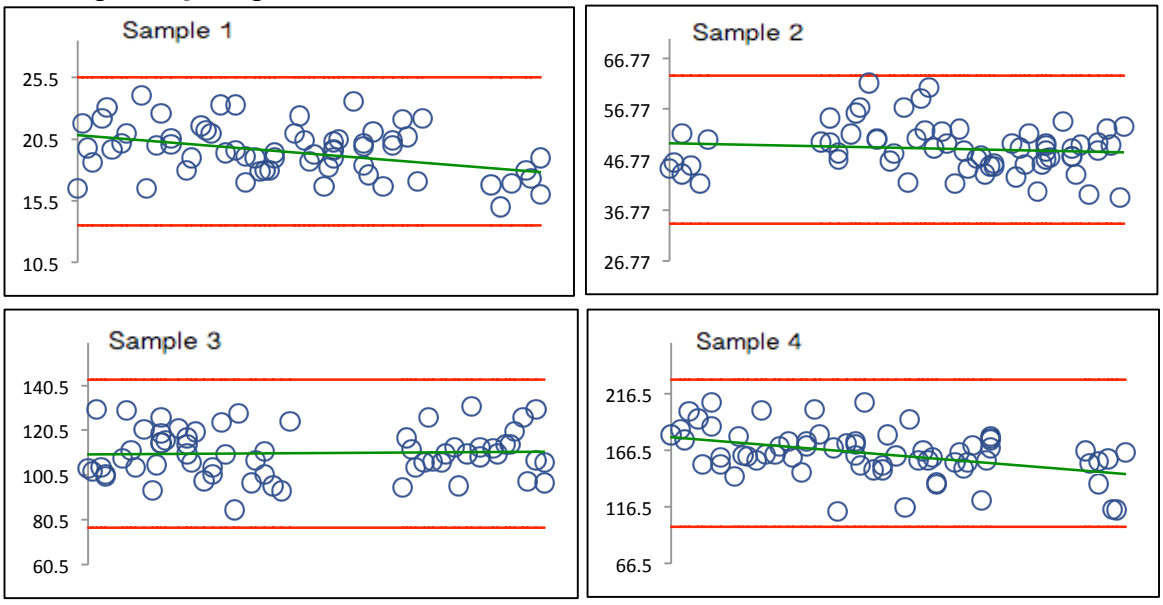
CHLOROFORM

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

CIS-1,2-DICHLOROETHYLENE

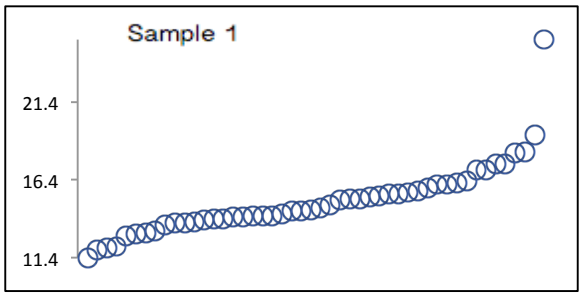
Summary Statistics

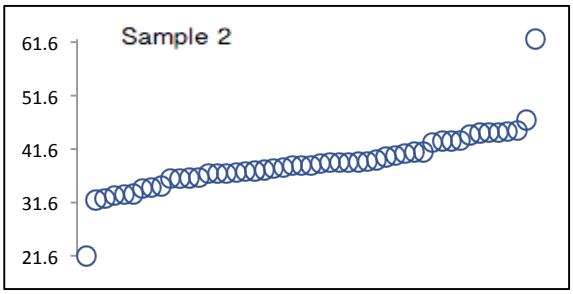
Statistic	C16-1	C16-2	C16-3	C16-4
N	48	49	49	49
Median	14.6	38.5	91.1	137
Robust Mean	14.8	38.8	90.9	137
U	0.33	0.78	1.44	2.54
Robust Standard Deviation	1.81	4.38	8.1	14.2
Regression Standard Deviation	2.22	5.82	13.6	20.6
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	2.22	5.82	13.6	20.6
Outliers	0	0	0	0
|z|>3.0	1	1	1	1
2<|z|<3	1	1	1	0

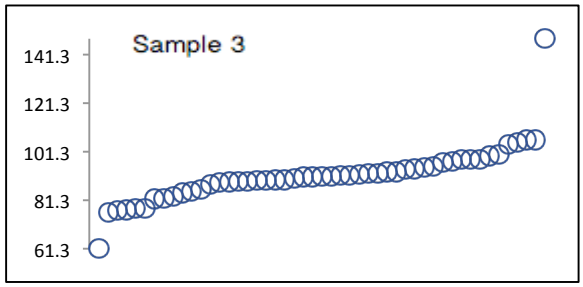
Methods Used

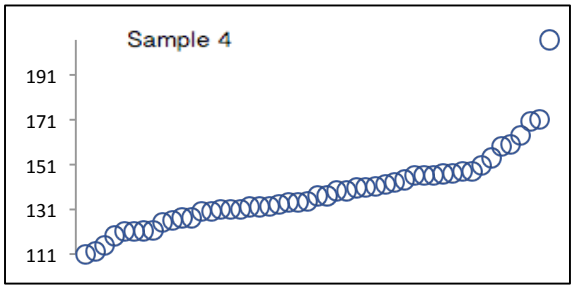
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	27	27	27	27
HS-GCMS	17	18	18	18
GC/MSE	1	1	1	1
P/T-FID	2	2	2	2
GC/MS1	1	1	1	1

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



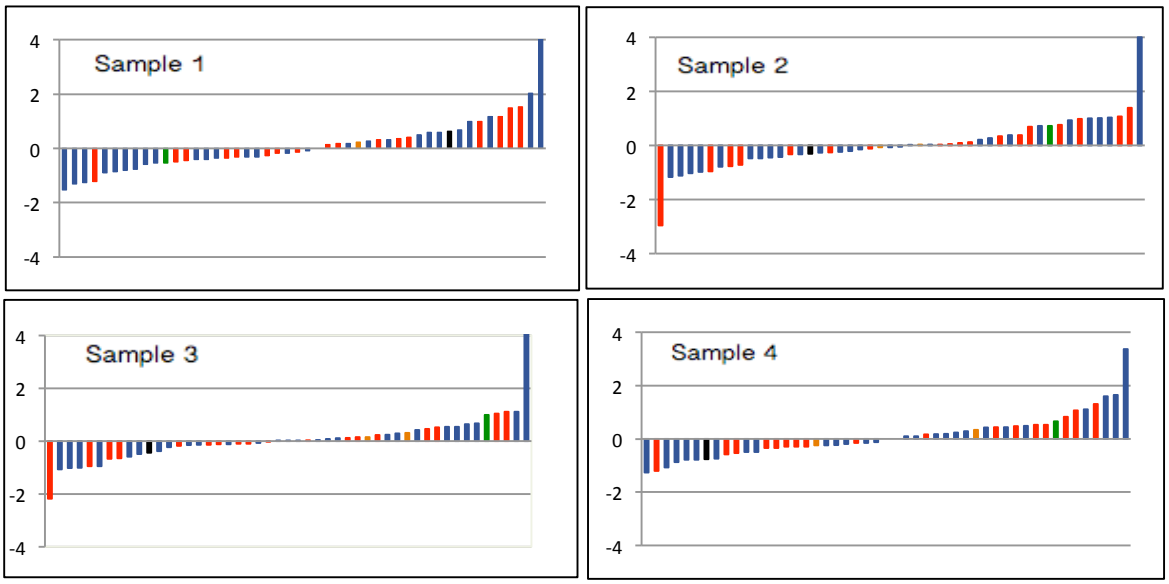




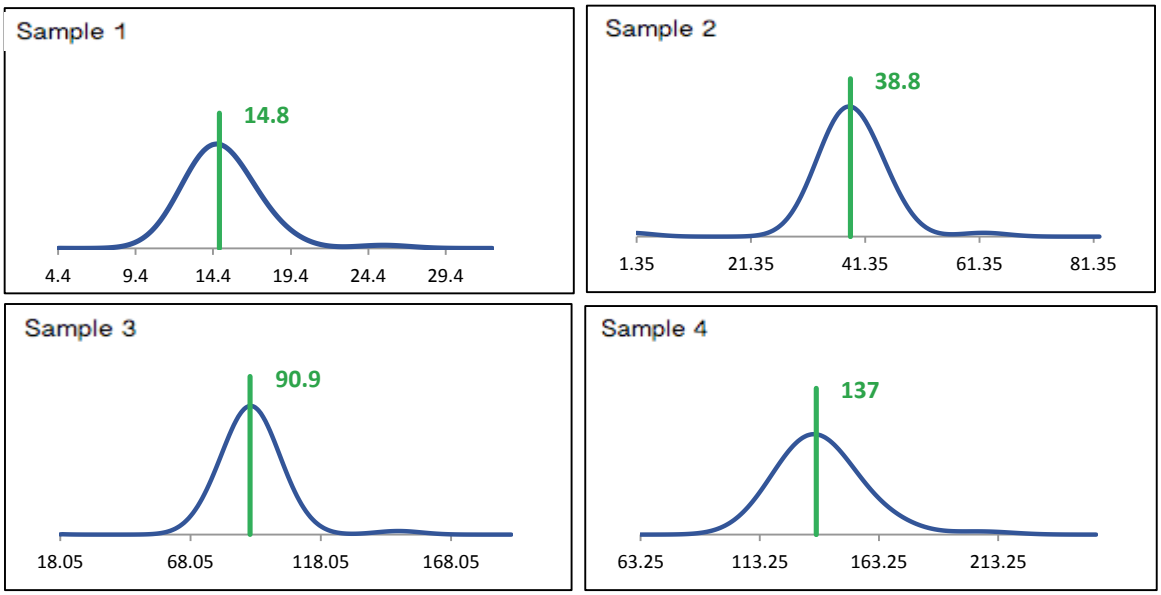


CIS-1,2-DICHLOROETHYLENE

z-Score Plots

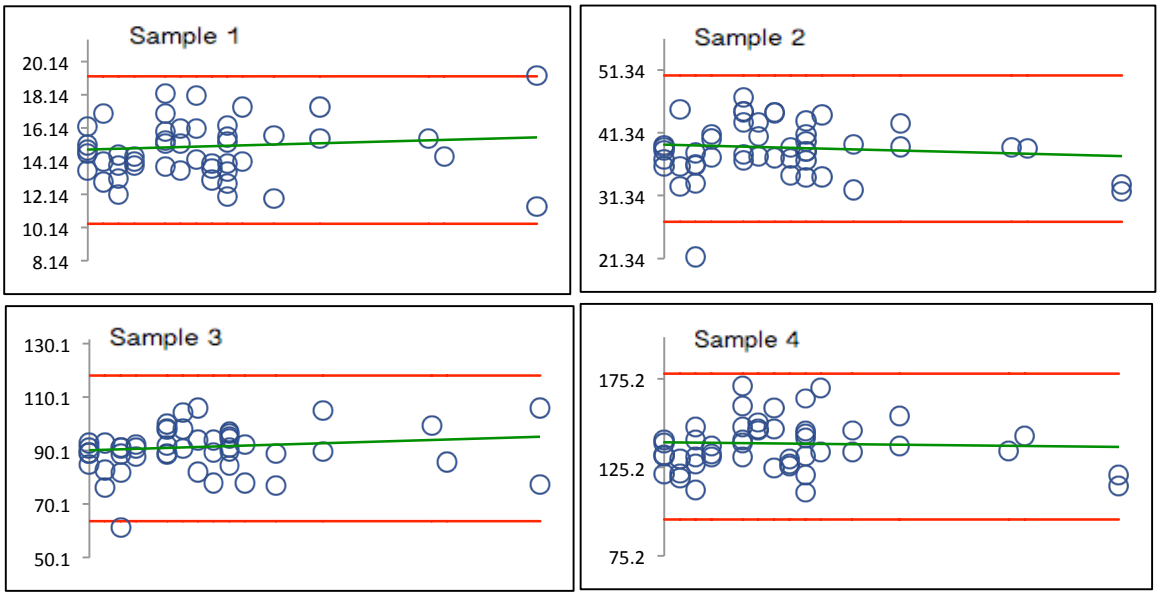


Kernel Density Plots



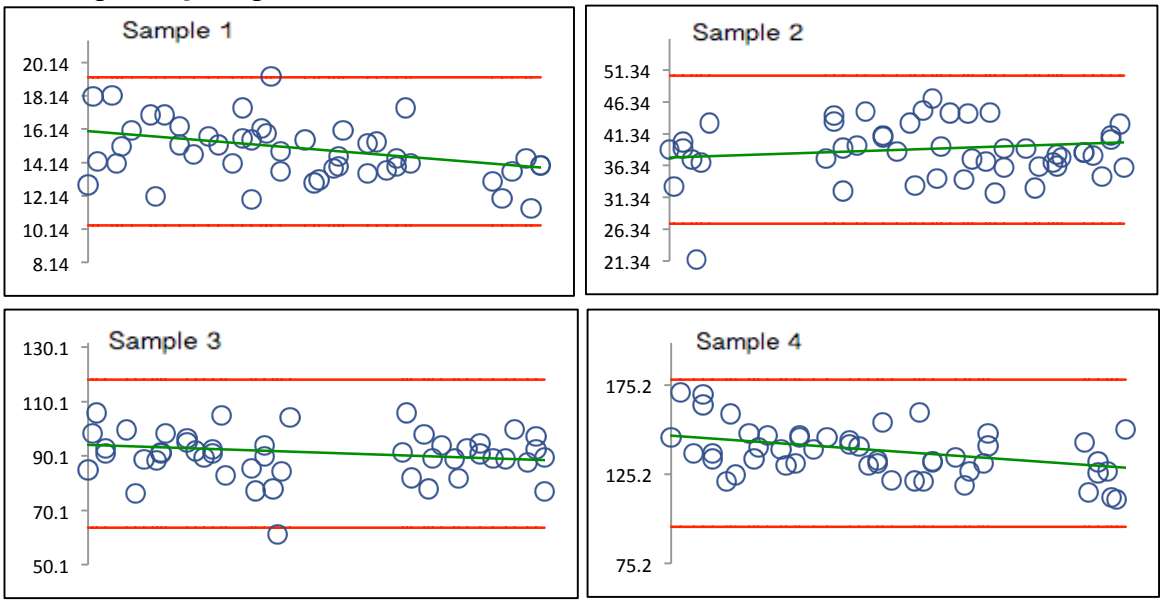
CIS-1,2-DICHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

CIS-1,3-DICHLOROPROPENE

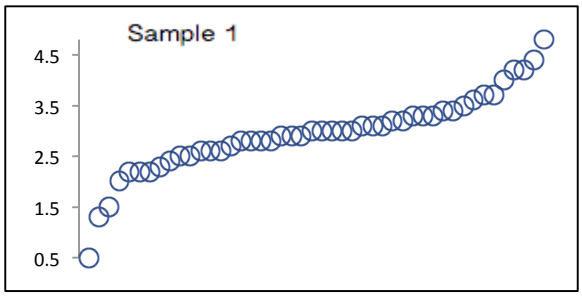
Summary Statistics

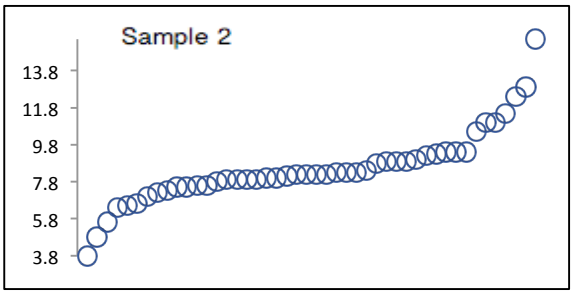
Statistic	C16-1	C16-2	C16-3	C16-4
N	46	46	46	45
Median	3.00	8.20	18.8	29.0
Robust Mean	2.96	8.35	18.9	28.9
U	0.12	0.26	0.49	0.82
Robust Standard Deviation	0.647	1.42	2.68	4.40
Regression Standard Deviation	0.444	1.25	2.84	4.34
Stability Flag				
Homogeneity Flag	Homogeneity			Homogeneity
Standard Deviation Used (SDPA)	1.10	1.42	2.84	6.35
Outliers	0	0	0	1
|z|>3.0	0	3	3	1
2<|z|<3	1	3	2	1

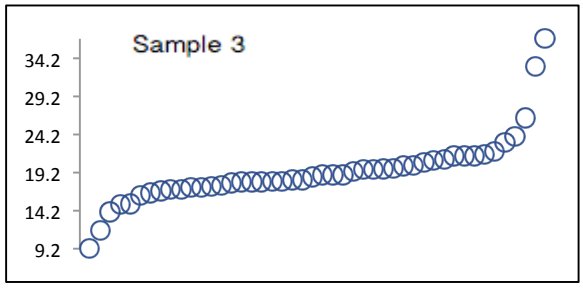
Methods Used

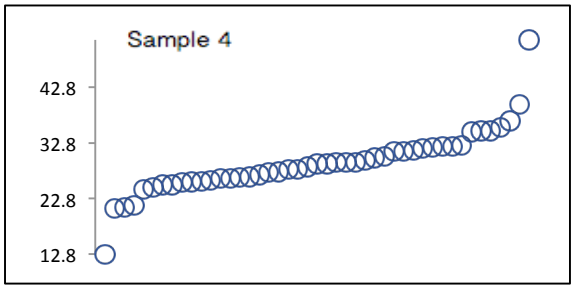
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	26	26	26	25
GC/MSE	1	1	1	1
HS-GCMS	18	18	18	18
GC/MS1	1	1	1	1

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



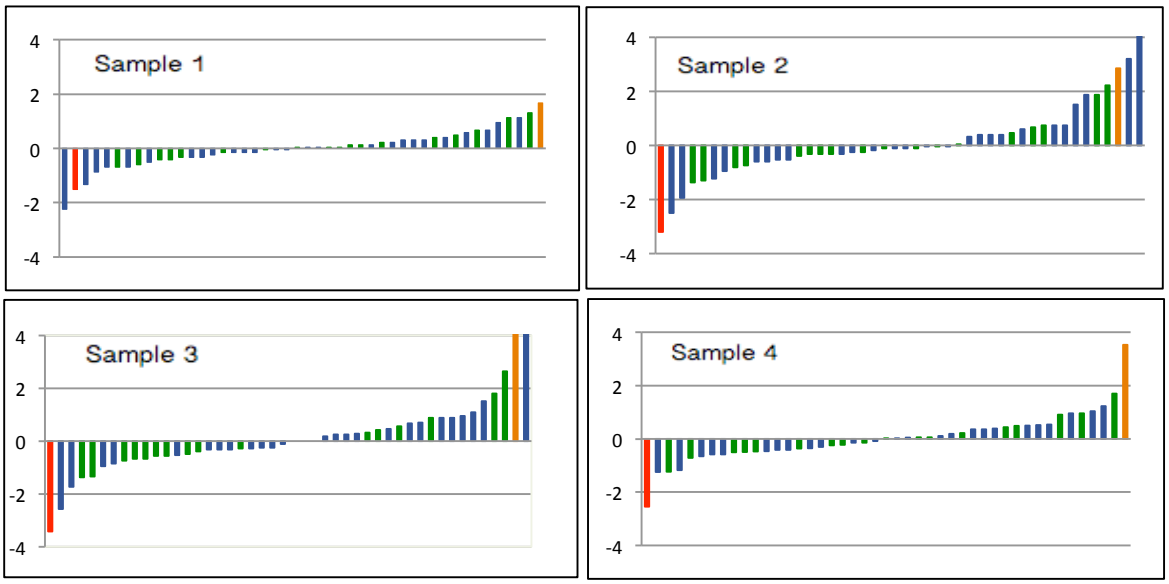




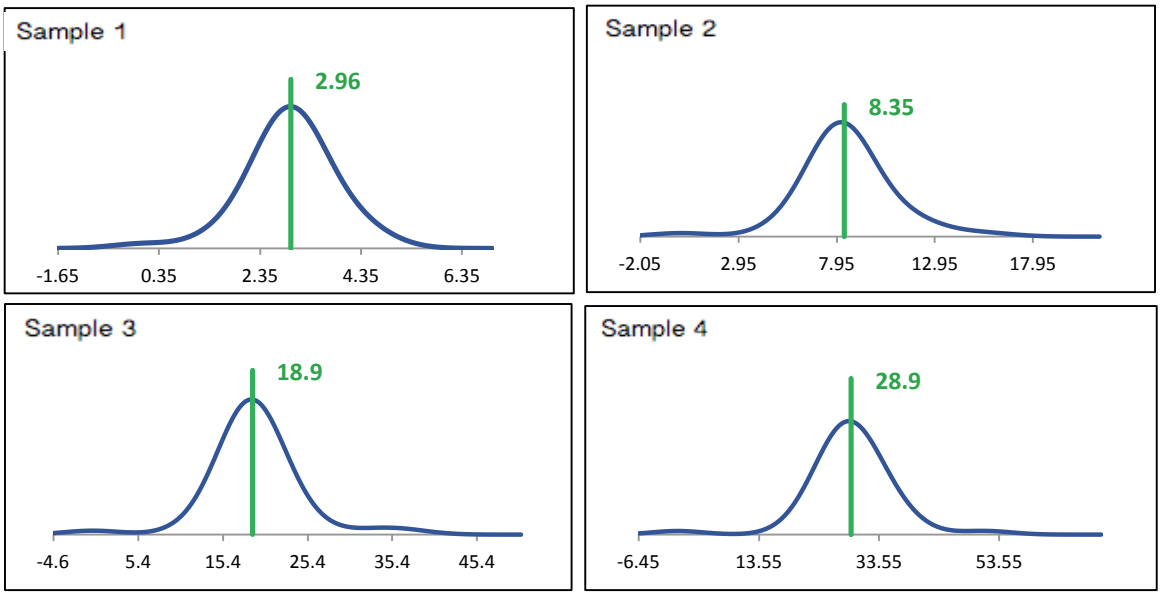


CIS-1,3-DICHLOROPROPENE

z-Score Plots

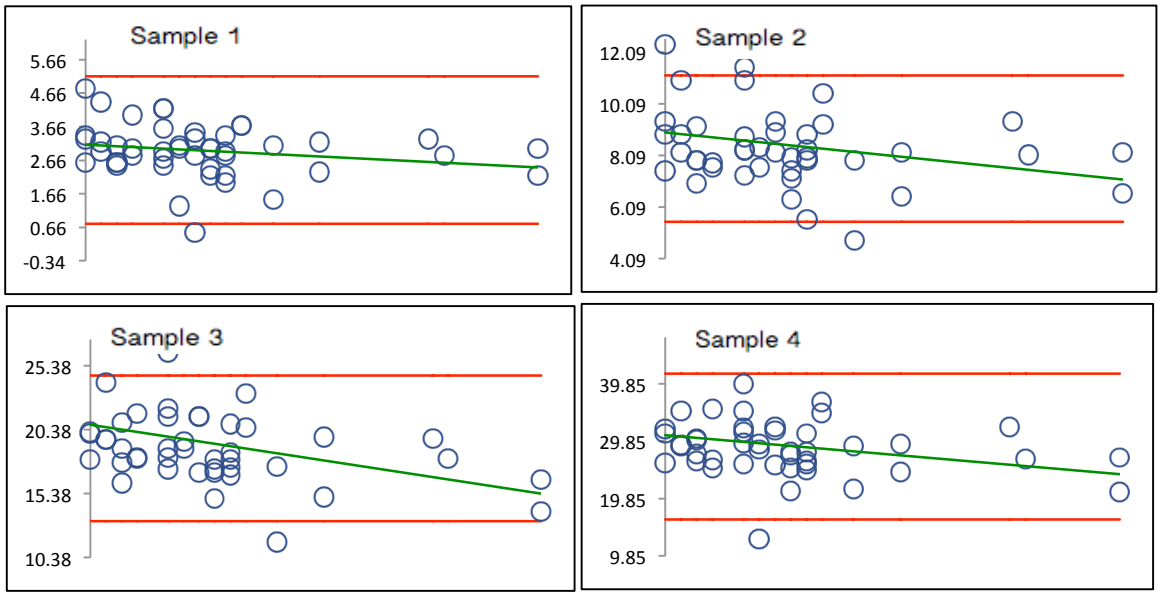


Kernel Density Plots



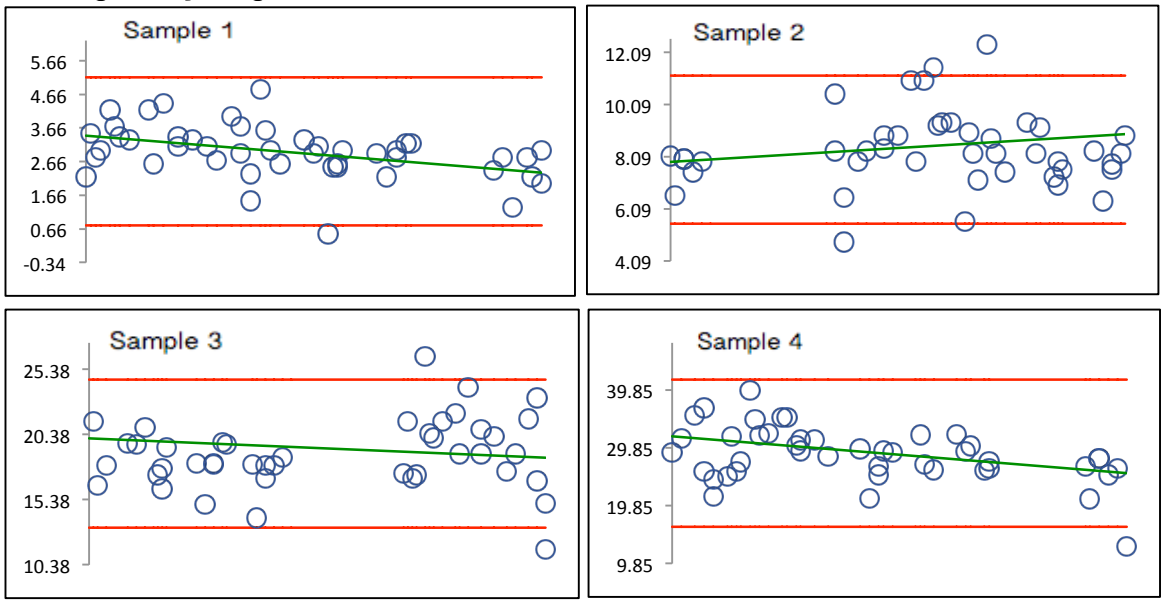
CIS-1,3-DICHLOROPROPENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

DICHLOROMETHANE

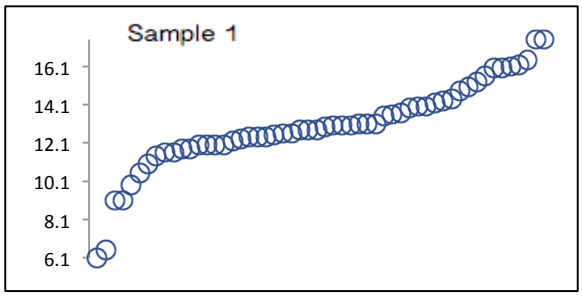
Summary Statistics

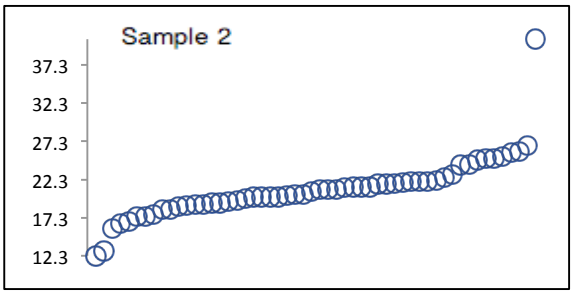
Statistic	C16-1	C16-2	C16-3	C16-4
N	54	54	54	54
Median	12.9	20.9	42.8	58.9
Robust Mean	13.1	20.8	43.1	59.9
U	0.34	0.50	0.68	1.17
Robust Standard Deviation	1.97	2.95	4.00	6.88
Regression Standard Deviation	2.29	3.64	7.54	10.5
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	2.29	3.64	7.54	10.5
Outliers	0	1	1	1
|z|>3.0	1	1	0	2
2<|z|<3	1	2	3	0

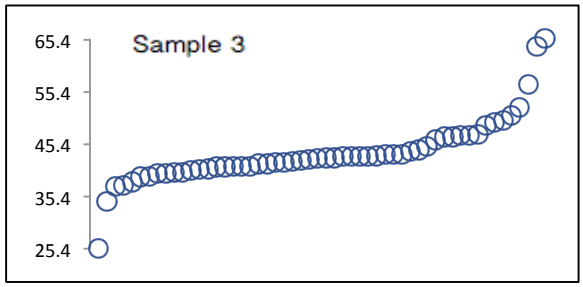
Methods Used

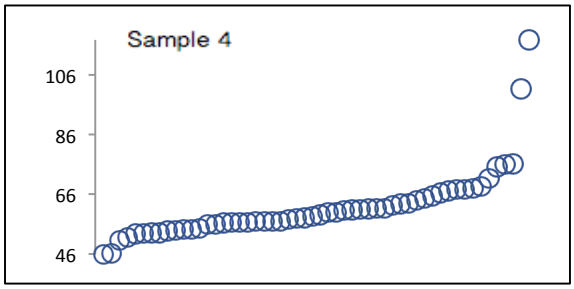
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	30	29	29	29
GC/MSE	2	2	2	2
HS-GCMS	19	20	20	20
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1

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



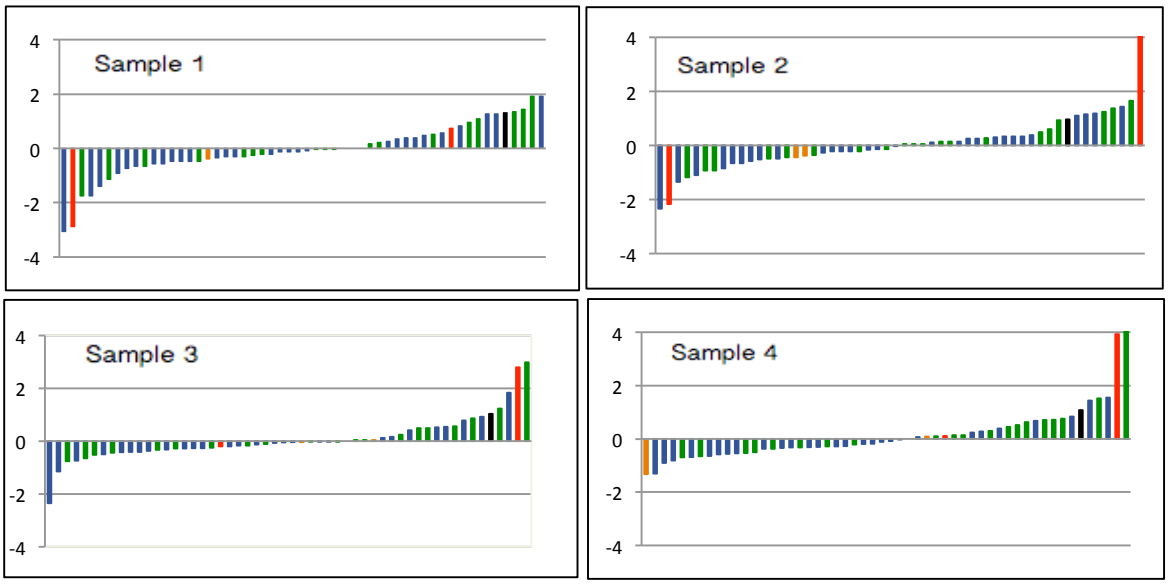




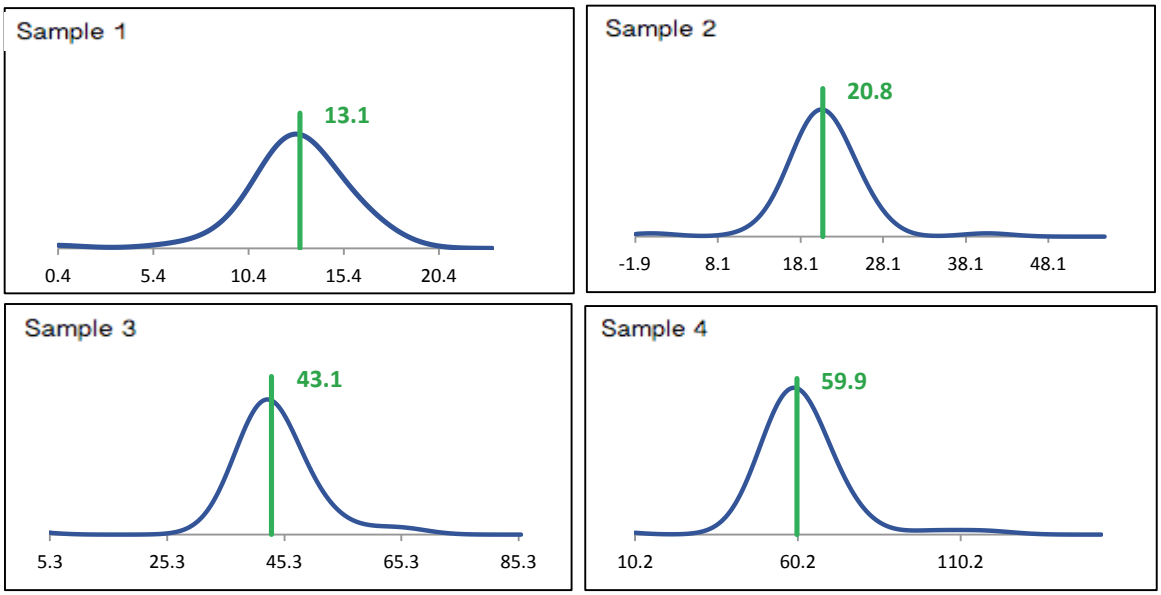


DICHLOROMETHANE

z-Score Plots

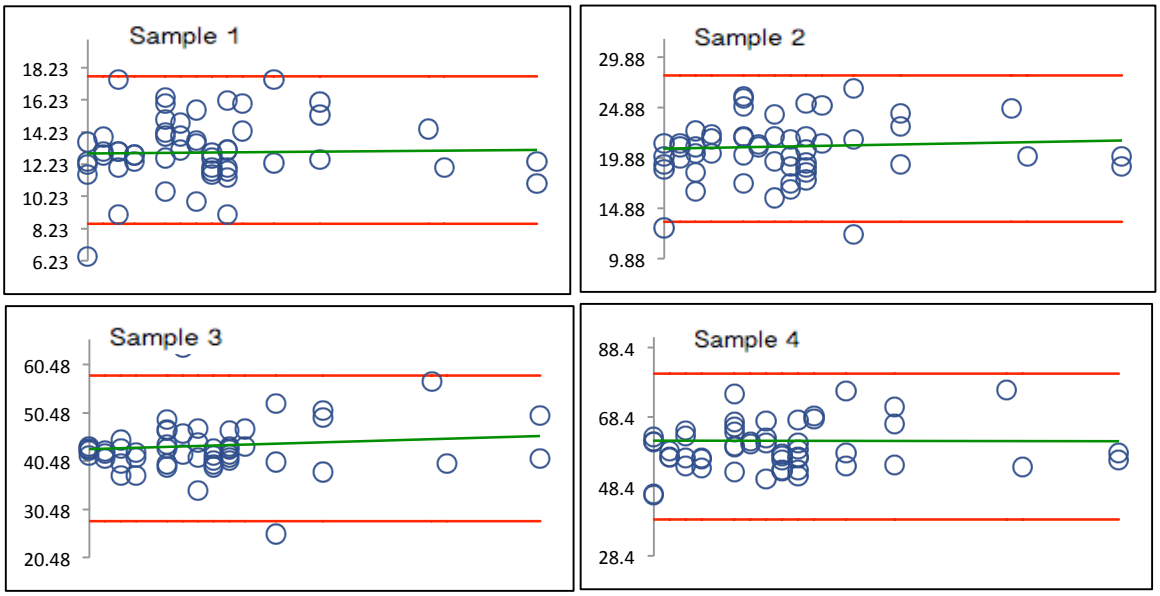


Kernel Density Plots



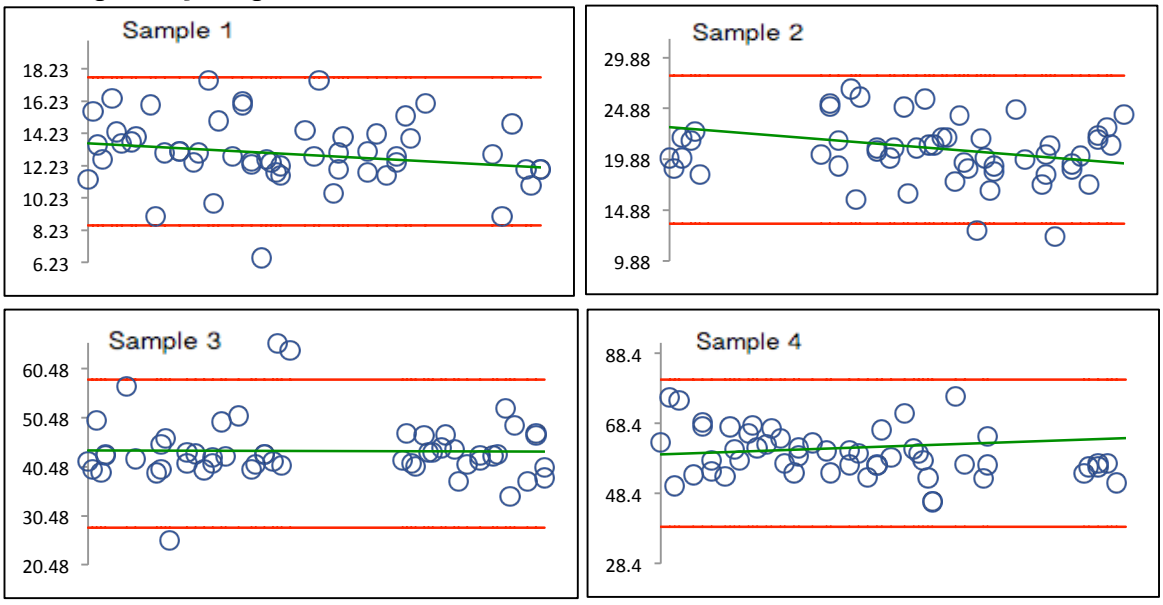
DICHLOROMETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

ETHYLBENZENE

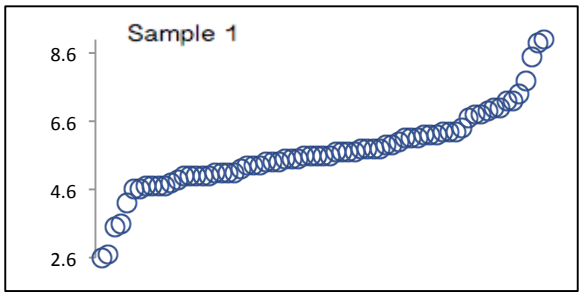
Summary Statistics

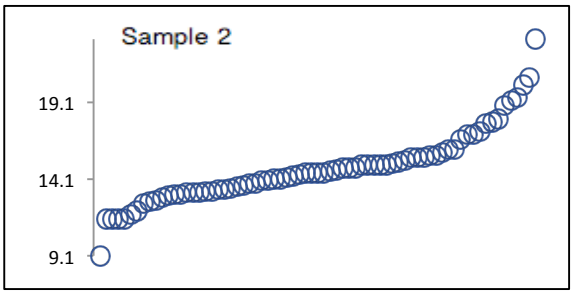
Statistic	C16-1	C16-2	C16-3	C16-4
N	71	71	71	71
Median	5.60	14.5	32.8	49.7
Robust Mean	5.68	14.6	33.3	50.7
U	0.14	0.29	0.60	0.98
Robust Standard Deviation	0.936	1.97	4.06	6.63
Regression Standard Deviation	0.851	2.19	5.00	7.60
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA)	1.04	2.19	5.00	7.60
Outliers	0	0	0	0
|z|>3.0	2	1	2	1
2<|z|<3	5	5	3	2

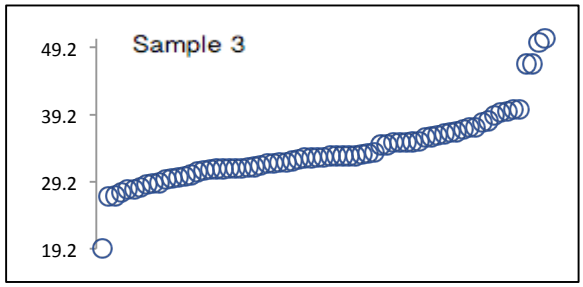
Methods Used

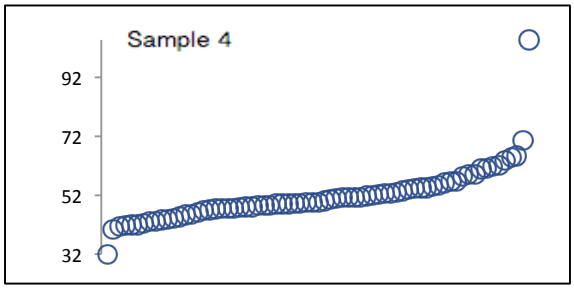
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	25	25	25	25
P/T-GCMS	34	34	34	34
GC/MSE	1	1	1	1
GC/MS1	6	6	6	6
HS-GCF	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	3	3	3	3

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



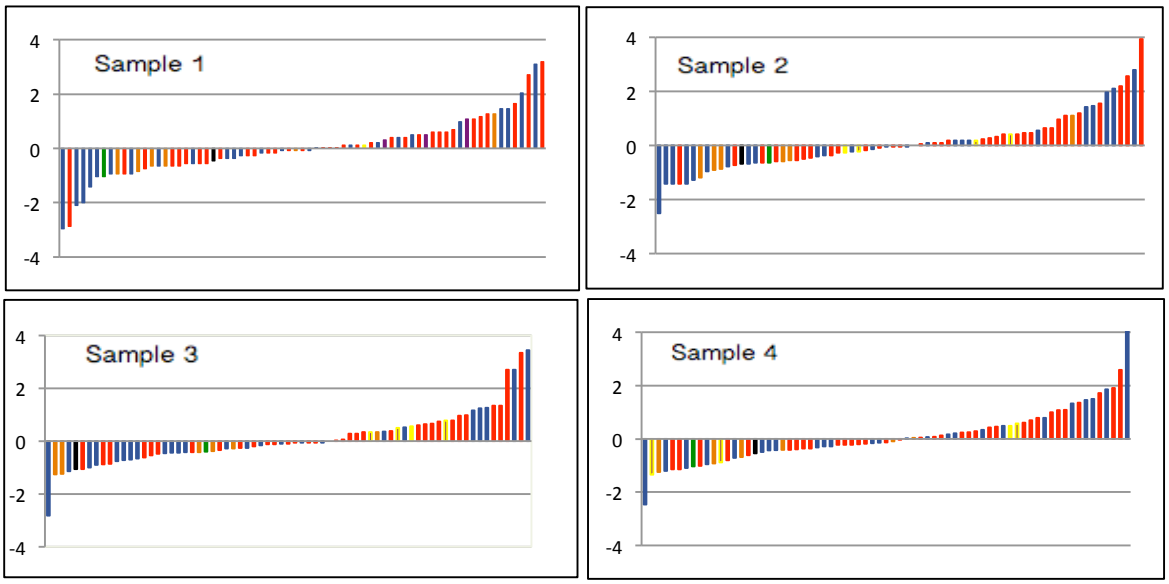




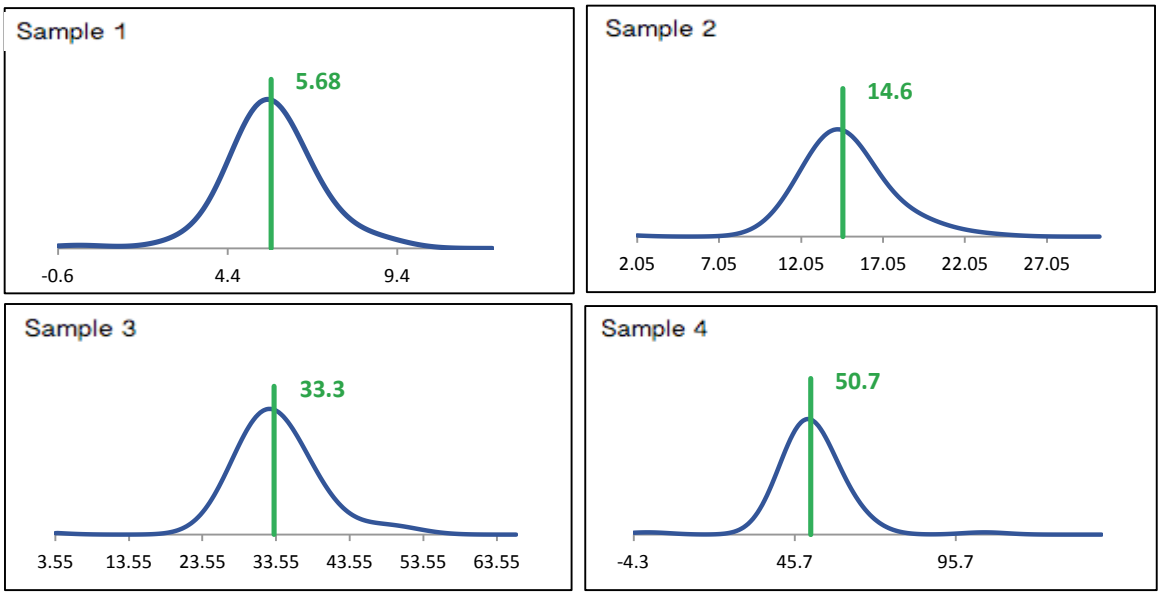


ETHYLBENZENE

z-Score Plots

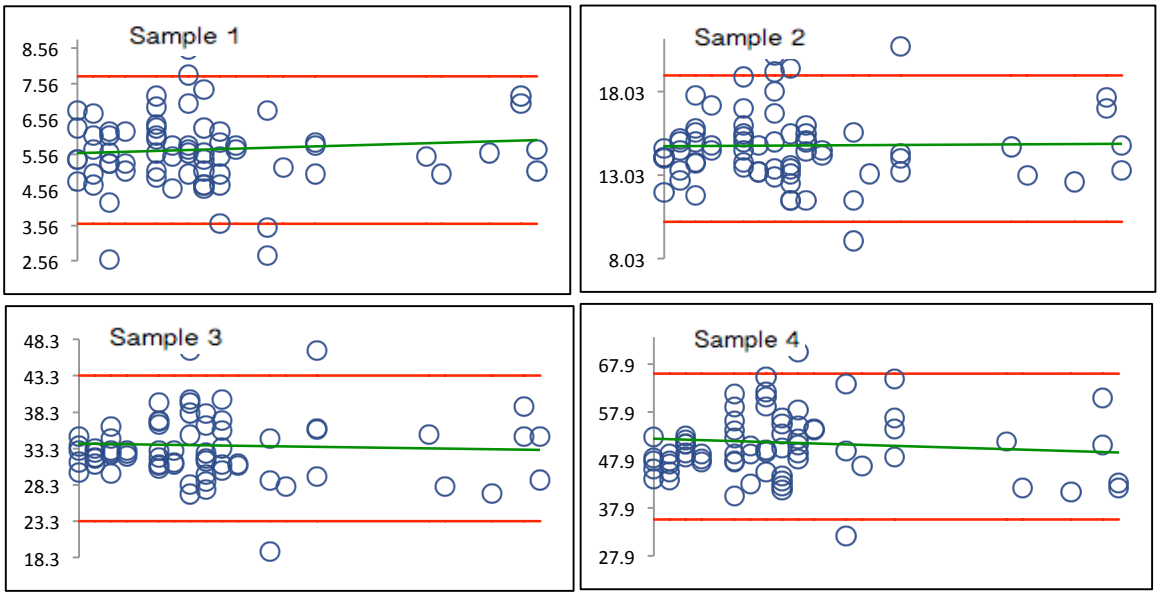


Kernel Density Plots



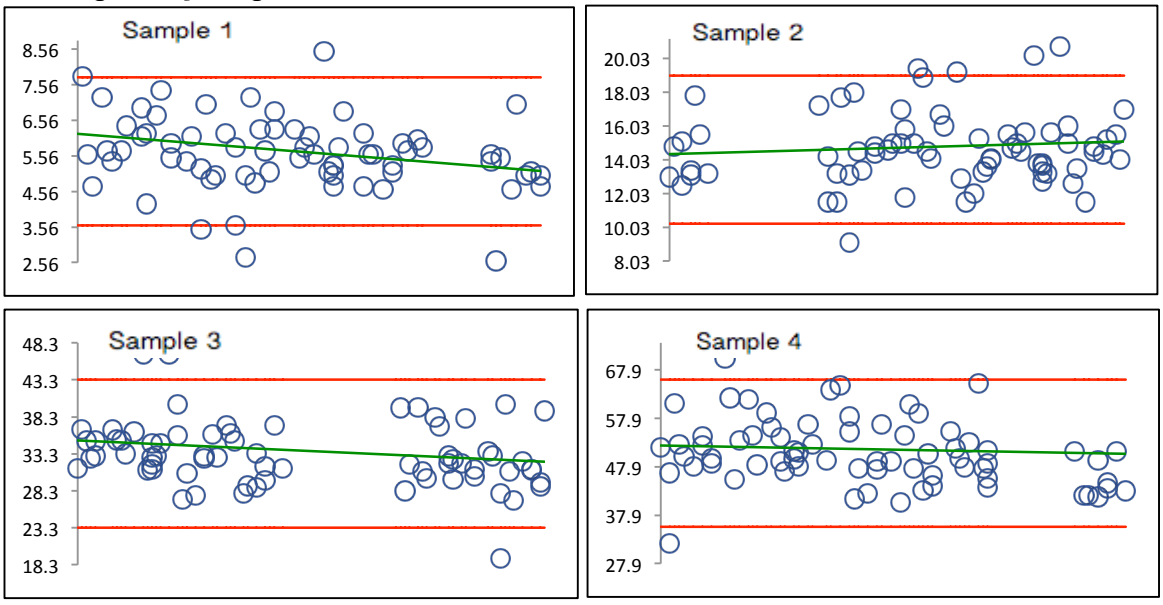
ETHYLBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

ETHYLENE DIBROMIDE

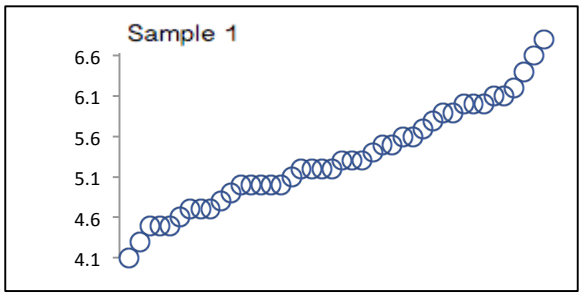
Summary Statistics

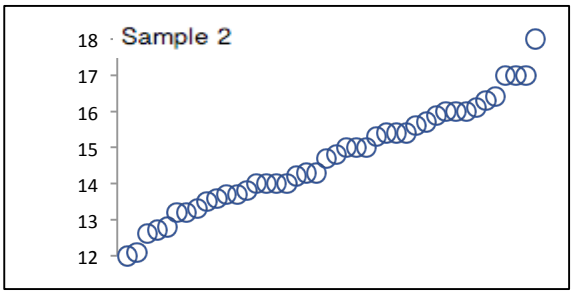
Statistic	C16-1	C16-2	C16-3	C16-4
N	42	42	42	42
Median	5.25	14.8	33.0	51.1
Robust Mean	5.32	14.7	33.5	51.2
U	0.13	0.30	0.69	0.96
Robust Standard Deviation	0.676	1.55	3.55	4.97
Regression Standard Deviation	0.799	2.21	5.02	7.68
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA)	0.986	2.21	5.02	7.68
Outliers	0	0	0	0
|z|>3.0	0	0	0	0
2<|z|<3	0	0	0	0

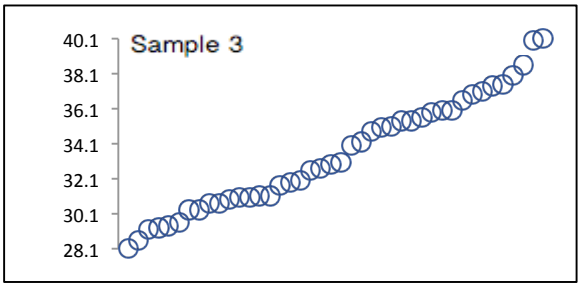
Methods Used

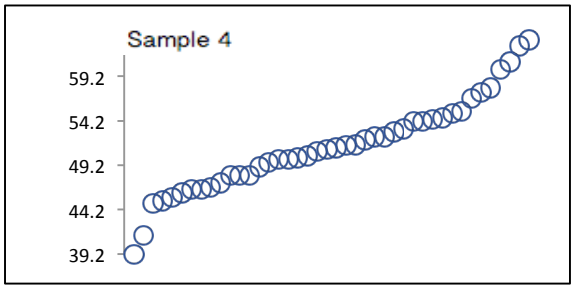
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	15	15	15	15
P/T-GCMS	25	25	25	25
GC/MSE	2	2	2	2

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



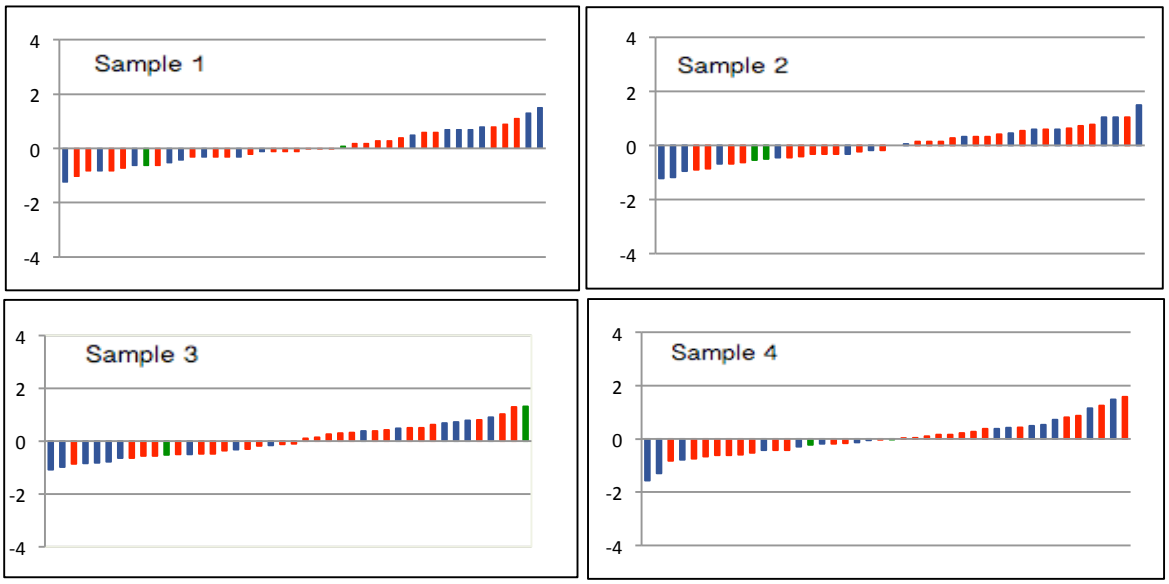




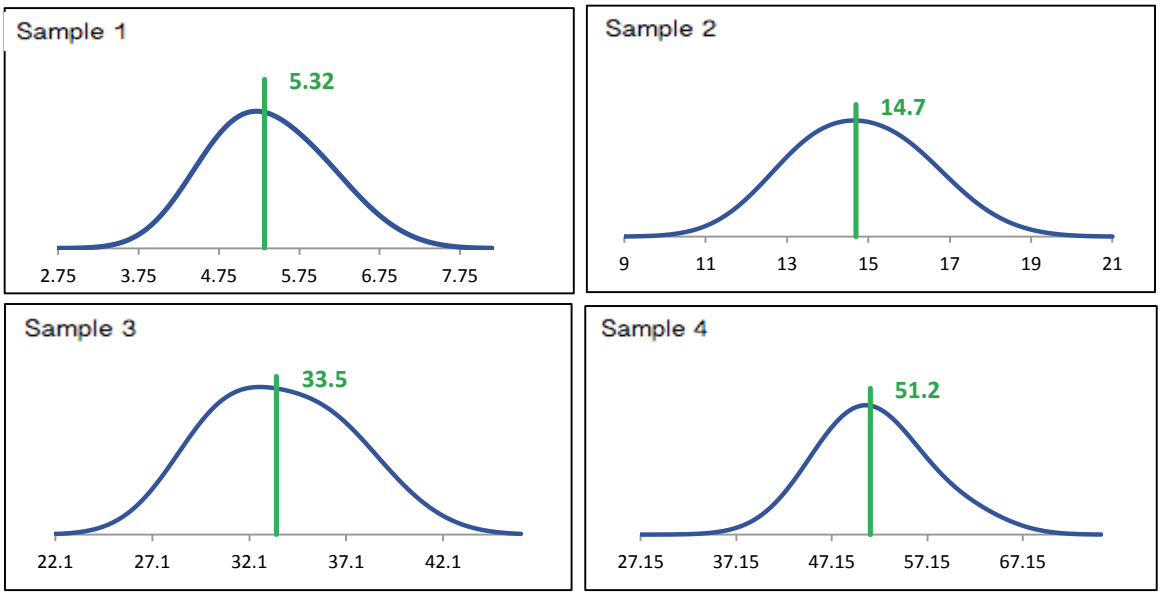


ETHYLENE DIBROMIDE

z-Score Plots

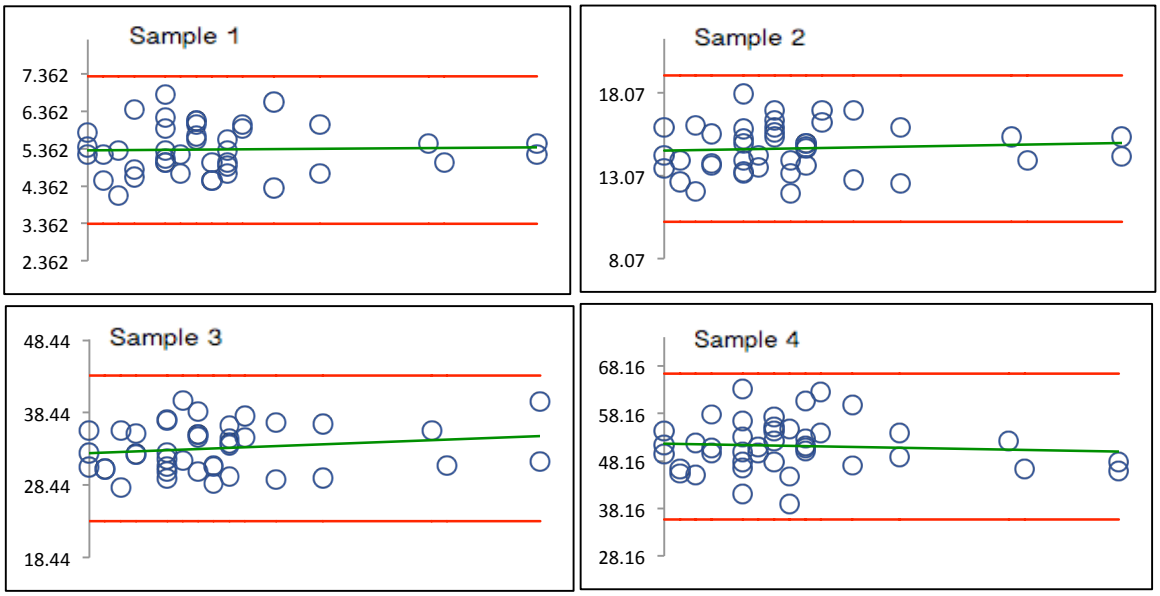


Kernel Density Plots



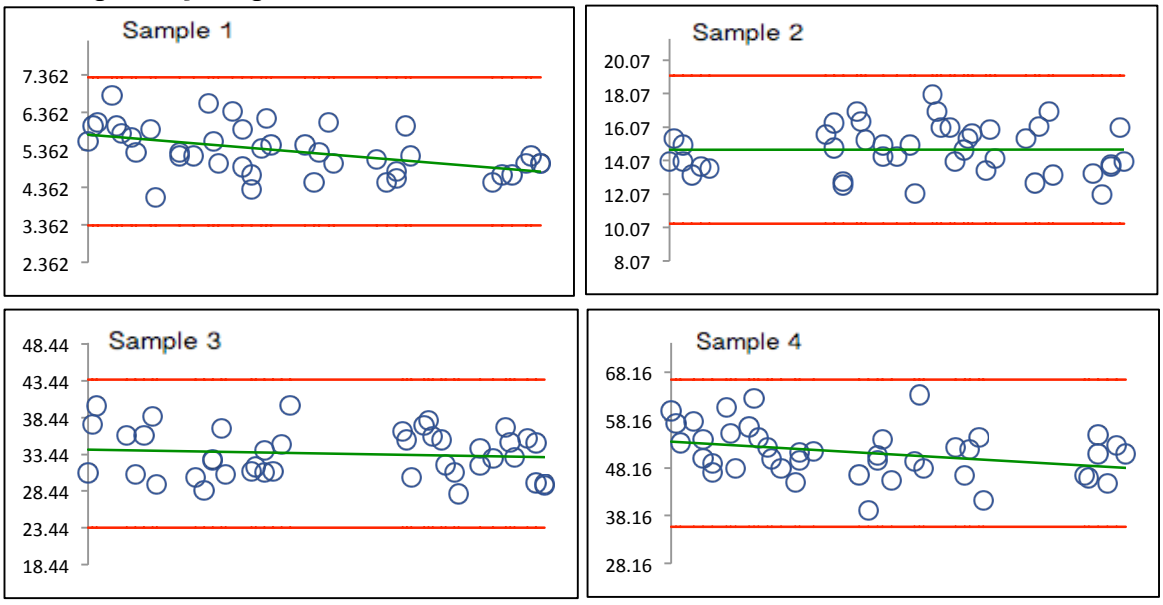
ETHYLENE DIBROMIDE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

M,P-XYLENE

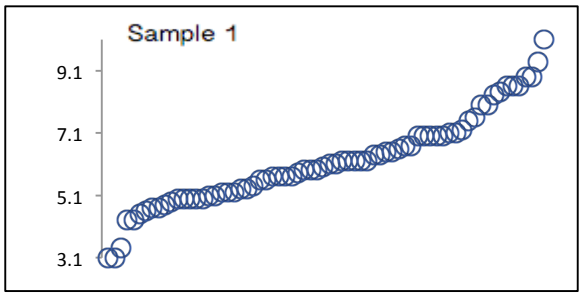
Summary Statistics

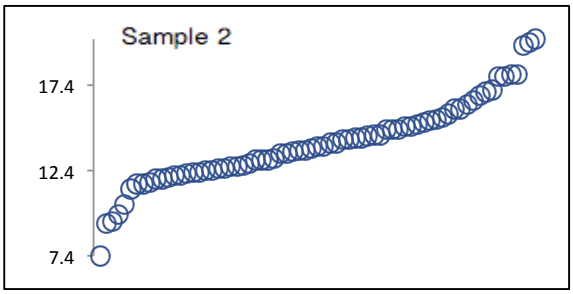
Statistic	C16-1	C16-2	C16-3	C16-4
N	70	71	71	71
Median	6.05	13.8	30.7	45.1
Robust Mean	6.14	13.9	30.7	46.4
U	0.21	0.33	0.59	0.90
Robust Standard Deviation	1.41	2.23	4.00	6.09
Regression Standard Deviation	0.921	2.09	4.61	6.96
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	1.41	2.23	4.61	6.96
Outliers	0	0	0	0
|z|>3.0	0	0	1	1
2<|z|<3	4	6	3	4

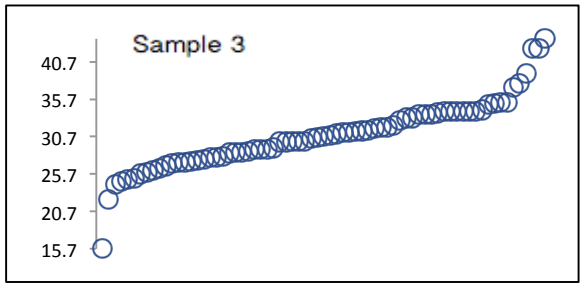
Methods Used

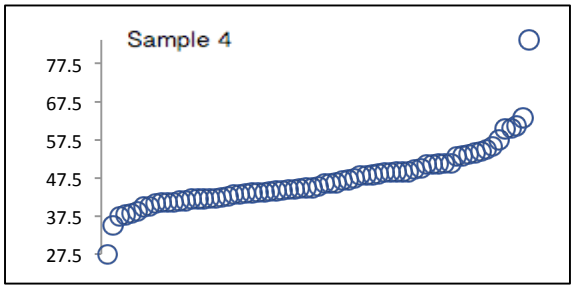
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	24	25	25	25
P/T-GCMS	34	34	34	34
GC/MS/MSHEAD	1	1	1	1
HS-GCF	1	1	1	1
GC/MSE	2	2	2	2
GC/MS1	5	5	5	5
P/T-FID	3	3	3	3

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



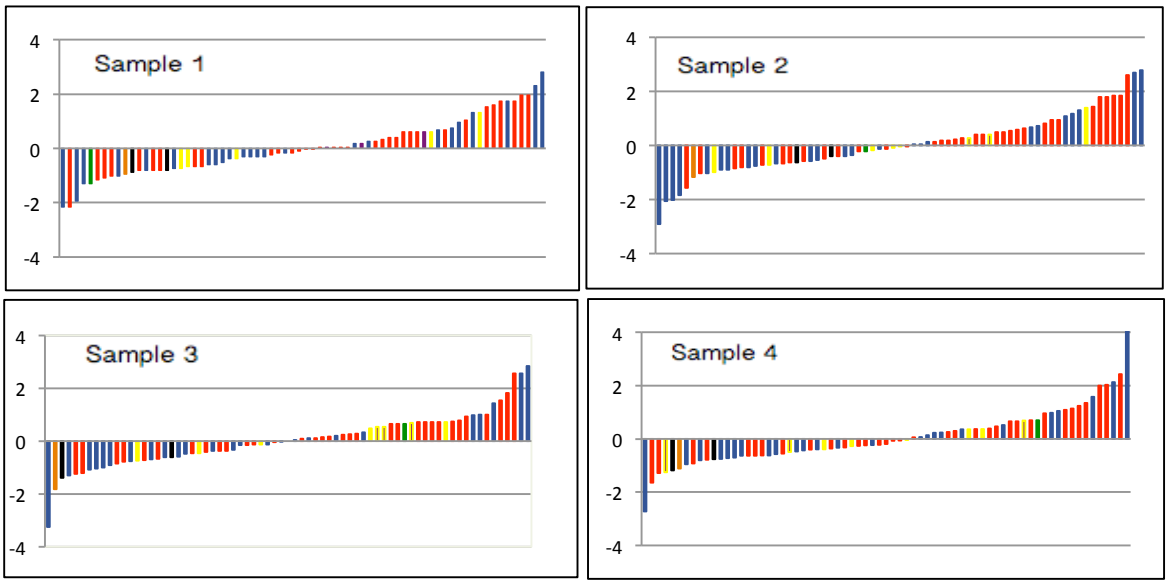




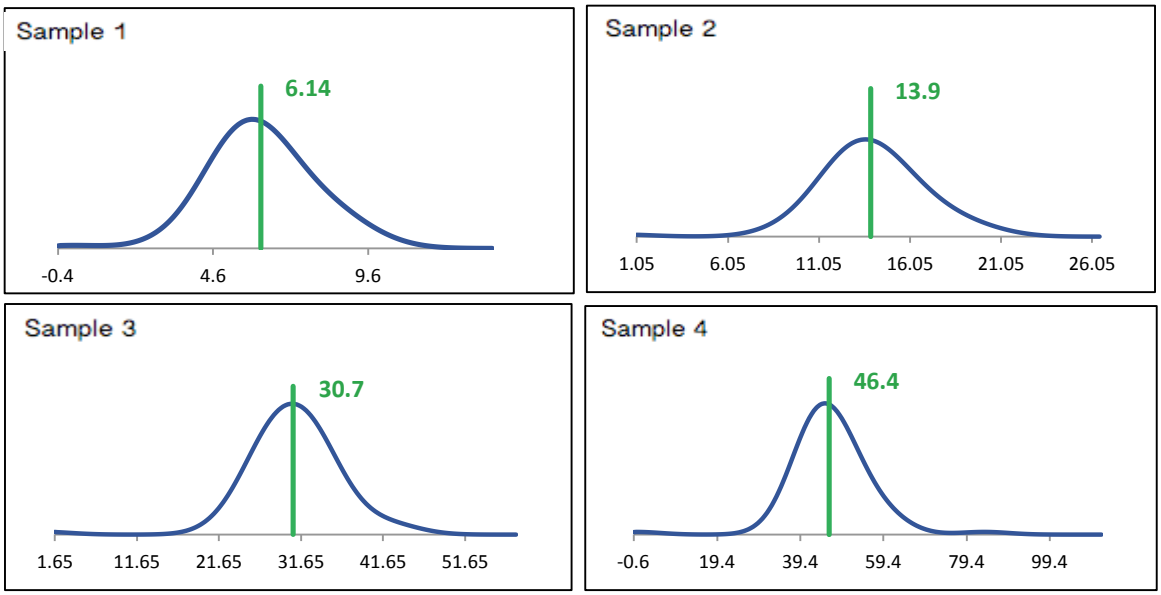


M,P-XYLENE

z-Score Plots

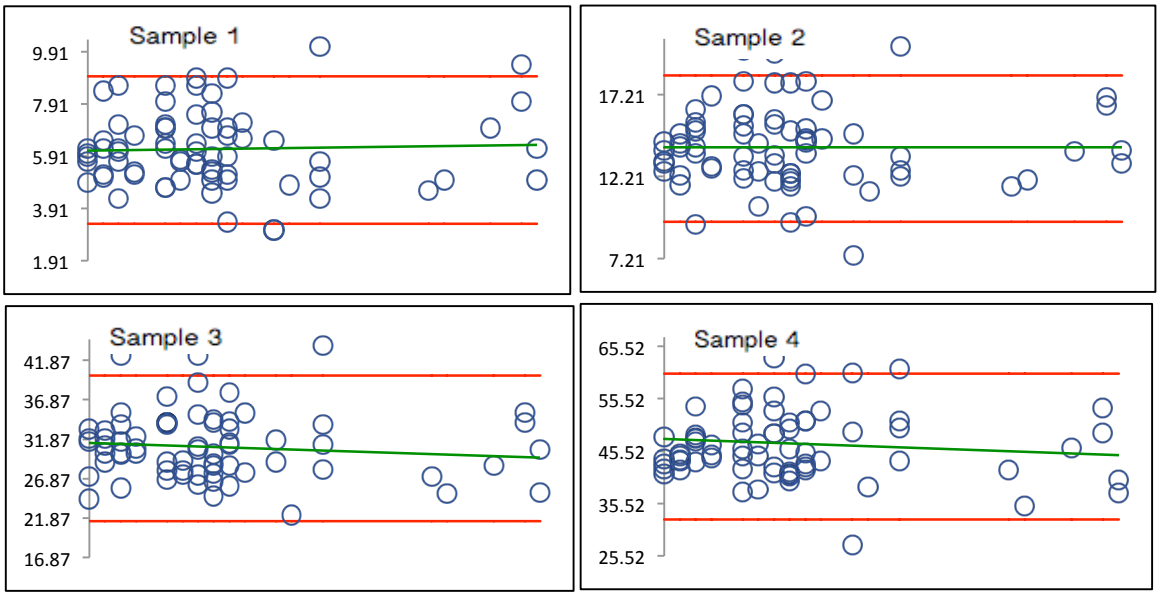


Kernel Density Plots



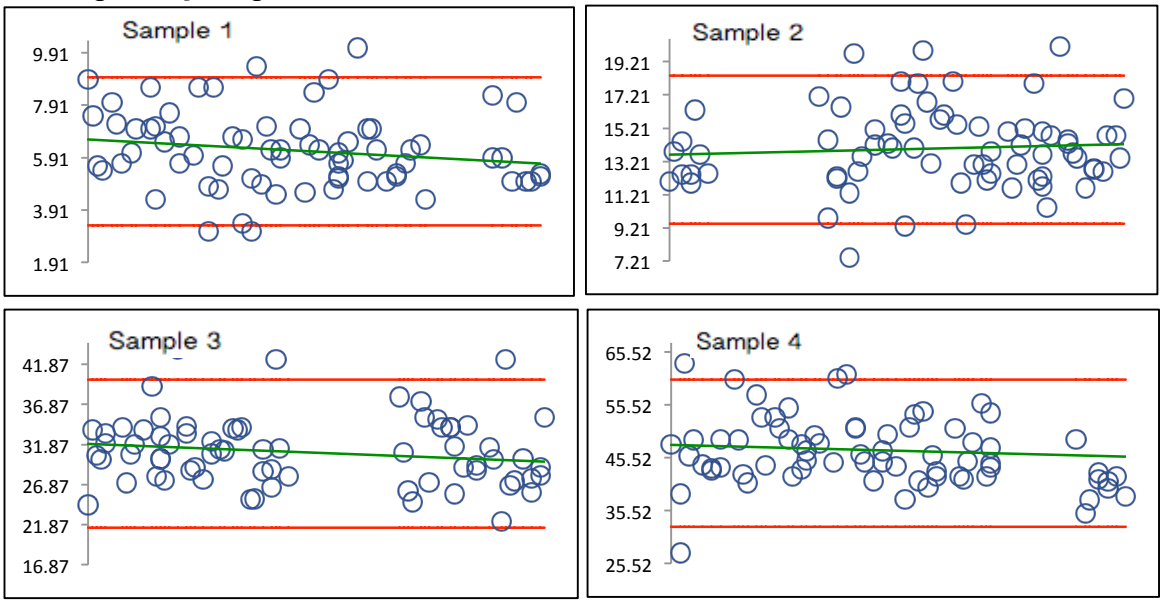
M,P-XYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

METHYL ETHYL KETONE

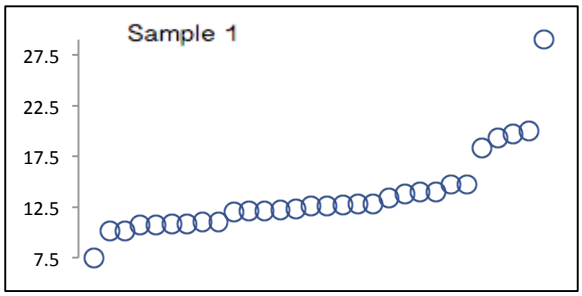
Summary Statistics

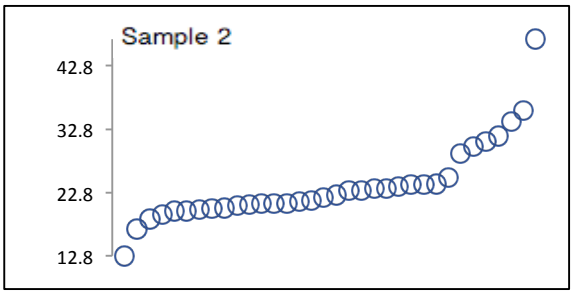
Statistic	C16-1	C16-2	C16-3	C16-4
N	30	34	35	35
Median	12.6	22.2	42.1	58.3
Robust Mean	12.9	23.1	42.7	59.3
U	0.55	0.94	1.74	1.87
Robust Standard Deviation	2.40	4.38	8.24	8.86
Regression Standard Deviation	2.89	5.19	9.61	13.3
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	2.89	5.19	9.61	13.3
Outliers	0	0	0	0
|z|>3.0	1	1	0	1
2<|z|<3	3	2	3	1

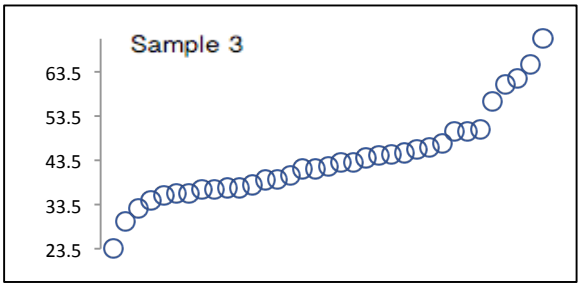
Methods Used

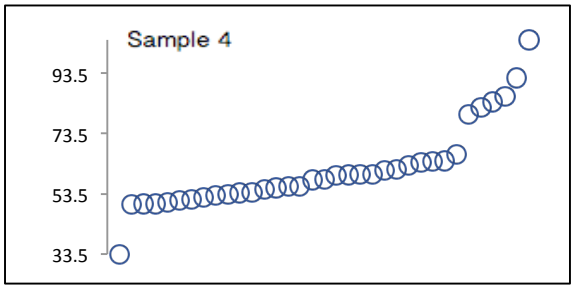
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	21	22	23	23
HS-GCMS	7	10	10	10
GC/MSE	1	1	1	1
P/T-FID	1	1	1	1

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



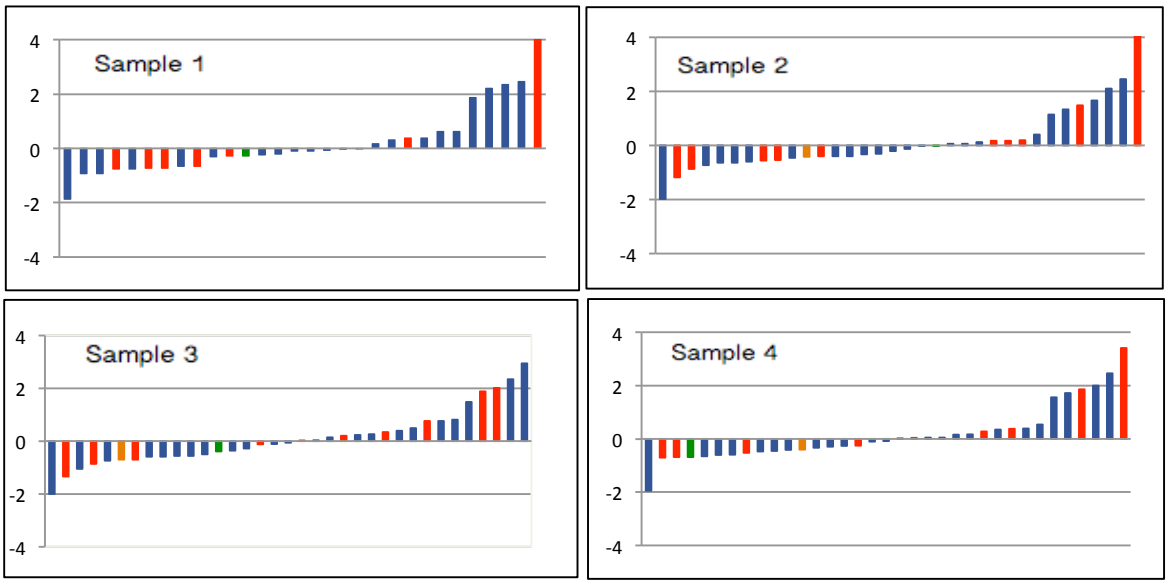




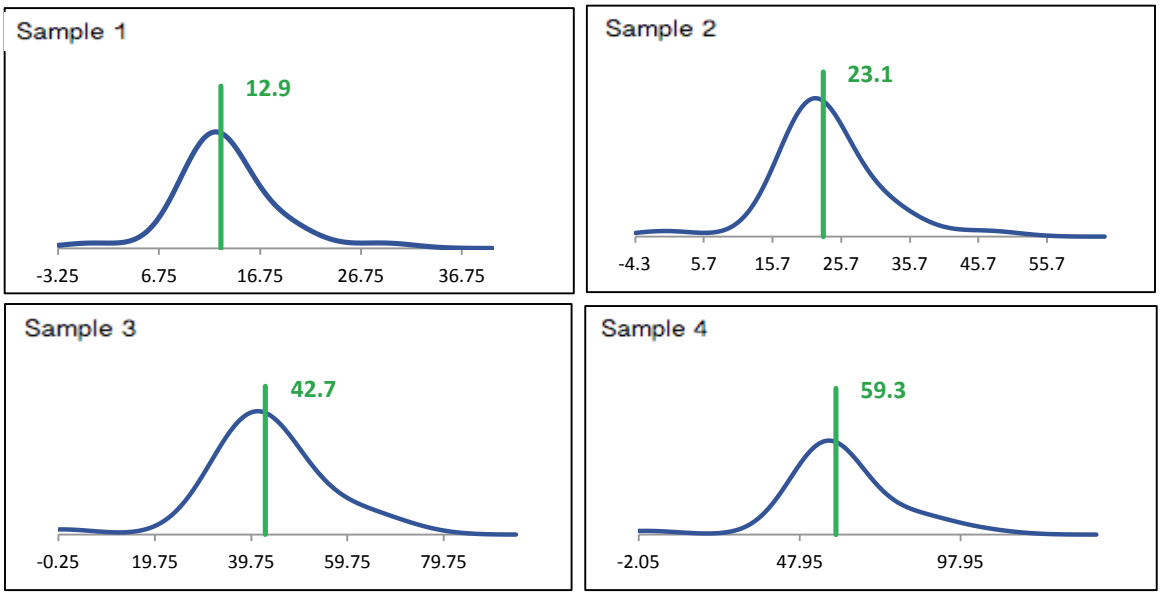


METHYL ETHYL KETONE

z-Score Plots

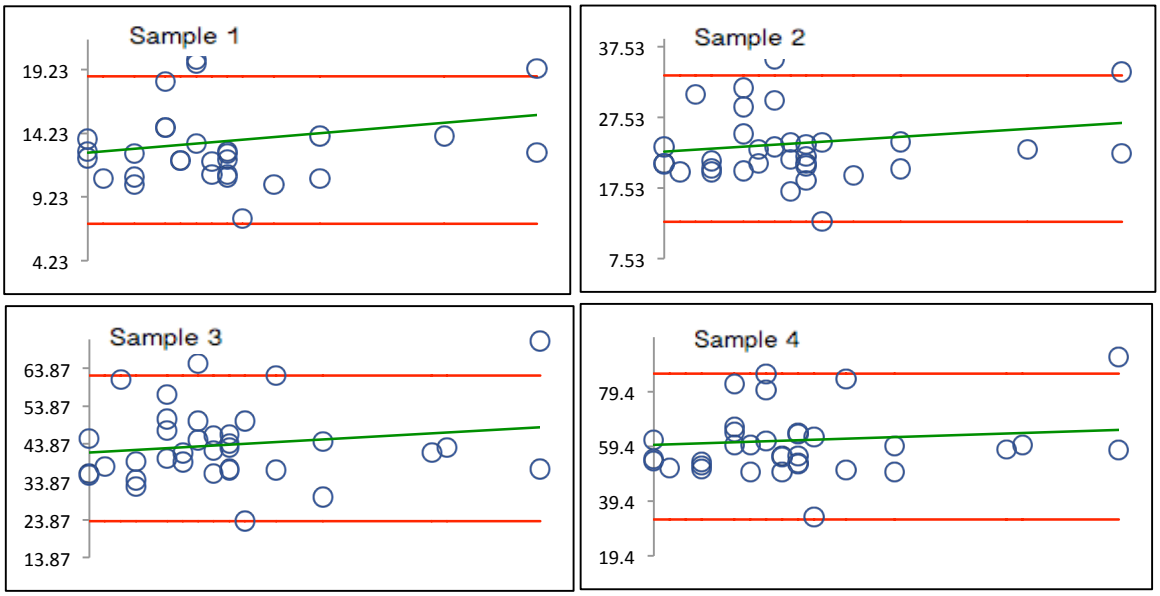


Kernel Density Plots



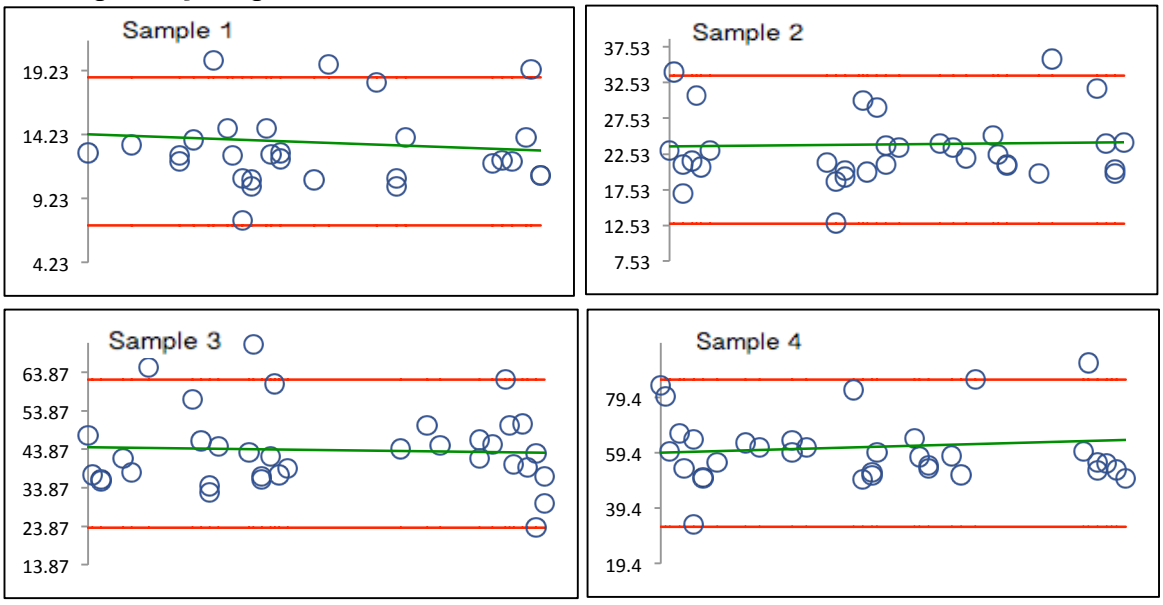
METHYL ETHYL KETONE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

METHYL ISOBUTYL KETONE (MIBK)

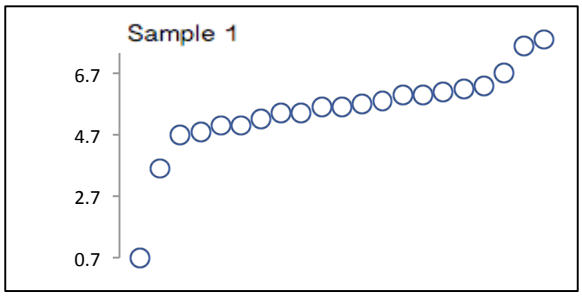
Summary Statistics

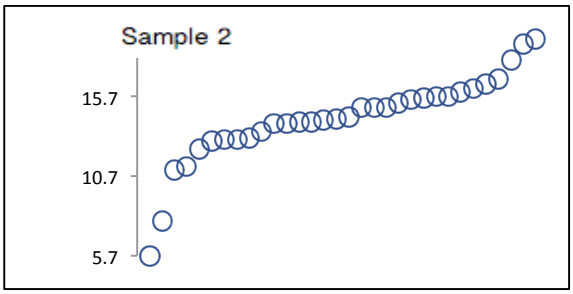
Statistic	C16-1	C16-2	C16-3	C16-4
N	21	32	36	36
Median	5.60	14.4	32.7	51.4
Robust Mean	5.62	14.5	33.8	52.1
U	0.24	0.46	1.00	1.44
Robust Standard Deviation	0.881	2.09	4.82	6.93
Regression Standard Deviation	0.843	2.17	5.07	7.82
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	0.881	2.17	5.07	7.82
Outliers	1	0	0	0
|z|>3.0	1	2	2	2
2<|z|<3	3	2	2	3

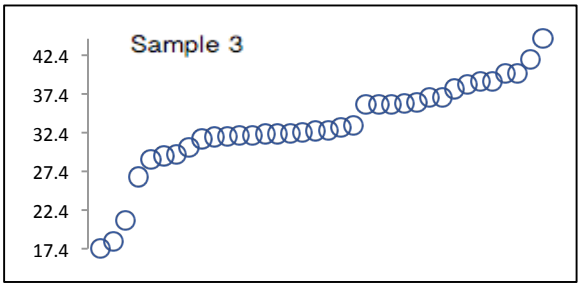
Methods Used

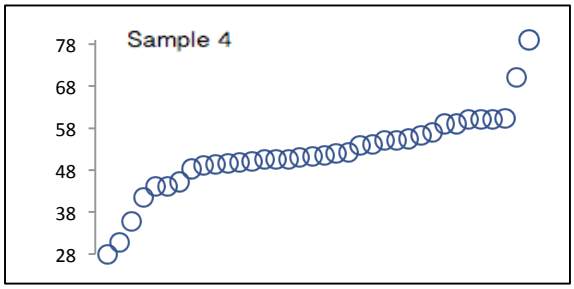
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	16	21	23	23
HS-GCMS	3	9	11	11
GC/FID-1	1	1	1	1
GC/MS1	1	1	1	1

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



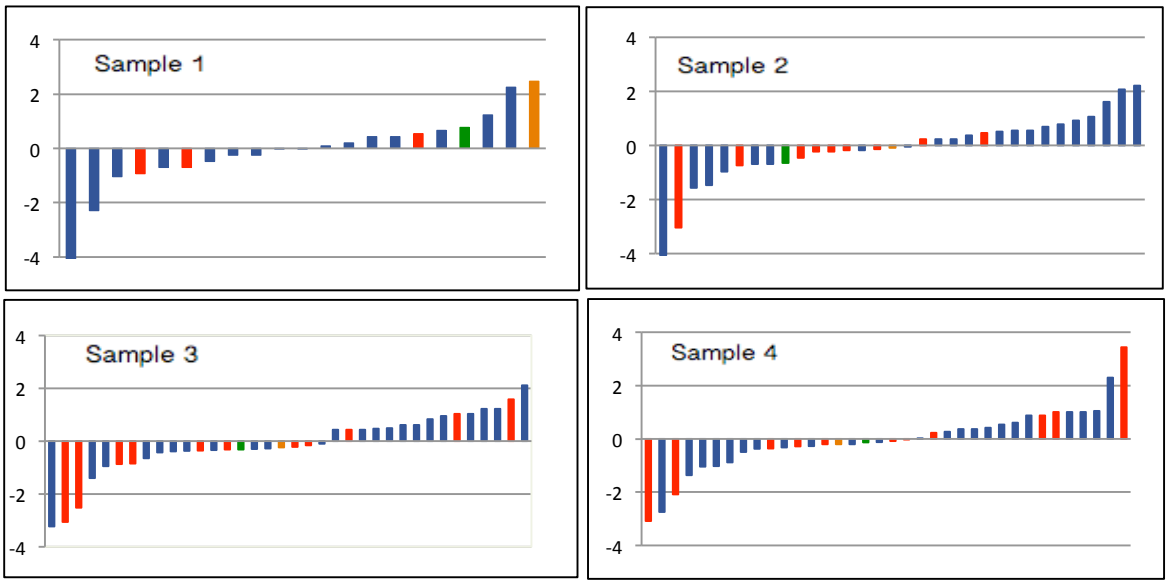




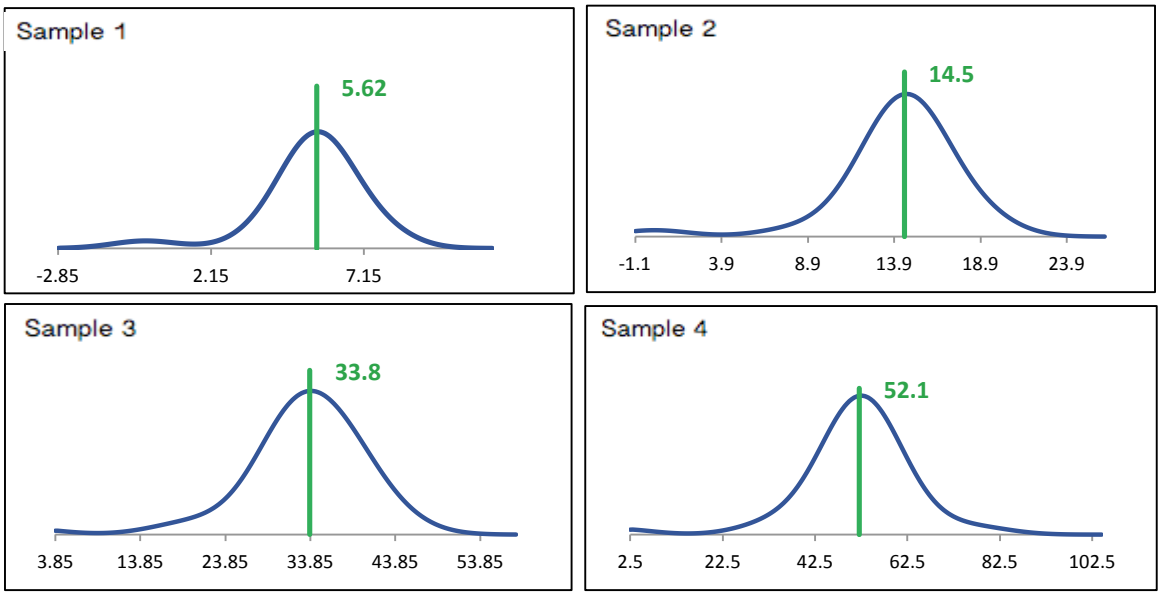


METHYL ISOBUTYL KETONE (MIBK)

z-Score Plots

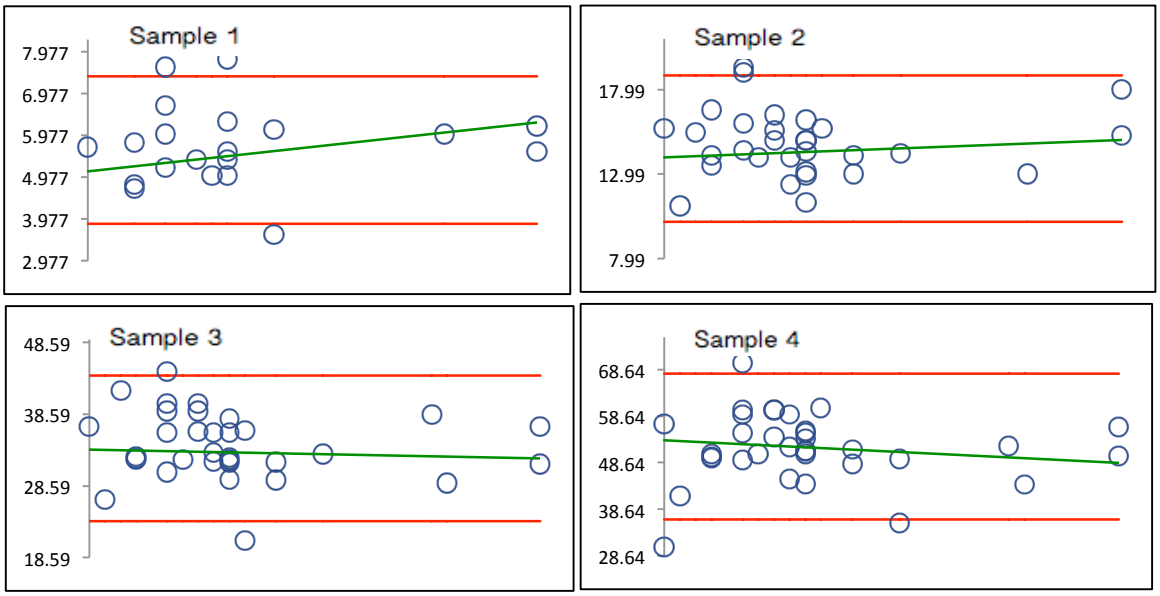


Kernel Density Plots



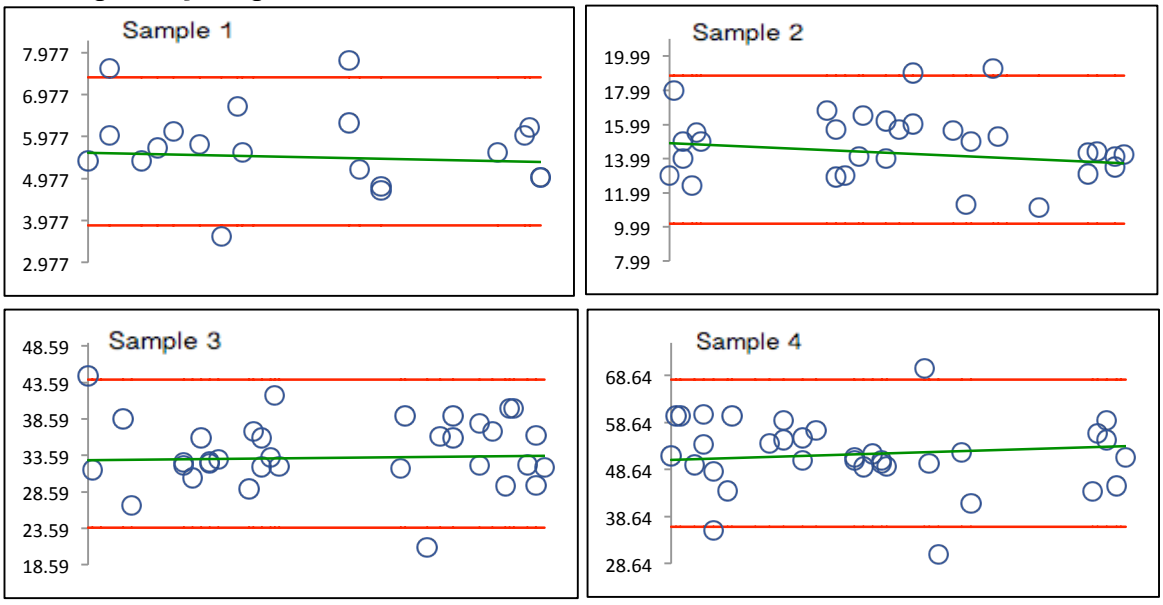
METHYL ISOBUTYL KETONE (MIBK)

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

METHYL T-BUTYL ETHER

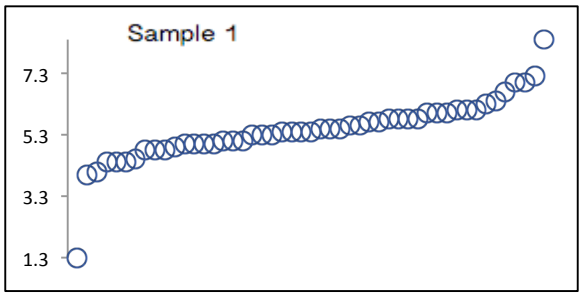
Summary Statistics

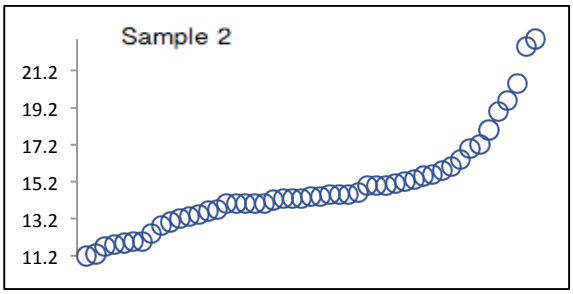
Statistic	C16-1	C16-2	C16-3	C16-4
N	49	49	49	49
Median	5.40	14.4	33.3	50.6
Robust Mean	5.45	14.5	34.0	51.3
U	0.14	0.36	0.83	1.13
Robust Standard Deviation	0.771	2.00	4.66	6.30
Regression Standard Deviation	1.09	2.90	6.81	10.3
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	1.09	2.90	6.81	10.3
Outliers	0	1	1	1
|z|>3.0	1	0	2	1
2<|z|<3	1	3	0	1

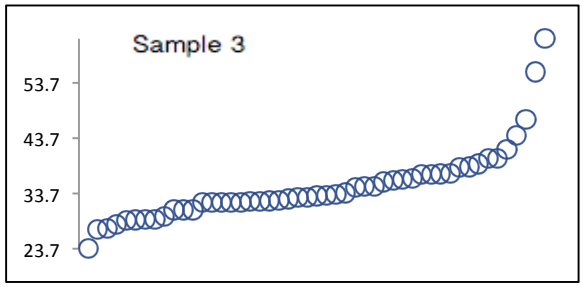
Methods Used

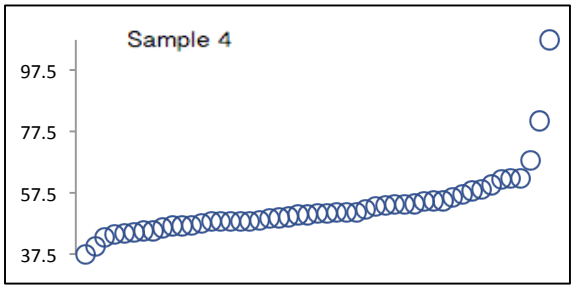
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	25	24	24	24
HS-GCMS	20	21	21	21
GC/MS1	2	2	2	2
HS-GCF	1	1	1	1
GC/MSE	1	1	1	1

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



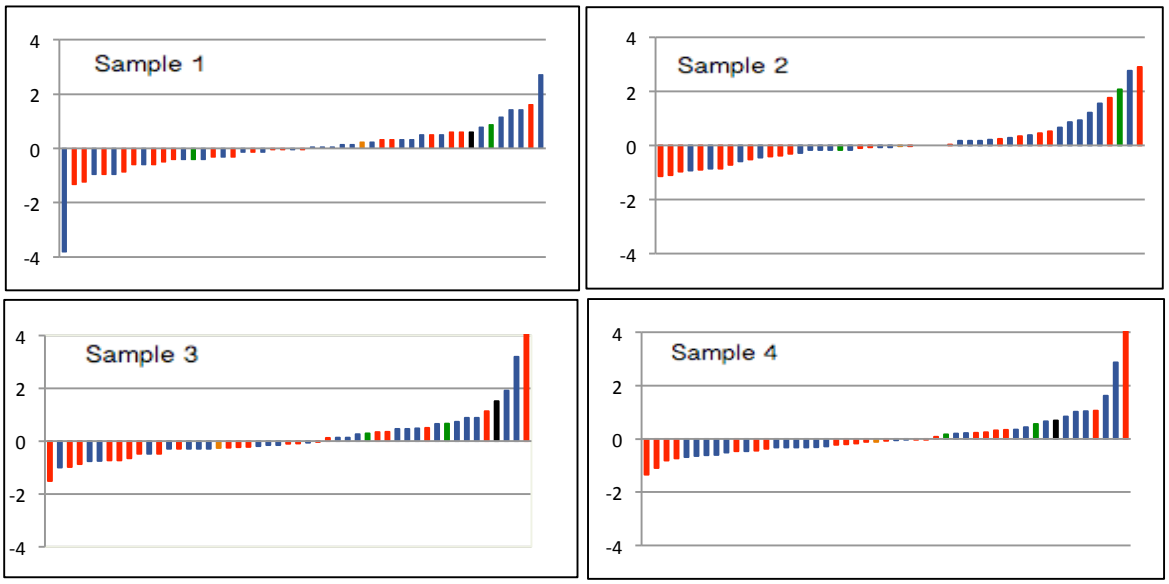




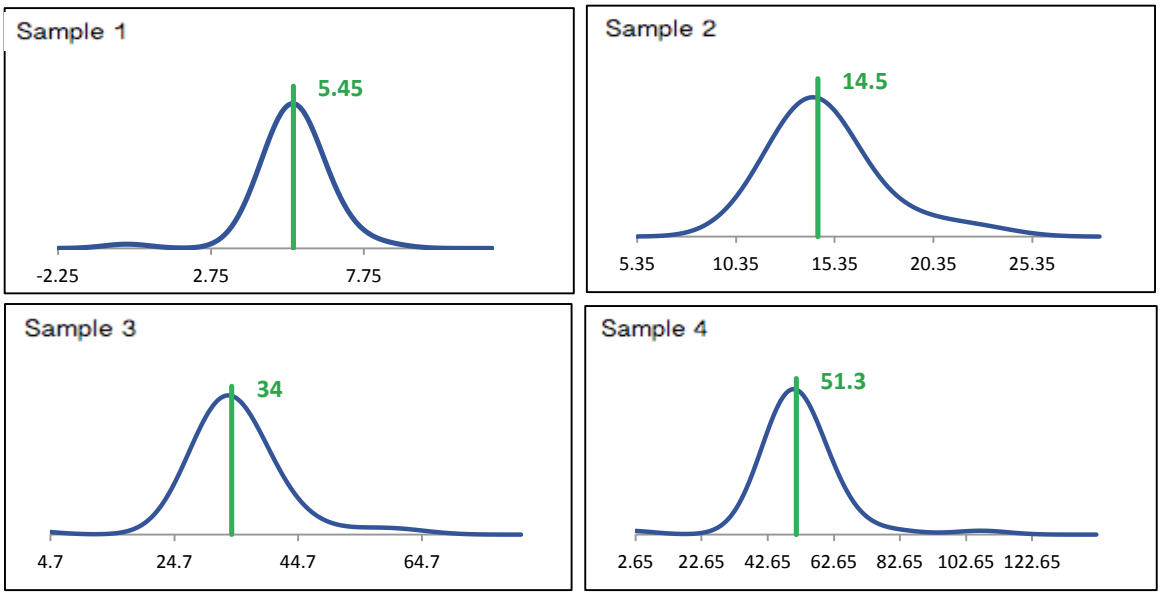


METHYL T-BUTYL ETHER

z-Score Plots

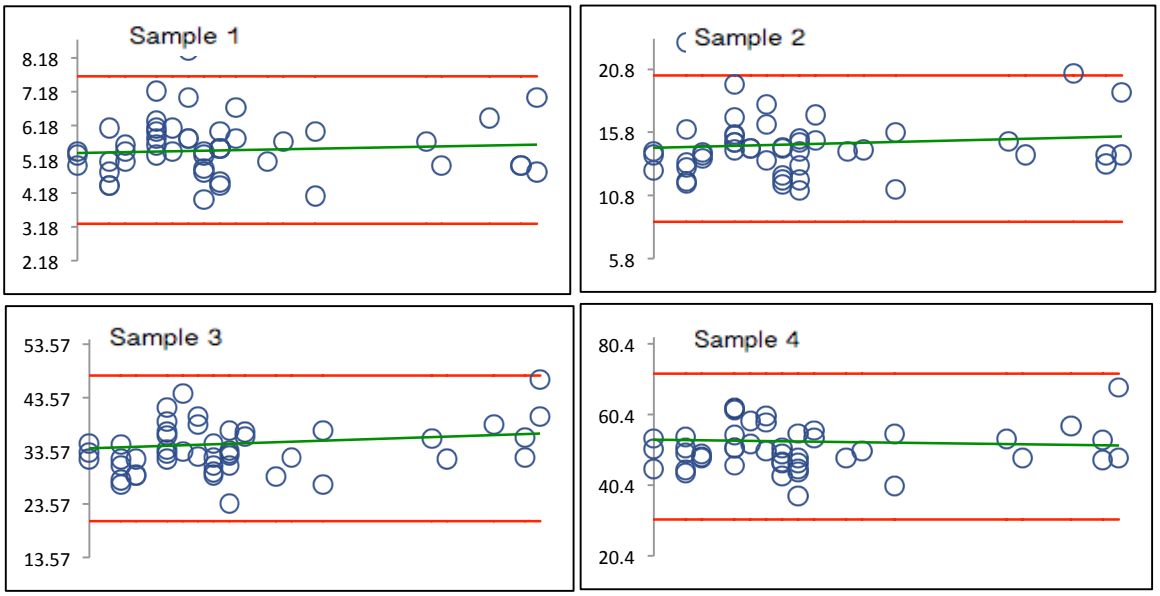


Kernel Density Plots



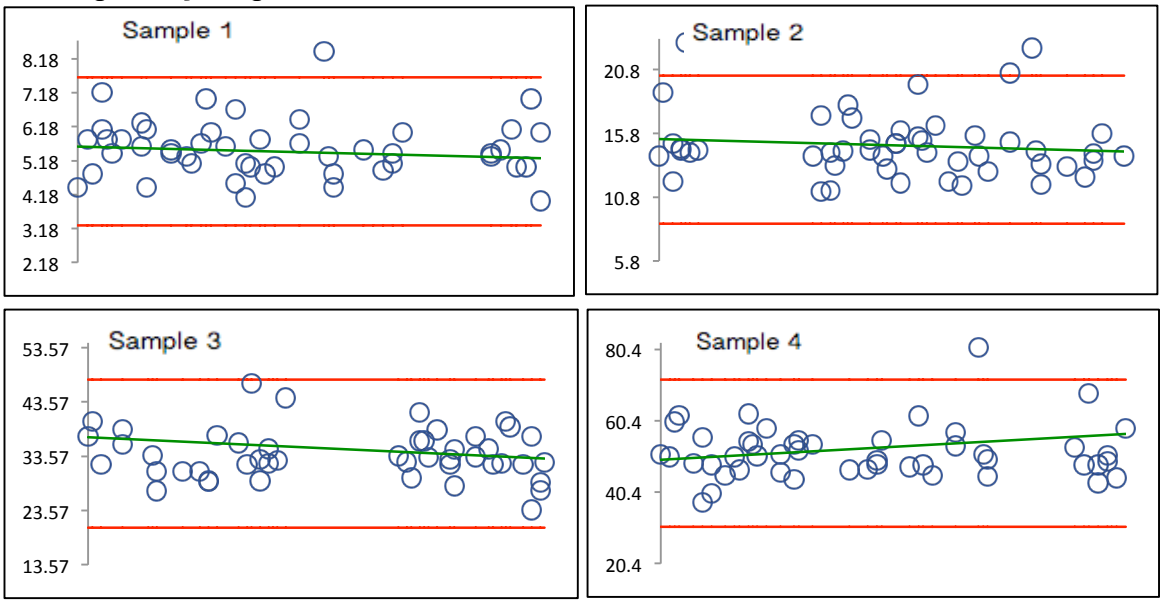
METHYL T-BUTYL ETHER

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

O-XYLENE

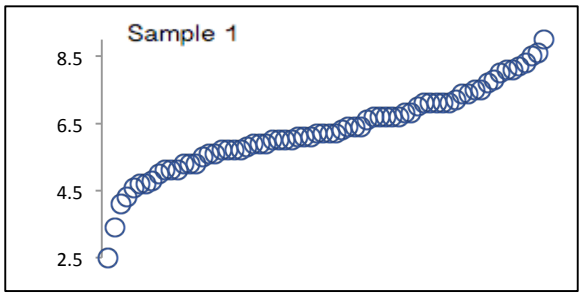
Summary Statistics

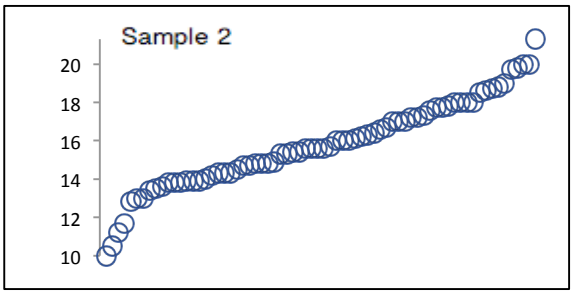
Statistic	C16-1	C16-2	C16-3	C16-4
N	70	70	69	68
Median	6.20	15.6	35.0	52.4
Robust Mean	6.32	15.8	35.5	53.2
U	0.18	0.34	0.56	0.98
Robust Standard Deviation	1.20	2.29	3.73	6.46
Regression Standard Deviation	0.95	2.37	5.33	7.98
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	1.20	2.37	5.33	7.98
Outliers	0	0	1	2
|z|>3.0	1	0	1	0
2<|z|<3	2	3	2	1

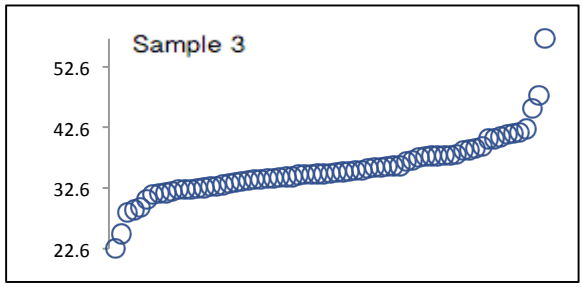
Methods Used

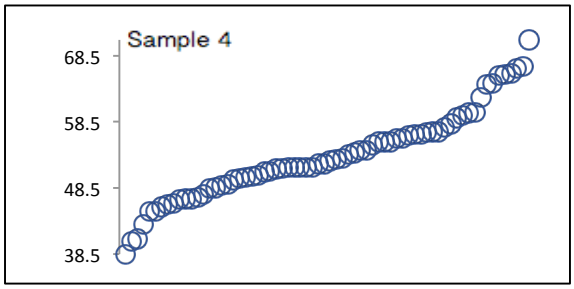
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	25	25	25	24
HS-GCF	1	1	1	1
P/T-GCMS	34	34	33	33
GC/MS1	6	6	6	6
GC/MSE	1	1	1	1
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1

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



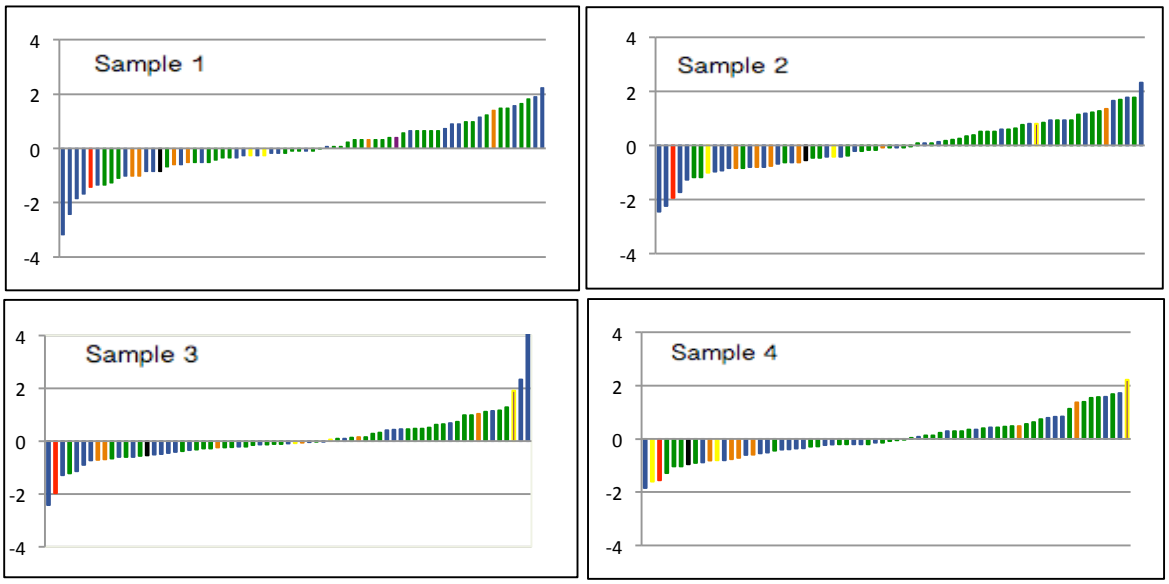




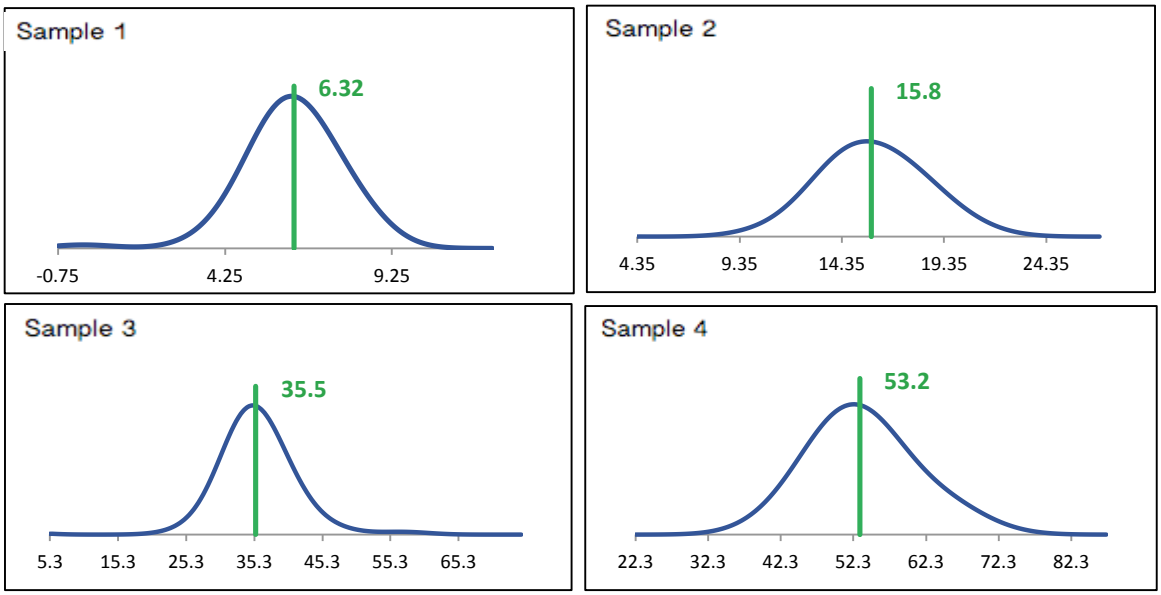


O-XYLENE

z-Score Plots

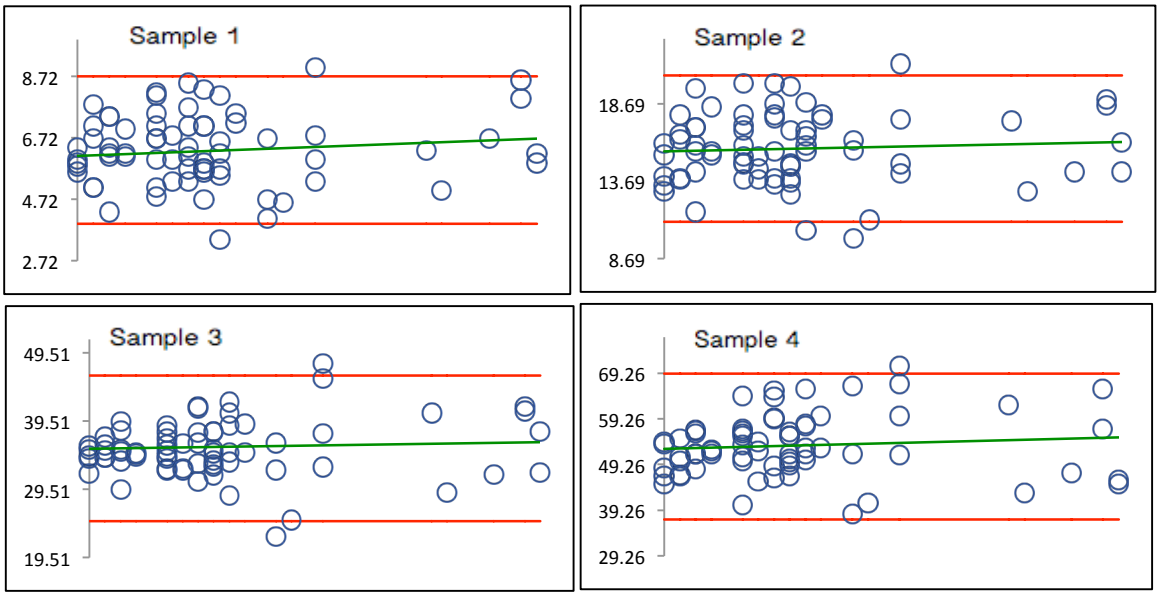


Kernel Density Plots



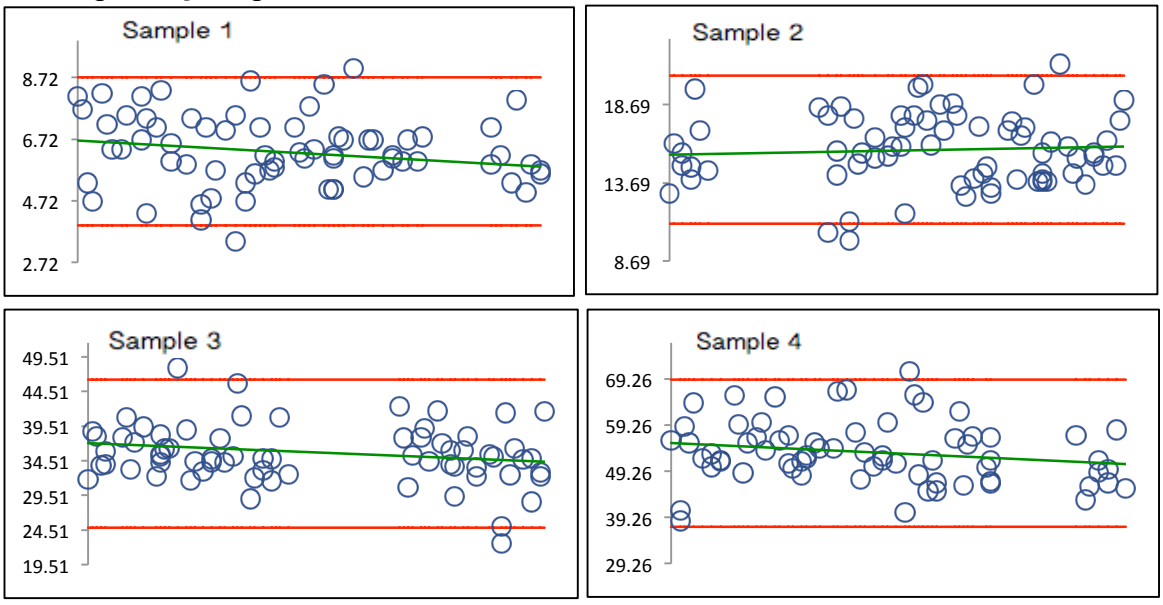
O-XYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

STYRENE

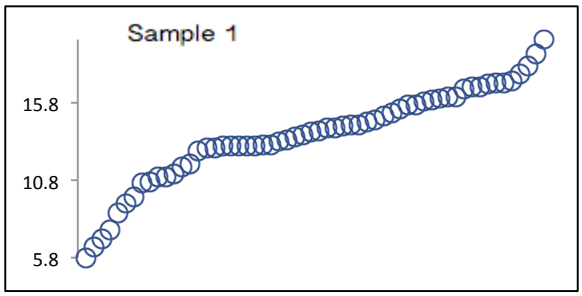
Summary Statistics

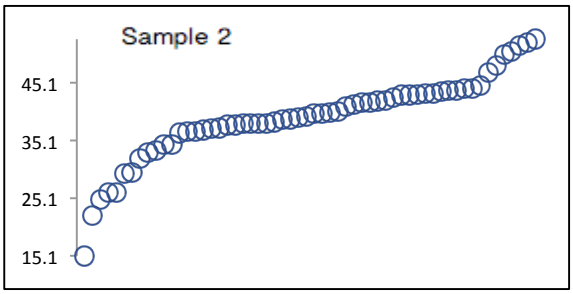
Statistic	C16-1	C16-2	C16-3	C16-4
N	58	58	57	57
Median	14.0	39.6	90.0	136
Robust Mean	13.9	39.5	89.7	137
U	0.47	0.97	1.61	2.96
Robust Standard Deviation	2.87	5.90	9.73	17.9
Regression Standard Deviation	2.08	5.93	13.4	20.5
Stability Flag				
Homogeneity Flag	Homogeneity	Homogeneity		
Standard Deviation Used (SDPA)	3.78	7.70	13.4	20.5
Outliers	0	0	1	1
|z|>3.0	0	1	0	0
2<|z|<3	1	1	1	0

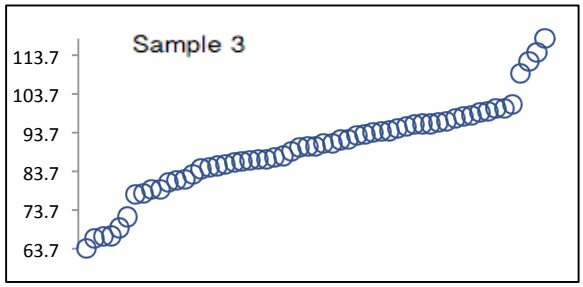
Methods Used

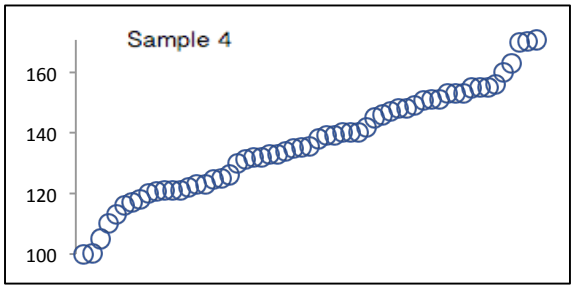
Method	C16-1	C16-2	C16-3	C16-4
GC/PID	1	1	0	0
HS-GCMS	22	22	22	22
P/T-GCMS	29	29	29	29
HS-GCF	1	1	1	1
GC/MS1	4	4	4	4
GC/MSE	1	1	1	1

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



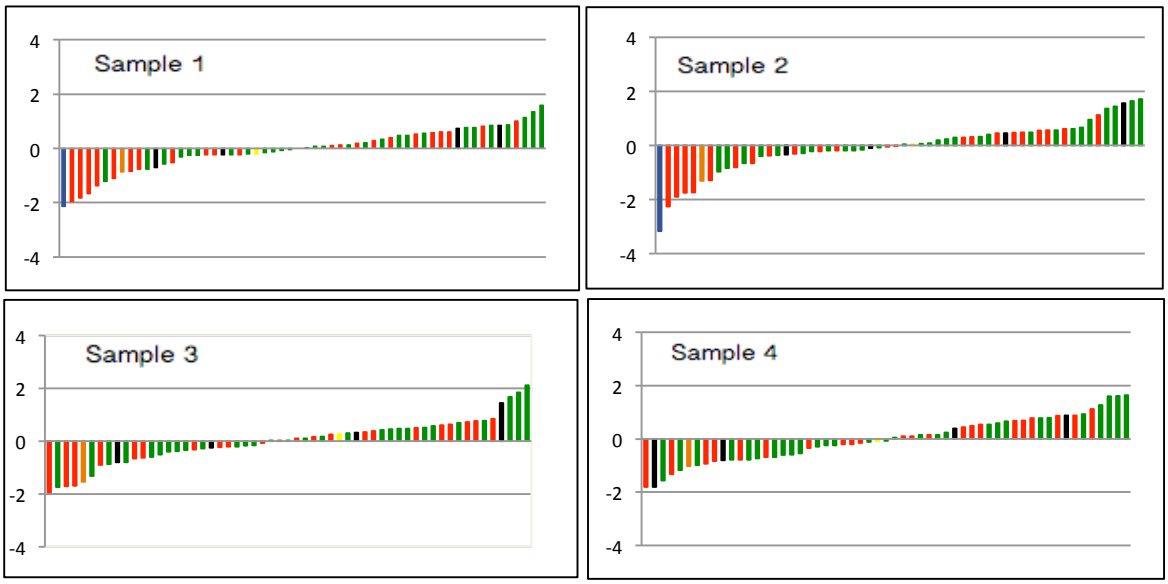




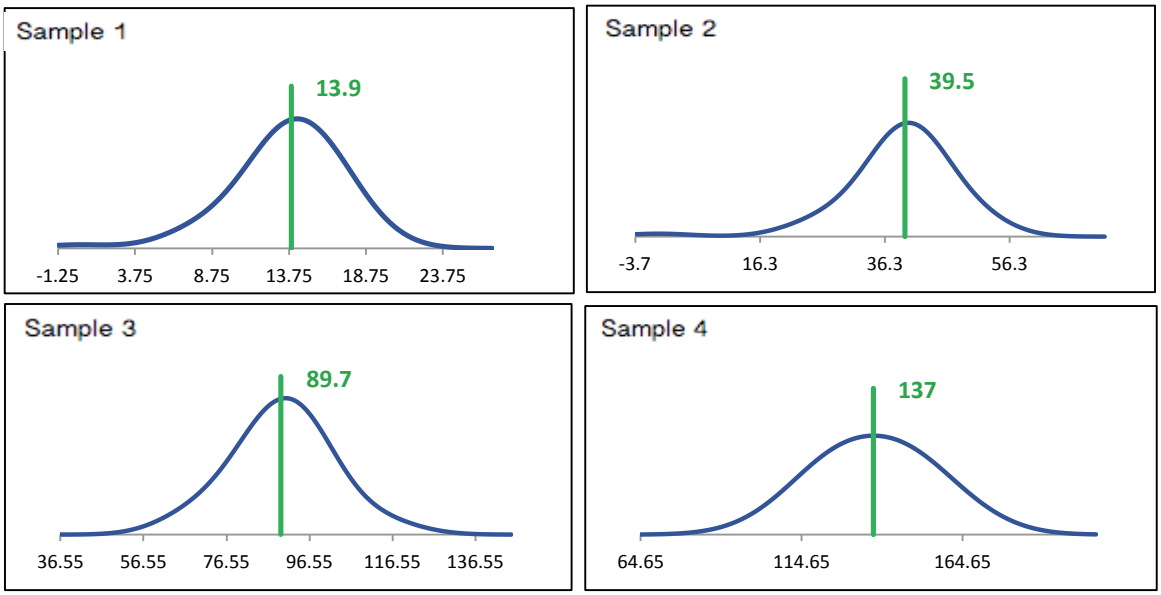


STYRENE

z-Score Plots

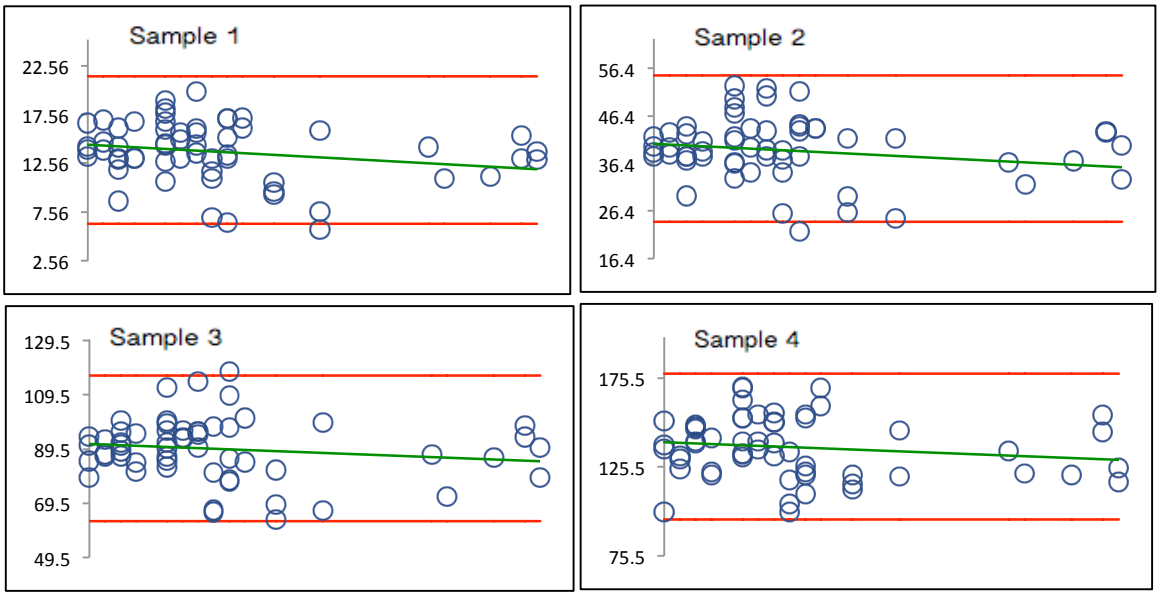


Kernel Density Plots



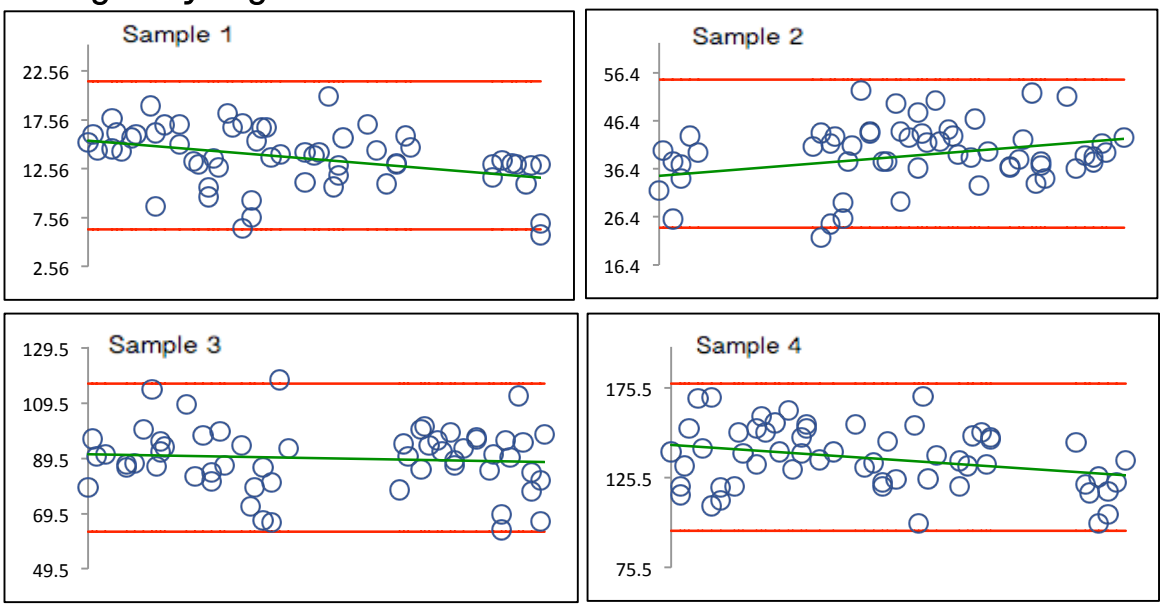
STYRENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

TETRACHLOROETHYLENE

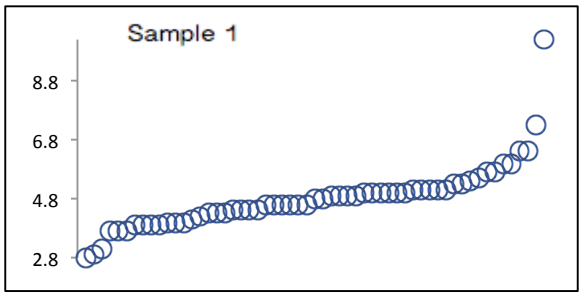
Summary Statistics

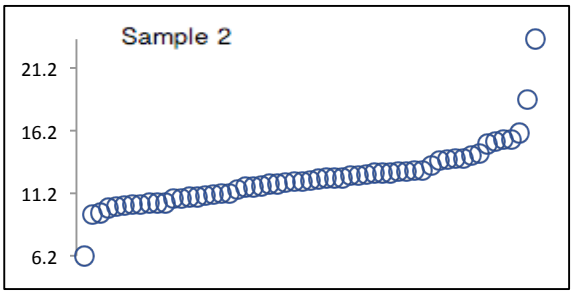
Statistic	C16-1	C16-2	C16-3	C16-4
N	57	57	57	57
Median	4.80	12.2	28.4	42.6
Robust Mean	4.71	12.2	28.1	42.7
U	0.13	0.30	0.62	0.94
Robust Standard Deviation	0.775	1.82	3.73	5.68
Regression Standard Deviation	0.707	1.84	4.21	6.41
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	0.775	1.84	4.21	6.41
Outliers	0	0	0	0
|z|>3.0	2	3	2	1
2<|z|<3	5	1	2	3

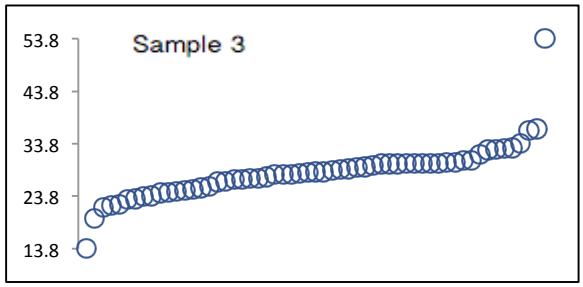
Methods Used

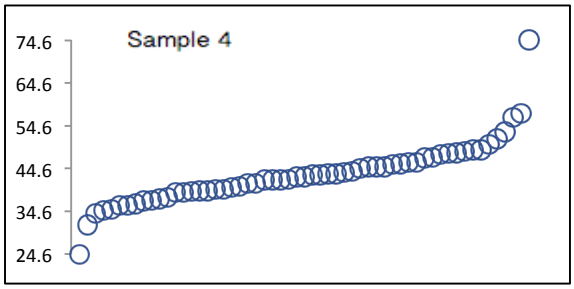
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	19	19	19	19
GC/MSE	2	2	2	2
P/T-GCMS	32	32	32	32
P/T-GCECD	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	2	2	2	2

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



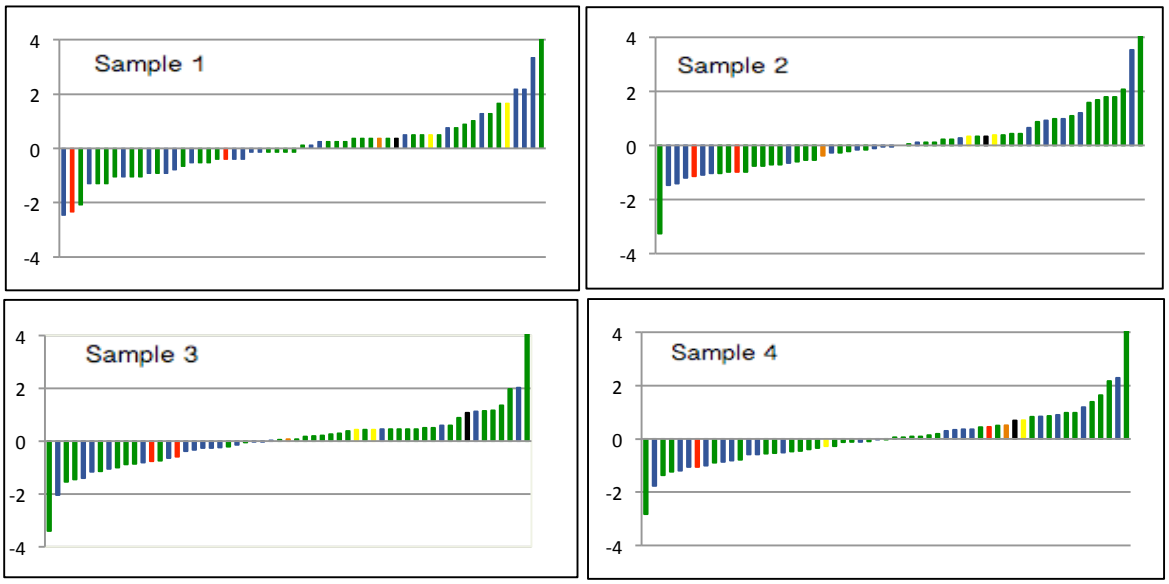




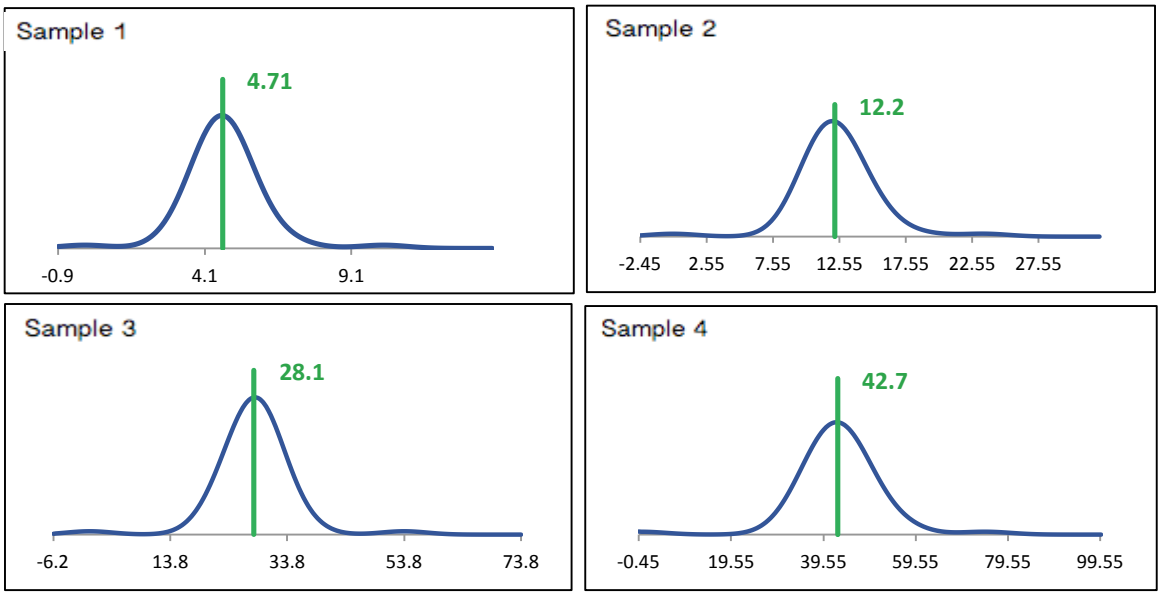


TETRACHLOROETHYLENE

z-Score Plots

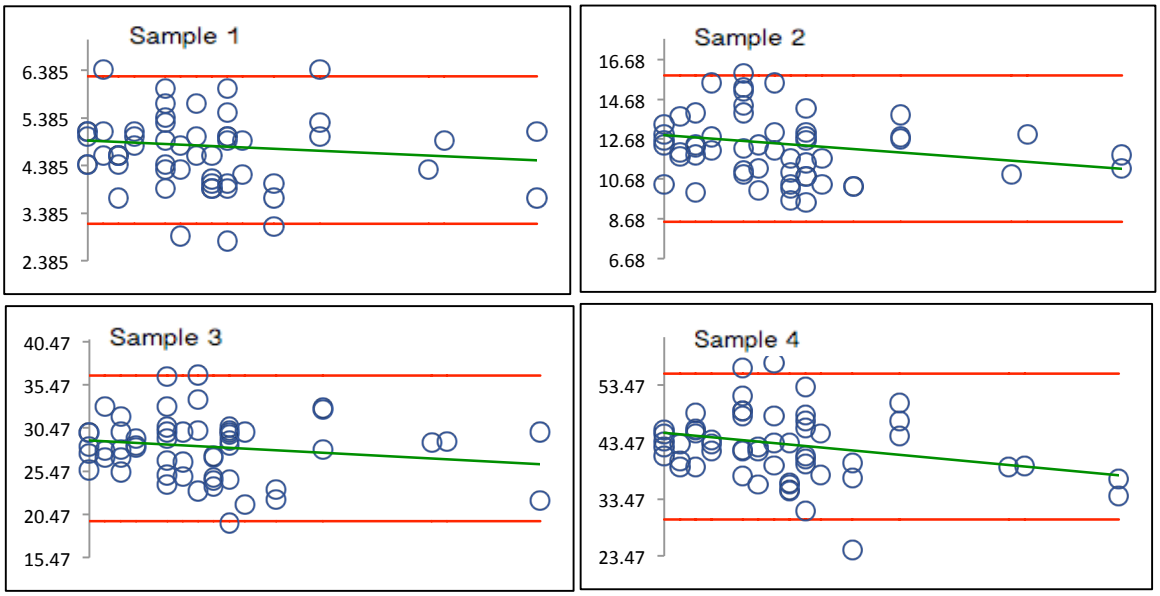


Kernel Density Plots



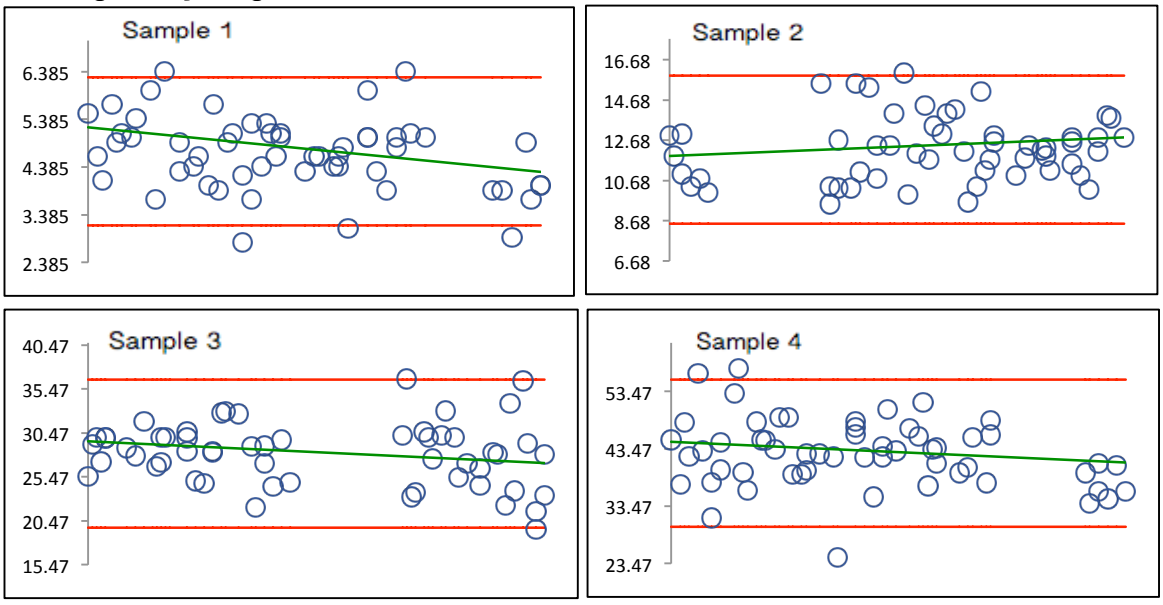
TETRACHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

TOLUENE

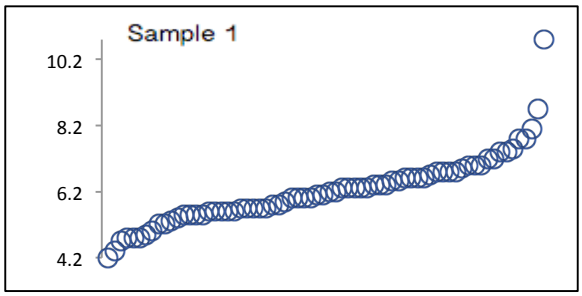
Summary Statistics

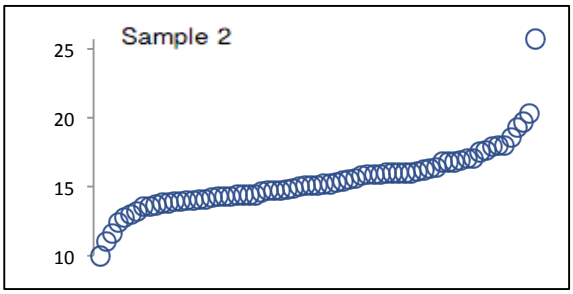
Statistic	C16-1	C16-2	C16-3	C16-4
N	70	71	71	71
Median	6.15	15.1	34.0	51.4
Robust Mean	6.15	15.3	34.3	51.7
U	0.14	0.26	0.51	0.78
Robust Standard Deviation	0.906	1.72	3.45	5.26
Regression Standard Deviation	0.923	2.29	5.15	7.75
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	0.923	2.29	5.15	7.75
Outliers	0	0	0	0
|z|>3.0	1	1	1	2
2<|z|<3	3	2	3	0

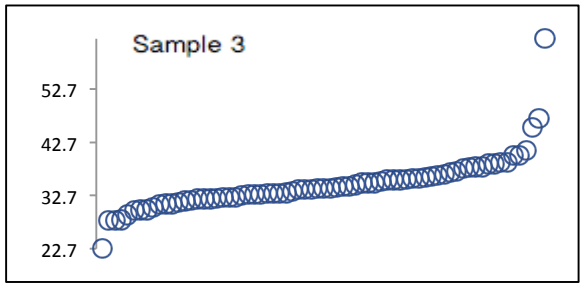
Methods Used

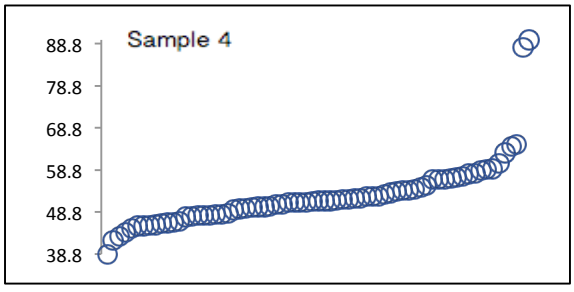
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	24	25	25	25
P/T-GCMS	34	34	34	34
GC/MS1	6	6	6	6
GC/MSE	1	1	1	1
P/T-FID	3	3	3	3
HS-GCF	1	1	1	1
GC/MS/MSHEAD	1	1	1	1

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



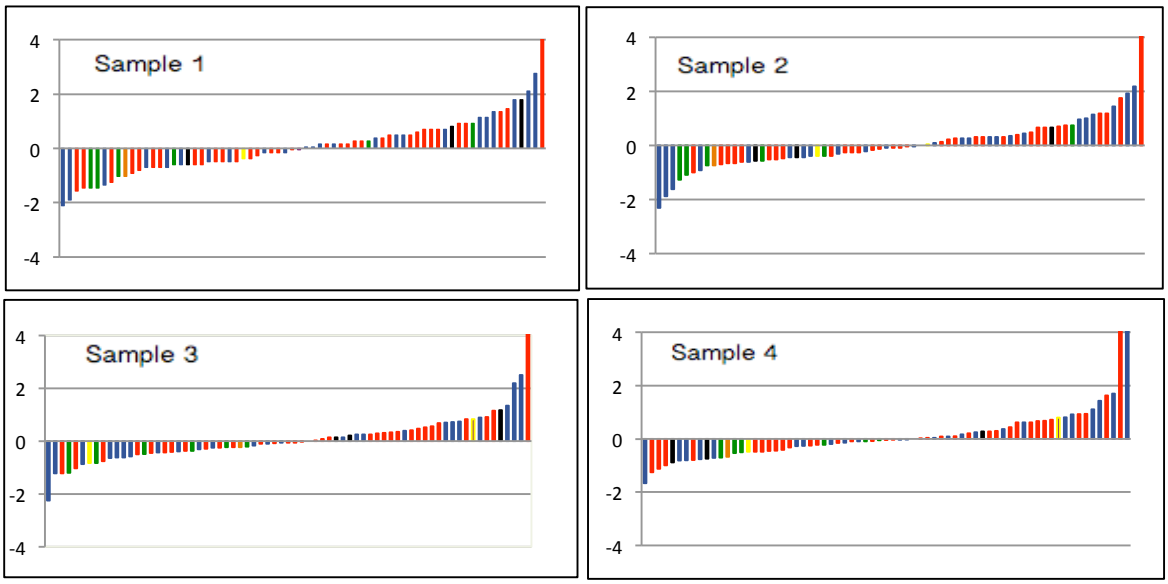




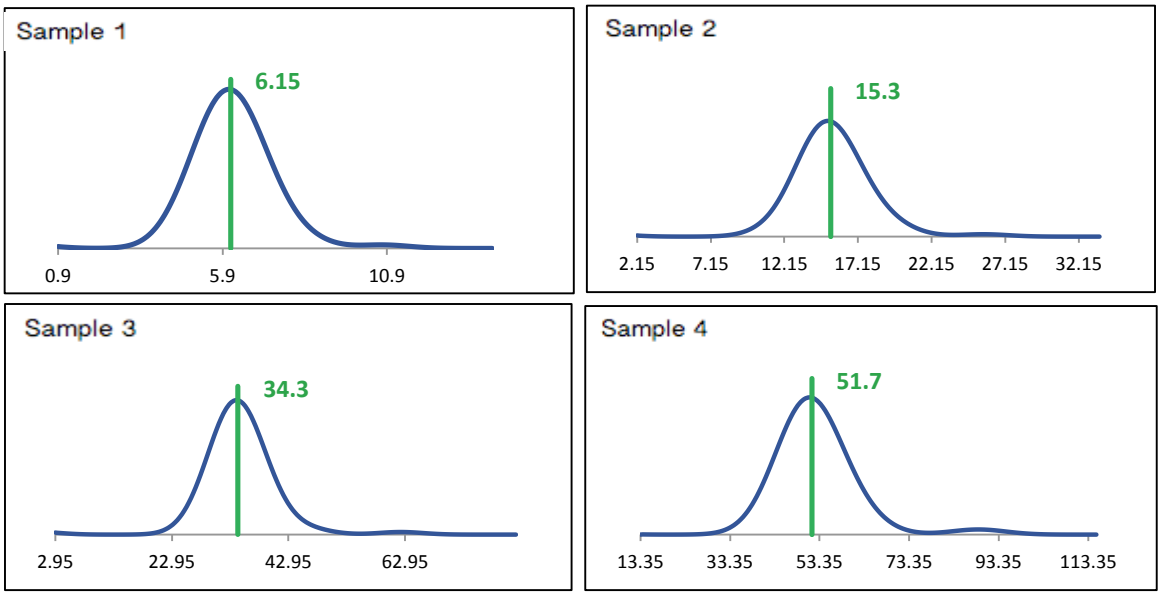


TOLUENE

z-Score Plots

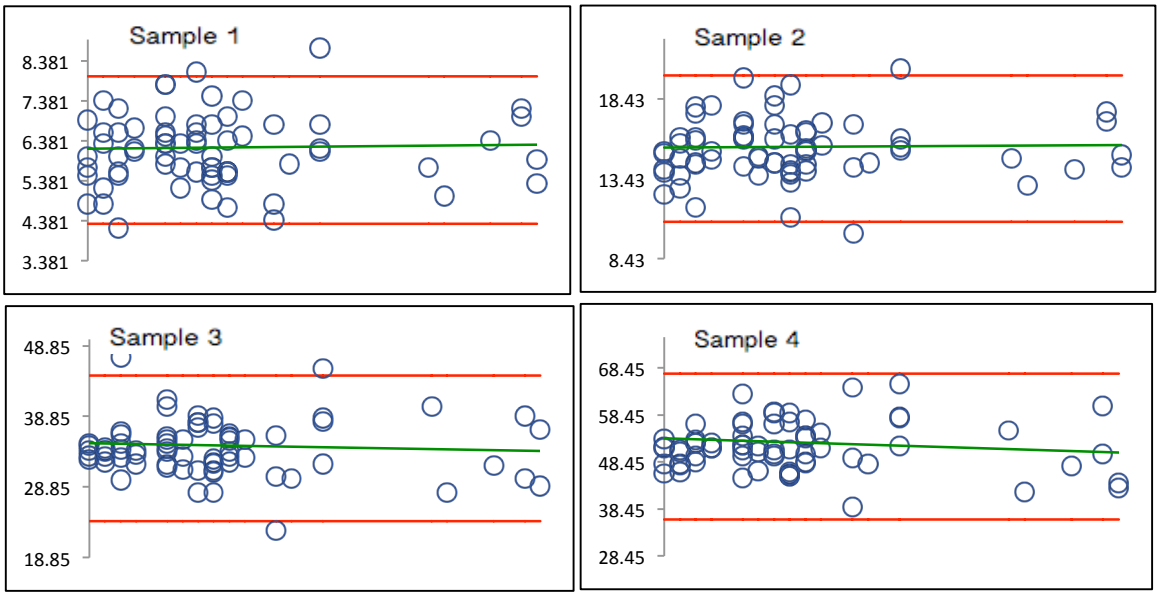


Kernel Density Plots



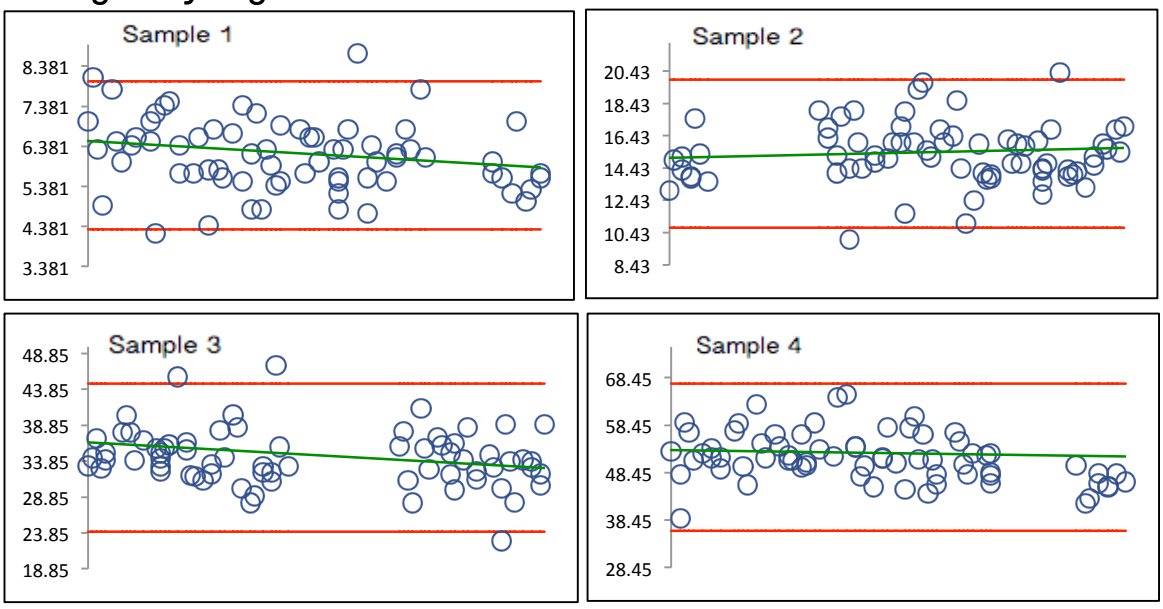
TOLUENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

TRANS-1,2-DICHLOROETHYLENE

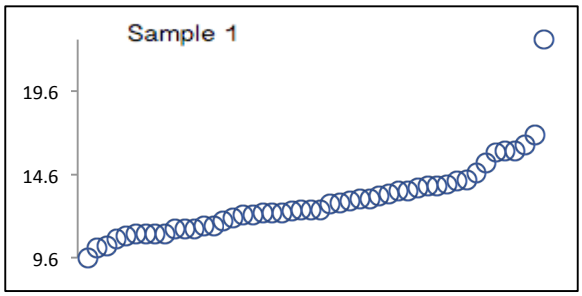
Summary Statistics

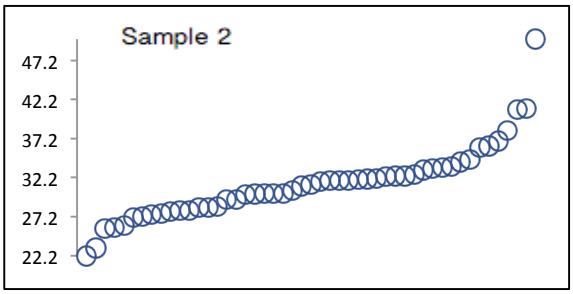
Statistic	C16-1	C16-2	C16-3	C16-4
N	48	49	48	49
Median	12.5	31.3	77.7	117
Robust Mean	12.8	31.0	77.7	118
U	0.33	0.67	1.26	2.43
Robust Standard Deviation	1.81	3.75	6.97	13.6
Regression Standard Deviation	1.92	4.65	11.6	17.7
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA)	2.48	4.65	11.6	17.7
Outliers	0	0	1	0
|z|>3.0	1	1	0	1
2<|z|<3	0	2	0	0

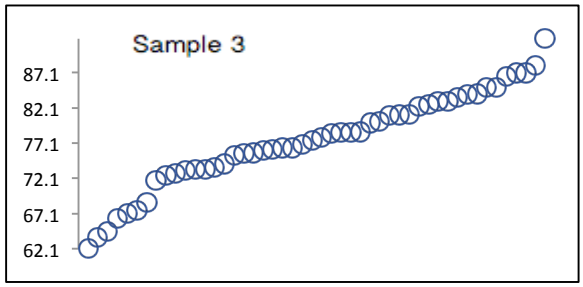
Methods Used

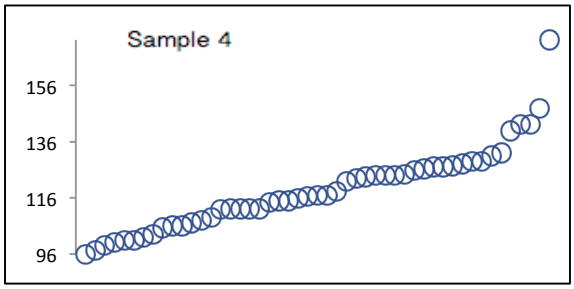
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	27	27	26	27
HS-GCMS	18	19	19	19
GC/MSE	1	1	1	1
GC/MS1	1	1	1	1
P/T-FID	1	1	1	1

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



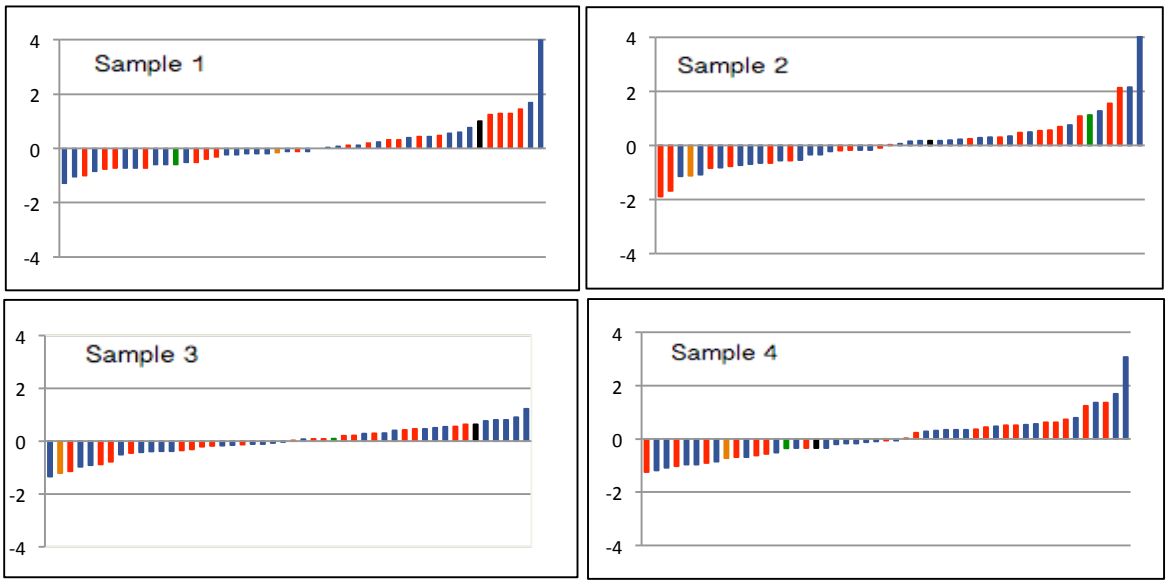




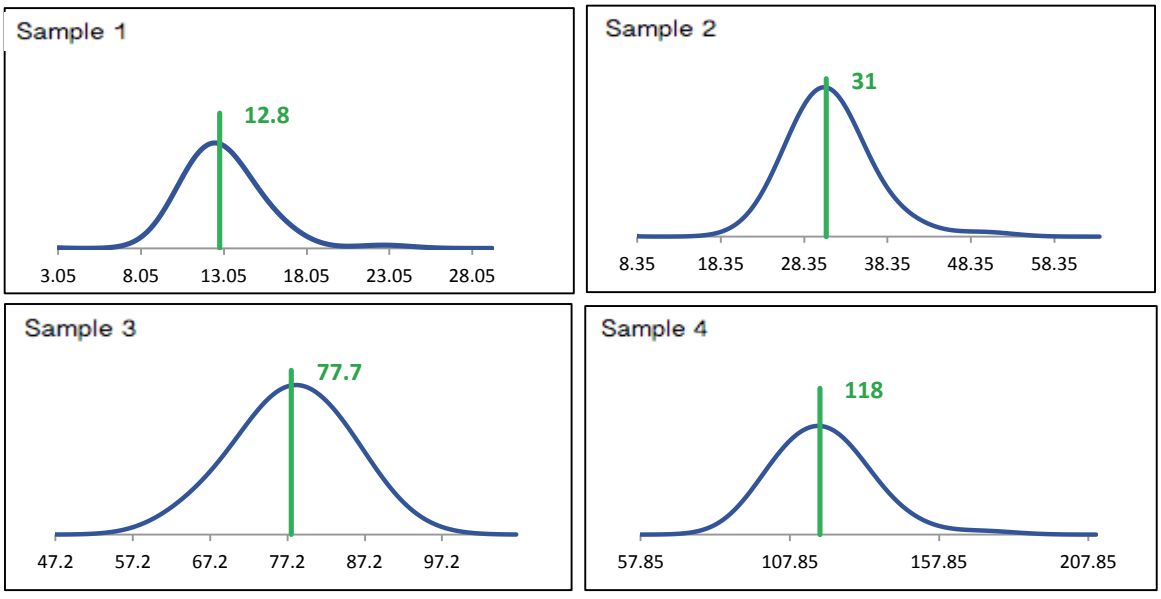


TRANS-1,2-DICHLOROETHYLENE

z-Score Plots

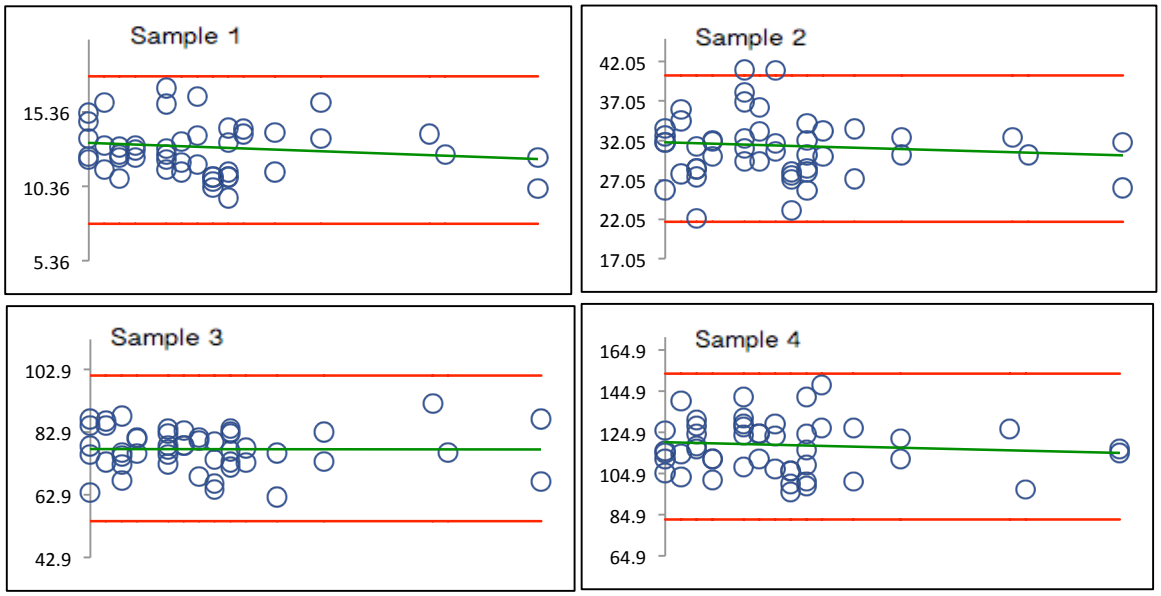


Kernel Density Plots



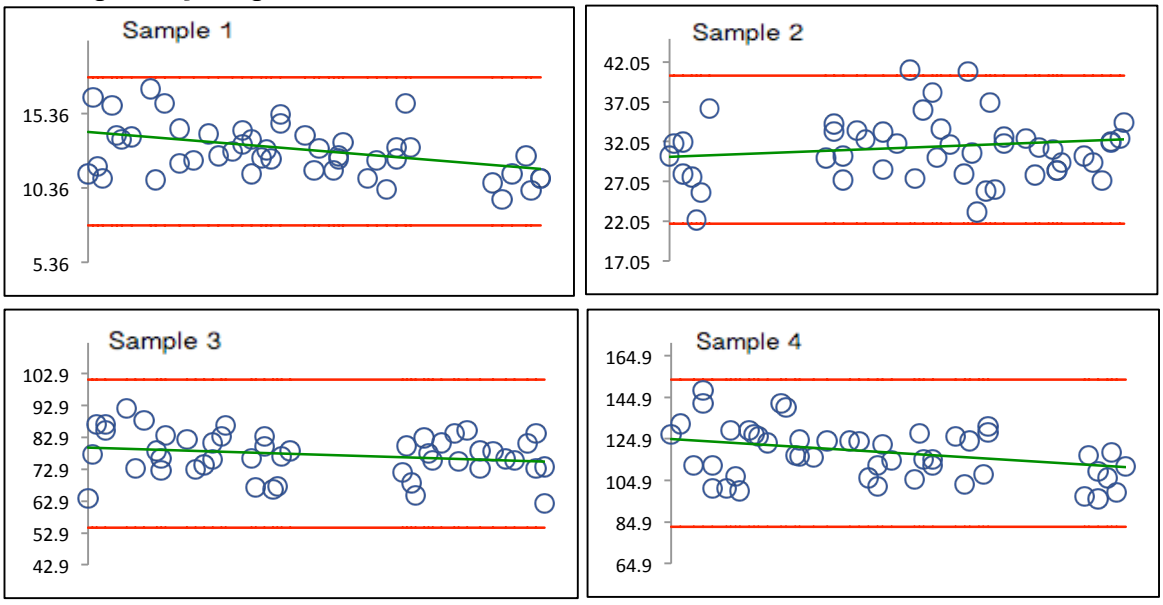
TRANS-1,2-DICHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

TRANS-1,3-DICHLOROPROPENE

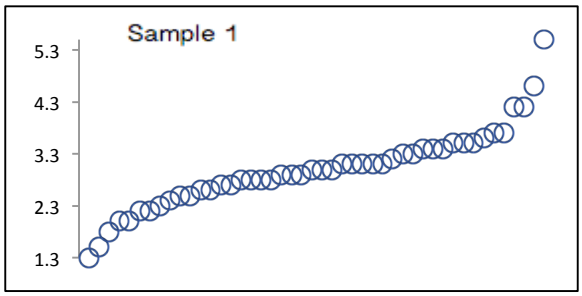
Summary Statistics

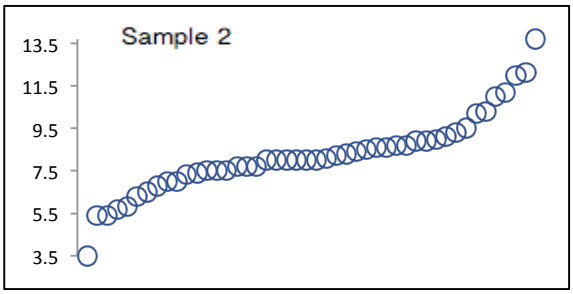
Statistic	C16-1	C16-2	C16-3	C16-4
N	46	46	46	46
Median	3.00	8.00	18.2	27.9
Robust Mean	2.96	8.14	18.4	28.4
U	0.12	0.28	0.58	0.82
Robust Standard Deviation	0.646	1.54	3.15	4.42
Regression Standard Deviation	0.444	1.22	2.76	4.26
Stability Flag				
Homogeneity Flag	Homogeneity			Homogeneity
Standard Deviation Used (SDPA)	1.05	1.54	3.15	5.64
Outliers	0	0	0	0
|z|>3.0	0	2	2	1
2<|z|<3	1	2	2	1

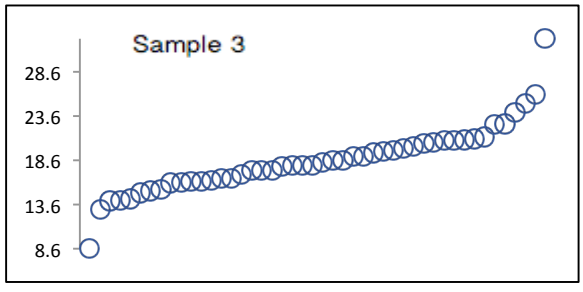
Methods Used

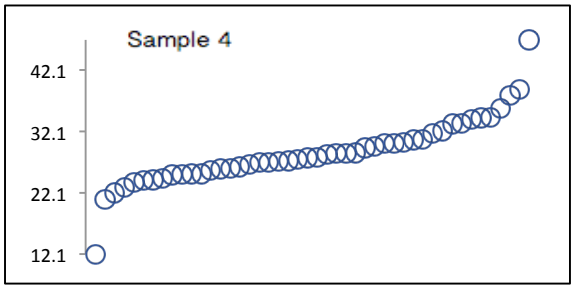
Method	C16-1	C16-2	C16-3	C16-4
GC/MSE	1	1	1	1
P/T-GCMS	26	26	26	26
HS-GCMS	18	18	18	18
GC/MS1	1	1	1	1

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



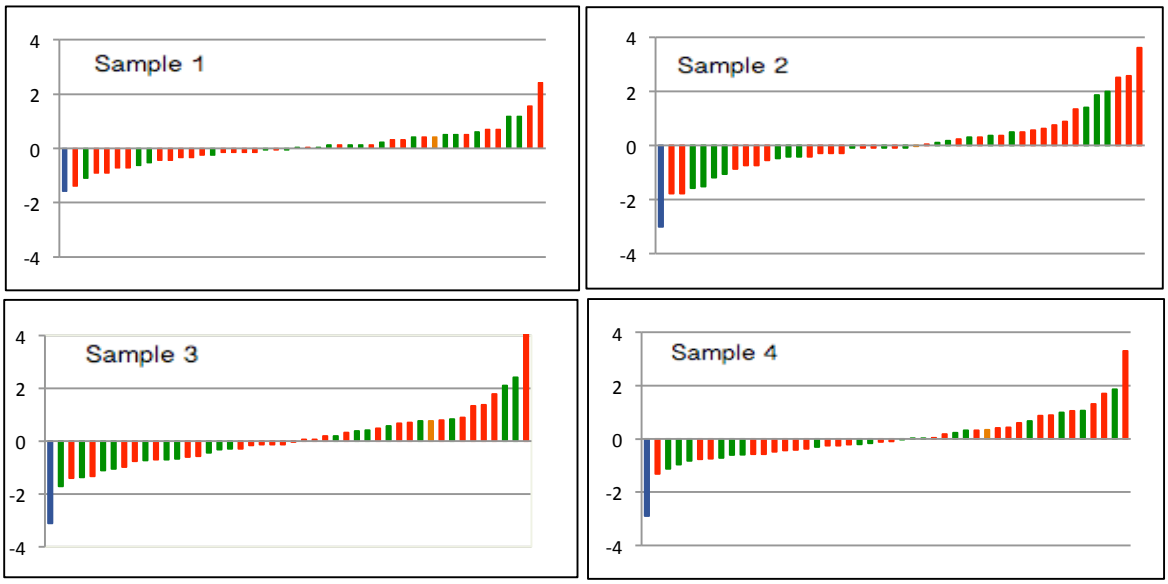




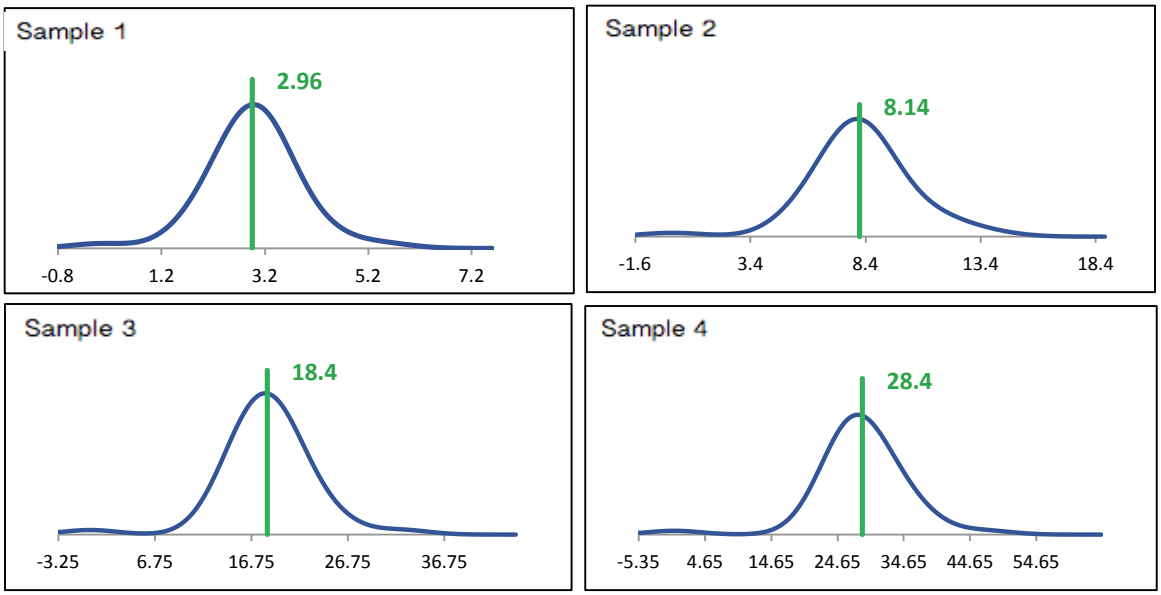


TRANS-1,3-DICHLOROPROPENE

z-Score Plots

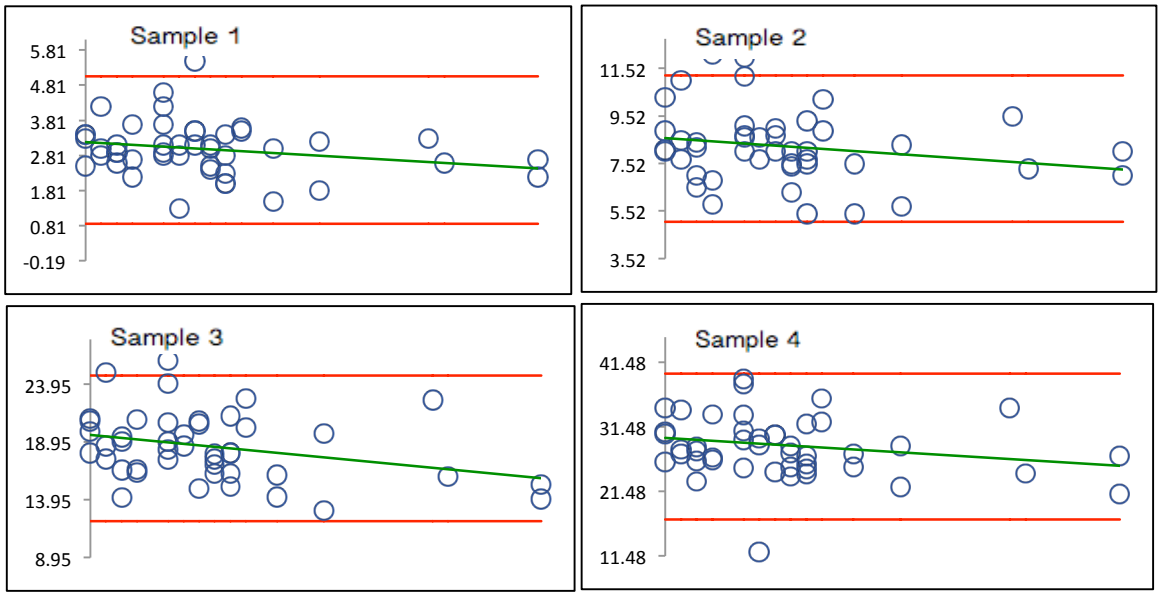


Kernel Density Plots



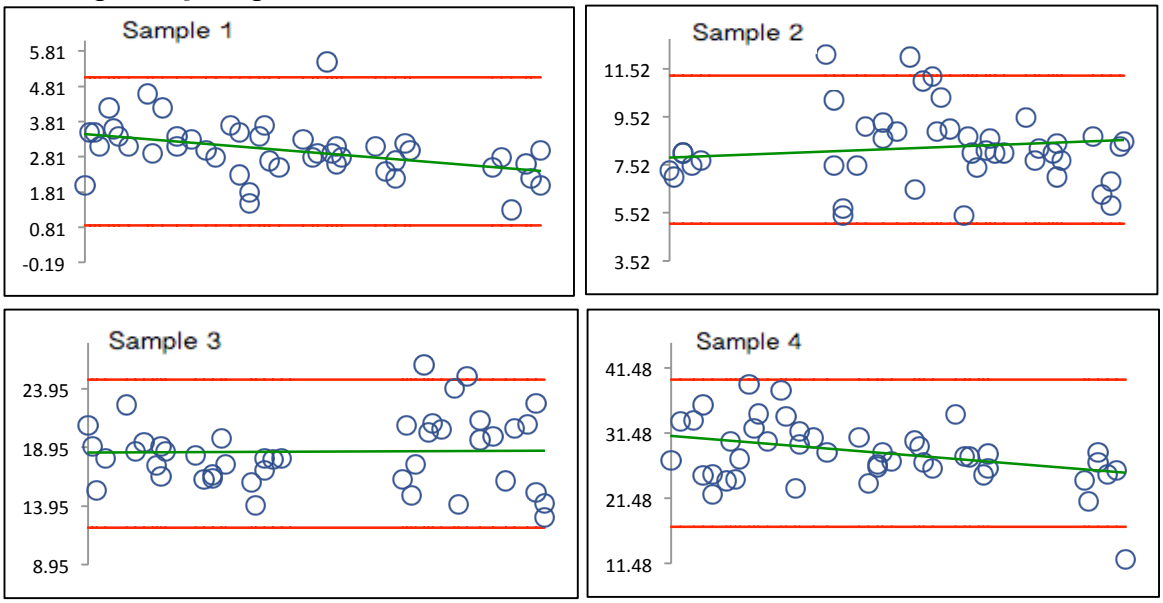
TRANS-1,3-DICHLOROPROPENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

TRICHLOROETHYLENE

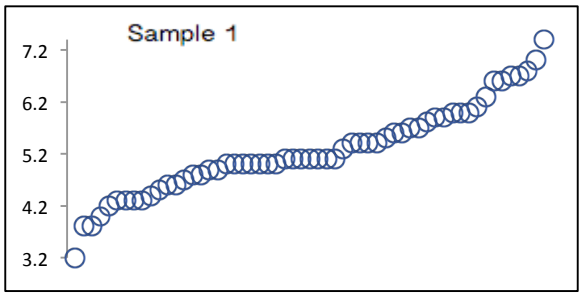
Summary Statistics

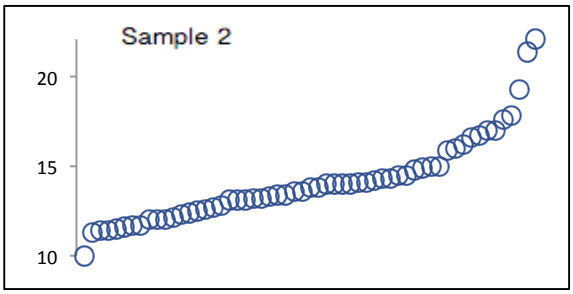
Statistic	C16-1	C16-2	C16-3	C16-4
N	57	57	57	57
Median	5.10	13.8	31.4	48.0
Robust Mean	5.24	13.9	31.8	48.5
U	0.14	0.33	0.61	1.06
Robust Standard Deviation	0.854	2.00	3.68	6.38
Regression Standard Deviation	0.918	2.43	5.57	8.49
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used (SDPA)	1.15	2.43	5.57	8.49
Outliers	1	1	1	1
|z|>3.0	0	2	1	2
2<|z|<3	0	1	2	1

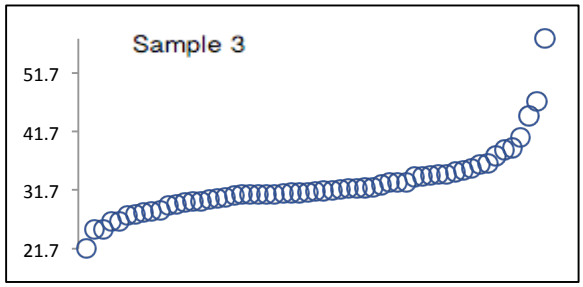
Methods Used

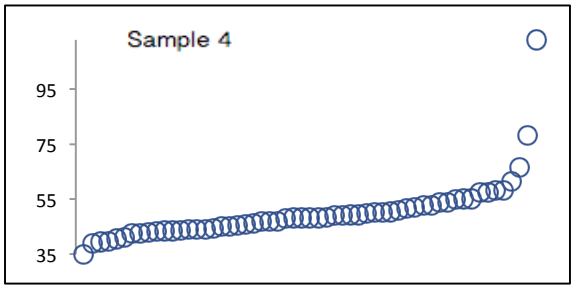
Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	20	20	20	20
GC/MSE	2	2	2	2
P/T-GCMS	31	31	31	31
P/T-FID	2	2	2	2
P/T-GCECD	1	1	1	1
GC/MS/MSHEAD	1	1	1	1

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



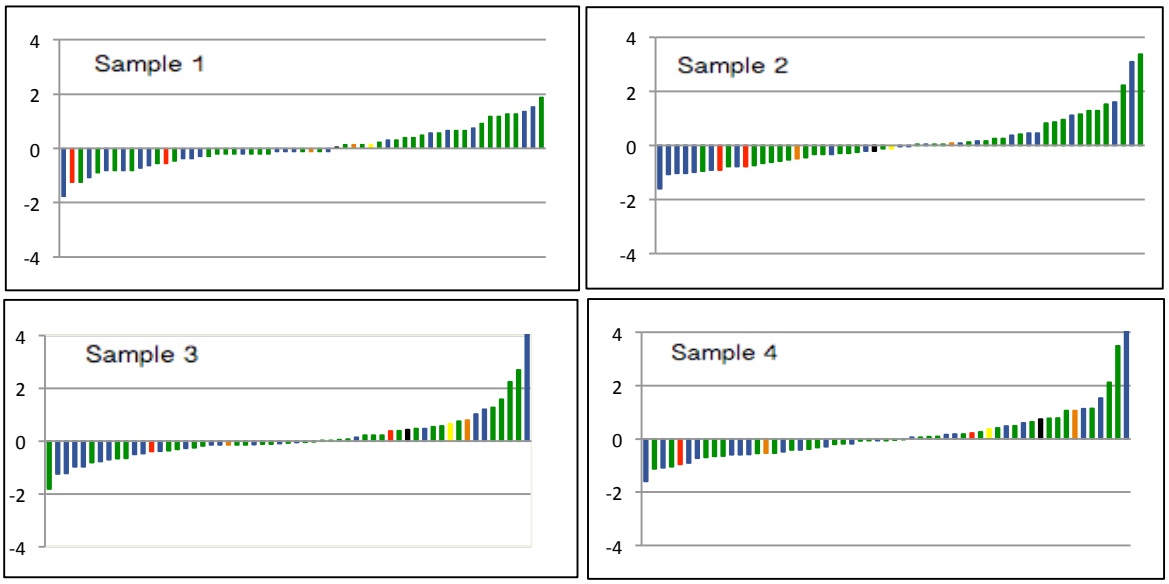




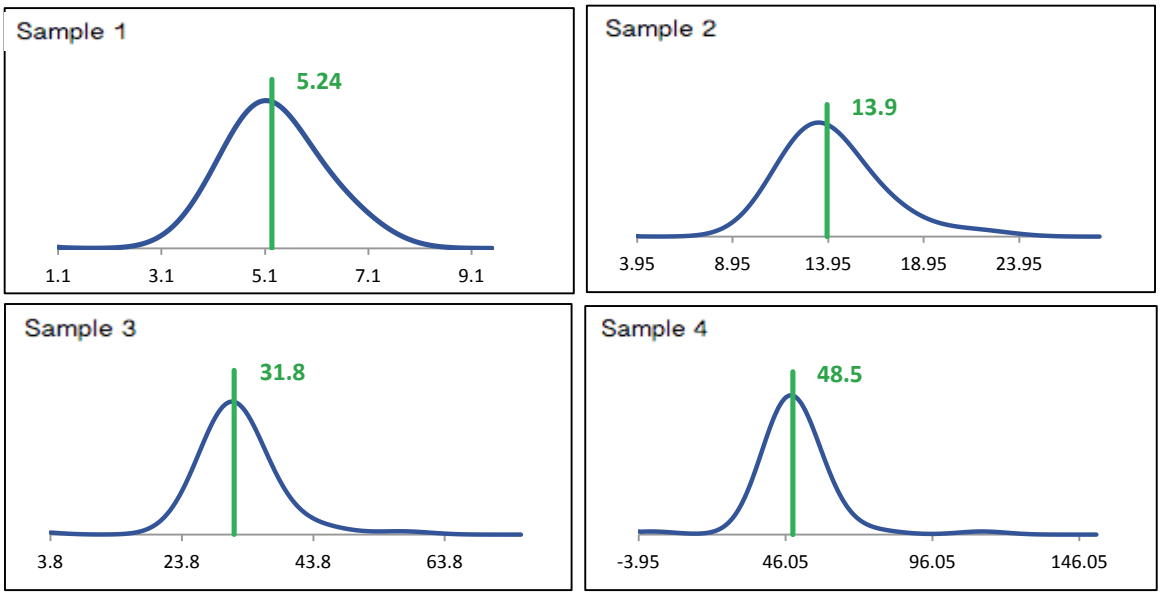


TRICHLOROETHYLENE

z-Score Plots

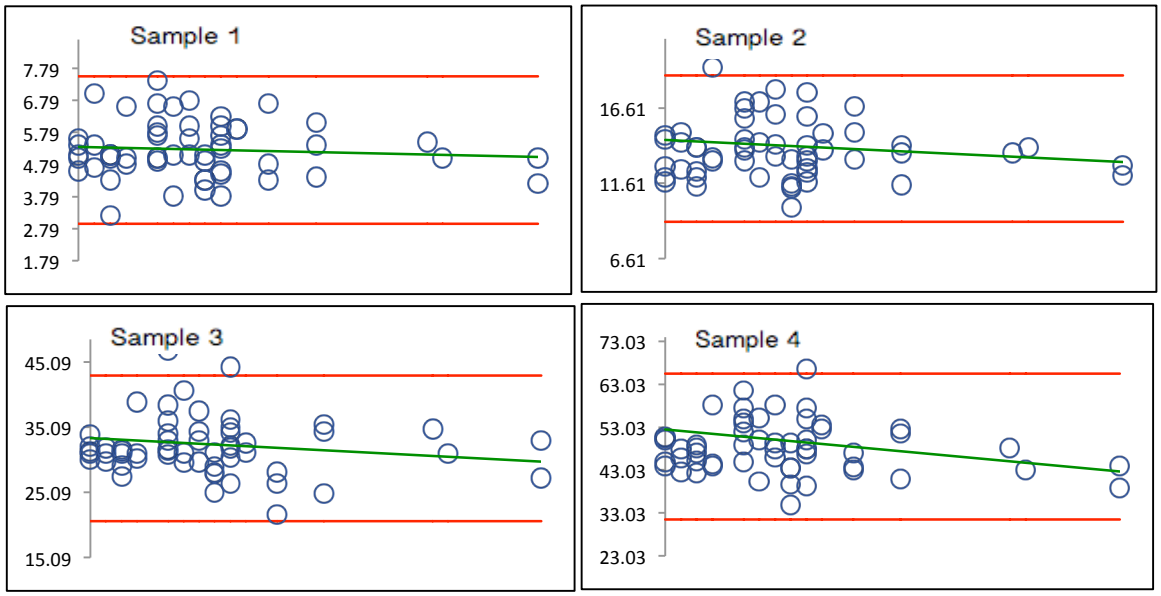


Kernel Density Plots



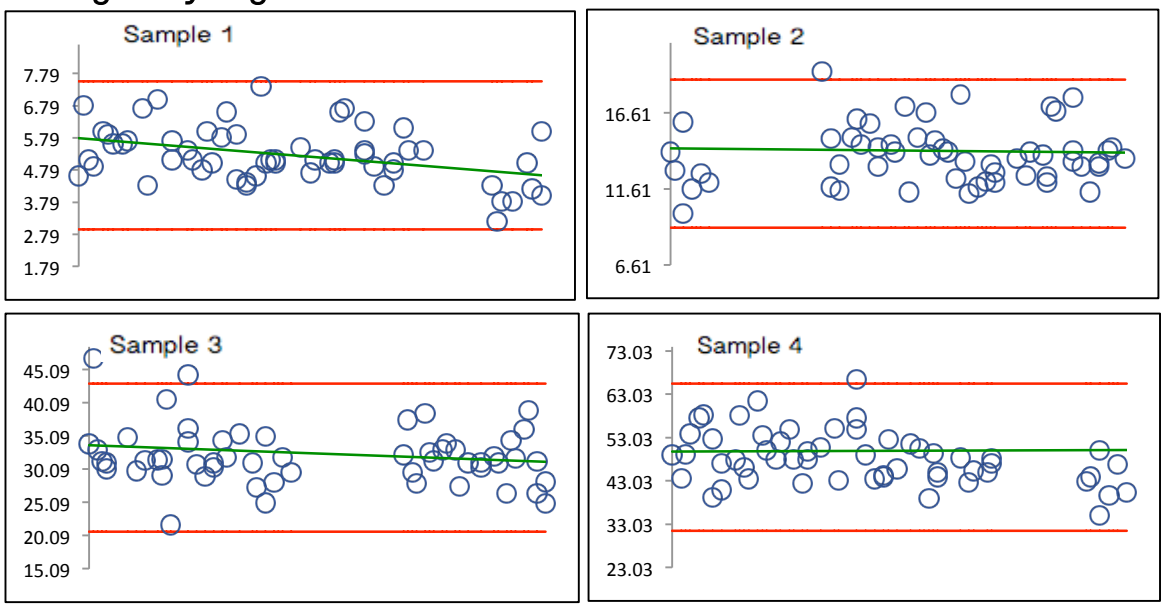
TRICHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

TRICHLOROFLUOROMETHANE

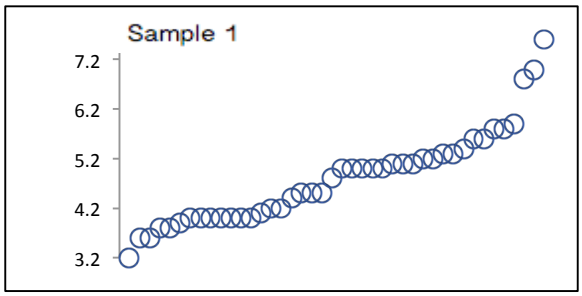
Summary Statistics

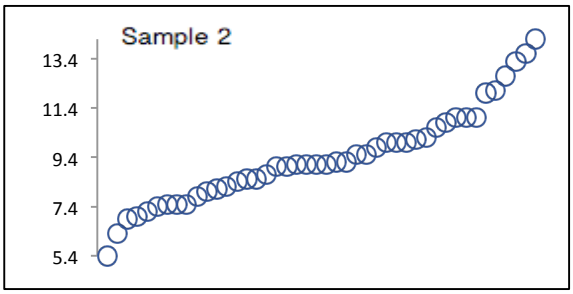
Statistic	C16-1	C16-2	C16-3	C16-4
N	42	44	44	45
Median	4.90	9.10	28.6	41.3
Robust Mean	4.73	9.29	28.7	43.2
U	0.17	0.35	0.95	1.56
Robust Standard Deviation	0.873	1.86	5.04	8.35
Regression Standard Deviation	0.947	1.86	5.74	8.65
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	0.947	1.86	5.74	8.65
Outliers	1	1	1	0
|z|>3.0	1	0	1	1
2<|z|<3	2	4	4	4

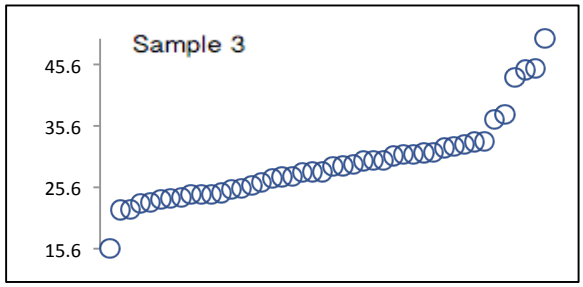
Methods Used

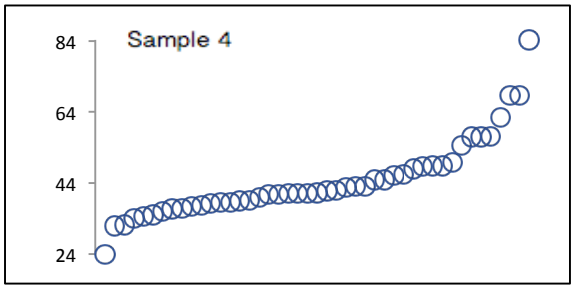
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	24	24	24	25
HS-GCMS	16	18	18	18
GC/MS1	1	1	1	1
GC/MSE	1	1	1	1

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



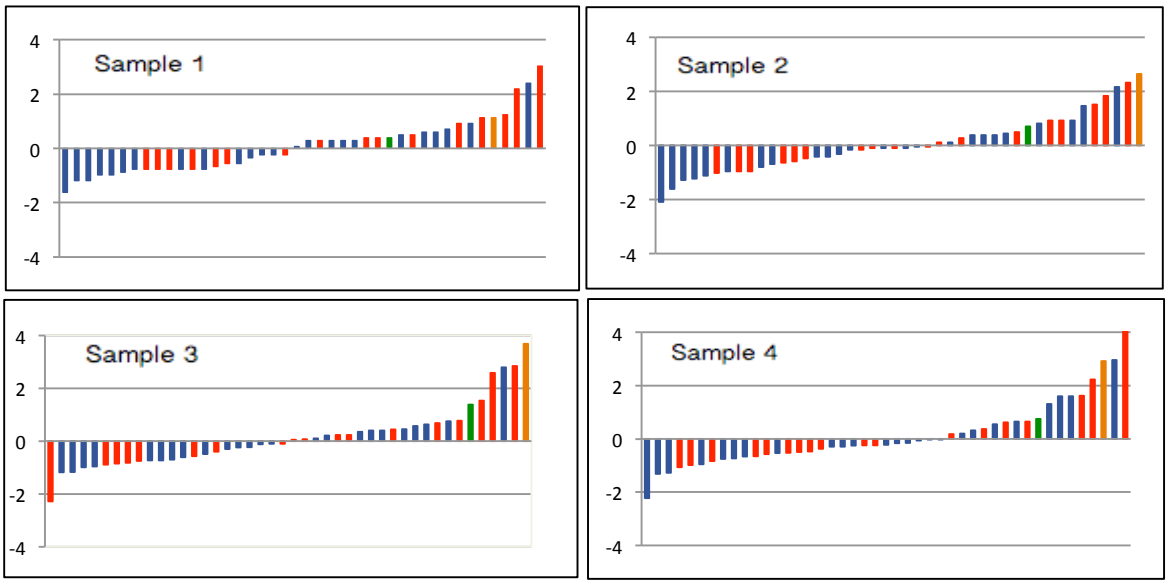




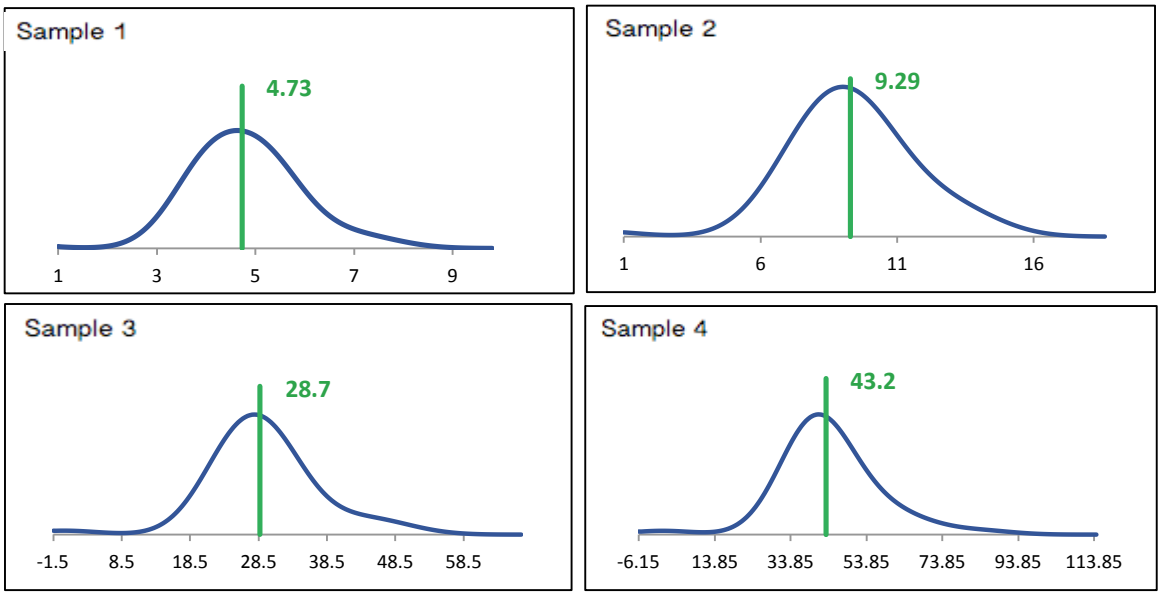


TRICHLOROFLUOROMETHANE

z-Score Plots

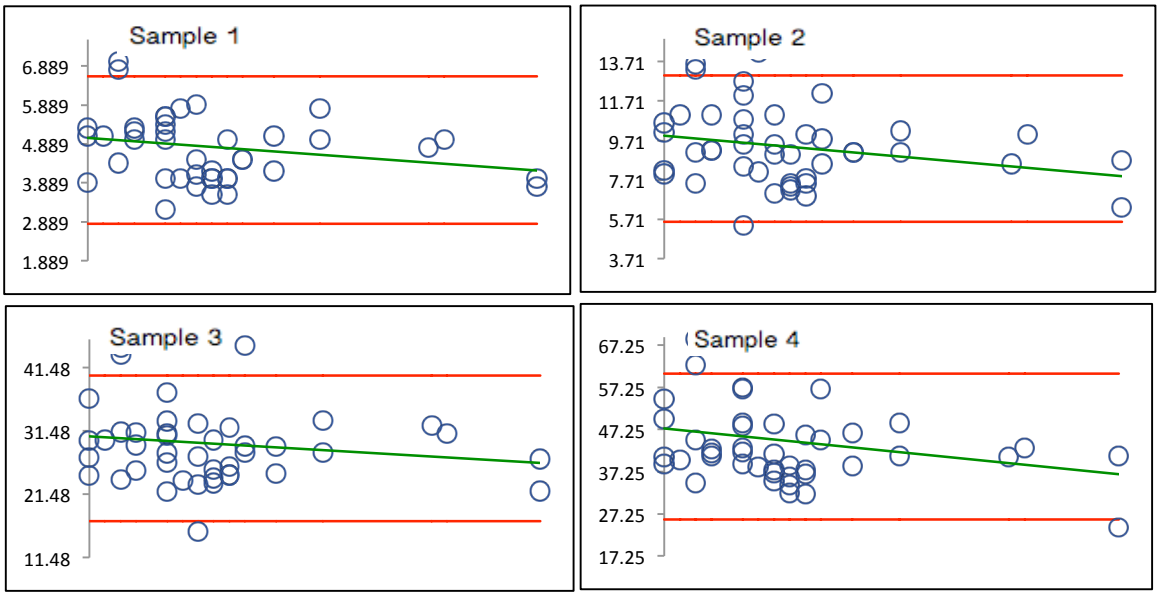


Kernel Density Plots



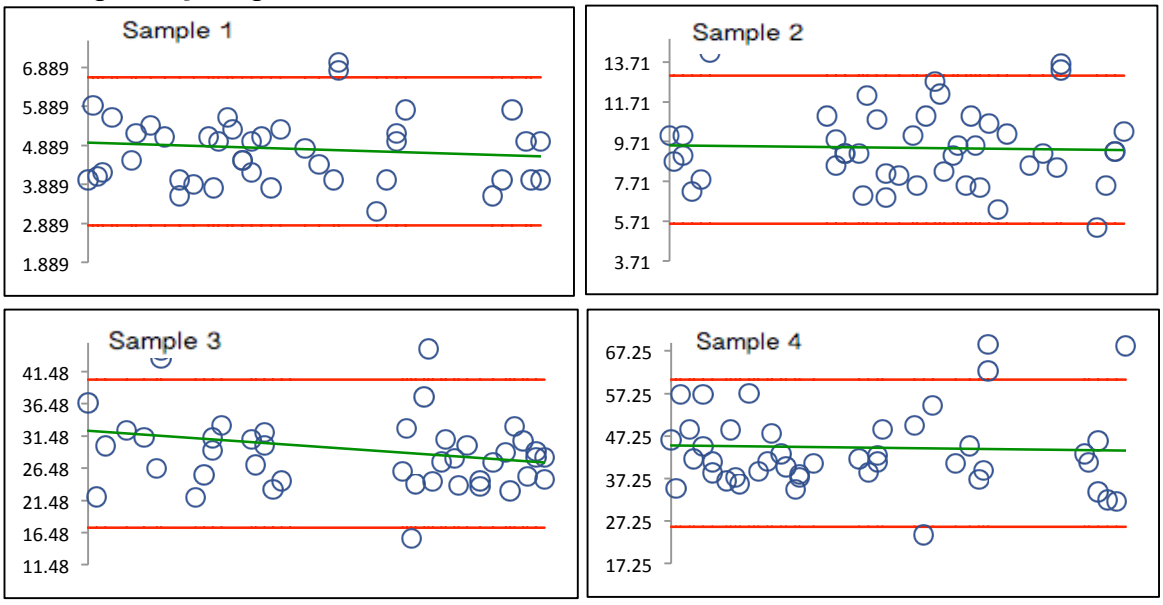
TRICHLOROFLUOROMETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

VINYL CHLORIDE

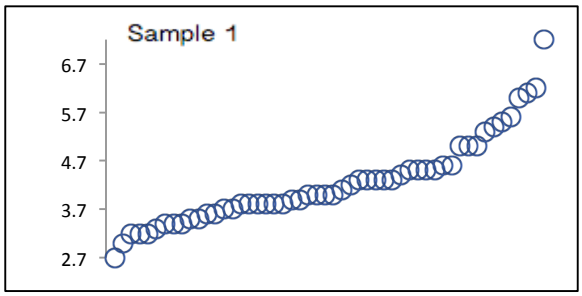
Summary Statistics

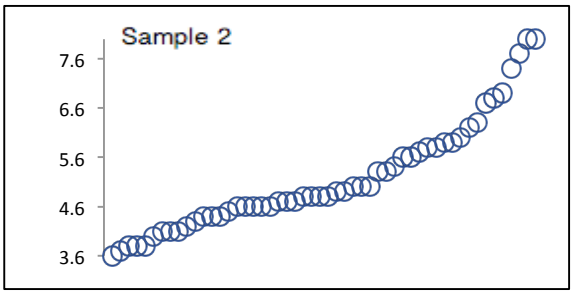
Statistic	C16-1	C16-2	C16-3	C16-4
N	52	52	52	52
Median	4.00	4.80	19.7	27.9
Robust Mean	4.16	5.06	19.6	28.9
U	0.14	0.18	0.56	0.96
Robust Standard Deviation	0.804	1.02	3.21	5.51
Regression Standard Deviation	0.937	1.14	4.41	6.50
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA)	0.937	1.14	4.41	6.50
Outliers	0	0	0	0
|z|>3.0	1	0	0	2
2<|z|<3	2	4	4	2

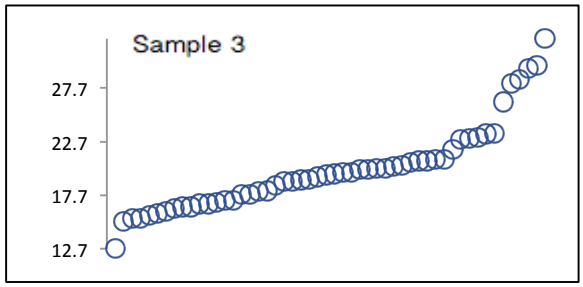
Methods Used

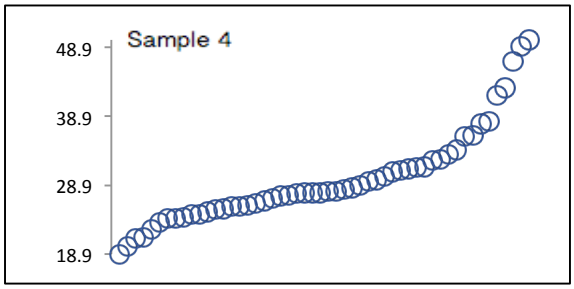
Method	C16-1	C16-2	C16-3	C16-4
GC/MS1	1	1	1	1
P/T-GCMS	31	31	31	31
HS-GCMS	18	18	18	18
GC/MS/MSHEAD	1	1	1	1
GC/MSE	1	1	1	1

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



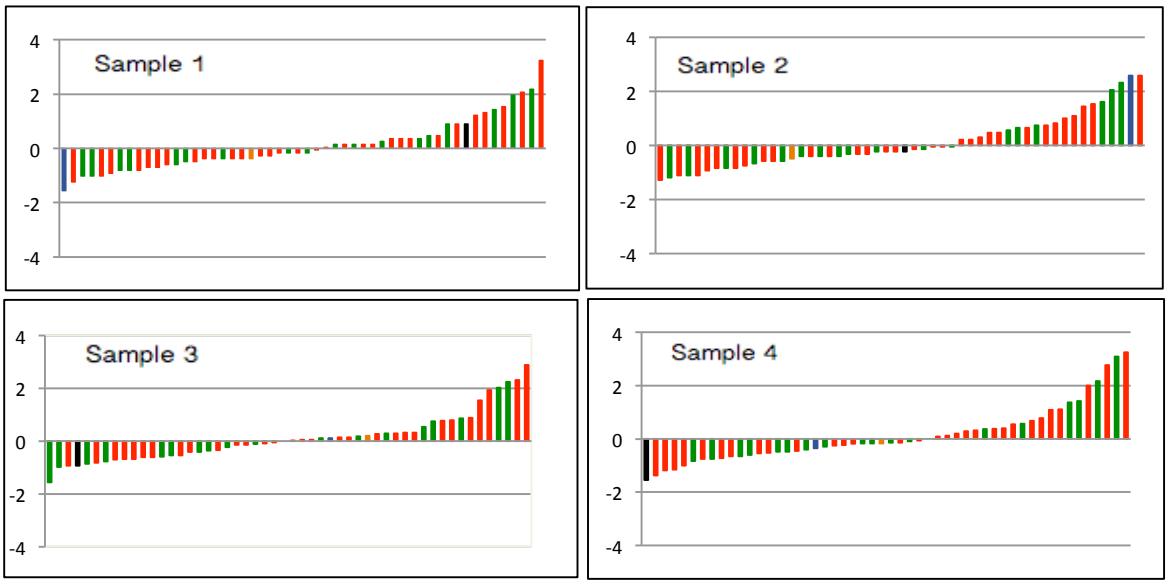




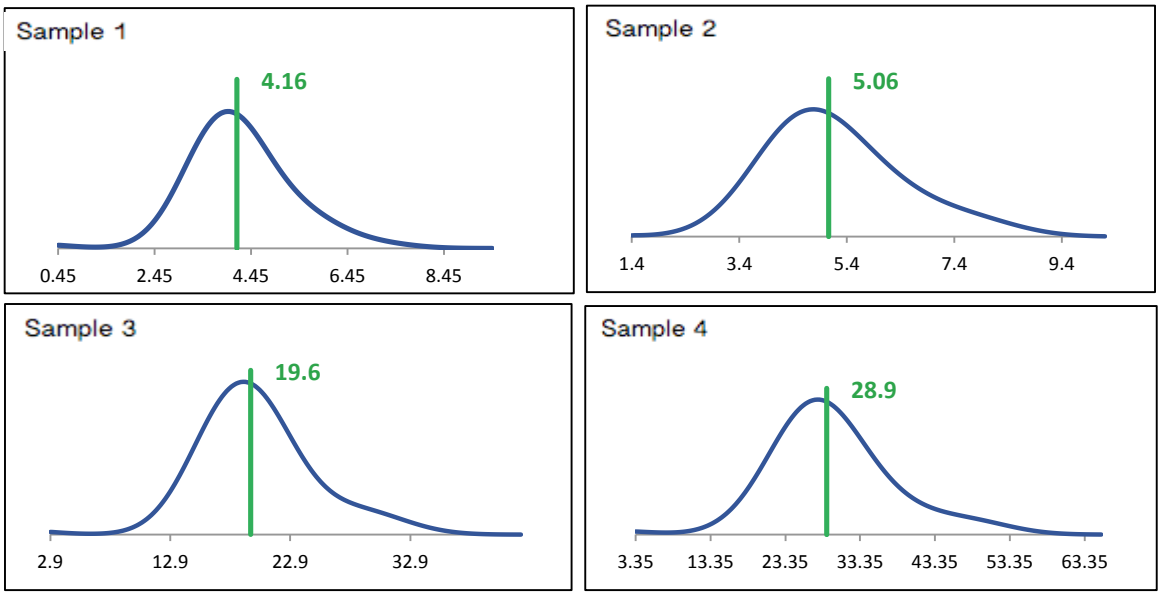


VINYL CHLORIDE

z-Score Plots

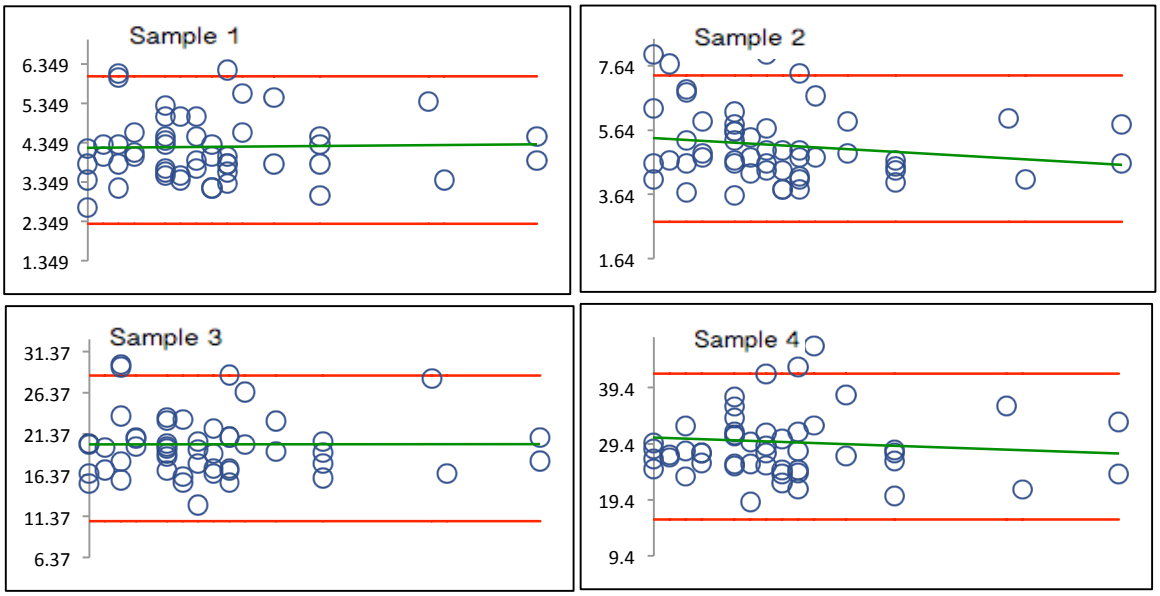


Kernel Density Plots



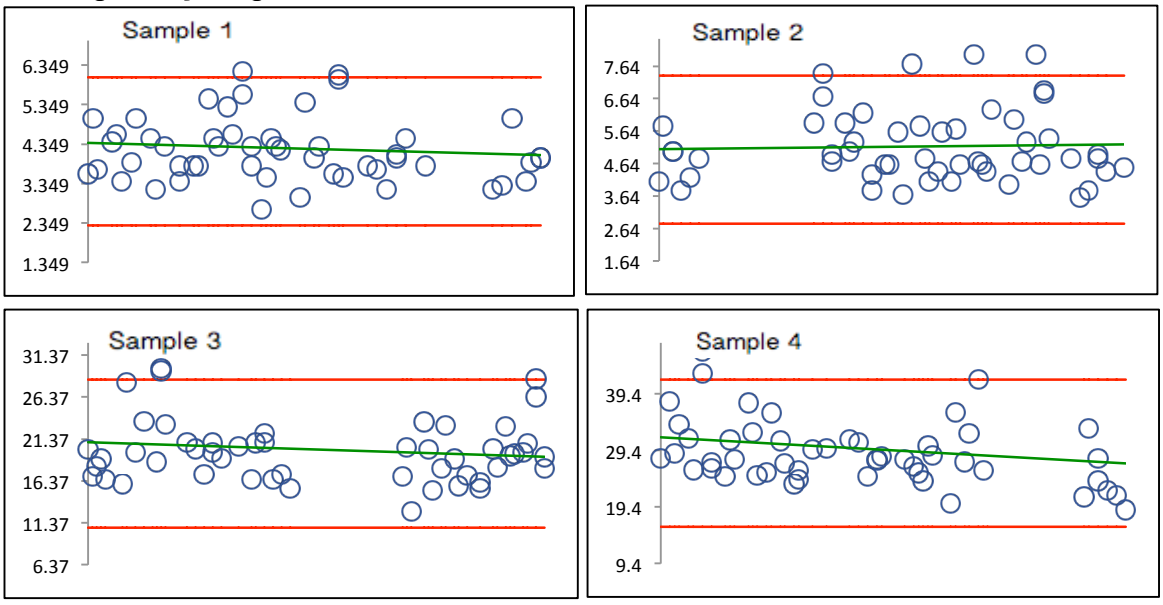
VINYL CHLORIDE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).