Results of Proficiency Test
Methanol
August 2013

Organised by: Institute for Interlaboratory Studies
Spijkenisse, the Netherlands

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1 INTRODUCTION

Since 1996, a proficiency test for Methanol was organised every year by The Institute for Interlaboratory Studies. During the annual proficiency testing program 2013/2014, it was decided to continue the round robin for the analysis of Methanol in accordance with the latest applicable version of the IMPCA specification (latest version can be found and downloaded from www.impca.be, see ref. 13 in appendix 4). In this interlaboratory study, 85 laboratories in 32 different countries have participated. See appendix 2 for the number of participants per country. In this report, the results of the proficiency test are presented and discussed.

2 SET UP

The Institute for Interlaboratory studies in Spijkenisse, the Netherlands, was the organiser of this proficiency test. Sample analyses for fit-for-use and homogeneity testing were subcontracted. In this proficiency test, the participants received, depending on the registration, one or two samples of Methanol: 1*1L Methanol (labelled #13160) and/or 1*100 mL Methanol (labelled #13161) for UV only.
Sample #13060 was spiked with Acetone (15.3 mg/kg), Ethanol (30.2 mg/kg), Benzene (20.1 mg/kg), Sodium Chloride and Iron Chloride (0.60 mg Cl/kg), Iron (0.046 mg/kg) and Trimethylamine (55 µg/kg). All materials used for spiking were >99% pure. The participants were requested to report rounded and unrounded results. The unrounded results were preferably used for the statistical evaluations.

2.1 ACCREDITATION

The Institute for Interlaboratory Studies in Spijkenisse, the Netherlands, is accredited in agreement with ISO/IEC 17043:2010 (R007), since January 2000, by the Dutch Accreditation Council (Raad voor Accreditatie). This ensures strict adherence to protocols for sample preparation and statistical evaluation and 100% confidentially of participant's data. Feedback from the participants on the reported data is encouraged and customer's satisfaction is measured on regular basis by sending out questionnaires.

2.2 PROTOCOL

The protocol followed in the organisation was the one as described for proficiency testing in the report 'iis Interlaboratory Studies: Protocol for the Organisation, Statistics and Evaluation' of January 2010 (iis-protocol, version 3.2). This protocol can be downloaded via the FAQ page of the iis website http://www.iisnl.com.

2.3 CONFIDENTIALITY STATEMENT

All data presented in this report must be regarded as confidential and for use by the participating companies only. Disclosure of the information in this report is only allowed by means of the entire report. Use of the contents of this report for third parties is only allowed by written permission of the Institute for Interlaboratory Studies. Disclosure of the identity of one or more of the

participating companies will be done only after receipt of a written agreement of the companies involved.

2.4 SAMPLES

The necessary batch of methanol was provided by a Methanol producer. From this material, 125 litre bulk material was spiked with the components listed in table 1:

Component	*Amount*
Acetone	1511 mg
Ethanol	2993 mg
Benzene	1993 mg
Sodium Chloride	84.3 mg
Iron(III) Chloride.$6H_2O$	4.52 mg
Trimethylamine	5.41 mg

Table 1: components that were added to bulk material

After homogenisation in a pre-cleaned metal drum, for the first batch 125 brown glass bottles of 1L were filled and labelled #13160.

The homogeneity of the subsamples #13160 was checked by determination of Water content in accordance with ASTM E1064:08 and Chloride in accordance with IMPCA 002:98 on 8 stratified randomly selected samples.

	Water in mg/kg	*Chloride in mg/kg*
sample #13160-1	240	0.7
sample #13160-2	230	0.7
sample #13160-3	230	0.7
sample #13160-4	230	0.7
sample #13160-5	230	0.7
sample #13160-6	230	0.7
sample #13160-7	240	0.7
sample #13160-8	240	0.7

Table 2: homogeneity test results of subsamples #13160

From the above test results, the repeatabilities were calculated and compared with 0.3 times the corresponding reproducibilities in agreement with the procedure of ISO 13528, Annex B2 in the next table:

	Water in mg/kg	*Chloride in mg/kg*
r (sample #13160)	14	0.0
reference test	ASTM E1064:05	IMPCA002:98
0.3*R (reference test)	12	0.1

Table 3: evaluation of repeatabilities of the subsamples #13160

The calculated repeatabilities of the sample #13160 were respectively near or less than 0.3 times the corresponding reproducibility of the reference method. Therefore, homogeneity of the subsamples #13160 was assumed.

From the same Methanol batch approx. 15 litre was taken at first for UV absorbance. This amount was divided over 102 brown glass bottles of 100 mL and labelled #13161.
The homogeneity of the subsamples #13161 was checked by determination of UV absorbance at 268.5nm (using a 5cm cell) according IMPCA004:06 on 8 stratified randomly selected samples.

	UV absorbance at 268.5 nm
sample #13161-1	0.164
sample #13161-2	0.161
sample #13161-3	0.162
sample #13161-4	0.161
sample #13161-5	0.161
sample #13161-6	0.160
sample #13161-7	0.160
sample #13161-8	0.161

Table 4: homogeneity tests of subsamples #13161

From the above test results, the repeatabilities were calculated and compared with 0.3 times the corresponding reproducibilities in agreement with the procedure of ISO 13528, Annex B2 in the next table:

	UV absorbance at 268.5 nm
r (sample #13161)	0.004
reference test	IMPCA004:06
0.3*R (reference test)	0.013

Table 5: repeatabilities of the subsamples #13161

The calculated repeatability of sample #13161 was less than 0.3 times the corresponding reproducibility of the reference method. Therefore, homogeneity of the subsamples #13161 was assumed.

To the participants, depending on the registration, 1*1L bottle labelled #13160 and/or 1*100 mL bottle, labelled #13161 were sent on August 21, 2013.

2.5 STABILITY OF THE SAMPLES

The stability of Methanol, packed in the brown glass bottles, was checked. The material was found sufficiently stable for the period of the proficiency test.

2.6 ANALYSES

The participants were requested to determine: Acidity, Anorganic Chloride, Appearance, Carbonisable Substances Pt/Co, Colour Pt/Co, Density @ 20°C, Distillation (IBP, 50% and DP), Acetone, Benzene, Ethanol, Toluene, Water Miscibility, Nonvolatile Matter, Purity ("as received" and "on dry basis"), Permanganate Time Test, Specific Gravity 20/20 ºC/ºC, Apparent Specific Gravity 20/20 ºC/ºC, Sulphur, Total Iron, Trimethylamine and Water (coulometric and titrimetric) on sample #13160. On sample #13161 was requested to determine the UV absorbance at 300, 268.5, 250, 240, 230 and 220 nm (10mm or 50mm cuvette)

To get comparable results a detailed report form, on which the units were prescribed as well as some of the required standards and a letter of instructions were prepared and made available for download on the iis website www.iisnl.com. A SDS and a form to confirm receipt of the samples were added to the sample package

3 RESULTS

During four weeks after sample despatch, the results of the individual laboratories were gathered. The original data are tabulated per determination in appendix 1 of this report. The laboratories are represented by their code numbers.

Directly after the deadline, a reminder fax was sent to the laboratories that had not reported results at that moment. Shortly after the deadline, the available results were screened for suspect data. A result was called suspect in case the Huber Elimination Rule (a robust outlier test) found it to be an outlier. The laboratories that produced these suspect data were asked to check the results. Additional or corrected results are used for data analysis and original results are placed under 'Remarks' in the result tables in appendix 1.

3.1 STATISTICS

Statistical calculations were performed as described in the report 'iis Interlaboratory Studies: Protocol for the Organisation, Statistics and Evaluation' of January 2010 (iis-protocol, version 3.2).

For the statistical evaluation the *unrounded* (when available) figures were used instead of the rounded results. Results reported as '<…' or '>…' were not used in the statistical evaluation.

First, the normality of the distribution of the various data sets per determination was checked by means of the Lilliefors-test. After removal of outliers, this check was repeated. In case a data set does not have a normal distribution, the (results of the) statistical evaluation should be used with due care.
In accordance to ISO 5725 (1986 and 1994) the original results per determination were submitted subsequently to Dixon and Grubbs outlier tests. Outliers are marked by
D(0.01) for the Dixon test and by G(0.01) or DG(0.01) for the Grubbs test. Stragglers are marked by D(0.05) for the Dixon test and by G(0.05) or DG(0.05) for the Grubbs test. Both outliers and stragglers were not included in the calculations of the averages and the standard deviations.

Finally, the reproducibilities were calculated from the standard deviations by multiplying these with a factor of 2.8. For each assigned value, the uncertainty was determined in accordance with ISO13528. Subsequently the calculated uncertainty was evaluated against the respective requirement based on the target reproducibility in accordance with ISO13528. When the uncertainty passed the evaluation, no remarks are made in the report. However, when the uncertainty failed the evaluation it is mentioned in the report and it will have significant consequences for the evaluation of the test results.

3.2 GRAPHICS

In order to visualise the data against the reproducibilities from literature, Gauss plots were made, using the sorted data for one determination (see appendix 1). On the Y-axis the reported analysis results are plotted. The corresponding laboratory numbers are under the X-axis.
The straight horizontal line presents the consensus value (a trimmed mean). The four striped lines, parallel to the consensus value line, are the +3s, +2s, -2s and -3s target reproducibility limits of the selected standard. Outliers and other data, which were excluded from the calculations, are represented as a cross. Accepted data are represented as a triangle. Furthermore, Kernel Density Graphs were made. This is a method for producing a smooth density approximation to a set of data that avoids some problems associated with histograms (see appendix 4; no.15 and 16).

3.3 Z-SCORES

To evaluate the performance of the participating laboratories the z-scores were calculated. As it was decided to evaluate the performance of the participants in this proficiency test (PT) against the literature requirements, the z-scores were calculated using a target standard deviation. This results in an evaluation independent of the spread of this interlaboratory study.

The target standard deviation was calculated from the target reproducibility (preferably taken from a standardized test method) by division with 2.8.
The z-scores were calculated in accordance with:

$$z_{(target)} = (\text{result} - \text{average}) / \text{target standard deviation}$$

The $z_{(target)}$ scores are listed in the result tables in appendix 1.

When a laboratory did use a test method with a reproducibility that is significantly different from the reproducibility of the reference test method used in this report, it is strongly advised to recalculate the z-score, while using the reproducibility of the actual test method used, this in order to evaluate the fit-for-useness of the reported test result.

To evaluate the performance of the participating laboratories the z-scores were calculated. Absolute values for $z<2$ are very common and absolute values for $z>3$ are very rare. Therefore, the usual interpretation of z-scores is as follows:

| z | < 1	good
1 < | z | < 2	satisfactory
2 < | z | < 3	questionable
| z | > 3	unsatisfactory

4 EVALUATION

In this interlaboratory study, problems with sample despatch were encountered due to several problems. Eleven participants reported after the final reporting date and also eleven participants did not report any results at all. Not all laboratories were able to report all analyses requested. In total 73 participants reported 1312 results. Observed were 49 outlying results, which is 3.7% of the numerical results. In proficiency studies, outlier percentages of 3% - 7.5% are quite normal.

4.1 EVALUATION PER TEST

In this section, the results are discussed per test. Non-Gaussian distributions were found for the following test: Anorganic Chloride, Carbonisable Substances, Colour, Density @ 20^{o}C, Specific Gravity, Distillation (automatic and manual), NVM, Purity ("as received" and "on dry basis"), Aceton, Permanganate Time Test, Total Iron and Water (Coulometric and Titrimetric). In these cases the statistical evaluation should be used with due care.

Acidity: No analytical problems were observed. Only one statistical outlier was observed and calculated the reproducibility after rejection of the statistical outlier is in good agreement with the requirements of ASTM D1613:12.

Anorg. Chloride: This determination was not problematic. Four statistical outliers were observed. However, the calculated reproducibility after rejection of the statistical outliers is in full agreement with the requirements of IMPCA002:98.
The average recovery of Anorganic Chloride (theoretical increment of 0.60 mg Anorganic Chloride /kg) may be good: "less then 107%" (the actual blank Anorganic Chloride content is unknown).

Appearance: No analytical problems were observed. All labs, except one, agreed about the appearance of the sample #13160, which was bright, clear and free of suspended matter.

Carbonisable Substances: This determination was not problematic. Three statistical outliers were observed. However, the calculated reproducibility after rejection of the statistical outliers is in full agreement with the requirements of ASTM E346:08.

Colour: This determination was not problematic. No statistical outliers were observed and the calculated reproducibility is in good agreement with the requirements of ASTM D1209:11.

Density @ 20°C: This determination was not problematic. Three statistical outliers were observed. However, the calculated reproducibility after rejection of the statistical outliers is in good agreement with the requirements of ASTM D4052:11.

SG 20/20 °C: This determination was not problematic. Two statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in good agreement with the requirements of ASTM D4052:11.

ASG 20/20 °C: This determination was not problematic. Two statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in good agreement with the requirements of ASTM D4052:11.

SG General: When the Specific Gravities and Apparent Specific Gravities were calculated from the reported Densities, it was noticed that the reported results for the Specific Gravity 20/20 °C and Apparent Specific Gravity 20/20 °C are in line with the calculated results. Users of method ASTM D891 should be aware that this method results in Apparent Specific Gravity. To arrive at Specific Gravity or Density an additional conversion is necessary. The method provides the calculation formula.

Distillation: No analytical problems were observed for both the automated and the manual mode. For the automated and manual mode in total, six statistical outliers were observed. All calculated reproducibilities (IBP, MBP and DP for automated and manual mode) are, after rejection of the observed statistical outliers, in good agreement with the respective requirements for automated and manual modes of ASTM D1078:11. Remarkably five laboratories, all automatic method, did not correct properly for barometric pressure. Although the theoretical mid boiling point is 64.5 ºC (see table 3 of ASTM D1078), test results 64.2, 64.3 (3 times) and 63.7 ºC were also reported.

Water Miscibility: No analytical problems were observed. All laboratories, except two, reported the test as “pass”. One laboratory reported as result “complete” and another reported as result “fail”.

NVM: This determination was very problematic. Two statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in not at all agreement with the requirements of ASTM D1353:13, but in good agreement with the obsolete ASTM D1353:09.
In accordance with the IMPCA specification of 2012, the obsolete ASTM D1353:09 should still be used for the determination of NVM.

Purity: For the purity “as received” and “on dry basis”, in total seven statistical outliers were observed. The calculated reproducibilities after rejection of the statistical outliers, are both in agreement with the calculated reproducibilities of the 2012 PT iis12C06 (for “as received” 0.015 vs 0.012 and for “dry basis” 0.007 vs 0.005). Three sets of test results were excluded from the calculations, as the reported

results for “as received” are larger than the reported result for “on dry basis”, which is in principle not possible.

Acetone: This determination may be problematic. Two statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is not in agreement with the strict reproducibility limits, estimated using the Horwitz equation. The average recovery of Acetone (theoretical increment of 15.3 mg Acetone/kg) may be good: “less then 99%” (the actual blank Acetone content is unknown).
One laboratory reported according to ASTM D1612 which is applicable for acetone contents greater than 0.003 weight %.

Benzene: This determination may be problematic. Three statistical outliers were observed. However, the calculated reproducibility after rejection of the statistical outliers is not in agreement with the strict reproducibility limits, estimated using the Horwitz equation. Also, the average recovery of Benzene (theoretical increment of 20.1 mg Benzene/kg) may be good: “less then 100%” (the actual blank Benzene content is unknown).

Ethanol: This determination may be problematic. No statistical outliers were observed. However, the calculated reproducibility is not in agreement with the strict reproducibility limits, estimated using the Horwitz equation. The average recovery of Ethanol (theoretical increment of 30.2 mg Ethanol/kg) may be good: “less then 114%” (the actual blank Ethanol content is unknown).

Toluene: No statistical conclusions were drawn, because the toluene content is below or near the detection limit.

PTT: All participants, except one, agreed on a result above 60 minutes.
As it is unknown whether a Permanganate Time Test of >60 minutes is in the applicability range, it is therefore difficult to draw any conclusions. Therefore, no z-scores were calculated. No statistical outliers were observed.

Sulphur: No statistical conclusions were drawn, because all reported results were near or below the application range of ASTM D5453:09 and ASTM D5453:12 (1 – 8000 mg/kg). One statistical outlier was observed.

Total Iron: This determination was very problematic. Two statistical outliers and two false negative results observed. The calculated reproducibility after rejection of the suspect data is not at all in agreement with the requirements of ASTM E394:09. The average recovery of Iron (theoretical increment of 0.027 mg Iron/kg) may be good: “less than 101%” (the actual blank Iron content is unknown).

TMA: This determination may be problematic. Two false negative results but no statistical outliers were observed. However, the calculated reproducibility after rejection of the suspect data is not in agreement with the estimated

reproducibility based on the repeatability of ASTM E346:08 but in agreement with the estimated reproducibility calculated using the Horwitz equation. The average recovery of the TMA (theoretical increment of 55 µg TMA/kg) may be good, less than 101% (the actual blank TMA content is unknown). The low number of results may (partly) explain the large spread.

Water (coul.): This determination was problematic. Four statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is not in agreement with the requirements of ASTM E1064:12.

Water (titr.): This determination was not problematic. Only one statistical outlier was observed. The calculated reproducibility after rejection of the statistical outlier is in good agreement with the requirements of ASTM E203:08.

UV-Absorbance: A separation was made between the participants that used a 10mm and a 50mm cuvette. The determination was problematic for a number of laboratories. In total six statistical outliers were observed. The observed reproducibilities for UV at 268.5nm and 250nm (10mm) were not in agreement with the requirements of IMPCA004:08. For UV at 240nm and 230nm no precision data are available. The other observed reproducibilities were all in agreement with IMPCA004:08.
Two participants, using a 10mm cuvette would incorrectly not reject the sample as they reported “pass” for the UV curve. It is strongly advised to use the 50mm cuvette as minor impurities like 20 mg/kg Benzene as in this case, obviously may not be observed when using a 10mm cuvette.

4.2 PERFORMANCE EVALUATION FOR THE GROUP OF LABORATORIES

A comparison has been made between the reproducibility as declared by the relevant standard and the reproducibility as found for the group of participating laboratories. The average results per sample, calculated reproducibilities and reproducibilities derived from literature standards (in casu ASTM standards) are compared in the next tables.

Parameter	*unit*	*n*	*average*	*2.8 * sd*	*R (lit)*
Acidity as acetic acid	mg/kg	65	11.5	8.3	14.0
Anorganic Chloride as Cl	mg/kg	46	0.64	0.27	0.30
Carbonisable Substances	Pt/Co	49	5.8	5.1	5.0
Colour	Pt/Co	50	2.5	2.9	8.2
Density @ 20 °C	kg/L	64	0.7913	0.0002	0.0005
Specific Gravity 20/20 °C/°C		61	0.7927	0.0002	0.0005
Apparent Specific Gravity 20/20 °C/°C		30	0.7925	0.0002	0.0005
Initial Boiling Point (automatic)	°C	33	64.40	0.33	1.00
Mid Boiling Point (automatic)	°C	32	64.49	0.29	0.44
Dry Point (automatic)	°C	32	64.80	0.42	0.69
Initial Boiling Point (manual)	°C	28	64.35	0.20	0.69
Mid Boiling Point (manual)	°C	29	64.49	0.10	0.42
Dry Point (manual)	°C	28	64.79	0.28	0.84
Nonvolatile Matter	mg/100 mL	47	0.36	0.40	0.16
Purity as received	%M/M	37	99.967	0.012	unknown
Purity on dry basis	%M/M	51	99.992	0.005	unknown
Acetone	mg/kg	56	15.1	6.8	4.5
Benzene	mg/kg	43	20.2	7.1	5.7
Ethanol	mg/kg	59	34.5	11.7	9.1
Toluene	mg/kg	13	0.8	0.7	(0.4)*
Permanganate Time Test	minutes	64	91	37	(23)*
Sulphur	mg/kg	17	0.2	0.4	(0.2)*
Total Iron as Fe	mg/kg	45	0.027	0.029	0.015
Trimethylamine	µg/kg	5	55	29	21
Water (coulometric)	mg/kg	60	248	54	42
Water (titrimetric)	mg/kg	39	256	78	270

table 6: Reproducibilities for sample #13160

*reproducibility values between brackets are for concentrations near of below the detection limit

Parameter	*unit*	*n*	*average*	*2.8 * sd*	*R (lit)*
UV absorbance at 300 nm (10 mm cell)		11	0.007	0.011	0.011
UV absorbance at 268.5 nm (10 mm cell)		10	0.039	0.021	0.011
UV absorbance at 250 nm (10 mm cell)		11	0.054	0.016	0.005
UV absorbance at 240 nm (10 mm cell)		11	0.061	0.015	unknown
UV absorbance at 230 nm (10 mm cell)		10	0.125	0.024	unknown
UV absorbance at 220 nm (10 mm cell)		10	0.405	0.077	0.112
UV absorbance at 300 nm (50 mm cell)		20	0.055	0.009	0.082
UV absorbance at 268.5 nm (50 mm cell)		20	0.218	0.014	0.059
UV absorbance at 250 nm (50 mm cell)		20	0.283	0.027	0.029
UV absorbance at 240 nm (50 mm cell)		16	0.323	0.026	unknown
UV absorbance at 230 nm (50 mm cell)		14	0.638	0.057	unknown
UV absorbance at 220 nm (50 mm cell)		19	1.949	0.314	0.559

table 7: Reproducibilities for sample #13161

Without further statistical calculations, it can be concluded that for many tests there is a good compliance of the group of participating laboratories with the relevant standards. The tests, that are problematic have been discussed in paragraph 4.1.

4.3 COMPARISON OF THE PROFICIENCY TEST OF SEPTEMBER 2013 WITH PREVIOUS PTS

	September 2013	*September 2012*	*September 2011*	*September 2010*
Number of reporting labs	73	73	70	73
Number of results reported	1312	1280	1205	1353
Statistical outliers	49	54	48	75
Percentage outliers	3.7%	4.2%	4.0%	5.5%

table 8: comparison with previous proficiency tests.

In proficiency tests, outlier percentages of 3% - 7.5% are quite normal.
The performance of the determinations of the proficiency tests was compared against the requirements of the respective standards. The conclusions are given the following table:

	September 2013		*September 2012*		*September 2011*		*September 2010*	
Acidity as acetic acid	++		++		++		++	
Chloride as Cl	+		++		-		--	
Carbonisable Substances	+/-		+/-		--		--	
Colour	++		++		++		++	
Density @ 20 °C	++		++		++		++	
Distillation (automatic)	++		++		++		++	
Distillation (manual)	+		++		++		++	
Nonvolatile Matter	++		++		++		++	
Specific Gravity 20/20 °C	++		++		++		++	
Specific Gravity, App 20/20 °C	++		n.e		n.e		n.e	
Total Iron	--		--		--		--	
Water (coulometric)	-		--		--		--	
Water (titrimetric)	++		++		++		++	
Acetone	-		--		+/-		--	
Benzene	-		++		++		++	
Ethanol	-		--		--		--	
Trimethylamine	-		--		--		--	
UV absorbance 300nm *)	+/-	++	++	++	++	++	++	--
UV absorbance 268.5 nm *)	--	++	--	-	-	--	+/-	--
UV absorbance 250 nm *)	--	+	--	--	-	--	--	+/-
UV absorbance 220 nm *)	+	++	++	++	++	++	++	++

table 9: comparison determinations against the standard requirements

*) split-up into respective 10 mm and 50 mm cell results

The performance of the determinations against the requirements of the respective standards is listed in the above table. The following performance categories were used:

- ++: group performed much better than the standard
- + : group performed better than the standard
- +/-: group performance equals the standard
- - : group performed worse than the standard
- -- : group performed much worse than the standard
- n.e.: not evaluated

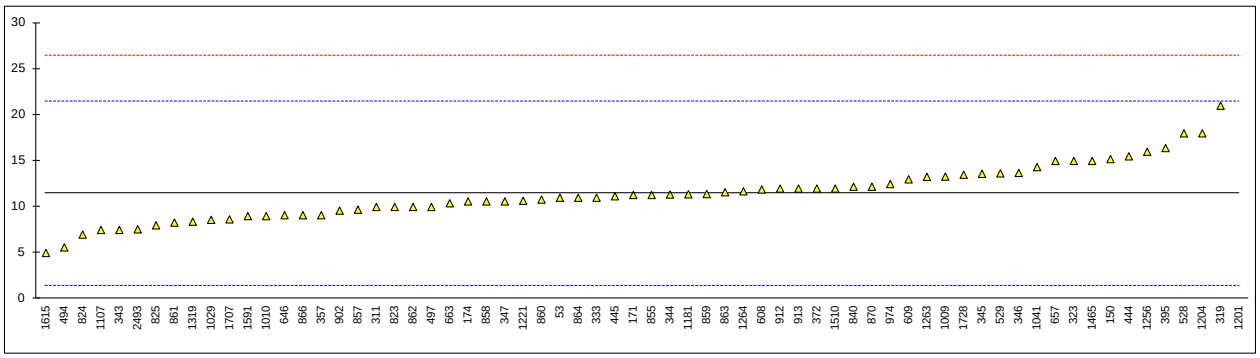
APPENDIX 1

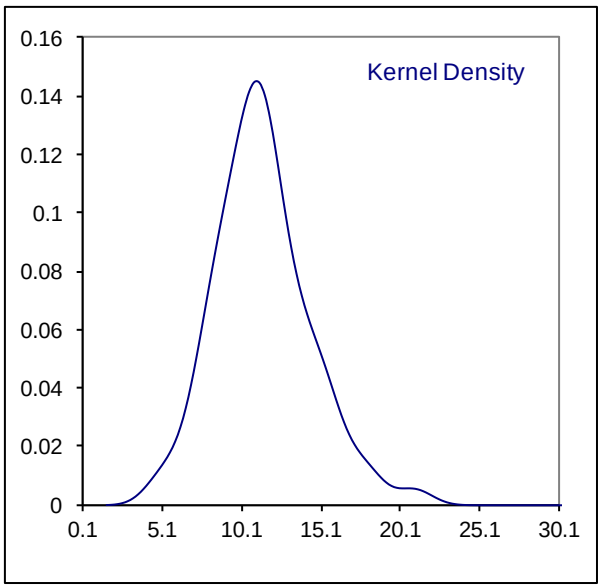
Determination of Acidity as Acetic Acid on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	remarks
53	D1613	11		-0.09	
150	D1613	15.2		0.75	
171	D1613	11.3		-0.03	
174	D1613	10.6		-0.17	
193		-----		-----	
311	D1613	10		-0.29	
316		-----		-----	
319	D1613	21		1.91	
323	D1613	15		0.71	
333	D1613	11		-0.09	
334		-----		-----	
335		-----		-----	
343	D1613	7.5		-0.79	
344	D1613	11.3515		-0.02	
345	E4103	13.6		0.43	
346	D1613	13.7		0.45	
347	D1613	10.6		-0.17	
357	D1613	9.1		-0.47	
372	D1613	12		0.11	
395	D1613	16.4		0.99	
444	D1613	15.5		0.81	
445	D1613	11.16		-0.06	
494	D1613	5.6		-1.17	
497	D1613	10		-0.29	
528	D1613	18.0		1.31	
529	D1613	13.648		0.44	
551		-----		-----	
554		-----		-----	
608	D1613	11.9		0.09	
609	D1613	13		0.31	
646	D1613	9.1		-0.47	
657	D1613	15		0.71	
663	D1613	10.4		-0.21	
823	D1613	10		-0.29	
824	D1613	7		-0.89	
825	D1613	8		-0.69	
840	D1613	12.2		0.15	
855	D1613	11.3		-0.03	
857	D1613	9.7		-0.35	
858	D1613	10.6		-0.17	
859	D1613	11.4		-0.01	
860	D1613	10.8		-0.13	
861	D1613	8.3		-0.63	
862	D1613	10.0		-0.29	
863	D1613	11.6		0.03	
864	D1613	11.0		-0.09	
866	D1613	9.1		-0.47	
870	D1613	12.2		0.15	
902	D1613	9.6		-0.37	
912	D1613	12		0.11	
913	D1613	12		0.11	
963		-----		-----	
974	D1613	12.49		0.21	
994		-----		-----	
1009	D1613	13.3	C	0.37	first reported:0.00133
1010	D1613	9		-0.49	
1029	D1613	8.6		-0.57	
1041	D1613	14.33		0.57	
1067		-----		-----	
1102		-----		-----	
1107	D1613	7.5		-0.79	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	D1613	11.37		-0.02	
1201	D1613	83	G(0.01)	14.31	
1204	D1613	18		1.31	
1221	D1613	10.67		-0.16	
1246		-----		-----	
1256	D1613	16	C	0.91	probably unit error: reported 0.0016
1263	D1613	13.2698		0.36	
1264	D1613	11.7		0.05	

1319	D1613	8.4	-0.61
1342		-----	-----
1354		-----	-----
1465	D1613	15.0	0.71
1481		-----	-----
1510	D1613	12	0.11
1591	D1613	9	-0.49
1615	D1613	5	-1.29
1689		-----	-----
1707	D1613	8.65	-0.56
1728	D1613	13.5	0.41
1866		-----	-----
2493	D1613	7.566	-0.78

normality	OK
n	65
outliers	1
mean (n)	11.46
st.dev. (n)	2.979
R(calc.)	8.34
R(D1613:12)	14.00



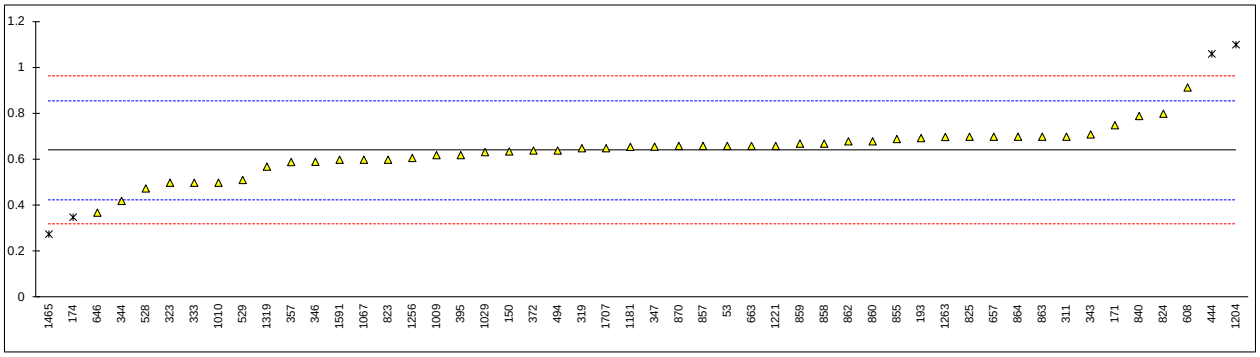


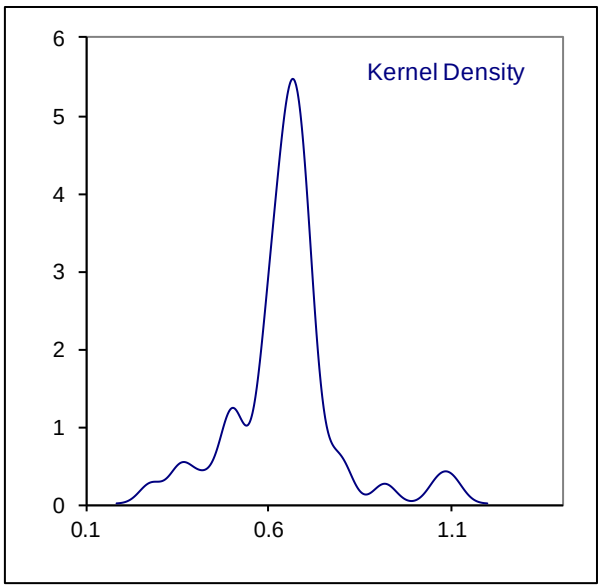
Determination of Anorganic Chloride as Cl on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	Remarks
53	IMPCA002	0.66		0.20	
150	IMPCA002	0.636		-0.03	
171	INH-2367	0.75		1.04	
174	IMPCA002	0.35	C,DG(0.05)	-2.70	first reported:0.2
193	in house	0.694		0.51	
311	IMPCA002	0.7		0.57	
316		-----		-----	
319	IMPCA002	0.65		0.10	
323	IMPCA002	0.5		-1.30	
333	IMPCA002	0.5		-1.30	
334		-----		-----	
335		-----		-----	
343	IMPCA002	0.71		0.66	
344	IMPCA002	0.421		-2.03	
345		-----		-----	
346	IMPCA002	0.591		-0.45	
347	IMPCA002	0.657		0.17	
357	IMPCA002	0.59		-0.46	
372	IMPCA002	0.64		0.01	
395	IMPCA002	0.62		-0.18	
444	IMPCA002	1.06	C, G(0.05)	3.93	first reported:0.31
445		-----		-----	
494	IMPCA002	0.64		0.01	
497	IMPCA002	<0.5		-----	
528	in house	0.4752		-1.53	
529	E2469	0.512		-1.18	
551		-----		-----	
554		-----		-----	
608	IMPCA002	0.914		2.57	
609		-----		-----	
646	in house	0.37		-2.51	
657	IMPCA002	0.7		0.57	
663	IMPCA002	0.66		0.20	
823	IMPCA002	0.6		-0.36	
824	IMPCA002	0.80		1.50	
825	IMPCA002	0.7		0.57	
840	IMPCA002	0.79		1.41	
855	IMPCA002	0.69		0.48	
857	IMPCA002	0.66		0.20	
858	IMPCA002	0.67		0.29	
859	IMPCA002	0.67		0.29	
860	IMPCA002	0.68		0.38	
861		-----		-----	
862	IMPCA002	0.68		0.38	
863	IMPCA002	0.70		0.57	
864	IMPCA002	0.70		0.57	
866		-----		-----	
870	IMPCA002	0.66		0.20	
902		-----		-----	
912		-----		-----	
913		-----		-----	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009	IMPCA002	0.620		-0.18	
1010	in house	0.5		-1.30	
1029	IMPCA002	0.6331		-0.05	
1041		-----		-----	
1067	IMPCA002	0.60		-0.36	
1102		-----		-----	
1107	in house	<0.2		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	IMPCA002	0.6560		0.16	
1201	IMPCA002	<1		-----	
1204	IMPCA002	1.1	G(0.05)	4.30	
1221	IMPCA002	0.66		0.20	
1246		-----		-----	
1256	IMPCA002	0.6076		-0.29	
1263	EN15492	0.699		0.56	
1264		-----		-----	
1319	IMPCA002	0.57		-0.64	
1342		-----		-----	
1354		-----		-----	

1465	in house	0.2765	DG(0.05)	-3.38
1481		-----		-----
1510		-----		-----
1591	IMPCA002	0.60		-0.36
1615		-----		-----
1689		-----		-----
1707	IMPCA002	0.65		0.10
1728		-----		-----
1866		-----		-----
2493		-----		-----

	normality	not OK	
	n	46	
	outliers	4	Spike
	mean (n)	0.64	0.60 <107% recovered
	st.dev. (n)	0.096	
	R(calc.)	0.27	
	R(IMPCA002:98)	0.30	





Determination of Appearance on sample #13160;

lab	method	value	mark	z(targ)	Remarks
53	E2680	Pass		-----	
150	E2680	Fail		-----	
171	E2680	Pass		-----	
174	E2680	Pass		-----	
193	E2680	Pass		-----	
311	E2680	Pass		-----	
316		-----		-----	
319	IMPCA003	CFSM		-----	
323	E2680	CFSSM		-----	
333	IMPCA003	CFFSM		-----	
334		-----		-----	
335	E2680	C&B		-----	
343	IMPCA003	CFSM		-----	
344	E2680	Pass		-----	
345	E2680	Pass		-----	
346		-----		-----	
347	E2680	Pass		-----	
357	E2680	Pass		-----	
372	E2680	Pass		-----	
395	E2680	Pass		-----	
444	E2680	Pass		-----	
445	E2680	Pass		-----	
494	E2680	Pass		-----	
497	IMPCA003	Confirm		-----	
528	E2680	Pass		-----	
529	E2680	Pass		-----	
551		-----		-----	
554		-----		-----	
608	E2680	Pass		-----	
609	E2680	Pass		-----	
646	E2680	CFSM		-----	
657	E2680	Pass		-----	
663	E2680	Pass		-----	
823	E2680	Pass		-----	
824	E2680	CFSM		-----	
825	E2680	Pass		-----	
840	E2680	Pass		-----	
855	E2680	CFSM		-----	
857	E2680	Pass		-----	
858	E2680	Pass		-----	
859	E2680	Pass		-----	
860	E2680	Pass		-----	
861	E2680	B&C		-----	
862	E2680	Pass		-----	
863	E2680	CFSM		-----	
864	IMPCA003	CFSM		-----	
866	E2680	Pass		-----	
870	IMPCA003	CFSM		-----	
902	E2680	Pass		-----	
912	E2680	Pass		-----	
913	E2680	Pass		-----	
963		-----		-----	
974	E2680	Pass		-----	
994		-----		-----	
1009	E2680	Pass		-----	
1010	IMPCA003	CFSM		-----	
1029	IMPCA003	CFSM		-----	
1041	E2680	CFSM		-----	
1067	E2680	Pass		-----	
1102	IMPCA003	CFSM		-----	
1107	Visual	B&C		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	IMPCA003	Pass		-----	
1201	E2680	B&C		-----	
1204	IMPCA003	Clear		-----	
1221	IMPCA003	CFSM		-----	
1246		-----		-----	
1256	E2680	Pass		-----	
1263		-----		-----	
1264	E2680	Pass		-----	
1319	E2680	Pass		-----	
1342		-----		-----	
1354		-----		-----	

1465	E2680	C&F	-----
1481		-----	-----
1510	E2680	Pass	-----
1591	E2680	CFSM	-----
1615	IMPCA003	Clear	-----
1689	E2680	Pass	-----
1707	E2680	Pass	-----
1728	Visual	Clear	-----
1866		-----	-----
2493		-----	-----

normality	n.a
n	68
outliers	n.a
mean (n)	Pass
st.dev. (n)	n.a
R(calc.)	n.a
R(E2680:09)	n.a

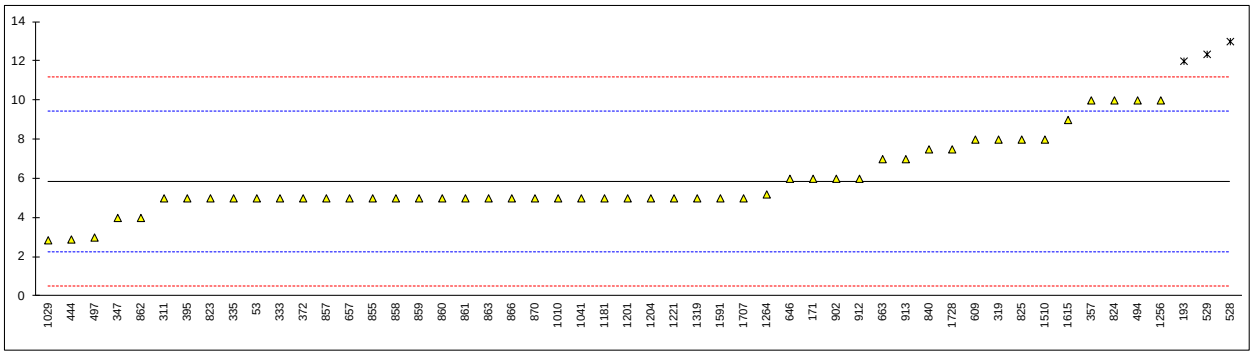
Abbreviations:
C&F = clear and free
CFSM = clear free from suspended matter

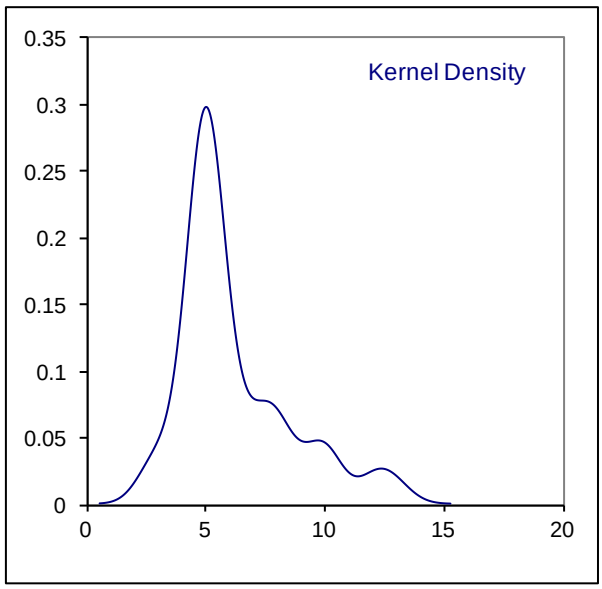
Determination of Carbonisable Substances Pt/Co on sample #13160;

lab	method	value	mark	z(targ)	Remarks
53	E346	5		-0.47	
150		-----		-----	
171	E346	6		0.09	
174		-----		-----	
193	E346	12	G(0.05)	3.45	
311	E346	5		-0.47	
316		-----		-----	
319	E346	8		1.21	
323	E346	<5		-----	
333	E346	5		-0.47	
334		-----		-----	
335	E346	5		-0.47	
343		-----		-----	
344	E346	<30		-----	
345		-----		-----	
346		-----		-----	
347	E346	4		-1.03	
357	E346	10		2.33	
372	E346	5		-0.47	
395	E346	5		-0.47	
444	E346	2.9		-1.64	
445		-----		-----	
494	E346	10		2.33	
497	E346	3		-1.59	
528	E346	13	DG(0.01)	4.01	
529	E346	12.35	DG(0.01)	3.65	
551		-----		-----	
554		-----		-----	
608	E346	<10		-----	
609	E346	8		1.21	
646	E346	6		0.09	
657	E346	5		-0.47	
663	E346	7		0.65	
823	E346	5		-0.47	
824	E346	10		2.33	
825	E346	8		1.21	
840	E346	7.5		0.93	
855	E346	5		-0.47	
857	E346	5		-0.47	
858	E346	5		-0.47	
859	E346	5		-0.47	
860	E346	5		-0.47	
861	E346	5		-0.47	
862	E346	4		-1.03	
863	E346	5		-0.47	
864	E346	<10		-----	
866	E346	5		-0.47	
870	E346	5		-0.47	
902	E346	6		0.09	
912	E346	6		0.09	
913	E346	7		0.65	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009	E346	Pass		-----	
1010	E346	5		-0.47	
1029	E346	2.8588		-1.67	
1041	E346	5		-0.47	
1067		-----		-----	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	E346	5		-0.47	
1201	E346	5		-0.47	
1204	E346	5		-0.47	
1221	E346	5		-0.47	
1246		-----		-----	
1256	E346	10		2.33	
1263		-----		-----	
1264	E346	5.2		-0.36	
1319	E346	5		-0.47	
1342		-----		-----	
1354		-----		-----	

1465	E346	<5		-----	
1481		-----		-----	
1510	E346	8		1.21	
1591	E346	5		-0.47	
1615	E346	9		1.77	
1689		-----		-----	
1707	E346	5		-0.47	
1728	E346	7.5	C	0.93	first reported:12.5
1866		-----		-----	
2493		-----		-----	

normality	not OK
n	49
outliers	3
mean (n)	5.8
st.dev. (n)	1.81
R(calc.)	5.1
R(E346:08)	5.0



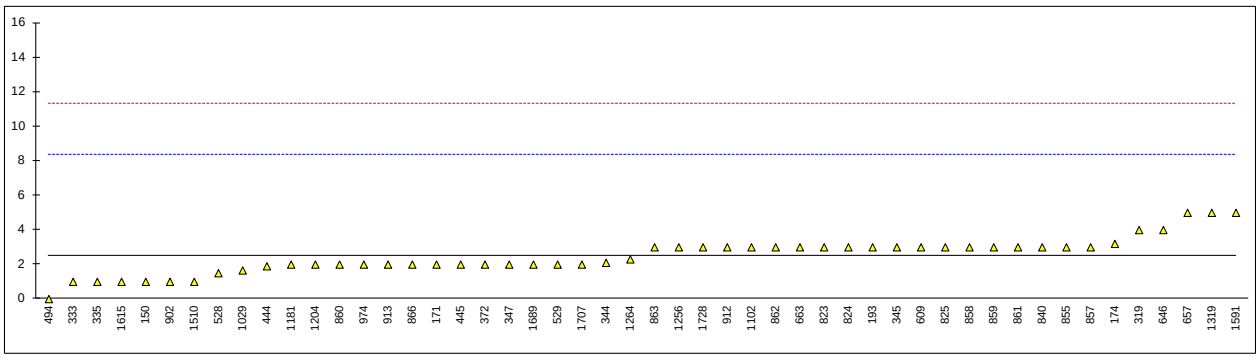


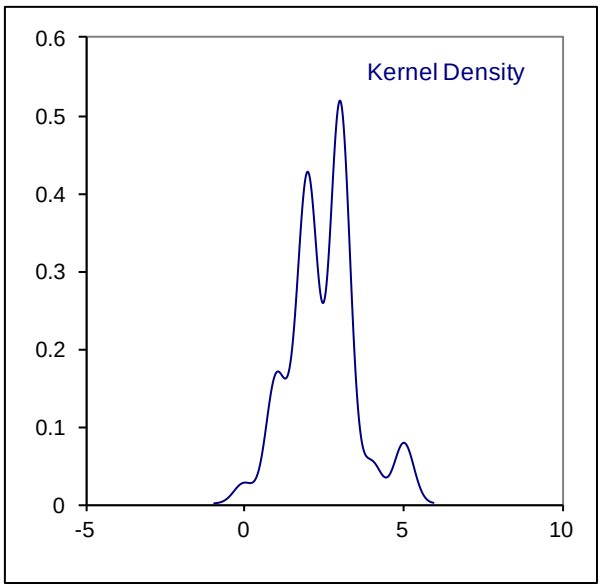
Determination of Colour as Pt/Co on sample #13160;

lab	method	value	mark	z(targ)	Remarks
53	D1209	<5		-----	
150	D5386	1		-0.51	
171	D5386	2		-0.17	
174	D1209	3.2		0.24	
193	D1209	3		0.17	
311	D1209	<5		-----	
316		-----		-----	
319	D1209	4		0.51	
323	D1209	<5		-----	
333	D1209	1		-0.51	
334		-----		-----	
335	D1209	1		-0.51	
343	D1209	L5		-----	
344	D5386	2.1		-0.13	
345	D1209	3		0.17	
346	D1209	<5		-----	
347	D5386	2		-0.17	
357	D1209	<5		-----	
372	D1209	2		-0.17	
395	D1209	<5		-----	
444	D5386	1.9		-0.20	
445	D1209	2		-0.17	
494	D1209	0		-0.85	
497	D1209	<5		-----	
528	D1209	1.5		-0.34	
529	D1209	2		-0.17	
551		-----		-----	
554		-----		-----	
608	D1209	<5		-----	
609	D1209	3		0.17	
646	D1209	4		0.51	
657	D1209	5		0.85	
663	D1209	3		0.17	
823	D1209	3		0.17	
824	D1209	3		0.17	
825	D1209	3		0.17	
840	D1209	3		0.17	
855	D1209	3		0.17	
857	D1209	3		0.17	
858	D1209	3		0.17	
859	D1209	3		0.17	
860	D1209	2		-0.17	
861	D1209	3		0.17	
862	D1209	3		0.17	
863	D1209	3		0.17	
864	D1209	<5		-----	
866	D1209	2		-0.17	
870	D1209	<5		-----	
902	D5386	1		-0.51	
912	D5386	3		0.17	
913	D5386	2		-0.17	
963		-----		-----	
974	D1209	2		-0.17	
994		-----		-----	
1009	D1209	Pass		-----	
1010	D1209	<5		-----	
1029	D1209	1.65865		-0.28	
1041	D1209	<5		-----	
1067	D1209	<5		-----	
1102	D1209	3		0.17	
1107	D1209	<5		-----	
		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	D1209	2		-0.17	
1201	D1209	<5		-----	
1204	D1209	2		-0.17	
1221		-----		-----	
1246		-----		-----	
1256	D1209	3		0.17	
1263		-----		-----	
1264	D1209	2.3		-0.07	
1319	D1209	5		0.85	
1342		-----		-----	
1354		-----		-----	

1465	D1209	<5	-----
1481		-----	-----
1510	D1209	1	-0.51
1591	D1209	5	0.85
1615		1	-0.51
1689	D1209	2	-0.17
1707	D1209	2	-0.17
1728	D1209	3	0.17
1866		-----	-----
2493		-----	-----

normality	not OK
n	50
outliers	0
mean (n)	2.5
st.dev. (n)	1.05
R(calc.)	2.9
R(D1209:11)	8.2



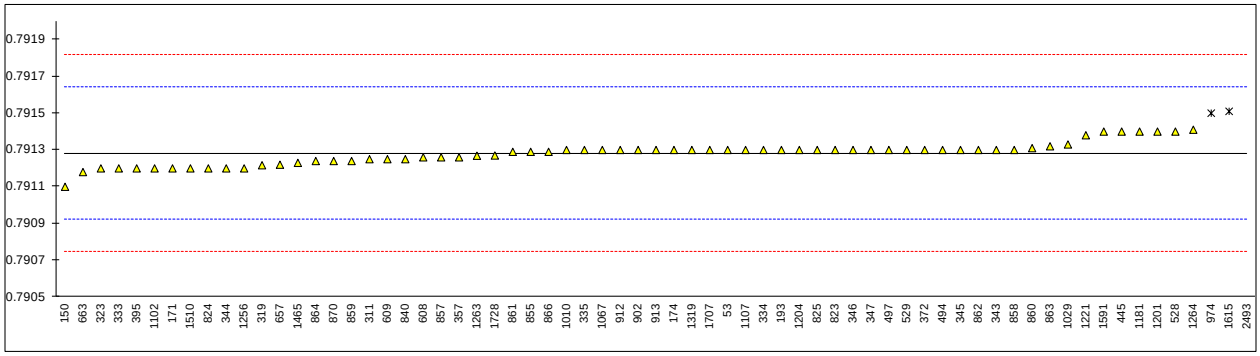


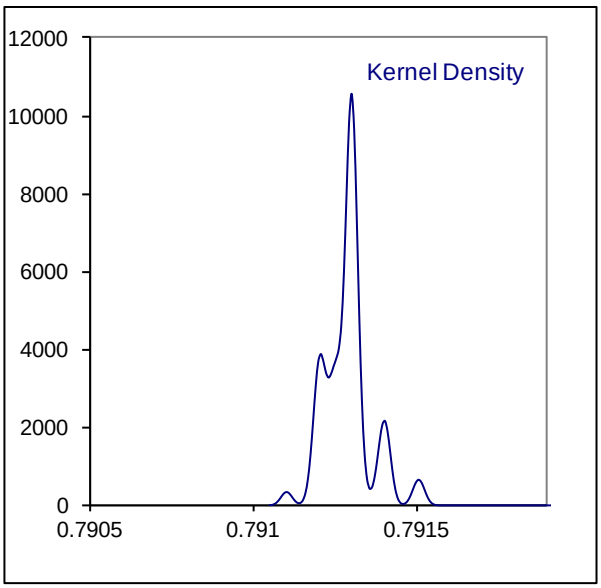
Determination of Density at 20°C on sample #13160; results in kg/L

lab	method	value	mark	z(targ)	Remarks
53	D4052	0.7913		0.11	
150	D4052	0.7911		-1.01	
171	D4052	0.7912		-0.45	
174	D4052	0.7913		0.11	
193	D4052	0.7913		0.11	
311	D4052	0.79125		-0.17	
316		-----		-----	
319	D4052	0.791217		-0.36	
323	D4052	0.7912		-0.45	
333	D4052	0.7912		-0.45	
334	D4052	0.7913		0.11	
335	D4052	0.7913		0.11	
343	D4052	0.7913		0.11	
344	D4052	0.7912		-0.45	
345	D4052	0.7913		0.11	
346	D1298	0.7913		0.11	
347	D4052	0.7913		0.11	
357	D4052	0.79126		-0.12	
372	D4052	0.7913		0.11	
395	D4052	0.7912		-0.45	
444		-----		-----	
445	D4052	0.7914		0.67	
494	D4052	0.7913		0.11	
497	D4052	0.7913		0.11	
528	D4052	0.7914		0.67	
529	D4052	0.7913		0.11	
551		-----		-----	
554		-----		-----	
608	D4052	0.79126		-0.12	
609	D4052	0.79125		-0.17	
646		-----		-----	
657	D4052	0.79122		-0.34	
663	D4052	0.79118		-0.57	
823	D4052	0.7913		0.11	
824	ISO12185	0.7912		-0.45	
825	D4052	0.7913		0.11	
840	D4052	0.79125		-0.17	
855	D4052	0.79129		0.05	
857	D4052	0.79126		-0.12	
858	D4052	0.79130		0.11	
859	D4052	0.79124		-0.23	
860	D4052	0.79131		0.16	
861	D4052	0.79129		0.05	
862	D4052	0.7913		0.11	
863	D4052	0.79132		0.22	
864	D4052	0.79124		-0.23	
866	D4052	0.79129		0.05	
870	D4052	0.79124		-0.23	
902	D4052	0.79130		0.11	
912	D4052	0.7913		0.11	
913	D4052	0.7913		0.11	
963		-----		-----	
974	D4052	0.7915	DG(0.01)	1.23	
994		-----		-----	
1009		-----		-----	
1010	D4505	0.7913		0.11	
1029	D4052	0.79133		0.27	
1041		-----		-----	
1067	D4052	0.7913		0.11	
1102	D4052	0.7912		-0.45	
1107	D4052	0.7913		0.11	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	D4052	0.7914		0.67	
1201	D4052	0.7914		0.67	
1204	D4052	0.7913		0.11	
1221	D4052	0.79138		0.55	
1246		-----		-----	
1256	D4052	0.7912		-0.45	
1263	DIN12185	0.7912686		-0.07	
1264	D4052	0.79141		0.72	
1319	D4052	0.7913		0.11	
1342		-----		-----	
1354		-----		-----	

1465	D4052	0.79123		-0.29
1481		-----		-----
1510	D4052	0.7912		-0.45
1591	D4052	0.7914		0.67
1615	D4052	0.79151	DG(0.01)	1.28
1689		-----		-----
1707	D4052	0.7913		0.11
1728	D4052	0.79127		-0.06
1866		-----		-----
2493	INH-989	0.793	G(0.01)	9.63

normality	not OK
n	64
outliers	3
mean (n)	0.79128
st.dev. (n)	0.000061
R(calc.)	0.00017
R(D4052:11)	0.00050



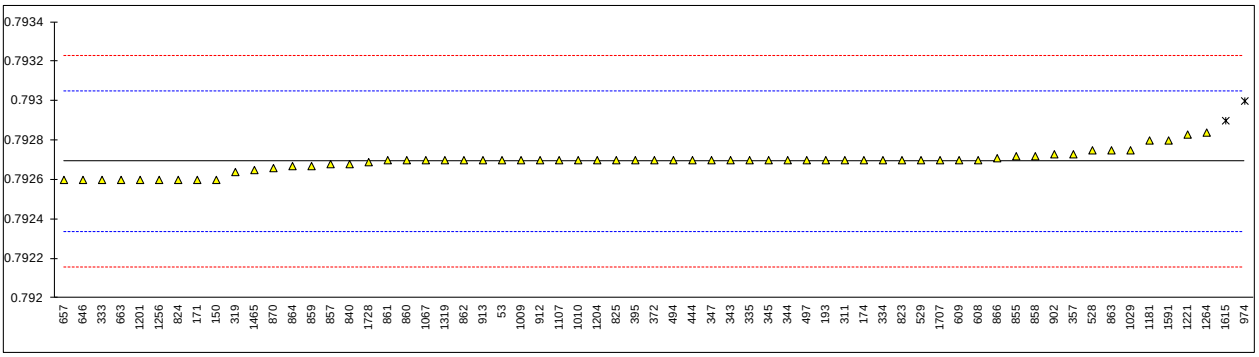


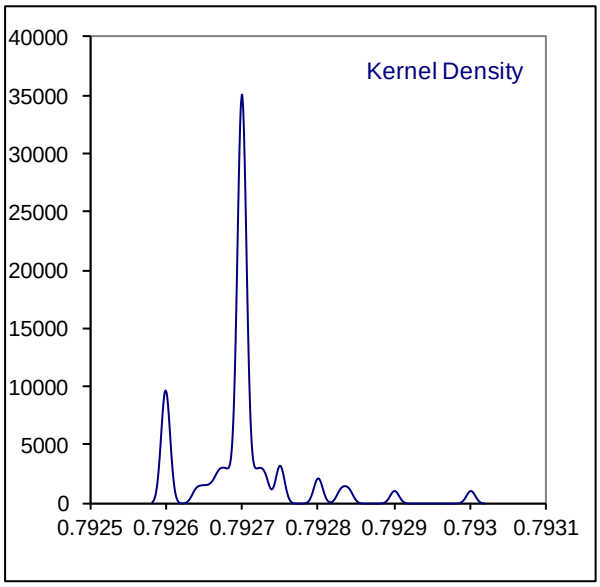
Determination of Specific Gravity 20/20 °C/°C on sample #13160;

lab	method	value	mark	z(targ)	Remarks
53		0.7927		0.04	
150	D4052	0.7926	C	-0.52	first reported:0.7925
171	D4052	0.7926		-0.52	
174	D4052	0.7927		0.04	
193	D4052	0.7927		0.04	
311	D4052	0.7927		0.04	
316		-----		-----	
319	D4052	0.79264		-0.30	
323		-----		-----	
333		0.7926		-0.52	
334		0.7927		0.04	
335		0.7927		0.04	
343		0.79270		0.04	
344	D4052	0.7927		0.04	
345	D4052	0.7927		0.04	
346		-----		-----	
347	D4052	0.7927		0.04	
357	D4052	0.79273		0.21	
372	D4052	0.7927		0.04	
395	D4052	0.7927		0.04	
444	D4052	0.7927		0.04	
445		-----		-----	
494		0.7927		0.04	
497	D4052	0.7927		0.04	
528	D4052	0.79275		0.32	
529	D4052	0.7927		0.04	
551		-----		-----	
554		-----		-----	
608	D4052	0.7927		0.04	
609	D4052	0.7927		0.04	
646	D4052	0.7926		-0.52	
657	D4052	0.7926		-0.52	
663	D4052	0.7926		-0.52	
823	D4052	0.7927		0.04	
824	ISO12185	0.7926		-0.52	
825	D4052	0.7927		0.04	
840	D4052	0.79268		-0.07	
855		0.79272		0.15	
857	D4052	0.79268		-0.07	
858	D4052	0.79272		0.15	
859	D4052	0.79267		-0.13	
860	D4052Calc.	0.7927		0.04	
861		0.7927		0.04	
862	D4052	0.7927		0.04	
863	D4052Calc.	0.79275		0.32	
864	D4052Calc.	0.79267		-0.13	
866	D4052	0.79271		0.09	
870	D4052Calc.	0.79266		-0.19	
902	D4052	0.79273		0.21	
912	D4052	0.7927		0.04	
913	D4052	0.7927		0.04	
963		-----		-----	
974	D4052	0.7930	G(0.01)	1.72	
994		-----		-----	
1009		0.7927		0.04	
1010		0.7927		0.04	
1029	D4052	0.79275		0.32	
1041		-----		-----	
1067		0.7927		0.04	
1102		-----		-----	
1107		0.7927		0.04	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	D4052	0.7928		0.60	
1201		0.7926		-0.52	
1204	D4052	0.7927		0.04	
1221	D4052	0.79283		0.77	
1246		-----		-----	
1256		0.7926		-0.52	
1263		-----		-----	
1264		0.79284		0.82	
1319		0.7927		0.04	
1342		-----		-----	
1354		-----		-----	

1465	D4052	0.79265		-0.24
1481		-----		-----
1510		-----		-----
1591		0.7928		0.60
1615	D4052	0.7929	G(0.05)	1.16
1689		-----		-----
1707		0.7927		0.04
1728	D4052	0.79269		-0.02
1866		-----		-----
2493		-----		-----

normality	not OK
n	61
outliers	2
mean (n)	0.79269
st.dev. (n)	0.000052
R(calc.)	0.00015
R(D4052:11)	0.00050



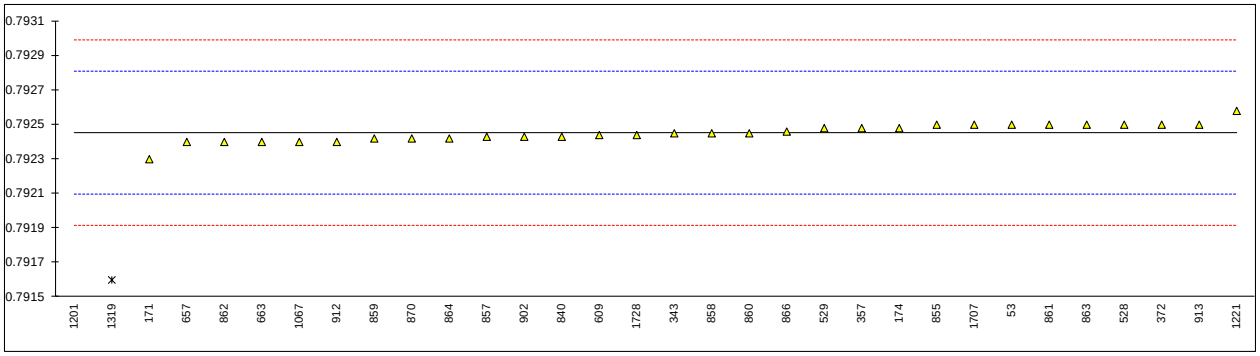


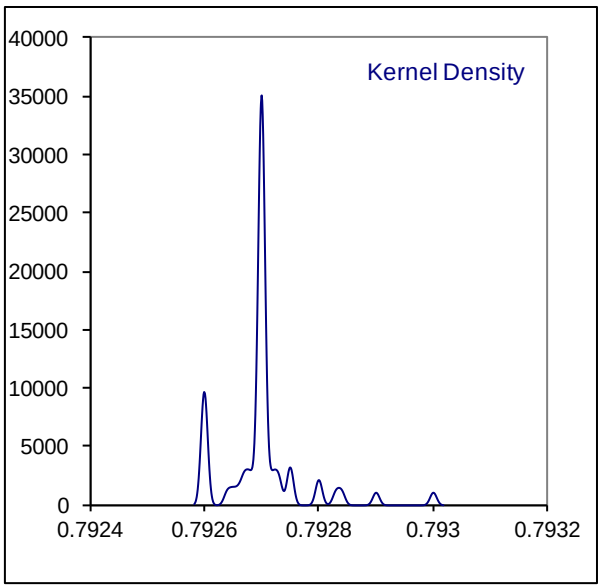
Determination of Specific Gravity, Apparent 20/20 °C/°C on sample #13160;

lab	method	value	mark	z(targ)	Remarks
53		0.7925		0.27	
150		-----		-----	
171		0.7923		-0.85	
174	D4052	0.79248		0.16	
193		-----		-----	
311		-----		-----	
316		-----		-----	
319		-----		-----	
323		-----		-----	
333		-----		-----	
334		-----		-----	
335		-----		-----	
343		0.79245		-0.01	
344		-----		-----	
345		-----		-----	
346		-----		-----	
347		-----		-----	
357	D4052Calc.	0.79248		0.16	
372	D4052	0.7925		0.27	
395		-----		-----	
444		-----		-----	
445		-----		-----	
494		-----		-----	
497		-----		-----	
528	Calc.	0.79250		0.27	
529	D4052	0.79248		0.16	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	D4052	0.79244		-0.07	
646		-----		-----	
657	D4052	0.7924		-0.29	
663	Calc.	0.7924		-0.29	
823		-----		-----	
824		-----		-----	
825		-----		-----	
840	D4052	0.79243		-0.12	
855		0.7925		0.27	
857	D4052Calc.	0.79243		-0.12	
858	D891	0.79245		-0.01	
859	D891	0.79242		-0.18	
860	D891	0.79245		-0.01	
861		0.7925		0.27	
862	D891	0.7924		-0.29	
863	D4052Calc.	0.79250		0.27	
864	D4052Calc.	0.79242		-0.18	
866	D4052	0.79246		0.05	
870	D4052Calc.	0.79242		-0.18	
902		0.79243		-0.12	
912		0.7924		-0.29	
913	D4052	0.7925		0.27	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009		-----		-----	
1010		-----		-----	
1029		-----		-----	
1041		-----		-----	
1067		0.7924		-0.29	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181		-----		-----	
1201		0.7903	G(0.01)	-12.05	
1204		-----		-----	
1221		0.79258		0.72	
1246		-----		-----	
1256		-----		-----	
1263		-----		-----	
1264		-----		-----	
1319		0.7916	C,G(0.01)	-4.77	first reported:0.7927
1342		-----		-----	
1354		-----		-----	

1465		-----	-----
1481		-----	-----
1510		-----	-----
1591		-----	-----
1615		-----	-----
1689		-----	-----
1707		0.7925	0.27
1728	D4052	0.79244	-0.07
1866		-----	-----
2493		-----	-----

normality	OK
n	30
outliers	2
mean (n)	0.79245
st.dev. (n)	0.000052
R(calc.)	0.00015
R(D4052:11)	0.00050



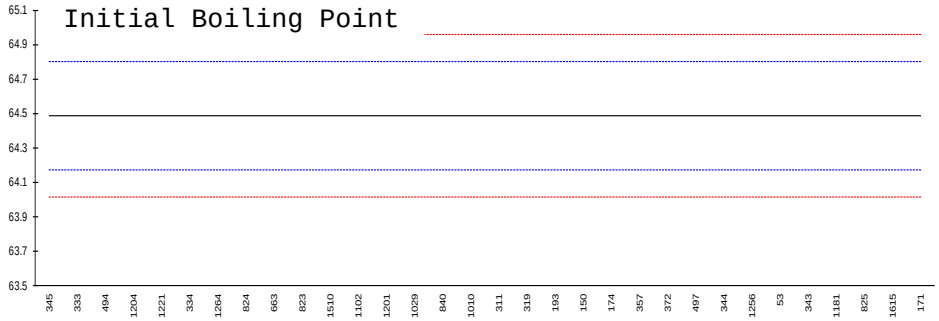


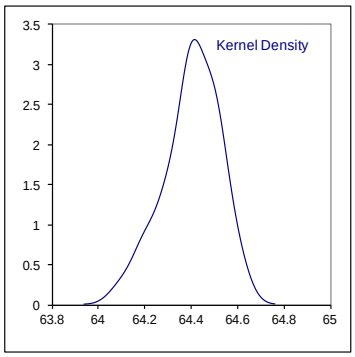
Determination of IBP, MBP and DP (automated) @ 760 mmHg on sample #13160; results in °C

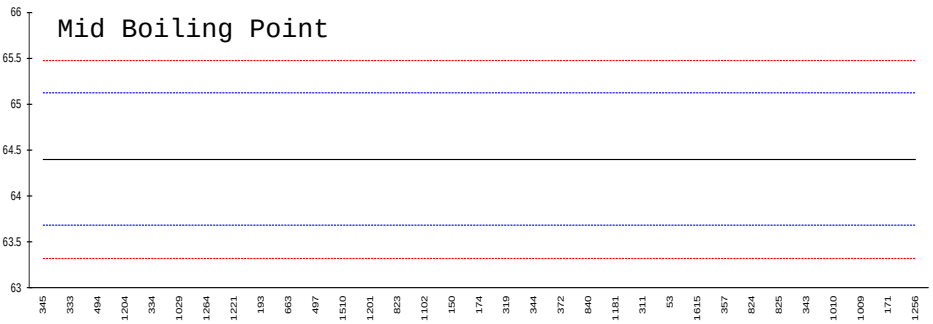
lab		IBP	mark	z(targ)	MBP	mark	z(targ)	DP	mark	z(targ)	remarks
53	D1078-A	64.5		0.27	64.6		0.72	64.8		0.02	
150	D1078-A	64.4		-0.01	64.5		0.08	64.8		0.02	
171	D1078-A	64.6		0.55	64.7	see §4.1	1.35	64.9		0.42	
174	D1078-A	64.4		-0.01	64.5		0.08	64.9		0.42	
193	D1078-A	64.3		-0.28	64.5		0.08	64.8		0.02	
311	D1078-A	64.5		0.27	64.5		0.08	64.8		0.02	
316		-----		-----	-----		-----	-----		-----	
319	D1078-A	64.4		-0.01	64.5		0.08	64.7		-0.39	
323		-----		-----	-----		-----	-----		-----	
333	D1078-A	64.2		-0.56	64.3	see §4.1	-1.19	64.7		-0.39	
334	D1078-A	64.3		-0.28	64.4		-0.56	64.7		-0.39	
335		-----		-----	-----		-----	-----		-----	
343	D1078-A	64.5		0.27	64.6		0.72	65.0		0.82	
344	D1078-A	64.4		-0.01	64.5		0.08	64.6		-0.79	
345	D1078-A	64.1		-0.84	64.2	see §4.1	-1.83	64.5		-1.20	
346		-----		-----	-----		-----	-----		-----	
347		-----		-----	-----		-----	-----		-----	
357	D1078-A	64.5		0.27	64.5		0.08	64.8		0.02	
372	D1078-A	64.4		-0.01	64.5		0.08	64.7		-0.39	
395		-----		-----	-----		-----	-----		-----	
444		-----		-----	-----		-----	-----		-----	
445		-----		-----	-----		-----	-----		-----	
494	D1078-A	64.2		-0.56	64.3	see §4.1	-1.19	64.6		-0.79	
497	D1078-A	64.4		-0.01	64.5		0.08	65.2		1.63	
528		-----		-----	-----		-----	-----		-----	
529		-----		-----	-----		-----	-----		-----	
551		-----		-----	-----		-----	-----		-----	
554		-----		-----	-----		-----	-----		-----	
608		-----		-----	-----		-----	-----		-----	
609		-----		-----	-----		-----	-----		-----	
646		-----		-----	-----		-----	-----		-----	
657		-----		-----	-----		-----	-----		-----	
663	D1078-A	64.4		-0.01	64.5		0.08	64.9		0.42	
823	D1078-A	64.4		-0.01	64.5		0.08	64.8		0.02	
824	D1078-A	64.5		0.27	64.5		0.08	64.9		0.42	
825	D1078-A	64.5		0.27	64.6		0.72	64.9		0.42	
840	D1078-A	64.41		0.02	64.50		0.08	64.88		0.34	
855		-----		-----	-----		-----	-----		-----	
857		-----		-----	-----		-----	-----		-----	
858		-----		-----	-----		-----	-----		-----	
859		-----		-----	-----		-----	-----		-----	
860		-----		-----	-----		-----	-----		-----	
861		-----		-----	-----		-----	-----		-----	
862		-----		-----	-----		-----	-----		-----	
863		-----		-----	-----		-----	-----		-----	
864		-----		-----	-----		-----	-----		-----	
866		-----		-----	-----		-----	-----		-----	
870		-----		-----	-----		-----	-----		-----	
902		-----		-----	-----		-----	-----		-----	
912		-----		-----	-----		-----	-----		-----	
913		-----		-----	-----		-----	-----		-----	
963		-----		-----	-----		-----	-----		-----	
974		-----		-----	-----		-----	-----		-----	
994		-----		-----	-----		-----	-----		-----	
1009	D1078	64.56		0.44	-----		-----	65.46	G(0.01)	2.68	
1010	D1078-A	64.5		0.27	64.5		0.08	64.8		0.02	
1029	D1078-A	64.3		-0.28	64.5		0.08	64.7		-0.39	
1041		-----		-----	-----		-----	-----		-----	
1067		-----		-----	-----		-----	-----		-----	
1102	D1078-A	64.4		-0.01	64.5		0.08	64.8		0.02	
1107		-----		-----	-----		-----	-----		-----	
1108		-----		-----	-----		-----	-----		-----	
1120		-----		-----	-----		-----	-----		-----	
1149		-----		-----	-----		-----	-----		-----	
1181	D1078-A	64.5		0.27	64.6		0.72	64.8		0.02	
1201	D1078-A	64.4		-0.01	64.5		0.08	64.9		0.42	
1204	D1078-A	64.2		-0.56	64.3	see §4.1	-1.19	64.7		-0.39	
1221	D1078-A	64.3		-0.28	64.4		-0.56	64.6		-0.79	
1246		-----		-----	-----		-----	-----		-----	
1256	D1078-A	64.6		0.55	64.6		0.72	65.0		0.82	
1263		-----		-----	-----		-----	-----		-----	
1264	D1078-A	64.3		-0.28	64.4		-0.56	64.5		-1.20	
1319		-----		-----	-----		-----	-----		-----	
1342		-----		-----	-----		-----	-----		-----	
1354		-----		-----	-----		-----	-----		-----	

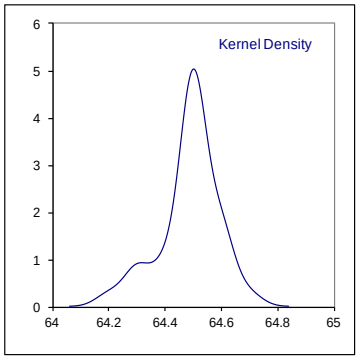
1465		-----	-----	-----	-----	-----		-----
1481		-----	-----	-----	-----	-----		-----
1510	D1078-A	64.4	-0.01	64.5	0.08	64.8		0.02
1591		-----	-----	-----	-----	-----		-----
1615	D1078-A	64.5	0.27	64.6	0.72	65.0	C	0.82
1689		-----	-----	-----	-----	-----		-----
1707		-----	-----	-----	-----	-----		-----
1728		-----	-----	-----	-----	-----		-----
1866		-----	-----	-----	-----	-----		-----
2493		-----	-----	-----	-----	-----		-----
	normality	not OK		not OK		not OK		
	n	33		32		32		
	outliers	0		0		1		
	mean (n)	64.40		64.49		64.80		
	st.dev. (n)	0.119		0.104		0.151		
	R(calc.)	0.33		0.29		0.42		
	R(D1078:11-A)	1.00		0.44		0.69		

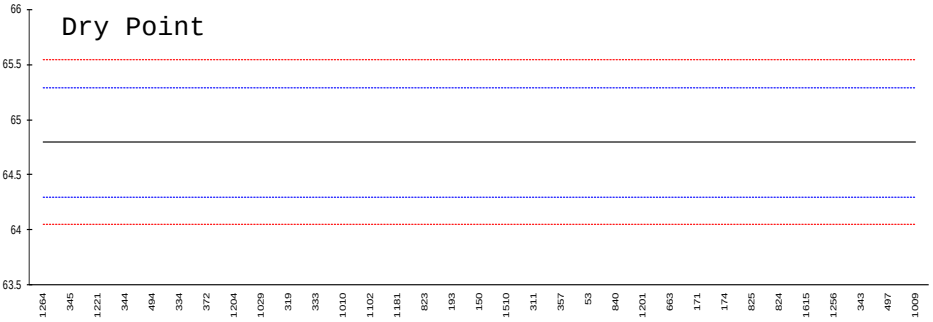
first reported results:
lab 1615 Dry Point: 65.5

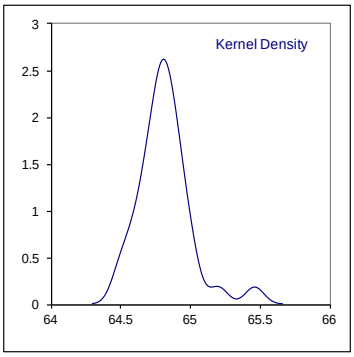










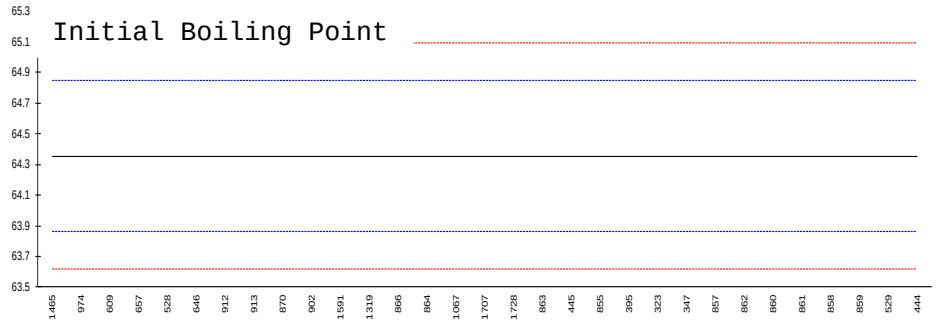


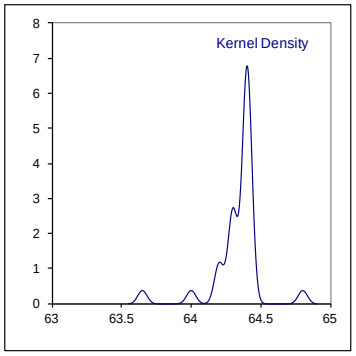
Determination of IBP, MBP and DP (manual) @ 760 mmHg on sample #13160; results in °C

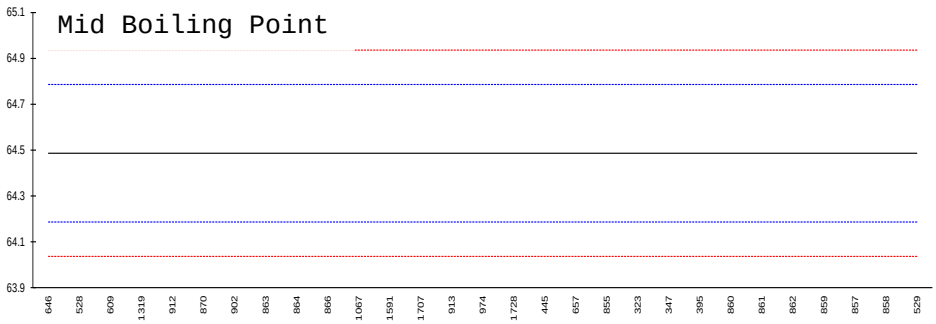
Lab	method	IBP	mark	z(targ)	MBP	mark	z(targ)	DP	mark	z(targ)	Remarks
53		-----		-----	-----		-----	-----		-----	
150		-----		-----	-----		-----	-----		-----	
171		-----		-----	-----		-----	-----		-----	
174		-----		-----	-----		-----	-----		-----	
193		-----		-----	-----		-----	-----		-----	
311		-----		-----	-----		-----	-----		-----	
316		-----		-----	-----		-----	-----		-----	
319		-----		-----	-----		-----	-----		-----	
323	D1078-M	64.4		0.19	64.5		0.09	64.7		-0.29	
333		-----		-----	-----		-----	-----		-----	
334		-----		-----	-----		-----	-----		-----	
335		-----		-----	-----		-----	-----		-----	
343		-----		-----	-----		-----	-----		-----	
344		-----		-----	-----		-----	-----		-----	
345		-----		-----	-----		-----	-----		-----	
346		-----		-----	-----		-----	-----		-----	
347	D1078-M	64.4		0.19	64.5		0.09	64.6		-0.62	
357		-----		-----	-----		-----	-----		-----	
372		-----		-----	-----		-----	-----		-----	
395	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
444	D1078-M	64.8	C,G(0.01)	1.81	-----		-----	65.4	G(0.01)	2.03	
445	D1078-M	64.40		0.19	64.50		0.09	64.80		0.04	
494		-----		-----	-----		-----	-----		-----	
497		-----		-----	-----		-----	-----		-----	
528	D1078-M	64.20		-0.63	64.40		-0.58	65.20	G(0.01)	1.37	
529	D1078-M	64.425		0.29	64.525		0.26	64.825		0.12	
551		-----		-----	-----		-----	-----		-----	
554		-----		-----	-----		-----	-----		-----	
608		-----		-----	-----		-----	-----		-----	
609	D1078-M	64.2		-0.63	64.4		-0.58	64.6		-0.62	
646	D1078-M	64.29		-0.26	64.39		-0.65	64.69		-0.33	
657	D1078-M	64.2		-0.63	64.5		0.09	64.8		0.04	
663		-----		-----	-----		-----	-----		-----	
823		-----		-----	-----		-----	-----		-----	
824		-----		-----	-----		-----	-----		-----	
825		-----		-----	-----		-----	-----		-----	
840		-----		-----	-----		-----	-----		-----	
855	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
857	D1078-M	64.4		0.19	64.5		0.09	64.7		-0.29	
858	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
859	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
860	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
861	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
862	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
863	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
864	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
866	D1078-M	64.4		0.19	64.5		0.09	64.8		0.04	
870	D1078-M	64.3		-0.22	64.5		0.09	64.7		-0.29	
902	D1078-M	64.3		-0.22	64.5		0.09	64.8		0.04	
912	D1078-M	64.3		-0.22	64.5		0.09	64.9		0.37	
913	D1078	64.3		-0.22	64.5		0.09	64.9		0.37	
963		-----		-----	-----		-----	-----		-----	
974	D1078-M	64.0	G(0.01)	-1.44	64.5		0.09	-----		-----	
994		-----		-----	-----		-----	-----		-----	
1009		-----		-----	-----		-----	-----		-----	
1010		-----		-----	-----		-----	-----		-----	
1029		-----		-----	-----		-----	-----		-----	
1041		-----		-----	-----		-----	-----		-----	
1067	D1078	64.4		0.19	64.5		0.09	64.9		0.37	
1102		-----		-----	-----		-----	-----		-----	
1107		-----		-----	-----		-----	-----		-----	
1108		-----		-----	-----		-----	-----		-----	
1120		-----		-----	-----		-----	-----		-----	
1149		-----		-----	-----		-----	-----		-----	
1181		-----		-----	-----		-----	-----		-----	
1201		-----		-----	-----		-----	-----		-----	
1204		-----		-----	-----		-----	-----		-----	
1221		-----		-----	-----		-----	-----		-----	
1246		-----		-----	-----		-----	-----		-----	
1256		-----		-----	-----		-----	-----		-----	
1263		-----		-----	-----		-----	-----		-----	
1264		-----		-----	-----		-----	-----		-----	
1319	D1078-M	64.3		-0.22	64.4		-0.58	65.0		0.70	
1342		-----		-----	-----		-----	-----		-----	
1354		-----		-----	-----		-----	-----		-----	

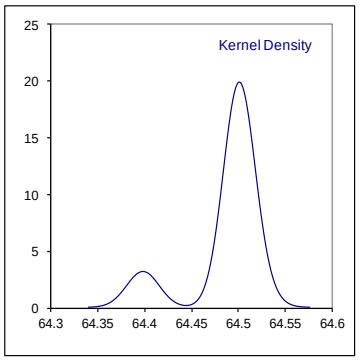
1465	D1078-M	63.65	G(0.01)	-2.86	-----	-----	64.65	-0.46
1481		-----		-----	-----	-----	-----	-----
1510		-----		-----	-----	-----	-----	-----
1591	D1078-M	64.3		-0.22	64.5	0.09	64.8	0.04
1615		-----		-----	-----	-----	-----	-----
1689		-----		-----	-----	-----	-----	-----
1707	D1078-M	64.4		0.19	64.5	0.09	64.7	-0.29
1728	D1078-M	64.4		0.19	64.5	0.09	65.0	0.70
1866		-----		-----	-----	-----	-----	-----
2493		-----		-----	-----	-----	-----	-----
	normality	not OK			not OK		not OK	
	n	28			29		28	
	outliers	3			0		2	
	mean (n)	64.35			64.49		64.79	
	st.dev. (n)	0.070			0.037		0.098	
	R(calc.)	0.20			0.10		0.28	
	R(D1078:11-M)	0.69			0.42		0.84	

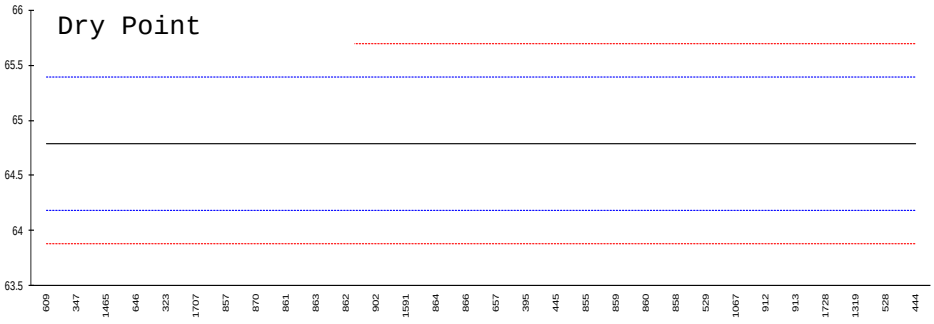
<u>first reported results</u>
lab 444 IBP: 64.8

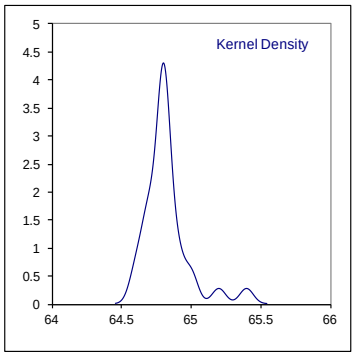












Determination of Water Miscibility on sample #13160;

lab	method	value	mark	z(targ)	remarks
53	D1722	Pass		-----	
150	D1722	Pass		-----	
171	D1722	Pass		-----	
174	D1722	Pass		-----	
193	D1722	Pass		-----	
311	D1722	Pass		-----	
316		-----		-----	
319	D1722	Pass		-----	
323	D1722	Pass		-----	
333	D1722	Pass		-----	
334		-----		-----	
335		-----		-----	
343	D1722	Pass		-----	
344	D1722	Pass		-----	
345	D1722	Pass		-----	
346	D1722	Pass		-----	
347	D1722	Pass		-----	
357	D1722	Pass		-----	
372	D1722	Pass		-----	
395	D1722	Pass		-----	
444	D1722	Pass		-----	
445	D1722	Pass		-----	
494	D1722	Pass		-----	
497	D1722	Pass		-----	
528	D1722	Pass		-----	
529	D1722	Pass		-----	
551		-----		-----	
554		-----		-----	
608	D1722	Pass		-----	
609	D1722	Pass		-----	
646	D1722	Fail		-----	
657	D1722	Pass		-----	
663	D1722	Pass		-----	
823	D1722	Pass		-----	
824	D1722	Pass		-----	
825	D1722	Pass		-----	
840	D1722	Pass		-----	
855	D1722	Pass		-----	
857	D1722	Pass		-----	
858	D1722	Pass		-----	
859	D1722	Pass		-----	
860	D1722	Pass		-----	
861	D1722	Pass		-----	
862	D1722	Pass		-----	
863	D1722	Pass		-----	
864	D1722	Pass		-----	
866	D1722	Pass		-----	
870	D1722	Pass		-----	
902	D1722	Pass		-----	
912	D1722	Pass		-----	
913	D1722	Pass		-----	
963		-----		-----	
974	D1722	Pass		-----	
994		-----		-----	
1009		-----		-----	
1010	D1722	Pass		-----	
1029	D1722	Pass		-----	
1041	D1722	Pass		-----	
1067	D1722	Pass		-----	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	D1722	Pass		-----	
1201	D1722	Pass		-----	
1204	D1722	Pass		-----	
1221		-----		-----	
1246		-----		-----	
1256	D1722	Pass		-----	
1263		-----		-----	
1264	D1722	Pass		-----	
1319	D1722	Pass		-----	
1342		-----		-----	
1354		-----		-----	

1465	D1722	Pass	-----
1481		-----	-----
1510	D1722	Pass	-----
1591	D1722	Complete	-----
1615	D1722	Pass	-----
1689	D1722	Pass	-----
1707	D1722	Pass	-----
1728	D1722	Pass	-----
1866		-----	-----
2493	D1722	Pass	-----

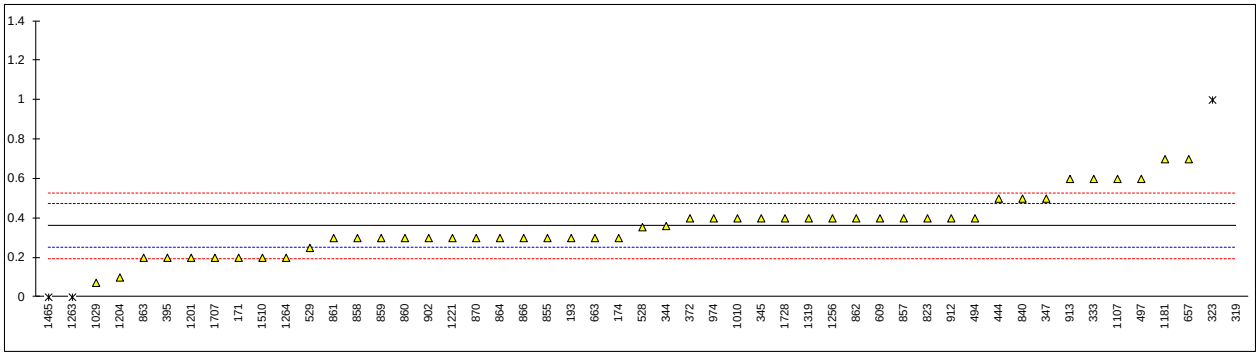
normality	n.a
n	64
outliers	n.a
mean (n)	Pass
st.dev. (n)	n.a
R(calc.)	n.a
R(D1722:09)	n.a

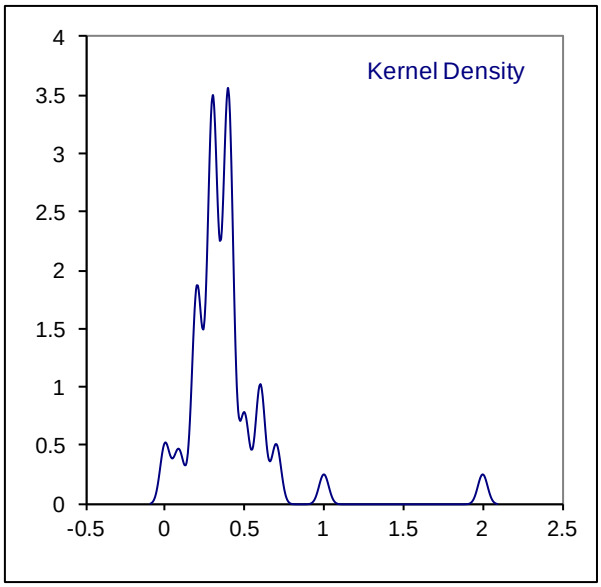
Determination of Nonvolatile Matter on sample #13160; results in mg/100 mL

lab	method	value	mark	z(targ)	remarks
53	D1353	<5		-----	
150	D1353	<0.1		<-4.55	False negative?
171	D1353	0.2		-2.89	
174	D1353	0.3		-1.09	
193	D1353	0.3		-1.09	
311	D1353	<1		-----	
316		-----		-----	
319	D1353	2	G(0.01)	29.52	
323	D1353	1	G(0.01)	11.52	
333	D1353	0.6		4.31	
334		-----		-----	
335		-----		-----	
343	D1353	<0.1		<-4.55	False negative?
344	D1353	0.3612		0.01	
345	D1353	0.4		0.71	
346		-----		-----	
347	D1353	0.5		2.51	
357	D1353	<1		-----	
372	D1353	0.4		0.71	
395	D1353	0.2		-2.89	
444	D1353	0.5		2.51	
445	D1353	<1		-----	
494	D1353	0.4		0.71	
497	D1353	0.6		4.31	
528	D1353	0.355		-0.10	
529	D1353	0.25		-1.99	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	D1353	0.4		0.71	
646		-----		-----	
657	D1353	0.7		6.11	
663	D1353	0.3		-1.09	
823	D1353	0.4		0.71	
824		-----		-----	
825		-----		-----	
840	D1353	0.5		2.51	
855	D1353	0.3		-1.09	
857	D1353	0.4		0.71	
858	D1353	0.3		-1.09	
859	D1353	0.3		-1.09	
860	D1353	0.3		-1.09	
861	D1353	0.3		-1.09	
862	D1353	0.4		0.71	
863	D1353	0.2		-2.89	
864	D1353	0.3		-1.09	
866	D1353	0.3		-1.09	
870	D1353	0.3		-1.09	
902	D1353	0.3		-1.09	
912	D1353	0.4		0.71	
913	D1353	0.6		4.31	
963		-----		-----	
974	D1353	0.4		0.71	
994		-----		-----	
1009	D1353	<0.001		<-6.28	False negative?
1010	D1353	0.4		0.71	
1029	D1353	0.073		-5.17	
1041	D1353	<1		-----	
1067		-----		-----	
1102		-----		-----	
1107	D1353	0.6		4.31	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	D1353	0.7		6.11	
1201	D1353	0.2		-2.89	
1204	D1353	0.1	C	-4.69	first reported:1
1221	D1353	0.3		-1.09	
1246		-----		-----	
1256	D1353	0.4		0.71	
1263	D1353	0	ex	-6.49	result excluded, zero is not a real value
1264	D1353	0.2		-2.89	
1319	D1353	0.4		0.71	
1342		-----		-----	
1354		-----		-----	

1465	D1353	0	ex	-6.49	result excluded, zero is not a real value
1481		-----		-----	
1510	D1353	0.2		-2.89	
1591	D1353	<1		-----	
1615	D1353	<0.0001		<-6.30	False negative?
1689		-----		-----	
1707	D1353	0.2		-2.89	
1728	D1353	0.4		0.71	
1866		-----		-----	
2493		-----		-----	

	normality	not OK	
	n	47	
	outliers	2	+2 excluded
	mean (n)	0.36	
	st.dev. (n)	0.142	
	R(calc.)	0.40	
	R(D1353:13)	0.16	Compare R(D1353:09) = 2.4 mg/100ml





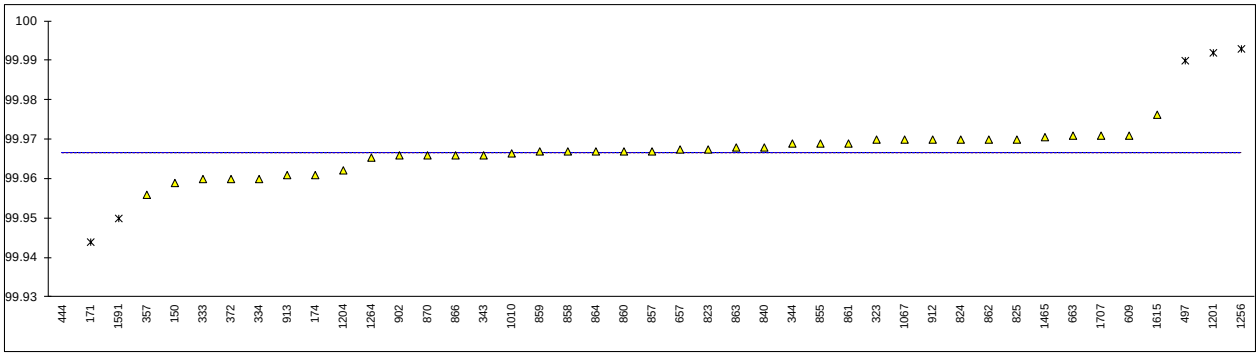
Determination of Purity “as received” on sample #13160; results in %M/M

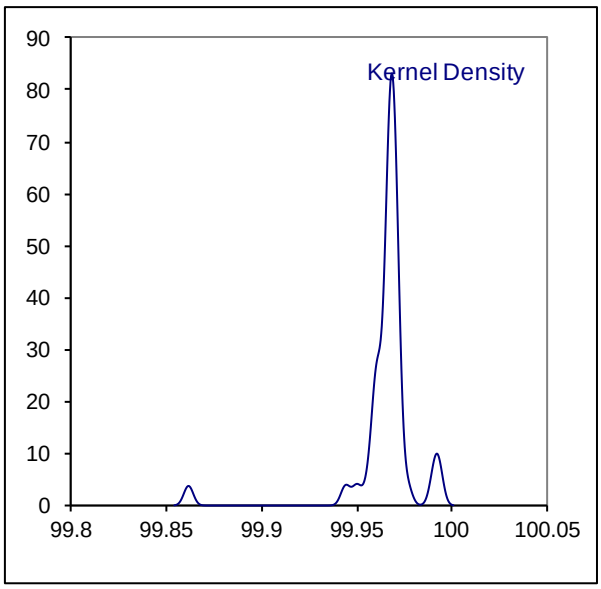
lab	method	value	mark	z(targ)	Remarks
53		-----		-----	
150		99.959		-----	
171		99.944	G(0.05)	-----	
174	IMPCA001	99.961		-----	
193		-----		-----	
311		-----		-----	
316		-----		-----	
319		-----		-----	
323	INH-64	99.97		-----	
333		99.96		-----	
334		99.96		-----	
335		-----		-----	
343		99.966		-----	
344	IMPCA001	99.9690		-----	
345		-----		-----	
346		-----		-----	
347		-----		-----	
357		99.956		-----	
372		99.96		-----	
395		-----		-----	
444	IMPCA001	99.8619	C,G(0.01)	-----	first reported:99.9147
445		-----		-----	
494		-----		-----	
497	in house	99.99	ex	-----	result excluded as purity on dry basis “as received” > purity
528		-----		-----	
529		-----		-----	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	Calc.	99.971		-----	
646		-----		-----	
657	Calc	99.9675		-----	
663		99.971		-----	
823		99.9675		-----	
824		99.97		-----	
825		99.97		-----	
840	IMPCA001	99.968		-----	
855		99.969		-----	
857	IMPCA001	99.967		-----	
858	IMPCA001	99.967		-----	
859		99.967		-----	
860	IMPCA001	99.967		-----	
861	IMPCA001	99.969		-----	
862	IMPCA001	99.970		-----	
863	IMPCA001	99.968		-----	
864	IMPCA001	99.967		-----	
866	IMPCA001	99.966		-----	
870	IMPCA001	99.966		-----	
902		99.966		-----	
912		99.97		-----	
913	IMPCA001	99.961		-----	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009		-----		-----	
1010		99.9665		-----	
1029		-----		-----	
1041		-----		-----	
1067	IMPCA001	99.97		-----	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181		-----		-----	
1201		99.992	ex	-----	result excluded as purity on dry basis “as received” > purity
1204	IMPCA001	99.9622		-----	
1221		-----		-----	
1246		-----		-----	
1256		99.993	ex	-----	result excluded as purity on dry basis “as received” > purity
1263		-----		-----	
1264		99.96543		-----	
1319		-----		-----	
1342		-----		-----	
1354		-----		-----	

1465		99.970618		-----
1481		-----		-----
1510		-----		-----
1591		99.95	G(0.05)	-----
1615	in house	99.9763		-----
1689		-----		-----
1707		99.971		-----
1728		-----		-----
1866		-----		-----
2493		-----		-----

	normality	not OK	
	n	37	
	outliers	3	+3 excluded
	mean (n)	99.9667	
	st.dev. (n)	0.004239	
	R(calc.)	0.01187	
	R(lit)	unknown	

Compare R(iis12C06) = 0.0154





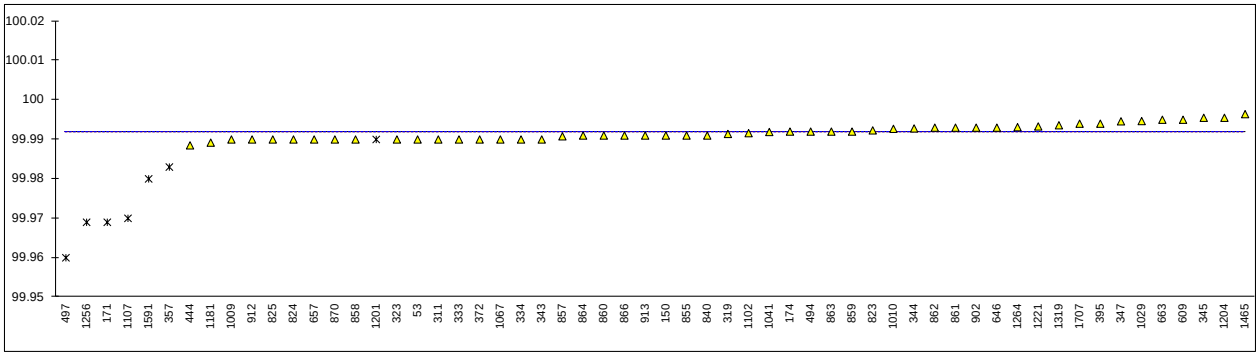
Determination of Purity on dry basis on sample #13160; results in %M/M

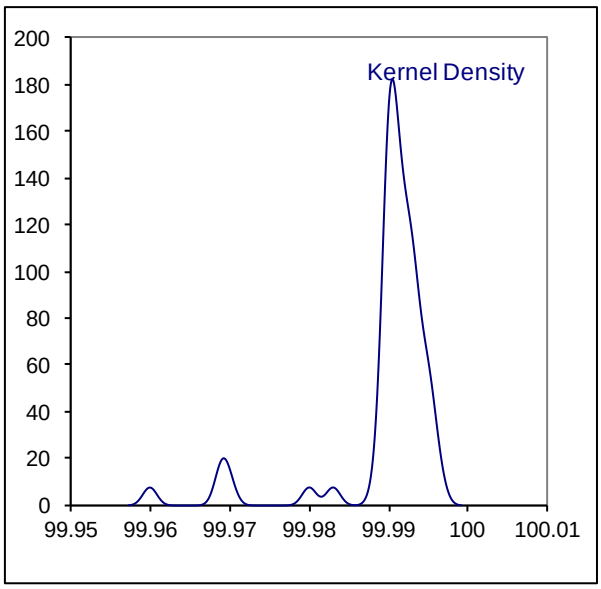
lab	method	value	mark	z(targ)	Remarks
53	IMPCA001	99.99		-----	
150	IMPCA001	99.991		-----	
171	IMPCA001	99.969	G(0.01)	-----	
174	IMPCA001	99.992		-----	
193		-----		-----	
311	IMPCA001	99.99		-----	
316		-----		-----	
319	IMPCA001	99.9914		-----	
323	IMPCA001	99.99		-----	
333	IMPCA001	99.99		-----	
334	IMPCA001	99.99		-----	
335		-----		-----	
343	IMPCA001	99.99		-----	
344	IMPCA001	99.9928		-----	
345	IMPCA001	99.9955		-----	
346		-----		-----	
347	IMPCA001	99.9946		-----	
357	IMPCA001	99.983	G(0.01)	-----	
372	IMPCA001	99.99		-----	
395	IMPCA001	99.994		-----	
444	IMPCA001	99.9885	C	-----	first reported:99.9979
445		-----		-----	
494	IMPCA001	99.992		-----	
497	IMPCA001	99.96	ex	-----	result excluded as purity on dry basis < purity “as received”
528		-----		-----	
529		-----		-----	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	IMPCA001	99.995		-----	
646	IMPCA001	99.993		-----	
657	IMPCA001	99.99		-----	
663	IMPCA001	99.995		-----	
823	IMPCA001	99.9923		-----	
824	IMPCA001	99.99		-----	
825	IMPCA001	99.99		-----	
840	IMPCA001	99.991		-----	
855	IMPCA001	99.991		-----	
857	IMPCA001	99.9908		-----	
858	IMPCA001	99.990		-----	
859	IMPCA001	99.992		-----	
860	IMPCA001	99.991		-----	
861	IMPCA001	99.993		-----	
862	IMPCA001	99.993		-----	
863	IMPCA001	99.992		-----	
864	IMPCA001	99.991		-----	
866	IMPCA001	99.991		-----	
870	IMPCA001	99.990		-----	
902	IMPCA001	99.993		-----	
912		99.99		-----	
913	IMPCA001	99.991		-----	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009	IMPCA001	99.99		-----	
1010	IMPCA001	99.9927		-----	
1029	IMPCA001	99.994665		-----	
1041	IMPCA001	99.9919		-----	
1067	IMPCA001	99.99		-----	
1102	IMPCA001	99.9916		-----	
1107	in house	99.97	G(0.01)	-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	IMPCA001	99.9892		-----	
1201	IMPCA001	99.99	ex	-----	result excluded as purity on dry basis < purity “as received”
1204	IMPCA001	99.9955		-----	
1221	IMPCA001	99.9933		-----	
1246		-----		-----	
1256	IMPCA001	99.969	ex	-----	result excluded as purity on dry basis < purity “as received”
1263		-----		-----	
1264	IMPCA001	99.99312		-----	
1319	IMPCA001	99.9936		-----	
1342		-----		-----	
1354		-----		-----	

1465	IMPCA001Mod.	99.996418		-----
1481		-----		-----
1510		-----		-----
1591	IMPCA001	99.98	G(0.01)	-----
1615		-----		-----
1689		-----		-----
1707	IMPCA001	99.994		-----
1728		-----		-----
1866		-----		-----
2493		-----		-----

normality	not OK	
n	51	
outliers	4	+3 excluded
mean (n)	99.9918	
st.dev. (n)	0.001909	
R(calc.)	0.00535	
R(lit)	unknown	

Compare R(iis12C06) = 0.0074

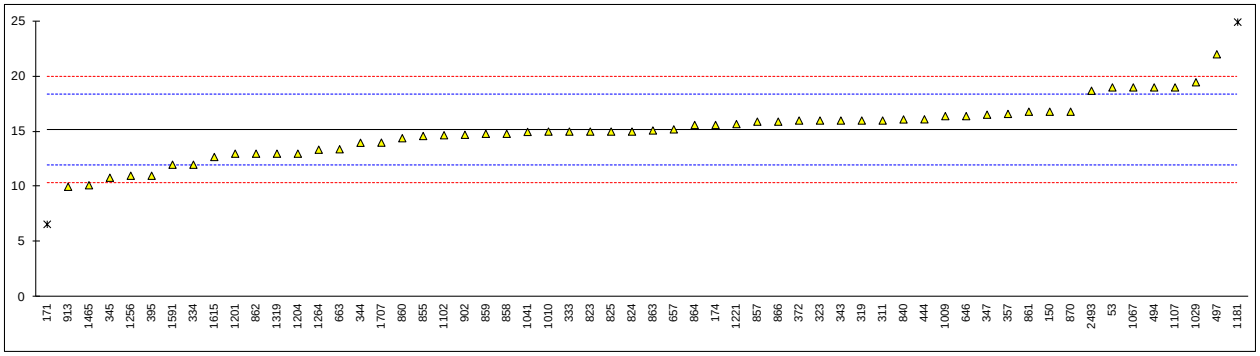


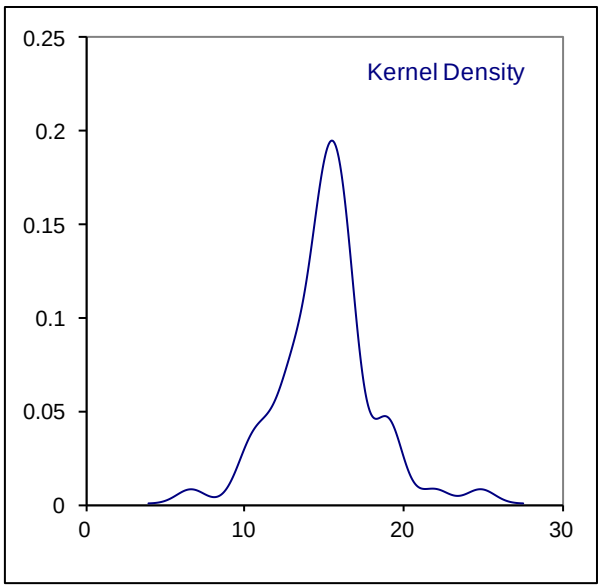


Determination of Acetone content on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	remarks
53	IMPCA001	19		2.40	
150	IMPCA001	16.8		1.03	
171	IMPCA001	6.6	G(0.05)	-5.31	
174	IMPCA001	15.6		0.28	
193		-----		-----	
311	IMPCA001	16		0.53	
316		-----		-----	
319	IMPCA001	16		0.53	
323	IMPCA001	16		0.53	
333	IMPCA001	15		-0.09	
334	IMPCA001	12		-1.95	
335		-----		-----	
343	IMPCA001	16		0.53	
344	IMPCA001	13.986		-0.72	
345	IMPCA001	10.82		-2.69	
346		-----		-----	
347	IMPCA001	16.53		0.86	
357	IMPCA001	16.6		0.90	
372	IMPCA001	16		0.53	
395	IMPCA001	11.0		-2.57	
444	IMPCA001	16.11	C	0.60	first reported:3.33
445		-----		-----	
494	IMPCA001	19		2.40	
497	IMPCA001	22		4.26	
528	E346	<30		-----	probably unit error, reported <0.003
529		-----		-----	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	E346	<30		-----	
646	IMPCA001	16.4		0.78	
657	IMPCA001	15.2		0.04	
663	IMPCA001	13.4	C	-1.08	first reported:<10
823	IMPCA001	15		-0.09	
824	IMPCA001	15		-0.09	
825	IMPCA001	15		-0.09	
840	IMPCA001	16.1		0.59	
855	IMPCA001	14.6		-0.34	
857	IMPCA001	15.9		0.47	
858	IMPCA001	14.8		-0.21	
859	IMPCA001	14.8		-0.21	
860	IMPCA001	14.4		-0.46	
861	IMPCA001	16.8		1.03	
862	IMPCA001	13		-1.33	
863	IMPCA001	15.1		-0.03	
864	IMPCA001	15.6		0.28	
866	IMPCA001	15.9		0.47	
870	IMPCA001	16.8		1.03	
902	IMPCA001	14.71		-0.27	
912		-----		-----	
913	IMPCA001	10		-3.20	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009	IMPCA001	16.4		0.78	
1010	IMPCA001	15		-0.09	
1029	IMPCA001	19.4654		2.69	
1041	IMPCA001	14.97		-0.11	
1067	IMPCA001	19		2.40	
1102	IMPCA001	14.67		-0.29	
1107	in house	19		2.40	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	IMPCA001	24.9111	G(0.05)	6.07	
1201	IMPCA001	13		-1.33	
1204	IMPCA001	13.0		-1.33	
1221	IMPCA001	15.68		0.33	
1246		-----		-----	
1256	IMPCA001	11		-2.57	
1263		-----		-----	
1264	IMPCA001	13.36		-1.11	
1319	IMPCA001	13		-1.33	
1342		-----		-----	
1354		-----		-----	

1465	IMPCA001Mod.	10.14		-3.11	
1481		-----		-----	
1510		-----		-----	
1591	IMPCA001	12		-1.95	
1615	D1612	12.70		-1.52	
1689		-----		-----	
1707	IMPCA001	14	C	-0.71	first reported:8
1728		-----		-----	
1866		-----		-----	
2493	IMPCA001	18.7	C	2.21	first reported:21.3
	normality	not OK			
	n	56			
	outliers	2	Spike		
	mean (n)	15.144	15.3		<99% recovered
	st.dev. (n)	2.4112			
	R(calc.)	6.751			
	R(Horwitz)	4.507			

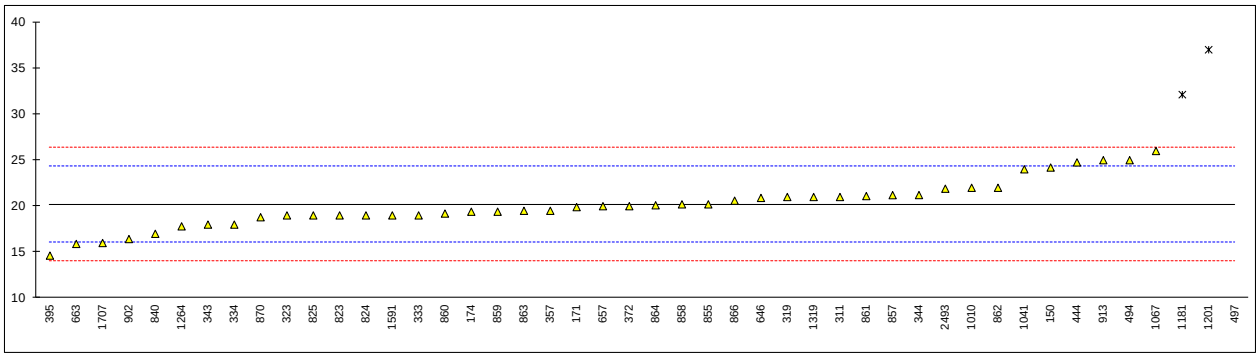


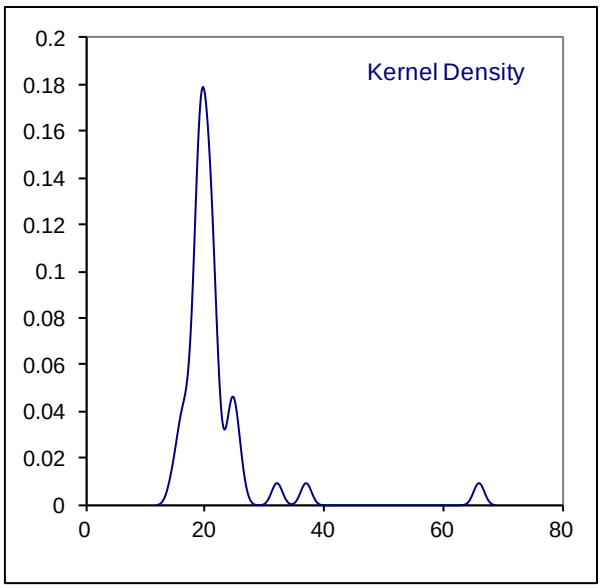


Determination of Benzene content on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	Remarks
53		-----		-----	
150	IMPCA001	24.2		1.97	
171	IMPCA001	19.9		-0.13	
174	IMPCA001	19.4		-0.37	
193		-----		-----	
311	IMPCA001	21		0.41	
316		-----		-----	
319	IMPCA001	21		0.41	
323	INH-064	19		-0.56	
333	IMPCA001	19		-0.56	
334	IMPCA001	18		-1.05	
335		-----		-----	
343	IMPCA001	18		-1.05	
344	IMPCA001	21.210		0.51	
345		-----		-----	
346		-----		-----	
347		-----		-----	
357	IMPCA001	19.5		-0.32	
372	IMPCA001	20		-0.08	
395	IMPCA001	14.63		-2.69	
444	IMPCA001	24.76	C	2.24	first reported:3.99
445		-----		-----	
494	IMPCA001	25		2.36	
497	IMPCA001	66	G(0.01)	22.34	
528		-----		-----	
529		-----		-----	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609		-----		-----	
646	IMPCA001	20.9		0.36	
657	IMPCA001	20.0		-0.08	
663	IMPCA001	15.9		-2.08	
823	IMPCA001	19		-0.56	
824	IMPCA001	19		-0.56	
825	IMPCA001	19		-0.56	
840	IMPCA001	17.0		-1.54	
855	IMPCA001	20.2		0.02	
857	IMPCA001	21.2		0.51	
858	IMPCA001	20.2		0.02	
859	IMPCA001	19.4		-0.37	
860	IMPCA001	19.2		-0.47	
861	IMPCA001	21.1		0.46	
862	IMPCA001	22		0.90	
863	IMPCA001	19.5		-0.32	
864	IMPCA001	20.1		-0.03	
866	IMPCA001	20.6		0.21	
870	IMPCA001	18.8		-0.66	
902	IMPCA001	16.43		-1.82	
912		-----		-----	
913	IMPCA001	25		2.36	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009		-----		-----	
1010	IMPCA001	22		0.90	
1029		-----		-----	
1041	in house	24.01		1.88	
1067	IMPCA001	26		2.85	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	IMPCA001	32.1211	G(0.01)	5.83	
1201	IMPCA001	37	G(0.01)	8.21	
1204		-----		-----	
1221		-----		-----	
1246		-----		-----	
1256		-----		-----	
1263		-----		-----	
1264	IMPCA001	17.81		-1.14	
1319	IMPCA001	21		0.41	
1342		-----		-----	
1354		-----		-----	

1465		-----		-----	
1481		-----		-----	
1510		-----		-----	
1591	IMPCA001	19		-0.56	
1615		-----		-----	
1689		-----		-----	
1707	IMPCA001	16	C	-2.03	first reported:14
1728		-----		-----	
1866		-----		-----	
2493	IMPCA001	21.9		0.85	
	normality	OK			
	n	43			
	outliers	3	Spike		
	mean (n)	20.159	20.1		<100% recovered
	st.dev. (n)	2.5202			
	R(calc.)	7.057			
	R(Horwitz)	5.747			

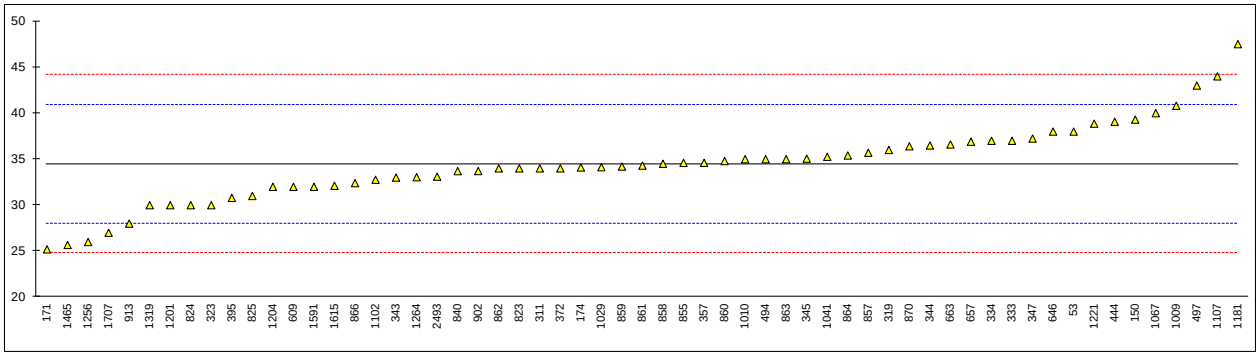


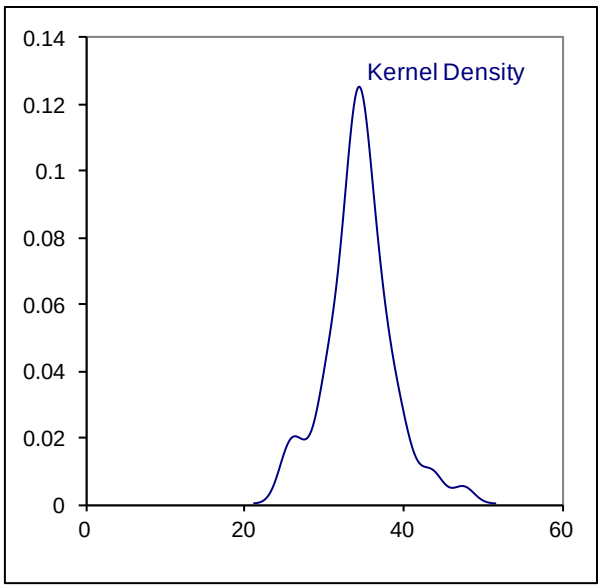


Determination of Ethanol content on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	remarks
53	IMPCA001	38		1.09	
150	IMPCA001	39.3		1.49	
171	IMPCA001	25.2		-2.86	
174	IMPCA001	34.1		-0.11	
193		-----		-----	
311	IMPCA001	34		-0.14	
316		-----		-----	
319	IMPCA001	36		0.47	
323	IMPCA001	30		-1.38	
333	IMPCA001	37		0.78	
334	IMPCA001	37		0.78	
335		-----		-----	
343	IMPCA001	33		-0.45	
344	IMPCA001	36.488		0.63	
345	IMPCA001	35.06		0.18	
346		-----		-----	
347	IMPCA001	37.24		0.86	
357	IMPCA001	34.6		0.04	
372	IMPCA001	34		-0.14	
395	IMPCA001	30.79		-1.13	
444	IMPCA001	39.07	C	1.42	first reported:7.86
445		-----		-----	
494	IMPCA001	35		0.17	
497	IMPCA001	43		2.64	
528		-----		-----	
529		-----		-----	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	IMPCA001	32		-0.76	
646	IMPCA001	38.0		1.09	
657	IMPCA001	36.9		0.75	
663	IMPCA001	36.6		0.66	
823	IMPCA001	34		-0.14	
824	IMPCA001	30		-1.38	
825	IMPCA001	31		-1.07	
840	IMPCA001	33.7		-0.24	
855	IMPCA001	34.6		0.04	
857	IMPCA001	35.7		0.38	
858	IMPCA001	34.5		0.01	
859	IMPCA001	34.2		-0.08	
860	IMPCA001	34.8		0.10	
861	IMPCA001	34.3		-0.05	
862	IMPCA001	34		-0.14	
863	IMPCA001	35.0		0.17	
864	IMPCA001	35.4		0.29	
866	IMPCA001	32.4		-0.64	
870	IMPCA001	36.4		0.60	
902	IMPCA001	33.71		-0.23	
912		-----		-----	
913	IMPCA001	28		-2.00	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009	IMPCA001	40.8		1.96	
1010	IMPCA001	35		0.17	
1029	IMPCA001	34.12904		-0.10	
1041	IMPCA001	35.26		0.25	
1067	IMPCA001	40		1.71	
1102	IMPCA001	32.76		-0.53	
1107	in house	44		2.95	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	IMPCA001	47.5020		4.03	
1201	IMPCA001	30		-1.38	
1204	IMPCA001	32.0		-0.76	
1221	IMPCA001	38.86		1.36	
1246		-----		-----	
1256	IMPCA001	26		-2.61	
1263		-----		-----	
1264	IMPCA001	33.04		-0.44	
1319	IMPCA001	30		-1.38	
1342		-----		-----	
1354		-----		-----	

1465	IMPCA001Mod.	25.68		-2.71	
1481		-----		-----	
1510		-----		-----	
1591	IMPCA001	32		-0.76	
1615	in house	32.11	C	-0.73	first reported:46.09
1689		-----		-----	
1707	IMPCA001	27		-2.31	
1728		-----		-----	
1866		-----		-----	
2493	IMPCA001	33.1		-0.42	
	normality	OK			
	n	59			
	outliers	0	Spike		
	mean (n)	34.463	30.2		<114% recovered
	st.dev. (n)	4.1850			
	R(calc.)	11.718			
	R(Horwitz)	9.062			



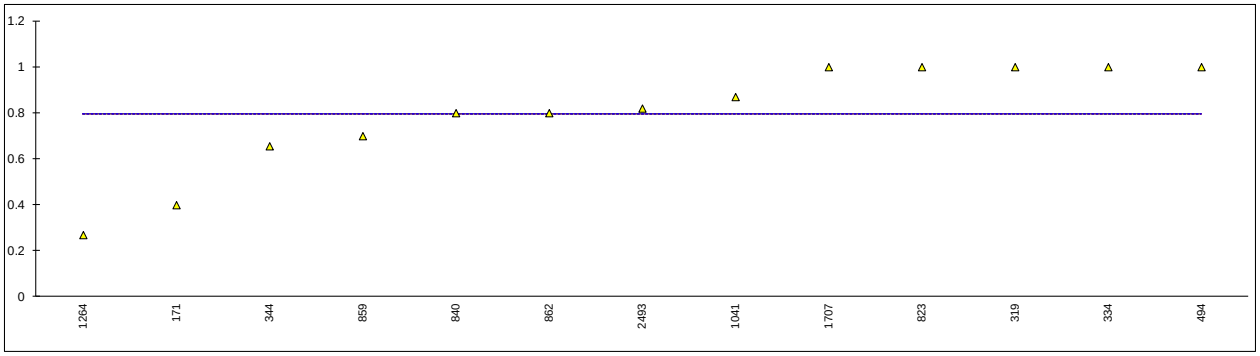


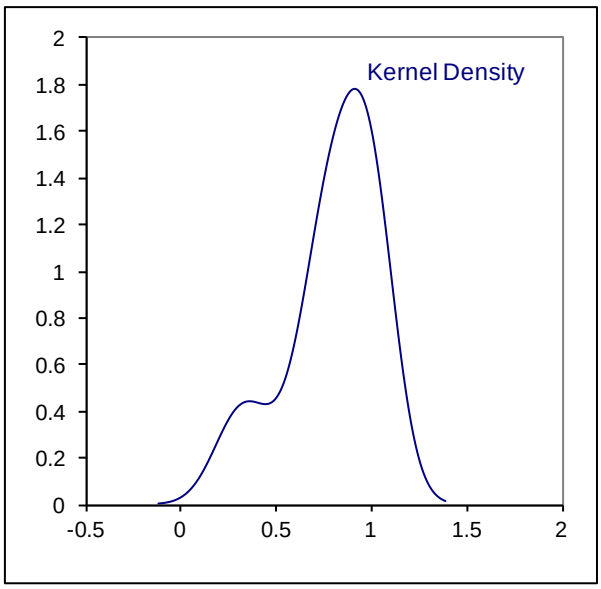
Determination of Toluene content on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	remarks
53		-----		-----	
150	IMPCA001	<5		-----	
171	IMPCA001	0.4		-----	
174	IMPCA001	<10		-----	
193		-----		-----	
311	IMPCA001	<5		-----	
316		-----		-----	
319	IMPCA001	1		-----	
323	INH-064	<5		-----	
333	IMPCA001	<1		-----	
334	IMPCA001	1		-----	
335		-----		-----	
343	IMPCA001	<5		-----	
344	IMPCA001	0.656		-----	
345		-----		-----	
346		-----		-----	
347		-----		-----	
357	IMPCA001	<5		-----	
372	IMPCA001	<5		-----	
395	IMPCA001	<10		-----	
444		-----		-----	
445		-----		-----	
494	IMPCA001	1		-----	
497	IMPCA001	<10		-----	
528		-----		-----	
529		-----		-----	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609		-----		-----	
646		-----		-----	
657	IMPCA001	<5		-----	
663	IMPCA001	<10		-----	
823	IMPCA001	1		-----	
824	IMPCA001	<5		-----	
825	IMPCA001	<5		-----	
840	IMPCA001	0.8		-----	
855	IMPCA001	<10		-----	
857	IMPCA001	<1		-----	
858	IMPCA001	<5		-----	
859	IMPCA001	0.7		-----	
860	IMPCA001	<5		-----	
861	IMPCA001	<5		-----	
862	IMPCA001	0.8		-----	
863	IMPCA001	<10		-----	
864	IMPCA001	<10		-----	
866	IMPCA001	<10		-----	
870	IMPCA001	<10		-----	
902	IMPCA001	<10		-----	
912		-----		-----	
913	IMPCA001	n.d		-----	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009		-----		-----	
1010	IMPCA001	<5		-----	
1029		-----		-----	
1041	in house	0.87		-----	
1067	IMPCA001	<5		-----	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181		-----		-----	
1201	IMPCA001	<1		-----	
1204		-----		-----	
1221		-----		-----	
1246		-----		-----	
1256		-----		-----	
1263		-----		-----	
1264	IMPCA001	0.27		-----	
1319	IMPCA001	<5		-----	
1342		-----		-----	
1354		-----		-----	

1465		-----	-----
1481		-----	-----
1510		-----	-----
1591	IMPCA001	<5	-----
1615		-----	-----
1689		-----	-----
1707	IMPCA001	1	-----
1728		-----	-----
1866		-----	-----
2493	IMPCA001	0.82	-----

normality	OK
n	13
outliers	0
mean (n)	0.79
st.dev. (n)	0.237
R(calc.)	0.66
R(Horwitz)	(0.37)



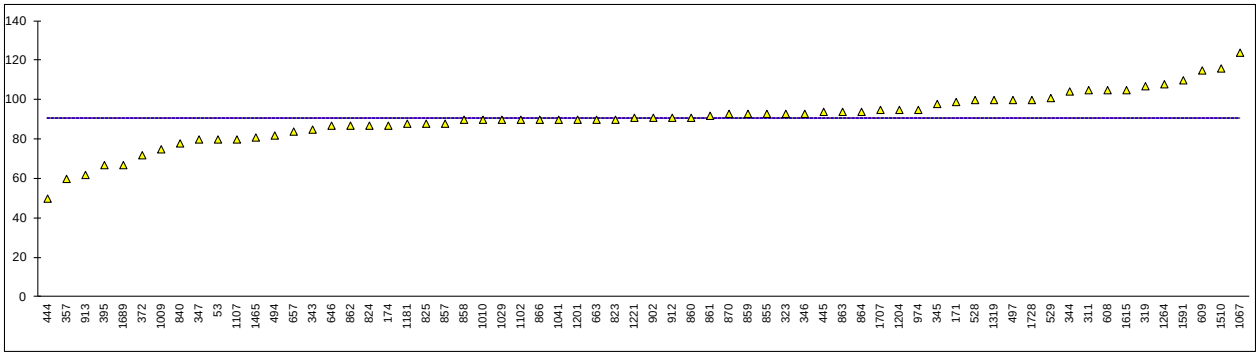


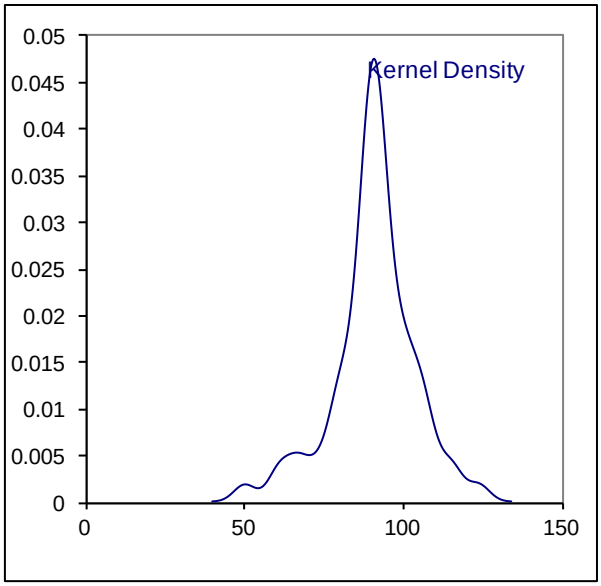
Determination of Permanganate Time Test @ 15°C on sample #13160; results in minutes

lab	method	value	mark	z(targ)	remarks
53	D1364	80		-----	
150	D1363	>60	C	-----	first reported:195
171	D1363	99		-----	
174	D1363	87		-----	
193		-----		-----	
311	D1363	105		-----	
316		-----		-----	
319	D1363	107		-----	
323	D1363Mod.	93		-----	
333		-----		-----	
334		-----		-----	
335		-----		-----	
343	D1363	85	C	-----	first reported:61
344	D1363	104.34		-----	
345	D1363	98	C	-----	first reported:48
346	D1363	93		-----	
347	D1363	80		-----	
357	D1363	60		-----	
372	D1363	72		-----	
395	D1363	67		-----	
444	D1363	50		-----	
445	D1363	94		-----	
494	D1363	82		-----	
497	D1363	100		-----	
528	D1363	100		-----	
529	D1363	101		-----	
551		-----		-----	
554		-----		-----	
608	D1363	105		-----	
609	D1363	115		-----	
646	D1363	87		-----	
657	D1363	84		-----	
663	D1363	90		-----	
823	D1363	90		-----	
824	D1363	87		-----	
825	D1363	88		-----	
840	D1363	78		-----	
855	D1363	93		-----	
857	D1363	88		-----	
858	D1363	90		-----	
859	D1363	93		-----	
860	D1363	91		-----	
861	D1363	92		-----	
862	D1363	87		-----	
863	D1363	94		-----	
864	D1363	94		-----	
866	D1363	90		-----	
870	D1363	93		-----	
902	D1363	91		-----	
912	D1363	91		-----	
913	D1363	62		-----	
963		-----		-----	
974	D1363	95		-----	
994		-----		-----	
1009	D1363	75		-----	
1010	D1363	90		-----	
1029	D1363	90		-----	
1041	D1363	90	C	-----	first reported:120
1067	D1363	124		-----	
1102	D1363	90		-----	
1107	D1363	80		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	D1363	88		-----	
1201	D1363	90		-----	
1204	D1363	95		-----	
1221	D1363	91		-----	
1246		-----		-----	
1256		-----		-----	
1263		-----		-----	
1264	D1363	108		-----	
1319	D1363	100		-----	
1342		-----		-----	
1354		-----		-----	

1465	D1363	81		-----	
1481		-----		-----	
1510	D1363	116		-----	
1591	D1363	110		-----	
1615	D1363	105		-----	
1689	D1363	67	C	-----	first reported:60
1707	D1363	95	C	-----	first reported:56
1728	D1363	100		-----	
1866		-----		-----	
2493		-----		-----	

normality	not OK
n	64
outliers	0
mean (n)	90.8
st.dev. (n)	13.06
R(calc.)	36.6
R(D1363:11)	(22.9)



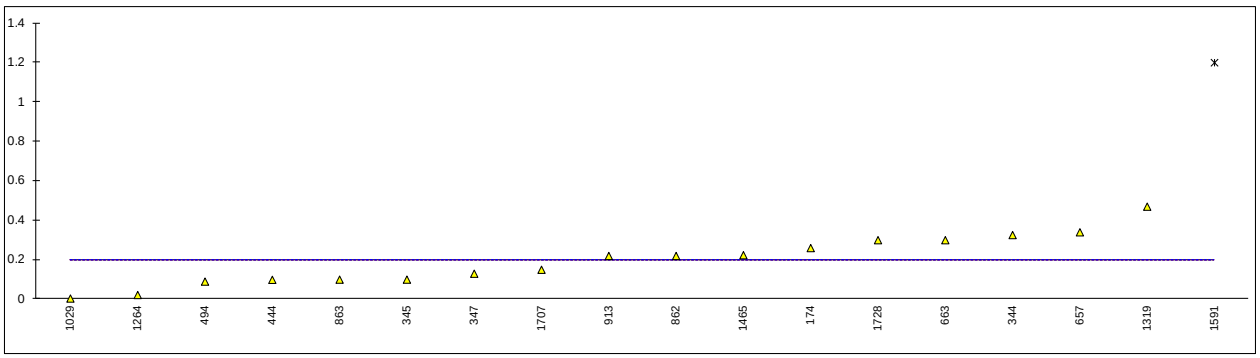


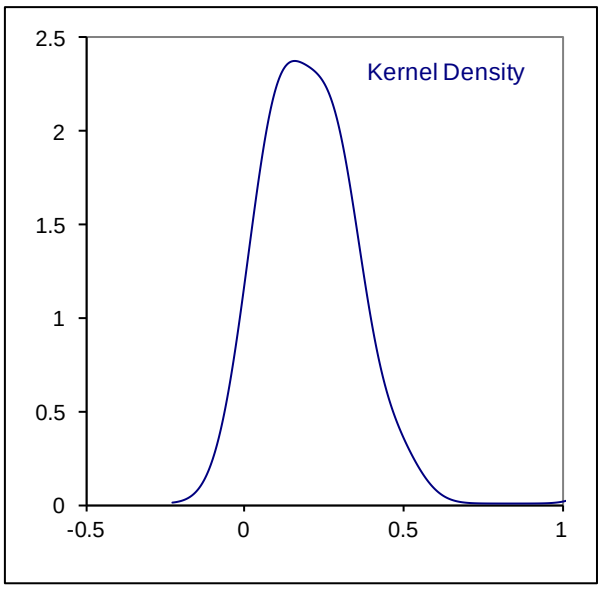
Determination of Sulphur on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	remarks
53		-----		-----	
150	D5453	<1		-----	
171	D5453	<1		-----	
174	D5453	0.26		-----	
193		-----		-----	
311	D5453	<1		-----	
316		-----		-----	
319	D3961Mod	<0.1		-----	
323	D5453	<1		-----	
333	D5453	<0.5		-----	
334		-----		-----	
335		-----		-----	
343	D5453	<0.5		-----	
344	D5453	0.326		-----	
345	ISO20846	0.1		-----	
346		-----		-----	
347	D5453	0.13		-----	
357	D5453	<0.5		-----	
372	D5453	<1.0		-----	
395		-----		-----	
444	D5453	0.099		-----	
445		-----		-----	
494	D5453	0.09		-----	
497	D5453	<0.5		-----	
528		-----		-----	
529		-----		-----	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	D5453	<0.25		-----	
646	D5453	<0.2		-----	
657	D5453	0.34		-----	
663	D5453	0.3		-----	
823		-----		-----	
824	D5453	<0.5		-----	
825	D5453	<0.5		-----	
840		-----		-----	
855	D5453	<0.5		-----	
857	D3961	<0.5		-----	
858		-----		-----	
859		-----		-----	
860	D5453	<0.5		-----	
861		-----		-----	
862	D5453	0.22		-----	
863	D5453	0.1		-----	
864	D5453	<0.5		-----	
866		-----		-----	
870	D5453	<0.5		-----	
902		-----		-----	
912	D5453	<1		-----	
913	D5453	0.22		-----	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009		-----		-----	
1010	in house	<0.5		-----	
1029	D5453	0.00412872		-----	
1041	D5453	<0.2		-----	
1067	D5453	<0.25		-----	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	D5453	<0.1		-----	
1201		-----		-----	
1204		-----		-----	
1221		-----		-----	
1246		-----		-----	
1256		-----		-----	
1263		-----		-----	
1264	D5453	0.022		-----	
1319	D5453	0.47		-----	
1342		-----		-----	
1354		-----		-----	

1465	D5453	0.2239		-----
1481		-----		-----
1510		-----		-----
1591	D5453	1.2	G(0.01)	-----
1615		-----		-----
1689		-----		-----
1707	D5453	0.15		-----
1728	D5453	0.30		-----
1866		-----		-----
2493		-----		-----

normality	OK	
n	17	
outliers	1	
mean (n)	0.20	
st.dev. (n)	0.126	
R(calc.)	0.35	compare R(5453:09) = 0.17
R(D5453:12)	(0.17)	application range: 1- 8000 mg/kg

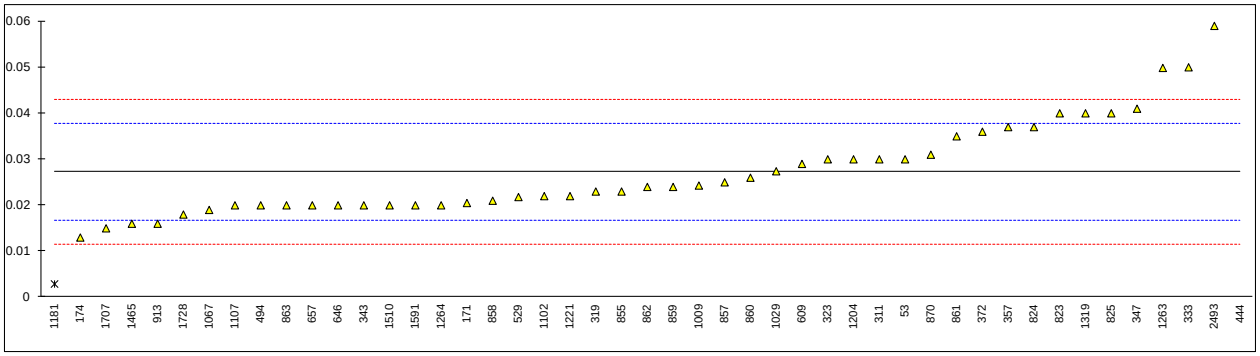


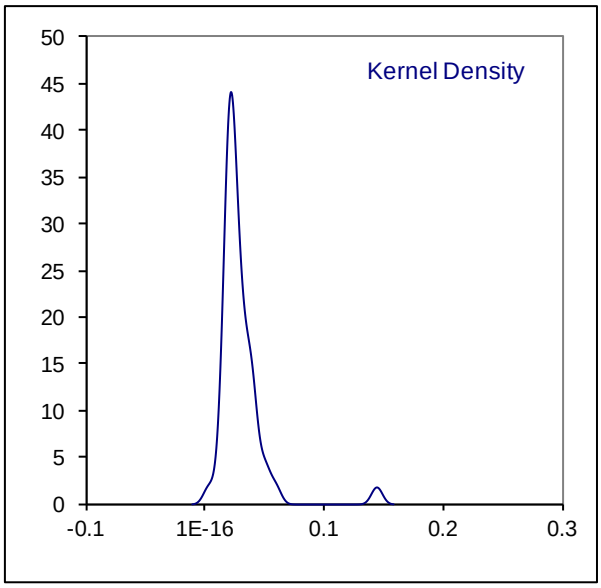


Determination of Total Iron as Fe on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	remarks
53	E394	0.03		0.53	
150		-----		-----	
171	E394	0.0205		-1.28	
174	E394	0.013		-2.71	
193		-----		-----	
311	E394	0.03		0.53	
316		-----		-----	
319	E394	0.023		-0.81	
323	E394	0.03		0.53	
333	E394	0.05		4.34	
334		-----		-----	
335		-----		-----	
343	E394	0.02		-1.38	
344	E394	<0.1		-----	
345		-----		-----	
346		-----		-----	
347	E394	0.041		2.62	
357	E394	0.037		1.86	
372	E394	0.036		1.67	
395		-----		-----	
444	E394	0.144	C,G(0.01)	22.24	first reported:<0.01
445		-----		-----	
494	E394	0.02		-1.38	
497	E394	<0.1		-----	
528		-----		-----	
529	E394	0.0218		-1.04	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	E394	0.029		0.33	
646	E394	0.02		-1.38	
657	E394	0.02		-1.38	
663		-----		-----	
823	E394	0.04		2.43	
824	E394	0.037		1.86	
825	E394	0.04		2.43	
840		-----		-----	
855	E394	0.023		-0.81	
857	E394	0.025		-0.43	
858	E394	0.021		-1.19	
859	E394	0.024		-0.62	
860	E394	0.026		-0.24	
861	E394	0.035		1.48	
862	E394	0.024		-0.62	
863	E394	0.020		-1.38	
864	E394	<0.1		-----	
866		-----		-----	
870	E394	0.031		0.72	
902		-----		-----	
912		-----		-----	
913	E394	0.016		-2.14	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009	E394	0.0243		-0.56	
1010		-----		-----	
1029	E394	0.0274		0.03	
1041		-----		-----	
1067	E394	0.019		-1.57	
1102	E394	0.022		-1.00	
1107	E394	0.02		-1.38	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	E394	0.0029	G(0.05)	-4.64	
1201	E394	<0.01		<-3.21	false negative?
1204	E394	0.030		0.53	
1221	E394	0.022		-1.00	
1246		-----		-----	
1256	E394	<0.01		<-3.21	false negative?
1263	DIN38604	0.049864		4.31	
1264	E394	0.02		-1.38	
1319	E394	0.040		2.43	
1342		-----		-----	
1354		-----		-----	

1465	E394	0.016		-2.14	
1481		-----		-----	
1510	E394	0.02		-1.38	
1591	E394	0.02		-1.38	
1615		-----		-----	
1689		-----		-----	
1707	E394	0.015		-2.33	
1728	E394	0.018		-1.76	
1866		-----		-----	
2493	E394	0.059	C	6.05	first reported:0.057
	normality	not OK			
	n	45			
	outliers	2	Spike		
	mean (n)	0.0272	0.027		<101% recovered
	st.dev. (n)	0.01018			
	R(calc.)	0.0285			
	R(E394:09)	0.0147			





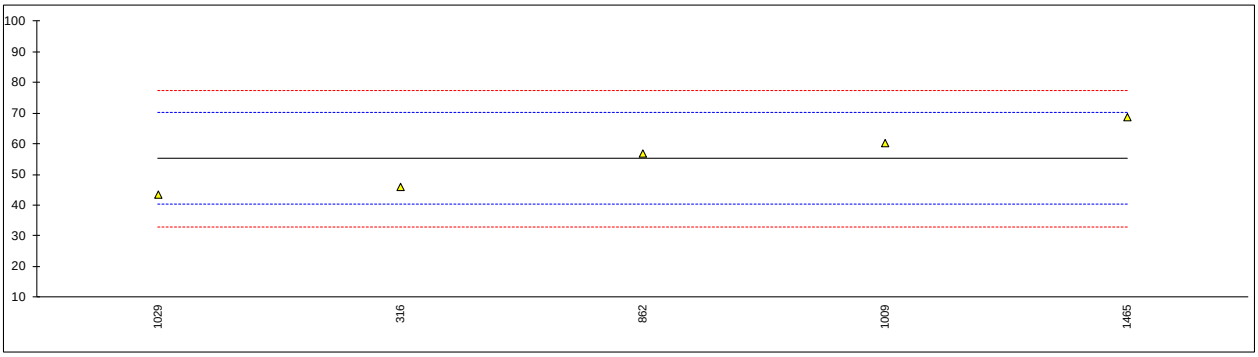
Determination of Trimethylamine on sample #13160; results in µg/kg

lab	method	value	mark	z(targ)	Remarks
53		-----		-----	
150		-----		-----	
171	E346	<10		<-5.05	false negative?
174		-----		-----	
193		-----		-----	
311		-----		-----	
316	INH-601	46.1		-1.22	
319		-----		-----	
323		-----		-----	
333		-----		-----	
334		-----		-----	
335		-----		-----	
343		-----		-----	
344		-----		-----	
345		-----		-----	
346		-----		-----	
347		-----		-----	
357		-----		-----	
372		-----		-----	
395		-----		-----	
444		-----		-----	
445		-----		-----	
494		-----		-----	
497		-----		-----	
528		-----		-----	
529		-----		-----	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609		-----		-----	
646		-----		-----	
657		-----		-----	
663		-----		-----	
823		-----		-----	
824		-----		-----	
825		-----		-----	
840		-----		-----	
855		-----		-----	
857		-----		-----	
858		-----		-----	
859		-----		-----	
860		-----		-----	
861		-----		-----	
862	E346	57		0.24	
863		-----		-----	
864		-----		-----	
866		-----		-----	
870		-----		-----	
902		-----		-----	
912		-----		-----	
913		-----		-----	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009	E346	60.4		0.70	
1010		-----		-----	
1029	E346	43.591266		-1.56	
1041	in house	<100		-----	
1067		-----		-----	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181		-----		-----	
1201		-----		-----	
1204		-----		-----	
1221		-----		-----	
1246		-----		-----	
1256		-----		-----	
1263		-----		-----	
1264		-----		-----	
1319		-----		-----	
1342		-----		-----	
1354		-----		-----	

1465	E346Mod.	68.87		1.84	
1481		-----		-----	
1510		-----		-----	
1591	E346	<30		-----	
1615	in house	<0.01		<-6.17	false negative?
1689		-----		-----	
1707		-----		-----	
1728		-----		-----	
1866		-----		-----	
2493		-----		-----	

normality	OK		
n	5		
outliers	0	Spike	
mean (n)	55.19	54.57	<101% recovered
st.dev. (n)	10.425		
R(calc.)	29.19		
R(E346:08)*	20.86*		Compare R(Horwitz) = 38.24

*= estimated reproducibility based on repeatability data of E346:08.

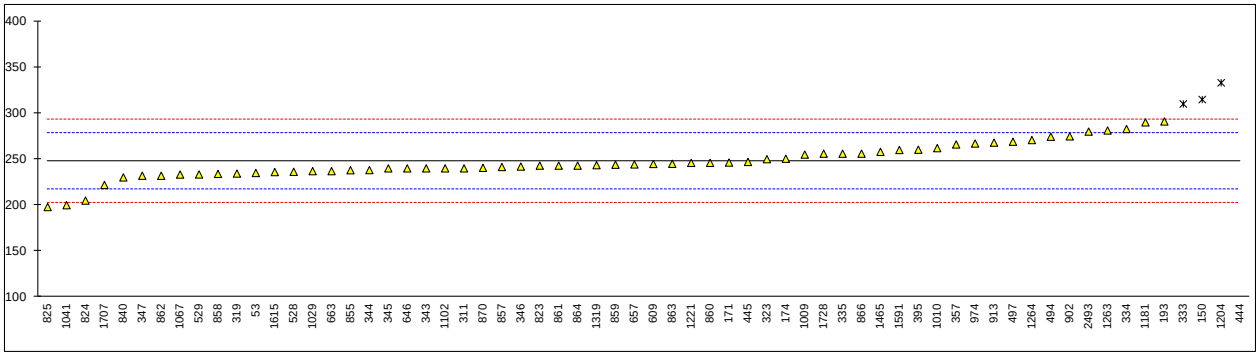


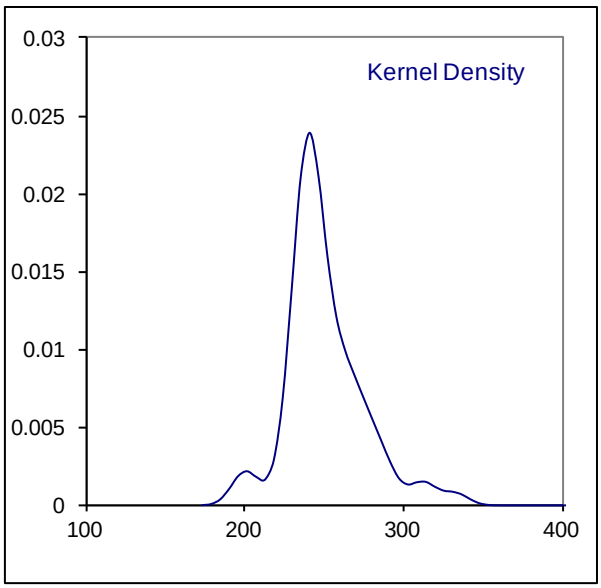
Determination of Water content (coulometric) on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	Remarks
53	E1064	235		-0.83	
150	E1064	314.8	C,DG(0.05)	4.45	first reported:321.3
171	E1064	246.35		-0.08	
174	E1064	250.5		0.20	
193	E1064	291		2.88	
311	E1064	240		-0.50	
316		-----		-----	
319	E1064	234.4		-0.87	
323	E1064	250		0.16	
333	E1064	310	DG(0.05)	4.13	
334	E1064	282.8		2.33	
335	E1064	256		0.56	
343	E1064	240		-0.50	
344	E1064	238.15		-0.62	
345	E1064	240		-0.50	
346	E1064	242		-0.36	
347	E1064	232		-1.03	
357	E1064	266		1.22	
372		-----		-----	
395	E1064	260.3		0.85	
444	E1064	1585	C,G(0.01)	88.48	first reported:833
445	E1064	247		-0.03	
494	E1064	274.4		1.78	
497	E1064	269		1.42	
528	E1064	236.3		-0.74	
529	E1064	233.42		-0.93	
551		-----		-----	
554		-----		-----	
608		-----		-----	
609	E1064	244.81		-0.18	
646	E1064	240		-0.50	
657	E1064	244.3		-0.21	
663	E1064	237		-0.70	
823	E1064	243		-0.30	
824	E1064	205		-2.81	
825	E1064	198		-3.28	
840	E1064	230.2		-1.15	
855	E1064	238		-0.63	
857	E1064	241.5		-0.40	
858	E1064	234		-0.89	
859	E1064	244		-0.23	
860	E1064	246		-0.10	
861	E1064	243		-0.30	
862	E1064	232		-1.03	
863	E1064	245		-0.17	
864	E1064	243		-0.30	
866	E1064	256		0.56	
870	E1064	240.6		-0.46	
902	E1064	274.8		1.81	
912		-----		-----	
913	E1064	268		1.36	
963		-----		-----	
974	E1064	267.03		1.29	
994		-----		-----	
1009	E1064	255.0		0.50	
1010	E1064	262		0.96	
1029	E1064	237		-0.70	
1041	E1064	200		-3.14	
1067	E1064	233.3		-0.94	
1102	E1064	240		-0.50	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181	E1064	290		2.81	
1201		-----		-----	
1204	E1064	333	G(0.05)	5.66	
1221	E1064	246.0		-0.10	
1246		-----		-----	
1256		-----		-----	
1263	ISO12937	281.2		2.23	
1264	E1064	270.8		1.54	
1319	E1064	243.5		-0.27	
1342		-----		-----	
1354		-----		-----	

1465	E1064	258		0.69	
1481		-----		-----	
1510		-----		-----	
1591	E1064	260		0.83	
1615	E1064	236	C	-0.76	first reported:771.25
1689		-----	W	-----	result withdrawn, first reported: 0.05%
1707	E1064	222		-1.69	
1728	E1064	256		0.56	
1866		-----		-----	
2493	E1064	280		2.15	

normality	not OK
n	60
outliers	4
mean (n)	247.51
st.dev. (n)	19.181
R(calc.)	53.71
R(E1064:12)	42.32



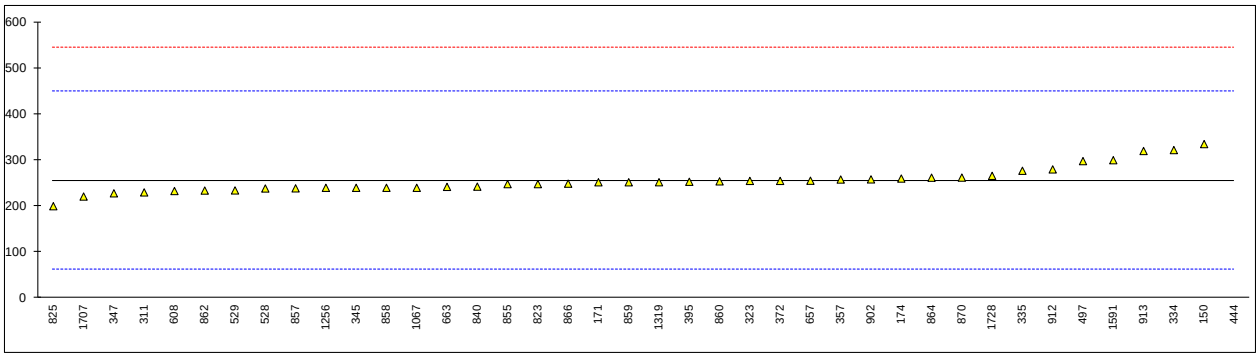


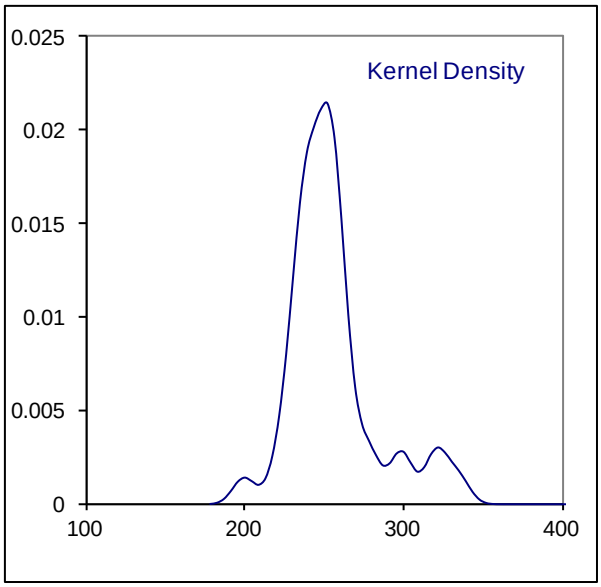
Determination of Water content (titrimetric) on sample #13160; results in mg/kg

lab	method	value	mark	z(targ)	remarks
53		-----		-----	
150	E203	335.0	C	0.82	first reported: 361.5
171	E203	252		-0.04	
174	E203	260.1		0.05	
193		-----		-----	
311	E203	230		-0.27	
316		-----		-----	
319		-----		-----	
323	E203	255		-0.01	
333		-----		-----	
334	E203	322		0.69	
335	E203	277		0.22	
343		-----		-----	
344		-----		-----	
345	E203	240		-0.16	
346		-----		-----	
347	D1364	228		-0.29	
357	E203	258		0.02	
372	E203	255		-0.01	
395	E203	253.1		-0.03	
444	E203	1266	C,G(0.01)	10.48	first reported:832
445		-----		-----	
494		-----		-----	
497	E203	298		0.44	
528	E203	238.5		-0.18	
529	E203	234.29		-0.22	
551		-----		-----	
554		-----		-----	
608	E203	233		-0.24	
609		-----		-----	
646		-----		-----	
657	E203	255.4		0.00	
663	E203	242		-0.14	
823	E203	248		-0.08	
824		-----		-----	
825	E203	200		-0.58	
840	E203	242.5		-0.14	
855	E203	248		-0.08	
857	E203	238.8		-0.18	
858	E203	240		-0.16	
859	E203	252		-0.04	
860	E203	254		-0.02	
861		-----		-----	
862	E203	234		-0.23	
863		-----		-----	
864	E203	262		0.06	
866	E203	249		-0.07	
870	E203	262.2		0.07	
902	E203	258.3		0.03	
912	E203	280		0.25	
913	E203	320		0.67	
963		-----		-----	
974		-----		-----	
994		-----		-----	
1009		-----		-----	
1010		-----		-----	
1029		-----		-----	
1041		-----		-----	
1067	E203	240		-0.16	
1102		-----		-----	
1107		-----		-----	
1108		-----		-----	
1120		-----		-----	
1149		-----		-----	
1181		-----		-----	
1201		-----		-----	
1204		-----		-----	
1221		-----		-----	
1246		-----		-----	
1256	E203	240		-0.16	
1263		-----		-----	
1264		-----		-----	
1319	E203	252.1		-0.04	
1342		-----		-----	
1354		-----		-----	

1465		-----	-----
1481		-----	-----
1510		-----	-----
1591	E203	300	0.46
1615		-----	-----
1689		-----	-----
1707	E203	221	-0.36
1728	E203	266	0.11
1866		-----	-----
2493		-----	-----

normality	not OK
n	39
outliers	1
mean (n)	255.75
st.dev. (n)	27.700
R(calc.)	77.56
R(E203:08)	270.00

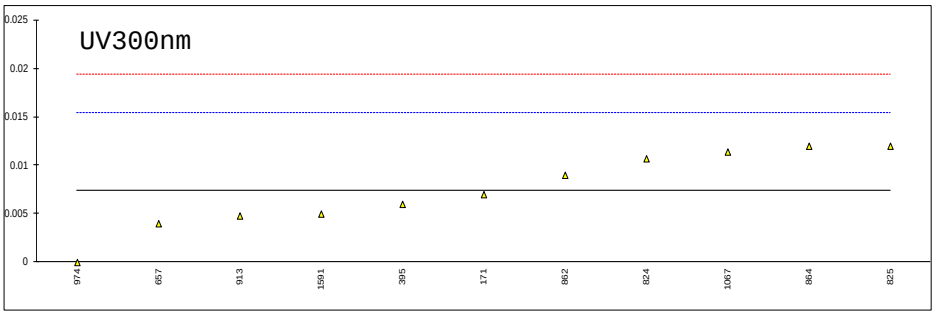


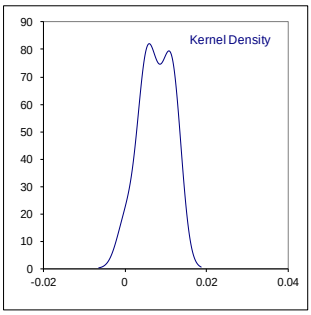


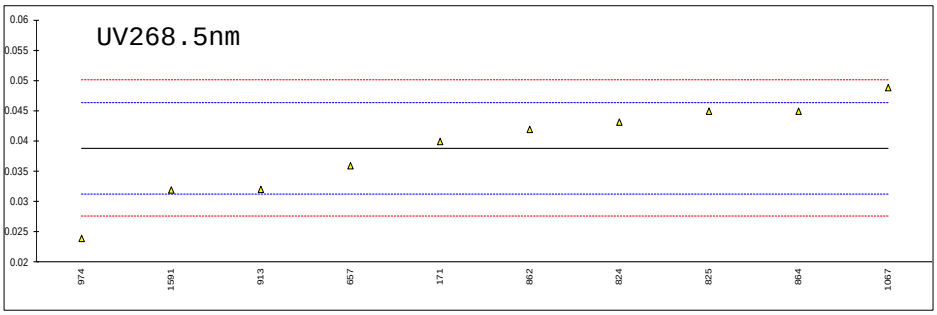
Determination of UV Absorbance (10 mm Cuvette) on sample #13161

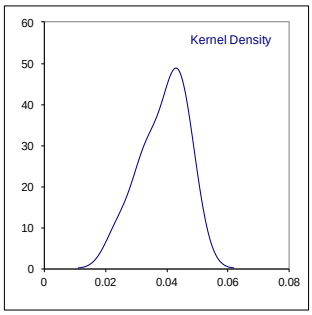
lab	method	300nm	268.5nm	250nm	240nm	230nm	220nm	curve	Pass/Fail
150		-----	-----	-----	-----	-----	-----	-----	-----
171	IMPCA004	0.007	0.040	0.062	0.068	0.118	0.398	Smooth	Pass
311		-----	-----	-----	-----	-----	-----	-----	-----
319		-----	-----	-----	-----	-----	-----	-----	-----
323		-----	-----	-----	-----	-----	-----	-----	-----
343		-----	-----	-----	-----	-----	-----	-----	-----
347		-----	-----	-----	-----	-----	-----	-----	-----
357		-----	-----	-----	-----	-----	-----	-----	-----
395	IMPCA004	0.006	-----	0.0512	0.0554	-----	0.4395	Not	Fail
444		-----	-----	-----	-----	-----	-----	-----	-----
445		-----	-----	-----	-----	-----	-----	-----	-----
551		-----	-----	-----	-----	-----	-----	-----	-----
609		-----	-----	-----	-----	-----	-----	-----	-----
657	IMPCA004	0.004	0.036	0.047	0.056	0.118	0.401	-----	Fail
823		-----	-----	-----	-----	-----	-----	-----	-----
824	IMPCA004	0.0107	0.0432	0.0534	0.0626	0.1212	0.3914	No Smooth	Fail
825	IMPCA004	0.012	0.045	0.057	0.065	0.125	0.415	-----	Fail
855		-----	-----	-----	-----	-----	-----	-----	-----
857		-----	-----	-----	-----	-----	-----	-----	-----
858		-----	-----	-----	-----	-----	-----	-----	-----
859		-----	-----	-----	-----	-----	-----	-----	-----
860		-----	-----	-----	-----	-----	-----	-----	-----
861		-----	-----	-----	-----	-----	-----	-----	-----
862	IMPCA004	0.009	0.042	0.054	0.063	0.124	0.386	Not smooth	Fail
863		-----	-----	-----	-----	-----	-----	-----	-----
864	IMPCA004	0.012	0.045	0.058	0.065	0.130	0.424	Not smooth	Fail
866		-----	-----	-----	-----	-----	-----	-----	-----
870		-----	-----	-----	-----	-----	-----	-----	-----
913	IMPCA004	0.0048	0.0321	0.0532	0.0572	0.132	0.246	-----	Fail
963		-----	-----	-----	-----	-----	-----	-----	-----
974	IMPCA004	0.000	0.024	0.042	0.056	0.122	0.385	Smooth	Pass
1010		-----	-----	-----	-----	-----	-----	-----	-----
1041		-----	-----	-----	-----	-----	-----	-----	-----
1067	IMPCA004	0.0114	0.0489	0.0602	0.0701	0.1432	0.4493	Fail	Fail
1102		-----	-----	-----	-----	-----	-----	-----	-----
1149		-----	-----	-----	-----	-----	-----	-----	-----
1201		-----	-----	-----	-----	-----	-----	-----	-----
1319		-----	-----	-----	-----	-----	-----	-----	-----
1342		-----	-----	-----	-----	-----	-----	-----	-----
1354		-----	-----	-----	-----	-----	-----	-----	-----
1591	IMPCA004	0.005	0.032	0.051	0.057	0.114	0.358	-----	Fail
1866		-----	-----	-----	-----	-----	-----	-----	-----
	normality	OK	OK	OK	OK	OK	OK		
	n	11	10	11	11	10	10		
	outliers	0	0	0	0	0	1		
	mean (n)	0.0074	0.0388	0.0535	0.0614	0.1247	0.4047		
	st.dev. (n)	0.00391	0.00766	0.00580	0.00530	0.00849	0.02755		
	R(calc.)	0.0109	0.0214	0.0162	0.0148	0.0238	0.0772		
	R(IMPCA004:08)*	0.0112	0.0105	0.0054	unknown	unknown	0.1120		

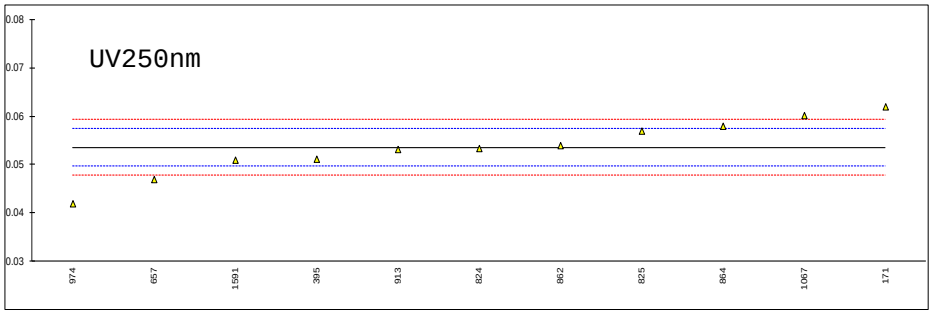
*R valid for 50 mm cuvette only.

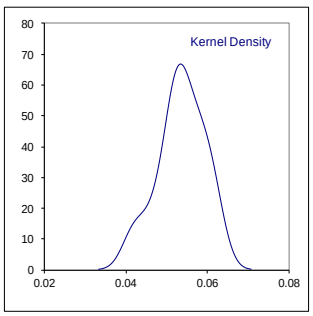

UV300nm
0.025
0.02
0.015
0.01
0.005
0
974 657 913 1591 395 171 862 824 1067 864 825

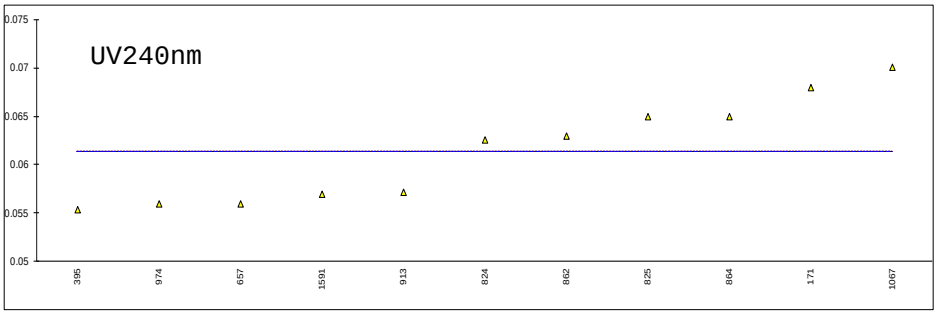

Kernel Density
90
80
70
60
50
40
30
20
10
0
-0.02 0 0.02 0.04

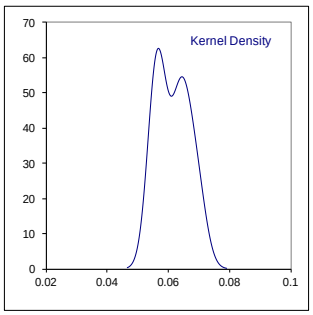

UV268.5nm
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
974 1591 913 657 171 862 824 825 864 1067

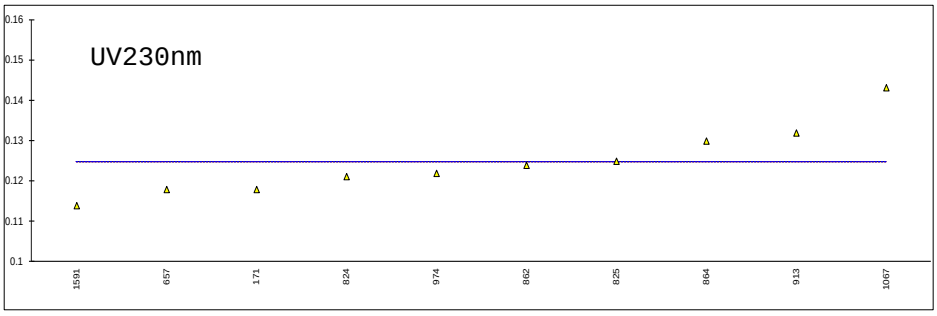

Kernel Density
60
50
40
30
20
10
0
0 0.02 0.04 0.06 0.08

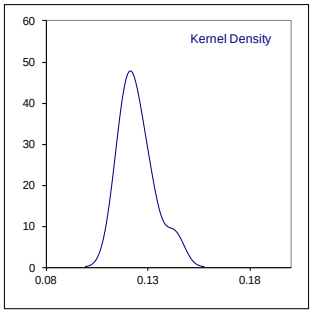

UV250nm
0.08
0.07
0.06
0.05
0.04
0.03
974 657 1591 395 913 824 862 825 864 1067 171

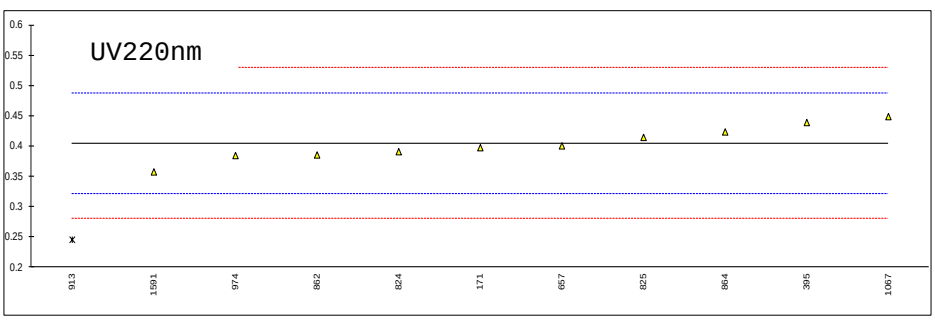

Kernel Density
80
70
60
50
40
30
20
10
0
0.02 0.04 0.06 0.08

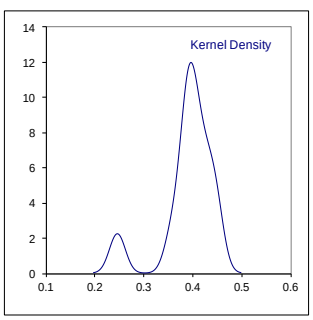

UV240nm
0.075
0.07
0.065
0.06
0.055
0.05
395 974 657 1591 913 824 862 825 864 171 1067


Kernel Density
70
60
50
40
30
20
10
0
0.02 0.04 0.06 0.08 0.1


UV230nm
0.16
0.15
0.14
0.13
0.12
0.11
0.1
1591 657 171 824 974 862 825 864 913 1067


Kernel Density
60
50
40
30
20
10
0
0.08 0.13 0.18

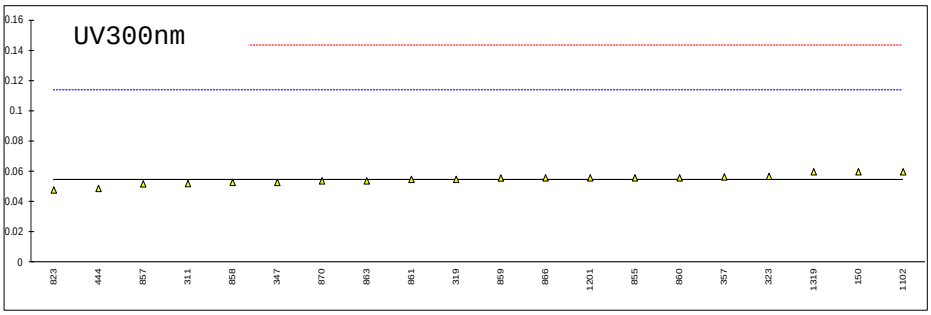

UV220nm
0.6
0.55
0.5
0.45
0.4
0.35
0.3
0.25
0.2
913 1591 974 862 824 171 657 825 864 395 1067

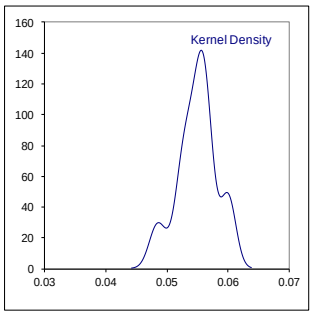

Kernel Density
14
12
10
8
6
4
2
0
0.1 0.2 0.3 0.4 0.5 0.6

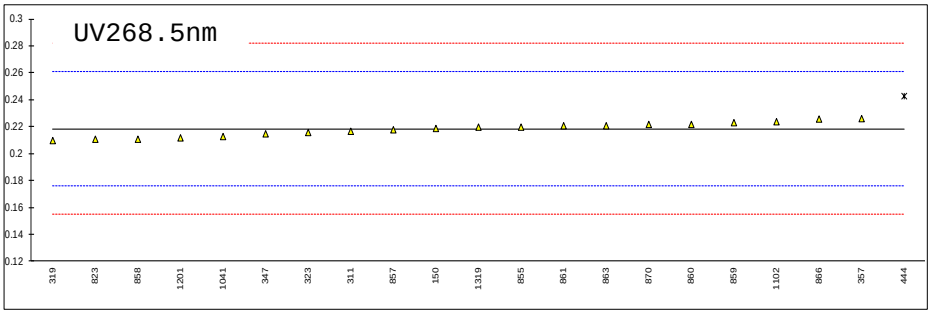
Determination of UV Absorbance (50 mm Cuvette) on sample #13161

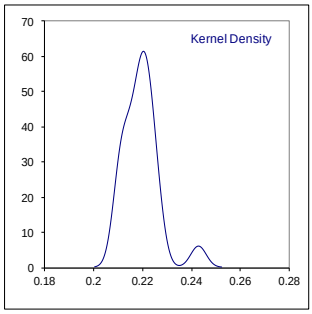
lab	method	300nm	268.5nm	250nm	240nm	230nm	220nm	curve	Pass/Fail
150	IMPCA004	**0.060**	0.219	0.293	-----	-----	1.913	Not	Fail
171		-----	-----	-----	-----	-----	-----	-----	-----
311	IMPCA004	0.0522	0.2169	0.2708	0.3223	0.6395	2.047	Fails	Fail
319	IMPCA004	0.055	0.210	0.277	0.339	0.647	1.816	Not	Fail
323	IMPCA004	**0.057**	**0.216**	**0.331**	-----	-----	**2.125**	Fails	-----
343		-----	-----	-----	-----	-----	-----	-----	-----
347	IMPCA004	0.053	0.215	0.278	-----	-----	1.995	Not smooth	Fail
357	IMPCA004	0.0566	0.2263	0.2959	0.3358	0.6847	2.0880	Not smooth	Fail
395		-----	-----	-----	-----	-----	-----	-----	-----
444	IMPCA004	0.049	**0.243**	0.303	-----	-----	1.670	Not smooth	Fail
445		-----	-----	-----	-----	-----	-----	-----	-----
551		-----	-----	-----	-----	-----	-----	-----	-----
609		-----	-----	-----	-----	-----	-----	-----	-----
657		-----	-----	-----	-----	-----	-----	-----	-----
823	IMPCA004	0.048	0.211	0.271	0.317	0.624	1.914	Not smooth	Fail
824		-----	-----	-----	-----	-----	-----	-----	-----
825		-----	-----	-----	-----	-----	-----	-----	-----
855	IMPCA004	0.056	0.220	0.287	0.323	0.636	1.947	Not smooth	Fail
857	IMPCA004	0.052	0.218	0.280	0.320	0.652	1.912	Not smooth	Fail
858	IMPCA004	0.053	0.211	0.266	0.308	0.601	1.906	Not smooth	Fail
859	IMPCA004	0.0559	0.2233	0.2900	0.3275	0.6466	1.933	Not smooth	Fail
860	IMPCA004	0.056	0.222	0.286	0.321	0.625	1.927	Not smooth	Fail
861	IMPCA004	0.055	0.221	0.277	0.313	0.634	1.952	Fail	Fail
862		-----	-----	-----	-----	-----	-----	-----	-----
863	IMPCA004	0.054	0.221	0.273	0.316	0.576	1.779	Not smooth	Fail
864		-----	-----	-----	-----	-----	-----	-----	-----
866	IMPCA004	0.056	0.226	0.275	0.315	0.613	2.018	Fail	Fail
870	IMPCA004	0.054	0.222	0.284	0.323	0.634	1.961	Not smooth	Fail
913		-----	-----	-----	-----	-----	-----	-----	-----
963		-----	-----	-----	-----	-----	-----	-----	-----
974		-----	-----	-----	-----	-----	-----	-----	-----
1010		-----	-----	-----	-----	-----	-----	-----	-----
1041		-----	0.213	0.288	-----	-----	-----	-----	-----
1067		-----	-----	-----	-----	-----	-----	-----	-----
1102	IMPCA004	0.060	0.224	0.292	0.340	0.659	2.053	-----	Fail
1149		-----	-----	-----	-----	-----	-----	-----	-----
1201	IMPCA004	0.056	0.212	0.292	0.318	0.549	1.407	Not	Fail
1319	IMPCA004	**0.06**	**0.22**	**0.29**	**0.33**	**0.63**	**2.08**	Not	Fail
1342		-----	-----	-----	-----	-----	-----	-----	-----
1354		-----	-----	-----	-----	-----	-----	-----	-----
1591		-----	-----	-----	-----	-----	-----	-----	-----
1866		-----	-----	-----	-----	-----	-----	-----	-----
	normality	OK	OK	OK	OK	OK	OK		
	n	20	20	20	16	14	19		
	outliers	0	1	1	0	2	1		
	mean (n)	0.0549	0.2184	0.2834	0.3230	0.6376	1.9493		
	st.dev. (n)	0.00323	0.00508	0.00980	0.00928	0.02044	0.11200		
	R(calc.)	0.0090	0.0142	0.0274	0.0260	0.0572	0.3136		
	R(IMPCA004:08)	0.0824	0.0592	0.0286	unknown	unknown	0.5594		

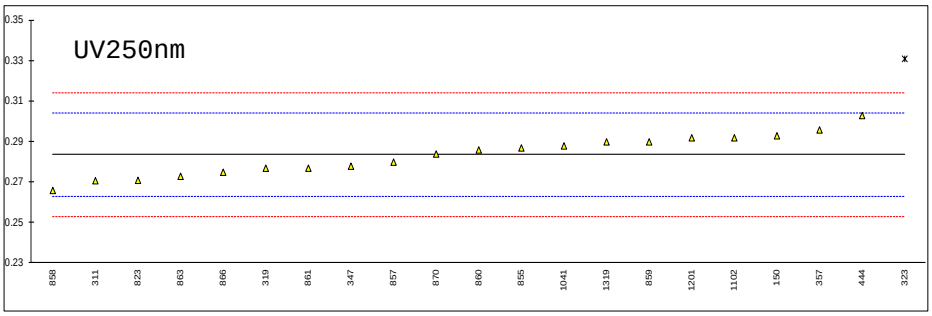
Bold and underlined are corrected results:
Lab 150: first reported 300nm: 0.006
Lab 323: first reported 300nm: 0.057
first reported 268.5nm:0.216
first reported 250nm: 0.331
first reported 220nm: 2.125
Lab 444: first reported 268.5nm:0.203
Lab 1319: first reported, 10 mm, 300nm: 0.06
first reported, 10 mm, 268.5nm:0.22
first reported, 10 mm, 250nm: 0.29
first reported, 10 mm, 240nm: 0.33
first reported, 10 mm, 230nm: 0.63
first reported, 10 mm, 220nm: 2.08

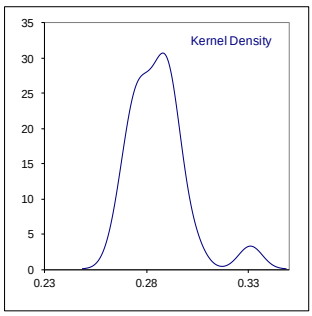

UV300nm
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
823 444 857 311 858 347 870 863 861 319 869 866 1201 855 860 357 323 1319 150 1102

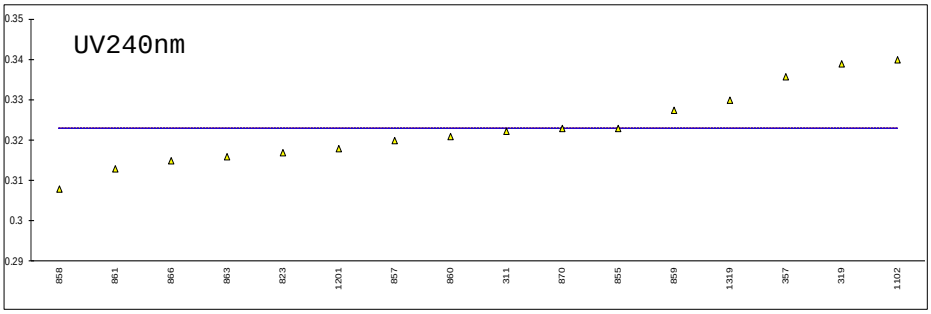

Kernel Density
160
140
120
100
80
60
40
20
0
0.03 0.04 0.05 0.06 0.07

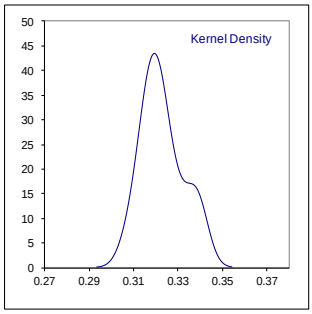

UV268.5nm
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
0.14
0.12
319 823 858 1201 1041 347 323 311 857 150 1319 855 861 863 870 860 859 1102 866 357 444

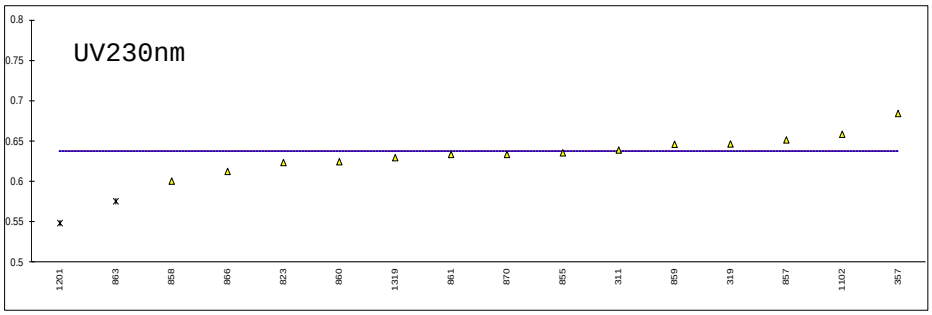

Kernel Density
70
60
50
40
30
20
10
0
0.18 0.2 0.22 0.24 0.26 0.28

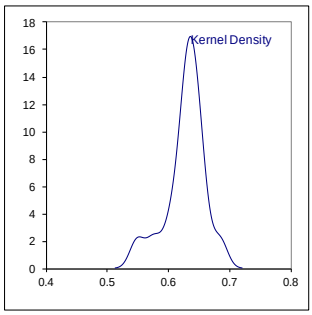

UV250nm
0.35
0.33
0.31
0.29
0.27
0.25
0.23
858 311 823 863 866 319 861 347 857 870 860 855 1041 1319 859 1201 1102 150 357 444 323

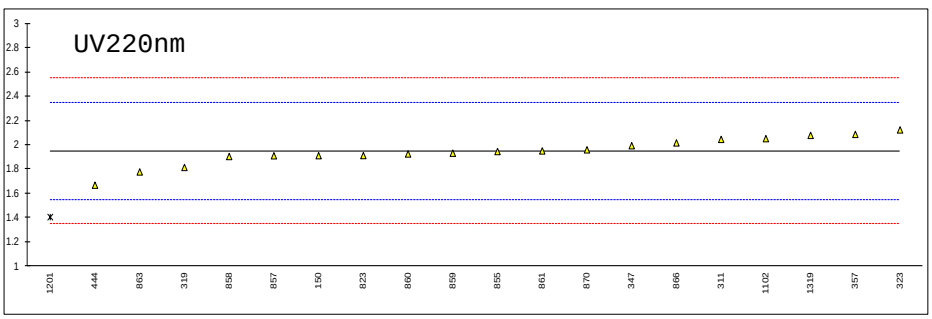

Kernel Density
35
30
25
20
15
10
5
0
0.23 0.28 0.33

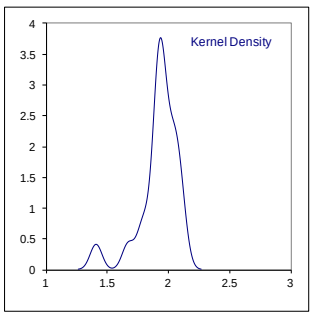

UV240nm
0.35
0.34
0.33
0.32
0.31
0.3
0.29
858 861 866 863 823 1201 857 860 311 870 855 859 1319 357 319 1102


Kernel Density
50
45
40
35
30
25
20
15
10
5
0
0.27 0.29 0.31 0.33 0.35 0.37


UV230nm
0.8
0.75
0.7
0.65
0.6
0.55
0.5
1201 863 858 866 823 860 1319 861 870 855 311 859 319 857 1102 357


Kernel Density
18
16
14
12
10
8
6
4
2
0
0.4 0.5 0.6 0.7 0.8


UV220nm
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
1201 444 863 319 858 857 150 823 860 859 855 861 870 347 866 311 1102 1319 357 323


Kernel Density
4
3.5
3
2.5
2
1.5
1
0.5
0
1 1.5 2 2.5 3

z-scores UV absorbance

	10mm Cuvette						50mm Cuvette					
lab	300nm	268.5nm	250nm	240nm	230nm	220nm	300nm	268.5nm	250nm	240nm	230nm	220nm
150	-----	-----	-----	-----	-----	-----	0.17	0.03	0.94	-----	-----	-0.18
171	-0.11	0.31	4.38	-----	-----	-0.16	-----	-----	-----	-----	-----	-----
311	-----	-----	-----	-----	-----	-----	-0.09	-0.07	-1.24	-----	-----	0.49
319	-----	-----	-----	-----	-----	-----	0.00	-0.40	-0.63	-----	-----	-0.67
323	-----	-----	-----	-----	-----	-----	0.07	-0.11	4.65	-----	-----	0.88
343	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
347	-----	-----	-----	-----	-----	-----	-0.07	-0.16	-0.53	-----	-----	0.23
357	-----	-----	-----	-----	-----	-----	0.06	0.37	1.22	-----	-----	0.69
395	-0.36	-----	-1.21	-----	-----	0.84	-----	-----	-----	-----	-----	-----
444	-----	-----	-----	-----	-----	-----	-0.20	1.17	1.91	-----	-----	-1.40
445	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
551	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
609	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
657	-0.86	-0.75	-3.39	-----	-----	-0.09	-----	-----	-----	-----	-----	-----
823	-----	-----	-----	-----	-----	-----	-0.24	-0.35	-1.22	-----	-----	-0.18
824	0.82	1.17	-0.08	-----	-----	-0.32	-----	-----	-----	-----	-----	-----
825	1.14	1.64	1.79	-----	-----	0.25	-----	-----	-----	-----	-----	-----
855	-----	-----	-----	-----	-----	-----	0.04	0.08	0.35	-----	-----	-0.01
857	-----	-----	-----	-----	-----	-----	-0.10	-0.02	-0.34	-----	-----	-0.19
858	-----	-----	-----	-----	-----	-----	-0.07	-0.35	-1.71	-----	-----	-0.22
859	-----	-----	-----	-----	-----	-----	0.03	0.23	0.64	-----	-----	-0.08
860	-----	-----	-----	-----	-----	-----	0.04	0.17	0.25	-----	-----	-0.11
861	-----	-----	-----	-----	-----	-----	0.00	0.12	-0.63	-----	-----	0.01
862	0.39	0.85	0.24	-----	-----	-0.45	-----	-----	-----	-----	-----	-----
863	-----	-----	-----	-----	-----	-----	-0.03	0.12	-1.02	-----	-----	-0.85
864	1.14	1.64	2.31	-----	-----	0.46	-----	-----	-----	-----	-----	-----
866	-----	-----	-----	-----	-----	-----	0.04	0.36	-0.83	-----	-----	0.34
870	-----	-----	-----	-----	-----	-----	-0.03	0.17	0.06	-----	-----	0.06
913	-0.66	-1.79	-0.18	-----	-----	-3.83	-----	-----	-----	-----	-----	-----
963	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
974	-1.87	-3.94	-5.98	-----	-----	-0.48	-----	-----	-----	-----	-----	-----
1010	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1041	-----	-----	-----	-----	-----	-----	-----	-0.25	0.45	-----	-----	-----
1067	0.99	2.68	3.45	-----	-----	1.07	-----	-----	-----	-----	-----	-----
1102	-----	-----	-----	-----	-----	-----	0.17	0.27	0.84	-----	-----	0.52
1149	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1201	-----	-----	-----	-----	-----	-----	0.04	-0.30	0.84	-----	-----	-2.71
1319	-----	-----	-----	-----	-----	-----	0.17	0.08	0.64	-----	-----	0.65
1342	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1354	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1591	-0.61	-1.82	-1.32	-----	-----	-1.13	-----	-----	-----	-----	-----	-----
1866	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

APPENDIX 2

Number of participants per country

1 lab in	AUSTRIA
1 lab in	AZERBAIJAN
2 labs in	BELGIUM
2 labs in	BRAZIL
3 labs in	CANADA
12 labs in	CHINA, People's Republic
1 lab in	ESTONIA
1 lab in	FINLAND
3 labs in	FRANCE
4 labs in	GERMANY
1 lab in	GREECE
1 lab in	HUNGARY
2 labs in	INDIA
1 lab in	ITALY
1 lab in	JAPAN
4 labs in	MALAYSIA
2 labs in	MEXICO
7 labs in	NETHERLANDS
2 labs in	NEW ZEALAND
1 lab in	NORWAY
1 lab in	ROMANIA
5 labs in	SAUDI ARABIA
2 labs in	SINGAPORE
3 labs in	SOUTH KOREA
5 labs in	SPAIN
1 lab in	THAILAND
2 labs in	TURKEY
1 lab in	UNITED ARAB EMIRATES
3 labs in	UNITED KINGDOM
8 labs in	UNITED STATES OF AMERICA
2 labs in	VENEZUELA
1 lab in	VIETNAM

APPENDIX 3

Abbreviations:

C	= final result after checking of first reported suspect result
D(0.01)	= outlier in Dixon's outlier test
D(0.05)	= straggler in Dixon's outlier test
G(0.01)	= outlier in Grubbs' outlier test
G(0.05)	= straggler in Grubbs' outlier test
DG(0.01)	= outlier in Double Grubbs' outlier test
DG(0.05)	= straggler in Double Grubbs' outlier test
E	= error in calculations
U	= reported in different unit
ex	= excluded from calculations
n.a.	= not applicable
W	= result withdrawn on request of participant

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