

Final Report Ninth of the International Intercalibration Study

Bert van Bavel
December 2004



Dear participants,

Finally the printed version of the final report of the 9th round of the international intercalibration study is ready. A total of 103 laboratories participated in the 9th round analysing the standard solutions, the 3 incineration related samples and/or the 4 soil/sediment samples. In addition 2 ash samples and 2 standard solutions were send to 25 participants within the first round of the intercalibration on PBDD/DFs and mixed chlorine/bromine dioxins and furans. The preliminary results have already been distributed in spreadsheet format by @mail and have been presented and discussed during a special lunch meeting at Dioxin 2004 in Berlin, Germany.

Warned by problems last year most paperwork around the import of soil samples, especially to Asia, was in place before sending the samples and no problems occurred during the actual shipment of the more than 100 packages. The new routines worked well during 2004 and delays were reduced to a minimum.

During 2004 we have been in contact with many of the participant predominantly by @mail. The lunch session during Dioxin 2004 was well attended despite problems in getting a lunch at the same time. It was nice to meet 'old' participant again and to see the new faces behind the '@mail addresses'. We have tried to incorporate all comments and suggestions to continually improve our study. All participants are acknowledged again for all constructive comments and advice during 2004.

Recognizing all the work behind every value reported all participants are acknowledged for all the hard analytical work put in analysing all the different samples and standard solutions. Without all your dedication throughout the years the study would not have been possible or as long lived going into the 10th round in 2005.

One change that has been incorporated this year on many requests is the calculation of z-scores. Many laboratories need to submit these values to accreditation organisations on a national level. We hope that more standardisation on a European or Worldwide level will take place in the future so the results of our study can be used more accurately.

A special word of thanks also this year to Brock Chittim and Wellington Laboratories for providing the standard solutions and to Bram Eijgenraam of Wageningen Evaluating Programmes for Analytical Laboratories (WEPAL) who is acknowledged for making the soil samples available. Dr. Werner Tirler is acknowledged for making one of the fly ash sample available.

Being late with the final report we have just shipped all samples for the 10th round of our study. Again over 100 participant are registered showing that we still fill an important role in the QA/QC of dioxin analysis.

We are thanking you all again for the confidence in our work.

Sincerely,

Bert van Bavel (Professor)

Chairman Workgroup International Intercalibration Studies, IICS

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GENERAL INFORMATION

A total of 103 laboratories participated in the 9th round of the international intercalibration study. This is somewhat less than the record number of 114 in the 7th round of our study. The number of participants just above 100 seems to be rather stable. Historically we seem to have lost some participant in Asia, especially Japan. Earlier problems and delays with the shipments of the soil and sediment samples might be the cause of this, in addition to similar studies organised within Japan.

Of the total of 103 laboratories 81 participated in the incineration study compared to 90 last year. In the soil/sediment/sludge study a total of 73 laboratories participated compared to 81 in the 8th round. A total of 25 laboratories participated in the 1st round of the intercalibration for PBDD/DF and mixed Br/Cl dioxins and furans.

Figure 1. Number of participants in the international intercalibration study.

SAMPLE PREPARATION

1. Incineration

Two homogenised fly ash samples (A, B) and a fly ash extract (C) were distributed to all participants. Around 3-5g of the ash was packed in glass vials after homogenisation. Around 400 ul of the extract was put in a glass ampoule which was sealed in a flame. All samples were sent to the participants in an iron container filled with absorbent material in case of leakage. Sample A and B contained fly ash from two different hazardous waste incinerators with medium levels of the target compounds. Fly Ash A originated from Sweden and Ash B from Italy. The extract C was obtained from Japan and consisted of a dilution of an extract used in an earlier round, the expected levels were relatively low for extract.

2. Soil/Sediment/Sludge

Four soil sample samples were acquired from WEPAL (Wageningen Evaluating Programmes for Analytical Laboratories). These samples were also used within the SETOC programme during the same time period (2004:1), in order to synchronise both studies. All samples were prior to the distribution tested for dioxins and homogeneity. Sample A consisted of soil dressing with sewage sludge from Denmark (SETOC 763, 2004:1), Sample B contained river clay from the Netherlands (SETOC 764, 2004:1), Sample C was a soil dressing with sewage sludge from Austria (SETOC 765, 2004:1) and Sample D was a sediment from the Czech Republic.

3. Standard Solutions

Standard solution M and O were dilutions from earlier used standard solution in our study made available by Wellington Laboratories¹. Solution M was a 1/25 dilution of Standard L used in the 9th round, a glass ampoule containing around 500 ul of this standard in toluene was send to all participants in the incineration study. Solution M contained all 2,3,7,8-substituted PCDDs and PCDFs at concentrations of 1.0, 2.5 and 5.0 pg/ul in addition to PCBs at a concentration range of 4-20 pg/ul. Solution O was a 1/25 dilution of Standard I used in the 7th round. This standard contained 2,3,7,8-substituted dioxins and furans at a concentration range of 1.0, 2.0 to 5.0 pg/ul. Of this standard ca 400 ul was send in a closed glass ampoule to all participants in the soil/sediment/sewage study. The composition and concentrations of standard solution M and O is given in Table 1.

For all samples the participants were asked to report the 2,3,7,8-substituted PCDDs and PCDFs, planar PCBs and as an option the mono *ortho* substituted PCBs and to consider the sample as routine samples. The participants did not receive any further information on the samples or any concentration range of the standard solutions M and O.

Table 1. Concentrations and composition of standard solution M an O.

Solution M (pg/ul)	Solution M (pg/ul)
2,3,7,8-TeCDD	1.0
1,2,3,7,8-PeCDD	2.5
1,2,3,4,7,8-HxCDD	2.5
1,2,3,6,7,8-HxCDD	2.5
1,2,3,7,8,9-HxCDD	2.5
1,2,3,4,6,7,8-HpCDD	2.5
OCDD	5.0
2,3,7,8-TeCDF	1.0
1,2,3,7,8-PeCDF	2.5
2,3,4,7,8-PeCDF	2.5
1,2,3,4,7,8-HxCDF	2.5
1,2,3,6,7,8-HxCDF	2.5
1,2,3,7,8,9-HxCDF	2.5
2,3,4,6,7,8-HxCDF	2.5
1,2,3,4,6,7,8-HpCDF	2.5
1,2,3,4,7,8,9-HpCDF	2.5
OCDF	5.0

¹ Wellington Laboratories, 398 Laird Road, Guelph, Ontario N1G 3X7 Canada

Table 1 continued.

	Solution O pg/ul		Solution O pg/ul
2,3,7,8-TeCDF	1.0	2,3,7,8-TeCDD	1.0
1,2,3,7,8-PeCDF	1.0	1,2,3,7,8-PeCDD	1.0
2,3,4,7,8-PeCDF	1.0	1,2,3,4,7,8-HxCDD	2.0
1,2,3,4,7,8-HxCDF	2.0	1,2,3,6,7,8-HxCDD	2.0
1,2,3,6,7,8-HxCDF	2.0	1,2,3,7,8,9-HxCDD	2.0
1,2,3,7,8,9-HxCDF	2.0	1,2,3,4,6,7,8-HpCDD	2.0
2,3,4,6,7,8-HxCDF	2.0	OCDD	5.0
1,2,3,4,6,7,8-HpCDF	2.0		
1,2,3,4,7,8,9-HpCDF	2.0		
OCDF	5.0		

4. PBDD/DF and mixed Br/Cl dioxin and furan study.

Two fly ash samples and two standard solutions were sent to 25 laboratories for the analysis of both PBDD/DF and mixed Cl/Br dioxins and furans. The laboratories were asked to analyse the compounds listed in Table 2 using their own extraction and clean up procedures and use their own standard solutions for quantification. Sample A consisted of a pooled cyclone ash made available by Dr. Gunilla Söderström containing both PBDD/DFs and mixed Br/Cl dioxins and furans after incineration of BFRs in a pilot incinerator. Sample B consisted of a fly ash made available by Dr. Roland Weber containing low levels of PBDD/DFs but somewhat higher levels of mixed Cl/Br compounds. Standard solution A was a dilution of mix DF-2046A donated by Cambridge Isotope Laboratories² and contained a mixture of 9 Tetra- through Hexa PBDD/DFs at a concentration of 10-1000 pg/ul. The other solution was a mixture of mixed Cl/Br dioxins and furans at a concentration of 10-50 pg/ul made available by Wellington Laboratories.

Table 2. Concentrations and composition of standard solution A and B.

	Standard A pg/ul		Standard B pg/ul
2,3,7-TrBrDD	*	2-Br-7,8-CIDD	10
2,3,7,8-TeBrDD	10	2-Br-3,7,8-CIDD	10
1,2,3,7,8-PeBrDD	50	2,3-Br-7,8-CIDD	10
1,2,3,4,7,8-HxBrDD	250	2-Br-1,3,7,8-CIDD	50
1,2,3,6,7,8-HxBrDD	250		
1,2,3,7,8,9-HxBrDD	250	2-Br-7,8-CIDF	10
		2-Br-6,7,8-CIDF	10
2,3,7,8-TeBrDF	100		
1,2,3,7,8-PeBrDF	500		
2,3,4,7,8-PeBrDF	500		
1,2,3,4,7,8-HxBrDF	400		
1,2,3,4,6,7,8-HpBrDF	1000		

² Cambridge Isotope Laboratories, 50 Frontage Road, Andover, MA 01810-5413, USA

RESULTS

More than 90% of the laboratories were able to report results before the set deadline. This response rate is about the same as for the 8th round and considered to be very high comparing with similar studies for other target compounds. A total of 81 laboratories reported results for the 2,3,7,8-substituted PCDD/DFs in standard solution M of the incineration study, 57 laboratories reported the three planar PCBs and 56 reported all WHO TEF assigned PCBs. Dioxin results were reported by 98% of the participants for Fly Ash A and B and 91 % for the low concentration Extract C. The values for the other target compounds, planar PCBs and WHO TEF assigned PCBs, were somewhat lower 64-72%.

Similar figures (97-99%) were seen for the dioxin results of the four Soil/Sediment/Sludge samples. A lower percentage of the participants (71-74%) reported results for the planar PCBs and the mono ortho PCBs (71-73%). Results for Solution O which was distributed within the soil/sediment /sludge study contained only 2,3,7,8-substituted PCDD/DFs and results were reported by 95% of the participants in that study (Table 3).

Table 3. Reported data for the 9th round of the International Intercalibration Study (IICS).

	PCDD/DF TEQ	Planar PCB TEQ	WHO TEQ	Total
Soil A	71	54	52	73
Soil B	71	54	53	73
Soil C	72	54	53	73
Soil D	71	54	53	73
Ash A	79	57	56	81
Ash B	79	58	58	81
Extract C	74	53	52	81
Standard M	75	57	56	81
Standard O	69	-	-	73
Total Number Both Studies:				103

The report rates for the 1st round of the PBDD/DF and mixed Br/Cl dioxins and furans study were much lower than for the 9th round of the IICS. This is of course not so surprising for this new class of compounds. From the total of 25 participants 12 laboratories were able to report results for PBDD/DF and 8 for the mixed compounds. For the real life ash samples only 6 participants reported data back to us before the deadline (Table 4).

Table 4. Reported data for the 1st round of the PBDD/DF and mixed Cl/Br dioxins and furans.

	Number of labs reporting	Compound
Standard A	12	PBDD/DF
Standard B	8	Mixed
Fly Ash A	12	PBDD/DF
	6	Mixed
Fly Ash B	6	PBDD/DF
	6	Mixed
Total	25	

All results of the study are given in detail in the tables in the appendix following this section. In the tables the original entries of the results are given. The mean, median, and standard deviation are calculated including all entered results and given at the end of the tables. In addition figures are included for each congener showing the individual results, the mean value and 1 x the RSD. Outliers outside 2 x the RSD were omitted from the results and a new mean, median and RSD was calculated. This data is given in an extra figure for the PCDD/DF TEQ, in which outliers are deleted and again the mean value, and both 1 x and 2 x the RSD are displayed. From this data z-scores were calculated as $z = (x - \bar{X}) / SD$, x = reported value, \bar{X} = consensus value and SD the standard deviation. In special cases when obvious outliers were present in the data the median is used instead of the mean value. When a limited number of extreme outliers were present in the data, these data points were removed from the figures. Also detection limits are included in both the figures (open symbol) and the calculations. The detection limits have however not been included in the calculations in the tables. This might in special cases, if when a large number of laboratories have reported DLs, result in minor differences in the mean and RSD of the same data in tables and the corresponding figures.

Table 5. RSD and number of participants after omitting obvious outliers (> 2 x RSD).

	PCDD/DF TEQ		
	RSD	Participants	Total
Soil A	20%	69	71
Soil B	13%	70	71
Soil C	41%	69	72
Soil D	24%	67	71
Ash A	26%	75	79
Ash B	33%	77	79
Extract C	27%	72	74
Standard M	11%	68	74
Standard L	14%	63	69

1. Incineration

Ash A

Taking all 79 entries into account an average of 0.45 and a median of 0.44 was calculated for the dioxin TEQ with a relatively large RSD of 43%. After omitting 4 obvious outliers outside 2 x the standard deviation a consensus mean of 0.42 ng TEQ/g was calculated with a corresponding RSD of 26%. These results are given below in Figure 4 where the consensus value and 1 and 2 x the RSD are given after omitting obvious outliers. A total of 69 out of 79 results reported for the PCDD/DF TEQ values were within 2 times the RSD corresponding with a z-score of 2. Somewhat fewer results were reported for the planar and mono *ortho* PCB TEQ (57 and 56 respectively). The contribution of PCBs to the total TEQ is 0.03 ng TEQ resulting in total TEQ levels of 0.45 ng TEQ/g.

Also the results for the individual PCDD/DF congeners are reasonable (RSD 28-49%) for the dioxin results except for 1,2,3,7,8,9-HxCDF with a RSD of 150%. The individual results for the PCBs show a larger variation with RSDs varying from 19 to 283 %, even after excluding several outliers.

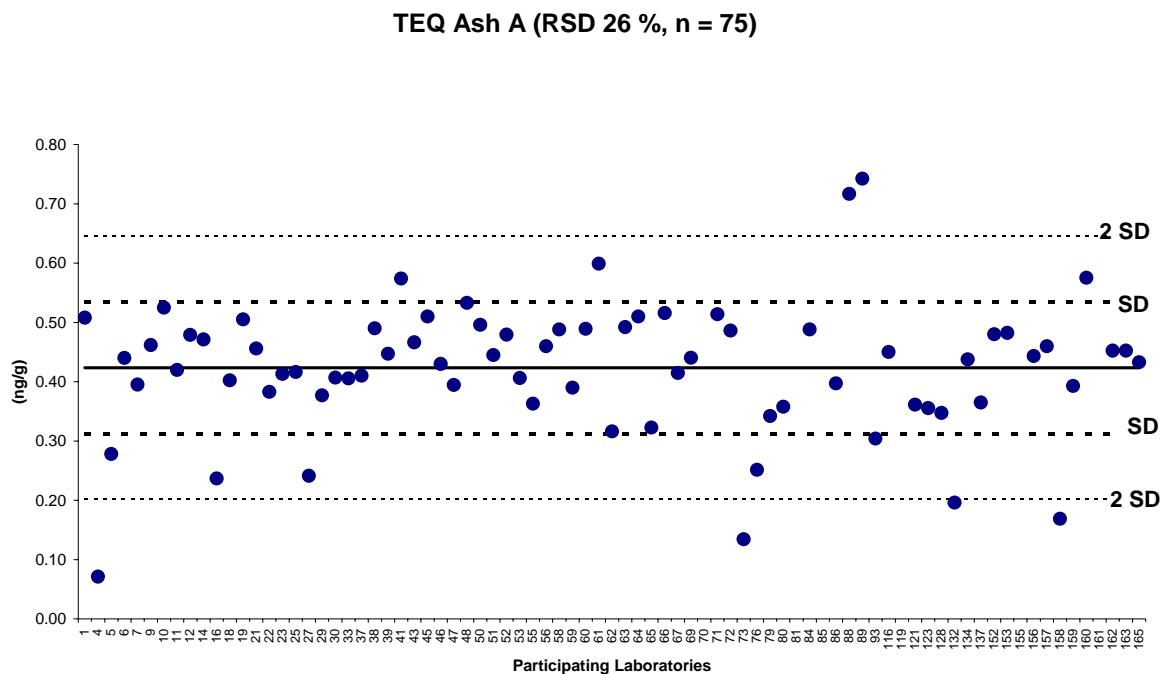


Figure 2. Results of the total dioxin TEQ in Fly Ash A after omitting obvious outliers.

Ash B

Also Fly Ash B contained moderate levels of dioxins and furans. A total TEQ of 0.16 ng TEQ /g was calculated taking all 79 reported results into account with a RSD of 51%. When omitting obvious outliers outside 2 x the original RSD a consensus value of 0.15 ng TEQ/g was calculated with a RSD of 33% for 77 entries (Figure 5). A total of 71 laboratories reported within 2 x the RSD of 33% corresponding to z-scores of 2. For the planar and mono *ortho* PCBs average values of 0.16 ng TEQ/g were calculated with RSDs of 28% for 58 reported results. The results for the individual PCDD/DF isomers for Fly Ash B were somewhat larger than Ash B with RSDs from 33 to 62 %, again with the exception of, 1,2,3,7,8,9-HxCDF (167%). The results for the 3 planar PCBs were good for PCB #126 and PCB # 169 (RSD 31%, 63%) but both for PCB #77 and the mono *ortho* PCBs RSDs were relatively large and all over 100%.

TEQ Ash B (RSD 33 %, n = 77)

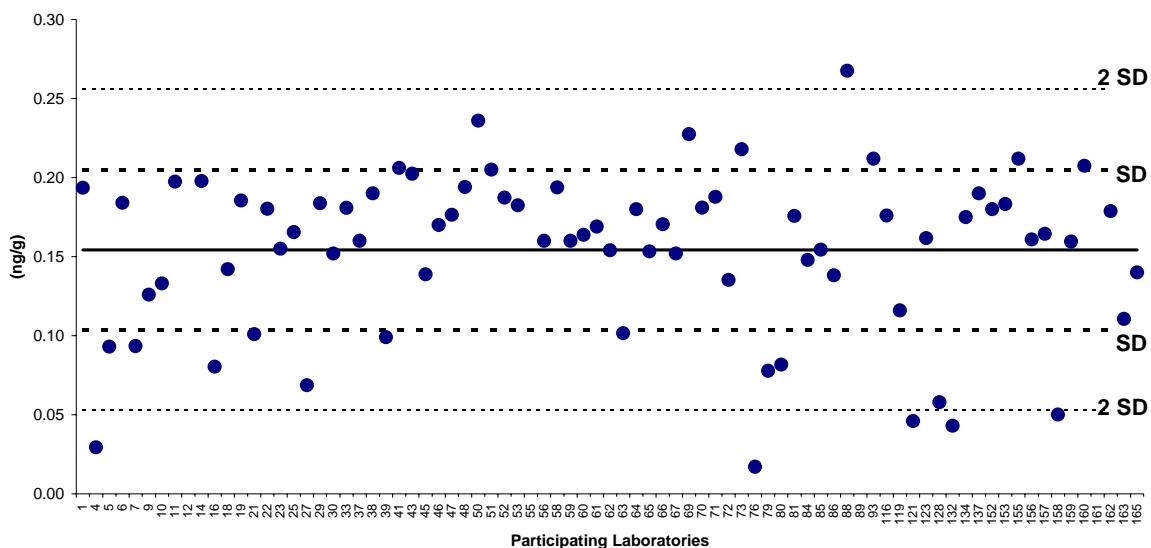


Figure 3. The results of the PCDD/DF TEQ for Fly Ash B after omitting obvious outliers.

Extract C

Extract C was a dilution of an earlier used extract and contained very low concentrations of the target compounds. Due to some problems when reading the data into the data base, it was finally decided to display the levels in fg/ul. The average of all 74 results was 237 fg TEQ/ul with an RSD of 41%. The new RSD after 4 obvious outliers were deleted was 27% with a mean consensus value of 232 fg TEQ/ul shown in Figure 4. A total of 66 laboratories qualified between 2 x the RSD corresponding to z scores of around 2. Results for the PCBs were reported by 53 laboratories for the 3 planar PCBs and 52 labs reported the mono *ortho* PCBs with total TEQ averages of 226 fg/ul and 234 fg/ul and RSDs of 26 and 25%. Again the RSDs for the individual PCDD/DFs was relatively good (22-47%) with the exception of 2,3,7,8-TeCDF (87%) and 1,2,3,7,8,9 HxCDF (119%). But the results for PCB #77 and eight of the mono *ortho* PCBs showed RSDs over 300%. Based on TEQ the RSDs were good with values of 26% for the total TEQ including PCDD/DFs and the three planar PCBs and 25% when also the WHO TEF assigned PCBs were included.

TEQ Extract C (RSD 27 %, n = 72)

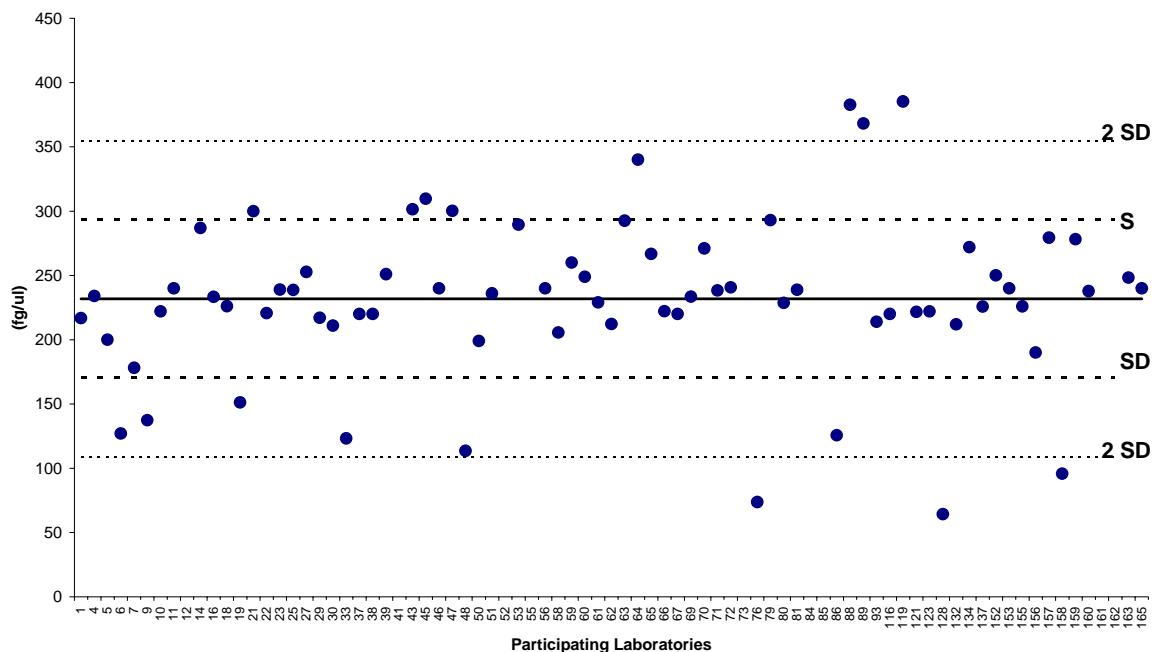


Figure 4. The results of the PCDD/DF TEQ for Extract C after omitting obvious outliers.

2. Soil/Sediment/Sludge

For the first time the results from participants within the SETOC programme were included in our summary. These results are displayed by squares in the figures and the SETOC code is displayed with an * in front. We hope to standardise the evaluation and statistics even more in the 10th round of our study.

Soil A

The sewage sample from Denmark contained medium levels of PCDD/DFs and PCBs, the mean taking all 71 entries into account was 0.048 ng TEQ/g with an RSD for the PCDD/DF TEQ of 42%. After deleting 2 results outside 2 x the RSD, the RSD was reduced to 20% for the remaining 69 results. Of the 69 laboratories reporting 60 qualified within 2 x the RSD corresponding to a z score of about 2 (Figure 5). The results for the planar PCBs were similar with an RSDs of 16%, the RSD when including the mono ortho PCBs was however much larger (149%). For this sample the contribution of the WHO TEF assigned PCBs was significant with an mean of 0.046 ng TEQ/g for PCDD/DFs, 0.056 ng TEQ/g when including the three planar PCBs and 0.078 ng TEQ/g when including all target compounds. For this sample large RSD were seen for 1,2,3,7,8,9-HxCDF (120%), 1,2,3,7,8-PeCDD (126%), PCB # 169 (180%) and PCB #81 (451%). In Figure 6 the results including the WHO PCB TEQ are given to illustrate the contribution of the PCBs to the total TEQ.

**PCDD/DF TEQ Soil A (RSD 20 %, n = 75)
including SETOC participants**

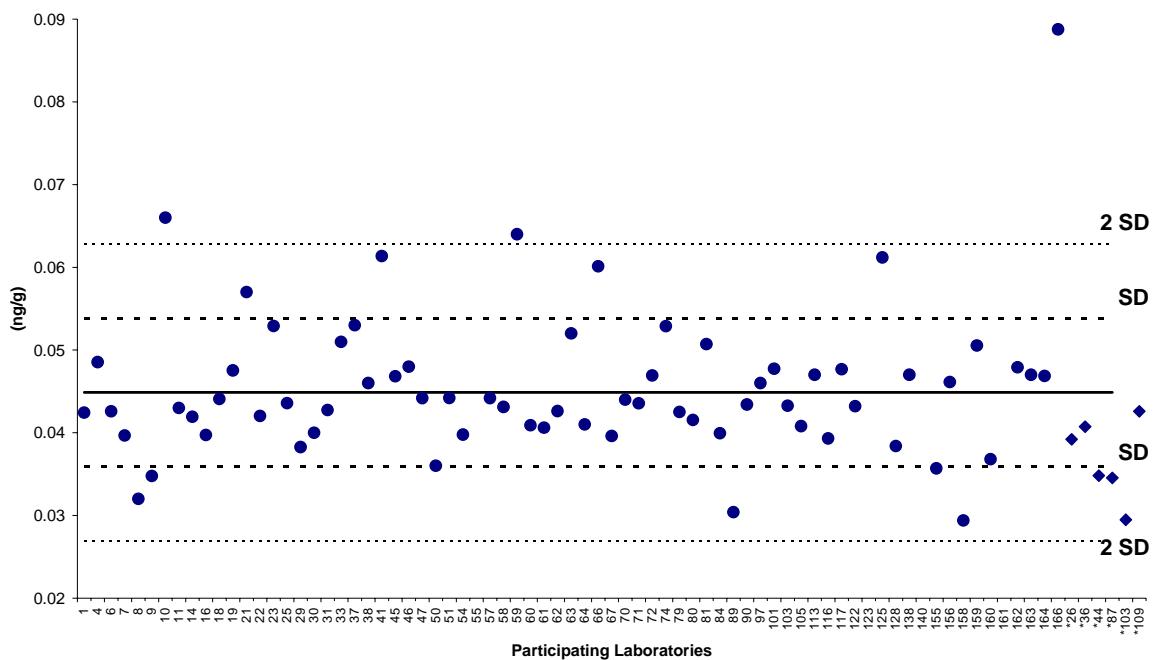


Figure 5. Results from Soil A (Sewage) after omitting obvious outliers, PCDD/DF TEQ only.

WHO TEQ Soil A (RSD 15 %, n = 50)

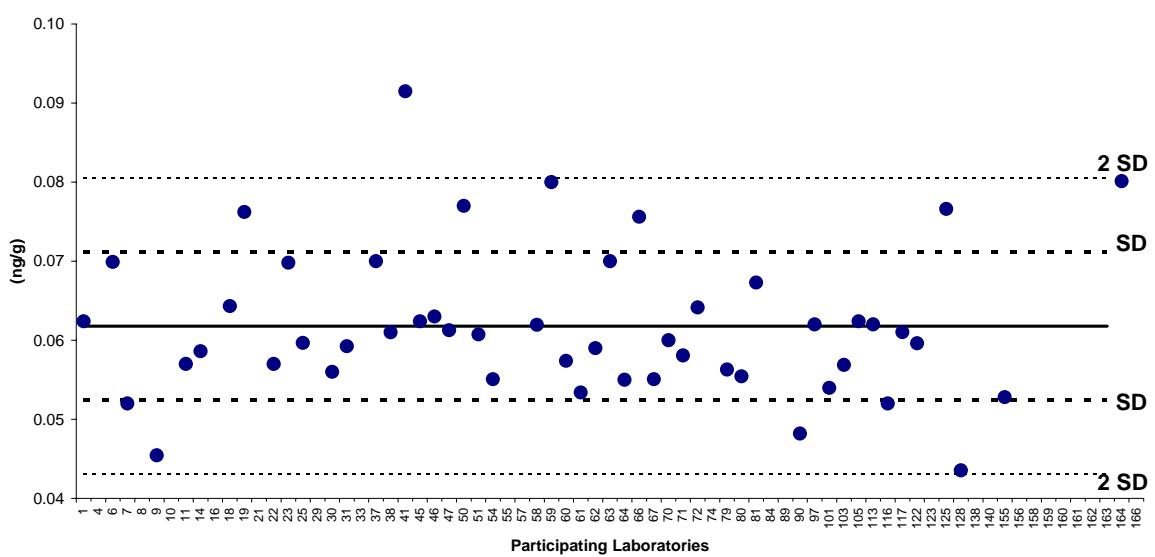


Figure 6. Results from Soil A (Sewage) after omitting obvious outliers, total TEQ including WHO PCB TEQ.

Soil B

Soil B consisted of river clay from the Netherlands. This sample contained relatively high levels of the target compounds. The results were very good even before omitting outliers, a mean PCDD/DF TEQ of 0.16 ng/g was reported with an RSD of only 23 %. This RSD was even further improved after deleting 2 outliers to 13% for 70 entries (76 when 6 SETOC results were included). All individual PCDD/DF results were very good, concerning the PCB results high RSD were observed for PCB #169, and several of the mono ortho PCBs.

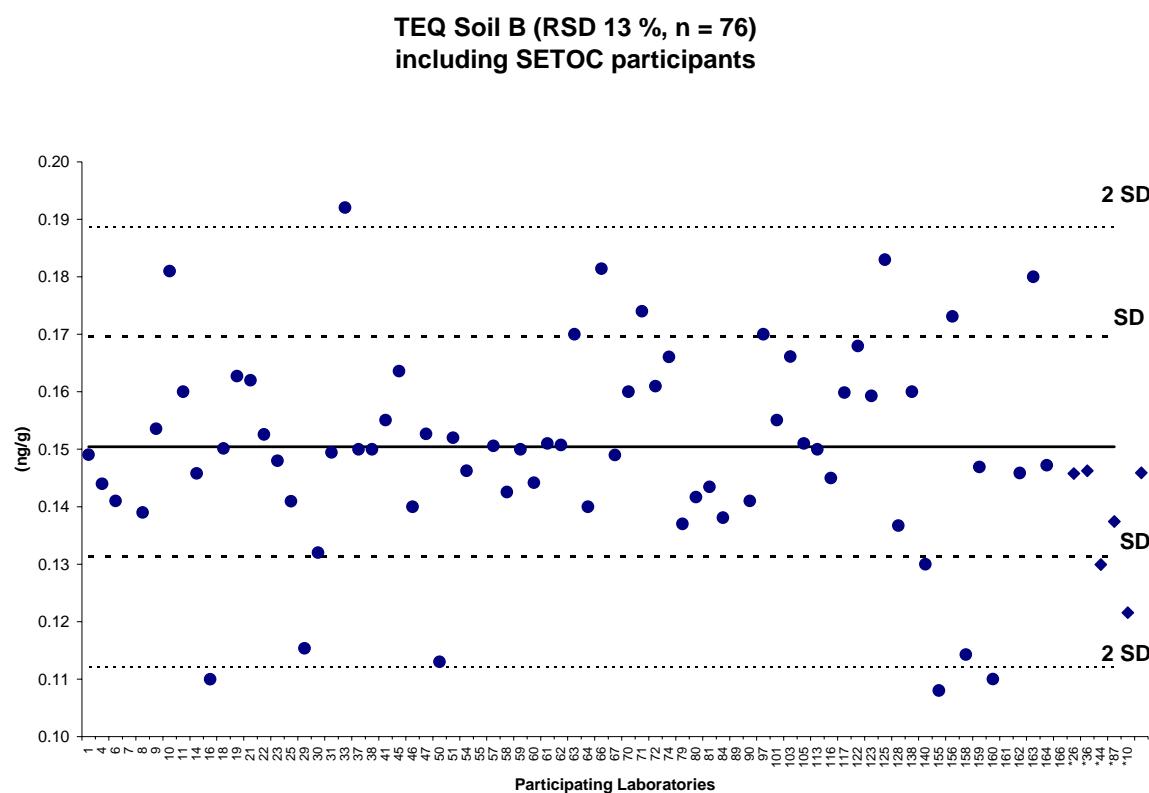


Figure 7. Results from Soil B (Industrial Soil) after omitting obvious outliers.

Soil C

Sample C consisted of a sewage sludge sample from Austria with low levels of PCDD/DFs and PCBs. Of the 72 laboratories (75 including the SETOC results) who reported results 69 qualified within 2 x the RSD of 41 %, which is a good result considering the low levels of the target compounds. The average for the total TEQ was 0.00031 ng/g TEQ which changed after including the planar PCBs to 0.0040 ng TEQ/g (RSD 35%) and to 0.0046 ng TEQ/g (RSD 31%) after including the mono ortho PCBs. Again some of the individual congeners showed a relatively large variation including again 1,2,3,7,8,9-HxCDF (111%), 1,2,3,7,8-PeCDF (127%) and the four of the PCBs (PCB #169, #81, #114 and #123).

**TEQ Soil C (RSD 43 %, n = 75)
including SETOC participants**

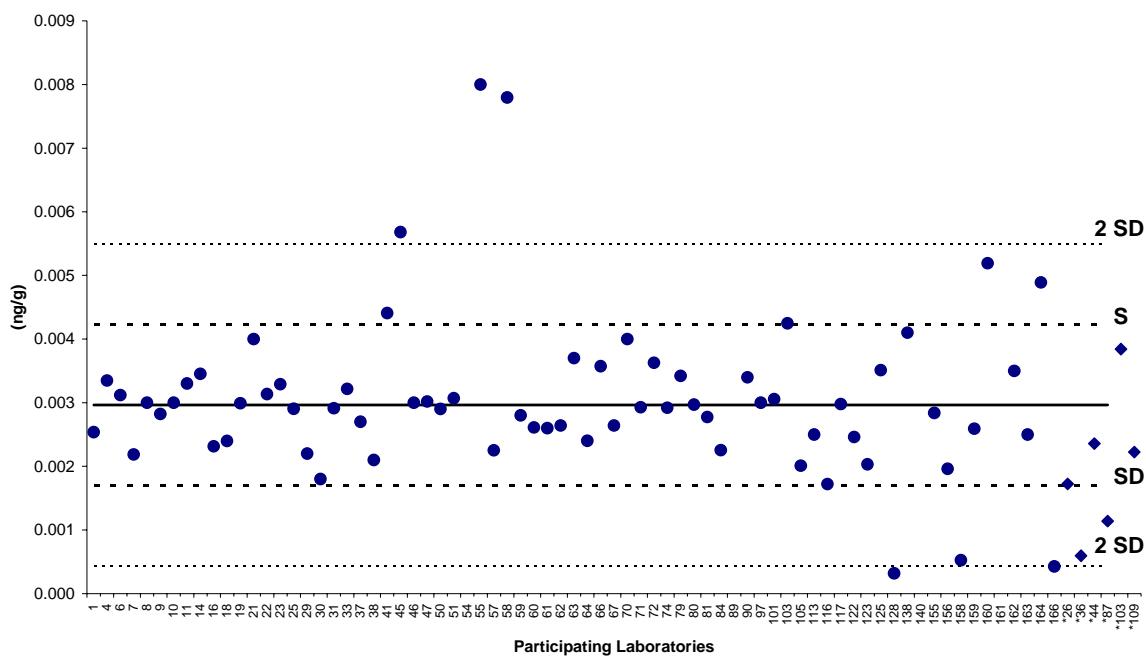


Figure 8. Results from Soil C (Sewage Sludge) after omitting obvious outliers.

Soil D

Soil D, a sediment sample from the Czech Republic contained similar low levels as Soil C. The total PCDD/DF TEQ was 0.0035 ng/g for all 71 results submitted resulting in a RSD of 45%. After omitting five outliers the mean PCDD/DF TEQ became 0.0031 ng/g with an RSD of only 24% for the 67 entries. The planar PCBs contributed to the total TEQ and a value including the three planar PCBs of 0.0043 with an RSD of 28% was calculated. Some of the mono ortho PCBs showed large RSDs (PCB #81, #105, # 114 and #123) probably due to the very low concentrations. The total TEQ was only influenced marginally showing an average of 0.0049 with an RSD of 23%. Also the very low PCDD results showed somewhat larger variation, but because of the extreme low concentrations this had no influence on the RSD of the PCDD/DF TEQ. Two of the SETOC results were relatively low compared to the mean consensus value. This might be a result of the recalculation of the total TEQ values and lower bound values were calculated.

**TEQ Soil D (RSD 29 %, n = 74)
including SETOC participants**

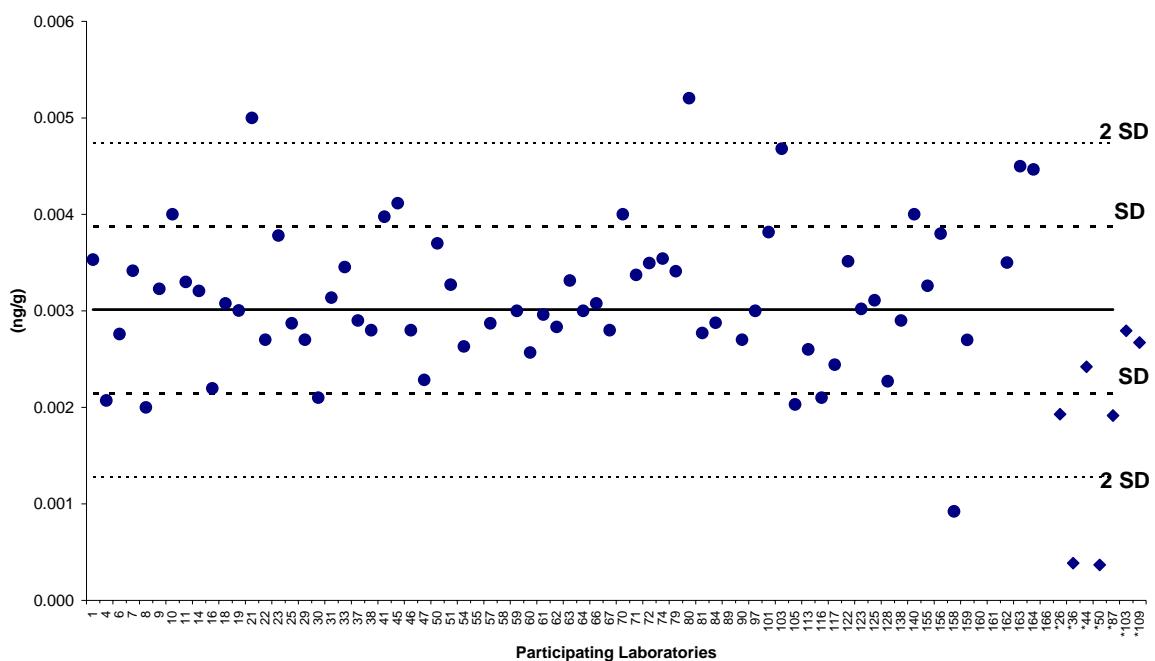


Figure 9. Results from Soil D (Sediment) after omitting obvious outliers.

3. Standard Solutions

Solution M

The results for standard solution M are summarised in Table 6. When taking all entries (75) into account an RSD of 29% was calculated for the PCDD/DF TEQ. When including both planar and mono ortho PCB TEQs the RSD was 25%. When excluding 8 outliers the PCDD/DF TEQ value improved to 11% (Figure 10) for 68 entries. The individual RSDs were generally under 20% with the exception of 2,3,7,8-TeCDF and OCDF. The results for both the PCB TEQs were very good and improved to RSDs of 8% for both values after excluding the outliers. All results showed good agreement with the design values given in Table 6. The low concentrations of the standard solution did not cause much problems for the majority of the laboratories, although the relatively high RSD of the individual PCDD/DFs and PCBs before omitting the outliers is somewhat surprising. Some misunderstandings on how to treat the solution might have contributed. The results should be reported in pg/ul and an exact volume should be analysed, the amount indicated on the shipment papers (500 ul) was approximate and not accurate enough for analysis.

Table 6. Results Solution M in pg/μl and the design value.

Solution M				
	Design Value	Mean	Design Value	Mean
2,3,7,8-TeCDD	1.0	0.9		
1,2,3,7,8-PeCDD	2.5	2.3	PCB #77	20
1,2,3,4,7,8-HxCDD	2.5	2.5	PCB #126	4.0
1,2,3,6,7,8-HxCDD	2.5	2.6	PCB #169	4.0
1,2,3,7,8,9-HxCDD	2.5	2.6		
1,2,3,4,6,7,8-HpCDD	2.5	2.4		
OCDD	5.0	4.7	PCB #81	4.0
2,3,7,8-TeCDF	1.0	1.2	PCB #105	40
1,2,3,7,8-PeCDF	2.5	2.7	PCB #114	4.0
2,3,4,7,8-PeCDF	2.5	2.3	PCB #118	40
1,2,3,4,7,8-HxCDF	2.5	2.7	PCB #123	4.0
1,2,3,6,7,8-HxCDF	2.5	2.6	PCB #156	20
1,2,3,7,8,9-HxCDF	2.5	2.7	PCB #157	4.0
2,3,4,6,7,8-HxCDF	2.5	2.6	PCB #167	4.0
1,2,3,4,6,7,8-HpCDF	2.5	2.3	PCB #189	4.0
1,2,3,4,7,8,9-HpCDF	2.5	2.4		
OCDF	5.0	4.8		

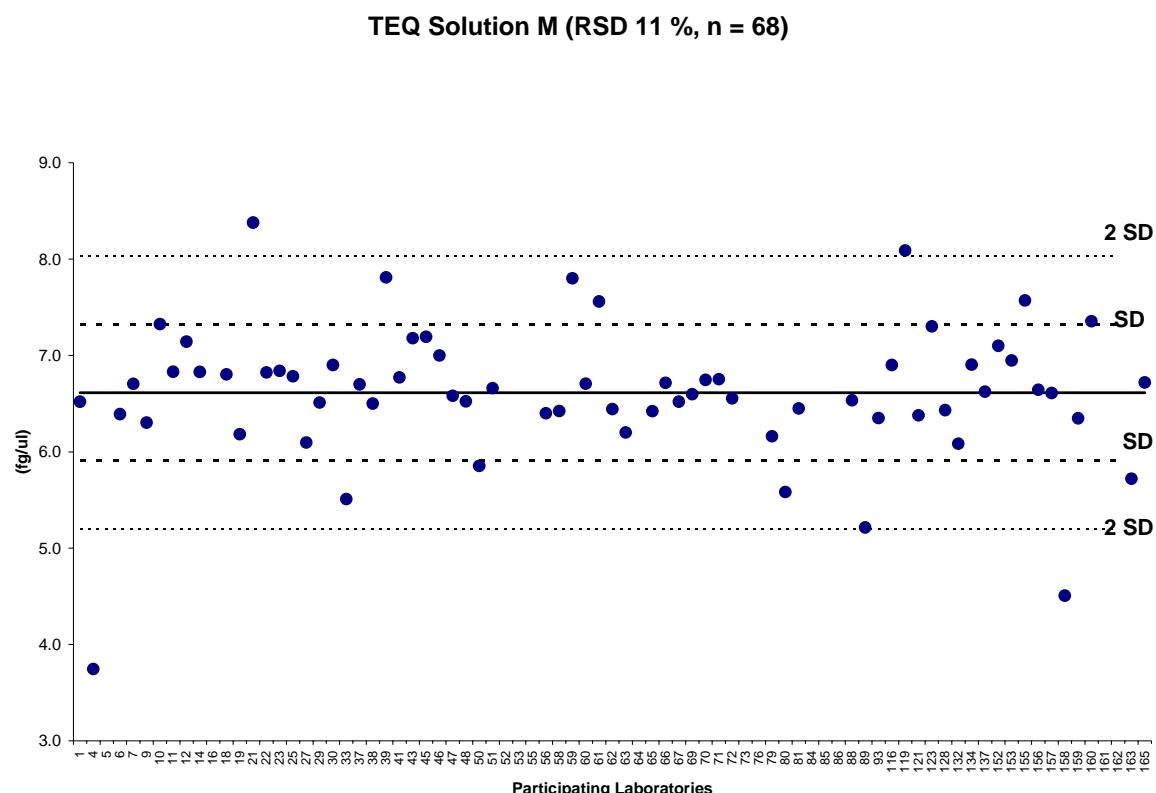


Figure 10. PCDD/DF TEQ results for Solution M after omitting obvious outliers

Solution O

Solution O only contained 2,3,7,8-substituted PCDD/DF, the design value and the mean of the results are given in Table 7. Before omitting obvious outliers on a TEQ basis the RSD for the PCDD/DF TEQ was 106%, which was mainly caused by one extreme outlier. After deleting this outlier the RSD was reduced to 68% for 68 entries. After omitting 5 more outliers outside 2 x the SD the RSD was reduced to 14%. The results for the individual congeners varied from 15 % for 2,3,7,8-TeCDD to 49% for 2,3,4,7,8-PeCDF. Also here the mean values were in good agreement with the design values.

Table 7. Results Solution O in pg/μl and the design value.

Solution O		
	Mean	Design Value
2,3,7,8-TeCDD	1.00	1.0
1,2,3,7,8-PeCDD	0.99	1.0
1,2,3,4,7,8-HxCDD	2.01	2.0
1,2,3,6,7,8-HxCDD	2.02	2.0
1,2,3,7,8,9-HxCDD	1.95	2.0
1,2,3,4,6,7,8-HpCDD	1.98	2.0
OCDD	4.88	5.0
2,3,7,8-TeCDF	1.06	1.0
1,2,3,7,8-PeCDF	0.97	1.0
2,3,4,7,8-PeCDF	1.05	1.0
1,2,3,4,7,8-HxCDF	1.92	2.0
1,2,3,6,7,8-HxCDF	1.94	2.0
1,2,3,7,8,9-HxCDF	1.94	2.0
2,3,4,6,7,8-HxCDF	1.98	2.0
1,2,3,4,6,7,8-HpCDF	2.02	2.0
1,2,3,4,7,8,9-HpCDF	1.95	2.0
OCDF	4.98	5.0

TEQ Solution O (RSD 14 %, n = 63)

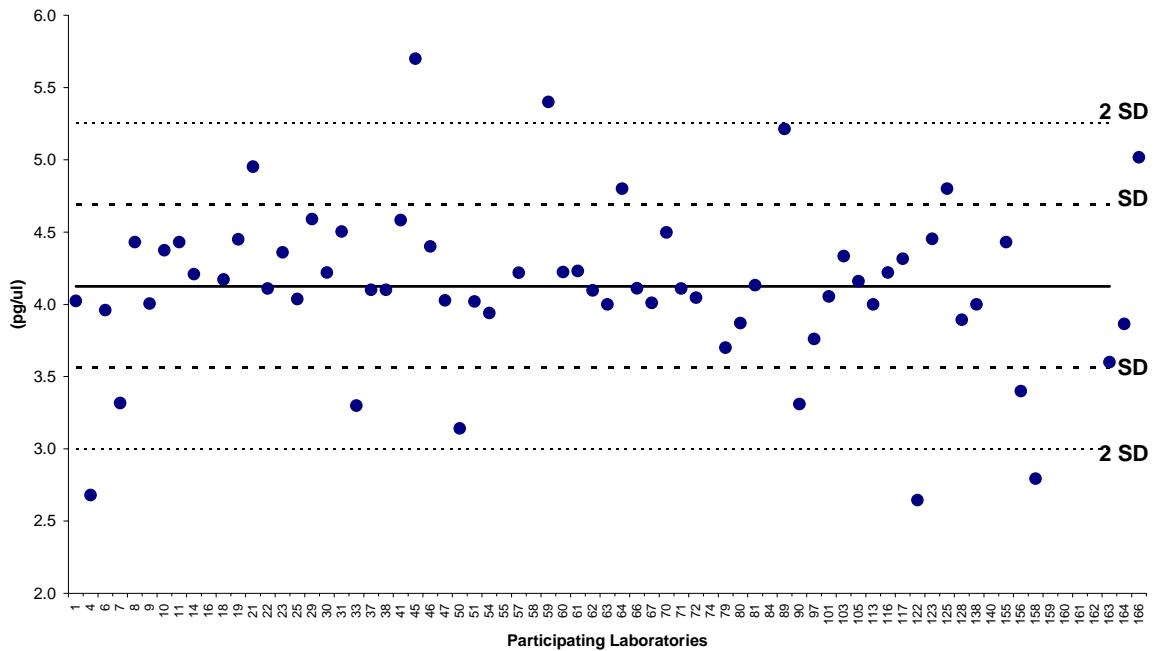


Figure 11. PCDD/DF TEQ results for Solution O after omitting obvious outliers

4. PBDD/DF and mixed Br/Cl dioxins and furans.

Ash A

The results from the analysis of fly ash sample A are shown in detail in the appendix. The sample contained reasonable amounts of PBDD/DFs but relatively low levels of the mixed Br/Cl homologues. The results for both 2,3,7,8- TeBDD and 2,3,7,8-TeBDF are in reasonable agreement, but these results are still not as good as the results achieved with their chlorinated homologues in other studies. The mixed Cl/Br dioxins and furans were present at a much lower level but were nevertheless detected by 7 of the participants. The agreement of the analysis of both 2-Br-3,7,8-ClDD and 2-Br-6,7,8-ClDF at the low level of 0.01-0.09 ng/g was reasonable good (66-68%). Problems quantifying the totals of the mixed compounds were reported due to large number of congeners and interferences at the different Br/Cl masses monitored.

Ash B

Fly Ash B contained unfortunately very low levels of PBDD/DFs. The levels of mixed Br/Cl dioxins and furans were in the same low range as Fly Ash A. To obtain results from the limited amount of fly ash available (3-5g) was a real challenge in this case. And more material should have been made available to the participants

Standard Solutions

Of the total of 25 participants 12 were able to report results before the set deadline. The report frequency of 48% is significantly lower than similar studies on the chlorinated homologues where report frequencies are normally over 80%. Also the variation in the data of a standard solution was larger and up to 115%. However good results were obtained for several compounds resulting in RSDs between 16 and 39% for the brominated dioxins and furans, this is illustrated in Figure 12 where the results for 2,3,7,8-TeBDD are shown after 1 outlier was deleted. Two of the HxBDD were co-eluting on the column used by most of the participants and results are reported as the sum of the two isomers. From the results for the 6 mixed Cl/Br dioxins and furans standard solutions it was shown that this analysis was somewhat more difficult and a lower number of participants (8) were able to report levels. In addition a larger RSD was seen for the 5 compounds. All values were in reasonable agreement with the designed values.

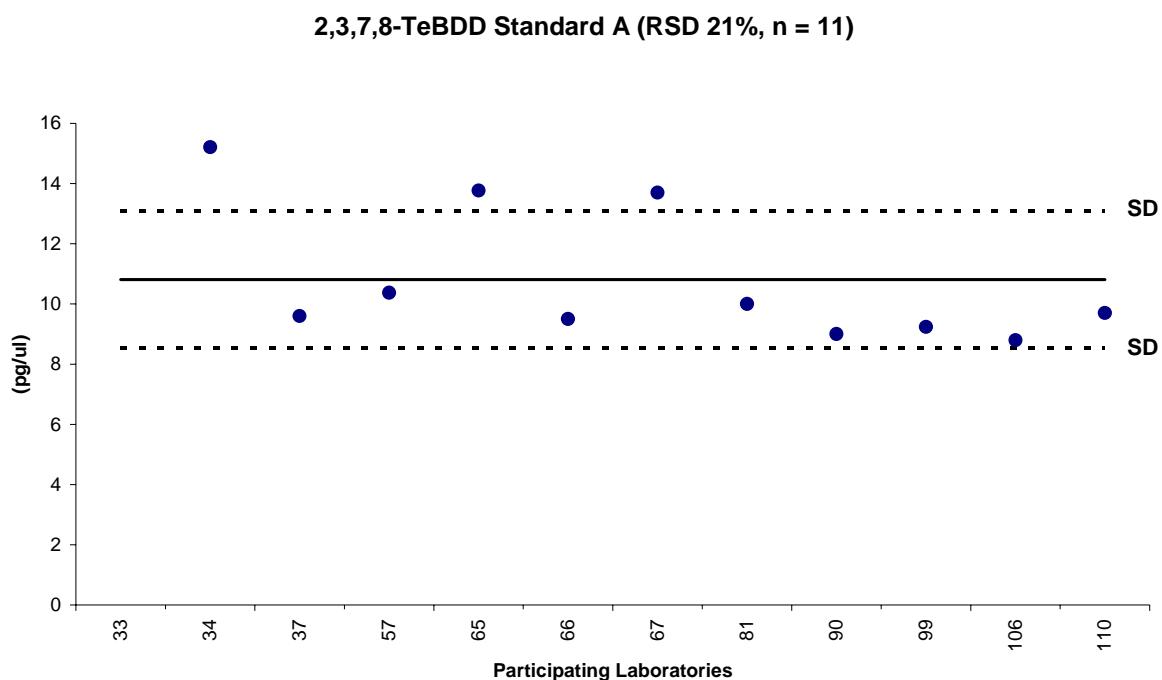


Figure 12. Results for 2,3,7,8-TeBDD after omitting 1 outlier

PRESENTATION OF THE RESULTS

The results of the 9th round were presented at a special lunch meeting during Dioxin'2004 in Berlin, Germany. During this meeting the results were presented during a 20 minutes oral presentation and an informal discussion afterwards.

The results of the 1st round of the PBDD/DF and mixed Br/Cl dioxin and furan study were presented during the QA/QC session of Dioxin 2004. The abstract submitted to the meeting is given below at the end of this section.

FUTURE ACTIVITIES

The 10th round of our study has already started and 102 laboratories have registered to participate in one of the studies below.

10th Round Incineration: 3 Samples (3 fly ash), standard solutions
Distribution samples: Nov/Dec 2004
Reporting results: 31 March 2005
Presenting results: Dioxin'2005 (Toronto, Canada, www.dioxin2005.org)
Final report: October 2005
Cost: 800 EUR commercial laboratories, 700 EUR non-commercial

9th Round Soil/Sediment: 4 Samples (SETOC) and standard solutions
Distribution samples: Nov/Dec 2004
Reporting results: 31 March 2005
Presenting results: Dioxin'2004 (Toronto, Canada, www.dioxin2005.org)
Final report: October 2005
Cost: 800 EUR commercial laboratories, 700 EUR non-commercial

2st Round PBrDD/DF, mixed PBr/ClDD/DF : 1 soil sample, standard solutions
Target compounds: PBrDD/DF and PBr/ClDD/DFs
Distribution samples: March 2005
Reporting results: July 2005
Presenting preliminary results: Dioxin'2005 (Toronto, Canada, www.dioxin2005.org)
Costs: 600 EUR commercial laboratories, 500 EUR non-commercial

Results from the 1st round of the international intercalibration study for PBDD/DF and mixed PC/BDD/DF in a standard solution and incineration samples..

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Introduction

The rapid increase in the usage of brominated flame retardants (BFR) the last two decades will undoubtedly result in more bromine containing waste. Both in laboratory and pilot scale experiments the formation of PBDD/DFs during thermal treatment of the BFRs or BFR containing waste has been shown^{i,ii}. Potentially this might result in rising levels of these compounds in the environment. PBDD/DFs exhibit similar properties as chlorinated PCDD/DFs although they have a larger molecular weight, somewhat lower water solubility, lower vapour pressure, and are more lipophilic. PBDD/DFs are expected to bio accumulate in a similar way as their chlorinated homologues. The persistence of PBDD/DFs might however be somewhat less due to increased photolytic degradation. Toxicologically they behave again similar to the more extensively studied chlorinated dioxins and furans and show nearly the same dioxin like toxicity as their chlorinated homologues as recently reviewed by Birnbaumⁱⁱⁱ et al. Despite their dioxin like toxicity and potential large emission sources, only limited information is available on levels of these compounds in the environment. This is probably due to historical low levels and potential analytical difficulties. Several methods adapted from the analysis of chlorinated dioxins have however been published in the past^{iv,v,vi}, and recently several new methods have been published^{vii,viii}. Potential problems are interferences of BDEs during clean up and extraction or high resolution GC/MS analysis. Another problem might be thermal breakdown of the target compounds or Deca BDE to PBDFs. General human population background data is until recently not known and only occupational exposure data showed measurable amounts of PBDD/DFs^{ix,x}. No PBDD/DFs were found in salmon (< 0.3 ppt), osprey (<0.5 ppt) or human milk (<1 ppt) from Sweden by Wiberg et al in 1992^{xi} or in carp^{xii} and sediment samples^{xiii} from the US. Recently both 2,3,7,8-TeBDD and 2,3,7,8-TeBDF were found in Japanese sediment at levels of 0.3-3.2 pg/g by Choi et al . The same group also found measurable levels of PBDD/DF in human samples from Japan^{xiv}. Levels of 0.1-4.2 pg/g were found in 10 human adipose samples from 2000, surprisingly levels in the same range 1.6-4.3 pg/g lipids were found for 10 samples from 1970. Here we present the validation of a traditional open column extraction method for the analysis of PBDD/DF in addition to SFE-LC extraction of PBDD/DFs in biological samples.

Material and methods

Several different configurations of different open columns (multilayer silica, AlOx, Florisil and carbon) were tested for both the extraction and clean up of human adipose samples. The sample consisted of a homogenized human adipose tissue sample which normally serves as a QA/QC sample for chlorinated dioxin and furan analysis and was obtained from the University Hospital Örebro in 2002. The QA/QC sample was stored at – 18 °C until usage. The configuration of the extraction column, the multilayer silica column and the carbon column used in the final experiments is described below. Glass pipettes (50 ml) were plugged with glass wool and filled with 6 or 20 g of homogenized sample (1:4 sample/Na₂SO₄) and spiked with a 50 ul of a mix containing Mono-through Penta PBDD/DF at a concentration of 10-50 pg/ul for the recovery experiments or 50 ul of a internal standard mix containing ¹³C labeled 2,3,7,8-TeBDD at a concentration of 2.5 pg/ul. The samples were eluted with n-hexane/dichloromethane (1:1, v/v) and after evaporation of the solvent the amount of fat was determined gravimetrically. The fat samples were dissolved in ~5 ml n-hexane and added to a multilayer silica column consisting of KOH silica, neutral activated silica gel, 40 % H₂SO₄ silica gel, 20 % H₂SO₄ silica gel, neutral activated silica gel and activated Na₂SO₄. This column was eluted with hexane which after collection was evaporated to around 1 ml using an evaporator. This volume was added to a 25 ml glass column containing Carbo pack C dispersed on Celite 545. The non planar fraction was eluted with 10 ml hexane, while the planar fraction containing the PBDD/DFs was eluted with 80 ml toluene. After the addition of a recovery standard (¹³C labeled 1,2,3,4-TeCDD) the samples were evaporated and transferred to an amber glass auto sampler vial in 25ul of tetradecane. The extracts were stored in – 18°C until HRGC-HRMS analysis.

Supercritical fluid extraction (SFE) was tested by adding the PBDD/DF mix to a standard SFE cell (10 ml) filled with 5ml Na₂SO₄ and 5 ml AlOx. During dynamic extraction at 40 °C and 280 atm with CO₂ for 45 minutes the target compounds were collected on a solid phase trap containing AX-21 carbon on ODS silica. After sample extraction this trap was eluted with hexane and finally with toluene to elute the PBDD/DFs.

HRGC/HRMS analysis was performed on a Micromass Autospec Ultima operating at 10 000 resolution using EI ionization at 35 eV. All measurements were performed in the selective ion recording mode (SIR), monitoring the two most abundant ions of the molecular bromine cluster. Several different GC columns were used including a 30 m Equity-5 (0.25 mm id, 25 um), a 30 m DB-5MS (0.25 mm id, 25 um) or a 60m BPX-5 (0.32 mm id, 25 um). Splitless injection was used to inject 1ul of the final extract on the GC column, several different GC temperature programming was used to optimize the response (and minimize degradation in both the injector and on the column) depending on column length and GC performance. All recoveries and levels were calculated against ^{13}C labeled 2,3,7,8-TBDD, which might in some cases result in variation of the relative response factors when congeners of different brominating level were analyzed. Detection levels were calculated at a S/N ration of 3, corrected for recovery of the internal standard.

Results and discussion

The test of the elution of the PBDD/DF mix on the different columns showed generally good results after adjusting the elution volumes. As an example the results for the multilayer silica and the carbon column are shown in Table 1. Similar results were also obtained for the AlOx and Florisil columns. The results for the lower brominated PBDD/DFs, both mono and di brominated congeners, is somewhat low probably due to evaporation losses. Although evaporation losses were minimized as much as possible, and improvement was shown in later experiment this could not completely be avoided with the instrumentation used. Another observation is that because only one internal standard (^{13}C labelled 2,3,7,8 TeBDD) was available at the time of the method development and was used for all experiments the results for the PBDD/DFs at other bromination levels might be somewhat less accurate. The GC/MS reponse of brominated dioxins and furans seem to drop much more from one bromination level to another than their chlorinated homologues.

Table 1. Recovery after elution on multilayered silica and carbon column of a mix of PBDD/DF (10-50 pg). Recovery calculated against ^{13}C 2,3,7,8-TeBDD.

Sample	DL-03-003:1	DL-03-003:2	DL-03-003:3	DL-03-003:4	DL-03-003:5	DL-03-003:6
Recovery	Silica	Silica	Silica	Carbon	Carbon	Carbon
1-MoBDD	16%	14%	14%	25%	33%	30%
4-MoBDF	41%	52%	32%	18%	23%	22%
2,7-&2,8-DiBDD	55%	60%	46%	52%	102%	62%
2,7-DiBDF	56%	61%	47%	48%	69%	60%
2,8-DiBDF	54%	60%	43%	51%	75%	59%
2,3,7-TriBDD	75%	76%	67%	82%	100%	83%
2,3,8-TriBDF	74%	76%	64%	77%	96%	79%
2,3,7,8-TeBDD	108%	104%	108%	106%	135%	115%
1,3,7,8-TeBDD	96%	99%	97%	103%	124%	106%
1,2,3,4-TeBDD	103%	105%	107%	92%	107%	98%
1,3,6,8-TeBDD	82%	86%	83%	91%	107%	91%
1,3,7,9-TeBDD	104%	107%	102%	107%	131%	116%
2,3,7,8-TeBDF	102%	103%	101%	102%	128%	105%
1,2,3,7,8-PeBDD	200%	139%	210%	91%	106%	104%
2,3,4,7,8-PeBDF	150%	123%	158%	93%	112%	103%
1,2,3,7,8-PeBDF	209%	144%	227%	103%	119%	118%

In Table 2 results from the spiking experiments of the human adipose tissue and the SFE-LC extraction are shown. The open column extraction of 1 g of the fat sample showed good results after clean up through the multilayer silica column and the carbon column, also the recovery of the lower brominated PBDD/DFs was somewhat improved. In addition as can be seen from Table 2 it was possible to extract the PBDD/DFs from Na_2SO_4 during SFE extraction, however the SFE of these high molecular compounds still needs some further method development. Screening of 1g of adipose tissue (open column extraction) did not result in any detectable amounts of the target compounds. A larger sample size is therefore necessary which was easier to achieve by up scaling of the open column method.

A total of 4 g of the QA/QC human adipose tissue was analysed in order to lower the detection limit of the method. Preliminary result of the GC/MS analysis of this sample did not find any 2,3,7,8-PBDD or 2,3,7,8-TeBDF at a detection level of 0.1 pg/g.

Table 2. Results recovery experiment after addition of a PBDD/DF mix (10-50 pg) to 1 g of human adipose tissue. Open column extraction followed by acid/base silica and carbon column clean up and SFE extraction (40 °C, 280 atm, 45 min dynamic CO₂) after addition to Na₂SO₄. Recovery calculated against ¹³C 2,3,7,8-TeBDD.

Sample	DL-03-003:27	DL-03-003:28	DL-03-003:29	DL-03-003:36	DL-03-003:37	DL-03-003:38
Recovery				Adipose*	Adipose*	Adipose*
1-MoBDD	7%	69%	7%	46%	39%	42%
4-MoBDF	5%	69%	6%	63%	48%	51%
2,7-&2,8-DiBDD	9%	72%	11%	100%	94%	97%
2,7-DiBDF	10%	65%	9%	90%	87%	87%
2,8-DiBDF	8%	74%	9%	97%	92%	97%
2,3,7-TriBDD	32%	72%	28%	106%	111%	112%
2,3,8-TriBDF	22%	70%	21%	107%	105%	111%
2,3,7,8-TeBDD	65%	65%	58%	122%	131%	132%
1,3,7,8-TeBDD	39%	66%	33%	108%	128%	125%
1,2,3,4-TeBDD	11%	25%	12%	105%	117%	120%
1,3,6,8-TeBDD	16%	64%	18%	119%	103%	127%
1,3,7,9-TeBDD	32%	65%	33%	125%	137%	124%
IS ¹³C 2,3,7,8-TeBDD	NA	NA	NA	125%	139%	133%
2,3,7,8-TeBDF	67%	68%	61%	122%	136%	139%
1,2,3,7,8-PeBDD	64%	59%	56%	85%	105%	123%
2,3,4,7,8-PeBDF	53%	32%	50%	95%	111%	125%
1,2,3,7,8-PeBDF	31%	43%	33%	95%	115%	133%

* Calculated against RS ¹³C 1,2,3,4-TeCDD.

Conclusion

A traditional chlorinated dioxin and furan open column extraction and clean up method was successfully adapted for the analysis of PBDD/DFs. Preliminary results when using this method on 4 g of human adipose tissue did not show any 2,3,7,8-TeBDD/DF at a detection level of 0.1 pg/g.

Acknowledgement

Dr. Esteban Abad is acknowledged for the initial GC/MS development during his post doctoral stay at our laboratory. Brock Chittim, Wellington Laboratories is acknowledged for making the PBDD/DF standards available. Sydkraft SAKAB Kumla Miljöstiftelse and Sydkrafts Forskningsstiftelse are acknowledged for financial support.

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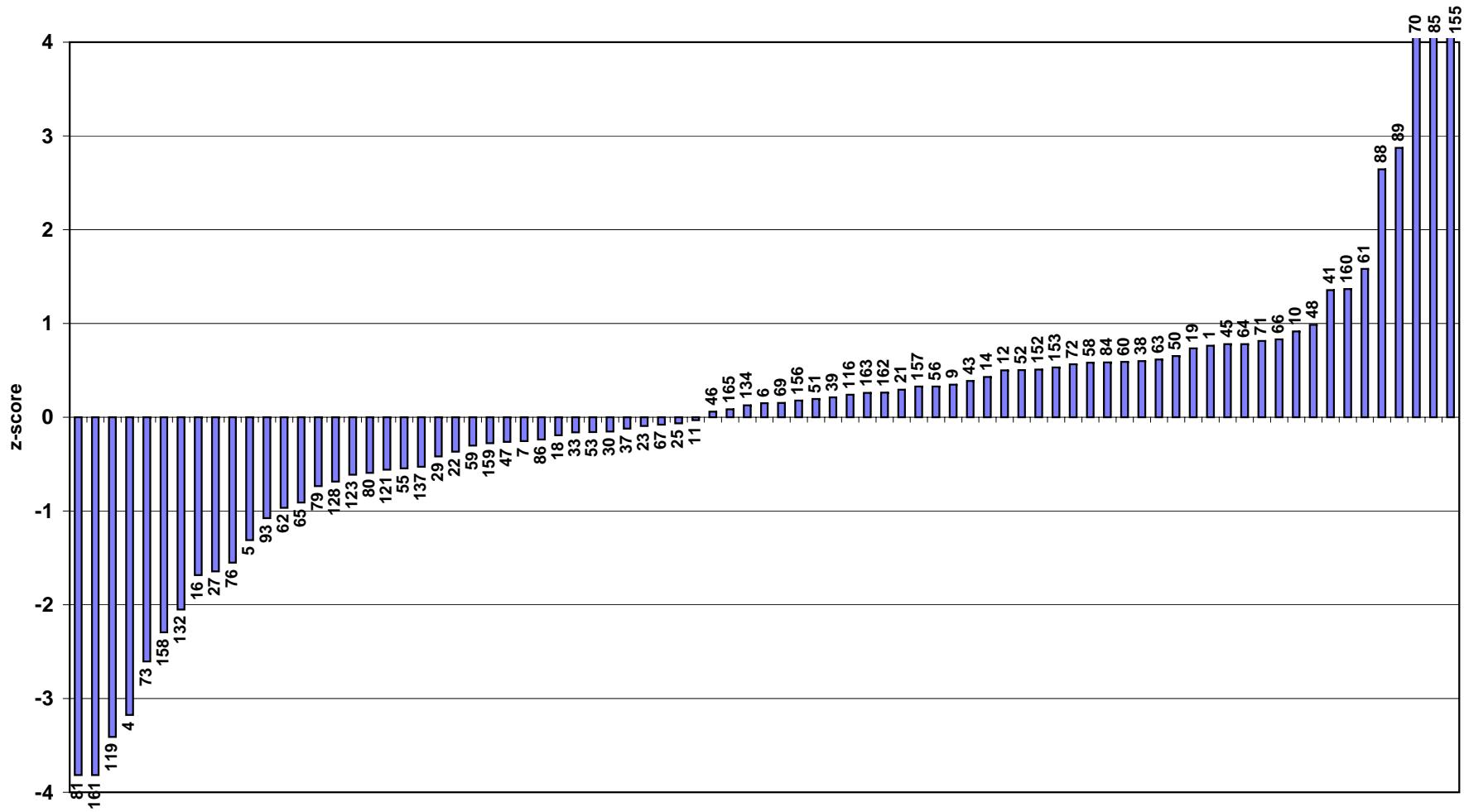
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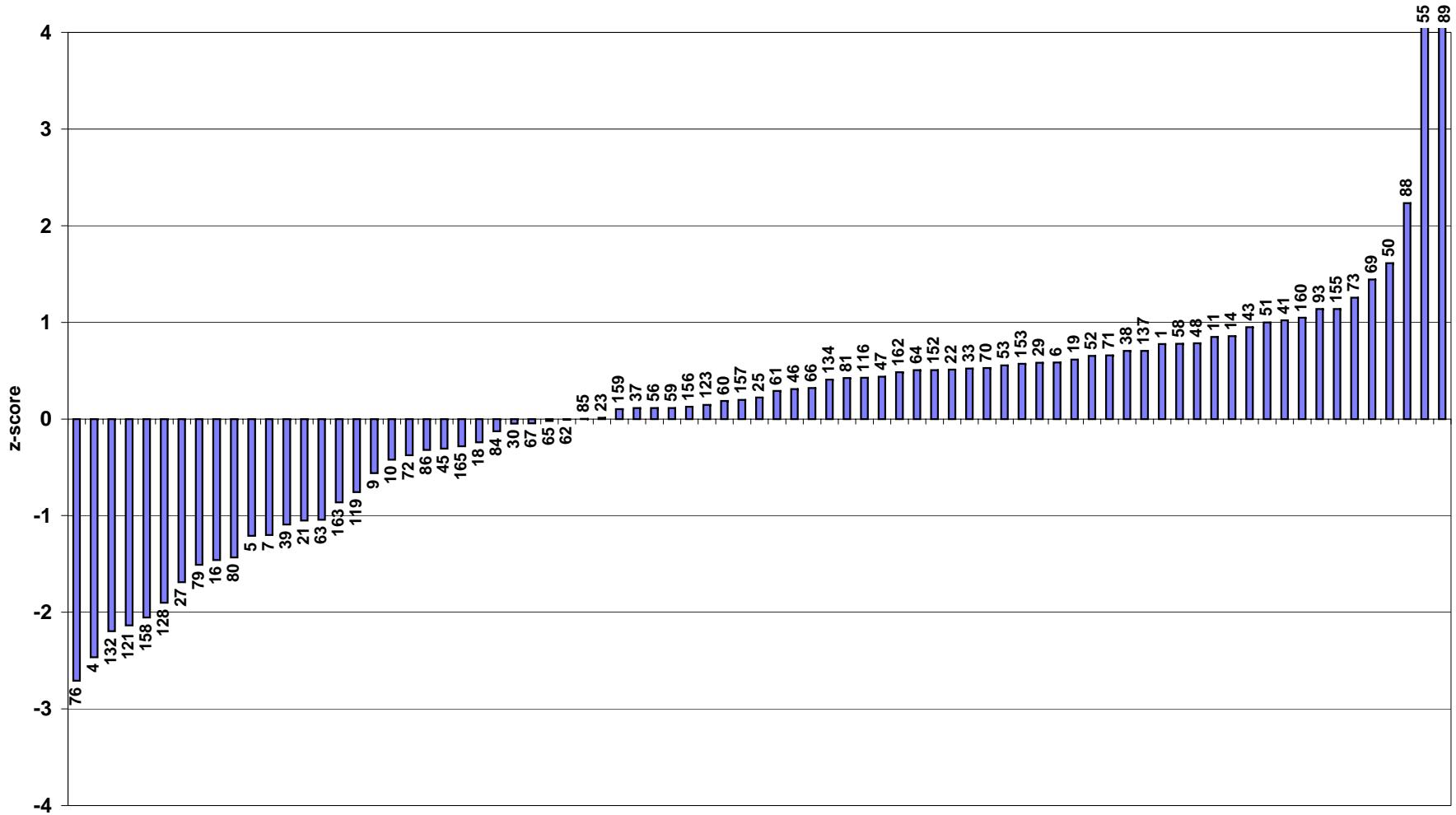
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Ash A code	TEQ z-score	Ash B code	TEQ z-score	Extract C code	TEQ z-score	Standard M code	TEQ z-score	Standard M code	TCDD z-score
1	0.8	1	0.8	1	-0.2	1	0.1	1	-0.5
4	-3.2	4	-2.5	4	0.0	4	-1.4	4	-3.0
5	-1.3	5	-1.2	5	-0.5	5	-3.1	5	-4.8
6	0.1	6	0.6	6	-1.7	6	0.1	6	-0.4
7	-0.3	7	-1.2	7	-0.9	7	0.2	7	0.0
9	0.3	9	-0.6	9	-1.5	9	0.0	9	-0.1
10	0.9	10	-0.4	10	-0.2	10	0.6	10	0.5
11	0.0	11	0.8	11	0.1	11	0.3	11	0.5
12	0.5	12	NA	12	NA	12	0.5	12	0.1
14	0.4	14	0.9	14	0.9	14	0.3	14	-0.1
16	-1.7	16	-1.5	16	0.0	16	NA	16	NA
18	-0.2	18	-0.2	18	-0.1	18	0.3	18	-0.2
19	0.7	19	0.6	19	-1.3	19	-0.1	19	-0.5
21	0.3	21	-1.1	21	1.1	21	1.2	21	1.5
22	-0.4	22	0.5	22	-0.2	22	0.3	22	-0.3
23	-0.1	23	0.0	23	0.1	23	0.3	23	0.1
25	-0.1	25	0.2	25	0.1	25	0.3	25	0.1
27	-1.6	27	-1.7	27	0.3	27	-0.1	27	-0.2
29	-0.4	29	0.6	29	-0.2	29	0.1	29	0.6
30	-0.2	30	0.0	30	-0.3	30	0.3	30	0.0
33	-0.2	33	0.5	33	-1.8	33	-0.4	33	-0.9
37	-0.1	37	0.1	37	-0.2	37	0.2	37	-0.1
38	0.6	38	0.7	38	-0.2	38	0.1	38	-0.6
39	0.2	39	-1.1	39	0.3	39	0.8	39	1.9
41	1.4	41	1.0	41	NA	41	0.3	41	0.1
43	0.4	43	0.9	43	1.1	43	0.5	43	0.3
45	0.8	45	-0.3	45	1.3	45	0.5	45	0.5
46	0.1	46	0.3	46	0.1	46	0.4	46	0.1
47	-0.3	47	0.4	47	1.1	47	0.2	47	0.4
48	1.0	48	0.8	48	-1.9	48	0.1	48	-0.2
50	0.7	50	1.6	50	-0.5	50	-0.2	50	0.1
51	0.2	51	1.0	51	0.1	51	0.2	51	0.4
52	0.5	52	0.7	52	NA	52	NA	52	NA
53	-0.2	53	0.6	53	0.9	53	-2.3	53	-3.5
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56	0.3	56	0.1	56	0.1	56	0.1	56	-0.4
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61	1.6	61	0.3	61	0.0	61	0.7	61	-0.3
62	-1.0	62	0.0	62	-0.3	62	0.1	62	-0.5
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64	0.8	64	0.5	64	1.8	64	NA	64	NA
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66	0.8	66	0.3	66	-0.2	66	0.2	66	0.0
67	-0.1	67	0.0	67	-0.2	67	0.1	67	0.0
69	0.2	69	1.4	69	0.0	69	0.2	69	1.1
70	4.2	70	0.5	70	0.6	70	0.3	70	0.9
71	0.8	71	0.7	71	0.1	71	0.3	71	0.2
72	0.6	72	-0.4	72	0.1	72	0.1	72	0.2
73	-2.6	73	1.3	73	NA	73	NA	73	NA
76	-1.5	76	-2.7	76	-2.6	76	-2.5	76	NA
79	-0.7	79	-1.5	79	1.0	79	-0.1	79	-0.8
80	-0.6	80	-1.4	80	-0.1	80	-0.4	80	-0.7
81	-3.8	81	0.4	81	0.1	81	0.1	81	0.1
84	0.6	84	-0.1	84	-3.5	84	-3.1	84	-4.8
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88	2.6	88	2.2	88	2.5	88	0.1	88	-0.8
89	2.9	89	10.4	89	2.2	89	-0.6	89	-3.7
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123	-0.6	123	0.1	123	-0.2	123	0.6	123	0.7
128	-0.7	128	-1.9	128	-2.7	128	0.1	128	0.4
132	-2.1	132	-2.2	132	-0.3	132	-0.1	132	-0.8
134	0.1	134	0.4	134	0.7	134	0.3	134	0.0
137	-0.5	137	0.7	137	-0.1	137	0.2	137	0.0
152	0.5	152	0.5	152	0.3	152	0.4	152	0.7
153	0.5	153	0.6	153	0.1	153	0.4	153	0.4
155	9.1	155	1.1	155	-0.1	155	0.7	155	-0.3
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157	0.3	157	0.2	157	0.8	157	0.2	157	0.0
158	-2.3	158	-2.1	158	-2.2	158	-1.0	158	-1.1
159	-0.3	159	0.1	159	0.8	159	0.0	159	0.1
160	1.4	160	1.0	160	0.1	160	0.6	160	0.1
161	-3.8	161	NA	161	NA	161	NA	161	-5.0
162	0.3	162	0.5	162	NA	162	NA	162	NA
163	0.3	163	-0.9	163	0.3	163	-0.3	163	0.0
165	0.1	165	-0.3	165	0.1	165	0.2	165	0.0

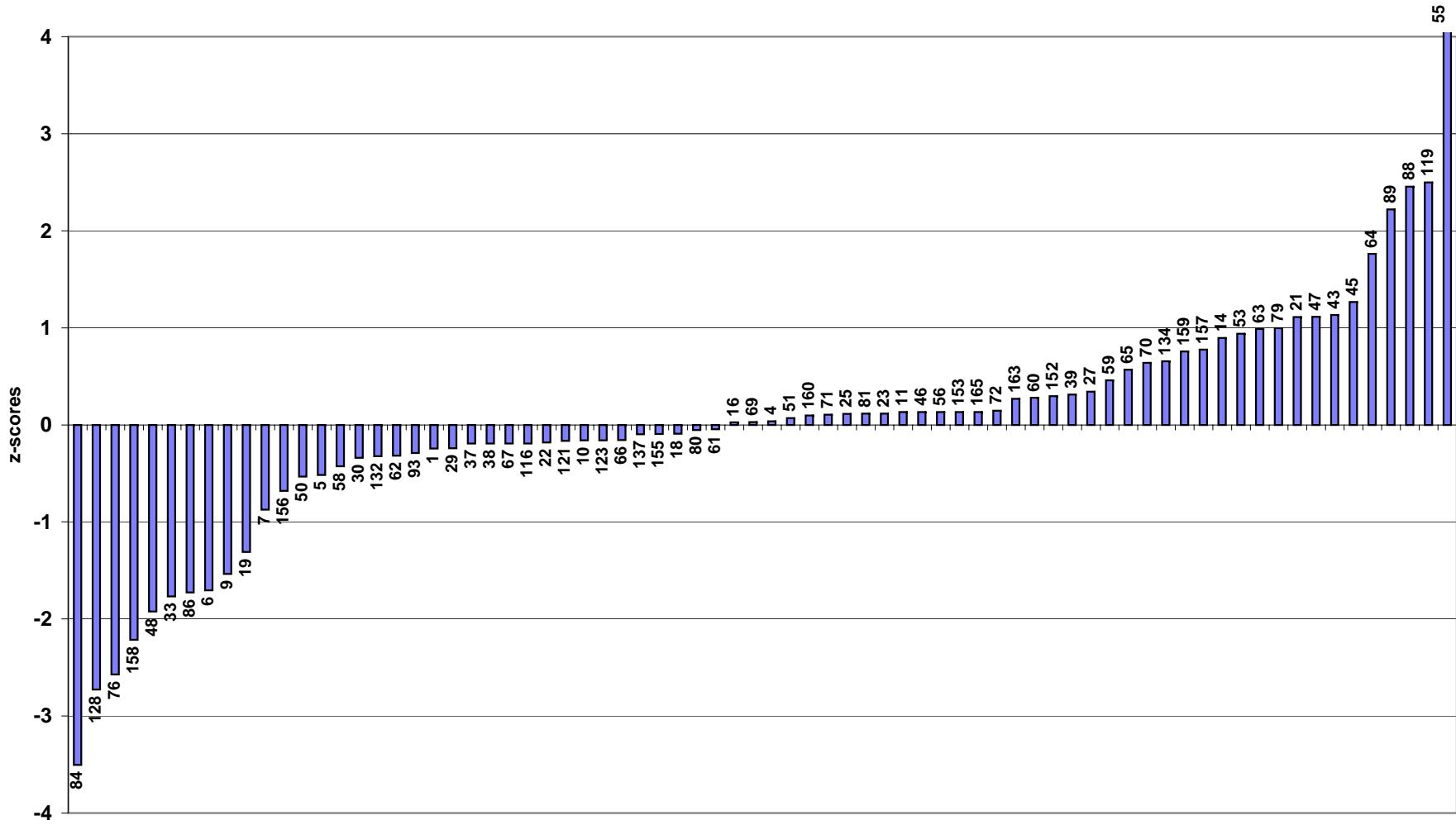
Ash A TEQ PCDD/DF z-scores
Mean 0.42, RSD 26%



Ash B TEQ PCDD/DF z-scores
Mean 0.15, RSD 33%

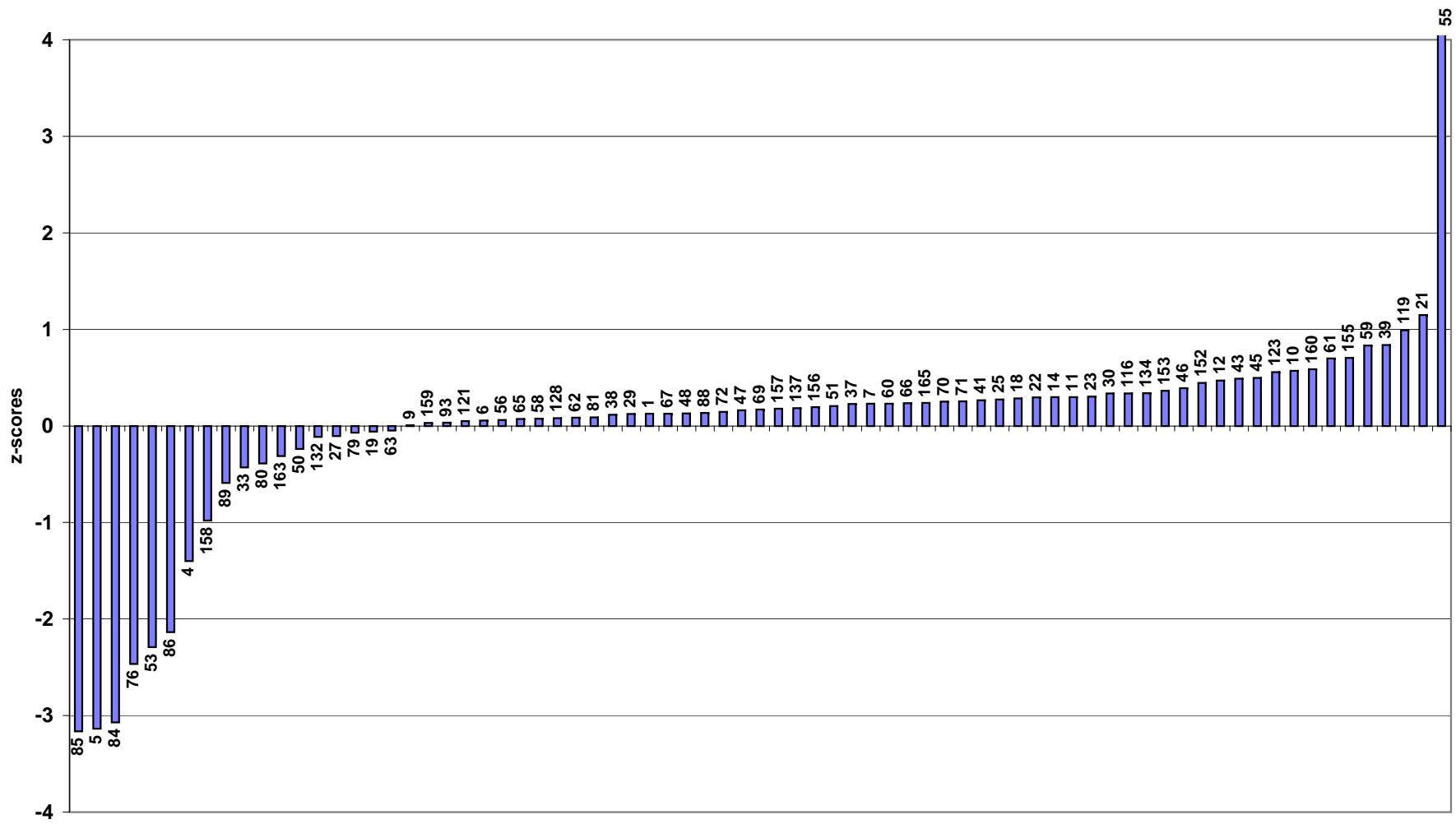


Extract C TEQ PCDD/DF z-scores
Mean 232, RSD 27%



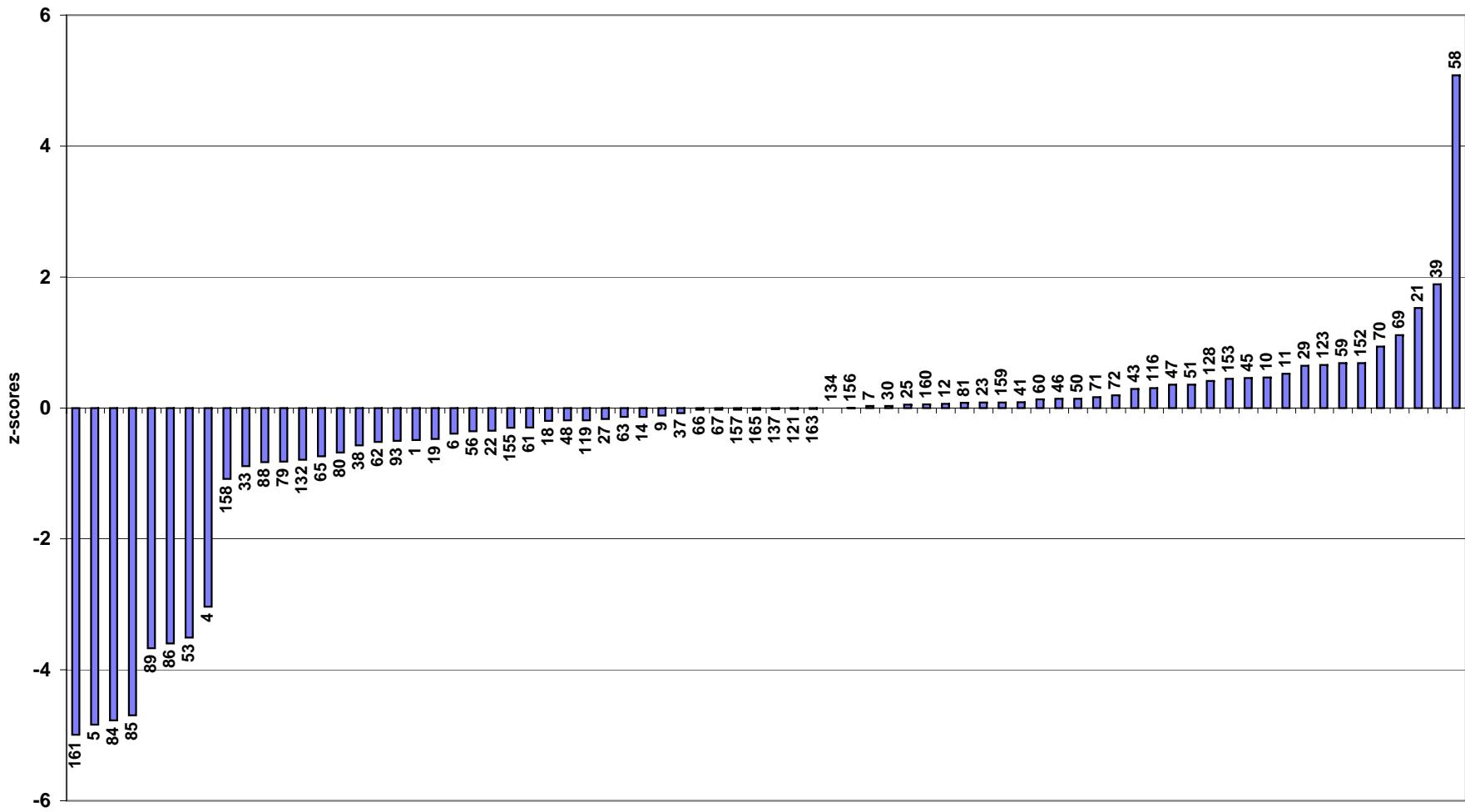
Standard M TEQ PCDD/DF z-scores

Mean 6.29, RSD 29%



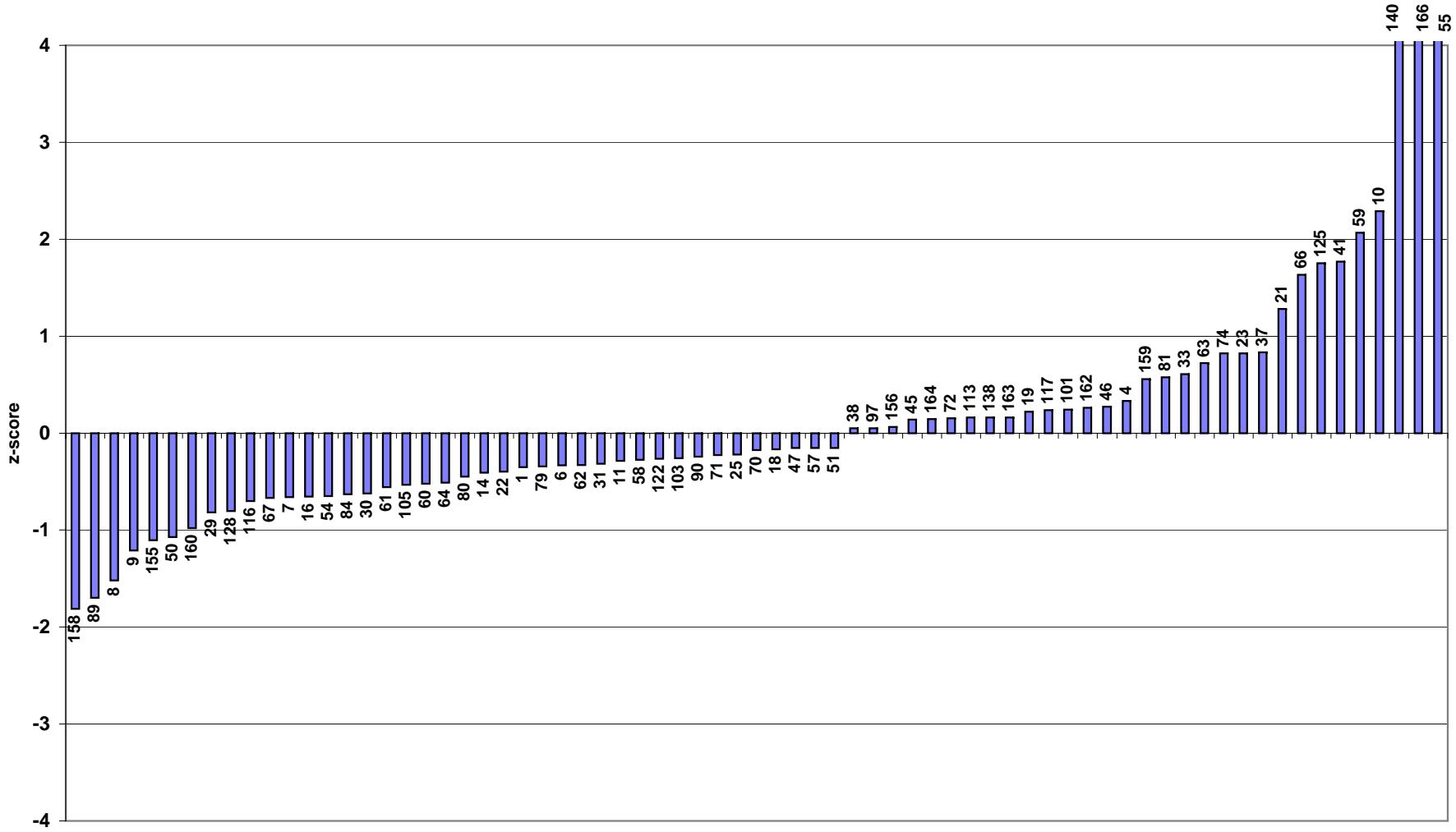
Standard M 2.3.7.8-TCDD z-scores

Mean 0.97, RSD 19%

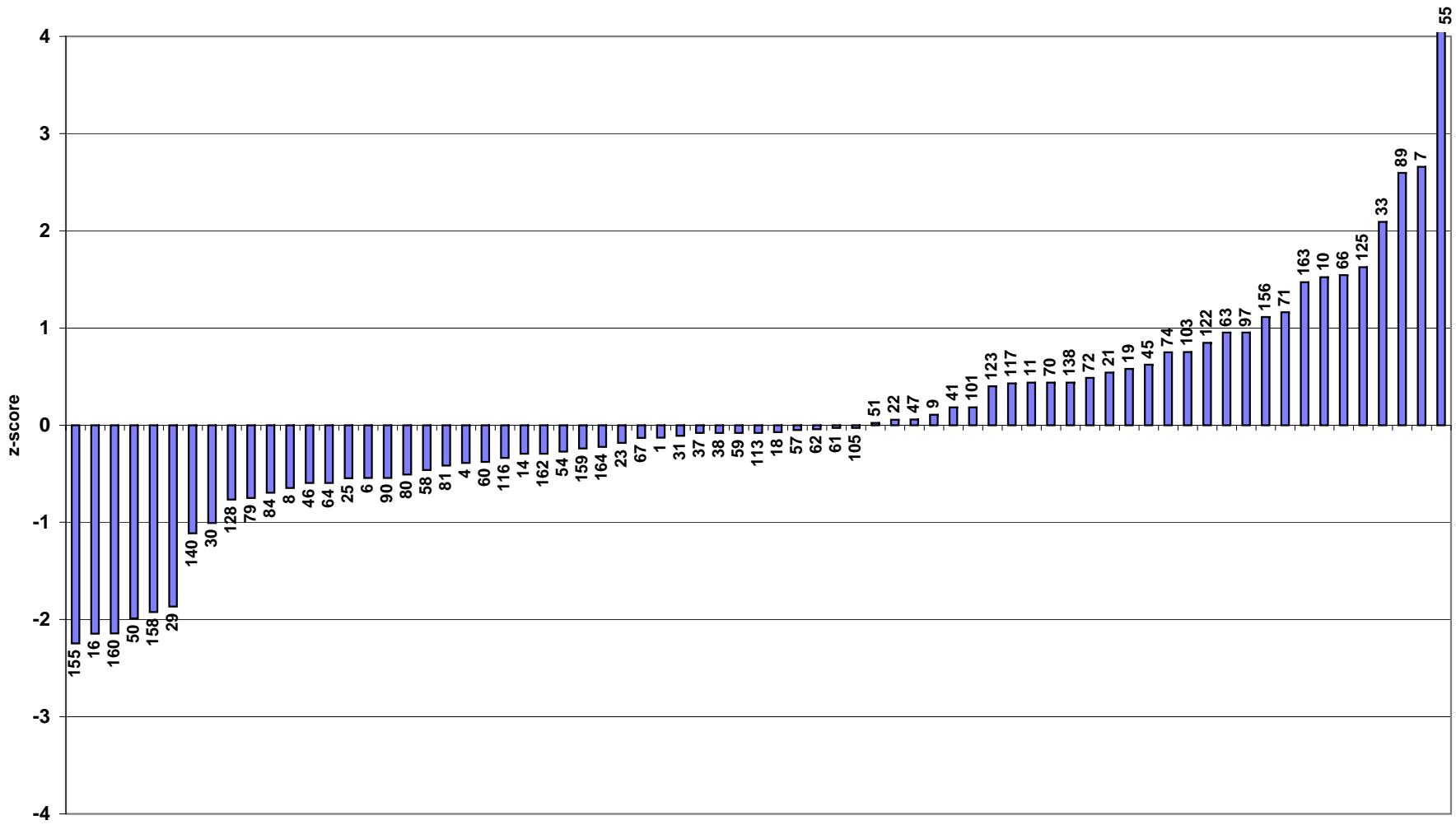


Soil A code	TEQ z-score	Soil B code	TEQ z-score	Soil C code	TEQ z-score	Soil D code	TEQ z-score	Standard O code	TEQ z-score	Standard O code	TCDD z-score
1	-0.4	1	-0.1	1	-0.4	1	0.5	1	-0.2	1	-0.5
4	0.3	4	-0.4	4	0.2	4	-1.4	4	-2.6	4	-3.5
6	-0.3	6	-0.5	6	0.1	6	-0.5	6	-0.3	6	0.2
7	-0.7	7	2.7	7	-0.7	7	0.4	7	-1.4	7	-1.8
8	-1.5	8	-0.6	8	0.0	8	-1.5	8	0.5	8	1.5
9	-1.2	9	0.1	9	-0.2	9	0.1	9	-0.2	9	-0.6
10	2.3	10	1.5	10	0.0	10	1.2	10	0.4	10	-0.4
11	-0.3	11	0.4	11	0.2	11	0.2	11	0.5	11	1.2
14	-0.4	14	-0.3	14	0.3	14	0.1	14	0.2	14	-0.2
16	-0.7	16	-2.1	16	-0.6	16	-1.3	16	NA	16	NA
18	-0.2	18	-0.1	18	-0.5	18	-0.1	18	0.1	18	-0.1
19	0.2	19	0.6	19	0.0	19	-0.2	19	0.6	19	0.2
21	1.3	21	0.5	21	0.8	21	2.5	21	1.5	21	1.4
22	-0.4	22	0.1	22	0.1	22	-0.6	22	0.0	22	-0.3
23	0.8	23	-0.2	23	0.2	23	0.9	23	0.4	23	0.0
25	-0.2	25	-0.5	25	-0.1	25	-0.4	25	-0.2	25	-0.4
29	-0.8	29	-1.9	29	-0.7	29	-0.6	29	0.8	29	0.9
30	-0.6	30	-1.0	30	-1.0	30	-1.4	30	0.2	30	0.4
31	-0.3	31	-0.1	31	-0.1	31	0.0	31	0.7	31	2.0
33	0.6	33	2.1	33	0.1	33	0.4	33	-1.5	33	-0.8
37	0.8	37	-0.1	37	-0.3	37	-0.3	37	0.0	37	-0.2
38	0.0	38	-0.1	38	-0.8	38	-0.5	38	0.0	38	-0.5
41	1.8	41	0.2	41	1.1	41	1.1	41	0.8	41	0.6
45	0.1	45	0.6	45	2.1	45	1.3	45	2.8	45	1.0
46	0.3	46	-0.6	46	0.0	46	-0.5	46	0.5	46	0.6
47	-0.2	47	0.1	47	0.0	47	-1.1	47	-0.2	47	0.4
50	-1.1	50	-2.0	50	-0.1	50	0.7	50	-1.7	50	0.3
51	-0.2	51	0.0	51	0.0	51	0.2	51	-0.2	51	-0.1
54	-0.6	54	-0.3	54	6.7	54	-0.7	54	-0.3	54	0.4
55	16.5	55	13.3	55	4.0	55	6.5	55	4.7	55	NA
57	-0.2	57	0.0	57	-0.6	57	-0.4	57	0.2	57	0.2
58	-0.3	58	-0.5	58	3.8	58	7.9	58	4.1	58	6.0
59	2.1	59	-0.1	59	-0.2	59	-0.2	59	2.3	59	2.7
60	-0.5	60	-0.4	60	-0.4	60	-0.8	60	0.2	60	0.1
61	-0.6	61	0.0	61	-0.4	61	-0.2	61	0.2	61	0.3
62	-0.3	62	0.0	62	-0.3	62	-0.4	62	-0.1	62	-0.4
63	0.7	63	1.0	63	0.5	63	0.2	63	-0.2	63	-0.5
64	-0.5	64	-0.6	64	-0.5	64	-0.2	64	1.2	64	1.3
66	1.6	66	1.5	66	0.4	66	-0.1	66	0.0	66	0.0
67	-0.7	67	-0.1	67	-0.3	67	-0.5	67	-0.2	67	-0.3
70	-0.2	70	0.4	70	0.8	70	1.2	70	0.7	70	1.3
71	-0.2	71	1.2	71	-0.1	71	0.3	71	0.0	71	0.3
72	0.2	72	0.5	72	0.5	72	0.5	72	-0.1	72	-0.4
74	0.8	74	0.8	74	-0.1	74	0.5	74	8.6	74	6.7
79	-0.3	79	-0.8	79	0.3	79	0.4	79	-0.8	79	-1.0
80	-0.4	80	-0.5	80	-0.1	80	2.8	80	-0.5	80	-0.5
81	0.6	81	-0.4	81	-0.2	81	-0.5	81	0.0	81	1.0
84	-0.6	84	-0.7	84	-0.6	84	-0.4	84	-6.5	84	-6.0
89	-1.7	89	2.6	89	12.2	89	9.3	89	1.9	89	-1.6
90	-0.2	90	-0.5	90	0.3	90	-0.6	90	-1.4	90	-2.3
97	0.0	97	1.0	97	0.0	97	-0.2	97	-0.6	97	-1.2
101	0.2	101	0.2	101	0.0	101	0.9	101	-0.1	101	0.6
103	-0.3	103	0.8	103	1.0	103	2.1	103	0.4	103	-0.1
105	-0.5	105	0.0	105	-0.8	105	-1.5	105	0.1	105	0.0
113	0.2	113	-0.1	113	-0.4	113	-0.7	113	-0.2	113	-0.1
116	-0.7	116	-0.3	116	-1.1	116	-1.4	116	0.2	116	0.6
117	0.2	117	0.4	117	-0.1	117	-0.9	117	0.3	117	0.6
122	-0.3	122	0.8	122	-0.5	122	0.5	122	-2.6	122	-2.2
123	NA	123	0.4	123	-0.8	123	-0.2	123	0.6	123	0.3
125	1.8	125	1.6	125	0.4	125	0.0	125	1.2	125	0.6
128	-0.8	128	-0.8	128	-2.2	128	-1.2	128	-0.4	128	-0.7
138	0.2	138	0.4	138	0.8	138	-0.3	138	-0.2	138	-0.4
140	4.8	140	-1.1	140	4.8	140	1.2	140	NA	140	NA
155	-1.1	155	-2.2	155	-0.2	155	0.2	155	0.5	155	0.8
156	0.1	156	1.1	156	-0.9	156	0.9	156	-1.3	156	0.1
158	-1.8	158	-1.9	158	-2.0	158	-3.0	158	-2.4	158	-0.6
159	0.6	159	-0.2	159	-0.4	159	-0.6	159	4.0	159	4.7
160	-1.0	160	-2.1	160	1.7	160	8.1	160	NA	160	NA
161	NA	161	NA	161	NA	161	NA	161	74.4	161	67.1
162	0.3	162	-0.3	162	0.4	162	0.5	162	NA	162	NA
163	0.2	163	1.5	163	-0.4	163	1.8	163	-0.9	163	-0.2
164	0.1	164	-0.2	164	1.5	164	1.8	164	-0.5	164	-0.3
166	4.8	166	NA	166	-2.1	166	NA	166	1.6	166	0.5

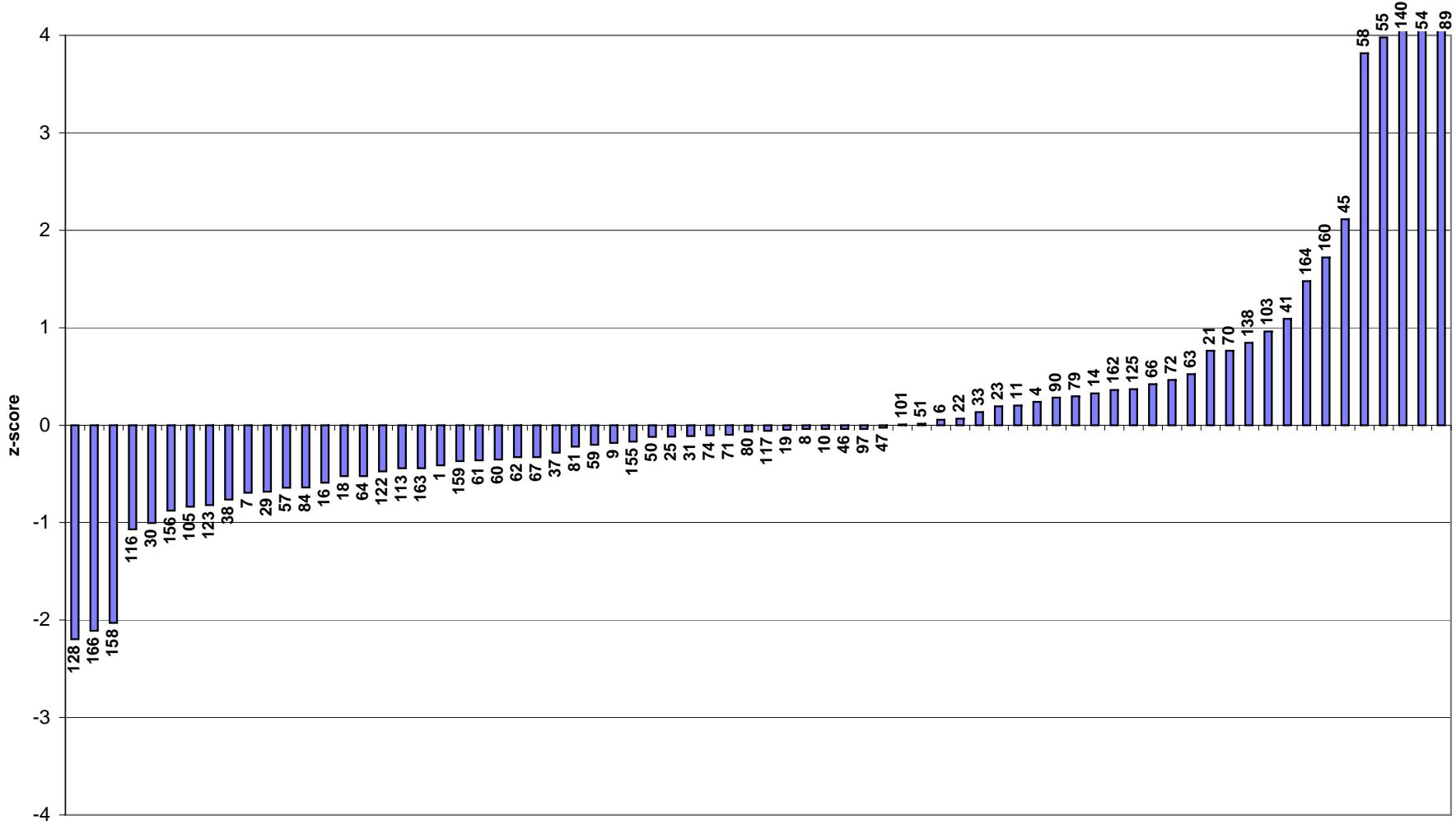
Soil A PCDD/DF TEQ z-scores
Mean 0.046 , RSD 20%



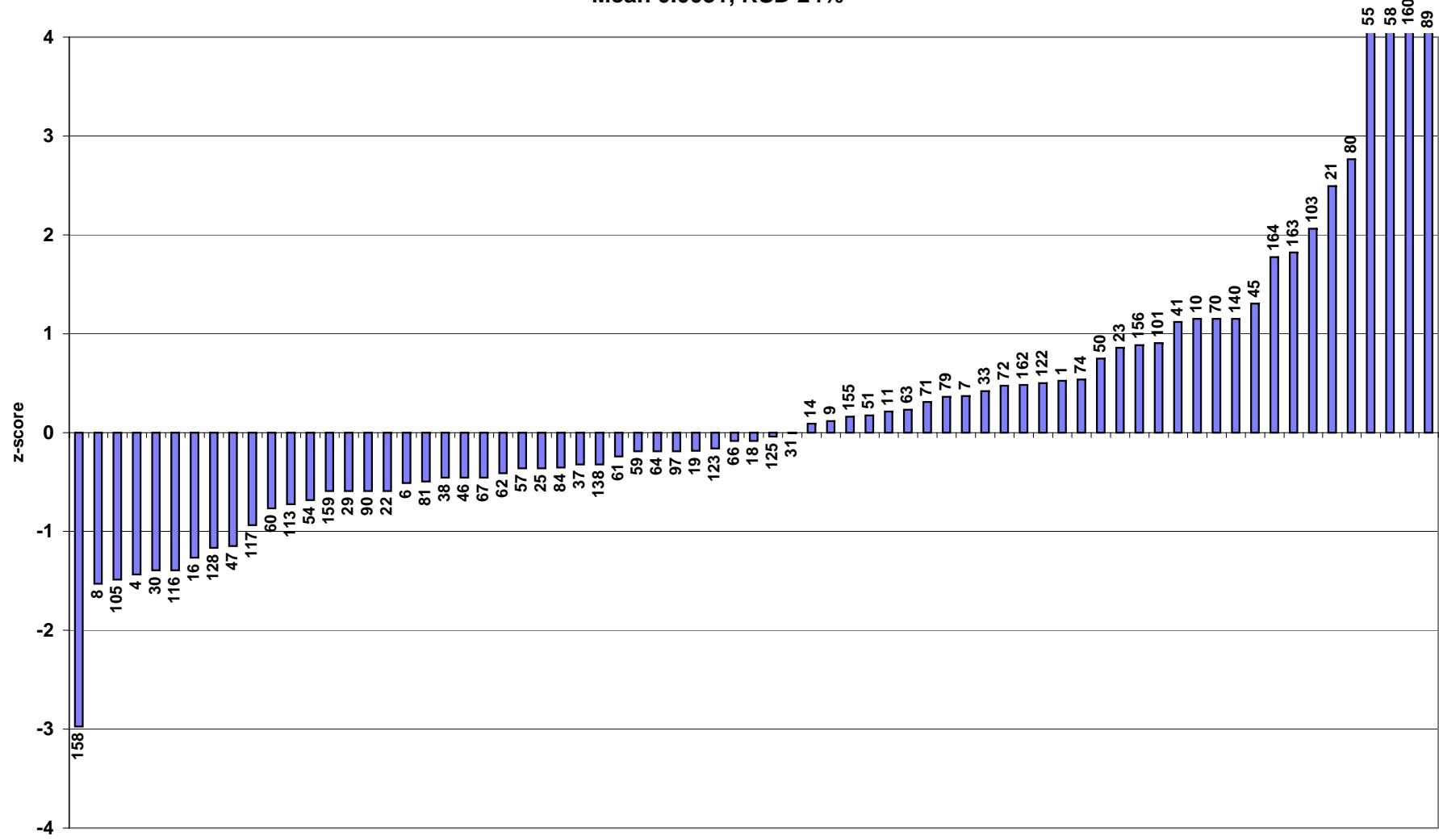
Soil B PCDD/DF TEQ z-scores
Mean 0.15, RSD 13%



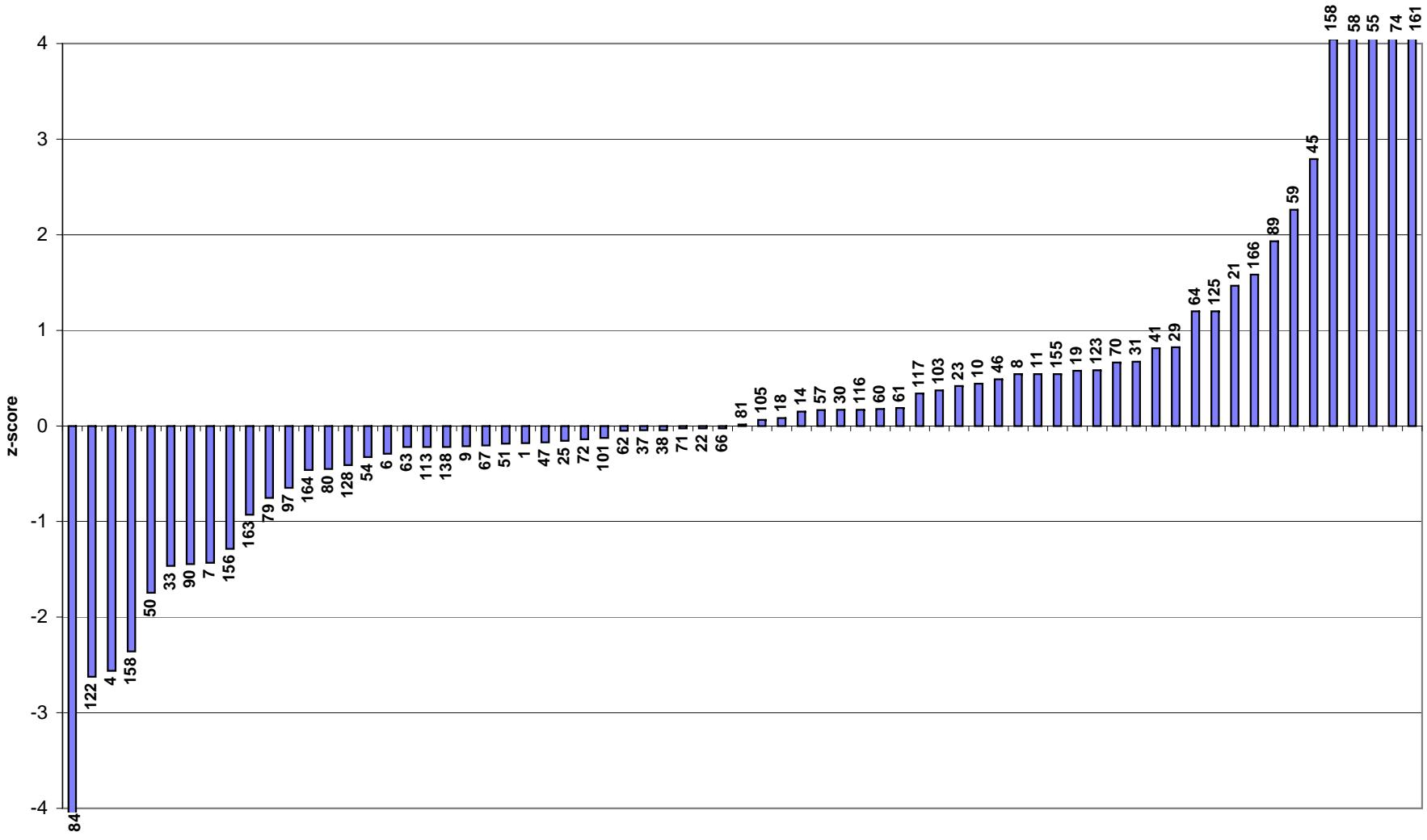
Soil C PCDD/DF TEQ z-scores
Mean 0.0031, RSD 41%



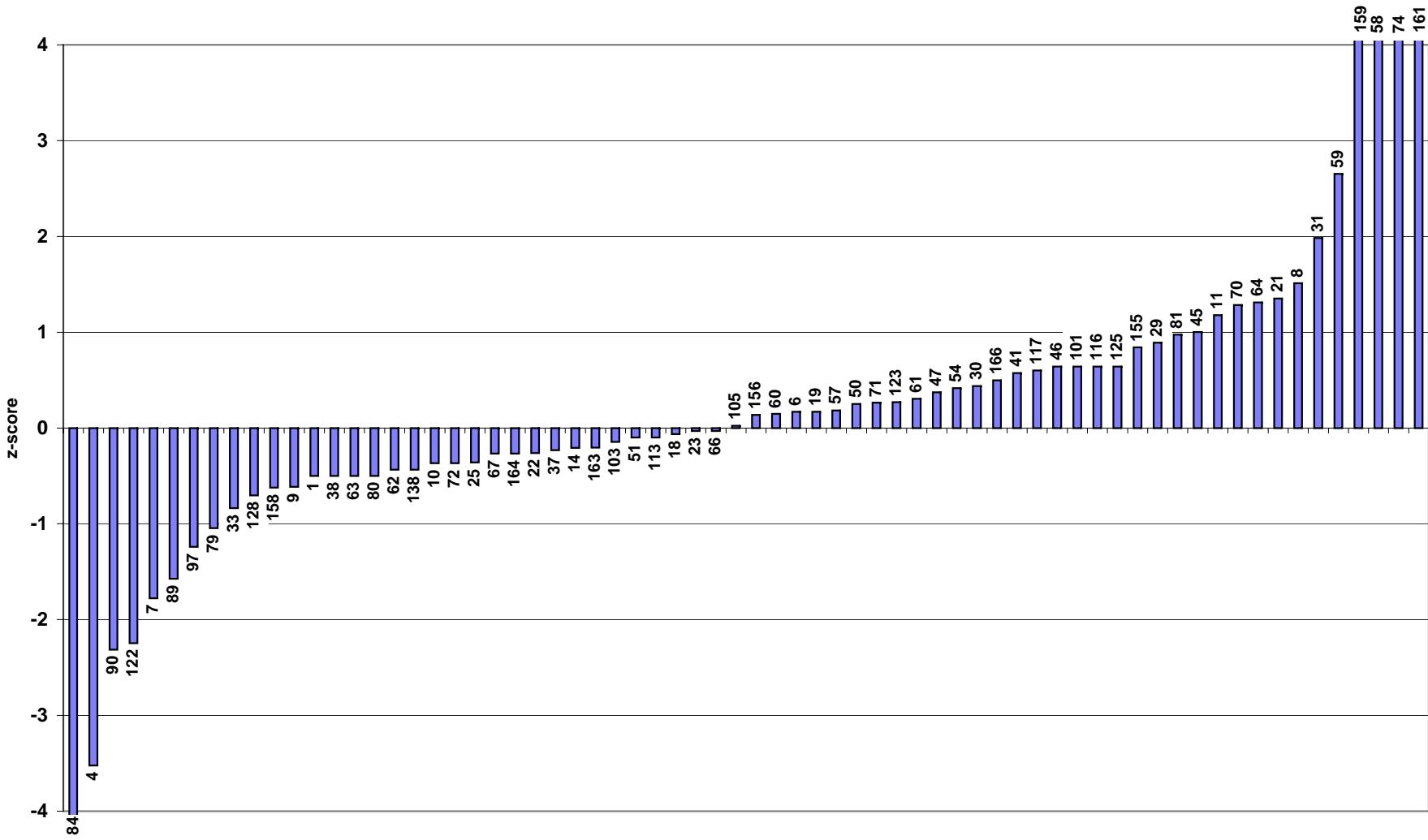
Soil D PCDD/DF z-scores
Mean 0.0031, RSD 24%



Standard O PCDD/DF TEQ z-scores
Mean 4.12, RSD 14 %



Standard O 2,3,7,8-TCDD z-scores
Mean 1.00, RSD 15 %



Participant code:	19	21	22	23	25	27	29	30	33	37	38	39	41
Weight Analysed:													
2,3,7,8-TeCDD	0.012	0.015	0.013	0.013	0.012	0.008	0.006	0.012	0.020	0.011	0.012	0.015	0.013
1,2,3,7,8-PeCDD	0.047	0.045	0.049	0.048	0.046	0.035	0.044	0.047	0.063	0.047	0.054	0.053	0.050
1,2,3,4,7,8-HxCDD	0.046	0.049	0.048	0.039	0.049	0.033	0.051	0.055	0.046	0.048	0.074	0.050	0.051
1,2,3,6,7,8-HxCDD	0.098	0.098	0.089	0.093	0.086	0.038	0.086	0.109	0.075	0.094	0.130	0.090	0.124
1,2,3,7,8,9-HxCDD	0.066	0.079	0.081	0.068	0.053	0.057	0.054	0.062	0.056	0.065	0.090	0.071	0.130
1,2,3,4,6,7,8-HpCDD	0.99	0.61	0.71	0.73	0.77	0.33	0.94	0.88	0.66	0.80	1.20	0.65	0.96
OCDD	3.39	1.61	2.42	2.52	2.87	0.57	3.86	2.81	1.50	2.60	4.60	2.16	3.67
2,3,7,8-TeCDF	0.106	0.106	0.083	0.092	0.090	0.268	0.042	0.088	0.089	0.092	0.110	0.092	0.090
1,2,3,7,8-PeCDF	0.24	0.20	0.27	0.19	0.19	0.12	0.20	0.23	0.31	0.27	0.26	0.21	0.24
2,3,4,7,8-PeCDF	0.37	0.32	0.23	0.27	0.27	0.13	0.20	0.27	0.14	0.28	0.28	0.32	0.37
1,2,3,4,7,8-HxCDF	0.45	0.41	0.39	0.40	0.40	0.24	0.42	0.36	0.29	0.40	0.46	0.37	1.06
1,2,3,6,7,8-HxCDF	0.48	0.44	0.41	0.46	0.41	0.27	0.45	0.42	0.32	0.41	0.56	0.44	0.55
1,2,3,7,8,9-HxCDF	0.124	0.123	0.027	0.032	0.034	0.022	0.042	0.033	0.088	0.027	0.037	0.036	0.035
2,3,4,6,7,8-HxCDF	0.72	0.65	0.49	0.59	0.61	0.18	0.62	0.53	0.36	0.52	0.72	0.62	0.70
1,2,3,4,6,7,8-HpCDF	2.73	2.06	2.05	2.17	2.40	1.00	2.96	2.36	2.12	2.00	3.30	2.20	2.92
1,2,3,4,7,8,9-HpCDF	0.24	0.24	0.17	0.20	0.24	0.17	0.27	0.20	0.20	0.18	0.32	0.22	0.25
OCDF	1.65	0.89	0.73	1.11	1.14	0.73	2.16	1.34	0.91	1.10	1.80	0.98	1.45
TEQ (PCDD/DF)	0.51	0.46	0.38	0.41	0.42	0.24	0.38	0.41	0.41	0.41	0.49	0.45	0.57
PCB #77	0.082	NA	0.090	0.107	0.095	0.090	0.110	0.200	0.038	0.098	0.098	0.215	0.168
PCB #126	0.112	NA	0.138	0.128	0.108	0.188	0.109	0.142	0.072	0.120	0.130	0.066	0.117
PCB #169	0.058	NA	0.072	0.065	0.057	0.087	0.053	0.068	0.036	0.052	0.068	0.049	0.079
TEQ (including PCBs)	0.52	NA	0.40	0.43	0.43	0.26	0.39	0.42	0.41	0.42	0.50	0.45	0.59
Other PCBs (Optional)													
PCB #81	0.054	NA	0.041	0.059	0.056	0.087	0.051	0.065	NA	0.059	0.057	0.048	0.086
PCB #105	0.05	NA	0.20	< 0.39	0.07	1.07	0.10	0.35	NA	0.10	0.07	5.07	0.18
PCB #114	0.020	NA	0.053	0.083	0.020	0.117	0.052	0.044	NA	0.021	0.022	0.487	0.037
PCB #118	0.08	NA	0.54	0.36	0.17	2.36	0.25	1.20	NA	0.13	0.09	10.67	0.23
PCB #123	0.014	NA	0.145	< 0.062	0.017	0.069	0.058	0.029	NA	0.016	0.017	0.190	0.028
PCB #156	0.056	NA	0.119	0.152	0.077	0.257	0.092	0.244	NA	0.082	0.065	0.545	< 0.15
PCB #157	0.036	NA	0.048	< 0.082	0.044	0.090	0.036	0.053	NA	0.044	0.042	0.135	0.049
PCB #167	0.027	NA	0.047	0.069	0.039	0.108	0.040	0.130	NA	0.037	0.068	0.065	0.079
PCB #189	0.059	NA	0.068	0.079	0.064	0.093	0.073	0.091	NA	0.065	0.065	0.063	0.101
TEQ Total	0.52	NA	0.40	0.43	0.42	0.26	0.39	0.42	NA	0.42	0.50	0.46	0.59

* all values in ng/g

ND: not detected < than value expected

NA: not analyzed

Ash A2

Participant code:	76	79	80	81	84	85	86	88	89	93	116	119	121
Weight Analysed:													
2,3,7,8-TeCDD	N.D.	0.009	0.010	NA	0.011	0.026	0.010	0.013	0.002	0.010	0.012	0.001	0.012
1,2,3,7,8-PeCDD	0.055	0.038	0.036	NA	0.052	0.074	0.047	0.061	0.075	0.034	0.052	0.004	0.053
1,2,3,4,7,8-HxCDD	0.050	0.030	0.040	NA	0.057	0.345	0.049	0.060	0.099	0.037	0.051	0.004	0.039
1,2,3,6,7,8-HxCDD	0.099	0.065	0.075	NA	0.106	0.263	0.105	0.126	0.249	0.066	0.096	0.005	0.074
1,2,3,7,8,9-HxCDD	0.059	0.038	0.070	NA	0.071	0.052	0.078	0.115	0.208	0.036	0.060	0.005	0.047
1,2,3,4,6,7,8-HpCDD	1.29	0.54	0.48	NA	0.900	3.70	0.86	1.30	1.69	0.43	0.78	0.02	0.59
OCDD	5.87	1.78	1.41	NA	2.50	5.75	2.66	4.49	4.28	1.03	2.75	0.08	1.78
2,3,7,8-TeCDF	N.D.	0.076	0.090	NA	0.106	0.090	0.086	0.089	0.360	0.089	0.104	0.012	0.087
1,2,3,7,8-PeCDF	0.12	0.20	0.25	NA	0.25	0.44	0.31	0.26	0.13	0.15	0.18	0.02	0.16
2,3,4,7,8-PeCDF	0.20	0.25	0.27	NA	0.36	0.57	0.25	0.66	0.62	0.23	0.32	0.05	0.27
1,2,3,4,7,8-HxCDF	0.36	0.23	0.33	NA	0.39	1.41	0.40	0.49	0.88	0.25	0.41	0.02	0.30
1,2,3,6,7,8-HxCDF	0.36	0.34	0.36	NA	0.44	1.88	0.41	0.61	0.47	0.30	0.42	0.03	0.36
1,2,3,7,8,9-HxCDF	0.073	0.091	0.041	NA	0.686	0.130	0.026	0.789	0.655	0.020	0.047	0.008	0.026
2,3,4,6,7,8-HxCDF	0.39	0.48	0.44	NA	0.10	2.62	0.54	0.21	0.02	0.43	0.68	0.04	0.45
1,2,3,4,6,7,8-HpCDF	2.30	1.65	1.51	NA	2.47	6.78	2.13	3.22	2.92	1.21	1.92	0.09	0.58
1,2,3,4,7,8,9-HpCDF	0.27	0.16	0.17	NA	0.21	1.78	0.22	0.33	0.18	0.14	0.24	0.01	0.16
OCDF	1.62	0.96	0.76	NA	1.06	4.98	0.92	1.93	1.23	0.47	1.41	0.04	0.95
TEQ (PCDD/DF)	0.25	0.34	0.36	NA	0.49	1.21	0.40	0.72	0.74	0.30	0.45	0.05	0.36
PCB #77	1.003	0.077	0.108	0.097	NA	0.058	0.083	NA	NA	<0.094	0.084	0.122	NA
PCB #126	0.152	0.107	0.102	0.130	NA	0.061	0.110	NA	NA	<0.066	0.103	0.100	NA
PCB #169	0.042	0.055	0.049	0.065	NA	0.045	0.064	NA	NA	<0.0417	0.062	0.053	NA
TEQ (including PCBs)	0.27	0.35	0.37	NA	NA	1.22	0.41	NA	NA	0.30	0.46	0.06	NA
Other PCBs (Optional)													
PCB #81	0.054	0.050	0.079	0.054	NA	0.037	0.054	NA	NA	0.481	0.058	0.058	NA
PCB #105	0.49	0.05	0.11	0.07	NA	0.09	0.07	NA	NA	0.16	0.08	0.12	NA
PCB #114	0.002	0.019	0.042	0.019	NA	0.005	0.019	NA	NA	<0.066	0.018	0.054	NA
PCB #118	1.45	0.08	0.29	0.10	NA	0.35	0.12	NA	NA	0.12	ND	0.15	NA
PCB #123	0.257	0.017	0.008	0.015	NA	0.013	0.022	NA	NA	<0.016	0.046	0.110	NA
PCB #156	0.251	0.053	0.095	0.071	NA	0.038	0.058	NA	NA	<0.0417	0.064	0.065	NA
PCB #157	0.106	0.040	0.042	0.039	NA	0.014	0.035	NA	NA	<0.0417	0.035	0.046	NA
PCB #167	0.089	0.026	0.044	0.035	NA	0.014	0.032	NA	NA	<0.0417	0.028	0.034	NA
PCB #189	0.293	0.053	0.081	0.071	NA	0.044	0.064	NA	NA	0.258	0.056	0.066	NA
TEQ Total	0.27	0.35	0.37	NA	NA	1.22	0.41	NA	NA	0.30	0.46	0.06	NA

* all values in ng/g

ND: not detected < than value expected

NA: not analyzed

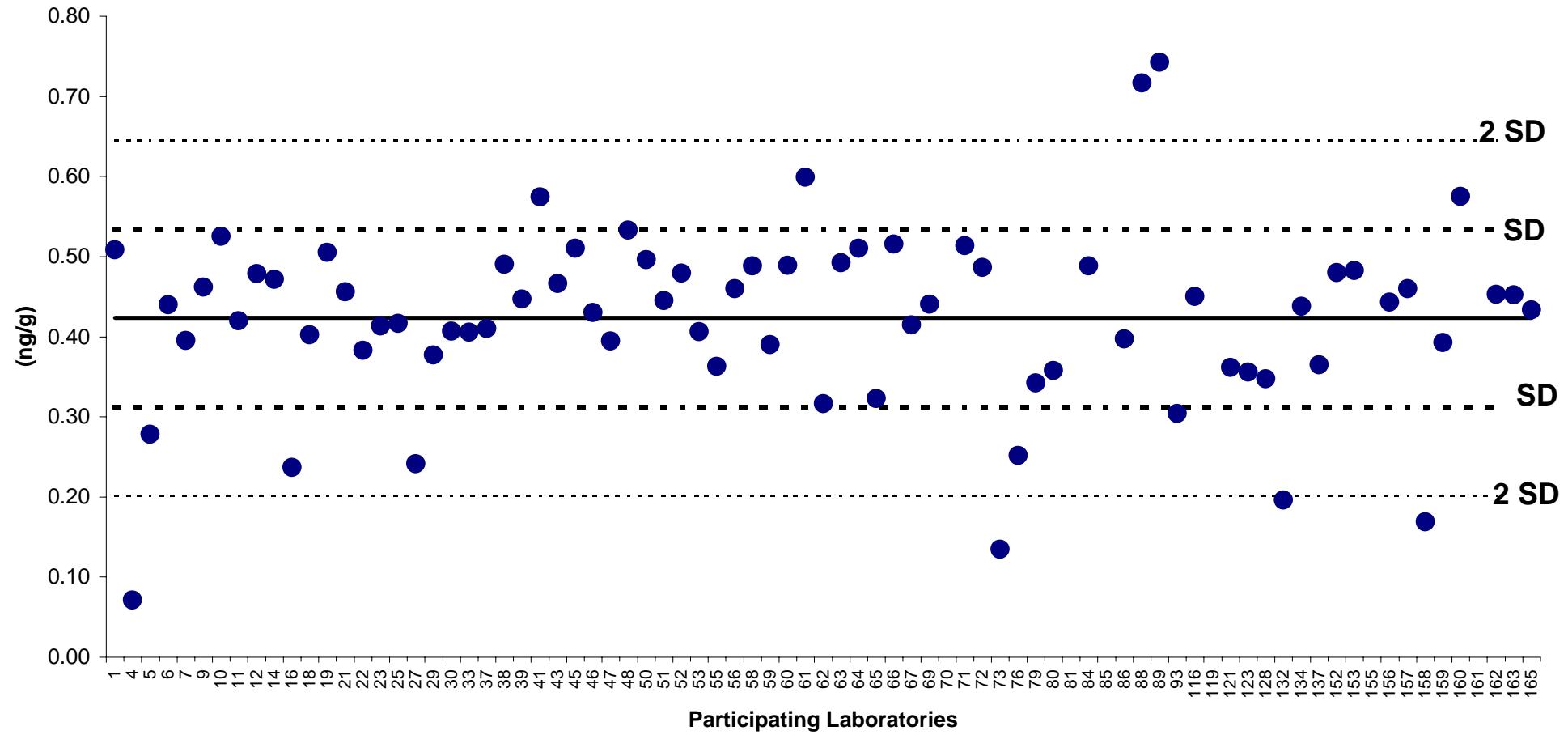
Ash A5

Participant code:	161	162	163	165
Weight Analysed:				
2,3,7,8-TeCDD	0.004	0.012	0.011	0.015
1,2,3,7,8-PeCDD	0.013	0.059	0.043	0.041
1,2,3,4,7,8-HxCDD	0.012	0.054	0.044	0.050
1,2,3,6,7,8-HxCDD	0.024	0.084	0.080	0.090
1,2,3,7,8,9-HxCDD	0.033	0.098	0.066	0.074
1,2,3,4,6,7,8-HpCDD	0.19	0.89	0.70	0.92
OCDD	4.10	3.10	2.41	2.58
2,3,7,8-TeCDF	0.003	0.091	0.120	0.094
1,2,3,7,8-PeCDF	0.04	0.20	0.22	0.22
2,3,4,7,8-PeCDF	0.08	0.29	0.37	0.34
1,2,3,4,7,8-HxCDF	0.21	0.39	0.40	0.34
1,2,3,6,7,8-HxCDF	0.10	0.45	0.43	0.36
1,2,3,7,8,9-HxCDF	0.008	0.672	0.128	0.087
2,3,4,6,7,8-HxCDF	0.13	0.10	0.64	0.48
1,2,3,4,6,7,8-HpCDF	0.42	2.30	2.20	2.82
1,2,3,4,7,8,9-HpCDF	0.05	0.22	0.24	0.24
OCDF	0.16	1.44	1.21	1.10
TEQ (PCDD/DF)	NA	0.45	0.45	0.43
PCB #77	NA	NA	NA	NA
PCB #126	NA	NA	NA	NA
PCB #169	NA	NA	NA	NA
TEQ (including PCBs)	NA	NA	NA	NA
Other PCBs (Optional)				
PCB #81	NA	NA	NA	NA
PCB #105	NA	NA	NA	NA
PCB #114	NA	NA	NA	NA
PCB #118	NA	NA	NA	NA
PCB #123	NA	NA	NA	NA
PCB #156	NA	NA	NA	NA
PCB #157	NA	NA	NA	NA
PCB #167	NA	NA	NA	NA
PCB #189	NA	NA	NA	NA
TEQ Total	NA	NA	NA	NA
* all values in ng/g				
ND: not detected < than value expected Ash A7				
NA: not analyzed				

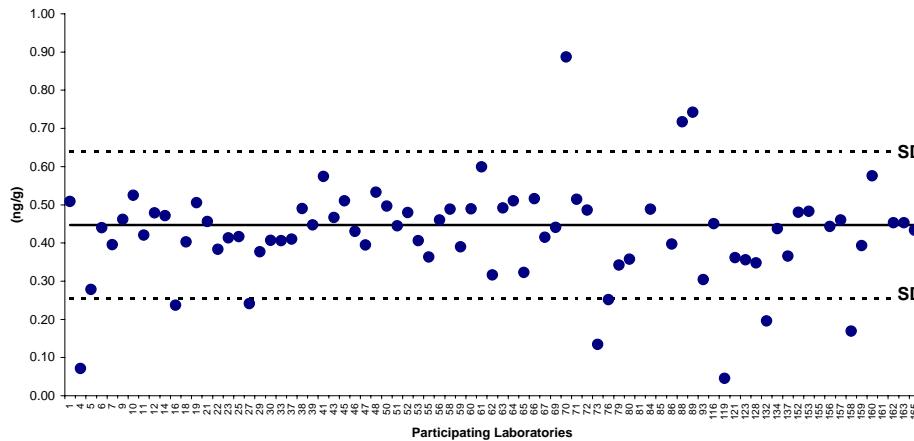
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.013	0.013	0.001	0.065	0.009	68%
1,2,3,7,8-PeCDD	0.051	0.049	0.004	0.26	0.03	56%
1,2,3,4,7,8-HxCDD	0.056	0.050	0.004	0.35	0.04	78%
1,2,3,6,7,8-HxCDD	0.099	0.094	0.0047	0.33	0.05	50%
1,2,3,7,8,9-HxCDD	0.077	0.070	0.005	0.34	0.05	65%
1,2,3,4,6,7,8-HpCDD	0.85	0.84	0.0219	3.7	0.5	57%
OCDD	2.74	2.79	0.0777	7.0	1.3	47%
2,3,7,8-TeCDF	0.100	0.092	0.002	0.36	0.05	53%
1,2,3,7,8-PeCDF	0.22	0.22	0.025	0.63	0.09	40%
2,3,4,7,8-PeCDF	0.30	0.30	0.051	0.92	0.13	42%
1,2,3,4,7,8-HxCDF	0.44	0.40	0.023	2.55	0.31	71%
1,2,3,6,7,8-HxCDF	0.44	0.44	0.025	1.88	0.22	51%
1,2,3,7,8,9-HxCDF	0.13	0.039	0.008	0.79	0.19	149%
2,3,4,6,7,8-HxCDF	0.53	0.56	0.004	2.62	0.37	70%
1,2,3,4,6,7,8-HpCDF	2.26	2.35	0.086	6.78	1.04	46%
1,2,3,4,7,8,9-HpCDF	0.24	0.23	0.009	1.78	0.20	82%
OCDF	1.23	1.23	0.039	4.98	0.70	57%
TEQ (PCDD/DF)	0.45	0.44	0.045	1.43	0.19	43%
PCB #77	0.127	0.101	0.0384	1.00	0.13	101%
PCB #126	0.125	0.120	0.061	0.40	0.04	36%
PCB #169	0.064	0.062	0.036	0.19	0.02	32%
TEQ (including PCBs)	0.48	0.45	0.056	1.47	0.20	42%
Other PCBs (Optional)						
PCB #81	0.066	0.057	0.0270	0.48	0.06	92%
PCB #105	0.29	0.10	0.01	5.07	0.83	283%
PCB #114	0.046	0.023	0.002	0.49	0.08	172%
PCB #118	0.66	0.15	0.03	10.67	1.96	296%
PCB #123	0.049	0.019	0.006	0.27	0.07	141%
PCB #156	0.112	0.072	0.008	0.756	0.124	110%
PCB #157	0.048	0.041	0.005	0.20	0.03	62%
PCB #167	0.056	0.036	0.004	0.35	0.06	109%
PCB #189	0.074	0.064	0.01	0.29	0.04	57%
TEQ Total	0.48	0.46	0.056	1.47	0.20	42%

Participant code:	TEQ results 70, 81, 85, 119, 155 and 161 outliers					
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.012	0.013	0.001	0.021	0.004	30%
1,2,3,7,8-PeCDD	0.049	0.049	0.016	0.08	0.01	28%
1,2,3,4,7,8-HxCDD	0.050	0.050	0.010	0.10	0.01	29%
1,2,3,6,7,8-HxCDD	0.094	0.094	0.0160	0.25	0.03	34%
1,2,3,7,8,9-HxCDD	0.072	0.071	0.005	0.21	0.03	42%
1,2,3,4,6,7,8-HpCDD	0.82	0.83	0.1200	1.9	0.3	39%
OCDD	2.68	2.77	0.3000	5.9	1.1	42%
2,3,7,8-TeCDF	0.100	0.092	0.002	0.36	0.05	49%
1,2,3,7,8-PeCDF	0.21	0.22	0.031	0.36	0.06	30%
2,3,4,7,8-PeCDF	0.29	0.29	0.062	0.66	0.10	33%
1,2,3,4,7,8-HxCDF	0.41	0.40	0.057	1.10	0.16	40%
1,2,3,6,7,8-HxCDF	0.42	0.44	0.070	0.64	0.11	26%
1,2,3,7,8,9-HxCDF	0.13	0.038	0.016	0.79	0.19	150%
2,3,4,6,7,8-HxCDF	0.49	0.56	0.004	0.84	0.23	47%
1,2,3,4,6,7,8-HpCDF	2.21	2.35	0.390	3.50	0.70	32%
1,2,3,4,7,8,9-HpCDF	0.22	0.23	0.032	0.48	0.07	32%
OCDF	1.20	1.25	0.140	2.61	0.48	40%
TEQ (PCDD/DF)	0.42	0.44	0.071	0.74	0.11	26%
PCB #77	0.125	0.100	0.0384	1.00	0.13	105%
PCB #126	0.121	0.120	0.066	0.21	0.02	20%
PCB #169	0.062	0.062	0.036	0.11	0.01	19%
TEQ (including PCBs)	0.45	0.45	0.261	0.61	0.07	17%
Other PCBs (Optional)						
PCB #81	0.065	0.057	0.0270	0.48	0.06	94%
PCB #105	0.31	0.10	0.01	5.07	0.87	283%
PCB #114	0.046	0.023	0.002	0.49	0.08	178%
PCB #118	0.69	0.15	0.03	10.67	2.06	298%
PCB #123	0.049	0.019	0.006	0.27	0.07	145%
PCB #156	0.115	0.073	0.008	0.756	0.130	112%
PCB #157	0.048	0.041	0.005	0.20	0.03	63%
PCB #167	0.057	0.037	0.004	0.35	0.06	111%
PCB #189	0.075	0.064	0.01	0.29	0.04	58%
TEQ Total	0.45	0.45	0.261	0.61	0.07	17%

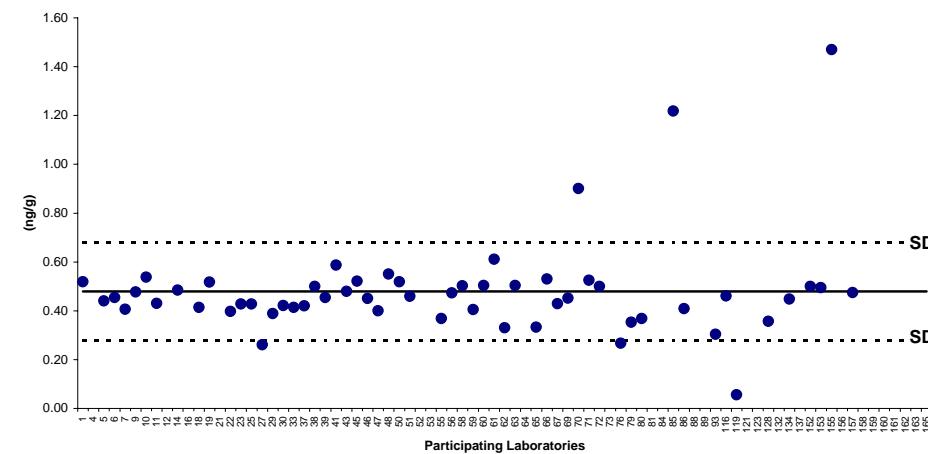
TEQ Ash A (RSD 26 %, n = 75)



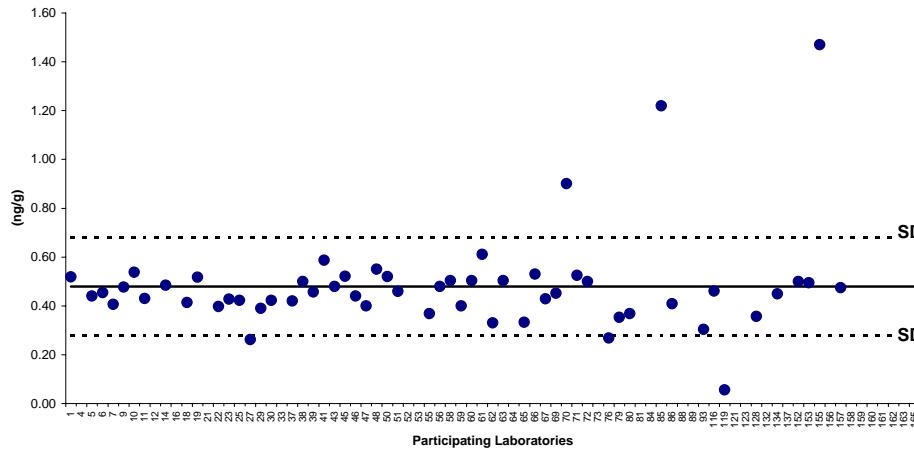
PCDD/DF TEQ Ash A (RSD 43%, n = 79)



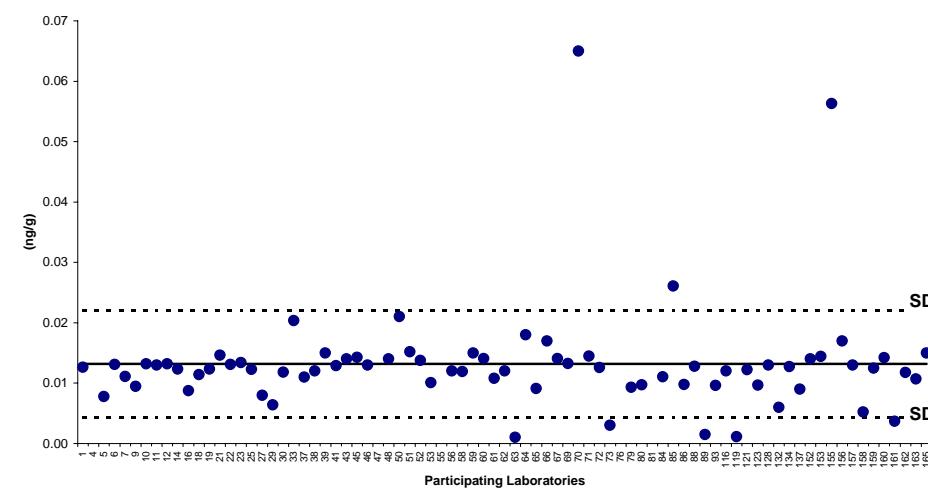
TEQ (including planar PCBs) Ash A



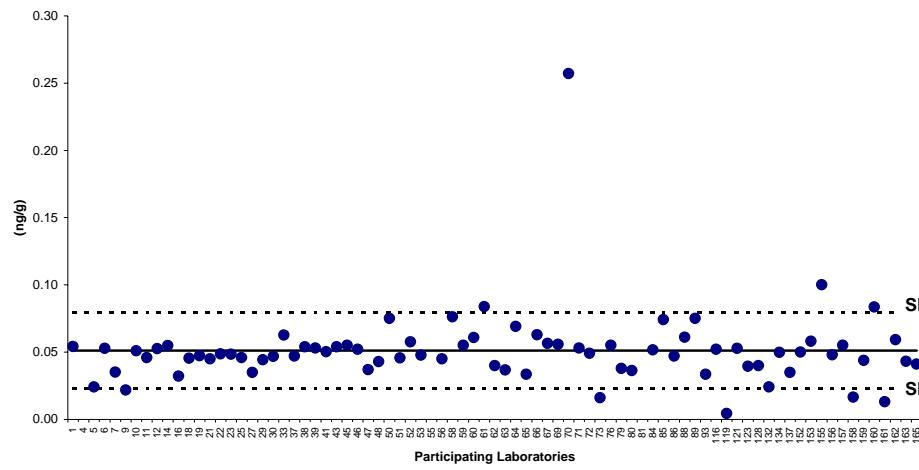
WHO TEQ Ash A



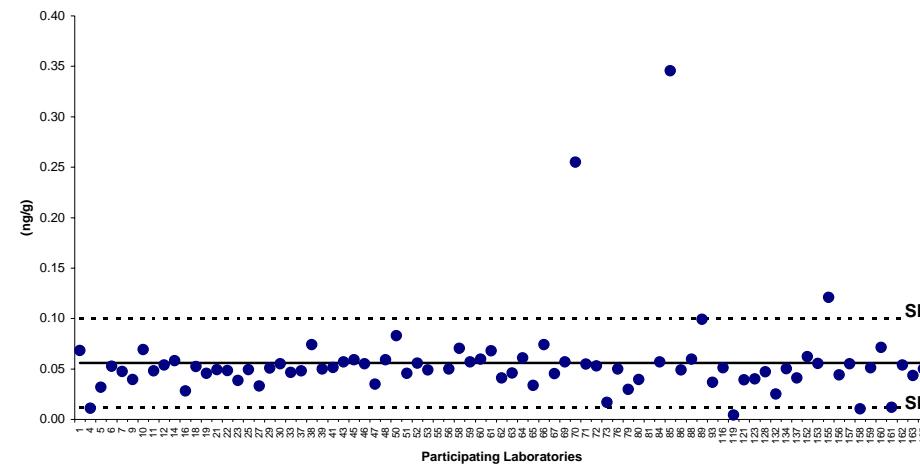
2,3,7,8-TeCDD Ash A



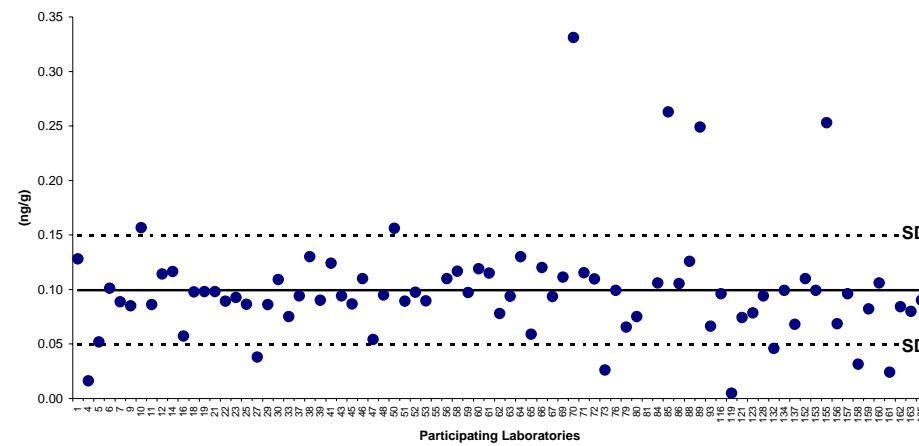
1,2,3,7,8-PeCDD Ash A



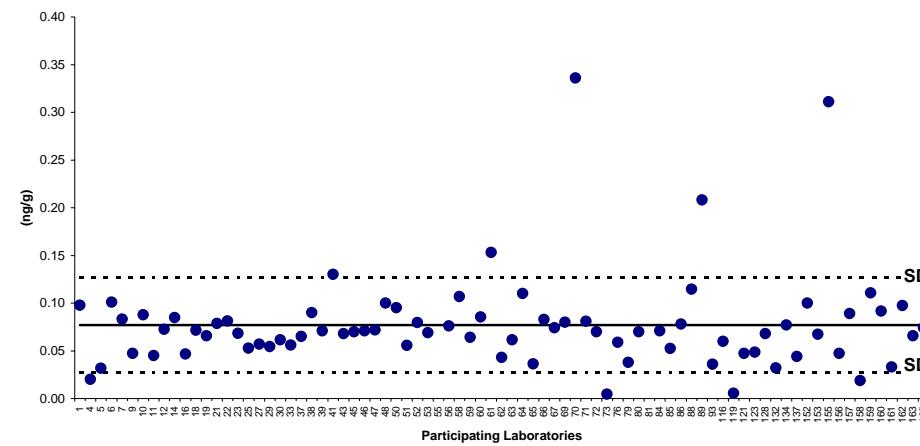
1,2,3,4,7,8-HxCDD Ash A



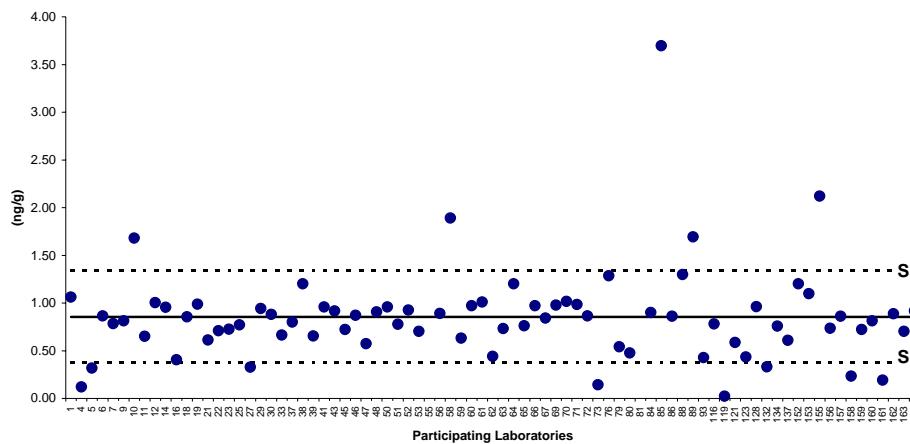
1,2,3,6,7,8-HxCDD Ash A



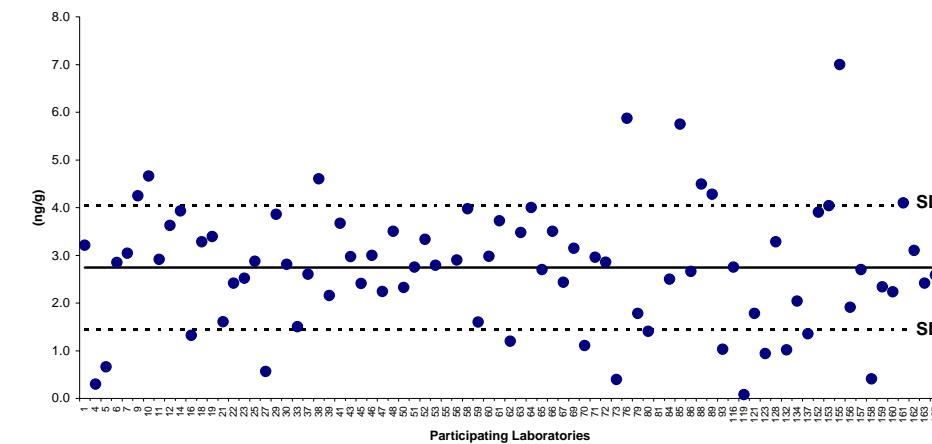
1,2,3,7,8,9-HxCDD Ash A



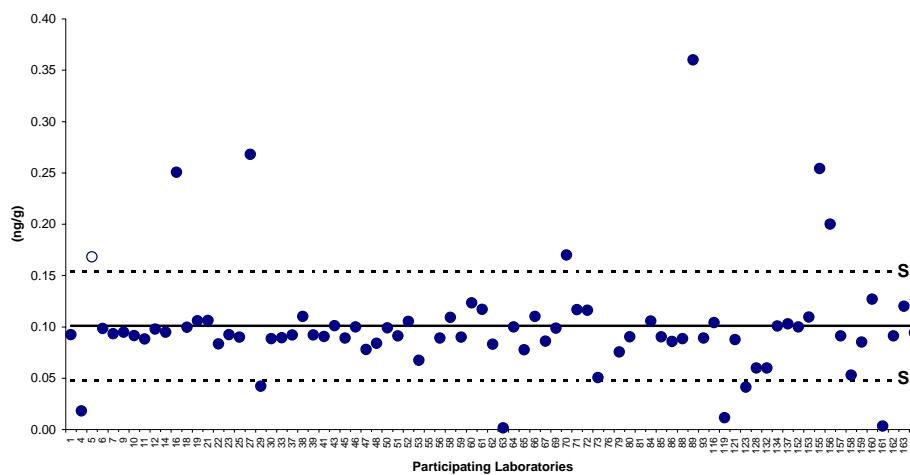
1,2,3,4,6,7,8-HpCDD Ash A



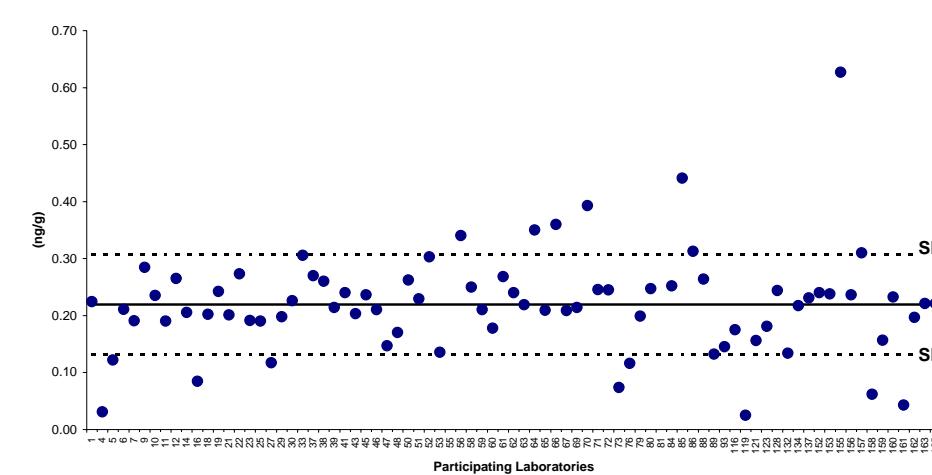
OCDD Ash A



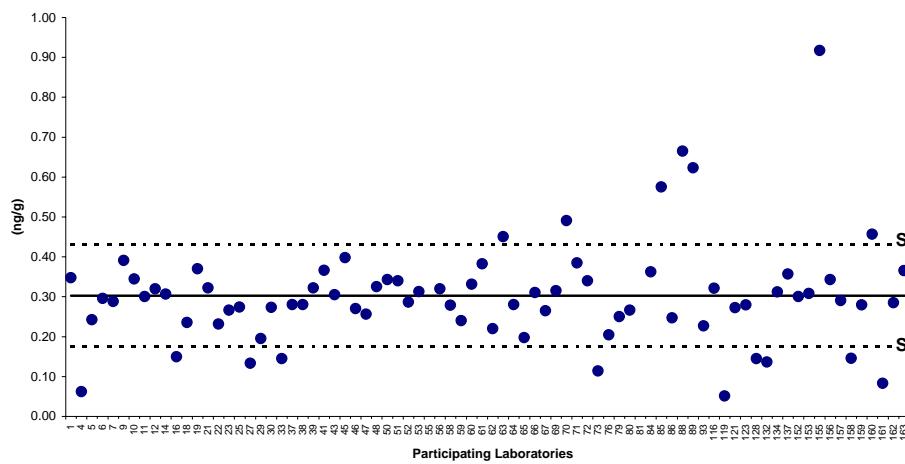
2,3,7,8-TeCDF Ash A



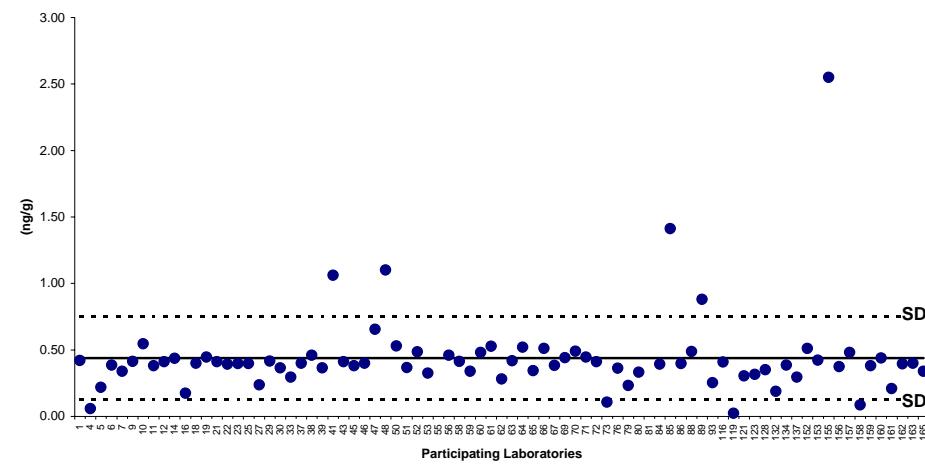
1,2,3,7,8-PeCDF Ash A



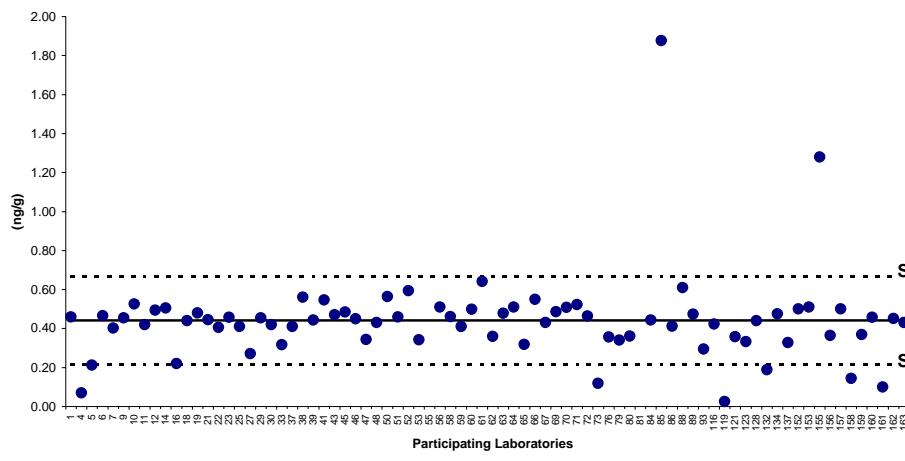
2,3,4,7,8-PeCDF Ash A



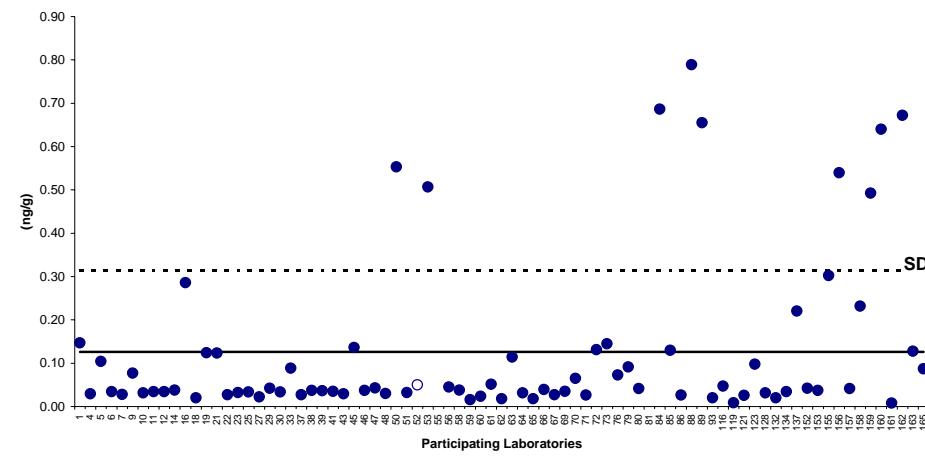
1,2,3,4,7,8-HxCDF Ash A



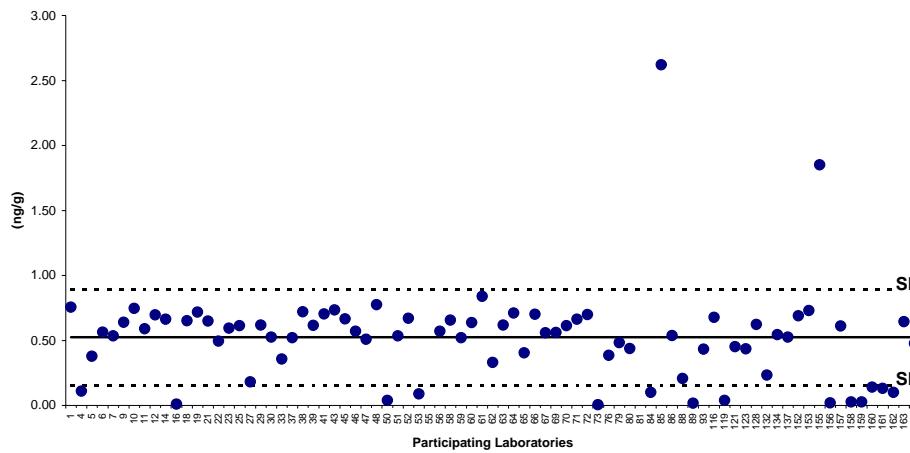
1,2,3,6,7,8-HxCDF Ash A



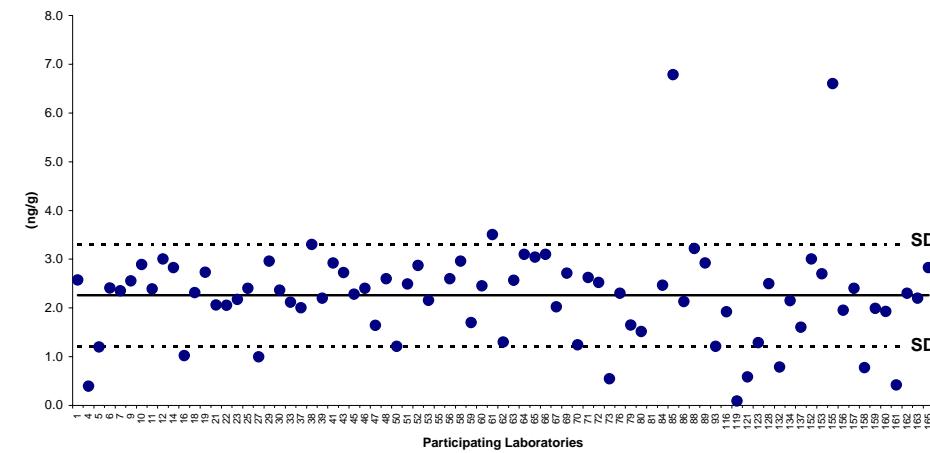
1,2,3,7,8,9-HxCDF Ash A



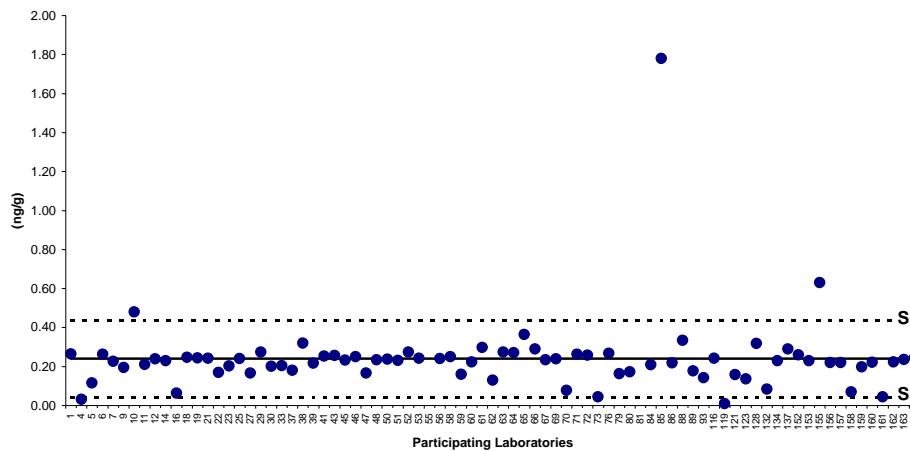
2,3,4,6,7,8-HxCDF Ash A



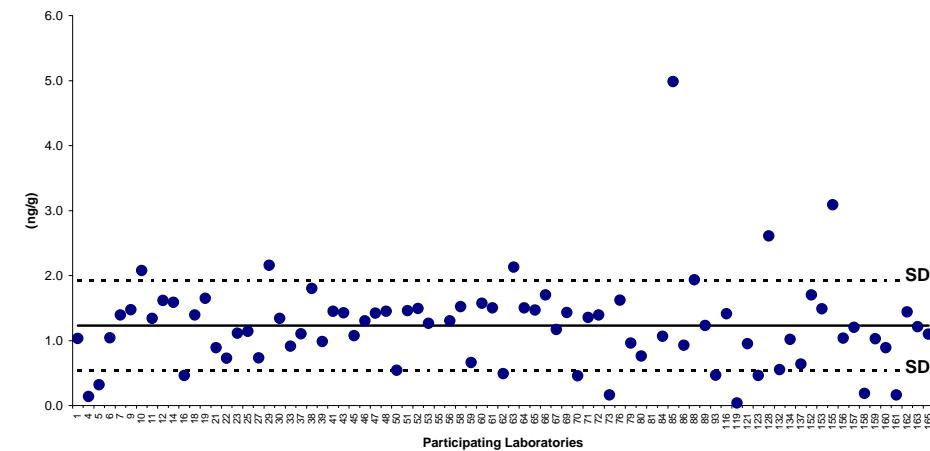
1,2,3,4,6,7,8-HpCDF Ash A



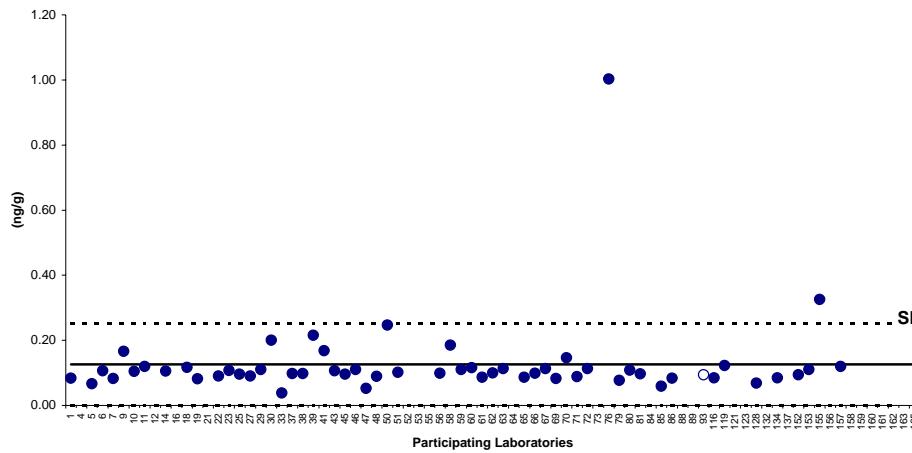
1,2,3,4,7,8,9-HpCDF Ash A



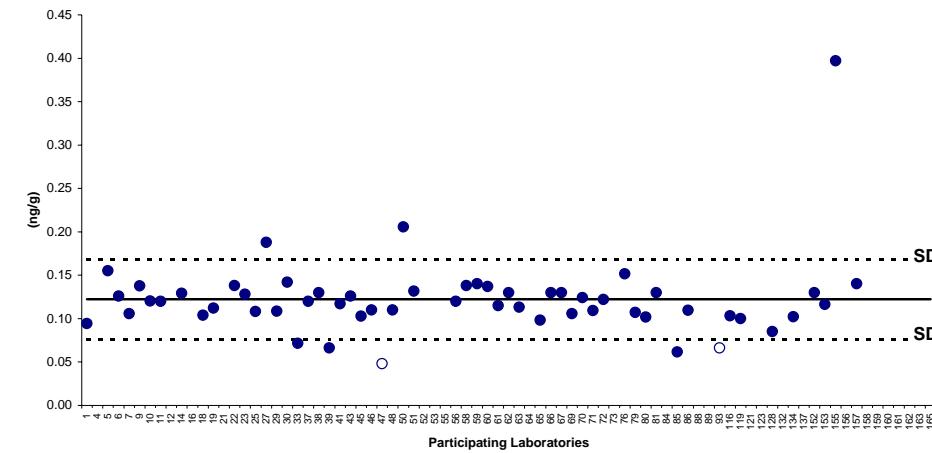
OCDF Ash A



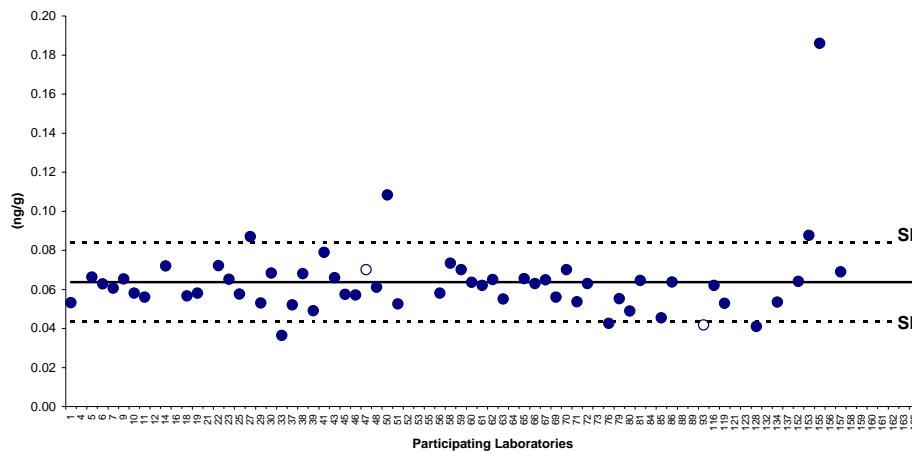
PCB #77 Ash A



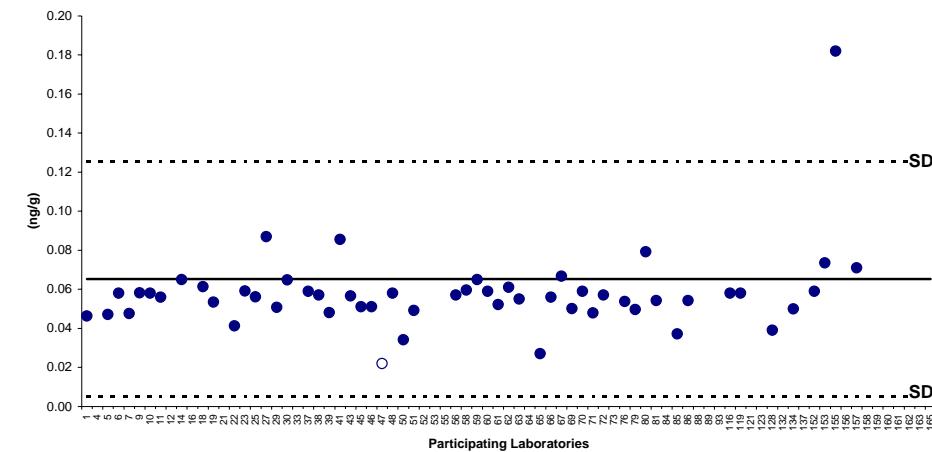
PCB #126 Ash A



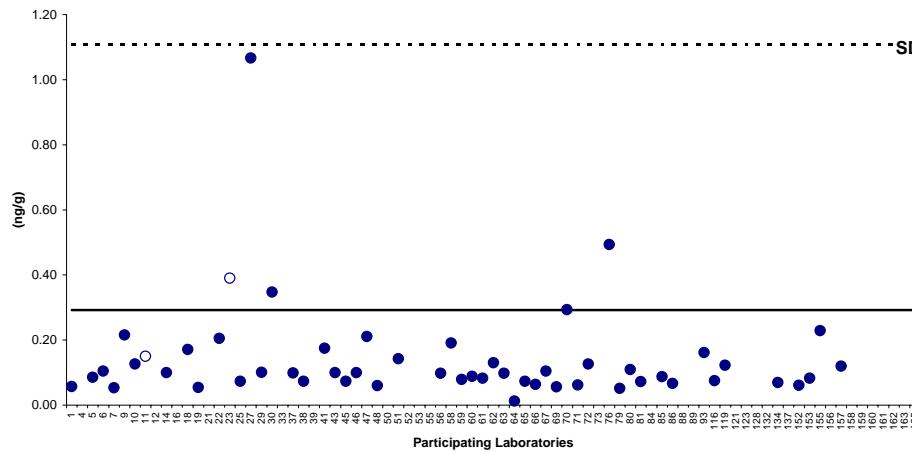
PCB #169 Ash A



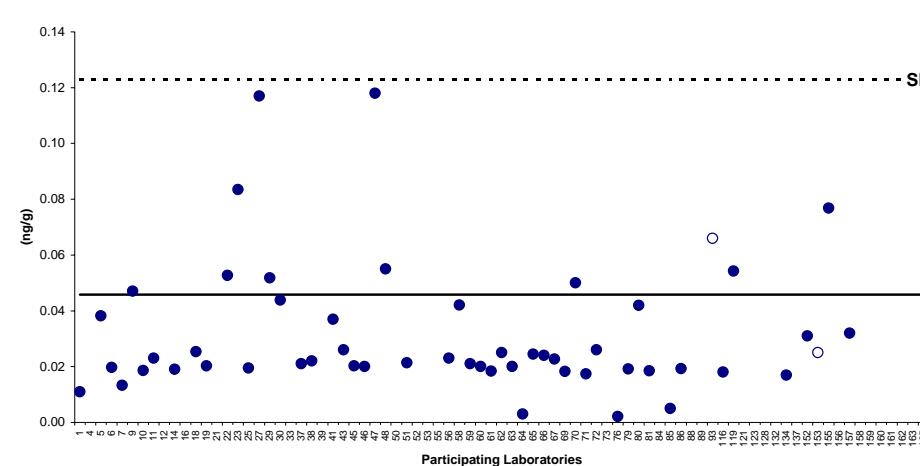
PCB #81 Ash A



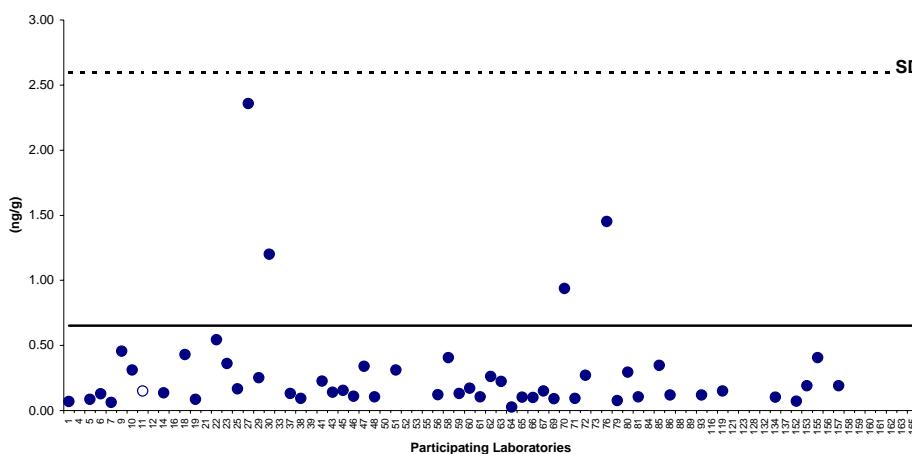
PCB #105 Ash A



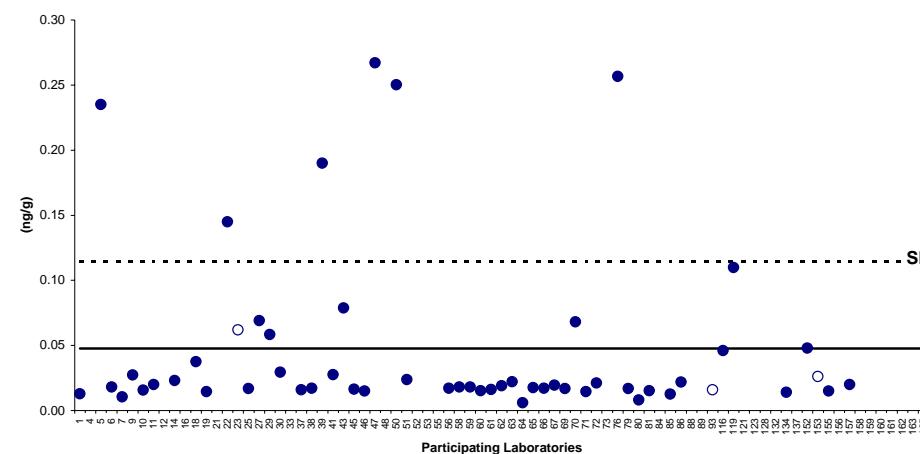
PCB #114 Ash A



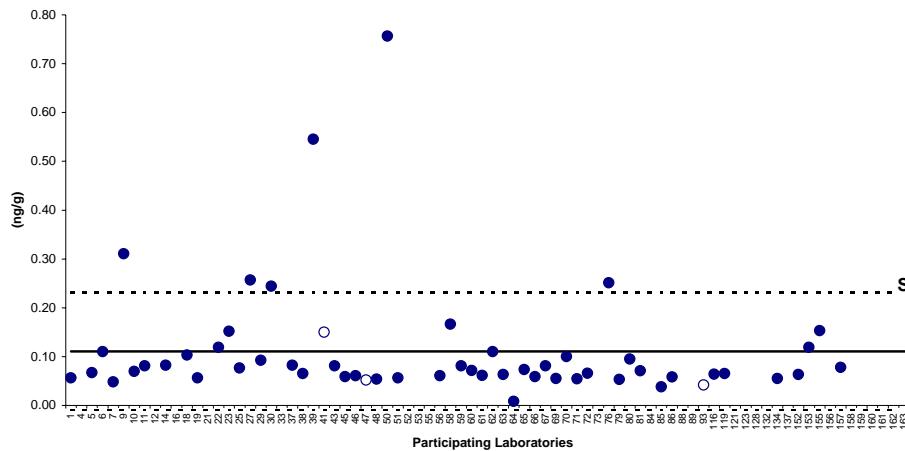
PCB #118 Ash A



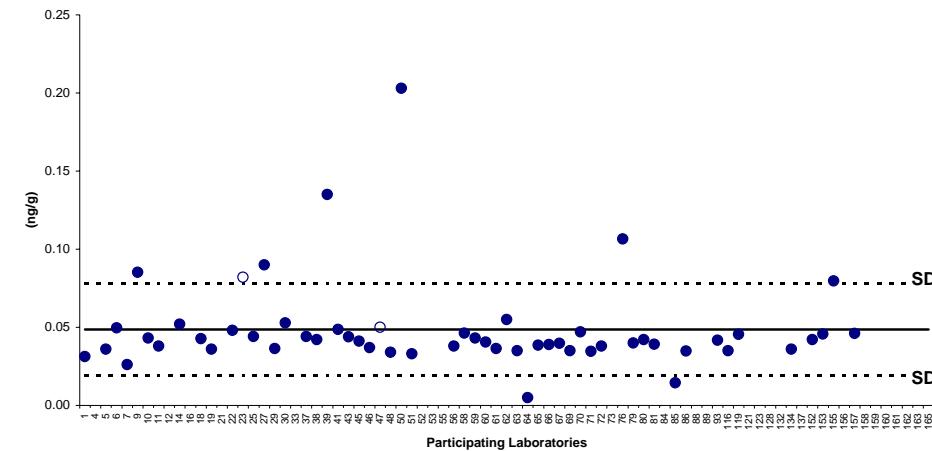
PCB #123 Ash A



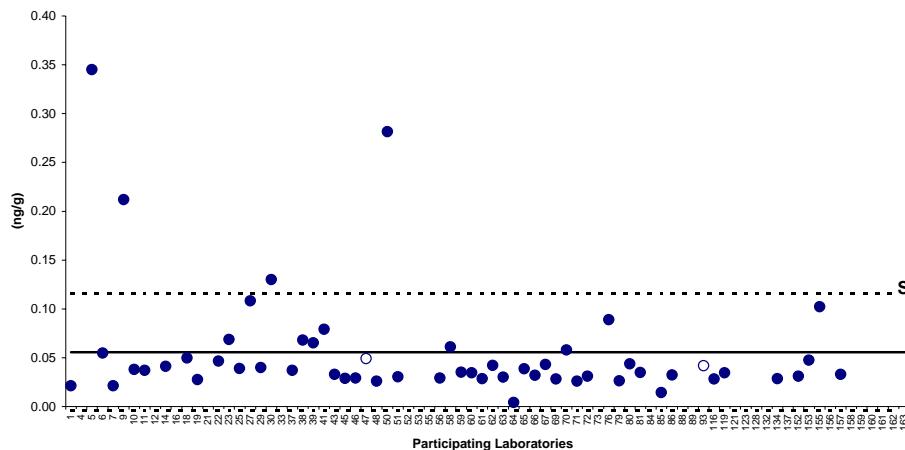
PCB #156 Ash A



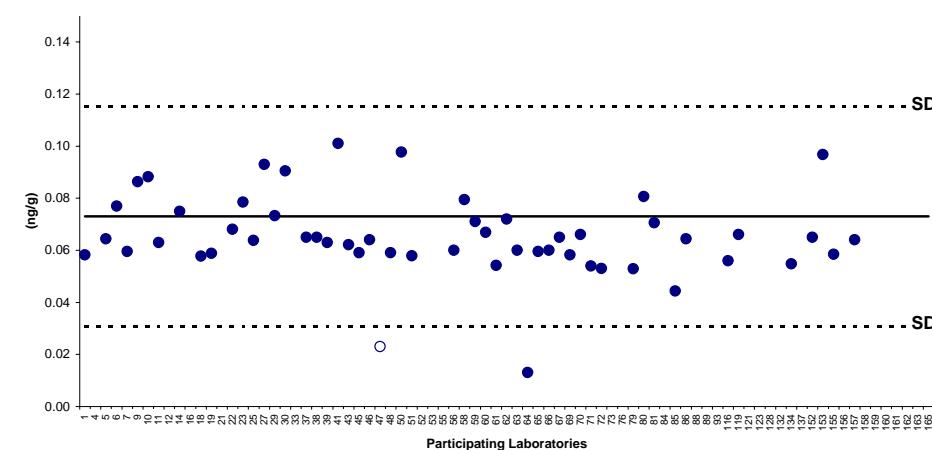
PCB #157 Ash A



PCB #167 Ash A



PCB #189 Ash A



Participant code:	1	4	5	6	7	9	10	11	12	14	16	18
Weight Analysed:												
2,3,7,8-TeCDD	0.0067	ND	<0.00696	0.0074	0.0032	0.0032	0.0045	0.0088	0.0067	0.0075	0.0027	0.0054
1,2,3,7,8-PeCDD	0.024	ND	0.011	0.024	0.011	0.006	0.017	0.026	NA	0.026	0.010	0.018
1,2,3,4,7,8-HxCDD	0.031	0.007	0.015	0.026	0.012	0.017	0.017	0.035	0.028	0.032	0.012	0.023
1,2,3,6,7,8-HxCDD	0.097	0.015	0.036	0.084	0.044	0.060	0.055	0.100	0.093	0.096	0.040	0.064
1,2,3,7,8,9-HxCDD	0.054	0.014	0.030	0.058	0.025	0.026	0.033	0.060	0.049	0.063	0.027	0.045
1,2,3,4,6,7,8-HpCDD	1.69	0.30	0.71	1.56	0.93	1.08	1.22	1.89	1.82	1.76	0.82	1.43
OCDD	10.5	1.7	4.3	9.4	5.0	7.6	7.9	11.2	10.6	10.8	4.8	8.0
2,3,7,8-TeCDF	0.014	ND	0.015	0.014	0.010	0.016	0.013	0.015	0.013	0.016	0.025	0.021
1,2,3,7,8-PeCDF	0.043	0.010	0.026	0.044	0.023	0.035	0.030	0.046	0.046	0.045	0.012	0.036
2,3,4,7,8-PeCDF	0.067	0.015	0.034	0.060	0.040	0.053	0.047	0.068	0.051	0.069	0.019	0.047
1,2,3,4,7,8-HxCDF	0.093	0.019	0.063	0.101	0.058	0.076	0.070	0.110	0.089	0.112	0.044	0.086
1,2,3,6,7,8-HxCDF	0.143	0.024	0.057	0.166	0.071	0.109	0.111	0.160	0.141	0.188	0.078	0.113
1,2,3,7,8,9-HxCDF	0.071	0.014	0.048	0.020	0.009	0.046	0.010	0.018	0.019	0.021	0.129	0.011
2,3,4,6,7,8-HxCDF	0.419	0.064	0.22	0.37	0.18	0.28	0.29	0.37	0.36	0.36	0.00	0.28
1,2,3,4,6,7,8-HpCDF	1.352	0.245	0.65	1.54	0.60	1.08	1.13	1.53	1.53	1.60	0.74	1.17
1,2,3,4,7,8,9-HpCDF	0.348	0.054	0.18	0.39	0.15	0.23	0.26	0.38	0.33	0.32	0.07	0.30
OCDF	2.747	0.380	0.99	3.18	1.27	2.87	3.08	3.66	3.48	3.23	0.85	2.79
TEQ (PCDD/DF)	0.19	0.03	0.09	0.18	0.09	0.13	0.13	0.20	NA	0.20	0.08	0.14
PCB #77	<0.01	NA	0.019	0.017	0.005	0.024	0.009	0.051	NA	0.011	NA	0.030
PCB #126	<0.01	NA	<0.020	0.011	0.007	0.006	0.013	0.012	NA	0.011	NA	0.011
PCB #169	<0.01	NA	0.010	0.010	0.004	0.014	0.006	0.008	NA	0.010	NA	0.009
TEQ (including PCBs)	0.19	NA	0.09	0.19	0.09	0.13	0.14	0.20	NA	0.20	NA	0.14
Other PCBs (Optional)												
PCB #81	<0.01	NA	<0.005	0.005	0.003	0.002	0.003	0.013	NA	<0.01	NA	0.004
PCB #105	<0.01	NA	0.02	0.02	0.01	0.11	0.09	<0.12	NA	0.02	NA	0.09
PCB #114	<0.01	NA	0.009	0.002	ND<0.00073	0.007	0.003	<0.15	NA	<0.01	NA	0.006
PCB #118	<0.01	NA	0.028	0.039	0.006	0.140	0.313	<0.12	NA	0.034	NA	0.224
PCB #123	<0.01	NA	<0.010	< 0.0040	0.001	0.031	0.010	0.015	NA	<0.01	NA	0.009
PCB #156	<0.01	NA	<0.006	0.032	0.004	0.127	0.038	0.057	NA	0.010	NA	0.038
PCB #157	<0.01	NA	<0.005	0.010	0.003	0.016	0.006	0.012	NA	<0.01	NA	0.009
PCB #167	<0.01	NA	<0.017	0.016	0.002	0.076	0.020	<0.15	NA	<0.01	NA	0.017
PCB #189	0.010	NA	0.011	0.021	0.009	0.022	0.011	0.016	NA	0.013	NA	0.015
TEQ Total	0.19	NA	0.09	0.19	0.09	0.13	0.14	0.20	NA	0.20	NA	0.14

Participant code:	19	21	22	23	25	27	29	30	33	37	38	39	41
Weight Analysed:													
2,3,7,8-TeCDD	0.0059	0.0023	0.0072	0.0077	0.0054	0.0070	0.0052	0.0056	0.0081	0.0064	0.0076	0.0040	0.0098
1,2,3,7,8-PeCDD	0.019	0.011	0.022	0.021	0.020	0.008	0.020	0.021	0.031	0.022	0.026	0.010	0.028
1,2,3,4,7,8-HxCDD	0.025	0.017	0.037	0.020	0.029	0.014	0.044	0.026	0.027	0.025	0.035	0.025	0.022
1,2,3,6,7,8-HxCDD	0.081	0.048	0.098	0.068	0.081	0.038	0.072	0.079	0.084	0.080	0.110	0.073	0.078
1,2,3,7,8,9-HxCDD	0.050	0.032	0.065	0.041	0.049	0.025	0.097	0.041	0.061	0.046	0.063	0.045	0.076
1,2,3,4,6,7,8-HpCDD	1.79	0.89	2.97	1.34	1.60	0.80	1.45	1.60	2.07	1.70	1.90	2.06	1.36
OCDD	9.3	4.5	13.3	8.2	9.5	5.3	9.4	8.7	7.6	9.2	11.0	6.8	9.0
2,3,7,8-TeCDF	0.014	0.011	0.012	0.013	0.015	0.023	0.014	0.014	0.018	0.013	0.018	0.007	0.055
1,2,3,7,8-PeCDF	0.044	0.026	0.052	0.035	0.037	0.012	0.031	0.041	0.055	0.054	0.050	0.018	0.042
2,3,4,7,8-PeCDF	0.071	0.043	0.046	0.046	0.051	0.013	0.033	0.048	0.029	0.050	0.051	0.027	0.061
1,2,3,4,7,8-HxCDF	0.101	0.061	0.124	0.093	0.100	0.041	0.092	0.081	0.087	0.120	0.110	0.045	0.269
1,2,3,6,7,8-HxCDF	0.147	0.079	0.151	0.144	0.138	0.059	0.127	0.124	0.123	0.140	0.170	0.072	0.156
1,2,3,7,8,9-HxCDF	0.065	0.036	0.017	0.015	0.013	0.015	0.025	0.016	0.055	0.016	0.022	0.011	0.017
2,3,4,6,7,8-HxCDF	0.39	0.19	0.28	0.32	0.35	0.09	0.27	0.28	0.25	0.30	0.35	0.16	0.37
1,2,3,4,6,7,8-HpCDF	1.31	0.68	1.34	1.33	1.47	0.58	1.24	1.25	1.61	1.30	1.50	0.51	1.36
1,2,3,4,7,8,9-HpCDF	0.31	0.16	0.27	0.26	0.28	0.20	0.27	0.30	0.35	0.29	0.40	0.10	0.30
OCDF	3.37	1.07	1.75	2.56	2.35	1.49	3.16	3.26	3.57	2.80	3.40	0.69	2.79
TEQ (PCDD/DF)	0.19	0.10	0.18	0.16	0.17	0.07	0.18	0.15	0.18	0.16	0.19	0.10	0.21
PCB #77	0.007	NA	ND	0.014	0.044	0.217	0.022	0.075	<0.02	0.005	0.014	0.187	< 0.055
PCB #126	0.010	NA	0.016	0.011	0.015	0.019	0.009	0.013	0.006	0.010	0.012	0.035	< 0.009
PCB #169	0.010	NA	0.015	0.011	0.013	0.017	0.005	0.010	0.005	0.007	0.010	0.011	< 0.012
TEQ (including PCBs)	0.19	NA	0.18	0.16	0.17	0.07	0.19	0.15	0.18	0.17	0.19	0.10	0.21
Other PCBs (Optional)													
PCB #81	0.004	NA	ND	0.004	0.007	0.046	0.002	0.006	NA	0.003	0.005	0.022	< 0.017
PCB #105	0.01	NA	0.01	1.15	0.12	0.74	0.02	0.30	NA	0.00	0.02	6.28	0.15
PCB #114	0.002	NA	0.003	< 0.071	0.019	0.043	0.002	0.030	NA	0.001	ND	0.519	< 0.031
PCB #118	0.009	NA	0.019	0.120	0.376	1.923	0.080	1.130	NA	0.004	0.042	9.837	0.293
PCB #123	0.001	NA	0.007	< 0.072	0.022	0.057	0.008	0.016	NA	0.001	ND	0.186	< 0.014
PCB #156	0.007	NA	0.012	< 0.057	0.090	0.121	0.012	0.194	NA	0.006	0.009	0.633	< 0.039
PCB #157	0.005	NA	0.007	< 0.065	0.027	0.036	0.009	0.024	NA	0.004	0.006	0.139	< 0.009
PCB #167	0.003	NA	0.006	< 0.057	0.051	0.031	0.010	0.092	NA	0.003	0.009	0.141	< 0.035
PCB #189	0.012	NA	0.016	< 0.057	0.035	0.021	0.037	0.030	NA	0.012	0.015	0.032	< 0.023
TEQ Total	0.19	NA	0.18	0.16	0.17	0.07	0.19	0.15	NA	0.17	0.19	0.11	0.21

Participant code:	43	45	46	47	48	50	51	52	53	55	56	58	59
Weight Analysed:													
2,3,7,8-TeCDD	0.0080	0.0043	0.0076	0.0090	0.0080	0.0350	0.0131	0.0079	0.0073	BA	0.0056	0.0086	0.0066
1,2,3,7,8-PeCDD	0.032	0.018	0.024	0.020	0.021	0.043	0.029	0.027	0.026	BA	0.022	0.035	0.022
1,2,3,4,7,8-HxCDD	0.033	0.021	0.028	0.028	0.028	0.055	0.028	0.035	0.020	BA	0.024	0.029	0.029
1,2,3,6,7,8-HxCDD	0.087	0.060	0.083	0.059	0.070	0.127	0.098	0.095	0.059	BA	0.080	0.072	0.086
1,2,3,7,8,9-HxCDD	0.061	0.036	0.052	0.062	0.059	0.048	0.051	0.060	0.036	BA	0.039	0.068	0.057
1,2,3,4,6,7,8-HpCDD	1.86	1.16	1.50	1.54	1.50	2.35	1.42	1.73	1.44	BA	1.50	1.86	1.90
OCDD	9.4	6.2	8.7	9.2	9.4	12.4	7.7	9.3	8.5	BA	8.7	10.3	9.2
2,3,7,8-TeCDF	0.018	0.010	0.013	0.012	0.014	0.022	0.028	0.013	0.015	BA	0.012	0.023	0.012
1,2,3,7,8-PeCDF	0.046	0.033	0.040	0.029	0.033	0.043	0.055	0.062	0.040	BA	0.062	0.046	0.038
2,3,4,7,8-PeCDF	0.068	0.057	0.049	0.058	0.062	0.042	0.089	0.053	0.075	BA	0.056	0.061	0.043
1,2,3,4,7,8-HxCDF	0.106	0.072	0.097	0.222	0.280	0.108	0.097	0.120	0.088	BA	0.110	0.097	0.099
1,2,3,6,7,8-HxCDF	0.152	0.102	0.140	0.130	0.130	0.229	0.142	0.153	0.150	BA	0.150	0.124	0.140
1,2,3,7,8,9-HxCDF	0.017	0.047	0.020	0.016	0.015	0.427	0.010	< 0.026	0.349	BA	0.017	0.017	0.016
2,3,4,6,7,8-HxCDF	0.41	0.28	0.33	0.33	0.41	0.27	0.39	0.37	0.05	BA	0.29	0.36	0.34
1,2,3,4,6,7,8-HpCDF	1.40	0.93	1.30	1.10	1.30	1.21	1.37	1.51	1.33	BA	1.20	1.54	1.20
1,2,3,4,7,8,9-HpCDF	0.38	0.21	0.34	0.31	0.33	0.35	0.32	0.39	0.41	BA	0.30	0.34	0.26
OCDF	3.30	1.90	3.10	3.68	3.25	6.62	3.09	4.15	3.25	BA	2.70	3.28	2.60
TEQ (PCDD/DF)	0.20	0.14	0.17	0.18	0.19	0.24	0.21	0.19	0.18	0.45	0.16	0.19	0.16
PCB #77	0.019	0.012	0.019	< 0.006	0.012	0.218	0.019	NA	NA	BA	0.015	0.098	0.009
PCB #126	0.012	0.007	0.011	< 0.013	0.011	0.049	0.013	NA	NA	BA	0.012	0.010	0.011
PCB #169	0.013	0.008	0.011	< 0.017	0.009	N.D.	0.006	NA	NA	BA	0.009	0.011	0.009
TEQ (including PCBs)	0.20	0.14	0.17	0.18	0.20	0.24	0.21	NA	NA	0.45	0.16	0.19	0.16
Other PCBs (Optional)													
PCB #81	0.005	0.004	0.004	< 0.006	0.007	N.D.	0.002	NA	NA	BA	0.004	0.008	0.004
PCB #105	0.03	0.02	0.02	< 0.011	0.02	5.04	0.06	NA	NA	BA	0.02	0.17	0.02
PCB #114	0.004	0.003	0.003	< 0.009	0.006	0.390	0.006	NA	NA	BA	0.004	0.019	0.002
PCB #118	0.072	0.061	0.038	0.051	0.043	14.489	0.188	NA	NA	BA	0.045	0.425	0.029
PCB #123	0.013	0.002	0.002	< 0.010	0.000	0.253	0.003	NA	NA	BA	0.003	0.011	0.002
PCB #156	0.013	0.008	0.011	< 0.013	0.009	0.928	0.012	NA	NA	BA	0.009	0.091	0.011
PCB #157	0.008	0.004	0.005	< 0.012	0.005	0.249	0.007	NA	NA	BA	0.006	0.009	0.005
PCB #167	0.006	0.004	0.004	< 0.012	0.004	0.361	0.007	NA	NA	BA	0.004	0.034	0.004
PCB #189	0.014	0.009	0.015	< 0.016	0.011	0.136	0.011	NA	NA	BA	0.013	0.022	0.013
TEQ Total	0.20	0.14	0.17	0.18	0.20	0.24	0.21	NA	NA	0.45	0.16	0.20	0.17

Participant code:	60	61	62	63	64	65	66	67	69	70	71	72	73
Weight Analysed:													
2,3,7,8-TeCDD	0.0073	0.0067	0.0063	0.0009	0.0070	0.0057	0.0090	0.0077	0.0075	0.0070	0.0071	0.0054	ND
1,2,3,7,8-PeCDD	0.024	0.021	0.021	0.008	0.035	0.018	0.025	0.019	0.028	0.026	0.025	0.017	0.029
1,2,3,4,7,8-HxCDD	0.027	0.021	0.026	0.012	0.031	0.021	0.026	0.031	0.037	0.033	0.027	0.020	0.036
1,2,3,6,7,8-HxCDD	0.088	0.077	0.072	0.053	0.075	0.074	0.079	0.070	0.125	0.094	0.087	0.060	0.092
1,2,3,7,8,9-HxCDD	0.055	0.069	0.039	0.035	0.048	0.042	0.050	0.045	0.071	0.064	0.055	0.036	0.035
1,2,3,4,6,7,8-HpCDD	1.73	1.59	1.50	1.32	1.50	1.59	1.40	1.62	3.15	1.64	1.69	1.01	1.81
OCDD	8.9	8.5	8.5	6.8	9.6	7.6	8.2	8.8	14.4	9.1	9.3	4.5	14.4
2,3,7,8-TeCDF	0.015	0.013	0.012	0.009	0.015	0.016	0.015	0.010	0.016	0.013	0.016	0.013	0.027
1,2,3,7,8-PeCDF	0.033	0.040	0.054	0.021	0.057	0.055	0.058	0.038	0.046	0.037	0.044	0.035	0.057
2,3,4,7,8-PeCDF	0.038	0.057	0.046	0.045	0.047	0.050	0.051	0.046	0.071	0.062	0.068	0.051	0.091
1,2,3,4,7,8-HxCDF	0.103	0.106	0.090	0.055	0.130	0.126	0.110	0.093	0.155	0.093	0.105	0.073	0.128
1,2,3,6,7,8-HxCDF	0.153	0.138	0.140	0.076	0.140	0.134	0.150	0.131	0.177	0.165	0.161	0.103	0.178
1,2,3,7,8,9-HxCDF	0.012	0.015	0.020	0.038	0.018	0.010	0.019	< 0.0157	0.022	0.031	0.014	0.047	0.431
2,3,4,6,7,8-HxCDF	0.30	0.34	0.30	0.20	0.34	0.35	0.32	0.29	0.38	0.33	0.36	0.28	0.02
1,2,3,4,6,7,8-HpCDF	1.50	1.25	1.20	0.64	1.40	0.68	1.30	1.12	1.67	1.22	1.44	0.91	2.11
1,2,3,4,7,8,9-HpCDF	0.30	0.31	0.30	0.16	0.35	0.14	0.31	0.33	0.39	0.30	0.37	0.22	0.47
OCDF	3.47	2.94	2.70	1.44	3.50	1.10	3.10	3.16	3.81	2.93	3.38	1.59	4.23
TEQ (PCDD/DF)	0.16	0.17	0.15	0.10	0.18	0.15	0.17	0.15	0.23	0.18	0.19	0.14	0.22
PCB #77	0.013	0.021	0.009	0.025	NA	0.011	0.017	0.009	0.007	0.045	0.009	0.009	NA
PCB #126	0.009	0.017	0.009	0.005	NA	0.009	0.010	0.010	0.011	0.013	0.010	0.008	NA
PCB #169	0.008	0.010	0.009	0.005	NA	0.010	0.008	0.008	0.010	0.010	0.008	0.007	NA
TEQ (including PCBs)	0.16	0.17	0.15	0.10	NA	0.15	0.17	0.15	0.23	0.18	0.19	0.14	NA
Other PCBs (Optional)													
PCB #81	0.003	0.011	0.003	0.007	ND	0.002	0.004	< 0.0038	0.004	0.022	0.003	0.003	NA
PCB #105	0.03	0.02	0.01	0.05	0.03	0.01	0.02	0.03	0.01	0.21	0.01	0.02	NA
PCB #114	0.003	0.007	0.002	0.002	0.006	0.004	0.002	< 0.0027	0.002	0.018	0.002	0.002	NA
PCB #118	0.093	0.050	0.018	0.164	0.048	0.035	0.044	0.051	0.019	0.648	0.026	0.043	NA
PCB #123	0.002	0.007	0.002	0.007	NA	0.004	0.002	< 0.0025	0.003	0.089	0.002	0.001	NA
PCB #156	0.015	0.021	0.007	0.009	0.023	0.014	0.010	0.012	0.009	0.040	0.008	0.009	NA
PCB #157	0.005	0.015	0.006	0.005	0.011	0.004	0.004	< 0.0066	0.005	0.016	0.004	0.004	NA
PCB #167	0.007	0.012	0.003	0.005	0.006	0.007	0.005	< 0.0082	0.004	0.026	0.004	0.004	NA
PCB #189	0.012	0.012	0.014	0.007	0.008	0.011	0.011	< 0.014	0.016	0.017	0.012	0.009	NA
TEQ Total	0.16	0.17	0.15	0.10	0.18	0.15	0.17	0.15	0.23	0.18	0.19	0.14	NA

Participant code:	76	79	80	81	84	85	86	88	89	93	116	119	121
Weight Analysed:													
2,3,7,8-TeCDD	N.D.	0.0030	0.0037	0.0079	0.0028	<0.016	0.0041	0.0071	0.0306	0.0052	0.0073	0.0035	0.0024
1,2,3,7,8-PeCDD	0.003	0.009	0.009	0.022	0.012	0.037	0.015	0.027	0.188	0.029	0.023	ND	0.007
1,2,3,4,7,8-HxCDD	0.003	0.010	0.012	0.024	0.016	<0.032	0.021	0.031	0.147	0.031	0.027	0.014	0.006
1,2,3,6,7,8-HxCDD	0.013	0.033	0.038	0.093	0.055	0.092	0.068	0.100	0.352	0.086	0.078	0.053	0.020
1,2,3,7,8,9-HxCDD	0.009	0.019	0.023	0.078	0.027	<0.032	0.040	0.099	0.597	0.053	0.048	0.040	0.010
1,2,3,4,6,7,8-HpCDD	0.31	0.78	0.76	1.89	1.35	1.36	1.35	2.35	4.07	1.91	1.56	0.83	0.33
OCDD	1.9	4.6	4.9	9.2	9.1	9.0	7.4	12.5	14.1	9.6	9.7	6.4	1.6
2,3,7,8-TeCDF	0.001	0.008	0.013	0.011	0.008	0.021	0.013	0.017	0.179	0.013	0.013	0.023	0.005
1,2,3,7,8-PeCDF	0.007	0.025	0.027	0.039	0.036	0.034	0.061	0.055	0.054	0.025	0.034	0.040	0.009
2,3,4,7,8-PeCDF	0.007	0.028	0.029	0.055	0.056	0.046	0.046	0.150	0.078	0.119	0.062	0.065	0.019
1,2,3,4,7,8-HxCDF	0.013	0.037	0.053	0.088	0.081	0.043	0.101	0.124	0.636	0.089	0.107	0.060	0.028
1,2,3,6,7,8-HxCDF	0.022	0.062	0.064	0.146	0.120	0.110	0.122	0.186	0.410	0.139	0.148	0.089	0.034
1,2,3,7,8,9-HxCDF	0.010	0.030	0.016	0.017	0.360	<0.032	0.016	0.429	0.928	0.015	0.025	0.053	0.004
2,3,4,6,7,8-HxCDF	0.06	0.15	0.16	0.33	0.05	0.36	0.27	0.11	0.00	0.37	0.36	0.24	0.09
1,2,3,4,6,7,8-HpCDF	0.25	0.53	0.61	1.44	1.35	1.15	1.03	1.70	3.31	1.32	1.25	0.90	0.30
1,2,3,4,7,8,9-HpCDF	0.06	0.14	0.15	0.33	0.31	0.36	0.27	0.41	0.43	0.39	0.37	0.25	0.07
OCDF	0.62	1.34	1.42	2.74	3.08	2.19	2.08	3.16	5.20	3.00	3.56	3.40	0.58
TEQ (PCDD/DF)	0.02	0.08	0.08	0.18	0.15	0.15	0.14	0.27	0.68	0.21	0.18	0.12	0.05
PCB #77	0.622	0.005	0.027	0.006	NA	0.014	0.018	NA	NA	<0.0297	0.005	0.011	NA
PCB #126	0.027	0.006	0.017	0.011	NA	0.003	0.011	NA	NA	<0.0385	0.009	0.009	NA
PCB #169	0.005	0.006	0.010	0.010	NA	0.004	0.008	NA	NA	<0.0599	0.009	0.009	NA
TEQ (including PCBs)	0.02	0.08	0.08	0.18	NA	0.15	0.14	NA	NA	0.21	0.18	0.12	NA
Other PCBs (Optional)													
PCB #81	0.030	0.003	0.011	0.003	NA	0.009	0.007	NA	NA	<0.0297	0.003	0.003	NA
PCB #105	1.19	0.00	0.17	0.00	NA	0.05	0.01	NA	NA	0.14	0.04	0.03	NA
PCB #114	0.308	0.002	0.015	0.002	NA	0.007	0.008	NA	NA	<0.0385	ND	0.004	NA
PCB #118	4.157	0.005	0.508	0.006	NA	0.150	0.029	NA	NA	0.134	ND	0.031	NA
PCB #123	0.111	0.002	ND	0.001	NA	0.005	0.007	NA	NA	<0.0201	0.011	0.016	NA
PCB #156	0.067	0.004	0.142	0.007	NA	0.011	0.009	NA	NA	<0.0599	ND	0.024	NA
PCB #157	0.002	0.005	0.023	0.005	NA	0.004	0.006	NA	NA	<0.0599	ND	0.006	NA
PCB #167	0.032	0.002	0.093	0.003	NA	0.006	0.006	NA	NA	<0.0599	ND	0.007	NA
PCB #189	0.209	0.007	0.043	0.014	NA	0.014	0.015	NA	NA	0.222	0.015	0.009	NA
TEQ Total	0.02	0.08	0.08	0.18	NA	0.15	0.14	NA	NA	0.21	0.18	0.12	NA

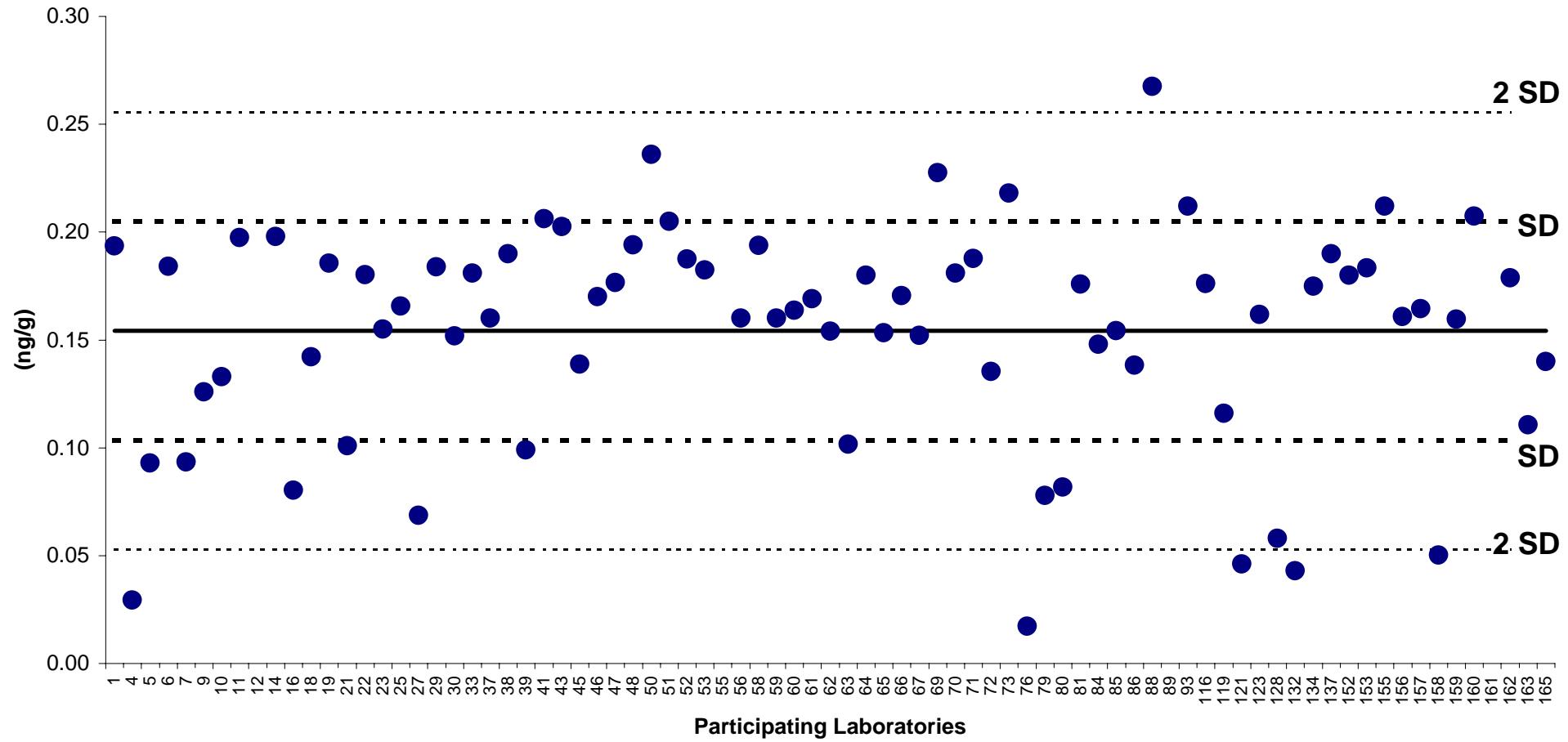
Participant code:	123	128	132	134	137	152	153	155	156	157	158	159	160
Weight Analysed:													
2,3,7,8-TeCDD	0.0040	ND	0.0020	0.0068	0.0060	0.0084	0.0076	0.0048	0.0080	0.0070	0.0013	0.0088	0.0064
1,2,3,7,8-PeCDD	0.021	ND	0.005	0.025	0.025	0.022	0.025	0.017	0.009	0.025	0.006	0.021	0.028
1,2,3,4,7,8-HxCDD	0.027	0.018	0.007	0.030	0.017	0.027	0.027	0.021	0.020	0.026	0.005	0.026	0.031
1,2,3,6,7,8-HxCDD	0.083	0.044	0.017	0.084	0.065	0.083	0.073	0.069	0.070	0.074	0.026	0.070	0.085
1,2,3,7,8,9-HxCDD	0.050	0.035	0.008	0.057	0.042	0.065	0.038	0.063	0.048	0.046	0.013	0.076	0.051
1,2,3,4,6,7,8-HpCDD	1.45	0.69	0.31	1.66	1.57	2.10	1.85	1.44	1.56	1.50	0.70	1.42	2.24
OCDD	8.1	4.2	1.9	9.9	7.5	11.0	10.3	7.8	8.9	7.6	4.4	7.2	11.8
2,3,7,8-TeCDF	0.009	0.009	0.004	0.015	0.013	0.016	0.017	0.040	0.040	0.012	0.004	0.014	0.016
1,2,3,7,8-PeCDF	0.032	0.024	0.014	0.041	0.033	0.044	0.047	0.035	0.050	0.055	0.007	0.030	0.040
2,3,4,7,8-PeCDF	0.051	0.017	0.013	0.061	0.056	0.058	0.061	0.061	0.070	0.048	0.015	0.047	0.081
1,2,3,4,7,8-HxCDF	0.097	0.044	0.030	0.096	0.086	0.130	0.102	0.320	0.071	0.120	0.015	0.194	0.111
1,2,3,6,7,8-HxCDF	0.123	0.059	0.038	0.151	0.130	0.130	0.151	0.183	0.141	0.150	0.040	0.109	0.154
1,2,3,7,8,9-HxCDF	0.076	ND	0.006	0.017	0.054	0.023	0.019	0.061	0.326	0.020	0.101	0.261	0.377
2,3,4,6,7,8-HxCDF	0.32	0.14	0.10	0.31	0.32	0.35	0.38	0.37	0.01	0.30	0.01	0.01	0.07
1,2,3,4,6,7,8-HpCDF	1.28	0.48	0.32	1.32	2.57	1.40	1.38	2.82	1.34	1.20	0.63	1.03	1.46
1,2,3,4,7,8,9-HpCDF	0.30	0.14	0.07	0.34	1.42	0.33	0.37	0.32	0.33	0.28	0.08	0.29	0.29
OCDF	2.74	1.36	0.89	3.15	2.59	3.60	3.21	1.19	3.23	2.90	0.74	2.48	2.28
TEQ (PCDD/DF)	0.16	0.06	0.04	0.17	0.19	0.18	0.18	0.21	0.16	0.16	0.05	0.16	0.21
PCB #77	NA	0.010	NA	0.006	NA	0.004	<0.030	0.016	NA	0.026	NA	NA	NA
PCB #126	NA	0.002	NA	0.008	NA	0.010	<0.030	0.011	NA	0.009	NA	NA	NA
PCB #169	NA	0.005	NA	0.008	NA	0.008	<0.030	0.007	NA	0.008	NA	NA	NA
TEQ (including PCBs)	NA	0.06	NA	0.18	NA	0.19	0.18	0.21	NA	0.17	NA	NA	NA
Other PCBs (Optional)													
PCB #81	NA	0.002	NA	0.003	NA	0.003	<0.030	<0.005	NA	0.006	NA	NA	NA
PCB #105	NA	NA	NA	0.01	NA	0.00	<0.030	0.03	NA	0.03	NA	NA	NA
PCB #114	NA	NA	NA	0.002	NA	0.001	<0.030	<0.005	NA	0.006	NA	NA	NA
PCB #118	NA	NA	NA	0.010	NA	0.006	<0.12	0.080	NA	0.065	NA	NA	NA
PCB #123	NA	NA	NA	0.002	NA	0.001	<0.030	0.004	NA	0.004	NA	NA	NA
PCB #156	NA	NA	NA	0.006	NA	0.007	<0.070	0.009	NA	0.009	NA	NA	NA
PCB #157	NA	NA	NA	0.004	NA	0.005	<0.030	0.005	NA	0.005	NA	NA	NA
PCB #167	NA	NA	NA	0.004	NA	0.004	<0.030	<0.005	NA	0.003	NA	NA	NA
PCB #189	NA	NA	NA	0.011	NA	0.012	<0.030	0.010	NA	0.011	NA	NA	NA
TEQ Total	NA	0.06	NA	0.18	NA	0.19	0.18	0.21	NA	0.17	NA	NA	NA

Participant code:	161	162	163	165
Weight Analysed:				
2,3,7,8-TeCDD	0.0038	0.0062	0.0034	0.0070
1,2,3,7,8-PeCDD	0.008	0.025	0.013	0.018
1,2,3,4,7,8-HxCDD	0.021	0.024	0.014	0.022
1,2,3,6,7,8-HxCDD	0.037	0.066	0.045	0.057
1,2,3,7,8,9-HxCDD	0.063	0.053	0.032	0.046
1,2,3,4,6,7,8-HpCDD	0.01	1.46	1.17	1.65
OCDD	0.0	7.3	5.7	9.8
2,3,7,8-TeCDF	0.040	0.014	0.010	0.014
1,2,3,7,8-PeCDF	0.015	0.038	0.022	0.031
2,3,4,7,8-PeCDF	0.029	0.064	0.042	0.042
1,2,3,4,7,8-HxCDF	0.093	0.095	0.062	0.072
1,2,3,6,7,8-HxCDF	0.045	0.142	0.083	0.095
1,2,3,7,8,9-HxCDF	0.003	0.373	0.038	0.047
2,3,4,6,7,8-HxCDF	0.12	0.06	0.22	0.24
1,2,3,4,6,7,8-HpCDF	0.00	1.17	0.79	1.35
1,2,3,4,7,8,9-HpCDF	0.00	0.31	0.18	0.29
OCDF	0.00	2.72	1.57	2.39
TEQ (PCDD/DF)	NA	0.18	0.11	0.14
PCB #77	NA	NA	NA	NA
PCB #126	NA	NA	NA	NA
PCB #169	NA	NA	NA	NA
TEQ (including PCBs)	NA	NA	NA	NA
Other PCBs (Optional)				
PCB #81	NA	NA	NA	NA
PCB #105	NA	NA	NA	NA
PCB #114	NA	NA	NA	NA
PCB #118	NA	NA	NA	NA
PCB #123	NA	NA	NA	NA
PCB #156	NA	NA	NA	NA
PCB #157	NA	NA	NA	NA
PCB #167	NA	NA	NA	NA
PCB #189	NA	NA	NA	NA
TEQ Total	NA	NA	NA	NA
* all values in ng/g				
ND: not detected < than value expected Ash B7				
NA: not analyzed				

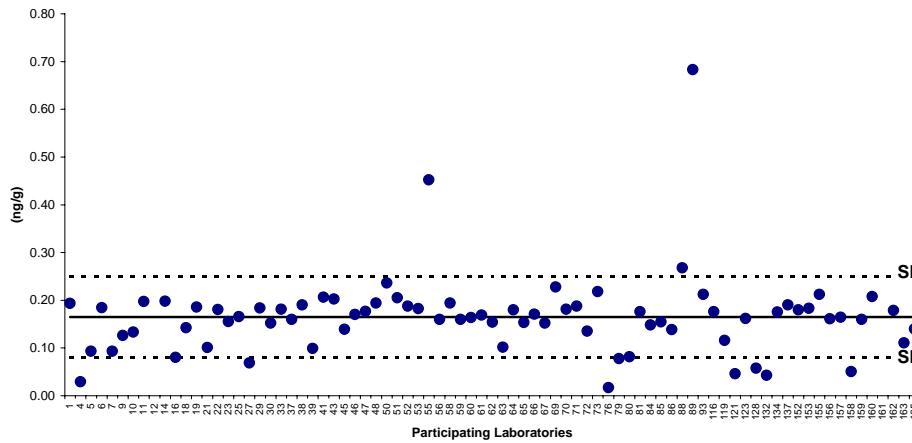
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.0068	0.0067	0.0009	0.035	0.005	72%
1,2,3,7,8-PeCDD	0.023	0.022	0.003	0.19	0.02	92%
1,2,3,4,7,8-HxCDD	0.025	0.026	0.003	0.15	0.02	65%
1,2,3,6,7,8-HxCDD	0.074	0.074	0.0130	0.35	0.04	53%
1,2,3,7,8,9-HxCDD	0.054	0.048	0.008	0.60	0.06	119%
1,2,3,4,6,7,8-HpCDD	1.50	1.50	0.01	4.07	0.6	41%
OCDD	8.18	8.70	0.02	14.36	2.9	35%
2,3,7,8-TeCDF	0.018	0.014	0.001	0.18	0.02	114%
1,2,3,7,8-PeCDF	0.037	0.038	0.007	0.06	0.01	37%
2,3,4,7,8-PeCDF	0.052	0.051	0.007	0.15	0.02	43%
1,2,3,4,7,8-HxCDF	0.104	0.094	0.013	0.64	0.08	77%
1,2,3,6,7,8-HxCDF	0.127	0.138	0.022	0.41	0.05	42%
1,2,3,7,8,9-HxCDF	0.080	0.020	0.003	0.93	0.15	190%
2,3,4,6,7,8-HxCDF	0.25	0.29	0.001	0.42	0.12	48%
1,2,3,4,6,7,8-HpCDF	1.20	1.27	0.005	3.31	0.52	44%
1,2,3,4,7,8,9-HpCDF	0.29	0.30	0.001	1.42	0.16	56%
OCDF	2.61	2.83	0.005	6.62	1.13	43%
TEQ (PCDD/DF)	0.16	0.17	0.017	0.68	0.08	51%
PCB #77	0.042	0.015	0.0043	0.62	0.10	229%
PCB #126	0.012	0.011	0.002	0.05	0.01	63%
PCB #169	0.009	0.009	0.004	0.02	0.00	31%
TEQ (including PCBs)	0.17	0.17	0.020	0.45	0.06	35%
Other PCBs (Optional)						
PCB #81	0.007	0.004	0.0017	0.05	0.01	120%
PCB #105	0.32	0.02	0.004	6.28	1.11	346%
PCB #114	0.035	0.004	0.001	0.52	0.11	305%
PCB #118	0.701	0.051	0.004	14.49	2.44	349%
PCB #123	0.022	0.004	0.000	0.25	0.05	230%
PCB #156	0.062	0.011	0.004	0.928	0.160	260%
PCB #157	0.016	0.006	0.002	0.25	0.04	246%
PCB #167	0.026	0.006	0.002	0.36	0.06	228%
PCB #189	0.026	0.013	0.01	0.22	0.04	169%
TEQ Total	0.17	0.17	0.021	0.45	0.06	35%

TEQ results 55, 89 and 161 outliers						
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.0066	0.0067	0.0009	0.035	0.004	62%
1,2,3,7,8-PeCDD	0.021	0.022	0.003	0.04	0.01	40%
1,2,3,4,7,8-HxCDD	0.024	0.026	0.003	0.06	0.01	38%
1,2,3,6,7,8-HxCDD	0.071	0.074	0.0130	0.13	0.02	33%
1,2,3,7,8,9-HxCDD	0.047	0.048	0.008	0.10	0.02	39%
1,2,3,4,6,7,8-HpCDD	1.48	1.50	0.30	3.15	0.5	36%
OCDD	8.21	8.70	1.58	14.36	2.7	33%
2,3,7,8-TeCDF	0.015	0.014	0.001	0.06	0.01	52%
1,2,3,7,8-PeCDF	0.038	0.038	0.007	0.06	0.01	36%
2,3,4,7,8-PeCDF	0.052	0.051	0.007	0.15	0.02	43%
1,2,3,4,7,8-HxCDF	0.097	0.094	0.013	0.32	0.05	54%
1,2,3,6,7,8-HxCDF	0.124	0.138	0.022	0.23	0.04	33%
1,2,3,7,8,9-HxCDF	0.069	0.020	0.004	0.43	0.12	167%
2,3,4,6,7,8-HxCDF	0.26	0.29	0.003	0.42	0.12	46%
1,2,3,4,6,7,8-HpCDF	1.19	1.27	0.245	2.82	0.45	38%
1,2,3,4,7,8,9-HpCDF	0.29	0.30	0.054	1.42	0.16	55%
OCDF	2.61	2.83	0.380	6.62	1.07	41%
TEQ (PCDD/DF)	0.15	0.16	0.017	0.27	0.05	33%
PCB #77	0.042	0.015	0.0043	0.62	0.10	229%
PCB #126	0.012	0.011	0.002	0.05	0.01	63%
PCB #169	0.009	0.009	0.004	0.02	0.00	31%
TEQ (including PCBs)	0.16	0.17	0.020	0.24	0.04	28%
Other PCBs (Optional)						
PCB #81	0.007	0.004	0.0017	0.05	0.01	120%
PCB #105	0.32	0.02	0.004	6.28	1.11	346%
PCB #114	0.035	0.004	0.001	0.52	0.11	305%
PCB #118	0.701	0.051	0.004	14.49	2.44	349%
PCB #123	0.022	0.004	0.000	0.25	0.05	230%
PCB #156	0.062	0.011	0.004	0.928	0.160	260%
PCB #157	0.016	0.006	0.002	0.25	0.04	246%
PCB #167	0.026	0.006	0.002	0.36	0.06	228%
PCB #189	0.026	0.013	0.01	0.22	0.04	169%
TEQ Total	0.16	0.17	0.021	0.24	0.04	28%

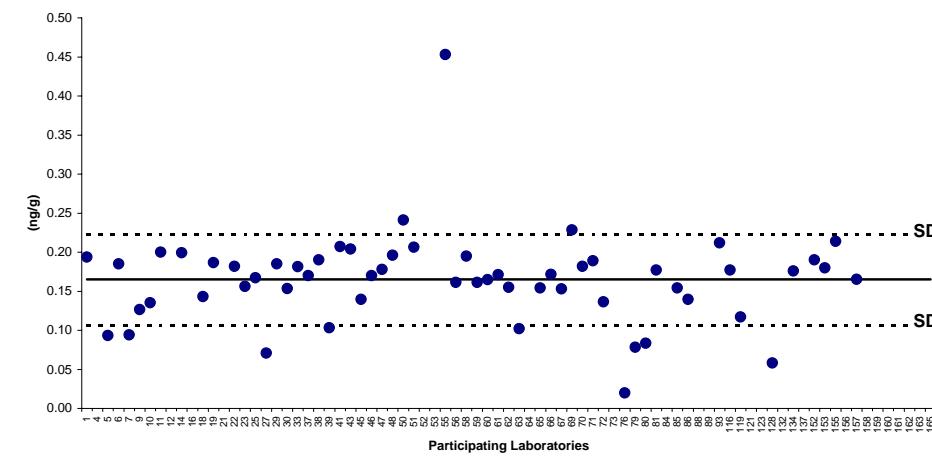
TEQ Ash B (RSD 33 %, n = 77)



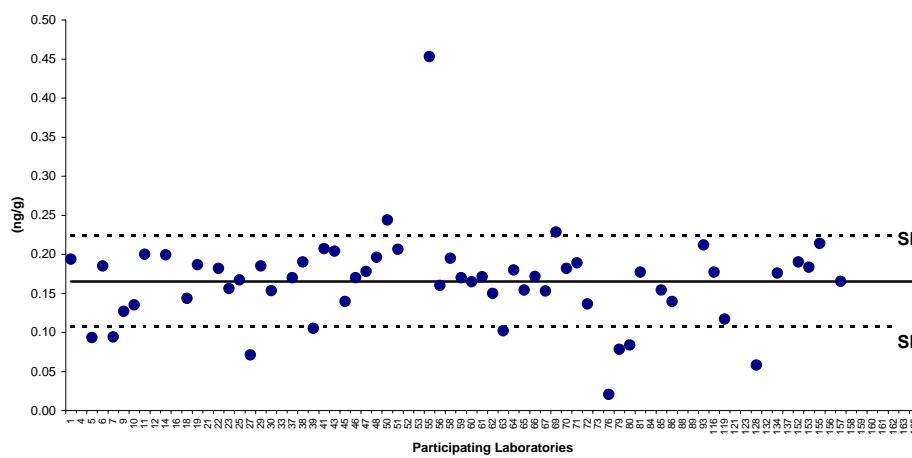
PCDD/DF TEQ Ash B (RSD 51%, n = 79)



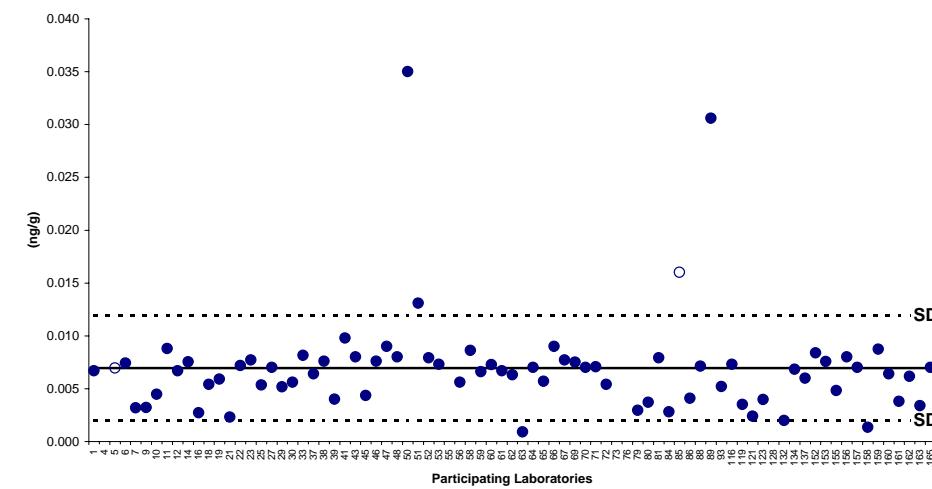
TEQ (including planar PCBs) Ash B



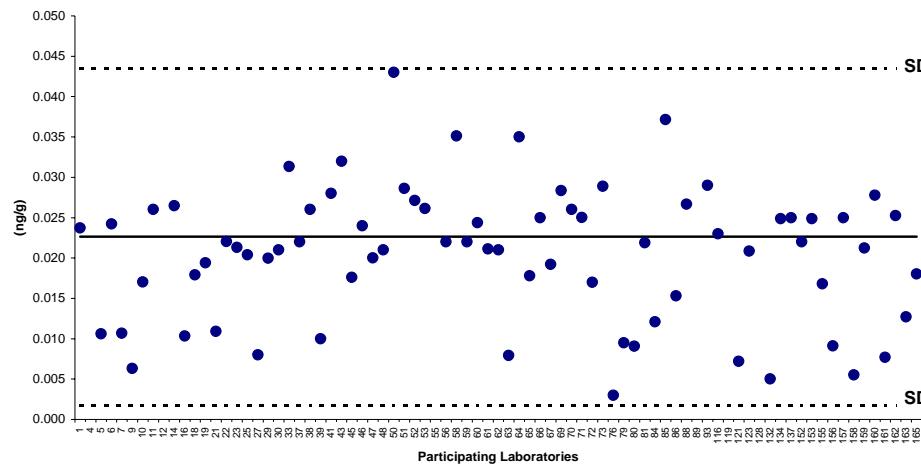
WHO TEQ Ash B



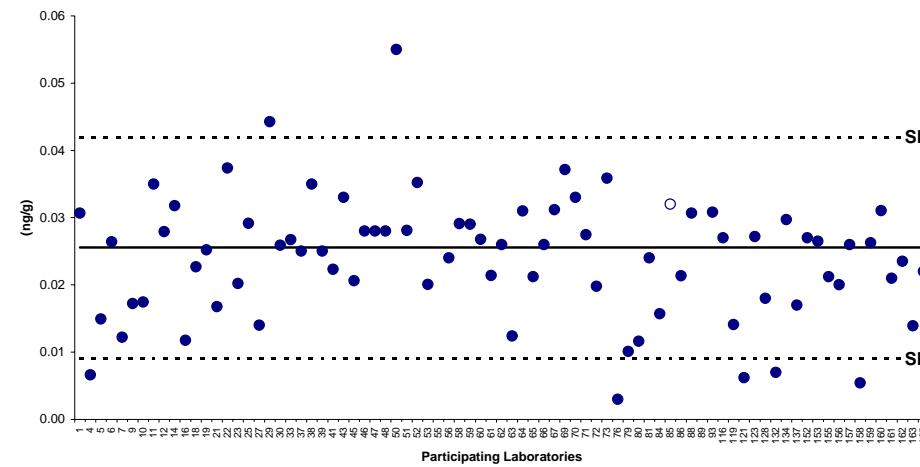
2,3,7,8-TeCDD Ash B



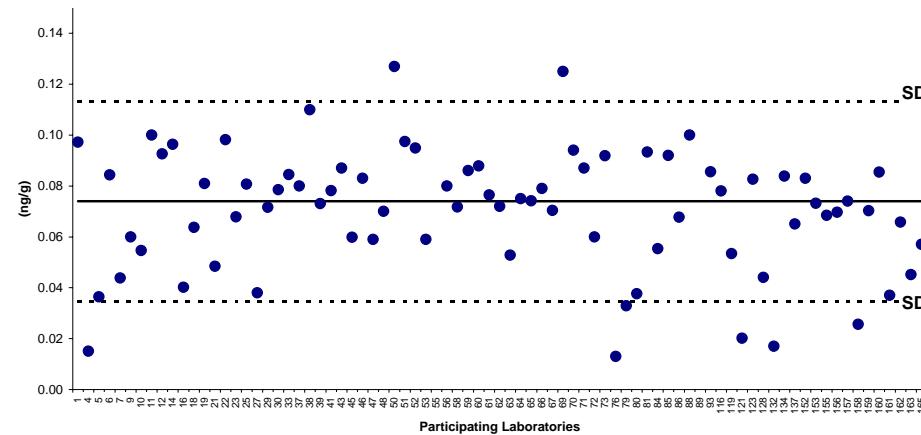
1,2,3,7,8-PeCDD Ash B



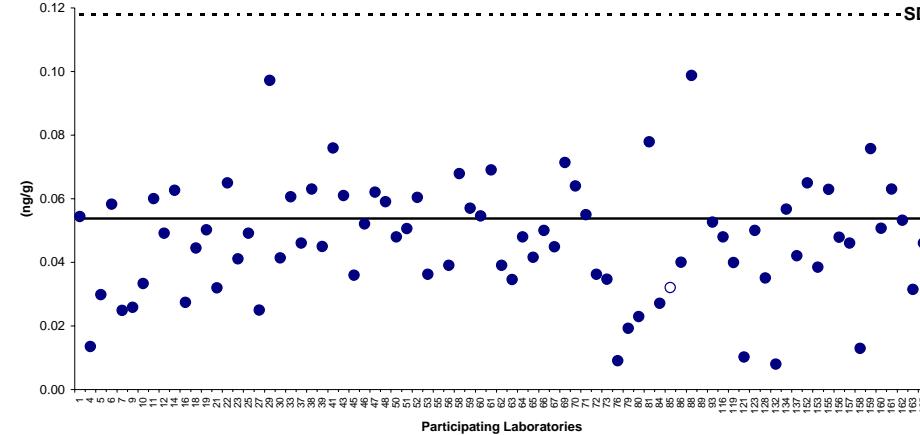
1,2,3,4,7,8-HxCDD Ash B



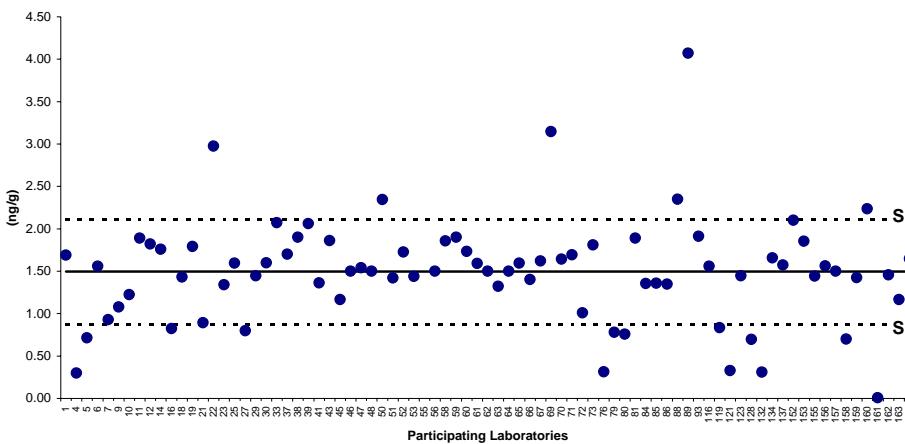
1,2,3,6,7,8-HxCDD Ash B



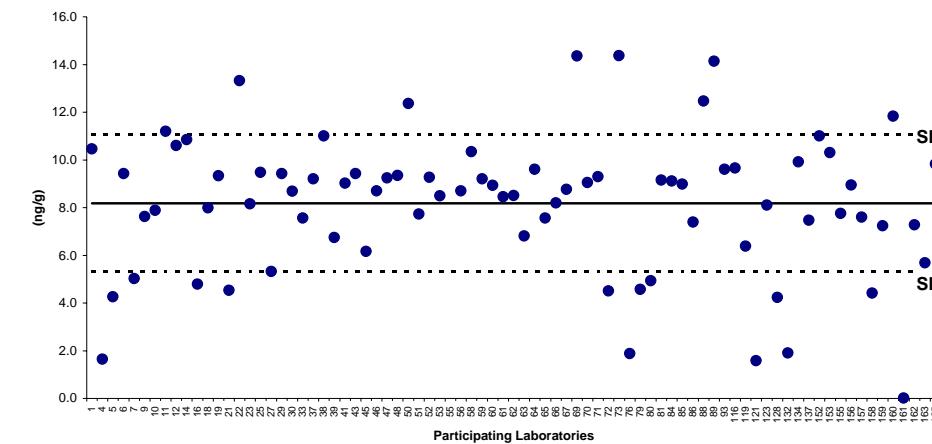
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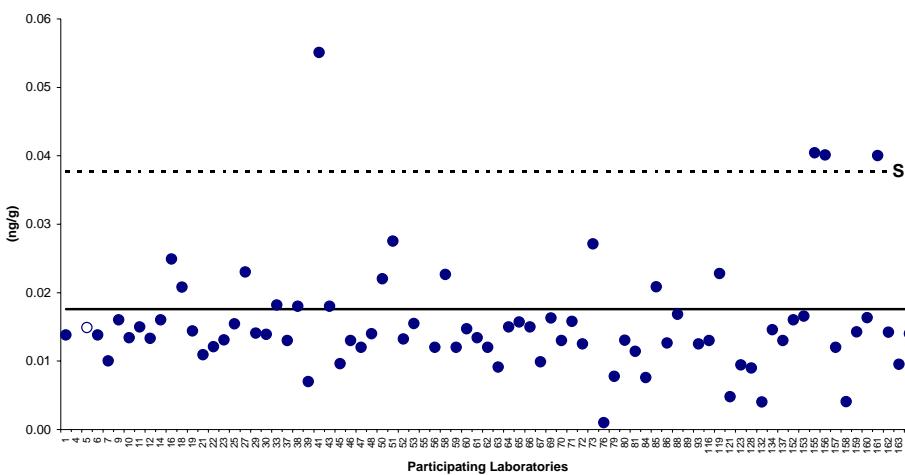
1,2,3,4,6,7,8-HpCDD Ash B



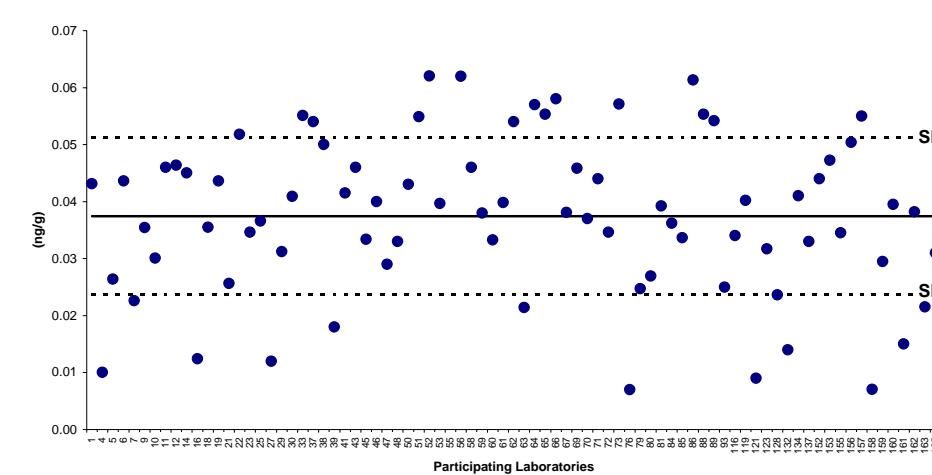
OCDD Ash B



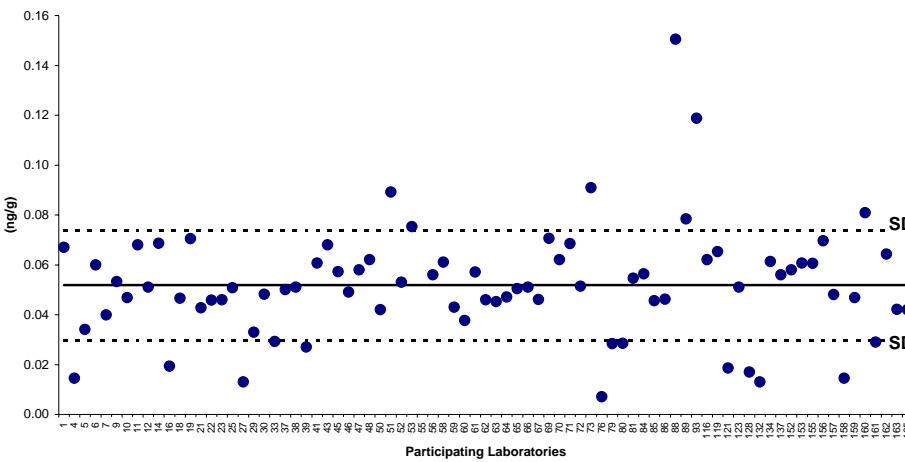
2,3,7,8-TeCDF Ash B



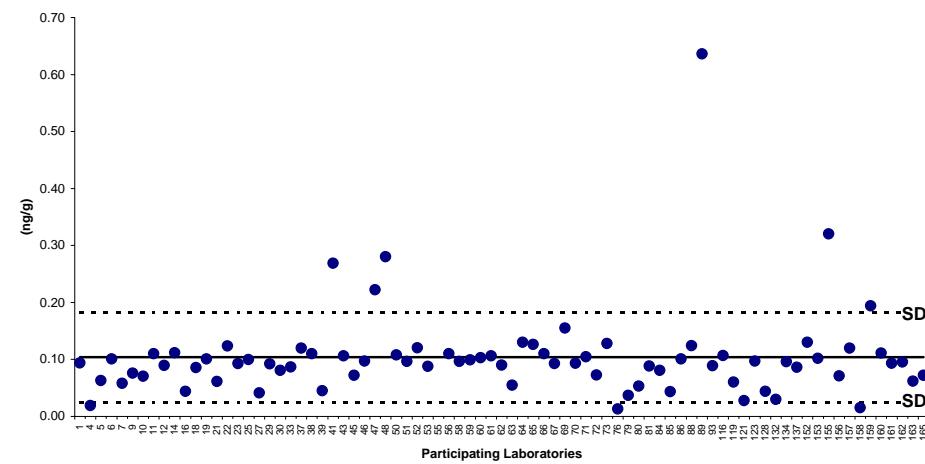
1,2,3,7,8-PeCDF Ash B



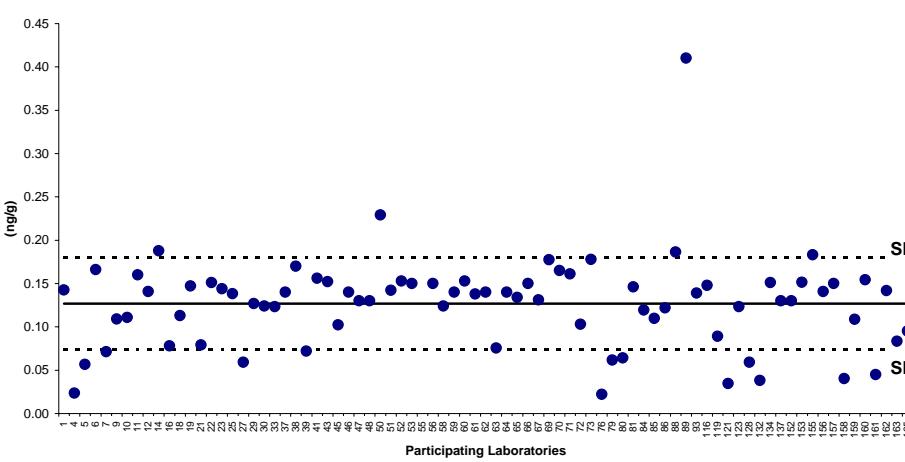
2,3,4,7,8-PeCDF Ash B



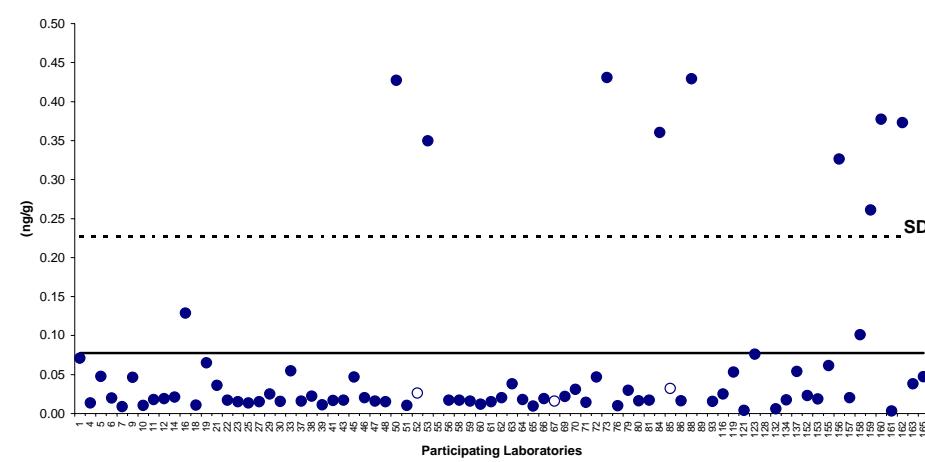
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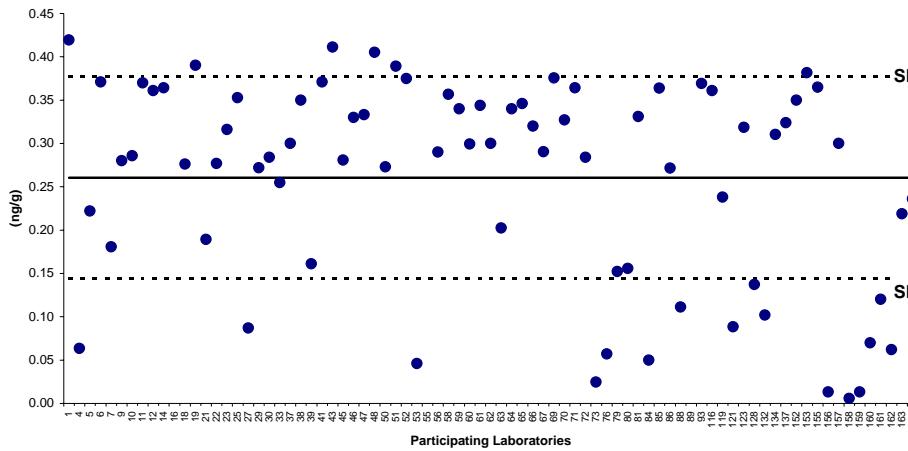
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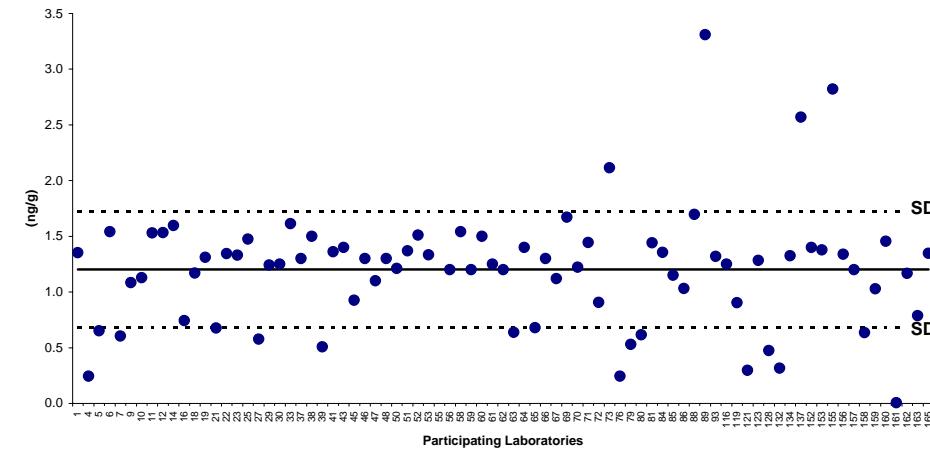
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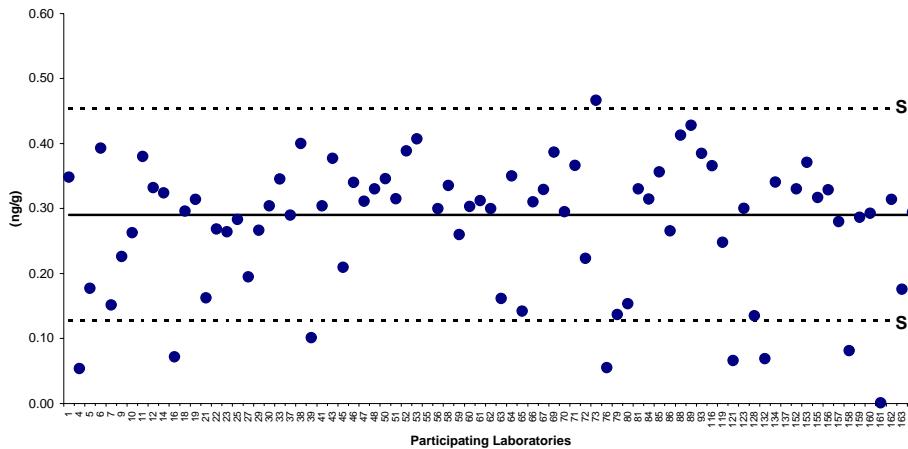
2,3,4,6,7,8-HxCDF Ash B



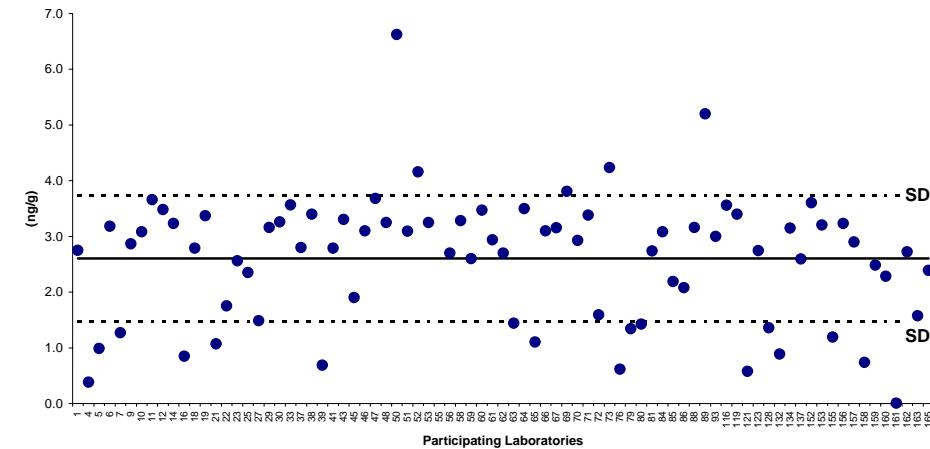
1,2,3,4,6,7,8-HpCDF Ash B



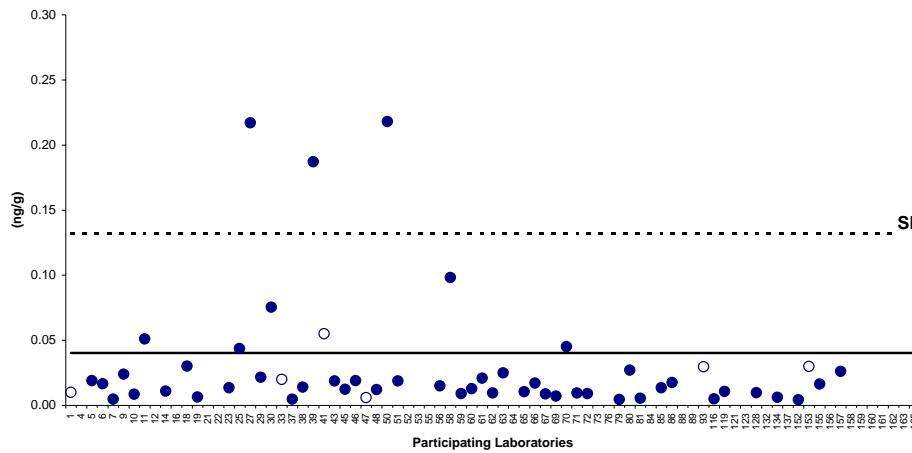
1,2,3,4,7,8,9-HpCDF Ash B



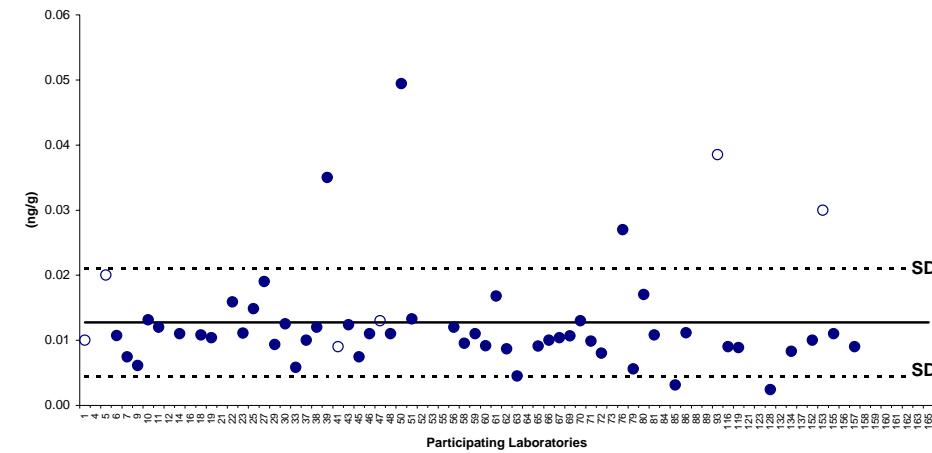
OCDF Ash A



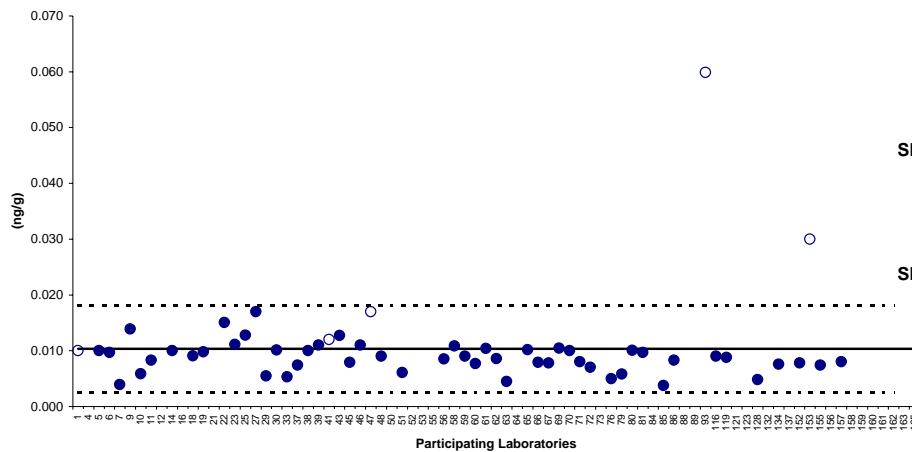
PCB #77 Ash B



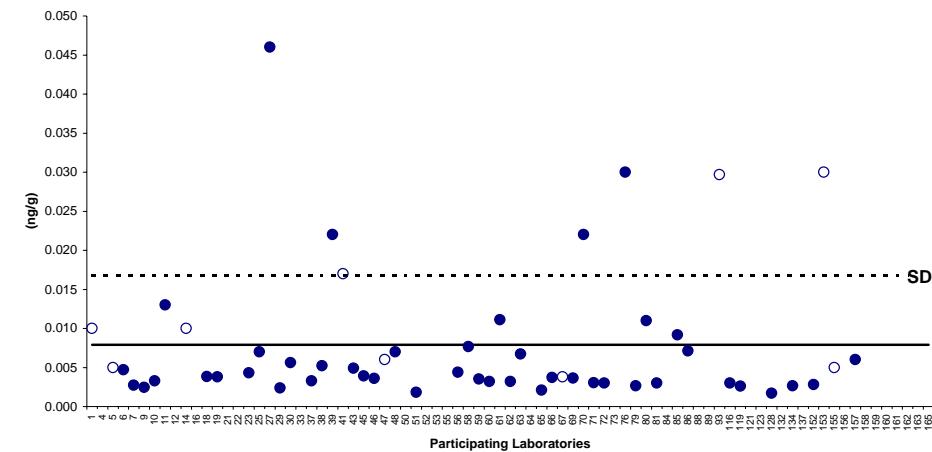
PCB #126 Ash B



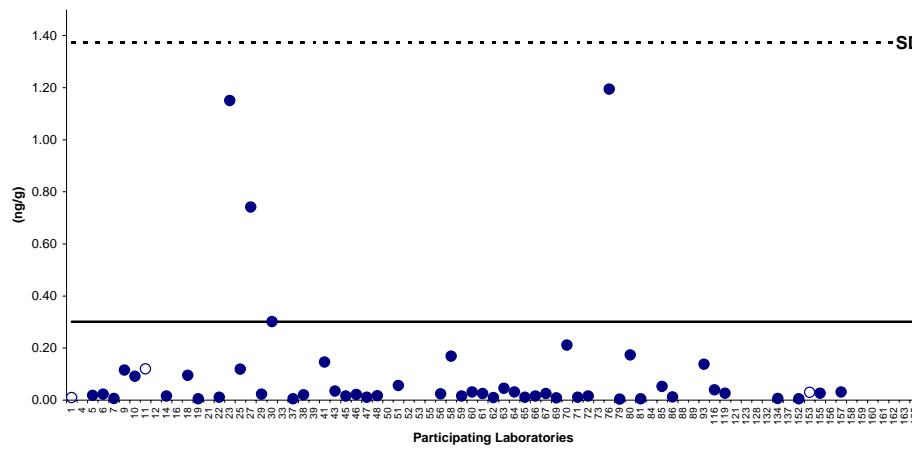
PCB #169 Ash B



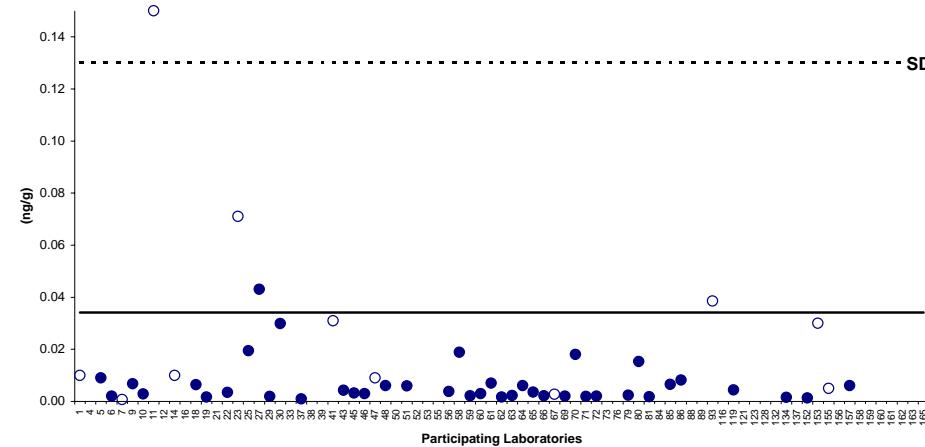
PCB #81 Ash B



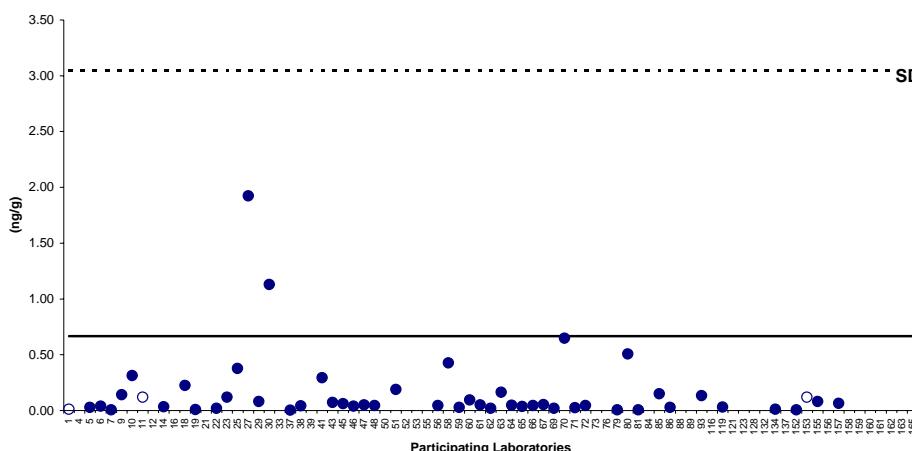
PCB #105 Ash B



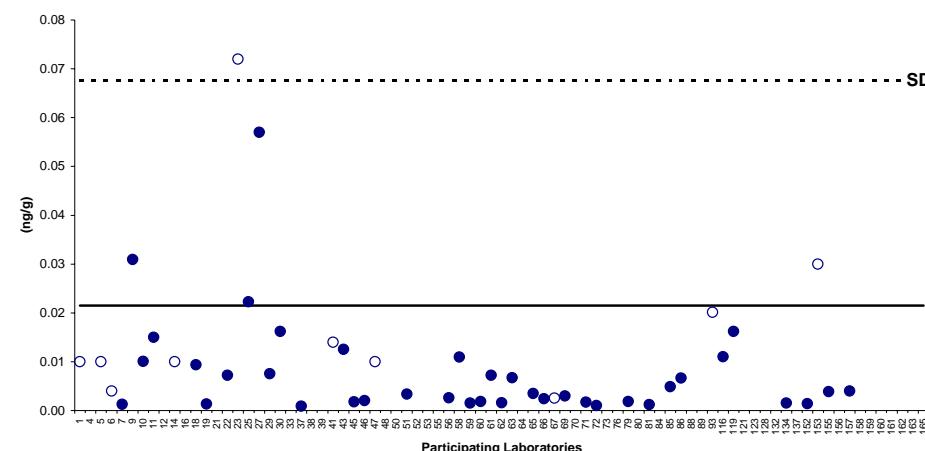
PCB #114 Ash B



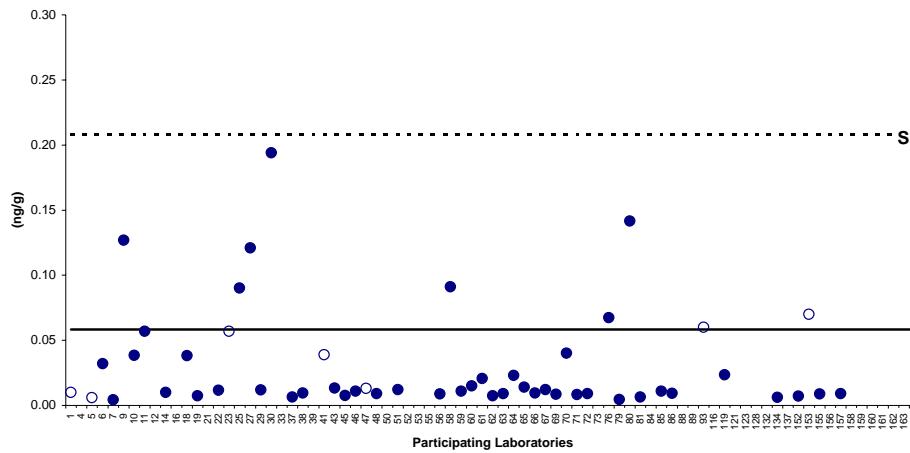
PCB #118 Ash B



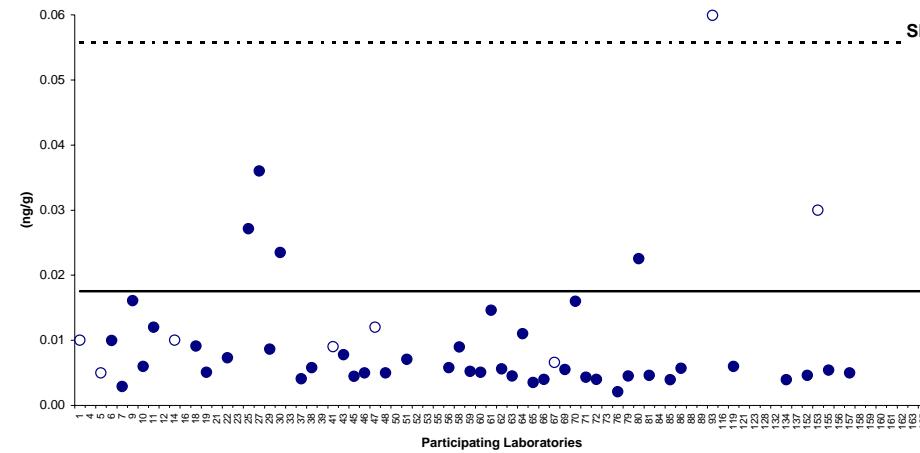
PCB #123 Ash B



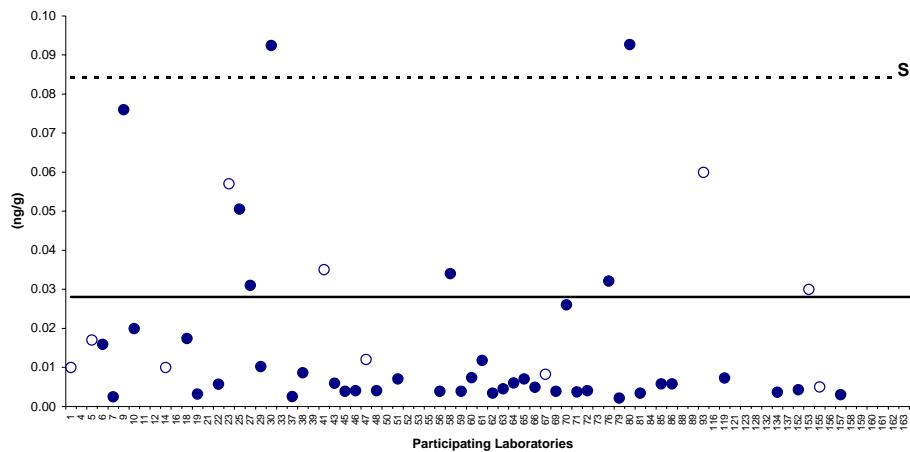
PCB #156 Ash B



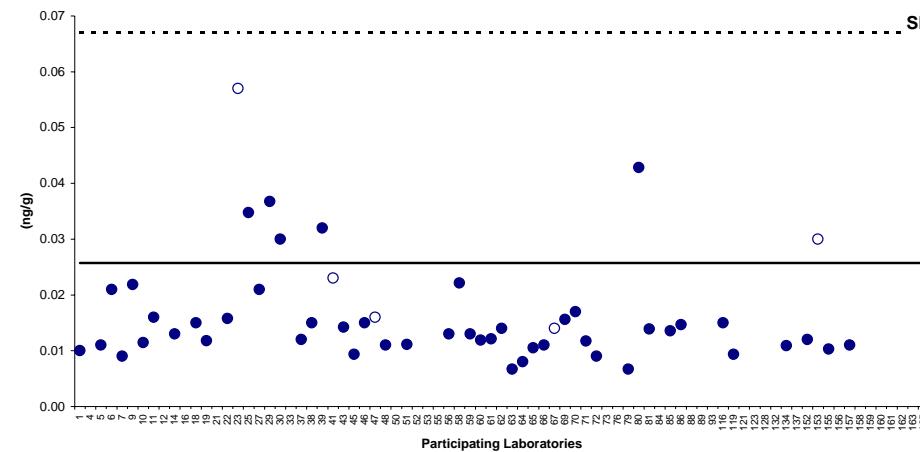
PCB #157 Ash B



PCB #167 Ash B



PCB #189 Ash B



Participant code:	1	4	5	6	7	9	10	11	12	14	16	18
Weight Analysed:												
2,3,7,8-TeCDD	10	10	< 9.0	5.6	< 2.3	5.2	6.7	< 7.5	NA	< 100	11	8
1,2,3,7,8-PeCDD	45	40	62	29	16	27	61	54	NA	< 100	53	49
1,2,3,4,7,8-HxCDD	80	90	< 9.6	48	85	36	85	93	NA	100	73	87
1,2,3,6,7,8-HxCDD	130	120	121	71	117	107	128	140	NA	154	128	127
1,2,3,7,8,9-HxCDD	115	140	117	63	128	38	125	120	NA	166	144	137
1,2,3,4,6,7,8-HpCDD	1300	1400	1350	746	1211	1050	1444	1400	NA	1380	1177	1350
OCDD	2380	2500	2930	1520	2178	3605	2953	3400	NA	2678	4586	2730
2,3,7,8-TeCDF	20	30	< 3.4	13	20	13	20	20	NA	< 100	66	68
1,2,3,7,8-PeCDF	45	50	37	31	51	42	47	53	NA	< 100	39	48
2,3,4,7,8-PeCDF	85	110	121	52	94	33	113	120	NA	132	86	89
1,2,3,4,7,8-HxCDF	105	120	140	67	155	105	137	130	NA	146	143	136
1,2,3,6,7,8-HxCDF	125	140	163	91	143	97	173	160	NA	196	145	146
1,2,3,7,8,9-HxCDF	190	90	82	12	16	15	12	16	NA	< 100	247	12
2,3,4,6,7,8-HxCDF	175	280	320	151	246	240	311	290	NA	292	81	258
1,2,3,4,6,7,8-HpCDF	830	960	946	520	785	910	1018	940	NA	967	790	926
1,2,3,4,7,8,9-HpCDF	150	150	176	93	142	102	171	180	NA	179	130	170
OCDF	635	620	728	427	703	969	924	1000	NA	848	1627	814
TEQ (PCDD/DF)	217	234	200	127	178	137	222	240	NA	287	233	226
PCB #77	158	NA	303	51	61	75	84	80	NA	NA	NA	262
PCB #126	< 100	NA	224	27	42	36	58	43	NA	NA	NA	48
PCB #169	< 100	NA	198	<2.45	32	18	28	28	NA	NA	NA	28
TEQ (including PCBs)	200	NA	220	130	183	141	228	250	NA	NA	NA	231
Other PCBs (Optional)												
PCB #81	< 100	NA	236	< 19.8	15	9	19	23	NA	NA	NA	20
PCB #105	217	NA	566	85	88	138	125	< 190	NA	NA	NA	548
PCB #114	< 100	NA	223	< 11.7	14	14	13	< 150	NA	NA	NA	34
PCB #118	247	NA	938	109	112	153	129	< 190	NA	NA	NA	2510
PCB #123	< 100	NA	118	< 11.5	9	7	10	< 150	NA	NA	NA	231
PCB #156	132	NA	308	58	59	69	80	<120	NA	NA	NA	628
PCB #157	< 100	NA	272	< 20.6	19	28	26	39	NA	NA	NA	83
PCB #167	< 100	NA	210	< 19.1	16	22	18	< 120	NA	NA	NA	251
PCB #189	< 100	NA	206	<27.2	37	24	43	49	NA	NA	NA	77
TEQ Total	200	NA	221	130	183	141	228	330	NA	NA	NA	232

Participant code:	19	21	22	23	25	27	29	30	33	37	38	39
Weight Analysed:												
2,3,7,8-TeCDD	ND	23	0	11	12	ND	9	9	5	9	12	10
1,2,3,7,8-PeCDD	46	52	57	53	60	56	43	49	32	50	48	55
1,2,3,4,7,8-HxCDD	86	95	87	78	83	127	76	84	42	76	86	92
1,2,3,6,7,8-HxCDD	121	160	124	131	123	96	115	130	52	130	140	135
1,2,3,7,8,9-HxCDD	120	145	121	123	134	250	106	119	61	120	130	140
1,2,3,4,6,7,8-HpCDD	1240	1368	1321	1310	1257	1500	1156	1370	625	1300	1300	1258
OCDD	2270	2614	2476	2570	2256	5590	2321	2180	842	2400	2800	2361
2,3,7,8-TeCDF	ND	52	23	25	23	153	23	19	12	18	31	23
1,2,3,7,8-PeCDF	59	73	85	47	58	29	46	49	68	68	61	51
2,3,4,7,8-PeCDF	138	137	82	103	84	96	96	90	17	90	93	120
1,2,3,4,7,8-HxCDF	152	172	150	134	144	131	119	100	51	140	130	121
1,2,3,6,7,8-HxCDF	155	206	159	172	161	129	140	125	55	150	170	154
1,2,3,7,8,9-HxCDF	90	87	25	5	24	44	76	18	29	17	32	34
2,3,4,6,7,8-HxCDF	300	361	249	307	302	269	273	228	96	250	290	303
1,2,3,4,6,7,8-HpCDF	797	1109	938	855	863	889	891	803	480	830	970	895
1,2,3,4,7,8,9-HpCDF	165	206	169	141	168	272	154	135	83	150	200	163
OCDF	925	706	791	881	668	2190	615	799	427	780	940	697
TEQ (PCDD/DF)	151	300	221	239	239	253	217	211	123	220	220	251
					0							
PCB #77	88	NA	124	6080	88	327	63	106	< 20	70	160	NA
PCB #126	54	NA	NA	93	44	64	39	51	13	47	52	NA
PCB #169	69	NA	21	28	27	71	20	33	9	25	32	NA
TEQ (including PCBs)	157	NA	221	249	162	260	221	216	125	230	220	NA
Other PCBs (Optional)												
PCB #81	25	NA	16	134	21	38	12	24	NA	22	42	NA
PCB #105	148	NA	187	777	30333	320	145	175	NA	120	370	NA
PCB #114	ND	NA	16	50	5498	24	24	20	NA	18	ND	NA
PCB #118	228	NA	452	765	58592	382	297	333	NA	120	670	NA
PCB #123	ND	NA	125	9	4052	16	42	19	NA	12	ND	NA
PCB #156	98	NA	203	162	23006	107	78	131	NA	70	120	NA
PCB #157	32	NA	ND	39	5930	33	20	29	NA	25	32	NA
PCB #167	40	NA	75	41	8140	29	23	50	NA	19	83	NA
PCB #189	43	NA	61	56	8676	38	21	53	NA	35	61	NA
TEQ Total	309	NA	221	249	271	266	221	217	NA	230	220	NA

Participant code:	41	43	45	46	47	48	50	51	52	53	55	56
Weight Analysed:												
2,3,7,8-TeCDD	NA	20	17	12	< 120	4	N.D.	9	NA	14	BA	< 4.0
1,2,3,7,8-PeCDD	NA	105	75	57	60	18	44	50	NA	55	BA	53
1,2,3,4,7,8-HxCDD	NA	72	108	94	110	36	67	82	NA	121	BA	92
1,2,3,6,7,8-HxCDD	NA	119	136	150	126	58	106	139	NA	123	BA	140
1,2,3,7,8,9-HxCDD	NA	142	139	130	210	72	94	122	NA	129	BA	130
1,2,3,4,6,7,8-HpCDD	NA	1185	1400	1400	1450	620	1147	1320	NA	1543	BA	1300
OCDD	NA	2427	2879	3300	2960	1300	2096	2490	NA	3078	BA	2500
2,3,7,8-TeCDF	NA	32	23	26	22	8	51	24	NA	38	BA	23
1,2,3,7,8-PeCDF	NA	53	76	50	43	18	45	57	NA	35	BA	91
2,3,4,7,8-PeCDF	NA	96	138	88	133	47	77	112	NA	145	BA	100
1,2,3,4,7,8-HxCDF	NA	135	148	120	338	160	89	115	NA	161	BA	160
1,2,3,6,7,8-HxCDF	NA	152	175	150	179	67	163	154	NA	191	BA	180
1,2,3,7,8,9-HxCDF	NA	34	111	24	< 150	8	294	15	NA	353	BA	34
2,3,4,6,7,8-HxCDF	NA	339	359	250	343	150	84	283	NA	66	BA	290
1,2,3,4,6,7,8-HpCDF	NA	928	912	900	899	420	548	959	NA	1072	BA	930
1,2,3,4,7,8,9-HpCDF	NA	179	175	170	138	74	124	171	NA	137	BA	160
OCDF	NA	850	954	940	1060	390	1846	906	NA	973	BA	780
TEQ (PCDD/DF)	NA	301	310	240	300	114	199	236	NA	289	850	240
PCB #77	NA	8.5	77	110	< 400	26	50	78	NA	NA	BA	74
PCB #126	NA	4.1	50	50	< 700	18	50	48	NA	NA	BA	43
PCB #169	NA	4.2	34	ND	< 900	14	20	23	NA	NA	BA	30
TEQ (including PCBs)	NA	302	315	250	400	114	204	241	NA	NA	853	245
Other PCBs (Optional)												
PCB #81	NA	ND	22	28	< 400	7	35	18	NA	NA	BA	21
PCB #105	NA	33	134	170	< 600	49	350	124	NA	NA	BA	140
PCB #114	NA	5	19	20	< 500	10	40	18	NA	NA	BA	19
PCB #118	NA	64	454	240	< 500	57	770	167	NA	NA	BA	140
PCB #123	NA	10	18	ND	< 500	ND	40	12	NA	NA	BA	14
PCB #156	NA	8	83	100	< 600	31	175	71	NA	NA	BA	75
PCB #157	NA	6	30	30	< 600	12	45	22	NA	NA	BA	25
PCB #167	NA	6	24	30	< 600	7	45	24	NA	NA	BA	19
PCB #189	NA	7	36	46	< 800	14	75	33	NA	NA	BA	35
TEQ Total	NA	302	315	240	400	114	204	241	NA	NA	853	240

Participant code:	58	59	60	61	62	63	64	65	66	67	69	70
Weight Analysed:												
2,3,7,8-TeCDD	7	10	12	6	10	NA	< 30	10	10	10	11	18
1,2,3,7,8-PeCDD	32	58	58	48	49	51	95	50	48	55	60	58
1,2,3,4,7,8-HxCDD	98	100	62	85	69	105	120	110	87	90	93	98
1,2,3,6,7,8-HxCDD	126	160	138	126	120	180	210	130	130	50	150	156
1,2,3,7,8,9-HxCDD	171	140	121	113	100	174	190	130	120	300	143	121
1,2,3,4,6,7,8-HpCDD	1529	1600	1297	1250	1200	1663	1900	1580	1300	1350	1383	1380
OCDD	3491	3400	2314	2400	2400	3125	3600	2680	2300	2400	2468	2270
2,3,7,8-TeCDF	4	25	24	21	17	26	42	30	21	20	26	23
1,2,3,7,8-PeCDF	63	53	44	45	67	56	110	70	76	45	55	47
2,3,4,7,8-PeCDF	58	91	112	77	82	173	130	110	88	70	113	116
1,2,3,4,7,8-HxCDF	106	150	163	299	120	173	220	190	140	100	172	136
1,2,3,6,7,8-HxCDF	176	170	165	157	160	211	220	180	150	100	169	170
1,2,3,7,8,9-HxCDF	31	24	38	20	20	121	< 20	30	18	< 30	23	78
2,3,4,6,7,8-HxCDF	350	350	251	292	260	451	390	370	260	250	276	313
1,2,3,4,6,7,8-HpCDF	1098	1000	920	893	850	1135	1300	1300	890	750	924	944
1,2,3,4,7,8,9-HpCDF	155	180	148	170	150	211	230	210	150	200	175	166
OCDF	967	1100	823	759	770	1038	1200	900	790	900	898	807
TEQ (PCDD/DF)	206	260	249	229	212	293	340	267	222	220	234	271
PCB #77	92	94	111	71	71	138	NA	100	86	80	72	75
PCB #126	53	57	47	40	47	63	NA	50	49	50	45	53
PCB #169	36	35	27	28	26	38	NA	50	28	< 40	29	47
TEQ (including PCBs)	211	266	254	233	217	299	NA	272	227	220	238	277
Other PCBs (Optional)												
PCB #81	31	25	21	17	18	25	NA	10	26	< 20	21	24
PCB #105	188	160	163	122	140	275	NA	80	130	120	121	132
PCB #114	17	19	18	15	18	25	NA	20	18	< 20	17	21
PCB #118	202	190	290	168	160	638	NA	220	170	< 130	139	143
PCB #123	14	17	11	13	12	25	NA	10	13	< 10	19	15
PCB #156	113	100	96	80	76	125	NA	120	77	90	77	89
PCB #157	28	32	27	21	28	38	NA	10	24	< 30	27	38
PCB #167	24	26	29	22	20	38	NA	10	20	< 20	20	34
PCB #189	24	42	35	29	37	50	NA	10	35	< 40	39	37
TEQ Total	211	266	254	233	220	299	NA	272	227	220	238	277

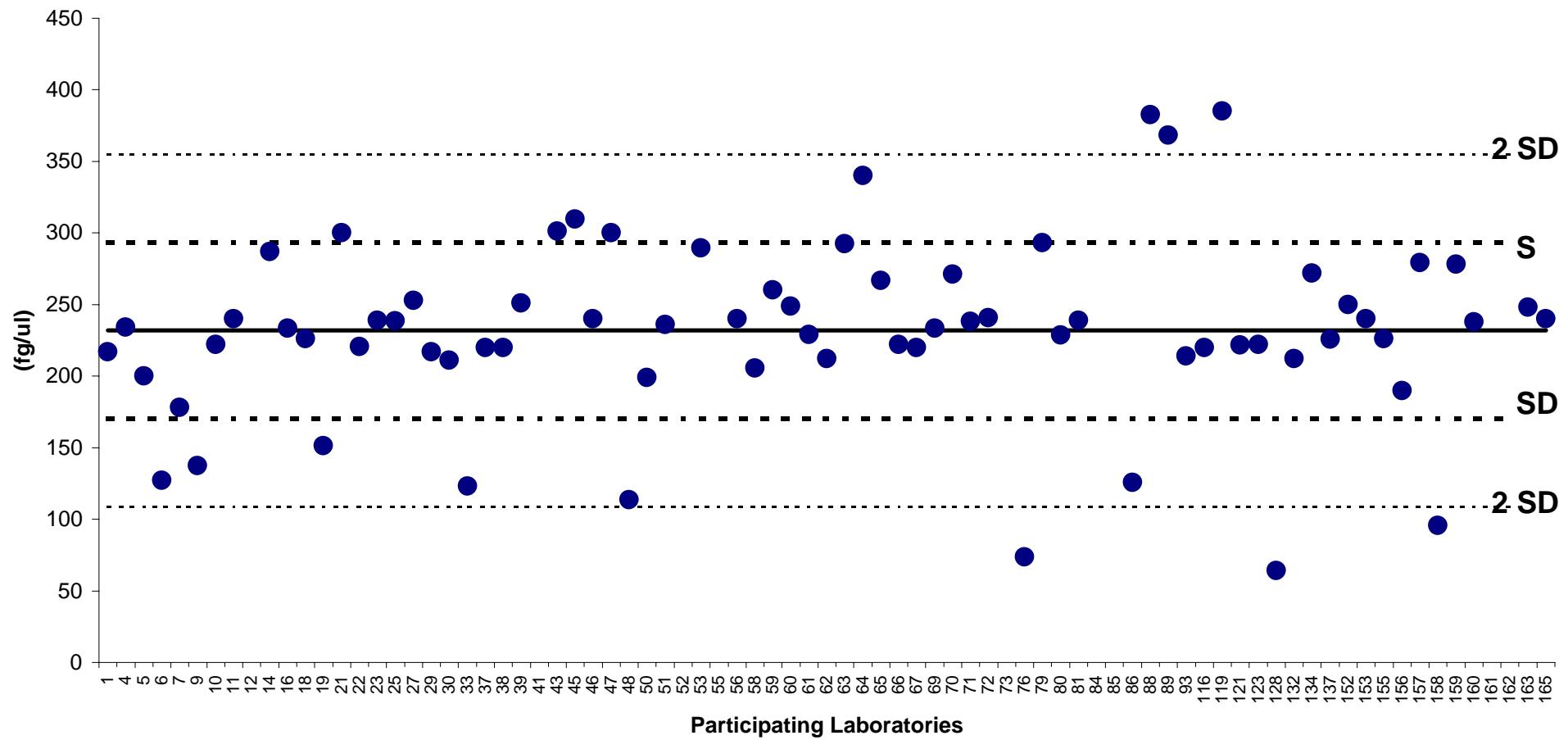
Participant code:	71	72	73	76	79	80	81	84	85	86	88	89
Weight Analysed:												
2,3,7,8-TeCDD	9	7.0	NA	ND	20	9.0	14	0.50	< 16	4.0	10	1.0
1,2,3,7,8-PeCDD	53	44	NA	150	72	43	48	4.20	< 32	27	68	193
1,2,3,4,7,8-HxCDD	78	83	NA	120	106	74	75	3.60	< 32	38	97	20
1,2,3,6,7,8-HxCDD	137	119	NA	170	174	124	136	6.80	< 32	74	165	7
1,2,3,7,8,9-HxCDD	128	124	NA	130	142	118	171	7.00	< 32	65	177	19
1,2,3,4,6,7,8-HpCDD	1378	1349	NA	2180	1100	1370	1380	80.30	< 32	698	1924	240
OCDD	2577	2757	NA	4830	2370	2658	2350	138.00	135	1308	3314	319
2,3,7,8-TeCDF	20	27	NA	ND	33	25	20	0.50	<16	20	22	1
1,2,3,7,8-PeCDF	47	52	NA	40	84	52	51	1.80	< 32	64	67	19
2,3,4,7,8-PeCDF	109	116	NA	50	114	101	100	9.70	< 32	54	266	260
1,2,3,4,7,8-HxCDF	123	130	NA	80	126	104	134	7.00	< 32	79	167	101
1,2,3,6,7,8-HxCDF	156	165	NA	90	173	158	158	7.60	< 32	93	211	89
1,2,3,7,8,9-HxCDF	13	310	NA	170	113	67	22	5.00	< 32	11	380	95
2,3,4,6,7,8-HxCDF	290	81	NA	40	315	312	277	17.60	< 32	141	119	45
1,2,3,4,6,7,8-HpCDF	956	971	NA	720	856	974	933	48.70	< 32	453	1190	269
1,2,3,4,7,8,9-HpCDF	176	165	NA	150	192	151	169	7.40	< 32	73	225	43
OCDF	915	930	NA	1240	781	613	810	41.70	42	279	1145	97
TEQ (PCDD/DF)	238	241	NA	74	293	229	239	16.53	NA	126	383	368
	0											
PCB #77	67	65	NA	1660	114	73	70	NA	5.46	108	NA	NA
PCB #126	42	39	NA	150	69	51	48	NA	0.33	45	NA	NA
PCB #169	24	30	NA	90	52	28	31	NA	0.42	24	NA	NA
TEQ (including PCBs)	243	245	NA	90	301	234	244	NA	NA	130	NA	NA
Other PCBs (Optional)												
PCB #81	16	16	NA	270	35	21	22	NA	2.86	26	NA	NA
PCB #105	121	116	NA	2100	218	142	133	NA	3.53	128	NA	NA
PCB #114	15	15	NA	ND	33	17	17	NA	0.85	19	NA	NA
PCB #118	149	115	NA	6950	275	156	136	NA	6.77	249	NA	NA
PCB #123	12	9.2	NA	220	24	20	15	NA	0.57	50	NA	NA
PCB #156	72	60	NA	460	212	78	80	NA	1.44	58	NA	NA
PCB #157	24	23	NA	N.D.	64	29	26	NA	0.52	12	NA	NA
PCB #167	20	15	NA	120	71	14	25	NA	0.46	18	NA	NA
PCB #189	33	37	NA	260	87	37	40	NA	0.97	30	NA	NA
TEQ Total	243	245	NA	91	301	234	244	NA	NA	131	NA	NA

Participant code:	93	116	119	121	123	128	132	134	137	152	153	155
Weight Analysed:												
2,3,7,8-TeCDD	8	9	13	10	9	ND	9	13	10	14	11	3
1,2,3,7,8-PeCDD	44	55	80	56	44	ND	49	67	28	50	53	40
1,2,3,4,7,8-HxCDD	75	91	103	79	76	ND	114	95	113	78	81	88
1,2,3,6,7,8-HxCDD	115	131	190	117	124	ND	121	140	120	120	123	126
1,2,3,7,8,9-HxCDD	100	123	226	107	107	ND	105	137	103	130	134	213
1,2,3,4,6,7,8-HpCDD	1140	1170	1450	1166	1227	1200	1197	1369	1244	1500	1440	1360
OCDD	2080	2200	3470	2184	2341	2000	2474	2571	2283	2700	2620	2700
2,3,7,8-TeCDF	18	19	68	21	15	ND	20	22	34	23	22	20
1,2,3,7,8-PeCDF	42	44	93	38	43	ND	65	57	33	49	50	67
2,3,4,7,8-PeCDF	96	116	236	99	101	ND	74	128	117	110	112	85
1,2,3,4,7,8-HxCDF	129	146	178	116	115	ND	143	128	93	180	122	323
1,2,3,6,7,8-HxCDF	162	131	179	132	136	130	150	183	142	160	162	157
1,2,3,7,8,9-HxCDF	18	18	111	18	91	ND	26	22	45	18	21	15
2,3,4,6,7,8-HxCDF	272	280	365	235	270	290	247	280	392	310	297	201
1,2,3,4,6,7,8-HpCDF	980	763	1090	824	878	830	740	959	834	940	899	773
1,2,3,4,7,8,9-HpCDF	198	160	220	151	171	170	145	192	187	160	152	154
OCDF	739	777	1220	767	866	950	985	828	683	920	800	897
TEQ (PCDD/DF)	214	220	385	222	222	64	212	272	226	250	240	226
PCB #77	< 0.13	70	NA	NA	NA	120	NA	74	NA	88	87	65
PCB #126	< 0.31	40	NA	NA	NA	80	NA	49	NA	65	47	89
PCB #169	< 0.30	30	NA	NA	NA	70	NA	29	NA	32	35	< 25
TEQ (including PCBs)	214	220	NA	NA	NA	73	NA	277	NA	260	245	235
Other PCBs (Optional)												
PCB #81	< 0.13	ND	NA	NA	NA	30	NA	19	NA	21	< 200	< 25
PCB #105	< 0.31	ND	NA	NA	NA	NA	NA	141	NA	140	< 200	241
PCB #114	< 0.31	ND	NA	NA	NA	NA	NA	15	NA	17	< 200	40
PCB #118	< 0.083	ND	NA	NA	NA	NA	NA	142	NA	140	< 200	203
PCB #123	< 0.083	ND	NA	NA	NA	NA	NA	12	NA	17	< 200	< 25
PCB #156	< 0.30	ND	NA	NA	NA	NA	NA	85	NA	81	< 200	68
PCB #157	< 0.30	ND	NA	NA	NA	NA	NA	27	NA	30	< 200	< 5
PCB #167	< 0.30	ND	NA	NA	NA	NA	NA	23	NA	22	< 200	< 25
PCB #189	< 0.15	ND	NA	NA	NA	NA	NA	38	NA	40	< 200	23
TEQ Total	214	220	NA	NA	NA	73	NA	277	NA	260	245	235

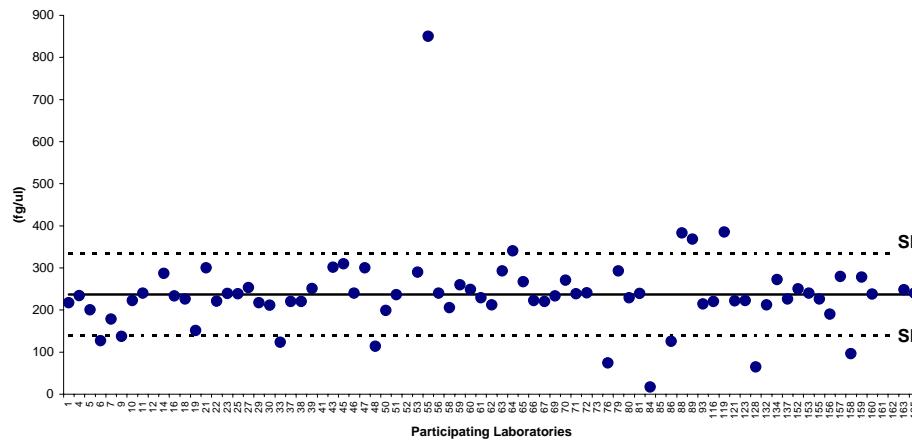
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	9.5	10.0	0.00	23	5	48%
1,2,3,7,8-PeCDD	53	50	0.70	193	27	51%
1,2,3,4,7,8-HxCDD	83	86	0.90	127	26	31%
1,2,3,6,7,8-HxCDD	122	126	0.10	210	38	31%
1,2,3,7,8,9-HxCDD	128	128	0.30	300	51	40%
1,2,3,4,6,7,8-HpCDD	1263	1315	1.40	2180	351	28%
OCDD	2496	2474	2.20	5590	921	37%
2,3,7,8-TeCDF	29	23	0.50	153	25	88%
1,2,3,7,8-PeCDF	52	50	0.50	110	19	36%
2,3,4,7,8-PeCDF	103	101	1.20	266	44	43%
1,2,3,4,7,8-HxCDF	136	134	3.30	338	54	40%
1,2,3,6,7,8-HxCDF	149	158	1.70	220	41	27%
1,2,3,7,8,9-HxCDF	74	30	0.30	380	90	122%
2,3,4,6,7,8-HxCDF	249	279	3.20	451	107	43%
1,2,3,4,6,7,8-HpCDF	862	899	9.50	1441	242	28%
1,2,3,4,7,8,9-HpCDF	159	165	1.70	272	48	30%
OCDF	838	823	7.00	2190	357	43%
TEQ (PCDD/DF)	237	234	16.53	850	98	41%
PCB #77	247	80	5.46	6080	872	354%
PCB #126	54	49	0.33	224	33	62%
PCB #169	36	29	0.42	198	30	82%
TEQ (including PCBs)	237	233	73.01	853	104	44%
Other PCBs (Optional)						
PCB #81	35	22	2.86	270	52	149%
PCB #105	883	140	3.53	30333	4450	504%
PCB #114	162	18	0.85	5498	866	535%
PCB #118	1754	190	6.77	58592	8731	498%
PCB #123	142	15	0.57	4052	663	465%
PCB #156	614	84	1.44	23006	3377	550%
PCB #157	179	28	0.52	5930	922	516%
PCB #167	232	23	0.46	8140	1251	538%
PCB #189	244	38	0.97	8676	1302	533%
TEQ Total	246	237	73.01	853	104	42%

TEQ results 55, 84, 85 and 161 outliers						
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	9.8	10.0	0.00	23	4	43%
1,2,3,7,8-PeCDD	54	51	14.70	193	26	47%
1,2,3,4,7,8-HxCDD	85	86	20.40	127	22	26%
1,2,3,6,7,8-HxCDD	126	126	6.80	210	33	26%
1,2,3,7,8,9-HxCDD	132	129	19.40	300	47	35%
1,2,3,4,6,7,8-HpCDD	1297	1320	240.00	2180	289	22%
OCDD	2596	2483	319.00	5590	794	31%
2,3,7,8-TeCDF	29	23	1.00	153	25	87%
1,2,3,7,8-PeCDF	54	51	18.00	110	17	31%
2,3,4,7,8-PeCDF	106	101	17.10	266	42	40%
1,2,3,4,7,8-HxCDF	140	135	32.49	338	50	36%
1,2,3,6,7,8-HxCDF	153	159	54.60	220	33	22%
1,2,3,7,8,9-HxCDF	76	31	5.00	380	90	119%
2,3,4,6,7,8-HxCDF	255	280	15.00	451	100	39%
1,2,3,4,6,7,8-HpCDF	885	900	269.00	1441	201	23%
1,2,3,4,7,8,9-HpCDF	163	166	42.90	272	41	25%
OCDF	872	838	97.30	2190	322	37%
TEQ (PCDD/DF)	232	234	64.30	385	61	27%
PCB #77	252	80	8.50	6080	881	350%
PCB #126	55	49	4.10	224	33	60%
PCB #169	37	29	4.20	198	29	80%
TEQ (including PCBs)	226	232	73.01	400	59	26%
Other PCBs (Optional)						
PCB #81	36	22	7.00	270	53	146%
PCB #105	902	141	33.30	30333	4498	499%
PCB #114	166	18	4.60	5498	877	528%
PCB #118	1794	196	57.00	58592	8827	492%
PCB #123	146	15	7.06	4052	672	459%
PCB #156	628	85	7.90	23006	3414	544%
PCB #157	183	28	5.90	5930	933	509%
PCB #167	238	24	5.60	8140	1266	532%
PCB #189	250	38	6.50	8676	1316	527%
TEQ Total	234	235	73.01	400	59	25%

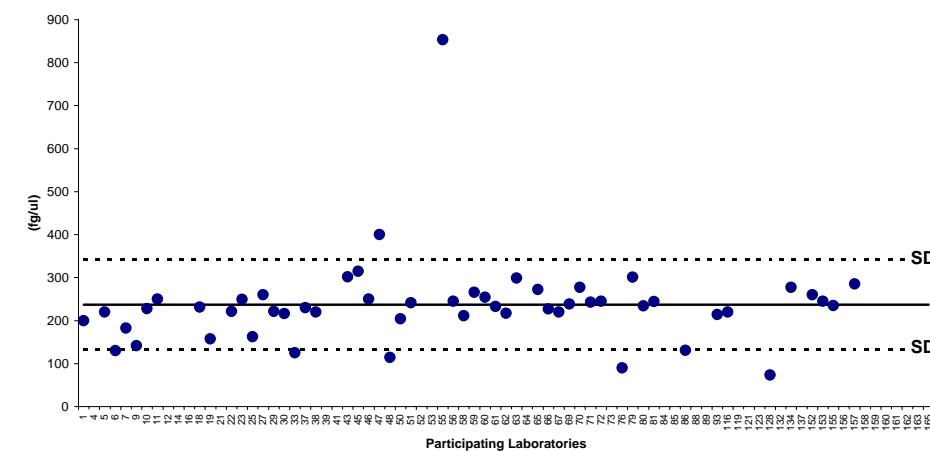
TEQ Extract C (RSD 27 %, n = 72)



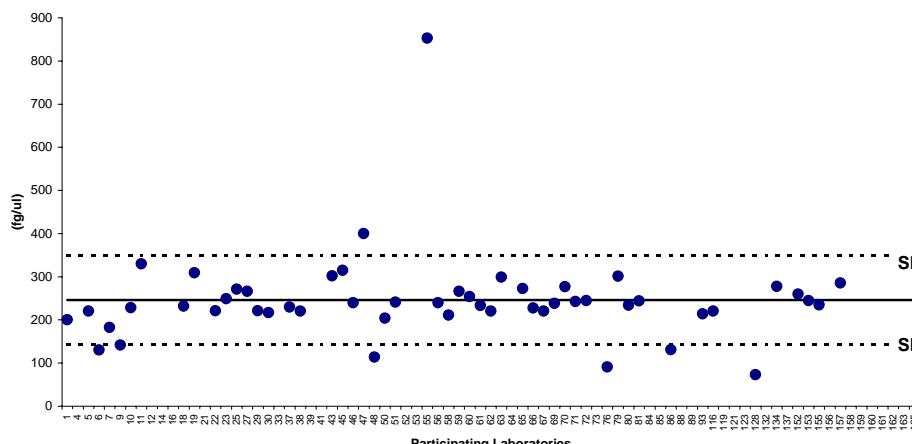
PCDD/DF TEQ Extract C (RSD 41%, n = 74)



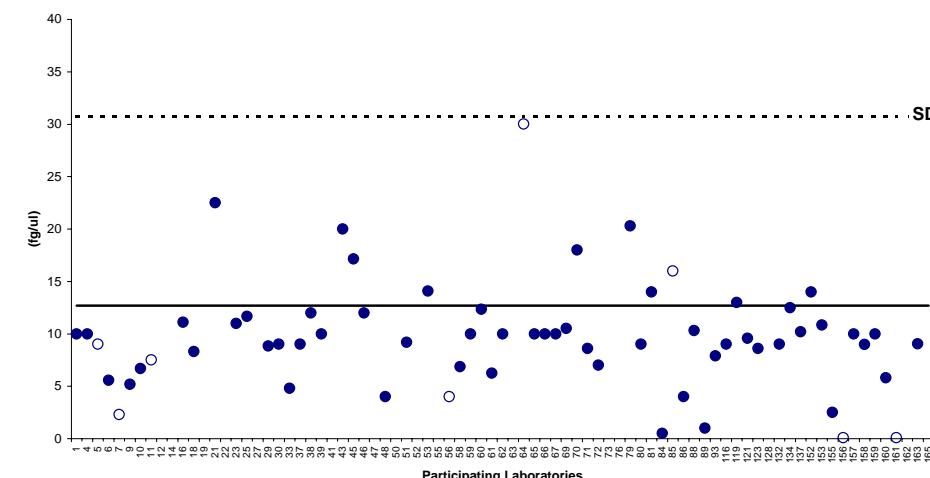
TEQ (including planar PCBs) Extract C



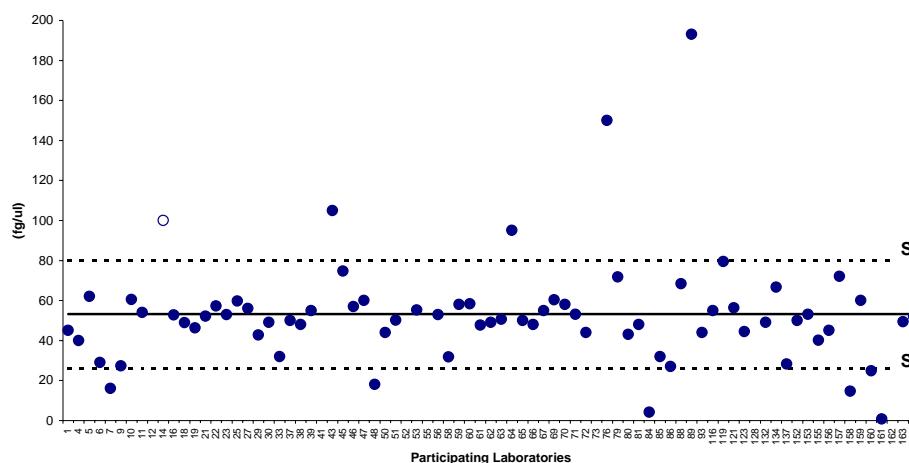
WHO TEQ Extract C



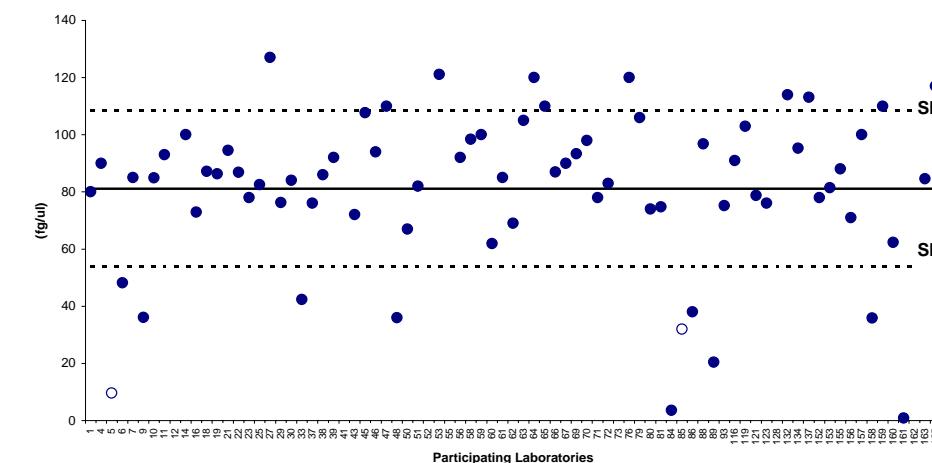
2,3,7,8-TeCDD Extract C



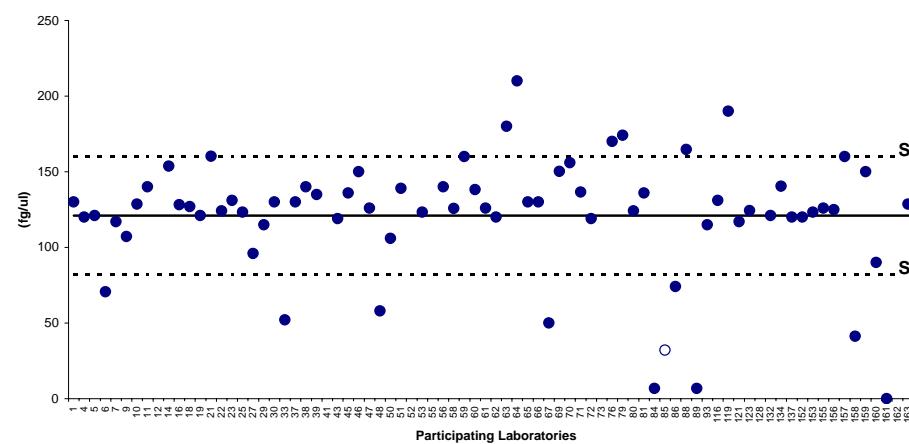
1,2,3,7,8-PeCDD Extract C



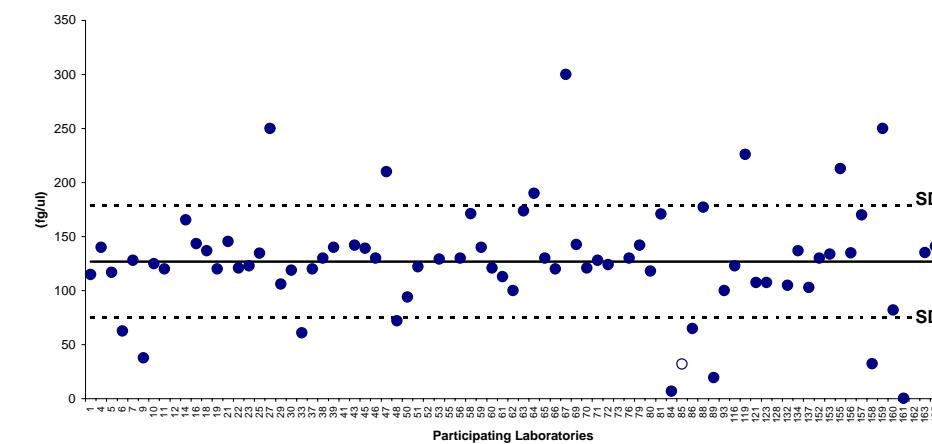
1,2,3,4,7,8-HxCDD Extract C



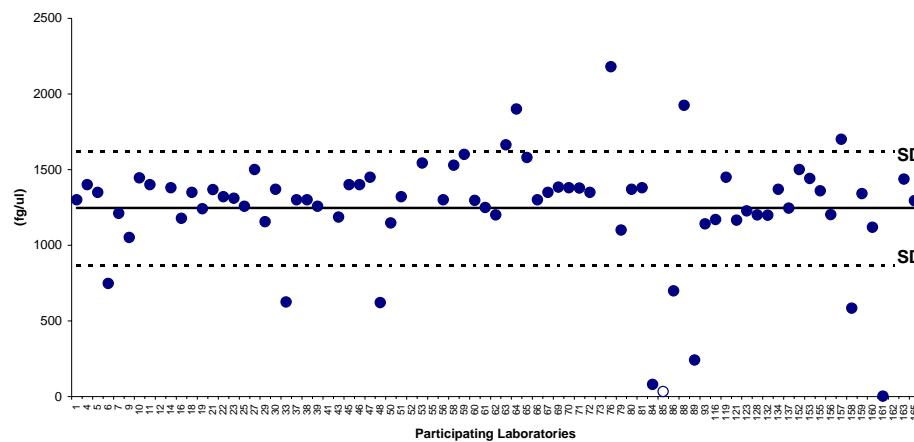
1,2,3,6,7,8-HxCDD Extract C



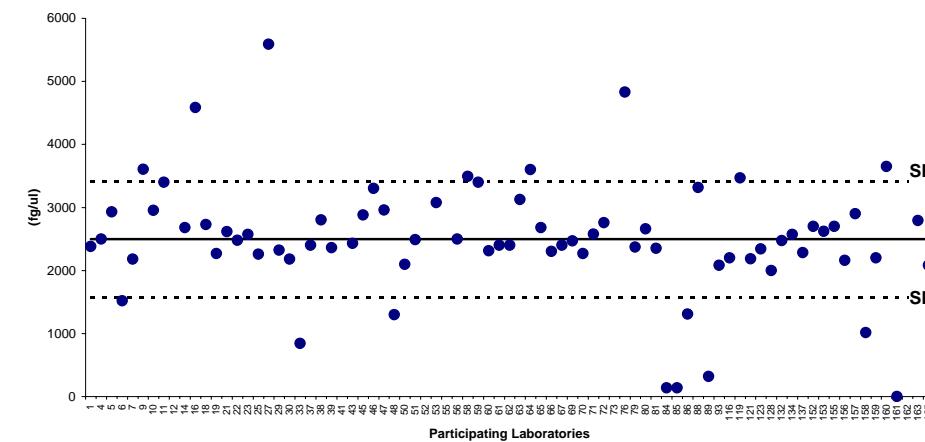
1,2,3,7,8,9-HxCDD Extract C



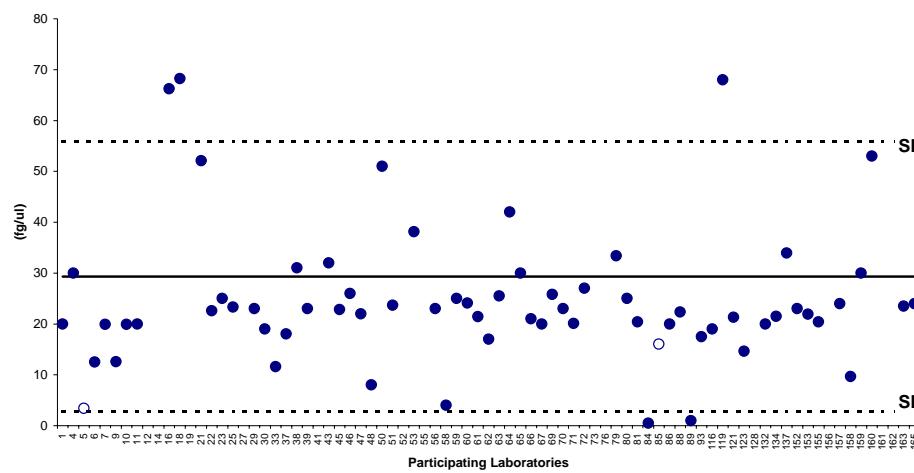
1,2,3,4,6,7,8-HpCDD Extract C



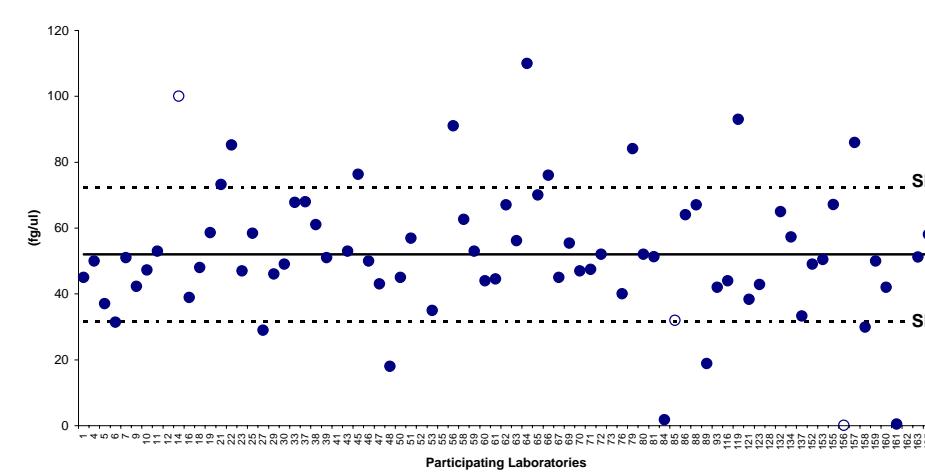
OCDD Extract C



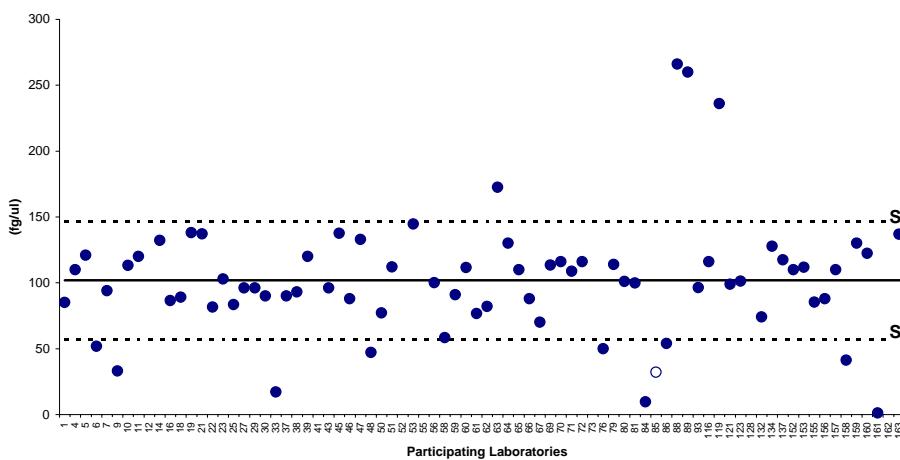
2,3,7,8-TeCDF Extract C



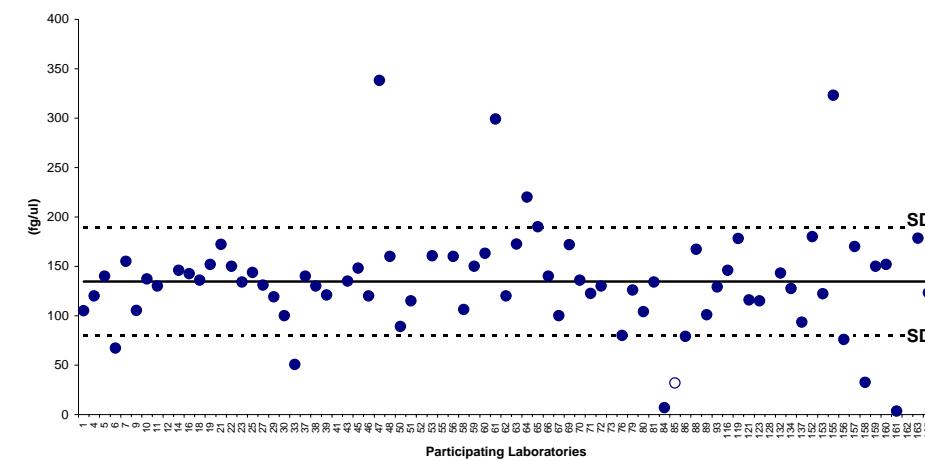
1,2,3,7,8-PeCDF Extract C



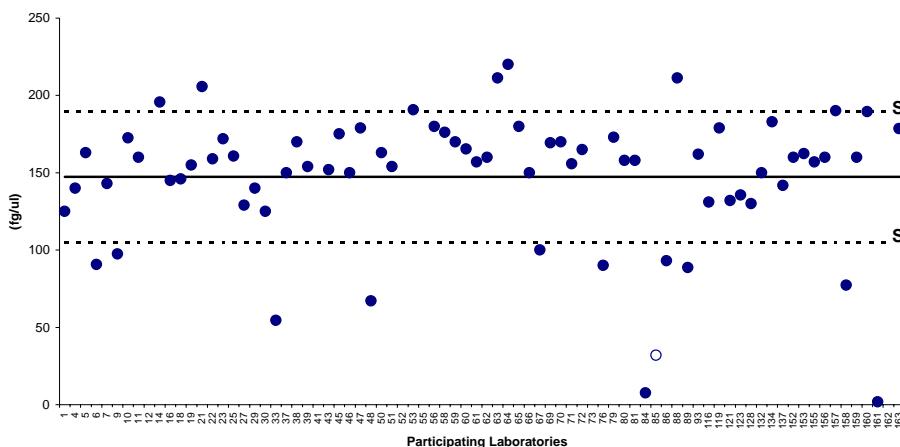
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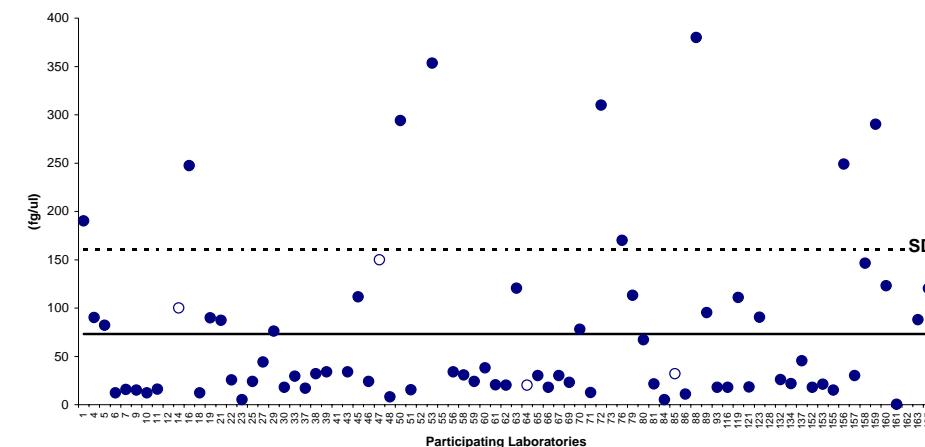
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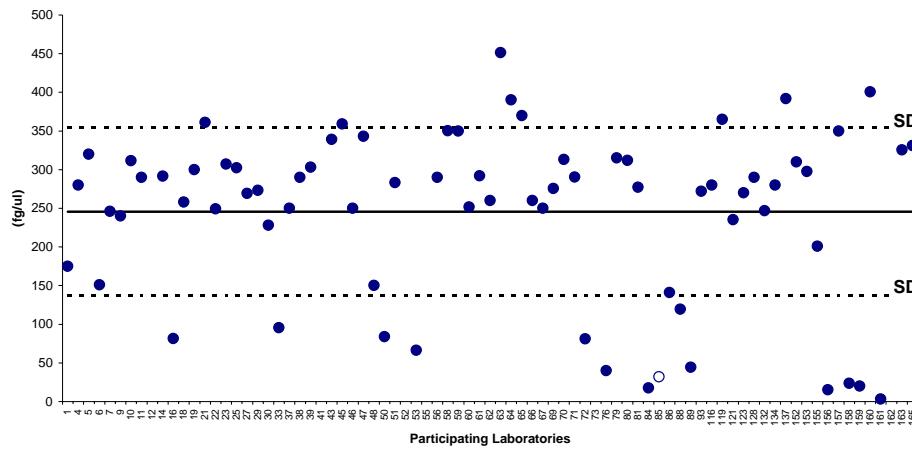
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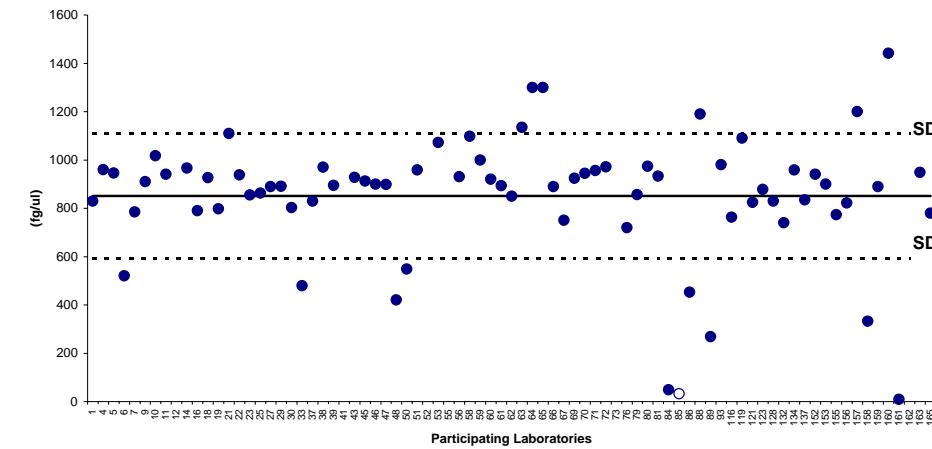
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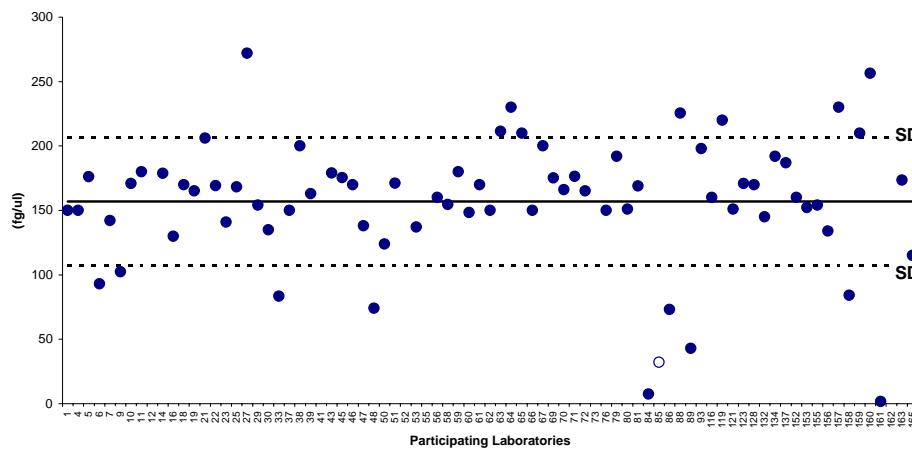
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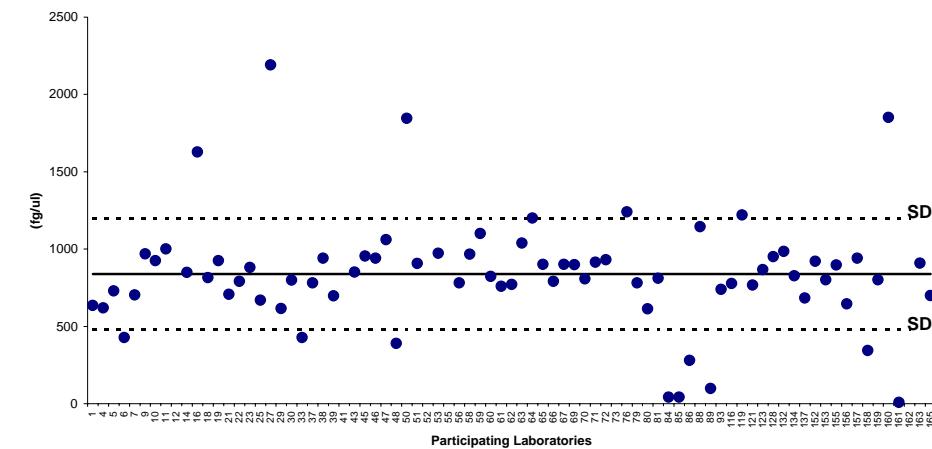
1,2,3,4,6,7,8-HpCDF Extract C



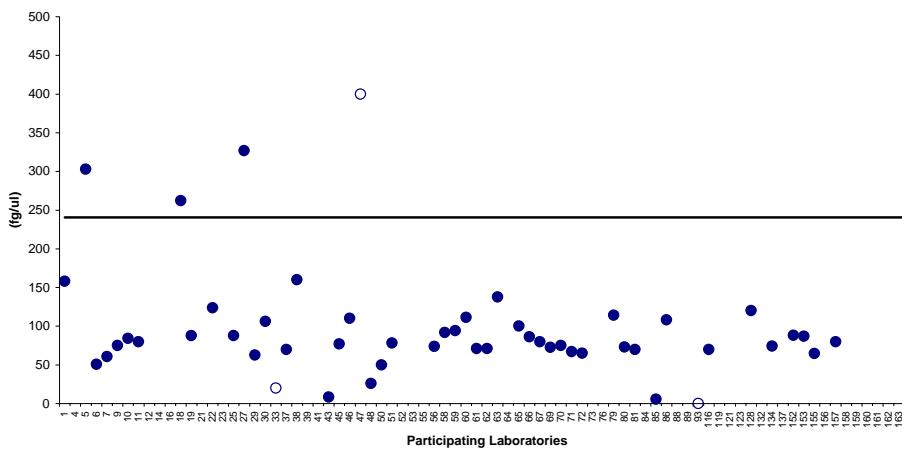
1,2,3,4,7,8,9-HpCDF Extract C



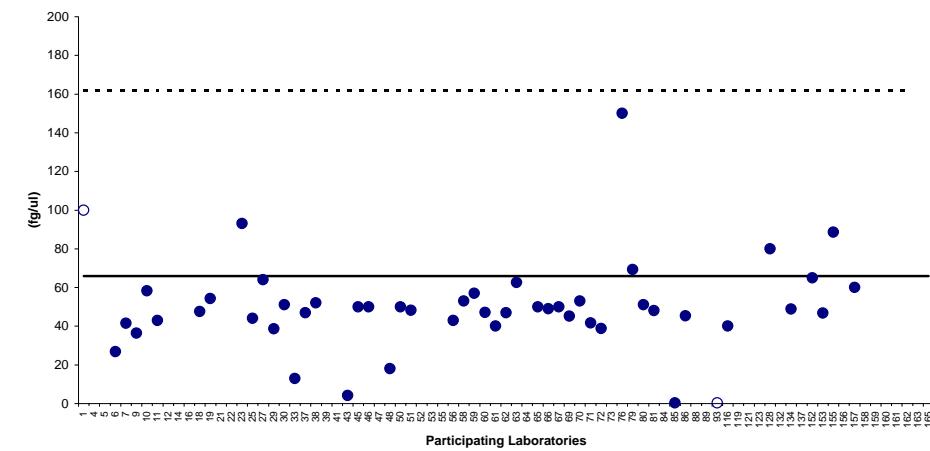
OCDF Extract C



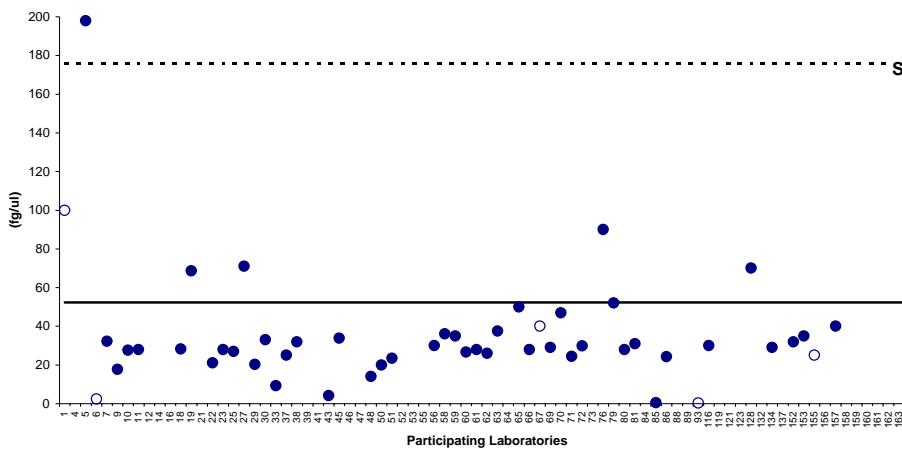
PCB #77 Extract C



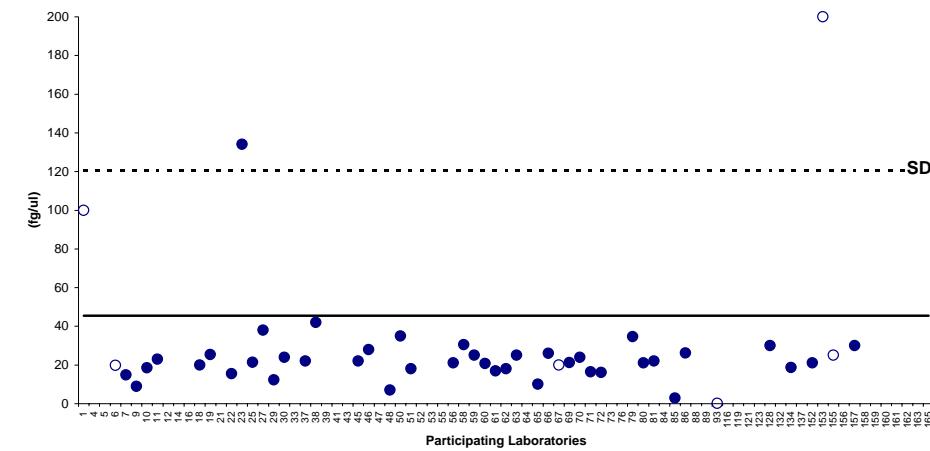
PCB #126 Extract C



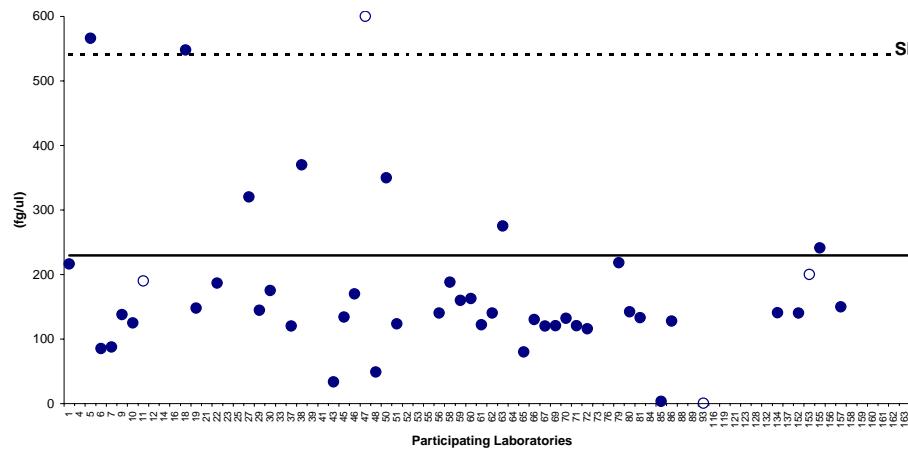
PCB #169 Extract C



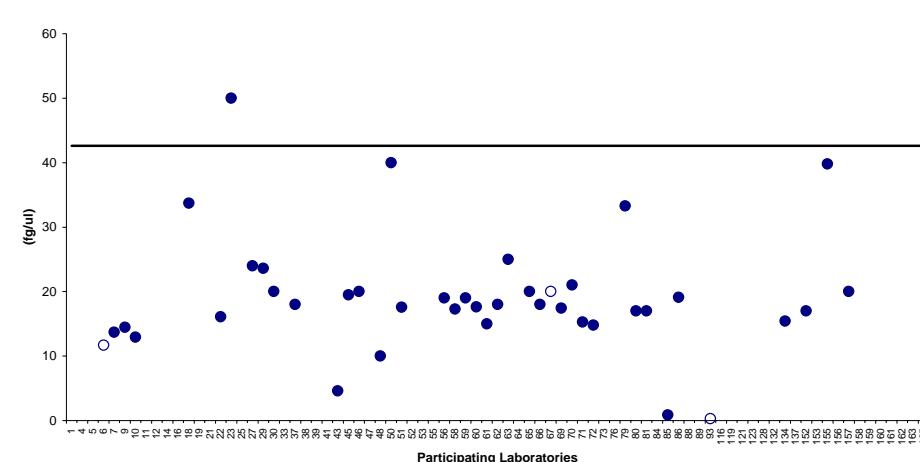
PCB #81 Extract C



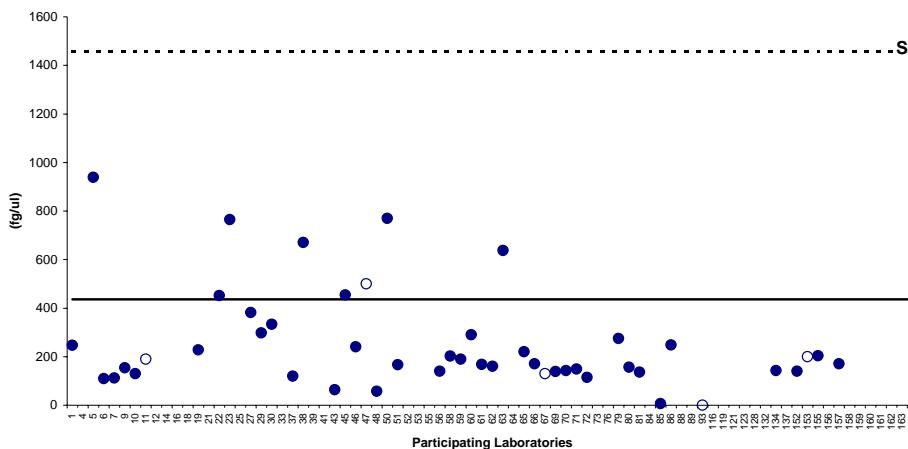
PCB #105 Extract C



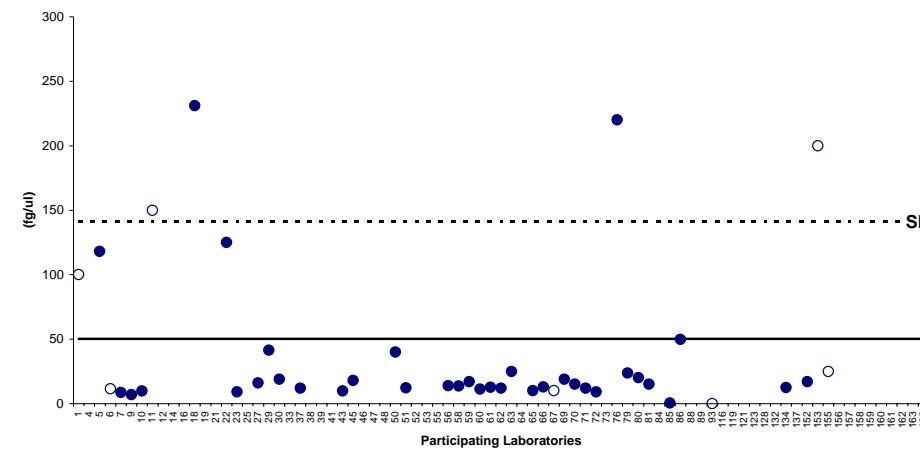
PCB #114 Extract C



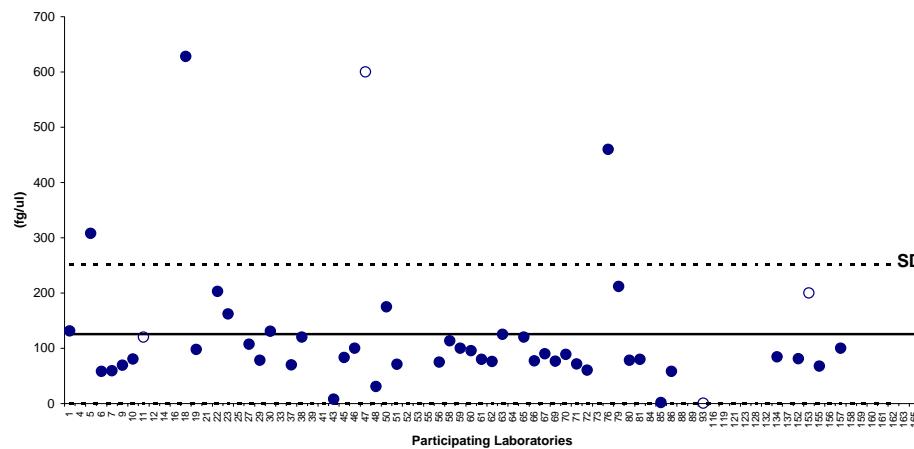
PCB #118 Extract C



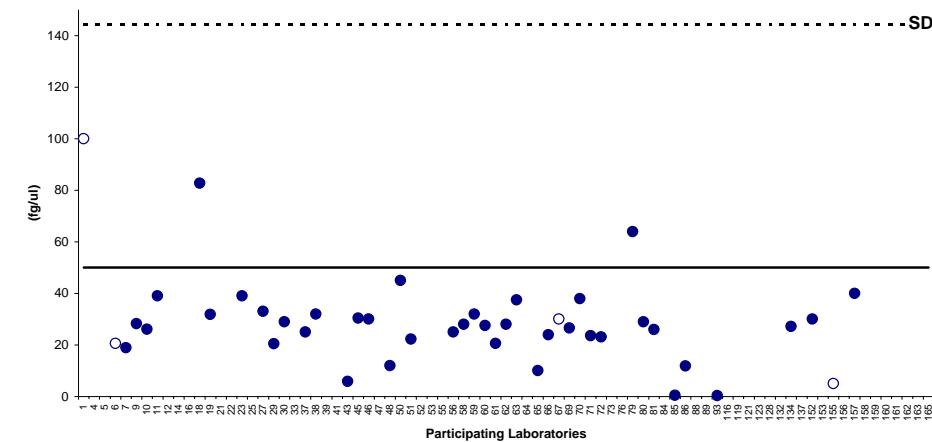
PCB #123 Extract C



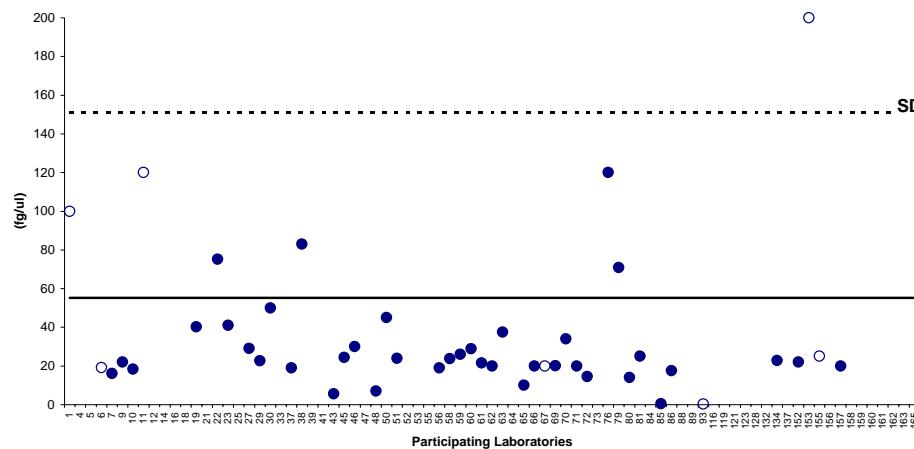
PCB #156 Extract C



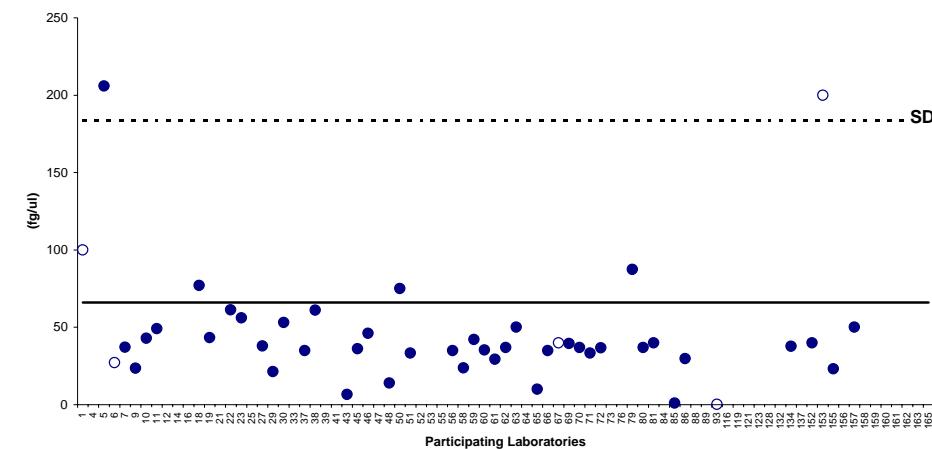
PCB #157 Extract C



PCB #167 Extract C



PCB #189 Extract C



Participant code:	1	4	5	6	7	9	10	11	12	14	16	18
Weight Analysed:												
2,3,7,8-TeCDD	0.89	0.42	0.09	0.90	0.98	0.95	1.06	1.07	0.99	0.95	NA	0.94
1,2,3,7,8-PeCDD	2.29	1.50	0.21	2.36	2.47	2.33	2.52	2.48	2.59	2.52	NA	2.57
1,2,3,4,7,8-HxCDD	2.61	1.70	0.22	2.11	2.17	2.23	2.46	2.36	2.42	2.51	NA	2.58
1,2,3,6,7,8-HxCDD	2.67	1.30	0.23	2.43	2.31	2.65	2.46	2.61	2.64	2.61	NA	2.74
1,2,3,7,8,9-HxCDD	2.68	1.50	0.20	2.25	2.21	1.93	2.52	2.36	2.52	2.66	NA	2.51
1,2,3,4,6,7,8-HpCDD	2.60	1.70	0.21	2.31	2.51	2.32	2.77	2.55	2.80	2.60	NA	2.51
OCDD	4.95	2.70	0.46	4.93	5.18	4.37	5.75	5.20	5.55	5.38	NA	5.26
	0.00											
2,3,7,8-TeCDF	1.03	0.45	0.10	0.91	1.12	1.16	1.10	1.06	1.13	1.04	NA	0.98
1,2,3,7,8-PeCDF	2.53	1.40	0.22	2.40	2.51	2.71	2.60	2.51	3.05	2.57	NA	2.48
2,3,4,7,8-PeCDF	2.48	1.30	0.20	2.44	2.57	2.33	2.99	2.51	2.85	2.47	NA	2.42
1,2,3,4,7,8-HxCDF	2.42	1.30	0.24	2.56	2.51	2.25	3.03	2.54	2.60	2.56	NA	2.48
1,2,3,6,7,8-HxCDF	2.37	1.30	0.23	2.32	2.53	2.14	3.09	2.39	2.64	2.66	NA	2.54
1,2,3,7,8,9-HxCDF	2.56	1.60	0.23	2.46	2.40	1.88	2.98	2.60	2.53	2.57	NA	2.45
2,3,4,6,7,8-HxCDF	2.70	1.40	0.22	2.15	2.43	2.20	2.72	2.30	2.63	2.54	NA	2.55
1,2,3,4,6,7,8-HpCDF	2.54	1.60	0.21	2.26	2.50	2.21	2.75	2.58	2.69	2.58	NA	2.58
1,2,3,4,7,8,9-HpCDF	2.48	1.60	0.22	2.42	2.61	2.21	2.96	2.54	2.59	2.56	NA	2.52
OCDF	4.24	2.20	0.40	4.23	5.09	4.19	5.56	5.26	5.14	5.13	NA	5.18
TEQ (PCDD/DF)	6.52	3.74	0.59	6.39	6.71	6.30	7.33	6.83	7.14	6.83	NA	6.80
PCB #77	22.6	NA	17.7	20.5	17.4	18.4	26.2	19.4	NA	20.4	NA	20.7
PCB #126	3.62	NA	4.10	4.07	3.44	3.13	4.84	3.76	NA	4.28	NA	4.31
PCB #169	4.57	NA	4.16	4.04	4.03	3.24	4.28	3.77	NA	4.40	NA	4.28
TEQ (including PCBs)	6.93	NA	1.05	6.84	7.09	6.65	7.85	7.25	NA	7.30	NA	7.28
Other PCBs (Optional)												
PCB #81	4.2	NA	4.0	4.0	3.0	3.7	4.0	3.9	NA	4.1	NA	4.2
PCB #105	42.8	NA	40.1	41.6	32.4	36.1	46.7	38.1	NA	40.6	NA	41.3
PCB #114	4.4	NA	4.1	4.2	2.7	3.7	4.1	4.1	NA	4.2	NA	4.1
PCB #118	40.2	NA	38.8	41.5	31.2	35.4	47.7	38.5	NA	40.2	NA	38.7
PCB #123	4.0	NA	4.0	3.9	2.9	3.5	4.8	3.7	NA	4.1	NA	4.1
PCB #156	22.7	NA	21.0	19.9	14.8	17.0	24.5	19.6	NA	21.4	NA	21.6
PCB #157	4.4	NA	3.9	3.9	2.9	3.3	4.8	4.1	NA	4.5	NA	4.5
PCB #167	4.6	NA	4.2	4.1	3.1	3.8	4.8	3.9	NA	4.4	NA	4.3
PCB #189	4.3	NA	4.2	3.8	3.9	4.0	5.3	4.2	NA	4.4	NA	4.2
TEQ Total	6.96	NA	1.07	6.87	7.11	6.67	7.88	7.27	NA	7.33	NA	7.30

Participant code:	43	45	46	47	48	50	51	52	53	55	56	58	59
Weight Analysed:													
2,3,7,8-TeCDD	1.03	1.06	1.00	1.04	0.94	1.00	1.04	NA	0.33	BA	0.91	1.90	1.10
1,2,3,7,8-PeCDD	2.75	2.62	2.60	2.15	2.30	2.72	2.32	NA	0.83	BA	2.30	1.43	3.10
1,2,3,4,7,8-HxCDD	2.54	2.14	2.50	2.66	2.50	2.33	2.26	NA	0.75	BA	2.10	2.66	2.70
1,2,3,6,7,8-HxCDD	2.43	3.03	2.40	2.19	2.30	2.45	2.58	NA	0.75	BA	2.40	2.39	2.60
1,2,3,7,8,9-HxCDD	2.65	2.40	2.50	2.86	2.30	2.18	2.50	NA	0.75	BA	2.20	2.80	2.70
1,2,3,4,6,7,8-HpCDD	2.60	2.49	2.60	2.79	2.30	2.66	2.58	NA	0.65	BA	2.50	2.61	3.00
OCDD	5.25	4.96	4.90	5.63	5.20	4.79	4.94	NA	1.51	BA	4.80	6.39	6.30
2,3,7,8-TeCDF	0.98	1.19	0.97	1.16	1.00	1.26	1.07	NA	0.35	BA	1.00	2.89	1.20
1,2,3,7,8-PeCDF	2.46	2.84	2.50	2.07	2.60	2.13	2.63	NA	0.80	BA	2.80	1.57	2.80
2,3,4,7,8-PeCDF	2.48	2.83	2.70	2.57	2.50	2.02	2.60	NA	0.73	BA	2.60	1.53	2.60
1,2,3,4,7,8-HxCDF	2.78	2.63	2.60	2.62	2.50	2.89	2.38	NA	0.77	BA	2.30	2.84	2.90
1,2,3,6,7,8-HxCDF	2.64	2.54	2.50	2.71	2.30	2.95	2.48	NA	0.75	BA	2.70	2.71	2.80
1,2,3,7,8,9-HxCDF	2.87	2.51	2.60	2.42	2.70	2.67	2.22	NA	0.73	BA	2.20	2.66	2.80
2,3,4,6,7,8-HxCDF	2.66	2.41	2.60	2.58	2.70	2.68	2.42	NA	0.56	BA	2.20	2.76	2.90
1,2,3,4,6,7,8-HpCDF	2.60	2.73	2.40	2.50	2.40	2.12	2.54	NA	0.73	BA	2.50	2.75	2.80
1,2,3,4,7,8,9-HpCDF	2.56	2.54	2.60	2.78	2.50	2.33	2.53	NA	0.57	BA	2.40	2.75	2.40
OCDF	5.16	4.67	5.00	5.57	4.80	16.46	4.68	NA	1.49	BA	4.90	6.18	6.00
TEQ (PCDD/DF)	7.18	7.19	7.00	6.58	6.52	5.85	6.66	NA	2.13	13.67	6.40	6.42	7.80
PCB #77	20.6	20.1	22.0	19.1	21.0	23.1	20.1	NA	NA	BA	19.0	NA	25.0
PCB #126	4.31	4.50	4.40	5.36	3.70	4.84	4.50	NA	NA	BA	3.80	NA	5.00
PCB #169	4.05	4.37	4.70	4.62	3.90	4.71	3.74	NA	NA	BA	3.50	NA	5.10
TEQ (including PCBs)	7.65	7.69	7.50	7.16	6.93	6.39	7.15	NA	NA	13.67	6.82	NA	8.35
Other PCBs (Optional)													
PCB #81	4.0	4.0	4.3	5.3	4.1	4.9	3.5	NA	NA	BA	4.0	NA	4.9
PCB #105	39.3	38.9	45.0	44.9	41.0	46.6	36.3	NA	NA	BA	38.0	NA	49.0
PCB #114	3.9	4.4	4.4	4.0	4.1	5.2	3.7	NA	NA	BA	4.0	NA	4.8
PCB #118	38.3	40.0	45.0	47.4	45.0	48.9	34.6	NA	NA	BA	40.0	NA	51.0
PCB #123	3.9	4.3	4.4	4.5	NA	4.5	3.8	NA	NA	BA	3.9	NA	5.0
PCB #156	19.6	20.6	23.0	18.3	20.0	24.5	17.9	NA	NA	BA	16.0	NA	26.0
PCB #157	4.1	4.4	4.5	3.7	3.8	5.0	3.8	NA	NA	BA	3.2	NA	4.7
PCB #167	4.4	4.6	4.4	5.0	4.0	5.2	3.5	NA	NA	BA	3.6	NA	5.1
PCB #189	3.7	4.5	4.4	2.6	4.1	4.2	3.8	NA	NA	BA	3.5	NA	4.9
TEQ Total	7.68	7.71	7.50	7.19	6.96	6.42	7.17	NA	NA	13.67	6.90	NA	8.40

* all values in pg/ul

ND: not detected < than value expected

NA: not analyzed

Standard M3

Participant code:	76	79	80	81	84	85	86	88	89	93	116	119	121
Weight Analysed:													
2,3,7,8-TeCDD	N.D.	0.83	0.85	0.99	0.10	0.12	0.32	0.82	0.30	0.88	1.03	0.94	0.97
1,2,3,7,8-PeCDD	2.30	2.29	2.06	2.27	0.26	0.15	0.86	2.47	0.44	2.34	2.44	3.16	2.32
1,2,3,4,7,8-HxCDD	1.89	1.99	1.87	2.06	0.22	0.27	0.85	2.12	0.65	2.34	2.54	2.96	2.25
1,2,3,6,7,8-HxCDD	1.78	2.20	2.01	2.45	0.26	0.15	1.00	2.43	2.55	2.24	2.74	2.90	2.34
1,2,3,7,8,9-HxCDD	2.01	2.06	2.00	2.22	0.23	0.09	0.91	2.54	0.88	2.32	2.56	2.78	2.20
1,2,3,4,6,7,8-HpCDD	2.31	2.51	1.92	2.69	0.30	0.24	1.07	2.83	4.13	2.41	2.54	2.89	2.38
OCDD	4.25	5.00	4.73	4.88	0.52	0.43	1.99	5.21	2.02	4.71	4.98	6.13	4.62
													0.00
2,3,7,8-TeCDF	0.88	1.03	1.06	0.83	0.12	0.05	0.38	0.87	0.59	0.97	1.01	1.13	1.01
1,2,3,7,8-PeCDF	1.97	2.62	2.39	2.51	0.31	0.23	1.08	2.58	1.39	2.28	2.44	2.94	2.23
2,3,4,7,8-PeCDF	1.90	2.48	2.02	2.47	0.26	0.29	0.93	2.52	0.77	2.30	2.62	3.16	2.34
1,2,3,4,7,8-HxCDF	1.97	1.68	2.05	2.48	0.26	0.21	0.93	2.43	2.28	2.38	2.60	3.07	2.30
1,2,3,6,7,8-HxCDF	1.82	2.33	2.04	2.44	0.26	0.15	0.93	2.58	0.85	2.40	2.48	3.09	2.30
1,2,3,7,8,9-HxCDF	1.76	2.35	1.74	2.53	0.26	0.14	0.87	2.30	1.14	2.65	2.86	2.87	2.54
2,3,4,6,7,8-HxCDF	1.66	2.33	2.03	2.50	0.26	0.08	0.94	2.48	0.53	2.57	2.42	2.91	2.33
1,2,3,4,6,7,8-HpCDF	2.01	2.38	2.27	2.61	0.27	0.18	0.91	2.48	3.19	2.38	2.24	3.26	2.48
1,2,3,4,7,8,9-HpCDF	1.63	2.45	2.12	2.53	0.26	0.28	0.99	2.63	1.29	2.80	2.64	2.97	2.48
OCDF	4.95	4.40	2.39	4.95	0.51	0.30	1.52	5.77	2.93	4.40	5.38	5.77	5.02
TEQ (PCDD/DF)	1.81	6.16	5.58	6.45	0.71	0.54	2.41	6.53	5.21	6.35	6.90	8.09	6.38
PCB #77	218.3	16.0	15.5	21.7	NA	1.0	6.7	NA	NA	20.7	19.9	18.4	NA
PCB #126	27.63	3.20	3.23	4.50	NA	0.10	1.56	NA	NA	5.26	3.62	2.90	NA
PCB #169	46.71	3.40	2.97	4.33	NA	0.08	1.95	NA	NA	5.52	4.50	3.32	NA
TEQ (including PCBs)	5.06	6.54	5.94	6.94	NA	0.55	2.58	NA	NA	6.93	7.31	8.42	NA
Other PCBs (Optional)													
PCB #81	3.7	3.3	3.1	4.3	NA	0.1	1.3	NA	NA	5.4	4.2	3.0	NA
PCB #105	484.4	34.4	30.7	41.7	NA	1.5	15.0	NA	NA	40.6	42.8	31.9	NA
PCB #114	37.1	3.8	2.9	4.2	NA	0.2	1.4	NA	NA	4.7	4.0	3.1	NA
PCB #118	544.1	32.7	33.7	40.1	NA	1.6	15.1	NA	NA	44.8	43.8	31.5	NA
PCB #123	46.5	3.5	2.8	4.3	NA	0.2	1.5	NA	NA	5.7	3.9	3.6	NA
PCB #156	228.8	16.5	15.0	21.0	NA	0.8	8.4	NA	NA	31.0	21.0	13.4	NA
PCB #157	34.7	4.1	3.2	4.0	NA	0.2	1.7	NA	NA	5.4	3.9	3.2	NA
PCB #167	44.5	3.3	3.1	4.6	NA	0.2	1.7	NA	NA	5.7	3.3	3.2	NA
PCB #189	43.6	3.4	3.1	4.6	NA	0.2	1.8	NA	NA	4.5	4.4	3.1	NA
TEQ Total	5.32	6.54	5.94	6.97	NA	0.55	2.59	NA	NA	6.96	7.33	8.43	NA

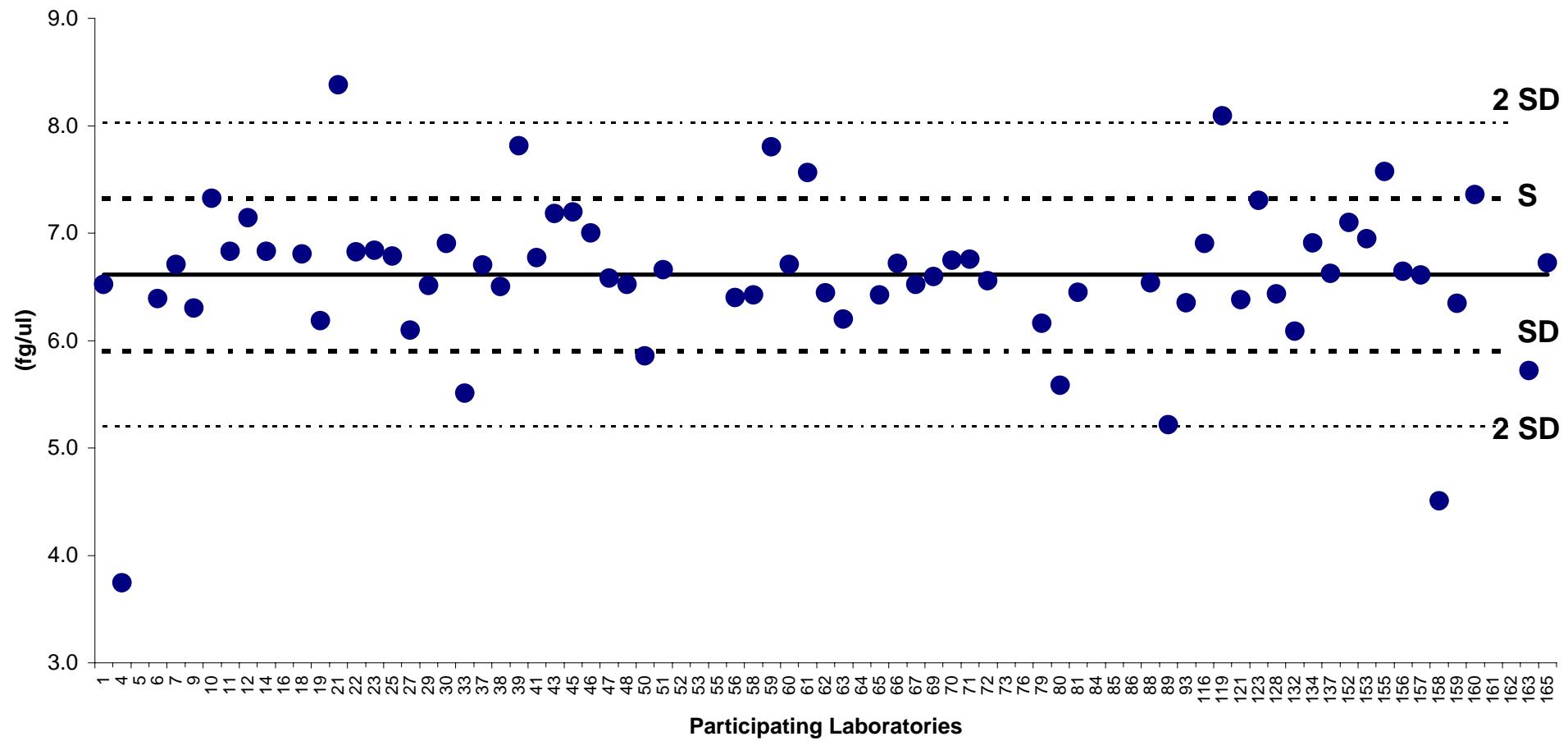
Participant code:	123	128	132	134	137	152	153	155	156	157	158	159	160
Weight Analysed:													
2,3,7,8-TeCDD	1.10	1.05	0.83	0.97	0.97	1.10	1.06	0.92	0.97	0.97	0.78	0.99	0.98
1,2,3,7,8-PeCDD	2.62	2.30	2.23	2.60	2.54	2.50	2.50	3.02	2.42	2.40	1.78	1.05	2.58
1,2,3,4,7,8-HxCDD	2.60	2.40	2.02	2.33	2.19	2.30	2.34	2.35	2.48	2.40	0.13	2.73	2.59
1,2,3,6,7,8-HxCDD	2.65	2.75	2.33	2.41	2.28	2.30	2.44	2.35	2.51	2.30	0.11	3.04	2.73
1,2,3,7,8,9-HxCDD	2.71	3.00	2.20	2.40	1.78	2.80	2.40	2.62	2.46	2.40	0.10	3.11	2.60
1,2,3,4,6,7,8-HpCDD	2.60	2.55	2.54	2.70	1.93	3.10	2.74	2.64	2.50	2.60	0.02	2.91	3.24
OCDD	5.42	ND	5.16	5.29	3.67	6.50	5.38	5.25	4.75	5.10	0.00	2.97	6.54
2,3,7,8-TeCDF	1.10	0.97	1.09	1.06	1.03	1.10	1.15	1.07	1.09	1.00	0.07	2.92	1.20
1,2,3,7,8-PeCDF	2.77	2.47	2.61	2.61	2.95	2.50	2.84	3.01	2.50	2.50	0.05	2.83	2.98
2,3,4,7,8-PeCDF	2.78	2.25	2.28	2.57	2.87	2.70	2.63	3.00	2.40	2.50	0.91	3.27	2.95
1,2,3,4,7,8-HxCDF	2.73	2.15	2.23	2.63	1.83	2.90	2.51	2.51	2.45	2.50	0.08	3.07	2.90
1,2,3,6,7,8-HxCDF	2.75	2.25	2.34	2.61	1.84	2.50	2.58	2.76	2.54	2.50	0.16	3.12	2.85
1,2,3,7,8,9-HxCDF	2.66	2.05	2.24	2.54	1.81	2.60	2.47	2.67	2.47	2.40	0.14	3.08	2.92
2,3,4,6,7,8-HxCDF	2.58	2.05	2.34	2.41	1.92	2.60	2.73	2.59	2.48	2.40	0.14	3.14	2.89
1,2,3,4,6,7,8-HpCDF	2.64	2.30	2.09	2.61	2.31	3.00	2.53	3.55	2.48	2.40	0.01	2.84	3.07
1,2,3,4,7,8,9-HpCDF	2.62	2.25	2.32	2.61	2.15	2.40	2.45	2.76	2.47	2.40	0.02	5.12	3.09
OCDF	4.98	5.85	6.05	5.22	3.63	6.00	4.89	3.33	4.74	4.70	0.00	5.67	6.12
TEQ (PCDD/DF)	7.30	6.43	6.08	6.91	6.62	7.10	6.95	7.57	6.64	6.61	4.51	6.35	7.35
PCB #77	NA	11.3	NA	21.9	NA	24.0	20.4	19.7	NA	18.0	33.3	NA	NA
PCB #126	NA	1.80	NA	4.39	NA	4.80	4.40	3.97	NA	4.10	5.18	NA	NA
PCB #169	NA	2.10	NA	4.34	NA	4.50	4.95	3.56	NA	4.00	5.61	NA	NA
TEQ (including PCBs)	NA	6.63	NA	7.39	NA	7.60	7.46	8.01	NA	7.06	5.08	NA	NA
Other PCBs (Optional)													
PCB #81	NA	1.9	NA	4.5	NA	4.6	3.9	3.6	NA	4.0	5.3	NA	NA
PCB #105	NA	NA	NA	43.3	NA	44.0	43.1	38.8	NA	40.0	70.7	NA	NA
PCB #114	NA	NA	NA	4.5	NA	4.5	4.0	3.8	NA	3.8	5.5	NA	NA
PCB #118	NA	NA	NA	43.7	NA	43.0	39.7	39.5	NA	40.0	71.3	NA	NA
PCB #123	NA	NA	NA	4.4	NA	4.3	4.1	3.6	NA	4.0	5.5	NA	NA
PCB #156	NA	NA	NA	21.2	NA	22.0	22.4	18.6	NA	18.0	31.2	NA	NA
PCB #157	NA	NA	NA	4.4	NA	4.9	4.4	4.0	NA	3.7	5.0	NA	NA
PCB #167	NA	NA	NA	4.4	NA	4.4	4.9	4.1	NA	3.6	5.2	NA	NA
PCB #189	NA	NA	NA	4.3	NA	4.6	4.4	4.1	NA	3.7	5.6	NA	NA
TEQ Total	NA	6.63	NA	7.41	NA	7.60	7.46	8.03	NA	7.08	5.12	NA	NA

Participant code:	161	162	163	165
Weight Analysed:				
2,3,7,8-TeCDD	0.06	NA	0.97	0.97
1,2,3,7,8-PeCDD	7.50	NA	2.74	2.45
1,2,3,4,7,8-HxCDD	23.00	NA	2.33	2.50
1,2,3,6,7,8-HxCDD	23.00	NA	2.33	2.40
1,2,3,7,8,9-HxCDD	26.00	NA	2.43	2.87
1,2,3,4,6,7,8-HpCDD	0.28	NA	2.65	2.64
OCDD	0.29	NA	5.15	4.44
2,3,7,8-TeCDF	15.00	NA	1.12	1.07
1,2,3,7,8-PeCDF	26.00	NA	2.69	3.04
2,3,4,7,8-PeCDF	0.11	NA	2.58	2.31
1,2,3,4,7,8-HxCDF	27.00	NA	2.58	2.51
1,2,3,6,7,8-HxCDF	23.00	NA	2.72	2.55
1,2,3,7,8,9-HxCDF	30.00	NA	2.56	2.75
2,3,4,6,7,8-HxCDF	27.00	NA	2.60	2.53
1,2,3,4,6,7,8-HpCDF	0.28	NA	2.52	2.33
1,2,3,4,7,8,9-HpCDF	0.28	NA	2.54	2.24
OCDF	0.55	NA	4.83	4.45
TEQ (PCDD/DF)	NA	NA	5.72	6.72
PCB #77	NA	NA	NA	NA
PCB #126	NA	NA	NA	NA
PCB #169	NA	NA	NA	NA
TEQ (including PCBs)	NA	NA	NA	NA
Other PCBs (Optional)				
PCB #81	NA	NA	NA	NA
PCB #105	NA	NA	NA	NA
PCB #114	NA	NA	NA	NA
PCB #118	NA	NA	NA	NA
PCB #123	NA	NA	NA	NA
PCB #156	NA	NA	NA	NA
PCB #157	NA	NA	NA	NA
PCB #167	NA	NA	NA	NA
PCB #189	NA	NA	NA	NA
TEQ Total	NA	NA	NA	NA
* all values in pg/ μ l				
ND: not detected < than value expected Standard M7				
NA: not analyzed				

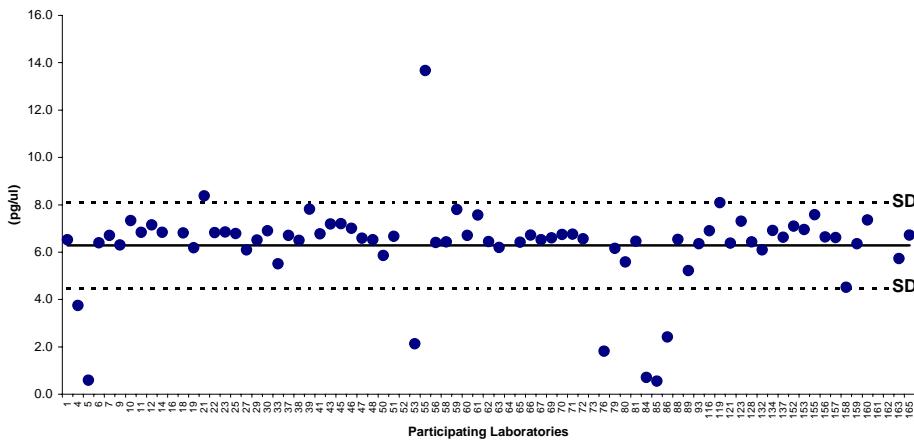
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.91	0.97	0.06	1.90	0.28	31%
1,2,3,7,8-PeCDD	2.34	2.44	0.15	7.50	0.88	38%
1,2,3,4,7,8-HxCDD	2.46	2.34	0.13	23.00	2.48	101%
1,2,3,6,7,8-HxCDD	2.56	2.42	0.11	23.00	2.47	97%
1,2,3,7,8,9-HxCDD	2.58	2.40	0.09	26.00	2.82	109%
1,2,3,4,6,7,8-HpCDD	2.39	2.55	0.02	4.13	0.72	30%
OCDD	4.68	5.00	0.00	8.02	1.54	33%
2,3,7,8-TeCDF	1.21	1.04	0.05	15.00	1.67	138%
1,2,3,7,8-PeCDF	2.67	2.51	0.05	26.00	2.81	105%
2,3,4,7,8-PeCDF	2.28	2.48	0.11	3.27	0.69	30%
1,2,3,4,7,8-HxCDF	2.67	2.50	0.08	27.00	2.92	110%
1,2,3,6,7,8-HxCDF	2.61	2.52	0.15	23.00	2.48	95%
1,2,3,7,8,9-HxCDF	2.67	2.48	0.14	30.00	3.27	123%
2,3,4,6,7,8-HxCDF	2.60	2.48	0.08	27.00	2.94	113%
1,2,3,4,6,7,8-HpCDF	2.35	2.50	0.01	3.55	0.71	30%
1,2,3,4,7,8,9-HpCDF	2.35	2.50	0.02	5.12	0.77	33%
OCDF	4.76	4.98	0.0001	16.46	2.08	44%
TEQ (PCDD/DF)	6.29	6.60	0.54	13.67	1.82	29%
PCB #77	23.4	20.3	1.04	218.3	27.1	116%
PCB #126	4.378	4.103	0.099	27.63	3.30	75%
PCB #169	4.783	4.178	0.080	46.71	5.77	121%
TEQ (including PCBs)	6.90	7.11	0.55	13.67	1.71	25%
Other PCBs (Optional)						
PCB #81	3.9	4.0	0.13	5.4	1.0	25%
PCB #105	48.3	40.6	1.52	484.4	61.3	127%
PCB #114	4.7	4.1	0.18	37.1	4.7	98%
PCB #118	49.4	40.1	1.55	544.1	69.4	140%
PCB #123	4.9	4.0	0.16	46.5	5.9	121%
PCB #156	23.7	20.0	0.80	228.8	28.8	122%
PCB #157	4.7	4.1	0.18	34.7	4.3	92%
PCB #167	4.9	4.2	0.18	44.5	5.6	114%
PCB #189	4.9	4.2	0.18	43.6	5.5	113%
TEQ Total	6.95	7.15	0.553	13.67	1.71	25%

Participant code:	TEQ results 5, 53, 55, 76, 84, 85, 86 and 161					
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.97	0.97	0.30	1.90	0.18	19%
1,2,3,7,8-PeCDD	2.40	2.47	0.44	3.16	0.42	18%
1,2,3,4,7,8-HxCDD	2.32	2.35	0.13	3.63	0.44	19%
1,2,3,6,7,8-HxCDD	2.42	2.43	0.11	3.29	0.41	17%
1,2,3,7,8,9-HxCDD	2.41	2.42	0.10	3.83	0.49	20%
1,2,3,4,6,7,8-HpCDD	2.57	2.60	0.02	4.13	0.45	17%
OCDD	5.03	5.09	0.00	8.02	1.06	21%
2,3,7,8-TeCDF	1.09	1.06	0.07	2.92	0.39	35%
1,2,3,7,8-PeCDF	2.49	2.54	0.05	3.06	0.45	18%
2,3,4,7,8-PeCDF	2.45	2.49	0.77	3.27	0.43	17%
1,2,3,4,7,8-HxCDF	2.48	2.51	0.08	3.41	0.44	18%
1,2,3,6,7,8-HxCDF	2.48	2.53	0.16	3.45	0.46	19%
1,2,3,7,8,9-HxCDF	2.44	2.50	0.14	3.26	0.46	19%
2,3,4,6,7,8-HxCDF	2.41	2.50	0.14	3.20	0.48	20%
1,2,3,4,6,7,8-HpCDF	2.52	2.51	0.01	3.55	0.44	17%
1,2,3,4,7,8,9-HpCDF	2.53	2.54	0.02	5.12	0.54	21%
OCDF	5.10	5.01	0.0001	16.46	1.79	35%
TEQ (PCDD/DF)	6.61	6.63	3.74	8.38	0.71	11%
PCB #77	20.6	20.4	4.79	40.6	5.1	25%
PCB #126	4.073	4.118	1.800	5.36	0.72	18%
PCB #169	4.134	4.222	2.100	5.61	0.68	16%
TEQ (including PCBs)	7.13	7.15	5.08	8.42	0.60	8%
Other PCBs (Optional)						
PCB #81	4.0	4.0	1.80	5.4	0.8	19%
PCB #105	41.3	40.8	10.20	70.7	8.2	20%
PCB #114	4.3	4.1	2.73	10.4	1.0	24%
PCB #118	41.4	40.1	9.88	71.3	8.6	21%
PCB #123	4.3	4.1	2.79	10.6	1.1	25%
PCB #156	20.4	20.0	10.14	31.2	3.8	19%
PCB #157	4.3	4.1	2.86	10.2	1.0	24%
PCB #167	4.3	4.2	2.79	10.0	1.0	24%
PCB #189	4.2	4.2	2.58	8.6	0.8	20%
TEQ Total	7.17	7.18	5.120	8.43	0.57	8%

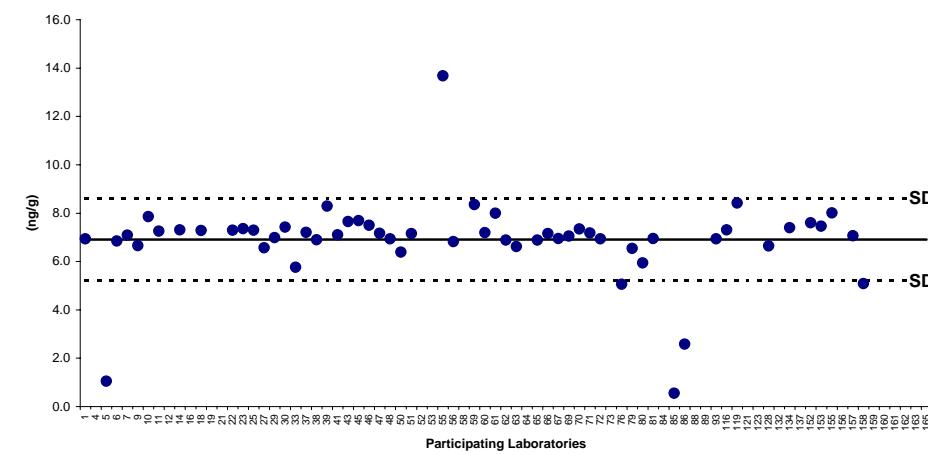
TEQ Solution M (RSD 11 %, n = 68)



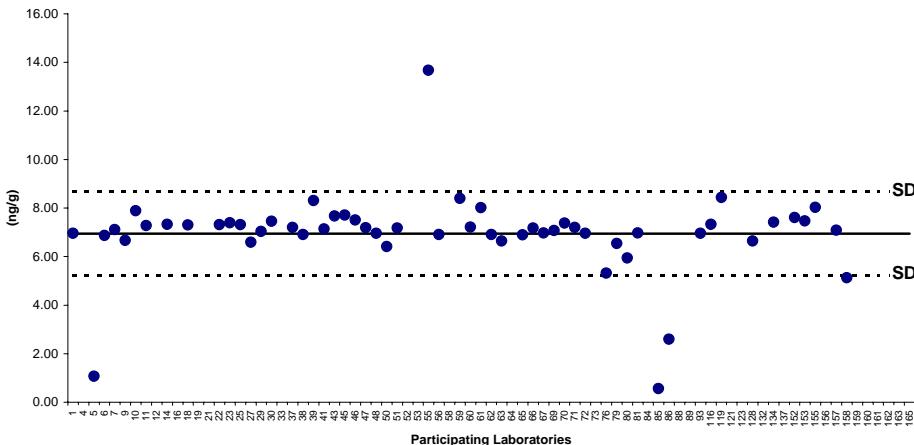
PCDD/DF TEQ Solution M (RSD 29%, n = 75)



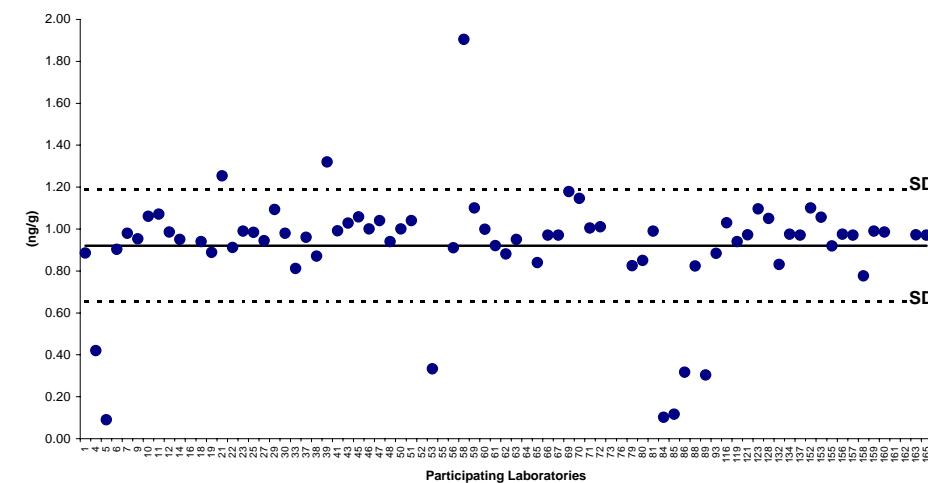
TEQ (including planar PCBs) Solution M

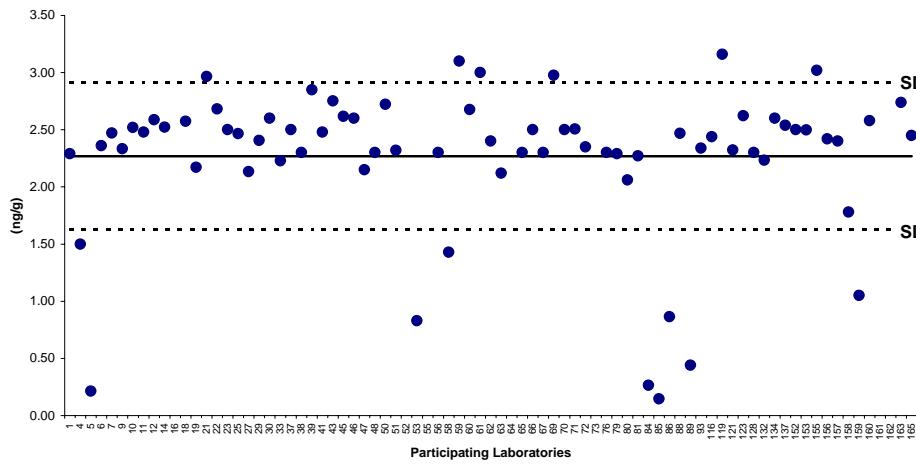
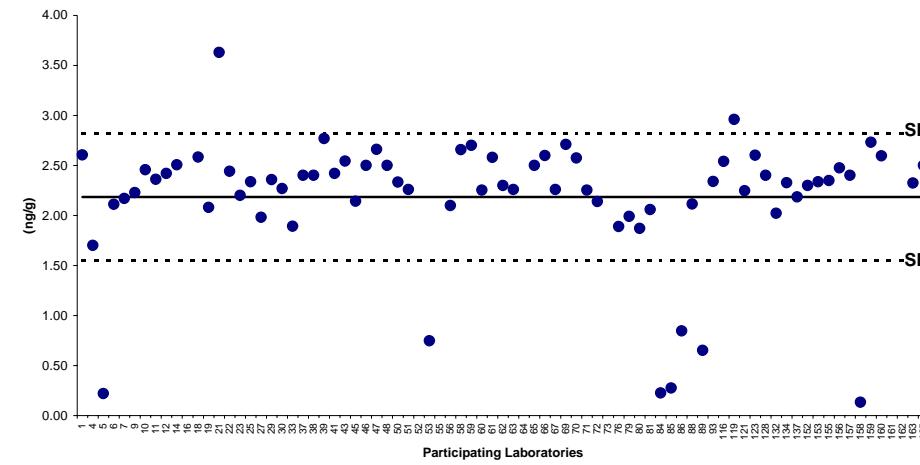
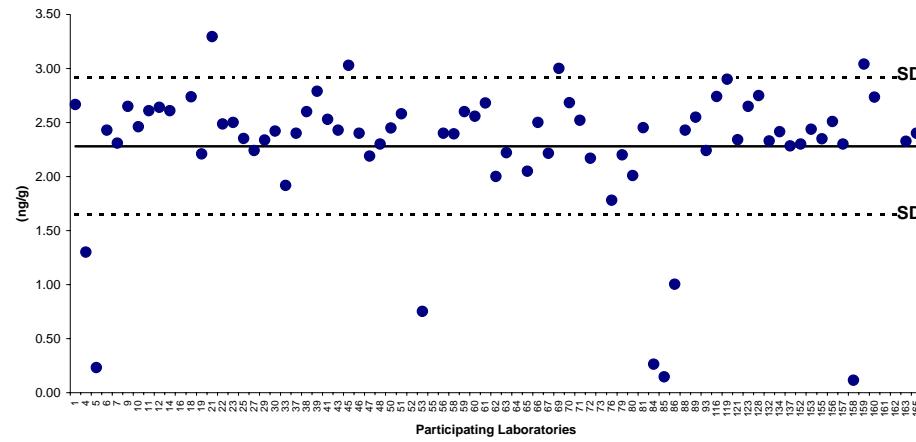
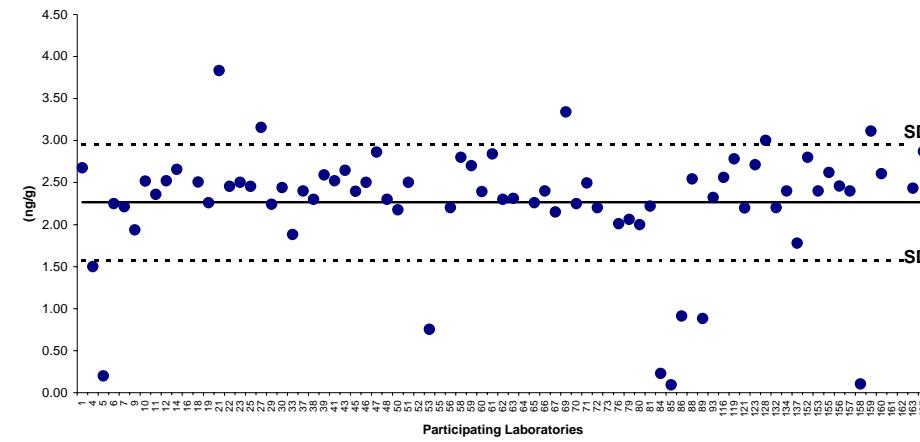


WHO TEQ Solution M

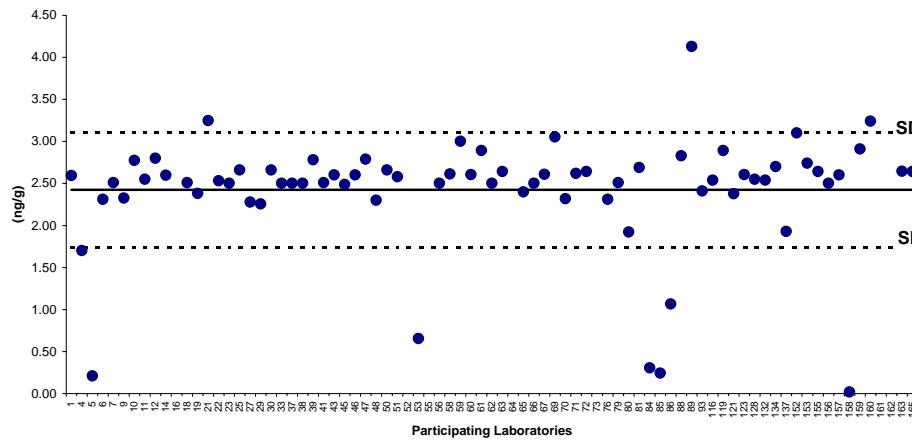


2,3,7,8-TeCDD Solution M

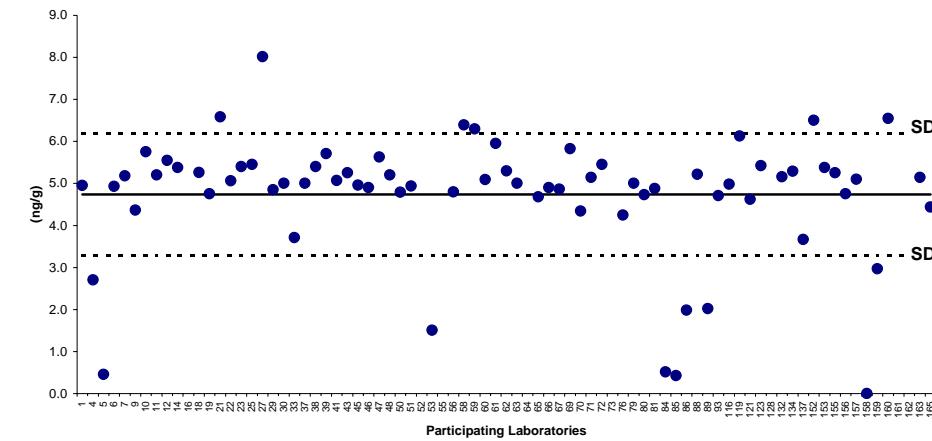


1,2,3,7,8-PeCDD Solution M**1,2,3,4,7,8-HxCDD Solution M****1,2,3,6,7,8-HxCDD Solution M****1,2,3,7,8,9-HxCDD Solution M**

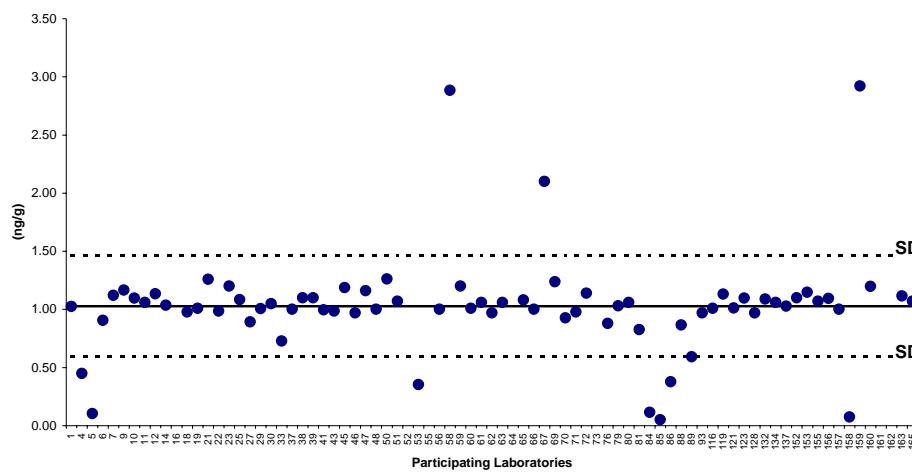
1,2,3,4,6,7,8-HpCDD Solution M



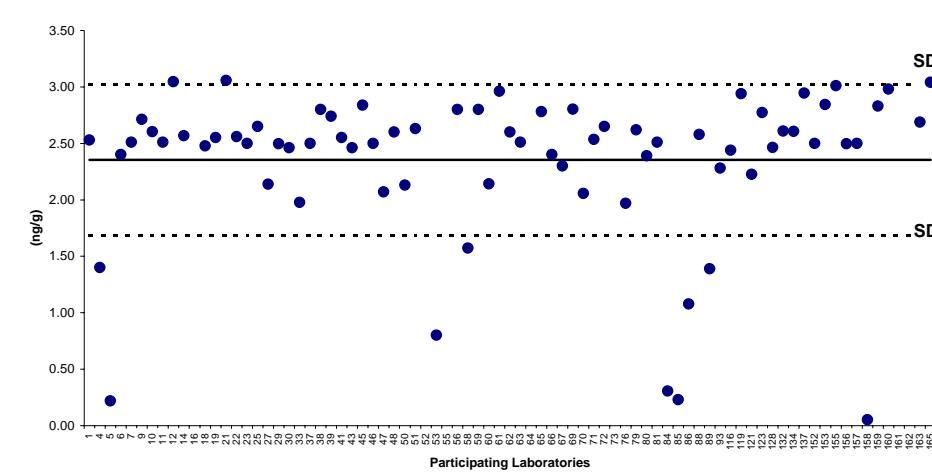
OCDD Solution M

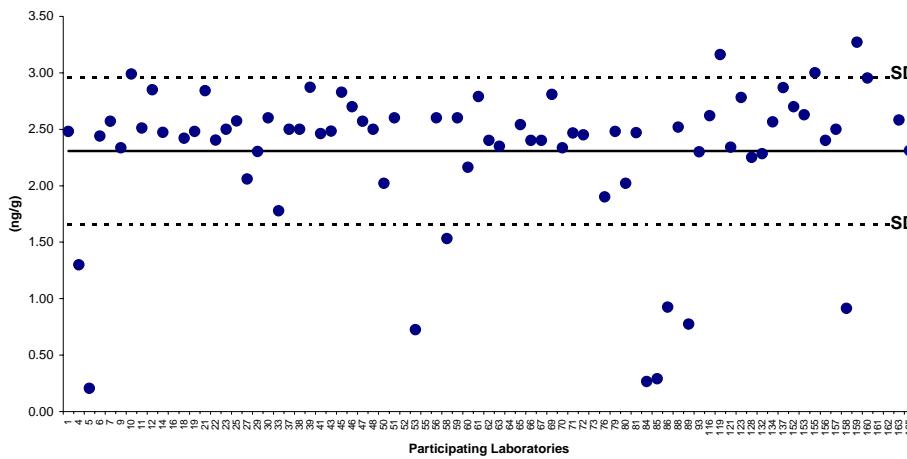
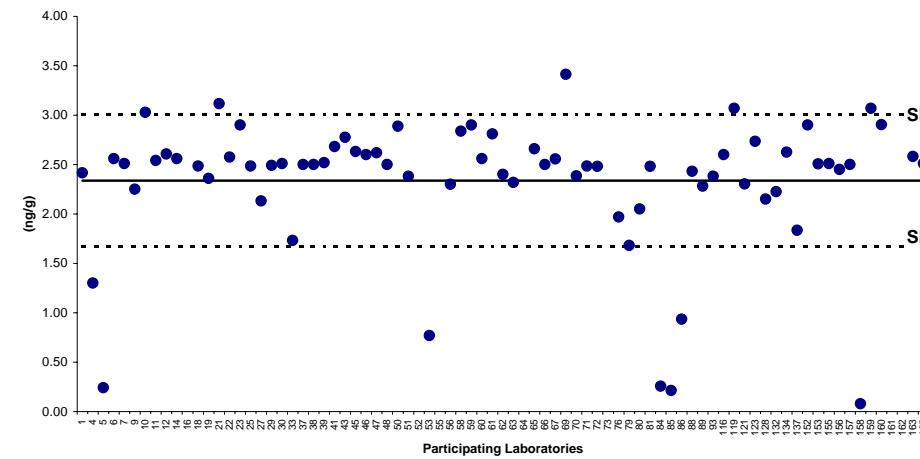
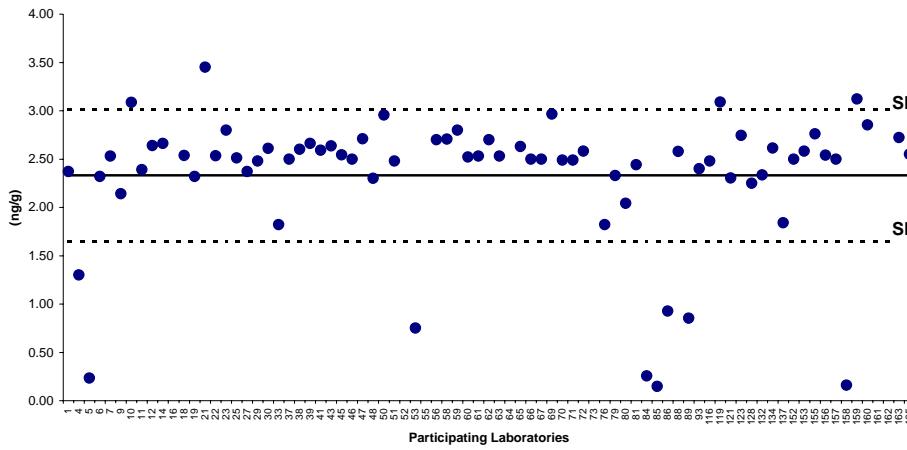
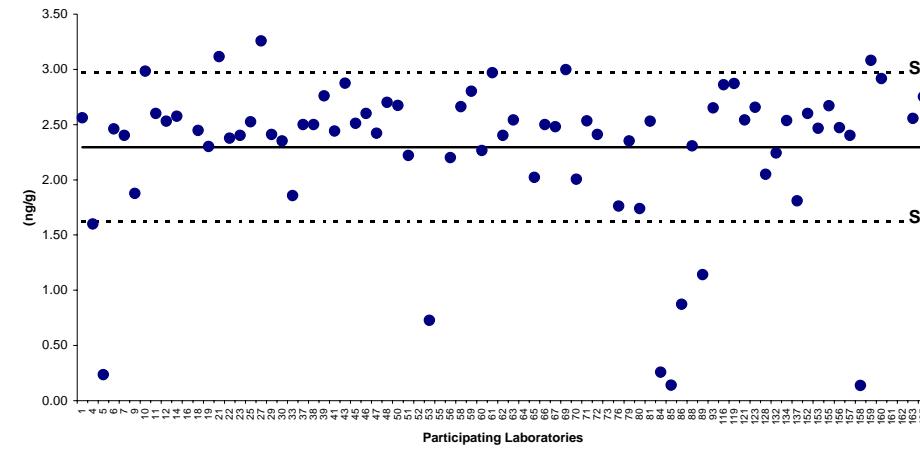


2,3,7,8-TeCDF Solution M

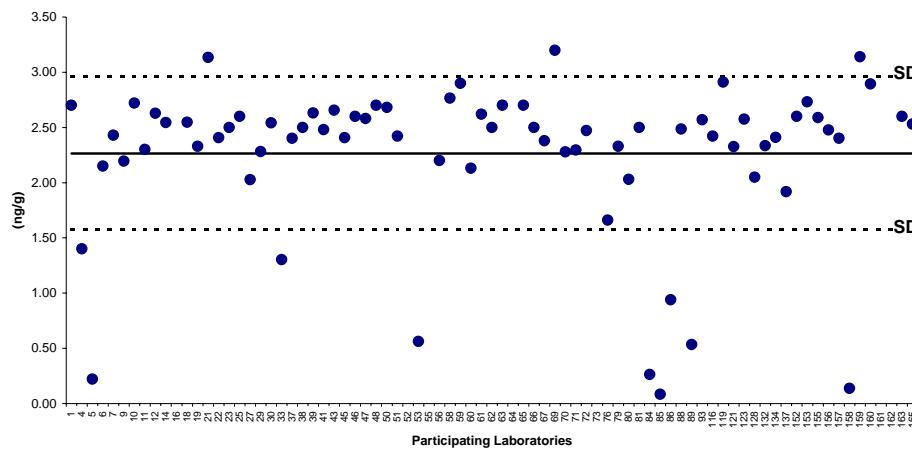


1,2,3,7,8-PeCDF Solution M

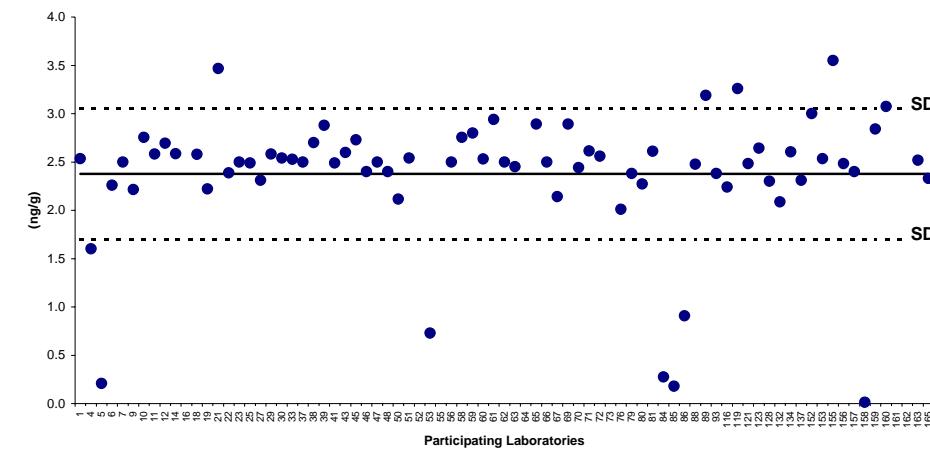


2,3,4,7,8-PeCDF Solution M**1,2,3,4,7,8-HxCDF Solution M****1,2,3,6,7,8-HxCDF Solution M****1,2,3,7,8,9-HxCDF Solution M**

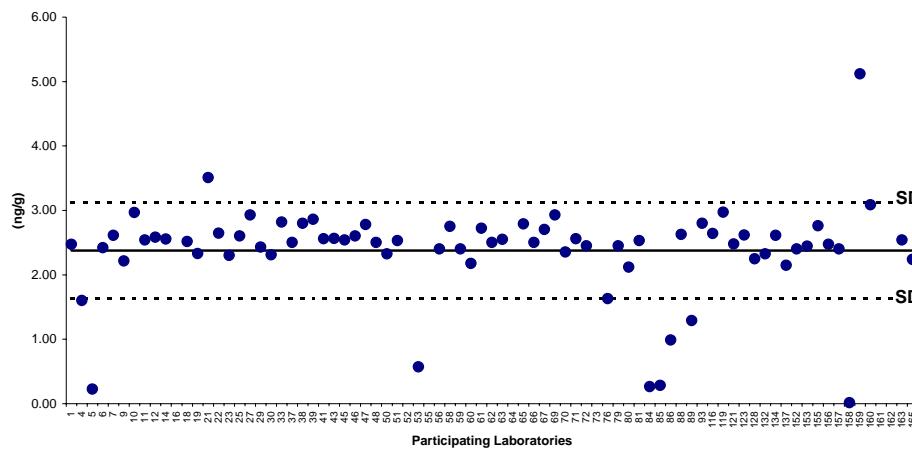
2,3,4,6,7,8-HxCDF Solution M



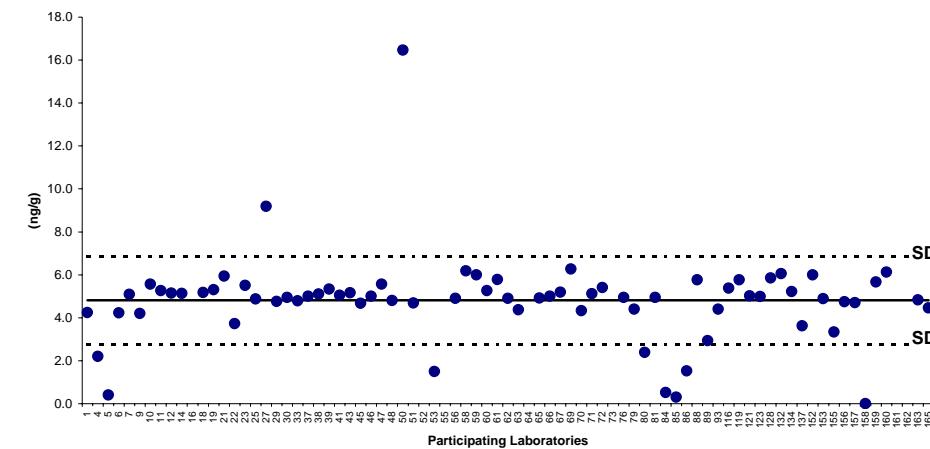
1,2,3,4,6,7,8-HpCDF Solution M



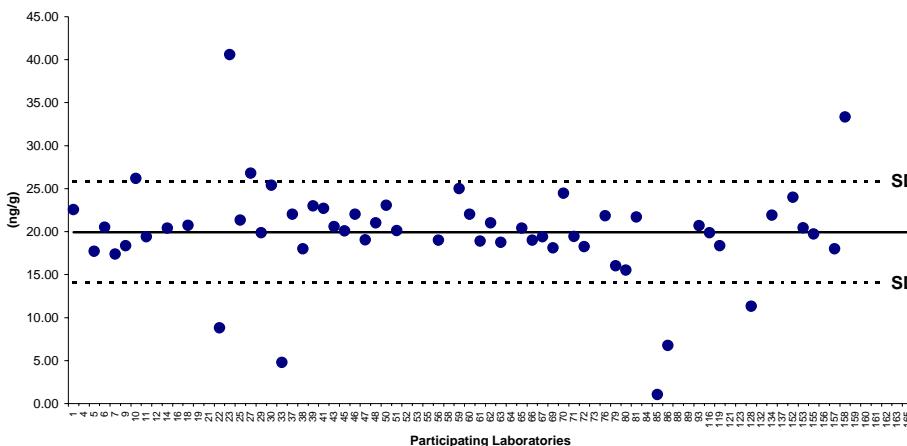
1,2,3,4,7,8,9-HpCDF Solution M



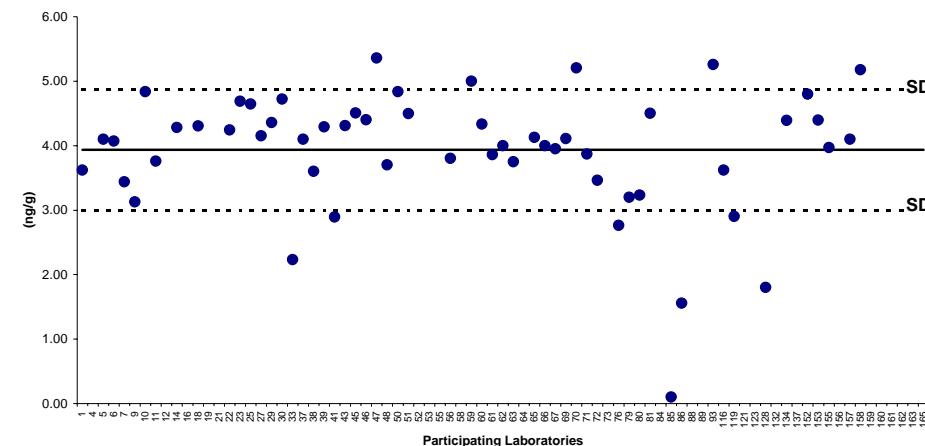
OCDF Solution M



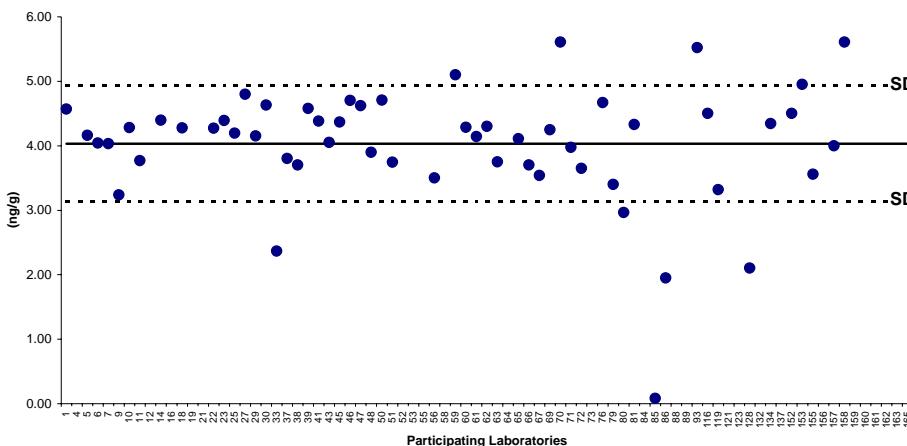
PCB #77 Solution M



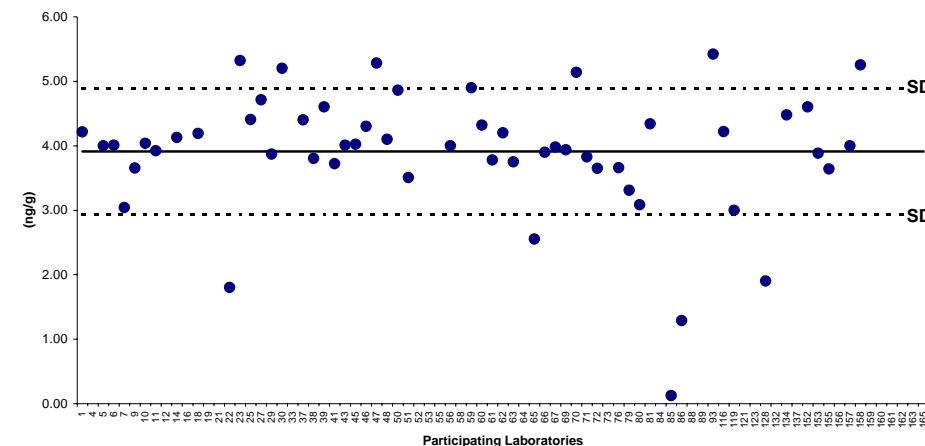
PCB #126 Solution M



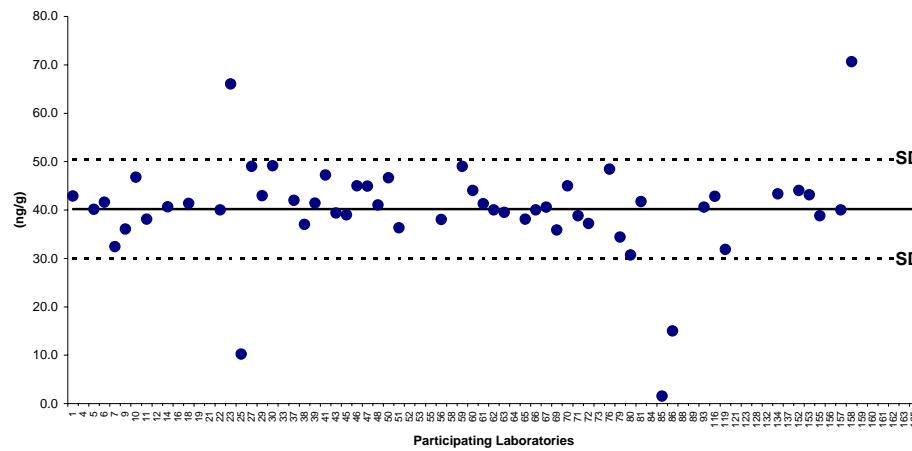
PCB #169 Solution M



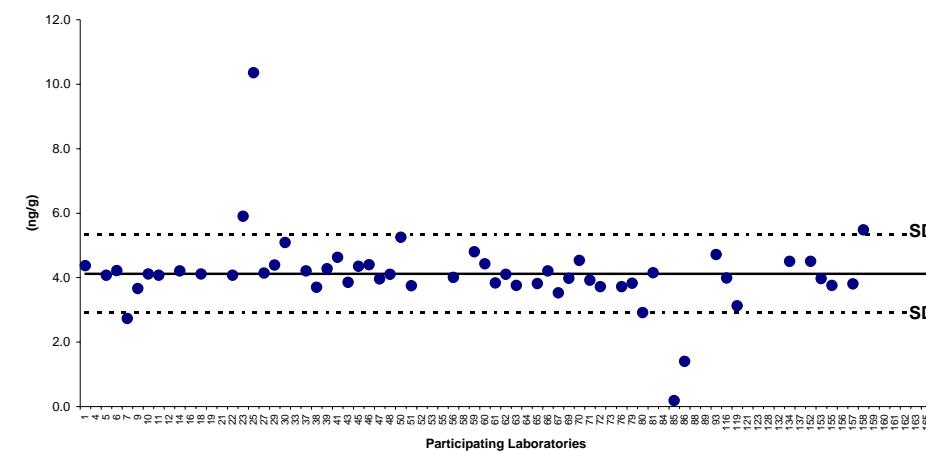
PCB #81 Solution M



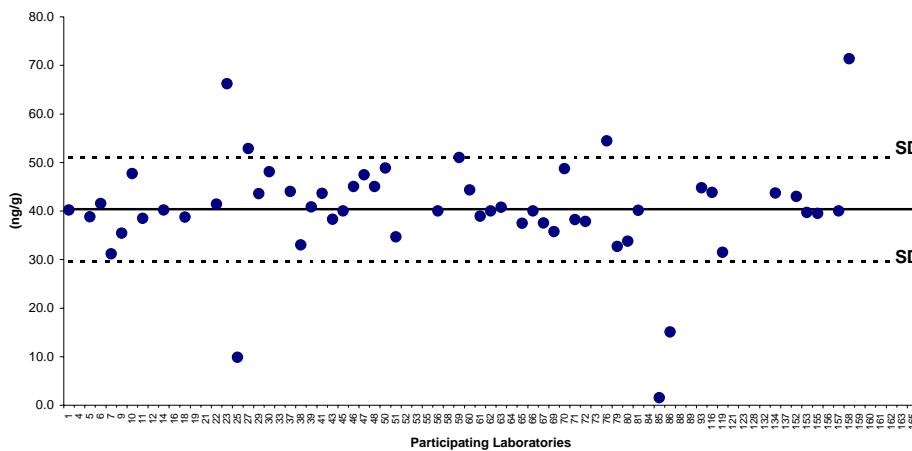
PCB #105 Solution M



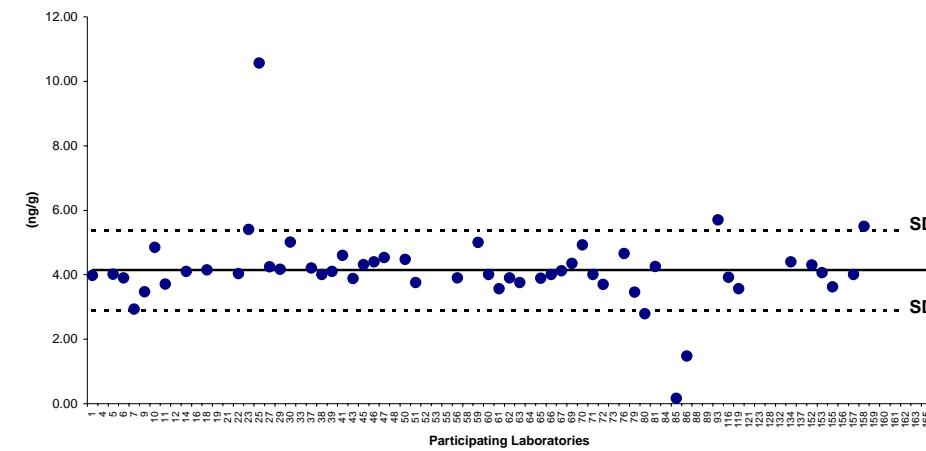
PCB #114 Solution M

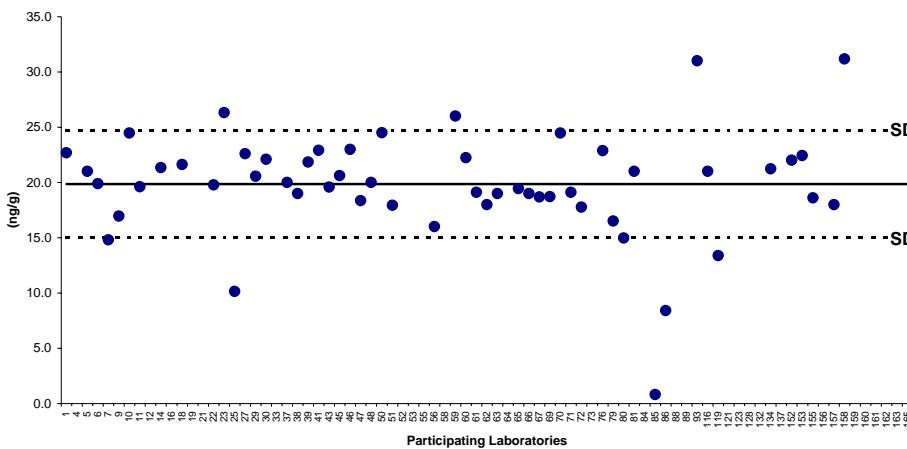
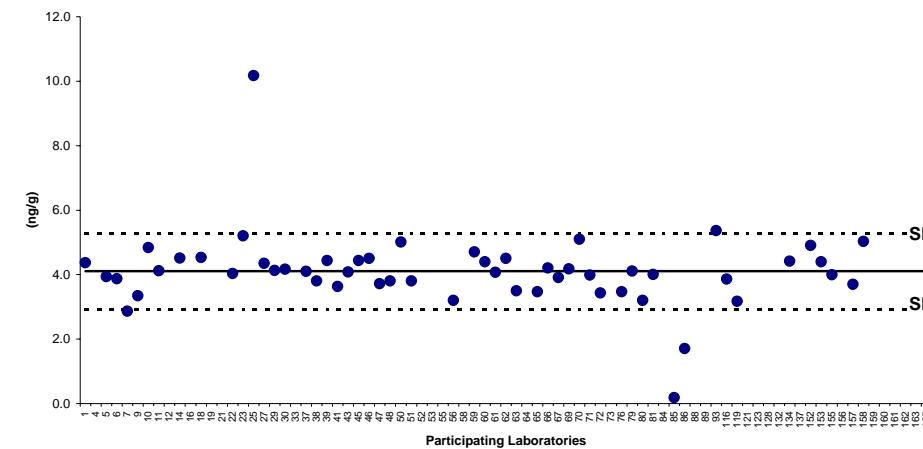
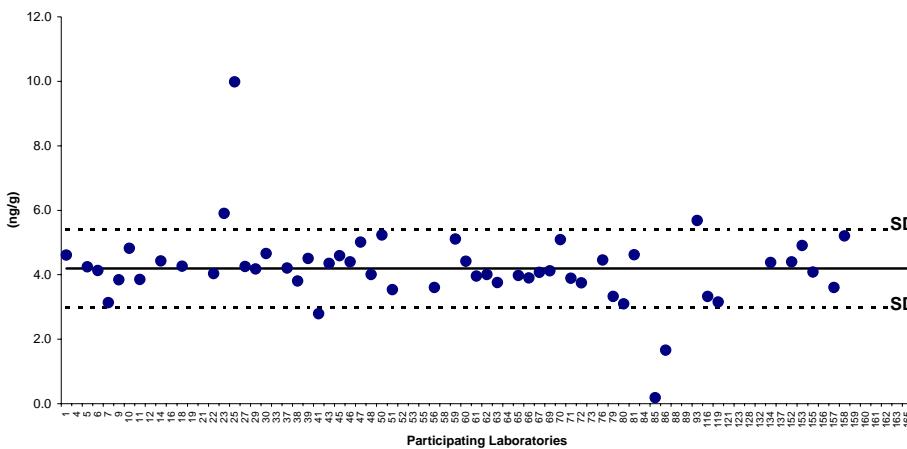
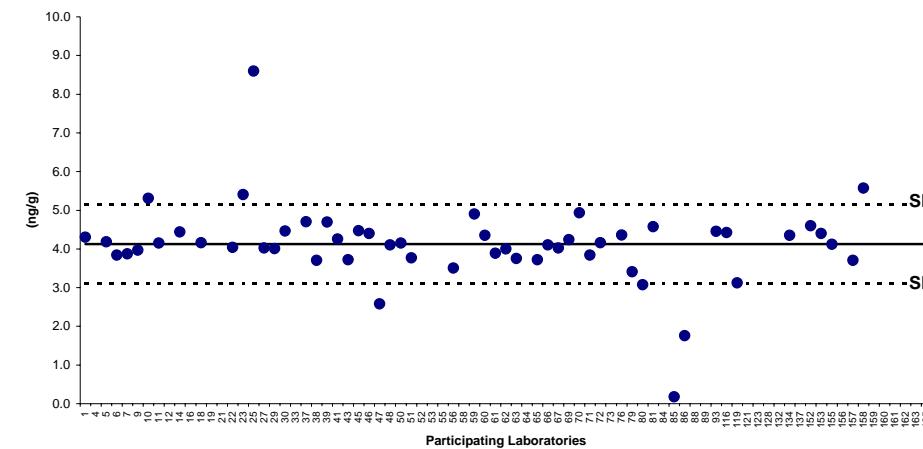


PCB #118 Solution M



PCB #123 Solution M



PCB #156 Solution M**PCB #157 Solution M****PCB #167 Solution M****PCB #189 Solution M**

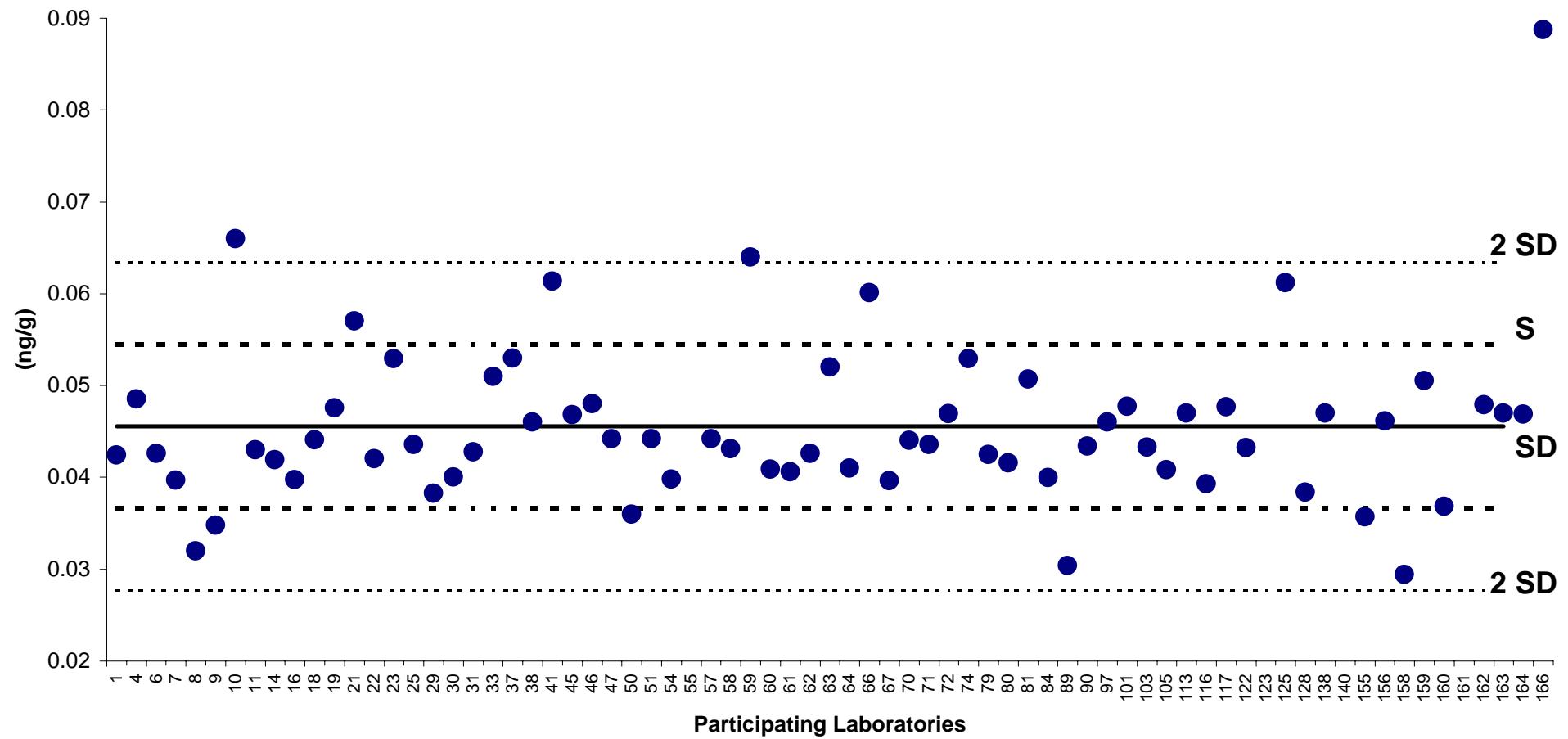
Participant code:	1	4	6	7	8	9	10	11	14	16	18	19	21
Weight Analysed:													
2,3,7,8-TeCDD	0.0012	0.0011	0.0023	0.0015	ND	0.0007	0.0018	0.0016	<0.003	0.0013	0.0015	0.0016	0.0038
1,2,3,7,8-PeCDD	0.006	0.015	0.007	0.005	ND	0.003	0.013	0.007	0.007	0.005	0.007	0.007	0.008
1,2,3,4,7,8-HxCDD	0.011	0.009	0.011	0.009	0.009	0.008	0.013	0.013	0.011	0.008	0.011	0.012	0.016
1,2,3,6,7,8-HxCDD	0.057	0.045	0.050	0.047	0.047	0.046	0.070	0.056	0.055	0.052	0.053	0.053	0.063
1,2,3,7,8,9-HxCDD	0.023	0.020	0.022	0.023	0.045	0.018	0.028	0.023	0.023	0.027	0.021	0.023	0.033
1,2,3,4,6,7,8-HpCDD	0.94	1.00	0.92	0.94	0.90	0.89	1.66	0.85	0.90	1.16	0.95	0.93	0.96
OCDD	7.8	9.5	7.7	8.2	8.1	10.7	15.2	7.9	8.5	10.1	7.2	9.1	9.3
2,3,7,8-TeCDF	0.011	0.008	0.010	0.010	0.015	0.014	0.015	0.012	0.011	0.008	0.012	0.014	0.013
1,2,3,7,8-PeCDF	0.006	0.005	0.007	0.008	ND	0.006	0.008	0.007	0.007	0.004	0.006	0.008	0.009
2,3,4,7,8-PeCDF	0.012	0.009	0.009	0.011	ND	0.008	0.016	0.012	0.011	0.007	0.013	0.014	0.014
1,2,3,4,7,8-HxCDF	0.016	0.013	0.019	0.020	0.035	0.015	0.025	0.013	0.016	0.016	0.018	0.018	0.018
1,2,3,6,7,8-HxCDF	0.013	0.011	0.016	0.014	0.017	0.013	0.020	0.015	0.014	0.012	0.017	0.032	0.018
1,2,3,7,8,9-HxCDF	0.004	0.004	< 0.0061	0.001	0.016	0.003	0.003	0.001	<0.005	0.012	0.001	0.005	0.004
2,3,4,6,7,8-HxCDF	0.022	0.016	0.015	0.014	ND	0.018	0.026	0.013	0.014	0.003	0.017	0.021	0.026
1,2,3,4,6,7,8-HpCDF	0.323	0.390	0.41	0.30	0.36	0.29	0.44	0.35	0.35	0.27	0.35	0.35	0.83
1,2,3,4,7,8,9-HpCDF	0.017	0.012	0.018	0.015	0.024	0.014	0.021	0.018	0.014	0.011	0.017	0.016	0.023
OCDF	0.506	0.690	0.62	0.66	0.76	0.63	0.81	0.71	0.77	0.51	0.98	0.83	1.59
TEQ (PCDD/DF)	0.042	0.049	0.043	0.040	0.032	0.035	0.066	0.043	0.042	0.040	0.044	0.048	0.057
PCB #77	0.89	NA	1.23	0.78	NA	0.62	1.19	0.74	0.80	NA	0.90	1.22	NA
PCB #126	0.147	NA	0.219	0.079	NA	0.064	0.144	0.088	0.110	NA	0.137	0.214	NA
PCB #169	0.012	NA	< 0.36	< 0.0031	NA	0.022	0.026	0.012	0.014	NA	0.017	0.017	NA
TEQ (including PCBs)	0.057	NA	0.065	0.048	NA	0.041	0.081	0.052	0.053	NA	0.058	0.069	NA
Other PCBs (Optional)													
PCB #81	0.157	NA	0.342	0.014	NA	0.020	< 0.01	0.014	0.067	NA	0.024	0.338	NA
PCB #105	4.9	NA	5.9	4.7	NA	4.1	7.5	4.3	5.2	NA	5.6	7.7	NA
PCB #114	0.16	NA	0.14	0.13	NA	0.08	0.28	0.14	0.14	NA	0.19	0.13	NA
PCB #118	8.7	NA	10.9	8.1	NA	7.0	15.4	10.2	10.1	NA	11.2	14.4	NA
PCB #123	0.21	NA	1.79	0.26	NA	0.53	1.30	1.82	0.35	NA	0.77	0.38	NA
PCB #156	6.2	NA	5.3	4.7	NA	4.5	7.7	6.2	6.2	NA	7.2	7.6	NA
PCB #157	0.65	NA	1.15	0.89	NA	0.84	1.51	1.13	1.21	NA	1.32	1.39	NA
PCB #167	2.9	NA	2.7	2.4	NA	2.5	4.3	2.8	3.1	NA	3.8	3.6	NA
PCB #189	1.04	NA	0.87	1.07	NA	0.81	1.45	1.18	1.05	NA	1.33	1.16	NA
TEQ Total	0.062	NA	0.070	0.052	NA	0.045	0.890	0.057	0.059	NA	0.064	0.076	NA

Participant code:	158	159	160	161	162	163	164	166
Weight Analysed:								
2,3,7,8-TeCDD	0.0005	0.0084	0.0024	0.1440	0.0018	0.0012	0.0018	ND
1,2,3,7,8-PeCDD	0.003	0.006	0.002	0.710	0.010	0.006	0.011	0.087
1,2,3,4,7,8-HxCDD	0.011	0.050	0.008	0.080	0.009	0.009	0.008	ND
1,2,3,6,7,8-HxCDD	0.026	0.043	0.039	0.430	0.052	0.047	0.045	ND
1,2,3,7,8,9-HxCDD	0.007	0.037	0.012	0.320	0.026	0.023	0.018	ND
1,2,3,4,6,7,8-HpCDD	0.83	0.74	1.19	0.72	1.00	0.98	1.02	ND
OCDD	13.5	5.8	10.8	0.0	10.6	8.6	9.0	ND
2,3,7,8-TeCDF	0.006	0.013	0.009	0.004	0.013	0.010	0.011	ND
1,2,3,7,8-PeCDF	0.006	0.005	0.006	0.024	0.007	0.006	0.006	ND
2,3,4,7,8-PeCDF	0.006	0.010	0.009	0.460	0.011	0.012	0.011	ND
1,2,3,4,7,8-HxCDF	0.006	0.024	0.015	0.134	0.017	0.017	0.017	ND
1,2,3,6,7,8-HxCDF	0.011	0.012	0.012	0.122	0.015	0.015	0.014	ND
1,2,3,7,8,9-HxCDF	0.008	0.013	0.015	0.011	0.020	0.004	0.005	ND
2,3,4,6,7,8-HxCDF	0.004	0.001	0.004	0.112	0.004	0.020	0.019	ND
1,2,3,4,6,7,8-HpCDF	0.47	0.26	0.25	0.26	0.30	0.35	0.31	0.00
1,2,3,4,7,8,9-HpCDF	0.009	0.018	0.011	0.016	0.017	0.015	0.016	ND
OCDF	1.14	0.50	0.52	ND	0.96	0.66	0.60	ND
TEQ (PCDD/DF)	0.029	0.051	0.037	NA	0.048	0.047	0.047	0.089
PCB #77	NA	NA	NA	NA	NA	NA	2.36	NA
PCB #126	NA	NA	NA	NA	NA	NA	0.182	NA
PCB #169	NA	NA	NA	NA	NA	NA	0.206	NA
TEQ (including PCBs)	NA	NA	NA	NA	NA	NA	0.067	NA
Other PCBs (Optional)								
PCB #81	NA	NA	NA	NA	NA	NA	0.688	NA
PCB #105	NA	NA	NA	NA	NA	NA	11.7	NA
PCB #114	NA	NA	NA	NA	NA	NA	0.25	NA
PCB #118	NA	NA	NA	NA	NA	NA	25.1	NA
PCB #123	NA	NA	NA	NA	NA	NA	3.46	NA
PCB #156	NA	NA	NA	NA	NA	NA	13.7	NA
PCB #157	NA	NA	NA	NA	NA	NA	2.58	NA
PCB #167	NA	NA	NA	NA	NA	NA	18.5	NA
PCB #189	NA	NA	NA	NA	NA	NA	2.44	NA
TEQ Total	NA	NA	NA	NA	NA	NA	0.080	NA

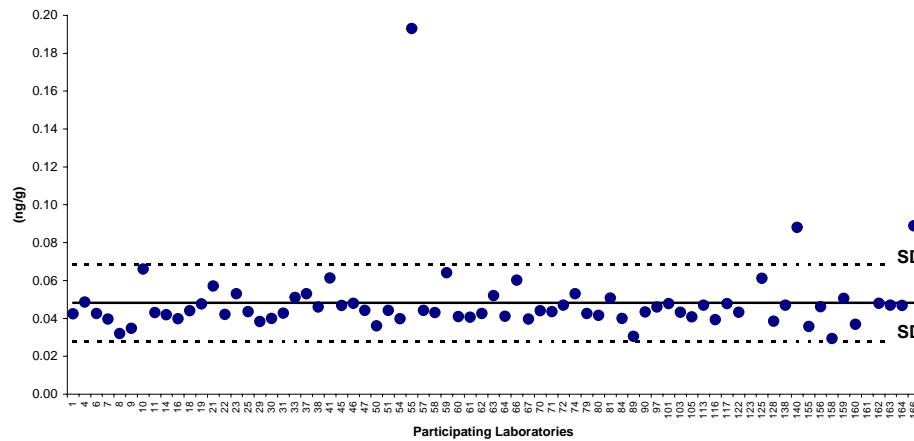
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.0039	0.0017	0.0001	0.144	0.017	449%
1,2,3,7,8-PeCDD	0.018	0.007	0.0002	0.71	0.084	471%
1,2,3,4,7,8-HxCDD	0.012	0.010	0.0002	0.08	0.010	83%
1,2,3,6,7,8-HxCDD	0.058	0.051	0.013	0.43	0.048	83%
1,2,3,7,8,9-HxCDD	0.029	0.023	0.007	0.32	0.036	124%
1,2,3,4,6,7,8-HpCDD	1.10	0.95	0.066	3.2	0.46	42%
OCDD	9.3	8.64	0.0002	17.0	3.2	35%
2,3,7,8-TeCDF	0.011	0.011	0.001	0.02	0.003	28%
1,2,3,7,8-PeCDF	0.008	0.007	0.004	0.02	0.003	41%
2,3,4,7,8-PeCDF	0.017	0.011	0.000	0.46	0.05	310%
1,2,3,4,7,8-HxCDF	0.020	0.017	0.006	0.13	0.01	73%
1,2,3,6,7,8-HxCDF	0.017	0.015	0.011	0.12	0.01	78%
1,2,3,7,8,9-HxCDF	0.005	0.003	0.000	0.02	0.01	116%
2,3,4,6,7,8-HxCDF	0.018	0.02	0.000	0.14	0.02	109%
1,2,3,4,6,7,8-HpCDF	0.35	0.33	0.002	0.83	0.10	28%
1,2,3,4,7,8,9-HpCDF	0.017	0.02	0.009	0.04	0.004	22%
OCDF	0.75	0.69	0.028	1.87	0.27	37%
TEQ (PCDD/DF)	0.048	0.044	0.029	0.193	0.020	42%
PCB #77	0.89	0.81	0.57	2.36	0.31	35%
PCB #126	0.108	0.098	0.049	0.30	0.04	40%
PCB #169	0.023	0.014	0.007	0.21	0.04	180%
TEQ (including PCBs)	0.059	0.055	0.038	0.195	0.021	36%
Other PCBs (Optional)						
PCB #81	0.172	0.015	0.0073	5.30	0.78	451%
PCB #105	5.6	5.4	3.7	11.7	1.40	25%
PCB #114	0.20	0.16	0.046	0.51	0.10	52%
PCB #118	12.1	10.90	7.03	54.01	6.69	55%
PCB #123	0.961	0.530	0.190	3.52	0.93	97%
PCB #156	6.5	6.290	4.496	13.654	1.392	21%
PCB #157	1.19	1.15	0.65	2.58	0.27	23%
PCB #167	3.7	3.1	2.4	18.5	2.67	71%
PCB #189	1.08	1.05	0.64	2.44	0.26	24%
TEQ Total	0.080	0.061	0.044	0.890	0.116	145%

TEQ results 55, 140 and 161 outliers						
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.0018	0.0017	0.0001	0.008	0.001	57%
1,2,3,7,8-PeCDD	0.008	0.007	0.0002	0.09	0.010	126%
1,2,3,4,7,8-HxCDD	0.011	0.010	0.0002	0.05	0.005	49%
1,2,3,6,7,8-HxCDD	0.051	0.051	0.013	0.08	0.010	19%
1,2,3,7,8,9-HxCDD	0.024	0.023	0.007	0.05	0.006	25%
1,2,3,4,6,7,8-HpCDD	1.07	0.95	0.066	2.6	0.38	36%
OCDD	9.4	8.64	0.8192	17.0	3.0	32%
2,3,7,8-TeCDF	0.012	0.011	0.001	0.02	0.003	27%
1,2,3,7,8-PeCDF	0.007	0.007	0.004	0.02	0.002	34%
2,3,4,7,8-PeCDF	0.011	0.011	0.000	0.02	0.00	25%
1,2,3,4,7,8-HxCDF	0.018	0.017	0.006	0.04	0.00	24%
1,2,3,6,7,8-HxCDF	0.015	0.015	0.011	0.03	0.00	22%
1,2,3,7,8,9-HxCDF	0.005	0.003	0.000	0.02	0.01	120%
2,3,4,6,7,8-HxCDF	0.017	0.02	0.000	0.14	0.02	96%
1,2,3,4,6,7,8-HpCDF	0.35	0.34	0.002	0.83	0.10	28%
1,2,3,4,7,8,9-HpCDF	0.017	0.02	0.009	0.04	0.004	23%
OCDF	0.76	0.69	0.248	1.87	0.26	35%
TEQ (PCDD/DF)	0.046	0.044	0.029	0.089	0.009	20%
PCB #77	0.89	0.81	0.57	2.36	0.31	35%
PCB #126	0.108	0.098	0.049	0.30	0.04	40%
PCB #169	0.023	0.014	0.007	0.21	0.04	180%
TEQ (including PCBs)	0.056	0.055	0.038	0.083	0.009	16%
Other PCBs (Optional)						
PCB #81	0.172	0.015	0.0073	5.30	0.78	451%
PCB #105	5.6	5.4	3.7	11.7	1.40	25%
PCB #114	0.20	0.16	0.046	0.51	0.10	52%
PCB #118	12.1	10.90	7.03	54.01	6.69	55%
PCB #123	0.961	0.530	0.190	3.52	0.93	97%
PCB #156	6.5	6.290	4.496	13.654	1.392	21%
PCB #157	1.19	1.15	0.65	2.58	0.27	23%
PCB #167	3.7	3.1	2.4	18.5	2.67	71%
PCB #189	1.08	1.05	0.64	2.44	0.26	24%
TEQ Total	0.078	0.061	0.044	0.890	0.116	149%

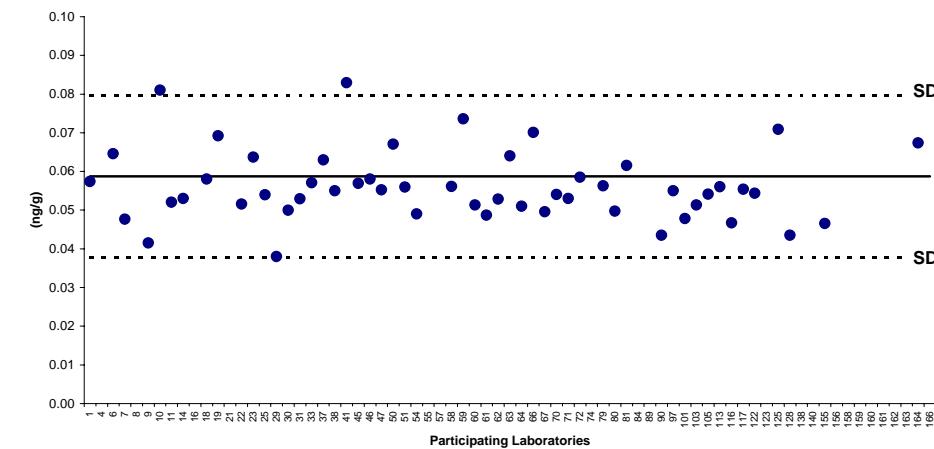
PCDD/DF TEQ Soil A (RSD 20 %, n = 69)



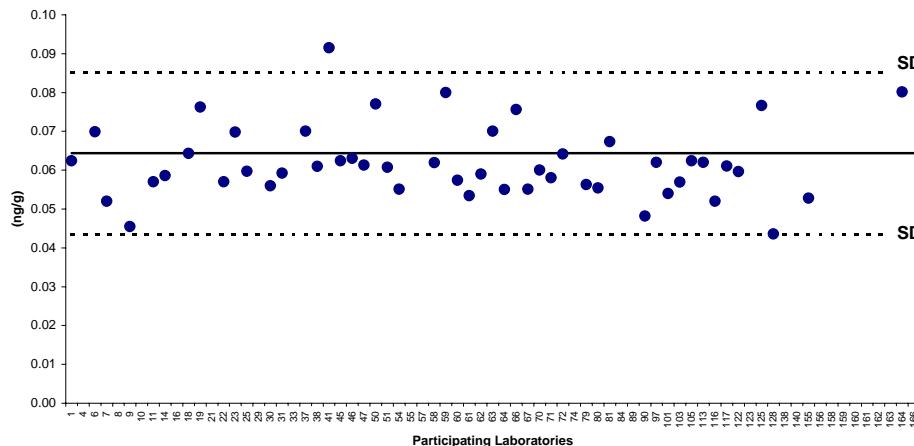
PCDD/DF TEQ Soil A (RSD 42%, n = 71)



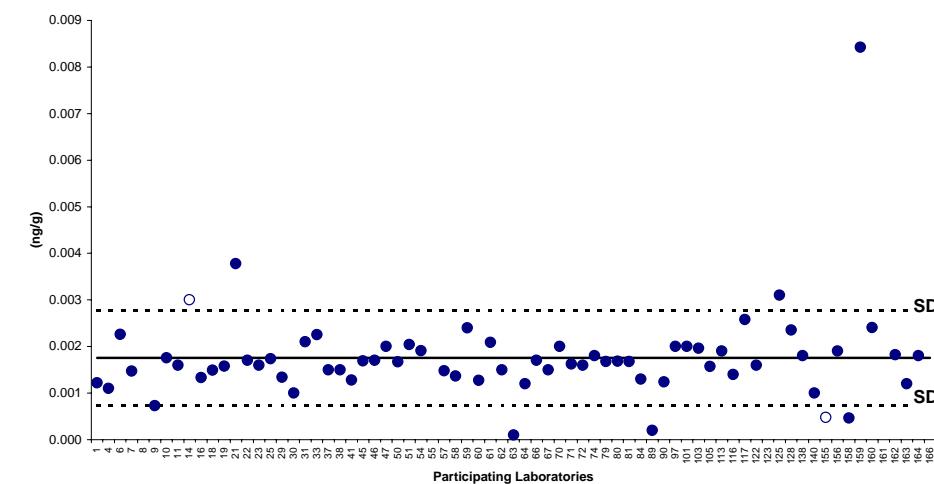
TEQ (including planar PCBs) Soil A



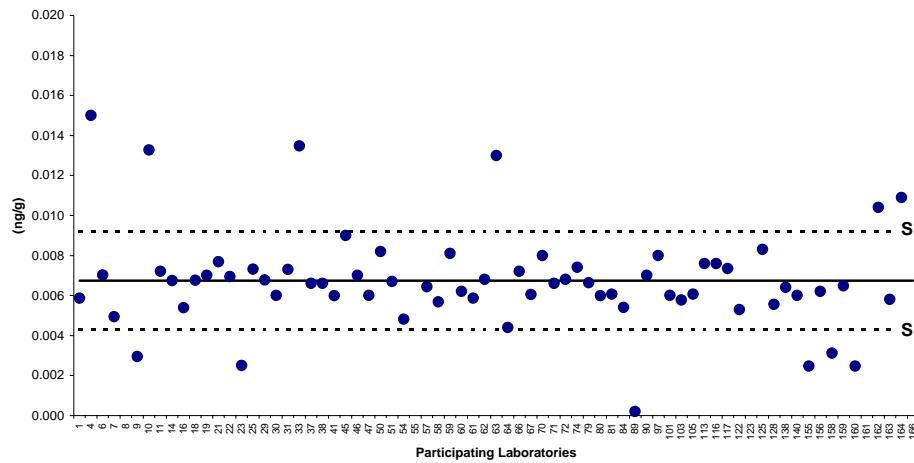
WHO TEQ Soil A



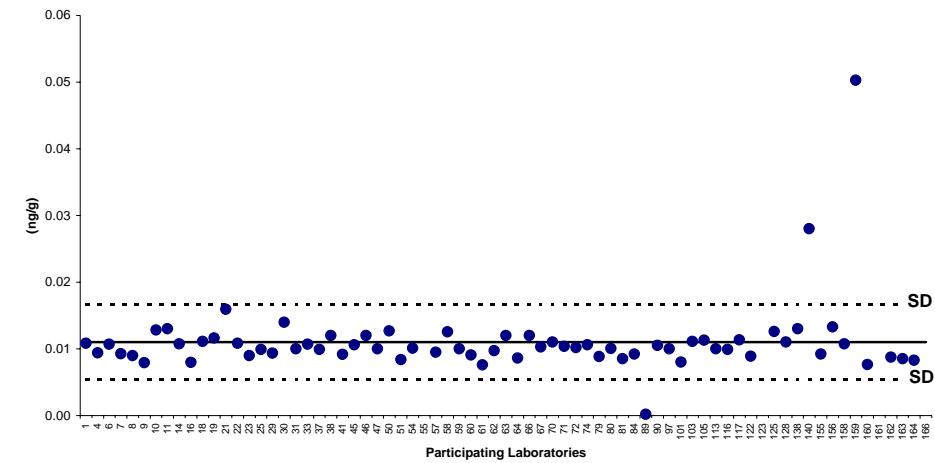
2,3,7,8-TeCDD Soil A



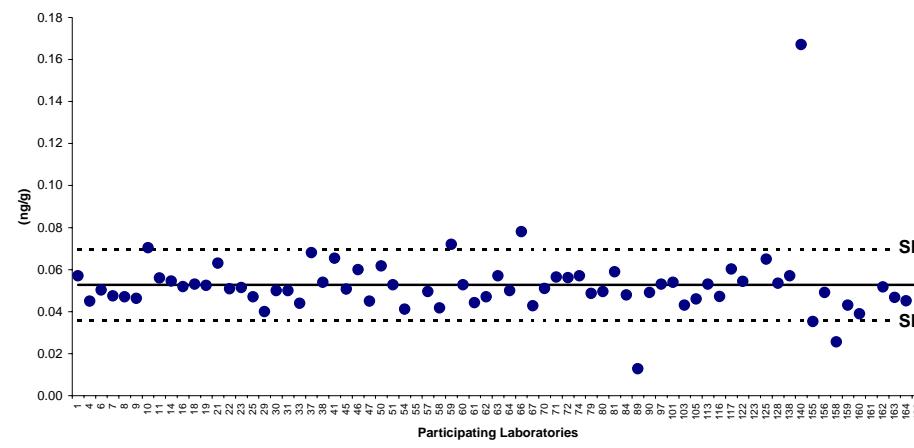
1,2,3,7,8-PeCDD Soil A



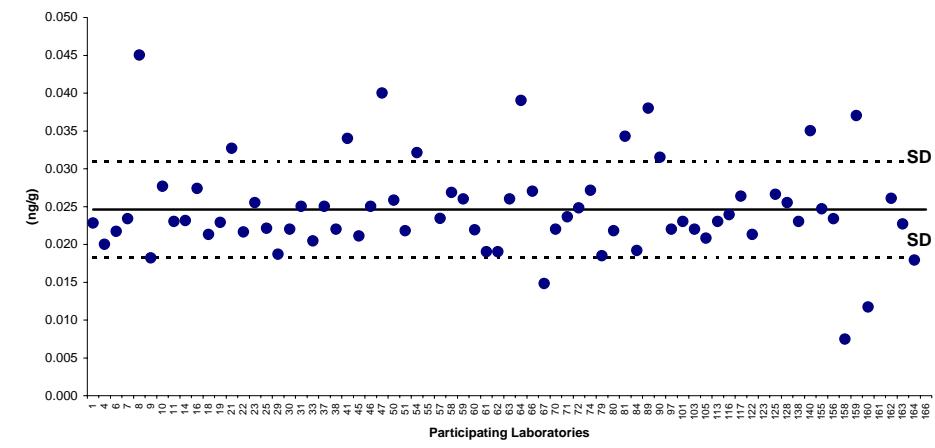
1,2,3,4,7,8-HxCDD Soil A



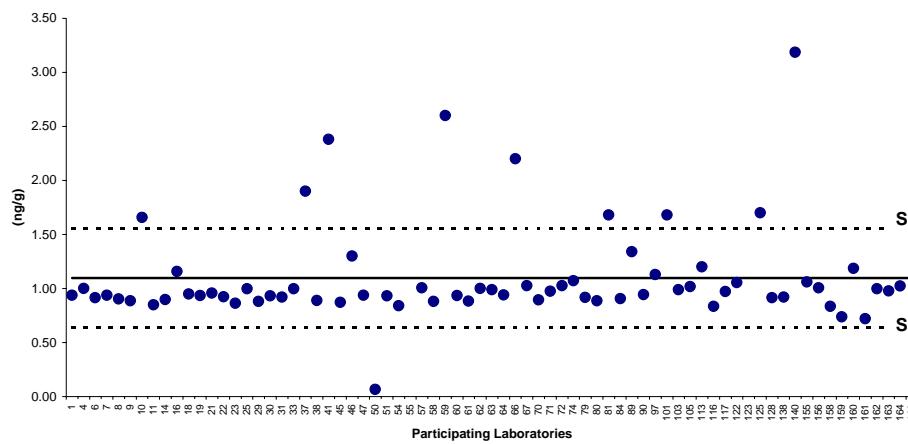
1,2,3,6,7,8-HxCDD Soil A



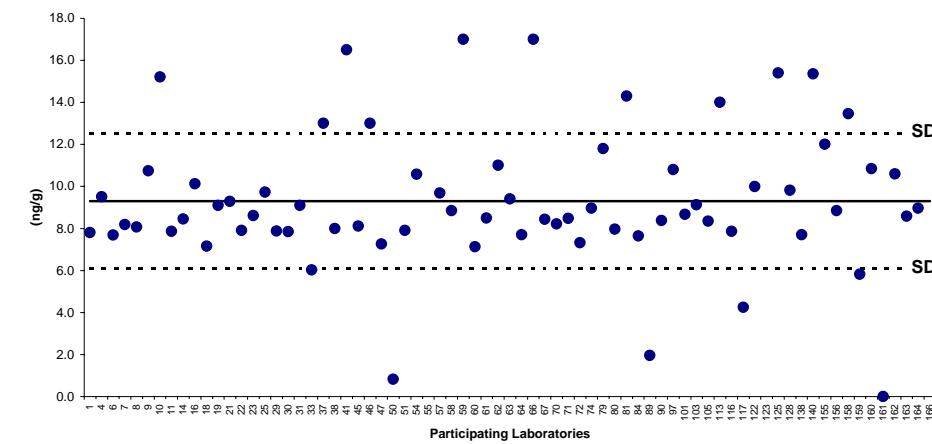
1,2,3,7,8,9-HxCDD Soil A



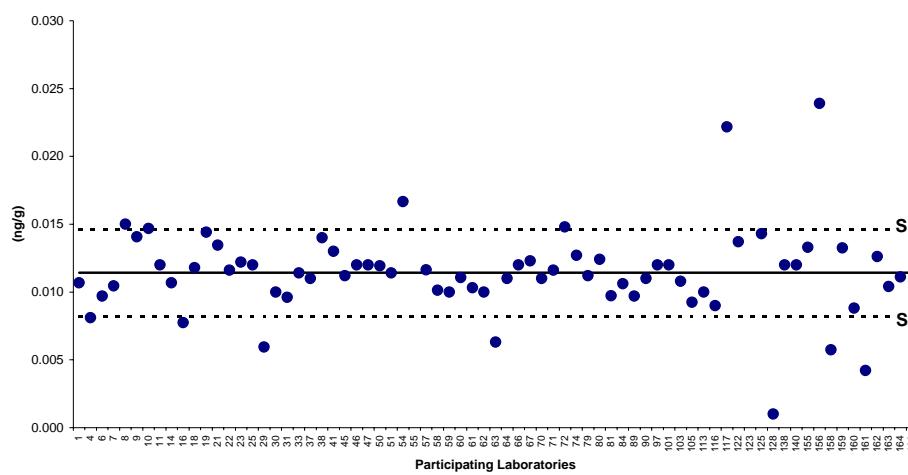
1,2,3,4,6,7,8-HpCDD Soil A



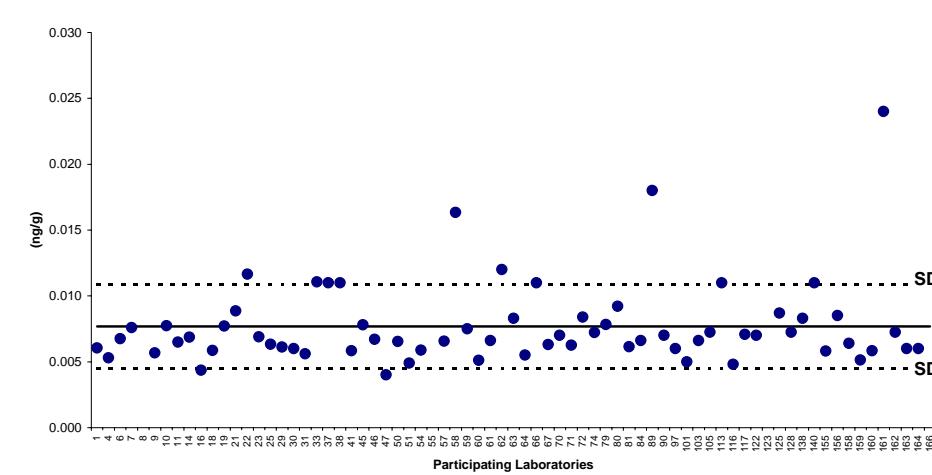
OCDD Soil A



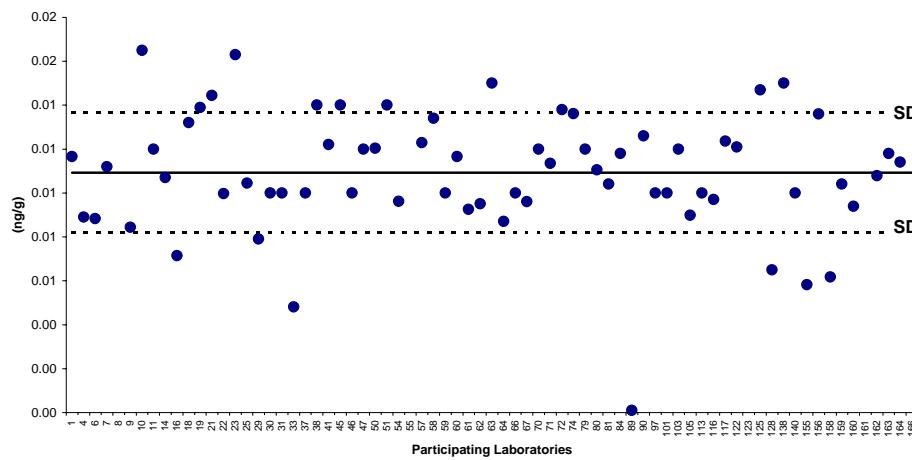
2,3,7,8-TeCDF Soil A



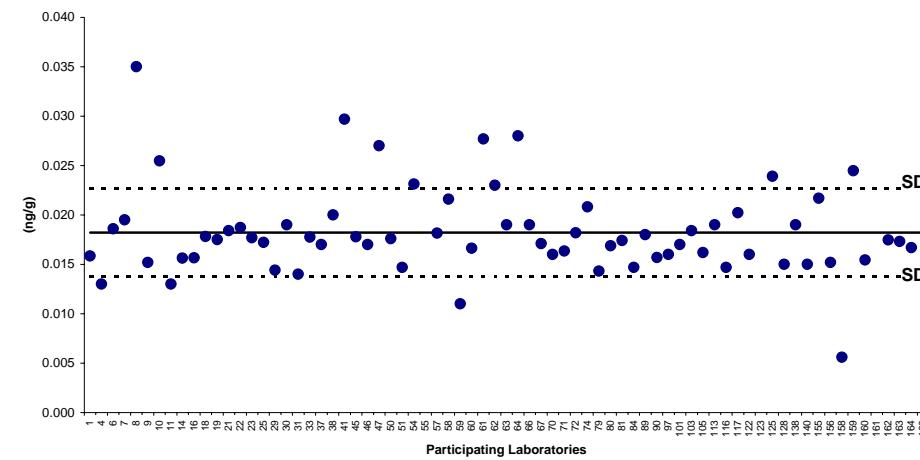
1,2,3,7,8-PeCDF Soil A



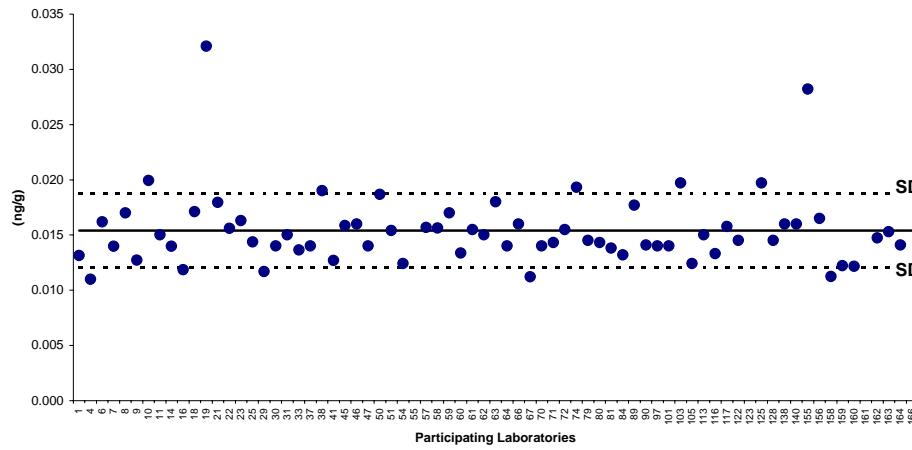
2,3,4,7,8-PeCDF Soil A



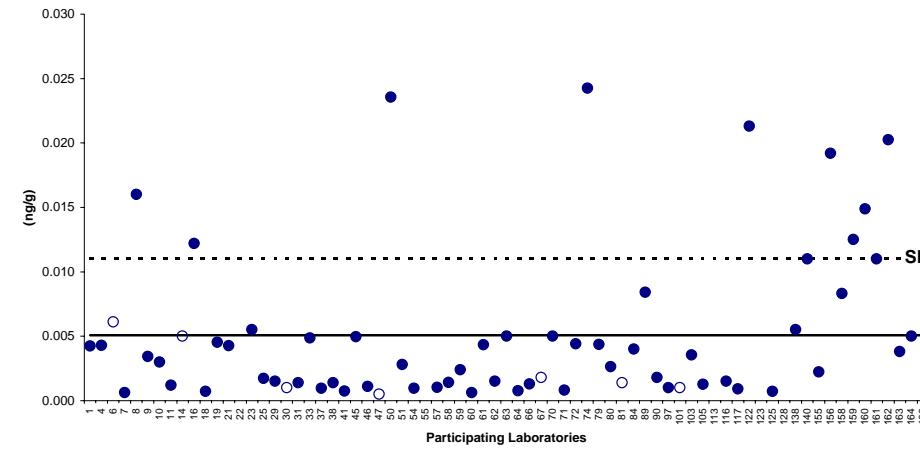
1,2,3,4,7,8-HxCDF Soil A



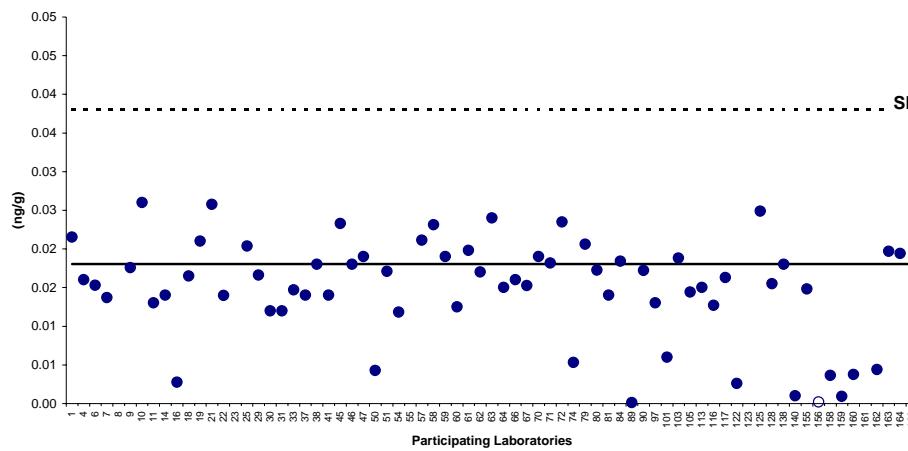
1,2,3,6,7,8-HxCDF Soil A



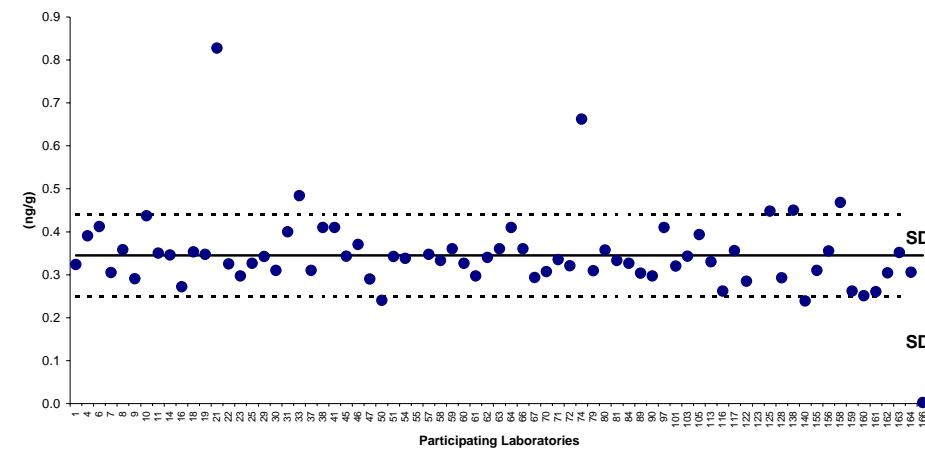
1,2,3,7,8,9-HxCDF Soil A



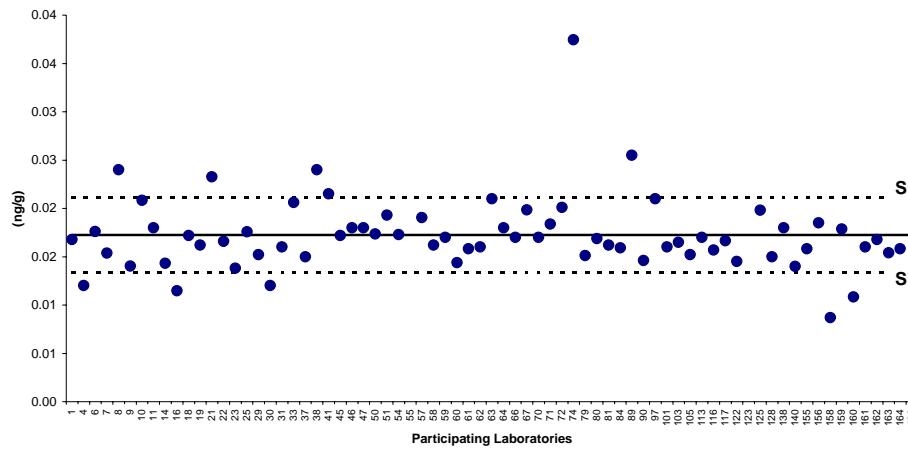
2,3,4,6,7,8-HxCDF Soil A



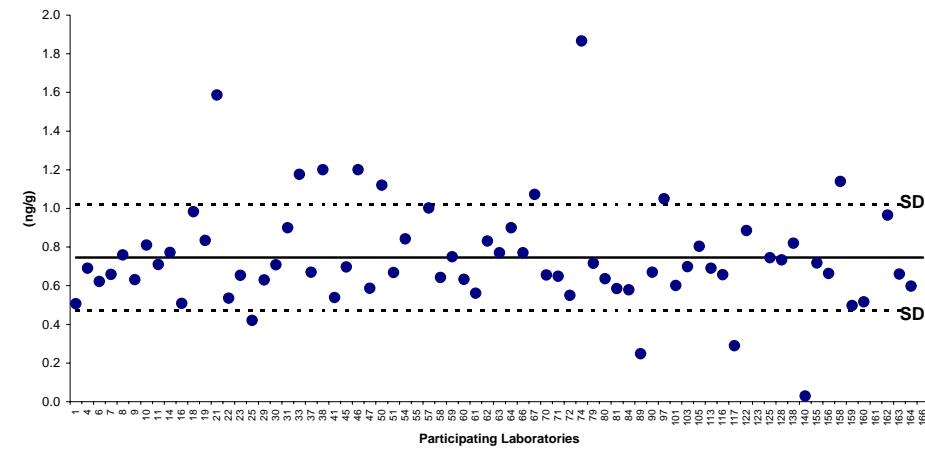
1,2,3,4,6,7,8-HpCDF Soil A



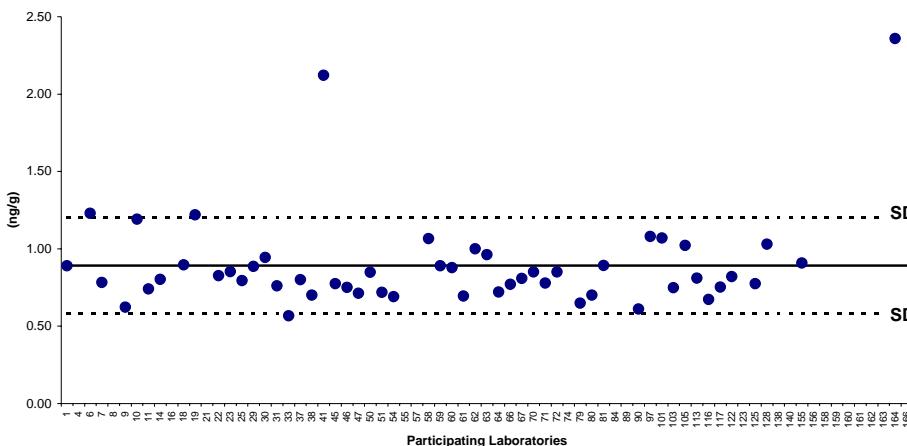
1,2,3,4,7,8,9-HpCDF Soil A



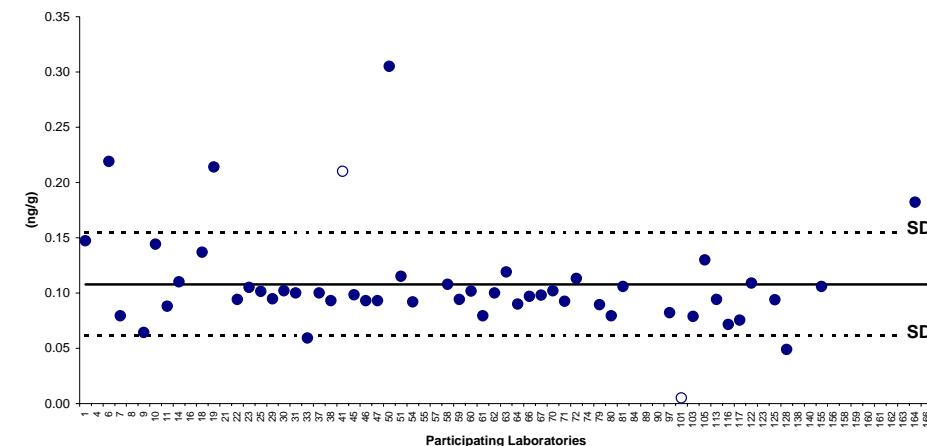
OCDF Soil A



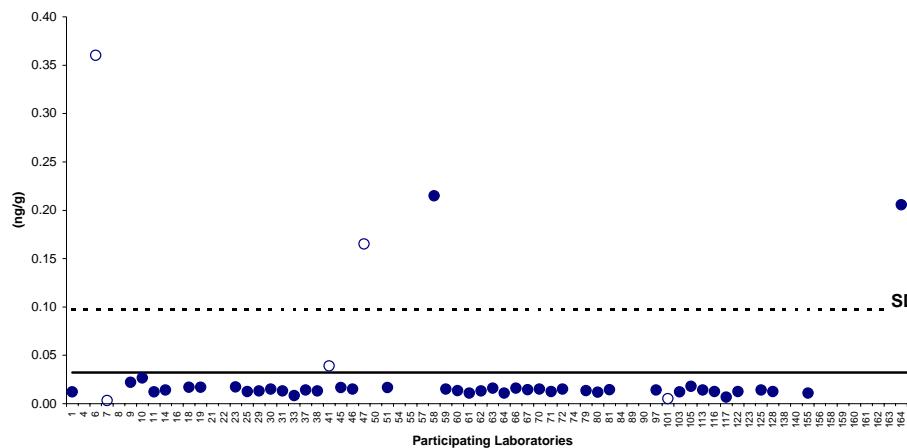
PCB #77 Soil A



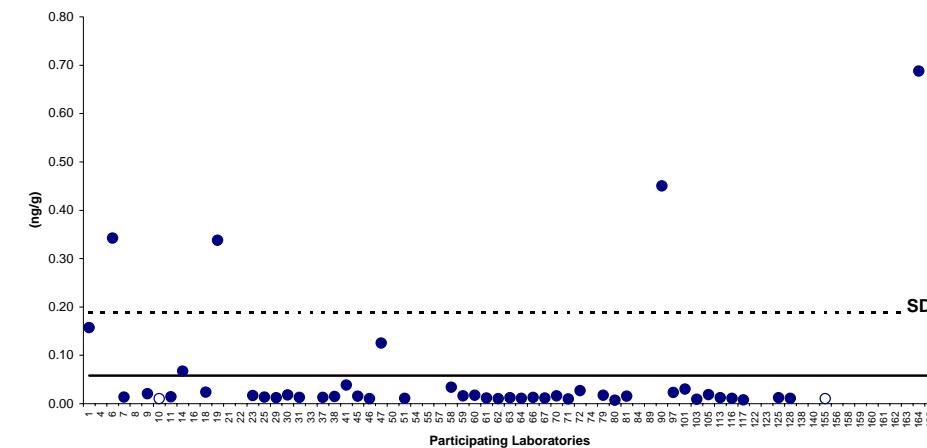
PCB #126 Soil A



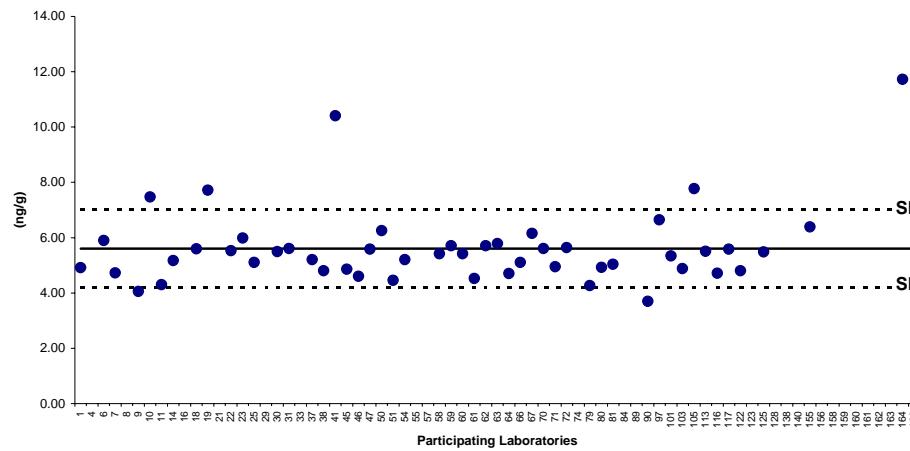
PCB #169 Soil A



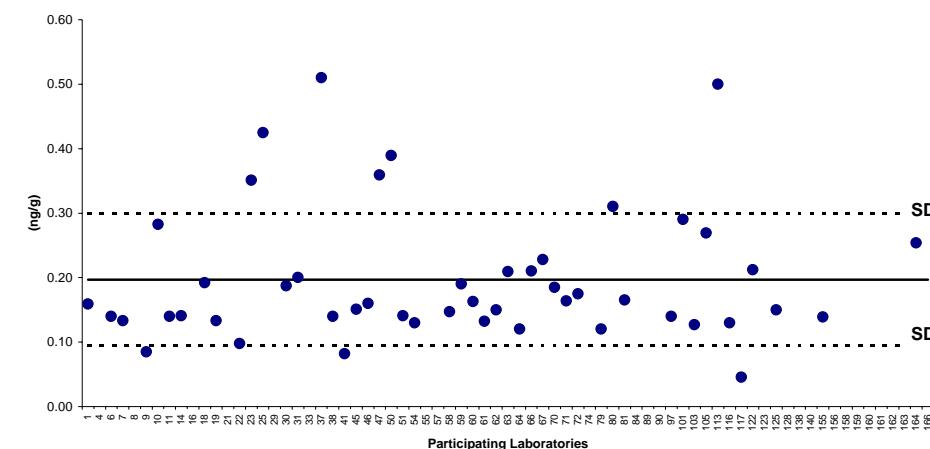
PCB #81 Soil A



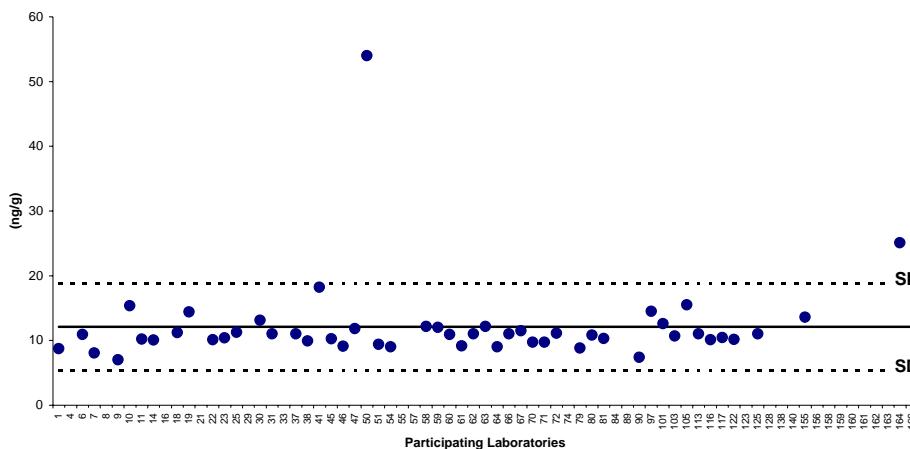
PCB #105 Soil A



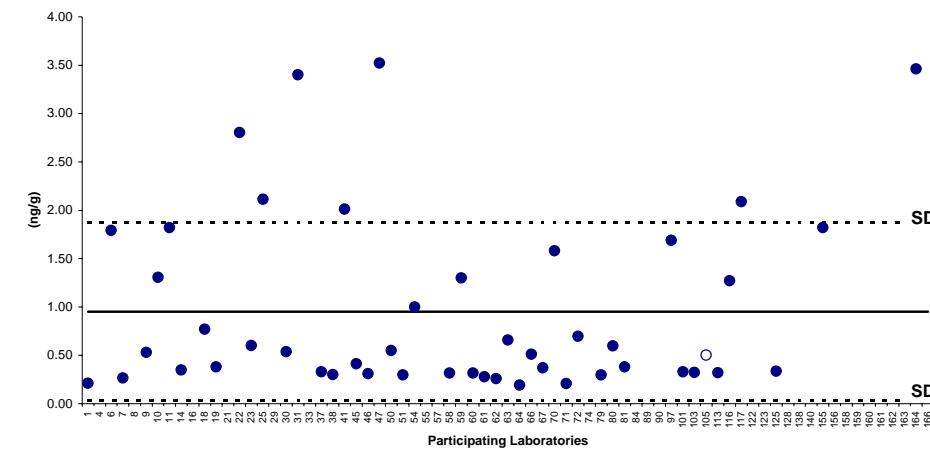
PCB #114 Soil A



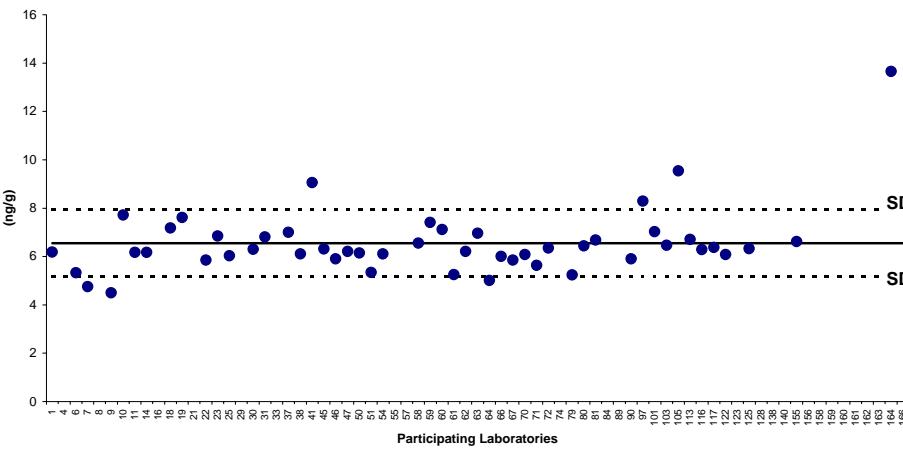
PCB #118 Soil A



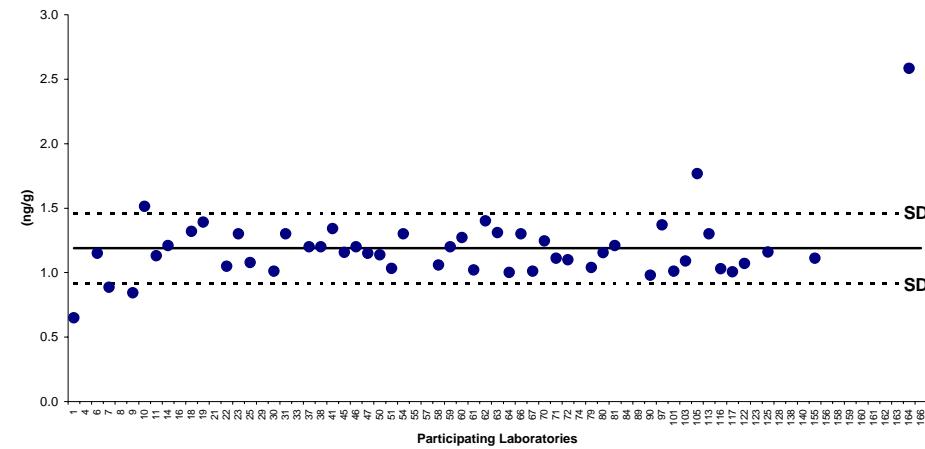
PCB #123 Soil A



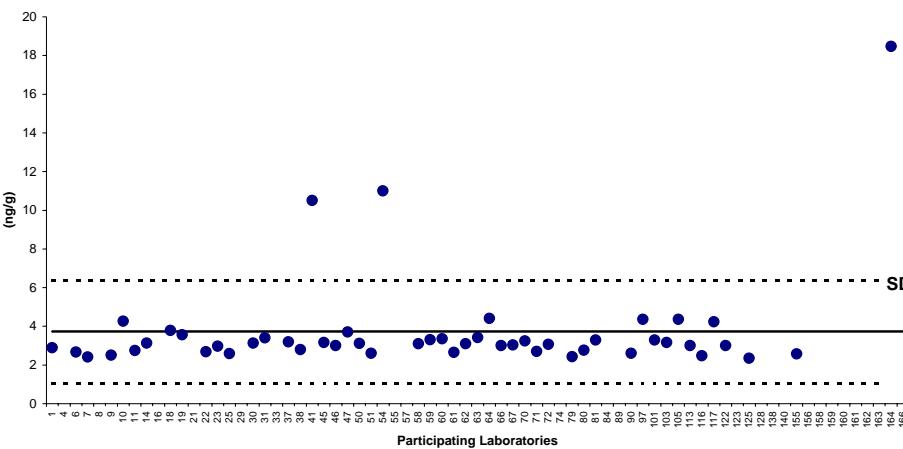
PCB #156 Soil A



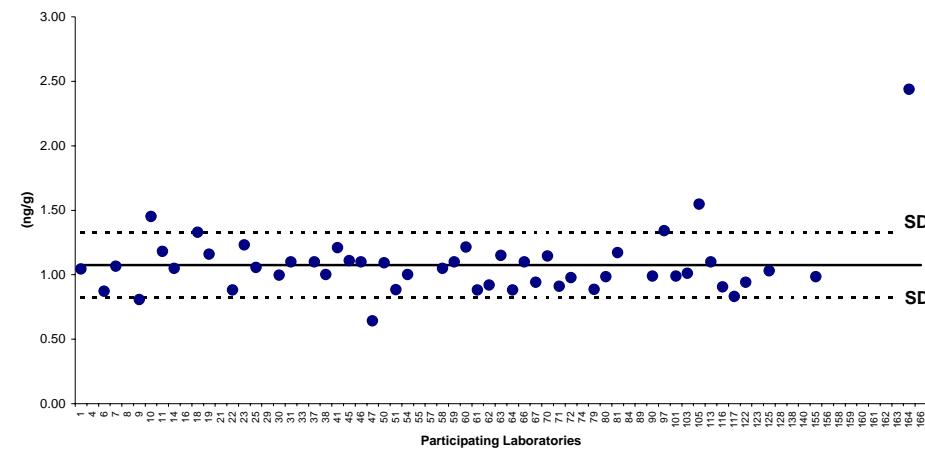
PCB #157 Soil A



PCB #167 Soil A



PCB #189 Soil A



Participant code:	1	4	6	7	8	9	10	11	14	16	18	19	21
Weight Analysed:													
2,3,7,8-TeCDD	0.054	0.054	0.057	0.080	0.039	0.053	0.067	0.066	0.056	0.043	0.060	0.054	0.064
1,2,3,7,8-PeCDD	0.006	0.008	0.007	0.007	0.005	0.005	0.009	0.007	0.007	0.006	0.007	0.007	0.006
1,2,3,4,7,8-HxCDD	0.008	0.007	0.007	0.010	0.007	0.007	0.009	0.010	0.008	0.005	0.007	0.009	0.009
1,2,3,6,7,8-HxCDD	0.026	0.020	0.024	0.029	0.025	0.034	0.028	0.026	0.025	0.019	0.023	0.025	0.025
1,2,3,7,8,9-HxCDD	0.012	0.011	0.012	0.021	0.022	0.013	0.014	0.012	0.014	0.012	0.012	0.014	0.016
1,2,3,4,6,7,8-HpCDD	0.362	0.390	0.36	0.51	0.35	0.62	0.56	0.36	0.35	0.28	0.38	0.37	0.37
OCDD	3.592	4.500	3.98	5.36	3.64	7.51	6.09	3.63	3.80	2.50	3.82	4.27	3.88
2,3,7,8-TeCDF	0.044	0.041	0.044	0.065	0.067	0.045	0.052	0.046	0.040	0.031	0.048	0.050	0.047
1,2,3,7,8-PeCDF	0.051	0.043	0.052	0.076	0.054	0.076	0.061	0.050	0.046	0.032	0.049	0.066	0.049
2,3,4,7,8-PeCDF	0.056	0.046	0.039	0.071	0.050	0.068	0.066	0.051	0.047	0.029	0.046	0.066	0.056
1,2,3,4,7,8-HxCDF	0.202	0.200	0.204	0.289	0.274	0.180	0.275	0.220	0.226	0.157	0.218	0.221	0.200
1,2,3,6,7,8-HxCDF	0.071	0.066	0.077	0.100	0.079	0.069	0.088	0.074	0.076	0.062	0.083	0.098	0.080
1,2,3,7,8,9-HxCDF	0.032	0.029	0.007	0.013	0.041	0.026	0.005	0.010	0.005	0.034	0.005	0.034	0.035
2,3,4,6,7,8-HxCDF	0.061	0.050	0.04	0.06	0.02	0.04	0.05	0.04	0.04	0.01	0.05	0.06	0.06
1,2,3,4,6,7,8-HpCDF	0.760	0.920	0.79	1.01	0.81	0.76	1.02	0.80	0.85	0.79	0.77	0.80	0.82
1,2,3,4,7,8,9-HpCDF	0.100	0.090	0.10	0.14	0.10	0.10	0.12	0.11	0.10	0.06	0.10	0.12	0.12
OCDF	3.74	3.10	4.45	5.93	4.39	5.06	5.86	4.49	4.58	3.16	4.75	4.36	4.13
TEQ (PCDD/DF)	0.15	0.14	0.14	0.20	0.14	0.15	0.18	0.16	0.15	0.11	0.15	0.16	0.16
PCB #77	6.7	NA	6.0	9.7	NA	6.5	7.7	5.6	5.9	NA	5.6	7.1	NA
PCB #126	0.29	NA	0.35	0.37	NA	0.16	0.18	0.17	0.21	NA	0.19	0.32	NA
PCB #169	0.023	NA	0.031	0.036	NA	0.015	0.025	0.020	0.025	NA	0.022	0.029	NA
TEQ (including PCBs)	0.18	NA	0.18	0.24	NA	0.17	0.20	0.18	0.17	NA	0.17	0.20	NA
Other PCBs (Optional)													
PCB #81	0.98	NA	0.66	0.17	NA	0.11	0.17	0.14	0.17	NA	0.12	0.76	NA
PCB #105	15.7	NA	12.6	17.1	NA	13.3	18.5	13.0	14.2	NA	14.1	19.0	NA
PCB #114	0.63	NA	0.64	0.73	NA	0.49	0.91	0.53	0.53	NA	0.66	0.81	NA
PCB #118	40.5	NA	24.8	34.8	NA	32.8	51.3	31.3	35.1	NA	32.9	47.1	NA
PCB #123	0.80	NA	1.83	0.72	NA	2.48	2.02	2.15	0.86	NA	1.59	1.43	NA
PCB #156	9.1	NA	7.0	9.5	NA	6.3	9.5	7.1	7.7	NA	7.7	9.7	NA
PCB #157	1.9	NA	1.5	1.9	NA	1.2	1.9	1.4	1.6	NA	1.6	1.8	NA
PCB #167	4.3	NA	3.6	4.8	NA	3.5	5.6	3.7	4.2	NA	3.8	4.8	NA
PCB #189	1.5	NA	1.2	2.2	NA	1.2	1.7	1.2	1.3	NA	1.3	1.5	NA
TEQ Total	0.19	NA	0.19	0.25	NA	0.18	0.21	0.19	0.18	NA	0.18	0.21	NA

Participant code:	22	23	25	29	30	31	33	37	38	41	45	46	47
Weight Analysed:													
2,3,7,8-TeCDD	0.058	0.056	0.056	0.041	0.052	0.060	0.073	0.057	0.054	0.057	0.061	0.058	0.061
1,2,3,7,8-PeCDD	0.006	0.006	0.006	0.005	0.006	0.007	0.040	0.006	0.006	0.007	0.008	0.008	0.007
1,2,3,4,7,8-HxCDD	0.007	0.006	0.007	0.006	0.008	0.008	0.005	0.007	0.009	0.007	0.008	0.008	0.008
1,2,3,6,7,8-HxCDD	0.023	0.034	0.021	0.021	0.024	0.021	0.019	0.024	0.028	0.023	0.023	0.027	0.022
1,2,3,7,8,9-HxCDD	0.014	0.013	0.012	0.009	0.012	0.011	0.011	0.013	0.014	0.018	0.012	0.011	0.022
1,2,3,4,6,7,8-HpCDD	0.32	0.36	0.36	0.36	0.35	0.34	0.37	0.36	0.43	0.39	0.35	0.35	0.37
OCDD	3.41	3.70	3.91	3.65	3.29	4.00	2.72	4.00	4.30	4.75	3.50	3.60	3.49
2,3,7,8-TeCDF	0.047	0.046	0.045	0.034	0.043	0.043	0.072	0.048	0.050	0.049	0.044	0.040	0.048
1,2,3,7,8-PeCDF	0.081	0.040	0.046	0.041	0.054	0.048	0.044	0.085	0.060	0.046	0.056	0.047	0.033
2,3,4,7,8-PeCDF	0.042	0.047	0.040	0.036	0.041	0.049	0.052	0.045	0.044	0.049	0.064	0.038	0.043
1,2,3,4,7,8-HxCDF	0.264	0.201	0.210	0.186	0.186	0.210	0.169	0.230	0.270	0.264	0.203	0.190	0.245
1,2,3,6,7,8-HxCDF	0.084	0.080	0.075	0.060	0.070	0.077	0.059	0.078	0.092	0.086	0.076	0.073	0.074
1,2,3,7,8,9-HxCDF	0.005	0.030	0.007	0.009	0.005	0.008	0.025	0.007	0.007	0.010	0.034	0.007	0.022
2,3,4,6,7,8-HxCDF	0.04	0.07	0.05	0.05	0.04	0.037	0.04	0.04	0.04	0.04	0.06	0.05	0.05
1,2,3,4,6,7,8-HpCDF	1.03	0.73	0.84	0.70	0.71	0.91	0.94	0.73	0.91	0.86	0.80	0.74	0.67
1,2,3,4,7,8,9-HpCDF	0.09	0.08	0.10	0.09	0.08	0.11	0.10	0.10	0.15	0.11	0.10	0.11	0.10
OCDF	3.88	3.67	4.54	4.45	4.00	4.80	3.64	4.20	5.30	3.24	4.30	4.30	3.93
TEQ (PCDD/DF)	0.15	0.15	0.14	0.12	0.13	0.15	0.19	0.15	0.15	0.16	0.16	0.14	0.15
PCB #77	6.1	6.3	4.9	6.3	6.7	6.6	3.1	3.0	5.5	12.7	5.3	7.2	4.1
PCB #126	0.17	0.20	0.20	0.19	0.19	0.18	0.11	0.19	0.18	< 0.3	0.17	0.21	0.20
PCB #169	0.019	0.025	0.022	0.023	0.022	0.021	0.013	0.020	0.023	< 0.016	0.029	0.028	< 0.018
TEQ (including PCBs)	0.17	0.17	0.16	0.12	0.15	0.17	0.20	0.17	0.17	0.19	0.18	0.16	0.17
Other PCBs (Optional)													
PCB #81	ND	0.14	0.15	0.13	0.15	0.12	NA	0.15	0.13	0.24	0.13	0.14	0.41
PCB #105	14.0	14.6	13.0	16.7	15.3	15.0	NA	15.0	15.0	22.0	13.5	16.0	12.6
PCB #114	0.57	1.15	1.11	0.89	0.69	0.72	NA	0.55	0.65	0.66	0.61	0.70	0.86
PCB #118	36.5	35.5	30.1	39.9	35.3	40.0	NA	39.0	32.0	62.3	34.5	41.0	31.9
PCB #123	6.71	1.07	2.84	1.28	1.10	4.30	NA	0.84	0.76	1.83	0.91	0.86	8.66
PCB #156	7.1	7.8	7.5	7.2	8.1	8.5	NA	8.0	7.7	11.1	5.2	8.4	5.3
PCB #157	0.0	1.5	1.3	1.5	1.4	1.7	NA	1.6	1.5	1.7	1.5	1.6	1.0
PCB #167	3.5	4.0	3.3	4.0	4.5	4.4	NA	4.0	3.8	11.8	3.8	4.0	3.2
PCB #189	1.2	1.4	1.3	1.1	1.4	1.4	NA	1.3	1.3	2.1	1.3	1.4	1.0
TEQ Total	0.18	0.18	0.17	0.12	0.16	0.18	NA	0.18	0.18	0.20	0.19	0.17	0.18

Participant code:	50	51	54	55	57	58	59	60	61	62	63	64	66
Weight Analysed:													
2,3,7,8-TeCDD	0.041	0.058	0.061	BA	0.051	0.052	0.063	0.063	0.054	0.064	0.0590	0.058	0.086
1,2,3,7,8-PeCDD	0.006	0.008	0.006	BA	0.006	0.006	0.007	0.006	0.007	0.007	0.011	0.005	0.007
1,2,3,4,7,8-HxCDD	0.007	0.006	0.007	BA	0.007	0.010	0.007	0.006	0.007	0.011	0.008	0.010	0.008
1,2,3,6,7,8-HxCDD	0.033	0.026	0.020	BA	0.022	0.016	0.022	0.022	0.023	0.027	0.025	0.039	0.027
1,2,3,7,8,9-HxCDD	0.016	0.012	0.012	BA	0.010	0.017	0.013	0.012	0.010	0.016	0.015	0.020	0.013
1,2,3,4,6,7,8-HpCDD	0.42	0.34	0.46	BA	0.36	0.34	0.39	0.32	0.35	0.49	0.39	0.39	0.37
OCDD	2.30	3.58	4.84	BA	3.46	4.00	3.70	2.98	3.48	3.70	3.98	3.80	3.90
2,3,7,8-TeCDF	0.059	0.048	0.077	BA	0.049	0.039	0.041	0.045	0.051	0.039	0.030	0.045	0.048
1,2,3,7,8-PeCDF	0.048	0.061	0.052	BA	0.054	0.073	0.052	0.043	0.059	0.085	0.057	0.044	0.071
2,3,4,7,8-PeCDF	0.055	0.053	0.043	BA	0.061	0.048	0.038	0.043	0.044	0.046	0.067	0.026	0.048
1,2,3,4,7,8-HxCDF	0.247	0.234	0.179	BA	0.217	0.208	0.240	0.196	0.273	0.170	0.230	0.240	0.230
1,2,3,6,7,8-HxCDF	0.084	0.065	0.075	BA	0.084	0.077	0.081	0.073	0.085	0.072	0.086	0.085	0.087
1,2,3,7,8,9-HxCDF	0.057	0.006	0.005	BA	0.005	0.017	0.007	0.005	0.016	0.006	0.034	0.020	0.006
2,3,4,6,7,8-HxCDF	0.03	0.04	0.03	BA	0.06	0.05	0.05	0.04	0.06	0.04	0.07	0.04	0.05
1,2,3,4,6,7,8-HpCDF	1.78	0.78	0.76	BA	0.82	0.78	0.81	0.70	0.76	0.75	0.85	0.78	0.84
1,2,3,4,7,8,9-HpCDF	0.11	0.10	0.10	BA	0.12	0.10	0.10	0.09	0.10	0.10	0.12	0.11	0.11
OCDF	7.80	4.77	4.69	BA	13.92	4.55	4.80	2.75	3.79	4.40	4.53	4.70	4.60
TEQ (PCDD/DF)	0.11	0.15	0.15	0.41	0.15	0.14	0.15	0.14	0.15	0.15	0.17	0.14	0.18
PCB #77	4.8	5.5	6.2	BA	NA	6.1	6.7	7.3	6.4	6.2	5.7	5.1	6.1
PCB #126	0.39	0.22	0.24	BA	NA	0.19	0.20	0.21	0.16	0.18	0.19	0.15	0.20
PCB #169	0.058	0.022	ND	BA	NA	0.020	0.026	0.028	0.019	0.023	0.022	0.019	0.022
TEQ (including PCBs)	0.15	0.17	0.17	0.45	NA	0.16	0.17	0.17	0.17	0.17	0.19	0.16	0.20
Other PCBs (Optional)													
PCB #81	0.15	0.11	4.20	BA	NA	0.14	0.16	0.15	0.12	0.12	0.13	0.11	0.14
PCB #105	49.5	13.1	13.0	BA	NA	14.6	16.0	14.3	14.2	15.0	14.1	12.0	16.0
PCB #114	0.87	0.50	0.54	BA	NA	0.59	0.55	0.60	0.57	0.55	0.68	0.47	0.76
PCB #118	122.1	31.4	35.0	BA	NA	34.9	41.0	34.7	34.0	38.0	31.9	30.0	41.0
PCB #123	1.17	0.74	1.90	BA	NA	0.95	2.00	0.76	0.71	0.76	2.02	0.56	1.20
PCB #156	7.1	6.7	8.0	BA	NA	8.2	8.5	7.2	7.1	7.1	7.7	5.8	7.3
PCB #157	1.3	1.3	1.8	BA	NA	1.4	1.5	1.5	1.4	1.9	1.4	1.3	1.5
PCB #167	3.7	3.4	13.0	BA	NA	4.0	3.9	3.7	3.5	4.0	3.9	6.5	4.6
PCB #189	1.3	1.2	1.3	BA	NA	1.4	1.4	1.3	1.2	1.3	1.3	1.1	1.4
TEQ Total	0.17	0.18	0.18	0.45	NA	0.17	0.18	0.18	0.18	0.18	0.20	0.17	0.21

Participant code:	67	70	71	72	74	79	80	81	84	89	90	97	101
Weight Analysed:													
2,3,7,8-TeCDD	0.063	0.076	0.070	0.0624	0.0578	0.0503	0.0536	0.061	0.053	0.1020	0.053	0.071	0.061
1,2,3,7,8-PeCDD	0.007	0.006	0.007	0.007	0.007	0.007	0.008	0.006	0.006	0.012	0.007	0.007	<0.001
1,2,3,4,7,8-HxCDD	0.007	0.007	0.007	0.007	0.007	0.008	0.004	0.006	0.008	0.006	0.007	0.008	0.006
1,2,3,6,7,8-HxCDD	0.022	0.023	0.026	0.026	0.025	0.024	0.024	0.023	0.021	0.041	0.023	0.026	0.043
1,2,3,7,8,9-HxCDD	0.011	0.010	0.012	0.012	0.013	0.011	0.011	0.016	0.010	0.071	0.012	0.016	0.013
1,2,3,4,6,7,8-HpCDD	0.39	0.32	0.41	0.38	0.40	0.37	0.34	0.37	0.345	0.53	0.36	0.43	0.35
OCDD	3.96	3.72	5.43	3.58	3.75	3.90	3.53	3.71	3.12	2.96	3.50	4.63	3.74
2,3,7,8-TeCDF	0.045	0.045	0.052	0.055	0.052	0.045	0.052	0.035	0.044	0.047	0.042	0.050	0.047
1,2,3,7,8-PeCDF	0.048	0.046	0.057	0.057	0.055	0.060	0.052	0.046	0.049	0.049	0.049	0.057	0.042
2,3,4,7,8-PeCDF	0.042	0.050	0.059	0.062	0.064	0.048	0.044	0.042	0.048	0.018	0.053	0.045	0.071
1,2,3,4,7,8-HxCDF	0.221	0.187	0.255	0.190	0.242	0.154	0.188	0.196	0.176	0.210	0.194	0.220	0.200
1,2,3,6,7,8-HxCDF	0.070	0.063	0.089	0.073	0.088	0.074	0.066	0.073	0.063	0.083	0.067	0.090	0.075
1,2,3,7,8,9-HxCDF	< 0.0092	0.006	0.005	0.031	0.060	0.032	0.018	0.006	0.027	0.069	0.005	0.007	0.008
2,3,4,6,7,8-HxCDF	0.04	0.04	0.06	0.06	0.03	0.06	0.05	0.04	0.05	0.03	0.04	0.04	0.04
1,2,3,4,6,7,8-HpCDF	0.68	0.70	0.89	0.74	0.85	0.74	0.86	0.82	0.73	0.86	0.84	0.95	0.80
1,2,3,4,7,8,9-HpCDF	0.12	0.08	0.13	0.11	0.13	0.09	0.10	0.10	0.10	0.10	0.09	0.12	0.10
OCDF	4.75	5.16	4.93	3.62	5.29	4.21	4.45	4.30	3.56	3.30	3.87	6.30	4.29
TEQ (PCDD/DF)	0.15	0.16	0.17	0.16	0.17	0.14	0.14	0.14	0.14	0.20	0.14	0.17	0.16
PCB #77	5.9	5.8	5.7	6.1	NA	4.8	6.2	6.8	NA	NA	5.5	8.6	8.2
PCB #126	0.20	0.24	0.18	0.21	NA	0.15	0.16	0.20	NA	NA	ND	0.14	0.20
PCB #169	0.024	0.099	0.021	0.017	NA	0.016	0.020	0.025	NA	NA	0.690	0.022	0.040
TEQ (including PCBs)	0.17	0.19	0.19	0.18	NA	0.16	0.16	0.16	NA	NA	0.15	0.18	0.18
Other PCBs (Optional)													
PCB #81	0.14	0.17	0.13	0.13	NA	0.13	0.11	0.15	NA	NA	1.50	0.14	<0.005
PCB #105	13.5	13.7	14.4	15.8	NA	11.3	12.4	17.3	NA	NA	16.0	15.7	14.8
PCB #114	0.52	0.74	0.62	0.71	NA	0.91	1.05	0.73	NA	NA	ND	0.50	0.69
PCB #118	38.8	34.5	36.1	38.9	NA	28.7	35.6	42.6	NA	NA	48.0	39.5	38.2
PCB #123	0.90	1.55	0.63	1.50	NA	0.69	1.17	0.91	NA	NA	0.71	4.12	1.72
PCB #156	7.8	6.8	7.5	7.7	NA	6.0	7.3	7.1	NA	NA	6.0	9.5	7.6
PCB #157	1.4	1.3	1.5	1.5	NA	1.2	1.2	1.5	NA	NA	1.5	1.7	1.3
PCB #167	4.6	4.1	4.0	4.0	NA	3.0	3.6	4.1	NA	NA	4.5	4.7	3.9
PCB #189	1.2	1.3	1.3	1.2	NA	1.0	1.4	1.5	NA	NA	1.6	1.7	1.3
TEQ Total	0.18	0.20	0.20	0.19	NA	0.16	0.17	0.18	NA	NA	0.16	0.19	0.19

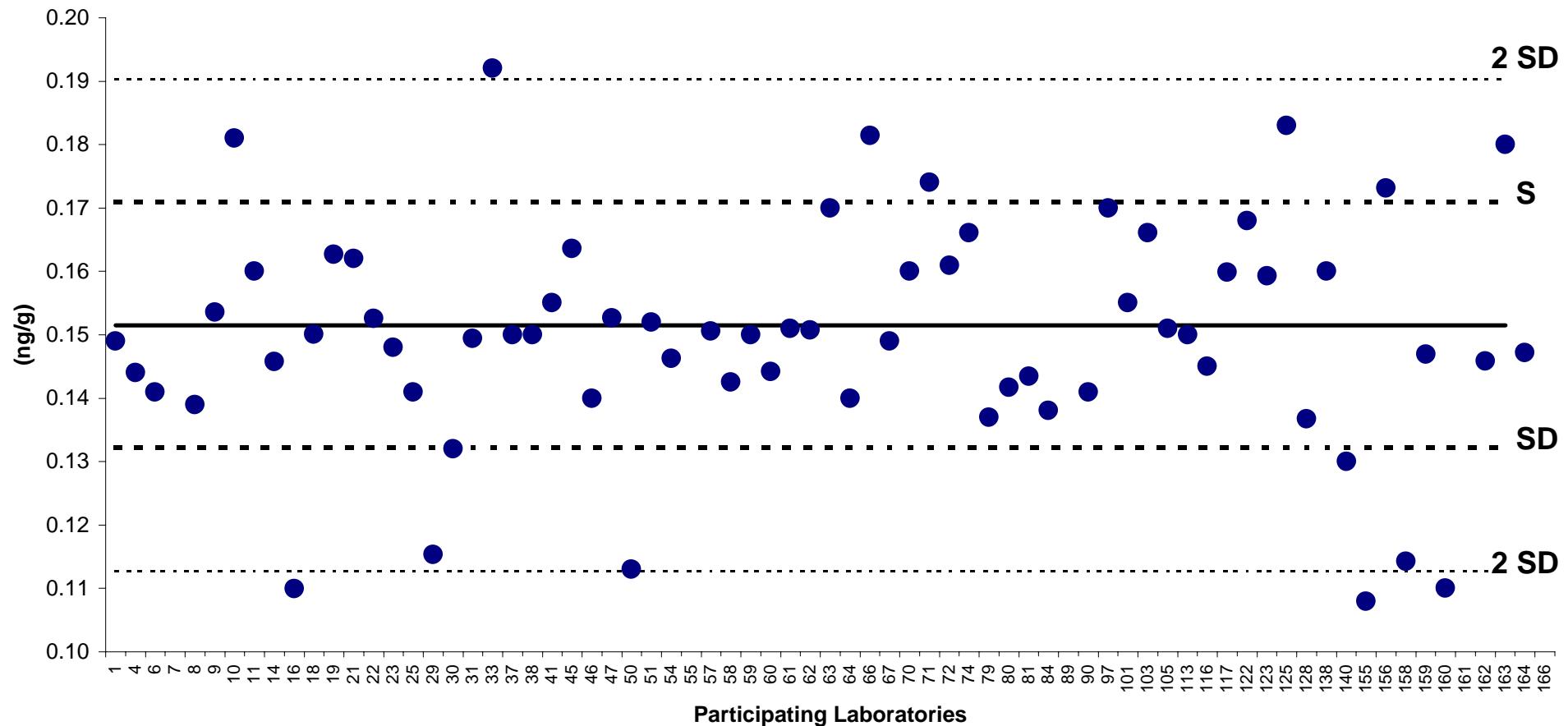
Participant code:	103	105	113	116	117	122	123	125	128	138	140	155	156
Weight Analysed:													
2,3,7,8-TeCDD	0.058	0.063	0.060	0.060	0.064	0.051	0.069	0.064	0.062	0.067	0.051	< 0.00050	0.066
1,2,3,7,8-PeCDD	0.006	0.008	0.007	0.006	0.006	0.006	0.011	0.011	0.006	0.005	0.007	0.007	0.011
1,2,3,4,7,8-HxCDD	0.014	0.009	0.008	0.007	0.008	0.006	0.007	0.014	0.008	0.007	0.011	0.007	0.004
1,2,3,6,7,8-HxCDD	0.019	0.026	0.020	0.025	0.028	0.021	0.025	0.033	0.027	0.036	0.038	0.019	0.026
1,2,3,7,8,9-HxCDD	0.011	0.012	0.015	0.011	0.015	0.011	0.011	0.029	0.015	0.016	0.017	0.017	0.007
1,2,3,4,6,7,8-HpCDD	0.39	0.41	0.36	0.29	0.37	0.36	0.34	0.736	0.38	0.21	0.80	0.42	0.39
OCDD	4.12	4.14	3.50	3.14	1.92	3.60	3.57	8.09	3.44	4.10	4.72	4.24	4.01
2,3,7,8-TeCDF	0.061	0.047	0.043	0.041	0.093	0.040	0.040	0.059	0.037	0.044	0.041	0.045	0.109
1,2,3,7,8-PeCDF	0.075	0.056	0.075	0.043	0.053	0.058	0.048	0.057	0.053	0.057	0.064	0.060	0.072
2,3,4,7,8-PeCDF	0.058	0.041	0.041	0.049	0.050	0.101	0.051	0.062	0.029	0.048	0.033	0.046	0.057
1,2,3,4,7,8-HxCDF	0.224	0.210	0.210	0.222	0.201	0.225	0.200	0.237	0.185	0.180	0.169	0.264	0.250
1,2,3,6,7,8-HxCDF	0.120	0.073	0.076	0.054	0.083	0.070	0.069	0.091	0.070	0.076	0.059	0.102	0.068
1,2,3,7,8,9-HxCDF	0.037	0.006	0.007	0.007	0.007	0.058	0.035	0.005	0.002	0.037	0.031	0.009	0.038
2,3,4,6,7,8-HxCDF	0.05	0.04	0.04	0.04	0.05	0.03	0.05	0.07	0.05	0.05	0.00	0.13	0.00
1,2,3,4,6,7,8-HpCDF	1.01	0.79	0.75	0.61	0.83	0.72	0.75	1.11	0.68	1.00	0.54	0.98	0.83
1,2,3,4,7,8,9-HpCDF	0.09	0.09	0.10	0.10	0.10	0.08	0.10	0.12	0.08	0.09	0.07	0.08	0.11
OCDF	4.34	4.34	4.10	4.57	1.27	4.28	3.55	5.27	3.34	4.30	0.07	4.78	4.42
TEQ (PCDD/DF)	0.17	0.15	0.15	0.15	0.16	0.17	0.16	0.18	0.14	0.16	0.13	0.11	0.17
PCB #77	5.7	11.5	6.0	4.9	4.3	6.5	NA	5.8	7.5	NA	NA	5.6	NA
PCB #126	0.18	0.28	0.19	0.14	0.12	0.30	NA	0.18	0.19	NA	NA	0.11	NA
PCB #169	0.023	0.034	0.022	0.022	0.013	0.020	NA	0.024	0.019	NA	NA	0.847	NA
TEQ (including PCBs)	0.18	0.18	0.16	0.16	0.17	0.20	NA	0.20	0.16	NA	NA	0.13	NA
Other PCBs (Optional)													
PCB #81	0.13	0.25	0.14	0.14	0.11	0.04	NA	0.14	0.18	NA	NA	0.34	NA
PCB #105	14.0	19.8	15.0	14.3	152.0	14.8	NA	14.3	NA	NA	NA	5.4	NA
PCB #114	0.57	0.82	1.10	0.57	3.44	0.70	NA	0.61	NA	NA	NA	0.10	NA
PCB #118	36.0	41.8	40.0	38.9	333.4	38.1	NA	36.5	NA	NA	NA	37.8	NA
PCB #123	0.85	< 1.0	0.79	3.98	28.75	0.28	NA	0.75	NA	NA	NA	10.80	NA
PCB #156	7.9	12.0	8.4	8.1	74.1	8.1	NA	7.6	NA	NA	NA	1.8	NA
PCB #157	1.5	2.1	1.6	1.4	12.8	1.5	NA	1.4	NA	NA	NA	4.7	NA
PCB #167	4.2	5.2	3.9	3.1	77.8	4.2	NA	3.0	NA	NA	NA	14.0	NA
PCB #189	1.4	2.0	1.3	1.3	10.8	1.3	NA	1.3	NA	NA	NA	1.3	NA
TEQ Total	0.19	0.19	0.18	0.17	0.27	0.21	NA	0.21	0.29	NA	NA	0.14	NA

Participant code:	158	159	160	161	162	163	164	166
Weight Analysed:								
2,3,7,8-TeCDD	0.0495	0.065	0.039	0.013	0.057	0.070	0.058	ND
1,2,3,7,8-PeCDD	0.003	0.005	0.004	0.174	0.009	0.006	0.009	ND
1,2,3,4,7,8-HxCDD	0.017	0.008	0.005	0.070	0.007	0.006	0.007	ND
1,2,3,6,7,8-HxCDD	0.009	0.020	0.017	0.220	0.023	0.024	0.021	ND
1,2,3,7,8,9-HxCDD	0.004	0.037	0.008	0.007	0.014	0.016	0.012	ND
1,2,3,4,6,7,8-HpCDD	0.23	0.30	0.30	0.00	0.37	0.39	0.39	ND
OCDD	5.36	2.47	2.50	0.02	4.09	4.08	3.79	ND
2,3,7,8-TeCDF	0.027	0.088	0.032	ND	0.055	0.062	0.045	ND
1,2,3,7,8-PeCDF	0.036	0.036	0.035	0.220	0.047	0.056	0.048	ND
2,3,4,7,8-PeCDF	0.031	0.038	0.042	1.920	0.043	0.064	0.038	ND
1,2,3,4,7,8-HxCDF	0.118	0.194	0.149	2.600	0.189	0.217	0.217	ND
1,2,3,6,7,8-HxCDF	0.072	0.067	0.058	0.660	0.070	0.084	0.075	ND
1,2,3,7,8,9-HxCDF	0.022	0.035	0.044	0.080	0.053	0.034	0.033	ND
2,3,4,6,7,8-HxCDF	0.01	0.01	0.02	0.42	0.03	0.06	0.05	ND
1,2,3,4,6,7,8-HpCDF	1.22	0.60	0.62	0.56	0.69	0.78	0.75	ND
1,2,3,4,7,8,9-HpCDF	0.09	0.10	0.07	0.08	0.10	0.11	0.09	ND
OCDF	8.02	3.03	2.64	0.02	4.52	4.66	4.59	ND
TEQ (PCDD/DF)	0.11	0.15	0.11	NA	0.15	0.18	0.15	ND
PCB #77	NA	NA	NA	NA	NA	NA	14.5	NA
PCB #126	NA	NA	NA	NA	NA	NA	0.41	NA
PCB #169	NA	NA	NA	NA	NA	NA	0.214	NA
TEQ (including PCBs)	NA	NA	NA	NA	NA	NA	0.19	NA
Other PCBs (Optional)								
PCB #81	NA	NA	NA	NA	NA	NA	1.40	NA
PCB #105	NA	NA	NA	NA	NA	NA	33.0	NA
PCB #114	NA	NA	NA	NA	NA	NA	1.14	NA
PCB #118	NA	NA	NA	NA	NA	NA	80.9	NA
PCB #123	NA	NA	NA	NA	NA	NA	9.29	NA
PCB #156	NA	NA	NA	NA	NA	NA	16.3	NA
PCB #157	NA	NA	NA	NA	NA	NA	3.1	NA
PCB #167	NA	NA	NA	NA	NA	NA	11.0	NA
PCB #189	NA	NA	NA	NA	NA	NA	2.9	NA
TEQ Total	NA	NA	NA	NA	NA	NA	0.21	NA

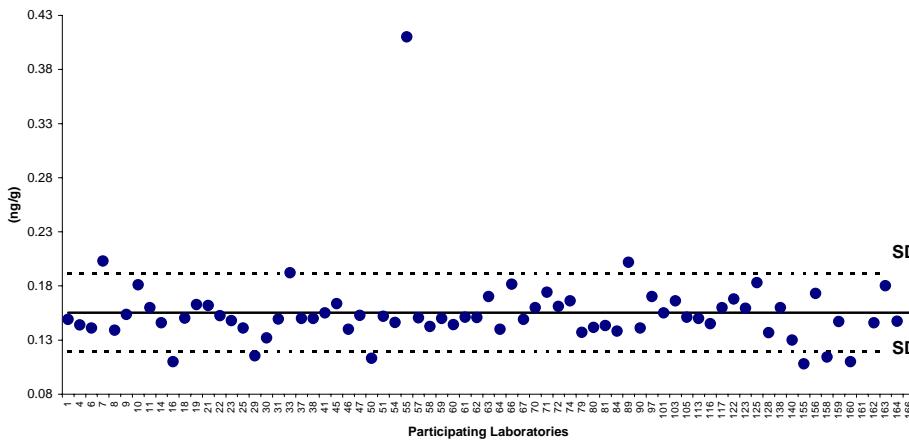
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.059	0.058	0.0130	0.102	0.011	19%
1,2,3,7,8-PeCDD	0.010	0.007	0.003	0.17	0.02	212%
1,2,3,4,7,8-HxCDD	0.009	0.007	0.004	0.07	0.01	90%
1,2,3,6,7,8-HxCDD	0.028	0.024	0.0090	0.22	0.02	86%
1,2,3,7,8,9-HxCDD	0.014	0.012	0.004	0.07	0.01	57%
1,2,3,4,6,7,8-HpCDD	0.38	0.37	0.0010	0.8	0.1	27%
OCDD	3.85	3.74	0.0200	8.1	1.1	28%
2,3,7,8-TeCDF	0.049	0.046	0.027	0.11	0.01	28%
1,2,3,7,8-PeCDF	0.056	0.052	0.032	0.22	0.02	41%
2,3,4,7,8-PeCDF	0.075	0.048	0.018	1.92	0.22	296%
1,2,3,4,7,8-HxCDF	0.246	0.210	0.118	2.60	0.29	116%
1,2,3,6,7,8-HxCDF	0.085	0.075	0.054	0.66	0.07	83%
1,2,3,7,8,9-HxCDF	0.021	0.014	0.002	0.08	0.02	85%
2,3,4,6,7,8-HxCDF	0.05	0.04	0.003	0.42	0.05	96%
1,2,3,4,6,7,8-HpCDF	0.82	0.79	0.542	1.78	0.17	20%
1,2,3,4,7,8,9-HpCDF	0.10	0.10	0.0634	0.15	0.02	15%
OCDF	4.39	4.39	0.019	13.92	1.67	38%
TEQ (PCDD/DF)	0.16	0.15	0.108	0.41	0.04	23%
PCB #77	6.4	6.1	3.0000	14.52	2.00	31%
PCB #126	0.21	0.19	0.11	0.41	0.07	32%
PCB #169	0.059	0.022	0.013	0.85	0.15	255%
TEQ (including PCBs)	0.18	0.17	0.115	0.45	0.04	24%
Other PCBs (Optional)						
PCB #81	0.32	0.14	0.0430	4.20	0.63	196%
PCB #105	18.4	14.6	5.4	152.0	19.99	108%
PCB #114	0.75	0.66	0.10	3.44	0.44	58%
PCB #118	45.6	36.5	24.8	333.4	43.59	96%
PCB #123	2.54	1.17	0.28	28.75	4.41	173%
PCB #156	9.1	7.7	1.790	74.070	9.479	104%
PCB #157	1.8	1.5	0.00	12.82	1.68	93%
PCB #167	6.2	4.0	3.03	77.82	10.51	171%
PCB #189	1.6	1.3	1.00	10.79	1.35	86%
TEQ Total	0.19	0.18	0.116	0.45	0.05	24%

TEQ results 55 and 161 outliers						
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.060	0.058	0.0390	0.102	0.010	17%
1,2,3,7,8-PeCDD	0.007	0.007	0.003	0.04	0.00	60%
1,2,3,4,7,8-HxCDD	0.008	0.007	0.004	0.02	0.00	26%
1,2,3,6,7,8-HxCDD	0.025	0.024	0.0090	0.04	0.01	23%
1,2,3,7,8,9-HxCDD	0.015	0.013	0.004	0.07	0.01	57%
1,2,3,4,6,7,8-HpCDD	0.39	0.37	0.2100	0.8	0.1	24%
OCDD	3.90	3.75	1.9178	8.1	1.0	25%
2,3,7,8-TeCDF	0.049	0.046	0.027	0.11	0.01	28%
1,2,3,7,8-PeCDF	0.054	0.052	0.032	0.09	0.01	22%
2,3,4,7,8-PeCDF	0.049	0.047	0.018	0.10	0.01	26%
1,2,3,4,7,8-HxCDF	0.212	0.210	0.118	0.29	0.03	16%
1,2,3,6,7,8-HxCDF	0.077	0.075	0.054	0.12	0.01	15%
1,2,3,7,8,9-HxCDF	0.020	0.013	0.002	0.07	0.02	82%
2,3,4,6,7,8-HxCDF	0.04	0.04	0.003	0.13	0.02	40%
1,2,3,4,6,7,8-HpCDF	0.82	0.80	0.542	1.78	0.17	20%
1,2,3,4,7,8,9-HpCDF	0.10	0.10	0.0634	0.15	0.02	15%
OCDF	4.45	4.39	0.068	13.92	1.60	36%
TEQ (PCDD/DF)	0.15	0.15	0.108	0.20	0.02	13%
PCB #77	6.4	6.1	3.0000	14.52	2.00	31%
PCB #126	0.21	0.19	0.11	0.41	0.07	32%
PCB #169	0.059	0.022	0.013	0.85	0.15	255%
TEQ (including PCBs)	0.17	0.17	0.115	0.24	0.02	11%
Other PCBs (Optional)						
PCB #81	0.32	0.14	0.0430	4.20	0.63	196%
PCB #105	18.4	14.6	5.4	152.0	19.99	108%
PCB #114	0.75	0.66	0.10	3.44	0.44	58%
PCB #118	45.6	36.5	24.8	333.4	43.59	96%
PCB #123	2.54	1.17	0.28	28.75	4.41	173%
PCB #156	9.1	7.7	1.790	74.070	9.479	104%
PCB #157	1.8	1.5	0.00	12.82	1.68	93%
PCB #167	6.2	4.0	3.03	77.82	10.51	171%
PCB #189	1.6	1.3	1.00	10.79	1.35	86%
TEQ Total	0.19	0.18	0.116	0.29	0.03	15%

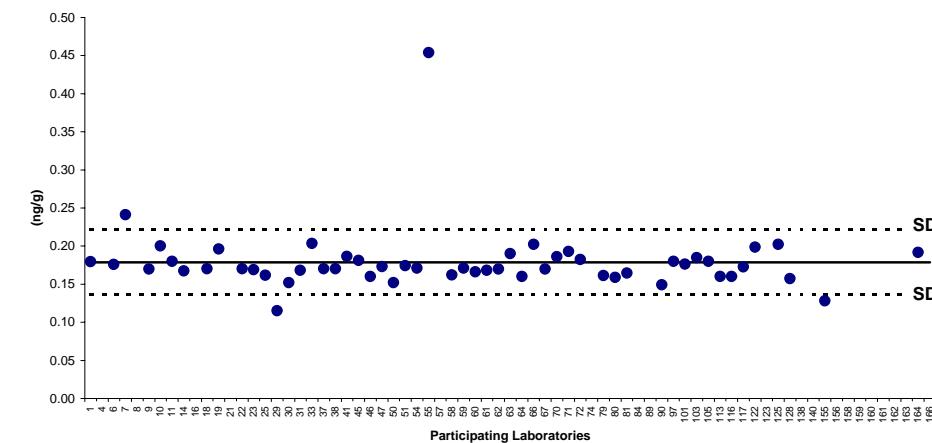
TEQ Soil B (RSD 13 %, n = 70)



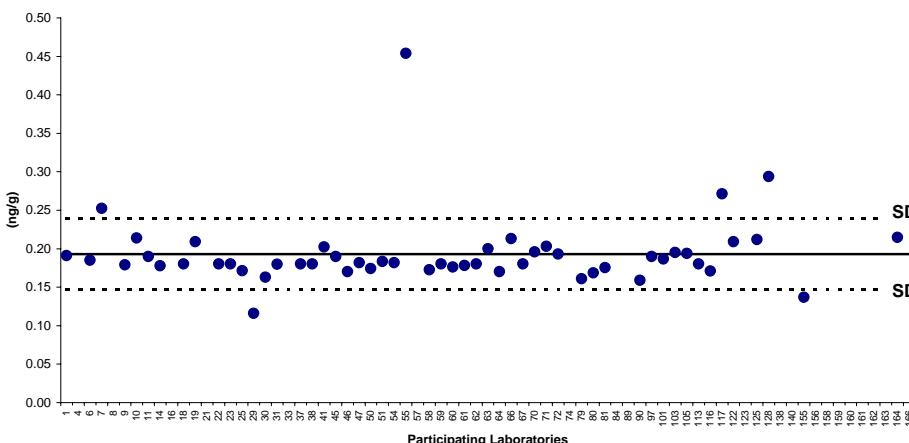
PCDD/DF TEQ Soil B (RSD 23%, n = 71)



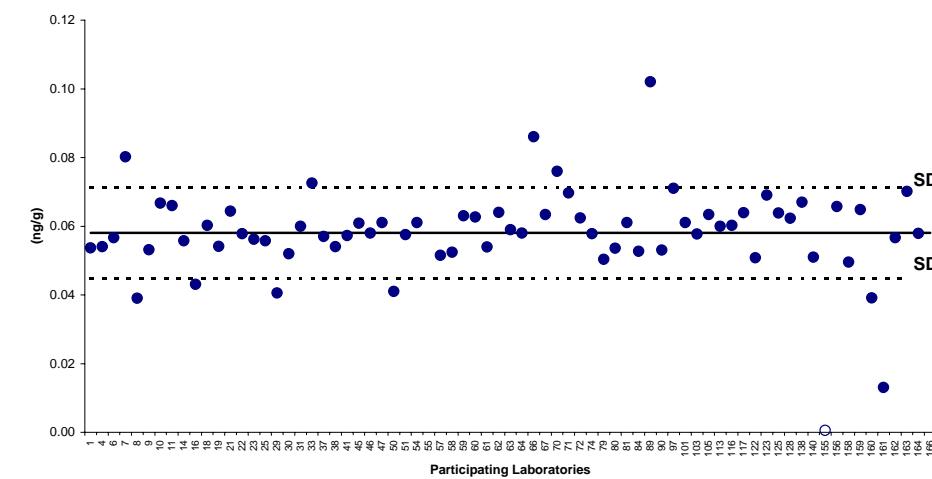
TEQ (including planar PCBs) Soil B



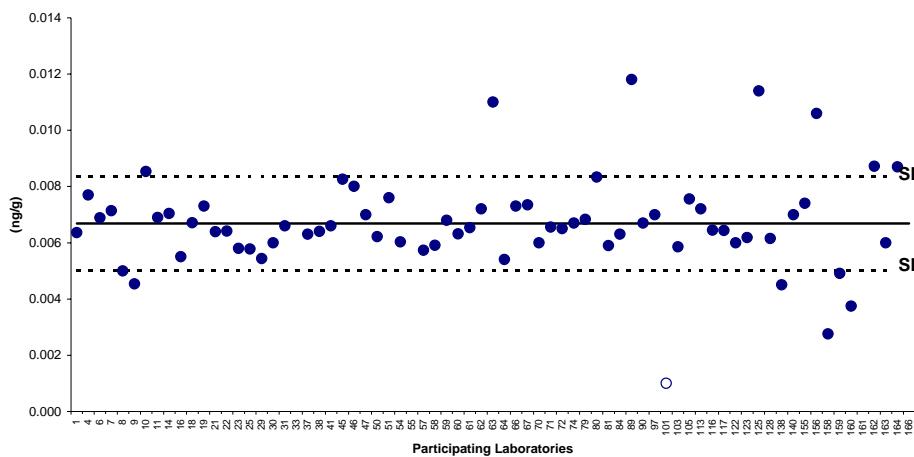
WHO TEQ Soil B



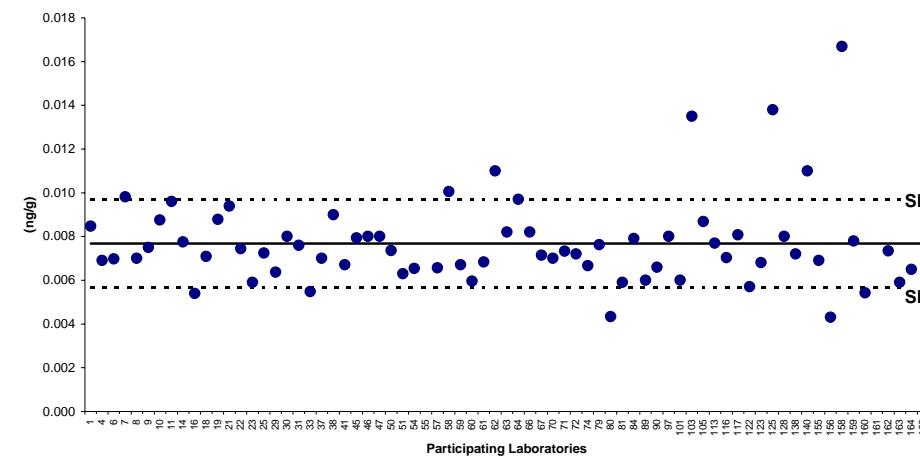
2,3,7,8-TeCDD Soil B



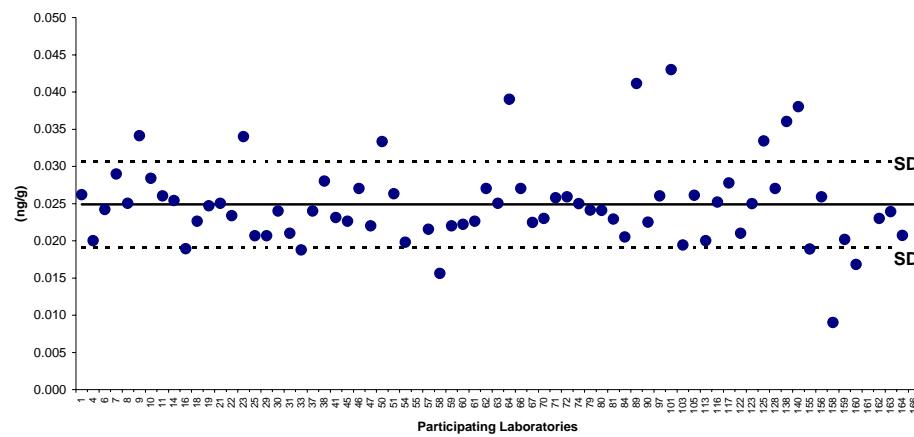
1,2,3,7,8-PeCDD Soil B



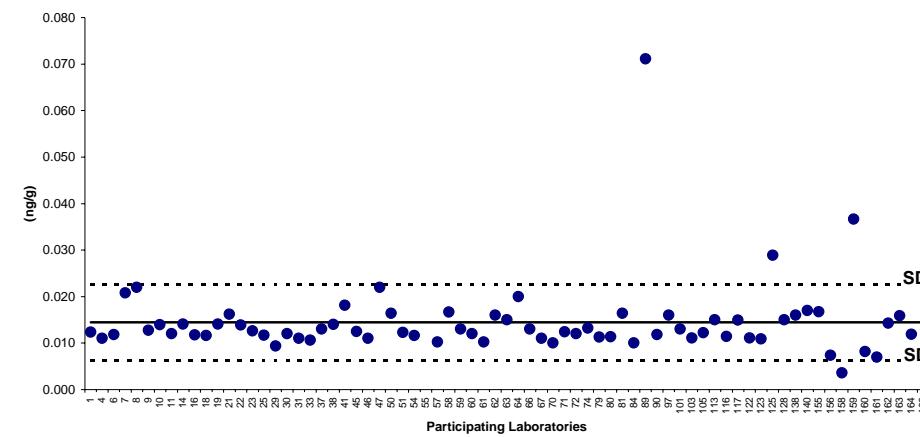
1,2,3,4,7,8-HxCDD Soil B



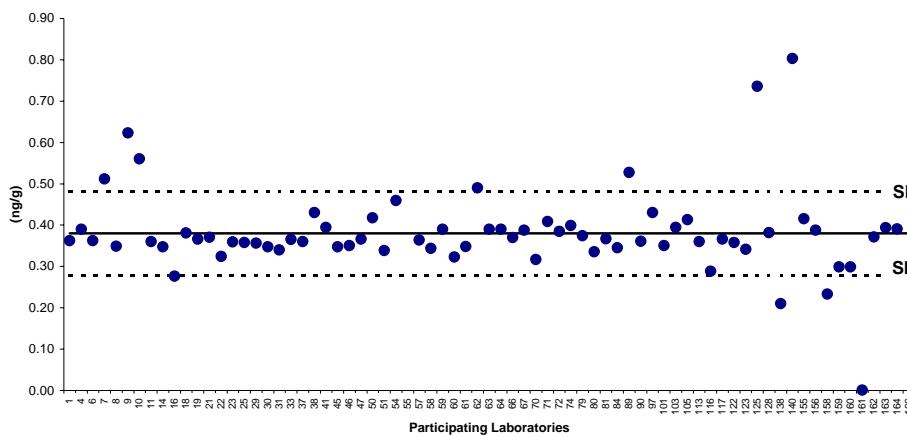
1,2,3,6,7,8-HxCDD Soil B



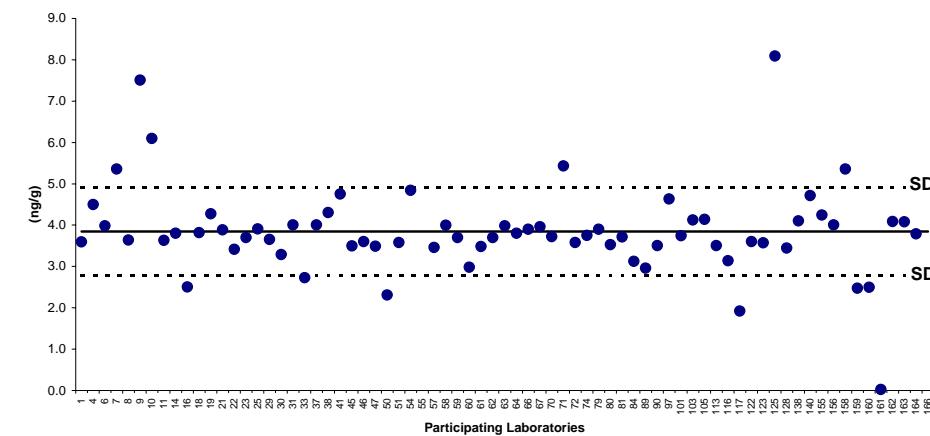
1,2,3,7,8,9-HxCDD Soil B



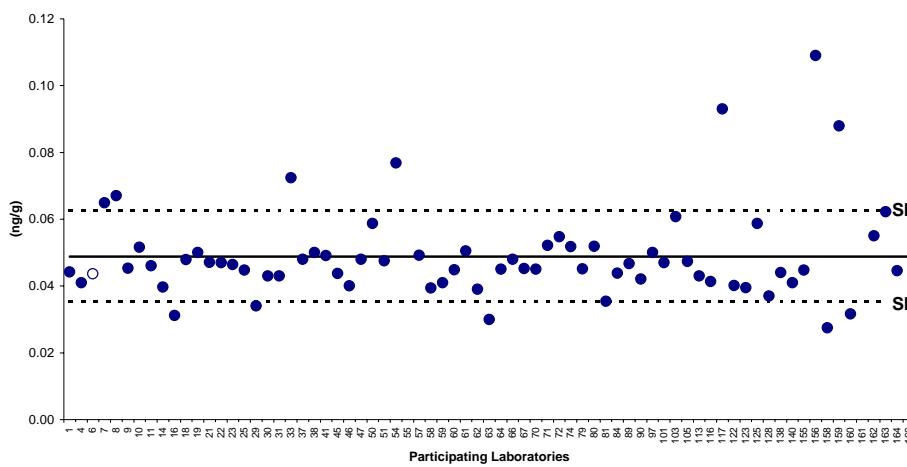
1,2,3,4,6,7,8-HpCDD Soil B



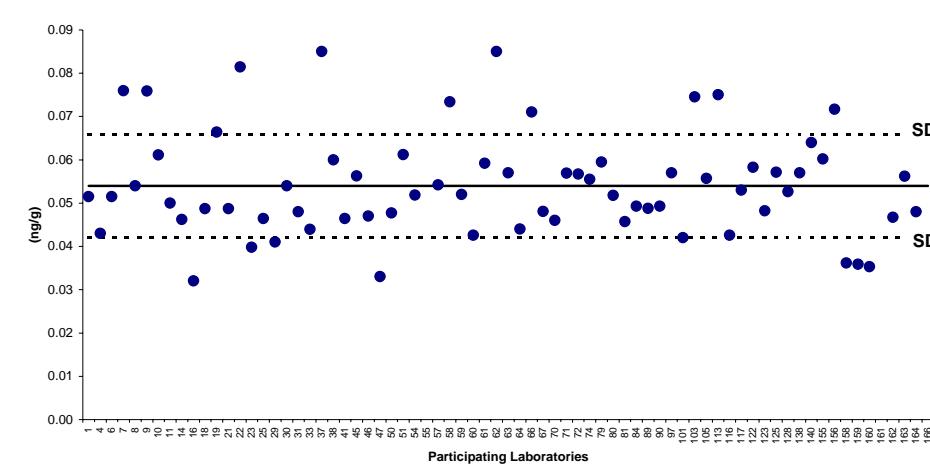
OCDD Soil B



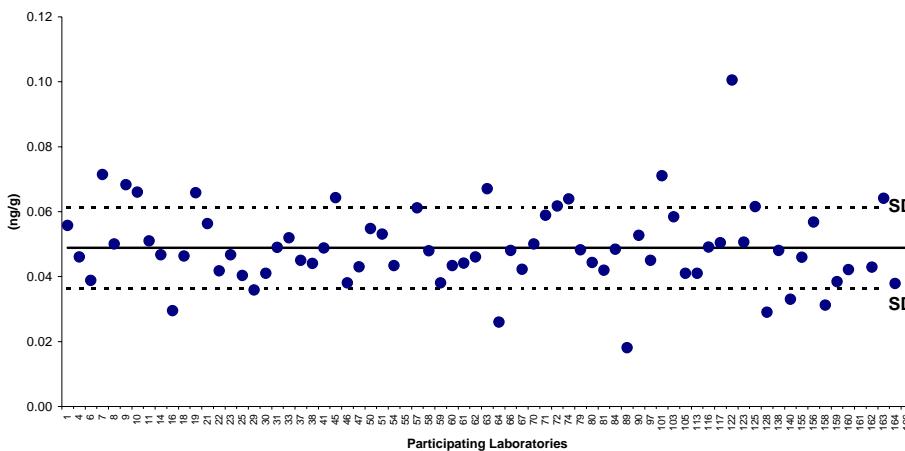
2,3,7,8-TeCDF Soil B



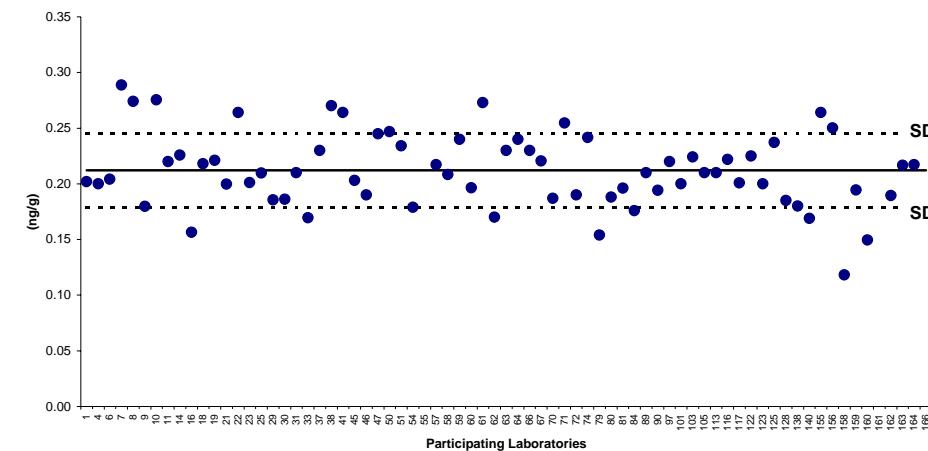
1,2,3,7,8-PeCDF Soil B



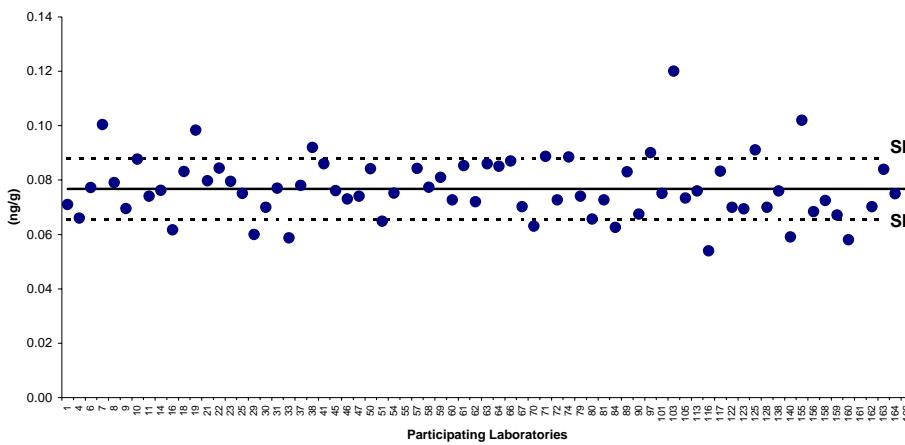
2,3,4,7,8-PeCDF Soil B



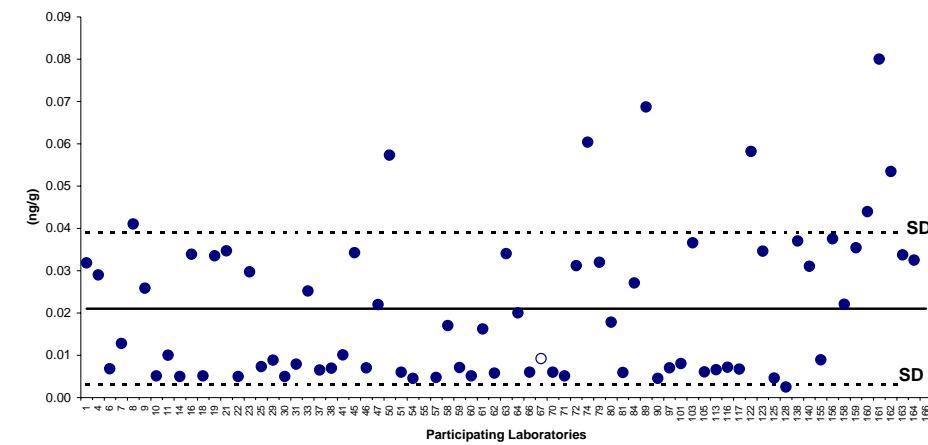
1,2,3,4,7,8-HxCDF Soil B



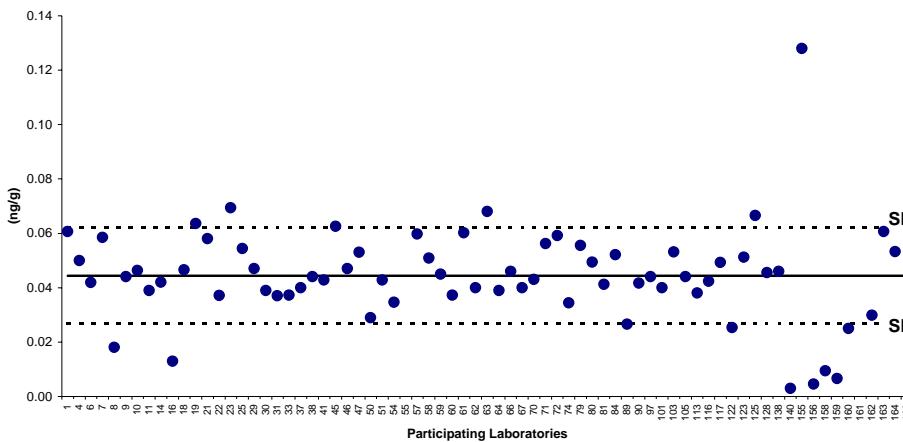
1,2,3,6,7,8-HxCDF Soil B



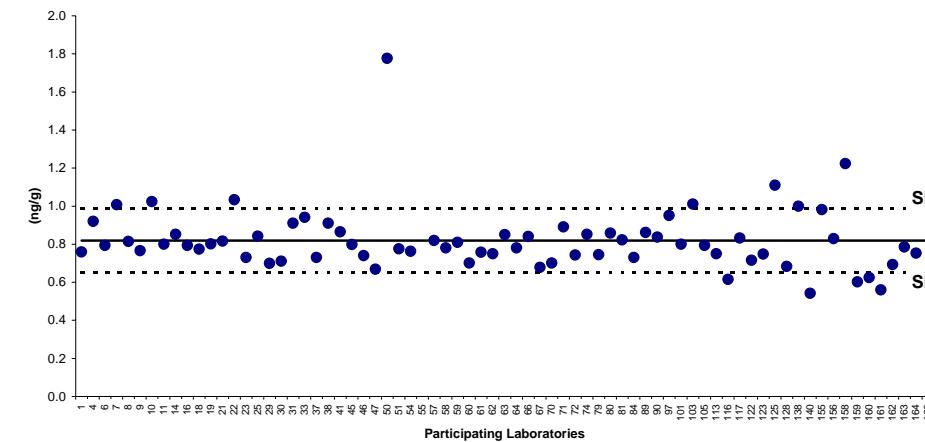
1,2,3,7,8,9-HxCDF Soil B



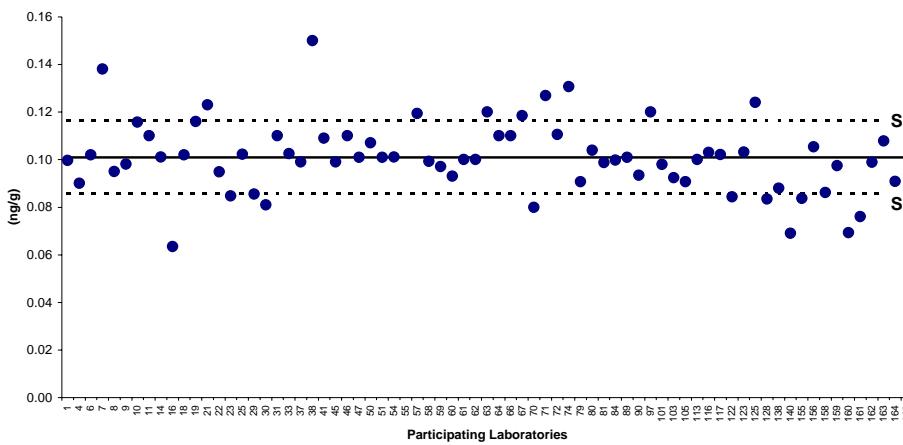
2,3,4,6,7,8-HxCDF Soil B



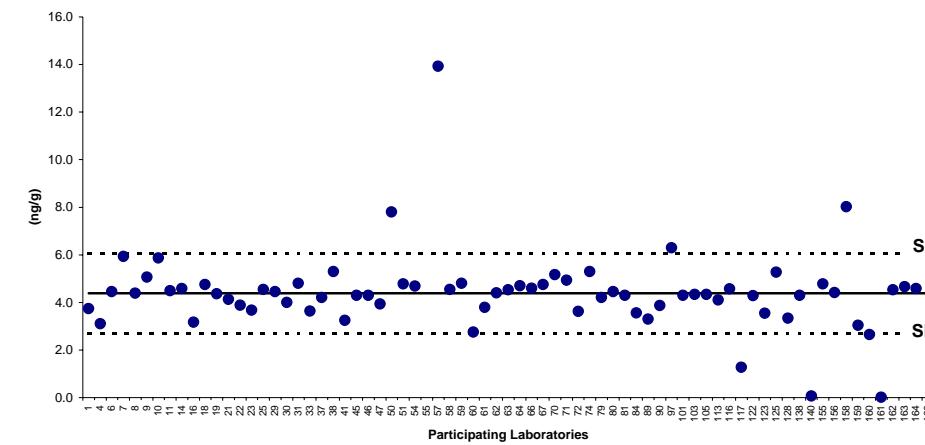
1,2,3,4,6,7,8-HpCDF Soil B



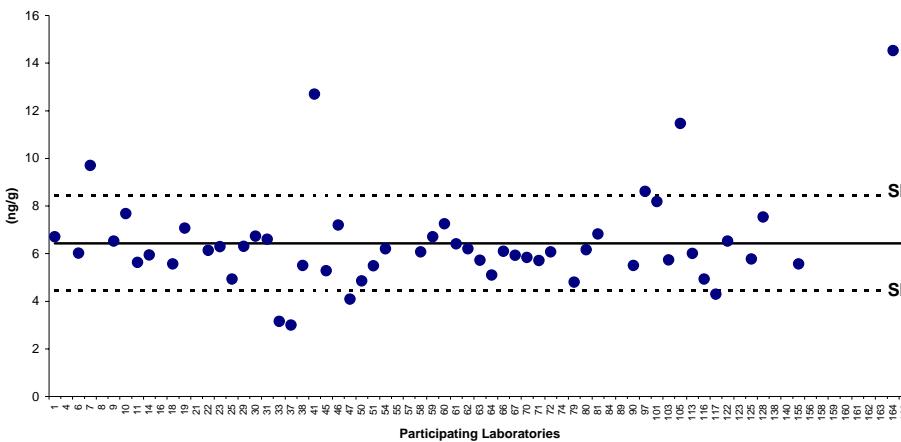
1,2,3,4,7,8,9-HpCDF Soil B



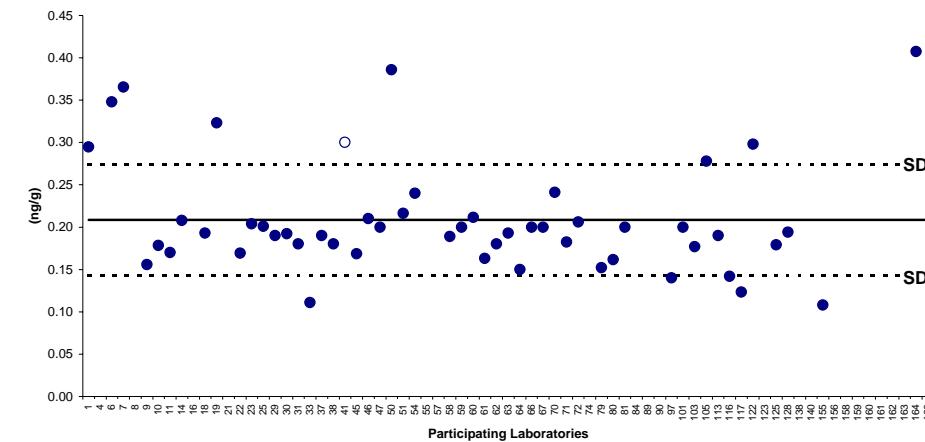
OCDF Soil B



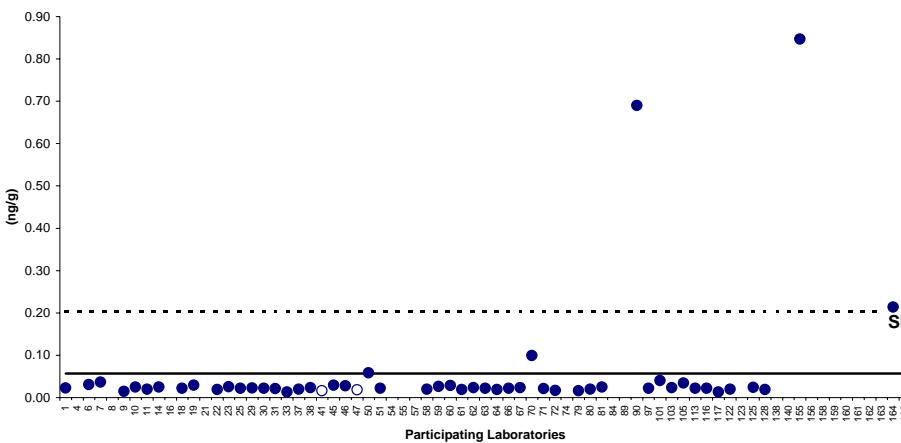
PCB #77 Soil B



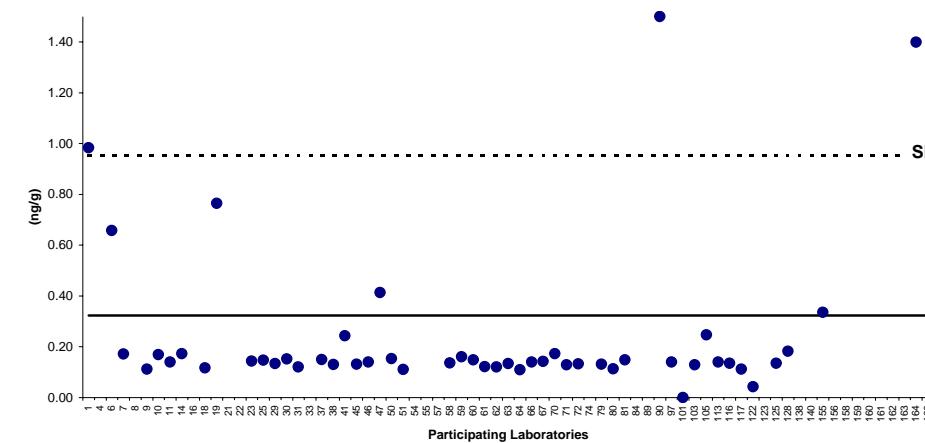
PCB #126 Soil B



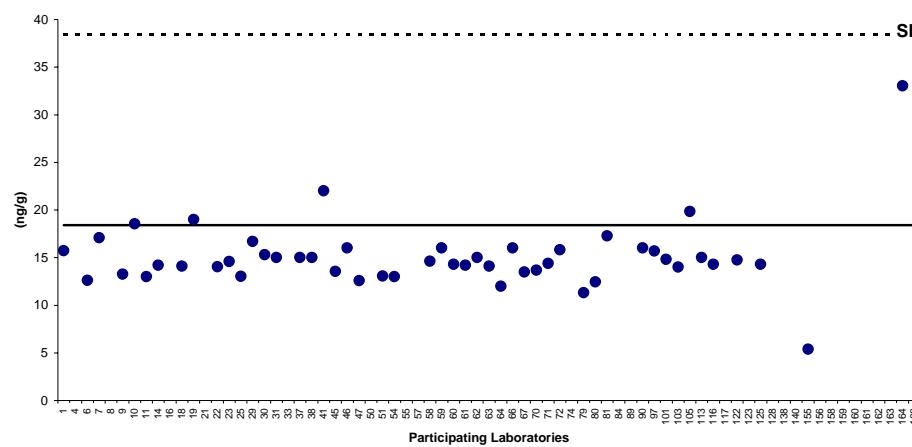
PCB #169 Soil B



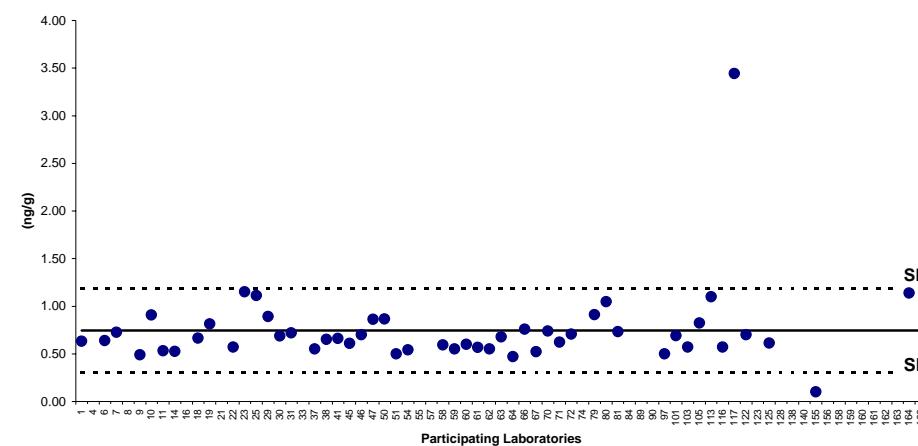
PCB #81 Soil B



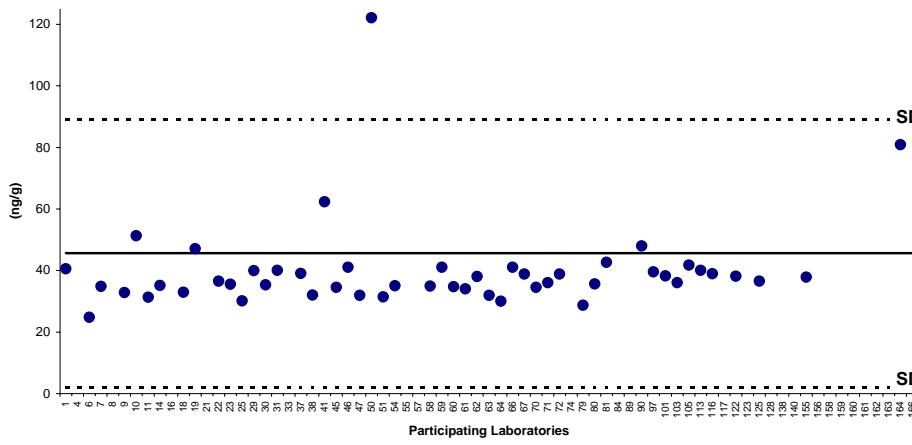
PCB #105 Soil B



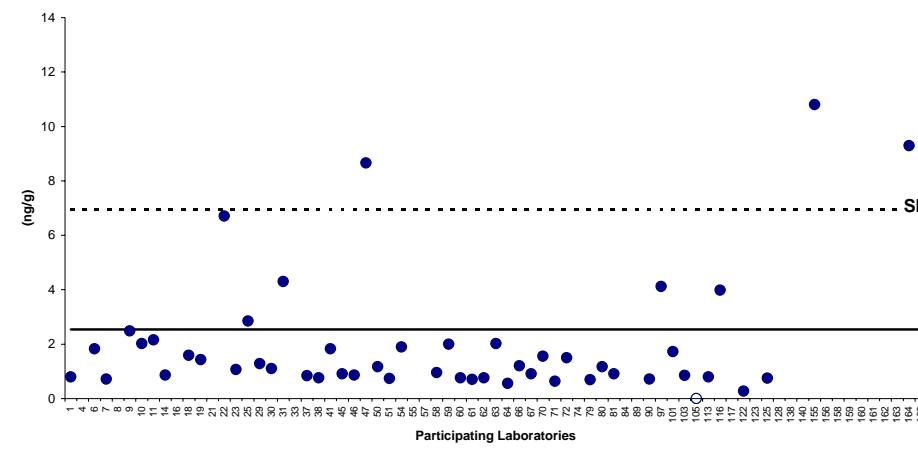
PCB #114 Soil B



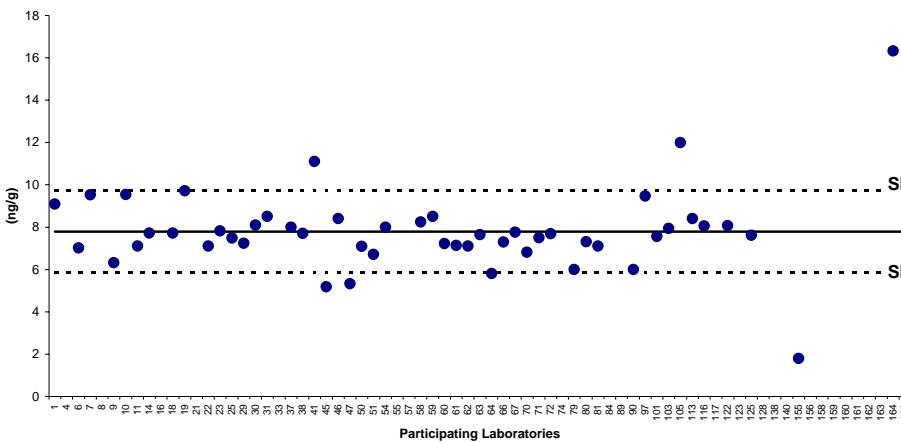
PCB #118 Soil B



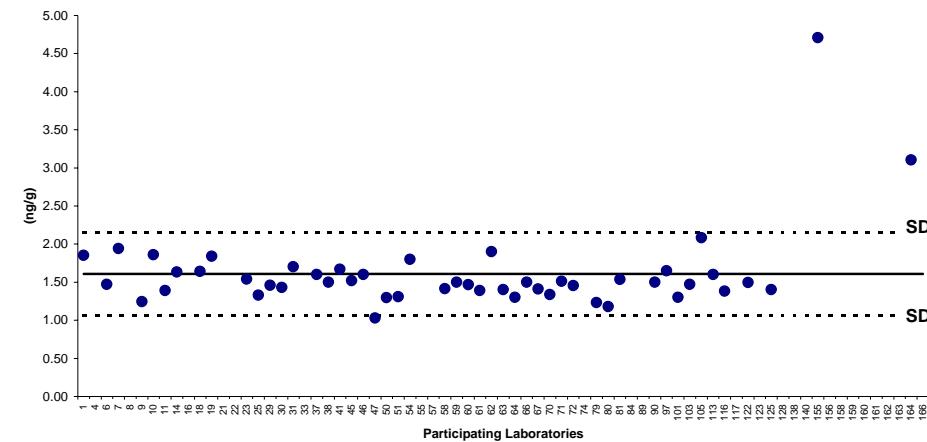
PCB #123 Soil B



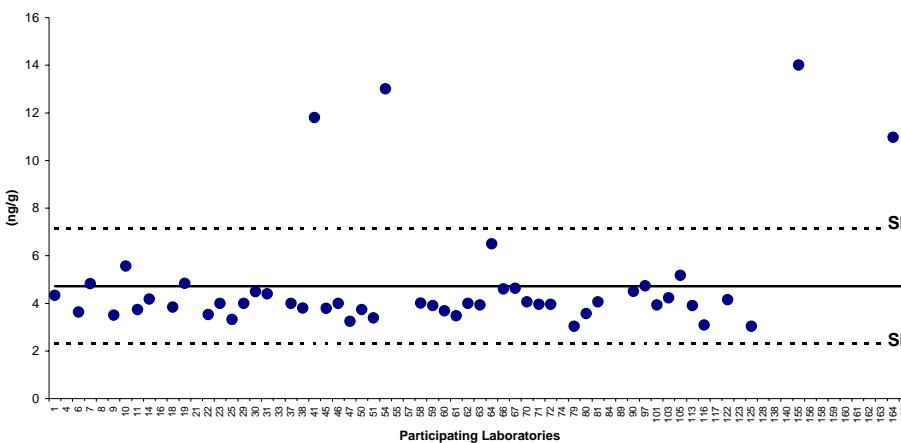
PCB #156 Soil B



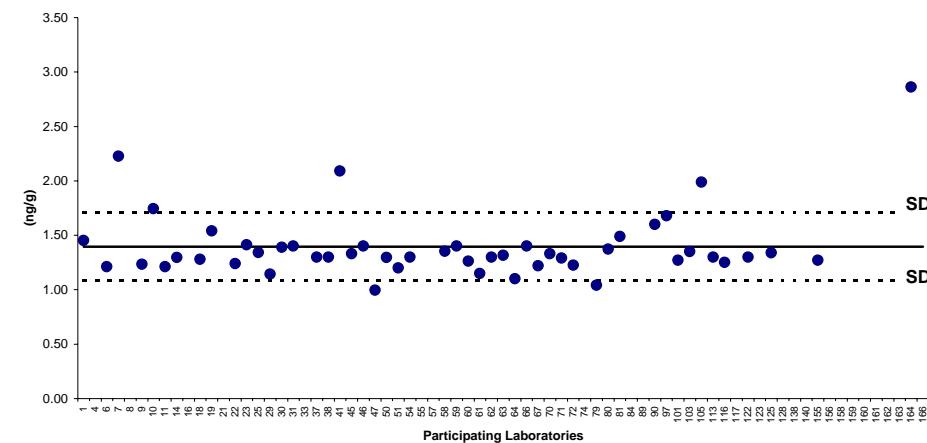
PCB #157 Soil B



PCB #167 Soil B



PCB #189 Soil B



Participant code:	1	4	6	7	8	9	10	11	14	16	18	19	21
Weight Analysed:													
2,3,7,8-TeCDD	0.0002	ND	<0.00128	0.0001	ND	0.0001	< 0.0002	<0.00038	<0.003	0.0002	0.0001	ND	0.0003
1,2,3,7,8-PeCDD	0.0003	0.0017	0.0007	0.0003	ND	0.0002	0.0005	0.0006	<0.005	0.0005	0.0004	0.0005	0.0007
1,2,3,4,7,8-HxCDD	0.0003	0.0004	0.0008	0.0003	0.0030	0.0003	0.0002	0.0006	<0.005	0.0004	0.0004	0.0004	0.0008
1,2,3,6,7,8-HxCDD	0.0010	0.0008	0.0012	0.0008	0.0020	0.0013	0.0010	0.0012	<0.005	0.0009	0.0008	0.0010	0.0016
1,2,3,7,8,9-HxCDD	0.0008	0.0007	0.0011	0.0005	ND	0.0008	0.0005	0.0008	<0.005	0.0008	0.0006	0.0008	0.0011
1,2,3,4,6,7,8-HpCDD	0.0202	0.0180	0.0230	0.0157	0.0220	0.0273	0.0220	0.0240	0.0197	0.0155	0.0186	0.0199	0.0240
OCDD	0.1466	0.1000	0.1990	0.1103	0.1510	0.2860	0.1426	0.1900	0.1322	0.1509	0.1310	0.1360	0.1662
2,3,7,8-TeCDF	0.0017	0.0018	0.0020	0.0018	0.0030	0.0023	0.0027	0.0023	<0.003	0.0016	0.0020	0.0019	0.0025
1,2,3,7,8-PeCDF	0.0011	0.0011	0.0011	0.0011	ND	0.0012	0.0013	0.0014	<0.005	0.0008	0.0012	0.0015	0.0016
2,3,4,7,8-PeCDF	0.0016	0.0009	0.0018	0.0016	0.0020	0.0020	0.0023	0.0022	<0.005	0.0011	0.0014	0.0023	0.0032
1,2,3,4,7,8-HxCDF	0.0015	0.0015	0.0025	0.0012	0.0040	0.0023	0.0015	0.0019	<0.005	0.0011	0.0019	0.0017	0.0022
1,2,3,6,7,8-HxCDF	0.0014	0.0014	0.0019	0.0012	0.0010	0.0015	0.0016	0.0015	<0.005	0.0011	0.0012	0.0019	0.0020
1,2,3,7,8,9-HxCDF	0.0005	0.0006	< 0.0020	< 0.000074	0.0010	0.0002	0.0002	<0.00026	<0.005	0.0011	0.0001	ND	0.0007
2,3,4,6,7,8-HxCDF	0.0017	0.0016	0.0016	0.0011	ND	0.0018	0.0014	0.0015	<0.005	0.0001	0.0013	0.0016	0.0026
1,2,3,4,6,7,8-HpCDF	0.0083	0.0074	0.0126	0.0055	0.0090	0.0106	0.0080	0.0094	0.0081	0.0063	0.0069	0.0071	0.0098
1,2,3,4,7,8,9-HpCDF	0.0006	0.0009	< 0.0036	0.0006	ND	0.0006	0.0006	0.0008	<0.005	0.0005	0.0006	0.0008	0.0011
OCDF	0.0093	0.0085	0.0618	0.0067	0.0150	0.0171	0.0091	0.0150	0.0112	0.1003	0.0097	0.0095	0.0113
TEQ (PCDD/DF)	0.0025	0.0033	0.0031	0.0022	0.0030	0.0028	0.0030	0.0033	0.0035	0.0023	0.0024	0.0030	0.0040
PCB #77	0.0102	NA	0.0232	0.0118	NA	0.0789	0.0194	0.0130	0.0140	NA	0.0116	0.0217	NA
PCB #126	0.0098	NA	0.0150	0.0095	NA	0.0087	0.0152	0.0095	0.0110	NA	0.0098	0.0143	NA
PCB #169	0.0016	NA	0.0019	0.0059	NA	0.0031	0.0030	0.0018	<0.005	NA	0.0016	0.0029	NA
TEQ (including PCBs)	0.0035	NA	0.0046	0.0032	NA	0.0037	0.0040	0.0042	0.0046	NA	0.0034	0.0045	NA
Other PCBs (Optional)													
PCB #81	0.0050	NA	0.0056	0.0006	NA	0.0026	0.0017	0.0008	<0.005	NA	0.0006	0.0067	NA
PCB #105	0.149	NA	0.16	0.11	NA	0.54	0.21	0.14	0.11	NA	0.11	0.24	NA
PCB #114	0.0057	NA	0.0058	0.0048	NA	0.0253	0.0124	0.0045	<0.005	NA	0.0045	0.0035	NA
PCB #118	0.367	NA	0.39	0.26	NA	0.94	0.98	0.40	0.34	NA	0.33	0.49	NA
PCB #123	0.003	NA	0.057	0.003	NA	0.026	0.043	0.055	0.005	NA	0.026	0.003	NA
PCB #156	0.352	NA	0.314	0.198	NA	0.400	0.610	0.310	0.292	NA	0.296	0.405	NA
PCB #157	0.048	NA	0.051	0.036	NA	0.065	0.080	0.051	0.048	NA	0.046	0.053	NA
PCB #167	0.174	NA	0.164	0.121	NA	0.208	0.329	0.160	0.154	NA	0.161	0.195	NA
PCB #189	0.086	NA	0.079	0.075	NA	0.083	0.156	0.077	0.078	NA	0.072	0.093	NA
TEQ Total	0.0038	NA	0.0049	0.0034	NA	0.0041	0.0050	0.0045	0.0048	NA	0.0036	0.0048	NA

Participant code:	22	23	25	29	30	31	33	37	38	41	45	46	47
Weight Analysed:													
2,3,7,8-TeCDD	0.0000	0.0002	0.0002	0.0001	< 0.0002	0.0003	0.0001	0.0001	0.0002	< 0.0001	0.0008	0.0002	< 0.0001
1,2,3,7,8-PeCDD	0.0006	0.0006	0.0005	0.0003	0.0002	0.0005	0.0008	0.0004	0.0004	< 0.0005	0.0012	0.0006	< 0.0001
1,2,3,4,7,8-HxCDD	0.0004	0.0004	0.0004	0.0002	0.0004	0.0005	0.0006	0.0005	0.0005	< 0.0005	0.0008	0.0004	0.0004
1,2,3,6,7,8-HxCDD	0.0012	0.0011	0.0009	0.0008	0.0009	0.0011	0.0008	0.0010	0.0010	0.0010	0.0013	0.0012	0.0007
1,2,3,7,8,9-HxCDD	0.0008	0.0005	0.0007	0.0005	0.0004	0.0007	0.0008	0.0008	0.0007	0.0018	0.0011	0.0009	0.0010
1,2,3,4,6,7,8-HpCDD	0.0228	0.0232	0.0201	0.0184	0.0175	0.0180	0.0168	0.0180	0.0160	0.0233	0.0022	0.0220	0.0170
OCDD	0.1641	0.2180	0.1492	0.1312	0.1060	0.1400	0.0876	0.1400	0.1300	0.1400	0.1615	0.1600	0.1150
2,3,7,8-TeCDF	0.0025	0.0031	0.0022	0.0011	0.0014	0.0028	0.0015	0.0019	0.0020	0.0026	0.0025	0.0020	0.0020
1,2,3,7,8-PeCDF	0.0022	0.0015	0.0011	0.0011	0.0010	0.0010	0.0024	0.0018	0.0015	0.0006	0.0023	0.0013	0.0130
2,3,4,7,8-PeCDF	0.0021	0.0024	0.0019	0.0014	0.0013	0.0018	0.0010	0.0017	0.0018	0.0021	0.0030	0.0017	0.0020
1,2,3,4,7,8-HxCDF	0.0024	0.0019	0.0017	0.0017	0.0012	0.0013	0.0015	0.0018	0.0017	0.0045	0.0038	0.0018	0.0030
1,2,3,6,7,8-HxCDF	0.0016	0.0017	0.0013	0.0013	0.0011	0.0015	0.0012	0.0015	0.0015	0.0022	0.0024	0.0015	0.0010
1,2,3,7,8,9-HxCDF	0.0000	< 0.0002	0.0004	0.0002	< 0.0002	0.0001	0.0005	< 0.07	ND	< 0.0005	0.0013	0.0001	< 0.00009
2,3,4,6,7,8-HxCDF	0.0014	< 0.0021	0.0016	0.0015	0.0011	0.0011	0.0017	0.0015	0.0015	0.0016	0.0030	0.0016	0.0010
1,2,3,4,6,7,8-HpCDF	0.0095	0.0078	0.0071	0.0071	0.0055	0.0067	0.0075	0.0061	0.0074	0.0082	0.0140	0.0071	0.0060
1,2,3,4,7,8,9-HpCDF	0.0003	0.0006	0.0007	0.0006	0.0004	0.0005	0.0005	0.0007	0.0009	0.0008	0.0018	0.0009	0.0006
OCDF	0.0147	0.0567	0.0109	0.0085	0.0077	0.0100	0.0108	0.0086	0.0097	0.0076	0.0315	0.0120	0.0080
TEQ (PCDD/DF)	0.0031	0.0033	0.0029	0.0022	0.0018	0.0029	0.0032	0.0027	0.0021	0.0044	0.0057	0.0030	0.0030
PCB #77	0.0161	0.0187	0.0185	0.0129	0.0206	0.0093	< 0.02	0.0120	0.0160	0.0474	0.0149	0.0140	0.0180
PCB #126	0.0124	0.0123	0.0110	0.0098	0.0087	0.0085	0.0062	0.0095	0.0087	< 0.011	0.0092	0.0099	< 0.009
PCB #169	0.0021	0.0028	0.0019	0.0015	0.0016	0.0018	0.0012	0.0015	0.0017	< 0.003	0.0018	0.0020	< 0.008
TEQ (including PCBs)	0.0044	0.0046	0.0040	0.0023	0.0027	0.0038	0.0039	0.0036	0.0030	0.0055	0.0066	0.0040	0.0040
Other PCBs (Optional)													
PCB #81	0.0004	0.0013	0.0009	0.0006	< 0.001	0.0005	NA	0.0007	0.0006	0.0036	0.0008	0.0007	< 0.005
PCB #105	0.14	0.13	0.27	0.12	0.11	0.13	NA	0.11	0.14	0.19	0.12	0.13	0.11
PCB #114	0.0048	0.0095	0.0200	0.0101	0.0050	0.0077	NA	0.0240	0.0049	< 0.004	0.0052	0.0052	< 0.006
PCB #118	0.43	0.41	0.79	0.36	0.38	0.46	NA	0.37	0.42	0.47	0.37	0.44	0.34
PCB #123	0.125	0.007	0.155	0.040	0.018	0.120	NA	0.005	0.005	0.024	0.009	0.006	0.091
PCB #156	0.342	0.331	0.389	0.289	0.274	0.420	NA	0.320	0.350	0.433	0.291	0.360	0.185
PCB #157	0.053	0.055	0.059	0.044	0.040	0.054	NA	0.047	0.050	0.068	0.048	0.055	0.031
PCB #167	0.173	0.181	0.175	0.145	0.146	0.210	NA	0.160	0.160	0.390	0.149	0.180	0.108
PCB #189	0.088	0.087	0.089	0.069	0.070	0.099	NA	0.077	0.100	0.123	0.072	0.086	0.070
TEQ Total	0.0047	0.0048	0.0042	0.0025	0.0029	0.0041	NA	0.0039	0.0032	0.0059	0.0069	0.0042	0.0042

Participant code:	50	51	54	55	57	58	59	60	61	62	63	64	66
Weight Analysed:													
2,3,7,8-TeCDD	0.0002	0.0002	0.0035	BA	0.0001	0.0003	0.0002	0.0001	0.0001	0.0002	0.0002	< 0.000025	0.0003
1,2,3,7,8-PeCDD	0.0007	0.0004	0.0005	BA	0.0003	0.0004	0.0005	0.0005	0.0004	0.0004	0.0007	0.0002	0.0007
1,2,3,4,7,8-HxCDD	0.0011	0.0004	0.0011	BA	0.0003	0.0009	0.0005	0.0003	0.0003	0.0004	0.0006	0.0004	0.0005
1,2,3,6,7,8-HxCDD	0.0014	0.0012	0.0035	BA	0.0007	0.0008	0.0010	0.0009	0.0007	0.0008	0.0011	0.0006	0.0011
1,2,3,7,8,9-HxCDD	0.0010	0.0008	0.0018	BA	0.0005	0.0014	0.0008	0.0006	0.0008	0.0006	0.0010	0.0014	0.0006
1,2,3,4,6,7,8-HpCDD	0.0178	0.0225	0.0518	BA	0.0170	0.0183	0.0210	0.0214	0.0161	0.0200	0.0230	0.0190	0.0220
OCDD	0.1580	0.1410	0.4205	BA	0.1015	0.1413	0.1500	0.1270	0.1130	0.1300	0.1600	0.1400	0.1800
2,3,7,8-TeCDF	0.0019	0.0022	0.0087	BA	0.0016	0.0030	0.0020	0.0019	0.0027	0.0018	0.0002	0.0020	0.0021
1,2,3,7,8-PeCDF	0.0015	0.0014	0.0040	BA	0.0010	0.0102	0.0014	0.0010	0.0011	0.0016	0.0018	0.0010	0.0019
2,3,4,7,8-PeCDF	0.0015	0.0023	0.0040	BA	0.0016	0.0097	0.0016	0.0017	0.0015	0.0017	0.0024	0.0014	0.0020
1,2,3,4,7,8-HxCDF	0.0016	0.0015	0.0161	BA	0.0015	0.0029	0.0018	0.0017	0.0030	0.0017	0.0062	0.0024	0.0021
1,2,3,6,7,8-HxCDF	0.0012	0.0012	0.0060	BA	0.0012	0.0031	0.0015	0.0013	0.0015	0.0015	0.0018	0.0004	0.0034
1,2,3,7,8,9-HxCDF	0.0016	<0.00013	0.0003	BA	0.0001	0.0006	0.0001	0.0001	0.0002	ND	0.0007	0.0004	0.0001
2,3,4,6,7,8-HxCDF	0.0004	0.0016	0.0035	BA	0.0014	0.0022	0.0016	0.0012	0.0017	0.0014	0.0020	0.0042	0.0016
1,2,3,4,6,7,8-HpCDF	0.0057	0.0083	0.0461	BA	0.0095	0.0134	0.0078	0.0074	0.0065	0.0069	0.0078	0.0071	0.0081
1,2,3,4,7,8,9-HpCDF	0.0009	0.0008	0.0052	BA	0.0006	0.0016	0.0007	0.0005	0.0006	0.0007	0.0002	0.0008	0.0006
OCDF	0.0084	0.0121	0.2637	BA	0.0145	0.0235	0.0099	0.0097	0.0120	0.0096	0.0110	0.0096	0.0110
TEQ (PCDD/DF)	0.0029	0.0031	0.0114	0.0080	0.0023	0.0078	0.0028	0.0026	0.0026	0.0026	0.0037	0.0024	0.0036
PCB #77	0.0283	0.0300	0.3700	BA	NA	0.0424	0.0160	0.0148	0.0109	0.0130	0.0156	0.0370	0.0110
PCB #126	0.0217	0.0129	ND	BA	NA	0.0106	0.0130	0.0124	0.0072	0.0094	0.0102	0.0190	0.0096
PCB #169	0.0063	0.0037	0.0110	BA	NA	0.0035	0.0022	0.0022	0.0013	0.0017	0.0019	0.0022	0.0019
TEQ (including PCBs)	0.0051	0.0044	0.0115	0.0010	NA	0.0089	0.0013	0.0039	0.0033	0.0036	0.0047	0.0043	0.0046
Other PCBs (Optional)													
PCB #81	0.0054	0.0017	ND	BA	NA	0.0038	0.0008	0.0006	0.0005	0.0008	0.0009	0.0014	0.0010
PCB #105	0.93	0.15	0.92	BA	NA	0.16	0.18	0.15	0.10	0.12	0.13	1.00	0.12
PCB #114	0.0805	0.0090	ND	BA	NA	0.0044	0.0052	0.0034	0.0031	0.0038	0.0054	0.0590	0.0042
PCB #118	2.74	0.45	2.40	BA	NA	0.50	0.71	0.52	0.31	0.40	0.42	3.20	0.39
PCB #123	0.051	0.009	0.160	BA	NA	0.009	0.066	0.004	0.004	0.005	0.017	0.029	0.012
PCB #156	0.489	0.229	0.760	BA	NA	0.351	0.570	0.410	0.259	0.350	0.328	0.830	0.340
PCB #157	0.085	0.038	0.150	BA	NA	0.047	0.068	0.063	0.041	0.063	0.047	0.150	0.052
PCB #167	0.216	0.115	1.300	BA	NA	0.166	0.250	0.207	0.135	0.170	0.169	0.890	0.170
PCB #189	0.096	0.059	0.170	BA	NA	0.083	0.120	0.096	0.064	0.095	0.083	0.140	0.086
TEQ Total	0.0058	0.0046	0.0123	0.0090	NA	0.0092	0.0046	0.0042	0.0035	0.0039	0.0049	0.0054	0.0048

Participant code:	67	70	71	72	74	79	80	81	84	89	90	97	101
Weight Analysed:													
2,3,7,8-TeCDD	0.0001	0.0010	0.0001	0.0002	0.0002	0.0003	0.0003	0.0002	0.0003	0.0140	0.0001	0.0002	<0.001
1,2,3,7,8-PeCDD	0.0006	0.0010	0.0005	0.0005	0.0005	0.0007	0.0001	0.0004	0.0003	0.0001	0.0009	0.0006	0.0010
1,2,3,4,7,8-HxCDD	0.0004	0.0004	0.0004	0.0005	0.0004	0.0006	0.0004	0.0004	0.0003	0.0012	0.0005	0.0005	<0.001
1,2,3,6,7,8-HxCDD	0.0007	0.0010	0.0010	0.0012	0.0009	0.0014	0.0012	0.0010	0.0009	0.0099	0.0016	0.0010	0.0010
1,2,3,7,8,9-HxCDD	0.0006	0.0010	0.0008	0.0008	0.0006	0.0008	0.0010	0.0011	0.0005	0.0002	0.0006	0.0008	0.0010
1,2,3,4,6,7,8-HpCDD	0.0213	0.0200	0.0215	0.0236	0.0200	0.0202	0.0187	0.0211	0.0167	0.0350	0.0379	0.0230	0.0200
OCDD	0.1305	0.1370	0.1478	0.1762	0.1575	0.1790	0.1277	0.1320	0.0975	0.1370	0.4080	0.2400	0.1600
2,3,7,8-TeCDF	0.0022	0.0020	0.0024	0.0025	0.0021	0.0021	0.0022	0.0018	0.0015	0.0026	0.0016	0.0020	0.0020
1,2,3,7,8-PeCDF	0.0012	0.0020	0.0013	0.0017	0.0013	0.0016	0.0023	0.0012	0.0012	0.0001	0.0010	0.0010	0.0010
2,3,4,7,8-PeCDF	0.0016	0.0020	0.0020	0.0026	0.0020	0.0021	0.0020	0.0017	0.0014	0.0001	0.0017	0.0020	0.0020
1,2,3,4,7,8-HxCDF	0.0017	0.0020	0.0016	0.0025	0.0017	0.0016	0.0025	0.0016	0.0011	0.0066	0.0018	0.0020	0.0020
1,2,3,6,7,8-HxCDF	0.0013	0.0020	0.0014	0.0018	0.0014	0.0016	0.0018	0.0013	0.0009	0.0051	0.0015	0.0010	0.0010
1,2,3,7,8,9-HxCDF	< 0.0004	0.0002	0.0001	0.0006	0.0016	0.0008	0.0002	0.0001	0.0002	0.0048	0.0002	0.0001	<0.001
2,3,4,6,7,8-HxCDF	0.0013	0.0020	0.0015	0.0022	0.0005	0.0018	0.0024	0.0015	0.0011	0.0021	0.0019	0.0020	<0.001
1,2,3,4,6,7,8-HpCDF	0.0060	0.0080	0.0074	0.0107	0.0079	0.0076	0.0099	0.0072	0.0055	0.0205	0.0080	0.0070	0.0080
1,2,3,4,7,8,9-HpCDF	0.0008	0.0010	0.0007	0.0013	0.0006	0.0009	0.0010	0.0007	0.0012	0.0034	0.0007	0.0008	0.0010
OCDF	0.0102	0.0120	0.0098	0.0275	0.0099	0.0145	0.0112	0.0095	0.0104	0.0373	0.0100	0.0100	0.0120
TEQ (PCDD/DF)	0.0026	0.0040	0.0029	0.0036	0.0029	0.0034	0.0030	0.0028	0.0023	0.0182	0.0034	0.0030	0.0031
PCB #77	0.0174	0.0170	0.0182	0.0130	NA	0.0135	0.0123	0.0187	NA	NA	ND	0.0180	0.0400
PCB #126	0.0133	0.0140	0.0107	0.0120	NA	0.0084	0.0091	0.0116	NA	NA	ND	0.0080	0.0100
PCB #169	0.0025	0.0130	0.0018	0.0950	NA	0.0019	0.0028	0.0019	NA	NA	ND	0.0020	<0.005
TEQ (including PCBs)	0.0040	0.0060	0.0040	0.0058	NA	0.0010	0.0039	0.0040	NA	NA	0.0034	0.0040	0.0041
Other PCBs (Optional)													
PCB #81	0.0008	0.0030	0.0011	0.0010	NA	0.0011	0.0013	0.0009	NA	NA	ND	0.0009	<0.005
PCB #105	0.14	0.17	0.33	0.14	NA	0.10	0.14	0.18	NA	NA	0.20	0.24	0.71
PCB #114	0.0051	0.0090	0.0156	0.0050	NA	0.0035	0.0068	0.0072	NA	NA	ND	0.0050	0.0300
PCB #118	0.35	0.55	0.85	0.45	NA	0.30	0.36	0.47	NA	NA	0.51	1.03	1.57
PCB #123	0.006	0.045	0.009	0.016	NA	0.005	0.017	0.008	NA	NA	ND	0.050	0.050
PCB #156	0.319	0.305	0.359	0.399	NA	0.222	0.255	0.378	NA	NA	0.270	0.780	0.360
PCB #157	0.044	0.057	0.059	0.057	NA	0.038	0.042	0.062	NA	NA	ND	0.081	0.060
PCB #167	0.171	0.182	0.174	0.201	NA	0.117	0.132	0.189	NA	NA	0.190	0.340	0.180
PCB #189	0.075	0.082	0.075	0.095	NA	0.059	0.073	0.092	NA	NA	ND	0.150	0.070
TEQ Total	0.0042	0.0060	0.0044	0.0061	NA	0.0045	0.0039	0.0043	NA	NA	0.0036	0.0050	0.0045

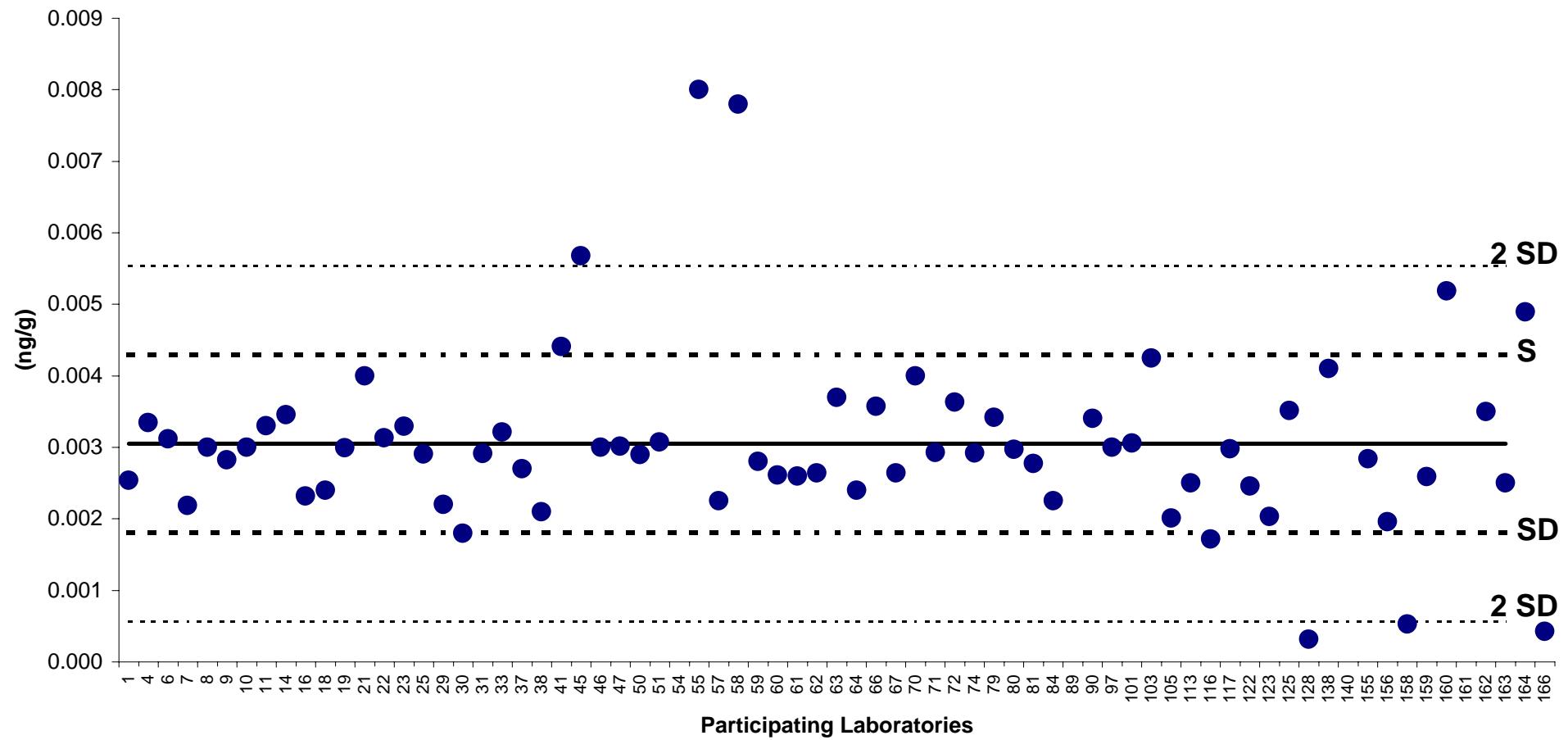
Participant code:	103	105	113	116	117	122	123	125	128	138	140	155	156
Weight Analysed:													
2,3,7,8-TeCDD	0.0003	<0.001	0.0001	ND	0.0002	0.0001	0.0001	0.0002	ND	0.0004	0.0020	0.0002	<0.0002
1,2,3,7,8-PeCDD	0.0005	<0.001	0.0004	ND	0.0004	0.0002	0.0002	0.0007	ND	0.0007	0.0010	0.0004	<0.0002
1,2,3,4,7,8-HxCDD	0.0011	<0.001	0.0004	ND	0.0003	0.0002	0.0003	0.0007	ND	0.0006	0.0010	0.0004	<0.0002
1,2,3,6,7,8-HxCDD	0.0010	0.0011	0.0009	0.0007	0.0009	0.0005	0.0007	0.0013	ND	0.0006	0.0030	0.0011	<0.0002
1,2,3,7,8,9-HxCDD	0.0013	<0.001	0.0006	ND	0.0007	0.0002	0.0005	0.0013	ND	0.0014	0.0020	0.0010	<0.0002
1,2,3,4,6,7,8-HpCDD	0.0186	0.0234	0.0190	0.0140	0.0203	0.0211	0.0152	0.0319	0.0220	0.0190	0.0830	0.0229	0.0188
OCDD	0.1580	0.1320	0.1300	0.1030	0.0616	0.1230	0.1081	0.2230	0.1040	0.1500	0.4320	0.1690	0.1632
2,3,7,8-TeCDF	0.0020	0.0019	0.0018	0.0015	0.0041	0.0026	0.0011	0.0023	ND	0.0021	0.0040	0.0022	0.0061
1,2,3,7,8-PeCDF	0.0050	0.0013	0.0016	0.0008	0.0012	0.0014	0.0010	0.0013	ND	0.0140	0.0050	0.0010	<0.0002
2,3,4,7,8-PeCDF	0.0020	0.0017	0.0015	0.0016	0.0019	0.0019	0.0015	0.0021	ND	0.0020	0.0030	0.0013	0.0022
1,2,3,4,7,8-HxCDF	0.0052	0.0016	0.0017	ND	0.0020	0.0017	0.0015	0.0018	ND	0.0015	0.0090	0.0035	<0.0002
1,2,3,6,7,8-HxCDF	0.0042	0.0015	0.0012	0.0010	0.0011	0.0013	0.0011	0.0016	ND	0.0017	0.0040	0.0024	<0.0002
1,2,3,7,8,9-HxCDF	0.0014	<0.001	ND	ND	<0.0001	0.0016	0.0006	0.0001	ND	0.0006	0.0030	0.0001	<0.0002
2,3,4,6,7,8-HxCDF	0.0015	0.0018	0.0012	0.0012	0.0014	0.0003	0.0014	0.0019	ND	0.0017	0.0000	0.0012	<0.0002
1,2,3,4,6,7,8-HpCDF	0.0209	0.0085	0.0067	ND	0.0077	0.0071	0.0066	0.0091	0.0087	0.0091	0.0320	0.0100	0.0050
1,2,3,4,7,8,9-HpCDF	0.0019	<0.001	0.0006	ND	0.0007	0.0004	0.0008	0.0008	ND	0.0015	0.0050	0.0009	<0.0002
OCDF	0.0099	0.0116	0.0091	ND	0.0036	0.0114	0.0128	0.0123	0.0120	0.0110	0.0030	0.0106	0.0094
TEQ (PCDD/DF)	0.0042	0.0020	0.0025	0.0017	0.0030	0.0025	0.0020	0.0035	0.0003	0.0041	0.0090	0.0028	0.0020
PCB #77	0.0101	0.0234	0.0110	0.0070	0.0143	0.0300	NA	0.0116	0.0200	NA	NA	0.0121	NA
PCB #126	0.0083	0.0146	0.0097	0.0058	0.0066	0.0086	NA	0.0098	0.0065	NA	NA	0.0102	NA
PCB #169	0.0017	0.0026	0.0018	0.0017	0.0009	0.0028	NA	0.0019	0.0017	NA	NA	0.0021	NA
TEQ (including PCBs)	0.0051	0.0035	0.0036	0.0023	0.0036	0.0034	NA	0.0045	0.0010	NA	NA	0.0039	NA
Other PCBs (Optional)													
PCB #81	0.0008	0.0013	0.0006	0.0004	0.0006	0.0007	NA	0.0007	0.0007	NA	NA	<0.001	NA
PCB #105	0.10	0.20	0.12	ND	0.10	0.16	NA	0.15	NA	NA	NA	0.11	NA
PCB #114	0.0033	<0.015	0.0180	ND	<0.009	0.0081	NA	0.0056	NA	NA	NA	0.0069	NA
PCB #118	0.31	0.65	0.35	ND	0.28	0.44	NA	0.49	NA	NA	NA	0.47	NA
PCB #123	0.004	<0.005	0.005	ND	0.063	0.003	NA	0.006	NA	NA	NA	0.118	NA
PCB #156	0.285	0.475	0.320	0.240	0.268	0.340	NA	0.389	NA	NA	NA	0.126	NA
PCB #157	0.040	0.072	0.050	ND	0.040	0.051	NA	0.056	NA	NA	NA	0.038	NA
PCB #167	0.149	0.239	0.150	0.120	0.262	0.171	NA	0.147	NA	NA	NA	0.154	NA
PCB #189	0.072	0.108	0.078	0.059	0.063	0.066	NA	0.091	NA	NA	NA	0.065	NA
TEQ Total	0.0053	0.0039	0.0037	0.0024	0.0039	0.0036	NA	0.0048	0.0013	NA	NA	0.0040	NA

Participant code:	158	159	160	161	162	163	164	166
Weight Analysed:								
2,3,7,8-TeCDD	0.0000	0.0001	0.0006	0.0220	0.0002	0.0002	0.0007	ND
1,2,3,7,8-PeCDD	0.0000	0.0004	0.0005	0.0720	0.0009	0.0004	0.0010	ND
1,2,3,4,7,8-HxCDD	0.0025	0.0004	0.0004	0.0220	0.0004	0.0004	0.0006	ND
1,2,3,6,7,8-HxCDD	0.0000	0.0009	0.0009	0.0200	0.0015	0.0008	0.0012	ND
1,2,3,7,8,9-HxCDD	0.0000	0.0012	0.0006	0.0060	0.0010	0.0006	0.0008	ND
1,2,3,4,6,7,8-HpCDD	0.0106	0.0167	0.0201	0.0300	0.0193	0.0181	0.0315	0.0046
OCDD	0.1383	0.1260	0.2059	0.0010	0.1320	0.1243	0.2208	0.0001
2,3,7,8-TeCDF	0.0000	0.0028	0.0012	0.0012	0.0022	0.0017	0.0025	0.0000
1,2,3,7,8-PeCDF	0.0003	0.0009	0.0024	0.0060	0.0014	0.0010	0.0026	ND
2,3,4,7,8-PeCDF	0.0000	0.0017	0.0030	0.1100	0.0020	0.0018	0.0023	ND
1,2,3,4,7,8-HxCDF	0.0002	0.0014	0.0077	0.0540	0.0018	0.0015	0.0036	0.0022
1,2,3,6,7,8-HxCDF	0.0007	0.0012	0.0032	0.0240	0.0015	0.0012	0.0020	0.0013
1,2,3,7,8,9-HxCDF	0.0000	0.0014	0.0032	0.0030	0.0014	0.0005	0.0008	0.0002
2,3,4,6,7,8-HxCDF	0.0000	0.0001	0.0009	0.0360	0.0005	0.0014	0.0024	ND
1,2,3,4,6,7,8-HpCDF	0.0047	0.0060	0.0322	0.0140	0.0065	0.0063	0.0160	0.0010
1,2,3,4,7,8,9-HpCDF	0.0000	0.0006	0.0049	0.0030	0.0002	0.0007	0.0015	ND
OCDF	0.0078	0.0084	0.2003	0.0002	0.0124	0.0072	0.0678	0.0001
TEQ (PCDD/DF)	0.0005	0.0026	0.0052	NA	0.0035	0.0025	0.0049	0.0004
PCB #77	NA	NA	NA	NA	NA	NA	0.0930	NA
PCB #126	NA	NA	NA	NA	NA	NA	0.0239	NA
PCB #169	NA	NA	NA	NA	NA	NA	0.0128	NA
TEQ (including PCBs)	NA	NA	NA	NA	NA	NA	0.0074	NA
Other PCBs (Optional)								
PCB #81	NA	NA	NA	NA	NA	NA	0.0149	NA
PCB #105	NA	NA	NA	NA	NA	NA	0.30	NA
PCB #114	NA	NA	NA	NA	NA	NA	0.0118	NA
PCB #118	NA	NA	NA	NA	NA	NA	0.96	NA
PCB #123	NA	NA	NA	NA	NA	NA	0.086	NA
PCB #156	NA	NA	NA	NA	NA	NA	0.656	NA
PCB #157	NA	NA	NA	NA	NA	NA	0.112	NA
PCB #167	NA	NA	NA	NA	NA	NA	0.442	NA
PCB #189	NA	NA	NA	NA	NA	NA	0.168	NA
TEQ Total	NA	NA	NA	NA	NA	NA	0.0080	NA

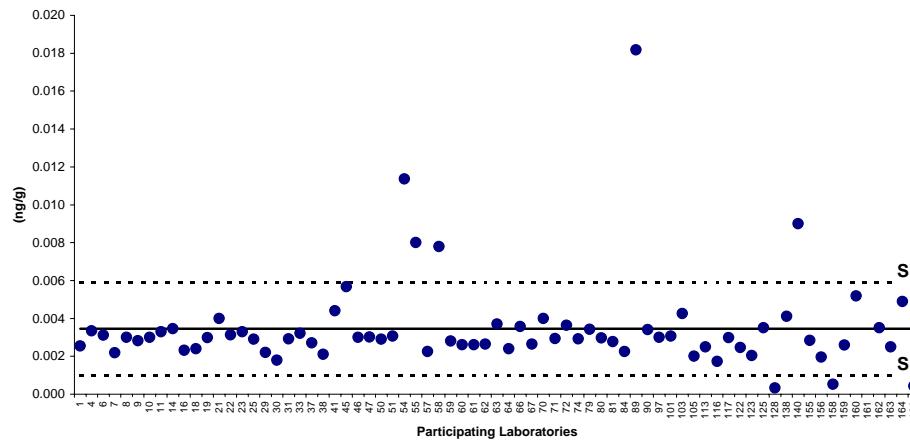
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.0010	0.0002	0.0000	0.0220	0.0035	360%
1,2,3,7,8-PeCDD	0.0017	0.0005	0.0000	0.0720	0.0090	540%
1,2,3,4,7,8-HxCDD	0.0009	0.0004	0.0002	0.0220	0.0027	300%
1,2,3,6,7,8-HxCDD	0.0015	0.0010	0.0000	0.0200	0.0026	173%
1,2,3,7,8,9-HxCDD	0.0009	0.0008	0.0000	0.0060	0.0007	81%
1,2,3,4,6,7,8-HpCDD	0.0216	0.0201	0.0022	0.0830	0.0098	45%
OCDD	0.1539	0.1400	0.0001	0.4320	0.0707	46%
2,3,7,8-TeCDF	0.0022	0.0020	0.0000	0.0087	0.0012	53%
1,2,3,7,8-PeCDF	0.0020	0.0013	0.0001	0.0140	0.0025	122%
2,3,4,7,8-PeCDF	0.0035	0.0019	0.0000	0.1100	0.0131	368%
1,2,3,4,7,8-HxCDF	0.0033	0.0018	0.0002	0.0540	0.0066	201%
1,2,3,6,7,8-HxCDF	0.0020	0.0015	0.0004	0.0240	0.0028	140%
1,2,3,7,8,9-HxCDF	0.0007	0.0004	0.0000	0.0048	0.0010	131%
2,3,4,6,7,8-HxCDF	0.0020	0.0015	0.0000	0.0360	0.0043	213%
1,2,3,4,6,7,8-HpCDF	0.0095	0.0078	0.0010	0.0461	0.0067	70%
1,2,3,4,7,8,9-HpCDF	0.0010	0.0007	0.0000	0.0052	0.0010	100%
OCDF	0.0209	0.0106	0.0001	0.2637	0.0398	191%
TEQ (PCDD/DF)	0.0035	0.0030	0.0003	0.0182	0.0025	71%
PCB #77	0.0277	0.0160	0.0070	0.3700	0.0514	186%
PCB #126	0.0109	0.0098	0.0058	0.0239	0.0036	33%
PCB #169	0.0048	0.0019	0.0009	0.0950	0.0136	282%
TEQ (including PCBs)	0.0041	0.0040	0.0010	0.0115	0.0017	42%
Other PCBs (Optional)						
PCB #81	0.0018	0.0009	0.0004	0.0149	0.0025	140%
PCB #105	0.22	0.14	0.10	1.00	0.21	98%
PCB #114	0.0112	0.0056	0.0031	0.0805	0.0147	131%
PCB #118	0.64	0.44	0.26	3.20	0.60	94%
PCB #123	0.035	0.016	0.003	0.16	0.04	120%
PCB #156	0.369	0.340	0.126	0.830	0.144	39%
PCB #157	0.058	0.052	0.03	0.15	0.02	41%
PCB #167	0.222	0.171	0.11	1.30	0.19	87%
PCB #189	0.089	0.083	0.06	0.17	0.03	30%
TEQ Total	0.0047	0.0044	0.0013	0.0123	0.0018	37%

Participant code:	TEQ results 54, 89, 140 and 161					
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.0002	0.0002	0.0000	0.0010	0.0002	83%
1,2,3,7,8-PeCDD	0.0005	0.0005	0.0000	0.0017	0.0003	52%
1,2,3,4,7,8-HxCDD	0.0005	0.0004	0.0002	0.0030	0.0005	83%
1,2,3,6,7,8-HxCDD	0.0010	0.0010	0.0000	0.0020	0.0003	30%
1,2,3,7,8,9-HxCDD	0.0008	0.0008	0.0000	0.0018	0.0003	38%
1,2,3,4,6,7,8-HpCDD	0.0199	0.0200	0.0022	0.0379	0.0050	25%
OCDD	0.1484	0.1400	0.0001	0.4080	0.0519	35%
2,3,7,8-TeCDF	0.0021	0.0020	0.0000	0.0061	0.0008	40%
1,2,3,7,8-PeCDF	0.0019	0.0013	0.0003	0.0140	0.0025	127%
2,3,4,7,8-PeCDF	0.0020	0.0019	0.0000	0.0097	0.0011	55%
1,2,3,4,7,8-HxCDF	0.0022	0.0018	0.0002	0.0077	0.0012	56%
1,2,3,6,7,8-HxCDF	0.0016	0.0015	0.0004	0.0042	0.0006	40%
1,2,3,7,8,9-HxCDF	0.0006	0.0004	0.0000	0.0032	0.0006	111%
2,3,4,6,7,8-HxCDF	0.0015	0.0015	0.0000	0.0042	0.0007	45%
1,2,3,4,6,7,8-HpCDF	0.0084	0.0076	0.0010	0.0322	0.0040	48%
1,2,3,4,7,8,9-HpCDF	0.0008	0.0007	0.0000	0.0049	0.0006	76%
OCDF	0.0176	0.0106	0.0001	0.2003	0.0275	157%
TEQ (PCDD/DF)	0.0031	0.0029	0.0003	0.0080	0.0012	41%
PCB #77	0.0208	0.0160	0.0070	0.0930	0.0160	77%
PCB #126	0.0109	0.0098	0.0058	0.0239	0.0036	33%
PCB #169	0.0047	0.0019	0.0009	0.0950	0.0137	293%
TEQ (including PCBs)	0.0040	0.0040	0.0010	0.0089	0.0014	35%
Other PCBs (Optional)						
PCB #81	0.0018	0.0009	0.0004	0.0149	0.0025	140%
PCB #105	0.21	0.14	0.10	1.00	0.19	93%
PCB #114	0.0112	0.0056	0.0031	0.0805	0.0147	131%
PCB #118	0.61	0.44	0.26	3.20	0.55	91%
PCB #123	0.032	0.016	0.003	0.16	0.04	118%
PCB #156	0.361	0.340	0.126	0.830	0.135	37%
PCB #157	0.056	0.052	0.03	0.15	0.02	36%
PCB #167	0.201	0.171	0.11	0.89	0.12	59%
PCB #189	0.088	0.083	0.06	0.17	0.02	28%
TEQ Total	0.0046	0.0043	0.0013	0.0092	0.0014	31%

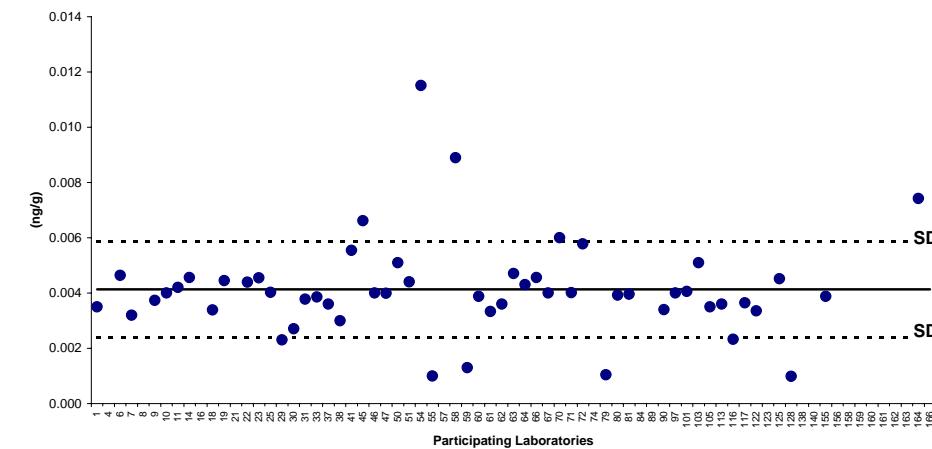
TEQ Soil C (RSD 41 %, n = 69)



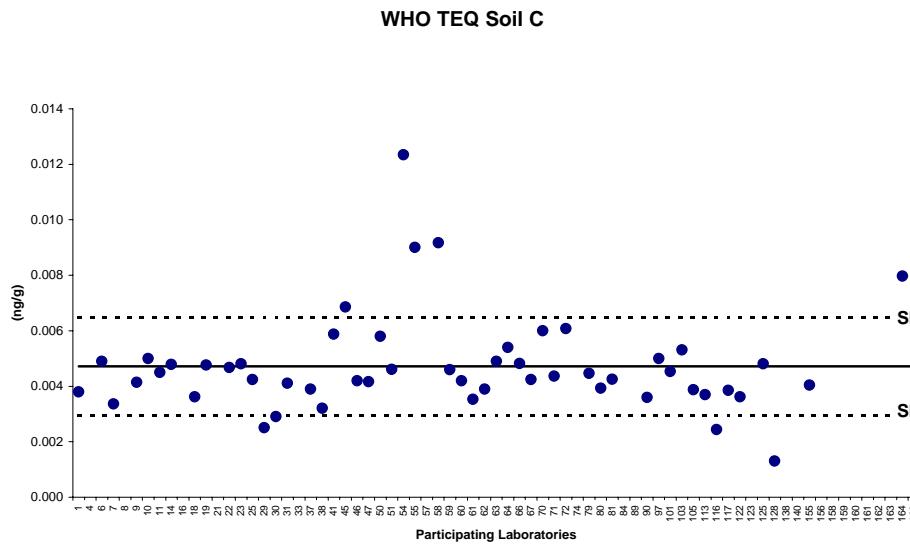
PCDD/DF TEQ Soil C (RSD 71%, n = 72)



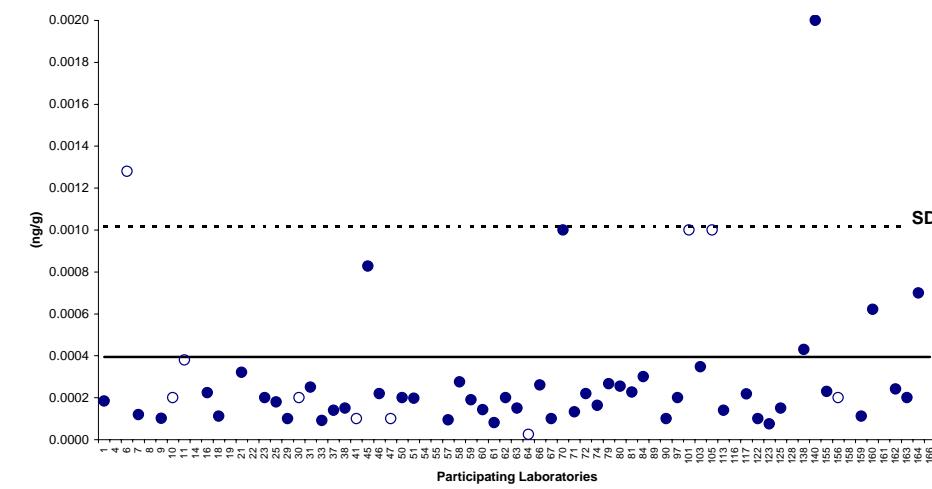
TEQ (including planar PCBs) Soil C



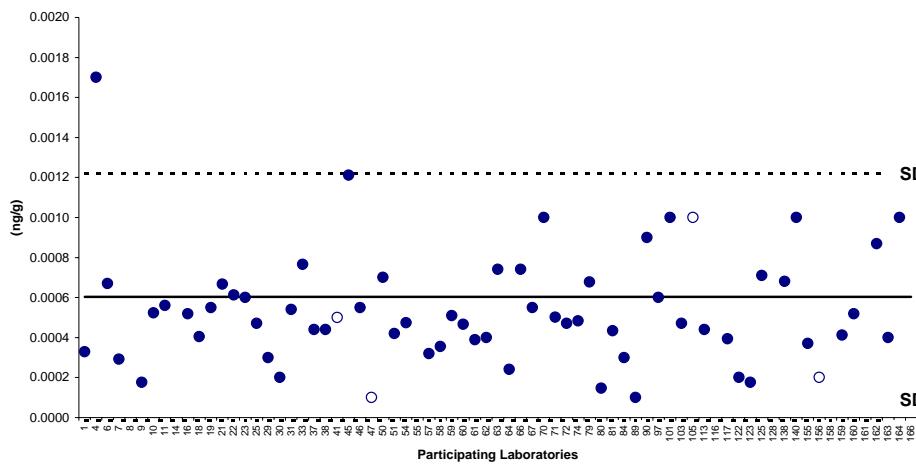
WHO TEQ Soil C



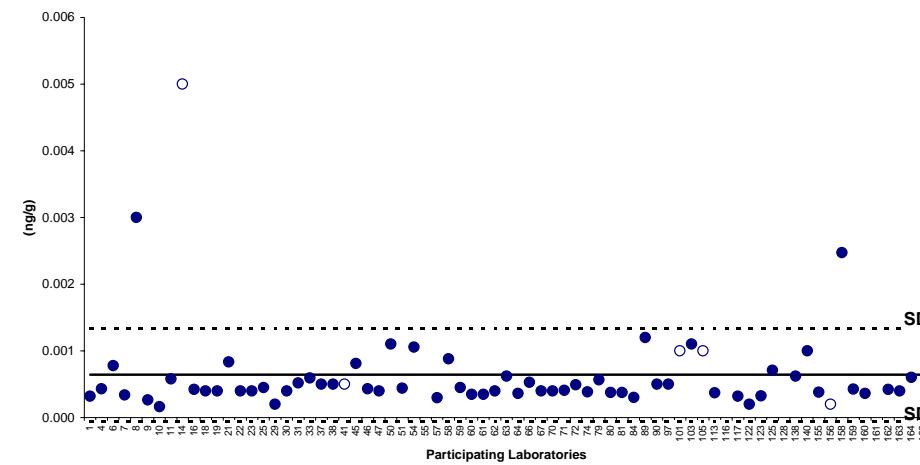
2,3,7,8-TeCDD Soil C



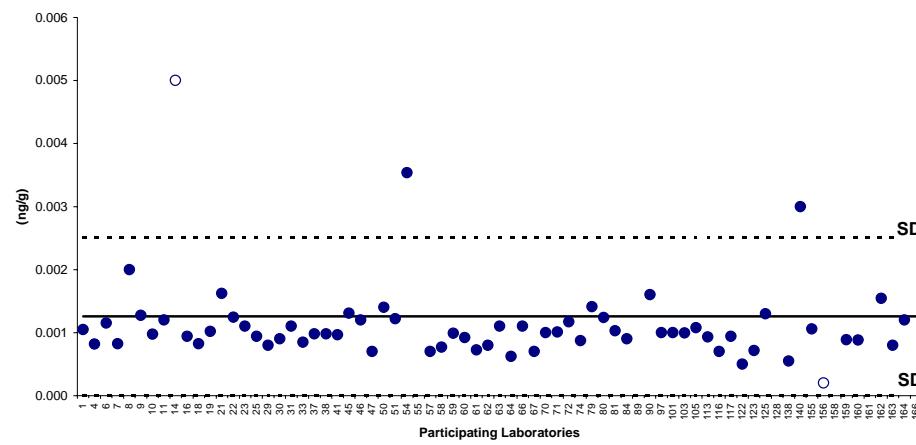
1,2,3,7,8-PeCDD Soil C



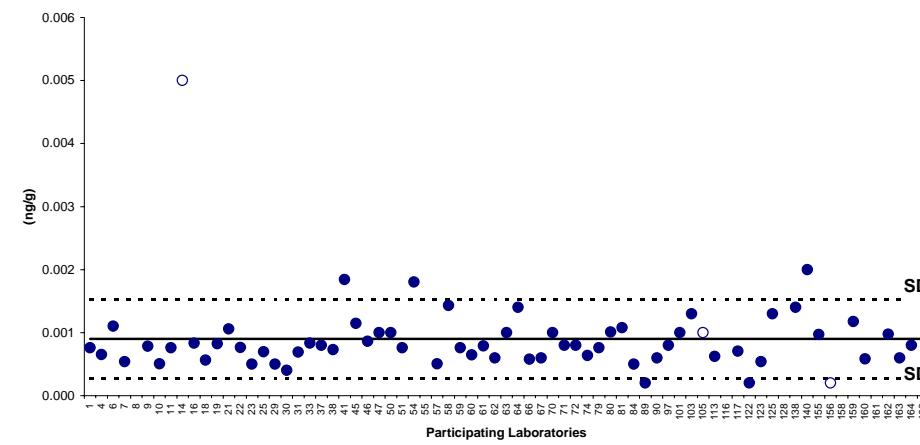
1,2,3,4,7,8-HxCDD Soil C



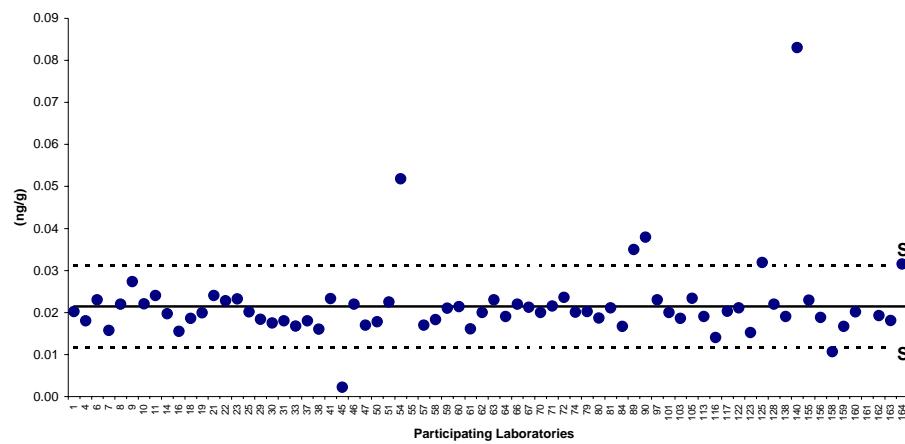
1,2,3,6,7,8-HxCDD Soil C



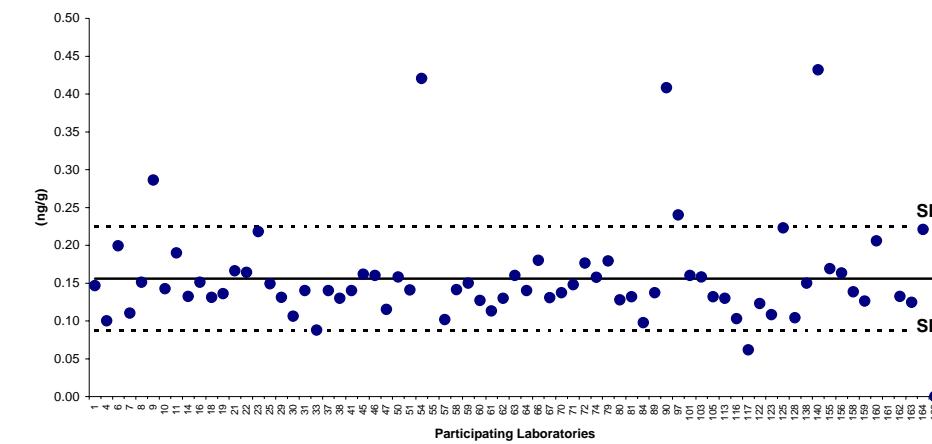
1,2,3,7,8,9-HxCDD Soil C



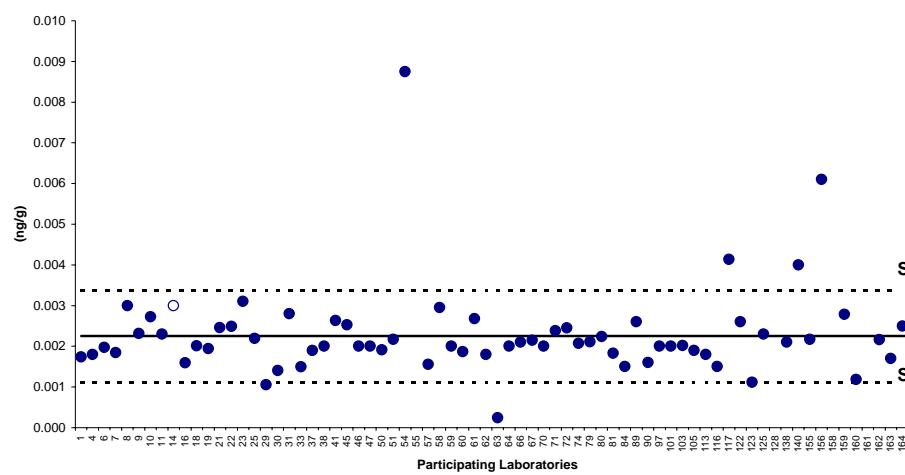
1,2,3,4,6,7,8-HpCDD Soil C



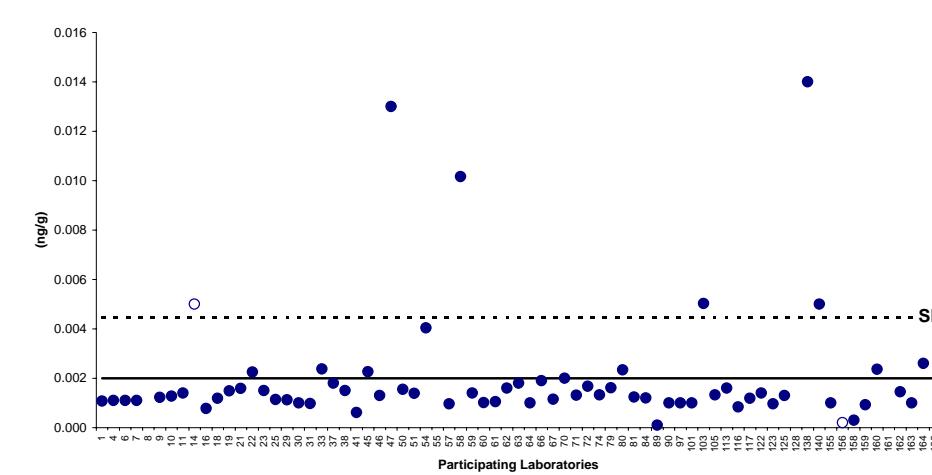
OCDD Soil C



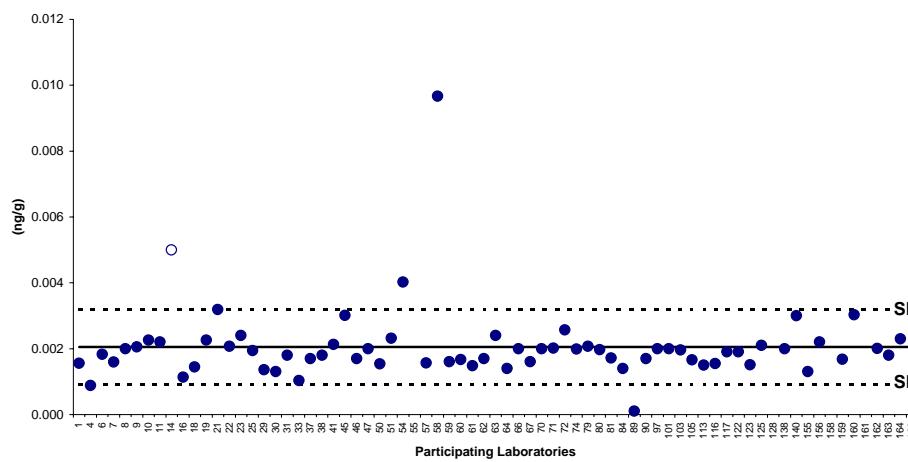
2,3,7,8-TeCDF Soil C



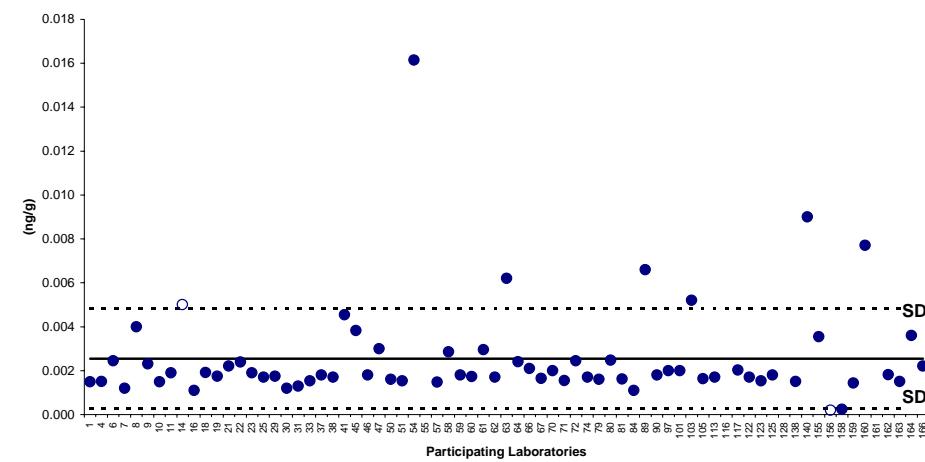
1,2,3,7,8-PeCDF Soil C



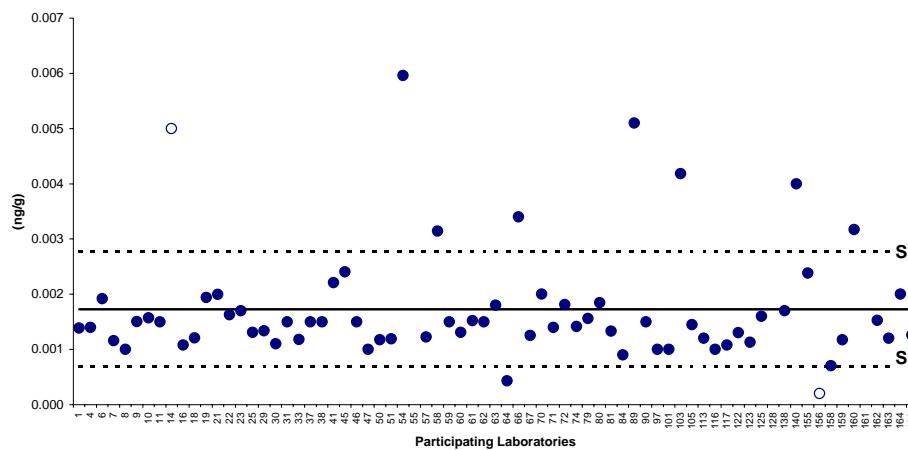
2,3,4,7,8-PeCDF Soil C



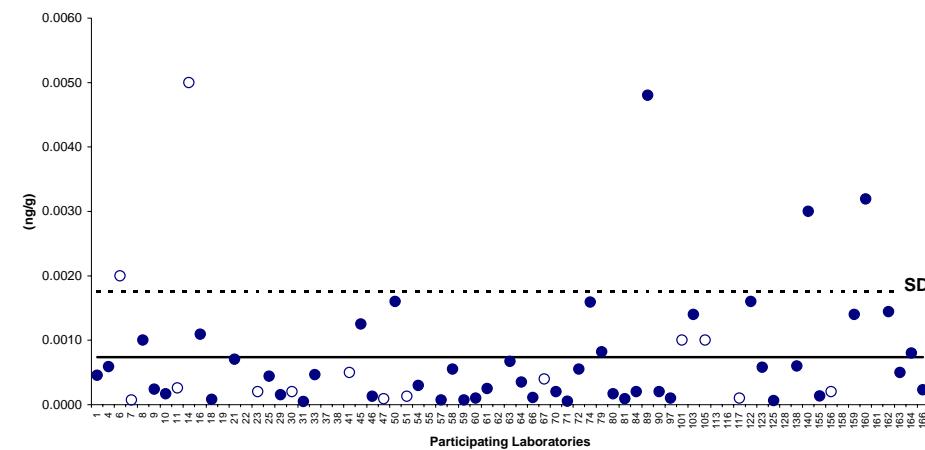
1,2,3,4,7,8-HxCDF Soil C



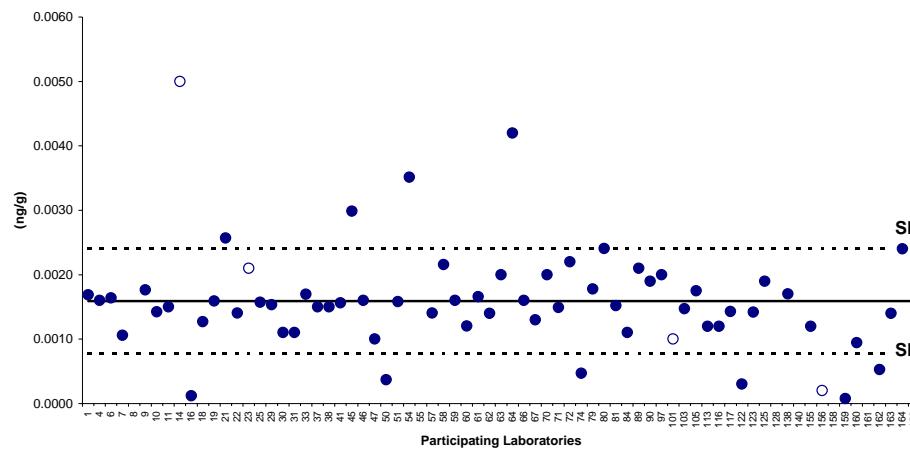
1,2,3,6,7,8-HxCDF Soil C



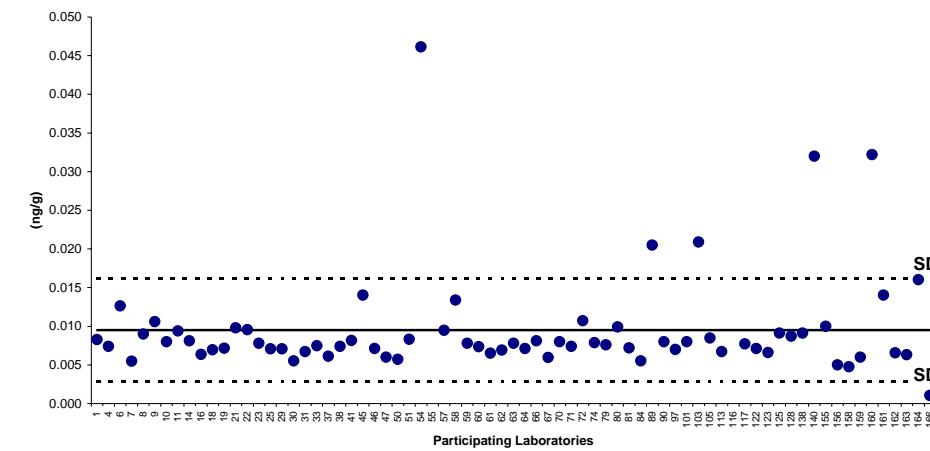
1,2,3,7,8,9-HxCDF Soil C



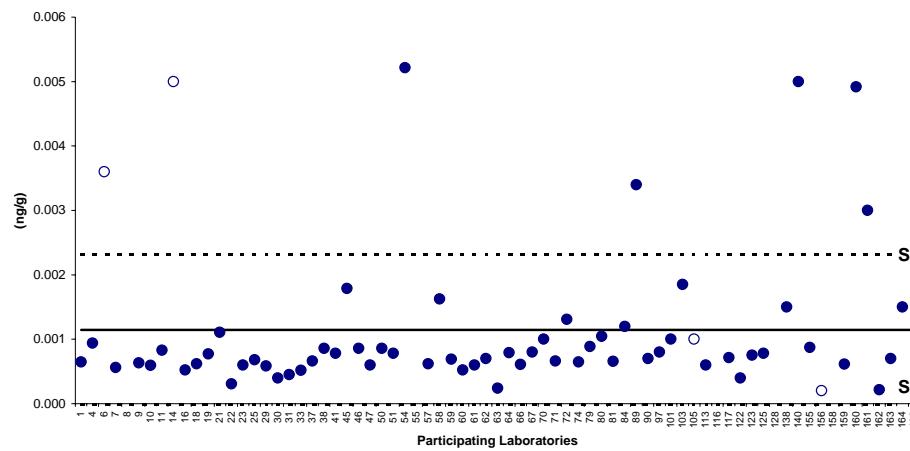
2,3,4,6,7,8-HxCDF Soil C



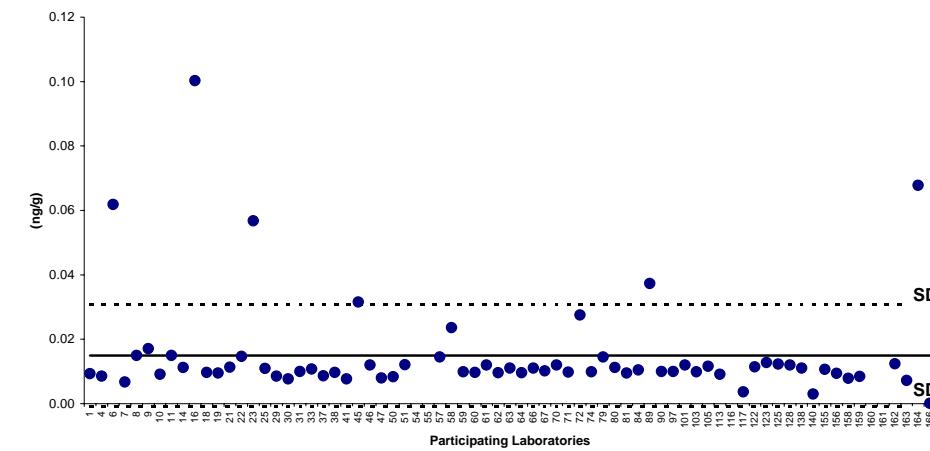
1,2,3,4,6,7,8-HpCDF Soil C



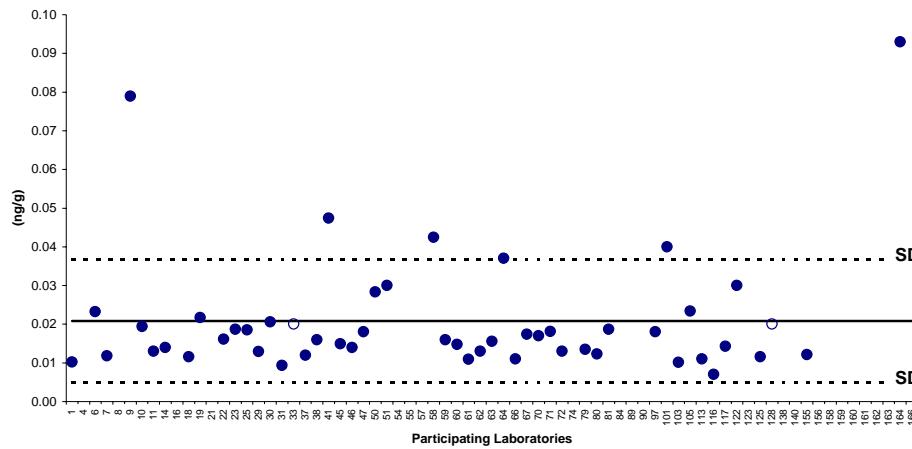
1,2,3,4,7,8,9-HpCDF Soil C



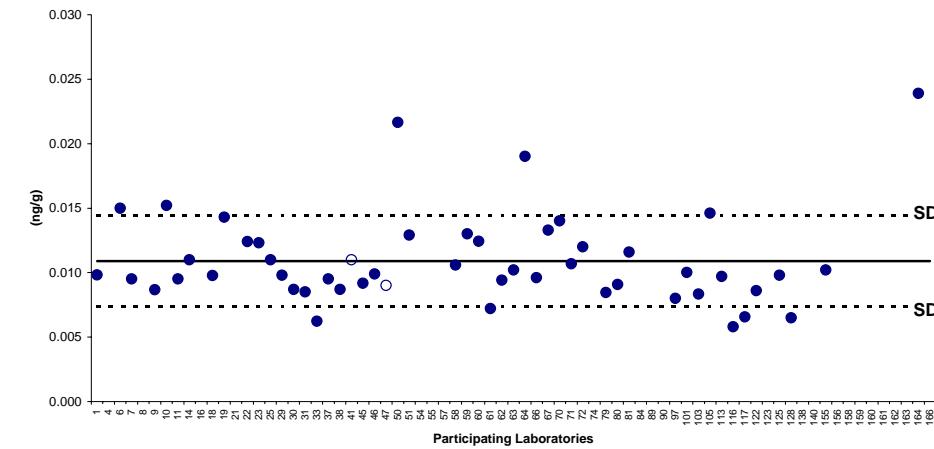
OCDF Soil C



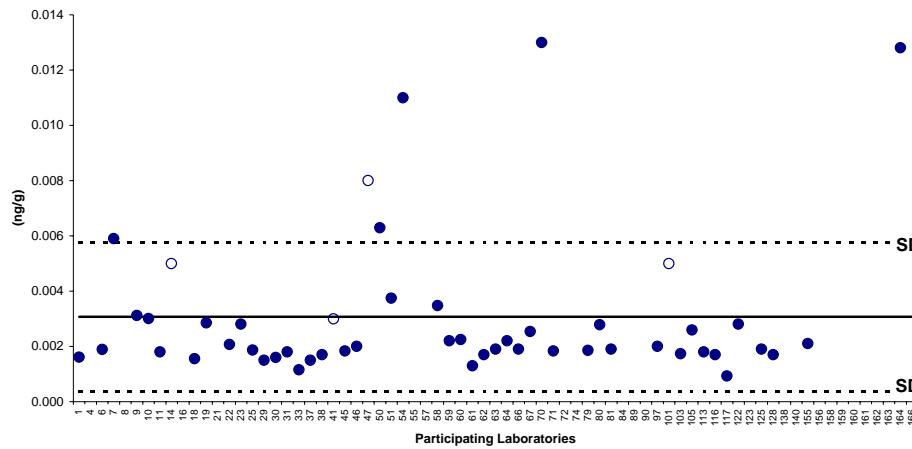
PCB #77 Soil C



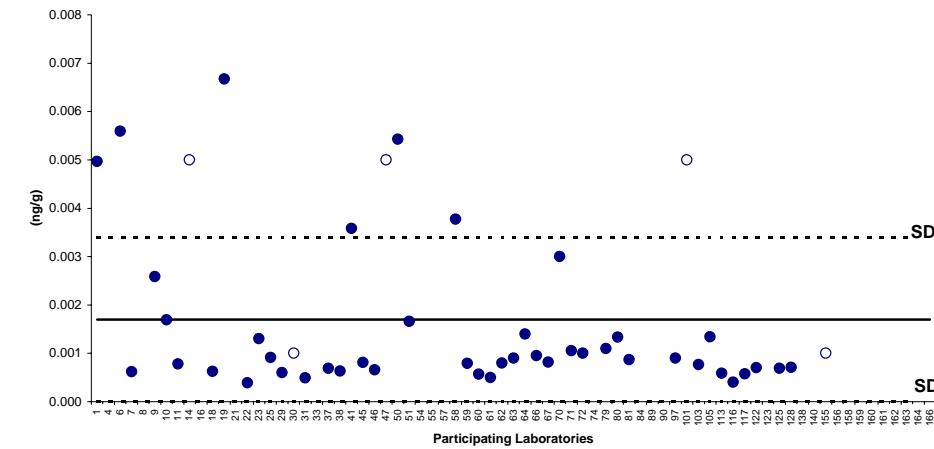
PCB #126 Soil C



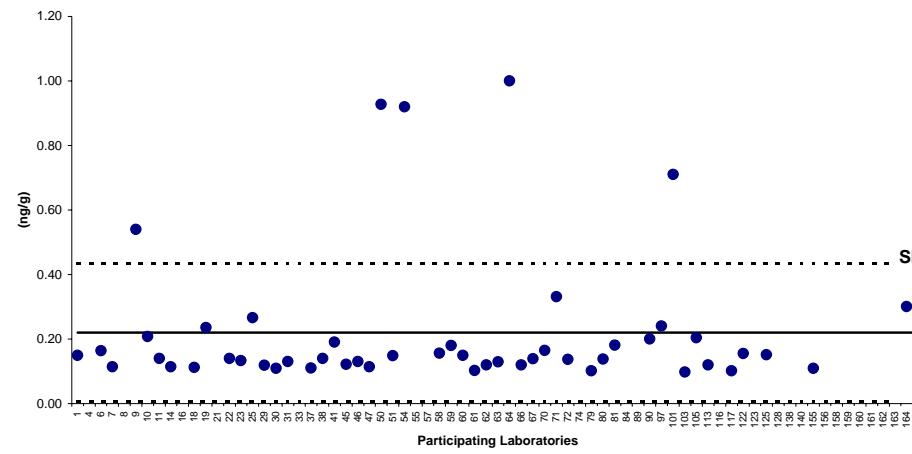
PCB #169 Soil C



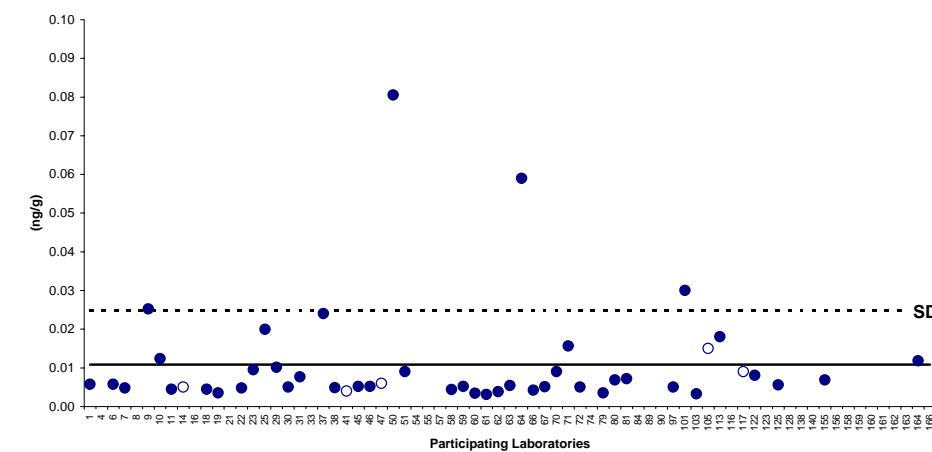
PCB #81 Soil C



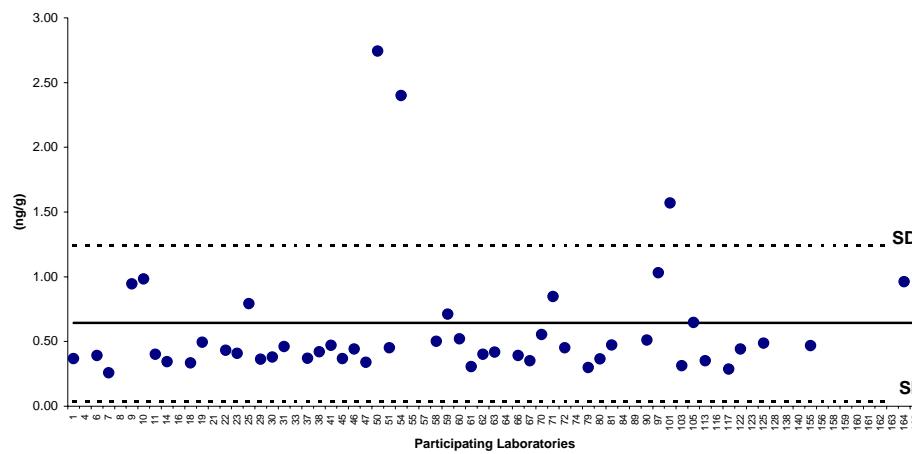
PCB #105 Soil C



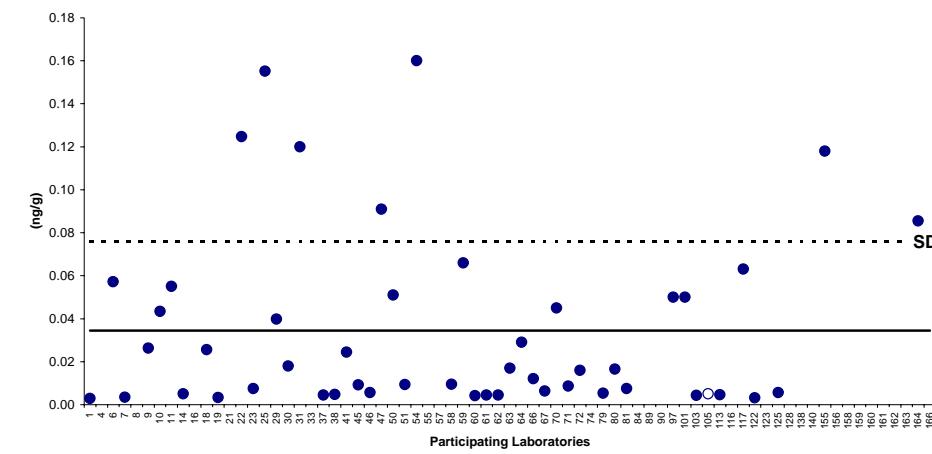
PCB #114 Soil C



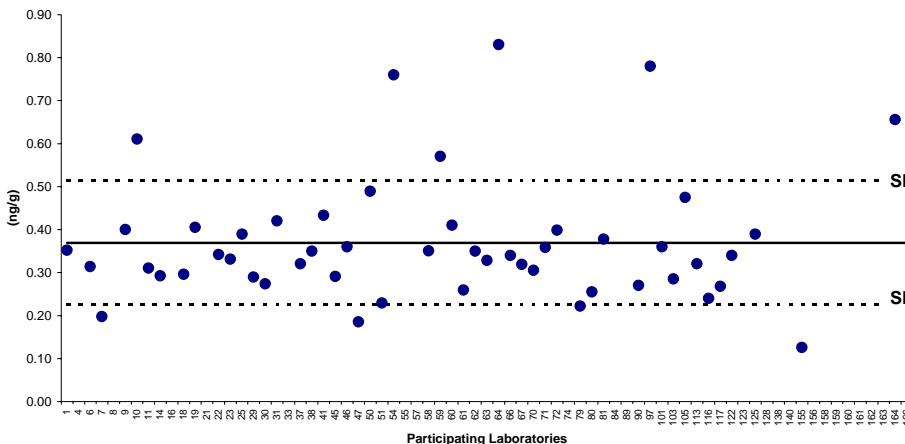
PCB #118 Soil C



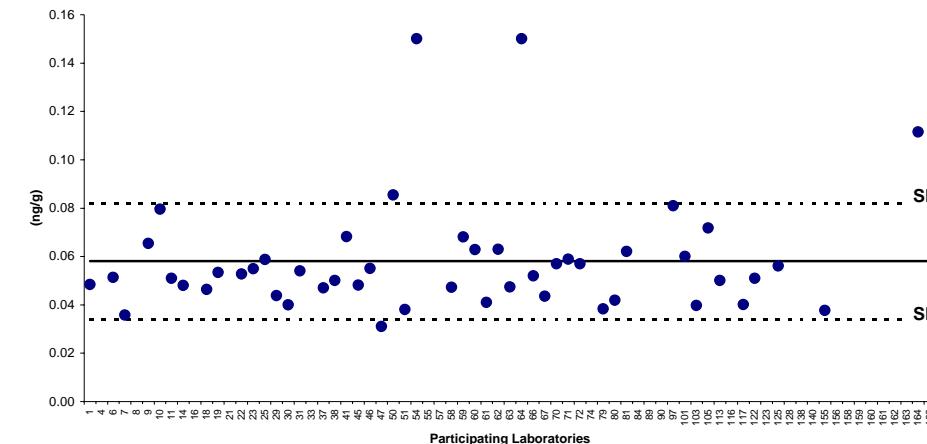
PCB #123 Soil C



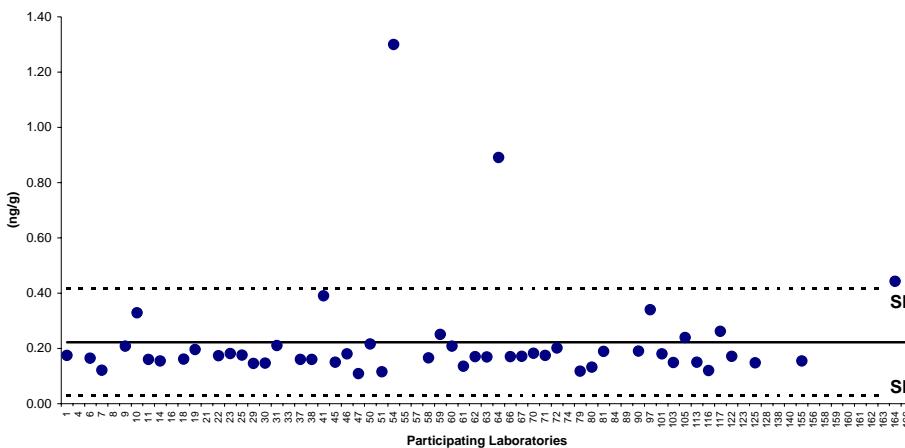
PCB #156 Soil C



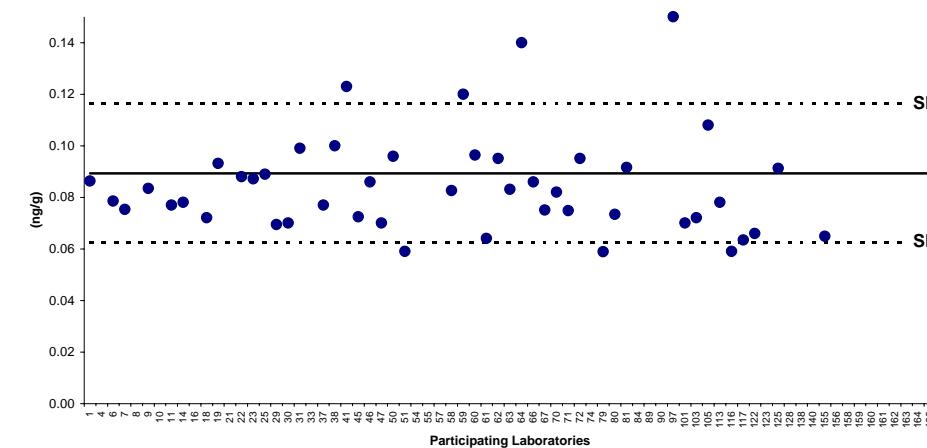
PCB #157 Soil C



PCB #167 Soil C



PCB #189 Soil C



Participant code:	1	4	6	7	8	9	10	11	14	16	18	19	21
Weight Analysed:													
2,3,7,8-TeCDD	0.00083	ND	0.00093	0.00076	ND	0.00047	0.00085	0.00092	<0.003	0.00083	0.00083	0.00082	0.00095
1,2,3,7,8-PeCDD	0.00017	ND	< 0.0017	<0.00036	ND	0.00004	0.00027	<0.00014	<0.005	0.00013	0.00010	ND	0.00031
1,2,3,4,7,8-HxCDD	<0.0006	ND	< 0.0012	0.00022	0.00200	0.00033	< 0.0002	0.00012	<0.005	0.00011	0.00013	ND	0.00056
1,2,3,6,7,8-HxCDD	0.00037	ND	< 0.0014	0.00024	0.00100	0.00041	< 0.0002	0.00028	<0.005	0.00022	0.00020	ND	0.00074
1,2,3,7,8,9-HxCDD	0.00020	ND	< 0.0015	0.00016	ND	0.00013	< 0.0002	<0.00035	<0.005	0.00022	0.00017	ND	0.00071
1,2,3,4,6,7,8-HpCDD	0.0049	0.0029	0.0038	0.0031	0.0040	0.0111	0.0045	0.0039	<0.005	0.0022	0.0033	0.0028	0.0072
OCDD	0.0415	0.0300	0.0518	0.0290	0.0290	0.1460	0.0447	0.0400	0.0344	0.0804	0.0351	0.0301	0.0426
2,3,7,8-TeCDF	0.0032	0.0026	0.0030	0.0046	0.0070	0.0030	0.0037	0.0034	0.0031	0.0015	0.0030	0.0034	0.0034
1,2,3,7,8-PeCDF	0.0024	0.0019	0.0018	0.0027	0.0020	0.0045	0.0027	0.0024	<0.005	0.0011	0.0019	0.0022	0.0025
2,3,4,7,8-PeCDF	0.0023	0.0020	0.0015	0.0025	ND	0.0025	0.0023	0.0020	<0.005	0.0010	0.0019	0.0020	0.0036
1,2,3,4,7,8-HxCDF	0.0042	0.0033	0.0047	0.0047	0.0050	0.0046	0.0049	0.0041	<0.005	0.0022	0.0041	0.0038	0.0060
1,2,3,6,7,8-HxCDF	0.0012	0.0014	0.0012	0.0012	0.0010	0.0013	0.0014	0.0014	<0.005	0.0009	0.0017	0.0015	0.0031
1,2,3,7,8,9-HxCDF	0.0008	0.0005	< 0.0021	0.0001	ND	0.0002	< 0.0002	0.0001	<0.005	0.0004	0.0001	0.0007	0.0017
2,3,4,6,7,8-HxCDF	0.0011	0.0008	< 0.0016	0.0005	ND	0.0006	0.0007	0.0006	<0.005	0.0001	0.0005	0.0006	0.0033
1,2,3,4,6,7,8-HpCDF	0.0073	0.0062	0.0055	0.0056	0.0050	0.0057	0.0079	0.0077	0.0079	0.0080	0.0072	0.0057	0.0164
1,2,3,4,7,8,9-HpCDF	0.0015	0.0017	0.0014	0.0015	0.0020	0.0013	0.0018	0.0017	<0.005	0.0006	0.0015	0.0014	0.0030
OCDF	0.0200	0.0130	0.0411	0.0153	0.0210	0.0180	0.0182	0.0210	0.0194	0.0201	0.0211	0.0179	0.0210
TEQ (PCDD/DF)	0.0035	0.0021	0.0028	0.0034	0.0020	0.0032	0.0040	0.0033	0.0032	0.0022	0.0031	0.0030	0.0050
PCB #77	0.098	NA	0.128	0.116	NA	0.134	0.096	0.075	0.075	NA	0.077	0.088	NA
PCB #126	0.013	NA	0.026	0.016	NA	0.013	0.012	0.009	0.011	NA	0.010	0.015	NA
PCB #169	0.002	NA	< 0.0083	0.018	NA	0.005	0.002	0.001	<0.005	NA	0.001	ND	NA
TEQ (including PCBs)	0.0048	NA	0.0053	0.0052	NA	0.0046	0.0050	0.0042	0.0043	NA	0.0041	0.0045	NA
Other PCBs (Optional)													
PCB #81	0.0076	NA	0.0194	0.0032	NA	0.0055	0.0024	0.0028	<0.005	NA	0.0029	0.0121	NA
PCB #105	0.17	NA	0.22	0.25	NA	0.43	0.14	0.12	0.13	NA	0.13	0.33	NA
PCB #114	0.0062	NA	0.0120	0.0108	NA	0.0238	0.0095	0.0048	0.0050	NA	0.0065	0.0066	NA
PCB #118	0.62	NA	0.98	1.01	NA	0.94	0.76	0.63	0.59	NA	0.69	0.83	NA
PCB #123	<0.039	NA	0.21	0.01	NA	0.06	0.05	0.17	<0.005	NA	0.03	0.01	NA
PCB #156	0.52	NA	0.72	0.87	NA	0.46	0.44	0.43	0.43	NA	0.50	0.51	NA
PCB #157	0.049	NA	0.064	0.088	NA	0.053	0.036	0.048	0.041	NA	0.048	0.041	NA
PCB #167	0.23	NA	0.33	0.42	NA	0.30	0.26	0.20	0.22	NA	0.25	0.24	NA
PCB #189	0.11	NA	0.16	0.30	NA	0.10	0.14	0.10	0.11	NA	0.11	0.10	NA
TEQ Total	0.0052	NA	0.0059	0.0059	NA	0.0050	0.0050	0.0046	0.0046	NA	0.0045	0.0049	NA

Participant code:	22	23	25	29	30	31	33	37	38	41	45	46	47
Weight Analysed:													
2,3,7,8-TeCDD	0.00079	0.00080	0.00065	0.00071	0.00060	0.00094	0.00076	0.00070	0.00067	0.00077	0.00095	0.00084	0.00060
1,2,3,7,8-PeCDD	ND	< 0.0002	0.00012	0.00015	< 0.0002	0.00025	0.00041	0.00014	0.00016	< 0.0005	0.00033	0.00009	< 0.0001
1,2,3,4,7,8-HxCDD	ND	< 0.0002	0.00012	0.00020	< 0.0002	0.00017	0.00019	0.00020	ND	< 0.0005	0.00030	0.00016	< 0.0002
1,2,3,6,7,8-HxCDD	ND	0.00030	0.00022	0.00025	0.00020	0.00041	0.00022	0.00042	0.00029	< 0.0005	0.00047	0.00023	< 0.0001
1,2,3,7,8,9-HxCDD	ND	< 0.0003	0.00021	0.00021	< 0.0002	0.00021	0.00022	0.00020	0.00020	< 0.0005	0.00038	0.00017	0.00040
1,2,3,4,6,7,8-HpCDD	0.0042	0.0033	0.0033	0.0037	0.0027	0.0031	<0.006	0.0034	0.0027	0.0038	0.0042	0.0032	0.0030
OCDD	0.0408	0.0292	0.0337	0.0203	0.0255	0.0310	0.0125	0.0360	0.0360	0.0349	0.0421	0.0390	0.0270
2,3,7,8-TeCDF	0.0028	0.0042	0.0030	0.0026	0.0022	0.0023	0.0026	0.0029	0.0033	0.0032	0.0030	0.0027	0.0030
1,2,3,7,8-PeCDF	0.0026	0.0023	0.0019	0.0016	0.0013	0.0022	0.0024	0.0026	0.0021	0.0020	0.0025	0.0019	0.0010
2,3,4,7,8-PeCDF	0.0017	0.0029	0.0018	0.0014	0.0013	0.0015	0.0016	0.0017	0.0020	0.0019	0.0027	0.0016	0.0010
1,2,3,4,7,8-HxCDF	0.0036	0.0052	0.0040	0.0040	0.0034	0.0046	0.0039	0.0037	0.0042	0.0054	0.0043	0.0037	0.0040
1,2,3,6,7,8-HxCDF	0.0011	0.0015	0.0013	0.0013	0.0010	0.0014	0.0010	0.0013	0.0015	0.0014	0.0015	0.0012	0.0010
1,2,3,7,8,9-HxCDF	ND	0.0009	0.0008	0.0006	< 0.0002	0.0001	0.0006	<0.06	ND	< 0.0005	0.0011	0.0001	< 0.0001
2,3,4,6,7,8-HxCDF	0.0004	0.0008	0.0006	0.0002	0.0004	0.0004	0.0006	0.0005	0.0008	0.0007	0.0011	0.0005	0.0005
1,2,3,4,6,7,8-HpCDF	0.0076	0.0070	0.0068	0.0073	0.0051	0.0084	0.0073	0.0056	0.0076	0.0084	0.0081	0.0060	0.0060
1,2,3,4,7,8,9-HpCDF	0.0013	0.0015	0.0015	0.0015	0.0010	0.0016	0.0014	0.0013	0.0018	0.0019	0.0018	0.0014	0.0010
OCDF	0.0147	0.0165	0.0178	0.0125	0.0145	0.0280	0.0225	0.0150	0.0190	0.0104	0.0213	0.0170	0.0150
TEQ (PCDD/DF)	0.0027	0.0038	0.0029	0.0027	0.0021	0.0031	0.0035	0.0029	0.0028	0.0040	0.0041	0.0028	0.0023
PCB #77	0.104	0.095	0.083	0.091	0.096	0.063	0.042	0.078	0.072	0.134	0.073	0.087	0.059
PCB #126	0.011	0.014	0.009	0.011	0.011	0.009	0.006	0.009	0.009	< 0.027	0.009	0.010	< 0.007
PCB #169	ND	0.003	0.001	0.002	0.002	0.001	0.001	0.001	0.001	< 0.003	0.001	0.002	< 0.008
TEQ (including PCBs)	0.0038	0.0052	0.0038	0.0037	0.0032	0.0040	0.0040	0.0038	0.0038	0.0067	0.0050	0.0038	0.0031
Other PCBs (Optional)													
PCB #81	0.0025	0.0032	0.0030	0.0031	0.0040	0.0020	NA	0.0029	0.0024	0.0045	0.0027	0.0031	< 0.007
PCB #105	0.15	< 0.12	0.15	0.08	0.13	0.13	NA	0.12	0.15	0.21	0.11	0.14	0.10
PCB #114	ND	< 0.049	0.0120	0.0113	0.0080	0.0082	NA	0.0440	0.0061	0.0090	0.0056	0.0060	< 0.005
PCB #118	0.74	0.90	0.74	0.70	0.75	0.74	NA	0.62	0.72	1.15	0.55	0.79	0.38
PCB #123	0.33	< 0.055	0.18	0.08	0.02	0.27	NA	0.00	0.01	0.07	0.13	0.01	0.12
PCB #156	0.49	0.53	0.44	0.46	0.49	0.54	NA	0.47	0.54	0.96	0.39	0.56	0.25
PCB #157	ND	< 0.051	0.037	0.039	0.035	0.051	NA	0.039	0.044	< 0.09	0.037	0.048	0.022
PCB #167	0.22	0.31	0.21	0.23	0.25	0.26	NA	0.21	0.24	0.74	0.20	0.26	0.13
PCB #189	0.13	0.14	0.10	0.12	0.11	0.13	NA	0.11	0.12	0.27	0.09	0.12	0.07
TEQ Total	0.0042	0.0056	0.0042	0.0047	0.0036	0.0045	NA	0.0042	0.0042	0.0074	0.0054	0.0042	0.0033

Participant code:	50	51	54	55	57	58	59	60	61	62	63	64	66
Weight Analysed:													
2,3,7,8-TeCDD	0.00082	0.00081	0.00073	BA	0.00060	0.00095	0.00079	0.00063	0.00071	0.00080	0.00086	0.00078	0.00075
1,2,3,7,8-PeCDD	0.00050	0.00018	ND	BA	0.00011	0.00206	0.00012	0.00010	0.00011	0.00010	0.00025	0.00014	0.00011
1,2,3,4,7,8-HxCDD	0.00020	<0.00021	0.00015	BA	0.00013	0.00084	0.00018	0.00011	0.00019	ND	0.00025	0.00022	0.00030
1,2,3,6,7,8-HxCDD	0.00038	0.00026	0.00034	BA	0.00025	0.00187	0.00026	0.00023	0.00020	ND	0.00025	0.00030	0.00025
1,2,3,7,8,9-HxCDD	0.00023	<0.00018	0.00029	BA	0.00019	0.00243	0.00018	0.00015	0.00019	ND	0.00025	0.00056	0.00019
1,2,3,4,6,7,8-HpCDD	0.0049	0.0039	0.0061	BA	0.0048	0.0560	0.0036	0.0034	0.0035	0.0042	0.0036	0.0052	0.0038
OCDD	0.0363	0.0350	0.0350	BA	0.0503	0.5369	0.0360	0.0475	0.0337	0.0420	0.0341	0.0520	0.0350
2,3,7,8-TeCDF	0.0030	0.0036	0.0035	BA	0.0029	0.0044	0.0031	0.0024	0.0025	0.0033	0.0034	0.0036	0.0032
1,2,3,7,8-PeCDF	0.0026	0.0024	0.0017	BA	0.0022	0.0136	0.0023	0.0017	0.0021	0.0029	0.0025	0.0020	0.0025
2,3,4,7,8-PeCDF	0.0028	0.0021	0.0012	BA	0.0020	0.0040	0.0017	0.0016	0.0017	0.0017	0.0024	0.0015	0.0019
1,2,3,4,7,8-HxCDF	0.0065	0.0041	0.0041	BA	0.0037	0.0082	0.0044	0.0038	0.0051	0.0034	0.0042	0.0044	0.0042
1,2,3,6,7,8-HxCDF	0.0022	0.0014	0.0011	BA	0.0013	0.0035	0.0014	0.0012	0.0014	0.0017	0.0016	0.0011	0.0014
1,2,3,7,8,9-HxCDF	0.0015	<0.0001	ND	BA	0.0001	0.0015	0.0001	0.0001	0.0002	N.D.	0.0004	0.0003	ND
2,3,4,6,7,8-HxCDF	0.0012	0.0005	0.0006	BA	0.0007	0.0020	0.0006	0.0004	0.0009	0.0006	0.0010	0.0005	0.0006
1,2,3,4,6,7,8-HpCDF	0.0054	0.0072	0.0113	BA	0.0064	0.0269	0.0071	0.0067	0.0073	0.0072	0.0071	0.0064	0.0071
1,2,3,4,7,8,9-HpCDF	0.0006	0.0016	0.0013	BA	0.0014	0.0032	0.0012	0.0012	0.0018	0.0018	0.0014	0.0014	0.0015
OCDF	0.0155	0.0186	0.0325	BA	0.0173	0.0669	0.0190	0.0231	0.0188	0.0180	0.0180	0.0150	0.0190
TEQ (PCDD/DF)	0.0037	0.0033	0.0026	0.0080	0.0029	0.0091	0.0030	0.0026	0.0030	0.0028	0.0033	0.0030	0.0031
PCB #77	0.107	0.083	0.075	BA	NA	0.161	0.096	0.071	0.067	0.075	0.103	0.073	0.083
PCB #126	0.041	0.017	0.011	BA	NA	0.014	0.014	0.010	0.008	0.010	0.011	0.011	0.014
PCB #169	N.D.	0.003	0.001	BA	NA	0.002	0.002	0.001	0.001	0.002	0.002	0.001	0.002
TEQ (including PCBs)	0.0078	0.0050	0.0037	0.0090	NA	0.0105	0.0014	0.0036	0.0038	0.0039	0.0044	0.0041	0.0045
Other PCBs (Optional)													
PCB #81	0.0109	0.0027	0.0230	BA	NA	0.0038	0.0032	0.0025	0.0023	0.0027	0.0049	0.0028	0.0023
PCB #105	1.50	0.13	0.06	BA	NA	0.41	0.25	0.13	0.12	0.13	0.15	0.11	0.16
PCB #114	0.1369	0.0063	0.0022	BA	NA	0.0129	0.0140	0.0051	0.0049	0.0047	0.0083	0.0036	0.0097
PCB #118	4.54	0.67	0.28	BA	NA	1.31	1.10	0.69	0.57	0.69	0.68	0.69	0.90
PCB #123	0.09	0.04	0.04	BA	NA	0.03	0.22	0.00	0.00	0.00	0.03	0.00	0.03
PCB #156	0.72	0.44	0.20	BA	NA	0.88	0.81	0.49	0.43	0.50	0.43	0.38	0.72
PCB #157	0.090	0.040	0.022	BA	NA	0.092	0.073	0.043	0.038	0.049	0.037	0.036	0.053
PCB #167	0.29	0.21	0.27	BA	NA	0.40	0.34	0.23	0.21	0.22	0.21	0.36	0.33
PCB #189	0.11	0.11	0.06	BA	NA	0.17	0.19	0.12	0.10	0.13	0.10	0.09	0.16
TEQ Total	0.0089	0.0054	0.0039	0.0090	NA	0.0112	0.0051	0.0039	0.0041	0.0042	0.0047	0.0046	0.0050

Participant code:	67	70	71	72	74	79	80	81	84	89	90	97	101
Weight Analysed:													
2,3,7,8-TeCDD	0.00075	0.00100	0.00075	0.00071	0.00075	0.00084	0.00022	0.00075	0.00070	0.00010	0.00060	0.00080	0.00100
1,2,3,7,8-PeCDD	< 0.0002	0.00010	0.00011	0.00009	0.00012	0.00028	0.00262	0.00010	0.00010	0.00020	ND	0.00020	<0.001
1,2,3,4,7,8-HxCDD	< 0.0003	0.00030	0.00012	0.00015	0.00012	0.00024	0.00010	0.00011	0.00010	0.00120	0.00024	0.00020	<0.001
1,2,3,6,7,8-HxCDD	< 0.0003	0.00100	0.00024	0.00025	0.00021	0.00048	0.00014	0.00025	0.00030	0.00070	0.00016	0.00030	<0.001
1,2,3,7,8,9-HxCDD	< 0.0003	0.00040	0.00018	0.00012	0.00019	0.00036	ND	0.00028	0.00020	0.00070	0.00024	0.00020	<0.001
1,2,3,4,6,7,8-HpCDD	0.0036	0.0050	0.0037	0.0043	0.0036	0.0039	0.0031	0.0038	0.0038	0.0077	0.0041	0.0040	0.0040
OCDD	0.0314	0.0390	0.0383	0.0359	0.0355	0.0324	0.0301	0.0302	0.0327	0.0330	0.0364	0.0430	0.0340
2,3,7,8-TeCDF	0.0025	0.0030	0.0032	0.0037	0.0034	0.0029	0.0047	0.0023	0.0024	0.0132	0.0028	0.0030	0.0040
1,2,3,7,8-PeCDF	0.0019	0.0030	0.0023	0.0026	0.0024	0.0026	0.0020	0.0020	0.0022	0.0064	0.0018	0.0020	0.0020
2,3,4,7,8-PeCDF	0.0017	0.0020	0.0022	0.0026	0.0025	0.0019	0.0020	0.0016	0.0019	0.0133	0.0018	0.0020	0.0030
1,2,3,4,7,8-HxCDF	0.0037	0.0060	0.0053	0.0045	0.0048	0.0034	0.0035	0.0039	0.0035	0.0073	0.0044	0.0040	0.0050
1,2,3,6,7,8-HxCDF	0.0011	0.0030	0.0017	0.0016	0.0016	0.0015	0.0015	0.0013	0.0011	0.0022	0.0010	0.0010	0.0010
1,2,3,7,8,9-HxCDF	< 0.0002	0.0010	0.0001	0.0002	0.0007	0.0010	0.0009	0.0001	0.0007	0.0029	ND	0.0001	<0.001
2,3,4,6,7,8-HxCDF	0.0004	0.0010	0.0007	0.0008	0.0008	0.0009	0.0005	0.0006	0.0007	0.0001	0.0009	0.0007	0.0010
1,2,3,4,6,7,8-HpCDF	0.0057	0.0290	0.0093	0.0077	0.0071	0.0063	0.0061	0.0081	0.0058	0.0124	0.0075	0.0070	0.0070
1,2,3,4,7,8,9-HpCDF	0.0016	0.0050	0.0022	0.0018	0.0016	0.0016	0.0013	0.0015	0.0016	0.0018	0.0012	0.0020	<0.001
OCDF	0.0175	0.0270	0.0266	0.0184	0.0239	0.0187	0.0141	0.0208	0.0130	0.0243	0.0199	0.0170	0.0170
TEQ (PCDD/DF)	0.0028	0.0040	0.0034	0.0035	0.0035	0.0034	0.0052	0.0028	0.0029	0.0101	0.0027	0.0030	0.0038
PCB #77	0.093	0.095	0.081	0.083	NA	0.064	0.076	0.074	NA	NA	0.090	0.120	0.100
PCB #126	0.011	0.021	0.010	0.011	NA	0.010	0.010	0.010	NA	NA	ND	0.009	0.010
PCB #169	0.002	0.013	0.002	0.002	NA	0.002	0.002	0.002	NA	NA	ND	0.002	<0.005
TEQ (including PCBs)	0.0039	0.0060	0.0044	0.0047	NA	0.0014	0.0062	0.0038	NA	NA	0.0027	0.0040	0.0048
Other PCBs (Optional)													
PCB #81	0.0032	0.0130	0.0031	0.0030	NA	0.0030	0.0009	0.0026	NA	NA	ND	0.0040	0.0100
PCB #105	0.13	0.18	0.12	0.16	NA	0.12	0.13	0.12	NA	NA	0.20	0.58	0.53
PCB #114	0.0043	0.0090	0.0061	0.0070	NA	0.0047	0.0097	0.0048	NA	NA	ND	0.0110	0.0200
PCB #118	0.54	0.84	0.58	0.94	NA	0.69	0.65	0.58	NA	NA	1.05	4.23	1.52
PCB #123	0.01	0.07	0.01	0.03	NA	0.00	0.04	0.01	NA	NA	ND	0.15	0.24
PCB #156	0.45	0.49	0.40	0.62	NA	0.53	0.45	0.46	NA	NA	0.54	2.72	0.48
PCB #157	0.032	0.055	0.038	0.048	NA	0.050	0.041	0.041	NA	NA	ND	0.240	0.040
PCB #167	0.22	0.27	0.20	0.29	NA	0.25	0.21	0.23	NA	NA	0.32	1.26	0.24
PCB #189	0.10	0.12	0.09	0.12	NA	0.14	0.11	0.12	NA	NA	0.14	0.46	0.08
TEQ Total	0.0043	0.0060	0.0047	0.0051	NA	0.0049	0.0066	0.0041	NA	NA	0.0031	0.0060	0.0053

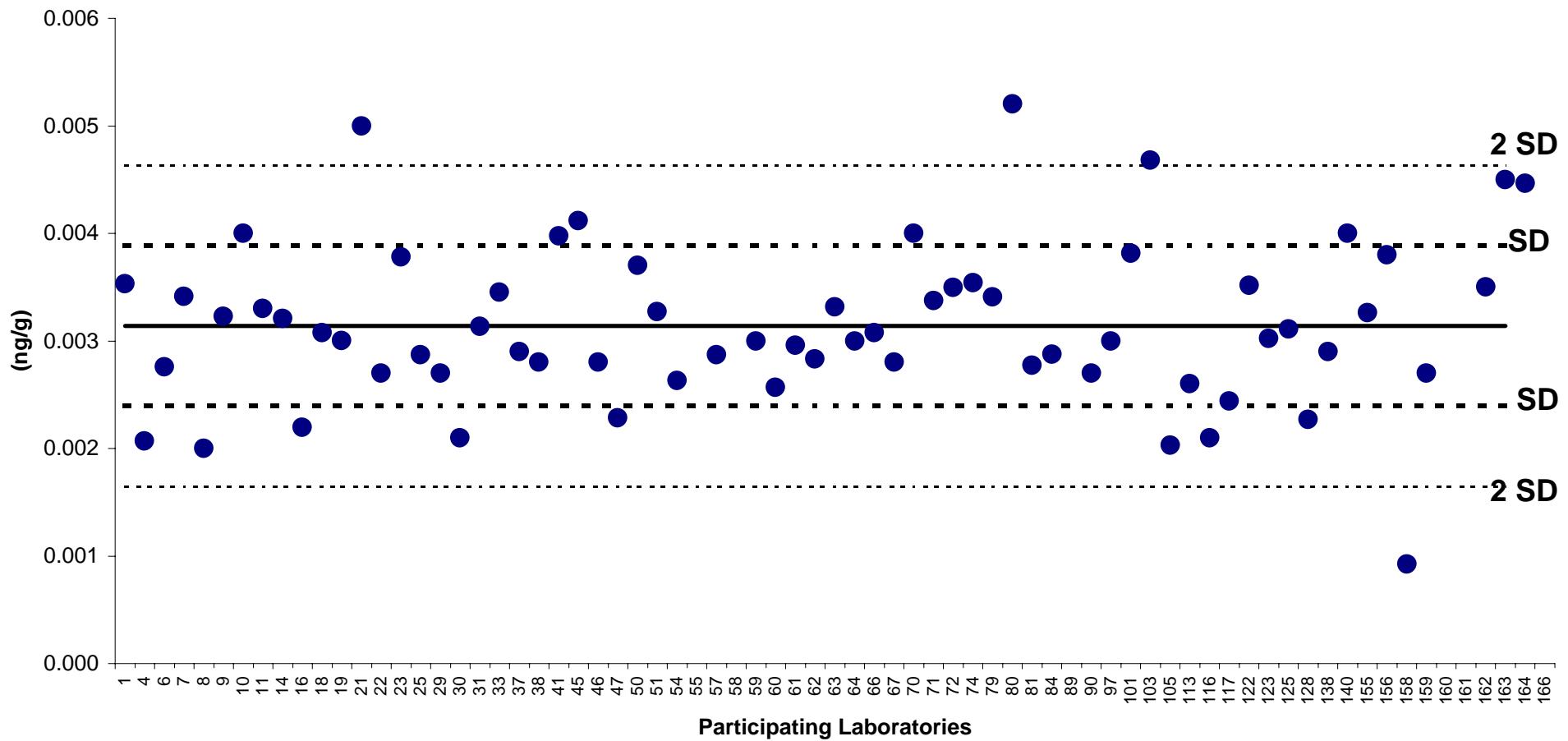
Participant code:	103	105	113	116	117	122	123	125	128	138	140	155	156
Weight Analysed:													
2,3,7,8-TeCDD	0.00064	<0.001	0.00066	0.00069	0.00055	0.00070	0.00065	0.00061	0.00140	0.00012	0.00100	<0.00012	0.00120
1,2,3,7,8-PeCDD	0.00071	<0.001	ND	ND	< 0.0001	ND	0.00016	0.00011	ND	0.00028	ND	0.00059	<0.0002
1,2,3,4,7,8-HxCDD	0.00198	<0.001	0.00009	ND	< 0.0001	ND	0.00017	0.00015	ND	0.00047	ND	0.00014	<0.0002
1,2,3,6,7,8-HxCDD	0.00182	<0.001	0.00017	ND	0.00015	0.00010	0.00022	0.00023	ND	0.00054	0.00100	0.00021	<0.0002
1,2,3,7,8,9-HxCDD	0.00230	<0.001	0.00015	ND	0.00017	ND	0.00020	0.00015	ND	0.00190	0.00100	0.00036	<0.0002
1,2,3,4,6,7,8-HpCDD	0.0034	0.0057	0.0032	0.0021	0.0031	0.0041	0.0042	0.0048	ND	0.0019	0.0160	0.0045	<0.0002
OCDD	0.0367	0.0432	0.0350	0.0220	0.0160	0.0360	0.0313	0.0399	0.0240	0.0400	0.1290	0.0391	0.1247
2,3,7,8-TeCDF	0.0034	0.0028	0.0025	0.0019	0.0032	0.0041	0.0025	0.0029	0.0024	0.0031	0.0050	0.0039	0.0093
1,2,3,7,8-PeCDF	0.0039	0.0021	0.0025	0.0013	0.0017	0.0024	0.0019	0.0021	0.0021	0.0010	0.0030	0.0021	0.0069
2,3,4,7,8-PeCDF	0.0018	0.0020	0.0016	0.0015	0.0016	0.0028	0.0020	0.0022	ND	0.0019	0.0020	0.0020	0.0025
1,2,3,4,7,8-HxCDF	0.0058	0.0039	0.0036	0.0025	0.0039	0.0044	0.0037	0.0043	0.0045	0.0044	0.0050	0.0058	<0.0002
1,2,3,6,7,8-HxCDF	0.0023	0.0012	0.0011	0.0009	0.0009	0.0016	0.0014	0.0014	ND	0.0017	0.0020	0.0015	<0.0002
1,2,3,7,8,9-HxCDF	0.0027	<0.001	ND	ND	< 0.0001	0.0007	0.0009	0.0001	ND	0.0004	0.0010	<0.0002	<0.0002
2,3,4,6,7,8-HxCDF	0.0007	<0.001	0.0004	ND	0.0004	0.0007	0.0010	0.0008	ND	0.0009	ND	0.0016	<0.0002
1,2,3,4,6,7,8-HpCDF	0.0097	0.0077	0.0062	ND	0.0082	0.0072	0.0063	0.0098	0.0070	0.0080	0.0080	0.0126	0.0094
1,2,3,4,7,8,9-HpCDF	0.0020	0.0014	0.0013	0.0011	0.0014	0.0015	0.0011	0.0020	ND	0.0019	ND	0.0017	0.0010
OCDF	0.0153	0.0202	0.0160	0.0071	0.0055	0.0214	0.0132	0.0275	0.0260	0.0180	ND	0.0159	0.0418
TEQ (PCDD/DF)	0.0047	0.0020	0.0026	0.0021	0.0024	0.0035	0.0030	0.0031	0.0023	0.0029	0.0040	0.0033	0.0038
PCB #77	0.110	0.131	0.070	0.051	0.064	0.055	NA	0.067	0.119	NA	NA	0.108	NA
PCB #126	0.009	0.014	0.009	0.006	0.005	0.012	NA	0.009	0.007	NA	NA	0.006	NA
PCB #169	0.002	0.003	0.001	0.001	0.001	0.002	NA	0.001	0.001	NA	NA	0.011	NA
TEQ (including PCBs)	0.0056	0.0034	0.0035	0.0026	0.0030	0.0047	NA	0.0040	0.0029	NA	NA	0.0040	NA
Other PCBs (Optional)													
PCB #81	0.0041	0.0048	0.0026	0.0020	0.0009	0.0021	NA	0.0025	0.0036	NA	NA	0.0100	NA
PCB #105	0.17	0.21	0.13	0.09	0.07	0.31	NA	0.12	NA	NA	NA	0.02	NA
PCB #114	0.0085	<0.015	0.0370	ND	< 0.009	0.0200	NA	0.0049	NA	NA	NA	0.0039	NA
PCB #118	0.97	1.09	0.65	0.53	0.43	1.18	NA	0.61	NA	NA	NA	0.85	NA
PCB #123	0.01	<0.01	0.00	0.04	0.25	ND	NA	0.01	NA	NA	NA	0.24	NA
PCB #156	0.81	0.67	0.63	0.37	0.46	0.90	NA	0.44	NA	NA	NA	0.50	NA
PCB #157	0.049	0.063	0.043	0.033	0.033	0.060	NA	0.037	NA	NA	NA	0.043	NA
PCB #167	0.37	0.35	0.24	0.16	0.35	0.42	NA	0.17	NA	NA	NA	0.18	NA
PCB #189	0.18	0.15	0.15	0.08	0.13	0.15	NA	0.11	NA	NA	NA	0.03	NA
TEQ Total	0.0062	0.0040	0.0040	0.0030	0.0033	0.0054	NA	0.0043	0.0052	NA	NA	0.0044	NA

Participant code:	158	159	160	161	162	163	164	166
Weight Analysed:								
2,3,7,8-TeCDD	ND	0.00076	0.00083	0.16000	0.00104	0.00080	0.00110	ND
1,2,3,7,8-PeCDD	ND	ND	0.00618	0.02800	0.00021	0.00070	0.00040	ND
1,2,3,4,7,8-HxCDD	0.00069	0.00016	0.00014	0.00300	0.00015	0.00080	0.00040	ND
1,2,3,6,7,8-HxCDD	ND	0.00025	0.00120	0.01400	0.00018	0.00090	0.00080	ND
1,2,3,7,8,9-HxCDD	ND	0.00045	0.00044	0.05600	0.00028	0.00090	0.00060	ND
1,2,3,4,6,7,8-HpCDD	0.0014	0.0033	0.0219	0.0380	0.0044	0.0046	0.0141	ND
OCDD	0.0195	0.0262	0.1444	0.0030	0.0397	0.0417	0.1302	ND
2,3,7,8-TeCDF	0.0014	0.0025	0.0014	0.0120	0.0032	0.0033	0.0031	ND
1,2,3,7,8-PeCDF	0.0005	0.0017	0.0012	0.0980	0.0021	0.0026	0.0026	ND
2,3,4,7,8-PeCDF	0.0009	0.0016	0.0019	0.9200	0.0017	0.0028	0.0020	ND
1,2,3,4,7,8-HxCDF	0.0008	0.0041	0.0020	0.4800	0.0042	0.0049	0.0055	ND
1,2,3,6,7,8-HxCDF	0.0007	0.0011	0.0014	0.1360	0.0014	0.0022	0.0019	ND
1,2,3,7,8,9-HxCDF	0.0002	0.0005	0.0010	0.0110	0.0007	0.0017	0.0010	ND
2,3,4,6,7,8-HxCDF	ND	0.0006	0.0003	0.0600	0.0010	0.0016	0.0013	ND
1,2,3,4,6,7,8-HpCDF	0.0041	0.0060	0.0099	0.0680	0.0070	0.0082	0.0187	ND
1,2,3,4,7,8,9-HpCDF	ND	0.0011	0.0006	0.0150	0.0018	0.0025	0.0027	ND
OCDF	ND	0.0143	0.0321	0.0010	0.0167	0.0181	0.0647	ND
TEQ (PCDD/DF)	0.0009	0.0027	0.0092	NA	0.0035	0.0045	0.0045	ND
PCB #77	NA	NA	NA	NA	NA	NA	0.218	NA
PCB #126	NA	NA	NA	NA	NA	NA	0.023	NA
PCB #169	NA	NA	NA	NA	NA	NA	0.028	NA
TEQ (including PCBs)	NA	NA	NA	NA	NA	NA	0.0070	NA
Other PCBs (Optional)								
PCB #81	NA	NA	NA	NA	NA	NA	0.0308	NA
PCB #105	NA	NA	NA	NA	NA	NA	0.32	NA
PCB #114	NA	NA	NA	NA	NA	NA	0.0118	NA
PCB #118	NA	NA	NA	NA	NA	NA	1.58	NA
PCB #123	NA	NA	NA	NA	NA	NA	0.12	NA
PCB #156	NA	NA	NA	NA	NA	NA	1.05	NA
PCB #157	NA	NA	NA	NA	NA	NA	0.109	NA
PCB #167	NA	NA	NA	NA	NA	NA	0.82	NA
PCB #189	NA	NA	NA	NA	NA	NA	0.25	NA
TEQ Total	NA	NA	NA	NA	NA	NA	0.0079	NA

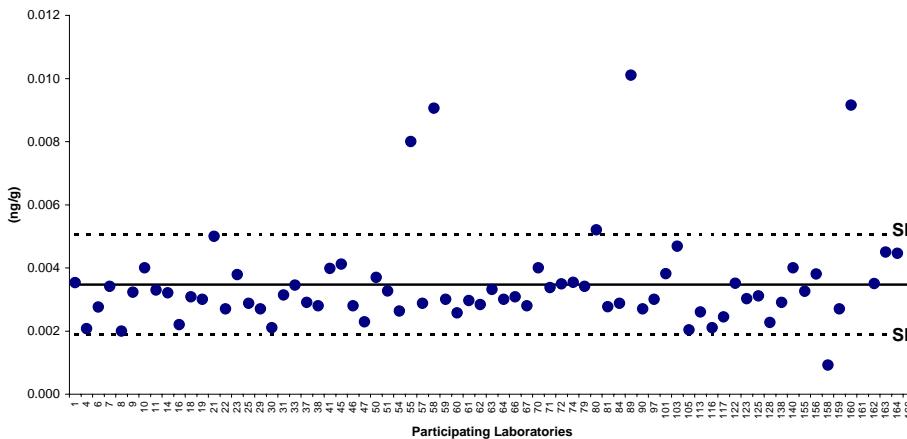
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.00321	0.00077	0.00010	0.1600	0.0198	614%
1,2,3,7,8-PeCDD	0.00106	0.00016	0.00004	0.0280	0.0042	399%
1,2,3,4,7,8-HxCDD	0.00039	0.00019	0.00009	0.0030	0.0006	146%
1,2,3,6,7,8-HxCDD	0.00067	0.00026	0.00010	0.0140	0.0019	279%
1,2,3,7,8,9-HxCDD	0.00156	0.00022	0.00012	0.0560	0.0080	512%
1,2,3,4,6,7,8-HpCDD	0.0059	0.0038	0.0014	0.0560	0.0081	138%
OCDD	0.0492	0.0359	0.0030	0.5369	0.0649	132%
2,3,7,8-TeCDF	0.0035	0.0031	0.0014	0.0132	0.0019	55%
1,2,3,7,8-PeCDF	0.0038	0.0022	0.0005	0.0980	0.0115	301%
2,3,4,7,8-PeCDF	0.0157	0.0019	0.0009	0.9200	0.1113	711%
1,2,3,4,7,8-HxCDF	0.0112	0.0042	0.0008	0.4800	0.0573	510%
1,2,3,6,7,8-HxCDF	0.0034	0.0014	0.0007	0.1360	0.0163	476%
1,2,3,7,8,9-HxCDF	0.0009	0.0006	0.0001	0.0110	0.0016	182%
2,3,4,6,7,8-HxCDF	0.0017	0.0007	0.0001	0.0600	0.0075	440%
1,2,3,4,6,7,8-HpCDF	0.0091	0.0072	0.0041	0.0680	0.0083	91%
1,2,3,4,7,8,9-HpCDF	0.0018	0.0015	0.0006	0.0150	0.0018	97%
OCDF	0.0204	0.0182	0.0010	0.0669	0.0103	50%
TEQ (PCDD/DF)	0.0035	0.0031	0.0009	0.010	0.0016	45%
PCB #77	0.091	0.083	0.0421	0.22	0.03	32%
PCB #126	0.012	0.011	0.005	0.04	0.01	48%
PCB #169	0.003	0.002	0.001	0.028	0.005	162%
TEQ (including PCBs)	0.0045	0.0041	0.0014	0.01	0.00	35%
Other PCBs (Optional)						
PCB #81	0.0052	0.0031	0.0009	0.03	0.01	110%
PCB #105	0.20	0.14	0.02	1.50	0.22	107%
PCB #114	0.0129	0.0081	0.002	0.14	0.02	161%
PCB #118	0.93	0.74	0.28	4.54	0.75	81%
PCB #123	0.08	0.04	0.004	0.33	0.09	117%
PCB #156	0.59	0.49	0.20	2.720	0.351	60%
PCB #157	0.052	0.043	0.022	0.24	0.03	63%
PCB #167	0.30	0.25	0.13	1.26	0.18	61%
PCB #189	0.13	0.12	0.03	0.46	0.07	50%
TEQ Total	0.0051	0.0047	0.0030	0.01	0.00	30%

Participant code:	TEQ results 55, 58, 89, 160 and 161 outliers					
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	0.00077	0.00076	0.00012	0.0014	0.0002	25%
1,2,3,7,8-PeCDD	0.00027	0.00015	0.00004	0.0026	0.0004	149%
1,2,3,4,7,8-HxCDD	0.00031	0.00018	0.00009	0.0020	0.0004	131%
1,2,3,6,7,8-HxCDD	0.00037	0.00025	0.00010	0.0018	0.0003	82%
1,2,3,7,8,9-HxCDD	0.00037	0.00021	0.00012	0.0023	0.0004	115%
1,2,3,4,6,7,8-HpCDD	0.0043	0.0038	0.0014	0.0160	0.0024	56%
OCDD	0.0414	0.0359	0.0125	0.1460	0.0250	60%
2,3,7,8-TeCDF	0.0032	0.0030	0.0014	0.0093	0.0011	34%
1,2,3,7,8-PeCDF	0.0023	0.0021	0.0005	0.0069	0.0008	37%
2,3,4,7,8-PeCDF	0.0020	0.0019	0.0009	0.0036	0.0005	26%
1,2,3,4,7,8-HxCDF	0.0043	0.0042	0.0008	0.0065	0.0009	21%
1,2,3,6,7,8-HxCDF	0.0014	0.0014	0.0007	0.0031	0.0004	31%
1,2,3,7,8,9-HxCDF	0.0006	0.0005	0.0001	0.0027	0.0005	91%
2,3,4,6,7,8-HxCDF	0.0008	0.0007	0.0001	0.0033	0.0005	60%
1,2,3,4,6,7,8-HpCDF	0.0078	0.0072	0.0041	0.0290	0.0035	45%
1,2,3,4,7,8,9-HpCDF	0.0016	0.0015	0.0006	0.0050	0.0006	38%
OCDF	0.0197	0.0181	0.0055	0.0647	0.0083	42%
TEQ (PCDD/DF)	0.0031	0.0030	0.0009	0.005	0.0007	24%
PCB #77	0.090	0.083	0.0421	0.22	0.03	31%
PCB #126	0.012	0.010	0.005	0.04	0.01	49%
PCB #169	0.003	0.002	0.001	0.028	0.005	163%
TEQ (including PCBs)	0.0043	0.0040	0.0014	0.01	0.00	28%
Other PCBs (Optional)						
PCB #81	0.0053	0.0030	0.0009	0.03	0.01	110%
PCB #105	0.20	0.13	0.02	1.50	0.22	109%
PCB #114	0.0129	0.0080	0.002	0.14	0.02	163%
PCB #118	0.92	0.73	0.28	4.54	0.76	82%
PCB #123	0.08	0.04	0.004	0.33	0.09	116%
PCB #156	0.58	0.49	0.20	2.720	0.352	60%
PCB #157	0.051	0.043	0.022	0.24	0.03	64%
PCB #167	0.30	0.24	0.13	1.26	0.18	62%
PCB #189	0.13	0.12	0.03	0.46	0.07	51%
TEQ Total	0.0049	0.0047	0.0030	0.01	0.00	23%

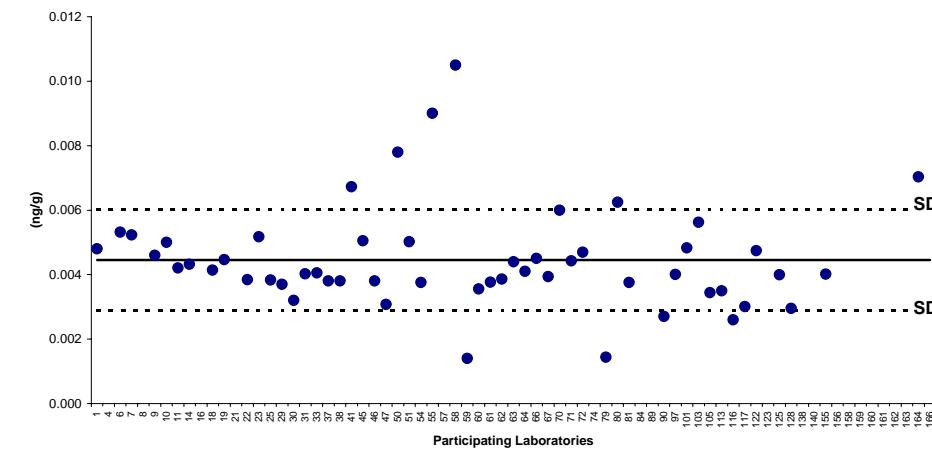
TEQ Soil D (RSD 24 %, n = 67)



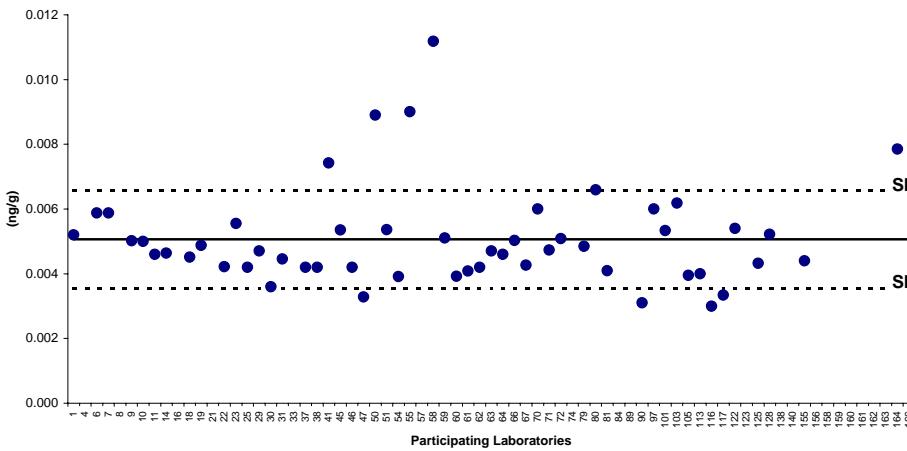
PCDD/DF TEQ Soil D (RSD 45%, n = 71)



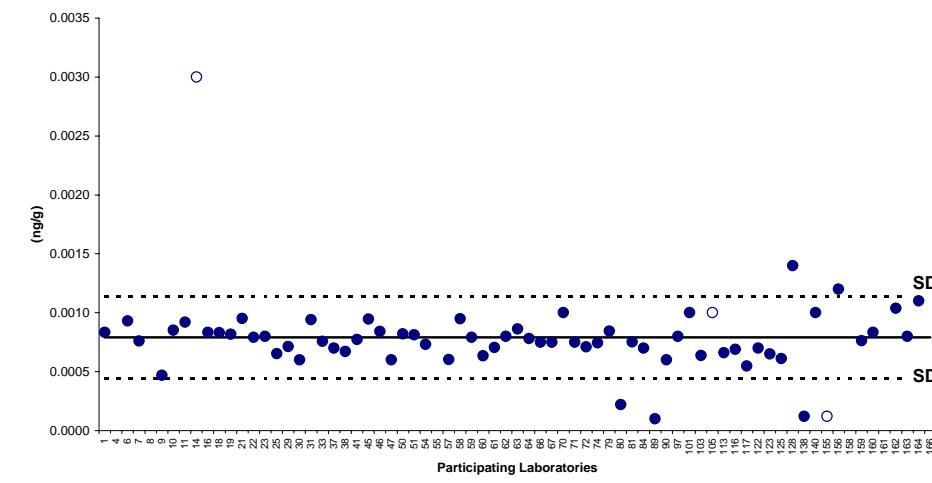
TEQ (including planar PCBs) Soil D



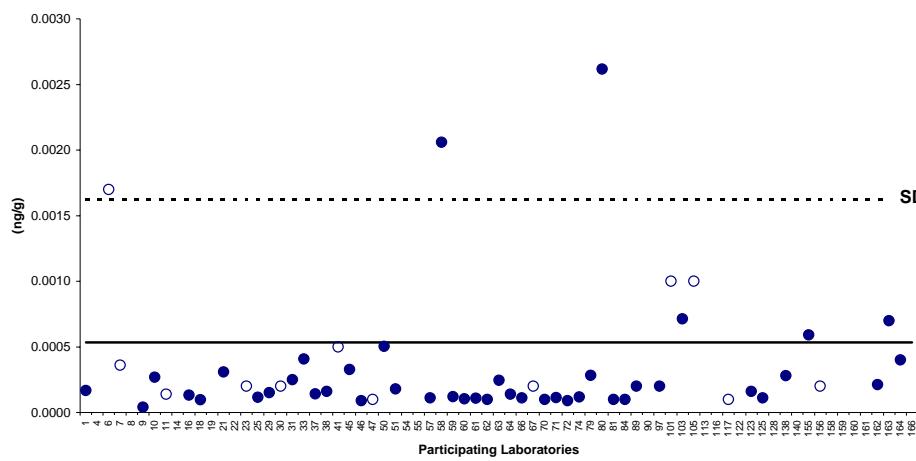
WHO TEQ Soil D



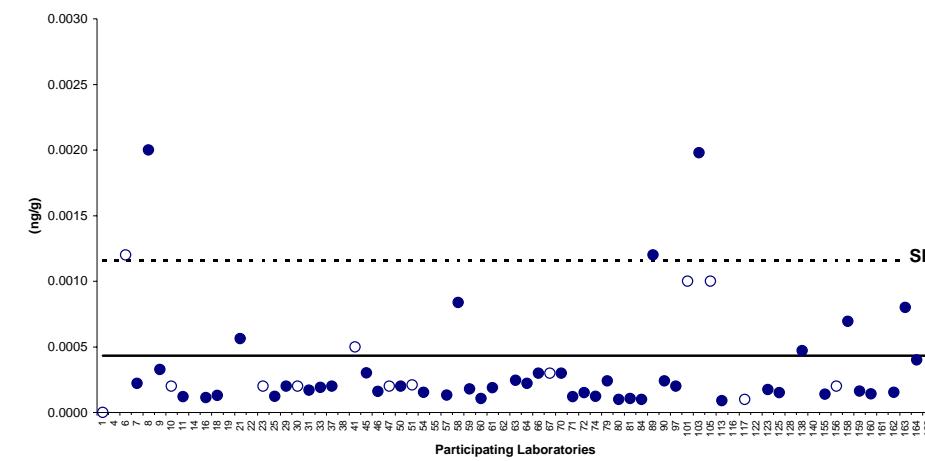
2,3,7,8-TeCDD Soil D



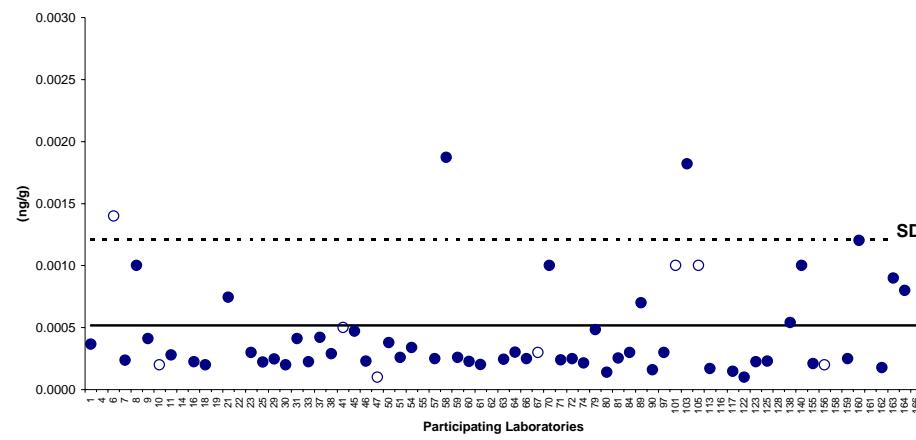
1,2,3,7,8-PeCDD Soil D



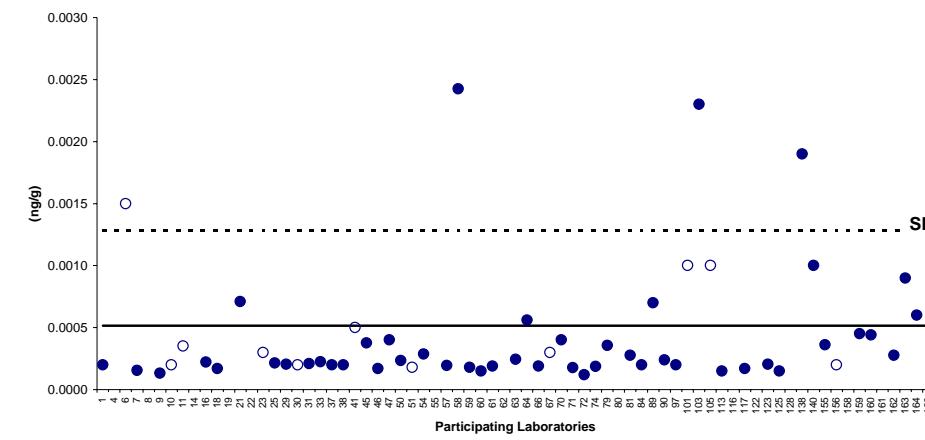
1,2,3,4,7,8-HxCDD Soil D



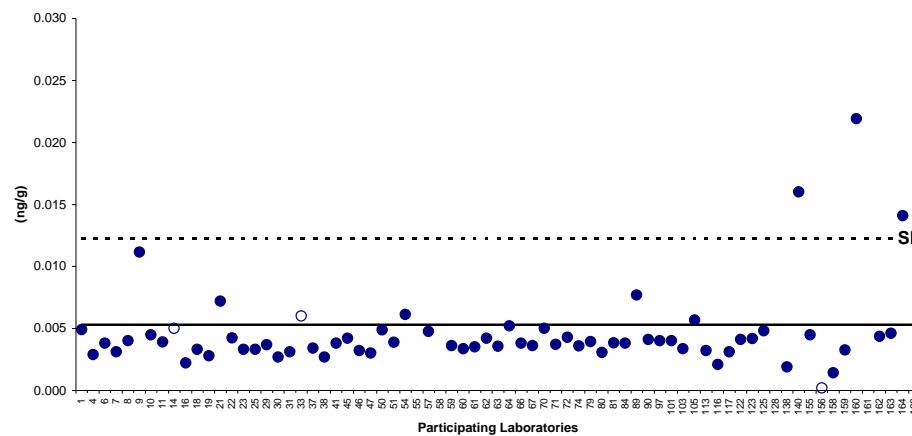
1,2,3,6,7,8-HxCDD Soil D



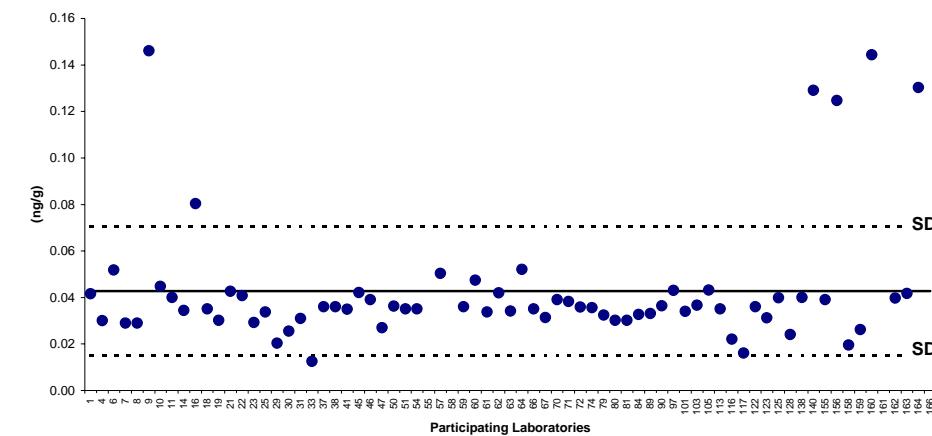
1,2,3,7,8,9-HxCDD Soil D



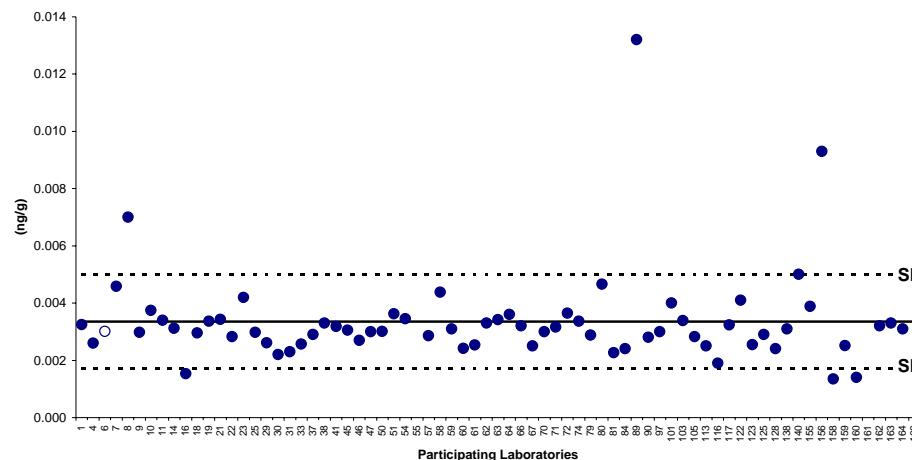
1,2,3,4,6,7,8-HpCDD Soil D



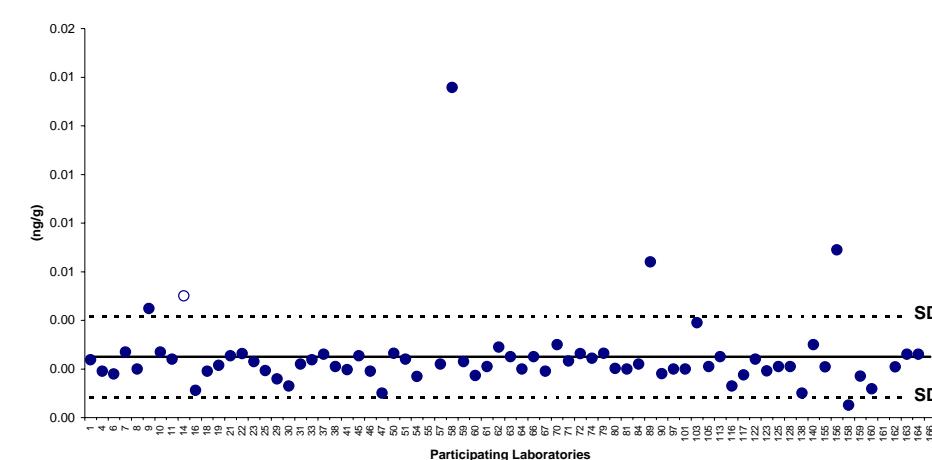
OCDD Soil D



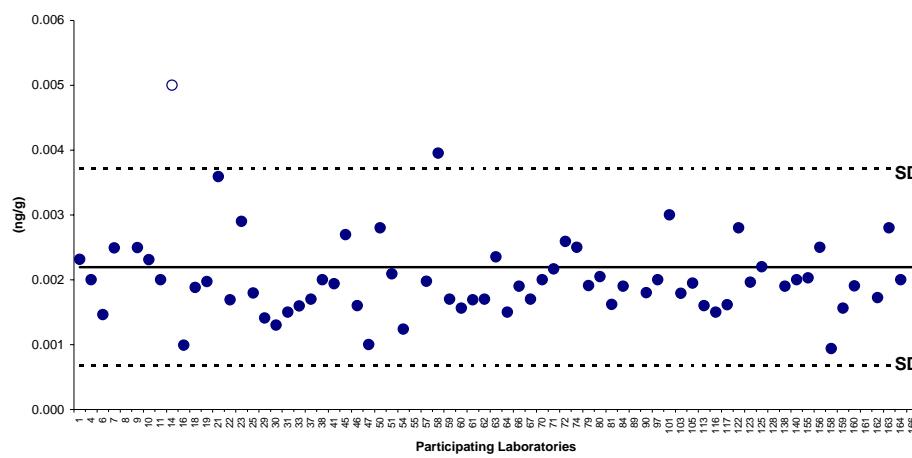
2,3,7,8-TeCDF Soil D



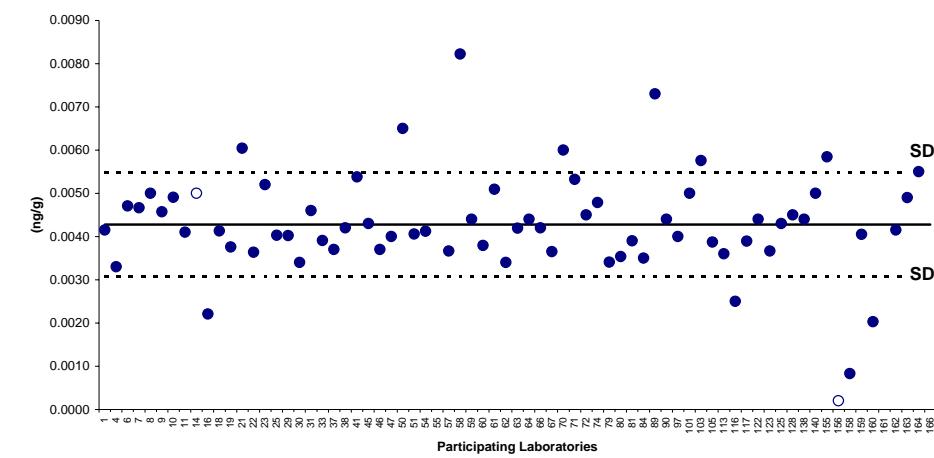
1,2,3,7,8-PeCDF Soil D



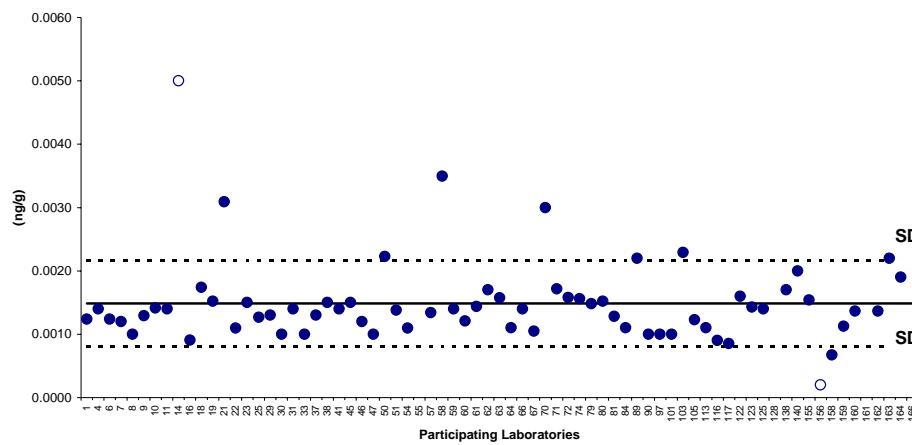
2,3,4,7,8-PeCDF Soil D



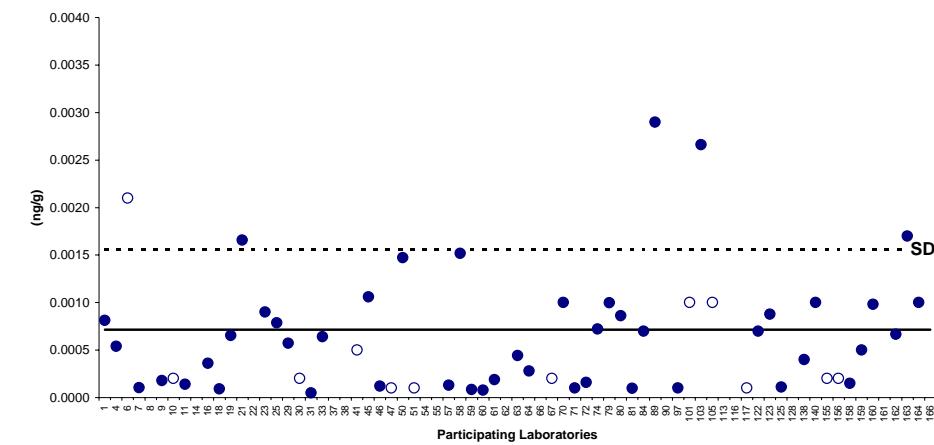
1,2,3,4,7,8-HxCDF Soil D



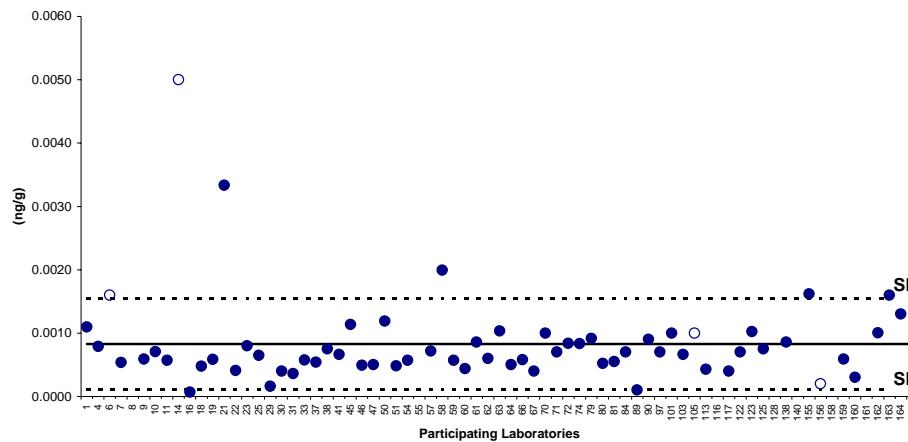
1,2,3,6,7,8-HxCDF Soil D



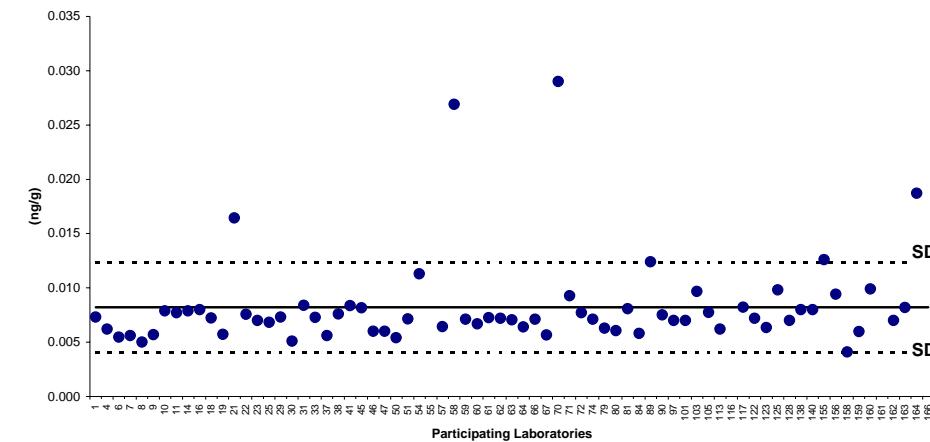
1,2,3,7,8,9-HxCDF Soil D



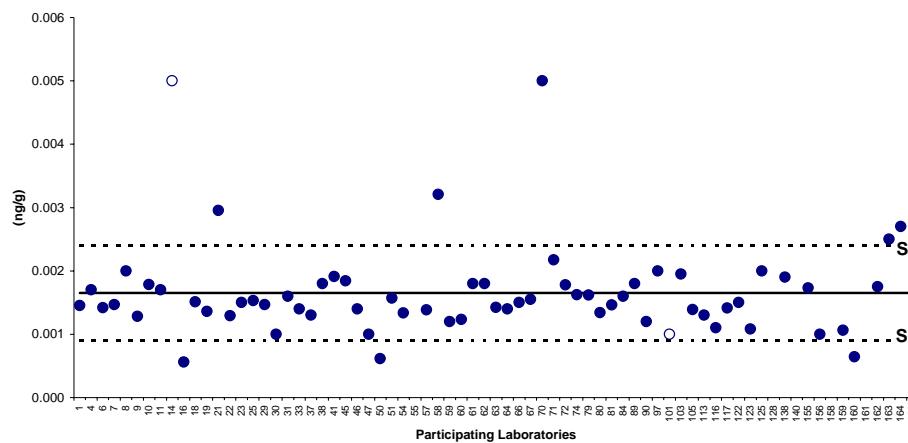
2,3,4,6,7,8-HxCDF Soil D



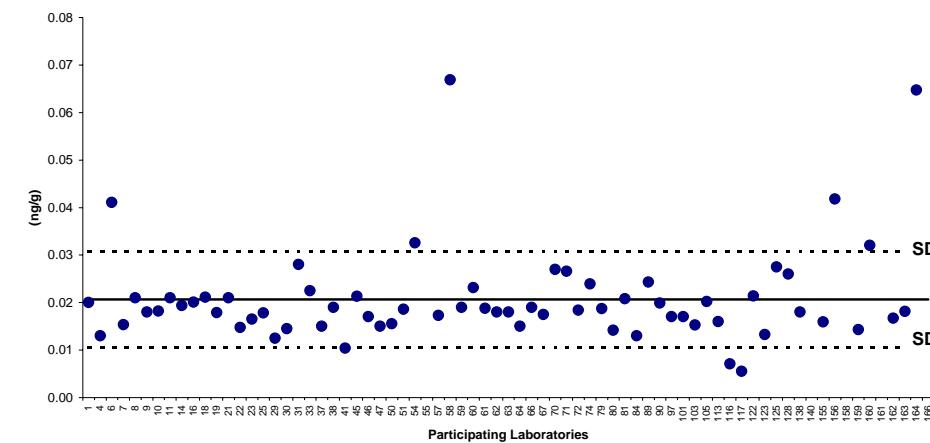
1,2,3,4,6,7,8-HpCDF Soil D



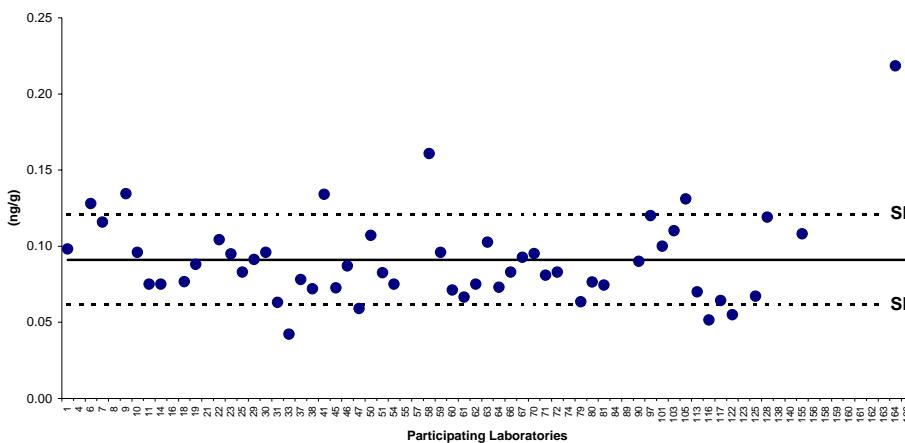
1,2,3,4,7,8,9-HpCDF Soil D



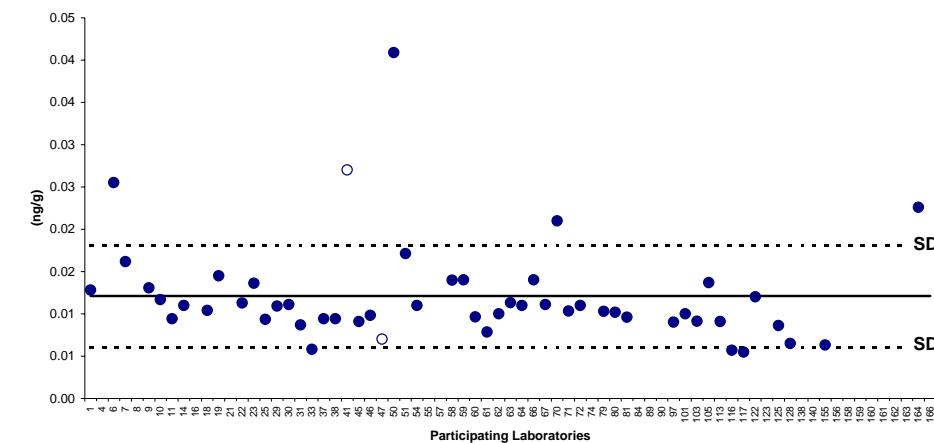
OCDF Soil D



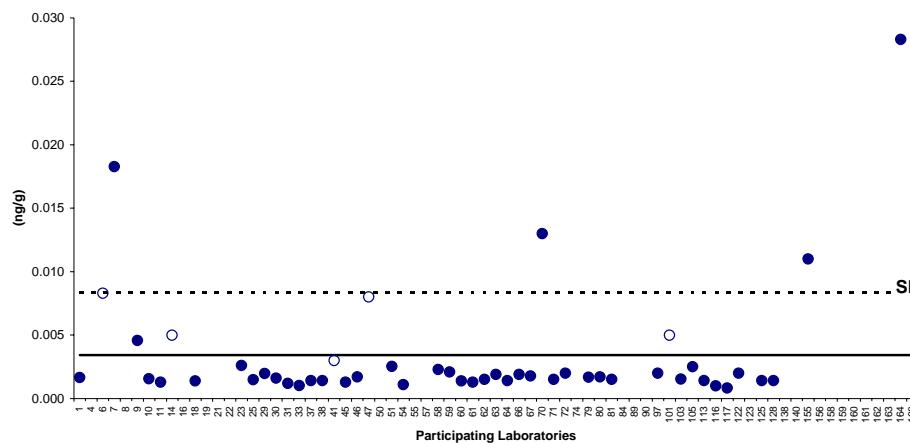
PCB #77 Soil D



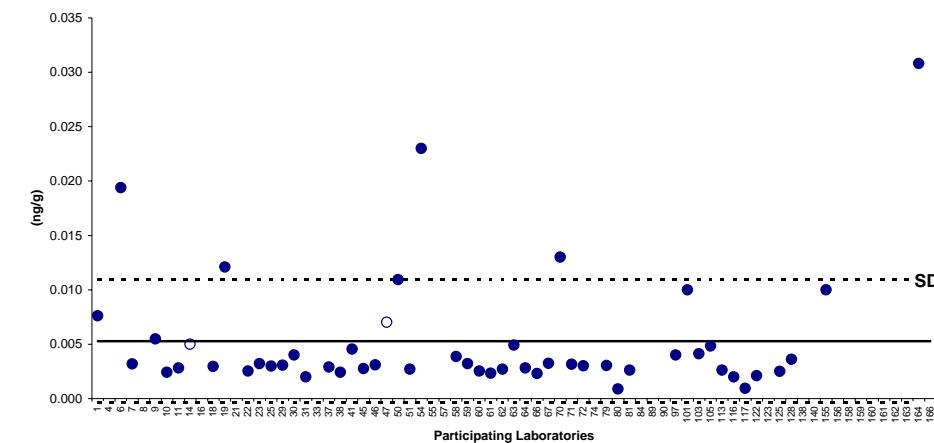
PCB #126 Soil D



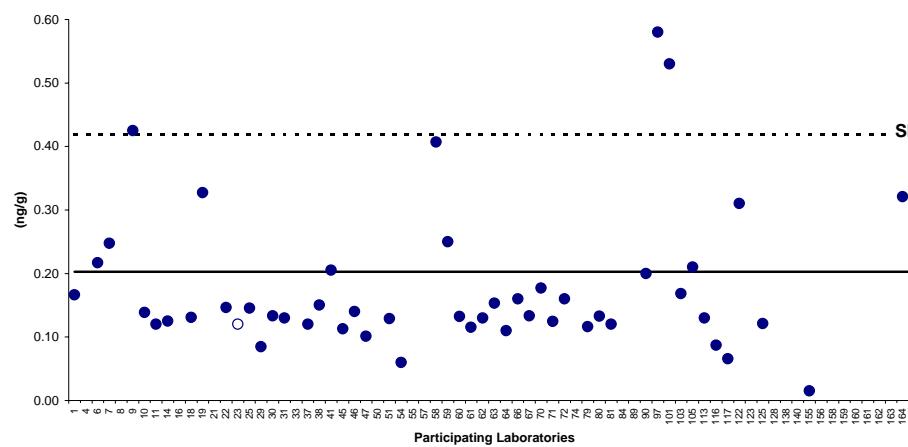
PCB #169 Soil D



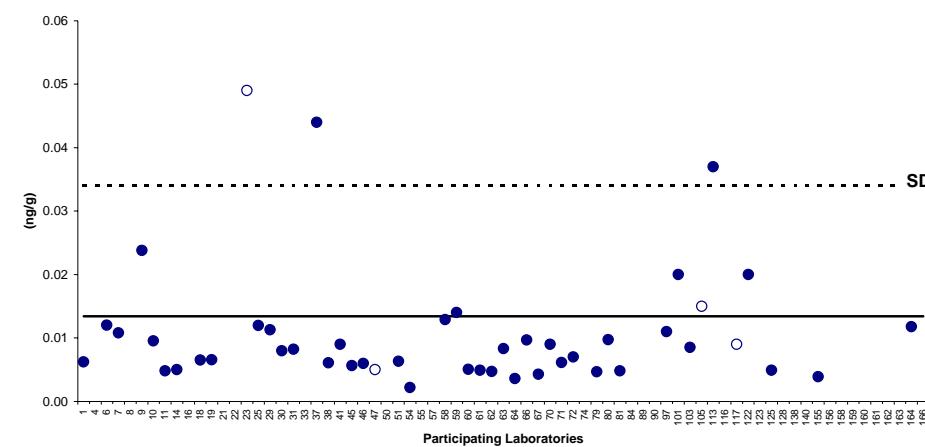
PCB #81 Soil D



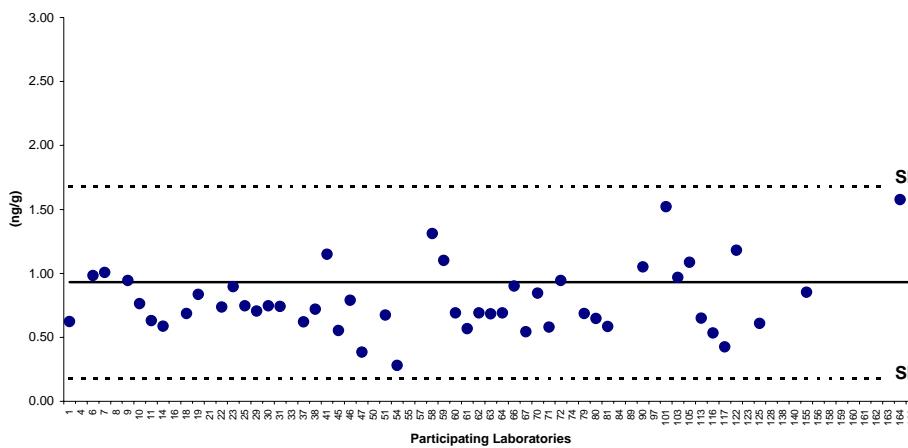
PCB #105 Soil D



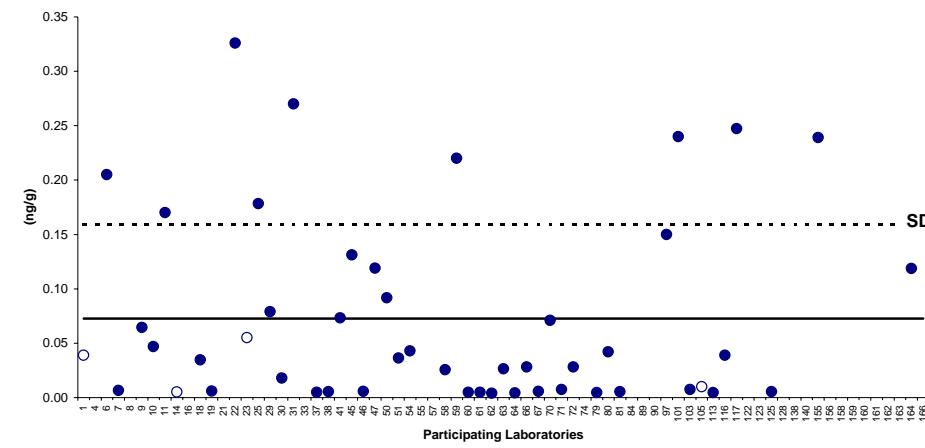
PCB #114 Soil D



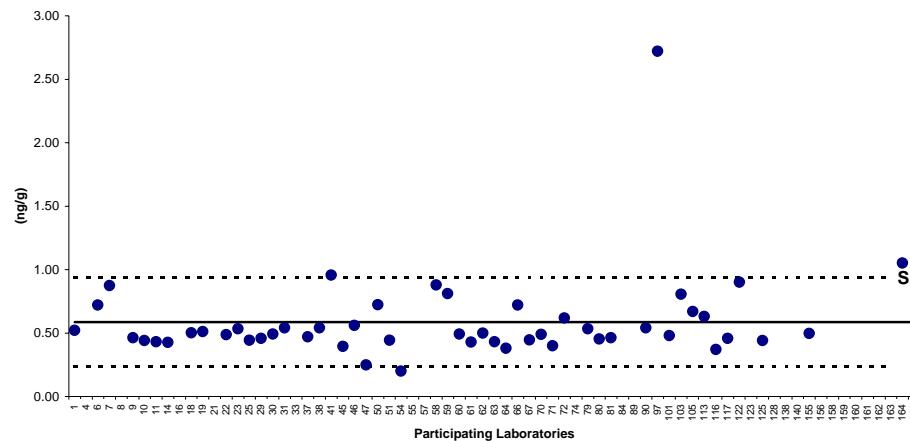
PCB #118 Soil D



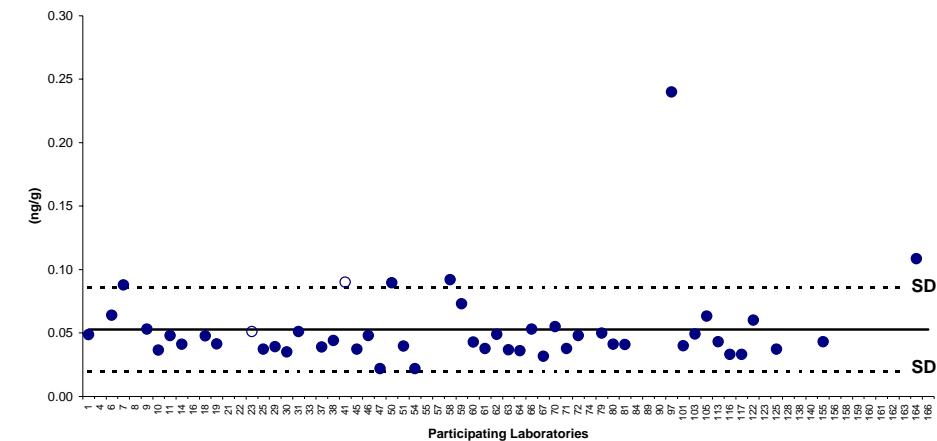
PCB #123 Soil D



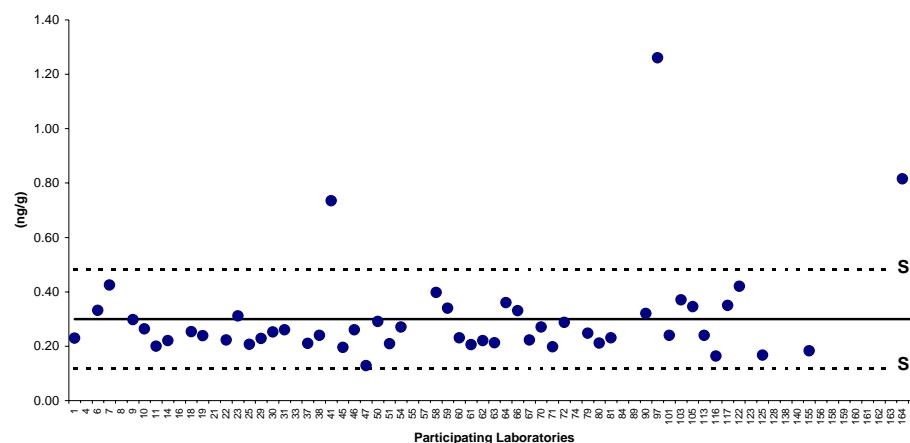
PCB #156 Soil D



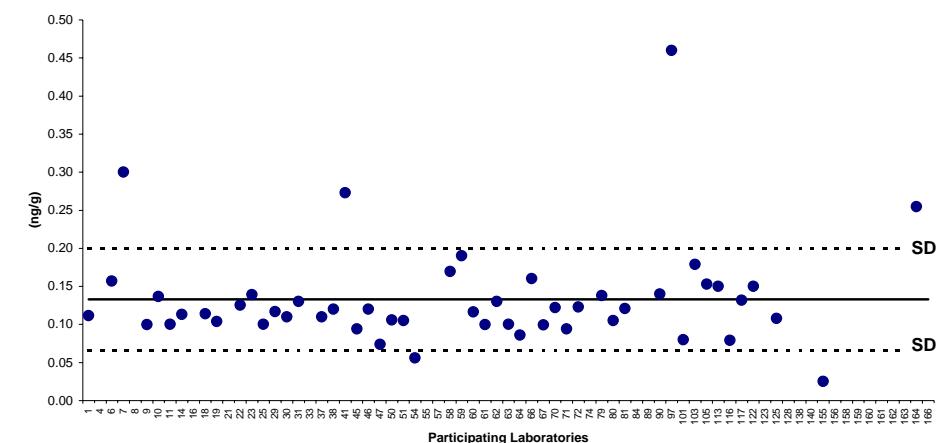
PCB #157 Soil D



PCB #167 Soil D



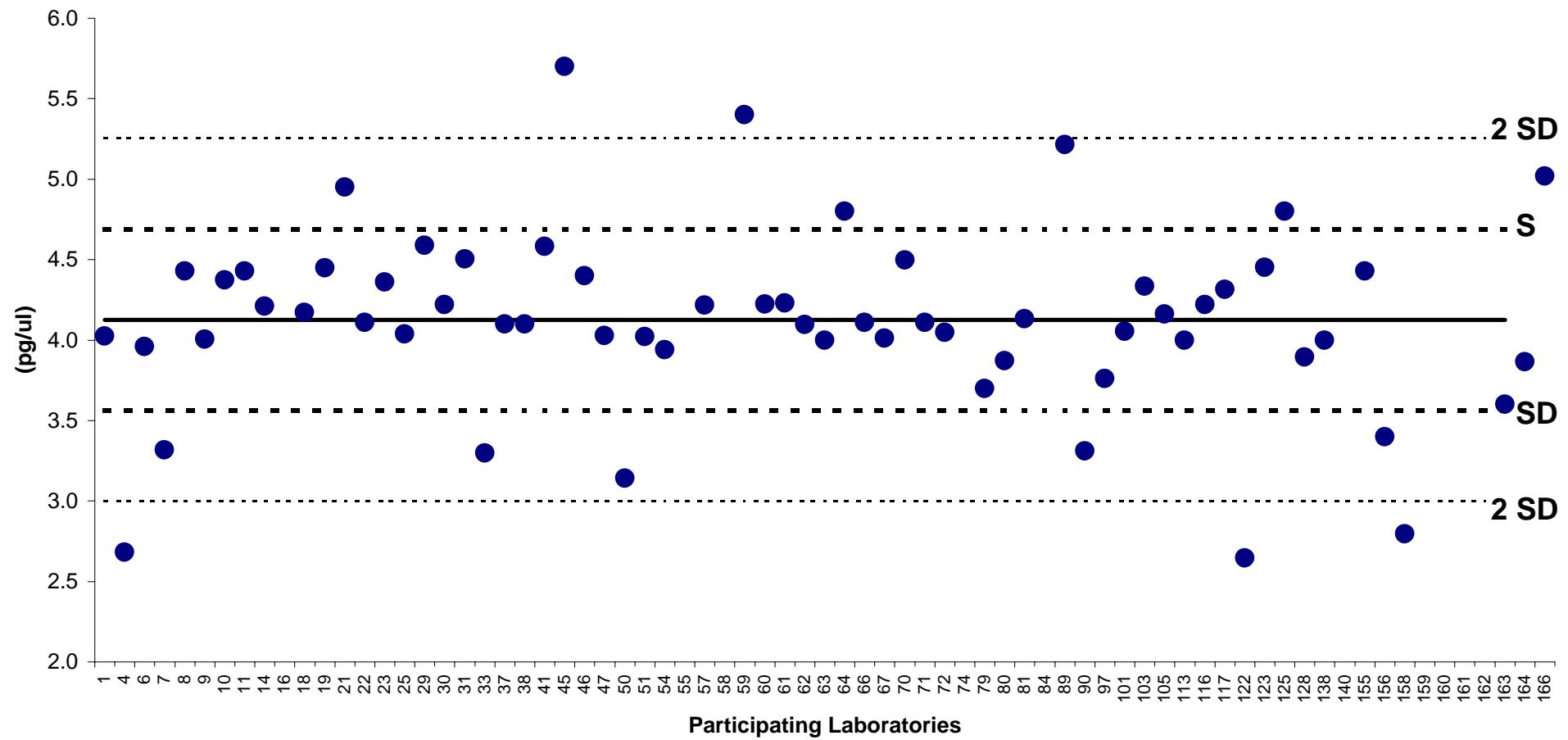
PCB #189 Soil D



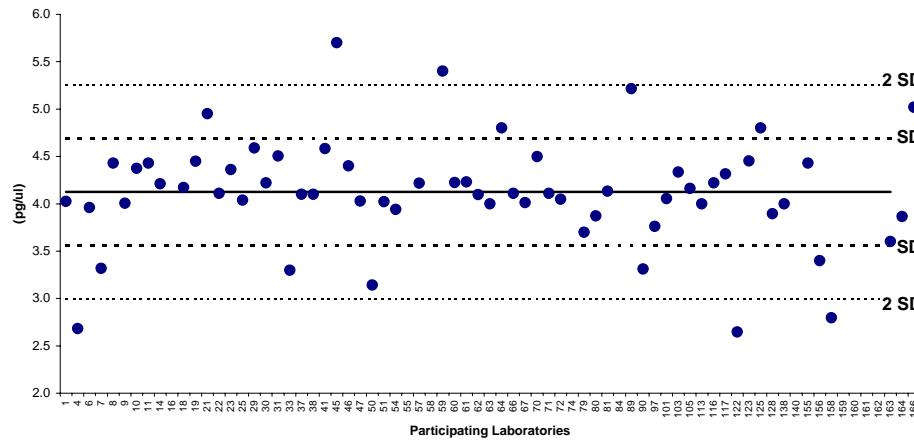
Participant code:						
Weight Analysed:						
	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	1.18	1.02	0.11	11.00	1.24	105%
1,2,3,7,8-PeCDD	1.16	1.00	0.10	11.00	1.23	107%
1,2,3,4,7,8-HxCDD	2.30	2.03	0.21	22.00	2.48	108%
1,2,3,6,7,8-HxCDD	2.30	2.05	0.03	21.00	2.37	103%
1,2,3,7,8,9-HxCDD	2.26	2.00	0.20	22.00	2.49	110%
1,2,3,4,6,7,8-HpCDD	1.98	1.97	0.03	4.32	0.59	30%
OCDD	4.82	5.00	0.00	10.75	1.48	31%
2,3,7,8-TeCDF	1.40	1.04	0.10	21.00	2.45	174%
1,2,3,7,8-PeCDF	1.15	0.99	0.07	11.00	1.26	109%
2,3,4,7,8-PeCDF	1.27	1.00	0.11	13.00	1.56	122%
1,2,3,4,7,8-HxCDF	2.21	2.00	0.21	19.00	2.14	97%
1,2,3,6,7,8-HxCDF	2.24	2.00	0.22	20.00	2.25	100%
1,2,3,7,8,9-HxCDF	2.28	2.00	0.21	23.00	2.60	114%
2,3,4,6,7,8-HxCDF	2.30	2.05	0.23	22.00	2.48	108%
1,2,3,4,6,7,8-HpCDF	2.02	2.04	0.04	4.41	0.59	29%
1,2,3,4,7,8,9-HpCDF	2.00	2.00	0.03	5.50	0.72	36%
OCDF	4.96	5.09	0.00	16.01	2.03	41%
TEQ (PCDD/DF)	4.85	4.13	0.45	46.06	5.14	106%
PCB #77	*	*	*	*	*	*
PCB #126	*	*	*	*	*	*
PCB #169	*	*	*	*	*	*
TEQ (including PCBs)	*	*	*	*	*	*
Other PCBs (Optional)						
PCB #81	*	*	*	*	*	*
PCB #105	*	*	*	*	*	*
PCB #114	*	*	*	*	*	*
PCB #118	*	*	*	*	*	*
PCB #123	*	*	*	*	*	*
PCB #156	*	*	*	*	*	*
PCB #157	*	*	*	*	*	*
PCB #167	*	*	*	*	*	*
PCB #189	*	*	*	*	*	*
TEQ Total	*	*	*	*	*	*

TEQ results 55, 58, 74, 84, 159 and 161 outliers						
Weight Analysed:	Average	Median	Min	Max	SD	%RSD
2,3,7,8-TeCDD	1.00	1.00	0.48	1.40	0.15	15%
1,2,3,7,8-PeCDD	0.99	0.99	0.62	1.65	0.15	15%
1,2,3,4,7,8-HxCDD	2.01	2.02	0.21	2.97	0.40	20%
1,2,3,6,7,8-HxCDD	2.02	2.05	0.03	2.70	0.44	22%
1,2,3,7,8,9-HxCDD	1.95	2.00	0.23	2.70	0.40	21%
1,2,3,4,6,7,8-HpCDD	1.98	1.97	0.03	3.49	0.42	21%
OCDD	4.88	5.01	0.00	6.71	1.01	21%
2,3,7,8-TeCDF	1.06	1.04	0.10	1.81	0.24	23%
1,2,3,7,8-PeCDF	0.97	0.98	0.07	1.56	0.20	21%
2,3,4,7,8-PeCDF	1.05	1.00	0.57	4.88	0.51	49%
1,2,3,4,7,8-HxCDF	1.92	2.00	0.27	2.50	0.37	19%
1,2,3,6,7,8-HxCDF	1.94	2.00	0.29	2.46	0.34	18%
1,2,3,7,8,9-HxCDF	1.94	1.99	0.30	2.72	0.37	19%
2,3,4,6,7,8-HxCDF	1.98	2.03	0.26	2.78	0.40	20%
1,2,3,4,6,7,8-HpCDF	2.02	2.04	0.04	3.44	0.41	20%
1,2,3,4,7,8,9-HpCDF	1.95	2.00	0.03	2.94	0.40	20%
OCDF	4.98	5.08	0.00	16.01	1.79	36%
TEQ (PCDD/DF)	4.12	4.11	2.65	5.70	0.56	14%
PCB #77	*	*	*	*	*	*
PCB #126	*	*	*	*	*	*
PCB #169	*	*	*	*	*	*
TEQ (including PCBs)	*	*	*	*	*	*
Other PCBs (Optional)						
PCB #81	*	*	*	*	*	*
PCB #105	*	*	*	*	*	*
PCB #114	*	*	*	*	*	*
PCB #118	*	*	*	*	*	*
PCB #123	*	*	*	*	*	*
PCB #156	*	*	*	*	*	*
PCB #157	*	*	*	*	*	*
PCB #167	*	*	*	*	*	*
PCB #189	*	*	*	*	*	*
TEQ Total	*	*	*	*	*	*

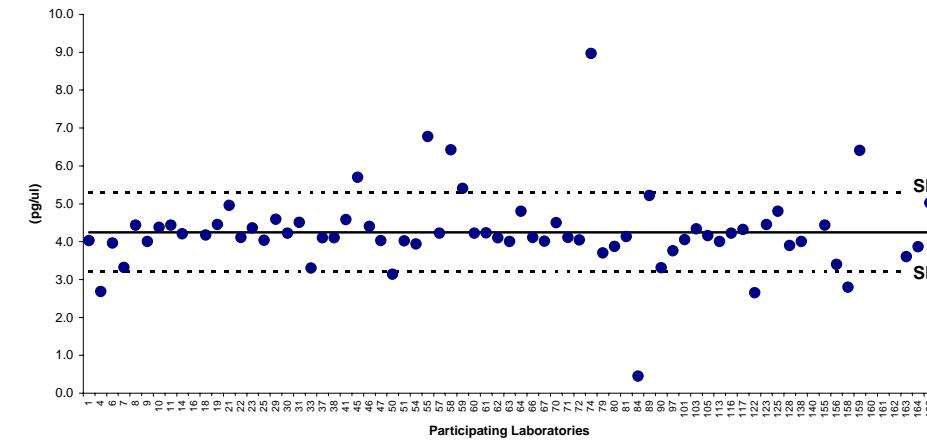
TEQ Solution O (RSD 14 %, n = 63)



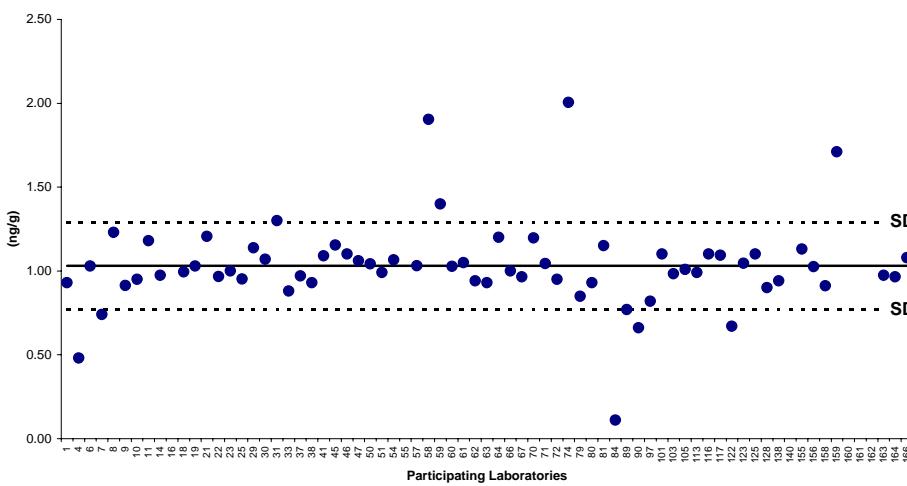
TEQ Solution O (RSD 14 %, n = 63)



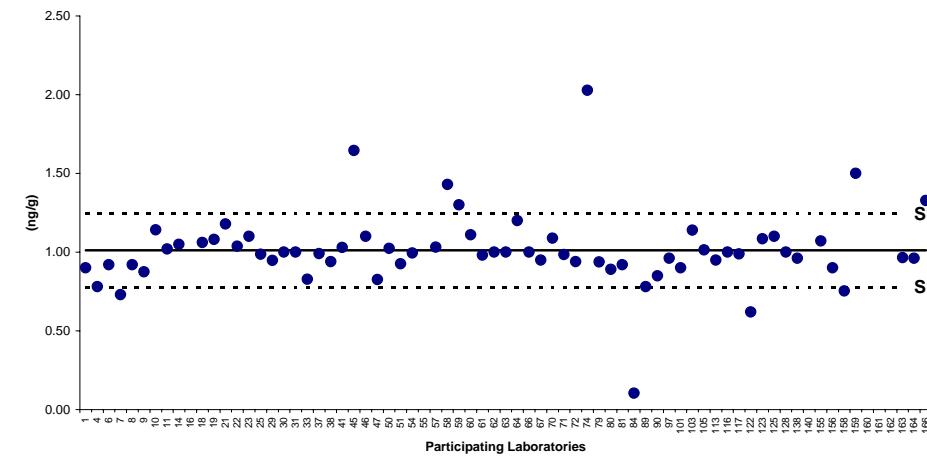
PCDD/DF TEQ Solution O (RSD 25%, n = 68)

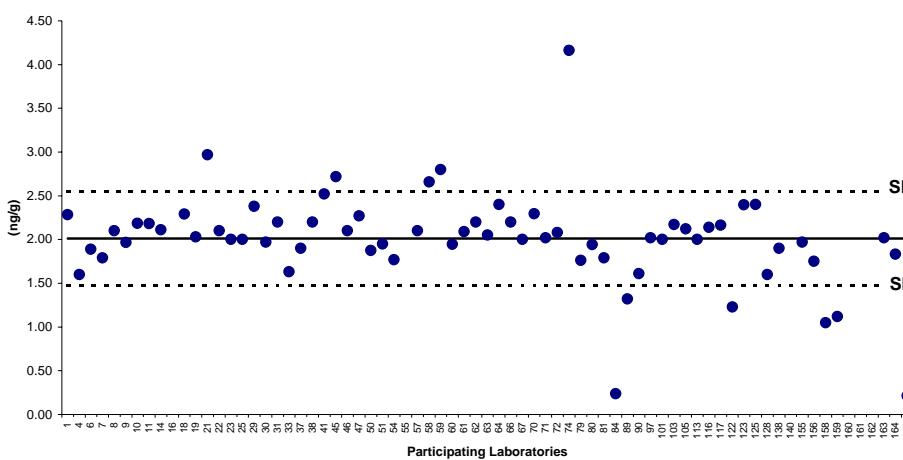
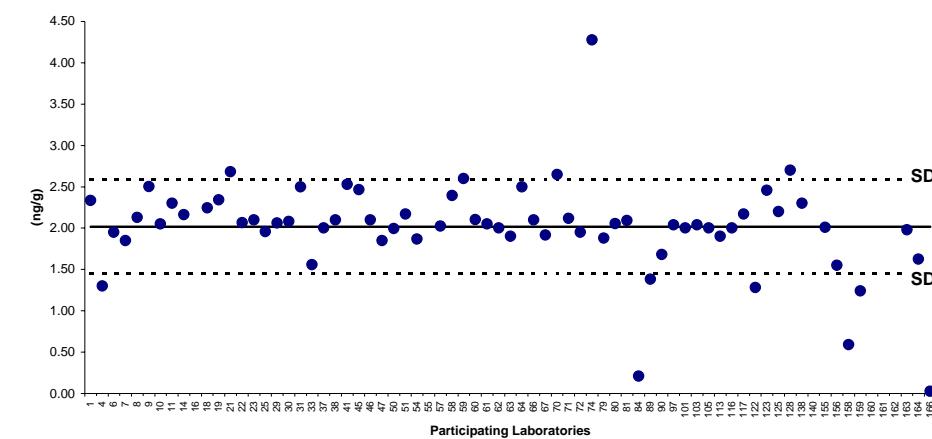
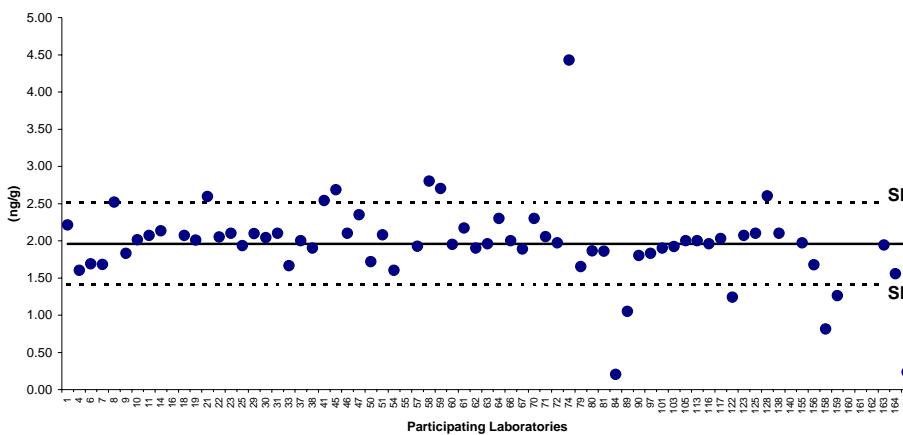
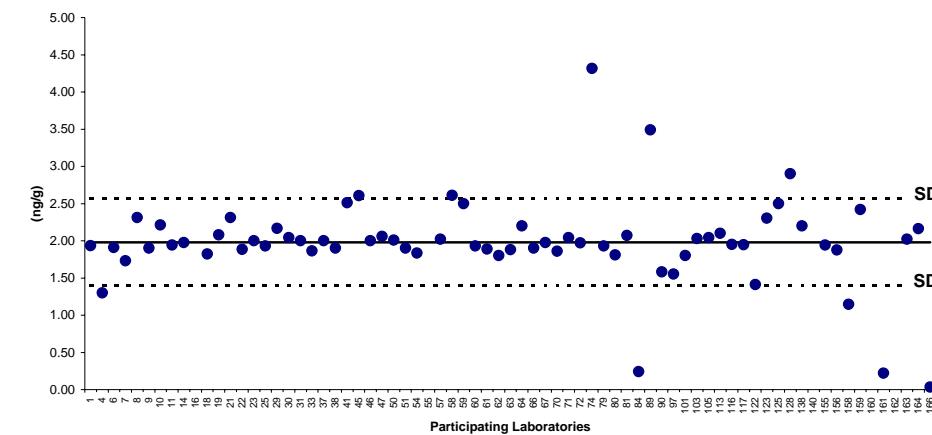


2,3,7,8-TeCDD Solution O

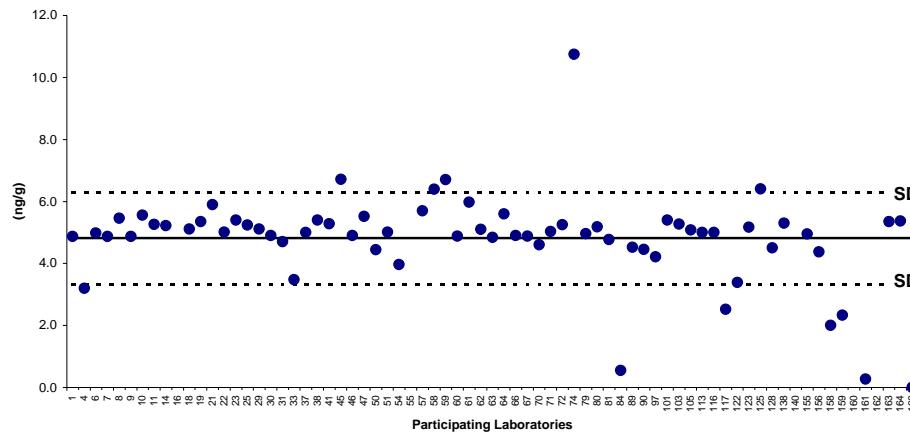


1,2,3,7,8-PeCDD Solution O

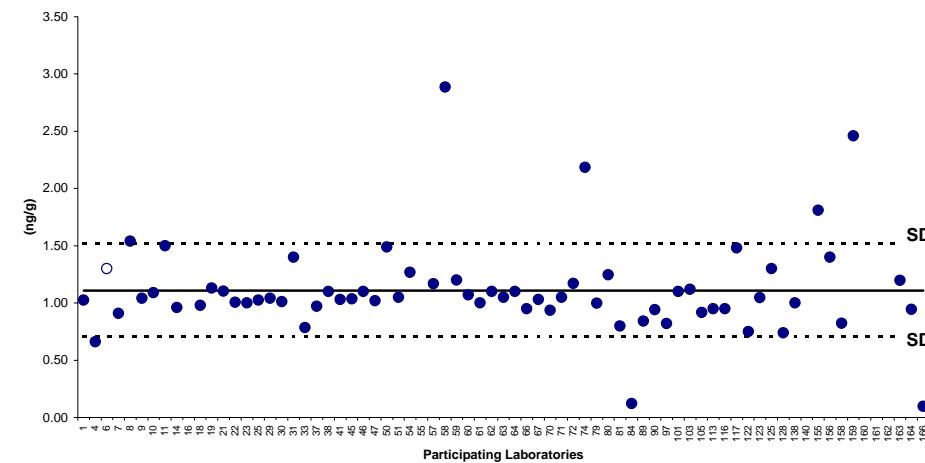


1,2,3,4,7,8-HxCDD Solution O**1,2,3,6,7,8-HxCDD Solution O****1,2,3,7,8,9-HxCDD Solution O****1,2,3,4,6,7,8-HpCDD Solution O**

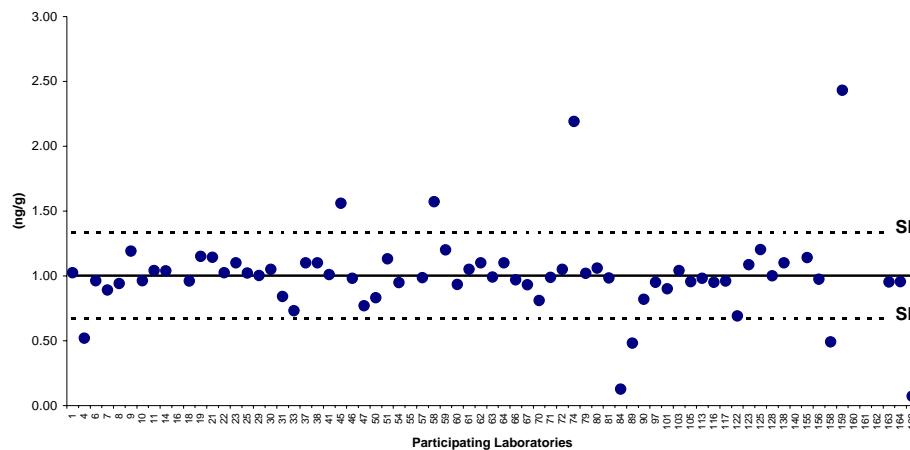
OCDD Solution O



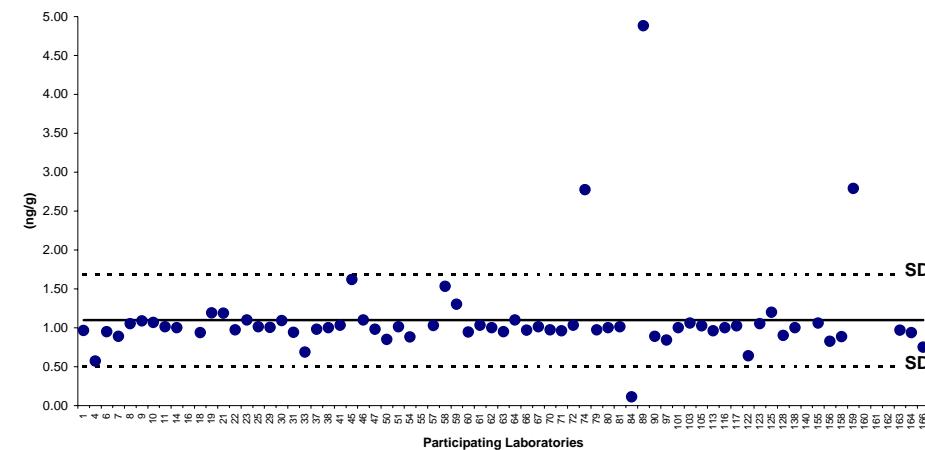
2,3,7,8-TeCDF Solution O



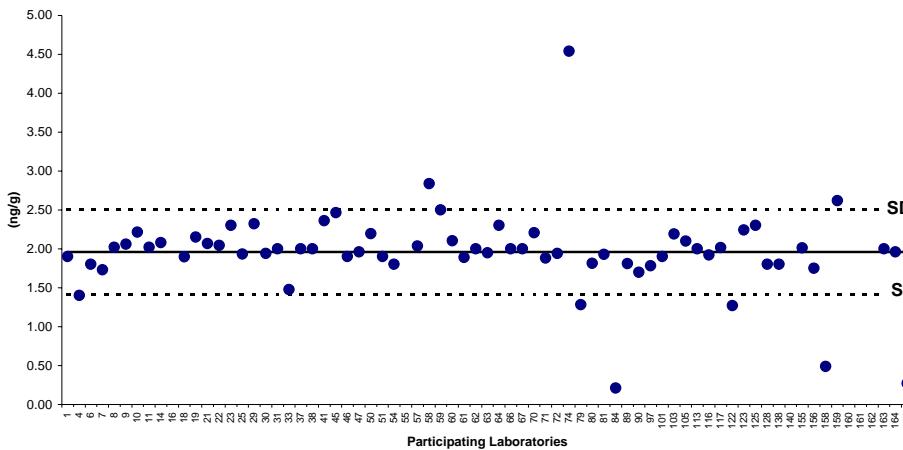
1,2,3,7,8-PeCDF Solution O



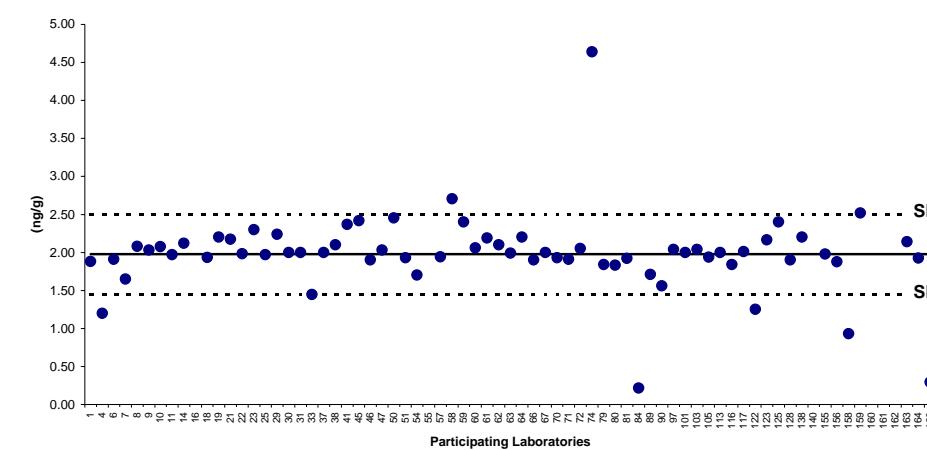
2,3,4,7,8-PeCDF Solution O



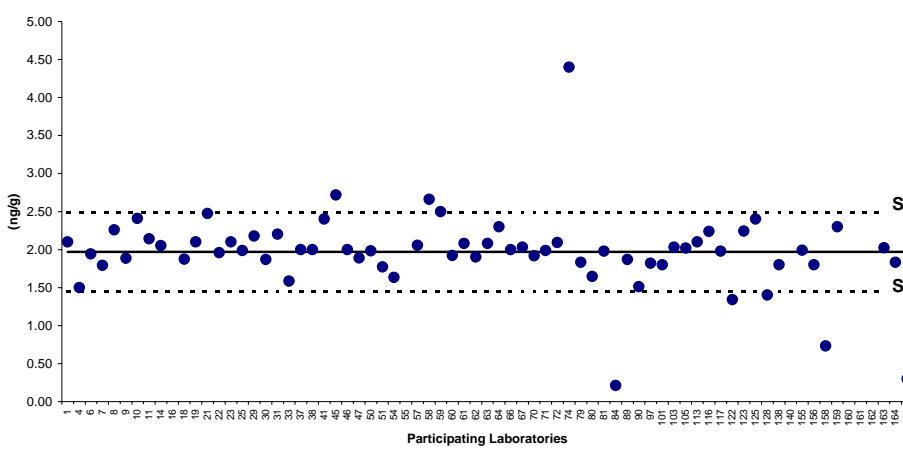
1,2,3,4,7,8-HxCDF Solution O



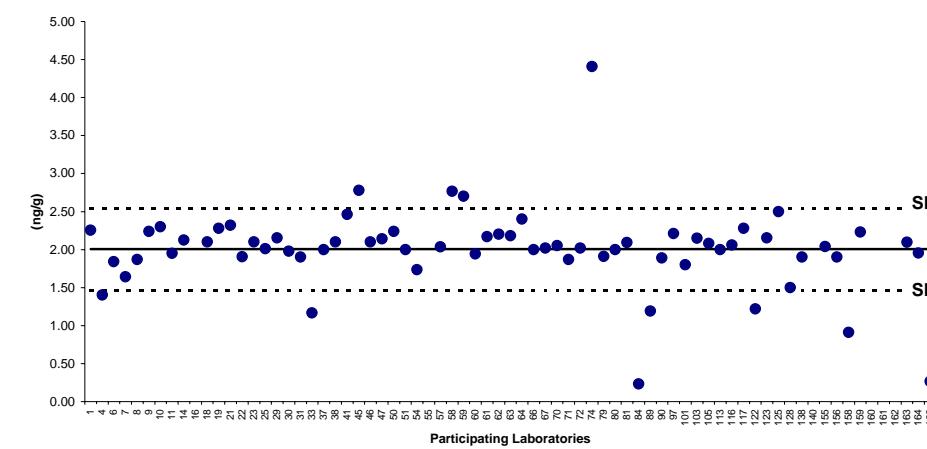
1,2,3,6,7,8-HxCDF Solution O



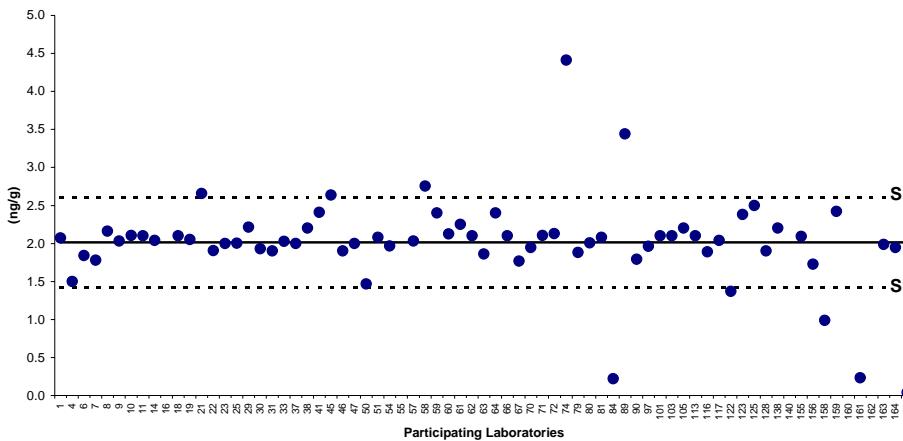
1,2,3,7,8,9-HxCDF Solution O



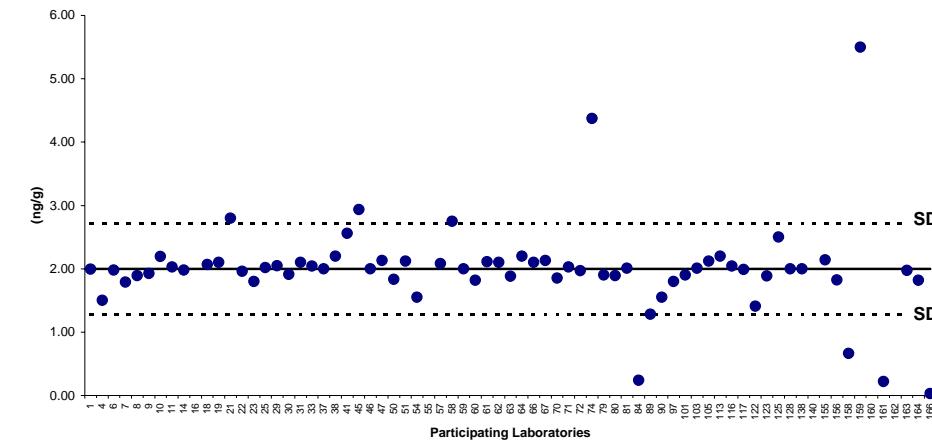
2,3,4,6,7,8-HxCDF Solution O



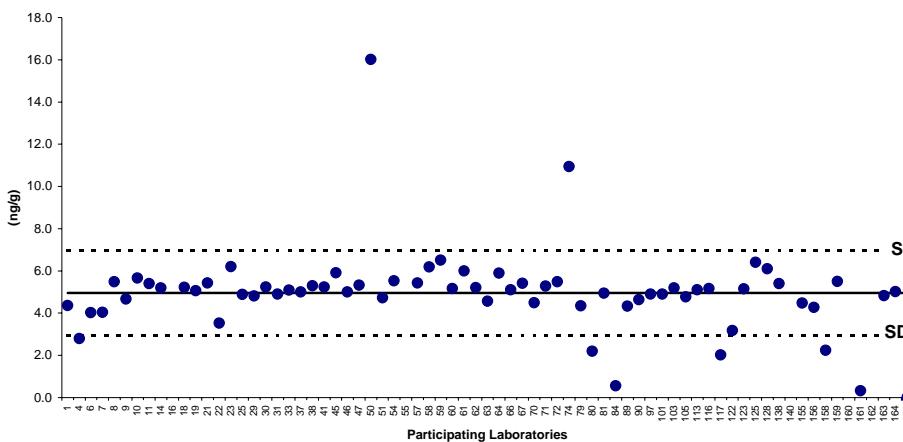
1,2,3,4,6,7,8-HpCDF Solution O



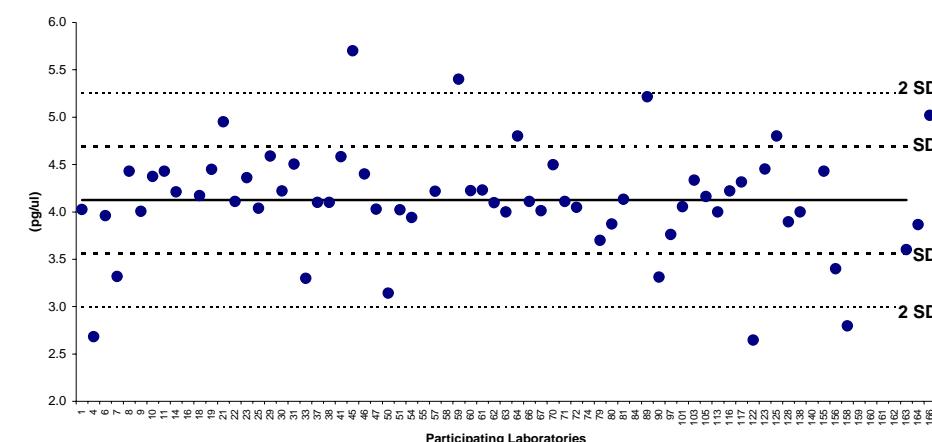
1,2,3,4,7,8,9-HpCDF Solution O



OCDF Solution O



TEQ Solution O (RSD 14 %, n = 63)



	Part 33	Part 34	Part 37	Part 57	Part 65	Part 66	Part 67	Part 81	Part 90	Part 99	Part 106	Part 110	Mean	RSD	%RSD
	1	2	3	4	5	6	7	8	9	10	11	12			
2,3,7-TrBrDD	NA	NA	NA	NA	NA	0.11	0.069	0.17	NA	NA	0.062	NA	0.10	0.05	48%
2,3,7,8-TeBrDD	0.57	ND	0.035	0.14	0.27	0.21	< 0.095	0.13	0.10	0.05	0.30	0.21	0.20	0.16	77%
1,2,3,7,8-PeBrDD	1.14	0.98	0.60	0.33	0.34	0.48	0.62	0.58	0.10	0.63	0.19	0.33	0.53	0.30	58%
1,2,3,4,7,8-HxBrDD**	NA	1.01	1.8	0.88	0.69	1.1	0.73	1.2	0.71	0.89	1.1	1.9	1.09	0.41	38%
1,2,3,6,7,8-HxBrDD**	NA	1.01	1.8	0.88	0.69	1.1	0.73	1.2	0.71	0.89	1.1	1.9	1.09	0.41	38%
1,2,3,7,8,9-HxBrDD	NA	ND	0.49	0.56	0.15	0.69	0.47	0.85	0.46	0.73	1.2	0.52	0.61	0.28	46%
2,3,7,8-TeBrDF	7.13	3.40	0.91	2.02	2.39	5.0	1.32	0.8	1.3	0.49	1.9	3.3	2.50	1.96	78%
1,2,3,7,8-PeBrDF	12.21	1.27	1.0	1.78	2.11	3.9	1.23	2.8	3.3	1.95	2.1	2.8	3.04	3.02	99%
2,3,4,7,8-PeBrDF	22.52	4.35	3.4	4.75	2.01	3.7	3.26	3.3	2.4	4.69	2.6	3.5	5.04	5.57	111%
1,2,3,4,7,8-HxBrDF	NA	27.03	15	NA	21.6	30	29.2	29	8.6	33.6	NA	32	25.1	8.41	33%
1,2,3,6,7,8-HxBrDF	0.068	NA	4.0	NA	NA	NA	2.03	2.78	137%						
1,2,3,7,8,9-HxBrDF	0.054	NA	NA	NA	NA	NA	< 0.10	NA	0.6	NA	NA	NA	0.33	0.39	118%
2,3,4,6,7,8-HxBrDF	0.090	NA	NA	NA	NA	NA	0.54	NA	3.5	NA	NA	NA	1.38	1.85	135%
1,2,3,4,6,7,8-HpBrDF	NA	NA	220	NA	191.9	150	117	170	84	161	NA	NA	156	45.4	29%
Total TriBrDD	NA	NA	NA	NA	NA	0.38	0.28	0.65	NA	NA	0.20	NA	0.38	0.20	52%
Total TeBrDD	ND	NA	1.2	NA	NA	1.5	1.39	1.8	1.25	NA	1.4	NA	1.42	0.21	15%
Total PeBrDD	10.6	NA	4.5	NA	NA	4.0	4.62	3.6	1.34	NA	1.8	NA	4.35	3.05	70%
Total HxBrDD	NA	NA	16	NA	NA	10	7.59	12	8.1	NA	27	NA	13.4	7.31	54%
Total TriBrDF	NA	NA	NA	NA	NA	29	23	17	NA	NA	19	NA	22	5	24%
Total TeBrDF	NA	NA	47	NA	NA	65	59	67	24.4	NA	25	NA	48	19	40%
Total PeBrDF	1141	NA	110	NA	NA	130	102	180	123	NA	130	NA	274	383	140%
Total HxBrDF	NA	NA	250	NA	NA	250	181	270	109	NA	320	NA	230	74	32%
2-Br-7,8-CIDD	NA	ND	NA	NA	0.022	N.D.	< 0.004	0.0061	NA	NA	< 0.002	NA	0.01	0.01	80%
2-Br-3,7,8-CIDD	ND	ND	ND	NA	0.018	N.D.	< 0.004	0.0066	NA	NA	< 0.01	NA	0.01	0.01	66%
2,3-Br-7,8-CIDD	0.007	ND	0.0036	NA	0.28	N.D.	< 0.004	0.0059	NA	NA	0.017	NA	0.06	0.12	194%
2-Br-1,3,7,8-CIDD	0.070	ND	NA	NA	NA	N.D.	< 0.004	< 0.0002	NA	NA	< 0.02	NA	0.07	NA	NA
2-Br-7,8-CIDF	NA	ND	NA	NA	0.28	0.01	0.033	0.038	NA	NA	0.033	NA	0.08	0.11	143%
2-Br-6,7,8-CIDF	0.098	0.114	NA	NA	0.19	0.036	0.028	0.068	NA	NA	< 0.01	NA	0.09	0.06	68%
Total TriBrCIDD	NA	NA	ND	NA	NA	N.D.	4.79	0.15	NA	NA	< 0.3	NA	2.47	3.28	133%
Total TeBrCIDD	0.46	NA	ND	NA	NA	0.032	NA	0.096	NA	NA	0.24	NA	0.21	0.19	92%
Total PeBrCIDD	0.29	NA	0.12	NA	NA	0.091	NA	0.10	NA	NA	0.251	NA	0.17	0.09	54%
Total TriBrCIDF	NA	NA	0.18	NA	NA	0.34	NA	1.7	NA	NA	3.8	NA	1.51	1.68	111%
Total TeBrCIDF	2.19	NA	0.32	NA	NA	0.45	NA	3.4	NA	NA	10.3	NA	3.33	4.10	123%
Total PeBrCIDF	0.16	NA	0.89	NA	NA	0.38	NA	6.6	NA	NA	7.59	NA	3.12	3.65	117%

** Problems with co-elution

Italic optional

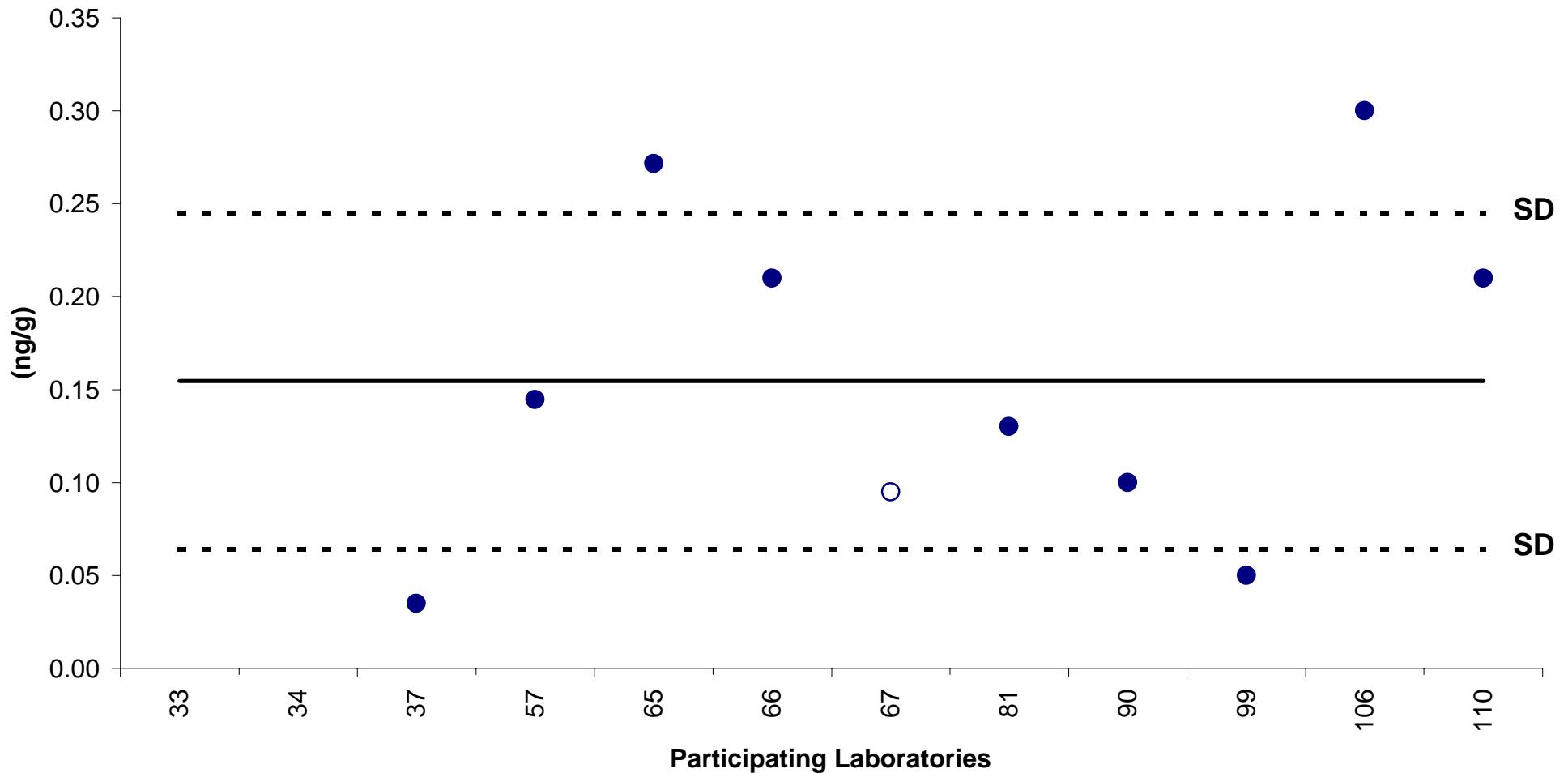
all values in ng/g or pg/ul

ND: not detected < than value expected

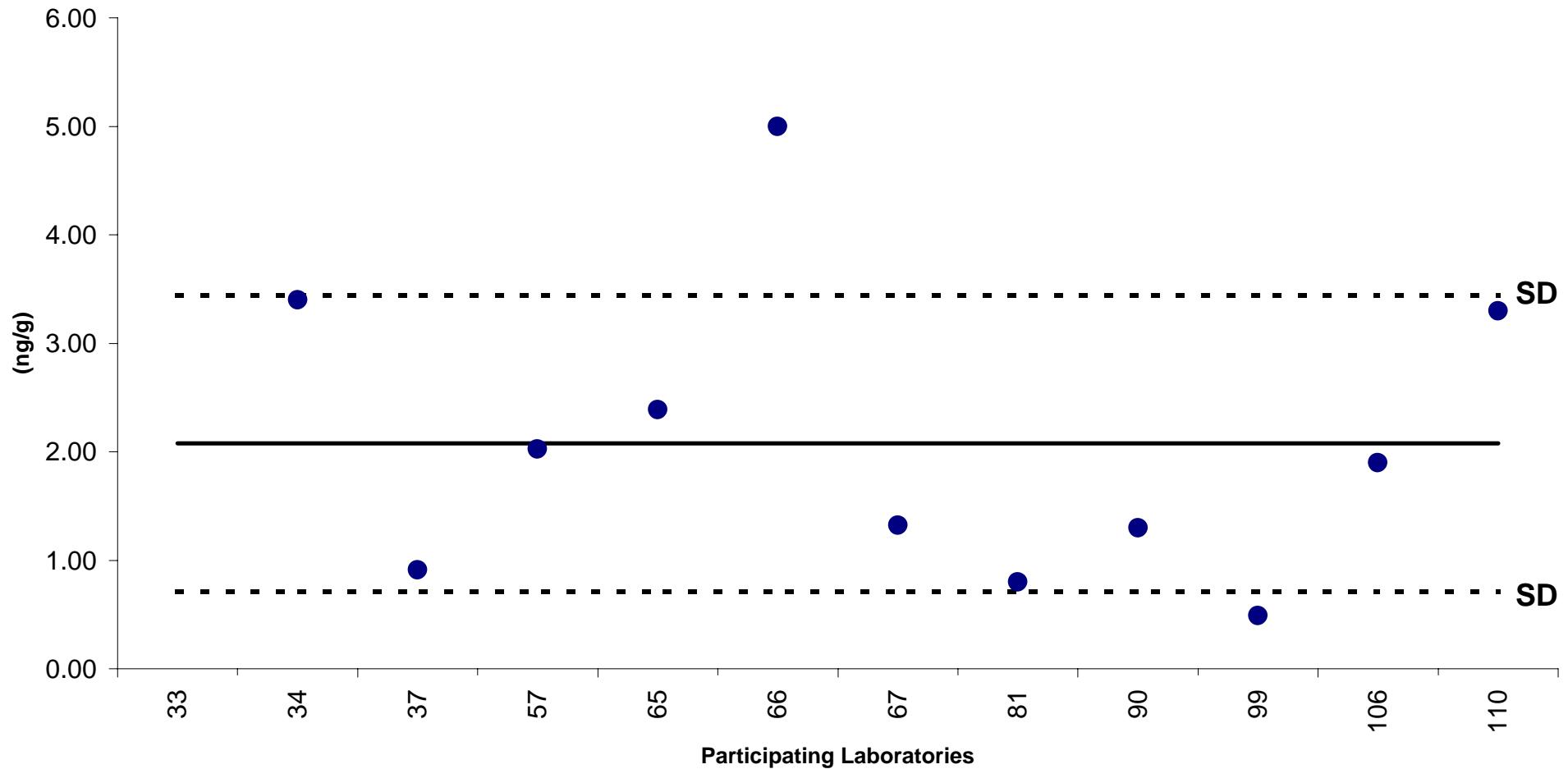
NA: not analyzed

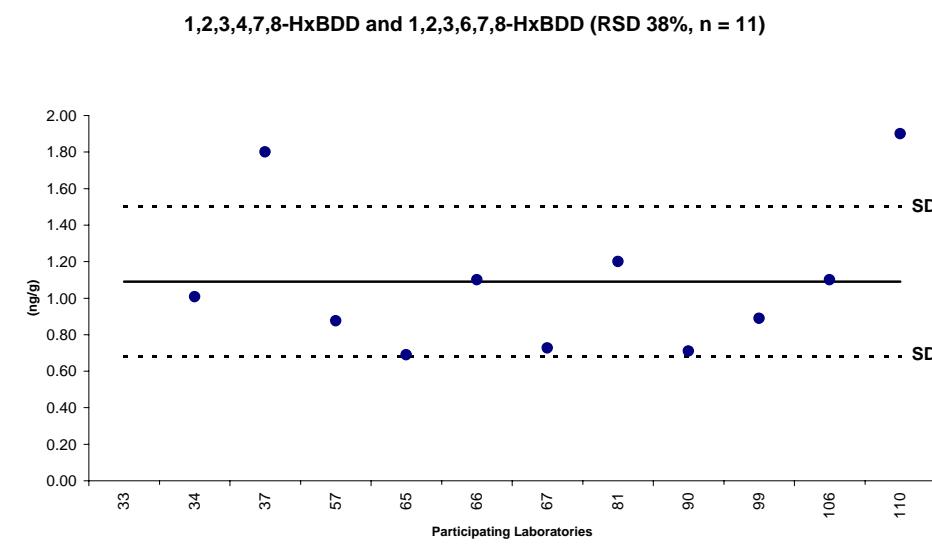
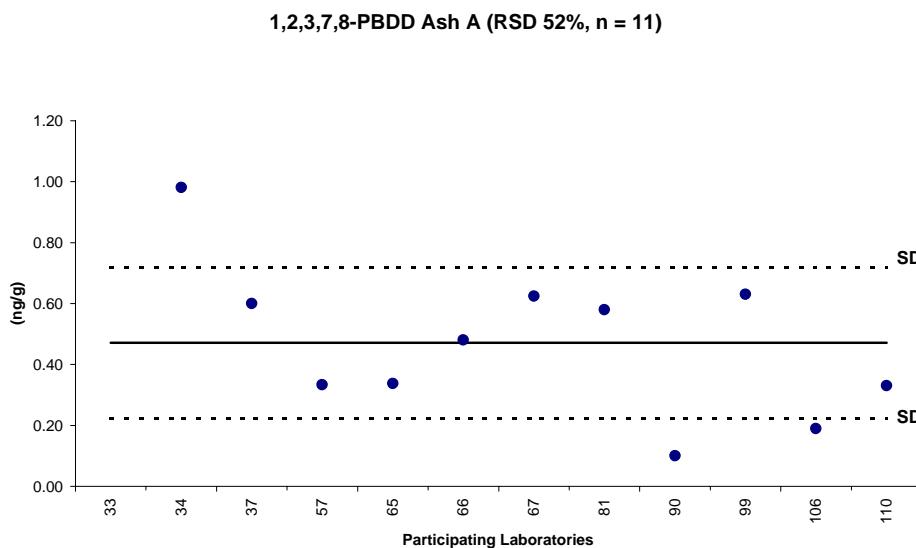
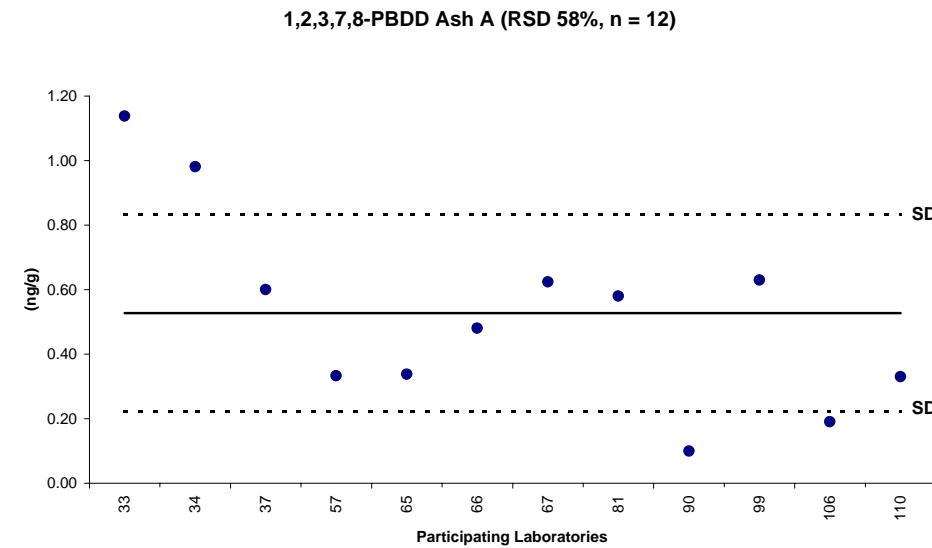
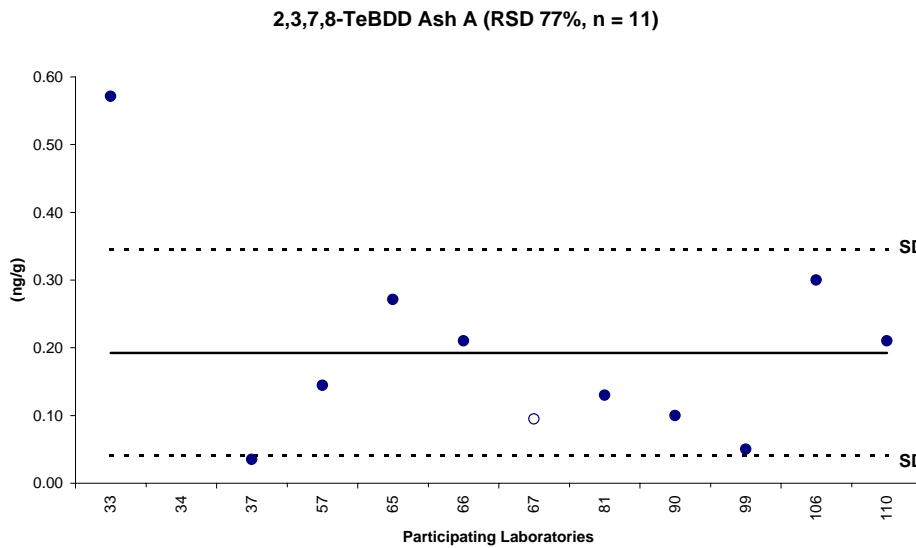
Ash A

2,3,7,8-TeBDD Ash A (RSD 58%, n = 10)

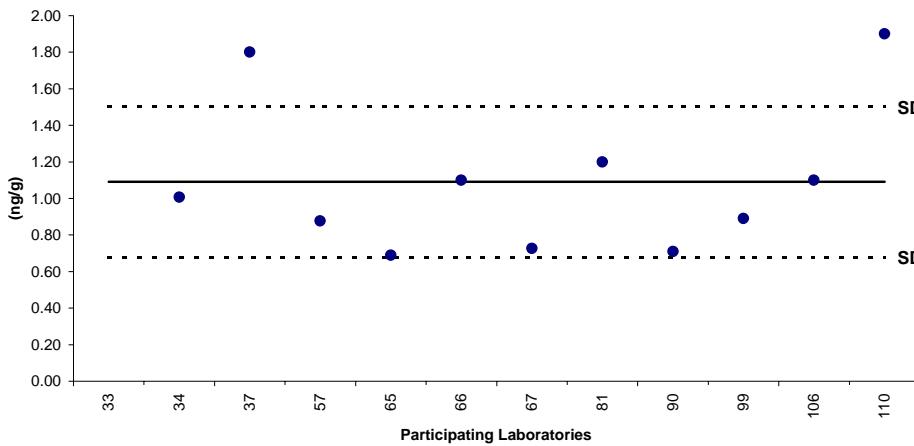


2,3,7,8-TeBDF Ash A (RSD 66%, n = 11)

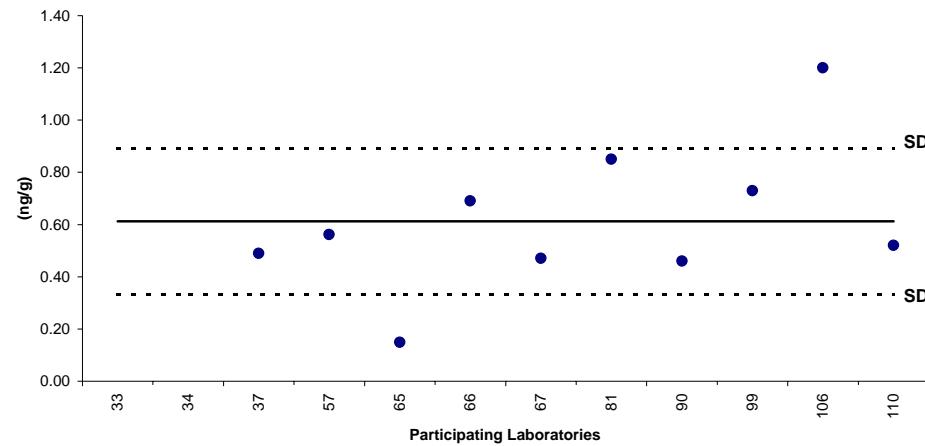




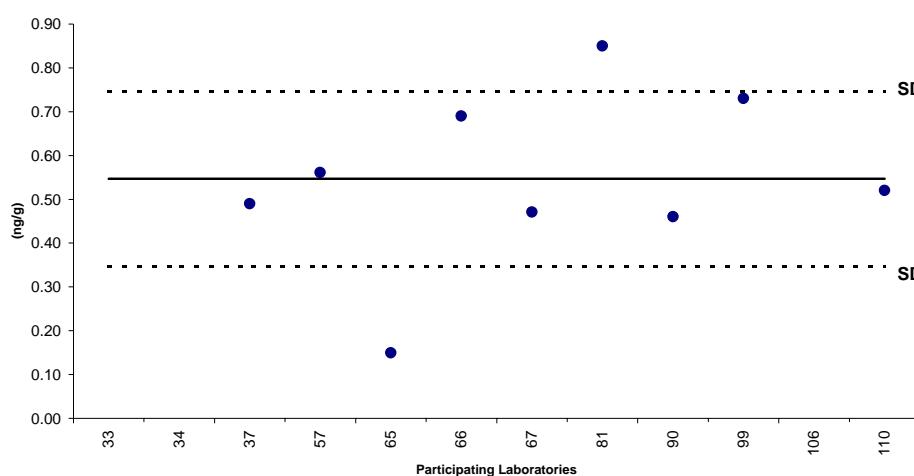
1,2,3,4,7,8-HxBDD and 1,2,3,6,7,8-HxBDD (RSD 38%, n = 11)



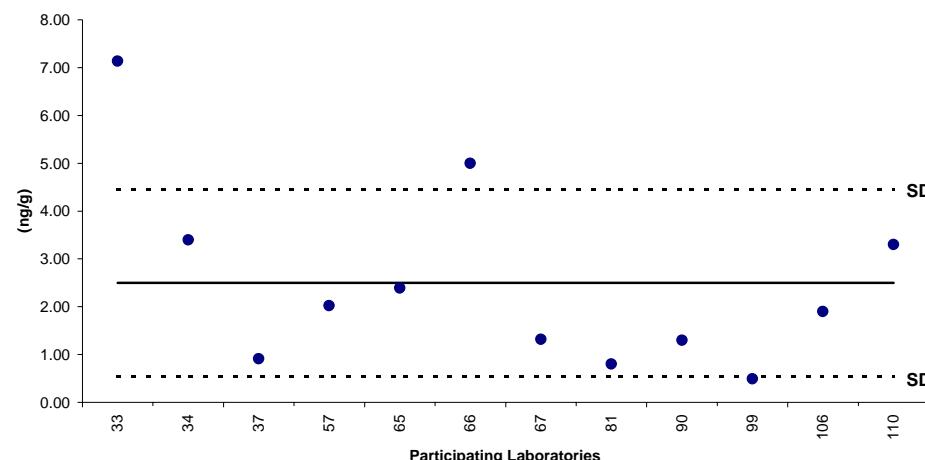
1,2,3,7,8,9-HxBDD Ash A (RSD 46%, n = 10)



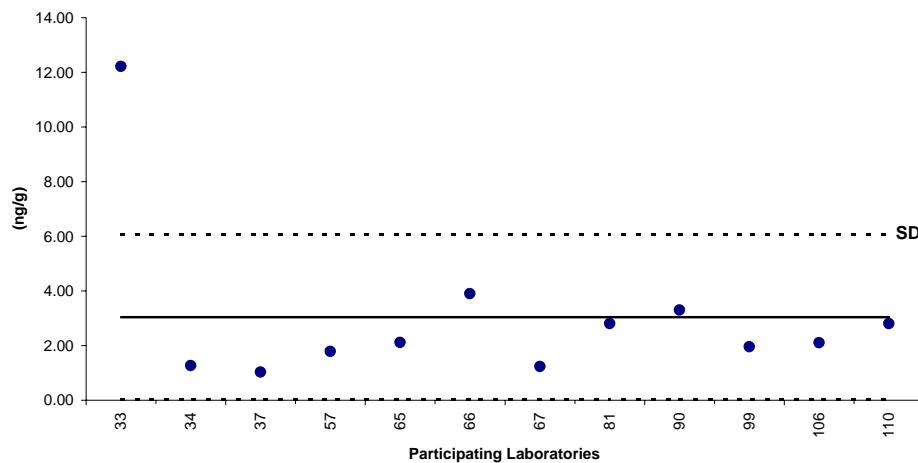
1,2,3,7,8,9-HxBDD Ash A (RSD 37%, n = 9)



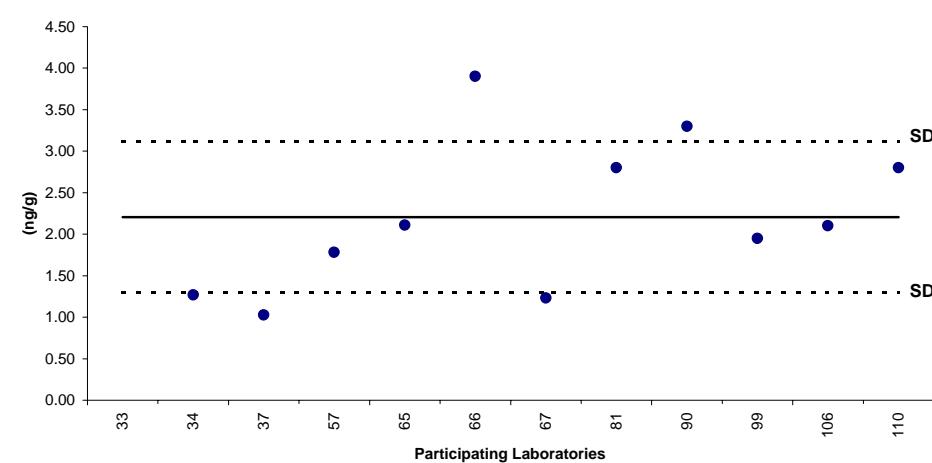
2,3,7,8-TeBDF Ash A (RSD 78%, n = 12)



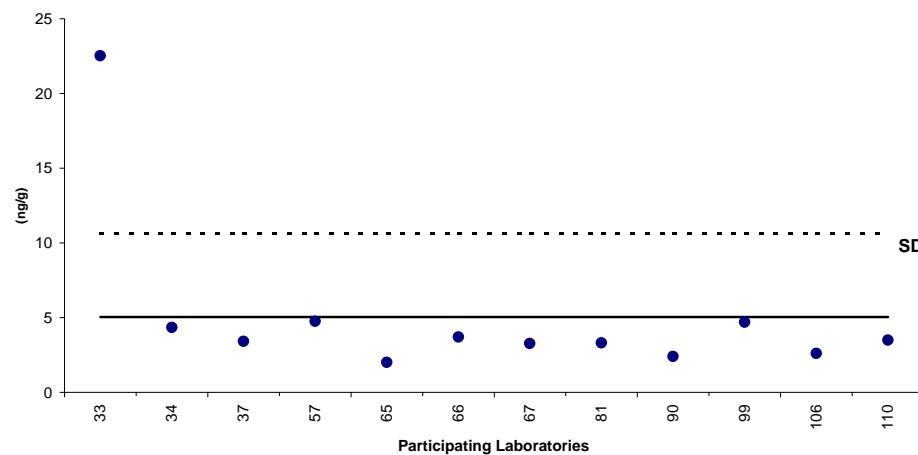
1,2,3,7,8-PBDF Ash A (RSD 99%, n = 12)



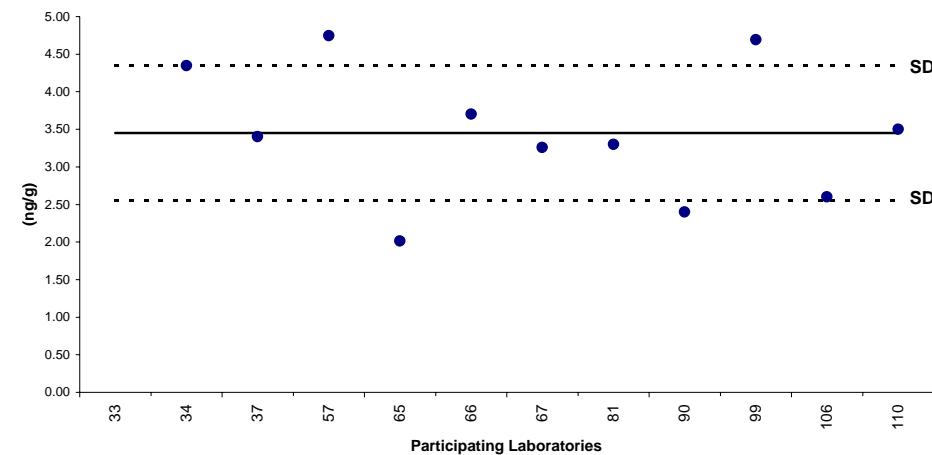
1,2,3,7,8-PBDF Ash A (RSD 41%, n = 11)



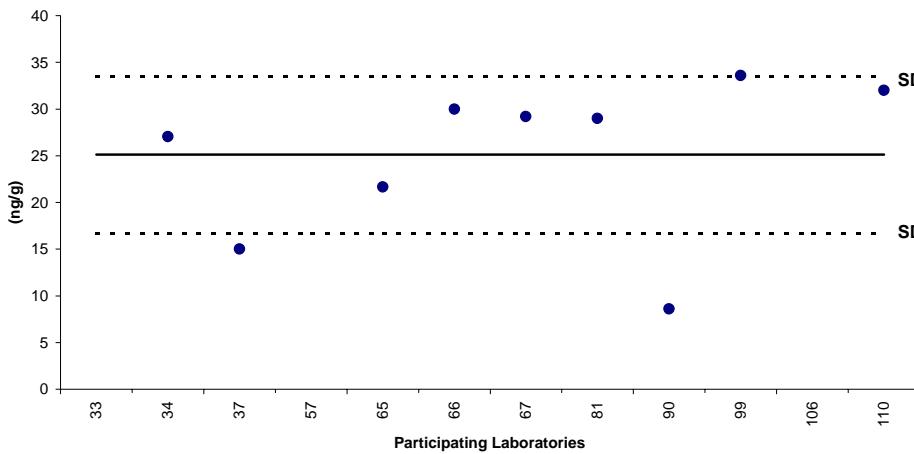
2,3,4,7,8,9-PBDF Ash A (RSD 111%, n = 12)



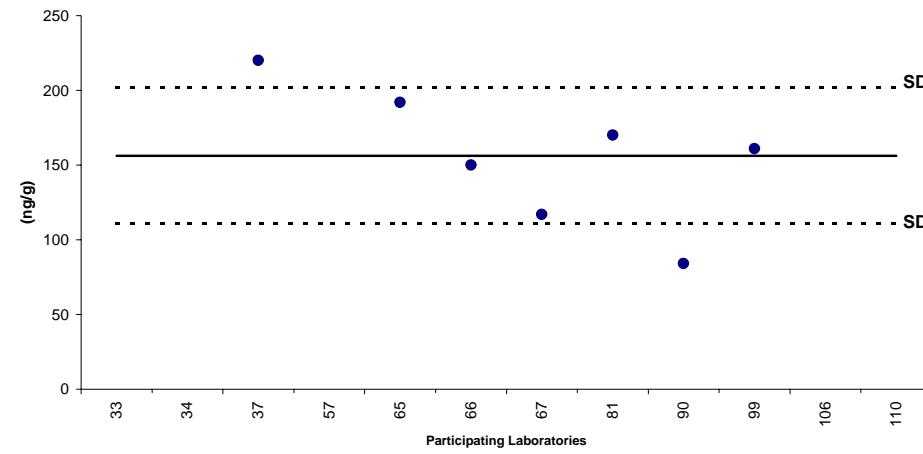
2,3,4,7,8,9-PBDF Ash A (RSD 26%, n = 11)



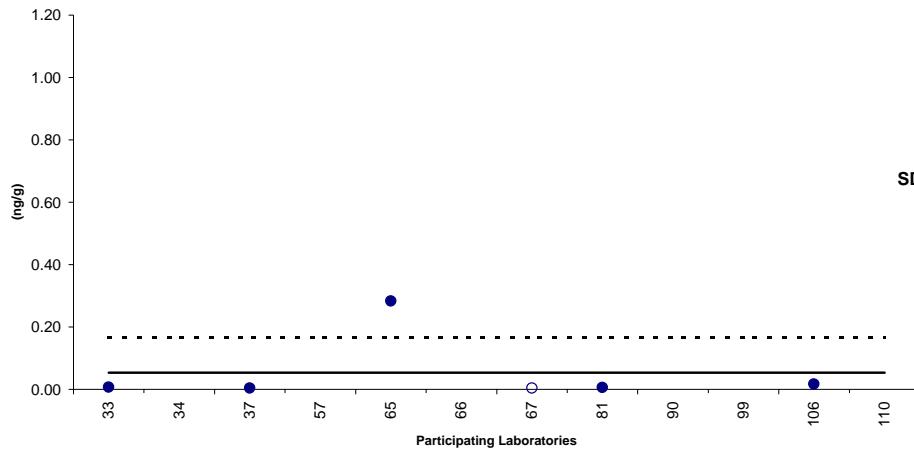
1,2,3,4,7,8-HxBDF Ash A (RSD 33%, n = 9)



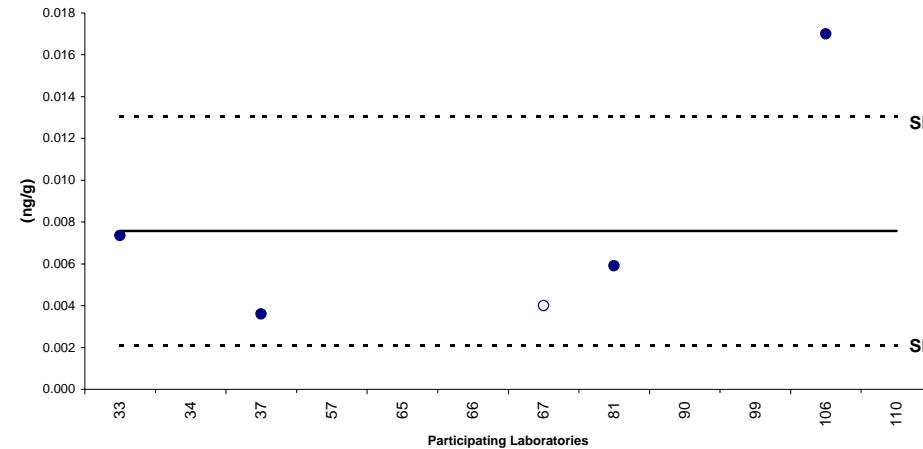
1,2,3,4,6,7,8-HpBDF (RSD 29%, n = 7)



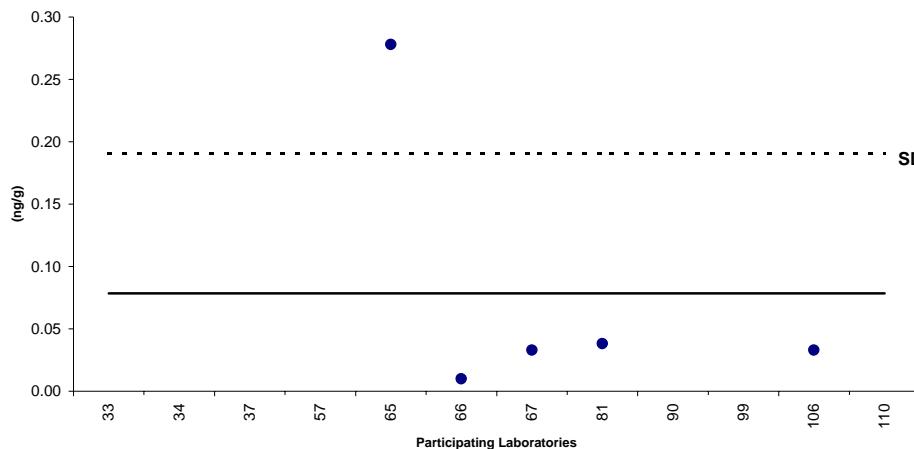
2,3-Br-7,8-CIDD Ash A (RSD 210%, n = 6)



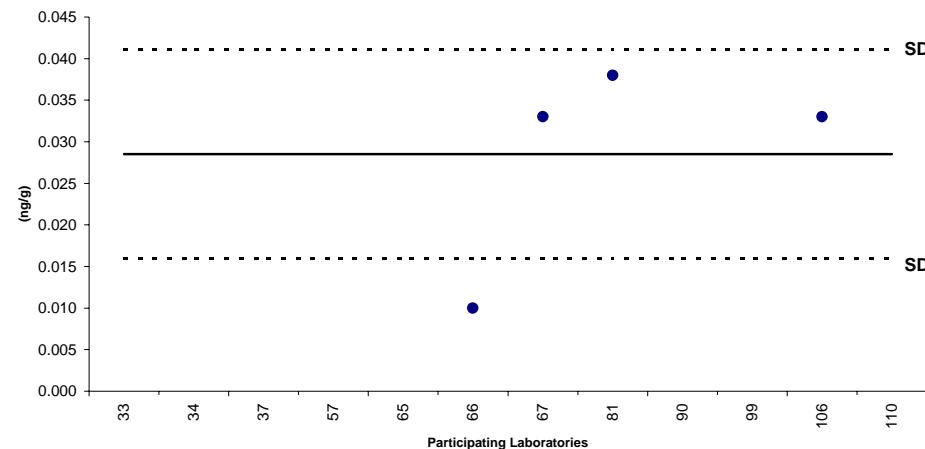
2,3-Br-7,8-CIDD Ash A (RSD 72%, n = 5)



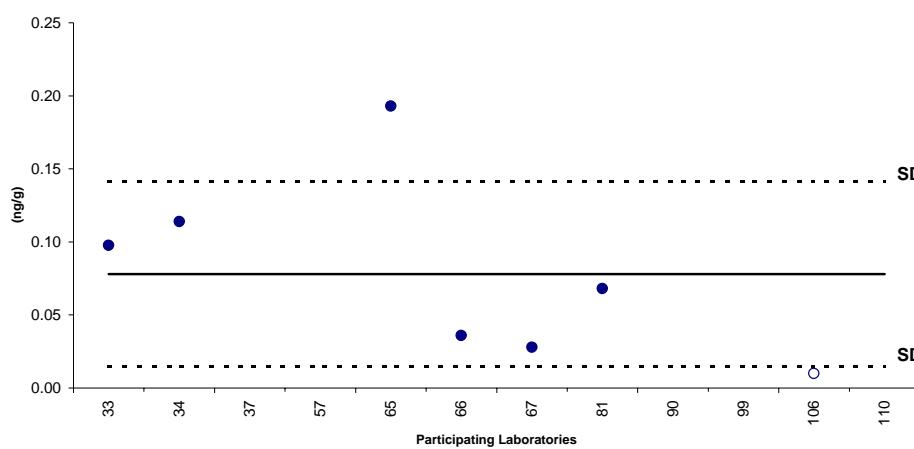
2-Br-7,8-CIDF (RSD 143%, n = 5)



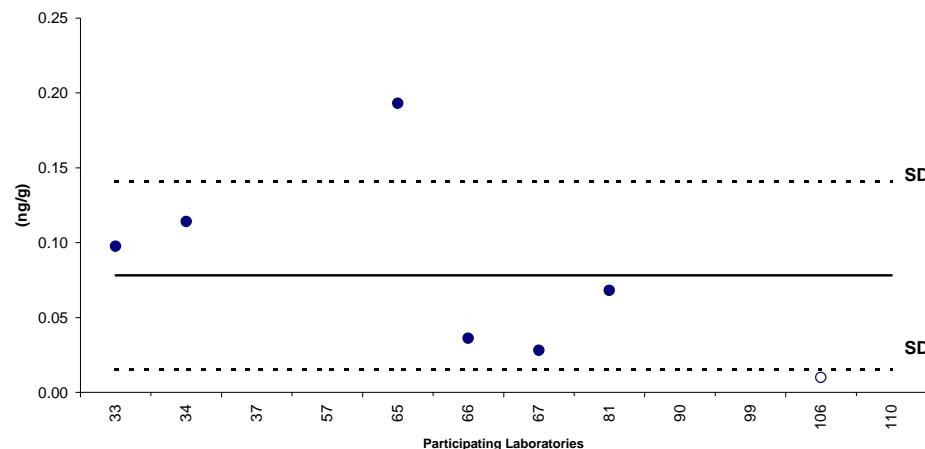
2-Br-7,8-CIDF (RSD 44%, n = 4)



2-Br-6,7,8-CIDF (68%, n = 7)



2-Br-6,7,8-CIDF (39%, n = 6)



	Part 33	Part 34	Part 37	Part 57	Part 65	Part 66	Part 67	Part 81	Part 90	Part 99	Part 106	Part 110			
	1	2	3	4	5	6	7	8	9	10	11	12	Mean	RSD	%RSD
2,3,7-TrBrDD	NA	NA	NA	NA	NA	ND	0.047	0.0002	NA	NA	< 0.001	NA	0.02	0.03	140%
2,3,7,8-TeBrDD	ND	ND	ND	0.00009	0.0047	ND	< 0.001	<0.0003	0.0002	NA	< 0.001	0.00019	0.00	0.00	175%
1,2,3,7,8-PeBrDD	NA	ND	ND	0.00069	0.22	ND	< 0.010	<0.0003	ND	NA	< 0.001	ND	0.11	0.15	141%
1,2,3,4,7,8-HxBrDD**	NA	ND	ND	0.00154	0.013	ND	< 0.010	<0.0007	0.0068	NA	< 0.003	ND	0.01	0.01	81%
1,2,3,6,7,8-HxBrDD**	NA	ND	ND	0.00154	0.013	ND	< 0.011	<0.0008	0.0068	NA	< 0.003	ND	0.01	0.01	81%
1,2,3,7,8,9-HxBrDD	NA	ND	ND	0.00085	0.0027	ND	< 0.010	<0.0007	0.003	NA	< 0.006	ND	0.00	0.00	53%
2,3,7,8-TeBrDF	0.04	ND	ND	0.00011	0.0069	ND	0.447	<0.0005	0.0016	NA	< 0.001	0.0065	0.08	0.18	216%
1,2,3,7,8-PeBrDF	ND	ND	ND	0.00039	0.0026	ND	0.077	<0.0005	0.045	NA	< 0.001	ND	0.03	0.04	118%
2,3,4,7,8-PeBrDF	ND	ND	ND	0.00055	0.011	ND	0.027	0.001	0.01	NA	< 0.001	ND	0.01	0.01	107%
1,2,3,4,7,8-HxBrDF	NA	ND	ND	NA	0.018	ND	< 0.012	<0.002	ND	NA	< 0.003	ND	0.02	NA	NA
1,2,3,6,7,8-HxBrDF	0.56	NA	ND	NA	NA	NA	0.56	NA	NA						
1,2,3,7,8,9-HxBrDF	0.42	NA	NA	NA	NA	NA	< 0.012	NA	ND	NA	NA	NA	0.42	NA	NA
2,3,4,6,7,8-HxBrDF	1.01	NA	NA	NA	NA	NA	< 0.012	NA	ND	NA	NA	NA	1.01	NA	NA
1,2,3,4,6,7,8-HpBrDF	NA	NA	ND	NA	0.082	ND	< 0.009	<0.005	0.0162	NA	NA	NA	0.05	0.05	95%
Total TriBrDD	NA	NA	NA	NA	NA	0.066	0.062	0.0012	NA	NA	ND	NA	0.04	0.04	84%
Total TeBrDD	0.02	NA	ND	NA	NA	0.01	0.014	0.0077	0.005	NA	ND	NA	0.01	0.01	62%
Total PeBrDD	ND	NA	ND	NA	NA	ND	< 0.010	<0.0005	0.004	NA	ND	NA	0.004	NA	NA
Total HxBrDD	NA	NA	ND	NA	NA	ND	< 0.010	<0.0007	0.005	NA	ND	NA	0.005	NA	NA
Total TriBrDF	NA	NA	NA	NA	NA	0.12	0.498	0.002	NA	NA	ND	NA	0.21	0.26	125%
Total TeBrDF	65	NA	ND	NA	NA	ND	0.806	<0.0005	0.0215	NA	ND	NA	22	37	170%
Total PeBrDF	24	NA	ND	NA	NA	ND	0.151	0.002	0.12	NA	ND	NA	6.1	12	197%
Total HxBrDF	NA	NA	ND	NA	NA	ND	< 0.012	0.003	0.12	NA	ND	NA	0.06	0.08	135%
2-Br-7,8-CIDD	NA	ND	NA	NA	0.054	ND	< 0.018	0.0045	NA	NA	< 0.02	NA	0.03	0.04	120%
2-Br-3,7,8-CIDD	ND	ND	0.032	NA	NA	ND	< 0.022	0.071	NA	NA	0.079	NA	0.06	0.03	41%
2,3-Br-7,8-CIDD	0.01	ND	0.0030	NA	NA	ND	< 0.010	0.0042	NA	NA	0.038	NA	0.01	0.02	121%
2-Br-1,3,7,8-CIDD	0.02	ND	NA	NA	NA	ND	< 0.031	<0.00015	NA	NA	< 0.07	NA	0.02	NA	NA
2-Br-7,8-CIDF	NA	ND	NA	NA	0.83	0.02	0.072	0.030	NA	NA	0.035	NA	0.20	0.35	179%
2-Br-6,7,8-CIDF	0.08	ND	NA	NA	0.40	0.031	0.036	0.076	NA	NA	0.036	NA	0.11	0.14	131%
Total TriBrCIDD	NA	NA	3.2	NA	NA	7.6	< 0.010	0.21	NA	NA	0.26	NA	2.82	3.48	124%
Total TeBrCIDD	1.5	NA	22	NA	NA	27	NA	5.1	NA	NA	17	NA	14.60	11	75%
Total PeBrCIDD	0.03	NA	690	NA	NA	370	NA	25	NA	NA	27	NA	222	303	136%
Total TriBrCIDF	NA	NA	0.36	NA	NA	0.85	NA	0.59	NA	NA	0.63	NA	0.61	0.20	33%
Total TeBrCIDF	130	NA	0.56	NA	NA	0.83	NA	0.40	NA	NA	9.5	NA	28	57	202%
Total PeBrCIDF	0.51	NA	1.5	NA	NA	1.1	NA	0.80	NA	NA	2.0	NA	1.19	0.60	50%

** Problems with co-elution

Italic optional

all values in ng/g or pg/ul

ND: not detected < than value expected

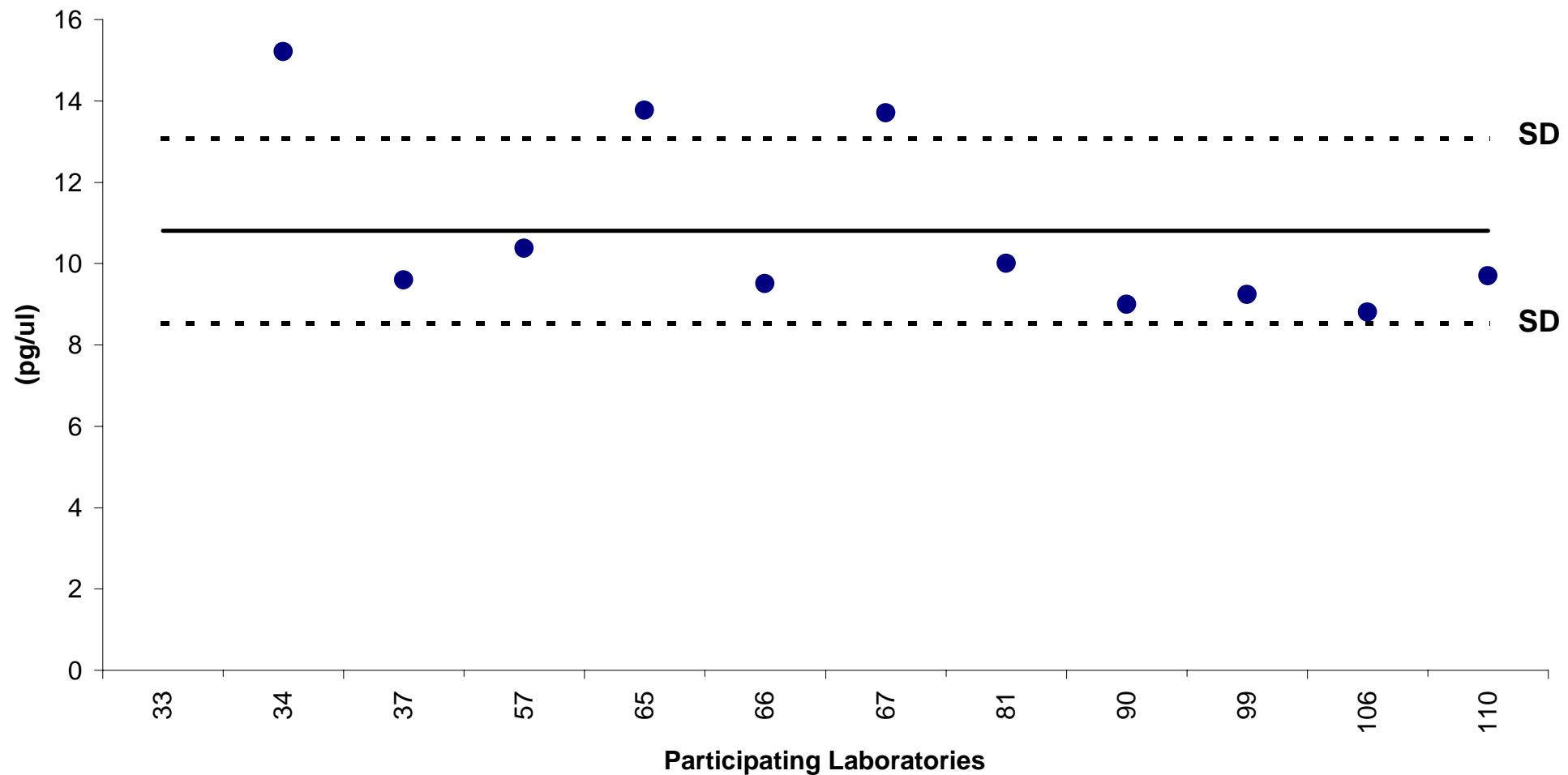
NA: not analyzed

	Part 33	Part 34	Part 37	Part 57	Part 65	Part 66	Part 67	Part 81	Part 90	Part 99	Part 106	Part 110	Mean	RSD	%RSD
	1	2	3	4	5	6	7	8	9	10	11	12			
2,3,7-TrBrDD	NA	NA	NA	NA	NA	ND	< 0.06	< 0.2	NA	NA	< 0.6	NA	ND	ND	ND
2,3,7,8-TeBrDD	36	15	10	10	14	10	14	10	9	9	9	10	13	8	59%
1,2,3,7,8-PeBrDD	234	51	50	78	84	51	61	50	50	62	29	55	71	53	74%
1,2,3,4,7,8-HxBrDD**	NA	485	510	334	989	500	505	490	513	382	540	710	542	175	32%
1,2,3,6,7,8-HxBrDD**	NA	485	510	334	989			490	513	382	540	710	550	195	35%
1,2,3,7,8,9-HxBrDD	NA	164	240	248	337	240	224	280	263	279	470	270	274	78	28%
2,3,7,8-TeBrDF	263	141	110	118	142	120	167	100	79	120	68	120	129	50	39%
1,2,3,7,8-PeBrDF	2105	533	510	558	548	470	531	530	528	567	540	550	664	455	68%
2,3,4,7,8-PeBrDF	2391	502	510	487	527	470	624	490	504	560	490	530	674	542	81%
1,2,3,4,7,8-HxBrDF	NA	353	400	NA	485	420	584	400	403	420	885	480	483	155	32%
1,2,3,4,6,7,8-HpBrDF	NA	NA	1000	NA	1423	930	1004	970	1050	1236	NA	NA	1088	178	16%
2-Br-7,8-CIDD	NA	9	NA	NA	36	9	15	9	NA	NA	8	NA	14	11	75%
2-Br-3,7,8-CIDD	4	9	10	NA	23	11	25	9	NA	NA	11	NA	13	7	57%
2,3-Br-7,8-CIDD	8	9	11	NA	89	10	11	9	NA	NA	15	NA	20	28	137%
2-Br-1,3,7,8-CIDD	41	52	NA	NA	21	52	68	53	NA	NA	36	NA	46	15	33%
2-Br-7,8-CIDF	NA	10	NA	NA	46	10	9	10	NA	NA	9	NA	16	15	98%
2-Br-6,7,8-CIDF	10	9	NA	NA	39	10	12	9	NA	NA	21	NA	16	11	71%

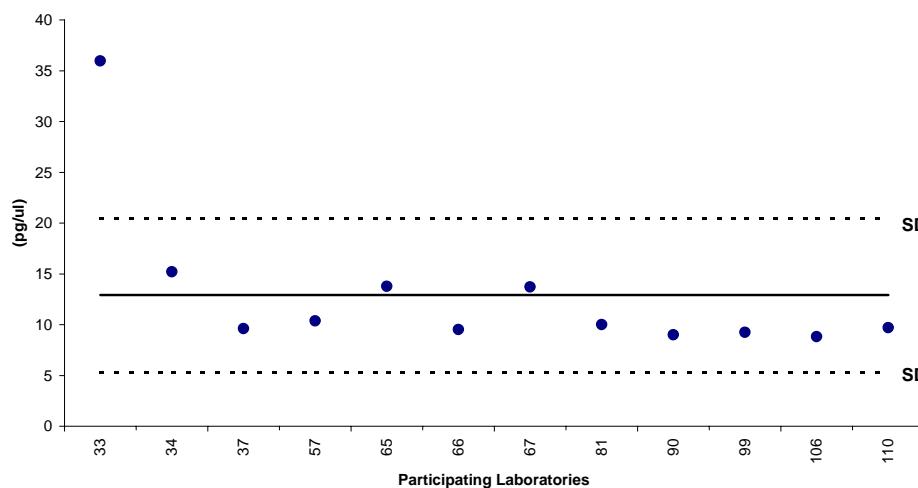
* Values in pg/ul

** Problems with co-elution

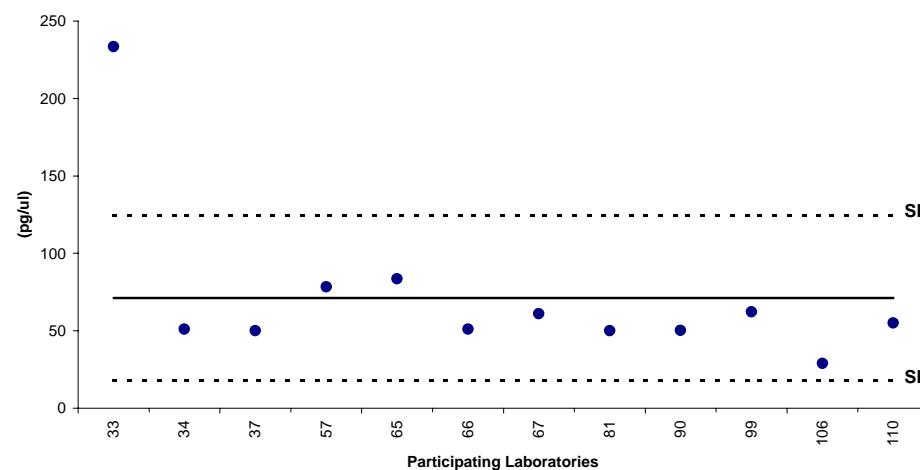
2,3,7,8-TeBDD Standard A (RSD 21%, n = 11)



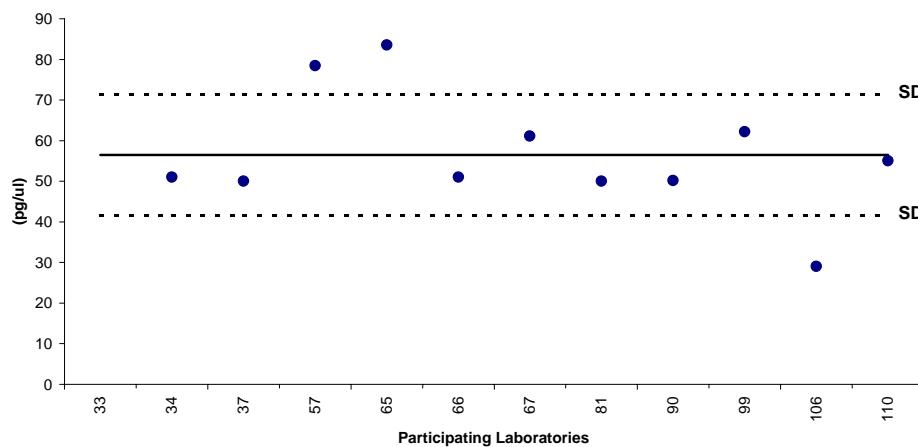
2,3,7,8-TeBDD Standard A (RSD 59%, n = 12)



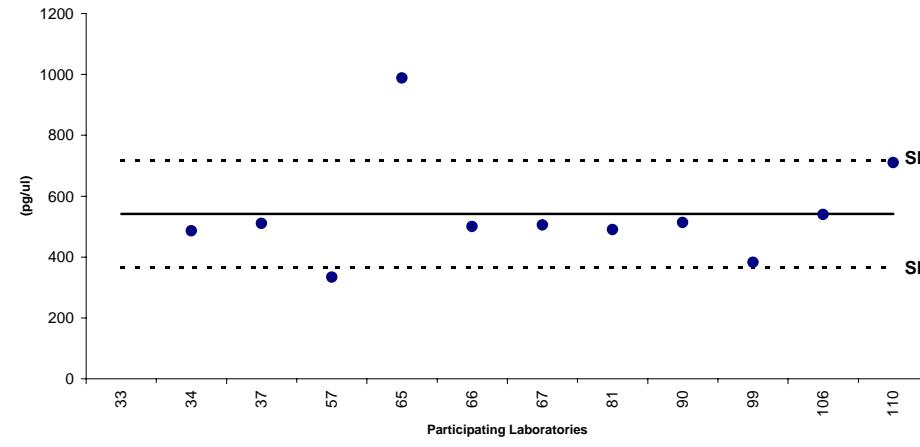
1,2,3,7,8-PBDD Standard A (RSD 74%, n = 12)



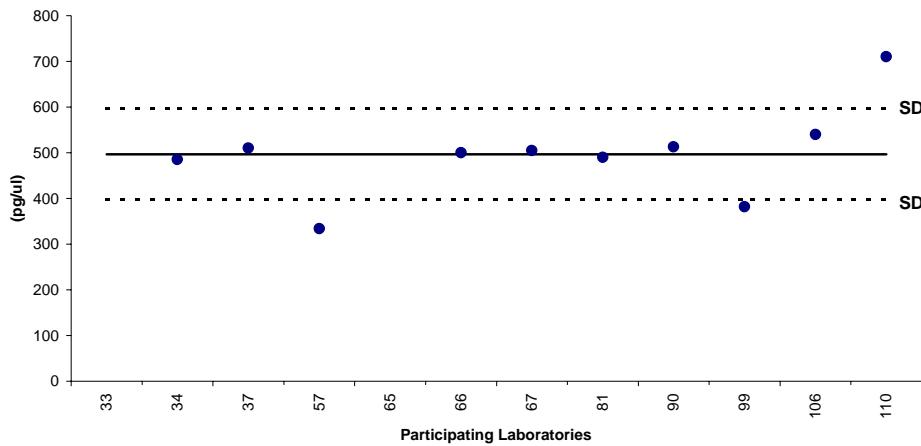
1,2,3,7,8-PBDD Standard A (RSD 26%, n = 10)



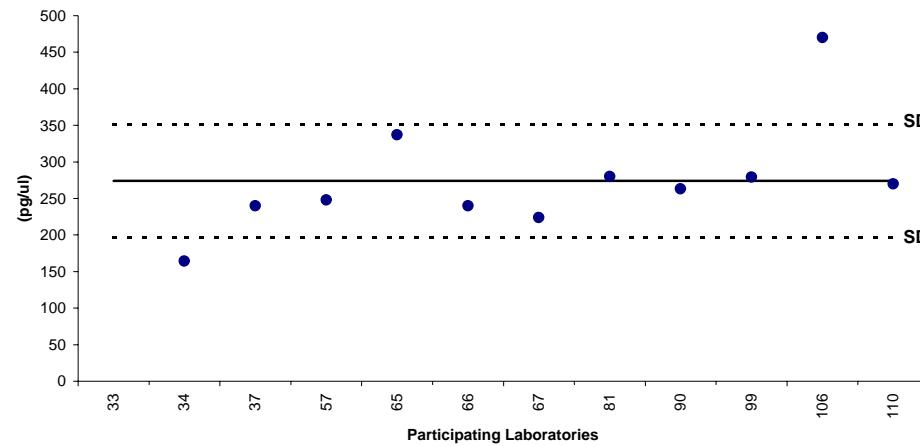
1,2,3,4,7,8-HxBDD and 1,2,3,6,7,8-HxBDD (RSD 32%, n = 11)



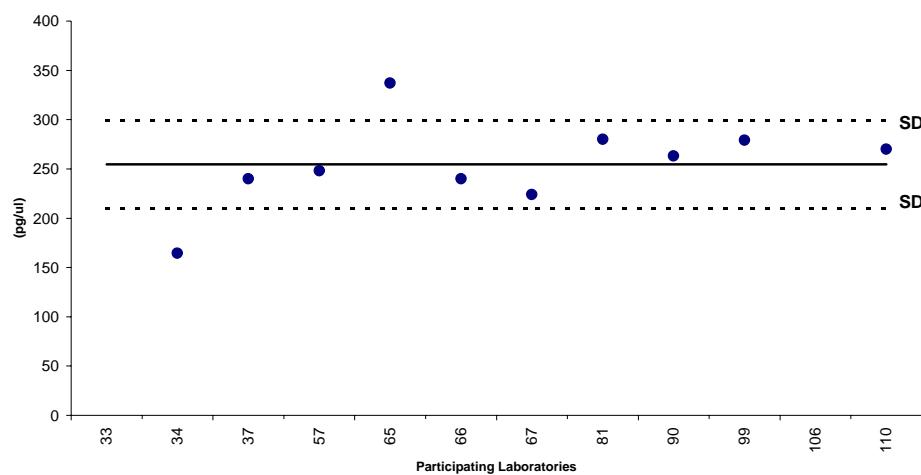
1,2,3,4,7,8-HxBDD and 1,2,3,6,7,8-HxBDD (RSD 20%, n = 10)



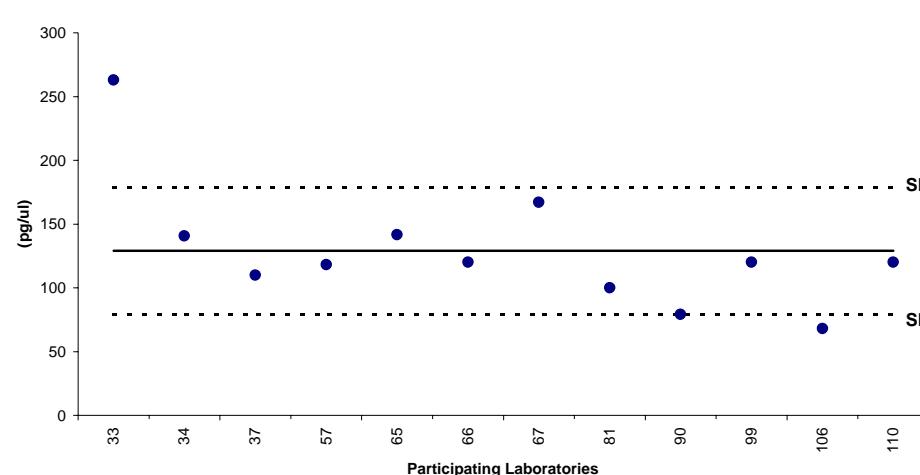
1,2,3,7,8,9-HxBDD (RSD 28%, n =11)



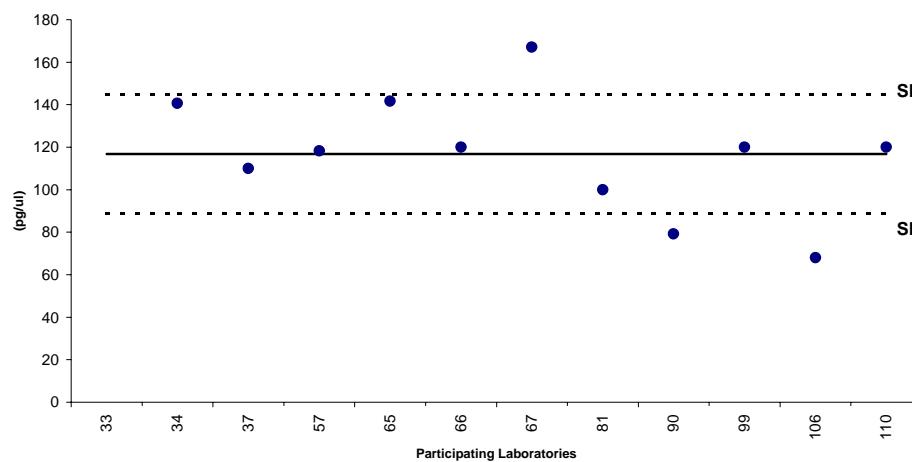
1,2,3,7,8,9-HxBDD (RSD 18%, n =10)



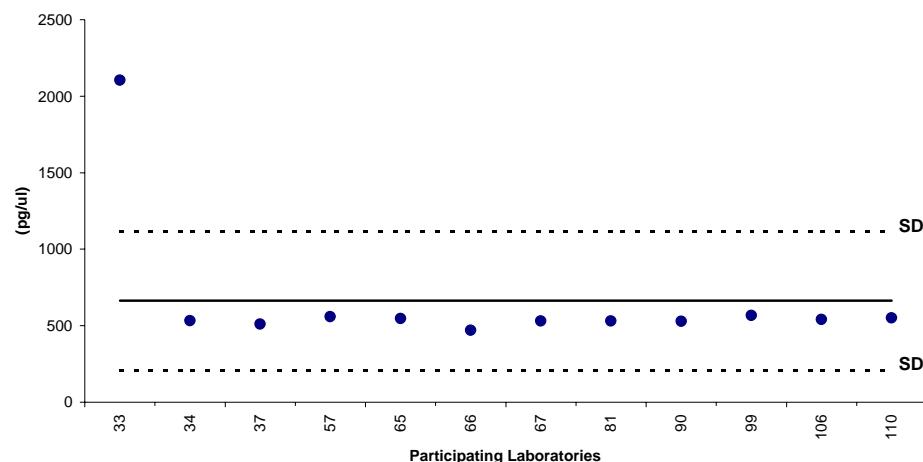
2,3,7,8-TeBDF Standard A (RSD 39%, n = 12)



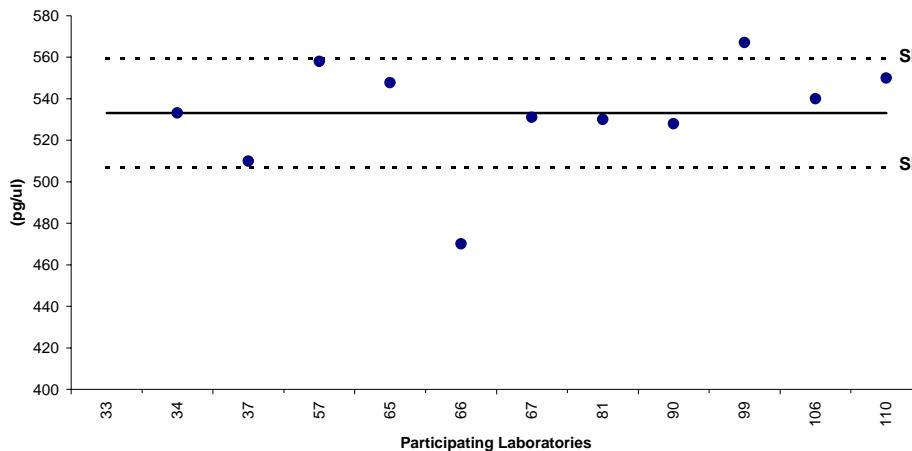
2,3,7,8-TeBDF Standard A (RSD 39%, n = 11)



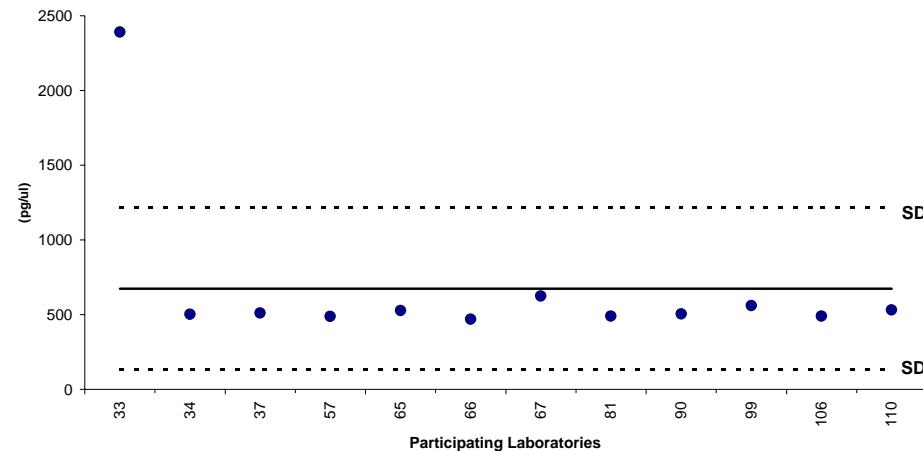
1,2,3,7,8-PCDF Standard A (RSD 68%, n = 12)



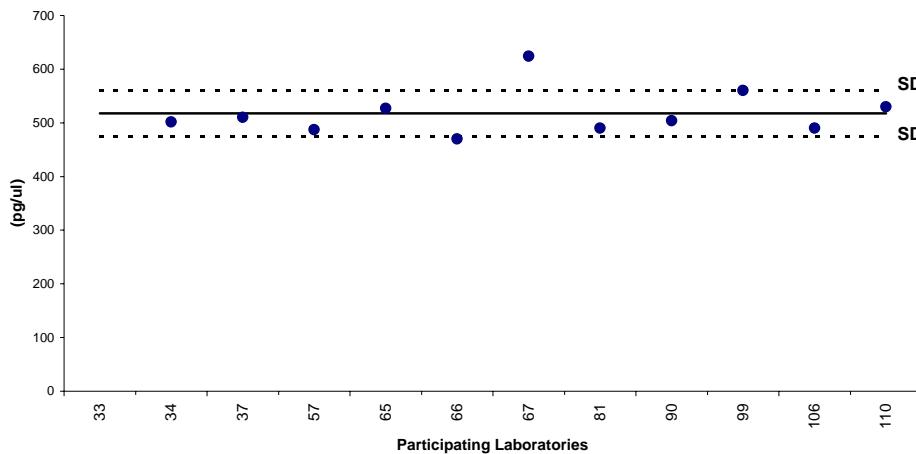
1,2,3,7,8-PCDF Standard A (RSD 5%, n = 11)



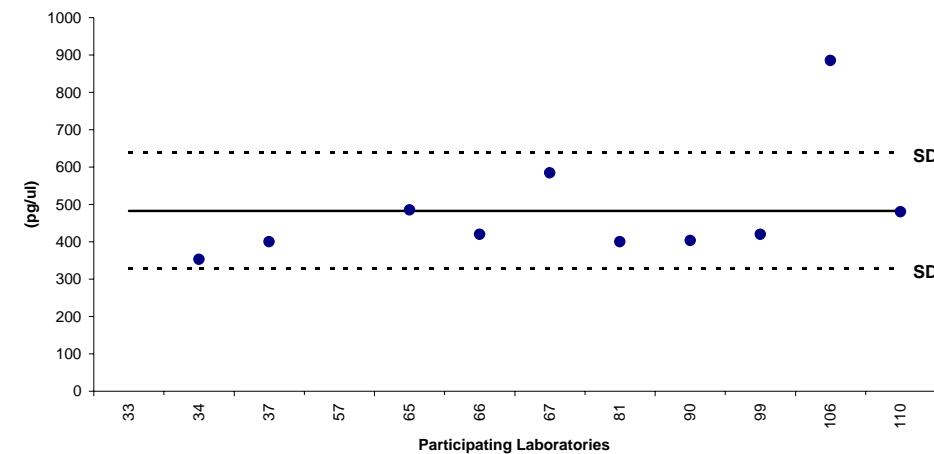
2,3,4,7,8,9-PCDF Standard A (RSD 81%, n = 12)



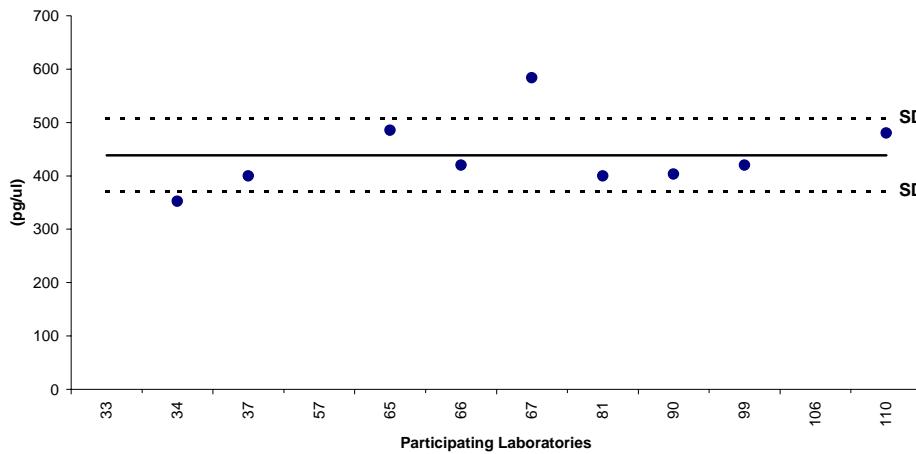
2,3,4,7,8,9-PCDF Standard A (RSD 8%, n = 11)



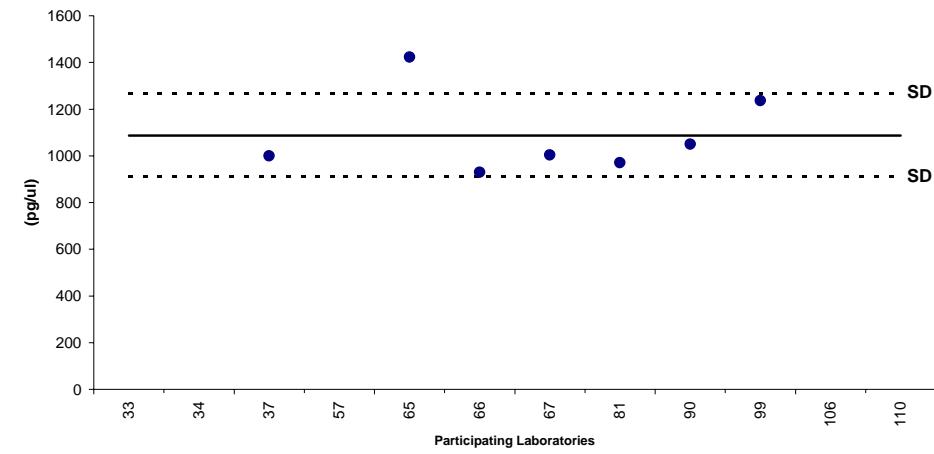
1,2,3,4,7,8-HxCDF Standard A (RSD 38%, n = 9)



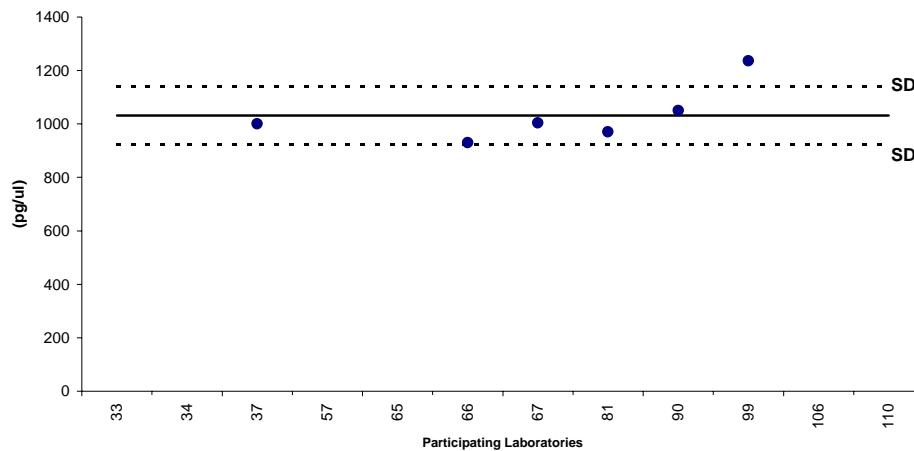
1,2,3,4,7,8-HxCDF Standard A (RSD 18%, n = 8)



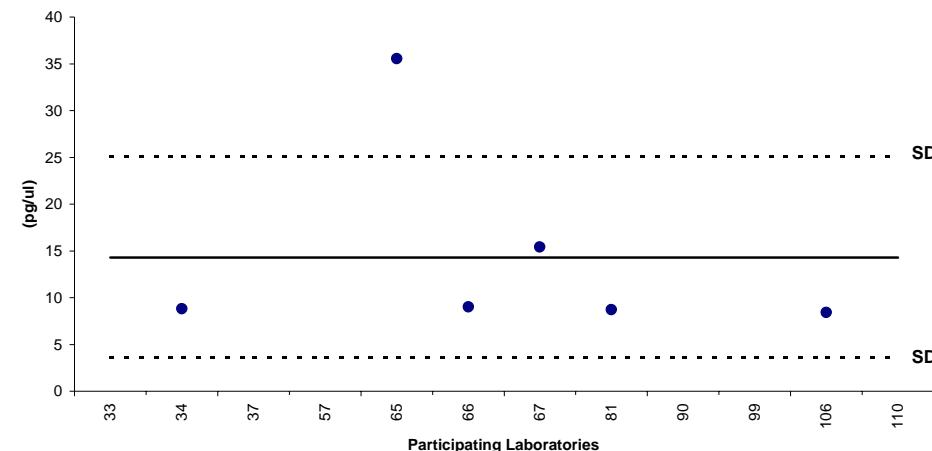
1,2,3,4,6,7,8-HpBDF



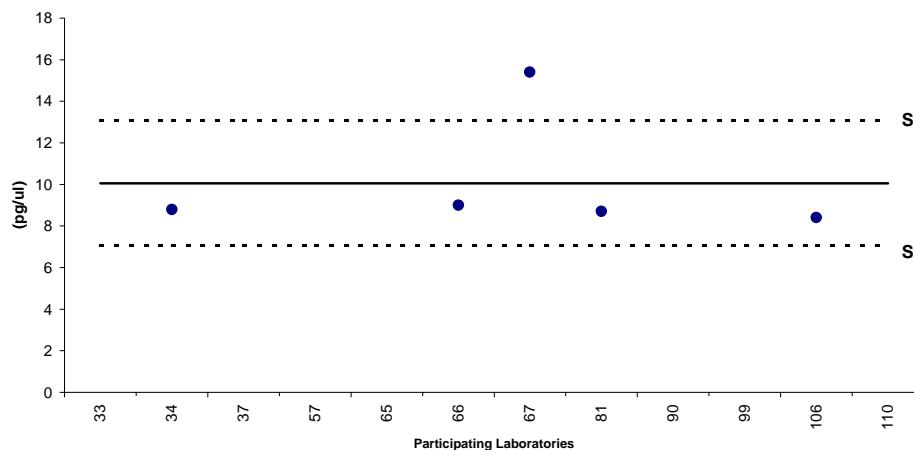
1,2,3,4,6,7,8-HpBDF



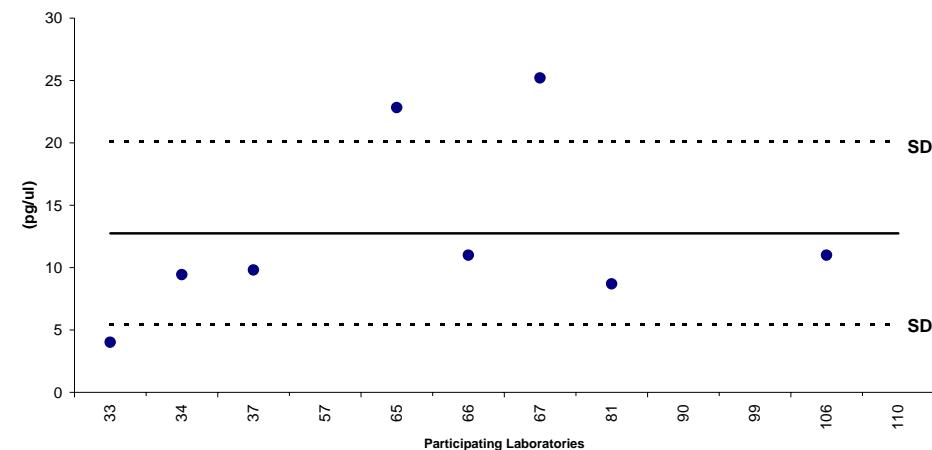
2-Br-7,8-CDD (RSD 75%, n = 6)



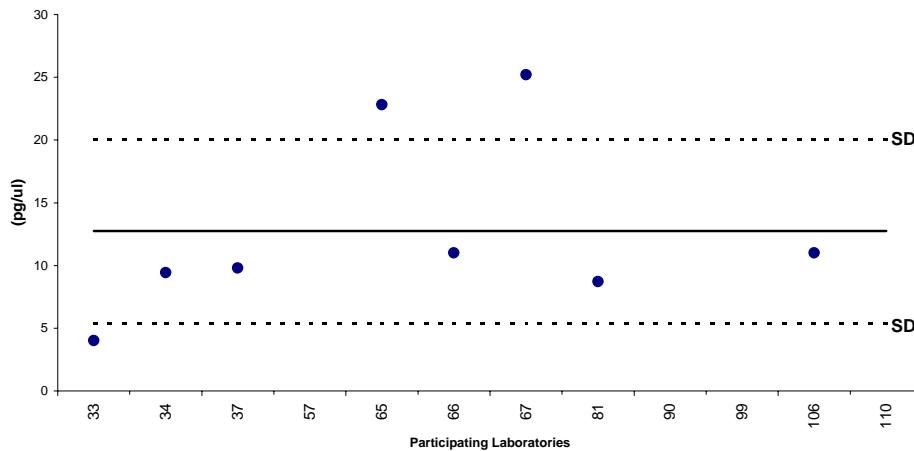
2-Br-7,8-CDD (RSD 30%, n = 5)



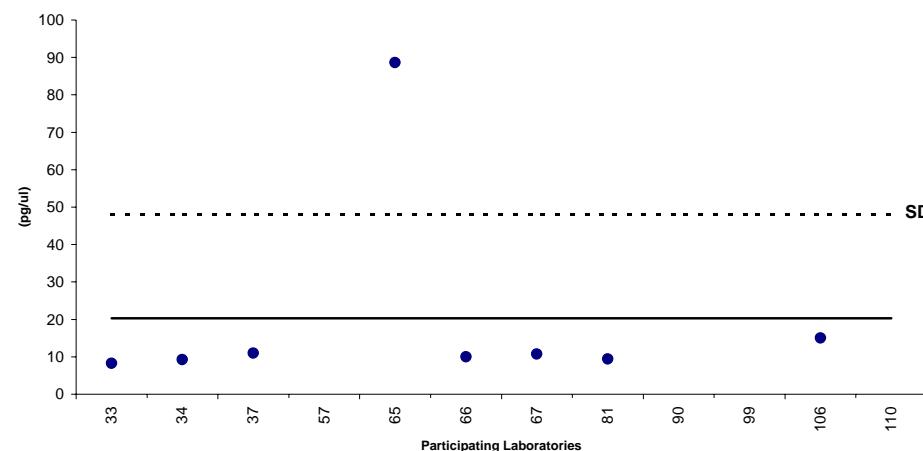
2-Br-3,7,8-CDD (57%, n = 8)



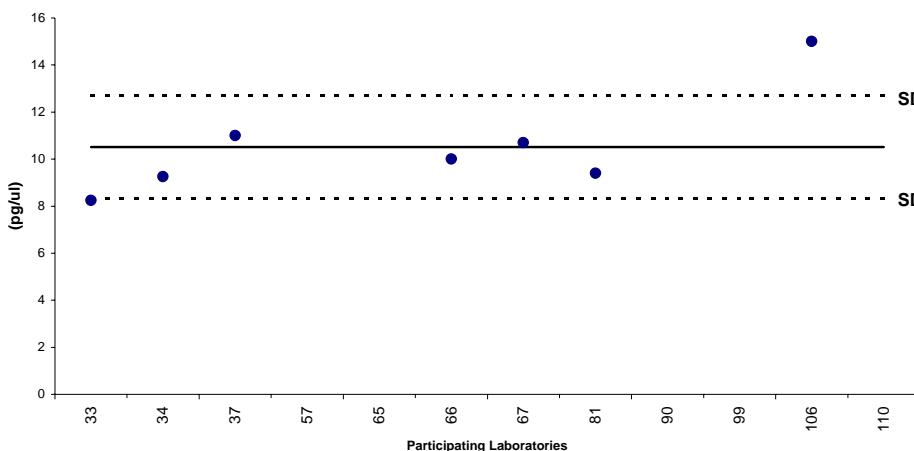
2-Br-3,7,8-CDD



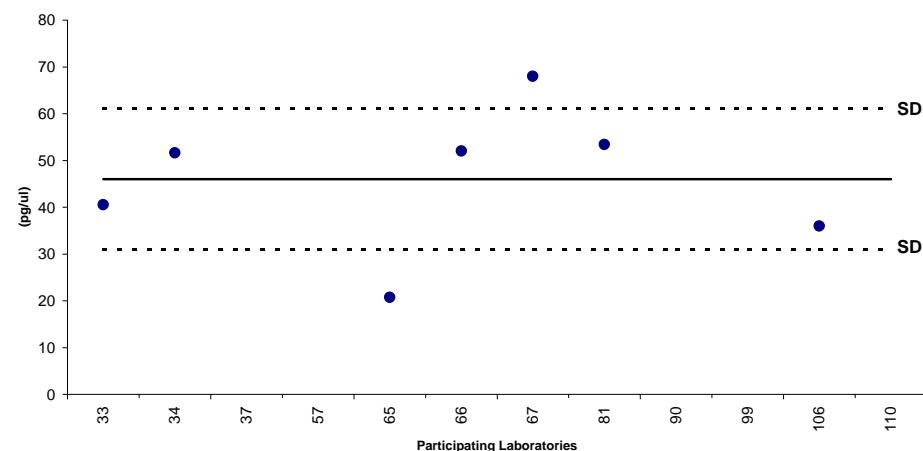
2,3-Br-7,8-CIDD (RSD 137%, n = 8)



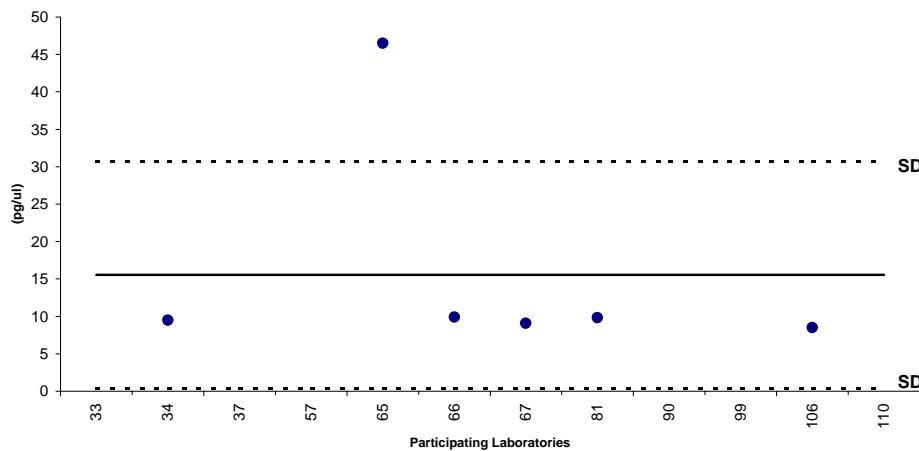
2,3-Br-7,8-CIDD (RSD 21%, n = 7)



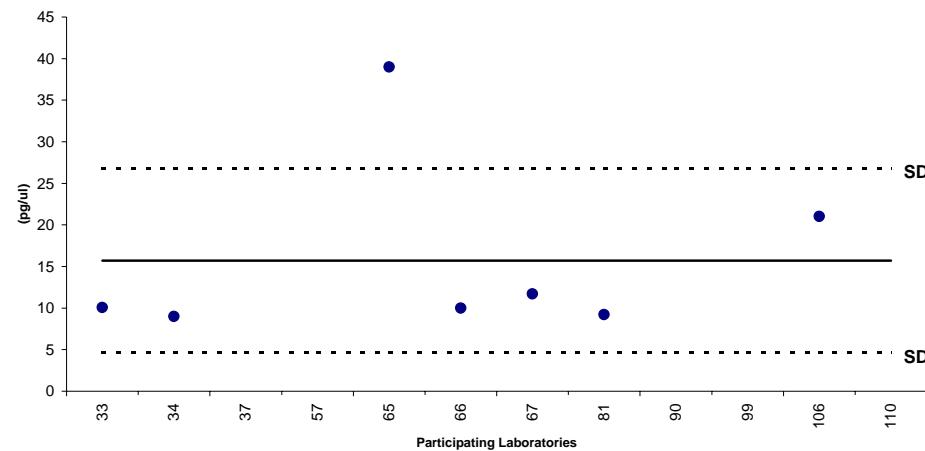
2-Br-1,3,7,8-CIDD (RSD 33%, n = 7)



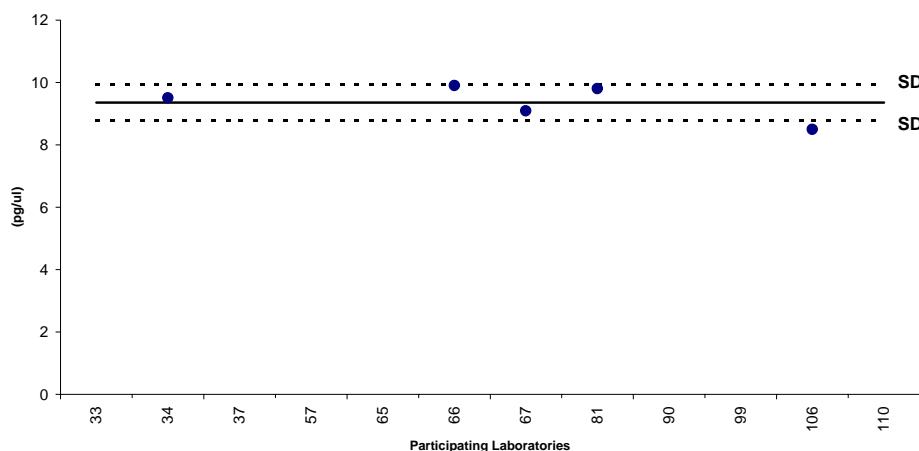
2-Br-7,8-CIDF (RSD 98%, n = 6)



2-Br-6,7,8-CIDF (71%, n = 7)



2-Br-7,8-CIDF (RSD 6%, n = 5)



2-Br-6,7,8-CIDF (39%, n = 6)

