

Proficiency Testing Scheme for Water Analysis

Round C43
Volatile Halogenated Hydrocarbons

Sample Dispatch: 14 February 2011





University of Natural Resources
and Life Sciences, Vienna

Address:

**University of Natural Resources
and Life Sciences, Vienna**

Department for Agrobiotechnology
IFA-Tulln
Center for Analytical Chemistry
Head of Department: Prof. DI. Dr. Rudolf Krska
Konrad-Lorenz-Str. 20
3430 Tulln
Austria

Website:

www.ifatest.eu
www.ifa-tulln.ac.at
www.boku.ac.at

Telephone/Fax:

+43 2272 66280 - Ext
+43 2272 66280 - 403

Proficiency Testing (PT) Scheme:

Lab Manager:

Dr. Wolfgang Kandler	Ext 408	wolfgang.kandler@boku.ac.at
Ing. Uta Kachelmeier	Ext 406	uta.kachelmeier@boku.ac.at
Ing. Marco Reiter	Ext 461	marco.reiter@boku.ac.at
Ing. Susanne Schemitz	Ext 461	susanne.schemitz@boku.ac.at
Ing. Caroline Stadlmann	Ext 406	caroline.stadlmann@boku.ac.at

This report summarises the results of round C43 "Volatile Halogenated Hydrocarbons" within the IFA-Test Systems Proficiency-Testing Scheme for water analysis. The samples C43A and C43B were distributed to the participants on Monday, 14 February 2011. Closing date for reporting results to the IFA-Tulln was Friday, 11 March 2011.

22 laboratories participated in this interlaboratory comparison. One laboratory did not submit any results.

Samples

For sample preparation, ultrapure water was spiked with concentrated solutions of inorganic salts in order to simulate the ionic composition of natural ground water. The following salts were added to the samples: $Mg(NO_3)_2$, $MgSO_4$, Na_2SO_4 , $NaHCO_3$, $KHCO_3$, $CaCl_2$ and $Ca(NO_3)_2$. Prior to sample preparation, blank samples of ultrapure water and artificial water matrix were analysed by Purge&Trap-GC-MS to exclude contamination with halogenated hydrocarbons and other interfering substances.

The samples were spiked with traces of the following compounds: Trichloroethene, Trichloromethane, 1,1,1-Trichloroethane, Tetrachloromethane, Tribromomethane, Tetrachloroethene, Bromodichloromethane, 1,2-Dichloroethane, Dibromochloromethane, 1,1-Dichloroethene, Dichloromethane, cis-1,2-Dichloroethene and trans-1,2-Dichloroethene. The calculation of the target concentrations of the compounds was based on the mass of standard added to the samples.

1,1,1-Trichloroethane, Dichloromethane and 1,2-Dichloroethane were not added to sample C43A in order to check the analytical blank values.

Homogeneity, accuracy and stability tests at the IFA-Tulln

For verification of homogeneity fifteen samples were analysed for the compounds of interest by Purge&Trap-GC-MS measurements prior to shipment to the participants. The results of the measurements are listed in the result tables and the parameter oriented part of the report ("IFA result").

Stability tests for the water samples of the present round were carried out four weeks after sample dispatch. The results of the measurements are listed in the result tables and the parameter oriented part of the report ("Stability test").

Results

Data evaluation was based on target concentrations that were calculated from the weights of the standards used to produce the samples. Their uncertainty intervals correspond to the expanded uncertainty (coverage factor $k = 2$) as described in the EURACHEM/CITAC Guide "Quantifying Uncertainty in Analytical Measurement" (Second Edition).

Recoveries for individual laboratory results and overall mean values were calculated from these target concentrations. The results were tested for outliers using the Hampel outlier test (level of significance 99 %). A minimum number of four results was required for the outlier test.

The target concentrations of 1,1,1-Trichloroethane, Dichloromethane and 1,2-Dichloroethane in sample C43A, which were not added to the sample, were set to the minimum quantifiable values defined by the Austrian ground and river water monitoring program and the quantification limits of the analytical methods applied in the IFA: $< 0.08 \mu\text{g/l}$ 1,1,1-trichlorethane, $< 0.6 \mu\text{g/l}$ dichlormethane and $< 0.4 \mu\text{g/l}$ 1,2-dichlorethane

Standard deviations and coefficients of variation (CVs) were only calculated when at least three results were available. The recoveries of the target concentrations, calculated from outlier-corrected data mean values ranged between 83.3 % (Tetrachloroethene in sample C43B) and 105.2 % (Tribromomethane in sample C43B).

The between laboratory CVs covered the range between 10.8 % (Tetrachloromethane in sample C43B) and 34.7 % (Trichloromethane in sample C43A).

All confidence intervals of the outlier-corrected laboratory mean values except Tetrachloroethene (84.9 % ± 9.9 %) in sample C43A and Trichloroethene (86.0 % ± 9.5 %) and Tetrachloromethane (86.1 % ± 6.3 %) in sample C43B encompass the corresponding target values with their uncertainties. For all other parameters, statistically, no difference could be detected between theoretical target concentrations and outlier corrected laboratory means.

z-Scores

The most common approach is to form the z-score given by

$$z = \frac{x_i - \bar{x}}{\sigma}$$

z	z-score
x_i	result of laboratory
\bar{x}	target value or mean value („consensus value“)
σ	standard deviation

Thus, the z-score is the ratio of the estimated bias (difference between result and target value) and a standard deviation. The z-score criteria were determined from relative standard deviations from all interlaboratory comparisons that were organised by the IFA-Tulln in the period from 2000 to 2010. They represent long-term performance data of all former participating laboratories. The z-scores are listed together with the recoveries in the tables of the parameter oriented part.

Additionally, each laboratory obtained for every sample a single sheet that summarises the z-scores of the laboratory in graphical and tabular form.

The following table lists the z-score criteria as relative standard deviation and their limits of applicability. Z-scores were only calculated, if the target values were higher than these limits.

Parameter	z-Score-criteria (%)	Lower limit [$\mu\text{g/L}$]
1,1,1-Trichloroethane	16	0.2
1,1-Dichloroethene	22	0.5
1,2-Dichloroethane	14	0.5
cis-1,2-Dichloroethene	15	0.2
trans-1,2-Dichloroethene	15	0.2
Bromodichloromethane	14	0.2
Dibromochloromethane	15	0.2
Dichloromethane	16	1
Tetrachloroethene	19	0.2
Tetrachloromethane	19	0.2
Tribromomethane	17	0.2
Trichloroethene	19	0.2
Trichloromethane	15	0.3

Normally, a classification based on z-scores is made this way:

z-Score	Classification
<2	satisfactory
2< z <3	questionable
>3	unsatisfactory

Please note that this evaluation is made on the background of the average performance of all participants of the IFA-Test-Systems proficiency testing scheme during the period from 2000 to 2010.

Illustration of results

An explanation to the illustration of the results is given on the following page. Graphical and tabular illustration of results can be divided into a parameter oriented and a laboratory oriented part.

The **laboratory oriented part** contains the measurement results and reported uncertainties of each individual laboratory for all parameters together with the achieved recoveries in graphical and tabular form. This part of the report also lists tables with the results originally reported by the laboratories.

In the **parameter oriented part** the reported results and corresponding uncertainties are illustrated together with recoveries of the target values and the z-scores for each parameter and all laboratories. This information is presented in graphical and tabular form. Results, which were identified as outliers by the Hampel test are marked with an asterisk in the column "out". These values were not considered for the calculation of statistical parameters (mean values, standard deviations and confidence intervals). Moreover, the parameter oriented part contains the uncertainties of the target value. The uncertainty intervals correspond to the expanded uncertainty (coverage factor $k=2$) as described in the EURACHEM / CITAC Guide "Quantifying Uncertainty in Analytical Measurement" (Second Edition). The uncertainty interval of the reference concentration is illustrated in the graphs as a grey band around the 100 % recovery line.

Results, for which no recoveries could be calculated, are illustrated by one of the following symbols: **FN** (false negative), **FP** (false positive) or • - symbol.

- "FN": a result is considered false negative when the "< result" reported is lower than the corresponding target value
- "FP": False positive results can be obtained for compounds not added to the samples: a result is termed FP if it is higher than the corresponding limit of quantification of the analytical procedure employed at the IFA-Tulln.
- "•": All other results for which no recovery can be calculated are illustrated by this symbol

Tulln, 15 March 2011

Sample C10B
Parameter Dichloromethane

Target value ± U (k=2) 10,4 µg/l ± 0,5 µg/l **Obtained from mass weighed out, U = uncertainty**

IFA result ± U (k=2) 10,2 µg/l ± 1,0 µg/l **Determined at IFA prior to shipment of samples**

Stability test ± U (k=2) 10,2 µg/l ± 1,0 µg/l **Determined at IFA 5 weeks after sample dispatch**

Lab code	Result	Out	+/-	Unit	Recovery	z-Score
A	11,0		1,28	µg/l	106 %	0,30
B	9,0		1,8	µg/l	87 %	-0,71
C	10		2	µg/l	96 %	-0,20
D				µg/l		
E	13,7		0,40	µg/l	132 %	1,67
F	6,8		0,7	µg/l	65 %	-1,82
G	< 20			µg/l		
H				µg/l		
I	11,0			µg/l	106%	0,30
J	24,1	*	1,51	µg/l	232 %	6,93
K	10,09		1,22	µg/l	97 %	-0,16
L	2,76	*		µg/l	27 %	-3,87
M	6,38		1,87	µg/l	61 %	-2,03
N	< 5		0,5	µg/l	FN	
O	15,6	*	4	µg/l	150 %	2,63
P	10,3		1,0	µg/l	99 %	-0,05
Q	10		1,14	µg/l	96 %	-0,20
R	8,88		0,46	µg/l	85 %	-0,77
S				µg/l		
T	9,03		0,08	µg/l	87 %	-0,69
U	22,5	*	0,5	µg/l	216 %	6,12
V	10,33		0,25	µg/l	99 %	-0,04

Recovery of target value in percent

z-Score of the laboratory

An asterisk indicates a result detected as outlier by Hampel test

Interval expected to encompass target value as stated by participant

	All results	Outliers excl.	Unit
Mean +/- CI (99%)	11,3 ± 3,8	9,7 ± 1,6	µg/l
Recov. +/- CI (99%)	108,3 ± 36,3	93,6 ± 15,1	%
SD between labs	5,3	1,9	µg/l
RSD between labs	47,3	19,1	%
n for calculation	17	13	

Between laboratory standard deviation

Overall laboratory mean and recovery with corresponding confidence intervals (p=99%)

Number of data used for calculation of statistic parameters

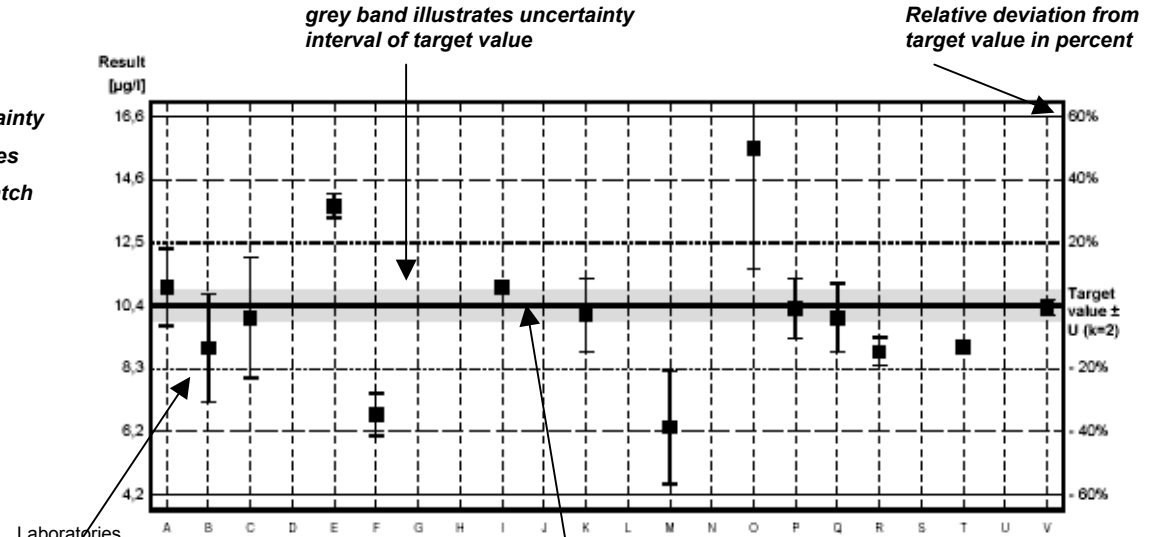
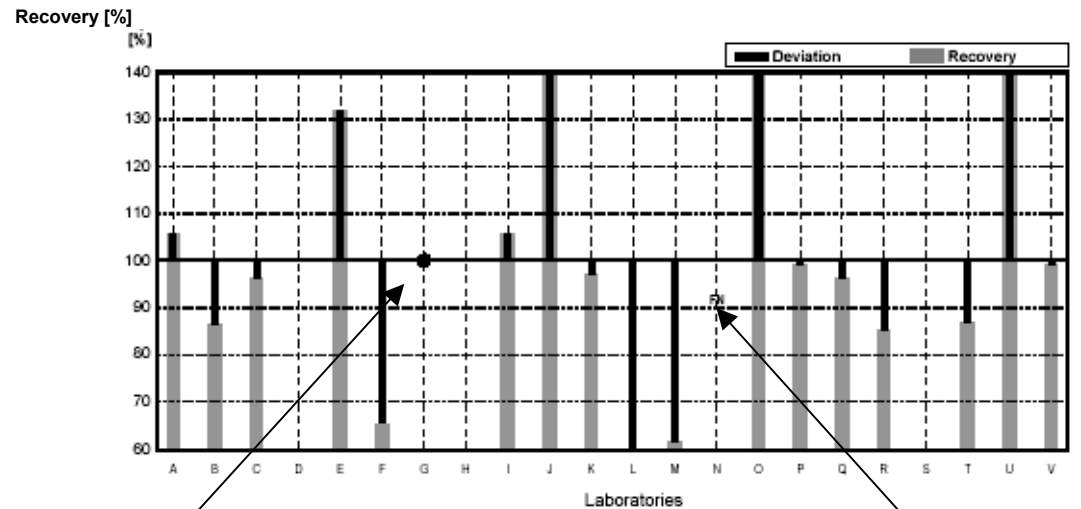


Diagram 1. Measurement results and corresponding uncertainty intervals

Result ± uncertainty as stated by participant

target value obtained from mass weight



Result neither false positive, false negative nor possible to calculate recovery

False negative: reported "<-result" is lower than target value

Diagram 2. Recoveries and deviations from target values

EXPLANATION

Illustration of Results Tables and Parameter Oriented Part

Round C43
Volatile Halogenated Hydrocarbons

Sample Dispatch: 14 February 2011



Results Sample C43A

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	1.29	2.63	<0.08	0.30	0.18	0.47	0.20
IFA Result	1.19	2.43	<0.04	0.30	0.17	0.44	0.19
Stability test	1.18	2.37	<0.04	0.28	0.17	0.43	0.19
A	1.1	2.4	<0.5	0.2	0.1	0.4	0.3
B	1.38	2.50	n.n.	0.37	0.18	0.48	0.21
C	1.13	0.89		0.60			
D	0.974	2.54	<0.10	0.189	<0.10	0.475	0.275
E	1.12	2.16	<0.1	0.28	0.15	0.59	0.26
F							
G	0.978	1.846	<0.2	0.277	<0.2	0.463	<0.2
H	0.95	2.27	<0.5	<0.5	<0.5	<0.5	<0.5
I	1.29	1.95		0.27	0.16	0.52	0.17
J	0.6	1.8	<0.1	0.2	<0.2	0.3	<0.5
K	1.1	2.1	<0.10	0.14	0.16	0.44	0.22
L	1.2	2.4	<0.10	0.31	0.20	0.59	0.20
M	1.4	3.1	n.n.	0.4	0.2		n.n.
N	1.15	2.54	<0.1	0.37	0.15	0.40	0.13
O	0.90	1.55	n.n.	0.28	n.b.	0.42	
P	1.25	2.32	<0.10	0.25	0.18	0.43	0.21
Q	0.967	2.050	<0.1	0.471	0.143		0.149
R	1.29	2.5	[0.1]	0.33	0.13	[0.2]	0.21
S	1.15	2.2	<0.1	0.28	0.17	0.45	0.19
T	0.7	1.3	<0.1	<0.1	0.2	0.4	<1
U	1.3	2.5	<0.055	0.31	0.14	0.45	0.20
V	1.26	2.61	<0.4	0.4	<0.4	0.59	<0.4

All data in µg/L

Uncertainties Sample C43A

	Trichloro- ethene ±	Tetrachloro- ethene ±	1,1,1-Tri- chloroethane ±	Trichloro- methane ±	Tetrachloro- methane ±	1,1-Dichloro- ethene ±	Tribromo- methane ±
Target value	0.06	0.13		0.02	0.01	0.02	0.01
IFA Result	0.18	0.36		0.05	0.03	0.07	0.03
Stability test	0.18	0.36		0.04	0.03	0.06	0.03
A	0.2	0.1		0.05	0.05	0.01	0.05
B	0.69	0.80		0.09	0.09	0.24	0.11
C	0.03	0.02		0.01			
D	0.093	0.049		0.011		0.037	0.035
E	0.22	0.42		0.05	0.03	0.19	0.05
F							
G	0.293	0.554		0.083		0.139	
H	0.21	0.41					
I	0.26	0.39		0.05	0.03	0.10	0.03
J	0.12	0.36	0.02	0.04	0.04	0.06	0.1
K	0.22	0.42		0.028	0.032	0.088	0.044
L	0.12	0.24	0.010	0.031	0.020	0.059	0.020
M							
N	0.2	0.2		0.1	0.05	0.1	0.05
O	0.01	0.08	0.02	0.01	0.02	0.02	
P	0.087	0.103		0.005	0.009	0.026	0.016
Q							
R	0.19	0.38		0.05	0.02		0.03
S	0.18	0.44		0.04	0.04	0.07	0.03
T	0.13	0.24			0.04	0.07	
U	0.3	0.5		0.06	0.03	0.09	0.04
V	0.38	0.78		0.12		0.18	

All data in µg/L

Results Sample C43A

	Bromodichloro- methane	Dibromochloro- methane	Dichloro- methane	1,2-Dichloro- ethane	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene
Target value	0.61	0.75	<0.6	<0.4	0.29	1.45
IFA Result	0.58	0.72	<0.3	<0.2	0.29	1.35
Stability test	0.57	0.71	<0.3	<0.2	0.28	1.31
A	0.55	0.7	<2	<1.0	0.21	1.16
B	0.71	0.90	n.n.	n.n.	0.36	1.73
C				<0.40		
D	0.538	2.61	<0.10	<0.10	0.147	1.28
E	0.49	0.63	<0.2	<0.2	0.25	1.51
F						
G	0.475	0.650	<2.0	<0.2	0.268	1.128
H	0.50	0.68	<0.5	<0.5	<0.5	1.03
I	0.62	0.65	0.04	<0.05	0.21	1.47
J	0.5	0.6	<0.1	<0.2	0.3	0.9
K	0.58	0.73	<0.10	<0.10	0.26	1.4
L	0.61	0.65	<0.15	<0.15	0.31	1.5
M	0.5	0.6				
N	0.56	0.74	<0.1	<0.1	0.27	1.47
O			n.n.	n.n.		
P	0.57	0.75	<0.7	<0.04	0.27	1.20
Q	0.346	0.486				
R	0.66	0.82	[20]	[5]		
S	0.65	0.75	<0.6	<0.2	0.28	1.5
T	0.3	0.3	<0.2	<0.5	<0.2	0.8
U	0.60	0.74	<0.25	<0.15	0.47	1.7
V	0.52	0.69	<0.4	<0.4	0.38	1.67

All data in µg/L

Uncertainties Sample C43A

	Bromodichloro- methane ±	Dibromochloro- methane ±	Dichloro- methane ±	1,2-Dichloro- ethane ±	cis-1,2- Dichloroethene ±	trans-1,2- Dichloroethene ±
Target value	0.03	0.04			0.01	0.07
IFA Result	0.09	0.11			0.04	0.20
Stability test	0.09	0.11			0.04	0.20
A	0.01	0.05			0.005	0.04
B	0.36	0.45			0.18	0.87
C						
D	0.001	0.049			0.035	0.05
E	0.09	0.12			0.04	0.30
F						
G	0.143	0.195			0.080	0.338
H	0.08	0.44				0.23
I	0.12	0.13	0.01	0.01	0.04	0.29
J	0.1	0.12	0.02	0.04	0.06	0.18
K	0.12	0.15			0.052	0.28
L	0.061	0.065	0.015	0.015	0.031	0.15
M						
N	0.1	0.1			0.05	0.2
O			0.02	0.02		
P	0.067	0.123			0.058	0.128
Q						
R	0.1	0.12				
S	0.10	0.11			0.04	0.23
T	0.05	0.06				0.15
U	0.12	0.15			0.09	0.3
V	0.15	0.21			0.11	0.50

All data in µg/L

Results Sample C43B

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	0.47	0.89	0.59	0.96	0.92	1.46	0.41
IFA Result	0.49	0.95	0.60	0.98	0.93	1.47	0.41
Stability test	0.45	0.83	0.56	0.94	0.84	1.32	0.40
A	0.4	0.7	0.5	0.6	0.8	1.26	0.5
B	0.36	0.66	0.50	0.72	0.70	1.10	0.38
C	0.51	0.40		1.22			
D	0.288	0.888	0.618	0.874	0.847	1.60	0.503
E	0.43	0.77	0.54	0.86	0.82	1.95	0.44
F							
G	0.370	0.642	0.506	0.898	0.723	1.370	0.342
H	<0.5	0.84	<0.5	0.70	0.87	1.35	<0.5
I	0.37	0.70	0.58	0.88	0.82	1.61	0.44
J	0.3	0.6	0.4	0.6	0.6	0.9	<0.5
K	0.40	0.73	0.47	0.69	0.79	1.4	0.46
L	0.39	0.78	0.55	1.1	0.81	1.6	0.44
M	0.6	1.1	0.7	1.0	1.1		0.6
N	0.43	0.91	0.59	0.99	0.86	1.34	0.33
O	0.34	0.39	0.46	0.79	0.62	1.31	
P	0.43	0.87	0.61	0.87	0.91	1.34	0.41
Q	0.366	0.629	0.452	0.910	0.758		0.334
R	0.49	0.84	0.59	1.03	0.83	2	0.47
S	0.38	0.75	0.58	0.95	0.8	1.48	0.45
T	0.4	0.6	0.4	0.7	0.8	1.4	<1
U	0.49	0.88	0.62	0.98	0.90	1.4	0.44
V	0.54	0.89	0.78	1.18	1.29	2.02	0.36

All data in µg/L

Uncertainties Sample C43B

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value	0.02	0.04	0.03	0.05	0.05	0.07	0.02
IFA Result	0.07	0.14	0.09	0.15	0.14	0.22	0.06
Stability test	0.07	0.12	0.08	0.14	0.13	0.20	0.06
A	0.2	0.2	0.2	0.1	0.1	0.02	0.1
B	0.18	0.33	0.25	0.18	0.35	0.55	0.19
C	0.01	0.01		0.02			
D	0.029	0.14	0.054	0.066	0.005	0.064	0.037
E	0.08	0.14	0.10	0.16	0.16	0.35	0.09
F							
G	0.111	0.193	0.152	0.270	0.217	0.411	0.103
H		0.15		0.13	0.19	0.30	
I	0.07	0.14	0.12	0.18	0.16	0.32	0.09
J	0.06	0.12	0.08	0.12	0.12	0.18	0.1
K	0.08	0.15	0.094	0.14	0.16	0.28	0.092
L	0.039	0.078	0.055	0.11	0.081	0.16	0.044
M							
N	0.1	0.1	0.1	0.1	0.1	0.2	0.1
O	0.01	0.05	0.01	0.05	0.01	0.05	
P	0.095	0.036	0.090	0.053	0.023	0.130	0.057
Q							
R	0.07	0.13	0.09	0.15	0.12	0.3	0.07
S	0.06	0.15	0.09	0.14	0.16	0.22	0.06
T	0.07	0.11	0.08	0.12	0.14	0.26	
U	0.10	0.18	0.12	0.20	0.18	0.28	0.09
V	0.16	0.27	0.23	0.35	0.39	0.61	0.11

All data in µg/L

Results Sample C43B

	Bromodichloro- methane	Dibromochloro- methane	Dichloro- methane	1,2-Dichloro- ethane	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene
Target value	0.32	0.19	3.62	1.42	0.91	0.52
IFA Result	0.33	0.20	3.69	1.43	0.94	0.56
Stability test	0.31	0.19	3.51	1.34	0.91	0.50
A	0.2	0.2	3.0	0.98	0.70	0.47
B	0.30	0.17	4.50	1.09	0.70	0.49
C				1.32		
D	0.252	0.876	3.88	1.24	0.746	0.42
E	0.30	0.16	3.74	1.30	0.93	0.58
F						
G	0.265	<0.2	3.623	1.148	0.627	0.473
H	<0.5	<0.5	3.60	1.59	1.00	'<0.5
I	0.31	0.16	2.61	1.80	0.86	0.40
J	0.2	<0.2	2.5	1.0	0.7	0.4
K	0.32	0.20	3.3	1.2	0.82	0.50
L	0.34	<0.20	4.4	1.6	1.0	0.56
M	0.3	0.2				
N	0.32	0.19	3.71	1.34	0.91	0.53
O			3.40	1.30		
P	0.29	0.18	3.7	1.3	0.84	0.39
Q	0.179	0.118				
R	0.36	0.23	[20]	[5]		
S	0.35	0.19	3.94	1.42	0.88	0.55
T	<0.2	<0.2	2.6	1.1	0.5	0.3
U	0.32	0.20	3.8	1.5	1.2	0.64
V	<0.4	<0.4	4.38	1.71	1.18	0.76

All data in µg/L

Uncertainties Sample C43B

	Bromodichloro- methane ±	Dibromochloro- methane ±	Dichloro- methane ±	1,2-Dichloro- ethane ±	cis-1,2- Dichloroethene ±	trans-1,2- Dichloroethene ±
Target value	0.02	0.01	0.18	0.07	0.05	0.03
IFA Result	0.05	0.03	0.55	0.21	0.14	0.08
Stability test	0.05	0.03	0.53	0.20	0.14	0.08
A	0.01	0.05	0.2	0.11	0.06	0.05
B	0.15	0.09	1.30	0.54	0.35	0.24
C				0.04		
D	0.015	0.076	0.18	0.028	0.18	0.05
E	0.06	0.03	0.70	0.26	0.18	0.11
F						
G	0.080		1.087	0.344	0.188	0.142
H			0.79	0.25	0.22	
I	0.06	0.03	0.52	0.36	0.17	0.08
J	0.04	0.04	0.5	0.2	0.14	0.08
K	0.064	0.04	0.66	0.24	0.16	0.10
L	0.034	0.020	0.44	0.16	0.10	0.056
M						
N	0.1	0.05	0.3	0.2	0.1	0.1
O			0.05	0.01		
P	0.005	0.007	0.59	0.04	0.046	0.144
Q						
R	0.05	0.03				
S	0.06	0.03	0.6	0.21	0.13	0.08
T			0.47	0.19	0.10	0.05
U	0.06	0.04	0.8	0.3	0.2	0.13
V			1.31	0.51	0.35	0.23

All data in µg/L

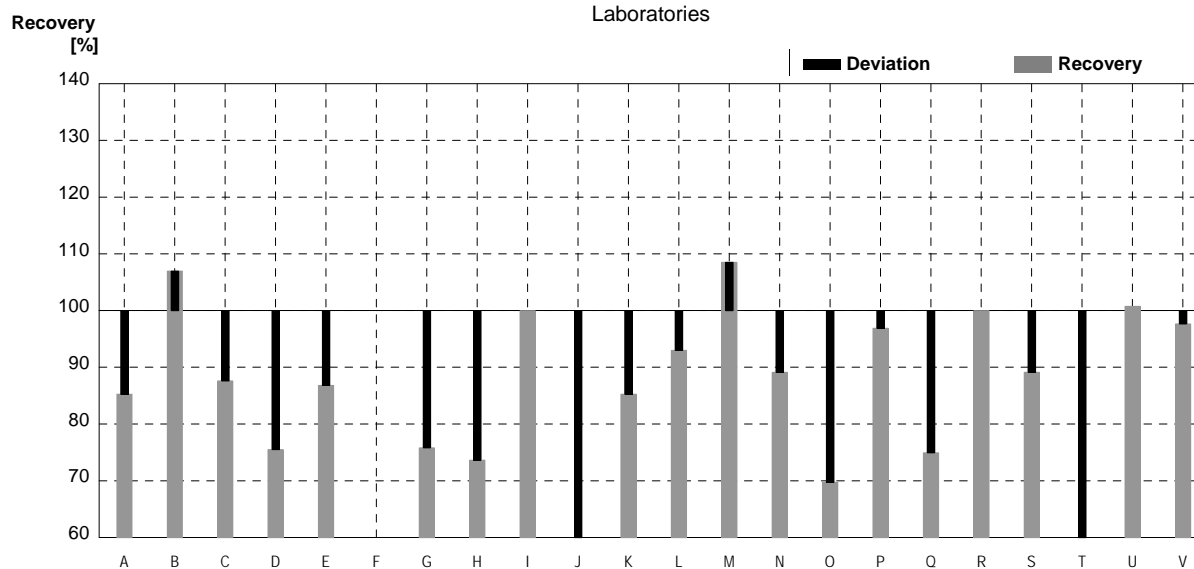
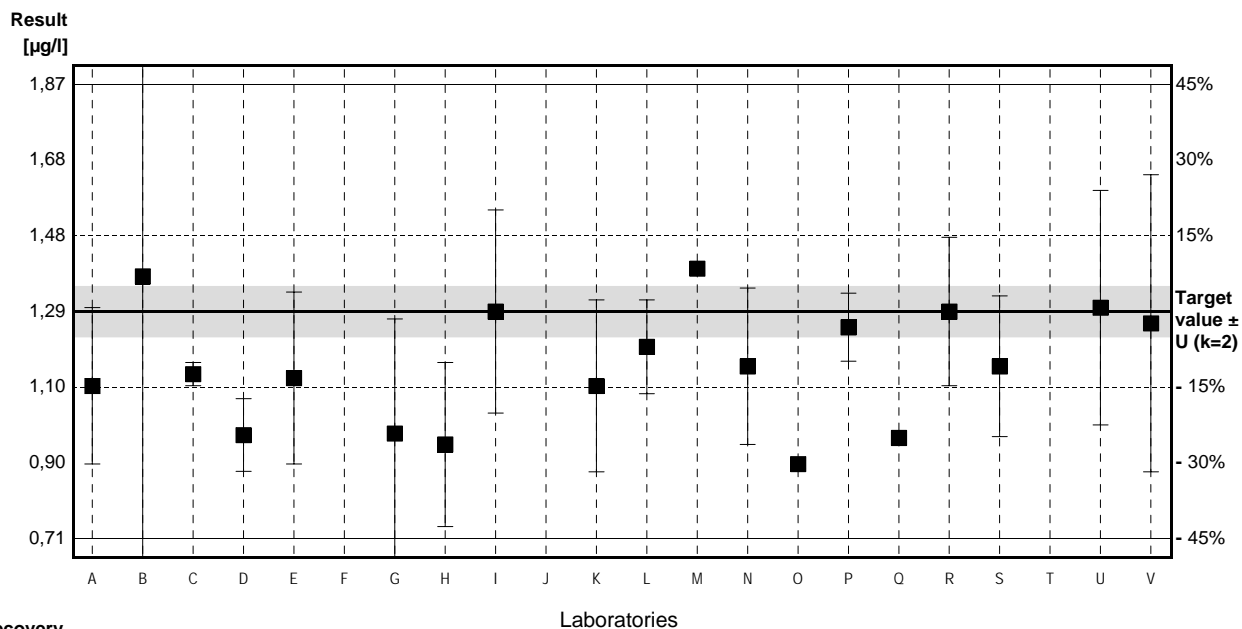
Sample C43A

Parameter Trichloroethene

Target value $\pm U$ (k=2) 1,29 $\mu\text{g/l}$ \pm 0,06 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 1,19 $\mu\text{g/l}$ \pm 0,18 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 1,18 $\mu\text{g/l}$ \pm 0,18 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	1,1	0,2	$\mu\text{g/l}$	85%	-0,78
B	1,38	0,69	$\mu\text{g/l}$	107%	0,37
C	1,13	0,03	$\mu\text{g/l}$	88%	-0,65
D	0,974	0,093	$\mu\text{g/l}$	76%	-1,29
E	1,12	0,22	$\mu\text{g/l}$	87%	-0,69
F			$\mu\text{g/l}$		
G	0,978	0,293	$\mu\text{g/l}$	76%	-1,27
H	0,95	0,21	$\mu\text{g/l}$	74%	-1,39
I	1,29	0,26	$\mu\text{g/l}$	100%	0,00
J	0,6	0,12	$\mu\text{g/l}$	47%	-2,82
K	1,1	0,22	$\mu\text{g/l}$	85%	-0,78
L	1,2	0,12	$\mu\text{g/l}$	93%	-0,37
M	1,4		$\mu\text{g/l}$	109%	0,45
N	1,15	0,2	$\mu\text{g/l}$	89%	-0,57
O	0,90	0,01	$\mu\text{g/l}$	70%	-1,59
P	1,25	0,087	$\mu\text{g/l}$	97%	-0,16
Q	0,967		$\mu\text{g/l}$	75%	-1,32
R	1,29	0,19	$\mu\text{g/l}$	100%	0,00
S	1,15	0,18	$\mu\text{g/l}$	89%	-0,57
T	0,7	0,13	$\mu\text{g/l}$	54%	-2,41
U	1,3	0,3	$\mu\text{g/l}$	101%	0,04
V	1,26	0,38	$\mu\text{g/l}$	98%	-0,12

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,10 \pm 0,13	1,10 \pm 0,13	$\mu\text{g/l}$
Recov. \pm CI(99%)	85,6 \pm 10,0	85,6 \pm 10,0	%
SD between labs	0,21	0,21	$\mu\text{g/l}$
RSD between labs	18,8	18,8	%
n for calculation	21	21	



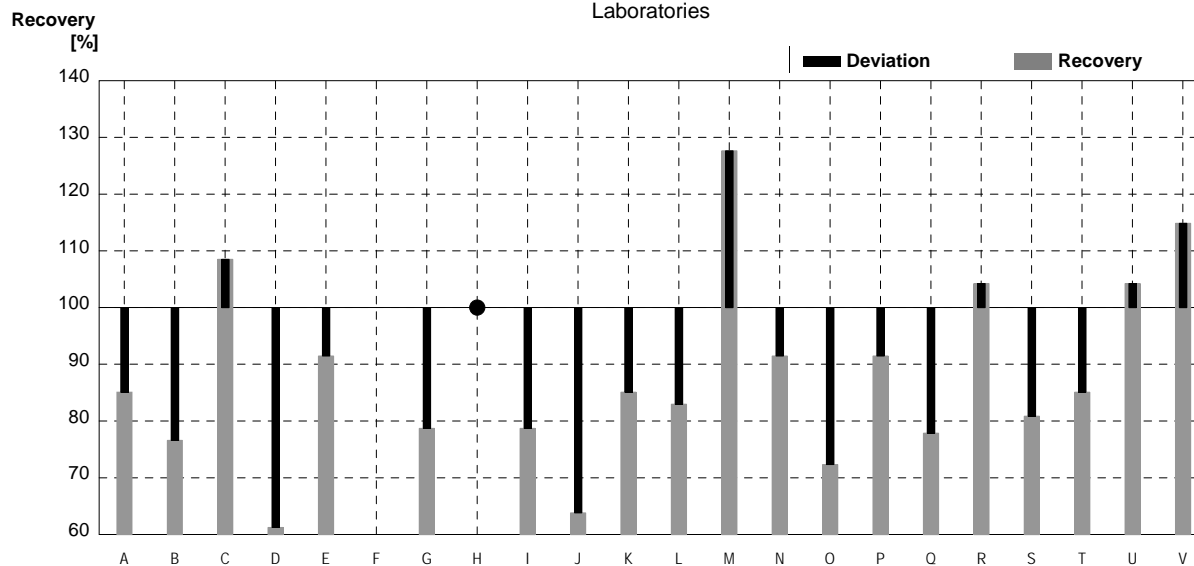
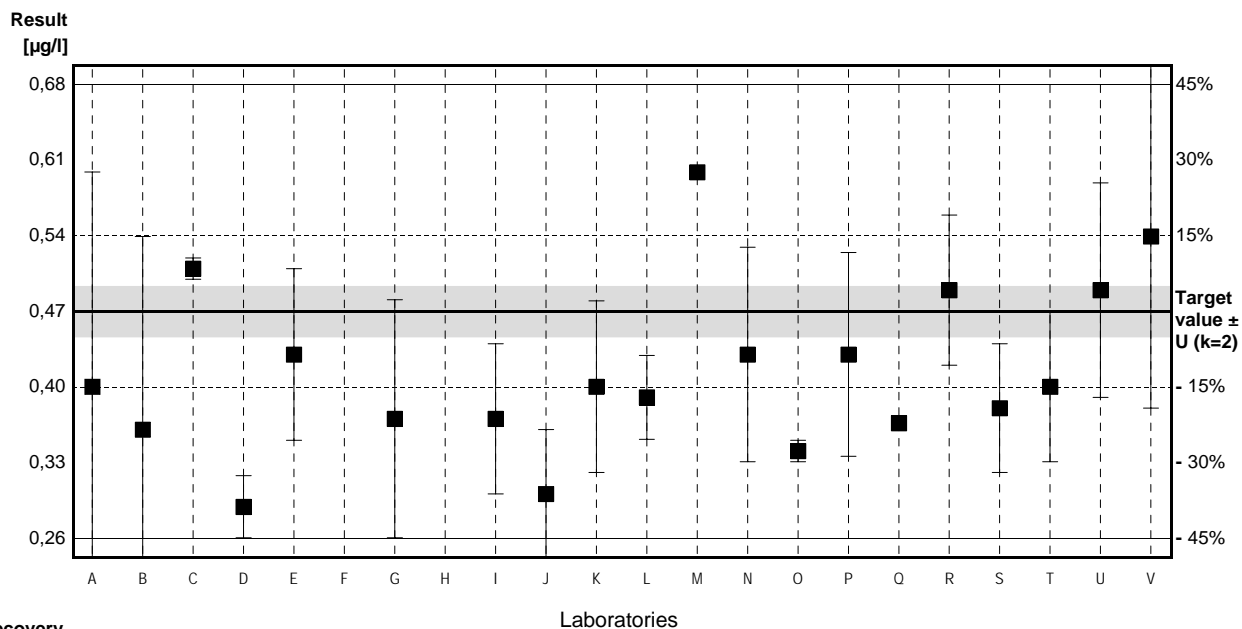
Sample C43B

Parameter Trichloroethene

Target value $\pm U$ (k=2) 0,47 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,49 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,45 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,4	0,2	$\mu\text{g/l}$	85%	-0,78
B	0,36	0,18	$\mu\text{g/l}$	77%	-1,23
C	0,51	0,01	$\mu\text{g/l}$	109%	0,45
D	0,288	0,029	$\mu\text{g/l}$	61%	-2,04
E	0,43	0,08	$\mu\text{g/l}$	91%	-0,45
F			$\mu\text{g/l}$		
G	0,370	0,111	$\mu\text{g/l}$	79%	-1,12
H	<0,5		$\mu\text{g/l}$	*	
I	0,37	0,07	$\mu\text{g/l}$	79%	-1,12
J	0,3	0,06	$\mu\text{g/l}$	64%	-1,90
K	0,40	0,08	$\mu\text{g/l}$	85%	-0,78
L	0,39	0,039	$\mu\text{g/l}$	83%	-0,90
M	0,6	*	$\mu\text{g/l}$	128%	1,46
N	0,43	0,1	$\mu\text{g/l}$	91%	-0,45
O	0,34	0,01	$\mu\text{g/l}$	72%	-1,46
P	0,43	0,095	$\mu\text{g/l}$	91%	-0,45
Q	0,366		$\mu\text{g/l}$	78%	-1,16
R	0,49	0,07	$\mu\text{g/l}$	104%	0,22
S	0,38	0,06	$\mu\text{g/l}$	81%	-1,01
T	0,4	0,07	$\mu\text{g/l}$	85%	-0,78
U	0,49	0,10	$\mu\text{g/l}$	104%	0,22
V	0,54	0,16	$\mu\text{g/l}$	115%	0,78

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,41 \pm 0,05	0,40 \pm 0,04	$\mu\text{g/l}$
Recov. \pm CI(99%)	88,1 \pm 10,7	86,0 \pm 9,5	%
SD between labs	0,08	0,07	$\mu\text{g/l}$
RSD between labs	19,0	16,6	%
n for calculation	20	19	



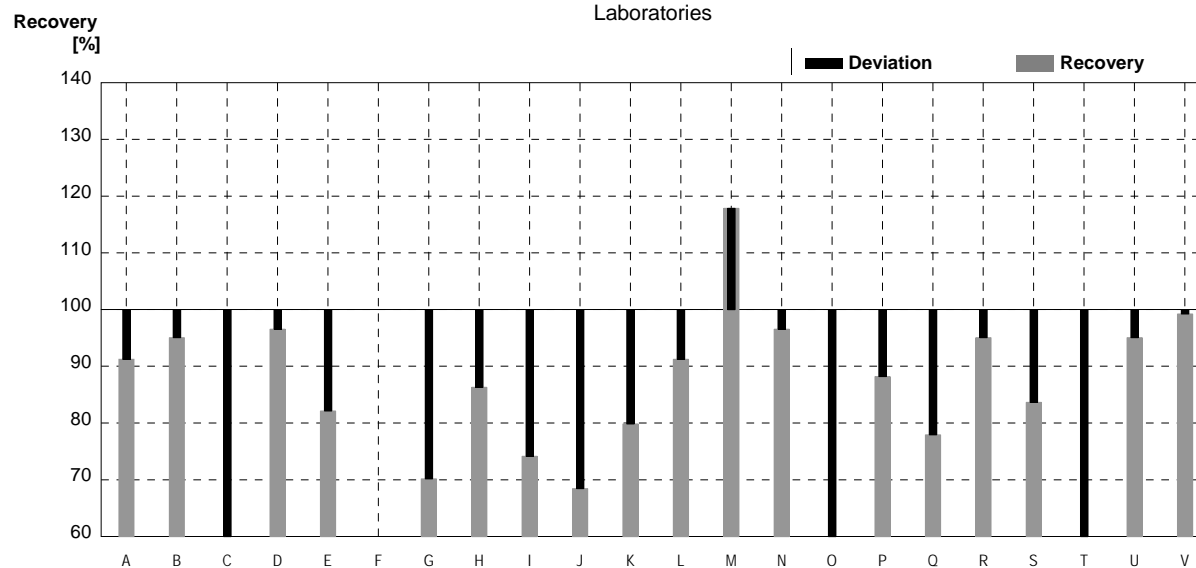
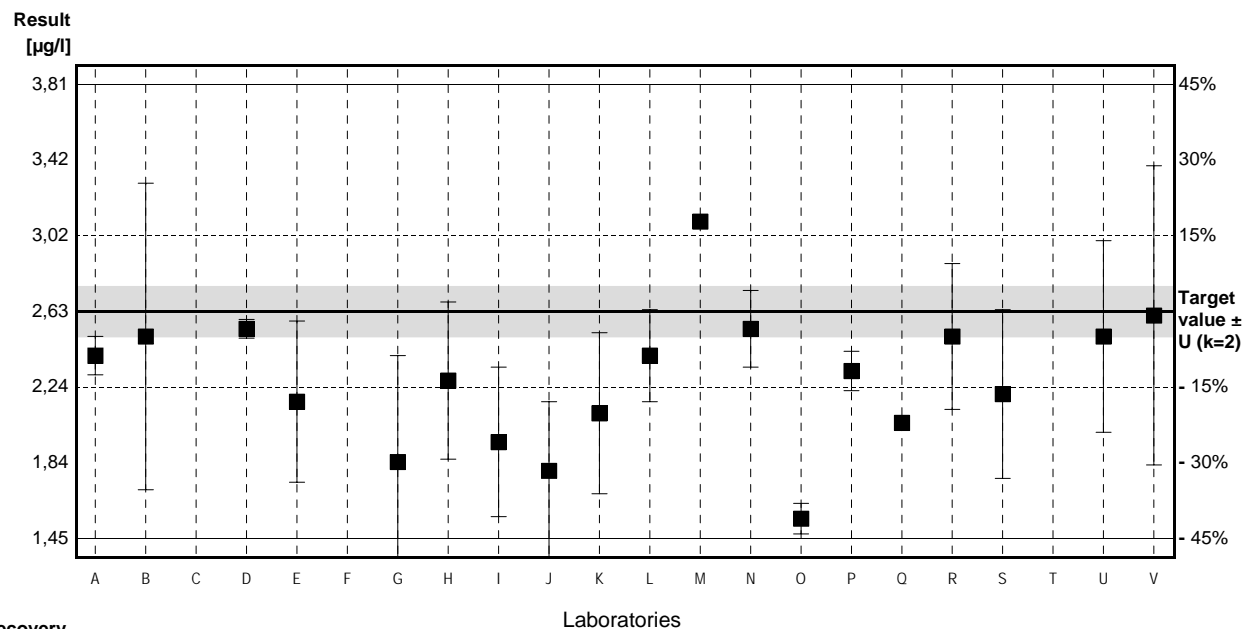
Sample C43A

Parameter Tetrachloroethene

Target value $\pm U$ (k=2) 2,63 $\mu\text{g/l}$ \pm 0,13 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 2,43 $\mu\text{g/l}$ \pm 0,36 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 2,37 $\mu\text{g/l}$ \pm 0,36 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	2,4	0,1	$\mu\text{g/l}$	91%	-0,46
B	2,50	0,80	$\mu\text{g/l}$	95%	-0,26
C	0,89 *	0,02	$\mu\text{g/l}$	34%	-3,48
D	2,54	0,049	$\mu\text{g/l}$	97%	-0,18
E	2,16	0,42	$\mu\text{g/l}$	82%	-0,94
F			$\mu\text{g/l}$		
G	1,846	0,554	$\mu\text{g/l}$	70%	-1,57
H	2,27	0,41	$\mu\text{g/l}$	86%	-0,72
I	1,95	0,39	$\mu\text{g/l}$	74%	-1,36
J	1,8	0,36	$\mu\text{g/l}$	68%	-1,66
K	2,1	0,42	$\mu\text{g/l}$	80%	-1,06
L	2,4	0,24	$\mu\text{g/l}$	91%	-0,46
M	3,1		$\mu\text{g/l}$	118%	0,94
N	2,54	0,2	$\mu\text{g/l}$	97%	-0,18
O	1,55	0,08	$\mu\text{g/l}$	59%	-2,16
P	2,32	0,103	$\mu\text{g/l}$	88%	-0,62
Q	2,050		$\mu\text{g/l}$	78%	-1,16
R	2,5	0,38	$\mu\text{g/l}$	95%	-0,26
S	2,2	0,44	$\mu\text{g/l}$	84%	-0,86
T	1,3	0,24	$\mu\text{g/l}$	49%	-2,66
U	2,5	0,5	$\mu\text{g/l}$	95%	-0,26
V	2,61	0,78	$\mu\text{g/l}$	99%	-0,04

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	2,17 \pm 0,31	2,23 \pm 0,26	$\mu\text{g/l}$
Recov. \pm CI(99%)	82,4 \pm 11,7	84,9 \pm 9,9	%
SD between labs	0,49	0,41	$\mu\text{g/l}$
RSD between labs	22,8	18,3	%
n for calculation	21	20	



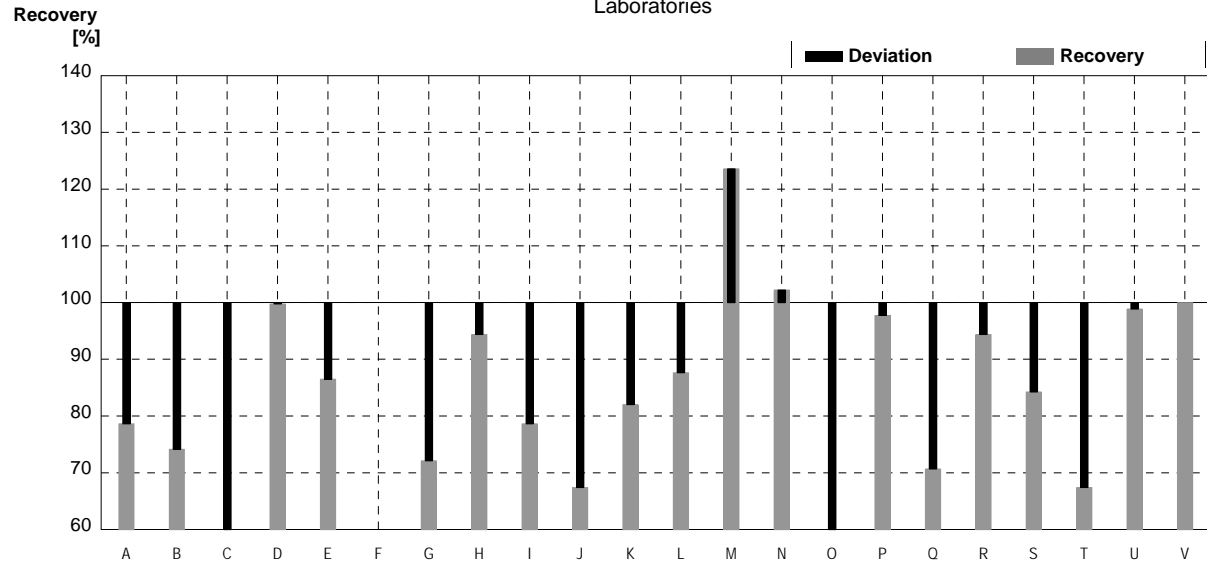
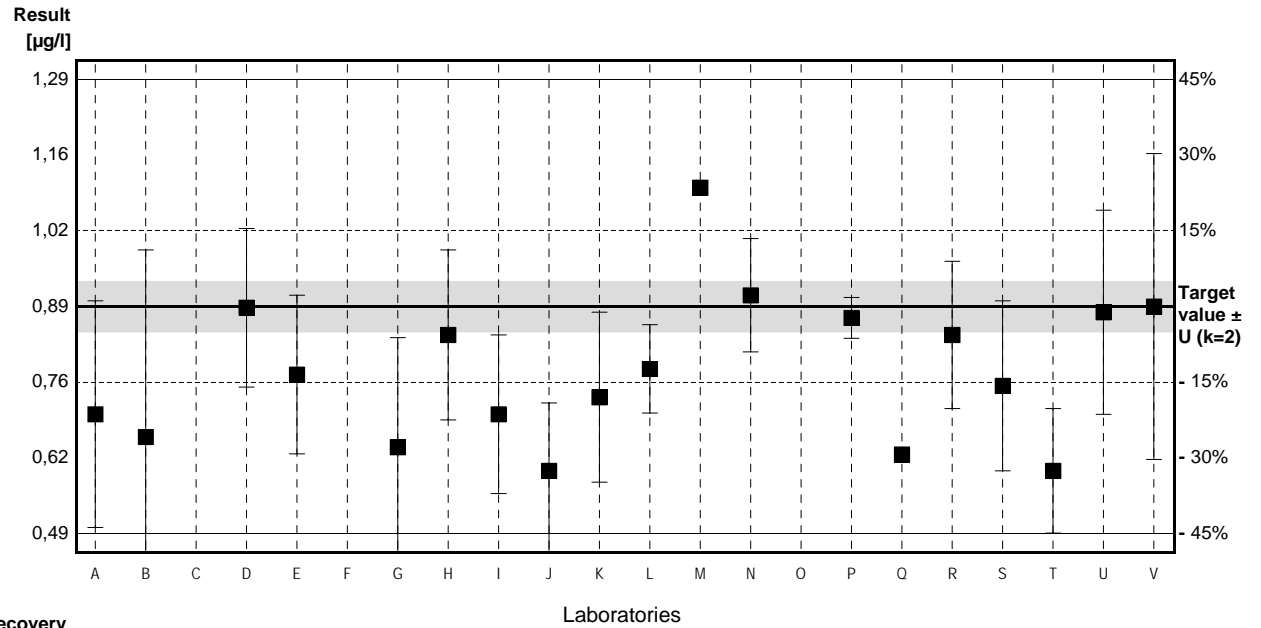
Sample C43B

Parameter Tetrachloroethene

Target value $\pm U$ (k=2) 0,89 $\mu\text{g/l}$ \pm 0,04 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,95 $\mu\text{g/l}$ \pm 0,14 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,83 $\mu\text{g/l}$ \pm 0,12 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,7	0,2	$\mu\text{g/l}$	79%	-1,12
B	0,66	0,33	$\mu\text{g/l}$	74%	-1,36
C	0,40	0,01	$\mu\text{g/l}$	45%	-2,90
D	0,888	0,14	$\mu\text{g/l}$	100%	-0,01
E	0,77	0,14	$\mu\text{g/l}$	87%	-0,71
F			$\mu\text{g/l}$		
G	0,642	0,193	$\mu\text{g/l}$	72%	-1,47
H	0,84	0,15	$\mu\text{g/l}$	94%	-0,30
I	0,70	0,14	$\mu\text{g/l}$	79%	-1,12
J	0,6	0,12	$\mu\text{g/l}$	67%	-1,71
K	0,73	0,15	$\mu\text{g/l}$	82%	-0,95
L	0,78	0,078	$\mu\text{g/l}$	88%	-0,65
M	1,1		$\mu\text{g/l}$	124%	1,24
N	0,91	0,1	$\mu\text{g/l}$	102%	0,12
O	0,39	0,05	$\mu\text{g/l}$	44%	-2,96
P	0,87	0,036	$\mu\text{g/l}$	98%	-0,12
Q	0,629		$\mu\text{g/l}$	71%	-1,54
R	0,84	0,13	$\mu\text{g/l}$	94%	-0,30
S	0,75	0,15	$\mu\text{g/l}$	84%	-0,83
T	0,6	0,11	$\mu\text{g/l}$	67%	-1,71
U	0,88	0,18	$\mu\text{g/l}$	99%	-0,06
V	0,89	0,27	$\mu\text{g/l}$	100%	0,00

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,74 \pm 0,11	0,74 \pm 0,11	$\mu\text{g/l}$
Recov. \pm CI(99%)	83,3 \pm 11,8	83,3 \pm 11,8	%
SD between labs	0,17	0,17	$\mu\text{g/l}$
RSD between labs	22,8	22,8	%
n for calculation	21	21	

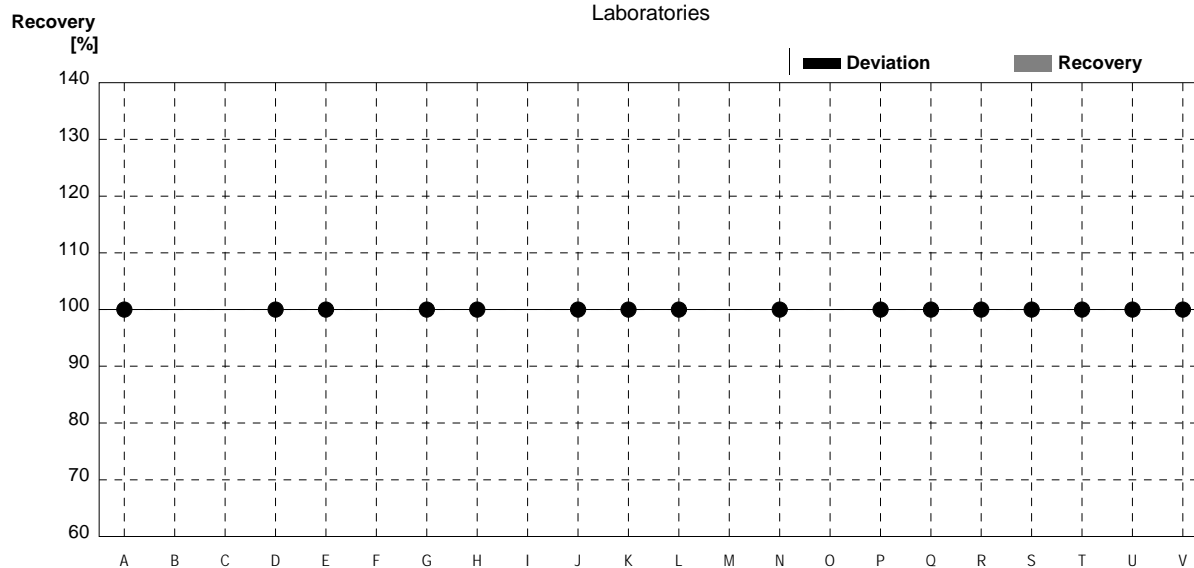
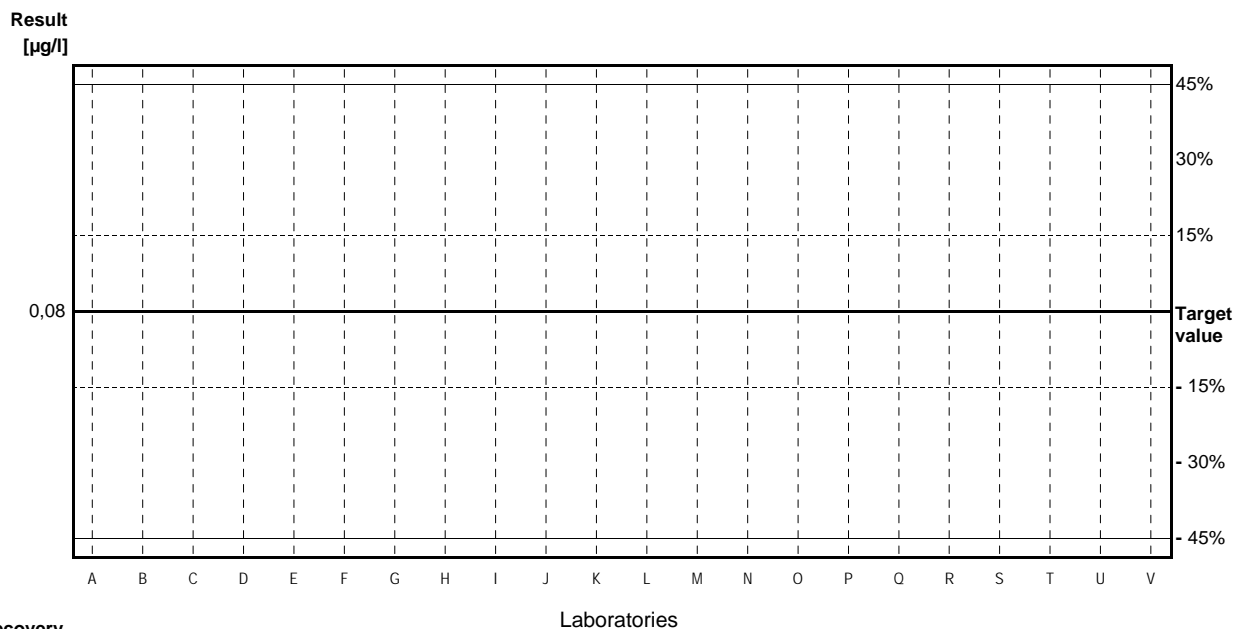


Sample C43A

Parameter 1,1,1-Trichloroethane

Target value <0,08 µg/l
 IFA result <0,04 µg/l
 Stability test <0,04 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<0,5		µg/l	•	
B	n,n.		µg/l		
C			µg/l		
D	<0,10		µg/l	•	
E	<0,1		µg/l	•	
F			µg/l		
G	<0,2		µg/l	•	
H	<0,5		µg/l	•	
I			µg/l		
J	<0,1	0,02	µg/l	•	
K	<0,10		µg/l	•	
L	<0,10	0,010	µg/l	•	
M	n,n.		µg/l		
N	<0,1		µg/l	•	
O	n,n.	0,02	µg/l		
P	<0,10		µg/l	•	
Q	<0,1		µg/l	•	
R	[0,1]		µg/l	•	
S	<0,1		µg/l	•	
T	<0,1		µg/l	•	
U	<0,055		µg/l	•	
V	<0,4		µg/l	•	



	All results	Outliers excl.	Unit
Mean ± CI(99%)			µg/l
Recov. ± CI(99%)			%
SD between labs			µg/l
RSD between labs			%
n for calculation			

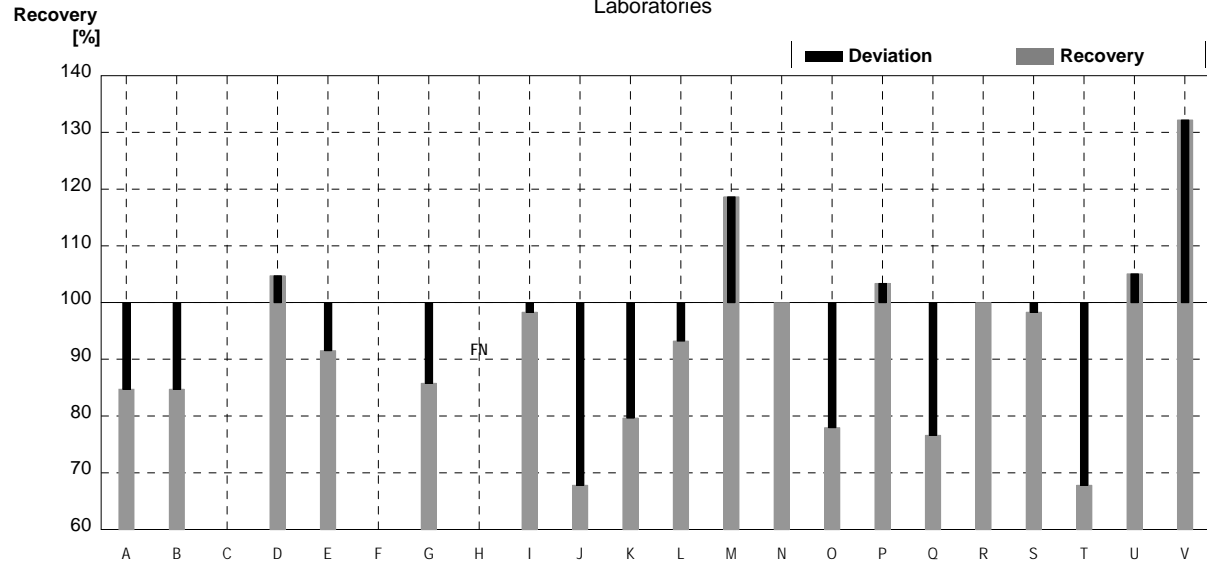
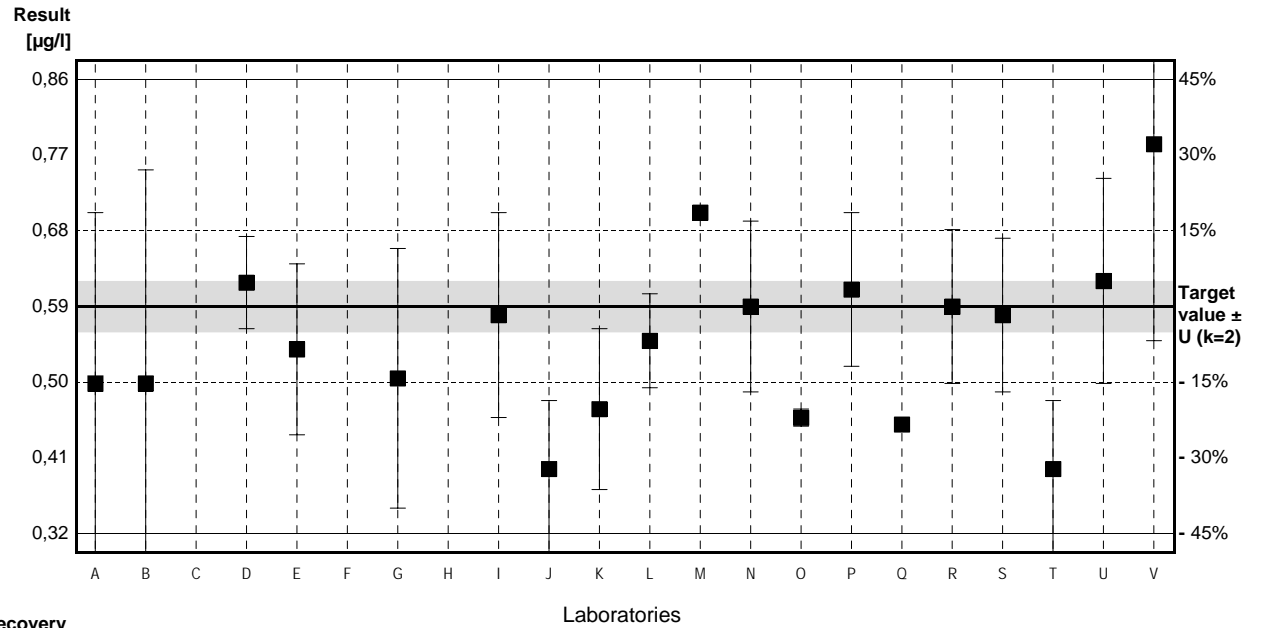
Sample C43B

Parameter 1,1,1-Trichloroethane

Target value ± U (k=2) 0,59 µg/l ± 0,03 µg/l
 IFA result ± U (k=2) 0,60 µg/l ± 0,09 µg/l
 Stability test ± U (k=2) 0,56 µg/l ± 0,08 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,5	0,2	µg/l	85%	-0,95
B	0,50	0,25	µg/l	85%	-0,95
C			µg/l		
D	0,618	0,054	µg/l	105%	0,30
E	0,54	0,10	µg/l	92%	-0,53
F			µg/l		
G	0,506	0,152	µg/l	86%	-0,89
H	<0,5		µg/l	FN	
I	0,58	0,12	µg/l	98%	-0,11
J	0,4	0,08	µg/l	68%	-2,01
K	0,47	0,094	µg/l	80%	-1,27
L	0,55	0,055	µg/l	93%	-0,42
M	0,7		µg/l	119%	1,17
N	0,59	0,1	µg/l	100%	0,00
O	0,46	0,01	µg/l	78%	-1,38
P	0,61	0,090	µg/l	103%	0,21
Q	0,452		µg/l	77%	-1,46
R	0,59	0,09	µg/l	100%	0,00
S	0,58	0,09	µg/l	98%	-0,11
T	0,4	0,08	µg/l	68%	-2,01
U	0,62	0,12	µg/l	105%	0,32
V	0,78	0,23	µg/l	132%	2,01

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,55 ± 0,06	0,55 ± 0,06	µg/l
Recov. ± CI(99%)	93,2 ± 10,9	93,2 ± 10,9	%
SD between labs	0,10	0,10	µg/l
RSD between labs	17,7	17,7	%
n for calculation	19	19	



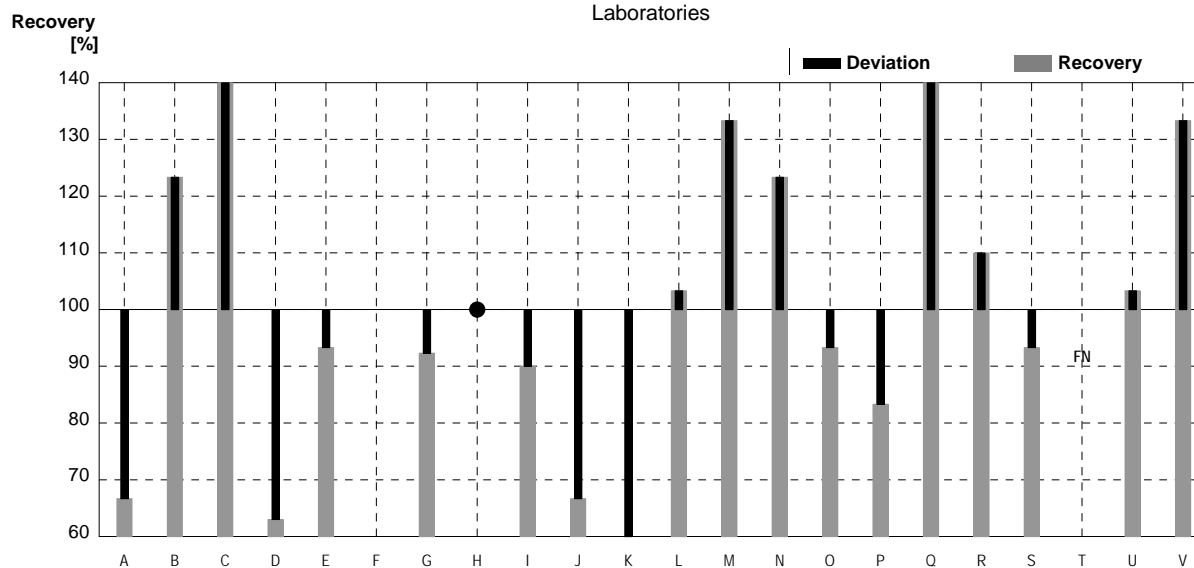
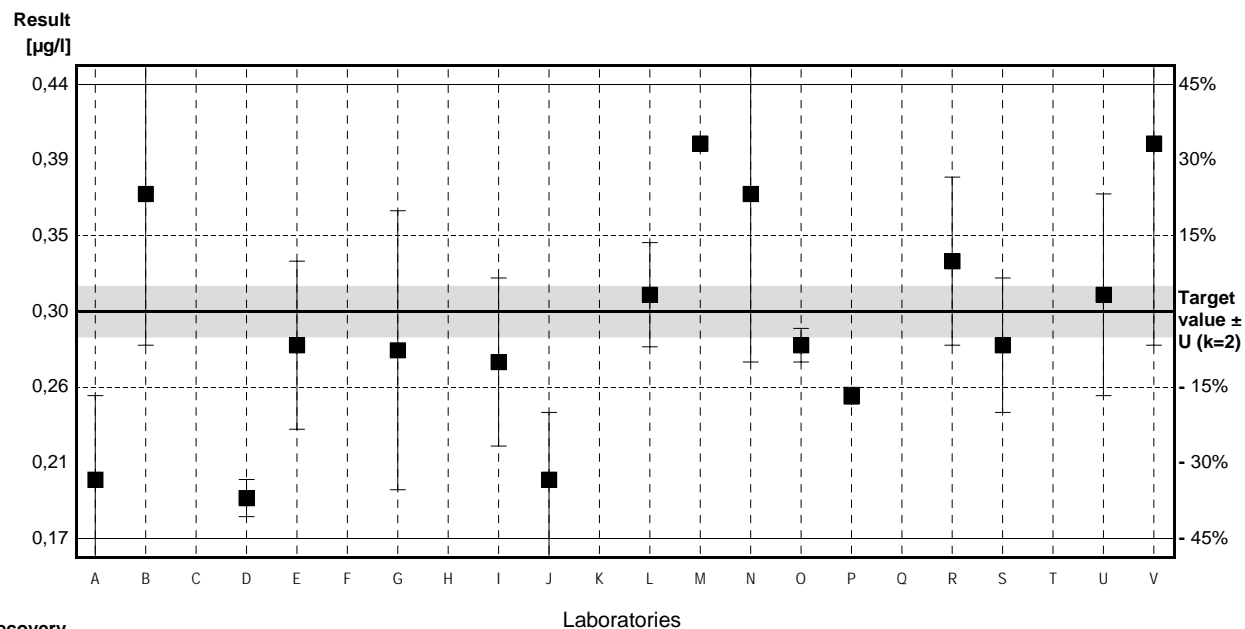
Sample C43A

Parameter Trichloromethane

Target value $\pm U$ (k=2) 0,30 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,30 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,28 $\mu\text{g/l}$ \pm 0,04 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,2	0,05	$\mu\text{g/l}$	67%	-2,22
B	0,37	0,09	$\mu\text{g/l}$	123%	1,56
C	0,60	0,01	$\mu\text{g/l}$	200%	6,67
D	0,189	0,011	$\mu\text{g/l}$	63%	-2,47
E	0,28	0,05	$\mu\text{g/l}$	93%	-0,44
F			$\mu\text{g/l}$		
G	0,277	0,083	$\mu\text{g/l}$	92%	-0,51
H	<0,5		$\mu\text{g/l}$	•	
I	0,27	0,05	$\mu\text{g/l}$	90%	-0,67
J	0,2	0,04	$\mu\text{g/l}$	67%	-2,22
K	0,14	0,028	$\mu\text{g/l}$	47%	-3,56
L	0,31	0,031	$\mu\text{g/l}$	103%	0,22
M	0,4		$\mu\text{g/l}$	133%	2,22
N	0,37	0,1	$\mu\text{g/l}$	123%	1,56
O	0,28	0,01	$\mu\text{g/l}$	93%	-0,44
P	0,25	0,005	$\mu\text{g/l}$	83%	-1,11
Q	0,471		$\mu\text{g/l}$	157%	3,80
R	0,33	0,05	$\mu\text{g/l}$	110%	0,67
S	0,28	0,04	$\mu\text{g/l}$	93%	-0,44
T	<0,1		$\mu\text{g/l}$	FN	
U	0,31	0,06	$\mu\text{g/l}$	103%	0,22
V	0,4	0,12	$\mu\text{g/l}$	133%	2,22

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,31 \pm 0,07	0,31 \pm 0,07	$\mu\text{g/l}$
Recov. \pm CI(99%)	104,0 \pm 23,8	104,0 \pm 23,8	%
SD between labs	0,11	0,11	$\mu\text{g/l}$
RSD between labs	34,7	34,7	%
n for calculation	19	19	



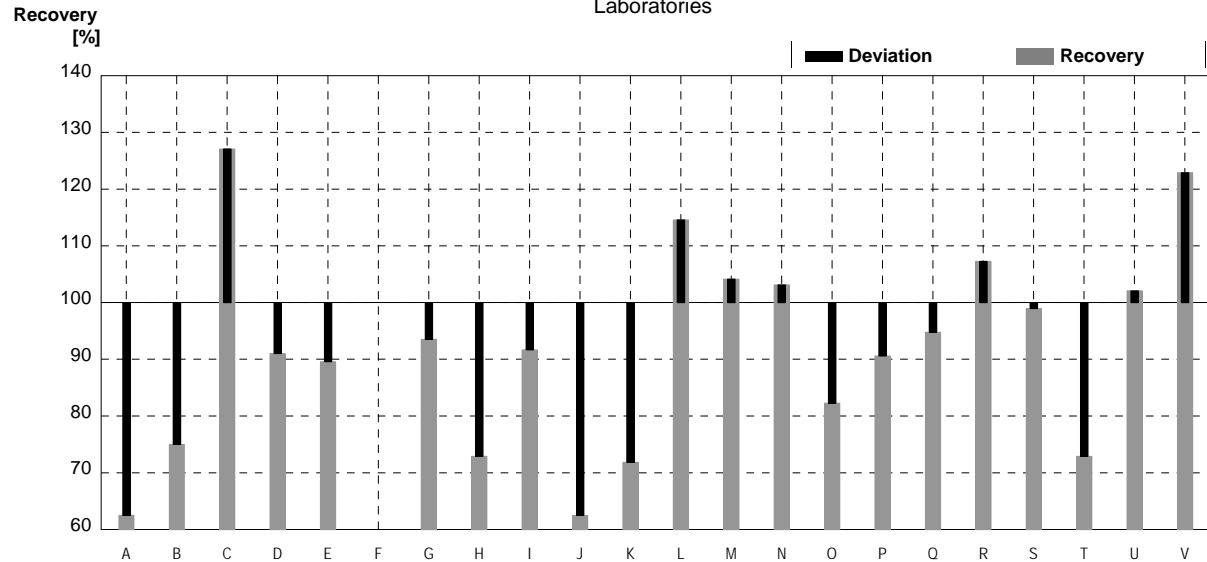
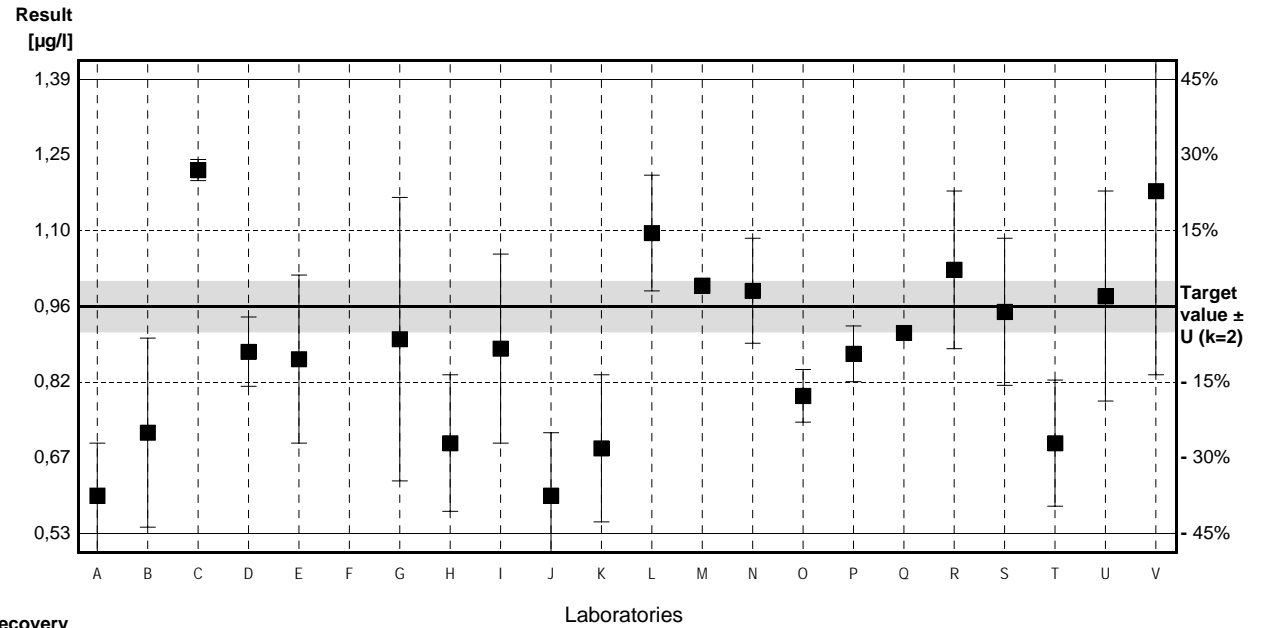
Sample C43B

Parameter Trichloromethane

Target value $\pm U$ (k=2) 0,96 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,98 $\mu\text{g/l}$ \pm 0,15 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,94 $\mu\text{g/l}$ \pm 0,14 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,6	0,1	$\mu\text{g/l}$	63%	-2,50
B	0,72	0,18	$\mu\text{g/l}$	75%	-1,67
C	1,22	0,02	$\mu\text{g/l}$	127%	1,81
D	0,874	0,066	$\mu\text{g/l}$	91%	-0,60
E	0,86	0,16	$\mu\text{g/l}$	90%	-0,69
F			$\mu\text{g/l}$		
G	0,898	0,270	$\mu\text{g/l}$	94%	-0,43
H	0,70	0,13	$\mu\text{g/l}$	73%	-1,81
I	0,88	0,18	$\mu\text{g/l}$	92%	-0,56
J	0,6	0,12	$\mu\text{g/l}$	63%	-2,50
K	0,69	0,14	$\mu\text{g/l}$	72%	-1,88
L	1,1	0,11	$\mu\text{g/l}$	115%	0,97
M	1,0		$\mu\text{g/l}$	104%	0,28
N	0,99	0,1	$\mu\text{g/l}$	103%	0,21
O	0,79	0,05	$\mu\text{g/l}$	82%	-1,18
P	0,87	0,053	$\mu\text{g/l}$	91%	-0,63
Q	0,910		$\mu\text{g/l}$	95%	-0,35
R	1,03	0,15	$\mu\text{g/l}$	107%	0,49
S	0,95	0,14	$\mu\text{g/l}$	99%	-0,07
T	0,7	0,12	$\mu\text{g/l}$	73%	-1,81
U	0,98	0,20	$\mu\text{g/l}$	102%	0,14
V	1,18	0,35	$\mu\text{g/l}$	123%	1,53

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,88 \pm 0,11	0,88 \pm 0,11	$\mu\text{g/l}$
Recov. \pm CI(99%)	92,0 \pm 11,3	92,0 \pm 11,3	%
SD between labs	0,17	0,17	$\mu\text{g/l}$
RSD between labs	19,8	19,8	%
n for calculation	21	21	



Sample C43A

Parameter Tetrachloromethane

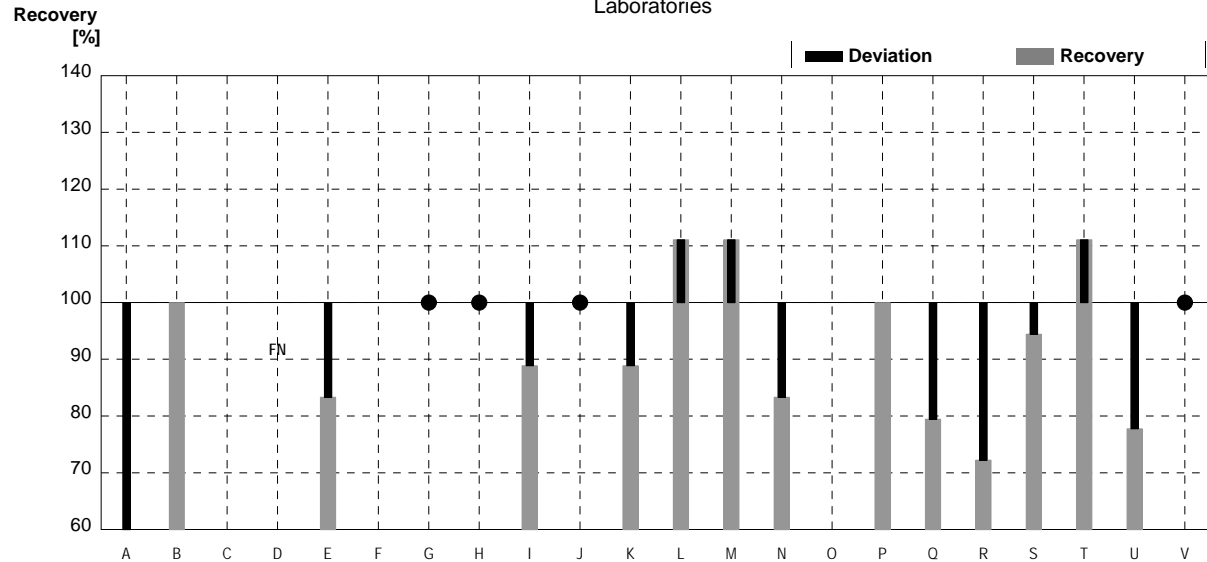
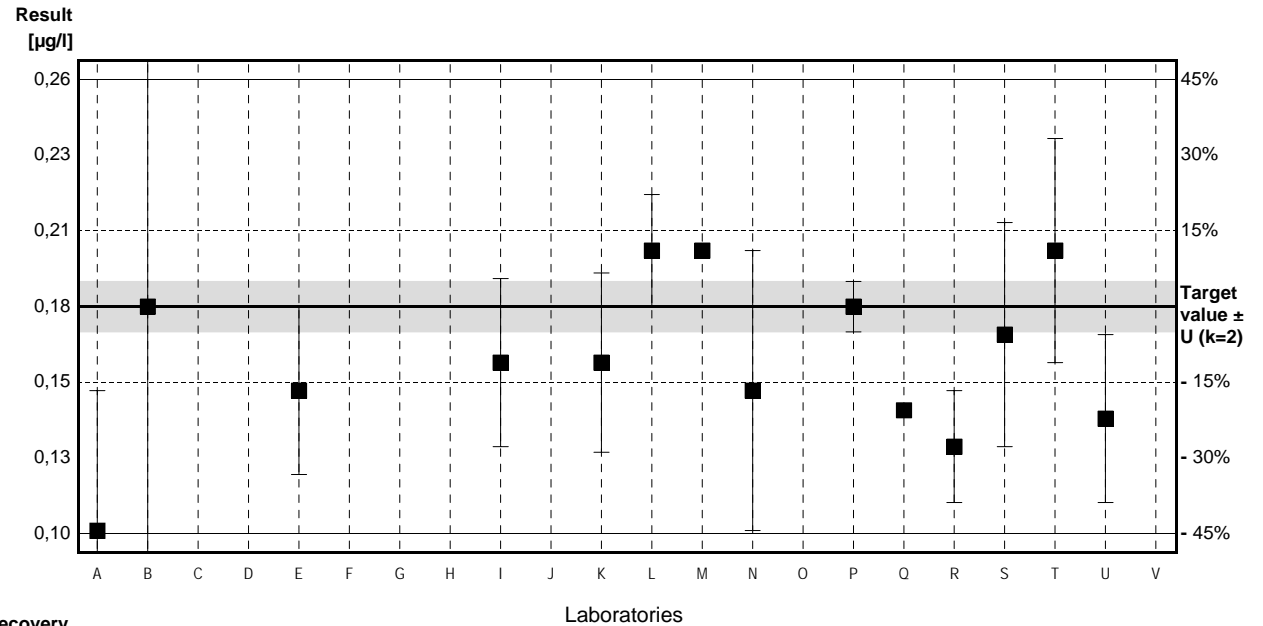
Target value ± U (k=2) 0,18 µg/l ± 0,01 µg/l

IFA result ± U (k=2) 0,17 µg/l ± 0,03 µg/l

Stability test ± U (k=2) 0,17 µg/l ± 0,03 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,1	0,05	µg/l	56%	-2,34
B	0,18	0,09	µg/l	100%	0,00
C			µg/l		
D	<0,10		µg/l	FN	
E	0,15	0,03	µg/l	83%	-0,88
F			µg/l		
G	<0,2		µg/l	•	
H	<0,5		µg/l	•	
I	0,16	0,03	µg/l	89%	-0,58
J	<0,2	0,04	µg/l	•	
K	0,16	0,032	µg/l	89%	-0,58
L	0,20	0,020	µg/l	111%	0,58
M	0,2		µg/l	111%	0,58
N	0,15	0,05	µg/l	83%	-0,88
O	n.b.	0,02	µg/l		
P	0,18	0,009	µg/l	100%	0,00
Q	0,143		µg/l	79%	-1,08
R	0,13	0,02	µg/l	72%	-1,46
S	0,17	0,04	µg/l	94%	-0,29
T	0,2	0,04	µg/l	111%	0,58
U	0,14	0,03	µg/l	78%	-1,17
V	<0,4		µg/l	•	

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,16 ± 0,02	0,16 ± 0,02	µg/l
Recov. ± CI(99%)	89,8 ± 13,0	89,8 ± 13,0	%
SD between labs	0,03	0,03	µg/l
RSD between labs	18,0	18,0	%
n for calculation	14	14	



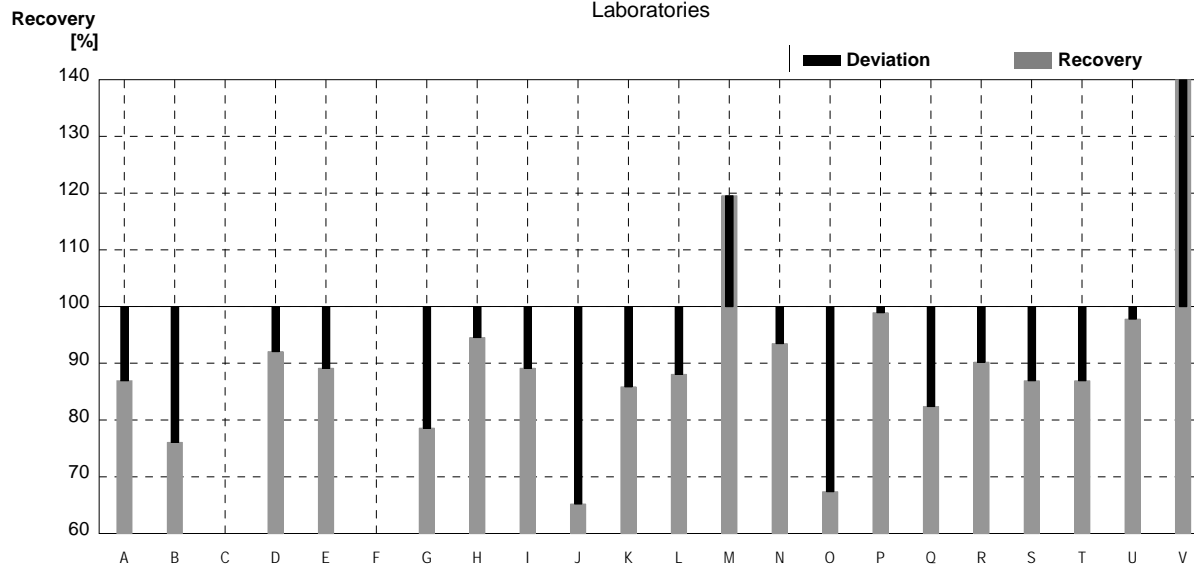
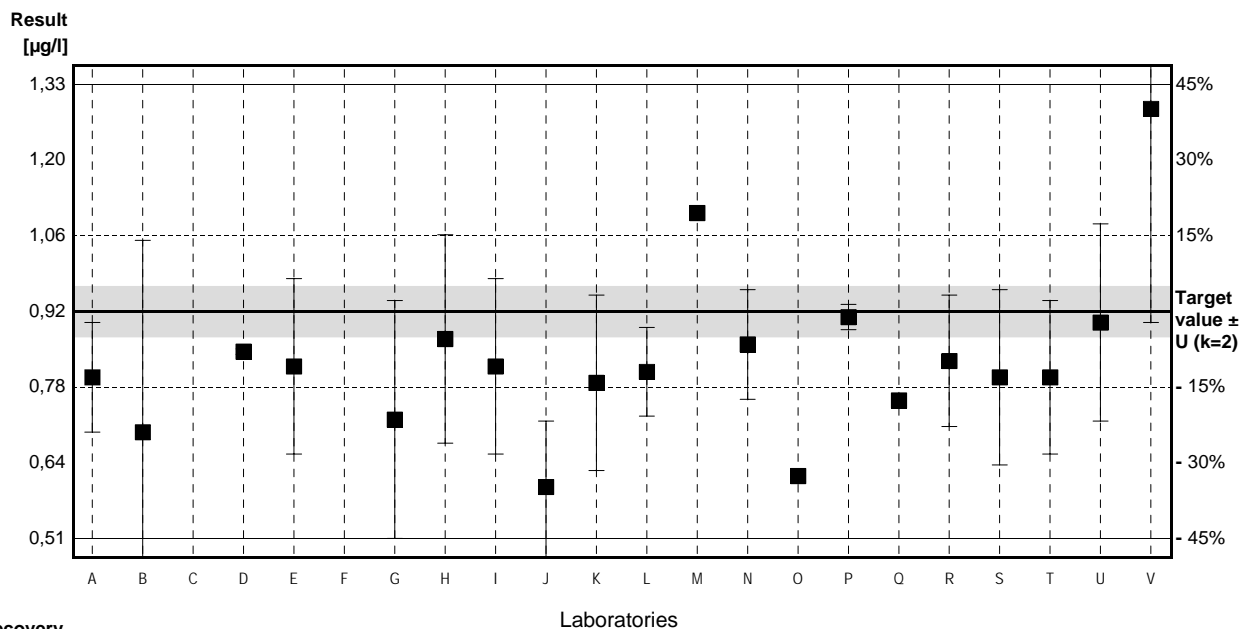
Sample C43B

Parameter Tetrachloromethane

Target value ± U (k=2) 0,92 µg/l ± 0,05 µg/l
 IFA result ± U (k=2) 0,93 µg/l ± 0,14 µg/l
 Stability test ± U (k=2) 0,84 µg/l ± 0,13 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,8	0,1	µg/l	87%	-0,69
B	0,70	0,35	µg/l	76%	-1,26
C			µg/l		
D	0,847	0,005	µg/l	92%	-0,42
E	0,82	0,16	µg/l	89%	-0,57
F			µg/l		
G	0,723	0,217	µg/l	79%	-1,13
H	0,87	0,19	µg/l	95%	-0,29
I	0,82	0,16	µg/l	89%	-0,57
J	0,6	0,12	µg/l	65%	-1,83
K	0,79	0,16	µg/l	86%	-0,74
L	0,81	0,081	µg/l	88%	-0,63
M	1,1 *		µg/l	120%	1,03
N	0,86	0,1	µg/l	93%	-0,34
O	0,62	0,01	µg/l	67%	-1,72
P	0,91	0,023	µg/l	99%	-0,06
Q	0,758		µg/l	82%	-0,93
R	0,83	0,12	µg/l	90%	-0,51
S	0,8	0,16	µg/l	87%	-0,69
T	0,8	0,14	µg/l	87%	-0,69
U	0,90	0,18	µg/l	98%	-0,11
V	1,29 *	0,39	µg/l	140%	2,12

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,83 ± 0,10	0,79 ± 0,06	µg/l
Recov. ± CI(99%)	90,5 ± 10,5	86,1 ± 6,3	%
SD between labs	0,15	0,09	µg/l
RSD between labs	18,2	10,8	%
n for calculation	20	18	



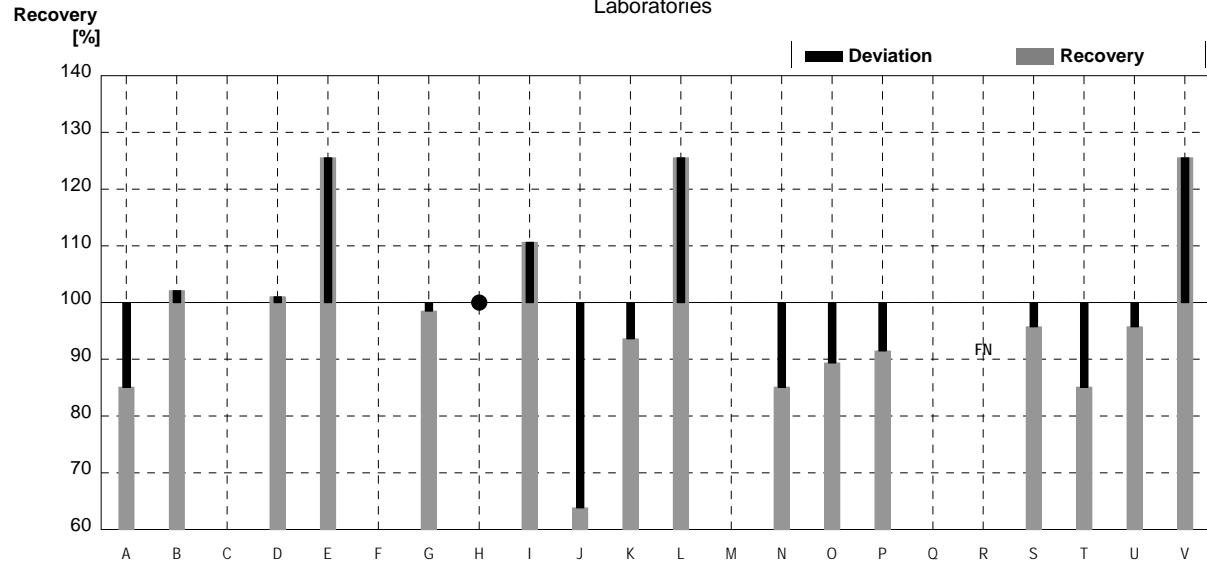
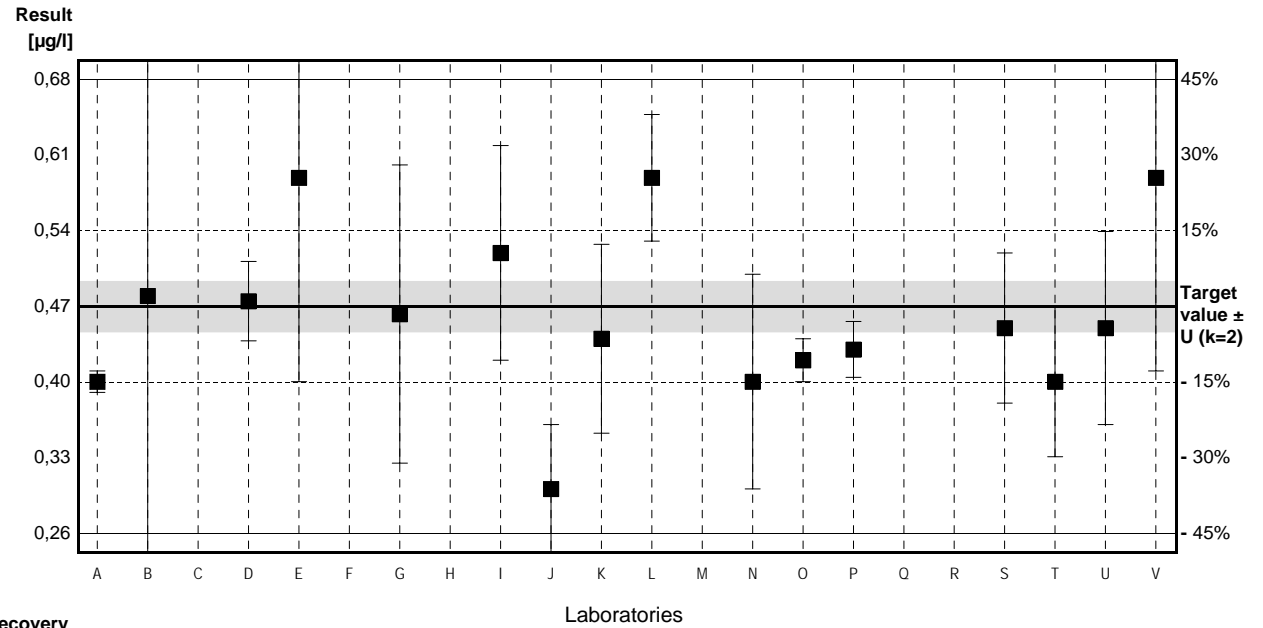
Sample C43A

Parameter 1,1-Dichloroethene

Target value $\pm U$ (k=2) 0,47 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,44 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,43 $\mu\text{g/l}$ \pm 0,06 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,4	0,01	$\mu\text{g/l}$	85%	-0,68
B	0,48	0,24	$\mu\text{g/l}$	102%	0,10
C			$\mu\text{g/l}$		
D	0,475	0,037	$\mu\text{g/l}$	101%	0,05
E	0,59	0,19	$\mu\text{g/l}$	126%	1,16
F			$\mu\text{g/l}$		
G	0,463	0,139	$\mu\text{g/l}$	99%	-0,07
H	<0,5		$\mu\text{g/l}$	•	
I	0,52	0,10	$\mu\text{g/l}$	111%	0,48
J	0,3	0,06	$\mu\text{g/l}$	64%	-1,64
K	0,44	0,088	$\mu\text{g/l}$	94%	-0,29
L	0,59	0,059	$\mu\text{g/l}$	126%	1,16
M			$\mu\text{g/l}$		
N	0,40	0,1	$\mu\text{g/l}$	85%	-0,68
O	0,42	0,02	$\mu\text{g/l}$	89%	-0,48
P	0,43	0,026	$\mu\text{g/l}$	91%	-0,39
Q			$\mu\text{g/l}$		
R	[0,2]		$\mu\text{g/l}$	FN	
S	0,45	0,07	$\mu\text{g/l}$	96%	-0,19
T	0,4	0,07	$\mu\text{g/l}$	85%	-0,68
U	0,45	0,09	$\mu\text{g/l}$	96%	-0,19
V	0,59	0,18	$\mu\text{g/l}$	126%	1,16

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,46 \pm 0,06	0,46 \pm 0,06	$\mu\text{g/l}$
Recov. \pm CI(99%)	98,4 \pm 12,4	98,4 \pm 12,4	%
SD between labs	0,08	0,08	$\mu\text{g/l}$
RSD between labs	17,2	17,2	%
n for calculation	16	16	



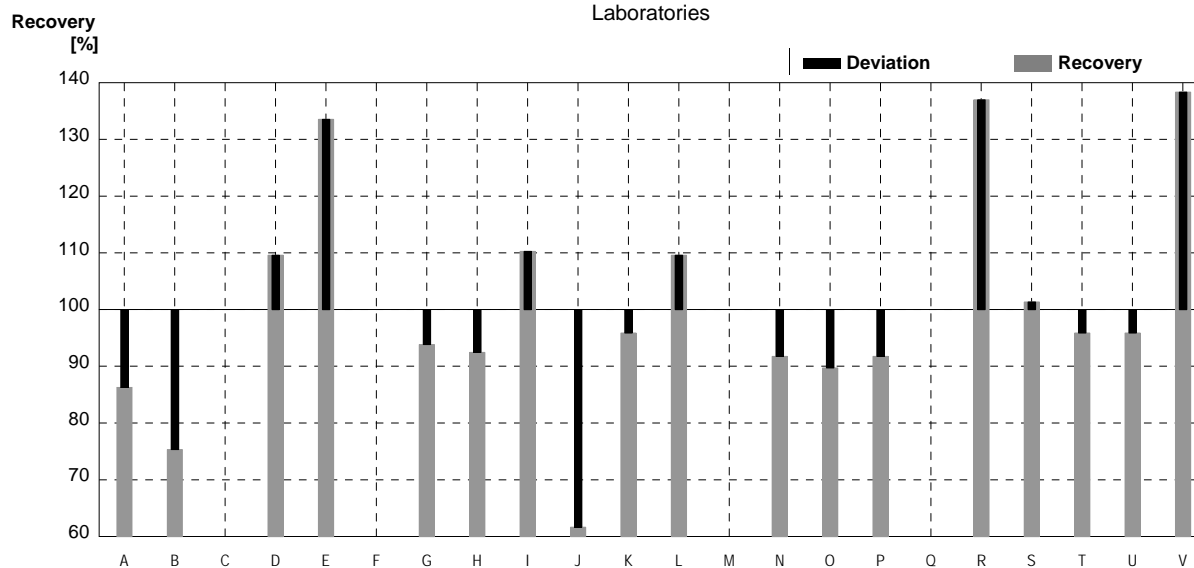
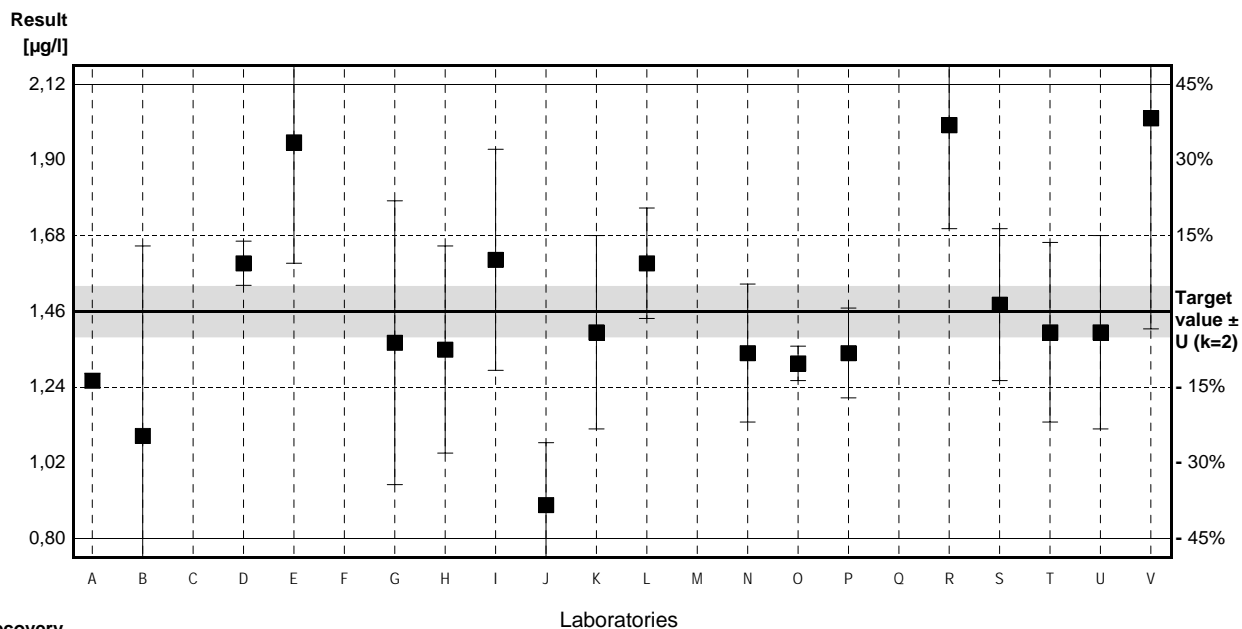
Sample C43B

Parameter 1,1-Dichloroethene

Target value $\pm U$ (k=2) 1,46 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 1,47 $\mu\text{g/l}$ \pm 0,22 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 1,32 $\mu\text{g/l}$ \pm 0,20 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	1,26	0,02	$\mu\text{g/l}$	86%	-0,62
B	1,10	0,55	$\mu\text{g/l}$	75%	-1,12
C			$\mu\text{g/l}$		
D	1,60	0,064	$\mu\text{g/l}$	110%	0,44
E	1,95 *	0,35	$\mu\text{g/l}$	134%	1,53
F			$\mu\text{g/l}$		
G	1,370	0,411	$\mu\text{g/l}$	94%	-0,28
H	1,35	0,30	$\mu\text{g/l}$	92%	-0,34
I	1,61	0,32	$\mu\text{g/l}$	110%	0,47
J	0,9	0,18	$\mu\text{g/l}$	62%	-1,74
K	1,4	0,28	$\mu\text{g/l}$	96%	-0,19
L	1,6	0,16	$\mu\text{g/l}$	110%	0,44
M			$\mu\text{g/l}$		
N	1,34	0,2	$\mu\text{g/l}$	92%	-0,37
O	1,31	0,05	$\mu\text{g/l}$	90%	-0,47
P	1,34	0,130	$\mu\text{g/l}$	92%	-0,37
Q			$\mu\text{g/l}$		
R	2 *	0,3	$\mu\text{g/l}$	137%	1,68
S	1,48	0,22	$\mu\text{g/l}$	101%	0,06
T	1,4	0,26	$\mu\text{g/l}$	96%	-0,19
U	1,4	0,28	$\mu\text{g/l}$	96%	-0,19
V	2,02 *	0,61	$\mu\text{g/l}$	138%	1,74

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,47 \pm 0,20	1,36 \pm 0,14	$\mu\text{g/l}$
Recov. \pm CI(99%)	100,6 \pm 13,8	93,4 \pm 9,9	%
SD between labs	0,29	0,19	$\mu\text{g/l}$
RSD between labs	20,0	13,7	%
n for calculation	18	15	



Sample C43A

Parameter Tribromomethane

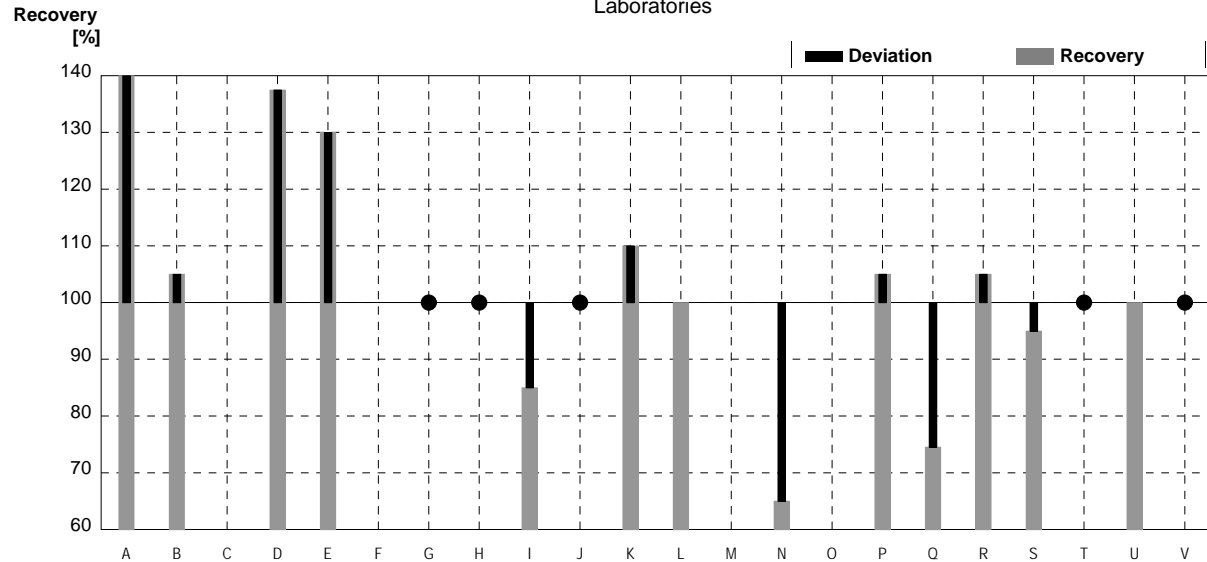
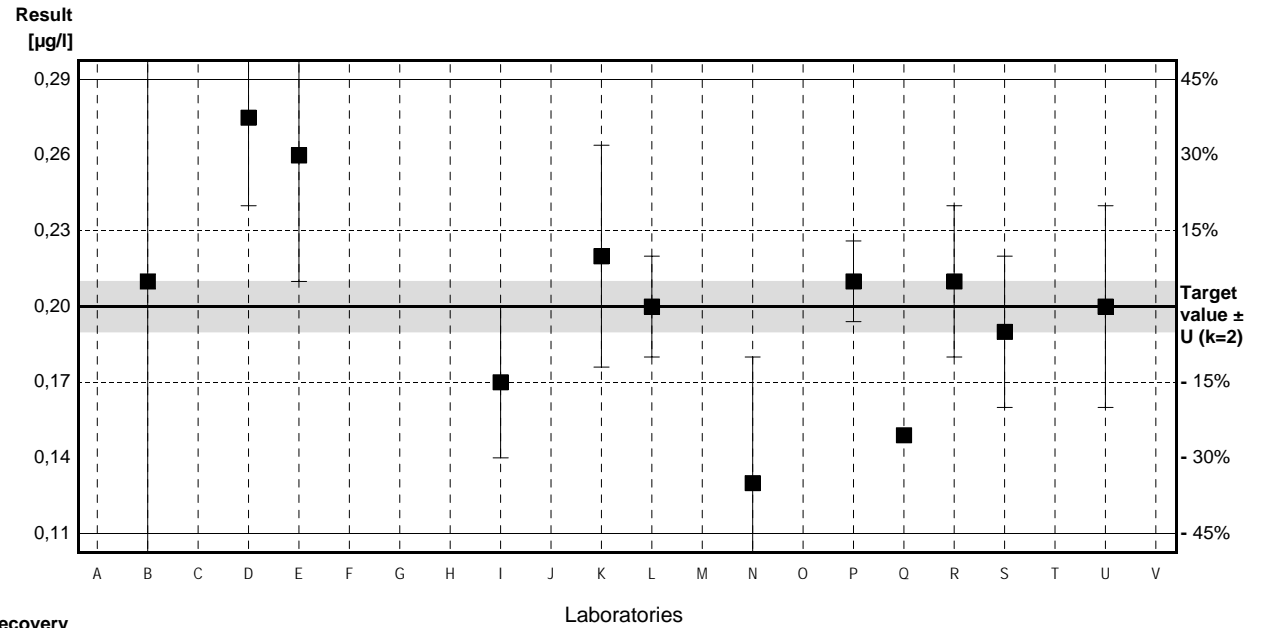
Target value $\pm U$ (k=2) 0,20 $\mu\text{g/l}$ \pm 0,01 $\mu\text{g/l}$

IFA result $\pm U$ (k=2) 0,19 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$

Stability test $\pm U$ (k=2) 0,19 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,3	0,05	$\mu\text{g/l}$	150%	2,94
B	0,21	0,11	$\mu\text{g/l}$	105%	0,29
C			$\mu\text{g/l}$		
D	0,275	0,035	$\mu\text{g/l}$	138%	2,21
E	0,26	0,05	$\mu\text{g/l}$	130%	1,76
F			$\mu\text{g/l}$		
G	<0,2		$\mu\text{g/l}$	•	
H	<0,5		$\mu\text{g/l}$	•	
I	0,17	0,03	$\mu\text{g/l}$	85%	-0,88
J	<0,5	0,1	$\mu\text{g/l}$	•	
K	0,22	0,044	$\mu\text{g/l}$	110%	0,59
L	0,20	0,020	$\mu\text{g/l}$	100%	0,00
M	n.n.		$\mu\text{g/l}$		
N	0,13	0,05	$\mu\text{g/l}$	65%	-2,06
O			$\mu\text{g/l}$		
P	0,21	0,016	$\mu\text{g/l}$	105%	0,29
Q	0,149		$\mu\text{g/l}$	75%	-1,50
R	0,21	0,03	$\mu\text{g/l}$	105%	0,29
S	0,19	0,03	$\mu\text{g/l}$	95%	-0,29
T	<1		$\mu\text{g/l}$	•	
U	0,20	0,04	$\mu\text{g/l}$	100%	0,00
V	<0,4		$\mu\text{g/l}$	•	

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,21 \pm 0,04	0,21 \pm 0,04	$\mu\text{g/l}$
Recov. \pm CI(99%)	104,8 \pm 20,2	104,8 \pm 20,2	%
SD between labs	0,05	0,05	$\mu\text{g/l}$
RSD between labs	22,7	22,7	%
n for calculation	13	13	



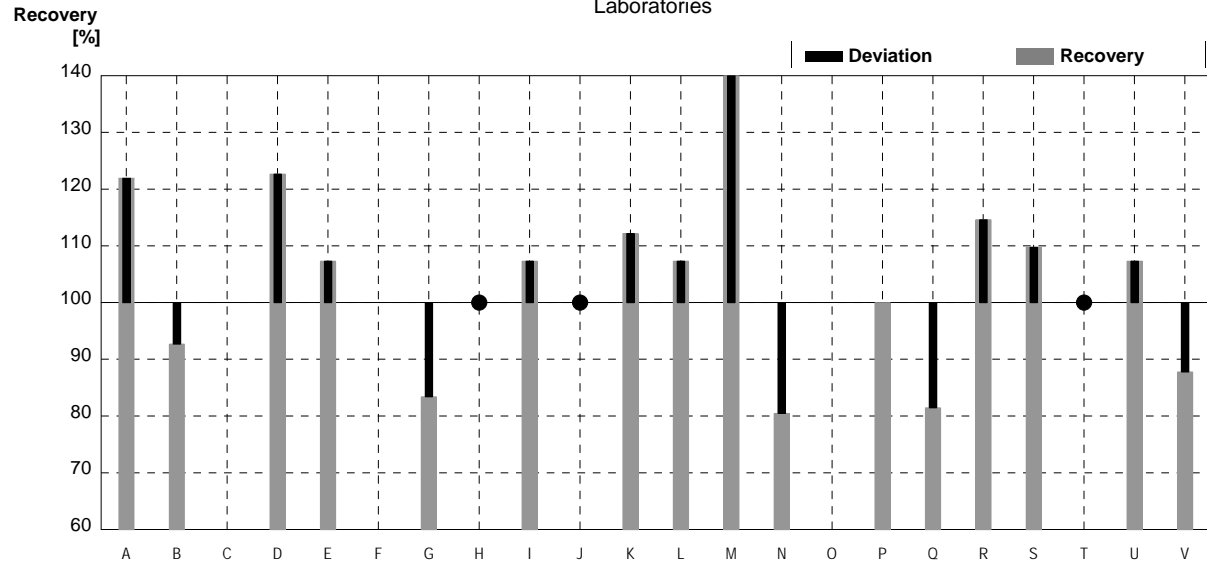
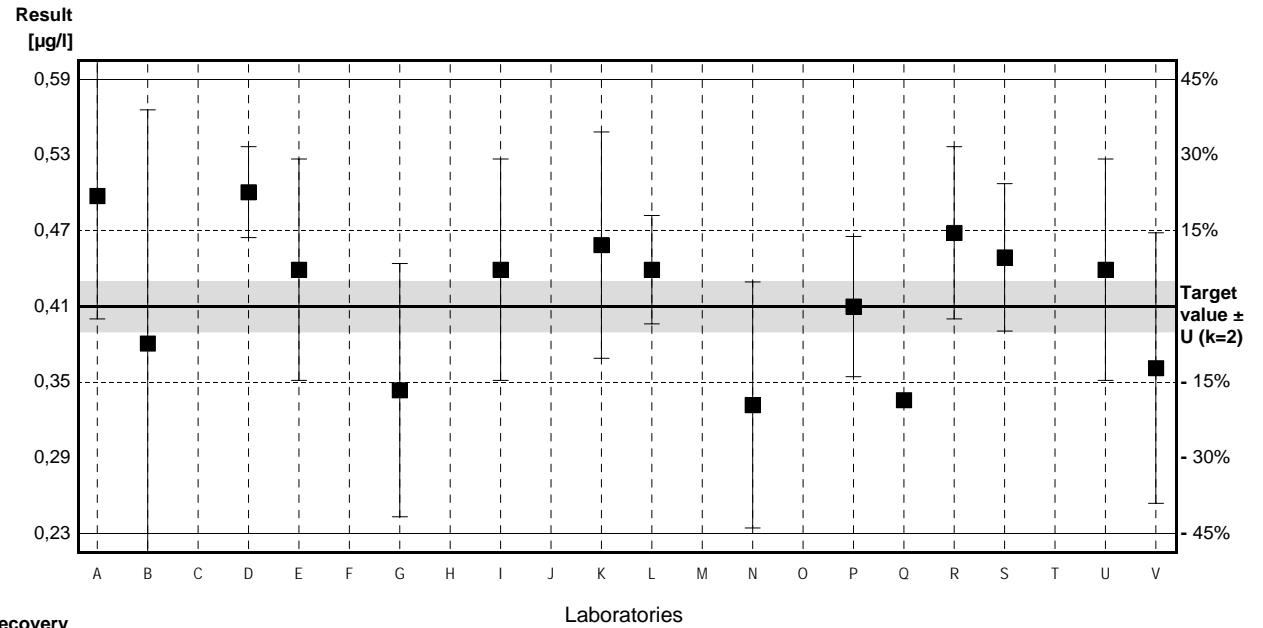
Sample C43B

Parameter Tribromomethane

Target value $\pm U$ (k=2) 0,41 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,41 $\mu\text{g/l}$ \pm 0,06 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,40 $\mu\text{g/l}$ \pm 0,06 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,5	0,1	$\mu\text{g/l}$	122%	1,29
B	0,38	0,19	$\mu\text{g/l}$	93%	-0,43
C			$\mu\text{g/l}$		
D	0,503	0,037	$\mu\text{g/l}$	123%	1,33
E	0,44	0,09	$\mu\text{g/l}$	107%	0,43
F			$\mu\text{g/l}$		
G	0,342	0,103	$\mu\text{g/l}$	83%	-0,98
H	<0,5		$\mu\text{g/l}$	•	
I	0,44	0,09	$\mu\text{g/l}$	107%	0,43
J	<0,5	0,1	$\mu\text{g/l}$	•	
K	0,46	0,092	$\mu\text{g/l}$	112%	0,72
L	0,44	0,044	$\mu\text{g/l}$	107%	0,43
M	0,6		$\mu\text{g/l}$	146%	2,73
N	0,33	0,1	$\mu\text{g/l}$	80%	-1,15
O			$\mu\text{g/l}$		
P	0,41	0,057	$\mu\text{g/l}$	100%	0,00
Q	0,334		$\mu\text{g/l}$	81%	-1,09
R	0,47	0,07	$\mu\text{g/l}$	115%	0,86
S	0,45	0,06	$\mu\text{g/l}$	110%	0,57
T	<1		$\mu\text{g/l}$	•	
U	0,44	0,09	$\mu\text{g/l}$	107%	0,43
V	0,36	0,11	$\mu\text{g/l}$	88%	-0,72

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,43 \pm 0,05	0,43 \pm 0,05	$\mu\text{g/l}$
Recov. \pm CI(99%)	105,2 \pm 12,9	105,2 \pm 12,9	%
SD between labs	0,07	0,07	$\mu\text{g/l}$
RSD between labs	16,6	16,6	%
n for calculation	16	16	



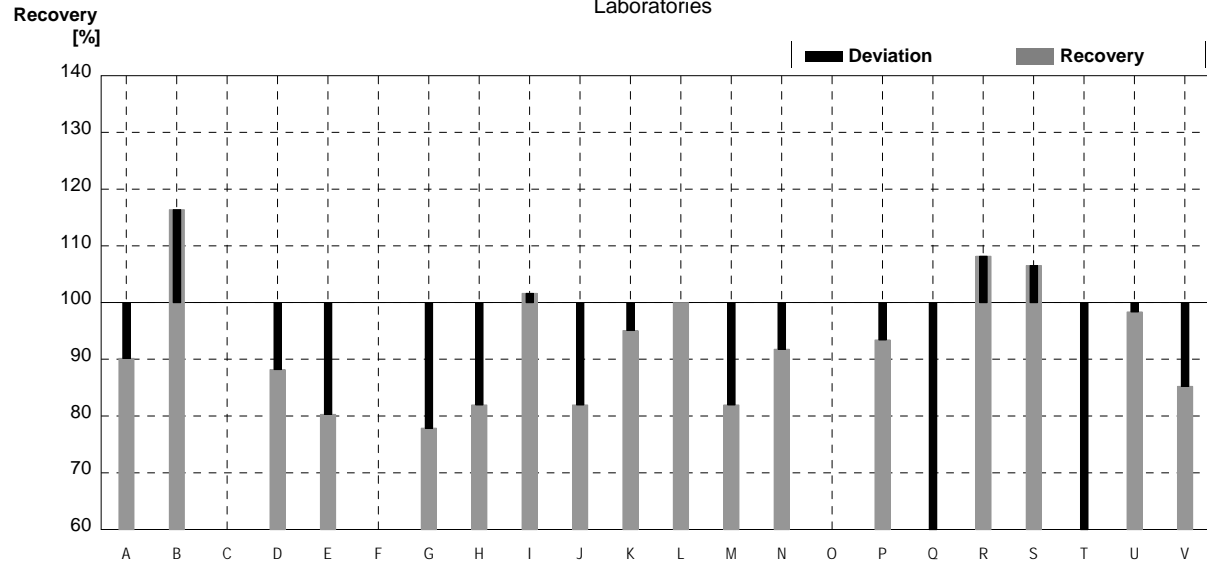
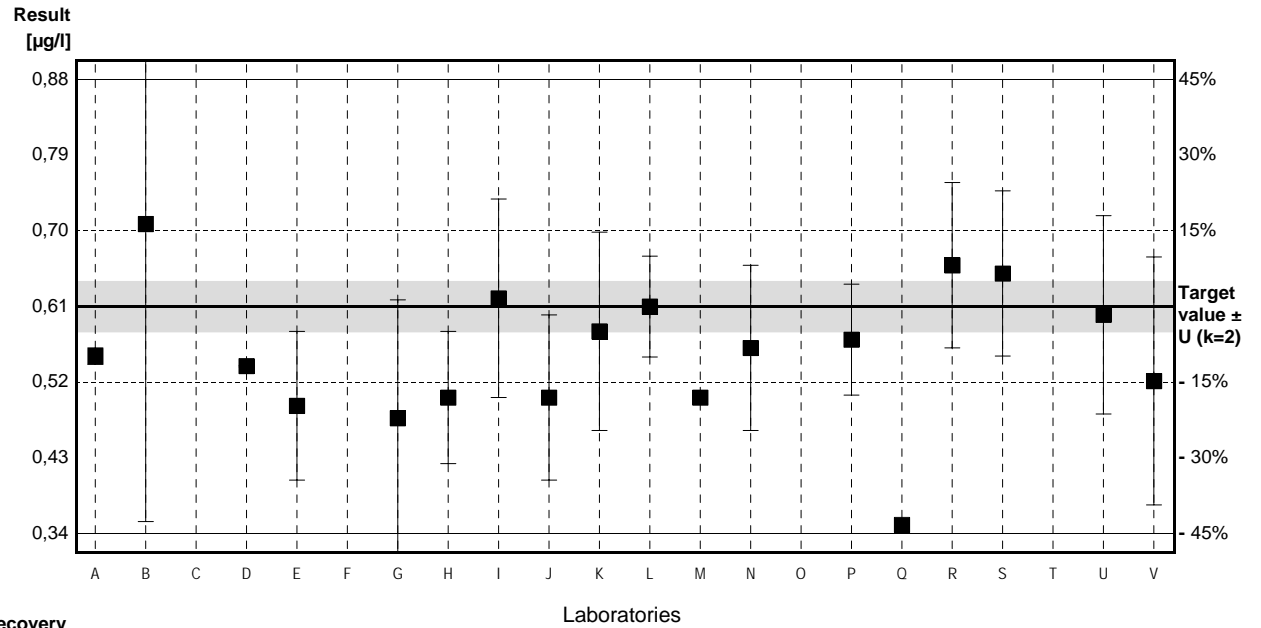
Sample C43A

Parameter Bromodichloromethane

Target value $\pm U$ (k=2) 0,61 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,58 $\mu\text{g/l}$ \pm 0,09 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,57 $\mu\text{g/l}$ \pm 0,09 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,55	0,01	$\mu\text{g/l}$	90%	-0,70
B	0,71	0,36	$\mu\text{g/l}$	116%	1,17
C			$\mu\text{g/l}$		
D	0,538	0,001	$\mu\text{g/l}$	88%	-0,84
E	0,49	0,09	$\mu\text{g/l}$	80%	-1,41
F			$\mu\text{g/l}$		
G	0,475	0,143	$\mu\text{g/l}$	78%	-1,58
H	0,50	0,08	$\mu\text{g/l}$	82%	-1,29
I	0,62	0,12	$\mu\text{g/l}$	102%	0,12
J	0,5	0,1	$\mu\text{g/l}$	82%	-1,29
K	0,58	0,12	$\mu\text{g/l}$	95%	-0,35
L	0,61	0,061	$\mu\text{g/l}$	100%	0,00
M	0,5		$\mu\text{g/l}$	82%	-1,29
N	0,56	0,1	$\mu\text{g/l}$	92%	-0,59
O			$\mu\text{g/l}$		
P	0,57	0,067	$\mu\text{g/l}$	93%	-0,47
Q	0,346		$\mu\text{g/l}$	57%	-3,09
R	0,66	0,1	$\mu\text{g/l}$	108%	0,59
S	0,65	0,10	$\mu\text{g/l}$	107%	0,47
T	0,3 *	0,05	$\mu\text{g/l}$	49%	-3,63
U	0,60	0,12	$\mu\text{g/l}$	98%	-0,12
V	0,52	0,15	$\mu\text{g/l}$	85%	-1,05

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,54 \pm 0,07	0,55 \pm 0,06	$\mu\text{g/l}$
Recov. \pm CI(99%)	88,7 \pm 10,8	90,9 \pm 9,4	%
SD between labs	0,10	0,08	$\mu\text{g/l}$
RSD between labs	18,5	15,1	%
n for calculation	19	18	



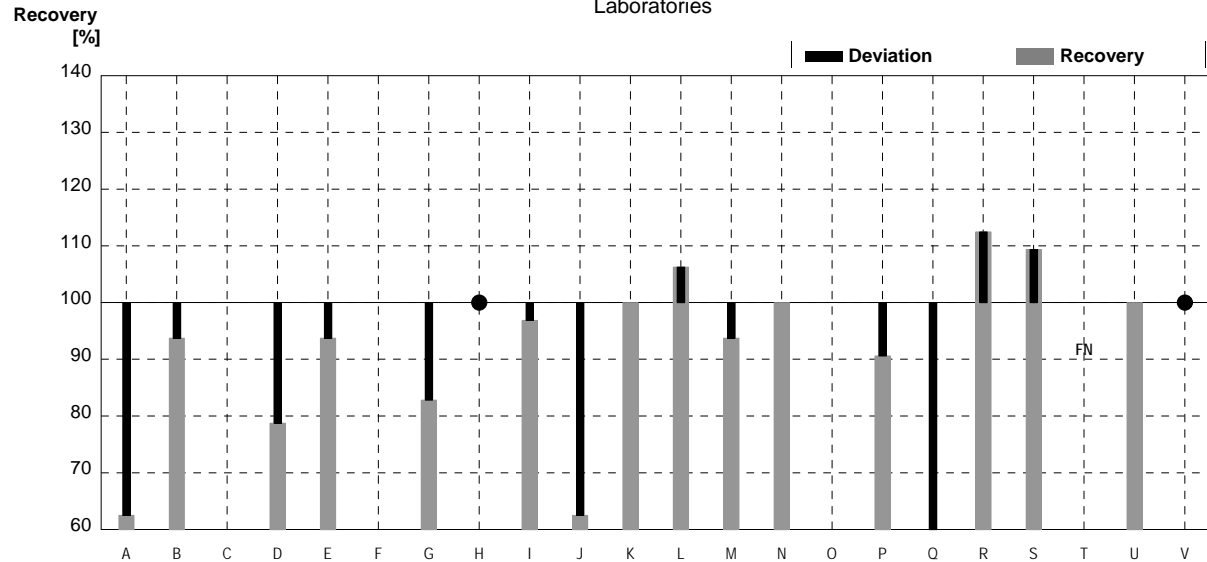
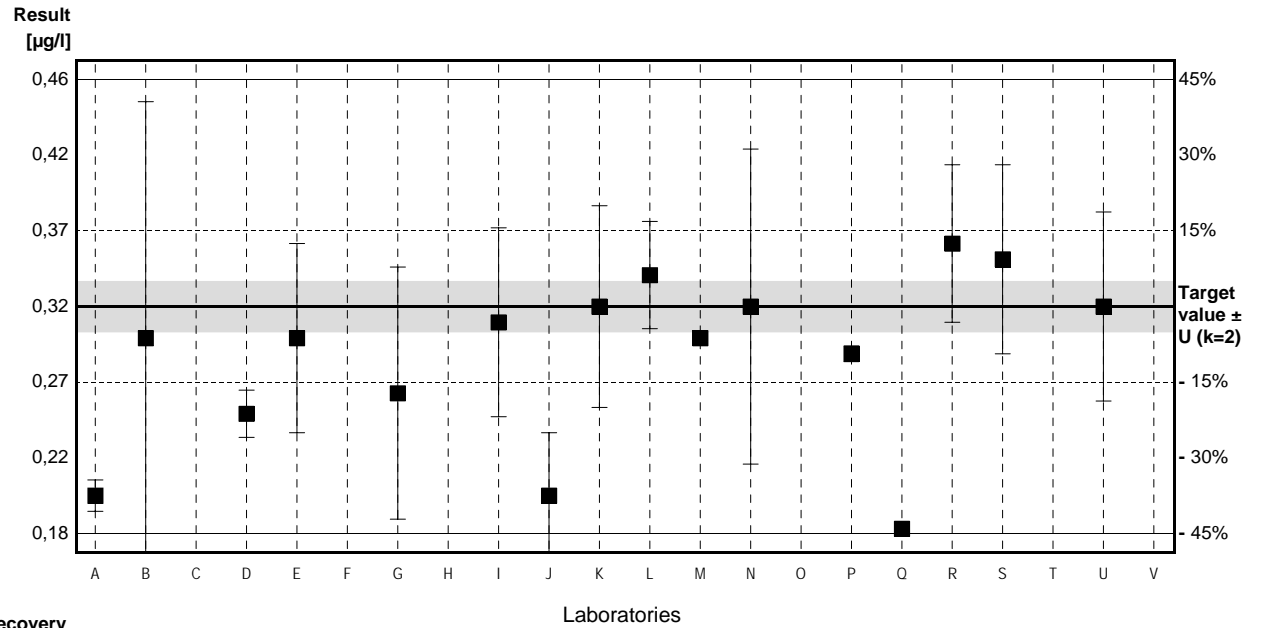
Sample C43B

Parameter Bromodichloromethane

Target value ± U (k=2) 0,32 µg/l ± 0,02 µg/l
 IFA result ± U (k=2) 0,33 µg/l ± 0,05 µg/l
 Stability test ± U (k=2) 0,31 µg/l ± 0,05 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,2	0,01	µg/l	63%	-2,68
B	0,30	0,15	µg/l	94%	-0,45
C			µg/l		
D	0,252	0,015	µg/l	79%	-1,52
E	0,30	0,06	µg/l	94%	-0,45
F			µg/l		
G	0,265	0,080	µg/l	83%	-1,23
H	<0,5		µg/l	•	
I	0,31	0,06	µg/l	97%	-0,22
J	0,2	0,04	µg/l	63%	-2,68
K	0,32	0,064	µg/l	100%	0,00
L	0,34	0,034	µg/l	106%	0,45
M	0,3		µg/l	94%	-0,45
N	0,32	0,1	µg/l	100%	0,00
O			µg/l		
P	0,29	0,005	µg/l	91%	-0,67
Q	0,179		µg/l	56%	-3,15
R	0,36	0,05	µg/l	113%	0,89
S	0,35	0,06	µg/l	109%	0,67
T	<0,2		µg/l	FN	
U	0,32	0,06	µg/l	100%	0,00
V	<0,4		µg/l	•	

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,29 ± 0,04	0,29 ± 0,04	µg/l
Recov. ± CI(99%)	90,0 ± 12,6	90,0 ± 12,6	%
SD between labs	0,05	0,05	µg/l
RSD between labs	19,0	19,0	%
n for calculation	16	16	



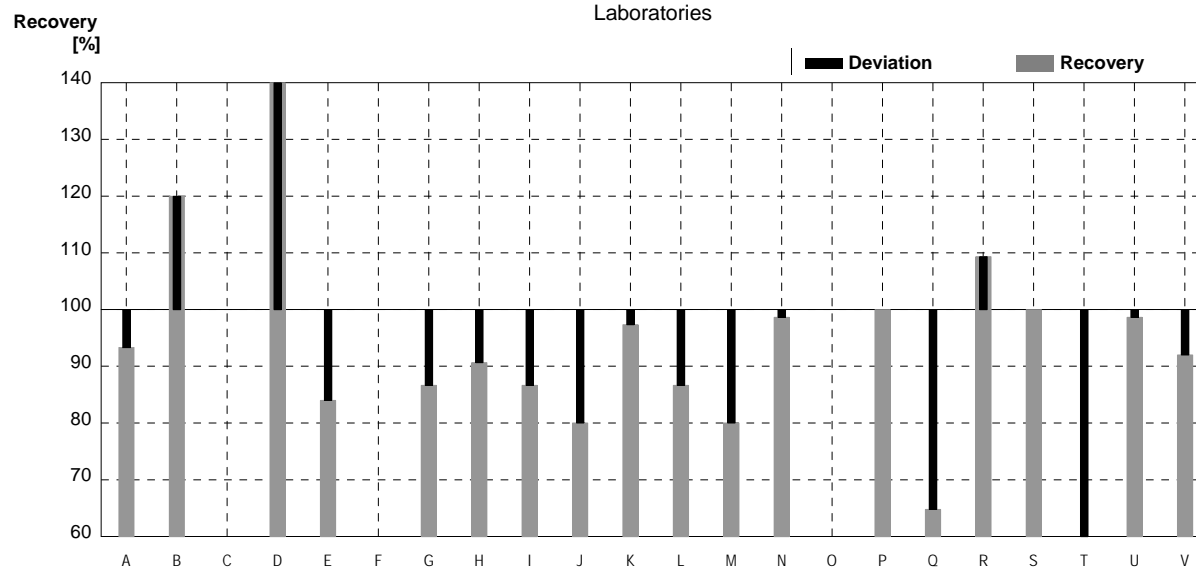
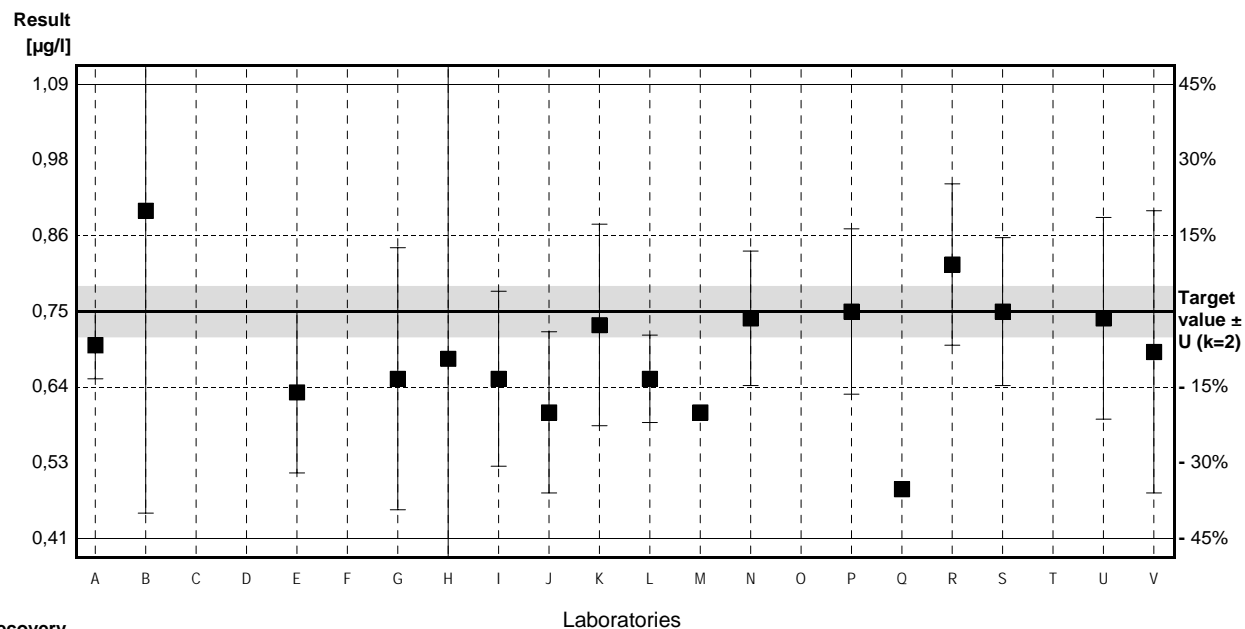
Sample C43A

Parameter Dibromochloromethane

Target value $\pm U$ (k=2) 0,75 $\mu\text{g/l}$ \pm 0,04 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,72 $\mu\text{g/l}$ \pm 0,11 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,71 $\mu\text{g/l}$ \pm 0,11 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,7	0,05	$\mu\text{g/l}$	93%	-0,44
B	0,90	0,45	$\mu\text{g/l}$	120%	1,33
C			$\mu\text{g/l}$		
D	2,61 *	0,049	$\mu\text{g/l}$	348%	16,53
E	0,63	0,12	$\mu\text{g/l}$	84%	-1,07
F			$\mu\text{g/l}$		
G	0,650	0,195	$\mu\text{g/l}$	87%	-0,89
H	0,68	0,44	$\mu\text{g/l}$	91%	-0,62
I	0,65	0,13	$\mu\text{g/l}$	87%	-0,89
J	0,6	0,12	$\mu\text{g/l}$	80%	-1,33
K	0,73	0,15	$\mu\text{g/l}$	97%	-0,18
L	0,65	0,065	$\mu\text{g/l}$	87%	-0,89
M	0,6		$\mu\text{g/l}$	80%	-1,33
N	0,74	0,1	$\mu\text{g/l}$	99%	-0,09
O			$\mu\text{g/l}$		
P	0,75	0,123	$\mu\text{g/l}$	100%	0,00
Q	0,486		$\mu\text{g/l}$	65%	-2,35
R	0,82	0,12	$\mu\text{g/l}$	109%	0,62
S	0,75	0,11	$\mu\text{g/l}$	100%	0,00
T	0,3 *	0,06	$\mu\text{g/l}$	40%	-4,00
U	0,74	0,15	$\mu\text{g/l}$	99%	-0,09
V	0,69	0,21	$\mu\text{g/l}$	92%	-0,53

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,77 \pm 0,31	0,69 \pm 0,07	$\mu\text{g/l}$
Recov. \pm CI(99%)	103,0 \pm 40,7	92,3 \pm 8,9	%
SD between labs	0,46	0,09	$\mu\text{g/l}$
RSD between labs	59,9	13,6	%
n for calculation	19	17	



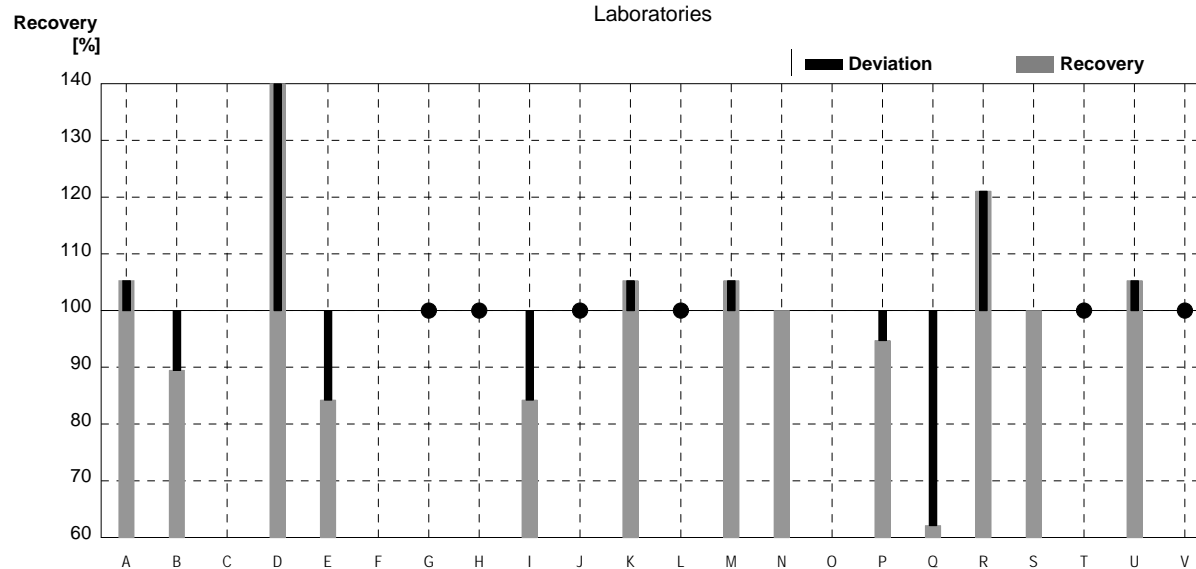
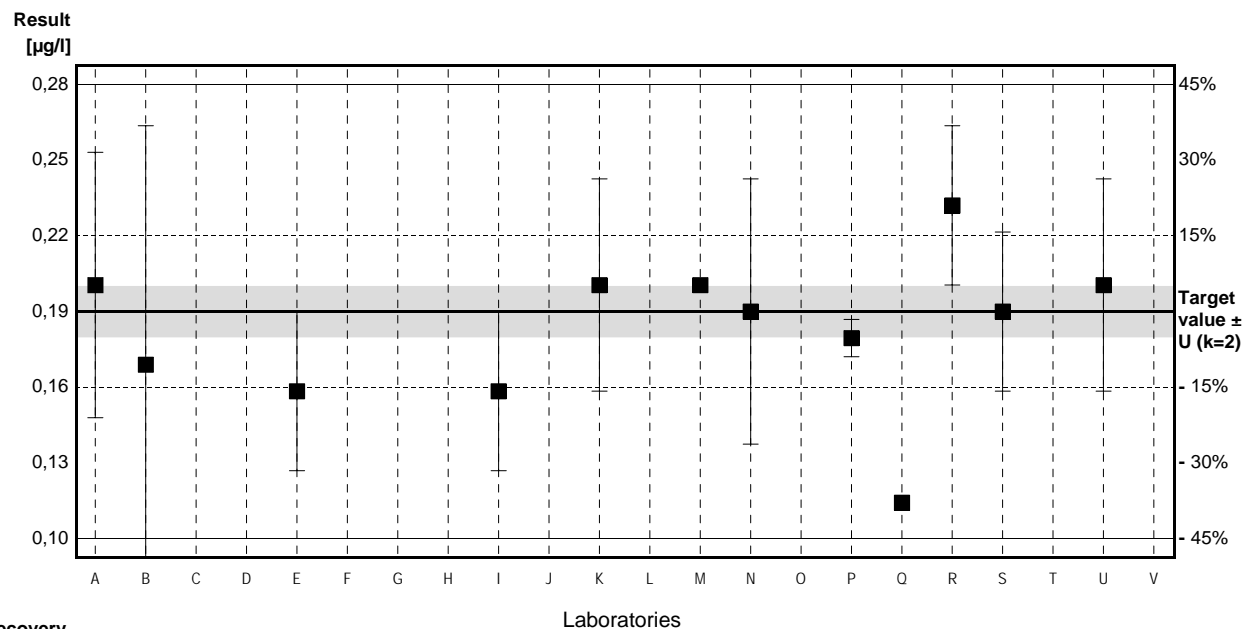
Sample C43B

Parameter Dibromochloromethane

Target value $\pm U$ (k=2) 0,19 $\mu\text{g/l}$ \pm 0,01 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,20 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,19 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,2	0,05	$\mu\text{g/l}$	105%	0,35
B	0,17	0,09	$\mu\text{g/l}$	89%	-0,70
C			$\mu\text{g/l}$		
D	0,876 *	0,076	$\mu\text{g/l}$	461%	24,07
E	0,16	0,03	$\mu\text{g/l}$	84%	-1,05
F			$\mu\text{g/l}$		
G	<0,2		$\mu\text{g/l}$	•	
H	<0,5		$\mu\text{g/l}$	•	
I	0,16	0,03	$\mu\text{g/l}$	84%	-1,05
J	<0,2	0,04	$\mu\text{g/l}$	•	
K	0,20	0,04	$\mu\text{g/l}$	105%	0,35
L	<0,20	0,020	$\mu\text{g/l}$	•	
M	0,2		$\mu\text{g/l}$	105%	0,35
N	0,19	0,05	$\mu\text{g/l}$	100%	0,00
O			$\mu\text{g/l}$		
P	0,18	0,007	$\mu\text{g/l}$	95%	-0,35
Q	0,118 *		$\mu\text{g/l}$	62%	-2,53
R	0,23	0,03	$\mu\text{g/l}$	121%	1,40
S	0,19	0,03	$\mu\text{g/l}$	100%	0,00
T	<0,2		$\mu\text{g/l}$	•	
U	0,20	0,04	$\mu\text{g/l}$	105%	0,35
V	<0,4		$\mu\text{g/l}$	•	

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,24 \pm 0,16	0,19 \pm 0,02	$\mu\text{g/l}$
Recov. \pm CI(99%)	124,5 \pm 86,4	99,5 \pm 10,4	%
SD between labs	0,19	0,02	$\mu\text{g/l}$
RSD between labs	82,1	11,0	%
n for calculation	13	11	

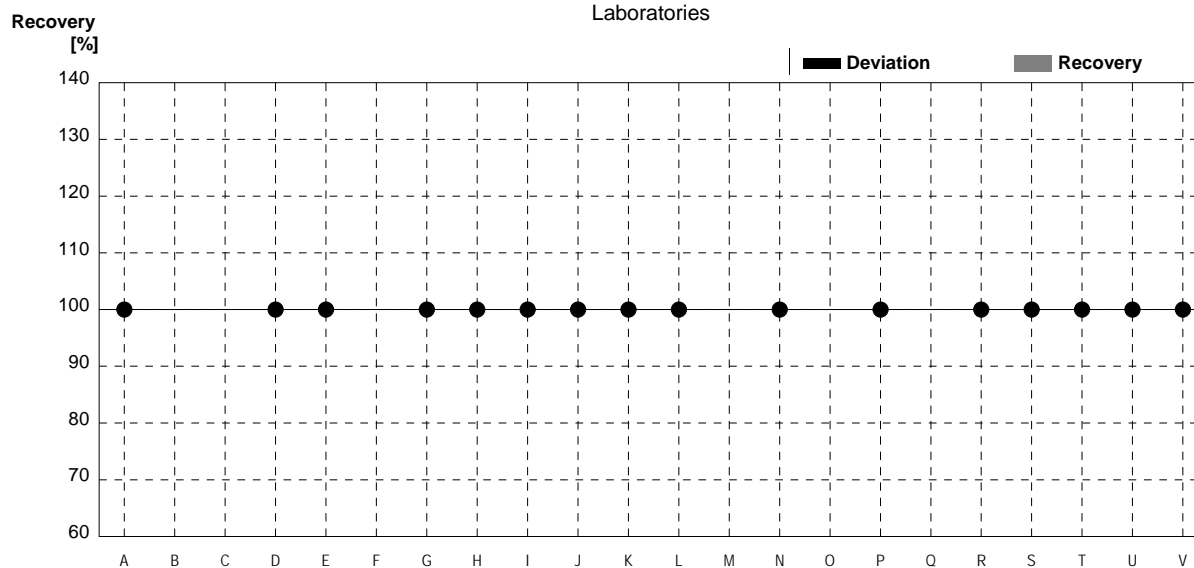
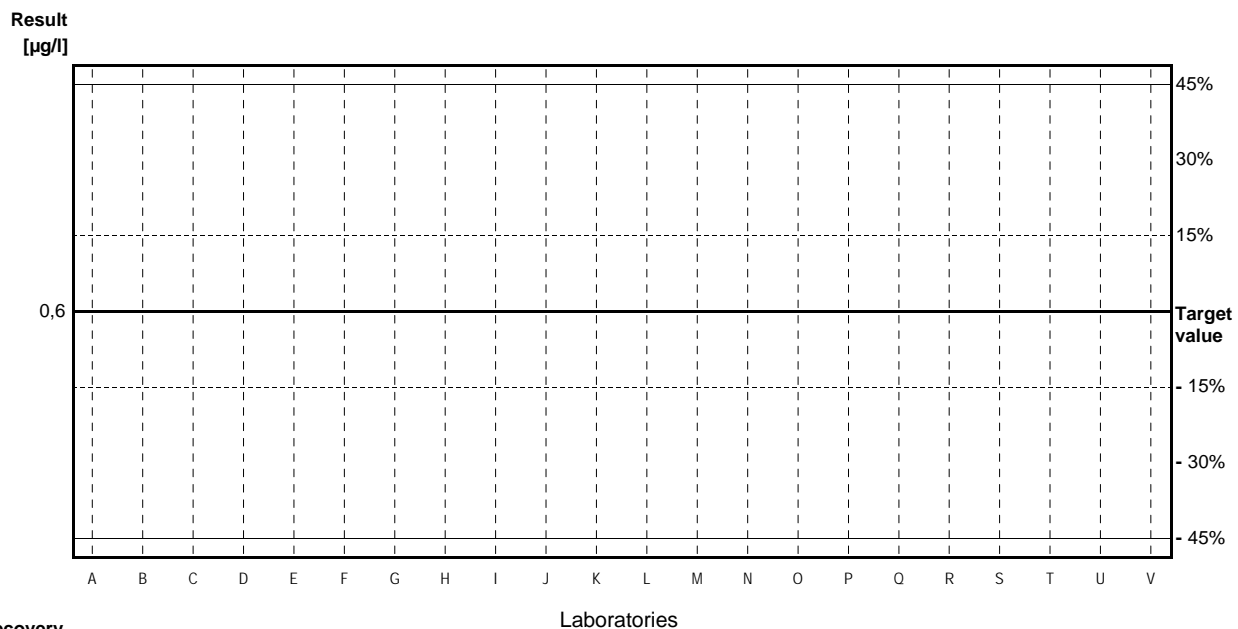


Sample C43A

Parameter Dichloromethane

Target value <0,6 µg/l
 IFA result <0,3 µg/l
 Stability test <0,3 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<2		µg/l	•	
B	n.n.		µg/l		
C			µg/l		
D	<0,10		µg/l	•	
E	<0,2		µg/l	•	
F			µg/l		
G	<2,0		µg/l	•	
H	<0,5		µg/l	•	
I	0,04	0,01	µg/l	•	
J	<0,1	0,02	µg/l	•	
K	<0,10		µg/l	•	
L	<0,15	0,015	µg/l	•	
M			µg/l		
N	<0,1		µg/l	•	
O	n.n.	0,02	µg/l		
P	<0,7		µg/l	•	
Q			µg/l		
R	[20]		µg/l	•	
S	<0,6		µg/l	•	
T	<0,2		µg/l	•	
U	<0,25		µg/l	•	
V	<0,4		µg/l	•	



	All results	Outliers excl.	Unit
Mean ± CI(99%)			µg/l
Recov. ± CI(99%)			%
SD between labs			µg/l
RSD between labs			%
n for calculation			

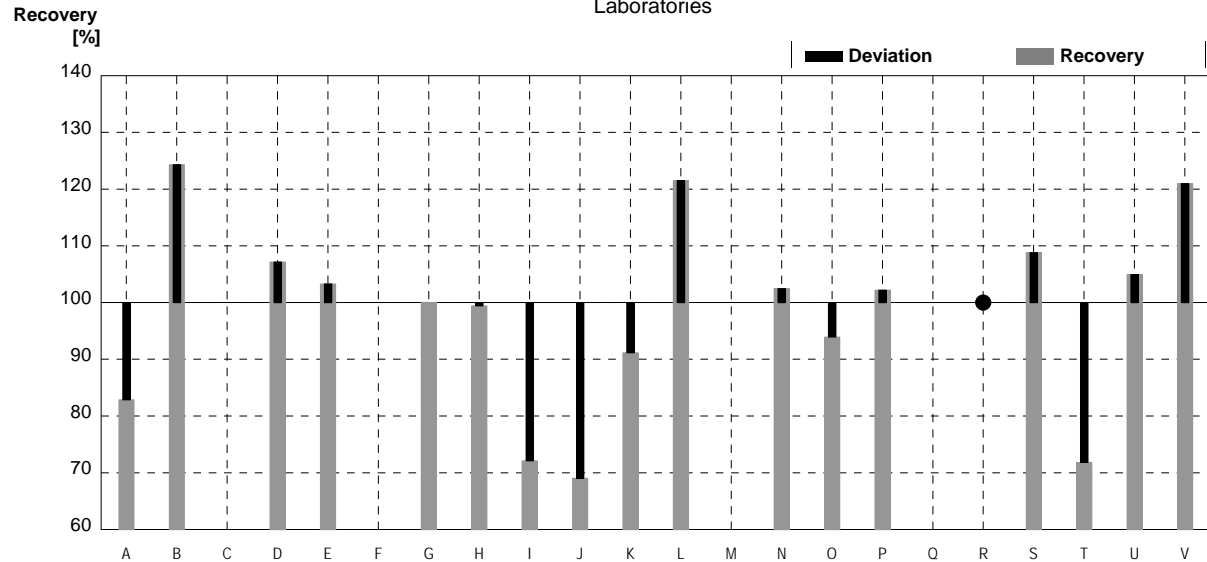
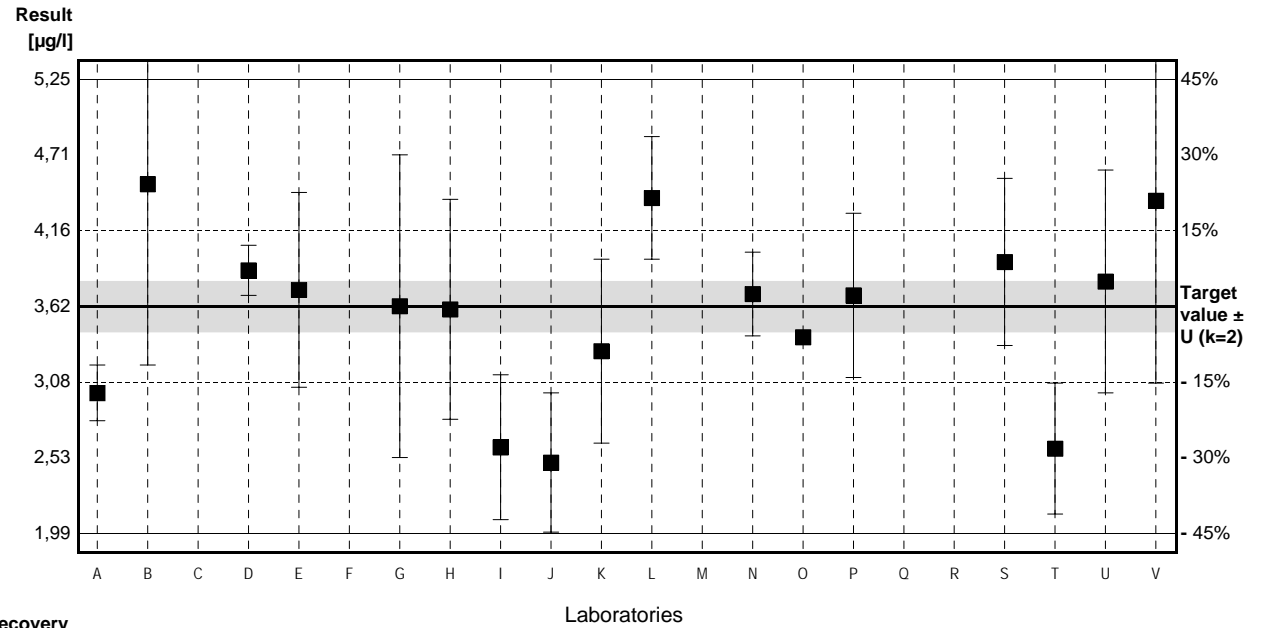
Sample C43B

Parameter Dichloromethane

Target value $\pm U$ (k=2) 3,62 $\mu\text{g/l}$ \pm 0,18 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 3,69 $\mu\text{g/l}$ \pm 0,55 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 3,51 $\mu\text{g/l}$ \pm 0,53 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	3,0	0,2	$\mu\text{g/l}$	83%	-1,07
B	4,50	1,30	$\mu\text{g/l}$	124%	1,52
C			$\mu\text{g/l}$		
D	3,88	0,18	$\mu\text{g/l}$	107%	0,45
E	3,74	0,70	$\mu\text{g/l}$	103%	0,21
F			$\mu\text{g/l}$		
G	3,623	1,087	$\mu\text{g/l}$	100%	0,01
H	3,60	0,79	$\mu\text{g/l}$	99%	-0,03
I	2,61	0,52	$\mu\text{g/l}$	72%	-1,74
J	2,5	0,5	$\mu\text{g/l}$	69%	-1,93
K	3,3	0,66	$\mu\text{g/l}$	91%	-0,55
L	4,4	0,44	$\mu\text{g/l}$	122%	1,35
M			$\mu\text{g/l}$		
N	3,71	0,3	$\mu\text{g/l}$	102%	0,16
O	3,40	0,05	$\mu\text{g/l}$	94%	-0,38
P	3,7	0,59	$\mu\text{g/l}$	102%	0,14
Q			$\mu\text{g/l}$		
R	[20]		$\mu\text{g/l}$	•	
S	3,94	0,6	$\mu\text{g/l}$	109%	0,55
T	2,6	0,47	$\mu\text{g/l}$	72%	-1,76
U	3,8	0,8	$\mu\text{g/l}$	105%	0,31
V	4,38	1,31	$\mu\text{g/l}$	121%	1,31

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	3,57 \pm 0,43	3,57 \pm 0,43	$\mu\text{g/l}$
Recov. \pm CI(99%)	98,6 \pm 12,0	98,6 \pm 12,0	%
SD between labs	0,61	0,61	$\mu\text{g/l}$
RSD between labs	17,2	17,2	%
n for calculation	17	17	



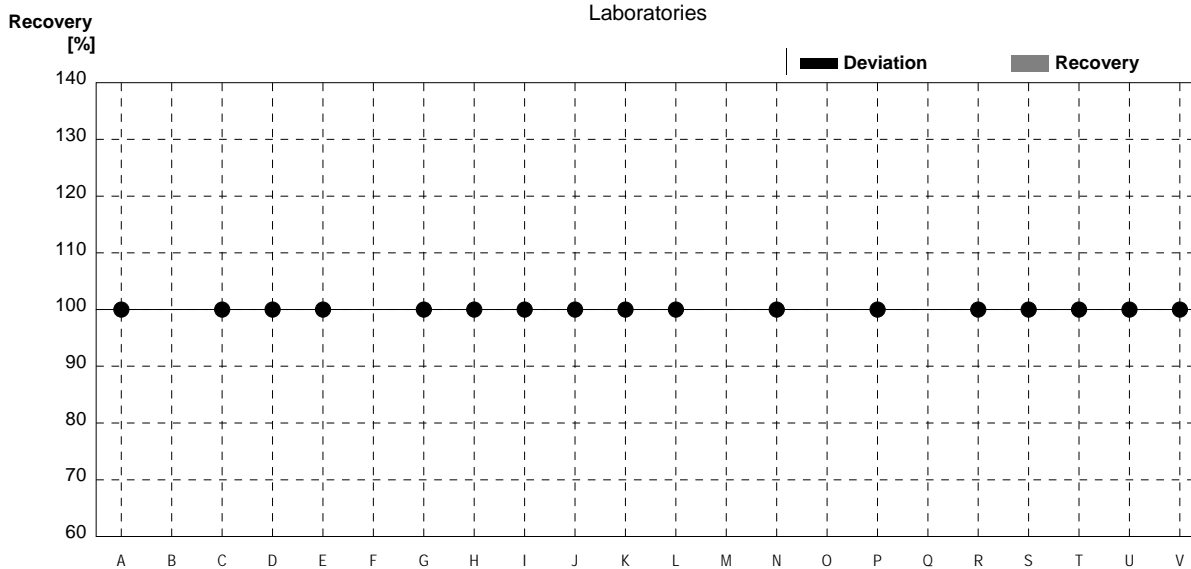
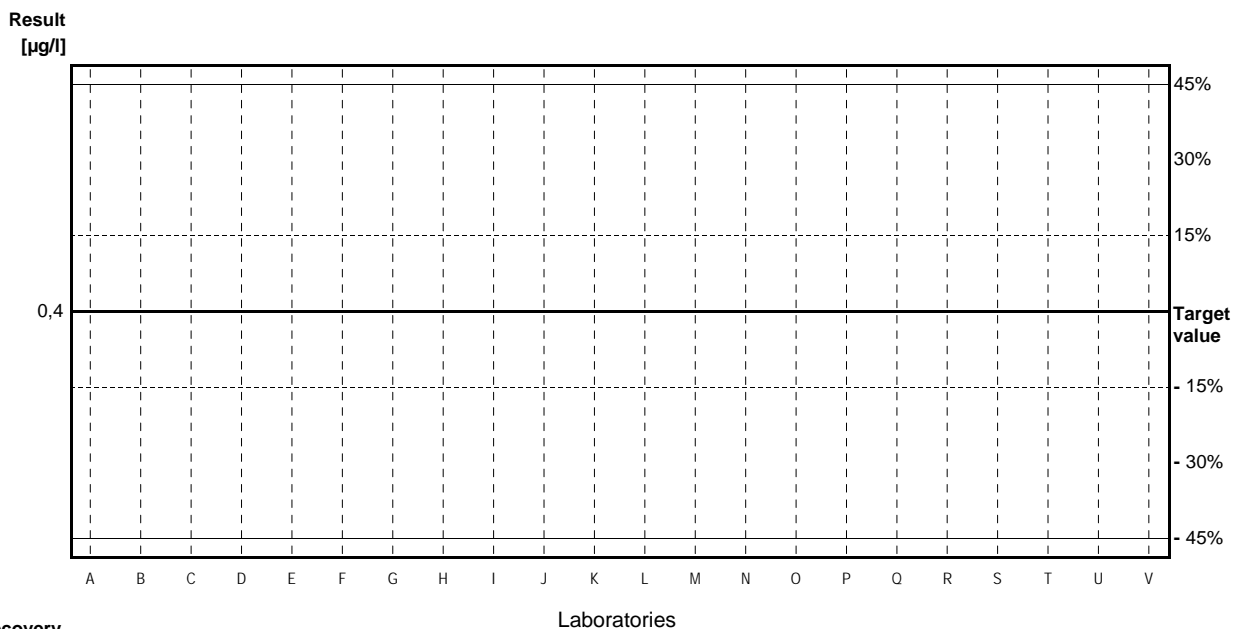
Sample C43A

Parameter 1,2-Dichloroethane

Target value <0,4 µg/l
 IFA result <0,2 µg/l
 Stability test <0,2 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<1,0		µg/l	•	
B	n.n.		µg/l		
C	<0,40		µg/l	•	
D	<0,10		µg/l	•	
E	<0,2		µg/l	•	
F			µg/l		
G	<0,2		µg/l	•	
H	<0,5		µg/l	•	
I	<0,05	0,01	µg/l	•	
J	<0,2	0,04	µg/l	•	
K	<0,10		µg/l	•	
L	<0,15	0,015	µg/l	•	
M			µg/l		
N	<0,1		µg/l	•	
O	n.n.	0,02	µg/l		
P	<0,04		µg/l	•	
Q			µg/l		
R	[5]		µg/l	•	
S	<0,2		µg/l	•	
T	<0,5		µg/l	•	
U	<0,15		µg/l	•	
V	<0,4		µg/l	•	

	All results	Outliers excl.	Unit
Mean ± CI(99%)			µg/l
Recov. ± CI(99%)			%
SD between labs			µg/l
RSD between labs			%
n for calculation			



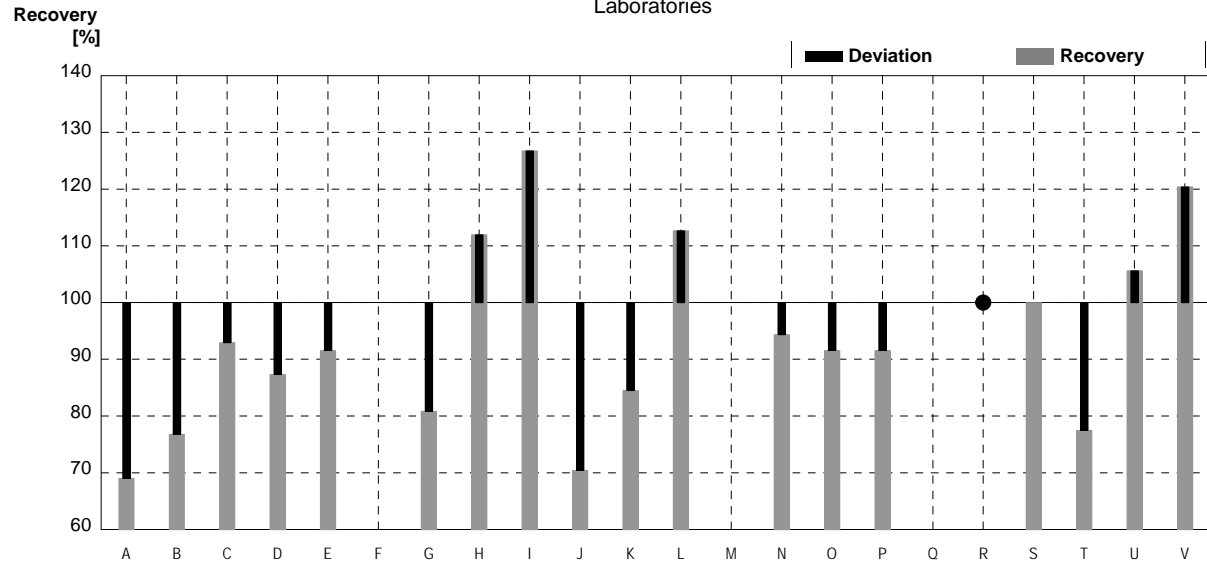
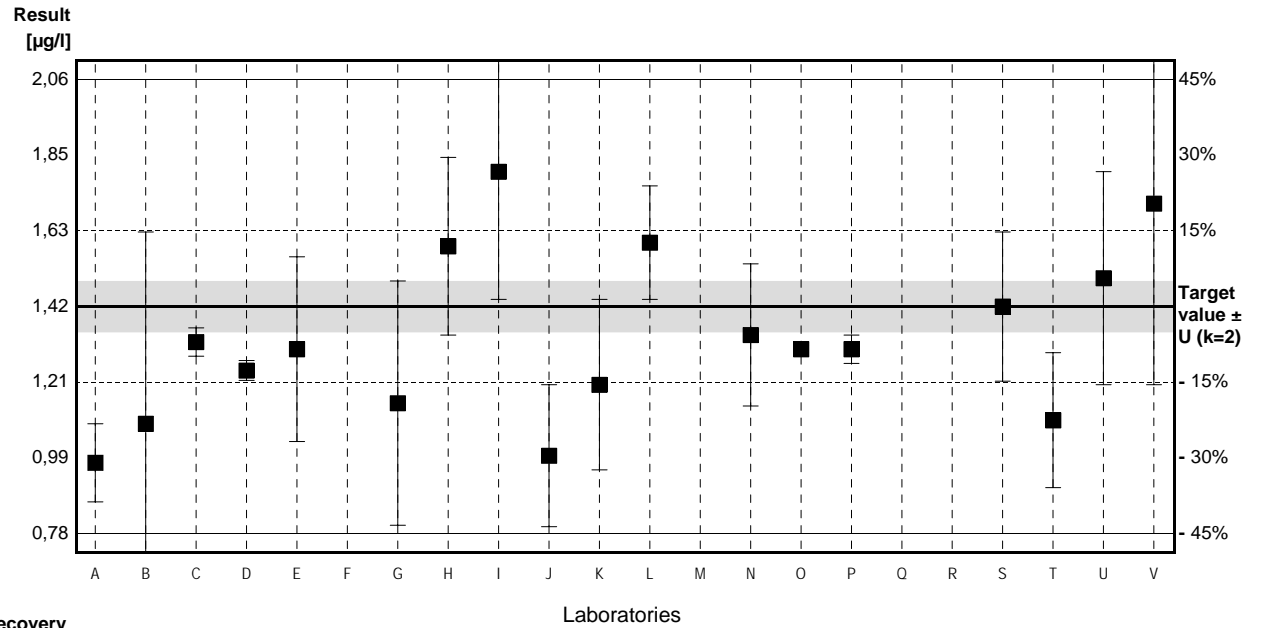
Sample C43B

Parameter 1,2-Dichloroethane

Target value $\pm U$ (k=2) 1,42 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 1,43 $\mu\text{g/l}$ \pm 0,21 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 1,34 $\mu\text{g/l}$ \pm 0,20 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,98	0,11	$\mu\text{g/l}$	69%	-2,21
B	1,09	0,54	$\mu\text{g/l}$	77%	-1,66
C	1,32	0,04	$\mu\text{g/l}$	93%	-0,50
D	1,24	0,028	$\mu\text{g/l}$	87%	-0,91
E	1,30	0,26	$\mu\text{g/l}$	92%	-0,60
F			$\mu\text{g/l}$		
G	1,148	0,344	$\mu\text{g/l}$	81%	-1,37
H	1,59	0,25	$\mu\text{g/l}$	112%	0,86
I	1,80	0,36	$\mu\text{g/l}$	127%	1,91
J	1,0	0,2	$\mu\text{g/l}$	70%	-2,11
K	1,2	0,24	$\mu\text{g/l}$	85%	-1,11
L	1,6	0,16	$\mu\text{g/l}$	113%	0,91
M			$\mu\text{g/l}$		
N	1,34	0,2	$\mu\text{g/l}$	94%	-0,40
O	1,30	0,01	$\mu\text{g/l}$	92%	-0,60
P	1,3	0,04	$\mu\text{g/l}$	92%	-0,60
Q			$\mu\text{g/l}$		
R	[5]		$\mu\text{g/l}$	•	
S	1,42	0,21	$\mu\text{g/l}$	100%	0,00
T	1,1	0,19	$\mu\text{g/l}$	77%	-1,61
U	1,5	0,3	$\mu\text{g/l}$	106%	0,40
V	1,71	0,51	$\mu\text{g/l}$	120%	1,46

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,33 \pm 0,16	1,33 \pm 0,16	$\mu\text{g/l}$
Recov. \pm CI(99%)	93,7 \pm 11,4	93,7 \pm 11,4	%
SD between labs	0,24	0,24	$\mu\text{g/l}$
RSD between labs	17,7	17,7	%
n for calculation	18	18	



Sample C43A

Parameter cis-1,2-Dichloroethene

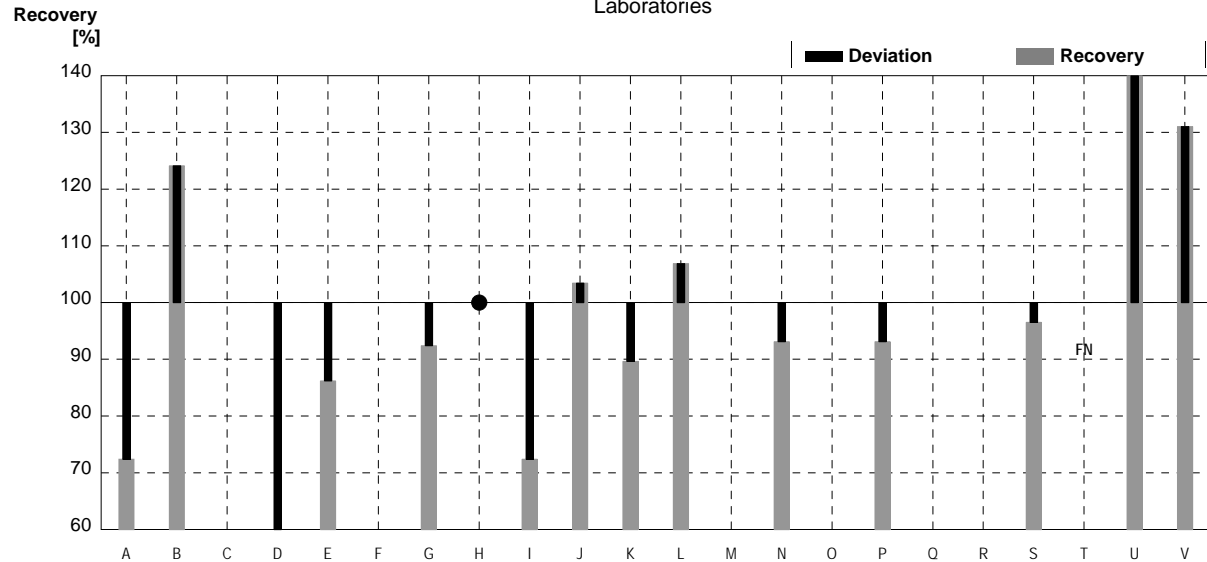
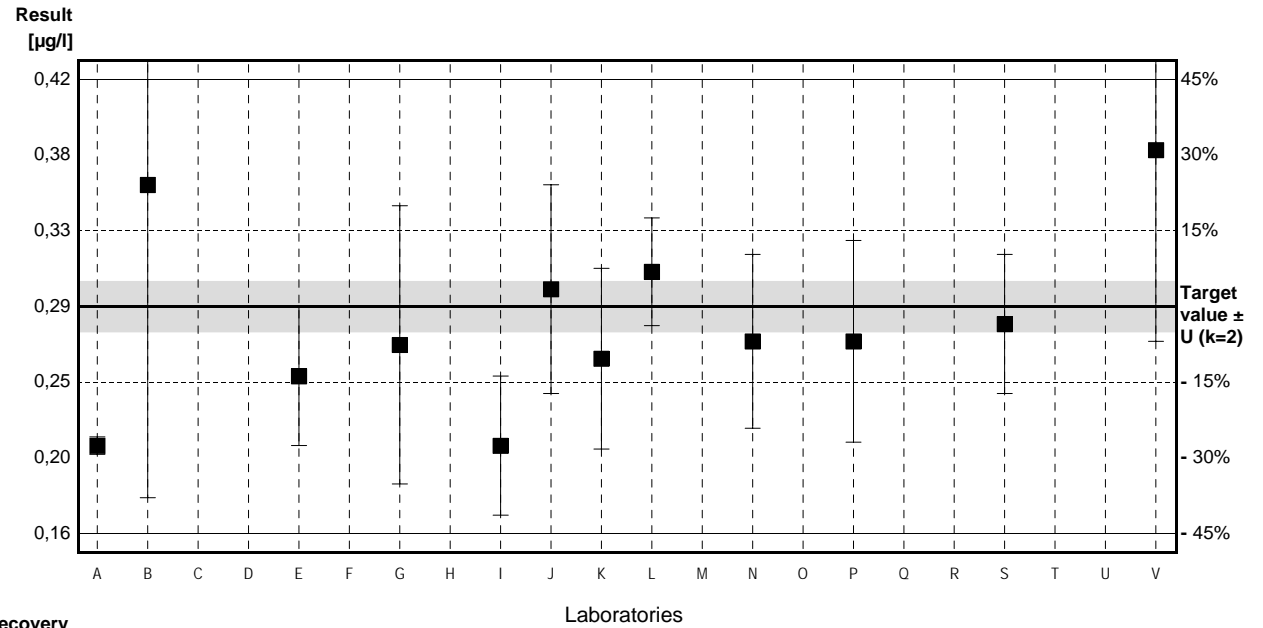
Target value ± U (k=2) 0,29 µg/l ± 0,01 µg/l

IFA result ± U (k=2) 0,29 µg/l ± 0,04 µg/l

Stability test ± U (k=2) 0,28 µg/l ± 0,04 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,21	0,005	µg/l	72%	-1,84
B	0,36	0,18	µg/l	124%	1,61
C			µg/l		
D	0,147	0,035	µg/l	51%	-3,29
E	0,25	0,04	µg/l	86%	-0,92
F			µg/l		
G	0,268	0,080	µg/l	92%	-0,51
H	<0,5		µg/l	•	
I	0,21	0,04	µg/l	72%	-1,84
J	0,3	0,06	µg/l	103%	0,23
K	0,26	0,052	µg/l	90%	-0,69
L	0,31	0,031	µg/l	107%	0,46
M			µg/l		
N	0,27	0,05	µg/l	93%	-0,46
O			µg/l		
P	0,27	0,058	µg/l	93%	-0,46
Q			µg/l		
R			µg/l		
S	0,28	0,04	µg/l	97%	-0,23
T	<0,2		µg/l	FN	
U	0,47 *	0,09	µg/l	162%	4,14
V	0,38	0,11	µg/l	131%	2,07

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,28 ± 0,06	0,27 ± 0,05	µg/l
Recov. ± CI(99%)	98,2 ± 22,1	93,2 ± 18,0	%
SD between labs	0,08	0,06	µg/l
RSD between labs	28,0	22,8	%
n for calculation	14	13	



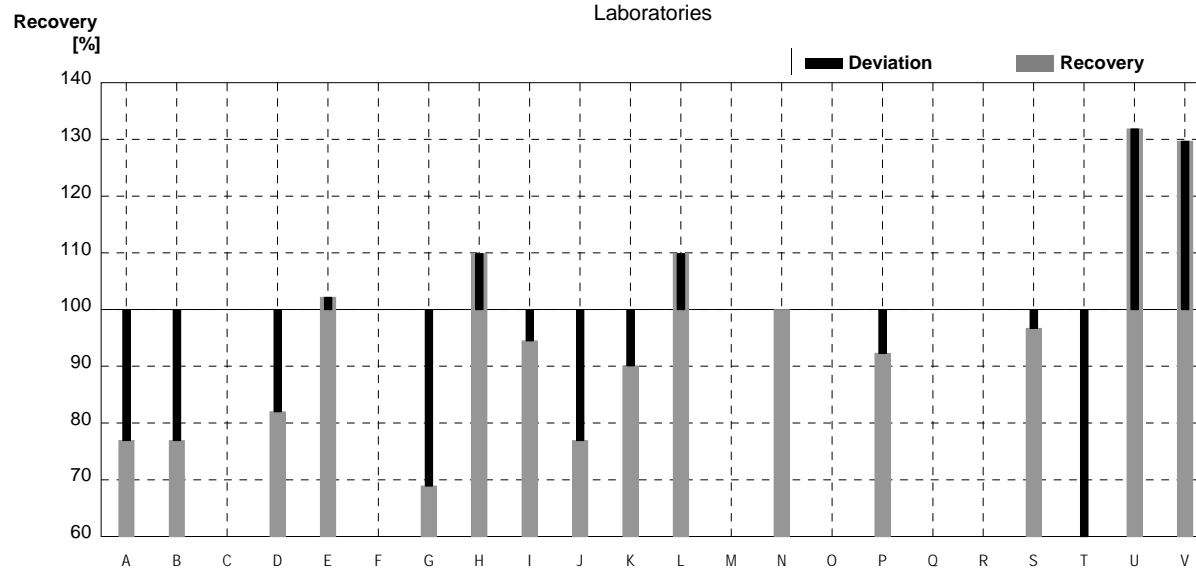
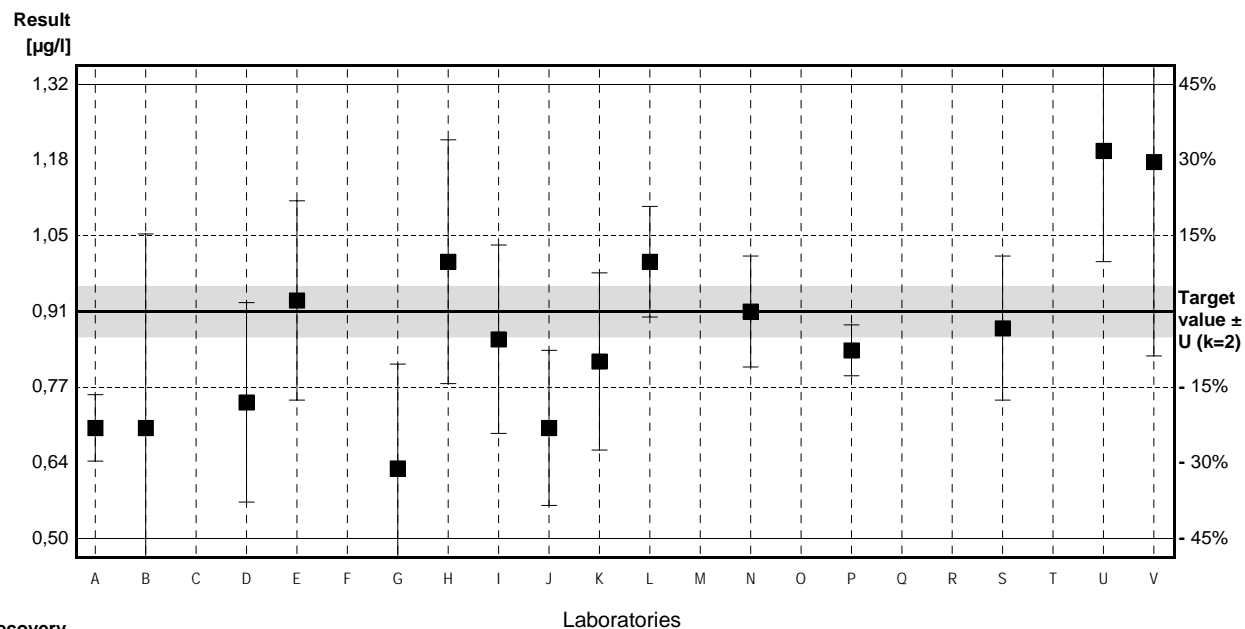
Sample C43B

Parameter cis-1,2-Dichloroethene

Target value $\pm U$ (k=2) 0,91 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,94 $\mu\text{g/l}$ \pm 0,14 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,91 $\mu\text{g/l}$ \pm 0,14 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,70	0,06	$\mu\text{g/l}$	77%	-1,54
B	0,70	0,35	$\mu\text{g/l}$	77%	-1,54
C			$\mu\text{g/l}$		
D	0,746	0,18	$\mu\text{g/l}$	82%	-1,20
E	0,93	0,18	$\mu\text{g/l}$	102%	0,15
F			$\mu\text{g/l}$		
G	0,627	0,188	$\mu\text{g/l}$	69%	-2,07
H	1,00	0,22	$\mu\text{g/l}$	110%	0,66
I	0,86	0,17	$\mu\text{g/l}$	95%	-0,37
J	0,7	0,14	$\mu\text{g/l}$	77%	-1,54
K	0,82	0,16	$\mu\text{g/l}$	90%	-0,66
L	1,0	0,10	$\mu\text{g/l}$	110%	0,66
M			$\mu\text{g/l}$		
N	0,91	0,1	$\mu\text{g/l}$	100%	0,00
O			$\mu\text{g/l}$		
P	0,84	0,046	$\mu\text{g/l}$	92%	-0,51
Q			$\mu\text{g/l}$		
R			$\mu\text{g/l}$		
S	0,88	0,13	$\mu\text{g/l}$	97%	-0,22
T	0,5	0,10	$\mu\text{g/l}$	55%	-3,00
U	1,2	0,2	$\mu\text{g/l}$	132%	2,12
V	1,18	0,35	$\mu\text{g/l}$	130%	1,98

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,85 \pm 0,14	0,85 \pm 0,14	$\mu\text{g/l}$
Recov. \pm CI(99%)	93,4 \pm 15,4	93,4 \pm 15,4	%
SD between labs	0,19	0,19	$\mu\text{g/l}$
RSD between labs	22,3	22,3	%
n for calculation	16	16	



Sample C43A

Parameter trans-1,2-Dichloroethene

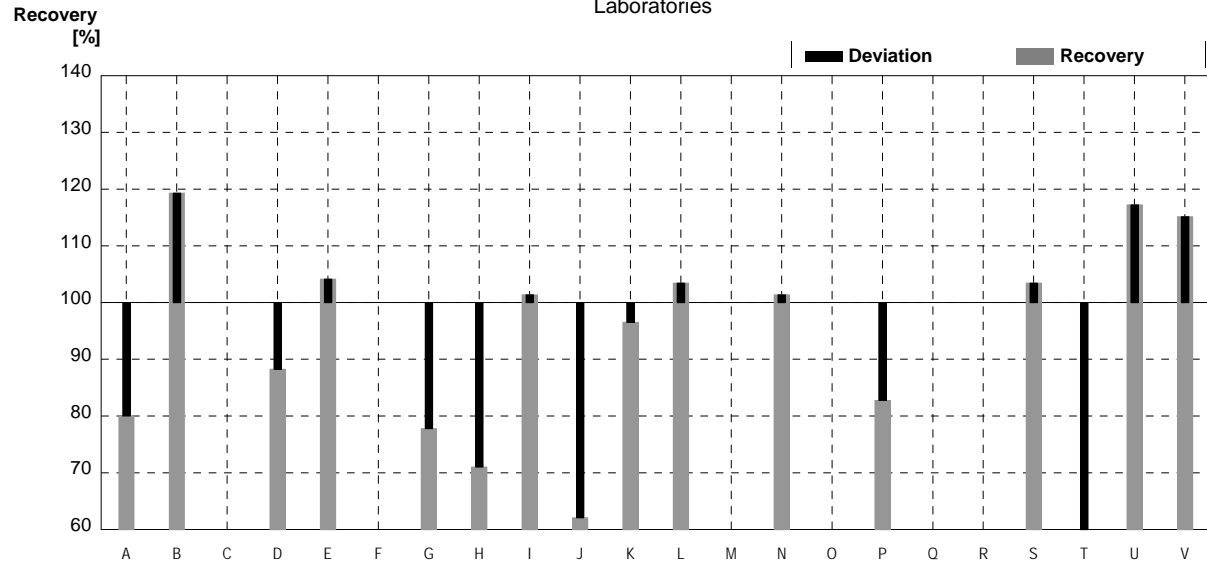
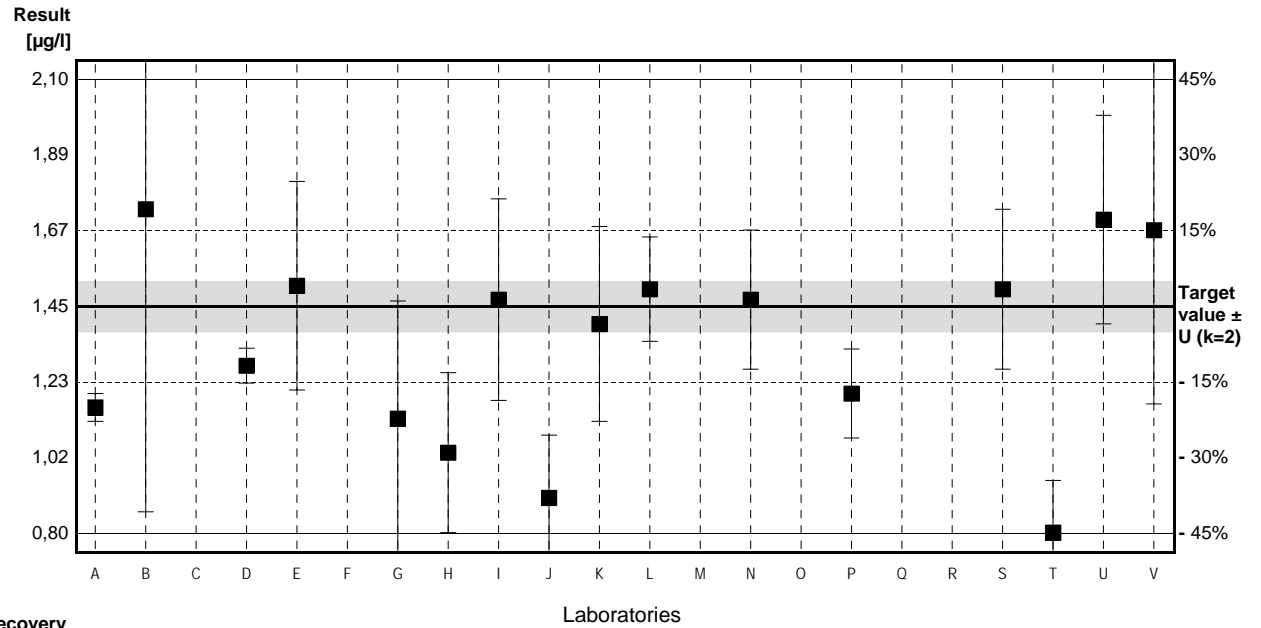
Target value ± U (k=2) 1,45 µg/l ± 0,07 µg/l

IFA result ± U (k=2) 1,35 µg/l ± 0,20 µg/l

Stability test ± U (k=2) 1,31 µg/l ± 0,20 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,16	0,04	µg/l	80%	-1,33
B	1,73	0,87	µg/l	119%	1,29
C			µg/l		
D	1,28	0,05	µg/l	88%	-0,78
E	1,51	0,30	µg/l	104%	0,28
F			µg/l		
G	1,128	0,338	µg/l	78%	-1,48
H	1,03	0,23	µg/l	71%	-1,93
I	1,47	0,29	µg/l	101%	0,09
J	0,9	0,18	µg/l	62%	-2,53
K	1,4	0,28	µg/l	97%	-0,23
L	1,5	0,15	µg/l	103%	0,23
M			µg/l		
N	1,47	0,2	µg/l	101%	0,09
O			µg/l		
P	1,20	0,128	µg/l	83%	-1,15
Q			µg/l		
R			µg/l		
S	1,5	0,23	µg/l	103%	0,23
T	0,8	0,15	µg/l	55%	-2,99
U	1,7	0,3	µg/l	117%	1,15
V	1,67	0,50	µg/l	115%	1,01

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,34 ± 0,21	1,34 ± 0,21	µg/l
Recov. ± CI(99%)	92,4 ± 14,3	92,4 ± 14,3	%
SD between labs	0,28	0,28	µg/l
RSD between labs	21,0	21,0	%
n for calculation	16	16	



Sample C43B

Parameter trans-1,2-Dichloroethene

Target value ± U (k=2) 0,52 µg/l ± 0,03 µg/l

IFA result ± U (k=2) 0,56 µg/l ± 0,08 µg/l

Stability test ± U (k=2) 0,50 µg/l ± 0,08 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,47	0,05	µg/l	90%	-0,64
B	0,49	0,24	µg/l	94%	-0,38
C			µg/l		
D	0,42	0,05	µg/l	81%	-1,28
E	0,58	0,11	µg/l	112%	0,77
F			µg/l		
G	0,473	0,142	µg/l	91%	-0,60
H	<0,5		µg/l		
I	0,40	0,08	µg/l	77%	-1,54
J	0,4	0,08	µg/l	77%	-1,54
K	0,50	0,10	µg/l	96%	-0,26
L	0,56	0,056	µg/l	108%	0,51
M			µg/l		
N	0,53	0,1	µg/l	102%	0,13
O			µg/l		
P	0,39	0,144	µg/l	75%	-1,67
Q			µg/l		
R			µg/l		
S	0,55	0,08	µg/l	106%	0,38
T	0,3	0,05	µg/l	58%	-2,82
U	0,64	0,13	µg/l	123%	1,54
V	0,76	0,23	µg/l	146%	3,08

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,50 ± 0,09	0,50 ± 0,09	µg/l
Recov. ± CI(99%)	95,7 ± 16,8	95,7 ± 16,8	%
SD between labs	0,11	0,11	µg/l
RSD between labs	22,8	22,8	%
n for calculation	15	15	

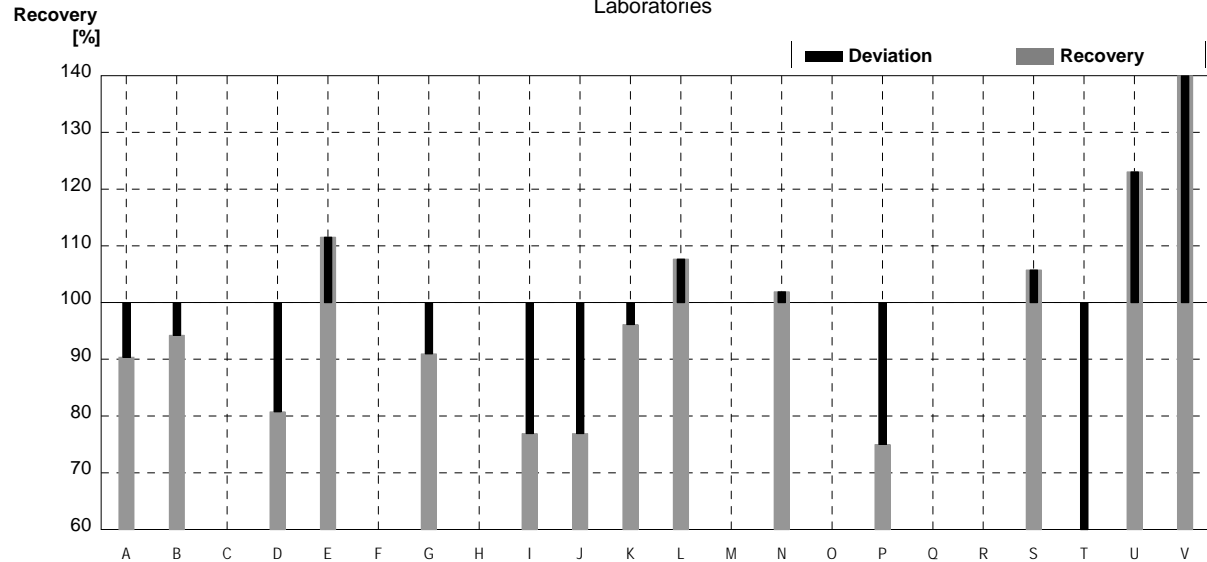
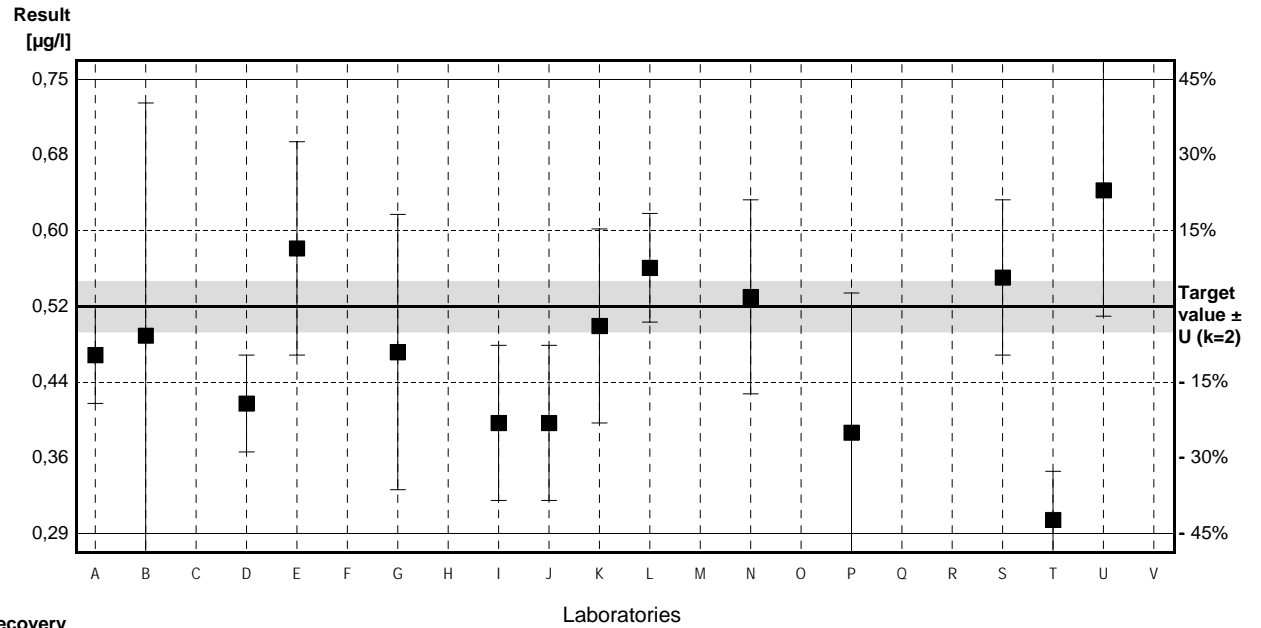


Illustration of Results Laboratory Oriented Part

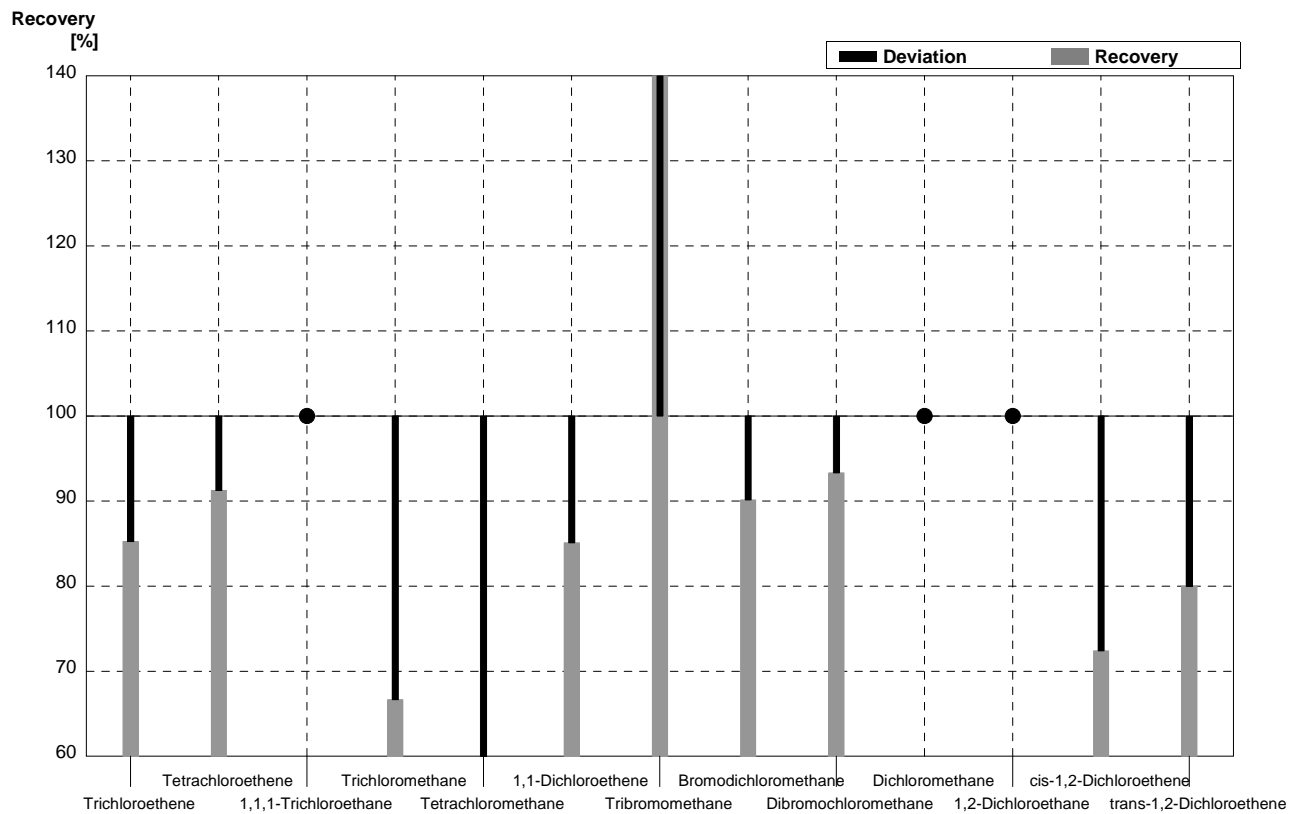
Round C43
Volatile Halogenated Hydrocarbons

Sample Dispatch: 14 February 2011



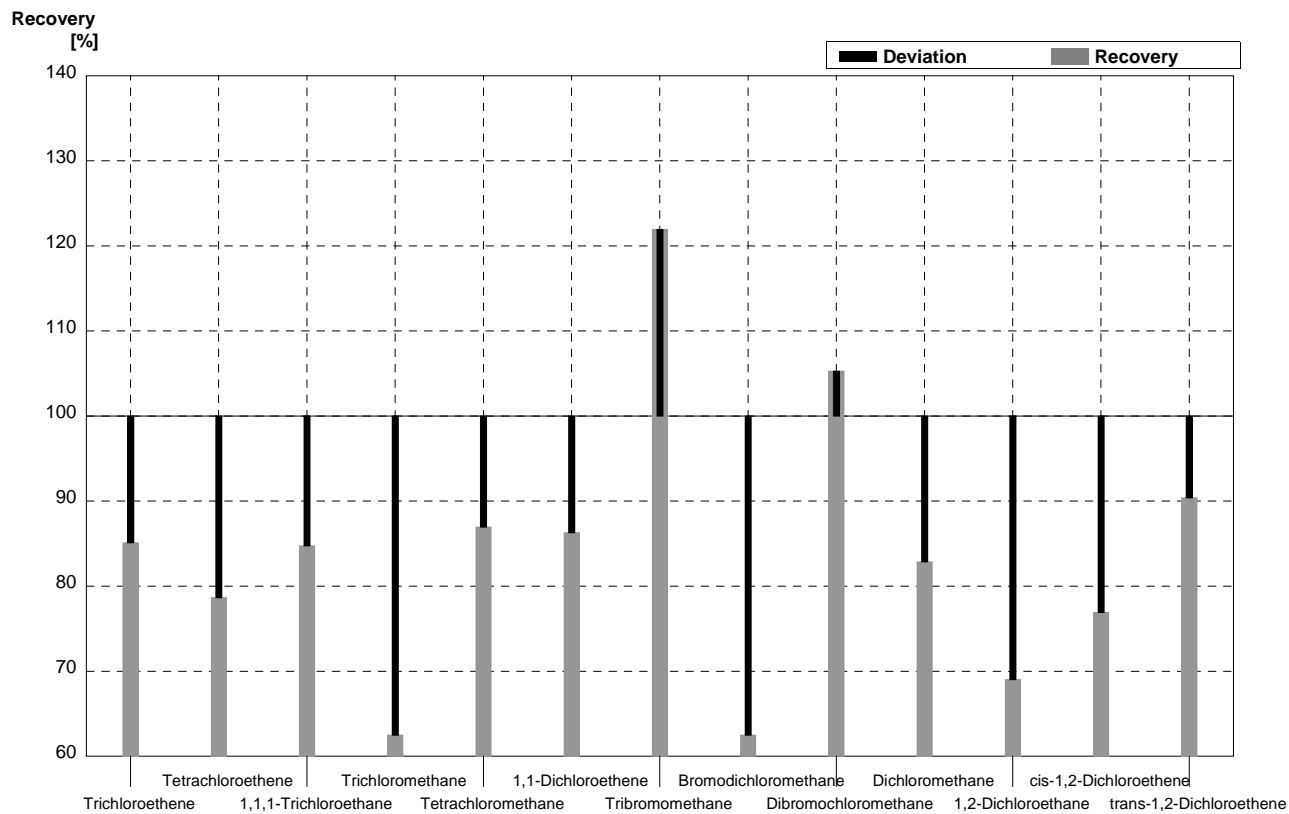
Sample C43A
Laboratory A

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06	1,1	0,2	$\mu\text{g/l}$	85%
Tetrachloroethene	2,63	0,13	2,4	0,1	$\mu\text{g/l}$	91%
1,1,1-Trichloroethane	<0,08		<0,5		$\mu\text{g/l}$	•
Trichloromethane	0,30	0,02	0,2	0,05	$\mu\text{g/l}$	67%
Tetrachloromethane	0,18	0,01	0,1	0,05	$\mu\text{g/l}$	56%
1,1-Dichloroethene	0,47	0,02	0,4	0,01	$\mu\text{g/l}$	85%
Tribromomethane	0,20	0,01	0,3	0,05	$\mu\text{g/l}$	150%
Bromodichloromethane	0,61	0,03	0,55	0,01	$\mu\text{g/l}$	90%
Dibromochloromethane	0,75	0,04	0,7	0,05	$\mu\text{g/l}$	93%
Dichloromethane	<0,6		<2		$\mu\text{g/l}$	•
1,2-Dichloroethene	<0,4		<1,0		$\mu\text{g/l}$	•
cis-1,2-Dichloroethene	0,29	0,01	0,21	0,005	$\mu\text{g/l}$	72%
trans-1,2-Dichloroethene	1,45	0,07	1,16	0,04	$\mu\text{g/l}$	80%



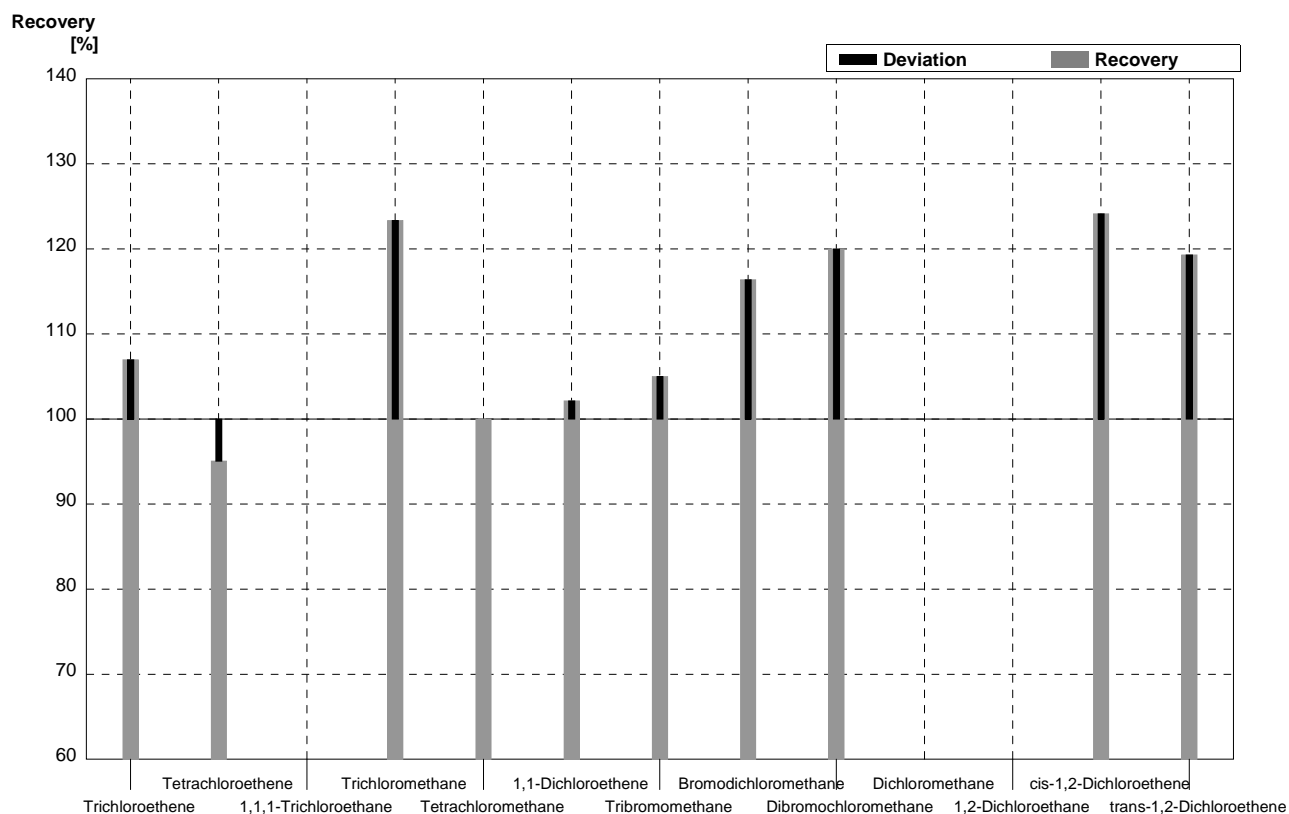
Sample C43B
Laboratory A

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,4	0,2	µg/l	85%
Tetrachloroethene	0,89	0,04	0,7	0,2	µg/l	79%
1,1,1-Trichloroethane	0,59	0,03	0,5	0,2	µg/l	85%
Trichloromethane	0,96	0,05	0,6	0,1	µg/l	63%
Tetrachloromethane	0,92	0,05	0,8	0,1	µg/l	87%
1,1-Dichloroethene	1,46	0,07	1,26	0,02	µg/l	86%
Tribromomethane	0,41	0,02	0,5	0,1	µg/l	122%
Bromodichloromethane	0,32	0,02	0,2	0,01	µg/l	63%
Dibromochloromethane	0,19	0,01	0,2	0,05	µg/l	105%
Dichloromethane	3,62	0,18	3,0	0,2	µg/l	83%
1,2-Dichloroethane	1,42	0,07	0,98	0,11	µg/l	69%
cis-1,2-Dichloroethene	0,91	0,05	0,70	0,06	µg/l	77%
trans-1,2-Dichloroethene	0,52	0,03	0,47	0,05	µg/l	90%



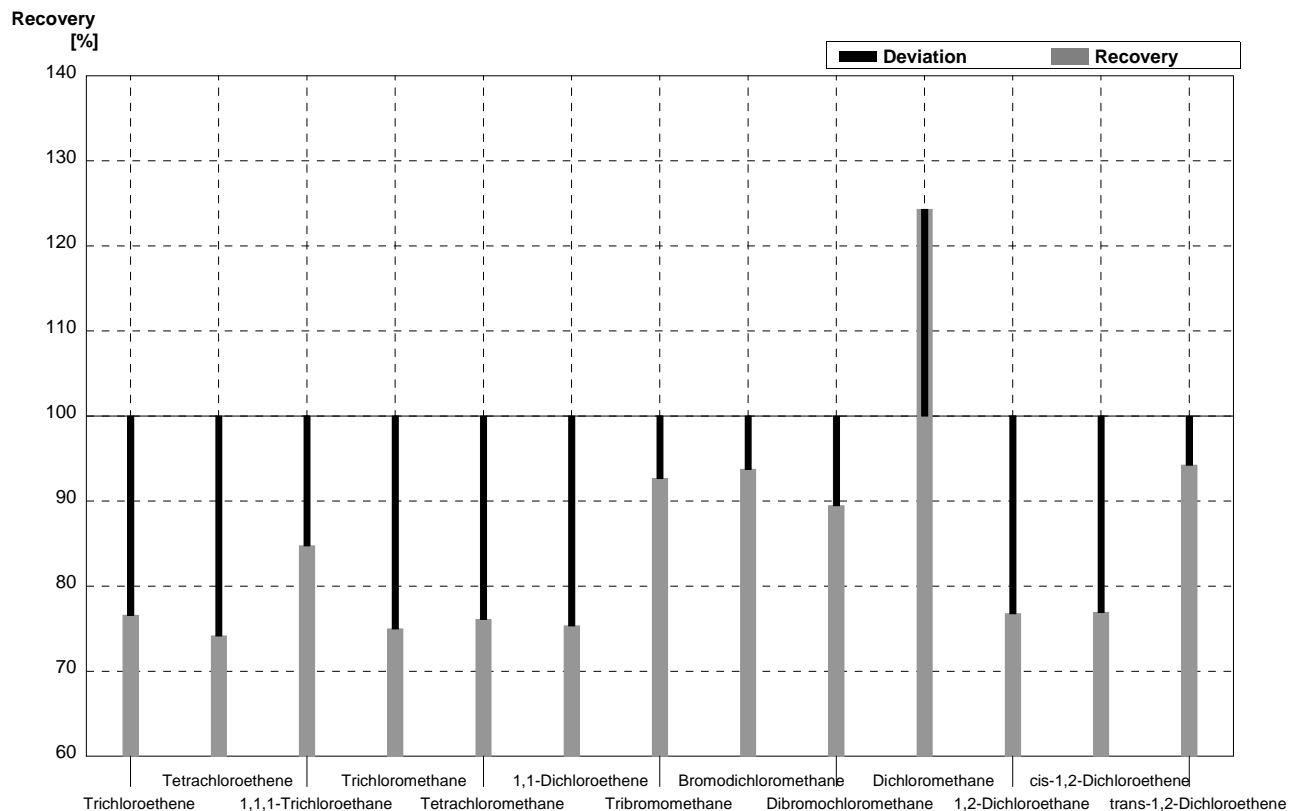
Sample C43A
Laboratory B

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06	1,38	0,69	$\mu\text{g/l}$	107%
Tetrachloroethene	2,63	0,13	2,50	0,80	$\mu\text{g/l}$	95%
1,1,1-Trichloroethane	<0,08		n,n.		$\mu\text{g/l}$	
Trichloromethane	0,30	0,02	0,37	0,09	$\mu\text{g/l}$	123%
Tetrachloromethane	0,18	0,01	0,18	0,09	$\mu\text{g/l}$	100%
1,1-Dichloroethene	0,47	0,02	0,48	0,24	$\mu\text{g/l}$	102%
Tribromomethane	0,20	0,01	0,21	0,11	$\mu\text{g/l}$	105%
Bromodichloromethane	0,61	0,03	0,71	0,36	$\mu\text{g/l}$	116%
Dibromochloromethane	0,75	0,04	0,90	0,45	$\mu\text{g/l}$	120%
Dichloromethane	<0,6		n,n.		$\mu\text{g/l}$	
1,2-Dichloroethene	<0,4		n,n.		$\mu\text{g/l}$	
cis-1,2-Dichloroethene	0,29	0,01	0,36	0,18	$\mu\text{g/l}$	124%
trans-1,2-Dichloroethene	1,45	0,07	1,73	0,87	$\mu\text{g/l}$	119%



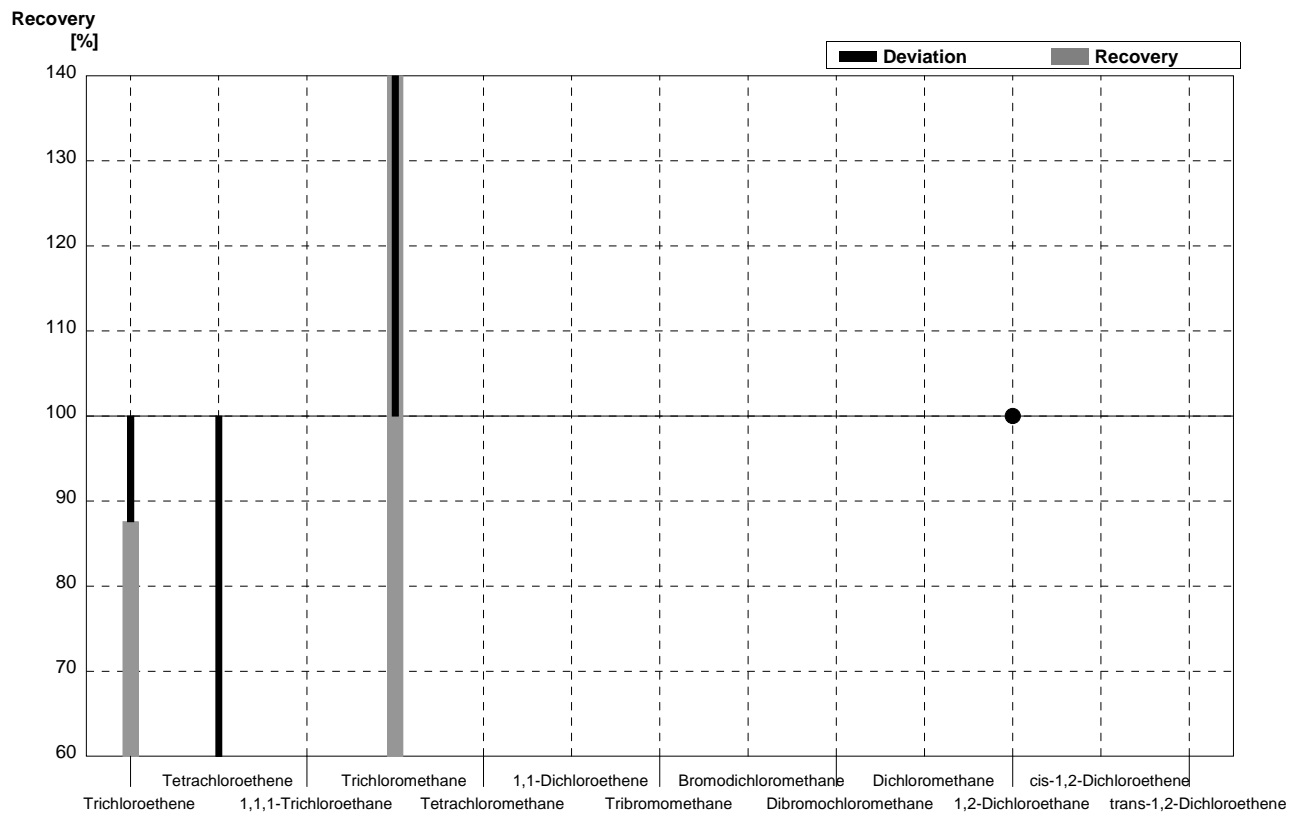
Sample C43B
Laboratory B

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	0,36	0,18	$\mu\text{g/l}$	77%
Tetrachloroethene	0,89	0,04	0,66	0,33	$\mu\text{g/l}$	74%
1,1,1-Trichloroethane	0,59	0,03	0,50	0,25	$\mu\text{g/l}$	85%
Trichloromethane	0,96	0,05	0,72	0,18	$\mu\text{g/l}$	75%
Tetrachloromethane	0,92	0,05	0,70	0,35	$\mu\text{g/l}$	76%
1,1-Dichloroethene	1,46	0,07	1,10	0,55	$\mu\text{g/l}$	75%
Tribromomethane	0,41	0,02	0,38	0,19	$\mu\text{g/l}$	93%
Bromodichloromethane	0,32	0,02	0,30	0,15	$\mu\text{g/l}$	94%
Dibromochloromethane	0,19	0,01	0,17	0,09	$\mu\text{g/l}$	89%
Dichloromethane	3,62	0,18	4,50	1,30	$\mu\text{g/l}$	124%
1,2-Dichloroethane	1,42	0,07	1,09	0,54	$\mu\text{g/l}$	77%
cis-1,2-Dichloroethene	0,91	0,05	0,70	0,35	$\mu\text{g/l}$	77%
trans-1,2-Dichloroethene	0,52	0,03	0,49	0,24	$\mu\text{g/l}$	94%



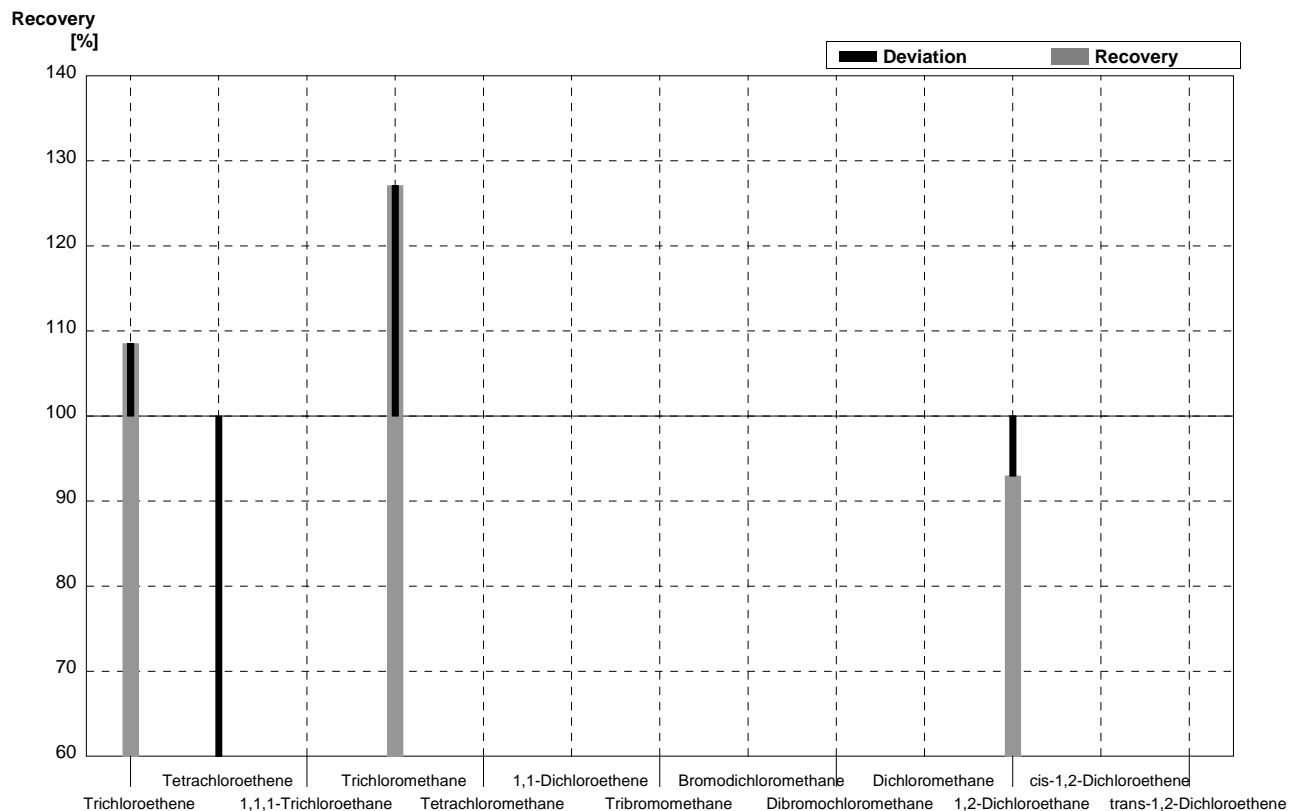
Sample C43A
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,13	0,03	µg/l	88%
Tetrachloroethene	2,63	0,13	0,89	0,02	µg/l	34%
1,1,1-Trichloroethane	<0,08				µg/l	
Trichloromethane	0,30	0,02	0,60	0,01	µg/l	200%
Tetrachloromethane	0,18	0,01			µg/l	
1,1-Dichloroethene	0,47	0,02			µg/l	
Tribromomethane	0,20	0,01			µg/l	
Bromodichloromethane	0,61	0,03			µg/l	
Dibromochloromethane	0,75	0,04			µg/l	
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	<0,4		<0,40		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01			µg/l	
trans-1,2-Dichloroethene	1,45	0,07			µg/l	



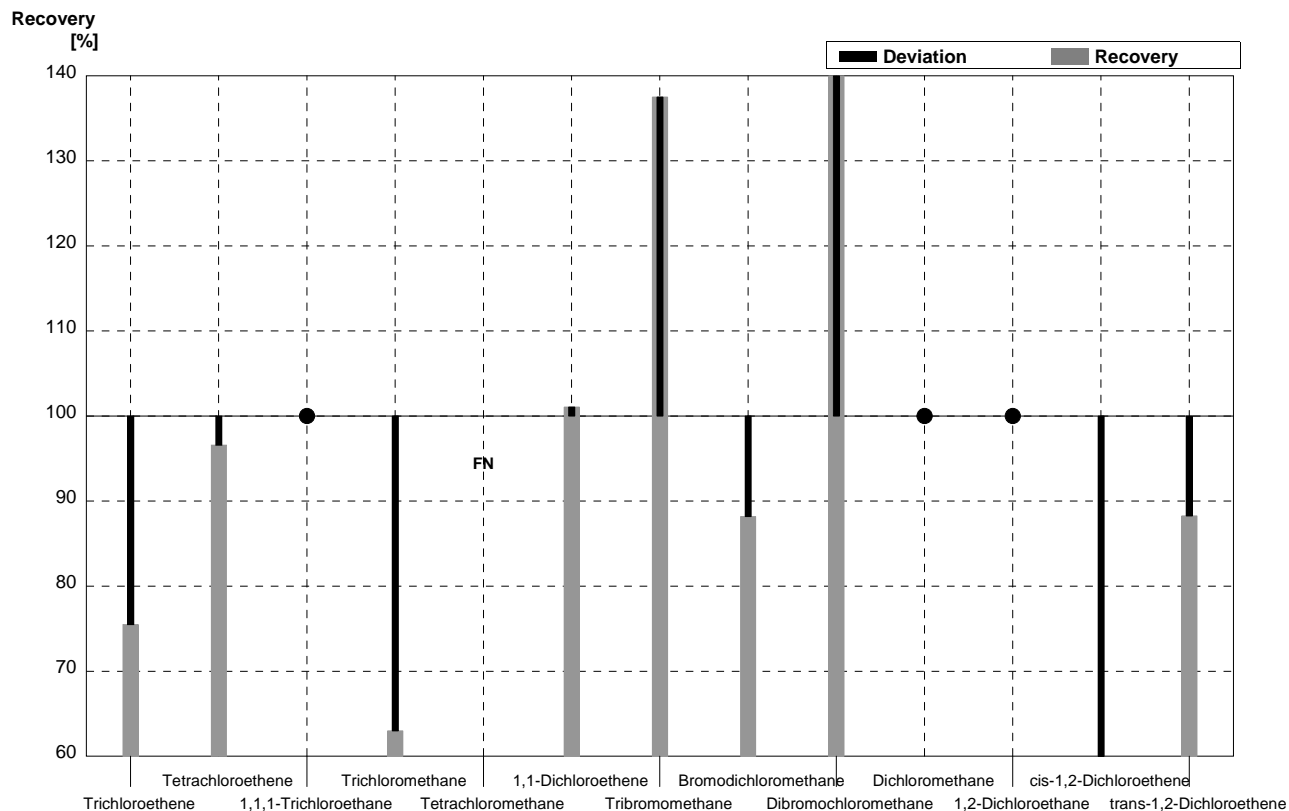
Sample C43B
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,51	0,01	µg/l	109%
Tetrachloroethene	0,89	0,04	0,40	0,01	µg/l	45%
1,1,1-Trichloroethane	0,59	0,03			µg/l	
Trichloromethane	0,96	0,05	1,22	0,02	µg/l	127%
Tetrachloromethane	0,92	0,05			µg/l	
1,1-Dichloroethene	1,46	0,07			µg/l	
Tribromomethane	0,41	0,02			µg/l	
Bromodichloromethane	0,32	0,02			µg/l	
Dibromochloromethane	0,19	0,01			µg/l	
Dichloromethane	3,62	0,18			µg/l	
1,2-Dichloroethane	1,42	0,07	1,32	0,04	µg/l	93%
cis-1,2-Dichloroethene	0,91	0,05			µg/l	
trans-1,2-Dichloroethene	0,52	0,03			µg/l	



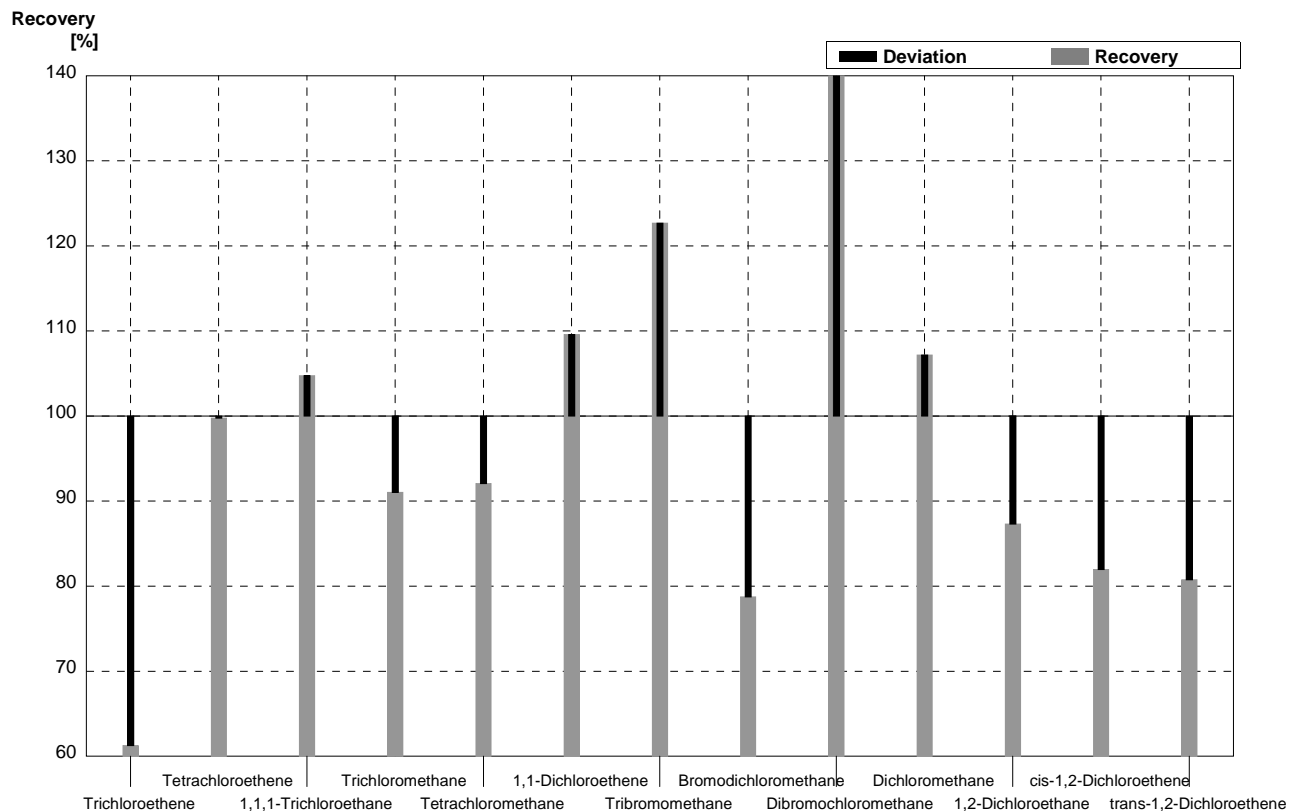
Sample C43A
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	0,974	0,093	µg/l	76%
Tetrachloroethene	2,63	0,13	2,54	0,049	µg/l	97%
1,1,1-Trichloroethane	<0,08		<0,10		µg/l	•
Trichloromethane	0,30	0,02	0,189	0,011	µg/l	63%
Tetrachloromethane	0,18	0,01	<0,10		µg/l	FN
1,1-Dichloroethene	0,47	0,02	0,475	0,037	µg/l	101%
Tribromomethane	0,20	0,01	0,275	0,035	µg/l	138%
Bromodichloromethane	0,61	0,03	0,538	0,001	µg/l	88%
Dibromochloromethane	0,75	0,04	2,61	0,049	µg/l	348%
Dichloromethane	<0,6		<0,10		µg/l	•
1,2-Dichloroethene	<0,4		<0,10		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	0,147	0,035	µg/l	51%
trans-1,2-Dichloroethene	1,45	0,07	1,28	0,05	µg/l	88%



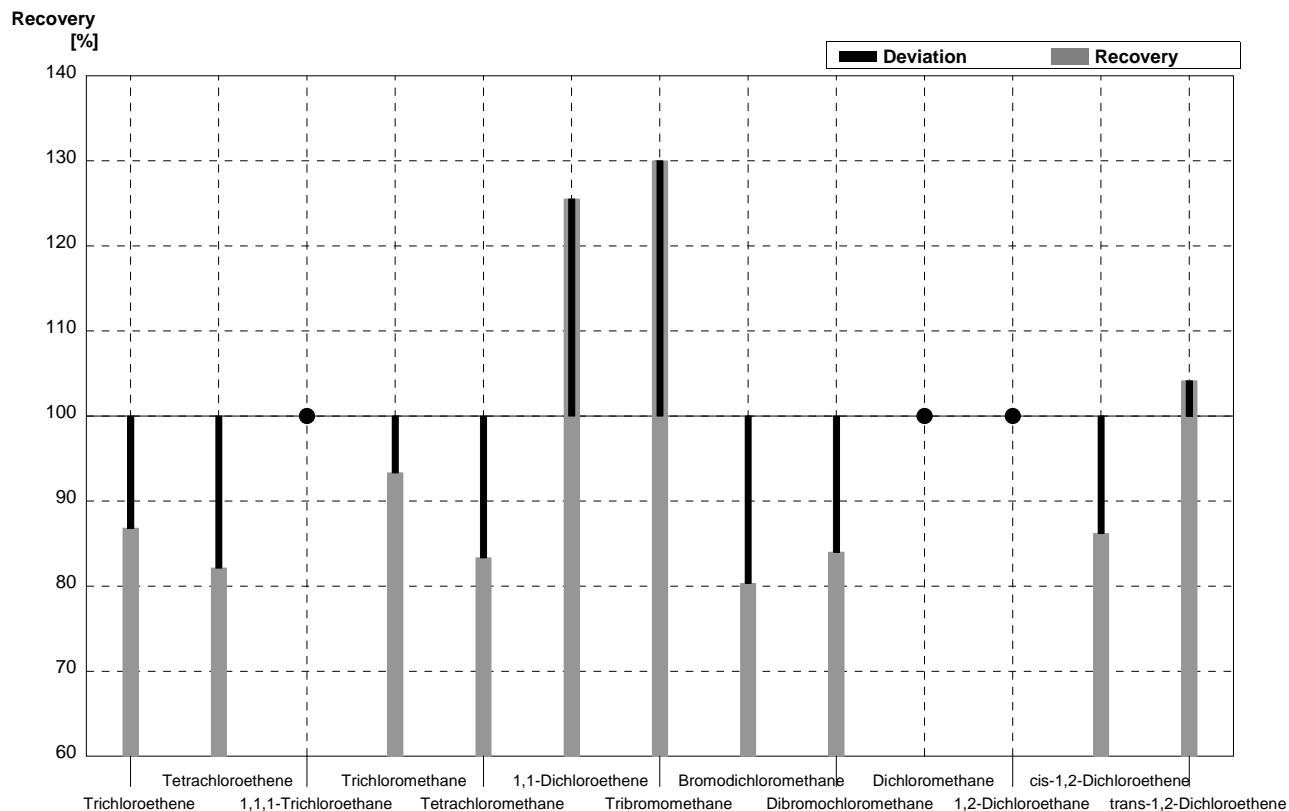
Sample C43B
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,288	0,029	µg/l	61%
Tetrachloroethene	0,89	0,04	0,888	0,14	µg/l	100%
1,1,1-Trichloroethane	0,59	0,03	0,618	0,054	µg/l	105%
Trichloromethane	0,96	0,05	0,874	0,066	µg/l	91%
Tetrachloromethane	0,92	0,05	0,847	0,005	µg/l	92%
1,1-Dichloroethene	1,46	0,07	1,60	0,064	µg/l	110%
Tribromomethane	0,41	0,02	0,503	0,037	µg/l	123%
Bromodichloromethane	0,32	0,02	0,252	0,015	µg/l	79%
Dibromochloromethane	0,19	0,01	0,876	0,076	µg/l	461%
Dichloromethane	3,62	0,18	3,88	0,18	µg/l	107%
1,2-Dichloroethane	1,42	0,07	1,24	0,028	µg/l	87%
cis-1,2-Dichloroethene	0,91	0,05	0,746	0,18	µg/l	82%
trans-1,2-Dichloroethene	0,52	0,03	0,42	0,05	µg/l	81%



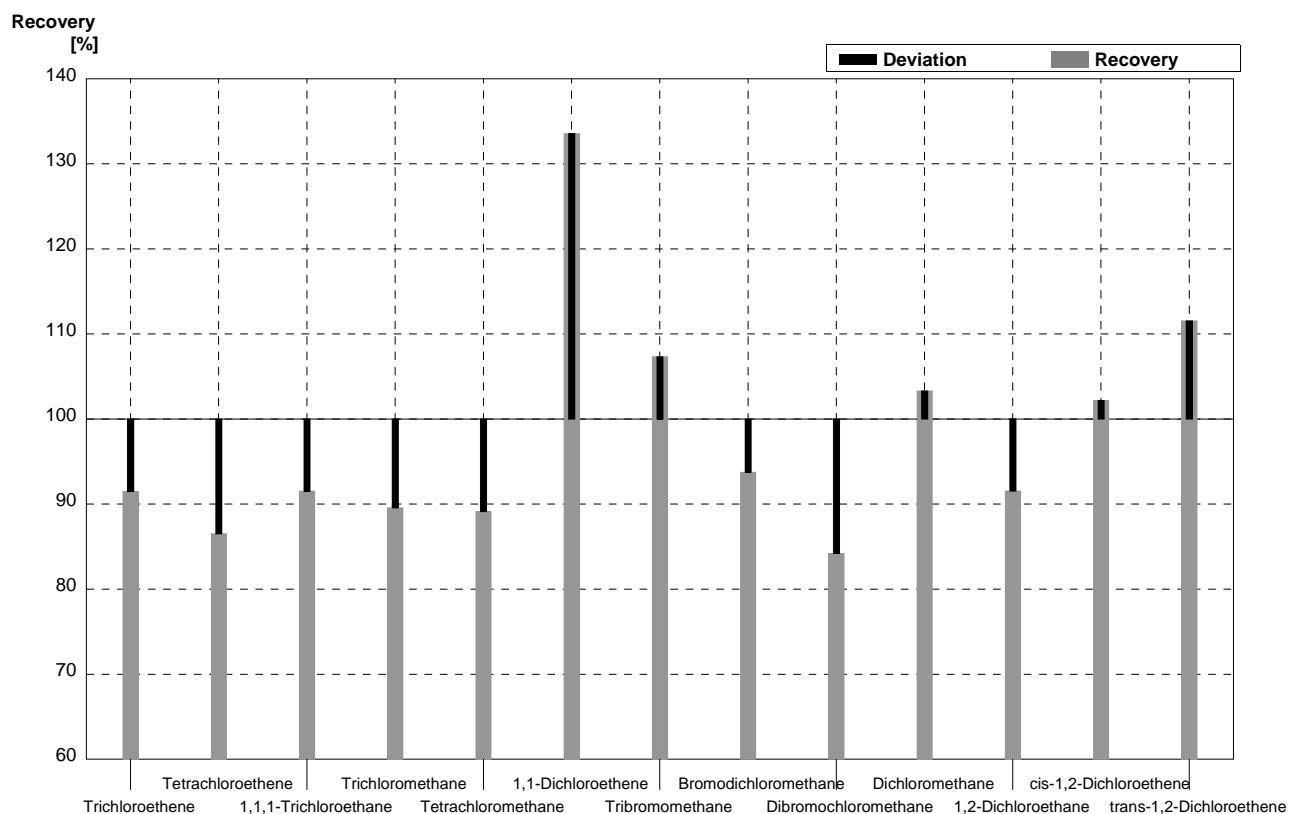
Sample C43A
Laboratory E

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,12	0,22	µg/l	87%
Tetrachloroethene	2,63	0,13	2,16	0,42	µg/l	82%
1,1,1-Trichloroethane	<0,08		<0,1		µg/l	•
Trichloromethane	0,30	0,02	0,28	0,05	µg/l	93%
Tetrachloromethane	0,18	0,01	0,15	0,03	µg/l	83%
1,1-Dichloroethene	0,47	0,02	0,59	0,19	µg/l	126%
Tribromomethane	0,20	0,01	0,26	0,05	µg/l	130%
Bromodichloromethane	0,61	0,03	0,49	0,09	µg/l	80%
Dibromochloromethane	0,75	0,04	0,63	0,12	µg/l	84%
Dichloromethane	<0,6		<0,2		µg/l	•
1,2-Dichloroethene	<0,4		<0,2		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	0,25	0,04	µg/l	86%
trans-1,2-Dichloroethene	1,45	0,07	1,51	0,30	µg/l	104%



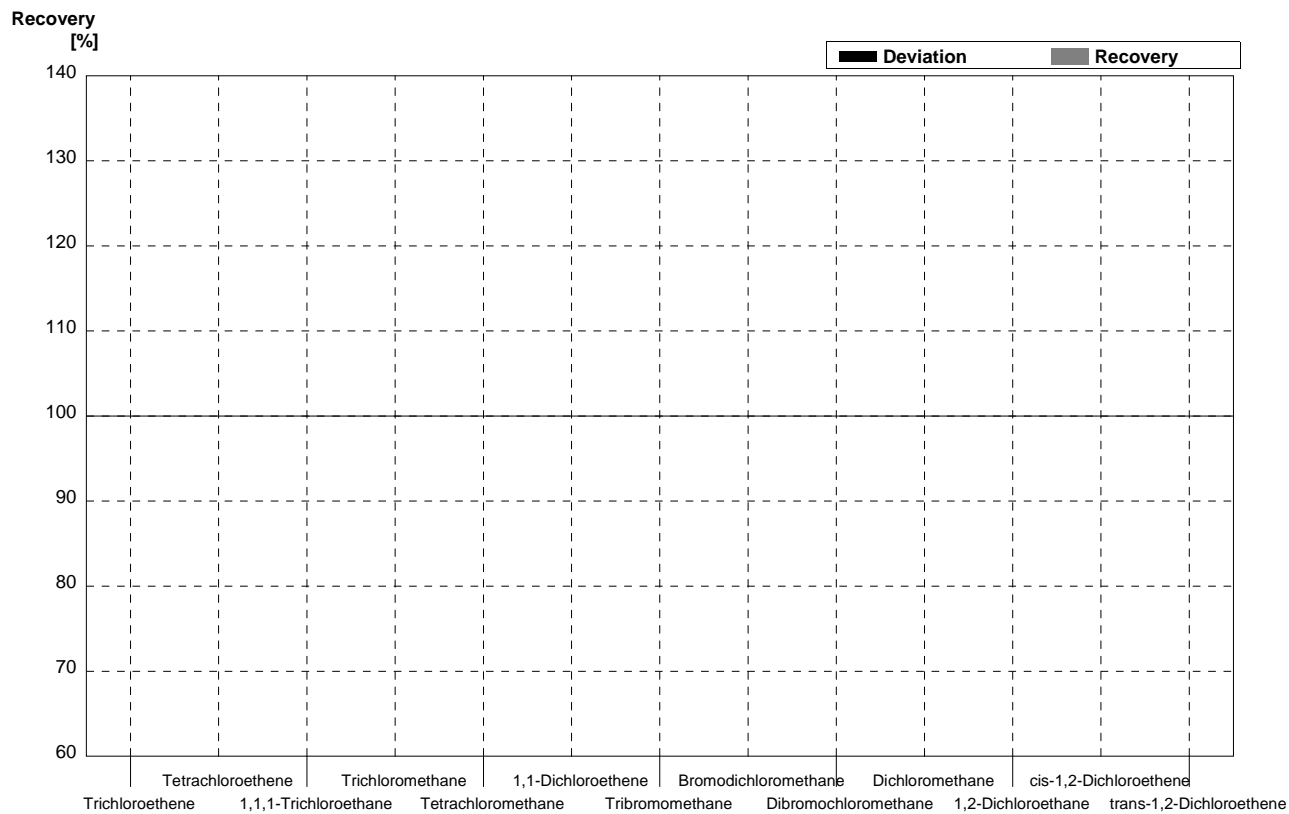
Sample C43B
Laboratory E

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	0,43	0,08	$\mu\text{g/l}$	91%
Tetrachloroethene	0,89	0,04	0,77	0,14	$\mu\text{g/l}$	87%
1,1,1-Trichloroethane	0,59	0,03	0,54	0,10	$\mu\text{g/l}$	92%
Trichloromethane	0,96	0,05	0,86	0,16	$\mu\text{g/l}$	90%
Tetrachloromethane	0,92	0,05	0,82	0,16	$\mu\text{g/l}$	89%
1,1-Dichloroethene	1,46	0,07	1,95	0,35	$\mu\text{g/l}$	134%
Tribromomethane	0,41	0,02	0,44	0,09	$\mu\text{g/l}$	107%
Bromodichloromethane	0,32	0,02	0,30	0,06	$\mu\text{g/l}$	94%
Dibromochloromethane	0,19	0,01	0,16	0,03	$\mu\text{g/l}$	84%
Dichloromethane	3,62	0,18	3,74	0,70	$\mu\text{g/l}$	103%
1,2-Dichloroethane	1,42	0,07	1,30	0,26	$\mu\text{g/l}$	92%
cis-1,2-Dichloroethene	0,91	0,05	0,93	0,18	$\mu\text{g/l}$	102%
trans-1,2-Dichloroethene	0,52	0,03	0,58	0,11	$\mu\text{g/l}$	112%



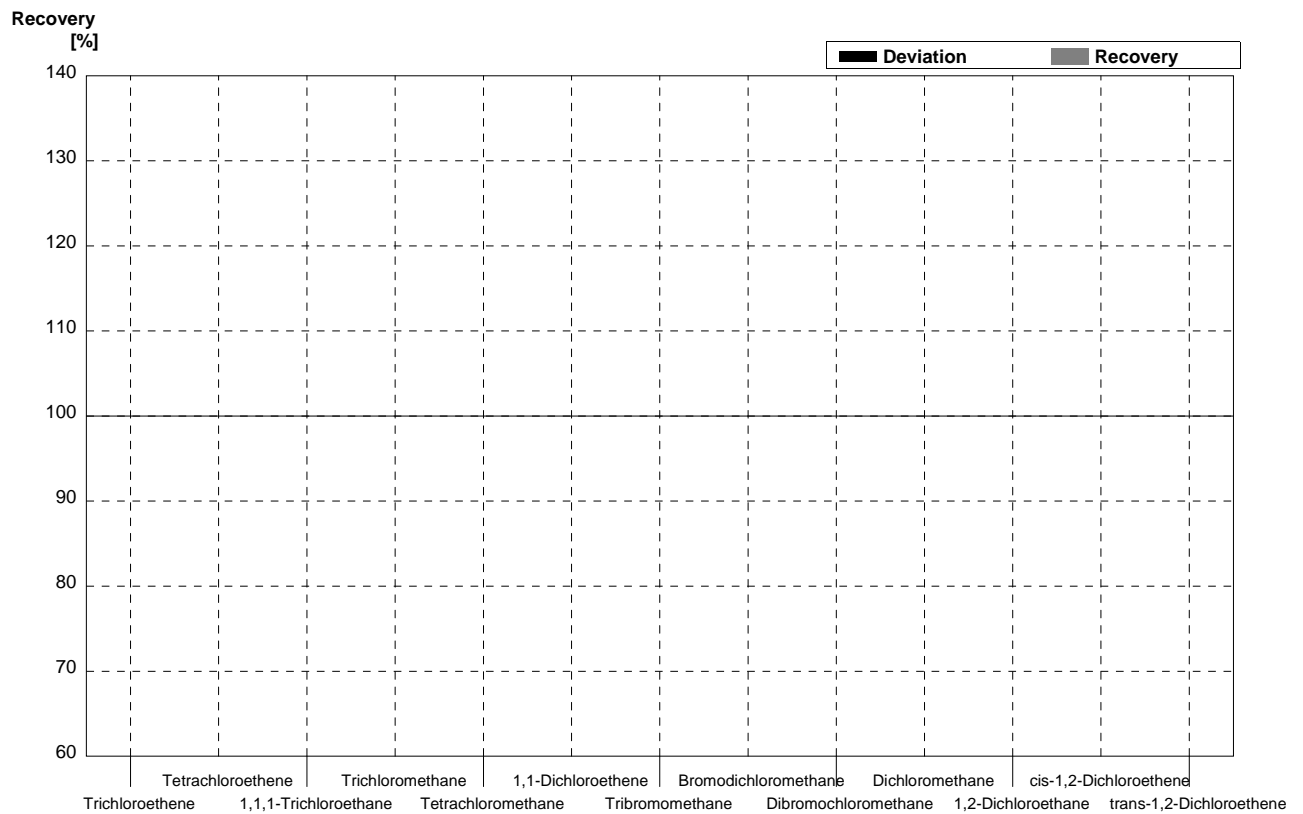
Sample C43A
Laboratory F

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06			$\mu\text{g/l}$	
Tetrachloroethene	2,63	0,13			$\mu\text{g/l}$	
1,1,1-Trichloroethane	<0,08				$\mu\text{g/l}$	
Trichloromethane	0,30	0,02			$\mu\text{g/l}$	
Tetrachloromethane	0,18	0,01			$\mu\text{g/l}$	
1,1-Dichloroethene	0,47	0,02			$\mu\text{g/l}$	
Tribromomethane	0,20	0,01			$\mu\text{g/l}$	
Bromodichloromethane	0,61	0,03			$\mu\text{g/l}$	
Dibromochloromethane	0,75	0,04			$\mu\text{g/l}$	
Dichloromethane	<0,6				$\mu\text{g/l}$	
1,2-Dichloroethane	<0,4				$\mu\text{g/l}$	
cis-1,2-Dichloroethene	0,29	0,01			$\mu\text{g/l}$	
trans-1,2-Dichloroethene	1,45	0,07			$\mu\text{g/l}$	



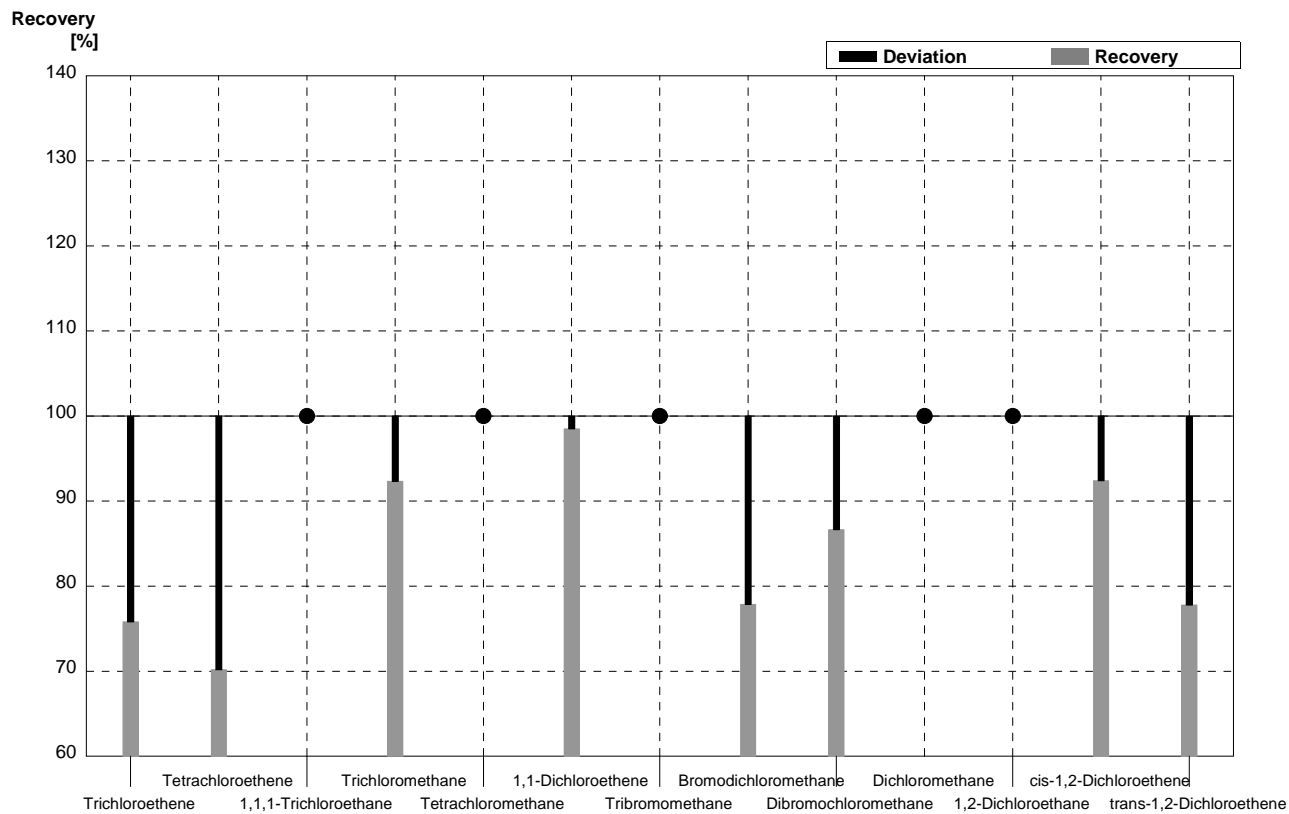
Sample C43B
Laboratory F

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02			$\mu\text{g/l}$	
Tetrachloroethene	0,89	0,04			$\mu\text{g/l}$	
1,1,1-Trichloroethane	0,59	0,03			$\mu\text{g/l}$	
Trichloromethane	0,96	0,05			$\mu\text{g/l}$	
Tetrachloromethane	0,92	0,05			$\mu\text{g/l}$	
1,1-Dichloroethene	1,46	0,07			$\mu\text{g/l}$	
Tribromomethane	0,41	0,02			$\mu\text{g/l}$	
Bromodichloromethane	0,32	0,02			$\mu\text{g/l}$	
Dibromochloromethane	0,19	0,01			$\mu\text{g/l}$	
Dichloromethane	3,62	0,18			$\mu\text{g/l}$	
1,2-Dichloroethane	1,42	0,07			$\mu\text{g/l}$	
cis-1,2-Dichloroethene	0,91	0,05			$\mu\text{g/l}$	
trans-1,2-Dichloroethene	0,52	0,03			$\mu\text{g/l}$	



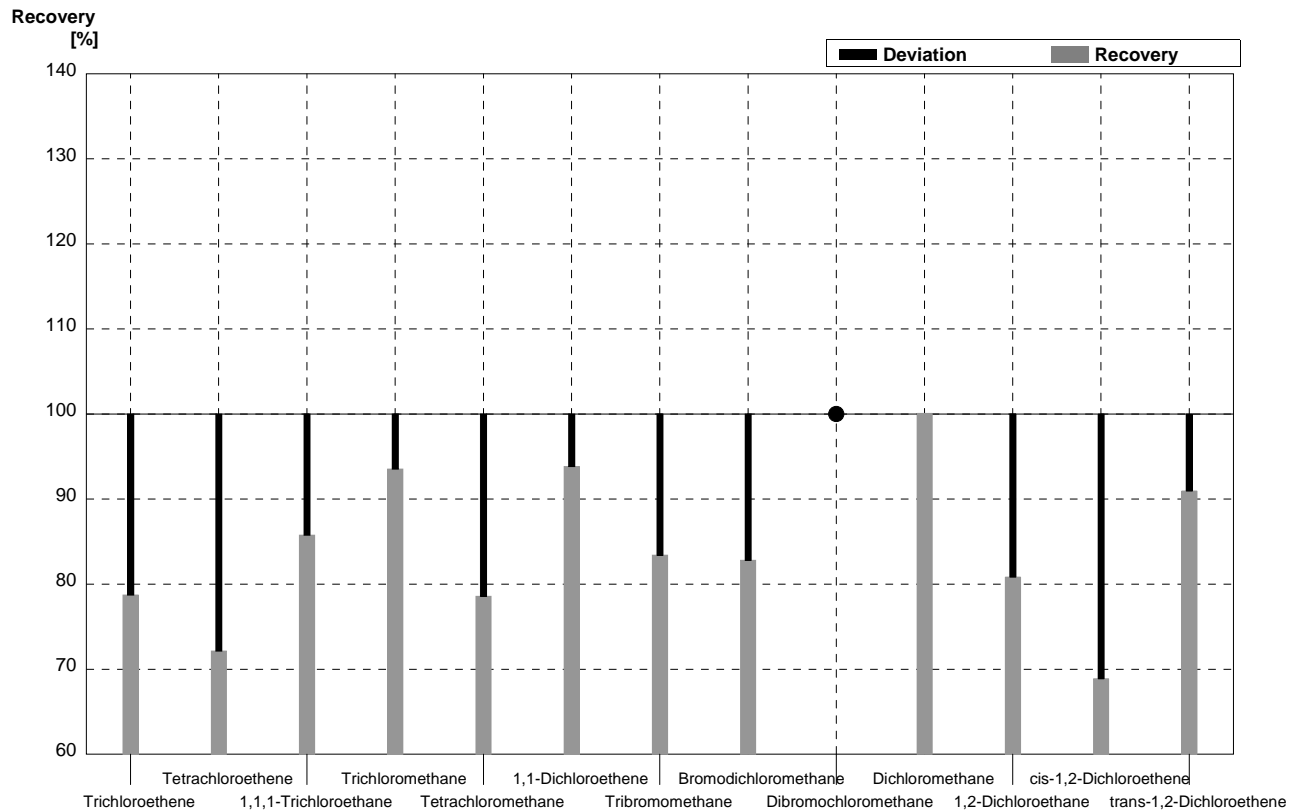
Sample C43A
Laboratory G

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06	0,978	0,293	$\mu\text{g/l}$	76%
Tetrachloroethene	2,63	0,13	1,846	0,554	$\mu\text{g/l}$	70%
1,1,1-Trichloroethane	<0,08		<0,2		$\mu\text{g/l}$	•
Trichloromethane	0,30	0,02	0,277	0,083	$\mu\text{g/l}$	92%
Tetrachloromethane	0,18	0,01	<0,2		$\mu\text{g/l}$	•
1,1-Dichloroethene	0,47	0,02	0,463	0,139	$\mu\text{g/l}$	99%
Tribromomethane	0,20	0,01	<0,2		$\mu\text{g/l}$	•
Bromodichloromethane	0,61	0,03	0,475	0,143	$\mu\text{g/l}$	78%
Dibromochloromethane	0,75	0,04	0,650	0,195	$\mu\text{g/l}$	87%
Dichloromethane	<0,6		<2,0		$\mu\text{g/l}$	•
1,2-Dichloroethane	<0,4		<0,2		$\mu\text{g/l}$	•
cis-1,2-Dichloroethene	0,29	0,01	0,268	0,080	$\mu\text{g/l}$	92%
trans-1,2-Dichloroethene	1,45	0,07	1,128	0,338	$\mu\text{g/l}$	78%



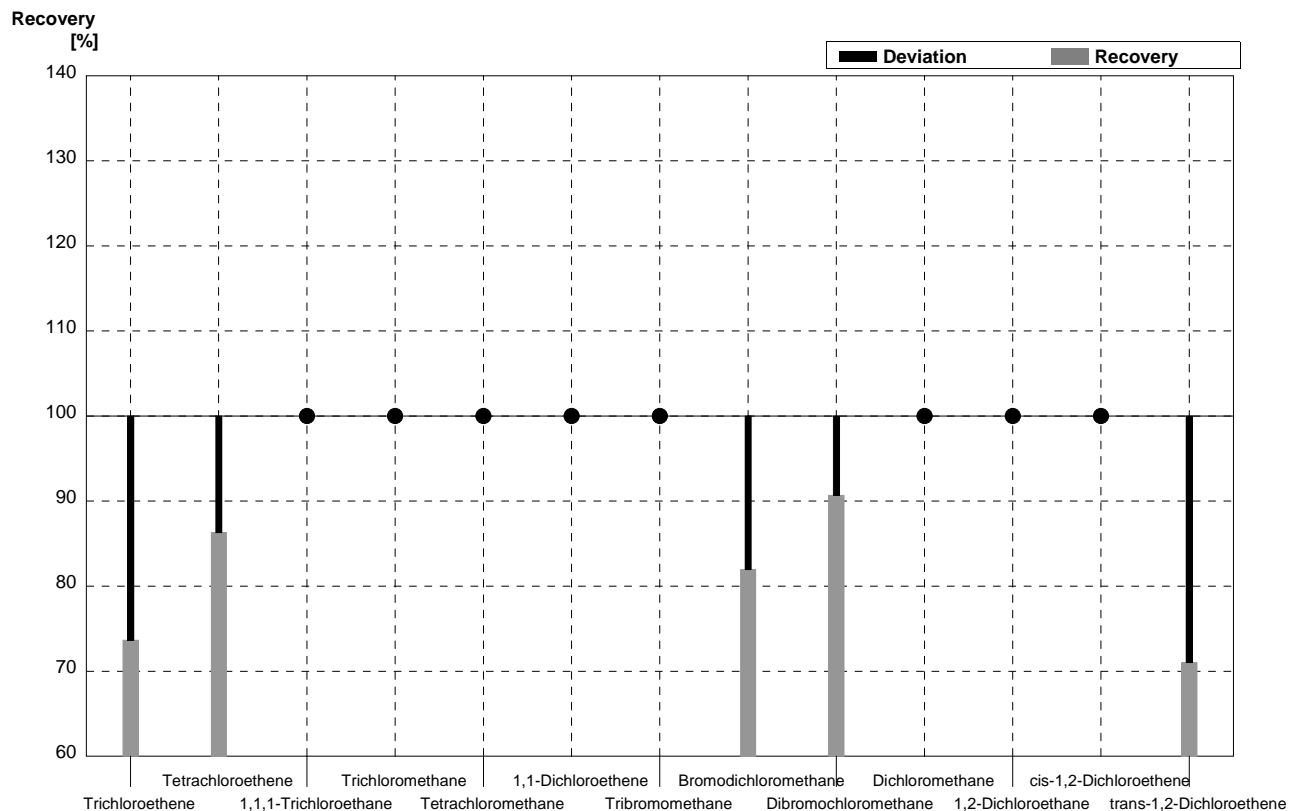
Sample C43B
Laboratory G

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	0,370	0,111	$\mu\text{g/l}$	79%
Tetrachloroethene	0,89	0,04	0,642	0,193	$\mu\text{g/l}$	72%
1,1,1-Trichloroethane	0,59	0,03	0,506	0,152	$\mu\text{g/l}$	86%
Trichloromethane	0,96	0,05	0,898	0,270	$\mu\text{g/l}$	94%
Tetrachloromethane	0,92	0,05	0,723	0,217	$\mu\text{g/l}$	79%
1,1-Dichloroethene	1,46	0,07	1,370	0,411	$\mu\text{g/l}$	94%
Tribromomethane	0,41	0,02	0,342	0,103	$\mu\text{g/l}$	83%
Bromodichloromethane	0,32	0,02	0,265	0,080	$\mu\text{g/l}$	83%
Dibromochloromethane	0,19	0,01	<0,2		$\mu\text{g/l}$	•
Dichloromethane	3,62	0,18	3,623	1,087	$\mu\text{g/l}$	100%
1,2-Dichloroethane	1,42	0,07	1,148	0,344	$\mu\text{g/l}$	81%
cis-1,2-Dichloroethene	0,91	0,05	0,627	0,188	$\mu\text{g/l}$	69%
trans-1,2-Dichloroethene	0,52	0,03	0,473	0,142	$\mu\text{g/l}$	91%



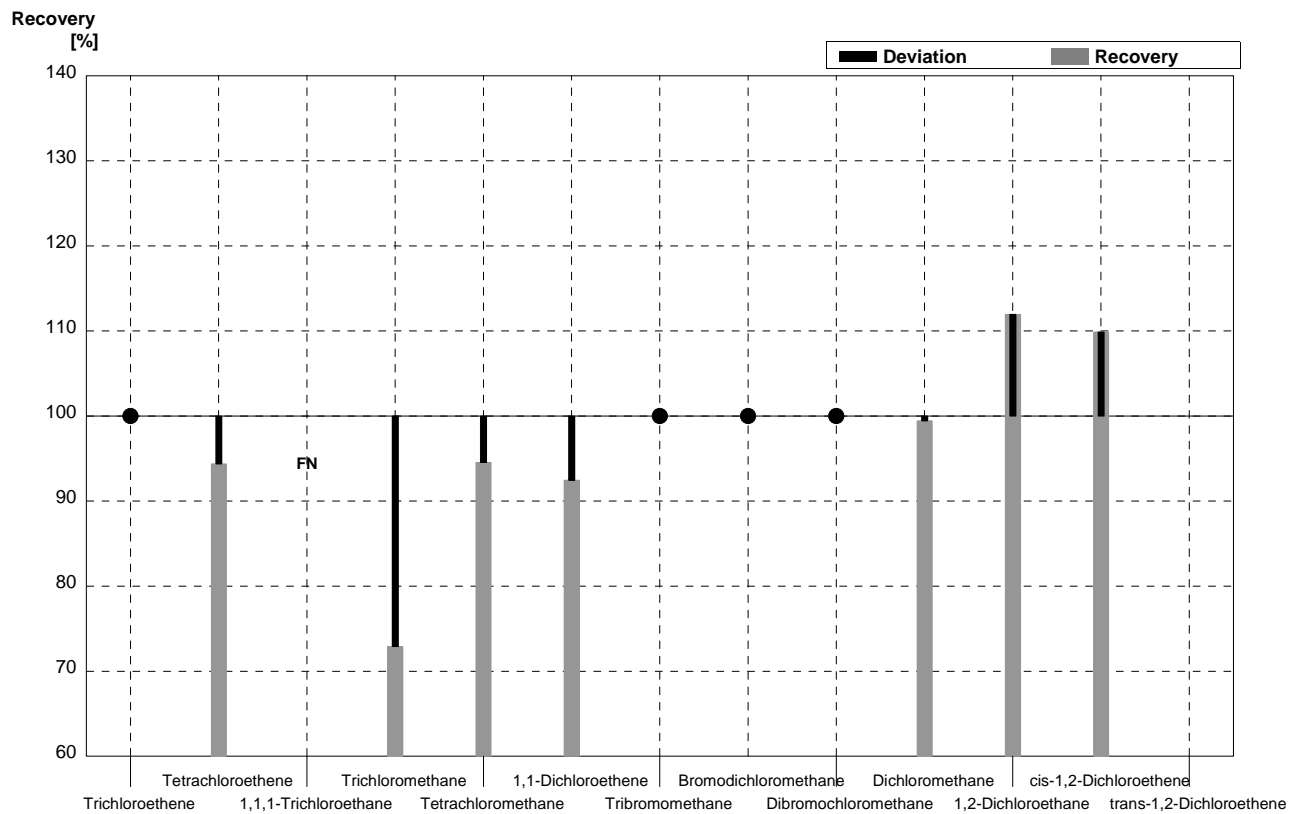
Sample C43A
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	0,95	0,21	µg/l	74%
Tetrachloroethene	2,63	0,13	2,27	0,41	µg/l	86%
1,1,1-Trichloroethane	<0,08		<0,5		µg/l	•
Trichloromethane	0,30	0,02	<0,5		µg/l	•
Tetrachloromethane	0,18	0,01	<0,5		µg/l	•
1,1-Dichloroethene	0,47	0,02	<0,5		µg/l	•
Tribromomethane	0,20	0,01	<0,5		µg/l	•
Bromodichloromethane	0,61	0,03	0,50	0,08	µg/l	82%
Dibromochloromethane	0,75	0,04	0,68	0,44	µg/l	91%
Dichloromethane	<0,6		<0,5		µg/l	•
1,2-Dichloroethane	<0,4		<0,5		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	<0,5		µg/l	•
trans-1,2-Dichloroethene	1,45	0,07	1,03	0,23	µg/l	71%



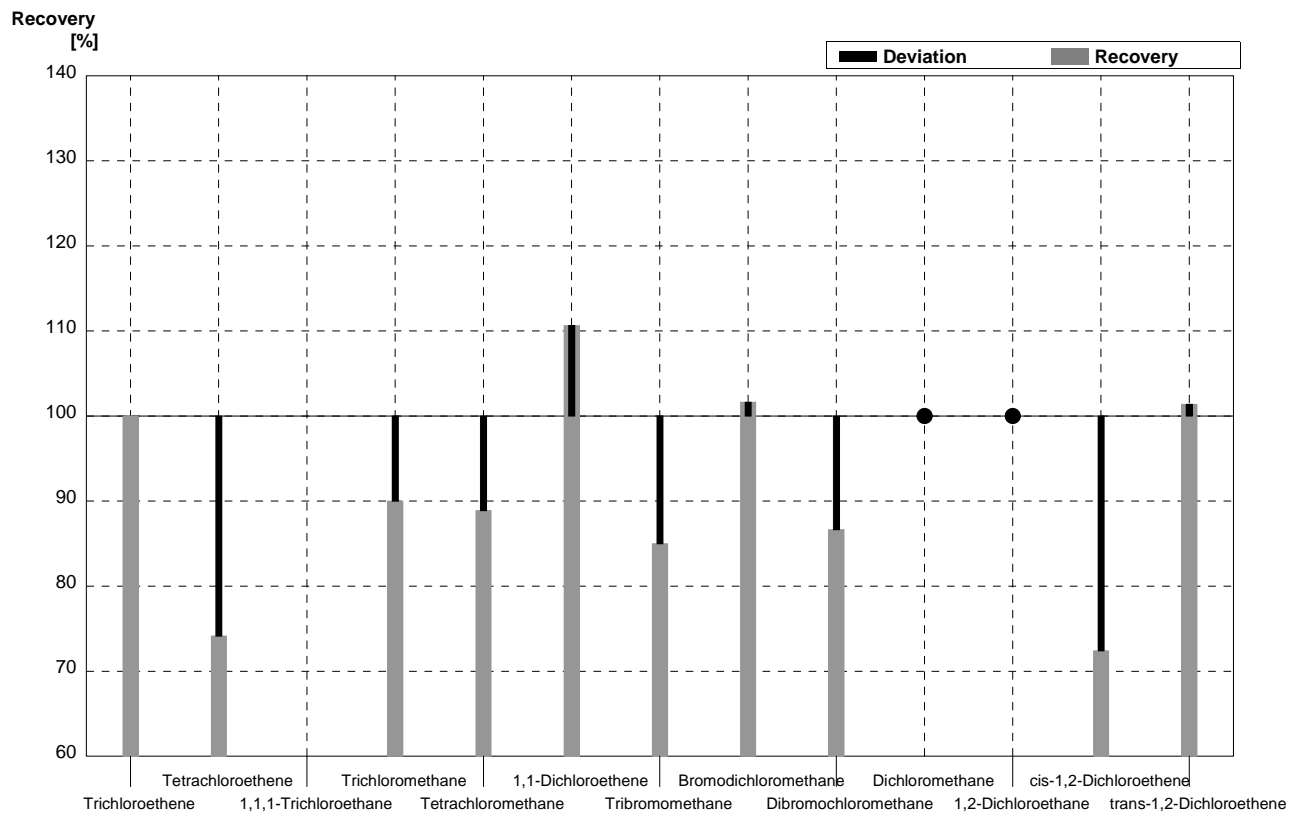
Sample C43B
Laboratory H

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	<0,5		$\mu\text{g/l}$	•
Tetrachloroethene	0,89	0,04	0,84	0,15	$\mu\text{g/l}$	94%
1,1,1-Trichloroethane	0,59	0,03	<0,5		$\mu\text{g/l}$	FN
Trichloromethane	0,96	0,05	0,70	0,13	$\mu\text{g/l}$	73%
Tetrachloromethane	0,92	0,05	0,87	0,19	$\mu\text{g/l}$	95%
1,1-Dichloroethene	1,46	0,07	1,35	0,30	$\mu\text{g/l}$	92%
Tribromomethane	0,41	0,02	<0,5		$\mu\text{g/l}$	•
Bromodichloromethane	0,32	0,02	<0,5		$\mu\text{g/l}$	•
Dibromochloromethane	0,19	0,01	<0,5		$\mu\text{g/l}$	•
Dichloromethane	3,62	0,18	3,60	0,79	$\mu\text{g/l}$	99%
1,2-Dichloroethene	1,42	0,07	1,59	0,25	$\mu\text{g/l}$	112%
cis-1,2-Dichloroethene	0,91	0,05	1,00	0,22	$\mu\text{g/l}$	110%
trans-1,2-Dichloroethene	0,52	0,03	<0,5		$\mu\text{g/l}$	



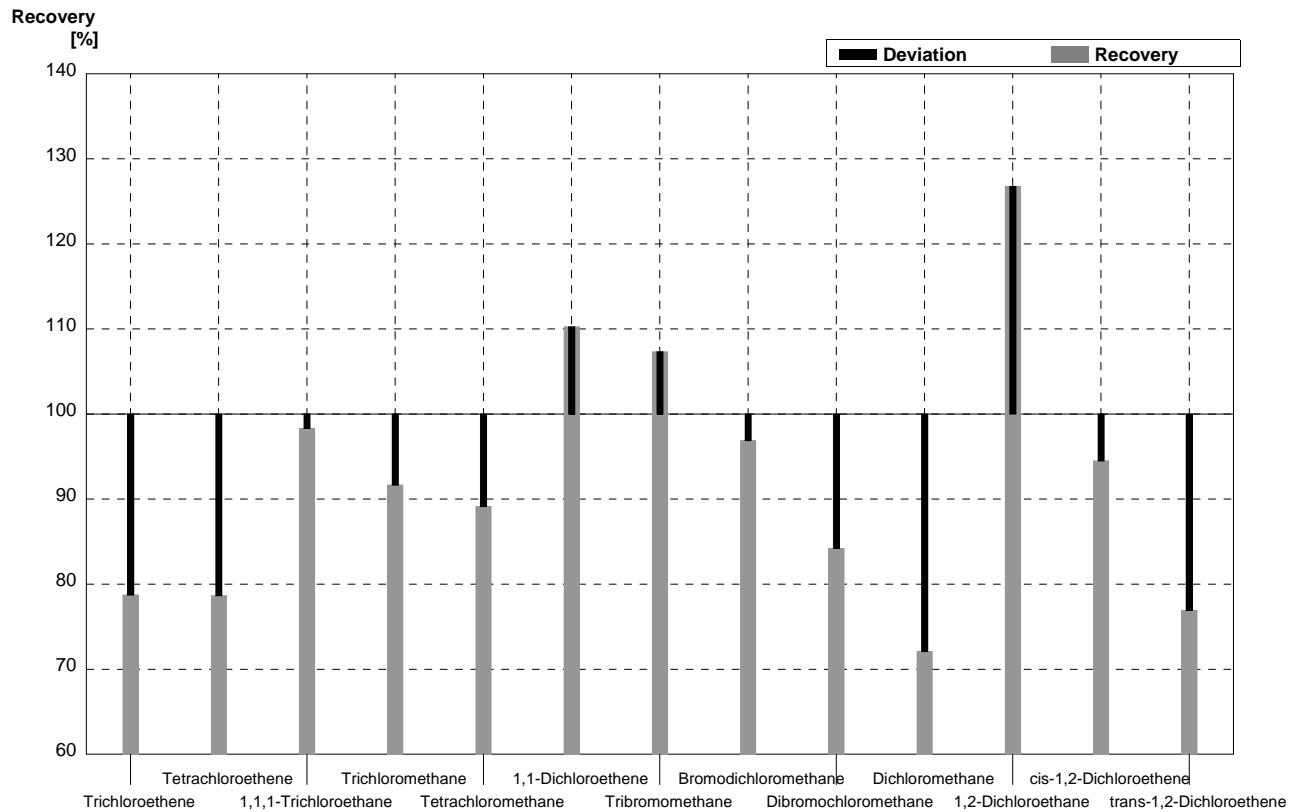
Sample C43A
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,29	0,26	µg/l	100%
Tetrachloroethene	2,63	0,13	1,95	0,39	µg/l	74%
1,1,1-Trichloroethane	<0,08				µg/l	
Trichloromethane	0,30	0,02	0,27	0,05	µg/l	90%
Tetrachloromethane	0,18	0,01	0,16	0,03	µg/l	89%
1,1-Dichloroethene	0,47	0,02	0,52	0,10	µg/l	111%
Tribromomethane	0,20	0,01	0,17	0,03	µg/l	85%
Bromodichloromethane	0,61	0,03	0,62	0,12	µg/l	102%
Dibromochloromethane	0,75	0,04	0,65	0,13	µg/l	87%
Dichloromethane	<0,6		0,04	0,01	µg/l	•
1,2-Dichloroethene	<0,4		<0,05	0,01	µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	0,21	0,04	µg/l	72%
trans-1,2-Dichloroethene	1,45	0,07	1,47	0,29	µg/l	101%



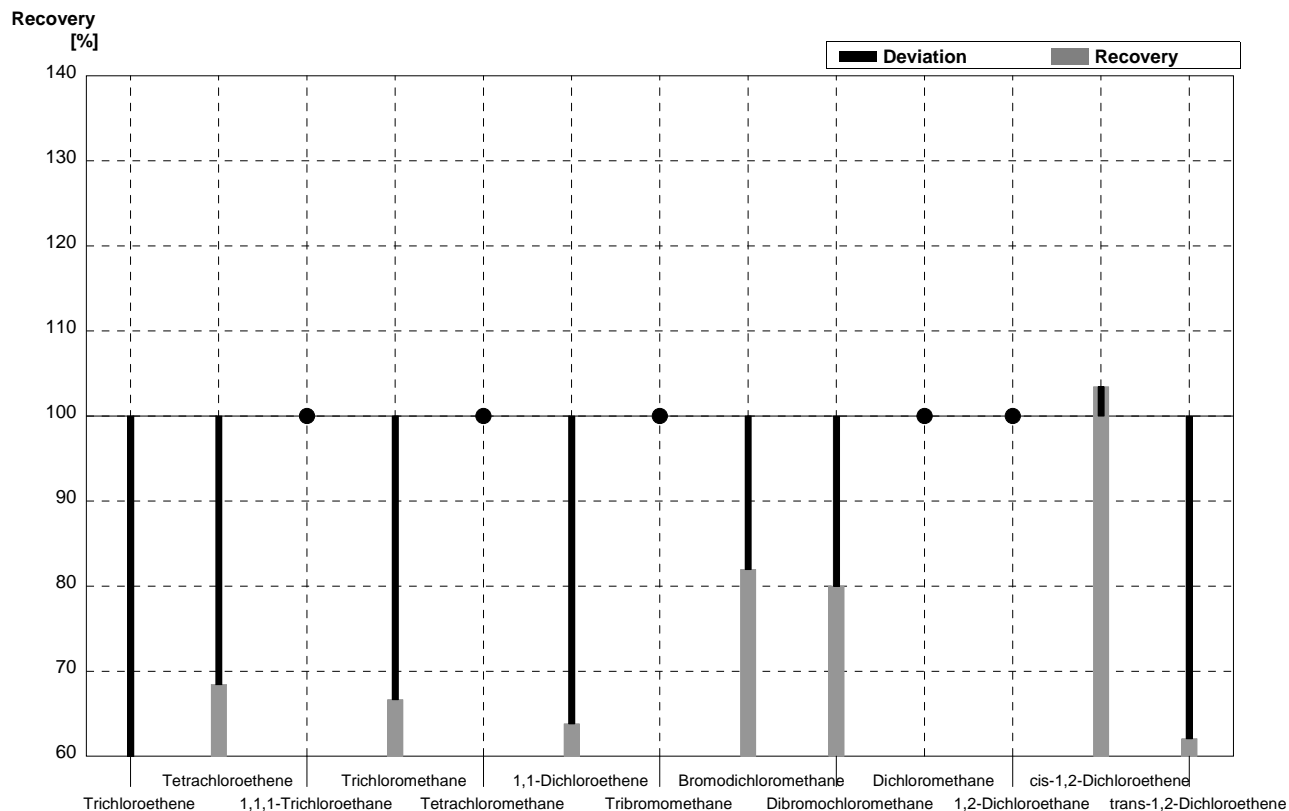
Sample C43B
Laboratory I

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	0,37	0,07	$\mu\text{g/l}$	79%
Tetrachloroethene	0,89	0,04	0,70	0,14	$\mu\text{g/l}$	79%
1,1,1-Trichloroethane	0,59	0,03	0,58	0,12	$\mu\text{g/l}$	98%
Trichloromethane	0,96	0,05	0,88	0,18	$\mu\text{g/l}$	92%
Tetrachloromethane	0,92	0,05	0,82	0,16	$\mu\text{g/l}$	89%
1,1-Dichloroethene	1,46	0,07	1,61	0,32	$\mu\text{g/l}$	110%
Tribromomethane	0,41	0,02	0,44	0,09	$\mu\text{g/l}$	107%
Bromodichloromethane	0,32	0,02	0,31	0,06	$\mu\text{g/l}$	97%
Dibromochloromethane	0,19	0,01	0,16	0,03	$\mu\text{g/l}$	84%
Dichloromethane	3,62	0,18	2,61	0,52	$\mu\text{g/l}$	72%
1,2-Dichloroethane	1,42	0,07	1,80	0,36	$\mu\text{g/l}$	127%
cis-1,2-Dichloroethene	0,91	0,05	0,86	0,17	$\mu\text{g/l}$	95%
trans-1,2-Dichloroethene	0,52	0,03	0,40	0,08	$\mu\text{g/l}$	77%



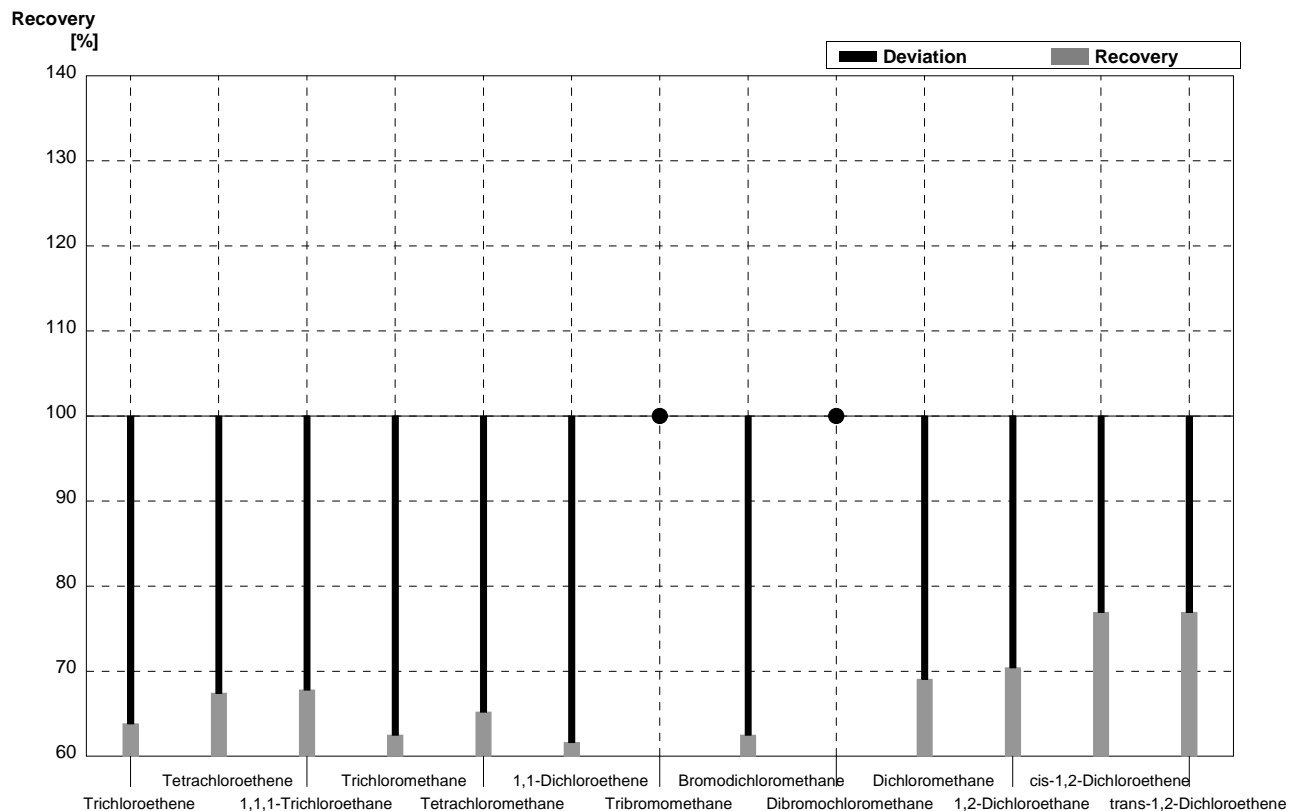
Sample C43A
Laboratory J

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06	0,6	0,12	$\mu\text{g/l}$	47%
Tetrachloroethene	2,63	0,13	1,8	0,36	$\mu\text{g/l}$	68%
1,1,1-Trichloroethane	<0,08		<0,1	0,02	$\mu\text{g/l}$	•
Trichloromethane	0,30	0,02	0,2	0,04	$\mu\text{g/l}$	67%
Tetrachloromethane	0,18	0,01	<0,2	0,04	$\mu\text{g/l}$	•
1,1-Dichloroethene	0,47	0,02	0,3	0,06	$\mu\text{g/l}$	64%
Tribromomethane	0,20	0,01	<0,5	0,1	$\mu\text{g/l}$	•
Bromodichloromethane	0,61	0,03	0,5	0,1	$\mu\text{g/l}$	82%
Dibromochloromethane	0,75	0,04	0,6	0,12	$\mu\text{g/l}$	80%
Dichloromethane	<0,6		<0,1	0,02	$\mu\text{g/l}$	•
1,2-Dichloroethane	<0,4		<0,2	0,04	$\mu\text{g/l}$	•
cis-1,2-Dichloroethene	0,29	0,01	0,3	0,06	$\mu\text{g/l}$	103%
trans-1,2-Dichloroethene	1,45	0,07	0,9	0,18	$\mu\text{g/l}$	62%



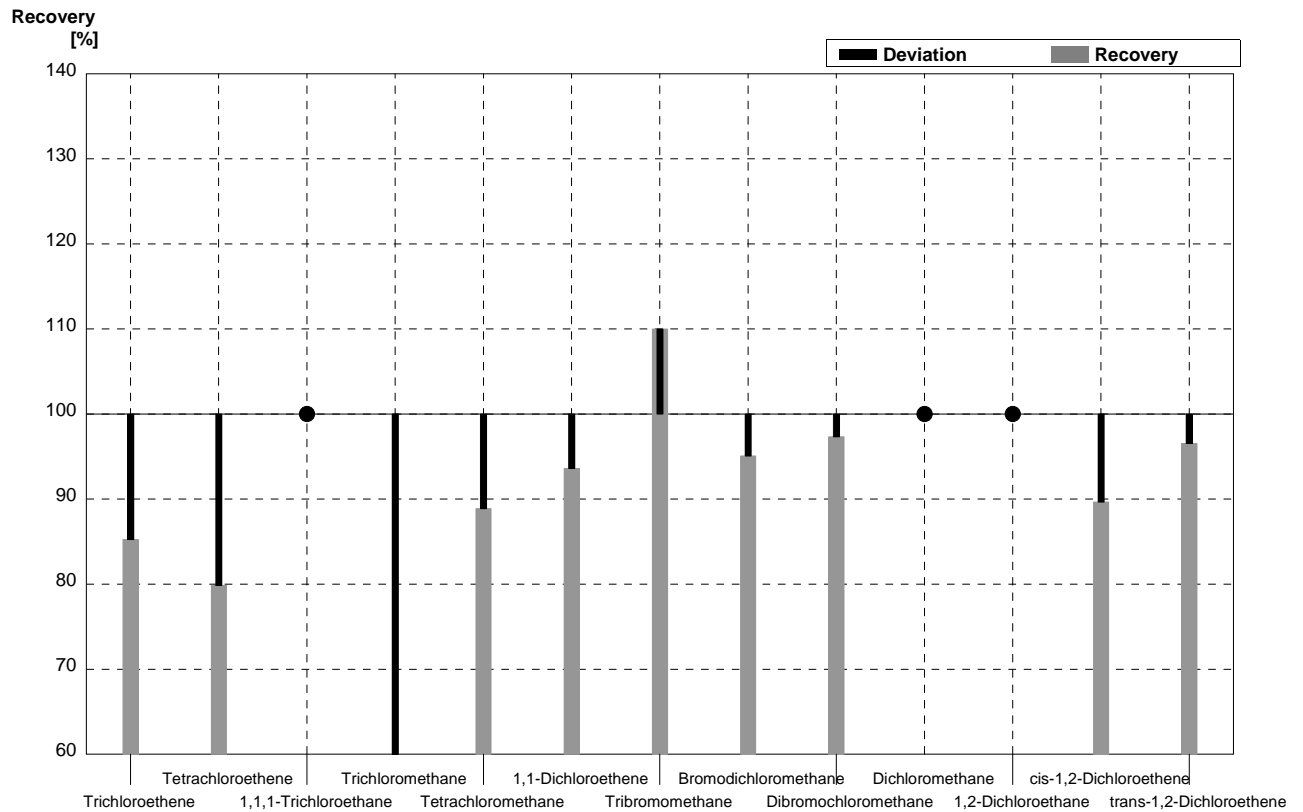
Sample C43B
Laboratory J

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	0,3	0,06	$\mu\text{g/l}$	64%
Tetrachloroethene	0,89	0,04	0,6	0,12	$\mu\text{g/l}$	67%
1,1,1-Trichloroethane	0,59	0,03	0,4	0,08	$\mu\text{g/l}$	68%
Trichloromethane	0,96	0,05	0,6	0,12	$\mu\text{g/l}$	63%
Tetrachloromethane	0,92	0,05	0,6	0,12	$\mu\text{g/l}$	65%
1,1-Dichloroethene	1,46	0,07	0,9	0,18	$\mu\text{g/l}$	62%
Tribromomethane	0,41	0,02	<0,5	0,1	$\mu\text{g/l}$	•
Bromodichloromethane	0,32	0,02	0,2	0,04	$\mu\text{g/l}$	63%
Dibromochloromethane	0,19	0,01	<0,2	0,04	$\mu\text{g/l}$	•
Dichloromethane	3,62	0,18	2,5	0,5	$\mu\text{g/l}$	69%
1,2-Dichloroethane	1,42	0,07	1,0	0,2	$\mu\text{g/l}$	70%
cis-1,2-Dichloroethene	0,91	0,05	0,7	0,14	$\mu\text{g/l}$	77%
trans-1,2-Dichloroethene	0,52	0,03	0,4	0,08	$\mu\text{g/l}$	77%



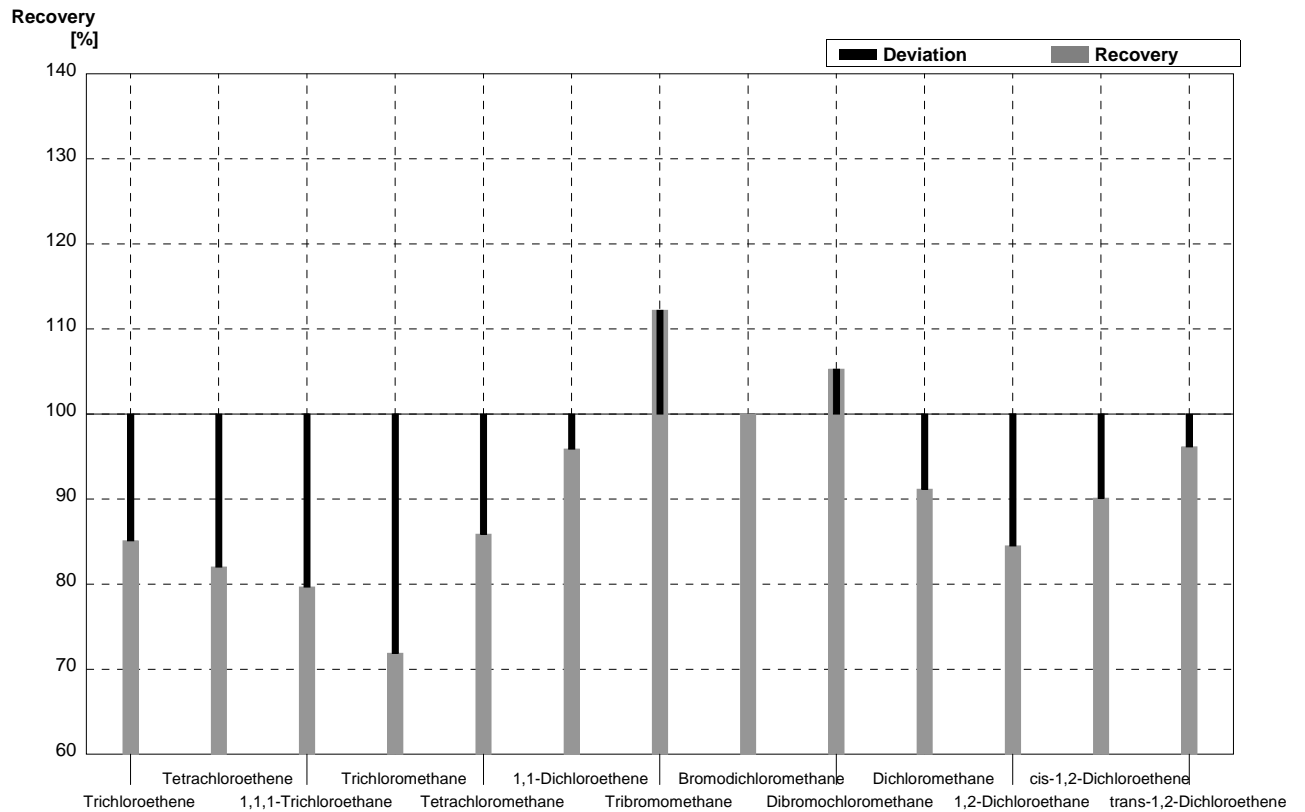
Sample C43A
Laboratory K

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06	1,1	0,22	$\mu\text{g/l}$	85%
Tetrachloroethene	2,63	0,13	2,1	0,42	$\mu\text{g/l}$	80%
1,1,1-Trichloroethane	<0,08		<0,10		$\mu\text{g/l}$	•
Trichloromethane	0,30	0,02	0,14	0,028	$\mu\text{g/l}$	47%
Tetrachloromethane	0,18	0,01	0,16	0,032	$\mu\text{g/l}$	89%
1,1-Dichloroethene	0,47	0,02	0,44	0,088	$\mu\text{g/l}$	94%
Tribromomethane	0,20	0,01	0,22	0,044	$\mu\text{g/l}$	110%
Bromodichloromethane	0,61	0,03	0,58	0,12	$\mu\text{g/l}$	95%
Dibromochloromethane	0,75	0,04	0,73	0,15	$\mu\text{g/l}$	97%
Dichloromethane	<0,6		<0,10		$\mu\text{g/l}$	•
1,2-Dichloroethene	<0,4		<0,10		$\mu\text{g/l}$	•
cis-1,2-Dichloroethene	0,29	0,01	0,26	0,052	$\mu\text{g/l}$	90%
trans-1,2-Dichloroethene	1,45	0,07	1,4	0,28	$\mu\text{g/l}$	97%



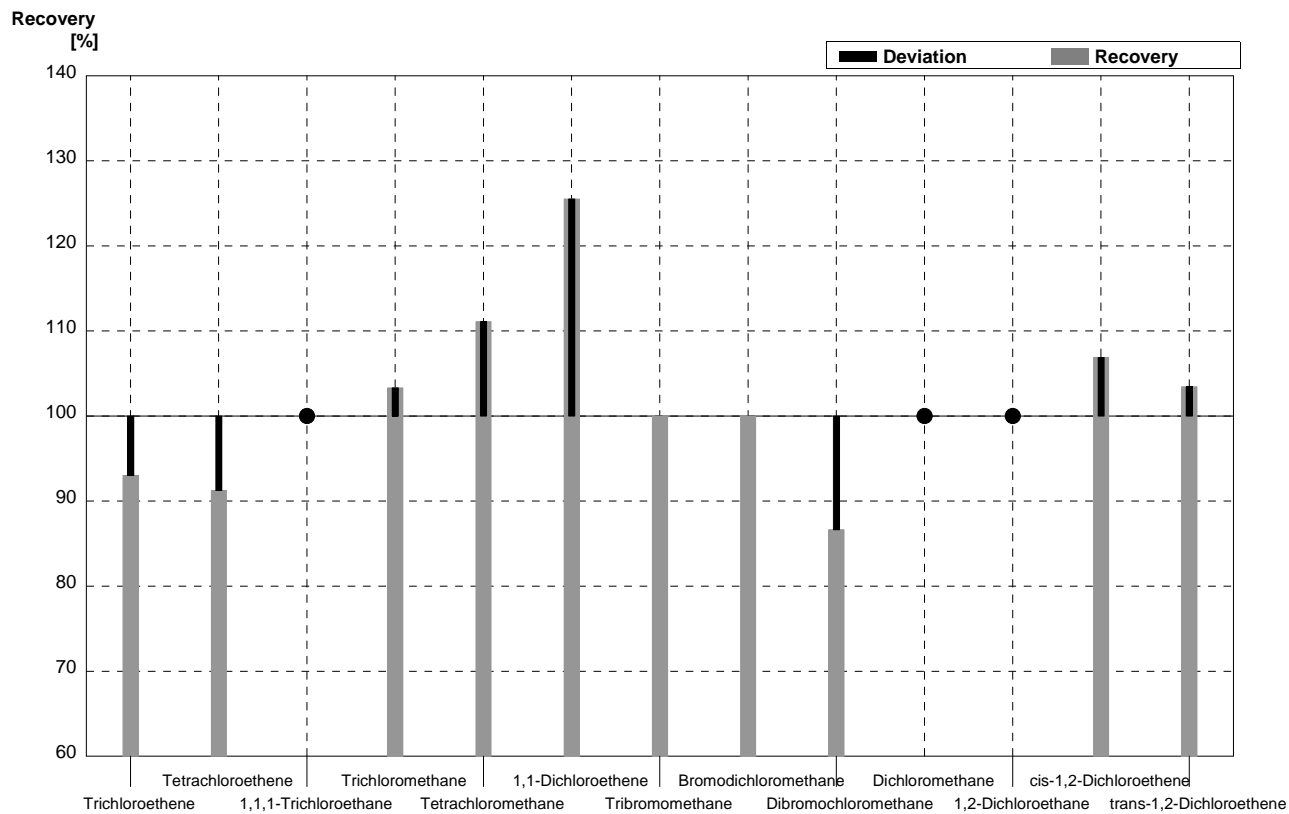
Sample C43B
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,40	0,08	µg/l	85%
Tetrachloroethene	0,89	0,04	0,73	0,15	µg/l	82%
1,1,1-Trichloroethane	0,59	0,03	0,47	0,094	µg/l	80%
Trichloromethane	0,96	0,05	0,69	0,14	µg/l	72%
Tetrachloromethane	0,92	0,05	0,79	0,16	µg/l	86%
1,1-Dichloroethene	1,46	0,07	1,4	0,28	µg/l	96%
Tribromomethane	0,41	0,02	0,46	0,092	µg/l	112%
Bromodichloromethane	0,32	0,02	0,32	0,064	µg/l	100%
Dibromochloromethane	0,19	0,01	0,20	0,04	µg/l	105%
Dichloromethane	3,62	0,18	3,3	0,66	µg/l	91%
1,2-Dichloroethene	1,42	0,07	1,2	0,24	µg/l	85%
cis-1,2-Dichloroethene	0,91	0,05	0,82	0,16	µg/l	90%
trans-1,2-Dichloroethene	0,52	0,03	0,50	0,10	µg/l	96%



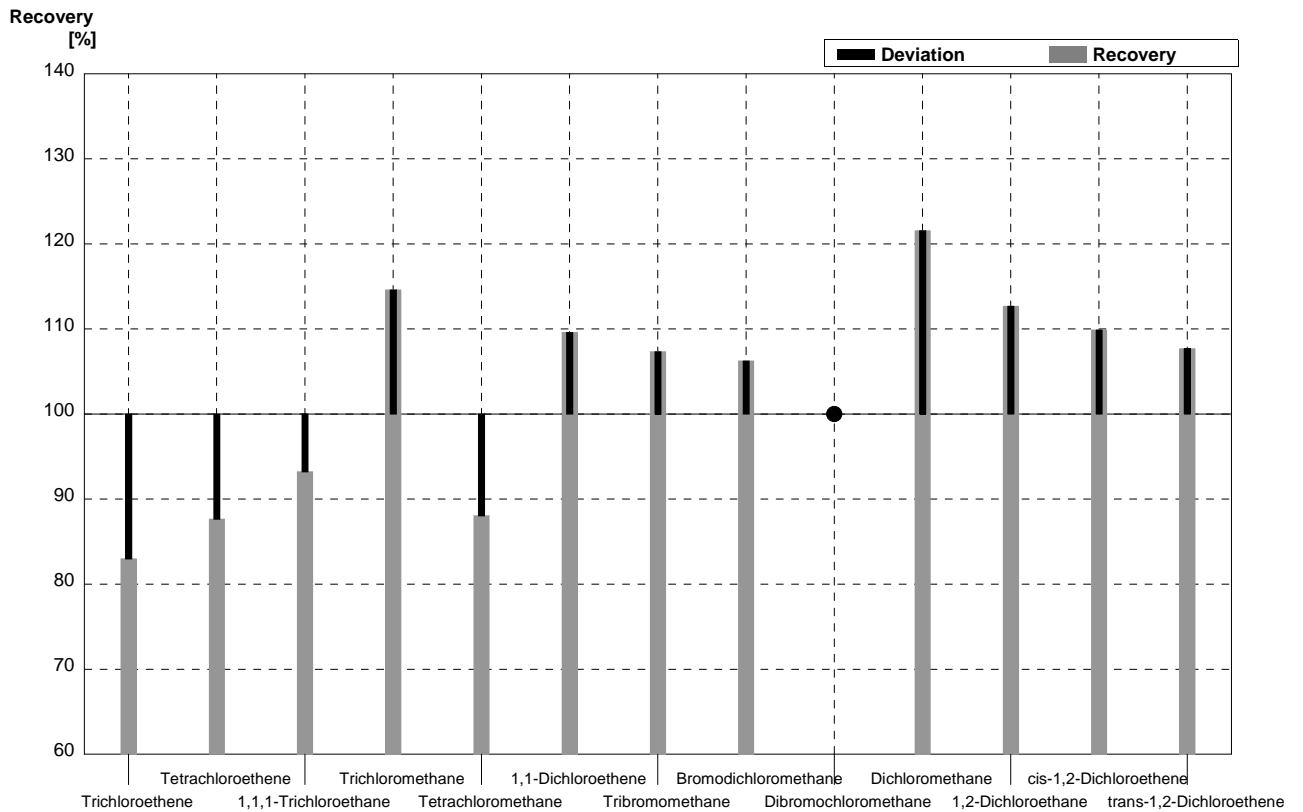
Sample C43A
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,2	0,12	µg/l	93%
Tetrachloroethene	2,63	0,13	2,4	0,24	µg/l	91%
1,1,1-Trichloroethane	<0,08		<0,10	0,010	µg/l	•
Trichloromethane	0,30	0,02	0,31	0,031	µg/l	103%
Tetrachloromethane	0,18	0,01	0,20	0,020	µg/l	111%
1,1-Dichloroethene	0,47	0,02	0,59	0,059	µg/l	126%
Tribromomethane	0,20	0,01	0,20	0,020	µg/l	100%
Bromodichloromethane	0,61	0,03	0,61	0,061	µg/l	100%
Dibromochloromethane	0,75	0,04	0,65	0,065	µg/l	87%
Dichloromethane	<0,6		<0,15	0,015	µg/l	•
1,2-Dichloroethene	<0,4		<0,15	0,015	µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	0,31	0,031	µg/l	107%
trans-1,2-Dichloroethene	1,45	0,07	1,5	0,15	µg/l	103%



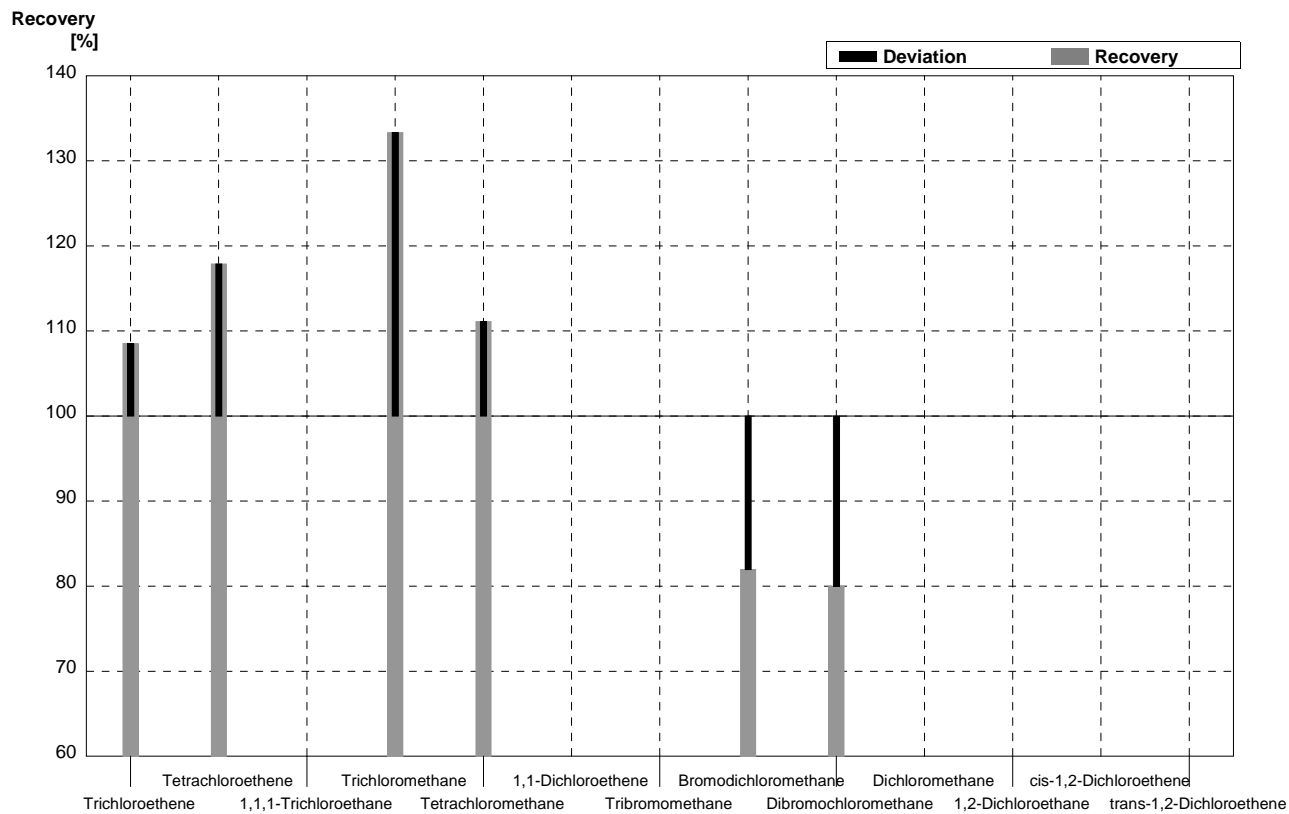
Sample C43B
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,39	0,039	µg/l	83%
Tetrachloroethene	0,89	0,04	0,78	0,078	µg/l	88%
1,1,1-Trichloroethane	0,59	0,03	0,55	0,055	µg/l	93%
Trichloromethane	0,96	0,05	1,1	0,11	µg/l	115%
Tetrachloromethane	0,92	0,05	0,81	0,081	µg/l	88%
1,1-Dichloroethene	1,46	0,07	1,6	0,16	µg/l	110%
Tribromomethane	0,41	0,02	0,44	0,044	µg/l	107%
Bromodichloromethane	0,32	0,02	0,34	0,034	µg/l	106%
Dibromochloromethane	0,19	0,01	<0,20	0,020	µg/l	•
Dichloromethane	3,62	0,18	4,4	0,44	µg/l	122%
1,2-Dichloroethane	1,42	0,07	1,6	0,16	µg/l	113%
cis-1,2-Dichloroethene	0,91	0,05	1,0	0,10	µg/l	110%
trans-1,2-Dichloroethene	0,52	0,03	0,56	0,056	µg/l	108%



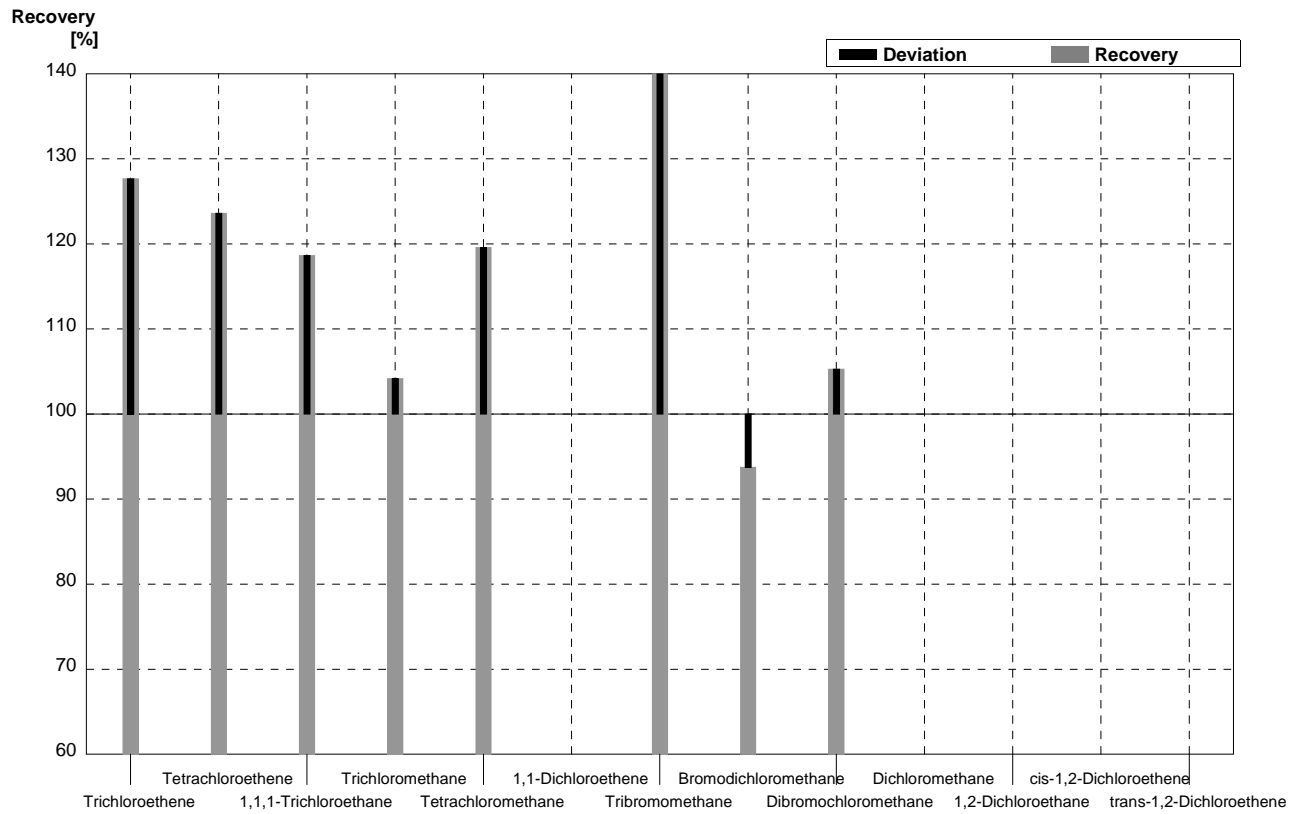
Sample C43A
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,4		µg/l	109%
Tetrachloroethene	2,63	0,13	3,1		µg/l	118%
1,1,1-Trichloroethane	<0,08		n,n.		µg/l	
Trichloromethane	0,30	0,02	0,4		µg/l	133%
Tetrachloromethane	0,18	0,01	0,2		µg/l	111%
1,1-Dichloroethene	0,47	0,02			µg/l	
Tribromomethane	0,20	0,01	n,n.		µg/l	
Bromodichloromethane	0,61	0,03	0,5		µg/l	82%
Dibromochloromethane	0,75	0,04	0,6		µg/l	80%
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	<0,4				µg/l	
cis-1,2-Dichloroethene	0,29	0,01			µg/l	
trans-1,2-Dichloroethene	1,45	0,07			µg/l	



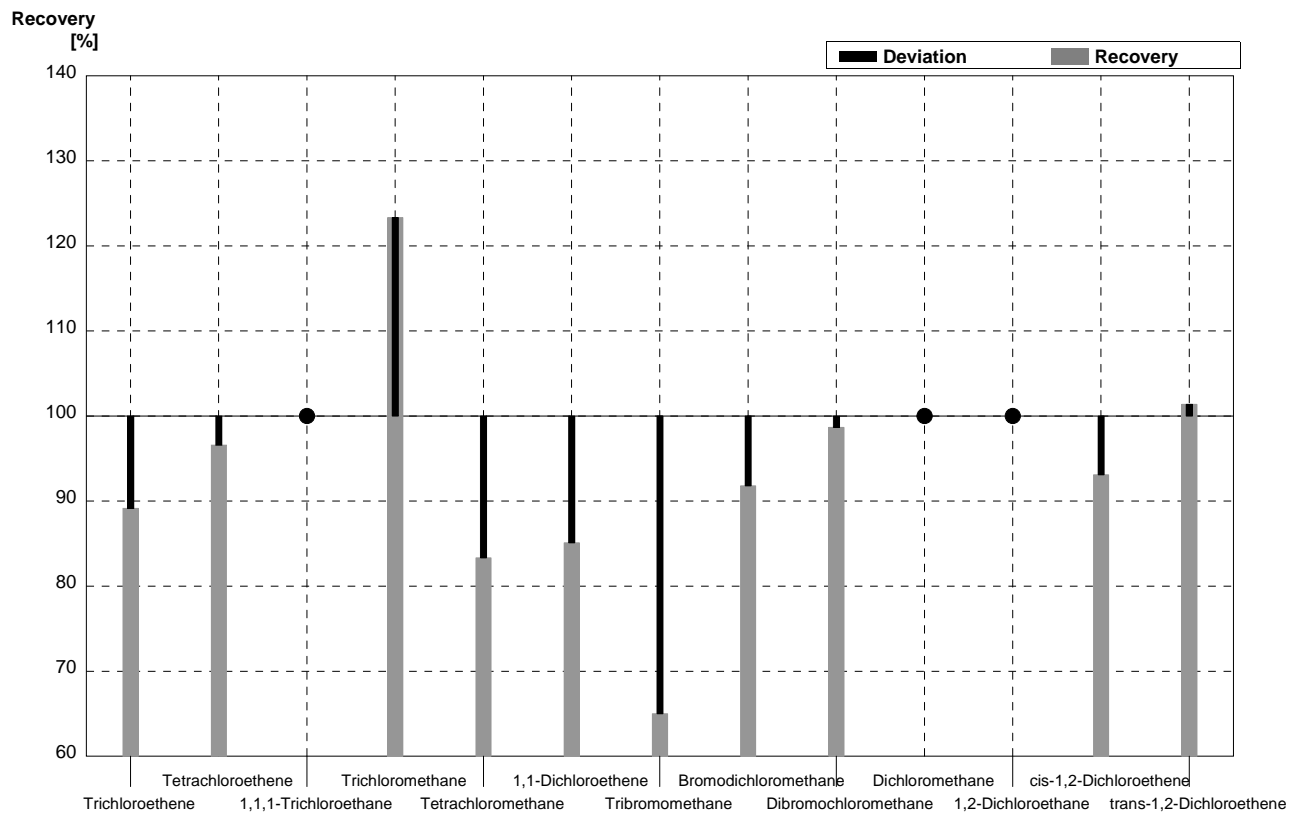
Sample C43B
Laboratory M

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	0,6		$\mu\text{g/l}$	128%
Tetrachloroethene	0,89	0,04	1,1		$\mu\text{g/l}$	124%
1,1,1-Trichloroethane	0,59	0,03	0,7		$\mu\text{g/l}$	119%
Trichloromethane	0,96	0,05	1,0		$\mu\text{g/l}$	104%
Tetrachloromethane	0,92	0,05	1,1		$\mu\text{g/l}$	120%
1,1-Dichloroethene	1,46	0,07			$\mu\text{g/l}$	
Tribromomethane	0,41	0,02	0,6		$\mu\text{g/l}$	146%
Bromodichloromethane	0,32	0,02	0,3		$\mu\text{g/l}$	94%
Dibromochloromethane	0,19	0,01	0,2		$\mu\text{g/l}$	105%
Dichloromethane	3,62	0,18			$\mu\text{g/l}$	
1,2-Dichloroethane	1,42	0,07			$\mu\text{g/l}$	
cis-1,2-Dichloroethene	0,91	0,05			$\mu\text{g/l}$	
trans-1,2-Dichloroethene	0,52	0,03			$\mu\text{g/l}$	



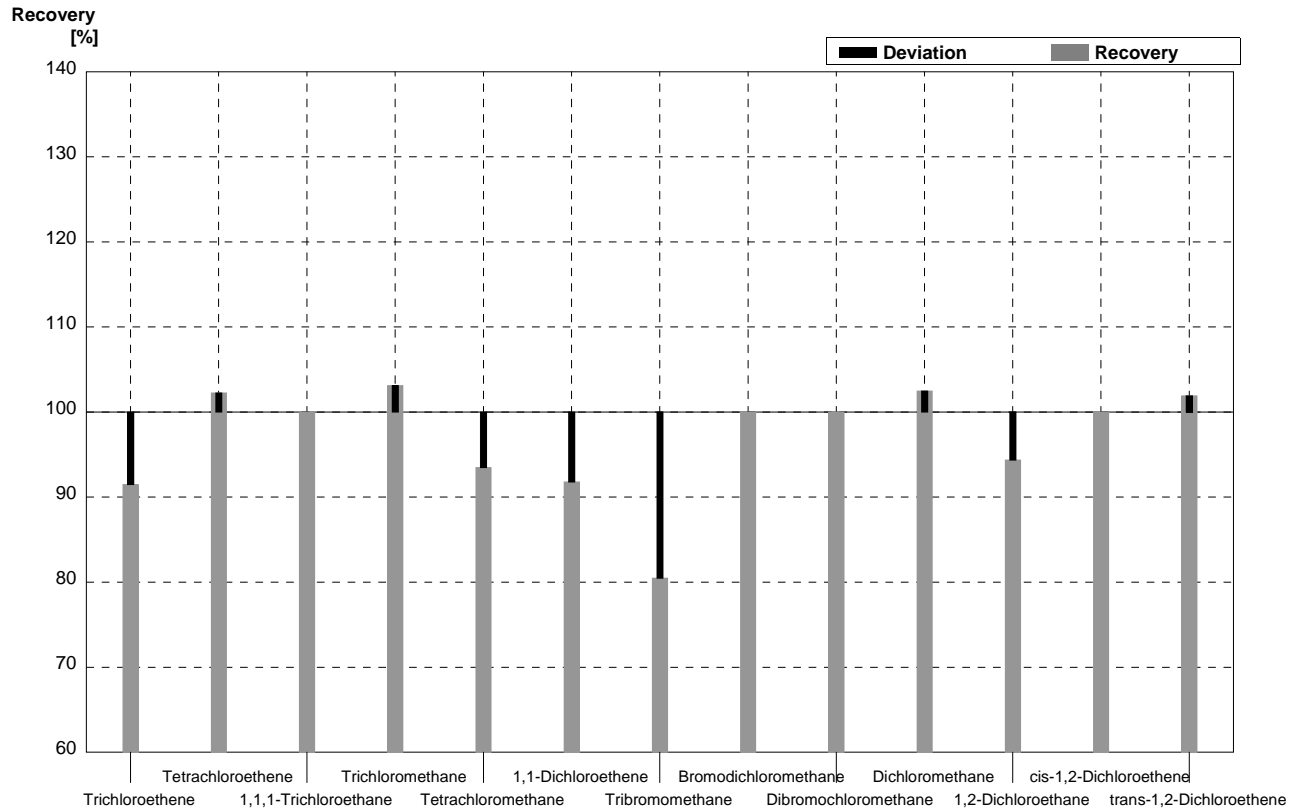
Sample C43A
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,15	0,2	µg/l	89%
Tetrachloroethene	2,63	0,13	2,54	0,2	µg/l	97%
1,1,1-Trichloroethane	<0,08		<0,1		µg/l	•
Trichloromethane	0,30	0,02	0,37	0,1	µg/l	123%
Tetrachloromethane	0,18	0,01	0,15	0,05	µg/l	83%
1,1-Dichloroethene	0,47	0,02	0,40	0,1	µg/l	85%
Tribromomethane	0,20	0,01	0,13	0,05	µg/l	65%
Bromodichloromethane	0,61	0,03	0,56	0,1	µg/l	92%
Dibromochloromethane	0,75	0,04	0,74	0,1	µg/l	99%
Dichloromethane	<0,6		<0,1		µg/l	•
1,2-Dichloroethene	<0,4		<0,1		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	0,27	0,05	µg/l	93%
trans-1,2-Dichloroethene	1,45	0,07	1,47	0,2	µg/l	101%



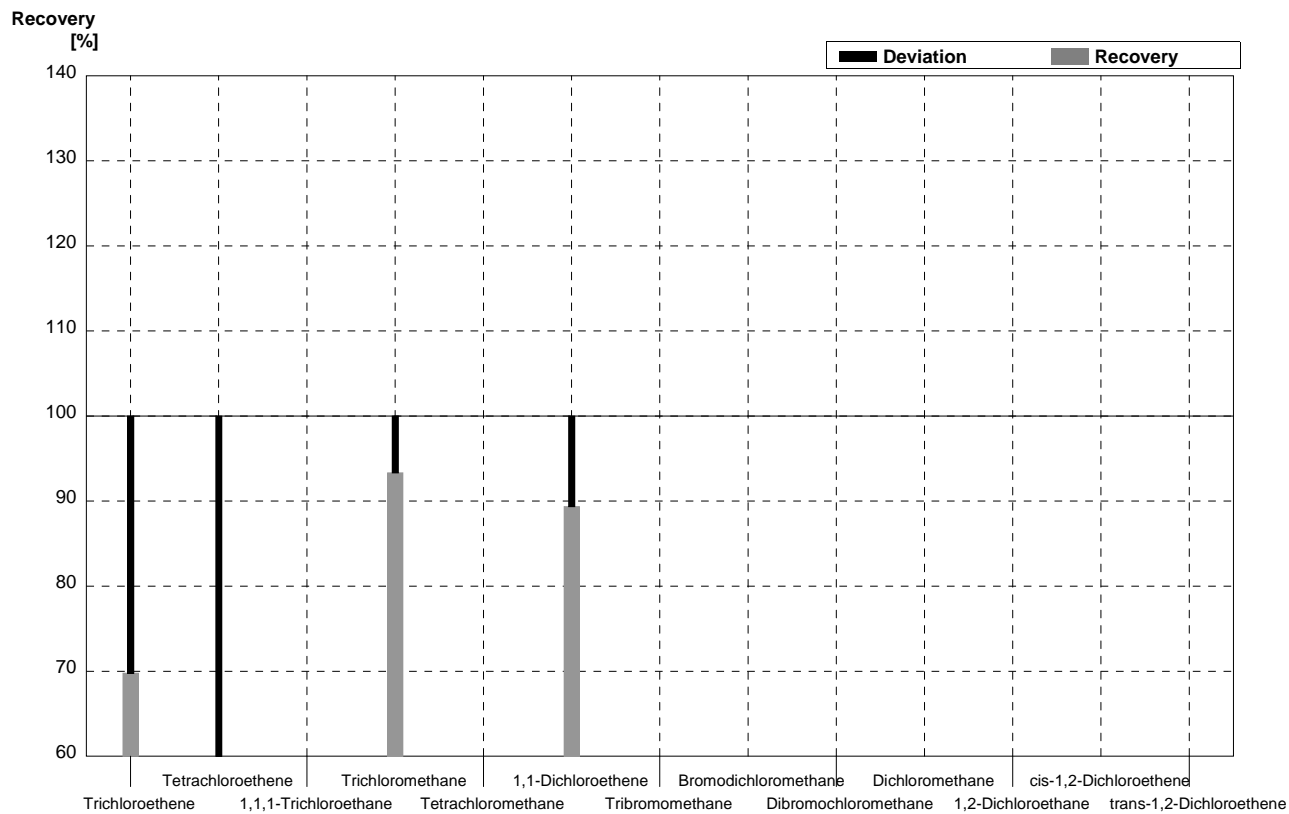
Sample C43B
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,43	0,1	µg/l	91%
Tetrachloroethene	0,89	0,04	0,91	0,1	µg/l	102%
1,1,1-Trichloroethane	0,59	0,03	0,59	0,1	µg/l	100%
Trichloromethane	0,96	0,05	0,99	0,1	µg/l	103%
Tetrachloromethane	0,92	0,05	0,86	0,1	µg/l	93%
1,1-Dichloroethene	1,46	0,07	1,34	0,2	µg/l	92%
Tribromomethane	0,41	0,02	0,33	0,1	µg/l	80%
Bromodichloromethane	0,32	0,02	0,32	0,1	µg/l	100%
Dibromochloromethane	0,19	0,01	0,19	0,05	µg/l	100%
Dichloromethane	3,62	0,18	3,71	0,3	µg/l	102%
1,2-Dichloroethane	1,42	0,07	1,34	0,2	µg/l	94%
cis-1,2-Dichloroethene	0,91	0,05	0,91	0,1	µg/l	100%
trans-1,2-Dichloroethene	0,52	0,03	0,53	0,1	µg/l	102%



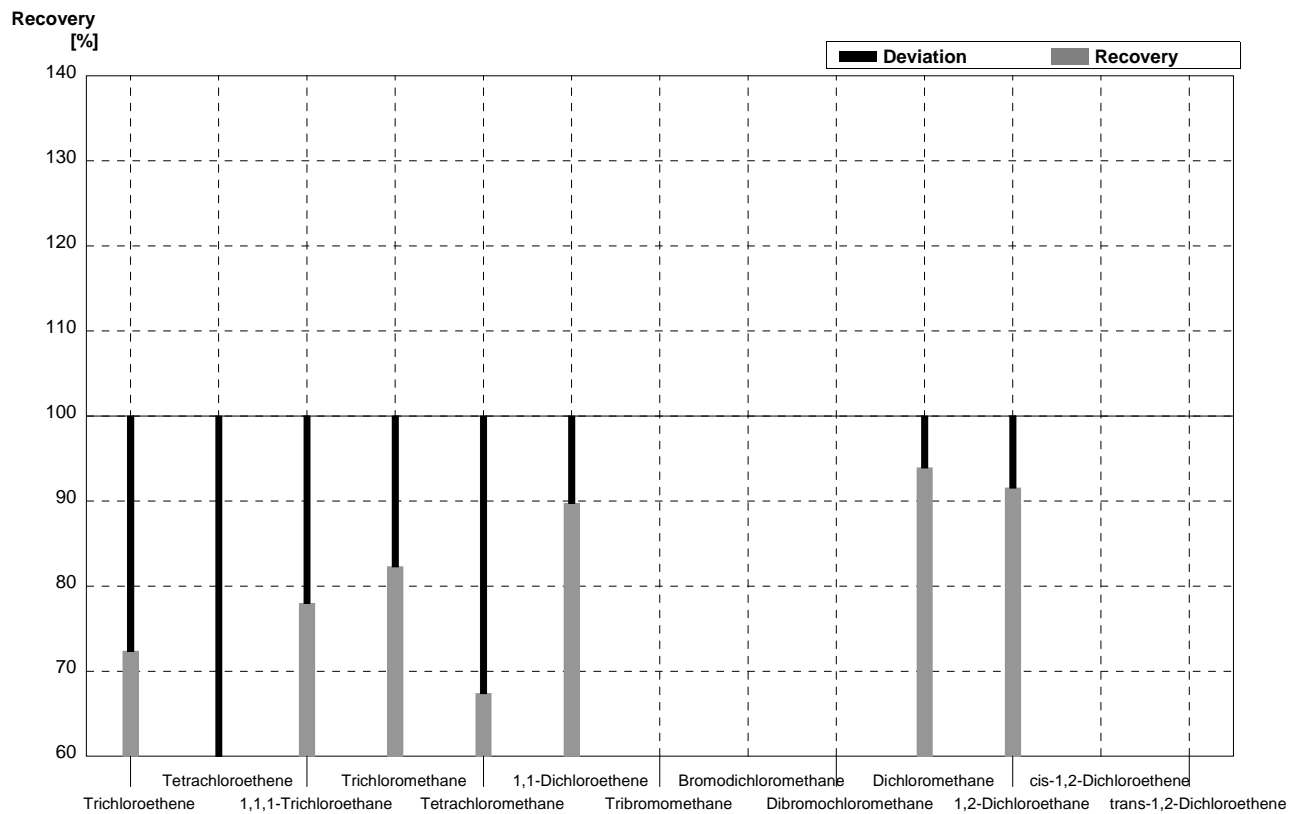
Sample C43A
Laboratory O

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06	0,90	0,01	$\mu\text{g/l}$	70%
Tetrachloroethene	2,63	0,13	1,55	0,08	$\mu\text{g/l}$	59%
1,1,1-Trichloroethane	<0,08		n,n.	0,02	$\mu\text{g/l}$	
Trichloromethane	0,30	0,02	0,28	0,01	$\mu\text{g/l}$	93%
Tetrachloromethane	0,18	0,01	n,b.	0,02	$\mu\text{g/l}$	
1,1-Dichloroethene	0,47	0,02	0,42	0,02	$\mu\text{g/l}$	89%
Tribromomethane	0,20	0,01			$\mu\text{g/l}$	
Bromodichloromethane	0,61	0,03			$\mu\text{g/l}$	
Dibromochloromethane	0,75	0,04			$\mu\text{g/l}$	
Dichloromethane	<0,6		n,n.	0,02	$\mu\text{g/l}$	
1,2-Dichloroethane	<0,4		n,n.	0,02	$\mu\text{g/l}$	
cis-1,2-Dichloroethene	0,29	0,01			$\mu\text{g/l}$	
trans-1,2-Dichloroethene	1,45	0,07			$\mu\text{g/l}$	



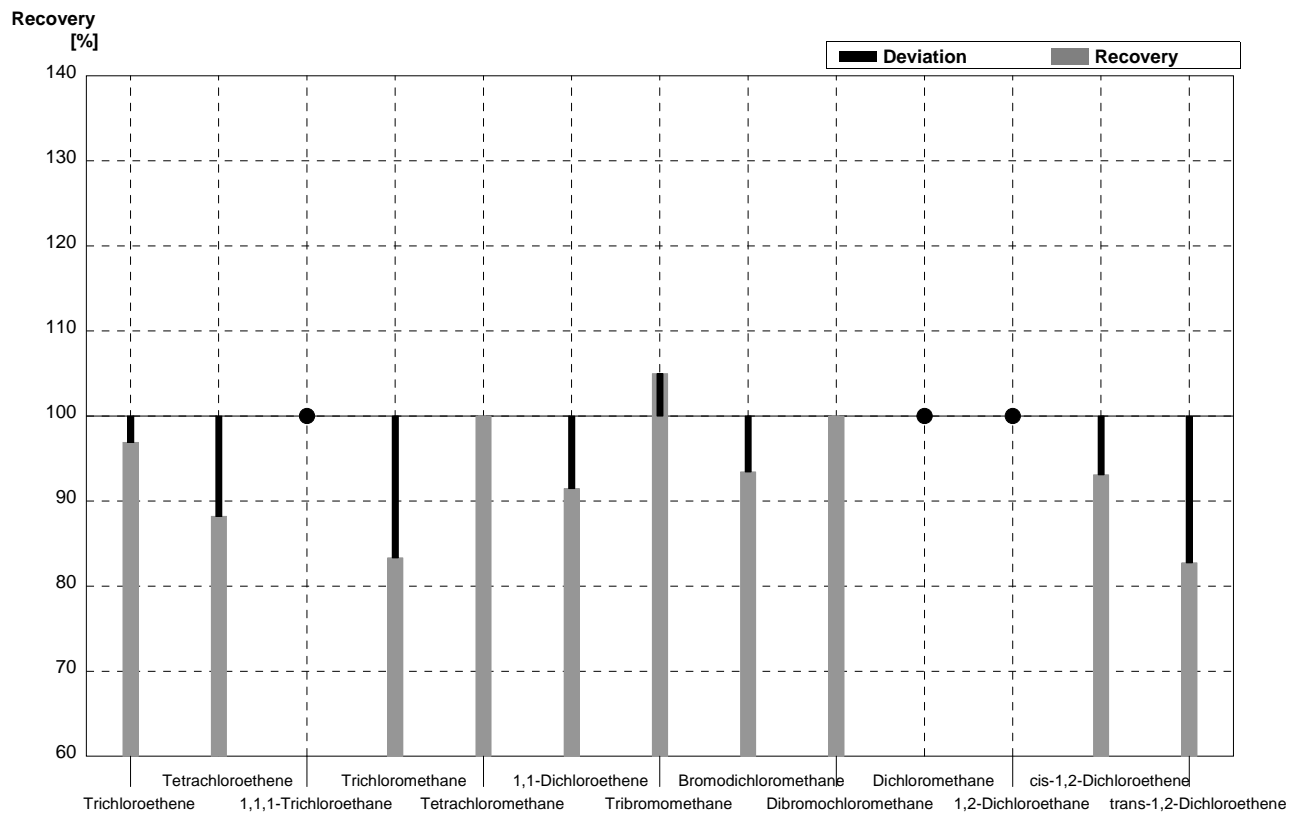
Sample C43B
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,34	0,01	µg/l	72%
Tetrachloroethene	0,89	0,04	0,39	0,05	µg/l	44%
1,1,1-Trichloroethane	0,59	0,03	0,46	0,01	µg/l	78%
Trichloromethane	0,96	0,05	0,79	0,05	µg/l	82%
Tetrachloromethane	0,92	0,05	0,62	0,01	µg/l	67%
1,1-Dichloroethene	1,46	0,07	1,31	0,05	µg/l	90%
Tribromomethane	0,41	0,02			µg/l	
Bromodichloromethane	0,32	0,02			µg/l	
Dibromochloromethane	0,19	0,01			µg/l	
Dichloromethane	3,62	0,18	3,40	0,05	µg/l	94%
1,2-Dichloroethane	1,42	0,07	1,30	0,01	µg/l	92%
cis-1,2-Dichloroethene	0,91	0,05			µg/l	
trans-1,2-Dichloroethene	0,52	0,03			µg/l	



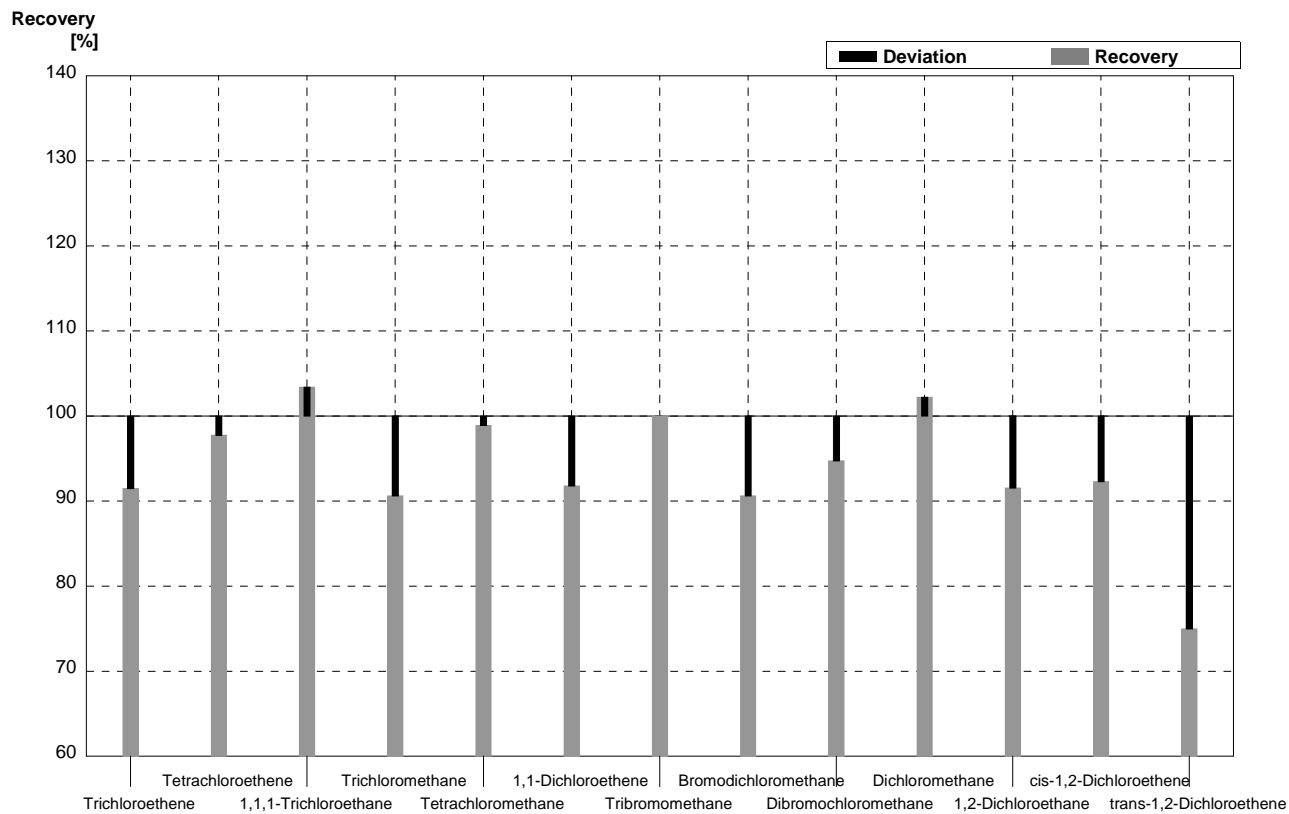
Sample C43A
Laboratory P

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06	1,25	0,087	$\mu\text{g/l}$	97%
Tetrachloroethene	2,63	0,13	2,32	0,103	$\mu\text{g/l}$	88%
1,1,1-Trichloroethane	<0,08		<0,10		$\mu\text{g/l}$	•
Trichloromethane	0,30	0,02	0,25	0,005	$\mu\text{g/l}$	83%
Tetrachloromethane	0,18	0,01	0,18	0,009	$\mu\text{g/l}$	100%
1,1-Dichloroethene	0,47	0,02	0,43	0,026	$\mu\text{g/l}$	91%
Tribromomethane	0,20	0,01	0,21	0,016	$\mu\text{g/l}$	105%
Bromodichloromethane	0,61	0,03	0,57	0,067	$\mu\text{g/l}$	93%
Dibromochloromethane	0,75	0,04	0,75	0,123	$\mu\text{g/l}$	100%
Dichloromethane	<0,6		<0,7		$\mu\text{g/l}$	•
1,2-Dichloroethene	<0,4		<0,04		$\mu\text{g/l}$	•
cis-1,2-Dichloroethene	0,29	0,01	0,27	0,058	$\mu\text{g/l}$	93%
trans-1,2-Dichloroethene	1,45	0,07	1,20	0,128	$\mu\text{g/l}$	83%



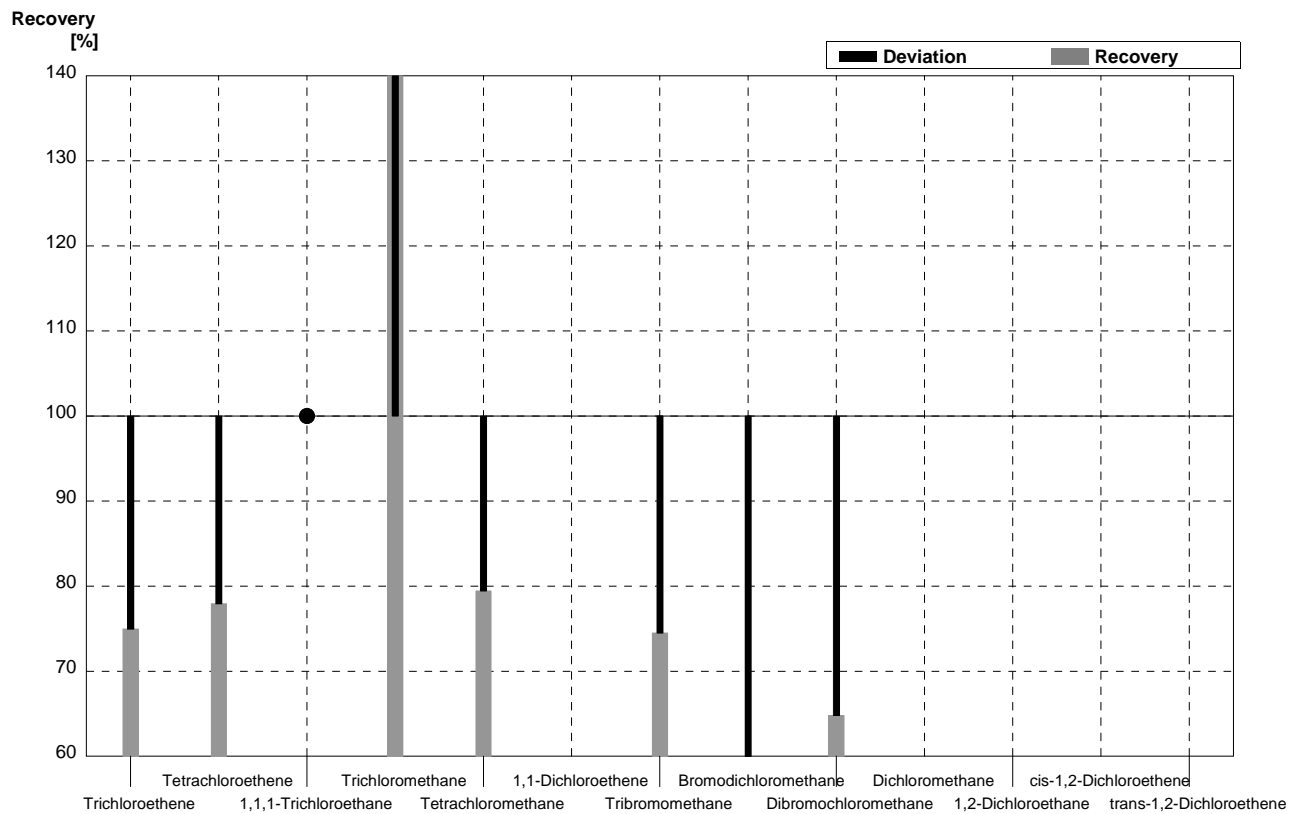
Sample C43B
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,43	0,095	µg/l	91%
Tetrachloroethene	0,89	0,04	0,87	0,036	µg/l	98%
1,1,1-Trichloroethane	0,59	0,03	0,61	0,090	µg/l	103%
Trichloromethane	0,96	0,05	0,87	0,053	µg/l	91%
Tetrachloromethane	0,92	0,05	0,91	0,023	µg/l	99%
1,1-Dichloroethene	1,46	0,07	1,34	0,130	µg/l	92%
Tribromomethane	0,41	0,02	0,41	0,057	µg/l	100%
Bromodichloromethane	0,32	0,02	0,29	0,005	µg/l	91%
Dibromochloromethane	0,19	0,01	0,18	0,007	µg/l	95%
Dichloromethane	3,62	0,18	3,7	0,59	µg/l	102%
1,2-Dichloroethane	1,42	0,07	1,3	0,04	µg/l	92%
cis-1,2-Dichloroethene	0,91	0,05	0,84	0,046	µg/l	92%
trans-1,2-Dichloroethene	0,52	0,03	0,39	0,144	µg/l	75%



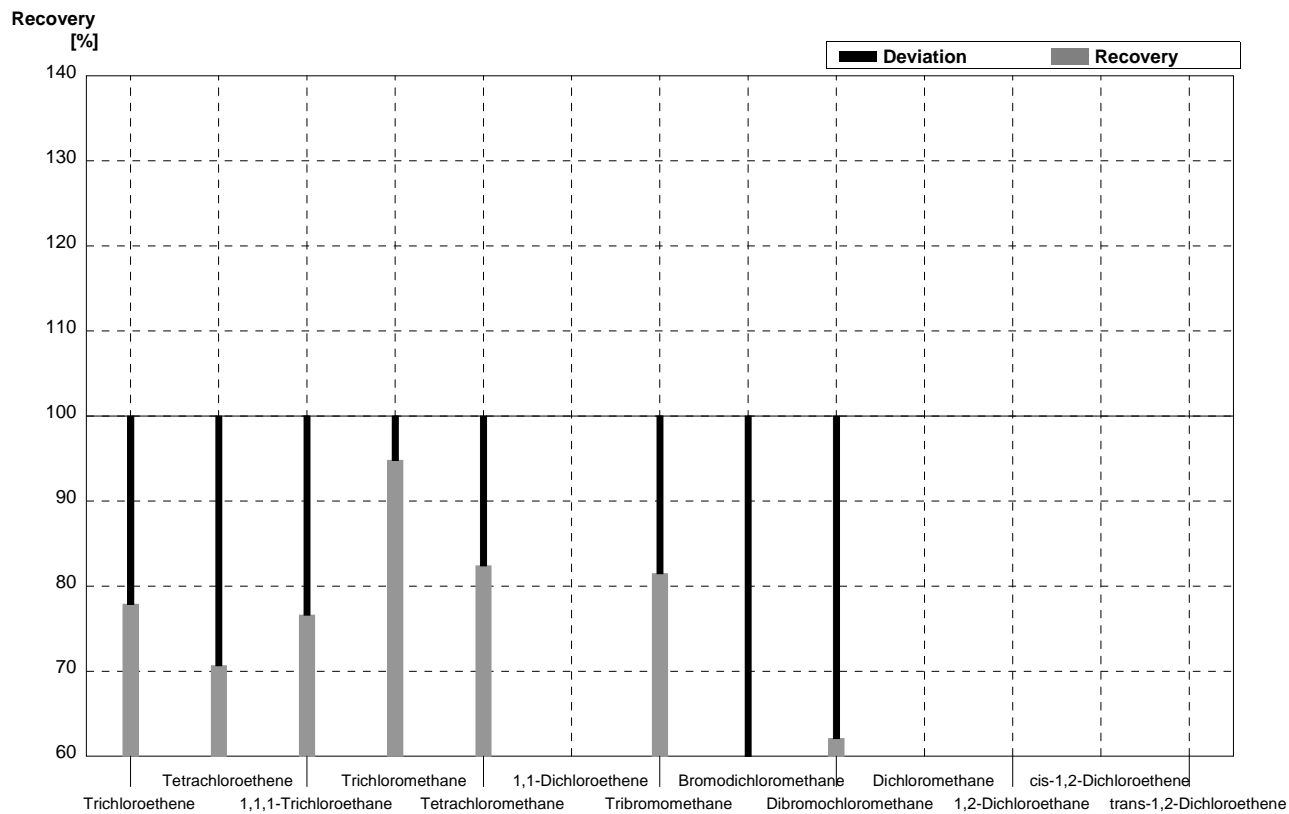
Sample C43A
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	0,967		µg/l	75%
Tetrachloroethene	2,63	0,13	2,050		µg/l	78%
1,1,1-Trichloroethane	<0,08		<0,1		µg/l	•
Trichloromethane	0,30	0,02	0,471		µg/l	157%
Tetrachloromethane	0,18	0,01	0,143		µg/l	79%
1,1-Dichloroethene	0,47	0,02			µg/l	
Tribromomethane	0,20	0,01	0,149		µg/l	75%
Bromodichloromethane	0,61	0,03	0,346		µg/l	57%
Dibromochloromethane	0,75	0,04	0,486		µg/l	65%
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	<0,4				µg/l	
cis-1,2-Dichloroethene	0,29	0,01			µg/l	
trans-1,2-Dichloroethene	1,45	0,07			µg/l	



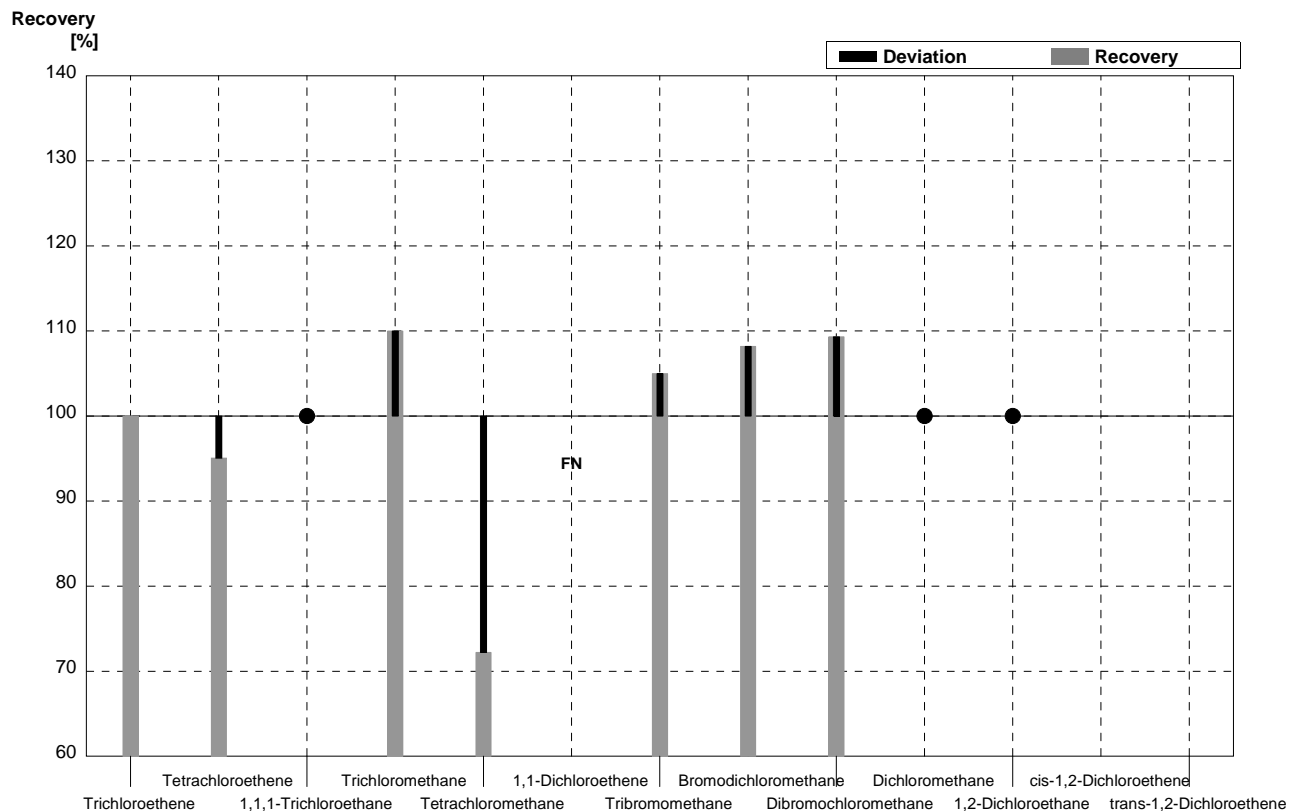
Sample C43B
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,366		µg/l	78%
Tetrachloroethene	0,89	0,04	0,629		µg/l	71%
1,1,1-Trichloroethane	0,59	0,03	0,452		µg/l	77%
Trichloromethane	0,96	0,05	0,910		µg/l	95%
Tetrachloromethane	0,92	0,05	0,758		µg/l	82%
1,1-Dichloroethene	1,46	0,07			µg/l	
Tribromomethane	0,41	0,02	0,334		µg/l	81%
Bromodichloromethane	0,32	0,02	0,179		µg/l	56%
Dibromochloromethane	0,19	0,01	0,118		µg/l	62%
Dichloromethane	3,62	0,18			µg/l	
1,2-Dichloroethane	1,42	0,07			µg/l	
cis-1,2-Dichloroethene	0,91	0,05			µg/l	
trans-1,2-Dichloroethene	0,52	0,03			µg/l	



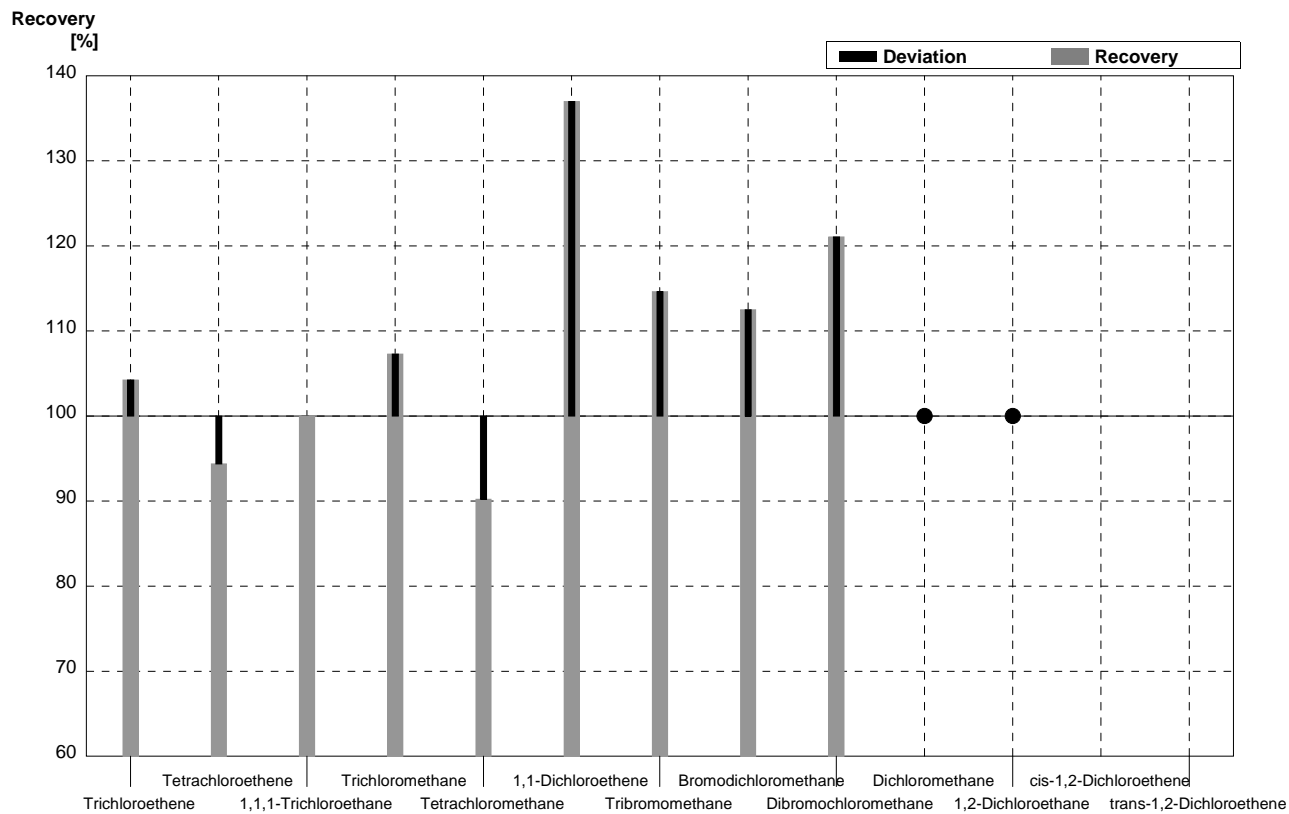
Sample C43A
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,29	0,19	µg/l	100%
Tetrachloroethene	2,63	0,13	2,5	0,38	µg/l	95%
1,1,1-Trichloroethane	<0,08		[0,1]		µg/l	•
Trichloromethane	0,30	0,02	0,33	0,05	µg/l	110%
Tetrachloromethane	0,18	0,01	0,13	0,02	µg/l	72%
1,1-Dichloroethene	0,47	0,02	[0,2]		µg/l	FN
Tribromomethane	0,20	0,01	0,21	0,03	µg/l	105%
Bromodichloromethane	0,61	0,03	0,66	0,1	µg/l	108%
Dibromochloromethane	0,75	0,04	0,82	0,12	µg/l	109%
Dichloromethane	<0,6		[20]		µg/l	•
1,2-Dichloroethane	<0,4		[5]		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01			µg/l	
trans-1,2-Dichloroethene	1,45	0,07			µg/l	



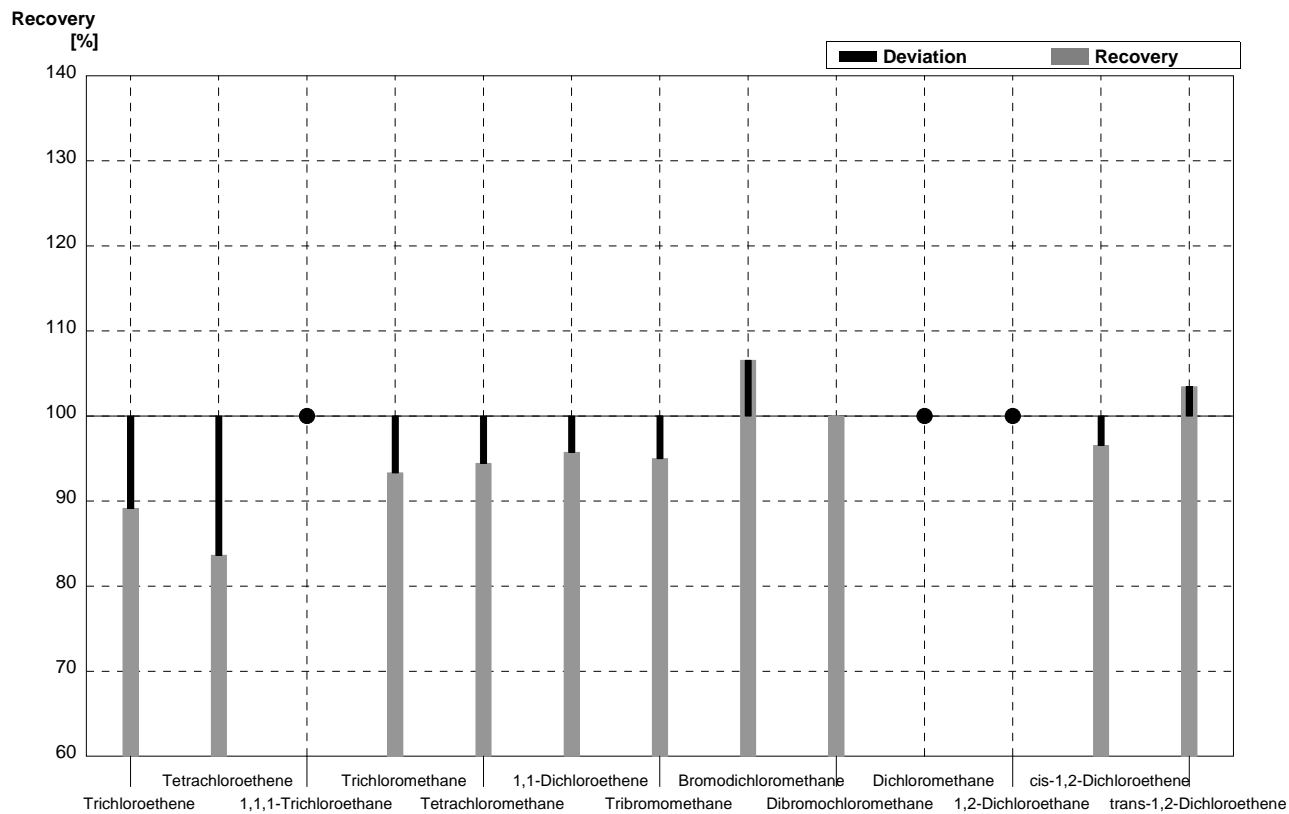
Sample C43B
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,49	0,07	µg/l	104%
Tetrachloroethene	0,89	0,04	0,84	0,13	µg/l	94%
1,1,1-Trichloroethane	0,59	0,03	0,59	0,09	µg/l	100%
Trichloromethane	0,96	0,05	1,03	0,15	µg/l	107%
Tetrachloromethane	0,92	0,05	0,83	0,12	µg/l	90%
1,1-Dichloroethene	1,46	0,07	2	0,3	µg/l	137%
Tribromomethane	0,41	0,02	0,47	0,07	µg/l	115%
Bromodichloromethane	0,32	0,02	0,36	0,05	µg/l	113%
Dibromochloromethane	0,19	0,01	0,23	0,03	µg/l	121%
Dichloromethane	3,62	0,18	[20]		µg/l	•
1,2-Dichloroethene	1,42	0,07	[5]		µg/l	•
cis-1,2-Dichloroethene	0,91	0,05			µg/l	
trans-1,2-Dichloroethene	0,52	0,03			µg/l	



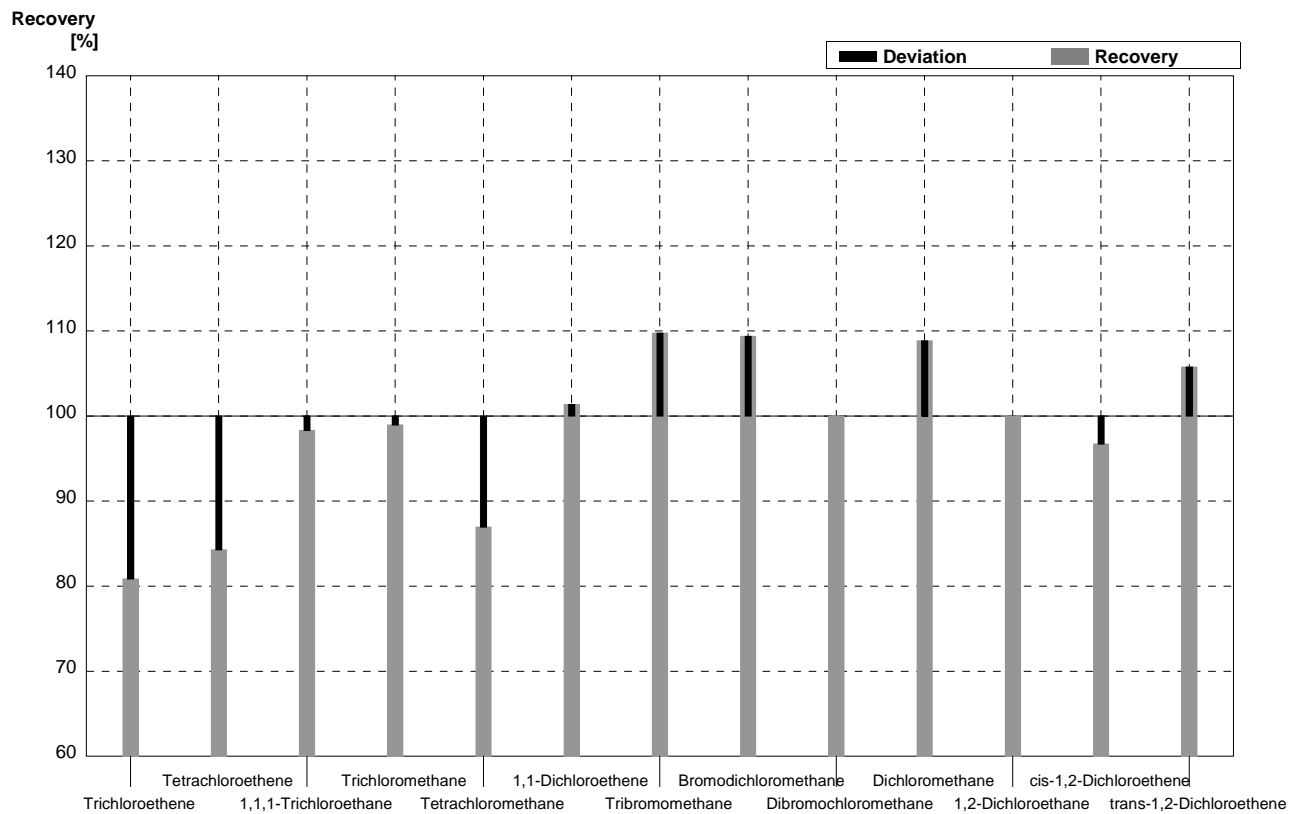
Sample C43A
Laboratory S

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,15	0,18	µg/l	89%
Tetrachloroethene	2,63	0,13	2,2	0,44	µg/l	84%
1,1,1-Trichloroethane	<0,08		<0,1		µg/l	•
Trichloromethane	0,30	0,02	0,28	0,04	µg/l	93%
Tetrachloromethane	0,18	0,01	0,17	0,04	µg/l	94%
1,1-Dichloroethene	0,47	0,02	0,45	0,07	µg/l	96%
Tribromomethane	0,20	0,01	0,19	0,03	µg/l	95%
Bromodichloromethane	0,61	0,03	0,65	0,10	µg/l	107%
Dibromochloromethane	0,75	0,04	0,75	0,11	µg/l	100%
Dichloromethane	<0,6		<0,6		µg/l	•
1,2-Dichloroethene	<0,4		<0,2		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	0,28	0,04	µg/l	97%
trans-1,2-Dichloroethene	1,45	0,07	1,5	0,23	µg/l	103%



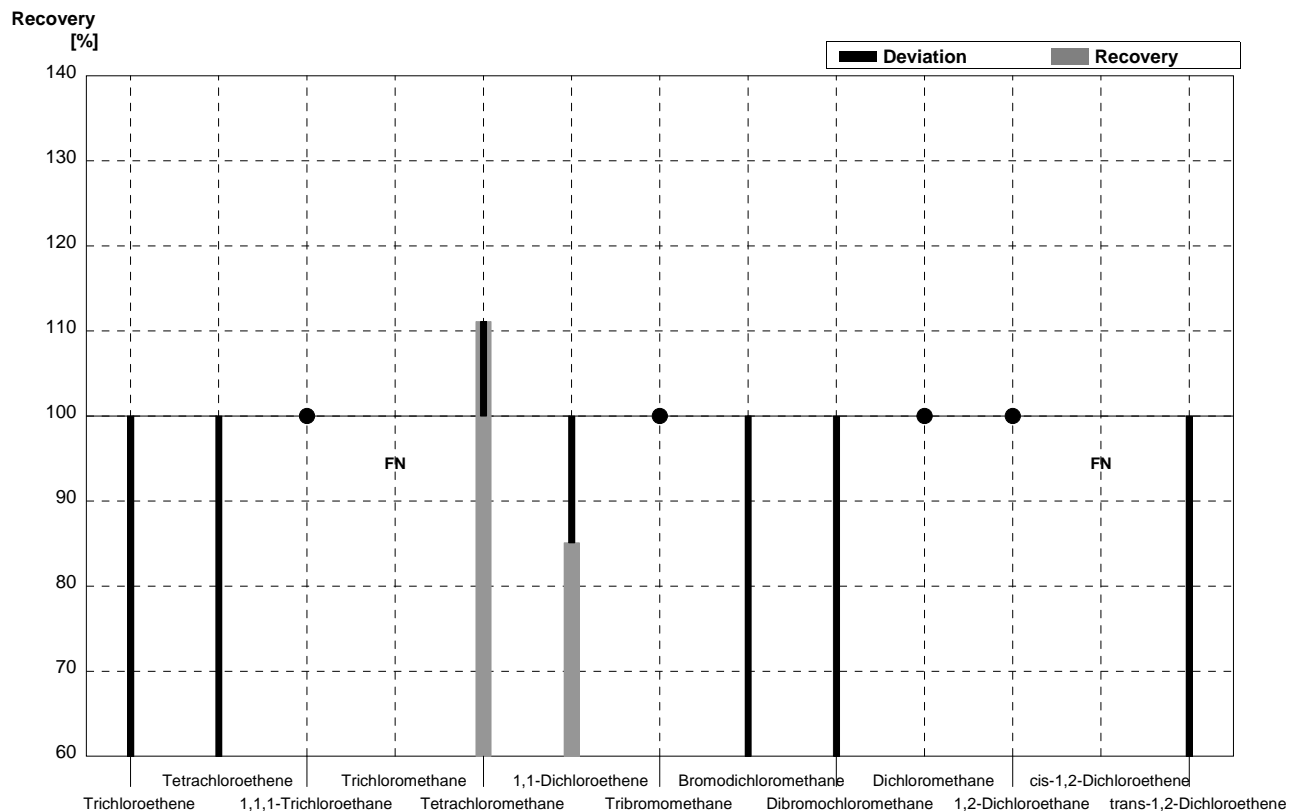
Sample C43B
Laboratory S

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	0,38	0,06	$\mu\text{g/l}$	81%
Tetrachloroethene	0,89	0,04	0,75	0,15	$\mu\text{g/l}$	84%
1,1,1-Trichloroethane	0,59	0,03	0,58	0,09	$\mu\text{g/l}$	98%
Trichloromethane	0,96	0,05	0,95	0,14	$\mu\text{g/l}$	99%
Tetrachloromethane	0,92	0,05	0,8	0,16	$\mu\text{g/l}$	87%
1,1-Dichloroethene	1,46	0,07	1,48	0,22	$\mu\text{g/l}$	101%
Tribromomethane	0,41	0,02	0,45	0,06	$\mu\text{g/l}$	110%
Bromodichloromethane	0,32	0,02	0,35	0,06	$\mu\text{g/l}$	109%
Dibromochloromethane	0,19	0,01	0,19	0,03	$\mu\text{g/l}$	100%
Dichloromethane	3,62	0,18	3,94	0,6	$\mu\text{g/l}$	109%
1,2-Dichloroethane	1,42	0,07	1,42	0,21	$\mu\text{g/l}$	100%
cis-1,2-Dichloroethene	0,91	0,05	0,88	0,13	$\mu\text{g/l}$	97%
trans-1,2-Dichloroethene	0,52	0,03	0,55	0,08	$\mu\text{g/l}$	106%



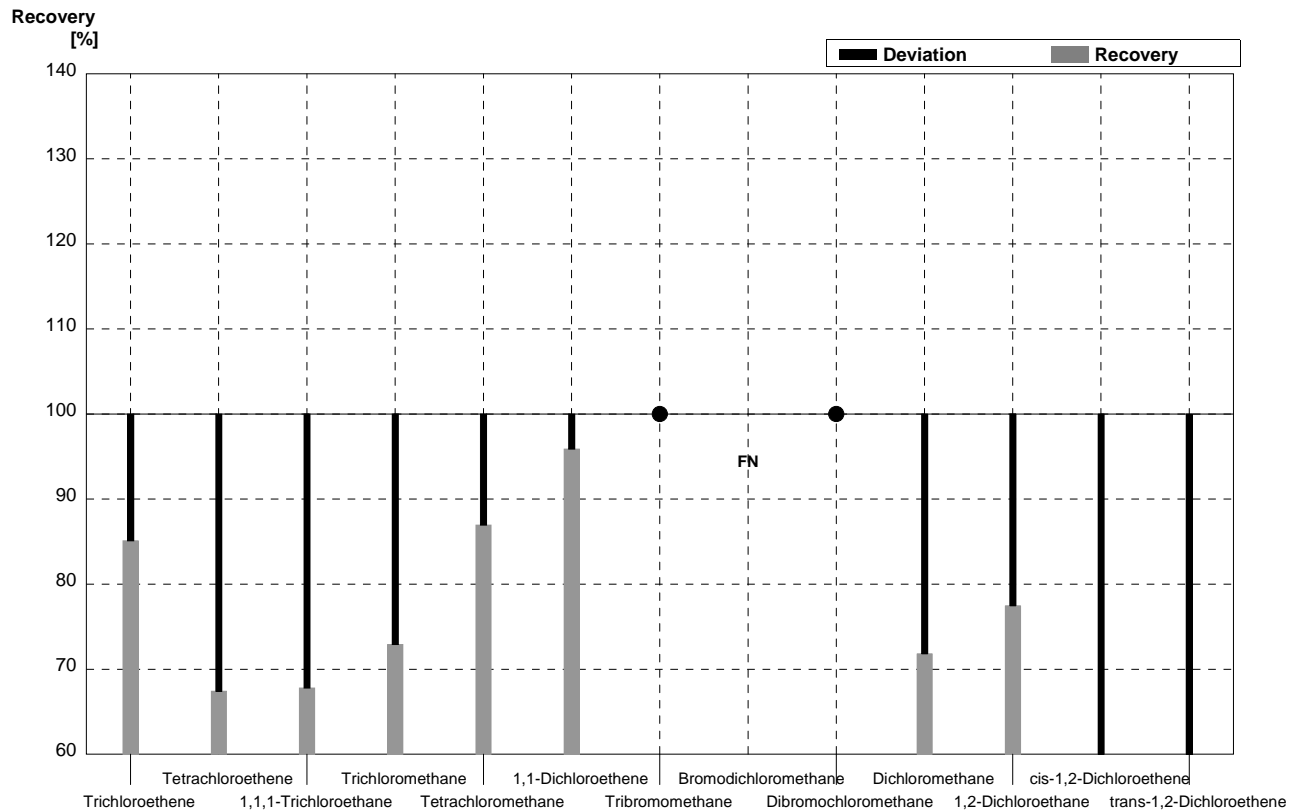
Sample C43A
Laboratory T

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	0,7	0,13	µg/l	54%
Tetrachloroethene	2,63	0,13	1,3	0,24	µg/l	49%
1,1,1-Trichloroethane	<0,08		<0,1		µg/l	•
Trichloromethane	0,30	0,02	<0,1		µg/l	FN
Tetrachloromethane	0,18	0,01	0,2	0,04	µg/l	111%
1,1-Dichloroethene	0,47	0,02	0,4	0,07	µg/l	85%
Tribromomethane	0,20	0,01	<1		µg/l	•
Bromodichloromethane	0,61	0,03	0,3	0,05	µg/l	49%
Dibromochloromethane	0,75	0,04	0,3	0,06	µg/l	40%
Dichloromethane	<0,6		<0,2		µg/l	•
1,2-Dichloroethane	<0,4		<0,5		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	<0,2		µg/l	FN
trans-1,2-Dichloroethene	1,45	0,07	0,8	0,15	µg/l	55%



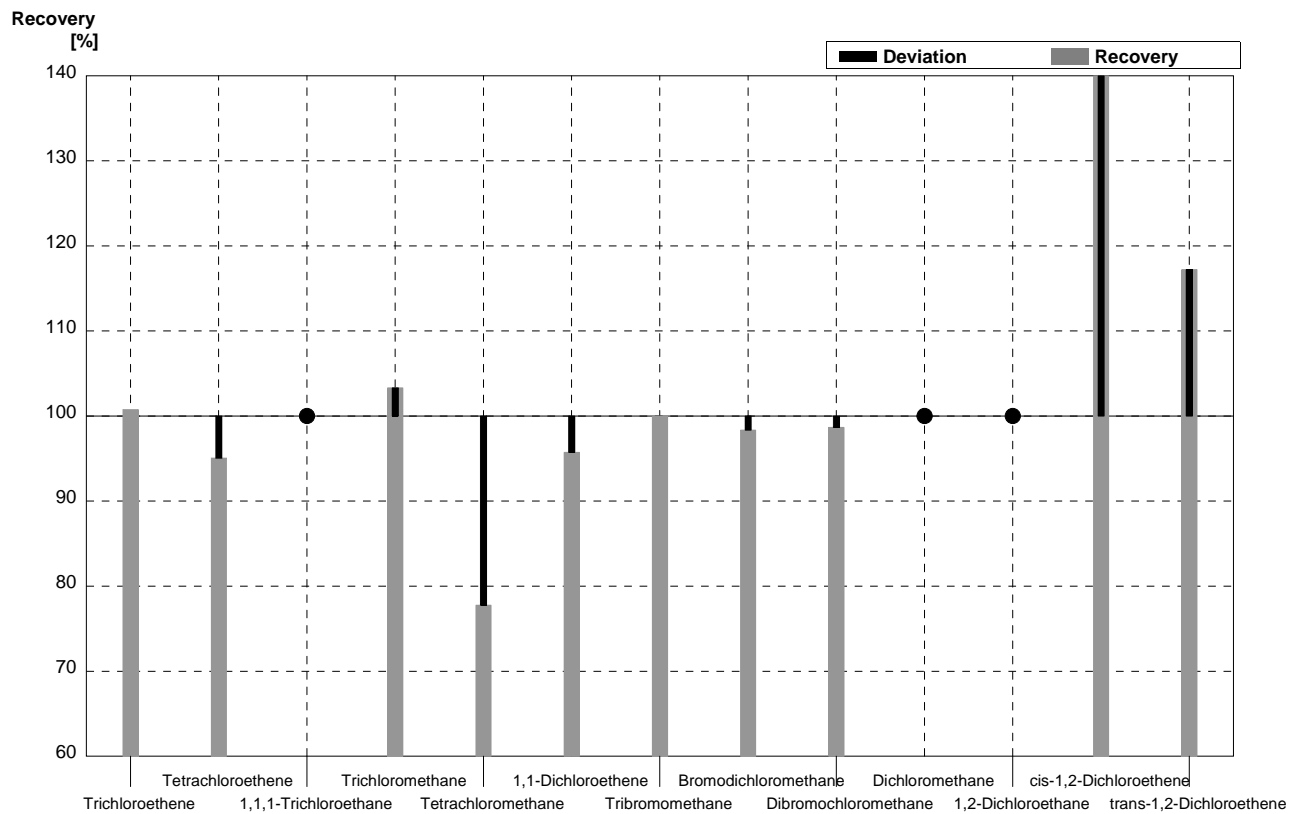
Sample C43B
Laboratory T

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,47	0,02	0,4	0,07	$\mu\text{g/l}$	85%
Tetrachloroethene	0,89	0,04	0,6	0,11	$\mu\text{g/l}$	67%
1,1,1-Trichloroethane	0,59	0,03	0,4	0,08	$\mu\text{g/l}$	68%
Trichloromethane	0,96	0,05	0,7	0,12	$\mu\text{g/l}$	73%
Tetrachloromethane	0,92	0,05	0,8	0,14	$\mu\text{g/l}$	87%
1,1-Dichloroethene	1,46	0,07	1,4	0,26	$\mu\text{g/l}$	96%
Tribromomethane	0,41	0,02	<1		$\mu\text{g/l}$	•
Bromodichloromethane	0,32	0,02	<0,2		$\mu\text{g/l}$	FN
Dibromochloromethane	0,19	0,01	<0,2		$\mu\text{g/l}$	•
Dichloromethane	3,62	0,18	2,6	0,47	$\mu\text{g/l}$	72%
1,2-Dichloroethane	1,42	0,07	1,1	0,19	$\mu\text{g/l}$	77%
cis-1,2-Dichloroethene	0,91	0,05	0,5	0,10	$\mu\text{g/l}$	55%
trans-1,2-Dichloroethene	0,52	0,03	0,3	0,05	$\mu\text{g/l}$	58%



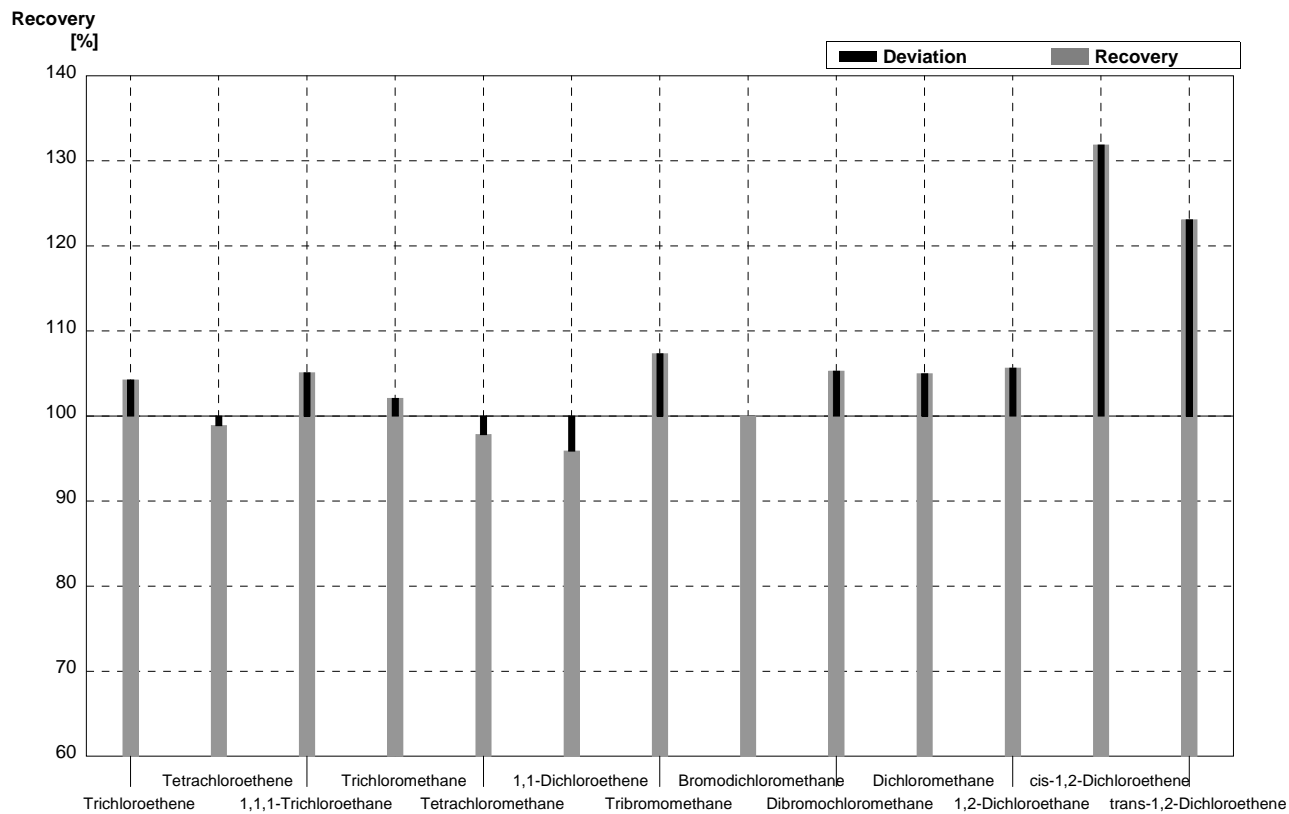
Sample C43A
Laboratory U

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	1,29	0,06	1,3	0,3	µg/l	101%
Tetrachloroethene	2,63	0,13	2,5	0,5	µg/l	95%
1,1,1-Trichloroethane	<0,08		<0,055		µg/l	•
Trichloromethane	0,30	0,02	0,31	0,06	µg/l	103%
Tetrachloromethane	0,18	0,01	0,14	0,03	µg/l	78%
1,1-Dichloroethene	0,47	0,02	0,45	0,09	µg/l	96%
Tribromomethane	0,20	0,01	0,20	0,04	µg/l	100%
Bromodichloromethane	0,61	0,03	0,60	0,12	µg/l	98%
Dibromochloromethane	0,75	0,04	0,74	0,15	µg/l	99%
Dichloromethane	<0,6		<0,25		µg/l	•
1,2-Dichloroethene	<0,4		<0,15		µg/l	•
cis-1,2-Dichloroethene	0,29	0,01	0,47	0,09	µg/l	162%
trans-1,2-Dichloroethene	1,45	0,07	1,7	0,3	µg/l	117%



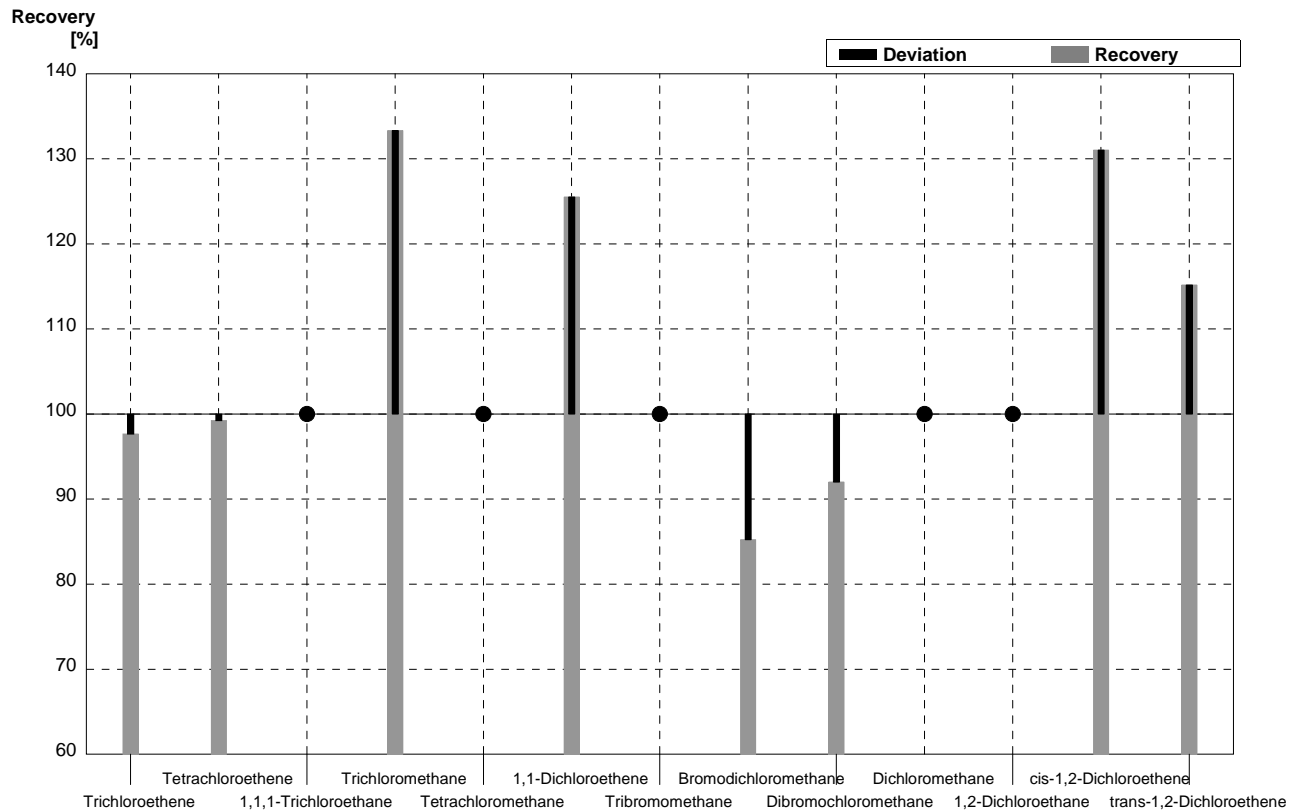
Sample C43B
Laboratory U

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,49	0,10	µg/l	104%
Tetrachloroethene	0,89	0,04	0,88	0,18	µg/l	99%
1,1,1-Trichloroethane	0,59	0,03	0,62	0,12	µg/l	105%
Trichloromethane	0,96	0,05	0,98	0,20	µg/l	102%
Tetrachloromethane	0,92	0,05	0,90	0,18	µg/l	98%
1,1-Dichloroethene	1,46	0,07	1,4	0,28	µg/l	96%
Tribromomethane	0,41	0,02	0,44	0,09	µg/l	107%
Bromodichloromethane	0,32	0,02	0,32	0,06	µg/l	100%
Dibromochloromethane	0,19	0,01	0,20	0,04	µg/l	105%
Dichloromethane	3,62	0,18	3,8	0,8	µg/l	105%
1,2-Dichloroethene	1,42	0,07	1,5	0,3	µg/l	106%
cis-1,2-Dichloroethene	0,91	0,05	1,2	0,2	µg/l	132%
trans-1,2-Dichloroethene	0,52	0,03	0,64	0,13	µg/l	123%



Sample C43A
Laboratory V

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	1,29	0,06	1,26	0,38	$\mu\text{g/l}$	98%
Tetrachloroethene	2,63	0,13	2,61	0,78	$\mu\text{g/l}$	99%
1,1,1-Trichloroethane	<0,08		<0,4		$\mu\text{g/l}$	•
Trichloromethane	0,30	0,02	0,4	0,12	$\mu\text{g/l}$	133%
Tetrachloromethane	0,18	0,01	<0,4		$\mu\text{g/l}$	•
1,1-Dichloroethene	0,47	0,02	0,59	0,18	$\mu\text{g/l}$	126%
Tribromomethane	0,20	0,01	<0,4		$\mu\text{g/l}$	•
Bromodichloromethane	0,61	0,03	0,52	0,15	$\mu\text{g/l}$	85%
Dibromochloromethane	0,75	0,04	0,69	0,21	$\mu\text{g/l}$	92%
Dichloromethane	<0,6		<0,4		$\mu\text{g/l}$	•
1,2-Dichloroethane	<0,4		<0,4		$\mu\text{g/l}$	•
cis-1,2-Dichloroethene	0,29	0,01	0,38	0,11	$\mu\text{g/l}$	131%
trans-1,2-Dichloroethene	1,45	0,07	1,67	0,50	$\mu\text{g/l}$	115%



Sample C43B
Laboratory V

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,47	0,02	0,54	0,16	µg/l	115%
Tetrachloroethene	0,89	0,04	0,89	0,27	µg/l	100%
1,1,1-Trichloroethane	0,59	0,03	0,78	0,23	µg/l	132%
Trichloromethane	0,96	0,05	1,18	0,35	µg/l	123%
Tetrachloromethane	0,92	0,05	1,29	0,39	µg/l	140%
1,1-Dichloroethene	1,46	0,07	2,02	0,61	µg/l	138%
Tribromomethane	0,41	0,02	0,36	0,11	µg/l	88%
Bromodichloromethane	0,32	0,02	<0,4		µg/l	•
Dibromochloromethane	0,19	0,01	<0,4		µg/l	•
Dichloromethane	3,62	0,18	4,38	1,31	µg/l	121%
1,2-Dichloroethane	1,42	0,07	1,71	0,51	µg/l	120%
cis-1,2-Dichloroethene	0,91	0,05	1,18	0,35	µg/l	130%
trans-1,2-Dichloroethene	0,52	0,03	0,76	0,23	µg/l	146%

