

Proficiency Testing Scheme for Water Analysis

Round C46

Volatile Halogenated Hydrocarbons

Sample Dispatch: 13 February 2012





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 C46 “Volatile Halogenated Hydrocarbons” within the IFA-Test Systems Proficiency-Testing Scheme for water analysis. The samples C46A and C46B were distributed to the participants on Monday, 13 February 2012. Closing date for reporting results to the IFA-Tulln was Friday, 9 March 2012.

20 laboratories participated in this interlaboratory comparison. All laboratories submitted 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.

Tetrachloroethene was not added to sample C46A. 1,1-Dichloroethene was not added to sample C46B 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 three 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 Tetrachloroethene in sample C46A and 1,1-Dichloroethene in sample C46B, which were not added to the sample, were set to $< 0.06 \mu\text{g/l}$ Tetrachloroethene and $< 0.2 \mu\text{g/l}$ 1,1-Dichloroethene, which meets 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.

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 90.0 % (Trichloroethene in sample C46B) and 112.4 % (trans-1,2-Dichloroethene in sample C46B). The between-laboratory coefficients of variation were between 6.8 % (Dibromochloromethane in sample C46A) and 23.4 % (Trichloroethene in sample C46B).

All confidence intervals of the outlier-corrected laboratory mean values encompass the corresponding target values with their uncertainties. Thus, 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 2001 to 2011. 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	15	0.2
1,1-Dichloroethene	21	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	16	0.2
Dichloromethane	14	1
Tetrachloroethene	19	0.2
Tetrachloromethane	18	0.2
Tribromomethane	17	0.2
Trichloroethene	18	0.2
Trichloromethane	16	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 2001 to 2011.

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, 13 March 2012

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

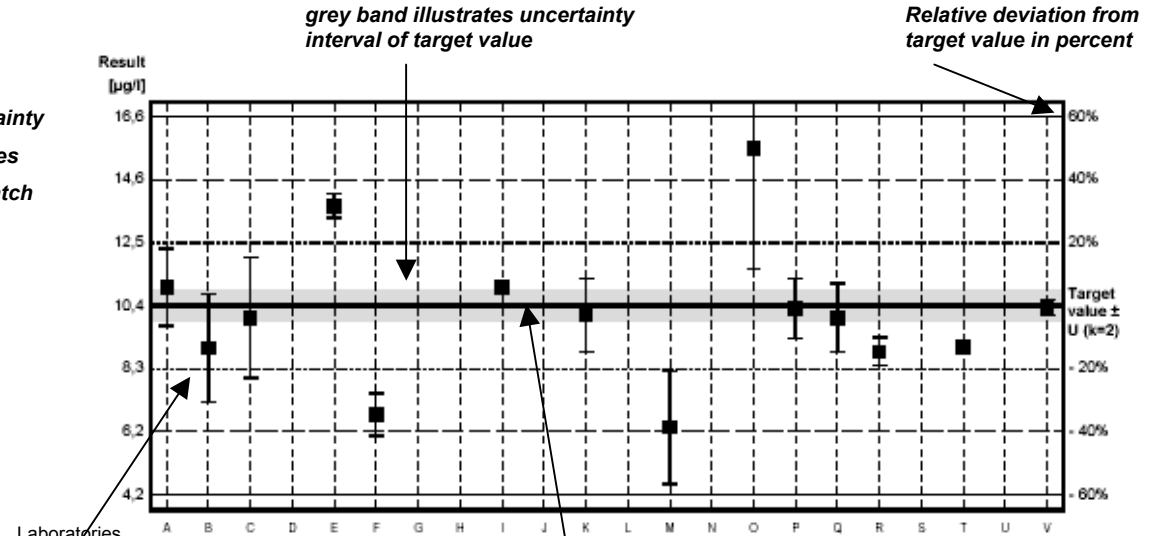
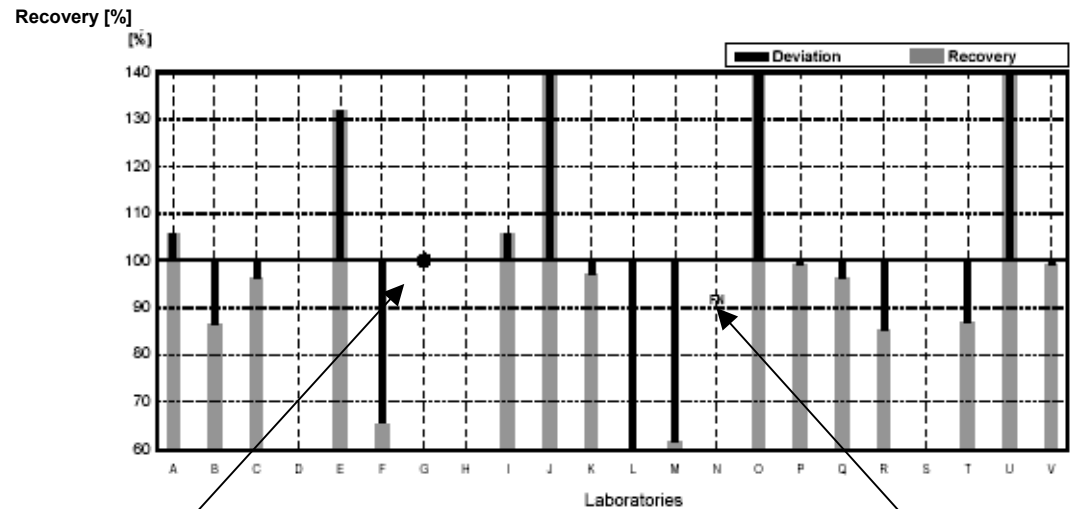


Diagram 1. Measurement results and corresponding uncertainty intervals

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 C46
Volatile Halogenated Hydrocarbons

Sample Dispatch: 13 February 2012



Results Sample C46A

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	0.49	<0.06	1.33	0.44	0.35	0.51	0.39
IFA Result	0.52	<0.03	1.42	0.45	0.34	0.48	0.38
Stability test	0.45	<0.03	1.32	0.41	0.32	0.44	0.34
A	0.40	<0.05	1.16	0.35	0.25	0.41	0.42
B				0.59			0.74
C	<0.5	<0.5	1.20	<0.5	<0.5	<1	<1
D	0.5	<0.1	1.5	0.5	0.6	0.7	<1.0
E	0.42	<0.05	1.24	0.42	0.34	0.51	0.31
F	0.45	<0.10	1.2	0.45	0.30	0.53	0.47
G	0.57	<0.06	1.23	0.93	0.46		0.36
H	0.32	<0.10	1.27	0.37	0.31	0.65	0.39
I	0.53	<0.035	1.3	0.42	0.33	0.54	0.38
J	0.613	<0.05	1.80	0.542	0.374	0.842	0.35
K	0.424	<0.1	0.836	0.359	0.241		0.289
L						0.45	
M	0.560	<0.1	1.51	0.528	0.361	1.01	0.555
N	0.49	<0.05	1.35	0.51	0.38	0.56	0.45
O	0.41	<0.5	1.42	0.47	<0.5	0.49	<0.5
P	0.6	<0.5	1.5	0.5	0.4	0.61	0.6
Q	0.33	<0.05	1.30	0.37	0.18	0.59	0.39
R	0.26	<0.10	1.4	0.45	0.34	0.60	0.37
S	0.42	0.00	1.14	0.31	0.27	0.40	
T	0.50	<0.05	1.40	0.34	0.36	0.51	0.35

All data in µg/L

Uncertainties Sample C46A

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value	0.02		0.07	0.02	0.02	0.03	0.02
IFA Result	0.08		0.21	0.07	0.05	0.07	0.06
Stability test	0.07		0.20	0.06	0.05	0.07	0.05
A	0.10		0.18	0.05	0.05	0.07	0.12
B				0.5			0.5
C	0.2	0.2	0.4	0.2	0.2	0.4	0.4
D	0.09		0.26	0.10	0.11	0.13	
E	0.06		0.19	0.06	0.05	0.08	0.05
F	0.090		0.24	0.090	0.060	0.11	0.094
G	0.08		0.15	0.09	0.08		0.10
H	0.03		0.15	0.02	0.03	0.008	0.03
I	0.11		0.3	0.08	0.07	0.11	0.08
J	0.236		0.78	0.234	0.149	0.323	0.14
K							
L							
M	0.08		0.22	0.07	0.04	0.15	0.08
N	0.07		0.20	0.08	0.06	0.08	0.07
O	0.09		0.31	0.09		0.11	
P			0.1			0.02	
Q	0.07		0.26	0.07	0.04	0.12	0.08
R	0.026	0.010	0.14	0.045	0.034	0.060	0.037
S	0.04	0.00	0.15	0.03	0.03	0.04	
T	0.085		0.098	0.010	0.020	0.022	0.008

All data in µg/L

Results Sample C46A

	Bromodichloro- methane	Dibromochloro- methane	Dichloro- methane	1,2-Dichloro- ethane	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene
Target value	0.19	1.45	7.08	0.81	1.36	1.09
IFA Result	0.20	1.45	7.09	0.79	1.33	1.10
Stability test	0.17	1.39	7.15	0.7	1.3	1.06
A	0.22	1.46	6.31	0.82	1.30	1.02
B	0.25	1.47				
C	<0.5	1.27	7.02	0.77	1.15	0.99
D	<0.2	1.3	6.0	0.9	1.4	1.2
E	0.19	1.44	6.19	0.89	1.31	1.09
F	0.21	1.5	7.3	0.80	1.3	1.1
G	0.20	1.47				
H	0.13	1.37	6.33	0.77	1.30	1.23
I	0.21	1.5	7.8	0.83	1.4	1.2
J	0.23	1.41	<0.05	0.886	1.37	1.44
K	0.089	1.172				
L				[5]	1.05	1.19
M	0.207	1.54	9.85	0.979	1.61	1.56
N	0.22	1.51	7.15	0.83	1.40	1.13
O	<0.5	1.23	7.36	0.94	1.49	1.00
P	0.24	1.8	9.0	0.9	1.34	1.22
Q	0.27	1.45	9.42	1.10	1.47	1.55
R	0.20	1.5	7.8	0.83	1.4	1.2
S			6.21	0.91		
T	0.18	1.30	7.3	0.78	1.26	1.15

All data in µg/L

Uncertainties Sample C46A

	Bromodichloro- methane ±	Dibromochloro- methane ±	Dichloro- methane ±	1,2-Dichloro- ethane ±	cis-1,2- Dichloroethene ±	trans-1,2- Dichloroethene ±
Target value	0.01	0.07	0.35	0.04	0.07	0.05
IFA Result	0.03	0.22	1.06	0.12	0.20	0.17
Stability test	0.03	0.21	1.07	0.1	0.2	0.16
A	0.06	0.47	2.3	0.23	0.25	0.17
B	0.5	0.5				
C	0.2	0.4	1.5	0.4	0.4	0.4
D		0.24	1.07	0.16	0.26	0.21
E	0.03	0.22	0.93	0.13	0.20	0.16
F	0.042	0.30	1.5	0.16	0.26	0.22
G	0.005	0.10				
H	0.007	0.06	0.35	0.03	0.1	0.05
I	0.04	0.3	1.6	0.17	0.3	0.2
J	0.09	0.54		0.32	0.52	0.57
K						
L						
M	0.04	0.20	1.4	0.14	0.24	0.24
N	0.03	0.23	1.07	0.12	0.21	0.17
O		0.20	1.62	0.15	0.33	0.22
P	0.01	0.1	0.4		0.04	0.05
Q	0.05	0.29	1.88	0.22	0.29	0.31
R	0.020	0.15	0.78	0.083	0.14	0.12
S			0.62	0.09		
T	0.012	0.095	0.57	0.073	0.147	0.129

All data in µg/L

Results Sample C46B

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	2.05	1.09	0.17	1.43	0.60	<0.2	0.86
IFA Result	2.01	1.07	0.18	1.45	0.56	<0.1	0.86
Stability test	2.00	1.02	0.15	1.41	0.56	<0.1	0.82
A	1.68	0.63	0.15	1.16	0.58	<0.08	0.95
B				1.13			0.73
C	1.77	0.82	<0.5	1.25	0.48	<1	0.97
D	2.0	2.3	0.3	1.5	0.8	<0.2	1.3
E	1.78	1.43	0.12	1.34	0.61	<0.05	0.64
F	2.0	1.1	0.18	1.4	0.61	<0.10	0.98
G	1.83	1.03	0.20	1.31	0.58		0.81
H	1.23	0.99	<0.10	1.1	0.52	<0.10	0.94
I	2.1	1.0	0.17	1.7	0.53	<0.03	0.85
J	2.59	1.362	0.262	1.727	0.624	<0.03	0.72
K	1.813	0.827	0.123	1.176	0.374		0.670
L						2.54	
M	2.34	1.14	0.202	1.62	0.628	<0.1	1.10
N	1.89	1.05	0.17	1.78	0.58	<0.05	0.99
O	1.50	0.88	<0.5	1.49	0.47	<0.5	0.72
P	2.7	1.4	0.2	1.9	0.7	<0.2	1.1
Q	1.26	0.81	0.16	1.21	0.31	<0.05	0.95
R	1.1	1.1	0.17	1.5	0.59	<0.15	0.83
S	1.62	0.88	0.15	1.04	0.44	0.00	
T	2.01	1.25	0.18	1.25	0.63	<0.10	0.87

All data in µg/L

Uncertainties Sample C46B

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value	0.10	0.05	0.01	0.07	0.03		0.04
IFA Result	0.30	0.16	0.03	0.22	0.08		0.13
Stability test	0.30	0.15	0.02	0.21	0.08		0.12
A	0.40	0.17	0.02	0.18	0.11		0.28
B				0.5			0.5
C	1.0	0.4	0.2	1.0	1.0	0.4	0.4
D	0.36	0.41	0.05	0.27	0.15		0.24
E	0.27	0.21	0.02	0.20	0.09		0.10
F	0.40	0.22	0.036	0.28	0.12		0.20
G	0.10	0.10	0.15	0.03	0.08		0.10
H	0.06	0.02		0.1	0.03		0.01
I	0.4	0.2	0.03	0.3	0.11		0.17
J	0.99	0.539	0.115	0.744	0.247		0.28
K							
L							
M	0.33	0.17	0.03	0.24	0.08		0.18
N	0.28	0.16	0.03	0.27	0.09		0.15
O	0.33	0.16		0.28	0.10		0.13
P	0.3	0.1		0.2	0.1		
Q	0.25	0.16	0.03	0.24	0.06		0.19
R	0.11	0.11	0.017	0.15	0.059	0.015	0.083
S	0.16	0.09	0.02	0.10	0.05	0.00	
T	0.091	0.092	0.008	0.098	0.042		0.045

All data in µg/L

Results Sample C46B

	Bromodichloro- methane	Dibromochloro- methane	Dichloro- methane	1,2-Dichloro- ethane	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene
Target value	1.23	0.57	2.87	2.73	0.34	0.27
IFA Result	1.15	0.56	2.92	2.72	0.36	0.29
Stability test	1.18	0.53	2.83	2.66	0.32	0.27
A	1.23	0.64	2.49	2.64	0.32	0.25
B	1.01	0.46				
C	1.01	0.47	2.56	2.66	<0.5	<0.5
D	1.1	0.6	2.9	2.8	0.4	0.3
E	1.18	0.57	2.58	2.06	0.34	0.28
F	1.2	0.60	2.9	2.5	0.34	0.29
G	1.08	0.62				
H	1.01	0.58	2.27	2.67	0.27	0.20
I	1.2	0.58	3.2	2.7	0.42	<0.5
J	1.31	0.53	<0.05	3.103	0.33	0.37
K	0.637	0.434				
L				[5]	[0.5]	[0.5]
M	1.35	0.697	3.94	3.25	0.449	0.397
N	1.30	0.57	3.16	2.76	0.34	0.27
O	1.03	0.50	3.36	2.83	0.44	<0.5
P	1.5	0.7	3.7	3.2	0.33	0.32
Q	1.61	0.458	4.22	4.2	0.39	0.36
R	1.2	0.53	3.2	2.7	0.33	0.30
S			2.64	2.72		
T	1.25	0.52	3.1	2.54	0.34	<0.50

All data in µg/L

Uncertainties Sample C46B

	Bromodichloro- methane ±	Dibromochloro- methane ±	Dichloro- methane ±	1,2-Dichloro- ethane ±	cis-1,2- Dichloroethene ±	trans-1,2- Dichloroethene ±
Target value	0.06	0.03	0.14	0.14	0.02	0.01
IFA Result	0.17	0.08	0.44	0.41	0.05	0.04
Stability test	0.18	0.08	0.42	0.40	0.05	0.04
A	0.33	0.20	0.90	0.74	0.06	0.04
B	0.5	0.5				
C	1.0	0.2	1.0	1.0	0.2	0.2
D	0.19	0.11	0.52	0.50	0.07	0.06
E	0.18	0.09	0.39	0.31	0.05	0.04
F	0.24	0.12	0.58	0.50	0.068	0.058
G	0.06	0.10				
H	0.08	0.04	0.06	0.15	0.02	0.03
I	0.2	0.12	0.6	0.5	0.08	
J	0.5	0.21		1.12	0.13	0.15
K						
L						
M	0.20	0.08	0.60	0.45	0.07	0.06
N	0.19	0.09	0.47	0.41	0.05	0.04
O	0.18	0.08	0.74	0.45	0.10	
P	0.1		0.3	0.3	0.01	0.03
Q	0.32	0.09	0.84	0.84	0.08	0.07
R	0.12	0.053	0.32	0.27	0.033	0.030
S			0.26	0.27		
T	0.084	0.117	0.49	0.104	0.126	

All data in µg/L

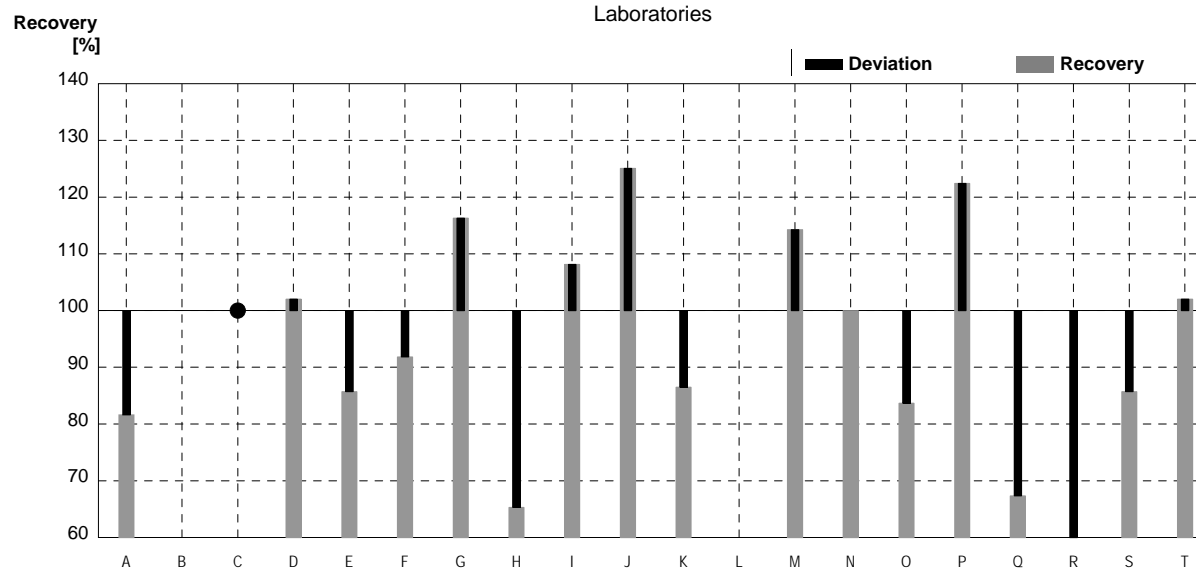
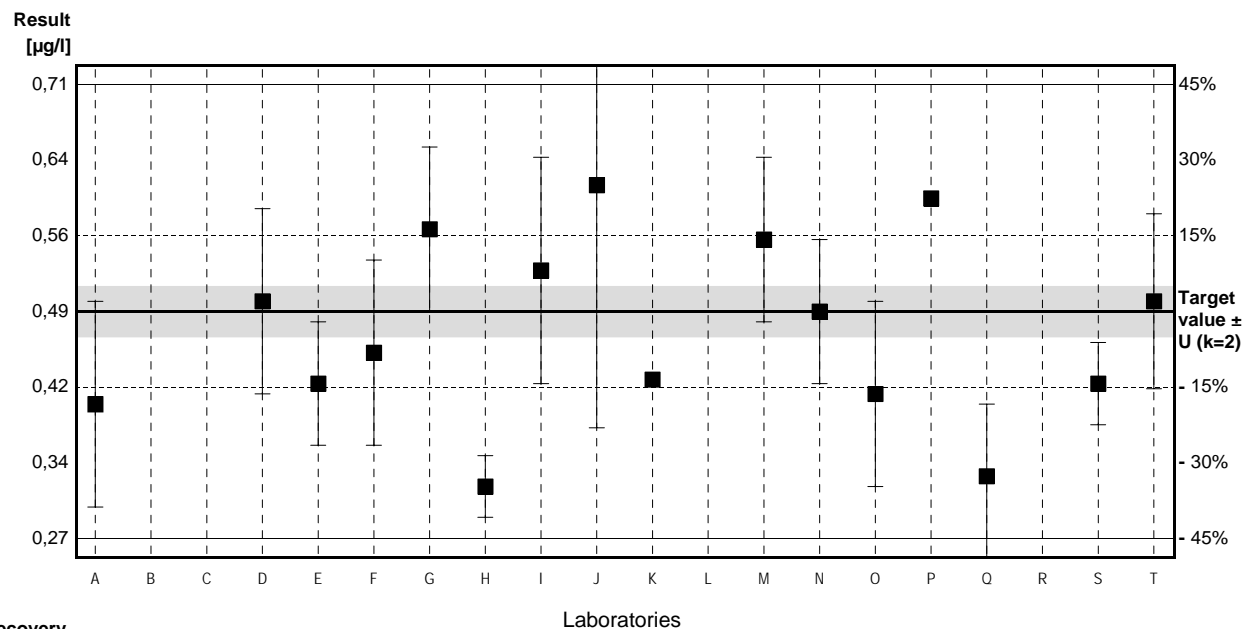
Sample C46A

Parameter Trichloroethene

Target value $\pm U$ (k=2) 0,49 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,52 $\mu\text{g/l}$ \pm 0,08 $\mu\text{g/l}$
 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	0,40	0,10	$\mu\text{g/l}$	82%	-1,02
B			$\mu\text{g/l}$		
C	<0,5	0,2	$\mu\text{g/l}$	•	
D	0,5	0,09	$\mu\text{g/l}$	102%	0,11
E	0,42	0,06	$\mu\text{g/l}$	86%	-0,79
F	0,45	0,090	$\mu\text{g/l}$	92%	-0,45
G	0,57	0,08	$\mu\text{g/l}$	116%	0,91
H	0,32	0,03	$\mu\text{g/l}$	65%	-1,93
I	0,53	0,11	$\mu\text{g/l}$	108%	0,45
J	0,613	0,236	$\mu\text{g/l}$	125%	1,39
K	0,424		$\mu\text{g/l}$	87%	-0,75
L			$\mu\text{g/l}$		
M	0,560	0,08	$\mu\text{g/l}$	114%	0,79
N	0,49	0,07	$\mu\text{g/l}$	100%	0,00
O	0,41	0,09	$\mu\text{g/l}$	84%	-0,91
P	0,6		$\mu\text{g/l}$	122%	1,25
Q	0,33	0,07	$\mu\text{g/l}$	67%	-1,81
R	0,26	0,026	$\mu\text{g/l}$	53%	-2,61
S	0,42	0,04	$\mu\text{g/l}$	86%	-0,79
T	0,50	0,085	$\mu\text{g/l}$	102%	0,11

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,46 \pm 0,07	0,46 \pm 0,07	$\mu\text{g/l}$
Recov. \pm CI(99%)	93,6 \pm 14,5	93,6 \pm 14,5	%
SD between labs	0,10	0,10	$\mu\text{g/l}$
RSD between labs	21,9	21,9	%
n for calculation	17	17	



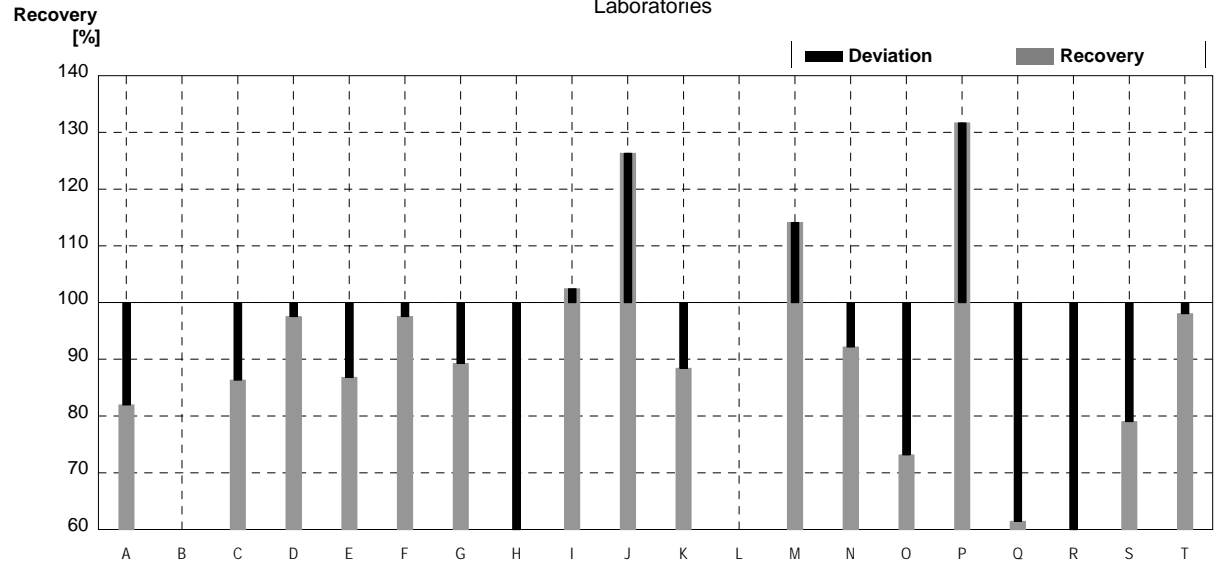
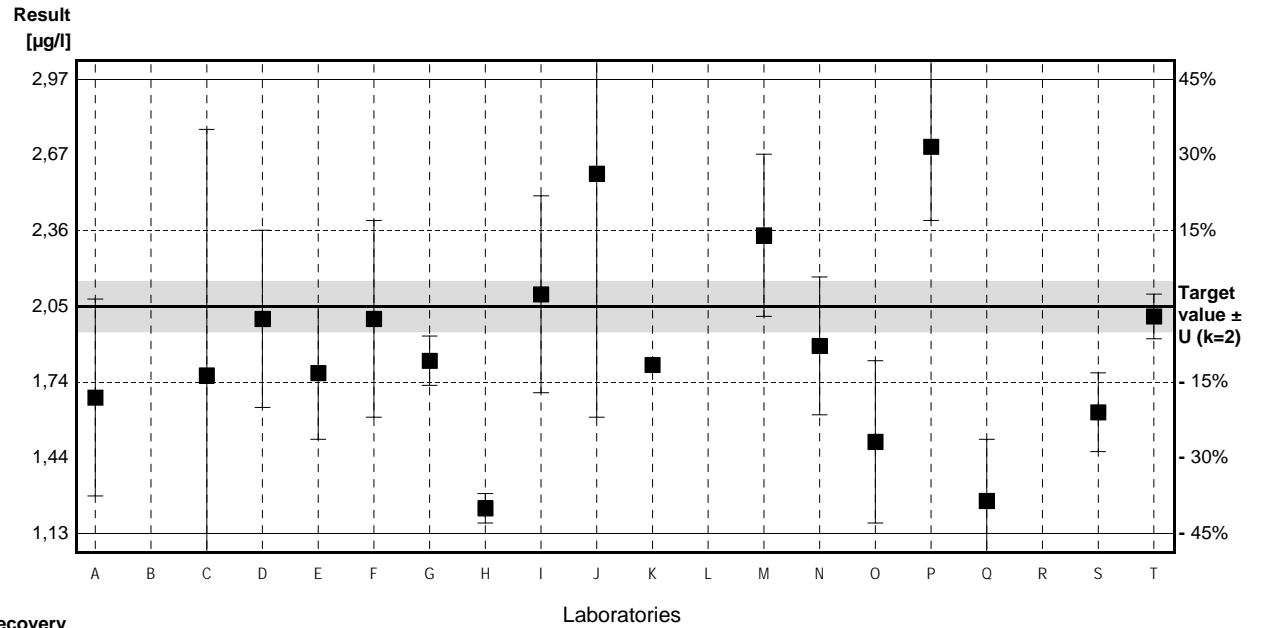
Sample C46B

Parameter Trichloroethene

Target value $\pm U$ (k=2) 2,05 $\mu\text{g/l}$ \pm 0,10 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 2,01 $\mu\text{g/l}$ \pm 0,30 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 2,00 $\mu\text{g/l}$ \pm 0,30 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	1,68	0,40	$\mu\text{g/l}$	82%	-1,00
B			$\mu\text{g/l}$		
C	1,77	1,0	$\mu\text{g/l}$	86%	-0,76
D	2,0	0,36	$\mu\text{g/l}$	98%	-0,14
E	1,78	0,27	$\mu\text{g/l}$	87%	-0,73
F	2,0	0,40	$\mu\text{g/l}$	98%	-0,14
G	1,83	0,10	$\mu\text{g/l}$	89%	-0,60
H	1,23	0,06	$\mu\text{g/l}$	60%	-2,22
I	2,1	0,4	$\mu\text{g/l}$	102%	0,14
J	2,59	0,99	$\mu\text{g/l}$	126%	1,46
K	1,813		$\mu\text{g/l}$	88%	-0,64
L			$\mu\text{g/l}$		
M	2,34	0,33	$\mu\text{g/l}$	114%	0,79
N	1,89	0,28	$\mu\text{g/l}$	92%	-0,43
O	1,50	0,33	$\mu\text{g/l}$	73%	-1,49
P	2,7	0,3	$\mu\text{g/l}$	132%	1,76
Q	1,26	0,25	$\mu\text{g/l}$	61%	-2,14
R	1,1	0,11	$\mu\text{g/l}$	54%	-2,57
S	1,62	0,16	$\mu\text{g/l}$	79%	-1,17
T	2,01	0,091	$\mu\text{g/l}$	98%	-0,11

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,85 \pm 0,29	1,85 \pm 0,29	$\mu\text{g/l}$
Recov. \pm CI(99%)	90,0 \pm 14,4	90,0 \pm 14,4	%
SD between labs	0,43	0,43	$\mu\text{g/l}$
RSD between labs	23,4	23,4	%
n for calculation	18	18	

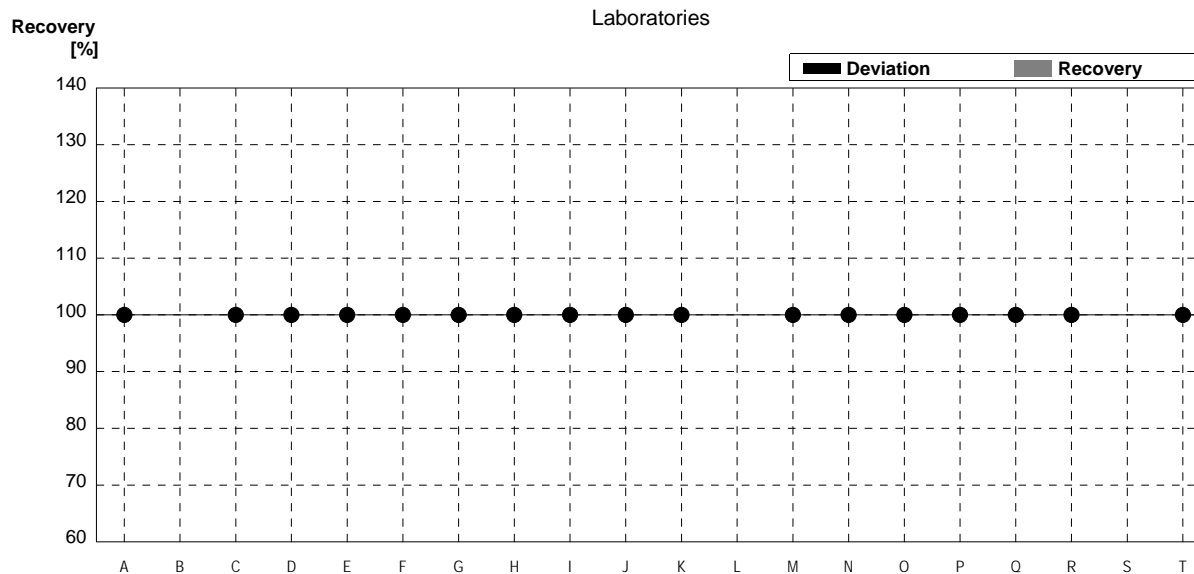
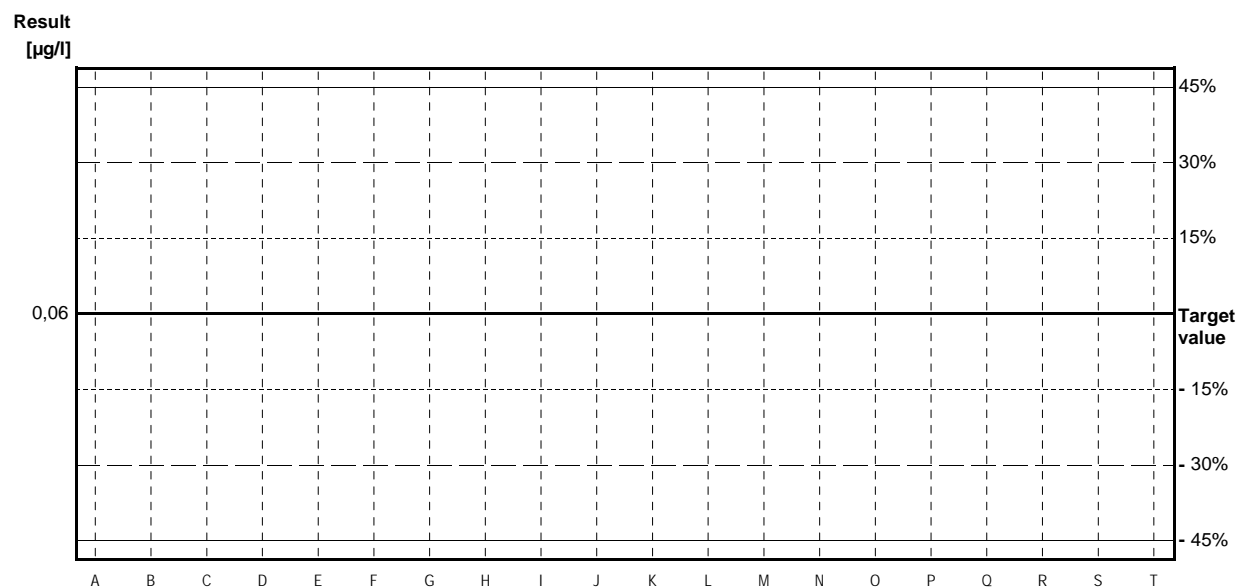


Sample C46A

Parameter Tetrachloroethene

Target value <0,06 µg/l
 IFA result <0,03 µg/l
 Stability test <0,03 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<0,05		µg/l	•	
B			µg/l		
C	<0,5	0,2	µg/l	•	
D	<0,1		µg/l	•	
E	<0,05		µg/l	•	
F	<0,10		µg/l	•	
G	<0,06		µg/l	•	
H	<0,10		µg/l	•	
I	<0,035		µg/l	•	
J	<0,05		µg/l	•	
K	<0,1		µg/l	•	
L			µg/l		
M	<0,1		µg/l	•	
N	<0,05		µg/l	•	
O	<0,5		µg/l	•	
P	<0,5		µg/l	•	
Q	<0,05		µg/l	•	
R	<0,10	0,010	µg/l	•	
S	0,00	0,00	µg/l		
T	<0,05		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 C46B

Parameter Tetrachloroethene

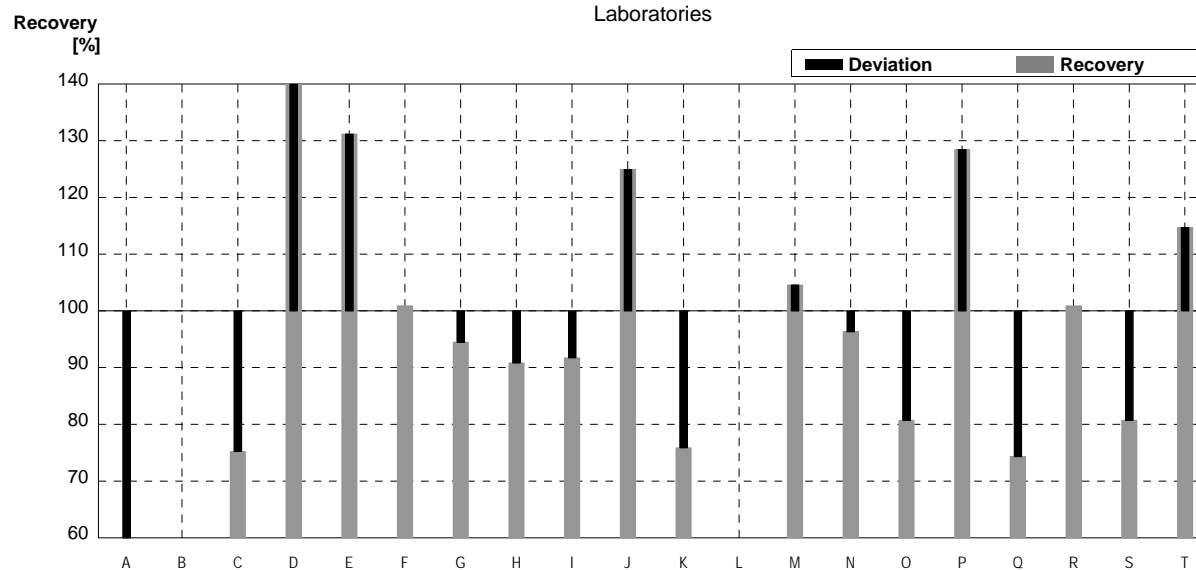
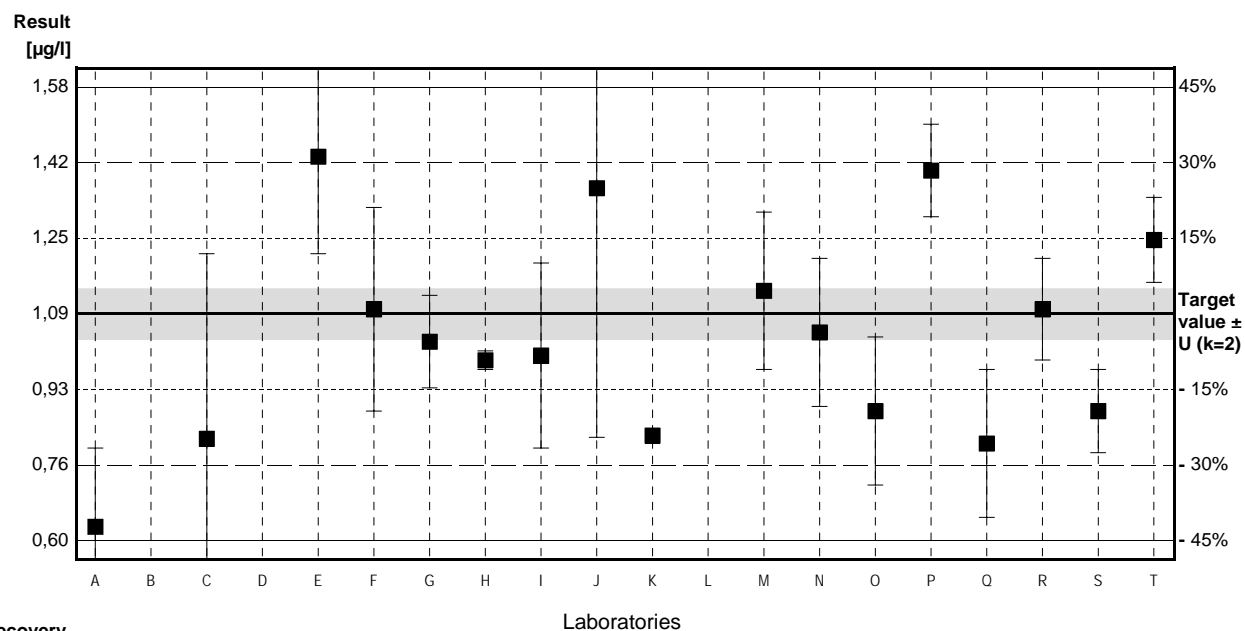
Target value $\pm U$ (k=2) 1,09 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$

IFA result $\pm U$ (k=2) 1,07 $\mu\text{g/l}$ \pm 0,16 $\mu\text{g/l}$

Stability test $\pm U$ (k=2) 1,02 $\mu\text{g/l}$ \pm 0,15 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,63	0,17	$\mu\text{g/l}$	58%	-2,22
B			$\mu\text{g/l}$		
C	0,82	0,4	$\mu\text{g/l}$	75%	-1,30
D	2,3 *	0,41	$\mu\text{g/l}$	211%	5,84
E	1,43	0,21	$\mu\text{g/l}$	131%	1,64
F	1,1	0,22	$\mu\text{g/l}$	101%	0,05
G	1,03	0,10	$\mu\text{g/l}$	94%	-0,29
H	0,99	0,02	$\mu\text{g/l}$	91%	-0,48
I	1,0	0,2	$\mu\text{g/l}$	92%	-0,43
J	1,362	0,539	$\mu\text{g/l}$	125%	1,31
K	0,827		$\mu\text{g/l}$	76%	-1,27
L			$\mu\text{g/l}$		
M	1,14	0,17	$\mu\text{g/l}$	105%	0,24
N	1,05	0,16	$\mu\text{g/l}$	96%	-0,19
O	0,88	0,16	$\mu\text{g/l}$	81%	-1,01
P	1,4	0,1	$\mu\text{g/l}$	128%	1,50
Q	0,81	0,16	$\mu\text{g/l}$	74%	-1,35
R	1,1	0,11	$\mu\text{g/l}$	101%	0,05
S	0,88	0,09	$\mu\text{g/l}$	81%	-1,01
T	1,25	0,092	$\mu\text{g/l}$	115%	0,77

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,11 \pm 0,25	1,04 \pm 0,16	$\mu\text{g/l}$
Recov. \pm CI(99%)	101,9 \pm 23,1	95,5 \pm 14,7	%
SD between labs	0,37	0,23	$\mu\text{g/l}$
RSD between labs	33,2	21,7	%
n for calculation	18	17	



Sample C46A

Parameter 1,1,1-Trichloroethane

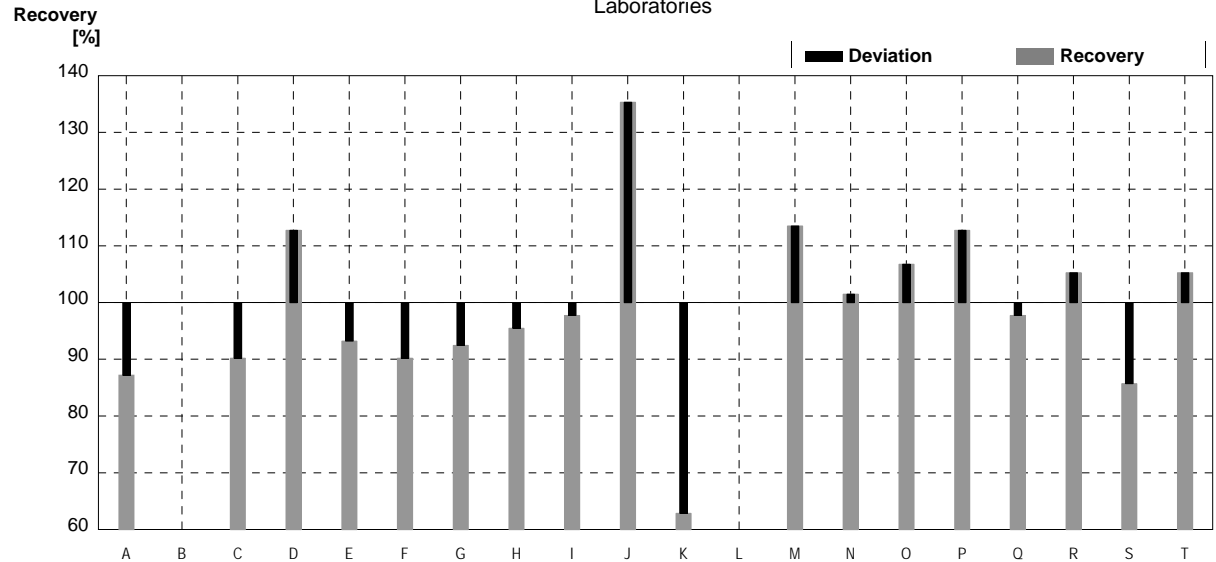
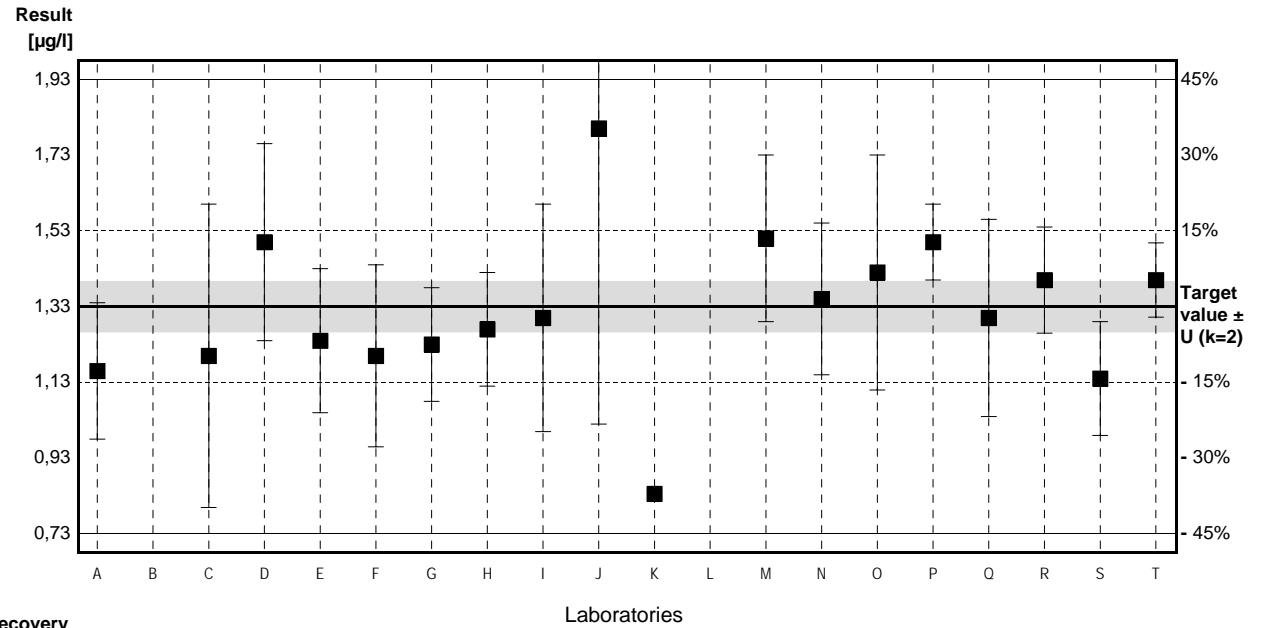
Target value ± U (k=2) 1,33 µg/l ± 0,07 µg/l

IFA result ± U (k=2) 1,42 µg/l ± 0,21 µg/l

Stability test ± U (k=2) 1,32 µg/l ± 0,20 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,16	0,18	µg/l	87%	-0,85
B			µg/l		
C	1,20	0,4	µg/l	90%	-0,65
D	1,5	0,26	µg/l	113%	0,85
E	1,24	0,19	µg/l	93%	-0,45
F	1,2	0,24	µg/l	90%	-0,65
G	1,23	0,15	µg/l	92%	-0,50
H	1,27	0,15	µg/l	95%	-0,30
I	1,3	0,3	µg/l	98%	-0,15
J	1,80 *	0,78	µg/l	135%	2,36
K	0,836		µg/l	63%	-2,48
L			µg/l		
M	1,51	0,22	µg/l	114%	0,90
N	1,35	0,20	µg/l	102%	0,10
O	1,42	0,31	µg/l	107%	0,45
P	1,5	0,1	µg/l	113%	0,85
Q	1,30	0,26	µg/l	98%	-0,15
R	1,4	0,14	µg/l	105%	0,35
S	1,14	0,15	µg/l	86%	-0,95
T	1,40	0,098	µg/l	105%	0,35

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,32 ± 0,14	1,29 ± 0,12	µg/l
Recov. ± CI(99%)	99,2 ± 10,4	97,1 ± 8,9	%
SD between labs	0,20	0,17	µg/l
RSD between labs	15,3	13,0	%
n for calculation	18	17	



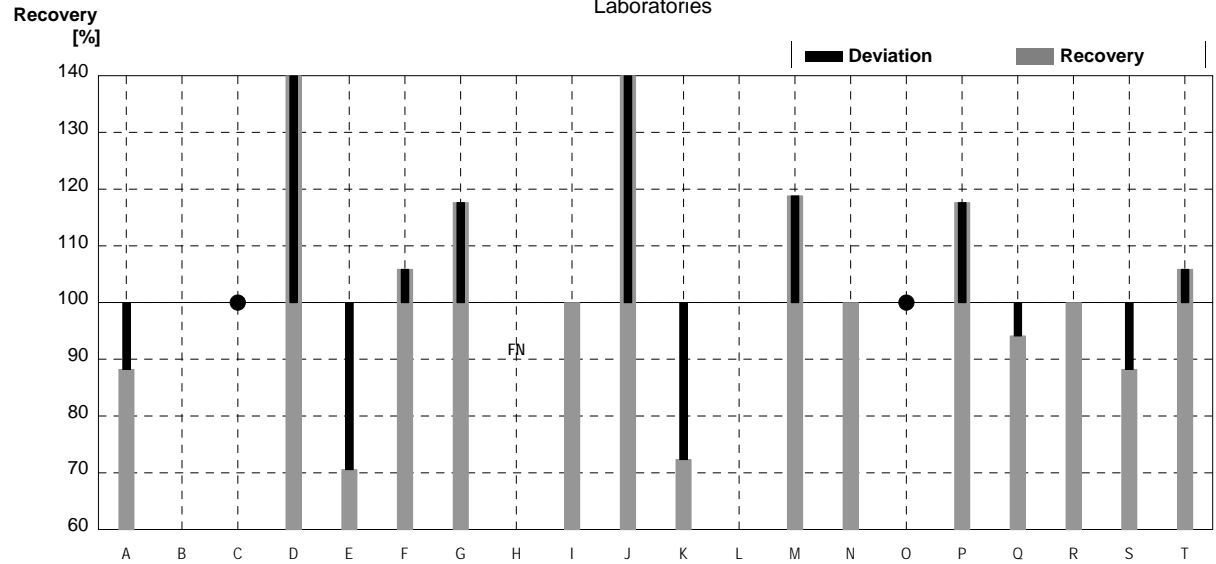
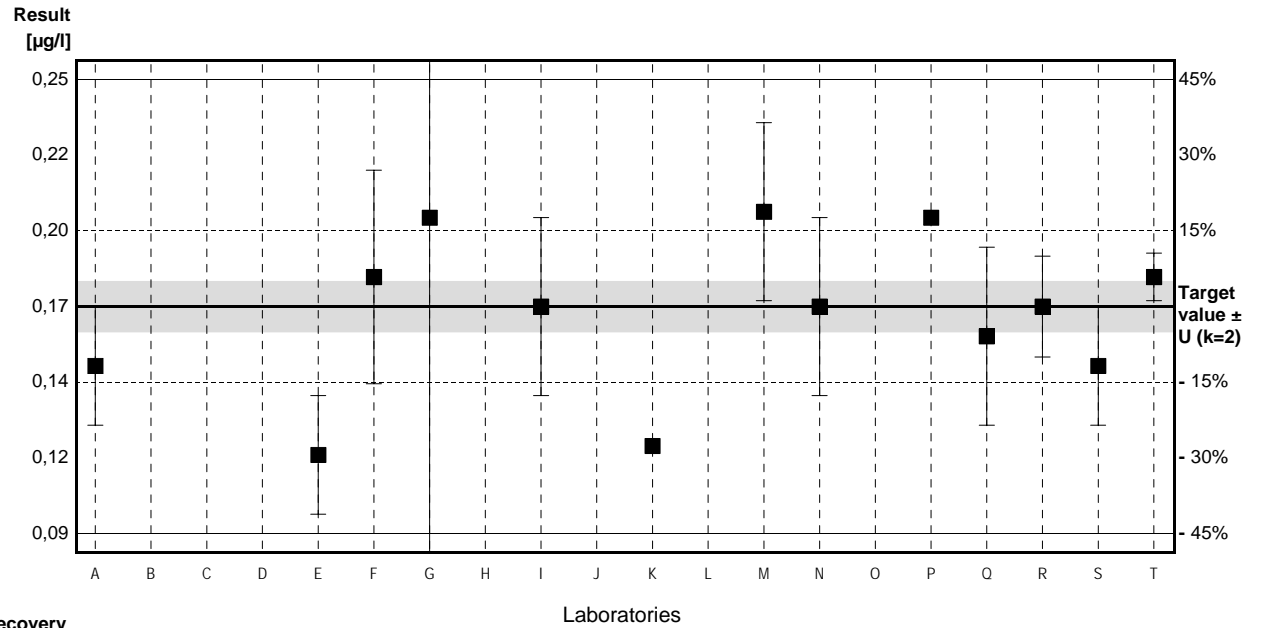
Sample C46B

Parameter 1,1,1-Trichloroethane

Target value $\pm U$ (k=2) 0,17 $\mu\text{g/l}$ \pm 0,01 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,18 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,15 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,15	0,02	$\mu\text{g/l}$	88%	-0,78
B			$\mu\text{g/l}$		
C	<0,5	0,2	$\mu\text{g/l}$	•	
D	0,3 *	0,05	$\mu\text{g/l}$	176%	5,10
E	0,12	0,02	$\mu\text{g/l}$	71%	-1,96
F	0,18	0,036	$\mu\text{g/l}$	106%	0,39
G	0,20	0,15	$\mu\text{g/l}$	118%	1,18
H	<0,10		$\mu\text{g/l}$	FN	
I	0,17	0,03	$\mu\text{g/l}$	100%	0,00
J	0,262	0,115	$\mu\text{g/l}$	154%	3,61
K	0,123		$\mu\text{g/l}$	72%	-1,84
L			$\mu\text{g/l}$		
M	0,202	0,03	$\mu\text{g/l}$	119%	1,25
N	0,17	0,03	$\mu\text{g/l}$	100%	0,00
O	<0,5		$\mu\text{g/l}$	•	
P	0,2		$\mu\text{g/l}$	118%	1,18
Q	0,16	0,03	$\mu\text{g/l}$	94%	-0,39
R	0,17	0,017	$\mu\text{g/l}$	100%	0,00
S	0,15	0,02	$\mu\text{g/l}$	88%	-0,78
T	0,18	0,008	$\mu\text{g/l}$	106%	0,39

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,18 \pm 0,04	0,17 \pm 0,03	$\mu\text{g/l}$
Recov. \pm CI(99%)	107,3 \pm 21,5	102,4 \pm 17,0	%
SD between labs	0,05	0,04	$\mu\text{g/l}$
RSD between labs	26,1	20,7	%
n for calculation	15	14	



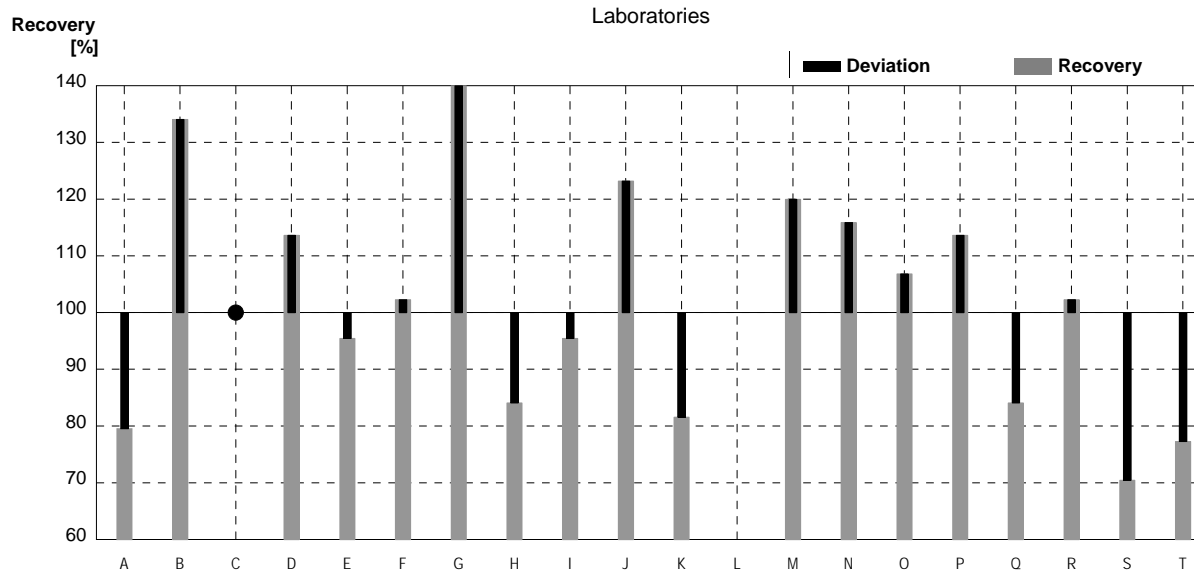
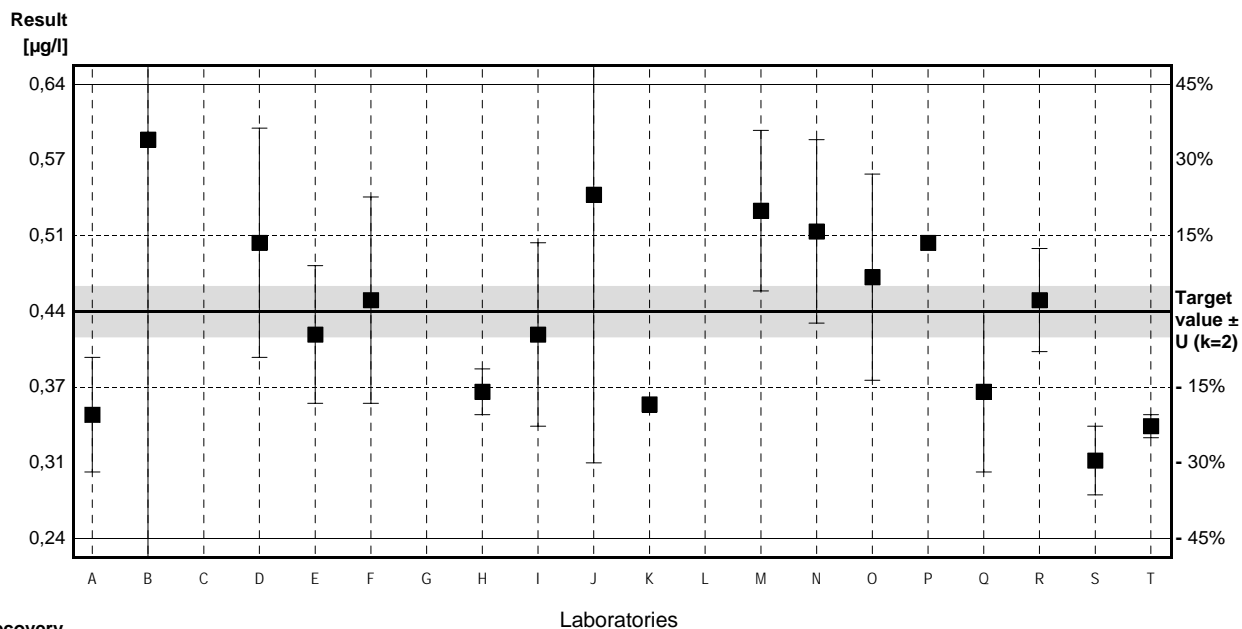
Sample C46A

Parameter Trichloromethane

Target value $\pm U$ (k=2) 0,44 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,45 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,41 $\mu\text{g/l}$ \pm 0,06 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,35	0,05	$\mu\text{g/l}$	80%	-1,28
B	0,59	0,5	$\mu\text{g/l}$	134%	2,13
C	<0,5	0,2	$\mu\text{g/l}$	•	
D	0,5	0,10	$\mu\text{g/l}$	114%	0,85
E	0,42	0,06	$\mu\text{g/l}$	95%	-0,28
F	0,45	0,090	$\mu\text{g/l}$	102%	0,14
G	0,93 *	0,09	$\mu\text{g/l}$	211%	6,96
H	0,37	0,02	$\mu\text{g/l}$	84%	-0,99
I	0,42	0,08	$\mu\text{g/l}$	95%	-0,28
J	0,542	0,234	$\mu\text{g/l}$	123%	1,45
K	0,359		$\mu\text{g/l}$	82%	-1,15
L			$\mu\text{g/l}$		
M	0,528	0,07	$\mu\text{g/l}$	120%	1,25
N	0,51	0,08	$\mu\text{g/l}$	116%	0,99
O	0,47	0,09	$\mu\text{g/l}$	107%	0,43
P	0,5		$\mu\text{g/l}$	114%	0,85
Q	0,37	0,07	$\mu\text{g/l}$	84%	-0,99
R	0,45	0,045	$\mu\text{g/l}$	102%	0,14
S	0,31	0,03	$\mu\text{g/l}$	70%	-1,85
T	0,34	0,010	$\mu\text{g/l}$	77%	-1,42

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,47 \pm 0,10	0,44 \pm 0,06	$\mu\text{g/l}$
Recov. \pm CI(99%)	106,2 \pm 21,7	100,0 \pm 13,1	%
SD between labs	0,14	0,08	$\mu\text{g/l}$
RSD between labs	30,0	18,5	%
n for calculation	18	17	



Sample C46B

Parameter Trichloromethane

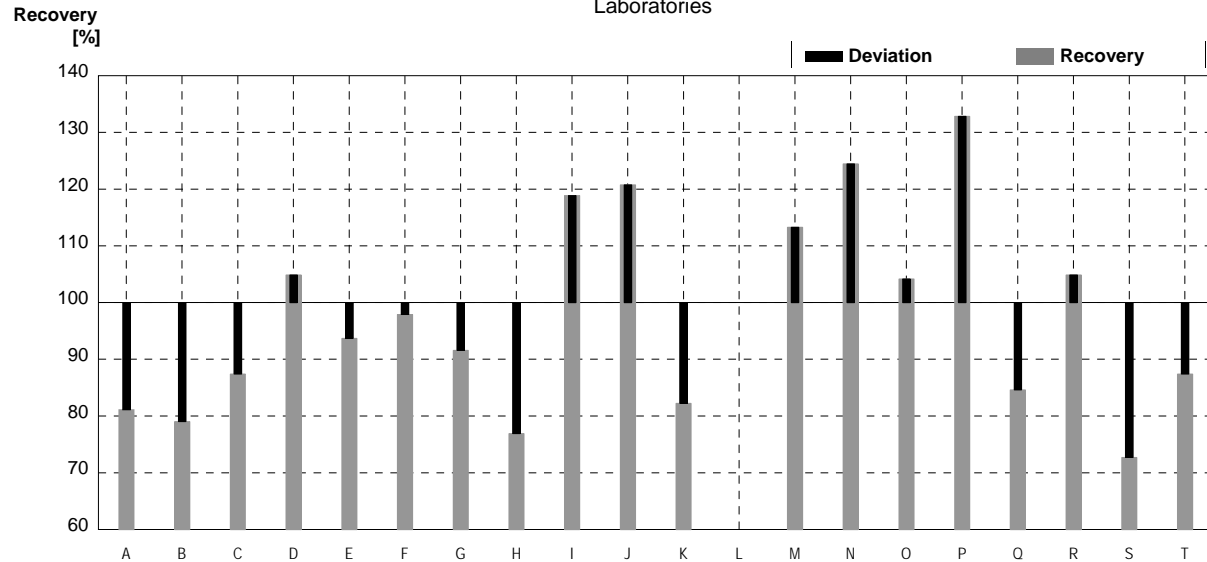
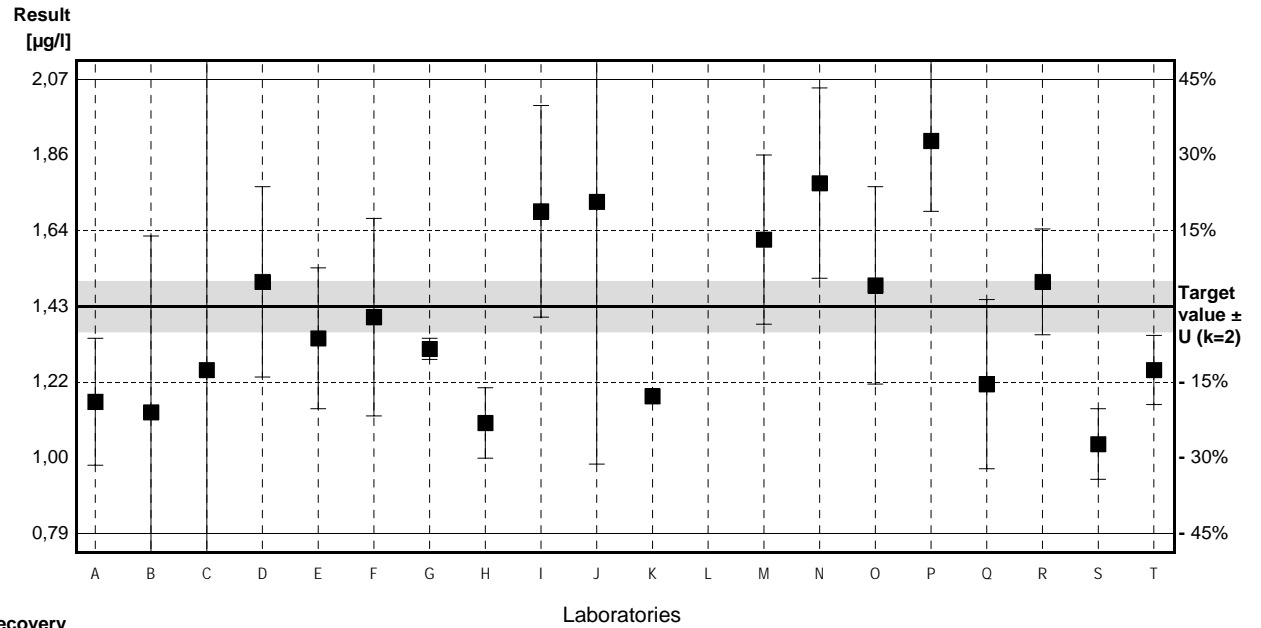
Target value ± U (k=2) 1,43 µg/l ± 0,07 µg/l

IFA result ± U (k=2) 1,45 µg/l ± 0,22 µg/l

Stability test ± U (k=2) 1,41 µg/l ± 0,21 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,16	0,18	µg/l	81%	-1,18
B	1,13	0,5	µg/l	79%	-1,31
C	1,25	1,0	µg/l	87%	-0,79
D	1,5	0,27	µg/l	105%	0,31
E	1,34	0,20	µg/l	94%	-0,39
F	1,4	0,28	µg/l	98%	-0,13
G	1,31	0,03	µg/l	92%	-0,52
H	1,1	0,1	µg/l	77%	-1,44
I	1,7	0,3	µg/l	119%	1,18
J	1,727	0,744	µg/l	121%	1,30
K	1,176		µg/l	82%	-1,11
L			µg/l		
M	1,62	0,24	µg/l	113%	0,83
N	1,78	0,27	µg/l	124%	1,53
O	1,49	0,28	µg/l	104%	0,26
P	1,9	0,2	µg/l	133%	2,05
Q	1,21	0,24	µg/l	85%	-0,96
R	1,5	0,15	µg/l	105%	0,31
S	1,04	0,10	µg/l	73%	-1,70
T	1,25	0,098	µg/l	87%	-0,79

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,40 ± 0,17	1,40 ± 0,17	µg/l
Recov. ± CI(99%)	97,8 ± 11,7	97,8 ± 11,7	%
SD between labs	0,25	0,25	µg/l
RSD between labs	18,2	18,2	%
n for calculation	19	19	



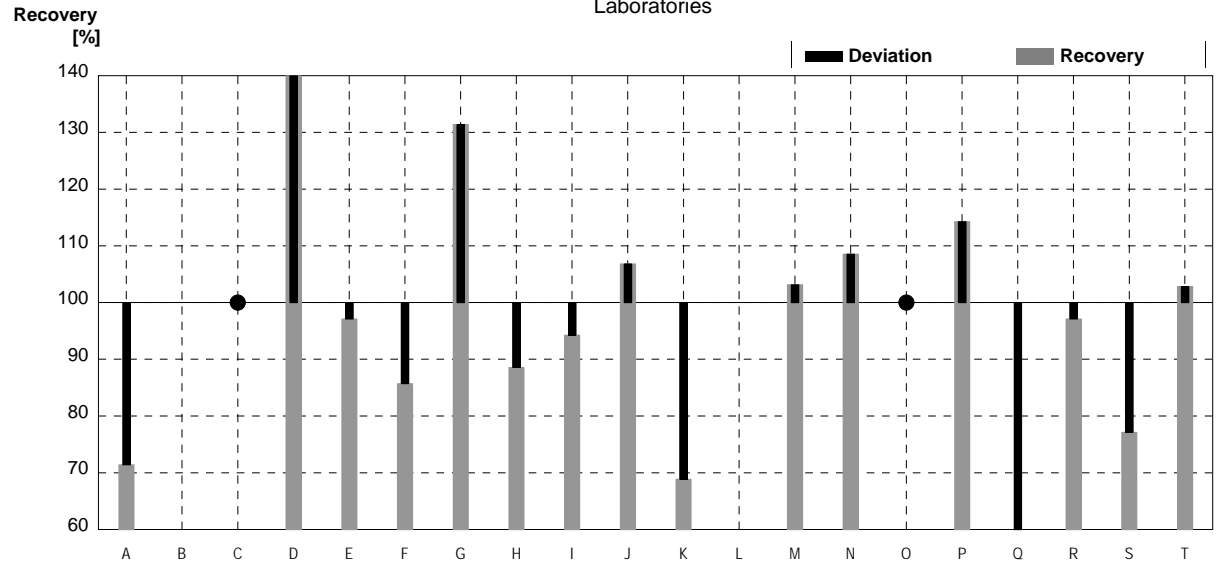
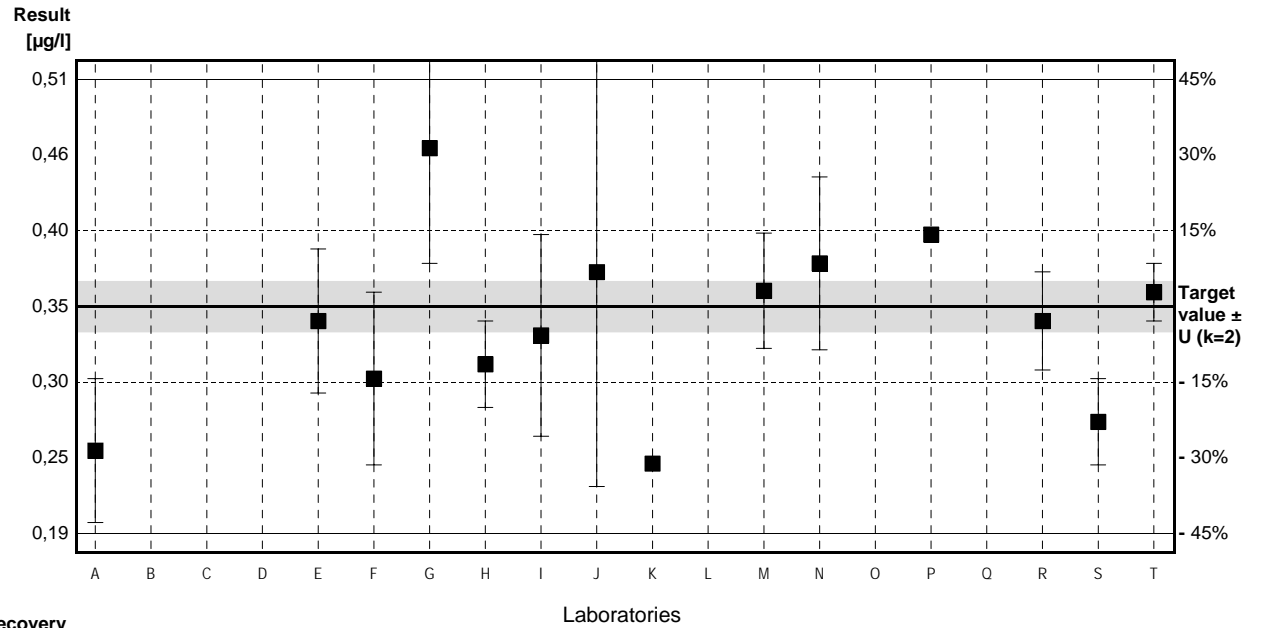
Sample C46A

Parameter Tetrachloromethane

Target value $\pm U$ (k=2) 0,35 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,34 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,32 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,25	0,05	$\mu\text{g/l}$	71%	-1,59
B			$\mu\text{g/l}$		
C	<0,5	0,2	$\mu\text{g/l}$	•	
D	0,6 *	0,11	$\mu\text{g/l}$	171%	3,97
E	0,34	0,05	$\mu\text{g/l}$	97%	-0,16
F	0,30	0,060	$\mu\text{g/l}$	86%	-0,79
G	0,46	0,08	$\mu\text{g/l}$	131%	1,75
H	0,31	0,03	$\mu\text{g/l}$	89%	-0,63
I	0,33	0,07	$\mu\text{g/l}$	94%	-0,32
J	0,374	0,149	$\mu\text{g/l}$	107%	0,38
K	0,241		$\mu\text{g/l}$	69%	-1,73
L			$\mu\text{g/l}$		
M	0,361	0,04	$\mu\text{g/l}$	103%	0,17
N	0,38	0,06	$\mu\text{g/l}$	109%	0,48
O	<0,5		$\mu\text{g/l}$	•	
P	0,4		$\mu\text{g/l}$	114%	0,79
Q	0,18	0,04	$\mu\text{g/l}$	51%	-2,70
R	0,34	0,034	$\mu\text{g/l}$	97%	-0,16
S	0,27	0,03	$\mu\text{g/l}$	77%	-1,27
T	0,36	0,020	$\mu\text{g/l}$	103%	0,16

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,34 \pm 0,07	0,33 \pm 0,05	$\mu\text{g/l}$
Recov. \pm CI(99%)	98,1 \pm 20,4	93,3 \pm 15,5	%
SD between labs	0,10	0,07	$\mu\text{g/l}$
RSD between labs	28,1	21,6	%
n for calculation	16	15	



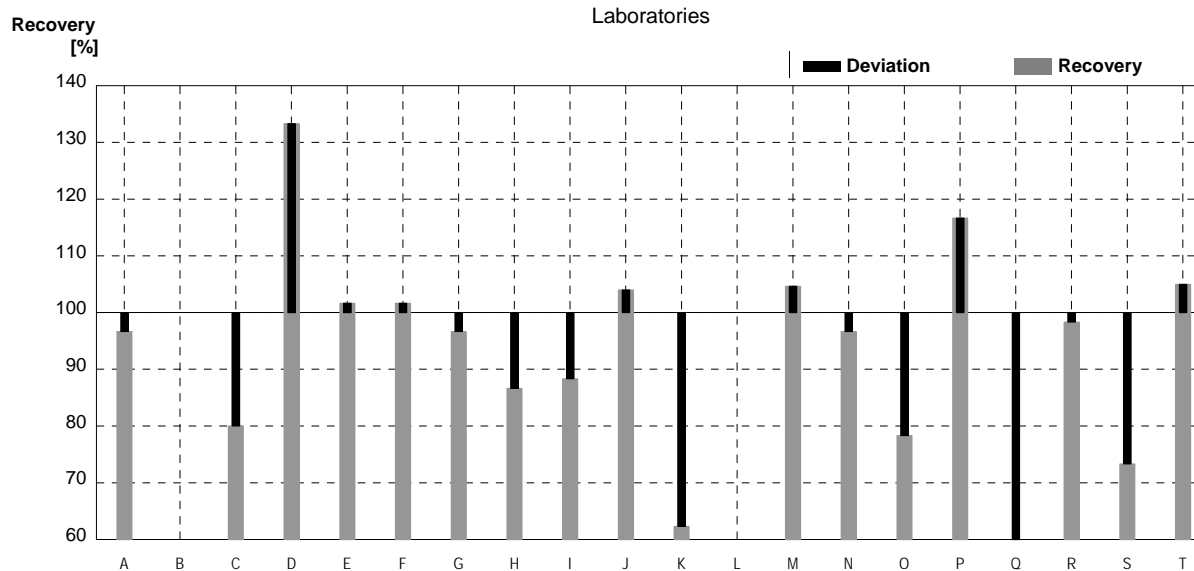
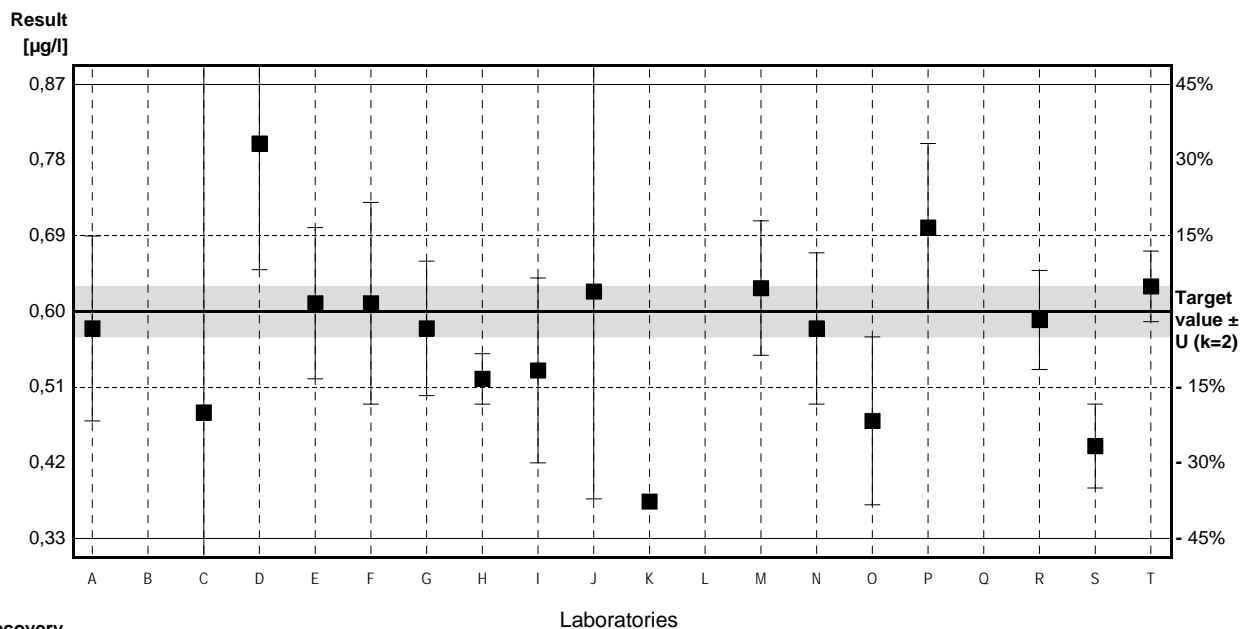
Sample C46B

Parameter Tetrachloromethane

Target value $\pm U$ (k=2) 0,60 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,56 $\mu\text{g/l}$ \pm 0,08 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,56 $\mu\text{g/l}$ \pm 0,08 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,58	0,11	$\mu\text{g/l}$	97%	-0,19
B			$\mu\text{g/l}$		
C	0,48	1,0	$\mu\text{g/l}$	80%	-1,11
D	0,8	0,15	$\mu\text{g/l}$	133%	1,85
E	0,61	0,09	$\mu\text{g/l}$	102%	0,09
F	0,61	0,12	$\mu\text{g/l}$	102%	0,09
G	0,58	0,08	$\mu\text{g/l}$	97%	-0,19
H	0,52	0,03	$\mu\text{g/l}$	87%	-0,74
I	0,53	0,11	$\mu\text{g/l}$	88%	-0,65
J	0,624	0,247	$\mu\text{g/l}$	104%	0,22
K	0,374		$\mu\text{g/l}$	62%	-2,09
L			$\mu\text{g/l}$		
M	0,628	0,08	$\mu\text{g/l}$	105%	0,26
N	0,58	0,09	$\mu\text{g/l}$	97%	-0,19
O	0,47	0,10	$\mu\text{g/l}$	78%	-1,20
P	0,7	0,1	$\mu\text{g/l}$	117%	0,93
Q	0,31 *	0,06	$\mu\text{g/l}$	52%	-2,69
R	0,59	0,059	$\mu\text{g/l}$	98%	-0,09
S	0,44	0,05	$\mu\text{g/l}$	73%	-1,48
T	0,63	0,042	$\mu\text{g/l}$	105%	0,28

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,56 \pm 0,08	0,57 \pm 0,07	$\mu\text{g/l}$
Recov. \pm CI(99%)	93,1 \pm 13,1	95,5 \pm 11,8	%
SD between labs	0,12	0,10	$\mu\text{g/l}$
RSD between labs	20,7	17,5	%
n for calculation	18	17	



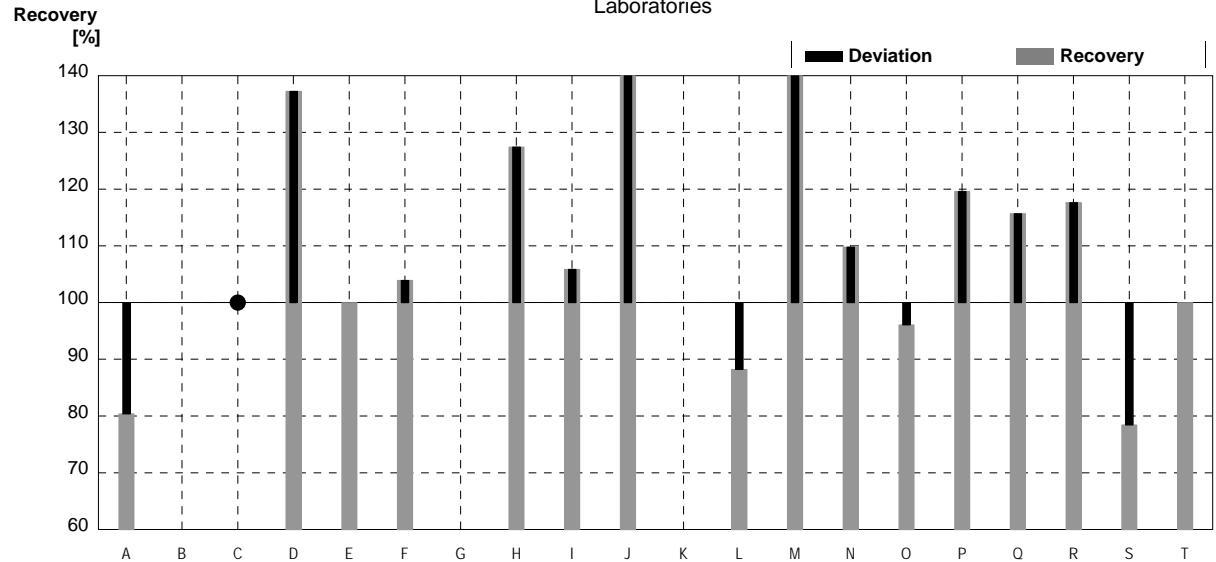
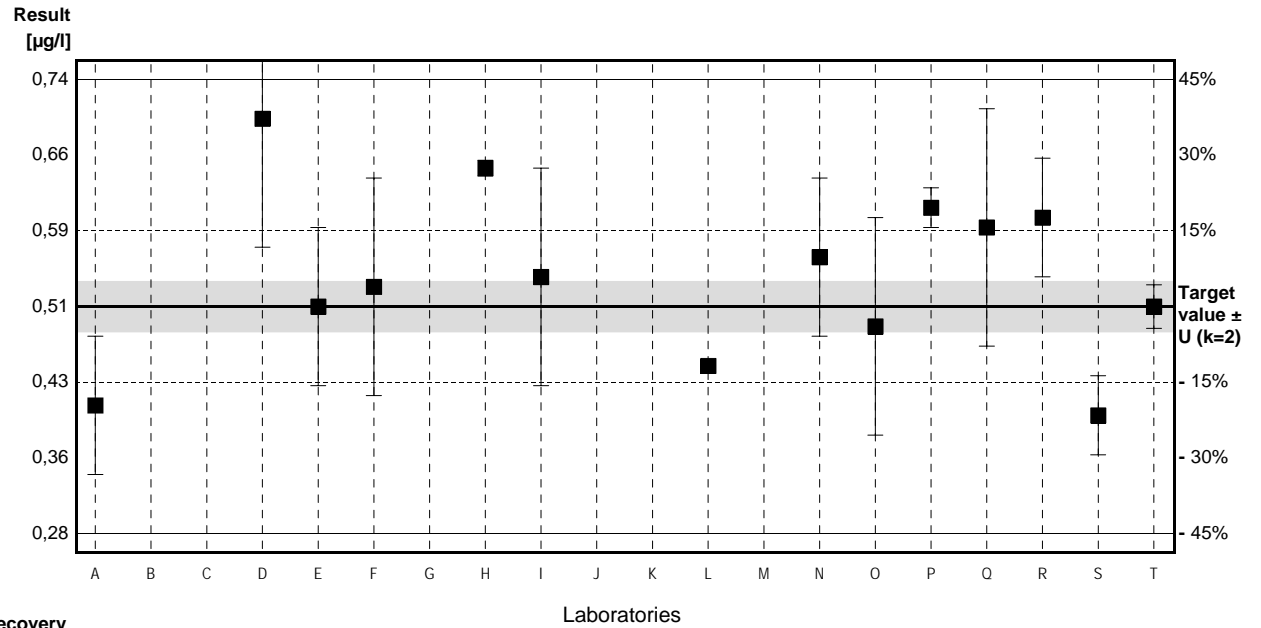
Sample C46A

Parameter 1,1-Dichloroethene

Target value $\pm U$ (k=2) 0,51 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,48 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,44 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,41	0,07	$\mu\text{g/l}$	80%	-0,93
B			$\mu\text{g/l}$		
C	<1	0,4	$\mu\text{g/l}$	•	
D	0,7	0,13	$\mu\text{g/l}$	137%	1,77
E	0,51	0,08	$\mu\text{g/l}$	100%	0,00
F	0,53	0,11	$\mu\text{g/l}$	104%	0,19
G			$\mu\text{g/l}$		
H	0,65	0,008	$\mu\text{g/l}$	127%	1,31
I	0,54	0,11	$\mu\text{g/l}$	106%	0,28
J	0,842 *	0,323	$\mu\text{g/l}$	165%	3,10
K			$\mu\text{g/l}$		
L	0,45		$\mu\text{g/l}$	88%	-0,56
M	1,01 *	0,15	$\mu\text{g/l}$	198%	4,67
N	0,56	0,08	$\mu\text{g/l}$	110%	0,47
O	0,49	0,11	$\mu\text{g/l}$	96%	-0,19
P	0,61	0,02	$\mu\text{g/l}$	120%	0,93
Q	0,59	0,12	$\mu\text{g/l}$	116%	0,75
R	0,60	0,060	$\mu\text{g/l}$	118%	0,84
S	0,40	0,04	$\mu\text{g/l}$	78%	-1,03
T	0,51	0,022	$\mu\text{g/l}$	100%	0,00

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,59 \pm 0,12	0,54 \pm 0,07	$\mu\text{g/l}$
Recov. \pm CI(99%)	115,2 \pm 22,8	105,7 \pm 13,7	%
SD between labs	0,16	0,09	$\mu\text{g/l}$
RSD between labs	26,9	16,1	%
n for calculation	16	14	

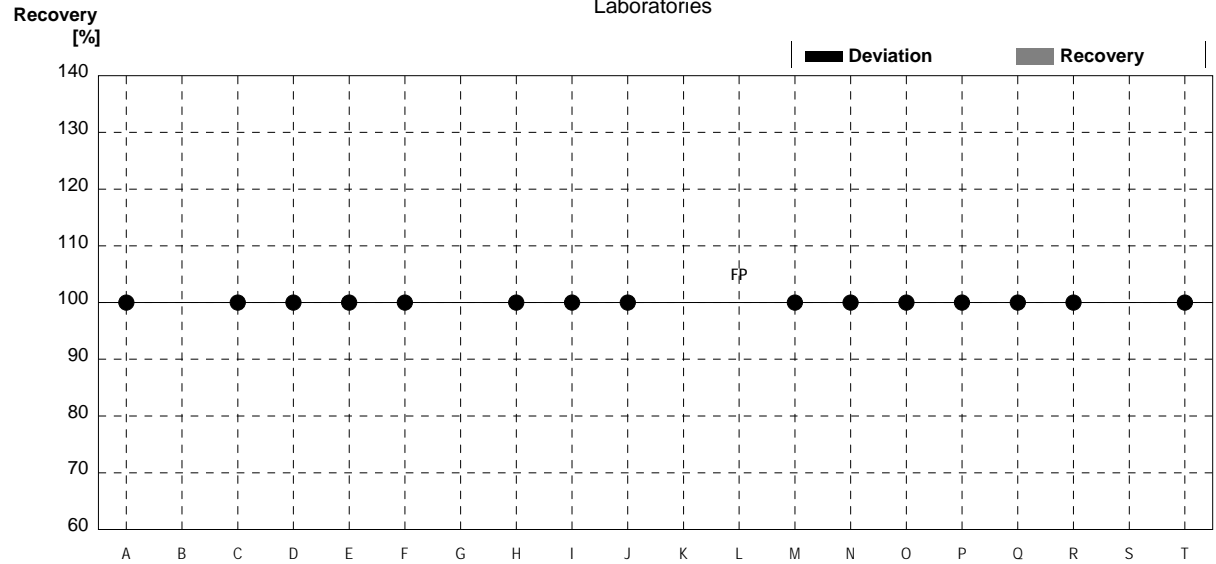
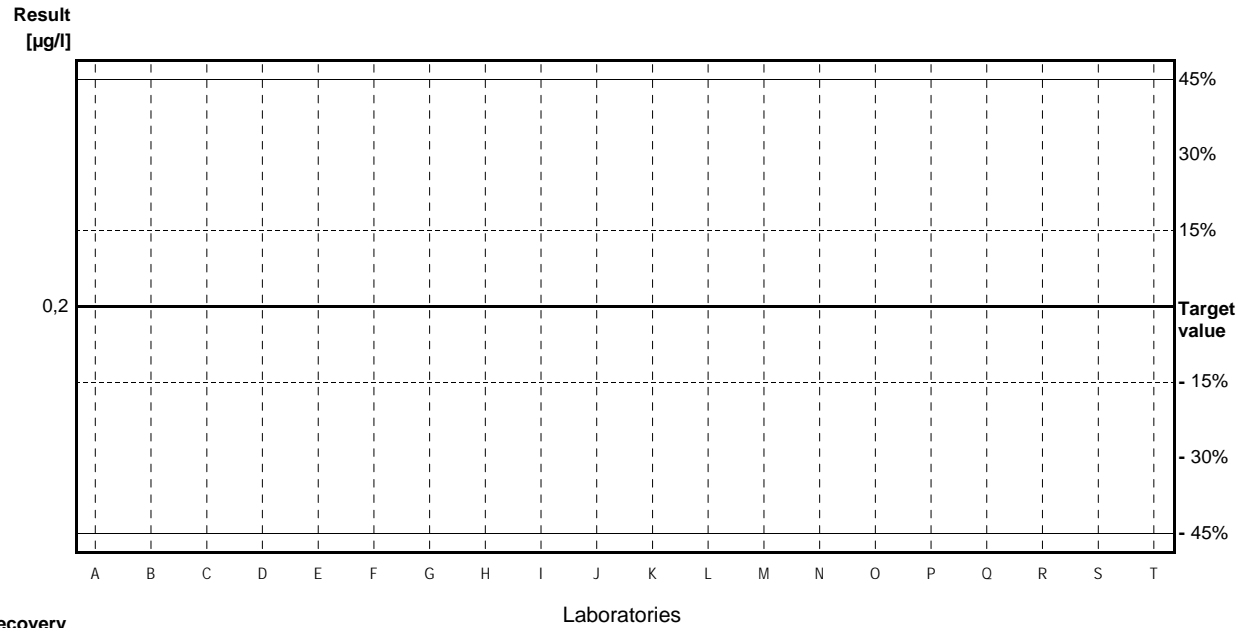


Sample C46B

Parameter 1,1-Dichloroethene

Target value <math><0,2 \mu\text{g/l}</math>
 IFA result <math><0,1 \mu\text{g/l}</math>
 Stability test <math><0,1 \mu\text{g/l}</math>

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	<math><0,08</math>		$\mu\text{g/l}$	•	
B			$\mu\text{g/l}$		
C	<math><1</math>	0,4	$\mu\text{g/l}$	•	
D	<math><0,2</math>		$\mu\text{g/l}$	•	
E	<math><0,05</math>		$\mu\text{g/l}$	•	
F	<math><0,10</math>		$\mu\text{g/l}$	•	
G			$\mu\text{g/l}$		
H	<math><0,10</math>		$\mu\text{g/l}$	•	
I	<math><0,03</math>		$\mu\text{g/l}$	•	
J	<math><0,03</math>		$\mu\text{g/l}$	•	
K			$\mu\text{g/l}$		
L	2,54		$\mu\text{g/l}$	FP	
M	<math><0,1</math>		$\mu\text{g/l}$	•	
N	<math><0,05</math>		$\mu\text{g/l}$	•	
O	<math><0,5</math>		$\mu\text{g/l}$	•	
P	<math><0,2</math>		$\mu\text{g/l}$	•	
Q	<math><0,05</math>		$\mu\text{g/l}$	•	
R	<math><0,15</math>	0,015	$\mu\text{g/l}$	•	
S	0,00	0,00	$\mu\text{g/l}$		
T	<math><0,10</math>		$\mu\text{g/l}$	•	



	All results	Outliers excl.	Unit
Mean \pm CI(99%)			$\mu\text{g/l}$
Recov. \pm CI(99%)			%
SD between labs			$\mu\text{g/l}$
RSD between labs			%
n for calculation			

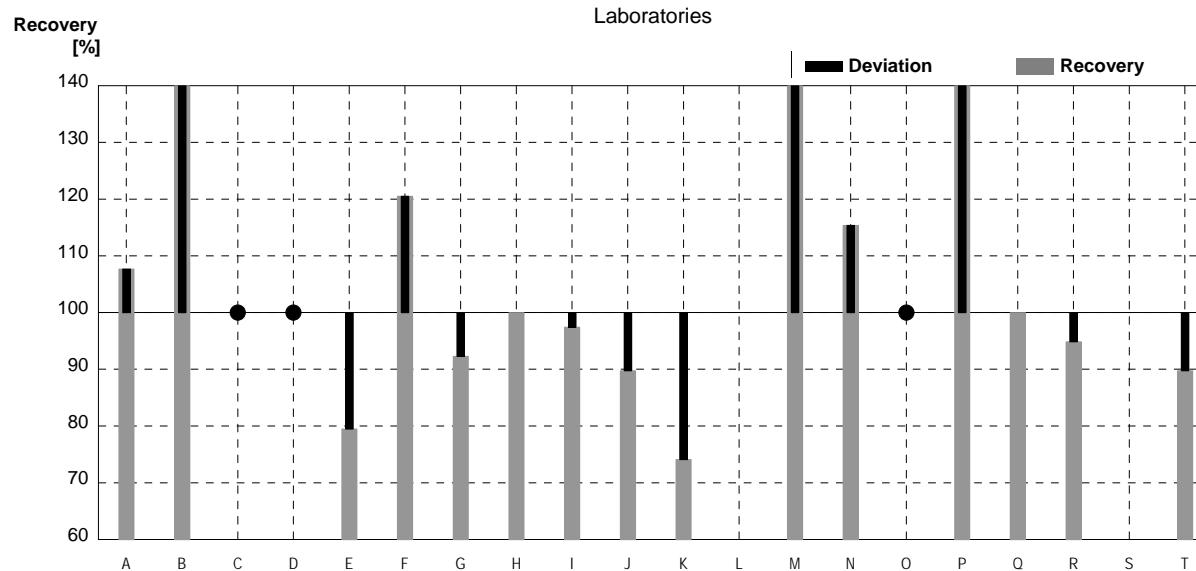
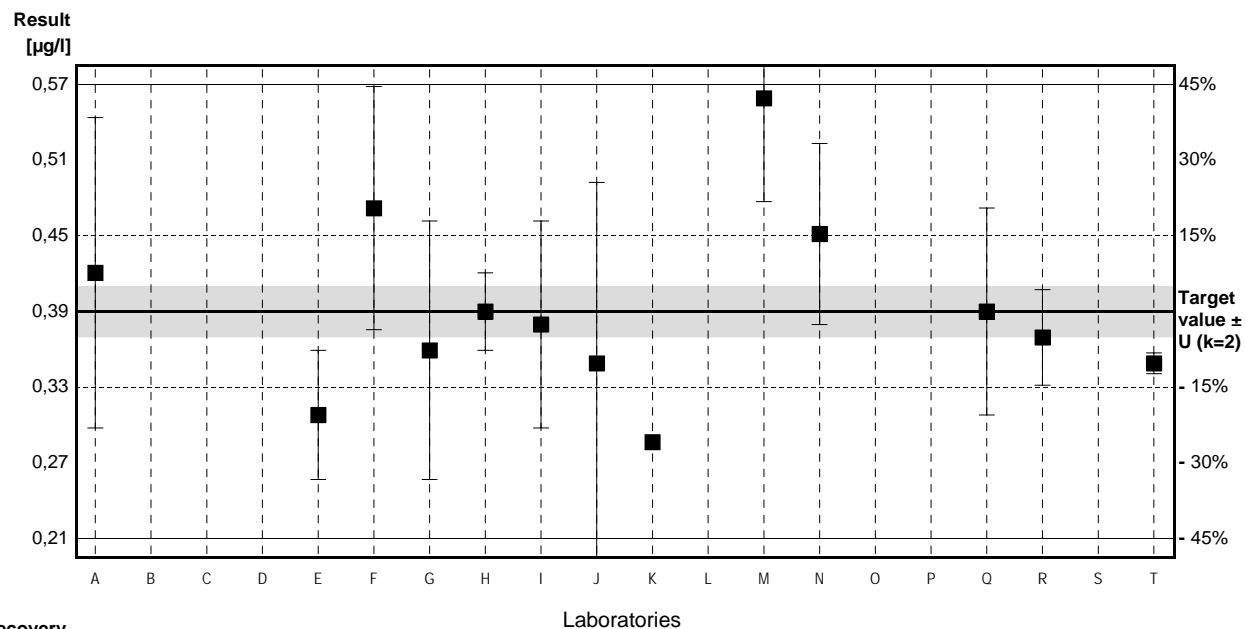
Sample C46A

Parameter Tribromomethane

Target value $\pm U$ (k=2) 0,39 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,38 $\mu\text{g/l}$ \pm 0,06 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,34 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,42	0,12	$\mu\text{g/l}$	108%	0,45
B	0,74 *	0,5	$\mu\text{g/l}$	190%	5,28
C	<1	0,4	$\mu\text{g/l}$	•	
D	<1,0		$\mu\text{g/l}$	•	
E	0,31	0,05	$\mu\text{g/l}$	79%	-1,21
F	0,47	0,094	$\mu\text{g/l}$	121%	1,21
G	0,36	0,10	$\mu\text{g/l}$	92%	-0,45
H	0,39	0,03	$\mu\text{g/l}$	100%	0,00
I	0,38	0,08	$\mu\text{g/l}$	97%	-0,15
J	0,35	0,14	$\mu\text{g/l}$	90%	-0,60
K	0,289		$\mu\text{g/l}$	74%	-1,52
L			$\mu\text{g/l}$		
M	0,555	0,08	$\mu\text{g/l}$	142%	2,49
N	0,45	0,07	$\mu\text{g/l}$	115%	0,90
O	<0,5		$\mu\text{g/l}$	•	
P	0,6 *		$\mu\text{g/l}$	154%	3,17
Q	0,39	0,08	$\mu\text{g/l}$	100%	0,00
R	0,37	0,037	$\mu\text{g/l}$	95%	-0,30
S			$\mu\text{g/l}$		
T	0,35	0,008	$\mu\text{g/l}$	90%	-0,60

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,43 \pm 0,09	0,39 \pm 0,06	$\mu\text{g/l}$
Recov. \pm CI(99%)	109,8 \pm 23,8	100,3 \pm 15,2	%
SD between labs	0,12	0,07	$\mu\text{g/l}$
RSD between labs	28,2	18,0	%
n for calculation	15	13	



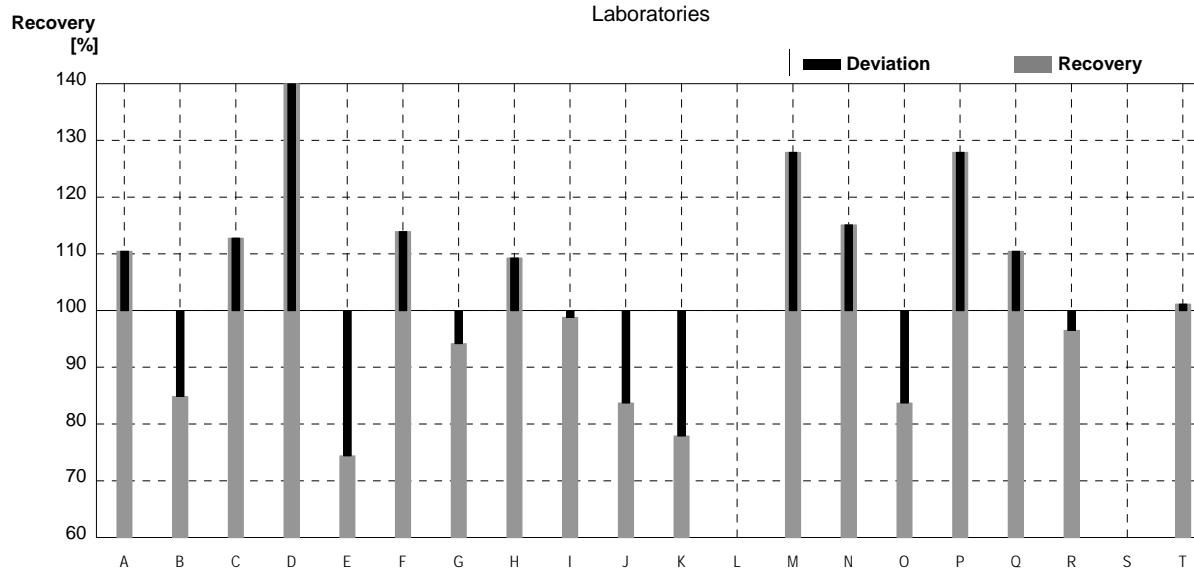
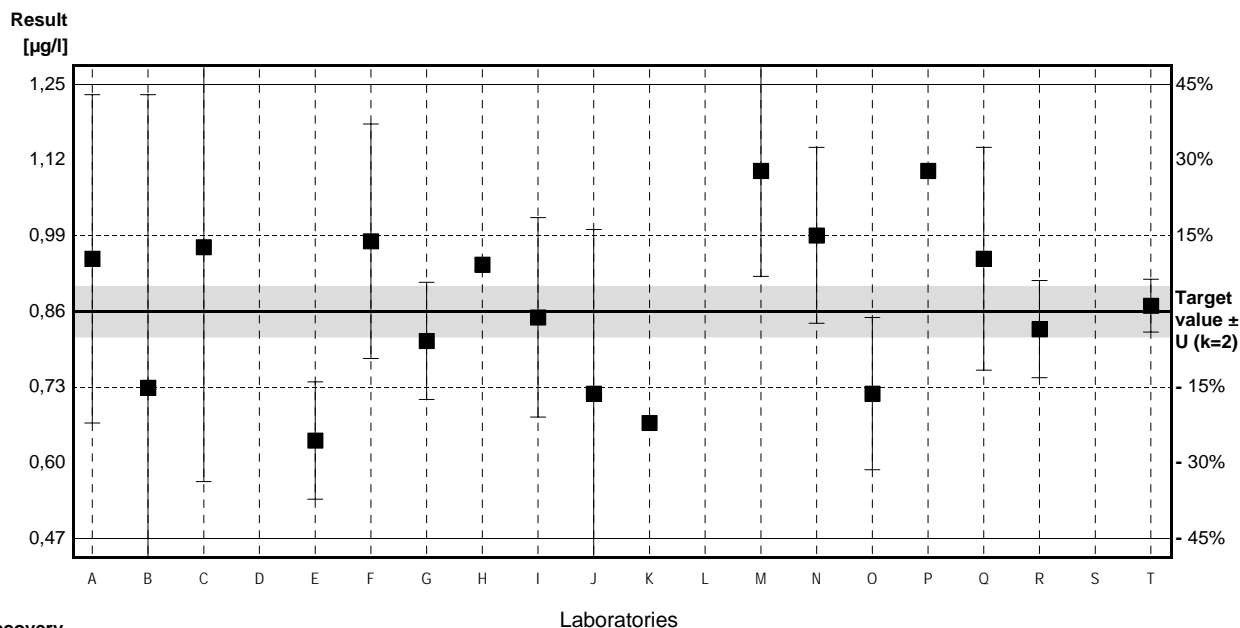
Sample C46B

Parameter Tribromomethane

Target value $\pm U$ (k=2) 0,86 $\mu\text{g/l}$ \pm 0,04 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,86 $\mu\text{g/l}$ \pm 0,13 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,82 $\mu\text{g/l}$ \pm 0,12 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,95	0,28	$\mu\text{g/l}$	110%	0,62
B	0,73	0,5	$\mu\text{g/l}$	85%	-0,89
C	0,97	0,4	$\mu\text{g/l}$	113%	0,75
D	1,3	0,24	$\mu\text{g/l}$	151%	3,01
E	0,64	0,10	$\mu\text{g/l}$	74%	-1,50
F	0,98	0,20	$\mu\text{g/l}$	114%	0,82
G	0,81	0,10	$\mu\text{g/l}$	94%	-0,34
H	0,94	0,01	$\mu\text{g/l}$	109%	0,55
I	0,85	0,17	$\mu\text{g/l}$	99%	-0,07
J	0,72	0,28	$\mu\text{g/l}$	84%	-0,96
K	0,670		$\mu\text{g/l}$	78%	-1,30
L			$\mu\text{g/l}$		
M	1,10	0,18	$\mu\text{g/l}$	128%	1,64
N	0,99	0,15	$\mu\text{g/l}$	115%	0,89
O	0,72	0,13	$\mu\text{g/l}$	84%	-0,96
P	1,1		$\mu\text{g/l}$	128%	1,64
Q	0,95	0,19	$\mu\text{g/l}$	110%	0,62
R	0,83	0,083	$\mu\text{g/l}$	97%	-0,21
S			$\mu\text{g/l}$		
T	0,87	0,045	$\mu\text{g/l}$	101%	0,07

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,90 \pm 0,12	0,90 \pm 0,12	$\mu\text{g/l}$
Recov. \pm CI(99%)	104,1 \pm 13,6	104,1 \pm 13,6	%
SD between labs	0,17	0,17	$\mu\text{g/l}$
RSD between labs	19,1	19,1	%
n for calculation	18	18	



Sample C46A

Parameter Bromodichloromethane

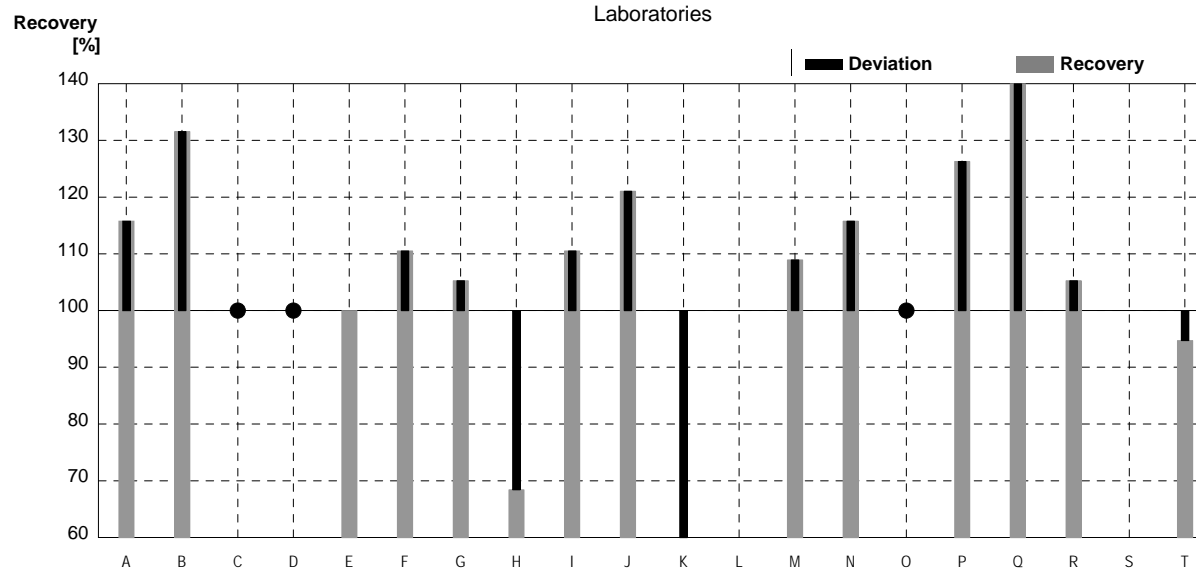
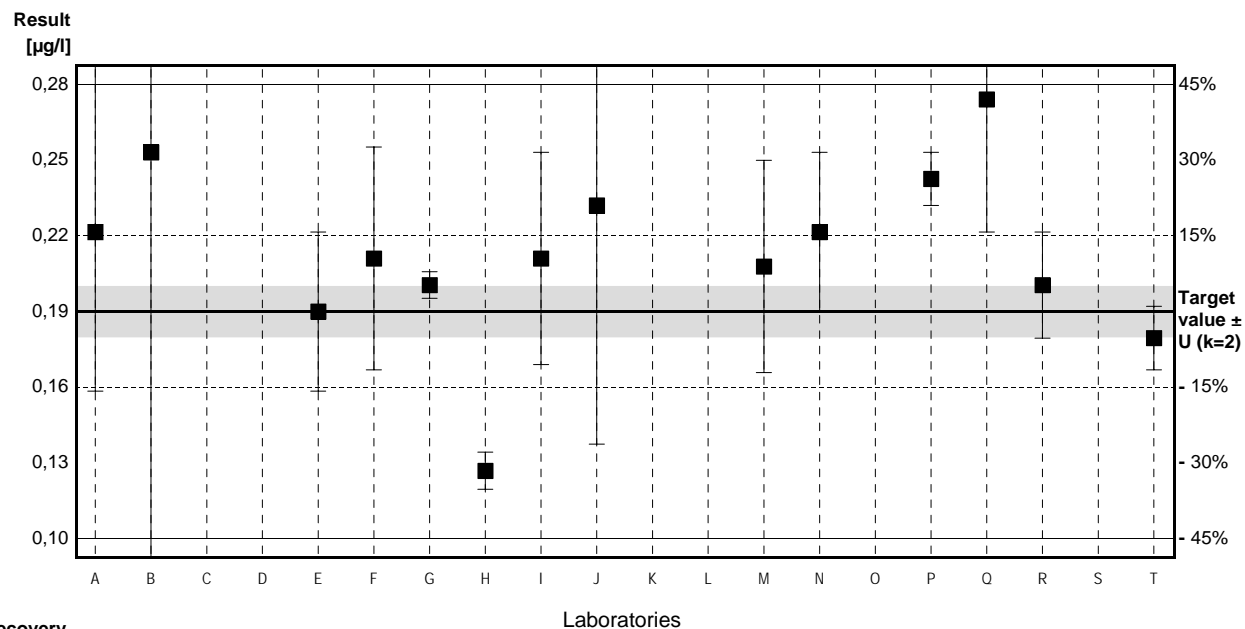
Target value $\pm U$ (k=2) 0,19 $\mu\text{g/l}$ \pm 0,01 $\mu\text{g/l}$

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) 0,17 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,22	0,06	$\mu\text{g/l}$	116%	1,13
B	0,25	0,5	$\mu\text{g/l}$	132%	2,26
C	<0,5	0,2	$\mu\text{g/l}$	•	
D	<0,2		$\mu\text{g/l}$	•	
E	0,19	0,03	$\mu\text{g/l}$	100%	0,00
F	0,21	0,042	$\mu\text{g/l}$	111%	0,75
G	0,20	0,005	$\mu\text{g/l}$	105%	0,38
H	0,13	0,007	$\mu\text{g/l}$	68%	-2,26
I	0,21	0,04	$\mu\text{g/l}$	111%	0,75
J	0,23	0,09	$\mu\text{g/l}$	121%	1,50
K	0,089 *		$\mu\text{g/l}$	47%	-3,80
L			$\mu\text{g/l}$		
M	0,207	0,04	$\mu\text{g/l}$	109%	0,64
N	0,22	0,03	$\mu\text{g/l}$	116%	1,13
O	<0,5		$\mu\text{g/l}$	•	
P	0,24	0,01	$\mu\text{g/l}$	126%	1,88
Q	0,27	0,05	$\mu\text{g/l}$	142%	3,01
R	0,20	0,020	$\mu\text{g/l}$	105%	0,38
S			$\mu\text{g/l}$		
T	0,18	0,012	$\mu\text{g/l}$	95%	-0,38

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,20 \pm 0,03	0,21 \pm 0,03	$\mu\text{g/l}$
Recov. \pm CI(99%)	106,9 \pm 18,3	111,2 \pm 14,2	%
SD between labs	0,05	0,03	$\mu\text{g/l}$
RSD between labs	22,2	15,9	%
n for calculation	15	14	



Sample C46B

Parameter Bromodichloromethane

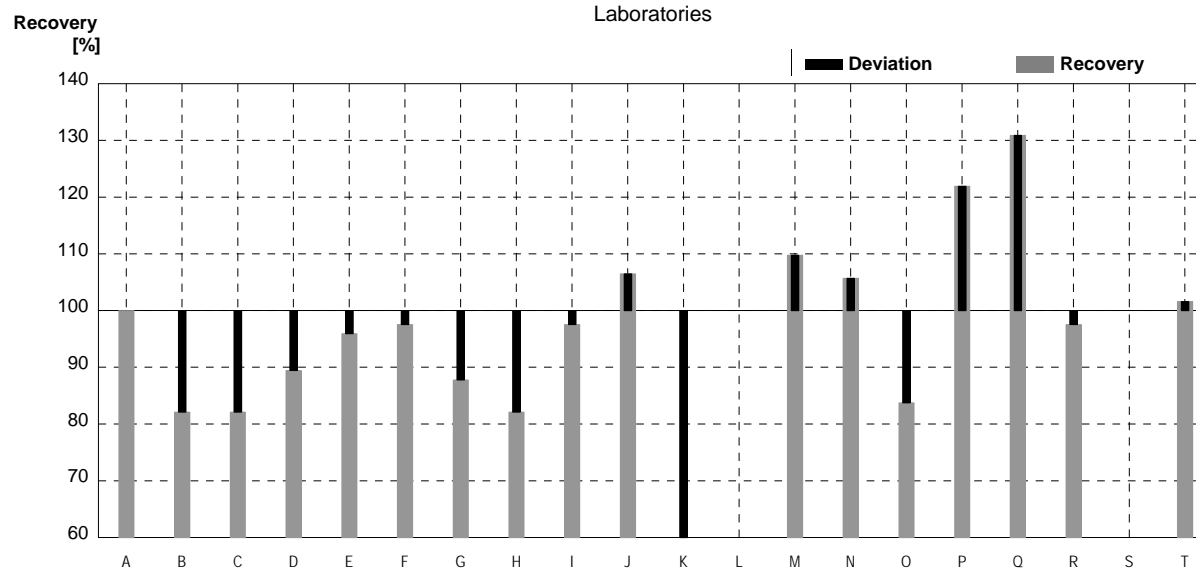
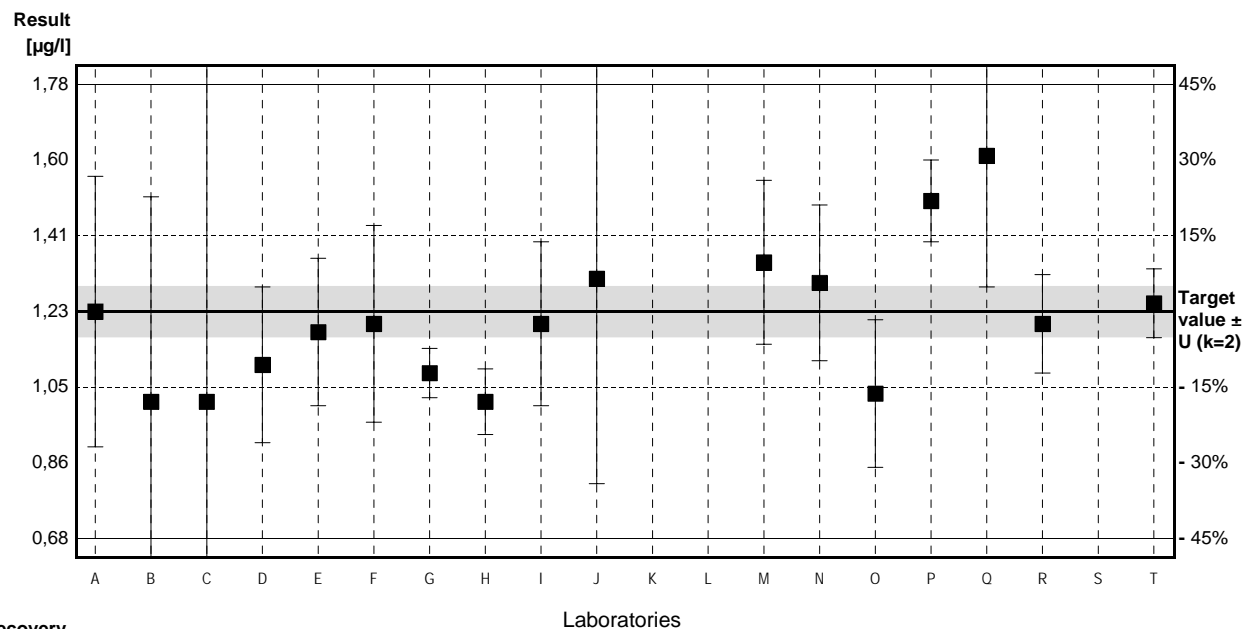
Target value $\pm U$ (k=2) 1,23 $\mu\text{g/l}$ \pm 0,06 $\mu\text{g/l}$

IFA result $\pm U$ (k=2) 1,15 $\mu\text{g/l}$ \pm 0,17 $\mu\text{g/l}$

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	1,23	0,33	$\mu\text{g/l}$	100%	0,00
B	1,01	0,5	$\mu\text{g/l}$	82%	-1,28
C	1,01	1,0	$\mu\text{g/l}$	82%	-1,28
D	1,1	0,19	$\mu\text{g/l}$	89%	-0,75
E	1,18	0,18	$\mu\text{g/l}$	96%	-0,29
F	1,2	0,24	$\mu\text{g/l}$	98%	-0,17
G	1,08	0,06	$\mu\text{g/l}$	88%	-0,87
H	1,01	0,08	$\mu\text{g/l}$	82%	-1,28
I	1,2	0,2	$\mu\text{g/l}$	98%	-0,17
J	1,31	0,5	$\mu\text{g/l}$	107%	0,46
K	0,637 *		$\mu\text{g/l}$	52%	-3,44
L			$\mu\text{g/l}$		
M	1,35	0,20	$\mu\text{g/l}$	110%	0,70
N	1,30	0,19	$\mu\text{g/l}$	106%	0,41
O	1,03	0,18	$\mu\text{g/l}$	84%	-1,16
P	1,5	0,1	$\mu\text{g/l}$	122%	1,57
Q	1,61	0,32	$\mu\text{g/l}$	131%	2,21
R	1,2	0,12	$\mu\text{g/l}$	98%	-0,17
S			$\mu\text{g/l}$		
T	1,25	0,084	$\mu\text{g/l}$	102%	0,12

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,18 \pm 0,15	1,21 \pm 0,12	$\mu\text{g/l}$
Recov. \pm CI(99%)	95,8 \pm 11,9	98,4 \pm 9,8	%
SD between labs	0,21	0,17	$\mu\text{g/l}$
RSD between labs	18,1	14,1	%
n for calculation	18	17	



Sample C46A

Parameter Dibromochloromethane

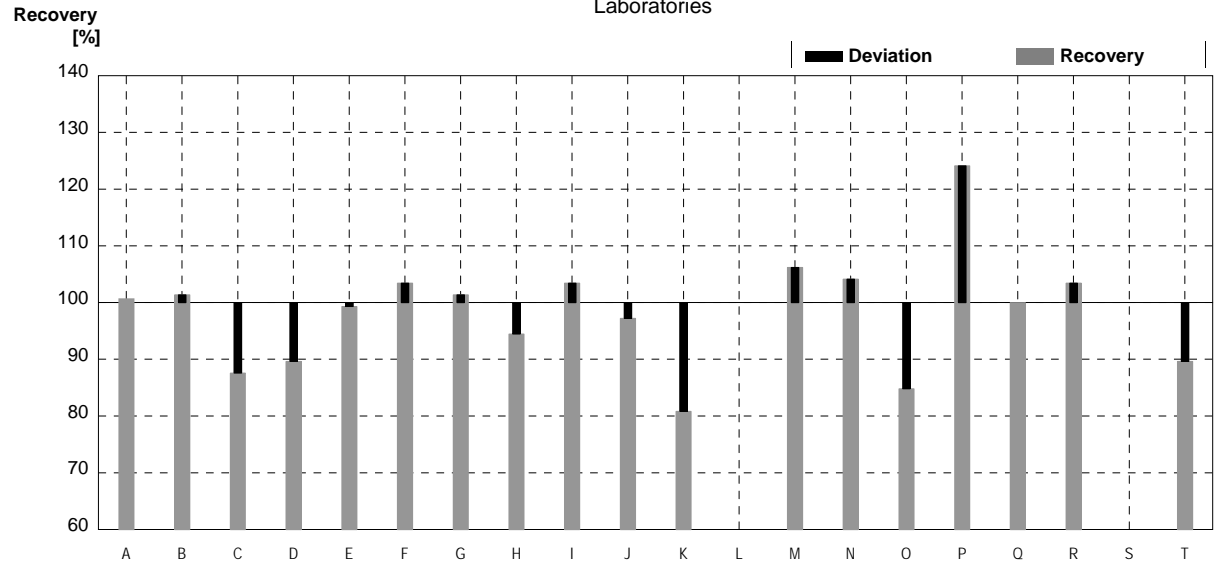
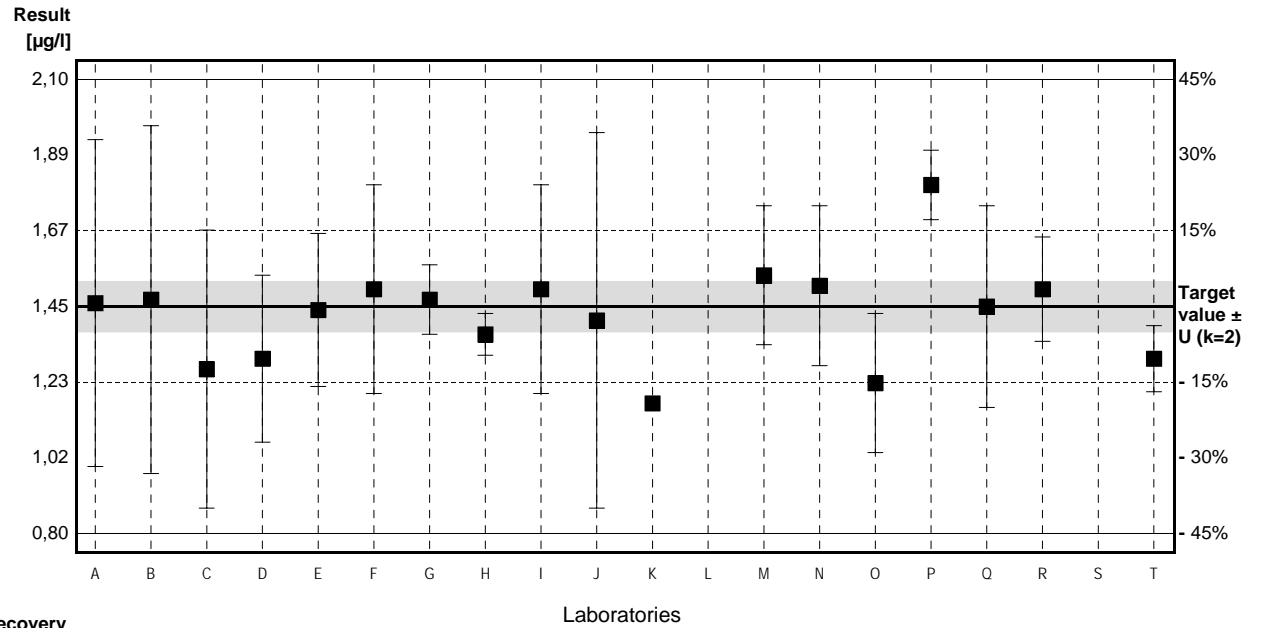
Target value $\pm U$ (k=2) 1,45 $\mu\text{g/l}$ \pm 0,07 $\mu\text{g/l}$

IFA result $\pm U$ (k=2) 1,45 $\mu\text{g/l}$ \pm 0,22 $\mu\text{g/l}$

Stability test $\pm U$ (k=2) 1,39 $\mu\text{g/l}$ \pm 0,21 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	1,46	0,47	$\mu\text{g/l}$	101%	0,04
B	1,47	0,5	$\mu\text{g/l}$	101%	0,09
C	1,27	0,4	$\mu\text{g/l}$	88%	-0,78
D	1,3	0,24	$\mu\text{g/l}$	90%	-0,65
E	1,44	0,22	$\mu\text{g/l}$	99%	-0,04
F	1,5	0,30	$\mu\text{g/l}$	103%	0,22
G	1,47	0,10	$\mu\text{g/l}$	101%	0,09
H	1,37	0,06	$\mu\text{g/l}$	94%	-0,34
I	1,5	0,3	$\mu\text{g/l}$	103%	0,22
J	1,41	0,54	$\mu\text{g/l}$	97%	-0,17
K	1,172 *		$\mu\text{g/l}$	81%	-1,20
L			$\mu\text{g/l}$		
M	1,54	0,20	$\mu\text{g/l}$	106%	0,39
N	1,51	0,23	$\mu\text{g/l}$	104%	0,26
O	1,23	0,20	$\mu\text{g/l}$	85%	-0,95
P	1,8 *	0,1	$\mu\text{g/l}$	124%	1,51
Q	1,45	0,29	$\mu\text{g/l}$	100%	0,00
R	1,5	0,15	$\mu\text{g/l}$	103%	0,22
S			$\mu\text{g/l}$		
T	1,30	0,095	$\mu\text{g/l}$	90%	-0,65

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,43 \pm 0,10	1,42 \pm 0,07	$\mu\text{g/l}$
Recov. \pm CI(99%)	98,4 \pm 6,7	97,9 \pm 4,9	%
SD between labs	0,14	0,10	$\mu\text{g/l}$
RSD between labs	10,0	6,8	%
n for calculation	18	16	



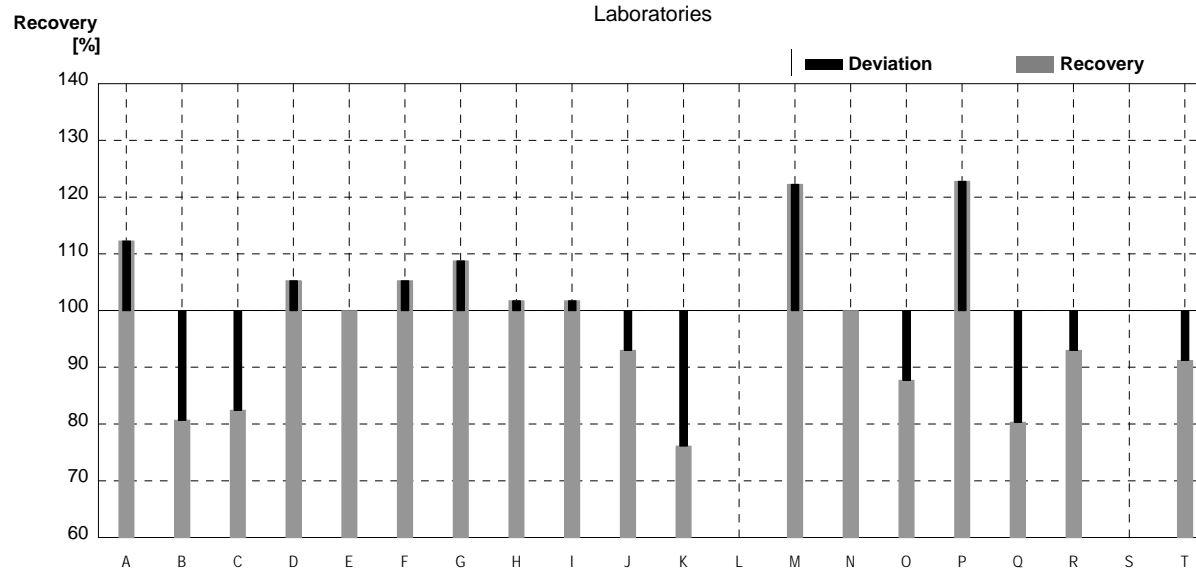
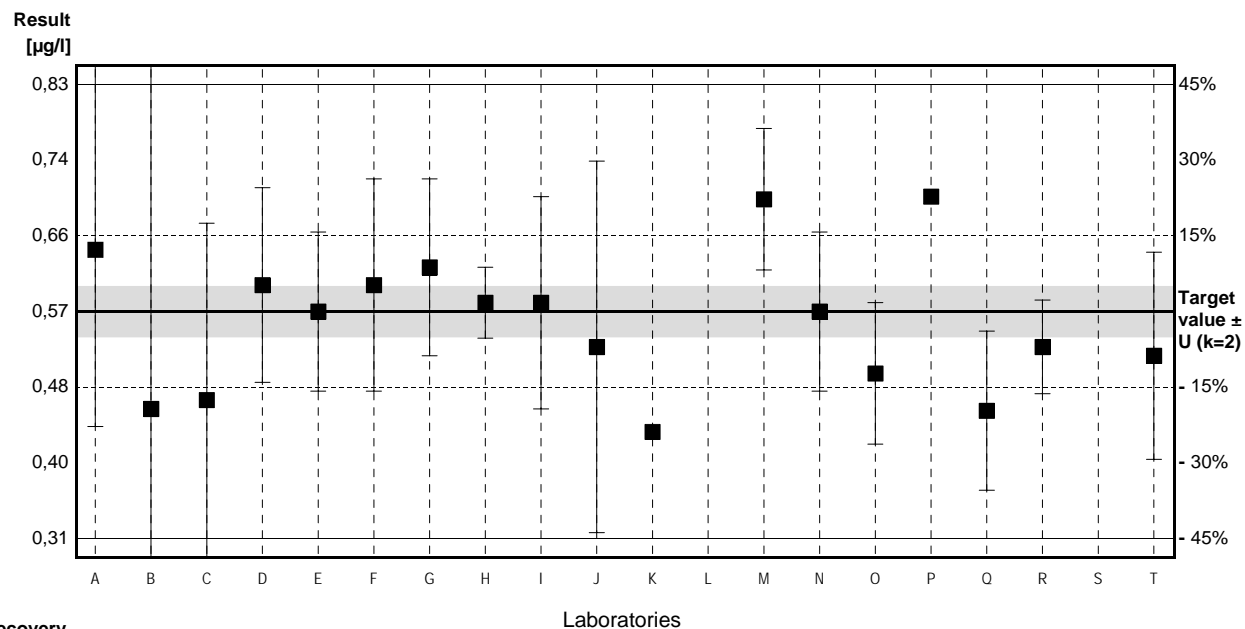
Sample C46B

Parameter Dibromochloromethane

Target value $\pm U$ (k=2) 0,57 $\mu\text{g/l}$ \pm 0,03 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,56 $\mu\text{g/l}$ \pm 0,08 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,53 $\mu\text{g/l}$ \pm 0,08 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,64	0,20	$\mu\text{g/l}$	112%	0,77
B	0,46	0,5	$\mu\text{g/l}$	81%	-1,21
C	0,47	0,2	$\mu\text{g/l}$	82%	-1,10
D	0,6	0,11	$\mu\text{g/l}$	105%	0,33
E	0,57	0,09	$\mu\text{g/l}$	100%	0,00
F	0,60	0,12	$\mu\text{g/l}$	105%	0,33
G	0,62	0,10	$\mu\text{g/l}$	109%	0,55
H	0,58	0,04	$\mu\text{g/l}$	102%	0,11
I	0,58	0,12	$\mu\text{g/l}$	102%	0,11
J	0,53	0,21	$\mu\text{g/l}$	93%	-0,44
K	0,434		$\mu\text{g/l}$	76%	-1,49
L			$\mu\text{g/l}$		
M	0,697	0,08	$\mu\text{g/l}$	122%	1,39
N	0,57	0,09	$\mu\text{g/l}$	100%	0,00
O	0,50	0,08	$\mu\text{g/l}$	88%	-0,77
P	0,7		$\mu\text{g/l}$	123%	1,43
Q	0,458	0,09	$\mu\text{g/l}$	80%	-1,23
R	0,53	0,053	$\mu\text{g/l}$	93%	-0,44
S			$\mu\text{g/l}$		
T	0,52	0,117	$\mu\text{g/l}$	91%	-0,55

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,56 \pm 0,05	0,56 \pm 0,05	$\mu\text{g/l}$
Recov. \pm CI(99%)	98,0 \pm 9,4	98,0 \pm 9,4	%
SD between labs	0,08	0,08	$\mu\text{g/l}$
RSD between labs	14,0	14,0	%
n for calculation	18	18	



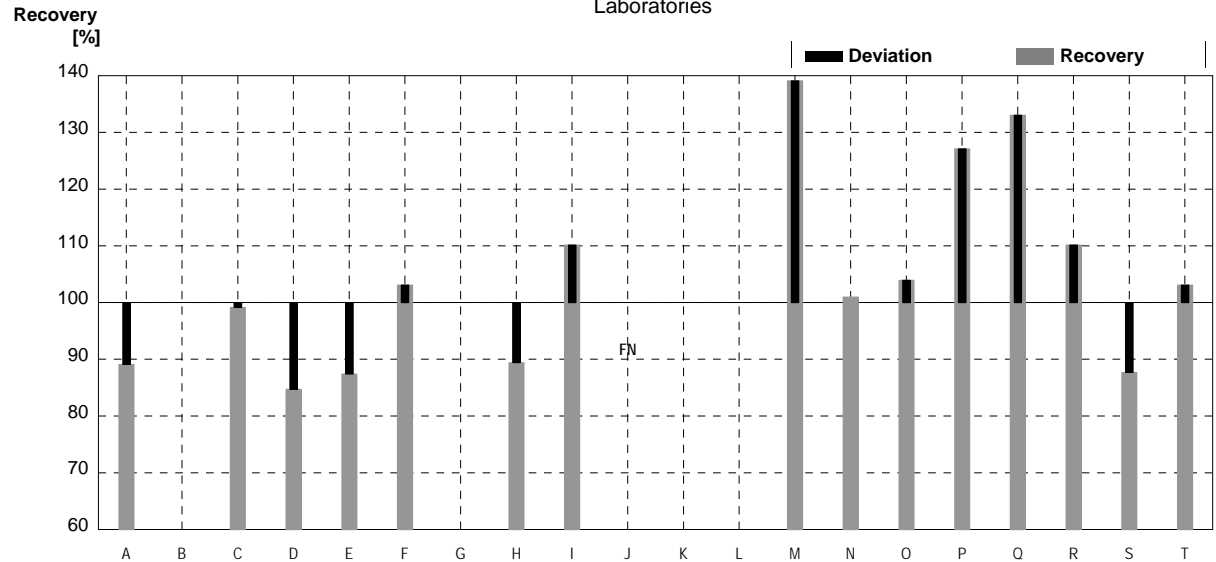
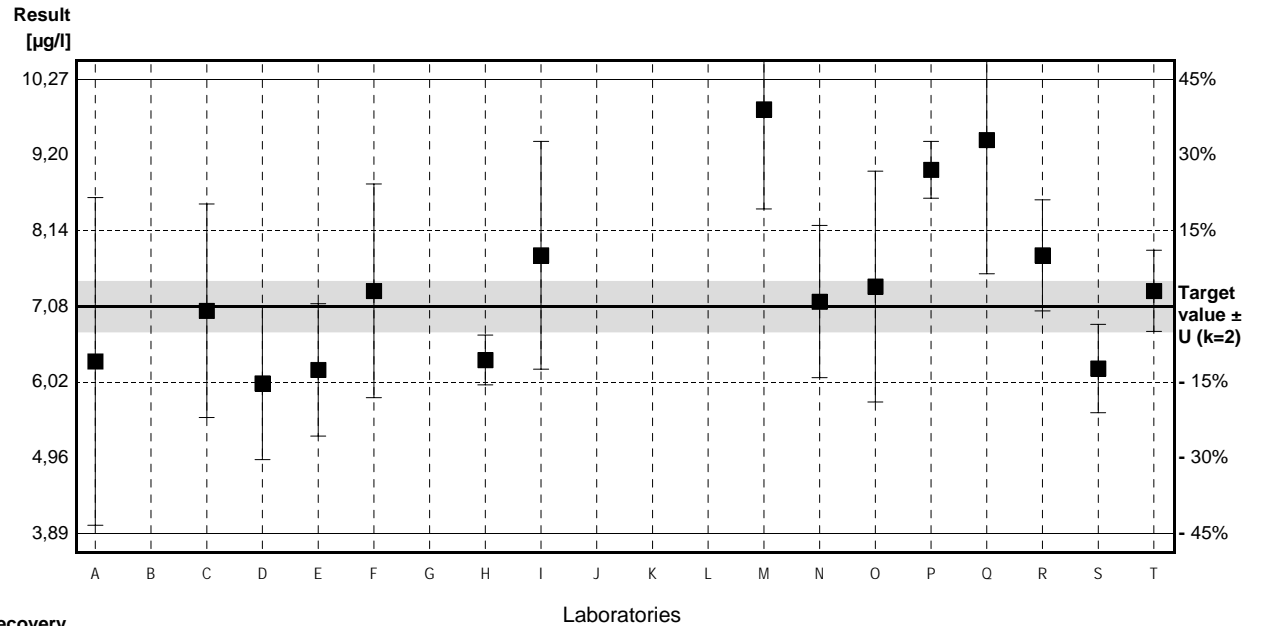
Sample C46A

Parameter Dichloromethane

Target value $\pm U$ (k=2) 7,08 $\mu\text{g/l}$ \pm 0,35 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 7,09 $\mu\text{g/l}$ \pm 1,06 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 7,15 $\mu\text{g/l}$ \pm 1,07 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	6,31	2,3	$\mu\text{g/l}$	89%	-0,78
B			$\mu\text{g/l}$		
C	7,02	1,5	$\mu\text{g/l}$	99%	-0,06
D	6,0	1,07	$\mu\text{g/l}$	85%	-1,09
E	6,19	0,93	$\mu\text{g/l}$	87%	-0,90
F	7,3	1,5	$\mu\text{g/l}$	103%	0,22
G			$\mu\text{g/l}$		
H	6,33	0,35	$\mu\text{g/l}$	89%	-0,76
I	7,8	1,6	$\mu\text{g/l}$	110%	0,73
J	<0,05		$\mu\text{g/l}$	FN	
K			$\mu\text{g/l}$		
L			$\mu\text{g/l}$		
M	9,85	1,4	$\mu\text{g/l}$	139%	2,79
N	7,15	1,07	$\mu\text{g/l}$	101%	0,07
O	7,36	1,62	$\mu\text{g/l}$	104%	0,28
P	9,0	0,4	$\mu\text{g/l}$	127%	1,94
Q	9,42	1,88	$\mu\text{g/l}$	133%	2,36
R	7,8	0,78	$\mu\text{g/l}$	110%	0,73
S	6,21	0,62	$\mu\text{g/l}$	88%	-0,88
T	7,3	0,57	$\mu\text{g/l}$	103%	0,22

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	7,40 \pm 0,93	7,40 \pm 0,93	$\mu\text{g/l}$
Recov. \pm CI(99%)	104,6 \pm 13,1	104,6 \pm 13,1	%
SD between labs	1,21	1,21	$\mu\text{g/l}$
RSD between labs	16,3	16,3	%
n for calculation	15	15	



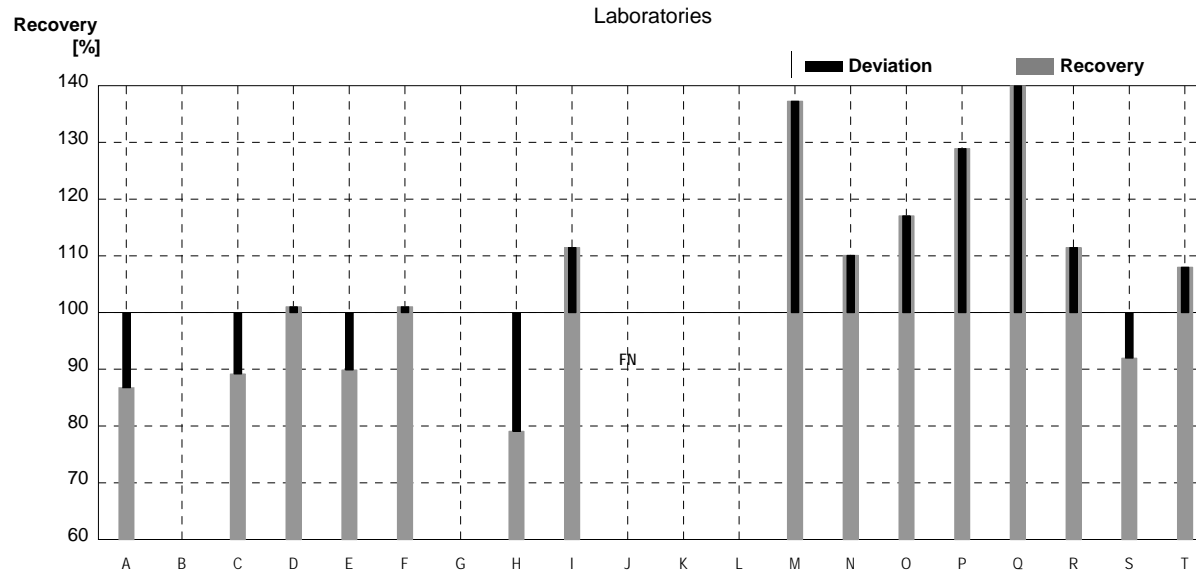
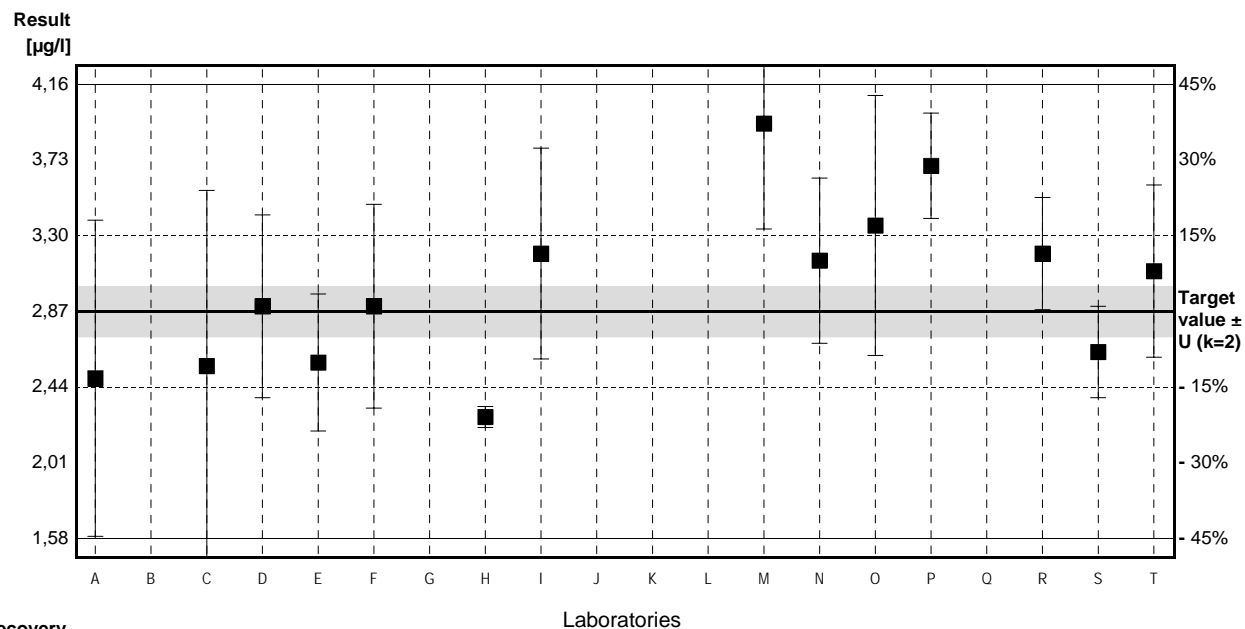
Sample C46B

Parameter Dichloromethane

Target value $\pm U$ (k=2) 2,87 $\mu\text{g/l}$ \pm 0,14 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 2,92 $\mu\text{g/l}$ \pm 0,44 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 2,83 $\mu\text{g/l}$ \pm 0,42 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	2,49	0,90	$\mu\text{g/l}$	87%	-0,95
B			$\mu\text{g/l}$		
C	2,56	1,0	$\mu\text{g/l}$	89%	-0,77
D	2,9	0,52	$\mu\text{g/l}$	101%	0,07
E	2,58	0,39	$\mu\text{g/l}$	90%	-0,72
F	2,9	0,58	$\mu\text{g/l}$	101%	0,07
G			$\mu\text{g/l}$		
H	2,27	0,06	$\mu\text{g/l}$	79%	-1,49
I	3,2	0,6	$\mu\text{g/l}$	111%	0,82
J	<0,05		$\mu\text{g/l}$	FN	
K			$\mu\text{g/l}$		
L			$\mu\text{g/l}$		
M	3,94	0,60	$\mu\text{g/l}$	137%	2,66
N	3,16	0,47	$\mu\text{g/l}$	110%	0,72
O	3,36	0,74	$\mu\text{g/l}$	117%	1,22
P	3,7	0,3	$\mu\text{g/l}$	129%	2,07
Q	4,22	0,84	$\mu\text{g/l}$	147%	3,36
R	3,2	0,32	$\mu\text{g/l}$	111%	0,82
S	2,64	0,26	$\mu\text{g/l}$	92%	-0,57
T	3,1	0,49	$\mu\text{g/l}$	108%	0,57

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	3,08 \pm 0,43	3,08 \pm 0,43	$\mu\text{g/l}$
Recov. \pm CI(99%)	107,4 \pm 14,9	107,4 \pm 14,9	%
SD between labs	0,56	0,56	$\mu\text{g/l}$
RSD between labs	18,0	18,0	%
n for calculation	15	15	



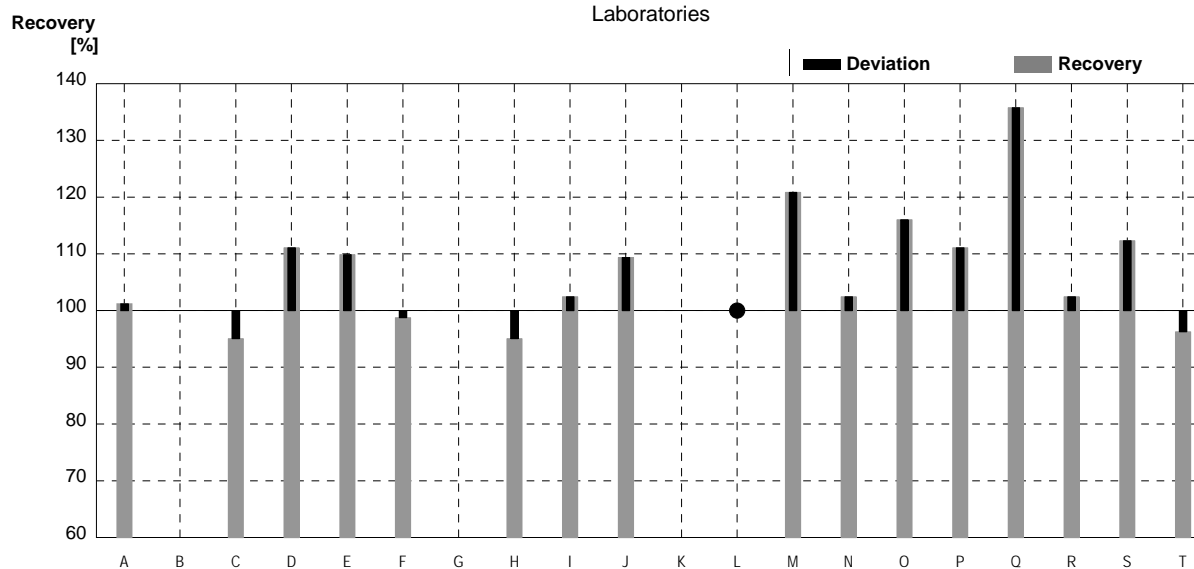
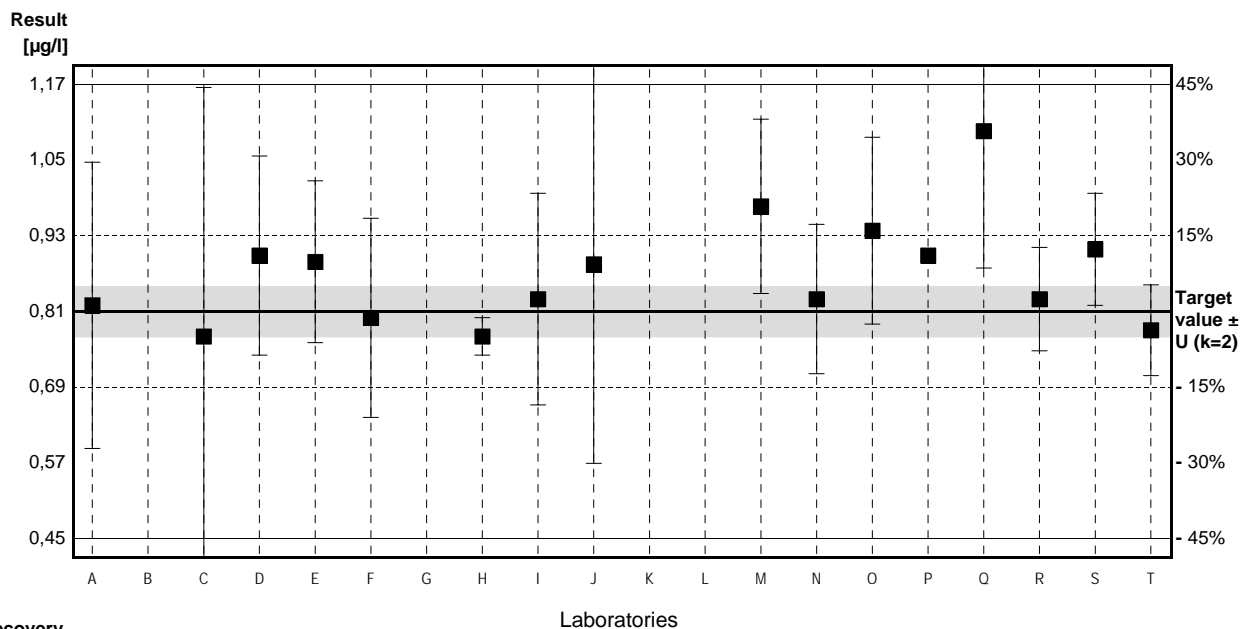
Sample C46A

Parameter 1,2-Dichloroethane

Target value ± U (k=2) 0,81 µg/l ± 0,04 µg/l
 IFA result ± U (k=2) 0,79 µg/l ± 0,12 µg/l
 Stability test ± U (k=2) 0,7 µg/l ± 0,1 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,82	0,23	µg/l	101%	0,09
B			µg/l		
C	0,77	0,4	µg/l	95%	-0,35
D	0,9	0,16	µg/l	111%	0,79
E	0,89	0,13	µg/l	110%	0,71
F	0,80	0,16	µg/l	99%	-0,09
G			µg/l		
H	0,77	0,03	µg/l	95%	-0,35
I	0,83	0,17	µg/l	102%	0,18
J	0,886	0,32	µg/l	109%	0,67
K			µg/l		
L	[5]		µg/l	•	
M	0,979	0,14	µg/l	121%	1,49
N	0,83	0,12	µg/l	102%	0,18
O	0,94	0,15	µg/l	116%	1,15
P	0,9		µg/l	111%	0,79
Q	1,10 *	0,22	µg/l	136%	2,56
R	0,83	0,083	µg/l	102%	0,18
S	0,91	0,09	µg/l	112%	0,88
T	0,78	0,073	µg/l	96%	-0,26

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,87 ± 0,06	0,86 ± 0,05	µg/l
Recov. ± CI(99%)	107,5 ± 7,9	105,6 ± 6,1	%
SD between labs	0,09	0,06	µg/l
RSD between labs	10,0	7,5	%
n for calculation	16	15	



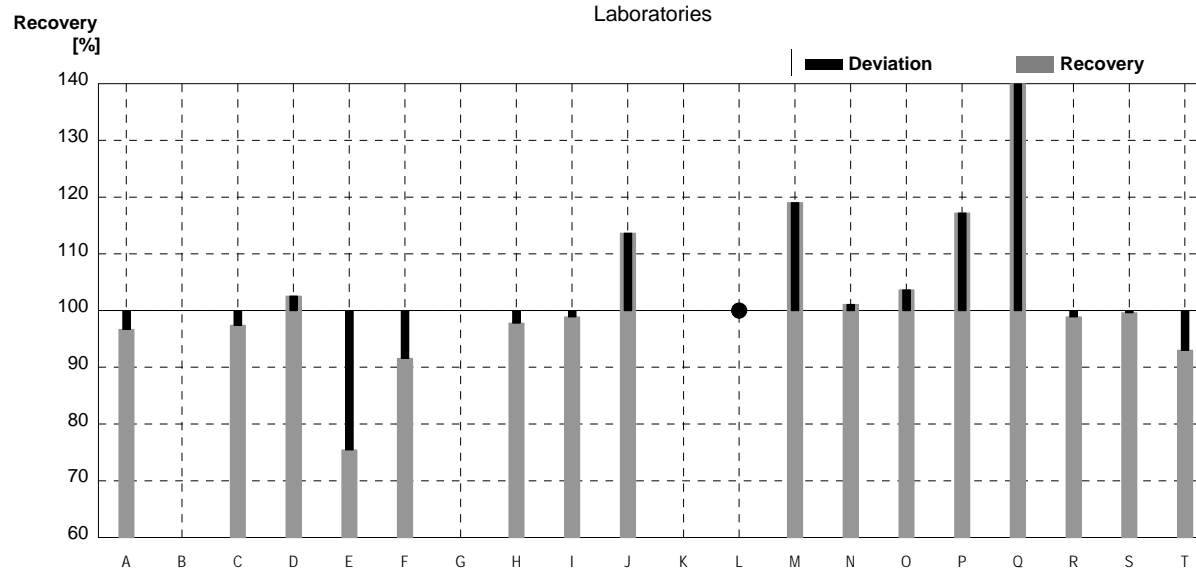
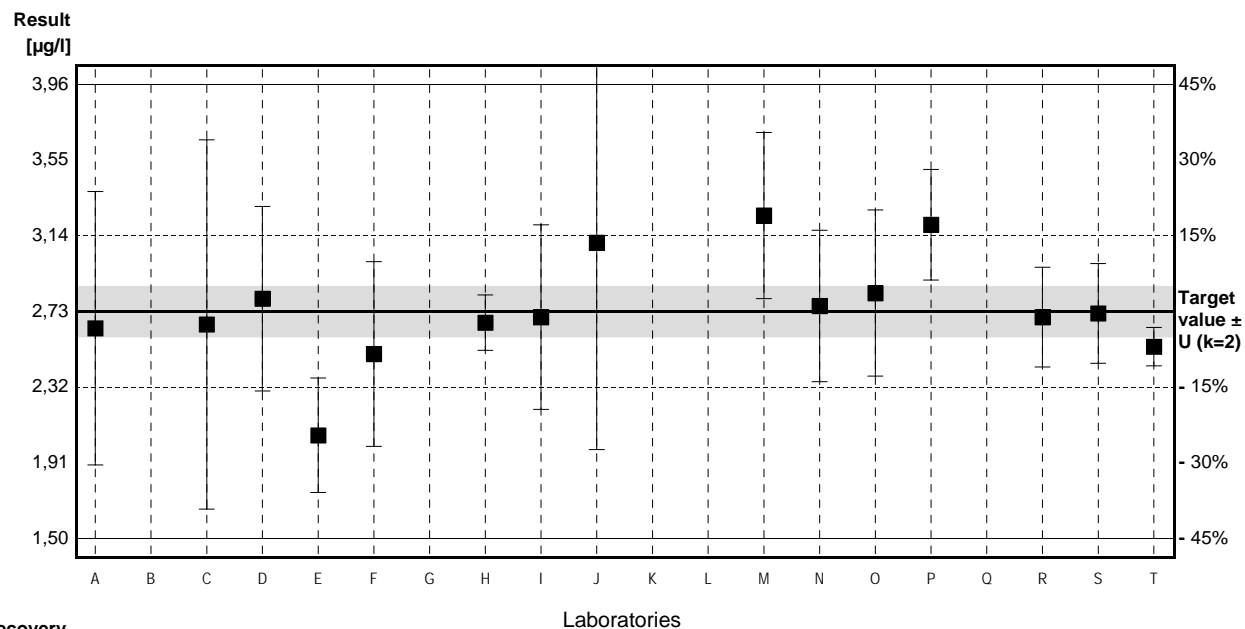
Sample C46B

Parameter 1,2-Dichloroethane

Target value $\pm U$ (k=2) 2,73 $\mu\text{g/l}$ \pm 0,14 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 2,72 $\mu\text{g/l}$ \pm 0,41 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 2,66 $\mu\text{g/l}$ \pm 0,40 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	2,64	0,74	$\mu\text{g/l}$	97%	-0,24
B			$\mu\text{g/l}$		
C	2,66	1,0	$\mu\text{g/l}$	97%	-0,18
D	2,8	0,50	$\mu\text{g/l}$	103%	0,18
E	2,06 *	0,31	$\mu\text{g/l}$	75%	-1,75
F	2,5	0,50	$\mu\text{g/l}$	92%	-0,60
G			$\mu\text{g/l}$		
H	2,67	0,15	$\mu\text{g/l}$	98%	-0,16
I	2,7	0,5	$\mu\text{g/l}$	99%	-0,08
J	3,103	1,12	$\mu\text{g/l}$	114%	0,98
K			$\mu\text{g/l}$		
L	[5]		$\mu\text{g/l}$	•	
M	3,25 *	0,45	$\mu\text{g/l}$	119%	1,36
N	2,76	0,41	$\mu\text{g/l}$	101%	0,08
O	2,83	0,45	$\mu\text{g/l}$	104%	0,26
P	3,2	0,3	$\mu\text{g/l}$	117%	1,23
Q	4,2 *	0,84	$\mu\text{g/l}$	154%	3,85
R	2,7	0,27	$\mu\text{g/l}$	99%	-0,08
S	2,72	0,27	$\mu\text{g/l}$	100%	-0,03
T	2,54	0,104	$\mu\text{g/l}$	93%	-0,50

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	2,83 \pm 0,34	2,76 \pm 0,17	$\mu\text{g/l}$
Recov. \pm CI(99%)	103,8 \pm 12,5	100,9 \pm 6,2	%
SD between labs	0,46	0,20	$\mu\text{g/l}$
RSD between labs	16,3	7,2	%
n for calculation	16	13	



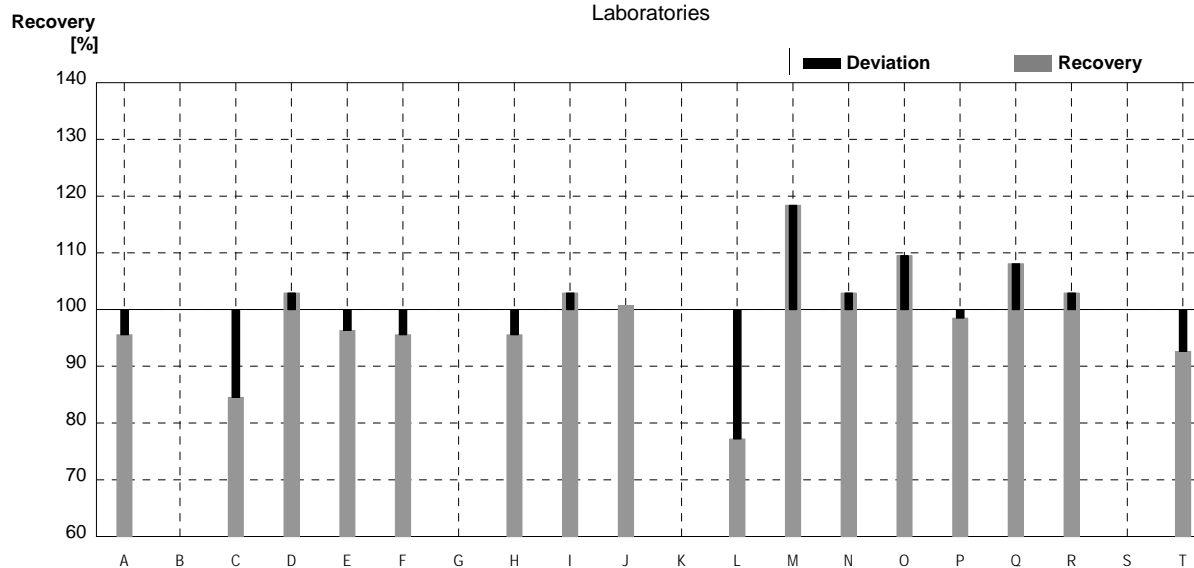
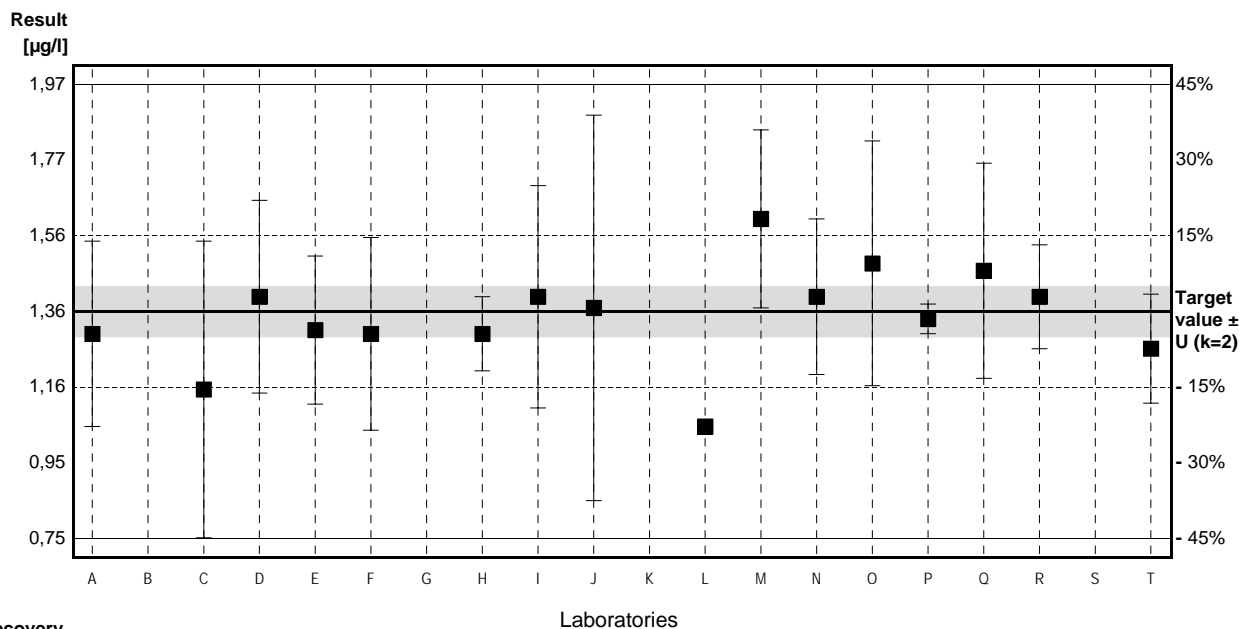
Sample C46A

Parameter cis-1,2-Dichloroethene

Target value ± U (k=2) 1,36 µg/l ± 0,07 µg/l
 IFA result ± U (k=2) 1,33 µg/l ± 0,20 µg/l
 Stability test ± U (k=2) 1,3 µg/l ± 0,2 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,30	0,25	µg/l	96%	-0,29
B			µg/l		
C	1,15	0,4	µg/l	85%	-1,03
D	1,4	0,26	µg/l	103%	0,20
E	1,31	0,20	µg/l	96%	-0,25
F	1,3	0,26	µg/l	96%	-0,29
G			µg/l		
H	1,30	0,1	µg/l	96%	-0,29
I	1,4	0,3	µg/l	103%	0,20
J	1,37	0,52	µg/l	101%	0,05
K			µg/l		
L	1,05 *		µg/l	77%	-1,52
M	1,61	0,24	µg/l	118%	1,23
N	1,40	0,21	µg/l	103%	0,20
O	1,49	0,33	µg/l	110%	0,64
P	1,34	0,04	µg/l	99%	-0,10
Q	1,47	0,29	µg/l	108%	0,54
R	1,4	0,14	µg/l	103%	0,20
S			µg/l		
T	1,26	0,147	µg/l	93%	-0,49

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,35 ± 0,10	1,37 ± 0,08	µg/l
Recov. ± CI(99%)	99,0 ± 7,1	100,5 ± 6,1	%
SD between labs	0,13	0,11	µg/l
RSD between labs	9,8	7,9	%
n for calculation	16	15	



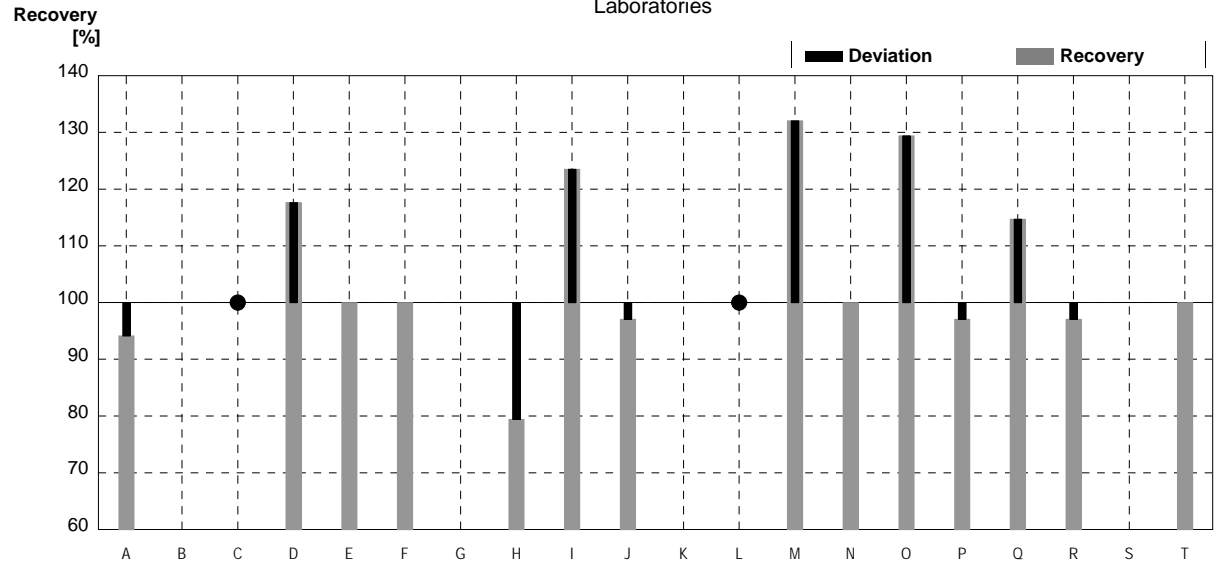
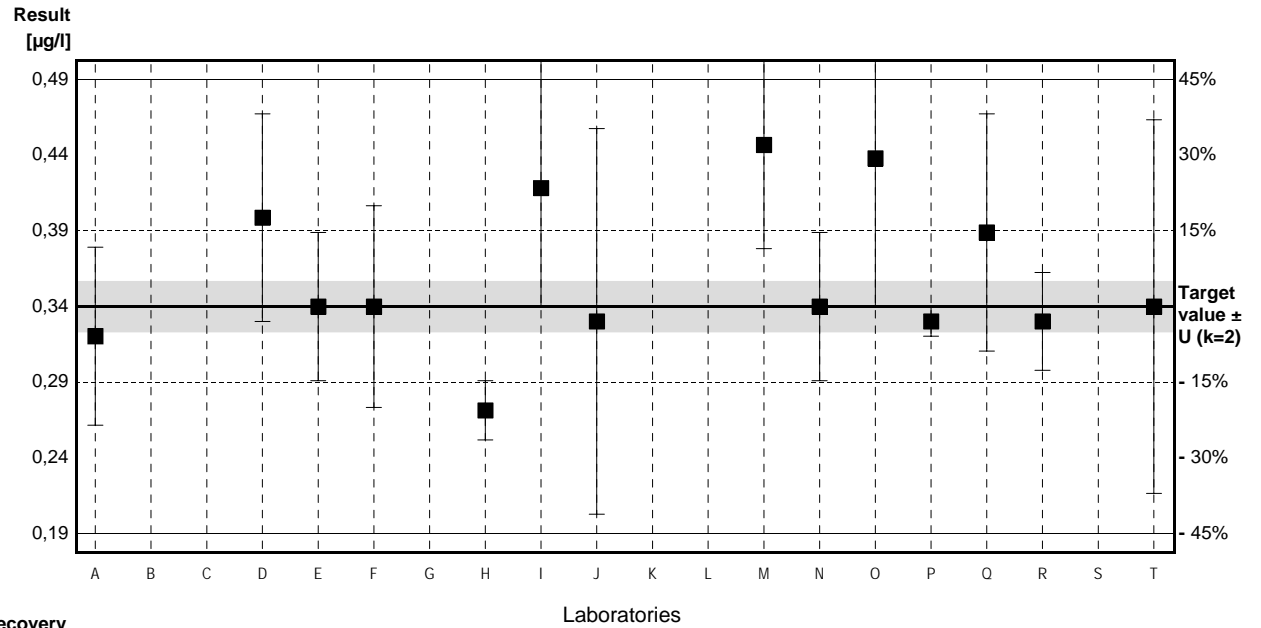
Sample C46B

Parameter cis-1,2-Dichloroethene

Target value $\pm U$ (k=2) 0,34 $\mu\text{g/l}$ \pm 0,02 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,36 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,32 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,32	0,06	$\mu\text{g/l}$	94%	-0,39
B			$\mu\text{g/l}$		
C	<0,5	0,2	$\mu\text{g/l}$	•	
D	0,4	0,07	$\mu\text{g/l}$	118%	1,18
E	0,34	0,05	$\mu\text{g/l}$	100%	0,00
F	0,34	0,068	$\mu\text{g/l}$	100%	0,00
G			$\mu\text{g/l}$		
H	0,27	0,02	$\mu\text{g/l}$	79%	-1,37
I	0,42 *	0,08	$\mu\text{g/l}$	124%	1,57
J	0,33	0,13	$\mu\text{g/l}$	97%	-0,20
K			$\mu\text{g/l}$		
L	[0,5]		$\mu\text{g/l}$	•	
M	0,449 *	0,07	$\mu\text{g/l}$	132%	2,14
N	0,34	0,05	$\mu\text{g/l}$	100%	0,00
O	0,44 *	0,10	$\mu\text{g/l}$	129%	1,96
P	0,33	0,01	$\mu\text{g/l}$	97%	-0,20
Q	0,39	0,08	$\mu\text{g/l}$	115%	0,98
R	0,33	0,033	$\mu\text{g/l}$	97%	-0,20
S			$\mu\text{g/l}$		
T	0,34	0,126	$\mu\text{g/l}$	100%	0,00

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,36 \pm 0,04	0,34 \pm 0,03	$\mu\text{g/l}$
Recov. \pm CI(99%)	105,9 \pm 12,2	99,7 \pm 9,6	%
SD between labs	0,05	0,03	$\mu\text{g/l}$
RSD between labs	14,3	10,1	%
n for calculation	14	11	

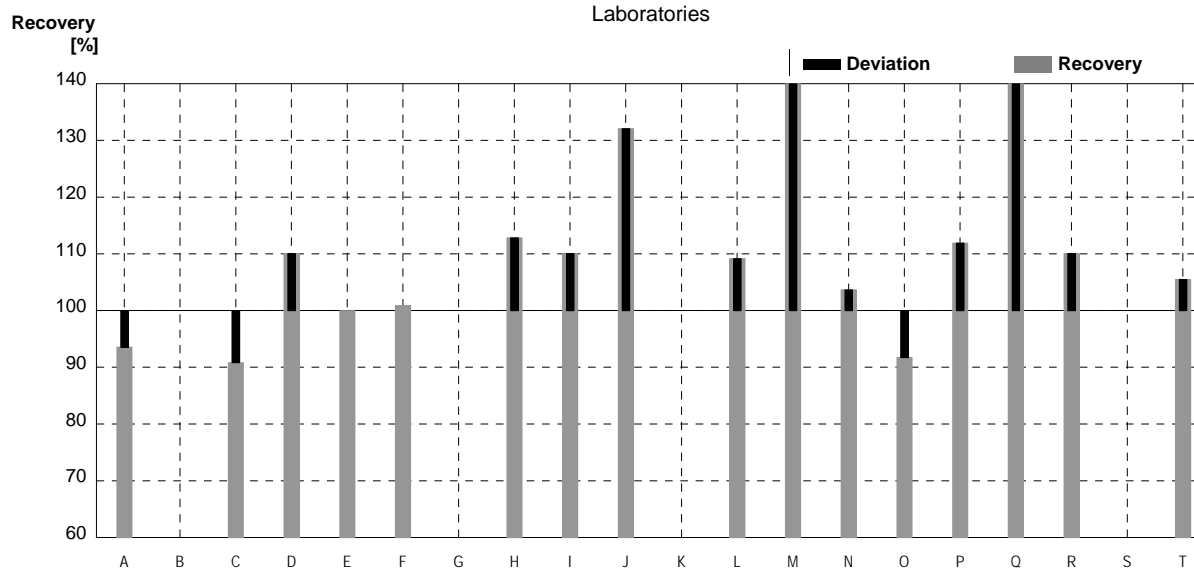
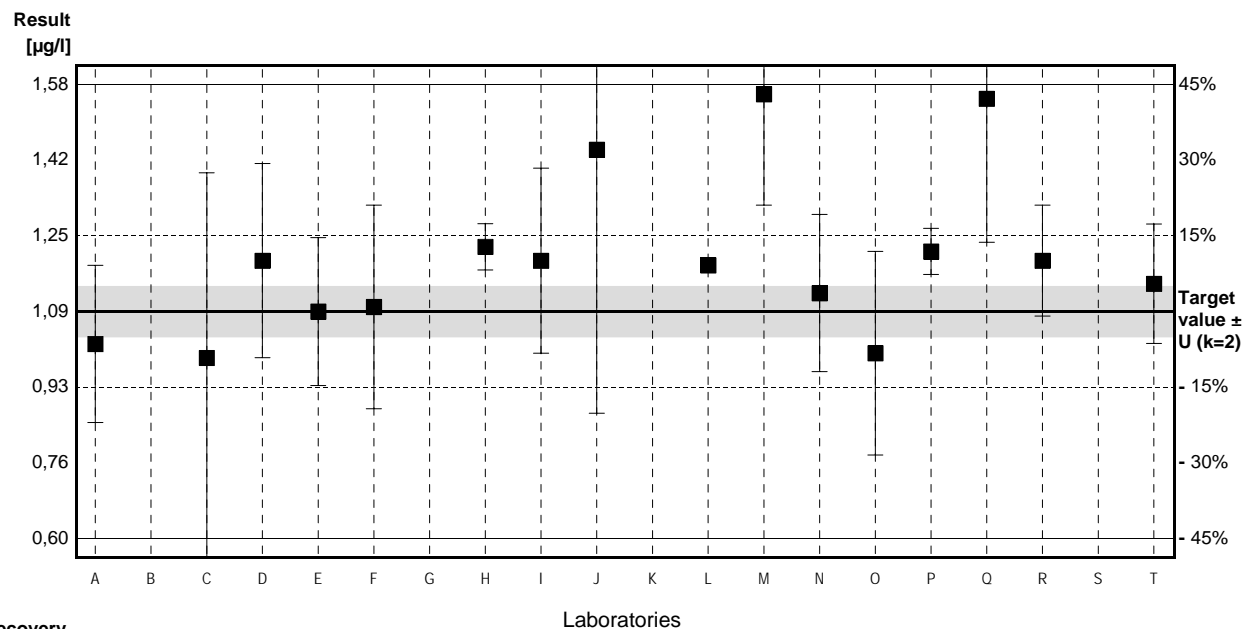


Sample C46A

Parameter trans-1,2-Dichloroethene

Target value $\pm U$ (k=2) 1,09 $\mu\text{g/l}$ \pm 0,05 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 1,10 $\mu\text{g/l}$ \pm 0,17 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 1,06 $\mu\text{g/l}$ \pm 0,16 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	1,02	0,17	$\mu\text{g/l}$	94%	-0,43
B			$\mu\text{g/l}$		
C	0,99	0,4	$\mu\text{g/l}$	91%	-0,61
D	1,2	0,21	$\mu\text{g/l}$	110%	0,67
E	1,09	0,16	$\mu\text{g/l}$	100%	0,00
F	1,1	0,22	$\mu\text{g/l}$	101%	0,06
G			$\mu\text{g/l}$		
H	1,23	0,05	$\mu\text{g/l}$	113%	0,86
I	1,2	0,2	$\mu\text{g/l}$	110%	0,67
J	1,44	0,57	$\mu\text{g/l}$	132%	2,14
K			$\mu\text{g/l}$		
L	1,19		$\mu\text{g/l}$	109%	0,61
M	1,56	0,24	$\mu\text{g/l}$	143%	2,87
N	1,13	0,17	$\mu\text{g/l}$	104%	0,24
O	1,00	0,22	$\mu\text{g/l}$	92%	-0,55
P	1,22	0,05	$\mu\text{g/l}$	112%	0,80
Q	1,55	0,31	$\mu\text{g/l}$	142%	2,81
R	1,2	0,12	$\mu\text{g/l}$	110%	0,67
S			$\mu\text{g/l}$		
T	1,15	0,129	$\mu\text{g/l}$	106%	0,37



	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,20 \pm 0,13	1,20 \pm 0,13	$\mu\text{g/l}$
Recov. \pm CI(99%)	110,5 \pm 11,8	110,5 \pm 11,8	%
SD between labs	0,17	0,17	$\mu\text{g/l}$
RSD between labs	14,5	14,5	%
n for calculation	16	16	

Sample C46B

Parameter trans-1,2-Dichloroethene

Target value $\pm U$ (k=2) 0,27 $\mu\text{g/l}$ \pm 0,01 $\mu\text{g/l}$
 IFA result $\pm U$ (k=2) 0,29 $\mu\text{g/l}$ \pm 0,04 $\mu\text{g/l}$
 Stability test $\pm U$ (k=2) 0,27 $\mu\text{g/l}$ \pm 0,04 $\mu\text{g/l}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	0,25	0,04	$\mu\text{g/l}$	93%	-0,49
B			$\mu\text{g/l}$		
C	<0,5	0,2	$\mu\text{g/l}$	•	
D	0,3	0,06	$\mu\text{g/l}$	111%	0,74
E	0,28	0,04	$\mu\text{g/l}$	104%	0,25
F	0,29	0,058	$\mu\text{g/l}$	107%	0,49
G			$\mu\text{g/l}$		
H	0,20	0,03	$\mu\text{g/l}$	74%	-1,73
I	<0,5		$\mu\text{g/l}$	•	
J	0,37	0,15	$\mu\text{g/l}$	137%	2,47
K			$\mu\text{g/l}$		
L	[0,5]		$\mu\text{g/l}$	•	
M	0,397	0,06	$\mu\text{g/l}$	147%	3,14
N	0,27	0,04	$\mu\text{g/l}$	100%	0,00
O	<0,5		$\mu\text{g/l}$	•	
P	0,32	0,03	$\mu\text{g/l}$	119%	1,23
Q	0,36	0,07	$\mu\text{g/l}$	133%	2,22
R	0,30	0,030	$\mu\text{g/l}$	111%	0,74
S			$\mu\text{g/l}$		
T	<0,50		$\mu\text{g/l}$	•	

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,30 \pm 0,05	0,30 \pm 0,05	$\mu\text{g/l}$
Recov. \pm CI(99%)	112,4 \pm 20,1	112,4 \pm 20,1	%
SD between labs	0,06	0,06	$\mu\text{g/l}$
RSD between labs	18,7	18,7	%
n for calculation	11	11	

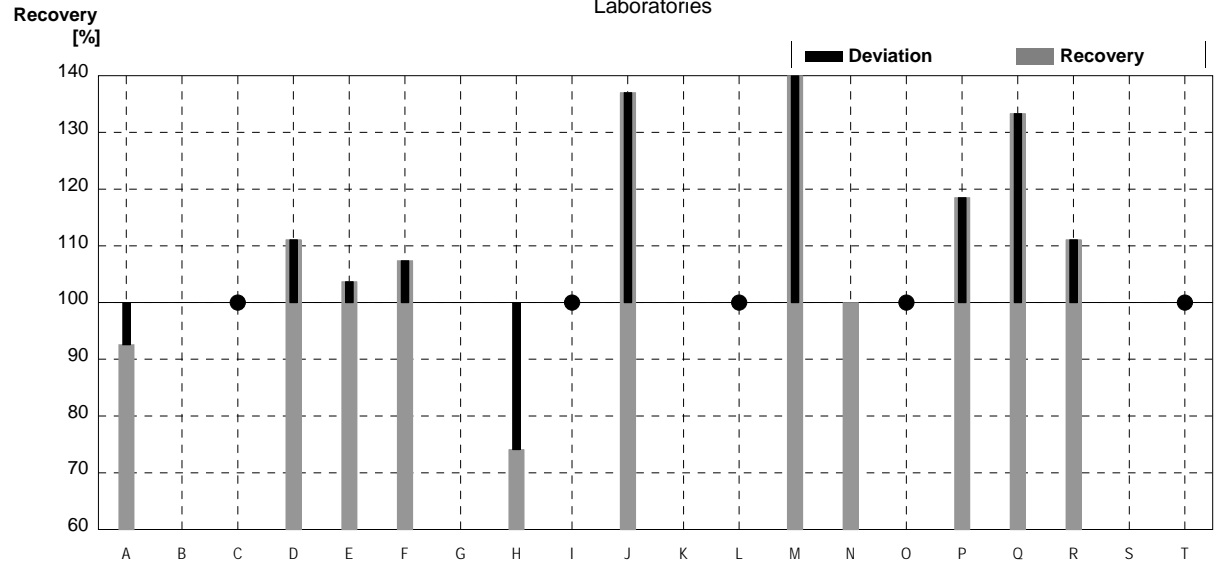
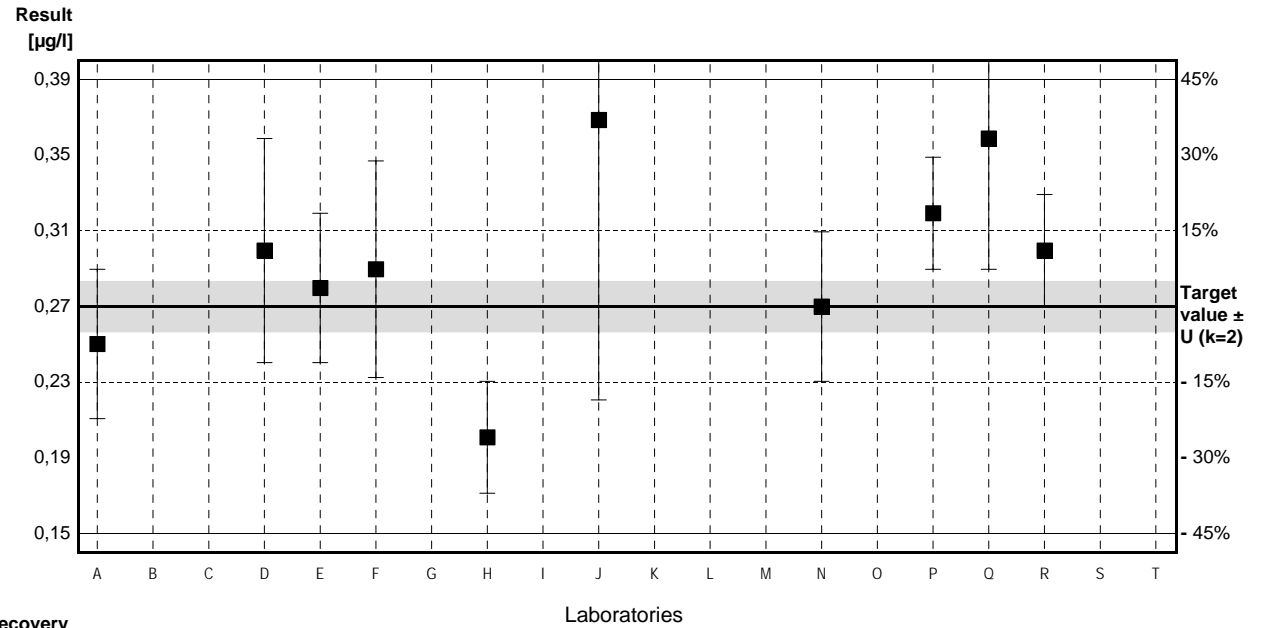
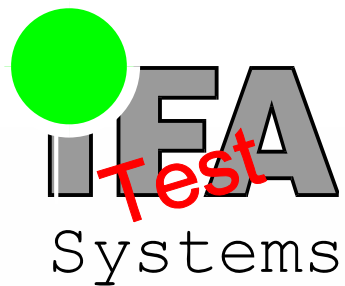


Illustration of Results Laboratory Oriented Part

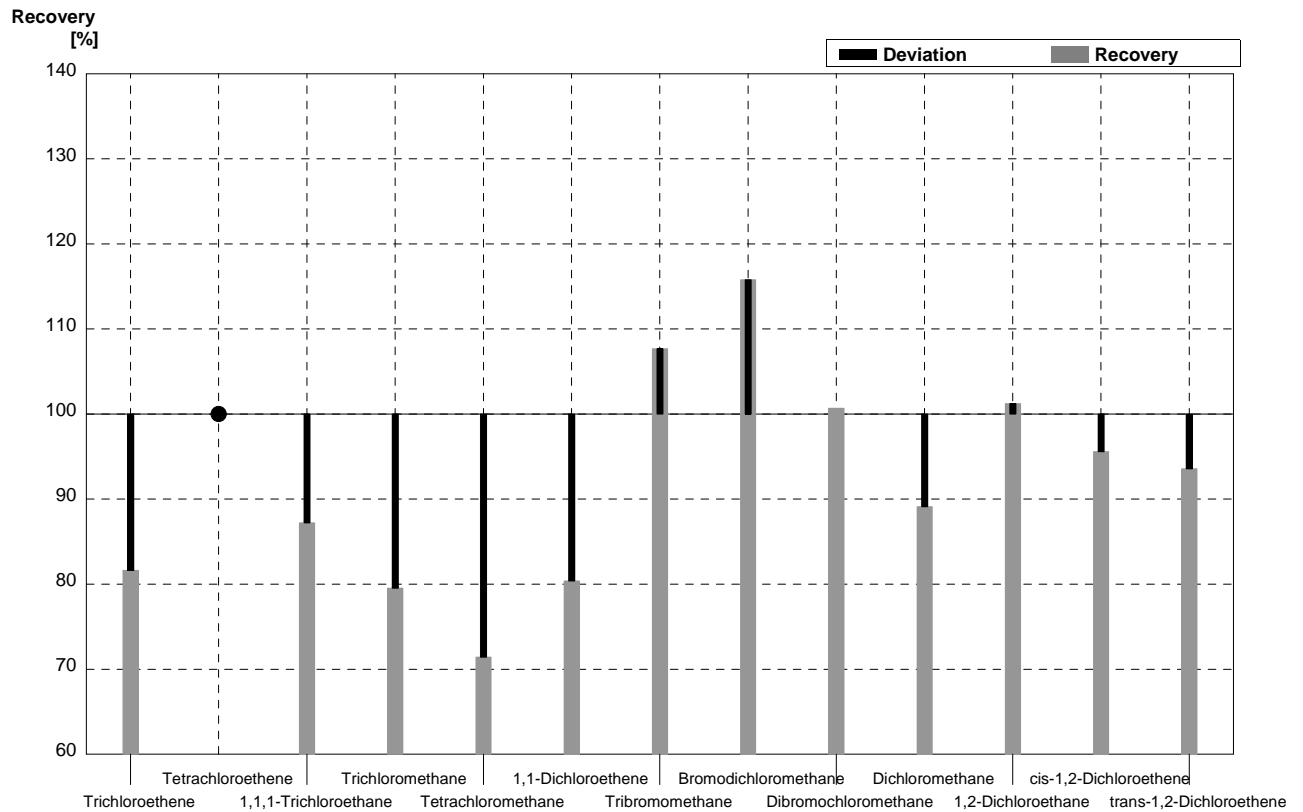
Round C46
Volatile Halogenated Hydrocarbons

Sample Dispatch: 13 February 2012



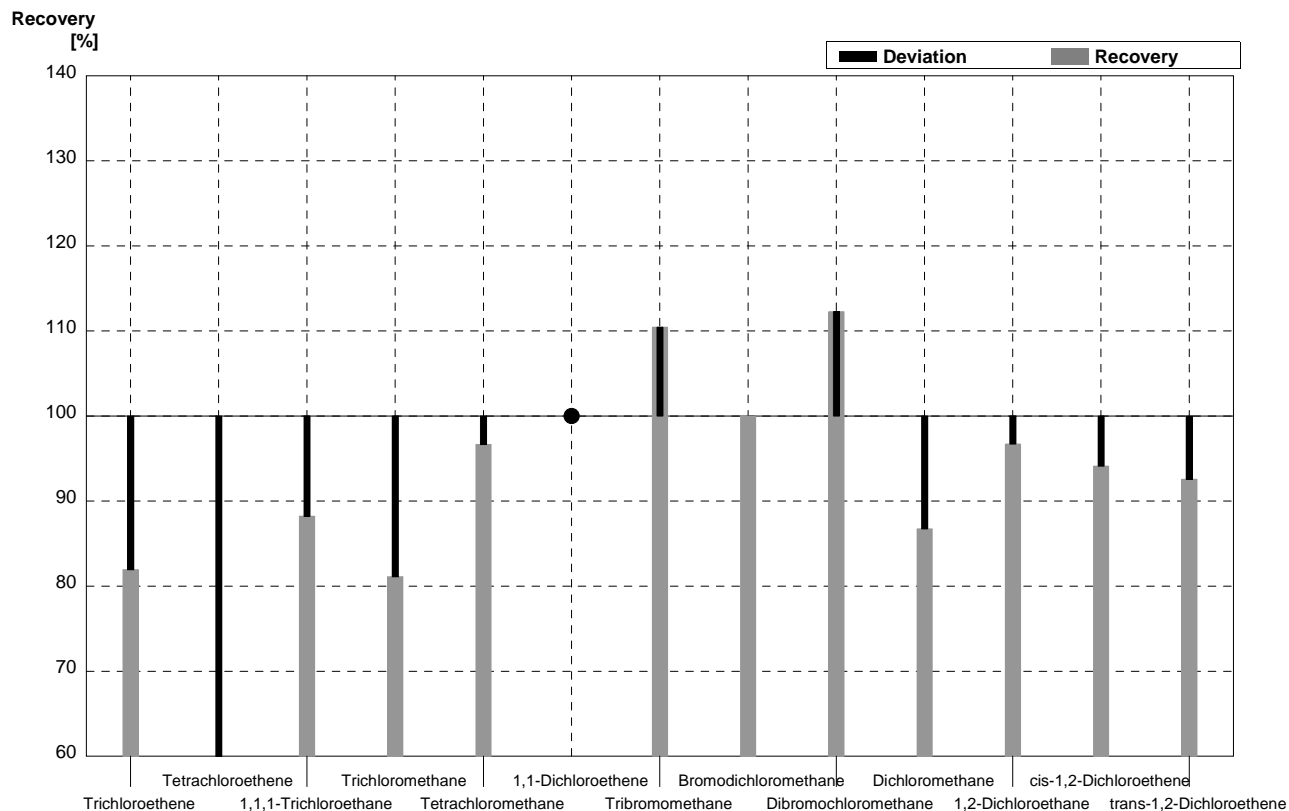
Sample C46A
Laboratory A

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,49	0,02	0,40	0,10	$\mu\text{g/l}$	82%
Tetrachloroethene	<0,06		<0,05		$\mu\text{g/l}$	•
1,1,1-Trichloroethane	1,33	0,07	1,16	0,18	$\mu\text{g/l}$	87%
Trichloromethane	0,44	0,02	0,35	0,05	$\mu\text{g/l}$	80%
Tetrachloromethane	0,35	0,02	0,25	0,05	$\mu\text{g/l}$	71%
1,1-Dichloroethene	0,51	0,03	0,41	0,07	$\mu\text{g/l}$	80%
Tribromomethane	0,39	0,02	0,42	0,12	$\mu\text{g/l}$	108%
Bromodichloromethane	0,19	0,01	0,22	0,06	$\mu\text{g/l}$	116%
Dibromochloromethane	1,45	0,07	1,46	0,47	$\mu\text{g/l}$	101%
Dichloromethane	7,08	0,35	6,31	2,3	$\mu\text{g/l}$	89%
1,2-Dichloroethane	0,81	0,04	0,82	0,23	$\mu\text{g/l}$	101%
cis-1,2-Dichloroethene	1,36	0,07	1,30	0,25	$\mu\text{g/l}$	96%
trans-1,2-Dichloroethene	1,09	0,05	1,02	0,17	$\mu\text{g/l}$	94%



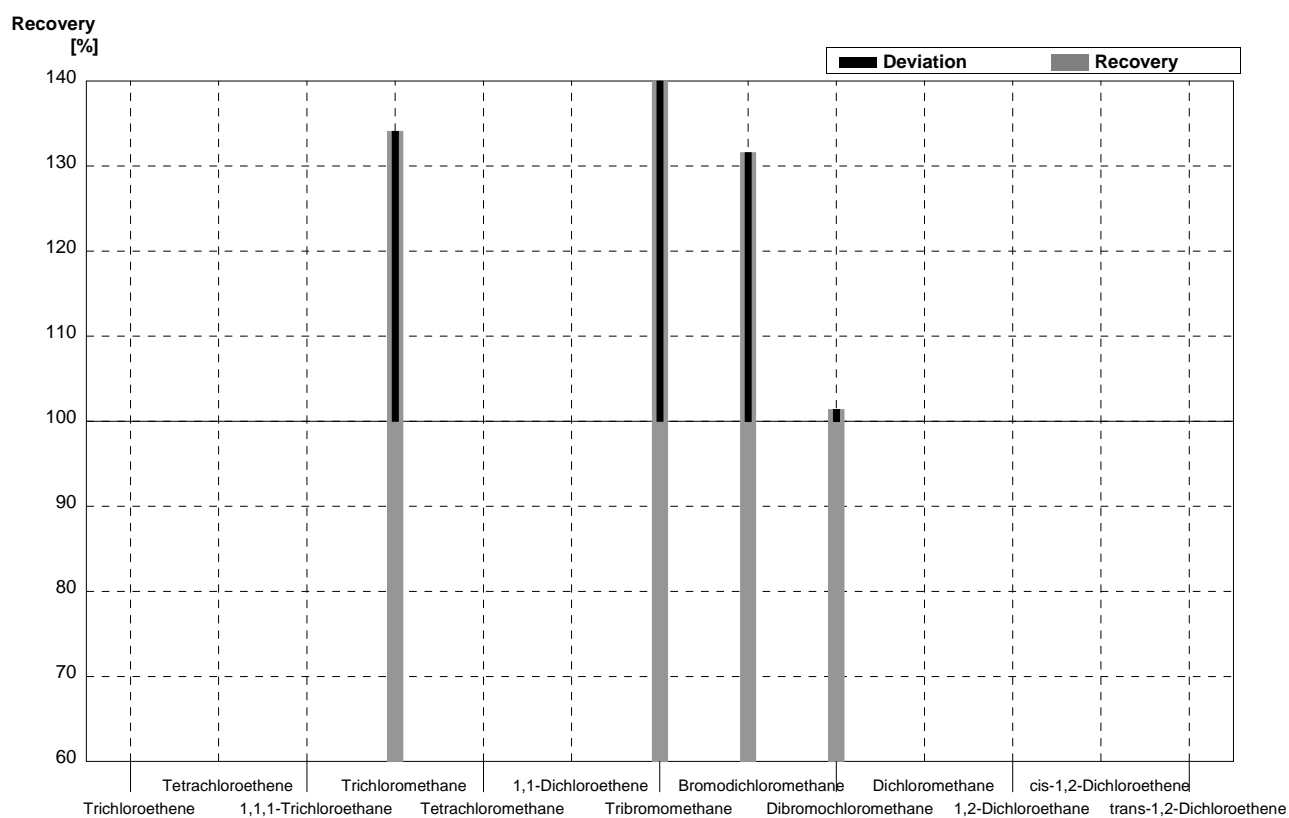
Sample C46B
Laboratory A

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,68	0,40	µg/l	82%
Tetrachloroethene	1,09	0,05	0,63	0,17	µg/l	58%
1,1,1-Trichloroethane	0,17	0,01	0,15	0,02	µg/l	88%
Trichloromethane	1,43	0,07	1,16	0,18	µg/l	81%
Tetrachloromethane	0,60	0,03	0,58	0,11	µg/l	97%
1,1-Dichloroethene	<0,2		<0,08		µg/l	•
Tribromomethane	0,86	0,04	0,95	0,28	µg/l	110%
Bromodichloromethane	1,23	0,06	1,23	0,33	µg/l	100%
Dibromochloromethane	0,57	0,03	0,64	0,20	µg/l	112%
Dichloromethane	2,87	0,14	2,49	0,90	µg/l	87%
1,2-Dichloroethane	2,73	0,14	2,64	0,74	µg/l	97%
cis-1,2-Dichloroethene	0,34	0,02	0,32	0,06	µg/l	94%
trans-1,2-Dichloroethene	0,27	0,01	0,25	0,04	µg/l	93%



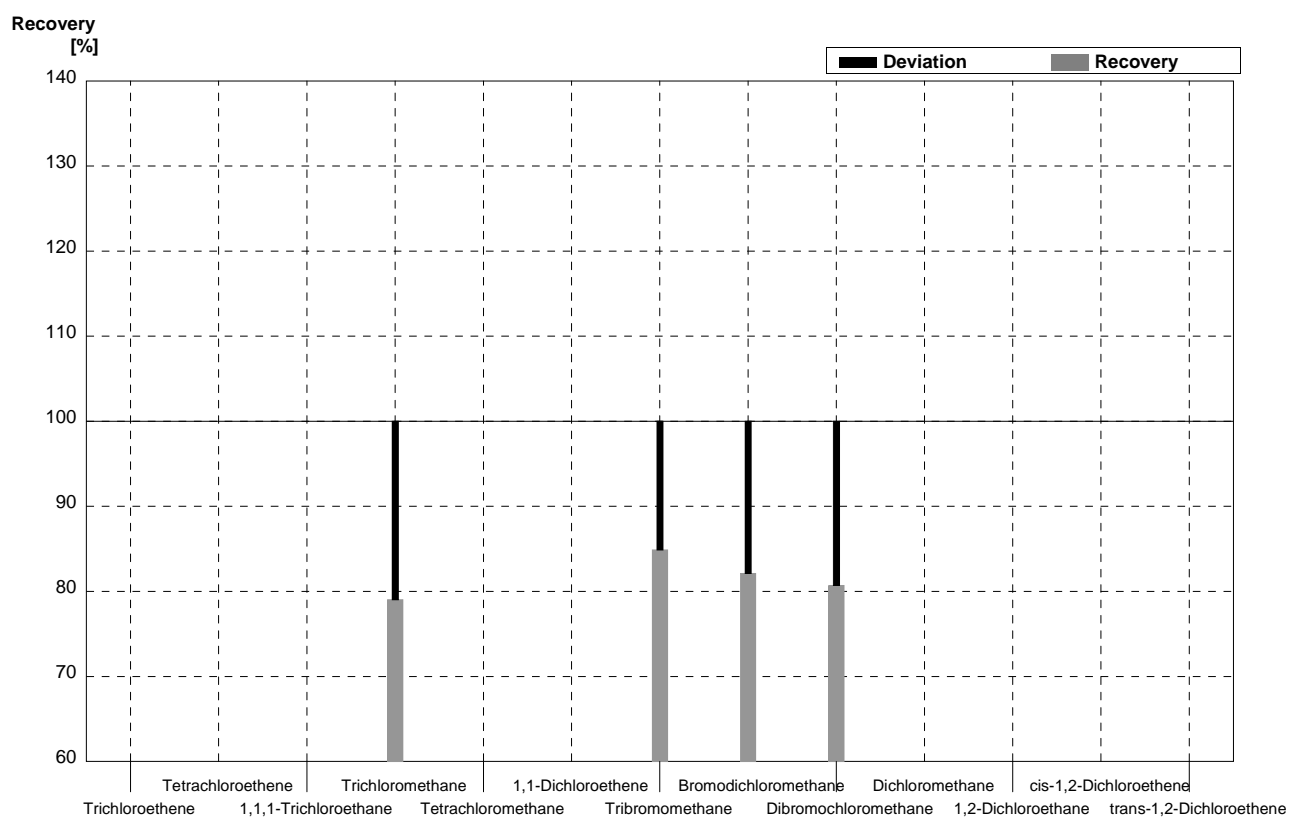
Sample C46A
Laboratory B

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02			µg/l	
Tetrachloroethene	<0,06				µg/l	
1,1,1-Trichloroethane	1,33	0,07			µg/l	
Trichloromethane	0,44	0,02	0,59	0,5	µg/l	134%
Tetrachloromethane	0,35	0,02			µg/l	
1,1-Dichloroethene	0,51	0,03			µg/l	
Tribromomethane	0,39	0,02	0,74	0,5	µg/l	190%
Bromodichloromethane	0,19	0,01	0,25	0,5	µg/l	132%
Dibromochloromethane	1,45	0,07	1,47	0,5	µg/l	101%
Dichloromethane	7,08	0,35			µg/l	
1,2-Dichloroethane	0,81	0,04			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	1,09	0,05			µg/l	



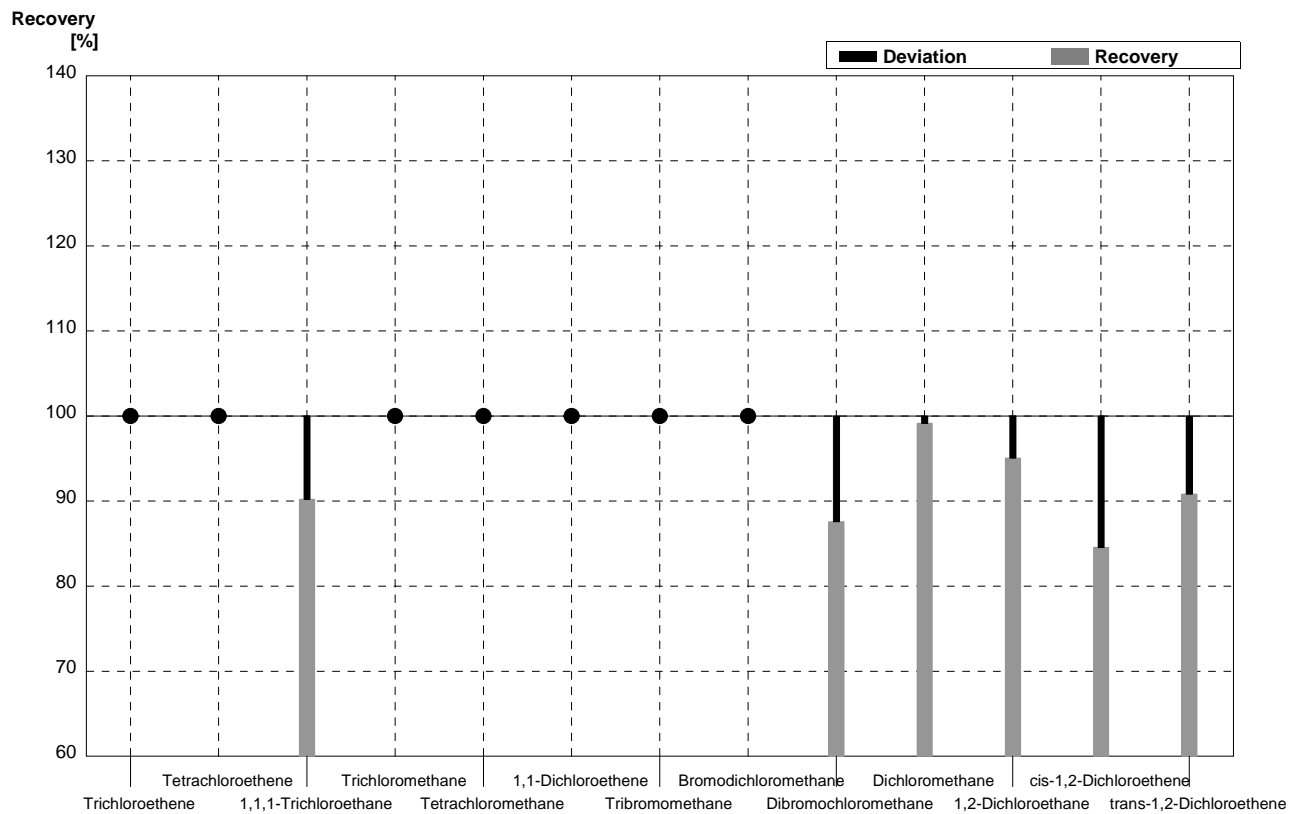
Sample C46B
Laboratory B

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10			µg/l	
Tetrachloroethene	1,09	0,05			µg/l	
1,1,1-Trichloroethane	0,17	0,01			µg/l	
Trichloromethane	1,43	0,07	1,13	0,5	µg/l	79%
Tetrachloromethane	0,60	0,03			µg/l	
1,1-Dichloroethene	<0,2				µg/l	
Tribromomethane	0,86	0,04	0,73	0,5	µg/l	85%
Bromodichloromethane	1,23	0,06	1,01	0,5	µg/l	82%
Dibromochloromethane	0,57	0,03	0,46	0,5	µg/l	81%
Dichloromethane	2,87	0,14			µg/l	
1,2-Dichloroethane	2,73	0,14			µg/l	
cis-1,2-Dichloroethene	0,34	0,02			µg/l	
trans-1,2-Dichloroethene	0,27	0,01			µg/l	



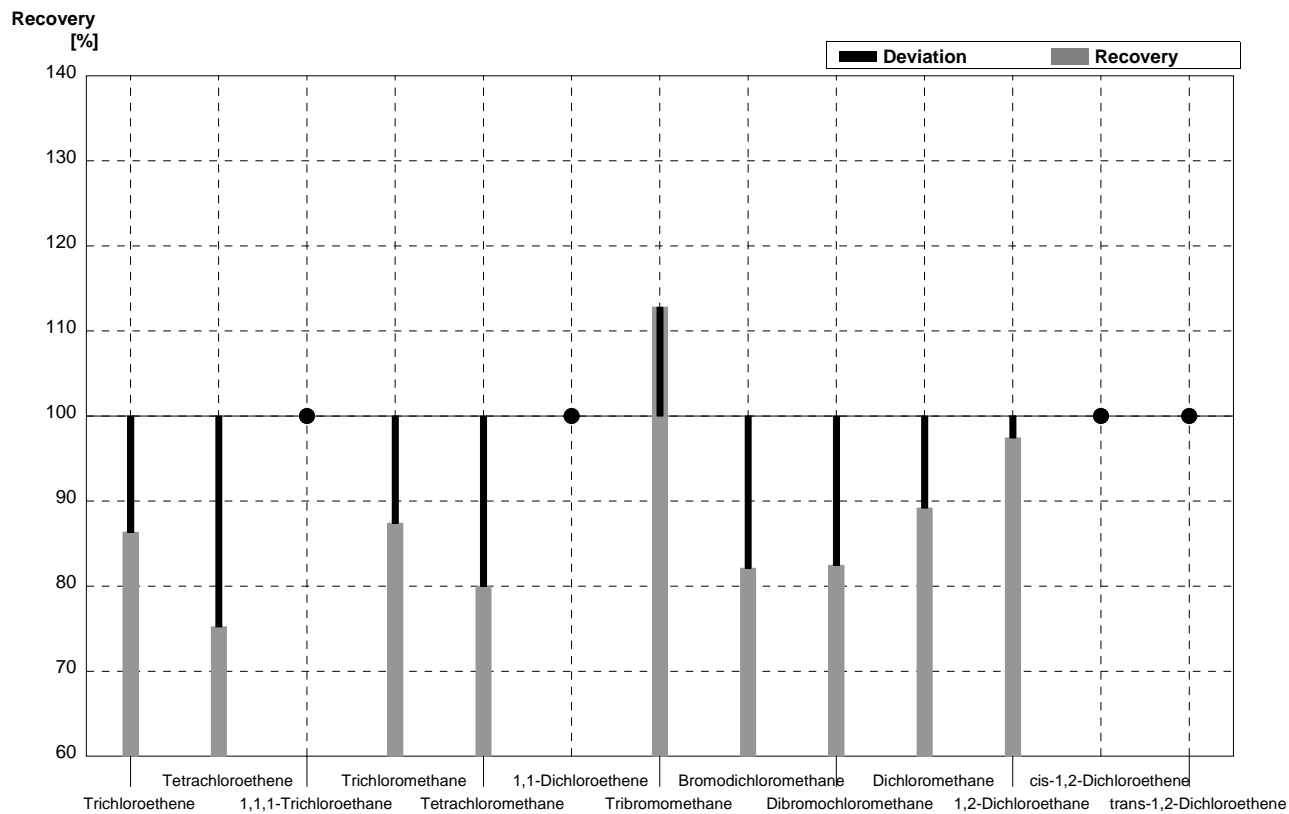
Sample C46A
Laboratory C

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	0,49	0,02	<0,5	0,2	$\mu\text{g/l}$	•
Tetrachloroethene	<0,06		<0,5	0,2	$\mu\text{g/l}$	•
1,1,1-Trichloroethane	1,33	0,07	1,20	0,4	$\mu\text{g/l}$	90%
Trichloromethane	0,44	0,02	<0,5	0,2	$\mu\text{g/l}$	•
Tetrachloromethane	0,35	0,02	<0,5	0,2	$\mu\text{g/l}$	•
1,1-Dichloroethene	0,51	0,03	<1	0,4	$\mu\text{g/l}$	•
Tribromomethane	0,39	0,02	<1	0,4	$\mu\text{g/l}$	•
Bromodichloromethane	0,19	0,01	<0,5	0,2	$\mu\text{g/l}$	•
Dibromochloromethane	1,45	0,07	1,27	0,4	$\mu\text{g/l}$	88%
Dichloromethane	7,08	0,35	7,02	1,5	$\mu\text{g/l}$	99%
1,2-Dichloroethane	0,81	0,04	0,77	0,4	$\mu\text{g/l}$	95%
cis-1,2-Dichloroethene	1,36	0,07	1,15	0,4	$\mu\text{g/l}$	85%
trans-1,2-Dichloroethene	1,09	0,05	0,99	0,4	$\mu\text{g/l}$	91%



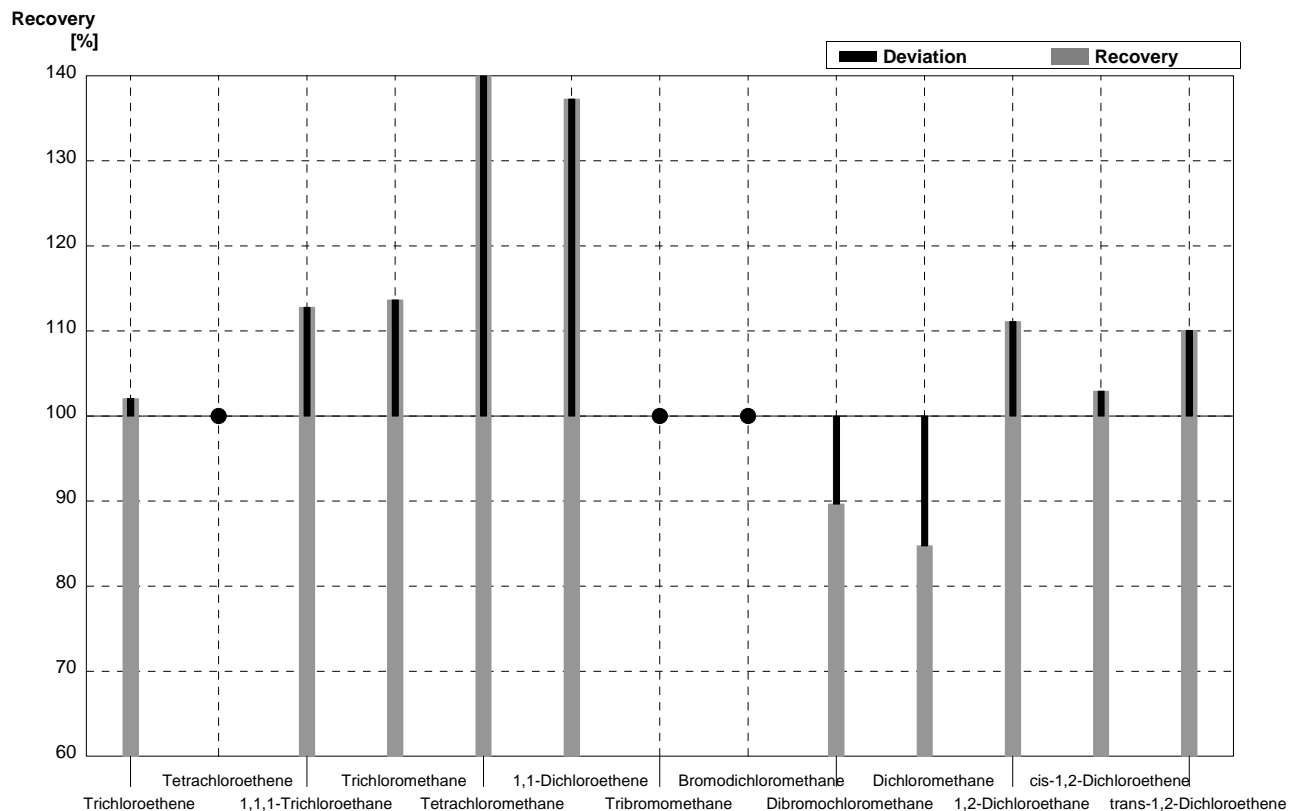
Sample C46B
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,77	1,0	µg/l	86%
Tetrachloroethene	1,09	0,05	0,82	0,4	µg/l	75%
1,1,1-Trichloroethane	0,17	0,01	<0,5	0,2	µg/l	•
Trichloromethane	1,43	0,07	1,25	1,0	µg/l	87%
Tetrachloromethane	0,60	0,03	0,48	1,0	µg/l	80%
1,1-Dichloroethene	<0,2		<1	0,4	µg/l	•
Tribromomethane	0,86	0,04	0,97	0,4	µg/l	113%
Bromodichloromethane	1,23	0,06	1,01	1,0	µg/l	82%
Dibromochloromethane	0,57	0,03	0,47	0,2	µg/l	82%
Dichloromethane	2,87	0,14	2,56	1,0	µg/l	89%
1,2-Dichloroethane	2,73	0,14	2,66	1,0	µg/l	97%
cis-1,2-Dichloroethene	0,34	0,02	<0,5	0,2	µg/l	•
trans-1,2-Dichloroethene	0,27	0,01	<0,5	0,2	µg/l	•



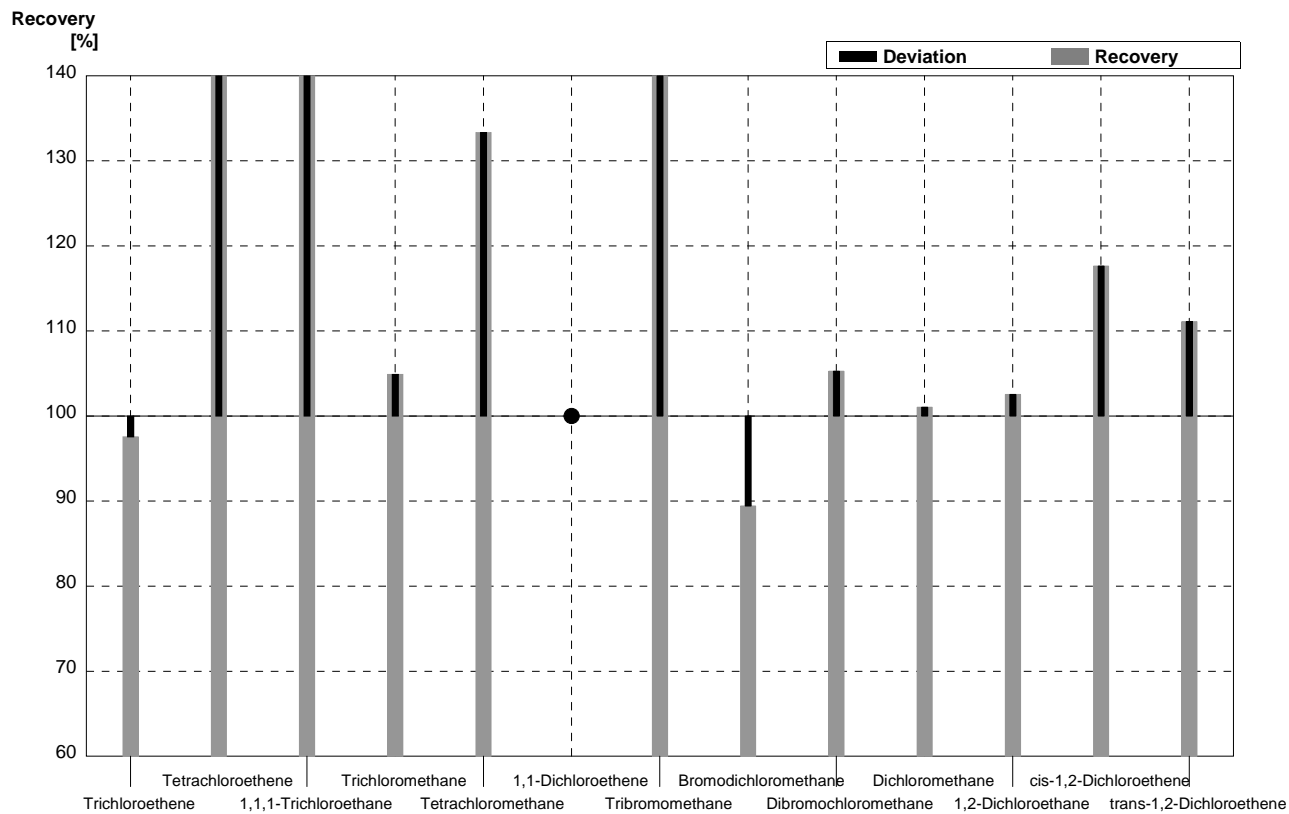
Sample C46A
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,5	0,09	µg/l	102%
Tetrachloroethene	<0,06		<0,1		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,5	0,26	µg/l	113%
Trichloromethane	0,44	0,02	0,5	0,10	µg/l	114%
Tetrachloromethane	0,35	0,02	0,6	0,11	µg/l	171%
1,1-Dichloroethene	0,51	0,03	0,7	0,13	µg/l	137%
Tribromomethane	0,39	0,02	<1,0		µg/l	•
Bromodichloromethane	0,19	0,01	<0,2		µg/l	•
Dibromochloromethane	1,45	0,07	1,3	0,24	µg/l	90%
Dichloromethane	7,08	0,35	6,0	1,07	µg/l	85%
1,2-Dichloroethane	0,81	0,04	0,9	0,16	µg/l	111%
cis-1,2-Dichloroethene	1,36	0,07	1,4	0,26	µg/l	103%
trans-1,2-Dichloroethene	1,09	0,05	1,2	0,21	µg/l	110%



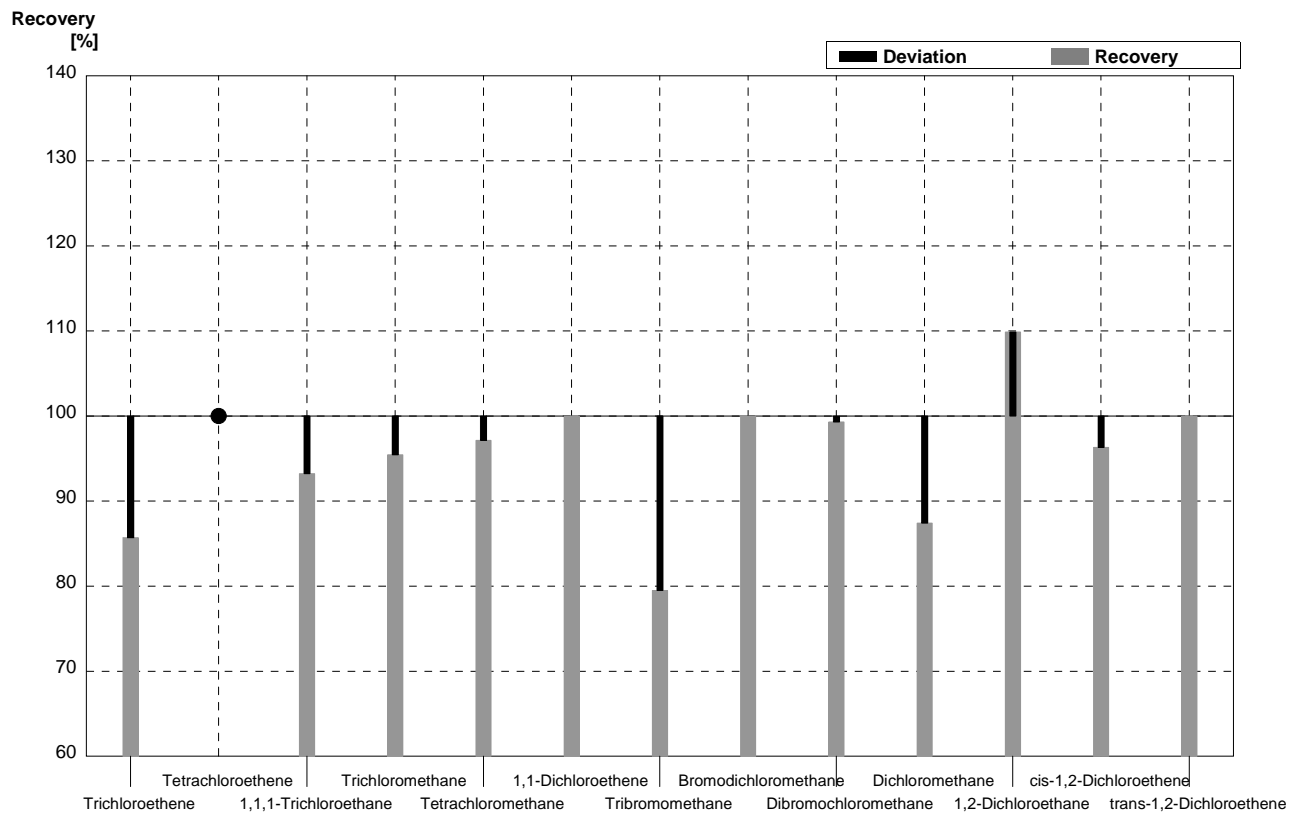
Sample C46B
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	2,0	0,36	µg/l	98%
Tetrachloroethene	1,09	0,05	2,3	0,41	µg/l	211%
1,1,1-Trichloroethane	0,17	0,01	0,3	0,05	µg/l	176%
Trichloromethane	1,43	0,07	1,5	0,27	µg/l	105%
Tetrachloromethane	0,60	0,03	0,8	0,15	µg/l	133%
1,1-Dichloroethene	<0,2		<0,2		µg/l	•
Tribromomethane	0,86	0,04	1,3	0,24	µg/l	151%
Bromodichloromethane	1,23	0,06	1,1	0,19	µg/l	89%
Dibromochloromethane	0,57	0,03	0,6	0,11	µg/l	105%
Dichloromethane	2,87	0,14	2,9	0,52	µg/l	101%
1,2-Dichloroethane	2,73	0,14	2,8	0,50	µg/l	103%
cis-1,2-Dichloroethene	0,34	0,02	0,4	0,07	µg/l	118%
trans-1,2-Dichloroethene	0,27	0,01	0,3	0,06	µg/l	111%



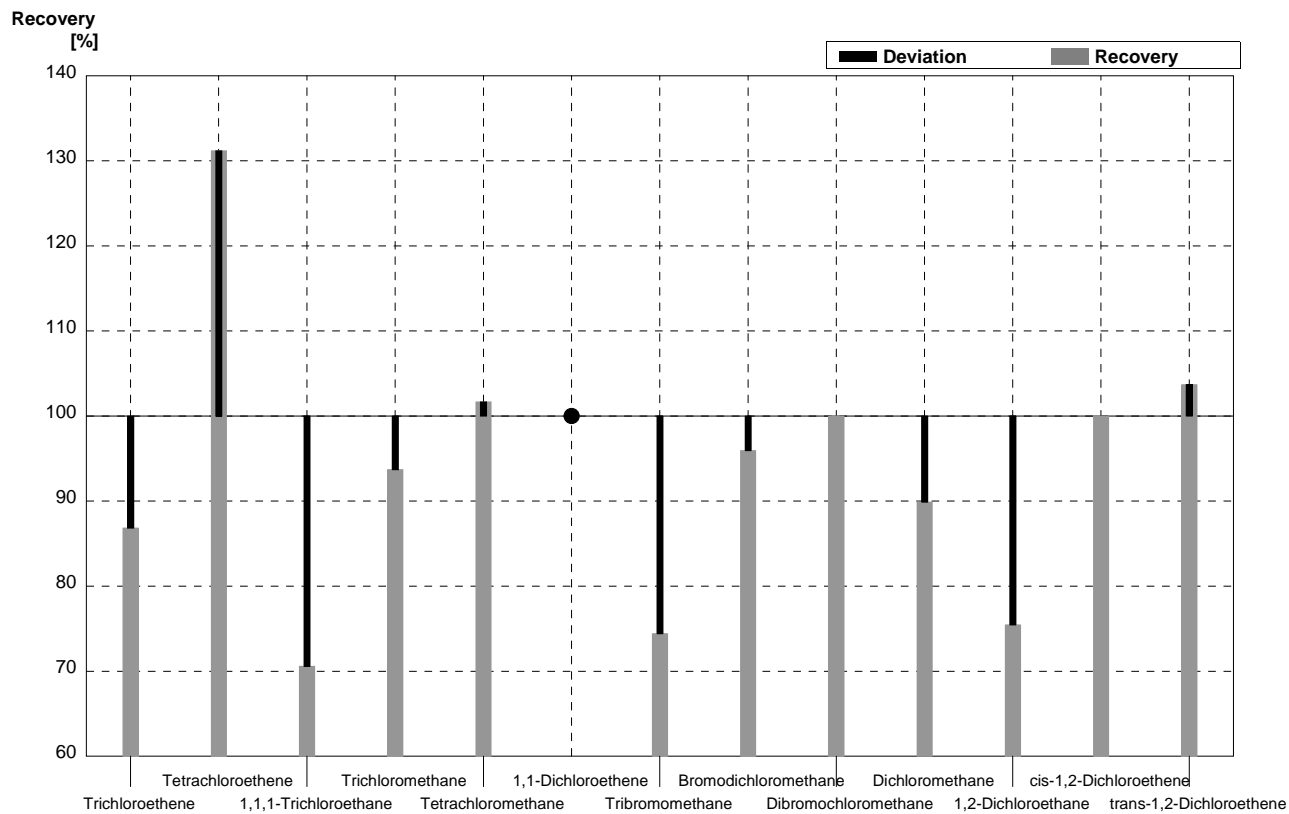
Sample C46A
Laboratory E

Parameter	Target value	$\pm U$ (k=2)	Result	\pm	Unit	Recovery
Trichloroethene	0,49	0,02	0,42	0,06	$\mu\text{g/l}$	86%
Tetrachloroethene	<0,06		<0,05		$\mu\text{g/l}$	•
1,1,1-Trichloroethane	1,33	0,07	1,24	0,19	$\mu\text{g/l}$	93%
Trichloromethane	0,44	0,02	0,42	0,06	$\mu\text{g/l}$	95%
Tetrachloromethane	0,35	0,02	0,34	0,05	$\mu\text{g/l}$	97%
1,1-Dichloroethene	0,51	0,03	0,51	0,08	$\mu\text{g/l}$	100%
Tribromomethane	0,39	0,02	0,31	0,05	$\mu\text{g/l}$	79%
Bromodichloromethane	0,19	0,01	0,19	0,03	$\mu\text{g/l}$	100%
Dibromochloromethane	1,45	0,07	1,44	0,22	$\mu\text{g/l}$	99%
Dichloromethane	7,08	0,35	6,19	0,93	$\mu\text{g/l}$	87%
1,2-Dichloroethane	0,81	0,04	0,89	0,13	$\mu\text{g/l}$	110%
cis-1,2-Dichloroethene	1,36	0,07	1,31	0,20	$\mu\text{g/l}$	96%
trans-1,2-Dichloroethene	1,09	0,05	1,09	0,16	$\mu\text{g/l}$	100%



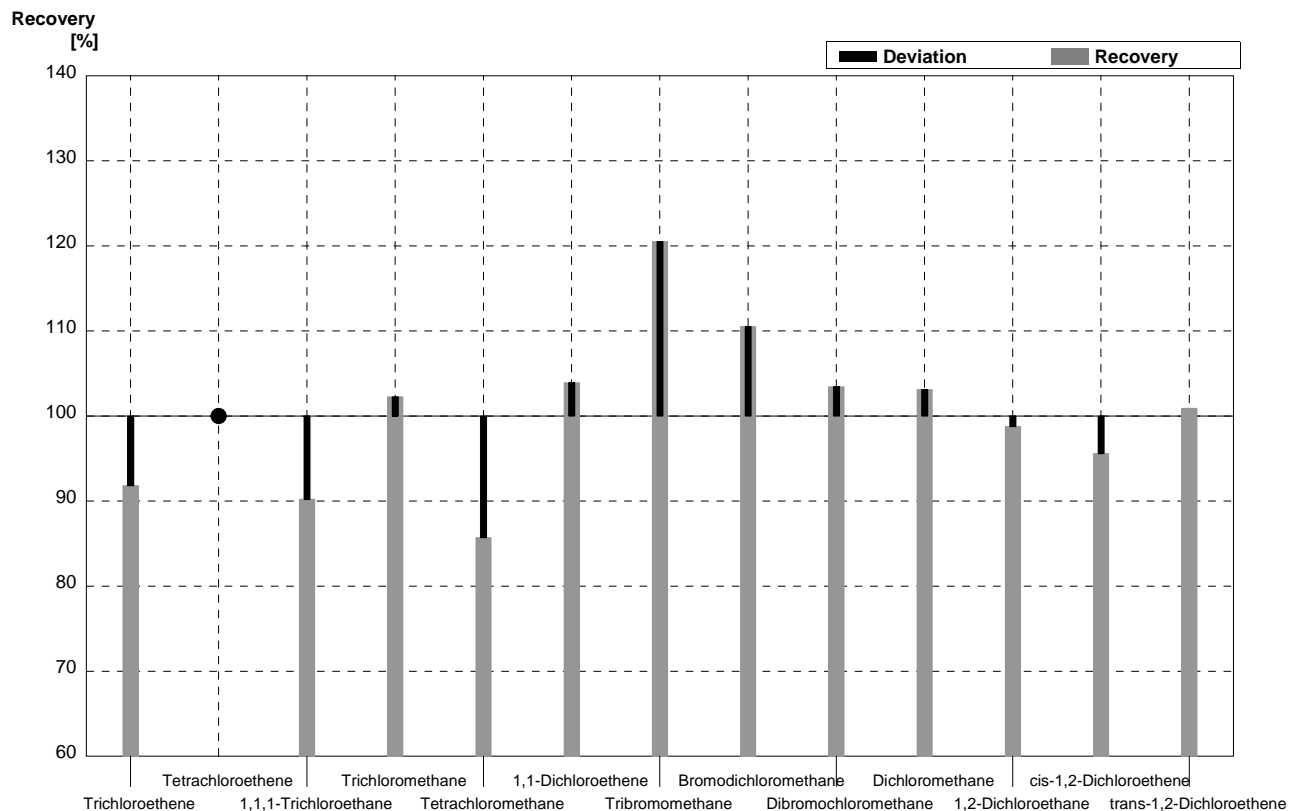
Sample C46B
Laboratory E

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,78	0,27	µg/l	87%
Tetrachloroethene	1,09	0,05	1,43	0,21	µg/l	131%
1,1,1-Trichloroethane	0,17	0,01	0,12	0,02	µg/l	71%
Trichloromethane	1,43	0,07	1,34	0,20	µg/l	94%
Tetrachloromethane	0,60	0,03	0,61	0,09	µg/l	102%
1,1-Dichloroethene	<0,2		<0,05		µg/l	•
Tribromomethane	0,86	0,04	0,64	0,10	µg/l	74%
Bromodichloromethane	1,23	0,06	1,18	0,18	µg/l	96%
Dibromochloromethane	0,57	0,03	0,57	0,09	µg/l	100%
Dichloromethane	2,87	0,14	2,58	0,39	µg/l	90%
1,2-Dichloroethane	2,73	0,14	2,06	0,31	µg/l	75%
cis-1,2-Dichloroethene	0,34	0,02	0,34	0,05	µg/l	100%
trans-1,2-Dichloroethene	0,27	0,01	0,28	0,04	µg/l	104%



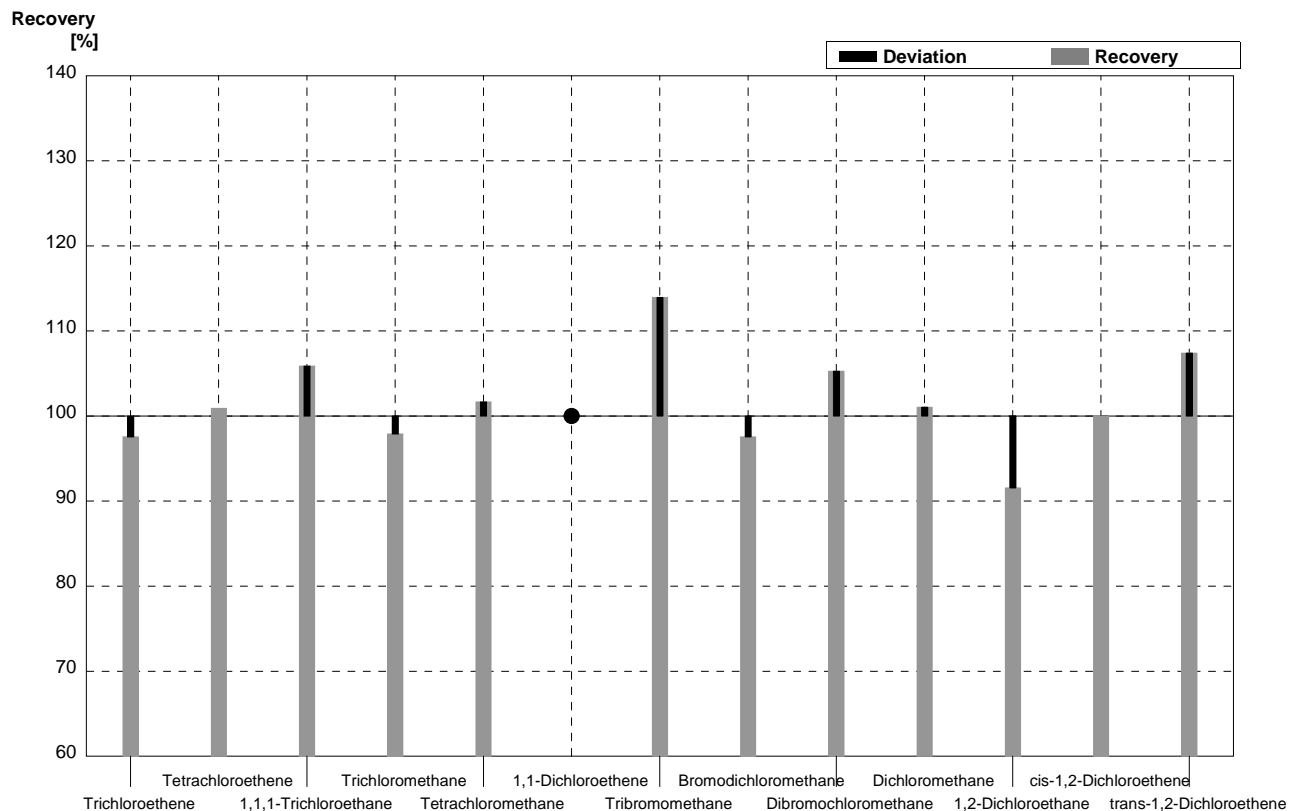
Sample C46A
Laboratory F

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,45	0,090	µg/l	92%
Tetrachloroethene	<0,06		<0,10		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,2	0,24	µg/l	90%
Trichloromethane	0,44	0,02	0,45	0,090	µg/l	102%
Tetrachloromethane	0,35	0,02	0,30	0,060	µg/l	86%
1,1-Dichloroethene	0,51	0,03	0,53	0,11	µg/l	104%
Tribromomethane	0,39	0,02	0,47	0,094	µg/l	121%
Bromodichloromethane	0,19	0,01	0,21	0,042	µg/l	111%
Dibromochloromethane	1,45	0,07	1,5	0,30	µg/l	103%
Dichloromethane	7,08	0,35	7,3	1,5	µg/l	103%
1,2-Dichloroethane	0,81	0,04	0,80	0,16	µg/l	99%
cis-1,2-Dichloroethene	1,36	0,07	1,3	0,26	µg/l	96%
trans-1,2-Dichloroethene	1,09	0,05	1,1	0,22	µg/l	101%



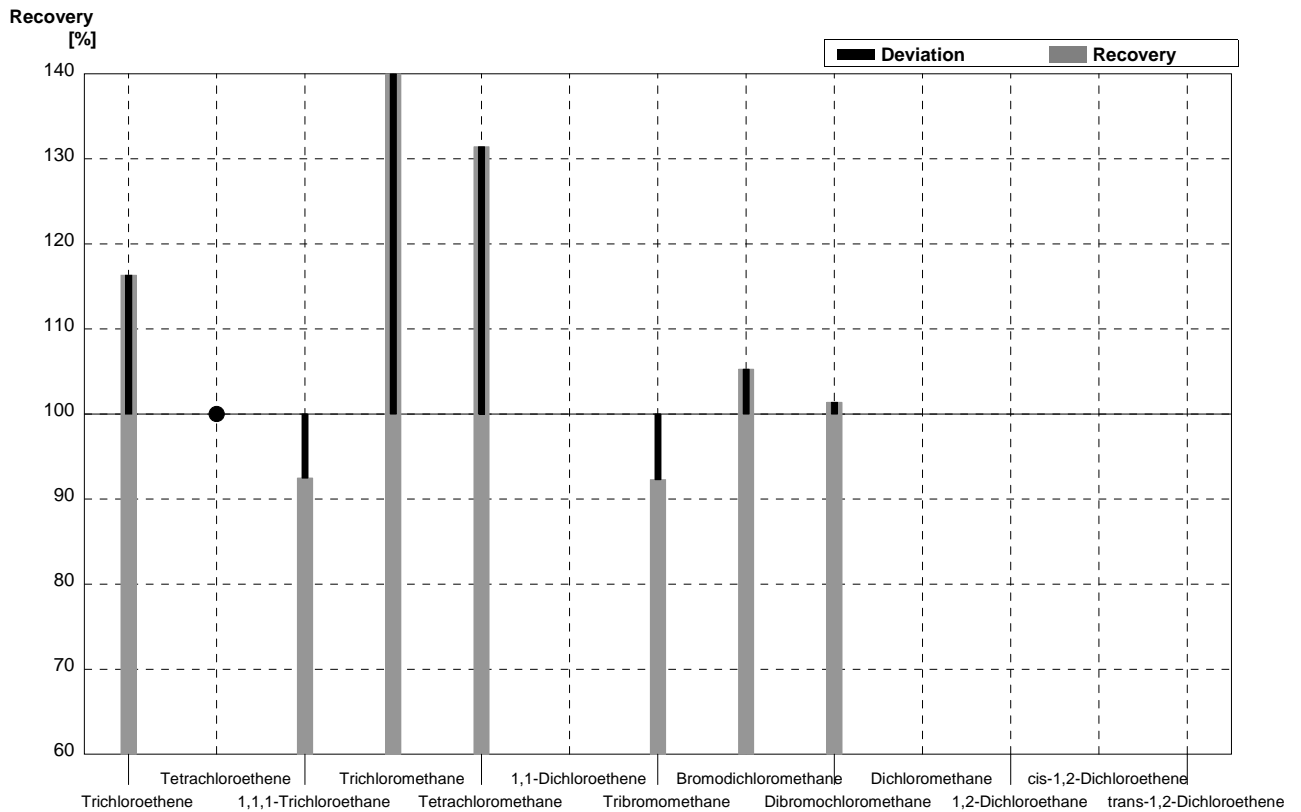
Sample C46B
Laboratory F

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	2,05	0,10	2,0	0,40	$\mu\text{g/l}$	98%
Tetrachloroethene	1,09	0,05	1,1	0,22	$\mu\text{g/l}$	101%
1,1,1-Trichloroethane	0,17	0,01	0,18	0,036	$\mu\text{g/l}$	106%
Trichloromethane	1,43	0,07	1,4	0,28	$\mu\text{g/l}$	98%
Tetrachloromethane	0,60	0,03	0,61	0,12	$\mu\text{g/l}$	102%
1,1-Dichloroethene	<0,2		<0,10		$\mu\text{g/l}$	•
Tribromomethane	0,86	0,04	0,98	0,20	$\mu\text{g/l}$	114%
Bromodichloromethane	1,23	0,06	1,2	0,24	$\mu\text{g/l}$	98%
Dibromochloromethane	0,57	0,03	0,60	0,12	$\mu\text{g/l}$	105%
Dichloromethane	2,87	0,14	2,9	0,58	$\mu\text{g/l}$	101%
1,2-Dichloroethane	2,73	0,14	2,5	0,50	$\mu\text{g/l}$	92%
cis-1,2-Dichloroethene	0,34	0,02	0,34	0,068	$\mu\text{g/l}$	100%
trans-1,2-Dichloroethene	0,27	0,01	0,29	0,058	$\mu\text{g/l}$	107%



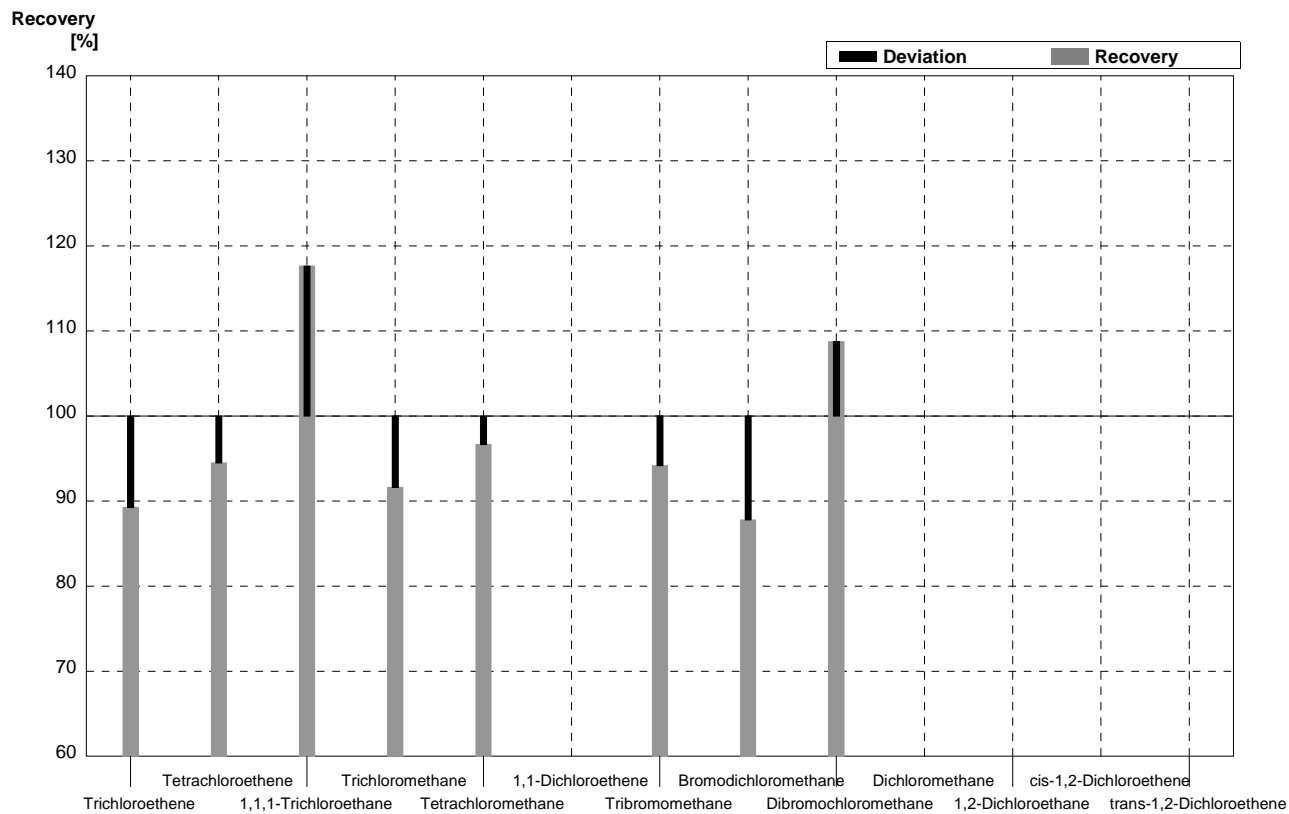
Sample C46A
Laboratory G

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,57	0,08	µg/l	116%
Tetrachloroethene	<0,06		<0,06		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,23	0,15	µg/l	92%
Trichloromethane	0,44	0,02	0,93	0,09	µg/l	211%
Tetrachloromethane	0,35	0,02	0,46	0,08	µg/l	131%
1,1-Dichloroethene	0,51	0,03			µg/l	
Tribromomethane	0,39	0,02	0,36	0,10	µg/l	92%
Bromodichloromethane	0,19	0,01	0,20	0,005	µg/l	105%
Dibromochloromethane	1,45	0,07	1,47	0,10	µg/l	101%
Dichloromethane	7,08	0,35			µg/l	
1,2-Dichloroethane	0,81	0,04			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	1,09	0,05			µg/l	



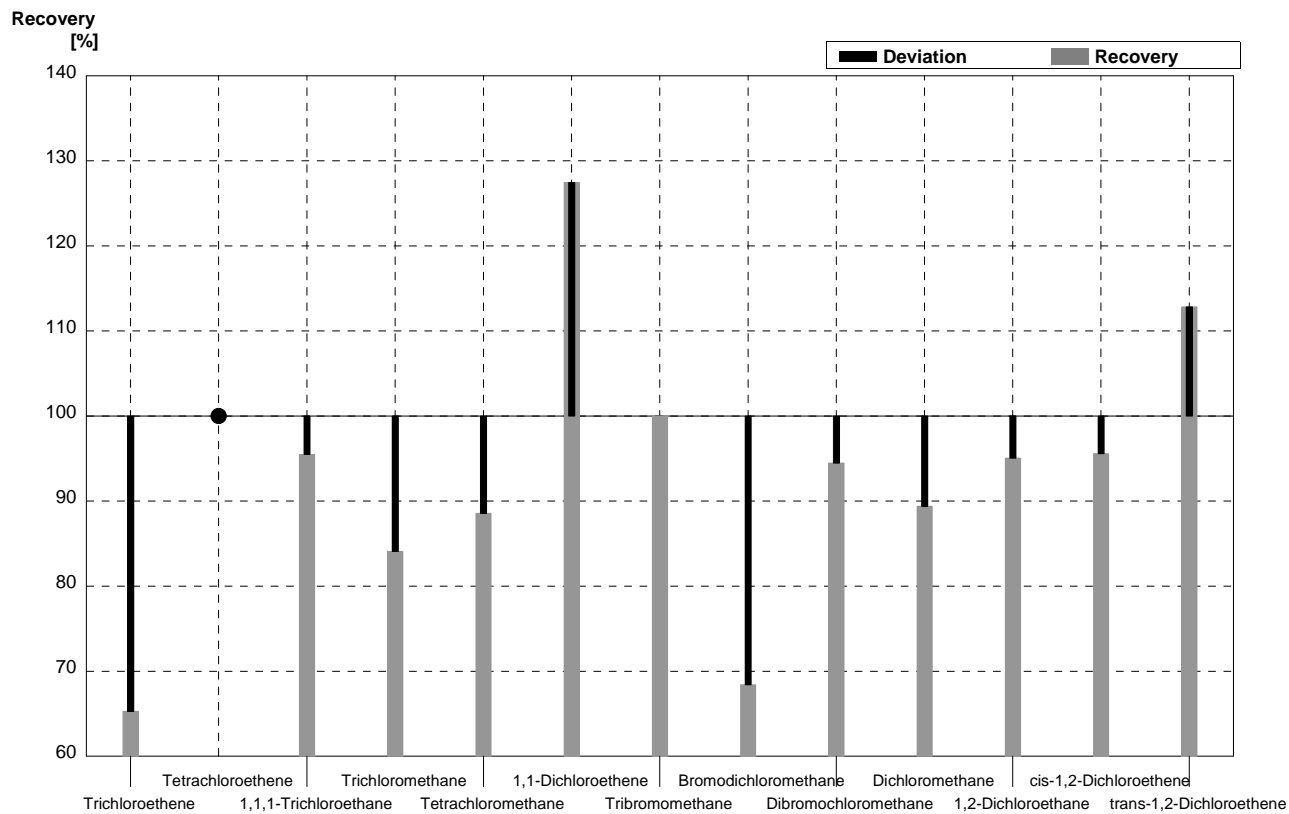
Sample C46B
Laboratory G

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,83	0,10	µg/l	89%
Tetrachloroethene	1,09	0,05	1,03	0,10	µg/l	94%
1,1,1-Trichloroethane	0,17	0,01	0,20	0,15	µg/l	118%
Trichloromethane	1,43	0,07	1,31	0,03	µg/l	92%
Tetrachloromethane	0,60	0,03	0,58	0,08	µg/l	97%
1,1-Dichloroethene	<0,2				µg/l	
Tribromomethane	0,86	0,04	0,81	0,10	µg/l	94%
Bromodichloromethane	1,23	0,06	1,08	0,06	µg/l	88%
Dibromochloromethane	0,57	0,03	0,62	0,10	µg/l	109%
Dichloromethane	2,87	0,14			µg/l	
1,2-Dichloroethane	2,73	0,14			µg/l	
cis-1,2-Dichloroethene	0,34	0,02			µg/l	
trans-1,2-Dichloroethene	0,27	0,01			µg/l	



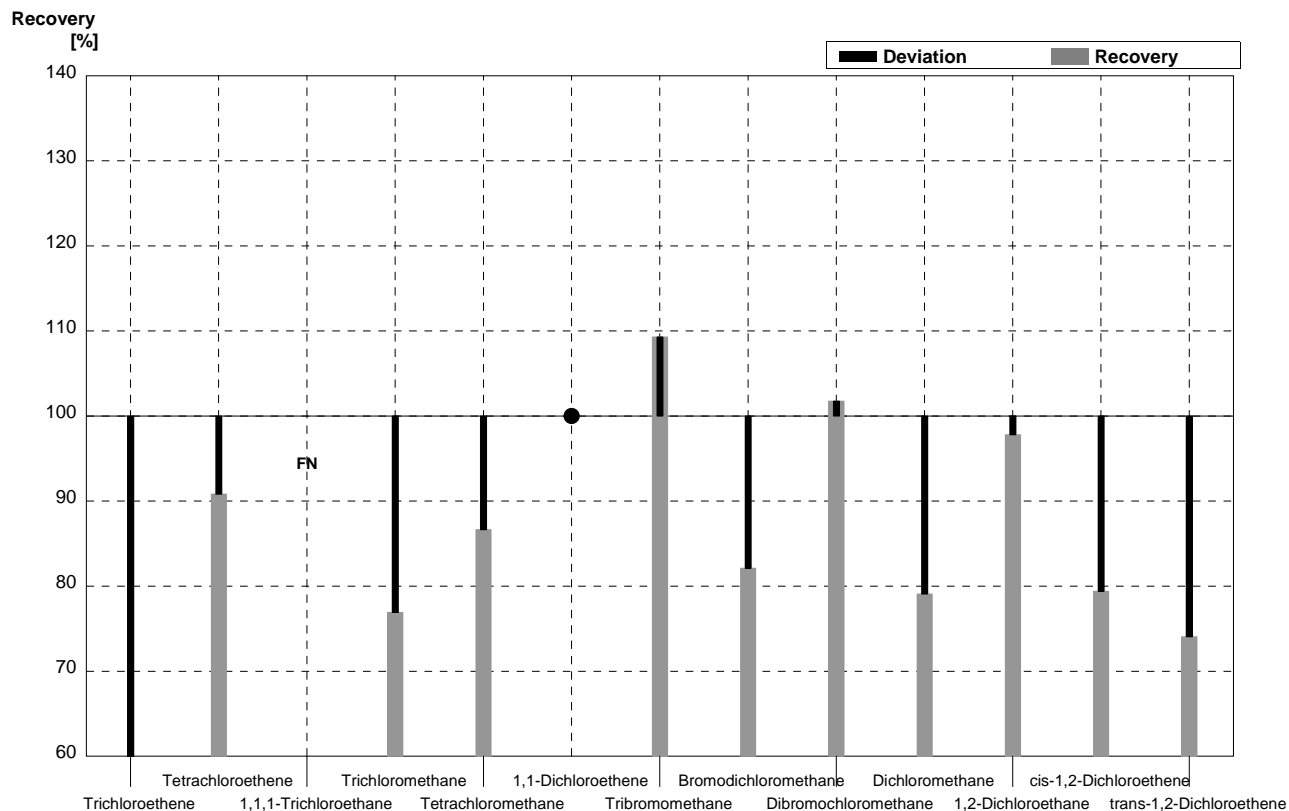
Sample C46A
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,32	0,03	µg/l	65%
Tetrachloroethene	<0,06		<0,10		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,27	0,15	µg/l	95%
Trichloromethane	0,44	0,02	0,37	0,02	µg/l	84%
Tetrachloromethane	0,35	0,02	0,31	0,03	µg/l	89%
1,1-Dichloroethene	0,51	0,03	0,65	0,008	µg/l	127%
Tribromomethane	0,39	0,02	0,39	0,03	µg/l	100%
Bromodichloromethane	0,19	0,01	0,13	0,007	µg/l	68%
Dibromochloromethane	1,45	0,07	1,37	0,06	µg/l	94%
Dichloromethane	7,08	0,35	6,33	0,35	µg/l	89%
1,2-Dichloroethane	0,81	0,04	0,77	0,03	µg/l	95%
cis-1,2-Dichloroethene	1,36	0,07	1,30	0,1	µg/l	96%
trans-1,2-Dichloroethene	1,09	0,05	1,23	0,05	µg/l	113%



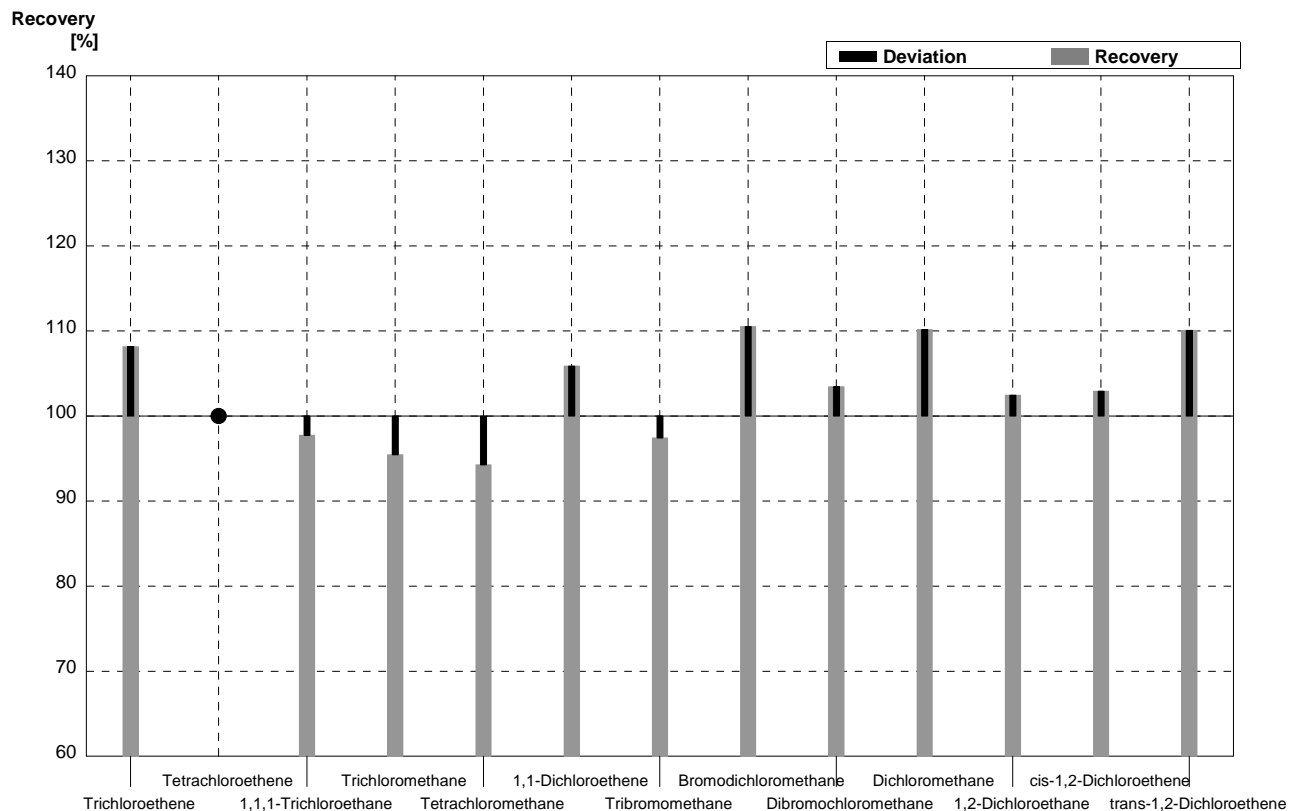
Sample C46B
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,23	0,06	µg/l	60%
Tetrachloroethene	1,09	0,05	0,99	0,02	µg/l	91%
1,1,1-Trichloroethane	0,17	0,01	<0,10		µg/l	FN
Trichloromethane	1,43	0,07	1,1	0,1	µg/l	77%
Tetrachloromethane	0,60	0,03	0,52	0,03	µg/l	87%
1,1-Dichloroethene	<0,2		<0,10		µg/l	•
Tribromomethane	0,86	0,04	0,94	0,01	µg/l	109%
Bromodichloromethane	1,23	0,06	1,01	0,08	µg/l	82%
Dibromochloromethane	0,57	0,03	0,58	0,04	µg/l	102%
Dichloromethane	2,87	0,14	2,27	0,06	µg/l	79%
1,2-Dichloroethane	2,73	0,14	2,67	0,15	µg/l	98%
cis-1,2-Dichloroethene	0,34	0,02	0,27	0,02	µg/l	79%
trans-1,2-Dichloroethene	0,27	0,01	0,20	0,03	µg/l	74%



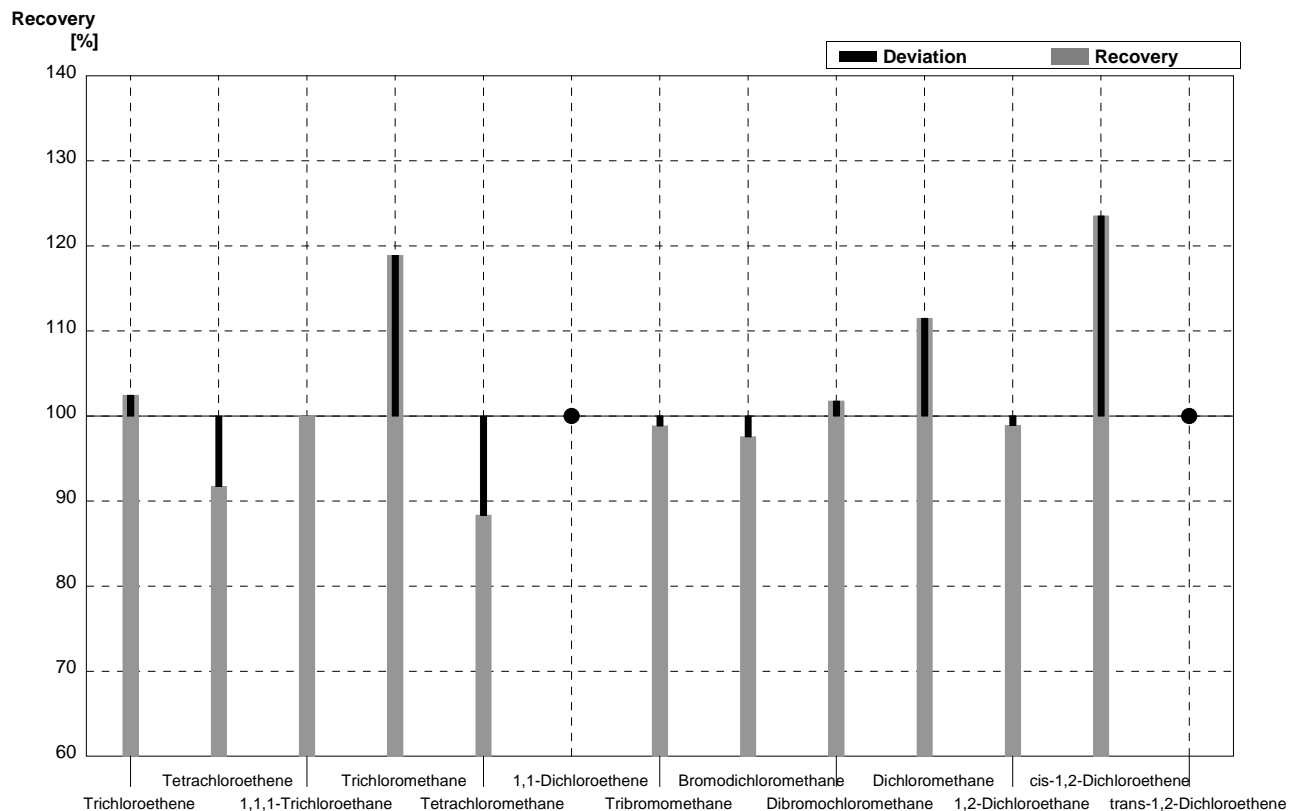
Sample C46A
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,53	0,11	µg/l	108%
Tetrachloroethene	<0,06		<0,035		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,3	0,3	µg/l	98%
Trichloromethane	0,44	0,02	0,42	0,08	µg/l	95%
Tetrachloromethane	0,35	0,02	0,33	0,07	µg/l	94%
1,1-Dichloroethene	0,51	0,03	0,54	0,11	µg/l	106%
Tribromomethane	0,39	0,02	0,38	0,08	µg/l	97%
Bromodichloromethane	0,19	0,01	0,21	0,04	µg/l	111%
Dibromochloromethane	1,45	0,07	1,5	0,3	µg/l	103%
Dichloromethane	7,08	0,35	7,8	1,6	µg/l	110%
1,2-Dichloroethane	0,81	0,04	0,83	0,17	µg/l	102%
cis-1,2-Dichloroethene	1,36	0,07	1,4	0,3	µg/l	103%
trans-1,2-Dichloroethene	1,09	0,05	1,2	0,2	µg/l	110%



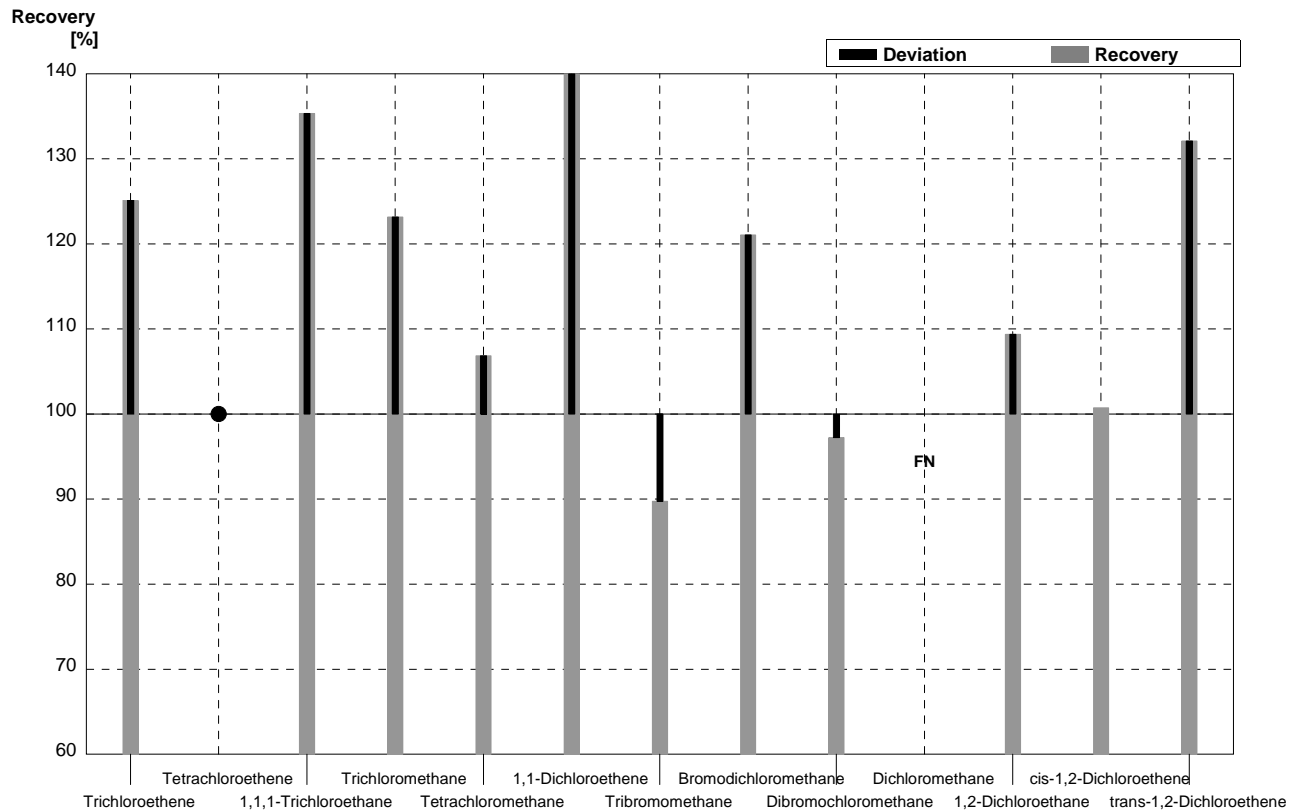
Sample C46B
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	2,1	0,4	µg/l	102%
Tetrachloroethene	1,09	0,05	1,0	0,2	µg/l	92%
1,1,1-Trichloroethane	0,17	0,01	0,17	0,03	µg/l	100%
Trichloromethane	1,43	0,07	1,7	0,3	µg/l	119%
Tetrachloromethane	0,60	0,03	0,53	0,11	µg/l	88%
1,1-Dichloroethene	<0,2		<0,03		µg/l	•
Tribromomethane	0,86	0,04	0,85	0,17	µg/l	99%
Bromodichloromethane	1,23	0,06	1,2	0,2	µg/l	98%
Dibromochloromethane	0,57	0,03	0,58	0,12	µg/l	102%
Dichloromethane	2,87	0,14	3,2	0,6	µg/l	111%
1,2-Dichloroethane	2,73	0,14	2,7	0,5	µg/l	99%
cis-1,2-Dichloroethene	0,34	0,02	0,42	0,08	µg/l	124%
trans-1,2-Dichloroethene	0,27	0,01	<0,5		µg/l	•



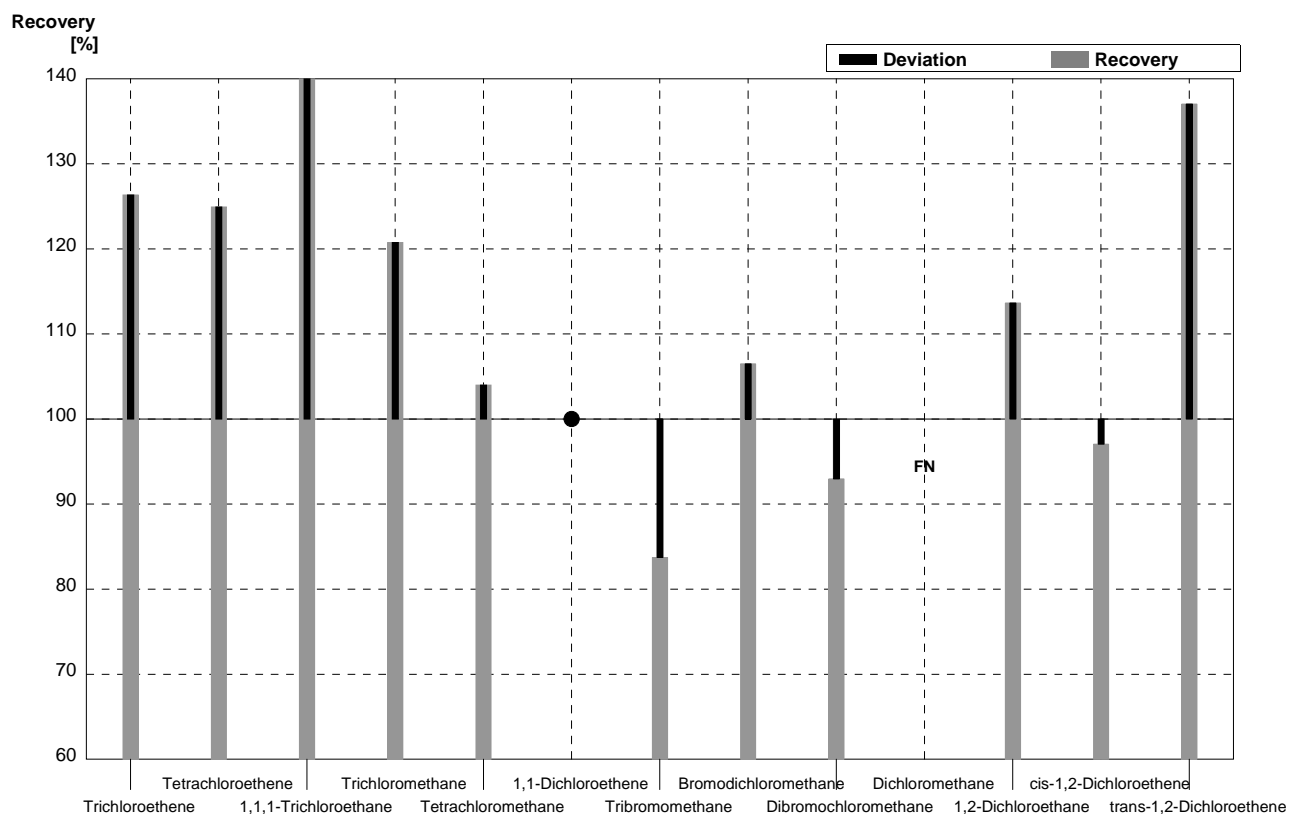
Sample C46A
Laboratory J

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,613	0,236	µg/l	125%
Tetrachloroethene	<0,06		<0,05		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,80	0,78	µg/l	135%
Trichloromethane	0,44	0,02	0,542	0,234	µg/l	123%
Tetrachloromethane	0,35	0,02	0,374	0,149	µg/l	107%
1,1-Dichloroethene	0,51	0,03	0,842	0,323	µg/l	165%
Tribromomethane	0,39	0,02	0,35	0,14	µg/l	90%
Bromodichloromethane	0,19	0,01	0,23	0,09	µg/l	121%
Dibromochloromethane	1,45	0,07	1,41	0,54	µg/l	97%
Dichloromethane	7,08	0,35	<0,05		µg/l	FN
1,2-Dichloroethene	0,81	0,04	0,886	0,32	µg/l	109%
cis-1,2-Dichloroethene	1,36	0,07	1,37	0,52	µg/l	101%
trans-1,2-Dichloroethene	1,09	0,05	1,44	0,57	µg/l	132%



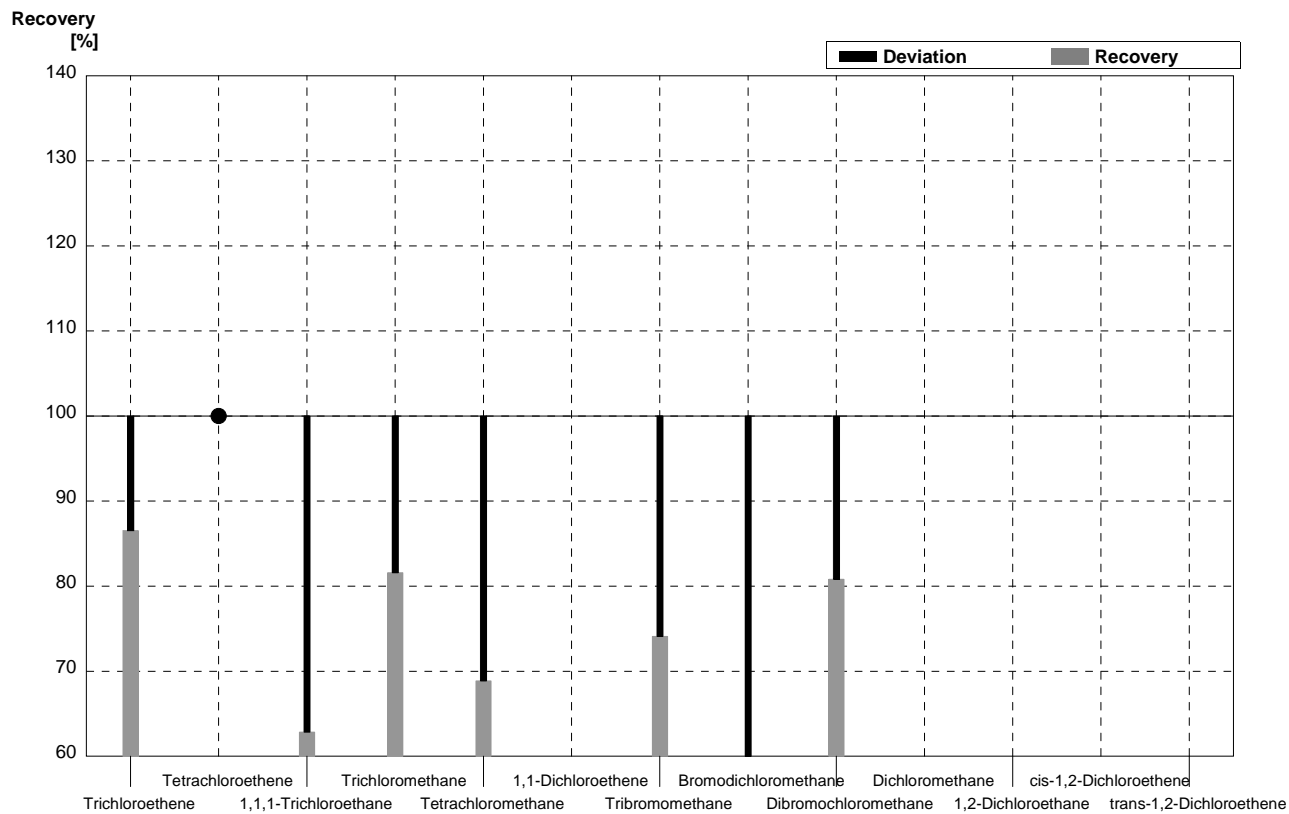
Sample C46B
Laboratory J

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	2,59	0,99	µg/l	126%
Tetrachloroethene	1,09	0,05	1,362	0,539	µg/l	125%
1,1,1-Trichloroethane	0,17	0,01	0,262	0,115	µg/l	154%
Trichloromethane	1,43	0,07	1,727	0,744	µg/l	121%
Tetrachloromethane	0,60	0,03	0,624	0,247	µg/l	104%
1,1-Dichloroethene	<0,2		<0,03		µg/l	•
Tribromomethane	0,86	0,04	0,72	0,28	µg/l	84%
Bromodichloromethane	1,23	0,06	1,31	0,5	µg/l	107%
Dibromochloromethane	0,57	0,03	0,53	0,21	µg/l	93%
Dichloromethane	2,87	0,14	<0,05		µg/l	FN
1,2-Dichloroethane	2,73	0,14	3,103	1,12	µg/l	114%
cis-1,2-Dichloroethene	0,34	0,02	0,33	0,13	µg/l	97%
trans-1,2-Dichloroethene	0,27	0,01	0,37	0,15	µg/l	137%



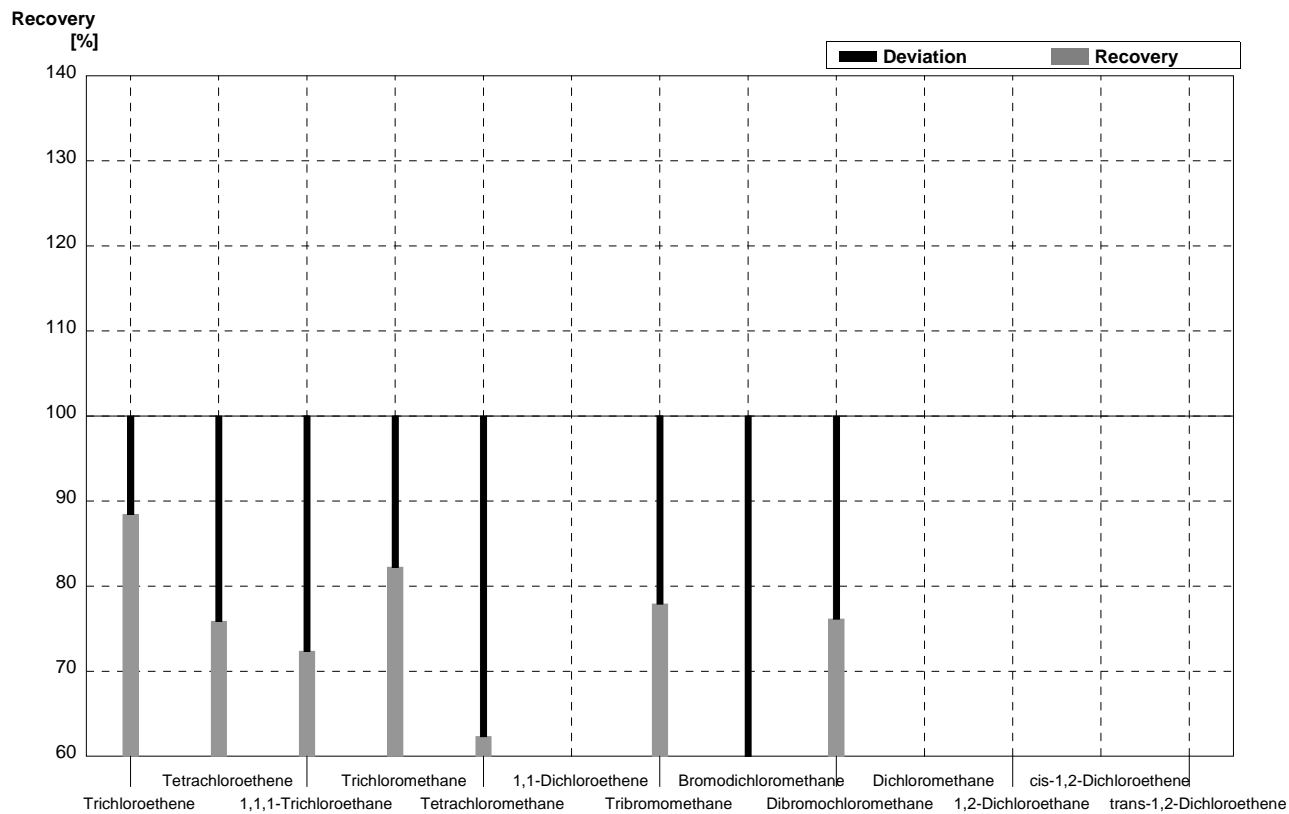
Sample C46A
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,424		µg/l	87%
Tetrachloroethene	<0,06		<0,1		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	0,836		µg/l	63%
Trichloromethane	0,44	0,02	0,359		µg/l	82%
Tetrachloromethane	0,35	0,02	0,241		µg/l	69%
1,1-Dichloroethene	0,51	0,03			µg/l	
Tribromomethane	0,39	0,02	0,289		µg/l	74%
Bromodichloromethane	0,19	0,01	0,089		µg/l	47%
Dibromochloromethane	1,45	0,07	1,172		µg/l	81%
Dichloromethane	7,08	0,35			µg/l	
1,2-Dichloroethane	0,81	0,04			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	1,09	0,05			µg/l	



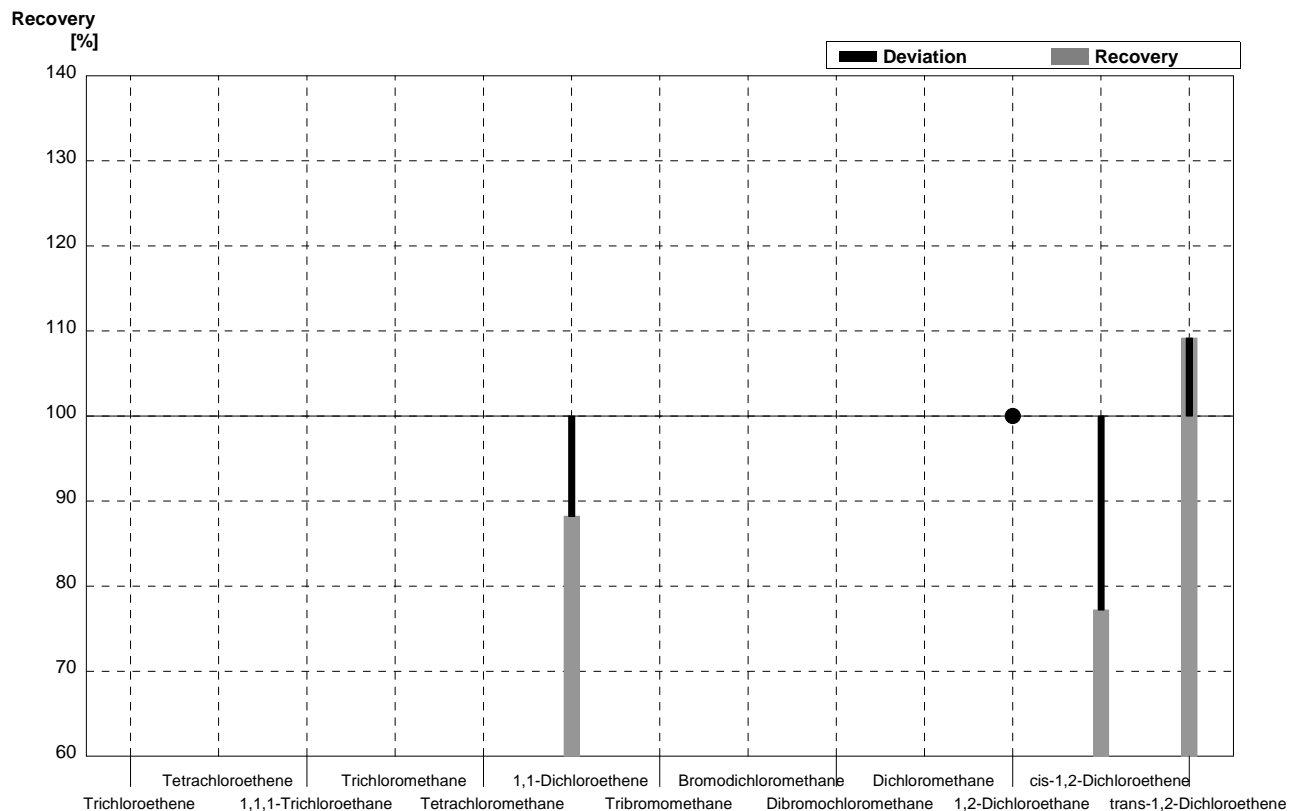
Sample C46B
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,813		µg/l	88%
Tetrachloroethene	1,09	0,05	0,827		µg/l	76%
1,1,1-Trichloroethane	0,17	0,01	0,123		µg/l	72%
Trichloromethane	1,43	0,07	1,176		µg/l	82%
Tetrachloromethane	0,60	0,03	0,374		µg/l	62%
1,1-Dichloroethene	<0,2				µg/l	
Tribromomethane	0,86	0,04	0,670		µg/l	78%
Bromodichloromethane	1,23	0,06	0,637		µg/l	52%
Dibromochloromethane	0,57	0,03	0,434		µg/l	76%
Dichloromethane	2,87	0,14			µg/l	
1,2-Dichloroethane	2,73	0,14			µg/l	
cis-1,2-Dichloroethene	0,34	0,02			µg/l	
trans-1,2-Dichloroethene	0,27	0,01			µg/l	



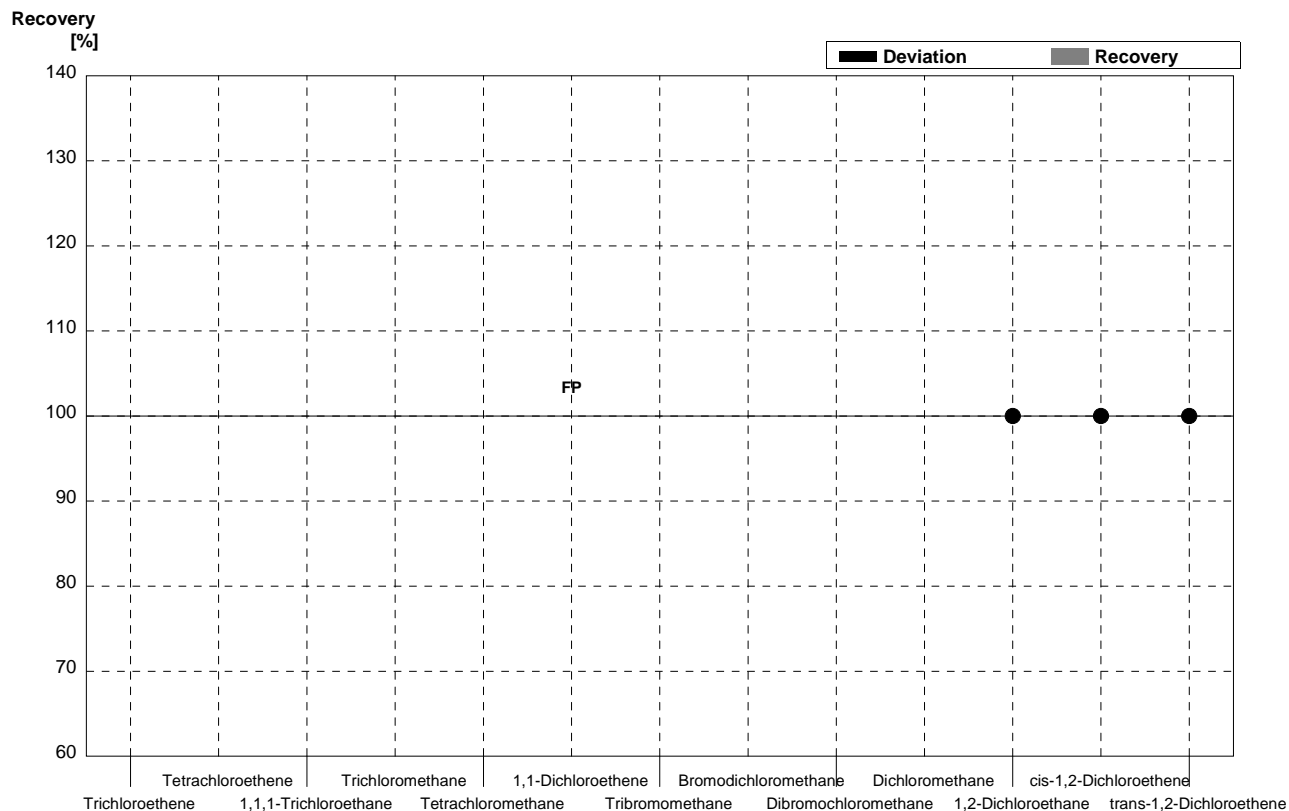
Sample C46A
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02			µg/l	
Tetrachloroethene	<0,06				µg/l	
1,1,1-Trichloroethane	1,33	0,07			µg/l	
Trichloromethane	0,44	0,02			µg/l	
Tetrachloromethane	0,35	0,02			µg/l	
1,1-Dichloroethene	0,51	0,03	0,45		µg/l	88%
Tribromomethane	0,39	0,02			µg/l	
Bromodichloromethane	0,19	0,01			µg/l	
Dibromochloromethane	1,45	0,07			µg/l	
Dichloromethane	7,08	0,35			µg/l	
1,2-Dichloroethane	0,81	0,04	[5]		µg/l	•
cis-1,2-Dichloroethene	1,36	0,07	1,05		µg/l	77%
trans-1,2-Dichloroethene	1,09	0,05	1,19		µg/l	109%



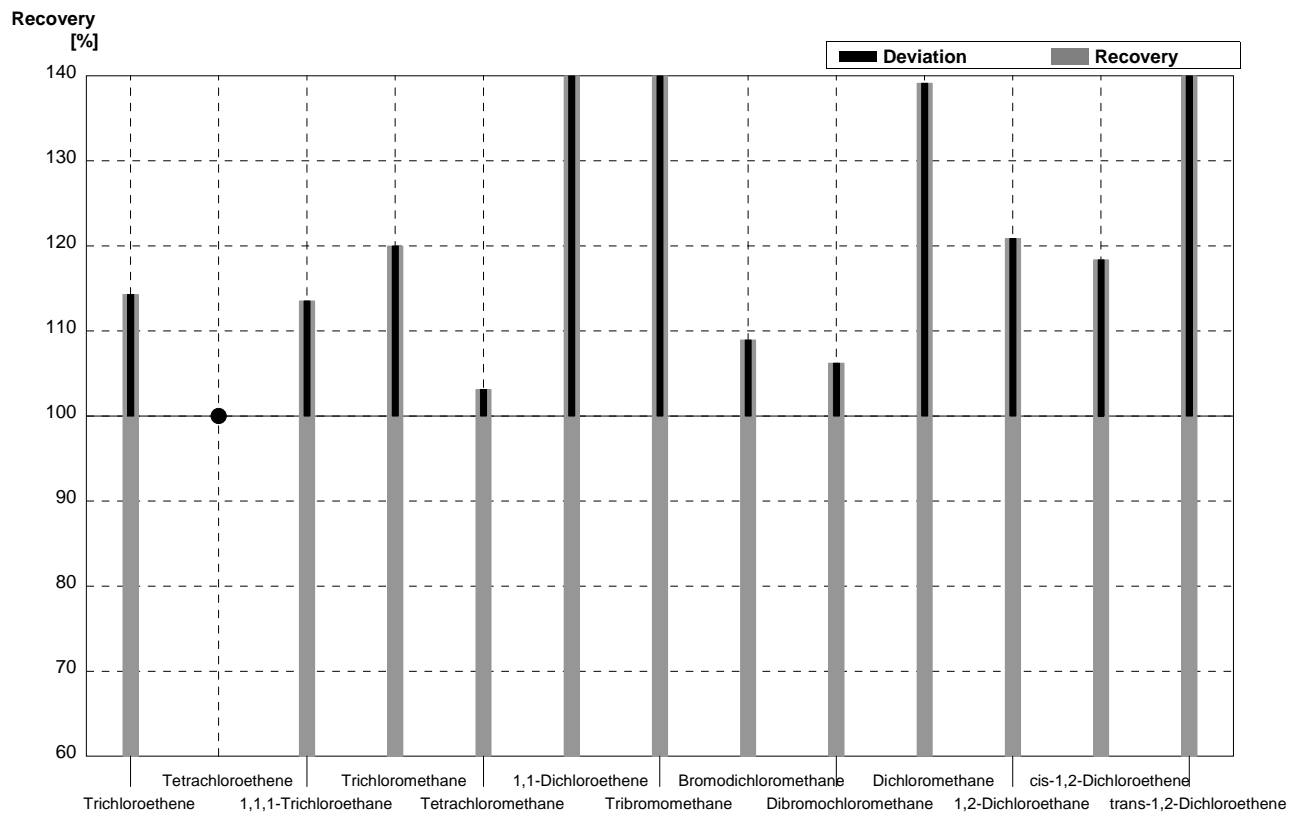
Sample C46B
Laboratory L

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	2,05	0,10			$\mu\text{g/l}$	
Tetrachloroethene	1,09	0,05			$\mu\text{g/l}$	
1,1,1-Trichloroethane	0,17	0,01			$\mu\text{g/l}$	
Trichloromethane	1,43	0,07			$\mu\text{g/l}$	
Tetrachloromethane	0,60	0,03			$\mu\text{g/l}$	
1,1-Dichloroethene	<0,2		2,54		$\mu\text{g/l}$	FP
Tribromomethane	0,86	0,04			$\mu\text{g/l}$	
Bromodichloromethane	1,23	0,06			$\mu\text{g/l}$	
Dibromochloromethane	0,57	0,03			$\mu\text{g/l}$	
Dichloromethane	2,87	0,14			$\mu\text{g/l}$	
1,2-Dichloroethane	2,73	0,14	[5]		$\mu\text{g/l}$	•
cis-1,2-Dichloroethene	0,34	0,02	[0,5]		$\mu\text{g/l}$	•
trans-1,2-Dichloroethene	0,27	0,01	[0,5]		$\mu\text{g/l}$	•



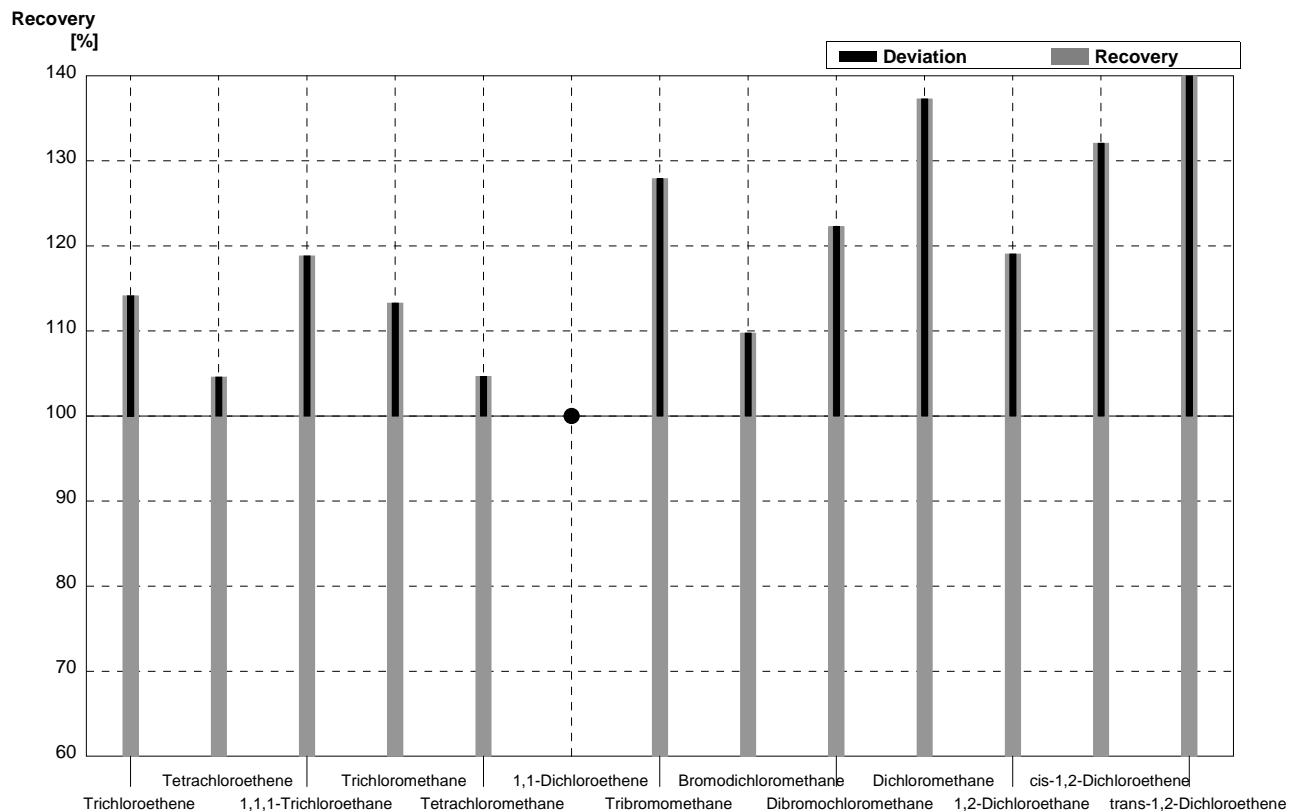
Sample C46A
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,560	0,08	µg/l	114%
Tetrachloroethene	<0,06		<0,1		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,51	0,22	µg/l	114%
Trichloromethane	0,44	0,02	0,528	0,07	µg/l	120%
Tetrachloromethane	0,35	0,02	0,361	0,04	µg/l	103%
1,1-Dichloroethene	0,51	0,03	1,01	0,15	µg/l	198%
Tribromomethane	0,39	0,02	0,555	0,08	µg/l	142%
Bromodichloromethane	0,19	0,01	0,207	0,04	µg/l	109%
Dibromochloromethane	1,45	0,07	1,54	0,20	µg/l	106%
Dichloromethane	7,08	0,35	9,85	1,4	µg/l	139%
1,2-Dichloroethane	0,81	0,04	0,979	0,14	µg/l	121%
cis-1,2-Dichloroethene	1,36	0,07	1,61	0,24	µg/l	118%
trans-1,2-Dichloroethene	1,09	0,05	1,56	0,24	µg/l	143%



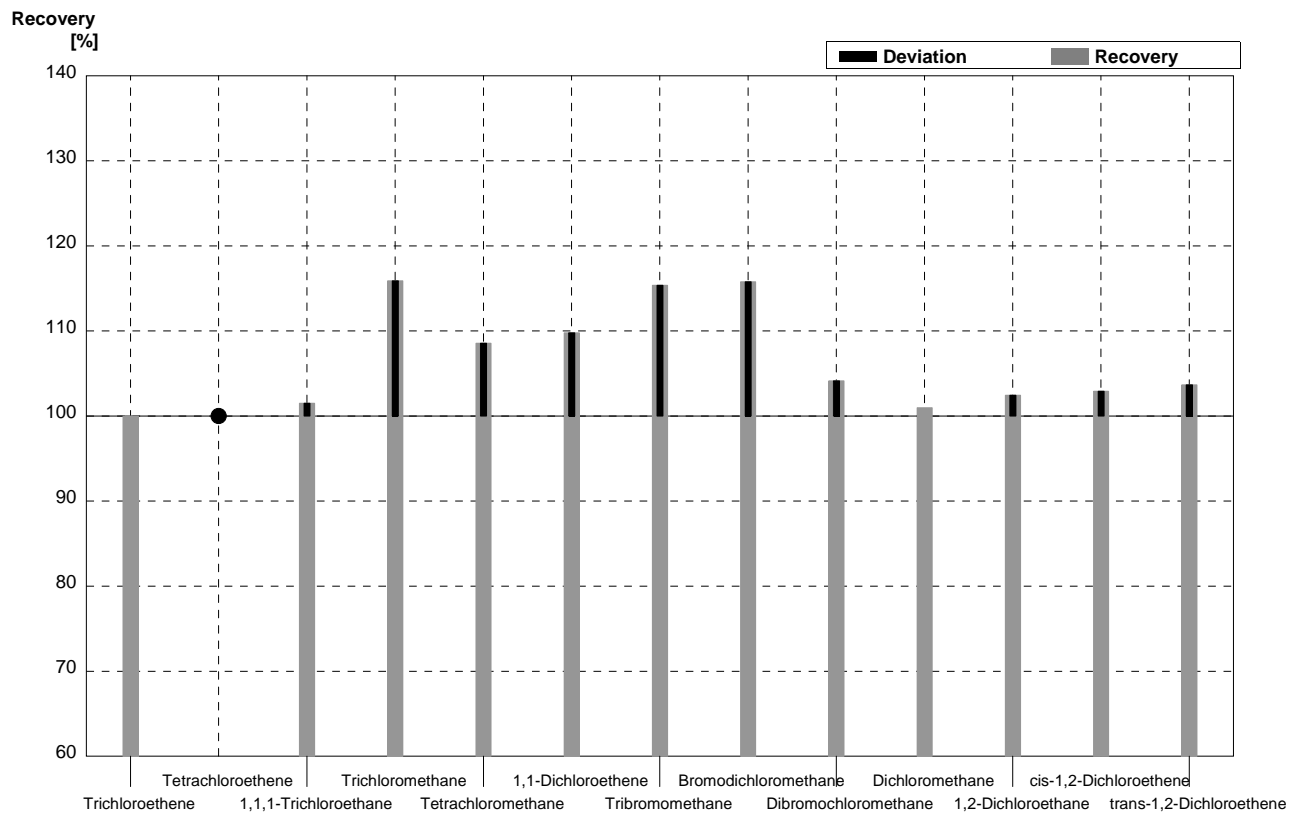
Sample C46B
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	2,34	0,33	µg/l	114%
Tetrachloroethene	1,09	0,05	1,14	0,17	µg/l	105%
1,1,1-Trichloroethane	0,17	0,01	0,202	0,03	µg/l	119%
Trichloromethane	1,43	0,07	1,62	0,24	µg/l	113%
Tetrachloromethane	0,60	0,03	0,628	0,08	µg/l	105%
1,1-Dichloroethene	<0,2		<0,1		µg/l	•
Tribromomethane	0,86	0,04	1,10	0,18	µg/l	128%
Bromodichloromethane	1,23	0,06	1,35	0,20	µg/l	110%
Dibromochloromethane	0,57	0,03	0,697	0,08	µg/l	122%
Dichloromethane	2,87	0,14	3,94	0,60	µg/l	137%
1,2-Dichloroethane	2,73	0,14	3,25	0,45	µg/l	119%
cis-1,2-Dichloroethene	0,34	0,02	0,449	0,07	µg/l	132%
trans-1,2-Dichloroethene	0,27	0,01	0,397	0,06	µg/l	147%



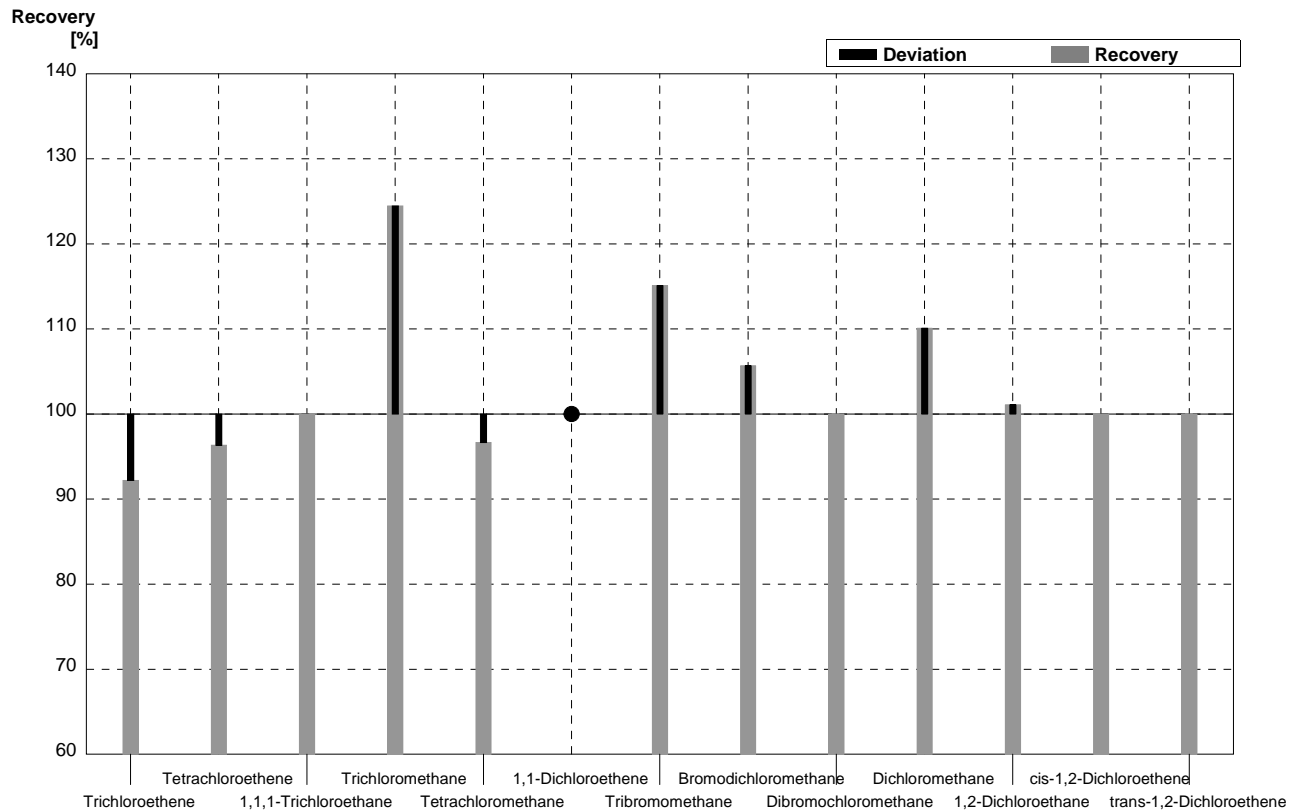
Sample C46A
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,49	0,07	µg/l	100%
Tetrachloroethene	<0,06		<0,05		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,35	0,20	µg/l	102%
Trichloromethane	0,44	0,02	0,51	0,08	µg/l	116%
Tetrachloromethane	0,35	0,02	0,38	0,06	µg/l	109%
1,1-Dichloroethene	0,51	0,03	0,56	0,08	µg/l	110%
Tribromomethane	0,39	0,02	0,45	0,07	µg/l	115%
Bromodichloromethane	0,19	0,01	0,22	0,03	µg/l	116%
Dibromochloromethane	1,45	0,07	1,51	0,23	µg/l	104%
Dichloromethane	7,08	0,35	7,15	1,07	µg/l	101%
1,2-Dichloroethane	0,81	0,04	0,83	0,12	µg/l	102%
cis-1,2-Dichloroethene	1,36	0,07	1,40	0,21	µg/l	103%
trans-1,2-Dichloroethene	1,09	0,05	1,13	0,17	µg/l	104%



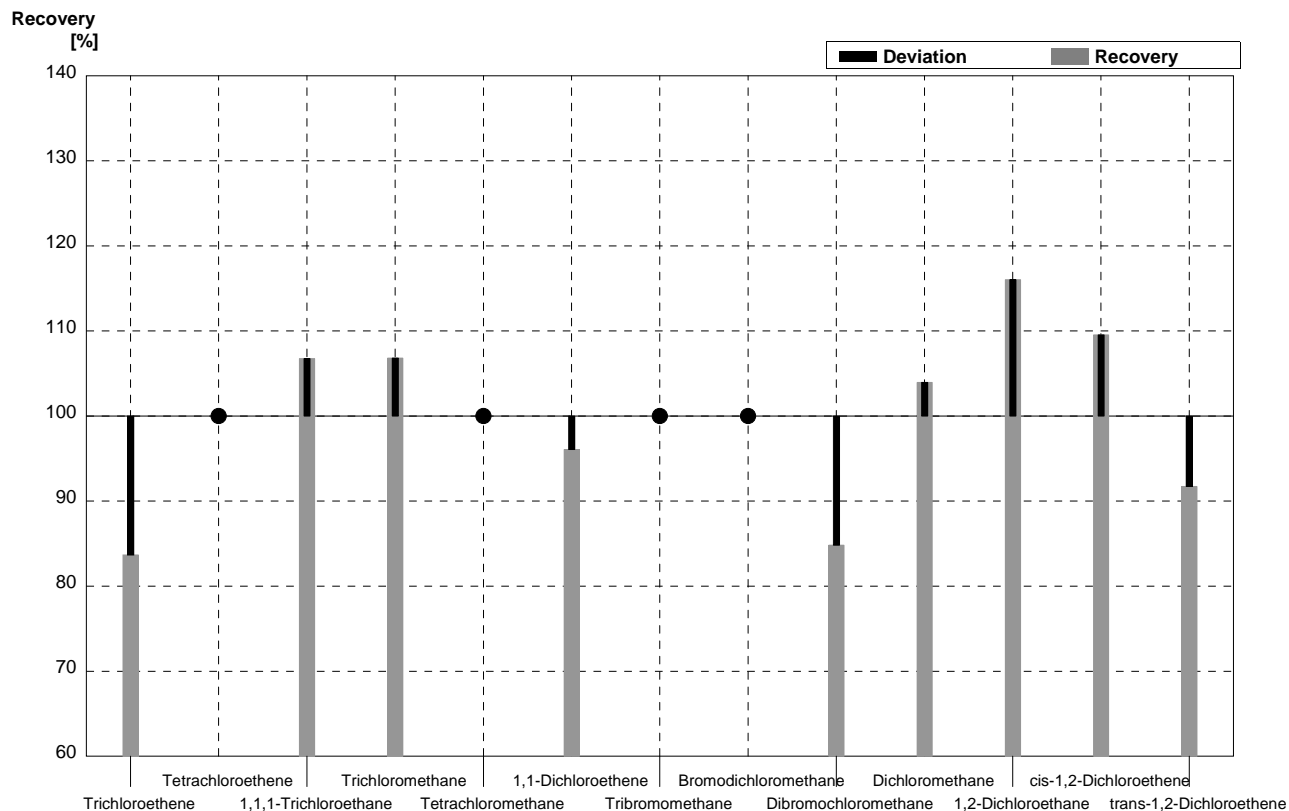
Sample C46B
Laboratory N

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	2,05	0,10	1,89	0,28	$\mu\text{g/l}$	92%
Tetrachloroethene	1,09	0,05	1,05	0,16	$\mu\text{g/l}$	96%
1,1,1-Trichloroethane	0,17	0,01	0,17	0,03	$\mu\text{g/l}$	100%
Trichloromethane	1,43	0,07	1,78	0,27	$\mu\text{g/l}$	124%
Tetrachloromethane	0,60	0,03	0,58	0,09	$\mu\text{g/l}$	97%
1,1-Dichloroethene	<0,2		<0,05		$\mu\text{g/l}$	•
Tribromomethane	0,86	0,04	0,99	0,15	$\mu\text{g/l}$	115%
Bromodichloromethane	1,23	0,06	1,30	0,19	$\mu\text{g/l}$	106%
Dibromochloromethane	0,57	0,03	0,57	0,09	$\mu\text{g/l}$	100%
Dichloromethane	2,87	0,14	3,16	0,47	$\mu\text{g/l}$	110%
1,2-Dichloroethane	2,73	0,14	2,76	0,41	$\mu\text{g/l}$	101%
cis-1,2-Dichloroethene	0,34	0,02	0,34	0,05	$\mu\text{g/l}$	100%
trans-1,2-Dichloroethene	0,27	0,01	0,27	0,04	$\mu\text{g/l}$	100%



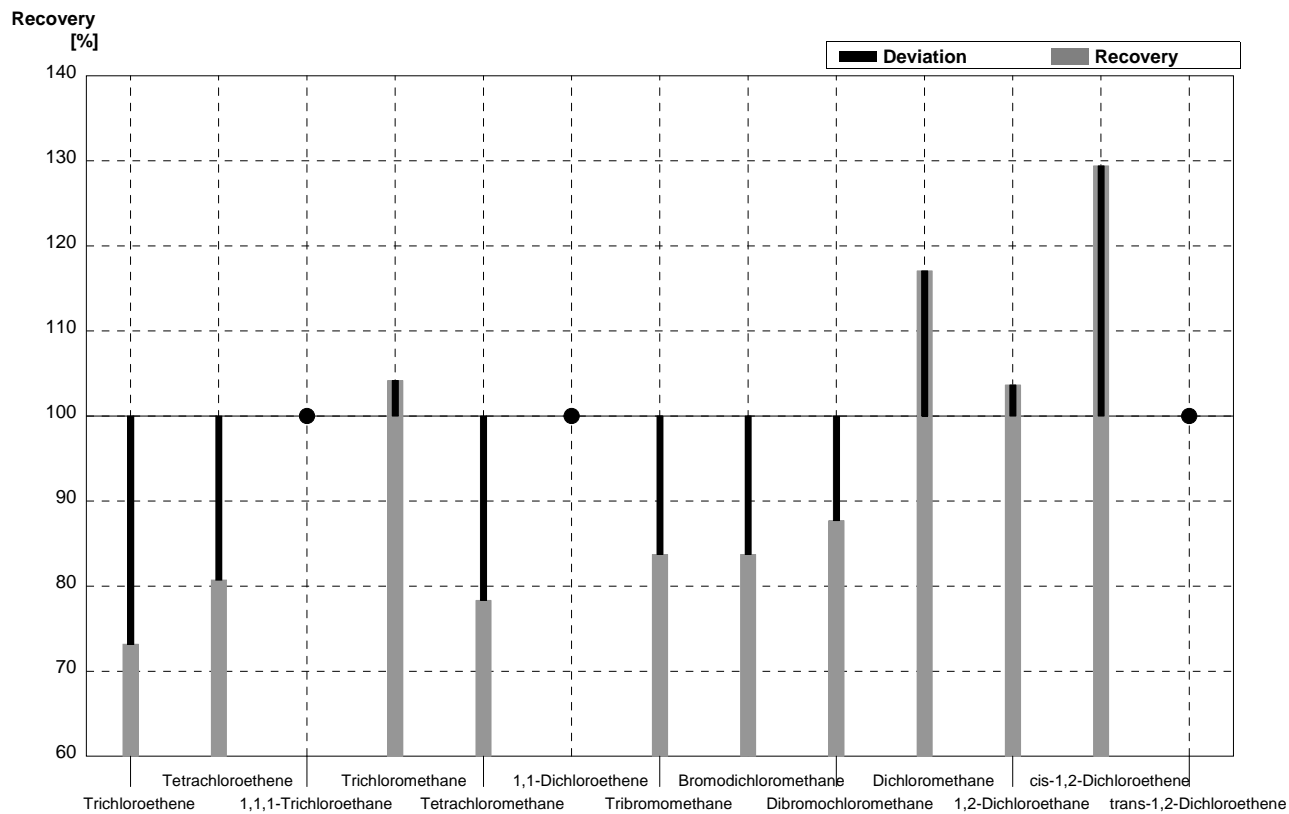
Sample C46A
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,41	0,09	µg/l	84%
Tetrachloroethene	<0,06		<0,5		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,42	0,31	µg/l	107%
Trichloromethane	0,44	0,02	0,47	0,09	µg/l	107%
Tetrachloromethane	0,35	0,02	<0,5		µg/l	•
1,1-Dichloroethene	0,51	0,03	0,49	0,11	µg/l	96%
Tribromomethane	0,39	0,02	<0,5		µg/l	•
Bromodichloromethane	0,19	0,01	<0,5		µg/l	•
Dibromochloromethane	1,45	0,07	1,23	0,20	µg/l	85%
Dichloromethane	7,08	0,35	7,36	1,62	µg/l	104%
1,2-Dichloroethane	0,81	0,04	0,94	0,15	µg/l	116%
cis-1,2-Dichloroethene	1,36	0,07	1,49	0,33	µg/l	110%
trans-1,2-Dichloroethene	1,09	0,05	1,00	0,22	µg/l	92%



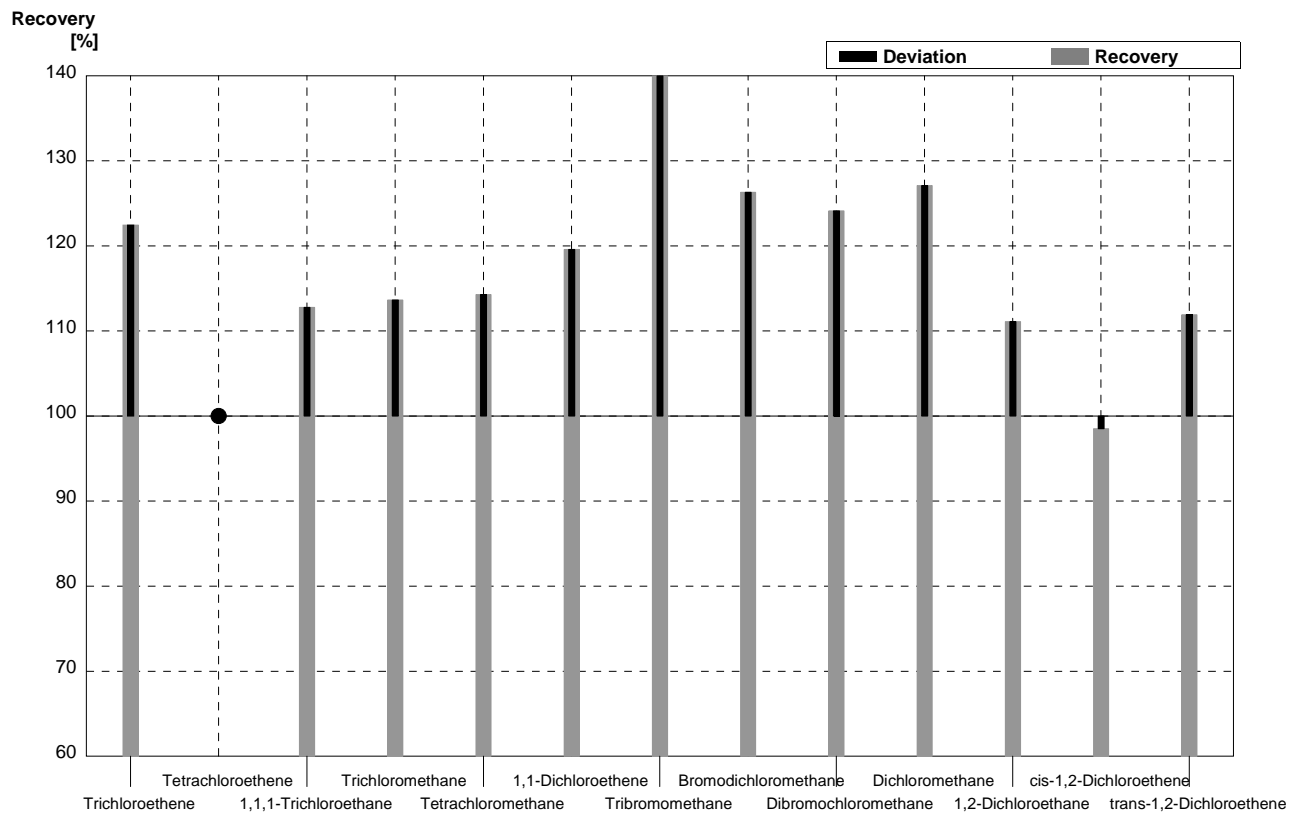
Sample C46B
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,50	0,33	µg/l	73%
Tetrachloroethene	1,09	0,05	0,88	0,16	µg/l	81%
1,1,1-Trichloroethane	0,17	0,01	<0,5		µg/l	•
Trichloromethane	1,43	0,07	1,49	0,28	µg/l	104%
Tetrachloromethane	0,60	0,03	0,47	0,10	µg/l	78%
1,1-Dichloroethene	<0,2		<0,5		µg/l	•
Tribromomethane	0,86	0,04	0,72	0,13	µg/l	84%
Bromodichloromethane	1,23	0,06	1,03	0,18	µg/l	84%
Dibromochloromethane	0,57	0,03	0,50	0,08	µg/l	88%
Dichloromethane	2,87	0,14	3,36	0,74	µg/l	117%
1,2-Dichloroethane	2,73	0,14	2,83	0,45	µg/l	104%
cis-1,2-Dichloroethene	0,34	0,02	0,44	0,10	µg/l	129%
trans-1,2-Dichloroethene	0,27	0,01	<0,5		µg/l	•



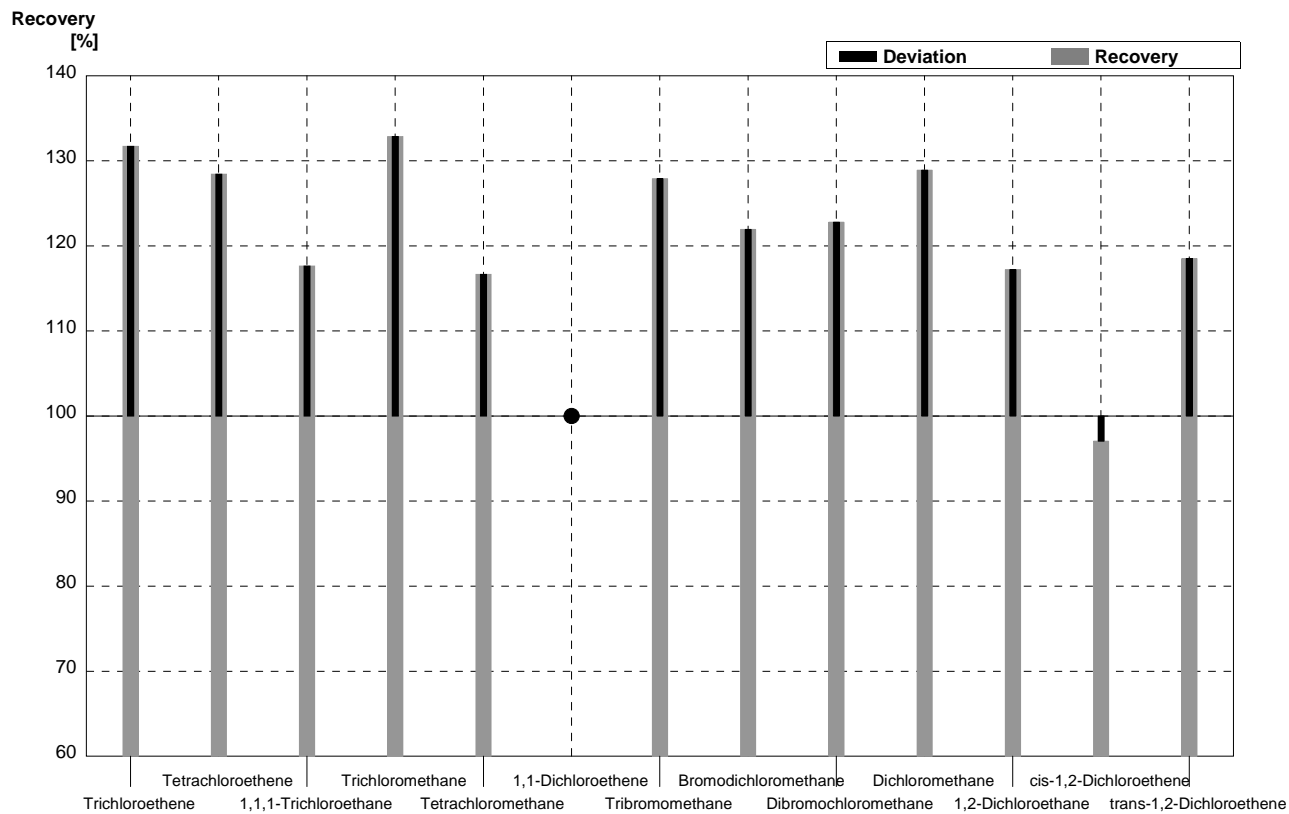
Sample C46A
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,6		µg/l	122%
Tetrachloroethene	<0,06		<0,5		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,5	0,1	µg/l	113%
Trichloromethane	0,44	0,02	0,5		µg/l	114%
Tetrachloromethane	0,35	0,02	0,4		µg/l	114%
1,1-Dichloroethene	0,51	0,03	0,61	0,02	µg/l	120%
Tribromomethane	0,39	0,02	0,6		µg/l	154%
Bromodichloromethane	0,19	0,01	0,24	0,01	µg/l	126%
Dibromochloromethane	1,45	0,07	1,8	0,1	µg/l	124%
Dichloromethane	7,08	0,35	9,0	0,4	µg/l	127%
1,2-Dichloroethane	0,81	0,04	0,9		µg/l	111%
cis-1,2-Dichloroethene	1,36	0,07	1,34	0,04	µg/l	99%
trans-1,2-Dichloroethene	1,09	0,05	1,22	0,05	µg/l	112%



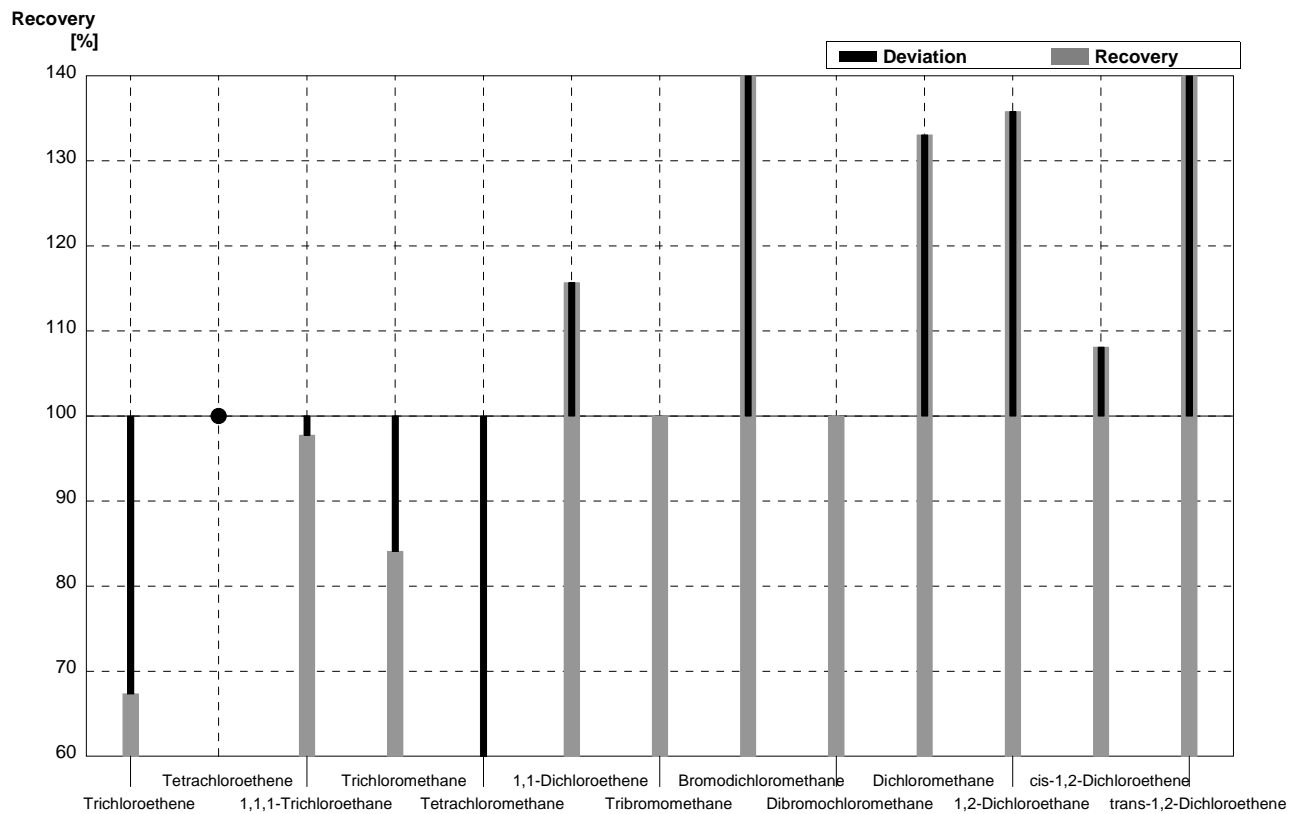
Sample C46B
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	2,7	0,3	µg/l	132%
Tetrachloroethene	1,09	0,05	1,4	0,1	µg/l	128%
1,1,1-Trichloroethane	0,17	0,01	0,2		µg/l	118%
Trichloromethane	1,43	0,07	1,9	0,2	µg/l	133%
Tetrachloromethane	0,60	0,03	0,7	0,1	µg/l	117%
1,1-Dichloroethene	<0,2		<0,2		µg/l	•
Tribromomethane	0,86	0,04	1,1		µg/l	128%
Bromodichloromethane	1,23	0,06	1,5	0,1	µg/l	122%
Dibromochloromethane	0,57	0,03	0,7		µg/l	123%
Dichloromethane	2,87	0,14	3,7	0,3	µg/l	129%
1,2-Dichloroethane	2,73	0,14	3,2	0,3	µg/l	117%
cis-1,2-Dichloroethene	0,34	0,02	0,33	0,01	µg/l	97%
trans-1,2-Dichloroethene	0,27	0,01	0,32	0,03	µg/l	119%



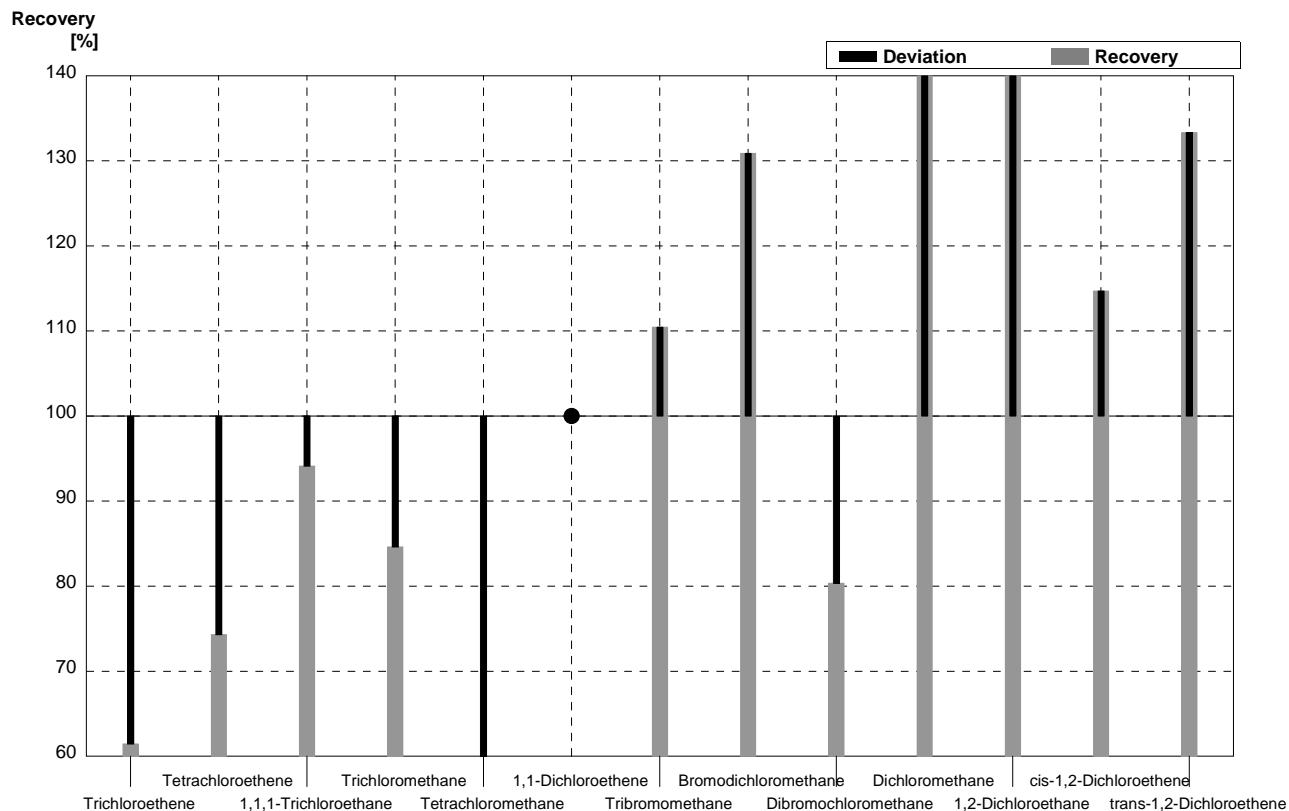
Sample C46A
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,33	0,07	µg/l	67%
Tetrachloroethene	<0,06		<0,05		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,30	0,26	µg/l	98%
Trichloromethane	0,44	0,02	0,37	0,07	µg/l	84%
Tetrachloromethane	0,35	0,02	0,18	0,04	µg/l	51%
1,1-Dichloroethene	0,51	0,03	0,59	0,12	µg/l	116%
Tribromomethane	0,39	0,02	0,39	0,08	µg/l	100%
Bromodichloromethane	0,19	0,01	0,27	0,05	µg/l	142%
Dibromochloromethane	1,45	0,07	1,45	0,29	µg/l	100%
Dichloromethane	7,08	0,35	9,42	1,88	µg/l	133%
1,2-Dichloroethane	0,81	0,04	1,10	0,22	µg/l	136%
cis-1,2-Dichloroethene	1,36	0,07	1,47	0,29	µg/l	108%
trans-1,2-Dichloroethene	1,09	0,05	1,55	0,31	µg/l	142%



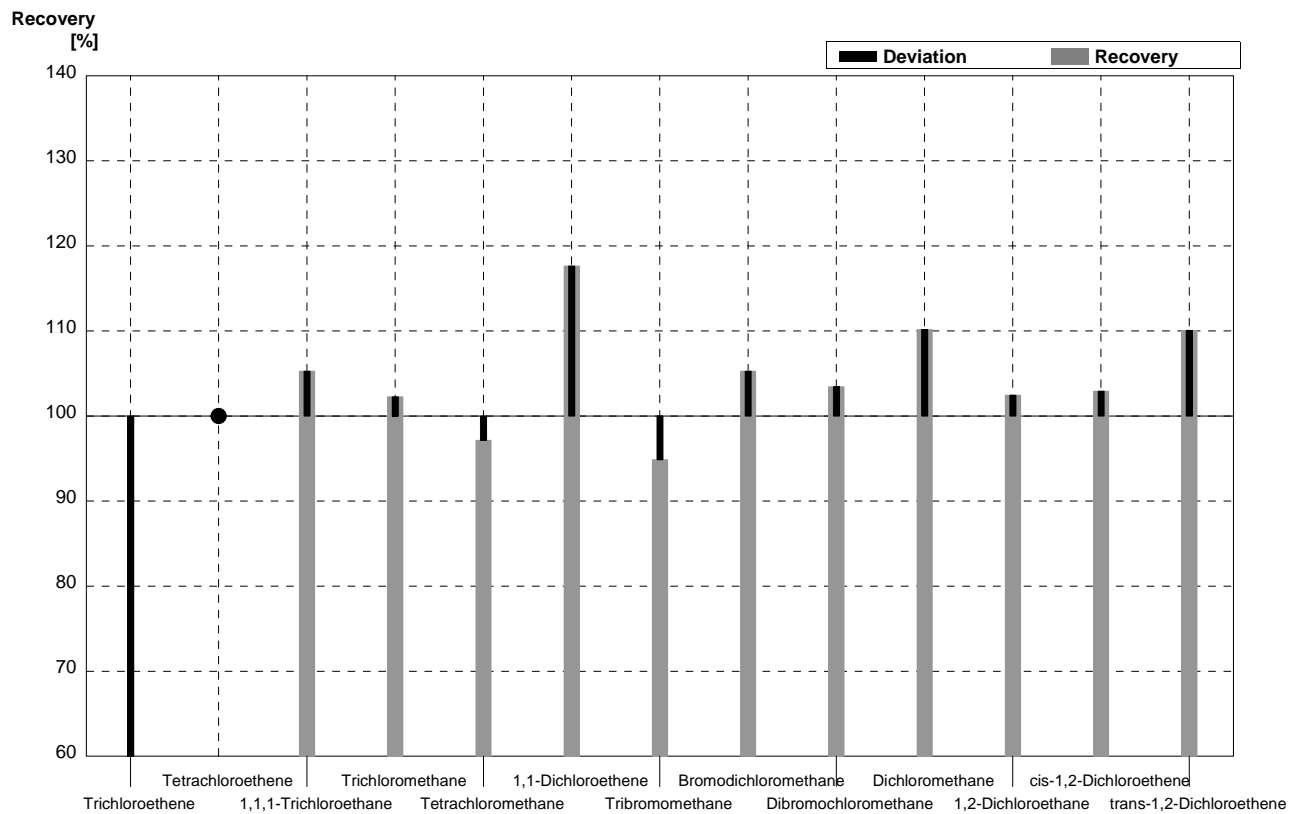
Sample C46B
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,26	0,25	µg/l	61%
Tetrachloroethene	1,09	0,05	0,81	0,16	µg/l	74%
1,1,1-Trichloroethane	0,17	0,01	0,16	0,03	µg/l	94%
Trichloromethane	1,43	0,07	1,21	0,24	µg/l	85%
Tetrachloromethane	0,60	0,03	0,31	0,06	µg/l	52%
1,1-Dichloroethene	<0,2		<0,05		µg/l	•
Tribromomethane	0,86	0,04	0,95	0,19	µg/l	110%
Bromodichloromethane	1,23	0,06	1,61	0,32	µg/l	131%
Dibromochloromethane	0,57	0,03	0,458	0,09	µg/l	80%
Dichloromethane	2,87	0,14	4,22	0,84	µg/l	147%
1,2-Dichloroethane	2,73	0,14	4,2	0,84	µg/l	154%
cis-1,2-Dichloroethene	0,34	0,02	0,39	0,08	µg/l	115%
trans-1,2-Dichloroethene	0,27	0,01	0,36	0,07	µg/l	133%



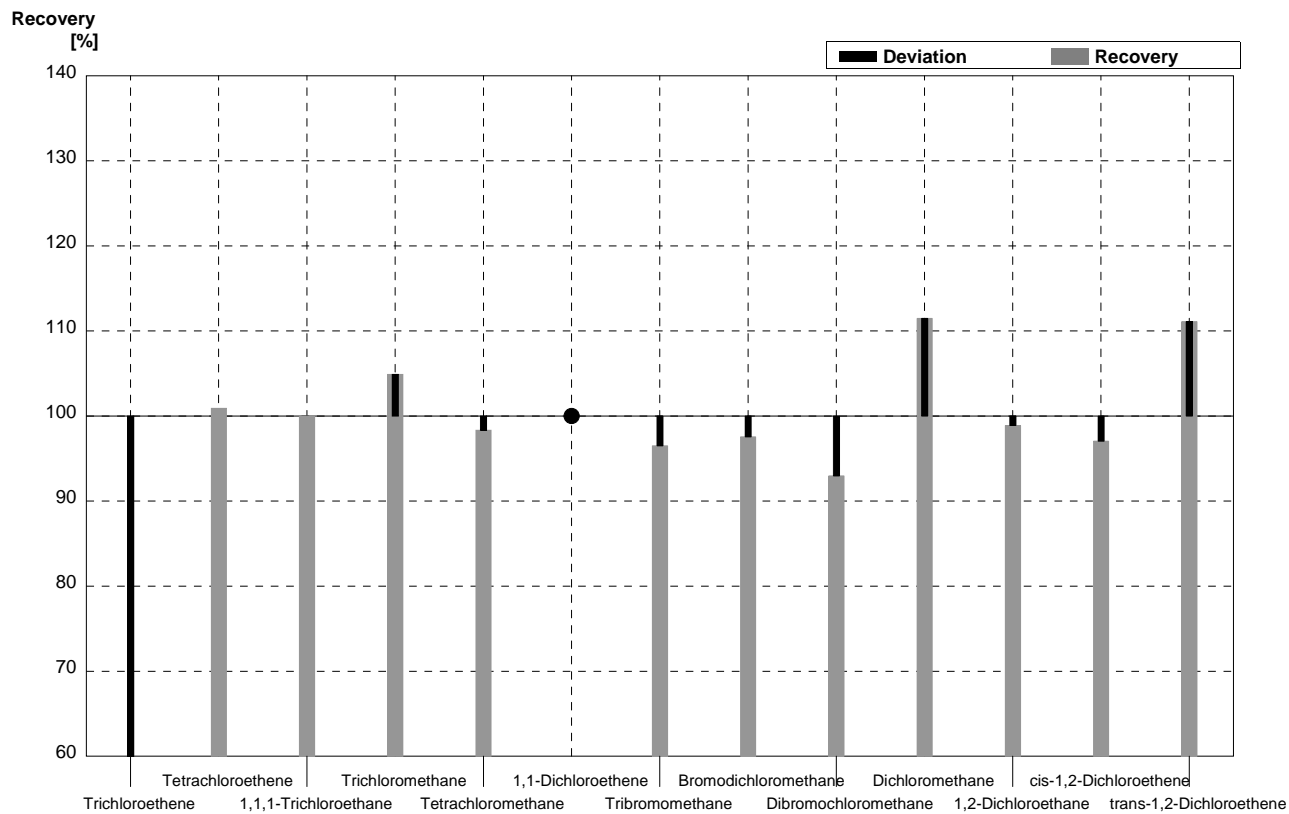
Sample C46A
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,26	0,026	µg/l	53%
Tetrachloroethene	<0,06		<0,10	0,010	µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,4	0,14	µg/l	105%
Trichloromethane	0,44	0,02	0,45	0,045	µg/l	102%
Tetrachloromethane	0,35	0,02	0,34	0,034	µg/l	97%
1,1-Dichloroethene	0,51	0,03	0,60	0,060	µg/l	118%
Tribromomethane	0,39	0,02	0,37	0,037	µg/l	95%
Bromodichloromethane	0,19	0,01	0,20	0,020	µg/l	105%
Dibromochloromethane	1,45	0,07	1,5	0,15	µg/l	103%
Dichloromethane	7,08	0,35	7,8	0,78	µg/l	110%
1,2-Dichloroethane	0,81	0,04	0,83	0,083	µg/l	102%
cis-1,2-Dichloroethene	1,36	0,07	1,4	0,14	µg/l	103%
trans-1,2-Dichloroethene	1,09	0,05	1,2	0,12	µg/l	110%



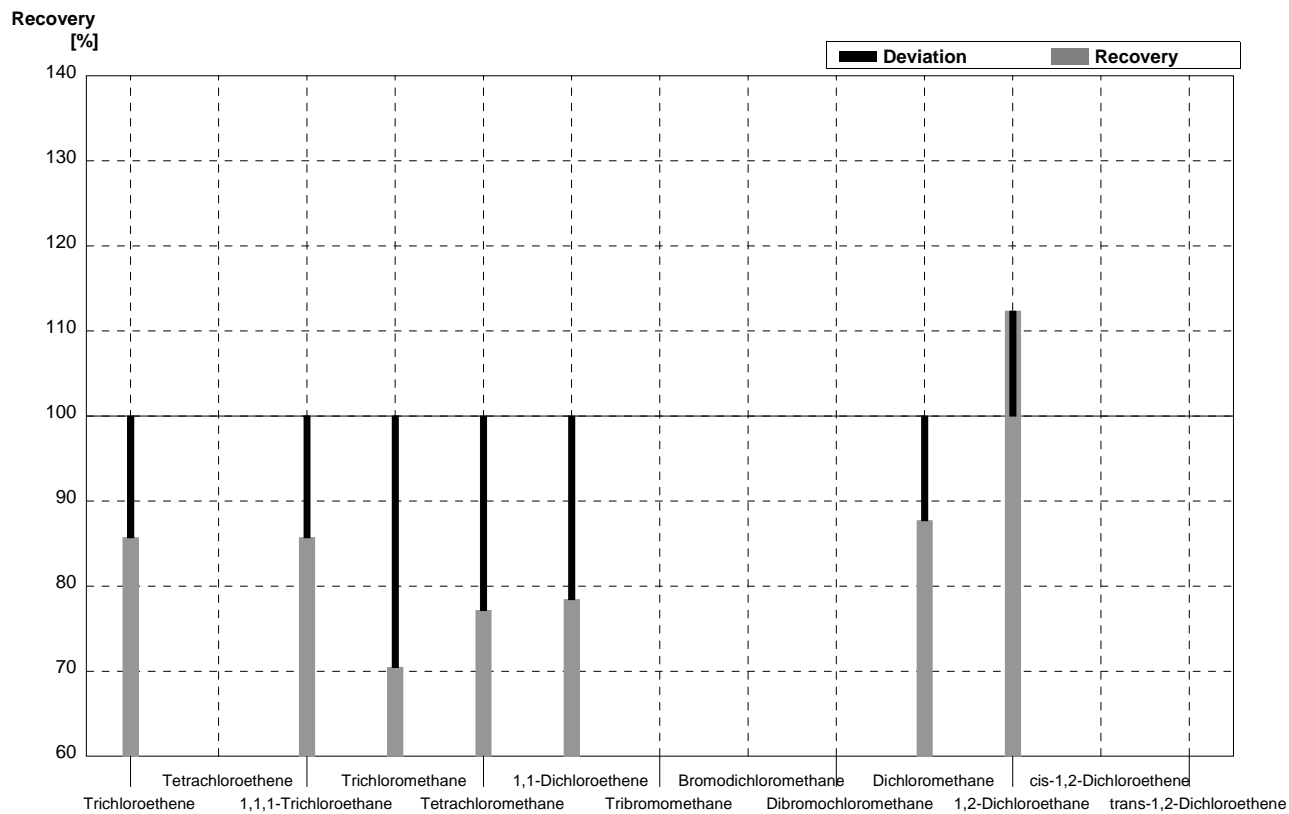
Sample C46B
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,1	0,11	µg/l	54%
Tetrachloroethene	1,09	0,05	1,1	0,11	µg/l	101%
1,1,1-Trichloroethane	0,17	0,01	0,17	0,017	µg/l	100%
Trichloromethane	1,43	0,07	1,5	0,15	µg/l	105%
Tetrachloromethane	0,60	0,03	0,59	0,059	µg/l	98%
1,1-Dichloroethene	<0,2		<0,15	0,015	µg/l	•
Tribromomethane	0,86	0,04	0,83	0,083	µg/l	97%
Bromodichloromethane	1,23	0,06	1,2	0,12	µg/l	98%
Dibromochloromethane	0,57	0,03	0,53	0,053	µg/l	93%
Dichloromethane	2,87	0,14	3,2	0,32	µg/l	111%
1,2-Dichloroethane	2,73	0,14	2,7	0,27	µg/l	99%
cis-1,2-Dichloroethene	0,34	0,02	0,33	0,033	µg/l	97%
trans-1,2-Dichloroethene	0,27	0,01	0,30	0,030	µg/l	111%



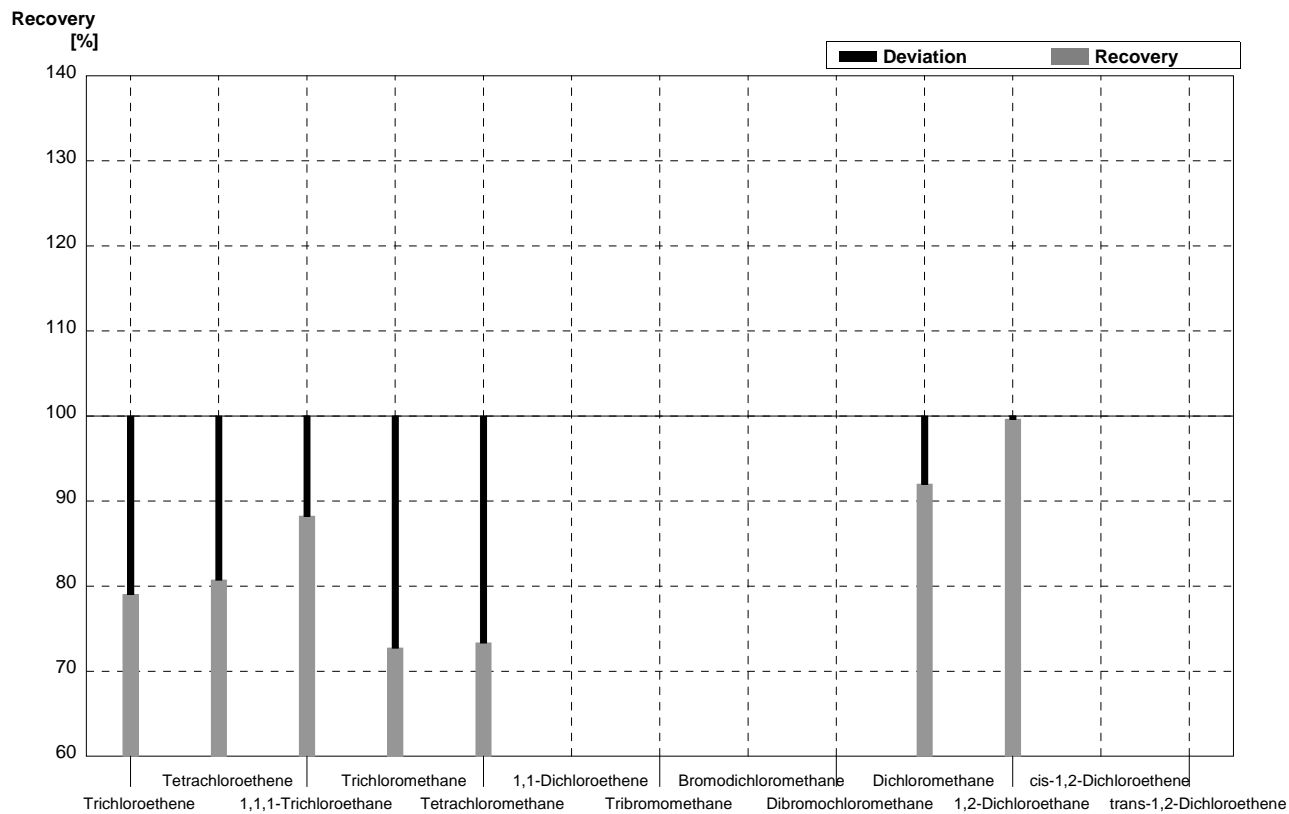
Sample C46A
Laboratory S

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,42	0,04	µg/l	86%
Tetrachloroethene	<0,06		0,00	0,00	µg/l	
1,1,1-Trichloroethane	1,33	0,07	1,14	0,15	µg/l	86%
Trichloromethane	0,44	0,02	0,31	0,03	µg/l	70%
Tetrachloromethane	0,35	0,02	0,27	0,03	µg/l	77%
1,1-Dichloroethene	0,51	0,03	0,40	0,04	µg/l	78%
Tribromomethane	0,39	0,02			µg/l	
Bromodichloromethane	0,19	0,01			µg/l	
Dibromochloromethane	1,45	0,07			µg/l	
Dichloromethane	7,08	0,35	6,21	0,62	µg/l	88%
1,2-Dichloroethane	0,81	0,04	0,91	0,09	µg/l	112%
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	1,09	0,05			µg/l	



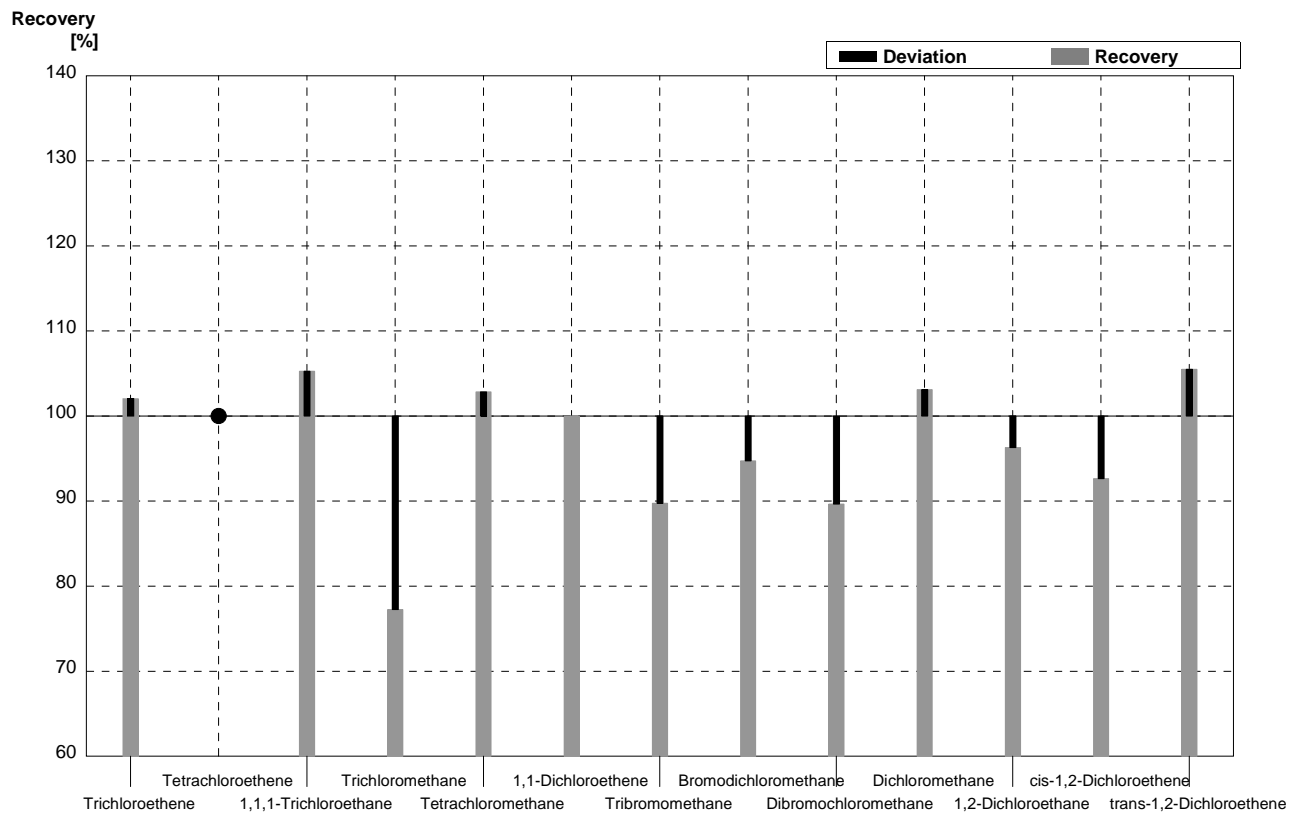
Sample C46B
Laboratory S

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,05	0,10	1,62	0,16	µg/l	79%
Tetrachloroethene	1,09	0,05	0,88	0,09	µg/l	81%
1,1,1-Trichloroethane	0,17	0,01	0,15	0,02	µg/l	88%
Trichloromethane	1,43	0,07	1,04	0,10	µg/l	73%
Tetrachloromethane	0,60	0,03	0,44	0,05	µg/l	73%
1,1-Dichloroethene	<0,2		0,00	0,00	µg/l	
Tribromomethane	0,86	0,04			µg/l	
Bromodichloromethane	1,23	0,06			µg/l	
Dibromochloromethane	0,57	0,03			µg/l	
Dichloromethane	2,87	0,14	2,64	0,26	µg/l	92%
1,2-Dichloroethane	2,73	0,14	2,72	0,27	µg/l	100%
cis-1,2-Dichloroethene	0,34	0,02			µg/l	
trans-1,2-Dichloroethene	0,27	0,01			µg/l	



Sample C46A
Laboratory T

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,49	0,02	0,50	0,085	µg/l	102%
Tetrachloroethene	<0,06		<0,05		µg/l	•
1,1,1-Trichloroethane	1,33	0,07	1,40	0,098	µg/l	105%
Trichloromethane	0,44	0,02	0,34	0,010	µg/l	77%
Tetrachloromethane	0,35	0,02	0,36	0,020	µg/l	103%
1,1-Dichloroethene	0,51	0,03	0,51	0,022	µg/l	100%
Tribromomethane	0,39	0,02	0,35	0,008	µg/l	90%
Bromodichloromethane	0,19	0,01	0,18	0,012	µg/l	95%
Dibromochloromethane	1,45	0,07	1,30	0,095	µg/l	90%
Dichloromethane	7,08	0,35	7,3	0,57	µg/l	103%
1,2-Dichloroethane	0,81	0,04	0,78	0,073	µg/l	96%
cis-1,2-Dichloroethene	1,36	0,07	1,26	0,147	µg/l	93%
trans-1,2-Dichloroethene	1,09	0,05	1,15	0,129	µg/l	106%



Sample C46B
Laboratory T

Parameter	Target value	$\pm U (k=2)$	Result	\pm	Unit	Recovery
Trichloroethene	2,05	0,10	2,01	0,091	$\mu\text{g/l}$	98%
Tetrachloroethene	1,09	0,05	1,25	0,092	$\mu\text{g/l}$	115%
1,1,1-Trichloroethane	0,17	0,01	0,18	0,008	$\mu\text{g/l}$	106%
Trichloromethane	1,43	0,07	1,25	0,098	$\mu\text{g/l}$	87%
Tetrachloromethane	0,60	0,03	0,63	0,042	$\mu\text{g/l}$	105%
1,1-Dichloroethene	<0,2		<0,10		$\mu\text{g/l}$	•
Tribromomethane	0,86	0,04	0,87	0,045	$\mu\text{g/l}$	101%
Bromodichloromethane	1,23	0,06	1,25	0,084	$\mu\text{g/l}$	102%
Dibromochloromethane	0,57	0,03	0,52	0,117	$\mu\text{g/l}$	91%
Dichloromethane	2,87	0,14	3,1	0,49	$\mu\text{g/l}$	108%
1,2-Dichloroethane	2,73	0,14	2,54	0,104	$\mu\text{g/l}$	93%
cis-1,2-Dichloroethene	0,34	0,02	0,34	0,126	$\mu\text{g/l}$	100%
trans-1,2-Dichloroethene	0,27	0,01	<0,50		$\mu\text{g/l}$	•

