Proficiency Testing Scheme for Water Analysis

Round C52

Volatile Halogenated Hydrocarbons

Sample Dispatch: 10 March 2014

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This report summarises the results of round C52 “Volatile Halogenated Hydrocarbons” within the IFA-Test Proficiency Testing Scheme for Water Analysis. The samples C52A and C52B were distributed to the participants on Monday, 10 March 2014. Closing date for reporting results to the IFA-Tulln was Friday, 4 April 2014.

26 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.

Trichloroethene and cis-1,2-Dichloroethene were not added to sample C52A, 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 prepare 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 Trichloroethene and cis-1,2-Dichloroethene, which were not added to sample C52A, were set to < 0.08 µg/L Trichloroethene and < 0.06 µg/L cis-1,2-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 93,0 % (Tetrachloroethene in sample C52B) and 114.7 % (Dichloromethane in sample C52B). The between-laboratory coefficients of variation ranged from 12.6 % (Dichloromethane in sample C52A) to 20.1 % (Tetrachloromethane in sample C52B).

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 2003 to 2013. 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 [µg/L]
1,1,1-Trichloroethane	15	0.15
1,1-Dichloroethene	21	0.5
1,2-Dichloroethane	14	0.5
cis-1,2-Dichloroethene	15	0.15
trans-1,2-Dichloroethene	13	0.15
Bromodichloromethane	14	0.15
Dibromochloromethane	15	0.2
Dichloromethane	14	1
Tetrachloroethene	18	0.15
Tetrachloromethane	18	0.15
Tribromomethane	17	0.2
Trichloroethene	17	0.2
Trichloromethane	15	0.3

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

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

Please note that this evaluation is made on the background of the average performance of all participants of the IFA-Test-Systems proficiency testing scheme during the period from 2003 to 2013.

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, 07 April 2014

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

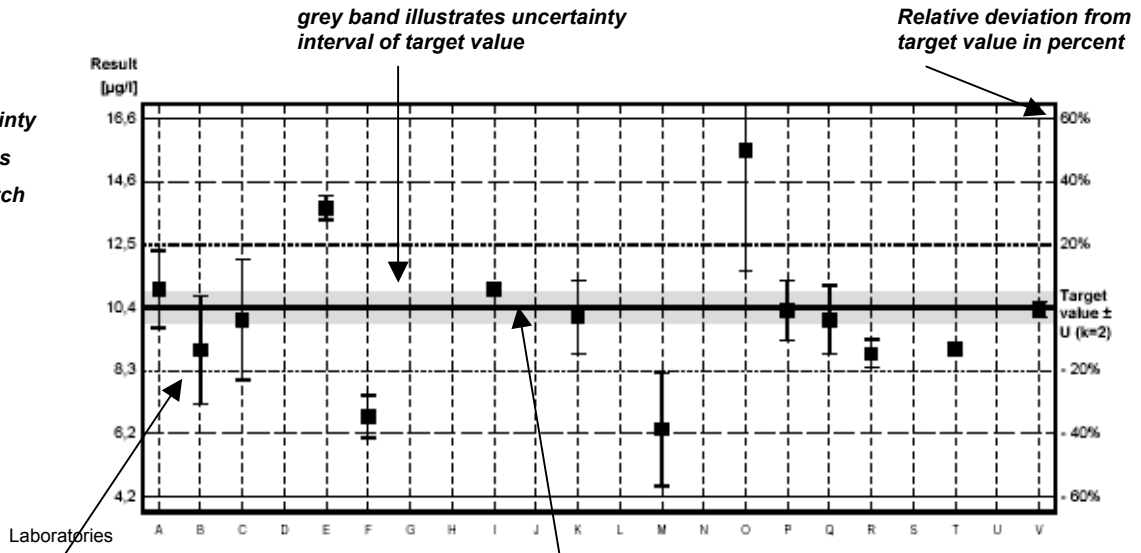


Diagram 1. Measurement results and corresponding uncertainty intervals

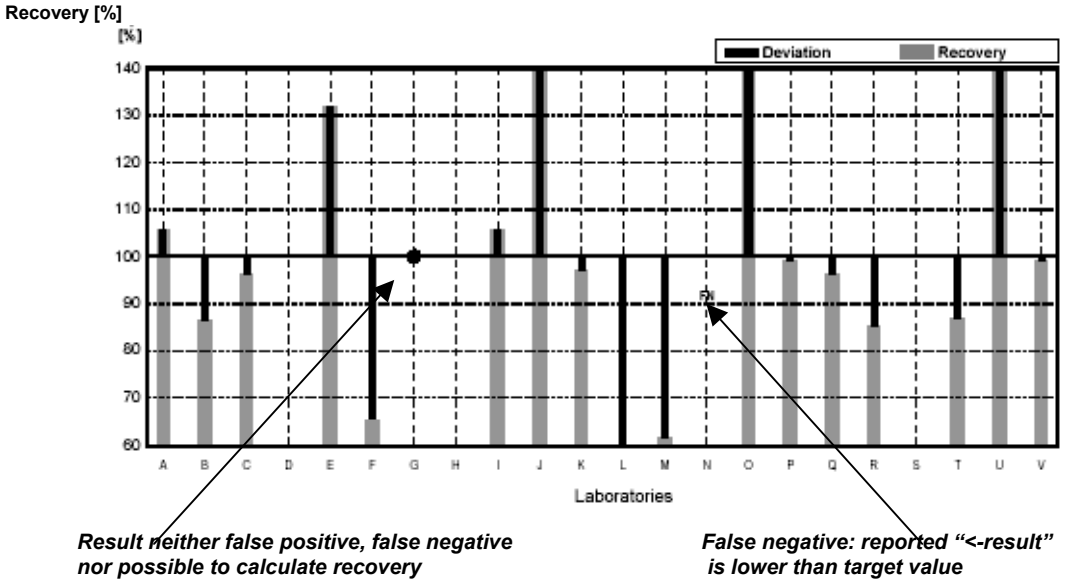


Diagram 2. Recoveries and deviations from target values

EXPLANATION

Illustration of Results
Tables and Parameter Oriented Part

Round C52
Volatile Halogenated Hydrocarbons

Sample Dispatch: 10 March 2014

Results Sample C52A

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	<0.08	0.48	0.24	0.35	0.60	0.90	0.48
IFA Result	<0.04	0.47	0.26	0.36	0.58	0.89	0.51
Stability test	<0.04	0.46	0.24	0.34	0.58	0.86	0.48
A	<0.05	0.90	0.46	0.74	1.25	1.99	0.97
B	<0.10	0.31	0.19	0.35	0.36		0.38
C	<0.1	0.35	0.21	0.30	0.42	1.18	0.42
D	0	0.551	0.290	0.371	0.681		
E	<0.08	0.53	0.27	0.95	0.97		0.60
F			0.305		0.671		
G	<0.4	0.39	0.36	0.39	0.76	0.96	0.66
H	<0.10	0.40	0.23	0.42	0.56	0.84	0.50
I	<0.100	0.573	0.289	0.419	0.694	1.123	0.563
J	<0.10	0.44	0.26	0.33	0.62	n.a.	0.43
K	0.16	0.36	0.25	0.38	0.5	0.72	0.33
L	<0.3	0.57	0.34	0.5	0.81	<1.6	0.55
M	<0.55	<0.55	<0.55	<0.55	<0.55	0.81	<0.55
N	<0.5	0.51	<0.5	<0.5	0.73	0.96	<0.5
O	<0.5	0.55	0.28	0.39	0.69	1.01	0.53
P	<0.1	0.41	0.26	0.31	0.49	0.92	0.46
Q	<0.5	<0.5	<0.5	<0.5	0.53	0.91	<0.5
R	<0.02	0.464	0.270	0.390	0.641	0.897	0.590
S	<0.1	0.48	0.23	0.32	0.55	0.84	0.42
T	<0.08	0.58	0.28	0.38	0.68	0.85	0.40
U	<0.05	0.47	0.26	0.39	0.59	1.15	0.36
V	<0.05	0.35	0.19	0.27	0.45	0.74	0.36
W	<0.05	0.48	0.25	0.29	0.62	0.90	0.40
X	<0.03	0.48	0.24	0.34	0.59	0.84	0.47
Y	<0.2	0.5	0.2	0.2	0.6	0.6	
Z	<0.030	0.52	0.27	0.38	0.68	1.26	0.49

All data in µg/L

Uncertainties Sample C52A

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value		0.02	0.01	0.02	0.03	0.05	0.02
IFA Result		0.07	0.04	0.05	0.09	0.13	0.08
Stability test		0.07	0.04	0.05	0.09	0.13	0.07
A	0.01	0.13	0.07	0.11	0.19	0.30	0.15
B		0.06	0.05	0.08	0.10		0.09
C		0.05	0.03	0.05	0.06	0.18	0.06
D							
E		0.05	0.04	0.10	0.10		0.03
F							
G		0.01	0.01	0.02	0.03	0.02	0.05
H		0.10	0.06	0.11	0.14	0.21	0.12
I		0.172	0.087	0.126	0.208	0.561	0.169
J	0.1	0.1	0.1	0.1	0.1		0.1
K	0.02	0.05	0.04	0.06	0.08	0.11	0.05
L		0.03	0.02	0.02	0.02		0.03
M						0.45	
N		0.09			0.16	0.21	
O	0.15	0.17	0.08	0.12	0.21	0.30	0.16
P	0.10	0.10	0.07	0.08	0.12	0.23	0.12
Q					0.16	0.27	
R		0.093	0.054	0.078	0.128	0.179	0.118
S		0.05	0.02	0.03	0.06	0.08	0.04
T		0.06	0.03	0.04	0.07	0.09	0.04
U		0.2	0.11	0.17	0.25	0.48	0.16
V		0.07	0.04	0.05	0.09	0.15	0.07
W		0.024	0.006	0.014	0.032	0.027	0.009
X		0.10	0.05	0.07	0.12	0.17	0.09
Y	0.02	0.05	0.02	0.02	0.06	0.06	
Z		0.10	0.054	0.076	0.14	0.26	0.098

All data in µg/L

Results Sample C52A

	Bromodichloro-methane	Dibromochloro-methane	Dichloro-methane	1,2-Dichloro-ethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
Target value	0.65	1.55	7.02	1.46	<0.06	0.60
IFA Result	0.66	1.53	7.14	1.46	<0.03	0.59
Stability test	0.64	1.51	6.89	1.41	<0.03	0.58
A	1.36	3.62	13.20	2.97	<0.05	1.33
B	0.41	1.05	7.65	6.19		
C	0.53	1.37	7.05	1.31	<0.5	0.61
D						
E	0.70	1.77				
F	0.533	1.007	6.317	1.213		
G	0.71	1.67	6.66	1.42	<0.43	0.67
H	0.68	1.47	6.98	1.49	<0.10	0.57
I	0.799	1.927	9.173	1.624	<0.100	0.712
J	0.69	1.59	0.99	1.63	n.a.	n.a.
K	0.64	1.05	8.14	1.15	<0.1	0.53
L	0.77	1.70	8.51	1.83	<2.6	<2.6
M	<0.55	0.88	5.8	1	<0.55	<0.55
N	0.69	1.49	7.38	1.48	<0.5	0.72
O	0.71	1.84	7.66	1.62	<0.2	0.62
P	0.56	1.29	6.73	1.16	<0.1	0.27
Q	0.69	1.52	8.14	1.47	<0.5	0.64
R	0.787	1.79	8.41	1.60	<0.02	0.586
S	0.60	1.44	7.72	1.30	<0.1	0.54
T	0.63	1.53	7.17	1.47	<0.2	0.70
U	0.67	1.35	9.20	1.61	<0.05	0.7
V	0.48	1.18	6.02	1.12	<0.05	0.46
W	0.64	1.38	7.6	1.48	<0.5	0.60
X	0.64	1.44	7.08	1.41	<0.06	0.55
Y			<0.2	1.1	<0.2	
Z	0.79	1.59	8.48	1.59	<0.030	0.76

All data in µg/L

Uncertainties Sample C52A

	Bromodichloro-methane ±	Dibromochloro-methane ±	Dichloro-methane ±	1,2-Dichloro-ethane ±	cis-1,2-Dichloroethene ±	trans-1,2-Dichloroethene ±
Target value	0.03	0.08	0.35	0.07		0.03
IFA Result	0.10	0.23	1.07	0.22		0.09
Stability test	0.10	0.23	1.03	0.21		0.09
A	0.20	0.54	1.98	0.45	0.01	0.20
B	0.08	0.2	1.80	1.50		
C	0.08	0.21	1.06	0.20		0.09
D						
E	0.05	0.08				
F						
G	0.04	0.06	0.25	0.02		0.25
H	0.17	0.37	1.75	0.37		0.14
I	0.240	0.578	2.752	0.487		0.214
J	0.1	0.15	0.1	0.1		
K	0.10	0.16	1.22	0.17	0	0.08
L	0.05	0.03	0.25	0.06		
M		0.47	2.5	0.51		
N	0.12	0.24	1.62	0.24		0.16
O	0.21	0.55	2.30	0.49	0.06	0.19
P	0.14	0.32	1.68	0.29	0.1	0.07
Q	0.21	0.30	1.63	0.29		0.19
R	0.157	0.358	1.68	0.320		0.117
S	0.06	0.14	0.77	0.13		0.05
T	0.06	0.15	0.70	0.15		0.07
U	0.28	0.56	4.2	0.66		0.3
V	0.1	0.24	1.20	0.22		0.09
W	0.123	0.048	0.65	0.071		0.086
X	0.13	0.29	1.42	0.28		0.11
Y			0.02	0.11	0.02	
Z	0.16	0.32	1.7	0.32		0.15

All data in µg/L

Results Sample C52B

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	0.64	2.38	1.18	1.14	2.71	3.43	0.95
IFA Result	0.65	2.39	1.24	1.16	2.67	3.41	0.99
Stability test	0.61	2.15	1.18	1.14	2.59	3.39	0.89
A	0.90	4.42	2.56	2.36	5.32	7.39	1.91
B	0.51	1.69	0.89	0.92	1.97		0.71
C	0.53	1.87	0.99	0.96	2.19	3.41	0.84
D	0.728	2.919	1.327	1.264	3.160		
E	0.64	2.07	1.16	1.64	3.48		1.14
F			1.477		3.088		
G	0.68	2.20	1.49	1.20	2.87	2.92	1.23
H	0.56	1.91	1.11	1.29	2.53	3.17	0.99
I	0.791	2.953	1.477	1.496	3.556	4.863	1.233
J	0.65	1.51	1.23	1.02	2.02	n.a.	0.82
K	0.62	1.56	0.89	1.22	2.31	2.64	0.7
L	0.79	2.88	1.63	1.49	4.02	4.78	0.92
M	<0.55	1.7	0.76	0.95	1.86	3.3	0.81
N	0.77	2.32	1.00	0.95	2.29	3.64	0.96
O	0.71	2.67	1.33	1.20	3.00	3.85	1.07
P	0.55	1.95	1.00	0.98	2.16	3.21	0.90
Q	0.62	2.44	1.23	1.16	2.78	4.10	0.80
R	0.638	2.38	1.32	1.25	3.05	3.84	0.982
S	0.55	2.01	1.05	1.02	2.42	3.13	0.81
T	0.62	2.49	1.22	1.17	2.83	3.41	0.78
U	0.7	2.31	1.31	1.32	2.9	4.5	0.68
V	0.47	1.85	0.93	0.87	2.05	2.91	0.70
W	0.67	2.23	1.32	1.02	2.59	3.58	0.84
X	0.67	2.21	1.27	1.14	2.59	3.48	0.91
Y	0.6	2.6	1.3	1.1	3.0	3.4	
Z	0.66	2.39	1.32	1.25	3.07	4.79	1.01

All data in µg/L

Uncertainties Sample C52B

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value	0.03	0.12	0.06	0.06	0.14	0.17	0.05
IFA Result	0.10	0.36	0.19	0.17	0.40	0.51	0.15
Stability test	0.09	0.32	0.18	0.17	0.39	0.51	0.13
A	0.14	0.66	0.38	0.35	0.80	1.11	0.29
B	0.12	0.34	0.19	0.19	0.39		0.15
C	0.08	0.28	0.15	0.14	0.33	0.51	0.13
D							
E	0.05	0.15	0.10	0.15	0.20		0.08
F							
G	0.02	0.23	0.04	0.05	0.06	0.07	0.03
H	0.14	0.48	0.28	0.32	0.63	0.79	0.25
I	0.237	0.886	0.443	0.449	1.067	2.431	0.370
J	0.1	0.2	0.1	0.1	0.25		0.15
K	0.09	0.23	0.13	0.18	0.35	0.40	0.11
L	0.03	0.08	0.07	0.07	0.25	0.16	0.02
M		0.77	0.43	0.49	0.83	1.4	0.44
N	0.17	0.42	0.22	0.18	0.63	0.80	0.17
O	0.21	0.80	0.40	0.36	0.90	1.16	0.32
P	0.14	0.49	0.25	0.25	0.54	0.80	0.23
Q	0.19	0.49	0.25	0.23	0.56	0.82	0.24
R	0.128	0.476	0.264	0.250	0.61	0.768	0.196
S	0.06	0.20	0.11	0.10	0.24	0.31	0.08
T	0.06	0.25	0.10	0.10	0.30	0.30	0.08
U	0.30	0.95	0.54	0.54	1.2	1.9	0.3
V	0.09	0.37	0.19	0.17	0.41	0.58	0.14
W	0.060	0.087	0.087	0.050	0.107	0.199	0.034
X	0.13	0.44	0.25	0.23	0.52	0.70	0.18
Y	0.06	0.26	0.13	0.11	0.30	0.34	
Z	0.13	0.48	0.26	0.26	0.62	0.96	0.2

All data in µg/L

Results Sample C52B

	Bromodichloro-methane	Dibromochloro-methane	Dichloro-methane	1,2-Dichloro-ethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
Target value	0.98	0.80	2.52	3.22	1.20	2.78
IFA Result	1.00	0.81	2.68	3.24	1.21	2.75
Stability test	0.95	0.74	2.40	3.08	1.20	2.76
A	2.06	1.46	4.58	6.45	2.76	6.32
B	0.64	0.52	9.86	22.34		
C	0.84	0.69	2.44	2.79	1.26	2.61
D						
E	1.03	0.92				
F	0.736	0.604	2.485	2.838		
G	1.07	0.89	2.44	3.18	1.28	2.66
H	0.99	0.75	2.72	3.27	1.13	2.60
I	1.302	1.043	3.761	4.182	1.093	3.728
J	1.06	0.85	4.04	3.48	n.a.	n.a.
K	0.89	0.72	2.49	2.53	1.01	2.26
L	1.06	1.06	<3.6	4.43	<2.6	3.44
M	0.77	0.68	3.1	2.9	0.95	2.21
N	1.00	0.65	2.81	3.25	1.08	3.18
O	1.06	0.96	2.87	3.56	1.42	2.97
P	0.80	0.67	2.22	2.67	1.67	2.46
Q	1.00	0.75	2.96	3.43	1.29	3.25
R	1.14	0.963	3.31	3.63	1.32	2.89
S	0.88	0.69	2.63	2.93	1.01	2.41
T	0.94	0.73	2.92	3.10	1.26	3.11
U	1.03	0.67	3.8	3.6	1.19	3.4
V	0.73	0.61	2.16	2.50	0.91	2.25
W	1.00	0.83	2.8	3.16	1.16	2.66
X	1.04	0.86	2.65	3.09	1.12	2.66
Y			<0.2	2.70	1.3	
Z	1.21	0.86	3.18	3.56	1.33	3.5

All data in µg/L

Uncertainties Sample C52B

	Bromodichloro-methane ±	Dibromochloro-methane ±	Dichloro-methane ±	1,2-Dichloro-ethane ±	cis-1,2-Dichloroethene ±	trans-1,2-Dichloroethene ±
Target value	0.05	0.04	0.13	0.16	0.06	0.14
IFA Result	0.15	0.12	0.40	0.49	0.18	0.41
Stability test	0.14	0.11	0.36	0.46	0.18	0.41
A	0.31	0.22	0.69	0.97	0.41	0.95
B	0.12	0.10	2.45	4.46		
C	0.13	0.10	0.37	0.42	0.19	0.39
D						
E	0.10	0.10				
F						
G	0.04	0.03	0.06	0.05	0.11	0.14
H	0.25	0.19	0.68	0.82	0.28	0.65
I	0.391	0.313	1.128	1.255	0.328	1.118
J	0.15	0.1	0.4	0.35		
K	0.13	0.11	0.37	0.38	0.15	0.34
L	0.07	0.07		0.42		0.12
M	0.43	0.4	1.4	1.3	0.49	0.97
N	0.17	0.10	0.62	0.52	0.24	0.70
O	0.32	0.29	0.86	1.07	0.42	0.89
P	0.20	0.17	0.56	0.67	0.42	0.62
Q	0.20	0.22	0.59	0.69	0.26	0.65
R	0.228	0.193	0.662	0.726	0.264	0.578
S	0.09	0.07	0.26	0.29	0.10	0.24
T	0.09	0.07	0.30	0.30	0.15	0.30
U	0.43	0.28	1.7	1.5	0.49	1.5
V	0.15	0.12	0.43	0.50	0.18	0.45
W	0.110	0.047	0.53	0.108	0.120	0.09
X	0.21	0.17	0.53	0.62	0.22	0.53
Y			0.02	0.27	0.13	
Z	0.24	0.17	0.64	0.72	0.26	0.7

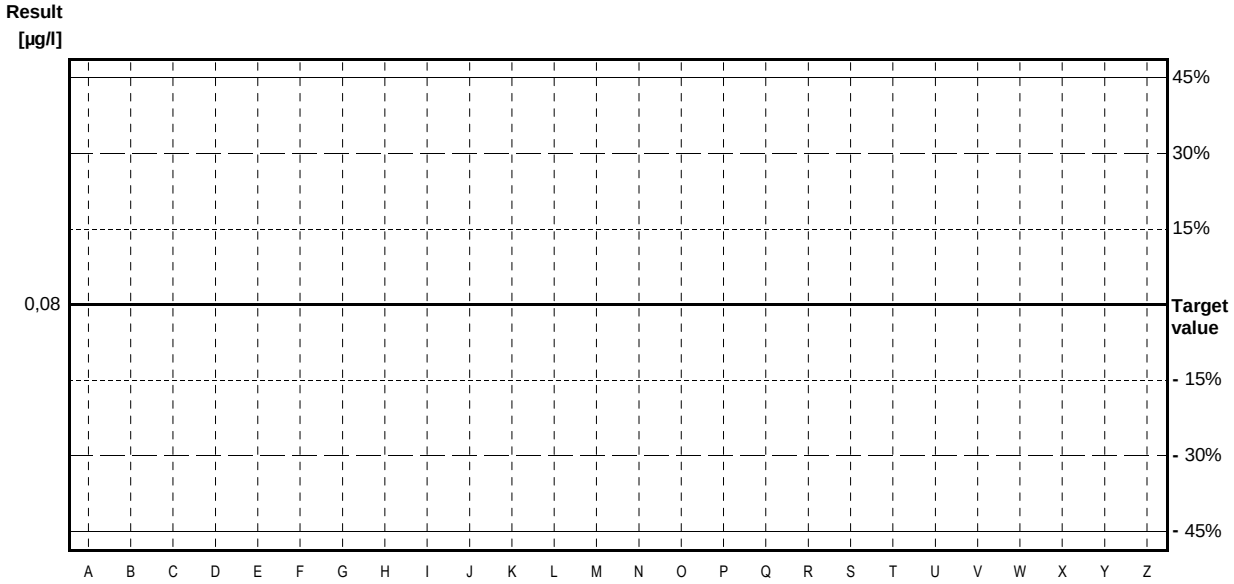
All data in µg/L

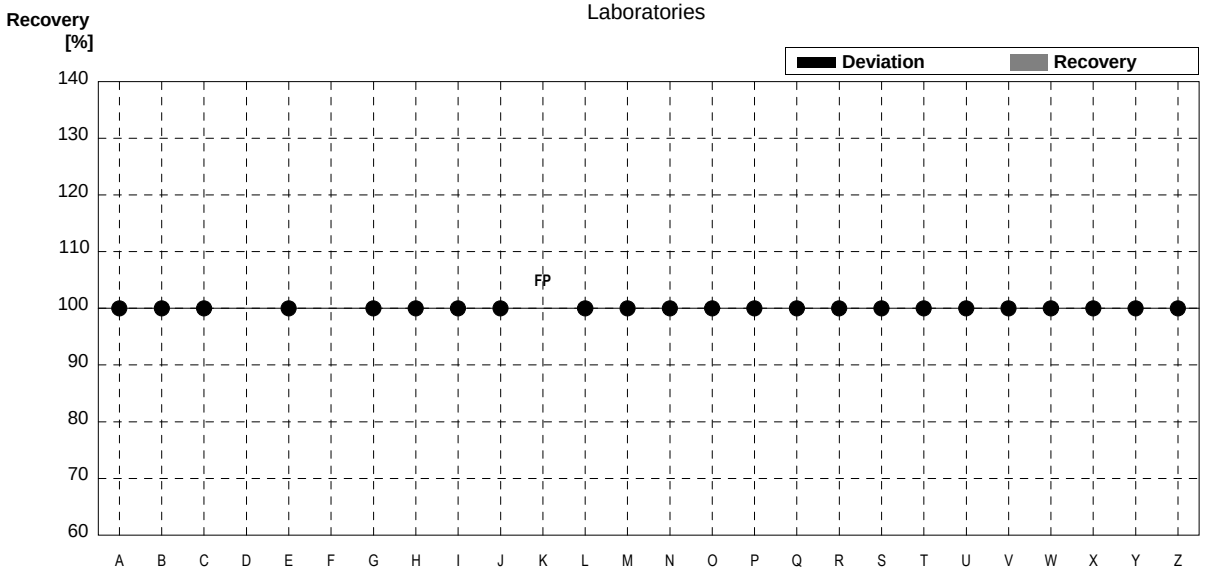
Sample C52A
Parameter Trichloroethene

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

Lab Code	Result	±	Unit	Recovery	z-Score
A	<0,05	0,01	µg/l	•	
B	<0,10		µg/l	•	
C	<0,1		µg/l	•	
D	0		µg/l		
E	<0,08		µg/l	•	
F			µg/l		
G	<0,4		µg/l	•	
H	<0,10		µg/l	•	
I	<0,100		µg/l	•	
J	<0,10	0,1	µg/l	•	
K	0,16	0,02	µg/l	FP	
L	<0,3		µg/l	•	
M	<0,55		µg/l	•	
N	<0,5		µg/l	•	
O	<0,5	0,15	µg/l	•	
P	<0,1	0,10	µg/l	•	
Q	<0,5		µg/l	•	
R	<0,02		µg/l	•	
S	<0,1		µg/l	•	
T	<0,08		µg/l	•	
U	<0,05		µg/l	•	
V	<0,05		µg/l	•	
W	<0,05		µg/l	•	
X	<0,03		µg/l	•	
Y	<0,2	0,02	µg/l	•	
Z	<0,030		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			



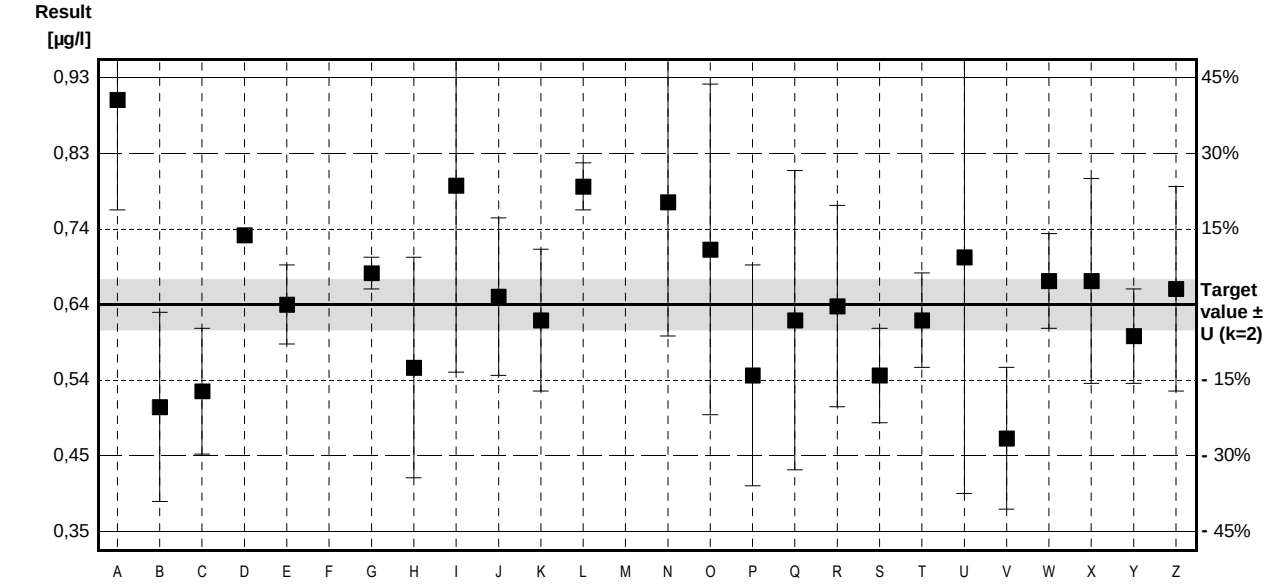


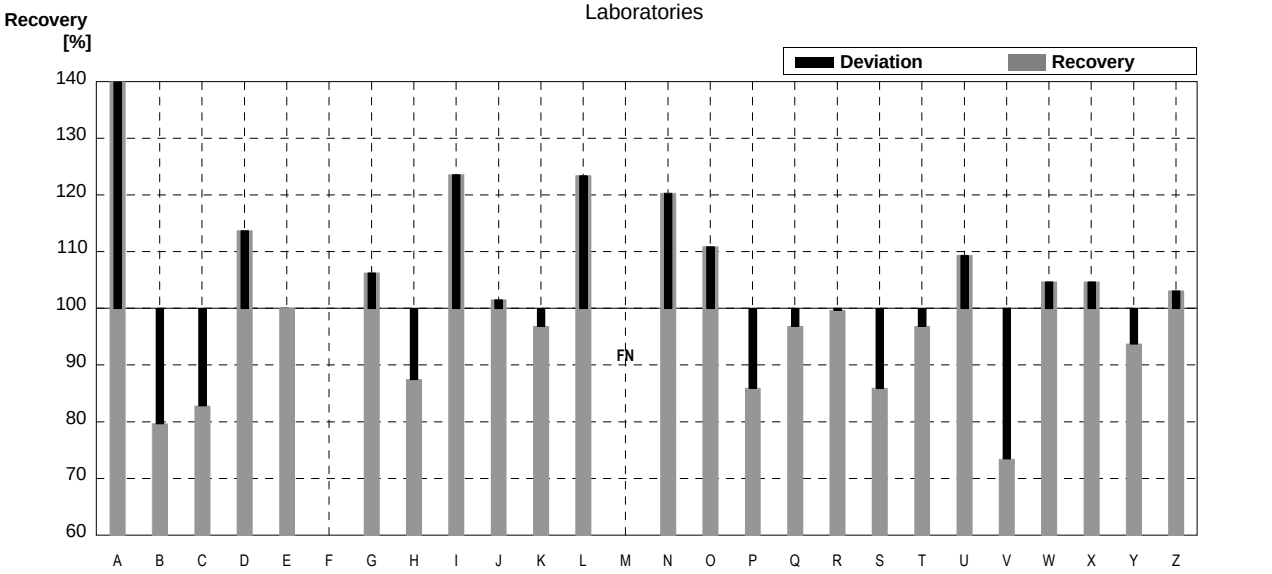
Sample C52B
Parameter Trichloroethene

Target value	± U (k=2)	0,64	µg/l	±	0,03 µg/l
IFA result	± U (k=2)	0,65	µg/l	±	0,10 µg/l
Stability test	± U (k=2)	0,61	µg/l	±	0,09 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,90	0,14	µg/l	141%	2,39
B	0,51	0,12	µg/l	80%	-1,19
C	0,53	0,08	µg/l	83%	-1,01
D	0,728		µg/l	114%	0,81
E	0,64	0,05	µg/l	100%	0,00
F			µg/l		
G	0,68	0,02	µg/l	106%	0,37
H	0,56	0,14	µg/l	88%	-0,74
I	0,791	0,237	µg/l	124%	1,39
J	0,65	0,1	µg/l	102%	0,09
K	0,62	0,09	µg/l	97%	-0,18
L	0,79	0,03	µg/l	123%	1,38
M	<0,55		µg/l	FN	
N	0,77	0,17	µg/l	120%	1,19
O	0,71	0,21	µg/l	111%	0,64
P	0,55	0,14	µg/l	86%	-0,83
Q	0,62	0,19	µg/l	97%	-0,18
R	0,638	0,128	µg/l	100%	-0,02
S	0,55	0,06	µg/l	86%	-0,83
T	0,62	0,06	µg/l	97%	-0,18
U	0,7	0,30	µg/l	109%	0,55
V	0,47	0,09	µg/l	73%	-1,56
W	0,67	0,060	µg/l	105%	0,28
X	0,67	0,13	µg/l	105%	0,28
Y	0,6	0,06	µg/l	94%	-0,37
Z	0,66	0,13	µg/l	103%	0,18

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,65 ± 0,06	0,65 ± 0,06	µg/l
Recov. ± CI(99%)	101,7 ± 9,0	101,7 ± 9,0	%
SD between labs	0,10	0,10	µg/l
RSD between labs	15,4	15,4	%
n for calculation	24	24	





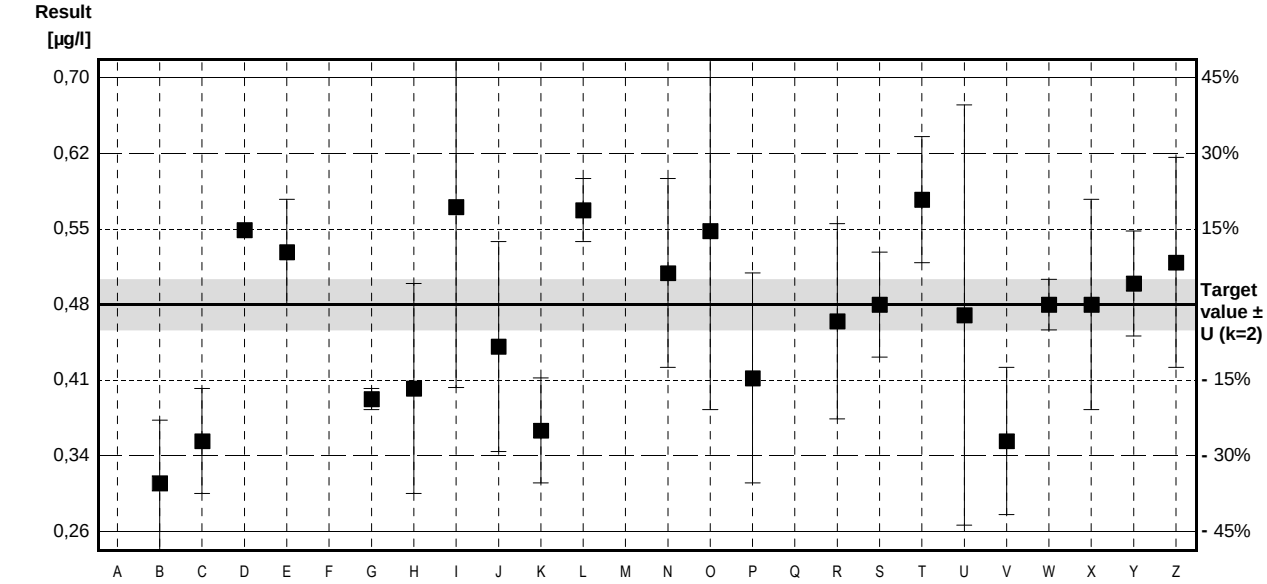
Sample C52A

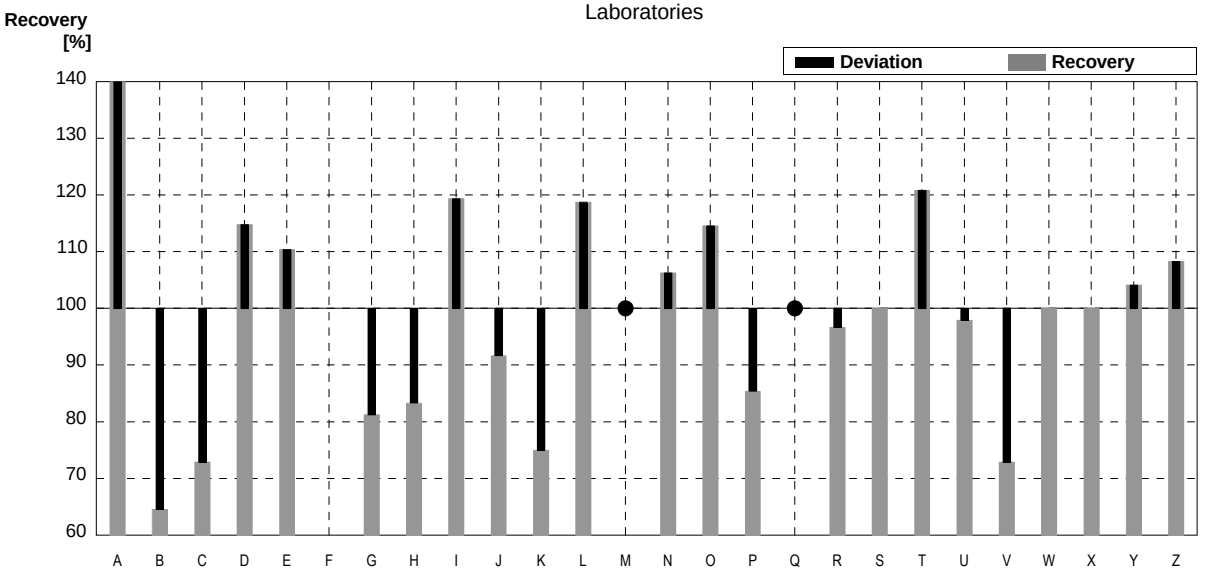
Parameter Tetrachloroethene

Target value ± U (k=2)	0,48 µg/l	±	0,02 µg/l	
IFA result ± U (k=2)	0,47 µg/l	±	0,07 µg/l	
Stability test ± U (k=2)	0,46 µg/l	±	0,07 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,90 *	0,13	µg/l	188%	4,86
B	0,31	0,06	µg/l	65%	-1,97
C	0,35	0,05	µg/l	73%	-1,50
D	0,551		µg/l	115%	0,82
E	0,53	0,05	µg/l	110%	0,58
F			µg/l		
G	0,39	0,01	µg/l	81%	-1,04
H	0,40	0,10	µg/l	83%	-0,93
I	0,573	0,172	µg/l	119%	1,08
J	0,44	0,1	µg/l	92%	-0,46
K	0,36	0,05	µg/l	75%	-1,39
L	0,57	0,03	µg/l	119%	1,04
M	<0,55		µg/l	•	
N	0,51	0,09	µg/l	106%	0,35
O	0,55	0,17	µg/l	115%	0,81
P	0,41	0,10	µg/l	85%	-0,81
Q	<0,5		µg/l	•	
R	0,464	0,093	µg/l	97%	-0,19
S	0,48	0,05	µg/l	100%	0,00
T	0,58	0,06	µg/l	121%	1,16
U	0,47	0,2	µg/l	98%	-0,12
V	0,35	0,07	µg/l	73%	-1,50
W	0,48	0,024	µg/l	100%	0,00
X	0,48	0,10	µg/l	100%	0,00
Y	0,5	0,05	µg/l	104%	0,23
Z	0,52	0,10	µg/l	108%	0,46

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,49 ± 0,07	0,47 ± 0,05	µg/l
Recov. ± CI(99%)	101,2 ± 14,7	97,2 ± 10,1	%
SD between labs	0,12	0,08	µg/l
RSD between labs	24,7	17,3	%
n for calculation	23	22	





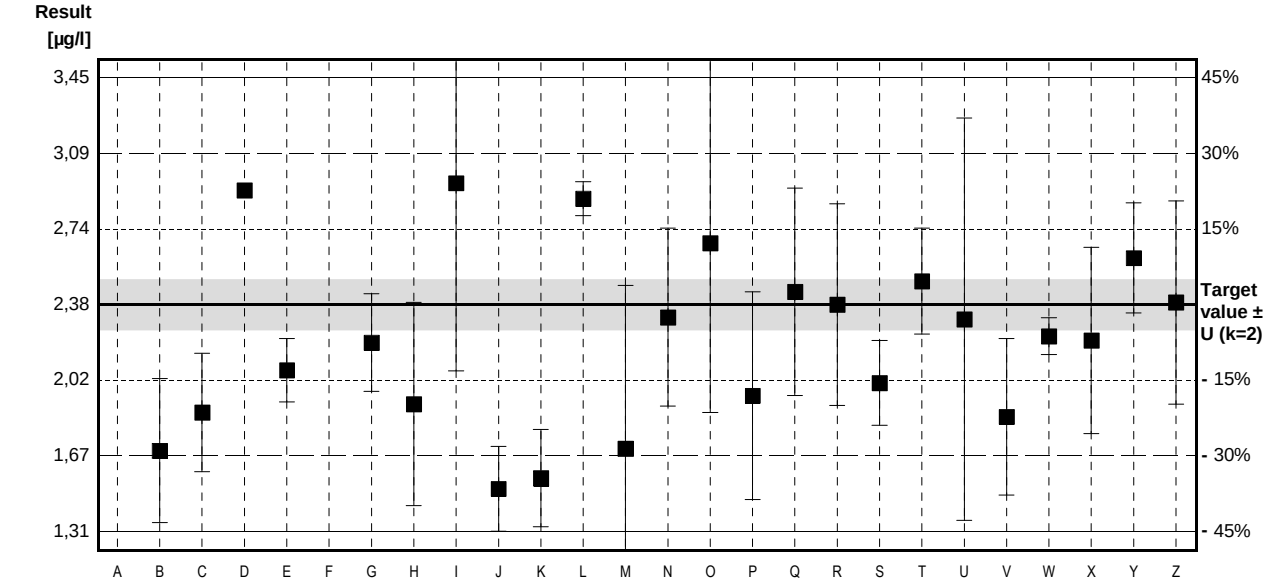
Sample C52B

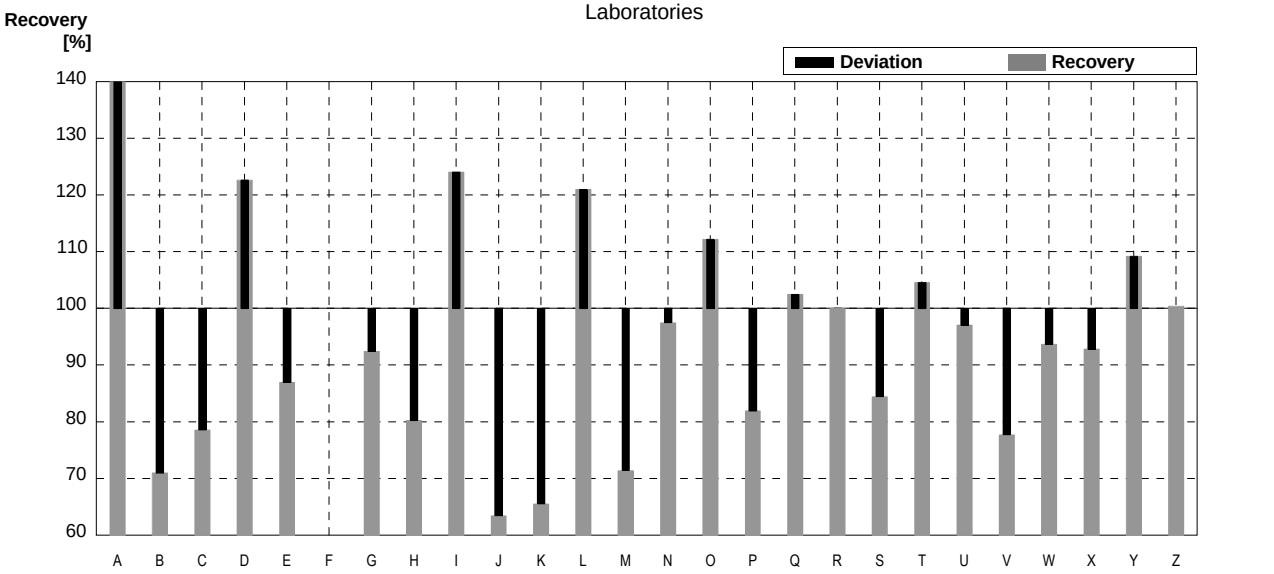
Parameter Tetrachloroethene

Target value ± U (k=2)	2,38 µg/l	±	0,12 µg/l	
IFA result ± U (k=2)	2,39 µg/l	±	0,36 µg/l	
Stability test ± U (k=2)	2,15 µg/l	±	0,32 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	4,42 *	0,66	µg/l	186%	4,76
B	1,69	0,34	µg/l	71%	-1,61
C	1,87	0,28	µg/l	79%	-1,19
D	2,919		µg/l	123%	1,26
E	2,07	0,15	µg/l	87%	-0,72
F			µg/l		
G	2,20	0,23	µg/l	92%	-0,42
H	1,91	0,48	µg/l	80%	-1,10
I	2,953	0,886	µg/l	124%	1,34
J	1,51	0,2	µg/l	63%	-2,03
K	1,56	0,23	µg/l	66%	-1,91
L	2,88	0,08	µg/l	121%	1,17
M	1,7	0,77	µg/l	71%	-1,59
N	2,32	0,42	µg/l	97%	-0,14
O	2,67	0,80	µg/l	112%	0,68
P	1,95	0,49	µg/l	82%	-1,00
Q	2,44	0,49	µg/l	103%	0,14
R	2,38	0,476	µg/l	100%	0,00
S	2,01	0,20	µg/l	84%	-0,86
T	2,49	0,25	µg/l	105%	0,26
U	2,31	0,95	µg/l	97%	-0,16
V	1,85	0,37	µg/l	78%	-1,24
W	2,23	0,087	µg/l	94%	-0,35
X	2,21	0,44	µg/l	93%	-0,40
Y	2,6	0,26	µg/l	109%	0,51
Z	2,39	0,48	µg/l	100%	0,02

	All results	Outliers excl.	Unit
Mean ± CI(99%)	2,30 ± 0,34	2,21 ± 0,24	µg/l
Recov. ± CI(99%)	96,7 ± 14,1	93,0 ± 10,0	%
SD between labs	0,60	0,42	µg/l
RSD between labs	26,1	18,8	%
n for calculation	25	24	





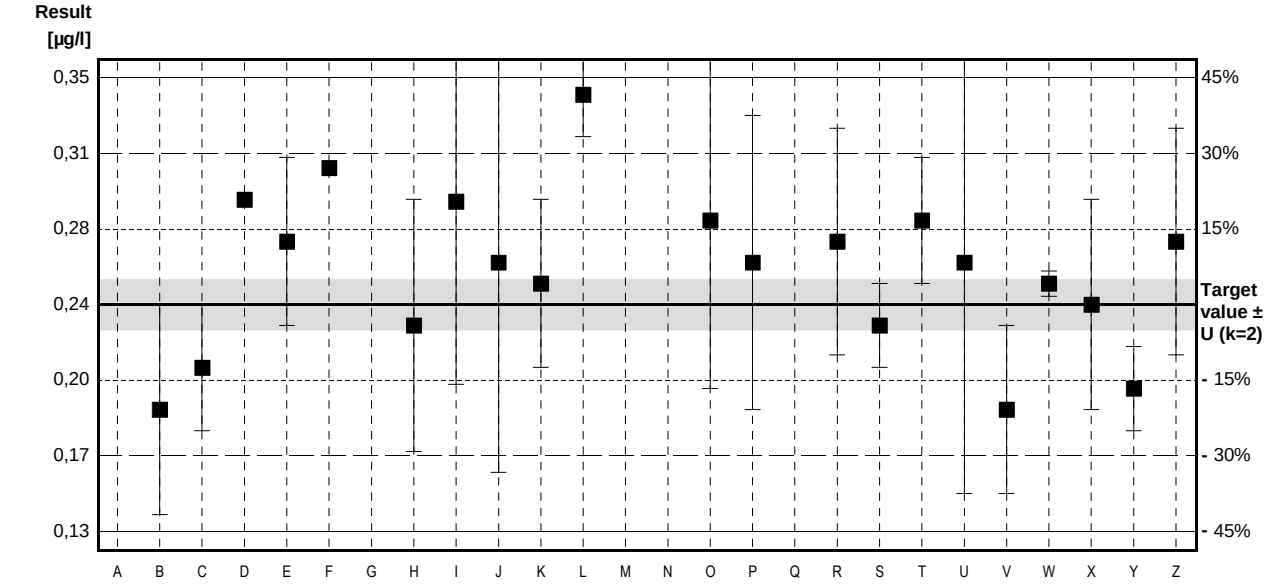
Sample C52A

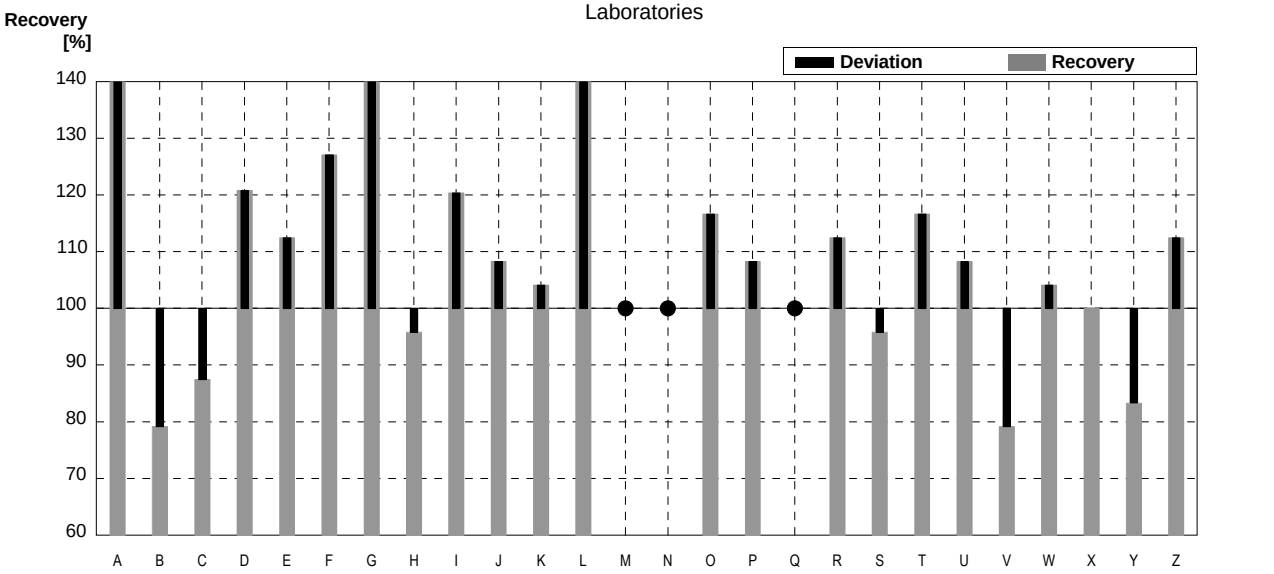
Parameter 1,1,1-Trichloroethane

Target value ± U (k=2)	0,24 µg/l	±	0,01 µg/l	
IFA result ± U (k=2)	0,26 µg/l	±	0,04 µg/l	
Stability test ± U (k=2)	0,24 µg/l	±	0,04 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,46 *	0,07	µg/l	192%	6,11
B	0,19	0,05	µg/l	79%	-1,39
C	0,21	0,03	µg/l	88%	-0,83
D	0,290		µg/l	121%	1,39
E	0,27	0,04	µg/l	113%	0,83
F	0,305		µg/l	127%	1,81
G	0,36	0,01	µg/l	150%	3,33
H	0,23	0,06	µg/l	96%	-0,28
I	0,289	0,087	µg/l	120%	1,36
J	0,26	0,1	µg/l	108%	0,56
K	0,25	0,04	µg/l	104%	0,28
L	0,34	0,02	µg/l	142%	2,78
M	<0,55		µg/l	•	
N	<0,5		µg/l	•	
O	0,28	0,08	µg/l	117%	1,11
P	0,26	0,07	µg/l	108%	0,56
Q	<0,5		µg/l	•	
R	0,270	0,054	µg/l	113%	0,83
S	0,23	0,02	µg/l	96%	-0,28
T	0,28	0,03	µg/l	117%	1,11
U	0,26	0,11	µg/l	108%	0,56
V	0,19	0,04	µg/l	79%	-1,39
W	0,25	0,006	µg/l	104%	0,28
X	0,24	0,05	µg/l	100%	0,00
Y	0,2	0,02	µg/l	83%	-1,11
Z	0,27	0,054	µg/l	113%	0,83

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,27 ± 0,03	0,26 ± 0,03	µg/l
Recov. ± CI(99%)	112,0 ± 14,6	108,4 ± 10,9	%
SD between labs	0,06	0,04	µg/l
RSD between labs	22,1	16,7	%
n for calculation	23	22	



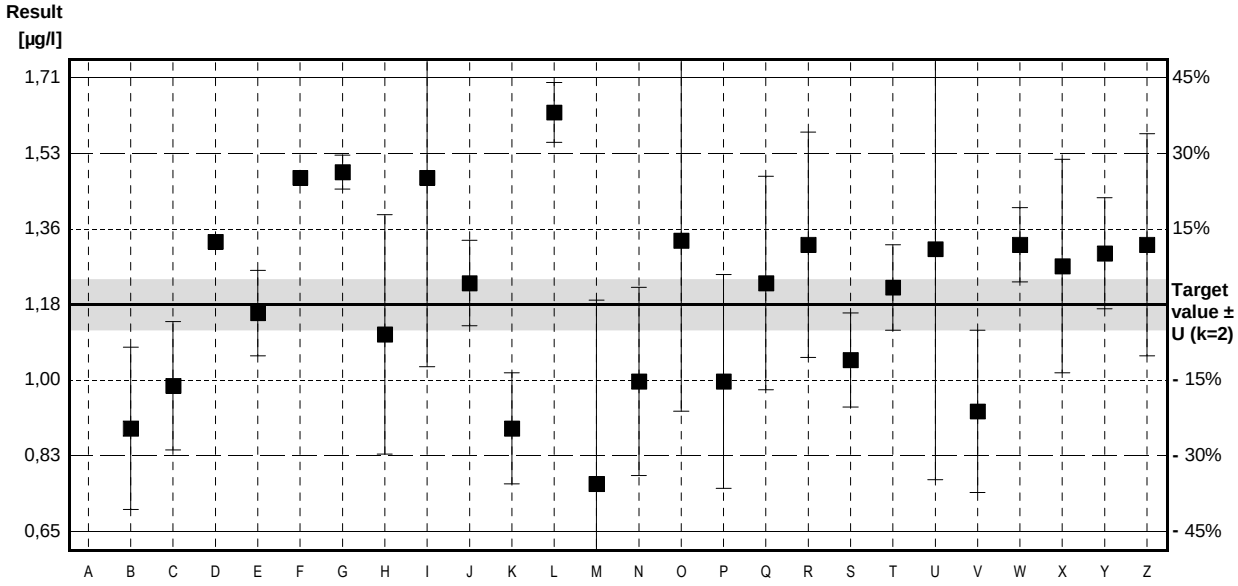


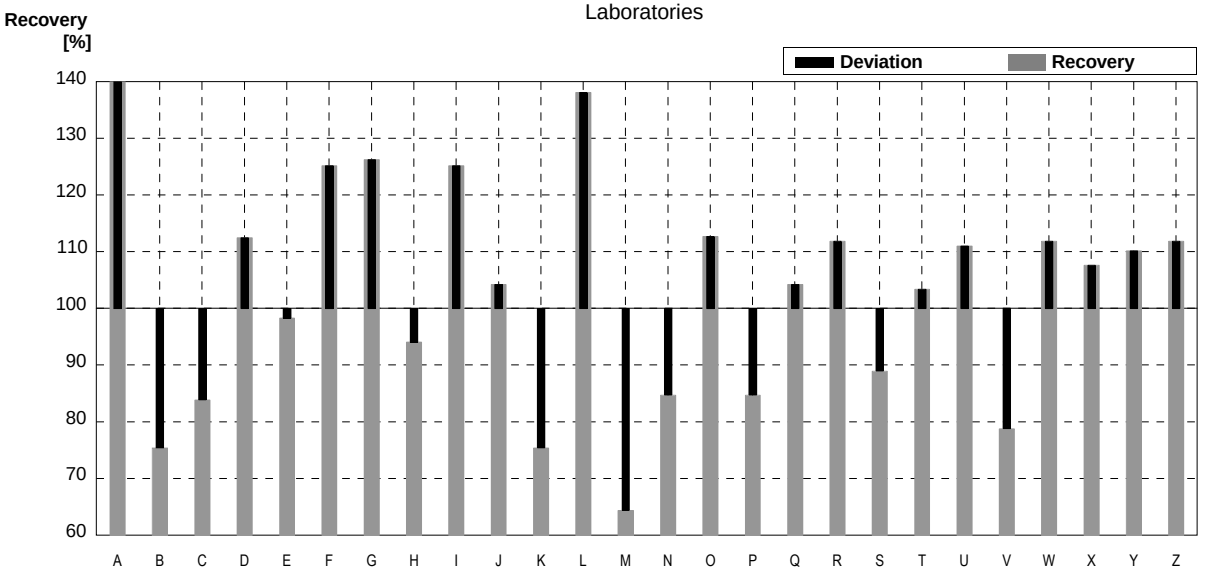
Sample C52B

Parameter 1,1,1-Trichloroethane

Target value ± U (k=2)	1,18 µg/l	±	0,06 µg/l	
IFA result ± U (k=2)	1,24 µg/l	±	0,19 µg/l	
Stability test ± U (k=2)	1,18 µg/l	±	0,18 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	2,56 *	0,38	µg/l	217%	7,80
B	0,89	0,19	µg/l	75%	-1,64
C	0,99	0,15	µg/l	84%	-1,07
D	1,327		µg/l	112%	0,83
E	1,16	0,10	µg/l	98%	-0,11
F	1,477		µg/l	125%	1,68
G	1,49	0,04	µg/l	126%	1,75
H	1,11	0,28	µg/l	94%	-0,40
I	1,477	0,443	µg/l	125%	1,68
J	1,23	0,1	µg/l	104%	0,28
K	0,89	0,13	µg/l	75%	-1,64
L	1,63	0,07	µg/l	138%	2,54
M	0,76	0,43	µg/l	64%	-2,37
N	1,00	0,22	µg/l	85%	-1,02
O	1,33	0,40	µg/l	113%	0,85
P	1,00	0,25	µg/l	85%	-1,02
Q	1,23	0,25	µg/l	104%	0,28
R	1,32	0,264	µg/l	112%	0,79
S	1,05	0,11	µg/l	89%	-0,73
T	1,22	0,10	µg/l	103%	0,23
U	1,31	0,54	µg/l	111%	0,73
V	0,93	0,19	µg/l	79%	-1,41
W	1,32	0,087	µg/l	112%	0,79
X	1,27	0,25	µg/l	108%	0,51
Y	1,3	0,13	µg/l	110%	0,68
Z	1,32	0,26	µg/l	112%	0,79



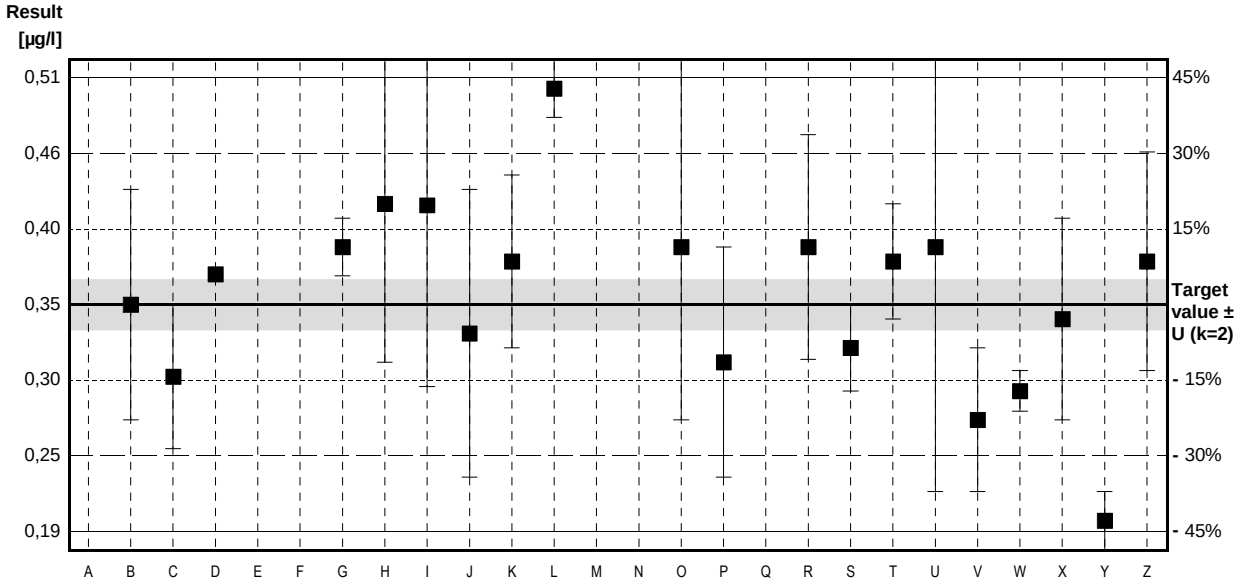


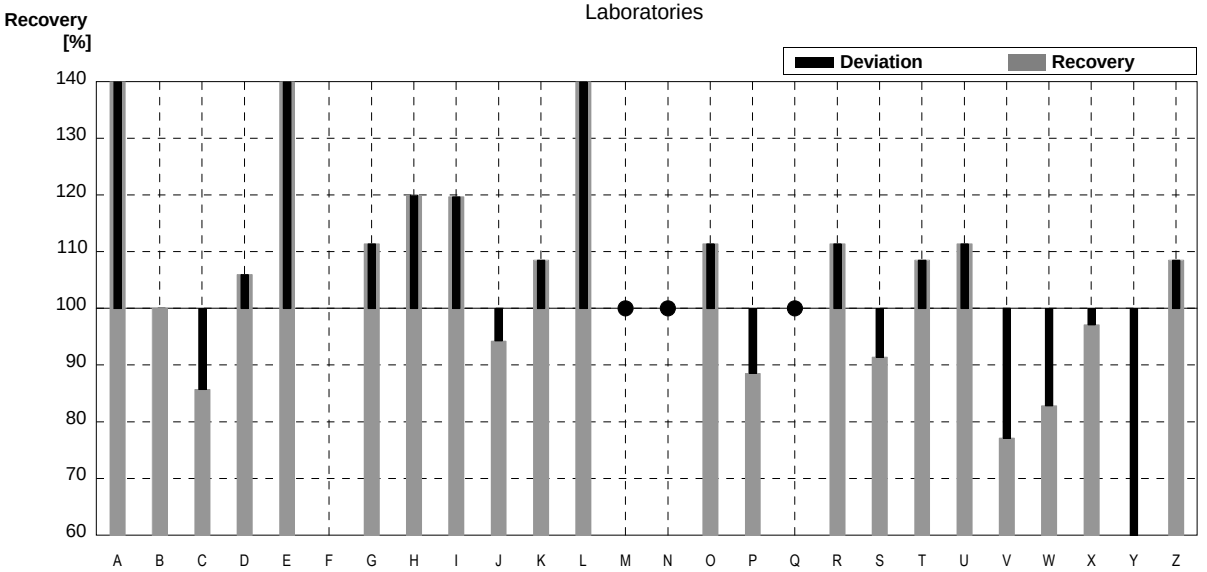
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,25 ± 0,19	1,20 ± 0,12	µg/l
Recov. ± CI(99%)	106,2 ± 15,8	101,8 ± 10,4	%
SD between labs	0,34	0,22	µg/l
RSD between labs	27,3	18,2	%
n for calculation	26	25	

Sample C52A
Parameter Trichloromethane

Target value ± U (k=2)	0,35	µg/l	±	0,02	µg/l
IFA result ± U (k=2)	0,36	µg/l	±	0,05	µg/l
Stability test ± U (k=2)	0,34	µg/l	±	0,05	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,74 *	0,11	µg/l	211%	7,43
B	0,35	0,08	µg/l	100%	0,00
C	0,30	0,05	µg/l	86%	-0,95
D	0,371		µg/l	106%	0,40
E	0,95 *	0,10	µg/l	271%	11,43
F			µg/l		
G	0,39	0,02	µg/l	111%	0,76
H	0,42	0,11	µg/l	120%	1,33
I	0,419	0,126	µg/l	120%	1,31
J	0,33	0,1	µg/l	94%	-0,38
K	0,38	0,06	µg/l	109%	0,57
L	0,5	0,02	µg/l	143%	2,86
M	<0,55		µg/l	•	
N	<0,5		µg/l	•	
O	0,39	0,12	µg/l	111%	0,76
P	0,31	0,08	µg/l	89%	-0,76
Q	<0,5		µg/l	•	
R	0,390	0,078	µg/l	111%	0,76
S	0,32	0,03	µg/l	91%	-0,57
T	0,38	0,04	µg/l	109%	0,57
U	0,39	0,17	µg/l	111%	0,76
V	0,27	0,05	µg/l	77%	-1,52
W	0,29	0,014	µg/l	83%	-1,14
X	0,34	0,07	µg/l	97%	-0,19
Y	0,2	0,02	µg/l	57%	-2,86
Z	0,38	0,076	µg/l	109%	0,57





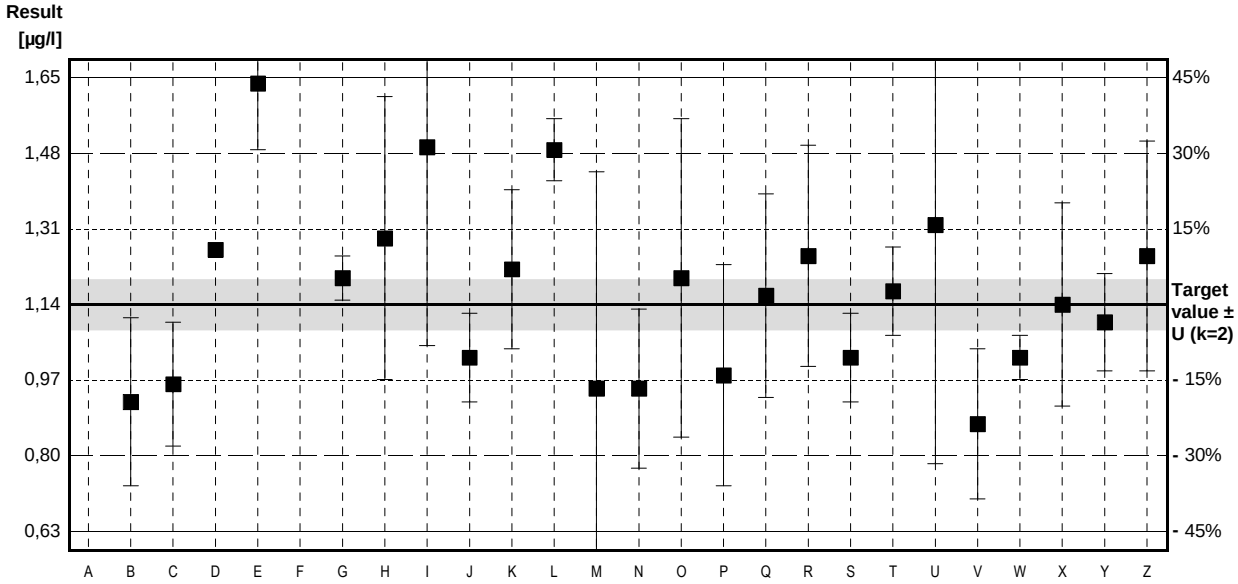
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,40 ± 0,10	0,36 ± 0,04	µg/l
Recov. ± CI(99%)	114,4 ± 27,5	101,7 ± 11,8	%
SD between labs	0,16	0,06	µg/l
RSD between labs	39,9	18,1	%
n for calculation	22	20	

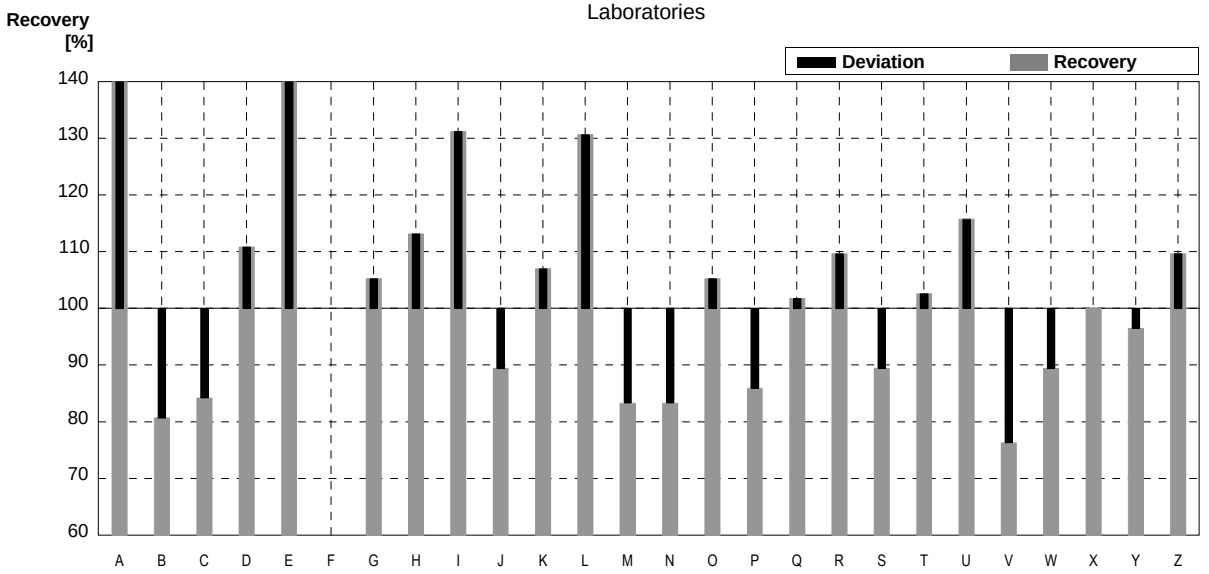
Sample C52B

Parameter Trichloromethane

Target value ± U (k=2)	1,14 µg/l	±	0,06 µg/l	
IFA result ± U (k=2)	1,16 µg/l	±	0,17 µg/l	
Stability test ± U (k=2)	1,14 µg/l	±	0,17 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	2,36 *	0,35	µg/l	207%	7,13
B	0,92	0,19	µg/l	81%	-1,29
C	0,96	0,14	µg/l	84%	-1,05
D	1,264		µg/l	111%	0,73
E	1,64	0,15	µg/l	144%	2,92
F			µg/l		
G	1,20	0,05	µg/l	105%	0,35
H	1,29	0,32	µg/l	113%	0,88
I	1,496	0,449	µg/l	131%	2,08
J	1,02	0,1	µg/l	89%	-0,70
K	1,22	0,18	µg/l	107%	0,47
L	1,49	0,07	µg/l	131%	2,05
M	0,95	0,49	µg/l	83%	-1,11
N	0,95	0,18	µg/l	83%	-1,11
O	1,20	0,36	µg/l	105%	0,35
P	0,98	0,25	µg/l	86%	-0,94
Q	1,16	0,23	µg/l	102%	0,12
R	1,25	0,250	µg/l	110%	0,64
S	1,02	0,10	µg/l	89%	-0,70
T	1,17	0,10	µg/l	103%	0,18
U	1,32	0,54	µg/l	116%	1,05
V	0,87	0,17	µg/l	76%	-1,58
W	1,02	0,050	µg/l	89%	-0,70
X	1,14	0,23	µg/l	100%	0,00
Y	1,1	0,11	µg/l	96%	-0,23
Z	1,25	0,26	µg/l	110%	0,64





	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,21 ± 0,17	1,16 ± 0,11	µg/l
Recov. ± CI(99%)	106,1 ± 15,1	101,9 ± 9,9	%
SD between labs	0,31	0,20	µg/l
RSD between labs	25,4	17,0	%
n for calculation	25	24	

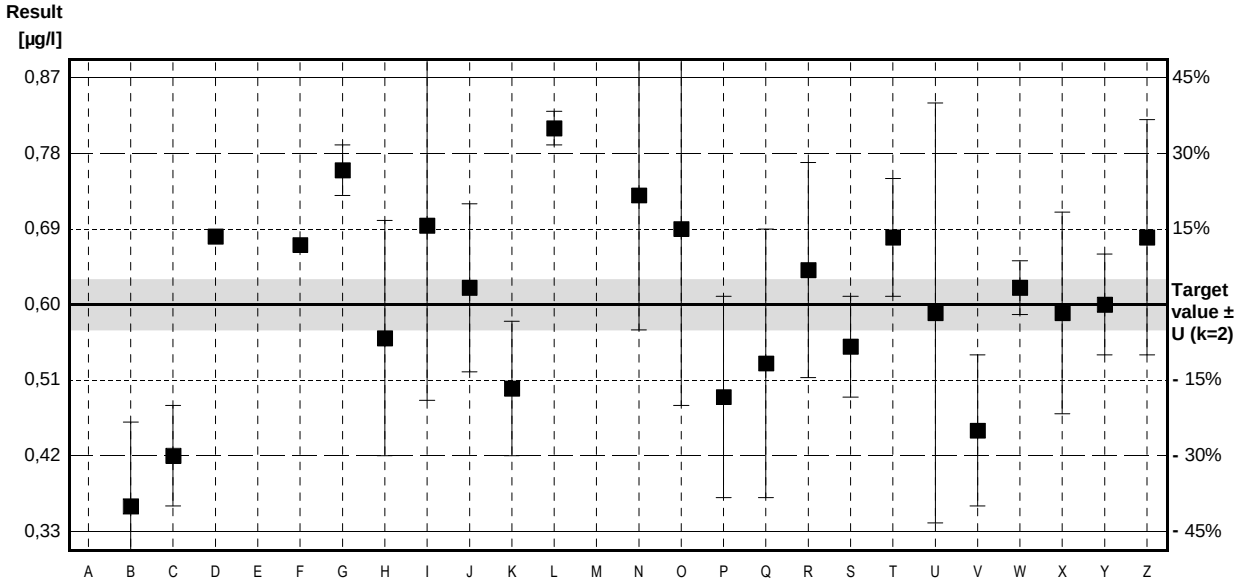
Sample C52A

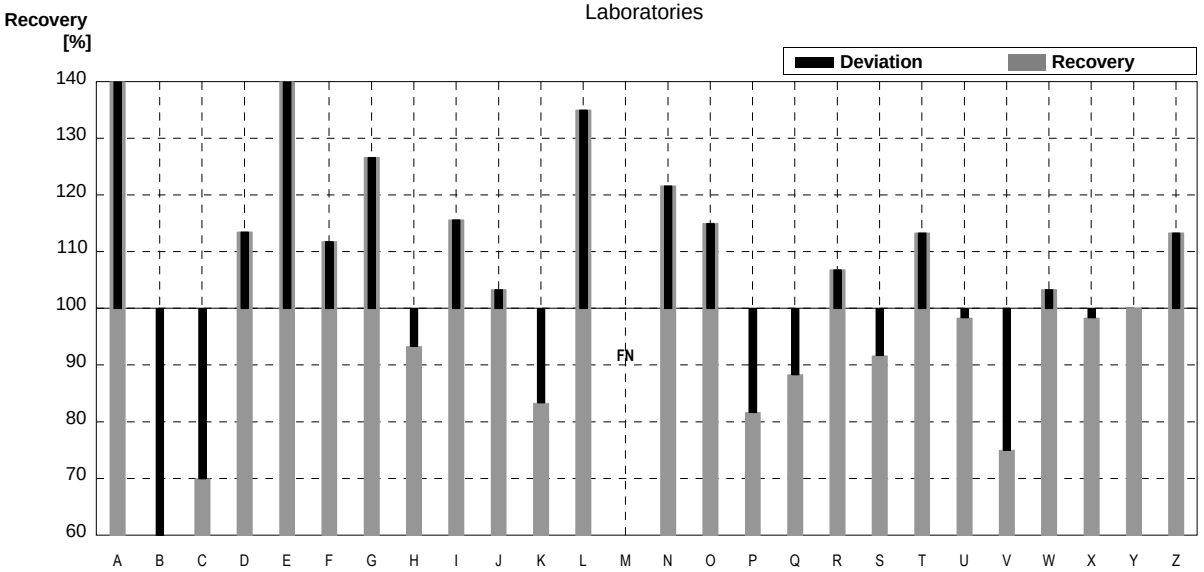
Parameter Tetrachloromethane

Target value ± U (k=2)	0,60 µg/l	±	0,03 µg/l	
IFA result ± U (k=2)	0,58 µg/l	±	0,09 µg/l	
Stability test ± U (k=2)	0,58 µg/l	±	0,09 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,25 *	0,19	µg/l	208%	6,02
B	0,36	0,10	µg/l	60%	-2,22
C	0,42	0,06	µg/l	70%	-1,67
D	0,681		µg/l	114%	0,75
E	0,97 *	0,10	µg/l	162%	3,43
F	0,671		µg/l	112%	0,66
G	0,76	0,03	µg/l	127%	1,48
H	0,56	0,14	µg/l	93%	-0,37
I	0,694	0,208	µg/l	116%	0,87
J	0,62	0,1	µg/l	103%	0,19
K	0,5	0,08	µg/l	83%	-0,93
L	0,81	0,02	µg/l	135%	1,94
M	<0,55		µg/l	FN	
N	0,73	0,16	µg/l	122%	1,20
O	0,69	0,21	µg/l	115%	0,83
P	0,49	0,12	µg/l	82%	-1,02
Q	0,53	0,16	µg/l	88%	-0,65
R	0,641	0,128	µg/l	107%	0,38
S	0,55	0,06	µg/l	92%	-0,46
T	0,68	0,07	µg/l	113%	0,74
U	0,59	0,25	µg/l	98%	-0,09
V	0,45	0,09	µg/l	75%	-1,39
W	0,62	0,032	µg/l	103%	0,19
X	0,59	0,12	µg/l	98%	-0,09
Y	0,6	0,06	µg/l	100%	0,00
Z	0,68	0,14	µg/l	113%	0,74

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,65 ± 0,10	0,61 ± 0,07	µg/l
Recov. ± CI(99%)	107,6 ± 16,8	100,8 ± 10,9	%
SD between labs	0,18	0,11	µg/l
RSD between labs	28,0	18,4	%
n for calculation	25	23	





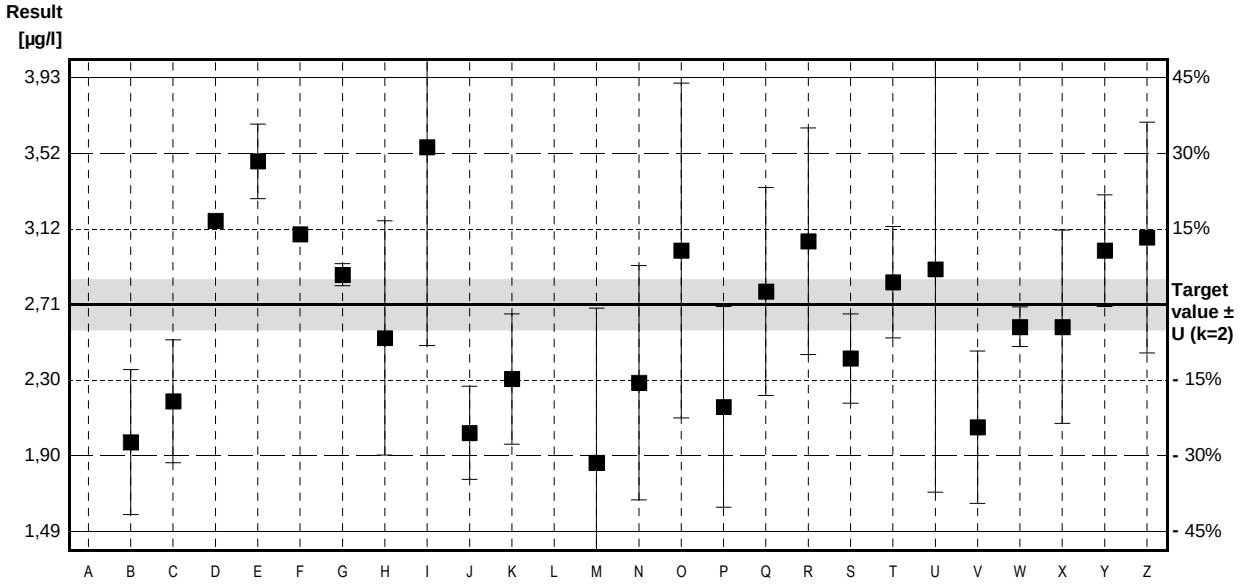
Sample C52B

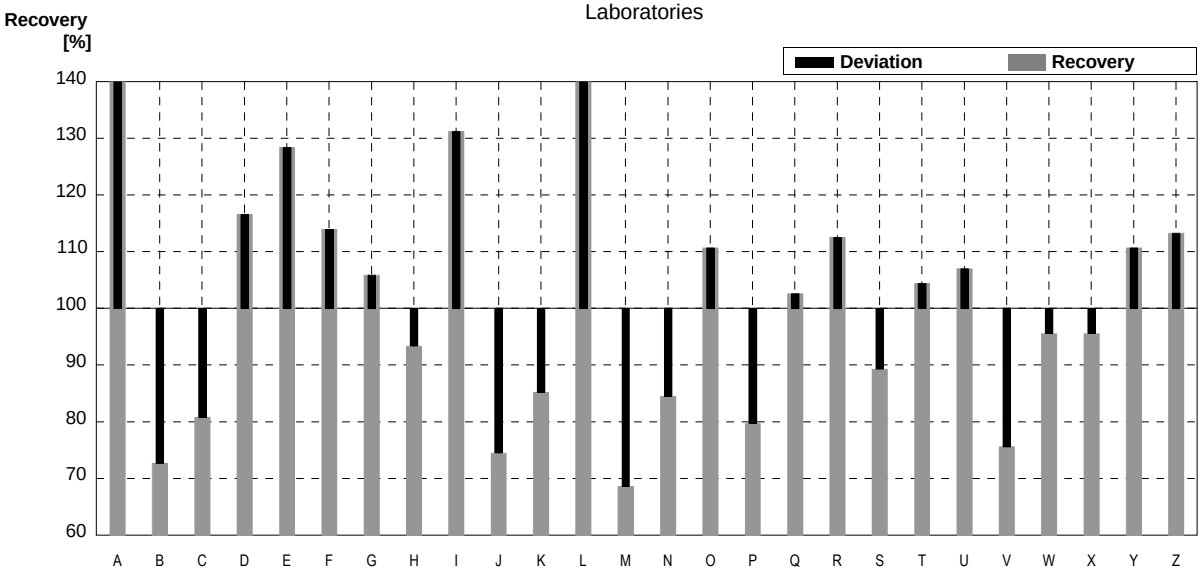
Parameter Tetrachloromethane

Target value ± U (k=2)	2,71	µg/l	±	0,14	µg/l
IFA result ± U (k=2)	2,67	µg/l	±	0,40	µg/l
Stability test ± U (k=2)	2,59	µg/l	±	0,39	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	5,32 *	0,80	µg/l	196%	5,35
B	1,97	0,39	µg/l	73%	-1,52
C	2,19	0,33	µg/l	81%	-1,07
D	3,160		µg/l	117%	0,92
E	3,48	0,20	µg/l	128%	1,58
F	3,088		µg/l	114%	0,77
G	2,87	0,06	µg/l	106%	0,33
H	2,53	0,63	µg/l	93%	-0,37
I	3,556	1,067	µg/l	131%	1,73
J	2,02	0,25	µg/l	75%	-1,41
K	2,31	0,35	µg/l	85%	-0,82
L	4,02	0,25	µg/l	148%	2,69
M	1,86	0,83	µg/l	69%	-1,74
N	2,29	0,63	µg/l	85%	-0,86
O	3,00	0,90	µg/l	111%	0,59
P	2,16	0,54	µg/l	80%	-1,13
Q	2,78	0,56	µg/l	103%	0,14
R	3,05	0,61	µg/l	113%	0,70
S	2,42	0,24	µg/l	89%	-0,59
T	2,83	0,30	µg/l	104%	0,25
U	2,9	1,2	µg/l	107%	0,39
V	2,05	0,41	µg/l	76%	-1,35
W	2,59	0,107	µg/l	96%	-0,25
X	2,59	0,52	µg/l	96%	-0,25
Y	3,0	0,30	µg/l	111%	0,59
Z	3,07	0,62	µg/l	113%	0,74

	All results	Outliers excl.	Unit
Mean ± CI(99%)	2,81 ± 0,40	2,71 ± 0,30	µg/l
Recov. ± CI(99%)	103,8 ± 14,9	100,1 ± 11,2	%
SD between labs	0,74	0,54	µg/l
RSD between labs	26,3	20,1	%
n for calculation	26	25	



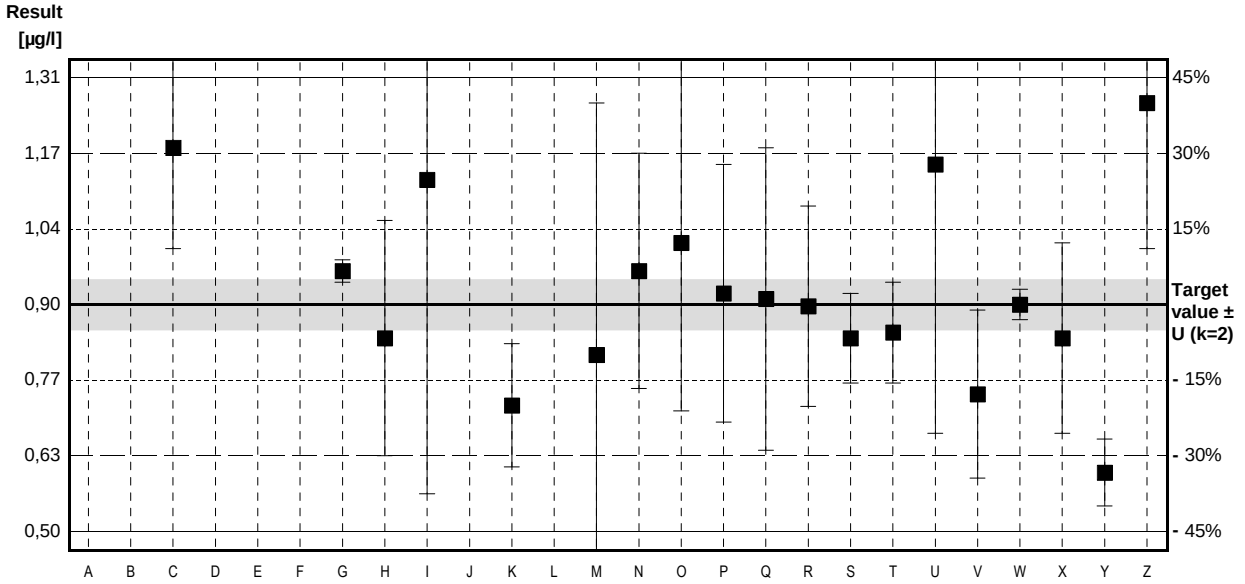


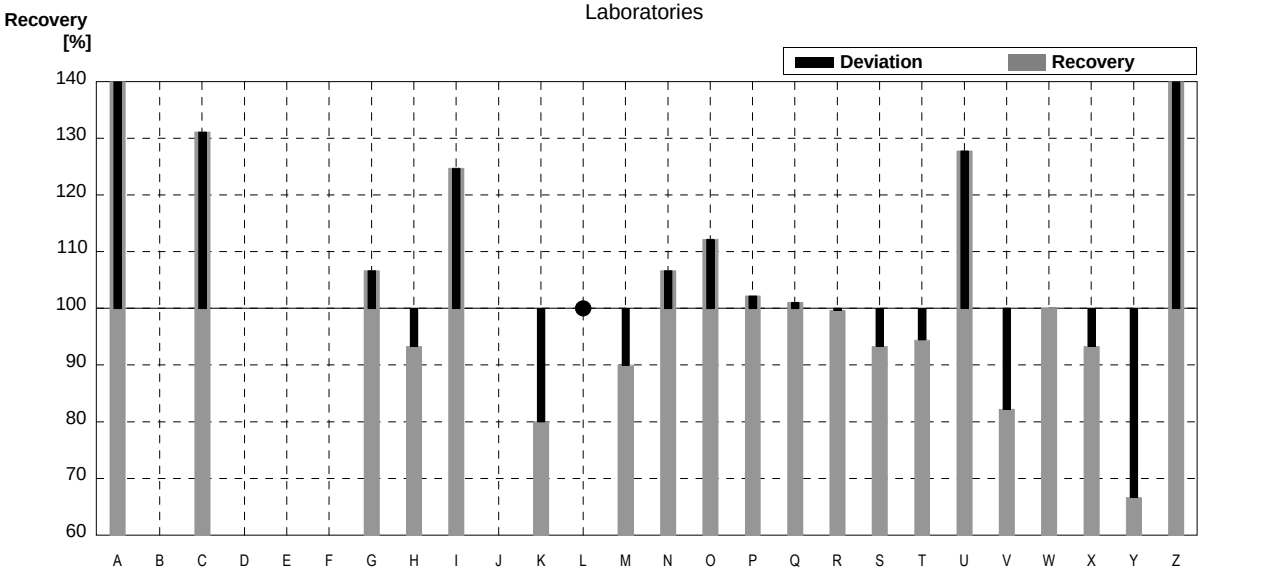
Sample C52A

Parameter 1,1-Dichloroethene

Target value ± U (k=2)	0,90 µg/l	±	0,05 µg/l	
IFA result ± U (k=2)	0,89 µg/l	±	0,13 µg/l	
Stability test ± U (k=2)	0,86 µg/l	±	0,13 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,99 *	0,30	µg/l	221%	5,77
B			µg/l		
C	1,18	0,18	µg/l	131%	1,48
D			µg/l		
E			µg/l		
F			µg/l		
G	0,96	0,02	µg/l	107%	0,32
H	0,84	0,21	µg/l	93%	-0,32
I	1,123	0,561	µg/l	125%	1,18
J	n,a,		µg/l		
K	0,72	0,11	µg/l	80%	-0,95
L	<1,6		µg/l	•	
M	0,81	0,45	µg/l	90%	-0,48
N	0,96	0,21	µg/l	107%	0,32
O	1,01	0,30	µg/l	112%	0,58
P	0,92	0,23	µg/l	102%	0,11
Q	0,91	0,27	µg/l	101%	0,05
R	0,897	0,179	µg/l	100%	-0,02
S	0,84	0,08	µg/l	93%	-0,32
T	0,85	0,09	µg/l	94%	-0,26
U	1,15	0,48	µg/l	128%	1,32
V	0,74	0,15	µg/l	82%	-0,85
W	0,90	0,027	µg/l	100%	0,00
X	0,84	0,17	µg/l	93%	-0,32
Y	0,6	0,06	µg/l	67%	-1,59
Z	1,26	0,26	µg/l	140%	1,90





	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,98 ± 0,18	0,92 ± 0,11	µg/l
Recov. ± CI(99%)	108,3 ± 20,5	102,4 ± 12,2	%
SD between labs	0,29	0,17	µg/l
RSD between labs	29,6	18,1	%
n for calculation	20	19	

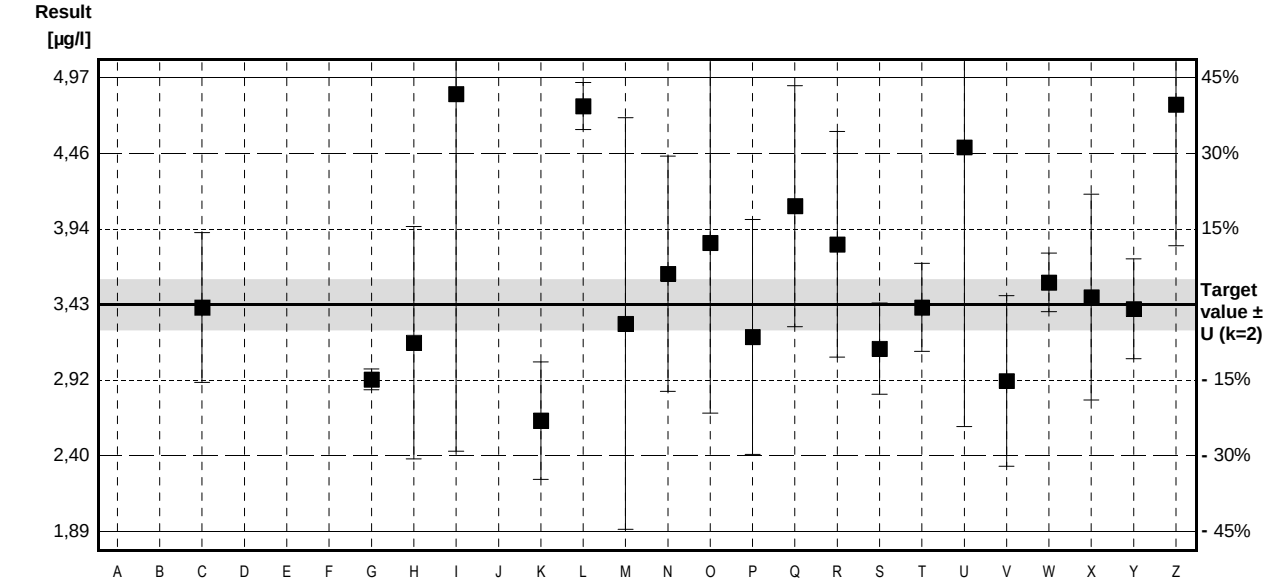
Sample C52B

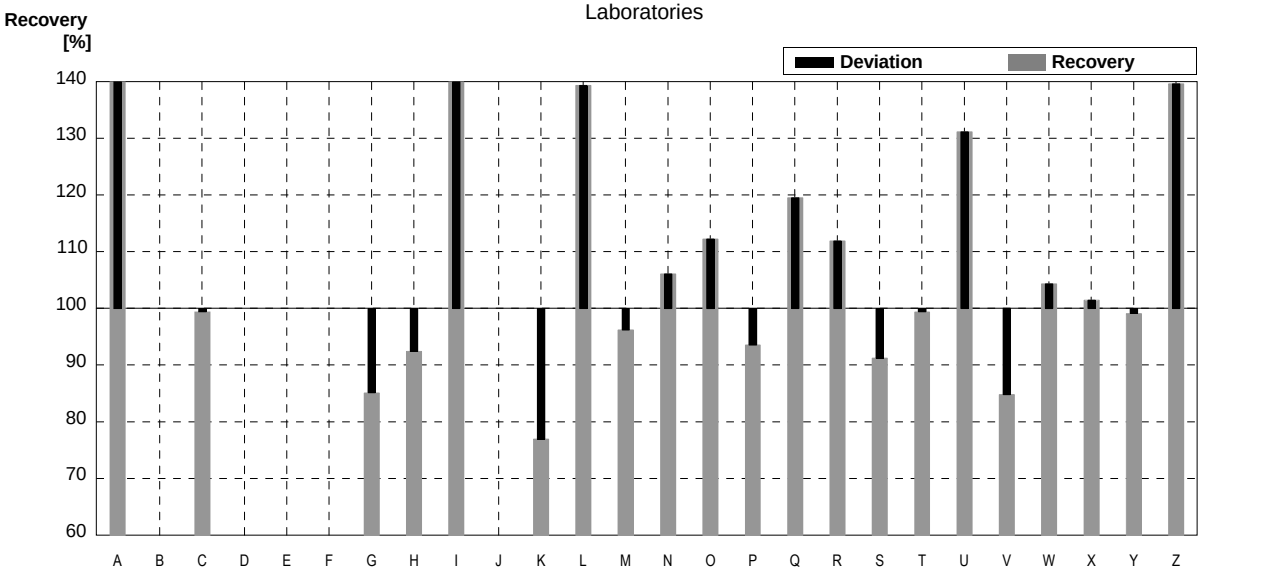
Parameter 1,1-Dichloroethene

Target value ± U (k=2)	3,43 µg/l	±	0,17 µg/l	
IFA result ± U (k=2)	3,41 µg/l	±	0,51 µg/l	
Stability test ± U (k=2)	3,39 µg/l	±	0,51 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	7,39 *	1,11	µg/l	215%	5,50
B			µg/l		
C	3,41	0,51	µg/l	99%	-0,03
D			µg/l		
E			µg/l		
F			µg/l		
G	2,92	0,07	µg/l	85%	-0,71
H	3,17	0,79	µg/l	92%	-0,36
I	4,863	2,431	µg/l	142%	1,99
J	n,a.		µg/l		
K	2,64	0,40	µg/l	77%	-1,10
L	4,78	0,16	µg/l	139%	1,87
M	3,3	1,4	µg/l	96%	-0,18
N	3,64	0,80	µg/l	106%	0,29
O	3,85	1,16	µg/l	112%	0,58
P	3,21	0,80	µg/l	94%	-0,31
Q	4,10	0,82	µg/l	120%	0,93
R	3,84	0,768	µg/l	112%	0,57
S	3,13	0,31	µg/l	91%	-0,42
T	3,41	0,30	µg/l	99%	-0,03
U	4,5	1,9	µg/l	131%	1,49
V	2,91	0,58	µg/l	85%	-0,72
W	3,58	0,199	µg/l	104%	0,21
X	3,48	0,70	µg/l	101%	0,07
Y	3,4	0,34	µg/l	99%	-0,04
Z	4,79	0,96	µg/l	140%	1,89

	All results	Outliers excl.	Unit
Mean ± CI(99%)	3,82 ± 0,65	3,65 ± 0,42	µg/l
Recov. ± CI(99%)	111,5 ± 18,8	106,3 ± 12,2	%
SD between labs	1,04	0,66	µg/l
RSD between labs	27,1	18,0	%
n for calculation	21	20	





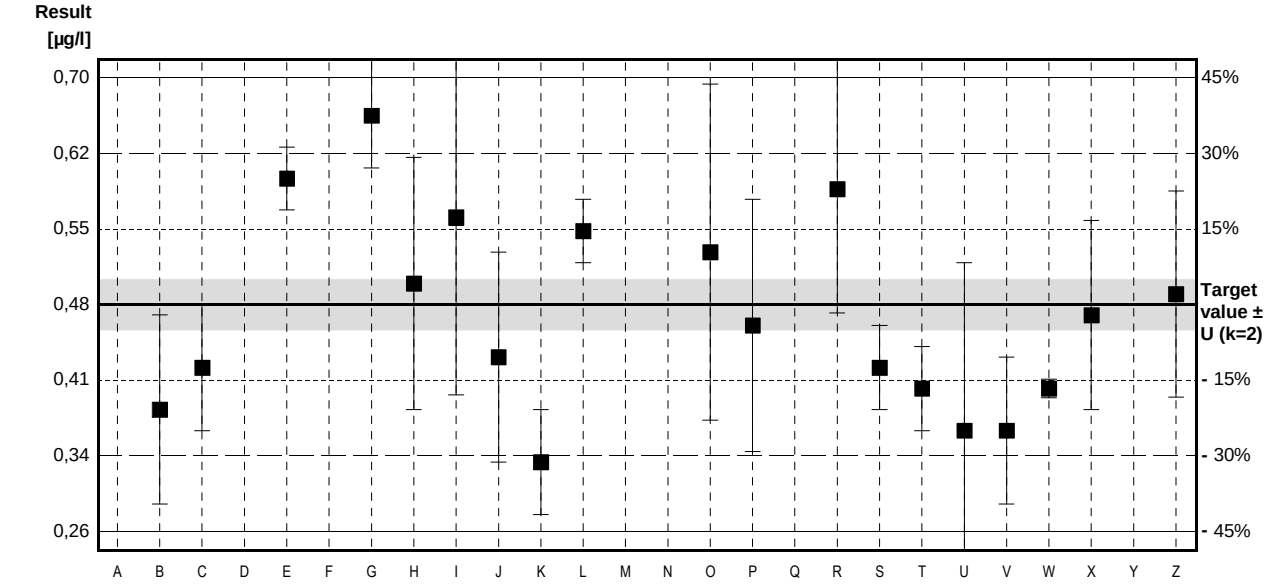
Sample C52A

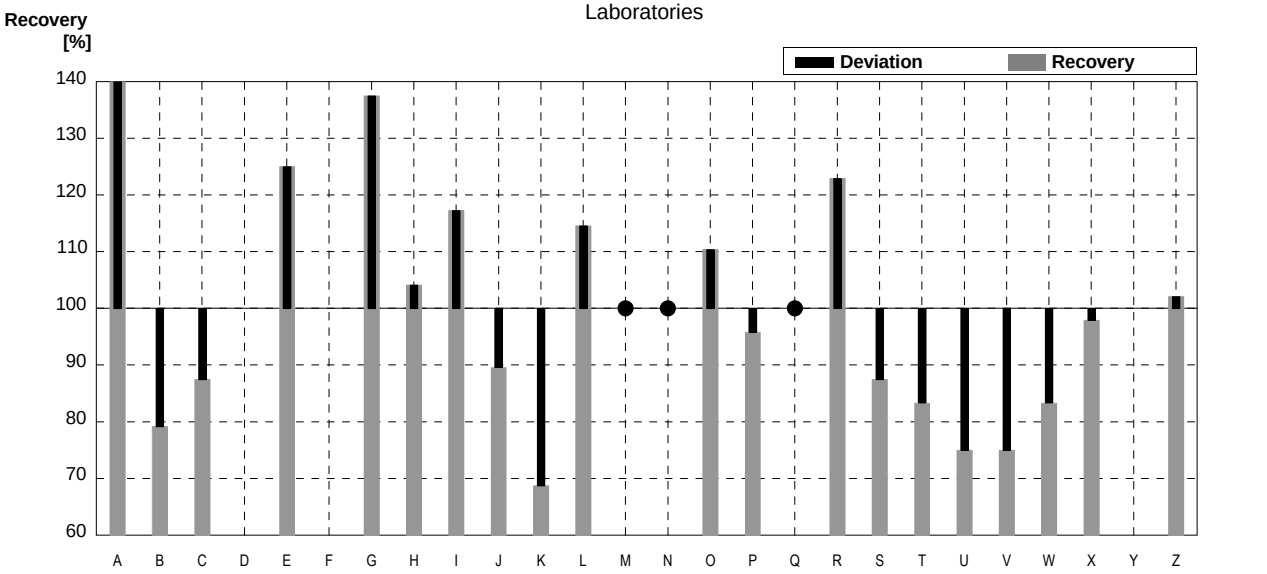
Parameter Tribromomethane

Target value	± U (k=2)	0,48 µg/l	±	0,02 µg/l
IFA result	± U (k=2)	0,51 µg/l	±	0,08 µg/l
Stability test	± U (k=2)	0,48 µg/l	±	0,07 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,97 *	0,15	µg/l	202%	6,00
B	0,38	0,09	µg/l	79%	-1,23
C	0,42	0,06	µg/l	88%	-0,74
D			µg/l		
E	0,60	0,03	µg/l	125%	1,47
F			µg/l		
G	0,66	0,05	µg/l	138%	2,21
H	0,50	0,12	µg/l	104%	0,25
I	0,563	0,169	µg/l	117%	1,02
J	0,43	0,1	µg/l	90%	-0,61
K	0,33	0,05	µg/l	69%	-1,84
L	0,55	0,03	µg/l	115%	0,86
M	<0,55		µg/l	•	
N	<0,5		µg/l	•	
O	0,53	0,16	µg/l	110%	0,61
P	0,46	0,12	µg/l	96%	-0,25
Q	<0,5		µg/l	•	
R	0,590	0,118	µg/l	123%	1,35
S	0,42	0,04	µg/l	88%	-0,74
T	0,40	0,04	µg/l	83%	-0,98
U	0,36	0,16	µg/l	75%	-1,47
V	0,36	0,07	µg/l	75%	-1,47
W	0,40	0,009	µg/l	83%	-0,98
X	0,47	0,09	µg/l	98%	-0,12
Y			µg/l		
Z	0,49	0,098	µg/l	102%	0,12

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,49 ± 0,09	0,47 ± 0,06	µg/l
Recov. ± CI(99%)	102,9 ± 19,2	97,7 ± 12,8	%
SD between labs	0,14	0,09	µg/l
RSD between labs	29,1	19,8	%
n for calculation	20	19	





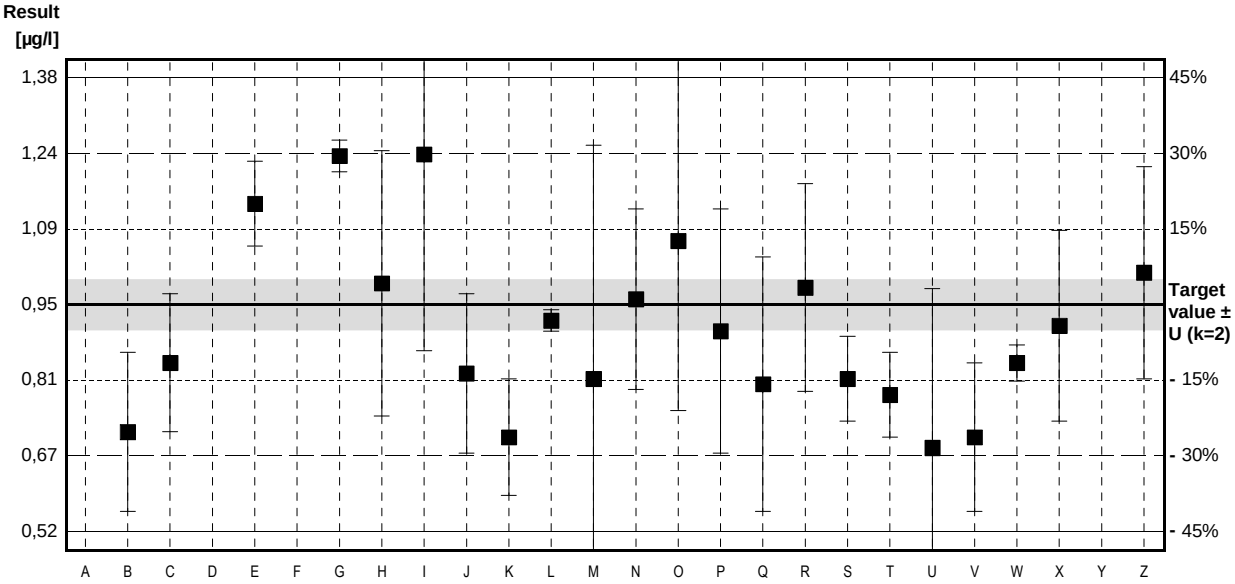
Sample C52B

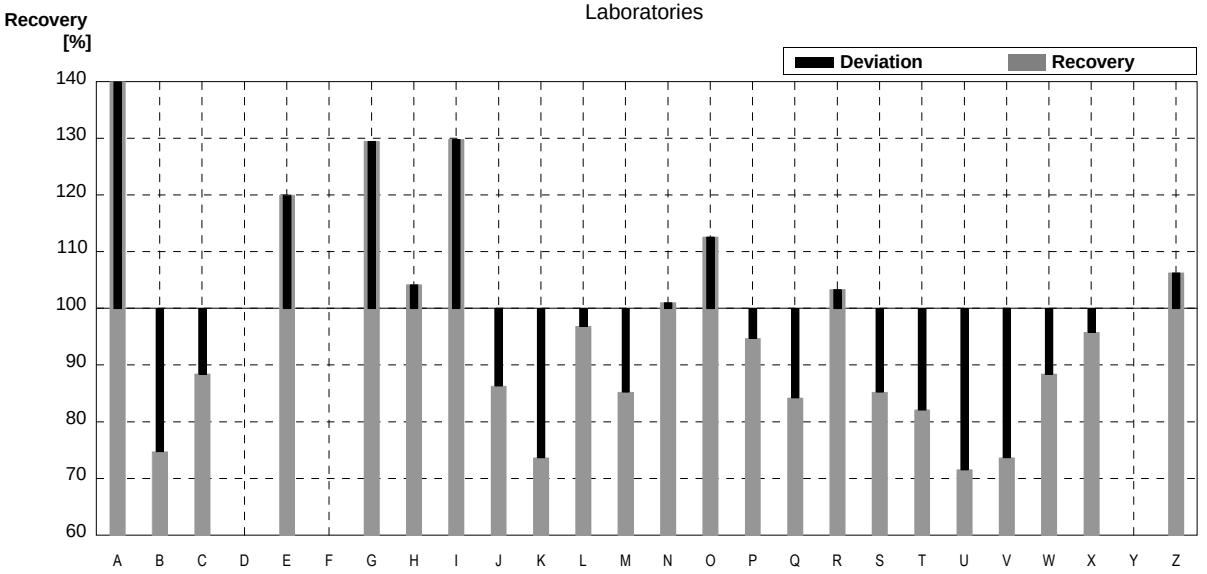
Parameter Tribromomethane

Target value ± U (k=2)	0,95	µg/l	±	0,05	µg/l
IFA result ± U (k=2)	0,99	µg/l	±	0,15	µg/l
Stability test ± U (k=2)	0,89	µg/l	±	0,13	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,91 *	0,29	µg/l	201%	5,94
B	0,71	0,15	µg/l	75%	-1,49
C	0,84	0,13	µg/l	88%	-0,68
D			µg/l		
E	1,14	0,08	µg/l	120%	1,18
F			µg/l		
G	1,23	0,03	µg/l	129%	1,73
H	0,99	0,25	µg/l	104%	0,25
I	1,233	0,370	µg/l	130%	1,75
J	0,82	0,15	µg/l	86%	-0,80
K	0,7	0,11	µg/l	74%	-1,55
L	0,92	0,02	µg/l	97%	-0,19
M	0,81	0,44	µg/l	85%	-0,87
N	0,96	0,17	µg/l	101%	0,06
O	1,07	0,32	µg/l	113%	0,74
P	0,90	0,23	µg/l	95%	-0,31
Q	0,80	0,24	µg/l	84%	-0,93
R	0,982	0,196	µg/l	103%	0,20
S	0,81	0,08	µg/l	85%	-0,87
T	0,78	0,08	µg/l	82%	-1,05
U	0,68	0,3	µg/l	72%	-1,67
V	0,70	0,14	µg/l	74%	-1,55
W	0,84	0,034	µg/l	88%	-0,68
X	0,91	0,18	µg/l	96%	-0,25
Y			µg/l		
Z	1,01	0,2	µg/l	106%	0,37

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,95 ± 0,15	0,90 ± 0,10	µg/l
Recov. ± CI(99%)	99,5 ± 16,3	94,9 ± 10,3	%
SD between labs	0,26	0,16	µg/l
RSD between labs	27,9	18,0	%
n for calculation	23	22	



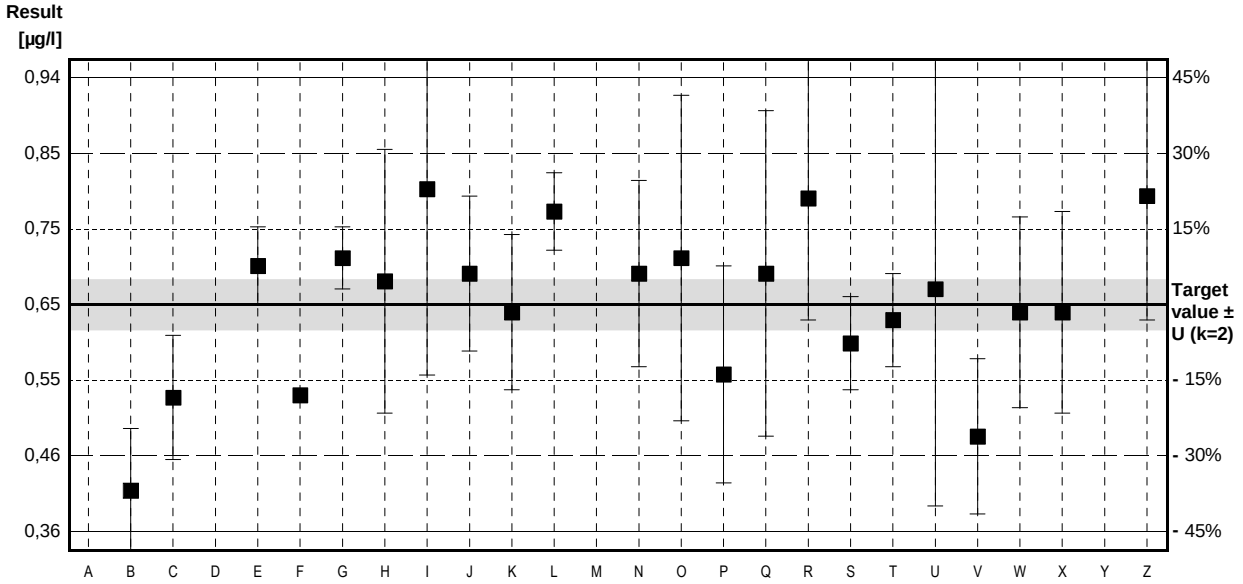


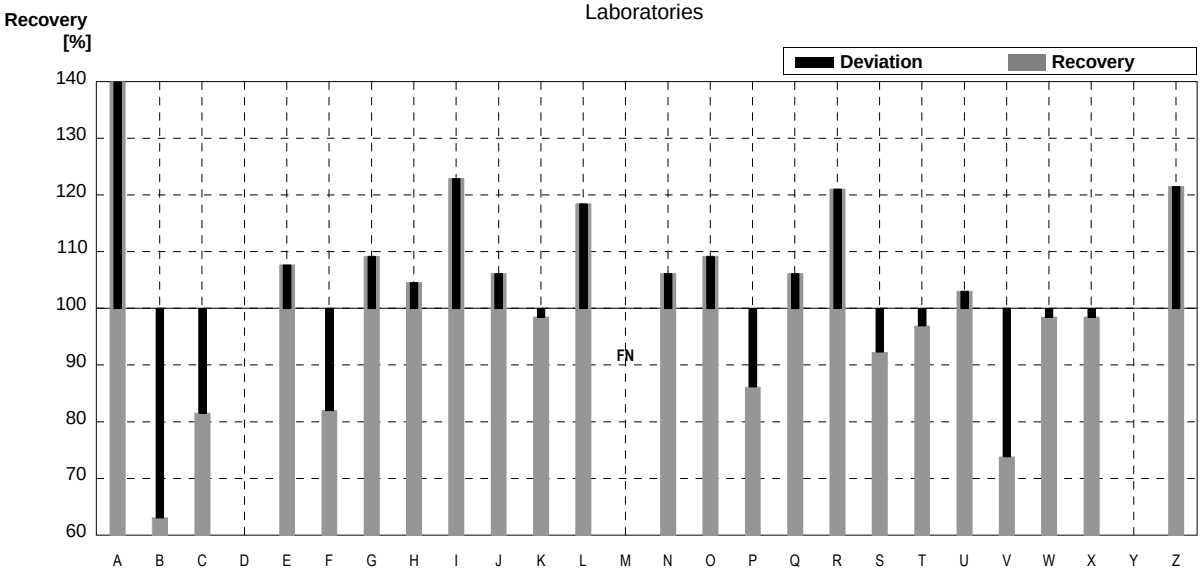
Sample C52A

Parameter Bromodichloromethane

Target value ± U (k=2)	0,65 µg/l	±	0,03 µg/l	
IFA result ± U (k=2)	0,66 µg/l	±	0,10 µg/l	
Stability test ± U (k=2)	0,64 µg/l	±	0,10 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,36 *	0,20	µg/l	209%	7,80
B	0,41 *	0,08	µg/l	63%	-2,64
C	0,53	0,08	µg/l	82%	-1,32
D			µg/l		
E	0,70	0,05	µg/l	108%	0,55
F	0,533		µg/l	82%	-1,29
G	0,71	0,04	µg/l	109%	0,66
H	0,68	0,17	µg/l	105%	0,33
I	0,799	0,240	µg/l	123%	1,64
J	0,69	0,1	µg/l	106%	0,44
K	0,64	0,10	µg/l	98%	-0,11
L	0,77	0,05	µg/l	118%	1,32
M	<0,55		µg/l	FN	
N	0,69	0,12	µg/l	106%	0,44
O	0,71	0,21	µg/l	109%	0,66
P	0,56	0,14	µg/l	86%	-0,99
Q	0,69	0,21	µg/l	106%	0,44
R	0,787	0,157	µg/l	121%	1,51
S	0,60	0,06	µg/l	92%	-0,55
T	0,63	0,06	µg/l	97%	-0,22
U	0,67	0,28	µg/l	103%	0,22
V	0,48	0,1	µg/l	74%	-1,87
W	0,64	0,123	µg/l	98%	-0,11
X	0,64	0,13	µg/l	98%	-0,11
Y			µg/l		
Z	0,79	0,16	µg/l	122%	1,54





	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,68 ± 0,10	0,66 ± 0,05	µg/l
Recov. ± CI(99%)	105,1 ± 16,1	102,1 ± 8,4	%
SD between labs	0,18	0,09	µg/l
RSD between labs	26,0	13,3	%
n for calculation	23	21	

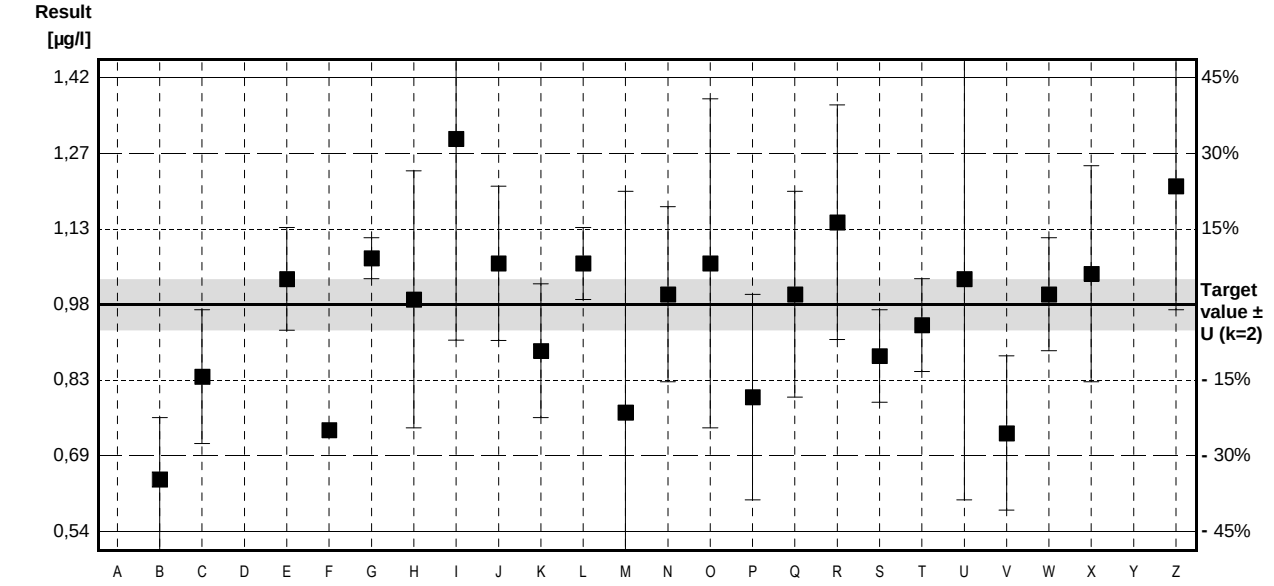
Sample C52B

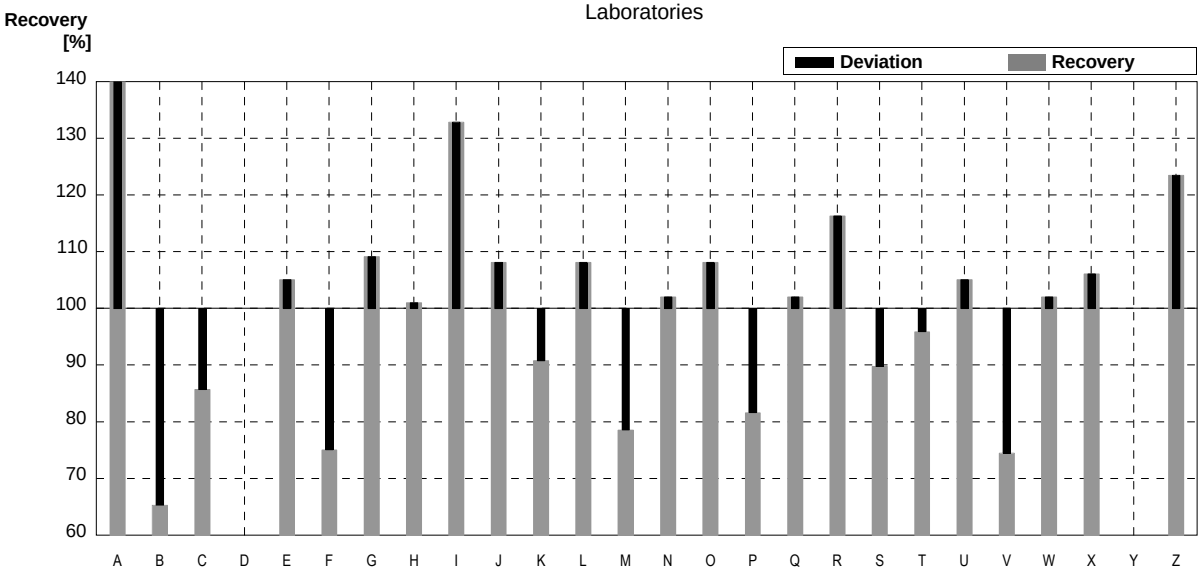
Parameter Bromodichloromethane

Target value ± U (k=2)	0,98	µg/l	±	0,05	µg/l
IFA result ± U (k=2)	1,00	µg/l	±	0,15	µg/l
Stability test ± U (k=2)	0,95	µg/l	±	0,14	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	2,06 *	0,31	µg/l	210%	7,87
B	0,64	0,12	µg/l	65%	-2,48
C	0,84	0,13	µg/l	86%	-1,02
D			µg/l		
E	1,03	0,10	µg/l	105%	0,36
F	0,736		µg/l	75%	-1,78
G	1,07	0,04	µg/l	109%	0,66
H	0,99	0,25	µg/l	101%	0,07
I	1,302	0,391	µg/l	133%	2,35
J	1,06	0,15	µg/l	108%	0,58
K	0,89	0,13	µg/l	91%	-0,66
L	1,06	0,07	µg/l	108%	0,58
M	0,77	0,43	µg/l	79%	-1,53
N	1,00	0,17	µg/l	102%	0,15
O	1,06	0,32	µg/l	108%	0,58
P	0,80	0,20	µg/l	82%	-1,31
Q	1,00	0,20	µg/l	102%	0,15
R	1,14	0,228	µg/l	116%	1,17
S	0,88	0,09	µg/l	90%	-0,73
T	0,94	0,09	µg/l	96%	-0,29
U	1,03	0,43	µg/l	105%	0,36
V	0,73	0,15	µg/l	74%	-1,82
W	1,00	0,110	µg/l	102%	0,15
X	1,04	0,21	µg/l	106%	0,44
Y			µg/l		
Z	1,21	0,24	µg/l	123%	1,68

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,01 ± 0,16	0,97 ± 0,09	µg/l
Recov. ± CI(99%)	103,2 ± 16,0	98,6 ± 9,6	%
SD between labs	0,27	0,16	µg/l
RSD between labs	27,0	16,6	%
n for calculation	24	23	





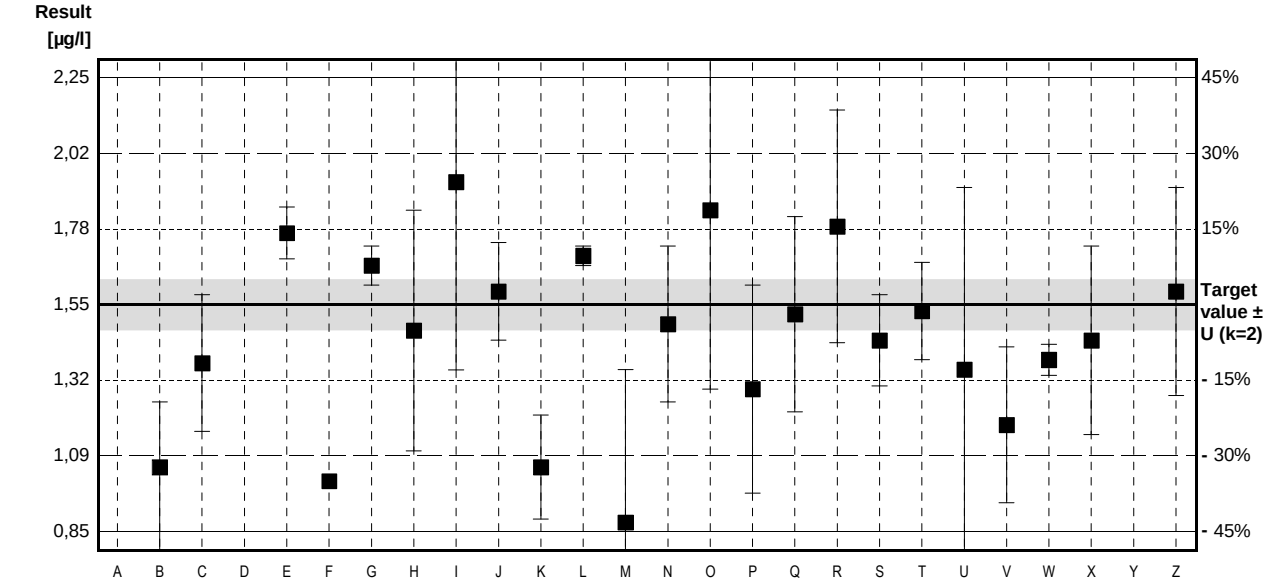
Sample C52A

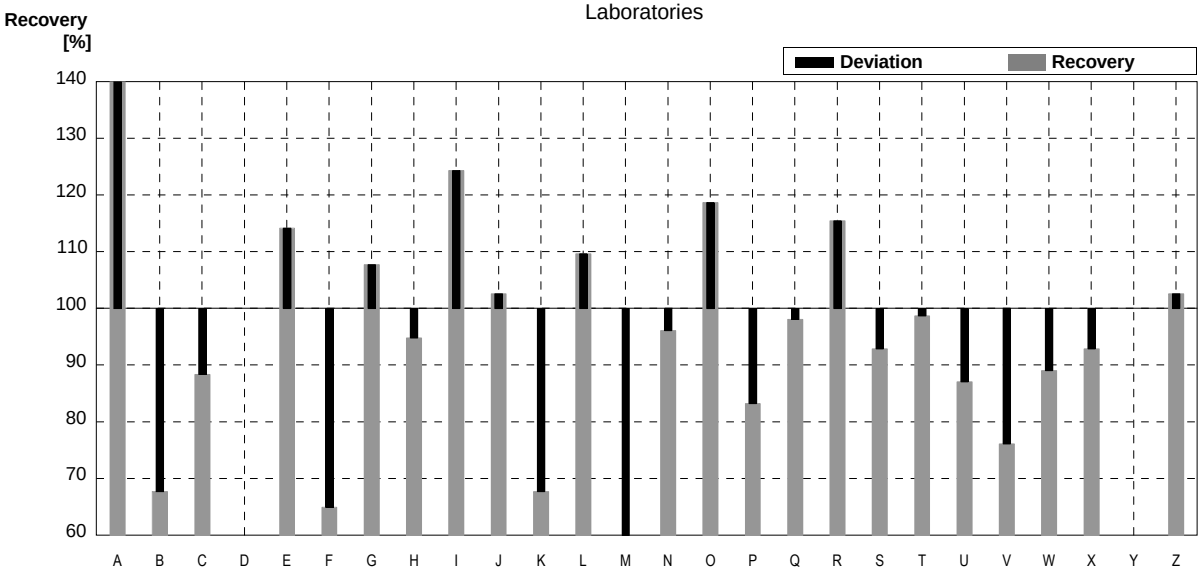
Parameter Dibromochloromethane

Target value ± U (k=2)	1,55 µg/l	±	0,08 µg/l	
IFA result ± U (k=2)	1,53 µg/l	±	0,23 µg/l	
Stability test ± U (k=2)	1,51 µg/l	±	0,23 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	3,62 *	0,54	µg/l	234%	8,90
B	1,05	0,2	µg/l	68%	-2,15
C	1,37	0,21	µg/l	88%	-0,77
D			µg/l		
E	1,77	0,08	µg/l	114%	0,95
F	1,007		µg/l	65%	-2,34
G	1,67	0,06	µg/l	108%	0,52
H	1,47	0,37	µg/l	95%	-0,34
I	1,927	0,578	µg/l	124%	1,62
J	1,59	0,15	µg/l	103%	0,17
K	1,05	0,16	µg/l	68%	-2,15
L	1,70	0,03	µg/l	110%	0,65
M	0,88	0,47	µg/l	57%	-2,88
N	1,49	0,24	µg/l	96%	-0,26
O	1,84	0,55	µg/l	119%	1,25
P	1,29	0,32	µg/l	83%	-1,12
Q	1,52	0,30	µg/l	98%	-0,13
R	1,79	0,358	µg/l	115%	1,03
S	1,44	0,14	µg/l	93%	-0,47
T	1,53	0,15	µg/l	99%	-0,09
U	1,35	0,56	µg/l	87%	-0,86
V	1,18	0,24	µg/l	76%	-1,59
W	1,38	0,048	µg/l	89%	-0,73
X	1,44	0,29	µg/l	93%	-0,47
Y			µg/l		
Z	1,59	0,32	µg/l	103%	0,17

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,54 ± 0,30	1,45 ± 0,16	µg/l
Recov. ± CI(99%)	99,3 ± 19,3	93,5 ± 10,6	%
SD between labs	0,52	0,28	µg/l
RSD between labs	33,8	19,3	%
n for calculation	24	23	





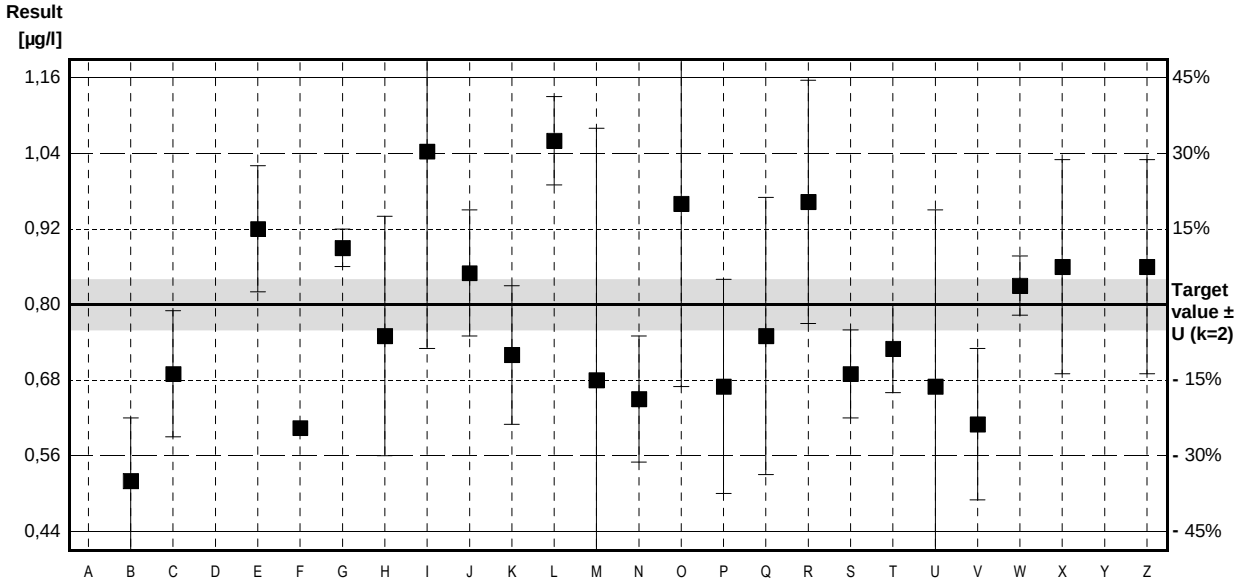
Sample C52B

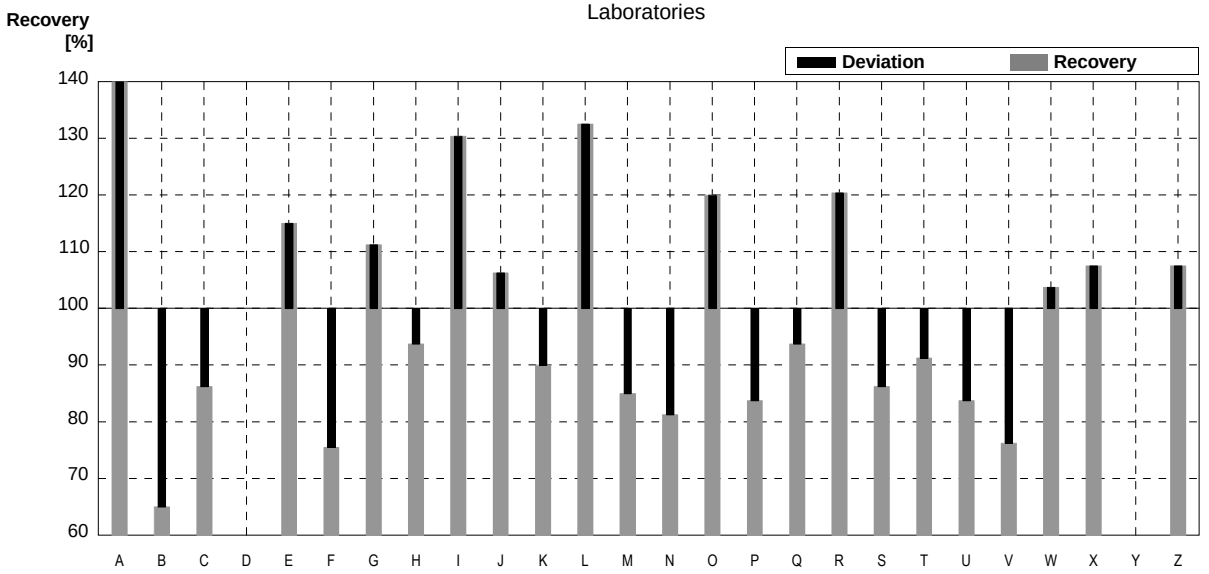
Parameter Dibromochloromethane

Target value ± U (k=2)	0,80	µg/l	±	0,04	µg/l
IFA result ± U (k=2)	0,81	µg/l	±	0,12	µg/l
Stability test ± U (k=2)	0,74	µg/l	±	0,11	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,46 *	0,22	µg/l	183%	5,50
B	0,52	0,10	µg/l	65%	-2,33
C	0,69	0,10	µg/l	86%	-0,92
D			µg/l		
E	0,92	0,10	µg/l	115%	1,00
F	0,604		µg/l	76%	-1,63
G	0,89	0,03	µg/l	111%	0,75
H	0,75	0,19	µg/l	94%	-0,42
I	1,043	0,313	µg/l	130%	2,03
J	0,85	0,1	µg/l	106%	0,42
K	0,72	0,11	µg/l	90%	-0,67
L	1,06	0,07	µg/l	133%	2,17
M	0,68	0,4	µg/l	85%	-1,00
N	0,65	0,10	µg/l	81%	-1,25
O	0,96	0,29	µg/l	120%	1,33
P	0,67	0,17	µg/l	84%	-1,08
Q	0,75	0,22	µg/l	94%	-0,42
R	0,963	0,193	µg/l	120%	1,36
S	0,69	0,07	µg/l	86%	-0,92
T	0,73	0,07	µg/l	91%	-0,58
U	0,67	0,28	µg/l	84%	-1,08
V	0,61	0,12	µg/l	76%	-1,58
W	0,83	0,047	µg/l	104%	0,25
X	0,86	0,17	µg/l	108%	0,50
Y			µg/l		
Z	0,86	0,17	µg/l	108%	0,50

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,81 ± 0,11	0,78 ± 0,09	µg/l
Recov. ± CI(99%)	101,2 ± 14,3	97,7 ± 10,7	%
SD between labs	0,20	0,15	µg/l
RSD between labs	24,6	18,7	%
n for calculation	24	23	



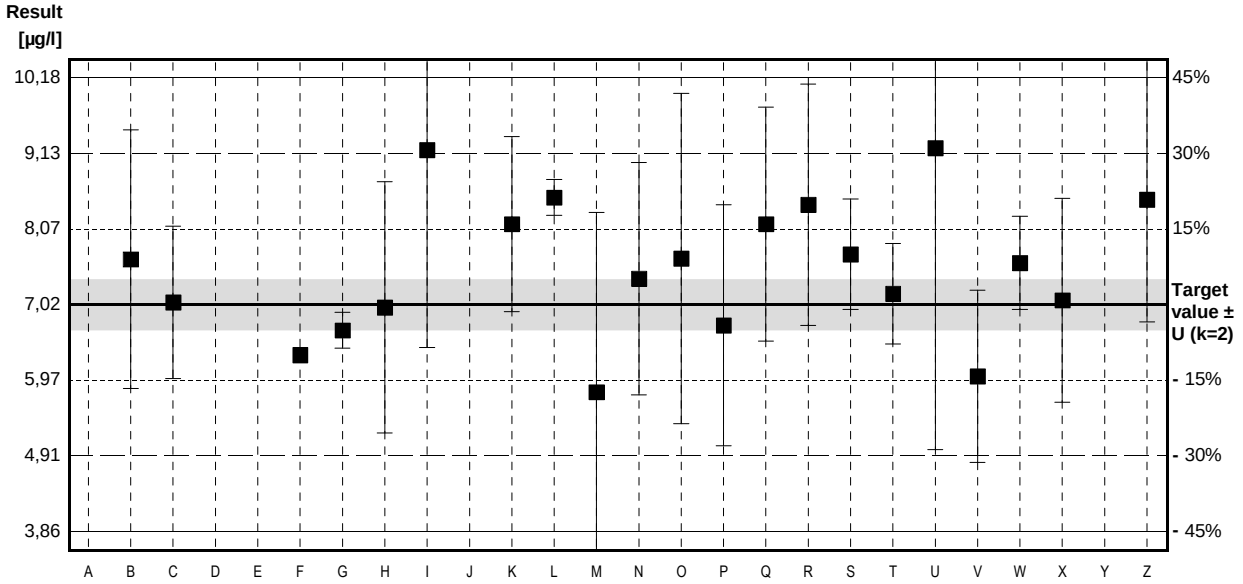


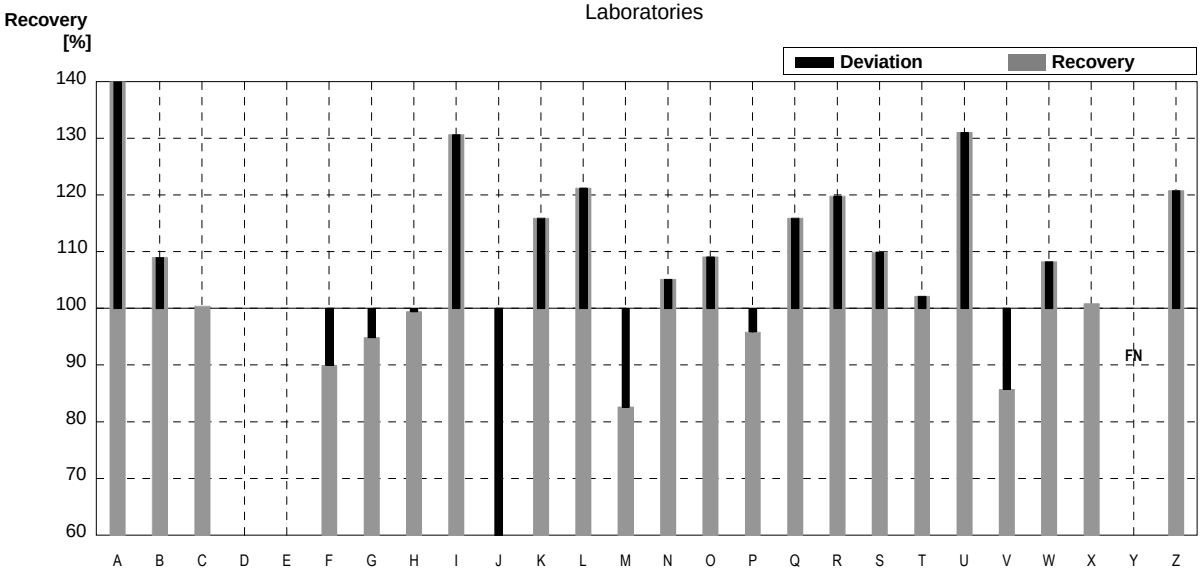
Sample C52A

Parameter Dichloromethane

Target value ± U (k=2)	7,02 µg/l	±	0,35 µg/l	
IFA result ± U (k=2)	7,14 µg/l	±	1,07 µg/l	
Stability test ± U (k=2)	6,89 µg/l	±	1,03 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	13,20 *	1,98	µg/l	188%	6,29
B	7,65	1,80	µg/l	109%	0,64
C	7,05	1,06	µg/l	100%	0,03
D			µg/l		
E			µg/l		
F	6,317		µg/l	90%	-0,72
G	6,66	0,25	µg/l	95%	-0,37
H	6,98	1,75	µg/l	99%	-0,04
I	9,173	2,752	µg/l	131%	2,19
J	0,99 *	0,1	µg/l	14%	-6,14
K	8,14	1,22	µg/l	116%	1,14
L	8,51	0,25	µg/l	121%	1,52
M	5,8	2,5	µg/l	83%	-1,24
N	7,38	1,62	µg/l	105%	0,37
O	7,66	2,30	µg/l	109%	0,65
P	6,73	1,68	µg/l	96%	-0,30
Q	8,14	1,63	µg/l	116%	1,14
R	8,41	1,68	µg/l	120%	1,41
S	7,72	0,77	µg/l	110%	0,71
T	7,17	0,70	µg/l	102%	0,15
U	9,20	4,2	µg/l	131%	2,22
V	6,02	1,20	µg/l	86%	-1,02
W	7,6	0,65	µg/l	108%	0,59
X	7,08	1,42	µg/l	101%	0,06
Y	<0,2	0,02	µg/l	FN	
Z	8,48	1,7	µg/l	121%	1,49





	All results	Outliers excl.	Unit
Mean ± CI(99%)	7,48 ± 1,21	7,52 ± 0,59	µg/l
Recov. ± CI(99%)	106,6 ± 17,2	107,1 ± 8,4	%
SD between labs	2,05	0,95	µg/l
RSD between labs	27,5	12,6	%
n for calculation	23	21	

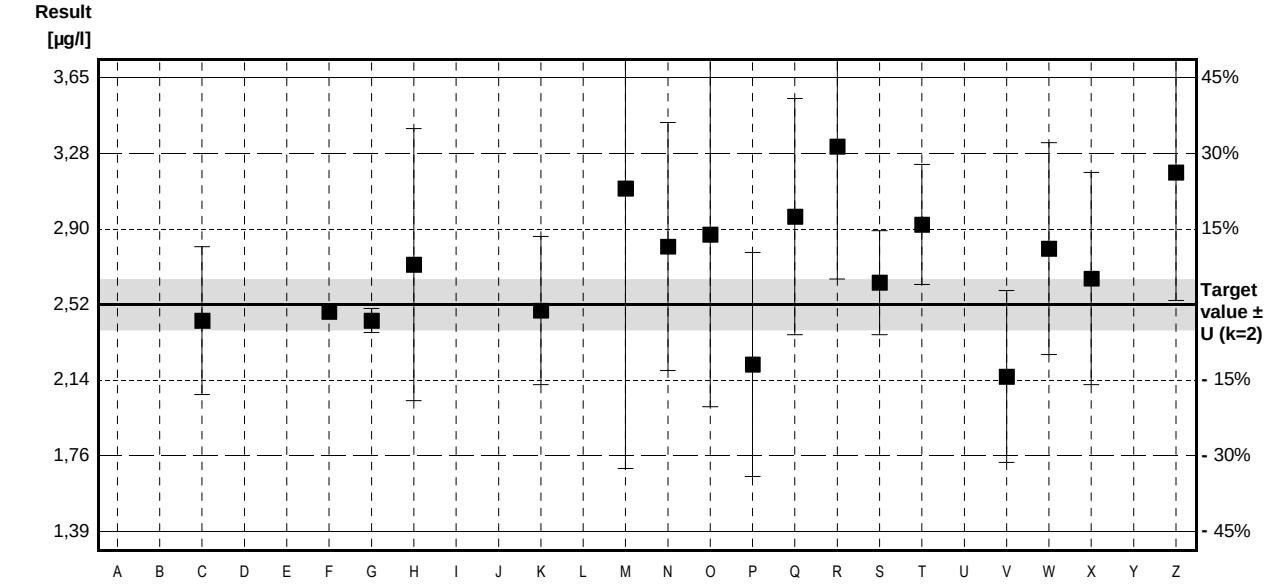
Sample C52B

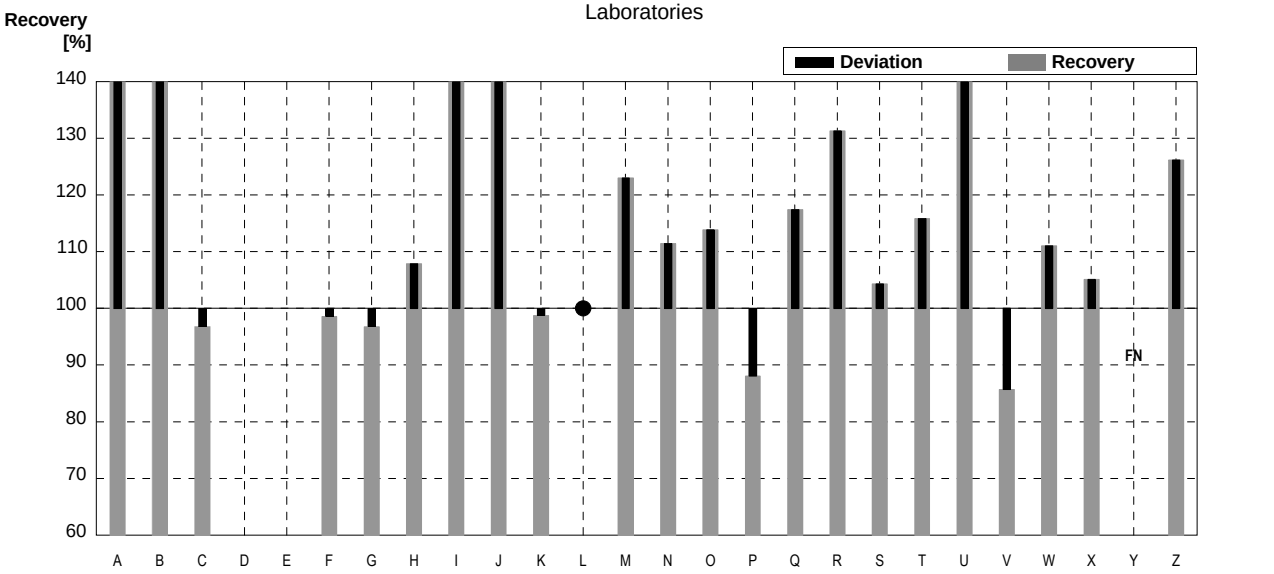
Parameter Dichloromethane

Target value ± U (k=2)	2,52	µg/l	±	0,13	µg/l
IFA result ± U (k=2)	2,68	µg/l	±	0,40	µg/l
Stability test ± U (k=2)	2,40	µg/l	±	0,36	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	4,58 *	0,69	µg/l	182%	5,84
B	9,86 *	2,45	µg/l	391%	20,80
C	2,44	0,37	µg/l	97%	-0,23
D			µg/l		
E			µg/l		
F	2,485		µg/l	99%	-0,10
G	2,44	0,06	µg/l	97%	-0,23
H	2,72	0,68	µg/l	108%	0,57
I	3,761	1,128	µg/l	149%	3,52
J	4,04	0,4	µg/l	160%	4,31
K	2,49	0,37	µg/l	99%	-0,09
L	<3,6		µg/l	•	
M	3,1	1,4	µg/l	123%	1,64
N	2,81	0,62	µg/l	112%	0,82
O	2,87	0,86	µg/l	114%	0,99
P	2,22	0,56	µg/l	88%	-0,85
Q	2,96	0,59	µg/l	117%	1,25
R	3,31	0,662	µg/l	131%	2,24
S	2,63	0,26	µg/l	104%	0,31
T	2,92	0,30	µg/l	116%	1,13
U	3,8	1,7	µg/l	151%	3,63
V	2,16	0,43	µg/l	86%	-1,02
W	2,8	0,53	µg/l	111%	0,79
X	2,65	0,53	µg/l	105%	0,37
Y	<0,2	0,02	µg/l	FN	
Z	3,18	0,64	µg/l	126%	1,87

	All results	Outliers excl.	Unit
Mean ± CI(99%)	3,28 ± 0,96	2,89 ± 0,33	µg/l
Recov. ± CI(99%)	130,3 ± 38,1	114,7 ± 13,1	%
SD between labs	1,59	0,52	µg/l
RSD between labs	48,5	17,9	%
n for calculation	22	20	





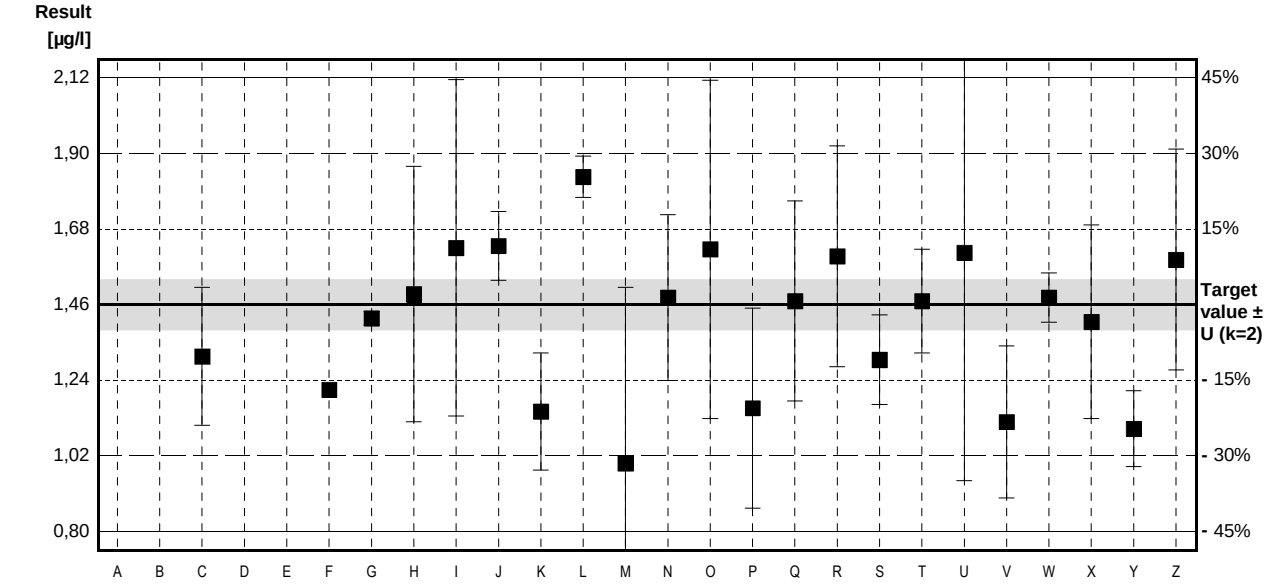
Sample C52A

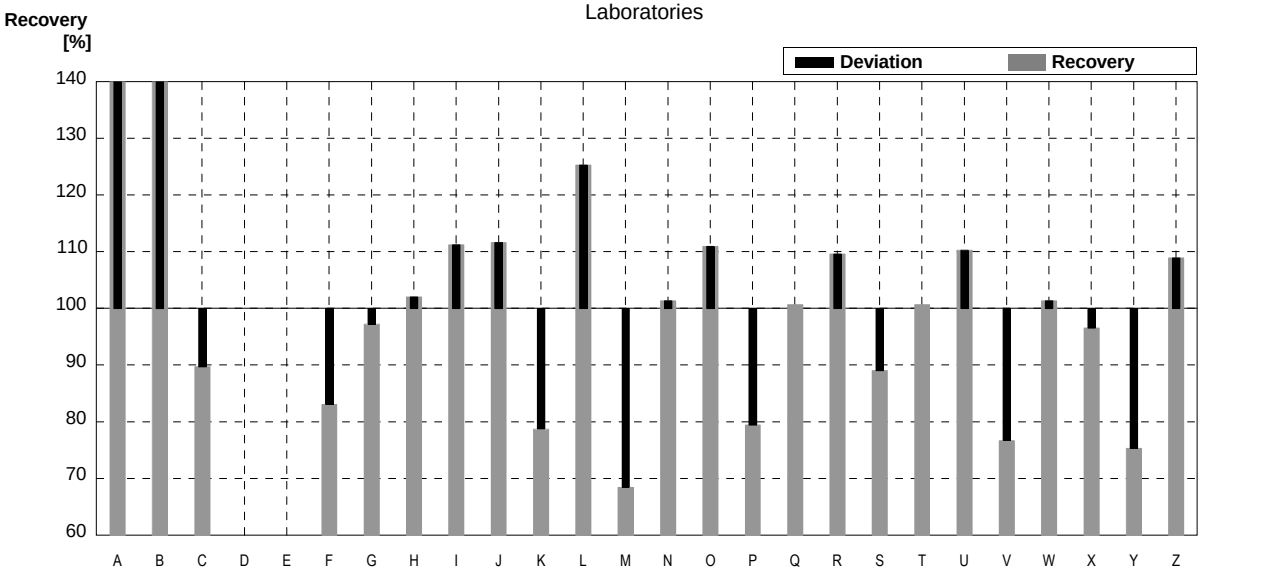
Parameter 1,2-Dichloroethane

Target value ± U (k=2)	1,46 µg/l	±	0,07 µg/l	
IFA result ± U (k=2)	1,46 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	2,97 *	0,45	µg/l	203%	7,39
B	6,19 *	1,50	µg/l	424%	23,14
C	1,31	0,20	µg/l	90%	-0,73
D			µg/l		
E			µg/l		
F	1,213		µg/l	83%	-1,21
G	1,42	0,02	µg/l	97%	-0,20
H	1,49	0,37	µg/l	102%	0,15
I	1,624	0,487	µg/l	111%	0,80
J	1,63	0,1	µg/l	112%	0,83
K	1,15	0,17	µg/l	79%	-1,52
L	1,83	0,06	µg/l	125%	1,81
M	1	0,51	µg/l	68%	-2,25
N	1,48	0,24	µg/l	101%	0,10
O	1,62	0,49	µg/l	111%	0,78
P	1,16	0,29	µg/l	79%	-1,47
Q	1,47	0,29	µg/l	101%	0,05
R	1,60	0,320	µg/l	110%	0,68
S	1,30	0,13	µg/l	89%	-0,78
T	1,47	0,15	µg/l	101%	0,05
U	1,61	0,66	µg/l	110%	0,73
V	1,12	0,22	µg/l	77%	-1,66
W	1,48	0,071	µg/l	101%	0,10
X	1,41	0,28	µg/l	97%	-0,24
Y	1,1	0,11	µg/l	75%	-1,76
Z	1,59	0,32	µg/l	109%	0,64

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,68 ± 0,59	1,41 ± 0,13	µg/l
Recov. ± CI(99%)	114,8 ± 40,6	96,8 ± 9,0	%
SD between labs	1,03	0,22	µg/l
RSD between labs	61,6	15,3	%
n for calculation	24	22	



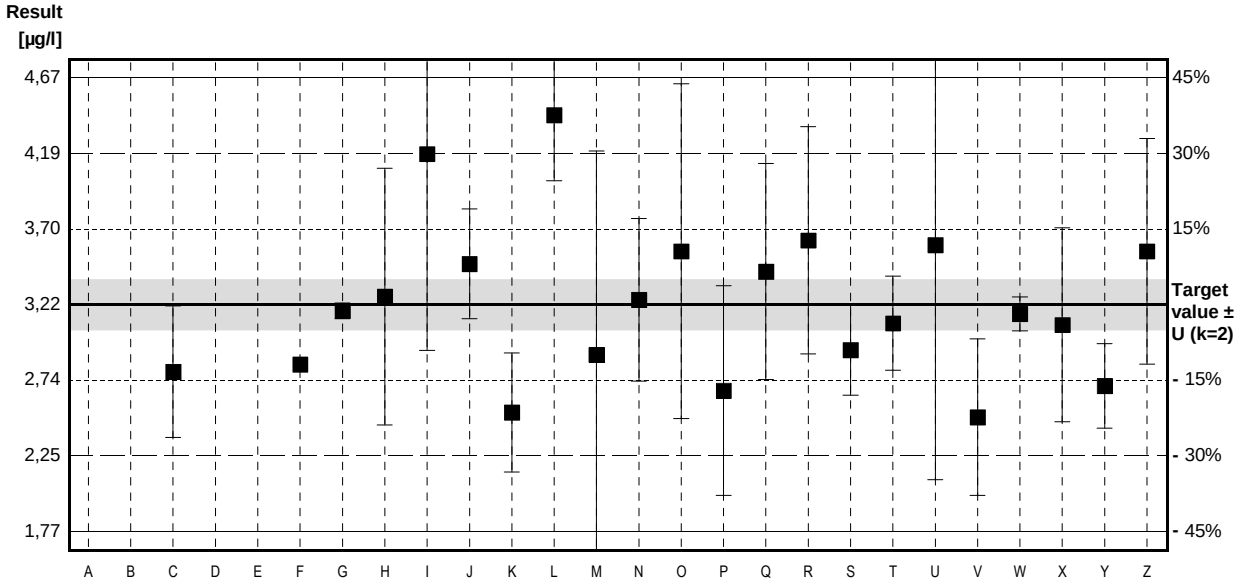


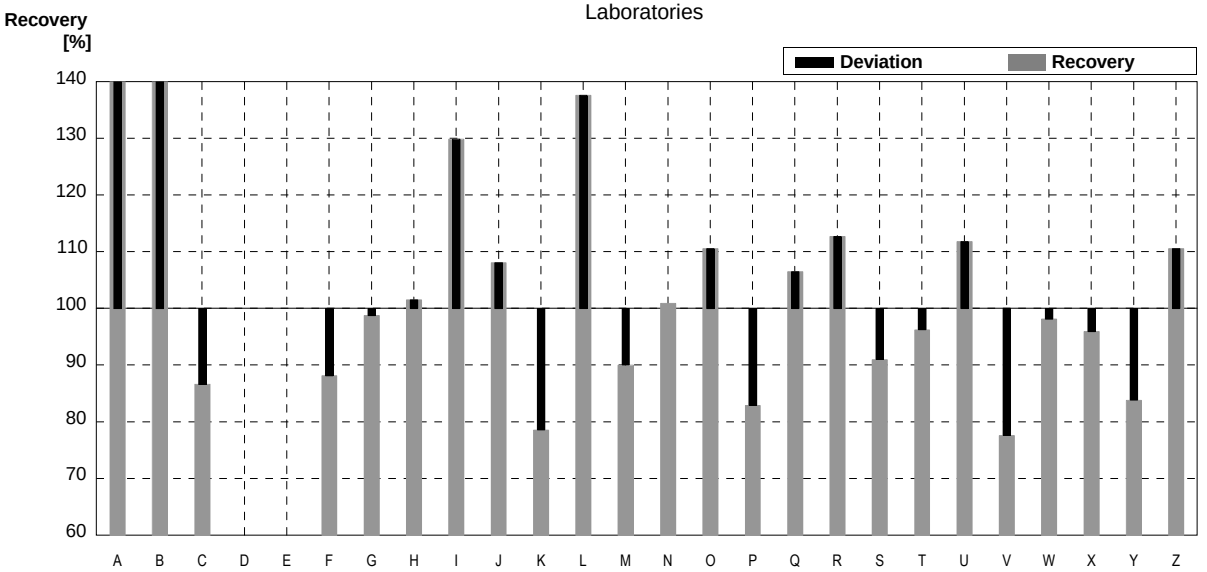
Sample C52B

Parameter 1,2-Dichloroethane

Target value ± U (k=2)	3,22 µg/l	±	0,16 µg/l	
IFA result ± U (k=2)	3,24 µg/l	±	0,49 µg/l	
Stability test ± U (k=2)	3,08 µg/l	±	0,46 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	6,45 *	0,97	µg/l	200%	7,17
B	22,34 *	4,46	µg/l	694%	42,41
C	2,79	0,42	µg/l	87%	-0,95
D			µg/l		
E			µg/l		
F	2,838		µg/l	88%	-0,85
G	3,18	0,05	µg/l	99%	-0,09
H	3,27	0,82	µg/l	102%	0,11
I	4,182	1,255	µg/l	130%	2,13
J	3,48	0,35	µg/l	108%	0,58
K	2,53	0,38	µg/l	79%	-1,53
L	4,43	0,42	µg/l	138%	2,68
M	2,9	1,3	µg/l	90%	-0,71
N	3,25	0,52	µg/l	101%	0,07
O	3,56	1,07	µg/l	111%	0,75
P	2,67	0,67	µg/l	83%	-1,22
Q	3,43	0,69	µg/l	107%	0,47
R	3,63	0,726	µg/l	113%	0,91
S	2,93	0,29	µg/l	91%	-0,64
T	3,10	0,30	µg/l	96%	-0,27
U	3,6	1,5	µg/l	112%	0,84
V	2,50	0,50	µg/l	78%	-1,60
W	3,16	0,108	µg/l	98%	-0,13
X	3,09	0,62	µg/l	96%	-0,29
Y	2,70	0,27	µg/l	84%	-1,15
Z	3,56	0,72	µg/l	111%	0,75





	All results	Outliers excl.	Unit
Mean ± CI(99%)	4,15 ± 2,27	3,22 ± 0,30	µg/l
Recov. ± CI(99%)	128,8 ± 70,5	99,9 ± 9,3	%
SD between labs	3,96	0,50	µg/l
RSD between labs	95,4	15,4	%
n for calculation	24	22	

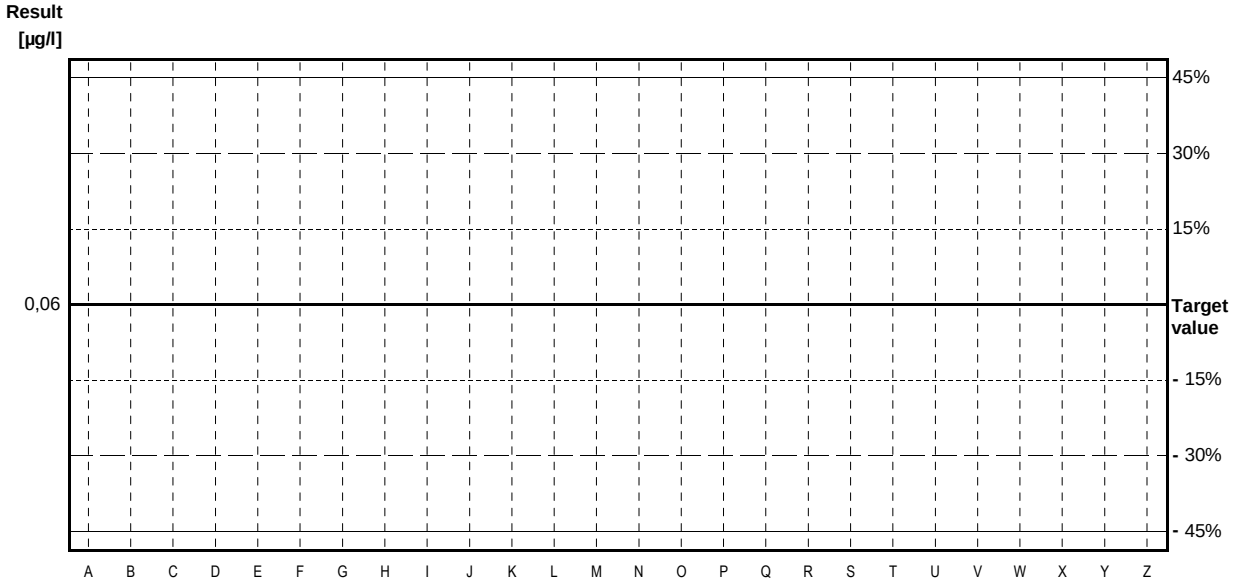
Sample C52A

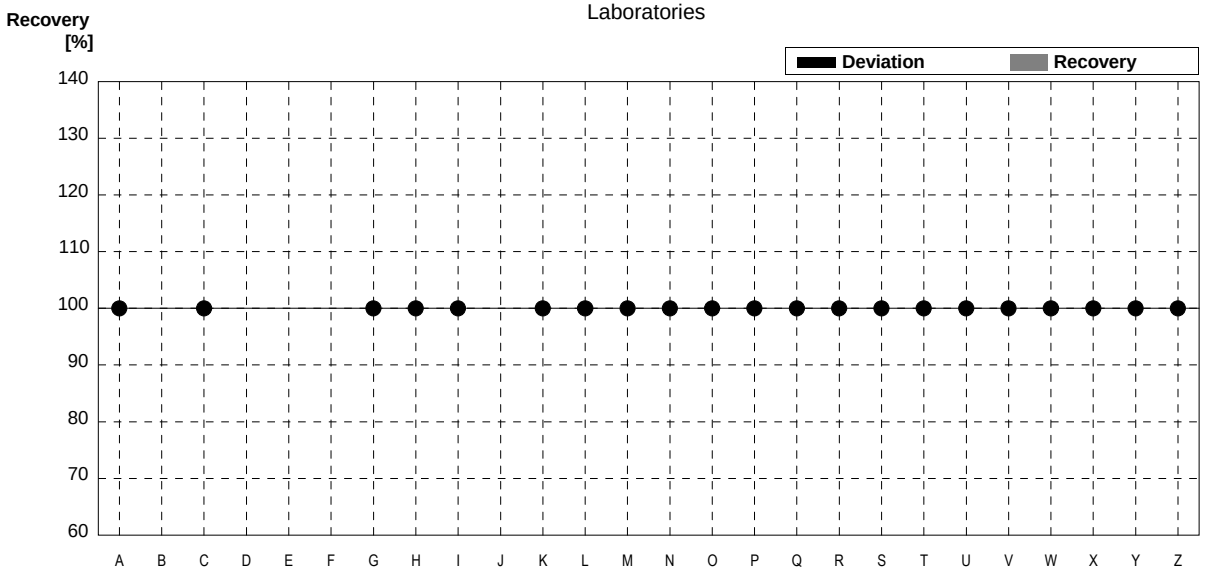
Parameter cis-1,2-Dichloroethene

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	0,01	µg/l	•	
B			µg/l		
C	<0,5		µg/l	•	
D			µg/l		
E			µg/l		
F			µg/l		
G	<0,43		µg/l	•	
H	<0,10		µg/l	•	
I	<0,100		µg/l	•	
J	n,a.		µg/l		
K	<0,1	0	µg/l	•	
L	<2,6		µg/l	•	
M	<0,55		µg/l	•	
N	<0,5		µg/l	•	
O	<0,2	0,06	µg/l	•	
P	<0,1	0,1	µg/l	•	
Q	<0,5		µg/l	•	
R	<0,02		µg/l	•	
S	<0,1		µg/l	•	
T	<0,2		µg/l	•	
U	<0,05		µg/l	•	
V	<0,05		µg/l	•	
W	<0,5		µg/l	•	
X	<0,06		µg/l	•	
Y	<0,2	0,02	µg/l	•	
Z	<0,030		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			





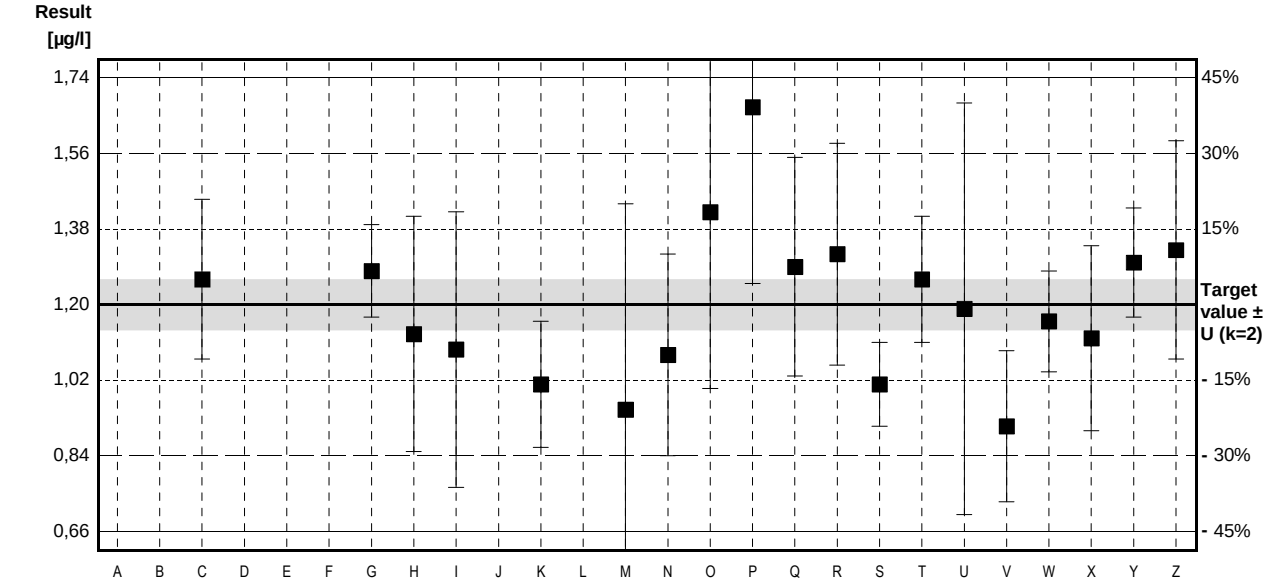
Sample C52B

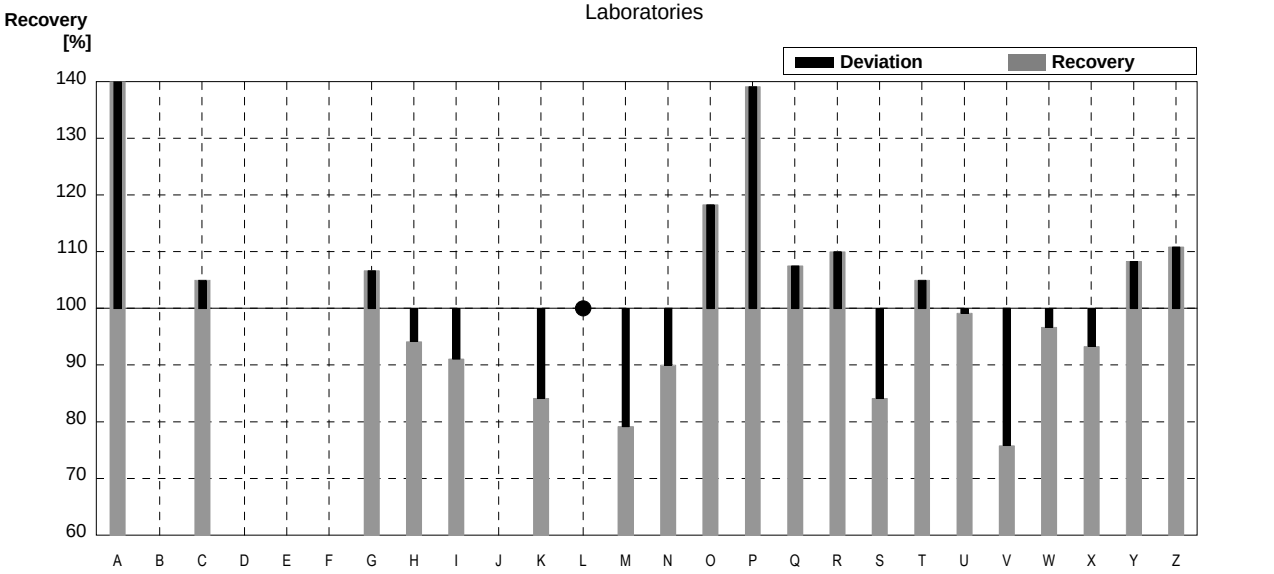
Parameter cis-1,2-Dichloroethene

Target value	± U (k=2)	1,20	µg/l	±	0,06 µg/l
IFA result	± U (k=2)	1,21	µg/l	±	0,18 µg/l
Stability test	± U (k=2)	1,20	µg/l	±	0,18 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	2,76 *	0,41	µg/l	230%	8,67
B			µg/l		
C	1,26	0,19	µg/l	105%	0,33
D			µg/l		
E			µg/l		
F			µg/l		
G	1,28	0,11	µg/l	107%	0,44
H	1,13	0,28	µg/l	94%	-0,39
I	1,093	0,328	µg/l	91%	-0,59
J	n,a.		µg/l		
K	1,01	0,15	µg/l	84%	-1,06
L	<2,6		µg/l	•	
M	0,95	0,49	µg/l	79%	-1,39
N	1,08	0,24	µg/l	90%	-0,67
O	1,42	0,42	µg/l	118%	1,22
P	1,67	0,42	µg/l	139%	2,61
Q	1,29	0,26	µg/l	108%	0,50
R	1,32	0,264	µg/l	110%	0,67
S	1,01	0,10	µg/l	84%	-1,06
T	1,26	0,15	µg/l	105%	0,33
U	1,19	0,49	µg/l	99%	-0,06
V	0,91	0,18	µg/l	76%	-1,61
W	1,16	0,120	µg/l	97%	-0,22
X	1,12	0,22	µg/l	93%	-0,44
Y	1,3	0,13	µg/l	108%	0,56
Z	1,33	0,26	µg/l	111%	0,72

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,28 ± 0,25	1,20 ± 0,12	µg/l
Recov. ± CI(99%)	106,4 ± 20,8	99,9 ± 10,0	%
SD between labs	0,39	0,18	µg/l
RSD between labs	30,6	15,1	%
n for calculation	20	19	





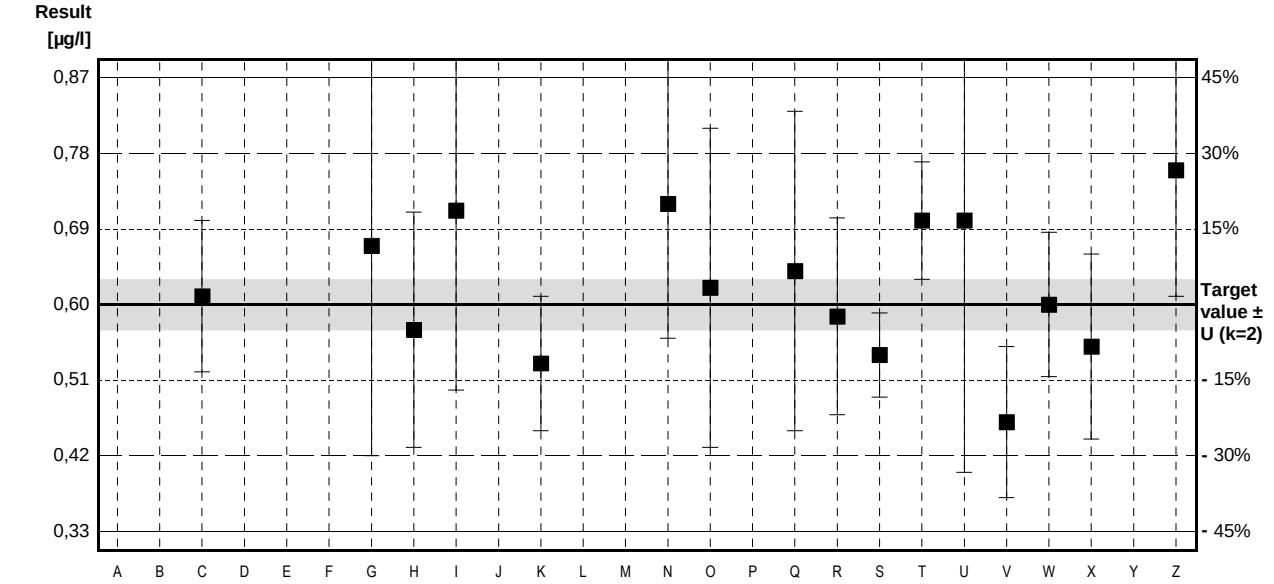
Sample C52A

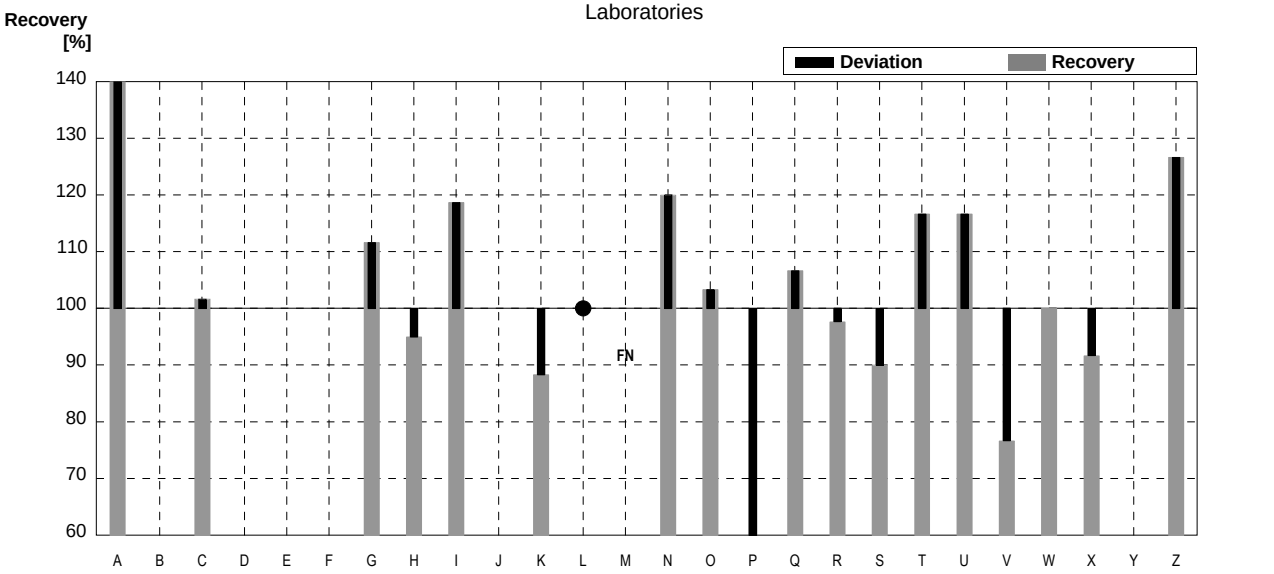
Parameter trans-1,2-Dichloroethene

Target value ± U (k=2)	0,60	µg/l	±	0,03	µg/l
IFA result ± U (k=2)	0,59	µg/l	±	0,09	µg/l
Stability test ± U (k=2)	0,58	µg/l	±	0,09	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,33 *	0,20	µg/l	222%	9,36
B			µg/l		
C	0,61	0,09	µg/l	102%	0,13
D			µg/l		
E			µg/l		
F			µg/l		
G	0,67	0,25	µg/l	112%	0,90
H	0,57	0,14	µg/l	95%	-0,38
I	0,712	0,214	µg/l	119%	1,44
J	n,a.		µg/l		
K	0,53	0,08	µg/l	88%	-0,90
L	<2,6		µg/l	•	
M	<0,55		µg/l	FN	
N	0,72	0,16	µg/l	120%	1,54
O	0,62	0,19	µg/l	103%	0,26
P	0,27	0,07	µg/l	45%	-4,23
Q	0,64	0,19	µg/l	107%	0,51
R	0,586	0,117	µg/l	98%	-0,18
S	0,54	0,05	µg/l	90%	-0,77
T	0,70	0,07	µg/l	117%	1,28
U	0,7	0,3	µg/l	117%	1,28
V	0,46	0,09	µg/l	77%	-1,79
W	0,60	0,086	µg/l	100%	0,00
X	0,55	0,11	µg/l	92%	-0,64
Y			µg/l		
Z	0,76	0,15	µg/l	127%	2,05

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,64 ± 0,14	0,60 ± 0,08	µg/l
Recov. ± CI(99%)	107,1 ± 23,4	100,4 ± 13,8	%
SD between labs	0,21	0,12	µg/l
RSD between labs	32,0	19,5	%
n for calculation	18	17	





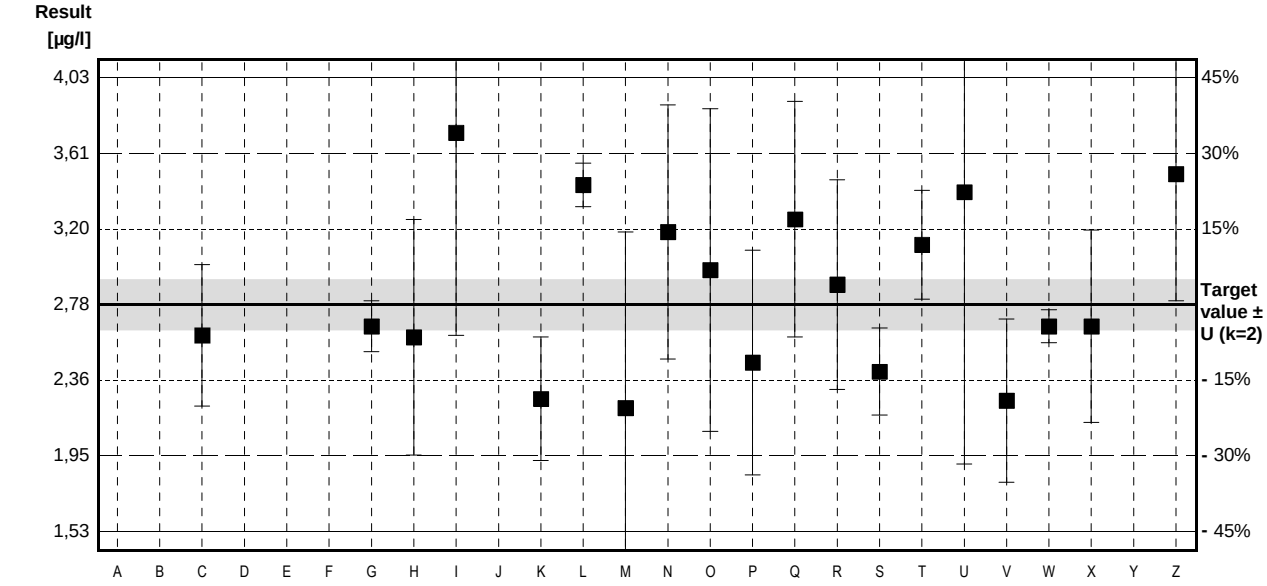
Sample C52B

Parameter trans-1,2-Dichloroethene

Target value ± U (k=2)	2,78	µg/l	±	0,14	µg/l
IFA result ± U (k=2)	2,75	µg/l	±	0,41	µg/l
Stability test ± U (k=2)	2,76	µg/l	±	0,41	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	6,32 *	0,95	µg/l	227%	9,80
B			µg/l		
C	2,61	0,39	µg/l	94%	-0,47
D			µg/l		
E			µg/l		
F			µg/l		
G	2,66	0,14	µg/l	96%	-0,33
H	2,60	0,65	µg/l	94%	-0,50
I	3,728	1,118	µg/l	134%	2,62
J	n,a,		µg/l		
K	2,26	0,34	µg/l	81%	-1,44
L	3,44	0,12	µg/l	124%	1,83
M	2,21	0,97	µg/l	79%	-1,58
N	3,18	0,70	µg/l	114%	1,11
O	2,97	0,89	µg/l	107%	0,53
P	2,46	0,62	µg/l	88%	-0,89
Q	3,25	0,65	µg/l	117%	1,30
R	2,89	0,578	µg/l	104%	0,30
S	2,41	0,24	µg/l	87%	-1,02
T	3,11	0,30	µg/l	112%	0,91
U	3,4	1,5	µg/l	122%	1,72
V	2,25	0,45	µg/l	81%	-1,47
W	2,66	0,09	µg/l	96%	-0,33
X	2,66	0,53	µg/l	96%	-0,33
Y			µg/l		
Z	3,5	0,7	µg/l	126%	1,99

	All results	Outliers excl.	Unit
Mean ± CI(99%)	3,03 ± 0,57	2,86 ± 0,31	µg/l
Recov. ± CI(99%)	108,9 ± 20,6	102,7 ± 11,0	%
SD between labs	0,90	0,46	µg/l
RSD between labs	29,6	16,3	%
n for calculation	20	19	



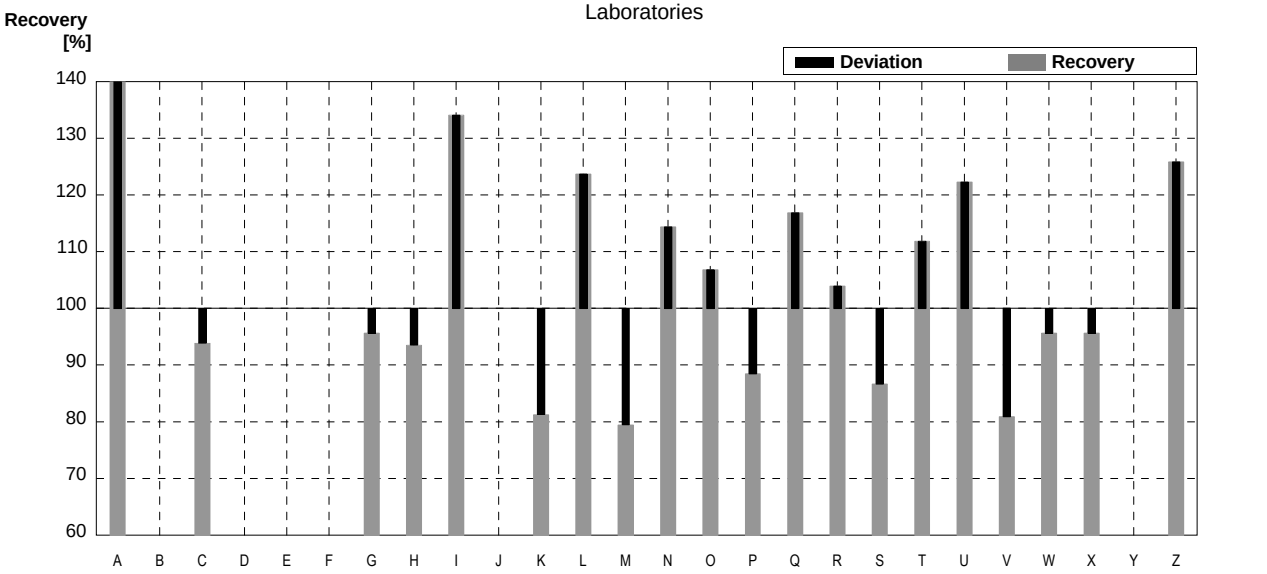


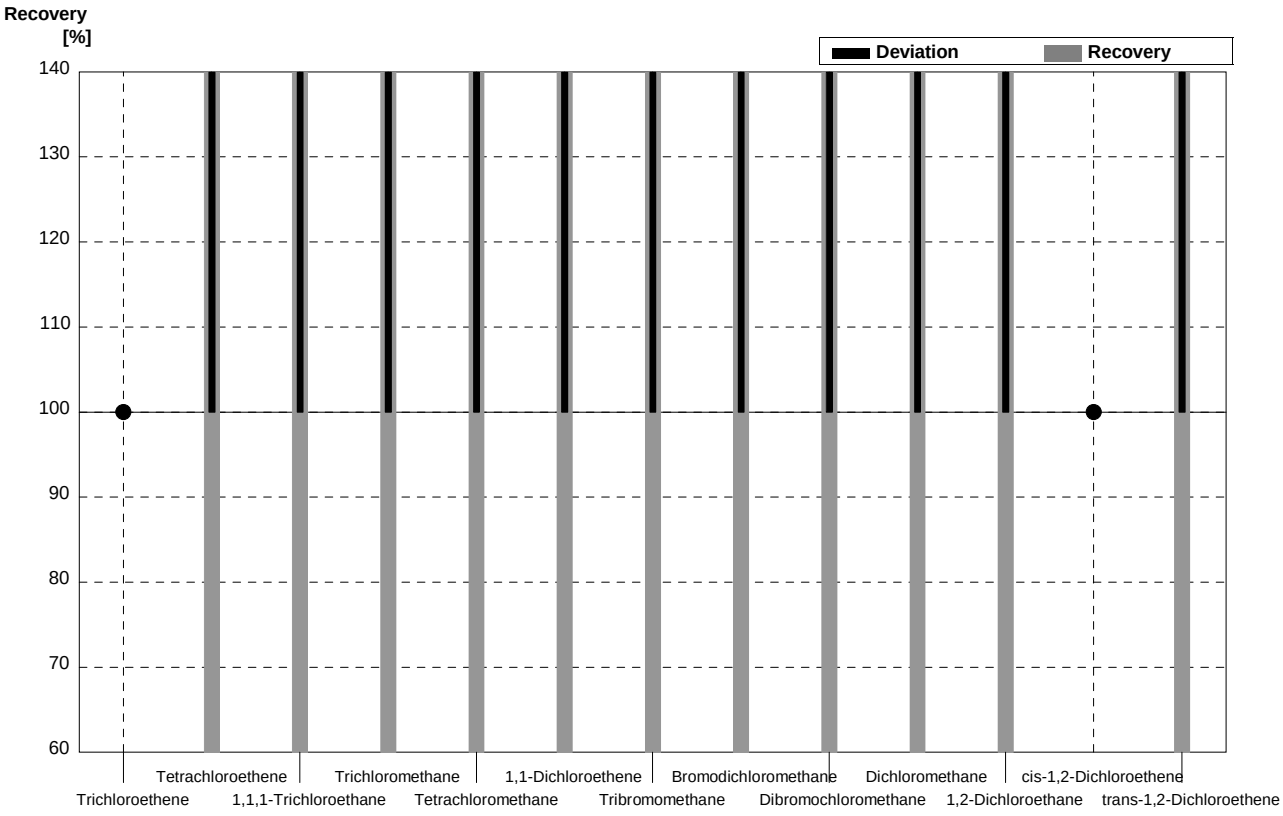
Illustration of Results
Laboratory Oriented Part

Round C52
Volatile Halogenated Hydrocarbons

Sample Dispatch: 10 March 2014

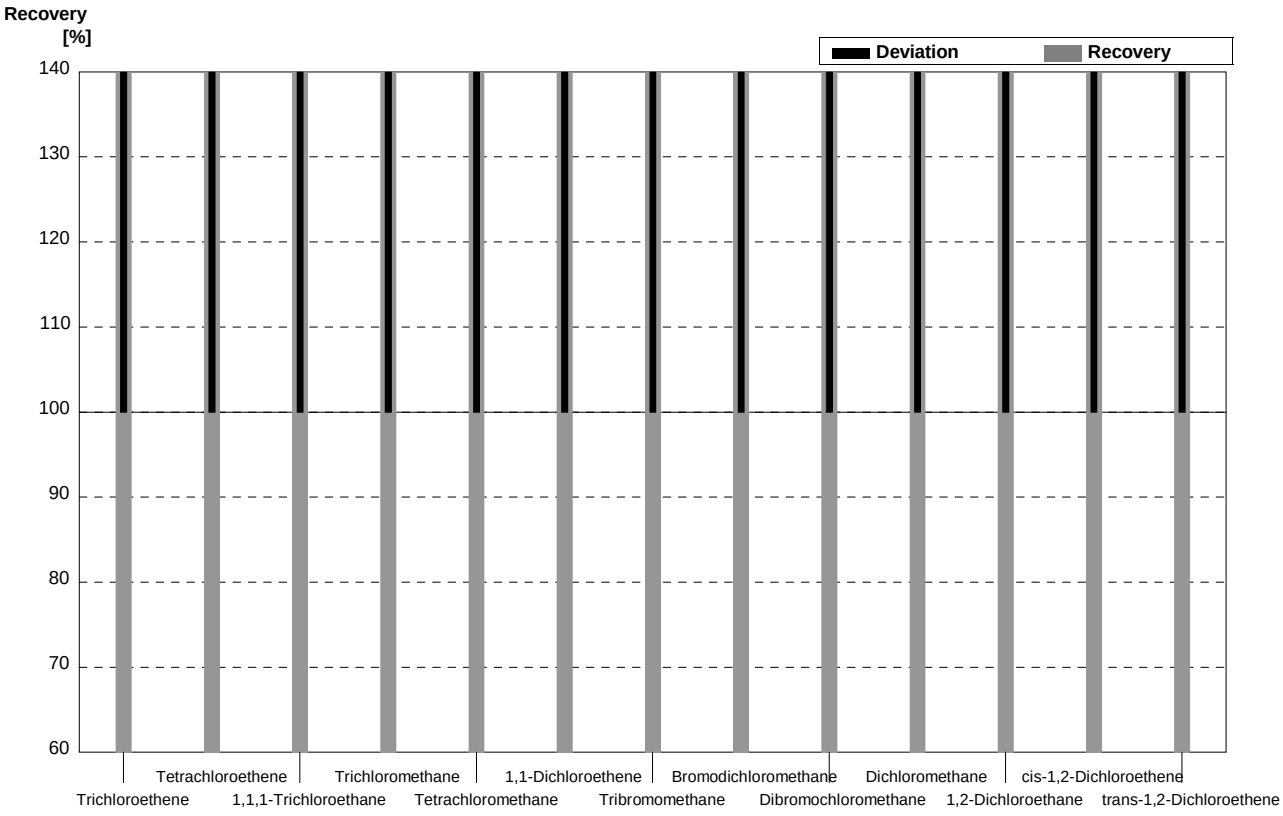
Sample C52A
Laboratory A

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,05	0,01	µg/l	•
Tetrachloroethene	0,48	0,02	0,90	0,13	µg/l	188%
1,1,1-Trichloroethane	0,24	0,01	0,46	0,07	µg/l	192%
Trichloromethane	0,35	0,02	0,74	0,11	µg/l	211%
Tetrachloromethane	0,60	0,03	1,25	0,19	µg/l	208%
1,1-Dichloroethene	0,90	0,05	1,99	0,30	µg/l	221%
Tribromomethane	0,48	0,02	0,97	0,15	µg/l	202%
Bromodichloromethane	0,65	0,03	1,36	0,20	µg/l	209%
Dibromochloromethane	1,55	0,08	3,62	0,54	µg/l	234%
Dichloromethane	7,02	0,35	13,20	1,98	µg/l	188%
1,2-Dichloroethane	1,46	0,07	2,97	0,45	µg/l	203%
cis-1,2-Dichloroethene	<0,06		<0,05	0,01	µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	1,33	0,20	µg/l	222%



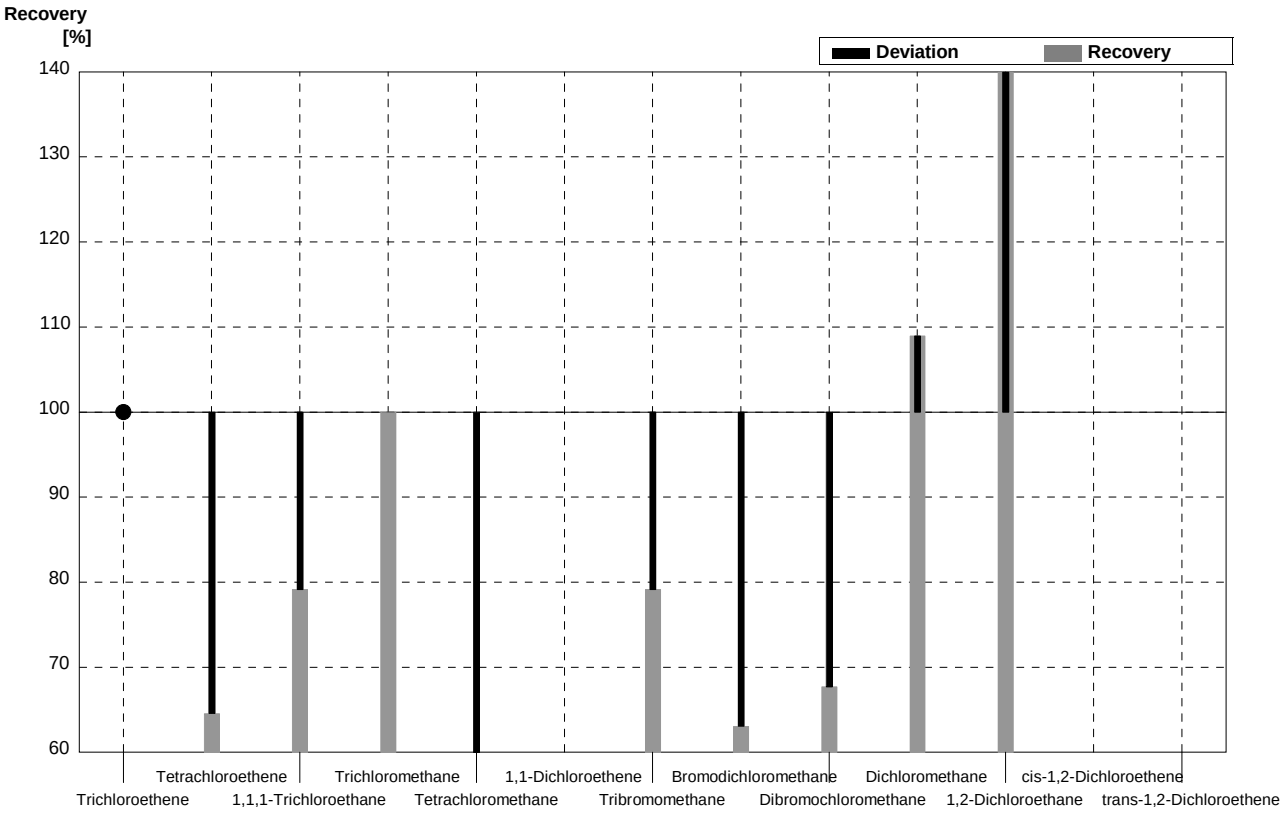
Sample C52B
Laboratory A

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,90	0,14	µg/l	141%
Tetrachloroethene	2,38	0,12	4,42	0,66	µg/l	186%
1,1,1-Trichloroethane	1,18	0,06	2,56	0,38	µg/l	217%
Trichloromethane	1,14	0,06	2,36	0,35	µg/l	207%
Tetrachloromethane	2,71	0,14	5,32	0,80	µg/l	196%
1,1-Dichloroethene	3,43	0,17	7,39	1,11	µg/l	215%
Tribromomethane	0,95	0,05	1,91	0,29	µg/l	201%
Bromodichloromethane	0,98	0,05	2,06	0,31	µg/l	210%
Dibromochloromethane	0,80	0,04	1,46	0,22	µg/l	183%
Dichloromethane	2,52	0,13	4,58	0,69	µg/l	182%
1,2-Dichloroethane	3,22	0,16	6,45	0,97	µg/l	200%
cis-1,2-Dichloroethene	1,20	0,06	2,76	0,41	µg/l	230%
trans-1,2-Dichloroethene	2,78	0,14	6,32	0,95	µg/l	227%



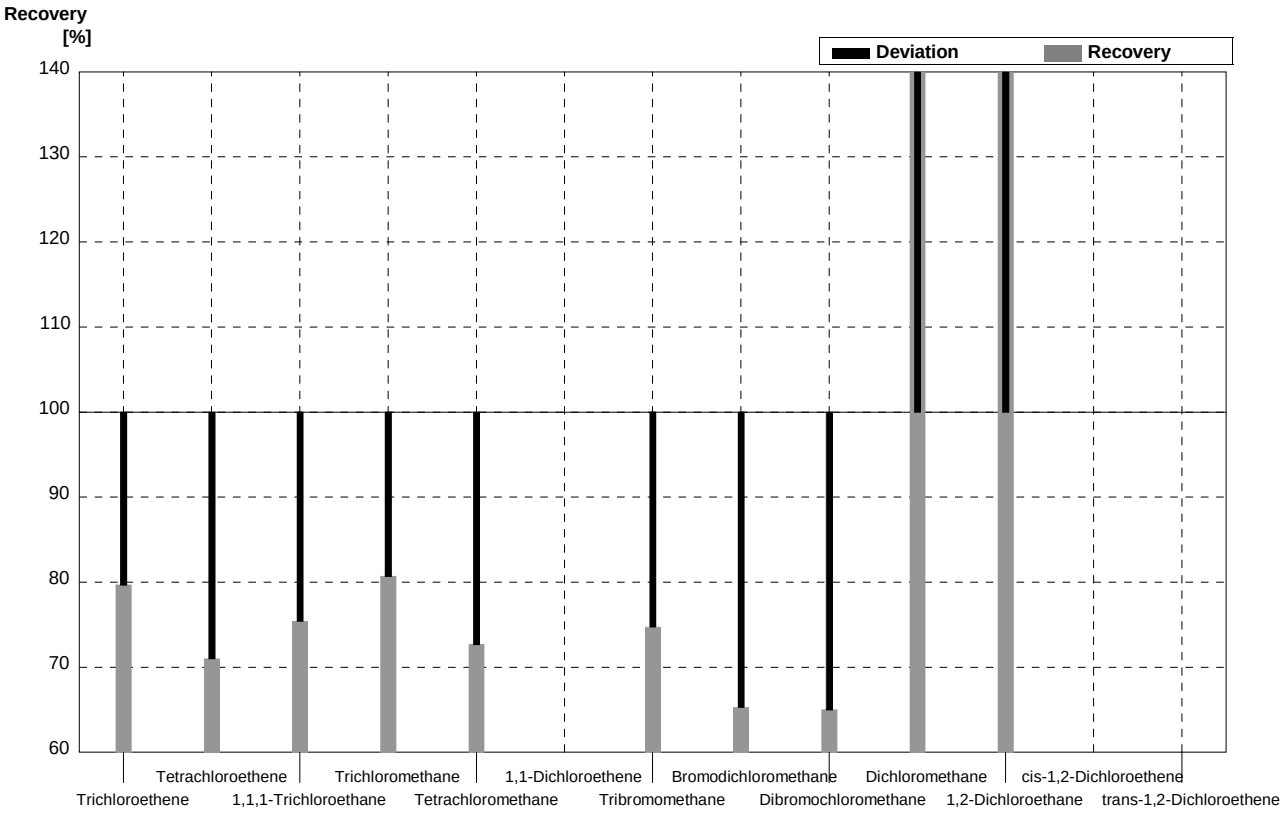
Sample C52A
Laboratory B

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,10		µg/l	•
Tetrachloroethene	0,48	0,02	0,31	0,06	µg/l	65%
1,1,1-Trichloroethane	0,24	0,01	0,19	0,05	µg/l	79%
Trichloromethane	0,35	0,02	0,35	0,08	µg/l	100%
Tetrachloromethane	0,60	0,03	0,36	0,10	µg/l	60%
1,1-Dichloroethene	0,90	0,05			µg/l	
Tribromomethane	0,48	0,02	0,38	0,09	µg/l	79%
Bromodichloromethane	0,65	0,03	0,41	0,08	µg/l	63%
Dibromochloromethane	1,55	0,08	1,05	0,2	µg/l	68%
Dichloromethane	7,02	0,35	7,65	1,80	µg/l	109%
1,2-Dichloroethane	1,46	0,07	6,19	1,50	µg/l	424%
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	0,60	0,03			µg/l	



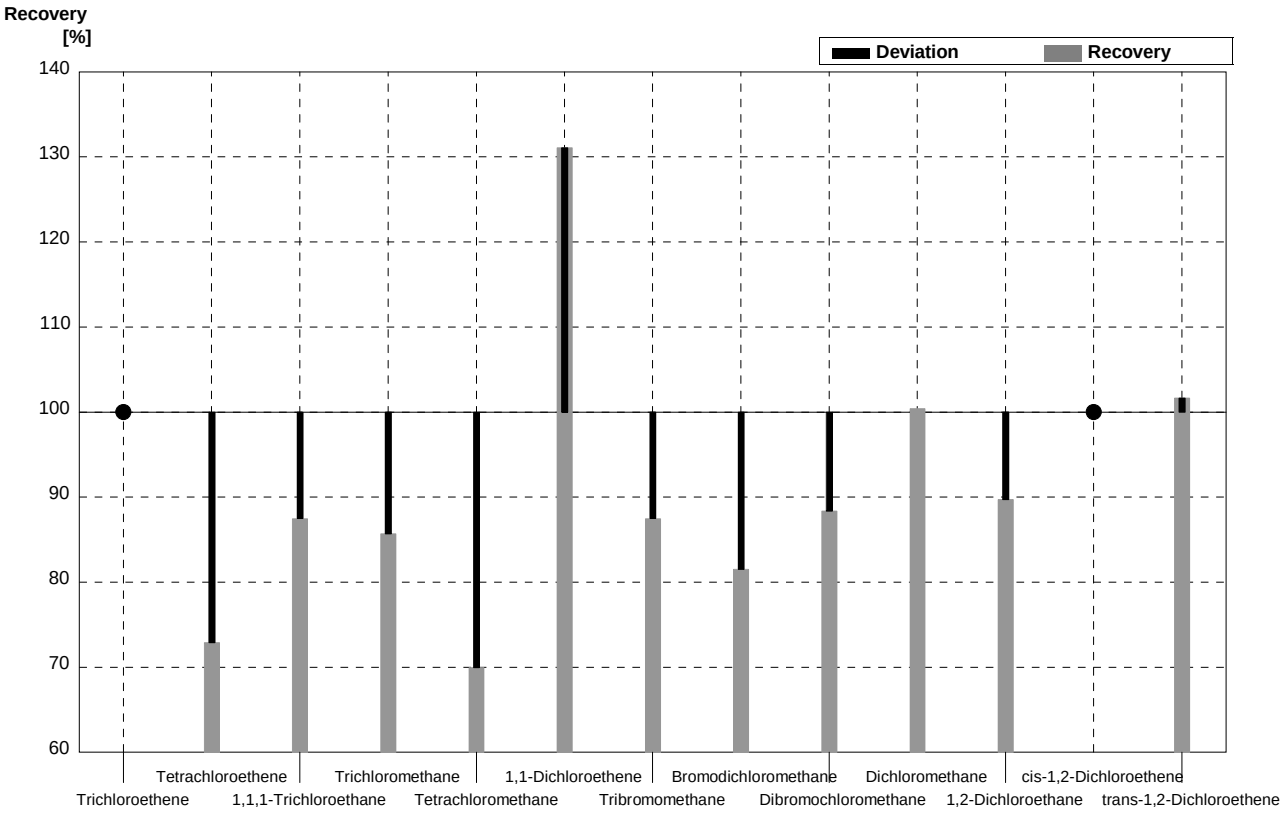
Sample C52B
Laboratory B

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,51	0,12	µg/l	80%
Tetrachloroethene	2,38	0,12	1,69	0,34	µg/l	71%
1,1,1-Trichloroethane	1,18	0,06	0,89	0,19	µg/l	75%
Trichloromethane	1,14	0,06	0,92	0,19	µg/l	81%
Tetrachloromethane	2,71	0,14	1,97	0,39	µg/l	73%
1,1-Dichloroethene	3,43	0,17			µg/l	
Tribromomethane	0,95	0,05	0,71	0,15	µg/l	75%
Bromodichloromethane	0,98	0,05	0,64	0,12	µg/l	65%
Dibromochloromethane	0,80	0,04	0,52	0,10	µg/l	65%
Dichloromethane	2,52	0,13	9,86	2,45	µg/l	391%
1,2-Dichloroethane	3,22	0,16	22,34	4,46	µg/l	694%
cis-1,2-Dichloroethene	1,20	0,06			µg/l	
trans-1,2-Dichloroethene	2,78	0,14			µg/l	



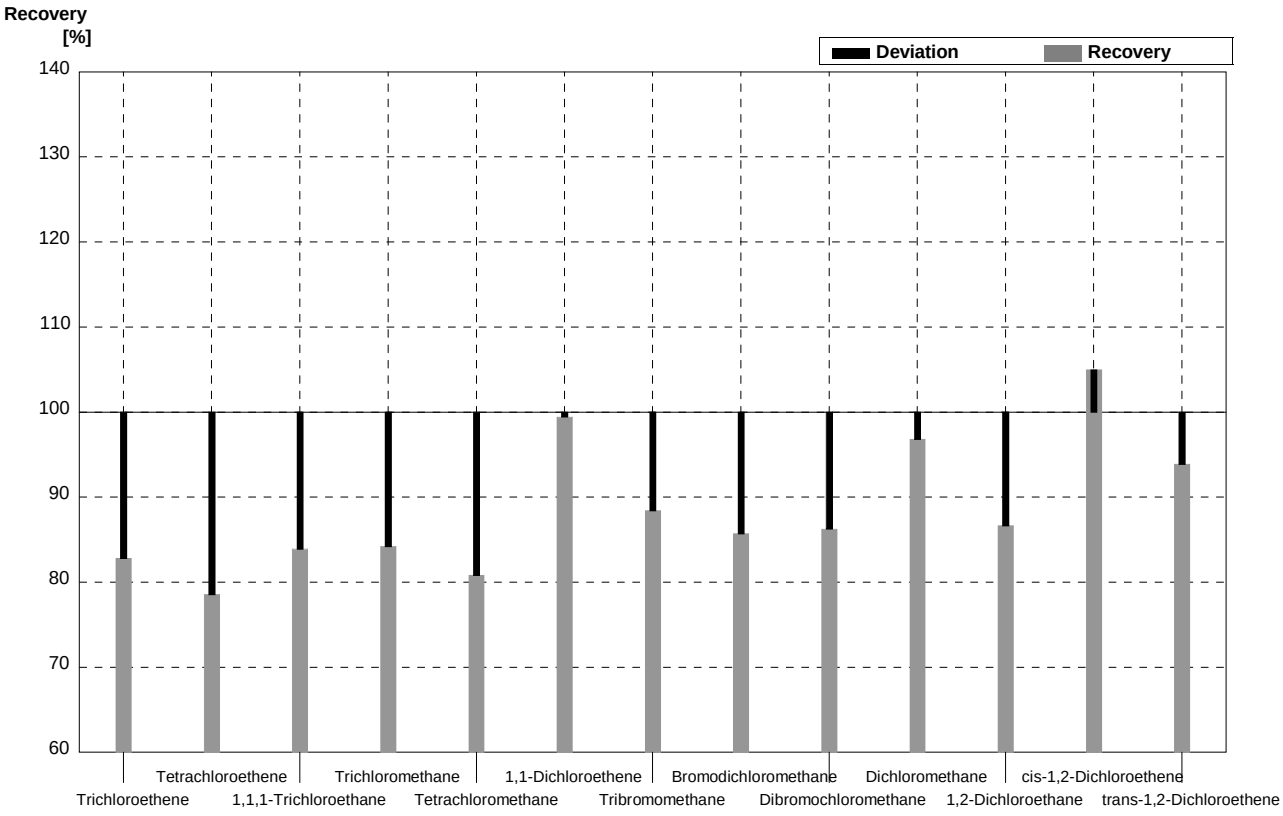
Sample C52A
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,1		µg/l	•
Tetrachloroethene	0,48	0,02	0,35	0,05	µg/l	73%
1,1,1-Trichloroethane	0,24	0,01	0,21	0,03	µg/l	88%
Trichloromethane	0,35	0,02	0,30	0,05	µg/l	86%
Tetrachloromethane	0,60	0,03	0,42	0,06	µg/l	70%
1,1-Dichloroethene	0,90	0,05	1,18	0,18	µg/l	131%
Tribromomethane	0,48	0,02	0,42	0,06	µg/l	88%
Bromodichloromethane	0,65	0,03	0,53	0,08	µg/l	82%
Dibromochloromethane	1,55	0,08	1,37	0,21	µg/l	88%
Dichloromethane	7,02	0,35	7,05	1,06	µg/l	100%
1,2-Dichloroethane	1,46	0,07	1,31	0,20	µg/l	90%
cis-1,2-Dichloroethene	<0,06		<0,5		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,61	0,09	µg/l	102%



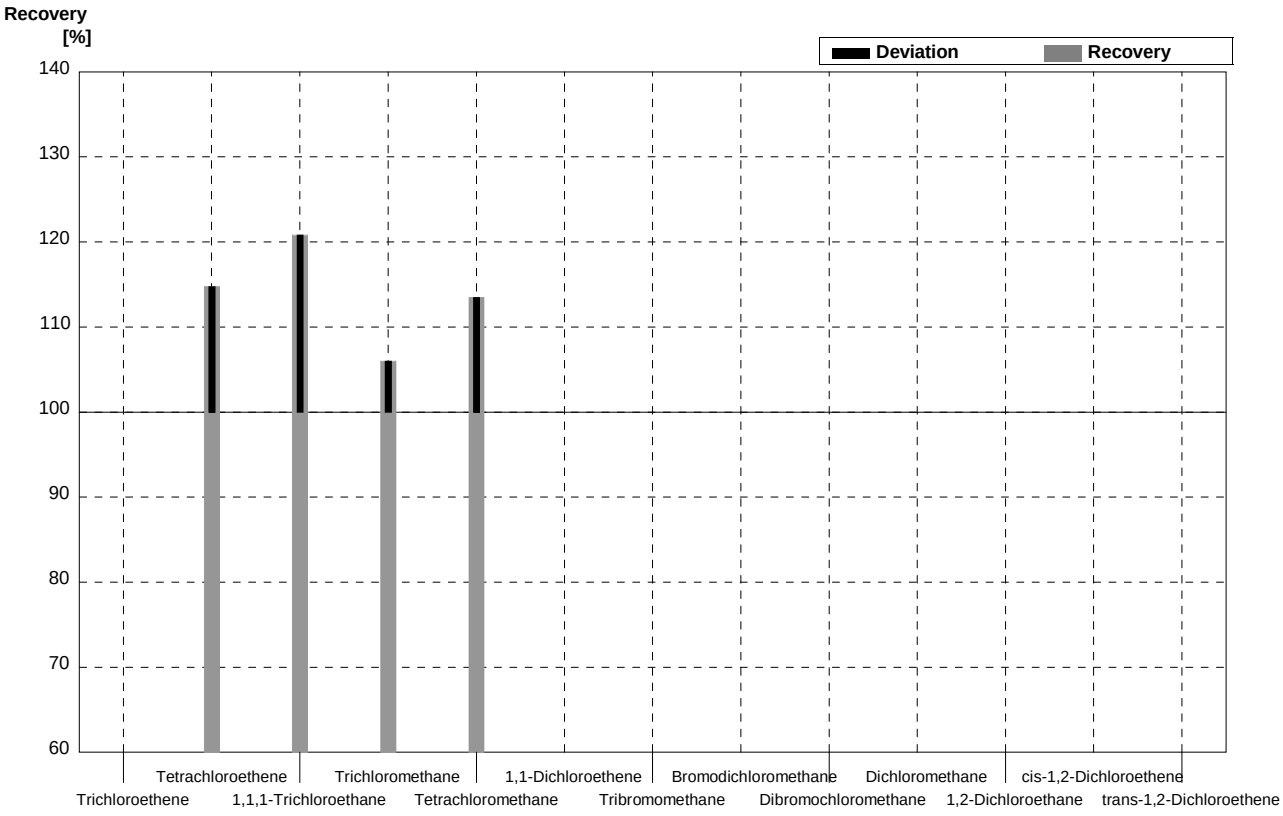
Sample C52B
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,53	0,08	µg/l	83%
Tetrachloroethene	2,38	0,12	1,87	0,28	µg/l	79%
1,1,1-Trichloroethane	1,18	0,06	0,99	0,15	µg/l	84%
Trichloromethane	1,14	0,06	0,96	0,14	µg/l	84%
Tetrachloromethane	2,71	0,14	2,19	0,33	µg/l	81%
1,1-Dichloroethene	3,43	0,17	3,41	0,51	µg/l	99%
Tribromomethane	0,95	0,05	0,84	0,13	µg/l	88%
Bromodichloromethane	0,98	0,05	0,84	0,13	µg/l	86%
Dibromochloromethane	0,80	0,04	0,69	0,10	µg/l	86%
Dichloromethane	2,52	0,13	2,44	0,37	µg/l	97%
1,2-Dichloroethane	3,22	0,16	2,79	0,42	µg/l	87%
cis-1,2-Dichloroethene	1,20	0,06	1,26	0,19	µg/l	105%
trans-1,2-Dichloroethene	2,78	0,14	2,61	0,39	µg/l	94%



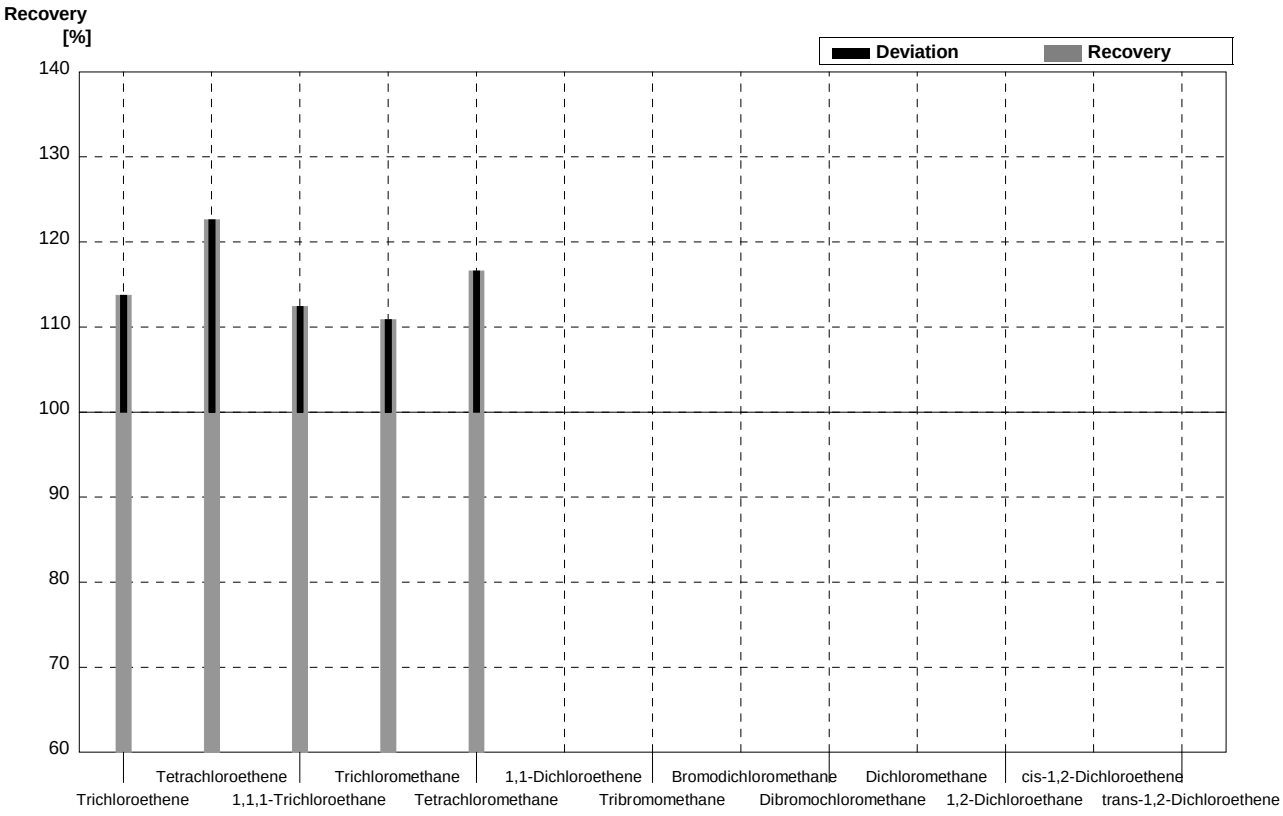
Sample C52A
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		0		µg/l	
Tetrachloroethene	0,48	0,02	0,551		µg/l	115%
1,1,1-Trichloroethane	0,24	0,01	0,290		µg/l	121%
Trichloromethane	0,35	0,02	0,371		µg/l	106%
Tetrachloromethane	0,60	0,03	0,681		µg/l	114%
1,1-Dichloroethene	0,90	0,05			µg/l	
Tribromomethane	0,48	0,02			µg/l	
Bromodichloromethane	0,65	0,03			µg/l	
Dibromochloromethane	1,55	0,08			µg/l	
Dichloromethane	7,02	0,35			µg/l	
1,2-Dichloroethane	1,46	0,07			µg/l	
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	0,60	0,03			µg/l	



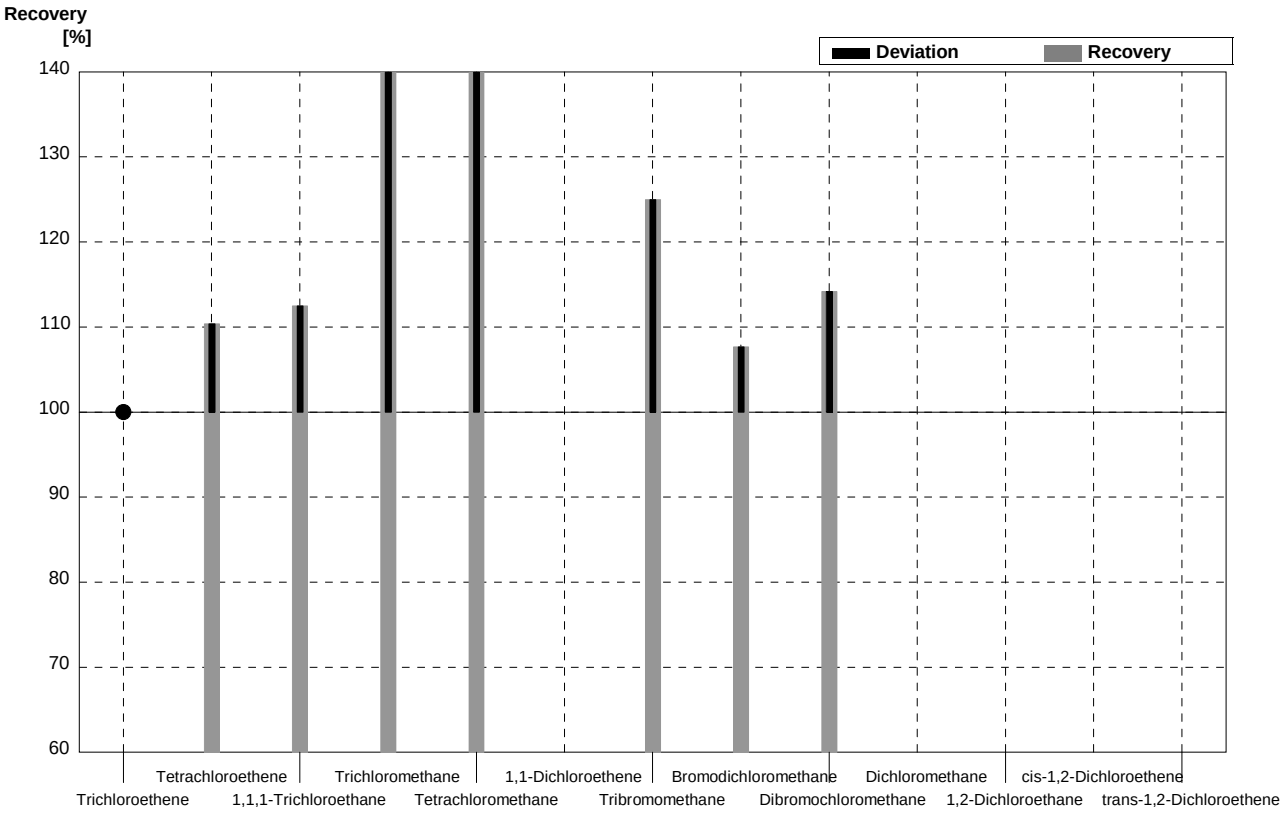
Sample C52B
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,728		µg/l	114%
Tetrachloroethene	2,38	0,12	2,919		µg/l	123%
1,1,1-Trichloroethane	1,18	0,06	1,327		µg/l	112%
Trichloromethane	1,14	0,06	1,264		µg/l	111%
Tetrachloromethane	2,71	0,14	3,160		µg/l	117%
1,1-Dichloroethene	3,43	0,17			µg/l	
Tribromomethane	0,95	0,05			µg/l	
Bromodichloromethane	0,98	0,05			µg/l	
Dibromochloromethane	0,80	0,04			µg/l	
Dichloromethane	2,52	0,13			µg/l	
1,2-Dichloroethane	3,22	0,16			µg/l	
cis-1,2-Dichloroethene	1,20	0,06			µg/l	
trans-1,2-Dichloroethene	2,78	0,14			µg/l	



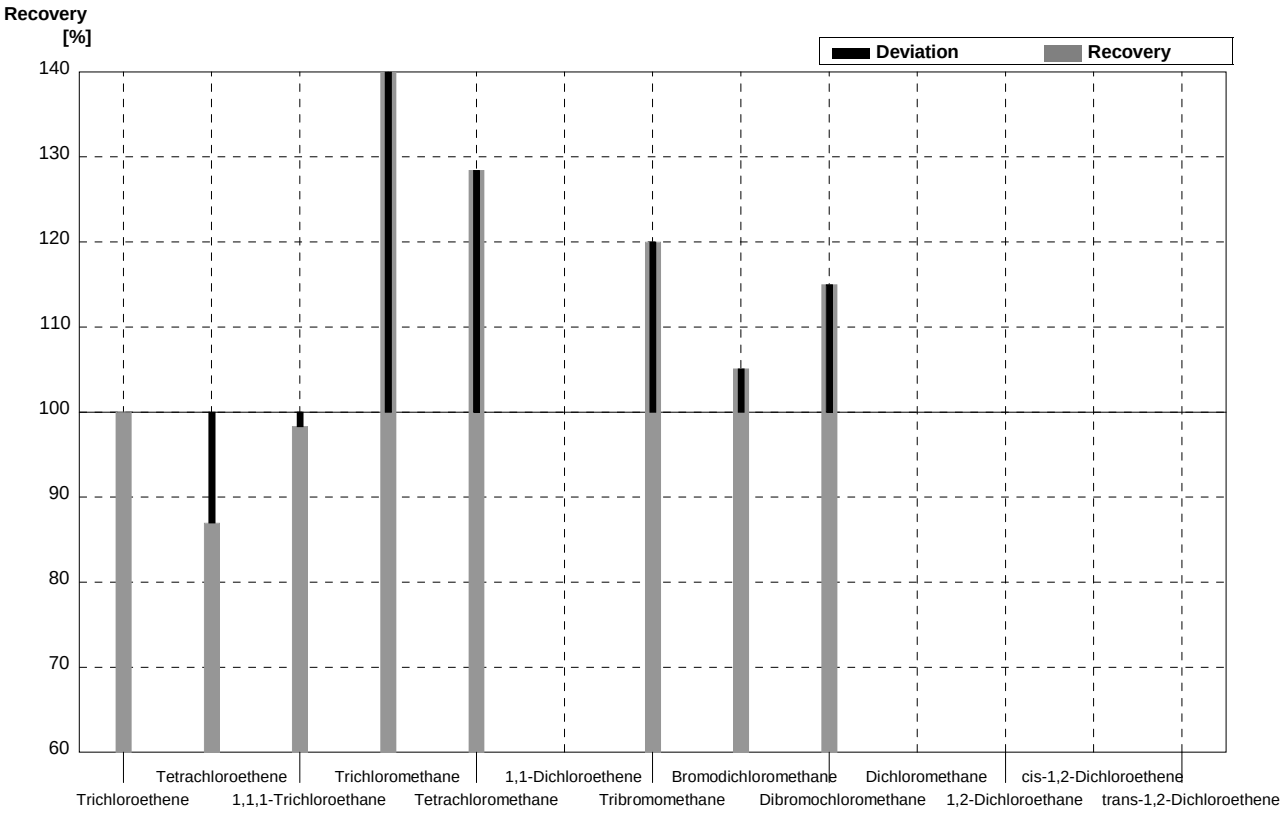
Sample C52A
Laboratory E

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,08		µg/l	•
Tetrachloroethene	0,48	0,02	0,53	0,05	µg/l	110%
1,1,1-Trichloroethane	0,24	0,01	0,27	0,04	µg/l	113%
Trichloromethane	0,35	0,02	0,95	0,10	µg/l	271%
Tetrachloromethane	0,60	0,03	0,97	0,10	µg/l	162%
1,1-Dichloroethene	0,90	0,05			µg/l	
Tribromomethane	0,48	0,02	0,60	0,03	µg/l	125%
Bromodichloromethane	0,65	0,03	0,70	0,05	µg/l	108%
Dibromochloromethane	1,55	0,08	1,77	0,08	µg/l	114%
Dichloromethane	7,02	0,35			µg/l	
1,2-Dichloroethane	1,46	0,07			µg/l	
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	0,60	0,03			µg/l	



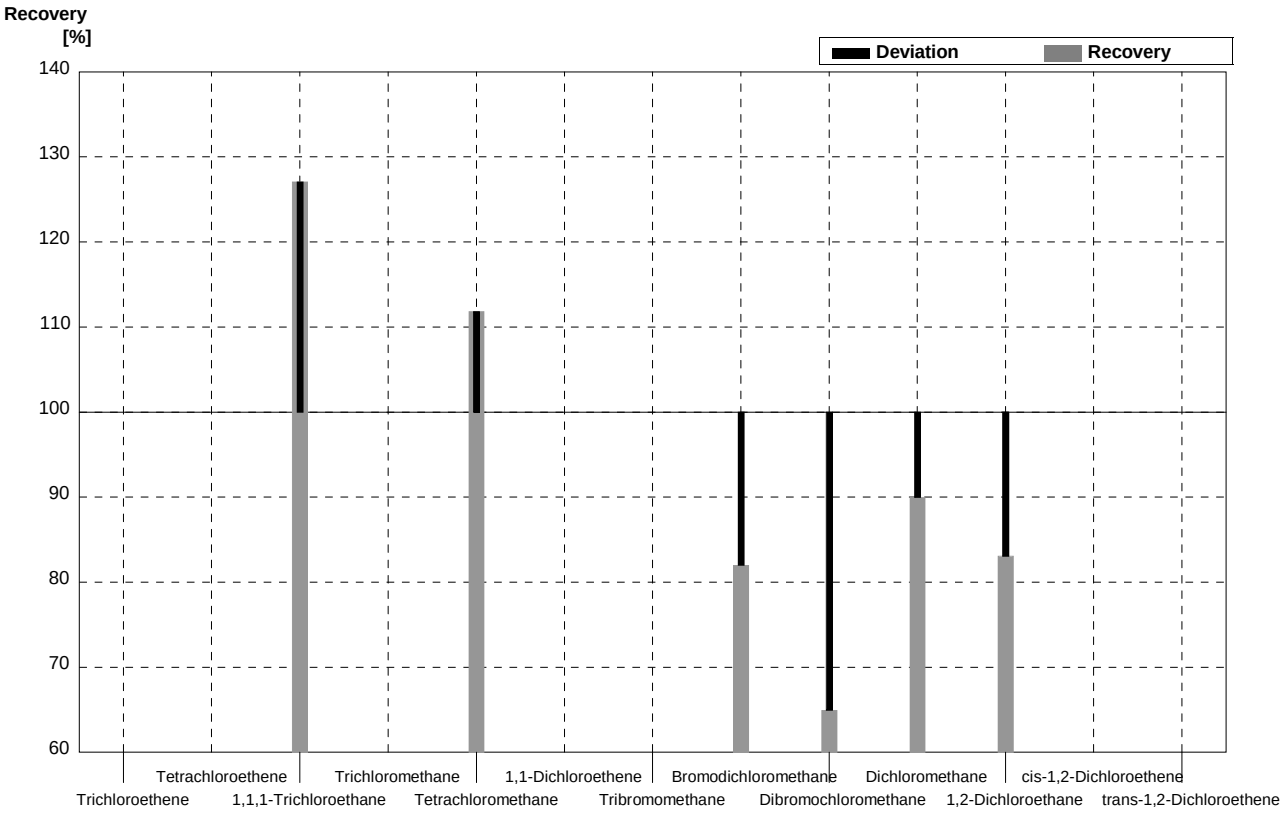
Sample C52B
Laboratory E

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,64	0,05	µg/l	100%
Tetrachloroethene	2,38	0,12	2,07	0,15	µg/l	87%
1,1,1-Trichloroethane	1,18	0,06	1,16	0,10	µg/l	98%
Trichloromethane	1,14	0,06	1,64	0,15	µg/l	144%
Tetrachloromethane	2,71	0,14	3,48	0,20	µg/l	128%
1,1-Dichloroethene	3,43	0,17			µg/l	
Tribromomethane	0,95	0,05	1,14	0,08	µg/l	120%
Bromodichloromethane	0,98	0,05	1,03	0,10	µg/l	105%
Dibromochloromethane	0,80	0,04	0,92	0,10	µg/l	115%
Dichloromethane	2,52	0,13			µg/l	
1,2-Dichloroethane	3,22	0,16			µg/l	
cis-1,2-Dichloroethene	1,20	0,06			µg/l	
trans-1,2-Dichloroethene	2,78	0,14			µg/l	



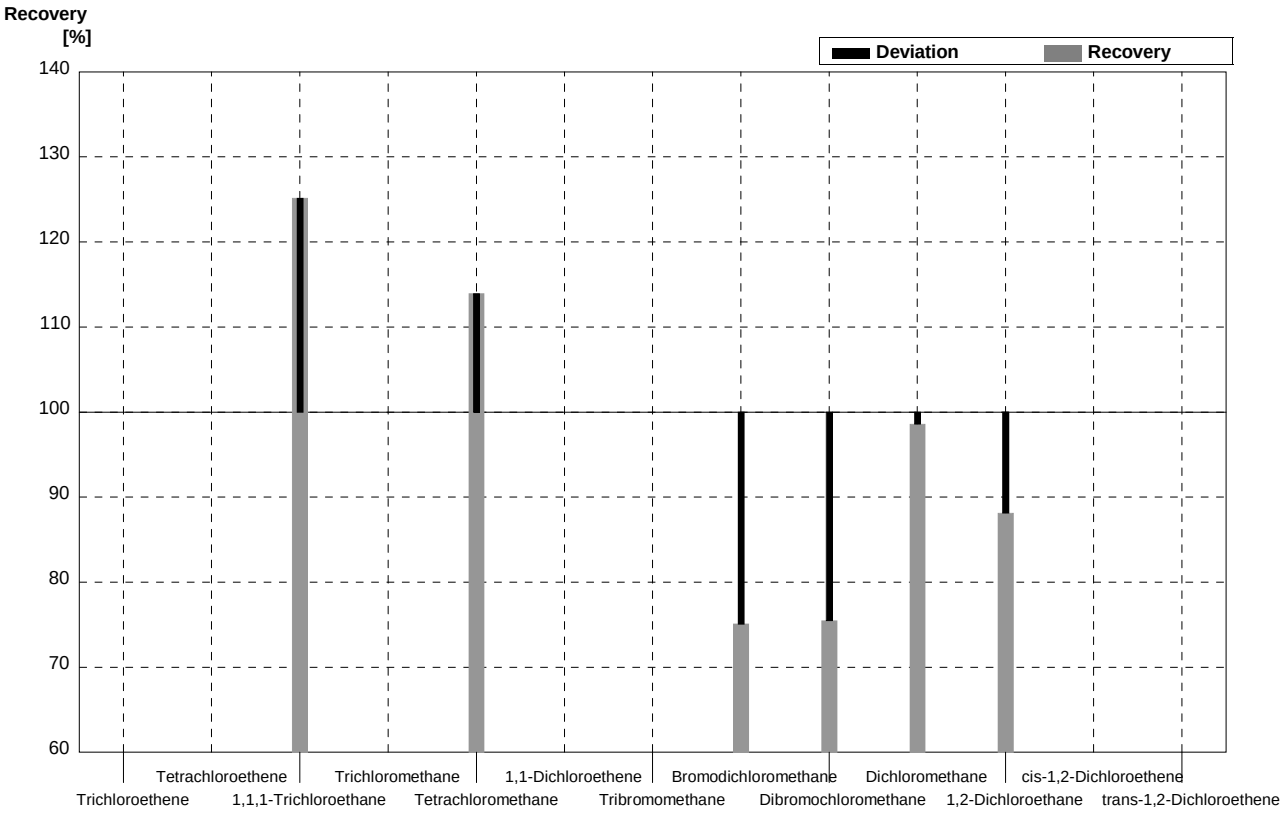
Sample C52A
Laboratory F

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08				µg/l	
Tetrachloroethene	0,48	0,02			µg/l	
1,1,1-Trichloroethane	0,24	0,01	0,305		µg/l	127%
Trichloromethane	0,35	0,02			µg/l	
Tetrachloromethane	0,60	0,03	0,671		µg/l	112%
1,1-Dichloroethene	0,90	0,05			µg/l	
Tribromomethane	0,48	0,02			µg/l	
Bromodichloromethane	0,65	0,03	0,533		µg/l	82%
Dibromochloromethane	1,55	0,08	1,007		µg/l	65%
Dichloromethane	7,02	0,35	6,317		µg/l	90%
1,2-Dichloroethane	1,46	0,07	1,213		µg/l	83%
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	0,60	0,03			µg/l	



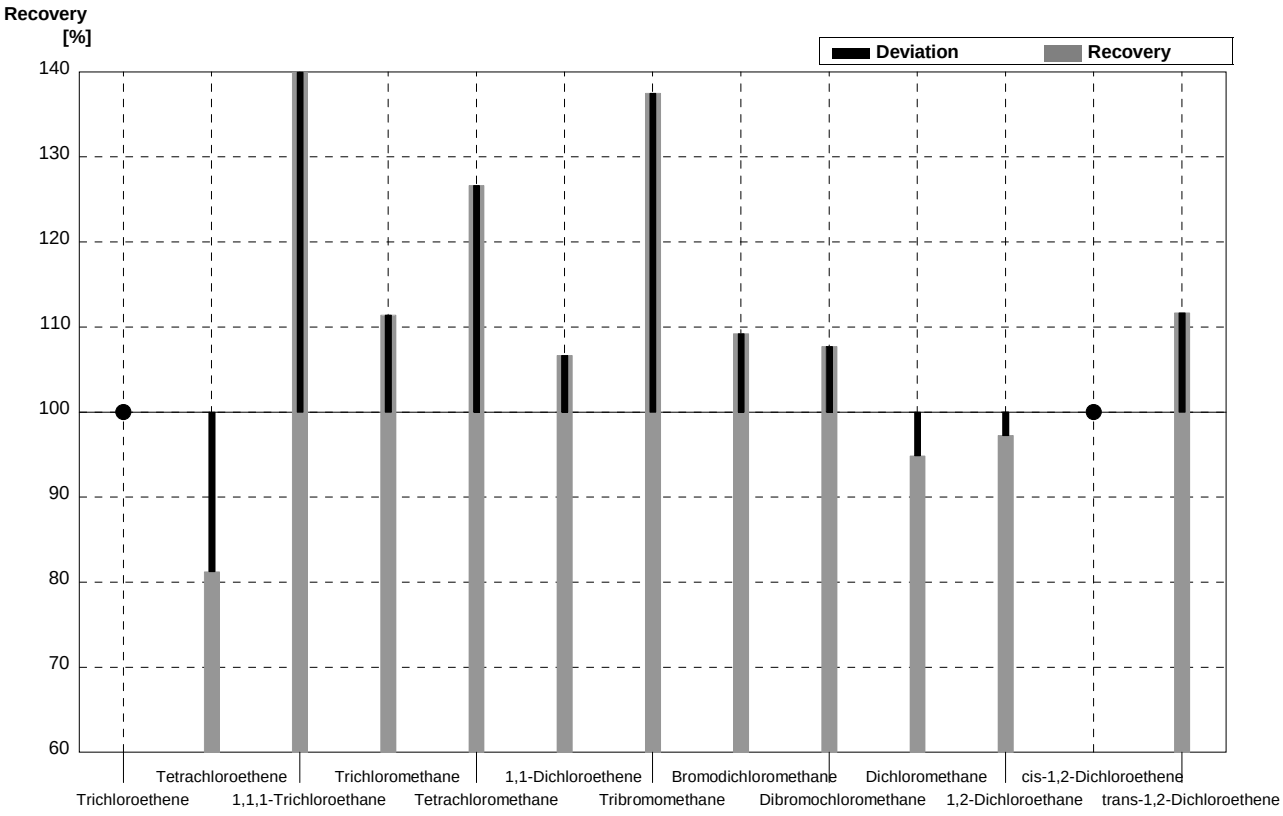
Sample C52B
Laboratory F

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03			µg/l	
Tetrachloroethene	2,38	0,12			µg/l	
1,1,1-Trichloroethane	1,18	0,06	1,477		µg/l	125%
Trichloromethane	1,14	0,06			µg/l	
Tetrachloromethane	2,71	0,14	3,088		µg/l	114%
1,1-Dichloroethene	3,43	0,17			µg/l	
Tribromomethane	0,95	0,05			µg/l	
Bromodichloromethane	0,98	0,05	0,736		µg/l	75%
Dibromochloromethane	0,80	0,04	0,604		µg/l	76%
Dichloromethane	2,52	0,13	2,485		µg/l	99%
1,2-Dichloroethane	3,22	0,16	2,838		µg/l	88%
cis-1,2-Dichloroethene	1,20	0,06			µg/l	
trans-1,2-Dichloroethene	2,78	0,14			µg/l	



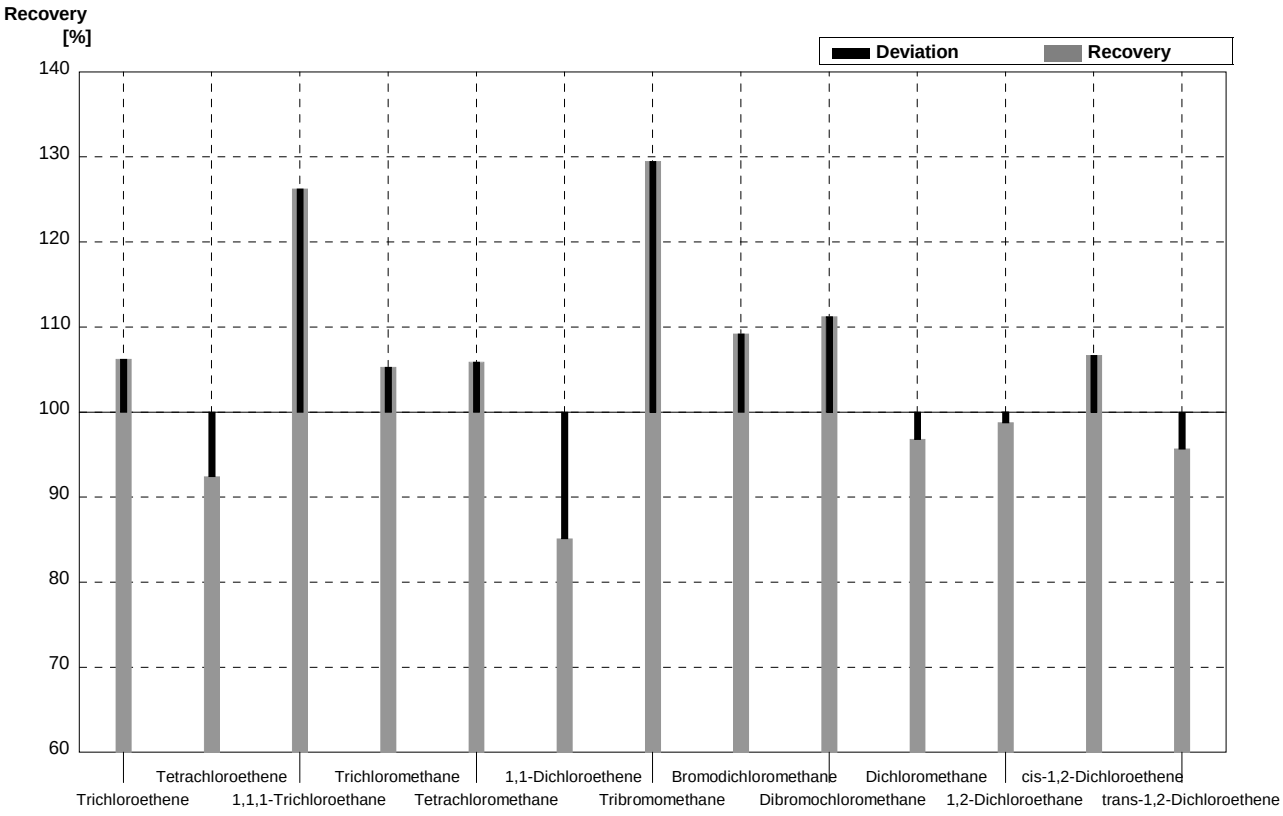
Sample C52A
Laboratory G

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,4		µg/l	•
Tetrachloroethene	0,48	0,02	0,39	0,01	µg/l	81%
1,1,1-Trichloroethane	0,24	0,01	0,36	0,01	µg/l	150%
Trichloromethane	0,35	0,02	0,39	0,02	µg/l	111%
Tetrachloromethane	0,60	0,03	0,76	0,03	µg/l	127%
1,1-Dichloroethene	0,90	0,05	0,96	0,02	µg/l	107%
Tribromomethane	0,48	0,02	0,66	0,05	µg/l	138%
Bromodichloromethane	0,65	0,03	0,71	0,04	µg/l	109%
Dibromochloromethane	1,55	0,08	1,67	0,06	µg/l	108%
Dichloromethane	7,02	0,35	6,66	0,25	µg/l	95%
1,2-Dichloroethane	1,46	0,07	1,42	0,02	µg/l	97%
cis-1,2-Dichloroethene	<0,06		<0,43		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,67	0,25	µg/l	112%



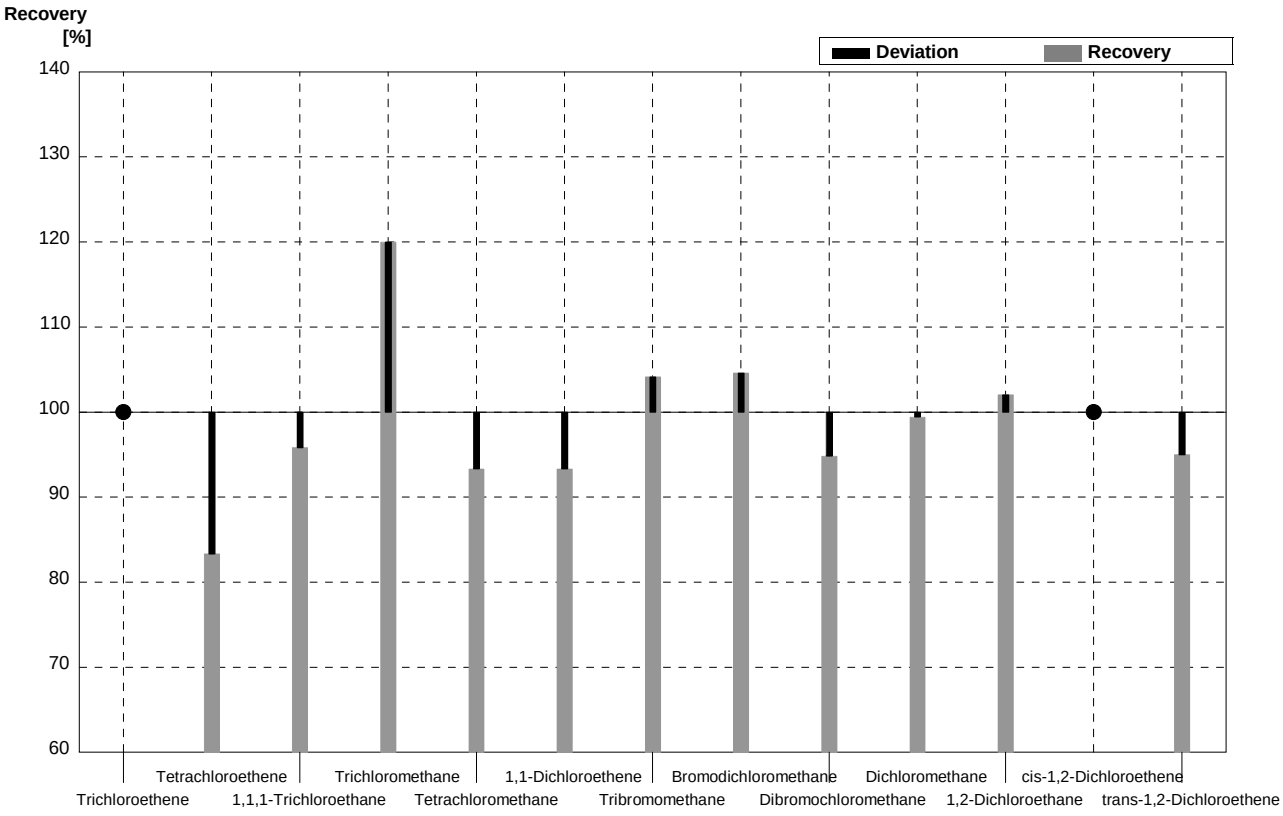
Sample C52B
Laboratory G

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,68	0,02	µg/l	106%
Tetrachloroethene	2,38	0,12	2,20	0,23	µg/l	92%
1,1,1-Trichloroethane	1,18	0,06	1,49	0,04	µg/l	126%
Trichloromethane	1,14	0,06	1,20	0,05	µg/l	105%
Tetrachloromethane	2,71	0,14	2,87	0,06	µg/l	106%
1,1-Dichloroethene	3,43	0,17	2,92	0,07	µg/l	85%
Tribromomethane	0,95	0,05	1,23	0,03	µg/l	129%
Bromodichloromethane	0,98	0,05	1,07	0,04	µg/l	109%
Dibromochloromethane	0,80	0,04	0,89	0,03	µg/l	111%
Dichloromethane	2,52	0,13	2,44	0,06	µg/l	97%
1,2-Dichloroethane	3,22	0,16	3,18	0,05	µg/l	99%
cis-1,2-Dichloroethene	1,20	0,06	1,28	0,11	µg/l	107%
trans-1,2-Dichloroethene	2,78	0,14	2,66	0,14	µg/l	96%



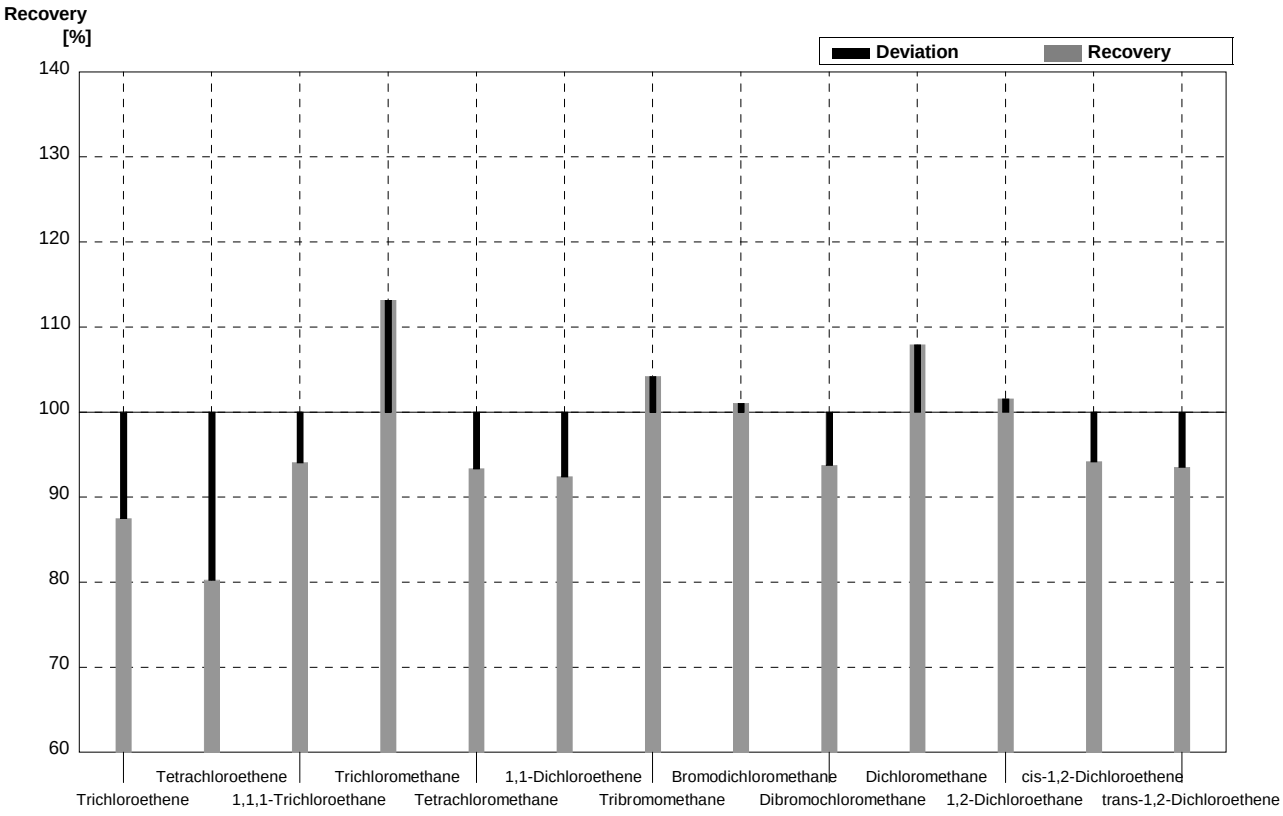
Sample C52A
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,10		µg/l	•
Tetrachloroethene	0,48	0,02	0,40	0,10	µg/l	83%
1,1,1-Trichloroethane	0,24	0,01	0,23	0,06	µg/l	96%
Trichloromethane	0,35	0,02	0,42	0,11	µg/l	120%
Tetrachloromethane	0,60	0,03	0,56	0,14	µg/l	93%
1,1-Dichloroethene	0,90	0,05	0,84	0,21	µg/l	93%
Tribromomethane	0,48	0,02	0,50	0,12	µg/l	104%
Bromodichloromethane	0,65	0,03	0,68	0,17	µg/l	105%
Dibromochloromethane	1,55	0,08	1,47	0,37	µg/l	95%
Dichloromethane	7,02	0,35	6,98	1,75	µg/l	99%
1,2-Dichloroethane	1,46	0,07	1,49	0,37	µg/l	102%
cis-1,2-Dichloroethene	<0,06		<0,10		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,57	0,14	µg/l	95%



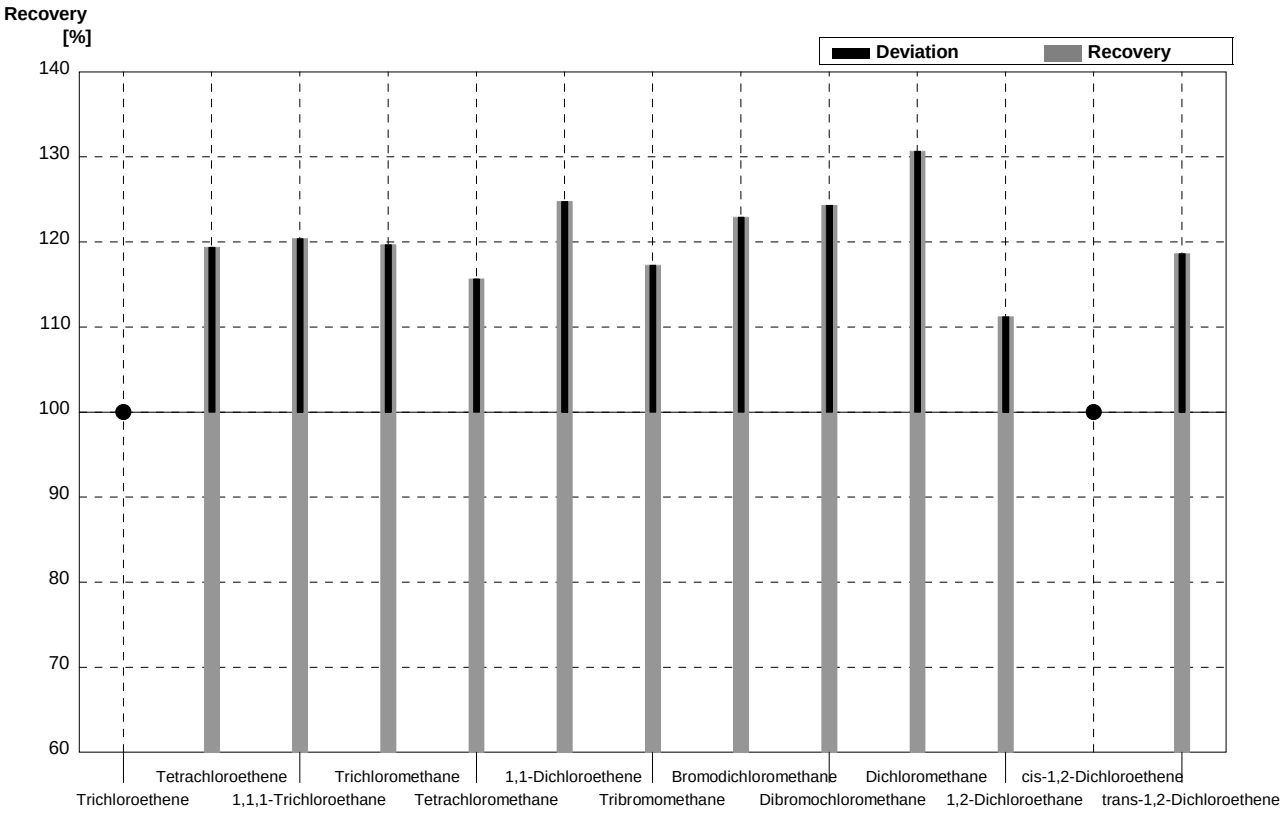
Sample C52B
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,56	0,14	µg/l	88%
Tetrachloroethene	2,38	0,12	1,91	0,48	µg/l	80%
1,1,1-Trichloroethane	1,18	0,06	1,11	0,28	µg/l	94%
Trichloromethane	1,14	0,06	1,29	0,32	µg/l	113%
Tetrachloromethane	2,71	0,14	2,53	0,63	µg/l	93%
1,1-Dichloroethene	3,43	0,17	3,17	0,79	µg/l	92%
Tribromomethane	0,95	0,05	0,99	0,25	µg/l	104%
Bromodichloromethane	0,98	0,05	0,99	0,25	µg/l	101%
Dibromochloromethane	0,80	0,04	0,75	0,19	µg/l	94%
Dichloromethane	2,52	0,13	2,72	0,68	µg/l	108%
1,2-Dichloroethane	3,22	0,16	3,27	0,82	µg/l	102%
cis-1,2-Dichloroethene	1,20	0,06	1,13	0,28	µg/l	94%
trans-1,2-Dichloroethene	2,78	0,14	2,60	0,65	µg/l	94%



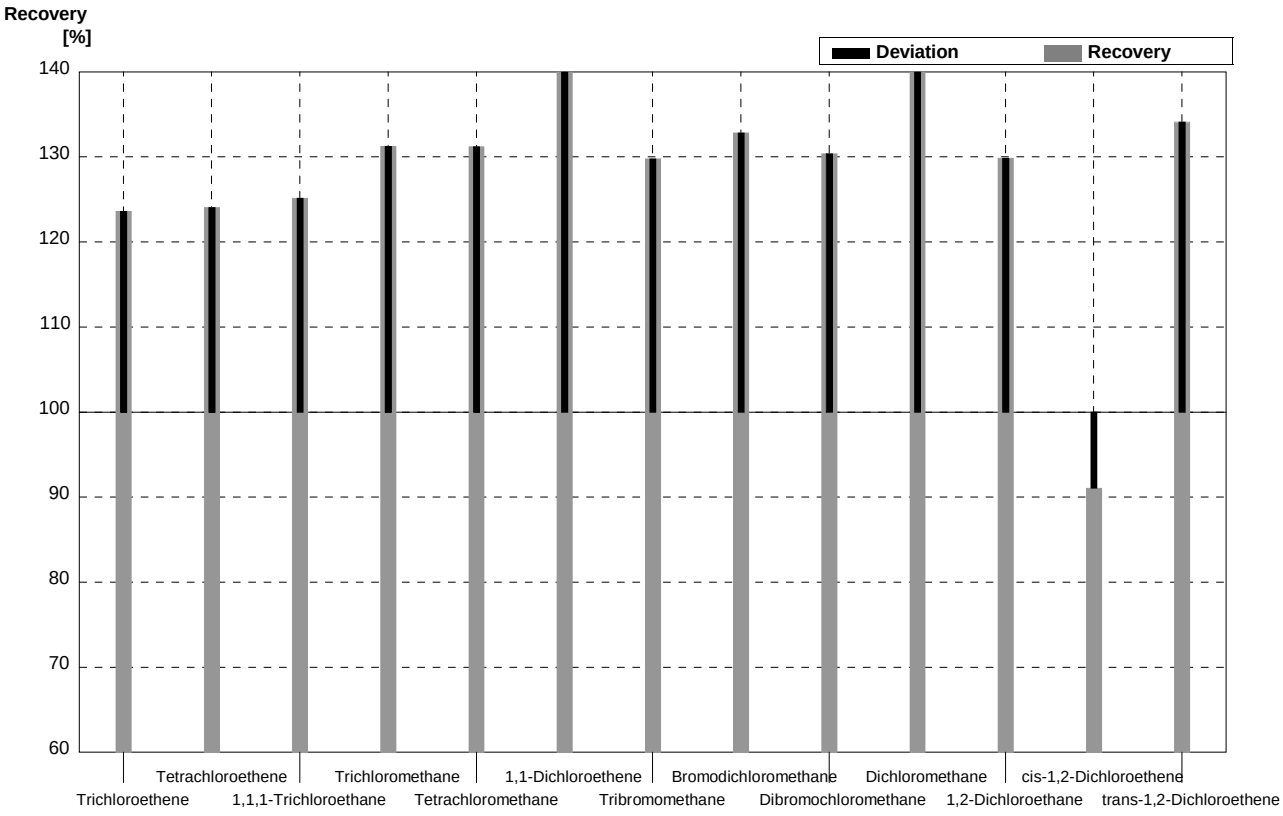
Sample C52A
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,100		µg/l	•
Tetrachloroethene	0,48	0,02	0,573	0,172	µg/l	119%
1,1,1-Trichloroethane	0,24	0,01	0,289	0,087	µg/l	120%
Trichloromethane	0,35	0,02	0,419	0,126	µg/l	120%
Tetrachloromethane	0,60	0,03	0,694	0,208	µg/l	116%
1,1-Dichloroethene	0,90	0,05	1,123	0,561	µg/l	125%
Tribromomethane	0,48	0,02	0,563	0,169	µg/l	117%
Bromodichloromethane	0,65	0,03	0,799	0,240	µg/l	123%
Dibromochloromethane	1,55	0,08	1,927	0,578	µg/l	124%
Dichloromethane	7,02	0,35	9,173	2,752	µg/l	131%
1,2-Dichloroethane	1,46	0,07	1,624	0,487	µg/l	111%
cis-1,2-Dichloroethene	<0,06		<0,100		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,712	0,214	µg/l	119%



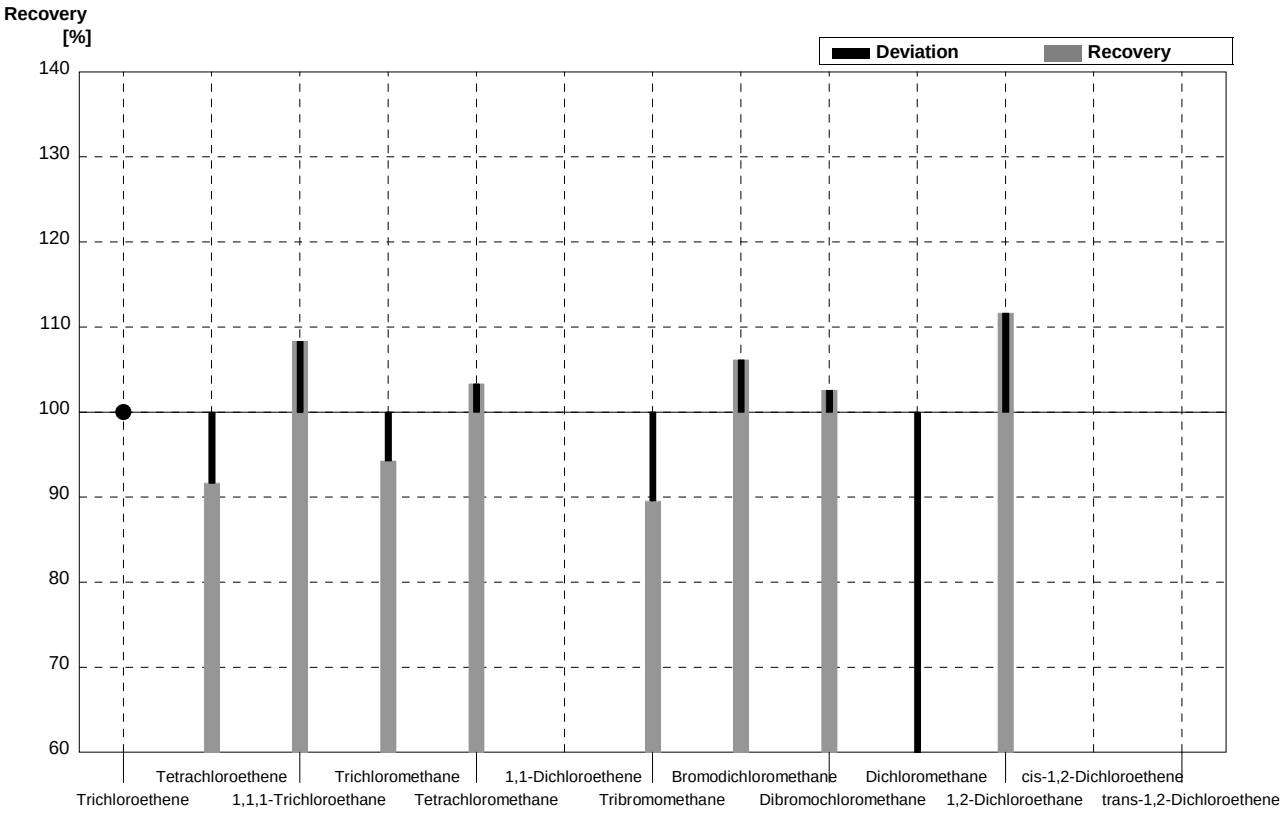
Sample C52B
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,791	0,237	µg/l	124%
Tetrachloroethene	2,38	0,12	2,953	0,886	µg/l	124%
1,1,1-Trichloroethane	1,18	0,06	1,477	0,443	µg/l	125%
Trichloromethane	1,14	0,06	1,496	0,449	µg/l	131%
Tetrachloromethane	2,71	0,14	3,556	1,067	µg/l	131%
1,1-Dichloroethene	3,43	0,17	4,863	2,431	µg/l	142%
Tribromomethane	0,95	0,05	1,233	0,370	µg/l	130%
Bromodichloromethane	0,98	0,05	1,302	0,391	µg/l	133%
Dibromochloromethane	0,80	0,04	1,043	0,313	µg/l	130%
Dichloromethane	2,52	0,13	3,761	1,128	µg/l	149%
1,2-Dichloroethane	3,22	0,16	4,182	1,255	µg/l	130%
cis-1,2-Dichloroethene	1,20	0,06	1,093	0,328	µg/l	91%
trans-1,2-Dichloroethene	2,78	0,14	3,728	1,118	µg/l	134%



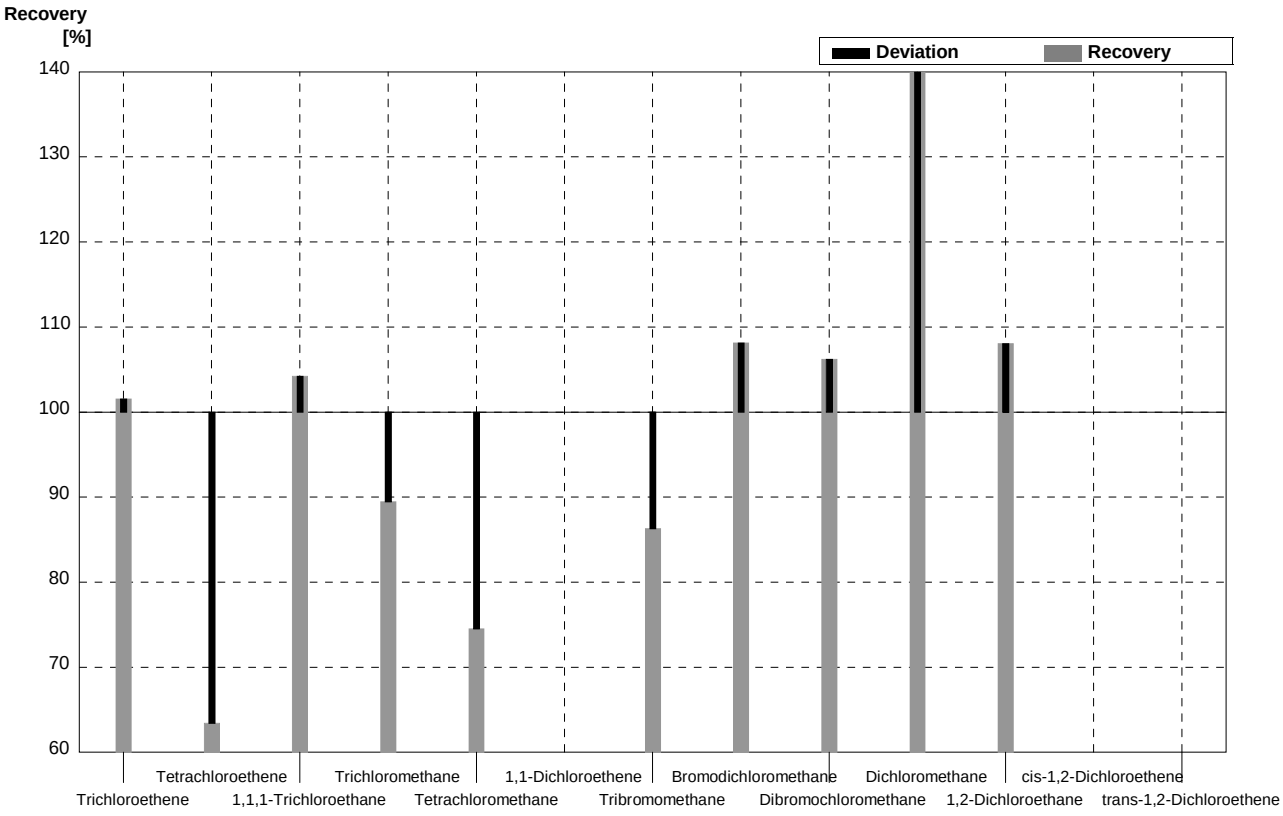
Sample C52A
Laboratory J

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,10	0,1	µg/l	•
Tetrachloroethene	0,48	0,02	0,44	0,1	µg/l	92%
1,1,1-Trichloroethane	0,24	0,01	0,26	0,1	µg/l	108%
Trichloromethane	0,35	0,02	0,33	0,1	µg/l	94%
Tetrachloromethane	0,60	0,03	0,62	0,1	µg/l	103%
1,1-Dichloroethene	0,90	0,05	n,a,		µg/l	
Tribromomethane	0,48	0,02	0,43	0,1	µg/l	90%
Bromodichloromethane	0,65	0,03	0,69	0,1	µg/l	106%
Dibromochloromethane	1,55	0,08	1,59	0,15	µg/l	103%
Dichloromethane	7,02	0,35	0,99	0,1	µg/l	14%
1,2-Dichloroethane	1,46	0,07	1,63	0,1	µg/l	112%
cis-1,2-Dichloroethene	<0,06		n,a.		µg/l	
trans-1,2-Dichloroethene	0,60	0,03	n,a.		µg/l	



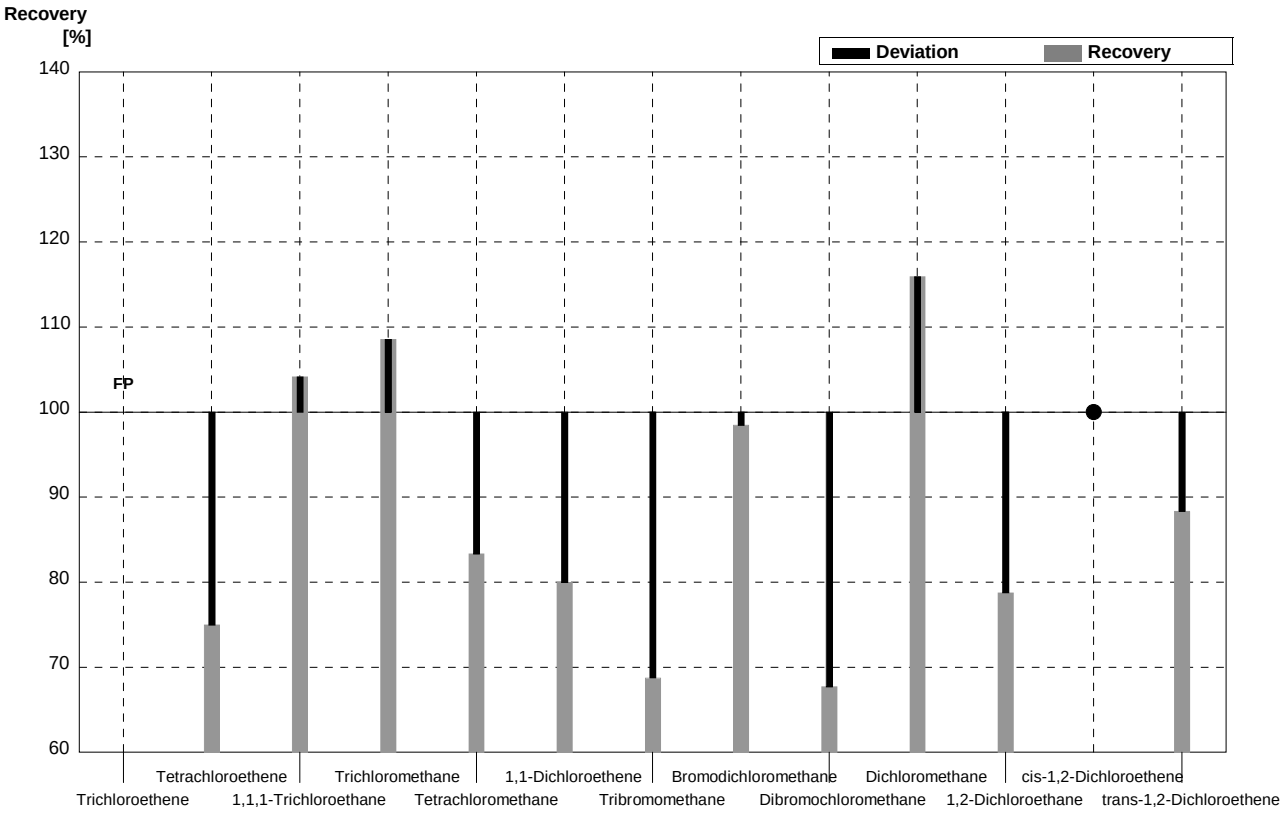
Sample C52B
Laboratory J

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,65	0,1	µg/l	102%
Tetrachloroethene	2,38	0,12	1,51	0,2	µg/l	63%
1,1,1-Trichloroethane	1,18	0,06	1,23	0,1	µg/l	104%
Trichloromethane	1,14	0,06	1,02	0,1	µg/l	89%
Tetrachloromethane	2,71	0,14	2,02	0,25	µg/l	75%
1,1-Dichloroethene	3,43	0,17	n,a.		µg/l	
Tribromomethane	0,95	0,05	0,82	0,15	µg/l	86%
Bromodichloromethane	0,98	0,05	1,06	0,15	µg/l	108%
Dibromochloromethane	0,80	0,04	0,85	0,1	µg/l	106%
Dichloromethane	2,52	0,13	4,04	0,4	µg/l	160%
1,2-Dichloroethane	3,22	0,16	3,48	0,35	µg/l	108%
cis-1,2-Dichloroethene	1,20	0,06	n,a.		µg/l	
trans-1,2-Dichloroethene	2,78	0,14	n,a,		µg/l	



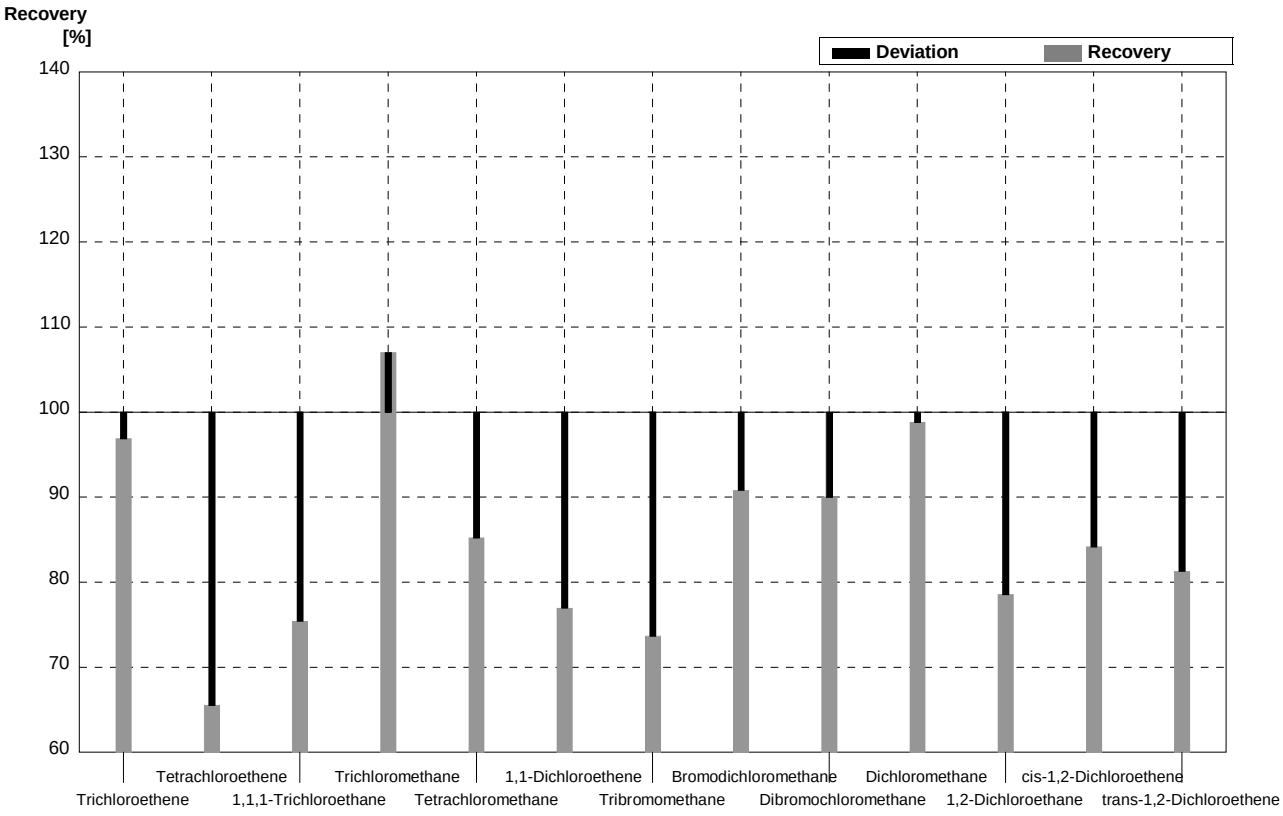
Sample C52A
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		0,16	0,02	µg/l	FP
Tetrachloroethene	0,48	0,02	0,36	0,05	µg/l	75%
1,1,1-Trichloroethane	0,24	0,01	0,25	0,04	µg/l	104%
Trichloromethane	0,35	0,02	0,38	0,06	µg/l	109%
Tetrachloromethane	0,60	0,03	0,5	0,08	µg/l	83%
1,1-Dichloroethene	0,90	0,05	0,72	0,11	µg/l	80%
Tribromomethane	0,48	0,02	0,33	0,05	µg/l	69%
Bromodichloromethane	0,65	0,03	0,64	0,10	µg/l	98%
Dibromochloromethane	1,55	0,08	1,05	0,16	µg/l	68%
Dichloromethane	7,02	0,35	8,14	1,22	µg/l	116%
1,2-Dichloroethane	1,46	0,07	1,15	0,17	µg/l	79%
cis-1,2-Dichloroethene	<0,06		<0,1	0	µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,53	0,08	µg/l	88%



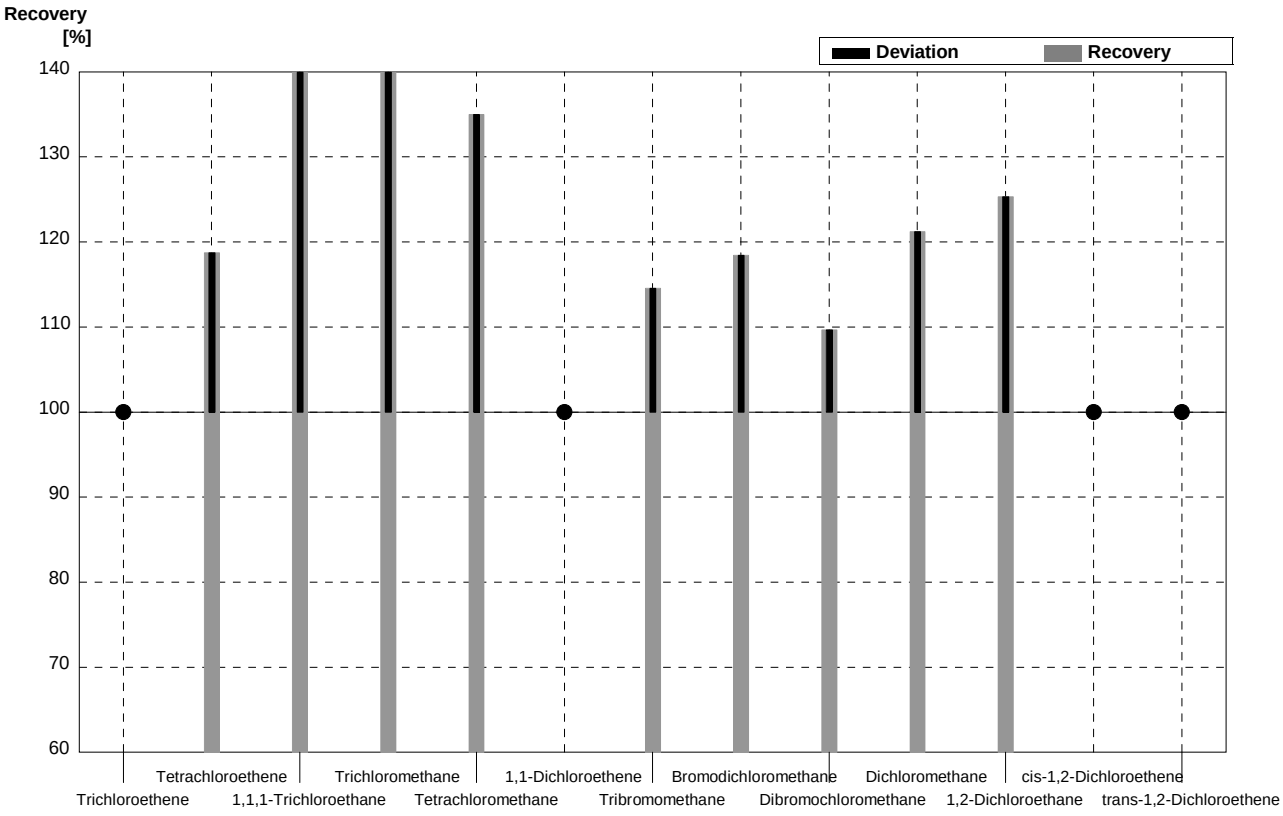
Sample C52B
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,62	0,09	µg/l	97%
Tetrachloroethene	2,38	0,12	1,56	0,23	µg/l	66%
1,1,1-Trichloroethane	1,18	0,06	0,89	0,13	µg/l	75%
Trichloromethane	1,14	0,06	1,22	0,18	µg/l	107%
Tetrachloromethane	2,71	0,14	2,31	0,35	µg/l	85%
1,1-Dichloroethene	3,43	0,17	2,64	0,40	µg/l	77%
Tribromomethane	0,95	0,05	0,7	0,11	µg/l	74%
Bromodichloromethane	0,98	0,05	0,89	0,13	µg/l	91%
Dibromochloromethane	0,80	0,04	0,72	0,11	µg/l	90%
Dichloromethane	2,52	0,13	2,49	0,37	µg/l	99%
1,2-Dichloroethane	3,22	0,16	2,53	0,38	µg/l	79%
cis-1,2-Dichloroethene	1,20	0,06	1,01	0,15	µg/l	84%
trans-1,2-Dichloroethene	2,78	0,14	2,26	0,34	µg/l	81%



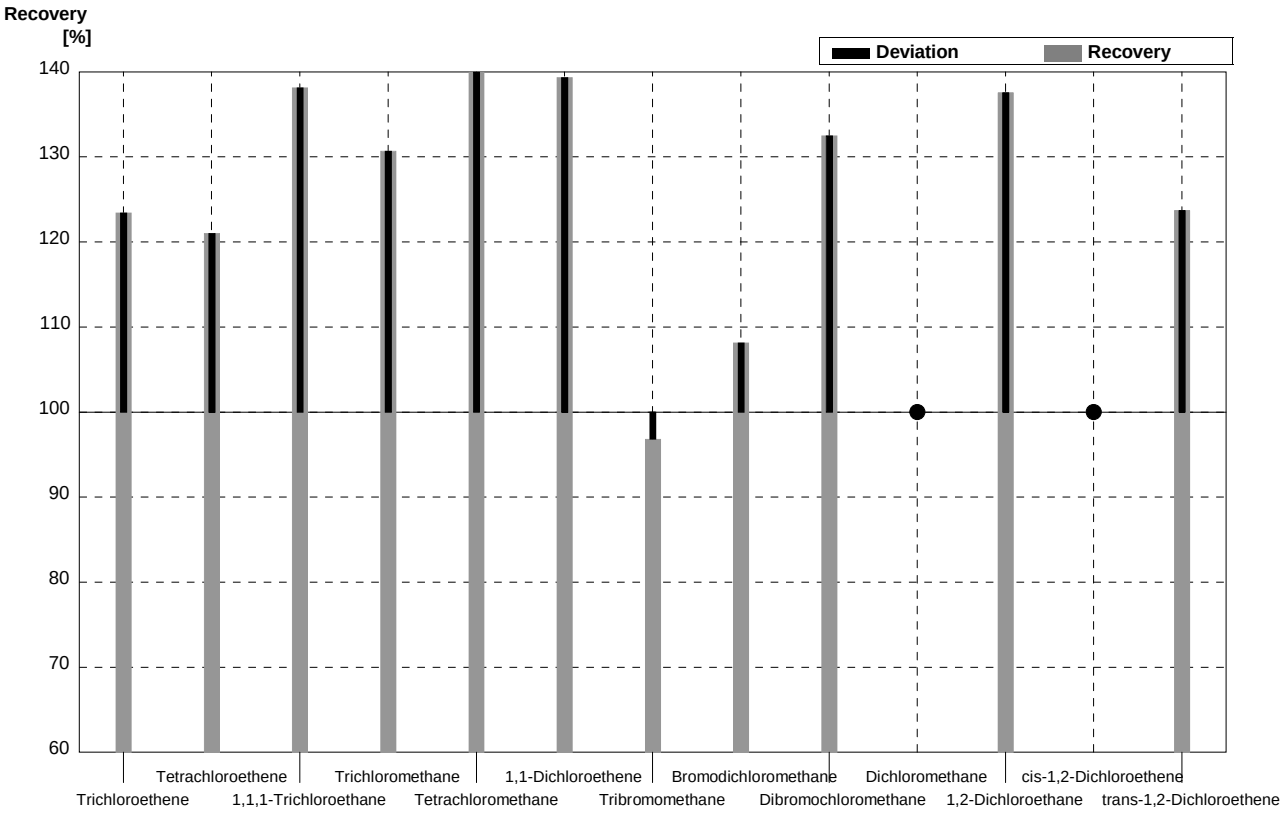
Sample C52A
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,3		µg/l	•
Tetrachloroethene	0,48	0,02	0,57	0,03	µg/l	119%
1,1,1-Trichloroethane	0,24	0,01	0,34	0,02	µg/l	142%
Trichloromethane	0,35	0,02	0,5	0,02	µg/l	143%
Tetrachloromethane	0,60	0,03	0,81	0,02	µg/l	135%
1,1-Dichloroethene	0,90	0,05	<1,6		µg/l	•
Tribromomethane	0,48	0,02	0,55	0,03	µg/l	115%
Bromodichloromethane	0,65	0,03	0,77	0,05	µg/l	118%
Dibromochloromethane	1,55	0,08	1,70	0,03	µg/l	110%
Dichloromethane	7,02	0,35	8,51	0,25	µg/l	121%
1,2-Dichloroethane	1,46	0,07	1,83	0,06	µg/l	125%
cis-1,2-Dichloroethene	<0,06		<2,6		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	<2,6		µg/l	•



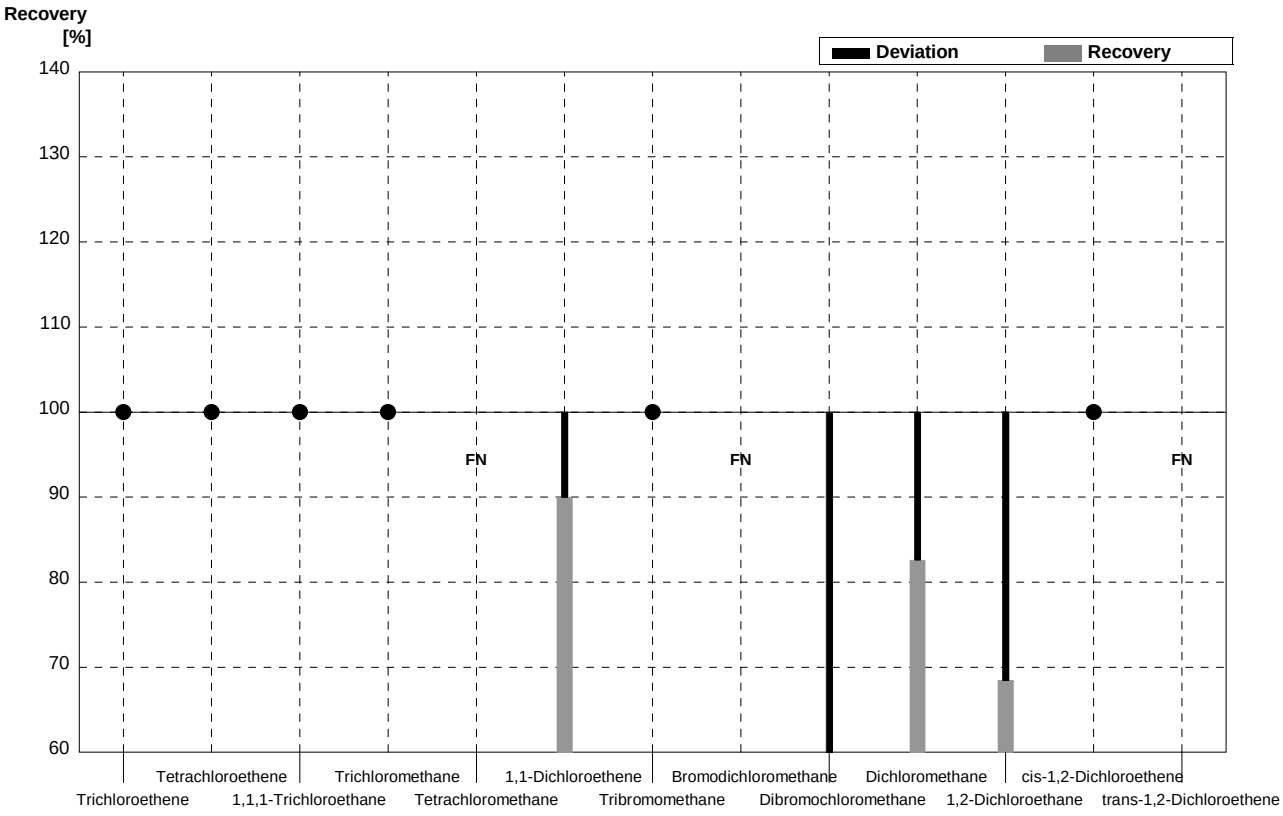
Sample C52B
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,79	0,03	µg/l	123%
Tetrachloroethene	2,38	0,12	2,88	0,08	µg/l	121%
1,1,1-Trichloroethane	1,18	0,06	1,63	0,07	µg/l	138%
Trichloromethane	1,14	0,06	1,49	0,07	µg/l	131%
Tetrachloromethane	2,71	0,14	4,02	0,25	µg/l	148%
1,1-Dichloroethene	3,43	0,17	4,78	0,16	µg/l	139%
Tribromomethane	0,95	0,05	0,92	0,02	µg/l	97%
Bromodichloromethane	0,98	0,05	1,06	0,07	µg/l	108%
Dibromochloromethane	0,80	0,04	1,06	0,07	µg/l	133%
Dichloromethane	2,52	0,13	<3,6		µg/l	•
1,2-Dichloroethane	3,22	0,16	4,43	0,42	µg/l	138%
cis-1,2-Dichloroethene	1,20	0,06	<2,6		µg/l	•
trans-1,2-Dichloroethene	2,78	0,14	3,44	0,12	µg/l	124%



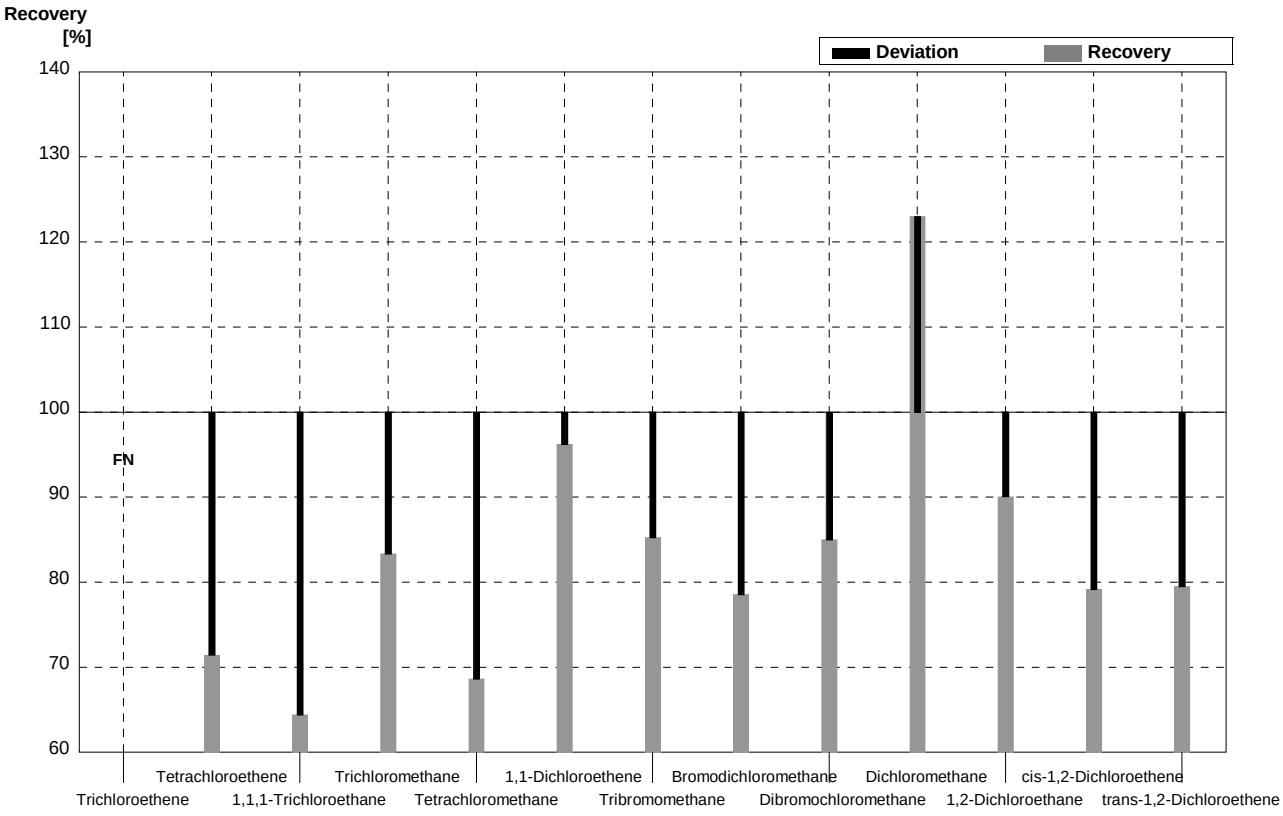
Sample C52A
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,55		µg/l	•
Tetrachloroethene	0,48	0,02	<0,55		µg/l	•
1,1,1-Trichloroethane	0,24	0,01	<0,55		µg/l	•
Trichloromethane	0,35	0,02	<0,55		µg/l	•
Tetrachloromethane	0,60	0,03	<0,55		µg/l	FN
1,1-Dichloroethene	0,90	0,05	0,81	0,45	µg/l	90%
Tribromomethane	0,48	0,02	<0,55		µg/l	•
Bromodichloromethane	0,65	0,03	<0,55		µg/l	FN
Dibromochloromethane	1,55	0,08	0,88	0,47	µg/l	57%
Dichloromethane	7,02	0,35	5,8	2,5	µg/l	83%
1,2-Dichloroethane	1,46	0,07	1	0,51	µg/l	68%
cis-1,2-Dichloroethene	<0,06		<0,55		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	<0,55		µg/l	FN



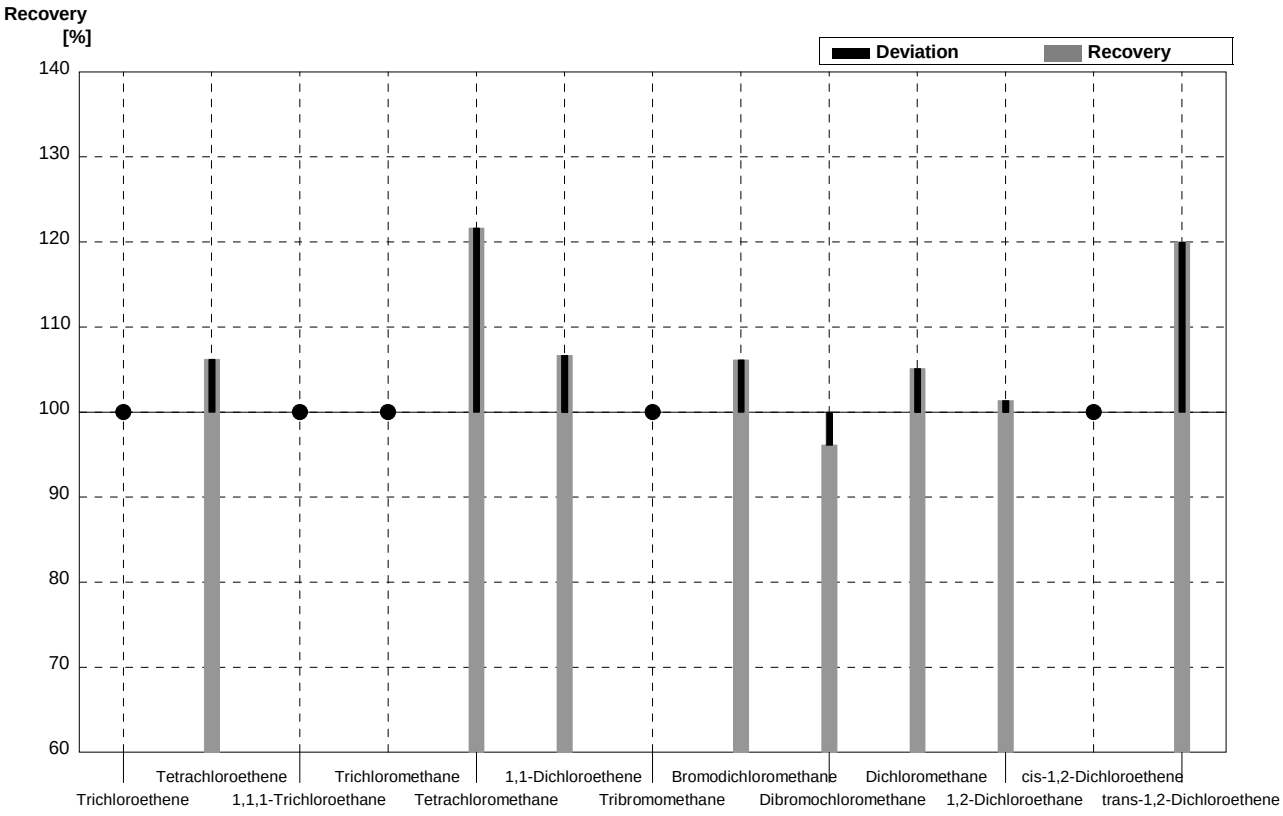
Sample C52B
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	<0,55		µg/l	FN
Tetrachloroethene	2,38	0,12	1,7	0,77	µg/l	71%
1,1,1-Trichloroethane	1,18	0,06	0,76	0,43	µg/l	64%
Trichloromethane	1,14	0,06	0,95	0,49	µg/l	83%
Tetrachloromethane	2,71	0,14	1,86	0,83	µg/l	69%
1,1-Dichloroethene	3,43	0,17	3,3	1,4	µg/l	96%
Tribromomethane	0,95	0,05	0,81	0,44	µg/l	85%
Bromodichloromethane	0,98	0,05	0,77	0,43	µg/l	79%
Dibromochloromethane	0,80	0,04	0,68	0,4	µg/l	85%
Dichloromethane	2,52	0,13	3,1	1,4	µg/l	123%
1,2-Dichloroethane	3,22	0,16	2,9	1,3	µg/l	90%
cis-1,2-Dichloroethene	1,20	0,06	0,95	0,49	µg/l	79%
trans-1,2-Dichloroethene	2,78	0,14	2,21	0,97	µg/l	79%



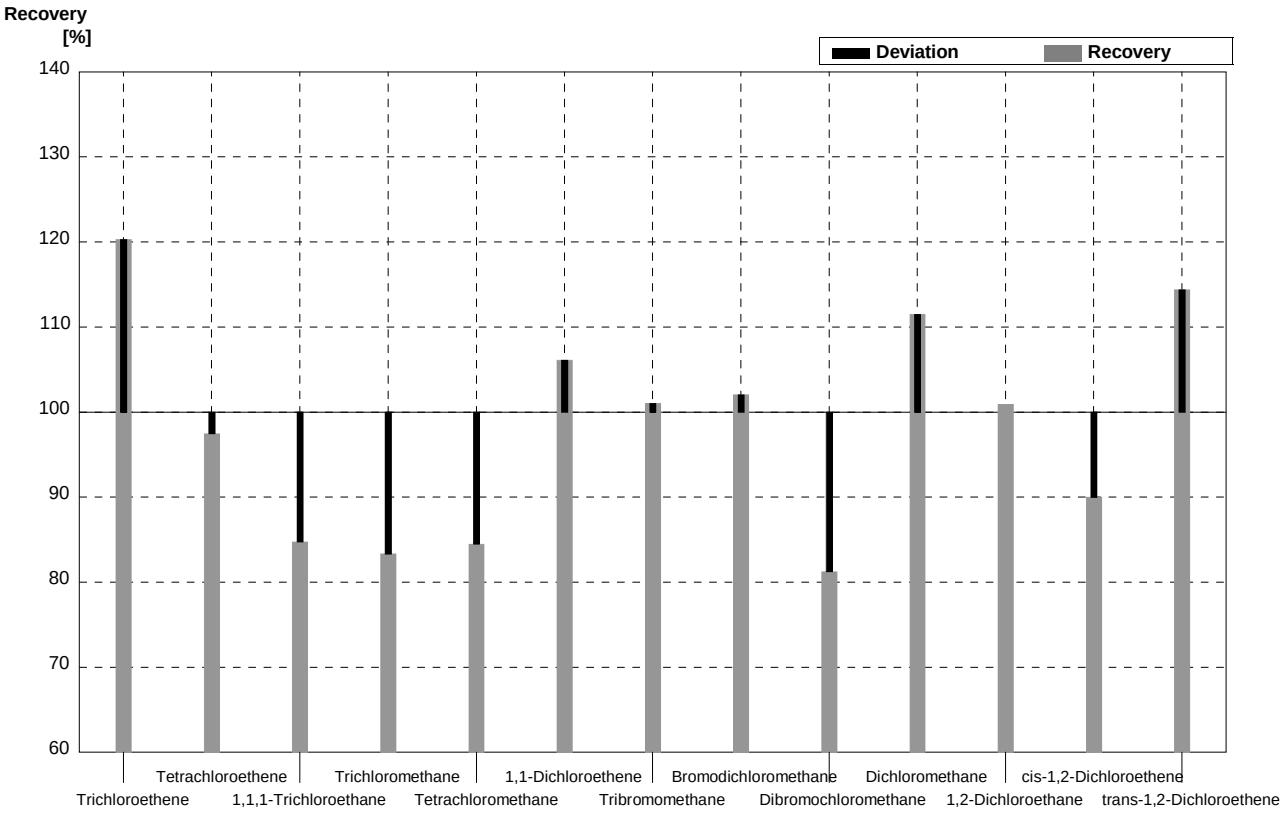
Sample C52A
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,5		µg/l	•
Tetrachloroethene	0,48	0,02	0,51	0,09	µg/l	106%
1,1,1-Trichloroethane	0,24	0,01	<0,5		µg/l	•
Trichloromethane	0,35	0,02	<0,5		µg/l	•
Tetrachloromethane	0,60	0,03	0,73	0,16	µg/l	122%
1,1-Dichloroethene	0,90	0,05	0,96	0,21	µg/l	107%
Tribromomethane	0,48	0,02	<0,5		µg/l	•
Bromodichloromethane	0,65	0,03	0,69	0,12	µg/l	106%
Dibromochloromethane	1,55	0,08	1,49	0,24	µg/l	96%
Dichloromethane	7,02	0,35	7,38	1,62	µg/l	105%
1,2-Dichloroethane	1,46	0,07	1,48	0,24	µg/l	101%
cis-1,2-Dichloroethene	<0,06		<0,5		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,72	0,16	µg/l	120%



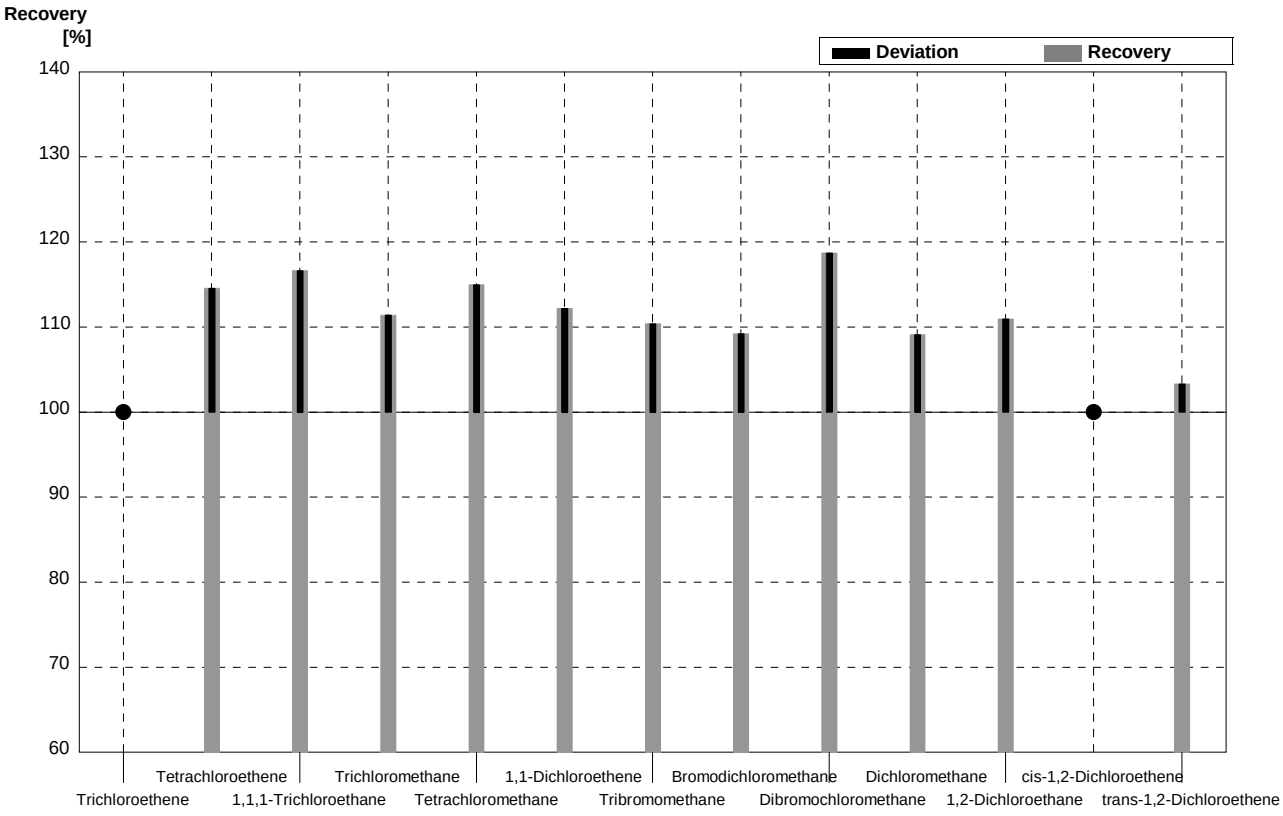
Sample C52B
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,77	0,17	µg/l	120%
Tetrachloroethene	2,38	0,12	2,32	0,42	µg/l	97%
1,1,1-Trichloroethane	1,18	0,06	1,00	0,22	µg/l	85%
Trichloromethane	1,14	0,06	0,95	0,18	µg/l	83%
Tetrachloromethane	2,71	0,14	2,29	0,63	µg/l	85%
1,1-Dichloroethene	3,43	0,17	3,64	0,80	µg/l	106%
Tribromomethane	0,95	0,05	0,96	0,17	µg/l	101%
Bromodichloromethane	0,98	0,05	1,00	0,17	µg/l	102%
Dibromochloromethane	0,80	0,04	0,65	0,10	µg/l	81%
Dichloromethane	2,52	0,13	2,81	0,62	µg/l	112%
1,2-Dichloroethane	3,22	0,16	3,25	0,52	µg/l	101%
cis-1,2-Dichloroethene	1,20	0,06	1,08	0,24	µg/l	90%
trans-1,2-Dichloroethene	2,78	0,14	3,18	0,70	µg/l	114%



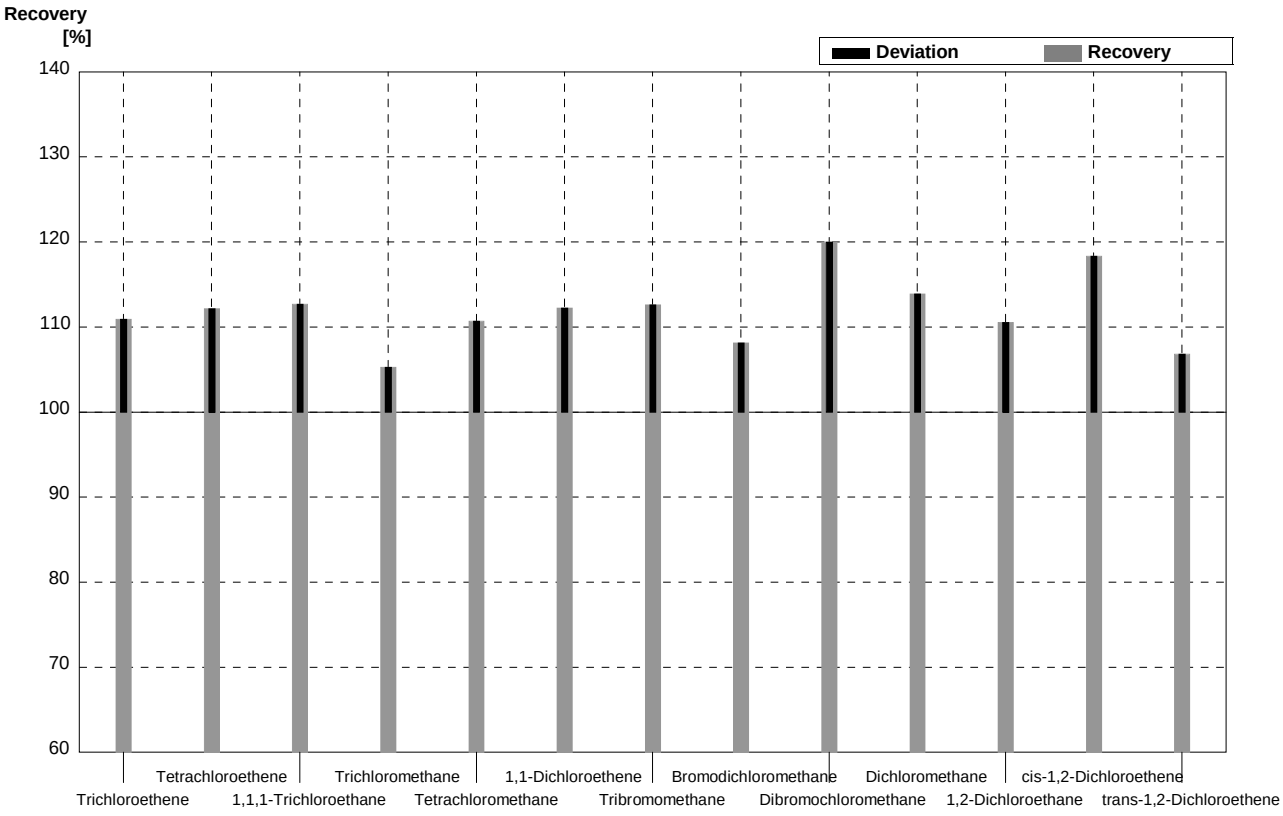
Sample C52A
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,5	0,15	µg/l	•
Tetrachloroethene	0,48	0,02	0,55	0,17	µg/l	115%
1,1,1-Trichloroethane	0,24	0,01	0,28	0,08	µg/l	117%
Trichloromethane	0,35	0,02	0,39	0,12	µg/l	111%
Tetrachloromethane	0,60	0,03	0,69	0,21	µg/l	115%
1,1-Dichloroethene	0,90	0,05	1,01	0,30	µg/l	112%
Tribromomethane	0,48	0,02	0,53	0,16	µg/l	110%
Bromodichloromethane	0,65	0,03	0,71	0,21	µg/l	109%
Dibromochloromethane	1,55	0,08	1,84	0,55	µg/l	119%
Dichloromethane	7,02	0,35	7,66	2,30	µg/l	109%
1,2-Dichloroethane	1,46	0,07	1,62	0,49	µg/l	111%
cis-1,2-Dichloroethene	<0,06		<0,2	0,06	µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,62	0,19	µg/l	103%



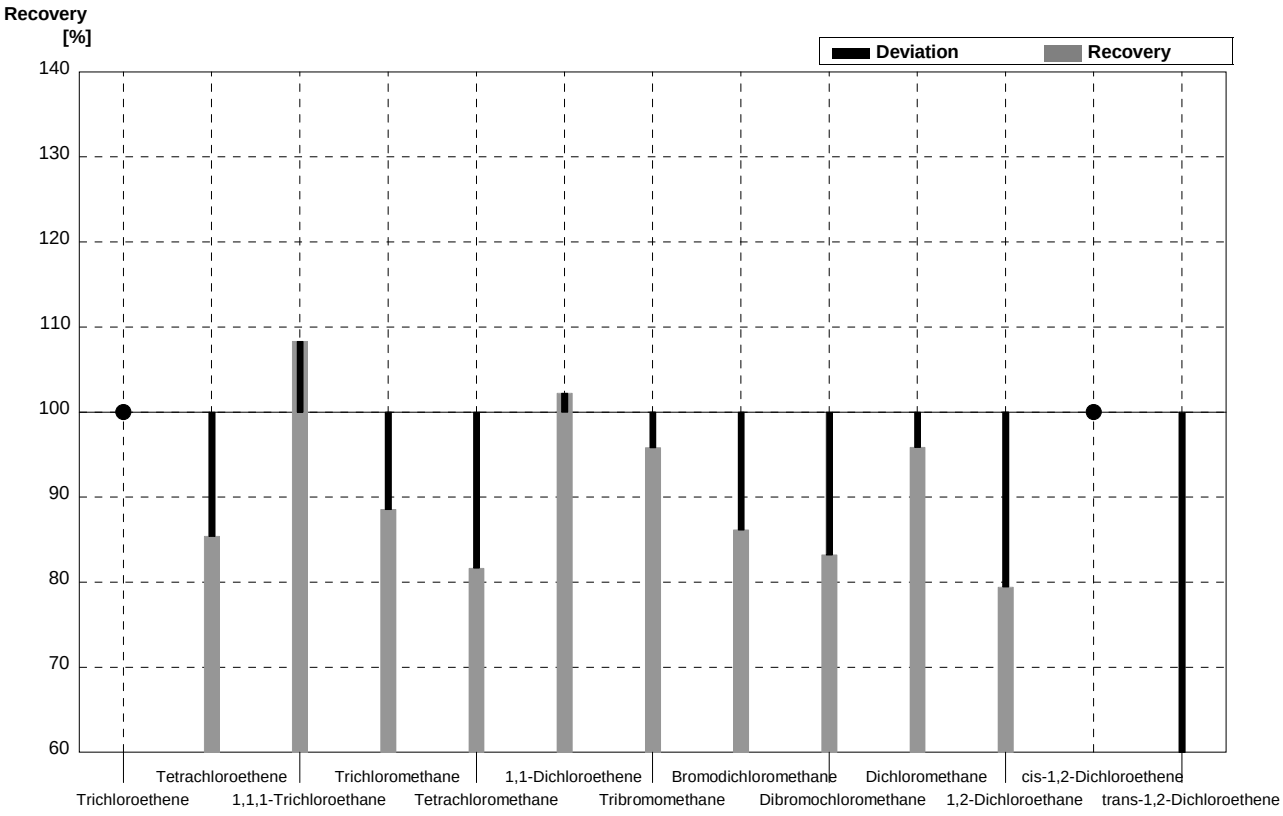
Sample C52B
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,71	0,21	µg/l	111%
Tetrachloroethene	2,38	0,12	2,67	0,80	µg/l	112%
1,1,1-Trichloroethane	1,18	0,06	1,33	0,40	µg/l	113%
Trichloromethane	1,14	0,06	1,20	0,36	µg/l	105%
Tetrachloromethane	2,71	0,14	3,00	0,90	µg/l	111%
1,1-Dichloroethene	3,43	0,17	3,85	1,16	µg/l	112%
Tribromomethane	0,95	0,05	1,07	0,32	µg/l	113%
Bromodichloromethane	0,98	0,05	1,06	0,32	µg/l	108%
Dibromochloromethane	0,80	0,04	0,96	0,29	µg/l	120%
Dichloromethane	2,52	0,13	2,87	0,86	µg/l	114%
1,2-Dichloroethane	3,22	0,16	3,56	1,07	µg/l	111%
cis-1,2-Dichloroethene	1,20	0,06	1,42	0,42	µg/l	118%
trans-1,2-Dichloroethene	2,78	0,14	2,97	0,89	µg/l	107%



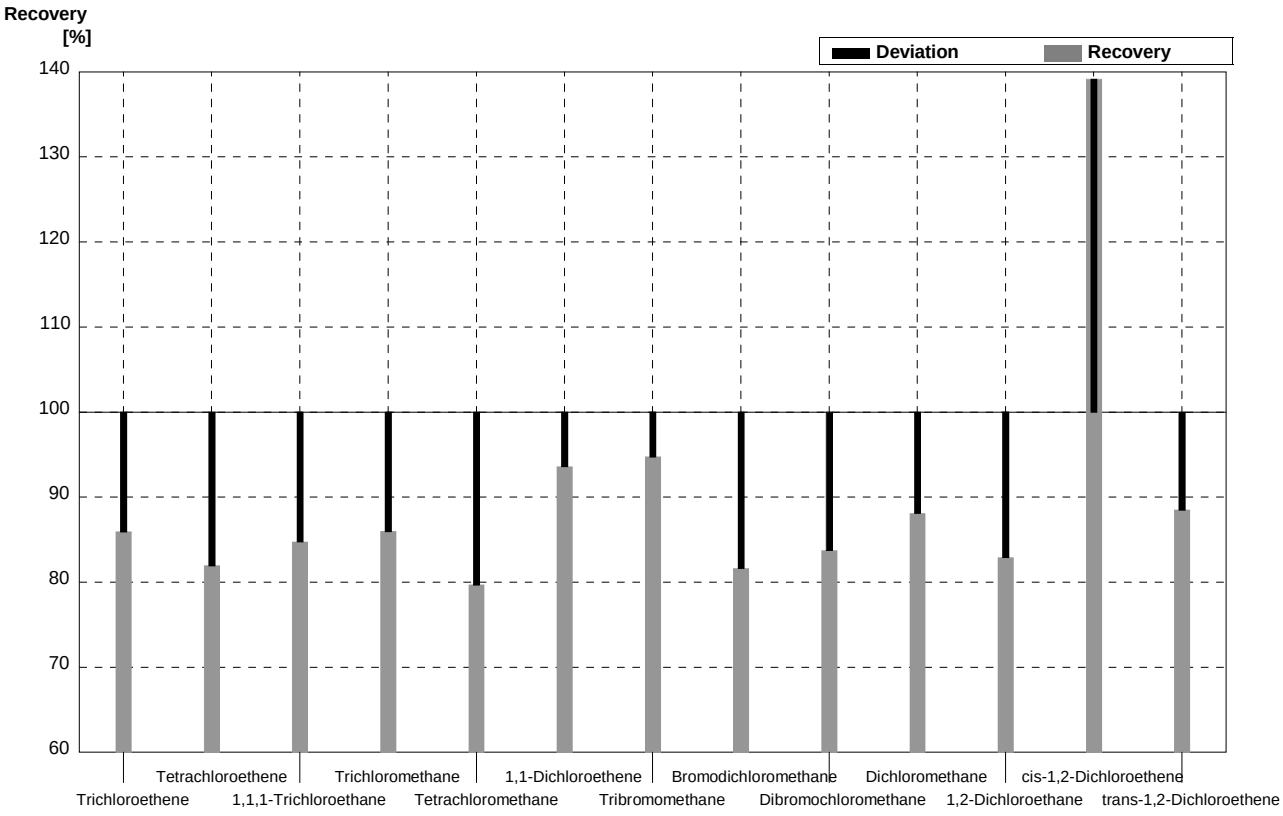
Sample C52A
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,1	0,10	µg/l	•
Tetrachloroethene	0,48	0,02	0,41	0,10	µg/l	85%
1,1,1-Trichloroethane	0,24	0,01	0,26	0,07	µg/l	108%
Trichloromethane	0,35	0,02	0,31	0,08	µg/l	89%
Tetrachloromethane	0,60	0,03	0,49	0,12	µg/l	82%
1,1-Dichloroethene	0,90	0,05	0,92	0,23	µg/l	102%
Tribromomethane	0,48	0,02	0,46	0,12	µg/l	96%
Bromodichloromethane	0,65	0,03	0,56	0,14	µg/l	86%
Dibromochloromethane	1,55	0,08	1,29	0,32	µg/l	83%
Dichloromethane	7,02	0,35	6,73	1,68	µg/l	96%
1,2-Dichloroethane	1,46	0,07	1,16	0,29	µg/l	79%
cis-1,2-Dichloroethene	<0,06		<0,1	0,1	µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,27	0,07	µg/l	45%



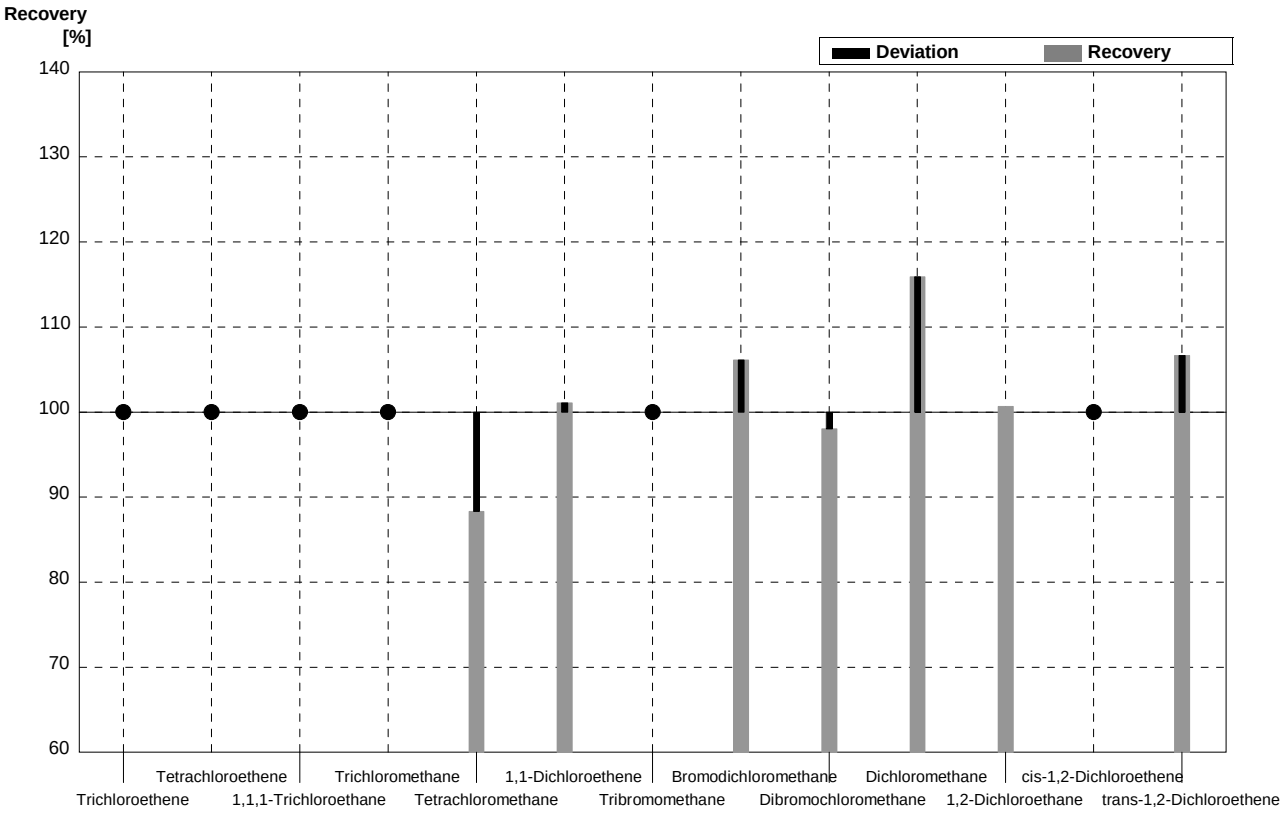
Sample C52B
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,55	0,14	µg/l	86%
Tetrachloroethene	2,38	0,12	1,95	0,49	µg/l	82%
1,1,1-Trichloroethane	1,18	0,06	1,00	0,25	µg/l	85%
Trichloromethane	1,14	0,06	0,98	0,25	µg/l	86%
Tetrachloromethane	2,71	0,14	2,16	0,54	µg/l	80%
1,1-Dichloroethene	3,43	0,17	3,21	0,80	µg/l	94%
Tribromomethane	0,95	0,05	0,90	0,23	µg/l	95%
Bromodichloromethane	0,98	0,05	0,80	0,20	µg/l	82%
Dibromochloromethane	0,80	0,04	0,67	0,17	µg/l	84%
Dichloromethane	2,52	0,13	2,22	0,56	µg/l	88%
1,2-Dichloroethane	3,22	0,16	2,67	0,67	µg/l	83%
cis-1,2-Dichloroethene	1,20	0,06	1,67	0,42	µg/l	139%
trans-1,2-Dichloroethene	2,78	0,14	2,46	0,62	µg/l	88%



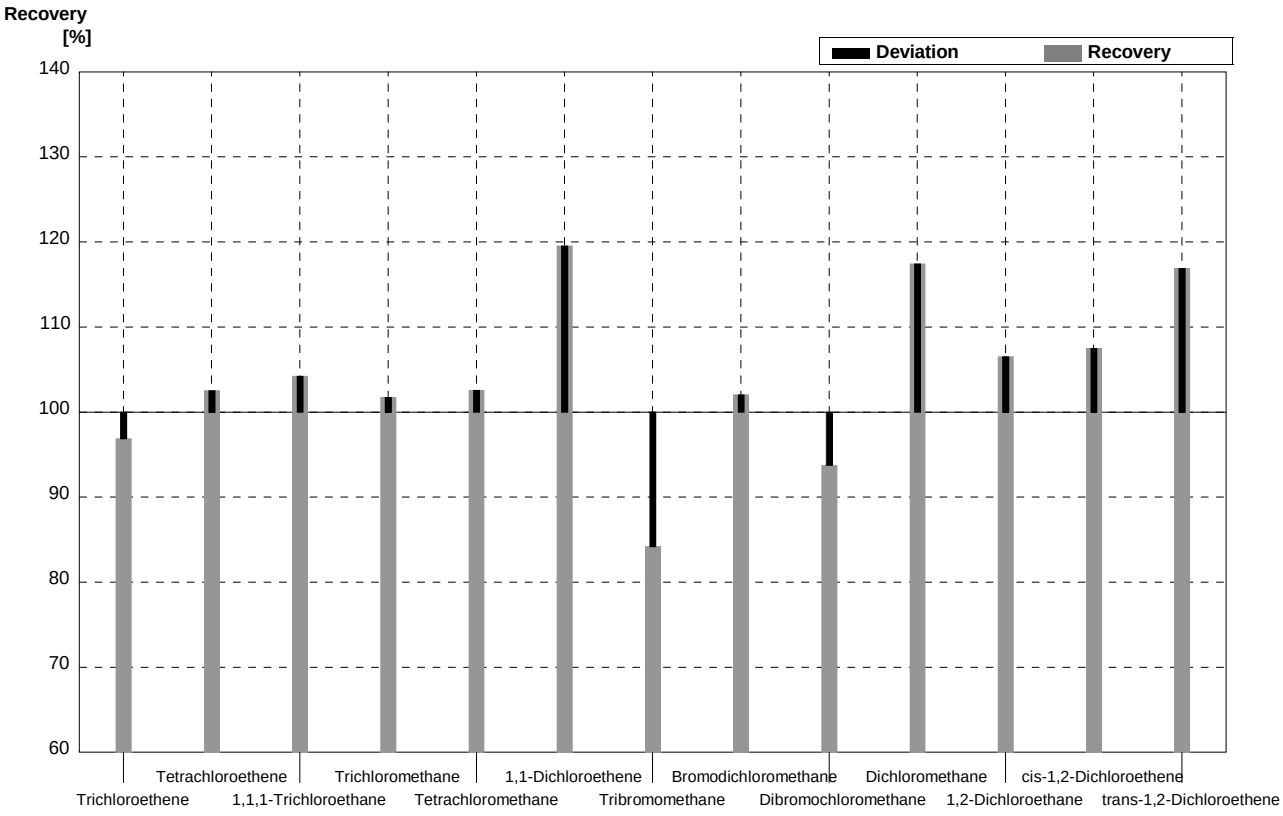
Sample C52A
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,5		µg/l	•
Tetrachloroethene	0,48	0,02	<0,5		µg/l	•
1,1,1-Trichloroethane	0,24	0,01	<0,5		µg/l	•
Trichloromethane	0,35	0,02	<0,5		µg/l	•
Tetrachloromethane	0,60	0,03	0,53	0,16	µg/l	88%
1,1-Dichloroethene	0,90	0,05	0,91	0,27	µg/l	101%
Tribromomethane	0,48	0,02	<0,5		µg/l	•
Bromodichloromethane	0,65	0,03	0,69	0,21	µg/l	106%
Dibromochloromethane	1,55	0,08	1,52	0,30	µg/l	98%
Dichloromethane	7,02	0,35	8,14	1,63	µg/l	116%
1,2-Dichloroethane	1,46	0,07	1,47	0,29	µg/l	101%
cis-1,2-Dichloroethene	<0,06		<0,5		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,64	0,19	µg/l	107%



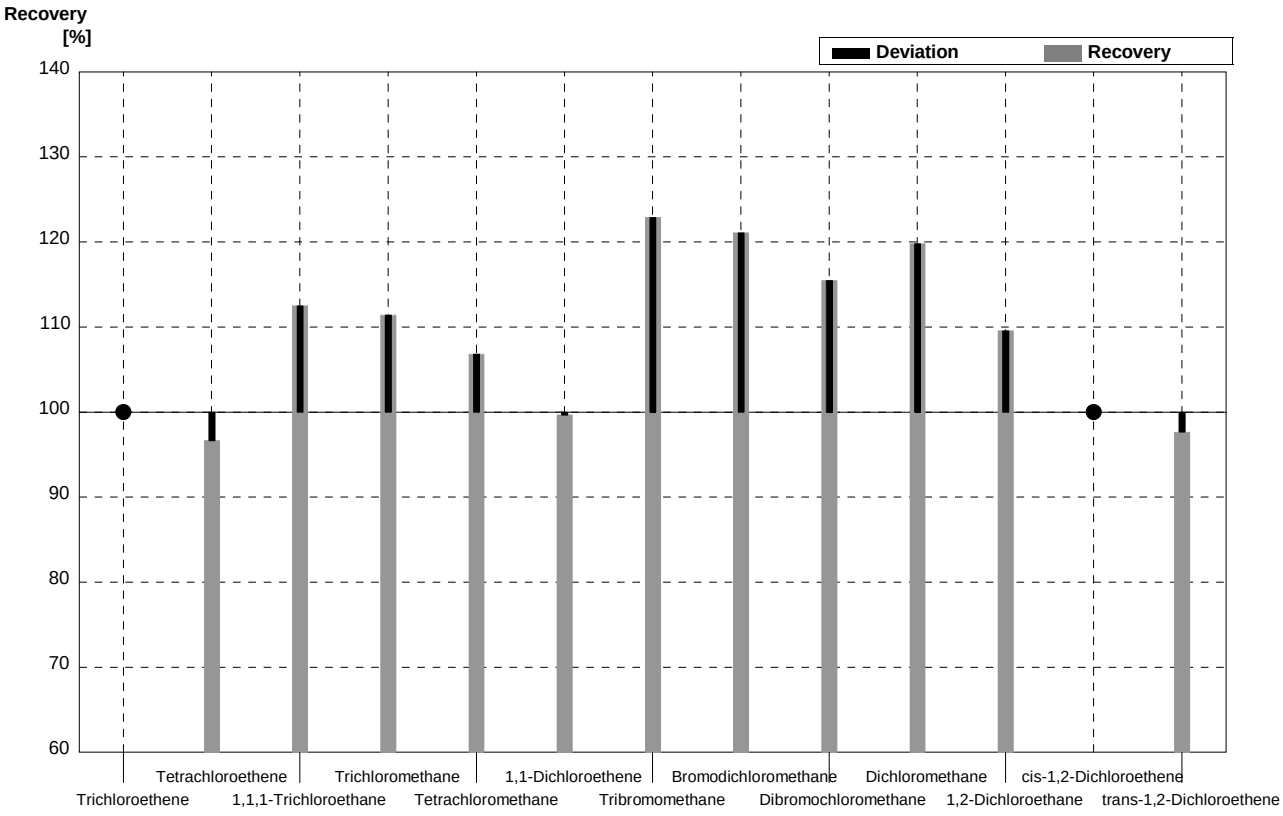
Sample C52B
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,62	0,19	µg/l	97%
Tetrachloroethene	2,38	0,12	2,44	0,49	µg/l	103%
1,1,1-Trichloroethane	1,18	0,06	1,23	0,25	µg/l	104%
Trichloromethane	1,14	0,06	1,16	0,23	µg/l	102%
Tetrachloromethane	2,71	0,14	2,78	0,56	µg/l	103%
1,1-Dichloroethene	3,43	0,17	4,10	0,82	µg/l	120%
Tribromomethane	0,95	0,05	0,80	0,24	µg/l	84%
Bromodichloromethane	0,98	0,05	1,00	0,20	µg/l	102%
Dibromochloromethane	0,80	0,04	0,75	0,22	µg/l	94%
Dichloromethane	2,52	0,13	2,96	0,59	µg/l	117%
1,2-Dichloroethane	3,22	0,16	3,43	0,69	µg/l	107%
cis-1,2-Dichloroethene	1,20	0,06	1,29	0,26	µg/l	108%
trans-1,2-Dichloroethene	2,78	0,14	3,25	0,65	µg/l	117%



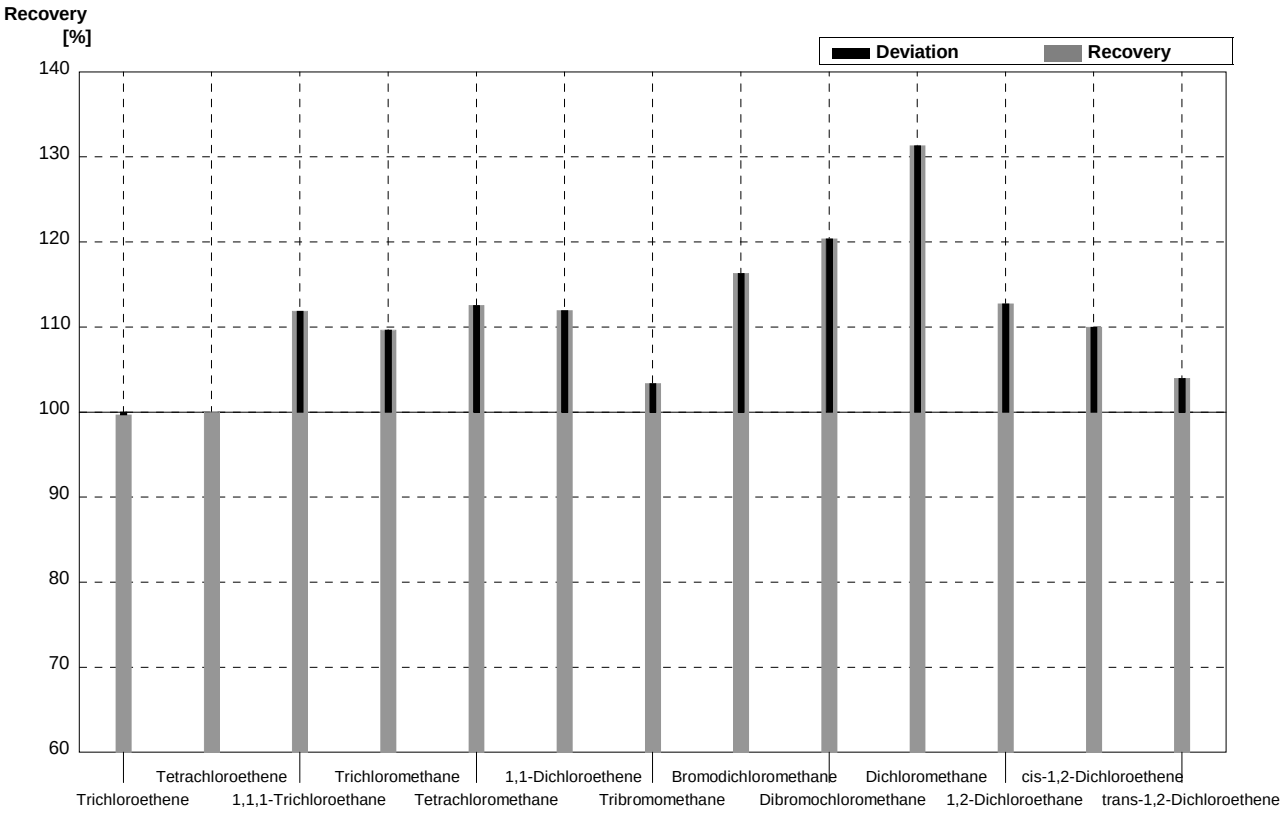
Sample C52A
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,02		µg/l	•
Tetrachloroethene	0,48	0,02	0,464	0,093	µg/l	97%
1,1,1-Trichloroethane	0,24	0,01	0,270	0,054	µg/l	113%
Trichloromethane	0,35	0,02	0,390	0,078	µg/l	111%
Tetrachloromethane	0,60	0,03	0,641	0,128	µg/l	107%
1,1-Dichloroethene	0,90	0,05	0,897	0,179	µg/l	100%
Tribromomethane	0,48	0,02	0,590	0,118	µg/l	123%
Bromodichloromethane	0,65	0,03	0,787	0,157	µg/l	121%
Dibromochloromethane	1,55	0,08	1,79	0,358	µg/l	115%
Dichloromethane	7,02	0,35	8,41	1,68	µg/l	120%
1,2-Dichloroethane	1,46	0,07	1,60	0,320	µg/l	110%
cis-1,2-Dichloroethene	<0,06		<0,02		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,586	0,117	µg/l	98%



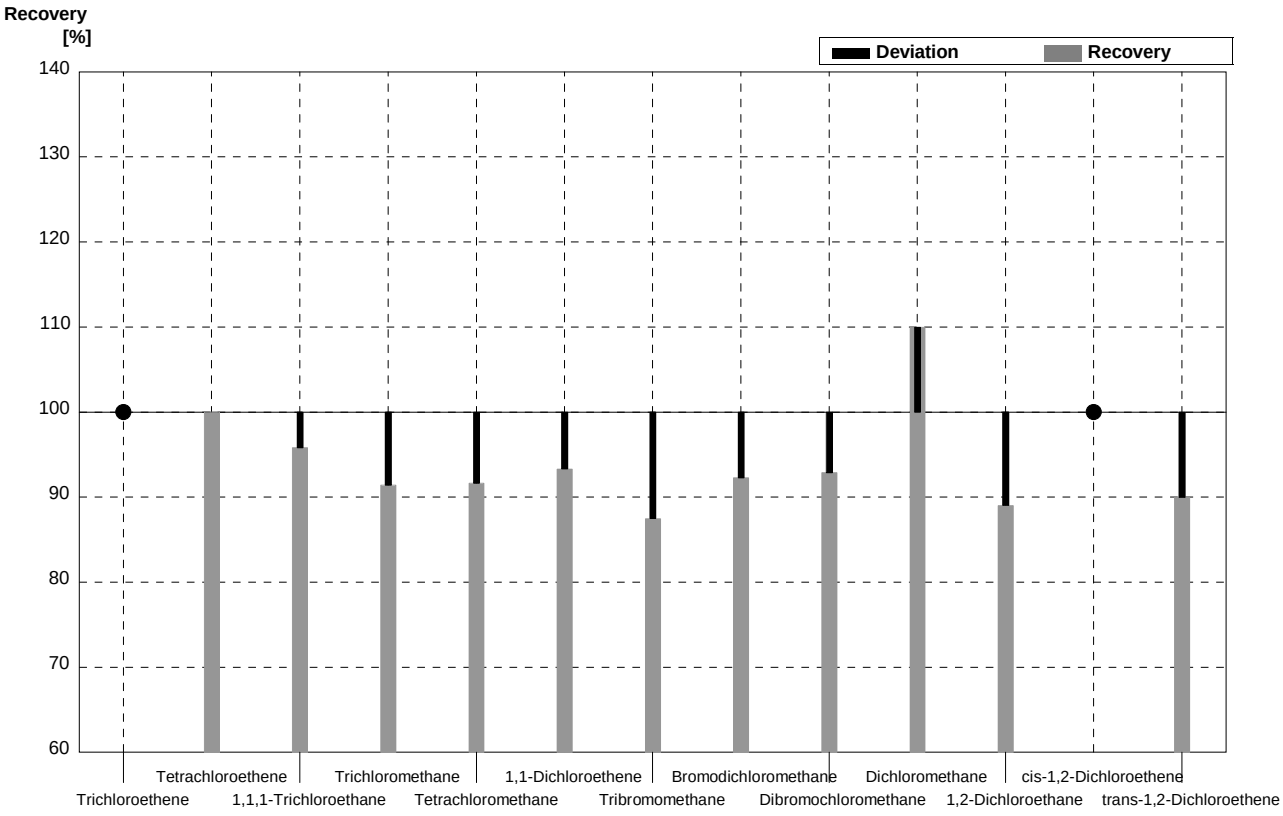
Sample C52B
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,638	0,128	µg/l	100%
Tetrachloroethene	2,38	0,12	2,38	0,476	µg/l	100%
1,1,1-Trichloroethane	1,18	0,06	1,32	0,264	µg/l	112%
Trichloromethane	1,14	0,06	1,25	0,250	µg/l	110%
Tetrachloromethane	2,71	0,14	3,05	0,61	µg/l	113%
1,1-Dichloroethene	3,43	0,17	3,84	0,768	µg/l	112%
Tribromomethane	0,95	0,05	0,982	0,196	µg/l	103%
Bromodichloromethane	0,98	0,05	1,14	0,228	µg/l	116%
Dibromochloromethane	0,80	0,04	0,963	0,193	µg/l	120%
Dichloromethane	2,52	0,13	3,31	0,662	µg/l	131%
1,2-Dichloroethane	3,22	0,16	3,63	0,726	µg/l	113%
cis-1,2-Dichloroethene	1,20	0,06	1,32	0,264	µg/l	110%
trans-1,2-Dichloroethene	2,78	0,14	2,89	0,578	µg/l	104%



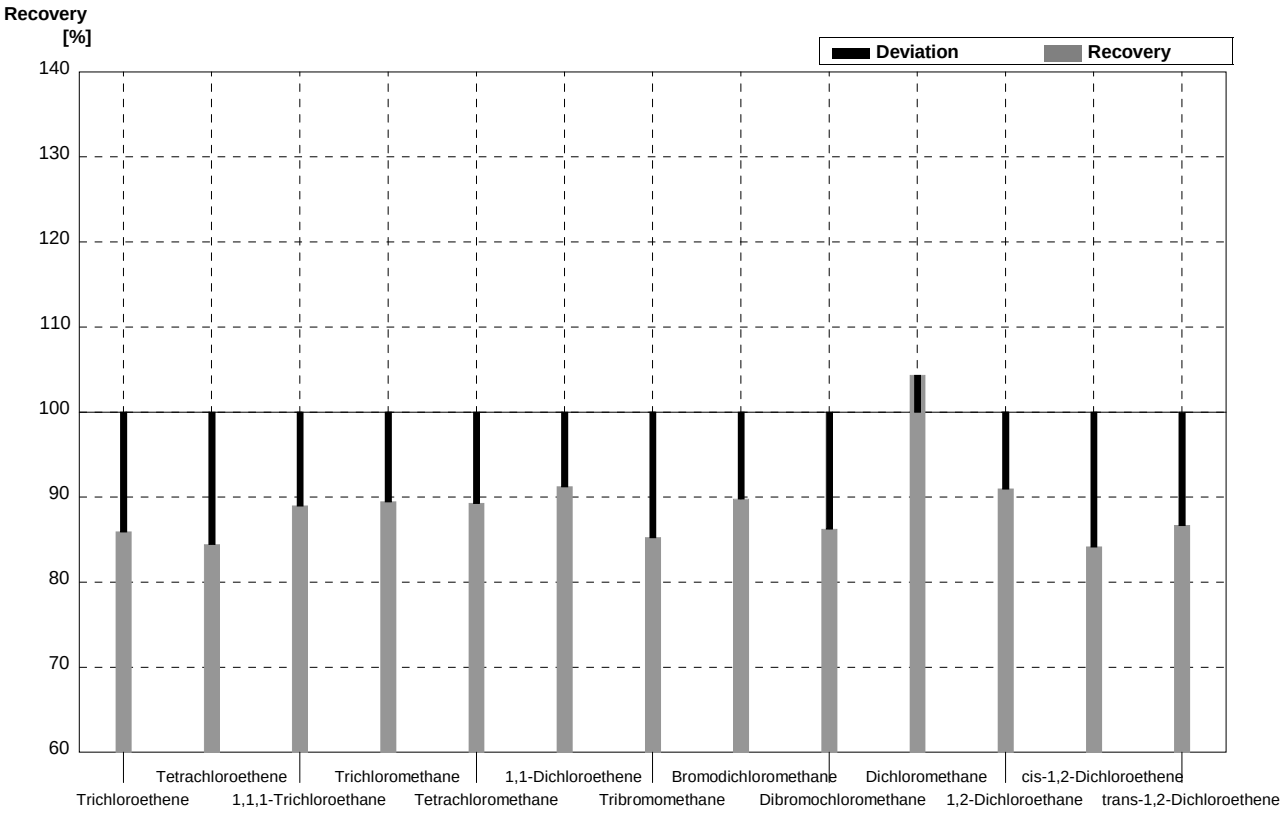
Sample C52A
Laboratory S

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,1		µg/l	•
Tetrachloroethene	0,48	0,02	0,48	0,05	µg/l	100%
1,1,1-Trichloroethane	0,24	0,01	0,23	0,02	µg/l	96%
Trichloromethane	0,35	0,02	0,32	0,03	µg/l	91%
Tetrachloromethane	0,60	0,03	0,55	0,06	µg/l	92%
1,1-Dichloroethene	0,90	0,05	0,84	0,08	µg/l	93%
Tribromomethane	0,48	0,02	0,42	0,04	µg/l	88%
Bromodichloromethane	0,65	0,03	0,60	0,06	µg/l	92%
Dibromochloromethane	1,55	0,08	1,44	0,14	µg/l	93%
Dichloromethane	7,02	0,35	7,72	0,77	µg/l	110%
1,2-Dichloroethane	1,46	0,07	1,30	0,13	µg/l	89%
cis-1,2-Dichloroethene	<0,06		<0,1		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,54	0,05	µg/l	90%



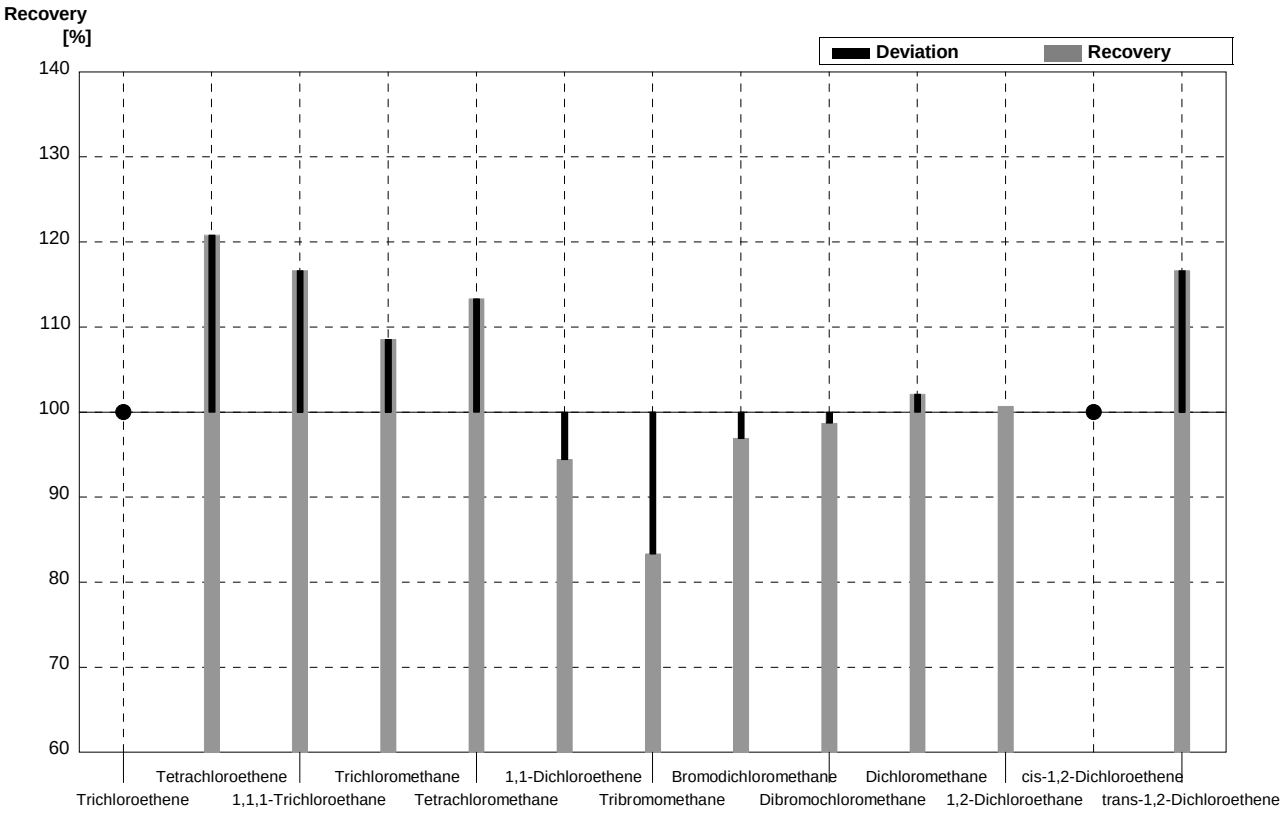
Sample C52B
Laboratory S

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,55	0,06	µg/l	86%
Tetrachloroethene	2,38	0,12	2,01	0,20	µg/l	84%
1,1,1-Trichloroethane	1,18	0,06	1,05	0,11	µg/l	89%
Trichloromethane	1,14	0,06	1,02	0,10	µg/l	89%
Tetrachloromethane	2,71	0,14	2,42	0,24	µg/l	89%
1,1-Dichloroethene	3,43	0,17	3,13	0,31	µg/l	91%
Tribromomethane	0,95	0,05	0,81	0,08	µg/l	85%
Bromodichloromethane	0,98	0,05	0,88	0,09	µg/l	90%
Dibromochloromethane	0,80	0,04	0,69	0,07	µg/l	86%
Dichloromethane	2,52	0,13	2,63	0,26	µg/l	104%
1,2-Dichloroethane	3,22	0,16	2,93	0,29	µg/l	91%
cis-1,2-Dichloroethene	1,20	0,06	1,01	0,10	µg/l	84%
trans-1,2-Dichloroethene	2,78	0,14	2,41	0,24	µg/l	87%



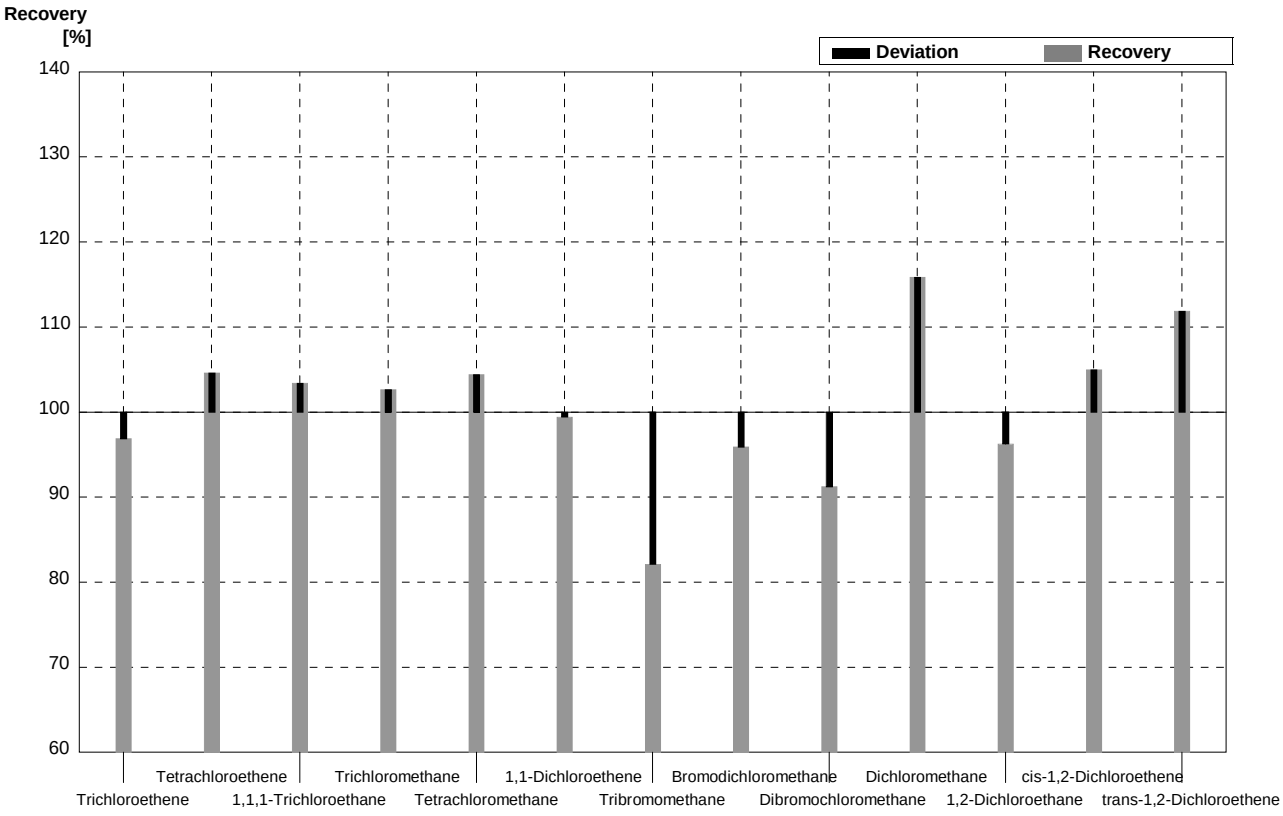
Sample C52A
Laboratory T

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,08		µg/l	•
Tetrachloroethene	0,48	0,02	0,58	0,06	µg/l	121%
1,1,1-Trichloroethane	0,24	0,01	0,28	0,03	µg/l	117%
Trichloromethane	0,35	0,02	0,38	0,04	µg/l	109%
Tetrachloromethane	0,60	0,03	0,68	0,07	µg/l	113%
1,1-Dichloroethene	0,90	0,05	0,85	0,09	µg/l	94%
Tribromomethane	0,48	0,02	0,40	0,04	µg/l	83%
Bromodichloromethane	0,65	0,03	0,63	0,06	µg/l	97%
Dibromochloromethane	1,55	0,08	1,53	0,15	µg/l	99%
Dichloromethane	7,02	0,35	7,17	0,70	µg/l	102%
1,2-Dichloroethane	1,46	0,07	1,47	0,15	µg/l	101%
cis-1,2-Dichloroethene	<0,06		<0,2		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,70	0,07	µg/l	117%



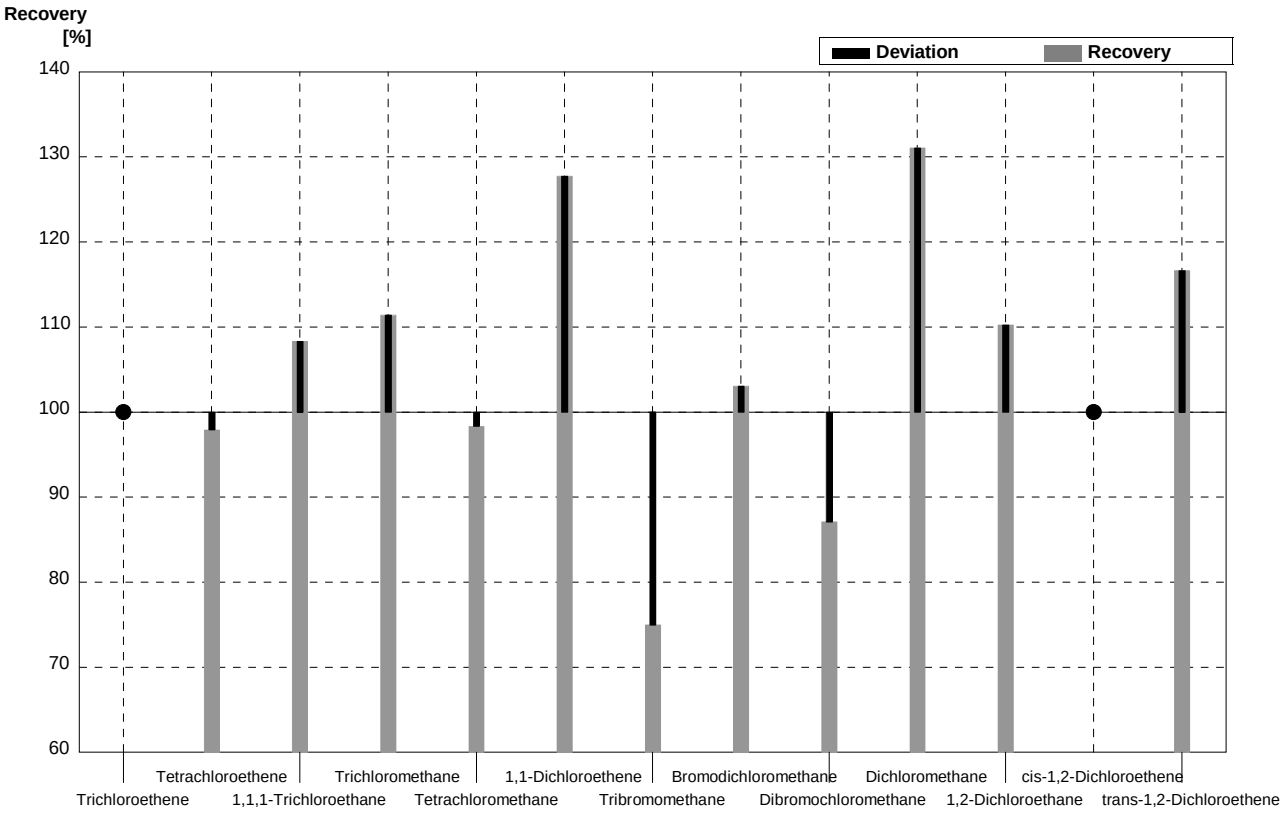
Sample C52B
Laboratory T

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,62	0,06	µg/l	97%
Tetrachloroethene	2,38	0,12	2,49	0,25	µg/l	105%
1,1,1-Trichloroethane	1,18	0,06	1,22	0,10	µg/l	103%
Trichloromethane	1,14	0,06	1,17	0,10	µg/l	103%
Tetrachloromethane	2,71	0,14	2,83	0,30	µg/l	104%
1,1-Dichloroethene	3,43	0,17	3,41	0,30	µg/l	99%
Tribromomethane	0,95	0,05	0,78	0,08	µg/l	82%
Bromodichloromethane	0,98	0,05	0,94	0,09	µg/l	96%
Dibromochloromethane	0,80	0,04	0,73	0,07	µg/l	91%
Dichloromethane	2,52	0,13	2,92	0,30	µg/l	116%
1,2-Dichloroethane	3,22	0,16	3,10	0,30	µg/l	96%
cis-1,2-Dichloroethene	1,20	0,06	1,26	0,15	µg/l	105%
trans-1,2-Dichloroethene	2,78	0,14	3,11	0,30	µg/l	112%



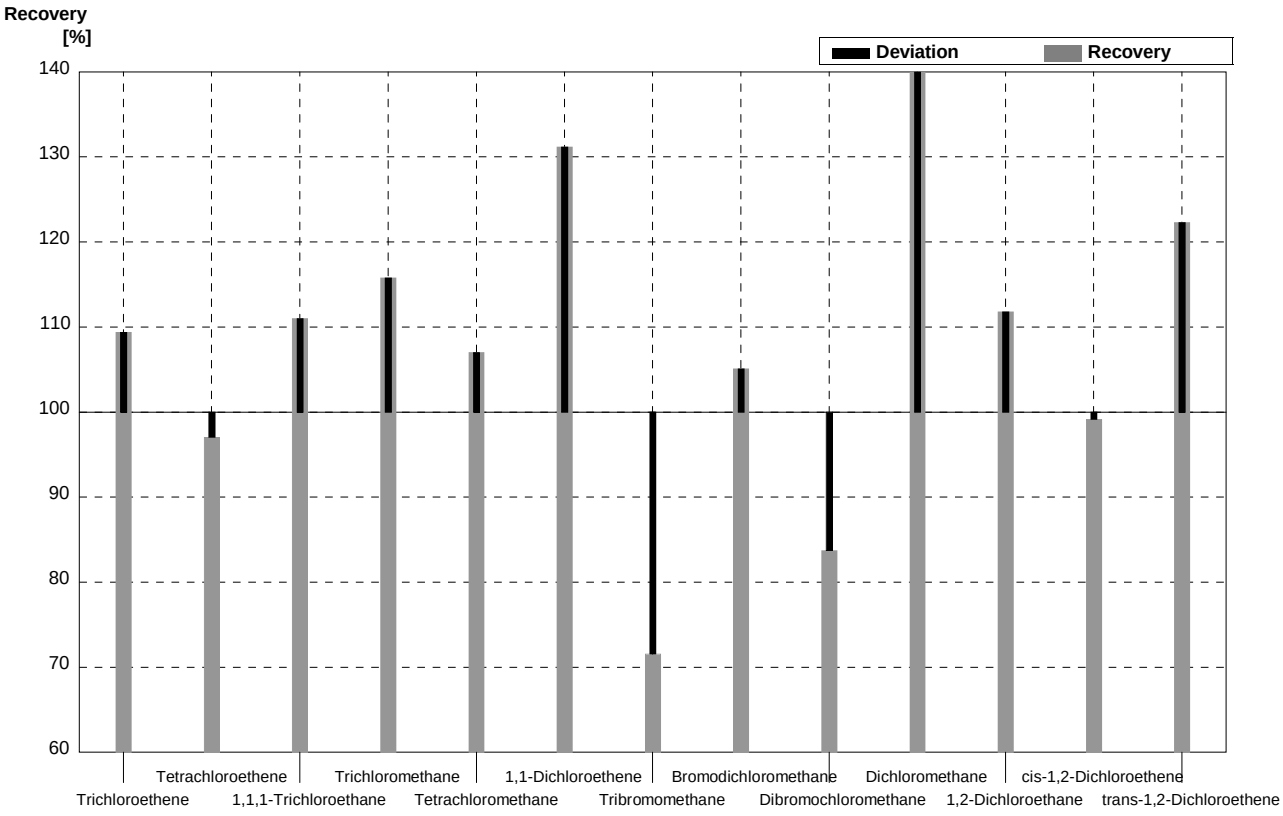
Sample C52A
Laboratory U

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,05		µg/l	•
Tetrachloroethene	0,48	0,02	0,47	0,2	µg/l	98%
1,1,1-Trichloroethane	0,24	0,01	0,26	0,11	µg/l	108%
Trichloromethane	0,35	0,02	0,39	0,17	µg/l	111%
Tetrachloromethane	0,60	0,03	0,59	0,25	µg/l	98%
1,1-Dichloroethene	0,90	0,05	1,15	0,48	µg/l	128%
Tribromomethane	0,48	0,02	0,36	0,16	µg/l	75%
Bromodichloromethane	0,65	0,03	0,67	0,28	µg/l	103%
Dibromochloromethane	1,55	0,08	1,35	0,56	µg/l	87%
Dichloromethane	7,02	0,35	9,20	4,2	µg/l	131%
1,2-Dichloroethane	1,46	0,07	1,61	0,66	µg/l	110%
cis-1,2-Dichloroethene	<0,06		<0,05		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,7	0,3	µg/l	117%



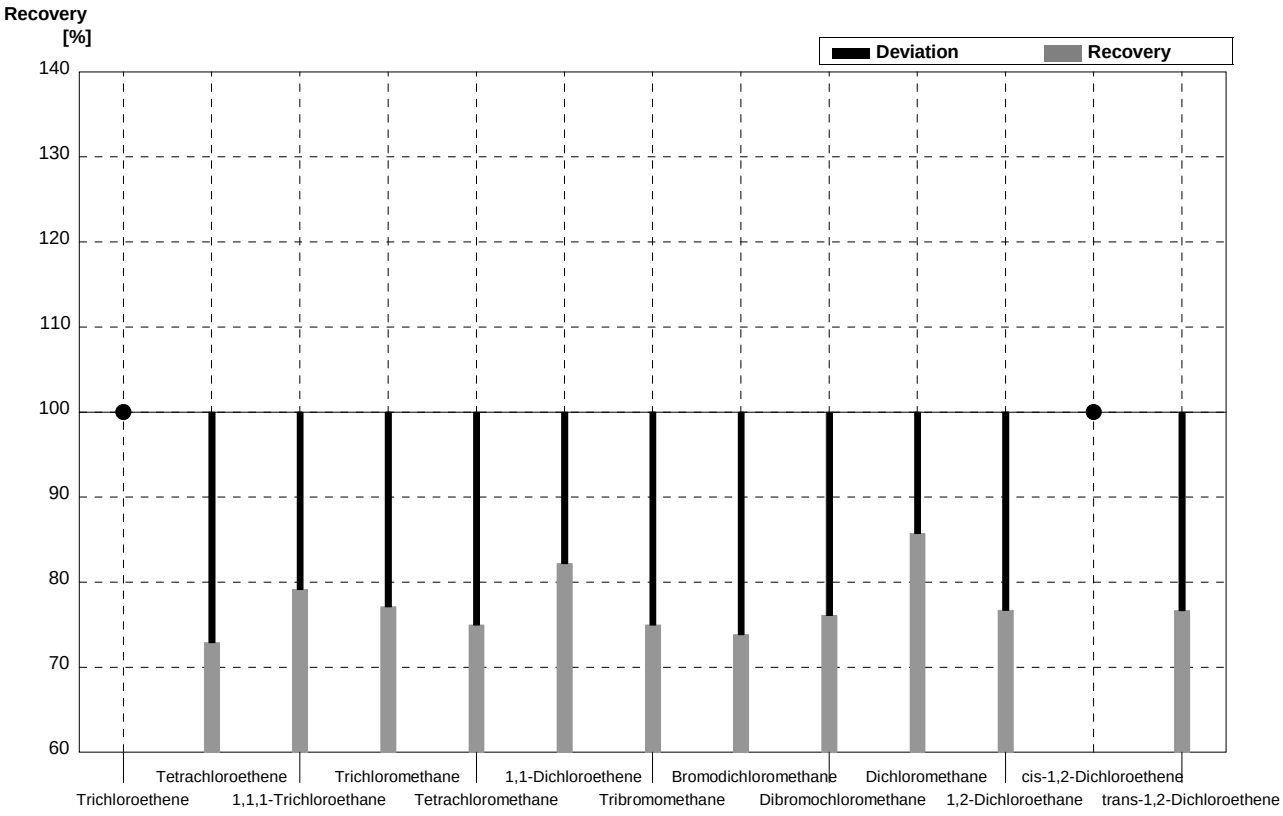
Sample C52B
Laboratory U

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,7	0,30	µg/l	109%
Tetrachloroethene	2,38	0,12	2,31	0,95	µg/l	97%
1,1,1-Trichloroethane	1,18	0,06	1,31	0,54	µg/l	111%
Trichloromethane	1,14	0,06	1,32	0,54	µg/l	116%
Tetrachloromethane	2,71	0,14	2,9	1,2	µg/l	107%
1,1-Dichloroethene	3,43	0,17	4,5	1,9	µg/l	131%
Tribromomethane	0,95	0,05	0,68	0,3	µg/l	72%
Bromodichloromethane	0,98	0,05	1,03	0,43	µg/l	105%
Dibromochloromethane	0,80	0,04	0,67	0,28	µg/l	84%
Dichloromethane	2,52	0,13	3,8	1,7	µg/l	151%
1,2-Dichloroethane	3,22	0,16	3,6	1,5	µg/l	112%
cis-1,2-Dichloroethene	1,20	0,06	1,19	0,49	µg/l	99%
trans-1,2-Dichloroethene	2,78	0,14	3,4	1,5	µg/l	122%



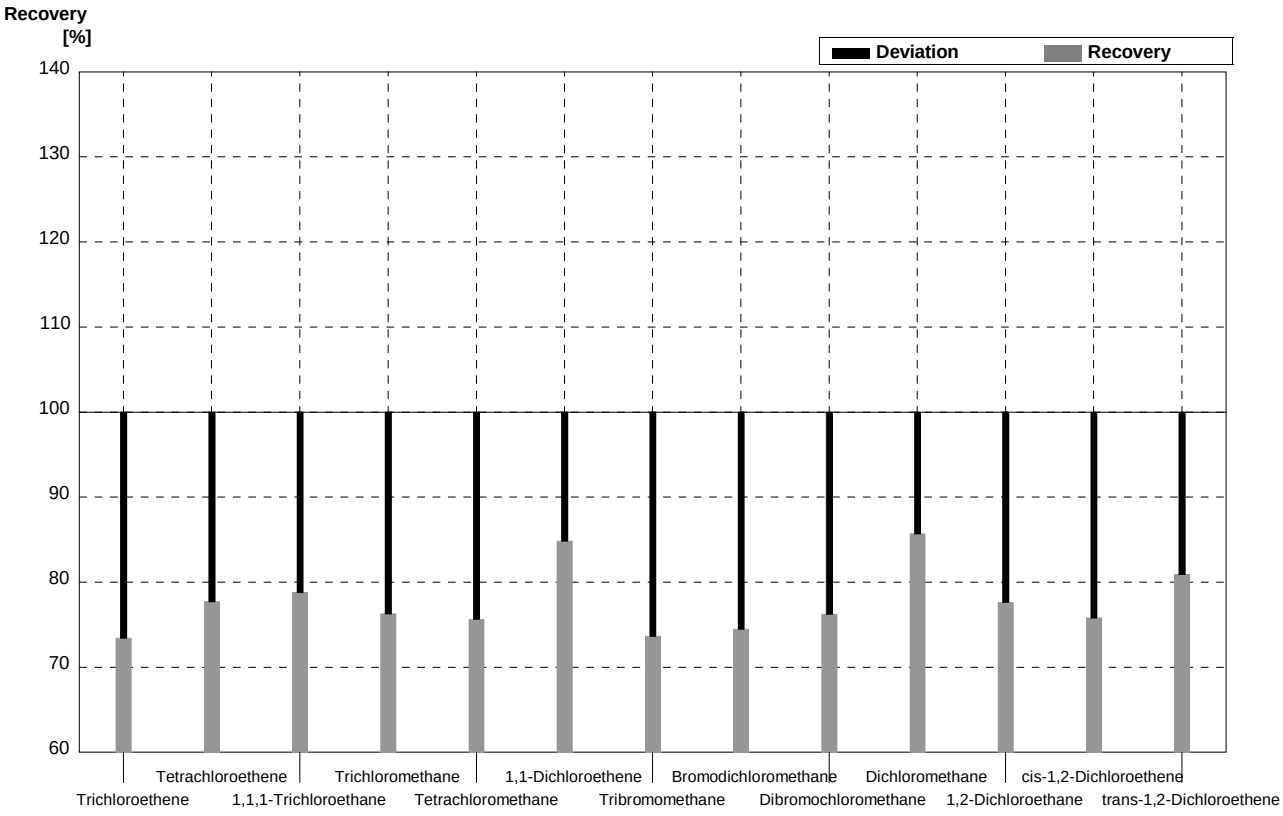
Sample C52A
Laboratory V

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,05		µg/l	•
Tetrachloroethene	0,48	0,02	0,35	0,07	µg/l	73%
1,1,1-Trichloroethane	0,24	0,01	0,19	0,04	µg/l	79%
Trichloromethane	0,35	0,02	0,27	0,05	µg/l	77%
Tetrachloromethane	0,60	0,03	0,45	0,09	µg/l	75%
1,1-Dichloroethene	0,90	0,05	0,74	0,15	µg/l	82%
Tribromomethane	0,48	0,02	0,36	0,07	µg/l	75%
Bromodichloromethane	0,65	0,03	0,48	0,1	µg/l	74%
Dibromochloromethane	1,55	0,08	1,18	0,24	µg/l	76%
Dichloromethane	7,02	0,35	6,02	1,20	µg/l	86%
1,2-Dichloroethane	1,46	0,07	1,12	0,22	µg/l	77%
cis-1,2-Dichloroethene	<0,06		<0,05		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,46	0,09	µg/l	77%



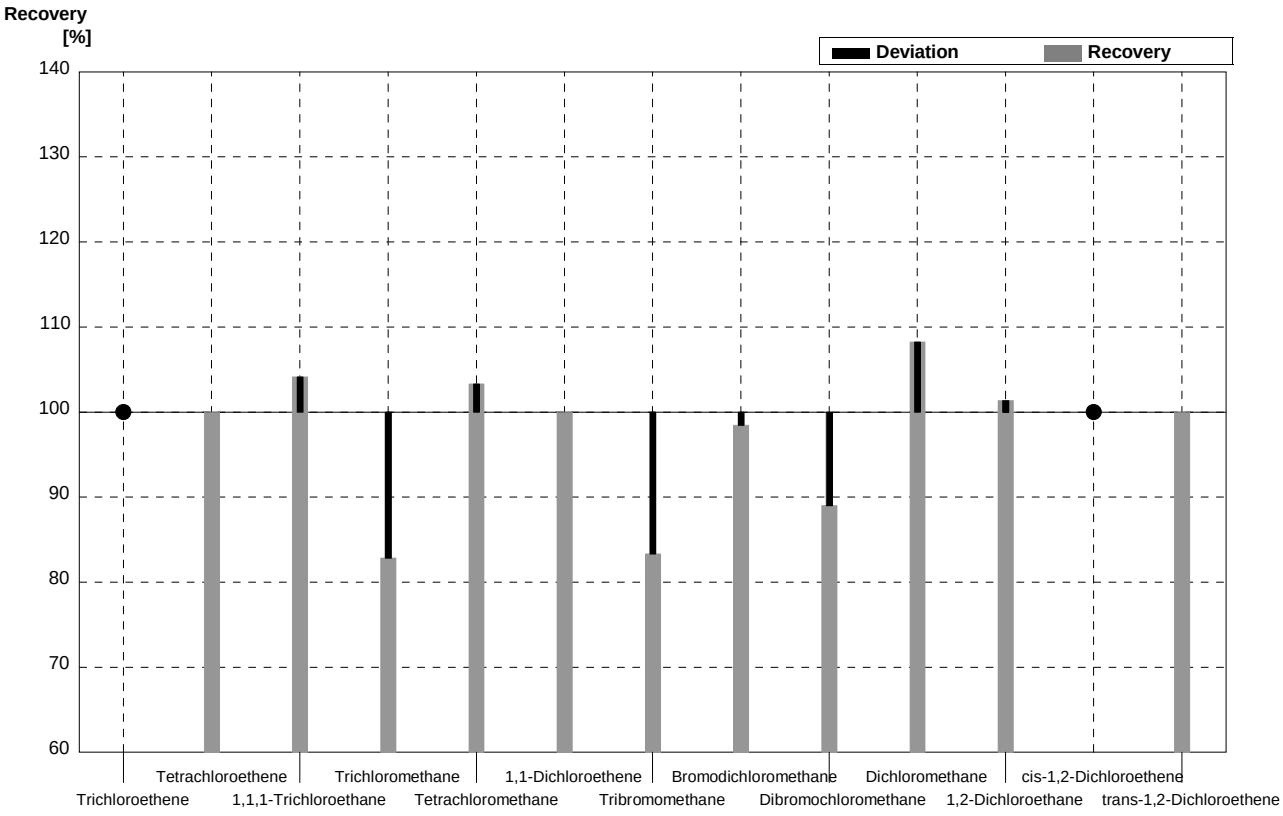
Sample C52B
Laboratory V

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,47	0,09	µg/l	73%
Tetrachloroethene	2,38	0,12	1,85	0,37	µg/l	78%
1,1,1-Trichloroethane	1,18	0,06	0,93	0,19	µg/l	79%
Trichloromethane	1,14	0,06	0,87	0,17	µg/l	76%
Tetrachloromethane	2,71	0,14	2,05	0,41	µg/l	76%
1,1-Dichloroethene	3,43	0,17	2,91	0,58	µg/l	85%
Tribromomethane	0,95	0,05	0,70	0,14	µg/l	74%
Bromodichloromethane	0,98	0,05	0,73	0,15	µg/l	74%
Dibromochloromethane	0,80	0,04	0,61	0,12	µg/l	76%
Dichloromethane	2,52	0,13	2,16	0,43	µg/l	86%
1,2-Dichloroethane	3,22	0,16	2,50	0,50	µg/l	78%
cis-1,2-Dichloroethene	1,20	0,06	0,91	0,18	µg/l	76%
trans-1,2-Dichloroethene	2,78	0,14	2,25	0,45	µg/l	81%



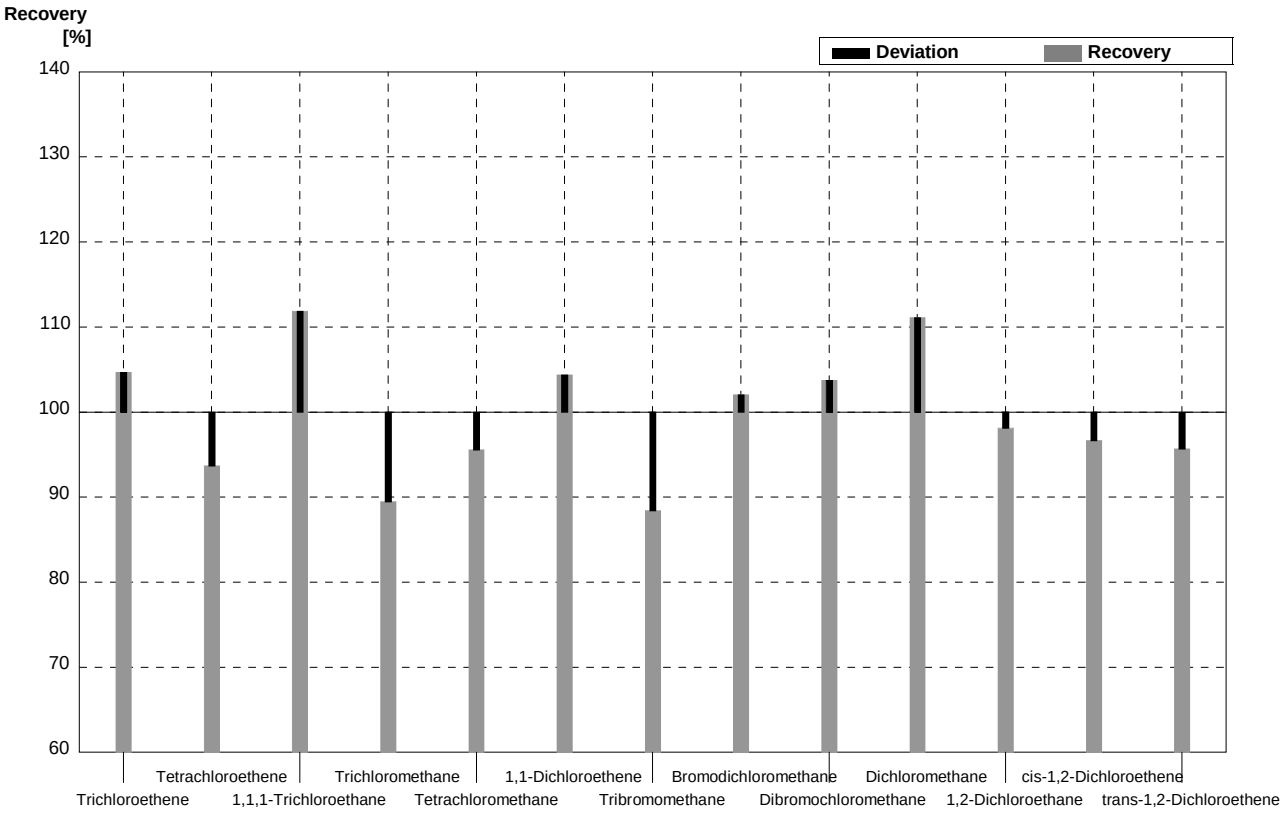
Sample C52A
Laboratory W

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,05		µg/l	•
Tetrachloroethene	0,48	0,02	0,48	0,024	µg/l	100%
1,1,1-Trichloroethane	0,24	0,01	0,25	0,006	µg/l	104%
Trichloromethane	0,35	0,02	0,29	0,014	µg/l	83%
Tetrachloromethane	0,60	0,03	0,62	0,032	µg/l	103%
1,1-Dichloroethene	0,90	0,05	0,90	0,027	µg/l	100%
Tribromomethane	0,48	0,02	0,40	0,009	µg/l	83%
Bromodichloromethane	0,65	0,03	0,64	0,123	µg/l	98%
Dibromochloromethane	1,55	0,08	1,38	0,048	µg/l	89%
Dichloromethane	7,02	0,35	7,6	0,65	µg/l	108%
1,2-Dichloroethane	1,46	0,07	1,48	0,071	µg/l	101%
cis-1,2-Dichloroethene	<0,06		<0,5		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,60	0,086	µg/l	100%



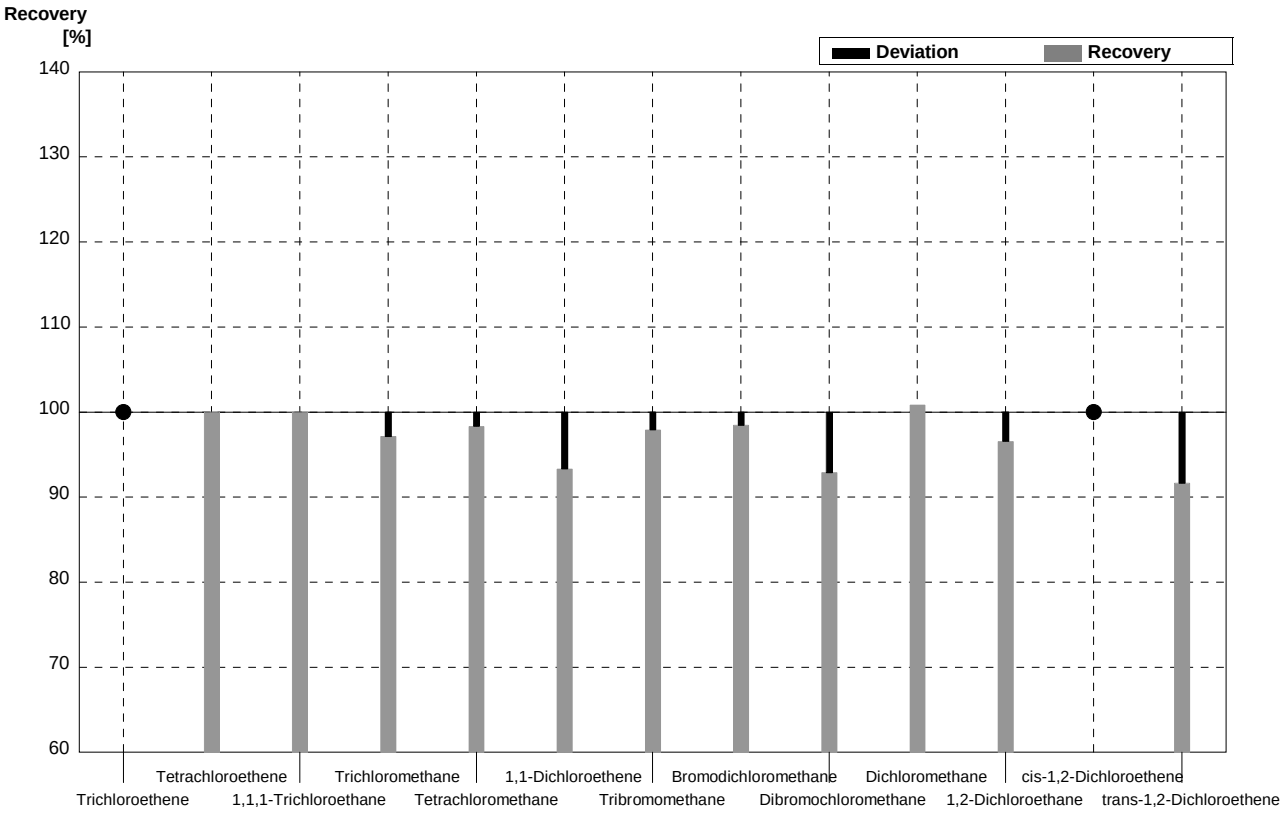
Sample C52B
Laboratory W

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,67	0,060	µg/l	105%
Tetrachloroethene	2,38	0,12	2,23	0,087	µg/l	94%
1,1,1-Trichloroethane	1,18	0,06	1,32	0,087	µg/l	112%
Trichloromethane	1,14	0,06	1,02	0,050	µg/l	89%
Tetrachloromethane	2,71	0,14	2,59	0,107	µg/l	96%
1,1-Dichloroethene	3,43	0,17	3,58	0,199	µg/l	104%
Tribromomethane	0,95	0,05	0,84	0,034	µg/l	88%
Bromodichloromethane	0,98	0,05	1,00	0,110	µg/l	102%
Dibromochloromethane	0,80	0,04	0,83	0,047	µg/l	104%
Dichloromethane	2,52	0,13	2,8	0,53	µg/l	111%
1,2-Dichloroethane	3,22	0,16	3,16	0,108	µg/l	98%
cis-1,2-Dichloroethene	1,20	0,06	1,16	0,120	µg/l	97%
trans-1,2-Dichloroethene	2,78	0,14	2,66	0,09	µg/l	96%



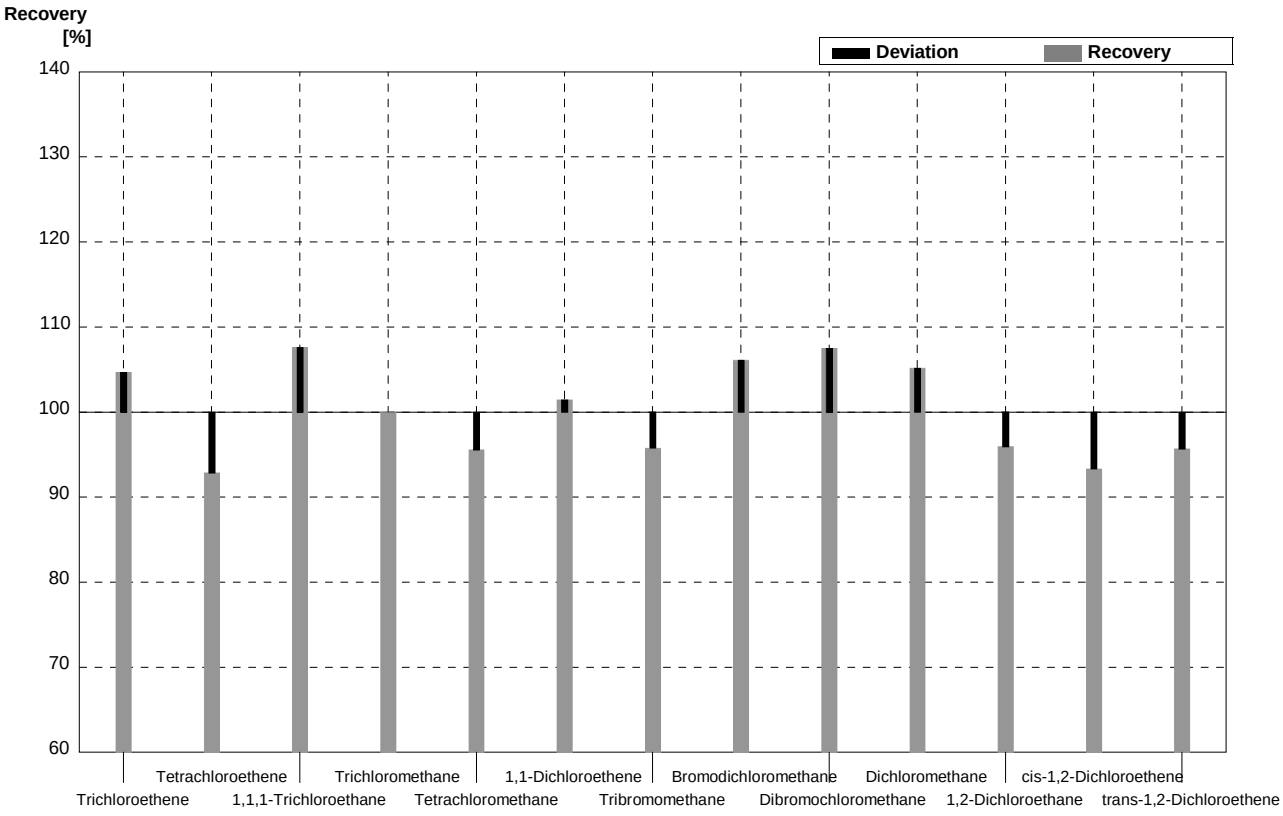
Sample C52A
Laboratory X

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,03		µg/l	•
Tetrachloroethene	0,48	0,02	0,48	0,10	µg/l	100%
1,1,1-Trichloroethane	0,24	0,01	0,24	0,05	µg/l	100%
Trichloromethane	0,35	0,02	0,34	0,07	µg/l	97%
Tetrachloromethane	0,60	0,03	0,59	0,12	µg/l	98%
1,1-Dichloroethene	0,90	0,05	0,84	0,17	µg/l	93%
Tribromomethane	0,48	0,02	0,47	0,09	µg/l	98%
Bromodichloromethane	0,65	0,03	0,64	0,13	µg/l	98%
Dibromochloromethane	1,55	0,08	1,44	0,29	µg/l	93%
Dichloromethane	7,02	0,35	7,08	1,42	µg/l	101%
1,2-Dichloroethane	1,46	0,07	1,41	0,28	µg/l	97%
cis-1,2-Dichloroethene	<0,06		<0,06		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,55	0,11	µg/l	92%



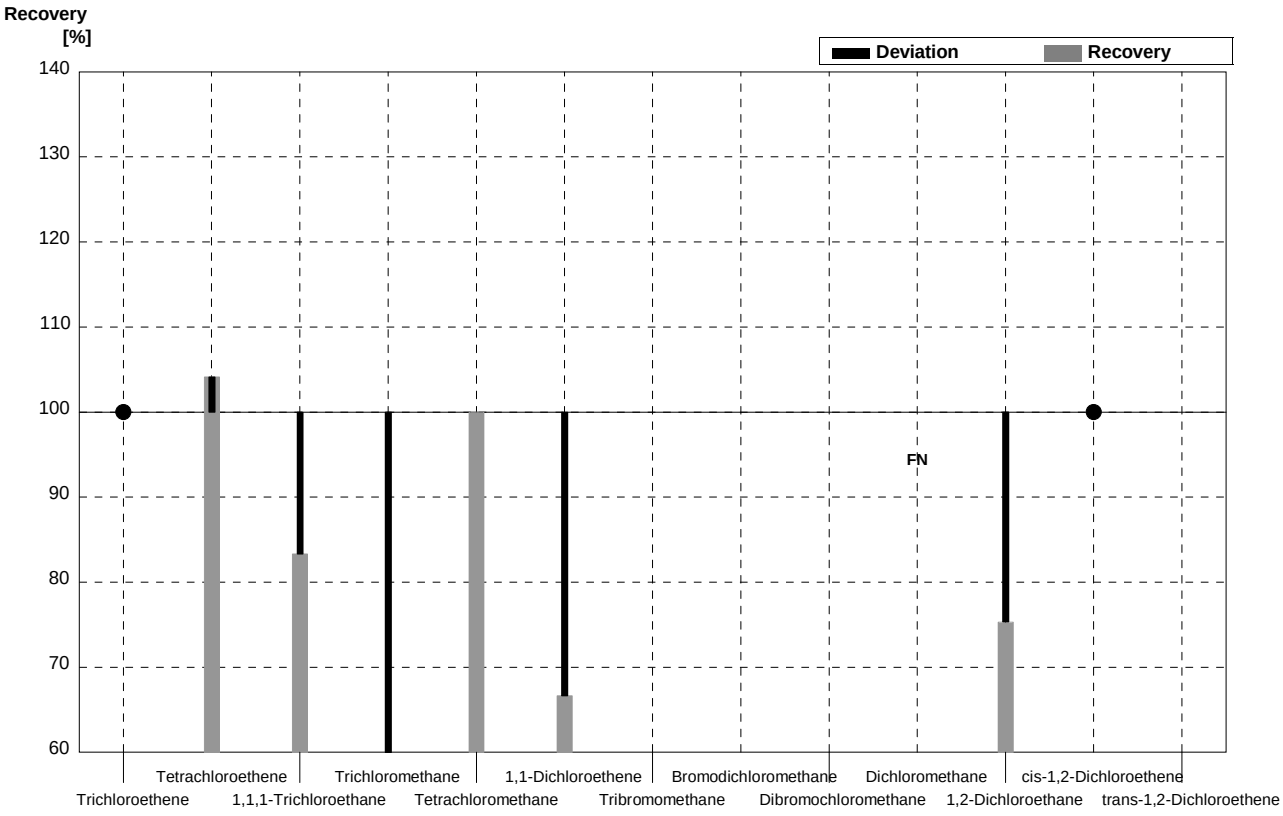
Sample C52B
Laboratory X

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,67	0,13	µg/l	105%
Tetrachloroethene	2,38	0,12	2,21	0,44	µg/l	93%
1,1,1-Trichloroethane	1,18	0,06	1,27	0,25	µg/l	108%
Trichloromethane	1,14	0,06	1,14	0,23	µg/l	100%
Tetrachloromethane	2,71	0,14	2,59	0,52	µg/l	96%
1,1-Dichloroethene	3,43	0,17	3,48	0,70	µg/l	101%
Tribromomethane	0,95	0,05	0,91	0,18	µg/l	96%
Bromodichloromethane	0,98	0,05	1,04	0,21	µg/l	106%
Dibromochloromethane	0,80	0,04	0,86	0,17	µg/l	108%
Dichloromethane	2,52	0,13	2,65	0,53	µg/l	105%
1,2-Dichloroethane	3,22	0,16	3,09	0,62	µg/l	96%
cis-1,2-Dichloroethene	1,20	0,06	1,12	0,22	µg/l	93%
trans-1,2-Dichloroethene	2,78	0,14	2,66	0,53	µg/l	96%



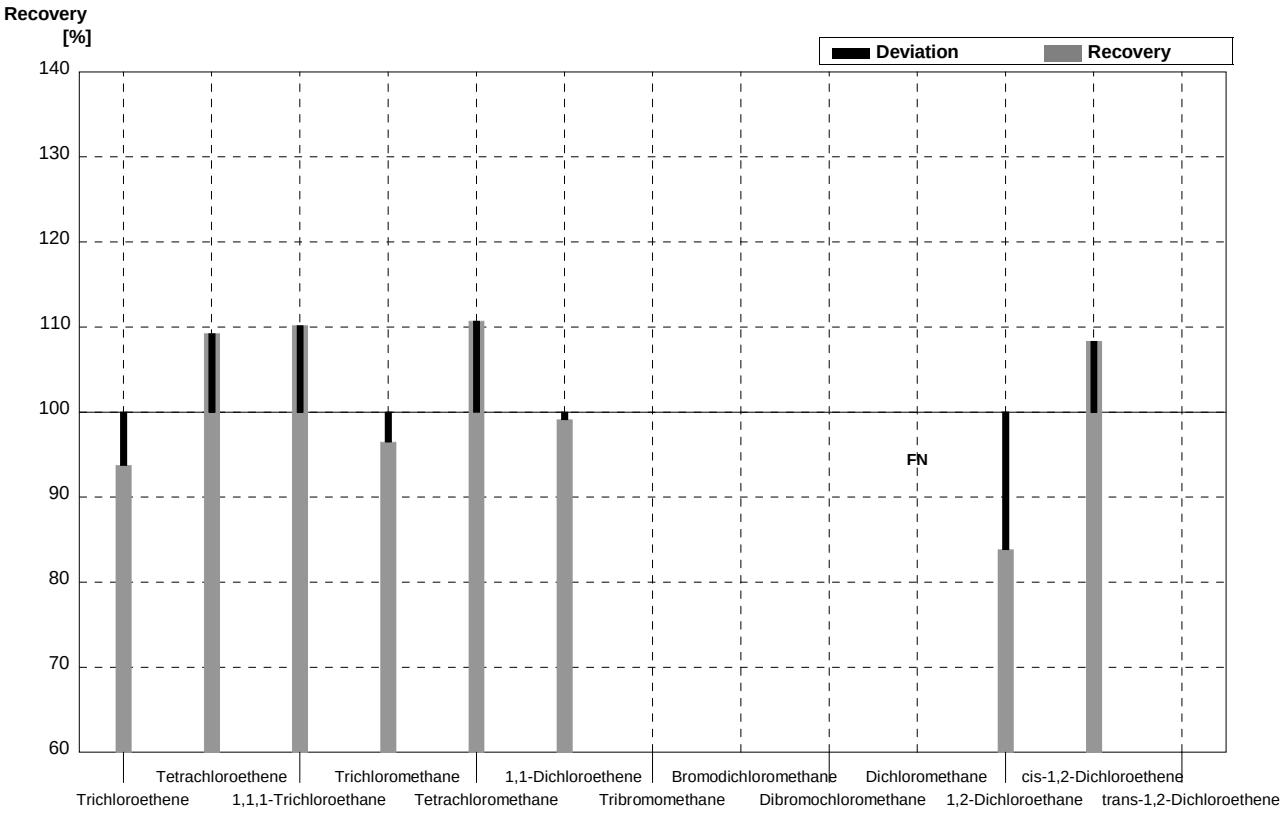
Sample C52A
Laboratory Y

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,2	0,02	µg/l	•
Tetrachloroethene	0,48	0,02	0,5	0,05	µg/l	104%
1,1,1-Trichloroethane	0,24	0,01	0,2	0,02	µg/l	83%
Trichloromethane	0,35	0,02	0,2	0,02	µg/l	57%
Tetrachloromethane	0,60	0,03	0,6	0,06	µg/l	100%
1,1-Dichloroethene	0,90	0,05	0,6	0,06	µg/l	67%
Tribromomethane	0,48	0,02			µg/l	
Bromodichloromethane	0,65	0,03			µg/l	
Dibromochloromethane	1,55	0,08			µg/l	
Dichloromethane	7,02	0,35	<0,2	0,02	µg/l	FN
1,2-Dichloroethane	1,46	0,07	1,1	0,11	µg/l	75%
cis-1,2-Dichloroethene	<0,06		<0,2	0,02	µg/l	•
trans-1,2-Dichloroethene	0,60	0,03			µg/l	



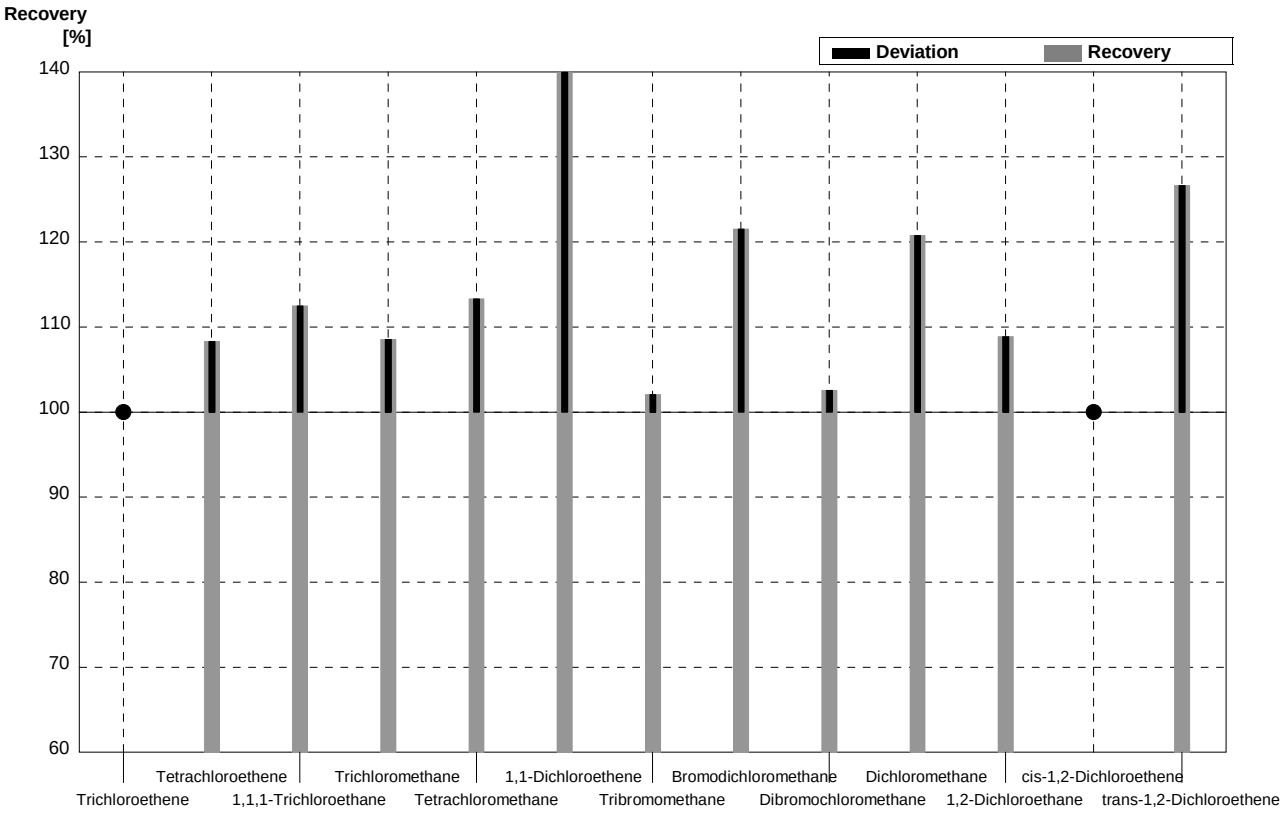
Sample C52B
Laboratory Y

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,6	0,06	µg/l	94%
Tetrachloroethene	2,38	0,12	2,6	0,26	µg/l	109%
1,1,1-Trichloroethane	1,18	0,06	1,3	0,13	µg/l	110%
Trichloromethane	1,14	0,06	1,1	0,11	µg/l	96%
Tetrachloromethane	2,71	0,14	3,0	0,30	µg/l	111%
1,1-Dichloroethene	3,43	0,17	3,4	0,34	µg/l	99%
Tribromomethane	0,95	0,05			µg/l	
Bromodichloromethane	0,98	0,05			µg/l	
Dibromochloromethane	0,80	0,04			µg/l	
Dichloromethane	2,52	0,13	<0,2	0,02	µg/l	FN
1,2-Dichloroethane	3,22	0,16	2,70	0,27	µg/l	84%
cis-1,2-Dichloroethene	1,20	0,06	1,3	0,13	µg/l	108%
trans-1,2-Dichloroethene	2,78	0,14			µg/l	



Sample C52A
Laboratory Z

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	<0,08		<0,030		µg/l	•
Tetrachloroethene	0,48	0,02	0,52	0,10	µg/l	108%
1,1,1-Trichloroethane	0,24	0,01	0,27	0,054	µg/l	113%
Trichloromethane	0,35	0,02	0,38	0,076	µg/l	109%
Tetrachloromethane	0,60	0,03	0,68	0,14	µg/l	113%
1,1-Dichloroethene	0,90	0,05	1,26	0,26	µg/l	140%
Tribromomethane	0,48	0,02	0,49	0,098	µg/l	102%
Bromodichloromethane	0,65	0,03	0,79	0,16	µg/l	122%
Dibromochloromethane	1,55	0,08	1,59	0,32	µg/l	103%
Dichloromethane	7,02	0,35	8,48	1,7	µg/l	121%
1,2-Dichloroethane	1,46	0,07	1,59	0,32	µg/l	109%
cis-1,2-Dichloroethene	<0,06		<0,030		µg/l	•
trans-1,2-Dichloroethene	0,60	0,03	0,76	0,15	µg/l	127%



Sample C52B
Laboratory Z

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,64	0,03	0,66	0,13	µg/l	103%
Tetrachloroethene	2,38	0,12	2,39	0,48	µg/l	100%
1,1,1-Trichloroethane	1,18	0,06	1,32	0,26	µg/l	112%
Trichloromethane	1,14	0,06	1,25	0,26	µg/l	110%
Tetrachloromethane	2,71	0,14	3,07	0,62	µg/l	113%
1,1-Dichloroethene	3,43	0,17	4,79	0,96	µg/l	140%
Tribromomethane	0,95	0,05	1,01	0,2	µg/l	106%
Bromodichloromethane	0,98	0,05	1,21	0,24	µg/l	123%
Dibromochloromethane	0,80	0,04	0,86	0,17	µg/l	108%
Dichloromethane	2,52	0,13	3,18	0,64	µg/l	126%
1,2-Dichloroethane	3,22	0,16	3,56	0,72	µg/l	111%
cis-1,2-Dichloroethene	1,20	0,06	1,33	0,26	µg/l	111%
trans-1,2-Dichloroethene	2,78	0,14	3,5	0,7	µg/l	126%