

IFA-Proficiency Testing Scheme for Water Analysis

**Round N152
Major Ions**

Sample Dispatch: 25 May 2020





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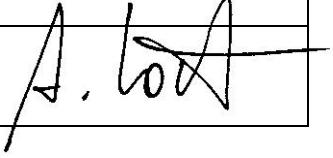
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This report has 141 pages

This report summarises the results of round N152 (major ions) within the IFA-Proficiency Testing Scheme for Water Analysis. The samples N152A and N152B were distributed to the participants on Monday, 25 May 2020. Each participant received two samples of 1000 mL, each filled into two 500 mL PET bottles.

Closing date for reporting results to the IFA-Tulln was Friday, 19 June 2020. 43 laboratories participated in this interlaboratory comparison. 42 participants submitted results. To make the results of this round anonymous, each laboratory was given a laboratory code on a random basis.

Samples

The samples consisted of artificial ground water. For sample preparation, ultrapure water was spiked with solutions of salts and standards in order to simulate the ionic composition of natural Austrian ground water. The following substances were added to the samples: CaCO₃, CaCl₂, Ca(NO₃)₂, MgSO₄, Mg(NO₃)₂, MgCl₂, NaHCO₃, KHCO₃, C₆H₁₅PO₃, potassium hydrogen phthalate (for DOC), sodium salicylate (for KMnO₄-Index) and certified standard solutions of NaNO₂, NH₄Cl, KH₂PO₄ and H₃BO₃. Both samples, N152A and N152B, contained free CO₂, which was used for dissolution of CaCO₃. No other substances (e.g. preservatives) were added. The samples were stabilised by sterile filtration and low temperature.

No phosphorus compounds were added to sample N152A and Ammonium was not added to sample N152B in order to check the analytical blank values.

Homogeneity, accuracy and stability tests at the IFA-Tulln

The samples were checked for homogeneity and accuracy at the IFA-Tulln before dispatch. The results of the measurements are listed in the result tables and the parameter oriented part of the report ("IFA result").

After about four weeks stability tests were carried out on DOC, NH₄⁺, NO₂⁻ and o-PO₄³⁻. The results are also on the result tables ("Stability test") and on the evaluations for each parameter in the parameter oriented part. Stability tests for all other parameters will be carried out together with the accuracy tests of the following round (N153).

According to our experience the samples remain stable up to 18 months for the parameters conductivity, total hardness, alkalinity, Ca²⁺, Mg²⁺, Na⁺, K⁺, NO₃⁻, Cl⁻, SO₄²⁻, Boron and HCO³⁻ when stored at 4°C in the dark. For the parameters NH₄⁺, NO₂⁻, o-PO₄³⁻ total-P and DOC the samples remain stable several weeks, whereas the first changes normally are observed for NH₄⁺.

Results

Data evaluation was based on target concentrations that were calculated from the weights of the substances and standards used to produce the samples. Their uncertainty intervals correspond to the expanded uncertainty (coverage factor k = 2) as described in the EURACHEM/CITAC Guide "Quantifying Uncertainty in Analytical Measurement, 3rd Edition (2012)".

The target value of the electrical conductivity was set to the laboratory mean (conventional value). When calculated from more than 20 results with a standard deviation between the laboratories of about 1%, the conventional value has a confidence interval that is smaller than the uncertainty of our estimate calculated from the target concentrations by Debye-Hückel's theory: 2.4 % (p = 95 %). However, the calculated electrical conductivity was 313 µS/cm in sample N152A and 573 µS/cm in sample N152B.

For the pH no target values can be assigned. The results can be compared on the tables. In this kind of samples containing CO₂, the pH tends to increase slowly over time.

Total phosphorus after digestion had to be determined according to DIN EN ISO 6878. Diethyl ethylphosphonate ($C_6H_{15}PO_3$), which can be determined as phosphate only after oxidative digestion and potassium dihydrogen phosphate (KH_2PO_4) were used for preparation. The target values of total-P were calculated from the weights of the two substances. The results were given in mg/L o- PO_4^{3-} .

The concentrations of sodium salicylate, which was used as standard substance for the KMnO₄-Index, were 2.02 mg/L in sample N152A and 3.03 mg/L in sample N152B. Assuming complete oxidation to carbon dioxide, nitrate and water (considering nitrite and ammonium), the theoretical values were 2.85 mg/L O₂ (N152A) and 4.25 mg/L O₂ (N152B). However, the laboratory mean values were taken as reference values in this report: 2.74 mg/L O₂ for N152A and 3.95 mg/L O₂ for N152B.

Recoveries for individual laboratory results and overall mean values are related to the target concentrations. The results were tested for outliers by application of the Hampel outlier test (level of significance 99 %).

In order to check the analytical blank values, target concentrations were set to <0.01 mg/L NH₄⁺ in N152B and <0.009 mg/L o- PO_4^{3-} and <0.009 mg/L total-P (as PO₄³⁻) in N152A, 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.

The recoveries of the target concentrations, calculated from outlier-corrected data mean values ranged between 95.4 % (boron in sample N152 A and N152B) and 103.4 % (DOC in sample N152A).

The between laboratory CVs covered the range between 1.4 % (conductivity in sample N152B) and 12.2 % (ammonium in sample N152A).

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

$$z = \frac{x_i - X}{\sigma_{PT}}$$

z z-score
x_i result of laboratory
X target value or mean value („consensus value“)
 σ_{PT} standard deviation for proficiency assessment

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 have been organised by the IFA-Tulln from 2009 to 2019. They represent average performance data of all former participating laboratories.

This approach was chosen, because standard deviations of the outlier-corrected measurements substantially vary between individual proficiency test rounds. Averaging standard deviations from proficiency testing rounds of several years can provide standard deviations for proficiency assessment on a broad data basis. It is therefore more suitable than a standard deviation taken directly from the interlaboratory comparison (EN ISO/IEC 17043:2010, B.3.1.3). Another advantage of previously determined standard deviations is that the participants can foresee which z-scores can be expected by their routine analysis methods before participation.

Calculation example:

A laboratory found 7.00 mg/L for the parameter DOC (recovery of 116%). The target value for the DOC was 6.02 mg/L (100%). The relative standard deviation for proficiency assessment is given in the table below (as well as in the annual program www.ifatest.eu) by 6.0%, which is 0.36 mg/L DOC, when based on the target value.

$$z = \frac{x_i - X}{\sigma_{pt}} = \frac{7.00 \text{ mg/L} - 6.02 \text{ mg/L}}{0.36 \text{ mg/L}} = 2.7 \quad \text{or} \quad \frac{116\% - 100\%}{6.0\%} = 2.7$$

z z-score

x_i 7.00 mg/L equivalent to 116% (value of the laboratory)

X 6.02 mg/L equivalent to 100% (target value)

σ_{pt} 0.36 mg/L equivalent to 6.0% (standard deviation for proficiency assessment, see table below)

In the case of recalculation, deviations in the last digits may occur due to the fact that rounded values are given in the report for clarity.

The z-scores are given in the parameter-oriented evaluation in the tables next to the recoveries. Additionally, each laboratory receives a sheet on which the obtained z-scores are summarized and graphically represented. On this z-score sheet the criteria are given in concentration units.

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	standard deviation for proficiency assessment	Lower limit
Alkalinity K _{S4.3}	2.1%	0.2 mmol/L
Ammonium	13%	0.01 mg/L
Boron	8.6%	0.012 mg/L
Calcium	3.3%	9 mg/L
Chloride	3.2%	2 mg/L
el. Conductivity	1.3%	50 µS/cm
DOC	6.0%	1 mg/L
Hydrogen carbonate	2.5%	20 mg/L
KMnO ₄ -Index	10%	1 mg/L
Magnesium	3.6%	1 mg/L
Nitrate	3.4%	2 mg/L
Nitrite	5.8%	0.01 mg/L
Orthophosphate	10%	0.015 mg/L
Potassium	4.7%	0.5 mg/L
Sodium	3.4%	1 mg/L
Sulphate	3.1%	3 mg/L
Total hardness	2.8%	0.1 mmol/L
Total-P (as PO ₄ ³⁻)	11%	0.015 mg/L

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

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

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.

Illustration of results

An explanation to the illustration of the results is given on the following page.

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. 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 values. The uncertainty intervals correspond to the expanded uncertainty (coverage factor $k = 2$) as described in the EURACHEM / CITAC Guide "Quantifying Uncertainty in Analytical Measurement", 3rd Edition (2012)". 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 only be obtained for compounds that were evaluated on the basis of a “< target value”. A result is termed FP if it does not include (strike) the “< target” with its measurement uncertainty.
- “•”: All other results for which no recoveries can be calculated are illustrated by this symbol

Tulln, 26 June 2020

EXPLANATION

Sample M106A

Parameter Copper

Target value $\pm U$ ($k=2$) $4,79 \mu\text{g/l} \pm 0,13 \mu\text{g/l}$

IFA result $\pm U$ ($k=2$) $4,79 \mu\text{g/l} \pm 0,38 \mu\text{g/l}$

Stability test $\pm U$ ($k=2$) $4,69 \mu\text{g/l} \pm 0,38 \mu\text{g/l}$

Obtained from sample preparation, U =uncertainty

Determined at IFA prior to shipment of samples

Determined at IFA 3 weeks after sample dispatch

Lab Code	Result	\pm	Unit	Recovery	z-Score
A	5.16	0.4128	$\mu\text{g/l}$	108%	0.90
B	4.22	0.42	$\mu\text{g/l}$	88%	-1.38
C	4.45	0.13	$\mu\text{g/l}$	93%	-0.83
D			$\mu\text{g/l}$		
E			$\mu\text{g/l}$		
F	4.10	0.08	$\mu\text{g/l}$	86%	-1.68
G			$\mu\text{g/l}$		
H			$\mu\text{g/l}$		
I	4.75	0.74	$\mu\text{g/l}$	99%	-0.10
J	<5		$\mu\text{g/l}$	*	
K	4.76		$\mu\text{g/l}$	99%	-0.07
L	<10		$\mu\text{g/l}$	*	
M	4.8	0.5	$\mu\text{g/l}$	100%	0.02
N	3.7	0.4	$\mu\text{g/l}$	77%	-2.65
O	4.47	0.447	$\mu\text{g/l}$	93%	-0.78
P	6.0		$\mu\text{g/l}$	125%	2.94
Q	4.17	0.2	$\mu\text{g/l}$	87%	-1.51
R	4.6	0.8	$\mu\text{g/l}$	96%	-0.46
S	4.44	0.67	$\mu\text{g/l}$	93%	-0.85
T			$\mu\text{g/l}$		
U	4.675	0.935	$\mu\text{g/l}$	98%	-0.28
V	5.0	0.50	$\mu\text{g/l}$	104%	0.51
W	3.54	0.3	$\mu\text{g/l}$	74%	-3.03
X	7.108	*	$\mu\text{g/l}$	148%	5.63
Y	<10		$\mu\text{g/l}$	*	
Z			$\mu\text{g/l}$		
AA	<3.0		$\mu\text{g/l}$	FN	
AB	3.775	0.107	$\mu\text{g/l}$	79%	-2.46
AC	<10.0		$\mu\text{g/l}$	*	

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 \pm CI(99%)	$4,65 \pm 0,57$	$4,51 \pm 0,42$	$\mu\text{g/l}$
Recov. \pm CI(99%)	$97,1 \pm 12,0$	$94,1 \pm 8,8$	%
SD between labs	0.84	0.59	$\mu\text{g/l}$
RSD between labs	18.1	13.2	%
n for calculation	18	17	

Between laboratory standard deviation

Laboratory mean and recovery of target value with corresponding confidence intervals ($p=99\%$)

Number of results used for calculation of statistic parameters



Diagram 1: Measurement results and their uncertainties

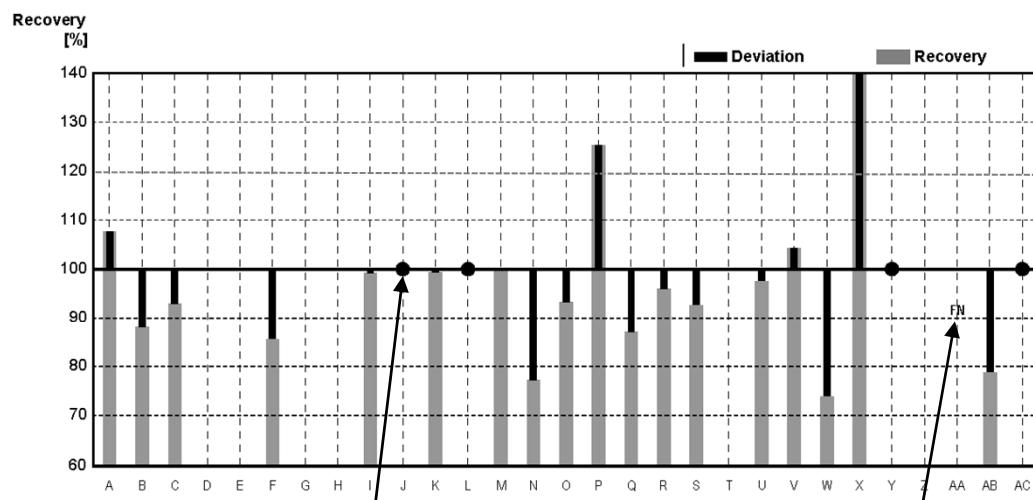


Diagram 2: Recoveries and deviations from target values

Illustration of Results Tables and Parameter Oriented Part

Round N152
Major Ions

Sample Dispatch: 25 May 2020



Results Sample N152A

	pH	Cond.	total-Hardn.	K _{S 4.3}	HCO ₃ ⁻	Ca ²⁺	Mg ²⁺	Na ⁺	K ⁺	NO ₃ ⁻
Unit		µS/cm	mmol/L	mmol/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Target value		315	1.24	1.91	113	37.6	7.29	12.7	2.64	14.0
IFA result	6.32	319	1.24	1.89	112	38.2	7.05	13.6	2.65	13.7
Stability test										
A										
B		319								
C	6.31	321	1.24	1.89	112.0	35.9	8.4	12.2	2.40	14.27
D	6.04		1.22	1.86	113.4	36.6	7.46	12.5	2.69	14.1
E	6.1	317	1.23	1.89	112	37.5	7.25	12.7	2.58	14.0
F	6.3	318	1.27	1.86		38.8	7.44	12.8	2.64	13.7
G	6.38	317	1.29	1.88	111.65	39.57	7.27	12.24	2.59	13.89
H	6.4	318	1.26	1.90	113	38.7	7.3	13.0	2.62	13.7
I	6.14	323	1.23	1.89	112.4	37.32	7.24	11.95	2.89	14.48
J	6.2	313	1.19	1.87						14.4
K	6.06	314		1.89	112					13.7
L	6.34	359				47.4	6.51	12.7	2.12	14.3
M	6.2	318	1.28	1.86	110.4	39.0	7.53	12.8	2.64	13.7
N										14.82
O	6.07	297	6.61	1.87	114	35.4	7.16	14.9	3.33	14.0
P	6.24	315	1.19	1.84	112	36.2	7.00	12.8	2.50	13.9
Q	6.53	308	1.26	1.90	113	38.3	7.39	12.3	2.70	14.5
R	6.5	318		1.88	115					12.7
S	6.3	319	1.25	1.90	113	36.21	7.09	11.79	2.55	14.0
T	6.57	314	1.28	1.934	118.0	39.0	7.5	12.7	2.69	13.9
U	6.19	306	1.25	1.95	119	37.8	7.55	12.4	2.37	13.41
V						38.30	6.52	1347.9	269.49	12.70
W	6.5	314	6.8	1.84	112	36.0	6.3	13.0	1.80	15.2
X	6.26	311	1.21	1.91	114	36.5	7.21	12.7	2.48	14.5
Y	6.3	315	1.26	1.93	118	38.5	7.35	12.3	2.60	13.9
Z	6.43	307.4	4.25	1.702		125.45	27.23			3.22
AA	5.98	315	1.29	1.970	120	40.3	6.9	12.7	2.51	13.7
AB	6.16	316	1.25	1.86	111	38.1	7.27	12.4	2.62	13.6
AC	6.18	320	nb	nb	nb	32.11	2.94	6.12	3.05	8.19
AD	6.1	301	1.19	1.80	109.80	35.70	7.33	11.89	2.48	13.75
AE	6.18	321	1.25	1.90	113	38.3	7.04	12.8	2.71	14.0
AF			1.239	1.87						
AG	7.1	305	6.75	1.95	119	36.6	7.1	11.9	2.45	5.2815
AH	6.2	313				38.3	7.6	12.8	2.45	13.5
AI	6.31	316	1.243	1.846	109.6	37.7	7.3	12.5	2.66	13.1
AJ		303	1.30	0.90	109.8	39.4	7.3	13.0	2.69	14.1
AK	6.1	316	1.22	1.87	114	37.1	7.2	12.9	2.62	14.0
AL										
AM						45.55	8.862			15.238
AN		318	1.25	1.97		37.9	7.5	12.7	2.63	14.1
AO	6.82	301.70	1.090							14.210
AP			1.27	1.84	122.28	33.6029	6.5356	11.3440	2.3561	14.3715
AQ	6.11	318		1.88	115					

Measurement Uncertainties Sample N152A

	pH ±	Cond. ±	total- Hardn. ±	K _{S 4.3} ±	HCO ₃ ⁻ ±	Ca ²⁺ ±	Mg ²⁺ ±	Na ⁺ ±	K ⁺ ±	NO ₃ ⁻ ±
Unit		µS/cm	mmol/L	mmol/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Target value		2	0.01	0.03	2	0.5	0.08	0.3	0.02	0.2
IFA result	0.20	10	0.06	0.09	6	2.3	0.35	1.0	0.16	0.7
Stability test										
A										
B										
C		6	0.05	0.10	5.6	1.4	0.4	0.6	0.12	0.43
D	0.1		0.122			1.8	0.37	0.6	0.13	0.7
E	0.3	13	0.1	0.1	4	3	0.9	2	0.4	1.2
F	0.1	5	0.13	0.19		3.9	0.75	1.3	0.27	1.37
G	0.1	4.51		0.19		4.0	0.73	1.22	0.26	1.39
H	0.1	6	0.13	0.10	9	1.6	0.4	0.4	0.21	1.0
I	0.20	6	0.16	0.17	10.1	3.73	0.58	1.08	0.26	1.30
J	0.075	17	0.15	0.097						1.45
K	0.04	2.22		0.05	1.62					0.94
L										
M			0.013		11	3.9	0.76	1.3	0.27	
N										0.05
O	0.3	15	0.7	0.2	12	7	1.5	3	0.6	2
P	0.10	9.4	0.10	0.18	11.2	1.7	0.57	0.9	0.18	0.5
Q	0.2	3.5		0.41	3.1	1	0.48	0.8	0.24	0.8
R	0.02	0.4		0.001	0.001					0.3
S	0.25	7.7	0.03	0.02	1.2	5.4	1.1	1.8	0.4	0.6
T	0.26	3	0.12	0.116	7.1	2.0	0.4	0.6	0.11	0.7
U	0.19	21.6	0.19	0.07	4.17	3.4	0.38	0.87	0.12	0.47
V						0.82	0.16	8.47	0.88	0.01
W	0.2	20	0.5	0.20	11	3.6	0.6	1.3	0.2	1.5
X	0.087	1.000	0.020	0.006	0.577	0.603	0.172	0.208	0.017	0.050
Y	0.2	32	0.13	0.19	12	3.9	0.74	1.2	0.26	1.4
Z	0.05	0.275	0.04	0.06						0.482
AA	0.09	4	0.04	0.056	4	1.1	0.3	0.7	0.12	0.9
AB	0.30	10	0.14	0.08	5	3.5	0.66	1.0	0.21	1.3
AC	0.3	20				3	0.33	0.6	0.3	0.8
AD	0.37	12		0.27	16.47	1.428	0.44	0.713	0.248	0.55
AE	0.06	1.1	0.014	0.09	2.3	0.53	0.081	0.77	0.048	0.21
AF			0.045	0.075						
AG	0.2	30.5	0.675	0.20	11.9	3.66	0.71	1.19	0.245	0.52815
AH	0.1	10				3.2	1.0	0.8	0.1	1
AI	0.24	13	0.066	0.142	8.7	1.8	0.5	0.7	0.14	0.8
AJ		15	0.07	0.05	10	2.0	1.0	1.0	0.5	1.7
AK						1.48	0.35	0.67	0.18	
AL										
AM						0.647	0.266			0.574
AN										
AO	0.1	5.0	0.050							0.10
AP										
AQ	0.02	3		0.06	4					

Results Sample N152A

	NO₂⁻	NH₄⁺	Cl⁻	SO₄²⁻	o-PO₄³⁻	Boron	DOC	total-P (as PO₄³⁻)	KMnO₄- Index
Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Target value	0.061	0.091	19.9	20.5	<0.009	0.061	2.72	<0.009	2.74
IFA result	0.058	0.092	19.4	20.6	<0.009	0.060	2.66	<0.009	2.67
Stability test	0.058	0.092			<0.009		2.62		
A									
B									
C	0.066	0.096	19.55	20.98	<0.020	0.066	2.67	<0.031	2.70
D	0.062	0.087	20.3	20.7		0.055	2.91		4.52
E	0.060	0.088	20.3	21.5	<0.01		2.85	<0.013	
F	0.060	0.084	18.7	20.2					2.60
G	0.060	0.080	19.17	20.10	<0.0055	0.0577	2.75	<0.0010	
H	0.057	0.095	18.6	20.1	<0.009	0.057	2.85	<0.009	2.90
I	0.0573	0.090	20.32	21.27	<0.01	0.0505	2.65	<0.01	2.40
J	0.059	0.101	20.4	21.6			2.91	<0.018	2.93
K	0.0584	0.078	20.0		<0.006			<0.006	
L	0.089	0.066	20.4	23.5					
M	0.061	0.087	18.7	20.3	<0.010		3.016	0.0190	
N		0.114			<0.019			<0.02	
O	0.0500	0.080	20.0	21.0	<0.1	0.060	2.83	<0.033	2.81
P	0.0583	0.090	19.8	20.9	<0.015	0.0567	2.31	<0.015	2.82
Q	0.066	0.092	19.9	20.4	<0.01	0.055	2.622	<0.03	2.40
R	0.074	0.098			<0.002		2.95	<0.006	
S	0.056	0.081	20.0	21.0	<0.01		2.90	<0.01	2.53
T	0.066	0.087	19.6	20.8	<0.015	0.060	2.69	<0.015	
U	0.061	0.091	19.04	21.31	<0.01	0.057	n.a.	<0.01	3.02
V			17.49	19.91					
W	0.0250	0.090	20.5	20.4					2.56
X	0.0600	0.0785	19.8	20.6	<0.020	0.0589	2.71	<0.020	2.52
Y	0.059	0.099	19.8	20.5	<0.008	0.054	2.68	<0.015	2.74
Z			21.7	11.0					2.72
AA	0.057	0.091	19.5	20.9	<0.01		2.95	<0.01	3.30
AB	0.068	0.093	19.7	20.1	<0.006	0.059	2.87	<0.006	
AC	<0.1	0.090	30.87	20.07	<0.1	<0.04	7.43	<0.1	nb
AD	0.059	0.080	19.72	21.33	<0.0061	0.063	2.80	<0.015	2.77
AE	0.0592	0.1059	19.8	20.7	[0.001]	0.062	2.73	<0.015	2.54
AF									
AG	0.0634	0.0635	15.547	9.516	<0.1	47.52	3.28	<0.1	13.76
AH	0.0490	0.084	18.6	18.7	<0.01	0.054		<0.01	
AI	0.058	0.073	19.2	20.4	<0.010	0.0605	2.69	<0.010	
AJ	0.0526	0.090	20.0	20.2	'0.0100				3.05
AK	0.0585	0.088	20.0	20.4		<0.258		<0.264	
AL			19.97						
AM	0.082		21.108	22.326				<0.5	
AN		0.080	20.9	21.1	<0.0092	0.061	3.10	<0.0092	
AO	0.100	0.0700	18.96	20.38	'0.0120		2.780		
AP	0.0675		19.4660	20.7523	<0.10	0.0919			
AQ									

Measurement Uncertainties Sample N152A

	NO_2^- ±	NH_4^+ ±	Cl^- ±	SO_4^{2-} ±	o-PO_4^{3-} ±	Boron ±	DOC ±	total-P (as PO_4^{3-}) ±	KMnO ₄ - Index ±
Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Target value	0.001	0.002	0.3	0.2		0.001	0.04		0.12
IFA result	0.003	0.006	1.0	0.8		0.006	0.11		0.48
Stability test	0.003	0.006					0.10		
A									
B									
C	0.007	0.010	0.59	0.63		0.007	0.27		0.27
D	0.004	0.009	1	1		0.003	0.23		0.45
E	0.005	0.014	2	2			0.5		
F	0.006	0.008	1.9	2.0					0.52
G	0.006	0.0075	1.92	2.01		0.008	0.28		
H	0.006	0.029	1.5	1.2	0.001	0.004	0.40	0.002	0.29
I	0.0040	0.013	2.44	2.13		0.0106	0.19		0.36
J	0.0062	0.014	0.89	2.49			0.62		0.49
K	0.0058	0.012	0.20		0			0	
L									
M	0.006	0.009					0.30	0.005	
N		0.055							
O	0.008	0.02	3	3		0.012	0.6		0.3
P	0.006	0.006	1.3	0.7		0.007	0.37		0.42
Q		0.003	0.5	1.3		0.003	0.046		0.1
R	0.002	0.001					0.011		
S	0.01	0.005	0.7	1.0			0.4		0.09
T	0.003	0.013	1.0	0.8		0.009	0.21		
U	0.004	0.002	1.14	0.64		0.005			0.45
V			0.03	0.04					
W	0.003	0.009	2.1	2.0					0.3
X	0.001	0.001	0.015	0.173		0.001	0.015		0.014
Y	0.006	0.010	2.0	2.1		0.005	0.27		0.55
Z			1.074	0.4					0.3
AA	0.004	0.011	1.6	1.1			0.30		0.13
AB	0.007	0.011	1.0	1.0		0.006	0.26		
AC		0.05	3	2			1		
AD	0.0047	0.008	0.986	1.067		0.0076	0.22		0.443
AE	0.0002	0.0019	0.04	0.31		0.001	0.12		
AF									
AG	0.00634	0.00635	1.5547	0.9516		4.752	0.328		1.376
AH	0.01	0.01	1	1		0.01			
AI	0.006	0.013	1.7	2.0		0.0083	0.58		
AJ	0.0023	0.011	2.0	2.1	0.0018				0.3
AK									
AL			0.55						
AM	0.007		0.822	1.714					
AN									
AO	0.005	0.005	0.10	0.10	0.0050		0.050		
AP									
AQ									

Results Sample N152B

	pH	Cond.	total-Hardn.	K _{S 4.3}	HCO ₃ ⁻	Ca ²⁺	Mg ²⁺	Na ⁺	K ⁺	NO ₃ ⁻
Unit		µS/cm	mmol/L	mmol/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Target value		579	2.22	2.47	148	65.6	14.2	25.0	4.62	40.7
IFA result	6.38	585	2.16	2.43	145	63.8	13.9	27.1	4.67	39.7
Stability test										
A										
B		590								
C	6.42	583	2.24	2.44	146.0	63.0	16.1	24.2	4.30	40.57
D	6.12		2.20	2.38	144.9	64.4	14.3	24.3	4.62	41.1
E	6.2	584	2.22	2.42	145	65.7	14.2	24.9	4.52	41.4
F	6.3	586	2.28	2.42		67.5	14.5	25.3	4.61	41.2
G	6.44	583	2.30	2.38	142.15	68.68	14.19	24.20	4.53	40.59
H	6.5	581	2.25	2.40	147	66.8	14.3	25.5	4.68	40.4
I	6.21	584	2.15	2.44	146.0	63.49	13.71	22.92	4.87	42.07
J	6.3	573	2.17	2.38						41.1
K	6.15	579		2.45	146					40.5
L	6.04	657				80.5	13.4	25.2	3.74	41.4
M	6.3	586	2.28	2.44	148.9	67.5	14.5	25.2	4.62	40.4
N										>25
O	6.20	561	11.7	2.40	146	61.0	13.6	27.6	5.49	41.0
P	6.33	580	2.17	2.40	147	63.9	13.8	24.9	4.40	40.1
Q	6.61	571	2.30	2.46	147	68.7	14.2	24.8	4.62	41.8
R	6.6	576		2.45	149.3					37.0
S	6.4	588	2.22	2.45	148	62.43	13.45	24.05	4.40	39.8
T	6.68	578	2.27	2.498	152.4	67.3	14.5	25.0	4.69	40.5
U	6.26	578	2.27	2.51	153	66.6	14.7	24.8	4.63	39.30
V						64.88	12.39	2624.9	497.82	39.87
W	6.5	581	12.3	2.37	145	64	13.9	23.0	3.60	41.7
X	6.18	571	2.21	2.46	147	64.9	14.3	26.0	4.40	39.8
Y	6.3	586	2.25	2.47	151	66.3	14.4	25.2	4.43	39.6
Z	6.49	562.0	5.13	2.251		167.53	22.85			9.10
AA	6.05	582	2.45	2.46	150	67	13.7	25.2	4.39	40.6
AB	6.45	582	2.27	2.43	145	66.7	14.7	25.1	4.64	41.3
AC	6.18	580	nb	nb	nb	56.33	5.91	12.3	5.57	19.43
AD	6.3	566	2.14	2.31	140.90	62.09	14.25	23.22	4.75	39.779
AE	6.29	589	2.25	2.43	145	67.3	13.6	25.4	4.63	40.8
AF			2.229	2.43						
AG	7.3	560	12.2	2.55	156	65.47	13.2	24.6	4.33	18.7725
AH	6.3	574				67	14.8	24.0	4.55	39.5
AI	6.26	579	2.241	2.398	143.2	66.0	14.4	24.5	4.61	39.5
AJ		612	2.24	1.49	149.5	66.7	14.3	24.5	4.50	40.5
AK	6.2	582	2.21	2.44	149	65	14.2	25.1	4.76	40.5
AL										
AM						77.333	16.200			47.457
AN		590	2.20	2.41		65	14.2	25.0	4.55	40.9
AO	7.02	550.30	2.040							45.660
AP			2.24	2.41	147.06	57.1889	12.5704	22.591	4.0655	41.865
AQ	6.21	584		2.41	147					

Measurement Uncertainties Sample N152B

	pH ±	Cond. ±	total- Hardn.±	K _{S 4.3} ±	HCO ₃ ⁻ ±	Ca ²⁺ ±	Mg ²⁺ ±	Na ⁺ ±	K ⁺ ±	NO ₃ ⁻ ±
Unit		µS/cm	mmol/L	mmol/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Target value		3	0.02	0.03	2	0.8	0.2	0.3	0.05	0.7
IFA result	0.20	18	0.11	0.12	7	3.8	0.7	1.9	0.28	2.0
Stability test										
A										
B										
C		12	0.09	0.12	7.3	2.5	3.2	1.21	0.22	1.22
D	0.1		0.22			3.2	0.7	1.2	0.23	2.1
E	0.3	24	0.1	0.1	5	6	1.8	4	0.6	4
F	0.1	5	0.23	0.24		6.8	1.5	2.6	0.47	4.1
G	0.1	4.51		0.24		6.9	1.42	2.42	0.45	4.06
H	0.1	12	0.23	0.20	12	5.3	0.9	1.0	0.37	2.8
I	0.20	12	0.28	0.22	13.1	6.35	1.10	2.06	0.44	3.79
J	0.076	31	0.28	0.12						4.14
K	0.04	4.10		0.07	2.11					2.77
L										
M			0.23		15	6.8	1.5	2.6	0.47	
N										
O	0.3	30	1.2	0.3	15	12	2.8	6	1.2	6
P	0.10	17.4	0.18	0.24	14.7	2.9	1.1	1.8	0.32	1.3
Q	0.3	1		0.04	2.4	3.2	0.12	0.3	0.05	0.8
R	0.04	0.4		0.001	0.001					0.2
S	0.26	14.2	0.04	0.03	1.5	9.4	2.1	3.7	0.6	1.7
T	0.27	6	0.20	0.150	9.1	3.4	0.7	1.3	0.19	2.0
U	0.19	40.5	0.34	0.09	5.36	6.0	0.74	1.74	0.23	1.38
V						1.88	0.10	16.97	6.63	0.07
W	0.2	30	1.0	0.24	15	6	1.4	2.3	0.4	4
X	0.133	2.000	0.031	0.010	0.600	0.839	0.306	0.757	0.036	0.100
Y	0.2	59	0.22	0.25	15	6.6	1.4	2.5	0.44	4.0
Z	0.05	0.275	0.04	0.06						0.482
AA	0.09	6	0.08	0.07	5	2	0.6	1.3	0.20	2.7
AB	0.30	17	0.25	0.10	6	6.0	1.3	2.2	0.37	3.7
AC	0.3	20				5.5	6	1.2	0.6	2
AD	0.38	22.6		0.347	210.14	2.484	0.855	1.393	0.457	1.5912
AE	0.06	0.3	0.021	0.10	2.9	0.59	0.36	0.71	0.167	0.19
AF			0.083	0.097						
AG	0.2	56	1.22	0.26	15.6	6.547	1.32	2.46	0.433	1.87725
AH	0.1	10				5.2	1.2	1.2	0.8	1
AI	0.23	23	0.117	0.177	10.8	3.1	0.9	1.3	0.21	2.4
AJ		31	0.12	0.05	10	2.0	1.0	1.0	0.5	5.0
AK						2.60	0.70	1.31	0.32	
AL										
AM						1.078	0.486			1.789
AN										
AO	0.1	5.0	0.050							0.10
AP										
AQ	0.02	5		0.06	4					

Results Sample N152B

	NO₂⁻	NH₄⁺	Cl⁻	SO₄²⁻	o-PO₄³⁻	Boron	DOC	total-P (as PO₄³⁻)	KMnO₄- Index
Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Target value	0.0303	<0.01	56.2	45.0	0.061	0.091	4.94	0.147	3.95
IFA result	0.0290	<0.01	55.0	45.0	0.061	0.092	4.94	0.167	4.00
Stability test	0.0287	<0.01			0.062		4.86		
A									
B									
C	0.0380	<0.030	55.71	45.55	0.054	0.103	4.86	0.164	4.01
D	0.0315	<0.060	56.2	45.1		0.084	5.26		7.80
E	0.0300	<0.013	57.2	46.2	0.060		5.11	0.144	
F	0.0318	<0.010	56.3	46.4					3.72
G	0.0300	<0.0026	53.85	43.96	0.060	0.0858	5.01	0.144	
H	0.0290	<0.02	54.2	44.4	0.065	0.085	5.0	132	4.00
I	0.0293	<0.01	55.96	46.53	0.058	0.0760	4.83	0.140	3.64
J	<0.059	<0.05	56.8	46.5			5.06	0.147	4.22
K	0.0298	<0.005	56.4		0.058			0.141	
L			56.9	51.0	0.0332				
M	0.0300	<0.010	55.4	45.1	0.057		5.215	0.135	
N		<0.01			0.062			0.156	
O	0.0240	<0.01	55.0	45.0	<0.1	0.086	5.1	0.140	3.98
P	0.0300	<0.01	55.0	45.6	0.0706	0.087	4.68	0.150	4.01
Q	0.0339	<0.01	55.6	45.9	0.058	0.083	4.890		3.71
R	0.0375	0.00372			0.059		5.44	0.146	
S	0.0280	<0.0050	57	46.3	0.0200		5.1	0.0460	3.80
T	0.0330	<0.010	55.6	45.4	0.061	0.090	4.81	0.136	
U	0.0310	<0.01	56.14	45.24	0.062	0.086	n.a.	0.157	4.31
V			58.81	39.87					
W	0.053	<0.01	57.6	48.6					3.66
X	0.0305	<0.015	57.5	45.9	0.0684	0.0875	5.04	0.131	3.59
Y	0.0290	<0.010	51.8	43.4	0.055	0.083	4.93	0.137	4.00
Z			60.1	32.0					3.70
AA	0.0279	<0.02	58	46.2	0.061		5.1	0.142	4.83
AB	0.0391	<0.008	56.1	44.8	0.062	0.092	5.02	0.149	
AC	<0.1	<0.01	61.1	43.27	<0.10	<0.04	56.26	<0.1	nb
AD	0.0300	<0.0006	55.57	45.76	0.052	0.099	5.1	0.1441	3.88
AE	0.0294	<0.01	56.2	45.6	0.0599	0.092	4.95	0.1487	3.99
AF									
AG	0.0404	<0.01	21.305	24.344	0.0394	74.1	5.462	<0.1	18.56
AH	0.0285	0.0350	57	40.9	0.059	0.084		0.127	
AI	0.0283	<0.010	56.2	45.3	0.059	0.0868	5.01	0.150	
AJ	0.0263	0.0100	55.8	45.5	0.070				4.10
AK	0.0279	<0.04	57.0	45.1		<0.258		<0.264	
AL			56.49						
AM	0.0320		70.72	53.170				<0.5	
AN		<0.0129	57	45.1	0.061	0.090	5.2	0.149	
AO	0.080	0.0050	55.86	48.14	0.0770		4.890		
AP	0.0333		55.6628	44.7263	<0.10	0.0858			
AQ									

Measurement Uncertainties Sample N152B

	NO_2^- ±	NH_4^+ ±	Cl^- ±	SO_4^{2-} ±	o-PO_4^{3-} ±	Boron ±	DOC ±	total-P (as PO_4^{3-}) ±	KMnO ₄ - Index ±
Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Target value	0.0010		1.0	0.5	0.002	0.001	0.05	0.002	0.15
IFA result	0.0015		2.8	1.8	0.002	0.009	0.20	0.038	0.72
Stability test	0.0014				0.002		0.19		
A									
B									
C	0.004		1.67	1.37	0.005	0.010	0.49	0.025	0.40
D	0.002		2.8	2.3		0.004	0.42		0.78
E	0.003		4	3	0.007		0.8	0.02	
F	0.005		5.6	4.6					0.75
G	0.003		5.39	4.39	0.006	0.013	0.50	0.014	
H	0.0030	0.01	4.3	2.7	0.010	0.006	0.7	24	0.40
I	0.020		6.72	4.65	0.009	0.0160	0.34	0.021	0.55
J			2.49	6.5			1.08		0.70
K	0.0030	0	0.57		0.007			0.019	
L									
M	0.003				0.006		0.52	0.014	
N					0.002			0.006	
O	0.004		9	7		0.014	1	0.028	0.4
P	0.003		3.7	1.5	0.005	0.011	0.75	0.010	0.60
Q	0.0005		1.6	1.4	0.0012	0.003	0.081		0.7
R	0.002	0.001			0.002		0.025	0.003	
S	0.001	0.003	1.9	2.2	0.003		0.8	0.007	0.14
T	0.001		2.8	1.8	0.002	0.014	0.38	0.027	
U	0.002		3.37	1.36	0.004	0.008		0.011	0.65
V			0.01	0.07					
W	0.005		5.7	4.9					0.4
X	0.0004		0.058	0.115	0.002	0.003	0.061	0.001	0.007
Y	0.0029		5.2	4.3	0.006	0.008	0.49	0.027	0.80
Z			1.074	0.4					0.3
AA	0.0015		5	2.3	0.006		0.6	0.013	0.18
AB	0.005		2.8	2.2	0.006	0.009	0.45	0.015	
AC			6	4			6		
AD	0.0024		2.779	2.288	0.0063	0.0119	0.41	0.0218	0.621
AE	0.0002		0.07	0.35	0.0011	0.001	0.12	0.0012	
AF									
AG	0.00404		2.1305	2.4344	0.00394	7.41	0.5462		1.856
AH	0.01	0.01	1	1	0.01	0.01		0.01	
AI	0.0040		4.4	4.2	0.008	0.0114	0.95	0.024	
AJ	0.0012	0.0012	5.6	4.6	0.013				0.4
AK									
AL			1.56						
AM	0.003		1.462	2.884					
AN									
AO	0.005	0.005	0.10	0.10	0.0050		0.050		
AP									
AQ									

Sample N152A

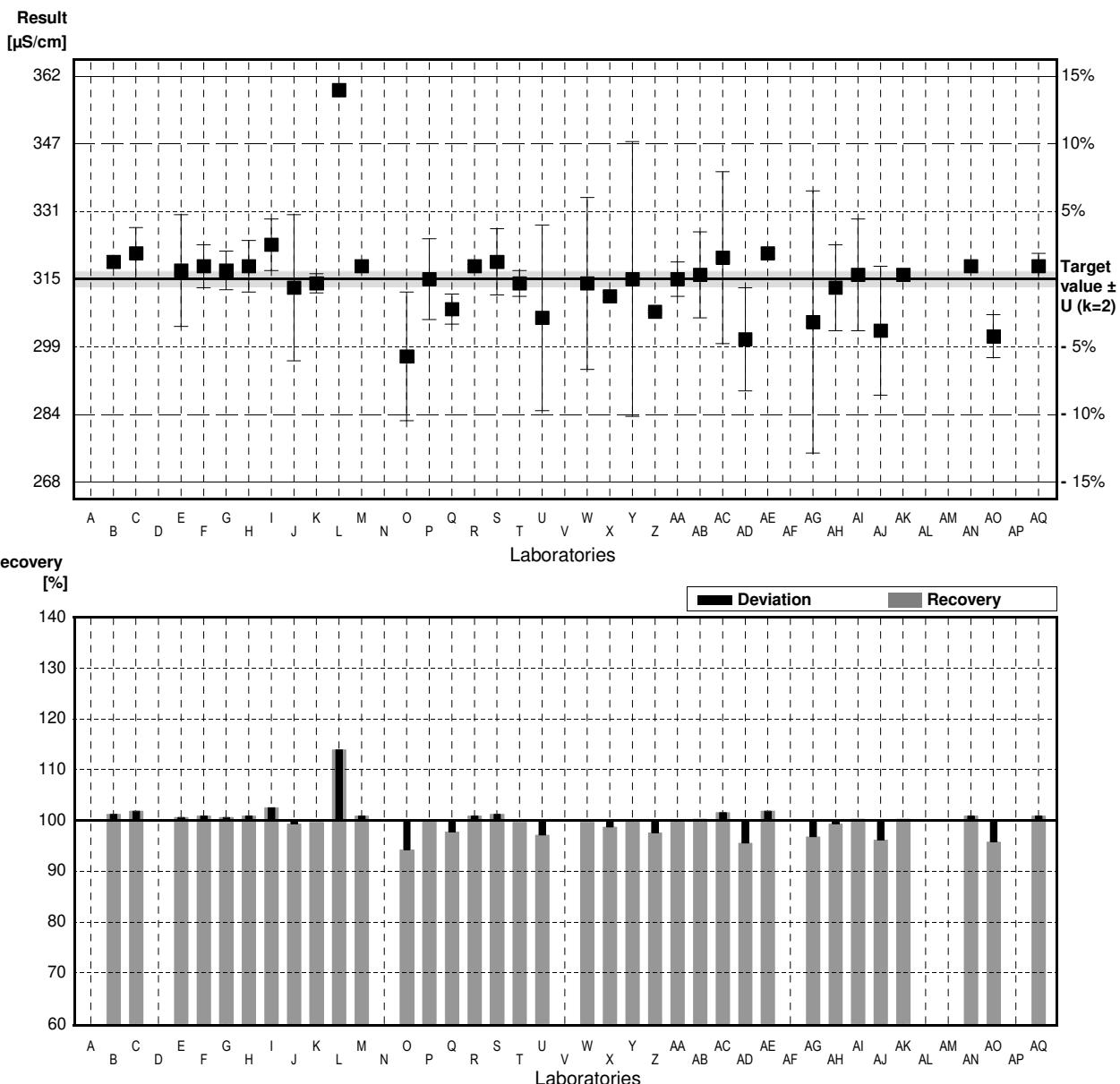
Parameter Conductivity

Target value $\pm U$ ($k=2$) 315 $\mu\text{S}/\text{cm}$ \pm 2 $\mu\text{S}/\text{cm}$
 IFA result $\pm U$ ($k=2$) 319 $\mu\text{S}/\text{cm}$ \pm 10 $\mu\text{S}/\text{cm}$

Stability test $\mu\text{S}/\text{cm}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			$\mu\text{S}/\text{cm}$		
B	319		$\mu\text{S}/\text{cm}$	101%	0.98
C	321	6	$\mu\text{S}/\text{cm}$	102%	1.47
D			$\mu\text{S}/\text{cm}$		
E	317	13	$\mu\text{S}/\text{cm}$	101%	0.49
F	318	5	$\mu\text{S}/\text{cm}$	101%	0.73
G	317	4.51	$\mu\text{S}/\text{cm}$	101%	0.49
H	318	6	$\mu\text{S}/\text{cm}$	101%	0.73
I	323	6	$\mu\text{S}/\text{cm}$	103%	1.95
J	313	17	$\mu\text{S}/\text{cm}$	99%	-0.49
K	314	2.22	$\mu\text{S}/\text{cm}$	100%	-0.24
L	359 *		$\mu\text{S}/\text{cm}$	114%	10.74
M	318		$\mu\text{S}/\text{cm}$	101%	0.73
N			$\mu\text{S}/\text{cm}$		
O	297 *	15	$\mu\text{S}/\text{cm}$	94%	-4.40
P	315	9.4	$\mu\text{S}/\text{cm}$	100%	0.00
Q	308	3.5	$\mu\text{S}/\text{cm}$	98%	-1.71
R	318	0.4	$\mu\text{S}/\text{cm}$	101%	0.73
S	319	7.7	$\mu\text{S}/\text{cm}$	101%	0.98
T	314	3	$\mu\text{S}/\text{cm}$	100%	-0.24
U	306	21.6	$\mu\text{S}/\text{cm}$	97%	-2.20
V			$\mu\text{S}/\text{cm}$		
W	314	20	$\mu\text{S}/\text{cm}$	100%	-0.24
X	311	1,000	$\mu\text{S}/\text{cm}$	99%	-0.98
Y	315	32	$\mu\text{S}/\text{cm}$	100%	0.00
Z	307.4	0.275	$\mu\text{S}/\text{cm}$	98%	-1.86
AA	315	4	$\mu\text{S}/\text{cm}$	100%	0.00
AB	316	10	$\mu\text{S}/\text{cm}$	100%	0.24
AC	320	20	$\mu\text{S}/\text{cm}$	102%	1.22
AD	301 *	12	$\mu\text{S}/\text{cm}$	96%	-3.42
AE	321	1.1	$\mu\text{S}/\text{cm}$	102%	1.47
AF			$\mu\text{S}/\text{cm}$		
AG	305	30.5	$\mu\text{S}/\text{cm}$	97%	-2.44
AH	313	10	$\mu\text{S}/\text{cm}$	99%	-0.49
AI	316	13	$\mu\text{S}/\text{cm}$	100%	0.24
AJ	303	15	$\mu\text{S}/\text{cm}$	96%	-2.93
AK	316		$\mu\text{S}/\text{cm}$	100%	0.24
AL			$\mu\text{S}/\text{cm}$		
AM			$\mu\text{S}/\text{cm}$		
AN	318		$\mu\text{S}/\text{cm}$	101%	0.73
AO	301.70 *	5.0	$\mu\text{S}/\text{cm}$	96%	-3.25
AP			$\mu\text{S}/\text{cm}$		
AQ	318	3	$\mu\text{S}/\text{cm}$	101%	0.73

	All results	Outliers excl.	Unit
Mean $\pm CI(99\%)$	315 \pm 5	315 \pm 2	$\mu\text{S}/\text{cm}$
Recov. $\pm CI(99\%)$	100,0 \pm 1,5	100,0 \pm 0,8	%
SD between labs	10	5	$\mu\text{S}/\text{cm}$
RSD between labs	3,2	1,6	%
n for calculation	35	31	



Sample N152B

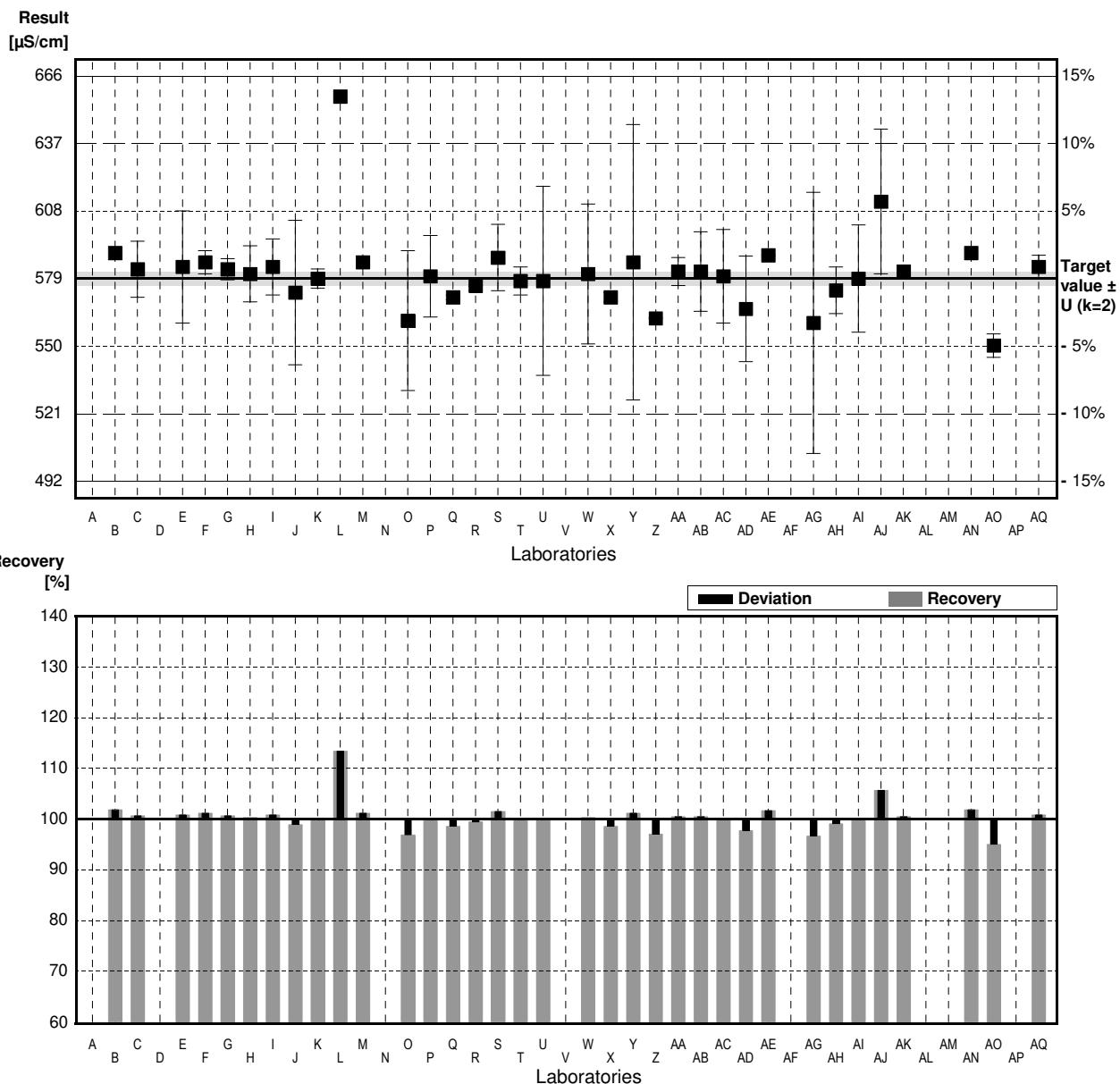
Parameter Conductivity

Target value $\pm U$ ($k=2$) 579 $\mu\text{S}/\text{cm}$ \pm 3 $\mu\text{S}/\text{cm}$
 IFA result $\pm U$ ($k=2$) 585 $\mu\text{S}/\text{cm}$ \pm 18 $\mu\text{S}/\text{cm}$

Stability test $\mu\text{S}/\text{cm}$

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			$\mu\text{S}/\text{cm}$		
B	590		$\mu\text{S}/\text{cm}$	102%	1.46
C	583	12	$\mu\text{S}/\text{cm}$	101%	0.53
D			$\mu\text{S}/\text{cm}$		
E	584	24	$\mu\text{S}/\text{cm}$	101%	0.66
F	586	5	$\mu\text{S}/\text{cm}$	101%	0.93
G	583	4.51	$\mu\text{S}/\text{cm}$	101%	0.53
H	581	12	$\mu\text{S}/\text{cm}$	100%	0.27
I	584	12	$\mu\text{S}/\text{cm}$	101%	0.66
J	573	31	$\mu\text{S}/\text{cm}$	99%	-0.80
K	579	4.10	$\mu\text{S}/\text{cm}$	100%	0.00
L	657 *		$\mu\text{S}/\text{cm}$	113%	10.36
M	586		$\mu\text{S}/\text{cm}$	101%	0.93
N			$\mu\text{S}/\text{cm}$		
O	561	30	$\mu\text{S}/\text{cm}$	97%	-2.39
P	580	17.4	$\mu\text{S}/\text{cm}$	100%	0.13
Q	571	1	$\mu\text{S}/\text{cm}$	99%	-1.06
R	576	0.4	$\mu\text{S}/\text{cm}$	99%	-0.40
S	588	14.2	$\mu\text{S}/\text{cm}$	102%	1.20
T	578	6	$\mu\text{S}/\text{cm}$	100%	-0.13
U	578	40.5	$\mu\text{S}/\text{cm}$	100%	-0.13
V			$\mu\text{S}/\text{cm}$		
W	581	30	$\mu\text{S}/\text{cm}$	100%	0.27
X	571	2,000	$\mu\text{S}/\text{cm}$	99%	-1.06
Y	586	59	$\mu\text{S}/\text{cm}$	101%	0.93
Z	562.0	0.275	$\mu\text{S}/\text{cm}$	97%	-2.26
AA	582	6	$\mu\text{S}/\text{cm}$	101%	0.40
AB	582	17	$\mu\text{S}/\text{cm}$	101%	0.40
AC	580	20	$\mu\text{S}/\text{cm}$	100%	0.13
AD	566	22.6	$\mu\text{S}/\text{cm}$	98%	-1.73
AE	589	0.3	$\mu\text{S}/\text{cm}$	102%	1.33
AF			$\mu\text{S}/\text{cm}$		
AG	560	56	$\mu\text{S}/\text{cm}$	97%	-2.52
AH	574	10	$\mu\text{S}/\text{cm}$	99%	-0.66
AI	579	23	$\mu\text{S}/\text{cm}$	100%	0.00
AJ	612 *	31	$\mu\text{S}/\text{cm}$	106%	4.38
AK	582		$\mu\text{S}/\text{cm}$	101%	0.40
AL			$\mu\text{S}/\text{cm}$		
AM			$\mu\text{S}/\text{cm}$		
AN	590		$\mu\text{S}/\text{cm}$	102%	1.46
AO	550.30 *	5.0	$\mu\text{S}/\text{cm}$	95%	-3.81
AP			$\mu\text{S}/\text{cm}$		
AQ	584	5	$\mu\text{S}/\text{cm}$	101%	0.66

	All results	Outliers excl.	Unit
Mean $\pm \text{CI}(99\%)$	581 \pm 8	579 \pm 4	$\mu\text{S}/\text{cm}$
Recov. $\pm \text{CI}(99\%)$	100,4 \pm 1,4	100,0 \pm 0,7	%
SD between labs	17	8	$\mu\text{S}/\text{cm}$
RSD between labs	2.9	1.4	%
n for calculation	35	32	



Sample N152A

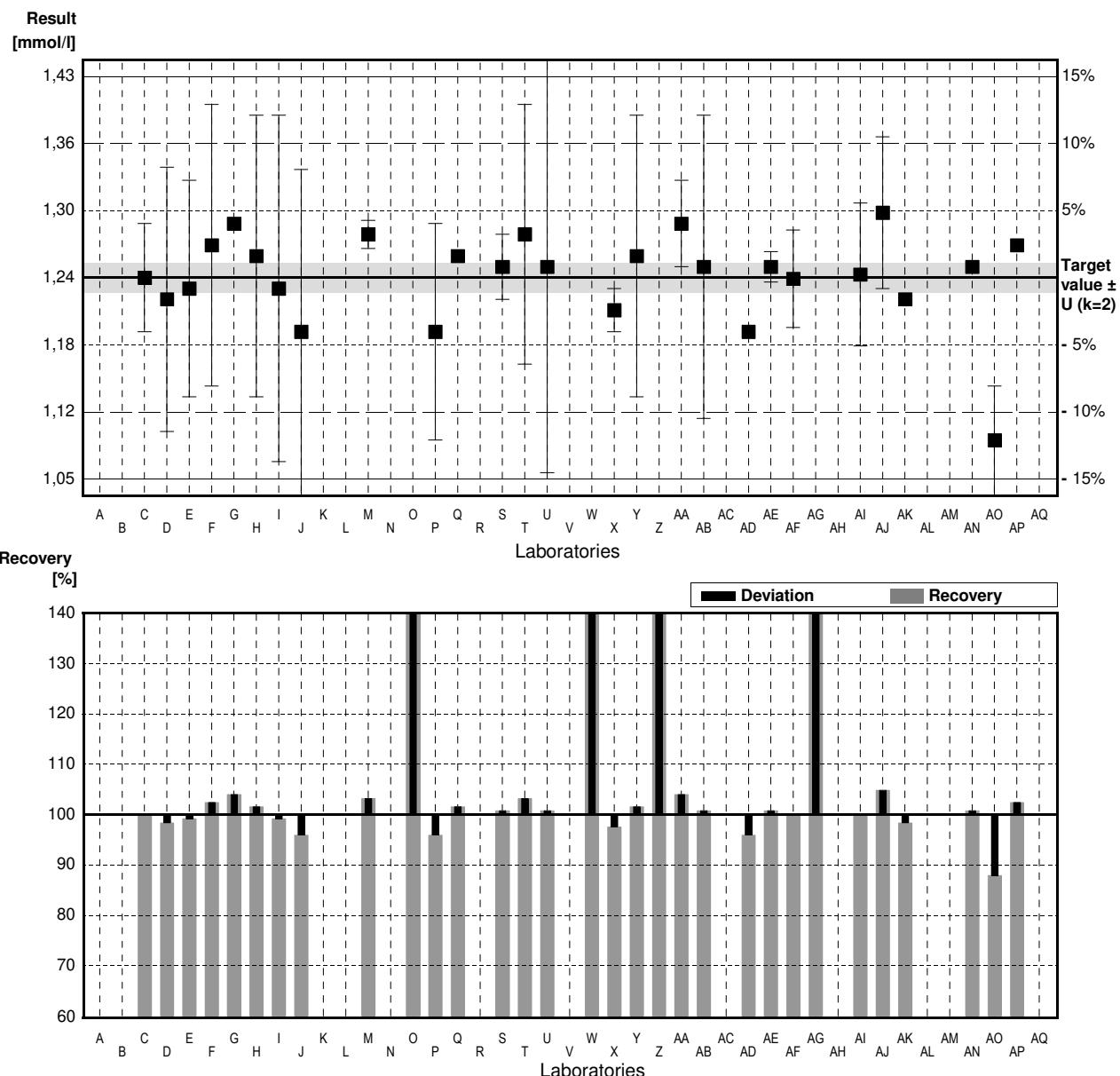
Parameter Total hardness

Target value $\pm U$ ($k=2$) 1,24 mmol/l \pm 0,01 mmol/l
 IFA result $\pm U$ ($k=2$) 1,24 mmol/l \pm 0,06 mmol/l

Stability test mmol/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mmol/l		
B			mmol/l		
C	1,24	0,05	mmol/l	100%	0,00
D	1,22	0,122	mmol/l	98%	-0,58
E	1,23	0,1	mmol/l	99%	-0,29
F	1,27	0,13	mmol/l	102%	0,86
G	1,29		mmol/l	104%	1,44
H	1,26	0,13	mmol/l	102%	0,58
I	1,23	0,16	mmol/l	99%	-0,29
J	1,19	0,15	mmol/l	96%	-1,44
K			mmol/l		
L			mmol/l		
M	1,28	0,013	mmol/l	103%	1,15
N			mmol/l		
O	6,61 *	0,7	mmol/l	533%	154,67
P	1,19	0,10	mmol/l	96%	-1,44
Q	1,26		mmol/l	102%	0,58
R			mmol/l		
S	1,25	0,03	mmol/l	101%	0,29
T	1,28	0,12	mmol/l	103%	1,15
U	1,25	0,19	mmol/l	101%	0,29
V			mmol/l		
W	6,8 *	0,5	mmol/l	548%	160,14
X	1,21	0,020	mmol/l	98%	-0,86
Y	1,26	0,13	mmol/l	102%	0,58
Z	4,25 *	0,04	mmol/l	343%	86,69
AA	1,29	0,04	mmol/l	104%	1,44
AB	1,25	0,14	mmol/l	101%	0,29
AC	nb		mmol/l		
AD	1,19		mmol/l	96%	-1,44
AE	1,25	0,014	mmol/l	101%	0,29
AF	1,239	0,045	mmol/l	100%	-0,03
AG	6,75 *	0,675	mmol/l	544%	158,70
AH			mmol/l		
AI	1,243	0,066	mmol/l	100%	0,09
AJ	1,30	0,07	mmol/l	105%	1,73
AK	1,22		mmol/l	98%	-0,58
AL			mmol/l		
AM			mmol/l		
AN	1,25		mmol/l	101%	0,29
AO	1,090 *	0,050	mmol/l	88%	-4,32
AP	1,27		mmol/l	102%	0,86
AQ			mmol/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,87 \pm 0,84	1,25 \pm 0,02	mmol/l
Recov. \pm CI(99%)	150,7 \pm 67,8	100,5 \pm 1,4	%
SD between labs	1,70	0,03	mmol/l
RSD between labs	91,2	2,5	%
n for calculation	31	26	



Sample N152B

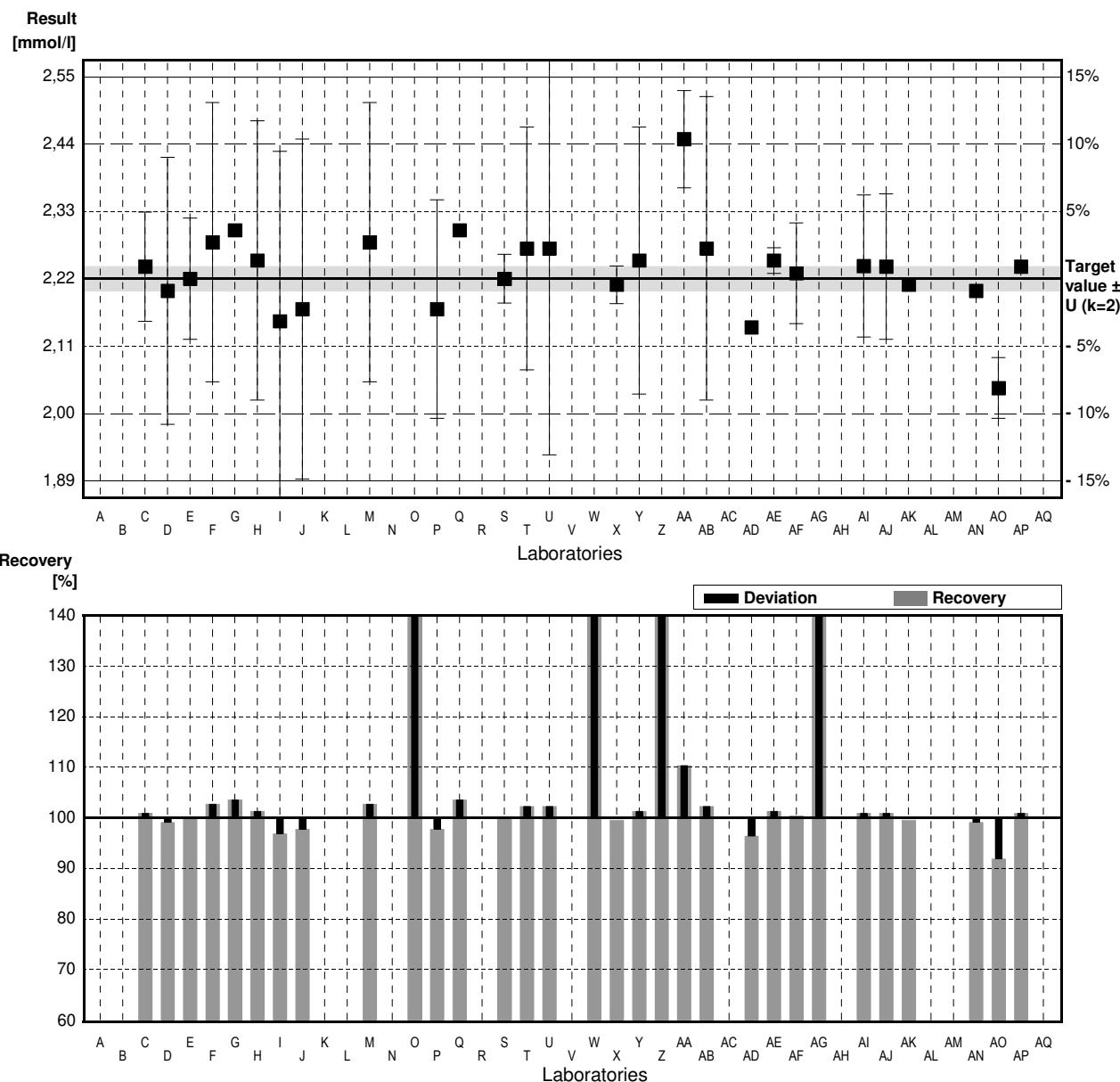
Parameter Total hardness

Target value $\pm U$ ($k=2$) 2,22 mmol/l \pm 0,02 mmol/l
 IFA result $\pm U$ ($k=2$) 2,16 mmol/l \pm 0,11 mmol/l

Stability test mmol/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mmol/l		
B			mmol/l		
C	2,24	0,09	mmol/l	101%	0,32
D	2,20	0,22	mmol/l	99%	-0,32
E	2,22	0,1	mmol/l	100%	0,00
F	2,28	0,23	mmol/l	103%	0,97
G	2,30		mmol/l	104%	1,29
H	2,25	0,23	mmol/l	101%	0,48
I	2,15	0,28	mmol/l	97%	-1,13
J	2,17	0,28	mmol/l	98%	-0,80
K			mmol/l		
L			mmol/l		
M	2,28	0,23	mmol/l	103%	0,97
N			mmol/l		
O	11,7 *	1,2	mmol/l	527%	152,51
P	2,17	0,18	mmol/l	98%	-0,80
Q	2,30		mmol/l	104%	1,29
R			mmol/l		
S	2,22	0,04	mmol/l	100%	0,00
T	2,27	0,20	mmol/l	102%	0,80
U	2,27	0,34	mmol/l	102%	0,80
V			mmol/l		
W	12,3 *	1,0	mmol/l	554%	162,16
X	2,21	0,031	mmol/l	100%	-0,16
Y	2,25	0,22	mmol/l	101%	0,48
Z	5,13 *	0,04	mmol/l	231%	46,81
AA	2,45 *	0,08	mmol/l	110%	3,70
AB	2,27	0,25	mmol/l	102%	0,80
AC	nb		mmol/l		
AD	2,14		mmol/l	96%	-1,29
AE	2,25	0,021	mmol/l	101%	0,48
AF	2,229	0,083	mmol/l	100%	0,14
AG	12,2 *	1,22	mmol/l	550%	160,55
AH			mmol/l		
AI	2,241	0,117	mmol/l	101%	0,34
AJ	2,24	0,12	mmol/l	101%	0,32
AK	2,21		mmol/l	100%	-0,16
AL			mmol/l		
AM			mmol/l		
AN	2,20		mmol/l	99%	-0,32
AO	2,040 *	0,050	mmol/l	92%	-2,90
AP	2,24		mmol/l	101%	0,32
AQ			mmol/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	3,28 \pm 1,47	2,23 \pm 0,02	mmol/l
Recov. \pm CI(99%)	147,7 \pm 66,1	100,5 \pm 1,1	%
SD between labs	2,97	0,04	mmol/l
RSD between labs	90,7	2,0	%
n for calculation	31	25	



Sample N152A

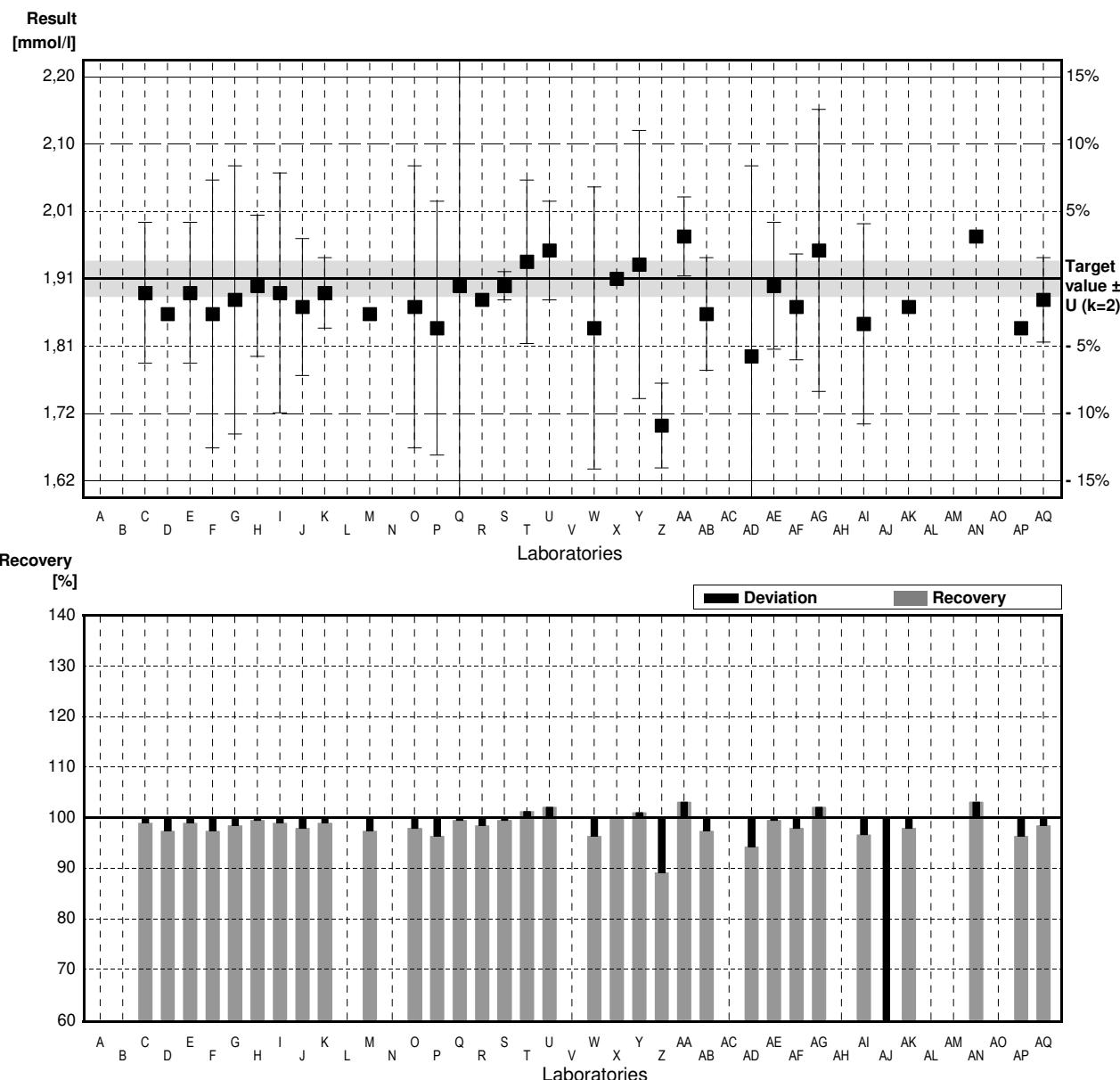
Parameter Alkalinity

Target value $\pm U$ ($k=2$) 1,91 mmol/l \pm 0,03 mmol/l
 IFA result $\pm U$ ($k=2$) 1,89 mmol/l \pm 0,09 mmol/l

Stability test mmol/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mmol/l		
B			mmol/l		
C	1,89	0,10	mmol/l	99%	-0,50
D	1,86		mmol/l	97%	-1,25
E	1,89	0,1	mmol/l	99%	-0,50
F	1,86	0,19	mmol/l	97%	-1,25
G	1,88	0,19	mmol/l	98%	-0,75
H	1,90	0,10	mmol/l	99%	-0,25
I	1,89	0,17	mmol/l	99%	-0,50
J	1,87	0,097	mmol/l	98%	-1,00
K	1,89	0,05	mmol/l	99%	-0,50
L			mmol/l		
M	1,86		mmol/l	97%	-1,25
N			mmol/l		
O	1,87	0,2	mmol/l	98%	-1,00
P	1,84	0,18	mmol/l	96%	-1,75
Q	1,90	0,41	mmol/l	99%	-0,25
R	1,88	0,001	mmol/l	98%	-0,75
S	1,90	0,02	mmol/l	99%	-0,25
T	1,934	0,116	mmol/l	101%	0,60
U	1,95	0,07	mmol/l	102%	1,00
V			mmol/l		
W	1,84	0,20	mmol/l	96%	-1,75
X	1,91	0,006	mmol/l	100%	0,00
Y	1,93	0,19	mmol/l	101%	0,50
Z	1,702 *	0,06	mmol/l	89%	-5,19
AA	1,970	0,056	mmol/l	103%	1,50
AB	1,86	0,08	mmol/l	97%	-1,25
AC	nb		mmol/l		
AD	1,80	0,27	mmol/l	94%	-2,74
AE	1,90	0,09	mmol/l	99%	-0,25
AF	1,87	0,075	mmol/l	98%	-1,00
AG	1,95	0,20	mmol/l	102%	1,00
AH			mmol/l		
AI	1,846	0,142	mmol/l	97%	-1,60
AJ	0,90 *	0,05	mmol/l	47%	-25,18
AK	1,87		mmol/l	98%	-1,00
AL			mmol/l		
AM			mmol/l		
AN	1,97		mmol/l	103%	1,50
AO			mmol/l		
AP	1,84		mmol/l	96%	-1,75
AQ	1,88	0,06	mmol/l	98%	-0,75

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	1,85 \pm 0,08	1,89 \pm 0,02	mmol/l
Recov. \pm CI(99%)	96,9 \pm 4,4	98,8 \pm 1,0	%
SD between labs	0,18	0,04	mmol/l
RSD between labs	9,6	2,1	%
n for calculation	33	31	



Sample N152B

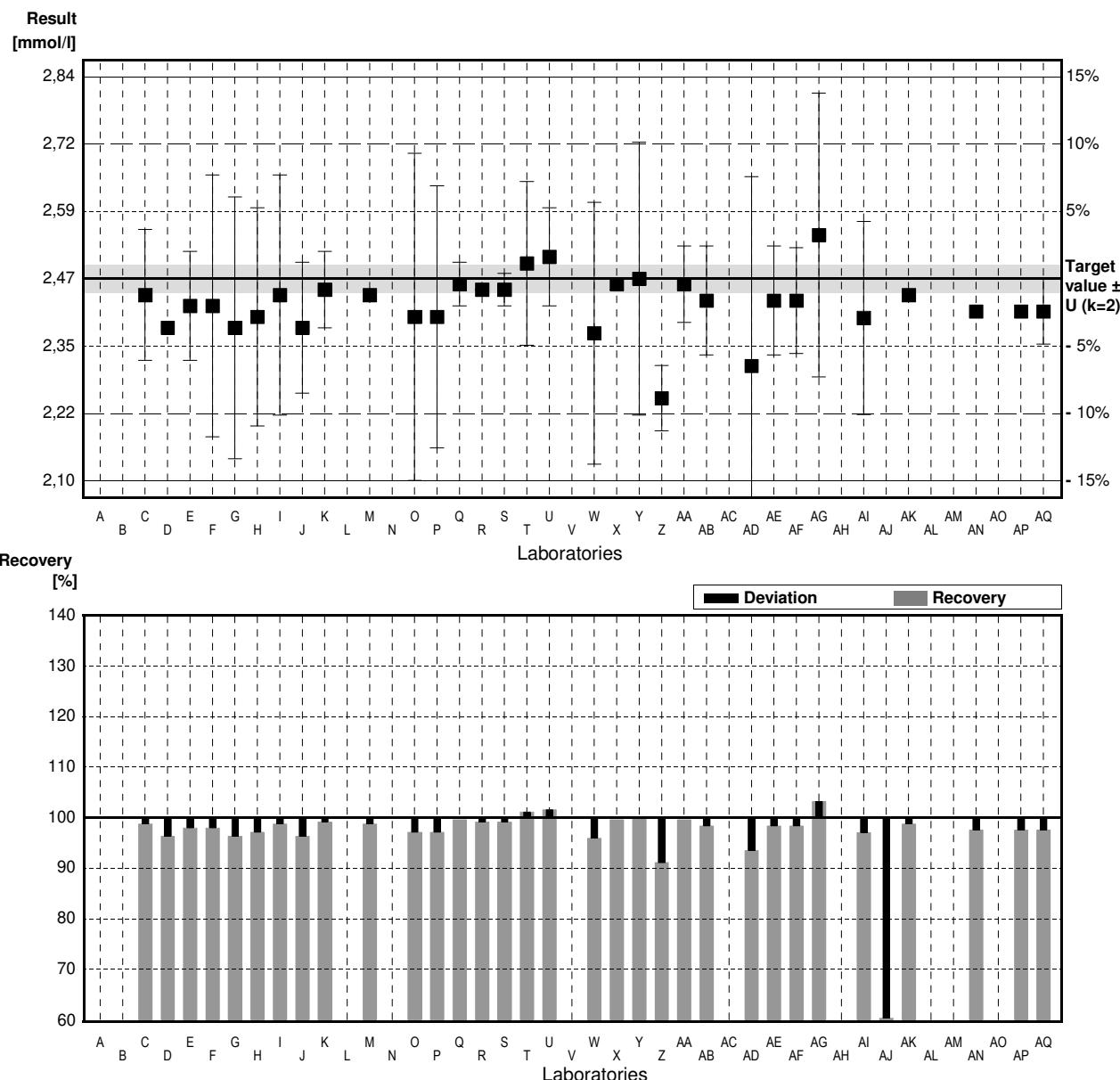
Parameter Alkalinity

Target value $\pm U$ ($k=2$) 2,47 mmol/l \pm 0,03 mmol/l
 IFA result $\pm U$ ($k=2$) 2,43 mmol/l \pm 0,12 mmol/l

Stability test mmol/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mmol/l		
B			mmol/l		
C	2,44	0,12	mmol/l	99%	-0,58
D	2,38		mmol/l	96%	-1,74
E	2,42	0,1	mmol/l	98%	-0,96
F	2,42	0,24	mmol/l	98%	-0,96
G	2,38	0,24	mmol/l	96%	-1,74
H	2,40	0,20	mmol/l	97%	-1,35
I	2,44	0,22	mmol/l	99%	-0,58
J	2,38	0,12	mmol/l	96%	-1,74
K	2,45	0,07	mmol/l	99%	-0,39
L			mmol/l		
M	2,44		mmol/l	99%	-0,58
N			mmol/l		
O	2,40	0,3	mmol/l	97%	-1,35
P	2,40	0,24	mmol/l	97%	-1,35
Q	2,46	0,04	mmol/l	100%	-0,19
R	2,45	0,001	mmol/l	99%	-0,39
S	2,45	0,03	mmol/l	99%	-0,39
T	2,498	0,150	mmol/l	101%	0,54
U	2,51	0,09	mmol/l	102%	0,77
V			mmol/l		
W	2,37	0,24	mmol/l	96%	-1,93
X	2,46	0,010	mmol/l	100%	-0,19
Y	2,47	0,25	mmol/l	100%	0,00
Z	2,251 *	0,06	mmol/l	91%	-4,22
AA	2,46	0,07	mmol/l	100%	-0,19
AB	2,43	0,10	mmol/l	98%	-0,77
AC	nb		mmol/l		
AD	2,31	0,347	mmol/l	94%	-3,08
AE	2,43	0,10	mmol/l	98%	-0,77
AF	2,43	0,097	mmol/l	98%	-0,77
AG	2,55	0,26	mmol/l	103%	1,54
AH			mmol/l		
AI	2,398	0,177	mmol/l	97%	-1,39
AJ	1,49 *	0,05	mmol/l	60%	-18,89
AK	2,44		mmol/l	99%	-0,58
AL			mmol/l		
AM			mmol/l		
AN	2,41		mmol/l	98%	-1,16
AO			mmol/l		
AP	2,41		mmol/l	98%	-1,16
AQ	2,41	0,06	mmol/l	98%	-1,16

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	2,40 \pm 0,08	2,43 \pm 0,02	mmol/l
Recov. \pm CI(99%)	97,0 \pm 3,3	98,3 \pm 0,9	%
SD between labs	0,17	0,05	mmol/l
RSD between labs	7,1	1,9	%
n for calculation	33	31	



Sample N152A

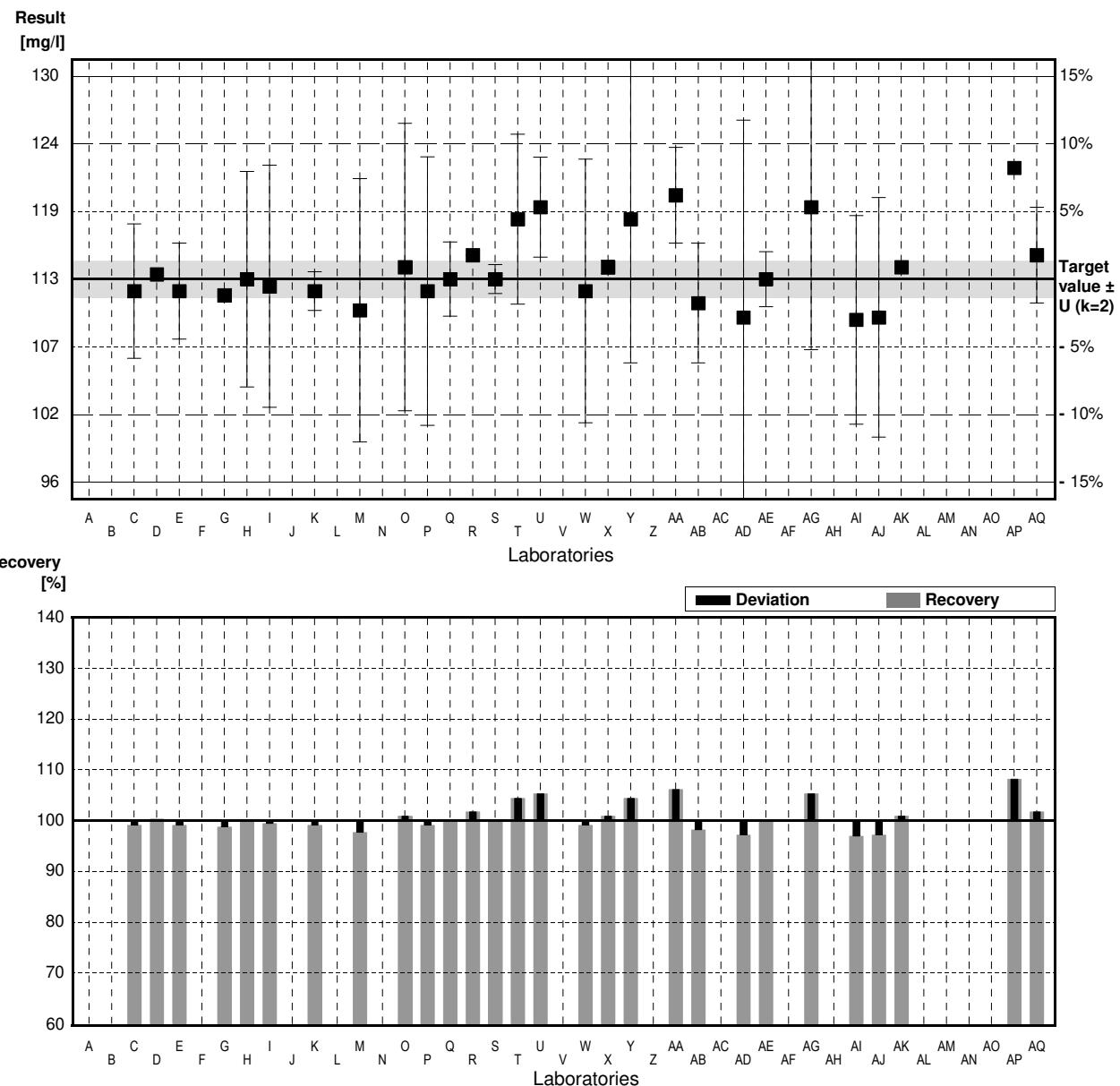
Parameter Hydrogen carbonate

Target value $\pm U$ ($k=2$) 113 mg/l \pm 2 mg/l
 IFA result $\pm U$ ($k=2$) 112 mg/l \pm 6 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	112.0	5.6	mg/l	99%	-0.35
D	113.4		mg/l	100%	0.14
E	112	4	mg/l	99%	-0.35
F			mg/l		
G	111.65		mg/l	99%	-0.48
H	113	9	mg/l	100%	0.00
I	112.4	10.1	mg/l	99%	-0.21
J			mg/l		
K	112	1.62	mg/l	99%	-0.35
L			mg/l		
M	110.4	11	mg/l	98%	-0.92
N			mg/l		
O	114	12	mg/l	101%	0.35
P	112	11.2	mg/l	99%	-0.35
Q	113	3.1	mg/l	100%	0.00
R	115	0.001	mg/l	102%	0.71
S	113	1.2	mg/l	100%	0.00
T	118.0	7.1	mg/l	104%	1.77
U	119 *	4.17	mg/l	105%	2.12
V			mg/l		
W	112	11	mg/l	99%	-0.35
X	114	0.577	mg/l	101%	0.35
Y	118	12	mg/l	104%	1.77
Z			mg/l		
AA	120 *	4	mg/l	106%	2.48
AB	111	5	mg/l	98%	-0.71
AC	nb		mg/l		
AD	109.80	16.47	mg/l	97%	-1.13
AE	113	2.3	mg/l	100%	0.00
AF			mg/l		
AG	119 *	11.9	mg/l	105%	2.12
AH			mg/l		
AI	109.6	8.7	mg/l	97%	-1.20
AJ	109.8	10	mg/l	97%	-1.13
AK	114		mg/l	101%	0.35
AL			mg/l		
AM			mg/l		
AN			mg/l		
AO			mg/l		
AP	122.28 *		mg/l	108%	3.28
AQ	115	4	mg/l	102%	0.71

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	114 \pm 2	113 \pm 1	mg/l
Recov. \pm CI(99%)	100,8 \pm 1,5	99,9 \pm 1,1	%
SD between labs	3	2	mg/l
RSD between labs	2.9	1.9	%
n for calculation	28	24	



Sample N152B

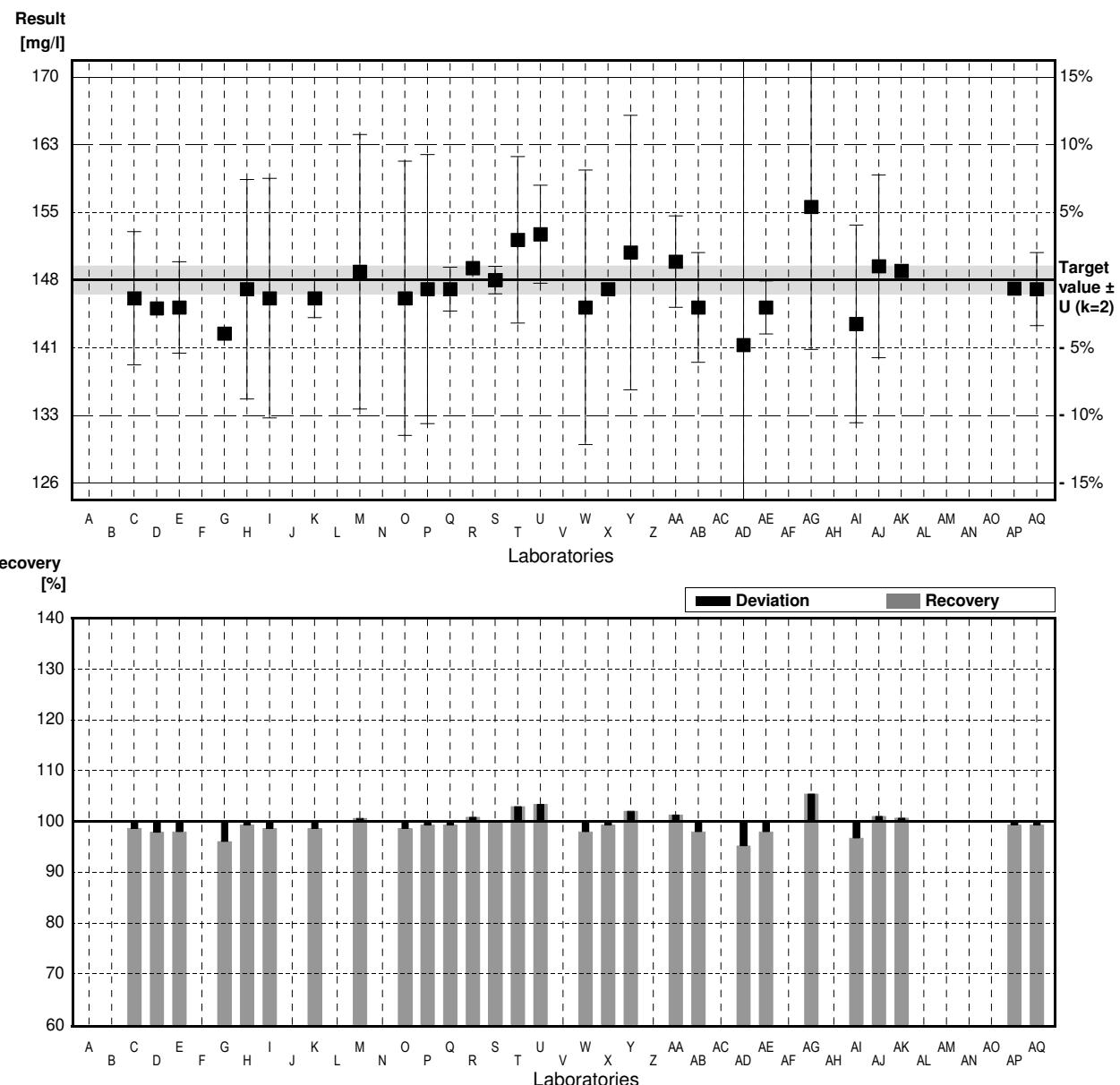
Parameter Hydrogen carbonate

Target value $\pm U$ ($k=2$) 148 mg/l \pm 2 mg/l
 IFA result $\pm U$ ($k=2$) 145 mg/l \pm 7 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	146.0	7.3	mg/l	99%	-0.54
D	144.9		mg/l	98%	-0.84
E	145	5	mg/l	98%	-0.81
F			mg/l		
G	142.15		mg/l	96%	-1.58
H	147	12	mg/l	99%	-0.27
I	146.0	13.1	mg/l	99%	-0.54
J			mg/l		
K	146	2.11	mg/l	99%	-0.54
L			mg/l		
M	148.9	15	mg/l	101%	0.24
N			mg/l		
O	146	15	mg/l	99%	-0.54
P	147	14.7	mg/l	99%	-0.27
Q	147	2.4	mg/l	99%	-0.27
R	149.3	0.001	mg/l	101%	0.35
S	148	1.5	mg/l	100%	0.00
T	152.4	9.1	mg/l	103%	1.19
U	153	5.36	mg/l	103%	1.35
V			mg/l		
W	145	15	mg/l	98%	-0.81
X	147	0.600	mg/l	99%	-0.27
Y	151	15	mg/l	102%	0.81
Z			mg/l		
AA	150	5	mg/l	101%	0.54
AB	145	6	mg/l	98%	-0.81
AC	nb		mg/l		
AD	140.90	210.14	mg/l	95%	-1.92
AE	145	2.9	mg/l	98%	-0.81
AF			mg/l		
AG	156	15.6	mg/l	105%	2.16
AH			mg/l		
AI	143.2	10.8	mg/l	97%	-1.30
AJ	149.5	10	mg/l	101%	0.41
AK	149		mg/l	101%	0.27
AL			mg/l		
AM			mg/l		
AN			mg/l		
AO			mg/l		
AP	147.06		mg/l	99%	-0.25
AQ	147	4	mg/l	99%	-0.27

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	147 \pm 2	147 \pm 2	mg/l
Recov. \pm CI(99%)	99.5 \pm 1,2	99.5 \pm 1,2	%
SD between labs	3	3	mg/l
RSD between labs	2.2	2.2	%
n for calculation	28	28	



Sample N152A

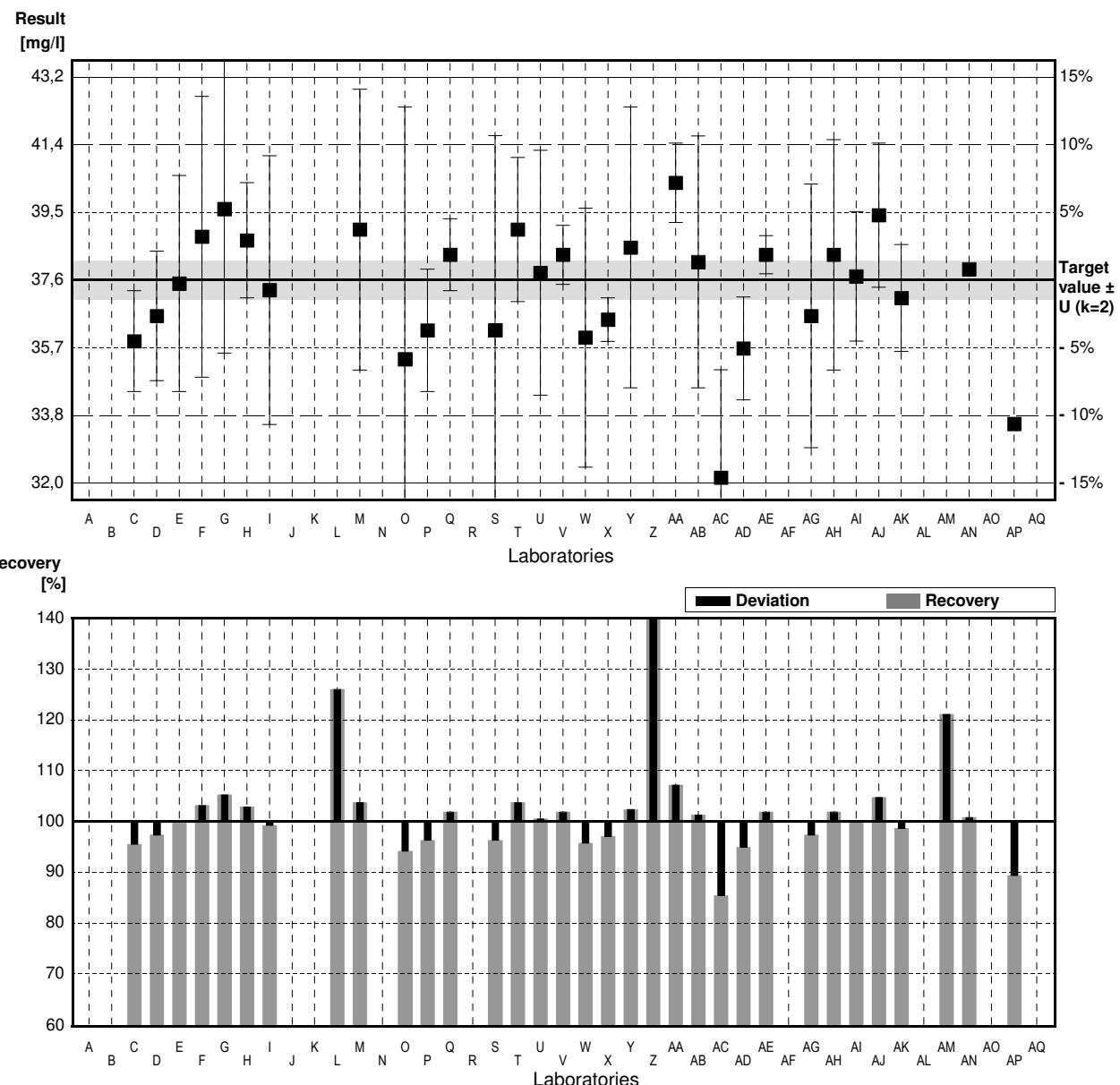
Parameter Calcium

Target value $\pm U$ ($k=2$) 37,6 mg/l \pm 0,5 mg/l
 IFA result $\pm U$ ($k=2$) 38,2 mg/l \pm 2,3 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	35,9	1,4	mg/l	95%	-1,37
D	36,6	1,8	mg/l	97%	-0,81
E	37,5	3	mg/l	100%	-0,08
F	38,8	3,9	mg/l	103%	0,97
G	39,57	4,0	mg/l	105%	1,59
H	38,7	1,6	mg/l	103%	0,89
I	37,32	3,73	mg/l	99%	-0,23
J			mg/l		
K			mg/l		
L	47,4 *		mg/l	126%	7,90
M	39,0	3,9	mg/l	104%	1,13
N			mg/l		
O	35,4	7	mg/l	94%	-1,77
P	36,2	1,7	mg/l	96%	-1,13
Q	38,3	1	mg/l	102%	0,56
R			mg/l		
S	36,21	5,4	mg/l	96%	-1,12
T	39,0	2,0	mg/l	104%	1,13
U	37,8	3,4	mg/l	101%	0,16
V	38,30	0,82	mg/l	102%	0,56
W	36,0	3,6	mg/l	96%	-1,29
X	36,5	0,603	mg/l	97%	-0,89
Y	38,5	3,9	mg/l	102%	0,73
Z	125,45 *		mg/l	334%	70,80
AA	40,3	1,1	mg/l	107%	2,18
AB	38,1	3,5	mg/l	101%	0,40
AC	32,11	3	mg/l	85%	-4,42
AD	35,70	1,428	mg/l	95%	-1,53
AE	38,3	0,53	mg/l	102%	0,56
AF			mg/l		
AG	36,6	3,66	mg/l	97%	-0,81
AH	38,3	3,2	mg/l	102%	0,56
AI	37,7	1,8	mg/l	100%	0,08
AJ	39,4	2,0	mg/l	105%	1,45
AK	37,1	1,48	mg/l	99%	-0,40
AL			mg/l		
AM	45,55 *	0,647	mg/l	121%	6,41
AN	37,9		mg/l	101%	0,24
AO			mg/l		
AP	33,6029		mg/l	89%	-3,22
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	40,6 \pm 7,4	37,4 \pm 0,9	mg/l
Recov. \pm CI(99%)	107,9 \pm 19,6	99,4 \pm 2,4	%
SD between labs	15,5	1,8	mg/l
RSD between labs	38,2	4,7	%
n for calculation	33	30	



Sample N152B

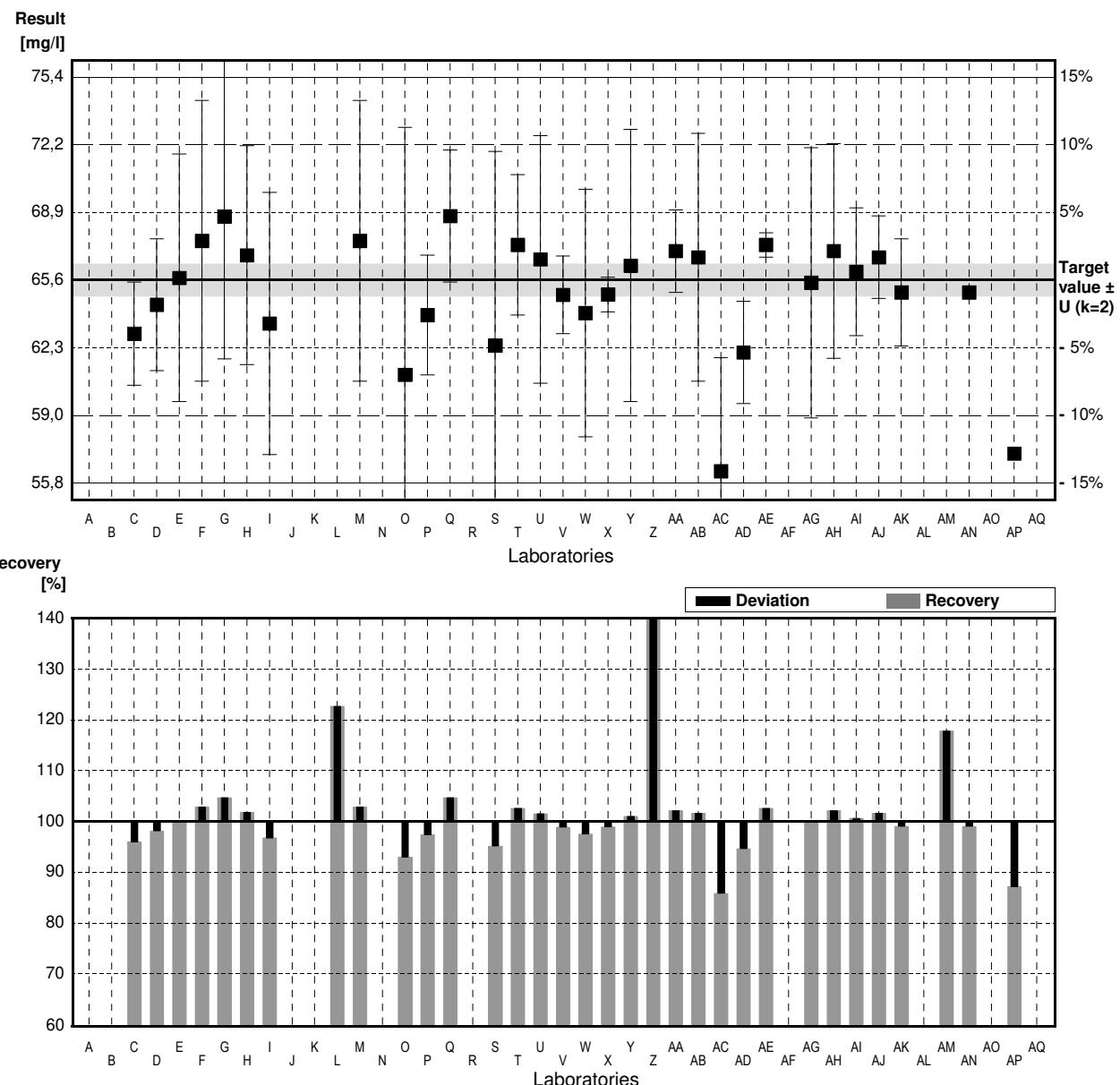
Parameter Calcium

Target value $\pm U$ ($k=2$) 65,6 mg/l \pm 0,8 mg/l
 IFA result $\pm U$ ($k=2$) 63,8 mg/l \pm 3,8 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	63,0	2,5	mg/l	96%	-1,20
D	64,4	3,2	mg/l	98%	-0,55
E	65,7	6	mg/l	100%	0,05
F	67,5	6,8	mg/l	103%	0,88
G	68,68	6,9	mg/l	105%	1,42
H	66,8	5,3	mg/l	102%	0,55
I	63,49	6,35	mg/l	97%	-0,97
J			mg/l		
K			mg/l		
L	80,5 *		mg/l	123%	6,88
M	67,5	6,8	mg/l	103%	0,88
N			mg/l		
O	61,0	12	mg/l	93%	-2,12
P	63,9	2,9	mg/l	97%	-0,79
Q	68,7	3,2	mg/l	105%	1,43
R			mg/l		
S	62,43	9,4	mg/l	95%	-1,46
T	67,3	3,4	mg/l	103%	0,79
U	66,6	6,0	mg/l	102%	0,46
V	64,88	1,88	mg/l	99%	-0,33
W	64	6	mg/l	98%	-0,74
X	64,9	0,839	mg/l	99%	-0,32
Y	66,3	6,6	mg/l	101%	0,32
Z	167,53 *		mg/l	255%	47,09
AA	67	2	mg/l	102%	0,65
AB	66,7	6,0	mg/l	102%	0,51
AC	56,33 *	5,5	mg/l	86%	-4,28
AD	62,09	2,484	mg/l	95%	-1,62
AE	67,3	0,59	mg/l	103%	0,79
AF			mg/l		
AG	65,47	6,547	mg/l	100%	-0,06
AH	67	5,2	mg/l	102%	0,65
AI	66,0	3,1	mg/l	101%	0,18
AJ	66,7	2,0	mg/l	102%	0,51
AK	65	2,60	mg/l	99%	-0,28
AL			mg/l		
AM	77,333 *	1,078	mg/l	118%	5,42
AN	65		mg/l	99%	-0,28
AO			mg/l		
AP	57,1889 *		mg/l	87%	-3,89
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	68,9 \pm 8,7	65,5 \pm 1,0	mg/l
Recov. \pm CI(99%)	105,1 \pm 13,3	99,9 \pm 1,6	%
SD between labs	18,2	2,0	mg/l
RSD between labs	26,5	3,0	%
n for calculation	33	28	



Sample N152A

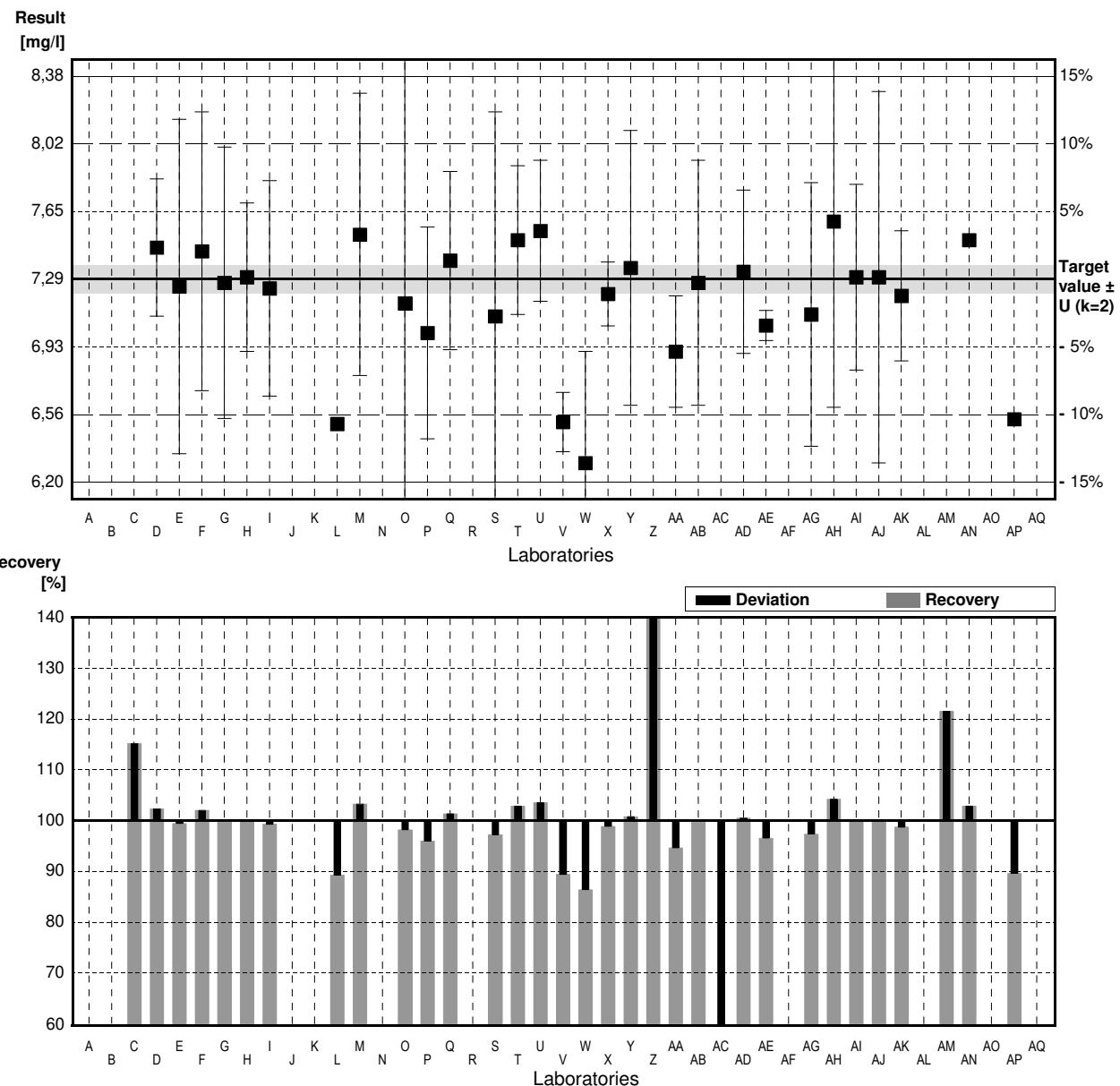
Parameter Magnesium

Target value $\pm U$ ($k=2$) 7,29 mg/l \pm 0,08 mg/l
 IFA result $\pm U$ ($k=2$) 7,05 mg/l \pm 0,35 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	8,4 *	0,4	mg/l	115%	4,23
D	7,46	0,37	mg/l	102%	0,65
E	7,25	0,9	mg/l	99%	-0,15
F	7,44	0,75	mg/l	102%	0,57
G	7,27	0,73	mg/l	100%	-0,08
H	7,3	0,4	mg/l	100%	0,04
I	7,24	0,58	mg/l	99%	-0,19
J			mg/l		
K			mg/l		
L	6,51		mg/l	89%	-2,97
M	7,53	0,76	mg/l	103%	0,91
N			mg/l		
O	7,16	1,5	mg/l	98%	-0,50
P	7,00	0,57	mg/l	96%	-1,11
Q	7,39	0,48	mg/l	101%	0,38
R			mg/l		
S	7,09	1,1	mg/l	97%	-0,76
T	7,5	0,4	mg/l	103%	0,80
U	7,55	0,38	mg/l	104%	0,99
V	6,52	0,16	mg/l	89%	-2,93
W	6,3 *	0,6	mg/l	86%	-3,77
X	7,21	0,172	mg/l	99%	-0,30
Y	7,35	0,74	mg/l	101%	0,23
Z	27,23 *		mg/l	374%	75,98
AA	6,9	0,3	mg/l	95%	-1,49
AB	7,27	0,66	mg/l	100%	-0,08
AC	2,94 *	0,33	mg/l	40%	-16,58
AD	7,33	0,44	mg/l	101%	0,15
AE	7,04	0,081	mg/l	97%	-0,95
AF			mg/l		
AG	7,1	0,71	mg/l	97%	-0,72
AH	7,6	1,0	mg/l	104%	1,18
AI	7,3	0,5	mg/l	100%	0,04
AJ	7,3	1,0	mg/l	100%	0,04
AK	7,2	0,35	mg/l	99%	-0,34
AL			mg/l		
AM	8,862 *	0,266	mg/l	122%	5,99
AN	7,5		mg/l	103%	0,80
AO			mg/l		
AP	6,5356		mg/l	90%	-2,87
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	7,74 \pm 1,72	7,21 \pm 0,16	mg/l
Recov. \pm CI(99%)	106,2 \pm 23,6	98,9 \pm 2,1	%
SD between labs	3,61	0,30	mg/l
RSD between labs	46,6	4,1	%
n for calculation	33	28	



Sample N152B

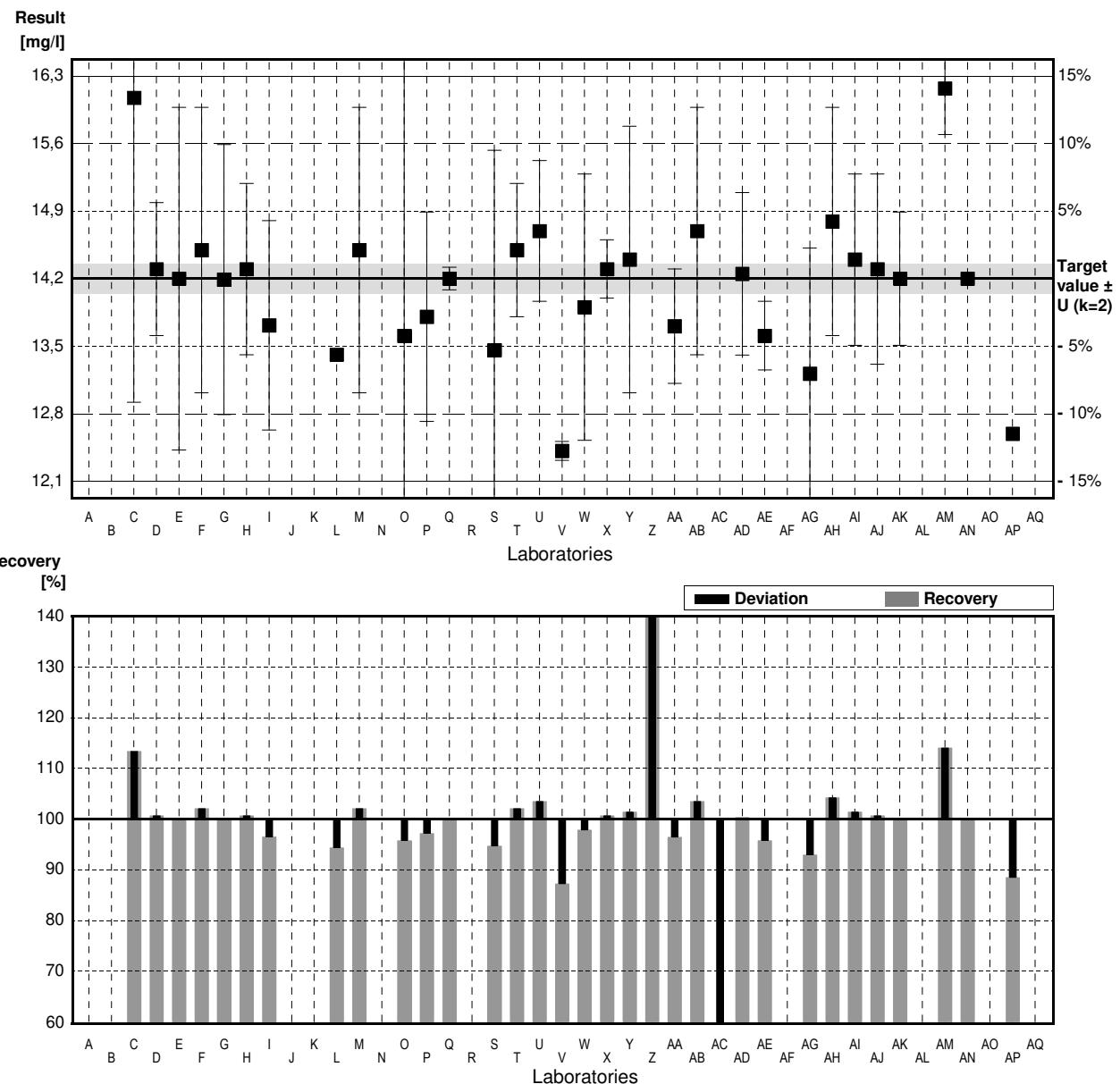
Parameter Magnesium

Target value $\pm U$ ($k=2$) 14,2 mg/l \pm 0,2 mg/l
 IFA result $\pm U$ ($k=2$) 13,9 mg/l \pm 0,7 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	16,1 *	3,2	mg/l	113%	3,72
D	14,3	0,7	mg/l	101%	0,20
E	14,2	1,8	mg/l	100%	0,00
F	14,5	1,5	mg/l	102%	0,59
G	14,19	1,42	mg/l	100%	-0,02
H	14,3	0,9	mg/l	101%	0,20
I	13,71	1,10	mg/l	97%	-0,96
J			mg/l		
K			mg/l		
L	13,4		mg/l	94%	-1,56
M	14,5	1,5	mg/l	102%	0,59
N			mg/l		
O	13,6	2,8	mg/l	96%	-1,17
P	13,8	1,1	mg/l	97%	-0,78
Q	14,2	0,12	mg/l	100%	0,00
R			mg/l		
S	13,45	2,1	mg/l	95%	-1,47
T	14,5	0,7	mg/l	102%	0,59
U	14,7	0,74	mg/l	104%	0,98
V	12,39	0,10	mg/l	87%	-3,54
W	13,9	1,4	mg/l	98%	-0,59
X	14,3	0,306	mg/l	101%	0,20
Y	14,4	1,4	mg/l	101%	0,39
Z	22,85 *		mg/l	161%	16,92
AA	13,7	0,6	mg/l	96%	-0,98
AB	14,7	1,3	mg/l	104%	0,98
AC	5,91 *	6	mg/l	42%	-16,22
AD	14,25	0,855	mg/l	100%	0,10
AE	13,6	0,36	mg/l	96%	-1,17
AF			mg/l		
AG	13,2	1,32	mg/l	93%	-1,96
AH	14,8	1,2	mg/l	104%	1,17
AI	14,4	0,9	mg/l	101%	0,39
AJ	14,3	1,0	mg/l	101%	0,20
AK	14,2	0,70	mg/l	100%	0,00
AL			mg/l		
AM	16,200 *	0,486	mg/l	114%	3,91
AN	14,2		mg/l	100%	0,00
AO			mg/l		
AP	12,5704		mg/l	89%	-3,19
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	14,2 \pm 1,1	14,0 \pm 0,3	mg/l
Recov. \pm CI(99%)	99,7 \pm 7,6	98,7 \pm 2,1	%
SD between labs	2,2	0,6	mg/l
RSD between labs	15,9	4,2	%
n for calculation	33	29	



Sample N152A

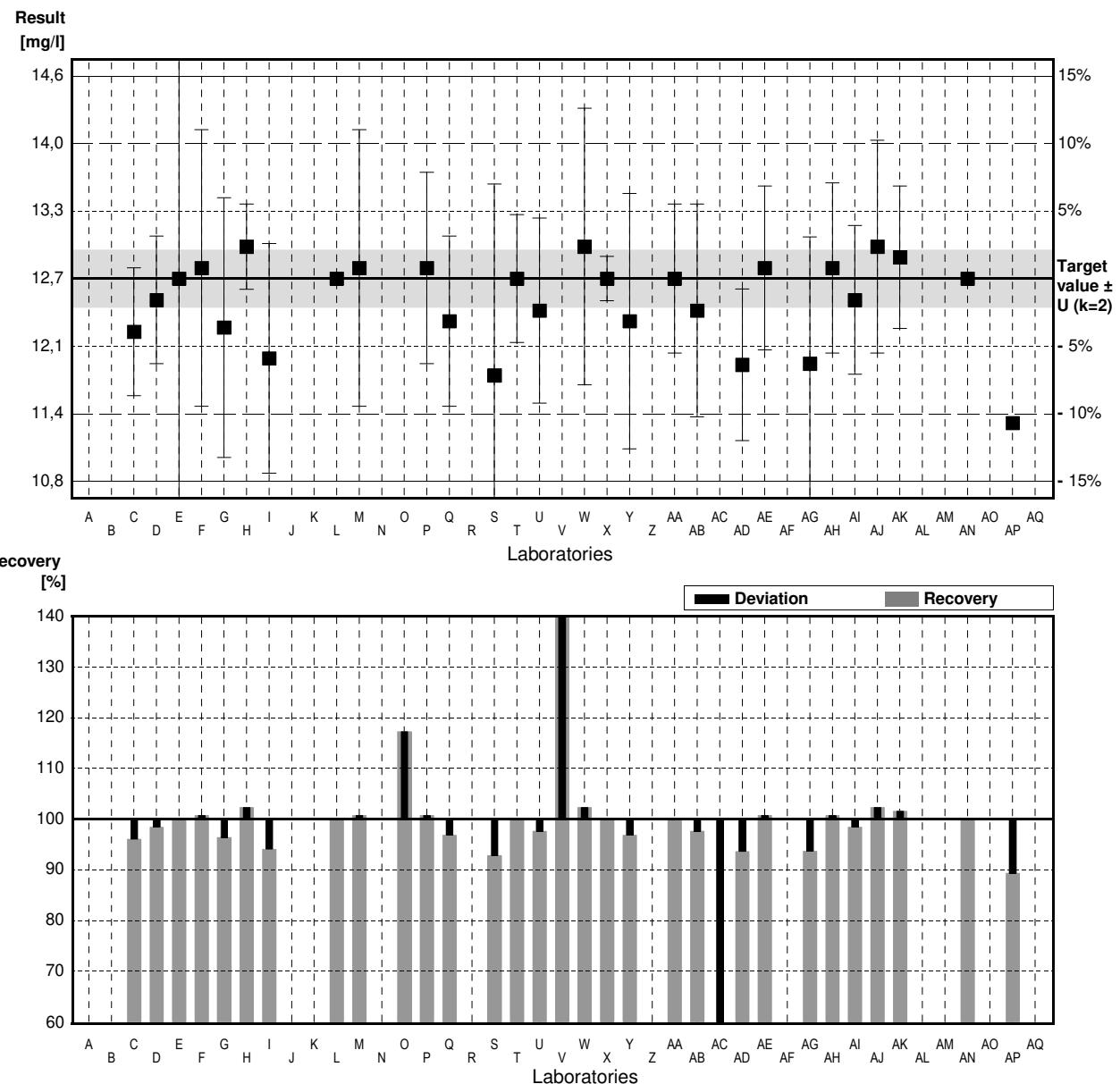
Parameter Sodium

Target value $\pm U$ ($k=2$) 12,7 mg/l \pm 0,3 mg/l
 IFA result $\pm U$ ($k=2$) 13,6 mg/l \pm 1,0 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	12,2	0,6	mg/l	96%	-1,16
D	12,5	0,6	mg/l	98%	-0,46
E	12,7	2	mg/l	100%	0,00
F	12,8	1,3	mg/l	101%	0,23
G	12,24	1,22	mg/l	96%	-1,07
H	13,0	0,4	mg/l	102%	0,69
I	11,95	1,08	mg/l	94%	-1,74
J			mg/l		
K			mg/l		
L	12,7		mg/l	100%	0,00
M	12,8	1,3	mg/l	101%	0,23
N			mg/l		
O	14,9 *	3	mg/l	117%	5,09
P	12,8	0,9	mg/l	101%	0,23
Q	12,3	0,8	mg/l	97%	-0,93
R			mg/l		
S	11,79	1,8	mg/l	93%	-2,11
T	12,7	0,6	mg/l	100%	0,00
U	12,4	0,87	mg/l	98%	-0,69
V	1347,9 *	8,47	mg/l	10613%	3092,17
W	13,0	1,3	mg/l	102%	0,69
X	12,7	0,208	mg/l	100%	0,00
Y	12,3	1,2	mg/l	97%	-0,93
Z			mg/l		
AA	12,7	0,7	mg/l	100%	0,00
AB	12,4	1,0	mg/l	98%	-0,69
AC	6,12 *	0,6	mg/l	48%	-15,24
AD	11,89	0,713	mg/l	94%	-1,88
AE	12,8	0,77	mg/l	101%	0,23
AF			mg/l		
AG	11,9	1,19	mg/l	94%	-1,85
AH	12,8	0,8	mg/l	101%	0,23
AI	12,5	0,7	mg/l	98%	-0,46
AJ	13,0	1,0	mg/l	102%	0,69
AK	12,9	0,67	mg/l	102%	0,46
AL			mg/l		
AM			mg/l		
AN	12,7		mg/l	100%	0,00
AO			mg/l		
AP	11,3440		mg/l	89%	-3,14
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	55,4 \pm 118,5	12,5 \pm 0,2	mg/l
Recov. \pm CI(99%)	436,6 \pm 932,9	98,4 \pm 1,7	%
SD between labs	239,9	0,4	mg/l
RSD between labs	432,6	3,4	%
n for calculation	31	28	



Sample N152B

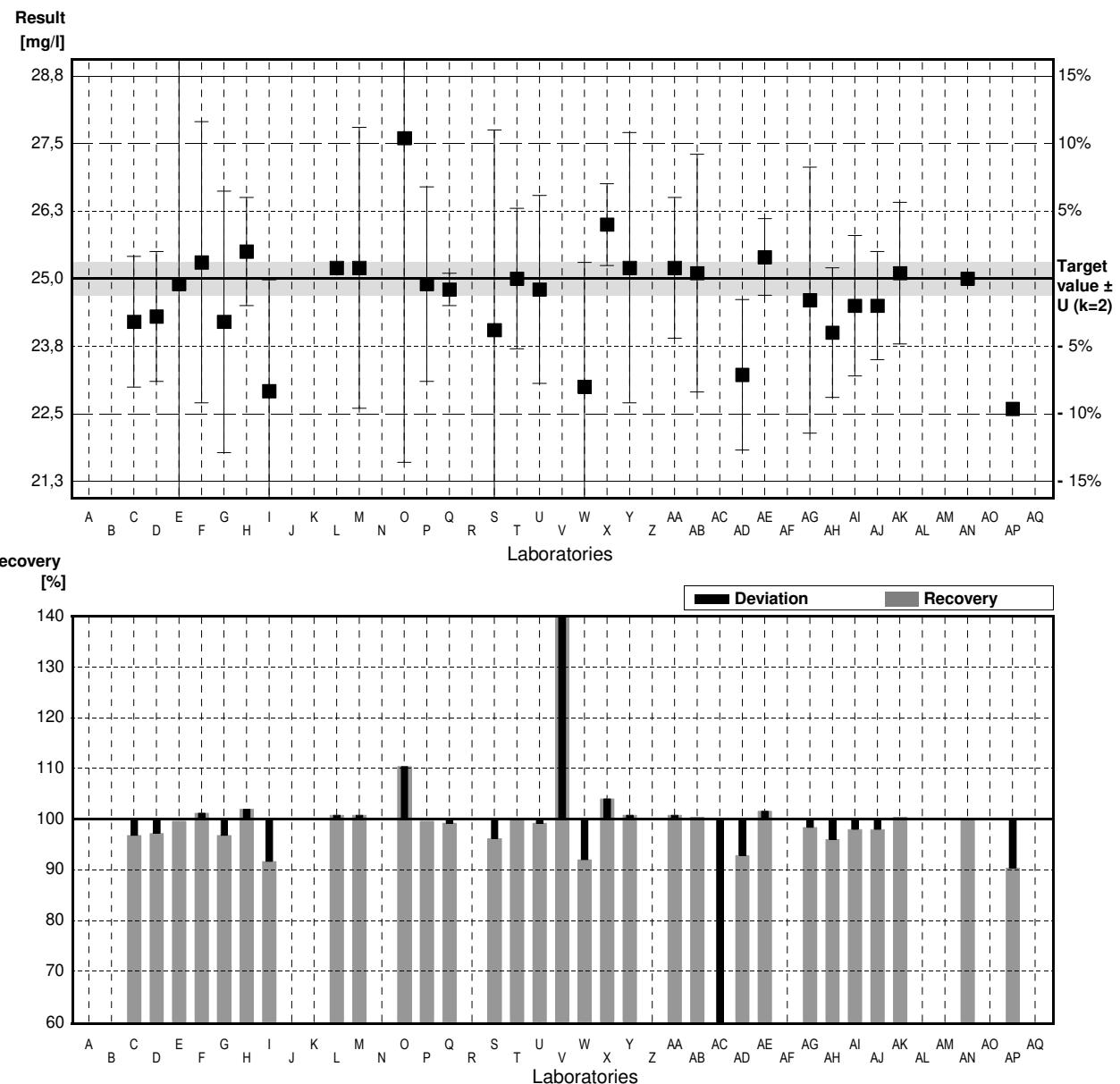
Parameter Sodium

Target value $\pm U$ ($k=2$) 25,0 mg/l \pm 0,3 mg/l
 IFA result $\pm U$ ($k=2$) 27,1 mg/l \pm 1,9 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	24,2	1,21	mg/l	97%	-0,94
D	24,3	1,2	mg/l	97%	-0,82
E	24,9	4	mg/l	100%	-0,12
F	25,3	2,6	mg/l	101%	0,35
G	24,20	2,42	mg/l	97%	-0,94
H	25,5	1,0	mg/l	102%	0,59
I	22,92 * 22,92	2,06	mg/l	92%	-2,45
J			mg/l		
K			mg/l		
L	25,2		mg/l	101%	0,24
M	25,2	2,6	mg/l	101%	0,24
N			mg/l		
O	27,6 * 27,6	6	mg/l	110%	3,06
P	24,9	1,8	mg/l	100%	-0,12
Q	24,8	0,3	mg/l	99%	-0,24
R			mg/l		
S	24,05	3,7	mg/l	96%	-1,12
T	25,0	1,3	mg/l	100%	0,00
U	24,8	1,74	mg/l	99%	-0,24
V	2624,9 * 2624,9	16,97	mg/l	10500%	3058,71
W	23,0 * 23,0	2,3	mg/l	92%	-2,35
X	26,0	0,757	mg/l	104%	1,18
Y	25,2	2,5	mg/l	101%	0,24
Z			mg/l		
AA	25,2	1,3	mg/l	101%	0,24
AB	25,1	2,2	mg/l	100%	0,12
AC	12,3 * 12,3	1,2	mg/l	49%	-14,94
AD	23,22	1,393	mg/l	93%	-2,09
AE	25,4	0,71	mg/l	102%	0,47
AF			mg/l		
AG	24,6	2,46	mg/l	98%	-0,47
AH	24,0	1,2	mg/l	96%	-1,18
AI	24,5	1,3	mg/l	98%	-0,59
AJ	24,5	1,0	mg/l	98%	-0,59
AK	25,1	1,31	mg/l	100%	0,12
AL			mg/l		
AM			mg/l		
AN	25,0		mg/l	100%	0,00
AO			mg/l		
AP	22,591 * 22,591	0,90	mg/l	90%	-2,83
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	108,2 \pm 230,7	24,8 \pm 0,3	mg/l
Recov. \pm CI(99%)	432,7 \pm 922,8	99,2 \pm 1,3	%
SD between labs	467,1	0,6	mg/l
RSD between labs	431,8	2,4	%
n for calculation	31	25	



Sample N152A

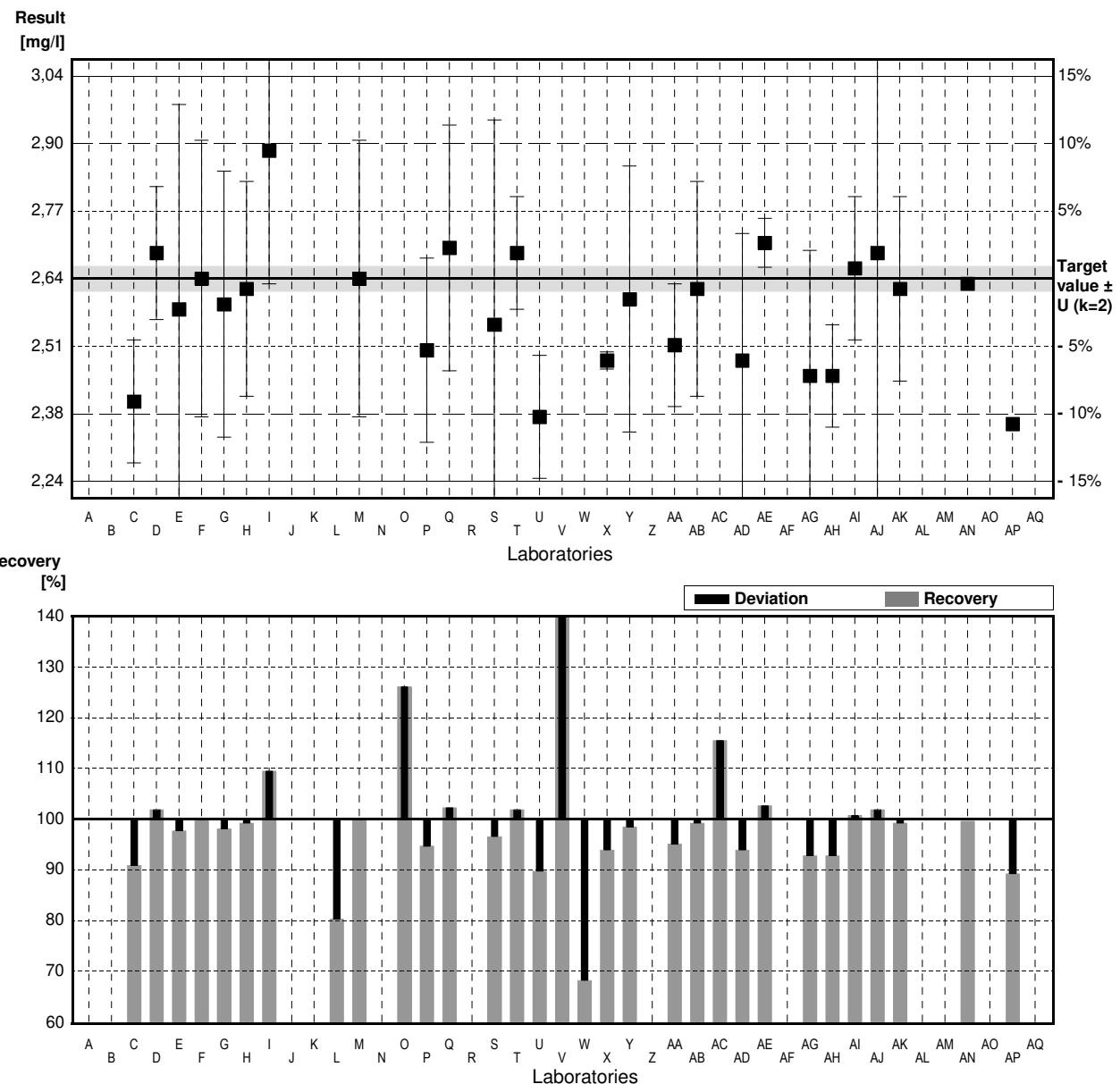
Parameter Potassium

Target value $\pm U$ ($k=2$) 2,64 mg/l \pm 0,02 mg/l
 IFA result $\pm U$ ($k=2$) 2,65 mg/l \pm 0,16 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	2,40	0,12	mg/l	91%	-1,93
D	2,69	0,13	mg/l	102%	0,40
E	2,58	0,4	mg/l	98%	-0,48
F	2,64	0,27	mg/l	100%	0,00
G	2,59	0,26	mg/l	98%	-0,40
H	2,62	0,21	mg/l	99%	-0,16
I	2,89	0,26	mg/l	109%	2,01
J			mg/l		
K			mg/l		
L	2,12 *		mg/l	80%	-4,19
M	2,64	0,27	mg/l	100%	0,00
N			mg/l		
O	3,33 *	0,6	mg/l	126%	5,56
P	2,50	0,18	mg/l	95%	-1,13
Q	2,70	0,24	mg/l	102%	0,48
R			mg/l		
S	2,55	0,4	mg/l	97%	-0,73
T	2,69	0,11	mg/l	102%	0,40
U	2,37	0,12	mg/l	90%	-2,18
V	269,49 *	0,88	mg/l	10208%	2150,63
W	1,80 *	0,2	mg/l	68%	-6,77
X	2,48	0,017	mg/l	94%	-1,29
Y	2,60	0,26	mg/l	98%	-0,32
Z			mg/l		
AA	2,51	0,12	mg/l	95%	-1,05
AB	2,62	0,21	mg/l	99%	-0,16
AC	3,05 *	0,3	mg/l	116%	3,30
AD	2,48	0,248	mg/l	94%	-1,29
AE	2,71	0,048	mg/l	103%	0,56
AF			mg/l		
AG	2,45	0,245	mg/l	93%	-1,53
AH	2,45	0,1	mg/l	93%	-1,53
AI	2,66	0,14	mg/l	101%	0,16
AJ	2,69	0,5	mg/l	102%	0,40
AK	2,62	0,18	mg/l	99%	-0,16
AL			mg/l		
AM			mg/l		
AN	2,63		mg/l	100%	-0,08
AO			mg/l		
AP	2,3561		mg/l	89%	-2,29
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	11,19 \pm 23,68	2,58 \pm 0,07	mg/l
Recov. \pm CI(99%)	423,9 \pm 896,9	97,8 \pm 2,5	%
SD between labs	47,94	0,12	mg/l
RSD between labs	428,4	4,8	%
n for calculation	31	26	



Sample N152B

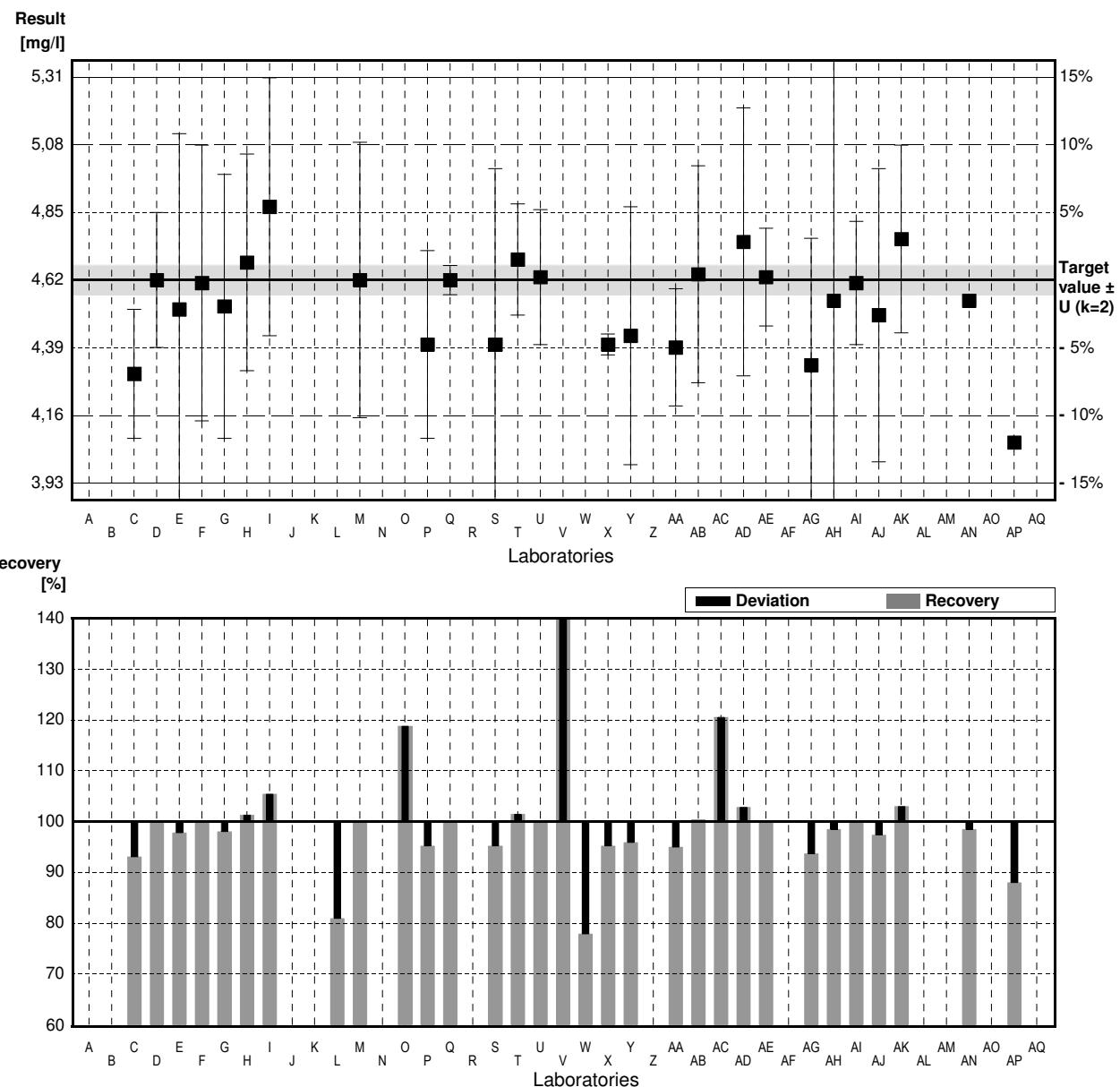
Parameter Potassium

Target value $\pm U$ ($k=2$) 4,62 mg/l \pm 0,05 mg/l
 IFA result $\pm U$ ($k=2$) 4,67 mg/l \pm 0,28 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	4.30	0.22	mg/l	93%	-1.47
D	4.62	0.23	mg/l	100%	0.00
E	4.52	0.6	mg/l	98%	-0.46
F	4.61	0.47	mg/l	100%	-0.05
G	4.53	0.45	mg/l	98%	-0.41
H	4.68	0.37	mg/l	101%	0.28
I	4.87	0.44	mg/l	105%	1.15
J			mg/l		
K			mg/l		
L	3.74 *		mg/l	81%	-4.05
M	4.62	0.47	mg/l	100%	0.00
N			mg/l		
O	5.49 *	1.2	mg/l	119%	4.01
P	4.40	0.32	mg/l	95%	-1.01
Q	4.62	0.05	mg/l	100%	0.00
R			mg/l		
S	4.40	0.6	mg/l	95%	-1.01
T	4.69	0.19	mg/l	102%	0.32
U	4.63	0.23	mg/l	100%	0.05
V	497.82 *	6.63	mg/l	10775%	2271.35
W	3.60 *	0.4	mg/l	78%	-4.70
X	4.40	0.036	mg/l	95%	-1.01
Y	4.43	0.44	mg/l	96%	-0.88
Z			mg/l		
AA	4.39	0.20	mg/l	95%	-1.06
AB	4.64	0.37	mg/l	100%	0.09
AC	5.57 *	0.6	mg/l	121%	4.38
AD	4.75	0.457	mg/l	103%	0.60
AE	4.63	0.167	mg/l	100%	0.05
AF			mg/l		
AG	4.33	0.433	mg/l	94%	-1.34
AH	4.55	0.8	mg/l	98%	-0.32
AI	4.61	0.21	mg/l	100%	-0.05
AJ	4.50	0.5	mg/l	97%	-0.55
AK	4.76	0.32	mg/l	103%	0.64
AL			mg/l		
AM			mg/l		
AN	4.55		mg/l	98%	-0.32
AO			mg/l		
AP	4.0655		mg/l	88%	-2.55
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	20,46 \pm 43,76	4,54 \pm 0,09	mg/l
Recov. \pm CI(99%)	442,9 \pm 947,1	98,3 \pm 2,0	%
SD between labs	88,59	0,17	mg/l
RSD between labs	433,0	3,7	%
n for calculation	31	26	



Sample N152A

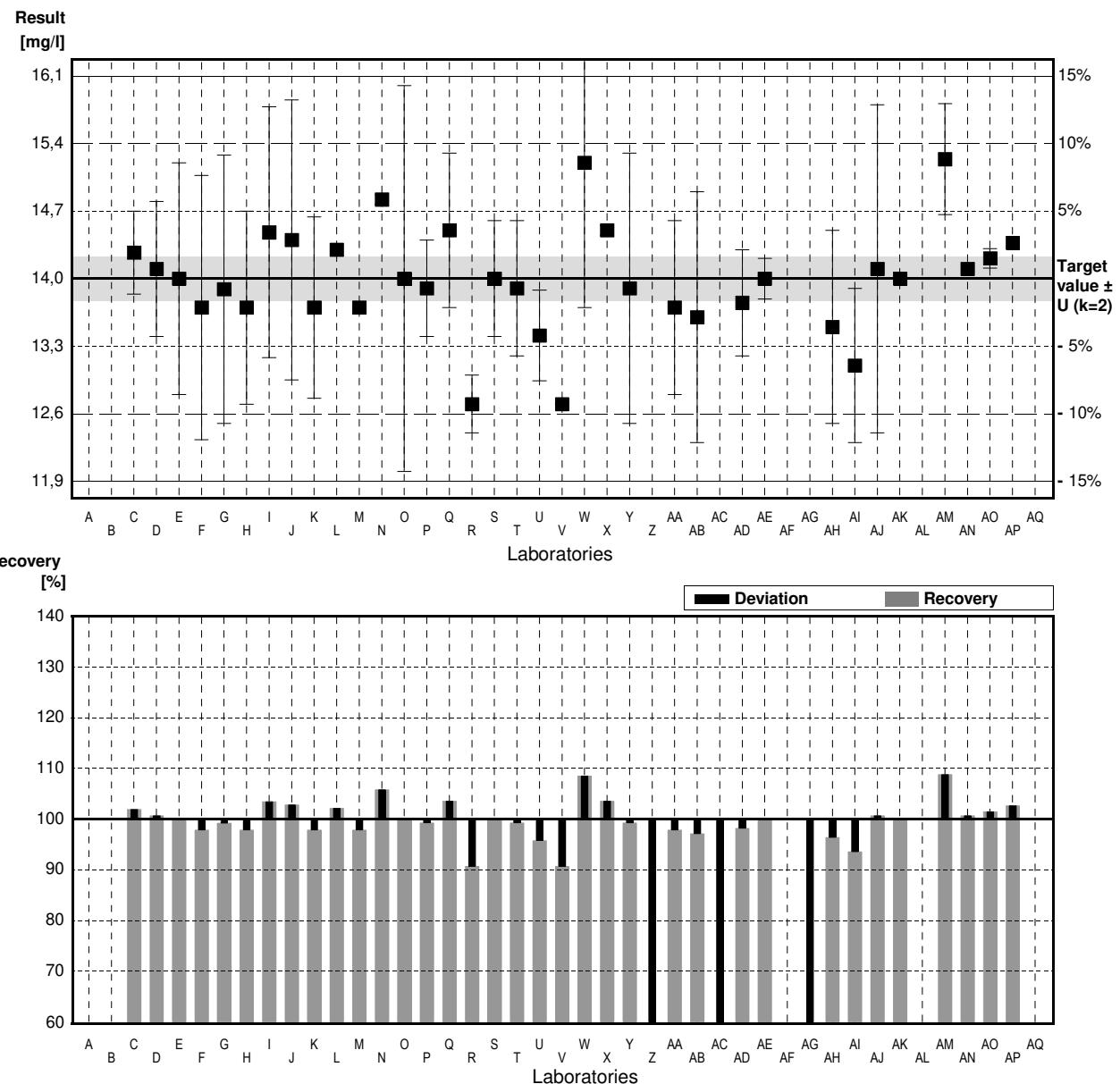
Parameter Nitrate

Target value $\pm U$ ($k=2$) 14,0 mg/l \pm 0,2 mg/l
 IFA result $\pm U$ ($k=2$) 13,7 mg/l \pm 0,7 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	14,27	0,43	mg/l	102%	0,57
D	14,1	0,7	mg/l	101%	0,21
E	14,0	1,2	mg/l	100%	0,00
F	13,7	1,37	mg/l	98%	-0,63
G	13,89	1,39	mg/l	99%	-0,23
H	13,7	1,0	mg/l	98%	-0,63
I	14,48	1,30	mg/l	103%	1,01
J	14,4	1,45	mg/l	103%	0,84
K	13,7	0,94	mg/l	98%	-0,63
L	14,3		mg/l	102%	0,63
M	13,7		mg/l	98%	-0,63
N	14,82	0,05	mg/l	106%	1,72
O	14,0	2	mg/l	100%	0,00
P	13,9	0,5	mg/l	99%	-0,21
Q	14,5	0,8	mg/l	104%	1,05
R	12,7	0,3	mg/l	91%	-2,73
S	14,0	0,6	mg/l	100%	0,00
T	13,9	0,7	mg/l	99%	-0,21
U	13,41	0,47	mg/l	96%	-1,24
V	12,70	0,01	mg/l	91%	-2,73
W	15,2	1,5	mg/l	109%	2,52
X	14,5	0,050	mg/l	104%	1,05
Y	13,9	1,4	mg/l	99%	-0,21
Z	3,22 *	0,482	mg/l	23%	-22,65
AA	13,7	0,9	mg/l	98%	-0,63
AB	13,6	1,3	mg/l	97%	-0,84
AC	8,19 *	0,8	mg/l	59%	-12,21
AD	13,75	0,55	mg/l	98%	-0,53
AE	14,0	0,21	mg/l	100%	0,00
AF			mg/l		
AG	5,2815 *	0,52815	mg/l	38%	-18,32
AH	13,5	1	mg/l	96%	-1,05
AI	13,1	0,8	mg/l	94%	-1,89
AJ	14,1	1,7	mg/l	101%	0,21
AK	14,0		mg/l	100%	0,00
AL			mg/l		
AM	15,238	0,574	mg/l	109%	2,60
AN	14,1		mg/l	101%	0,21
AO	14,210	0,10	mg/l	102%	0,44
AP	14,3715		mg/l	103%	0,78
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	13,3 \pm 1,1	14,0 \pm 0,3	mg/l
Recov. \pm CI(99%)	95,1 \pm 7,7	99,9 \pm 1,8	%
SD between labs	2,4	0,6	mg/l
RSD between labs	18,3	4,0	%
n for calculation	38	35	



Sample N152B

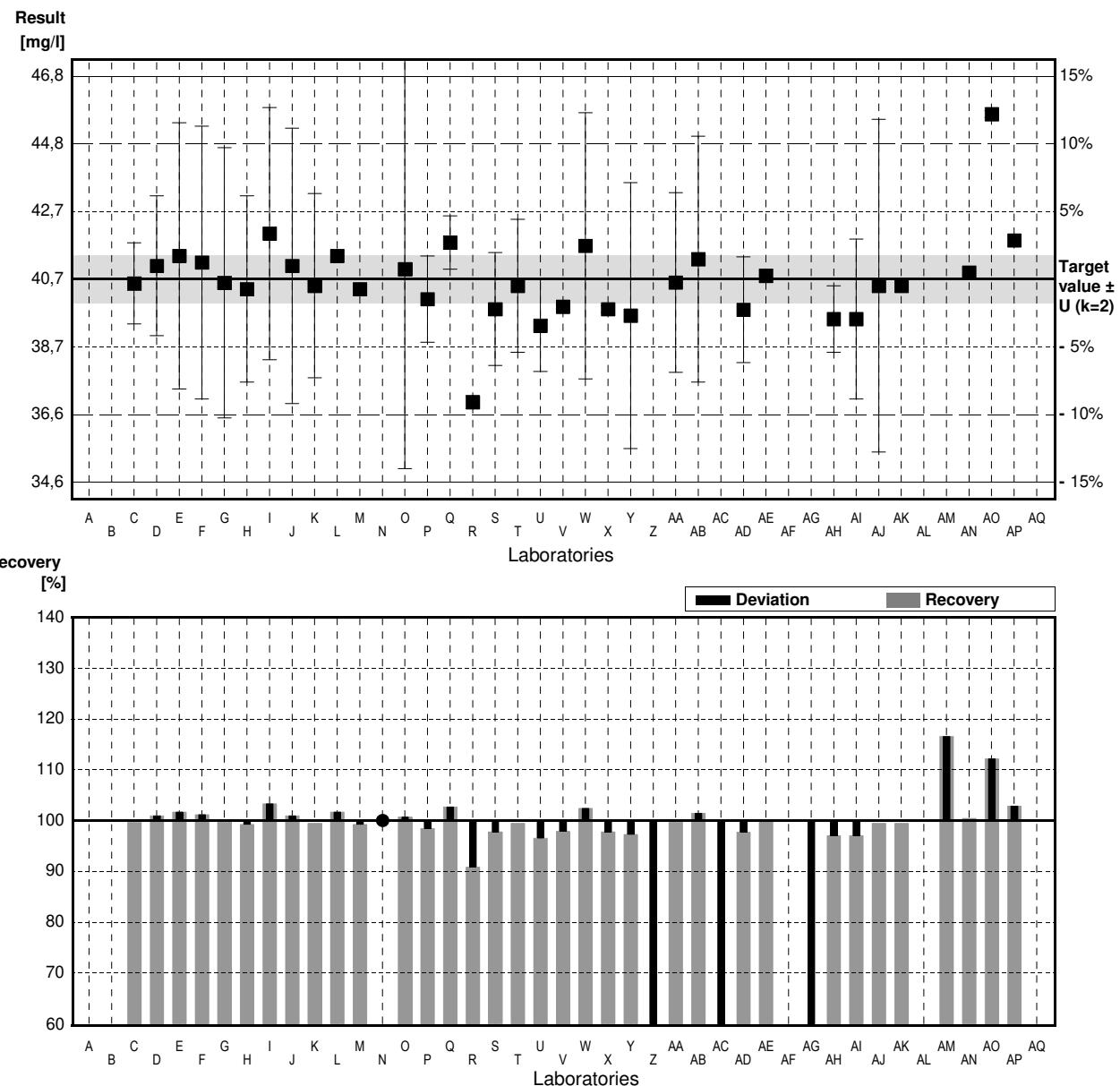
Parameter Nitrate

Target value $\pm U$ ($k=2$) 40,7 mg/l \pm 0,7 mg/l
 IFA result $\pm U$ ($k=2$) 39,7 mg/l \pm 2,0 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	40,57	1,22	mg/l	100%	-0,09
D	41,1	2,1	mg/l	101%	0,29
E	41,4	4	mg/l	102%	0,51
F	41,2	4,1	mg/l	101%	0,36
G	40,59	4,06	mg/l	100%	-0,08
H	40,4	2,8	mg/l	99%	-0,22
I	42,07	3,79	mg/l	103%	0,99
J	41,1	4,14	mg/l	101%	0,29
K	40,5	2,77	mg/l	100%	-0,14
L	41,4		mg/l	102%	0,51
M	40,4		mg/l	99%	-0,22
N	>25		mg/l	*	
O	41,0	6	mg/l	101%	0,22
P	40,1	1,3	mg/l	99%	-0,43
Q	41,8	0,8	mg/l	103%	0,79
R	37,0	*	mg/l	91%	-2,67
S	39,8	1,7	mg/l	98%	-0,65
T	40,5	2,0	mg/l	100%	-0,14
U	39,30	1,38	mg/l	97%	-1,01
V	39,87	0,07	mg/l	98%	-0,60
W	41,7	4	mg/l	102%	0,72
X	39,8	0,100	mg/l	98%	-0,65
Y	39,6	4,0	mg/l	97%	-0,79
Z	9,10	*	mg/l	22%	-22,84
AA	40,6	2,7	mg/l	100%	-0,07
AB	41,3	3,7	mg/l	101%	0,43
AC	19,43	*	mg/l	48%	-15,37
AD	39,779	1,5912	mg/l	98%	-0,67
AE	40,8	0,19	mg/l	100%	0,07
AF			mg/l		
AG	18,7725	*	1,87725	mg/l	46% -15,85
AH	39,5	1	mg/l	97%	-0,87
AI	39,5	2,4	mg/l	97%	-0,87
AJ	40,5	5,0	mg/l	100%	-0,14
AK	40,5		mg/l	100%	-0,14
AL			mg/l		
AM	47,457	*	1,789	mg/l	117% 4,88
AN	40,9		mg/l	100%	0,14
AO	45,660	*	0,10	mg/l	112% 3,58
AP	41,865		mg/l	103%	0,84
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	38,8 \pm 3,3	40,6 \pm 0,4	mg/l
Recov. \pm CI(99%)	95,4 \pm 8,0	99,8 \pm 0,9	%
SD between labs	7,3	0,8	mg/l
RSD between labs	18,7	1,9	%
n for calculation	37	31	



Sample N152A

Parameter Nitrite

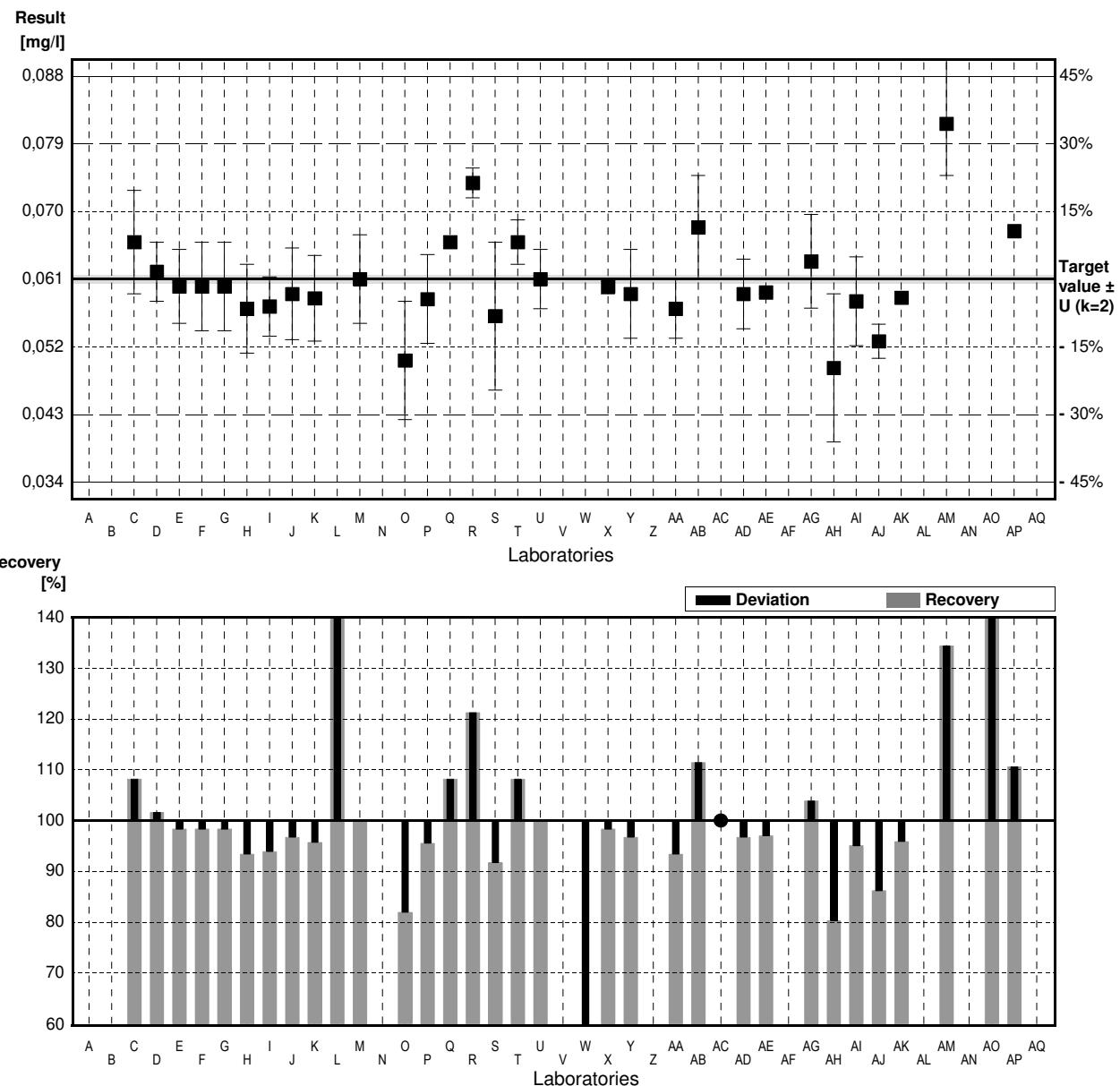
Target value $\pm U$ ($k=2$) 0,061 mg/l \pm 0,001 mg/l

IFA result $\pm U$ ($k=2$) 0,058 mg/l \pm 0,003 mg/l

Stability test $\pm U$ ($k=2$) 0,058 mg/l \pm 0,003 mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	0,066	0,007	mg/l	108%	1,41
D	0,062	0,004	mg/l	102%	0,28
E	0,060	0,005	mg/l	98%	-0,28
F	0,060	0,006	mg/l	98%	-0,28
G	0,060	0,006	mg/l	98%	-0,28
H	0,057	0,006	mg/l	93%	-1,13
I	0,0573	0,0040	mg/l	94%	-1,05
J	0,059	0,0062	mg/l	97%	-0,57
K	0,0584	0,0058	mg/l	96%	-0,73
L	0,089 *		mg/l	146%	7,91
M	0,061	0,006	mg/l	100%	0,00
N			mg/l		
O	0,0500	0,008	mg/l	82%	-3,11
P	0,0583	0,006	mg/l	96%	-0,76
Q	0,066		mg/l	108%	1,41
R	0,074 *	0,002	mg/l	121%	3,67
S	0,056	0,01	mg/l	92%	-1,41
T	0,066	0,003	mg/l	108%	1,41
U	0,061	0,004	mg/l	100%	0,00
V			mg/l		
W	0,0250 *	0,003	mg/l	41%	-10,18
X	0,0600	0,001	mg/l	98%	-0,28
Y	0,059	0,006	mg/l	97%	-0,57
Z			mg/l		
AA	0,057	0,004	mg/l	93%	-1,13
AB	0,068	0,007	mg/l	111%	1,98
AC	<0,1		mg/l	*	
AD	0,059	0,0047	mg/l	97%	-0,57
AE	0,0592	0,0002	mg/l	97%	-0,51
AF			mg/l		
AG	0,0634	0,00634	mg/l	104%	0,68
AH	0,0490	0,01	mg/l	80%	-3,39
AI	0,058	0,006	mg/l	95%	-0,85
AJ	0,0526	0,0023	mg/l	86%	-2,37
AK	0,0585		mg/l	96%	-0,71
AL			mg/l		
AM	0,082 *	0,007	mg/l	134%	5,94
AN			mg/l		
AO	0,100 *	0,005	mg/l	164%	11,02
AP	0,0675		mg/l	111%	1,84
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,062 \pm 0,006	0,060 \pm 0,002	mg/l
Recov. \pm CI(99%)	101,3 \pm 9,6	97,7 \pm 4,0	%
SD between labs	0,012	0,005	mg/l
RSD between labs	19,9	7,7	%
n for calculation	33	28	



Sample N152B

Parameter Nitrite

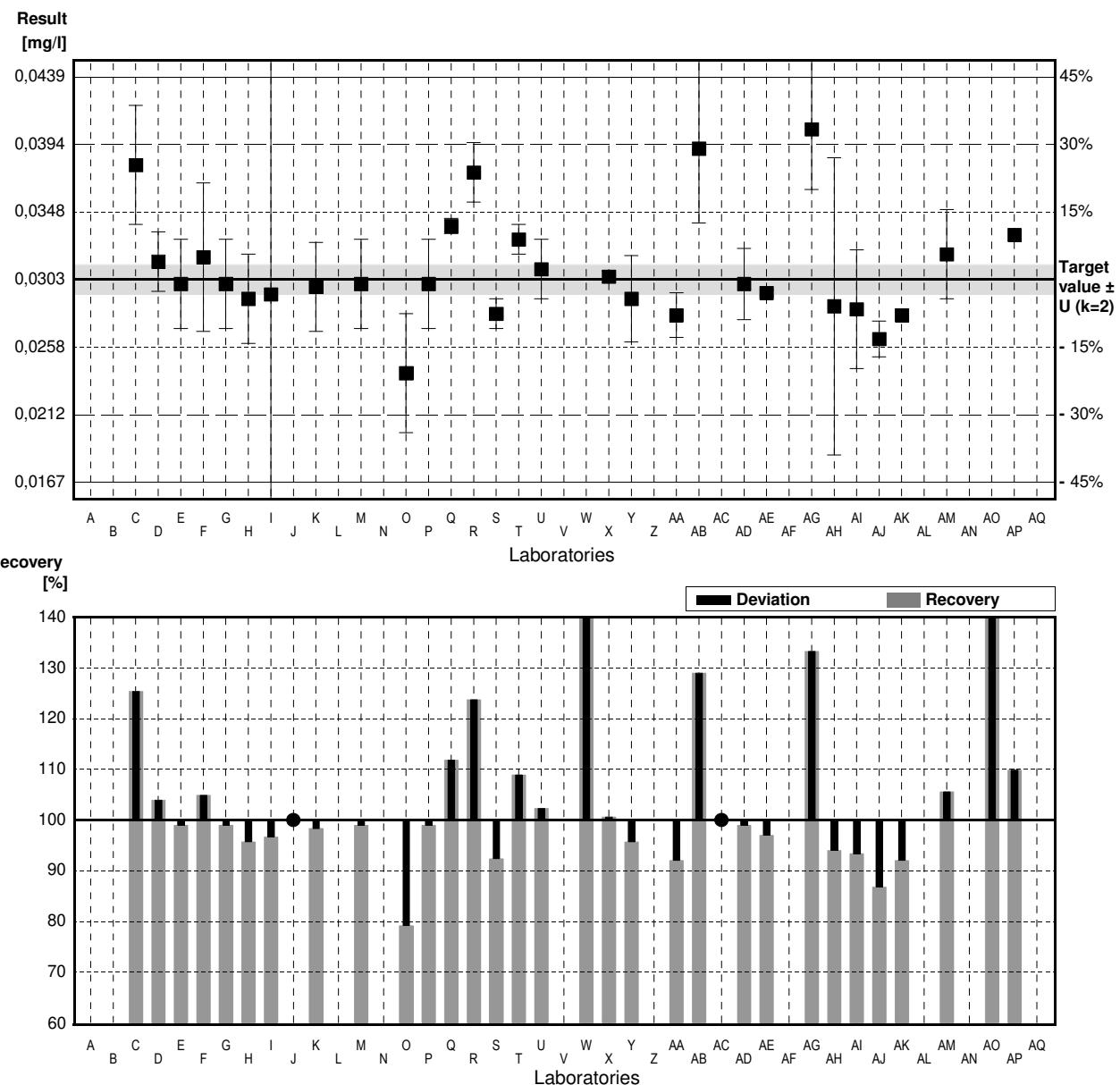
Target value $\pm U$ ($k=2$) 0.0303 mg/l \pm 0.0010 mg/l

IFA result $\pm U$ ($k=2$) 0.0290 mg/l \pm 0.0015 mg/l

Stability test $\pm U$ ($k=2$) 0.0287 mg/l \pm 0.0014 mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score	
A			mg/l			
B			mg/l			
C	0.0380	0.004	mg/l	125%	4.38	
D	0.0315	0.002	mg/l	104%	0.68	
E	0.0300	0.003	mg/l	99%	-0.17	
F	0.0318	0.005	mg/l	105%	0.85	
G	0.0300	0.003	mg/l	99%	-0.17	
H	0.0290	0.0030	mg/l	96%	-0.74	
I	0.0293	0.020	mg/l	97%	-0.57	
J	<0.059		mg/l	*		
K	0.0298	0.0030	mg/l	98%	-0.28	
L			mg/l			
M	0.0300	0.003	mg/l	99%	-0.17	
N			mg/l			
O	0.0240	0.004	mg/l	79%	-3.58	
P	0.0300	0.003	mg/l	99%	-0.17	
Q	0.0339	0.0005	mg/l	112%	2.05	
R	0.0375	0.002	mg/l	124%	4.10	
S	0.0280	0.001	mg/l	92%	-1.31	
T	0.0330	0.001	mg/l	109%	1.54	
U	0.0310	0.002	mg/l	102%	0.40	
V			mg/l			
W	0.053	*	0.005	mg/l	175%	12.92
X	0.0305	0.0004	mg/l	101%	0.11	
Y	0.0290	0.0029	mg/l	96%	-0.74	
Z			mg/l			
AA	0.0279	0.0015	mg/l	92%	-1.37	
AB	0.0391	*	0.005	mg/l	129%	5.01
AC	<0.1		mg/l	*		
AD	0.0300	0.0024	mg/l	99%	-0.17	
AE	0.0294	0.0002	mg/l	97%	-0.51	
AF			mg/l			
AG	0.0404	*	0.00404	mg/l	133%	5.75
AH	0.0285	0.01	mg/l	94%	-1.02	
AI	0.0283	0.0040	mg/l	93%	-1.14	
AJ	0.0263	0.0012	mg/l	87%	-2.28	
AK	0.0279		mg/l	92%	-1.37	
AL			mg/l			
AM	0.0320	0.003	mg/l	106%	0.97	
AN			mg/l			
AO	0.080	*	0.005	mg/l	264%	28.28
AP	0.0333		mg/l	110%	1.71	
AQ			mg/l			

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0,0333 \pm 0,005	0,0304 \pm 0,001	mg/l
Recov. \pm CI(99%)	109,9 \pm 16,6	100,2 \pm 5,3	%
SD between labs	0,0102	0,0030	mg/l
RSD between labs	30,6	9,9	%
n for calculation	31	27	



Sample N152A

Parameter Ammonium

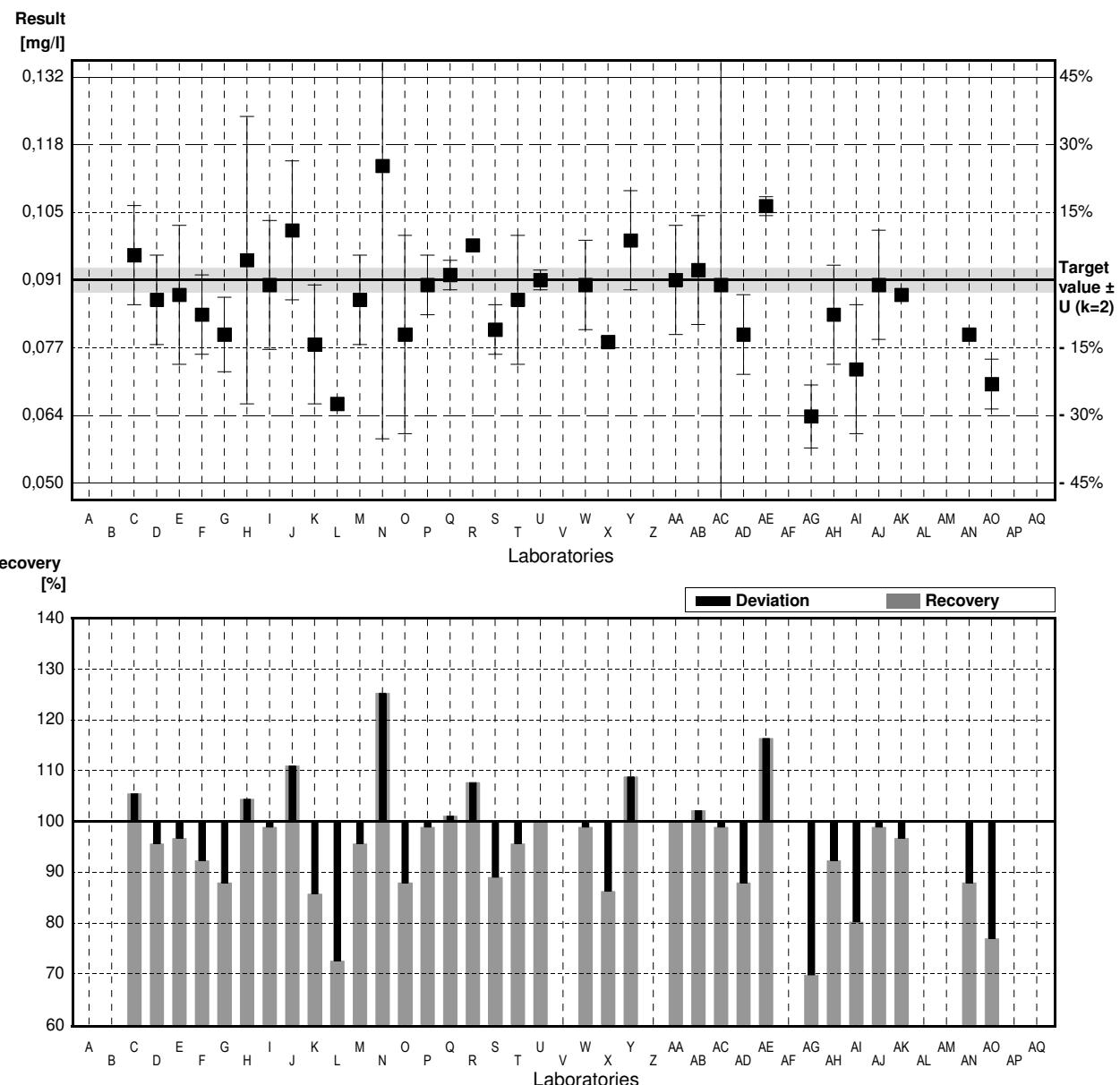
Target value $\pm U$ ($k=2$) 0.091 mg/l \pm 0.002 mg/l

IFA result $\pm U$ ($k=2$) 0.092 mg/l \pm 0.006 mg/l

Stability test $\pm U$ ($k=2$) 0.092 mg/l \pm 0.006 mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	0.096	0.010	mg/l	105%	0.42
D	0.087	0.009	mg/l	96%	-0.34
E	0.088	0.014	mg/l	97%	-0.25
F	0.084	0.008	mg/l	92%	-0.59
G	0.080	0.0075	mg/l	88%	-0.93
H	0.095	0.029	mg/l	104%	0.34
I	0.090	0.013	mg/l	99%	-0.08
J	0.101	0.014	mg/l	111%	0.85
K	0.078	0.012	mg/l	86%	-1.10
L	0.066		mg/l	73%	-2.11
M	0.087	0.009	mg/l	96%	-0.34
N	0.114	0.055	mg/l	125%	1.94
O	0.080	0.02	mg/l	88%	-0.93
P	0.090	0.006	mg/l	99%	-0.08
Q	0.092	0.003	mg/l	101%	0.08
R	0.098	0.001	mg/l	108%	0.59
S	0.081	0.005	mg/l	89%	-0.85
T	0.087	0.013	mg/l	96%	-0.34
U	0.091	0.002	mg/l	100%	0.00
V			mg/l		
W	0.090	0.009	mg/l	99%	-0.08
X	0.0785	0.001	mg/l	86%	-1.06
Y	0.099	0.010	mg/l	109%	0.68
Z			mg/l		
AA	0.091	0.011	mg/l	100%	0.00
AB	0.093	0.011	mg/l	102%	0.17
AC	0.090	0.05	mg/l	99%	-0.08
AD	0.080	0.008	mg/l	88%	-0.93
AE	0.1059	0.0019	mg/l	116%	1.26
AF			mg/l		
AG	0.0635	0.00635	mg/l	70%	-2.32
AH	0.084	0.01	mg/l	92%	-0.59
AI	0.073	0.013	mg/l	80%	-1.52
AJ	0.090	0.011	mg/l	99%	-0.08
AK	0.088		mg/l	97%	-0.25
AL			mg/l		
AM			mg/l		
AN	0.080		mg/l	88%	-0.93
AO	0.0700	0.005	mg/l	77%	-1.78
AP			mg/l		
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	0.087 \pm 0.005	0.087 \pm 0.005	mg/l
Recov. \pm CI(99%)	95,7 \pm 5,5	95,7 \pm 5,5	%
SD between labs	0,011	0,011	mg/l
RSD between labs	12,2	12,2	%
n for calculation	34	34	



Sample N152B

Parameter Ammonium

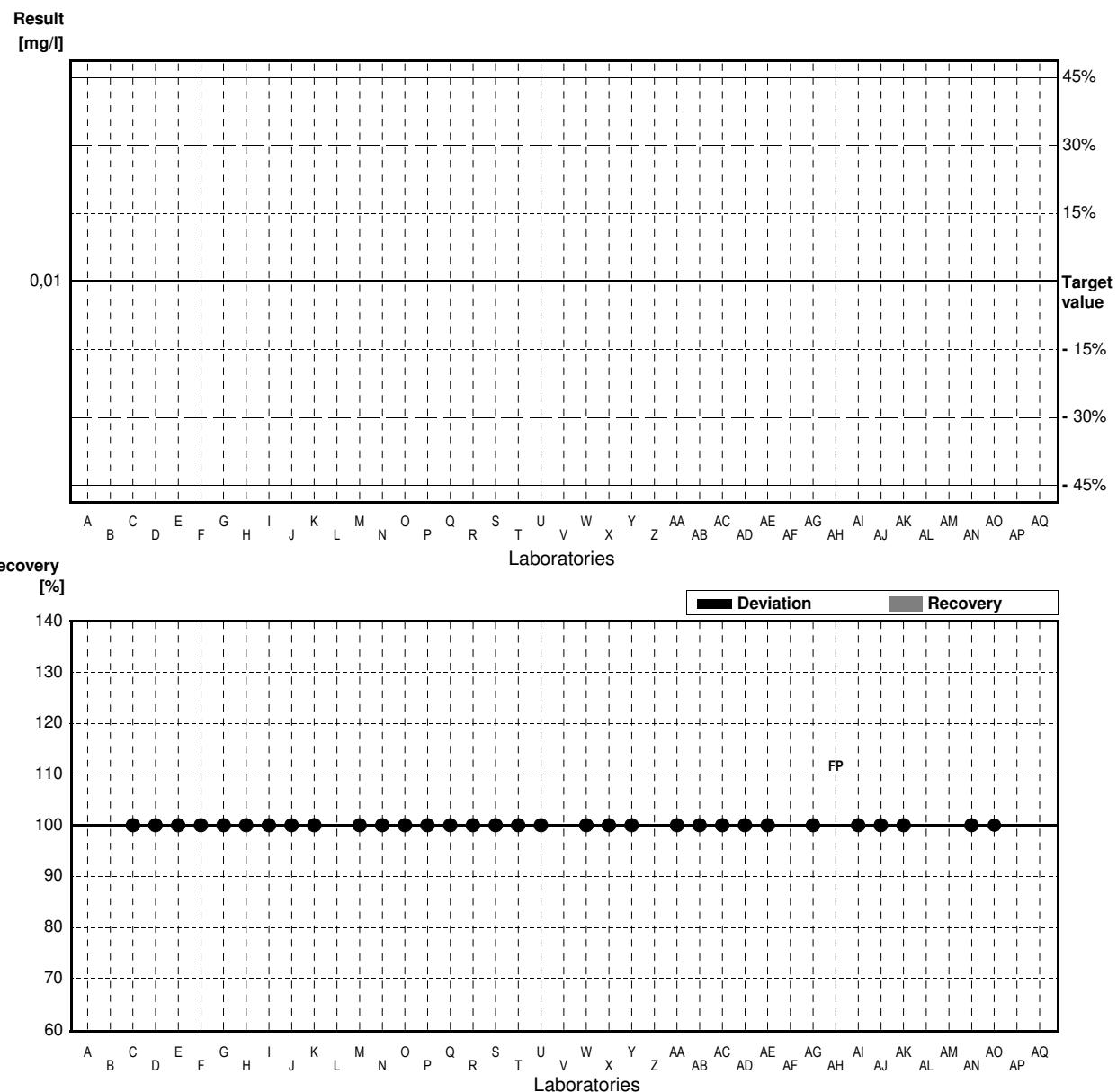
Target value <0,01 mg/l

IFA result <0,01 mg/l

Stability test <0,01 mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	<0,030		mg/l	.	
D	<0,060		mg/l	.	
E	<0,013		mg/l	.	
F	<0,010		mg/l	.	
G	<0,0026		mg/l	.	
H	<0,02	0,01	mg/l	.	
I	<0,01		mg/l	.	
J	<0,05		mg/l	.	
K	<0,005	0	mg/l	.	
L			mg/l		
M	<0,010		mg/l	.	
N	<0,01		mg/l	.	
O	<0,01		mg/l	.	
P	<0,01		mg/l	.	
Q	<0,01		mg/l	.	
R	0,00372	0,001	mg/l	.	
S	<0,0050	0,003	mg/l	.	
T	<0,010		mg/l	.	
U	<0,01		mg/l	.	
V			mg/l		
W	<0,01		mg/l	.	
X	<0,015		mg/l	.	
Y	<0,010		mg/l	.	
Z			mg/l		
AA	<0,02		mg/l	.	
AB	<0,008		mg/l	.	
AC	<0,01		mg/l	.	
AD	<0,0006		mg/l	.	
AE	<0,01		mg/l	.	
AF			mg/l		
AG	<0,01		mg/l	.	
AH	0,0350	0,01	mg/l	FP	
AI	<0,010		mg/l	.	
AJ	0,0100	0,0012	mg/l	.	
AK	<0,04		mg/l	.	
AL			mg/l		
AM			mg/l		
AN	<0,0129		mg/l	.	
AO	'0,0050	0,005	mg/l	.	
AP			mg/l		
AQ			mg/l		

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



Sample N152A

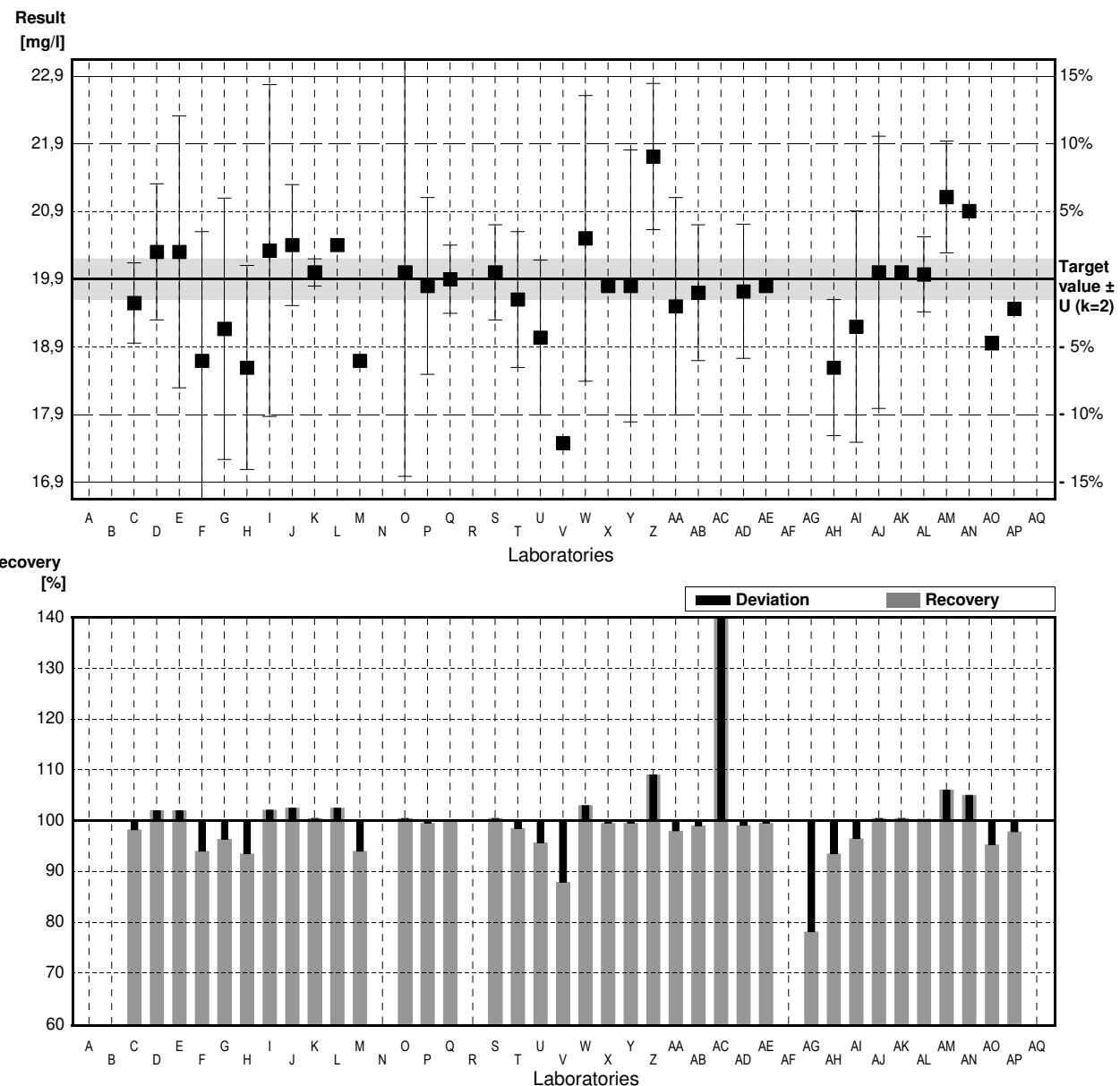
Parameter Chloride

Target value $\pm U$ ($k=2$) 19,9 mg/l \pm 0,3 mg/l
 IFA result $\pm U$ ($k=2$) 19,4 mg/l \pm 1,0 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	19,55	0,59	mg/l	98%	-0,55
D	20,3	1	mg/l	102%	0,63
E	20,3	2	mg/l	102%	0,63
F	18,7	1,9	mg/l	94%	-1,88
G	19,17	1,92	mg/l	96%	-1,15
H	18,6	1,5	mg/l	93%	-2,04
I	20,32	2,44	mg/l	102%	0,66
J	20,4	0,89	mg/l	103%	0,79
K	20,0	0,20	mg/l	101%	0,16
L	20,4		mg/l	103%	0,79
M	18,7		mg/l	94%	-1,88
N			mg/l		
O	20,0	3	mg/l	101%	0,16
P	19,8	1,3	mg/l	99%	-0,16
Q	19,9	0,5	mg/l	100%	0,00
R			mg/l		
S	20,0	0,7	mg/l	101%	0,16
T	19,6	1,0	mg/l	98%	-0,47
U	19,04	1,14	mg/l	96%	-1,35
V	17,49 *	0,03	mg/l	88%	-3,78
W	20,5	2,1	mg/l	103%	0,94
X	19,8	0,015	mg/l	99%	-0,16
Y	19,8	2,0	mg/l	99%	-0,16
Z	21,7	1,074	mg/l	109%	2,83
AA	19,5	1,6	mg/l	98%	-0,63
AB	19,7	1,0	mg/l	99%	-0,31
AC	30,87 *	3	mg/l	155%	17,23
AD	19,72	0,986	mg/l	99%	-0,28
AE	19,8	0,04	mg/l	99%	-0,16
AF			mg/l		
AG	15,547 *	1,5547	mg/l	78%	-6,84
AH	18,6	1	mg/l	93%	-2,04
AI	19,2	1,7	mg/l	96%	-1,10
AJ	20,0	2,0	mg/l	101%	0,16
AK	20,0		mg/l	101%	0,16
AL	19,97	0,55	mg/l	100%	0,11
AM	21,108	0,822	mg/l	106%	1,90
AN	20,9		mg/l	105%	1,57
AO	18,96	0,10	mg/l	95%	-1,48
AP	19,4660		mg/l	98%	-0,68
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	19,9 \pm 0,9	19,8 \pm 0,3	mg/l
Recov. \pm CI(99%)	100,2 \pm 4,8	99,5 \pm 1,7	%
SD between labs	2,1	0,7	mg/l
RSD between labs	10,6	3,6	%
n for calculation	37	34	



Sample N152B

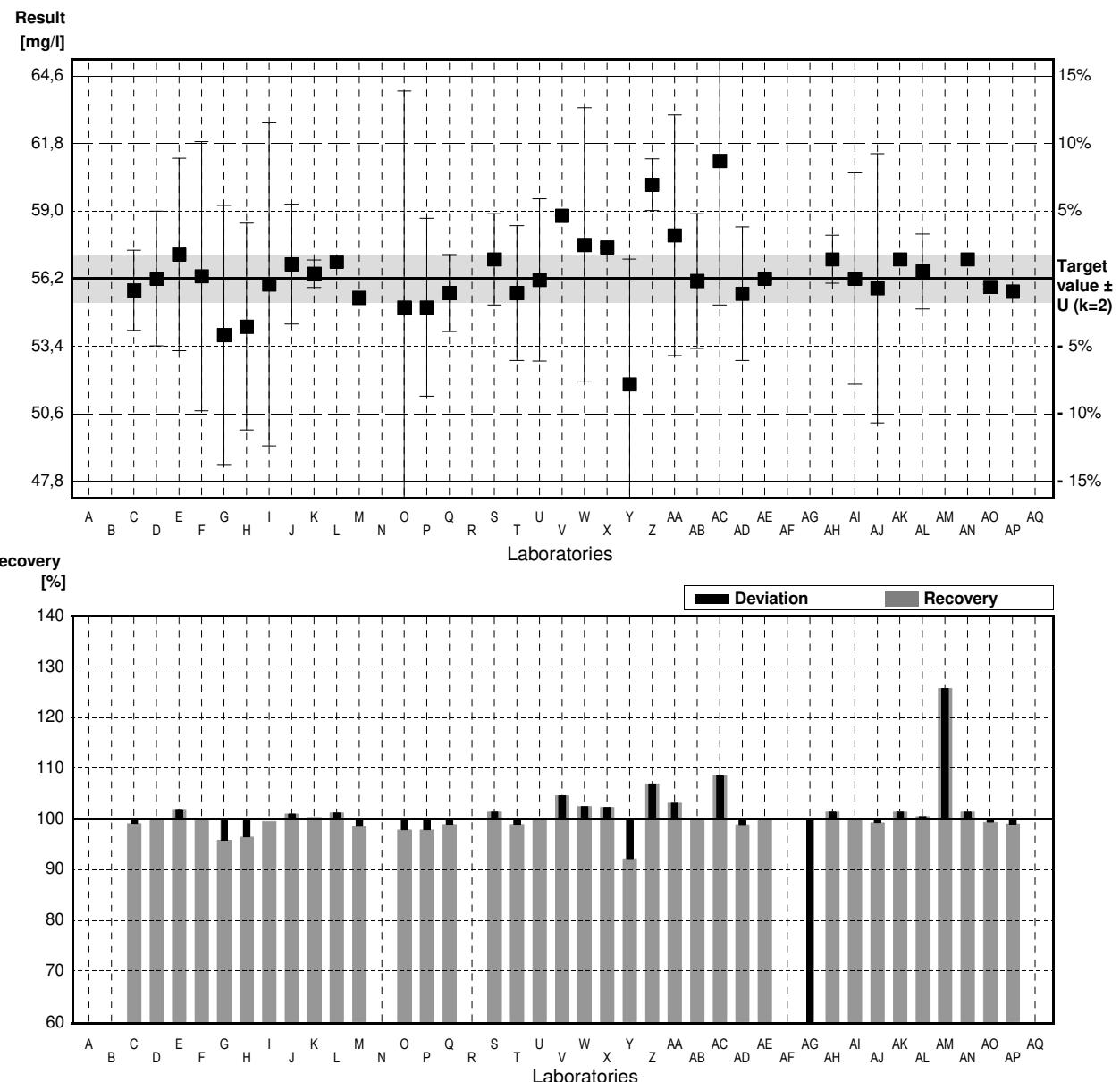
Parameter Chloride

Target value $\pm U (k=2)$ 56,2 mg/l \pm 1,0 mg/l
 IFA result $\pm U (k=2)$ 55,0 mg/l \pm 2,8 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	55,71	1,67	mg/l	99%	-0,27
D	56,2	2,8	mg/l	100%	0,00
E	57,2	4	mg/l	102%	0,56
F	56,3	5,6	mg/l	100%	0,06
G	53,85	5,39	mg/l	96%	-1,31
H	54,2	4,3	mg/l	96%	-1,11
I	55,96	6,72	mg/l	100%	-0,13
J	56,8	2,49	mg/l	101%	0,33
K	56,4	0,57	mg/l	100%	0,11
L	56,9		mg/l	101%	0,39
M	55,4		mg/l	99%	-0,44
N			mg/l		
O	55,0	9	mg/l	98%	-0,67
P	55,0	3,7	mg/l	98%	-0,67
Q	55,6	1,6	mg/l	99%	-0,33
R			mg/l		
S	57	1,9	mg/l	101%	0,44
T	55,6	2,8	mg/l	99%	-0,33
U	56,14	3,37	mg/l	100%	-0,03
V	58,81	0,01	mg/l	105%	1,45
W	57,6	5,7	mg/l	102%	0,78
X	57,5	0,058	mg/l	102%	0,72
Y	51,8 *	5,2	mg/l	92%	-2,45
Z	60,1 *	1,074	mg/l	107%	2,17
AA	58	5	mg/l	103%	1,00
AB	56,1	2,8	mg/l	100%	-0,06
AC	61,1 *	6	mg/l	109%	2,72
AD	55,57	2,779	mg/l	99%	-0,35
AE	56,2	0,07	mg/l	100%	0,00
AF			mg/l		
AG	21,305 *	2,1305	mg/l	38%	-19,40
AH	57	1	mg/l	101%	0,44
AI	56,2	4,4	mg/l	100%	0,00
AJ	55,8	5,6	mg/l	99%	-0,22
AK	57,0		mg/l	101%	0,44
AL	56,49	1,56	mg/l	101%	0,16
AM	70,72 *	1,462	mg/l	126%	8,07
AN	57		mg/l	101%	0,44
AO	55,86	0,10	mg/l	99%	-0,19
AP	55,6628		mg/l	99%	-0,30
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	55,8 \pm 2,9	56,3 \pm 0,5	mg/l
Recov. \pm CI(99%)	99,3 \pm 5,2	100,1 \pm 0,9	%
SD between labs	6,5	1,0	mg/l
RSD between labs	11,6	1,8	%
n for calculation	37	32	



Sample N152A

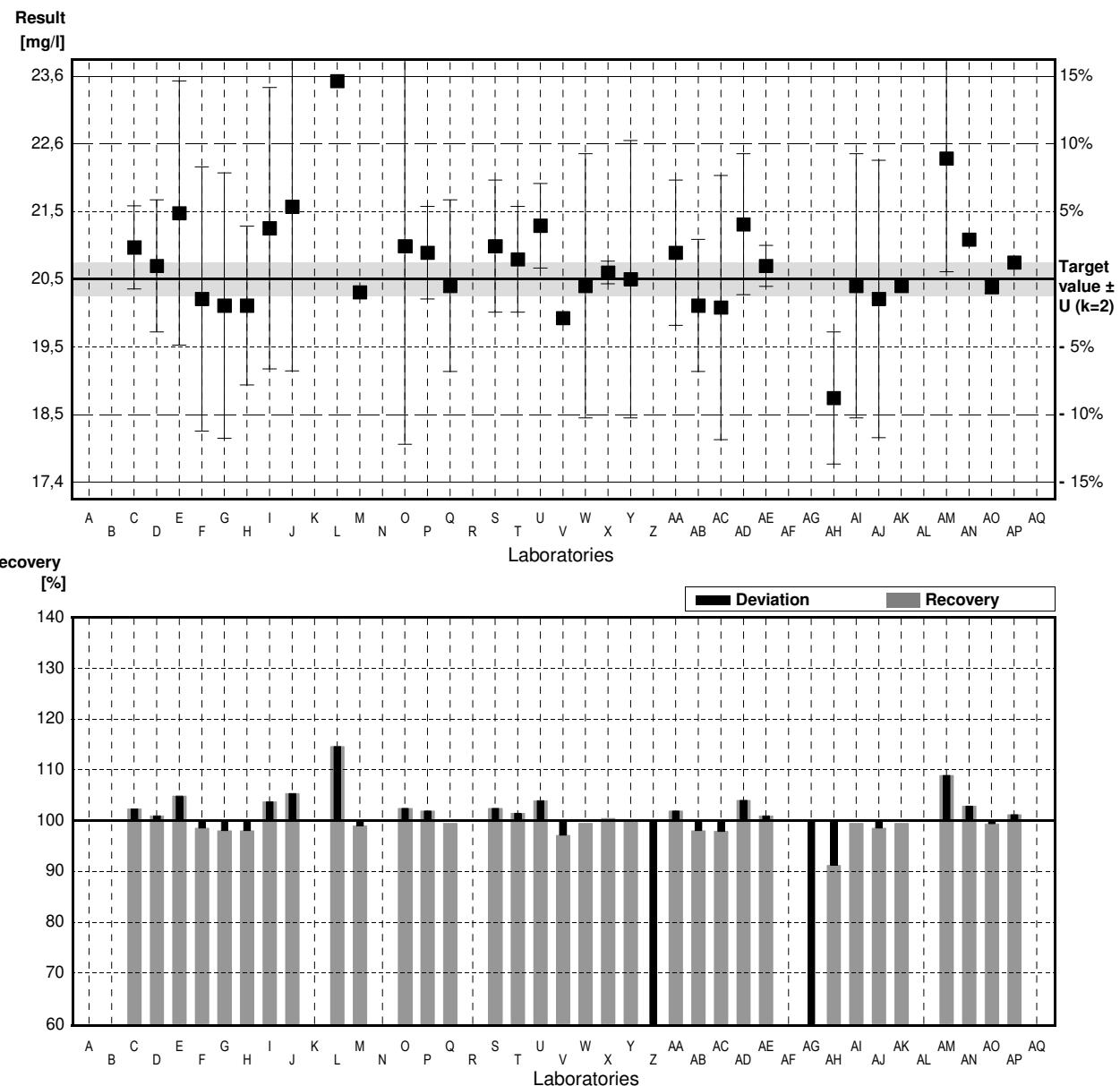
Parameter Sulphate

Target value $\pm U$ ($k=2$) 20,5 mg/l \pm 0,2 mg/l
 IFA result $\pm U$ ($k=2$) 20,6 mg/l \pm 0,8 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	20,98	0,63	mg/l	102%	0,76
D	20,7	1	mg/l	101%	0,31
E	21,5	2	mg/l	105%	1,57
F	20,2	2,0	mg/l	99%	-0,47
G	20,10	2,01	mg/l	98%	-0,63
H	20,1	1,2	mg/l	98%	-0,63
I	21,27	2,13	mg/l	104%	1,21
J	21,6	2,49	mg/l	105%	1,73
K			mg/l		
L	23,5 *		mg/l	115%	4,72
M	20,3		mg/l	99%	-0,31
N			mg/l		
O	21,0	3	mg/l	102%	0,79
P	20,9	0,7	mg/l	102%	0,63
Q	20,4	1,3	mg/l	100%	-0,16
R			mg/l		
S	21,0	1,0	mg/l	102%	0,79
T	20,8	0,8	mg/l	101%	0,47
U	21,31	0,64	mg/l	104%	1,27
V	19,91	0,04	mg/l	97%	-0,93
W	20,4	2,0	mg/l	100%	-0,16
X	20,6	0,173	mg/l	100%	0,16
Y	20,5	2,1	mg/l	100%	0,00
Z	11,0 *	0,4	mg/l	54%	-14,95
AA	20,9	1,1	mg/l	102%	0,63
AB	20,1	1,0	mg/l	98%	-0,63
AC	20,07	2	mg/l	98%	-0,68
AD	21,33	1,067	mg/l	104%	1,31
AE	20,7	0,31	mg/l	101%	0,31
AF			mg/l		
AG	9,516 *	0,9516	mg/l	46%	-17,28
AH	18,7 *	1	mg/l	91%	-2,83
AI	20,4	2,0	mg/l	100%	-0,16
AJ	20,2	2,1	mg/l	99%	-0,47
AK	20,4		mg/l	100%	-0,16
AL			mg/l		
AM	22,326	1,714	mg/l	109%	2,87
AN	21,1		mg/l	103%	0,94
AO	20,38	0,10	mg/l	99%	-0,19
AP	20,7523		mg/l	101%	0,40
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	20,1 \pm 1,2	20,7 \pm 0,3	mg/l
Recov. \pm CI(99%)	98,3 \pm 5,8	101,1 \pm 1,3	%
SD between labs	2,6	0,5	mg/l
RSD between labs	12,9	2,6	%
n for calculation	35	31	



Sample N152B

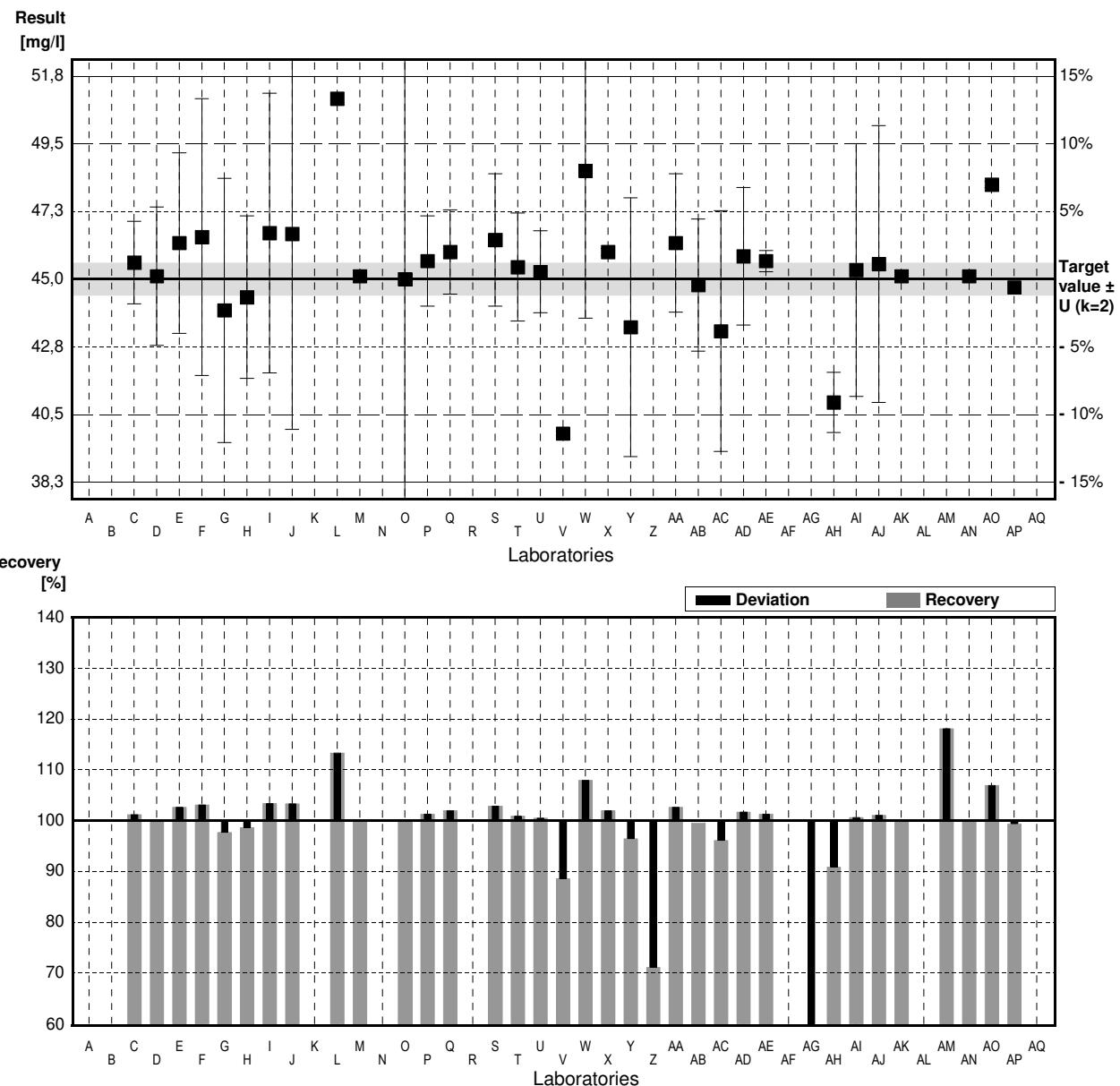
Parameter Sulphate

Target value $\pm U (k=2)$ 45,0 mg/l \pm 0,5 mg/l
 IFA result $\pm U (k=2)$ 45,0 mg/l \pm 1,8 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	45,55	1,37	mg/l	101%	0,39
D	45,1	2,3	mg/l	100%	0,07
E	46,2	3	mg/l	103%	0,86
F	46,4	4,6	mg/l	103%	1,00
G	43,96	4,39	mg/l	98%	-0,75
H	44,4	2,7	mg/l	99%	-0,43
I	46,53	4,65	mg/l	103%	1,10
J	46,5	6,5	mg/l	103%	1,08
K			mg/l		
L	51,0 *		mg/l	113%	4,30
M	45,1		mg/l	100%	0,07
N			mg/l		
O	45,0	7	mg/l	100%	0,00
P	45,6	1,5	mg/l	101%	0,43
Q	45,9	1,4	mg/l	102%	0,65
R			mg/l		
S	46,3	2,2	mg/l	103%	0,93
T	45,4	1,8	mg/l	101%	0,29
U	45,24	1,36	mg/l	101%	0,17
V	39,87 *	0,07	mg/l	89%	-3,68
W	48,6	4,9	mg/l	108%	2,58
X	45,9	0,115	mg/l	102%	0,65
Y	43,4	4,3	mg/l	96%	-1,15
Z	32,0 *	0,4	mg/l	71%	-9,32
AA	46,2	2,3	mg/l	103%	0,86
AB	44,8	2,2	mg/l	100%	-0,14
AC	43,27	4	mg/l	96%	-1,24
AD	45,76	2,288	mg/l	102%	0,54
AE	45,6	0,35	mg/l	101%	0,43
AF			mg/l		
AG	24,344 *	2,4344	mg/l	54%	-14,81
AH	40,9 *	1	mg/l	91%	-2,94
AI	45,3	4,2	mg/l	101%	0,22
AJ	45,5	4,6	mg/l	101%	0,36
AK	45,1		mg/l	100%	0,07
AL			mg/l		
AM	53,170 *	2,884	mg/l	118%	5,86
AN	45,1		mg/l	100%	0,07
AO	48,14	0,10	mg/l	107%	2,25
AP	44,7263		mg/l	99%	-0,20
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	44,6 \pm 2,2	45,5 \pm 0,6	mg/l
Recov. \pm CI(99%)	99,2 \pm 4,9	101,2 \pm 1,3	%
SD between labs	4,8	1,1	mg/l
RSD between labs	10,7	2,5	%
n for calculation	35	29	



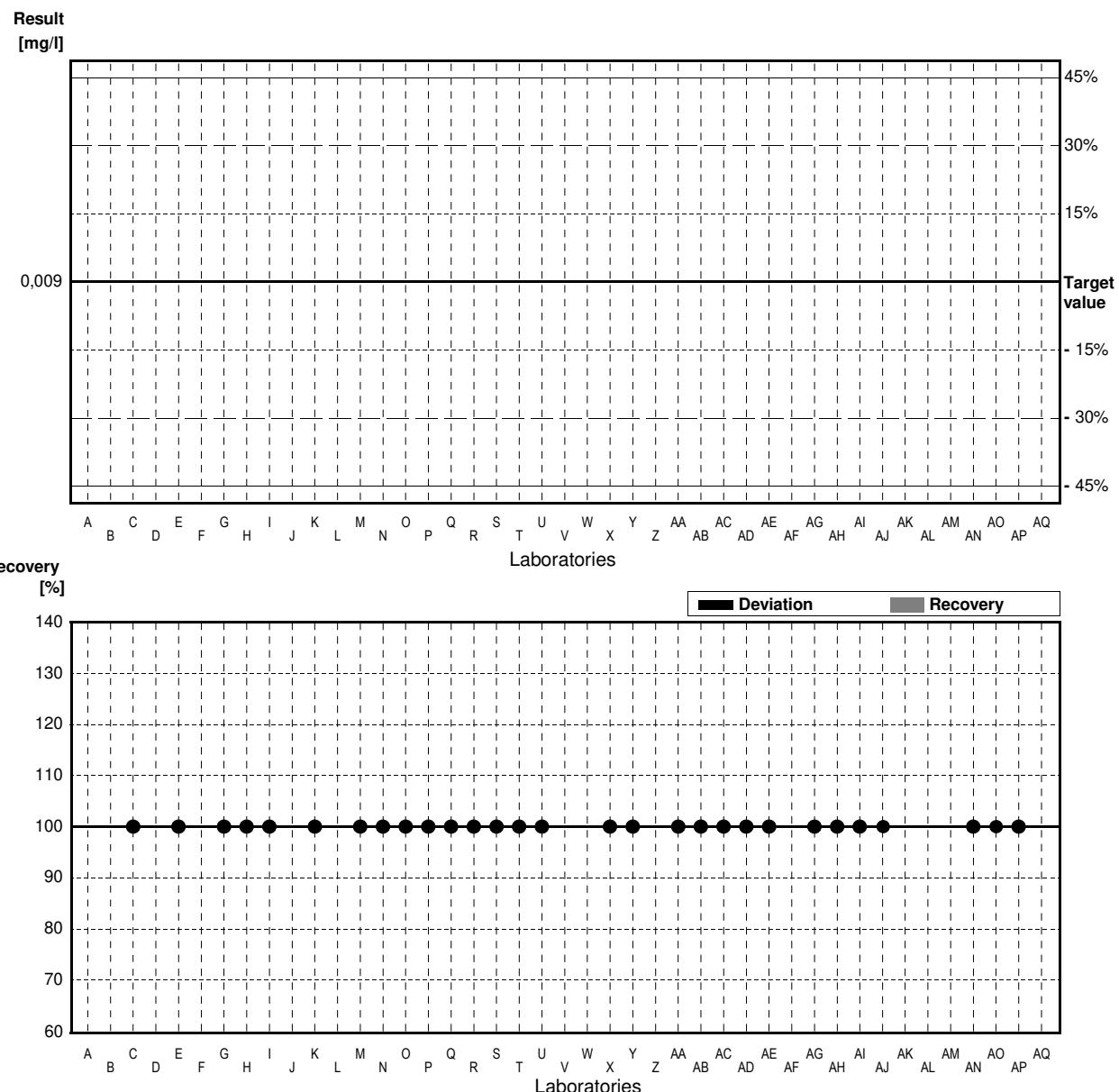
Sample N152A

Parameter Orthophosphate

Target value <0.009 mg/l
 IFA result <0.009 mg/l
 Stability test <0.009 mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	<0.020		mg/l	.	
D			mg/l		
E	<0.01		mg/l	.	
F			mg/l		
G	<0.0055		mg/l	.	
H	<0.009	0.001	mg/l	.	
I	<0.01		mg/l	.	
J			mg/l		
K	<0.006	0	mg/l	.	
L			mg/l		
M	<0.010		mg/l	.	
N	<0.019		mg/l	.	
O	<0.1		mg/l	.	
P	<0.015		mg/l	.	
Q	<0.01		mg/l	.	
R	<0.002		mg/l	.	
S	<0.01		mg/l	.	
T	<0.015		mg/l	.	
U	<0.01		mg/l	.	
V			mg/l		
W			mg/l		
X	<0.020		mg/l	.	
Y	<0.008		mg/l	.	
Z			mg/l		
AA	<0.01		mg/l	.	
AB	<0.006		mg/l	.	
AC	<0.1		mg/l	.	
AD	<0.0061		mg/l	.	
AE	0.0011		mg/l	.	
AF			mg/l		
AG	<0.1		mg/l	.	
AH	<0.01		mg/l	.	
AI	<0.010		mg/l	.	
AJ	0.0100	0.0018	mg/l	.	
AK			mg/l		
AL			mg/l		
AM			mg/l		
AN	<0.0092		mg/l	.	
AO	0.0120	0.0050	mg/l	.	
AP	<0.10		mg/l	.	
AQ			mg/l		

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



Sample N152B

Parameter Orthophosphate

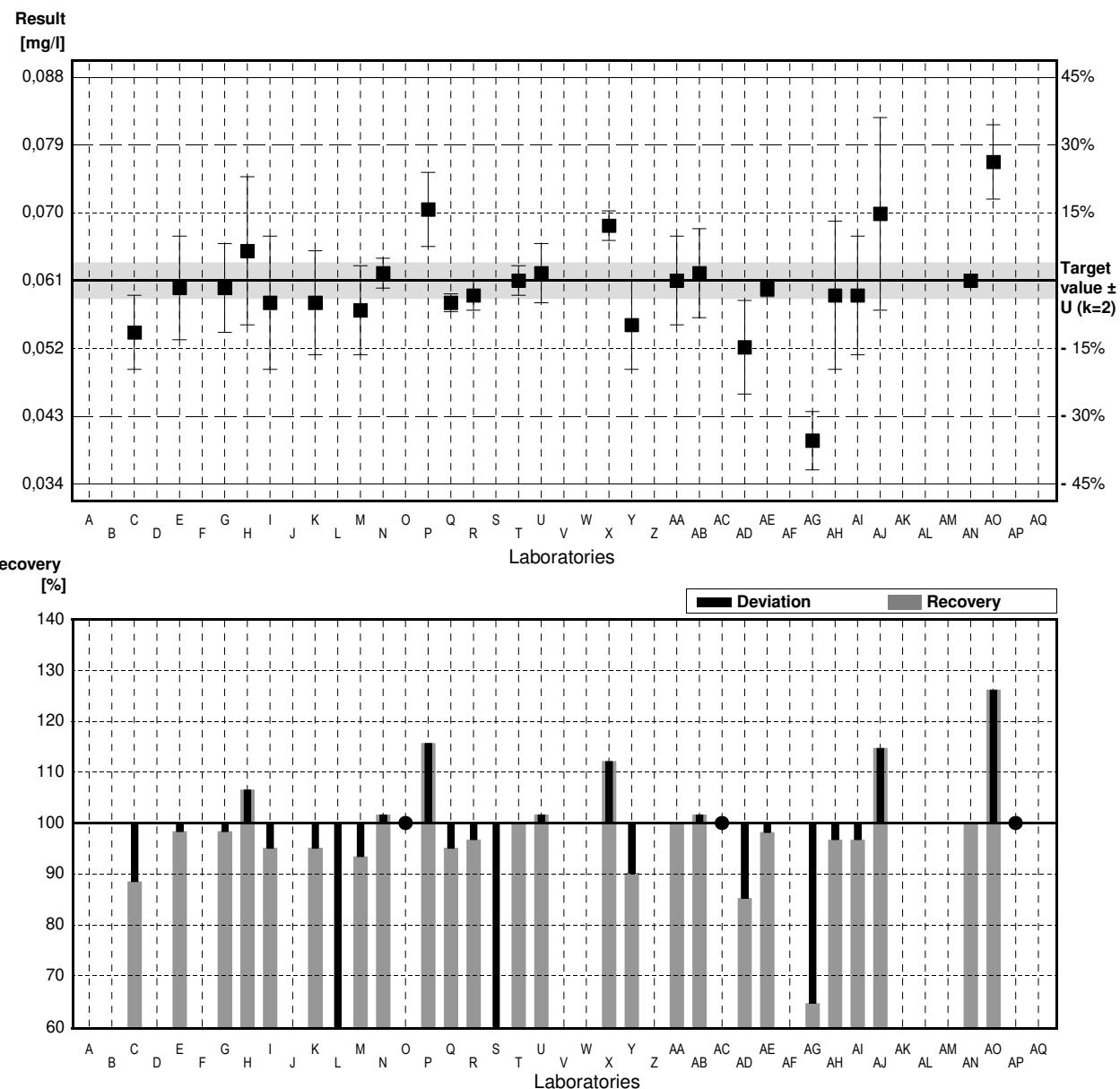
Target value $\pm U (k=2)$ 0.061 mg/l \pm 0,002 mg/l

IFA result $\pm U (k=2)$ 0,061 mg/l \pm 0,002 mg/l

Stability test $\pm U (k=2)$ 0,062 mg/l \pm 0,002 mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	0.054	0.005	mg/l	89%	-1.15
D			mg/l		
E	0.060	0.007	mg/l	98%	-0.16
F			mg/l		
G	0.060	0.006	mg/l	98%	-0.16
H	0.065	0.010	mg/l	107%	0.66
I	0.058	0.009	mg/l	95%	-0.49
J			mg/l		
K	0.058	0.007	mg/l	95%	-0.49
L	0.0332 *		mg/l	54%	-4.56
M	0.057	0.006	mg/l	93%	-0.66
N	0.062	0.002	mg/l	102%	0.16
O	<0.1		mg/l	*	
P	0.0706 *	0.005	mg/l	116%	1.57
Q	0.058	0.0012	mg/l	95%	-0.49
R	0.059	0.002	mg/l	97%	-0.33
S	0.0200 *	0.003	mg/l	33%	-6.72
T	0.061	0.002	mg/l	100%	0.00
U	0.062	0.004	mg/l	102%	0.16
V			mg/l		
W			mg/l		
X	0.0684	0.002	mg/l	112%	1.21
Y	0.055	0.006	mg/l	90%	-0.98
Z			mg/l		
AA	0.061	0.006	mg/l	100%	0.00
AB	0.062	0.006	mg/l	102%	0.16
AC	<0.10		mg/l	*	
AD	0.052	0.0063	mg/l	85%	-1.48
AE	0.0599	0.0011	mg/l	98%	-0.18
AF			mg/l		
AG	0.0394 *	0.00394	mg/l	65%	-3.54
AH	0.059	0.01	mg/l	97%	-0.33
AI	0.059	0.008	mg/l	97%	-0.33
AJ	0.070 *	0.013	mg/l	115%	1.48
AK			mg/l		
AL			mg/l		
AM			mg/l		
AN	0.061		mg/l	100%	0.00
AO	0.0770 *	0.0050	mg/l	126%	2.62
AP	<0.10		mg/l	*	
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean $\pm CI(99\%)$	0,058 \pm 0,006	0,060 \pm 0,002	mg/l
Recov. $\pm CI(99\%)$	94,8 \pm 10,0	97,7 \pm 3,6	%
SD between labs	0,011	0,004	mg/l
RSD between labs	19,7	6,0	%
n for calculation	27	21	



Sample N152A

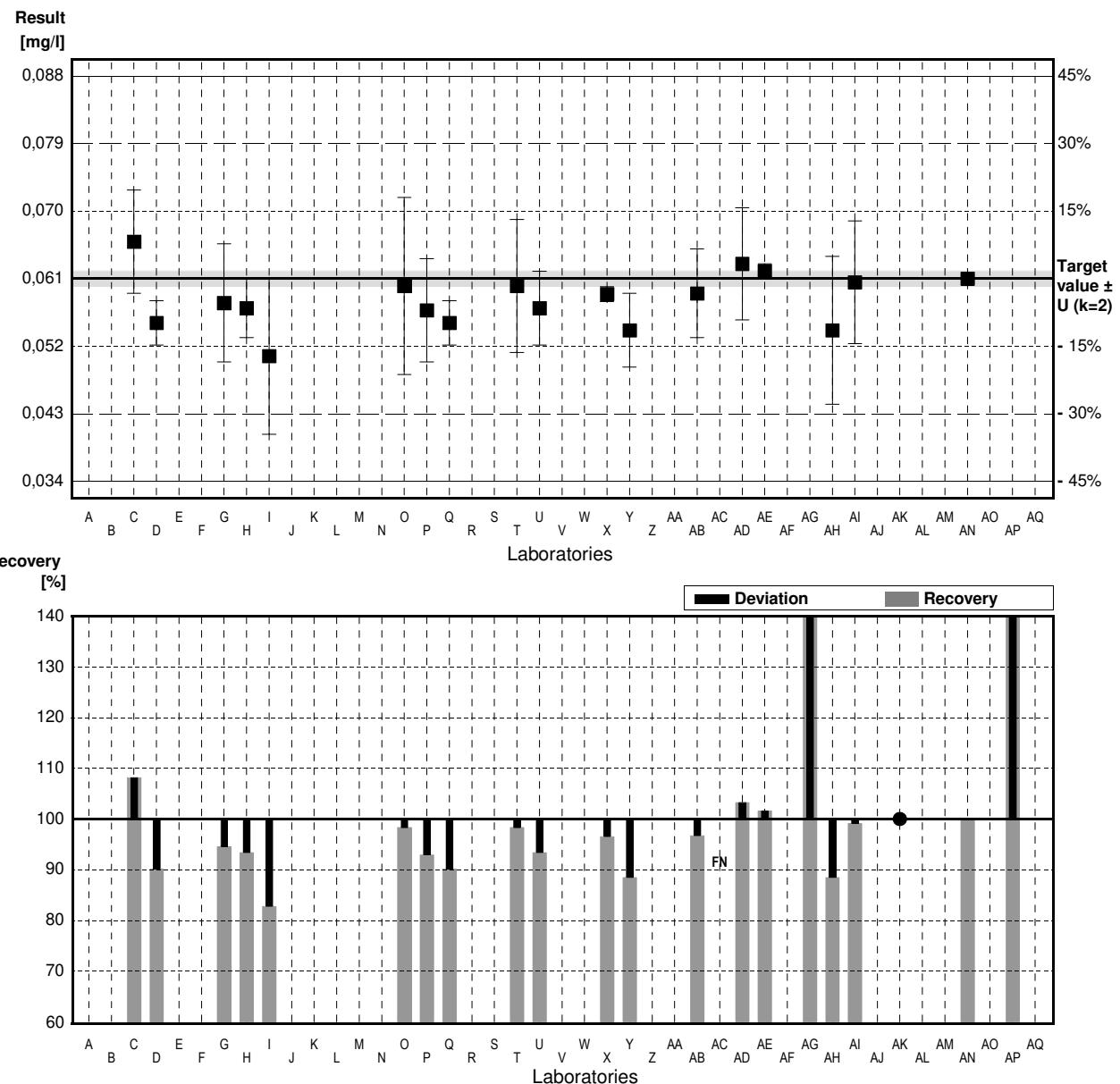
Parameter Boron

Target value $\pm U$ ($k=2$) 0.061 mg/l \pm 0.001 mg/l
 IFA result $\pm U$ ($k=2$) 0.060 mg/l \pm 0.006 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	0.066	0.007	mg/l	108%	0.95
D	0.055	0.003	mg/l	90%	-1.14
E			mg/l		
F			mg/l		
G	0.0577	0.008	mg/l	95%	-0.63
H	0.057	0.004	mg/l	93%	-0.76
I	0.0505	0.0106	mg/l	83%	-2.00
J			mg/l		
K			mg/l		
L			mg/l		
M			mg/l		
N			mg/l		
O	0.060	0.012	mg/l	98%	-0.19
P	0.0567	0.007	mg/l	93%	-0.82
Q	0.055	0.003	mg/l	90%	-1.14
R			mg/l		
S			mg/l		
T	0.060	0.009	mg/l	98%	-0.19
U	0.057	0.005	mg/l	93%	-0.76
V			mg/l		
W			mg/l		
X	0.0589	0.001	mg/l	97%	-0.40
Y	0.054	0.005	mg/l	89%	-1.33
Z			mg/l		
AA			mg/l		
AB	0.059	0.006	mg/l	97%	-0.38
AC	<0.04		mg/l	FN	
AD	0.063	0.0076	mg/l	103%	0.38
AE	0.062	0.001	mg/l	102%	0.19
AF			mg/l		
AG	47.52 *	4.752	mg/l	77902%	9046.70
AH	0.054	0.01	mg/l	89%	-1.33
AI	0.0605	0.0083	mg/l	99%	-0.10
AJ			mg/l		
AK	<0.258		mg/l	*	
AL			mg/l		
AM			mg/l		
AN	0.061		mg/l	100%	0.00
AO			mg/l		
AP	0.0919 *		mg/l	151%	5.89
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	2,433 \pm 6,787	0.058 \pm 0,003	mg/l
Recov. \pm CI(99%)	3988.5 \pm 11125	95.4 \pm 4.2	%
SD between labs	10,612	0,004	mg/l
RSD between labs	436.2	6.5	%
n for calculation	20	18	



Sample N152B

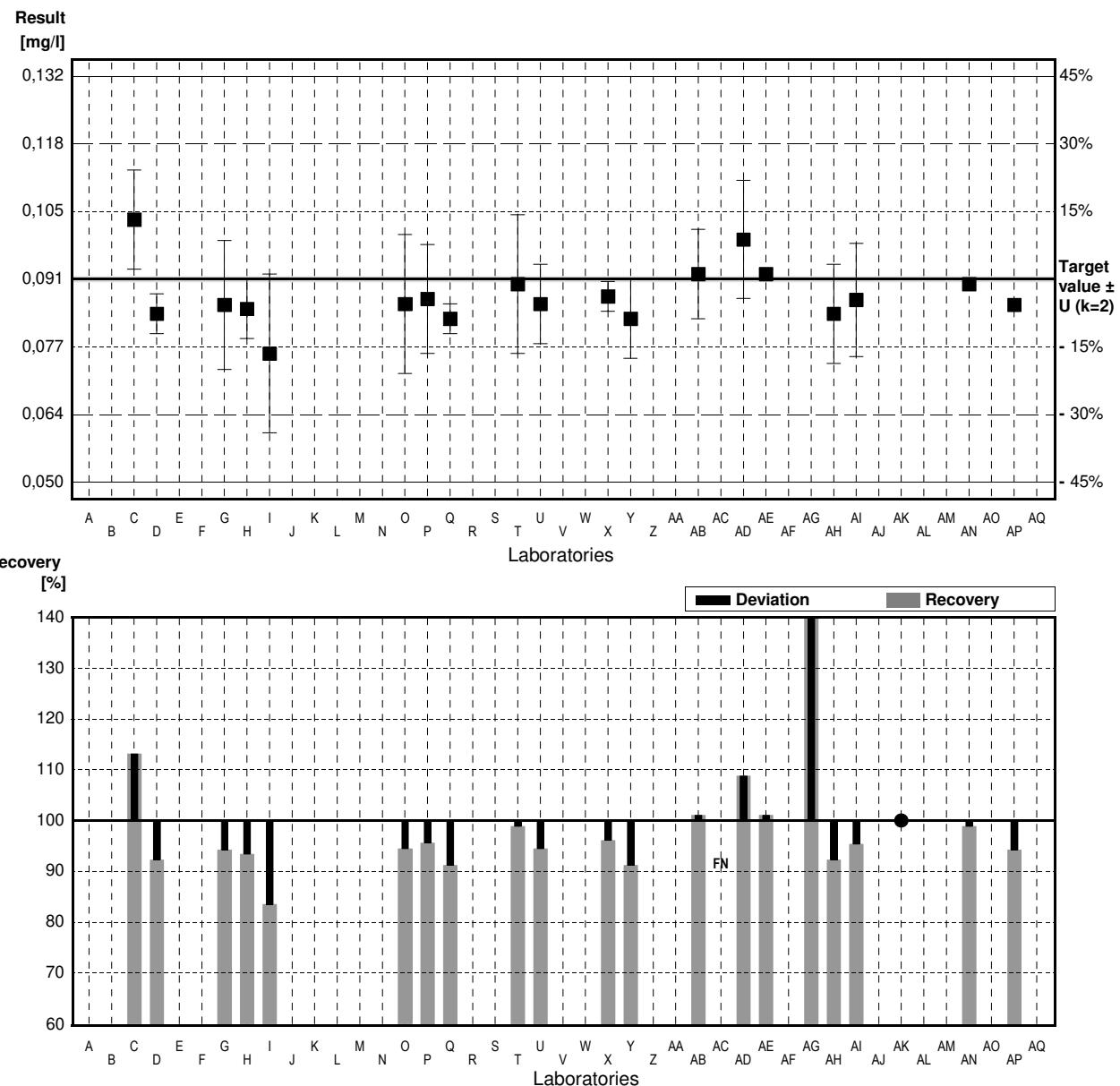
Parameter Boron

Target value $\pm U$ ($k=2$) 0,091 mg/l \pm 0,001 mg/l
 IFA result $\pm U$ ($k=2$) 0,092 mg/l \pm 0,009 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	0.103 *	0.010	mg/l	113%	1.53
D	0.084	0.004	mg/l	92%	-0.89
E			mg/l		
F			mg/l		
G	0.0858	0.013	mg/l	94%	-0.66
H	0.085	0.006	mg/l	93%	-0.77
I	0.0760	0.0160	mg/l	84%	-1.92
J			mg/l		
K			mg/l		
L			mg/l		
M			mg/l		
N			mg/l		
O	0.086	0.014	mg/l	95%	-0.64
P	0.087	0.011	mg/l	96%	-0.51
Q	0.083	0.003	mg/l	91%	-1.02
R			mg/l		
S			mg/l		
T	0.090	0.014	mg/l	99%	-0.13
U	0.086	0.008	mg/l	95%	-0.64
V			mg/l		
W			mg/l		
X	0.0875	0.003	mg/l	96%	-0.45
Y	0.083	0.008	mg/l	91%	-1.02
Z			mg/l		
AA			mg/l		
AB	0.092	0.009	mg/l	101%	0.13
AC	<0.04		mg/l	FN	
AD	0.099	0.0119	mg/l	109%	1.02
AE	0.092	0.001	mg/l	101%	0.13
AF			mg/l		
AG	74.1 *	7.41	mg/l	81429%	9456.81
AH	0.084	0.01	mg/l	92%	-0.89
AI	0.0868	0.0114	mg/l	95%	-0.54
AJ			mg/l		
AK	<0.258		mg/l	*	
AL			mg/l		
AM			mg/l		
AN	0.090		mg/l	99%	-0.13
AO			mg/l		
AP	0.0858		mg/l	94%	-0.66
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean $\pm CI(99\%)$	3,788 \pm 10,58	0,087 \pm 0,003	mg/l
Recov. $\pm CI(99\%)$	4163,0 \pm 11630	95,4 \pm 3,6	%
SD between labs	16,550	0,005	mg/l
RSD between labs	436,9	5,5	%
n for calculation	20	18	



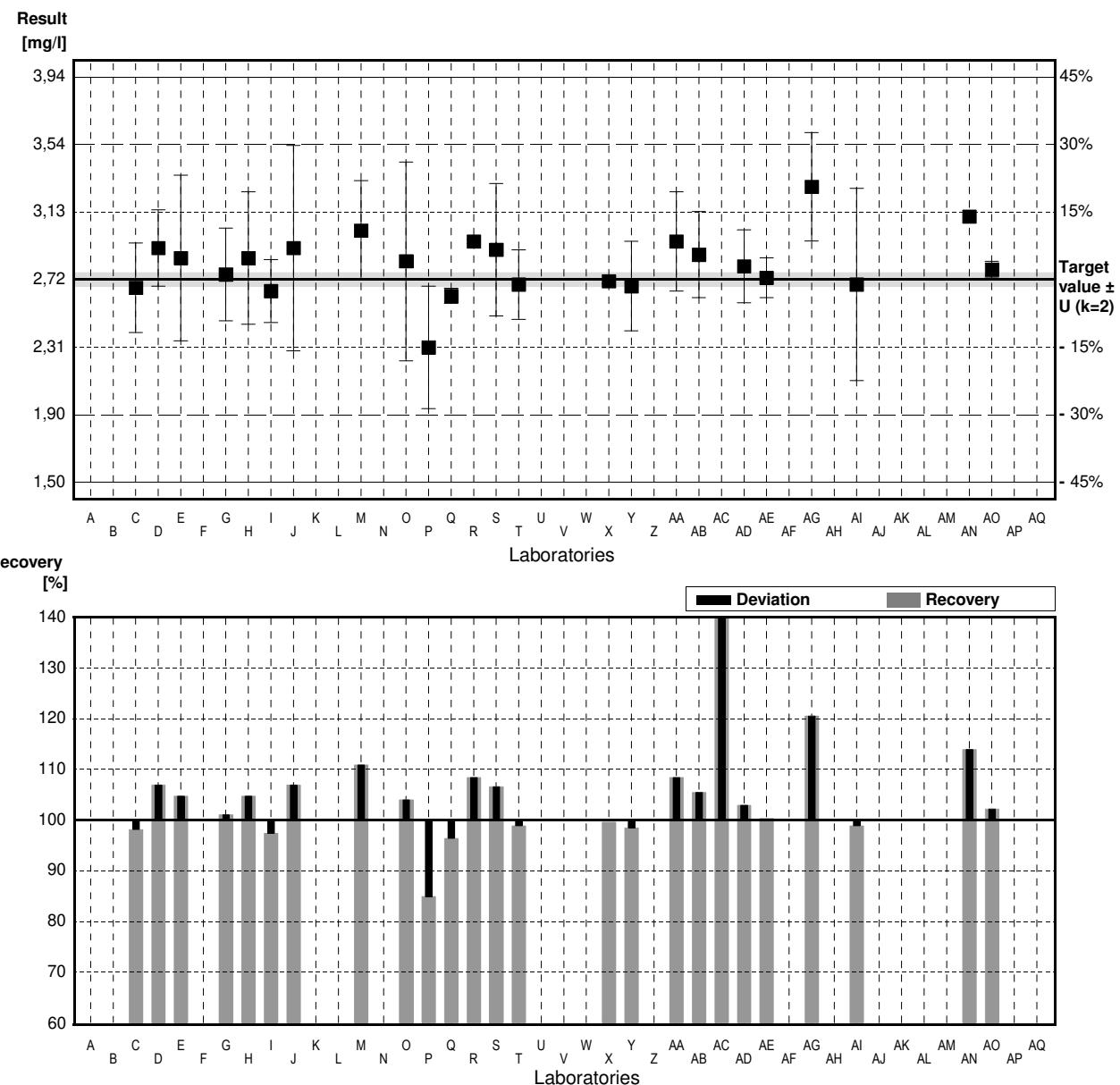
Sample N152A

Parameter DOC

Target value $\pm U$ ($k=2$) 2,72 mg/l \pm 0,04 mg/l
 IFA result $\pm U$ ($k=2$) 2,66 mg/l \pm 0,11 mg/l
 Stability test $\pm U$ ($k=2$) 2,62 mg/l \pm 0,10 mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	2,67	0,27	mg/l	98%	-0,31
D	2,91	0,23	mg/l	107%	1,16
E	2,85	0,5	mg/l	105%	0,80
F			mg/l		
G	2,75	0,28	mg/l	101%	0,18
H	2,85	0,40	mg/l	105%	0,80
I	2,65	0,19	mg/l	97%	-0,43
J	2,91	0,62	mg/l	107%	1,16
K			mg/l		
L			mg/l		
M	3,016	0,30	mg/l	111%	1,81
N			mg/l		
O	2,83	0,6	mg/l	104%	0,67
P	2,31	0,37	mg/l	85%	-2,51
Q	2,622	0,046	mg/l	96%	-0,60
R	2,95	0,011	mg/l	108%	1,41
S	2,90	0,4	mg/l	107%	1,10
T	2,69	0,21	mg/l	99%	-0,18
U	n.a.		mg/l		
V			mg/l		
W			mg/l		
X	2,71	0,015	mg/l	100%	-0,06
Y	2,68	0,27	mg/l	99%	-0,25
Z			mg/l		
AA	2,95	0,30	mg/l	108%	1,41
AB	2,87	0,26	mg/l	106%	0,92
AC	7,43 *	1	mg/l	273%	28,86
AD	2,80	0,22	mg/l	103%	0,49
AE	2,73	0,12	mg/l	100%	0,06
AF			mg/l		
AG	3,28	0,328	mg/l	121%	3,43
AH			mg/l		
AI	2,69	0,58	mg/l	99%	-0,18
AJ			mg/l		
AK			mg/l		
AL			mg/l		
AM			mg/l		
AN	3,10		mg/l	114%	2,33
AO	2,780	0,050	mg/l	102%	0,37
AP			mg/l		
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	3,00 \pm 0,53	2,81 \pm 0,11	mg/l
Recov. \pm CI(99%)	110,2 \pm 19,4	103,4 \pm 4,0	%
SD between labs	0,94	0,19	mg/l
RSD between labs	31,4	6,7	%
n for calculation	25	24	



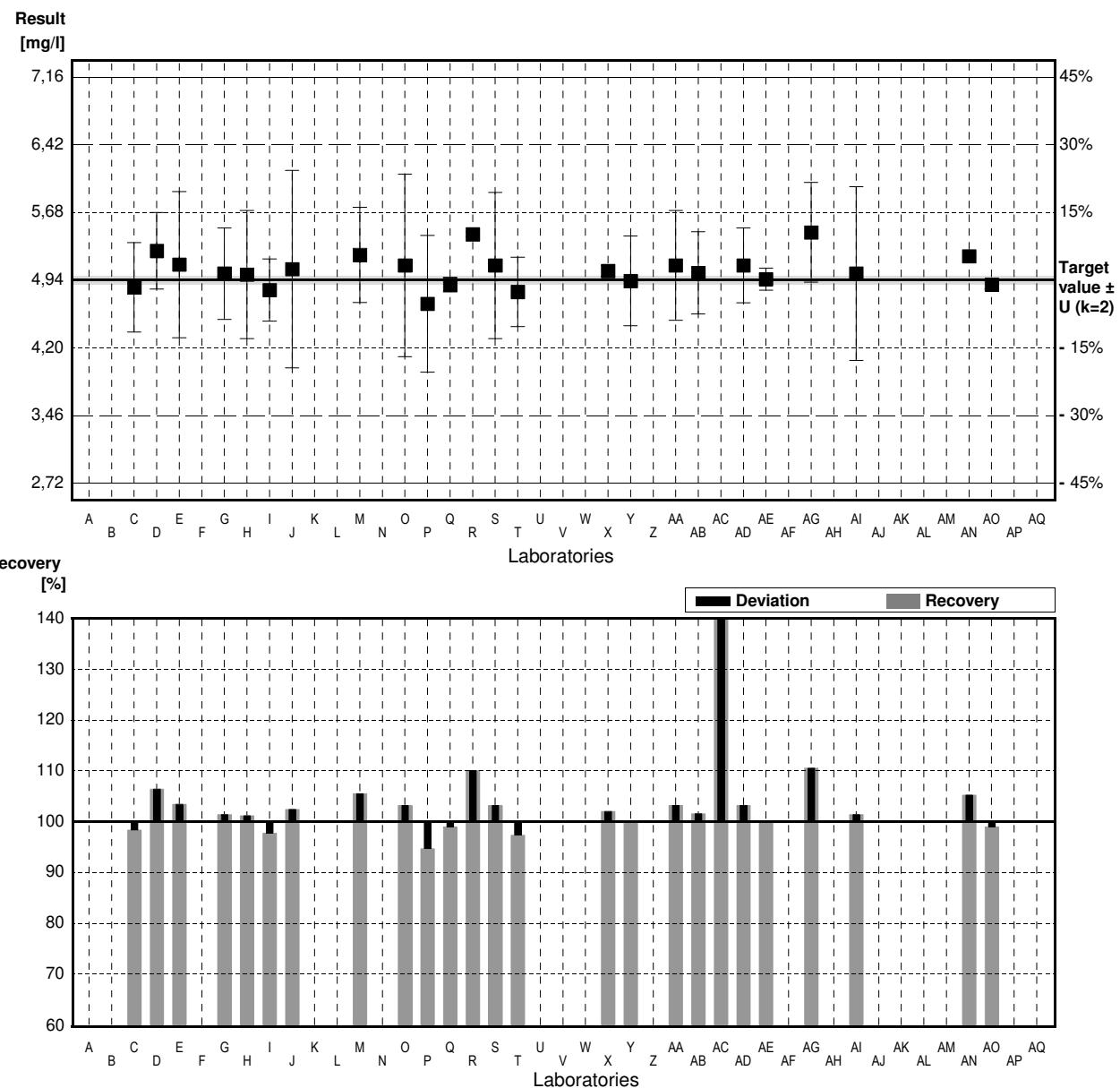
Sample N152B

Parameter DOC

Target value $\pm U$ ($k=2$) 4,94 mg/l \pm 0,05 mg/l
 IFA result $\pm U$ ($k=2$) 4,94 mg/l \pm 0,20 mg/l
 Stability test $\pm U$ ($k=2$) 4,86 mg/l \pm 0,19 mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	4.86	0.49	mg/l	98%	-0.27
D	5.26	0.42	mg/l	106%	1.08
E	5.11	0.8	mg/l	103%	0.57
F			mg/l		
G	5.01	0.50	mg/l	101%	0.24
H	5.0	0.7	mg/l	101%	0.20
I	4.83	0.34	mg/l	98%	-0.37
J	5.06	1.08	mg/l	102%	0.40
K			mg/l		
L			mg/l		
M	5.215	0.52	mg/l	106%	0.93
N			mg/l		
O	5.1	1	mg/l	103%	0.54
P	4.68	0.75	mg/l	95%	-0.88
Q	4.890	0.081	mg/l	99%	-0.17
R	5.44	0.025	mg/l	110%	1.69
S	5.1	0.8	mg/l	103%	0.54
T	4.81	0.38	mg/l	97%	-0.44
U	n.a.		mg/l		
V			mg/l		
W			mg/l		
X	5.04	0.061	mg/l	102%	0.34
Y	4.93	0.49	mg/l	100%	-0.03
Z			mg/l		
AA	5.1	0.6	mg/l	103%	0.54
AB	5.02	0.45	mg/l	102%	0.27
AC	56.26 *	6	mg/l	1139%	173.14
AD	5.1	0.41	mg/l	103%	0.54
AE	4.95	0.12	mg/l	100%	0.03
AF			mg/l		
AG	5.462	0.5462	mg/l	111%	1.76
AH			mg/l		
AI	5.01	0.95	mg/l	101%	0.24
AJ			mg/l		
AK			mg/l		
AL			mg/l		
AM			mg/l		
AN	5.2		mg/l	105%	0.88
AO	4.890	0.050	mg/l	99%	-0.17
AP			mg/l		
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	7,09 \pm 5,74	5,04 \pm 0,11	mg/l
Recov. \pm CI(99%)	143,6 \pm 116,1	102,1 \pm 2,2	%
SD between labs	10,24	0,19	mg/l
RSD between labs	144,4	3,7	%
n for calculation	25	24	



Sample N152A

Parameter Total P (as PO₄)

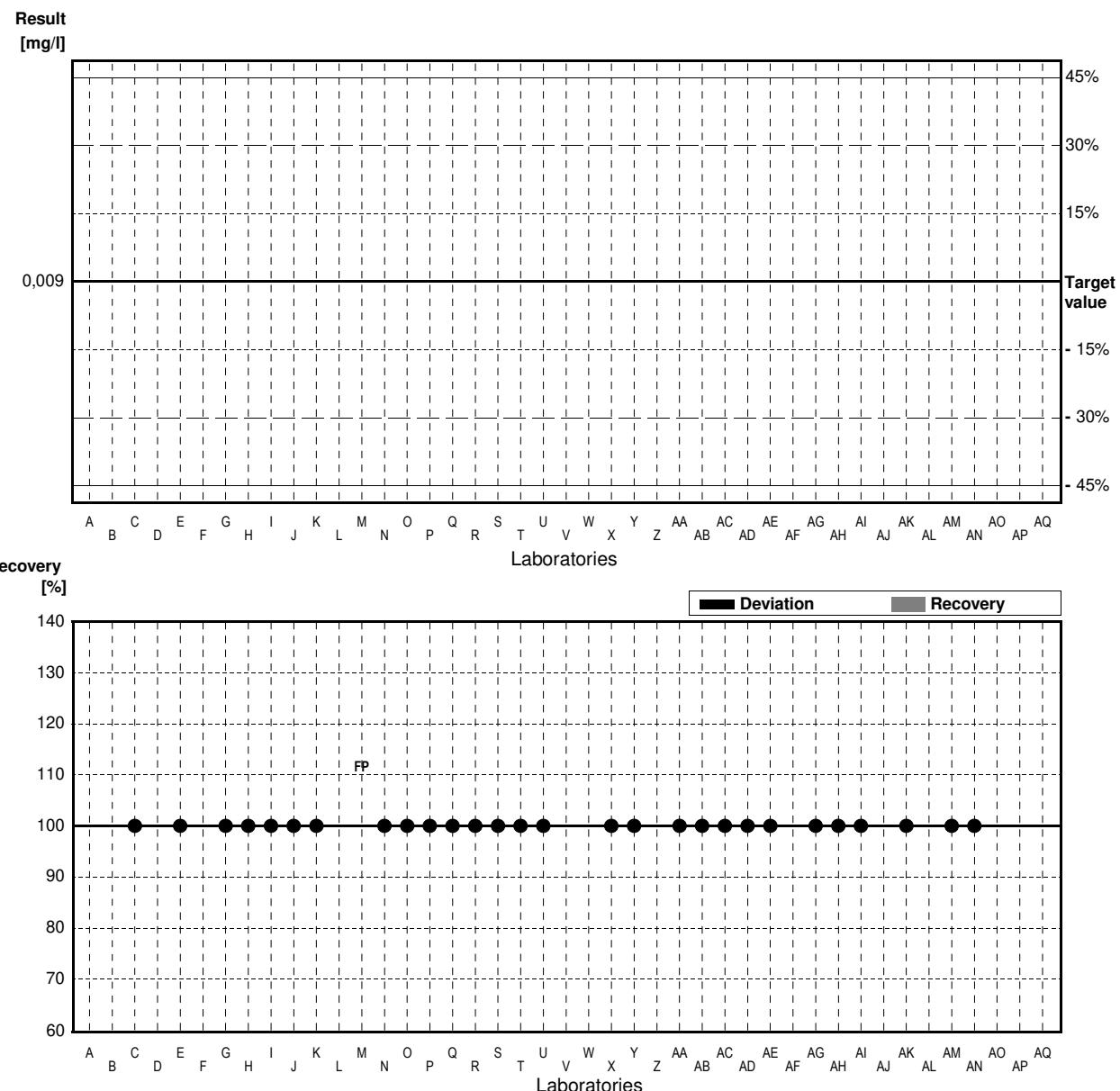
Target value <0.009 mg/l

IFA result <0.009 mg/l

Stability test mg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	<0.031		mg/l	.	
D			mg/l		
E	<0.013		mg/l	.	
F			mg/l		
G	<0.0010		mg/l	.	
H	<0.009	0.002	mg/l	.	
I	<0.01		mg/l	.	
J	<0.018		mg/l	.	
K	<0.006	0	mg/l	.	
L			mg/l		
M	0.0190	0.005	mg/l	FP	
N	<0.02		mg/l	.	
O	<0.033		mg/l	.	
P	<0.015		mg/l	.	
Q	<0.03		mg/l	.	
R	<0.006		mg/l	.	
S	<0.01		mg/l	.	
T	<0.015		mg/l	.	
U	<0.01		mg/l	.	
V			mg/l		
W			mg/l		
X	<0.020		mg/l	.	
Y	<0.015		mg/l	.	
Z			mg/l		
AA	<0.01		mg/l	.	
AB	<0.006		mg/l	.	
AC	<0.1		mg/l	.	
AD	<0.015		mg/l	.	
AE	<0.015		mg/l	.	
AF			mg/l		
AG	<0.1		mg/l	.	
AH	<0.01		mg/l	.	
AI	<0.010		mg/l	.	
AJ			mg/l		
AK	<0.264		mg/l	.	
AL			mg/l		
AM	<0.5		mg/l	.	
AN	<0.0092		mg/l	.	
AO			mg/l		
AP			mg/l		
AQ			mg/l		

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



Sample N152B

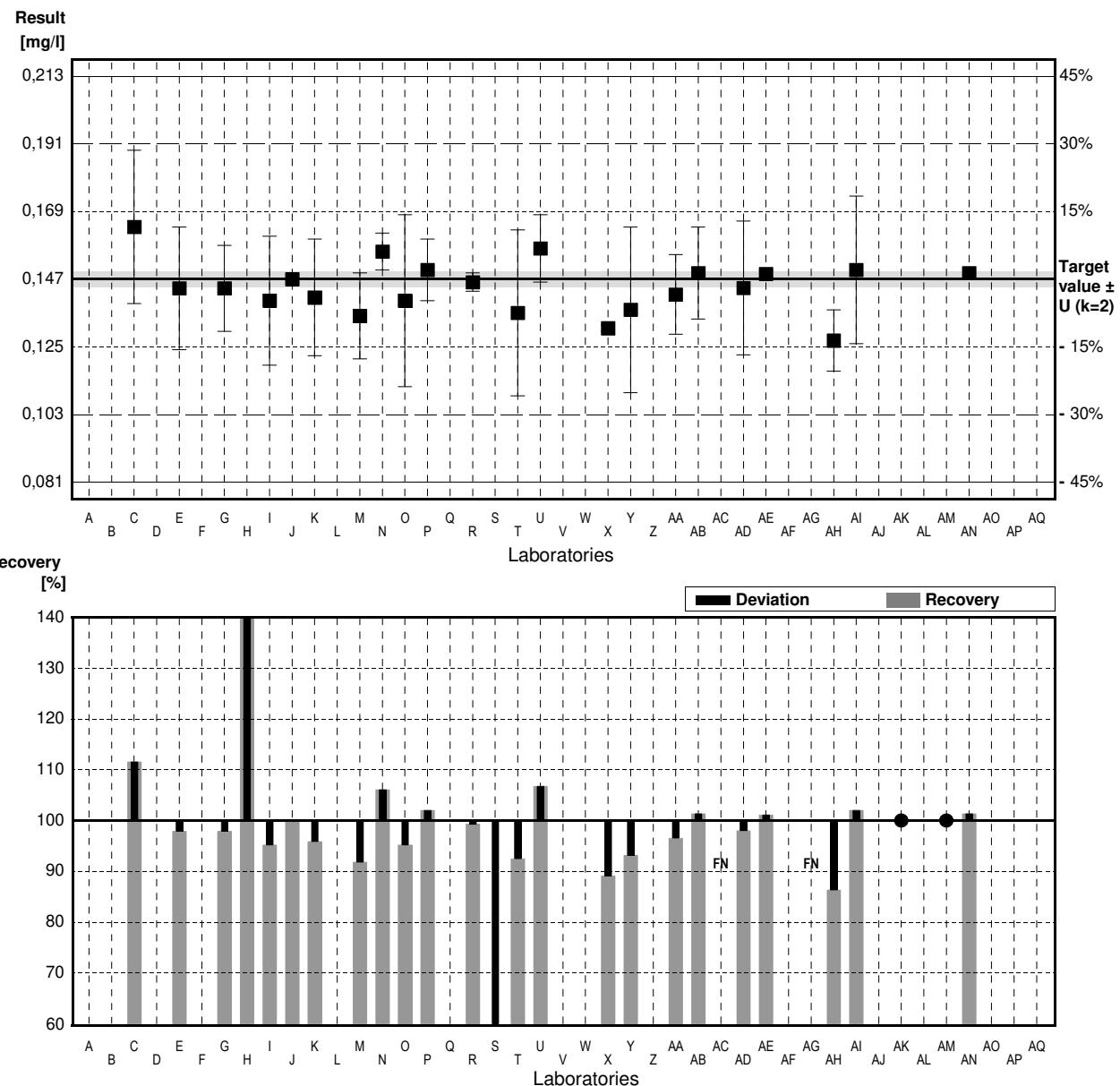
Parameter Total P (as PO₄)

Target value \pm U (k=2) 0.147 mg/l \pm 0.002 mg/l
 IFA result \pm U (k=2) 0.167 mg/l \pm 0.038 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	0.164	0.025	mg/l	112%	1.05
D			mg/l		
E	0.144	0.02	mg/l	98%	-0.19
F			mg/l		
G	0.144	0.014	mg/l	98%	-0.19
H	132 *	24	mg/l	89796%	8154.17
I	0.140	0.021	mg/l	95%	-0.43
J	0.147		mg/l	100%	0.00
K	0.141	0.019	mg/l	96%	-0.37
L			mg/l		
M	0.135	0.014	mg/l	92%	-0.74
N	0.156	0.006	mg/l	106%	0.56
O	0.140	0.028	mg/l	95%	-0.43
P	0.150	0.010	mg/l	102%	0.19
Q			mg/l		
R	0.146	0.003	mg/l	99%	-0.06
S	0.0460 *	0.007	mg/l	31%	-6.25
T	0.136	0.027	mg/l	93%	-0.68
U	0.157	0.011	mg/l	107%	0.62
V			mg/l		
W			mg/l		
X	0.131	0.001	mg/l	89%	-0.99
Y	0.137	0.027	mg/l	93%	-0.62
Z			mg/l		
AA	0.142	0.013	mg/l	97%	-0.31
AB	0.149	0.015	mg/l	101%	0.12
AC	<0.1		mg/l	FN	
AD	0.1441	0.0218	mg/l	98%	-0.18
AE	0.1487	0.0012	mg/l	101%	0.11
AF			mg/l		
AG	<0.1		mg/l	FN	
AH	0.127	0.01	mg/l	86%	-1.24
AI	0.150	0.024	mg/l	102%	0.19
AJ			mg/l		
AK	<0.264		mg/l	*	
AL			mg/l		
AM	<0.5		mg/l	*	
AN	0.149		mg/l	101%	0.12
AO			mg/l		
AP			mg/l		
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	5,634 \pm 15,43	0,144 \pm 0,005	mg/l
Recov. \pm CI(99%)	3832,9 \pm 10502	98,3 \pm 3,5	%
SD between labs	26,916	0,009	mg/l
RSD between labs	477,7	6,0	%
n for calculation	24	22	



Sample N152A

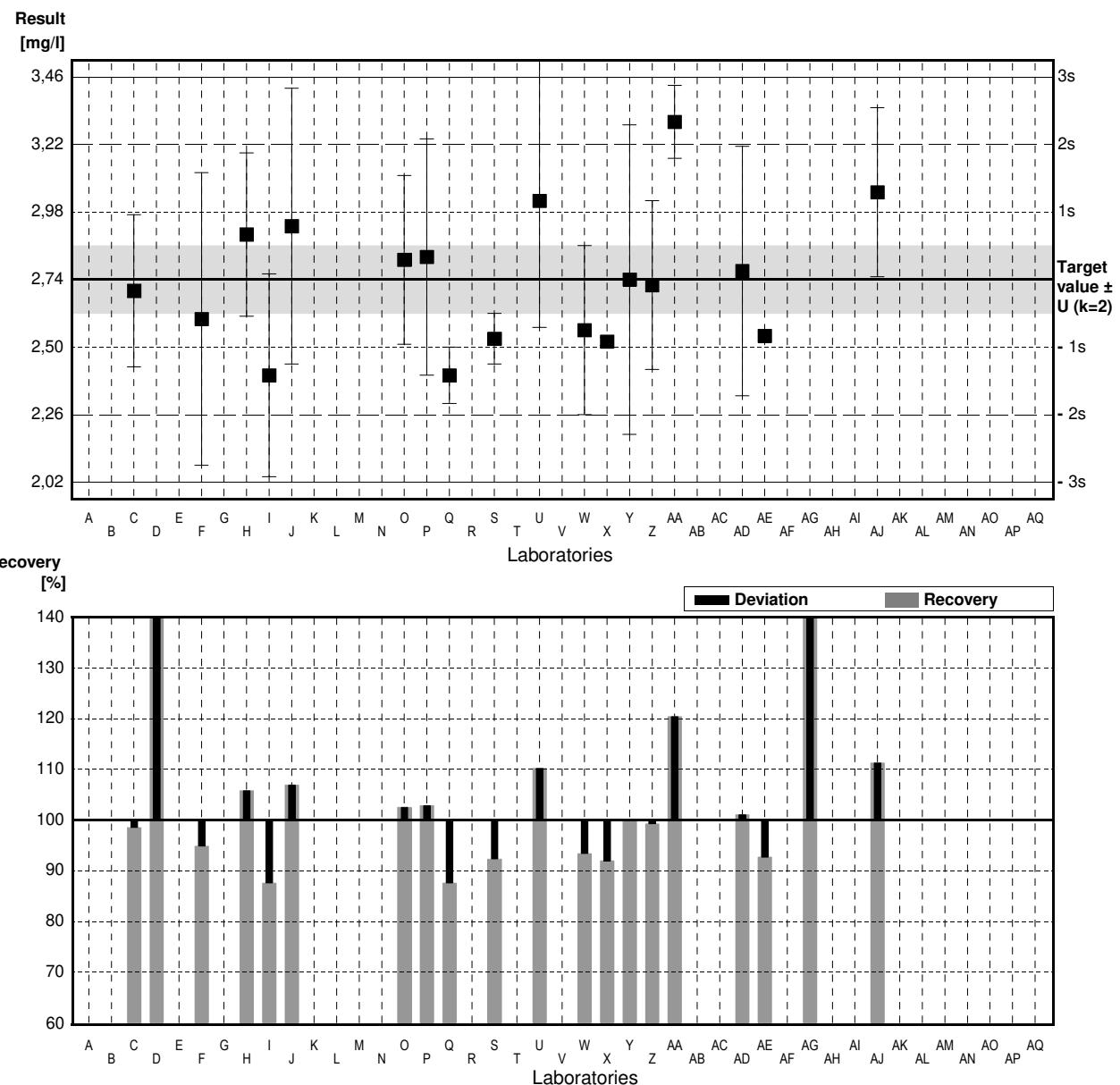
Parameter KMnO₄-Index

Target value \pm U (k=2) 2,74 mg/l \pm 0,12 mg/l
 IFA result \pm U (k=2) 2,67 mg/l \pm 0,48 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	2,70	0,27	mg/l	99%	-0,15
D	4,52 *	0,45	mg/l	165%	6,50
E			mg/l		
F	2,60	0,52	mg/l	95%	-0,51
G			mg/l		
H	2,90	0,29	mg/l	106%	0,58
I	2,40	0,36	mg/l	88%	-1,24
J	2,93	0,49	mg/l	107%	0,69
K			mg/l		
L			mg/l		
M			mg/l		
N			mg/l		
O	2,81	0,3	mg/l	103%	0,26
P	2,82	0,42	mg/l	103%	0,29
Q	2,40	0,1	mg/l	88%	-1,24
R			mg/l		
S	2,53	0,09	mg/l	92%	-0,77
T			mg/l		
U	3,02	0,45	mg/l	110%	1,02
V			mg/l		
W	2,56	0,3	mg/l	93%	-0,66
X	2,52	0,014	mg/l	92%	-0,80
Y	2,74	0,55	mg/l	100%	0,00
Z	2,72	0,3	mg/l	99%	-0,07
AA	3,30	0,13	mg/l	120%	2,04
AB			mg/l		
AC	nb		mg/l		
AD	2,77	0,443	mg/l	101%	0,11
AE	2,54		mg/l	93%	-0,73
AF			mg/l		
AG	13,76 *	1,376	mg/l	502%	40,22
AH			mg/l		
AI			mg/l		
AJ	3,05	0,3	mg/l	111%	1,13
AK			mg/l		
AL			mg/l		
AM			mg/l		
AN			mg/l		
AO			mg/l		
AP			mg/l		
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	3,38 \pm 1,59	2,74 \pm 0,16	mg/l
Recov. \pm CI(99%)	123,3 \pm 58,0	100,0 \pm 6,0	%
SD between labs	2,49	0,24	mg/l
RSD between labs	73,6	8,8	%
n for calculation	20	18	



Sample N152B

Parameter KMnO₄-Index

Target value \pm U (k=2) 3,95 mg/l \pm 0,15 mg/l
 IFA result \pm U (k=2) 4,00 mg/l \pm 0,72 mg/l

Stability test mg/l

Lab Code	Result	\pm	Unit	Recovery	z-Score
A			mg/l		
B			mg/l		
C	4.01	0.40	mg/l	102%	0.15
D	7.80 *	0.78	mg/l	197%	9.75
E			mg/l		
F	3.72	0.75	mg/l	94%	-0.58
G			mg/l		
H	4.00	0.40	mg/l	101%	0.13
I	3.64	0.55	mg/l	92%	-0.78
J	4.22	0.70	mg/l	107%	0.68
K			mg/l		
L			mg/l		
M			mg/l		
N			mg/l		
O	3.98	0.4	mg/l	101%	0.08
P	4.01	0.60	mg/l	102%	0.15
Q	3.71	0.7	mg/l	94%	-0.61
R			mg/l		
S	3.80	0.14	mg/l	96%	-0.38
T			mg/l		
U	4.31	0.65	mg/l	109%	0.91
V			mg/l		
W	3.66	0.4	mg/l	93%	-0.73
X	3.59	0.007	mg/l	91%	-0.91
Y	4.00	0.80	mg/l	101%	0.13
Z	3.70	0.3	mg/l	94%	-0.63
AA	4.83	0.18	mg/l	122%	2.23
AB			mg/l		
AC	nb		mg/l		
AD	3.88	0.621	mg/l	98%	-0.18
AE	3.99		mg/l	101%	0.10
AF			mg/l		
AG	18.56 *	1.856	mg/l	470%	36.99
AH			mg/l		
AI			mg/l		
AJ	4.10	0.4	mg/l	104%	0.38
AK			mg/l		
AL			mg/l		
AM			mg/l		
AN			mg/l		
AO			mg/l		
AP			mg/l		
AQ			mg/l		

	All results	Outliers excl.	Unit
Mean \pm CI(99%)	4,88 \pm 2,14	3,95 \pm 0,20	mg/l
Recov. \pm CI(99%)	123,4 \pm 54,2	100,1 \pm 5,2	%
SD between labs	3,35	0,30	mg/l
RSD between labs	68,6	7,6	%
n for calculation	20	18	

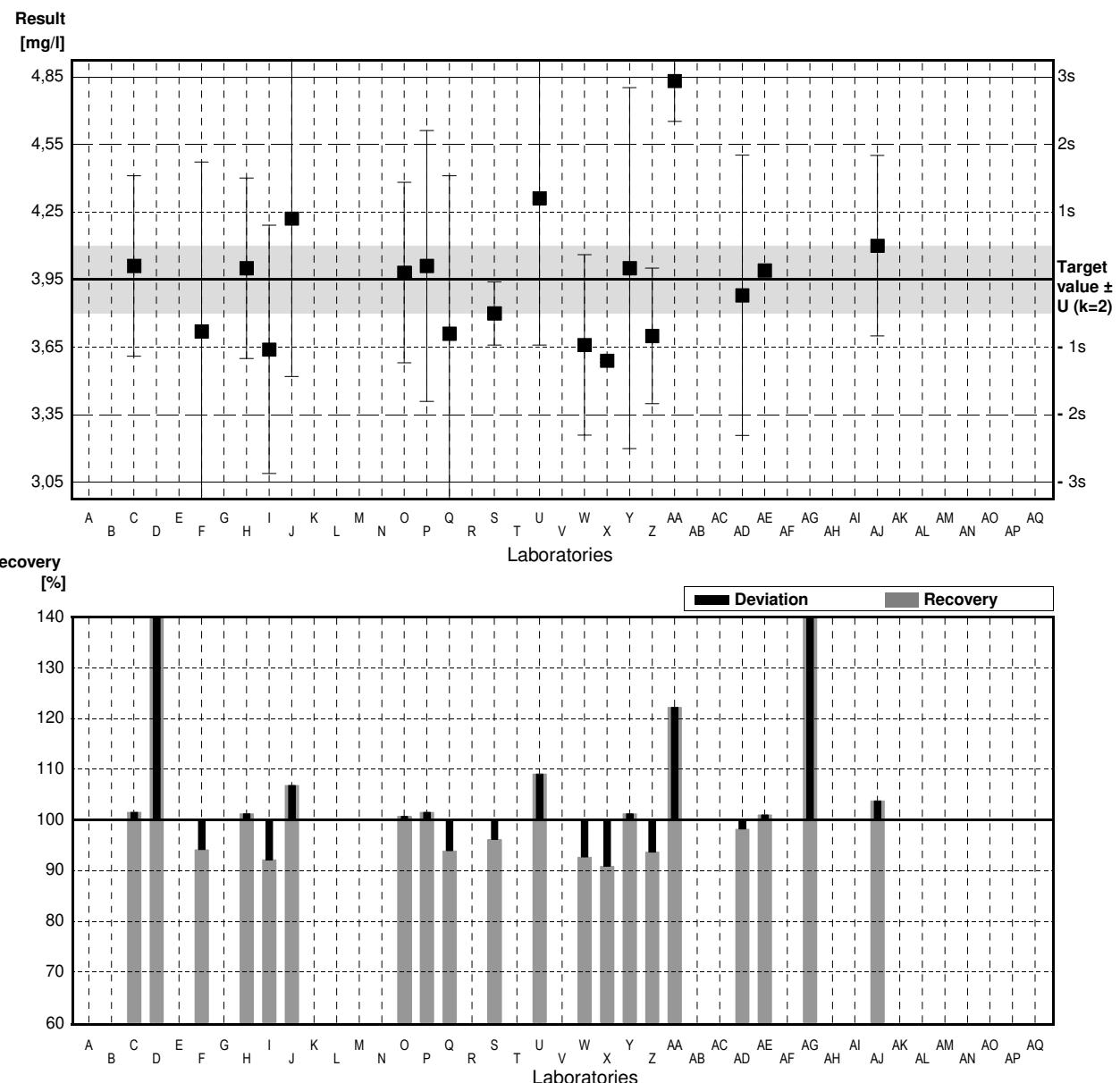


Illustration of Results Laboratory Oriented Part

**Round N152
Major Ions**

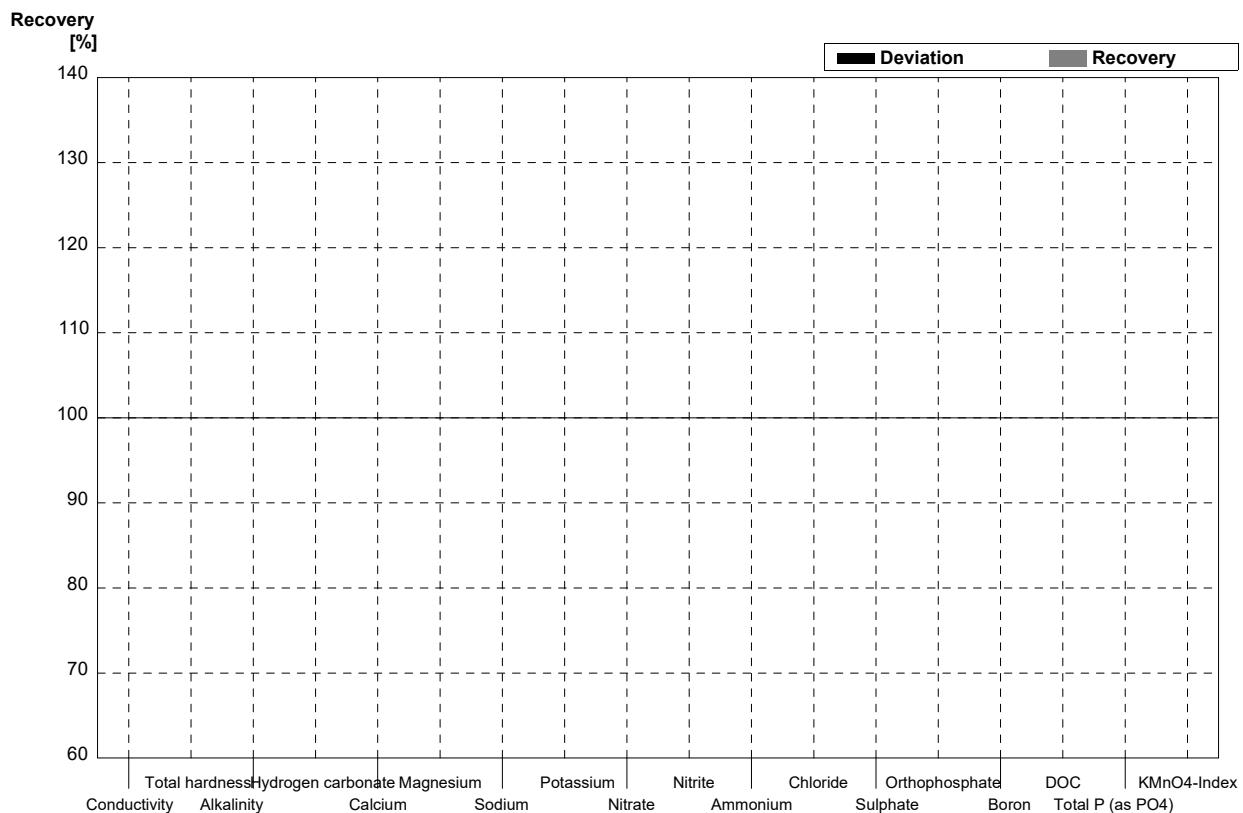
Sample Dispatch: 25 May 2020



Sample N152A

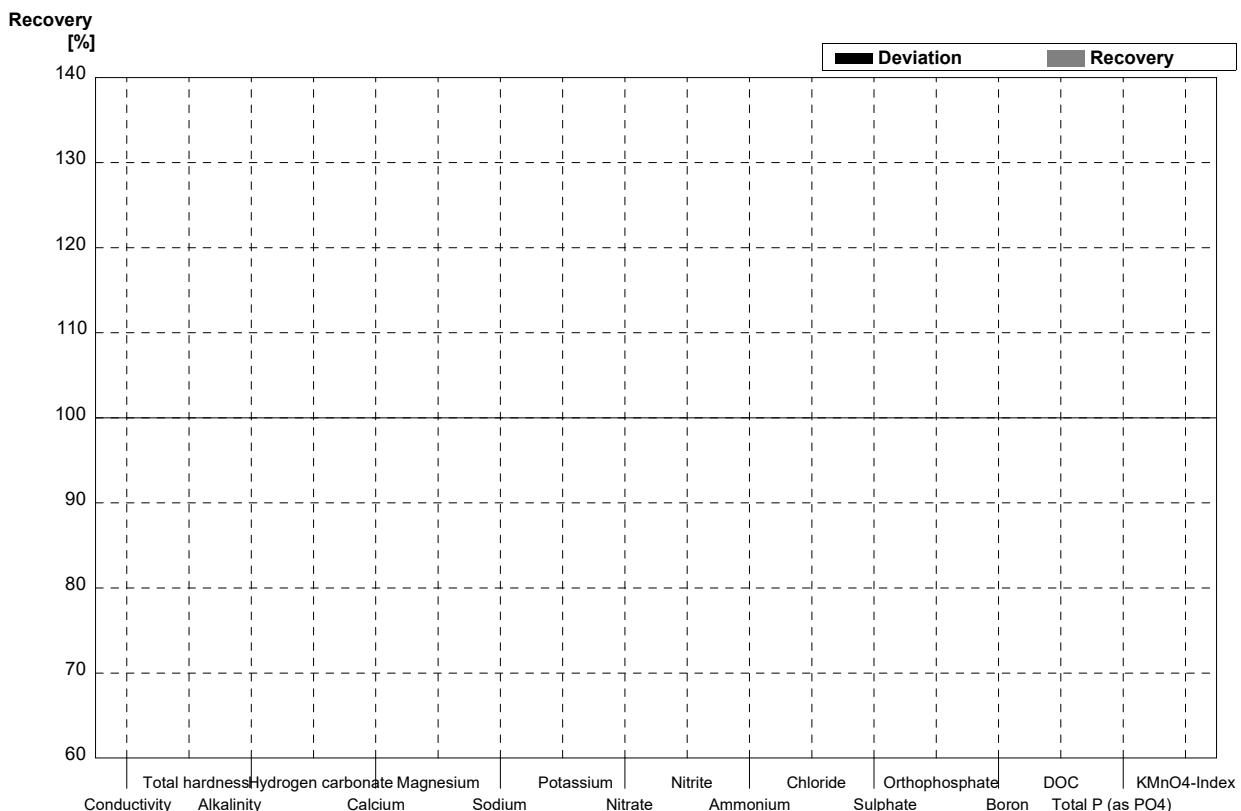
Laboratory A

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2			$\mu\text{S}/\text{cm}$	
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2			mg/l	
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3			mg/l	
Sulphate	20,5	0,2			mg/l	
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



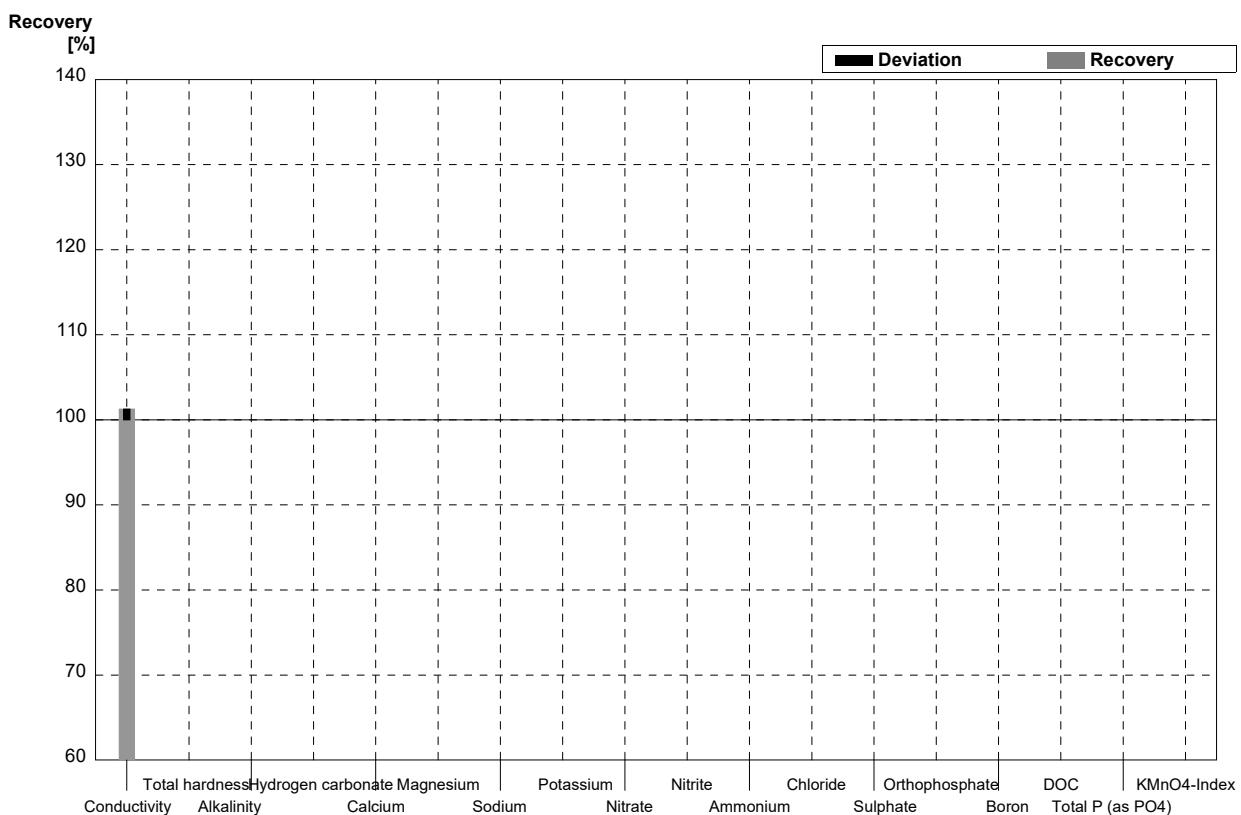
Sample N152B**Laboratory A**

Parameter	Target value	$\pm U$ (k=2)	Result	\pm	Unit	Recovery
Conductivity	579	3			$\mu\text{S}/\text{cm}$	
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7			mg/l	
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0			mg/l	
Sulphate	45,0	0,5			mg/l	
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	



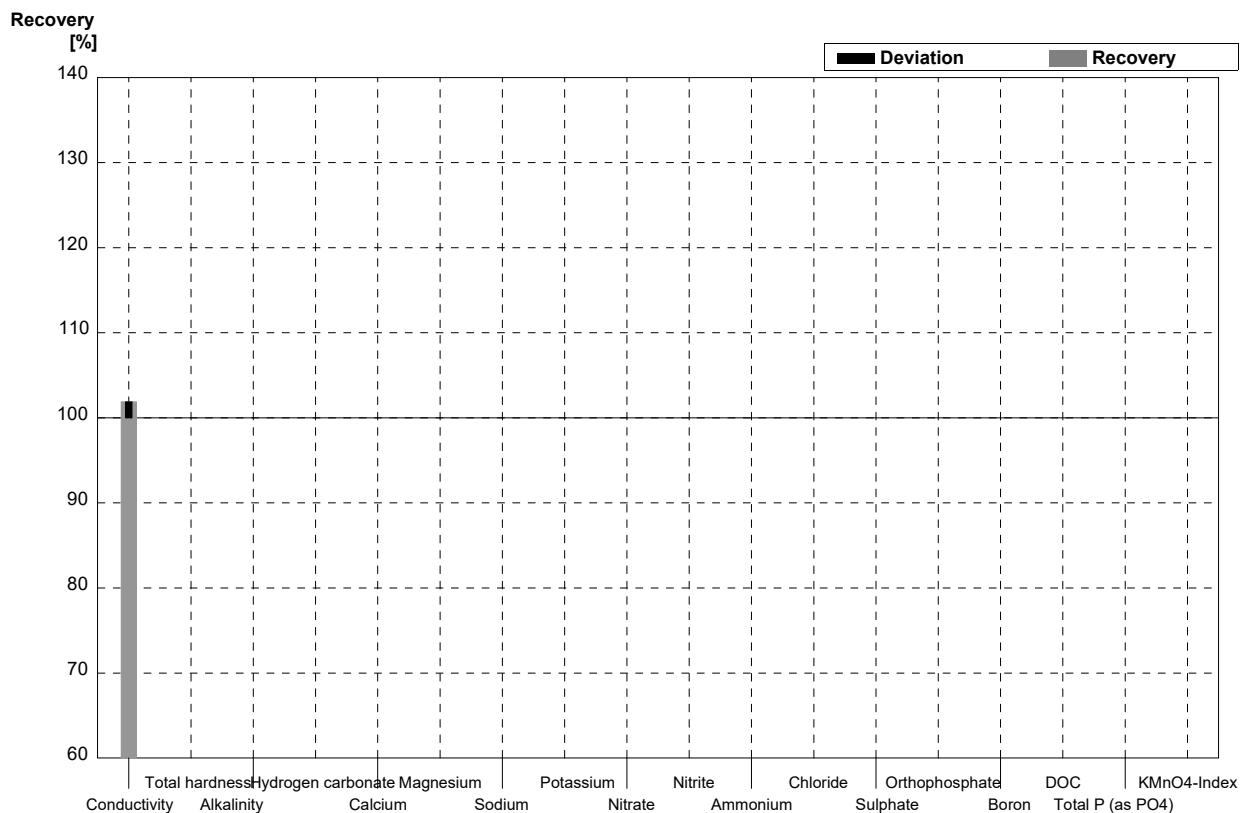
Sample N152A**Laboratory B**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	319		$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2			mg/l	
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3			mg/l	
Sulphate	20,5	0,2			mg/l	
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



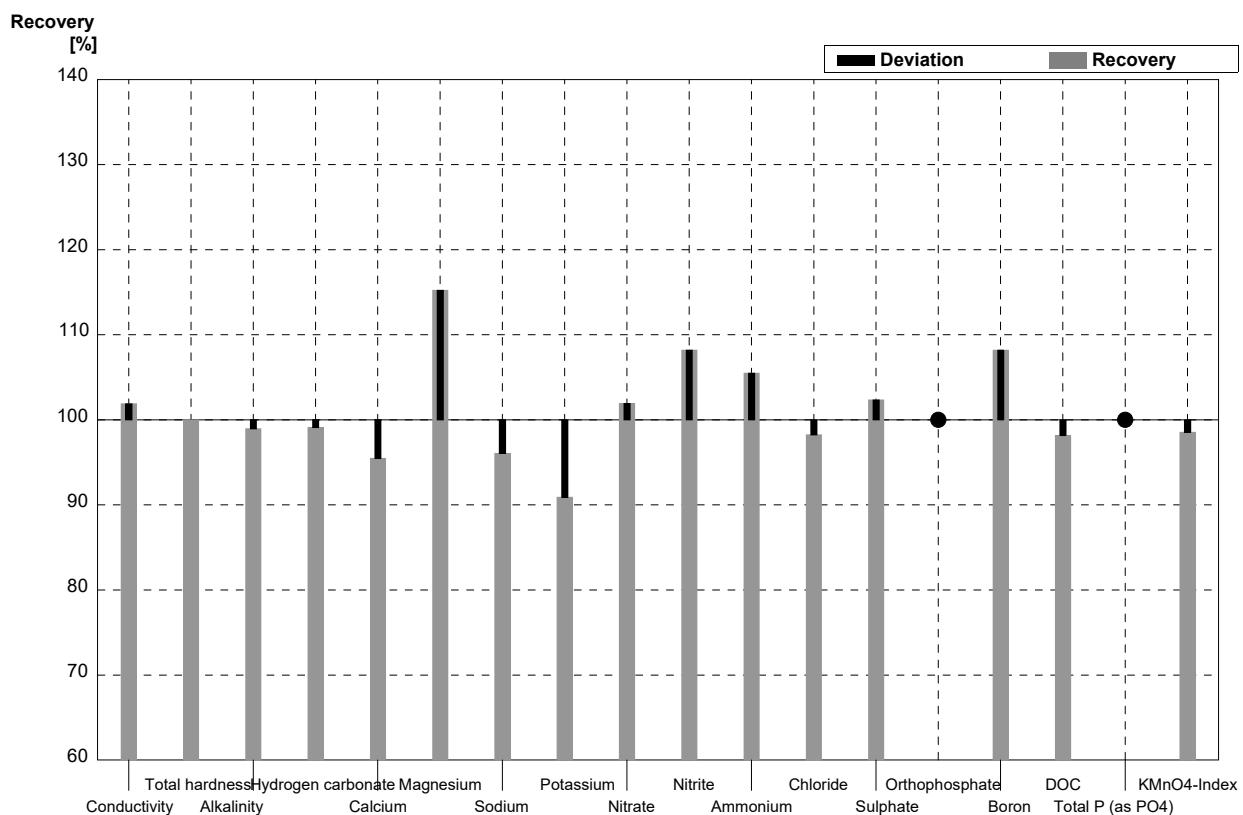
Sample N152B**Laboratory B**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	590		$\mu\text{S}/\text{cm}$	102%
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7			mg/l	
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0			mg/l	
Sulphate	45,0	0,5			mg/l	
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	



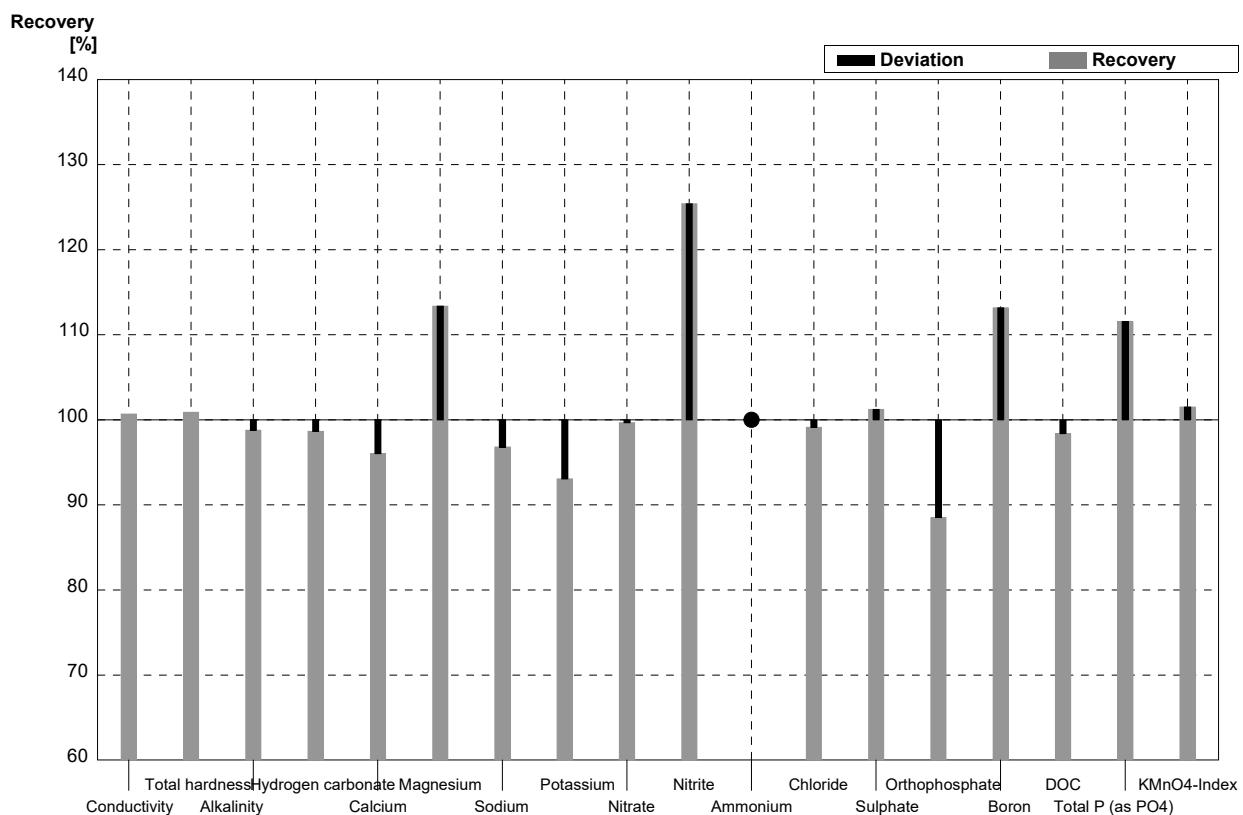
Sample N152A**Laboratory C**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	321	6	$\mu\text{S}/\text{cm}$	102%
Total hardness	1,24	0,01	1,24	0,05	mmol/l	100%
Alkalinity	1,91	0,03	1,89	0,10	mmol/l	99%
Hydrogen carbonate	113	2	112,0	5,6	mg/l	99%
Calcium	37,6	0,5	35,9	1,4	mg/l	95%
Magnesium	7,29	0,08	8,4	0,4	mg/l	115%
Sodium	12,7	0,3	12,2	0,6	mg/l	96%
Potassium	2,64	0,02	2,40	0,12	mg/l	91%
Nitrate	14,0	0,2	14,27	0,43	mg/l	102%
Nitrite	0,061	0,001	0,066	0,007	mg/l	108%
Ammonium	0,091	0,002	0,096	0,010	mg/l	105%
Chloride	19,9	0,3	19,55	0,59	mg/l	98%
Sulphate	20,5	0,2	20,98	0,63	mg/l	102%
Orthophosphate	<0,009		<0,020		mg/l	•
Boron	0,061	0,001	0,066	0,007	mg/l	108%
DOC	2,72	0,04	2,67	0,27	mg/l	98%
Total P (as PO ₄)	<0,009		<0,031		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,70	0,27	mg/l	99%



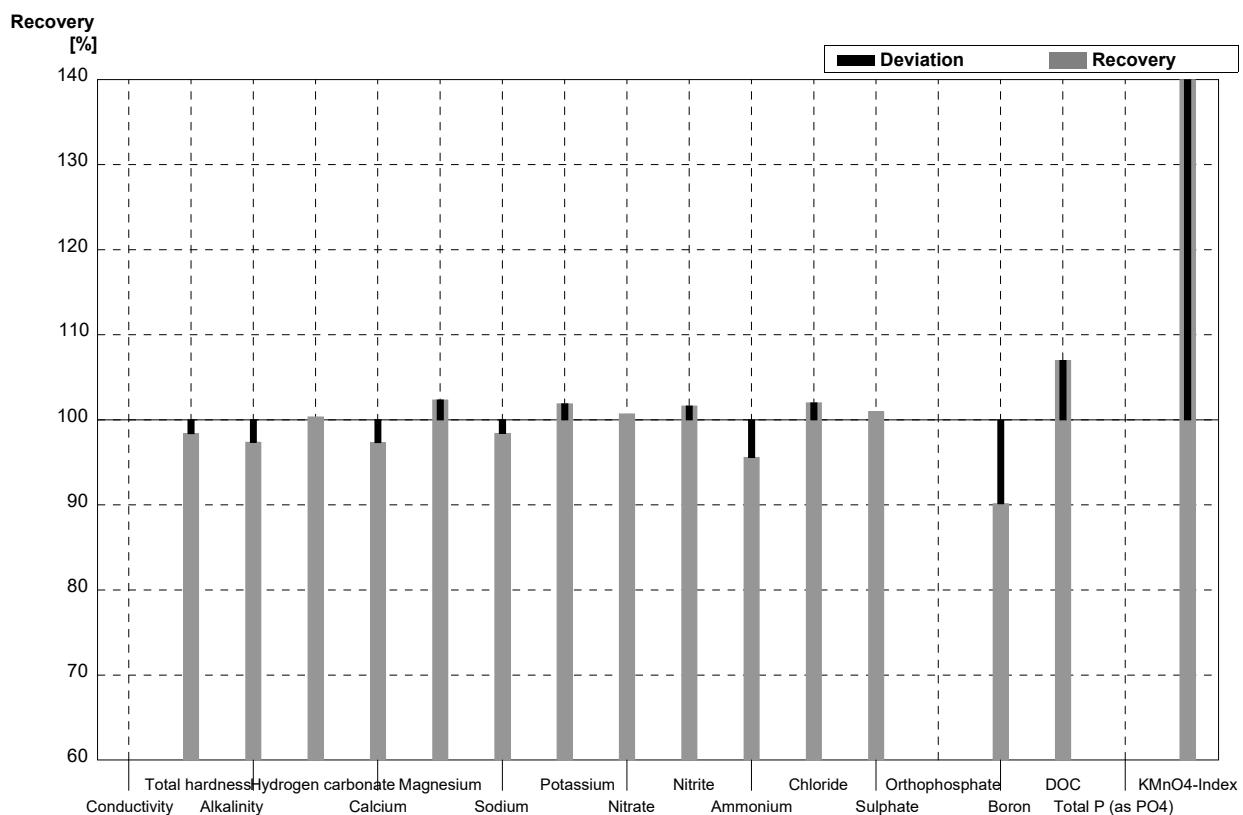
Sample N152B**Laboratory C**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	583	12	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,24	0,09	mmol/l	101%
Alkalinity	2,47	0,03	2,44	0,12	mmol/l	99%
Hydrogen carbonate	148	2	146,0	7,3	mg/l	99%
Calcium	65,6	0,8	63,0	2,5	mg/l	96%
Magnesium	14,2	0,2	16,1	3,2	mg/l	113%
Sodium	25,0	0,3	24,2	1,21	mg/l	97%
Potassium	4,62	0,05	4,30	0,22	mg/l	93%
Nitrate	40,7	0,7	40,57	1,22	mg/l	100%
Nitrite	0,0303	0,0010	0,0380	0,004	mg/l	125%
Ammonium	<0,01		<0,030		mg/l	•
Chloride	56,2	1,0	55,71	1,67	mg/l	99%
Sulphate	45,0	0,5	45,55	1,37	mg/l	101%
Orthophosphate	0,061	0,002	0,054	0,005	mg/l	89%
Boron	0,091	0,001	0,103	0,010	mg/l	113%
DOC	4,94	0,05	4,86	0,49	mg/l	98%
Total P (as PO ₄)	0,147	0,002	0,164	0,025	mg/l	112%
KMnO ₄ -Index	3,95	0,15	4,01	0,40	mg/l	102%



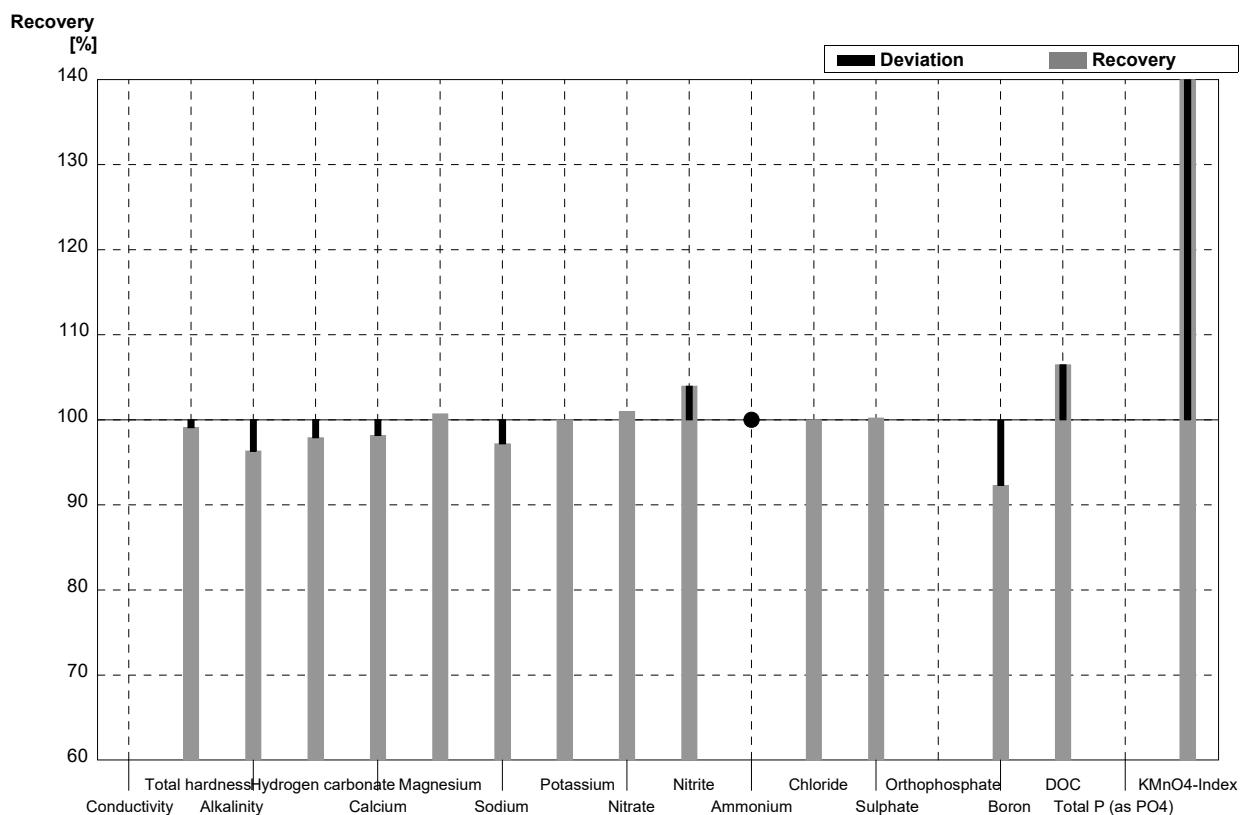
Sample N152A**Laboratory D**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2			$\mu\text{S}/\text{cm}$	
Total hardness	1,24	0,01	1,22	0,122	mmol/l	98%
Alkalinity	1,91	0,03	1,86		mmol/l	97%
Hydrogen carbonate	113	2	113,4		mg/l	100%
Calcium	37,6	0,5	36,6	1,8	mg/l	97%
Magnesium	7,29	0,08	7,46	0,37	mg/l	102%
Sodium	12,7	0,3	12,5	0,6	mg/l	98%
Potassium	2,64	0,02	2,69	0,13	mg/l	102%
Nitrate	14,0	0,2	14,1	0,7	mg/l	101%
Nitrite	0,061	0,001	0,062	0,004	mg/l	102%
Ammonium	0,091	0,002	0,087	0,009	mg/l	96%
Chloride	19,9	0,3	20,3	1	mg/l	102%
Sulphate	20,5	0,2	20,7	1	mg/l	101%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001	0,055	0,003	mg/l	90%
DOC	2,72	0,04	2,91	0,23	mg/l	107%
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12	4,52	0,45	mg/l	165%



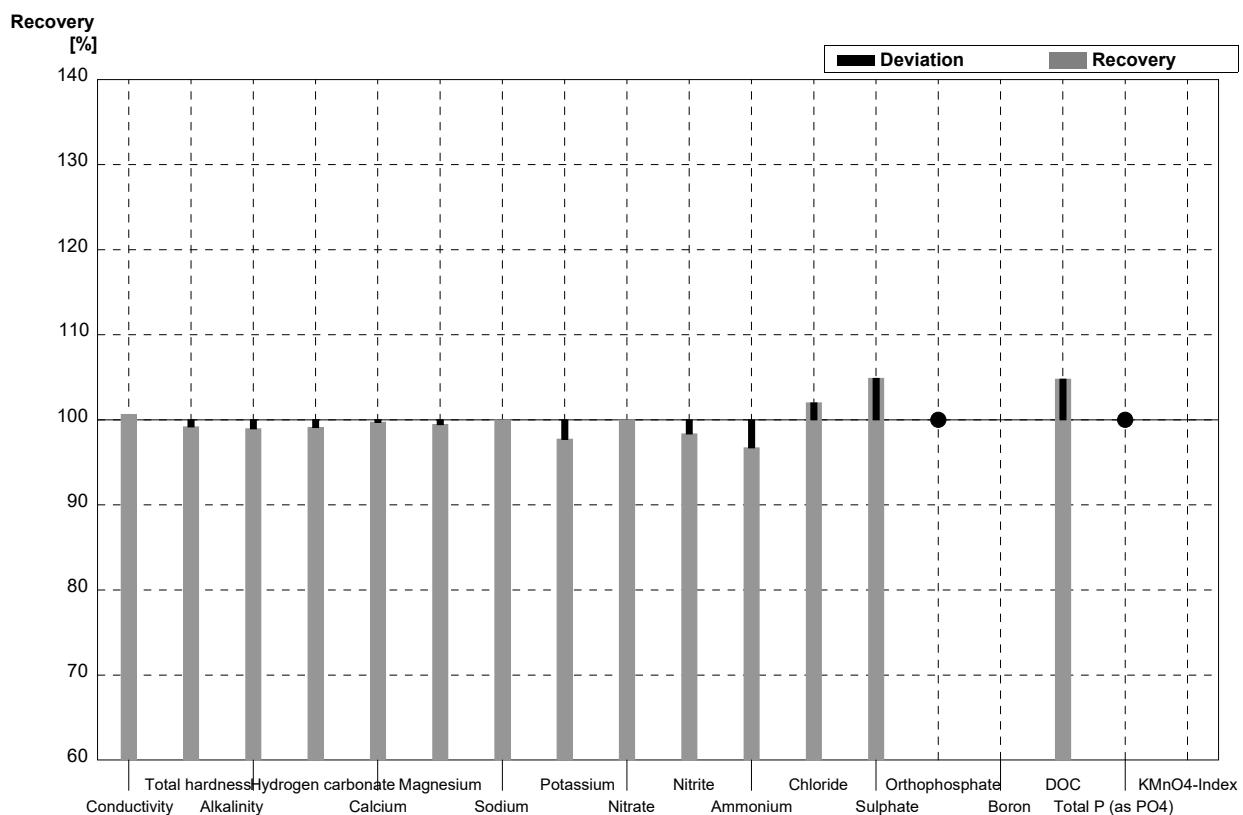
Sample N152B**Laboratory D**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3			$\mu\text{S}/\text{cm}$	
Total hardness	2,22	0,02	2,20	0,22	mmol/l	99%
Alkalinity	2,47	0,03	2,38		mmol/l	96%
Hydrogen carbonate	148	2	144,9		mg/l	98%
Calcium	65,6	0,8	64,4	3,2	mg/l	98%
Magnesium	14,2	0,2	14,3	0,7	mg/l	101%
Sodium	25,0	0,3	24,3	1,2	mg/l	97%
Potassium	4,62	0,05	4,62	0,23	mg/l	100%
Nitrate	40,7	0,7	41,1	2,1	mg/l	101%
Nitrite	0,0303	0,0010	0,0315	0,002	mg/l	104%
Ammonium	<0,01		<0,060		mg/l	•
Chloride	56,2	1,0	56,2	2,8	mg/l	100%
Sulphate	45,0	0,5	45,1	2,3	mg/l	100%
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001	0,084	0,004	mg/l	92%
DOC	4,94	0,05	5,26	0,42	mg/l	106%
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15	7,80	0,78	mg/l	197%



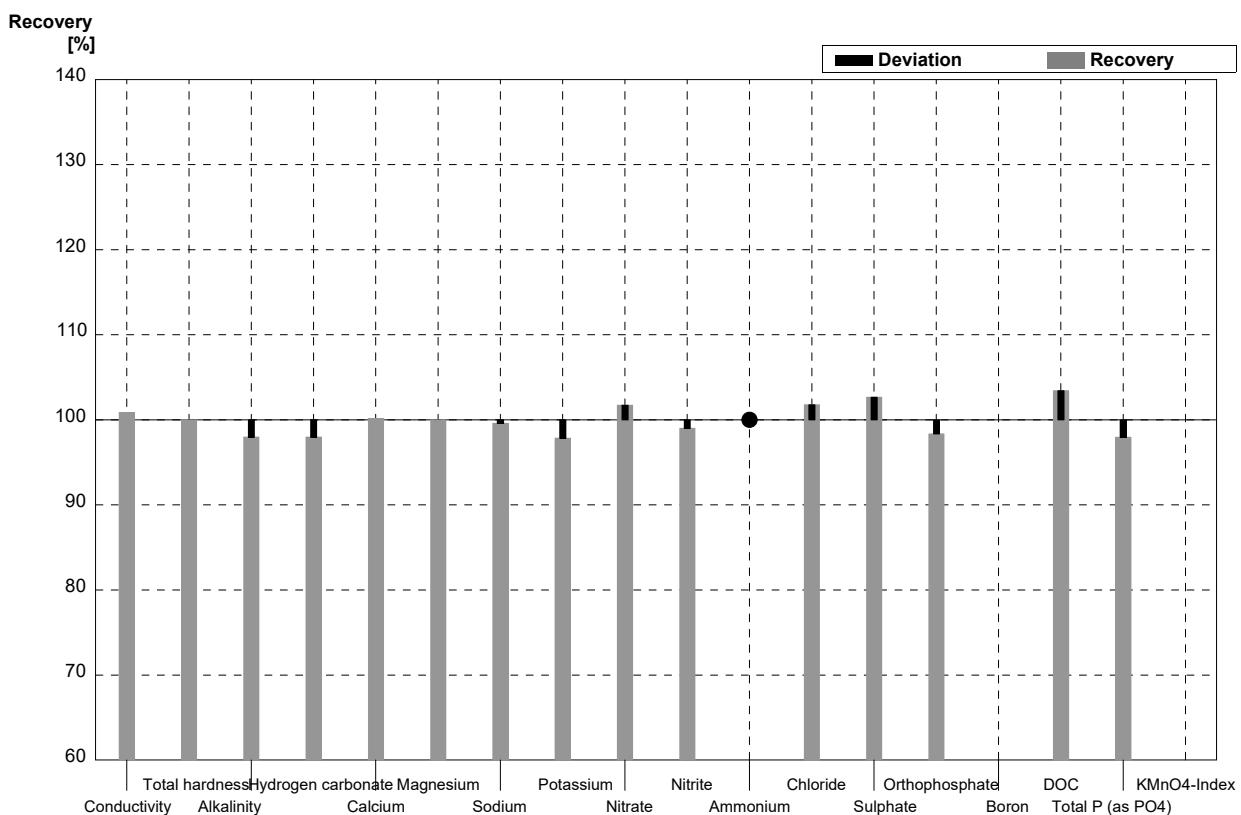
Sample N152A**Laboratory E**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	317	13	$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01	1,23	0,1	mmol/l	99%
Alkalinity	1,91	0,03	1,89	0,1	mmol/l	99%
Hydrogen carbonate	113	2	112	4	mg/l	99%
Calcium	37,6	0,5	37,5	3	mg/l	100%
Magnesium	7,29	0,08	7,25	0,9	mg/l	99%
Sodium	12,7	0,3	12,7	2	mg/l	100%
Potassium	2,64	0,02	2,58	0,4	mg/l	98%
Nitrate	14,0	0,2	14,0	1,2	mg/l	100%
Nitrite	0,061	0,001	0,060	0,005	mg/l	98%
Ammonium	0,091	0,002	0,088	0,014	mg/l	97%
Chloride	19,9	0,3	20,3	2	mg/l	102%
Sulphate	20,5	0,2	21,5	2	mg/l	105%
Orthophosphate	<0,009		<0,01		mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04	2,85	0,5	mg/l	105%
Total P (as PO ₄)	<0,009		<0,013		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



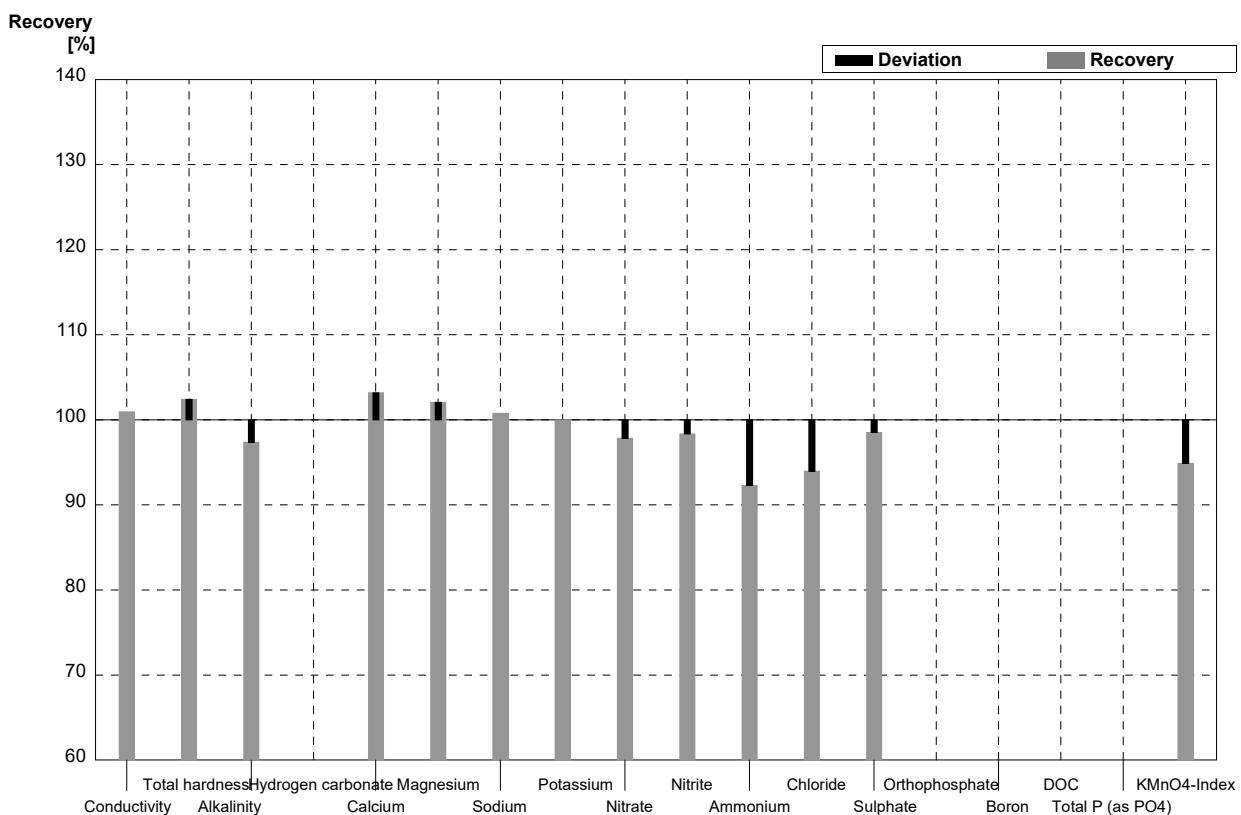
Sample N152B**Laboratory E**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	584	24	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,22	0,1	mmol/l	100%
Alkalinity	2,47	0,03	2,42	0,1	mmol/l	98%
Hydrogen carbonate	148	2	145	5	mg/l	98%
Calcium	65,6	0,8	65,7	6	mg/l	100%
Magnesium	14,2	0,2	14,2	1,8	mg/l	100%
Sodium	25,0	0,3	24,9	4	mg/l	100%
Potassium	4,62	0,05	4,52	0,6	mg/l	98%
Nitrate	40,7	0,7	41,4	4	mg/l	102%
Nitrite	0,0303	0,0010	0,0300	0,003	mg/l	99%
Ammonium	<0,01		<0,013		mg/l	•
Chloride	56,2	1,0	57,2	4	mg/l	102%
Sulphate	45,0	0,5	46,2	3	mg/l	103%
Orthophosphate	0,061	0,002	0,060	0,007	mg/l	98%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05	5,11	0,8	mg/l	103%
Total P (as PO ₄)	0,147	0,002	0,144	0,02	mg/l	98%
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A**Laboratory F**

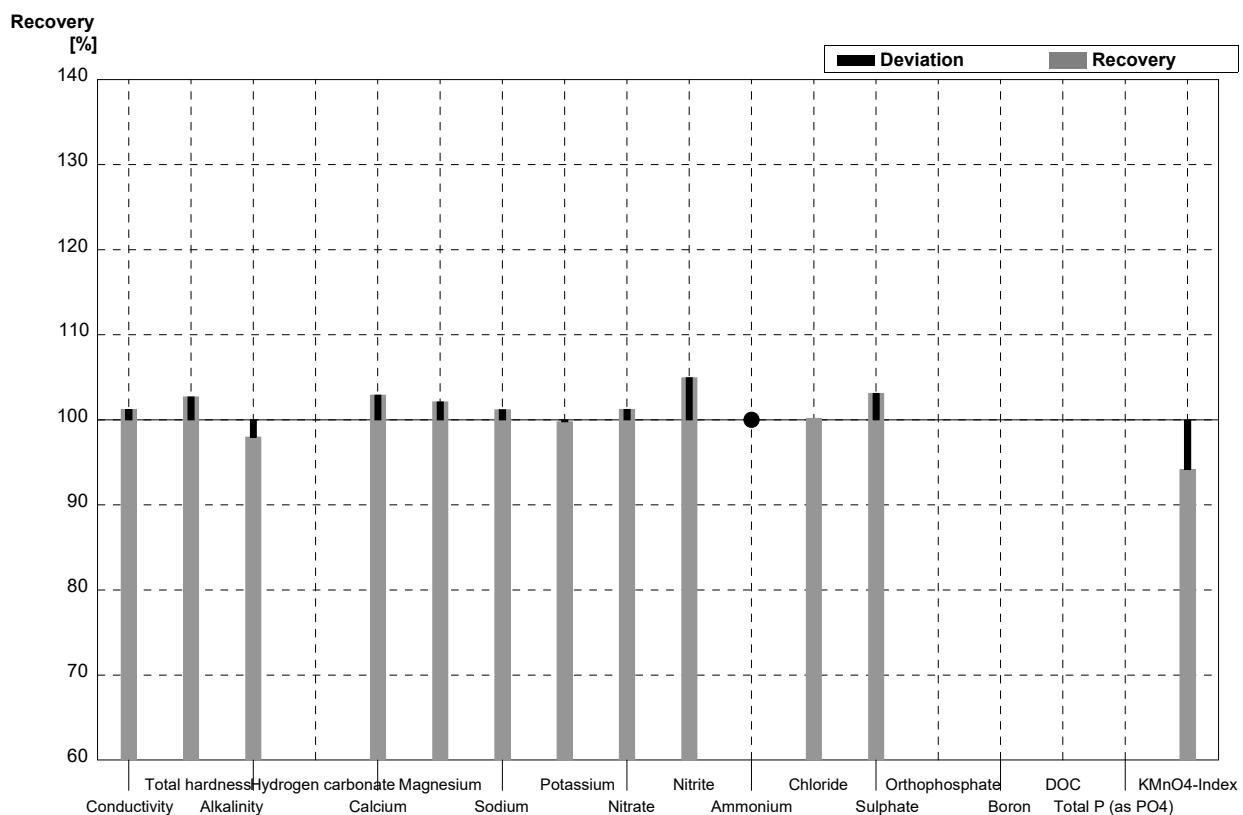
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	318	5	$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01	1,27	0,13	mmol/l	102%
Alkalinity	1,91	0,03	1,86	0,19	mmol/l	97%
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5	38,8	3,9	mg/l	103%
Magnesium	7,29	0,08	7,44	0,75	mg/l	102%
Sodium	12,7	0,3	12,8	1,3	mg/l	101%
Potassium	2,64	0,02	2,64	0,27	mg/l	100%
Nitrate	14,0	0,2	13,7	1,37	mg/l	98%
Nitrite	0,061	0,001	0,060	0,006	mg/l	98%
Ammonium	0,091	0,002	0,084	0,008	mg/l	92%
Chloride	19,9	0,3	18,7	1,9	mg/l	94%
Sulphate	20,5	0,2	20,2	2,0	mg/l	99%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12	2,60	0,52	mg/l	95%



Sample N152B

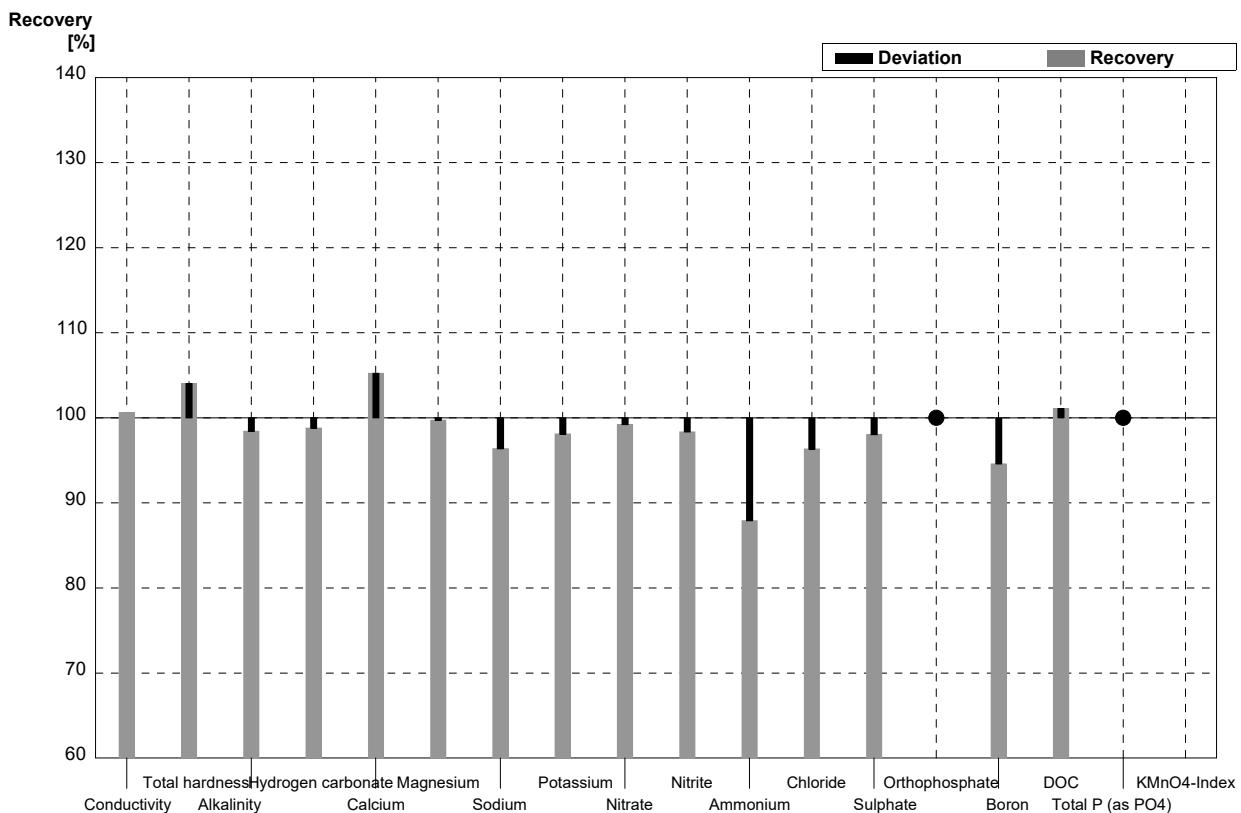
Laboratory F

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	586	5	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,28	0,23	mmol/l	103%
Alkalinity	2,47	0,03	2,42	0,24	mmol/l	98%
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8	67,5	6,8	mg/l	103%
Magnesium	14,2	0,2	14,5	1,5	mg/l	102%
Sodium	25,0	0,3	25,3	2,6	mg/l	101%
Potassium	4,62	0,05	4,61	0,47	mg/l	100%
Nitrate	40,7	0,7	41,2	4,1	mg/l	101%
Nitrite	0,0303	0,0010	0,0318	0,005	mg/l	105%
Ammonium	<0,01		<0,010		mg/l	•
Chloride	56,2	1,0	56,3	5,6	mg/l	100%
Sulphate	45,0	0,5	46,4	4,6	mg/l	103%
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15	3,72	0,75	mg/l	94%



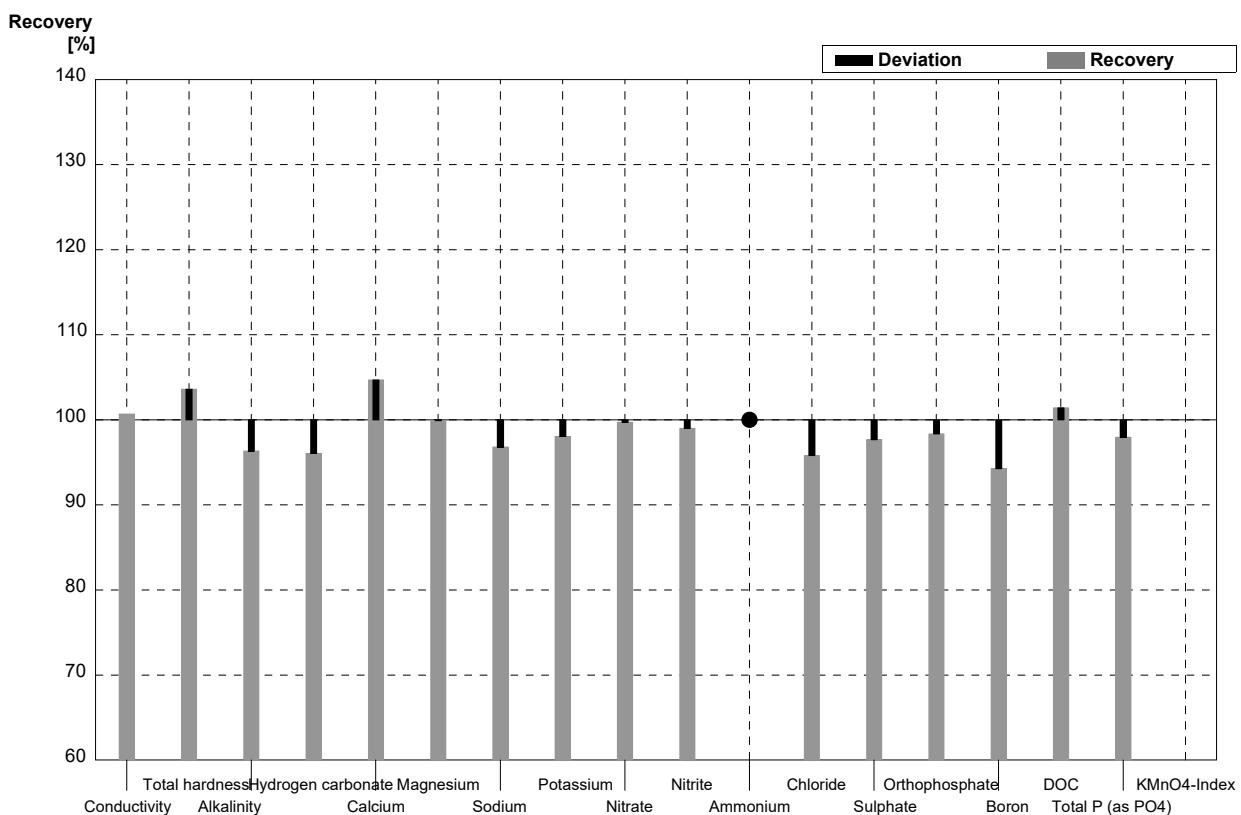
Sample N152A
Laboratory G

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	317	4,51	$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01	1,29		mmol/l	104%
Alkalinity	1,91	0,03	1,88	0,19	mmol/l	98%
Hydrogen carbonate	113	2	111,65		mg/l	99%
Calcium	37,6	0,5	39,57	4,0	mg/l	105%
Magnesium	7,29	0,08	7,27	0,73	mg/l	100%
Sodium	12,7	0,3	12,24	1,22	mg/l	96%
Potassium	2,64	0,02	2,59	0,26	mg/l	98%
Nitrate	14,0	0,2	13,89	1,39	mg/l	99%
Nitrite	0,061	0,001	0,060	0,006	mg/l	98%
Ammonium	0,091	0,002	0,080	0,0075	mg/l	88%
Chloride	19,9	0,3	19,17	1,92	mg/l	96%
Sulphate	20,5	0,2	20,10	2,01	mg/l	98%
Orthophosphate	<0,009		<0,0055		mg/l	•
Boron	0,061	0,001	0,0577	0,008	mg/l	95%
DOC	2,72	0,04	2,75	0,28	mg/l	101%
Total P (as PO ₄)	<0,009		<0,0010		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



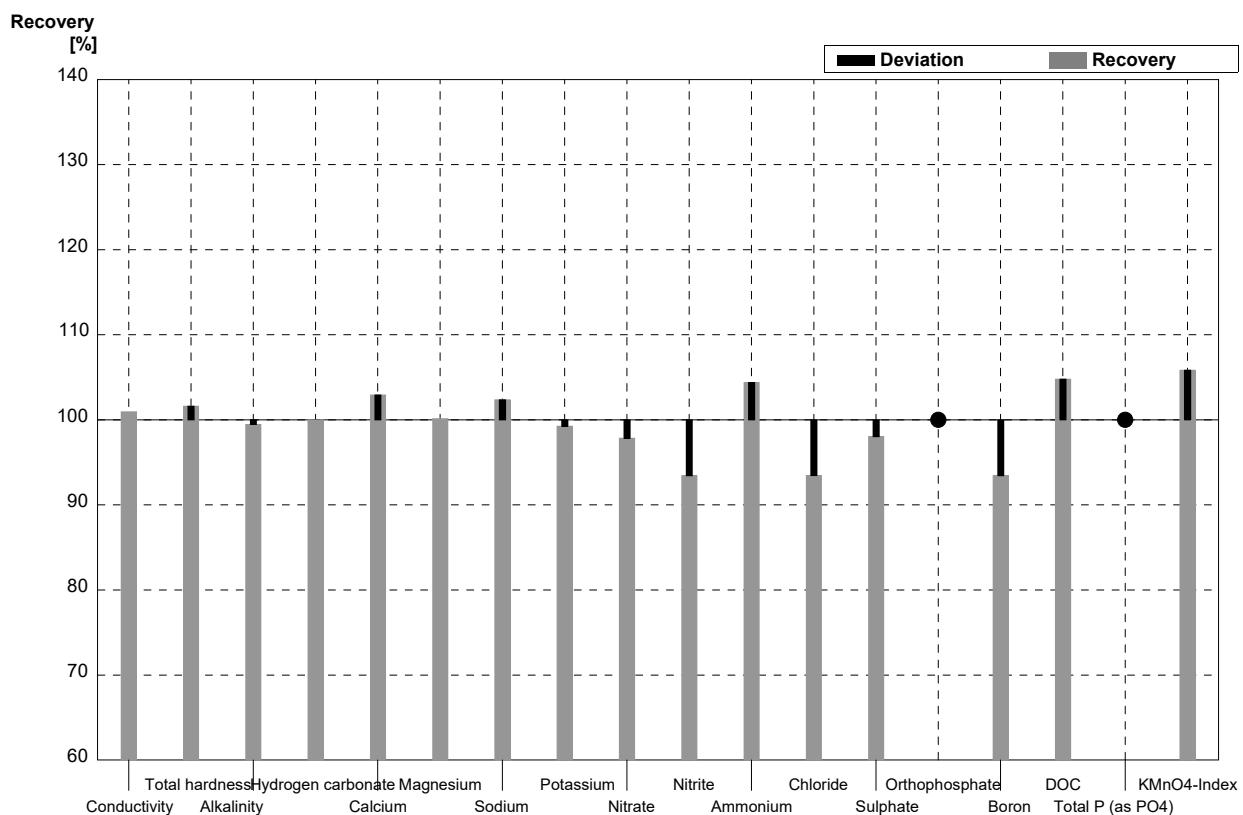
Sample N152B
Laboratory G

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	583	4,51	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,30		mmol/l	104%
Alkalinity	2,47	0,03	2,38	0,24	mmol/l	96%
Hydrogen carbonate	148	2	142,15		mg/l	96%
Calcium	65,6	0,8	68,68	6,9	mg/l	105%
Magnesium	14,2	0,2	14,19	1,42	mg/l	100%
Sodium	25,0	0,3	24,20	2,42	mg/l	97%
Potassium	4,62	0,05	4,53	0,45	mg/l	98%
Nitrate	40,7	0,7	40,59	4,06	mg/l	100%
Nitrite	0,0303	0,0010	0,0300	0,003	mg/l	99%
Ammonium	<0,01		<0,0026		mg/l	•
Chloride	56,2	1,0	53,85	5,39	mg/l	96%
Sulphate	45,0	0,5	43,96	4,39	mg/l	98%
Orthophosphate	0,061	0,002	0,060	0,006	mg/l	98%
Boron	0,091	0,001	0,0858	0,013	mg/l	94%
DOC	4,94	0,05	5,01	0,50	mg/l	101%
Total P (as PO ₄)	0,147	0,002	0,144	0,014	mg/l	98%
KMnO ₄ -Index	3,95	0,15			mg/l	



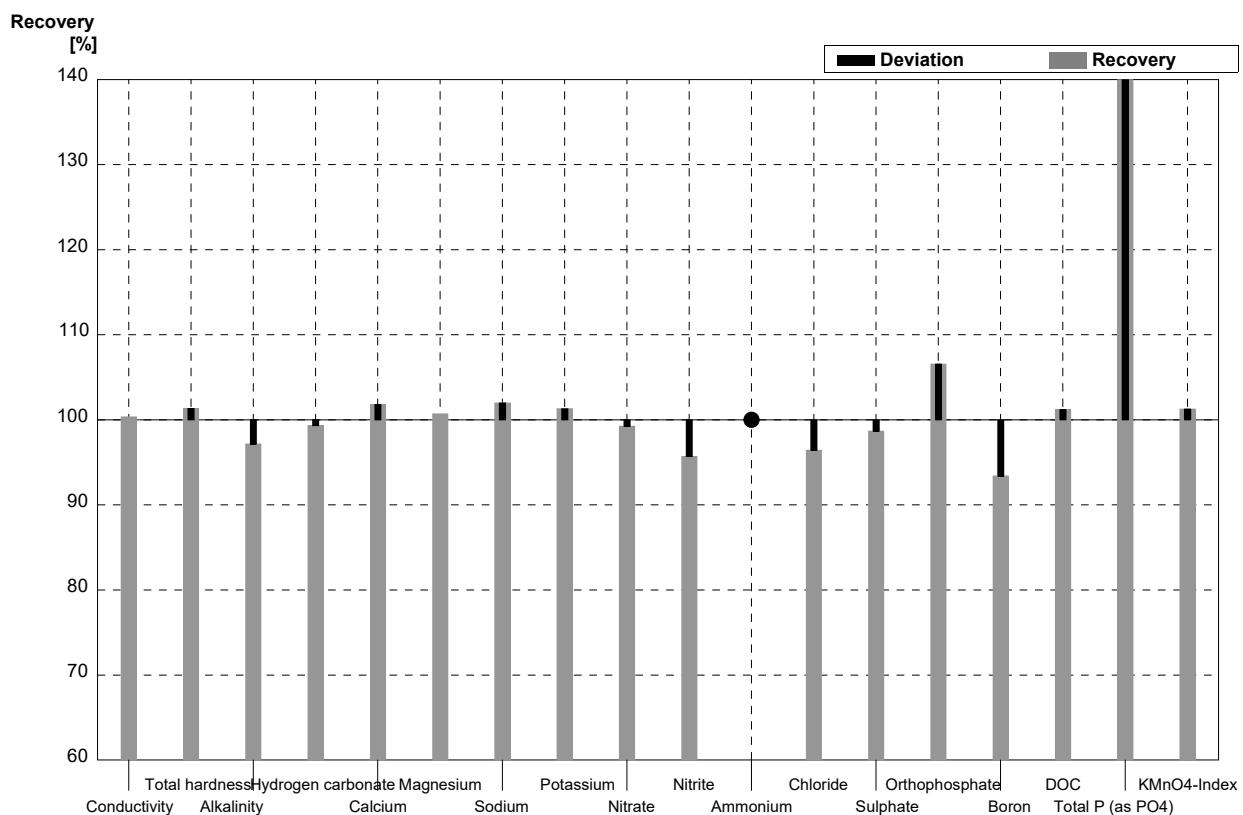
Sample N152A**Laboratory H**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	318	6	$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01	1,26	0,13	mmol/l	102%
Alkalinity	1,91	0,03	1,90	0,10	mmol/l	99%
Hydrogen carbonate	113	2	113	9	mg/l	100%
Calcium	37,6	0,5	38,7	1,6	mg/l	103%
Magnesium	7,29	0,08	7,3	0,4	mg/l	100%
Sodium	12,7	0,3	13,0	0,4	mg/l	102%
Potassium	2,64	0,02	2,62	0,21	mg/l	99%
Nitrate	14,0	0,2	13,7	1,0	mg/l	98%
Nitrite	0,061	0,001	0,057	0,006	mg/l	93%
Ammonium	0,091	0,002	0,095	0,029	mg/l	104%
Chloride	19,9	0,3	18,6	1,5	mg/l	93%
Sulphate	20,5	0,2	20,1	1,2	mg/l	98%
Orthophosphate	<0,009		<0,009	0,001	mg/l	•
Boron	0,061	0,001	0,057	0,004	mg/l	93%
DOC	2,72	0,04	2,85	0,40	mg/l	105%
Total P (as PO ₄)	<0,009		<0,009	0,002	mg/l	•
KMnO ₄ -Index	2,74	0,12	2,90	0,29	mg/l	106%



Sample N152B**Laboratory H**

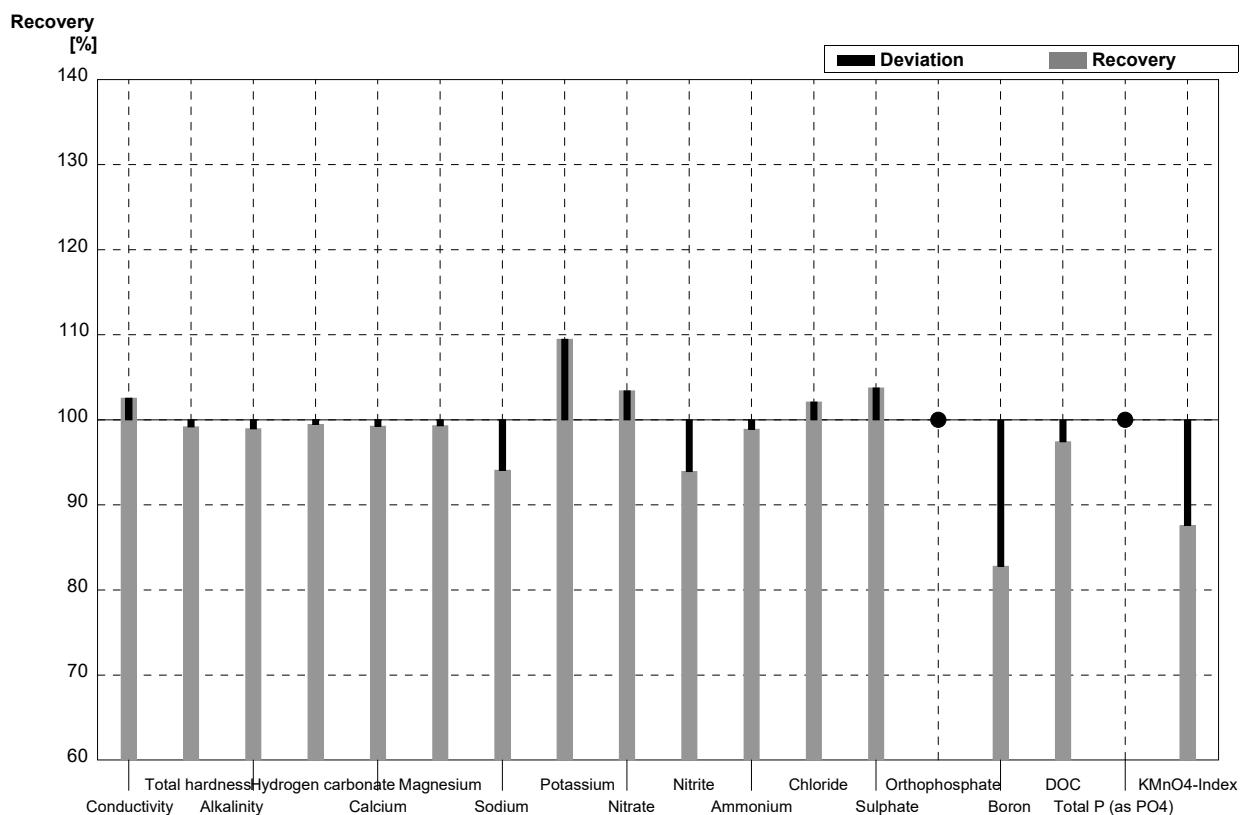
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	581	12	$\mu\text{S}/\text{cm}$	100%
Total hardness	2,22	0,02	2,25	0,23	mmol/l	101%
Alkalinity	2,47	0,03	2,40	0,20	mmol/l	97%
Hydrogen carbonate	148	2	147	12	mg/l	99%
Calcium	65,6	0,8	66,8	5,3	mg/l	102%
Magnesium	14,2	0,2	14,3	0,9	mg/l	101%
Sodium	25,0	0,3	25,5	1,0	mg/l	102%
Potassium	4,62	0,05	4,68	0,37	mg/l	101%
Nitrate	40,7	0,7	40,4	2,8	mg/l	99%
Nitrite	0,0303	0,0010	0,0290	0,0030	mg/l	96%
Ammonium	<0,01		<0,02	0,01	mg/l	•
Chloride	56,2	1,0	54,2	4,3	mg/l	96%
Sulphate	45,0	0,5	44,4	2,7	mg/l	99%
Orthophosphate	0,061	0,002	0,065	0,010	mg/l	107%
Boron	0,091	0,001	0,085	0,006	mg/l	93%
DOC	4,94	0,05	5,0	0,7	mg/l	101%
Total P (as PO ₄)	0,147	0,002	132	24	mg/l	89796%
KMnO ₄ -Index	3,95	0,15	4,00	0,40	mg/l	101%



Sample N152A

Laboratory I

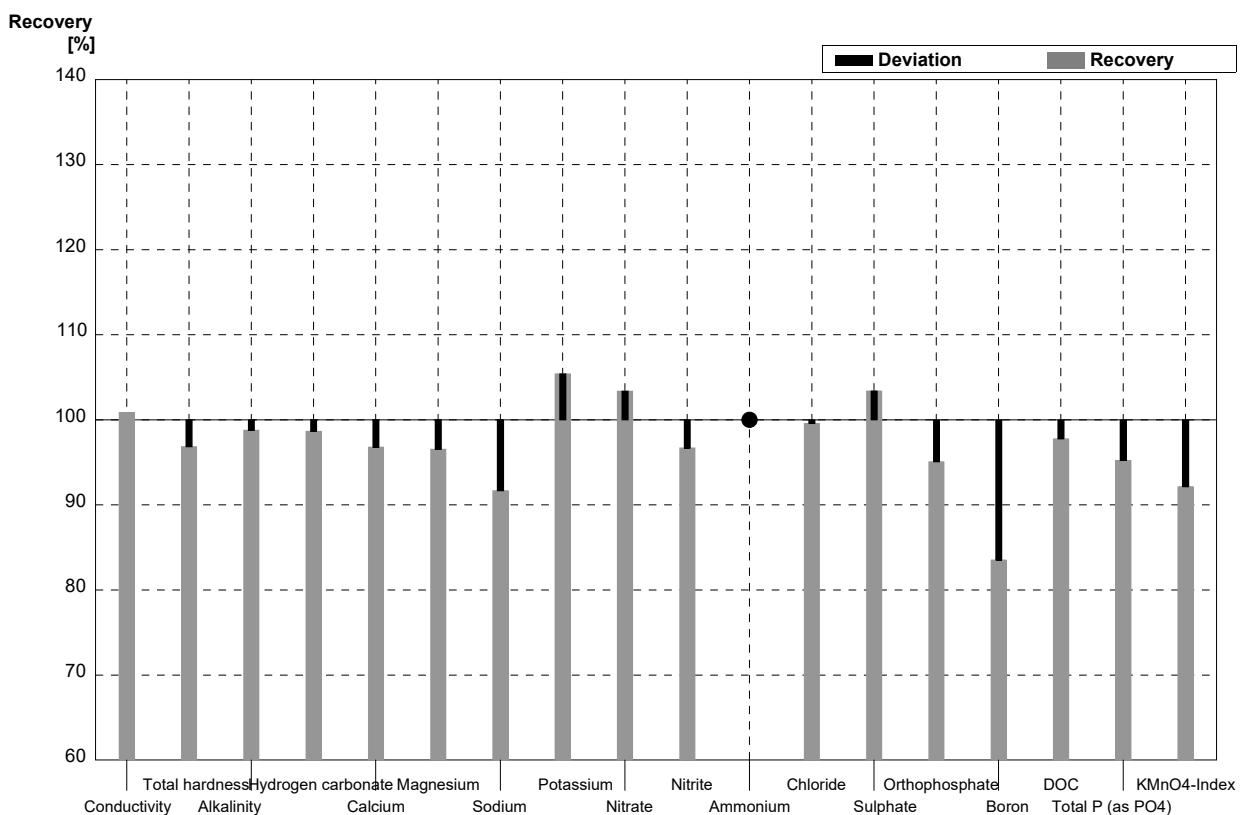
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	323	6	$\mu\text{S}/\text{cm}$	103%
Total hardness	1,24	0,01	1,23	0,16	mmol/l	99%
Alkalinity	1,91	0,03	1,89	0,17	mmol/l	99%
Hydrogen carbonate	113	2	112,4	10,1	mg/l	99%
Calcium	37,6	0,5	37,32	3,73	mg/l	99%
Magnesium	7,29	0,08	7,24	0,58	mg/l	99%
Sodium	12,7	0,3	11,95	1,08	mg/l	94%
Potassium	2,64	0,02	2,89	0,26	mg/l	109%
Nitrate	14,0	0,2	14,48	1,30	mg/l	103%
Nitrite	0,061	0,001	0,0573	0,0040	mg/l	94%
Ammonium	0,091	0,002	0,090	0,013	mg/l	99%
Chloride	19,9	0,3	20,32	2,44	mg/l	102%
Sulphate	20,5	0,2	21,27	2,13	mg/l	104%
Orthophosphate	<0,009		<0,01		mg/l	•
Boron	0,061	0,001	0,0505	0,0106	mg/l	83%
DOC	2,72	0,04	2,65	0,19	mg/l	97%
Total P (as PO ₄)	<0,009		<0,01		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,40	0,36	mg/l	88%



Sample N152B

Laboratory I

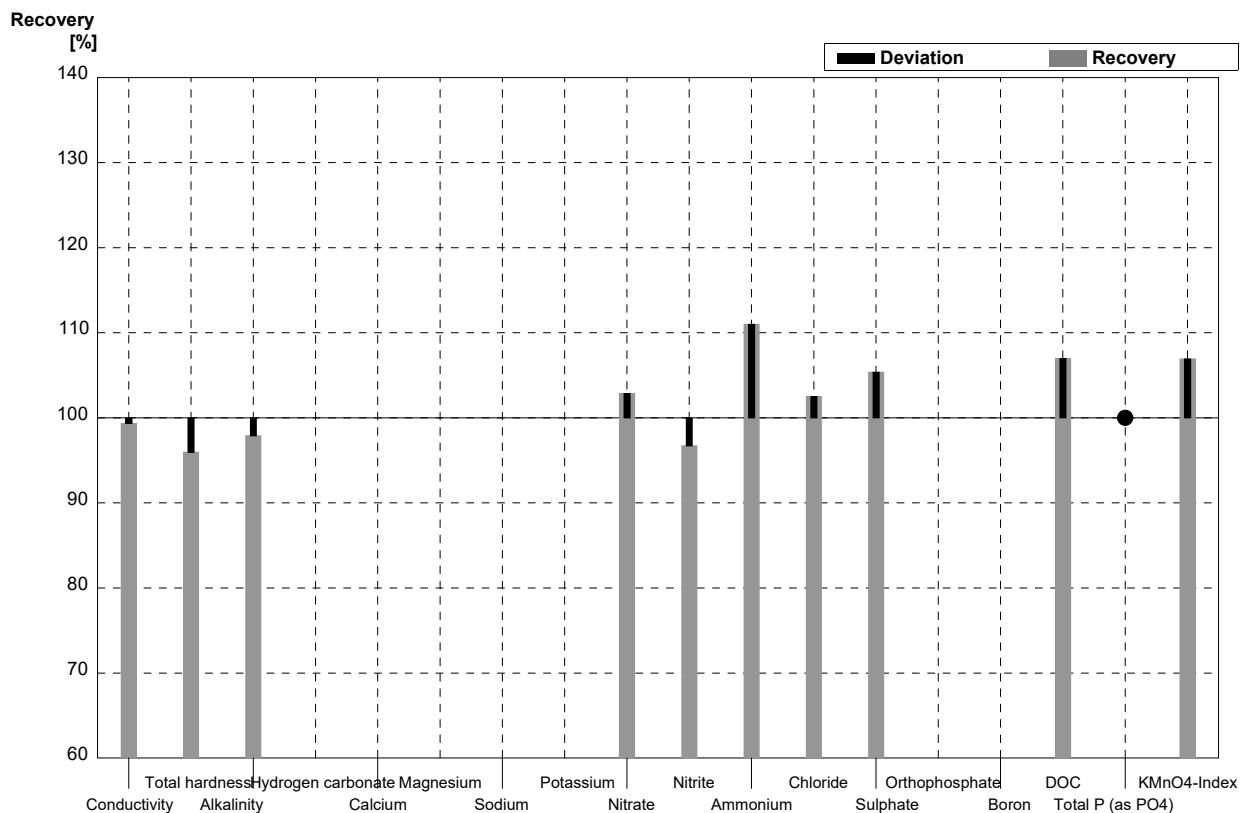
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	584	12	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,15	0,28	mmol/l	97%
Alkalinity	2,47	0,03	2,44	0,22	mmol/l	99%
Hydrogen carbonate	148	2	146,0	13,1	mg/l	99%
Calcium	65,6	0,8	63,49	6,35	mg/l	97%
Magnesium	14,2	0,2	13,71	1,10	mg/l	97%
Sodium	25,0	0,3	22,92	2,06	mg/l	92%
Potassium	4,62	0,05	4,87	0,44	mg/l	105%
Nitrate	40,7	0,7	42,07	3,79	mg/l	103%
Nitrite	0,0303	0,0010	0,0293	0,020	mg/l	97%
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	55,96	6,72	mg/l	100%
Sulphate	45,0	0,5	46,53	4,65	mg/l	103%
Orthophosphate	0,061	0,002	0,058	0,009	mg/l	95%
Boron	0,091	0,001	0,0760	0,0160	mg/l	84%
DOC	4,94	0,05	4,83	0,34	mg/l	98%
Total P (as PO ₄)	0,147	0,002	0,140	0,021	mg/l	95%
KMnO ₄ -Index	3,95	0,15	3,64	0,55	mg/l	92%



Sample N152A

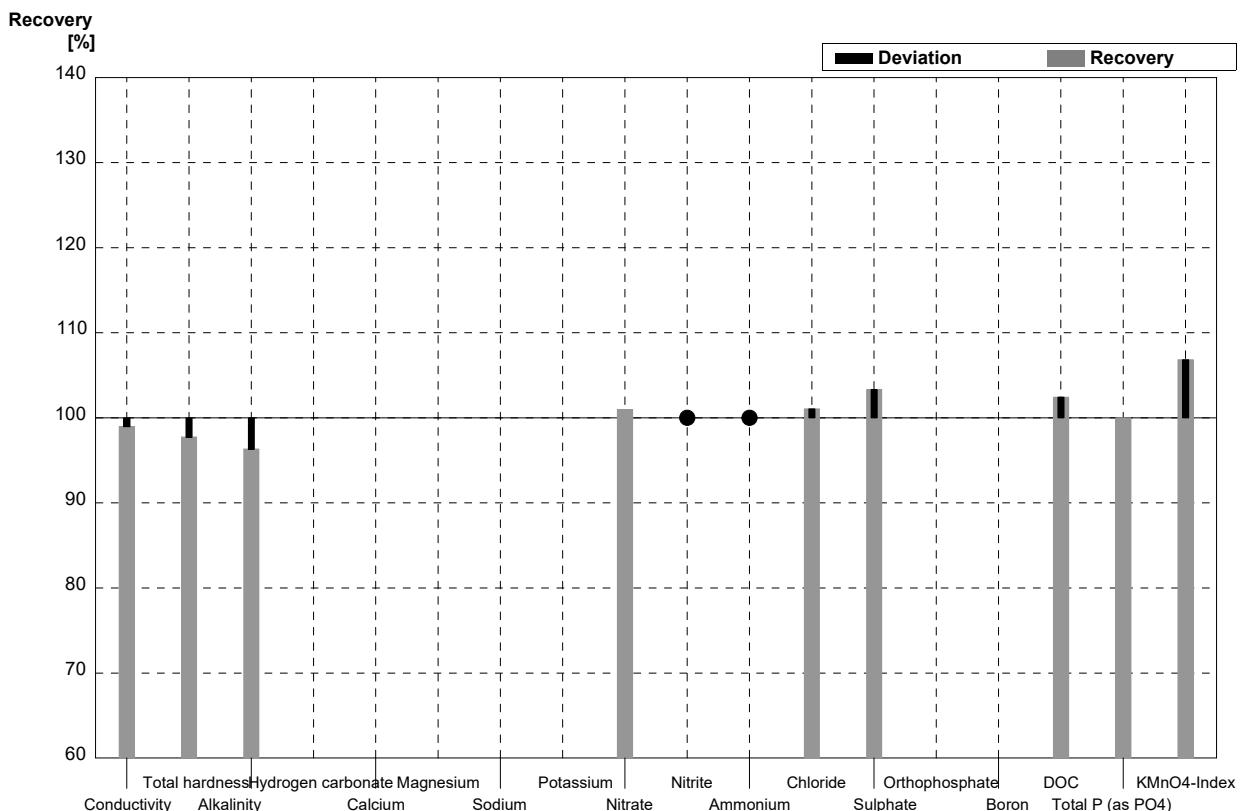
Laboratory J

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	313	17	$\mu\text{S}/\text{cm}$	99%
Total hardness	1,24	0,01	1,19	0,15	mmol/l	96%
Alkalinity	1,91	0,03	1,87	0,097	mmol/l	98%
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2	14,4	1,45	mg/l	103%
Nitrite	0,061	0,001	0,059	0,0062	mg/l	97%
Ammonium	0,091	0,002	0,101	0,014	mg/l	111%
Chloride	19,9	0,3	20,4	0,89	mg/l	103%
Sulphate	20,5	0,2	21,6	2,49	mg/l	105%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04	2,91	0,62	mg/l	107%
Total P (as PO ₄)	<0,009		<0,018		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,93	0,49	mg/l	107%



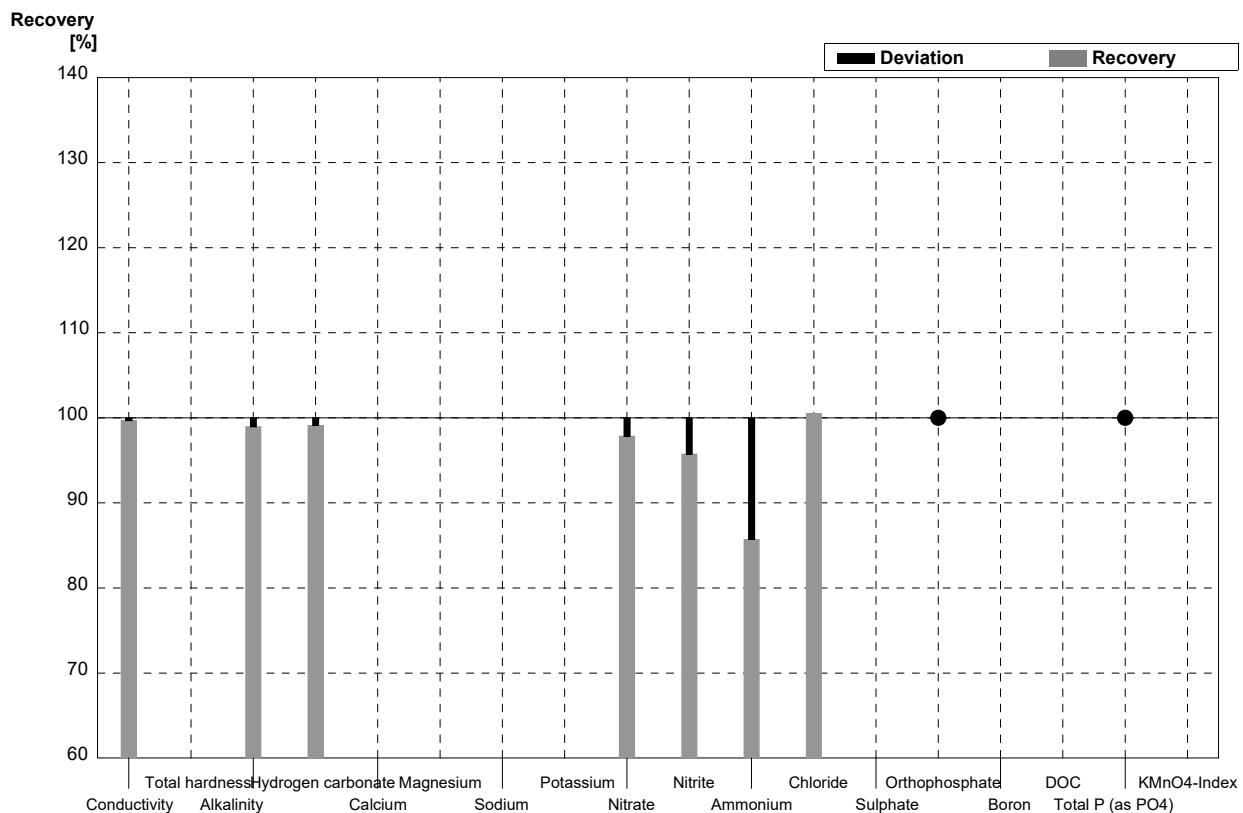
Sample N152B**Laboratory J**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	573	31	$\mu\text{S}/\text{cm}$	99%
Total hardness	2,22	0,02	2,17	0,28	mmol/l	98%
Alkalinity	2,47	0,03	2,38	0,12	mmol/l	96%
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7	41,1	4,14	mg/l	101%
Nitrite	0,0303	0,0010	<0,059		mg/l	•
Ammonium	<0,01		<0,05		mg/l	•
Chloride	56,2	1,0	56,8	2,49	mg/l	101%
Sulphate	45,0	0,5	46,5	6,5	mg/l	103%
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05	5,06	1,08	mg/l	102%
Total P (as PO ₄)	0,147	0,002	0,147		mg/l	100%
KMnO ₄ -Index	3,95	0,15	4,22	0,70	mg/l	107%



Sample N152A**Laboratory K**

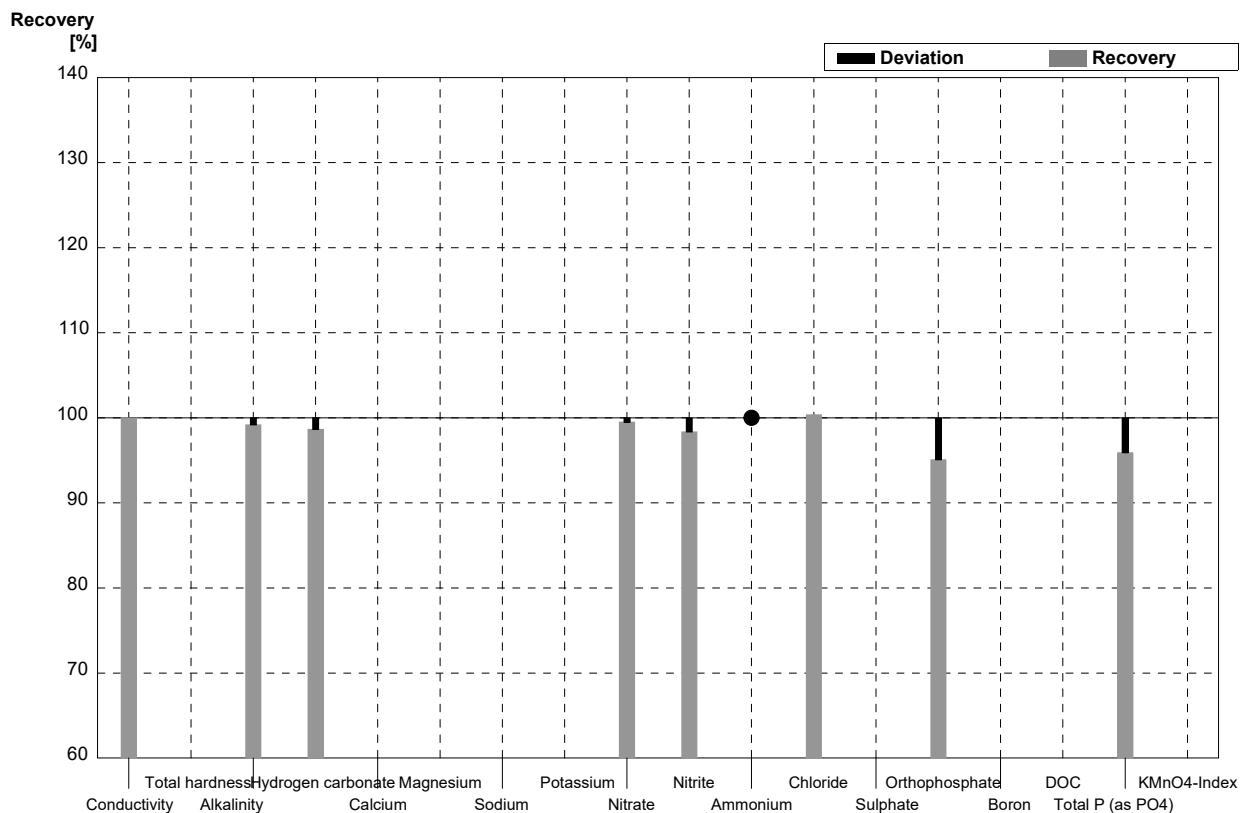
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	314	2,22	$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03	1,89	0,05	mmol/l	99%
Hydrogen carbonate	113	2	112	1,62	mg/l	99%
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2	13,7	0,94	mg/l	98%
Nitrite	0,061	0,001	0,0584	0,0058	mg/l	96%
Ammonium	0,091	0,002	0,078	0,012	mg/l	86%
Chloride	19,9	0,3	20,0	0,20	mg/l	101%
Sulphate	20,5	0,2			mg/l	
Orthophosphate	<0,009		<0,006	0	mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009		<0,006	0	mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

Laboratory K

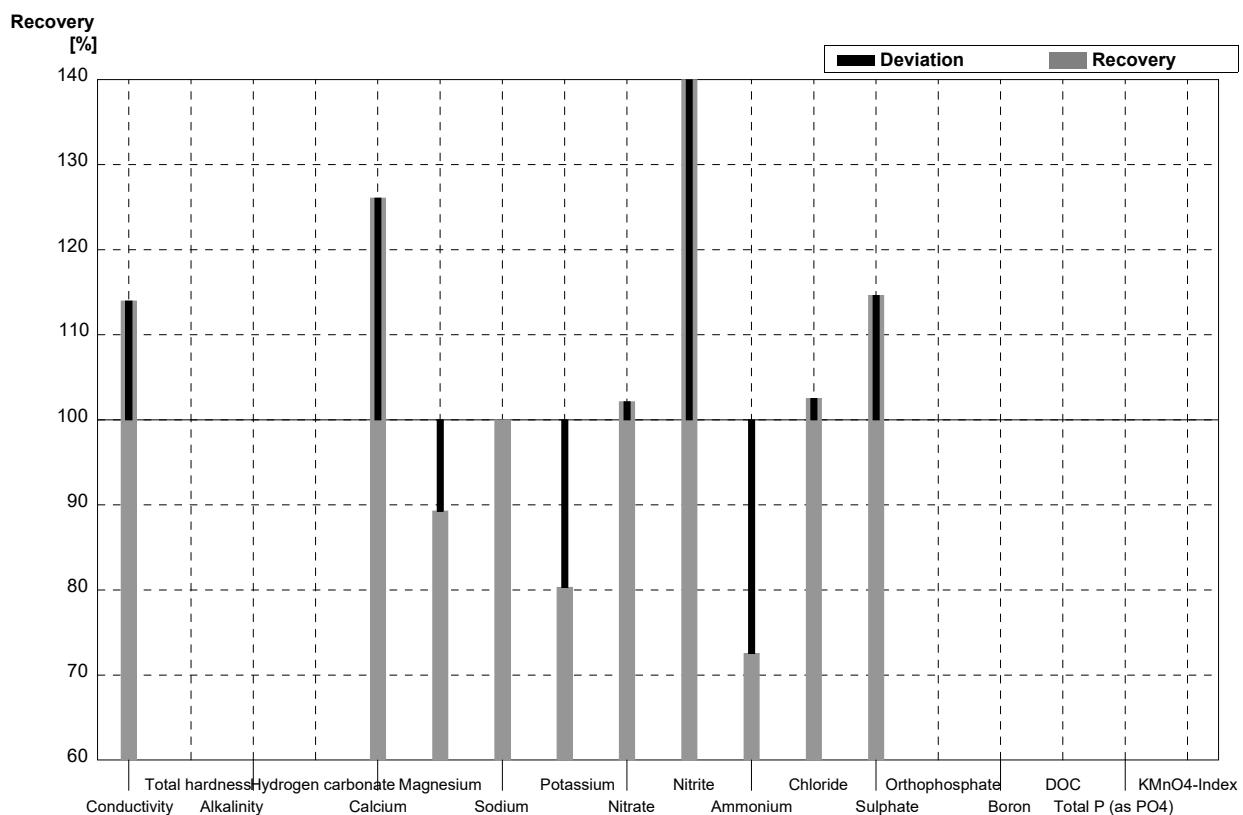
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	579	4,10	$\mu\text{S}/\text{cm}$	100%
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03	2,45	0,07	mmol/l	99%
Hydrogen carbonate	148	2	146	2,11	mg/l	99%
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7	40,5	2,77	mg/l	100%
Nitrite	0,0303	0,0010	0,0298	0,0030	mg/l	98%
Ammonium	<0,01		<0,005	0	mg/l	•
Chloride	56,2	1,0	56,4	0,57	mg/l	100%
Sulphate	45,0	0,5			mg/l	
Orthophosphate	0,061	0,002	0,058	0,007	mg/l	95%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002	0,141	0,019	mg/l	96%
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

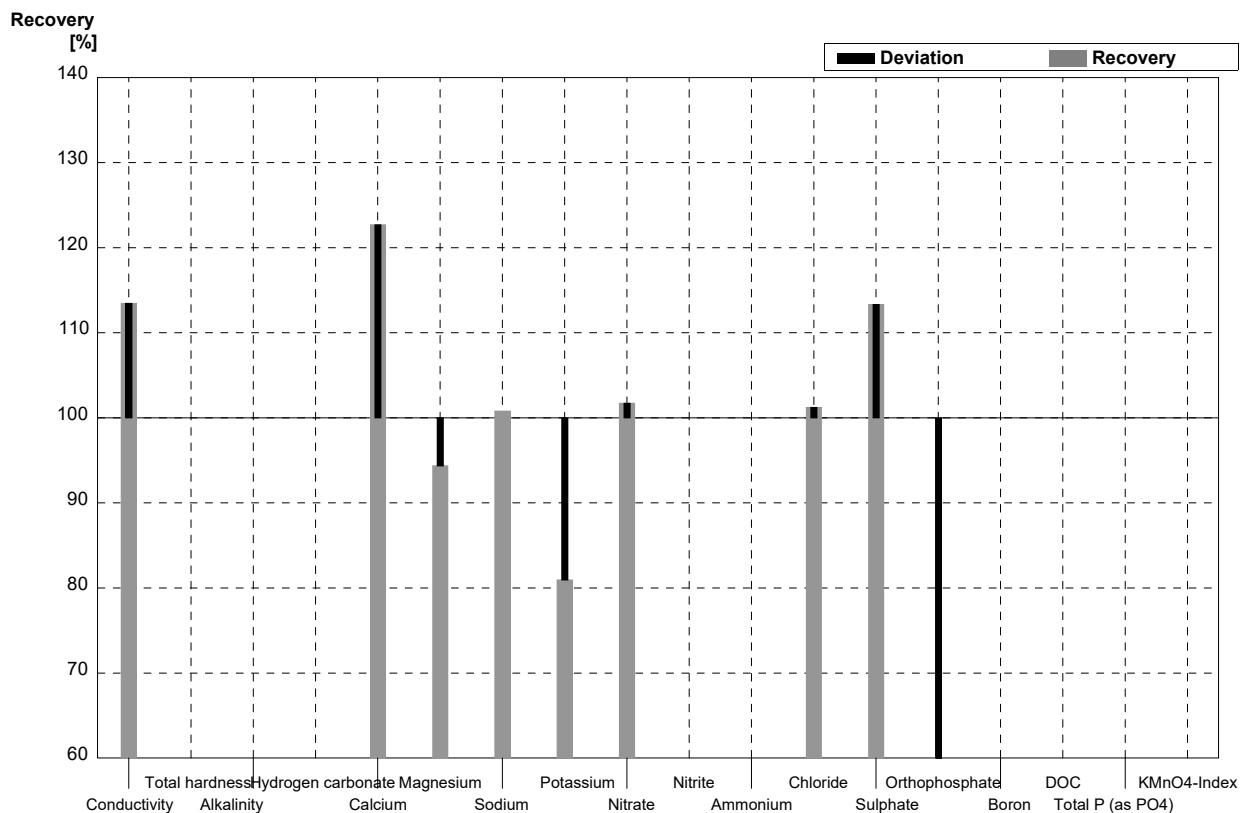
Laboratory L

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	359		$\mu\text{S}/\text{cm}$	114%
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5	47,4		mg/l	126%
Magnesium	7,29	0,08	6,51		mg/l	89%
Sodium	12,7	0,3	12,7		mg/l	100%
Potassium	2,64	0,02	2,12		mg/l	80%
Nitrate	14,0	0,2	14,3		mg/l	102%
Nitrite	0,061	0,001	0,089		mg/l	146%
Ammonium	0,091	0,002	0,066		mg/l	73%
Chloride	19,9	0,3	20,4		mg/l	103%
Sulphate	20,5	0,2	23,5		mg/l	115%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



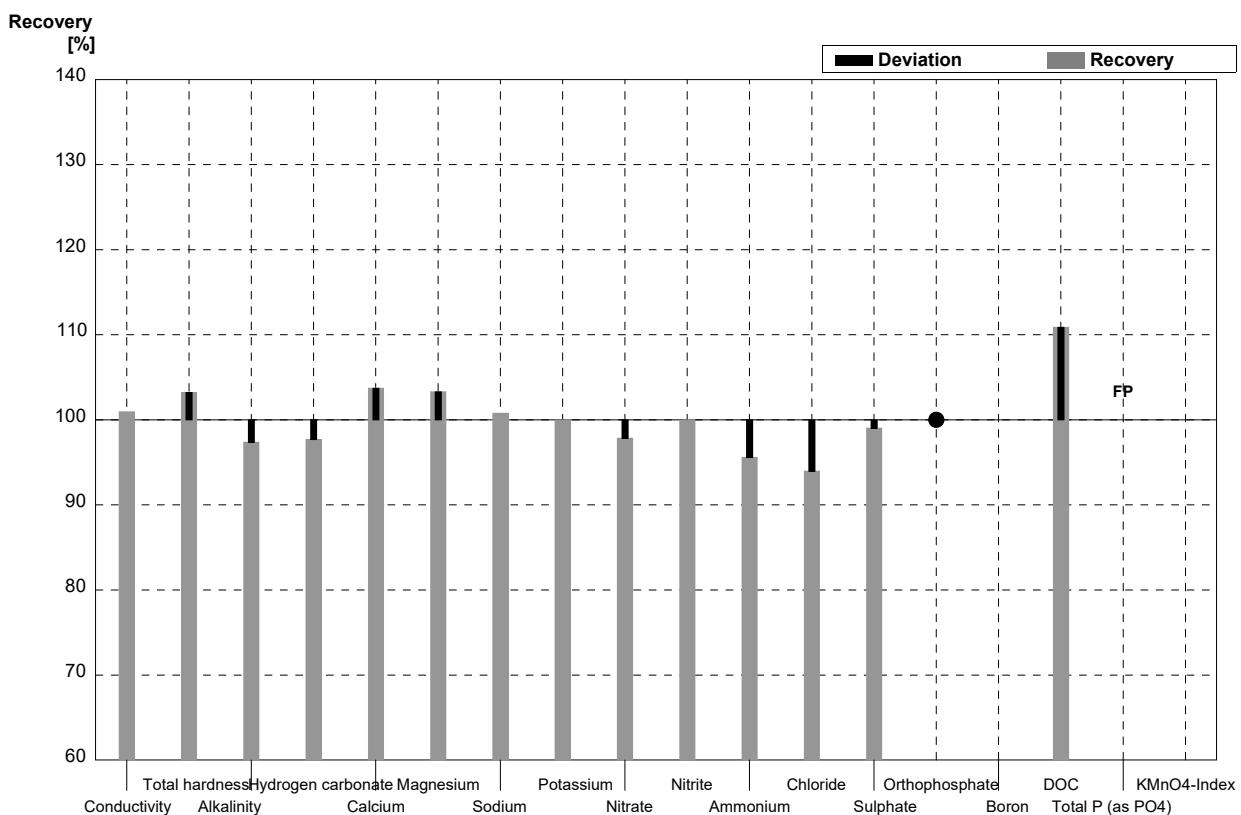
Sample N152B**Laboratory L**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	657		$\mu\text{S}/\text{cm}$	113%
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8	80,5		mg/l	123%
Magnesium	14,2	0,2	13,4		mg/l	94%
Sodium	25,0	0,3	25,2		mg/l	101%
Potassium	4,62	0,05	3,74		mg/l	81%
Nitrate	40,7	0,7	41,4		mg/l	102%
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0	56,9		mg/l	101%
Sulphate	45,0	0,5	51,0		mg/l	113%
Orthophosphate	0,061	0,002	0,0332		mg/l	54%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	



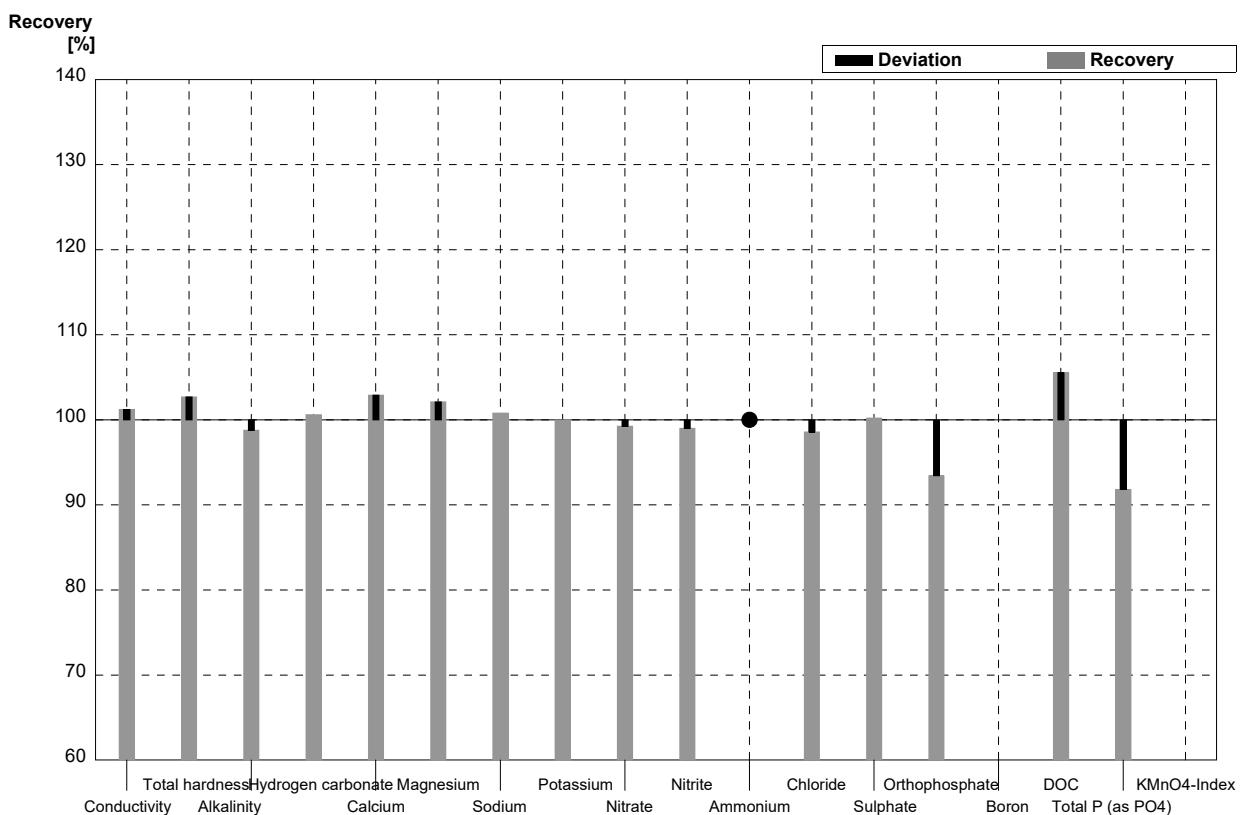
Sample N152A
Laboratory M

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	318		$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01	1,28	0,013	mmol/l	103%
Alkalinity	1,91	0,03	1,86		mmol/l	97%
Hydrogen carbonate	113	2	110,4	11	mg/l	98%
Calcium	37,6	0,5	39,0	3,9	mg/l	104%
Magnesium	7,29	0,08	7,53	0,76	mg/l	103%
Sodium	12,7	0,3	12,8	1,3	mg/l	101%
Potassium	2,64	0,02	2,64	0,27	mg/l	100%
Nitrate	14,0	0,2	13,7		mg/l	98%
Nitrite	0,061	0,001	0,061	0,006	mg/l	100%
Ammonium	0,091	0,002	0,087	0,009	mg/l	96%
Chloride	19,9	0,3	18,7		mg/l	94%
Sulphate	20,5	0,2	20,3		mg/l	99%
Orthophosphate	<0,009		<0,010		mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04	3,016	0,30	mg/l	111%
Total P (as PO ₄)	<0,009		0,0190	0,005	mg/l	FP
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B**Laboratory M**

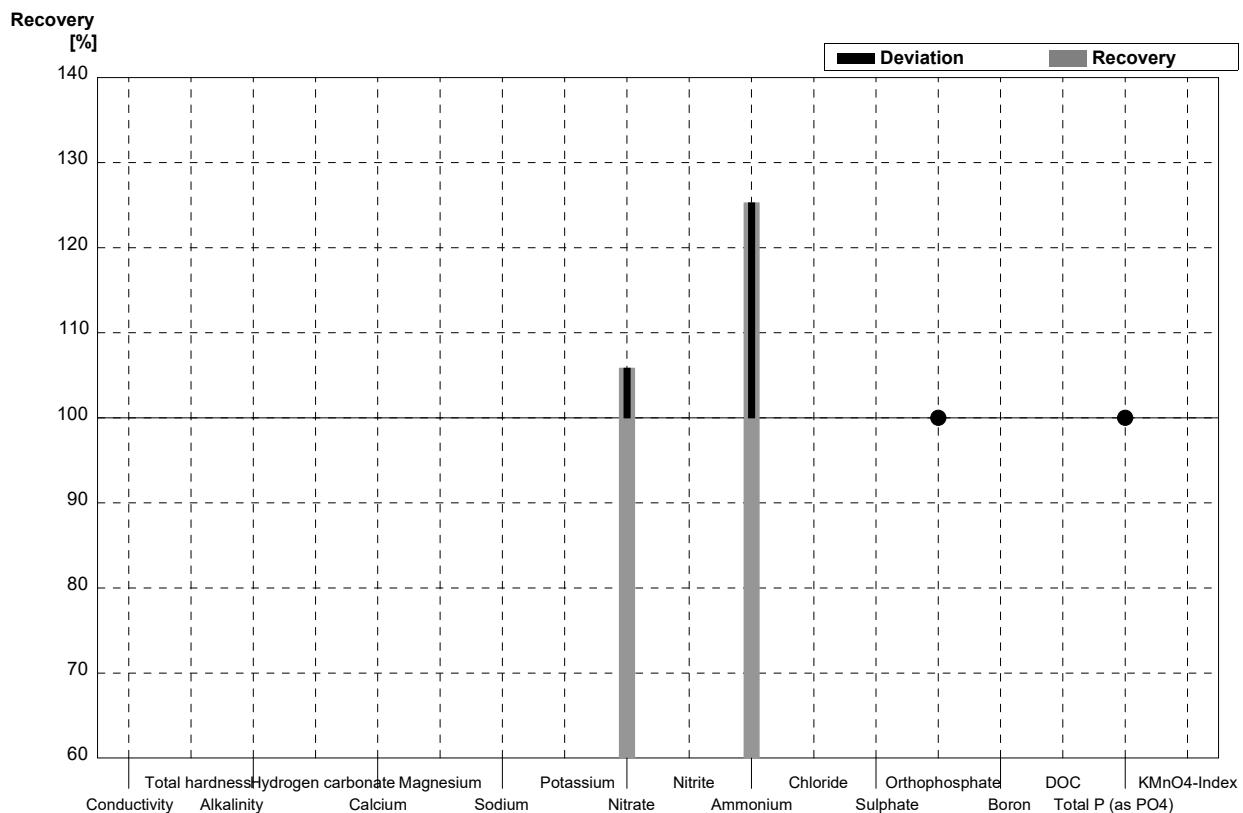
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	586		$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,28	0,23	mmol/l	103%
Alkalinity	2,47	0,03	2,44		mmol/l	99%
Hydrogen carbonate	148	2	148,9	15	mg/l	101%
Calcium	65,6	0,8	67,5	6,8	mg/l	103%
Magnesium	14,2	0,2	14,5	1,5	mg/l	102%
Sodium	25,0	0,3	25,2	2,6	mg/l	101%
Potassium	4,62	0,05	4,62	0,47	mg/l	100%
Nitrate	40,7	0,7	40,4		mg/l	99%
Nitrite	0,0303	0,0010	0,0300	0,003	mg/l	99%
Ammonium	<0,01		<0,010		mg/l	•
Chloride	56,2	1,0	55,4		mg/l	99%
Sulphate	45,0	0,5	45,1		mg/l	100%
Orthophosphate	0,061	0,002	0,057	0,006	mg/l	93%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05	5,215	0,52	mg/l	106%
Total P (as PO ₄)	0,147	0,002	0,135	0,014	mg/l	92%
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

Laboratory N

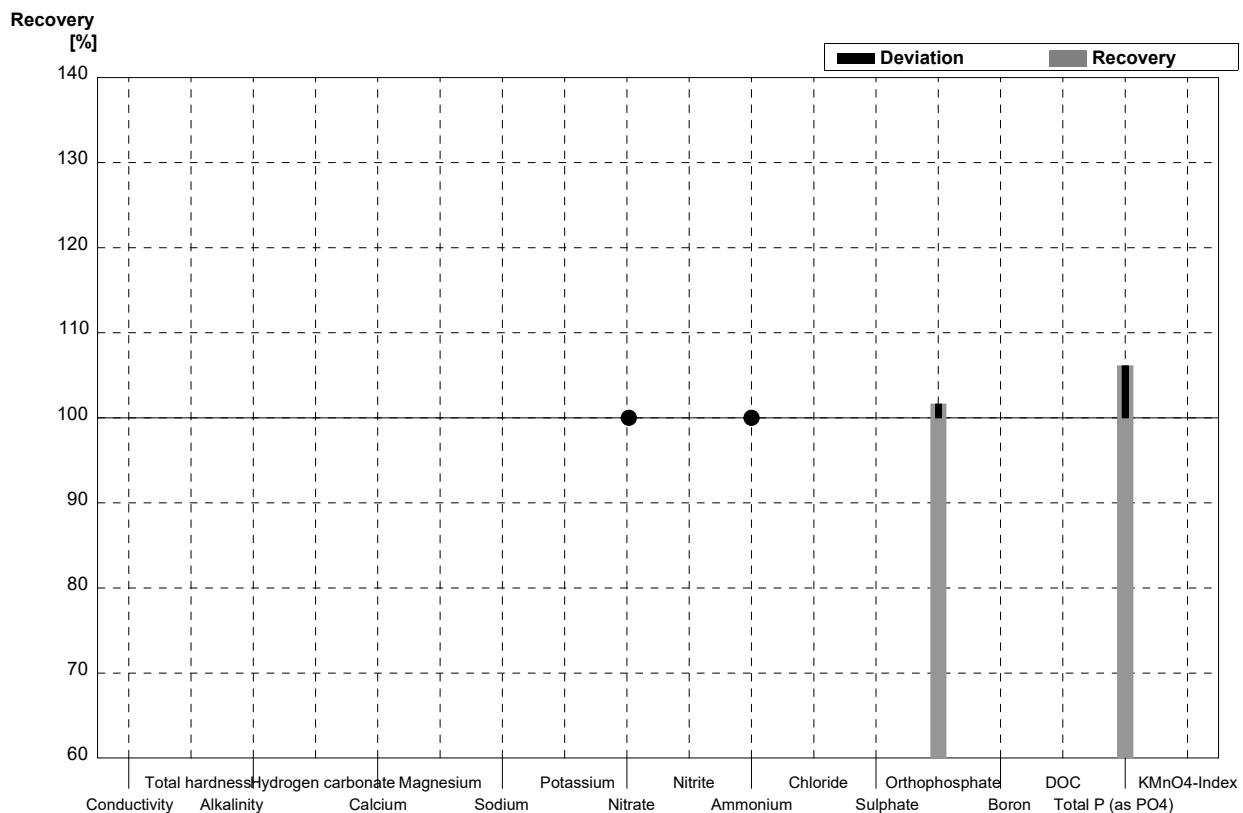
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2			$\mu\text{S}/\text{cm}$	
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2	14,82	0,05	mg/l	106%
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002	0,114	0,055	mg/l	125%
Chloride	19,9	0,3			mg/l	
Sulphate	20,5	0,2			mg/l	
Orthophosphate	<0,009		<0,019		mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009		<0,02		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

Laboratory N

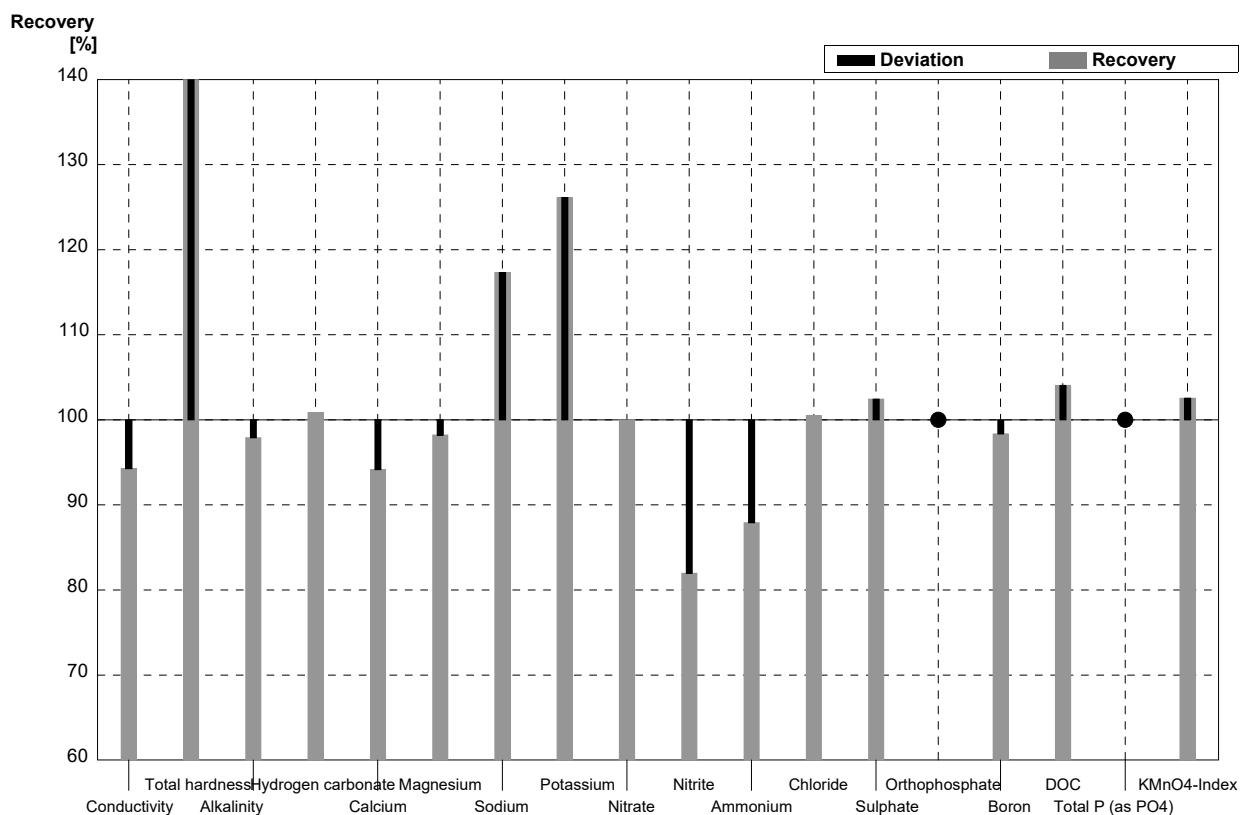
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3			$\mu\text{S}/\text{cm}$	
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7	>25		mg/l	•
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0			mg/l	
Sulphate	45,0	0,5			mg/l	
Orthophosphate	0,061	0,002	0,062	0,002	mg/l	102%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002	0,156	0,006	mg/l	106%
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

Laboratory O

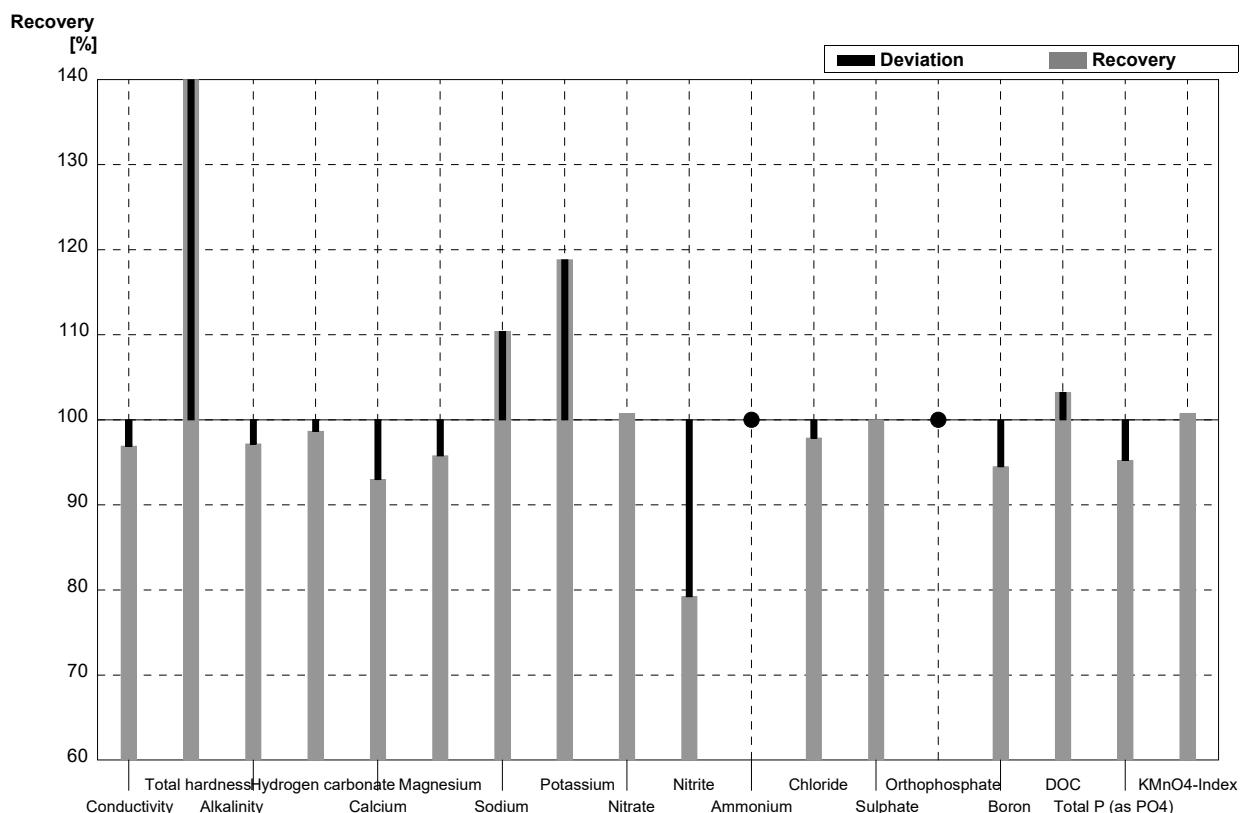
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	297	15	$\mu\text{S}/\text{cm}$	94%
Total hardness	1,24	0,01	6,61	0,7	mmol/l	533%
Alkalinity	1,91	0,03	1,87	0,2	mmol/l	98%
Hydrogen carbonate	113	2	114	12	mg/l	101%
Calcium	37,6	0,5	35,4	7	mg/l	94%
Magnesium	7,29	0,08	7,16	1,5	mg/l	98%
Sodium	12,7	0,3	14,9	3	mg/l	117%
Potassium	2,64	0,02	3,33	0,6	mg/l	126%
Nitrate	14,0	0,2	14,0	2	mg/l	100%
Nitrite	0,061	0,001	0,0500	0,008	mg/l	82%
Ammonium	0,091	0,002	0,080	0,02	mg/l	88%
Chloride	19,9	0,3	20,0	3	mg/l	101%
Sulphate	20,5	0,2	21,0	3	mg/l	102%
Orthophosphate	<0,009		<0,1		mg/l	•
Boron	0,061	0,001	0,060	0,012	mg/l	98%
DOC	2,72	0,04	2,83	0,6	mg/l	104%
Total P (as PO ₄)	<0,009		<0,033		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,81	0,3	mg/l	103%



Sample N152B

Laboratory O

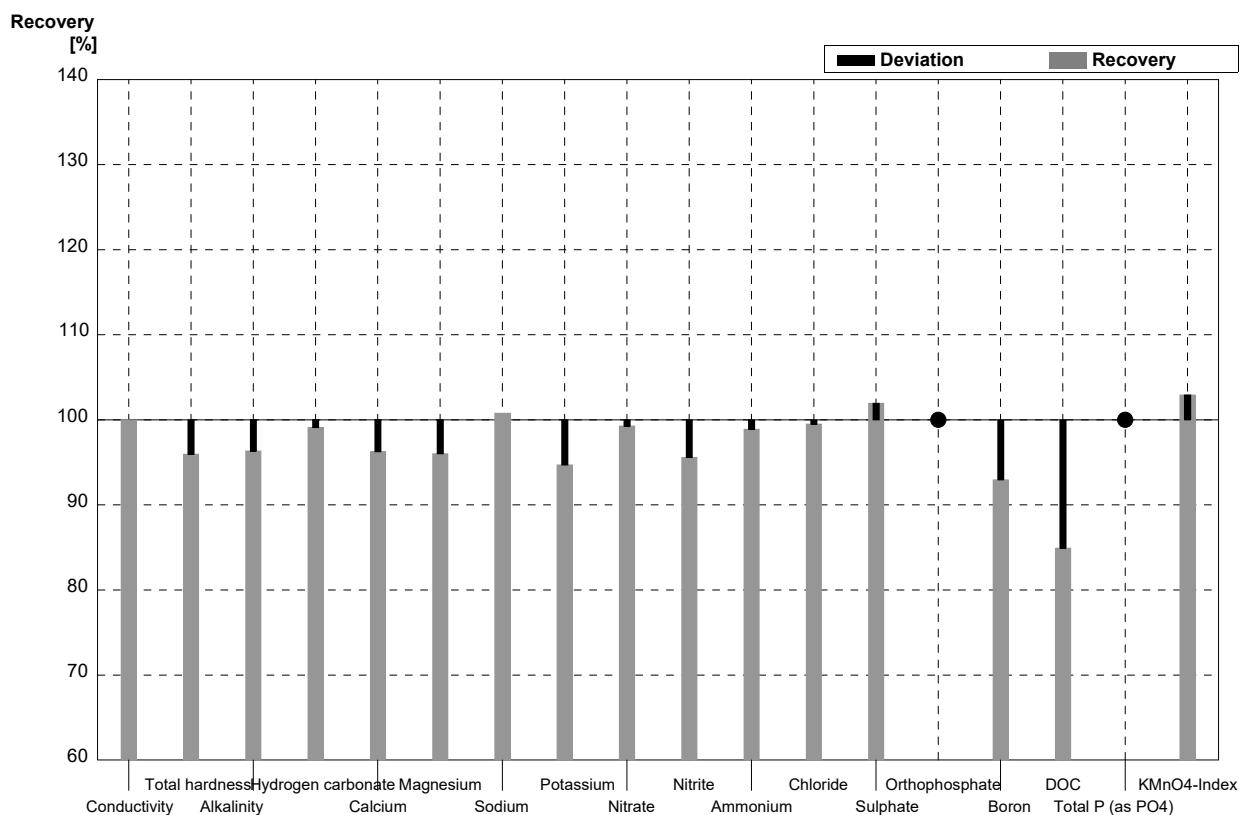
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	561	30	$\mu\text{S}/\text{cm}$	97%
Total hardness	2,22	0,02	11,7	1,2	mmol/l	527%
Alkalinity	2,47	0,03	2,40	0,3	mmol/l	97%
Hydrogen carbonate	148	2	146	15	mg/l	99%
Calcium	65,6	0,8	61,0	12	mg/l	93%
Magnesium	14,2	0,2	13,6	2,8	mg/l	96%
Sodium	25,0	0,3	27,6	6	mg/l	110%
Potassium	4,62	0,05	5,49	1,2	mg/l	119%
Nitrate	40,7	0,7	41,0	6	mg/l	101%
Nitrite	0,0303	0,0010	0,0240	0,004	mg/l	79%
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	55,0	9	mg/l	98%
Sulphate	45,0	0,5	45,0	7	mg/l	100%
Orthophosphate	0,061	0,002	<0,1		mg/l	•
Boron	0,091	0,001	0,086	0,014	mg/l	95%
DOC	4,94	0,05	5,1	1	mg/l	103%
Total P (as PO ₄)	0,147	0,002	0,140	0,028	mg/l	95%
KMnO ₄ -Index	3,95	0,15	3,98	0,4	mg/l	101%



Sample N152A

Laboratory P

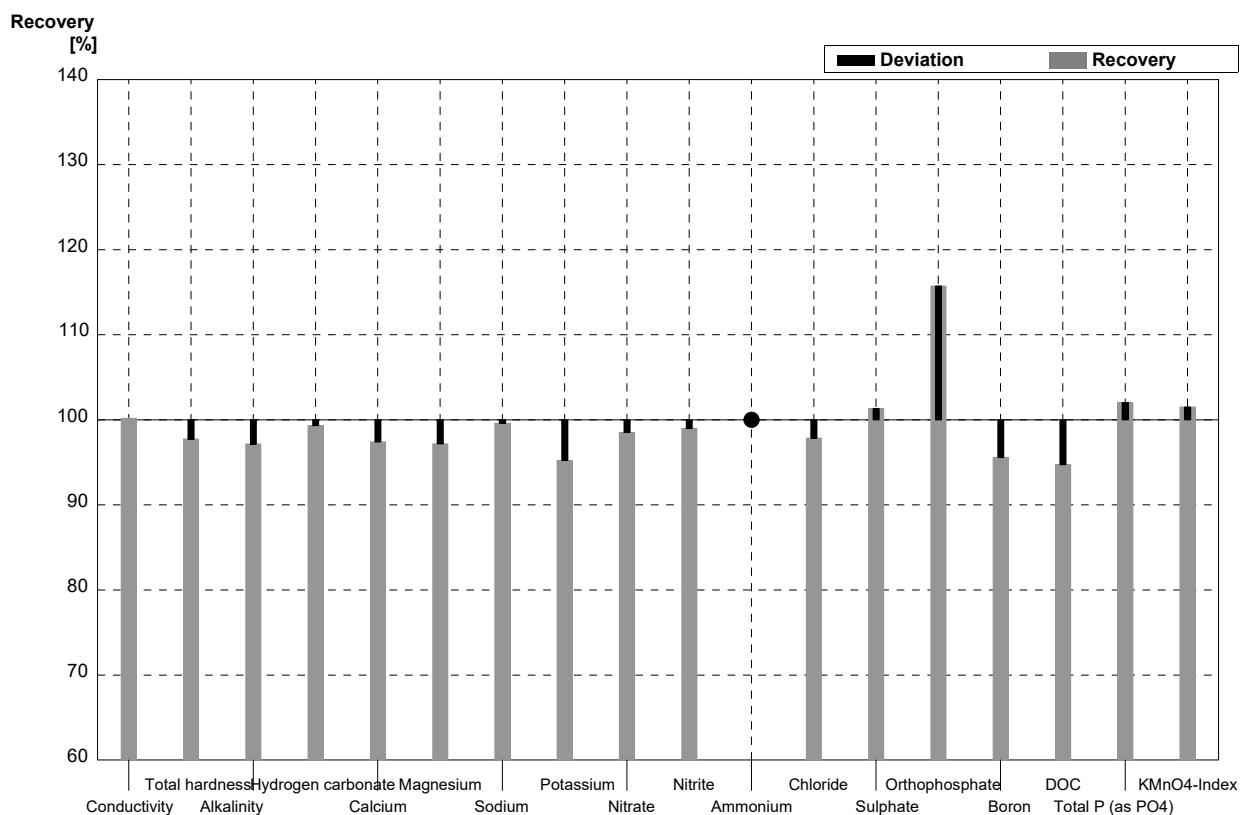
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	315	9,4	$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01	1,19	0,10	mmol/l	96%
Alkalinity	1,91	0,03	1,84	0,18	mmol/l	96%
Hydrogen carbonate	113	2	112	11,2	mg/l	99%
Calcium	37,6	0,5	36,2	1,7	mg/l	96%
Magnesium	7,29	0,08	7,00	0,57	mg/l	96%
Sodium	12,7	0,3	12,8	0,9	mg/l	101%
Potassium	2,64	0,02	2,50	0,18	mg/l	95%
Nitrate	14,0	0,2	13,9	0,5	mg/l	99%
Nitrite	0,061	0,001	0,0583	0,006	mg/l	96%
Ammonium	0,091	0,002	0,090	0,006	mg/l	99%
Chloride	19,9	0,3	19,8	1,3	mg/l	99%
Sulphate	20,5	0,2	20,9	0,7	mg/l	102%
Orthophosphate	<0,009		<0,015		mg/l	•
Boron	0,061	0,001	0,0567	0,007	mg/l	93%
DOC	2,72	0,04	2,31	0,37	mg/l	85%
Total P (as PO ₄)	<0,009		<0,015		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,82	0,42	mg/l	103%



Sample N152B

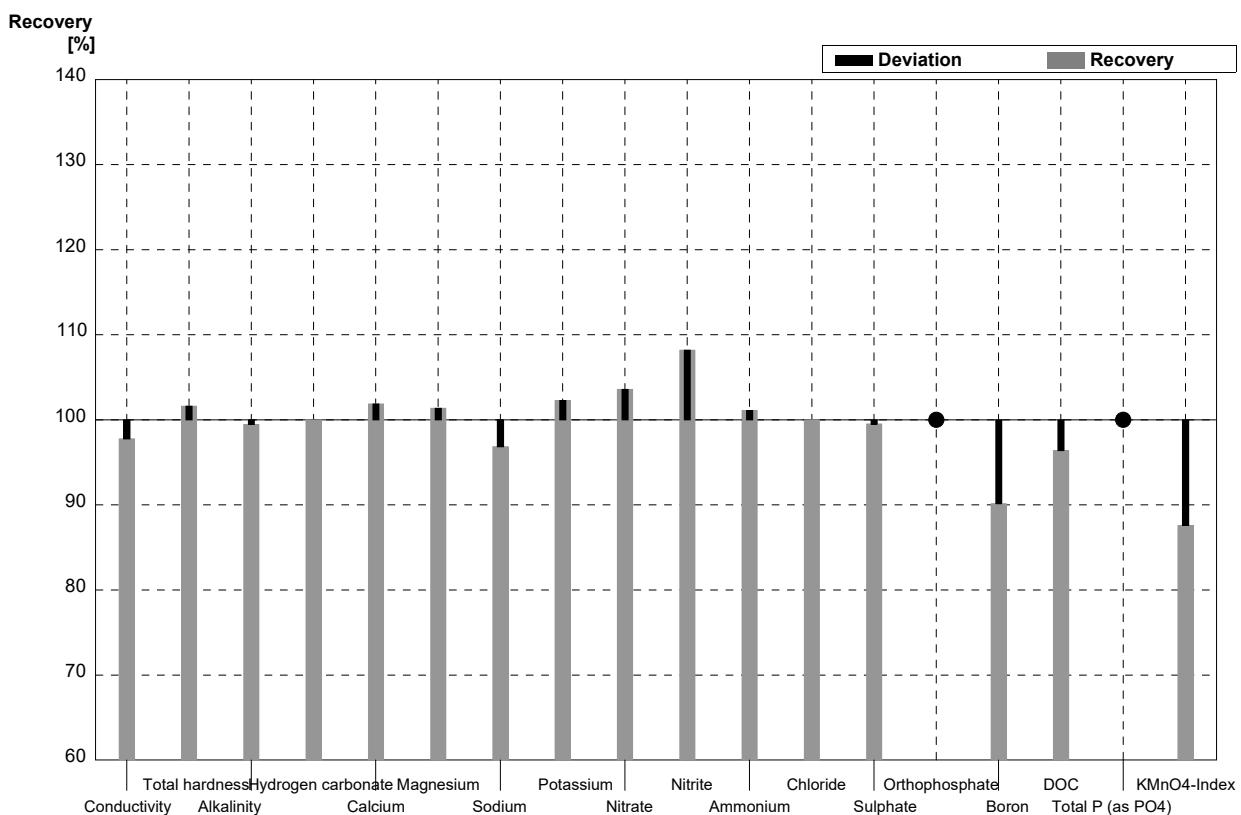
Laboratory P

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	580	17,4	$\mu\text{S}/\text{cm}$	100%
Total hardness	2,22	0,02	2,17	0,18	mmol/l	98%
Alkalinity	2,47	0,03	2,40	0,24	mmol/l	97%
Hydrogen carbonate	148	2	147	14,7	mg/l	99%
Calcium	65,6	0,8	63,9	2,9	mg/l	97%
Magnesium	14,2	0,2	13,8	1,1	mg/l	97%
Sodium	25,0	0,3	24,9	1,8	mg/l	100%
Potassium	4,62	0,05	4,40	0,32	mg/l	95%
Nitrate	40,7	0,7	40,1	1,3	mg/l	99%
Nitrite	0,0303	0,0010	0,0300	0,003	mg/l	99%
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	55,0	3,7	mg/l	98%
Sulphate	45,0	0,5	45,6	1,5	mg/l	101%
Orthophosphate	0,061	0,002	0,0706	0,005	mg/l	116%
Boron	0,091	0,001	0,087	0,011	mg/l	96%
DOC	4,94	0,05	4,68	0,75	mg/l	95%
Total P (as PO ₄)	0,147	0,002	0,150	0,010	mg/l	102%
KMnO ₄ -Index	3,95	0,15	4,01	0,60	mg/l	102%



Sample N152A
Laboratory Q

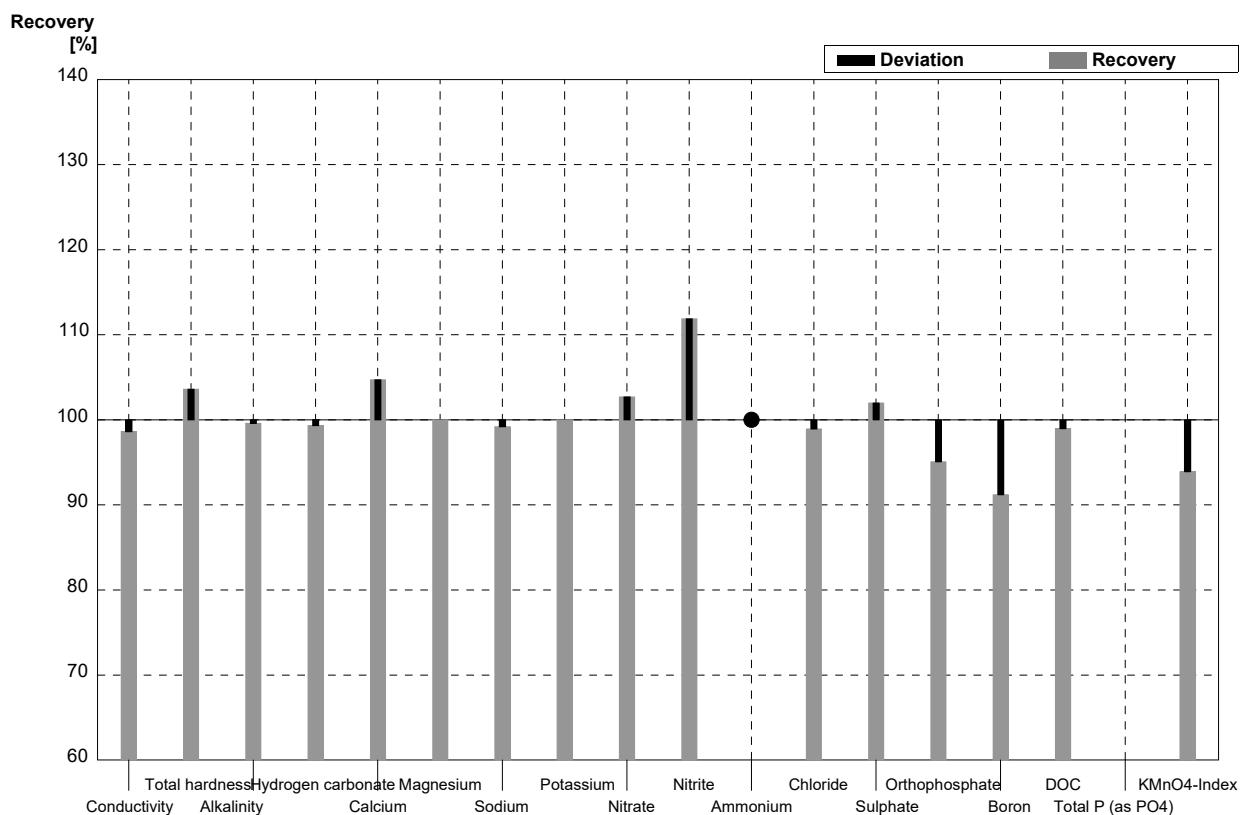
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	308	3,5	$\mu\text{S}/\text{cm}$	98%
Total hardness	1,24	0,01	1,26		mmol/l	102%
Alkalinity	1,91	0,03	1,90	0,41	mmol/l	99%
Hydrogen carbonate	113	2	113	3,1	mg/l	100%
Calcium	37,6	0,5	38,3	1	mg/l	102%
Magnesium	7,29	0,08	7,39	0,48	mg/l	101%
Sodium	12,7	0,3	12,3	0,8	mg/l	97%
Potassium	2,64	0,02	2,70	0,24	mg/l	102%
Nitrate	14,0	0,2	14,5	0,8	mg/l	104%
Nitrite	0,061	0,001	0,066		mg/l	108%
Ammonium	0,091	0,002	0,092	0,003	mg/l	101%
Chloride	19,9	0,3	19,9	0,5	mg/l	100%
Sulphate	20,5	0,2	20,4	1,3	mg/l	100%
Orthophosphate	<0,009		<0,01		mg/l	•
Boron	0,061	0,001	0,055	0,003	mg/l	90%
DOC	2,72	0,04	2,622	0,046	mg/l	96%
Total P (as PO ₄)	<0,009		<0,03		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,40	0,1	mg/l	88%



Sample N152B

Laboratory Q

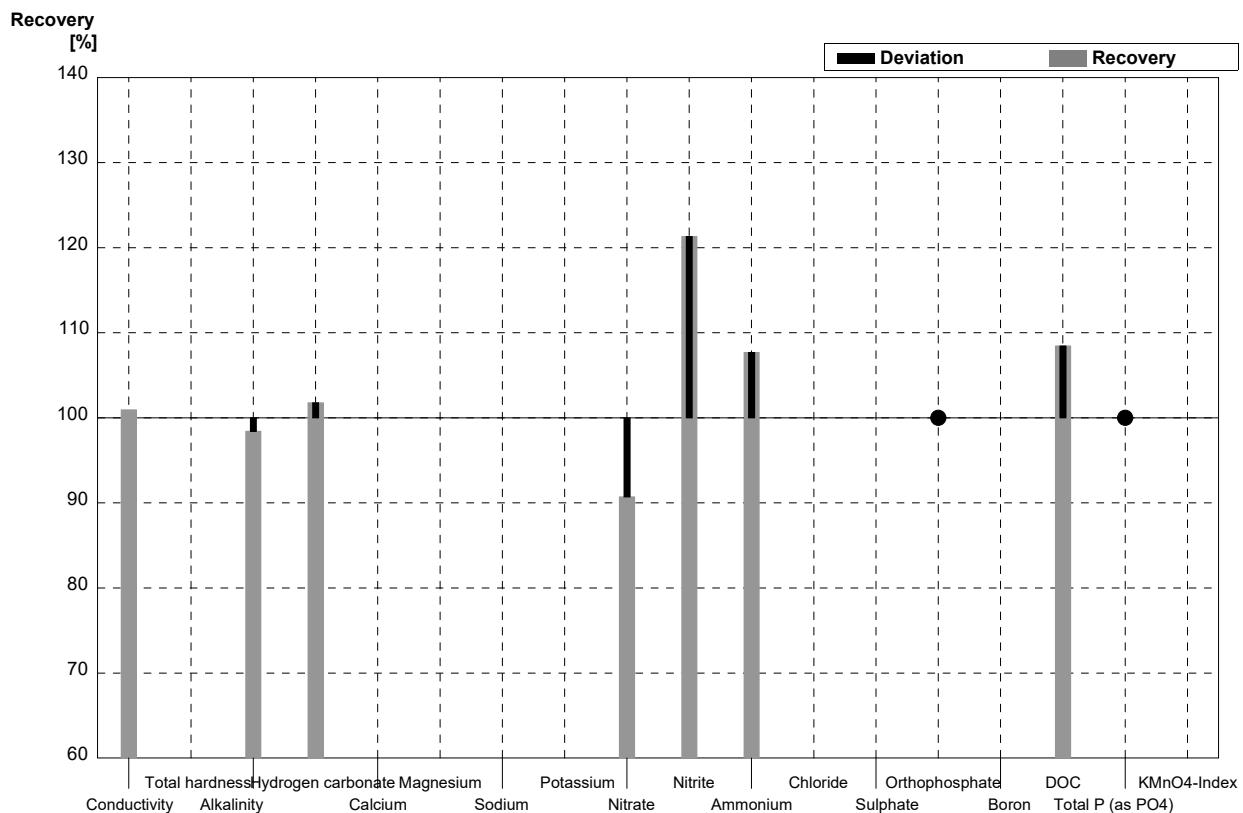
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	571	1	$\mu\text{S}/\text{cm}$	99%
Total hardness	2,22	0,02	2,30		mmol/l	104%
Alkalinity	2,47	0,03	2,46	0,04	mmol/l	100%
Hydrogen carbonate	148	2	147	2,4	mg/l	99%
Calcium	65,6	0,8	68,7	3,2	mg/l	105%
Magnesium	14,2	0,2	14,2	0,12	mg/l	100%
Sodium	25,0	0,3	24,8	0,3	mg/l	99%
Potassium	4,62	0,05	4,62	0,05	mg/l	100%
Nitrate	40,7	0,7	41,8	0,8	mg/l	103%
Nitrite	0,0303	0,0010	0,0339	0,0005	mg/l	112%
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	55,6	1,6	mg/l	99%
Sulphate	45,0	0,5	45,9	1,4	mg/l	102%
Orthophosphate	0,061	0,002	0,058	0,0012	mg/l	95%
Boron	0,091	0,001	0,083	0,003	mg/l	91%
DOC	4,94	0,05	4,890	0,081	mg/l	99%
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15	3,71	0,7	mg/l	94%



Sample N152A

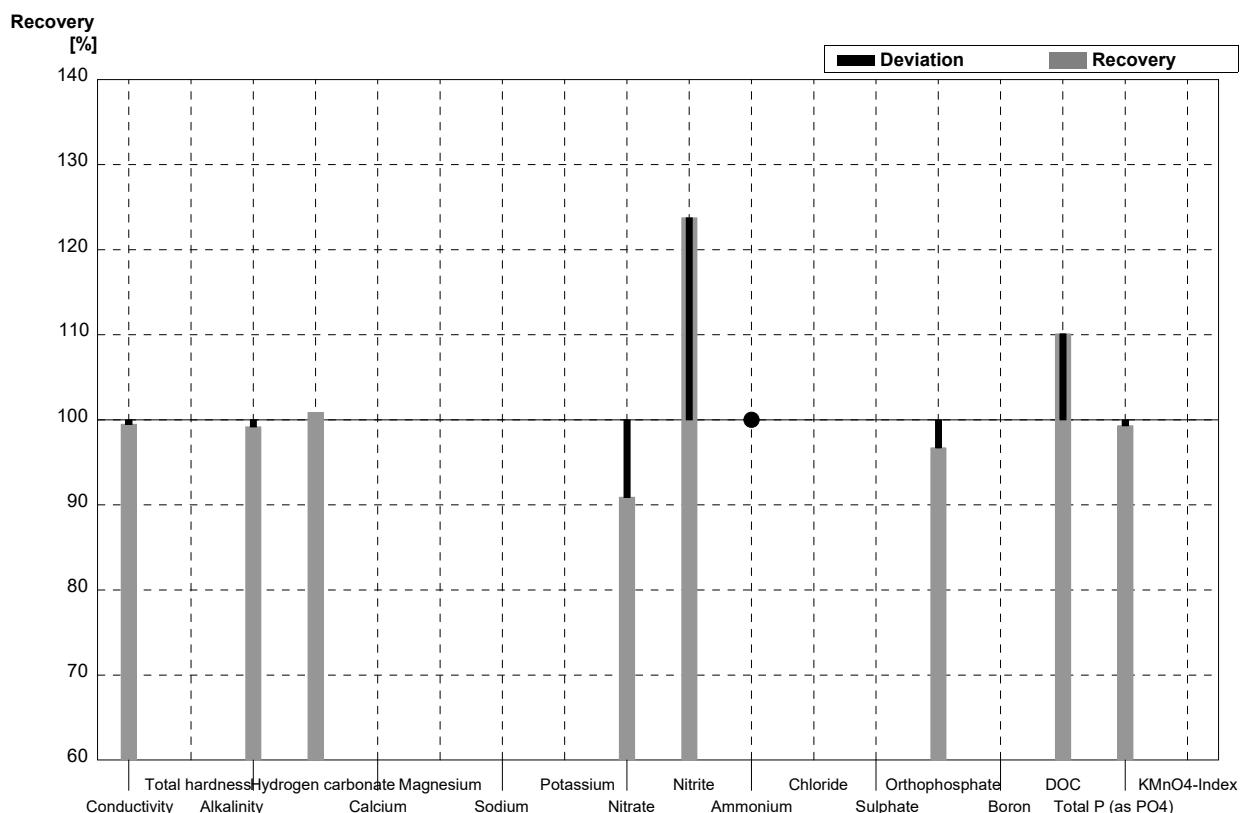
Laboratory R

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	318	0,4	$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03	1,88	0,001	mmol/l	98%
Hydrogen carbonate	113	2	115	0,001	mg/l	102%
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2	12,7	0,3	mg/l	91%
Nitrite	0,061	0,001	0,074	0,002	mg/l	121%
Ammonium	0,091	0,002	0,098	0,001	mg/l	108%
Chloride	19,9	0,3			mg/l	
Sulphate	20,5	0,2			mg/l	
Orthophosphate	<0,009		<0,002		mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04	2,95	0,011	mg/l	108%
Total P (as PO ₄)	<0,009		<0,006		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B**Laboratory R**

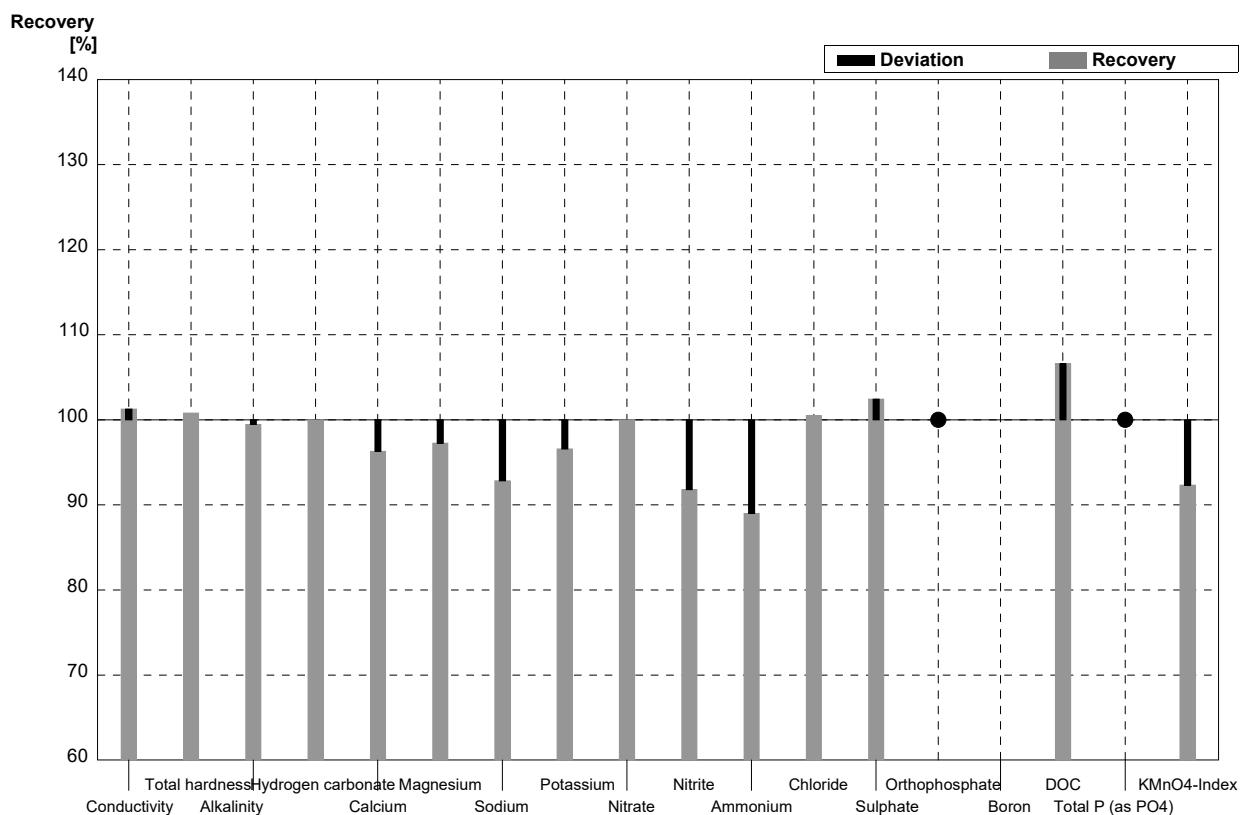
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	576	0,4	$\mu\text{S}/\text{cm}$	99%
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03	2,45	0,001	mmol/l	99%
Hydrogen carbonate	148	2	149,3	0,001	mg/l	101%
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7	37,0	0,2	mg/l	91%
Nitrite	0,0303	0,0010	0,0375	0,002	mg/l	124%
Ammonium	<0,01		0,00372	0,001	mg/l	•
Chloride	56,2	1,0			mg/l	
Sulphate	45,0	0,5			mg/l	
Orthophosphate	0,061	0,002	0,059	0,002	mg/l	97%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05	5,44	0,025	mg/l	110%
Total P (as PO ₄)	0,147	0,002	0,146	0,003	mg/l	99%
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

Laboratory S

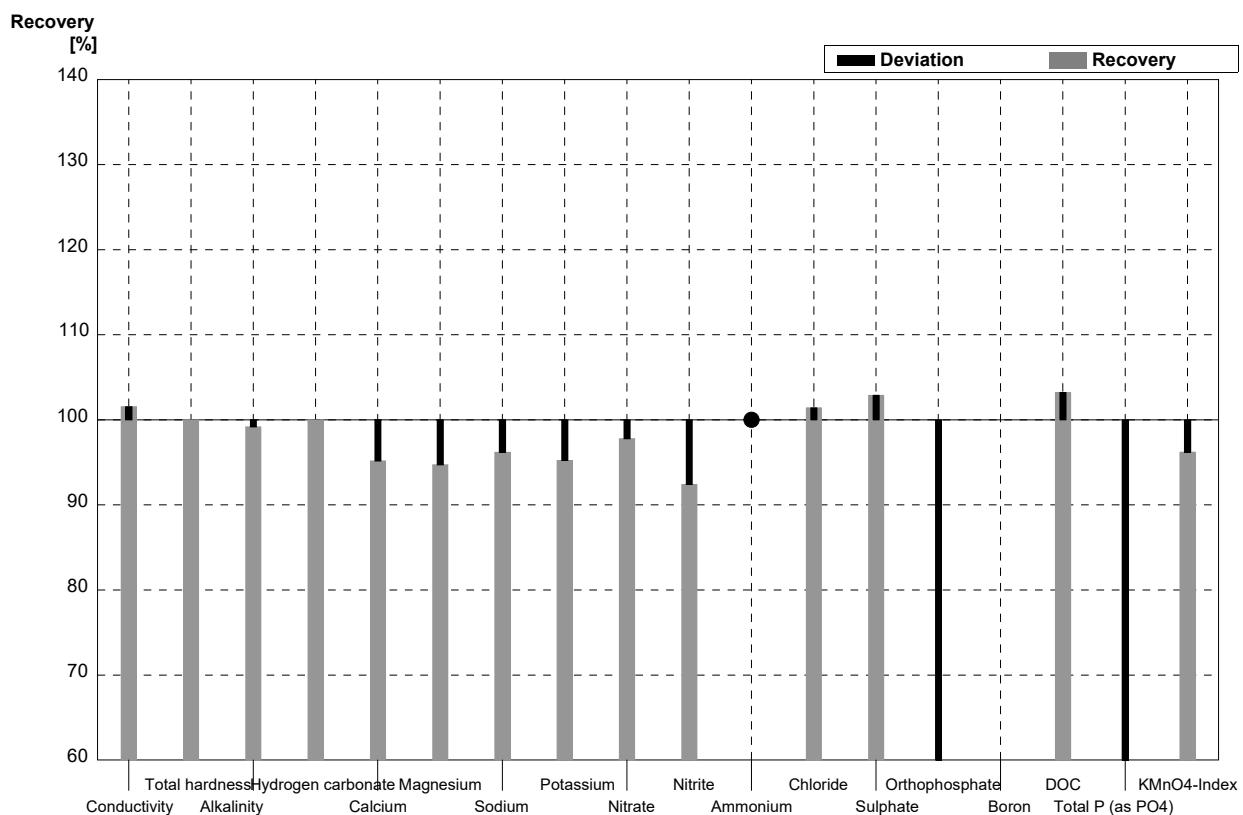
Parameter	Target value	$\pm U$ (k=2)	Result	\pm	Unit	Recovery
Conductivity	315	2	319	7,7	$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01	1,25	0,03	mmol/l	101%
Alkalinity	1,91	0,03	1,90	0,02	mmol/l	99%
Hydrogen carbonate	113	2	113	1,2	mg/l	100%
Calcium	37,6	0,5	36,21	5,4	mg/l	96%
Magnesium	7,29	0,08	7,09	1,1	mg/l	97%
Sodium	12,7	0,3	11,79	1,8	mg/l	93%
Potassium	2,64	0,02	2,55	0,4	mg/l	97%
Nitrate	14,0	0,2	14,0	0,6	mg/l	100%
Nitrite	0,061	0,001	0,056	0,01	mg/l	92%
Ammonium	0,091	0,002	0,081	0,005	mg/l	89%
Chloride	19,9	0,3	20,0	0,7	mg/l	101%
Sulphate	20,5	0,2	21,0	1,0	mg/l	102%
Orthophosphate	<0,009		<0,01		mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04	2,90	0,4	mg/l	107%
Total P (as PO ₄)	<0,009		<0,01		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,53	0,09	mg/l	92%



Sample N152B

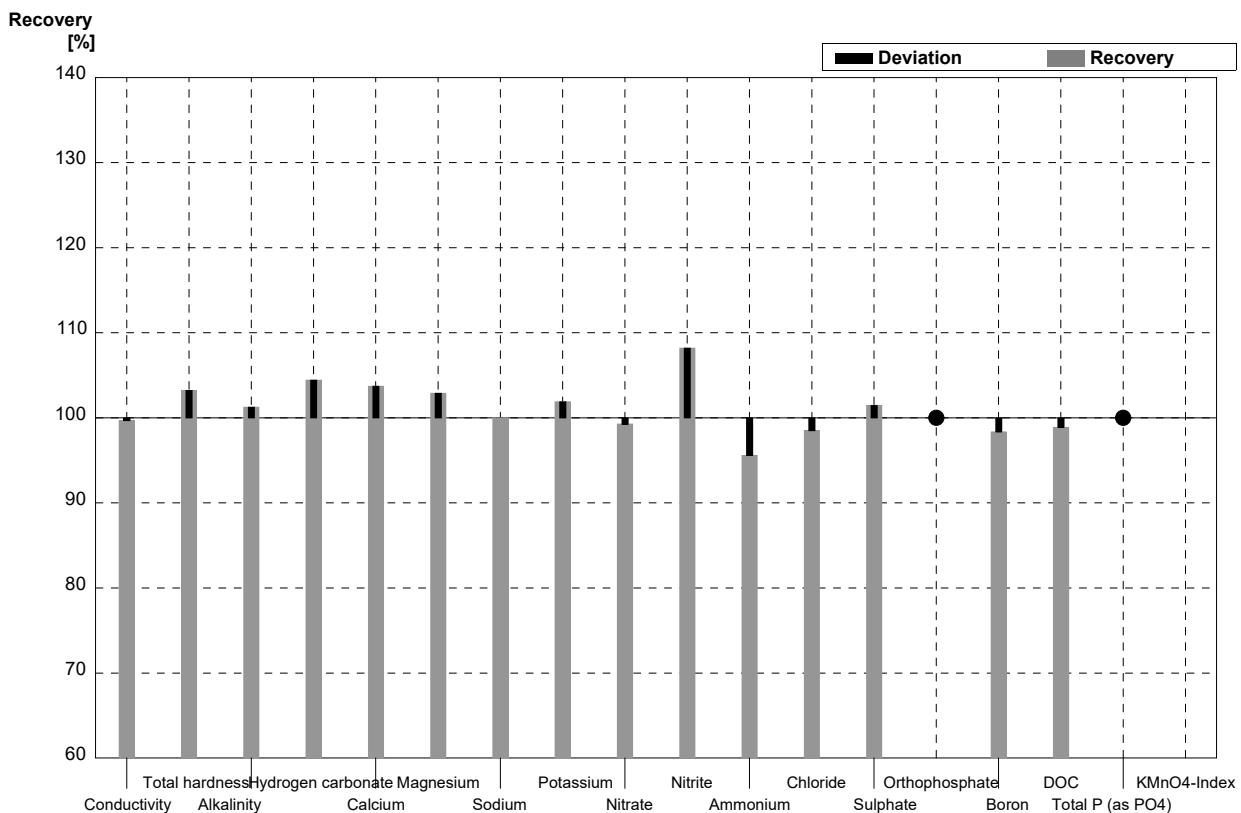
Laboratory S

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	588	14,2	$\mu\text{S}/\text{cm}$	102%
Total hardness	2,22	0,02	2,22	0,04	mmol/l	100%
Alkalinity	2,47	0,03	2,45	0,03	mmol/l	99%
Hydrogen carbonate	148	2	148	1,5	mg/l	100%
Calcium	65,6	0,8	62,43	9,4	mg/l	95%
Magnesium	14,2	0,2	13,45	2,1	mg/l	95%
Sodium	25,0	0,3	24,05	3,7	mg/l	96%
Potassium	4,62	0,05	4,40	0,6	mg/l	95%
Nitrate	40,7	0,7	39,8	1,7	mg/l	98%
Nitrite	0,0303	0,0010	0,0280	0,001	mg/l	92%
Ammonium	<0,01		<0,0050	0,003	mg/l	•
Chloride	56,2	1,0	57	1,9	mg/l	101%
Sulphate	45,0	0,5	46,3	2,2	mg/l	103%
Orthophosphate	0,061	0,002	0,0200	0,003	mg/l	33%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05	5,1	0,8	mg/l	103%
Total P (as PO ₄)	0,147	0,002	0,0460	0,007	mg/l	31%
KMnO ₄ -Index	3,95	0,15	3,80	0,14	mg/l	96%



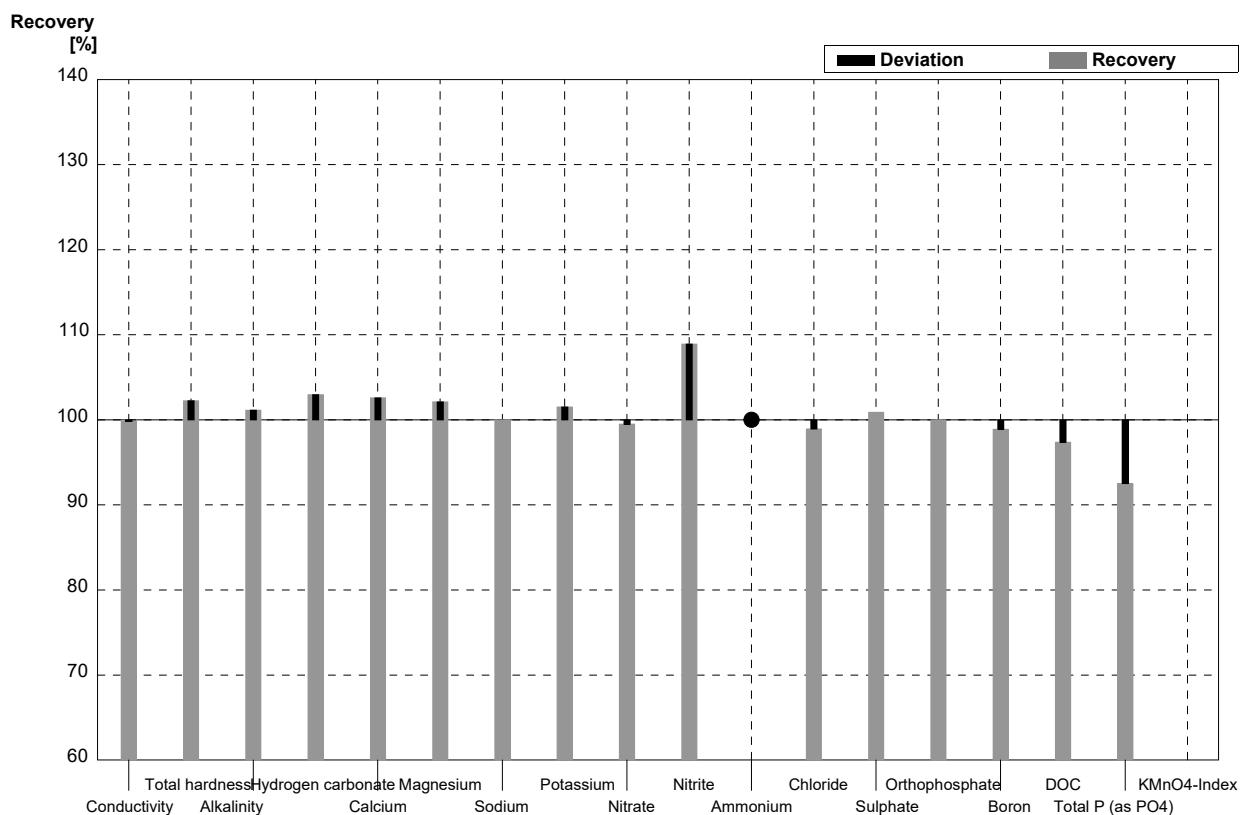
Sample N152A**Laboratory T**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	314	3	$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01	1,28	0,12	mmol/l	103%
Alkalinity	1,91	0,03	1,934	0,116	mmol/l	101%
Hydrogen carbonate	113	2	118,0	7,1	mg/l	104%
Calcium	37,6	0,5	39,0	2,0	mg/l	104%
Magnesium	7,29	0,08	7,5	0,4	mg/l	103%
Sodium	12,7	0,3	12,7	0,6	mg/l	100%
Potassium	2,64	0,02	2,69	0,11	mg/l	102%
Nitrate	14,0	0,2	13,9	0,7	mg/l	99%
Nitrite	0,061	0,001	0,066	0,003	mg/l	108%
Ammonium	0,091	0,002	0,087	0,013	mg/l	96%
Chloride	19,9	0,3	19,6	1,0	mg/l	98%
Sulphate	20,5	0,2	20,8	0,8	mg/l	101%
Orthophosphate	<0,009		<0,015		mg/l	•
Boron	0,061	0,001	0,060	0,009	mg/l	98%
DOC	2,72	0,04	2,69	0,21	mg/l	99%
Total P (as PO ₄)	<0,009		<0,015		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



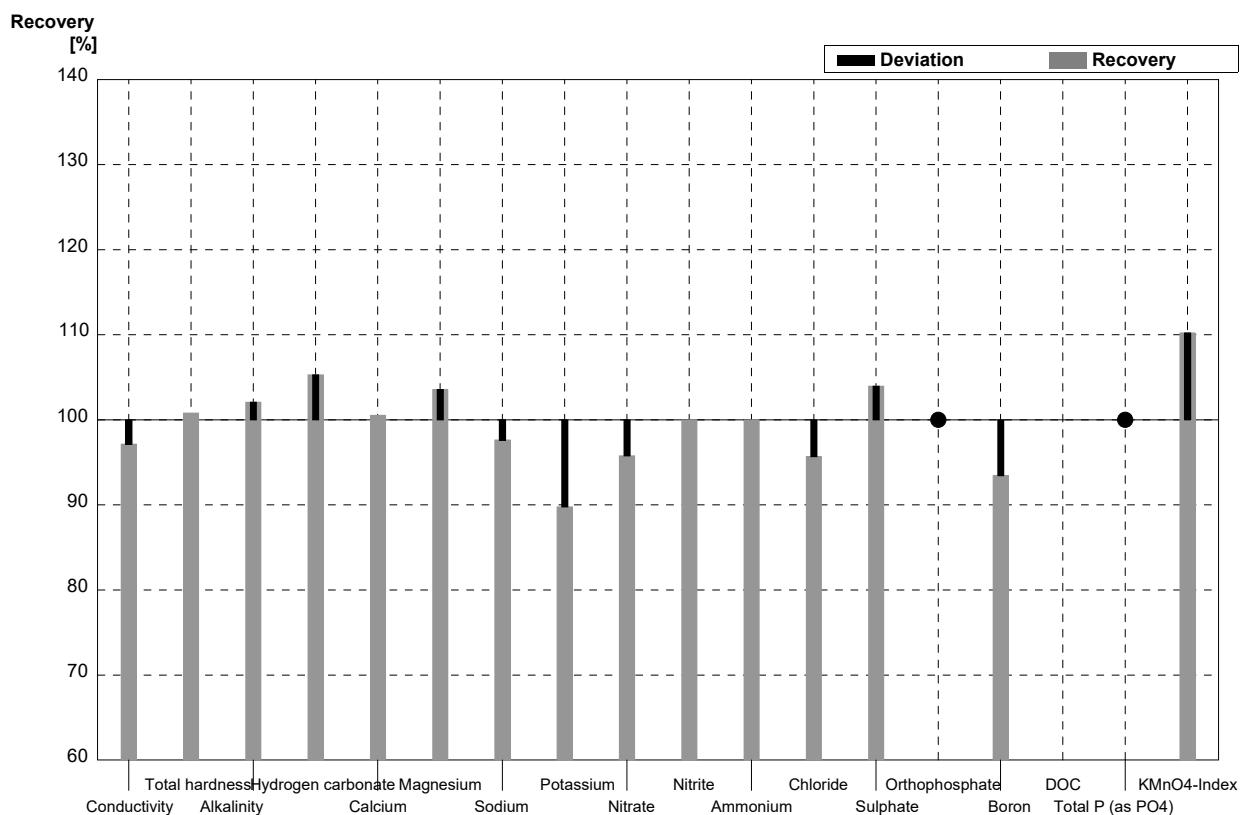
Sample N152B**Laboratory T**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	578	6	$\mu\text{S}/\text{cm}$	100%
Total hardness	2,22	0,02	2,27	0,20	mmol/l	102%
Alkalinity	2,47	0,03	2,498	0,150	mmol/l	101%
Hydrogen carbonate	148	2	152,4	9,1	mg/l	103%
Calcium	65,6	0,8	67,3	3,4	mg/l	103%
Magnesium	14,2	0,2	14,5	0,7	mg/l	102%
Sodium	25,0	0,3	25,0	1,3	mg/l	100%
Potassium	4,62	0,05	4,69	0,19	mg/l	102%
Nitrate	40,7	0,7	40,5	2,0	mg/l	100%
Nitrite	0,0303	0,0010	0,0330	0,001	mg/l	109%
Ammonium	<0,01		<0,010		mg/l	•
Chloride	56,2	1,0	55,6	2,8	mg/l	99%
Sulphate	45,0	0,5	45,4	1,8	mg/l	101%
Orthophosphate	0,061	0,002	0,061	0,002	mg/l	100%
Boron	0,091	0,001	0,090	0,014	mg/l	99%
DOC	4,94	0,05	4,81	0,38	mg/l	97%
Total P (as PO ₄)	0,147	0,002	0,136	0,027	mg/l	93%
KMnO ₄ -Index	3,95	0,15			mg/l	



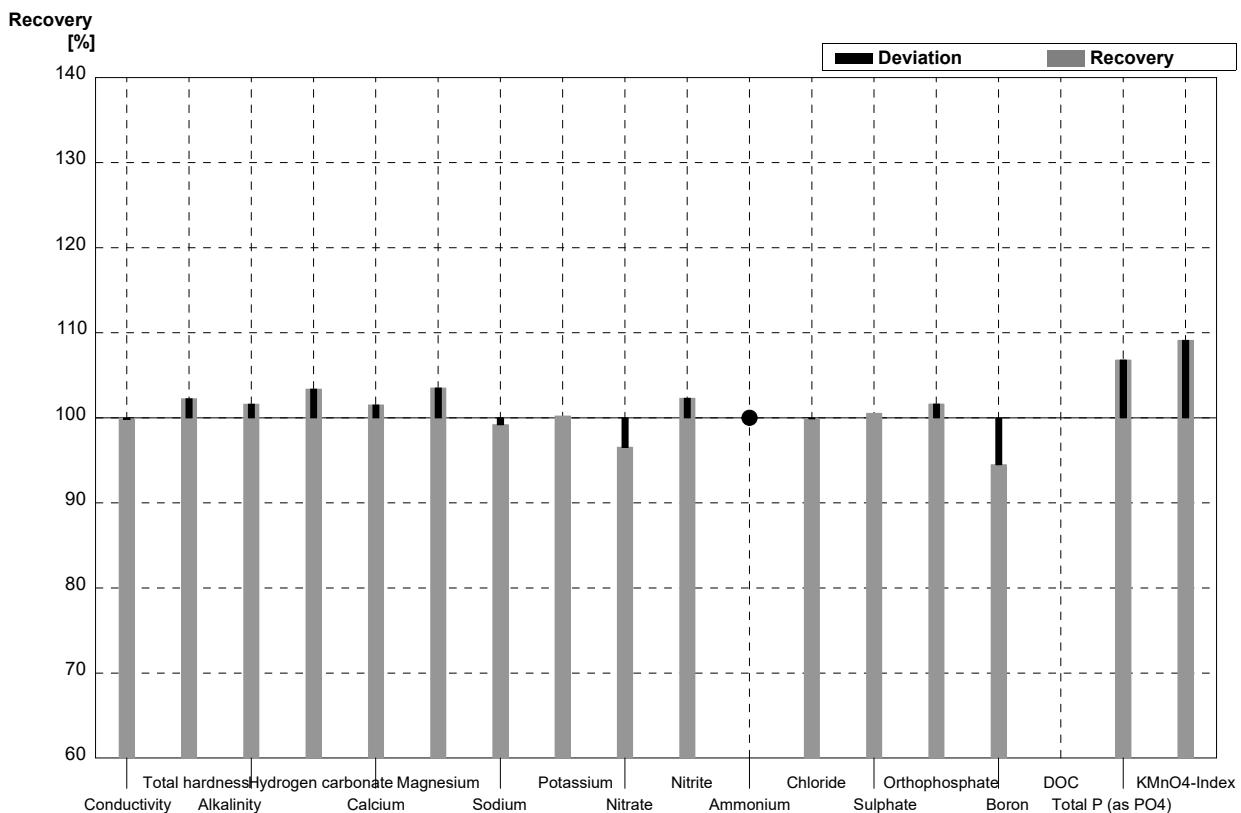
Sample N152A**Laboratory U**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	306	21,6	$\mu\text{S}/\text{cm}$	97%
Total hardness	1,24	0,01	1,25	0,19	mmol/l	101%
Alkalinity	1,91	0,03	1,95	0,07	mmol/l	102%
Hydrogen carbonate	113	2	119	4,17	mg/l	105%
Calcium	37,6	0,5	37,8	3,4	mg/l	101%
Magnesium	7,29	0,08	7,55	0,38	mg/l	104%
Sodium	12,7	0,3	12,4	0,87	mg/l	98%
Potassium	2,64	0,02	2,37	0,12	mg/l	90%
Nitrate	14,0	0,2	13,41	0,47	mg/l	96%
Nitrite	0,061	0,001	0,061	0,004	mg/l	100%
Ammonium	0,091	0,002	0,091	0,002	mg/l	100%
Chloride	19,9	0,3	19,04	1,14	mg/l	96%
Sulphate	20,5	0,2	21,31	0,64	mg/l	104%
Orthophosphate	<0,009		<0,01		mg/l	•
Boron	0,061	0,001	0,057	0,005	mg/l	93%
DOC	2,72	0,04	n.a.		mg/l	
Total P (as PO ₄)	<0,009		<0,01		mg/l	•
KMnO ₄ -Index	2,74	0,12	3,02	0,45	mg/l	110%



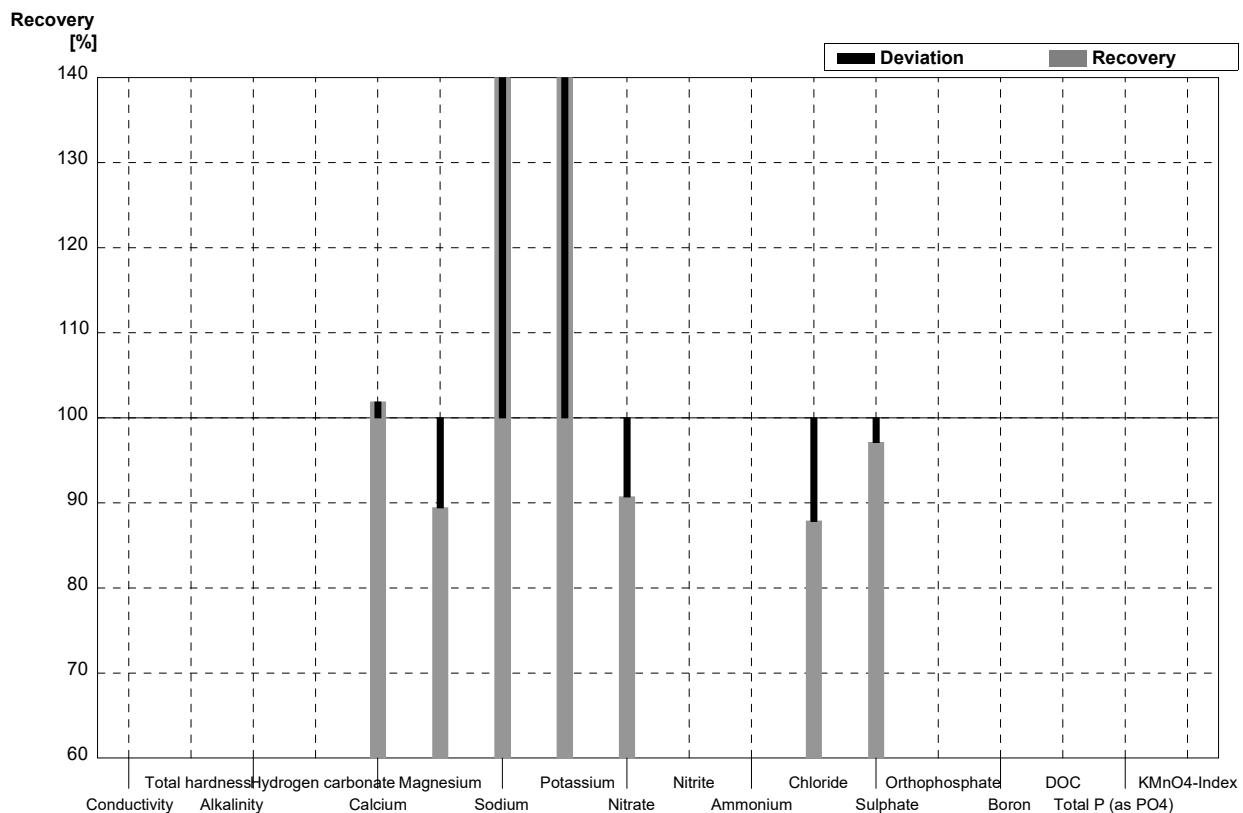
Sample N152B**Laboratory U**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	578	40,5	$\mu\text{S}/\text{cm}$	100%
Total hardness	2,22	0,02	2,27	0,34	mmol/l	102%
Alkalinity	2,47	0,03	2,51	0,09	mmol/l	102%
Hydrogen carbonate	148	2	153	5,36	mg/l	103%
Calcium	65,6	0,8	66,6	6,0	mg/l	102%
Magnesium	14,2	0,2	14,7	0,74	mg/l	104%
Sodium	25,0	0,3	24,8	1,74	mg/l	99%
Potassium	4,62	0,05	4,63	0,23	mg/l	100%
Nitrate	40,7	0,7	39,30	1,38	mg/l	97%
Nitrite	0,0303	0,0010	0,0310	0,002	mg/l	102%
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	56,14	3,37	mg/l	100%
Sulphate	45,0	0,5	45,24	1,36	mg/l	101%
Orthophosphate	0,061	0,002	0,062	0,004	mg/l	102%
Boron	0,091	0,001	0,086	0,008	mg/l	95%
DOC	4,94	0,05	n.a.		mg/l	
Total P (as PO ₄)	0,147	0,002	0,157	0,011	mg/l	107%
KMnO ₄ -Index	3,95	0,15	4,31	0,65	mg/l	109%



Sample N152A**Laboratory V**

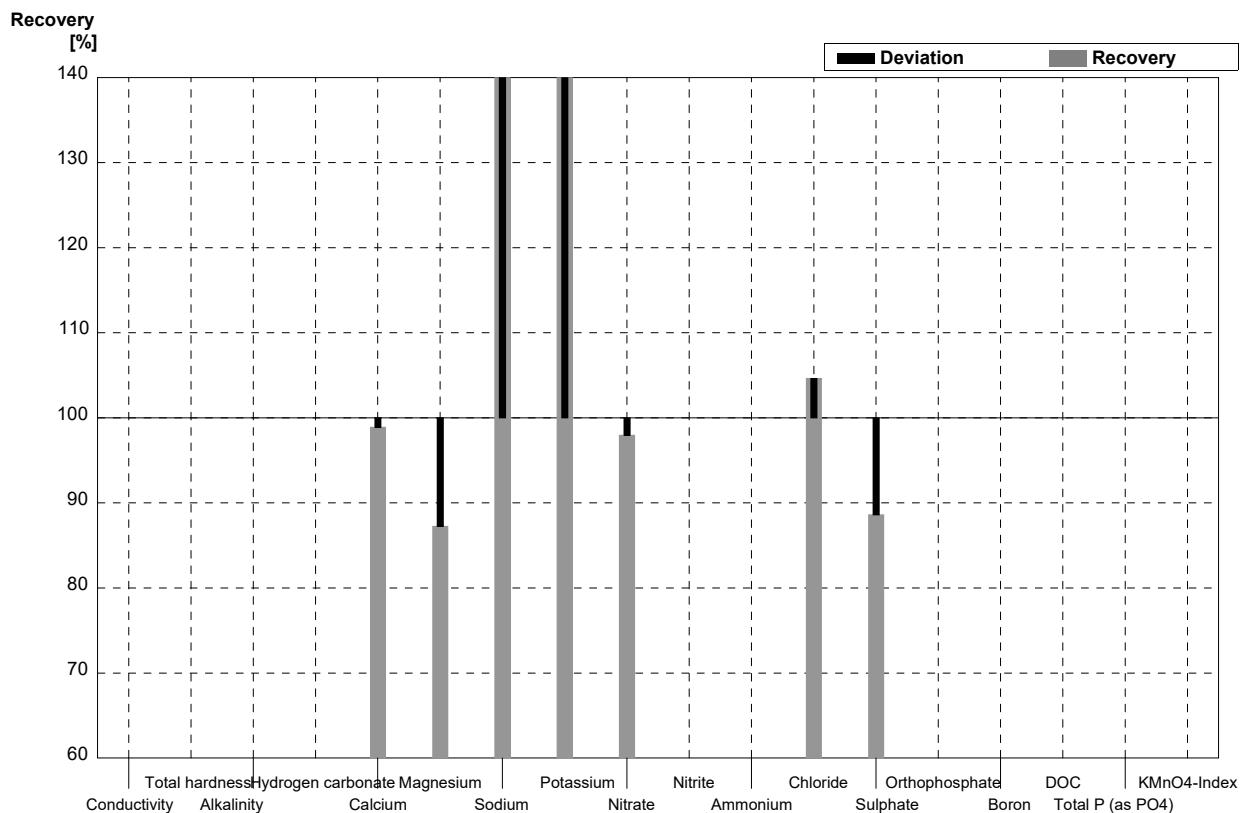
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2			$\mu\text{S}/\text{cm}$	
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5	38,30	0,82	mg/l	102%
Magnesium	7,29	0,08	6,52	0,16	mg/l	89%
Sodium	12,7	0,3	1347,9	8,47	mg/l	10613%
Potassium	2,64	0,02	269,49	0,88	mg/l	10208%
Nitrate	14,0	0,2	12,70	0,01	mg/l	91%
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3	17,49	0,03	mg/l	88%
Sulphate	20,5	0,2	19,91	0,04	mg/l	97%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

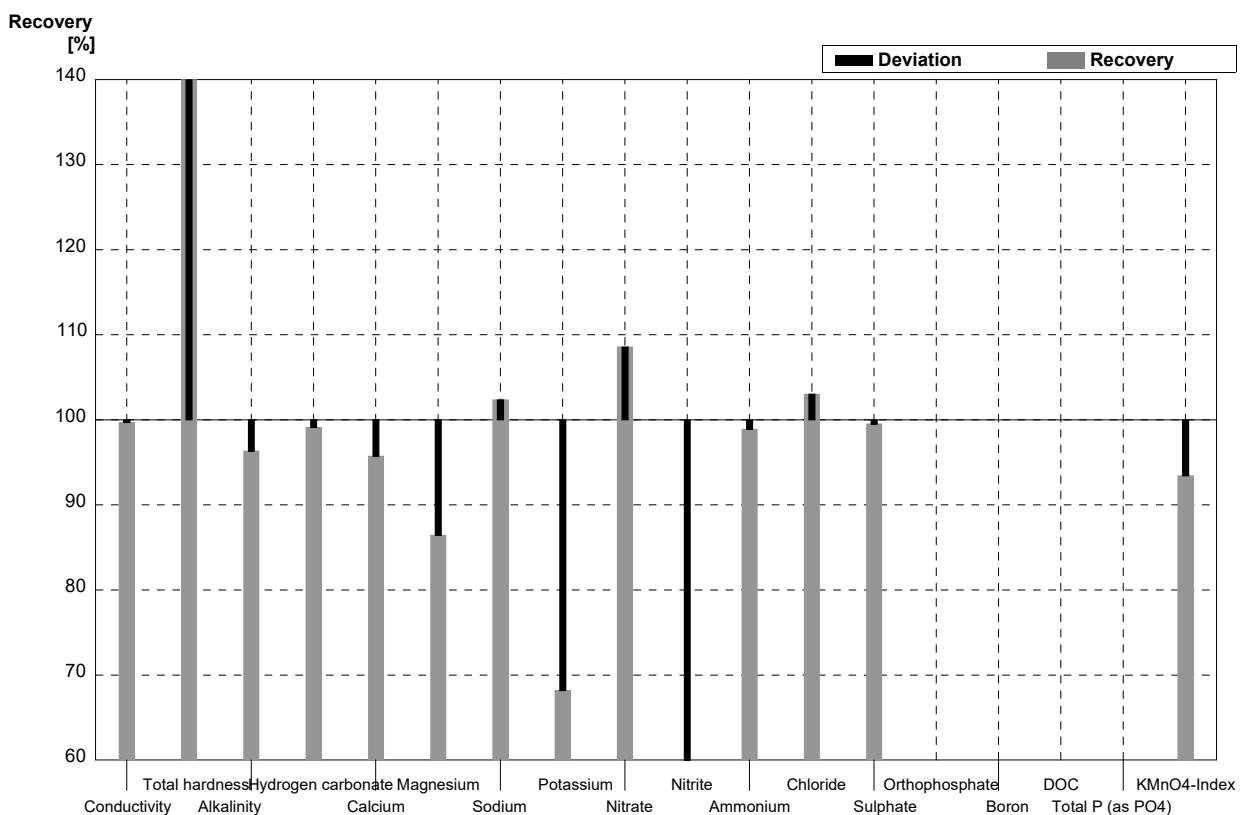
Laboratory V

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3			$\mu\text{S}/\text{cm}$	
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8	64,88	1,88	mg/l	99%
Magnesium	14,2	0,2	12,39	0,10	mg/l	87%
Sodium	25,0	0,3	2624,9	16,97	mg/l	10500%
Potassium	4,62	0,05	497,82	6,63	mg/l	10775%
Nitrate	40,7	0,7	39,87	0,07	mg/l	98%
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0	58,81	0,01	mg/l	105%
Sulphate	45,0	0,5	39,87	0,07	mg/l	89%
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A
Laboratory W

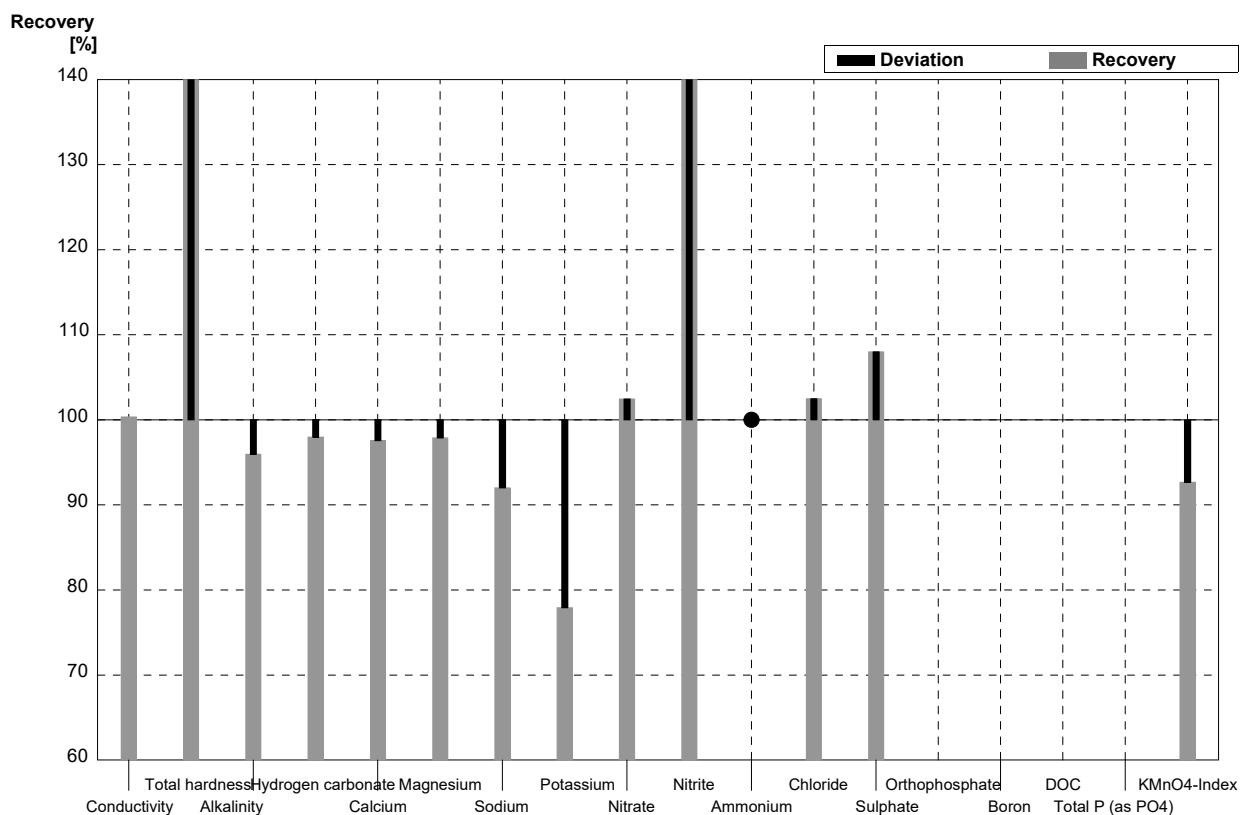
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	314	20	$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01	6,8	0,5	mmol/l	548%
Alkalinity	1,91	0,03	1,84	0,20	mmol/l	96%
Hydrogen carbonate	113	2	112	11	mg/l	99%
Calcium	37,6	0,5	36,0	3,6	mg/l	96%
Magnesium	7,29	0,08	6,3	0,6	mg/l	86%
Sodium	12,7	0,3	13,0	1,3	mg/l	102%
Potassium	2,64	0,02	1,80	0,2	mg/l	68%
Nitrate	14,0	0,2	15,2	1,5	mg/l	109%
Nitrite	0,061	0,001	0,0250	0,003	mg/l	41%
Ammonium	0,091	0,002	0,090	0,009	mg/l	99%
Chloride	19,9	0,3	20,5	2,1	mg/l	103%
Sulphate	20,5	0,2	20,4	2,0	mg/l	100%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12	2,56	0,3	mg/l	93%



Sample N152B

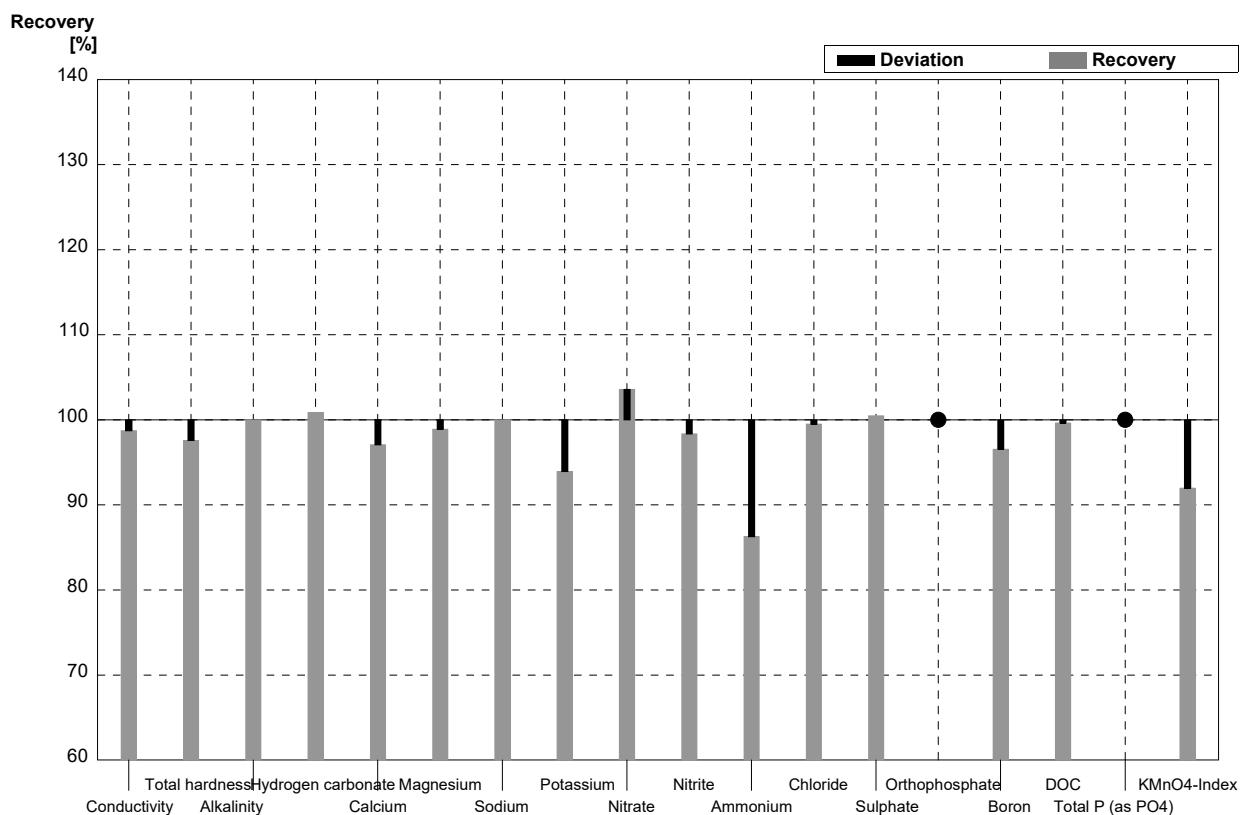
Laboratory W

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	581	30	$\mu\text{S}/\text{cm}$	100%
Total hardness	2,22	0,02	12,3	1,0	mmol/l	554%
Alkalinity	2,47	0,03	2,37	0,24	mmol/l	96%
Hydrogen carbonate	148	2	145	15	mg/l	98%
Calcium	65,6	0,8	64	6	mg/l	98%
Magnesium	14,2	0,2	13,9	1,4	mg/l	98%
Sodium	25,0	0,3	23,0	2,3	mg/l	92%
Potassium	4,62	0,05	3,60	0,4	mg/l	78%
Nitrate	40,7	0,7	41,7	4	mg/l	102%
Nitrite	0,0303	0,0010	0,053	0,005	mg/l	175%
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	57,6	5,7	mg/l	102%
Sulphate	45,0	0,5	48,6	4,9	mg/l	108%
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15	3,66	0,4	mg/l	93%



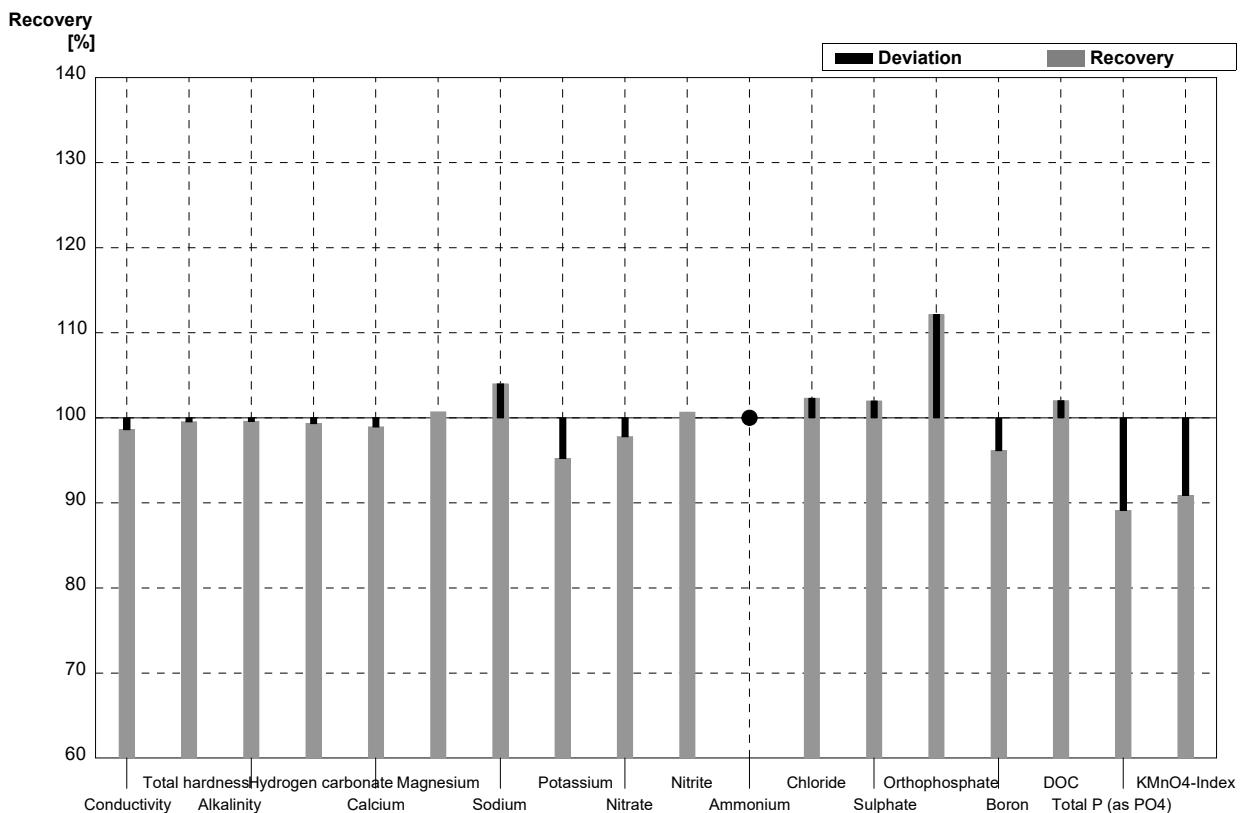
Sample N152A**Laboratory X**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	311	1,000	$\mu\text{S}/\text{cm}$	99%
Total hardness	1,24	0,01	1,21	0,020	mmol/l	98%
Alkalinity	1,91	0,03	1,91	0,006	mmol/l	100%
Hydrogen carbonate	113	2	114	0,577	mg/l	101%
Calcium	37,6	0,5	36,5	0,603	mg/l	97%
Magnesium	7,29	0,08	7,21	0,172	mg/l	99%
Sodium	12,7	0,3	12,7	0,208	mg/l	100%
Potassium	2,64	0,02	2,48	0,017	mg/l	94%
Nitrate	14,0	0,2	14,5	0,050	mg/l	104%
Nitrite	0,061	0,001	0,0600	0,001	mg/l	98%
Ammonium	0,091	0,002	0,0785	0,001	mg/l	86%
Chloride	19,9	0,3	19,8	0,015	mg/l	99%
Sulphate	20,5	0,2	20,6	0,173	mg/l	100%
Orthophosphate	<0,009		<0,020		mg/l	•
Boron	0,061	0,001	0,0589	0,001	mg/l	97%
DOC	2,72	0,04	2,71	0,015	mg/l	100%
Total P (as PO ₄)	<0,009		<0,020		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,52	0,014	mg/l	92%



Sample N152B**Laboratory X**

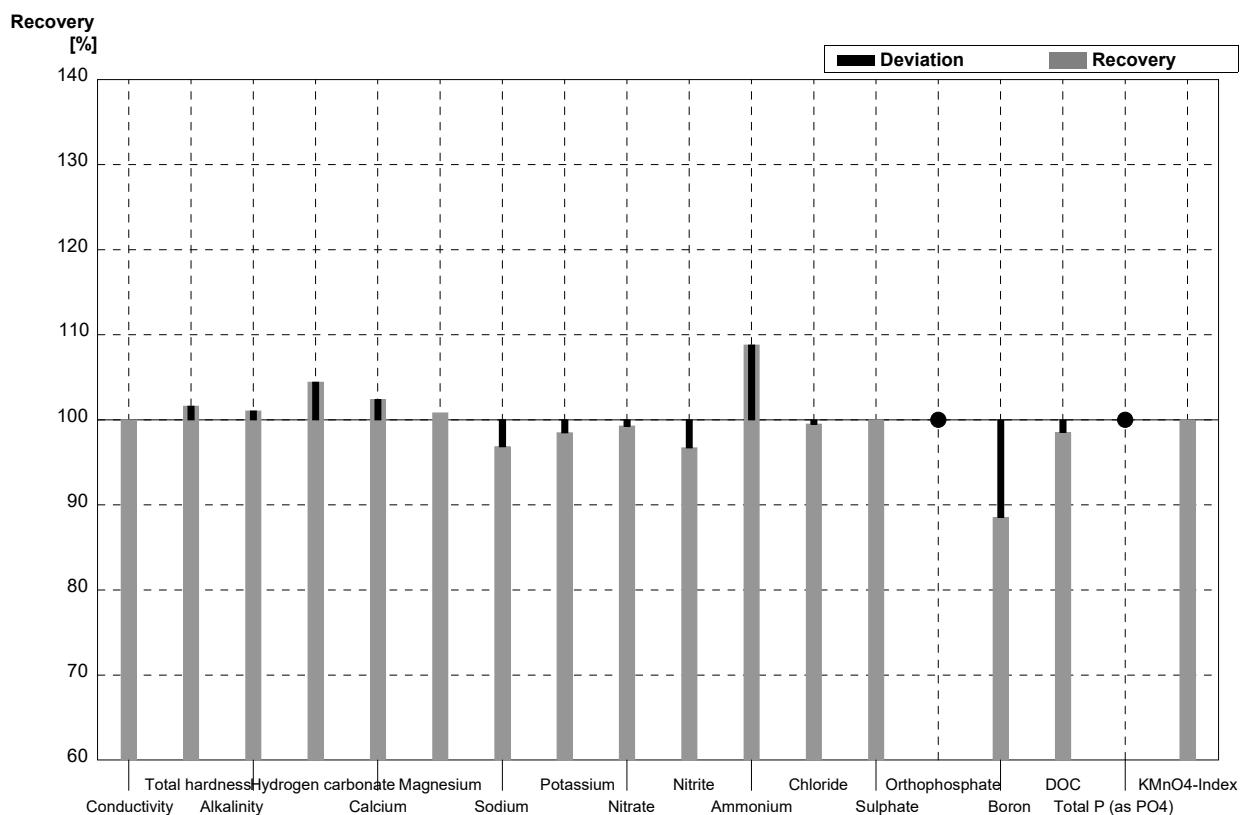
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	571	2,000	$\mu\text{S}/\text{cm}$	99%
Total hardness	2,22	0,02	2,21	0,031	mmol/l	100%
Alkalinity	2,47	0,03	2,46	0,010	mmol/l	100%
Hydrogen carbonate	148	2	147	0,600	mg/l	99%
Calcium	65,6	0,8	64,9	0,839	mg/l	99%
Magnesium	14,2	0,2	14,3	0,306	mg/l	101%
Sodium	25,0	0,3	26,0	0,757	mg/l	104%
Potassium	4,62	0,05	4,40	0,036	mg/l	95%
Nitrate	40,7	0,7	39,8	0,100	mg/l	98%
Nitrite	0,0303	0,0010	0,0305	0,0004	mg/l	101%
Ammonium	<0,01		<0,015		mg/l	•
Chloride	56,2	1,0	57,5	0,058	mg/l	102%
Sulphate	45,0	0,5	45,9	0,115	mg/l	102%
Orthophosphate	0,061	0,002	0,0684	0,002	mg/l	112%
Boron	0,091	0,001	0,0875	0,003	mg/l	96%
DOC	4,94	0,05	5,04	0,061	mg/l	102%
Total P (as PO ₄)	0,147	0,002	0,131	0,001	mg/l	89%
KMnO ₄ -Index	3,95	0,15	3,59	0,007	mg/l	91%



Sample N152A

Laboratory Y

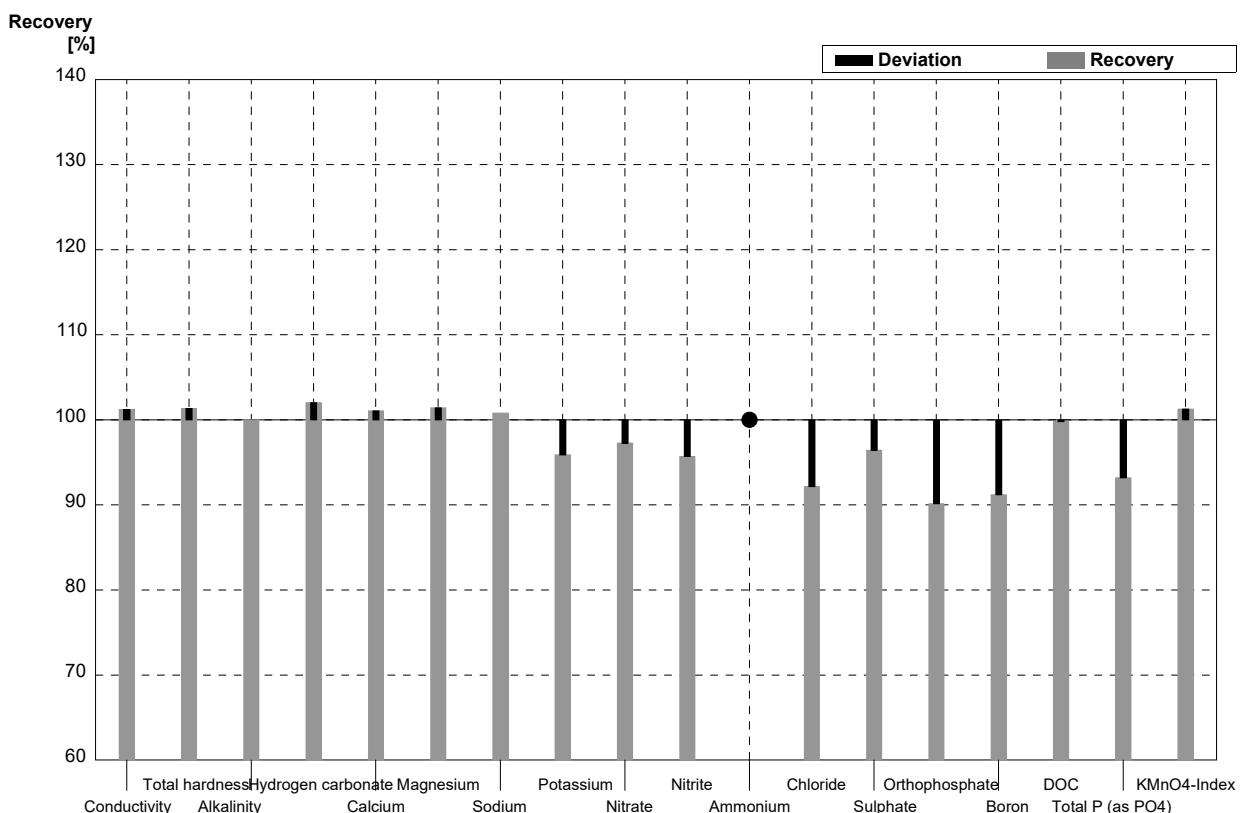
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	315	32	$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01	1,26	0,13	mmol/l	102%
Alkalinity	1,91	0,03	1,93	0,19	mmol/l	101%
Hydrogen carbonate	113	2	118	12	mg/l	104%
Calcium	37,6	0,5	38,5	3,9	mg/l	102%
Magnesium	7,29	0,08	7,35	0,74	mg/l	101%
Sodium	12,7	0,3	12,3	1,2	mg/l	97%
Potassium	2,64	0,02	2,60	0,26	mg/l	98%
Nitrate	14,0	0,2	13,9	1,4	mg/l	99%
Nitrite	0,061	0,001	0,059	0,006	mg/l	97%
Ammonium	0,091	0,002	0,099	0,010	mg/l	109%
Chloride	19,9	0,3	19,8	2,0	mg/l	99%
Sulphate	20,5	0,2	20,5	2,1	mg/l	100%
Orthophosphate	<0,009		<0,008		mg/l	•
Boron	0,061	0,001	0,054	0,005	mg/l	89%
DOC	2,72	0,04	2,68	0,27	mg/l	99%
Total P (as PO ₄)	<0,009		<0,015		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,74	0,55	mg/l	100%



Sample N152B

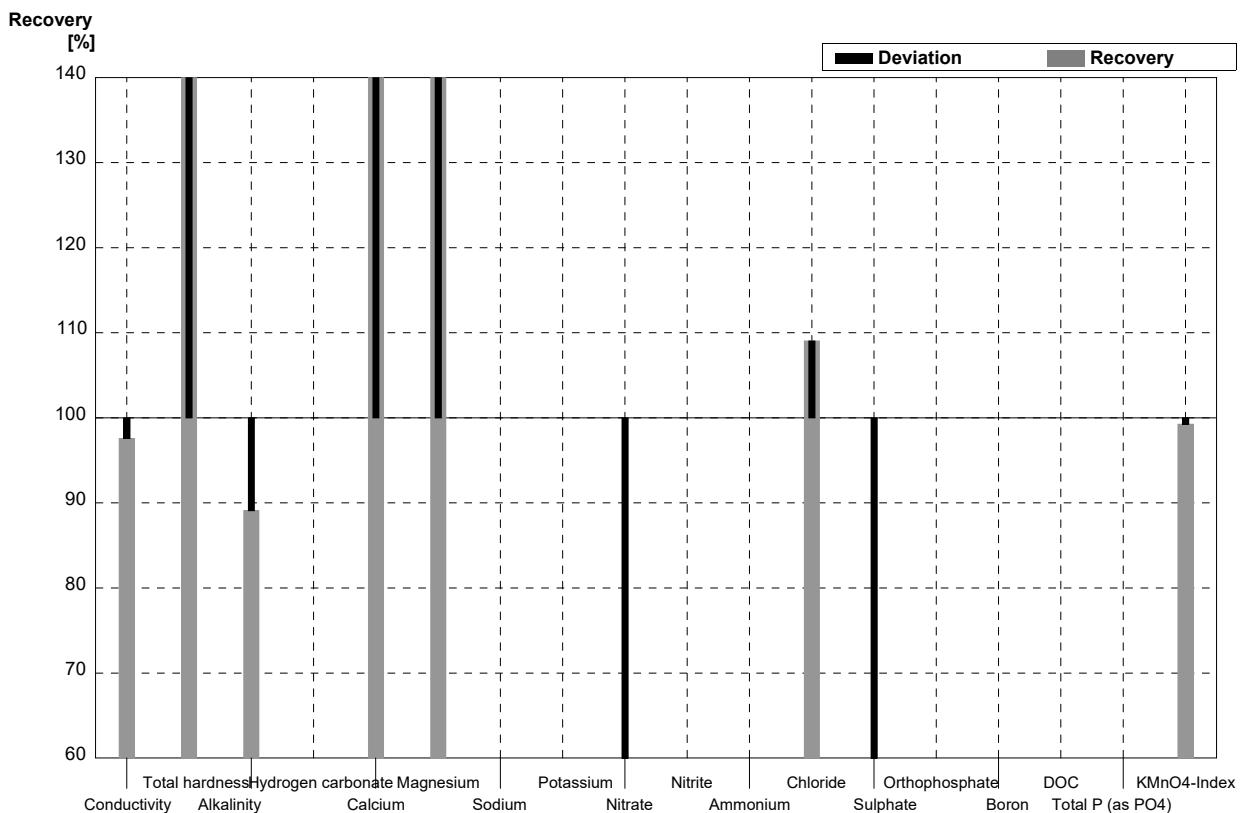
Laboratory Y

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	586	59	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,25	0,22	mmol/l	101%
Alkalinity	2,47	0,03	2,47	0,25	mmol/l	100%
Hydrogen carbonate	148	2	151	15	mg/l	102%
Calcium	65,6	0,8	66,3	6,6	mg/l	101%
Magnesium	14,2	0,2	14,4	1,4	mg/l	101%
Sodium	25,0	0,3	25,2	2,5	mg/l	101%
Potassium	4,62	0,05	4,43	0,44	mg/l	96%
Nitrate	40,7	0,7	39,6	4,0	mg/l	97%
Nitrite	0,0303	0,0010	0,0290	0,0029	mg/l	96%
Ammonium	<0,01		<0,010		mg/l	•
Chloride	56,2	1,0	51,8	5,2	mg/l	92%
Sulphate	45,0	0,5	43,4	4,3	mg/l	96%
Orthophosphate	0,061	0,002	0,055	0,006	mg/l	90%
Boron	0,091	0,001	0,083	0,008	mg/l	91%
DOC	4,94	0,05	4,93	0,49	mg/l	100%
Total P (as PO ₄)	0,147	0,002	0,137	0,027	mg/l	93%
KMnO ₄ -Index	3,95	0,15	4,00	0,80	mg/l	101%



Sample N152A**Laboratory Z**

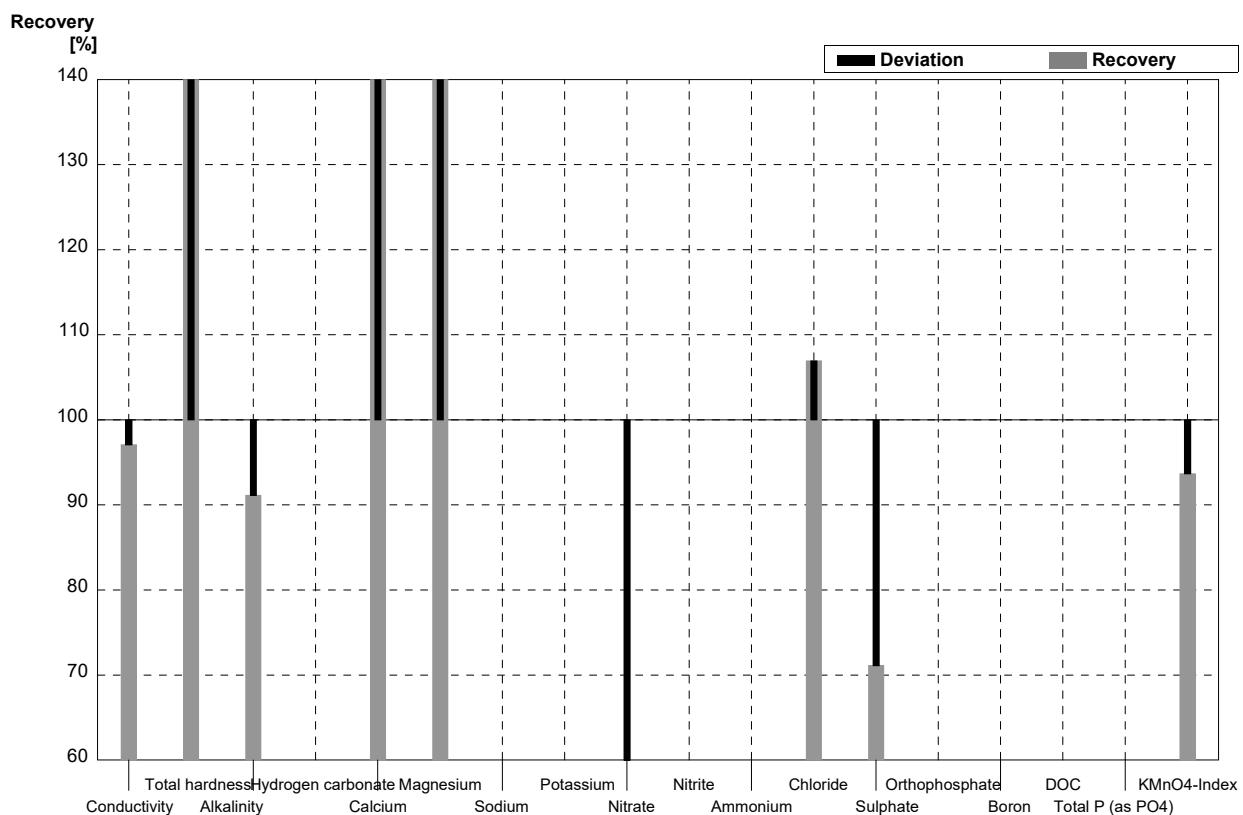
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	307,4	0,275	$\mu\text{S}/\text{cm}$	98%
Total hardness	1,24	0,01	4,25	0,04	mmol/l	343%
Alkalinity	1,91	0,03	1,702	0,06	mmol/l	89%
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5	125,45		mg/l	334%
Magnesium	7,29	0,08	27,23		mg/l	374%
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2	3,22	0,482	mg/l	23%
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3	21,7	1,074	mg/l	109%
Sulphate	20,5	0,2	11,0	0,4	mg/l	54%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12	2,72	0,3	mg/l	99%



Sample N152B

Laboratory Z

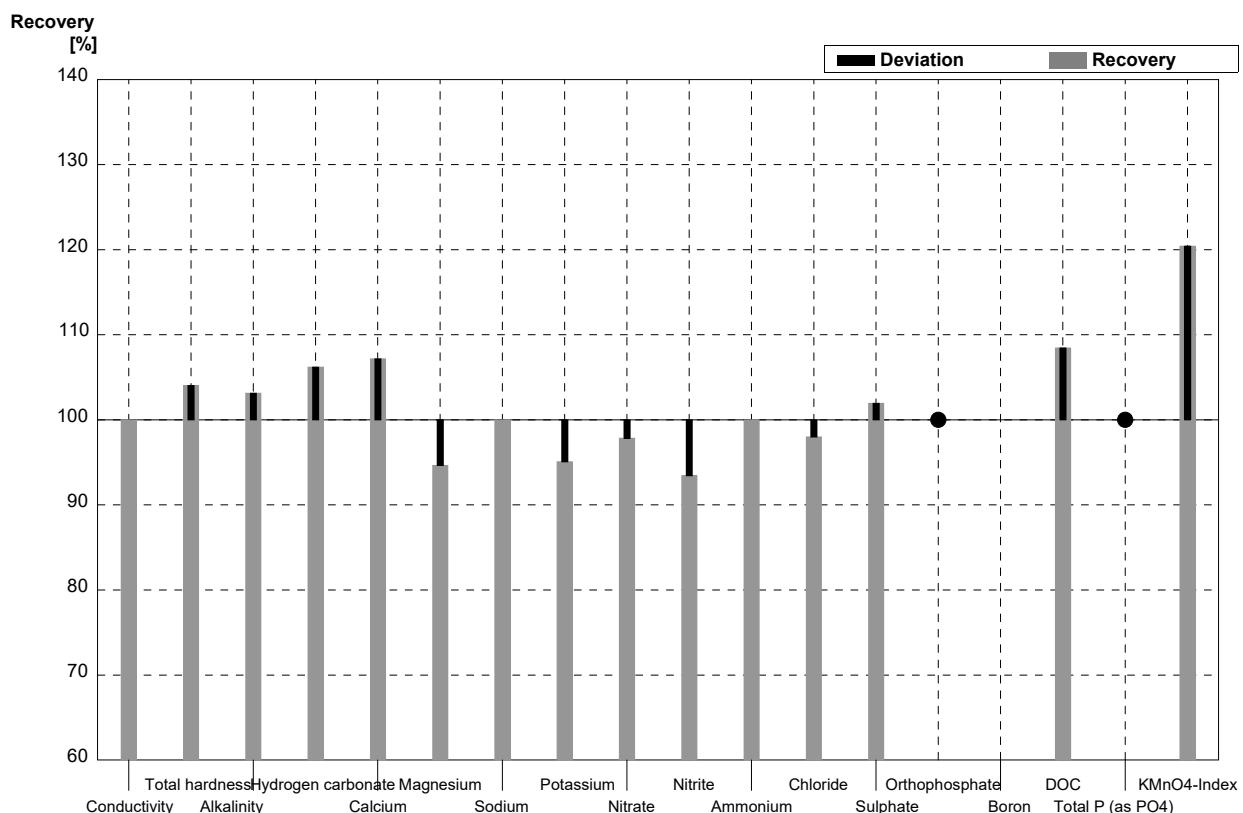
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	562,0	0,275	$\mu\text{S}/\text{cm}$	97%
Total hardness	2,22	0,02	5,13	0,04	mmol/l	231%
Alkalinity	2,47	0,03	2,251	0,06	mmol/l	91%
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8	167,53		mg/l	255%
Magnesium	14,2	0,2	22,85		mg/l	161%
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7	9,10	0,482	mg/l	22%
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0	60,1	1,074	mg/l	107%
Sulphate	45,0	0,5	32,0	0,4	mg/l	71%
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15	3,70	0,3	mg/l	94%



Sample N152A

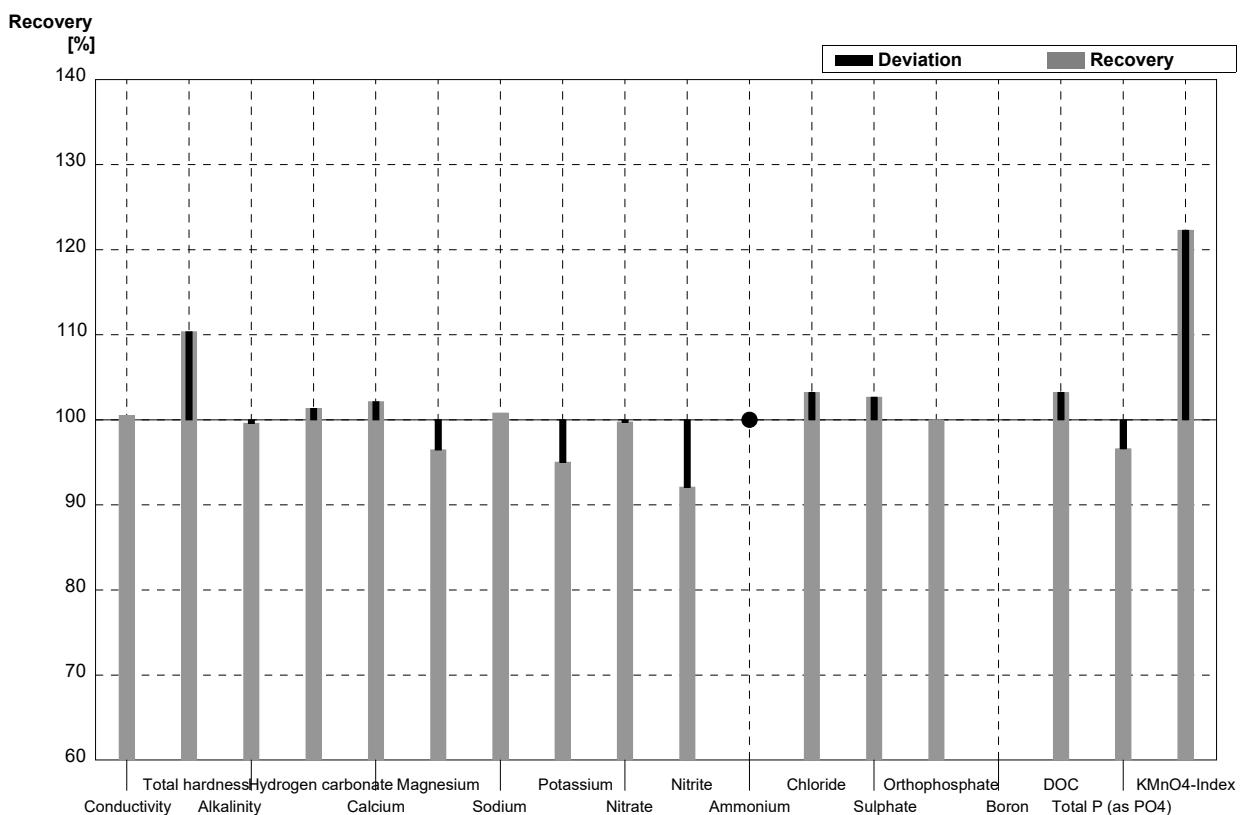
Laboratory AA

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	315	4	$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01	1,29	0,04	mmol/l	104%
Alkalinity	1,91	0,03	1,970	0,056	mmol/l	103%
Hydrogen carbonate	113	2	120	4	mg/l	106%
Calcium	37,6	0,5	40,3	1,1	mg/l	107%
Magnesium	7,29	0,08	6,9	0,3	mg/l	95%
Sodium	12,7	0,3	12,7	0,7	mg/l	100%
Potassium	2,64	0,02	2,51	0,12	mg/l	95%
Nitrate	14,0	0,2	13,7	0,9	mg/l	98%
Nitrite	0,061	0,001	0,057	0,004	mg/l	93%
Ammonium	0,091	0,002	0,091	0,011	mg/l	100%
Chloride	19,9	0,3	19,5	1,6	mg/l	98%
Sulphate	20,5	0,2	20,9	1,1	mg/l	102%
Orthophosphate	<0,009		<0,01		mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04	2,95	0,30	mg/l	108%
Total P (as PO ₄)	<0,009		<0,01		mg/l	•
KMnO ₄ -Index	2,74	0,12	3,30	0,13	mg/l	120%



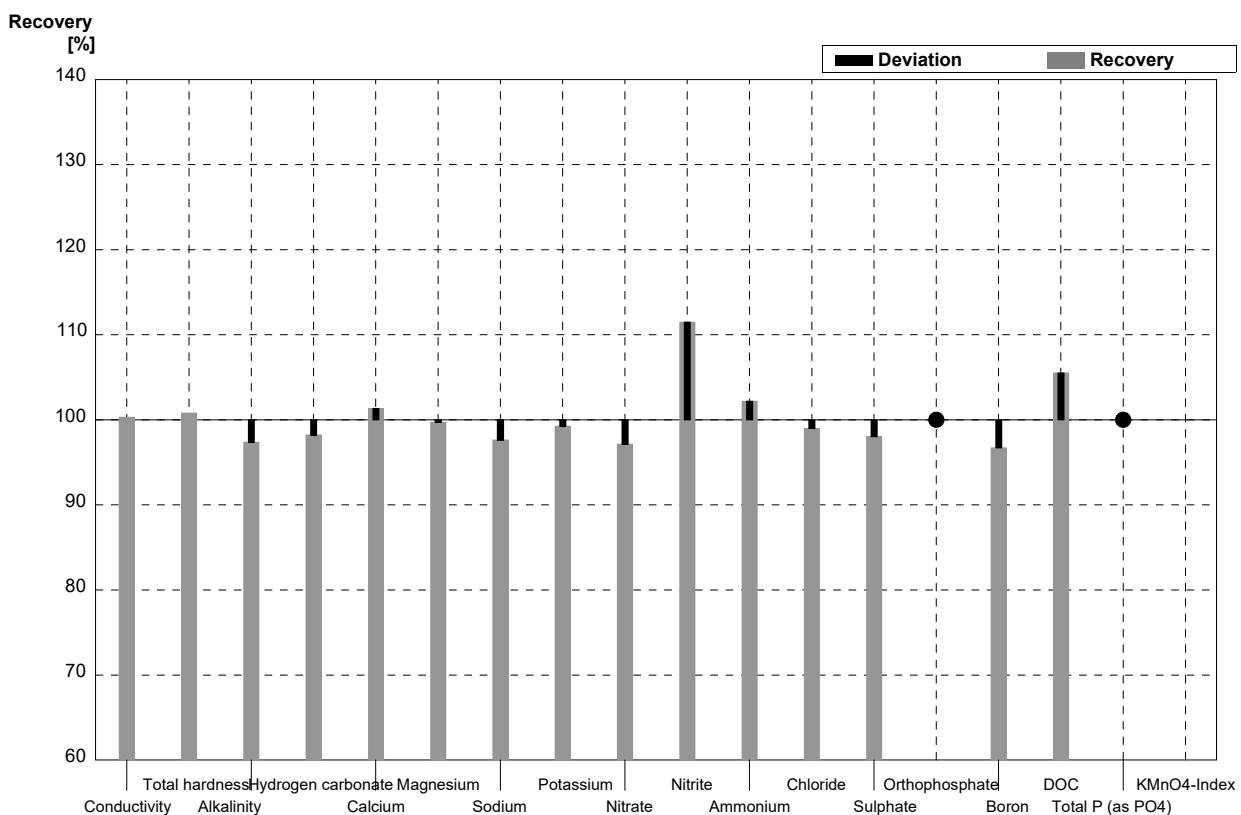
Sample N152B
Laboratory AA

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	582	6	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,45	0,08	mmol/l	110%
Alkalinity	2,47	0,03	2,46	0,07	mmol/l	100%
Hydrogen carbonate	148	2	150	5	mg/l	101%
Calcium	65,6	0,8	67	2	mg/l	102%
Magnesium	14,2	0,2	13,7	0,6	mg/l	96%
Sodium	25,0	0,3	25,2	1,3	mg/l	101%
Potassium	4,62	0,05	4,39	0,20	mg/l	95%
Nitrate	40,7	0,7	40,6	2,7	mg/l	100%
Nitrite	0,0303	0,0010	0,0279	0,0015	mg/l	92%
Ammonium	<0,01		<0,02		mg/l	•
Chloride	56,2	1,0	58	5	mg/l	103%
Sulphate	45,0	0,5	46,2	2,3	mg/l	103%
Orthophosphate	0,061	0,002	0,061	0,006	mg/l	100%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05	5,1	0,6	mg/l	103%
Total P (as PO ₄)	0,147	0,002	0,142	0,013	mg/l	97%
KMnO ₄ -Index	3,95	0,15	4,83	0,18	mg/l	122%



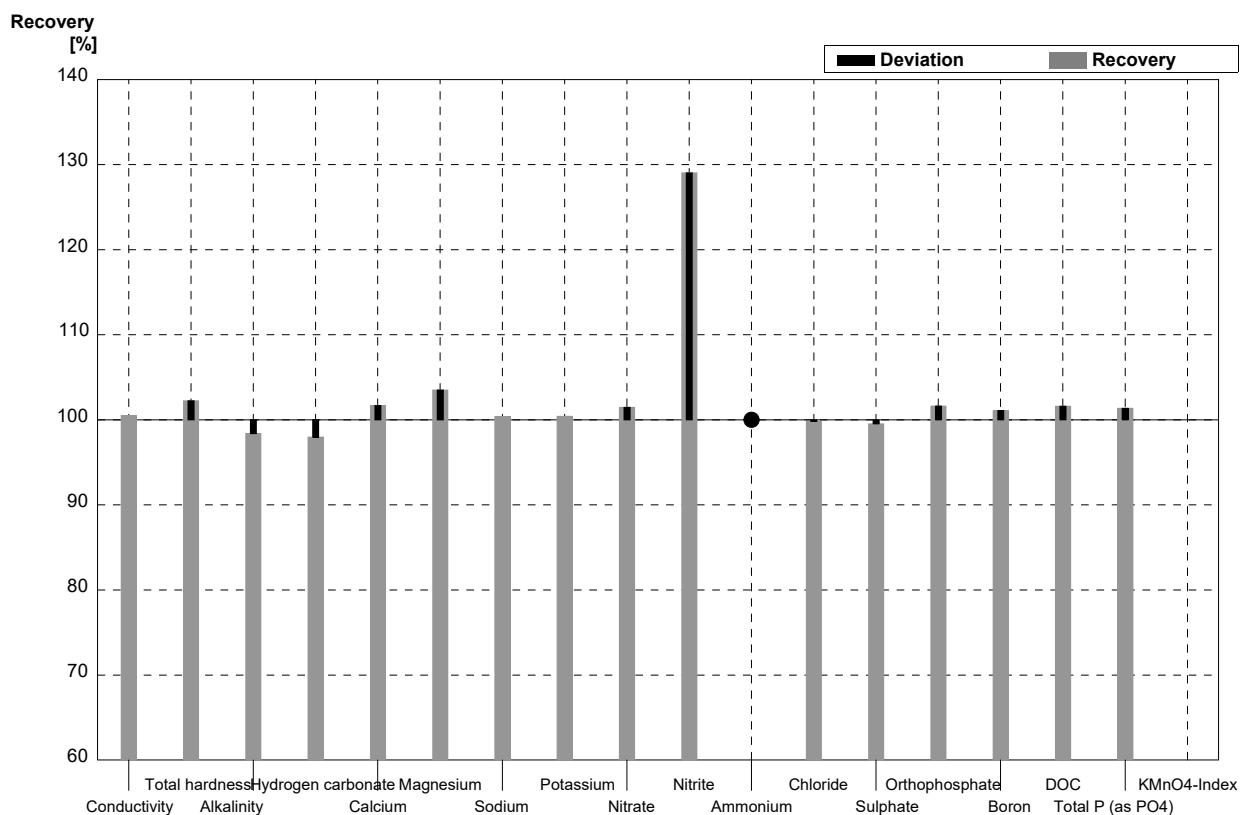
Sample N152A
Laboratory AB

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	316	10	$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01	1,25	0,14	mmol/l	101%
Alkalinity	1,91	0,03	1,86	0,08	mmol/l	97%
Hydrogen carbonate	113	2	111	5	mg/l	98%
Calcium	37,6	0,5	38,1	3,5	mg/l	101%
Magnesium	7,29	0,08	7,27	0,66	mg/l	100%
Sodium	12,7	0,3	12,4	1,0	mg/l	98%
Potassium	2,64	0,02	2,62	0,21	mg/l	99%
Nitrate	14,0	0,2	13,6	1,3	mg/l	97%
Nitrite	0,061	0,001	0,068	0,007	mg/l	111%
Ammonium	0,091	0,002	0,093	0,011	mg/l	102%
Chloride	19,9	0,3	19,7	1,0	mg/l	99%
Sulphate	20,5	0,2	20,1	1,0	mg/l	98%
Orthophosphate	<0,009		<0,006		mg/l	•
Boron	0,061	0,001	0,059	0,006	mg/l	97%
DOC	2,72	0,04	2,87	0,26	mg/l	106%
Total P (as PO ₄)	<0,009		<0,006		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



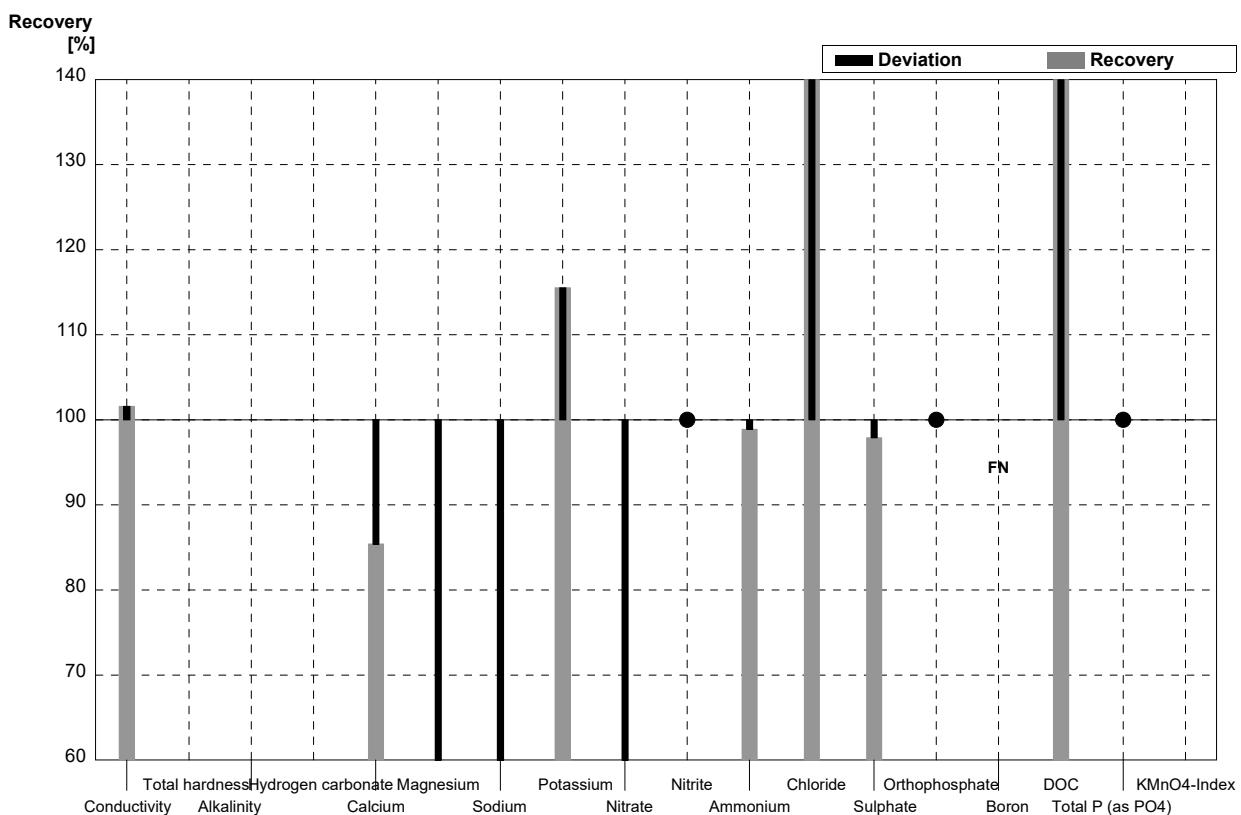
Sample N152B**Laboratory AB**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	582	17	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,27	0,25	mmol/l	102%
Alkalinity	2,47	0,03	2,43	0,10	mmol/l	98%
Hydrogen carbonate	148	2	145	6	mg/l	98%
Calcium	65,6	0,8	66,7	6,0	mg/l	102%
Magnesium	14,2	0,2	14,7	1,3	mg/l	104%
Sodium	25,0	0,3	25,1	2,2	mg/l	100%
Potassium	4,62	0,05	4,64	0,37	mg/l	100%
Nitrate	40,7	0,7	41,3	3,7	mg/l	101%
Nitrite	0,0303	0,0010	0,0391	0,005	mg/l	129%
Ammonium	<0,01		<0,008		mg/l	•
Chloride	56,2	1,0	56,1	2,8	mg/l	100%
Sulphate	45,0	0,5	44,8	2,2	mg/l	100%
Orthophosphate	0,061	0,002	0,062	0,006	mg/l	102%
Boron	0,091	0,001	0,092	0,009	mg/l	101%
DOC	4,94	0,05	5,02	0,45	mg/l	102%
Total P (as PO ₄)	0,147	0,002	0,149	0,015	mg/l	101%
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A
Laboratory AC

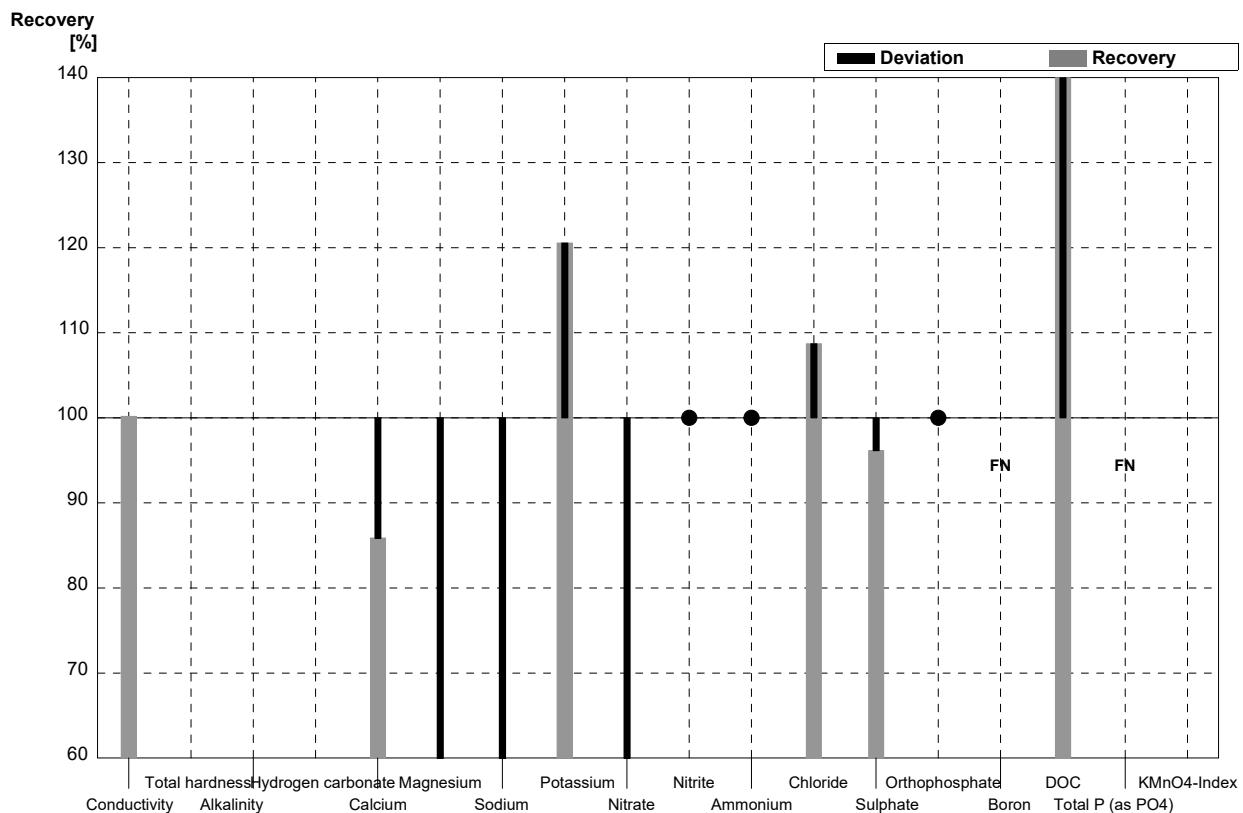
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	320	20	$\mu\text{S}/\text{cm}$	102%
Total hardness	1,24	0,01	nb		mmol/l	
Alkalinity	1,91	0,03	nb		mmol/l	
Hydrogen carbonate	113	2	nb		mg/l	
Calcium	37,6	0,5	32,11	3	mg/l	85%
Magnesium	7,29	0,08	2,94	0,33	mg/l	40%
Sodium	12,7	0,3	6,12	0,6	mg/l	48%
Potassium	2,64	0,02	3,05	0,3	mg/l	116%
Nitrate	14,0	0,2	8,19	0,8	mg/l	59%
Nitrite	0,061	0,001	<0,1		mg/l	•
Ammonium	0,091	0,002	0,090	0,05	mg/l	99%
Chloride	19,9	0,3	30,87	3	mg/l	155%
Sulphate	20,5	0,2	20,07	2	mg/l	98%
Orthophosphate	<0,009		<0,1		mg/l	•
Boron	0,061	0,001	<0,04		mg/l	FN
DOC	2,72	0,04	7,43	1	mg/l	273%
Total P (as PO ₄)	<0,009		<0,1		mg/l	•
KMnO ₄ -Index	2,74	0,12	nb		mg/l	



Sample N152B

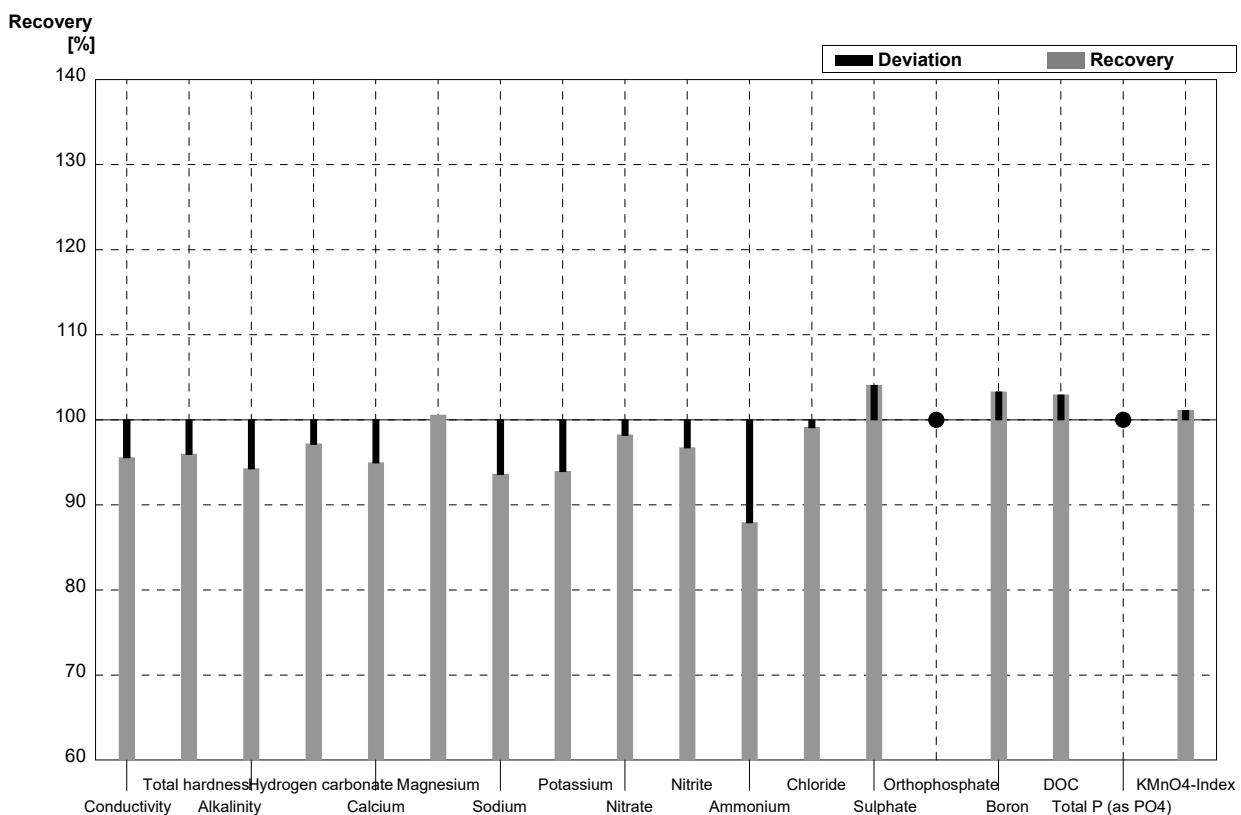
Laboratory AC

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	580	20	$\mu\text{S}/\text{cm}$	100%
Total hardness	2,22	0,02	nb		mmol/l	
Alkalinity	2,47	0,03	nb		mmol/l	
Hydrogen carbonate	148	2	nb		mg/l	
Calcium	65,6	0,8	56,33	5,5	mg/l	86%
Magnesium	14,2	0,2	5,91	6	mg/l	42%
Sodium	25,0	0,3	12,3	1,2	mg/l	49%
Potassium	4,62	0,05	5,57	0,6	mg/l	121%
Nitrate	40,7	0,7	19,43	2	mg/l	48%
Nitrite	0,0303	0,0010	<0,1		mg/l	•
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	61,1	6	mg/l	109%
Sulphate	45,0	0,5	43,27	4	mg/l	96%
Orthophosphate	0,061	0,002	<0,10		mg/l	•
Boron	0,091	0,001	<0,04		mg/l	FN
DOC	4,94	0,05	56,26	6	mg/l	1139%
Total P (as PO ₄)	0,147	0,002	<0,1		mg/l	FN
KMnO ₄ -Index	3,95	0,15	nb		mg/l	



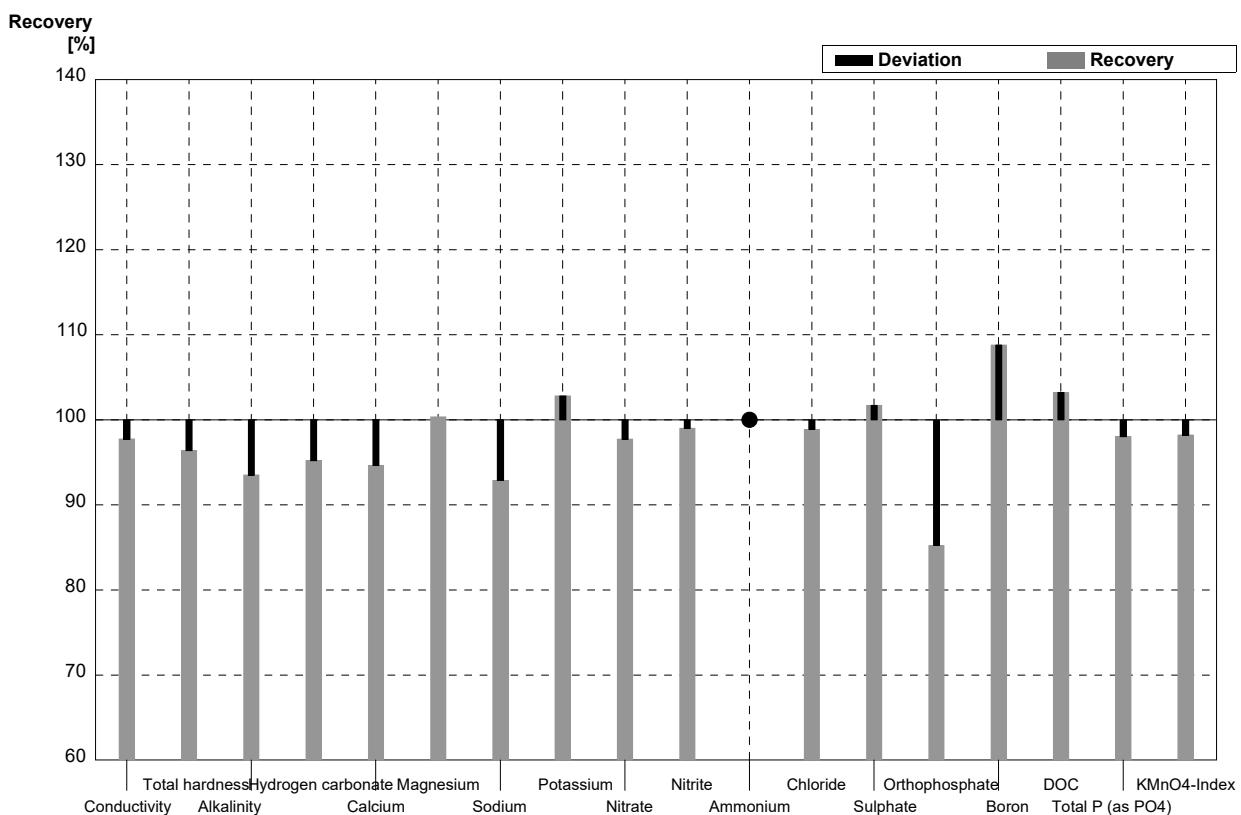
Sample N152A
Laboratory AD

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	301	12	$\mu\text{S}/\text{cm}$	96%
Total hardness	1,24	0,01	1,19		mmol/l	96%
Alkalinity	1,91	0,03	1,80	0,27	mmol/l	94%
Hydrogen carbonate	113	2	109,80	16,47	mg/l	97%
Calcium	37,6	0,5	35,70	1,428	mg/l	95%
Magnesium	7,29	0,08	7,33	0,44	mg/l	101%
Sodium	12,7	0,3	11,89	0,713	mg/l	94%
Potassium	2,64	0,02	2,48	0,248	mg/l	94%
Nitrate	14,0	0,2	13,75	0,55	mg/l	98%
Nitrite	0,061	0,001	0,059	0,0047	mg/l	97%
Ammonium	0,091	0,002	0,080	0,008	mg/l	88%
Chloride	19,9	0,3	19,72	0,986	mg/l	99%
Sulphate	20,5	0,2	21,33	1,067	mg/l	104%
Orthophosphate	<0,009		<0,0061		mg/l	•
Boron	0,061	0,001	0,063	0,0076	mg/l	103%
DOC	2,72	0,04	2,80	0,22	mg/l	103%
Total P (as PO ₄)	<0,009		<0,015		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,77	0,443	mg/l	101%



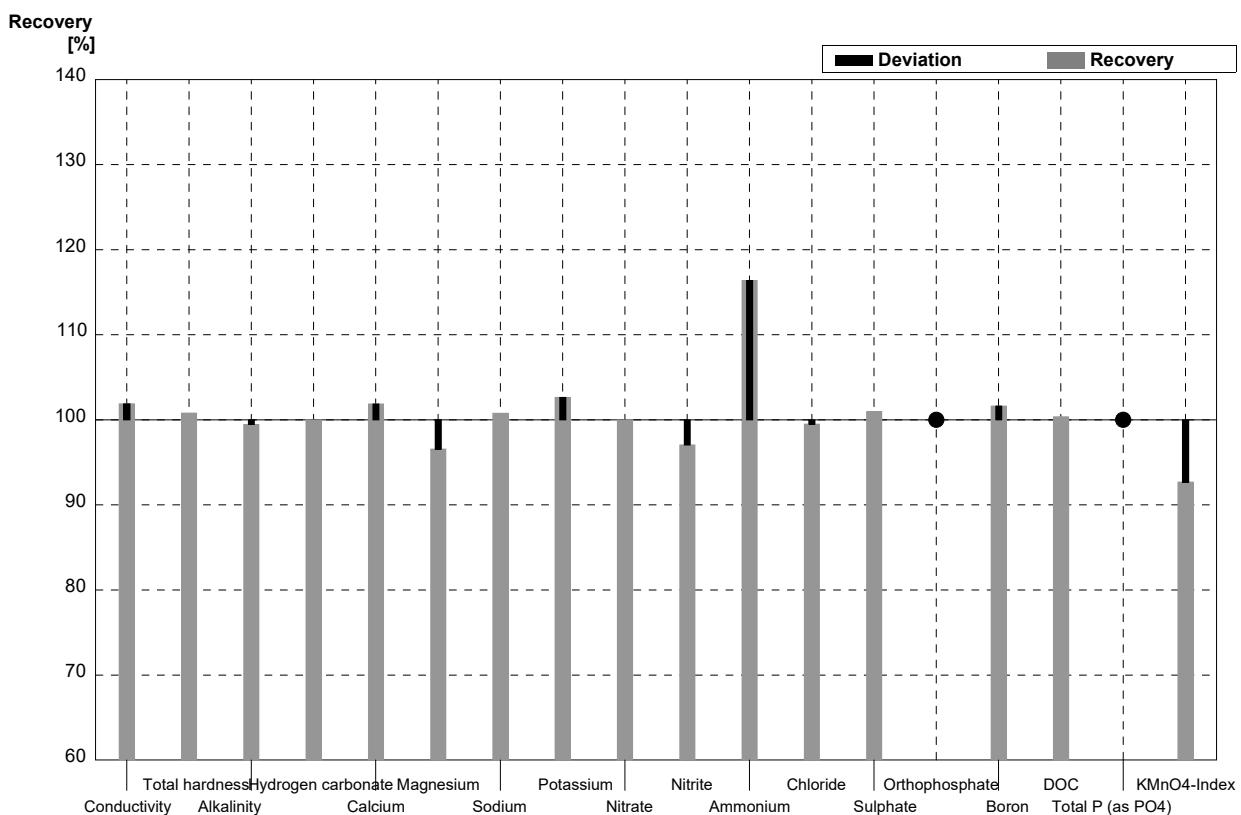
Sample N152B
Laboratory AD

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	566	22,6	$\mu\text{S}/\text{cm}$	98%
Total hardness	2,22	0,02	2,14		mmol/l	96%
Alkalinity	2,47	0,03	2,31	0,347	mmol/l	94%
Hydrogen carbonate	148	2	140,90	210,14	mg/l	95%
Calcium	65,6	0,8	62,09	2,484	mg/l	95%
Magnesium	14,2	0,2	14,25	0,855	mg/l	100%
Sodium	25,0	0,3	23,22	1,393	mg/l	93%
Potassium	4,62	0,05	4,75	0,457	mg/l	103%
Nitrate	40,7	0,7	39,779	1,5912	mg/l	98%
Nitrite	0,0303	0,0010	0,0300	0,0024	mg/l	99%
Ammonium	<0,01		<0,0006		mg/l	•
Chloride	56,2	1,0	55,57	2,779	mg/l	99%
Sulphate	45,0	0,5	45,76	2,288	mg/l	102%
Orthophosphate	0,061	0,002	0,052	0,0063	mg/l	85%
Boron	0,091	0,001	0,099	0,0119	mg/l	109%
DOC	4,94	0,05	5,1	0,41	mg/l	103%
Total P (as PO ₄)	0,147	0,002	0,1441	0,0218	mg/l	98%
KMnO ₄ -Index	3,95	0,15	3,88	0,621	mg/l	98%



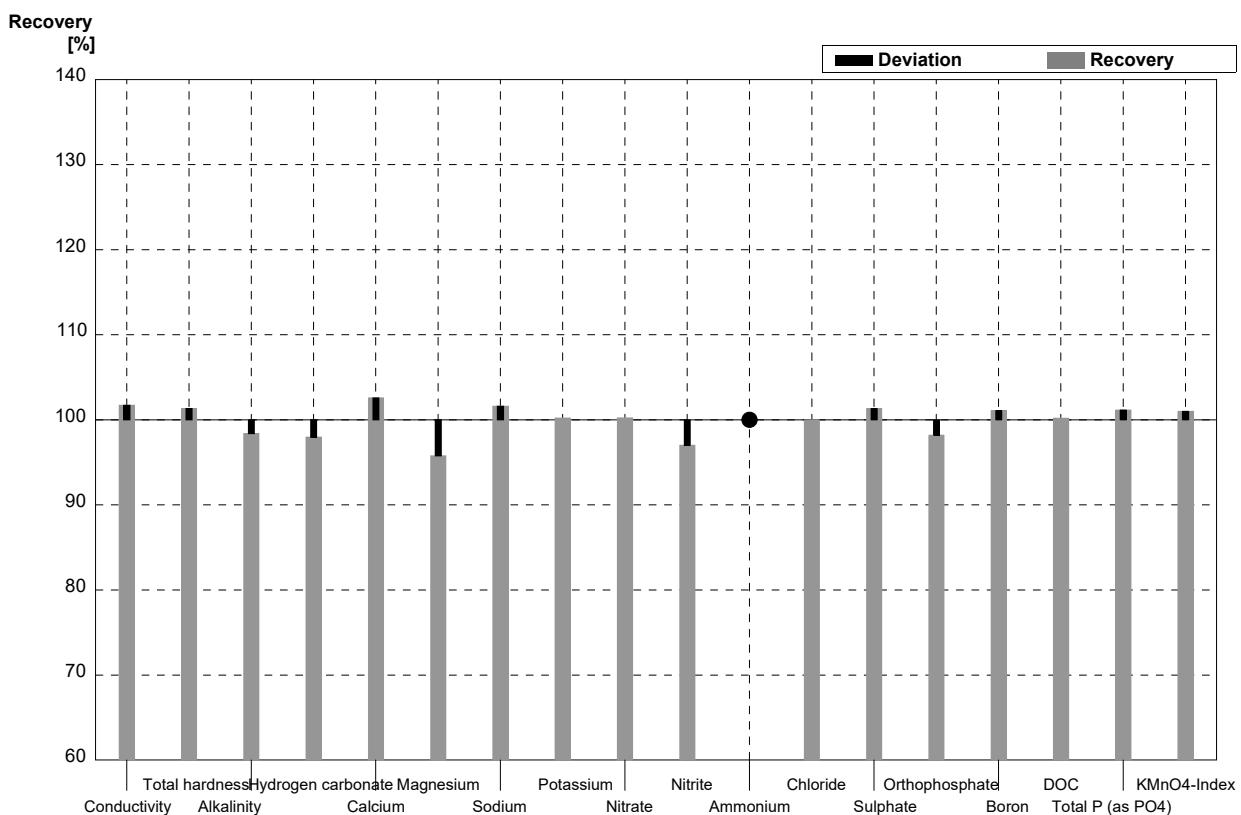
Sample N152A
Laboratory AE

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	321	1,1	$\mu\text{S}/\text{cm}$	102%
Total hardness	1,24	0,01	1,25	0,014	mmol/l	101%
Alkalinity	1,91	0,03	1,90	0,09	mmol/l	99%
Hydrogen carbonate	113	2	113	2,3	mg/l	100%
Calcium	37,6	0,5	38,3	0,53	mg/l	102%
Magnesium	7,29	0,08	7,04	0,081	mg/l	97%
Sodium	12,7	0,3	12,8	0,77	mg/l	101%
Potassium	2,64	0,02	2,71	0,048	mg/l	103%
Nitrate	14,0	0,2	14,0	0,21	mg/l	100%
Nitrite	0,061	0,001	0,0592	0,0002	mg/l	97%
Ammonium	0,091	0,002	0,1059	0,0019	mg/l	116%
Chloride	19,9	0,3	19,8	0,04	mg/l	99%
Sulphate	20,5	0,2	20,7	0,31	mg/l	101%
Orthophosphate	<0,009		[0,001]		mg/l	•
Boron	0,061	0,001	0,062	0,001	mg/l	102%
DOC	2,72	0,04	2,73	0,12	mg/l	100%
Total P (as PO ₄)	<0,009		<0,015		mg/l	•
KMnO ₄ -Index	2,74	0,12	2,54		mg/l	93%



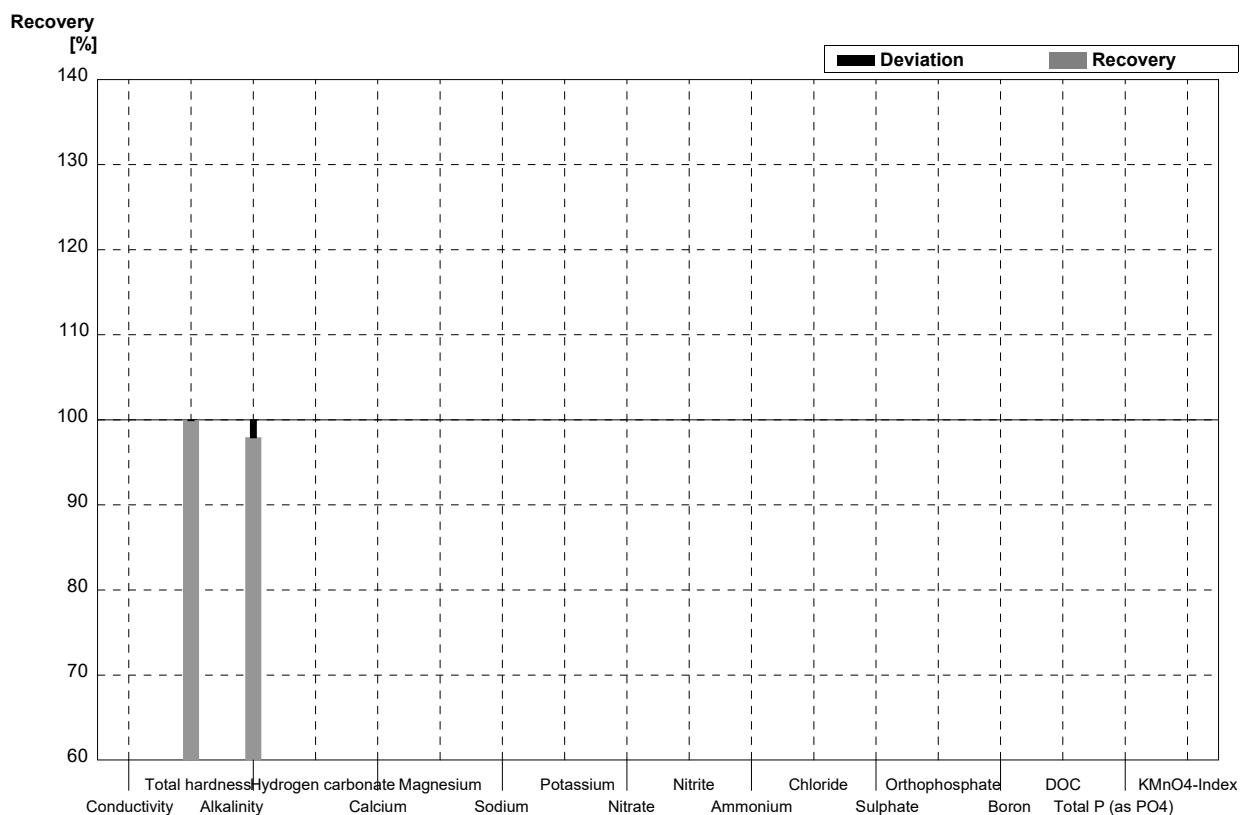
Sample N152B**Laboratory AE**

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	589	0,3	$\mu\text{S}/\text{cm}$	102%
Total hardness	2,22	0,02	2,25	0,021	mmol/l	101%
Alkalinity	2,47	0,03	2,43	0,10	mmol/l	98%
Hydrogen carbonate	148	2	145	2,9	mg/l	98%
Calcium	65,6	0,8	67,3	0,59	mg/l	103%
Magnesium	14,2	0,2	13,6	0,36	mg/l	96%
Sodium	25,0	0,3	25,4	0,71	mg/l	102%
Potassium	4,62	0,05	4,63	0,167	mg/l	100%
Nitrate	40,7	0,7	40,8	0,19	mg/l	100%
Nitrite	0,0303	0,0010	0,0294	0,0002	mg/l	97%
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	56,2	0,07	mg/l	100%
Sulphate	45,0	0,5	45,6	0,35	mg/l	101%
Orthophosphate	0,061	0,002	0,0599	0,0011	mg/l	98%
Boron	0,091	0,001	0,092	0,001	mg/l	101%
DOC	4,94	0,05	4,95	0,12	mg/l	100%
Total P (as PO ₄)	0,147	0,002	0,1487	0,0012	mg/l	101%
KMnO ₄ -Index	3,95	0,15	3,99		mg/l	101%



Sample N152A**Laboratory AF**

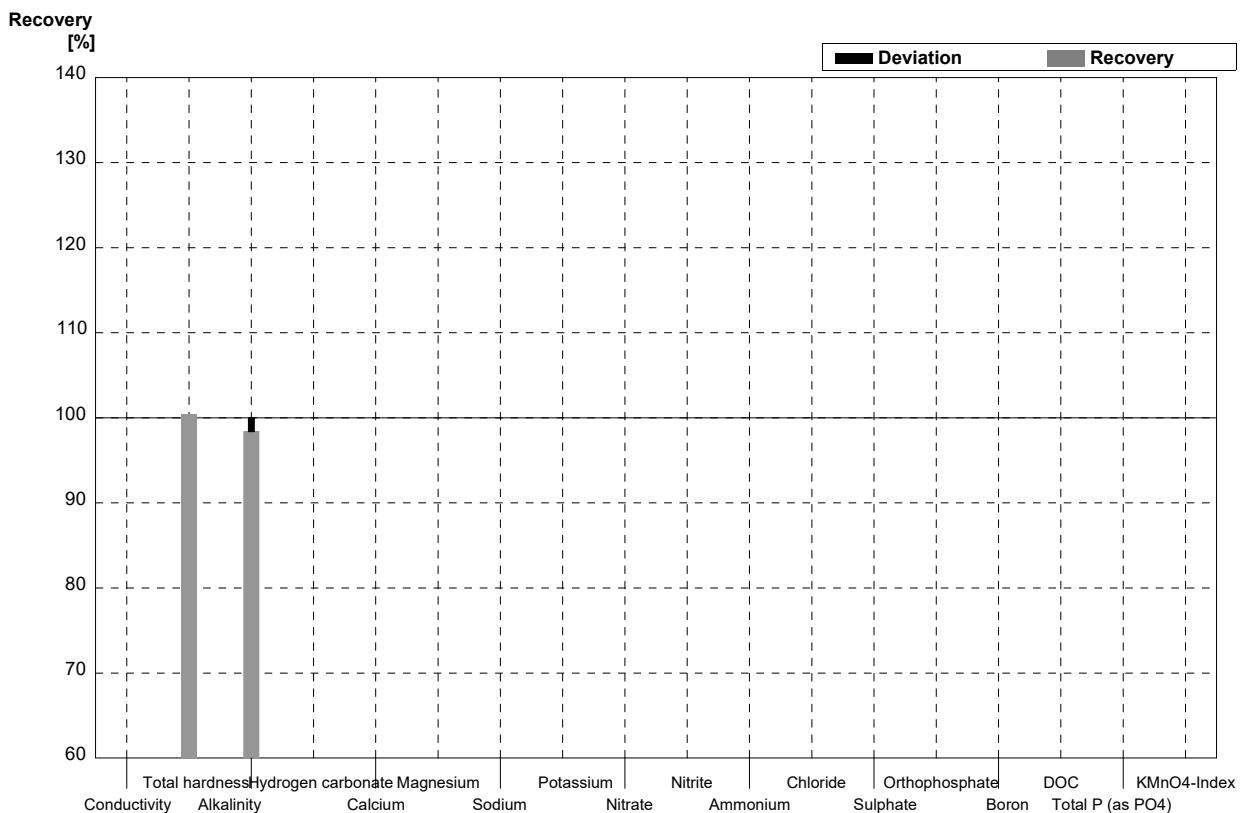
Parameter	Target value	$\pm U$ (k=2)	Result	\pm	Unit	Recovery
Conductivity	315	2			$\mu\text{S}/\text{cm}$	
Total hardness	1,24	0,01	1,239	0,045	mmol/l	100%
Alkalinity	1,91	0,03	1,87	0,075	mmol/l	98%
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2			mg/l	
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3			mg/l	
Sulphate	20,5	0,2			mg/l	
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

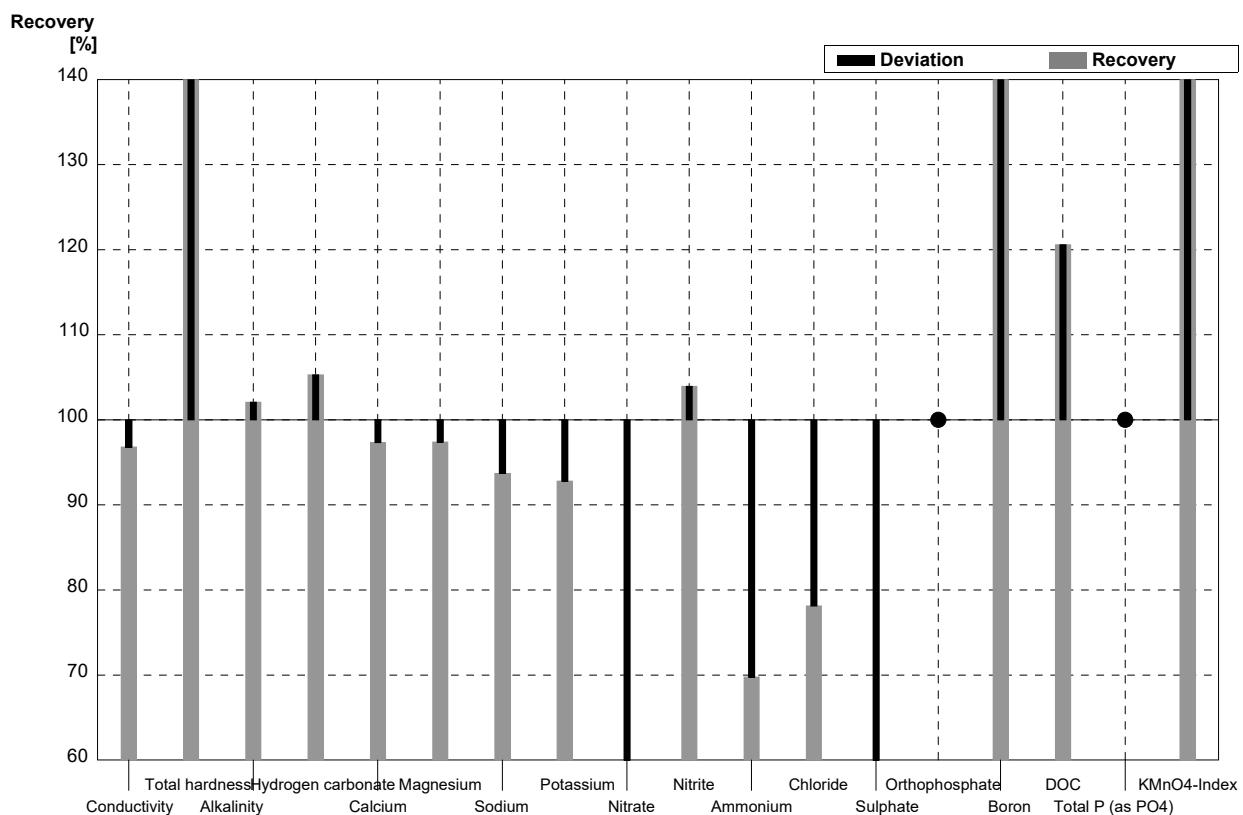
Laboratory AF

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3			$\mu\text{S}/\text{cm}$	
Total hardness	2,22	0,02	2,229	0,083	mmol/l	100%
Alkalinity	2,47	0,03	2,43	0,097	mmol/l	98%
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7			mg/l	
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0			mg/l	
Sulphate	45,0	0,5			mg/l	
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	



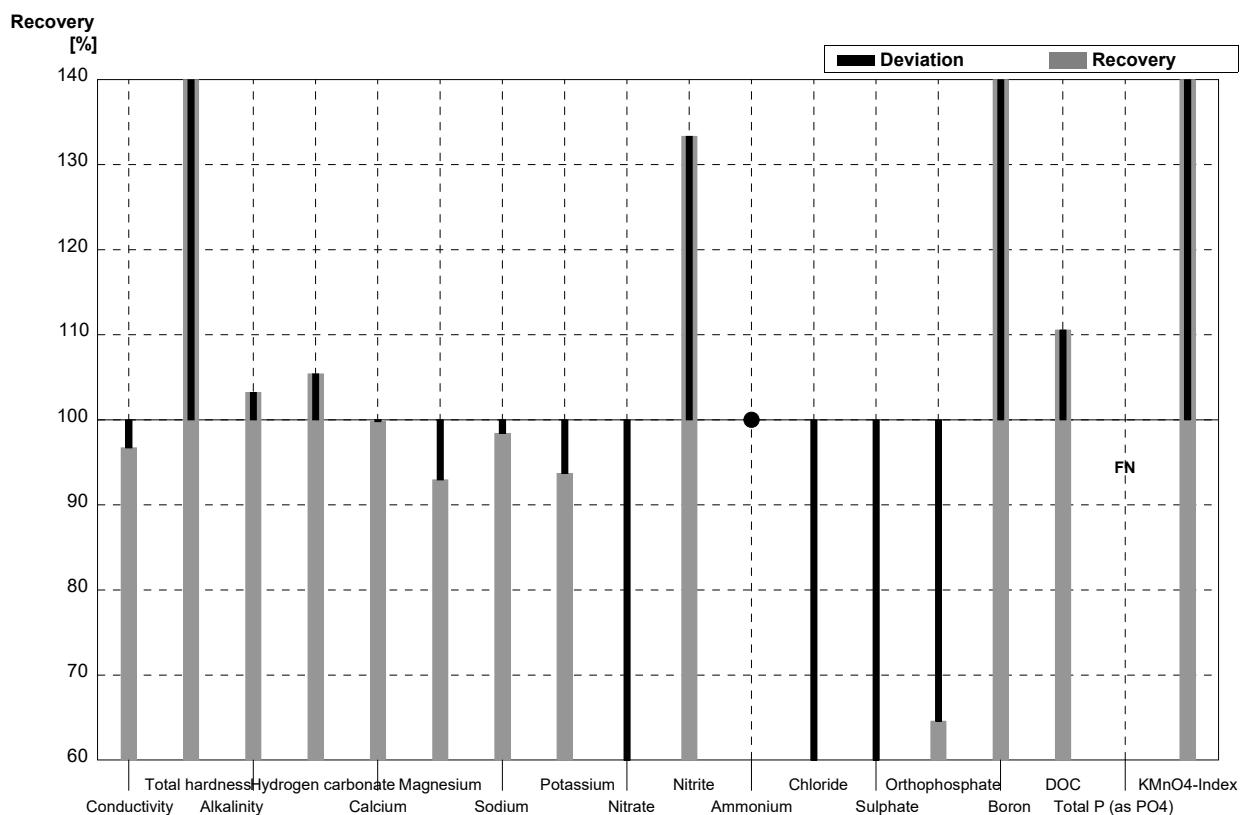
Sample N152A
Laboratory AG

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	305	30,5	$\mu\text{S}/\text{cm}$	97%
Total hardness	1,24	0,01	6,75	0,675	mmol/l	544%
Alkalinity	1,91	0,03	1,95	0,20	mmol/l	102%
Hydrogen carbonate	113	2	119	11,9	mg/l	105%
Calcium	37,6	0,5	36,6	3,66	mg/l	97%
Magnesium	7,29	0,08	7,1	0,71	mg/l	97%
Sodium	12,7	0,3	11,9	1,19	mg/l	94%
Potassium	2,64	0,02	2,45	0,245	mg/l	93%
Nitrate	14,0	0,2	5,2815	0,52815	mg/l	38%
Nitrite	0,061	0,001	0,0634	0,00634	mg/l	104%
Ammonium	0,091	0,002	0,0635	0,00635	mg/l	70%
Chloride	19,9	0,3	15,547	1,5547	mg/l	78%
Sulphate	20,5	0,2	9,516	0,9516	mg/l	46%
Orthophosphate	<0,009		<0,1		mg/l	•
Boron	0,061	0,001	47,52	4,752	mg/l	77902%
DOC	2,72	0,04	3,28	0,328	mg/l	121%
Total P (as PO ₄)	<0,009		<0,1		mg/l	•
KMnO ₄ -Index	2,74	0,12	13,76	1,376	mg/l	502%



Sample N152B
Laboratory AG

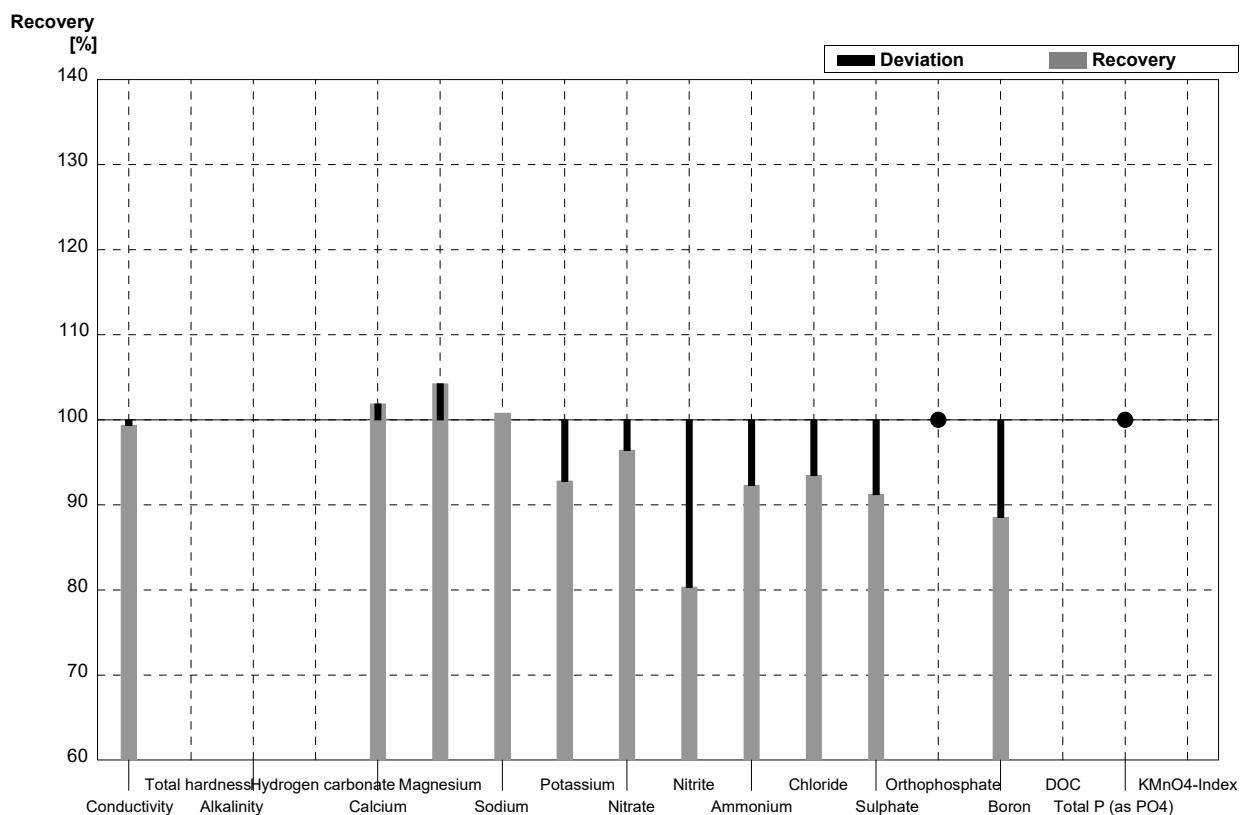
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	560	56	$\mu\text{S}/\text{cm}$	97%
Total hardness	2,22	0,02	12,2	1,22	mmol/l	550%
Alkalinity	2,47	0,03	2,55	0,26	mmol/l	103%
Hydrogen carbonate	148	2	156	15,6	mg/l	105%
Calcium	65,6	0,8	65,47	6,547	mg/l	100%
Magnesium	14,2	0,2	13,2	1,32	mg/l	93%
Sodium	25,0	0,3	24,6	2,46	mg/l	98%
Potassium	4,62	0,05	4,33	0,433	mg/l	94%
Nitrate	40,7	0,7	18,7725	1,87725	mg/l	46%
Nitrite	0,0303	0,0010	0,0404	0,00404	mg/l	133%
Ammonium	<0,01		<0,01		mg/l	•
Chloride	56,2	1,0	21,305	2,1305	mg/l	38%
Sulphate	45,0	0,5	24,344	2,4344	mg/l	54%
Orthophosphate	0,061	0,002	0,0394	0,00394	mg/l	65%
Boron	0,091	0,001	74,1	7,41	mg/l	81429%
DOC	4,94	0,05	5,462	0,5462	mg/l	111%
Total P (as PO ₄)	0,147	0,002	<0,1		mg/l	FN
KMnO ₄ -Index	3,95	0,15	18,56	1,856	mg/l	470%



Sample N152A

Laboratory AH

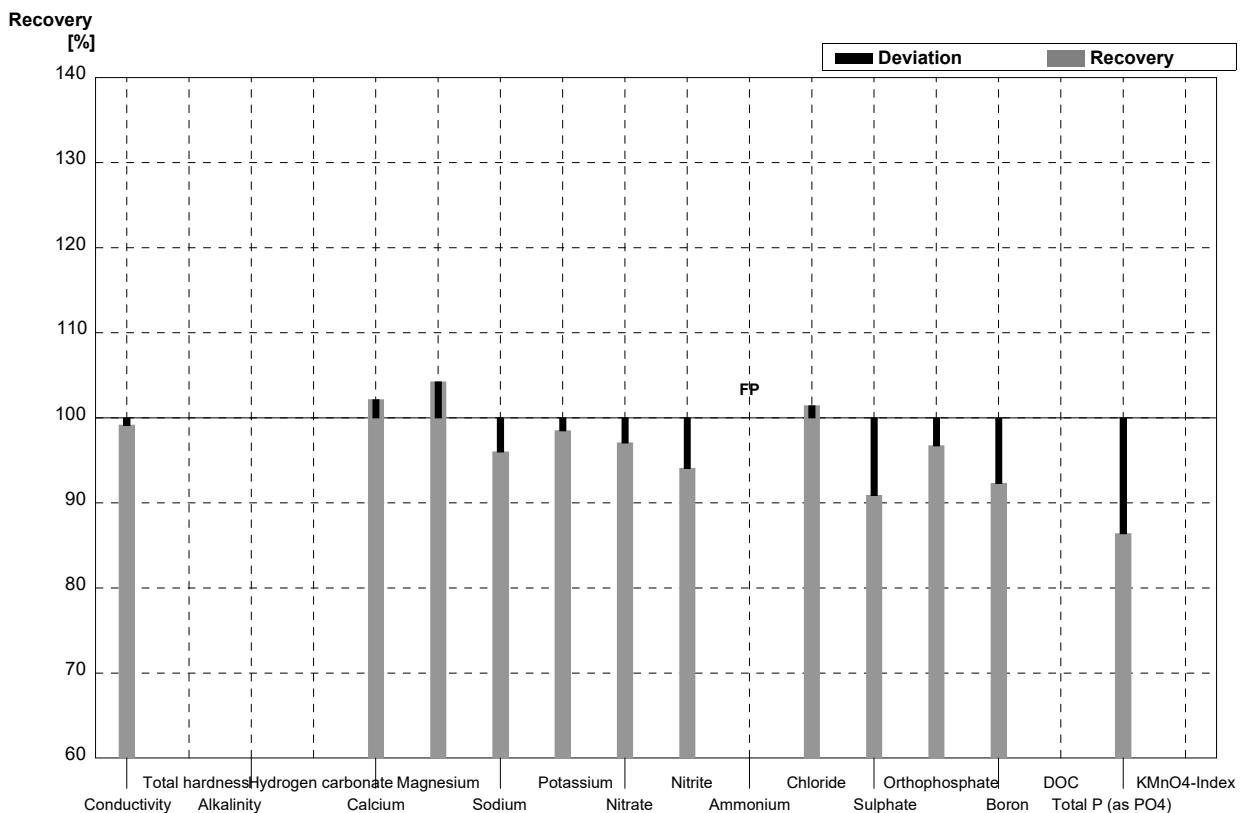
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	313	10	$\mu\text{S}/\text{cm}$	99%
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5	38,3	3,2	mg/l	102%
Magnesium	7,29	0,08	7,6	1,0	mg/l	104%
Sodium	12,7	0,3	12,8	0,8	mg/l	101%
Potassium	2,64	0,02	2,45	0,1	mg/l	93%
Nitrate	14,0	0,2	13,5	1	mg/l	96%
Nitrite	0,061	0,001	0,0490	0,01	mg/l	80%
Ammonium	0,091	0,002	0,084	0,01	mg/l	92%
Chloride	19,9	0,3	18,6	1	mg/l	93%
Sulphate	20,5	0,2	18,7	1	mg/l	91%
Orthophosphate	<0,009		<0,01		mg/l	•
Boron	0,061	0,001	0,054	0,01	mg/l	89%
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009		<0,01		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

Laboratory AH

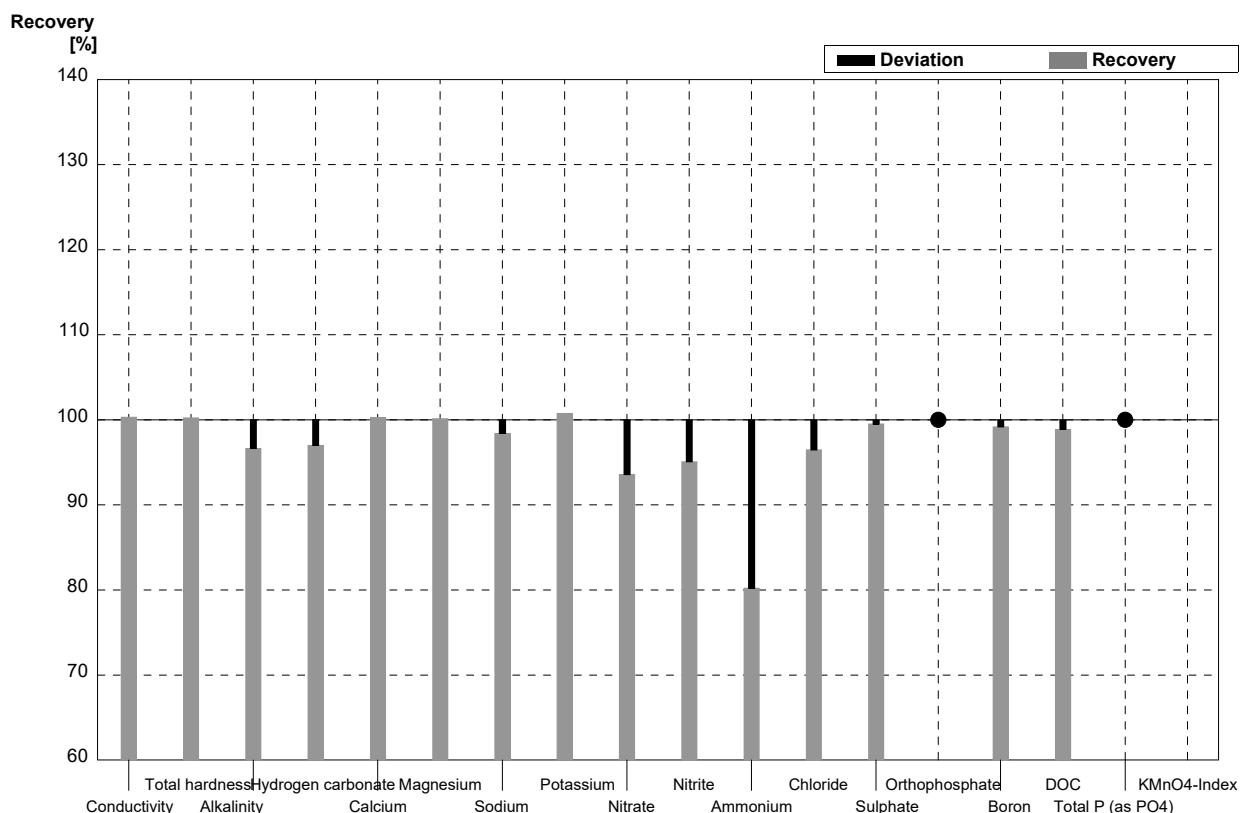
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	574	10	$\mu\text{S}/\text{cm}$	99%
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8	67	5,2	mg/l	102%
Magnesium	14,2	0,2	14,8	1,2	mg/l	104%
Sodium	25,0	0,3	24,0	1,2	mg/l	96%
Potassium	4,62	0,05	4,55	0,8	mg/l	98%
Nitrate	40,7	0,7	39,5	1	mg/l	97%
Nitrite	0,0303	0,0010	0,0285	0,01	mg/l	94%
Ammonium	<0,01		0,0350	0,01	mg/l	FP
Chloride	56,2	1,0	57	1	mg/l	101%
Sulphate	45,0	0,5	40,9	1	mg/l	91%
Orthophosphate	0,061	0,002	0,059	0,01	mg/l	97%
Boron	0,091	0,001	0,084	0,01	mg/l	92%
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002	0,127	0,01	mg/l	86%
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

Laboratory AI

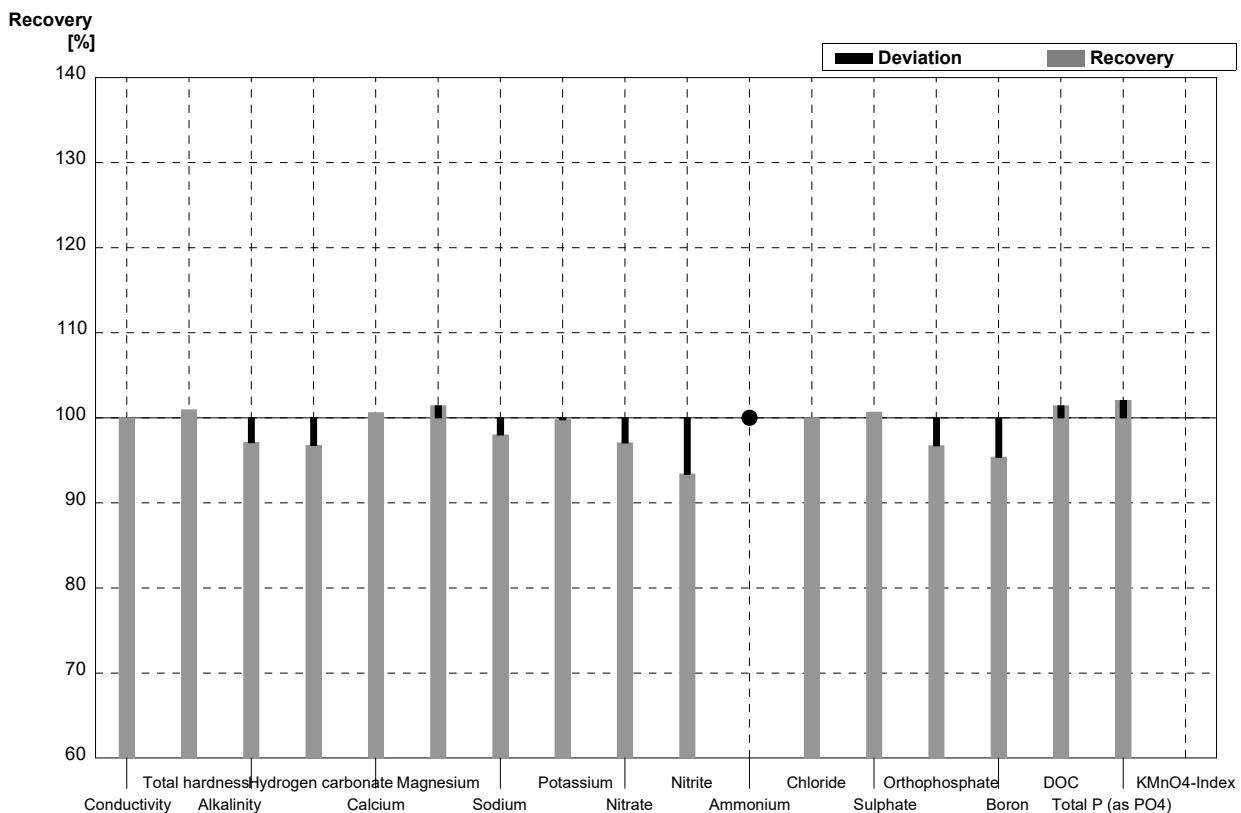
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	316	13	$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01	1,243	0,066	mmol/l	100%
Alkalinity	1,91	0,03	1,846	0,142	mmol/l	97%
Hydrogen carbonate	113	2	109,6	8,7	mg/l	97%
Calcium	37,6	0,5	37,7	1,8	mg/l	100%
Magnesium	7,29	0,08	7,3	0,5	mg/l	100%
Sodium	12,7	0,3	12,5	0,7	mg/l	98%
Potassium	2,64	0,02	2,66	0,14	mg/l	101%
Nitrate	14,0	0,2	13,1	0,8	mg/l	94%
Nitrite	0,061	0,001	0,058	0,006	mg/l	95%
Ammonium	0,091	0,002	0,073	0,013	mg/l	80%
Chloride	19,9	0,3	19,2	1,7	mg/l	96%
Sulphate	20,5	0,2	20,4	2,0	mg/l	100%
Orthophosphate	<0,009		<0,010		mg/l	•
Boron	0,061	0,001	0,0605	0,0083	mg/l	99%
DOC	2,72	0,04	2,69	0,58	mg/l	99%
Total P (as PO ₄)	<0,009		<0,010		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

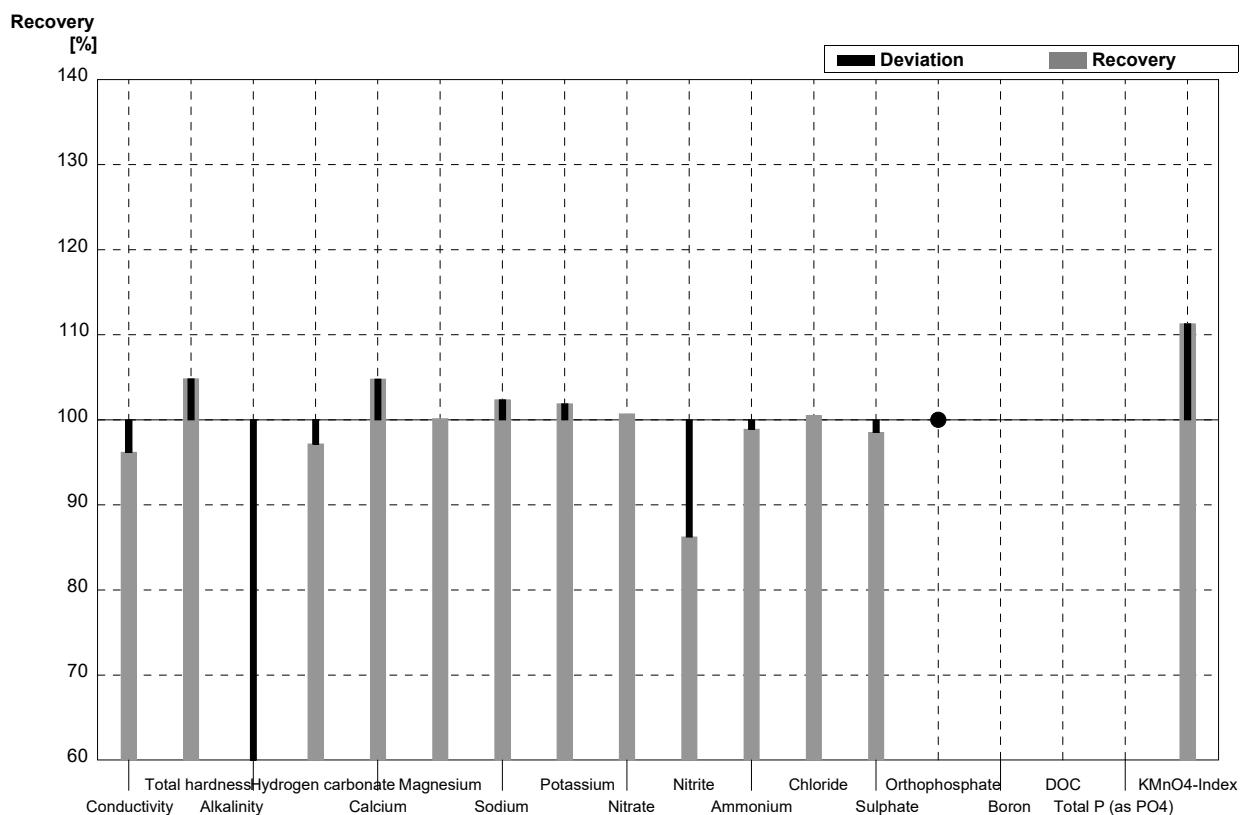
Laboratory AI

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	579	23	$\mu\text{S}/\text{cm}$	100%
Total hardness	2,22	0,02	2,241	0,117	mmol/l	101%
Alkalinity	2,47	0,03	2,398	0,177	mmol/l	97%
Hydrogen carbonate	148	2	143,2	10,8	mg/l	97%
Calcium	65,6	0,8	66,0	3,1	mg/l	101%
Magnesium	14,2	0,2	14,4	0,9	mg/l	101%
Sodium	25,0	0,3	24,5	1,3	mg/l	98%
Potassium	4,62	0,05	4,61	0,21	mg/l	100%
Nitrate	40,7	0,7	39,5	2,4	mg/l	97%
Nitrite	0,0303	0,0010	0,0283	0,0040	mg/l	93%
Ammonium	<0,01		<0,010		mg/l	•
Chloride	56,2	1,0	56,2	4,4	mg/l	100%
Sulphate	45,0	0,5	45,3	4,2	mg/l	101%
Orthophosphate	0,061	0,002	0,059	0,008	mg/l	97%
Boron	0,091	0,001	0,0868	0,0114	mg/l	95%
DOC	4,94	0,05	5,01	0,95	mg/l	101%
Total P (as PO ₄)	0,147	0,002	0,150	0,024	mg/l	102%
KMnO ₄ -Index	3,95	0,15			mg/l	



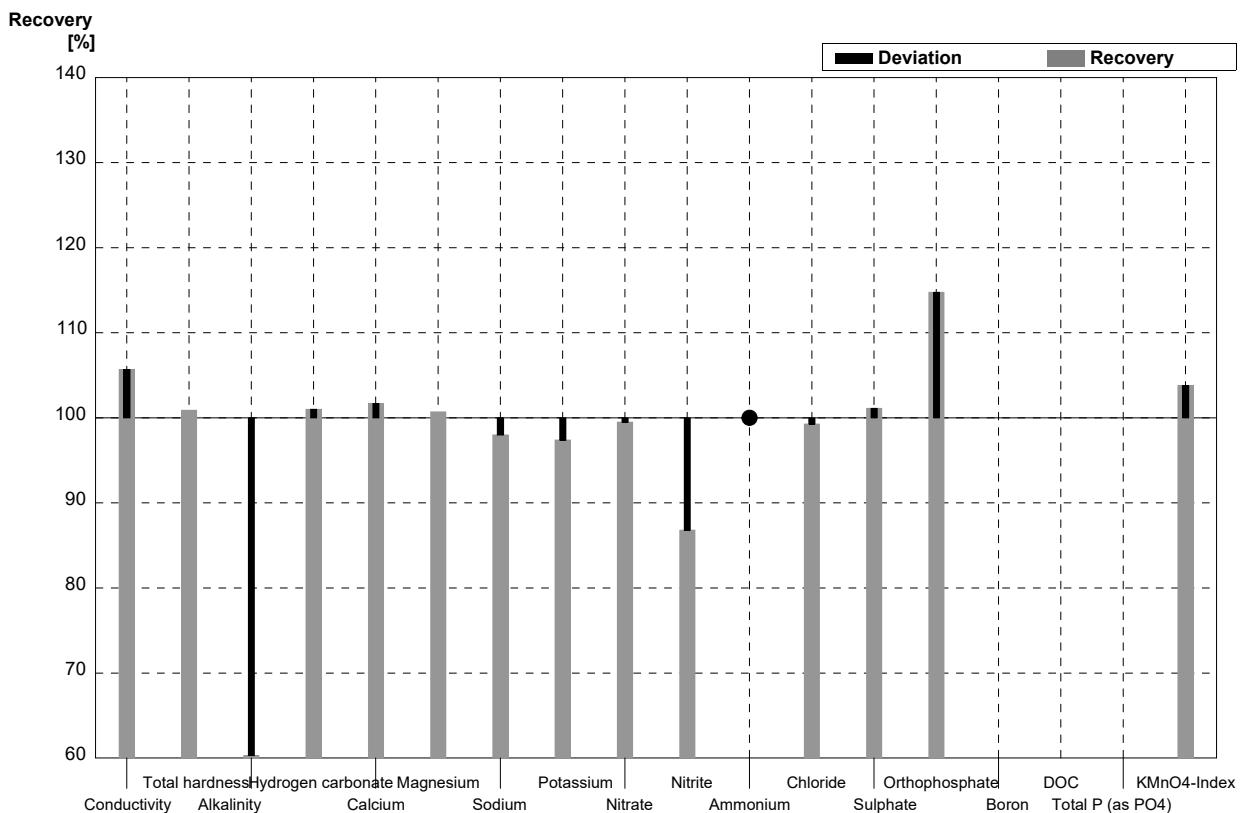
Sample N152A**Laboratory AJ**

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	303	15	$\mu\text{S}/\text{cm}$	96%
Total hardness	1,24	0,01	1,30	0,07	mmol/l	105%
Alkalinity	1,91	0,03	0,90	0,05	mmol/l	47%
Hydrogen carbonate	113	2	109,8	10	mg/l	97%
Calcium	37,6	0,5	39,4	2,0	mg/l	105%
Magnesium	7,29	0,08	7,3	1,0	mg/l	100%
Sodium	12,7	0,3	13,0	1,0	mg/l	102%
Potassium	2,64	0,02	2,69	0,5	mg/l	102%
Nitrate	14,0	0,2	14,1	1,7	mg/l	101%
Nitrite	0,061	0,001	0,0526	0,0023	mg/l	86%
Ammonium	0,091	0,002	0,090	0,011	mg/l	99%
Chloride	19,9	0,3	20,0	2,0	mg/l	101%
Sulphate	20,5	0,2	20,2	2,1	mg/l	99%
Orthophosphate	<0,009		'0,0100	0,0018	mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12	3,05	0,3	mg/l	111%



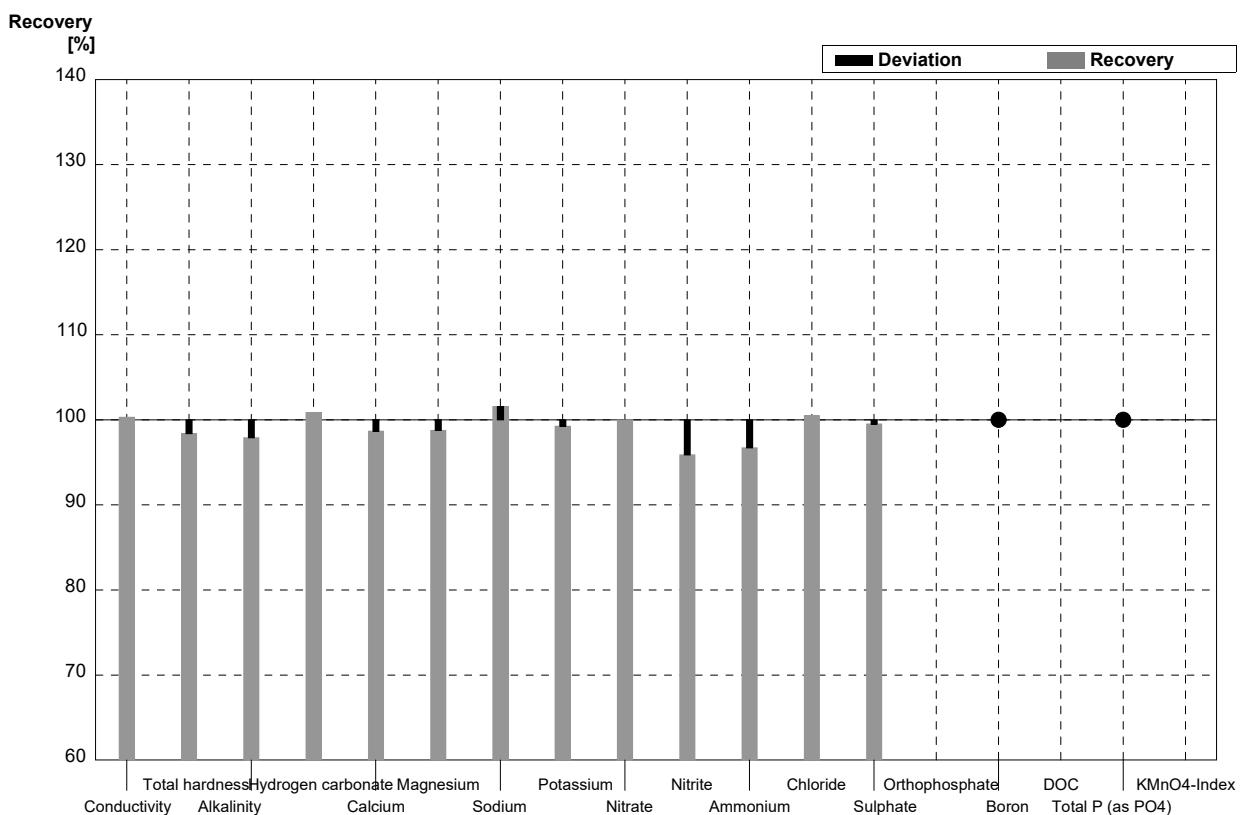
Sample N152B
Laboratory AJ

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	612	31	$\mu\text{S}/\text{cm}$	106%
Total hardness	2,22	0,02	2,24	0,12	mmol/l	101%
Alkalinity	2,47	0,03	1,49	0,05	mmol/l	60%
Hydrogen carbonate	148	2	149,5	10	mg/l	101%
Calcium	65,6	0,8	66,7	2,0	mg/l	102%
Magnesium	14,2	0,2	14,3	1,0	mg/l	101%
Sodium	25,0	0,3	24,5	1,0	mg/l	98%
Potassium	4,62	0,05	4,50	0,5	mg/l	97%
Nitrate	40,7	0,7	40,5	5,0	mg/l	100%
Nitrite	0,0303	0,0010	0,0263	0,0012	mg/l	87%
Ammonium	<0,01		0,0100	0,0012	mg/l	•
Chloride	56,2	1,0	55,8	5,6	mg/l	99%
Sulphate	45,0	0,5	45,5	4,6	mg/l	101%
Orthophosphate	0,061	0,002	0,070	0,013	mg/l	115%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15	4,10	0,4	mg/l	104%



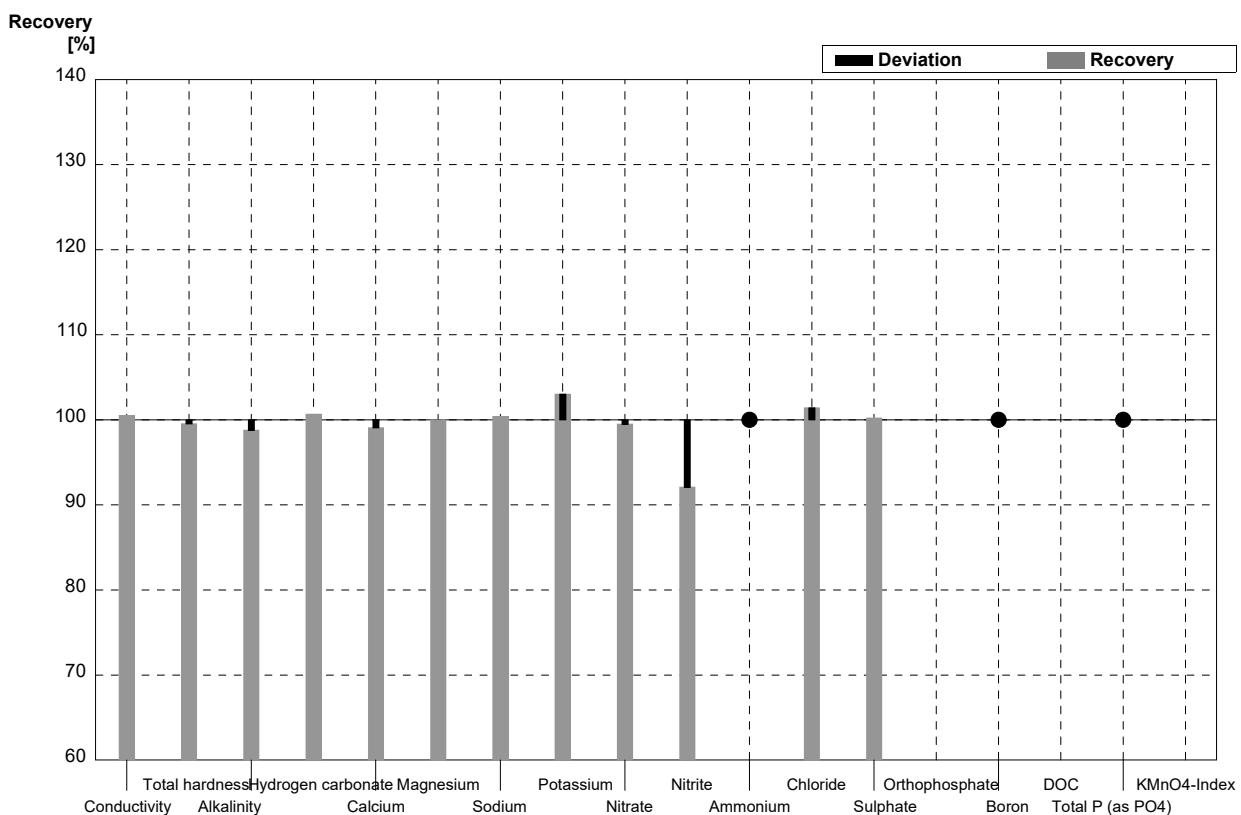
Sample N152A
Laboratory AK

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	316		$\mu\text{S}/\text{cm}$	100%
Total hardness	1,24	0,01	1,22		mmol/l	98%
Alkalinity	1,91	0,03	1,87		mmol/l	98%
Hydrogen carbonate	113	2	114		mg/l	101%
Calcium	37,6	0,5	37,1	1,48	mg/l	99%
Magnesium	7,29	0,08	7,2	0,35	mg/l	99%
Sodium	12,7	0,3	12,9	0,67	mg/l	102%
Potassium	2,64	0,02	2,62	0,18	mg/l	99%
Nitrate	14,0	0,2	14,0		mg/l	100%
Nitrite	0,061	0,001	0,0585		mg/l	96%
Ammonium	0,091	0,002	0,088		mg/l	97%
Chloride	19,9	0,3	20,0		mg/l	101%
Sulphate	20,5	0,2	20,4		mg/l	100%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001	<0,258		mg/l	•
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009		<0,264		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B
Laboratory AK

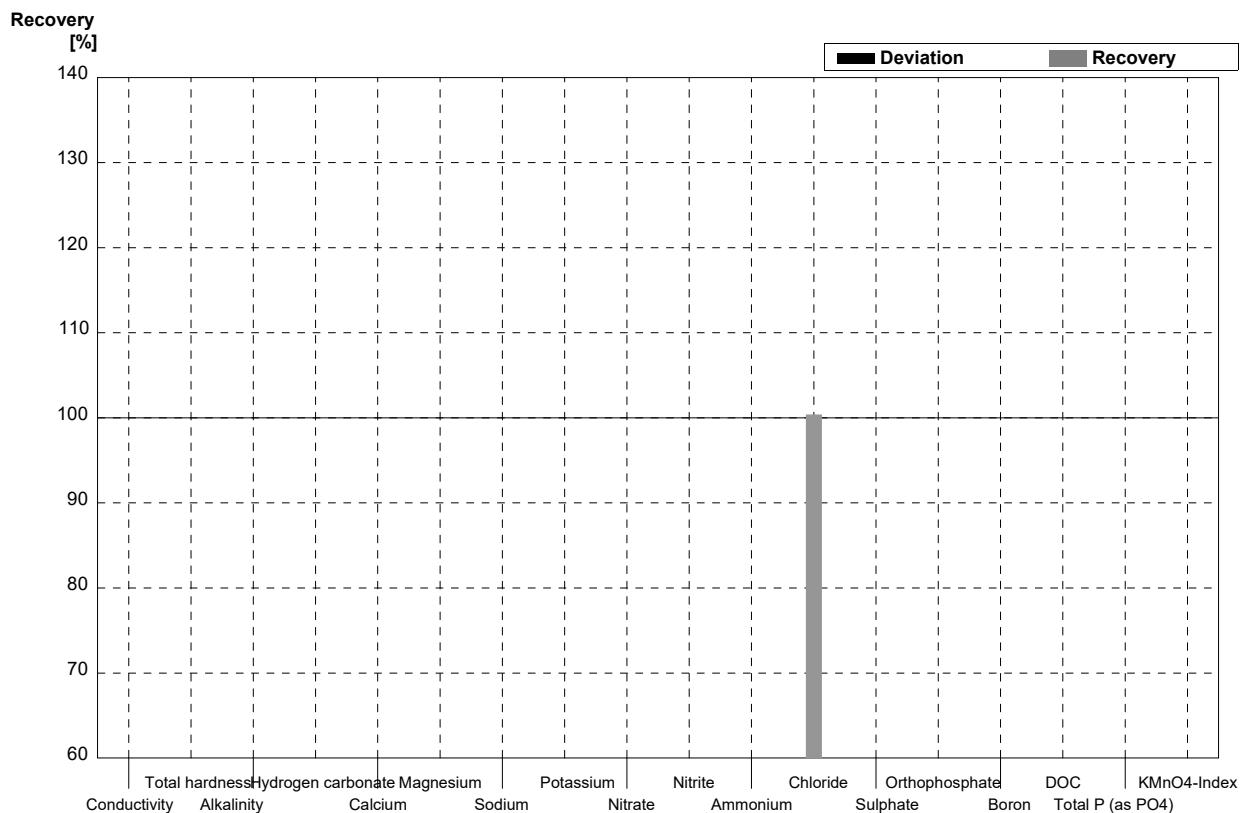
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	582		$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02	2,21		mmol/l	100%
Alkalinity	2,47	0,03	2,44		mmol/l	99%
Hydrogen carbonate	148	2	149		mg/l	101%
Calcium	65,6	0,8	65	2,60	mg/l	99%
Magnesium	14,2	0,2	14,2	0,70	mg/l	100%
Sodium	25,0	0,3	25,1	1,31	mg/l	100%
Potassium	4,62	0,05	4,76	0,32	mg/l	103%
Nitrate	40,7	0,7	40,5		mg/l	100%
Nitrite	0,0303	0,0010	0,0279		mg/l	92%
Ammonium	<0,01		<0,04		mg/l	•
Chloride	56,2	1,0	57,0		mg/l	101%
Sulphate	45,0	0,5	45,1		mg/l	100%
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001	<0,258		mg/l	•
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002	<0,264		mg/l	•
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

Laboratory AL

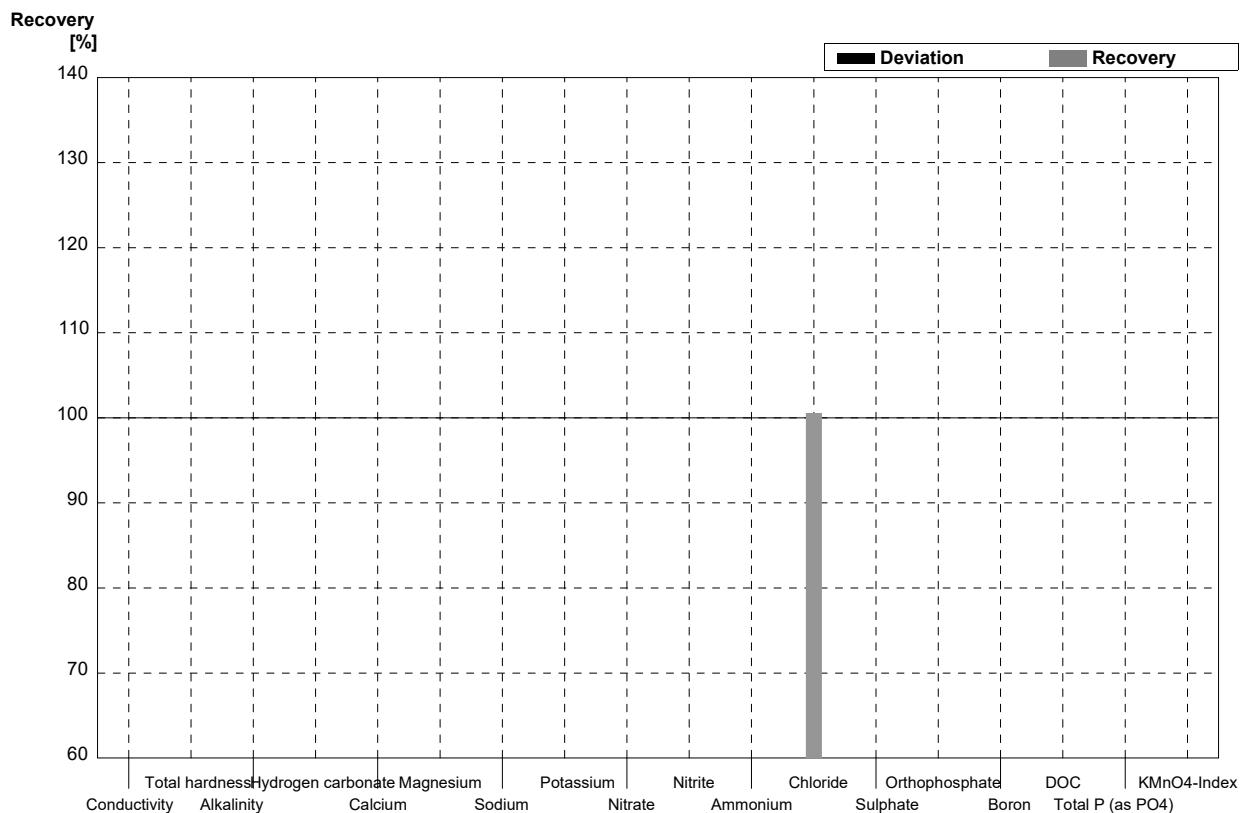
Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2			$\mu\text{S}/\text{cm}$	
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2			mg/l	
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3	19,97	0,55	mg/l	100%
Sulphate	20,5	0,2			mg/l	
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

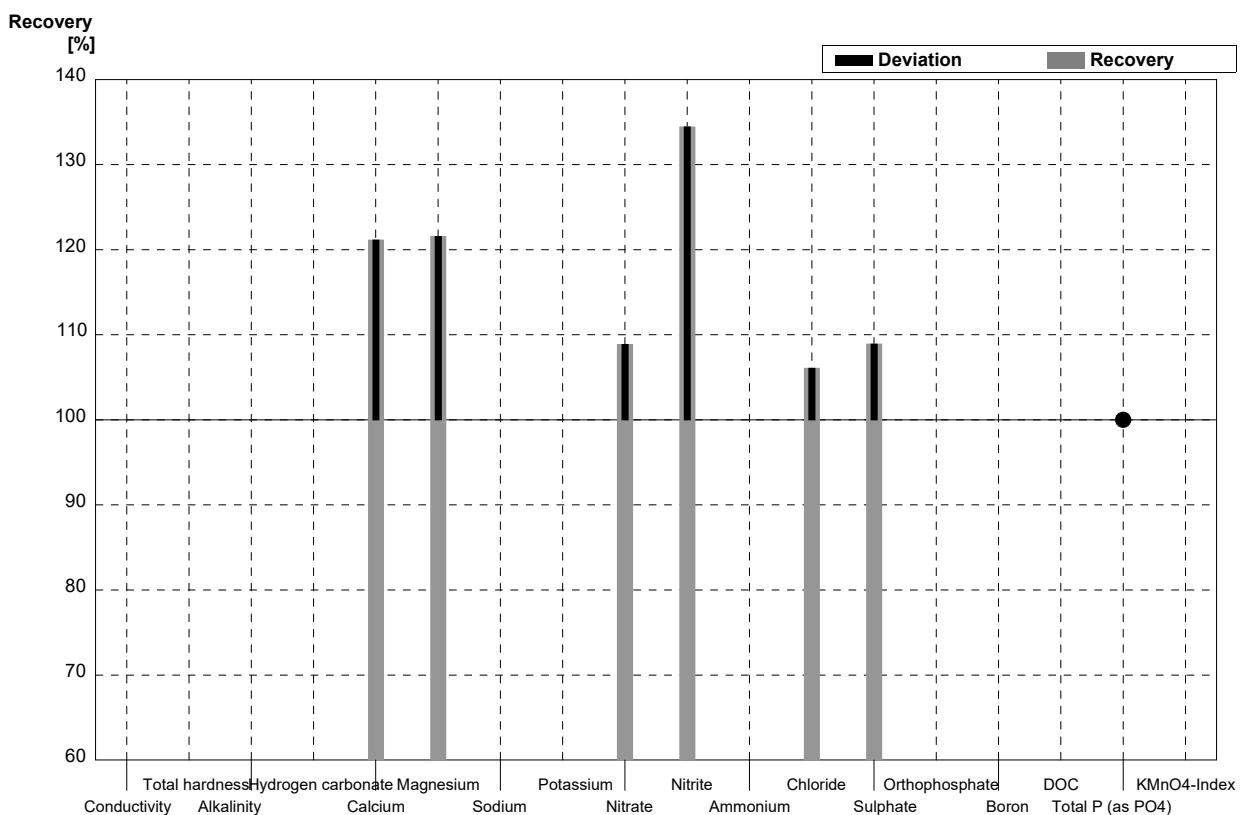
Laboratory AL

Parameter	Target value	\pm U (k=2)	Result	\pm	Unit	Recovery
Conductivity	579	3			$\mu\text{S}/\text{cm}$	
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7			mg/l	
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0	56,49	1,56	mg/l	101%
Sulphate	45,0	0,5			mg/l	
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	



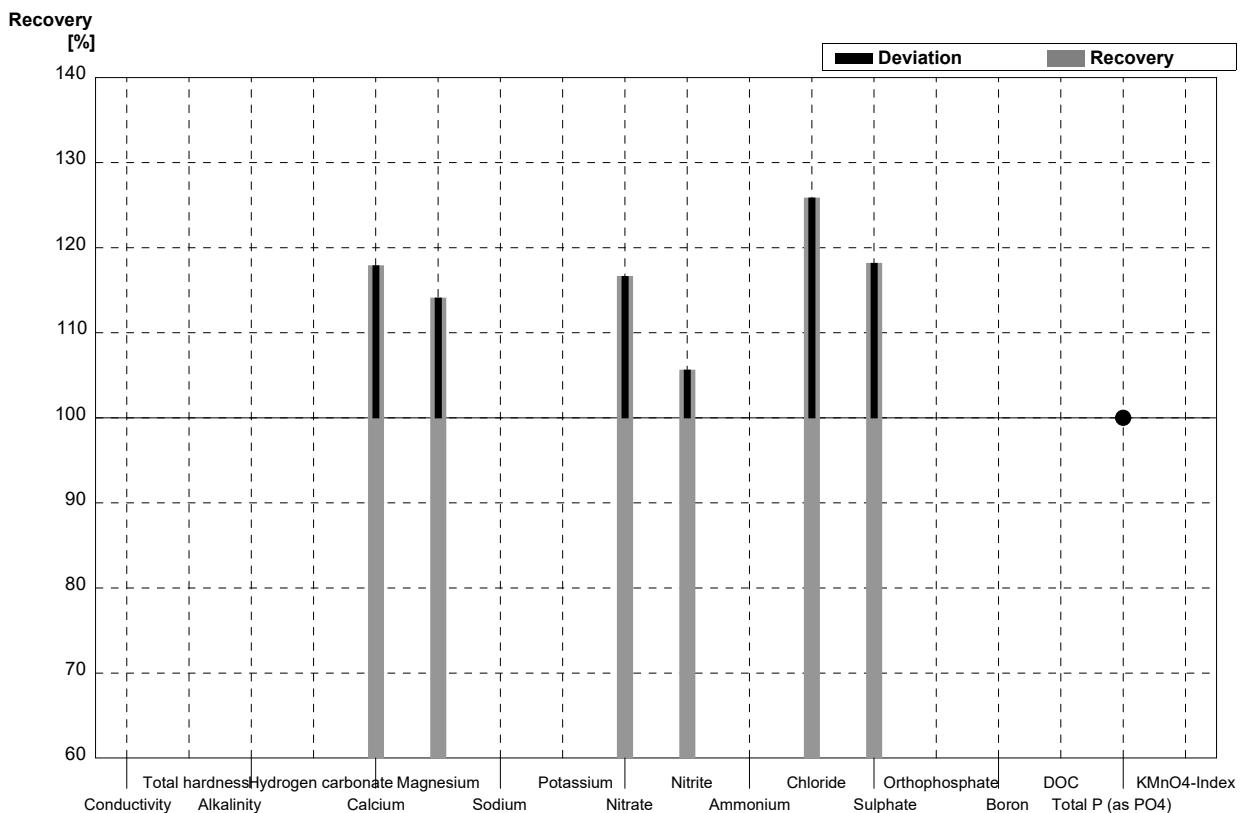
Sample N152A
Laboratory AM

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2			$\mu\text{S}/\text{cm}$	
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5	45,55	0,647	mg/l	121%
Magnesium	7,29	0,08	8,862	0,266	mg/l	122%
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2	15,238	0,574	mg/l	109%
Nitrite	0,061	0,001	0,082	0,007	mg/l	134%
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3	21,108	0,822	mg/l	106%
Sulphate	20,5	0,2	22,326	1,714	mg/l	109%
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009		<0,5		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B
Laboratory AM

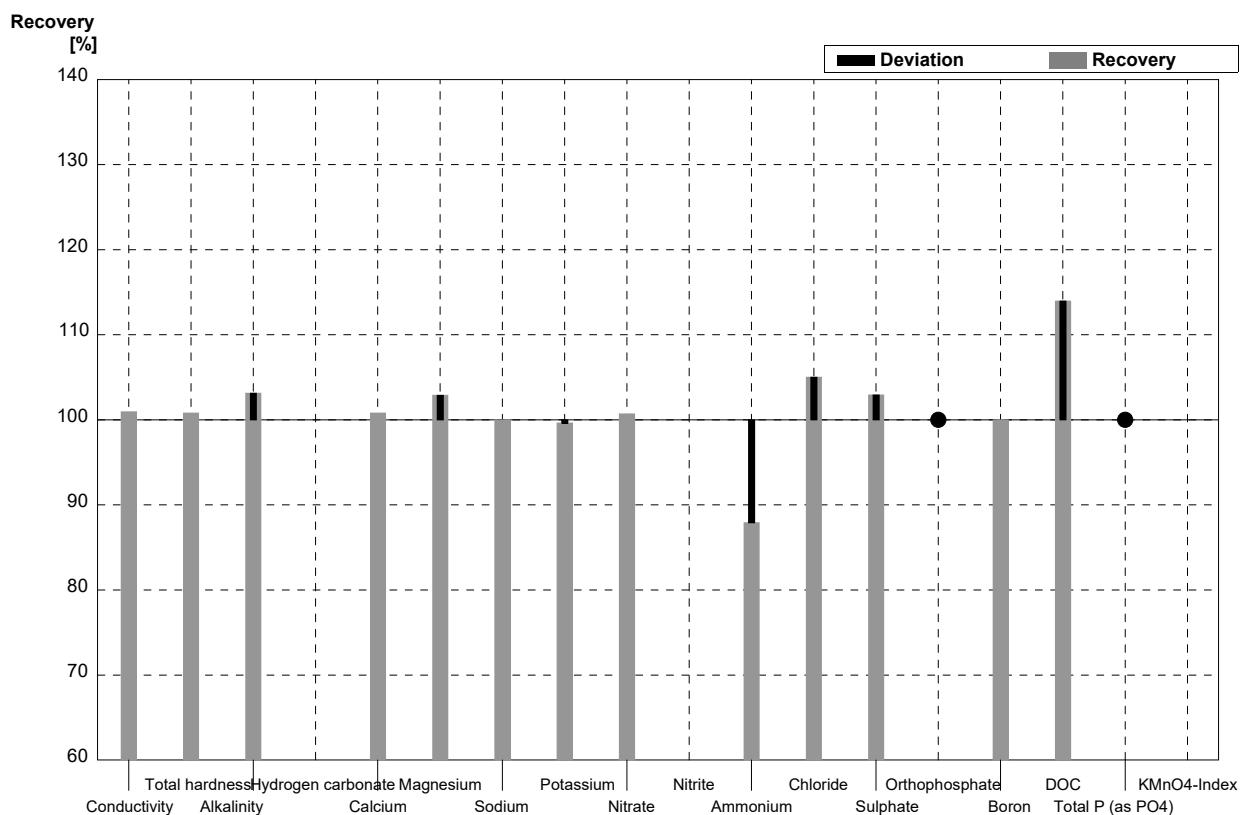
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3			$\mu\text{S}/\text{cm}$	
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8	77,333	1,078	mg/l	118%
Magnesium	14,2	0,2	16,200	0,486	mg/l	114%
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7	47,457	1,789	mg/l	117%
Nitrite	0,0303	0,0010	0,0320	0,003	mg/l	106%
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0	70,72	1,462	mg/l	126%
Sulphate	45,0	0,5	53,170	2,884	mg/l	118%
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002	<0,5		mg/l	•
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

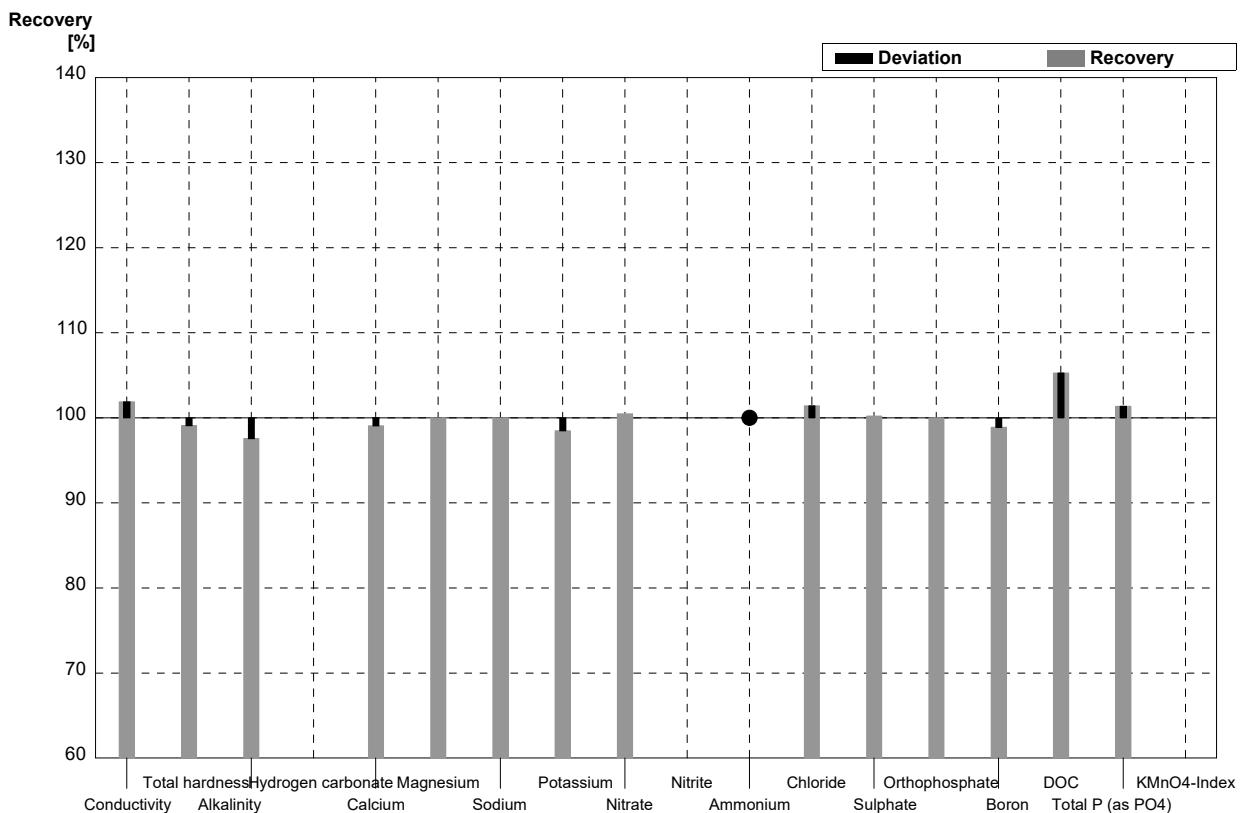
Laboratory AN

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	318		$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01	1,25		mmol/l	101%
Alkalinity	1,91	0,03	1,97		mmol/l	103%
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5	37,9		mg/l	101%
Magnesium	7,29	0,08	7,5		mg/l	103%
Sodium	12,7	0,3	12,7		mg/l	100%
Potassium	2,64	0,02	2,63		mg/l	100%
Nitrate	14,0	0,2	14,1		mg/l	101%
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002	0,080		mg/l	88%
Chloride	19,9	0,3	20,9		mg/l	105%
Sulphate	20,5	0,2	21,1		mg/l	103%
Orthophosphate	<0,009		<0,0092		mg/l	•
Boron	0,061	0,001	0,061		mg/l	100%
DOC	2,72	0,04	3,10		mg/l	114%
Total P (as PO ₄)	<0,009		<0,0092		mg/l	•
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B
Laboratory AN

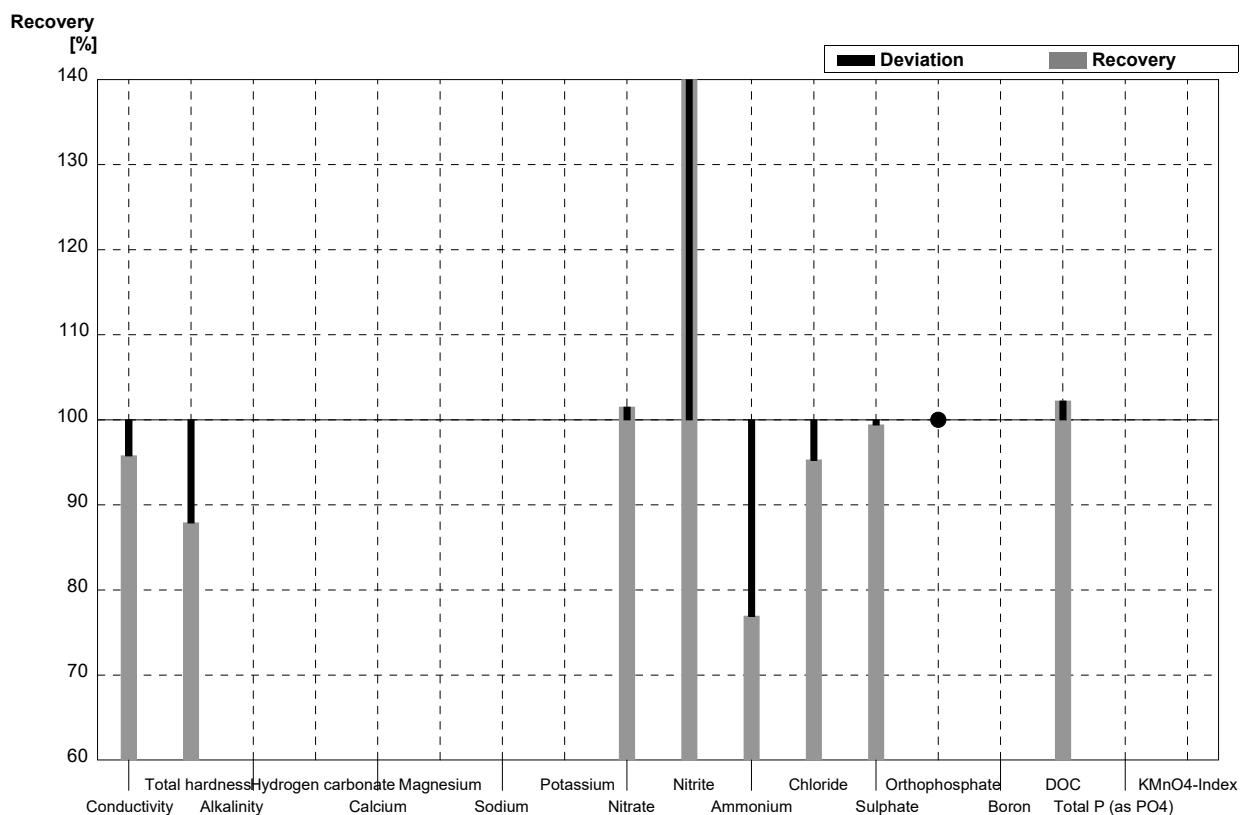
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	590		$\mu\text{S}/\text{cm}$	102%
Total hardness	2,22	0,02	2,20		mmol/l	99%
Alkalinity	2,47	0,03	2,41		mmol/l	98%
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8	65		mg/l	99%
Magnesium	14,2	0,2	14,2		mg/l	100%
Sodium	25,0	0,3	25,0		mg/l	100%
Potassium	4,62	0,05	4,55		mg/l	98%
Nitrate	40,7	0,7	40,9		mg/l	100%
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01		<0,0129		mg/l	•
Chloride	56,2	1,0	57		mg/l	101%
Sulphate	45,0	0,5	45,1		mg/l	100%
Orthophosphate	0,061	0,002	0,061		mg/l	100%
Boron	0,091	0,001	0,090		mg/l	99%
DOC	4,94	0,05	5,2		mg/l	105%
Total P (as PO ₄)	0,147	0,002	0,149		mg/l	101%
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

Laboratory AO

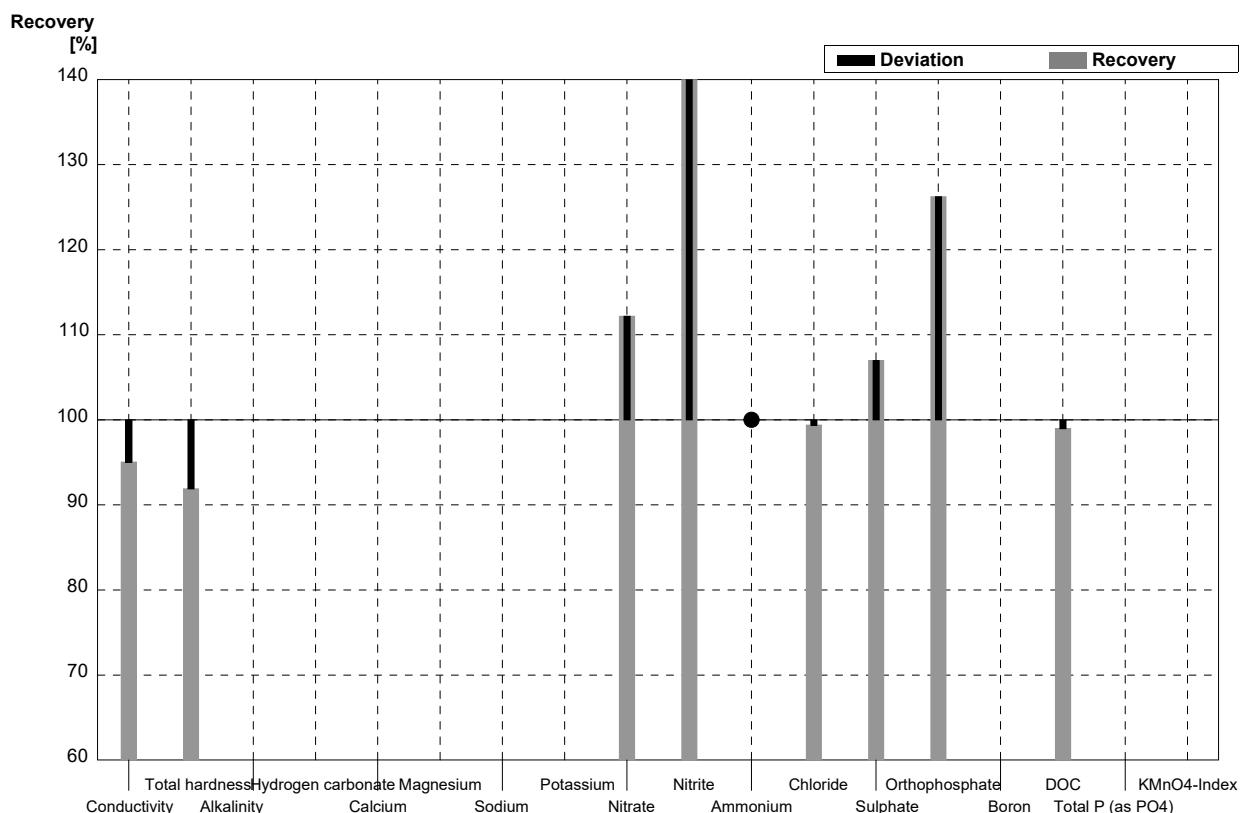
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	301,70	5,0	$\mu\text{S}/\text{cm}$	96%
Total hardness	1,24	0,01	1,090	0,050	mmol/l	88%
Alkalinity	1,91	0,03			mmol/l	
Hydrogen carbonate	113	2			mg/l	
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2	14,210	0,10	mg/l	102%
Nitrite	0,061	0,001	0,100	0,005	mg/l	164%
Ammonium	0,091	0,002	0,0700	0,005	mg/l	77%
Chloride	19,9	0,3	18,96	0,10	mg/l	95%
Sulphate	20,5	0,2	20,38	0,10	mg/l	99%
Orthophosphate	<0,009		'0,0120	0,0050	mg/l	•
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04	2,780	0,050	mg/l	102%
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

Laboratory AO

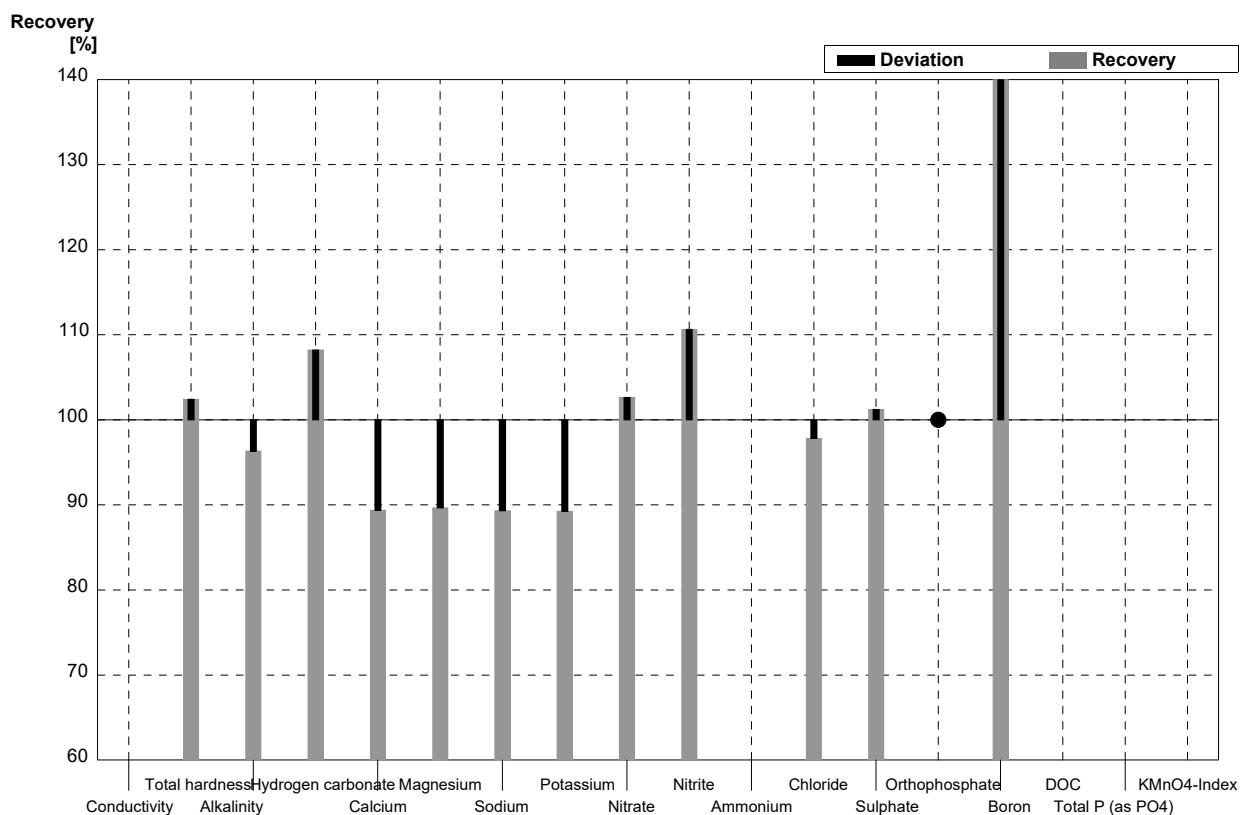
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	550,30	5,0	$\mu\text{S}/\text{cm}$	95%
Total hardness	2,22	0,02	2,040	0,050	mmol/l	92%
Alkalinity	2,47	0,03			mmol/l	
Hydrogen carbonate	148	2			mg/l	
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7	45,660	0,10	mg/l	112%
Nitrite	0,0303	0,0010	0,080	0,005	mg/l	264%
Ammonium	<0,01		'0,0050	0,005	mg/l	•
Chloride	56,2	1,0	55,86	0,10	mg/l	99%
Sulphate	45,0	0,5	48,14	0,10	mg/l	107%
Orthophosphate	0,061	0,002	0,0770	0,0050	mg/l	126%
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05	4,890	0,050	mg/l	99%
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

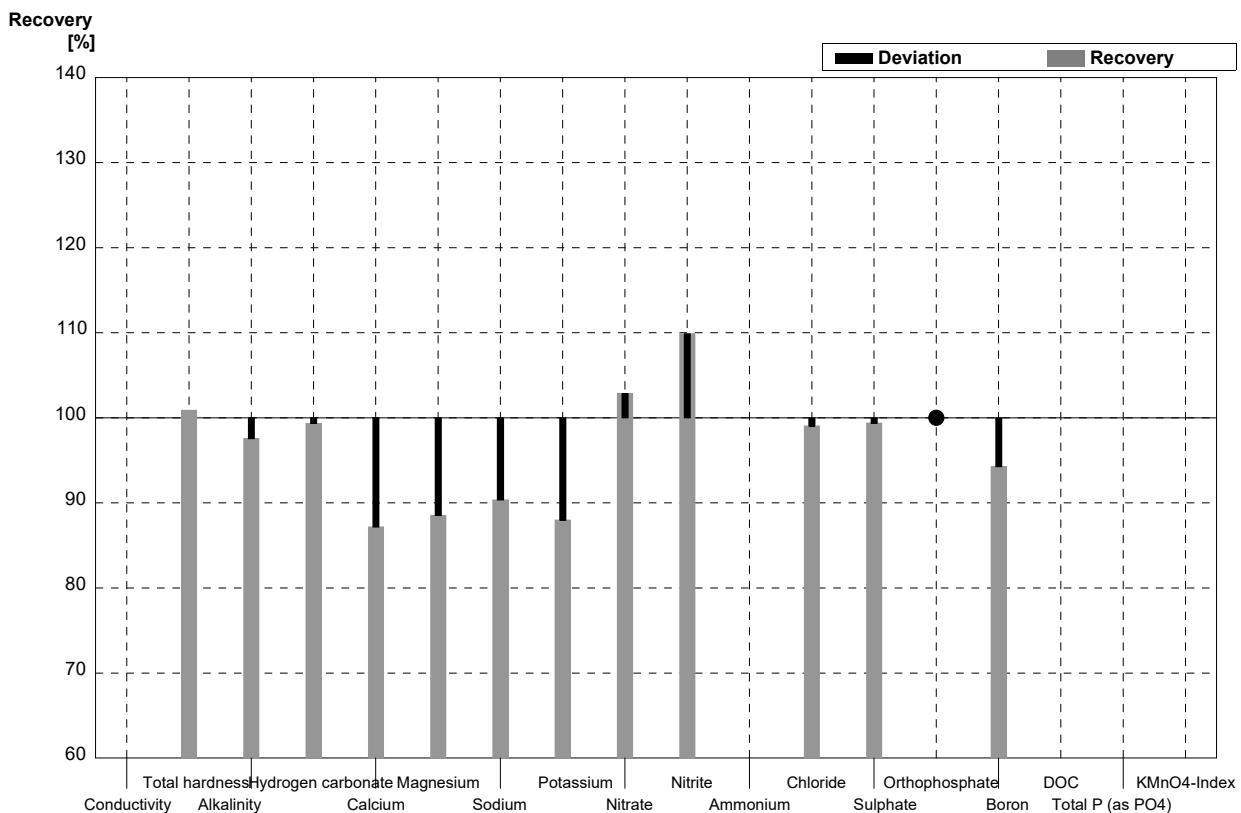
Laboratory AP

Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2			$\mu\text{S}/\text{cm}$	
Total hardness	1,24	0,01	1,27		mmol/l	102%
Alkalinity	1,91	0,03	1,84		mmol/l	96%
Hydrogen carbonate	113	2	122,28		mg/l	108%
Calcium	37,6	0,5	33,6029		mg/l	89%
Magnesium	7,29	0,08	6,5356		mg/l	90%
Sodium	12,7	0,3	11,3440		mg/l	89%
Potassium	2,64	0,02	2,3561		mg/l	89%
Nitrate	14,0	0,2	14,3715		mg/l	103%
Nitrite	0,061	0,001	0,0675		mg/l	111%
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3	19,4660		mg/l	98%
Sulphate	20,5	0,2	20,7523		mg/l	101%
Orthophosphate	<0,009		<0,10		mg/l	•
Boron	0,061	0,001	0,0919		mg/l	151%
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B
Laboratory AP

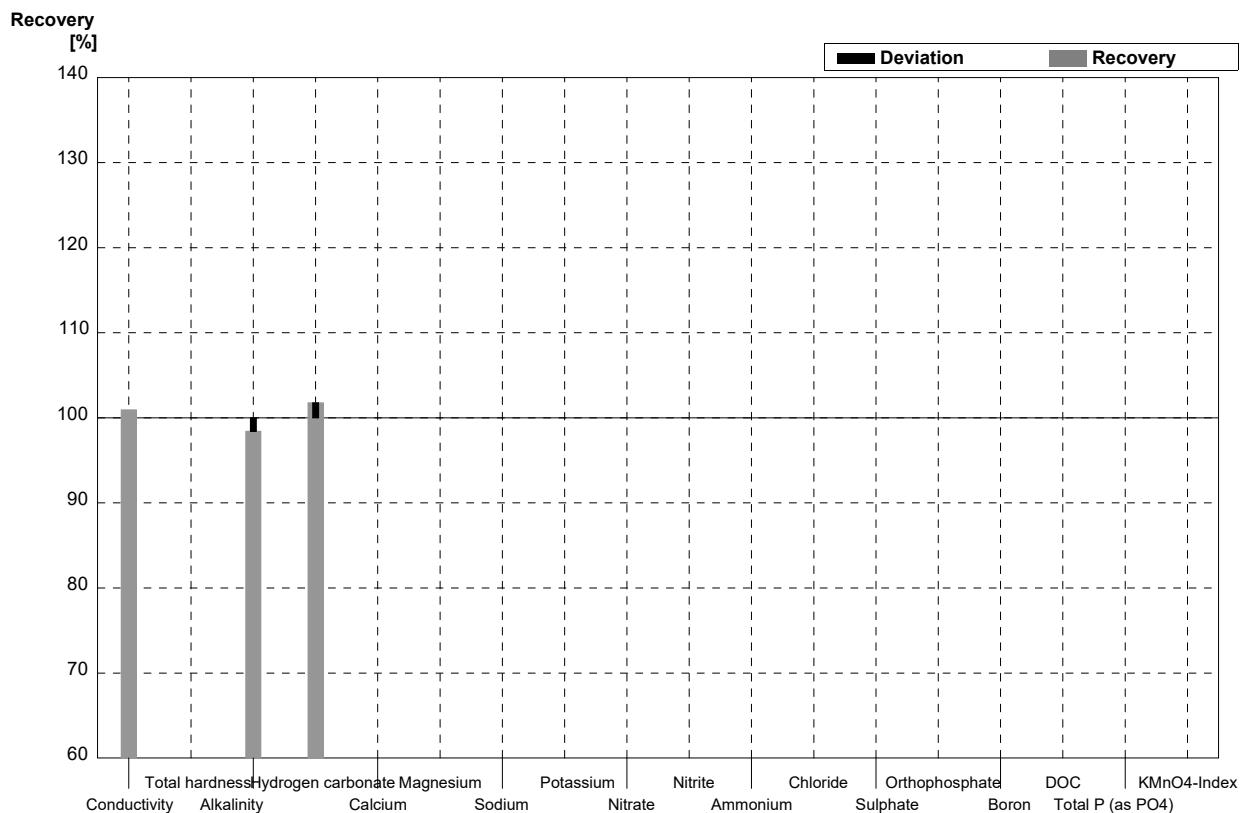
Parameter	Target value	\pm U ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3			$\mu\text{S}/\text{cm}$	
Total hardness	2,22	0,02	2,24		mmol/l	101%
Alkalinity	2,47	0,03	2,41		mmol/l	98%
Hydrogen carbonate	148	2	147,06		mg/l	99%
Calcium	65,6	0,8	57,1889		mg/l	87%
Magnesium	14,2	0,2	12,5704		mg/l	89%
Sodium	25,0	0,3	22,591		mg/l	90%
Potassium	4,62	0,05	4,0655		mg/l	88%
Nitrate	40,7	0,7	41,865		mg/l	103%
Nitrite	0,0303	0,0010	0,0333		mg/l	110%
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0	55,6628		mg/l	99%
Sulphate	45,0	0,5	44,7263		mg/l	99%
Orthophosphate	0,061	0,002	<0,10		mg/l	•
Boron	0,091	0,001	0,0858		mg/l	94%
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	



Sample N152A

Laboratory AQ

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	315	2	318	3	$\mu\text{S}/\text{cm}$	101%
Total hardness	1,24	0,01			mmol/l	
Alkalinity	1,91	0,03	1,88	0,06	mmol/l	98%
Hydrogen carbonate	113	2	115	4	mg/l	102%
Calcium	37,6	0,5			mg/l	
Magnesium	7,29	0,08			mg/l	
Sodium	12,7	0,3			mg/l	
Potassium	2,64	0,02			mg/l	
Nitrate	14,0	0,2			mg/l	
Nitrite	0,061	0,001			mg/l	
Ammonium	0,091	0,002			mg/l	
Chloride	19,9	0,3			mg/l	
Sulphate	20,5	0,2			mg/l	
Orthophosphate	<0,009				mg/l	
Boron	0,061	0,001			mg/l	
DOC	2,72	0,04			mg/l	
Total P (as PO ₄)	<0,009				mg/l	
KMnO ₄ -Index	2,74	0,12			mg/l	



Sample N152B

Laboratory AQ

Parameter	Target value	$\pm U$ ($k=2$)	Result	\pm	Unit	Recovery
Conductivity	579	3	584	5	$\mu\text{S}/\text{cm}$	101%
Total hardness	2,22	0,02			mmol/l	
Alkalinity	2,47	0,03	2,41	0,06	mmol/l	98%
Hydrogen carbonate	148	2	147	4	mg/l	99%
Calcium	65,6	0,8			mg/l	
Magnesium	14,2	0,2			mg/l	
Sodium	25,0	0,3			mg/l	
Potassium	4,62	0,05			mg/l	
Nitrate	40,7	0,7			mg/l	
Nitrite	0,0303	0,0010			mg/l	
Ammonium	<0,01				mg/l	
Chloride	56,2	1,0			mg/l	
Sulphate	45,0	0,5			mg/l	
Orthophosphate	0,061	0,002			mg/l	
Boron	0,091	0,001			mg/l	
DOC	4,94	0,05			mg/l	
Total P (as PO ₄)	0,147	0,002			mg/l	
KMnO ₄ -Index	3,95	0,15			mg/l	

