



3701 A. Sankaralingam
GSTS Pathology

Groot Brittannië

INPUTS 2013.1

Survey	INPUTS 2013.1
Start date	January, 1 2013
Supervisor	dr. C. Weykamp MCA Laboratory Streekziekenhuis Koningin Beatrix Winterswijk
Subscriptions	93
Result sets	91

Scores	Your score	MAP	reported
Quantitative	31	38	



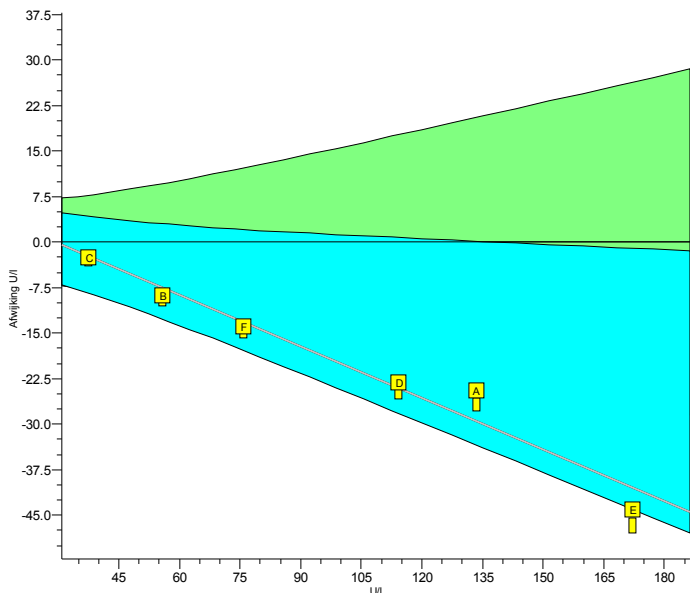
INPUTS 2013.1

Analyte		Trueness				Precision		Performance			
		your mean	ref.	cons.	SDI	your prec.	SDbl	this survey	PS	cumulative PSc	
ALAT	U/l	78.7	98.2	86.9	10.1	0.7	2.7		0		0
Alk. Phosphatase	U/l	163	188	173	15	1	2		2		2
Amylase	U/l	200	207	201	8	2	2		2		2
ASAT	U/l	80.3	78.6	71.5	6.8	1.7	1.6		2		2
Calcium	mmol/l	2.50	2.46	2.47	0.07	0.02	0.02		2		2
Chloride	mmol/l	101.3	100.0	100.8	1.8	1.9	0.9		1		1
CK	U/l	247	244	253	18	1	3		2		2
Creatinine	µmol/l	149.2	149.1	150.7	5.6	1.0	2.1		2		2
eGFR (F, 55, white)	ml/min/1,73m ²	37.7	37.6	37.4	2.6	0.7	0.6		2		2
Gamma-GT	U/l	81.8	87.7	86.3	8.6	0.8	1.2		2		2
Glucose	mmol/l	14.45	13.93	14.19	0.44	0.19	0.18		1		1
LD	U/l	910	481	474	33	50	9		0		0
Magnesium	mmol/l	1.22	1.22	1.23	0.04	0.02	0.02		2		2
Potassium	mmol/l	5.42	5.39	5.30	0.10	0.02	0.04		2		2
Sodium	mmol/l	141.7	144.0	142.7	1.7	1.2	0.9		1		1
Total Protein	g/l	66.3	66.8	66.0	1.8	0.5	0.7		2		2
Urate	µmol/l	360	376	374	15	7	4		2		2
Cholesterol	mmol/l	5.13	5.07	5.15	0.14	0.10	0.05		2		2
HDL-Cholesterol	mmol/l	1.21	1.14	1.17	0.06	0.02	0.03		2		2
Total :									31		31

INPUTS 2013.1

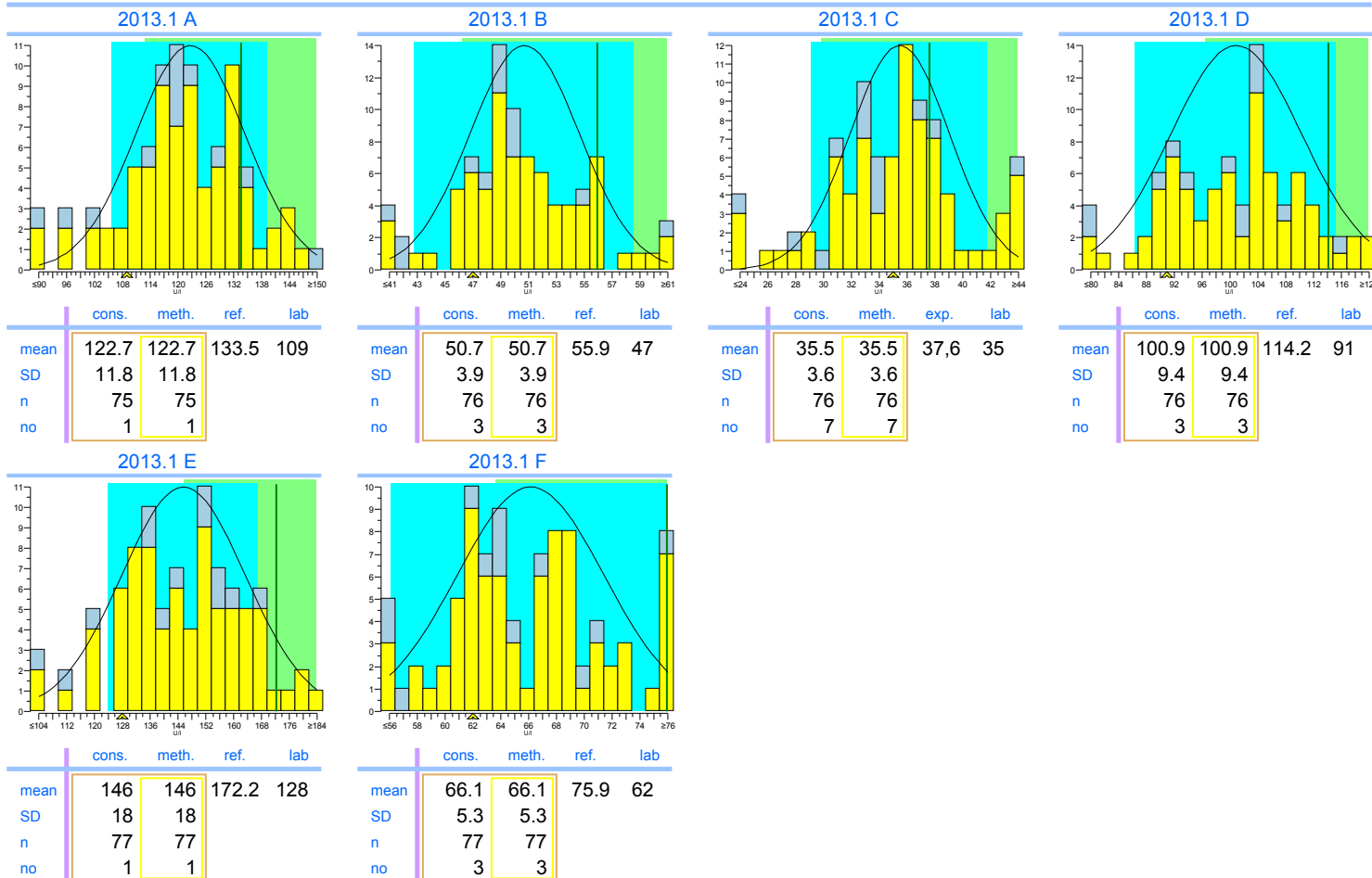
ALAT

units: U/l



	2013.1	cumulative
Trueness	-20%	-20%
Precision	0.79%	0.79%
Number	6	6
Outliers	0	0
Sigma-TE	0.3 0	0.3 0
Sigma-SA	-0.6	-0.6
Score pictogram		
Regression line	$8.2 + 0.717 \cdot x$	$8.2 + 0.717 \cdot x$

Consensus group IFCC traceerbaar
Method IFCC traceable



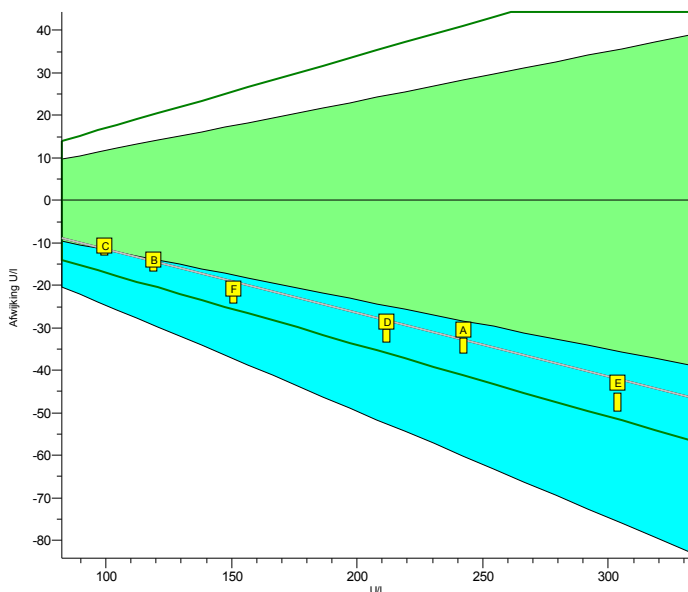
Legend

 IFCC traceable IFCC non-traceable

INPUTS 2013.1

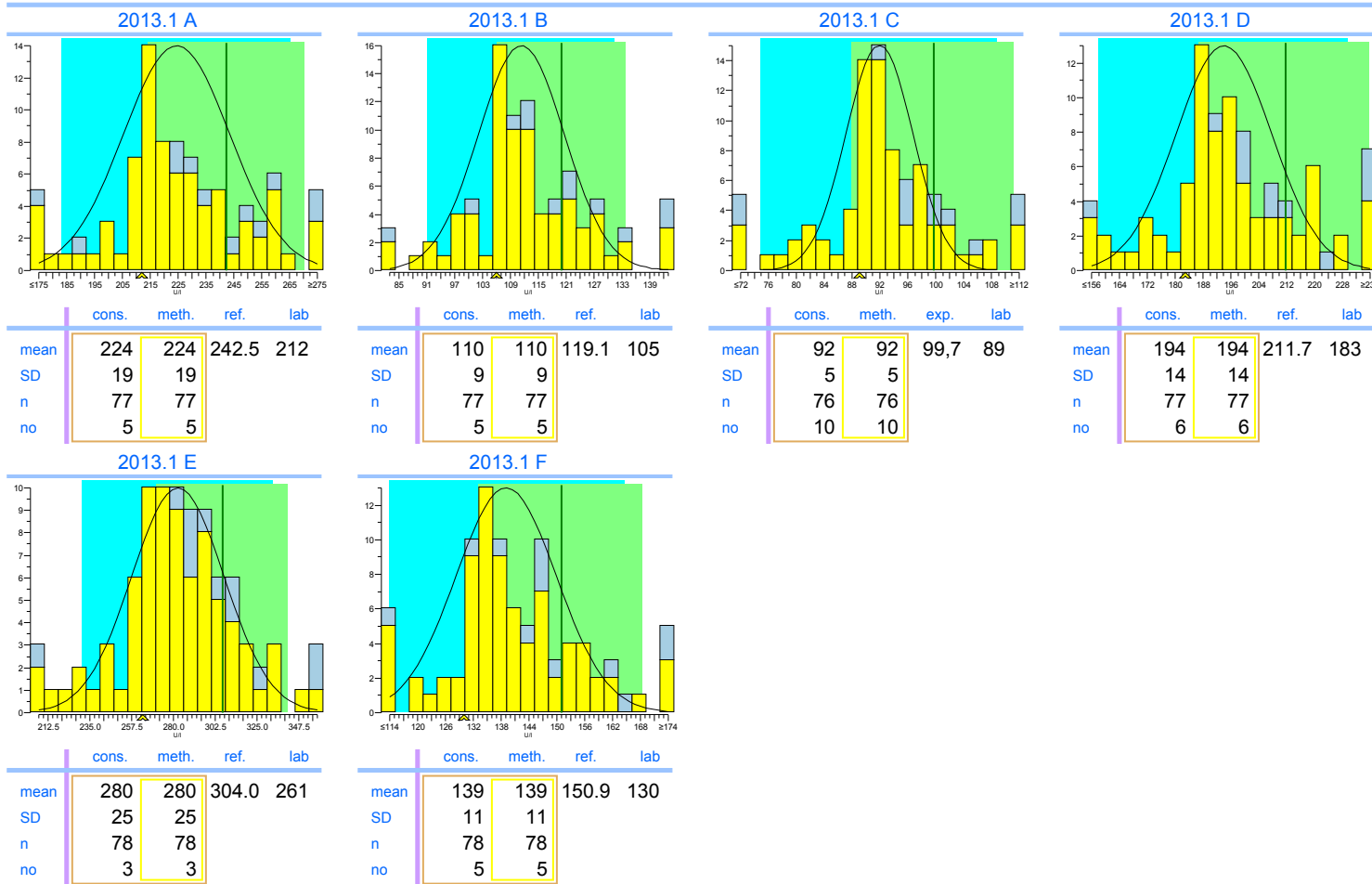
Alk. Phosphatase

units: U/l



	2013.1	cumulative
Trueness	-13%	-13%
Precision	0.68%	0.68%
Number	6	6
Outliers	0	0
Sigma-TE	-0.7	-0.7
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	$4 + 0.850.x$	$4 + 0.850.x$

Consensus group IFCC traceerbaar
Method IFCC traceable



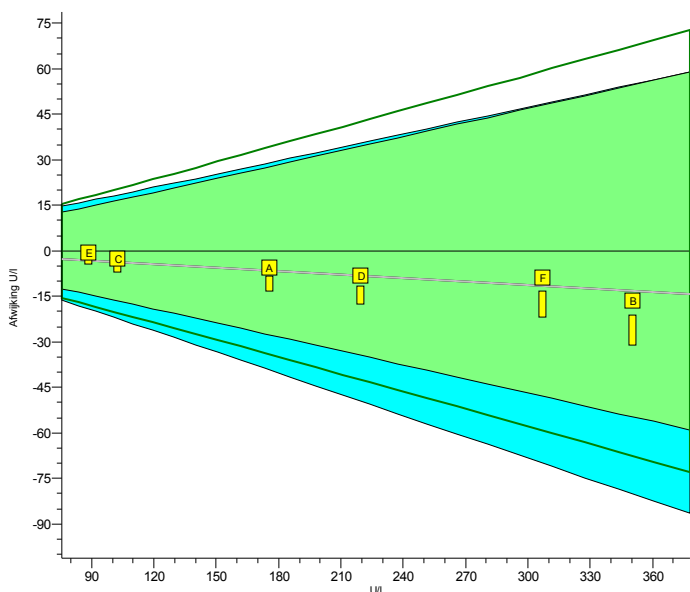
Legend



IFCC traceable IFCC non-traceable

INPUTS 2013.1

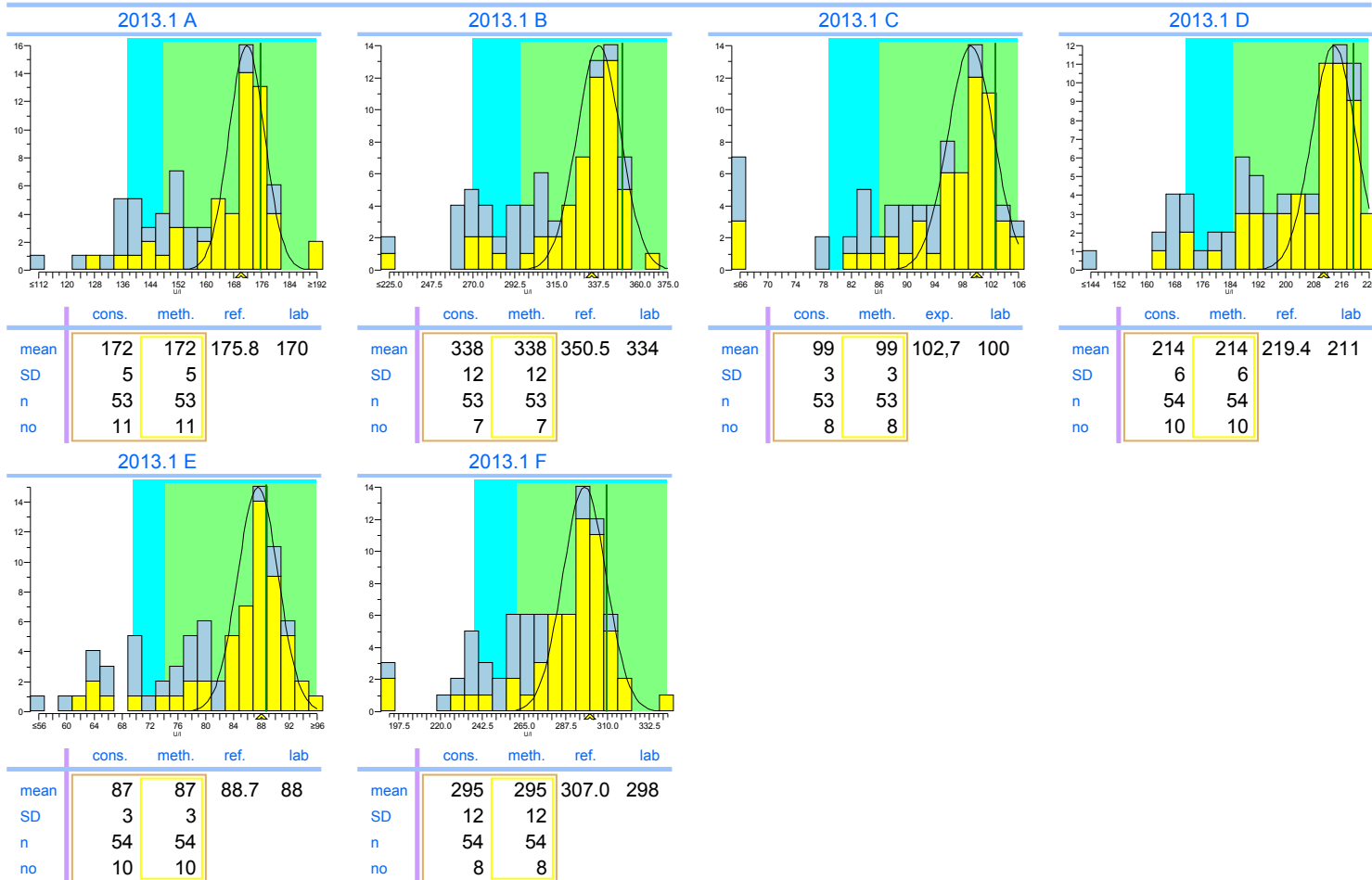
Amylase

units: U/l

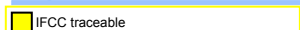
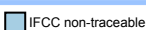


	2013.1	cumulative
Trueness	-3.5%	-3.5%
Precision	1.2%	1.2%
Number	6	6
Outliers	0	0
Sigma-TE	6.0	6.0
Sigma-SA	6.0	6.0
Score pictogram		
Regression line	$0 + 0.963 \cdot x$	$0 + 0.963 \cdot x$

Consensus group IFCC traceerbaar
Method IFCC traceable



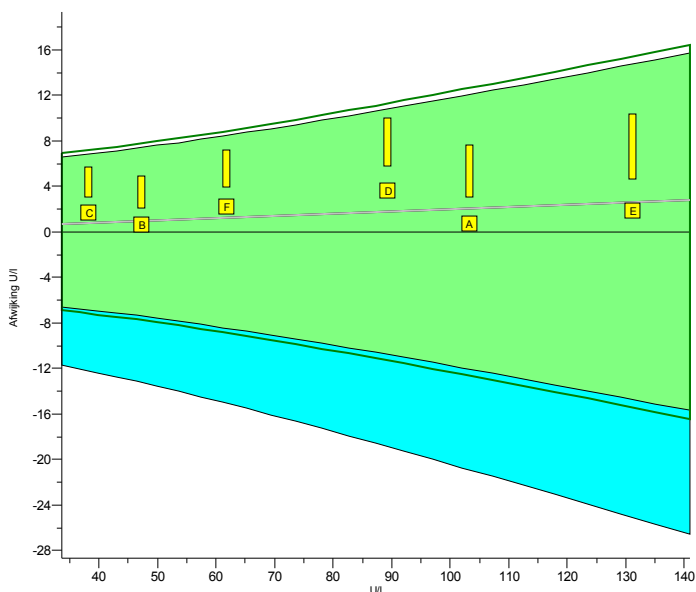
Legend

 IFCC traceable  IFCC non-traceable

INPUTS 2013.1

ASAT

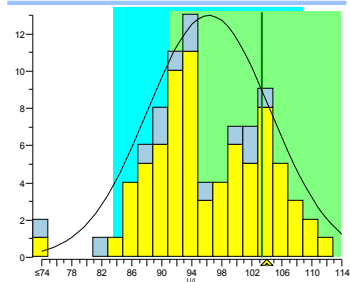
units: U/I



	2013.1	cumulative
Trueness	+2.2%	+2.2%
Precision	2.4%	2.4%
Number	6	6
Outliers	0	0
Sigma-TE	6.0	6.0
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	$0.0 + 1.020 \cdot x$	$0.0 + 1.020 \cdot x$

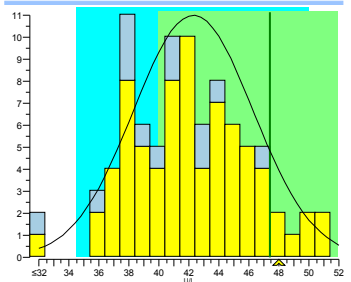
Consensus group IFCC traceerbaar
Method IFCC traceable

2013.1 A



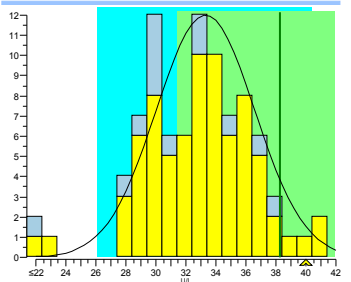
	cons.	meth.	ref.	lab
mean	96.3	96.3	103.3	104
SD	8.2	8.2		
n	75	75		
no	1	1		

2013.1 B



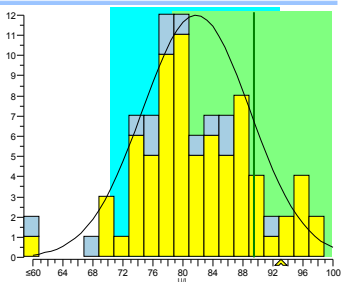
	cons.	meth.	ref.	lab
mean	42.3	42.3	47.4	48
SD	4.0	4.0		
n	75	75		
no	1	1		

2013.1 C



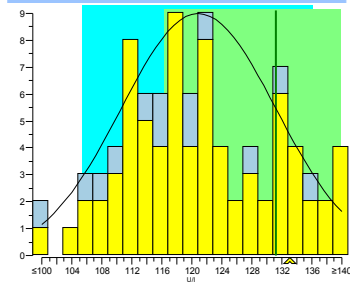
	cons.	meth.	exp.	lab
mean	33.3	33.3	38,3	40
SD	3.3	3.3		
n	75	75		
no	2	2		

2013.1 D



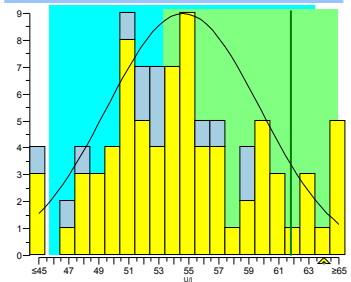
	cons.	meth.	ref.	lab
mean	81.8	81.8	89.4	93
SD	7.2	7.2		
n	74	74		
no	1	1		

2013.1 E



	cons.	meth.	ref.	lab
mean	120.9	120.9	131.2	133
SD	10.3	10.3		
n	76	76		
no	1	1		

2013.1 F



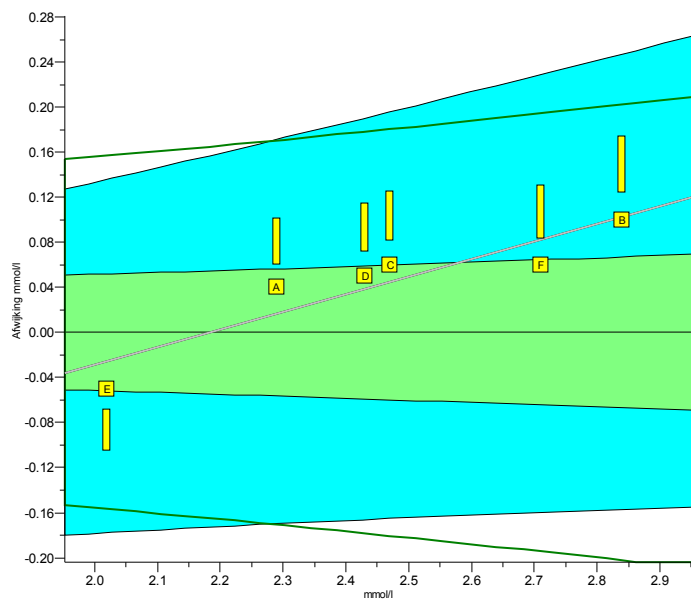
	cons.	meth.	ref.	lab
mean	54.6	54.6	61.8	64
SD	5.1	5.1		
n	76	76		
no	2	2		

Legend
 IFCC traceable
 IFCC non-traceable

INPUTS 2013.1

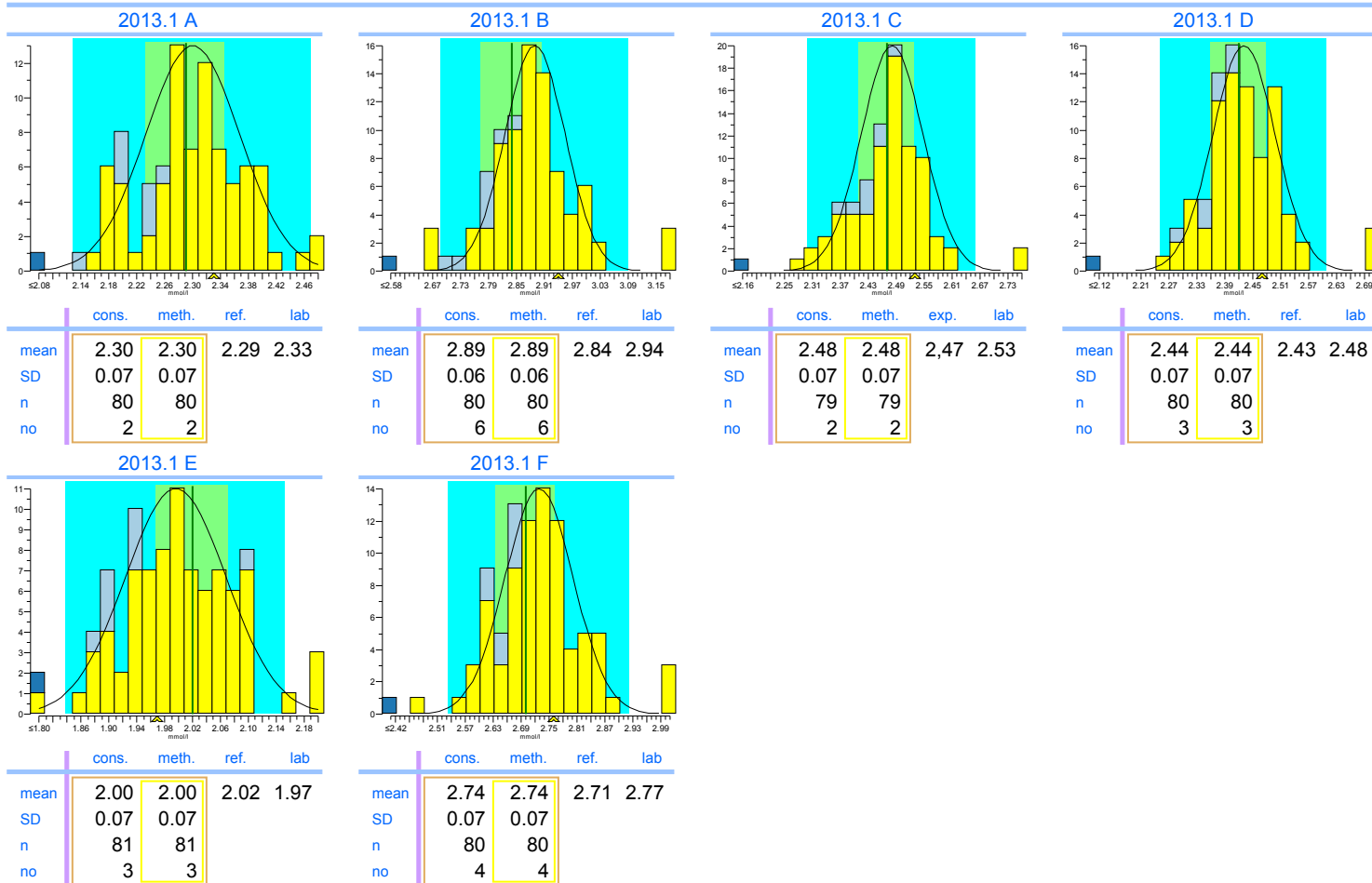
Calcium

units: mmol/l



	2013.1	cumulative
Trueness	+1.8%	+1.8%
Precision	0.71%	0.71%
Number	6	6
Outliers	0	0
Sigma-TE	0.8	0.8
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	$-0.34 + 1.156 \cdot x$	$-0.34 + 1.156 \cdot x$

Consensus group	Colorimetrisch
Method	Colorimetric, automatic, discrete



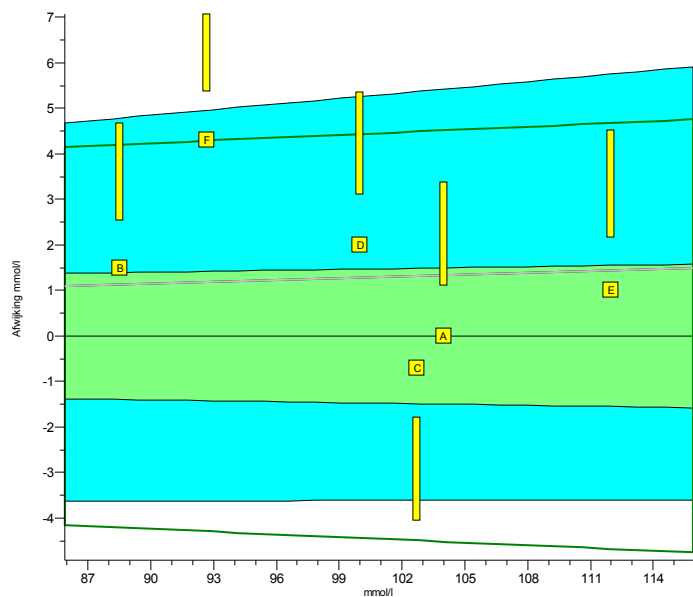
Legend

- Colorimetric, automatic, discrete
- ISE indirect (with predilution)
- Other methods

INPUTS 2013.1

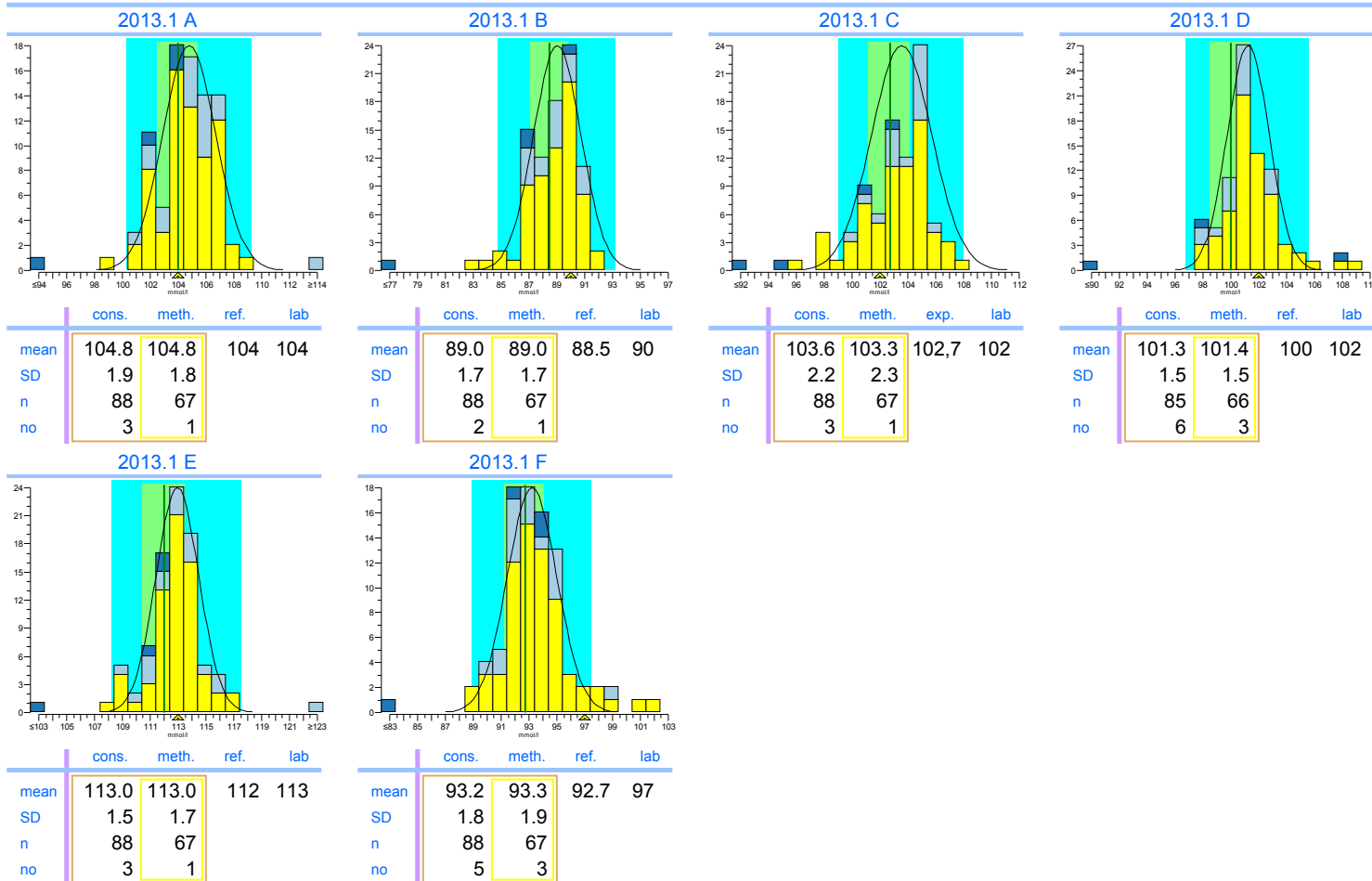
Chloride

units: mmol/l



	2013.1	cumulative
Trueness	+1.4%	+1.4%
Precision	1.9%	1.9%
Number	6	6
Outliers	0	0
Sigma-TE	0.6	0.6
Sigma-SA	3.9	3.9
Score pictogram		
Regression line	$0.0 + 1.013 \cdot x$	$0.0 + 1.013 \cdot x$

Consensus group	ISE/Colorimetrie
Method	ISE indirect (with predilution)



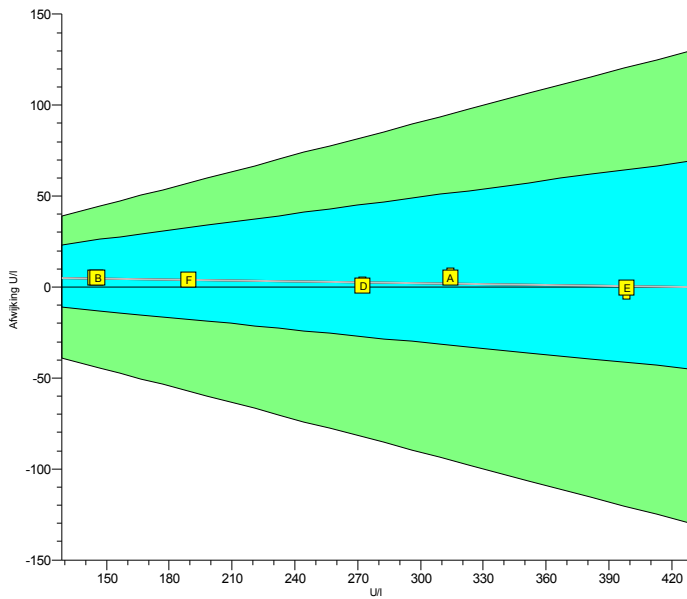
Legend

	ISE indirect (with predilution)		ISE direct (no predilution)		Other methods
--	---------------------------------	--	-----------------------------	--	---------------

INPUTS 2013.1

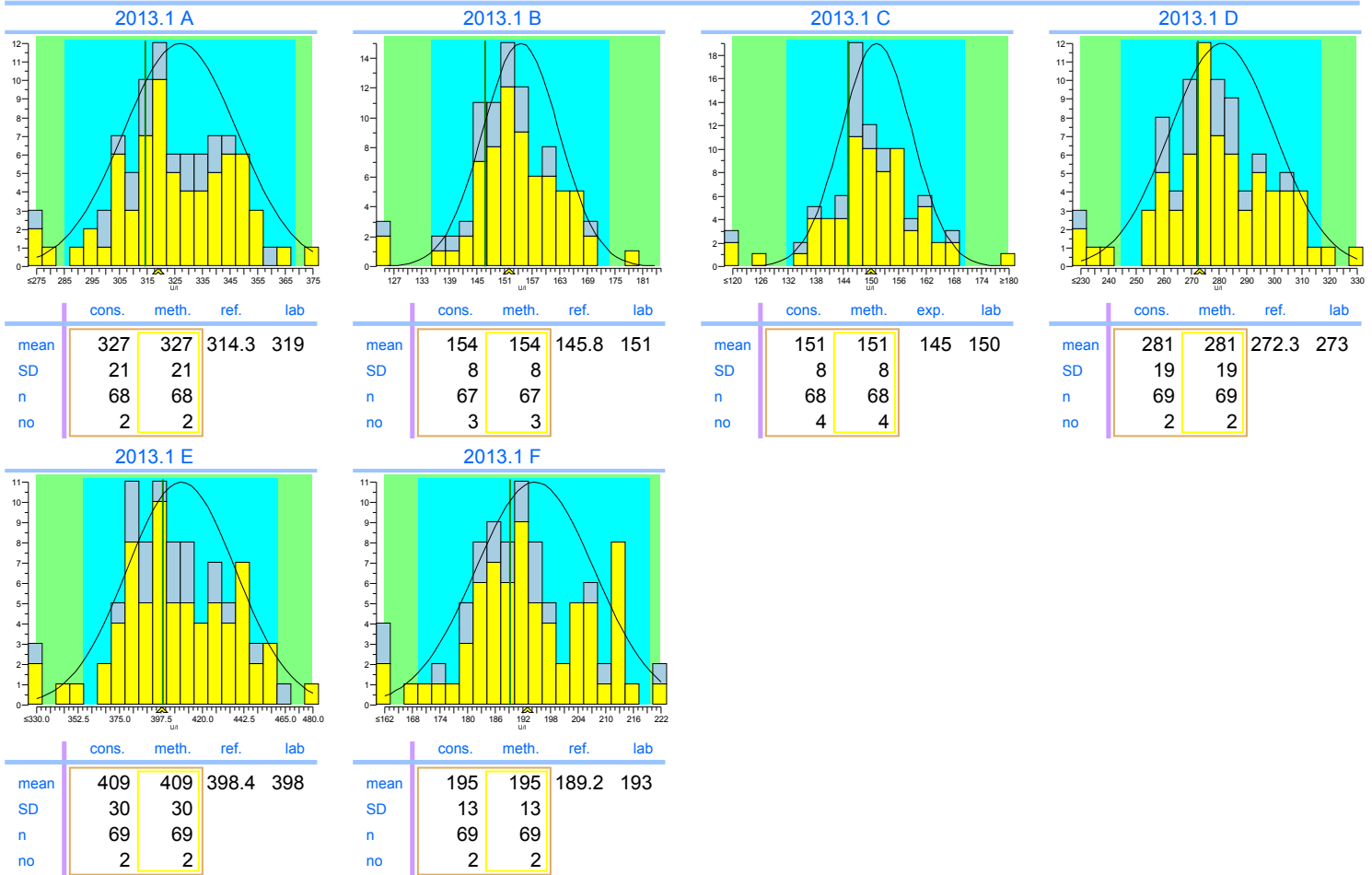
CK

units: U/l



	2013.1	cumulative
Trueness	+1.3%	+1.3%
Precision	0.47%	0.47%
Number	6	6
Outliers	0	0
Sigma-TE	6.0 2	6.0 2
Sigma-SA	6.0	6.0
Score pictogram		
Regression line	$8 + 0.982 \cdot x$	$8 + 0.982 \cdot x$

Consensus group IFCC traceerbaar
Method IFCC traceable



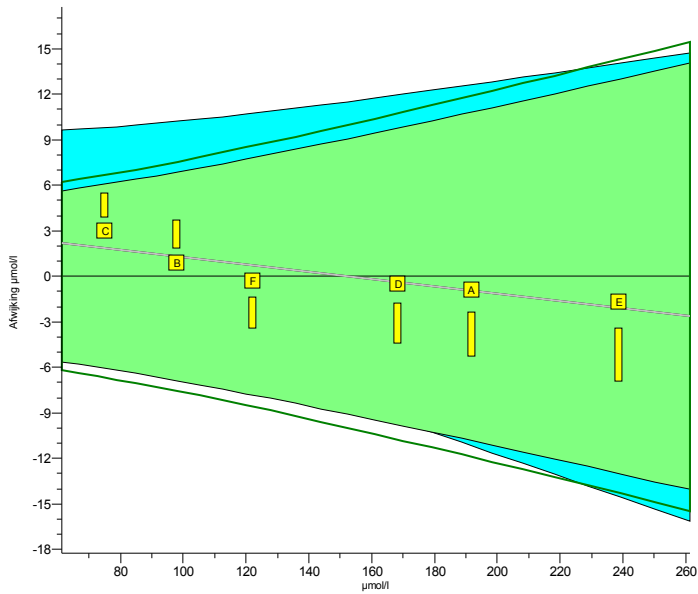
Legend

IFCC traceable IFCC non-traceable

INPUTS 2013.1

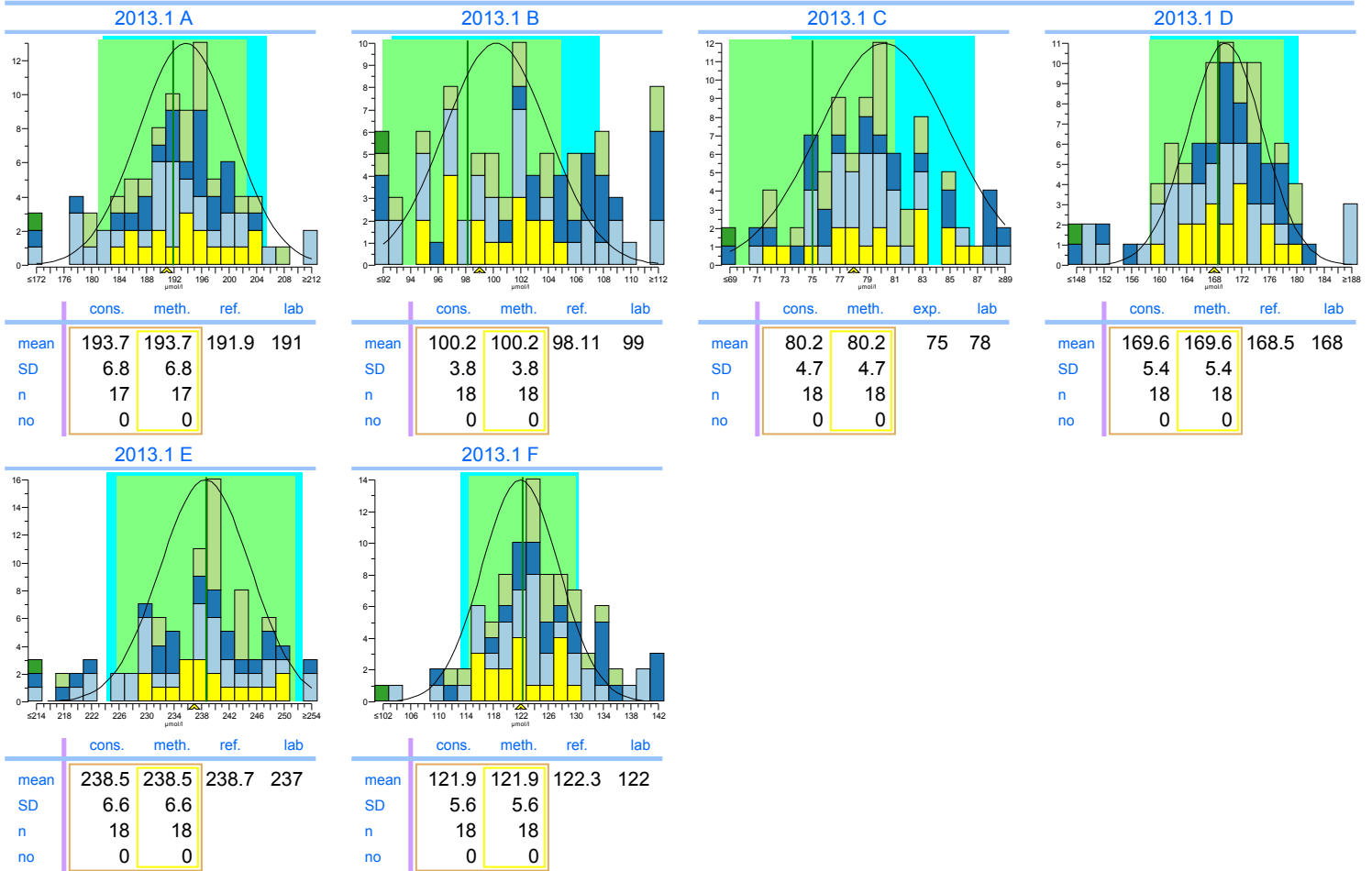
Creatinine

units: $\mu\text{mol/l}$



	2013.1	cumulative
Trueness	+0.05%	+0.05%
Precision	0.65%	0.65%
Number	6	6
Outliers	0	0
Sigma-TE	6.0	6.0
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	$3.7 + 0.976.x$	$3.7 + 0.976.x$

Consensus group	Enzymatische kreatinine
Method	Enzymatic, automatic



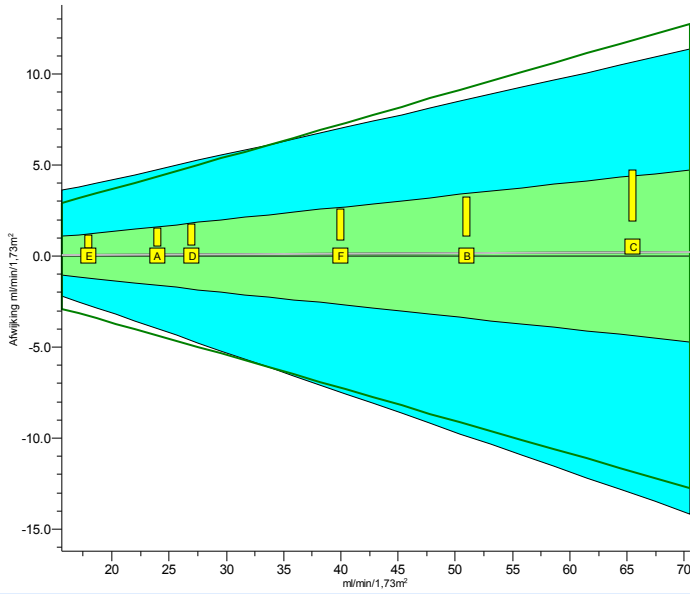
Legend

- Enzymatic, automatic
- Alk. Picrate, kinetic with compensation
- Alk. Picrate, kinetic
- Alk. Picrate, endpoint
- Other methods

INPUTS 2013.1

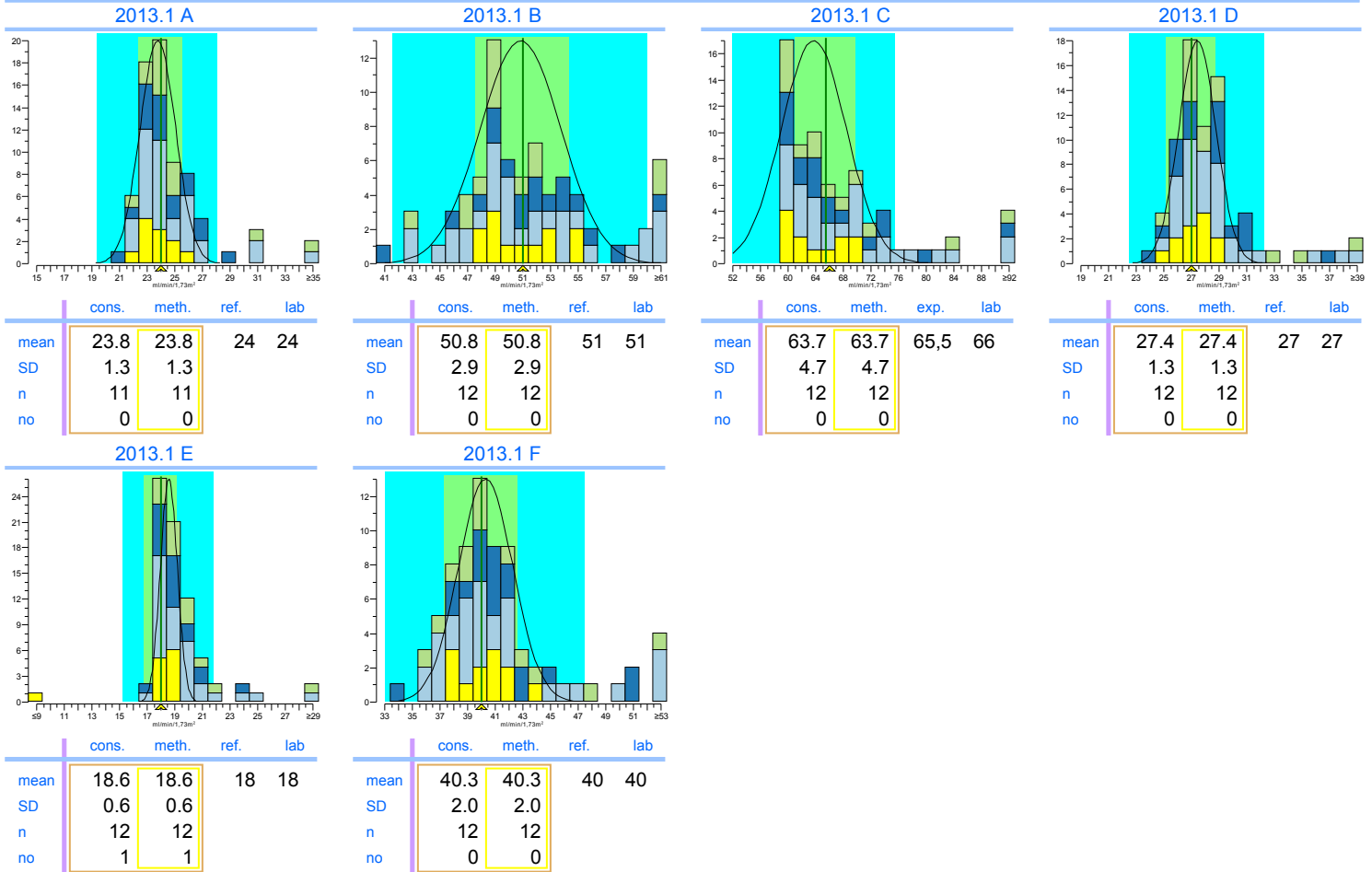
eGFR (F, 55, white)

units: ml/min/1,73m²



	2013.1	cumulative
Trueness	+0.22%	+0.22%
Precision	1.7%	1.7%
Number	6	6
Outliers	0	0
Sigma-TE	4.6	4.6
Sigma-SA	6.0	6.0
Score pictogram		
Regression line	$0.0 + 1.003 \cdot x$	$0.0 + 1.003 \cdot x$

Consensus group: Enzymatische kreatinine
Method: Enzymatic, automatic



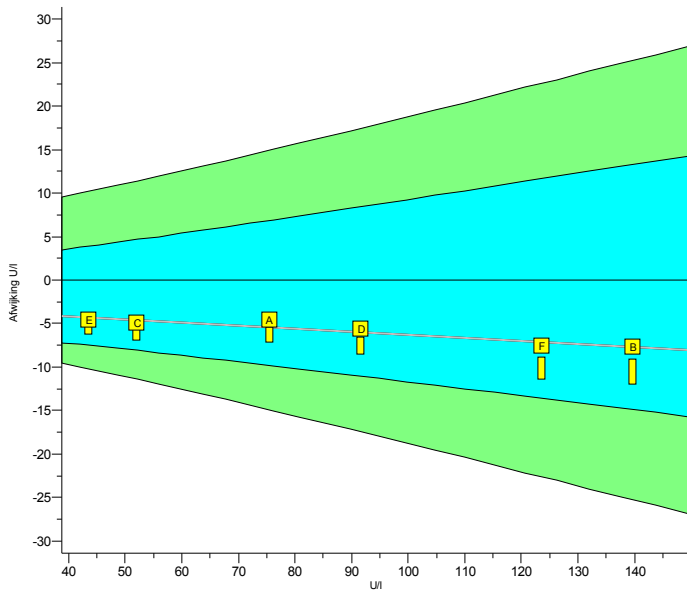
Legend



- Enzymatic, automatic
- Other methods
- Alk. Picrate, kinetic with compensation
- Alk. Picrate, kinetic

INPUTS 2013.1

Gamma-GT

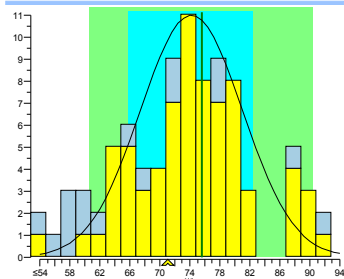
units: U/l



	2013.1	cumulative
Trueness	-6.7%	-6.7%
Precision	0.91%	0.91%
Number	6	6
Outliers	0	0
Sigma-TE	6.0 2	6.0 2
Sigma-SA	4.8	4.8
Score pictogram		
Regression line	$-2.8 + 0.965.x$	$-2.8 + 0.965.x$

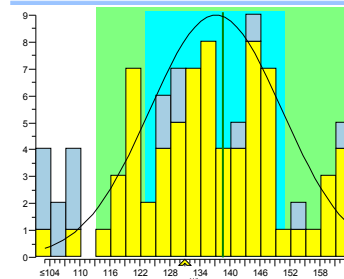
Consensus group IFCC traceerbaar
Method IFCC traceable

2013.1 A



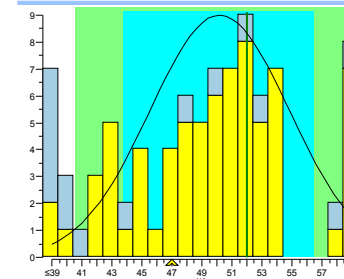
	cons.	meth.	ref.	lab
mean	74.2	74.2	75.6	71
SD	6.8	6.8		
n	72	72		
no	1	1		

2013.1 B



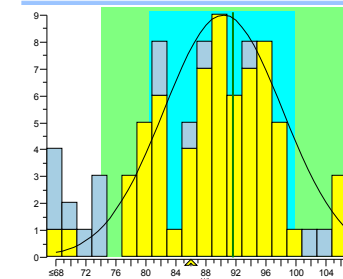
	cons.	meth.	ref.	lab
mean	138.2	138.2	139.7	132
SD	13.3	13.3		
n	72	72		
no	1	1		

2013.1 C



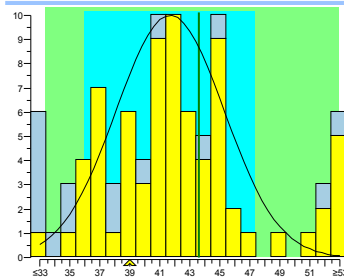
	cons.	meth.	exp.	lab
mean	50.2	50.2	52	47
SD	4.6	4.6		
n	72	72		
no	2	2		

2013.1 D



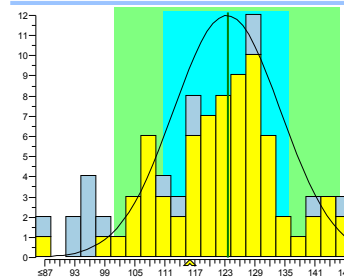
	cons.	meth.	ref.	lab
mean	90.3	90.3	91.6	86
SD	7.9	7.9		
n	71	71		
no	1	1		

2013.1 E



	cons.	meth.	ref.	lab
mean	41.7	41.7	43.6	39
SD	3.6	3.6		
n	73	73		
no	6	6		

2013.1 F



	cons.	meth.	ref.	lab
mean	123.4	123.4	123.6	116
SD	10.7	10.7		
n	73	73		
no	1	1		

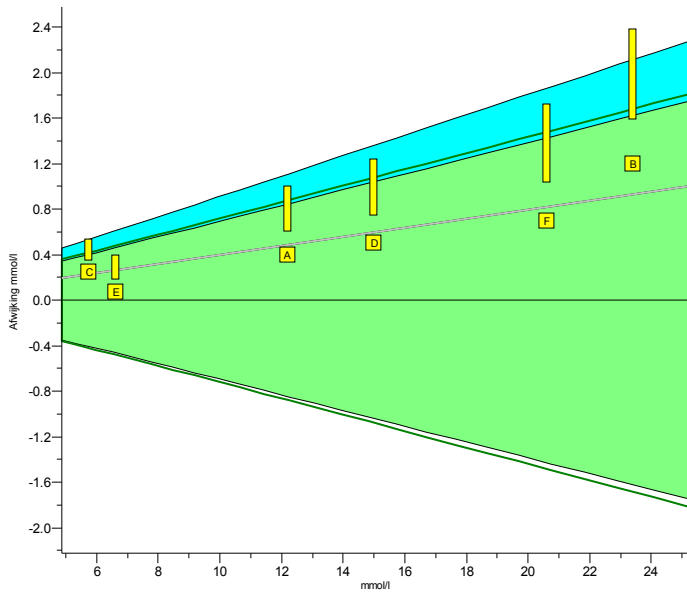
Legend

IFCC traceable IFCC non-traceable

INPUTS 2013.1

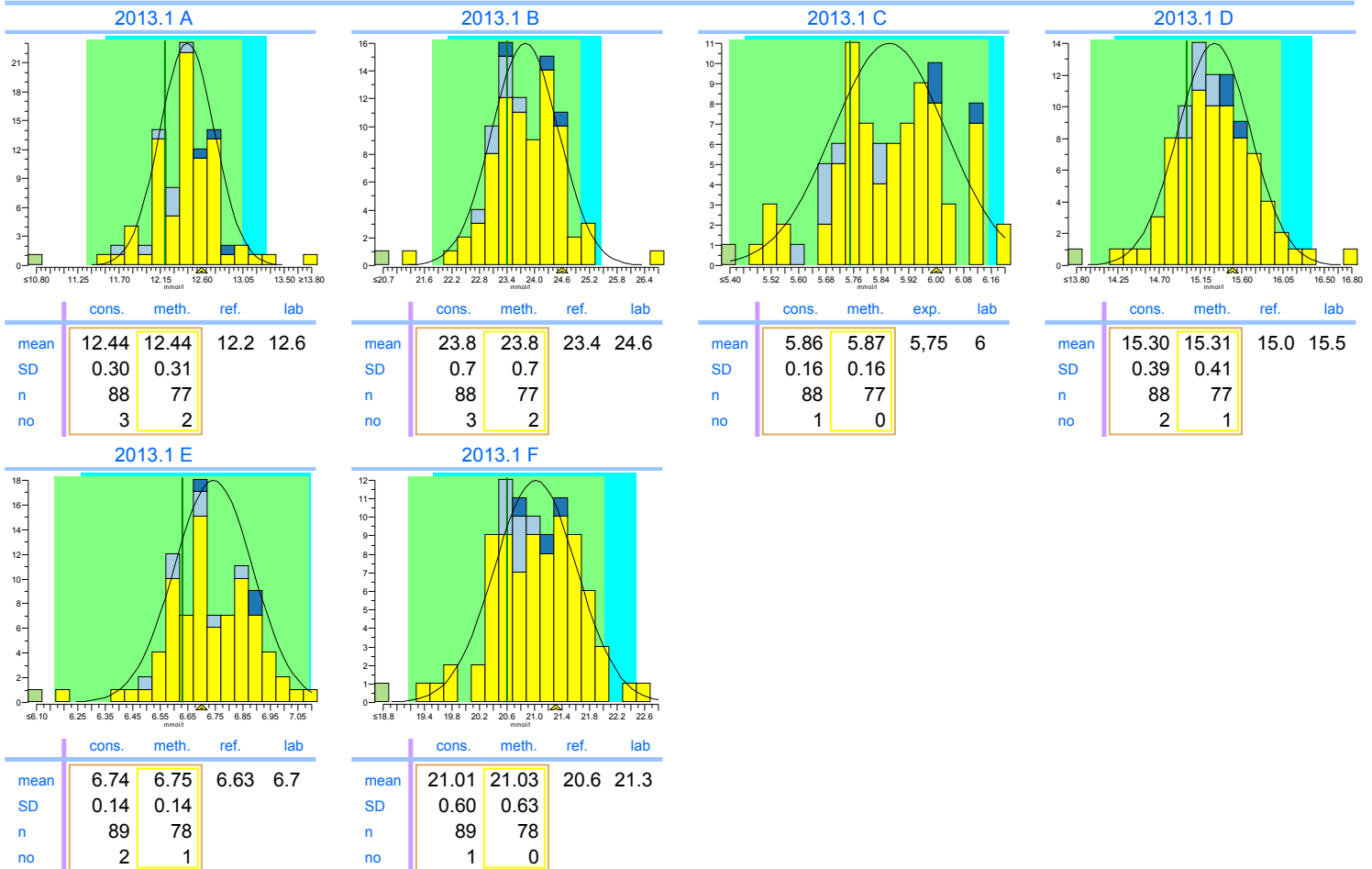
Glucose

units: mmol/l



	2013.1	cumulative
Trueness	+3.7%	+3.7%
Precision	1.3%	1.3%
Number	6	6
Outliers	0	0
Sigma-TE	3.5	3.5
Sigma-SA	3.7	3.7
Score pictogram		
Regression line	$0.00 + 1.040.x$	$0.00 + 1.040.x$

Consensus group: Natte chemie
Method: Hexokinase, automatic



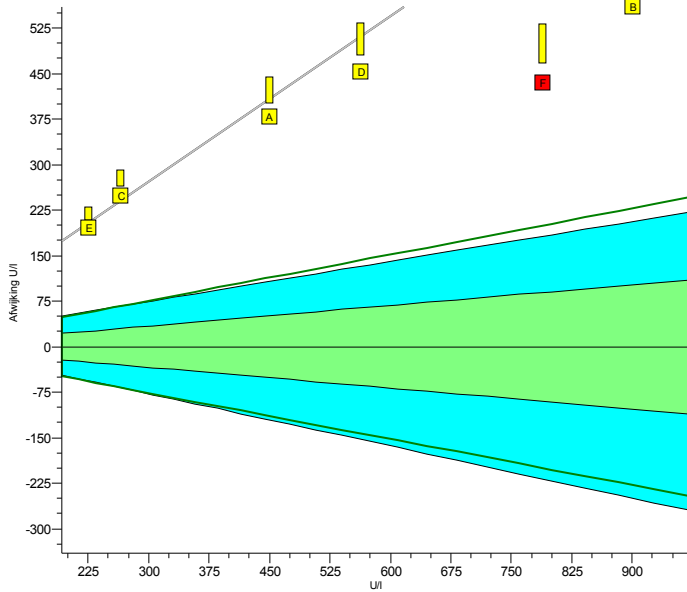
Legend

- Hexokinase, automatic
- Glucose-oxidase, amperometric, H2O2
- Glucose-oxidase/POD, automatic
- Other methods

INPUTS 2013.1

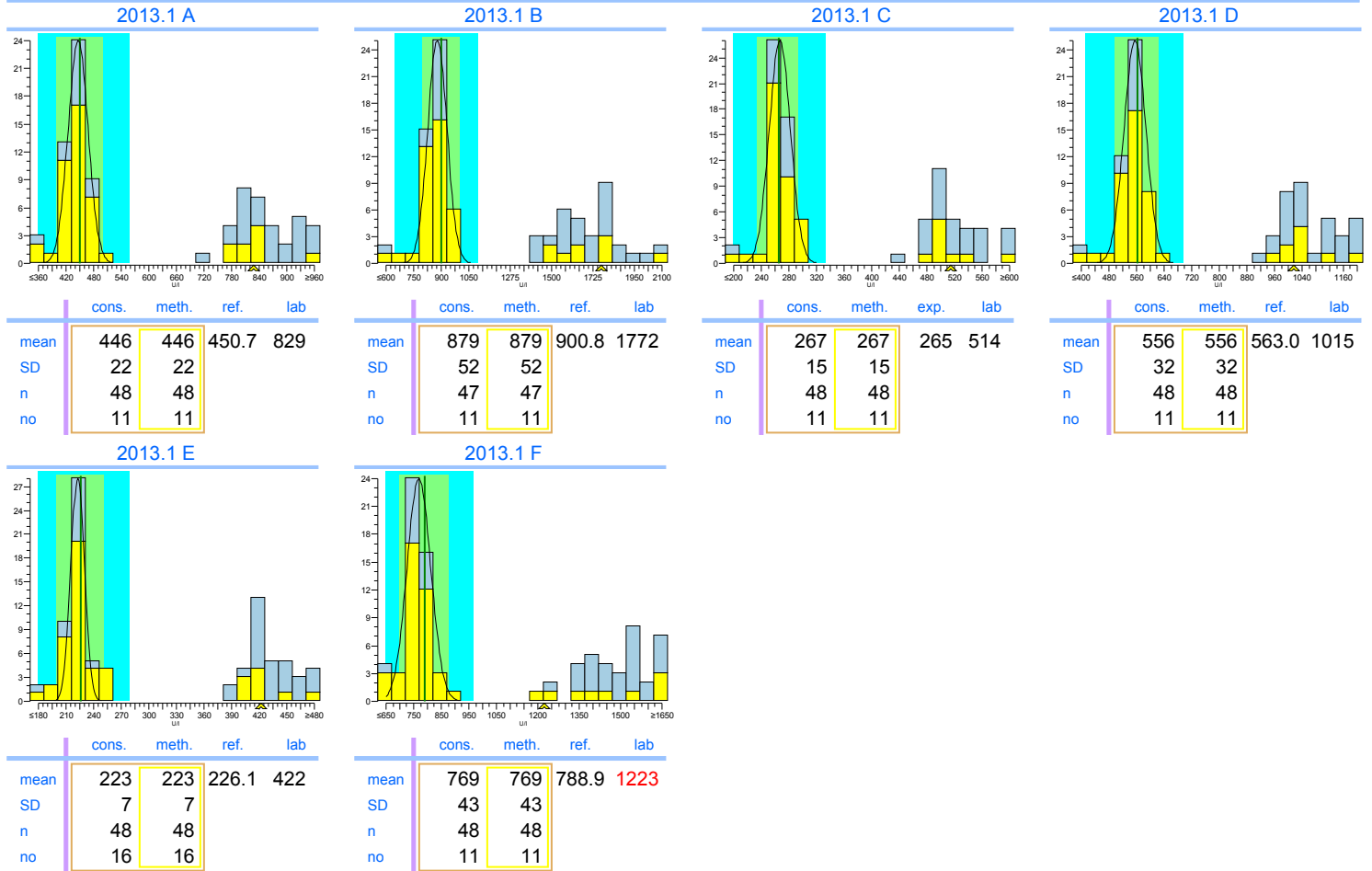
LD

units: U/I



	2013.1	cumulative
Trueness	+89%	+89%
Precision	10%	10%
Number	6	6
Outliers	1	1
Sigma-TE	-3.0	-3.0
Sigma-SA	-3.0 0	-3.0 0
Score pictogram	 	
Regression line	$0 + 1.909.x$	$0 + 1.909.x$

Consensus group IFCC traceerbaar
Method IFCC traceable

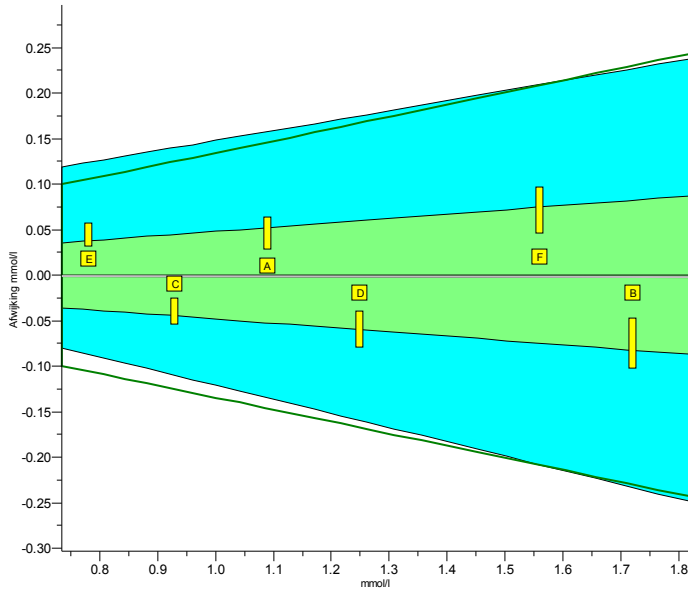


Legend
 IFCC traceable IFCC non-traceable

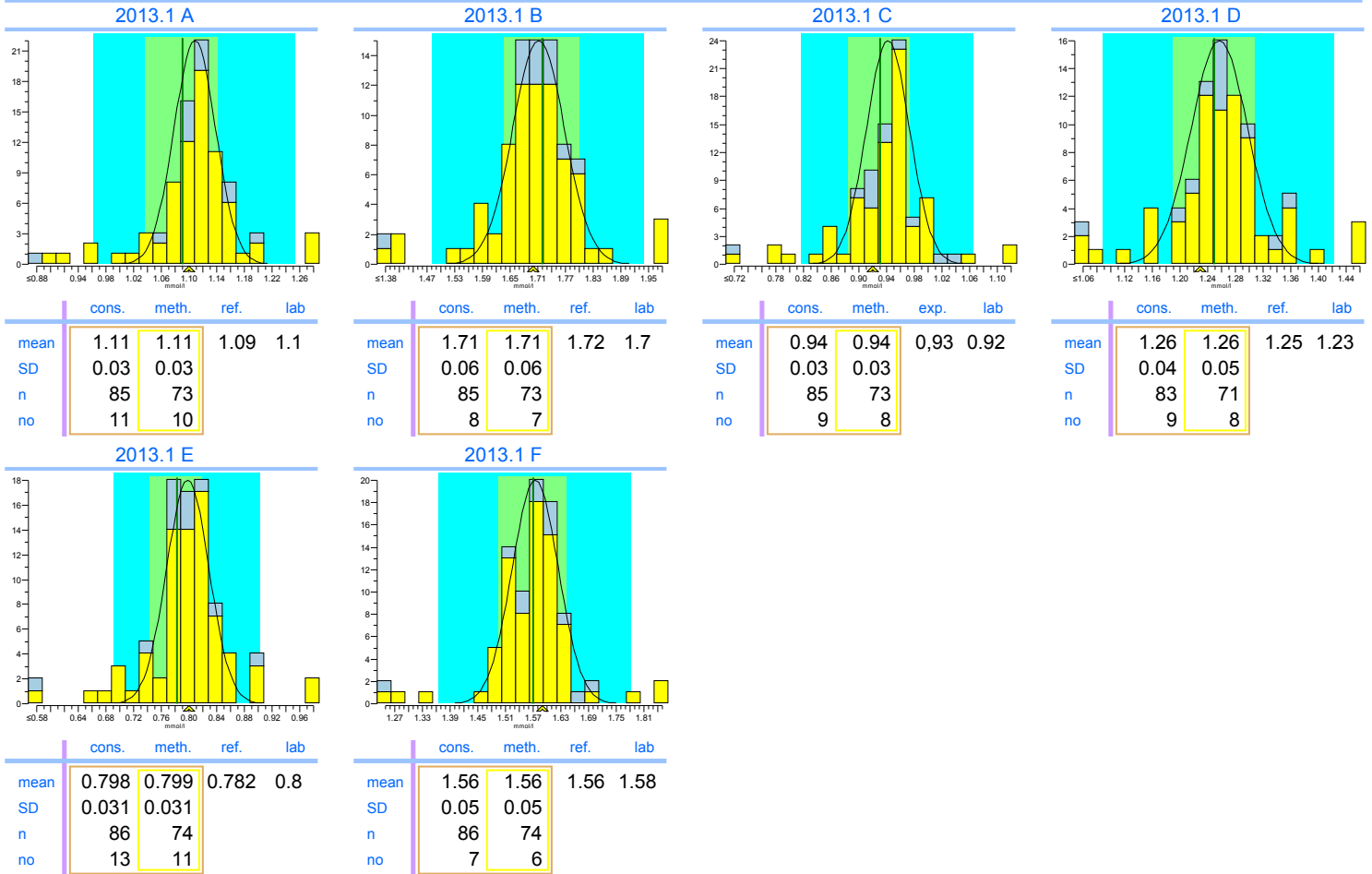
INPUTS 2013.1

Magnesium

units: mmol/l



	2013.1	cumulative
Trueness	-0.03%	-0.03%
Precision	1.3%	1.3%
Number	6	6
Outliers	0	0
Sigma-TE	3.4	3.4
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	<u>0.00 + 0.999.x</u>	<u>0.00 + 0.999.x</u>
Consensus group	Overall	
Method	Colorimetric	



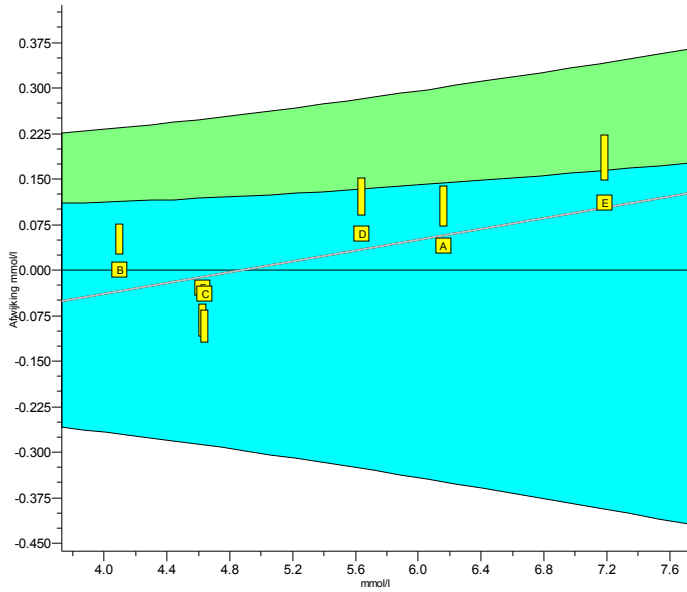
Legend



INPUTS 2013.1

Potassium

units: mmol/l



	2013.1	cumulative
Trueness	+0.43%	+0.43%
Precision	0.45%	0.45%
Number	6	6
Outliers	0	0
Sigma-TE	6.0 2	6.0 2
Sigma-SA	6.0	6.0
Score pictogram		
Regression line	$-0.22 + 1.044 \cdot x$	$-0.22 + 1.044 \cdot x$

Consensus group ISE verdund/Vlamfotometrie
Method ISE indirect (with predilution)

	2013.1 A	2013.1 B	2013.1 C	2013.1 D
	cons. meth. ref. lab	cons. meth. ref. lab	cons. meth. exp. lab	cons. meth. ref. lab
mean	6.05 6.05 6.16 6.2	4.02 4.02 4.10 4.1	4.55 4.55 4.64 4.6	5.55 5.55 5.64 5.7
SD	0.12 0.12	0.07 0.07	0.07 0.07	0.08 0.08
n	72 72	72 72	72 72	72 72
no	0 0	0 0	1 1	2 2
	2013.1 E	2013.1 F		
	cons. meth. ref. lab	cons. meth. ref. lab		
mean	7.08 7.08 7.19 7.3	4.54 4.54 4.63 4.6		
SD	0.14 0.14	0.08 0.08		
n	72 72	73 73		
no	0 0	2 2		

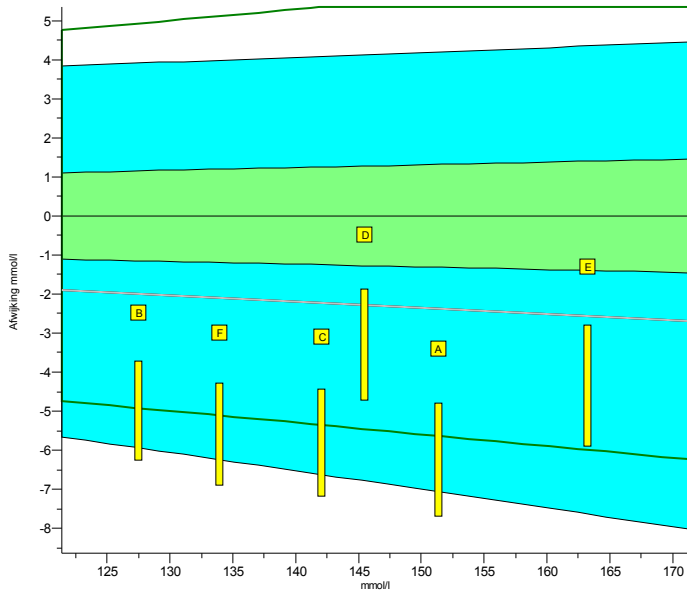
Legend

- ISE indirect (with predilution)
- ISE direct (no predilution)
- Other methods

INPUTS 2013.1

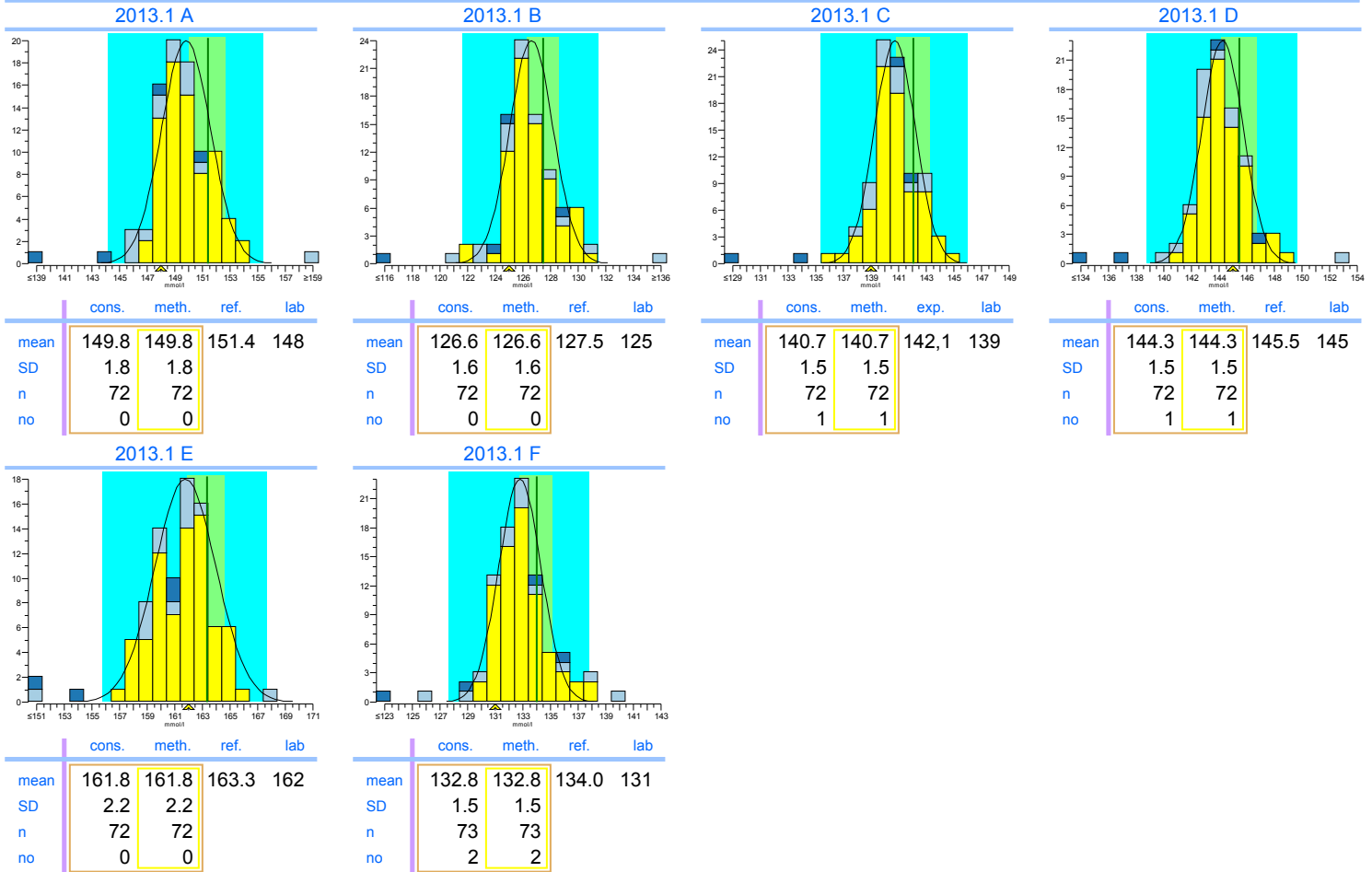
Sodium

units: mmol/l



	2013.1	cumulative
Trueness	-1.6%	-1.6%
Precision	0.85%	0.85%
Number	6	6
Outliers	0	0
Sigma-TE	-0.1	-0.1
Sigma-SA	3.5	3.5
Score pictogram		
Regression line	$0.0 + 0.984 \cdot x$	$0.0 + 0.984 \cdot x$

Consensus group ISE verdund/Vlamfotometrie
Method ISE indirect (with predilution)



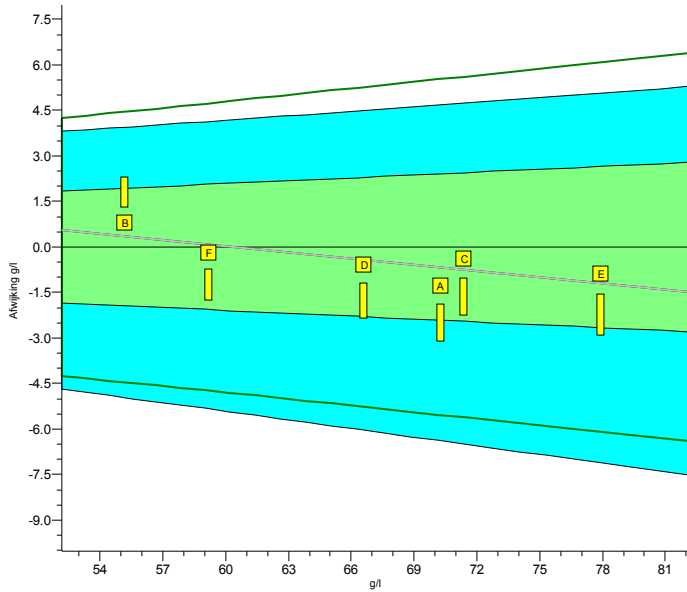
Legend

- ISE indirect (with predilution)
- ISE direct (no predilution)
- Other methods

INPUTS 2013.1

Total Protein

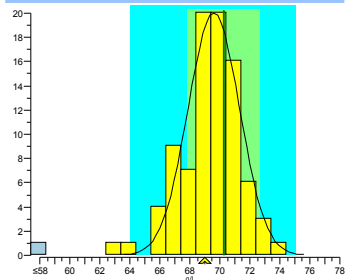
units: g/l



	2013.1	cumulative
Trueness	-0.65%	-0.65%
Precision	0.72%	0.72%
Number	6	6
Outliers	0	0
Sigma-TE	4.1	4.1
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	$4.2 + 0.931.x$	$4.2 + 0.931.x$

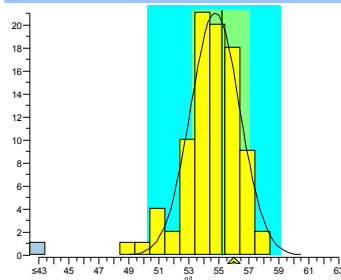
Consensus group: Biureet
Method: Biurete, automatic

2013.1 A



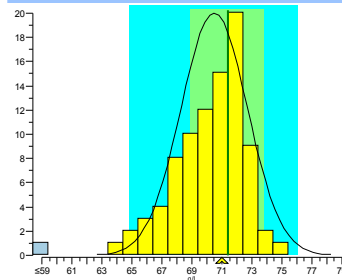
	cons.	meth.	ref.	lab
mean	69.6	69.6	70.3	69
SD	1.7	1.7		
n	88	88		
no	2	2		

2013.1 B



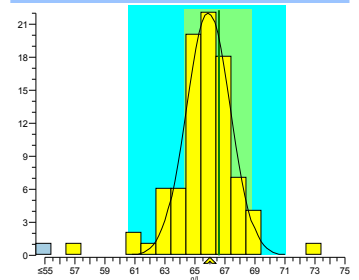
	cons.	meth.	ref.	lab
mean	54.8	54.8	55.2	56
SD	1.6	1.6		
n	88	88		
no	1	1		

2013.1 C



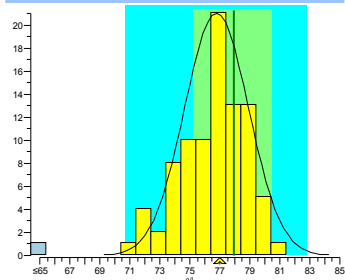
	cons.	meth.	exp.	lab
mean	70.5	70.5	71.4	71
SD	2.2	2.2		
n	87	87		
no	0	0		

2013.1 D



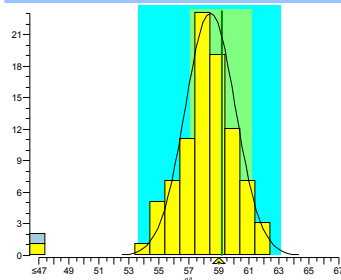
	cons.	meth.	ref.	lab
mean	65.9	65.9	66.6	66
SD	1.5	1.5		
n	88	88		
no	4	4		

2013.1 E



	cons.	meth.	ref.	lab
mean	76.8	76.8	77.9	77
SD	2.1	2.1		
n	88	88		
no	0	0		

2013.1 F



	cons.	meth.	ref.	lab
mean	58.4	58.4	59.2	59
SD	1.7	1.7		
n	89	89		
no	1	1		

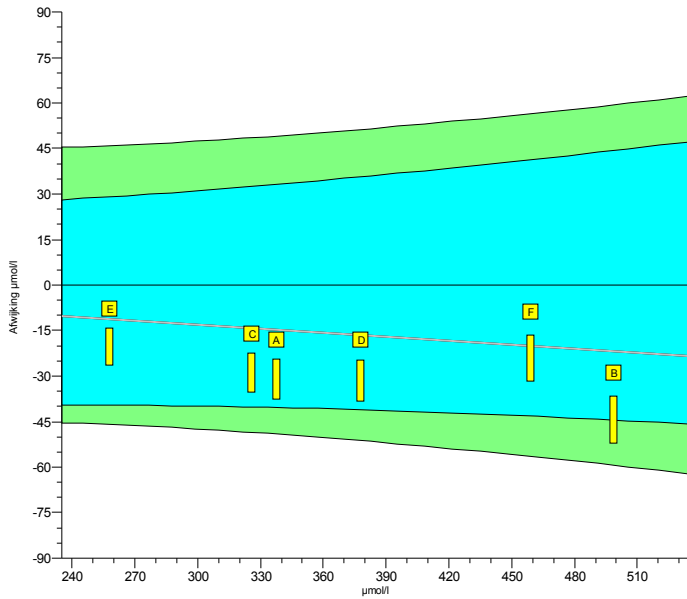
Legend

Biurete, automatic Other methods

INPUTS 2013.1

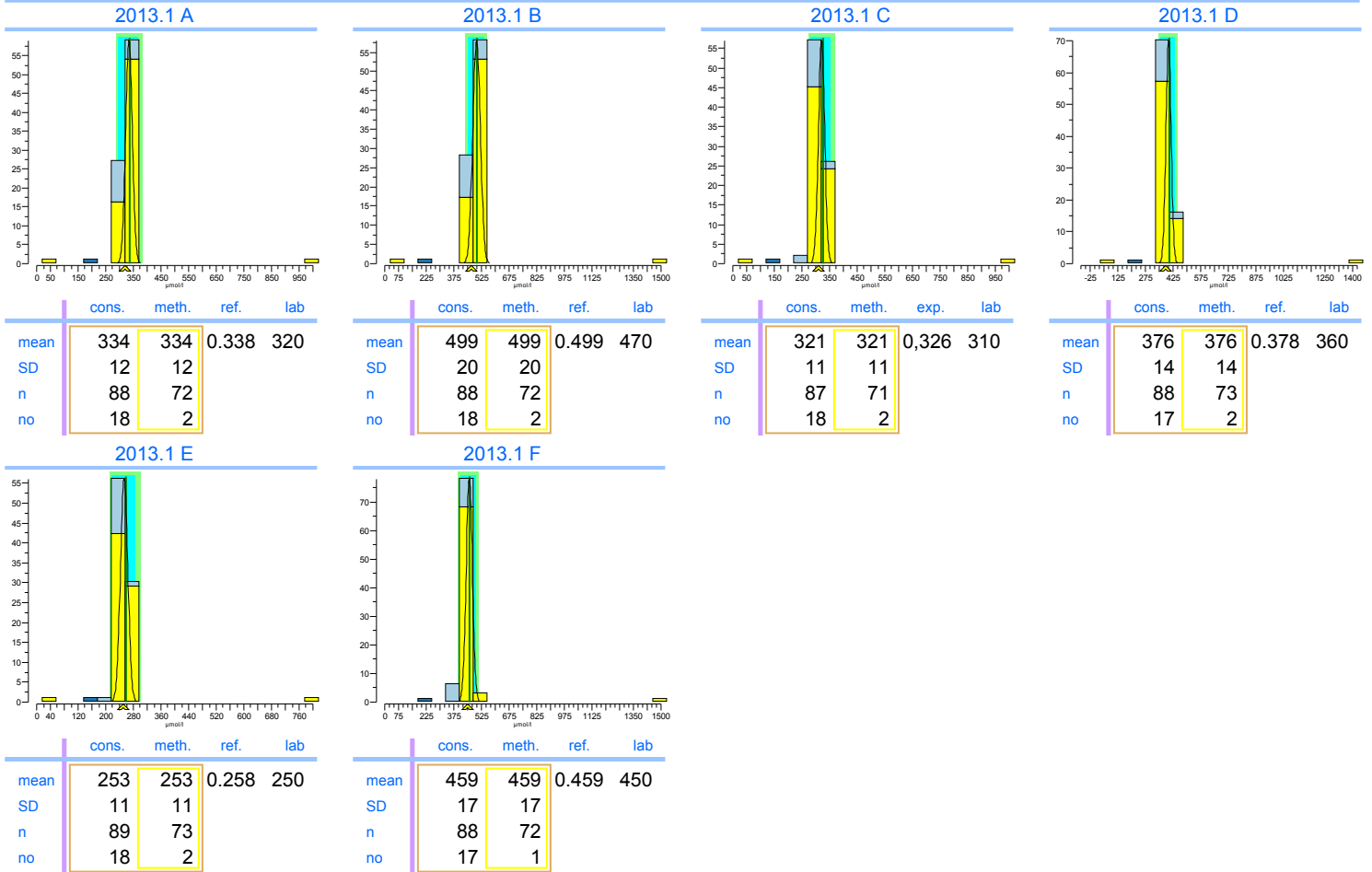
Urate

units: $\mu\text{mol/l}$



	2013.1	cumulative
Trueness	-4.3%	-4.3%
Precision	1.7%	1.7%
Number	6	6
Outliers	0	0
Sigma-TE	6.0 2	6.0 2
Sigma-SA	4.7	4.7
Score pictogram		
Regression line	$0 + 0.956.x$	$0 + 0.956.x$

Consensus group: Colorimetrisch
Method: Uricase, colorim., automatic



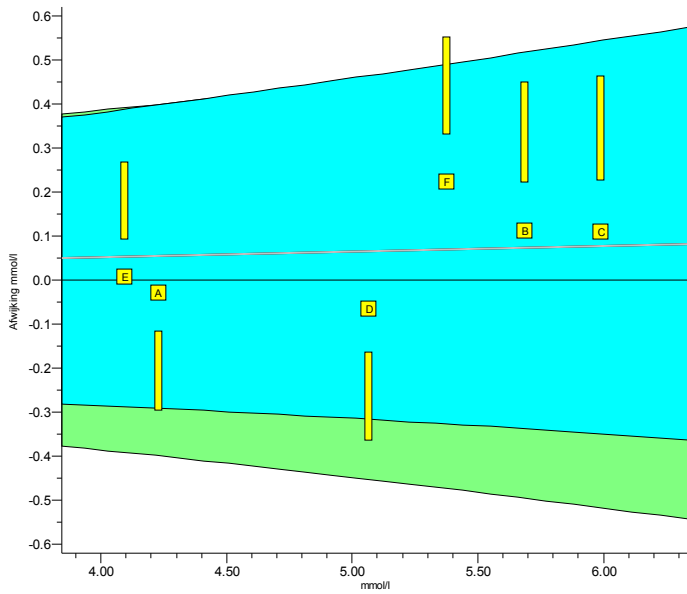
Legend

- Uricase, colorim., automatic
- Uricase, differential UV, automatic
- Overige methoden

INPUTS 2013.1

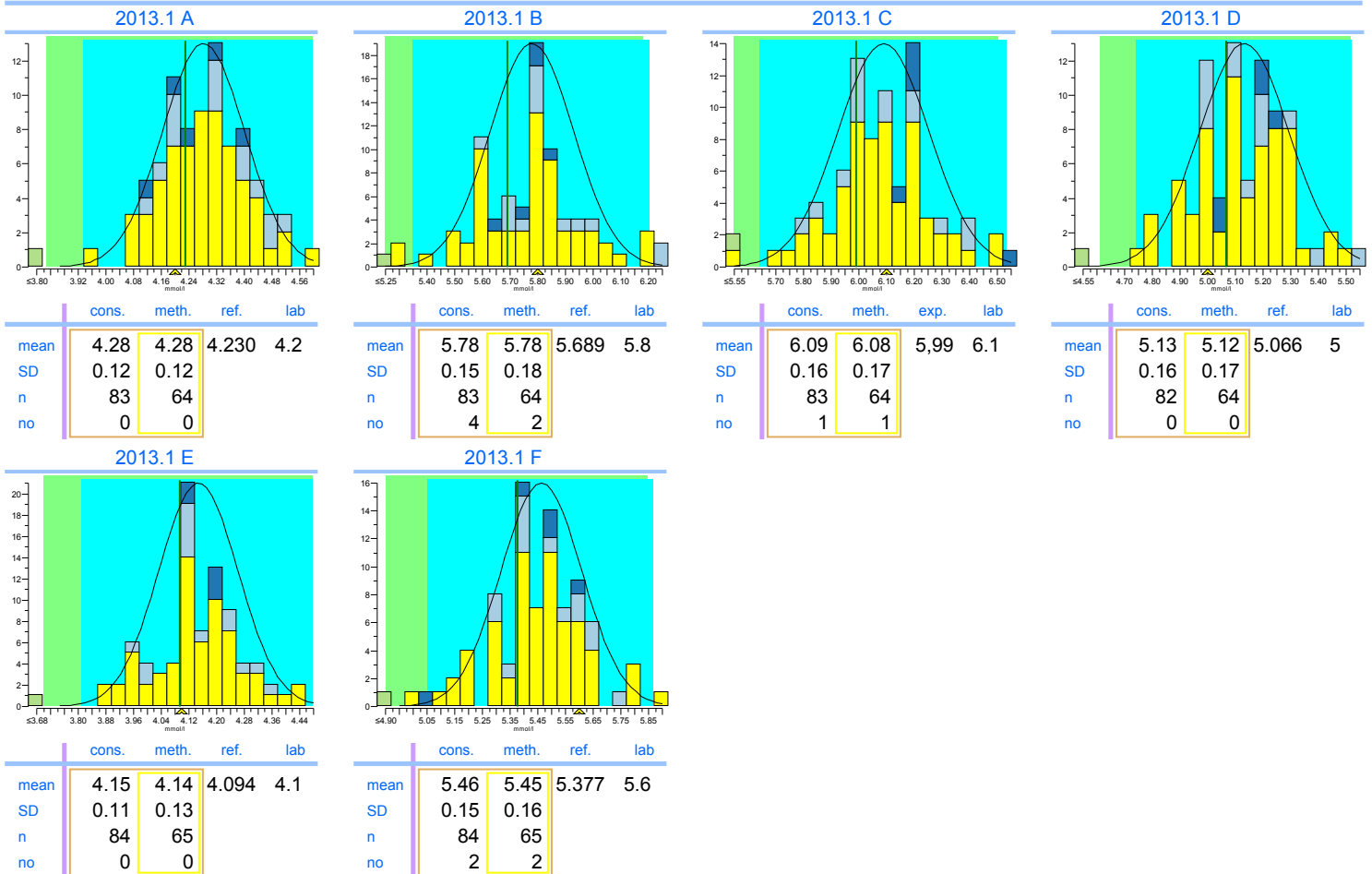
Cholesterol

units: mmol/l



	2013.1	cumulative
Trueness	+1.2%	+1.2%
Precision	1.9%	1.9%
Number	6	6
Outliers	0	0
Sigma-TE	5.3 2	5.3 2
Sigma-SA	4.5	4.5
Score pictogram		
Regression line	<u>0.00 + 1.013.x</u>	<u>0.00 + 1.013.x</u>

Consensus group	Enzymatisch
Method	Enzymatic, automatic, discrete



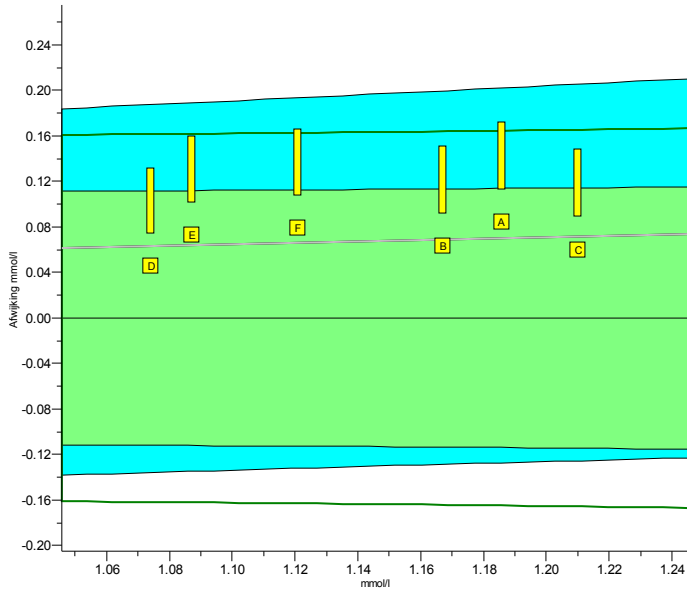
Legend

- Enzymatic, automatic, discrete
- Enzymatic, automatic, kinetic
- Abell-Kendall reference values
- Overige methoden

INPUTS 2013.1

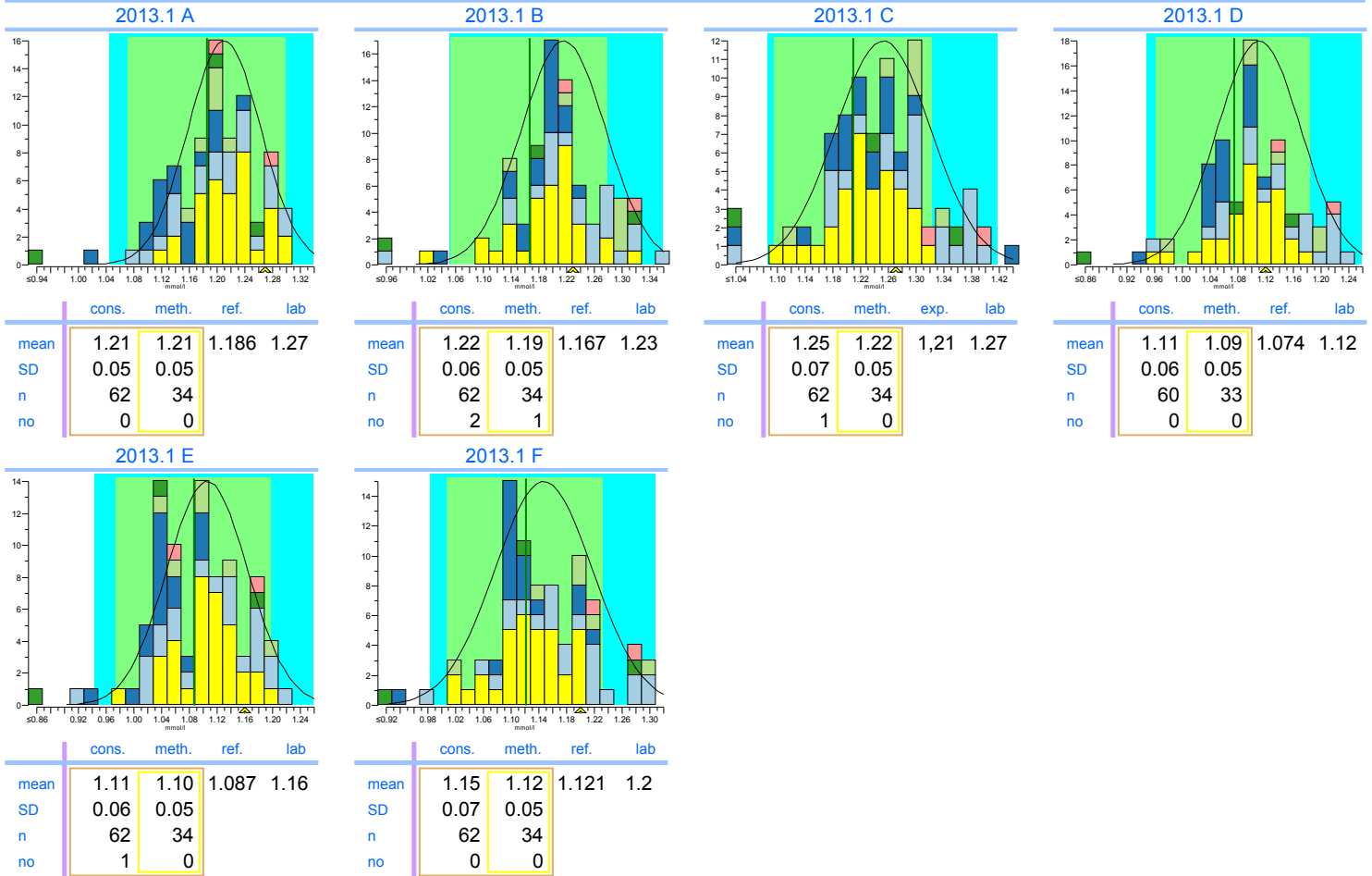
HDL-Cholesterol

units: mmol/l



	2013.1	cumulative
Trueness	+5.9%	+5.9%
Precision	2.0%	2.0%
Number	6	6
Outliers	0	0
Sigma-TE	2.7	2.7
Sigma-SA	4.9 2	4.9 2
Score pictogram		
Regression line	<u>0.00 + 1.059.x</u>	<u>0.00 + 1.059.x</u>

Consensus group	Direct
Method	PEG modified enzyme, PEGME (Kyowa Medex)



Legend

- PEG modified enzyme, PEGME (Kyowa Medex)
- Accelerator Selective Detergent (=Ultra HDL[®])
- Immunoinhibition
- Catalase method (Denka Seiken)
- Overige methoden
- Precipitation Technique