

Laboratorio Emotest s.r.l.

# MONTHLY HAEMATOLOGY

CYCLE 16 SAMPLE 7

## Explanation of codes used in this report

R - Results removed due to reconstitution error  
N - No result returned  
C - Result corrected

Authorised by: Sally Picton, RIQAS Manager

Issue No: 1

Issue Date: 13/07/2023

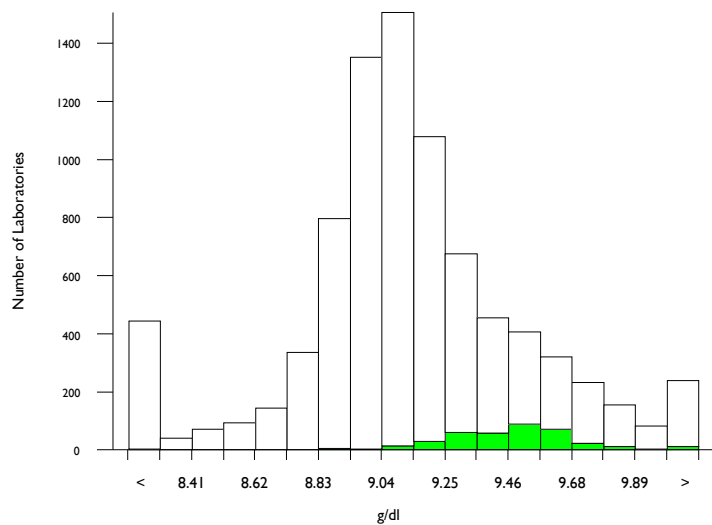
Randox Laboratories Limited  
55 Diamond Road  
CRUMLIN BT29 4QY  
Tel: +44 (0)28 9445 4399  
Fax: +44 (0)28 9445 4398  
Email: mail@riqas.com

# Haemoglobin, g/dl

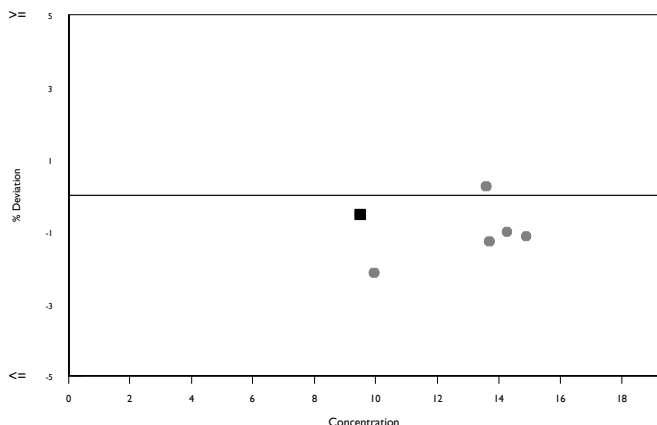
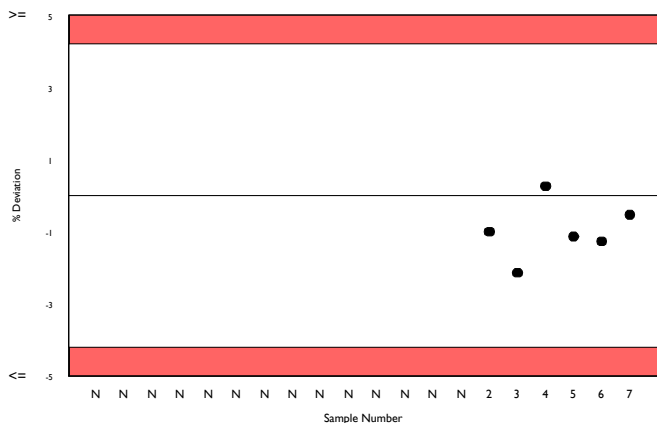
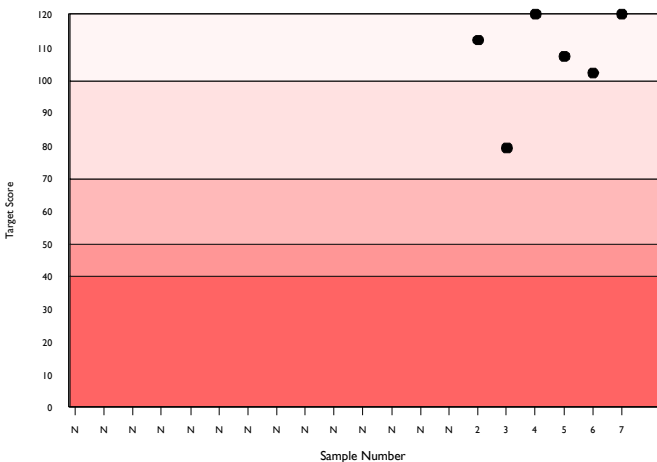
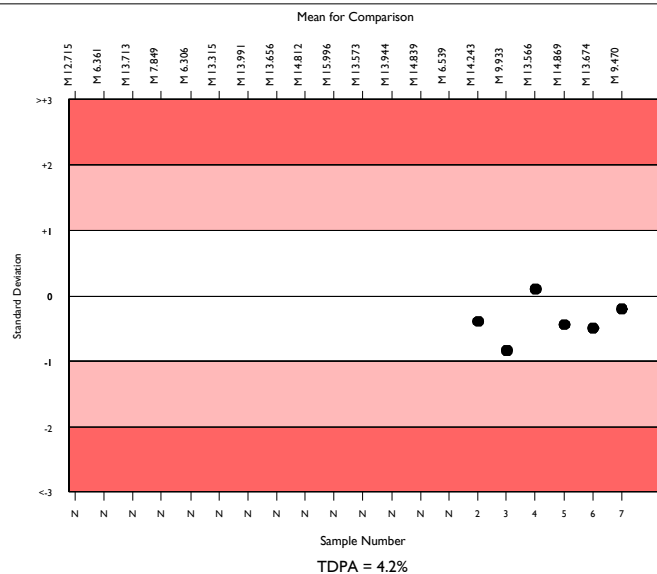
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7771	9.153	3.1	0.00	0.23	656
Abbott Cell-Dyn Ruby	351	9.470	1.8	0.01	0.24	25

▲ Your Result	9.420	SDI	-0.21
		RMSDI	Too Few
■ Mean for Comparison	9.470	TS	120
		RMTS	Too Few
		%DEV	-0.5
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	4.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1687	9.093	1.2	0.00
Sysmex XN-L Series (330/350/450/550)	665	8.972	1.1	0.00
Mindray BC-6000/6200/6600/6800/6800Plus	384	9.138	1.4	0.01
Abbott Cell-Dyn Ruby	351	9.470	1.8	0.01
Beckman Coulter DxH 600/800/900 Series	353	9.006	1.1	0.01
Sysmex XP Series	319	9.059	2.2	0.01
Mindray BC 1000/2000/3000 series	297	9.238	2.9	0.02
Nihon Kohden Celltac Alpha/plus	269	9.472	2.9	0.02
Calculated from HCT	246	7.984	3.8	0.02
Sysmex XS series	253	9.040	1.4	0.01
Siemens/Bayer Advia 120/2120	236	9.617	1.7	0.01
Mindray BC 5100/5180/5300/5380/5390	173	9.312	2.0	0.02
Manual Methods	162	8.055	4.8	0.04
Mindray BC 5000/5150/5140/5130/5120	147	9.106	1.6	0.01
ABX Micros/Minos/ABC VET	135	9.093	3.6	0.03
Sysmex XT series	125	9.092	1.2	0.01
Mindray BC 10/20/30	125	9.411	2.3	0.02
Beckman Coulter DxH 500 Series	111	8.705	2.4	0.02
Horiba Yumizen H500/ 550	105	9.066	1.5	0.02
Sysmex KX 21	104	9.057	2.2	0.02
Horiba ABX Pentra 60/80/XLR	99	9.110	1.5	0.02

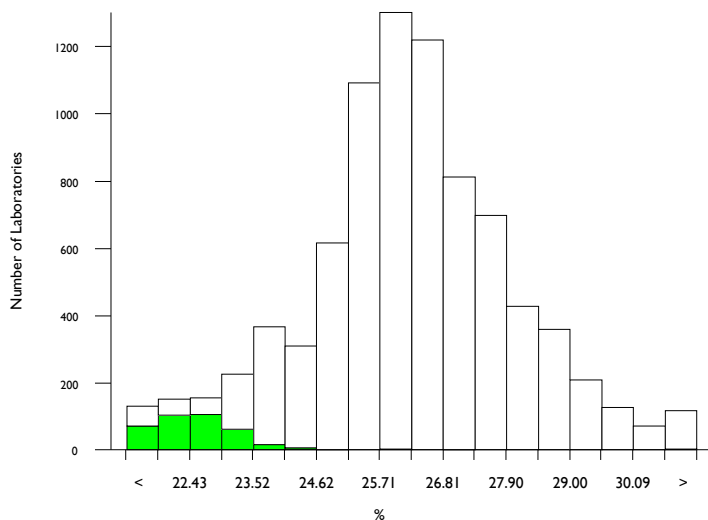


# Haematocrit (HCT), %

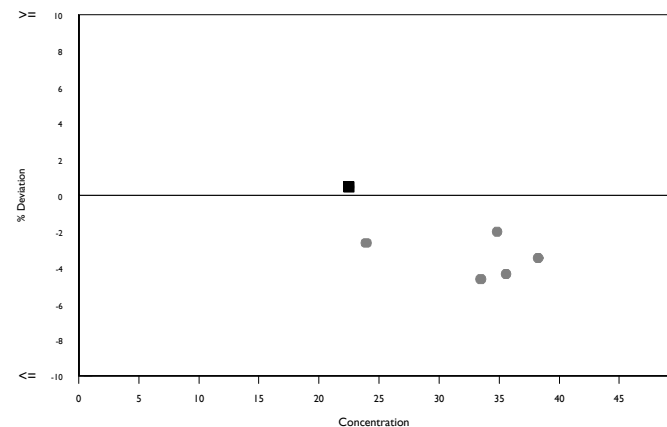
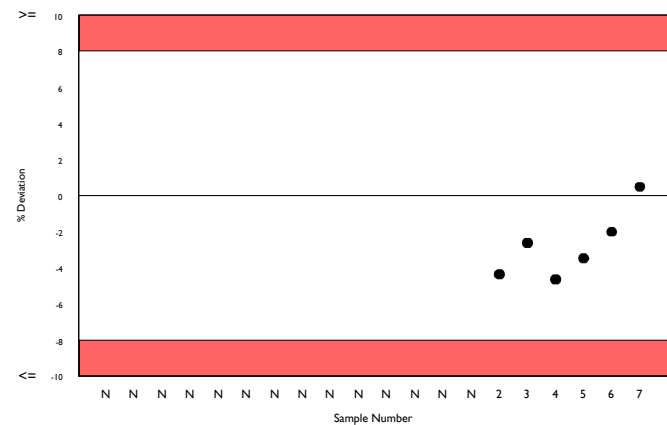
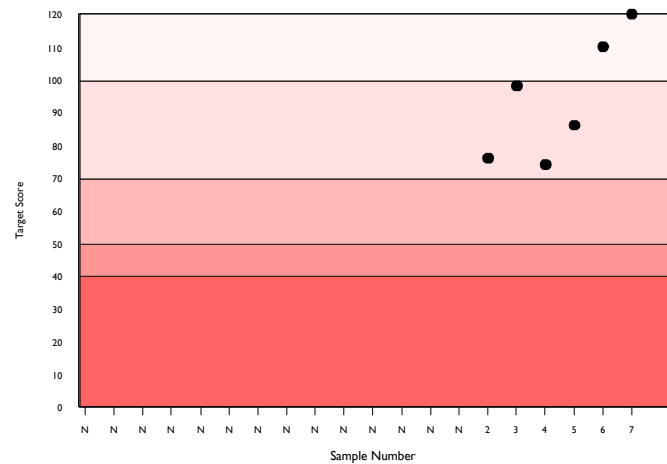
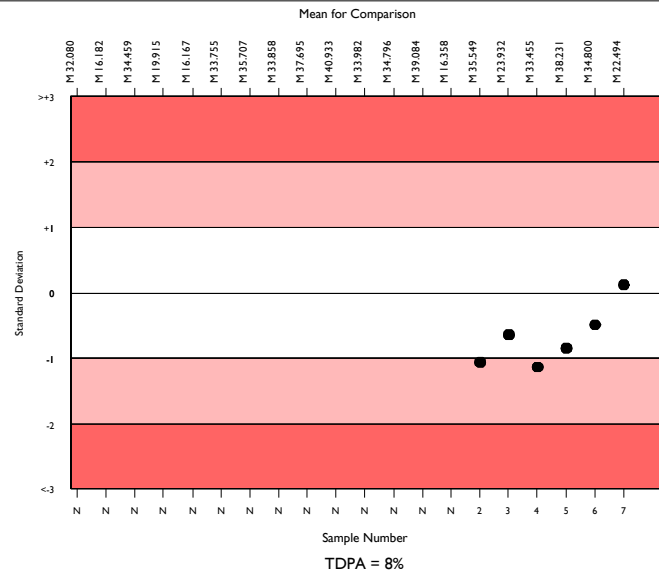
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7780	26.264	5.6	0.02	1.07	612
Abbott Cell-Dyn Ruby	342	22.494	2.8	0.04	0.92	29

▲ Your Result	22.600	SDI RMSDI	0.12 Too Few
■ Mean for Comparison	22.494	TS RMTS	120 Too Few
		%DEV RM%DEV	0.5 Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1703	25.989	2.0	0.02
Sysmex XN-L Series (330/350/450/550)	670	25.907	2.2	0.03
Mindray BC-6000/6200/6600/6800/6800Plus	377	28.996	2.0	0.04
Beckman Coulter DxH 600/800/900 Series	348	27.429	1.6	0.03
Abbott Cell-Dyn Ruby	342	22.494	2.8	0.04
Sysmex XP Series	308	24.782	2.6	0.05
Mindray BC 1000/2000/3000 series	292	26.874	3.5	0.07
Microhematocrit Centrifugation	280	24.351	3.1	0.06
Nihon Kohden Celltac Alpha/plus	275	27.624	3.5	0.07
Sysmex XS series	247	26.492	2.4	0.05
Siemens/Bayer Advia 120/2120	231	23.795	2.7	0.05
Mindray BC 5100/5180/5300/5380/5390	160	27.660	2.6	0.07
Manual Methods	167	24.290	3.5	0.08
Mindray BC 5000/5150/5140/5130/5120	151	27.216	2.8	0.08
ABX Micros/Minos/ABC VET	133	25.975	3.7	0.11
Sysmex XT series	130	26.753	2.5	0.07
Mindray BC 10/20/30	121	26.989	2.8	0.09
Beckman Coulter DxH 500 Series	109	26.617	2.5	0.08
Horiba Yumizen H500/ 550	107	25.645	3.0	0.09
Sysmex KX 21	101	25.022	2.7	0.08
Horiba ABX Pentra 60/80/XLR	99	25.263	2.2	0.07

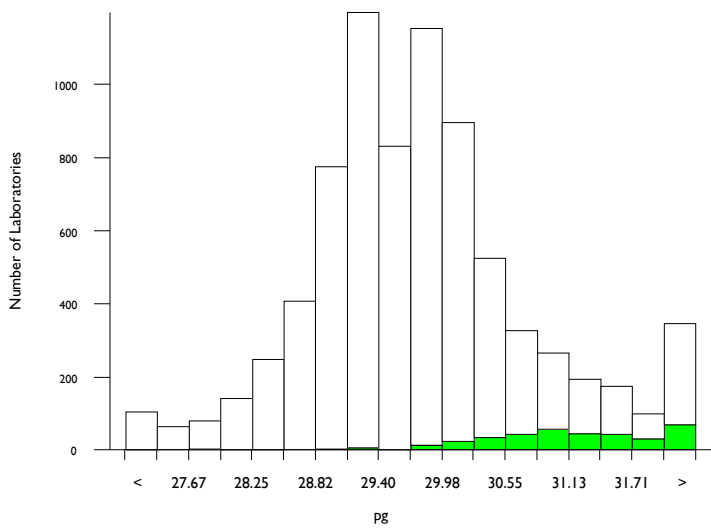


# MCH, pg

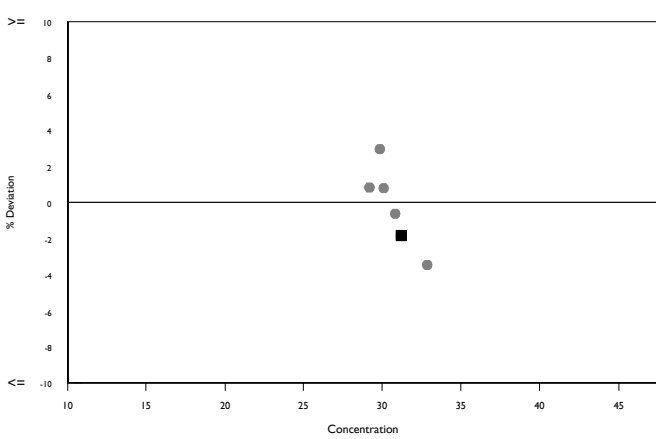
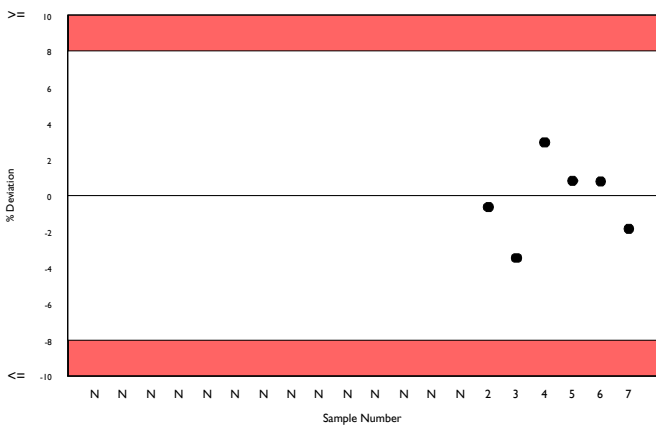
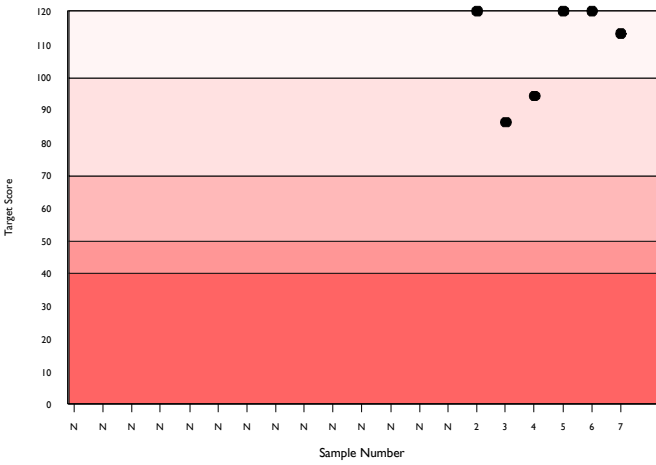
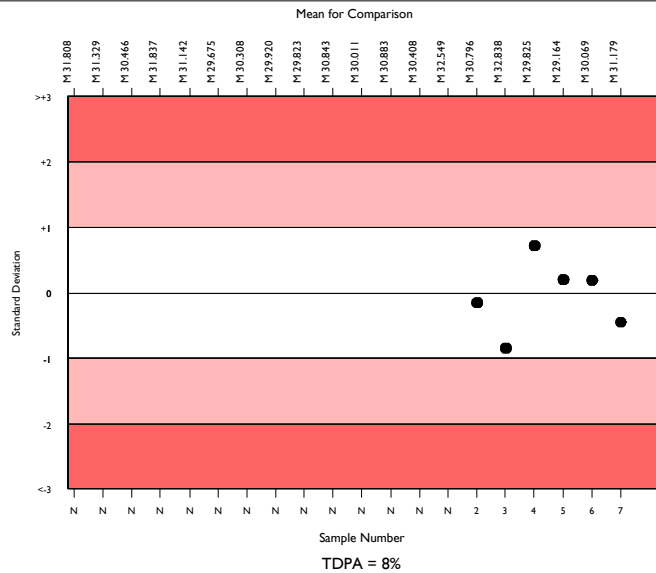
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7186	29.692	2.6	0.01	1.21	631
Abbott Cell-Dyn Ruby	347	31.179	2.5	0.05	1.27	20

▲ Your Result	30.600	SDI	-0.46
		RMSDI	Too Few
■ Mean for Comparison	31.179	TS	113
		RMTS	Too Few
		%DEV	-1.9
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1720	29.593	1.4	0.01
Sysmex XN-L Series (330/350/450/550)	663	29.578	1.3	0.02
Mindray BC-6000/6200/6600/6800/6800Plus	378	29.379	1.6	0.03
Beckman Coulter DxH 600/800/900 Series	347	29.172	1.5	0.03
Abbott Cell-Dyn Ruby	347	31.179	2.5	0.05
Sysmex XP Series	313	29.317	2.4	0.05
Mindray BC 1000/2000/3000 series	287	29.385	3.4	0.07
Nihon Kohden Celltac Alpha/plus	267	30.125	3.5	0.08
Sysmex XS series	243	29.574	1.7	0.04
Siemens/Bayer Advia 120/2120	225	30.553	2.0	0.05
Mindray BC 5100/5180/5300/5380/5390	166	30.230	1.9	0.06
Mindray BC 5000/5150/5140/5130/5120	148	29.931	2.4	0.08
ABX Micros/Minos/ABC VET	127	29.566	3.1	0.10
Sysmex XT series	125	29.241	1.5	0.05
Mindray BC 10/20/30	124	30.877	3.3	0.11
Beckman Coulter DxH 500 Series	107	28.339	2.5	0.09
Horiba Yumizen H500/ 550	108	29.405	1.9	0.07
Sysmex KX 21	101	29.500	2.2	0.08
Horiba ABX Pentra 60/80/XLR	96	29.672	1.4	0.05
Boule Medonic/ Swelab 3-part diff	87	31.721	2.1	0.09
Nihon Kohden Celltac E/Es	80	29.980	2.1	0.09

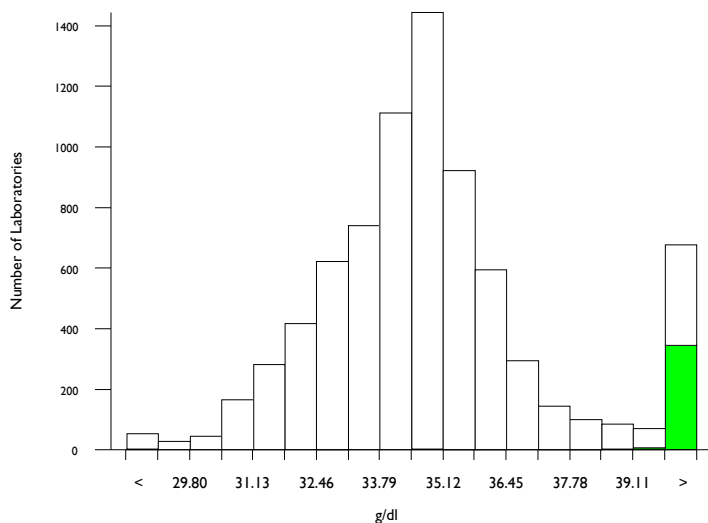


# MCHC, g/dl

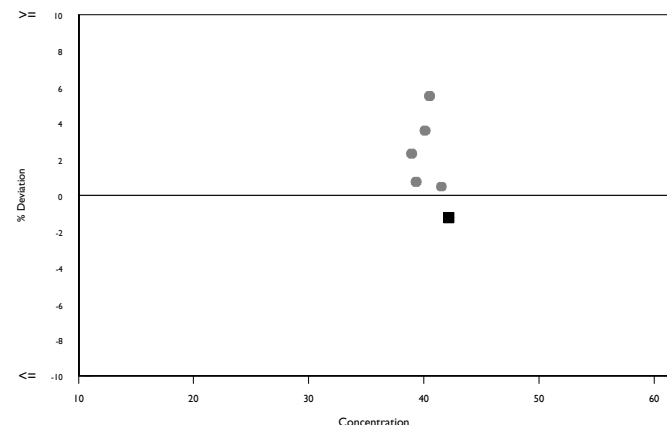
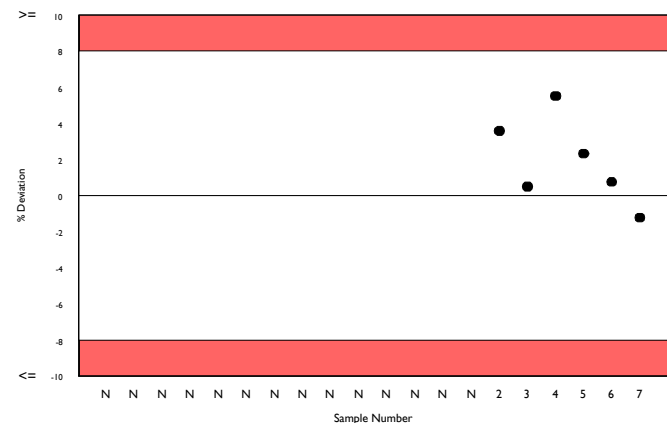
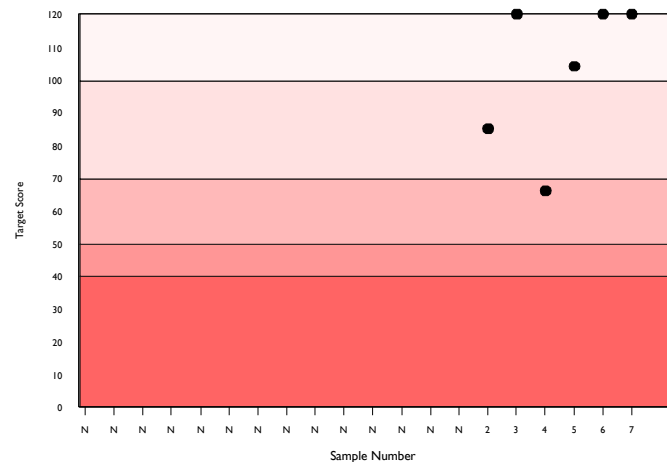
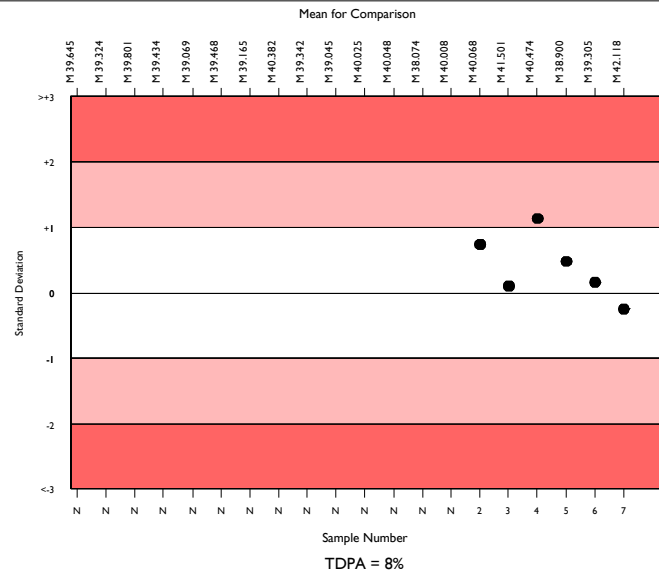
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7090	34.459	5.1	0.03	1.68	707
Abbott Cell-Dyn Ruby	327	42.118	2.8	0.08	2.05	39

▲ Your Result	41.600	SDI	-0.25
		RMSDI	Too Few
■ Mean for Comparison	42.118	TS	120
		RMTS	Too Few
		%DEV	-1.2
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1704	34.965	2.1	0.02
Sysmex XN-L Series (330/350/450/550)	661	34.594	1.9	0.03
Mindray BC-6000/6200/6600/6800/6800Plus	370	31.481	1.8	0.04
Beckman Coulter DxH 600/800/900 Series	348	32.840	1.8	0.04
Abbott Cell-Dyn Ruby	327	42.118	2.8	0.08
Sysmex XP Series	309	36.487	3.3	0.09
Mindray BC 1000/2000/3000 series	283	34.140	4.0	0.10
Nihon Kohden Celltac Alpha/plus	256	34.287	3.9	0.10
Sysmex XS series	242	34.105	2.4	0.07
Siemens/Bayer Advia 120/2120	218	40.478	2.8	0.10
Mindray BC 5100/5180/5300/5380/5390	166	33.692	2.9	0.09
Mindray BC 5000/5150/5140/5130/5120	146	33.533	2.4	0.08
ABX Micros/Minos/ABC VET	126	34.813	4.0	0.15
Sysmex XT series	128	34.010	2.5	0.09
Mindray BC 10/20/30	122	34.870	3.5	0.14
Beckman Coulter DxH 500 Series	105	32.627	2.6	0.10
Horiba Yumizen H500/ 550	108	35.389	3.0	0.13
Sysmex KX 21	102	36.377	3.5	0.16
Horiba ABX Pentra 60/80/XLR	98	36.000	1.9	0.09
Boule Medonic/ Swelab 3-part diff	89	37.517	3.8	0.19
Nihon Kohden Celltac E/Es	78	33.540	2.3	0.11



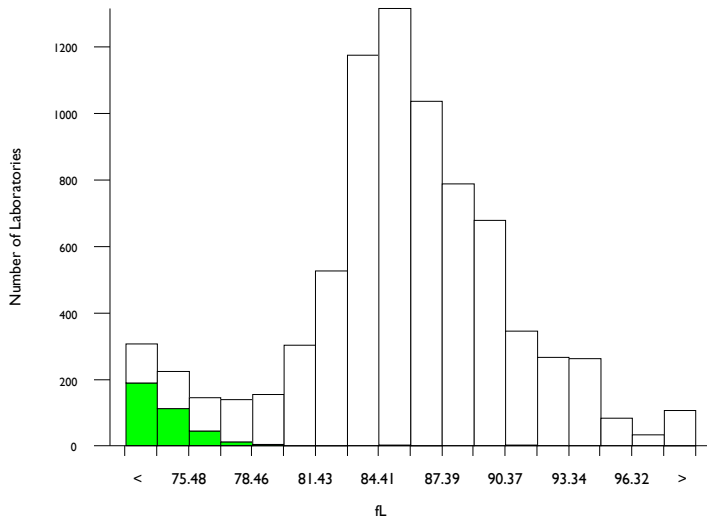
# MCV, fL

- All Methods
- Abbott Cell-Dyn Ruby

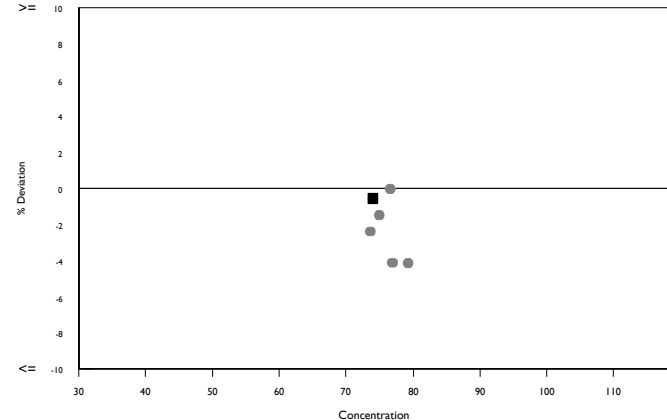
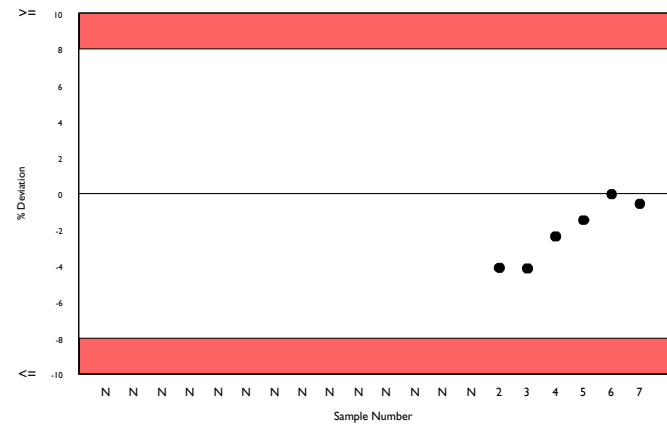
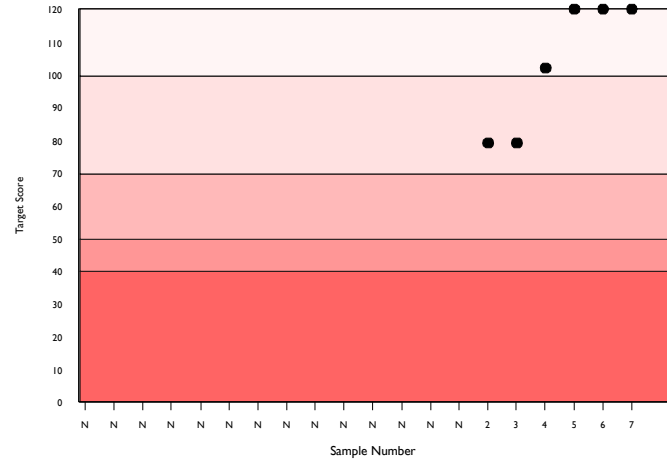
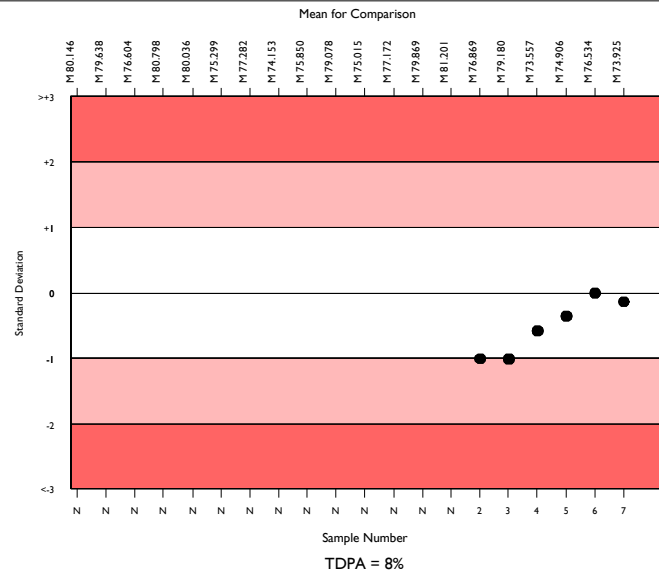
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7230	85.904	4.6	0.06	3.51	649
Abbott Cell-Dyn Ruby	337	73.925	2.0	0.10	3.02	34

<b>▲ Your Result</b>	73.500	SDI	-0.14
		RMSDI	Too Few
<b>■ Mean for Comparison</b>	73.925	TS	120
		RMTS	Too Few
		%DEV	-0.6
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1693	84.541	1.6	0.04
Sysmex XN-L Series (330/350/450/550)	670	85.441	1.6	0.06
Mindray BC-6000/6200/6600/6800/6800Plus	373	93.357	1.5	0.09
Beckman Coulter DxH 600/800/900 Series	336	88.836	0.9	0.06
Abbott Cell-Dyn Ruby	337	73.925	2.0	0.10
Sysmex XP Series	311	80.343	2.4	0.14
Mindray BC 1000/2000/3000 series	287	85.937	2.7	0.17
Nihon Kohden Celltac Alpha/plus	258	87.645	2.5	0.17
Sysmex XS series	244	86.602	1.8	0.12
Siemens/Bayer Advia 120/2120	227	75.336	2.2	0.14
Mindray BC 5100/5180/5300/5380/5390	174	90.030	2.3	0.20
Mindray BC 5000/5150/5140/5130/5120	144	89.571	1.8	0.17
ABX Micros/Minos/ABC VET	133	84.319	3.1	0.28
Sysmex XT series	129	86.082	2.1	0.20
Mindray BC 10/20/30	119	88.675	1.8	0.18
Beckman Coulter DxH 500 Series	111	86.926	1.7	0.18
Horiba Yumizen H500/ 550	104	82.868	1.9	0.19
Sysmex KX 21	101	81.146	2.8	0.29
Horiba ABX Pentra 60/80/XLR	98	82.563	2.0	0.21
Boule Medonic/Swelab 3-part diff	89	84.115	2.6	0.29
Nihon Kohden Celltac E/Es	78	89.292	2.1	0.27

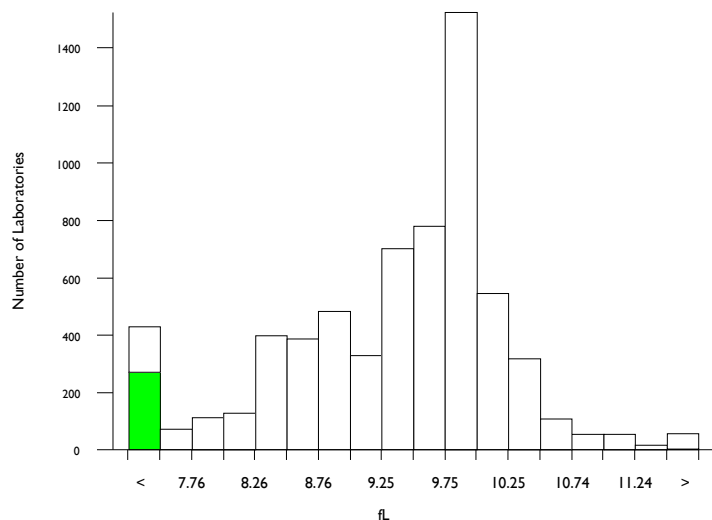


# Mean Platelet Volume, fL

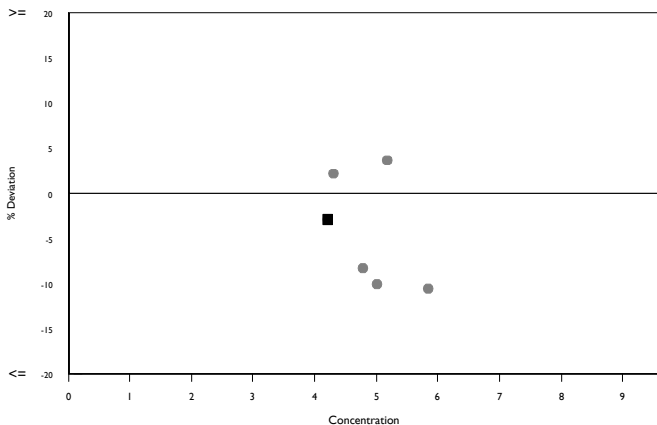
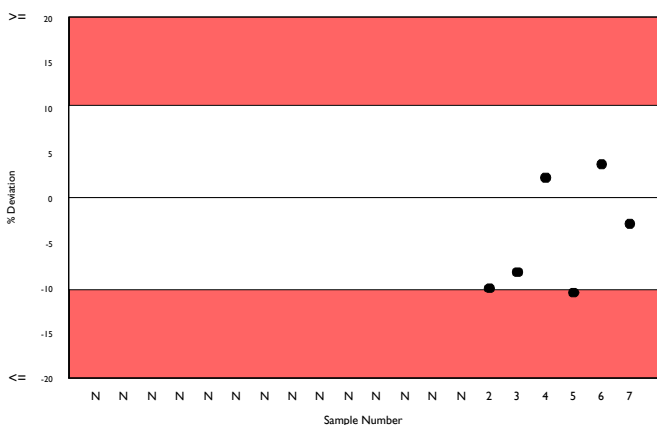
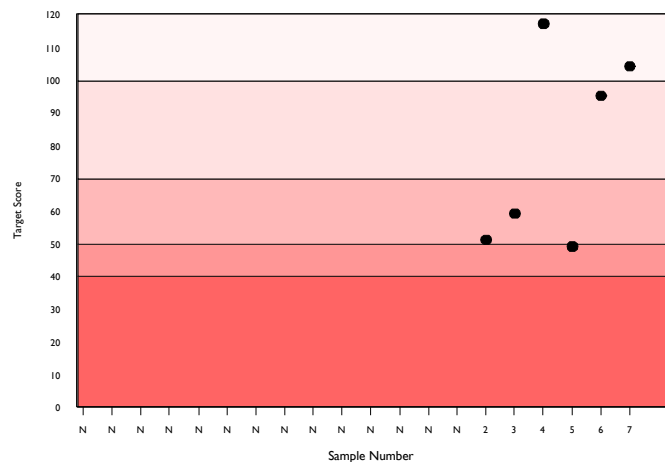
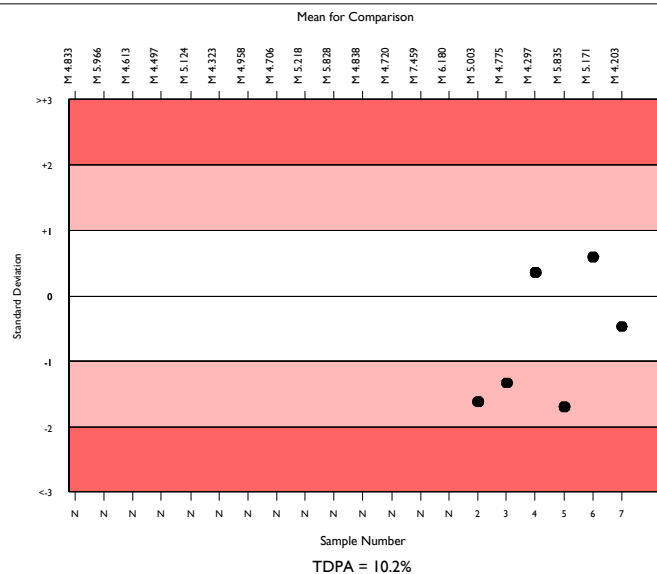
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	5906	9.507	7.0	0.01	0.59	588
Abbott Cell-Dyn Ruby	261	4.203	7.2	0.02	0.26	20

▲ Your Result	4.080	SDI	-0.47
		RMSDI	Too Few
■ Mean for Comparison	4.203	TS	104
		RMTS	Too Few
		%DEV	-2.9
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	10.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1426	9.848	1.8	0.01
Sysmex XN-L Series (330/350/450/550)	458	9.901	1.9	0.01
Mindray BC-6000/6200/6600/6800/6800Plus	346	10.193	3.7	0.03
Beckman Coulter DxH 600/800/900 Series	281	8.610	2.4	0.02
Sysmex XP Series	258	9.261	2.0	0.01
Mindray BC 1000/2000/3000 series	267	9.044	6.1	0.04
Abbott Cell-Dyn Ruby	261	4.203	7.2	0.02
Nihon Kohden Celltac Alpha/plus	230	8.549	5.6	0.04
Sysmex XS series	207	9.835	2.4	0.02
Siemens/Bayer Advia 120/2120	173	10.790	5.1	0.05
Mindray BC 5000/5150/5140/5130/5120	127	10.116	1.9	0.02
Mindray BC 5100/5180/5300/5380	111	8.916	2.9	0.03
Sysmex XT series	107	9.566	2.5	0.03
Mindray BC 10/20/30	100	9.778	1.9	0.02
ABX Micros/Minos/ABC VET	95	8.504	5.7	0.06
Horiba Yumizen H500/ 550	95	10.147	4.0	0.05
Beckman Coulter DxH 500 Series	93	8.798	2.9	0.03
Sysmex KX 21	80	9.160	2.4	0.03
Horiba ABX Pentra 60/80/XLR	82	9.421	3.0	0.04
Boule Medonic/ Swelab 3-part diff	77	8.761	3.8	0.05
Erba Lachema Elite series	68	9.326	4.2	0.06

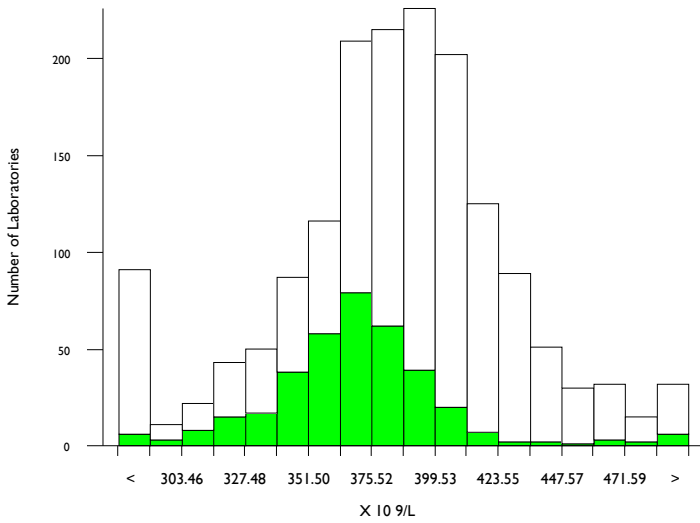


# Platelets (Optical Count), X 10<sup>9</sup>/L

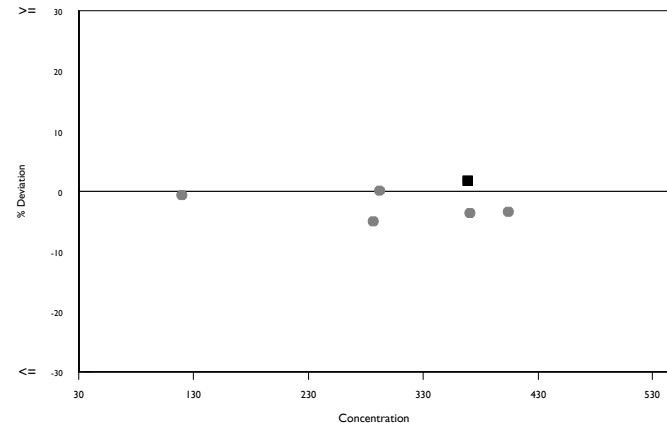
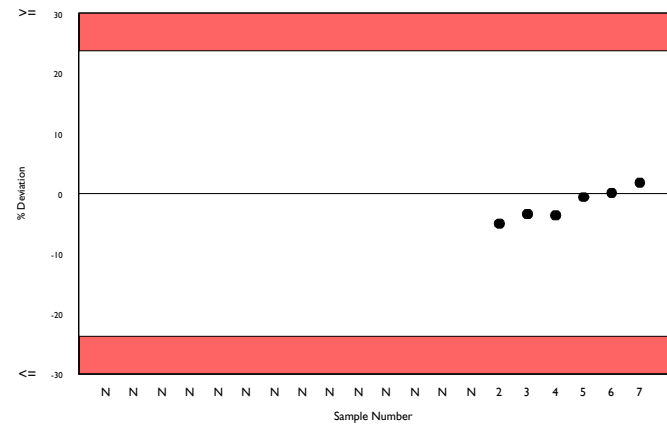
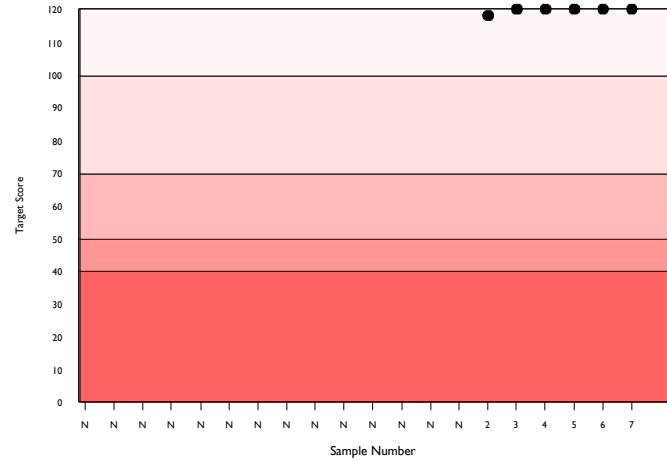
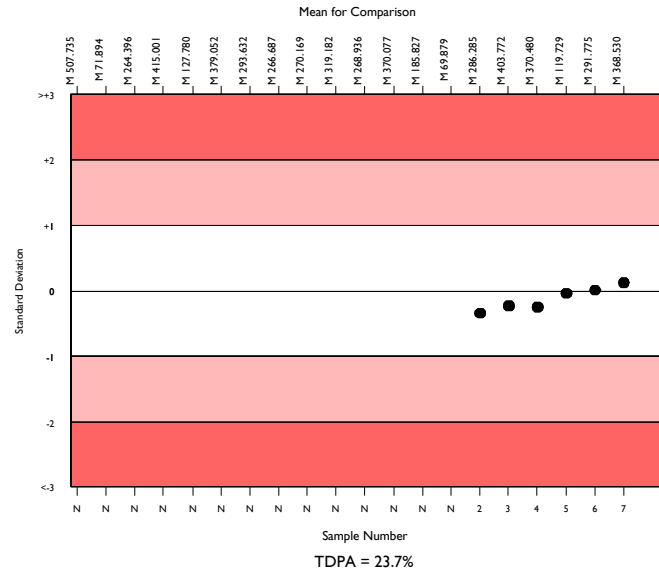
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	1486	387.530	8.3	1.04	55.84	161
Abbott Cell-Dyn Ruby	339	368.530	6.2	1.54	53.10	29

▲ Your Result	375.000	SDI	0.12
		RMSDI	Too Few
■ Mean for Comparison	368.530	TS	120
		RMTS	Too Few
		%DEV	1.8
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	23.70%



Method	N	Mean	CV%	U <sub>m</sub>
Manual Methods	338	379.609	10.5	2.70
Abbott Cell-Dyn Ruby	339	368.530	6.2	1.54
Siemens/Bayer Advia 120/2120	232	375.630	7.0	2.15
Sysmex XN Series PLT-O	143	414.385	9.1	3.95
Abbott Alinity hq	73	408.253	3.3	1.99
Sysmex XN-L Series (330/350/450/550)	62	396.475	5.2	3.26
Mindray BC-6000/6200/6600/6800/6800Plus	64	413.484	6.0	3.86
Sysmex XS Series	49	408.776	3.5	2.54
Beckman Coulter DxH 600/800/900 Series	31	404.290	2.6	2.40
Sysmex XT Series	26	397.530	3.7	3.58
Abbott Cell-Dyn 3200	23	367.489	11.1	10.63
Horiba Yumizen H500/ 550	11	424.273	4.0	6.35
Sysmex XN Series PLT-F	10	384.300	3.4	5.18
Abbott Cell-Dyn Sapphire	10	402.800	5.6	8.95
Sysmex KX21	10	423.200	8.2	13.64
Beckman Coulter DxH 500 Series	9	451.789	5.5	10.30
UDIHEM-D	9	419.556	7.5	13.09
Horiba ABX Pentra 60/80/XLR	9	417.333	2.5	4.30
ABX Micros/Minos/ABC VET	7	406.429	10.1	19.32
Mindray BC760/780	5	428.800	1.8	4.39
Horiba Yumizen HI500/ 2500	5	445.200	4.2	10.47



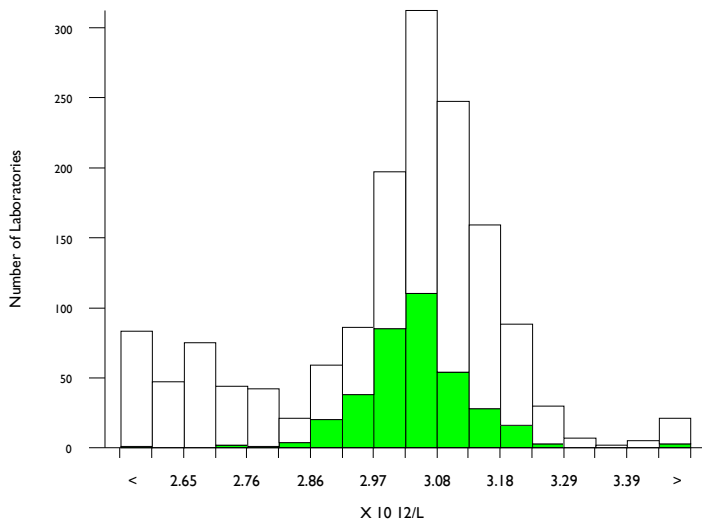


# RBC (Optical Count), X 10<sup>12</sup>/L

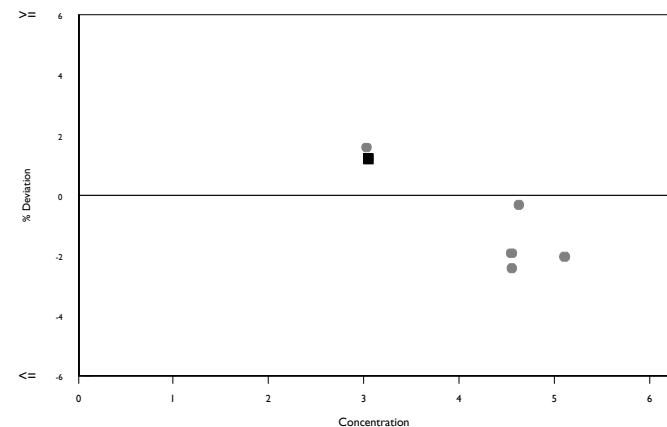
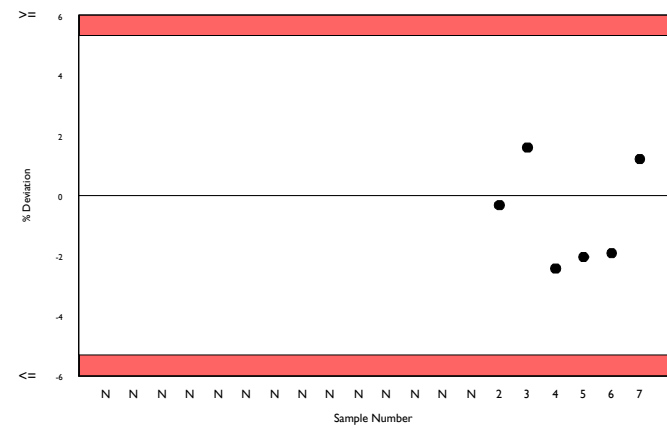
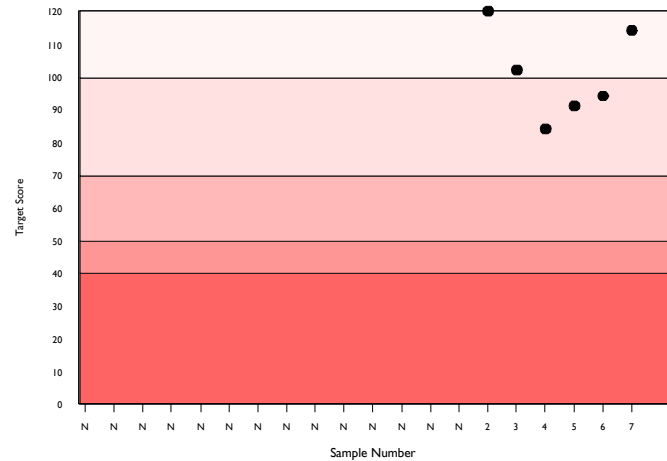
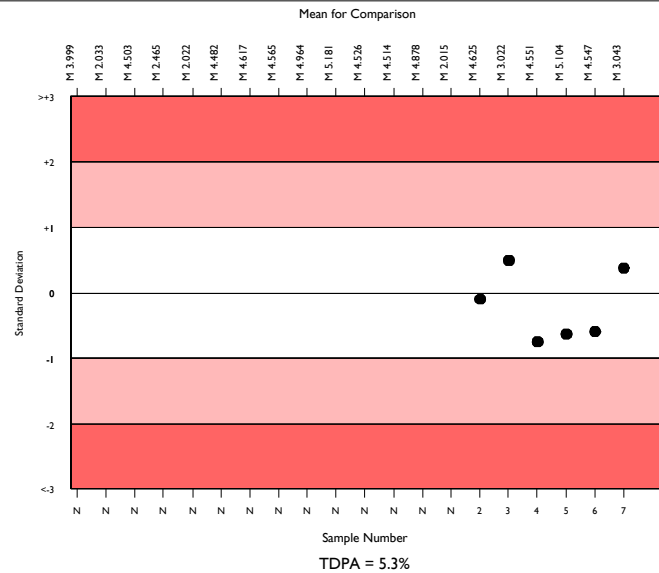
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	1376	3.028	4.7	0.00	0.10	150
Abbott Cell-Dyn Ruby	341	3.043	2.3	0.00	0.10	25

▲ Your Result	3.080	SDI	0.38
		RMSDI	Too Few
■ Mean for Comparison	3.043	TS	114
		RMTS	Too Few
		%DEV	1.2
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	5.30%



Method	N	Mean	CV%	U <sub>m</sub>
Abbott Cell-Dyn Ruby	341	3.043	2.3	0.00
Manual Methods	300	2.716	4.6	0.01
Siemens/Bayer Advia 120/2120	228	3.146	1.8	0.00
Sysmex XN Series	175	3.054	1.9	0.01
Abbott Alinity iq	68	3.036	1.8	0.01
Mindray BC-6000/6200/6600/6800/6800Plus	52	3.098	1.5	0.01
Sysmex XS Series	51	3.064	1.7	0.01
Beckman Coulter DxH 600/800/900 Series	30	3.085	1.6	0.01
Sysmex XT Series	28	3.098	3.1	0.02
Abbott Cell-Dyn 3200	24	3.086	3.6	0.03
Horiba Yumizen H500/ 550	14	3.074	1.8	0.02
Sysmex KX21	12	3.096	2.6	0.03
Horiba ABX Pentra 60/80/XLR	9	3.014	1.3	0.02
Beckman Coulter DxH 500 Series	7	3.097	2.7	0.04
UDIHEM-D	8	3.188	1.7	0.02
Abbott Cell-Dyn Sapphire	8	3.233	3.3	0.05
ABX Micros/Minos/ABC VET	5	3.050	2.1	0.04
Avantor Benesphera H-51	3	3.080	1.3	0.03
ABX Pentra 120/Nexus Series	3	3.067	2.4	0.05
B&E Scientific Hemax 530	2	3.065	0.7	0.02
MTI Diagnostics Auto Star Diff 5	2	3.090	4.1	0.11

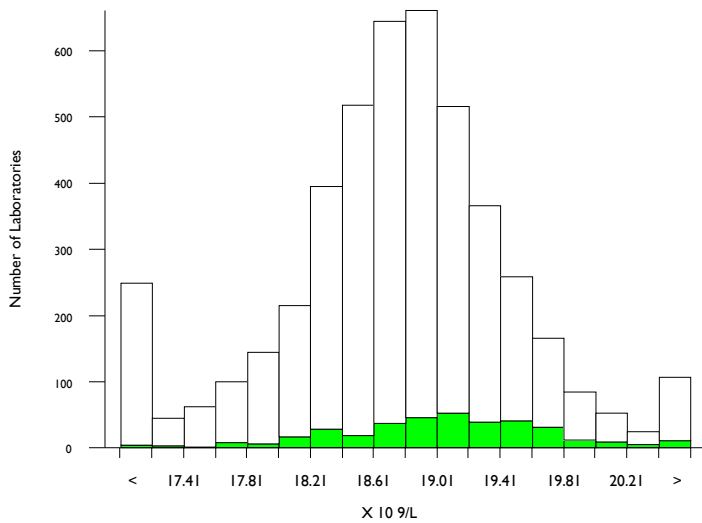


# WBC (Optical Count), X 10<sup>9</sup>/L

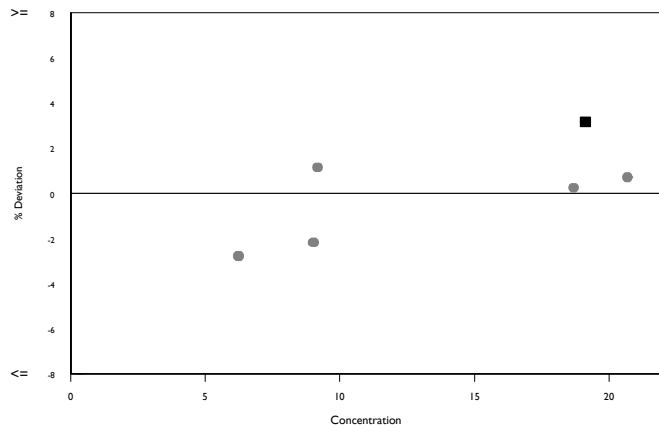
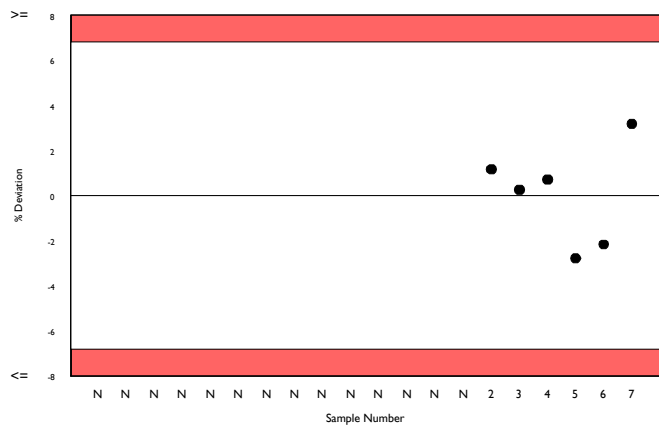
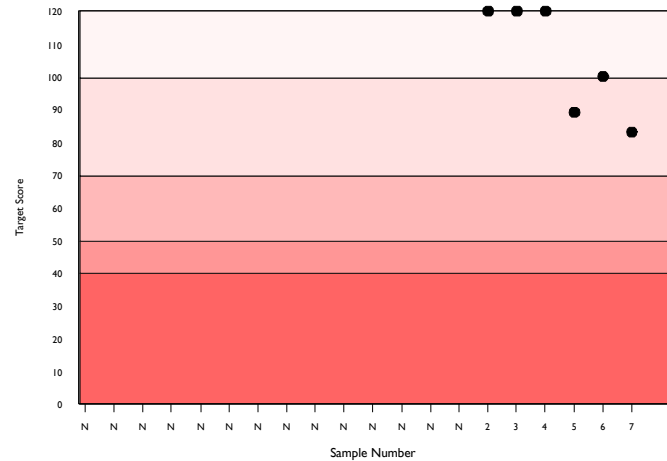
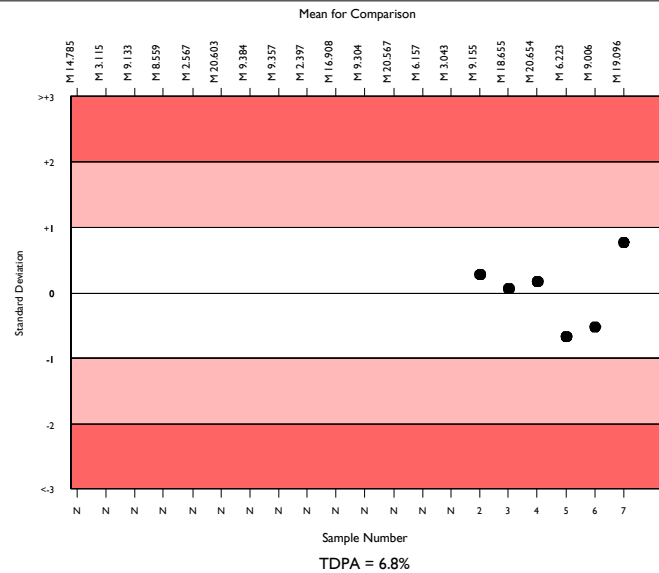
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	4179	18.817	2.8	0.01	0.78	420
Abbott Cell-Dyn Ruby	338	19.096	2.8	0.04	0.79	31

▲ Your Result	19.700	SDI	0.76
		RMSDI	Too Few
■ Mean for Comparison	19.096	TS	83
		RMTS	Too Few
		%DEV	3.2
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	6.80%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1576	18.772	1.7	0.01
Manual methods	393	18.578	6.3	0.07
Sysmex XN-L Series (330/350/450/550)	410	19.250	1.7	0.02
Mindray BC-6000/6200/6600/6800/6800Plus	361	18.460	1.9	0.02
Abbott Cell-Dyn Ruby	338	19.096	2.8	0.04
Sysmex XS Series	240	19.201	2.4	0.04
Siemens/Bayer Advia 120/2120	230	17.684	3.0	0.04
Mindray BC 5000/5150/5140/5130/5120	131	18.838	2.1	0.04
Sysmex XT Series	119	18.919	2.5	0.05
Abbott Alinity hq	66	18.794	1.4	0.04
Mindray BC 5600/5800	55	18.926	3.7	0.12
Beckman Coulter DxH 600/800/900 Series	42	19.538	2.1	0.08
Abbott Cell-Dyn 3200	23	19.067	2.9	0.14
Mindray BC760/780	24	19.373	1.9	0.10
Horiba Yumizen H500/ 550	18	18.187	2.7	0.15
Beckman Coulter DxH 500 Series	16	19.055	2.9	0.17
Sysmex KX2I	17	18.176	3.2	0.18
Horiba ABX Pentra 60/80/XLR	16	18.870	3.4	0.20
Abbott Cell-Dyn Sapphire	10	18.760	3.4	0.25
Shenzhen Dymind DF50	9	19.520	2.1	0.17
UDIHEM-D	9	19.332	4.4	0.36



Analyte	Mean for Comparison	Your Result	SDI	RMSDI	%DEV	RM%DEV	TS	RMTS	Performance
Haemoglobin	9.470	9.420	-0.21	Too Few	-0.5	Too Few	120	Too Few	
Haematocrit (HCT)	22.494	22.600	0.12	Too Few	0.5	Too Few	120	Too Few	
MCH	31.179	30.600	-0.46	Too Few	-1.9	Too Few	113	Too Few	
MCHC	42.118	41.600	-0.25	Too Few	-1.2	Too Few	120	Too Few	
MCV	73.925	73.500	-0.14	Too Few	-0.6	Too Few	120	Too Few	
Mean Platelet Volume	4.203	4.080	-0.47	Too Few	-2.9	Too Few	104	Too Few	
Platelets (Optical Count)	368.530	375.000	0.12	Too Few	1.8	Too Few	120	Too Few	
RBC (Optical Count)	3.043	3.080	0.38	Too Few	1.2	Too Few	114	Too Few	
WBC (Optical Count)	19.096	19.700	0.76	Too Few	3.2	Too Few	83	Too Few	

ORMSDI N/A

ORM%DEV N/A

ORMTS N/A

END OF REPORT