Summary of laboratory means

Measurand hydrochloric acid

	sample 1	Z score	sample 2	Z score	sample 3	Z score
Unit	mg/m³		mg/m³		mg/m³	
–	–	– –	–	– –	–	– –
15	1,320	-0,54	0,613	0,90	4,190	-0,84
26	1,420	0,17	0,520	-0,75	4,970	0,87
50	0,823	-4,10 FE	0,411	-2,69 E	3,250	-2,89 E
68	1,580	1,32	0,540	-0,40	4,720	0,32
78	1,404	0,06	0,577	0,26	4,929	0,78
82	1,378	-0,13	0,577	0,26	4,783	0,46
110	1,123	-1,95	0,526	-0,64	3,145	-3,12 E
138	1,280	-0,83	0,380	-3,24 E	3,540	-2,26 E
149	1,493	0,70	0,675	2,00	7,115	5,55 FE
163	0,903	-3,53 E	0,285	-4,93 FE	0,068	-9,85 BE
175	1,200	-1,40	0,390	-3,06 E	3,500	-2,35 E
177	1,508	0,80	0,668	1,88	5,034	1,01
178	1,384	-0,08	0,627	1,15	4,924	0,76
195	0,810	-4,20 FE	0,300	-4,66 FE	2,180	-5,23 FE
196	1,500	0,75	0,570	0,14	4,800	0,49
197	1,500	0,75	0,610	0,85	5,200	1,37
208	1,516	0,86	0,598	0,64	5,116	1,18
224	1,436	0,29	0,549	-0,23	4,699	0,27
242	1,477	0,58	0,600	0,67	5,000	0,93
266	1,520	0,89	0,610	0,85	5,180	1,32
272	1,579	1,31	0,641	1,40	5,354	1,71
–	–	– –	–	– –	–	– –
Method	ISO 5725-2		ISO 5725-2		ISO 5725-2	
Assessment	|Z|<=2,00		|Z|<=2,00		|Z|<=2,00	
Mean	1,396		0,562		4,574	
Reproducibility s.d.	0,171		0,086		0,718	
Rel. reproducibility s.d.	12,24 %		15,36 %		15,69 %	
Reference value	1,530		0,596		5,180	
Target s.d.	0,140		0,056		0,457	
Rel. target s.d.	10,00 %		10,00 %		10,00 %	
Lower limit of tolerance	1,117		0,450		3,659	
Upper limit of tolerance	1,675		0,675		5,489	
Type B outliers	0		0		1	
No. of single values outside of tolerance limits	3		5		7	
Type F outliers	2		2		2	
No. of laboratories after elimination of outliers type A-D and F (without laboratories that only gave states but no measured values)	19		19		18	
Explanation of outlier types						
A: Single outlier	Grubbs					
B: Differing laboratory mean	Grubbs					
C: Excessive laboratory s.d.	Cochran					
D: Excluded manually						
E: score outside tolerance limits						
F: |Score|>3,5						

Summary of laboratory means

Measurand nitric acid

	sample 1	Z score	sample 2	Z score	sample 3	Z score
Unit	mg/m³		mg/m³		mg/m³	
–	–	– –	–	– –	–	– –
15	0,689	-0,28	1,060	-1,47	3,490	-1,30
26	0,700	-0,13	1,210	-0,27	4,260	0,62
50	0,576	-1,88	1,080	-1,31	3,740	-0,67
68	0,710	0,01	1,240	-0,02	4,110	0,25
78	0,748	0,55	1,291	0,39	3,559	-1,12
82	0,731	0,31	1,266	0,19	4,451	1,10
110	0,654	-0,78	1,073	-1,37	3,423	-1,46
138	0,730	0,30	1,190	-0,43	3,550	-1,15
149	1,000	4,10 FE	1,289	0,37	2,179	-4,57 FE
163	0,387	-4,54 FE	0,527	-5,76 BE	0,029	-9,93 BE
175	0,410	-4,22 FE	0,840	-3,24 BE	1,540	-6,16 BE
177	0,778	0,97	1,320	0,62	4,330	0,80
178	0,802	1,31	1,341	0,79	4,839	2,07 E
195	0,650	-0,83	1,130	-0,91	3,160	-2,12 E
196	0,750	0,58	1,400	1,26	4,400	0,97
197	0,690	-0,27	1,300	0,46	4,600	1,47
208	0,711	0,03	1,263	0,16	4,197	0,47
224	0,635	-1,04	1,161	-0,66	3,345	-1,66
242	0,709	0,00	1,342	0,80	4,167	0,39
266	0,770	0,86	1,280	0,30	4,330	0,80
272	0,729	0,28	1,380	1,10	4,230	0,55
–	–	– –	–	– –	–	– –
Method	ISO 5725-2		ISO 5725-2		ISO 5725-2	
Assessment	|Z|<=2,00		|Z|<=2,00		|Z|<=2,00	
Mean	0,709		1,243		4,010	
Reproducibility s.d.	0,055		0,103		0,487	
Rel. reproducibility s.d.	7,81 %		8,29 %		12,15 %	
Reference value	0,729		1,360		4,450	
Target s.d.	0,071		0,124		0,401	
Rel. target s.d.	10,00 %		10,00 %		10,00 %	
Lower limit of tolerance	0,567		0,994		3,208	
Upper limit of tolerance	0,851		1,492		4,812	
Type B outliers	0		2		2	
No. of single values outside of tolerance limits	3		2		5	
Type F outliers	3		0		1	
No. of laboratories after elimination of outliers type A-D and F (without laboratories that only gave states but no measured values)	18		19		18	
Explanation of outlier types						
A: Single outlier	Grubbs					
B: Differing laboratory mean	Grubbs					
C: Excessive laboratory s.d.	Cochran					
D: Excluded manually						
E: score outside tolerance limits						
F: |Score|>3,5						

Summary of laboratory means

Measurand phosphoric acid

	sample 1	Z score	sample 2	Z score	sample 3	Z score
Unit	mg/m³		mg/m³		mg/m³	
–	–	––	–	––	–	––
26	1,210	0,13	0,560	-0,96	0,080	-0,21
50	1,200	0,05	0,606	-0,22	0,076	-0,70
68	1,240	0,38	0,610	-0,15	0,080	-0,21
78	1,213	0,15	0,601	-0,30	0,083	0,12
82	1,180	-0,12	0,591	-0,46	0,074	-0,94
110	1,187	-0,06	0,591	-0,46	0,082	0,04
138	1,500	2,56 E	0,770	2,43 E	0,100	2,24 E
163	0,780	-3,47 BE	0,367	-4,08 FE	0,041	-4,98 BE
175	1,100	-0,79	0,500	-1,93	0,073	-1,06
177	1,220	0,21	0,756	2,20 E	0,085	0,41
178	1,310	0,97	0,675	0,89	0,085	0,41
195	0,900	-2,47 E	0,960	5,49 BE	0,090	1,02
196	1,100	-0,79	0,620	0,01	0,088	0,77
197	1,200	0,05	0,590	-0,48	0,067	-1,80
208	1,160	-0,29	0,611	-0,14	0,080	-0,21
224	1,193	-0,01	0,595	-0,40	0,076	-0,74
242	1,188	-0,06	0,598	-0,35	0,092	1,26
266	1,200	0,05	0,650	0,49	0,081	-0,08
272	1,202	0,06	0,609	-0,17	0,079	-0,33
–	–	––	–	––	–	––
Method	ISO 5725-2		ISO 5725-2		ISO 5725-2	
Assessment	|Z|<=2,00		|Z|<=2,00		|Z|<=2,00	
Mean	1,195		0,620		0,082	
Reproducibility s.d.	0,113		0,065		0,008	
Rel. reproducibility s.d.	9,44 %		10,48 %		9,43 %	
Reference value	1,294		0,644		0,085	
Target s.d.	0,119		0,062		0,008	
Rel. target s.d.	10,00 %		10,00 %		10,00 %	
Lower limit of tolerance	0,956		0,496		0,065	
Upper limit of tolerance	1,434		0,744		0,098	
Type B outliers	1		1		1	
No. of single values outside of tolerance limits	3		4		2	
Type F outliers	0		1		0	
No. of laboratories after elimination of outliers type A-D and F (without laboratories that only gave states but no measured values)	18		17		18	
Explanation of outlier types						
A: Single outlier	Grubbs					
B: Differing laboratory mean	Grubbs					
C: Excessive laboratory s.d.	Cochran					
D: Excluded manually						
E: score outside tolerance limits						
F: |Score|>3,5						

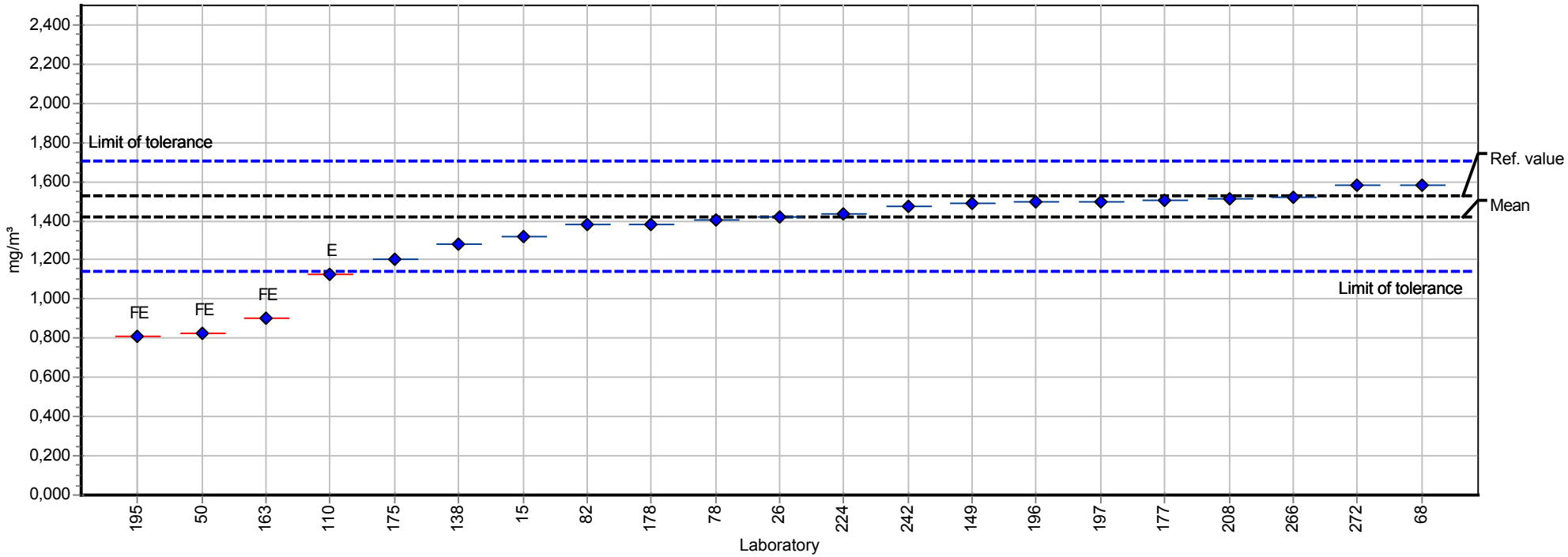
Summary of laboratory means

Measurand sulfuric acid

	sample 1	Z score	sample 2	Z score	sample 3	Z score
Unit	mg/m³		mg/m³		mg/m³	
–	–	––	–	––	–	––
26	0,020	-1,93	0,060	-0,46	0,090	-0,27
50	0,023	-0,71	0,063	0,02	0,102	1,02
68	0,020	-1,93	0,060	-0,46	0,090	-0,27
78	0,024	-0,19	0,058	-0,76	0,090	-0,27
82	0,026	0,50	0,062	-0,14	0,090	-0,27
110	0,043	7,36 FE	0,083	3,20 E	0,109	1,78
138	0,032	2,92 E	0,075	1,92	0,110	1,89
163	0,012	-5,16 FE	0,031	-5,07 BE	0,049	-4,71 BE
175	0,020	-1,93	0,053	-1,57	0,076	-1,79
177	0,029	1,71	0,066	0,49	0,093	0,05
178	0,028	1,30	0,062	-0,14	0,094	0,16
195	0,030	2,00	0,070	1,13	0,100	0,81
196	0,027	0,90	0,065	0,33	0,092	-0,06
197	0,031	2,51 E	0,063	0,02	0,093	0,05
208	0,023	-0,71	0,062	-0,14	0,089	-0,38
224	0,018	-2,69 E	0,049	-2,21 E	0,078	-1,58
242	0,018	-2,73 E	0,051	-1,89	0,082	-1,14
266	0,027	0,90	0,068	0,81	0,096	0,37
272	0,025	-0,03	0,062	-0,14	0,092	-0,07
–	–	––	–	––	–	––
Method	ISO 5725-2		ISO 5725-2		ISO 5725-2	
Assessment	|Z|<=2,00		|Z|<=2,00		|Z|<=2,00	
Mean	0,025		0,063		0,093	
Reproducibility s.d.	0,004		0,008		0,009	
Rel. reproducibility s.d.	18,15 %		12,89 %		9,71 %	
Reference value	0,027		0,065		0,097	
Target s.d.	0,002		0,006		0,009	
Rel. target s.d.	10,00 %		10,00 %		10,00 %	
Lower limit of tolerance	0,020		0,050		0,074	
Upper limit of tolerance	0,030		0,075		0,111	
Type B outliers	0		1		1	
No. of single values outside of tolerance limits	6		3		1	
Type F outliers	2		0		0	
No. of laboratories after elimination of outliers type A-D and F (without laboratories that only gave states but no measured values)	17		18		18	
Explanation of outlier types						
A: Single outlier	Grubbs					
B: Differing laboratory mean	Grubbs					
C: Excessive laboratory s.d.	Cochran					
D: Excluded manually						
E: score outside tolerance limits						
F: |Score|>3,5						

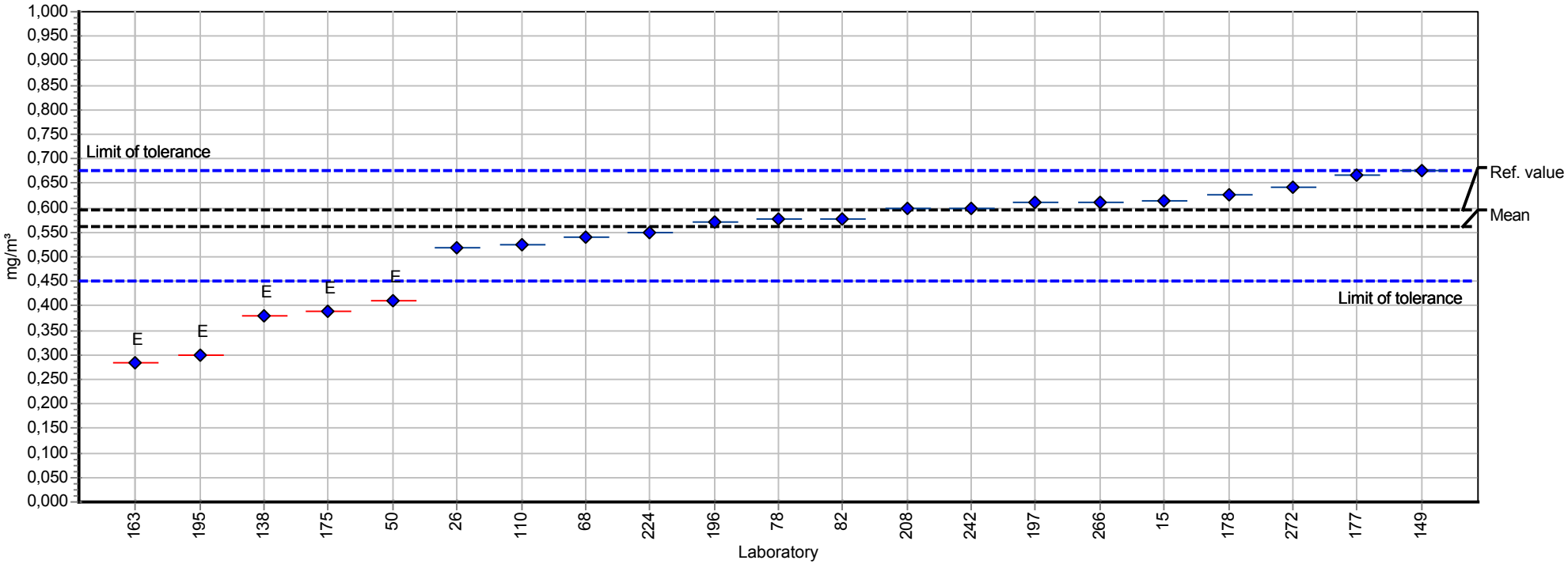
Summary results

Measurand:	**hydrochloric acid**	**Mean:**	**1,423 mg/m³**
Sample:	**sample 1**	**Reproducibility s.d.:**	**0,126 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**8,84%**
No. of laboratories:	**18**	**Reference value:**	**1,530 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**1,139 - 1,708 mg/m³ (|Z Score| <= 2,00)**



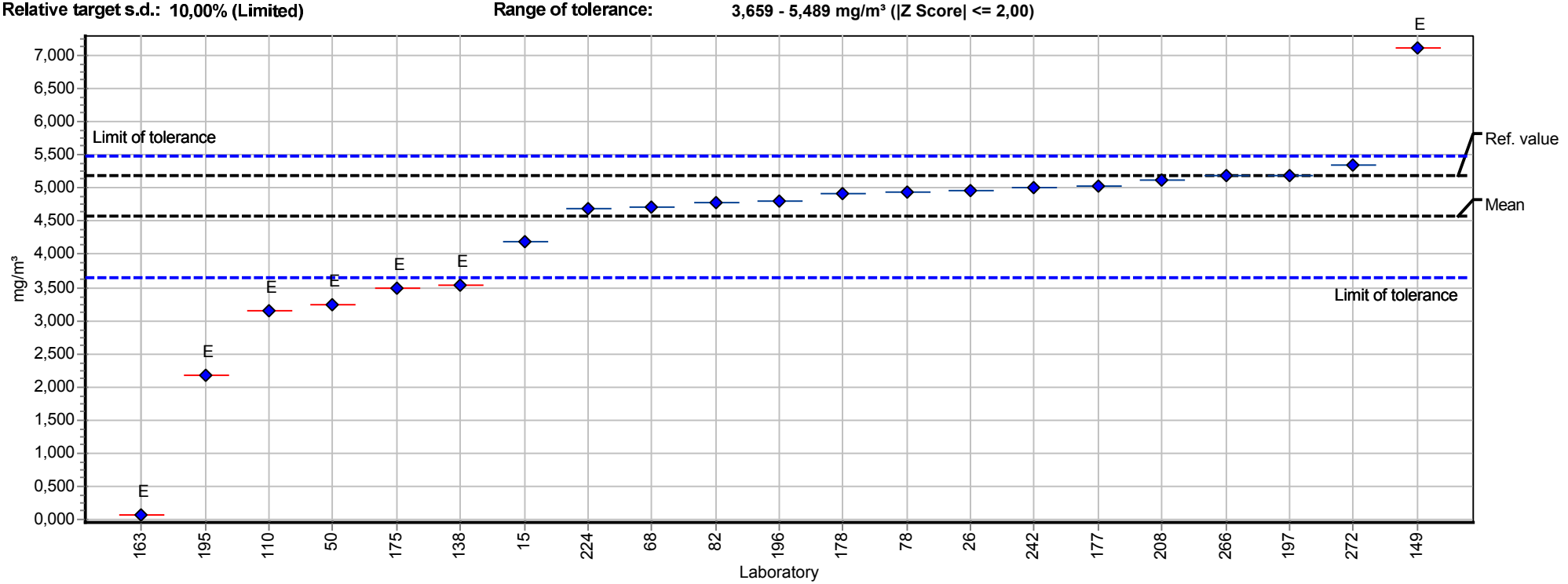
Summary results

Measurand:	**hydrochloric acid**	**Mean:**	**0,562 mg/m³**
Sample:	**sample 2**	**Reproducibility s.d.:**	**0,086 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**15,36%**
No. of laboratories:	**19**	**Reference value:**	**0,596 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,450 - 0,675 mg/m³ (|Z Score| <= 2,00)**



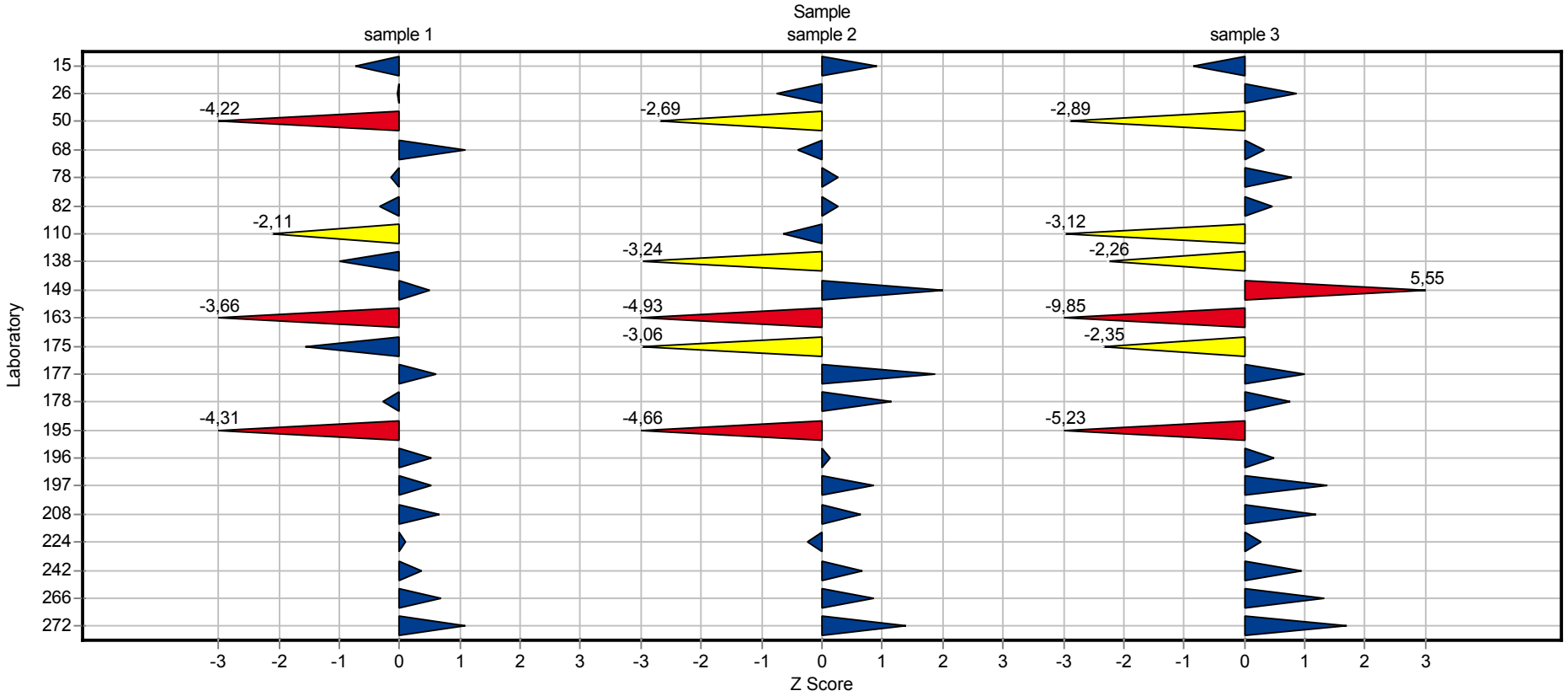
Summary results

Measurand:	**hydrochloric acid**	**Mean:**	**4,574 mg/m³**
Sample:	**sample 3**	**Reproducibility s.d.:**	**0,718 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**15,69%**
No. of laboratories:	**18**	**Reference value:**	**5,180 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**3,659 - 5,489 mg/m³ (|Z Score| <= 2,00)**



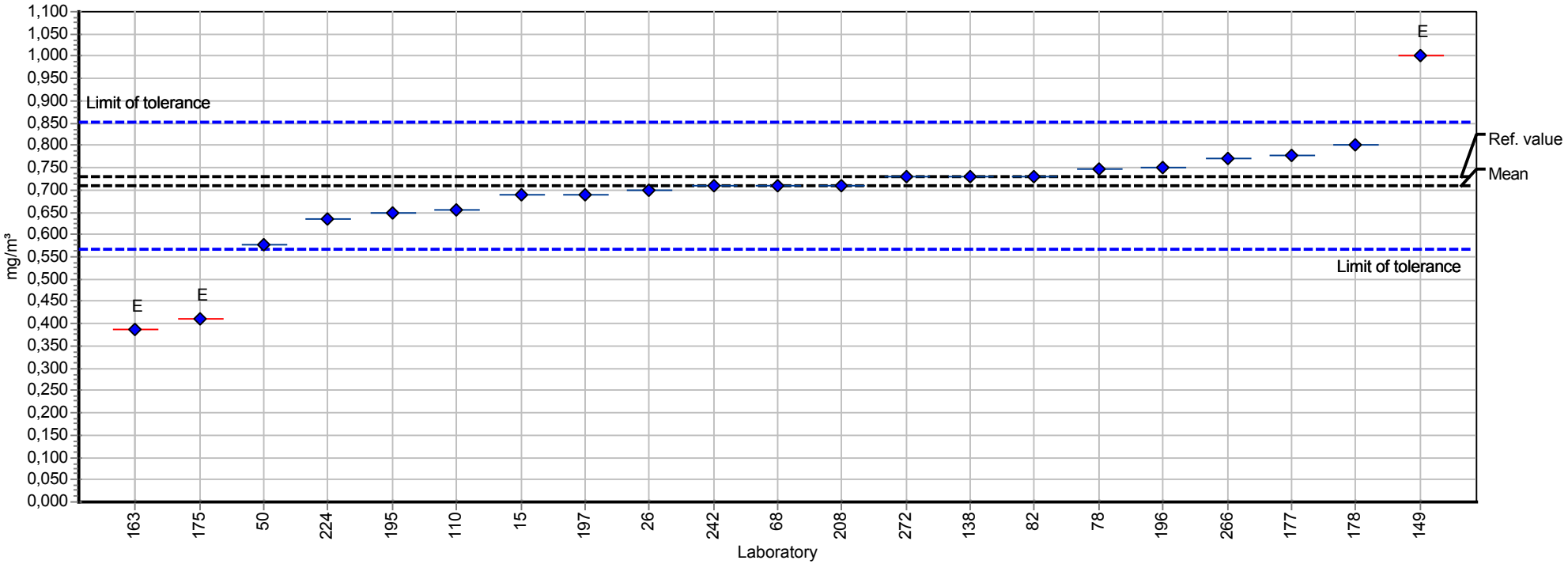
Analyte chart of Z Scores

Measurand: hydrochloric acid



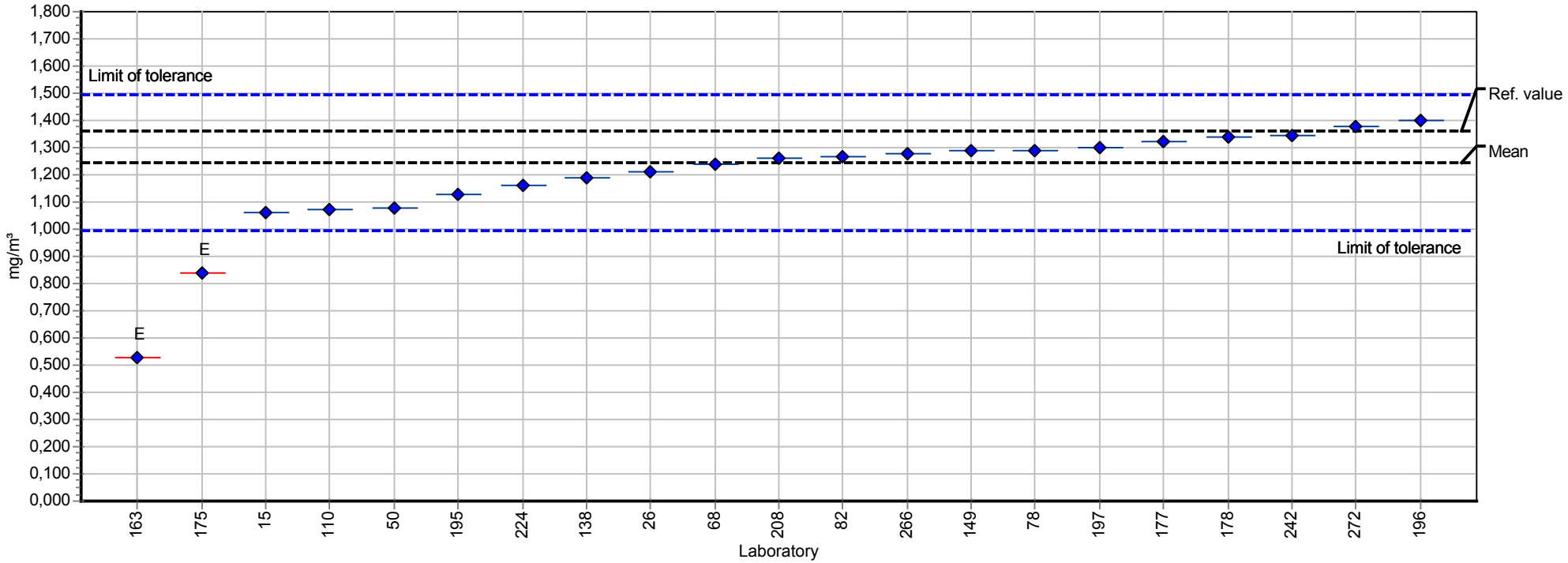
Summary results

Measurand:	**nitric acid**	**Mean:**	**0,709 mg/m³**
Sample:	**sample 1**	**Reproducibility s.d.:**	**0,055 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**7,81%**
No. of laboratories:	**18**	**Reference value:**	**0,729 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,567 - 0,851 mg/m³ (|Z Score| <= 2,00)**



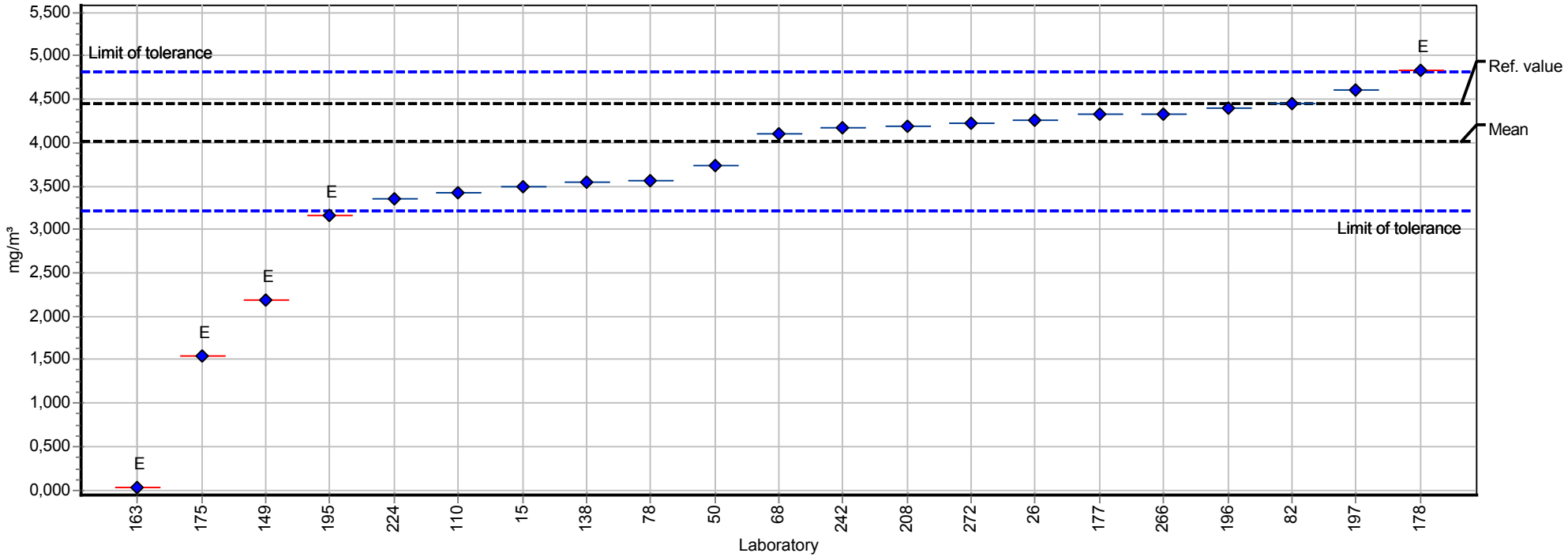
Summary results

Measurand:	**nitric acid**	**Mean:**	**1,243 mg/m³**
Sample:	**sample 2**	**Reproducibility s.d.:**	**0,103 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**8,29%**
No. of laboratories:	**19**	**Reference value:**	**1,360 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,994 - 1,492 mg/m³ (|Z Score| <= 2,00)**



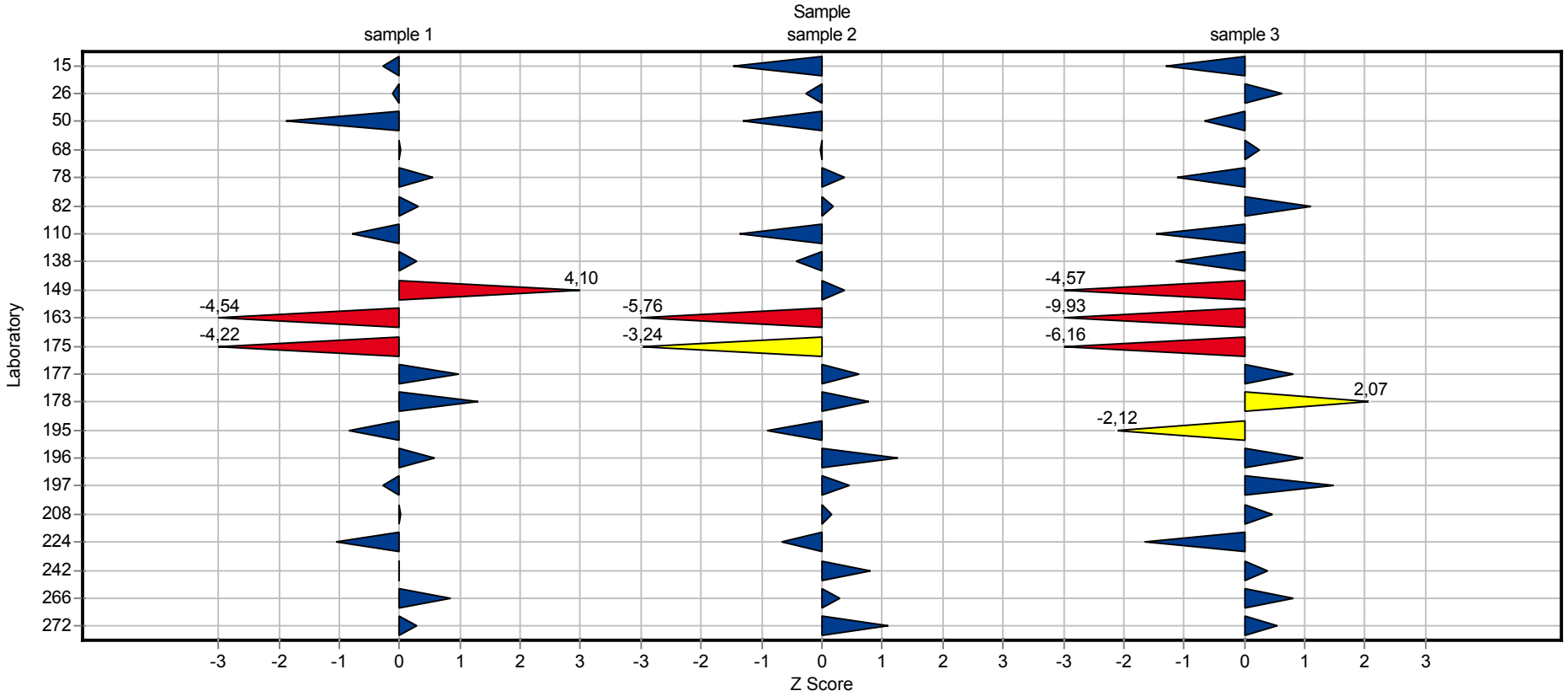
Summary results

Measurand:	**nitric acid**	**Mean:**	**4,010 mg/m³**
Sample:	**sample 3**	**Reproducibility s.d.:**	**0,487 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**12,15%**
No. of laboratories:	**18**	**Reference value:**	**4,450 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**3,208 - 4,812 mg/m³ (|Z Score| <= 2,00)**



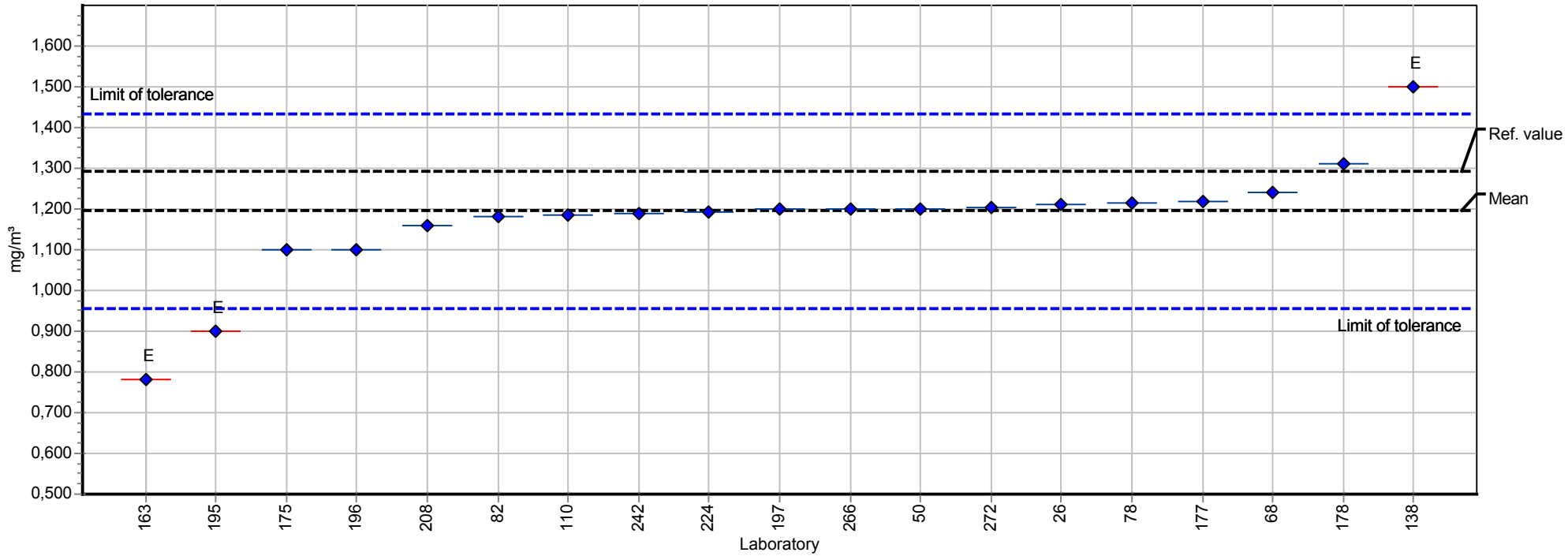
Analyte chart of Z Scores

Measurand: nitric acid



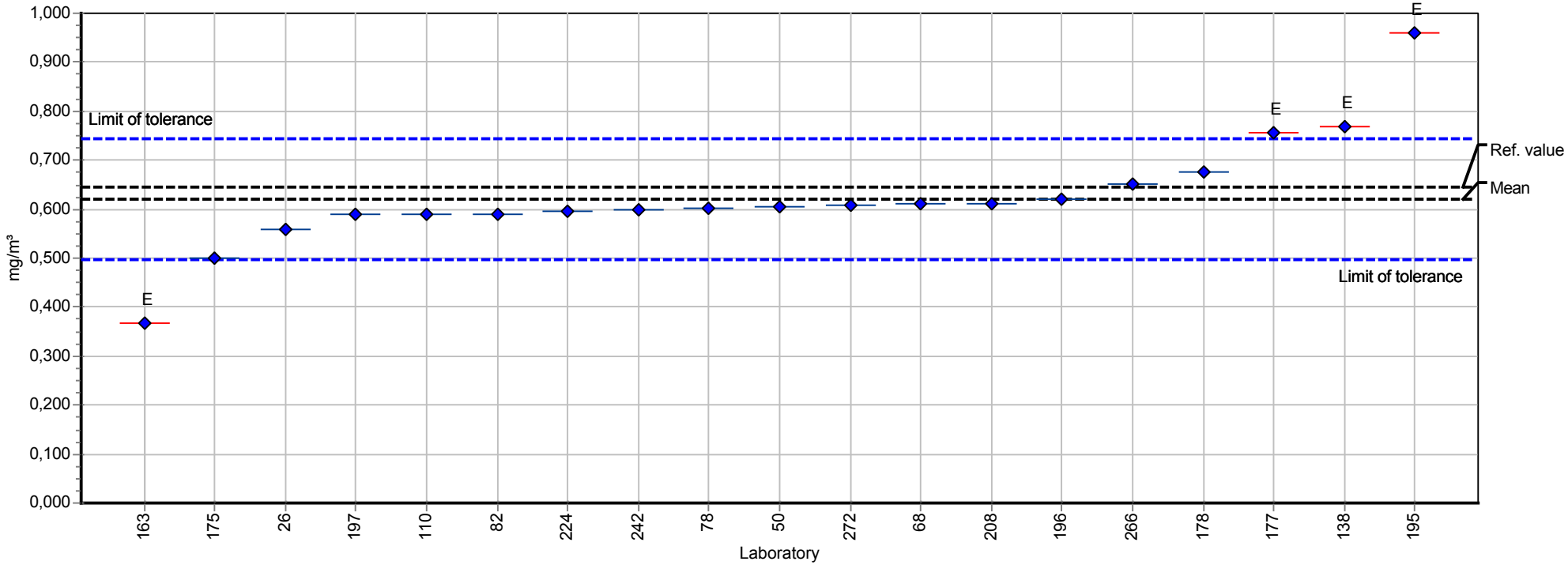
Summary results

Measurand:	**phosphoric acid**	**Mean:**	**1,195 mg/m³**
Sample:	**sample 1**	**Reproducibility s.d.:**	**0,113 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**9,44%**
No. of laboratories:	**18**	**Reference value:**	**1,294 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,956 - 1,434 mg/m³ (|Z Score| <= 2,00)**



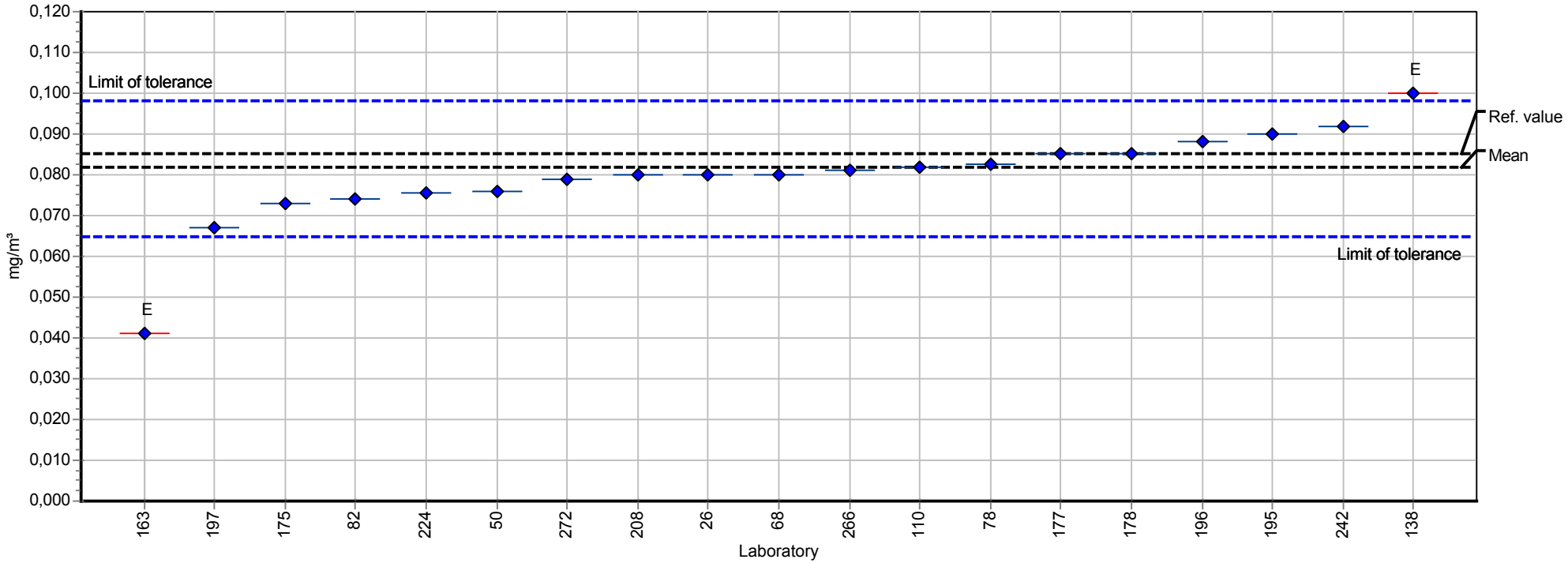
Summary results

Measurand:	**phosphoric acid**	**Mean:**	**0,620 mg/m³**
Sample:	**sample 2**	**Reproducibility s.d.:**	**0,065 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**10,48%**
No. of laboratories:	**17**	**Reference value:**	**0,644 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,496 - 0,744 mg/m³ (|Z Score| <= 2,00)**



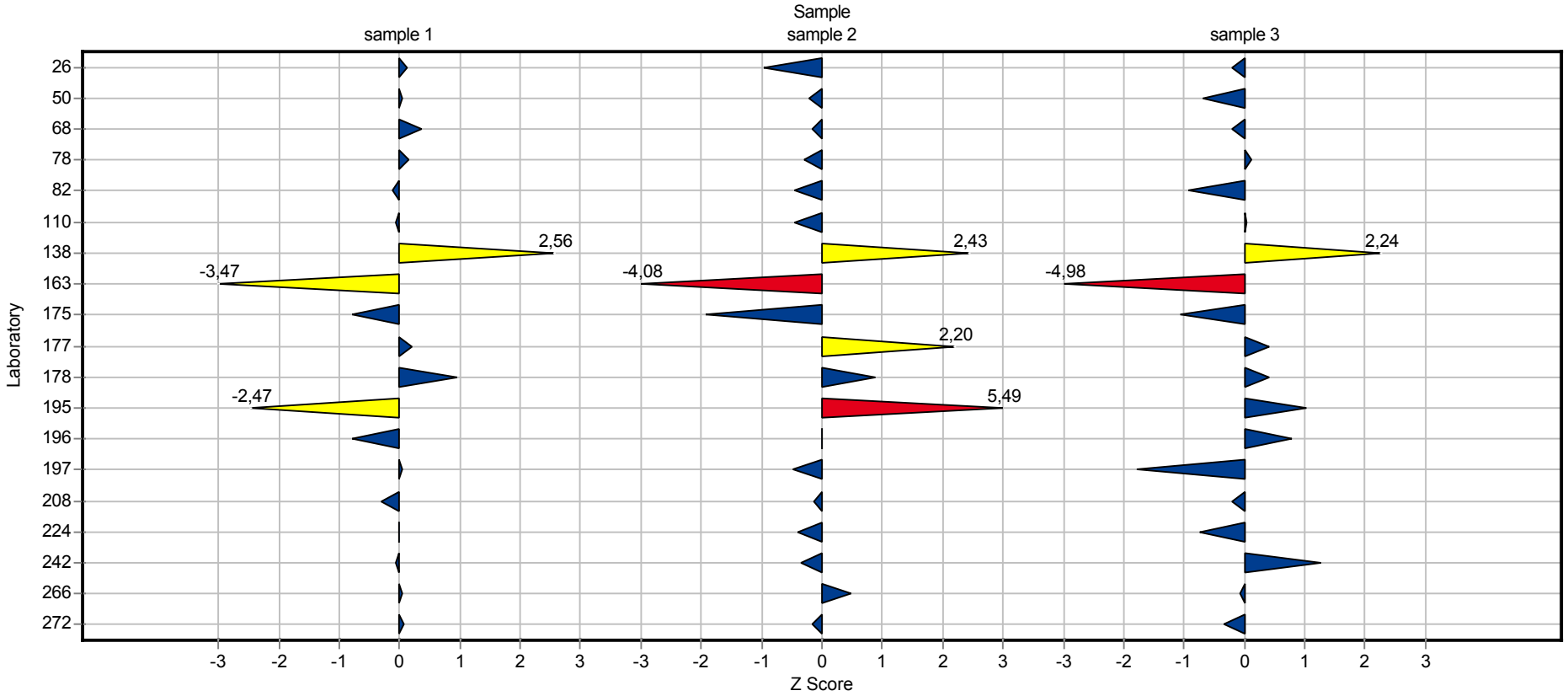
Summary results

Measurand:	**phosphoric acid**	**Mean:**	**0,082 mg/m³**
Sample:	**sample 3**	**Reproducibility s.d.:**	**0,008 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**9,43%**
No. of laboratories:	**18**	**Reference value:**	**0,085 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,065 - 0,098 mg/m³ (|Z Score| <= 2,00)**



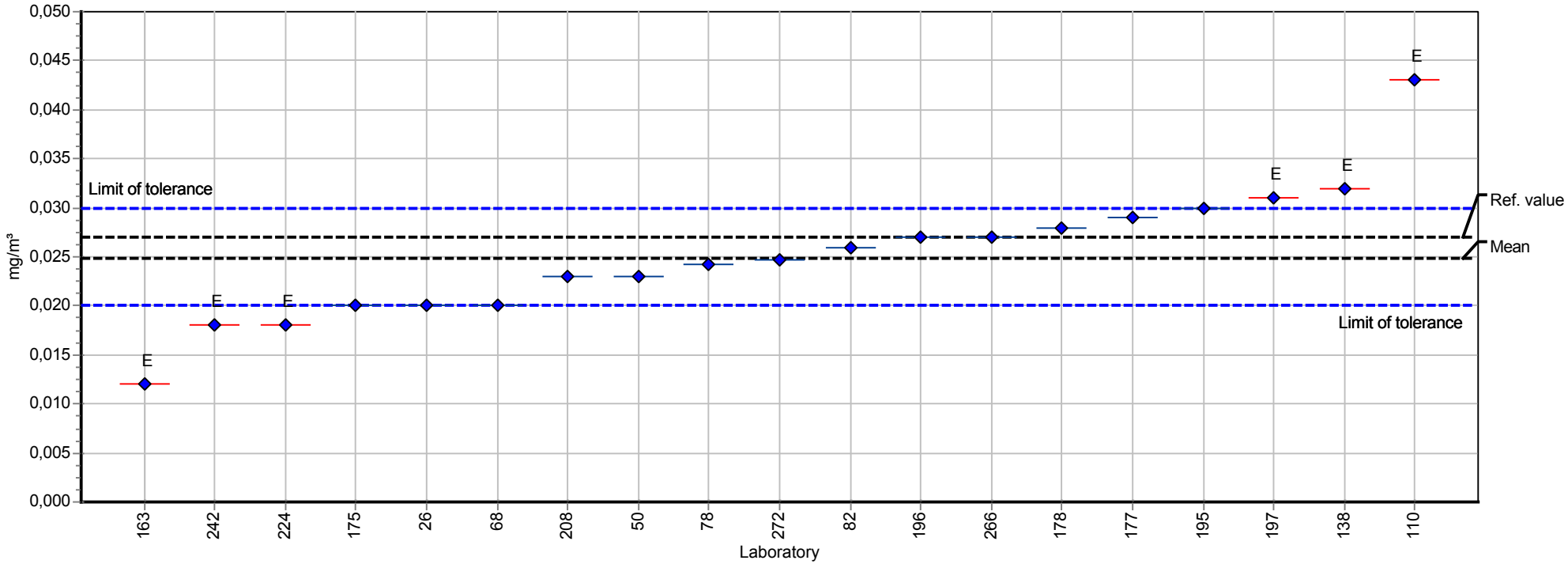
Analyte chart of Z Scores

Measurand: phosphoric acid



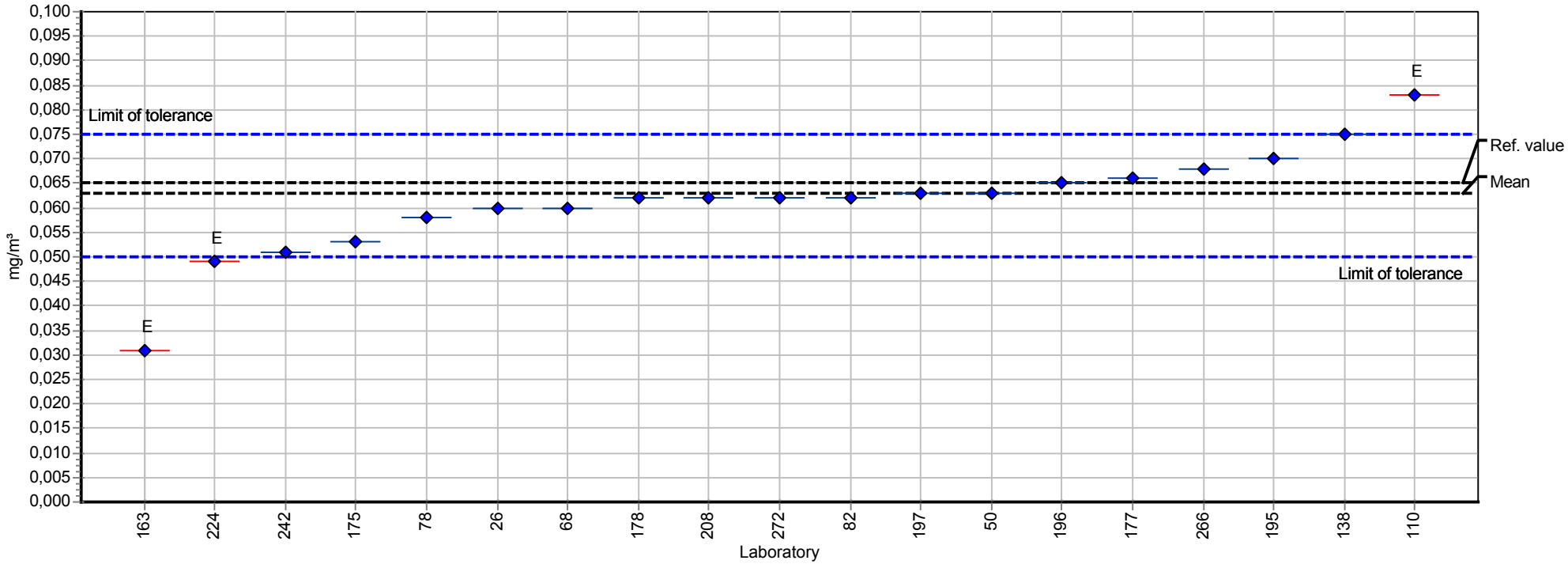
Summary results

Measurand:	**sulfuric acid**	**Mean:**	**0,025 mg/m³**
Sample:	**sample 1**	**Reproducibility s.d.:**	**0,004 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**18,15%**
No. of laboratories:	**17**	**Reference value:**	**0,027 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,020 - 0,030 mg/m³ (|Z Score| <= 2,00)**



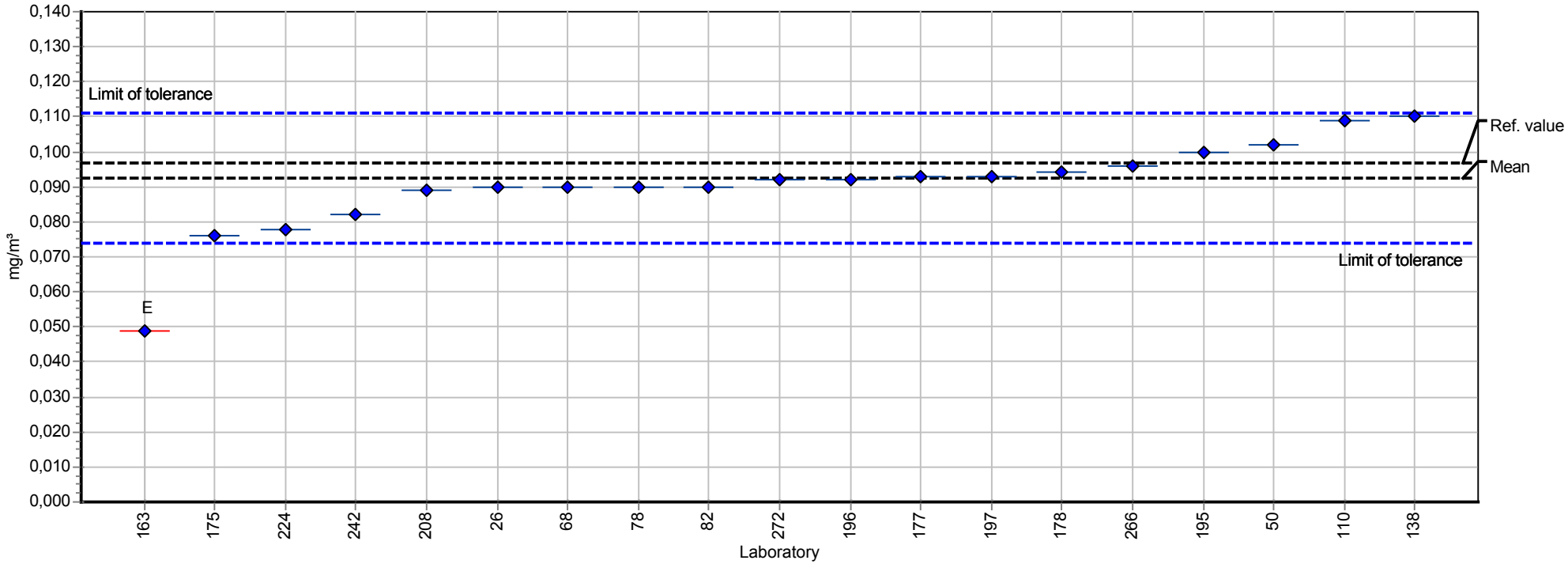
Summary results

Measurand:	**sulfuric acid**	**Mean:**	**0,063 mg/m³**
Sample:	**sample 2**	**Reproducibility s.d.:**	**0,008 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**12,89%**
No. of laboratories:	**18**	**Reference value:**	**0,065 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,050 - 0,075 mg/m³ (|Z Score| <= 2,00)**



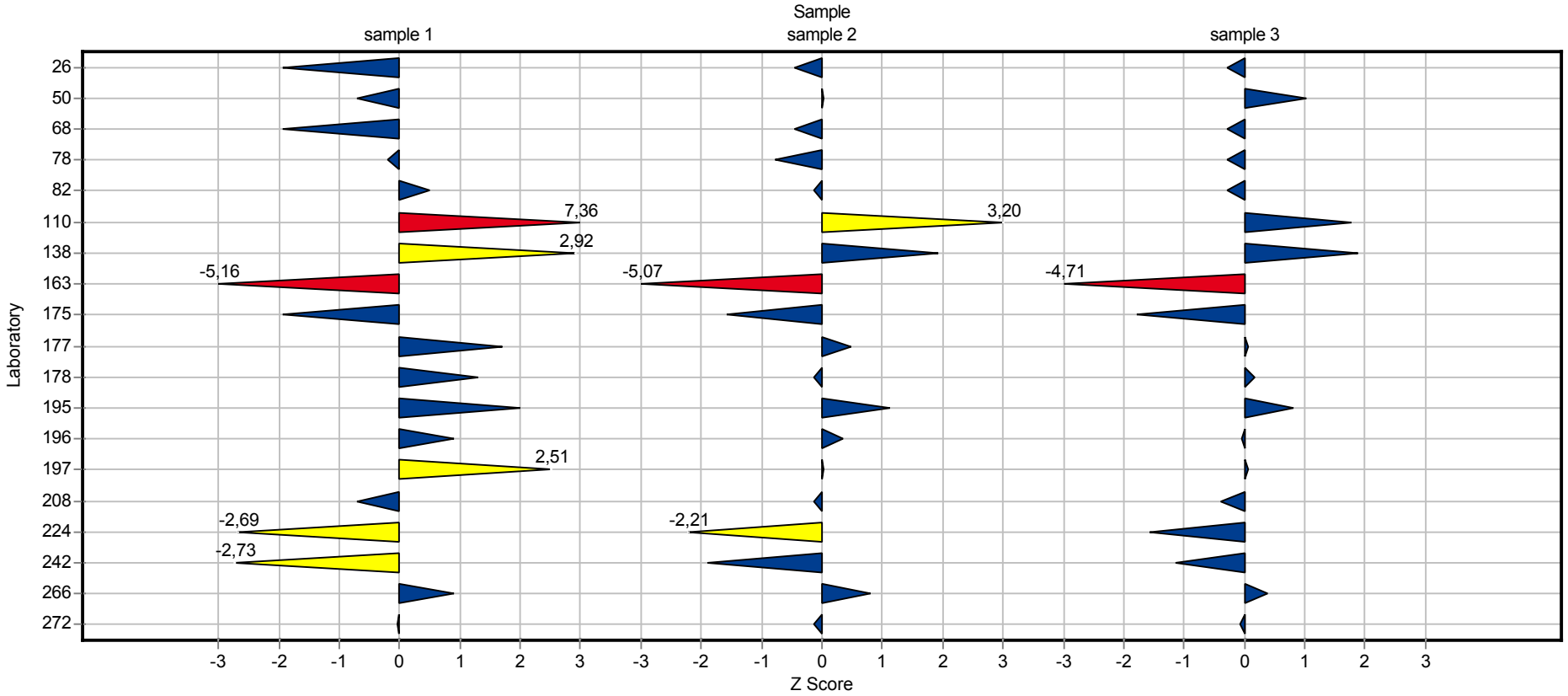
Summary results

Measurand:	**sulfuric acid**	**Mean:**	**0,093 mg/m³**
Sample:	**sample 3**	**Reproducibility s.d.:**	**0,009 mg/m³**
Method:	**ISO 5725-2**	**Relative reproducibility s.d.:**	**9,71%**
No. of laboratories:	**18**	**Reference value:**	**0,097 mg/m³**
Relative target s.d.:	**10,00% (Limited)**	**Range of tolerance:**	**0,074 - 0,111 mg/m³ (|Z Score| <= 2,00)**



Analyte chart of Z Scores

Measurand: sulfuric acid



Questions and Answers

Participant	Sample set	Analytical method
15	1: only Orbo 53	NIOSH 7903
26	3	IFA-Arbeitsmappe
50	1	MSZ EN ISO 10304-1:2009; NIOSH 7903:1994; MSZ EN ISO 6878:2004
68	2: Orbo53/Quarzfaserfilter	NIOSH
78		IFA 6172; IFA 6173
82	Ringversuch anorganische Säuren	Ionenchromatographie
110	Orbo 53/Quarzfaserfilter	IFA-Arbeitsmappe
138	3	BGIA- Verfahren 6172 und 6173
149	Only Orbo 53	NIOSH 7903
163	2	NIOSH 7903 mod
175	2	
177	2	in Anlehung an IFA-Arbeitsmappe
178	2	
195	2	MTA/MA-019/A90
196	1	mod. NIOSH 7903
197	3	BGIA 6172/6173
208	2	own method, based on SFS-EN ISO 10304-1, NIOSH, OSHA and DFG methods
224	3	IC
242	3	IFA 6172 bzw. IFA 6173
272	3: imprägnierter Filter/Quarzfaserfilter	HCl+HNO3: BGIA 6172 (2007-04) ; H2SO4+H3PO4: BGIA 6173 (2007-04)

Participant	Desorption solution	Volume of desorption solution
15	DDI	10 mL
26	NaHCO3, Na2CO3 (Eluent)	30 ml
50	3,5 mmol/L Na2CO3 / 1 mmol/L NaHCO3	10
68	17ml 0.1m NaHCO3 und 18ml 0.1m Na2CO3/1L H20	Orbo: 10ml / Filter: 2ml
78		
82	3,2 mmol Na2CO3 + 1 mmol NaHCO3/L	25mL
110	8,0 mmol Na2CO3 + 1.0 mmol NaHCO3	50ml
138	HCl + HNO3: Wasser, bidest.	HCl + HNO3: 5 ml // H3PO4 + H2SO4: vorgegeben
149	10mM sodium carbonate	10 mL

Participant	Desorption solution	Volume of desorption solution
163	Carbonate 1,8 mM/Bicarbonate 1,7 mM	10 ml
175	Deionised water	10
177	12 mmol KOH	30 ml bzw. 20 ml Orbo / 25 ml Quarzfaserfilter
178	12mM NaCO3+5mM HNaCO3,	10ml.
195	mobile phase	5 mL
196	milli-Q water	10ml
197	IC-Eluent	10 ml
208	water for orbo 53	5 ml for orbo 53
224	30 mM NaOH	25 mL
242	für HCl/HNO3: Wasser Typ I	10 ml
272	HCl+HNO3: Reinstwasser; H2SO4+H3PO4: lt. IFA 3,1mmol/l Na2CO3/0,35mmol/l NaHCO3	HCl+HNO3: 10,0 ml; H2SO4+H3PO4: lt. IFA 4,0 ml

Participant	time of desorption	filtration
15	10 min.	Yes
26	0,75 h	Spritzenfilter
50	15 min, ultrasonic bath	Yes
68	Orbo: 10 Min. Dampfbad / Filter: nichts	Nein
78		
82	15min	ja, direkt vor der Analysen im Probegeber
110	15 Min.	Orbo 53 - nein, Quarzfilter - ja
138	HCl + HNO3: 15 min im Ultraschallbad anschl. 30 min stehen lassen // H3PO4 + H2SO4: entfällt	Vorsatzspritzenfilter 0,2 µm
149		No
163	20 min	Yes: 0.45 um
175	20	yes
177	60 Minuten Ultraschall	nein
178	15min-ultrasonic bath	yes
195	30 min ultrasonic bath	PTFE 0.45 um
196	10 mins	Yes
197	30 min U-Bad	ja
208	30 min ultrasonic for filters, 2,5 hours shaker for orbo 53	yes
224	30 min, ultrasonic bath	Yes
242	gemäß Methode	ja
272	15 min Ultraschallbad, 30 min ruhen	Membranfilter 0,45 µm

Participant	Ion Chromatographic System
15	ICS-2000 Anion 2
26	Metrohm 761
50	Dionex
68	System DX-120, Leitfähigkeitsmesszelle, ASRS ULTRA II 4mm, Anionen-Supressor sowie Reagent-Free System und AS40-Autosampler (alles von Dionex)
78	Metrohm 761 Compact IC
82	Metrohm 861 Advanced Compact IC
110	Dionex ICS 900
138	Shimadzu LC-6A
149	ICS-1000 Ion Chromatography System
163	Dionex ICS-3000
175	
177	Dionex ICS 2000
178	Dionex DX120.conductivity detection
195	dionex acs 3000
196	Dionex
197	Dionex ICS 1100
208	Dionex ICS5000
224	ICS3000 - Conductivity detector
242	Metrohm 850 Professional mit Autosampler
272	IC 25 (Thermo Fischer - Dionex)

Participant	Analytical column	Detector
15	Ion pac AS18 Analytical, Ion Pac AG 18 Guard Column	Conductivity
26	Metrosep A Sup 4	Leitfähigkeit
50	AS14 4mm	Conductivity
68	IonPac AS18 von Dionex, Dimensionen: 4x250mm	Leitfähigkeitsmesszelle
78		Leitfähigkeit
82	Metrosept A-Supp 5-250	Leitfähigkeit (HCl, H3PO4, H2SO4) , UV Bischoff Lambda 1010 (HNO3)
110	AG14A / AS14A	Leitf.
138	PRP-X110S (Knauer) mit Suppressor	LF CCD-6A (Shimadzu)
149	AS9-HC 4X25 mm	
163	AS11HC with precolumn AG11HC	Conductivity
175		conductivity
177	AS15 2mm	Leitfähigkeits-Detektion
178	Ion Pac AS9HC;4*250 m.m	

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Participant	Analytical column	Detector
195	Ion Pack AS14	Conductivity (supressed)
196	Dionex ASRS300, 4mm	Conductivity
197	AS22, 250	Leitfähigkeitsdetektor
208	AS15	conductivity
224	AS-11HC	conductivity
242	ASupp 5. Metrohm	Leitfähigkeit
272	AS 17	Leitfähigkeitsdetektor

Participant	Mobile phase	Flow rate	Recovery rate
15	36 mM KOH	1 ml/min	Yes
26	0,4mol NaHCO3, 0,1 mol Na2CO3	1,7 ml/min	>99%
50	3,5 mmol/L Na2CO3 / 1 mmol/L NaHCO3	1,2	Yes
68	Wasser reinst	1 ml/min	Nein
78			
82	3,2 mmol Na2CO3 + 1mmol NaHCO3 /L	0,7mL/min	
110	8,0 mmol Na2CO3 + 1.0 mmol Na2HCO3	1,10 ml/Min	Nein
138	NaHCO3 / Na2CO3 / NaSCN 1,7/1,8/0,1 mmol	1,5 ml/min	nein (HCl 95,0 % / HNO3 91 - 93 % / H
149	10 mM sodium carbonate	1 mL/min	
163	KOH 21mM	1 ml/min	No
175			
177	12-48 mmol KOH	0,3 ml/min	nein, Wiederfindungsraten innerhalb
178	12mM NaCO3+5mM HNaCO3	1 ml./min.	
195	3.5 mM Carbonate/ 1.0 mM Bicarbonate	1	yes
196	1.0mM NaHCO3/8.0mM Na2CO3	1 ml/min	NA
197	1,4mmol/l NaHCO3, 4,5 mmol/l Na2CO3	1,2 ml/min	
208	KOH 7-70 mM gradient	0,012	yes for orbo / no for filters
224	30 mM NaOH	0.38 ml/min	yes
242	3,2 mM Na2CO3, 1 mM NaHCO3	0,7 ml/min	
272	Wasser / KOH (Gradientensystem EG 40 Eluent Generator)	1,0 ml/min	nein

Participant	Date of analysis
15	03/12/13
26	02.04.2013
50	2013.04.04.

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Participant	Date of analysis
68	27.3.2013
78	05.04.2013
82	25.-27. 03.2013
110	10.+11. Mrz 13
138	21.03. - 04.04.2013
149	11/04/2013
163	12/04/13
175	4 april 2013
177	15.-19.03.2013
178	13/03/2013
195	11/3/13
196	3/5/2013
197	4.4.2013
208	26.3.2013
224	02/04/2013
242	siehe Messwerte
272	12./13.03.2013