



AGLAE Association

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Certificate of participation - assigned codes for the Proficiency Testing Scheme - 2021

GWA MBH IWU LUISENTHAL - Site No. 18178
Mrs WOBST Anja

An der Ohratalsperre

99885 LUISENTHAL
ALLEMAGNE

Base parameters and indicators in waters

PT	Title	Assigned code
21M50.1	Perchlorates and disinfection by-products in clean waters	38



PREPARATION OF THE TEST MATERIALS

Matrix used: Bottled water

Number of batches prepared: 2

Batch number	Group of parameters	Bottles Identification	Stabilisation
Batch 1	Br ⁻ , ClO ₄ ⁻	250mL polyethylene bottles labelled A, B	None
Batch 2	BrO ₃ ⁻ , ClO ₂ ⁻ , ClO ₃ ⁻	250mL polyethylene bottles labelled C, D	Addition of NaOH at pH 10

TABLE WITH PROVISIONAL MEANS AND STANDARD DEVIATIONS FOR EACH PARAMETER

Parameter	Value targeted by spiking ⁽¹⁾	Mean (m)	Standard deviation (Sz)	Unit
Br ⁻	54,149	56,6520	4,0800	µg/L
ClO ₄ ⁻	60,060	60,2930	5,1135	µg/L
BrO ₃ ⁻	30,030	31,7596	3,2839	µg/L
ClO ₂ ⁻	250,24	236,148	15,438	µg/L
ClO ₃ ⁻	350,32	345,44	20,45	µg/L

⁽¹⁾ These values are given for information only and they must not be used as reference values.

TABLES WITH PROVISIONAL MEANS AND Z-SCORES FOR EACH PARAMETER AND EACH PARTICIPANT:

see pages 3 and 4

The proficiency test report will be available in your member area no later than:

Friday 16 April 2021 (provisional date)

You will receive an email as soon as your report is issued or should there be any delay.

Please note: z-scores might be modified following the thorough statistical treatment.

Laboratory code	Br ⁻		ClO ₄ ⁻		BrO ₃ ⁻		Laboratory code
	µg/L		µg/L		µg/L		
	Mean	z-score	Mean	z-score	Mean	z-score	
1	57,7500	+0,27	-	-	31,5415	-0,07	1
2	60,1000	+0,85	59,6635	-0,12	30,9820	-0,24	2
3	57,1500	+0,12	-	-	35,9968	+1,29	3
4	60,2000	+0,87	-	-	34,6435	+0,88	4
5	62,7500	+1,49	65,4885	+1,02	23,8073	-2,42	5
6	-	-	-	-	13,3738	-5,60	6
7	-	-	-	-	-	-	7
8	59,2250	+0,63	-	-	34,9750	+0,98	8
9	52,3278	-1,06	54,7963	-1,07	32,8468	+0,33	9
10	56,7125	+0,01	-	-	35,3900	+1,11	10
11	59,7600	+0,76	57,8400	-0,48	31,5950	-0,05	11
12	59,0650	+0,59	62,6733	+0,47	33,3650	+0,49	12
13	-	-	-	-	109,8750	+23,79	13
14	47,0000	-2,37	-	-	4,8763	-8,19	14
15	58,6875	+0,50	-	-	42,0000	+3,12	15
16	57,2000	+0,13	-	-	26,0500	-1,74	16
17	50,7488	-1,45	-	-	34,5613	+0,85	17
18	-	-	-	-	93,4728	+18,79	18
19	48,2500	-2,06	70,7250	+2,04	18,0000	-4,19	19
20	59,3750	+0,67	-	-	-	-	20
21	0,0569	-13,87	-	-	0,0254	-9,66	21
22	53,2628	-0,83	-	-	33,7290	+0,60	22
23	53,2500	-0,83	-	-	32,0000	+0,07	23
24	-	-	-	-	31,6095	-0,05	24
25	59,7500	+0,76	55,1735	-1,00	24,8750	-2,10	25
26	70,0000	+3,27	-	-	-	-	26
27	54,9453	-0,42	55,5163	-0,93	32,0845	+0,10	27
28	54,4050	-0,55	44,8950	-3,01	30,6365	-0,34	28
29	39,6250	-4,17	52,6100	-1,50	<10,0000	[-9,67; -6,63]	29
30	50,1360	-1,60	61,9700	+0,33	31,8980	+0,04	30
31	56,6725	+0,01	-	-	30,0225	-0,53	31
32	60,0000	+0,82	61,8500	+0,30	31,7268	-0,01	32
33	57,2500	+0,15	-	-	30,4888	-0,39	33
34	57,4263	+0,19	-	-	32,2783	+0,16	34
35	56,3750	-0,07	-	-	31,6250	-0,04	35
36	-	-	-	-	36,6078	+1,48	36
37	-	-	-	-	72,3415	+12,36	37
38	51,9750	-1,15	51,4000	-1,74	30,3750	-0,42	38
39	62,8960	+1,53	61,6770	+0,27	-	-	39
40	-	-	-	-	20,5395	-3,42	40
41	-	-	67,7100	+1,45	-	-	41
42	-	-	59,8750	-0,08	-	-	42
43	-	-	62,7330	+0,48	-	-	43
44	54,9765	-0,41	57,5010	-0,55	31,5280	-0,07	44
45	59,7500	+0,76	-	-	32,9500	+0,36	45

Please note: z-scores might be modified following the thorough statistical treatment.

Laboratory code	ClO ₂ ⁻		ClO ₃ ⁻		Laboratory code
	µg/L		µg/L		
	Mean	z-score	Mean	z-score	
1	-	-	368,63	+1,13	1
2	233,408	-0,18	351,10	+0,28	2
3	230,850	-0,34	382,90	+1,83	3
4	267,950	+2,06	361,63	+0,79	4
5	268,320	+2,08	344,43	-0,05	5
6	220,100	-1,04	-	-	6
7	244,975	+0,57	331,10	-0,70	7
8	-	-	336,20	-0,45	8
9	231,125	-0,33	346,13	+0,03	9
10	231,835	-0,28	330,05	-0,75	10
11	236,133	0,00	377,33	+1,56	11
12	244,188	+0,52	405,90	+2,96	12
13	49,900	-12,06	87,85	-12,60	13
14	-	-	339,88	-0,27	14
15	229,438	-0,43	355,23	+0,48	15
16	240,650	+0,29	358,68	+0,65	16
17	213,923	-1,44	338,30	-0,35	17
18	253,555	+1,13	383,08	+1,84	18
19	190,000	-2,99	300,00	-2,22	19
20	-	-	343,18	-0,11	20
21	0,225	-15,28	0,34	-16,87	21
22	242,310	+0,40	318,25	-1,33	22
23	273,250	+2,40	339,00	-0,31	23
24	-	-	340,58	-0,24	24
25	248,175	+0,78	-	-	25
26	-	-	-	-	26
27	233,465	-0,17	330,75	-0,72	27
28	235,185	-0,06	349,18	+0,18	28
29	158,500	-5,03	257,25	-4,31	29
30	184,500	-3,35	327,03	-0,90	30
31	228,250	-0,51	341,53	-0,19	31
32	234,933	-0,08	341,10	-0,21	32
33	261,250	+1,63	394,50	+2,40	33
34	239,685	+0,23	352,80	+0,36	34
35	242,850	+0,43	340,38	-0,25	35
36	241,750	+0,36	-	-	36
37	269,000	+2,13	399,50	+2,64	37
38	237,250	+0,07	328,50	-0,83	38
39	-	-	-	-	39
40	258,750	+1,46	-	-	40
41	-	-	374,25	+1,41	41
42	-	-	-	-	42
43	-	-	-	-	43
44	222,058	-0,91	346,78	+0,07	44
45	183,050	-3,44	-	-	45



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Mrs WOBST Anja

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ALLEMAGNE

Base parameters and indicators in waters

PT	Title	Assigned code
21M50.2	Perchlorates and disinfection by-products in clean waters	29



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**Certificate of registration for the Proficiency Testing
Scheme - 2021**

On the 07/01/2021, the site No. 18178 - GWA MBH IWU LUISENTHAL is registered for the following proficiency tests :

Delivery address :

An der Ohratalsperre

99885 LUISENTHAL - ALLEMAGNE

Base parameters and indicators in waters

M1D	Field parameters in fresh waters
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M50	Perchlorates and disinfection by-products in fresh waters
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Organic pollutants in fresh waters

M66	THMs in swimming pool waters
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Improving together

PROFICIENCY TESTING SCHEME 21M50.2

PERCHLORATES AND DISINFECTION BY- PRODUCTS IN CLEAN WATERS

FINAL REPORT AUTHORISED
ON FRIDAY 08 OCTOBER 2021
BY RONAN CHARPENTIER,
STATISTICAL PROCESSING MANAGER

A handwritten signature in black ink, appearing to read 'Ronan Charpentier'.

*All services reported in this document are covered
by accreditation.*

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Should there be any differences between the French and English versions of this document, the French version shall prevail.

Proficiency Testing Scheme report 21M50.2 - Code 29
written on 01/10/2021
Er-6-17C-EN, Issue No. 12 of the 21/03/19



1. SUMMARY OF YOUR RESULTS

Your laboratory code for this test: 29

Date of dispatch (D0): Tuesday, 07 September 2021

Date and time of receipt of parcel 1: Wednesday, 08 September 2021 at 08:13 (Information provided by the carrier)

Assessment summary table for the test:

The table below summarizes the assessment of your analyses for the test. These assessments take into account the trueness and repeatability of your analyses as well as the estimation of your measurement uncertainties.

If you only want to use the z-score as a performances indicator for your analyses, please refer to the "z-scores summary table".

Parameter	Assessment of your analyses	Corrective action to be undertaken concerning:		
		Trueness	Repeatability	Uncertainties estimation
Br ⁻	Satisfactory	No	No	No
ClO ₄ ⁻	Questionable	No	Put under monitoring ^(*)	No
BrO ₃ ⁻	Satisfactory	No	No	No
ClO ₂ ⁻	Satisfactory	No	No	No
ClO ₃ ⁻	Satisfactory	No	No	No

^(*): take corrective action if there is still a questionable result in the next test



Z-score summary table for the test:

Parameter	z-score
Br^-	+0,71
ClO_4^-	+1,72
BrO_3^-	+0,54
ClO_2^-	+0,46
ClO_3^-	-0,69

Proficiency test with less than 10 parameters implemented, no global evaluation of your test