Interreg
Danube Transnational Programme
SIMONA

LABORATORY REPORT OF THE TEST AREA SAMPLES TESTING AND ANALYSES

DRAVA TEST AREA

Deliverable 3.3.2

Version 2.0

Programme co-funded by the European Union funds (ERDF, IPA, ENI)

PROJECT TITLE
Sediment-quality Information, Monitoring and Assessment System to support transnational co-operation for joint Danube Basin water management

ACRONYM
SIMONA

PROJECT DURATION
1st June 2018 to 30th Nov 2021, 42 months

DATE OF PREPARATION
30/04/2021

AUTHORS:
HUNGARY:
GYOZO JORDAN (HU-SZIE), PETER FODOR (HU-SZIE), ZSOFIA KOVACS (HU-OVF), ZOLTAN VILÁGOSI (BÁLINT ANALITIKA LTD.), MÁRIA BÁLINT (BÁLINT ANALITIKA LTD.)

RESPONSIBLE(S) OF THE DELIVERABLE: Anca-Marina Vijdea (RO-IGR)
CO-RESPONSIBLE(S) OF THE DELIVERABLE: Gyozo Jordan (HU-SZIE)

EDITING AND PREPARATION FOR PRINTING: Katalin Mária Dudás (HU-NARIC)

For further information on the project, partnership and the Danube Transnational Programme:
www.interreg-danube.eu/simona

FIND SIMONA PROTOCOLS ON THE WEBSITE!

Project co-funded by the European Union (ERDF, IPA and ENI)

CONTENTS

Project co-funded by the European Union (ERDF, IPA and ENI)

1. INTRODUCTION

The objective of laboratory analysis of the collected Test Area samples is to test, verify and further develop the SIMONA Laboratory Protocol. The focus is on sample preparation such as homogenisation, separation and extraction. The actual instrumental chemical analyses are all defined by the relevant ISO standards and accreditation documents of the analytical laboratory, as described by the SIMONA Sampling Protocol and Sampling Working Group meeting Minutes. The specific objective is to test and compare various sampling methods (sampling systems) by means of comparing the physical and chemical composition of samples collected by various methods (systems). The final laboratory methods tested and developed, and selected for the Protocol will be trained on the Training Event and then subsequently used for the analysis of he samples collected in the two National Sampling Points in each participating country. The laboratory analyses, and testing and experimenting of the collected Test Area samples were carried out in the accredited Project Reference Laboratory. Laboratory method development used the Drava Test Area samples. Priority was given to the river bottom sediments, the uppermost 0-5 cm layer, because this is the most important sampling media for long-term sediment quality monitoring, according to the Water Framework Directive. A further specific objective is to use the Test Area samples laboratory analysis results (heavy metals, PAHs and Pesticied) to test the risk assessment method for the Evalaution Protocol.

During the laboratory analysis, testing and development activities, the participating experts had fruitful discussions and tentative conclusions on laboratory analysis of fluvial sediment for the long-term Surveillance Monitoring of water bodies under the EU WFD requirements. These ideas, experience gained and some preliminary suggestions are summarised below. The most fundamental conclusion was that the SIMONA Laboratory Protocol provides a solid basis for fluvial sediment sampling and monitoring.

Project co-funded by the European Union (ERDF, IPA and ENI)

Figure 1. SIMONA experts from Croatia, Slovenia and Hungary visiting the Reference Laboratory in Budapest on 01 October 2020. Lecture room presentations and discussion on the laboratory methods (upper left) and passive samplers (upper right) and visit to the ICP-MS laboratory used for heavy metal analsysis (lower left) and HPLC-MS and GC-MS laboratory used for PAHs and Pesticides analsyses (lower right).

The following Evaluation Criteria for selecting the laboratory analysis method had been defined by the Laboratory Expert Group, with focus on sample preparation:

1. Laboratory analysis, including sample storage and sample preparation, should be scientifically-based: reproducible and representative (laboratory accreditation shall ensure both).
2. Laboratory analysis should be in full compliance with EU legislation (Water Framework Directive).
3. Laboratory analysis should be practice-oriented: using methods and procedures that are resource (cost, time, human) efficient and 'ready-to-deploy' in the Danube Countries.
4. Laboratory analysis, especially sample preparation, should be adaptive to the site-specific conditions such as lowland versus mountainous conditions, etc.

Project co-funded by the European Union (ERDF, IPA and ENI)

2. SAMPLE ANALYSIS PREPARATIONS

2.1. Sample reception

Samples were received by car in cool boxes from the Test Areas. Samples were also received by surface post delivery service from Bulgaria.

Figure 2. Sample reception at the Reference Lab. Example: samples transferred from the Drava Test Area to the Reference Laboratory. Suspended sediment samples were in barrels (left). Stream sediment and flood-plain sediment samples were checked for coding and completeness, and grouped by site upon arrival at the lab (middle and right).

2.2. Sample storage

Samples were kept cooled in refrigirator and cool boxes at 4C° in the laboratory until analysis in order to inhibit chemical and (micro-)biological processes (to maintain representativity).

Figure 3 Sample storage in the Reference Lab. Samples were kept in electric cool boxes (left and middle) and in refrigerator in the laboratory until analysis (right).

Project co-funded by the European Union (ERDF, IPA and ENI)

2.3. Sample analysis: parameter selection

The laboratory analysis and testing have been divided into 3 groups of parameters:

1. The **3 groups of parameters** defined in the service contract between the SIMONA project (Lead Partner) and the Reference Laboratory (Bálint Analitika Ltd.), were analysed for selected priority samples (see red highlight in the table below):
   - Metals
   - PAHs
   - Pesticides.

Selected **priority samples** from each of the 10 sites in the Drava Test Area, as an example, were the following:

- STREAM BOTTOM SEDIMENT:
  - uppermost 0-5 cm, collected with the vacuum corer sampler.

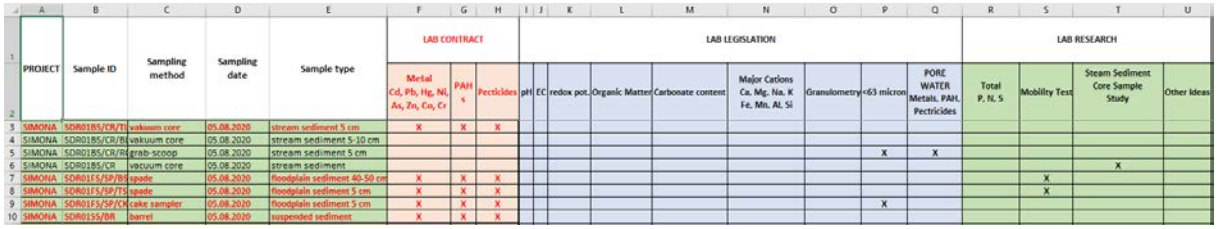
- FLOODPLAIN SEDIMENT:
  - uppermost 0-5 cm, collected with the spade sampler.
  - lowermost 40-50 cm, collected with the spade sampler.
  - uppermost 0-5 cm, collected with the cake sampler.

- SUSPENDED SEDIMENT:
  - collected in barrel.

2. Parameters recommended by EU WFD documents and ISO documents: (see blue highlight in the table below) (expenses covered by external sources):
   - pH
   - EC
   - redox potential
   - Organic matter content
   - Carbonate content
   - Major cations (Ca, Mg, Na, K, Fe, Mn, Al, Si)
   - Granulometry
   - <63 µm fraction: Metals, PAH, Pectricides
   - Pore water: Metals, PAH, Pectricides.

3. Parameters that are relevant for further scientific research and development: (see green highlight in the table below) (expenses covered by external sources):
   - Total P, N, S
   - Mobility tests (for floodplain sediments)
   - Detailed vertical study of bottom sediment cores
   - isotopic studies (for contamination source identification, 'fingerprinting')
   - other.

Project co-funded by the European Union (ERDF, IPA and ENI)



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1						LAB CONTRACT			LAB LEGISLATION									LAB RESEARCH			
2	PROJECT	Sample ID	Sampling method	Sampling date	Sample type	Metal Cd, Pb, Hg, Ni, As, Zn, Co, Cr	PAHs	Pecticides	pH	EC	redox pot.	Organic Matter	Carbonate content	Major Cations Ca, Mg, Na, K Fe, Mn, Al, Si	Granulometry	<63 micron	PORE WATER Metals, PAH, Pectricides	Total P, N, S	Mobility Test	Steam Sediment Core Sample Study	Other Ideas
3	SIMONA	SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	X	X	X													
4	SIMONA	SDR01BS/CR/BL	vakuum core	05.08.2020	stream sediment 5-10 cm																
5	SIMONA	SDR01BS/CR/RG	grab-scoop	05.08.2020	stream sediment 5 cm											X	X				
6	SIMONA	SDR01BS/CR	vacuum core	05.08.2020	stream sediment															X	
7	SIMONA	SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	X	X	X											X		
8	SIMONA	SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	X	X	X											X		
9	SIMONA	SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	X	X	X								X					
10	SIMONA	SDR01SS/BR	barrel	05.08.2020	suspended sediment	X	X	X													

	A	B	C	D	E	F	G	H
1						LAB CONTRACT		
2	PROJECT	Sample ID	Sampling method	Sampling date	Sample type	Metal Cd, Pb, Hg, Ni, As, Zn, Co, Cr	PAHs	Pecticides
3	SIMONA	SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	X	X	X
4	SIMONA	SDR01BS/CR/BL	vakuum core	05.08.2020	stream sediment 5-10 cm			
5	SIMONA	SDR01BS/CR/RG	grab-scoop	05.08.2020	stream sediment 5 cm			
6	SIMONA	SDR01BS/CR	vacuum core	05.08.2020	stream sediment			
7	SIMONA	SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	X	X	X
8	SIMONA	SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	X	X	X
9	SIMONA	SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	X	X	X
10	SIMONA	SDR01SS/BR	barrel	05.08.2020	suspended sediment	X	X	X

I	J	K	L	M	N	O	P	Q	R	S	T	U
LAB LEGISLATION									LAB RESEARCH			
pH	EC	redox pot.	Organic Matter	Carbonate content	Major Cations Ca, Mg, Na, K Fe, Mn, Al, Si	Granulometry	<63 micron	PORE WATER Metals, PAH, Pectricides	Total P, N, S	Mobility Test	Steam Sediment Core Sample Study	Other Ideas
							X	X				
											X	
										X		
										X		
							X					
							X	X				

Figure 4. Sample storage in the Reference Lab. Samples were kept in electric cool boxes (left and middle) and in refrigerator in the laboratory until analysis (right).

Project co-funded by the European Union (ERDF, IPA and ENI)

3. TESTING AND EXPERIMENTING

3.1. Testing the composition of sampling and laboratory tools

The chemical composition of the sampling tool and laboratory tools have been tested for potential sample contamination by taking 3 replicate measurements with a handheld portable XRF detector (Olympus). Results show (see table below) that most of the used tools are composed of inter Fe-Mn steel. However, paint on showels (Fiskars and commercial) contain elevated concentrations of Ti, V and Co. Also, the the soil sampling knife (Ejkelkamp) contains elevated Zn concentration and it is distributed in the knife material heterogeneously.

Figure 5. Testing the chemical composition of sampling tools using a portable XRF device.

	Eijkelkamp knife #1	Eijkelkamp knife #2	Eijkelkamp knife #3	Eijkelkamp knife #4	Eijkelkamp soil sampler #1	Eijkelkamp soil sampler #2	Eijkelkamp soil sampler #3	Scoop#1	Scoop#2	Scoop#3	Romanian mini scoop #1	Romanian mini scoop #2	Romanian mini scoop #3	Cake sampler (romanian) #1	Cake sampler (romanian) #2	Cake sampler (romanian) #3	Fiskars shovel worn end #1	Fiskars shovel worn end #2	Fiskars shovel painted #1	Fiskars shovel painted #
Fe	96,67	87,8	80,9	95,98	97,31	97,33	97,32	1,94	1,22	1,79	75,79	75,77	75,73	83,77	83,39	83,9	98,36	98,4	77,71	85,57
Zn	2,12	10,92	17,89	2,77				1,71	1,01	1,69	0,077	0,074	0,074							
Mn	0,69	0,74	0,65	0,71	1,67	1,66	1,68	0,297	0,188	0,269	9,38	9,34	9,45	0,48	0,47	0,38	1,17	1,15	1,11	1,15
Cr	0,424	0,465	0,486	0,438							12,73	12,81	12,74	15,56	15,92	15,53	0,316	0,303	0,36	0,32
Ni	0,042	0,035		0,046	0,02	0,024	0,027				1,22	1,18	1,17	0,13	0,12	0,11	0,051	0,046		
Ti	0,034	0,032	0,028	0,037				0,112	0,072	0,102							0,042	0,049	16,87	10,45
Mo	0,0067			0,0085																
V		0,008	0,016		0,081	0,074	0,068				0,083	0,087	0,079	0,064	0,093	0,079			2,34	1,43
Cu			0,019					1,47	0,888	1,48	0,7	0,74	0,75				0,034	0,038		
C					0,9	0,9	0,9													
Pb								0,18	0,097	0,18										
Co																			1,48	1,05
Zr																			0,055	0,034
Ir																				
Cd																				

	B.A. shovel worn end #1	B.A. shovel worn end #2	B.A. shovel painted #1	B.A. shovel painted #2	Kitchen knife	Fiskars scissors	B.A. cake sampler #1	B.A. cake sampler #2	B.A. cake sampler #3	Plastic spoon #1	Plastic spoon #2
Fe	99,09	99,1	74,36	84,2	86,56	85,01	99,48	99,46	99,45	0,176	0,181
Zn											
Mn	0,78	0,78	1,25	1	0,48	0,62	0,405	0,405	0,422		
Cr	0,108	0,106	0,2	0,12	12,71	13,88	0,028	0,027	0,026		
Ni							0,017	0,017	0,025		
Ti	0,017	0,015	16,57	9,98				0,008	0,011	0,96	0,96
Mo											
V			5,09	2,96						0,057	0,061
Cu					0,103		0,066	0,087	0,072		
C											
Pb											
Co			2,4	1,7							
Zr			0,084	0,044						0,0181	0,0182
Ir										0,052	0,052
Cd										0,0183	0,0189

Table showing the results of sampling tool composition measurements using a portable XRF device. Note that most of the tools used in sampling are composed of inert Fe-Mn steel.

Project co-funded by the European Union (ERDF, IPA and ENI)

In the laboratory, the only metal tool in contact with the samples are the 2mm and 63 µm sieves. The chemical composition of the sieves and trays were tested in 3 ways. First, their composition was measured by a portable XRF device. Results show (see table below) that the metal sieves and trays can contain elevated Cu and Zn (standard brass soil sieves and tray) or Ni and Cr (Fritsch). Second, a blind sample (high purity glass sand) was sieved, too, and analysed for composition by ICP-MS. Results show (see table below) that sieving had no contamination effect on the blind sample. Third, a real Drava bottom sediment sample was sieved through the metal (Fritsch) sieve. Results show that the brass tray used to receive the sieved-through fraction had a serious Cu-Zn contamination on the <63 µm sieved fraction. This means, that the wet fine grain sample can have serious interaction and therefore contamination from the laboratory equipment. As a conclusion, the use of metal tools should be avoided or possible sample contamination should be checked when metal tools get in contact with the sample.

	#2 (2mm B.A.)	#3 (63um B.A.)	#4 (tálca B.A.)	#6 (tálca belül B.A.)	#5 (2mm Győző szit
Fe %	72.17	71.46			
Cr %	17.96	17.87			
Ni %	8.00	7.96	0.060	0.062	0.076
Mn %	0.89	1.61			
Co %	0.34				
Cu %	0.24	0.46	63.30	64.24	63.61
Mo %		0.312			
Zn %			36.53	35.52	36.21
V %			0.062	0.071	0.087
Pb %			0.038	0.047	
Ti %					0.015

Szimona szita vizsgálat

Talajminták fém-tartalom vizsgálata

Beérkezés dátuma: 2020.10.19.

Kód		20-1A/150	20-1A/151
Minta jele		**Vak**	**Vak szitált**
A mintaelőkészítés kezdete/ a vizsgálat vége		**10.21./10.22.**	
As	mg/kg sz.a.	**9,60**	**10,7**
Cd	mg/kg sz.a.	**0,12**	**0,15**
Cr	mg/kg sz.a.	**40,0**	**60,1**
Cu	mg/kg sz.a.	**34,5**	**14,3**
Hg	mg/kg sz.a.	**0,08**	**0,15**
Ni	mg/kg sz.a.	**22,7**	**33,3**
Pb	mg/kg sz.a.	**9,81**	**10,6**
Zn	mg/kg sz.a.	**54,5**	**53,6**

Szitált iszapminta fém-tartalom vizsgálata (első szitálás)

Beérkezés dátuma: 2020.08.05.

Kód		20-731/1A
Minta jele		**SDR 01BS/CR/TL**
A mintaelőkészítés kezdete/ a vizsgálat vége		**09.21./09.23.**
As	mg/kg sz.a.	**16,7**
Cd	mg/kg sz.a.	**3,95**
Cr	mg/kg sz.a.	**403**
Cu	mg/kg sz.a.	**5240**
Hg	mg/kg sz.a.	**0,60**
Ni	mg/kg sz.a.	**38,1**
Pb	mg/kg sz.a.	**48,7**
Zn	mg/kg sz.a.	**19100s**

Table (upper left) shows the results of laboratory tool(sieves)testing using using a portable XRF device. Note the Cu-Zn content of standard soiol sieve and tray (brass). Table (lower left) shows the results of <63 µm sediment analysis. Note the Cu-Zn contamination coming from the test standard soiol sieve and tray (brass). Table (right) shows the results of laboratory tool(sieves)testing using a blind sample (high purity glass sand) before ('vak') and after ('vak szitált') sieving. Note that sieving has no contamination effect on the blind sample.

Project co-funded by the European Union (ERDF, IPA and ENI)

3.2. Testing suspended sediment processing

A permanent issue, already raised on the project meetings and in the field during sampling, is the amount of suspended sediment to be collected which is sufficient for the laboratory analysis. This was tested in the laboratory. The suspended sediment samples collected in 30L plastic barrels were resuspended by intensive shaking and stiring (see figure below). Then, an electric pump was used to pump the suspension into a vacuum filter device and the sample was filtered through a standard 0.45 µm filter. Filtering was continued until the clogging of the filter inhibited further filtering. Results show that suspended sediment collected on the filter is sufficient amount for the chemical analysis (metals, PAHs, Pesticieds). Most importanty, this amount of sediment was recovered only from 1-2 liters of water. This is consistent with the previous experience of the Reference Laboratory. Moreover, the Hungarian Water Authority routinely collects only 5L water for suspended sediment analysis in rivers. These results all point into the direction that the amount of water sample sufficient for suspended sediment analysis is much less than the tested 30L. Taking this conclusion a step further, filering the water in the field may offer the most efficient way of suspended sediment collection, using a devices like the Romanian portable field suspended sediment vacuum filter device (lower right), which was also tested in the Drava Test Area (see figure above). This has far reaching consequences for the long-term sediment monitoring because handling the large barrels in the field and the lab is very awkward. In addition, field filtering also has the advantage that it minimizes the interaction between the water and sediment during sample transport and storage (representativity).

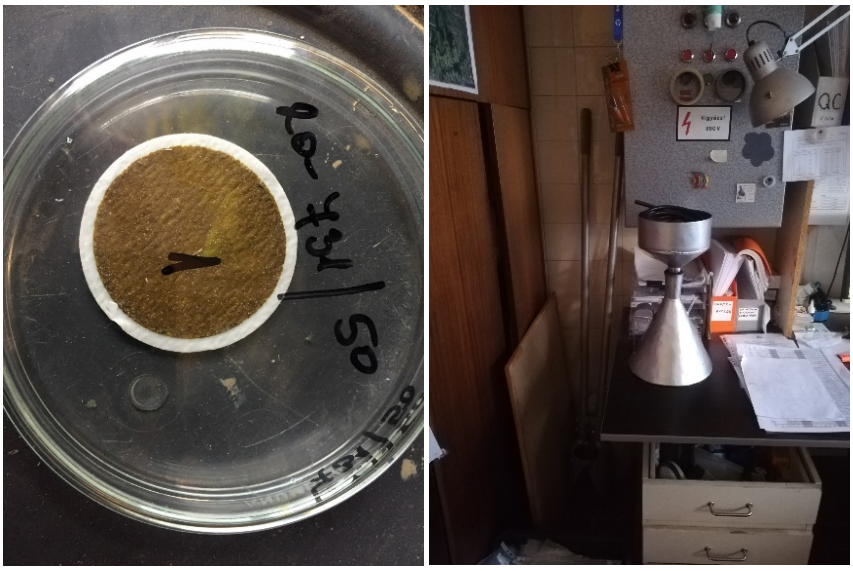


Figure 6. Suspended sediment samples pumped and filtered through a 0.45 µm filter (top pictures) in the laboratory. Suspended sediment collected on the filter, ready for chemical analysis (lower left). The Romanian portable field suspended sediment vacuum filter device (lower right).

3.3. Testing complex sediment analysis

Testing focused on 4 priority issues:

- **sample preparation** with the objective of maintaining sample representativity and the reproducibility of sample handling and manipulation. Sample peaparation included homogenization, drying, sieving and centrifuging.
- **stream bottom sediment samples (0-5 cm top layer)** as the most important media for long-term monitoring suggested by WFD documents and ISO standards,
- **minimum sample quantity**, as the favoured sampling system is the vacuum corer system which collects limited amount of sample only.
- analysis of **fine fraction** (<63µm) and **pore water**.

The developed method is optimized against these criteria (see flowchart below).

3.3.1. Sieving

Stream bottom sediment samples contained plant fragments and biota remnants, justifying the <2mm sieving.

Project co-funded by the European Union (ERDF, IPA and ENI)

Figure 7. Stream bottom sediment samples contained plant fragments (left) that are removed by sieving to <2mm sieving (middle). The <63µm fraction fine mud (right).

The <63µm fine fraction (see figure) is only a small part (10%) of the stream bottom sediment sample, therefore, it has to be tested if the sampled sediment has sufficient amount for the chemical analysis. This has important implications for the total amount of sample to be collected in the field in order to contain sufiecient amount of the critical fine fraction. Test results show that **under the lowland hydromorphic conditions** of the Drava Test Area, the limited bottom sediment top layer (0-5 cm) sample amount collected by the vacuum corer system is sufficient for all the chemical analysis.

3.3.2. Homogenisation

All sediment samples, including the stream bottom sediment samples, are **composite samples**, composed of 3-5 sub-samples. Therefore, homogenization of samples in the laboratory is a very important first step. However, bottom sediment samples have very high (ca. 50%) pore water content as identified by the laboratory measurements which spearates from the sediment very fast (within a few minutes) in the sample container during storage (see figure). As a result, a further step of homogenization has to be included in this procedure by intensive re-mixing and **resuspension** of the water and sediment phases before the immediate sample taken from the container for any chemical analysis.

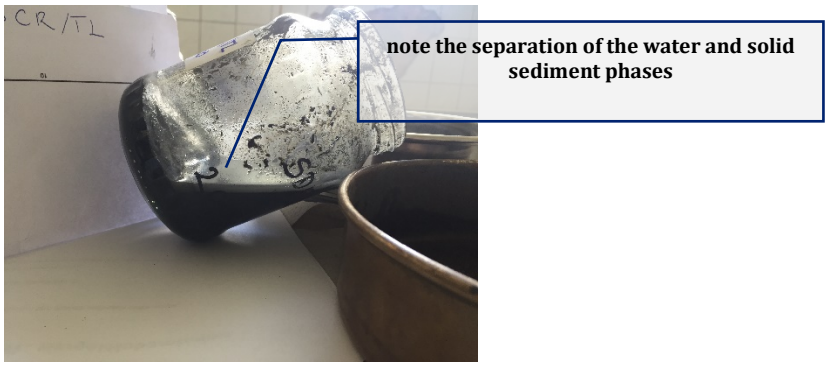


Figure 8. Picture showing the separation of sediment and pore water conent in the sample container during storage. Note the ca. 50% warer content of the collected bottom sediment samples.

Project co-funded by the European Union (ERDF, IPA and ENI)

3.3.3. Pore water extraction

Pore water contamination content is important for calculating partitioning coefficients between sediment and water which, in turn, assist risk assessment (evaluation) in terms of benthic fauna (biota) protection and contamination mobility. The laboratory tests have shown that the used minimum amount of bottom sediment is enough to obtain pore water by centrifuging in the quantity sufficient for the chemical analysis.

3.3.4. Sample quantity determination

Tests have been carried out to define the quantity of stream sediment sample available for the complex chemical analysis:

- <2 mm fraction quantity
- <63 µm fraction quantity
- pore water content
- dry matter content available for lab analyses
- partitioning of contaminants (metals) among the
- *total sample - fine grain - pore water* fractions.

First, results in the Table show that the studied lowland stream bottom sediments have very high (44%) water content, while this is 89% in the fine fraction. So at least half of the sediment sample quantity is water. Second, only 10% of the original sample is the <63 µm fraction.

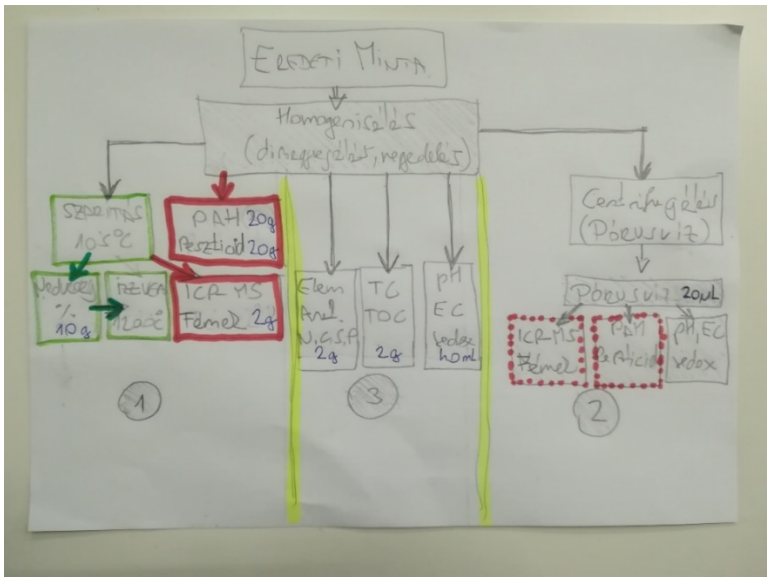
SAMPLE ID	LAB ID	Dry matter [%]	LOI [%]	<63 um [%]	As [mg\kg sz.a.]	Cd [mg\kg sz.a.]	Cr [mg\kg sz.a.]	Cu [mg\kg sz.a.]	Hg [mg\kg sz.a.]	Ni [mg\kg sz.a.]	Pb [mg\kg sz.a.]	Zn [mg\kg sz.a.]	∑PAH [mg/kg sz.a.]	Peszticidek [mg\kg sz.a.]	TC [m\m% sz.a.]	TIC [m\m% sz.a.]	TOC [m\m% sz.a.]
SDR01BS/CR/TL <2mm	20-731/1	56,42	?	10,10	2,52	1,98	44,10	18,60	0,09	12,00	6,32	44,60	0,47	nd	2,37	1,64	0,73
SDR01BS/CR/TL <63um	20-731/A	11,00	16,00		11,50	0,57	508,00	154,00	0,55	252,00	33,70	240,00	18,18				
SDR01BS/CR/TL pórusvíz	20-731/1 Pore water				5,25	0,03	13,7	13,5	<0,01	123	3,4	27,3	?				

Table showing the analystical results of the test stream bottom sediment sample. Note the low dry matter content (high water content). Note the high metal content of the fine fraction.

3.3.5. Sample preparation and analysis work flow

Based on the predefined criteria for sample preparation and analysis (minimum sample quantity, analysis of fine fraction and pore water, paramters including priority substances and controlling factors such OM content, etc.), a basic work was scetched according to the figure below.

Project co-funded by the European Union (ERDF, IPA and ENI)



Original scheme for sample preparation and analysis of stream bottom sediment samples. All analysis starts with homogenization (central box). Red: contracted parameters (Metals, PAHs, Pesticieds); Green: dry matter content analysis by drying, and the follow-up loss-on-ignition analysis. The 3 columns show groups of paramters: 1. sediment contamination (Metals, PAHs, Pesticieds); 2. pore water contamination (Metals, PAHs, Pesticieds) obtained by centrifuging; 3. total chemical analasis of sediment composition.

Based on the several tests on sieving, filtering, water content determination, homogenization, etc. (see above), the following final scheme was designed and implemented for all the samples.

Project co-funded by the European Union (ERDF, IPA and ENI)

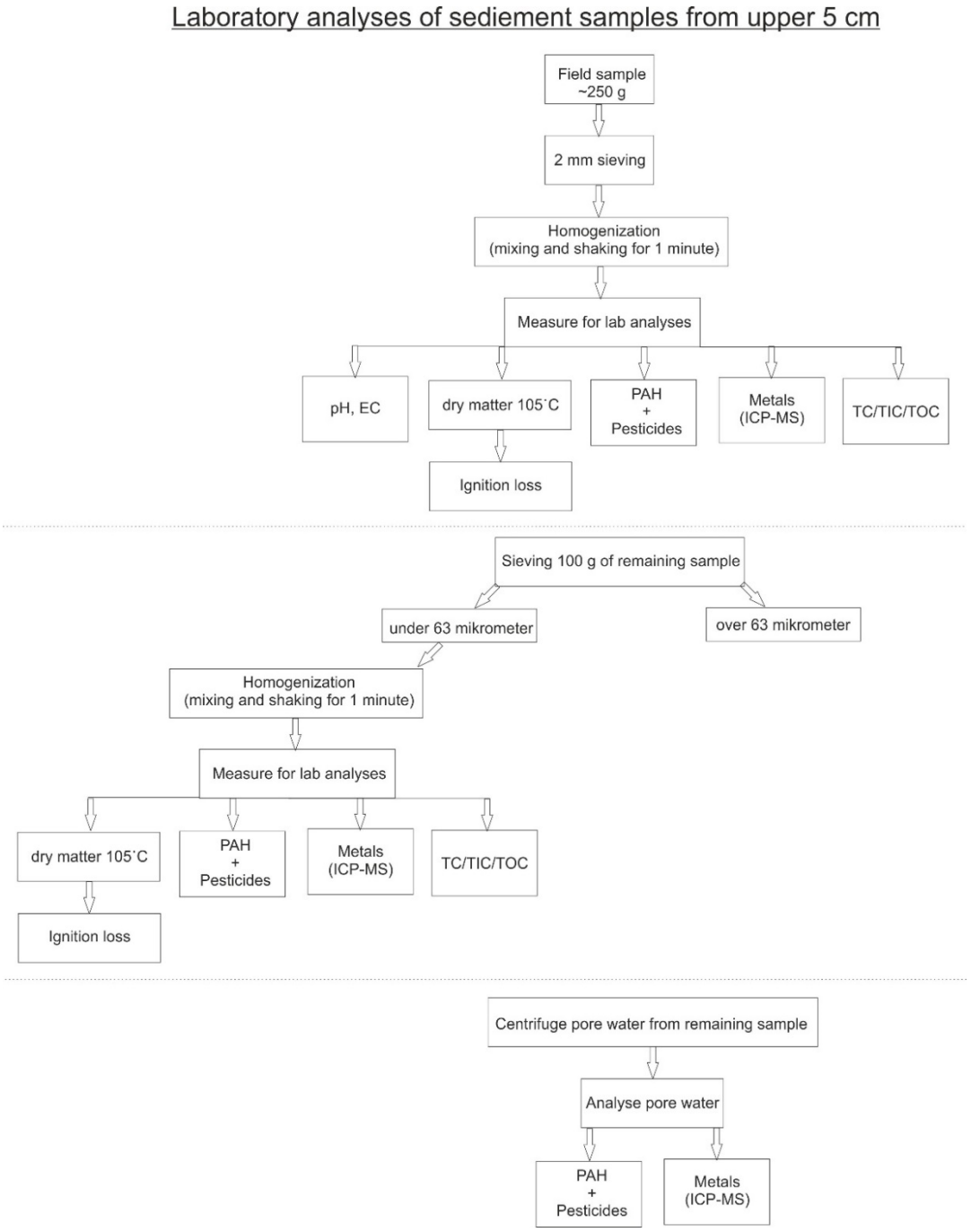


Figure 9. Final scheme for sample preparation and analysis of stream bottom sediment samples.

The scheme is optimized to the minimum required stream bottom sediment sample quantity collected with the vacuum corer system, and parallel optimized to the maximum number of physical-chemical paramters to be defined (1) in the original sample (<2mm), (2) in the fine fraction (<63 µm) and (3) in the pore water, while respecting the relevant ISO standards and the accreditied laboratory procedures.

Project co-funded by the European Union (ERDF, IPA and ENI)

3.3.6. Method development

The tested and developed laboratory methods will be described in detail in the final Laboratory Protocol updated based on the Test Area samples analyses. Further planned scientific laboratory tests include

- mobility and speciation tests on floodplain sediments (deionized water leaching,
- BCR sequential extraction),
- detailed grain size analysis and fraction chemistry,
- isotope composition analysis for sediment fingerprinting and contamination source detection,
- testing total extraction methods (aqua regia, nitric acid, multi-acid HF),
- XRF measurements on original samples.

Project co-funded by the European Union (ERDF, IPA and ENI)

Annex 1. Laboratory Results

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	As	2,52	0,005	EPA 6020B:2014
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Cd	1,98	0,003	EPA 6020B:2014
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Cr	44,1	0,03	EPA 6020B:2014
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Cu	18,6	0,1	EPA 6020B:2014
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Hg	0,09	0,005	EPA 6020B:2014
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Ni	12	0,005	EPA 6020B:2014
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Pb	6,32	0,005	EPA 6020B:2014
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Zn	44,6	0,1	EPA 6020B:2014
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Anthracene	0,018	0,001	EPA 8270E:2018
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Fluoranthene	0,045	0,001	EPA 8270E:2018
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,012	0,001	EPA 8270E:2018
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,027	0,001	EPA 8270E:2018
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,01	0,001	EPA 8270E:2018
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,012	0,001	EPA 8270E:2018
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR01BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	As	6,76	0,005	EPA 6020B:2014
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Cd	0,13	0,003	EPA 6020B:2014
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Cr	38,8	0,03	EPA 6020B:2014
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Cu	15,8	0,1	EPA 6020B:2014
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Hg	0,03	0,005	EPA 6020B:2014
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Ni	39,3	0,005	EPA 6020B:2014
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Pb	8,88	0,005	EPA 6020B:2014
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Zn	70,3	0,1	EPA 6020B:2014
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Fluoranthene	<	0,001	EPA 8270E:2018
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR01FS/SP/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	As	3,54	0,005	EPA 6020B:2014
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Cd	0,31	0,003	EPA 6020B:2014
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Cr	66	0,03	EPA 6020B:2014
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Cu	26,4	0,1	EPA 6020B:2014
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Hg	0,1	0,005	EPA 6020B:2014
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Ni	20	0,005	EPA 6020B:2014
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Pb	28,2	0,005	EPA 6020B:2014
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Zn	88,6	0,1	EPA 6020B:2014
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Anthracene	0,006	0,001	EPA 8270E:2018
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Fluoranthene	0,016	0,001	EPA 8270E:2018
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,005	0,001	EPA 8270E:2018
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,011	0,001	EPA 8270E:2018
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,005	0,001	EPA 8270E:2018
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,004	0,001	EPA 8270E:2018
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR01FS/SP/TS	spade	05.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	As	4,08	0,005	EPA 6020B:2014
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Cd	0,34	0,003	EPA 6020B:2014
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Cr	51,5	0,03	EPA 6020B:2014
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Cu	20,3	0,1	EPA 6020B:2014
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Hg	0,09	0,005	EPA 6020B:2014
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Ni	17,4	0,005	EPA 6020B:2014
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Pb	23,8	0,005	EPA 6020B:2014
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Zn	83,5	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Anthracene	0,008	0,001	EPA 8270E:2018
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Fluoranthene	0,021	0,001	EPA 8270E:2018
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,005	0,001	EPA 8270E:2018
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,011	0,001	EPA 8270E:2018
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,006	0,001	EPA 8270E:2018
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,005	0,001	EPA 8270E:2018
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR01FS/SP/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR01SS/BR	barrel	05.08.2020	suspended sediment	As	0,06	0,005	EPA 6020B:2014
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Cr	0,37	0,03	EPA 6020B:2014
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Ni	0,04	0,005	EPA 6020B:2014
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Pb	0,05	0,005	EPA 6020B:2014
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Zn	0,4	0,1	EPA 6020B:2014
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Anthracene	0,145	0,001	EPA 8270E:2018
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Fluoranthene	0,281	0,001	EPA 8270E:2018
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Benzo(a)pyrene	0,047	0,001	EPA 8270E:2018
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,177	0,001	EPA 8270E:2018
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Benzo(g,h,i)perylene	0,063	0,001	EPA 8270E:2018
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	0,059	0,001	EPA 8270E:2018
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR01SS/BR	barrel	05.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	As	10,3	0,005	EPA 6020B:2014
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Cd	0,36	0,003	EPA 6020B:2014
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Cr	201	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Cu	24,9	0,1	EPA 6020B:2014
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Hg	0,38	0,005	EPA 6020B:2014
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Ni	27,8	0,005	EPA 6020B:2014
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Pb	24,7	0,005	EPA 6020B:2014
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Zn	114	0,1	EPA 6020B:2014
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Anthracene	0,528	0,001	EPA 8270E:2018
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Fluoranthene	1,73	0,001	EPA 8270E:2018
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,344	0,001	EPA 8270E:2018
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,765	0,001	EPA 8270E:2018
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,178	0,001	EPA 8270E:2018
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,239	0,001	EPA 8270E:2018
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR02BS/CR/TL	vakuum core	05.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	As	2,12	0,005	EPA 6020B:2014
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Cd	0,11	0,003	EPA 6020B:2014
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Cr	24,3	0,03	EPA 6020B:2014
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Cu	5,39	0,1	EPA 6020B:2014
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Hg	0,04	0,005	EPA 6020B:2014
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Ni	10,3	0,005	EPA 6020B:2014
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Pb	5,14	0,005	EPA 6020B:2014
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Zn	23,5	0,1	EPA 6020B:2014
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Fluoranthene	0,001	0,001	EPA 8270E:2018
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,001	0,001	EPA 8270E:2018
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR02FS/BS	spade	05.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	As	6,88	0,005	EPA 6020B:2014
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Cd	0,18	0,003	EPA 6020B:2014
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Cr	102	0,03	EPA 6020B:2014
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Cu	23,9	0,1	EPA 6020B:2014
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Hg	0,11	0,005	EPA 6020B:2014
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Ni	23,1	0,005	EPA 6020B:2014
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Pb	13,1	0,005	EPA 6020B:2014
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Zn	73,5	0,1	EPA 6020B:2014
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Anthracene	0,015	0,001	EPA 8270E:2018
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Fluoranthene	0,042	0,001	EPA 8270E:2018
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,03	0,001	EPA 8270E:2018
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,06	0,001	EPA 8270E:2018
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,022	0,001	EPA 8270E:2018
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,026	0,001	EPA 8270E:2018
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR02FS/TS	spade	05.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	As	8,27	0,005	EPA 6020B:2014
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Cd	0,21	0,003	EPA 6020B:2014
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Cr	115	0,03	EPA 6020B:2014
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Cu	24,2	0,1	EPA 6020B:2014
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Hg	0,13	0,005	EPA 6020B:2014
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Ni	26,3	0,005	EPA 6020B:2014
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Pb	15,6	0,005	EPA 6020B:2014
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Zn	92,3	0,1	EPA 6020B:2014
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Anthracene	0,017	0,001	EPA 8270E:2018
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Fluoranthene	0,052	0,001	EPA 8270E:2018
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,041	0,001	EPA 8270E:2018
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,078	0,001	EPA 8270E:2018
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,027	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,032	0,001	EPA 8270E:2018
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR02FS/CK	cake sampler	05.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR02SS/BR	barrel	05.08.2020	suspended sediment	As	0,008	0,005	EPA 6020B:2014
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Cr	0,4	0,03	EPA 6020B:2014
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Ni	0,04	0,005	EPA 6020B:2014
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Pb	0,04	0,005	EPA 6020B:2014
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Zn	0,71	0,1	EPA 6020B:2014
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Anthracene	0,292	0,001	EPA 8270E:2018
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Fluoranthene	0,251	0,001	EPA 8270E:2018
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Benzo(a)pyrene	0,066	0,001	EPA 8270E:2018
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,23	0,001	EPA 8270E:2018
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Benzo(g,h,i)perylene	0,098	0,001	EPA 8270E:2018
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	0,069	0,001	EPA 8270E:2018
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR02SS/BR	barrel	05.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	As	14,9	0,005	EPA 6020B:2014
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cd	0,17	0,003	EPA 6020B:2014
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cr	42,8	0,03	EPA 6020B:2014
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cu	25,6	0,1	EPA 6020B:2014
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hg	0,18	0,005	EPA 6020B:2014
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Ni	22,9	0,005	EPA 6020B:2014
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Pb	15,4	0,005	EPA 6020B:2014
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Zn	76,5	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Anthracene	0,102	0,001	EPA 8270E:2018
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Fluoranthene	0,506	0,001	EPA 8270E:2018
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,106	0,001	EPA 8270E:2018
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,238	0,001	EPA 8270E:2018
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,061	0,001	EPA 8270E:2018
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,073	0,001	EPA 8270E:2018
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR03BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	As	8,08	0,005	EPA 6020B:2014
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Cd	0,11	0,003	EPA 6020B:2014
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Cr	42,9	0,03	EPA 6020B:2014
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Cu	20,4	0,1	EPA 6020B:2014
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Hg	0,05	0,005	EPA 6020B:2014
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Ni	23,8	0,005	EPA 6020B:2014
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Pb	8,82	0,005	EPA 6020B:2014
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Zn	57,4	0,1	EPA 6020B:2014
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Fluoranthene	<	0,001	EPA 8270E:2018
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR03FS/BS/D	spade	06.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	As	6,39	0,005	EPA 6020B:2014
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Cd	0,15	0,003	EPA 6020B:2014
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Cr	39,5	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Cu	20	0,1	EPA 6020B:2014
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Hg	0,07	0,005	EPA 6020B:2014
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Ni	18,9	0,005	EPA 6020B:2014
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Pb	9,84	0,005	EPA 6020B:2014
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Zn	62,8	0,1	EPA 6020B:2014
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Fluoranthene	0,005	0,001	EPA 8270E:2018
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,004	0,001	EPA 8270E:2018
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR03FS/TS/D	spade	06.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	As	5,45	0,005	EPA 6020B:2014
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cd	0,13	0,003	EPA 6020B:2014
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cr	41,1	0,03	EPA 6020B:2014
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cu	22,1	0,1	EPA 6020B:2014
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hg	0,08	0,005	EPA 6020B:2014
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Ni	19,6	0,005	EPA 6020B:2014
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Pb	10,4	0,005	EPA 6020B:2014
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Zn	55,7	0,1	EPA 6020B:2014
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR03FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR03SS/BR	barrel	06.08.2020	suspended sediment	As	0,03	0,005	EPA 6020B:2014
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Cr	<	0,03	EPA 6020B:2014
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Ni	0,01	0,005	EPA 6020B:2014
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Pb	0,007	0,005	EPA 6020B:2014
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Zn	0,12	0,1	EPA 6020B:2014
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Fluoranthene	0,029	0,001	EPA 8270E:2018
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Benzo(g,h,i)perylene	0,012	0,001	EPA 8270E:2018
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	0,006	0,001	EPA 8270E:2018
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR03SS/BR	barrel	06.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	As	9,21	0,005	EPA 6020B:2014
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cd	0,16	0,003	EPA 6020B:2014
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cr	53,7	0,03	EPA 6020B:2014
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cu	19	0,1	EPA 6020B:2014
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hg	0,18	0,005	EPA 6020B:2014
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Ni	27,3	0,005	EPA 6020B:2014
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Pb	18,3	0,005	EPA 6020B:2014
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Zn	77	0,1	EPA 6020B:2014
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Fluoranthene	0,009	0,001	EPA 8270E:2018
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,003	0,001	EPA 8270E:2018
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,006	0,001	EPA 8270E:2018
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR04BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	As	11,7	0,005	EPA 6020B:2014
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Cd	0,14	0,003	EPA 6020B:2014
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Cr	54,6	0,03	EPA 6020B:2014
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Cu	19	0,1	EPA 6020B:2014
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Hg	0,07	0,005	EPA 6020B:2014
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Ni	26,3	0,005	EPA 6020B:2014
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Pb	14,6	0,005	EPA 6020B:2014
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Zn	65,5	0,1	EPA 6020B:2014
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR04FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	As	11,2	0,005	EPA 6020B:2014
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Cd	0,17	0,003	EPA 6020B:2014
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Cr	59,2	0,03	EPA 6020B:2014
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Cu	24,6	0,1	EPA 6020B:2014
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Hg	0,1	0,005	EPA 6020B:2014
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Ni	29,4	0,005	EPA 6020B:2014
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Pb	15,2	0,005	EPA 6020B:2014
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Zn	76,3	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR04FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	As	11,1	0,005	EPA 6020B:2014
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cd	0,21	0,003	EPA 6020B:2014
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cr	59,9	0,03	EPA 6020B:2014
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cu	36,1	0,1	EPA 6020B:2014
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hg	0,11	0,005	EPA 6020B:2014
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Ni	29,4	0,005	EPA 6020B:2014
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Pb	15,8	0,005	EPA 6020B:2014
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Zn	75,1	0,1	EPA 6020B:2014
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR04FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR04SS/BR	barrel	06.08.2020	suspended sediment	As	0,01	0,005	EPA 6020B:2014
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Cr	<	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Ni	0,01	0,005	EPA 6020B:2014
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Pb	<	0,005	EPA 6020B:2014
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Zn	<	0,1	EPA 6020B:2014
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Fluoranthene	0,011	0,001	EPA 8270E:2018
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,01	0,001	EPA 8270E:2018
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR04SS/BR	barrel	06.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	As	5,08	0,005	EPA 6020B:2014
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cd	0,06	0,003	EPA 6020B:2014
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cr	34	0,03	EPA 6020B:2014
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Cu	12,2	0,1	EPA 6020B:2014
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hg	0,14	0,005	EPA 6020B:2014
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Ni	16,7	0,005	EPA 6020B:2014
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Pb	10	0,005	EPA 6020B:2014
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Zn	48,2	0,1	EPA 6020B:2014
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR05BS/CR/TL	vakuum core	06.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	As	3,45	0,005	EPA 6020B:2014
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Cd	0,04	0,003	EPA 6020B:2014
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Cr	15,3	0,03	EPA 6020B:2014
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Cu	6,41	0,1	EPA 6020B:2014
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Hg	0,05	0,005	EPA 6020B:2014
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Ni	5,83	0,005	EPA 6020B:2014
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Pb	2,91	0,005	EPA 6020B:2014
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Zn	17,2	0,1	EPA 6020B:2014
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Fluoranthene	<	0,001	EPA 8270E:2018
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR05FS/SP/BS	spade	06.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	As	5,32	0,005	EPA 6020B:2014
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Cd	0,09	0,003	EPA 6020B:2014
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Cr	27,2	0,03	EPA 6020B:2014
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Cu	13,5	0,1	EPA 6020B:2014
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Hg	0,06	0,005	EPA 6020B:2014
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Ni	11,9	0,005	EPA 6020B:2014
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Pb	6,23	0,005	EPA 6020B:2014
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Zn	33,1	0,1	EPA 6020B:2014
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Fluoranthene	0,001	0,001	EPA 8270E:2018
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR05FS/SP/TS	spade	06.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	As	6,37	0,005	EPA 6020B:2014
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cd	0,08	0,003	EPA 6020B:2014
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cr	28,7	0,03	EPA 6020B:2014
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Cu	17,4	0,1	EPA 6020B:2014
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hg	0,06	0,005	EPA 6020B:2014
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Ni	13,1	0,005	EPA 6020B:2014
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Pb	7,39	0,005	EPA 6020B:2014
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Zn	51,5	0,1	EPA 6020B:2014
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR05FS/SP/CK	cake sampler	06.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR05SS/BR	barrel	06.08.2020	suspended sediment	As	0,04	0,005	EPA 6020B:2014
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Cr	0,04	0,03	EPA 6020B:2014
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Ni	0,03	0,005	EPA 6020B:2014
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Pb	0,01	0,005	EPA 6020B:2014
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Zn	0,24	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Fluoranthene	0,101	0,001	EPA 8270E:2018
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Benzo(a)pyrene	0,018	0,001	EPA 8270E:2018
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,127	0,001	EPA 8270E:2018
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Benzo(g,h,i)perylene	0,036	0,001	EPA 8270E:2018
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	0,025	0,001	EPA 8270E:2018
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR05SS/BR	barrel	06.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	As	20,2	0,005	EPA 6020B:2014
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cd	0,04	0,003	EPA 6020B:2014
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cr	26,6	0,03	EPA 6020B:2014
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cu	9,54	0,1	EPA 6020B:2014
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hg	0,13	0,005	EPA 6020B:2014
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Ni	11,8	0,005	EPA 6020B:2014
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Pb	8,49	0,005	EPA 6020B:2014
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Zn	38,2	0,1	EPA 6020B:2014
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Fluoranthene	0,005	0,001	EPA 8270E:2018
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,004	0,001	EPA 8270E:2018
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR06BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	As	8,81	0,005	EPA 6020B:2014
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cd	<	0,003	EPA 6020B:2014
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cr	37,6	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cu	10,9	0,1	EPA 6020B:2014
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hg	0,03	0,005	EPA 6020B:2014
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Ni	20	0,005	EPA 6020B:2014
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Pb	8,91	0,005	EPA 6020B:2014
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Zn	39,7	0,1	EPA 6020B:2014
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Fluoranthene	0,004	0,001	EPA 8270E:2018
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,004	0,001	EPA 8270E:2018
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR06FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	As	19,1	0,005	EPA 6020B:2014
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cd	0,11	0,003	EPA 6020B:2014
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cr	27,3	0,03	EPA 6020B:2014
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cu	13,5	0,1	EPA 6020B:2014
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hg	0,14	0,005	EPA 6020B:2014
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Ni	13,1	0,005	EPA 6020B:2014
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Pb	8,17	0,005	EPA 6020B:2014
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Zn	49,2	0,1	EPA 6020B:2014
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR06FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	As	20,1	0,005	EPA 6020B:2014
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cd	0,16	0,003	EPA 6020B:2014
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cr	31	0,03	EPA 6020B:2014
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cu	15,1	0,1	EPA 6020B:2014
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hg	0,08	0,005	EPA 6020B:2014
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Ni	15,2	0,005	EPA 6020B:2014
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Pb	9,36	0,005	EPA 6020B:2014
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Zn	57,1	0,1	EPA 6020B:2014
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR06FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR06SS/BR	barrel	07.08.2020	suspended sediment	As	0,13	0,005	EPA 6020B:2014
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Cr	0,09	0,03	EPA 6020B:2014
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Ni	0,04	0,005	EPA 6020B:2014
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Pb	0,02	0,005	EPA 6020B:2014
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Zn	0,18	0,1	EPA 6020B:2014
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Fluoranthene	0,04	0,001	EPA 8270E:2018
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,035	0,001	EPA 8270E:2018
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Benzo(g,h,i)perylene	0,024	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR06SS/BR	barrel	07.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	As	20,7	0,005	EPA 6020B:2014
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cd	<	0,003	EPA 6020B:2014
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cr	11,8	0,03	EPA 6020B:2014
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cu	5,19	0,1	EPA 6020B:2014
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hg	0,12	0,005	EPA 6020B:2014
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Ni	4,56	0,005	EPA 6020B:2014
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Pb	4,25	0,005	EPA 6020B:2014
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Zn	23,4	0,1	EPA 6020B:2014
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR07BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	As	11,3	0,005	EPA 6020B:2014
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cd	0,08	0,003	EPA 6020B:2014
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cr	21,8	0,03	EPA 6020B:2014
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cu	5,46	0,1	EPA 6020B:2014
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hg	0,04	0,005	EPA 6020B:2014
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Ni	7,45	0,005	EPA 6020B:2014
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Pb	4,2	0,005	EPA 6020B:2014
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Zn	25,9	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Fluoranthene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR07FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	As	22,9	0,005	EPA 6020B:2014
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cd	0,09	0,003	EPA 6020B:2014
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cr	16,6	0,03	EPA 6020B:2014
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cu	7,72	0,1	EPA 6020B:2014
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hg	0,07	0,005	EPA 6020B:2014
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Ni	5,77	0,005	EPA 6020B:2014
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Pb	4,64	0,005	EPA 6020B:2014
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Zn	26,7	0,1	EPA 6020B:2014
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR07FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	As	17,8	0,005	EPA 6020B:2014
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cd	0,06	0,003	EPA 6020B:2014
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cr	17,2	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cu	9,51	0,1	EPA 6020B:2014
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hg	0,06	0,005	EPA 6020B:2014
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Ni	5,22	0,005	EPA 6020B:2014
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Pb	3,91	0,005	EPA 6020B:2014
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Zn	26,9	0,1	EPA 6020B:2014
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR07FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR07SS/BR	barrel	07.08.2020	suspended sediment	As	0,25	0,005	EPA 6020B:2014
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Cr	0,04	0,03	EPA 6020B:2014
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Ni	0,02	0,005	EPA 6020B:2014
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Pb	0,009	0,005	EPA 6020B:2014
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Zn	0,12	0,1	EPA 6020B:2014
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Fluoranthene	0,037	0,001	EPA 8270E:2018
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,026	0,001	EPA 8270E:2018
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Benzo(g,h,i)perylene	0,01	0,001	EPA 8270E:2018
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR07SS/BR	barrel	07.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	As	134	0,005	EPA 6020B:2014
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cd	0,19	0,003	EPA 6020B:2014
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cr	31,1	0,03	EPA 6020B:2014
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Cu	17,1	0,1	EPA 6020B:2014
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hg	0,26	0,005	EPA 6020B:2014
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Ni	14,9	0,005	EPA 6020B:2014
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Pb	12,7	0,005	EPA 6020B:2014
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Zn	59,4	0,1	EPA 6020B:2014
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Fluoranthene	0,01	0,001	EPA 8270E:2018
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,007	0,001	EPA 8270E:2018
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,004	0,001	EPA 8270E:2018
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,003	0,001	EPA 8270E:2018
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR08BS/CR/TL	vakuum core	07.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	As	84,5	0,005	EPA 6020B:2014
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cd	0,11	0,003	EPA 6020B:2014
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cr	9,44	0,03	EPA 6020B:2014
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Cu	51,5	0,1	EPA 6020B:2014
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hg	0,09	0,005	EPA 6020B:2014
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Ni	5,33	0,005	EPA 6020B:2014
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Pb	5,2	0,005	EPA 6020B:2014
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Zn	69,2	0,1	EPA 6020B:2014
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Fluoranthene	0,004	0,001	EPA 8270E:2018
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,005	0,001	EPA 8270E:2018
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR08FS/SP/BS	spade	07.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	As	72,6	0,005	EPA 6020B:2014
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cd	0,14	0,003	EPA 6020B:2014
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cr	9,64	0,03	EPA 6020B:2014
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Cu	20,3	0,1	EPA 6020B:2014
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hg	0,1	0,005	EPA 6020B:2014
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Ni	4,83	0,005	EPA 6020B:2014
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Pb	6,59	0,005	EPA 6020B:2014
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Zn	44,9	0,1	EPA 6020B:2014
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Fluoranthene	0,011	0,001	EPA 8270E:2018
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,005	0,001	EPA 8270E:2018
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,009	0,001	EPA 8270E:2018
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,004	0,001	EPA 8270E:2018
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,004	0,001	EPA 8270E:2018
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR08FS/SP/TS	spade	07.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	As	71,1	0,005	EPA 6020B:2014
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cd	0,14	0,003	EPA 6020B:2014
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cr	12,4	0,03	EPA 6020B:2014
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Cu	7,49	0,1	EPA 6020B:2014
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hg	0,15	0,005	EPA 6020B:2014
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Ni	5,02	0,005	EPA 6020B:2014
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Pb	6,53	0,005	EPA 6020B:2014
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Zn	36,9	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Fluoranthene	0,008	0,001	EPA 8270E:2018
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,006	0,001	EPA 8270E:2018
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR08FS/SP/CK	cake sampler	07.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR08SS/BR	barrel	07.08.2020	suspended sediment	As	0,31	0,005	EPA 6020B:2014
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Cr	0,06	0,03	EPA 6020B:2014
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Ni	0,03	0,005	EPA 6020B:2014
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Pb	0,02	0,005	EPA 6020B:2014
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Zn	0,16	0,1	EPA 6020B:2014
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Fluoranthene	0,022	0,001	EPA 8270E:2018
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,019	0,001	EPA 8270E:2018
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Benzo(g,h,i)perylene	0,017	0,001	EPA 8270E:2018
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR08SS/BR	barrel	07.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	As	5,01	0,005	EPA 6020B:2014
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Cd	0,15	0,003	EPA 6020B:2014
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Cr	37,4	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Cu	14,1	0,1	EPA 6020B:2014
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Hg	0,2	0,005	EPA 6020B:2014
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Ni	15,5	0,005	EPA 6020B:2014
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Pb	14,3	0,005	EPA 6020B:2014
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Zn	83,8	0,1	EPA 6020B:2014
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Anthracene	0,002	0,001	EPA 8270E:2018
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Fluoranthene	0,032	0,001	EPA 8270E:2018
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Benzo(a)pyrene	0,009	0,001	EPA 8270E:2018
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,02	0,001	EPA 8270E:2018
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Benzo(g,h,i)perylene	0,005	0,001	EPA 8270E:2018
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,007	0,001	EPA 8270E:2018
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR09BS/CR/TL	vakuum core	08.08.2020	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	As	13,1	0,005	EPA 6020B:2014
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Cd	0,22	0,003	EPA 6020B:2014
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Cr	53,8	0,03	EPA 6020B:2014
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Cu	27,7	0,1	EPA 6020B:2014
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Hg	0,1	0,005	EPA 6020B:2014
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Ni	27,4	0,005	EPA 6020B:2014
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Pb	14,7	0,005	EPA 6020B:2014
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Zn	77,7	0,1	EPA 6020B:2014
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR09FS/SP/BS	spade	08.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	As	9,52	0,005	EPA 6020B:2014
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Cd	0,17	0,003	EPA 6020B:2014
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Cr	47,5	0,03	EPA 6020B:2014
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Cu	16,6	0,1	EPA 6020B:2014
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Hg	0,12	0,005	EPA 6020B:2014
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Ni	23,3	0,005	EPA 6020B:2014
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Pb	12,9	0,005	EPA 6020B:2014
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Zn	67,5	0,1	EPA 6020B:2014
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Fluoranthene	0,005	0,001	EPA 8270E:2018
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,005	0,001	EPA 8270E:2018
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR09FS/SP/TS	spade	08.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	As	10	0,005	EPA 6020B:2014
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Cd	0,19	0,003	EPA 6020B:2014
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Cr	46,1	0,03	EPA 6020B:2014
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Cu	19,9	0,1	EPA 6020B:2014
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Hg	0,13	0,005	EPA 6020B:2014
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Ni	23,1	0,005	EPA 6020B:2014
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Pb	13	0,005	EPA 6020B:2014
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Zn	66,1	0,1	EPA 6020B:2014
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Fluoranthene	0,007	0,001	EPA 8270E:2018
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,004	0,001	EPA 8270E:2018
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,007	0,001	EPA 8270E:2018
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,003	0,001	EPA 8270E:2018
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR09FS/SP/CK	cake sampler	08.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SDR09SS/BR	barrel	08.08.2020	suspended sediment	As	0,01	0,005	EPA 6020B:2014
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Cr	0,07	0,03	EPA 6020B:2014
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Ni	0,03	0,005	EPA 6020B:2014
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Pb	0,02	0,005	EPA 6020B:2014
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Zn	0,2	0,1	EPA 6020B:2014
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Fluoranthene	0,031	0,001	EPA 8270E:2018
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,03	0,001	EPA 8270E:2018
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Benzo(g,h,i)perylene	0,023	0,001	EPA 8270E:2018
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDR09SS/BR	barrel	08.08.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	As	0,02	0,005	EPA 6020B:2014
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Cd	<	0,003	EPA 6020B:2014
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Cr	0,12	0,03	EPA 6020B:2014
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Cu	<	0,1	EPA 6020B:2014
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Hg	<	0,005	EPA 6020B:2014
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Ni	0,07	0,005	EPA 6020B:2014
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Pb	0,07	0,005	EPA 6020B:2014
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Zn	0,41	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Fluoranthene	0,039	0,001	EPA 8270E:2018
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Benzo(a)pyrene	0,047	0,001	EPA 8270E:2018
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,173	0,001	EPA 8270E:2018
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Benzo(g,h,i)perylene	0,083	0,001	EPA 8270E:2018
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Indeno(1,2,3-cd)pyrene	0,03	0,001	EPA 8270E:2018
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
DRÁVA BARCS 2/1	barrel	22.10.2020	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018

LIST OF PRIORITY SUBSTANCES AND DANUBE RIVER BASIN SPECIFIC POLLUTANTS

APPENDIX 2 OF THE SIMONA SEDIMENT QUALITY SAMPLING PROTOCOL

List of priority substances (PS) in the field of water policy (Part A, Annex I; Directive 2013/39/EU)

	Number in PS directive	WISE-SoE code (CAS/EEA) number[1]	Name of priority substance
1	2	CAS_120-12-7	Anthracene
2	5	EEA_32-04-2	Brominated diphenylethers (congener numbers 28, 47, 99, 100, 153 and 154)
3	6	CAS_7440-43-9	Cadmium and its compounds
4	7	CAS_85535-84-8	C10-13-chloroalkanes
5	12	CAS_117-81-7	Di(2-ethylhexyl)phthalate (DEHP)
6	15	CAS_206-44-0	Fluoranthene
7	16	CAS_118-74-1	Hexachlorobenzene
8	17	CAS_87-68-3	Hexachlorobutadiene
9	18	CAS_608-73-1	Hexachlorocyclohexane
10	20	CAS_7439-92-1	Lead and its compounds
11	21	CAS_7439-97-6	Mercury and compounds
12	23	CAS_7440-02-0	Nickel and its compounds
13	26	CAS_608-93-5	Pentachlorobenzene
14	28	EEA_33-56-7	Total PAHs (Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene)
15	30	CAS_36643-28-4	Tributyltin-cation
16	34	CAS_115-32-2	Dicofol
17	35	CAS_1763-23-1	Perfluorooctane sulfonic acid and its derivatives (PFOS)
18	36	CAS_124495-18-7	Quinoxyfen
19	37	EEA_33-58-9	Dioxins and dioxin-like compounds (7 PCDDs + 10 PCDFs + 12 PCB-DLs)
20	43	EEA_33-57-8	Hexabromocyclododecane (HBCDD)
21	44	EEA_33-50-1	Heptachlor and heptachlor epoxide

List of River Basin Specific Pollutants for the Danube River Basin (ICPDR, 2003)

	CAS number[1]	Name of Substance
22	CAS_7440-38-2	Arsenic and its compounds
23	CAS_7440-50-8	Copper and its compounds
24	CAS_7440-66-6	Zinc and its compounds
25	CAS_7440-47-3	Chromium and its compounds

[1] WISE-SoE: European Environment Information and Observation Network reporting systems; CAS: Chemical Abstracts Service; EEA: European Environment Agency registration number (if CAS is not acceptable)

Project co-funded by the European Union (ERDF, IPA and ENI)

Interreg
Danube Transnational Programme
SIMONA

LABORATORY REPORT OF THE TEST AREA SAMPLES TESTING AND ANALYSES

Upper Tisa Test Area

Deliverable 3.3.2

Version 2.0

Programme co-funded by the European Union funds (ERDF, IPA,

PROJECT TITLE
Sediment-quality Information, Monitoring and Assessment System to support transnational co-operation for joint Danube Basin water management

ACRONYM
SIMONA

PROJECT DURATION
1st June 2018 to 30th Nov 2021, 42 months

DATE OF PREPARATION
30/04/2021

AUTHORS:
HUNGARY:
GYOZO JORDAN (HU-SZIE), PETER FODOR (HU-SZIE), ZSOFIA KOVACS (HU-OVF), ZOLTAN VILÁGOSI (BÁLINT ANALITIKA LTD.), MÁRIA BÁLINT (BÁLINT ANALITIKA LTD.)

ROMANIA:
GHEORGHE DAMIAN (RO-TUCN), GHEORGHE IEPURE (RO-TUCN),
ZSOLT SZAKÁCS (RO-TUCN), DANIEL NĂSUI (RO-TUCN)

RESPONSIBLE(S) OF THE DELIVERABLE: Anca-Marina Vijdea (RO-IGR)
CO-RESPONSIBLE(S) OF THE DELIVERABLE: Gyozo Jordan (HU-SZIE)

EDITING AND PREPARATION FOR PRINTING: Katalin Mária Dudás (HU-NARIC)

For further information on the project, partnership and the Danube Transnational Programme:
www.interreg-danube.eu/simona

FIND SIMONA PROTOCOLS ON THE WEBSITE!

Project co-funded by the European Union (ERDF, IPA and ENI)

CONTENTS

Project co-funded by the European Union (ERDF, IPA and ENI)

1. INTRODUCTION

The objective of laboratory analysis of the collected Test Area samples is to test, verify and further develop the SIMONA Laboratory Protocol. The focus is on sample preparation such as homogenisation, separation and extraction. The actual instrumental chemical analyses are all defined by the relevant ISO standards and accreditation documents of the analytical laboratory, as described by the SIMONA Sampling Protocol and Sampling Working Group meeting Minutes. The specific objective is to test and compare various sampling methods (sampling systems) by means of comparing the physical and chemical composition of samples collected by various methods (systems). The final laboratory methods tested and developed, and selected for the Protocol will be trained on the Training Event and then subsequently used for the analysis of the samples collected in the two National Sampling Points in each participating country. The laboratory analyses, and testing and experimenting of the collected Test Area samples were carried out in the accredited Project Reference Laboratory. Laboratory method development used the Drava Test Area samples. Priority was given to the river bottom sediments, the uppermost 0-5 cm layer, because this is the most important sampling media for long-term sediment quality monitoring, according to the Water Framework Directive. A further specific objective is to use the Test Area samples laboratory analysis results (heavy metals, PAHs and Pesticied) to test the risk assessment method for the Evalaution Protocol.

During the laboratory analysis, testing and development activities, the participating experts had fruitful discussions and tentative conclusions on laboratory analysis of fluvial sediment for the long-term Surveillance Monitoring of water bodies under the EU WFD requirements. The most fundamental conclusion was that the SIMONA Laboratory Protocol provides a solid basis for fluvial sediment sampling and monitoring.

Since the samples in the Upper Tisa Test Area were collected with the same sampling systems as in the Drava Test Area, the samples were tested and analysed using the same procedures and evaluated against the same criteria. The following Evaluation Criteria for selecting the laboratory analysis method had been defined by the Laboratory Expert Group, with focus on sample preparation:

1. Laboratory analysis, including sample storage and sample preparation, should be scientifically-based: reproducible and representative (laboratory accreditation shall ensure both).
2. Laboratory analysis should be in full compliance with EU legislation (Water Framework Directive).
3. Laboratory analysis should be practice-oriented: using methods and procedures that are resource (cost, time, human) efficient and ‘ready-to-deploy’ in the Danube Countries.
4. Laboratory analysis, especially sample preparation, should be adaptive to the site-specific conditions such as lowland versus mountainous conditions, etc.

Project co-funded by the European Union (ERDF, IPA and ENI)

2. SAMPLE ANALYSIS PREPARATIONS

2.1. Sample reception

Samples were received by car in cool boxes from the Upper Tisa Test Area.

Figure 1. Sample transport to the Reference Lab from the Upper Tisa Test Area by car.

2.2. Sample storage

Upper Tisa Test Area samples were kept cooled in refrigirator and cool boxes at 4C° in the laboratory until analysis in order to inhibit chemical and (micro-)biological processes (to maintain representativity).

Figure 2. Sample storage in the Reference Lab. Samples were kept in electric cool boxes (left) and in refrigerator in the laboratory until analysis (middle and right).

2.3. Sample analysis: parameter selection

The laboratory analysis and testing have been divided into 3 groups of parameters:

1. The **3 groups of parameters** defined in the service contract between the SIMONA project (Lead Partner) and the Reference Laboratory (Bálint Analitika Ltd.), were analysed for selected priority samples (see red highlight in the table below):
   - Metals
   - PAHs
   - Pesticides.

Project co-funded by the European Union (ERDF, IPA and ENI)

Selected **priority samples** from each of the 10 sites in the Drava Test Area, as an example, were the following:

- STREAM BOTTOM SEDIMENT:

  uppermost 0-5 cm, collected with the vacuum corer sampler.

- FLOODPLAIN SEDIMENT:

  - uppermost 0-5 cm, collected with the spade sampler.
  - lowermost 40-50 cm, collected with the spade sampler.
  - uppermost 0-5 cm, collected with the cake sampler.

- SUSPENDED SEDIMENT:

  collected in barrel.

2. Parameters **recommended by EU WFD** documents and ISO documents: (see blue highlight in the table below) (expenses covered by external sources):
   - pH
   - EC
   - redox potential
   - Organic matter content
   - Carbonate content
   - Major cations (Ca, Mg, Na, K, Fe, Mn, Al, Si)
   - Granulometry
   - <63 µm fraction: Metals, PAH, Pectricides
   - Pore water: Metals, PAH, Pectricides.

3. Parameters that are relevant for further scientific **research** and development: (see green highlight in the table below) (expenses covered by external sources):

   - Total P, N, S
   - Mobility tests (for floodplain sediments)
   - Detailed vertical study of bottom sediment cores
   - isotopic studies (for contamination source identification, 'fingerprinting')
   - other.

	A	B	C	D	E	F
1	PROJECT	Sample ID	Sampling method	Sampling date	Sample type	NOTES
2						
3	SIMONA	SUT01BS/CR/TL	vacuum core	2020.10.09	stream sediment 5 cm	composite, only 3 samples
4	SIMONA	SUT01BS/CR/BL	vacuum core	2020.10.09	stream sediment 5-10 cm	composite, only 3 samples
5	SIMONA	SUT01BS/CR	vacuum core	2020.10.09	stream sediment	
6	SIMONA	SUT01BS/SC	grab-scoop	2020.10.09	stream sediment 5 cm	composite, only 3 samples
7	SIMONA	SUT01BS/RG D1	Romanian grab	2020.10.09	stream sediment	
8	SIMONA	SUT01BS/RG D2	Romanian grab	2020.10.09	stream sediment	only 3 samples
9	SIMONA	SUT01BS/RG D3	Romanian grab	2020.10.09	stream sediment	
10	SIMONA	SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	composite, 5 samples in a line geometry
11	SIMONA	SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	composite, 5 samples in a line geometry
12	SIMONA	SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	composite, 5 samples in a line geometry
13	SIMONA	SUT01SS/BR	barrel	2020.10.09	suspended sediment	
14	SIMONA	SUT02BS/CR/TL	vacuum core	2020.10.10	stream sediment 5 cm	composite, only 3 samples
15	SIMONA	SUT02BS/CR/BL	vacuum core	2020.10.10	stream sediment 5-10 cm	composite, only 3 samples
16	SIMONA	SUT02BS/CR	vacuum core	2020.10.10	stream sediment	

Sample register from the Upper Tisa Test Area showing the samples collected with the various methods, ready for the laboratory analysis.

Project co-funded by the European Union (ERDF, IPA and ENI)

3. SAMPLE PREPARATION AND ANLYSIS

The following final scheme was designed and implemented for all the samples.

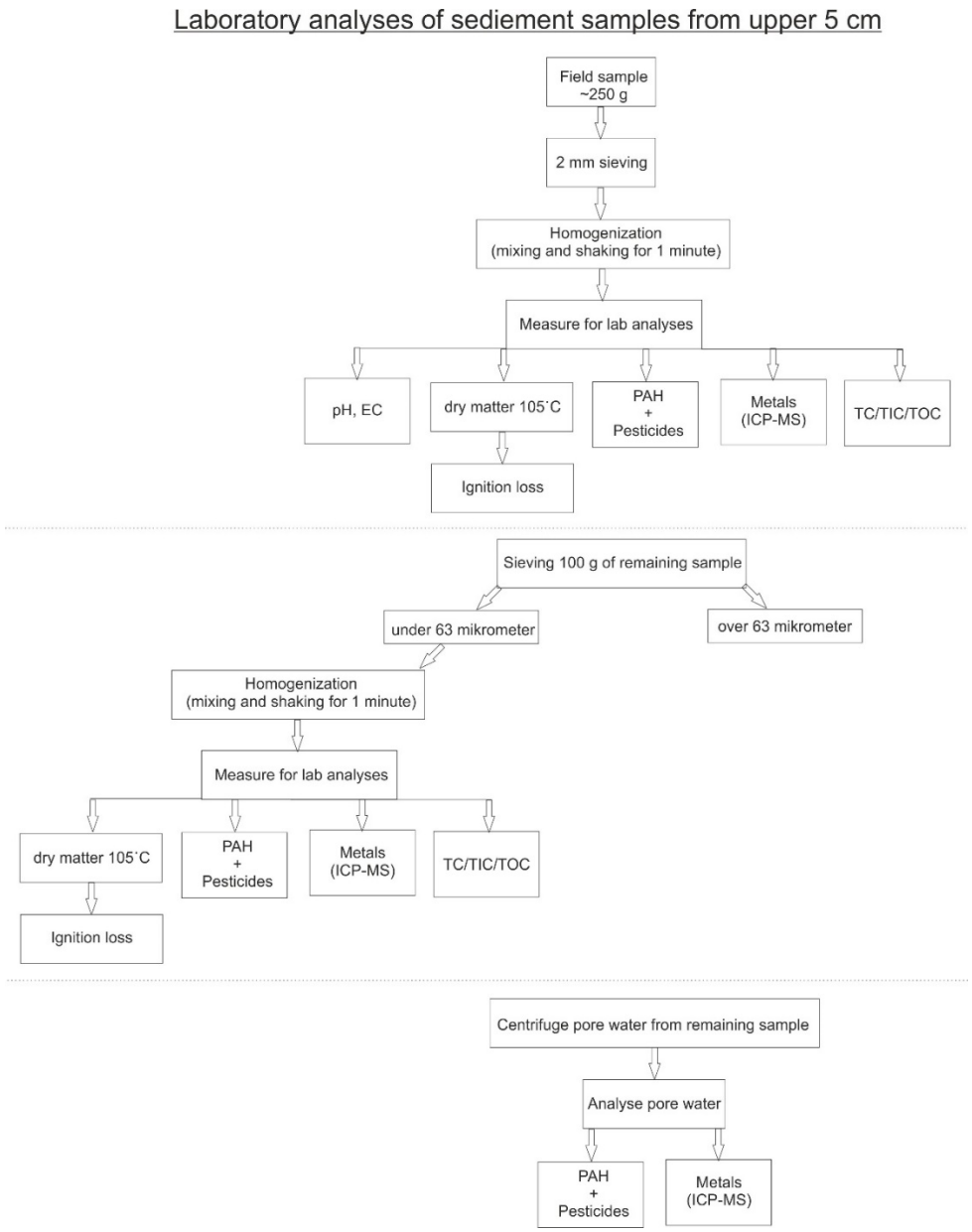


Figure 3. The scheme for sample preparation and analysis of stream bottom sediment samples.

Laboratory analysis of the Upper Tisa Test Area samples has been started and it is on-going. Pictures below show the samples processed according to the sample preparation scheme above, and ready for analysis for PAHs and Pesticides by the HPLC-GC and HPLC-MS techniques.

Project co-funded by the European Union (ERDF, IPA and ENI)

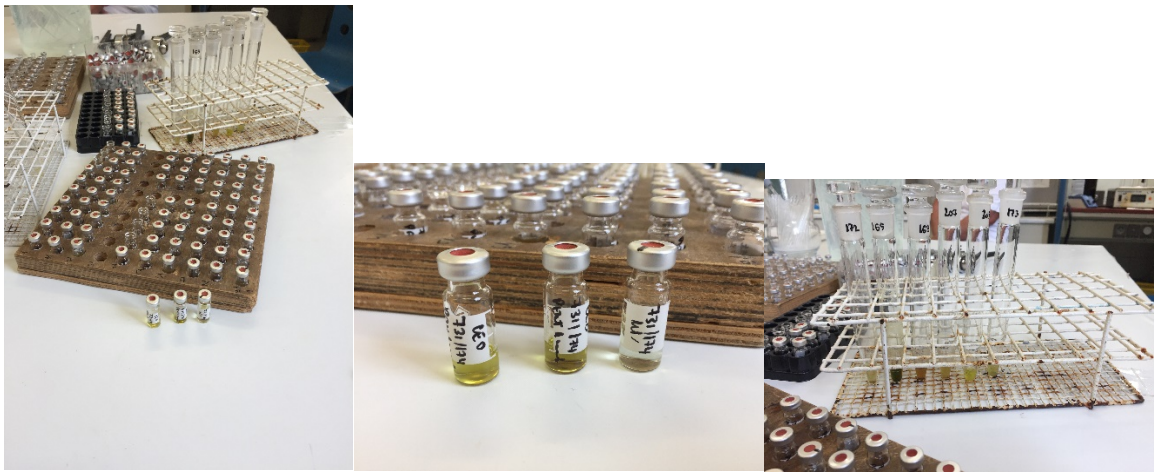


Figure 4. Upper Tisa Test Area samples processed to be ready for analysis of PAHs and Pesticides.

3.1. Analysis of suspended sediment samples

The suspended sediment samples collected in 30L plastic barrels were resuspended by intensive shaking and stiring (see figure below). Then, an electric pump was used to pump the suspension into a vacuum filter device and the sample was filtered through a standard 0.45 µm filter. Filtering was continued until the clogging of the filter inhibited further filtering.

Figure 5. Suspended sediment samples pumped and filtered through a 0.45 µm filter (left) in the laboratory. Suspended sediment collected on the filter, ready for chemical analysis (right).

Project co-funded by the European Union (ERDF, IPA and ENI)

3.2. Method development

Further planned scientific laboratory tests on the Upper Tisa Test Area samples include

- mobility and speciation tests on floodplain sediments (deionized water leaching,
- BCR sequential extraction),
- detailed grain size analysis and fraction chemistry,
- isotope composition analysis for sediment fingerprinting and contamination source detection,
- testing total extraction methods (aqua regia, nitric acid, multi-acid HF),
- XRF measurements on original samples.

Project co-funded by the European Union (ERDF, IPA and ENI)

Annex 1. Laboratory Results

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	As	38,3	0,005	EPA 6020B:2014
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Cd	1,59	0,003	EPA 6020B:2014
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Cr	14,1	0,03	EPA 6020B:2014
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Cu	54,1	0,1	EPA 6020B:2014
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Hg	0,13	0,005	EPA 6020B:2014
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Ni	8,99	0,005	EPA 6020B:2014
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Pb	195	0,005	EPA 6020B:2014
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Zn	622	0,1	EPA 6020B:2014
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT01BS/CR/TL	vakuum core	2020.10.09	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	As	26,1	0,005	EPA 6020B:2014
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Cd	1,89	0,003	EPA 6020B:2014
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Cr	12,5	0,03	EPA 6020B:2014
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Cu	46,1	0,1	EPA 6020B:2014
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Hg	0,07	0,005	EPA 6020B:2014
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Ni	7,95	0,005	EPA 6020B:2014
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Pb	151	0,005	EPA 6020B:2014
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Zn	355	0,1	EPA 6020B:2014
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Fluoranthene	<	0,001	EPA 8270E:2018
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT01FS/SP/BS	spade	2020.10.09	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	As	76,6	0,005	EPA 6020B:2014
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Cd	4,4	0,003	EPA 6020B:2014
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Cr	40,6	0,03	EPA 6020B:2014
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Cu	146	0,1	EPA 6020B:2014
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Hg	0,25	0,005	EPA 6020B:2014
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Ni	21,2	0,005	EPA 6020B:2014
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Pb	418	0,005	EPA 6020B:2014
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Zn	808	0,1	EPA 6020B:2014
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Fluoranthene	0,01	0,001	EPA 8270E:2018
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Benzo(a)pyrene	0,004	0,001	EPA 8270E:2018
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,008	0,001	EPA 8270E:2018
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,003	0,001	EPA 8270E:2018
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT01FS/SP/TS	spade	2020.10.09	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	As	69,6	0,005	EPA 6020B:2014
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Cd	3,99	0,003	EPA 6020B:2014
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Cr	46,2	0,03	EPA 6020B:2014
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Cu	120	0,1	EPA 6020B:2014
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Hg	0,24	0,005	EPA 6020B:2014
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Ni	25,8	0,005	EPA 6020B:2014
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Pb	355	0,005	EPA 6020B:2014
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Zn	813	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Anthracene	0,007	0,001	EPA 8270E:2018
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Fluoranthene	0,048	0,001	EPA 8270E:2018
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Benzo(a)pyrene	0,022	0,001	EPA 8270E:2018
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,043	0,001	EPA 8270E:2018
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,011	0,001	EPA 8270E:2018
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,013	0,001	EPA 8270E:2018
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT01FS/SP/CK	cake sampler	2020.10.09	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT01SS/BR	barrel	2020.10.09	suspended sediment	As	0,06	0,005	EPA 6020B:2014
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Cd	0,04	0,003	EPA 6020B:2014
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Cr	0,09	0,03	EPA 6020B:2014
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Cu	0,47	0,1	EPA 6020B:2014
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Ni	0,09	0,005	EPA 6020B:2014
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Pb	0,32	0,005	EPA 6020B:2014
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Zn	18,1	0,1	EPA 6020B:2014
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Fluoranthene	0,07	0,001	EPA 8270E:2018
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Benzo(a)pyrene	0,069	0,001	EPA 8270E:2018
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Benzo(g,h,i)perylene	0,065	0,001	EPA 8270E:2018
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Indeno(1,2,3-cd)pyrene	0,035	0,001	EPA 8270E:2018
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT01SS/BR	barrel	2020.10.09	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	As	7,82	0,005	EPA 6020B:2014
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Cd	0,57	0,003	EPA 6020B:2014
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Cr	26,4	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Cu	45,9	0,1	EPA 6020B:2014
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Hg	0,05	0,005	EPA 6020B:2014
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Ni	15,5	0,005	EPA 6020B:2014
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Pb	27,8	0,005	EPA 6020B:2014
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Zn	260	0,1	EPA 6020B:2014
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Fluoranthene	<	0,001	EPA 8270E:2018
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT02BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	As	11,3	0,005	EPA 6020B:2014
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Cd	2,12	0,003	EPA 6020B:2014
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Cr	35,4	0,03	EPA 6020B:2014
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Cu	54,1	0,1	EPA 6020B:2014
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Hg	0,06	0,005	EPA 6020B:2014
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Ni	21,7	0,005	EPA 6020B:2014
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Pb	66,2	0,005	EPA 6020B:2014
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Zn	466	0,1	EPA 6020B:2014
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Fluoranthene	0,001	0,001	EPA 8270E:2018
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT02FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	As	11	0,005	EPA 6020B:2014
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Cd	1,51	0,003	EPA 6020B:2014
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Cr	39,5	0,03	EPA 6020B:2014
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Cu	50,7	0,1	EPA 6020B:2014
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Hg	0,07	0,005	EPA 6020B:2014
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Ni	25,8	0,005	EPA 6020B:2014
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Pb	59,9	0,005	EPA 6020B:2014
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Zn	399	0,1	EPA 6020B:2014
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT02FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	As	10,5	0,005	EPA 6020B:2014
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Cd	1,62	0,003	EPA 6020B:2014
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Cr	39	0,03	EPA 6020B:2014
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Cu	49,7	0,1	EPA 6020B:2014
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Hg	0,07	0,005	EPA 6020B:2014
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Ni	22,2	0,005	EPA 6020B:2014
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Pb	55,8	0,005	EPA 6020B:2014
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Zn	389	0,1	EPA 6020B:2014
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Fluoranthene	0,004	0,001	EPA 8270E:2018
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,004	0,001	EPA 8270E:2018
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT02FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT02SS/BR	barrel	2020.10.10	suspended sediment	As	0,008	0,005	EPA 6020B:2014
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Cr	0,08	0,03	EPA 6020B:2014
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Ni	0,05	0,005	EPA 6020B:2014
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Pb	0,05	0,005	EPA 6020B:2014
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Zn	0,71	0,1	EPA 6020B:2014
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Fluoranthene	0,066	0,001	EPA 8270E:2018
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,1	0,001	EPA 8270E:2018
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Benzo(g,h,i)perylene	0,06	0,001	EPA 8270E:2018
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Indeno(1,2,3-cd)pyrene	0,027	0,001	EPA 8270E:2018
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT02SS/BR	barrel	2020.10.10	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	As	68,7	0,005	EPA 6020B:2014
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Cd	6,15	0,003	EPA 6020B:2014
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Cr	66,6	0,03	EPA 6020B:2014
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Cu	267	0,1	EPA 6020B:2014
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Hg	0,21	0,005	EPA 6020B:2014
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Ni	25,4	0,005	EPA 6020B:2014
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Pb	1600	0,005	EPA 6020B:2014
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Zn	1560	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT03BS/CR/TL	vakuum core	2020.10.10	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	As	91,9	0,005	EPA 6020B:2014
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Cd	6,99	0,003	EPA 6020B:2014
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Cr	43,5	0,03	EPA 6020B:2014
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Cu	198	0,1	EPA 6020B:2014
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Hg	0,28	0,005	EPA 6020B:2014
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Ni	24,4	0,005	EPA 6020B:2014
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Pb	383	0,005	EPA 6020B:2014
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Zn	1730	0,1	EPA 6020B:2014
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Fluoranthene	0,023	0,001	EPA 8270E:2018
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,003	0,001	EPA 8270E:2018
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,011	0,001	EPA 8270E:2018
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,005	0,001	EPA 8270E:2018
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,003	0,001	EPA 8270E:2018
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT03FS/SP/BS	spade	2020.10.10	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	As	137	0,005	EPA 6020B:2014
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Cd	4,14	0,003	EPA 6020B:2014
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Cr	29,4	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Cu	185	0,1	EPA 6020B:2014
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Hg	0,55	0,005	EPA 6020B:2014
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Ni	14,7	0,005	EPA 6020B:2014
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Pb	690	0,005	EPA 6020B:2014
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Zn	1170	0,1	EPA 6020B:2014
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Anthracene	0,002	0,001	EPA 8270E:2018
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Fluoranthene	0,03	0,001	EPA 8270E:2018
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Benzo(a)pyrene	0,018	0,001	EPA 8270E:2018
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,034	0,001	EPA 8270E:2018
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,017	0,001	EPA 8270E:2018
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,016	0,001	EPA 8270E:2018
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT03FS/SP/TS	spade	2020.10.10	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	As	105	0,005	EPA 6020B:2014
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Cd	4,31	0,003	EPA 6020B:2014
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Cr	26,5	0,03	EPA 6020B:2014
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Cu	173	0,1	EPA 6020B:2014
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Hg	0,29	0,005	EPA 6020B:2014
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Ni	16	0,005	EPA 6020B:2014
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Pb	448	0,005	EPA 6020B:2014
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Zn	1170	0,1	EPA 6020B:2014
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Anthracene	0,004	0,001	EPA 8270E:2018
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Fluoranthene	0,037	0,001	EPA 8270E:2018
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Benzo(a)pyrene	0,015	0,001	EPA 8270E:2018
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,033	0,001	EPA 8270E:2018
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,018	0,001	EPA 8270E:2018
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,013	0,001	EPA 8270E:2018
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT03FS/SP/CK	cake sampler	2020.10.10	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT03SS/BR	barrel	2020.10.10	suspended sediment	As	0,18	0,005	EPA 6020B:2014
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Cd	0,02	0,003	EPA 6020B:2014
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Cr	0,07	0,03	EPA 6020B:2014
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Cu	0,82	0,1	EPA 6020B:2014
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Ni	0,04	0,005	EPA 6020B:2014
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Pb	1,22	0,005	EPA 6020B:2014
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Zn	4,09	0,1	EPA 6020B:2014
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Fluoranthene	0,059	0,001	EPA 8270E:2018
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Benzo(a)pyrene	0,023	0,001	EPA 8270E:2018
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,098	0,001	EPA 8270E:2018
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Benzo(g,h,i)perylene	0,068	0,001	EPA 8270E:2018
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Indeno(1,2,3-cd)pyrene	0,038	0,001	EPA 8270E:2018
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT03SS/BR	barrel	2020.10.10	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	As	20,7	0,005	EPA 6020B:2014
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Cd	2,18	0,003	EPA 6020B:2014
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Cr	68,8	0,03	EPA 6020B:2014
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Cu	119	0,1	EPA 6020B:2014
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Hg	0,14	0,005	EPA 6020B:2014
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Ni	36,7	0,005	EPA 6020B:2014
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Pb	109	0,005	EPA 6020B:2014
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Zn	595	0,1	EPA 6020B:2014
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Fluoranthene	0,015	0,001	EPA 8270E:2018
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Benzo(a)pyrene	0,004	0,001	EPA 8270E:2018
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,01	0,001	EPA 8270E:2018
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Benzo(g,h,i)perylene	0,005	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,005	0,001	EPA 8270E:2018
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT04BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	As	21,2	0,005	EPA 6020B:2014
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Cd	1,41	0,003	EPA 6020B:2014
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Cr	53,5	0,03	EPA 6020B:2014
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Cu	48,5	0,1	EPA 6020B:2014
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Hg	0,09	0,005	EPA 6020B:2014
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Ni	29,8	0,005	EPA 6020B:2014
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Pb	60,8	0,005	EPA 6020B:2014
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Zn	329	0,1	EPA 6020B:2014
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Fluoranthene	0,006	0,001	EPA 8270E:2018
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,003	0,001	EPA 8270E:2018
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,007	0,001	EPA 8270E:2018
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,004	0,001	EPA 8270E:2018
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,003	0,001	EPA 8270E:2018
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT04FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	As	14,9	0,005	EPA 6020B:2014
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Cd	0,88	0,003	EPA 6020B:2014
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Cr	81,9	0,03	EPA 6020B:2014
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Cu	40,1	0,1	EPA 6020B:2014
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Hg	0,11	0,005	EPA 6020B:2014
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Ni	45,4	0,005	EPA 6020B:2014
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Pb	45,4	0,005	EPA 6020B:2014
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Zn	212	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT04FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	As	18,9	0,005	EPA 6020B:2014
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Cd	1,15	0,003	EPA 6020B:2014
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Cr	79,7	0,03	EPA 6020B:2014
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Cu	56,4	0,1	EPA 6020B:2014
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Hg	0,1	0,005	EPA 6020B:2014
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Ni	43,8	0,005	EPA 6020B:2014
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Pb	60,4	0,005	EPA 6020B:2014
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Zn	268	0,1	EPA 6020B:2014
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Fluoranthene	0,004	0,001	EPA 8270E:2018
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,004	0,001	EPA 8270E:2018
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT04FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT04SS/BR	barrel	2020.10.11	suspended sediment	As	0,02	0,005	EPA 6020B:2014
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Cd	0,003	0,003	EPA 6020B:2014
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Cr	0,09	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Ni	0,05	0,005	EPA 6020B:2014
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Pb	0,07	0,005	EPA 6020B:2014
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Zn	1,14	0,1	EPA 6020B:2014
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Fluoranthene	0,035	0,001	EPA 8270E:2018
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Benzo(a)pyrene	0,011	0,001	EPA 8270E:2018
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,071	0,001	EPA 8270E:2018
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Benzo(g,h,i)perylene	0,041	0,001	EPA 8270E:2018
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Indeno(1,2,3-cd)pyrene	0,016	0,001	EPA 8270E:2018
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT04SS/BR	barrel	2020.10.11	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	As	7,85	0,005	EPA 6020B:2014
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Cd	0,28	0,003	EPA 6020B:2014
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Cr	48,3	0,03	EPA 6020B:2014
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Cu	43,6	0,1	EPA 6020B:2014
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Hg	0,07	0,005	EPA 6020B:2014
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Ni	29	0,005	EPA 6020B:2014
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Pb	20,5	0,005	EPA 6020B:2014
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Zn	115	0,1	EPA 6020B:2014
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT05BS/CR/TL	vakuum core	2020.10.11	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	As	4,67	0,005	EPA 6020B:2014
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Cd	0,07	0,003	EPA 6020B:2014
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Cr	23,7	0,03	EPA 6020B:2014
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Cu	23,4	0,1	EPA 6020B:2014
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Hg	0,02	0,005	EPA 6020B:2014
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Ni	11,9	0,005	EPA 6020B:2014
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Pb	20,3	0,005	EPA 6020B:2014
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Zn	65,8	0,1	EPA 6020B:2014
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Fluoranthene	0,001	0,001	EPA 8270E:2018
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,001	0,001	EPA 8270E:2018
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT05FS/SP/BS	spade	2020.10.11	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	As	8,22	0,005	EPA 6020B:2014
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Cd	0,22	0,003	EPA 6020B:2014
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Cr	65,7	0,03	EPA 6020B:2014
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Cu	26,6	0,1	EPA 6020B:2014
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Hg	0,05	0,005	EPA 6020B:2014
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Ni	33	0,005	EPA 6020B:2014
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Pb	18,8	0,005	EPA 6020B:2014
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Zn	97,6	0,1	EPA 6020B:2014
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT05FS/SP/TS	spade	2020.10.11	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	As	8,2	0,005	EPA 6020B:2014
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Cd	0,23	0,003	EPA 6020B:2014
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Cr	64,7	0,03	EPA 6020B:2014
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Cu	23,4	0,1	EPA 6020B:2014
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Hg	0,1	0,005	EPA 6020B:2014
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Ni	32,6	0,005	EPA 6020B:2014
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Pb	17,7	0,005	EPA 6020B:2014
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Zn	94,2	0,1	EPA 6020B:2014
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT05FS/SP/CK	cake sampler	2020.10.11	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT05SS/BR	barrel	2020.10.11	suspended sediment	As	0,01	0,005	EPA 6020B:2014
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Cr	0,07	0,03	EPA 6020B:2014
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Ni	0,04	0,005	EPA 6020B:2014
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Pb	0,03	0,005	EPA 6020B:2014
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Zn	0,18	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Fluoranthene	0,027	0,001	EPA 8270E:2018
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Benzo(a)pyrene	0,011	0,001	EPA 8270E:2018
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,042	0,001	EPA 8270E:2018
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Benzo(g,h,i)perylene	0,022	0,001	EPA 8270E:2018
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Indeno(1,2,3-cd)pyrene	0,014	0,001	EPA 8270E:2018
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT05SS/BR	barrel	2020.10.11	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	As	75,7	0,005	EPA 6020B:2014
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Cd	7,91	0,003	EPA 6020B:2014
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Cr	38,9	0,03	EPA 6020B:2014
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Cu	306	0,1	EPA 6020B:2014
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Hg	0,3	0,005	EPA 6020B:2014
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Ni	21,4	0,005	EPA 6020B:2014
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Pb	922	0,005	EPA 6020B:2014
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Zn	1800	0,1	EPA 6020B:2014
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Fluoranthene	0,014	0,001	EPA 8270E:2018
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Benzo(a)pyrene	0,003	0,001	EPA 8270E:2018
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,007	0,001	EPA 8270E:2018
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Benzo(g,h,i)perylene	0,004	0,001	EPA 8270E:2018
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,003	0,001	EPA 8270E:2018
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT06BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	As	25,3	0,005	EPA 6020B:2014
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Cd	1,72	0,003	EPA 6020B:2014
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Cr	28,1	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Cu	50,9	0,1	EPA 6020B:2014
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Hg	0,08	0,005	EPA 6020B:2014
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Ni	12,8	0,005	EPA 6020B:2014
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Pb	329	0,005	EPA 6020B:2014
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Zn	580	0,1	EPA 6020B:2014
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT06FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	As	57	0,005	EPA 6020B:2014
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Cd	3,28	0,003	EPA 6020B:2014
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Cr	30,9	0,03	EPA 6020B:2014
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Cu	87,6	0,1	EPA 6020B:2014
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Hg	0,14	0,005	EPA 6020B:2014
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Ni	17,2	0,005	EPA 6020B:2014
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Pb	292	0,005	EPA 6020B:2014
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Zn	631	0,1	EPA 6020B:2014
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Fluoranthene	0,011	0,001	EPA 8270E:2018
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Benzo(a)pyrene	0,006	0,001	EPA 8270E:2018
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,01	0,001	EPA 8270E:2018
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,007	0,001	EPA 8270E:2018
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,006	0,001	EPA 8270E:2018
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT06FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	As	44,7	0,005	EPA 6020B:2014
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Cd	3,52	0,003	EPA 6020B:2014
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Cr	38,6	0,03	EPA 6020B:2014
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Cu	122	0,1	EPA 6020B:2014
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Hg	0,15	0,005	EPA 6020B:2014
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Ni	19,9	0,005	EPA 6020B:2014
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Pb	319	0,005	EPA 6020B:2014
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Zn	615	0,1	EPA 6020B:2014
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Fluoranthene	0,011	0,001	EPA 8270E:2018
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Benzo(a)pyrene	0,01	0,001	EPA 8270E:2018
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,02	0,001	EPA 8270E:2018
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,01	0,001	EPA 8270E:2018
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,009	0,001	EPA 8270E:2018
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT06FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT06SS/BR	barrel	2020.10.12	suspended sediment	As	0,12	0,005	EPA 6020B:2014
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Cd	0,05	0,003	EPA 6020B:2014
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Cr	0,1	0,03	EPA 6020B:2014
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Cu	0,75	0,1	EPA 6020B:2014
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Ni	0,2	0,005	EPA 6020B:2014
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Pb	0,63	0,005	EPA 6020B:2014
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Zn	16,8	0,1	EPA 6020B:2014
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Fluoranthene	0,077	0,001	EPA 8270E:2018
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Benzo(a)pyrene	0,041	0,001	EPA 8270E:2018
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,121	0,001	EPA 8270E:2018
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Benzo(g,h,i)perylene	0,072	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Indeno(1,2,3-cd)pyrene	0,044	0,001	EPA 8270E:2018
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT06SS/BR	barrel	2020.10.12	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	As	18,5	0,005	EPA 6020B:2014
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Cd	4,1	0,003	EPA 6020B:2014
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Cr	24,1	0,03	EPA 6020B:2014
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Cu	86,2	0,1	EPA 6020B:2014
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Hg	0,06	0,005	EPA 6020B:2014
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Ni	16	0,005	EPA 6020B:2014
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Pb	194	0,005	EPA 6020B:2014
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Zn	1200	0,1	EPA 6020B:2014
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Fluoranthene	0,005	0,001	EPA 8270E:2018
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT07BS/CR/TL	vakuum core	2020.10.12	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	As	19,1	0,005	EPA 6020B:2014
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Cd	2,32	0,003	EPA 6020B:2014
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Cr	32,4	0,03	EPA 6020B:2014
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Cu	165	0,1	EPA 6020B:2014
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Hg	0,09	0,005	EPA 6020B:2014
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Ni	17,1	0,005	EPA 6020B:2014
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Pb	181	0,005	EPA 6020B:2014
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Zn	701	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT07FS/SP/BS	spade	2020.10.12	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	As	12,2	0,005	EPA 6020B:2014
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Cd	1,99	0,003	EPA 6020B:2014
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Cr	52,5	0,03	EPA 6020B:2014
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Cu	47,7	0,1	EPA 6020B:2014
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Hg	0,1	0,005	EPA 6020B:2014
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Ni	32,8	0,005	EPA 6020B:2014
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Pb	91,7	0,005	EPA 6020B:2014
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Zn	462	0,1	EPA 6020B:2014
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Anthracene	0,002	0,001	EPA 8270E:2018
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Fluoranthene	0,008	0,001	EPA 8270E:2018
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,005	0,001	EPA 8270E:2018
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT07FS/SP/TS	spade	2020.10.12	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	As	17,5	0,005	EPA 6020B:2014
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Cd	2,15	0,003	EPA 6020B:2014
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Cr	45,7	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Cu	75,8	0,1	EPA 6020B:2014
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Hg	0,13	0,005	EPA 6020B:2014
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Ni	26,1	0,005	EPA 6020B:2014
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Pb	99,9	0,005	EPA 6020B:2014
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Zn	525	0,1	EPA 6020B:2014
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Fluoranthene	0,005	0,001	EPA 8270E:2018
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,004	0,001	EPA 8270E:2018
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT07FS/SP/CK	cake sampler	2020.10.12	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT07SS/BR	barrel	2020.10.12	suspended sediment	As	0,02	0,005	EPA 6020B:2014
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Cd	0,06	0,003	EPA 6020B:2014
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Cr	0,13	0,03	EPA 6020B:2014
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Cu	0,18	0,1	EPA 6020B:2014
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Ni	0,08	0,005	EPA 6020B:2014
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Pb	0,15	0,005	EPA 6020B:2014
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Zn	14	0,1	EPA 6020B:2014
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Anthracene	0,067	0,001	EPA 8270E:2018
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Fluoranthene	0,693	0,001	EPA 8270E:2018
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Benzo(a)pyrene	0,413	0,001	EPA 8270E:2018
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	1,72	0,001	EPA 8270E:2018
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Benzo(g,h,i)perylene	0,728	0,001	EPA 8270E:2018
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Indeno(1,2,3-cd)pyrene	0,61	0,001	EPA 8270E:2018
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT07SS/BR	barrel	2020.10.12	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	As	10,8	0,005	EPA 6020B:2014
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Cd	1,9	0,003	EPA 6020B:2014
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Cr	32,8	0,03	EPA 6020B:2014
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Cu	52,8	0,1	EPA 6020B:2014
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Hg	0,11	0,005	EPA 6020B:2014
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Ni	20,5	0,005	EPA 6020B:2014
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Pb	60,7	0,005	EPA 6020B:2014
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Zn	584	0,1	EPA 6020B:2014
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Fluoranthene	0,001	0,001	EPA 8270E:2018
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT08BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	As	19,1	0,005	EPA 6020B:2014
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Cd	3,74	0,003	EPA 6020B:2014
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Cr	45,2	0,03	EPA 6020B:2014
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Cu	74	0,1	EPA 6020B:2014
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Hg	0,11	0,005	EPA 6020B:2014
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Ni	22,1	0,005	EPA 6020B:2014
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Pb	127	0,005	EPA 6020B:2014
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Zn	593	0,1	EPA 6020B:2014
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Anthracene	0,003	0,001	EPA 8270E:2018
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Fluoranthene	0,022	0,001	EPA 8270E:2018
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,008	0,001	EPA 8270E:2018
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,018	0,001	EPA 8270E:2018
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,007	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,007	0,001	EPA 8270E:2018
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT08FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	As	15,4	0,005	EPA 6020B:2014
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Cd	2,1	0,003	EPA 6020B:2014
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Cr	45	0,03	EPA 6020B:2014
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Cu	76,5	0,1	EPA 6020B:2014
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Hg	0,13	0,005	EPA 6020B:2014
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Ni	23,6	0,005	EPA 6020B:2014
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Pb	80,6	0,005	EPA 6020B:2014
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Zn	410	0,1	EPA 6020B:2014
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Fluoranthene	0,004	0,001	EPA 8270E:2018
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Benzo(a)pyrene	0,002	0,001	EPA 8270E:2018
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,005	0,001	EPA 8270E:2018
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT08FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	As	15,1	0,005	EPA 6020B:2014
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Cd	2,58	0,003	EPA 6020B:2014
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Cr	51,8	0,03	EPA 6020B:2014
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Cu	65,8	0,1	EPA 6020B:2014
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Hg	0,09	0,005	EPA 6020B:2014
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Ni	22,5	0,005	EPA 6020B:2014
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Pb	86,8	0,005	EPA 6020B:2014
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Zn	439	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,004	0,001	EPA 8270E:2018
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT08FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT08SS/BR	barrel	2020.10.25	suspended sediment	As	0,04	0,005	EPA 6020B:2014
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Cd	0,02	0,003	EPA 6020B:2014
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Cr	0,12	0,03	EPA 6020B:2014
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Cu	0,54	0,1	EPA 6020B:2014
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Ni	0,08	0,005	EPA 6020B:2014
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Pb	0,16	0,005	EPA 6020B:2014
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Zn	10	0,1	EPA 6020B:2014
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Anthracene	0,079	0,001	EPA 8270E:2018
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Fluoranthene	0,588	0,001	EPA 8270E:2018
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Benzo(a)pyrene	0,378	0,001	EPA 8270E:2018
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	2,04	0,001	EPA 8270E:2018
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Benzo(g,h,i)perylene	0,678	0,001	EPA 8270E:2018
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Indeno(1,2,3-cd)pyrene	0,452	0,001	EPA 8270E:2018
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT08SS/BR	barrel	2020.10.25	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	As	5,01	0,005	EPA 6020B:2014
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Cd	0,15	0,003	EPA 6020B:2014
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Cr	18,5	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Cu	23,4	0,1	EPA 6020B:2014
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Hg	0,08	0,005	EPA 6020B:2014
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Ni	13,3	0,005	EPA 6020B:2014
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Pb	9,51	0,005	EPA 6020B:2014
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Zn	144	0,1	EPA 6020B:2014
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Fluoranthene	<	0,001	EPA 8270E:2018
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,001	0,001	EPA 8270E:2018
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT09BS/CR/TL	vakuum core	2020.10.25	stream sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	As	11,2	0,005	EPA 6020B:2014
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Cd	0,45	0,003	EPA 6020B:2014
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Cr	60,7	0,03	EPA 6020B:2014
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Cu	49	0,1	EPA 6020B:2014
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Hg	0,09	0,005	EPA 6020B:2014
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Ni	22,4	0,005	EPA 6020B:2014
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Pb	26,1	0,005	EPA 6020B:2014
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Zn	216	0,1	EPA 6020B:2014
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT09FS/SP/BS	spade	2020.10.25	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	As	8,32	0,005	EPA 6020B:2014
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Cd	0,24	0,003	EPA 6020B:2014
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Cr	53,4	0,03	EPA 6020B:2014
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Cu	31,3	0,1	EPA 6020B:2014
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Hg	0,08	0,005	EPA 6020B:2014
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Ni	23	0,005	EPA 6020B:2014
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Pb	17,8	0,005	EPA 6020B:2014
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Zn	133	0,1	EPA 6020B:2014
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT09FS/SP/TS	spade	2020.10.25	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	As	12,2	0,005	EPA 6020B:2014
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Cd	0,48	0,003	EPA 6020B:2014
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Cr	47,4	0,03	EPA 6020B:2014
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Cu	53,3	0,1	EPA 6020B:2014
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Hg	0,1	0,005	EPA 6020B:2014
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Ni	27,8	0,005	EPA 6020B:2014
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Pb	25,9	0,005	EPA 6020B:2014
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Zn	193	0,1	EPA 6020B:2014
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Fluoranthene	0,002	0,001	EPA 8270E:2018
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,002	0,001	EPA 8270E:2018
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT09FS/SP/CK	cake sampler	2020.10.25	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT09SS/BR	barrel	2020.10.25	suspended sediment	As	0,1	0,005	EPA 6020B:2014
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Cd	0,02	0,003	EPA 6020B:2014
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Cr	0,13	0,03	EPA 6020B:2014
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Cu	0,8	0,1	EPA 6020B:2014
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Ni	0,17	0,005	EPA 6020B:2014
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Pb	0,1	0,005	EPA 6020B:2014
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Zn	9,61	0,1	EPA 6020B:2014
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Anthracene	0,048	0,001	EPA 8270E:2018
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Fluoranthene	0,36	0,001	EPA 8270E:2018
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Benzo(a)pyrene	0,157	0,001	EPA 8270E:2018
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,473	0,001	EPA 8270E:2018
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Benzo(g,h,i)perylene	0,336	0,001	EPA 8270E:2018
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Indeno(1,2,3-cd)pyrene	0,188	0,001	EPA 8270E:2018
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT09SS/BR	barrel	2020.10.25	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	As	109	0,005	EPA 6020B:2014
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Cd	2,06	0,003	EPA 6020B:2014
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Cr	67,9	0,03	EPA 6020B:2014
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Cu	261	0,1	EPA 6020B:2014
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Hg	0,34	0,005	EPA 6020B:2014
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Ni	33	0,005	EPA 6020B:2014
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Pb	364	0,005	EPA 6020B:2014
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Zn	557	0,1	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Anthracene	0,003	0,001	EPA 8270E:2018
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Fluoranthene	0,016	0,001	EPA 8270E:2018
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,009	0,001	EPA 8270E:2018
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,026	0,001	EPA 8270E:2018
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,013	0,001	EPA 8270E:2018
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,011	0,001	EPA 8270E:2018
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT10FS/SP/BS	spade	2020.10.26	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	As	86	0,005	EPA 6020B:2014
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Cd	1,24	0,003	EPA 6020B:2014
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Cr	66,1	0,03	EPA 6020B:2014
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Cu	177	0,1	EPA 6020B:2014
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Hg	0,64	0,005	EPA 6020B:2014
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Ni	32,2	0,005	EPA 6020B:2014
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Pb	323	0,005	EPA 6020B:2014
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Zn	311	0,1	EPA 6020B:2014
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Fluoranthene	0,004	0,001	EPA 8270E:2018
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,007	0,001	EPA 8270E:2018
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT10FS/SP/TS	spade	2020.10.26	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	As	80,2	0,005	EPA 6020B:2014
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Cd	1,06	0,003	EPA 6020B:2014
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Cr	59,4	0,03	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Cu	177	0,1	EPA 6020B:2014
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Hg	0,27	0,005	EPA 6020B:2014
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Ni	30,7	0,005	EPA 6020B:2014
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Pb	283	0,005	EPA 6020B:2014
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Zn	301	0,1	EPA 6020B:2014
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Anthracene	<	0,001	EPA 8270E:2018
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Fluoranthene	0,003	0,001	EPA 8270E:2018
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,006	0,001	EPA 8270E:2018
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,002	0,001	EPA 8270E:2018
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT10FS/SP/CK	cake sampler	2020.10.26	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
SUT10SS/BR	barrel	2020.10.26	suspended sediment	As	0,35	0,005	EPA 6020B:2014
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Cd	0,02	0,003	EPA 6020B:2014
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Cr	0,09	0,03	EPA 6020B:2014
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Cu	2,32	0,1	EPA 6020B:2014
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Ni	0,06	0,005	EPA 6020B:2014
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Pb	0,21	0,005	EPA 6020B:2014
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Zn	9,47	0,1	EPA 6020B:2014
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Fluoranthene	0,03	0,001	EPA 8270E:2018
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Benzo(a)pyrene	0,016	0,001	EPA 8270E:2018
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,061	0,001	EPA 8270E:2018
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Benzo(g,h,i)perylene	0,038	0,001	EPA 8270E:2018
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Indeno(1,2,3-cd)pyrene	0,015	0,001	EPA 8270E:2018
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg d.m.]	LOQ [mg/kg d.m.]	Standard method applied
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SUT10SS/BR	barrel	2020.10.26	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018

LIST OF PRIORITY SUBSTANCES AND DANUBE RIVER BASIN SPECIFIC POLLUTANTS

APPENDIX 2 OF THE SIMONA SEDIMENT QUALITY SAMPLING PROTOCOL

List of priority substances (PS) in the field of water policy (Part A, Annex I; Directive 2013/39/EU)

	Number in PS directive	WISE-SoE code (CAS/EEA) number[1]	Name of priority substance
1	2	CAS_120-12-7	Anthracene
2	5	EEA_32-04-2	Brominated diphenylethers (congener numbers 28, 47, 99, 100, 153 and 154)
3	6	CAS_7440-43-9	Cadmium and its compounds
4	7	CAS_85535-84-8	C10-13-chloroalkanes
5	12	CAS_117-81-7	Di(2-ethylhexyl)phthalate (DEHP)
6	15	CAS_206-44-0	Fluoranthene
7	16	CAS_118-74-1	Hexachlorobenzene
8	17	CAS_87-68-3	Hexachlorobutadiene
9	18	CAS_608-73-1	Hexachlorocyclohexane
10	20	CAS_7439-92-1	Lead and its compounds
11	21	CAS_7439-97-6	Mercury and compounds
12	23	CAS_7440-02-0	Nickel and its compounds
13	26	CAS_608-93-5	Pentachlorobenzene
14	28	EEA_33-56-7	Total PAHs (Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene)
15	30	CAS_36643-28-4	Tributyltin-cation
16	34	CAS_115-32-2	Dicofol
17	35	CAS_1763-23-1	Perfluorooctane sulfonic acid and its derivatives (PFOS)
18	36	CAS_124495-18-7	Quinoxyfen
19	37	EEA_33-58-9	Dioxins and dioxin-like compounds (7 PCDDs + 10 PCDFs + 12 PCB-DLs)
20	43	EEA_33-57-8	Hexabromocyclododecane (HBCDD)
21	44	EEA_33-50-1	Heptachlor and heptachlor epoxide

List of River Basin Specific Pollutants for the Danube River Basin (ICPDR, 2003)

	CAS number[1]	Name of Substance
22	CAS_7440-38-2	Arsenic and its compounds
23	CAS_7440-50-8	Copper and its compounds
24	CAS_7440-66-6	Zinc and its compounds
25	CAS_7440-47-3	Chromium and its compounds

[1] WISE-SoE: European Environment Information and Observation Network reporting systems; CAS: Chemical Abstracts Service; EEA: European Environment Agency registration number (if CAS is not acceptable)

Project co-funded by the European Union (ERDF, IPA and ENI)

Interreg
Danube Transnational Programme
SIMONA

LABORATORY REPORT OF THE TEST AREA SAMPLES TESTING AND ANALYSES

South Danube Test Area

Deliverable 3.3.2

Version 2.0

Programme co-funded by the European Union funds (ERDF, IPA,

PROJECT TITLE
Sediment-quality Information, Monitoring and Assessment System to support transnational co-operation for joint Danube Basin water management

ACRONYM
SIMONA

PROJECT DURATION
1st June 2018 to 30th Nov 2021, 42 months

DATE OF PREPARATION
30/04/2021

AUTHORS:
BULGARIA:
ATANAS HIKOV (GI-BAS), IRENA PEYTCHEVA (GI-BAS), PETYO FILIPOV (GI-BAS), ZLATKA MILAKOVSKA (GI-BAS)

HUNGARY:
GYOZO JORDAN (HU-SZIE), PETER FODOR (HU-SZIE), ZSOFIA KOVACS (HU-OVF), ZOLTAN VILÁGOSI (BÁLINT ANALITIKA LTD.), MÁRIA BÁLINT (BÁLINT ANALITIKA LTD.)

ROMANIA:
VERONICA ALEXE (RO-IGR), ANCA VIJDEA (RO-IGR)

SERBIA:
PRVOSLAV MARJANOVIC (RS-JCI), DRAGICA VULIC (RS-JCI), DRAGAN ALEKSIC (RS-JCI) MARKO MARJANOVIC (RS-JCI), KRISTINA SARIC (RS-UB-FMG), VLADICA CVETKOVIC (RS-UB-FMG)

RESPONSIBLE(S) OF THE DELIVERABLE: Anca-Marina Vijdea (RO-IGR)
CO-RESPONSIBLE(S) OF THE DELIVERABLE: Gyozo Jordan (HU-SZIE)

EDITING AND PREPARATION FOR PRINTING: Katalin Mária Dudás (HU-NARIC)

For further information on the project, partnership and the Danube Transnational Programme:
www.interreg-danube.eu/simona

FIND SIMONA PROTOCOLS ON THE WEBSITE!

Project co-funded by the European Union (ERDF, IPA and ENI)

Contents

Project co-funded by the European Union (ERDF, IPA and ENI)

1. INTRODUCTION

The objective of laboratory analysis of the collected Test Area samples is to test, verify and further develop the SIMONA Laboratory Protocol. The focus is on sample preparation such as homogenisation, separation and extraction **and how these can influence the final reults abouth the HSs staus of DRB sediments**. The actual instrumental chemical analyses are all defined by the relevant ISO standards and accreditation documents of the analytical laboratory, as described by the SIMONA Sampling Protocol and Sampling Working Group meeting Minutes. The specific objective is to test and compare various sampling methods (sampling systems) by means of comparing the physical and chemical composition of samples collected by various methods (systems). The final laboratory methods tested and developed, and selected for the Protocol will be trained on the Training Event and then subsequently used for the analysis of he samples collected in the two National Sampling Points in each participating country. The laboratory analyses, and testing and experimenting of the collected Test Area samples were carried out in the accredited Project Reference Laboratory. Laboratory method development used the Drava Test Area samples and was subsequently applied to Upper Tisa and South Danube Test Areas. Priority was given to the river bottom sediments, the uppermost 0-5 cm layer, because this is the most important sampling media for long-term sediment quality monitoring, according to the Water Framework Directive. A further specific objective is to use the Test Area samples laboratory analysis results (heavy metals, PAHs and Pesticied) to test the risk assessment method for the Evaluation Protocol.

During the laboratory analysis, testing and development activities, the participating experts had fruitful discussions and tentative conclusions on laboratory analysis of fluvial sediment for the long-term Surveillance Monitoring of water bodies under the EU WFD requirements. These ideas, experience gained and some preliminary suggestions are summarised in this report. The most important conclusion was that the SIMONA Laboratory Protocol provides a solid basis for fluvial sediment sampling and monitoring.

The following Evaluation Criteria for selecting the laboratory analysis method had been defined by the Laboratory Expert Group, with focus on sample preparation:

1. Laboratory analysis, including sample storage and sample preparation, should be scientifically-based: reproducible and representative (laboratory accreditation shall ensure both).
2. Laboratory analysis should be in full compliance with EU legislation (Water Framework Directive).
3. Laboratory analysis should be practice-oriented: using methods and procedures that are resource (cost, time, and human) efficient and 'ready-to-deploy' in the Danube Countries.
4. Laboratory analysis, especially sample preparation, should be adaptive to the site-specific conditions such as lowland versus mountainous conditions, big rivers, such as Danube etc.

Project co-funded by the European Union (ERDF, IPA and ENI)

2.SAMPLE ANALYSIS PREPARATIONS IN PARTNER COUNTRIES

All samples collected in South Danube test area in Serbia and Bulgaria are sampled for bottom and flood-plain sediments and only Danube at Svishtov sampling site was sampled for suspended sediments (because of the higher water turbidity at the site; see respective Sampling report D.3.3.1). Bottom sediment sampling was performed with collecting material from 0-5 to 10 cm uppermost layer of active deposition. Only at Timok sampling site the bottom sediment sample was from 0–70 cm and separate samples from distinct layers were collected. All the floodplain terraces of the river bodies were sampled with only the surface 20 cm active layer. Both bottom and floodplain samples are composite from 5 subsamples. Material was collected in stainless steel and plastic containers for the purpose of being used for organic and non-organic chemistry, respectively, and afterwards wet or dry sieved for obtaining fractions less than 2 mm. Bottom and floodplain sediment samples were collected into brown glass jars in Serbia and into white and brown glass jars (organic and non-organic chemistry, respectively) in Bulgaria and in plastic bags for site homogeneity test.

Suspended sediment sample from the Danube at Svishtov was taken using a 20L plastic barrel filled with water from a 100 cm vertical water column. A week later the sample was reduced to 3L after water decanting. It was transferred to two 1.5 l bottles (pre-cleaned with destilled water) after shaking and homogenisation. Separated materials were stored in refrigiator and cool boxes (at about 4^0C) until transported to a reference laboratory.

The samples collected in South Danube test area were composite samples made on the field (in Bulgaria and Serbia) from 5 sub-samples, and in the laboratory (in Romania) from 5 subsamples. Due to the conditions of floodplain sediment stations, in Romania it was not possible to make the composite sample on the field. Therefore, 10 sub-samples were collected for each station (for top soil - sampling depth 0 – 5 cm, and bottom soil - sampling depth 40 – 50 cm), transported in cooled boxes and stored in IGR's refrigerators at 4 ° C.

The composite samples were prepared in the laboratory, using nitril gloves, by taking around 500 g of each sub-sample of topsoil, respectively bottom soil, eliminating by hand the vegetal and animal detritus (remains of roots, shels, worms etc.), pebbles and others, and homogenizing it. The mixture was put in glass jars, which had been previously well washed with detergent and distilled water, then let to dry naturally. We obtained in this way, for every station, one jar (800 ml) of composite sample to be analyzed in SIMONA Reference Laboratory and one to be sent to the national laboratory.

Project co-funded by the European Union (ERDF, IPA and ENI)

Figure 1. Composite samples collected from the Borska Reka sampling site with sample identification

Figure 2. Composite samples collected from the Danube at Svishtov sampling site with sample identification

Project co-funded by the European Union (ERDF, IPA and ENI)

Figure 3. Collected samples are storred in mobile refrigerator (cool box)

Figure 4. Storing in cool conditions the sub-samples of floodplain sediments collected in South Danube test area (Romania) in plastic bags, in the jars with the composite samples for the national laboratory (left), and in the jars with composite samples for SIMONA Reference Laboratory (right)

Project co-funded by the European Union (ERDF, IPA and ENI)

Collecting so much material was caused, on one hand, by the need of ensuring that a sufficient amount of the fraction < 63 μm is finally obtained after sieving in the SIMONA Reference Laboratory, and on the other hand, by the intention to make a granulometric analysis of the sub-samples and the composite sample.

Figure 5. Exemplification of 5 sub-samples of topsoil (Pristol station, Romania), that will be used for granulometry analysis. This will be done also for the composite sample.

Project co-funded by the European Union (ERDF, IPA and ENI)

3.SAMPLE ANALYSIS PREPARATIONS IN SIMONA REFERENCE LABORATORY

3.1. Sample analysis: parameter selection

The laboratory analysis and testing have been divided into 3 groups of parameters:

1. The **3 groups of parameters** defined in the service contract between the SIMONA project (Lead Partner) and the Reference Laboratory (Bálint Analitika Ltd.), were analysed for selected priority samples:
   - Metals
   - PAHs
   - Pesticides.

Selected **priority samples** from each of the 10 sites in the South Danube Test Area, as an example, were the following:

- BOTTOM SEDIMENT:
  - uppermost 0-5 cm, collected with the vacuum corer sampler (in Bulgaria).
  - uppermost 0-5 cm, collected with the scoop sampler (in Bulgaria and Serbia)).
- FLOODPLAIN SEDIMENT:
  - uppermost 0-5 cm, collected with the spade/shovel sampler (in Romania).
  - uppermost 0-20 cm, collected with the auger sampler (in Bulgaria and Serbia).
  - lowermost 40-50 cm, collected with the spade/shovel sampler (in Romania).
  - lowermost 40-50 cm, collected with the auger sampler (in Bulgaria and Serbia).
- SUSPENDED SEDIMENT:
  - collected in barrel (in Bulgaria).

2. Parameters recommended by EU WFD documents and ISO documents: (see blue highlight in the table below) (expenses covered by external sources):
   - pH
   - EC
   - redox potential
   - Organic matter content
   - Carbonate content
   - Major cations (Ca, Mg, Na, K, Fe, Mn, Al, Si)
   - Granulometry
   - <63 μm fraction: Metals, PAH, Pectricides
   - Pore water: Metals, PAH, Pectricides.

3. Parameters that are relevant for further scientific **research** and development:(expenses covered by external sources):
   - Total P, N, S
   - Mobility tests (for floodplain sediments)
   - Detailed vertical study of bottom sediment cores
   - isotopic studies (for contamination source identification, 'fingerprinting', i.e. 206Pb/207Pb)
   - other.

Project co-funded by the European Union (ERDF, IPA and ENI)

4. TESTING AND EXPERIMENTING

4.1.Testing the composition of sampling and laboratory tools in partner countries

In Bulgarian sampling sites there were used: plastic scoops and containers and brown jars for the samples for metal analyses; stainless steel and plastic containers and white jars for samples for organic analyses.

The chemical composition of the sampling tools (spade, shovel, gloves) and laboratory preparation tools (gloves,pans and spadetool) have been tested in IGR laboratories for potential sample contamination by taking two replicate measurements with a handheld portable spectrometer XRF Olympus.

Figure 6. Testing the chemical composition of sampling tools using a portable XRF device in IGR-RO (the six photos above)

Project co-funded by the European Union (ERDF, IPA and ENI)

The next four tables below (minor elements listed in SIMONA laboratory protocol, major elements, and other minor elements) are results of two measurements by portable Olympus XRF spectrometer regarding prelevation and preparation tools and utensils used by IGR partener. Contents are expressed in %.

Note: As the table below shows, we can conclude that the chemical elements (listed in the SIMONA Laboratory Protocol) have small contents (except for Zn in Fiskas shovel) in the tools alloys.

Table 1. of minor elements Listed in SIMONA Laboartory Protocol measured for sampling and laboratory tools

Date	Time	Reading	Mode	Elapsed Time 1	Cr	Cr +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-	As	As +/-	Cd	Hg	Hg +/-	Pb	Pb +/-
11/10/2020	12:26:14	#1	Cal Check	14.88															
11/10/2020	12:27:43	#2	Geochem		13.5162	0.0245	8.8498	0.0277	0.5123	0.01	ND		ND		ND	0.0236	0.0017	0.0241	0.0017
11/10/2020	12:30:44	#3	Geochem	118.46	13.4935	0.0286	8.3807	0.0226	0.4751	0.0062	ND		ND		ND	0.0189	0.0009	0.0227	0.001
11/10/2020	12:33:20	#4	harlet	118.89	ND		ND		ND		0.1434	0.0018	ND		ND	0.0217	0.0006	0.0243	0.001
11/10/2020	12:36:17	#5	paleta	119.26	ND		ND		0.0804	0.0019	ND		ND		ND	0.0128	0.0006	0.0109	0.0007
11/10/2020	12:39:24	#6	manusi Veronica	119.13	ND		ND		ND		0.4875	0.0019	ND		ND	ND		ND	
11/10/2020	12:42:13	#7	cazma	119.22	ND		ND		0.009	0.0007	ND		ND		ND	0.0077	0.0004	0.0059	0.0004
11/10/2020	12:44:38	#8	vas saitroc	117.92	ND		ND		ND		0.0022	0.0001	ND		ND	ND		0.0003	0.0001
11/10/2020	12:47:03	#9	manusi Anca	119.25	ND		ND		ND		0.0085	0.0002	ND		ND	ND		ND	
11/10/2020	12:54:11	#10	harlet	118.93	ND		ND		ND		0.1408	0.0019	ND		ND	0.0224	0.0007	0.0248	0.001
11/10/2020	12:56:44	#11	paleta	119.22	ND		ND		0.0795	0.0019	ND		ND		ND	0.0129	0.0006	0.0108	0.0007
11/10/2020	13:03:25	#12	cazma	119.23	ND		ND		0.0093	0.0007	ND		ND		ND	0.0082	0.0004	0.0055	0.0004
11/10/2020	13:06:01	#13	vas saitroc	117.88	ND		ND		ND		0.0021	0.0001	ND		ND	ND		0.0002	0.0001
11/10/2020	13:17:20	#14	Prneimpurificat	118.33	0.0185	0.0012	0.004	0.0003	0.0008	0.0002	0.005	0.0002	0.0005	0.0001	ND	ND		0.0013	0.0001
11/10/2020	13:29:31	#15	PR impurificat	118.71	0.0109	0.0013	0.0041	0.0003	0.0012	0.0002	0.0054	0.0002	0.0004	0.0001	ND	ND		0.0015	0.0001
11/10/2020	13:37:34	#17	tava	117.17	ND		ND		ND		0.0936	0.0004	ND		ND	ND		0.0002	0.0001

Table 2 shows the results of sampling tool major composition measurements using a portable XRF device. Note that most of the tools used in sampling are composed of inert Fe-Mn-Ti steel and have high content for V.

Table 2.

Mode	Mg	Al	Al +/-	Si	Si +/-	P	P +/-	S	S +/-	Cl	Cl +/-	Ca +/-	Ti	Ti +/-	V	V +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-
Cal Check																						
Geochem													ND		0.0915	0.0051	13.5162	0.0245	1.8955	0.0176	73.5734	0.0385
Geochem	ND	ND		0.75	0.15	0.26	0.06	1.39	0.06	ND		0.0363	ND		0.0838	0.0033	13.4935	0.0286	1.9021	0.0118	71.48	0.13
harlet	ND	ND		1.65	0.16	ND		4.43	0.07	0.1114	0.0274	0.08	3.3461	0.0166	1.9137	0.0098	ND		0.5955	0.0055	78.2	0.16
paleta	ND	ND		1.17	0.15	ND		6.66	0.1	ND			7.7903	0.0296	3.2441	0.0147	ND		0.5878	0.006	54.27	0.14
manusi veroni	ND	ND		0.77	0.11	ND		1.3088	0.036	ND		0.09	ND		ND		ND		ND		0.0657	0.0014
cazma	ND	4.2	0.68	2.15	0.17	ND		4.66	0.08	ND			9.81	0.08	2.9198	0.0247	ND		0.5183	0.0063	36.74	0.28
vas saitroc	ND	3.76	0.38	10.36	0.22	ND		0.0493	0.0118	ND		0.0229	ND		ND		ND		ND		0.449	0.003
manusianca	ND	ND		ND		ND		ND		47.44	0.11		ND		ND		ND		ND		0.0024	0.0005
harlet	ND	ND		1.49	0.15	ND		4.39	0.07	ND		0.08	3.3237	0.0167	1.8754	0.0098	ND		0.5944	0.0055	78.59	0.15
paleta	ND	ND		1.05	0.14	ND		6.77	0.1	ND			7.7537	0.0282	3.2095	0.0141	ND		0.5879	0.0059	56.08	0.14
cazma	ND	2.75	0.62	2.16	0.17	0.1693	0.0423	4.7	0.08	ND			9.8	0.07	2.9582	0.0235	ND		0.5041	0.006	35.5	0.25
vas saitroc	ND	3.08	0.37	8.83	0.21	ND		0.0789	0.0124	ND		0.0207	ND		ND		ND		ND		0.3758	0.0025
Prneimpurifica	ND	1.17	0.37	8.39	0.23	0.2801	0.0401	ND		ND		0.05	0.3614	0.0066	0.0099	0.0024	0.0185	0.0012	0.0689	0.0015	2.6771	0.0143
PR impurificat	ND	2.01	0.46	7.66	0.25	0.2411	0.0444	ND		ND		0.06	0.3121	0.0071	0.0145	0.0027	0.0109	0.0013	0.0695	0.0016	2.5259	0.0162
tava	ND	ND		0.97	0.07	ND		1.0591	0.0241	ND		0.0146	1.4342	0.0075	ND		ND		ND		0.0304	0.0006

Next two tables 3 and 4 show high content in Co, Sr for spade and shovel.

Project co-funded by the European Union (ERDF, IPA and ENI)

Table 3.

Mode	Co	Co +/-	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Y	Y +/-	Zr	Zr +/-	Nb	Nb +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Sn	Sn +/-
Cal Check																					
Geochem	ND		0.0088	0.0004	ND		ND		ND		0.0156	0.0004	ND		1.287	0.0029	0.1323	0.0024	ND	0.0272	0.0031
Geochem	ND		0.0094	0.0003	ND		ND		ND		0.0146	0.0002	ND		1.2019	0.0027	ND		ND	0.0282	0.0019
harlet	0.2672	0.0088	0.0111	0.0002	ND		0.0623	0.0005	ND		0.0169	0.0002	0.0087	0.0003	0.0174	0.0002	0.1114	0.0013	ND	0.0194	0.0016
paleta	0.6835	0.0089	0.0067	0.0002	ND		0.0477	0.0005	ND		0.0166	0.0003	0.0513	0.0006	0.0169	0.0002	0.1134	0.0014	ND	0.0201	0.0017
manusi veroni	ND		ND		0.0002	0	0.006	0.0001	0.0004	0.0001	0.0012	0.0001	0.0007	0.0001	ND		ND		ND	ND	
cazma	0.6594	0.0083	0.0037	0.0002	ND		0.0237	0.0003	ND		0.0224	0.0003	0.0107	0.0003	0.0073	0.0002	ND		ND	0.017	0.0013
vas saitroc	ND		ND		0.0003	0	0.0014	0	0.0015	0	0.0016	0	0.002	0.0001	0.0008	0	ND		ND	ND	
manusianca	ND		ND		0.0001	0	0.0005	0	0.0006	0	0.0004	0	0.0009	0.0001	0.0004	0	ND		ND	ND	
harlet	0.2732	0.009	0.0117	0.0002	ND		0.0602	0.0005	ND		0.0175	0.0002	0.0087	0.0003	0.0174	0.0002	0.1109	0.0013	ND	0.0185	0.0016
paleta	0.662	0.0088	0.0066	0.0002	ND		0.0469	0.0005	ND		0.0173	0.0003	0.0509	0.0006	0.0177	0.0002	0.1142	0.0014	ND	0.0194	0.0017
cazma	0.6675	0.008	0.0033	0.0001	ND		0.0241	0.0003	ND		0.0221	0.0003	0.0106	0.0003	0.0072	0.0002	ND		ND	0.0156	0.0013
vas saitroc	ND		ND		0.0002	0	0.0014	0	0.0015	0	0.0016	0	0.0022	0.0001	0.0008	0	ND		ND	ND	
Prneimpurific	ND		ND		0.0048	0.0001	0.0118	0.0001	0.0019	0.0001	0.0162	0.0001	0.0013	0.0001	ND		ND		ND	ND	
PR impurificat	ND		ND		0.0044	0.0001	0.0119	0.0001	0.0018	0.0001	0.0167	0.0002	0.0013	0.0001	ND		ND		ND	ND	
tava	ND		ND		0.0001	0	0.0012	0	0.0012	0	0.0013	0	0.0041	0.0001	0.0008	0	ND		ND	ND	

Table 4.

mode	Sb	Sb +/-	W	W +/-	Bi	Bi +/-	Th	Th +/-	U	U +/-	LE	LE +/-
Cal Check												
Geochem	ND		0.0277	0.0033	0.0149	0.003	ND		ND			
Geochem	ND		0.0262	0.002	0.0176	0.0018	ND		ND			
harlet	ND		ND		ND		0.0132	0.0006	ND		0.1002	0.0007
paleta	ND		ND		ND		0.0107	0.0008	ND		25.21	0.14
manusi veroni	ND		ND		ND		0.0013	0.0002	ND		79.74	0.13
cazma	ND		ND		ND		0.0073	0.0005	ND		38.23	0.31
vas saitroc	0.0025	0.0004	ND		ND		0.0053	0.0002	0.0014	0.0001	84.31	0.39
manusianca	ND		ND		ND		0.0022	0.0001	0.0004	0.0001	52.55	0.11
harlet	ND		ND		ND		0.0142	0.0006	ND			
paleta	ND		ND		ND		0.0122	0.0008	ND		23.5	0.13
cazma	ND		ND		ND		0.0084	0.0005	ND		40.67	0.3
vas saitroc	0.003	0.0004	ND		ND		0.0053	0.0001	0.0015	0.0001	86.74	0.38
Prneimpurifica	ND		ND		ND		ND		ND		81.74	0.37
PR impurificat	ND		ND		ND		ND		ND		82.26	0.45
tava	0.0024	0.0004	ND		ND		0.0048	0.0001	0.0011	0.0001	95.68	0.08

In table 5 there are listed the comparative results for metals contents (by XRF spectrometry) in a sediment sub-sample from Pristol station, Romania, performed in IGR, before and after composite sample preparation in a polimer plate (i. e. pan used usually for separating metals in alluvial deposits).We can remark that there are no impurification for any metals specified in SIMONA Protocol Laboratory.

Table 5.

	Cr	Cr +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-	As	As +/-	Cd	Hg	Hg +/-	Pb	Pb +/-
PRneimpurific	0.0185	0.0012	0.004	0.0003	0.0008	0.0002	0.005	0.0002	0.0005	0.0001	ND	ND		0.0013	0.0001
PR impurificat	0.0109	0.0013	0.0041	0.0003	0.0012	0.0002	0.0054	0.0002	0.0004	0.0001	ND	ND		0.0015	0.0001

Note: as the detection limit of the spectrometer in case of Hg and Cd is <5ppm, the instrument did not indicate results for these elements.

Project co-funded by the European Union (ERDF, IPA and ENI)

4.2. Testing the composition of sampling and laboratory tools in SIMONA Reference Laboratory

In SIMONA Reference Laboratory, the only metal tool in contact with the samples are the 2mm and 63 µm sieves. In the SIMONA protocol it is written: Stainless steel is preferred for organic analyses. These must not be used for the analysis of trace metals. For trace metals, polymer sieves are recommended (PVC or acrylic rim, with e.g. nylon or polyester mesh - recommendation Guidance No. 25).

The chemical composition of the sieves and trays were tested in 3 ways. First, their composition was measured by a portable XRF device. Results show that the metal sieves and trays can contain elevated Cu and Zn (standard brass soil sieves and tray) or Ni and Cr (Fritsch). Second, a blind sample (high purity glass sand) was sieved, too, and analysed for composition by ICP-MS. Results show that sieving had no contamination effect on the blind sample. Third, a bottom sediment sample was sieved through the metal (Fritsch) sieve. Results show that the brass tray used to receive the sieved-through fraction had a serious Cu-Zn contamination on the <63 µm sieved fraction. This means, that the wet fine grain sample can have serious interaction and therefore contamination from the laboratory equipment. As a conclusion, the use of metal tools should be avoided or possible sample contamination should be checked when metal tools get in contact with the sample.

4.3. Testing complex sediment analysis in SIMONA Reference Laboratory

Testing focused on 4 priority issues:

- **sample preparation** with the objective of maintaining sample representativity and the reproducibility of sample handling and manipulation. Sample preaparation included homogenization, drying, sieving and centrifuging.
- **bottom sediment samples (0-5 cm top layer)** as the most important media for long-term monitoring suggested by WFD documents and ISO standards,
- **minimum sample quantity**, as the favoured sampling system is the vacuum corer system which collects limited amount of sample only.
- analysis of **fine fraction** (<63µm) and **pore water**.

The developed method is optimized against these criteria (see flowchart below).

4.3.1. Sieving

Stream bottom sediment samples contained plant fragments and biota remnants, justifying the <2mm sieving.

Project co-funded by the European Union (ERDF, IPA and ENI)

Figure 7. Stream bottom sediment samples contained plant fragments (left) that are removed by sieving to <2mm sieving (middle). The <63µm fraction fine mud (right).

The <63µm fine fraction (see figure) is only a small part (10%) of the bottom sediment sample, therefore, it has to be tested if the sampled sediment has sufficient amount for the chemical analysis. This has important implications for the total amount of sample to be collected in the field in order to contain sufiecient amount of the critical fine fraction. Test results show that **under the lowland hydromorphic conditions** the limited bottom sediment top layer (0-5 cm) sample amount collected by the vacuum corer system is sufficient for all the chemical analysis.

4.3.2. Homogenisation

All sediment samples, including the stream bottom sediment samples, are **composite samples**, composed of 5 sub-samples. Therefore, homogenization of samples in the laboratory is a very important first step. However, bottom sediment samples have very high (ca. 50%) pore water content as identified by the laboratory measurements which separates from the sediment very fast (within a few minutes) in the sample container during storage (see figure). As a result, a further step of homogenization has to be included in this procedure by intensive re-mixing and **re-suspension** of the water and sediment phases before the immediate sample taken from the container for any chemical analysis.

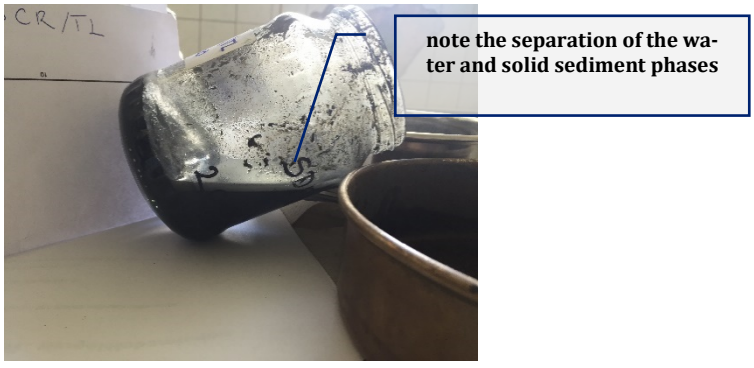


Figure 8. Figure showing the separation of sediment and pore water conent in the sample container during storage. Note that in the bottom sediment samples, cca. 50% of content is water .

Figure showing the separation of sediment and pore water conent in the sample container during storage. Note that in the bottom sediment samples, cca. 50% of content is water .

Project co-funded by the European Union (ERDF, IPA and ENI)

4.3.3. Pore water extraction

Pore water contamination content is important for calculating partititioning coefficients between sediment and water, which, in turn, assist risk assessment (evaluation) in terms of benthic fauna (biota) protection and contamination mobility. The laboratory tests have shown that the used minimum amount of bottom sediment is enough to obtain pore water by centrifuging in the quantity sufficient for the chemical analysis.

4.3.4. Sample quantity determination

Tests have been carried out to define the quantity of stream sediment sample available for the complex chemical analysis:

- <2 mm fraction quantity
- <63 μm fraction quantity
- pore water content
- dry matter content available for lab analyses
- partitioning of contaminants (metals) among the *total sample - fine grain - pore water* fractions.

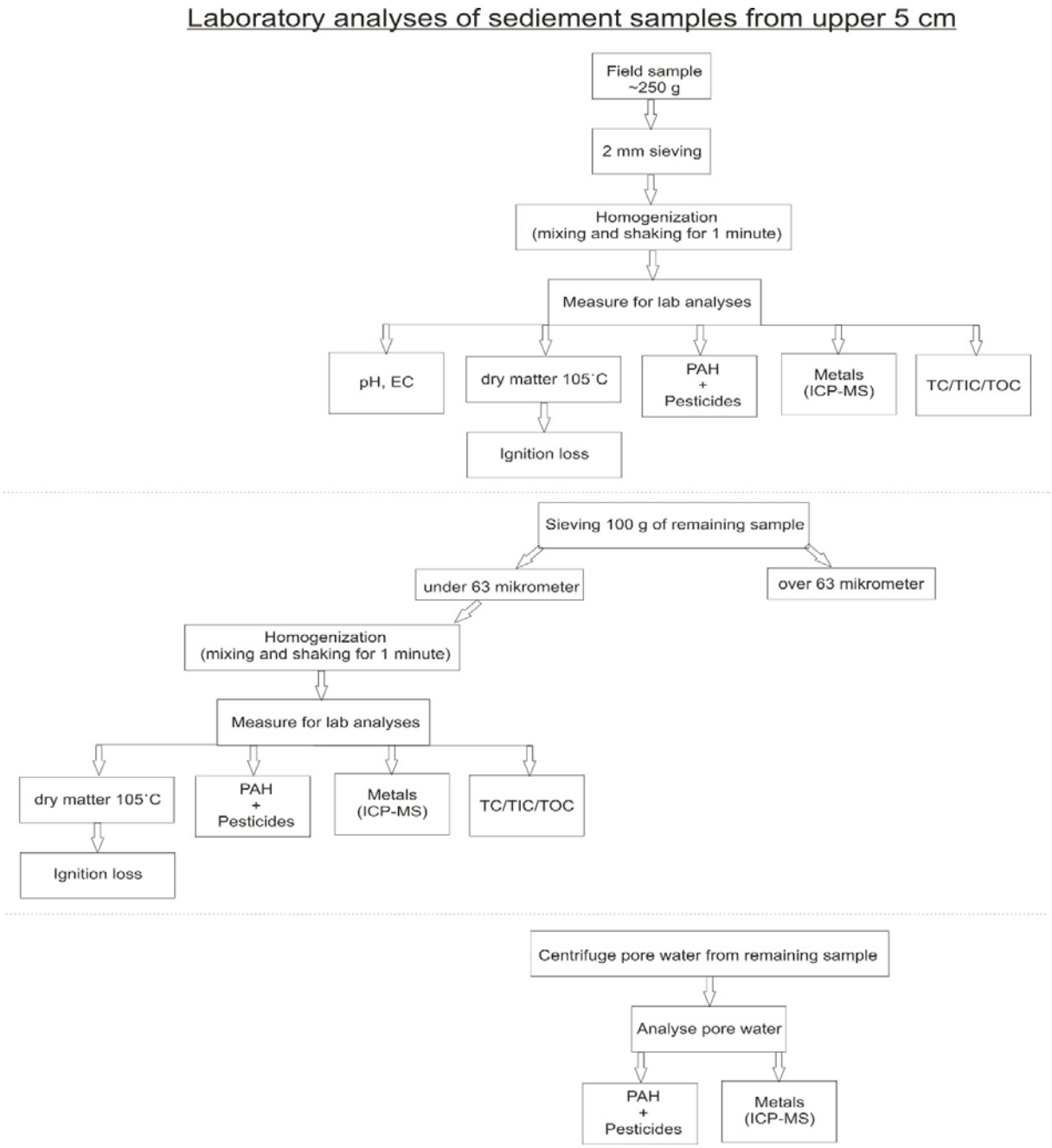
4.3.5. Sample preparation and analysis work flow

Based on the predefined criteria for sample preparation and analysis (minimum sample quantity, analysis of fine fraction and pore water, parameters including priority substances and controlling factors such as OM content, etc.), a basic work was sketched according to the figure below.

Based on the several tests on sieving, filtering, water content determination, homogenization, etc. (see above), the following final scheme was designed and implemented for all the samples. The scheme is optimized to the minimum required bottom sediment sample quantity collected with the vacuum corer system, and parallel optimized to the maximum number of physical-chemical parameters to be defined: (1) in the original sample (<2mm); (2) in the fine fraction (<63 μm); and (3) in the pore water, while respecting the relevant ISO standards and the accreditied laboratory procedures.

Final scheme for sample preparation and analysis of stream bottom sediment samples in SIMONA Reference Laboratory.

Project co-funded by the European Union (ERDF, IPA and ENI)



4.3.6. Method development

The tested and developed laboratory methods will be described in detail in the final Laboratory Protocol updated based on the Test Area samples and laboaratory analyses. Further planned scientific laboratory tests include:

- mobility and speciation tests on floodplain sediments (deionized water leaching;
- BCR sequential extraction;
- detailed grain size analysis and fraction chemistry;
- isotope composition analysis for sediment fingerprinting and contamination source detection;
- testing total extraction methods (aqua regia, nitric acid, multi-acid HF);
- XRF measurements on original samples.

Project co-funded by the European Union (ERDF, IPA and ENI)

Annex 1. Laboratory Results

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	As	5,27	0,005	EPA 6020B:2014
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Cd	0,2	0,003	EPA 6020B:2014
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Cr	22,7	0,03	EPA 6020B:2014
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Cu	71,1	0,1	EPA 6020B:2014
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Hg	0,04	0,005	EPA 6020B:2014
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Ni	21,6	0,005	EPA 6020B:2014
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Pb	11,8	0,005	EPA 6020B:2014
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Zn	63,6	0,1	EPA 6020B:2014
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Anthracene	<	0,001	EPA 8270E:2018
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Fluoranthene	0,001	0,001	EPA 8270E:2018
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,001	0,001	EPA 8270E:2018
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-MIBS-01	vacuum correr	2021.09.15	stream sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	As	7,64	0,005	EPA 6020B:2014
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Cd	0,27	0,003	EPA 6020B:2014
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Cr	31,3	0,03	EPA 6020B:2014
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Cu	120	0,1	EPA 6020B:2014
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Hg	0,04	0,005	EPA 6020B:2014
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Ni	24,7	0,005	EPA 6020B:2014
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Pb	13,7	0,005	EPA 6020B:2014
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Zn	76,9	0,1	EPA 6020B:2014
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Anthracene	<	0,001	EPA 8270E:2018
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Fluoranthene	0,002	0,001	EPA 8270E:2018
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,004	0,001	EPA 8270E:2018
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Benzo(g,h,i)perylene	0,004	0,001	EPA 8270E:2018
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-MIFS-01	auger sampler	2021.09.15	floodplain sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	As	9,46	0,005	EPA 6020B:2014
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Cd	0,34	0,003	EPA 6020B:2014
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Cr	50,3	0,03	EPA 6020B:2014
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Cu	37,1	0,1	EPA 6020B:2014
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Hg	0,05	0,005	EPA 6020B:2014
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Ni	33,2	0,005	EPA 6020B:2014
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Pb	19,9	0,005	EPA 6020B:2014
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Zn	82,7	0,1	EPA 6020B:2014
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Anthracene	<	0,001	EPA 8270E:2018
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Fluoranthene	0,001	0,001	EPA 8270E:2018
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,001	0,001	EPA 8270E:2018
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-ISBS-01	scoop	2021.09.16	stream sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	As	9,5	0,005	EPA 6020B:2014
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Cd	0,6	0,003	EPA 6020B:2014
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Cr	37,4	0,03	EPA 6020B:2014
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Cu	62,4	0,1	EPA 6020B:2014
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Hg	0,03	0,005	EPA 6020B:2014
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Ni	19,1	0,005	EPA 6020B:2014
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Pb	24,8	0,005	EPA 6020B:2014
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Zn	99,9	0,1	EPA 6020B:2014
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Anthracene	0,002	0,001	EPA 8270E:2018
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Fluoranthene	0,019	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Benzo(a)pyrene	0,012	0,001	EPA 8270E:2018
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,025	0,001	EPA 8270E:2018
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Benzo(g,h,i)perylene	0,011	0,001	EPA 8270E:2018
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Indeno(1,2,3-cd)pyrene	0,012	0,001	EPA 8270E:2018
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-ISFS-01	auger sampler	2021.09.16	floodplain sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	As	20,8	0,005	EPA 6020B:2014
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Cd	0,39	0,003	EPA 6020B:2014
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Cr	20,8	0,03	EPA 6020B:2014
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Cu	12	0,1	EPA 6020B:2014
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Hg	0,02	0,005	EPA 6020B:2014
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Ni	11,8	0,005	EPA 6020B:2014
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Pb	37,1	0,005	EPA 6020B:2014
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Zn	80,1	0,1	EPA 6020B:2014
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Anthracene	<	0,001	EPA 8270E:2018
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Fluoranthene	<	0,001	EPA 8270E:2018
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-OGBS-01	scoop	2021.09.17	stream sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	As	75,3	0,005	EPA 6020B:2014
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Cd	0,47	0,003	EPA 6020B:2014
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Cr	28,9	0,03	EPA 6020B:2014
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Cu	22,8	0,1	EPA 6020B:2014
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Hg	0,03	0,005	EPA 6020B:2014
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Ni	15,6	0,005	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Pb	69,2	0,005	EPA 6020B:2014
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Zn	102	0,1	EPA 6020B:2014
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Anthracene	0,001	0,001	EPA 8270E:2018
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Fluoranthene	0,003	0,001	EPA 8270E:2018
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,005	0,001	EPA 8270E:2018
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Benzo(g,h,i)perylene	0,003	0,001	EPA 8270E:2018
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Indeno(1,2,3-cd)pyrene	0,002	0,001	EPA 8270E:2018
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-OGFS-01	auger sampler	2021.09.17	floodplain sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	As	6,58	0,005	EPA 6020B:2014
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Cd	1,35	0,003	EPA 6020B:2014
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Cr	55,7	0,03	EPA 6020B:2014
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Cu	31,2	0,1	EPA 6020B:2014
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Hg	0,13	0,005	EPA 6020B:2014
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Ni	35,2	0,005	EPA 6020B:2014
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Pb	20,6	0,005	EPA 6020B:2014
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Zn	117	0,1	EPA 6020B:2014
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Anthracene	0,004	0,001	EPA 8270E:2018
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Fluoranthene	0,035	0,001	EPA 8270E:2018
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Benzo(a)pyrene	0,016	0,001	EPA 8270E:2018
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,031	0,001	EPA 8270E:2018
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Benzo(g,h,i)perylene	0,014	0,001	EPA 8270E:2018
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Indeno(1,2,3-cd)pyrene	0,014	0,001	EPA 8270E:2018
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-SVBS-01	scoop	2021.10.06	stream sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	As	9,68	0,005	EPA 6020B:2014
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Cd	0,5	0,003	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Cr	48	0,03	EPA 6020B:2014
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Cu	45,8	0,1	EPA 6020B:2014
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Hg	0,09	0,005	EPA 6020B:2014
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Ni	33,6	0,005	EPA 6020B:2014
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Pb	20	0,005	EPA 6020B:2014
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Zn	99,4	0,1	EPA 6020B:2014
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Anthracene	0,007	0,001	EPA 8270E:2018
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Fluoranthene	0,099	0,001	EPA 8270E:2018
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Benzo(a)pyrene	0,029	0,001	EPA 8270E:2018
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,062	0,001	EPA 8270E:2018
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Benzo(g,h,i)perylene	0,024	0,001	EPA 8270E:2018
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Indeno(1,2,3-cd)pyrene	0,027	0,001	EPA 8270E:2018
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-SVFS-01	auger sampler	2021.10.06	floodplain sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	As	0,02	0,005	EPA 6020B:2014
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Cd	<	0,003	EPA 6020B:2014
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Cr	0,12	0,03	EPA 6020B:2014
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Cu	<	0,1	EPA 6020B:2014
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Hg	<	0,005	EPA 6020B:2014
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Ni	0,09	0,005	EPA 6020B:2014
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Pb	0,06	0,005	EPA 6020B:2014
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Zn	0,36	0,1	EPA 6020B:2014
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Anthracene	<	0,001	EPA 8270E:2018
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Fluoranthene	0,073	0,001	EPA 8270E:2018
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Benzo(a)pyrene	0,021	0,001	EPA 8270E:2018
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,086	0,001	EPA 8270E:2018
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Benzo(g,h,i)perylene	0,033	0,001	EPA 8270E:2018
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Indeno(1,2,3-cd)pyrene	0,014	0,001	EPA 8270E:2018
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Dicofol	<	0,005	EPA 1656A:2000
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Heptachlor	<	0,005	EPA 8081B:2007
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Heptachlor epoxide	<	0,005	EPA 8081B:2007
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Hexachlorobenzene	<	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
SDTA-SVSS-01	barrel	2021.10.06	suspended sediment	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	As	8,49	0,005	EPA 6020B:2014
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Cd	0,3	0,003	EPA 6020B:2014
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Cr	65,9	0,03	EPA 6020B:2014
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Cu	23,3	0,1	EPA 6020B:2014
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Hg	0,16	0,005	EPA 6020B:2014
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Ni	37,4	0,005	EPA 6020B:2014
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Pb	17,9	0,005	EPA 6020B:2014
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Zn	59,2	0,1	EPA 6020B:2014
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Anthracene	0,003	0,001	EPA 8270E:2018
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Fluoranthene	0,025	0,001	EPA 8270E:2018
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Benzo(a)pyrene	0,009	0,001	EPA 8270E:2018
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,016	0,001	EPA 8270E:2018
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,016	0,001	EPA 8270E:2018
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,008	0,001	EPA 8270E:2018
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Hexachlorobenzene	0,001	0,005	EPA 8270E:2018
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/ZM/FS/TS	shovel		floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	As	12,9	0,005	EPA 6020B:2014
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Cd	0,24	0,003	EPA 6020B:2014
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Cr	64	0,03	EPA 6020B:2014
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Cu	29,2	0,1	EPA 6020B:2014
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Hg	0,25	0,005	EPA 6020B:2014
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Ni	38,4	0,005	EPA 6020B:2014
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Pb	15,3	0,005	EPA 6020B:2014
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Zn	59,7	0,1	EPA 6020B:2014
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Anthracene	0,012	0,001	EPA 8270E:2018
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Fluoranthene	0,098	0,001	EPA 8270E:2018
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Benzo(a)pyrene	0,04	0,001	EPA 8270E:2018
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,06	0,001	EPA 8270E:2018
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,049	0,001	EPA 8270E:2018
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,025	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/ZM/FS/BS	shovel		floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	As	7,3	0,005	EPA 6020B:2014
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Cd	0,17	0,003	EPA 6020B:2014
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Cr	96	0,03	EPA 6020B:2014
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Cu	12,9	0,1	EPA 6020B:2014
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Hg	0,04	0,005	EPA 6020B:2014
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Ni	38,6	0,005	EPA 6020B:2014
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Pb	10,8	0,005	EPA 6020B:2014
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Zn	53,6	0,1	EPA 6020B:2014
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Anthracene	0,001	0,001	EPA 8270E:2018
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Fluoranthene	0,005	0,001	EPA 8270E:2018
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,001	0,001	EPA 8270E:2018
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,003	0,001	EPA 8270E:2018
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,001	0,001	EPA 8270E:2018
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,001	0,001	EPA 8270E:2018
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/PR/FS/TS	shovel	02.09.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	As	8	0,005	EPA 6020B:2014
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Cd	0,18	0,003	EPA 6020B:2014
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Cr	60,6	0,03	EPA 6020B:2014
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Cu	29,4	0,1	EPA 6020B:2014
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Hg	<	0,005	EPA 6020B:2014
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Ni	21,4	0,005	EPA 6020B:2014
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Pb	9,44	0,005	EPA 6020B:2014
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Zn	51,5	0,1	EPA 6020B:2014
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Anthracene	<	0,001	EPA 8270E:2018
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Fluoranthene	<	0,001	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	<	0,001	EPA 8270E:2018
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	<	0,001	EPA 8270E:2018
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	<	0,001	EPA 8270E:2018
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	<	0,001	EPA 8270E:2018
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/PR/FS/BS	shovel	02.09.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	As	5,26	0,005	EPA 6020B:2014
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Cd	0,21	0,003	EPA 6020B:2014
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Cr	60,1	0,03	EPA 6020B:2014
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Cu	26,3	0,1	EPA 6020B:2014
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Hg	0,55	0,005	EPA 6020B:2014
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Ni	30	0,005	EPA 6020B:2014
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Pb	10,4	0,005	EPA 6020B:2014
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Zn	45,5	0,1	EPA 6020B:2014
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Anthracene	0,023	0,001	EPA 8270E:2018
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Fluoranthene	0,053	0,001	EPA 8270E:2018
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,023	0,001	EPA 8270E:2018
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,025	0,001	EPA 8270E:2018
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,052	0,001	EPA 8270E:2018
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,019	0,001	EPA 8270E:2018
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Hexachlorobenzene	0,002	0,005	EPA 8270E:2018
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/ZV2/FS/TS	shovel	06.10.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	As	5,33	0,005	EPA 6020B:2014
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Cd	0,23	0,003	EPA 6020B:2014
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Cr	55,4	0,03	EPA 6020B:2014
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Cu	29,8	0,1	EPA 6020B:2014
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Hg	0,57	0,005	EPA 6020B:2014
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Ni	30	0,005	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Pb	10,5	0,005	EPA 6020B:2014
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Zn	47	0,1	EPA 6020B:2014
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Anthracene	0,021	0,001	EPA 8270E:2018
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Fluoranthene	0,05	0,001	EPA 8270E:2018
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,021	0,001	EPA 8270E:2018
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,022	0,001	EPA 8270E:2018
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,046	0,001	EPA 8270E:2018
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,017	0,001	EPA 8270E:2018
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	0,001	0,005	EPA 8270E:2018
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/ZV2/FS/BS	shovel	06.10.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	As	6,73	0,005	EPA 6020B:2014
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Cd	0,25	0,003	EPA 6020B:2014
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Cr	61,1	0,03	EPA 6020B:2014
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Cu	19,7	0,1	EPA 6020B:2014
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Hg	0,07	0,005	EPA 6020B:2014
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Ni	32,1	0,005	EPA 6020B:2014
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Pb	12,9	0,005	EPA 6020B:2014
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Zn	52,8	0,1	EPA 6020B:2014
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Anthracene	0,014	0,001	EPA 8270E:2018
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Fluoranthene	0,105	0,001	EPA 8270E:2018
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,041	0,001	EPA 8270E:2018
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,076	0,001	EPA 8270E:2018
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,024	0,001	EPA 8270E:2018
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,022	0,001	EPA 8270E:2018
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/IS2/FS/TS	shovel	05.09.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	As	7,3	0,005	EPA 6020B:2014
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Cd	0,37	0,003	EPA 6020B:2014

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Cr	64,2	0,03	EPA 6020B:2014
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Cu	30,5	0,1	EPA 6020B:2014
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Hg	0,12	0,005	EPA 6020B:2014
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Ni	38,2	0,005	EPA 6020B:2014
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Pb	17,2	0,005	EPA 6020B:2014
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Zn	72,2	0,1	EPA 6020B:2014
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Anthracene	0,003	0,001	EPA 8270E:2018
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Fluoranthene	0,022	0,001	EPA 8270E:2018
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,008	0,001	EPA 8270E:2018
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,015	0,001	EPA 8270E:2018
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,01	0,001	EPA 8270E:2018
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,006	0,001	EPA 8270E:2018
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	<	0,005	EPA 8270E:2018
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/IS2/FS/BS	shovel	05.09.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	As	7,92	0,005	EPA 6020B:2014
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Cd	0,4	0,003	EPA 6020B:2014
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Cr	74,9	0,03	EPA 6020B:2014
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Cu	29,8	0,1	EPA 6020B:2014
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Hg	0,05	0,005	EPA 6020B:2014
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Ni	39	0,005	EPA 6020B:2014
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Pb	18,4	0,005	EPA 6020B:2014
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Zn	78,8	0,1	EPA 6020B:2014
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Anthracene	0,002	0,001	EPA 8270E:2018
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Fluoranthene	0,018	0,001	EPA 8270E:2018
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Benzo(a)pyrene	0,008	0,001	EPA 8270E:2018
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,019	0,001	EPA 8270E:2018
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Benzo(g,h,i)perylene	0,008	0,001	EPA 8270E:2018
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Indeno(1,2,3-cd)pyrene	0,006	0,001	EPA 8270E:2018
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Hexachlorobenzene	0,001	0,005	EPA 8270E:2018

Sample ID	Sampling method	Sampling date	Sample type	Component tested	Concentration mesured [mg/kg	LOQ [mg/kg	Standard method applied
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/OT/FS/TS	shovel	18.08.2020	floodplain sediment 5 cm	Quinoxyfen	<	0,005	EPA 8270E:2018
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	As	6,48	0,005	EPA 6020B:2014
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Cd	0,27	0,003	EPA 6020B:2014
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Cr	59,4	0,03	EPA 6020B:2014
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Cu	26,3	0,1	EPA 6020B:2014
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Hg	0,06	0,005	EPA 6020B:2014
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Ni	32,4	0,005	EPA 6020B:2014
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Pb	14,2	0,005	EPA 6020B:2014
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Zn	60	0,1	EPA 6020B:2014
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Anthracene	0,003	0,001	EPA 8270E:2018
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Fluoranthene	0,015	0,001	EPA 8270E:2018
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Benzo(a)pyrene	0,006	0,001	EPA 8270E:2018
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Benzo(b)fluoranthene+ Benzo(k)fluoranthene	0,015	0,001	EPA 8270E:2018
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Benzo(g,h,i)perylene	0,006	0,001	EPA 8270E:2018
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Indeno(1,2,3-cd)pyrene	0,005	0,001	EPA 8270E:2018
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Dicofol	<	0,005	EPA 1656A:2000
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Heptachlor	<	0,005	EPA 8081B:2007
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Heptachlor epoxide	<	0,005	EPA 8081B:2007
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Hexachlorobenzene	0,001	0,005	EPA 8270E:2018
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Hexachloro cyclohexane	<	0,005	EPA 8081B:2007
RO/OT/FS/BS	shovel	18.08.2020	floodplain sediment 40-50 cm	Quinoxyfen	<	0,005	EPA 8270E:2018

LIST OF PRIORITY SUBSTANCES AND DANUBE RIVER BASIN SPECIFIC POLLUTANTS

APPENDIX 2 OF THE SIMONA SEDIMENT QUALITY SAMPLING PROTOCOL

List of priority substances (PS) in the field of water policy (Part A, Annex I; Directive 2013/39/EU)

	Number in PS directive	WISE-SoE code (CAS/EEA) number[1]	Name of priority substance
1	2	CAS_120-12-7	Anthracene
2	5	EEA_32-04-2	Brominated diphenylethers (congener numbers 28, 47, 99, 100, 153 and 154)
3	6	CAS_7440-43-9	Cadmium and its compounds
4	7	CAS_85535-84-8	C10-13-chloroalkanes
5	12	CAS_117-81-7	Di(2-ethylhexyl)phthalate (DEHP)
6	15	CAS_206-44-0	Fluoranthene
7	16	CAS_118-74-1	Hexachlorobenzene
8	17	CAS_87-68-3	Hexachlorobutadiene
9	18	CAS_608-73-1	Hexachlorocyclohexane
10	20	CAS_7439-92-1	Lead and its compounds
11	21	CAS_7439-97-6	Mercury and compounds
12	23	CAS_7440-02-0	Nickel and its compounds
13	26	CAS_608-93-5	Pentachlorobenzene
14	28	EEA_33-56-7	Total PAHs (Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene)
15	30	CAS_36643-28-4	Tributyltin-cation
16	34	CAS_115-32-2	Dicofol
17	35	CAS_1763-23-1	Perfluorooctane sulfonic acid and its derivatives (PFOS)
18	36	CAS_124495-18-7	Quinoxyfen
19	37	EEA_33-58-9	Dioxins and dioxin-like compounds (7 PCDDs + 10 PCDFs + 12 PCB-DLs)
20	43	EEA_33-57-8	Hexabromocyclododecane (HBCDD)
21	44	EEA_33-50-1	Heptachlor and heptachlor epoxide

List of River Basin Specific Pollutants for the Danube River Basin (ICPDR, 2003)

	CAS number[1]	Name of Substance
22	CAS_7440-38-2	Arsenic and its compounds
23	CAS_7440-50-8	Copper and its compounds
24	CAS_7440-66-6	Zinc and its compounds
25	CAS_7440-47-3	Chromium and its compounds

[1] WISE-SoE: European Environment Information and Observation Network reporting systems; CAS: Chemical Abstracts Service; EEA: European Environment Agency registration number (if CAS is not acceptable)

Project co-funded by the European Union (ERDF, IPA and ENI)