Supplementary Material

Redox Behavior of Chromium in the Reduction, Coagulation, and Biotic Filtration (RCbF) Drinking Water Treatment—A Pilot Study

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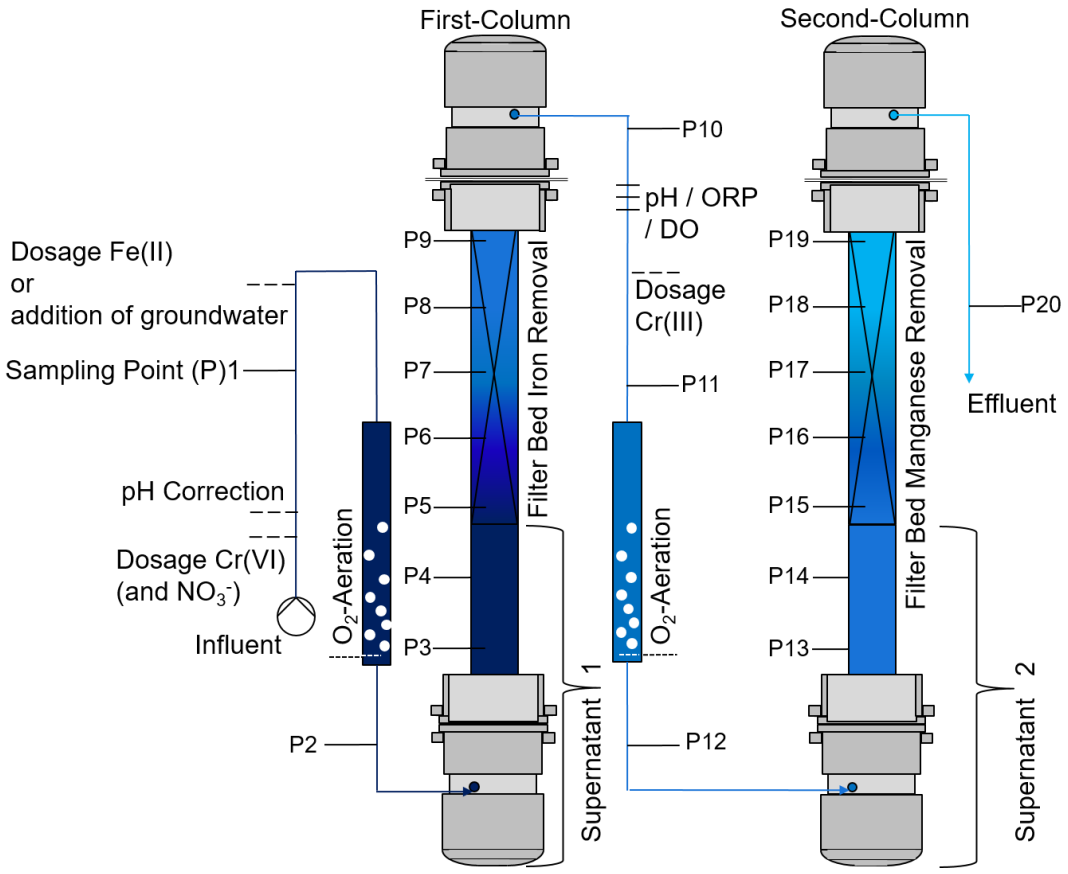

Figure S1. Simplified scheme of the pilot plant at technical scale.

Table S1. Composition of drinking water (groundwater), which was used as test water.

Parameter	Value	Unit
Calcium	185	mg l^{-1}
Magnesium	18.2	mg l^{-1}
Iron	0.012	mg l^{-1}
(Iron in groundwater)	ca. 2.4	mg l^{-1}
Manganese	<0.003	mg l^{-1}
(Manganese in groundwater)	ca. 0.5	mg l^{-1}
Ammonium	<0.01	mg l^{-1}
(Ammonium in groundwater)	ca. 0.5	mg l^{-1}
Chloride	89.5	mg l^{-1}
Sulphate	232	mg l^{-1}
Nitrate	0.62	mg l^{-1}
ortho-Phosphate	<0.02	mg l^{-1}
Chromium	<0.0005	mg l^{-1}
Turbidity	0.17	FNU
Spectral adsorption coefficient (SAK) 436	<0.1	1 m^{-1}
pH at 25 °C	7.3	-
Conductivity at 25 °C	1211	µS cm^{-1}
Carbon dioxide	9	mg l^{-1}
Acid capacity to pH 4.3	5.6	mmol l^{-1}
Base capacity to pH 8.2	0.39	mmol l^{-1}

For experiments with NO_3^- or O_2 dosage variation, Cr(VI) (12 µg l^{-1}) and subsequently Fe(II)

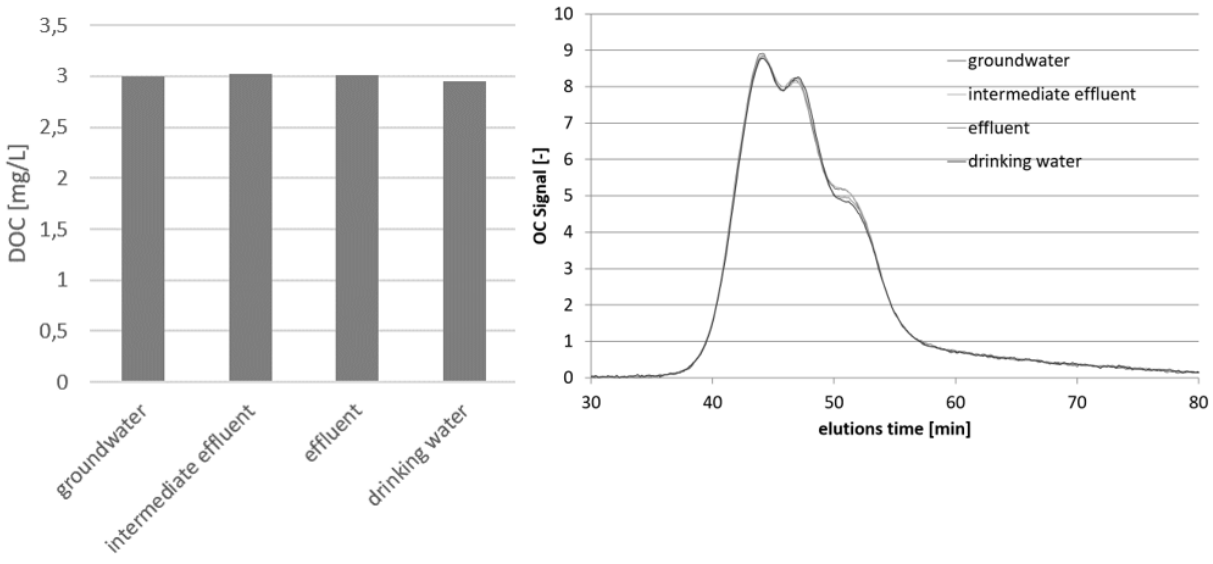

Figure S2. DOC development in pilot plant; left: total DOC; right: fractioned DOC with LC-OCD.