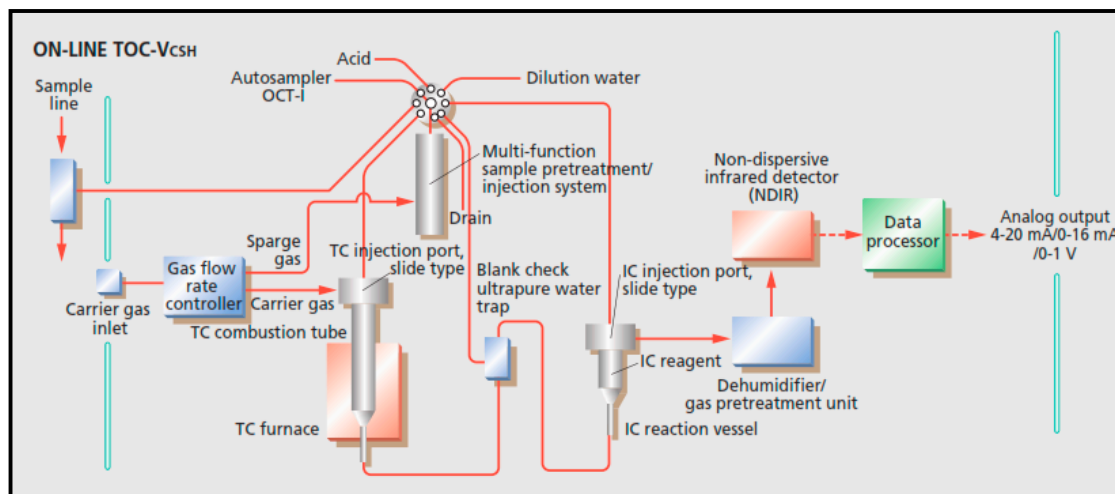


Supplementary material:



**Figure S1.** Flow chart for DOC analysis in TOC –VCSH (after user manual TOC –VCSH/CPN)

**Table S2.** Analytical methods for all parameters

Parameters	Instruments	Instruments model	Method
pH	Ion electrode	(Thermo Orion five-star mete	Potentiometric determination by using standard hydrogen electrode.
EC			Metal electrodes, voltage method
DO			Membrane Electrode method
Ca			EDTA Titrimetric method
Mg	Volumetric methods	Titration using Burette, Flasks	Calculation method
Cl			Argentometric method
HCO <sub>3</sub>			
SO <sub>4</sub>			
PO <sub>4</sub>	Spectrophotometer	HACH (DR 6000)	Turbidity method
NO <sub>3</sub>			Ascorbic acid method
H <sub>4</sub> SiO <sub>4</sub>			UV-spectrophotometric screening method
Na and K			Molybdosilicate method.
DOC	Flame photometer	Elico CL 378	Flame emission photometric method
Mn and Fe			Combustion catalytic oxidation/NDIR method
	Total organic carbon analyser	TOC-VCSH,	
	ICPMS	ELAN DRC II, Perkin Elmer Sciex Instrument	
			Argon based, high temperature radio frequency plasma usually via pneumatic nebulization