

Analyte	Method	Relative uncertainty (%) unless indicated otherwise	References
Acetate	Ion chromatography	20	Lang et al. (2010) Komada et al. (2016)
Alkalinity	Automated Gran titration	5	Hu and Burdige (2008)
Ammonium	Flow injection analysis	8	Hall and Aller (1992) Lustwerk and Burdige (1995)
Ca ²⁺	EGTA titration	3	Kanamori and Ikegami (1980)
DIC via FIA	Flow injection analysis	5	Hall and Aller (1992) Lustwerk and Burdige (1995)
DIC via vacuum line	Stripped under vacuum	2	McNichol et al. (1994) McCorkle et al (1985)
¹³ C-DIC	Isotope ratio mass spectrometry	< 4‰ (absolute uncertainty)	
¹⁴ C-DIC	Accelerator mass spectrometry	Derived for each sample (see data sheet)	
DOC via TOC-V	High-temperature combustion	3	Burdige and Gardner (1998)
DOC via vacuum line	UV oxidation (UV _{ox}) or thermal sulfate reduction (TSR)	5 (UV _{ox}) 8 (TSR)	Beaupre et al. (2007) Johnson and Komada (2011)
¹³ C-DOC	Isotope ratio mass spectrometry	< 4‰ (absolute uncertainty)	
¹⁴ C-DOC	Accelerator mass spectrometry	Derived for each sample (see data sheet)	
DON	High-temperature combustion and chemiluminescent detection	5	Burdige and Zheng (1998) See additional notes below*
Formate	Ion chromatography	22	
Methane	Gas chromatography	3	Magen et al. (2014)
¹³ C-methane	Isotope ratio mass spectrometry	< 3‰ (absolute uncertainty)	
¹⁴ C-methane	Accelerator mass spectrometry	Derived for each sample (see data sheet)	
Mg ²⁺	EDTA titration	4	Gieskes et al. (1991)
POC	Sealed-tube combustion after fumigation	2	Druffel et al. (1992) Komada et al. (2008)
¹³ C-POC	Isotope ratio mass spectrometry	< 4‰ (absolute uncertainty)	
¹⁴ C-POC	Accelerator mass spectrometry	Derived for each sample (see data sheet)	
Porosity	Wet:dry weight ratio	1	
Sulfate	Ion chromatography	6	
Sulfide	Spectrophotometry	10	Cline (1969)
TN	CHN analyzer	<1	

*DON was determined by high temperature combustion and chemiluminescent detection using a

Shimadzu TOC-V total carbon analyzer with the TNM-1 total dissolved nitrogen (TDN) measurement unit. Prior to analysis, each sample was stripped of ammonium (Burdige and Zheng, 1998), the most abundant TDN species in these samples. Ammonium levels in pore water samples after this pre-treatment are generally less than $\sim 1 \mu\text{M}$, which is small in comparison to the DON concentrations reported here.