

Appendix G Water Sample Parameters

Table G.1 lists the standard WOCE parameters, as of the date of this revision, together with the assigned parameter number, units, range, and the number of decimal places the measurement is to be reported to. Standard parameter and unit mnemonics to be used in the —.SEA or —.LVS files are also included. The use of molar and mass units, for example, $\mu\text{mol/kg}$, is standard for all WOCE measurements, and is expected for any data submitted to the WHPO.

As additional measurements are identified it is expected that this table will grow. If you don't find a particular parameter listed here please contact the WHPO for standard mnemonics and units. If no standards exist the WHPO will be happy to work with you to establish them in order that all similar measurements made by different investigators be comparable when WOCE is complete.

For mnemonics, units, and reporting precision for halocarbons, biogenic sulfur compounds, and hydrocarbons please contact the WHPO and specify which parameters you wish to include in your data set. A more up-to-date and complete version of this list can be found in the */Manuals* directory at SAC (see Appendix A for access instructions).

TABLE G.1: Water sample parameters that have been measured to date on WHP cruises and their assigned parameter numbers.

Parameter Number	Column Heading		Units		Reporting Precision	
	Parameter	Mnemonic	Scientific	Mnemonic	Range	FORTRAN Format
1	Salinity	SALNTY	PSS-78	PSS78	0,42	F8.4
2	Oxygen	OXYGEN	$\mu\text{mol/kg}$	UMOL/KG	0,500	F8.1
3	Silicate	SILCAT	$\mu\text{mol/kg}$	UMOL/KG	0,250	F8.2
4	Nitrate	NITRAT	$\mu\text{mol/kg}$	UMOL/KG	-0.1,47	F8.2
5	Nitrite	NITRIT	$\mu\text{mol/kg}$	UMOL/KG	-0.1,15	F8.2
6	Phosphate	PHSPHT	$\mu\text{mol/kg}$	UMOL/KG	0,5	F8.2
7	Freon-11 (trichlorofluoromethane)	CFC-11	pmol/kg	PMOL/KG	-0.1,15	F8.3
8	Freon-12 (dichlorodifluoromethane)	CFC-12	pmol/kg	PMOL/KG	-0.1,15	F8.3
9	Tritium	TRITUM	Tritium units	TU	-1,100	F8.3
10	Helium	HELIUM	nmol/kg	NMOL/KG	1,3	F8.3
11	Helium	DELHE3	%	PERCNT	-10,100	F8.2

Note: If you measure a parameter that does not appear on this list please contact the WHPO for the mnemonic and an assigned number in order to avoid conflicts with other investigators. Those parameters and associated mnemonics designated by the Hydrographic Programme Planning Committee as WOCE measurements are shown in **boldface** type. Other parameters are included solely to standardize and simplify data transfer to the WHPO if the chief scientist so desires. Quality flags are optional with non-WOCE parameters.

TABLE G.1: Water sample parameters that have been measured to date on WHP cruises and their assigned parameter numbers.

Parameter Number	Column Heading		Units		Reporting Precision	
	Parameter	Mnemonic	Scientific	Mnemonic	Range	FORTTRAN Format
12	¹⁴Carbon	DELC14	per mille	/MILLE	-300,250	F8.1
13	¹³Carbon	DELC13	per mille	/MILLE	-5,5	F8.1
14	⁸⁵Krypton	KR-85	dpm/1000 kg	DM/MG	0,5	F8.2
15	Argon	ARGON	μmol/kg	UMOL/KG	5,25	F8.2
16	³⁹Argon	AR-39	% modern	PCTMOD	0,100	F8.1
17	Neon	NEON	nmol/kg	NMOL/KG	0,10	F8.3
18	²²⁸Radium	RA-228	dpm/100 kg	DM/.1MG	-1,10	F8.2
19	²²⁶Radium	RA-226	dpm/100 kg	DM/.1MG	3,80	F8.2
20	¹⁸O/¹⁶O ratio	O18/O16	per mille	/MILLE	-5,5	F8.2
21	⁹⁰Strontium	SR-90	dpm/100 kg	DM/.1MG	0,100	F8.2
22	¹³⁷Cesium	CS-137	dpm/100 kg	DM/.1MG	0,100	F8.2
23	Total carbon C _T (or DIC)	TCARBN	μmol/kg	UMOL/KG	1100,2600	F8.1
24	Total alkalinity A _T	ALKALI	μmol/kg	UMOL/KG	100,2800	F8.1
25	Partial pressure of CO ₂	PCO2	μatm	UATM	50,2000	F8.1
26	pH	PH	none		7.6,8.3	F8.4
27	Freon-113	CFC113	pmol/kg	PMOL/KG	-0.1,1.5	F8.3
28	Carbon tetrachloride (CFC-10)	CCL4	pmol/kg	PMOL/KG	-0.1,15	F8.3
29	Iodate	IODATE	nmol/kg	NMOL/KG	200,600	F8.3
29	Iodide	IODIDE	nmol/kg	NMOL/KG	0,300	F8.3
30	Ammonium	NH4	μmol/kg	UMOL/KG		
31	Methane	CH4	nmol/kg	NMOL/KG	1,20	F8.2
32	Nitrogen (dissolved organic)	DON	μumol/kg	UMOL/KG	200,900	F8.1
33	Nitrous oxide	N2O	nmol/kg	NMOL/KG	1,200	F8.2
34	Chlorophyll <i>a</i>	CHLORA	μg/kg	UG/KG	0,9	F8.2
35	Phaeophytin	PPHYTN	μg/kg	UG/KG	0,9	F8.2
36	<i>Halocarbons (except chlorofluorocarbons)</i> All halocarbons have the same parameter number.					
37	<i>Biogenic sulfur compounds (DMS or DMSP)</i>					
38	<i>Hydrocarbons</i> All hydrocarbons have the same parameter number.					
39	Barium	BARIUM				
40	Particulate organic carbon	POC	μg/kg	UG/KG		
41	Particulate organic nitrogen	PON	μg/kg	UG/KG		
42	Abundance of bacteria	BACT	cells×10 ⁸ /kg	CELL/KG		
43	Dissolved organic carbon	DOC	μmol/kg	UMOL/KG		
44	Carbon monoxide	COMON	μmol/kg	UMOL/KG		

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