

We deeply appreciate the time and effort that Paul Barker have spent in reviewing our manuscript and the comments are really thoughtful and helpful. We revised the manuscript following the comments exactly.

COMMENT: Line 77, Italic *S* in Sp

RESPONSE: The text has been revised to "Sp"

COMMENT: Line 79, Practical Salinity not practical salinity.

RESPONSE: The text has been revised to "Practical Salinity".

COMMENT: Line 114, McDougall not Mcdougall.

RESPONSE: The text has been revised to "McDougall ".

COMMENT: Line 116, GSW reference is: McDougall, T.J. and P.M. Barker, 2011: Getting started with TEOS-10 and the Gibbs Seawater (GSW) Oceanographic Toolbox, 28pp., SCOR/IAPSO WG127, ISBN 978-0-646- 55621-5.

RESPONSE: This reference has been added to the references list.

COMMENT: Lines 175 – 178, space between the numbers and their units.

RESPONSE: The spaces have been added to the above lines.

COMMENT: Line 241, what is PIC ?

RESPONSE: PIC is short for particulate inorganic carbon and has been replaced with "particulate inorganic carbon" in the text.

COMMENT: Line 244, Practical Salinity not practical salinity.

RESPONSE: The text has been revised to "Practical Salinity " .

COMMENT: Line 250, 253, 266, and 274, space between number and units.

RESPONSE: The spaces have been added to the above lines respectively .

COMMENT: Also in the references some initials are lower case.

RESPONSE: The references have been rechecked and revised.