**Silicate Modification for Years 2007 – 2021**

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**Introduction**

In February of 2018 Roy Hourston asked me to apply the silicate data correction, described by Tamara Fraser in her email of January 18, 2018 , to the files in the Ocean Science Division’s Cruise Data Archive (CDA). See document *“Silicate correction Dec 8, 2021.docx”* found in share “OSD\_Data\_Archive\Cruise\_Data\Documents\Silicate Correction Dec 8, 2021” for what was done and methodoly used. Lu Guan requested that a modification be made to the recently corrected files.

Following is Lu’s email

After the Silicate Correction program was run to correct Silicate channels, there have been some discussions on the “Silicate” and “Silicate:Corrected” channels in the OSD archived files – when our data users download the data, they will get the files listed with the word “Silicate” in it, thus will get the uncorrected data preferentially. To avoid the potential usage of uncorrected silicate data, we would like to do a further modification on the recent version:

1) remove the “Silicate” channel,

2) change the “Silicate:Corrected” to “Silicate”,

3) modify the comments to explain that the silicate correction was applied after the original processing.

**Methodology**

Mathew Nicoll was contracted to modify the program “Silicate\_Correction” to make the changes requested by Lu. The new program is called “Silicate\_Modification”.

A new data file, with the characters “ \_MOD” appended to the file extension name, is created only if the channel name “Silicate:Correction” is found in the file.

The program creates a DOS script file “SM\_movren.txt” containing commands for moving the original file to the .History subdirectory created within the cruise directory and renames the corrected ,\*.\*\_MOD, files back to the original file names. Before executing the script file in the DOS command rename file SM\_movren**.txt** to SM\_movren.**bat**. The SM\_movren file initially has the extension .txt so that it cannot be executed accidentally by clicking on it.

The program creates a CSV file called “SM\_filelist.csv” containing the names of the files that contained the channel name “Silicate:Correction” .

All the files used and created, including this report, are stored in folder **OSD\_Data\_Archive\Cruise\_Data\Documents\ Silicate Modification March 19, 2023.**