## REVISION NOTICE TABLE

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| DATE | DESCRIPTION OF REVISION |
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## PROCESSING NOTES

Cruise: 1967-002

Agency: PBS - POG

Location: Douglas Channel / Kitimat Arm

Project: Pollution Monitoring

Chief Scientist: Waldichuk M.

Platform: A.P. Knight

Date: 27 September 1967 – 28 September 1967

Digitized by : Jackie Waldrun – April 2022

Prepared for archive by: Germaine Gatien – May 2022

# INSTRUMENT SUMMARY

Water samples were taken with Fjarlie bottles (Fjarlie, 1953) at the standard depths of 2, 4, 6, 10, 15, 20, 30, 50, 70, 100, 150, 200 and 250 metres or to the maximum depth the bottom would allow. Surface samples were collected with a bucket. Temperatures were obtained, when possible, with paired reversing thermometers at each depth. Surface temperatures were measured in a bucket with a standard 0-30 C surface thermometer. These data were supplemented by continuous temperature records with depth using a bathythermograph. At each station, a Secchi disc reading was taken as a measure of water transparency.

# SUMMARY OF QUALITY AND CONCERNS

There were some position errors in the digitized data due to poor print quality, but examination of sites from a later cruise in the same area and a map in the document it is clear what the positions should have been.

Dissolved oxygen data are included in 4 channels. The original data were in mg/L; they were converted to mL/L and umol/L. Also included are surface saturation data from the original document.

Alkalinity data did not include units but based on the detailed description of the analysis and the values the data are in millieq/L, which is the same as millimol/L. The units are listed in the files as mmol/L.

Event numbers were assigned in the order they appear in the report, and are not necessarily in order of time occupied.

# PROCESSING SUMMARY

##### Digitization

The data in this file originate from document:

Reference: Waldichuk, M. , J. R. Markert and J. H. Meikle 1968. Physical and Chemical Oceanographic Data from the West Coast of Vancouver Island and the Northern British Columbia Coast, 1957-1967. Volume II, Fisher Channel - Cousins Inlet, Douglas Channel - Kitimat Arm and Prince Rupert Harbour and its Contiguous Waters. https://waves-vagues.dfo-mpo.gc.ca/Library/52055v2.pdf.

The data were digitized by J. Waldrun and saved in individual spreadsheets for each cruise.

Depths were in metres. All times were in PST.

Dissolved Oxygen units were given in mg/L. To get the data in mL/L it was multiplied by 0.7 as stated in the document and confirmed in ICES Data Tools (<https://www.ices.dk/data/tools/Pages/Unit-conversions.aspx>).

Header comments were prepared based on comments in the original document. Further information can be found in the document.

Dr. Lisa Miller was consulted on the units for the alkalinity data and based on the method description and the values said the units were millieq/L, which is the same as millimol/L. Thus, correcting them to the units that are generally used now (micromol/kg), would involve the density and a factor of 1000.

Dr. Miller found the values given were in line with expectations for seawater.

The units were entered as mmol/L.

##### Preparation for Archive

A 6-line header was added to the spreadsheet.

Adjustments had to be made to formats of time

The year had to be changed to a 4-digit version.

Latitude and longitude needed to be changed to decimal format.

Longitude was changed to negative values.

Then a series of steps were taken:

* The 6-line header file was converted to IOS Header format. Most header information was transferred to the headers of the converted files in this process, except that start time cannot be added that way. Time and Date channels were included in the converted files.
* CLEAN was run to create Start Time from date and time channels. It was also used to remove pH and Alkalinity channels from casts for which there was no such sampling.
* Add Time Channel was run to add 8 hours to the start time.
* Change Units was run to obtain DO in mass units.
* REORDER was run to get the DO channels together and remove Date and Time channels.
* Header Edit was run to add header comments and remove end time.

##### Quality Checks

The longitude and water depth were not entered in the report for station K-4. Two other occupations of this site on other surveys were 128° 47.4’ and 128° 49.3’ so an entry was made of 128° 48’ and a note will be put in the header that the position is an estimate. The Bathythermograph # was missing but is assumed to be #4 since this was from K-4 and that BT # is missing from the list.

T-S plots had a few features but the largest was very close to the surface. None were due to digitization problems.

Profile plots looked ok.

A header check were prepared and no problems were found.

The cross-reference list was produced and is shown below.

Note: Longitude for file 1967-002-0004.bot is estimated based on occupations of that site during other surveys.



