

Data Management Plan

I. Types of data and documentation

Materials produced from this research will include vanadium isotopes, vanadium concentrations, additional trace metal data, Fe speciation and organic carbon contents. Measurements of vanadium isotope compositions and concentrations will be obtained for every sample. Vanadium abundances and isotope compositions as well as selected trace element concentrations, organic carbon and Fe speciation will also be measured in sediments.

The chemical data sets generated by this project will be relatively small. Data collection and analysis processes as well as contextual details of laboratory methods will be documented in the individuals' laboratory notebooks and in their publications. Raw data will be stored in the form of Microsoft Excel spreadsheets.

II. Policies for access and sharing and provisions for appropriate protection/privacy

The experimental data obtained in this research will be made available to the scientific community and general public through publication in peer-reviewed journals

There will be no embargo periods for political/commercial/patent reasons. Chemical data will be made available following collection and analysis. Data dissemination will be noted in the publications within the Materials and Methods section to inform the scientific community of the data availability and accessibility. All chemical and physical data will be made available through the Biological and Chemical Oceanography Data Management Office (BCO-DMO). These data pipelines are free of charge and open to the public. We will retain the right to hold data prior to publication only if a conflict of interest seems warranted.

The dissemination of the chemical and physical data to be collected for this proposed research will not be restricted by any ethical or privacy issues, copyright concerns or restrictive licenses. As discussed above, all the data collected will be made readily available to the scientific community through various datacenters, published manuscripts in peer-reviewed journals, and by request to the affiliated researchers.

III. Policies and provisions for re-use, re-distribution

There will be no permission restrictions placed on the data. The data that will be collected through the proposed research will be of interest to a broad spectrum of scientists, including chemical and biological oceanographers, paleoceanographers and (bio)geochemists.