Validation of a New Geochemical Approach to Constrain Deep Sea Porewater Residence Times and Advection Rates: Applications to Biogeochemical Cycling at Guaymas Basin

Data Management Plan

I. TYPES of DATA

Throughout the course of this project, we will collect geochemical data from porewater and sediment samples. We will collect porewater profiles of ^{224}Ra, heat, and Mg from a variety of different sediment cores.

II. DATA and METADATA STANDARDS

Data and metadata for all geochemical analyses will be submitted to the Biological & Chemical Oceanography Data Management Office (BCO-DMO; www.bco-dmo.org) according to formatting requirements dictated by BCO-DMO. Data will be uploaded via Electronic Data Description Format, including relevant metadata components and all analyzed data fields. Metadata will include specifics on data collection (collector, position, platform, site characteristics) and laboratory analysis techniques (type of instrumentation, date and specification of last calibration, standards and blanks used, etc). QA/QC data from method blanks and field duplicates will also be archived. All data formatting will be in compliance with BCO-DMO recommendations based on widespread usage from the scientific community.

III. POLICIES for ACCESSING and SHARING, and PROVISIONS for APPRORIATE PROTECTION

Data will be freely downloadable from these sources within two years of collection. This embargo period will allow the PIs to explore the data set for original publication rights before opening it up for wider use. Additionally, there are no ethical or privacy issues facing this data set and its open access from the general scientific public. For any form of data dissemination, the user will be asked to acknowledge NSF and CCU for making this data possible, with the disclaimer that neither NSF nor CCU endorses or guarantees the accuracy of the data analysis.

IV. POLICIES and PROVISION for RE-USE, RE-DISTRIBUTION

Once our data are uploaded to BCO-DMO, there will be no permission restrictions on who can use the data or for what purposes. Downloadable data and metadata will be freely accessible to anyone.

V. PLANS for ARCHIVING and PRESERVATION of ACCESS

All analytical procedures involved in making the geochemical measurements will be destructive in nature, preventing reasonable archiving of water samples. Moreover, radium isotopic measurement procedures require processing maximum sample volume for accurate analytical resolution, so each collected water sample will be vital to the successful mission of the project. Therefore, we do not expect water sample archives resulting from this work. Sediment cores will also be destructively analyzed in the laboratory, so we do not anticipate any sediment archives to be available from this work.