DATA MANAGEMENT PLAN

Each PI will be responsible for data and data products gathering, documentation, coordination, and sharing, and any issues will be resolved through direct communications with the appropriate personnel and by providing open access. To facilitate access and distribution of the products, all scientific results, figures, and supporting data will be cataloged in the following two ways. First, all final data will be archived at the TAMUCC, SFSU and ODU Digital Repositories following data policies described below that conform to the Repository's standards. The Repository at TAMU-CC allows researchers to store up to 5 gigabytes of data for three years at no charge, provides stable storage with tape backup, and makes data and other research materials available via free online access. The field data will be valuable both as a management and educational outreach/visualization tool. The project results will be easily adapted into visualization tools for scientific and community presentations and students in a number of classes such as organic geochemistry, isotope geochemistry, and environmental chemistry. The Repository at ODU consists of a 15 Tb data server managed by the ODU Office of Information Technology Services for security and routine backup (nightly to tape and weekly to a secure offsite location). Data are available to authorized users via direct on-line access (on campus) and via VPN client protocols (off campus). Maintenance costs for this service are included as part of the indirect costs at ODU. At SFSU, data will be backed up in a secure cloud storage service (Box). Box features a 500GB quota for each user, 5GB individual file size uploads, file versioning (100 revisions of each document are stored), and enterprise-grade security and data privacy. Individual accounts remain active as long as the user remains affiliated with SFSU. Stored data can be shared with non-SFSU individuals.

Second, once all of the data are checked for QA/QC, lead PI Abdulla will organize the overall project dataset, and work with the staff from the Biological and Chemical Oceanography Data Management Office (BCO-DMO) to upload the data, and the data set will then be made available online from their data system (http://bco-dmo.org/data/). All data will be publicly accessible after being released to NSF. Data and metadata will also be published in peer-review journals in text, graphical and tabulated forms, as appropriate.

Final field and laboratory data will be published as comma-separated (.csv) or text (.txt) files. Plots of model results will be published as images (.tiff) or in the portable document format (.pdf). Metadata for all of these types of files will follow the National Science Foundation (NSF) Repository's requirements. All data, including mass spectra and NMR spectra, will be georeferenced in the geodatabase format. All data generated will remain the copyright of the generating researchers and/or TAMUCC, SFSU and ODU, except as transferred to publishers for individual articles.