Task Order	MMS Issue Addressed	Monitoring Hypotheses	Methods	Key Monitoring Result or Parameter for Decision Making
002 – "Hydrocarbon and Metal Characterization of Sediments in the cANIMIDA Study Area"	Will offshore oil development and production at Northstar and potential development at Liberty result in increased or chronic pollution from industrial sources of petroleum or metals?	H1. The concentrations of organic (H1a) and metal (H1b) chemicals of concern in sediments do not show any increase as a result of the development of the Northstar and/or Liberty units. H2. Concentrations of organic (H2a) and metal (H2b) chemicals of concern adjacent to the Northstar and/or Liberty developments do not pose an ecological risk to marine organisms as determined by sediment quality benchmarks. H3. The concentrations of organic (H3a) and metal (H3b) chemicals of concern in sediments do not show any trend within the sediment cores as a result of past and present oil exploration, development, and production activities.	Summer sampling of surficial sediments and sediment cores with analysis for metals, grain size, TOC, PAHs, saturated hydrocarbons, and steranes and triterpanes (Table 1 through 4). Corresponding radionuclide dating of both surficial sediments and sediment cores.	Annual interpretative report with tabulated data on sediment levels of chemical analyses will be provided, with statistical tests of potential interannual significant differences. Contractor will alert MMS COTR of any important trends or changes.