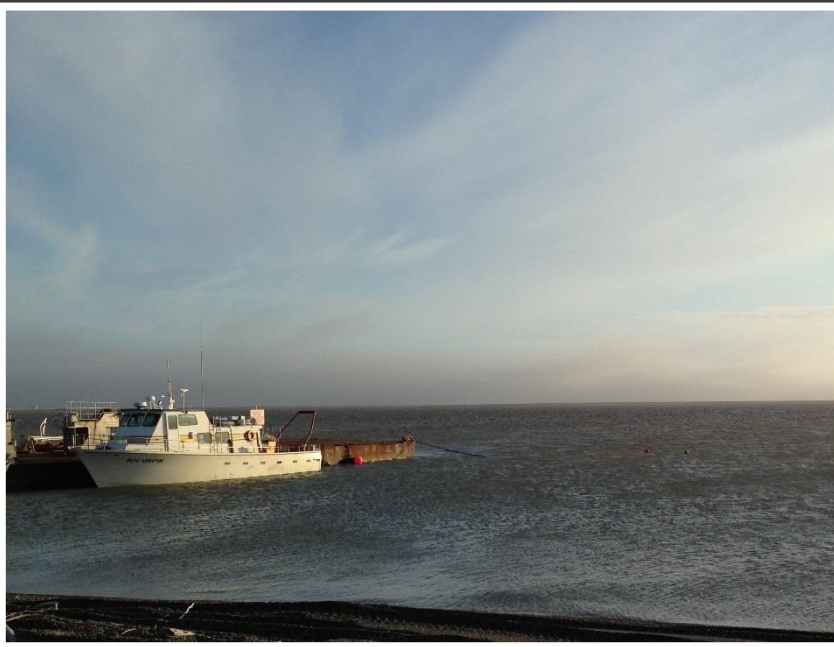




# 2014 OIL/GAS WASTEWATER STUDY - SIMPSON LAGOON AND GWYDYR BAY

Photos courtesy of the Alaska Department of Environmental Conservation

In 2014, DEC and University of Alaska Fairbanks Institute of Marine Science (IMS) under the Alaska Monitoring and Assessment Program (AKMAP) conducted a Beaufort Sea Oil/Gas Wastewater Study in Simpson Lagoon and Gwydyr Bay.



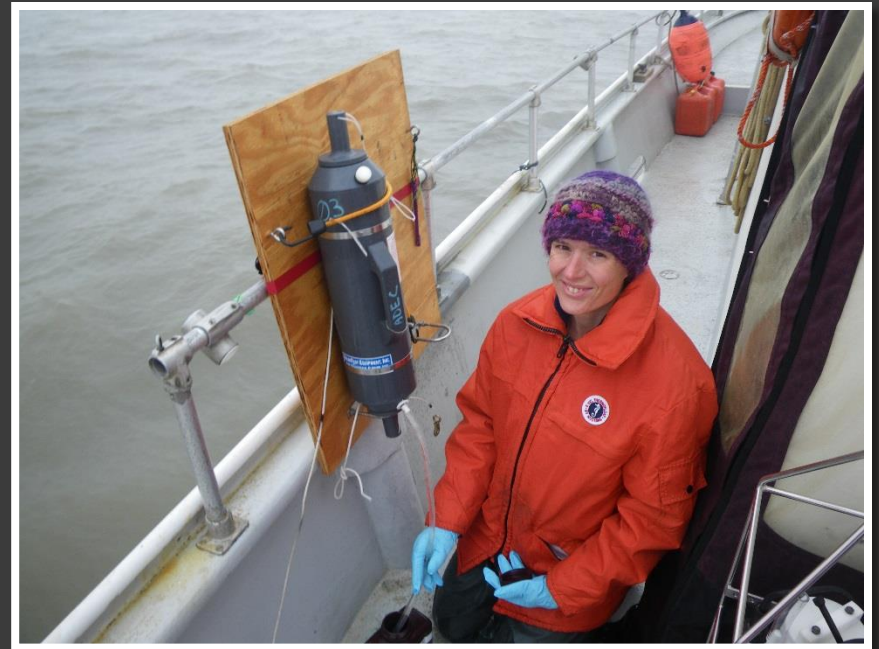
The goal of the survey is to address information gaps relevant to Ocean Discharge Criteria Evaluation of State lease sale areas relating to oil and gas development, objectives are to:

- Determine baseline concentrations of hydrocarbons and trace metals in amphipods and mysids; and
- Conduct a limited assessment of water quality and sediment condition based on the EPA National Coastal Condition Assessment methodology.

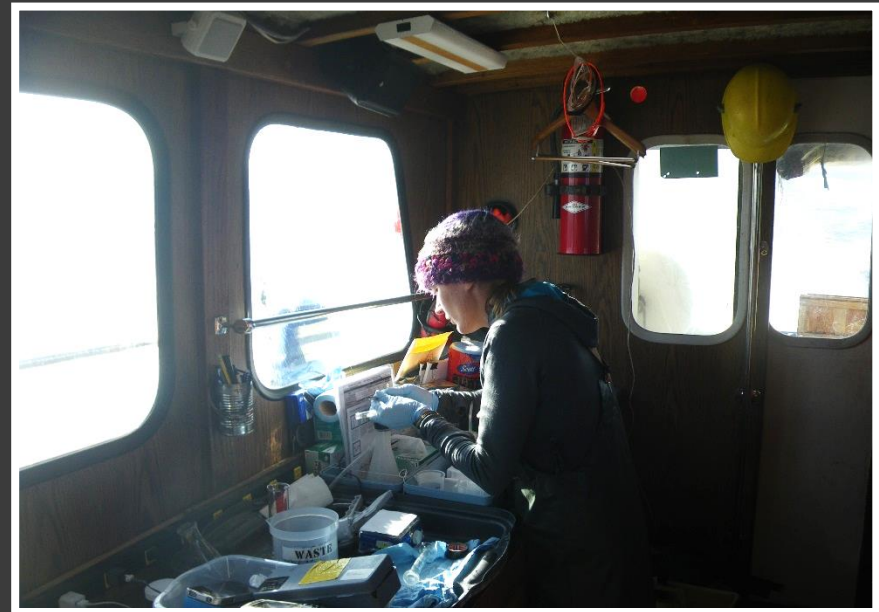


Water Samples obtained include:

- Total Nutrients
- Dissolved Nutrients
- Chlorophyll a
- Microbial

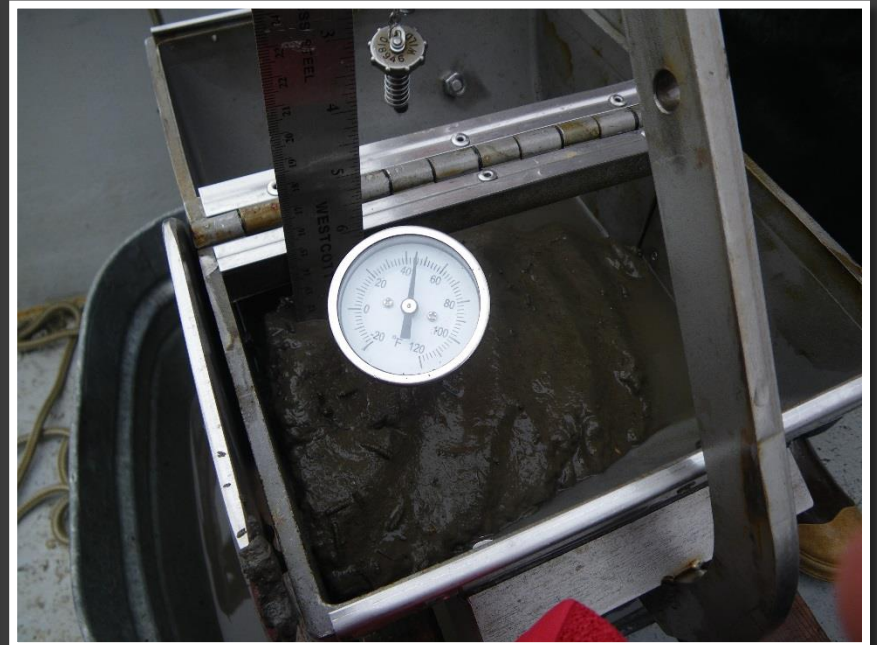


An onboard lab workspace was assembled to prepare and filter samples. Dissolved oxygen and pH were measured on site. A CTD was deployed to record water column data.

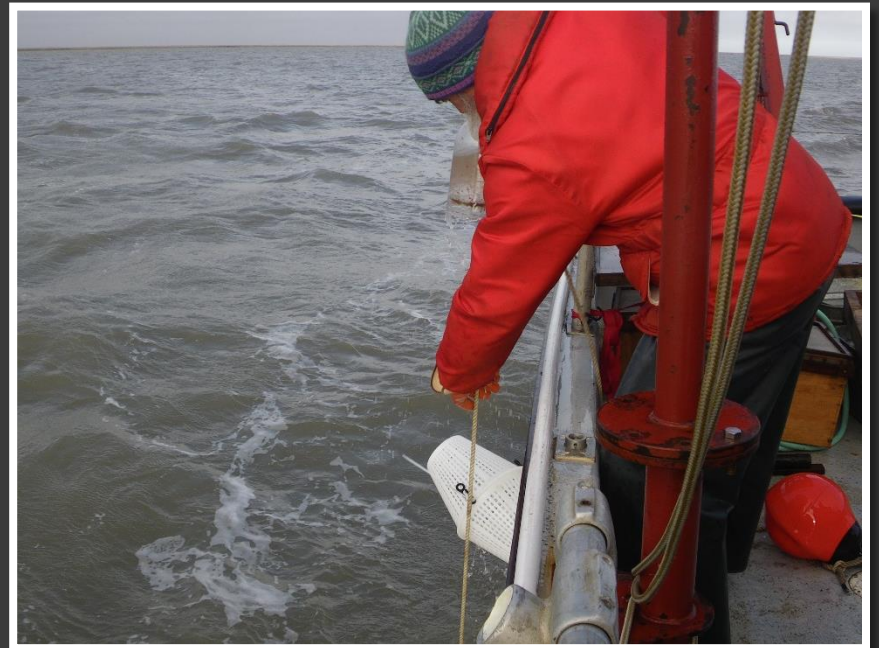
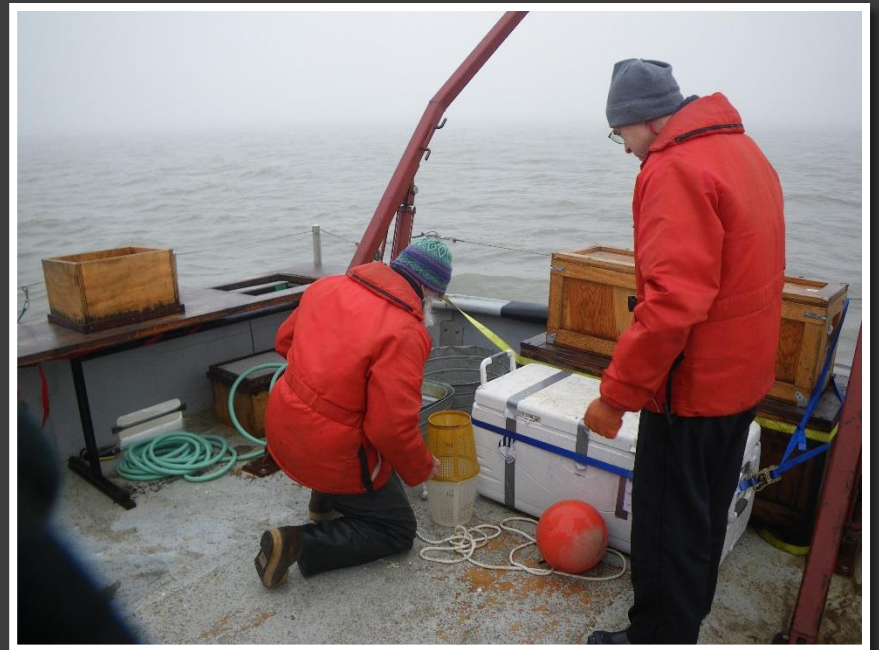


Sediment samples will be analyzed for:

- Organic / Inorganic
- Total Organic Carbon
- Carbonate
- Grain Size
- Macro-invertebrates
- Carbon and Nitrogen Isotopes
- Microbial



Several versions of mysid and amphipod traps were deployed at 12 sites and recovered the following day. Populations proved to be scarce, as the traps were unsuccessful in collecting any specimens.





The field team, from left to right: Amber Bethe (DEC), Max Hoberg (UAF), Dr. Doug Dasher (UAF), and Brian Stillie (DEC). Dr. Dasher served as the Principal Investigator for the survey.



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