Petroleum Hydrocarbons and Related Chemicals QA/QC Workshop

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Mobile Alabama
WHY?

• **Best Scientific Practice**: Assess, improve and confirm quality of data.
• Provide framework for integrating sets of data from different laboratories to provide:
  - status and trends of data and fates of various chemical constituents of petroleum and dispersants
  - degradation, metabolic and photochemical transformation products.
WHY? (continued)

• Composition and Concentrations calibration for biological effects research.

• Benchmark for future inputs to the Gulf of Mexico.

• Legal system use of data will be expecting appropriate QA/QC.
HISTORY

- Early 1970s International Decade of Ocean Exploration – Interlaboratory comparison for measuring concentrations of N-alkanes, pristane in Cod Liver Oil, No.2 Fuel Oil and Crude Oil spiked into cod liver oil. Also tuna meal sample.
- USEPA Mussel Watch- Interlaboratory comparison of quantitative measurement of PAH in mussel tissue. By high resolution capillary GC-MS-Computer Systems.
- NBS (Now NIST) begins preparations of SRMS for polycyclic aromatic hydrocarbons in sediments and shellfish tissue.

History (Continued)

- Intergovernmental Oceanographic Commission of UNESCO has an Interlaboratory Intercomparison exercise for measurement of hydrocarbons in tissue samples.

- NOAA begins QA/QC for PAHs in mussel and oyster tissue and in sediments, including interlaboratory comparisons.

- QA/QC is an essential component of Natural Resource Damage Assessment.