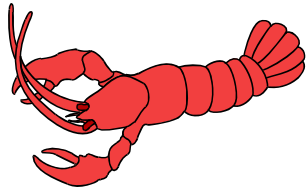


**King County Mercury Analysis
Capabilities: Featuring The
Mercury Meal**

Erica Prentice

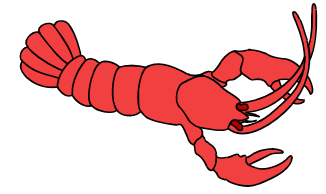
King County Environmental
Laboratory

Trace Metals Section



Today's Menu

Downeast Lobsterbake



Maine Course:

Whole Lobster and Potatoes (High Range - CVAA)

Accompanied by:

Corn on the cob (Mid Range - CVAA)

Cole slaw (Low Range - CVAA)

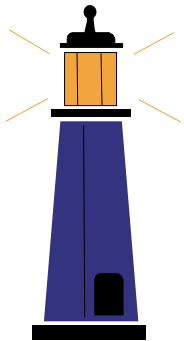
Steamed Clams and Mussels (Tissue Ranges - CVAA)

Dessert:

Blueberry pie (Ultra Low Range - CVAF)

Maine Course: Whole Lobster and Potatoes

High Range - The Meat and Potatoes of the Laboratory Mercury Meal

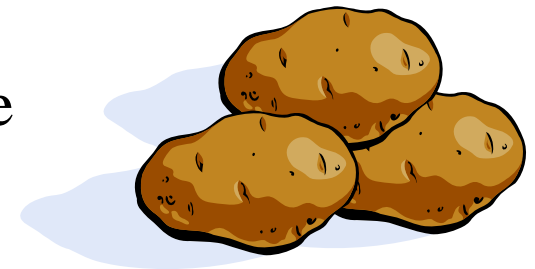


Detection Limit: 0.2 ppb ($\mu\text{g/L}$)

Sample Matrices Analyzed: Water, Wastewater, Soils, Sediments and Sludges

Containers:

500mL HDPE bottle Polyethylene specimen cup or glass

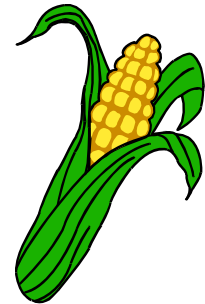
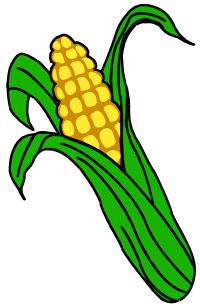


Corn on the Cob - Mid Range

Detection Limit: 0.05 ppb ($\mu\text{g/L}$)

Sample Matrices Analyzed: Water and Wastewater

Containers: 500mL Acid Washed HDPE Bottle



Steamed Clams and Mussels

The Tissue Ranges.....

High Range Tissue

Detection Limit: 4 $\mu\text{g/Kg}$
(ppb)

Sample Matrices Analyzed:
Various Tissues

Containers: Polyethylene or
glass



Low Range Tissue

Detection Limit: 0.4 $\mu\text{g/Kg}$
(ppb)

Sample Matrices Analyzed:
Various Tissues

Containers: Polyethylene or
glass



Cole Slaw - Low Range

Detection Limit: 0.005 ppb ($\mu\text{g/L}$)

Sample Matrices Analyzed: Freshwater

Containers: 500mL Acid Washed Fluoropolymer Bottle



Dessert - Blueberry Pie

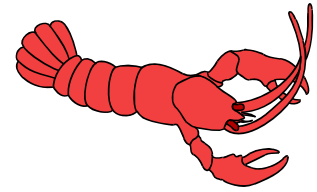
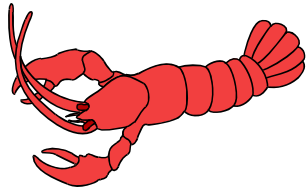
Ultra Low Analysis by CVAF

Detection Limit: 0.0002 ppb ($\mu\text{g/L}$)

Sample Matrices Analyzed: Freshwater

Containers: 500mL Hot Acid Washed Fluoropolymer Bottle

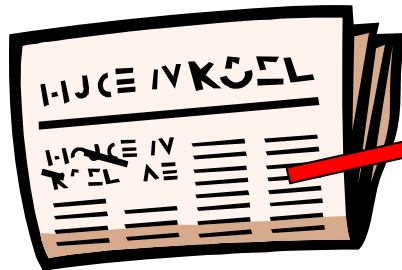
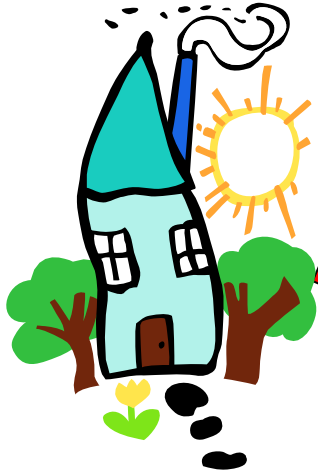




How Low is Low?

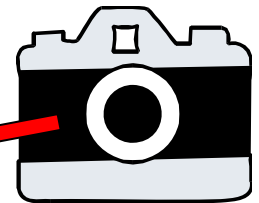
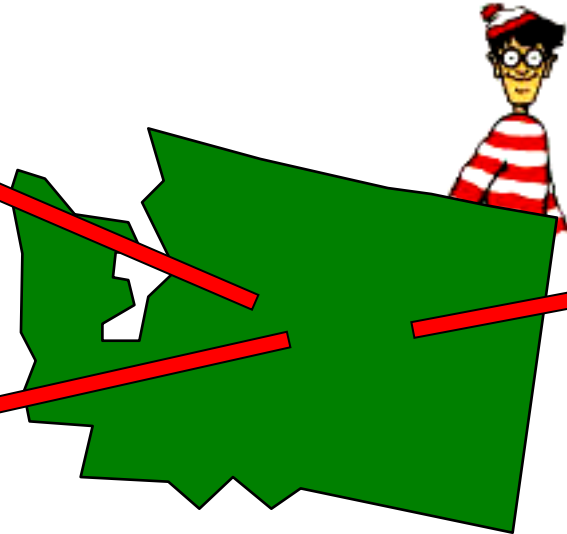
High Range: 1ppb = 2,000 square feet

- The size of a Seattle Craftsman Bungalow



Low Range: 0.001ppb = 2 square feet

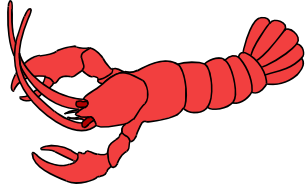
- The size of an unfolded newspaper



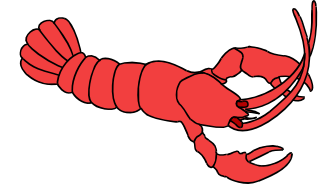
Ultra Low Range:

0.0001ppb = 29 square inches

- The size of a snapshot



Summary

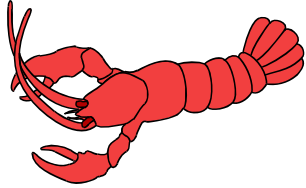


Now you know the mercury meal
available from the fine establishment:

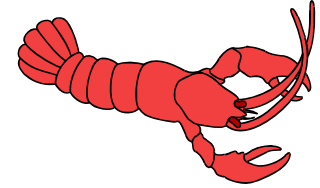
Chez Environmental Laboratory

Remember:

**The lower you go the more you
have to consider before sample
collection may proceed**



Thanks



I want to thank the **Trace Metals Group** especially **Kevin Cummings** and **Susannah Hochstein** who participated in much of the method development for the establishment of the mercury ranges