

Dietary Acclimation Experiment

Brine Shrimp Kinetics Study

PREPARED FOR: State of Utah, Division of Water Quality

PREPARED BY: Dr. Martin Grosell, University of Miami

COPIES: CH2M HILL

DATE: October 19, 2007

1. Culture *Dunaliella viridis* in the presence of 1 µg Se/L (non-radioactive selenium) for 20 days. (This culture was prepared at the same time as the 1 µg/L Se-75 algae culture used in the dietary uptake experiment. Se spikes and dilutions made in the radioactive culture in order to maintain exposure concentrations were mirrored with unlabelled Se stock in the non-radioactive culture.)
2. Remove ~70 adult, age-matched artemia from main culture tank and rinse in fresh media in a 200-ml beaker.
3. Add 1 L of 100-g/L GSL media to each of two 1-L tripour beakers.
4. Carefully transfer 30 artemia to each beaker with a plastic transfer pipette, minimizing the amount of liquid transferred with each artemia.
5. Gently aerate each beaker with capillary tubing to ensure even mixing and full air saturation.
6. Feed each beaker equal amounts (normalized by absorbance at 750 nm to account for differences in culture density) of either non-radioactive Se-loaded *D. viridis* or normal *D. viridis* (not cultured in the presence of Se) daily for 2 weeks.

7. Remove 25 artemia from each beaker and transfer to beakers containing 4 L of 100-g/L GSL media.
8. **Follow Standard Procedures for Determination of Dietary Selenium Intake, steps 5-17.**