

CHEM 1311 General Chemistry I

Instructor: Dr. Shawn Amorde

Summer 2009

Bonus 4

1. In 1989, a tanker ship the Exxon Valdez, spilled over 10 million gallons of crude oil in the ocean of the coast of Alaska. The clean up efforts were extensive, and several methods were tried but failed, to remove the oil.

At least three different techniques were tried in the clean up effort. Please describe all three and the principles behind how they should have worked.

2. Give a scheme of a cell membrane and describe how it works using the intermolecular forces described in the text and in class.
3. Look up the composition of either hot or cold packs. Write the chemical equation for either one and describe how it works.