



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> <b>Laura B. Mitchell</b>	<b>Project Number</b> <b>J0823</b>
<b>Project Title</b> <b>Oil Spill Cleanup: Beyond the Major Methods</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of this project is to explore methods of cleaning oil spills other than the major methods used (burning, biotechnology, and the use of biological agents). After learning about these methods, I also want to determine which one is the most effective. <b>Methods/Materials</b> I modeled all the methods and the oil spill itself on a small scale by using common household objects. An #ocean# was created by mixing two cups of water with regular sea salt, and then placing the mixture in a glass Pyrex container. I then poured some motor oil into the container, and placed plastic tubing # representing a boom # around the spill. I modeled four methods in the following ways: SPONGE: place a normal household sponge into area of spill SAND: pour half of bag of sand into area of spill DETERGENT: pour small amount of liquid laundry soap into spill area SKIMMING: use fat skimmer to filter oil out of water <b>Results</b> All of the techniques tested were somewhat effective. Respectively, they removed about this much of the oil: sponge # 35-40%, sand # 99%, detergent # 60%, skimming # 99%. <b>Conclusions/Discussion</b> I concluded that simple cleanup methods work reasonably well, and the most effective are the use of sand and skimming. These procedures could be used in a situation where a more complicated cleanup was not possible, and would be successful.	
<b>Summary Statement</b> I am testing how well small, alternative techniques clean up oil spills.	
<b>Help Received</b> Father helped with board layout	