

ACKNOWLEDGEMENTS

I would like to thank my advisor Dr. Charles Hagedorn for trusting me to work on such a demanding and important project. He pushed me to be more patient and detailed with my work. Although we approach things at different speeds, I have learned a great deal and am now trying to match my pace to fit the rest of the world.

I would also like to thank Dr. Katharine Knowlton, my former employer and committee member, for allowing me to embark on my graduate adventure. Even though things did not work out the way either of us had anticipated, I appreciate you sharing me with the CSES department. From you I have learned invaluable lessons in organization, and the importance of establishing a process to work through tasks.

I thank Dr. Jim Kern and the staff at MapTech, Inc. for allowing me to participate in the Appomattox Project, and for providing a place to conduct my research. I would especially like to thank the MapTech employees who collected each and every source sample. I would also like to thank the DEQ personnel who collected and shipped the water samples, making my job that much easier.

I would like to thank family and friends who, over the past two years, have dealt with my hectic schedule and my unavailability for many special events. Thank you Diane Miller, lab-mate and friend, for helping me through such a hectic year and for accommodating such an erratic schedule.

Above all, I would like to thank my husband Daniel McKinney for never ending patience and support through two and a half years of graduate studies. Every word I have written in this thesis or spoken during a seminar, he has read and listened to. Without his cool head and willingness to listen to my crazy talk, I know that I could not have completed this degree