ACKNOWLEDGEMENTS

I WISH TO place on record my deep sense of gratitude and indebtedness to Dr. A. BALASUBRAMANIAN, Department of Geology, V.O. Chidambaram College, Tuticorin-8 for the unparallel guidance and supervision without which this work would have never come to any conclusion.

I am grateful to the Department of Science and Technology, New Delhi, for the Junior Research Fellowship and Council of Scientific and Industrial Research, New Delhi, India for the Senior Research Fellowship.

I am also grateful to Sri A.P.C.V. Chockalingam, Hon. Secretary and Prof. C. Packiam and Prof. S. Duraisamy, former and present Principals of V.O. Chidambaram College, Tuticorin for their kind permission to utilize the available facilities of the College to do this work.

I wish to thank Dr. K. Kadirvelu and (Late) Prof. R. Muthukrishnan, past Heads of the Department and Dr. N. Ramanujam, the present Head of the Department of Geology, V.O. Chidambaram College, Tuticorin for their encouragements during the course of this study.

Thanks are due to the Chief Engineer, Groundwater Division (P.W.D.), Government of Tamil Nadu, for his kind permission to utilize the available long term data; Mr. Selvaraj, Assistant Director and his colleagues of the Groundwater Sub Division, Tuticorin for their encouragement during this work.

Thanks are also due to Mr. R. Thirugnana Sambandam, Mr. R. Chellasamy and Mr. V. Radhakrishnan, the Co-investigators of the DST Project in Geology, for their useful advice from time to time. The help extended by all other staff members of the Department is duly acknowledged.
I wish to thank Mr. R. Kasirajan, Lecturer in Economics, Mr. C. Lakshmanan, Lecturer in Botany, V.O. Chidambaram College, Tuticorin for their personal encouragement during this work.

I thank Prof. E. Arumugam, Retd. Professor of English, V.O. Chidambaram College, Tuticorin for his kind help in correcting the manuscript and Miss B. Seethalakshmi for her draft typing.

I wish to thank Mr. N. Mariappan, Mr. S. Sakthi Murugan and Mr. K. Elangovan, Research Scholars and Mr. S. Kadarkarai, former field assistant, Department of Geology, V.O. Chidambaram College, Tuticorin for their help during field work; to Mr. J. Moses Edwin, Research Scholar in Earth Science, Bharathidasan University, Tiruchy and Mr. K. Sankar, Research Fellow of Madras University and all other research scholars of the Department of Geology, V.O. Chidambaram College and friends and relatives for their constant help during this work.

I wish to thank Mr. P. Iyadurai and Mr. P. Wilson, Lecturers, Computer Science and Applications Department of this College for their kind assistance during data processing.

M/s Muki Systems, Tuticorin and M/s Prints and Proofs, Madras are acknowledged for their neat execution of the typesetting and laser printing of the thesis.

I thank Mr. K.V. Madavudu of the Geology Department, University of Madras for drafting the figures.

Last, but not the least, I am deeply indebted to my father Sri P. Subramanian and my mother Smt. S. Kaliammal, and to my brothers and sisters whose assistance and support throughout my career has been a source of inspiration. I am particularly grateful for their love and patience during the course of my work.

S. SUBRAMANIAN