ACKNOWLEDGEMENT

At the very outset, I would like to express my sincere gratitude to Dr. Amulya Chandra Mazumdar, M.Sc. Ph.D. (IIT- Kharagpur), Professor, Department of Geological Sciences, Gauhati University, for his valuable guidance, encouragement and constructive suggestion throughout the research work. I am grateful to Dr. Parag Phukon, Professor and Head, and Dr. Bhagawat Pran Duarah (former Head), Department of Geological Sciences, Gauhati University, for providing me necessary laboratory facilities to carry out my research work.

I am also grateful to Dr. Biswajit Mishra, Professor, as well as Dr. Abhijit Bhattacharya, Professor, IIT- kharagpur, for providing me the analytical facility (EPMA) at the Department of Geology and Geophysics, IIT-Kharagpur. I acknowledge, Dr. Pranjit Hazarika, Assistant Professor, Department of Geological Sciences, Gauhati University for extended help during analysis (EPMA) at IIT-Kharagpur as well as for his constructive suggestions during preparation of my thesis. I am thankful to Mr. Manoj Kr. Ojah, research scholar, Department of Geology and Geophysics, IIT- Kharagpur, for his help to carry out the analysis (EPMA).

I am also thankful to Dr. Sarat Phukan, Associate professor and Dr. Balen Bhagabaty, Assistant Professor, Department of Geological Sciences for their suggestions and help at various stages of present research work. I gratefully acknowledge all the faculty members, Department of Geological Sciences, Gauhati University for their valuable suggestions and encouragement at various stages of my research work as well as all non teaching staff for their help and cooperation.

I sincerely acknowledge to Dr. A.K. Singh, Scientist, Wadia Institute of Himalayan Geology (WIHG), Dehradun, for his immense help to carry out the XRF-analysis of my samples.

I gratefully acknowledge Mr. Pritom Borah, research scholar, Department of Geological Sciences, Gauhati University, for his valuable suggestion, untiring help and cooperation throughout the research work. I am thankful to Mr. Diganta Kumar and all research scholars, Department of Geological Sciences, Gauhati University, for their cooperation and help during my research work. Thanks also due to Mr. Binay Kr. Nath, for extending help during the field work. I am grateful to Principal and all
faculty members, department of Geology, Pragjyotish College, Guwahati, for cooperating me during the period of my research work. I must thank UGC-NERO, Guwahati, for awarding me ‘teacher-fellowship’ under ‘faculty development programme’ to carry out the present research work. I express indebtedness to my parents Mr. Subhas Rabha and Mrs. Jamuna Rabha for their moral support towards me throughout the research work. I am thankful to my wife Mrs. Dipsikha Gogoi and mother-in-law Mrs. Renu Gogoi for their continuous inspiration and moral support towards me. I must thank to Mrs. Jaya Mazumdar and Ms. Nitisha Mazumdar for their kindness, hospitality and encouragement. At last not the least my beloved kids Gourika and Harshit for bearing with me and section cutter Mr. Parameswar Das deserve the special thanks.

Dated: 28-03-2019

Place: Guwahati

(Mridul Rabha)