

Acknowledgement

Success depends upon individual's initiatives and capacity to work but nothing can be achieved without the guidance, support, love and care of those in whom you place your trust.

I humbly express my profound sense of gratitude to my revered guide Professor. P.K. Kathal, Former Head, Department of Applied Geology and an erudite scholar for suggesting the problem, providing the samples for the first phase of the study and constant guidance till finalization of the work under his able guidance, scholarly suggestions and support to bring out the best, this task has been accomplished.

It is my pleasure and sense of gratitude to offer my sincere thanks towards my Co-supervisor, Dr. S. H. Adil, Senior Lecturer, Department of Applied Geology, for his precious suggestions and guidance, especially on the aspects related to the X-ray Diffraction studies carried out in the study and also for his concern for completion of the work incorporated in the thesis.

I shall remain thankful Prof. S. N. Pandey (Retd.), Prof. Chaurasia and Prof. R. K. Trivedi, the Head of the Department of Applied Geology, of providing infrastructure facilities required to carry out the work successfully.

I would like to thank to Prof. P. Alexander (Retd.) and to the faculty, Prof. P. P. Roday, Dr. S.K. Gupta, Dr. R. K. Rawat, Dr. H. Thomas, Dr. Lovelesh Soni, and Shri K.K. Prajapati for their help.

I am thankful to the ministerial staff of the Department, especially Shri Vinod Kannoja, Section Cutter for the help rendered by them at every step.

I pay my gratitude to Professor T. Ishiyama, Institute of Applied Earth Sciences, Akita University, Akita, Japan for carrying out ICP-MS analysis of the samples and the authorities of the Tata Refractory, Belpahar, Orissa for allowing me to complete X-Ray Diffraction Analysis for the present study.

I would like to thank Smt and Shri R.R. Patel, Proprietor, Network Computers, Civil Lines, Sagar for printing the thesis neatly.

Last, but not the least, I am beholden to my parents, family-members and my wife for their silent prayers during the period of completion of this project.

Sagar

M.K. Purohit
(Manish Kumar Purohit)

22nd November 2007