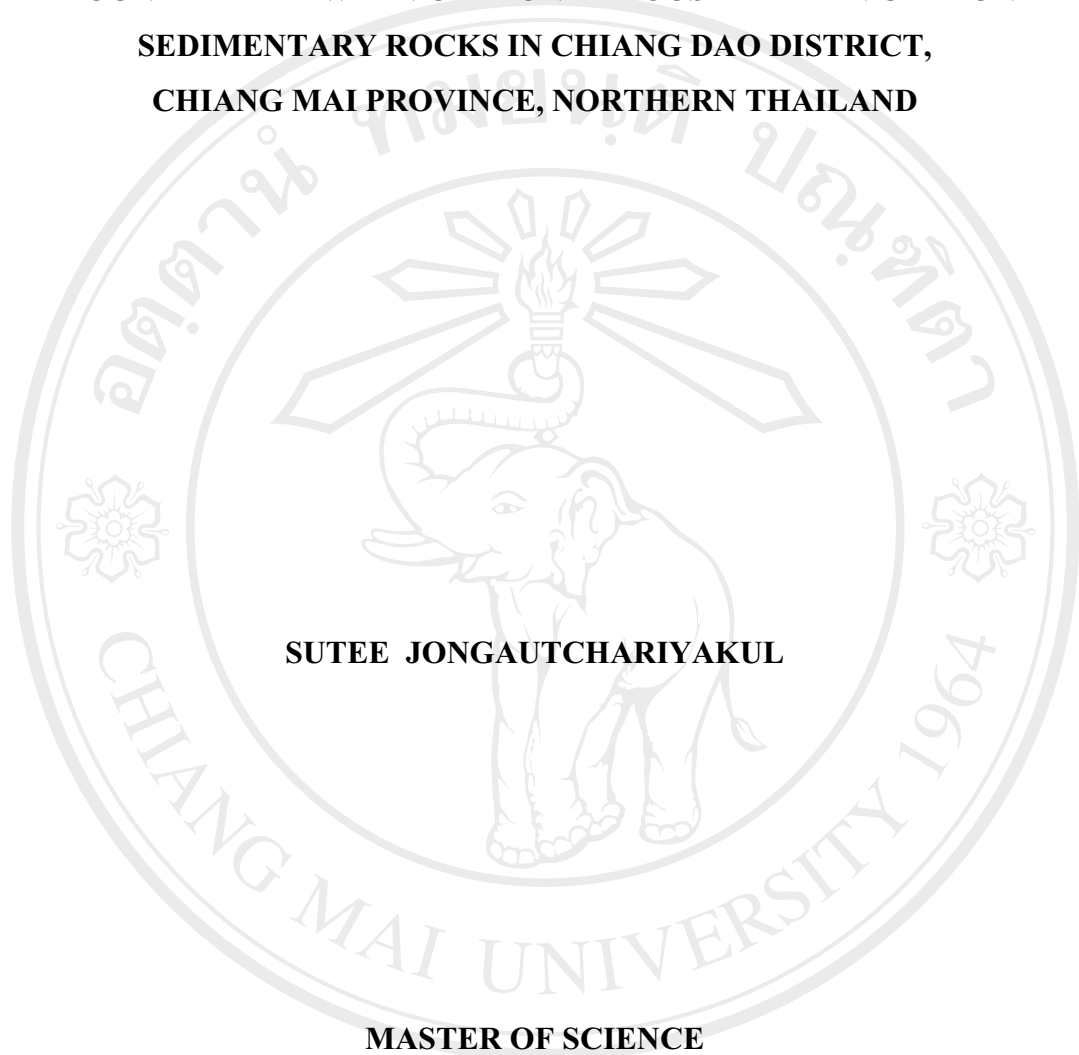


**THE BOUNDARY BETWEEN CARBONIFEROUS-PERMIAN CARBONATE  
SEDIMENTARY ROCKS IN CHIANG DAO DISTRICT,  
CHIANG MAI PROVINCE, NORTHERN THAILAND**



**SUTEE JONGAUTCHARIYAKUL**

**MASTER OF SCIENCE**

**IN GEOLOGY**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

Copyright© by Chiang Mai University

All rights reserved

**THE GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY**

**FEBRUARY 2008**

**THE BOUNDARY BETWEEN CARBONIFEROUS-PERMIAN CARBONATE  
SEDIMENTARY ROCKS IN CHIANG DAO DISTRICT,  
CHIANG MAI PROVINCE, NORTHERN THAILAND**

**SUTEE JONGAUTCHARIYAKUL**

**A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
MASTER OF SCIENCE  
IN GEOLOGY**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่  
Copyright© by Chiang Mai University  
All rights reserved

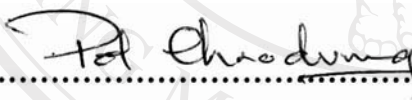
**THE GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY  
FEBRUARY 2008**

**THE BOUNDARY BETWEEN CARBONIFEROUS-PERMIAN CARBONATE  
SEDIMENTARY ROCKS IN CHIANG DAO DISTRICT,  
CHIANG MAI PROVINCE, NORTHERN THAILAND**

**SUTEE JONGAUTCHARIYAKUL**


**THIS THESIS HAS BEEN APPROVED  
TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF SCIENCE  
IN GEOLOGY**

**EXAMINING COMMITTEE**

  
.....


Dr. Pol Chaodurnrong

**CHAIRPERSON**

  
.....

Asst. Prof. Dr. Wutti Uttamo

**MEMBER**

  
.....

Dr. Wittaya Kandharosa

**MEMBER**

7 February 2008

© Copyright by Chiang Mai University

## ACKNOWLEDGEMENTS

I would like to express my grateful thanks to my supervisor, Asst. Prof. Dr. Wutti Uttamo, for his advice, supervision, encouragement, and criticism during the preparation of this thesis. My thanks also go to Mr. Wanchai Sungasuk, Ms. Rattanaphorn Hanta, Ms. Kingdao Klueabthong, Mr. Yutthaphum Chomphutaveep, Mr. Thanaz Watcharamai, Ms. Wanida Piamtang, Ms. Rattanaporn Fongngean, Mr. Sarayuth Jeena, and Mr. Mongkonchai Intho for their helpful field work and prepare thin section. I am grateful to Mr. Sidney Rieb for his time and effort to check and correct my thesis. Thanks are also to Dr. Pol Chaodumrong, Mr. San Assavapatchara, and people from Department of Mineral Resources for helpful discussion, given me a important data and encouragement. Many thanks go to Ms. Jongkonnee Khanmanee, Ms. Sujittra Panunto, Ms. Taweeporn Bantanajak, my friends, students, and staff of Department of Geological Sciences, Chiang Mai University.

Finally, very special thanks are given to my family and my wife, Mrs. Patcharanapa Jongautchariyakul, M.D., for their financial support and encouragement.

Sutee Jongautchariyakul