

**PETROCHEMISTRY AND TECTONIC SETTING OF  
LATE TRIASSIC – EARLY JURASSIC MAFIC  
VOLCANIC ROCKS, LONG DISTRICT,  
PHRAE PROVINCE, THAILAND**

**PUKPONG OSATAPORN**

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

**MASTER OF SCIENCE  
IN GEOLOGY**

**THE GRADUATE SCHOOL  
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**January 2007**

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