

Title : Facies and Classification of Sedimentary Architectural Element in Triassic Sandstone at Ban Muang, Chang Nuea Subdistrict, Mae Moh District and Ban Na Yab, Hua Suea Subdistrict, Mae Tha District, Lampang Province

Author(s) :

| | |
|---------------------|------------------------|
| 1. Thanwaret Kankit | Student ID : 640510424 |
| 2. | Student ID : |
| 3. | Student ID : |

Major : Geology

Advisor(s) :

| | |
|--------|-----------------|
| 1. Dr. | Kritsada Moonpa |
| 2. | |
| 3. | |

Type of presentation* (choose 1) :

| | | |
|-------------------------------------|------------------------------|--|
| <input type="checkbox"/> | Oral Presentation | (เฉพาะ ตัวแทนศ.ที่สาขาเลือกให้นำเสนอแบบบรรยาย) |
| <input checked="" type="checkbox"/> | Poster | (กรณี นำเสนอผลงานปัญหาพิเศษ/การค้นคว้าอิสระ) |
| <input type="checkbox"/> | Cooperative Education | (กรณี นำเสนอผลงานสหกิจศึกษา) |

ABSTRACT

The Triassic sandstone of the Phra That and Pha Daeng Formations, Lampang Group, is well exposed in Ban Muang, Chang Nuea Subdistrict, Mae Mo District, and Ban Nayap, Hua Suea Subdistrict, Mae Tha District, Lampang Province. The outcrops exhibit distinct sedimentary structures, well-preserved sedimentological characteristics, and architectural elements. Sedimentological details, stratigraphic study, and laboratory studies are use to describe and characterize the sedimentological characteristics, lithofacies, and mineral compositions of sandstones to interpret the architectural elements and depositional environment. The petrographic analysis of 18 thin-section samples under a polarizing microscope to classify the sandstone samples by following the scheme of Pettijohn et al. (1973). Petrographically, the sandstone samples are classified as sublith-arenite, lithic arenite, and lithicwacke, respectively. Additionally,

*Type of presentation must be matched with an option you choosing on student upload system.

**The abstract can be more than one page and must be approved by project advisor before upload.

conglomerate samples are classified as the polymictic paraconglomerate based on the criteria of Boggs (2009). The lithology and sedimentary structures, such as erosive surfaces, cross-bedding, flute cast, ripple marks, and normal grading, are used to analysis and characterize the facies and the classification of architectural elements. These results provide crucial evidence for interpreting the depositional environment of the studied sandstone. Nine lithofacies types (Gm, Gmm, Sc, Smc, Smm, Sfc, Sfl, Sfr, and Fl) were identified. Based on facies classification and groups of facies associations are arranged into three distinct architectural elements (channel-fill (CH) element, point bar (PB) element, and floodplain (overbank) (FB) element). From the study results, the sandstones in the study areas were formed under the sedimentary condition in a meandering river system, reflecting a paleoenvironment influenced by continuous water flow and historical changes in water levels and river position.

**Type of presentation must be matched with an option you choosing on student upload system.*

***The abstract can be more than one page and must be approved by project advisor before upload.*

Title name guide.

| ADVISOR title name / แปลไทย | |
|-----------------------------|------------------------|
| Professor Dr. | ศาสตราจารย์ ดร. |
| Professor | ศาสตราจารย์ |
| Associate Professor Dr. | รองศาสตราจารย์ ดร. |
| Associate Professor | รองศาสตราจารย์ |
| Assistant Professor Dr. | ผู้ช่วยศาสตราจารย์ ดร. |
| Assistant Professor | ผู้ช่วยศาสตราจารย์ |
| Dr. | ดร. |
| Lecturer | อาจารย์ |
| Mrs. | นาง |
| Ms. | นางสาว |
| Mr. | นาย |

Major name guide.

| SCIENCE MAJOR name / แปล | |
|---|--|
| Biology | ชีววิทยา |
| Microbiology | จุลชีววิทยา |
| Zoology | สัตววิทยา |
| Biochemistry and Biochemical Technology or Biochemistry and Biochemical Innovation | ชีวเคมีและชีวเคมีเทคโนโลยี หรือ ชีวเคมีและชีวเคมีนวัตกรรม |
| Chemistry | เคมี |
| Industrial Chemistry | เคมีอุตสาหกรรม |
| Materials Science | วัสดุศาสตร์ |
| Physics | ฟิสิกส์ |
| Computer Science | วิทยาการคอมพิวเตอร์ |
| Data Science | วิทยาการข้อมูล |
| Mathematics | คณิตศาสตร์ |
| Statistics | สถิติ |

**Type of presentation must be matched with an option you choosing on student upload system.*

***The abstract can be more than one page and must be approved by project advisor before upload.*

| | |
|-----------------------|------------------------|
| Gemology | อัญมณีวิทยา |
| Geology | ธรณีวิทยา |
| Environmental Science | วิทยาศาสตร์สิ่งแวดล้อม |

**Type of presentation must be matched with an option you choosing on student upload system.*

***The abstract can be more than one page and must be approved by project advisor before upload.*