

LAO PDR



Methodologies in the assessment of Oil and Gas shale resources

Outline

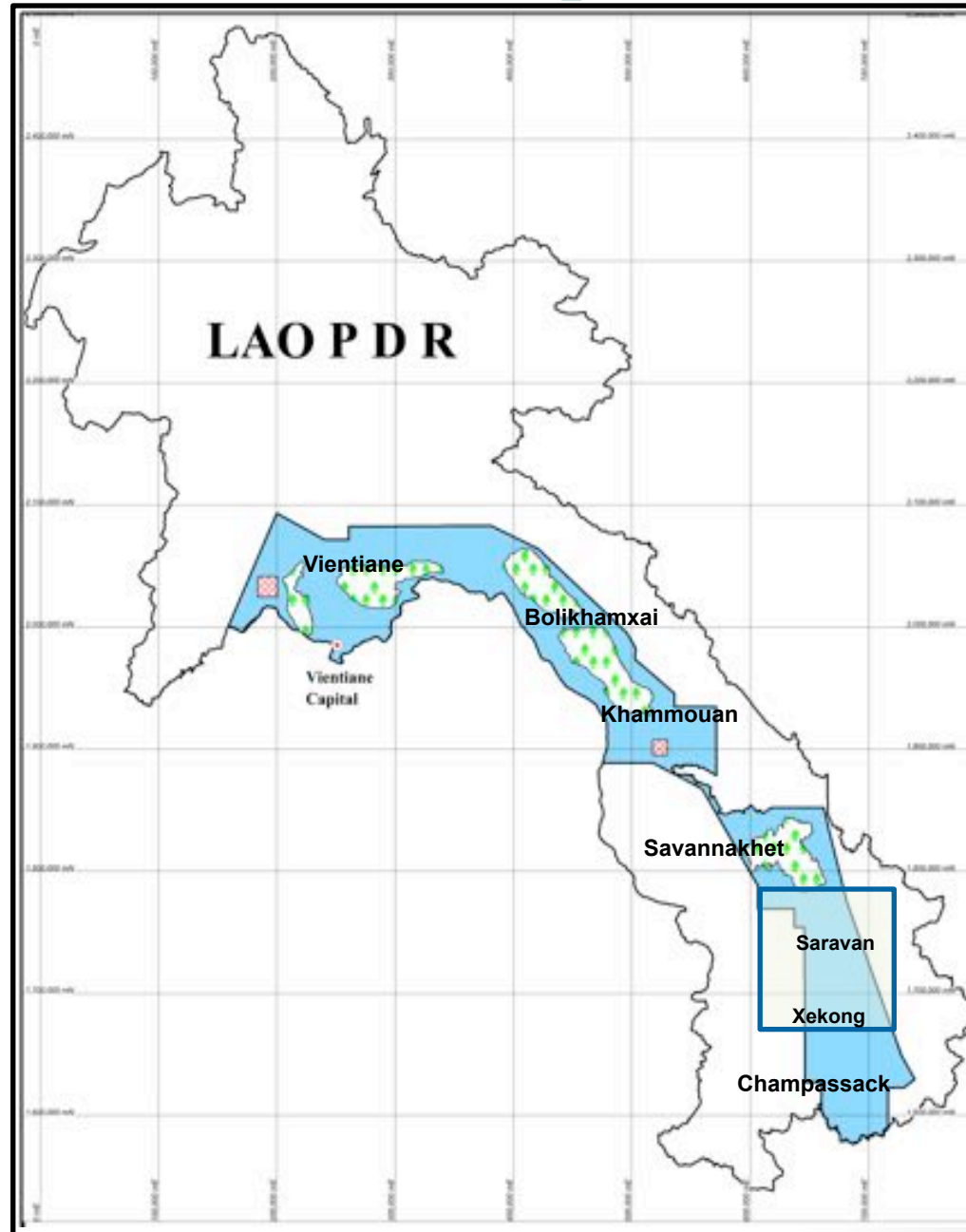
- **Identifying basins with shale potential**
- **Mapping for volume calculation of shale beds**
- **Characterization of shale and mineralogy**
- **Capacity building need challenges and solutions**
- **Q & A**



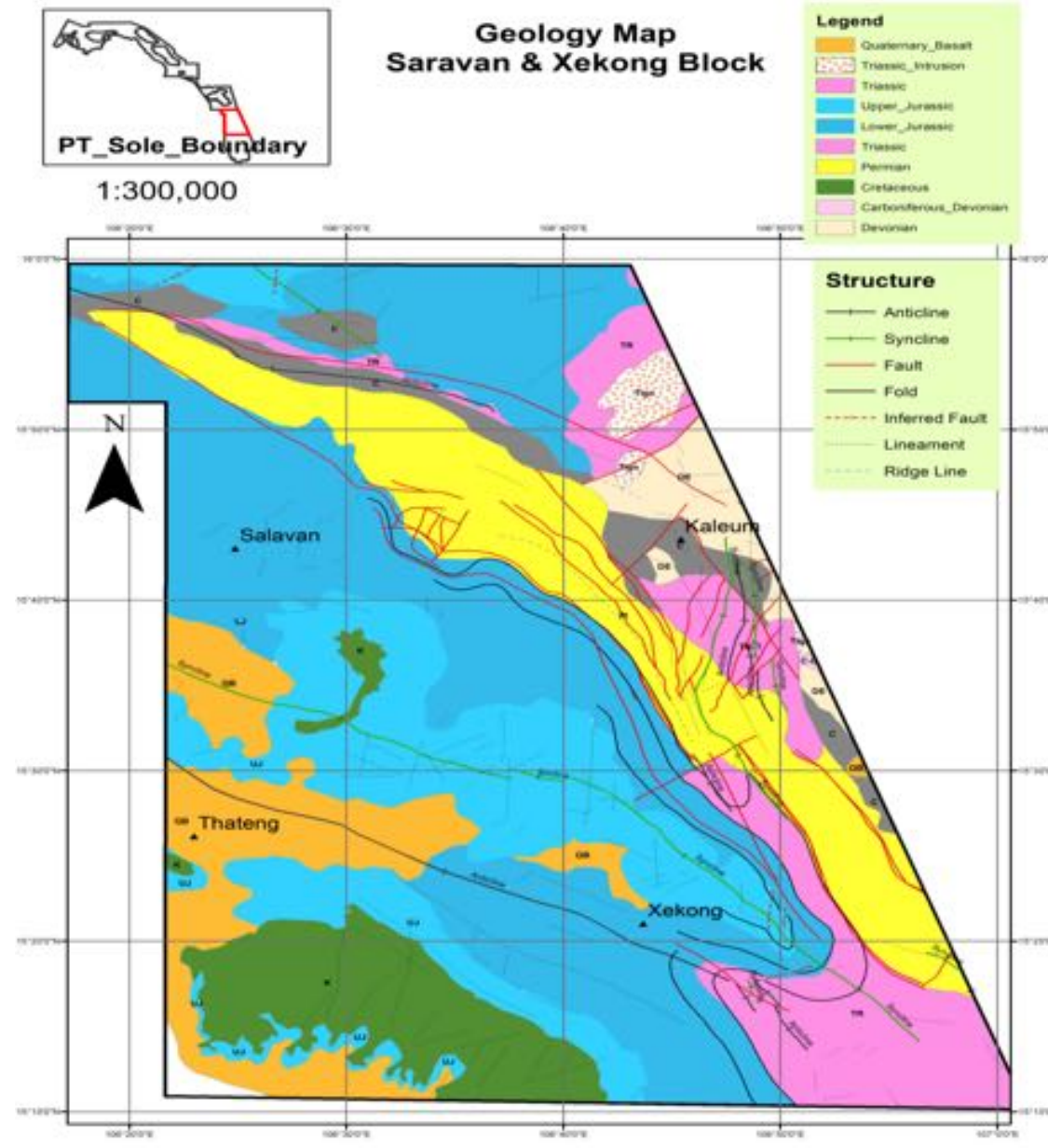
II. dentifying basins with shale potential

Catchment area

- SARAVAN
- XEKONG



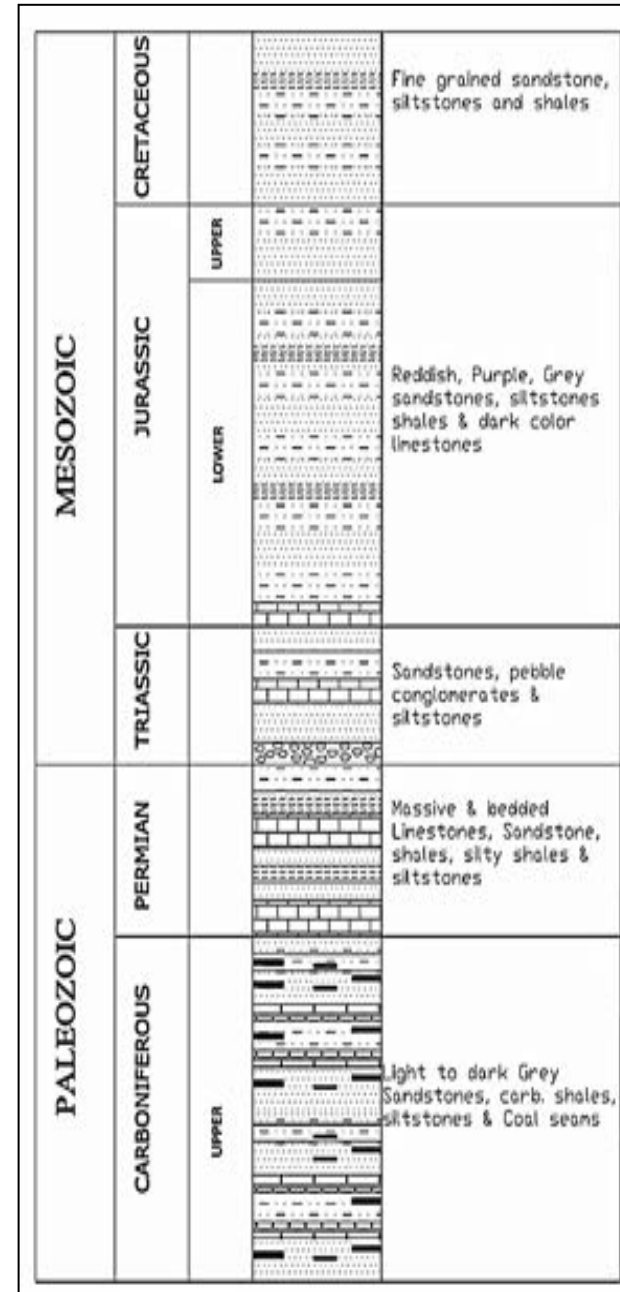
II. Mapping for volume calculation of shale beds



Stratigraphy, Sedimentation & Geological History

stratigraphy of the Xekong-Salavan area can be taken from (Chantong, 2011,)

- **Prognosed Sub-Surface Stratigraphy of Xekong-Salavan Area.**

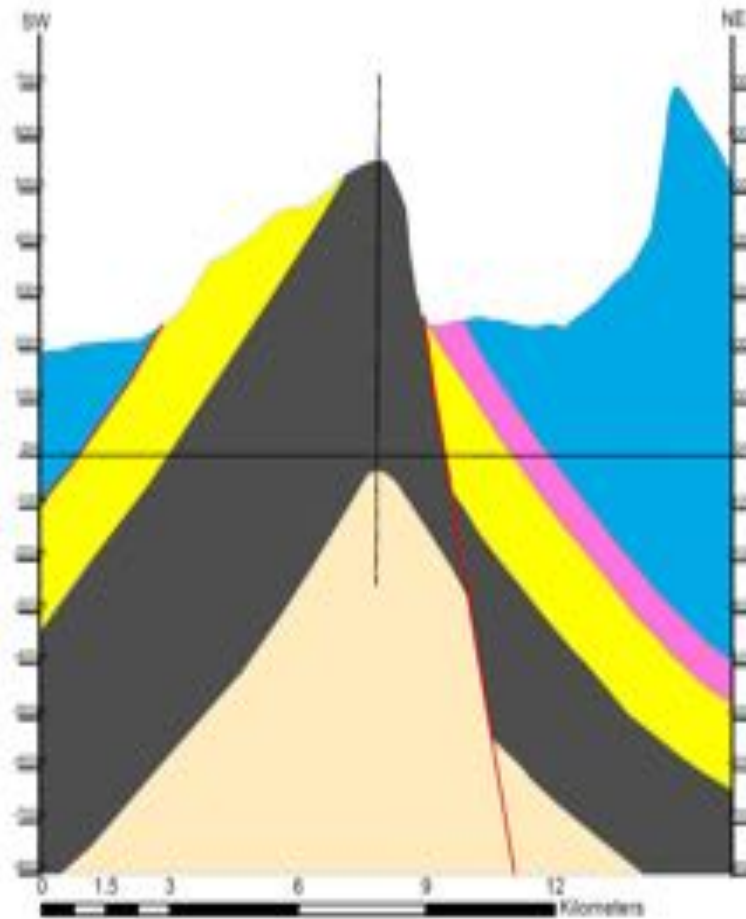
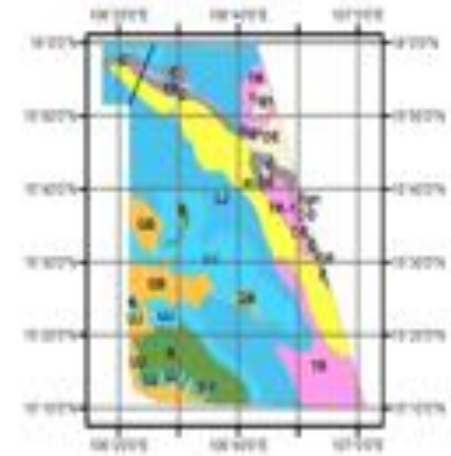




Cross section showing location of Salavan

CROSS SECTION ALONE LINE C-C'

Scale 1:100,000

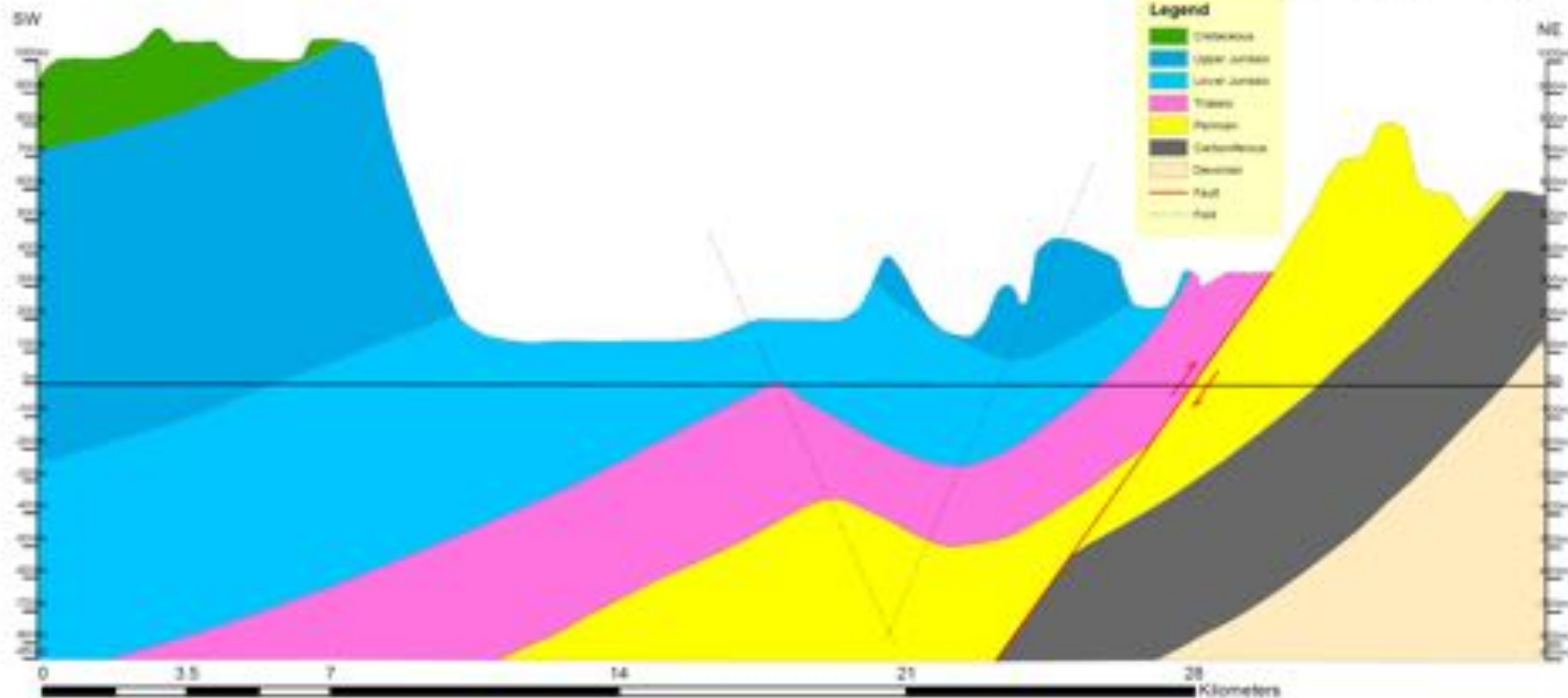
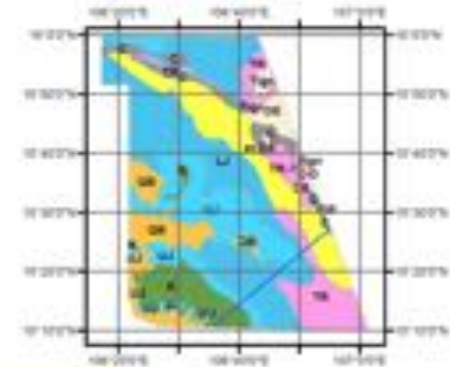


Cross section showing projected location of Xekong

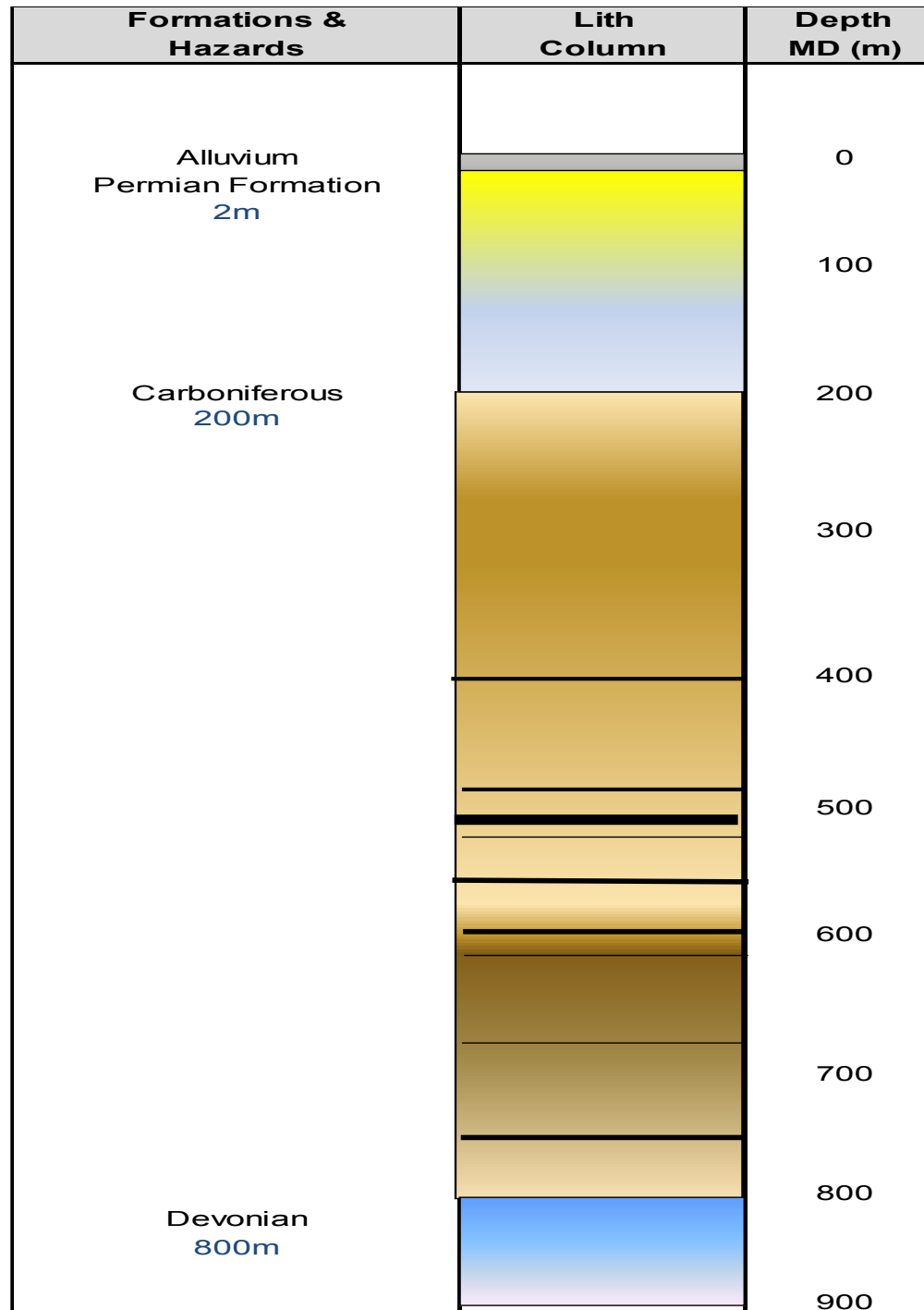


CROSS SECTION ALONE LINE A-A'

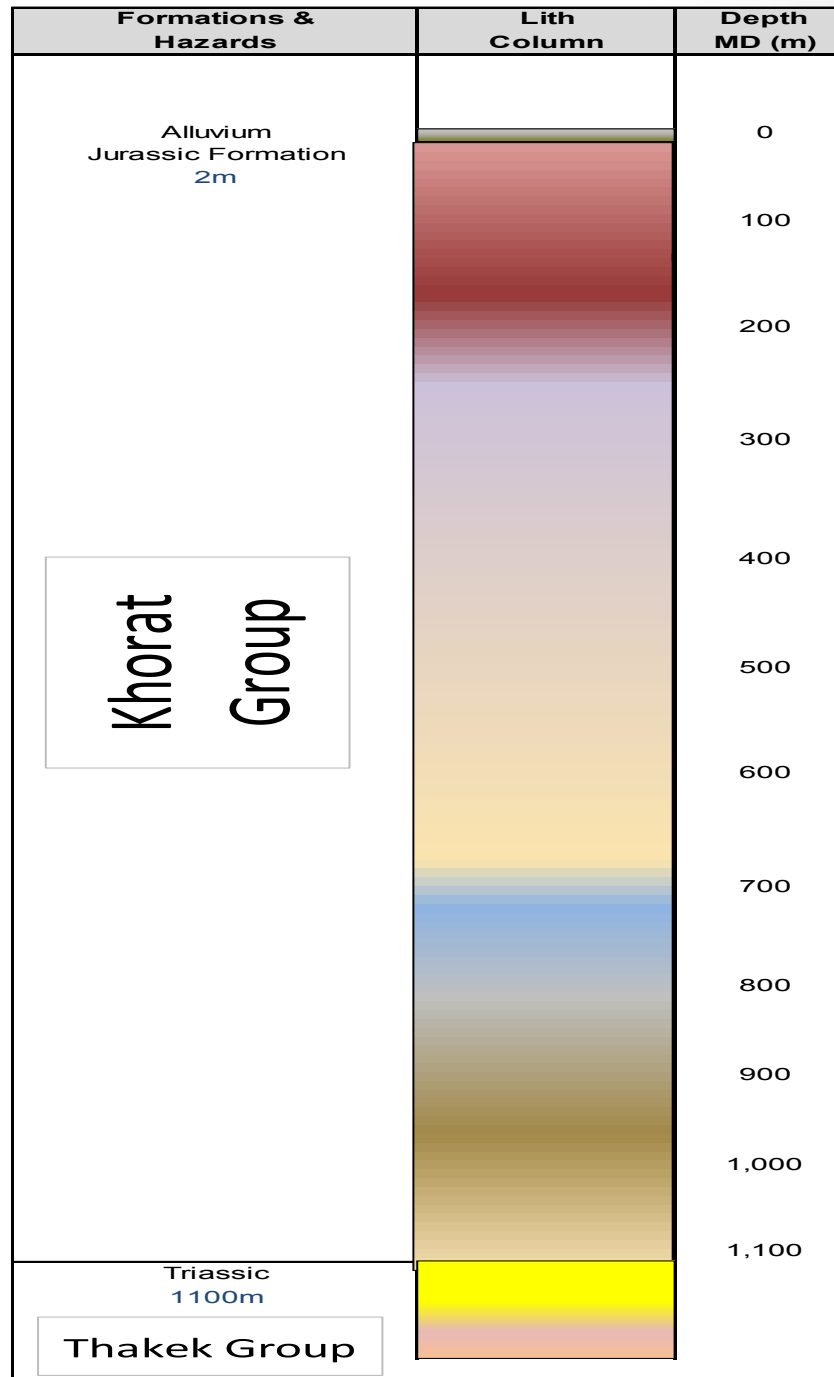
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Proposed lithology of Salavan



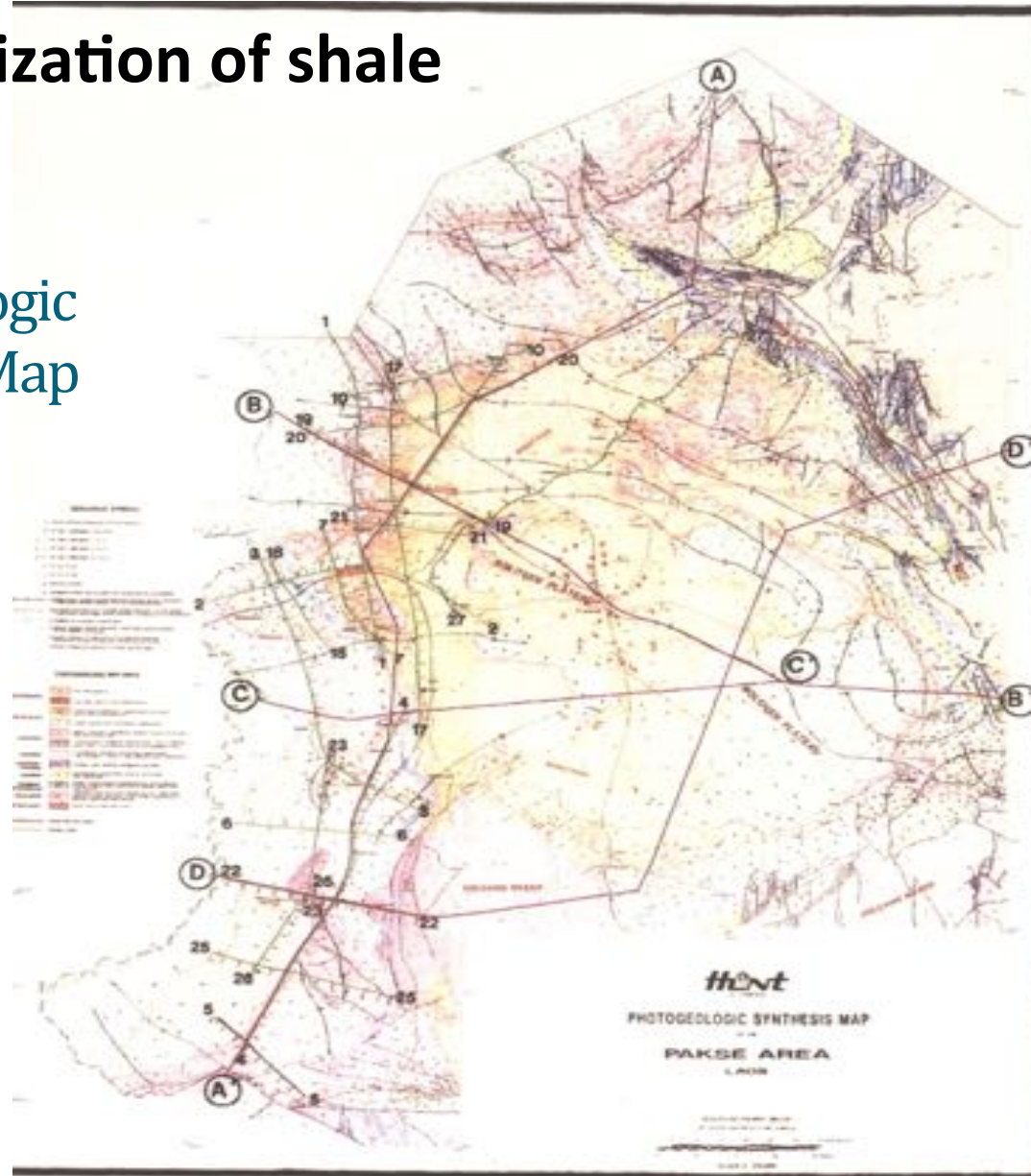
Proposed lithology of Xekong



III. Characterization of shale and mineralogy




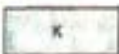
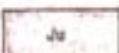

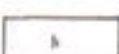





1. Characterization of shale

Photogeologic
Synthesis Map

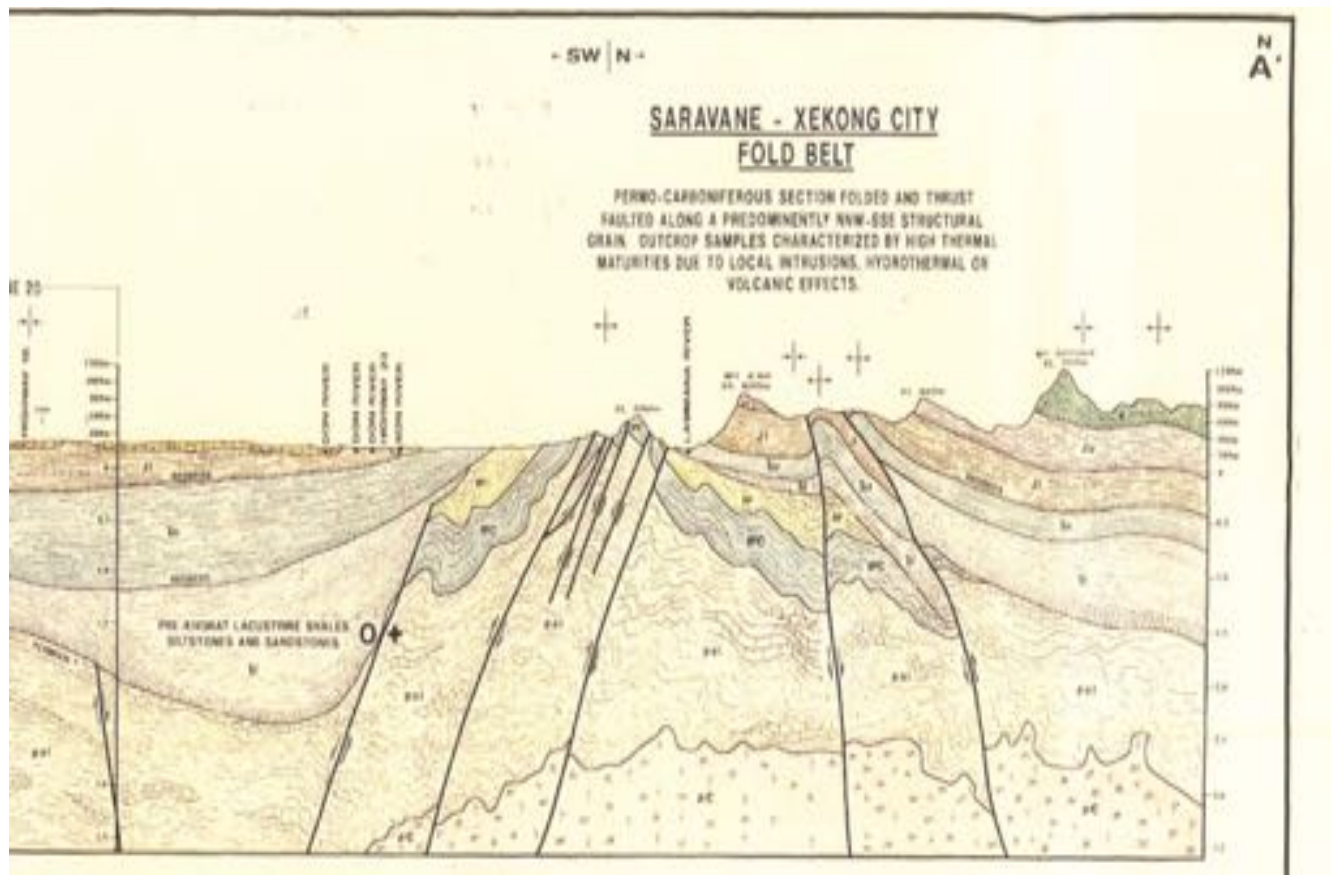


ENCLOSURE 1

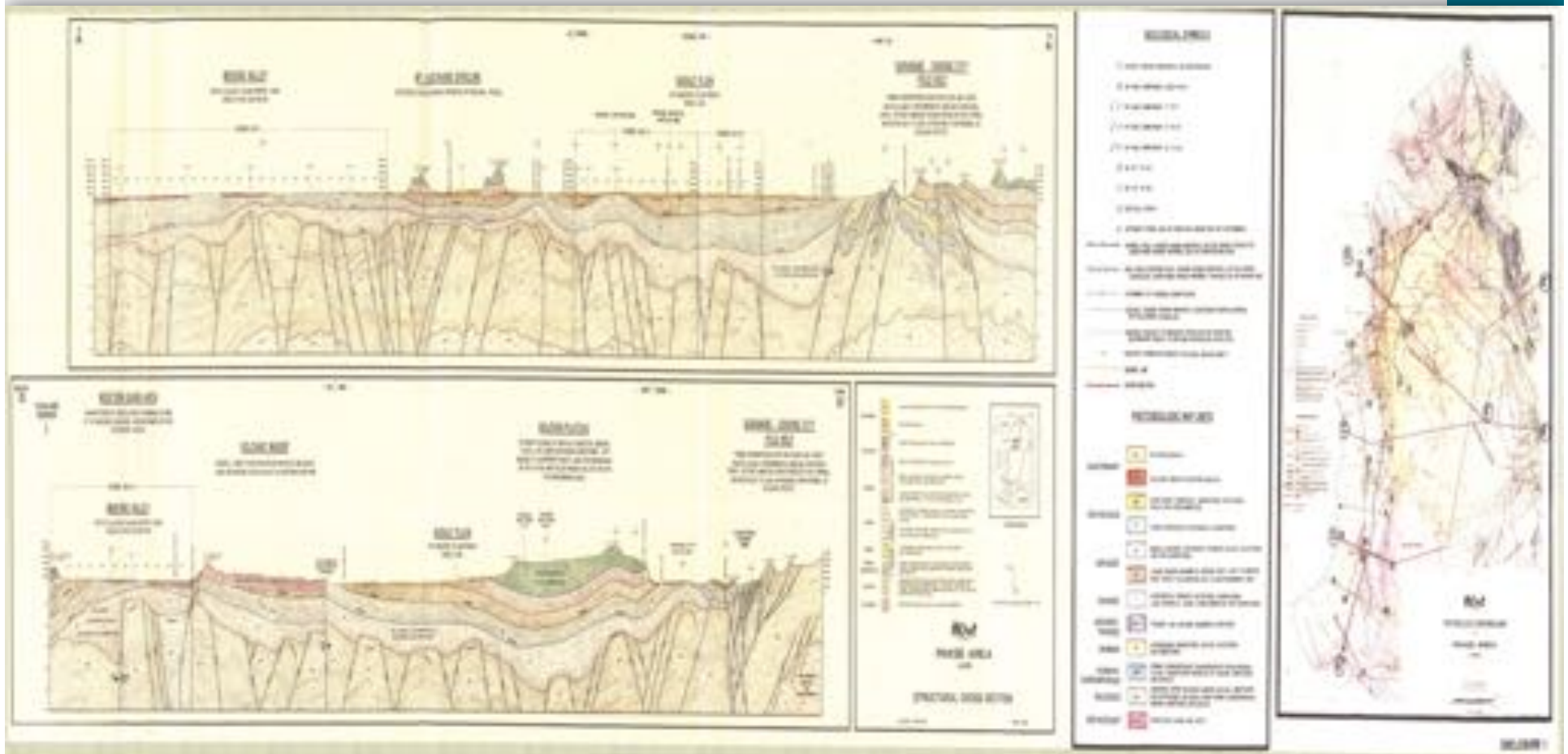
Photogeologic Map Units

| PHOTOGEOLOGIC MAP UNITS | | |
|-------------------------|---|---|
| QUATERNARY |  | BOLOVEN BASALTS |
| |  | VOLCANIC VENTS OF BOLOVEN BASALTS |
| CRETACEOUS |  | KHOK KRUAT FORMATION. SANDSTONES, SILTSTONES, SHALE AND CONGLOMERATES |
| |  | LOWER CRETACEOUS CONTINENTAL SANDSTONES |
| JURASSIC |  | MIDDLE JURASSIC CONTINENTAL REDBEDS, SHALES, SILTSTONES AND FINE SANDSTONES |
| |  | LIASSIC MARINE SEDIMENTS, REDDISH GRAY, LIGHT TO MEDIUM GRAY, PARTLY CALCAREOUS, SALT IN SOUTHERNMOST AREA |
| TRIASSIC |  | CONTINENTAL REDBEDS, SILTSTONES, SANDSTONES, LAVA INTERVALS, BASAL CONGLOMERATES AND SANDSTONES |
| JURASSIC-TRIASSIC |  | TRIASSIC AND JURASSIC SEDIMENTS UNDIVIDED |
| PERMIAN |  | INTERBEDDED SANDSTONES, SHALES, SILTSTONES AND LIMESTONES |
| PERMIAN-CARBONIFEROUS |  | PERMO-CARBONIFEROUS TRANSGRESSIVE CROSS-BEDDED FLUVIAL SANDSTONES UNDERLAIN BY MARINE LIMESTONES AND SHALES |
| PALEOZOIC |  | UNDIVIDED UPPER PALEOZOIC MARINE SHALES, LIMESTONES AND SILTSTONES, INCLUDES LOWER PERMO-CARBONIFEROUS MARINE LIMESTONES AND SHALES |
| CRETACEOUS? |  | RHYOLITES, FLOWS AND TUFFS |

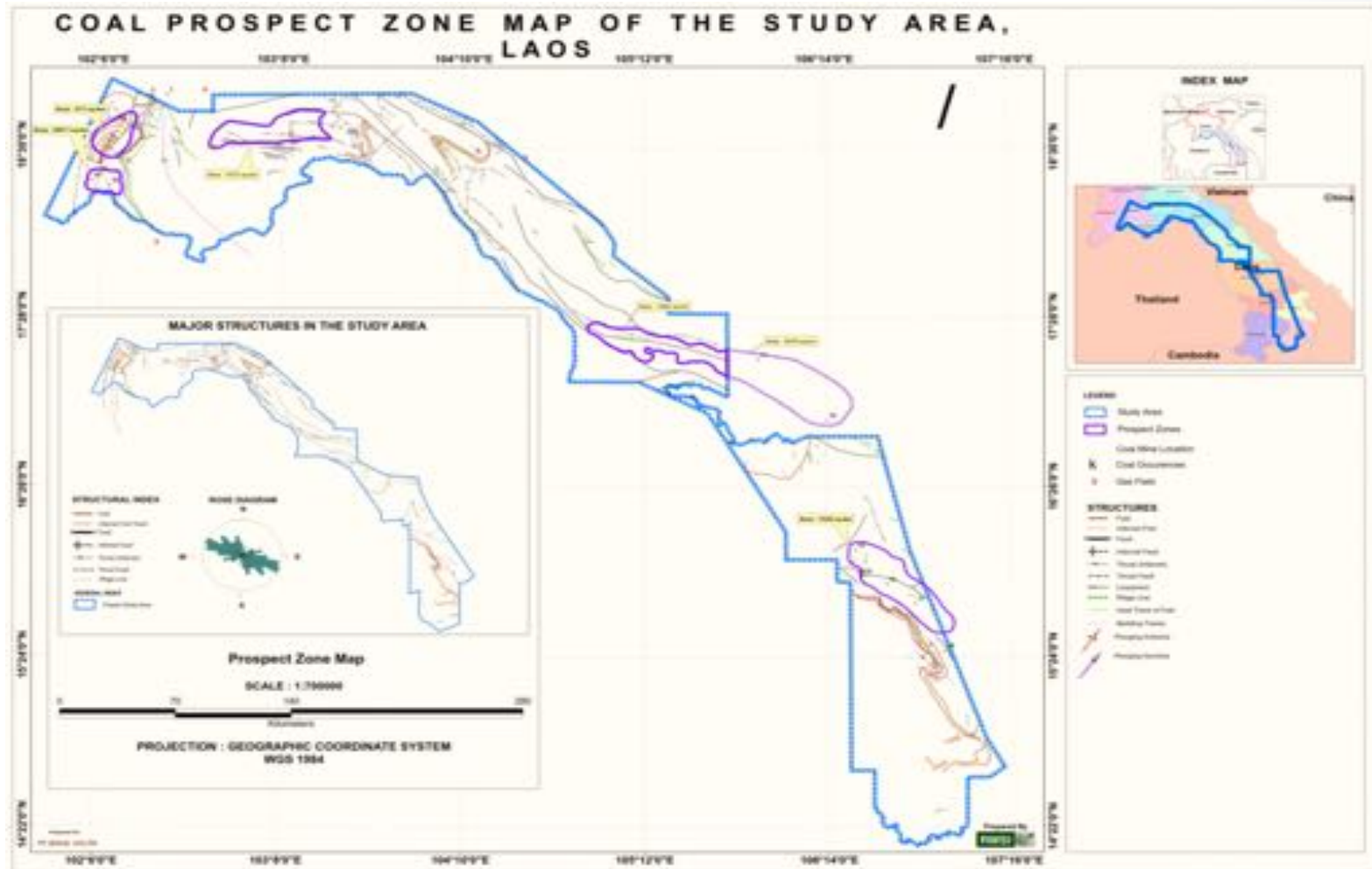
Cross Section Saravane -Xekong



Basin Analog



2. mineralogy



➤ Coal Prospectivity Map of Area.

IV. Capacity building need

HUMEN RESOURCES

Long Term

Sorterm

Thank You for Attention

