

GEOSEA 2018

**15th REGIONAL CONGRESS ON GEOLOGY,
MINERAL AND ENERGY RESOURCES
OF SOUTHEAST ASIA**

16-17 October 2018



ASEAN Geosciences and Earth resources
for sustainable development

**PROCEEDINGS
Abstracts**



PUBLISHING HOUSE FOR SCIENCE AND TECHNOLOGY

92. **Nguyen Phuong, Nguyen Quoc Phi, Nguyen Van Tinh, Nguyen Phuong Dong, Nguyen Thi Thu Hang, Tran Dai Dung.** Establishing geological and geophysical parameters as basis for connection and correlation the coal seams in the Red River Coal Basin. Applied test in the Tien Hai area 166
93. **Truong Xuan Quang, Truong Xuan Luan, Nguyen Tuan Anh, Nguyen Chi Cong.** Development of geostatistical models for estimation of mineral resources: A case study the complex ore bodies of Sin Quyen deposit, Vietnam..... 168
94. **Selvia Novianti.** Alteration and mineralization model in sediment-hosted indication at Kebonagung district, South Pacitan, East Java, Indonesia..... 169
95. **Nguyen Kinh Quoc, Vo Xuan Dinh.** First discoveries on ruby, sapphire, corindonite and corundum bearing micaceous rock in NE Laos 170
96. **Ahmad Nizam Hasan, Mustaffa Kamal Shuib, Mohd Puat Dahalan.** Slope stability analysis of a failed quarry face: A case study from Bukit Lagong, Selangor..... 171
- X 97. **Vo Tien Dung, Nguyen Quang Luat, Do Van Nhuan, Nguyen Dinh Luyen.** The mineralization characteristics of the Nui Phao tungsten-pollymetallic mine, Dai Tu, Thai Nguyen, Viet Nam..... 172
98. **Bui Xuan Nam, Nguyen Hoang.** Evaluating the usability of artificial neural network in predicting blast-induced ground vibration in open-pit mine of Vietnam 175
- X 99. **Duong Ngoc Tinh, Nguyen Quang Luat, Do Van Nhuan.** The material compositions and conditions of lithium formation in La Vi, Duc Pho - Sa Huynh..... 176
100. **Dong Van Giap, Trinh Dinh Huan, Bui Viet Sang, Luu Cong Tri, Dinh Xuan Ha.** Characteristics of material components and gold ore control factors in extrusive formation Southwest margins of Bu Khang massive, Nghe An, Vietnam 177
101. **Ho Huu Hieu, Nguyen Dac Dong, Nguyen Xuan Khien.** Assessment on the potential for CO₂ geological storage in Red River Delta..... 178
102. **Mongkon Pornchuenchoovong, Boonyoung Tepsut, Kuntitut Tongsoc.** High Value Added of Maethan's Ball Clay by Shredded and Mixing Plant 179
103. **Nguyen Xuan Thao, Nguyen Duy Tuan, Nguyen Thi Thuc Anh.** Research and Application Reverse Circulation Drilling Technology for groundwater extraction drilling wells in Pliocene sedimentary strata at Nhon Trach - Dong Nai Industry Zone 180

ENERGY RESOURCES AND DEVELOPMENT

104. **Trinh Xuan Cuong, John K. Waren, Hoang Van Quy, Phan Tu Co.** Granitic fractured basement reservoir, Bach Ho oil field case study 182

The mineralization characteristics of the Nui Phao tungsten-pollymetallic mine, Dai Tu, Thai Nguyen, Viet Nam

Vo Tien Dung¹, Nguyen Quang Luat², Do Van Nhuan², Nguyen Dinh Luyen²

¹ Nui Phao Mining Company Ltd

² Ha Noi University of Mining and Geology

Email: tiendung.vo@gmail.com

The location of Nui Phao mine on the regional structural - tectonic plan

Dai Tu region relates to Structural zone in Northeast Vietnam, early Neoproterozoic - Mesozoic polyepisodic orogenic system, Sino-Vietnamese subsystem, northeast intracontinental orogenic belt. The study zone in East Viet Bac subzone is composed of the following lithotectonic assemblages:

Lithotectonic assemblage 1: Carbonate-terrigenous assemblage of Ordovician - Silurian passive continental margin: including the oldest rocks in Phu Ngu Formation zone of ordovic-silur age (O-Spn).

Lithotectonic assemblage 2: Carbonate-terrigenous assemblage of Devonian passive continental margin: composed of rocks of Song Cau Formation of Devonian age (D1-2sc) with the main ingredient is shale, black shale, dark-gray and green-gray xerixit clay, silicious slate, black silicon, limestone, siliceous limestone, claystone and thin layers of gaize.

Lithotectonic assemblage 3: Assemblage of late Permian early Triassic active continental margin (PZ3): consisting the majority of active continental margin intrusive rocks containing acidic composition such as biotite granite of Nui Dieng complex (γT_3nd) to the mafic, super mafic such as the gabbro of Nui Chua complex (γT_3nd)

Lithotectonic assemblage 4: Mosozoic orogeny assemblage, consisting of two lithological assemblage: (1) *Lithological assemblage of gray Molasse sediments with coal:* comprising rocks of Triassic age Van Lang Formations ($T_3 n-r vl$), the main components include siltstone, conglomerate, silica quartz, this lithological assemblage is strongly weathered. (2) *Intrusive acidic lithogical assemblage:* comprising granitoids of the Pia Oac complex.

The methodology

Method of survey and field study: Field study is to determine the location of mineralized zone in the stratigraphic profile, the relationship between mineralized zone and magmatic complexes, the relation to composition of adjoining rock layers, effects of tectonic activities to the positioning and morphology of the mineralized zone, shape, size, structure and mineral composition of the mineralized zone as well as to collect samples from geological exploration works such as excavation works, mining pits, boreholes.

The analytical methods in laboratory: Research in the laboratory focuses on the study of the material composition of minerals, including : the study of mineral composition, chemical composition and physical-technological properties of minerals to clarify the presence of all minerals forming the mineral, structure and architecture of the ore, the natural symbiotic mineral complexes, of the relationships of symbiotic mineral complexes in the mineralize zone and the sequence of development of them in the



HA NOI - GEOSEA 2018

ISBN: 978-604-913-751-8



9 786049 137518

NOT SOLD