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**Study of the evaluation of the reservoir temperature for geothermal system:  
Geothermometry in Boloang Mongondow Area, Province of North Sulawesi,  
Indonesia**

Faturahman S.<sup>1</sup>, Suparmanto, S.<sup>1</sup>, and Rezal S.M.C.<sup>2</sup>

<sup>1</sup>Department of Geology Eng, Hasanuddin University, Makassar Indonesia; [sayyedfaturahman1@gmail.com](mailto:sayyedfaturahman1@gmail.com)

<sup>3</sup>Department of Mining, Pejuang Republic Indonesia University, Makassar Indonesia

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The study location in Boloang Mongondow area Province of North Sulawesi Indonesia is an area that has the potential of geothermal energy is quite large. This area has the prospects of geothermal energy, which is characterized by many common activities such as surface manifestations of geothermal like as hot spring, fumarole and solfatara.

This study purpose is to estimate, analyse and evaluation of reservoir of temperature associated with the composed by elements (chemical) to know the geothermal energy potential in Boloang Mongondow area. The methodology used in the study descriptive and analysis methods. The descriptive method is done by literature study and collection of data geothermal manifestations some point geothermal activity and the analysis methods are geothermometry analysis. Geotermometer used by the chemical composition of the indicator chlorite, sulfate, and biocarbonate anion.

Result of geothermometry analysis for geothermal system is indicated that the magnitude of the reservoir temperature is 157 °C to 349 °C contained in Kopandakan and Liberia area. For the utilization of geothermal energy it is not directly or used as a power plant, it would require a larger reservoir temperature of 180 °C. Under these conditions, the Boloang Mongondow district has geothermal energy prospects.

