

**EVALUATION OF GEM MINERAL
BEARING DEPOSITS IN UPPER PART OF
KIRINDI OYA, WELLAWAYA**

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Abstract

Normally gem bearing soil (*Illama*) is washed and large fraction is retained in the washing bucket. During washing of soil nearly 90% soil is removed as fine fraction and that fraction may contain some amount of gem minerals. Evaluation of gem mineral bearing sediments in upper part of the Kirindi Oya at Wellawaya area was done by collecting samples along two tributaries of Kirindi Oya and that has distributed from Highland complex to the Vijayan complex. Kirindi Oya belongs to the Buttala-Okkampitiya –Monaragala area where one of major gem potential region of Sri Lanka. 12 samples were taken for analysis of gem minerals. Here magnetic separator and heavy media separation were used to get heavy fractions of the sample. Still there are not prepared enough gem potential maps of our country with proper scientific background and some prepared gem potential maps are also not giving adequate details. There was not prepared a gem potential map of the study area. As a practice gem potential map of the study area is prepared.

Wellawaya area falls in the Monaragala district, Uva province of Sri Lanka and that province is one of the potential provinces for gems and Wellawaya is located between Highland complex and Vijayan complex.

According to the results of the studied area garnet, zircon, tourmaline like minerals have accumulated in various amounts within the area. Variation of gem minerals in the studied locations can be caused the mineral content of the source rock beneath the locations of the area.

According to the gem potential map of the study area there is high potentiality of gem along the main Kirindi Oya alluvium. Mainly geology, Geomorphology, stream pattern and stream networks are responsible for the deposition of gems.

Key Words: gem mineral bearing sediments, gem potential map, Kirindi Oya, alluvium, geomorphology, magnetic separator, heavy media separation