

Assessment of size and quantity of gold deposits and reserves in Canada and engineering sampling consulting

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Upon invitation by the owner of goldplacer claims in British Columbia, Canada, Dr. Rüdiger Schwarz (geologist) and Dipl.-Ing. Karl-Dieter Markus (mining engineer) went to Canada for a fact-finding mission in 2009; the first investigation step to assess the placer gold deposits.

Following the fact-finding mission a step-by-step approach was agreed upon, including basic evaluation and design of a geological model of the exploration area:

1. exploration and assessment
2. estimation
3. consulting
4. project development

Considerations on the geological exploration and the preparation of the prefeasibility study were based on:

1. **Physical-spatial situation** of the exploration area with widely impassable terrain, low infrastructure and extreme weather conditions (snow at least from November to April);
2. **Type of deposit:** The specific genesis of the placer deposits with local gold-enrichments in concealed fluvial and alluvial sediments (covered by younger glacial depositions) makes a direct detection of gold deposits difficult. So a combination of specific survey methods plus an iterative approach is required.

Schwarz, Markus, Pusch, and others developed a geologic model on the basis of available documents and compiled task-related specifications for a combined airborne electromagnetic and magnetic field survey.



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² Dipl.-Ing. E. Pusch headed the project in the period from April 2008 to June 2009 and was project manager in charge.

³ Dr R. Schwarz developed the project and acted as supervisor over the whole period