## **Abstract**

This thesis briefly depicts fundamental principles of three geophysical methods (gravimetry, magnetometry and electrical resistivity profiling), which had been used during research at the Rybí loučky site in order to clarify local geological conditions. Furthermore, the reader gets acquainted with formation of a maar-diatreme, which is thought to be present at the researched site.

The next part describes principles of field measurements and the procedure for evaluation of results. The results are graphically plotted in the last part. Also, the results are compared to previous investigations conducted at this site.

Geophysical measurements showed that geological structures on the Rybí loučky site are much more complex than expected. The simple diatreme structure is most likely not applicable in this case. In contrast, it is not a structure formed solely by a glacier. The origin is most likely a combination of tectonic predisposition, volcanic activity and subsequent selective erosion.