The conclusion of the scientific supervisor on the PhD thesis titled:

«Methodology for prospecting of gold-bearing deposits using modern satellite technologies, case study of the West Kalba gold belt»

The PhD thesis presented by **Yertay Yeskaliyev** addresses state-of-the-art and significant questions in the theoretical and applied study of gold-bearing deposits using modern satellite technologies. The work focuses on developing and improving remote sensing methods and technologies. The research proposes an integrated approach that includes a geology-driven mineral targeting framework for the West Kalba belt and a reproducible multi-scene ASTER processing pipeline. Implementing this methodology enables the production of comparable merged products across the study area, combined with a two-level validation strategy that integrates object-based spatial correspondence with deposits and exploration footprints, along with hyperspectral EnMAP spectral confirmation within the area of coverage overlap, thereby strengthening mineral interpretation and uncertainty assessment.

During his PhD studies, the author has demonstrated the necessary skills and knowledge in geology, mining, GIS, geospatial data analysis, remote sensing data processing, and analysis. The candidate's strength is his ability to work hard, think analytically, and take a systematic approach.

The presented defending statements reflect the novelty of this research work, and the description of the main results demonstrates the high and up-to-date level of the data obtained and their valuable practical significance. The dissertation contains new, scientifically substantiated results that are the outcome of achieving the main goal and solving.

The PhD dissertation of **Yertay Yeskaliyev**, in terms of the relevance of the tasks addressed and their scientific and practical significance, represents a serious piece of scholarly research, and its author merits the award of the Doctor of Philosophy (PhD) degree in the educational program 8D07201 – Geology and Exploration of Mineral Deposits. Therefore, the dissertation may be submitted to the evaluation committee and, upon a positive assessment, to the scientific council for final defense.

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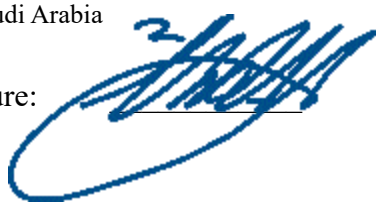
Signature: 

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