REPORT
of the Dissertation Council for 2020

Dissertation Council on specialty 6D070600 – Geology and exploration of mineral deposits and 6D075500-Hydrogeology and engineering geology, at the Kazakh National Research Technical University named after K.I.Satpayev

Chairman of the Dissertation Council Absametov Malis Kudysovich approved by the order of the Vice-Rector for Science NAO KazNRTU named after K.I.Satpayev dated June 02, 2016 y., №207-п.

The Dissertation Council is allowed to accept dissertations for defense
specialty 6D070600 – "Geology and exploration of mineral deposits";
specialty 6D075500 – "Hydrogeology and engineering geology".

1. Data on the number of meetings held.

The Dissertation Council on specialty 6D070600 – "Geology and exploration of mineral deposits" and 6D075500 – "Hydrogeology and engineering geology" held 2 meetings.

2. The names of council members who attended less than half of the meetings.

1 Absametov Malis Kudysovich, Chairman
2. Zholtaev Hero Zholtaevich, Deputy Chairman
3. Auelkhan Ergali Satyshuly, Scientific Secretary
4. Baybatsha Adilkhan Bekdildaevich, Member of the dissertation council
5. Abetov Auez Egemberdievich, Member of the dissertation council
6. Bekbotaeva Alma Anarbekovna, Member of the dissertation council
7. Ensepbayev Talgat Ablaevich, Member of the dissertation council
8. Zavaley Vyacheslav Alekseevich, Member of the dissertation council
9. Shakibaev Ilan Isataevich, Member of the dissertation council
10. Pavlichenko Lyudmila Mikhailovna, Member of the dissertation council
11. Kalitov Dulat Kazhkenovich, Member of the dissertation council
12. Engels Alexander Alexandrovich, Member of the dissertation council
13. Abilkhasimov Khairly Babashevich, Member of the dissertation council
14. Nurbaev Bakhytzhan Orazovich, Member of the dissertation council
15. Khitrov Dmitry (citizen of the Russian Federation), Member of the dissertation council

3. List of doctoral students with an indication of the organization of training.

1. Baratov Refat Talkhatzhanovich, KazNRTU named after K.I.Satpayev
2. Umarbekova Zamzagul Tleukhanovna, KazNRTU named after K.I.Satpayev
3. Tulemissova Zhamal Serikovna, KazNRTU named after K.I.Satpayev

4.1. Brief analysis of the theses of Baratov Refat Talkhatzhanovich on the topic: "Ring structures of Central Kazakhstan and their ore content according to the processing of Earth remote sensing (ERS) materials", specialty 6D070600 - "Geology and exploration of mineral deposits".

- analysis of the topics of the considered works;

The purpose of the study is to identify the scale of the development of ring morphostructures in Central Kazakhstan, to determine the ratio of various genetic types of ring structures and to identify their magma and ore control role based on the analysis of numerous publications on space geology and the geology of ring structures.

To achieve this goal, it is necessary to solve the following tasks:

- analysis of numerous scientific and technical information on space geology and the geology of the Earth's ring structures;
- on the basis of the compiled Map of circular Central Kazakhstan at a scale of 1: 1000,000, ranking them for various genotypes and determining their most dominant types in Central Kazakhstan;
- to summarize the material on the ore content of Central Kazakhstan and determine its relationship with ring structures and large lineaments;
- to study and identify new ore-controlling ring structures of different genesis in Central Kazakhstan and highlight the most promising of them for discovering deposits of one type or another;
- to develop recommendations regarding the organization of prospecting works on the identified promising ore-bearing ring structures;

the connection between the topics of dissertations and the directions of science development, which are formed by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan in accordance with paragraph 3 of Article 18 of the Law "On Science" and (or) state programs;

This dissertation work is directly related to the work carried out in the laboratory of geological and ore formations of the Institute of Geological Sciences. K.I. Satpayev grant projects: 1. "Analysis of the epithermal gold-silver mineralization of the Zhongar-Balkhash region and the allocation of promising areas for the discovery of large deposits of this type" (2012-2014); 2. "Possibility of identifying large-volume epithermal deposits of gold, silver and copper in the volcano-plutonic belts of the Zhongar-Balkhash fold system" (2019); 3. "Study of the ore content of the ring structures of Central and South Kazakhstan and identification of the most promising among them for setting prospecting works" (2018-2020). In the last two projects, the candidate is one of the main executors.

Approbation of work results and publications

Based on the results of the research work, 11 scientific articles were prepared and published, including 3 works in publications included in the Clarivate Analytics database, Scopus and having a non-zero impact factor and 4 articles in scientific publications recommended by the Quality Assurance Committee in education and science MES RK. Many aspects of the work were reported and discussed in the form of oral reports at 4 international scientific conferences.

Analysis of the level of implementation of the results of dissertations in practice.

The practical value of the study is that ring structures can be effectively used as a reliable search criterion for many volcanogenic deposits (copper-porphyry, gold-silver, rare metal, etc.), and the identification of the nature of ore-bearing ring structures, taking into account the differences in the internal structure them, in many respects, determines the correctness of the strategy of prospecting and prospecting and exploration works.

The scientific novelty of the thesis is as follows:

Based on the use of Earth remote sensing materials (ERS) and previously identified characteristic features of ring structures of various genesis, their ranking was carried out for the first time, the most widely developed types of CS were determined, and the degree of intensity of manifestation of one or another ore mineralization in CS of different genesis was established, which makes it possible to recommend new directions of prospecting works in the territory of Central Kazakhstan.

5. Analysis of the work of reviewers (with examples of the most low-quality reviews).

The reviewers carried out a complete and detailed analysis of the dissertation and gave positive feedback with some suggestions and comments. Despite the revealed remarks, the dissertation work does not lose its scientific and practical value.

4.2. A brief analysis of the dissertations of Umarbekova Zamzagul Tleukhanovna on the topic: "Gold ore processes and predicted geological data for the deposits of Kazakhstan (Bakyrshik, Bestobe, Arkharly)" in the specialty "6D070600 - Geology and exploration of mineral deposits"

- analysis of the topics of the considered works;

The aim of the work is to identify the regularities of the ore formation process and to establish physicochemical and thermodynamic barriers to gold deposition in the most important deposits of Kazakhstan, with geological and metallogenic forecasting when searching for deposits of this type.

Research objectives:

- collection, generalization and analysis of material on geology and mineralogy and geochemistry at the present stage of study.
- detailed microscopic study of gold ore mineralization at the Bakyrshik, Arkharly, Bestobe deposits.
- to identify the direction of the gold ore process in each type of deposit under study.
- to substantiate the geochemical and thermodynamic barriers at which gold was deposited in the considered geological and industrial types.
- to identify the main geological forecasting models for the Bakyrshik, Arkharly, Bestobe deposits.

- the connection between the topics of dissertations and the directions of the development of science, which are formed by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan in accordance with paragraph 3 of Article 18 of the Law "On Science" and (or) state programs;

The author of the thesis participated in the development of the Scientific and Technical Program: "Scientific support of problems of replenishment and development of mineral resources in Kazakhstan for 2006-2008" on the topic "Develop new theories of the origin of deposits and create models of ore-forming systems of priority minerals". The result was the study of theoretical issues of the formation of gold deposits in Kazakhstan, and on this basis the development of their forecasting and prospecting models with the systematization of known and predicted geological and industrial types of gold deposits in Kazakhstan. Under the program "Scientific substantiation of the replenishment of mineral reserves for the industrial development of the Republic of Kazakhstan for 2012-2014," Creation of a scientific basis for the assessment of gold-bearing structures and volumetric models of the main types of gold deposits ", the current state of science was analyzed in solving problems of the theory of the formation of gold deposits, productive mineragenic levels, and principles for constructing predictive and prospecting models of the main industrial types of gold deposits have been developed.

Approbation of work results and publications

According to the results of the scientific research, 10 articles and reports were published, including 3 works in an international scientific publication included in the Scopus database and having a non-zero impact factor and 4 articles in scientific publications recommended by the Ministry of Education and Science of the Republic of Kazakhstan. approved at 4 international and republican scientific conferences.

- analysis of the level of implementation of the results of dissertations in practice

The practical significance of the work. The result of the dissertation work is the new obtained geological data, on the basis of which medium- and large-scale forecasting is proposed in the search for the most important geological and industrial types for Kazakhstan: gold-sulfide in terrigenous carbonaceous complexes (Bakyrshik); gold-silver continental volcano-plutonic belts (Arharly); gold-sulfide-quartz (Bestobe).

The scientific novelty of the thesis is as follows:

The research is determined by the fact that, relying on the new obtained factual data in combination with the already existing views on the formation of gold deposits in carbonaceous

strata, a three-stage model of the formation of the Bakyrshik deposit has been developed: tectonic-metamorphogenic; intrusive-thermal-metamorphogenic.

- for the first time at the Arkharly deposit in the oxidation zone, silver halides in association with native silver and gold, which are of fundamental importance in the restoration of hypergene mineral formation processes, have been established.

- the gold ore processes of the deposits under consideration were studied in detail, the factors of ore content were identified, predictive models based on geological data were developed. All this will serve as a basis for prospecting for deposits of this type on a modern basis.

5. Analysis of the work of official reviewers (with examples of the most low-quality reviews).

The reviews are positive.

4.3 Brief analysis of the dissertation of Tulemissova Zhamal Serikovna on the topic: "Specificity of the geodynamic and structural development of sedimentary basins in South Kazakhstan and the criteria for their oil and gas content on the basis of an integrated geological and geophysical analysis", specialty 6D070600 - "Geology and exploration of mineral deposits."

- analysis of the topics of the considered works;

The oil and gas content of Kazakhstan was considered mainly by the western regions of Kazakhstan (Caspian, Mangyshlak, Ustyurt). The oil and gas potential of these regions was studied in sedimentary complexes of the Paleozoic and Mesozoic-Cenozoic cover.

In this work, on the basis of generalization and analysis of extensive geological and geophysical material, the prospects for the oil and gas potential of a number of sedimentary basins in South Kazakhstan are considered.

The results of the "Comprehensive study of sedimentary basins of the Republic of Kazakhstan" on the reassessment of the prospects of its territory and the resource base for oil and gas, were summarized based on the results of regional and areal seismic and geological and geophysical works, prospecting and exploration drilling, the integration of various types of research in all 15 basins, in the period 1990-2013 in a special work [19].

In this regard, the issue of assessing the oil and gas potential of the sedimentary basins of South Kazakhstan remains on the agenda, which in turn initiates the continuation of systematic geological and geophysical work in this region.

When carrying out work on this topic, numerous stock and literary sources were used, as well as materials of long-term field and cameral studies of leading geologists and geophysicists who have been involved in different years with the oil and gas content of sedimentary basins in South Kazakhstan. In addition, materials and data of scientific leaders, co-leaders of the dissertation were involved, such as cartographic (various geological, structural, lithological-paleogeographic, tectonic, maps, schemes, sections), the results of analytical work on the study of the material composition of oil and gas complexes, data on the analysis of layer-by-layer sections and cores of wells.

The results of the latest published geological-geophysical and geochemical studies on the topic of this work are fully used.

The basis for the development of the topic of the dissertation work is the justification for carrying out geological and geophysical work to identify promising oil and gas complexes of sedimentary basins in South Kazakhstan.

This work is a logical continuation of earlier studies aimed at studying the prospects for oil and gas content of sedimentary basins in South Kazakhstan.

The relevance of the topic is determined by the needs of the modern world economy in hydrocarbon raw materials. The currently available data on the geological and geophysical characteristics of the oil and gas bearing areas of South Kazakhstan (Shu-Sarysuysky, Iliysky, Pribalkhashsky), need serious correction and supplemented by the results of the latest geological,

lithological and stratigraphic, analytical, geodynamic, geophysical, drilling and geochemical studies with the purpose of identifying the criteria for oil and gas content.

This work will be a definite contribution to the study of geology, deep structure and assessment of the hydrocarbon potential of the territory of South Kazakhstan, which is directly related to the expansion of the prospects for the mineral resource base of the Republic, taking into account the modern requirements of market relations.

- the connection between the topics of dissertations and the directions of the development of science, which are formed by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan in accordance with paragraph 3 of Article 18 of the Law "On Science" and (or) state programs;

The author took part in the implementation of the following scientific projects:

1. "Targeted development of university science focused on innovative results", topic 5: "Development of an effective technology of modern geological-geophysical and petrophysical analysis for prospecting, exploration and production in sedimentary (stratigraphic) oil and gas traps in sedimentary basins of Kazakhstan", period 2011 -2014;

2. Program 120 "Grant financing of scientific research" on the topic: No. 0112RK00470 "Assessment of the oil and gas potential of the sedimentary basins of South Kazakhstan", period 2012-2014;

3. Grant financing of scientific research, Information and telecommunication technologies. 1.1 Creation and development of space systems and technologies. "Development and implementation of a national software package for solving technological problems of the oil and gas industry in Kazakhstan" Develop innovative technologies for processing and analyzing space survey data for predicting oil and gas content and conducting prospecting and appraisal works in sedimentary basins of Kazakhstan, period 2015-2017;

4. Target program: No. BR05236800 "Solution of strategic and applied problems in the oil and gas industry of Kazakhstan" under section 1. Formation of geodynamic models of oil and gas basins in Kazakhstan in order to identify large oil and gas promising zones based on the analysis of data from modern geological and geophysical studies, period 2018-2020.

- analysis of the level of implementation of the results of dissertations in practice.

It is used in the educational process of lecture courses of bachelor's degree disciplines "Sedimentology of sedimentary basins" and other disciplines of JSC "Kazakh-British Technical University". And also when carrying out grant projects on research topics.

On the topic of the dissertation, 19 scientific papers have been published, including 4 in scientific publications recommended by the Committee for Control in Education and Science, 4 in an international scientific journal included in the information base of the Scopus company, 11 in materials of international conferences.

5. Analysis of the work of official reviewers (with examples of the most low-quality reviews).

The reviewers performed a complete and detailed analysis of the dissertation and provided general comments, recommendations for further research work, approaches to problem solving, and much more. Positive feedback with suggestions. Despite the revealed remarks, the dissertation work does not lose its scientific and practical value.

6. Proposals for the further improvement of the system of training scientific personnel.

7. The number of dissertations for degrees of Doctor of Philosophy (PhD), Doctor by profile in the context of specialties (areas of training):

	Specialty 6D075500- Hydrogeology and engineering geology	Specialty 6D070600 - "Geology and exploration of mineral deposits"	Specialty

dissertations accepted for defense (including doctoral students from other universities);	-	3	
dissertations withdrawn from consideration (including doctoral students from other universities)	-	-	
dissertations for which negative reviews were received from reviewers (including doctoral students from other universities);	-	-	
dissertation with a negative decision based on the results of defense (including doctoral students from other universities).	-	-	
Including from other organizations learning	-	-	
With negative decision following protection	-	-	
Including from other organizations learning	-	-	
Total protected theses	-	3	
Including from other organizations learning	-	-	

Chairman of the Dissertation council **Malis K.Absametov**

Scientific Secretary of the Dissertation Council **Ergali S.Auelkhan**

06.01.2020 г.