COMPLETED PROJECTS OF

TWO KEY LLP

RESEARCH AND TECHNOLOGICAL DEVELOPMENT

Years	Deposit, mineral
2010	Works to determine the feasibility and efficiency of the application of innovative remote analytical control technologies for ore mining
2012	R&D to study the material composition of pregnant solutions, products of work-in-progress and sorption matrix at the Zarechnoye Deposit
2013	R&D on the approbation of innovative direct uranium exploration methods under the geological conditions of the south-eastern flank of the North Kharassan deposit; Part 1–Soil sampling and isotope analysis
2013	R&D on the identification of possible uranium re-deposition in worked-out blocks, the study of the material composition of ores and host rocks, extracted pregnant solutions for identification of useful by-product components
2014	R&D to study and systematise geological, mining and technical information to develop recommendations and general design solutions to enable the construction of the plant with the specified level of productivity and advise the Client on approval of the transition to the production phase of oxidised gold-bearing ores of the Kuludzhun deposit
2014-2016	R&D on the application of plasma pulse technology to improve the efficiency of pumping and injection wells in in-situ uranium leaching at the Inkai deposit
2015	R&D on ISL Process Optimisation Using Relational Database of Operational Production Management System of Wellfield
2016	R&D on geological support of re-estimation and supplementary exploration of the Zarechnoye uranium deposit
2016	R&D to study the material composition of ores at the Zarechnoye deposit

2016	R&D to study the impact of the chemical composition of reagents on the technological process of extraction of useful components from ores of Orlovskoye deposit at Zhezkent concentrator
2016	Evaluation of filter and behind-the-filter space colmatation using acoustic and video logging to improve the quality of repair and renewal operations at the wells of Kharassan-2 area of the Northern Kharassan Deposit
2016	Development of a wellfield stimulation plan based on matrix-vector analysis with the issuance of optimal production parameters for each cell of the Kharassan-2 area of the Northern Kharassan Deposit
2017	R&D on the Development of an Acid Reduction Unit at the Kharassan-2 area of the Northern Kharassan deposit
2017	R&D on identifying the reasons that prevent sulphuric ISL in the subsurface, examining the possibility of technogenic formation of uranium-vanadium ores and their mining at the Zarechnoye deposit
2017-2018	Carrying out works on modelling the productivity map of ore-bearing horizons based on the Micromine system with the calculation of economic efficiency at the stage of designing and developing technological blocks of the Northern Kharassan deposit, Kharassan-1 area for uniform development
2017-2018	Hydrogeological studies to assess the impact of stockpiled tailings from the Nikolayevsky concentrator into the depleted Nikolayevsky open pit of the Artemyevsky production complex of Vostoktsvetmet LLP
2017-2018	Determination of resource potential of solonetz deposits at Budenovskoye deposit for detection of industrial concentrations of lithium
2018	Development of conjugate geological and geofiltration 3D models of ore-bearing horizons, based on geological exploration and technological drilling data with the calculation of optimal networks of the early development of commercial mineralisation, modes of operation and values of the main geotechnological indicators of mining of plots 1, 3, 4 of the Budenovskoye deposit
2018	R&D project on geological support of re-estimation and additional exploration of uranium reserves and associated components within expanded mining allotment, identification of factors hindering ISL processes in the subsurface at the Zarechnoye deposit
2018-2019	R&D on the Development and Implementation of a Combined Method for Regeneration of Technological Wells at the Khorassan-1 Area

2019 in progress	R&D on the Identification of Patterns of Localisation of Copper Porphyry Systems Based on the Identification of Structural and Lithological Features of the Aktogay-Taissogan-Sayak Trend by Analysing Multispectral Satellite Data
2019 in progress	R&D on identifying the causes of the formation of problematic technological blocks and development of recommendations on the cleaning-up of the identified blocks that have not reached the uranium recovery factor of 90% at the Khorassan-1 area of the Northern Kharassan deposit