

Auction terms on granting of the subsoil licence for the geological exploration within the field Urmizan (Chukur)

Organizer of the auction in accordance with the Decree of the Kyrgyz Republic Government #834 dated December 14, 2012: the State Agency for Geology and Mineral Resources of the Kyrgyz Republic, the authorized State Authority.

1.1. Subject of the auction: Subsoil licence for the geological exploration in the field Urmizan in accordance with the Law of the Kyrgyz Republic "On Subsoil".

Subsoil object, the licence of which is put up for auction: Urmizan field.

1.2. Form of the auction: open.

1.3. Geographical location of the subsoil object:

The subsoil licence for the geological exploration in the field Urmizan (Chukur) with the following angular points land corner in a rectangular coordinate system is put up for auction:

No№	X	Y
1	4396900	12661900
2	4396900	12664600
3	4395200	12664600
4	4395200	12661900
S = 4,58 km ²		

The area is 458.0 ha.

2. Geological characteristics of the licenced area

Coal shows is located on the northern foothills of Alai Range, on the watershed between the mountain area Chukur and the stream Ormazinsu, the right tributary of the river Kalaymahmud, and is situated 0.5 km from the seasonal motorway Kan-Zardaly. Administratively it belongs to Batken district of the Batken region of the Kyrgyz Republic.

The absolute marks of coal shows reach 1500-3000 m, and the relative elevations do not exceed 1000 m. The main waterway is Soh River, the second river by flow in the south of Kyrgyzstan. It receives this name after the confluence of rivers Akterek, Archabashy, Hodzhaachkan. Downstream, the Soh River intakes a large left tributary – the Kalaymahmud River –and the streams Bosogo, Raut, Ayugul. The valleys of rivers Akterek, Archabashy, Hodzhaachkan and Kalaymahmud are narrow, deeply incised, often with canyons.

According to the data of water level gauge Ravan, the average annual flow of the Soh River is 41.6 m³/s. The river nourishment is glacial and entirely depends on the season. The duration of flood is up to 4 months (average flow - June - 64.8 m³/s, July - 126.0 m³/s, August – 117 m³/s).

The area has a continental and arid climate. In the area of high foothills, where the coal shows Urmizan (Chukur) is located, a steady snow cover is in November and lasts until April. Precipitation amount is 500-550 mm/year.

The flora of the coal shows area depends entirely on climatic zonation. The uneven distribution of precipitation determines the density of trees and grass cover both within the southern and northern slopes of the exposure, and in individual river basins.

The economy of the area is entirely focused on agriculture, specializing in the livestock breeding, and, to a lesser extent, in the cultivation of cereals, industrial crops, vegetables, fruits. The area of coal shows in the summer time serves as the distant pasture.

Urmizan coal shows is known since 1903. Sarybelskaya engineering company performed search operations in coal shows in 1965-67 (S.N. Banogin, 1967). There were identified 4 coal horizons with 6 coal beds. There were passed 15 trenches, collected 12 samples for the coal technical analysis. The sketch map with scale 1: 5000 was compiled. According these works, the estimated coal resources amounted to 26 million tons.

In 1988, the East Turkestan exploration company carried out the following types of works on coal shows: completed 10 trenches totalling 754 m³, collected 117 trench samples and 87 punctuate samples in ditches for technical analysis. The sketch geologic map with scale 1: 10000 was compiled. The estimated coal resources amounted to 62 million tons.

For the purpose of selection of coal shows sites for the open coal production in 1994-96, the Karabiyskaya exploration company of the South-Kyrgyz geological expedition conducted the additional exploration of coal shows. The detailed geological map with scale 1:2000 was compiled and there were completed 12 trenches, 8 of which opened the coal mother lode III.

The deposits of Paleozoic, Mesozoic and Cenozoic eras are developed in the coal shows area (Figure 16).

Paleozoic deposits contain carbonate-terrigenous masses of the Silurian, Devonian and Carbon periods.

Mesozoic deposits contain rocks of the Jurassic and Cretaceous systems

Jurassic formations of coal shows are divided into two suites of formation: Kyzyltalinskaya and Khodzhakelyanskaya.

Kyzyltalinskaya suite (J1kt) is composed of interbedded argillites, siltstones, sandstones and coal beds. At the bottom of the suite there is a basal conglomerate horizon with thickness from 5 to 80 m. Suite power ranges from 300 to 450 m.

On a stratigraphic basis the Khodzhakelyanskaya suite (J2hk) overlies the Kyzyltalinskaya suite and is overlapped with Kalachinskaya suite of the Upper Cretaceous with a structural discordance and erosion.

At the bottom of the suite of formations, there lies the horizon of basal gravesites with well-rounded pebbles of sandstone, limestone, quartz. Above the basal layer, the suite is composed of sandstones, siltstones and a single layer of coal with thickness from 1.5 to 4 m. A distinctive feature of the suite is its psammitic composition and gray colour. Suite thickness is 250 m.

Cretaceous deposits of the coal shows contain the upper series and are divided into three suites: Kalachinskaya, Urumbashskaya and Yalovachskaya. Kalachinskaya suite (K2kl) is composed of interbedded conglomerates, sandstones and malmstones. Conglomerates dominate; the suite starts and ends with conglomerates. A characteristic feature of this suite is its brick-red colour. Suite thickness is about 200 m.

Urumbashskaya suite (K2ur) begins with greyish-white limestones, the thickness of which in western direction gradually increases from 10-15 m to 50 m. Red sandy clays and green clays with streaks of malmstones with abundant oyster shells overlay above the limestones. Thickness of oyster clays varies from 20 to 30 m. Suite total thickness is about 80 m.

Yalovachskaya suite (K2yal) contains uneven interbedded sandstones, clays, gravelites, which form inter transitions on the strike. A distinctive feature of the suite is the intense brick red colour. Suite thickness varies between 80-100 m. Cenozoic deposits mostly contain

quaternary diluvial, proluvial, colluvial and alluvial formations. Their thickness varies widely; sometimes some beds reach the first tens of meters.

Coal shows belong to Kalaymahmud trenched fault, filled with terrigenous deposits of the Jurassic and Cretaceous periods. It is limited from south and north with steeply dipping faults, on which the Paleozoic deposits are thrown up in the coal-bearing formations of the Jurassic period. Against the general synclinal structure of the trenched fault, dipping the apex to the west, the Jurassic deposits are deformed into a series of associated folds of latitudinal strike with the wings fall under at angles 10-55°. The degree of formations dislocation varies and increases towards the south-western flank of the field.

9 coal beds are allocated on coal shows. Numeration of beds from the bottom up.

Coal bed I is traced for about 1.4 km. Bed thickness is 1.3-3.0 m, on the original outcrops is represented with dense coal or highly weathered coal. It has a simple homogeneous geology. There are very ashy coals, ash content increased from 31.94 to 41.0% from north to south.

Coal bed II is traced at distance of about 500 m, it has lenticular shape; off grade thickness (0.9-1.0 m) and ash content (45.4-48.91%).

Coal bed III is traced at distance of 1.8 km. The bed moves in the north, and then is cut off with a split. Bed thickness is 3.5-13.2 m, ash content - 11.7-33.06%. The bed has a complex structure, represented with brown board coal with interbedded argillites (3-50 cm); upper joints is sharp, bottom joints is with a gradual transition to the coaly argillites.

Coal bed IV is traced on the strike for 770 m. The bed tapers out in the north, is cut off with split in the south, forming two associated folds with the fall of the overlying bed to the north and the south at angles of 30-40°. Bed thickness is 0.6-1.9 m, ash content - 8.11-25.7%. It contains dark, shining thinly laminated coal. The overlying bed is clear; the bottom is with a gradual transition to the coaly argillites.

Coal bed V is traced on the strike for 750 m. Like the coal bed IV, it tapers out in the north, is cut off with split in the south, forming two associated folds. Coal bed thickness is 2.0-4.8 m, ash content - 20.39-34.72%. Joints with clear boundaries in the north; bed is more complicated in the south, with thin interbedded argillites and with joints in the form of gradual transitions. It contains black matt and banded coals with interbedded thinly laminated argillites.

Coal bed VI is traced at a distance of 700 m. Mode of occurrence is similar to coal beds IV-V. Thickness is 1.2-4.2 m; ash content varies from 13.32 to 31.64%, increasing towards south, where the coal bed contains the interbeds formation of coaly argillites with thickness 3-10 cm.

Coal bed VII is represented with two contiguous beds, which are cut with splits on the flanks and taper out in the central part, separating the beds in 2 fragments - northern and southern. Northern fragments thickness is 9.5 and 5.3 m, and ash content - 13.8 and 39.8%, respectively; the length is 1.1 km. Southern fragments thickness is 5.0 and 2.4 m, and ash content 34.55 and 12.6%; the length is 0.7 km. The beds have a complex structure with different numbers of rock interbeds and weathered matt and dense coals. They are separated with a pack of sandstones and siltstones with thickness of 1.5-2.0 m.

Coal bed VIII is traced on the strike for 1.7 km. It is limited with splits on both flanks. Coal bed thickness in the north is about 1.0 m, in the south - up to 12.6 m; the ash content is reduced in the same direction from 34.5 to 28.8%. Coal bed has a complex structure, is composed of thick interbeds of matt brown-green coals with thin layers of whitish argillites. The nature of the joints at the top and at the bottom is changeable - clear and sharp joints are replaced with gradual transitions, and vice versa. A small bed in the northern part of the field is

parallelized in the position in cut with the coal bed VIII. In the west, the coal bed is shifted with a split and then is overlapped with colluvial deposits.

Coal bed IX is a thin coal-bearing horizon with thin lenses interbedded weathered denty coals. According to fragmentary outcrops, it is traced at approximately 0.7 km, is cut with a split in the west.

The coal quality of Urmizan coal shows is poorly researched. Technological properties, petrographic and elemental composition of coal were not studied.

Macroscopic analysis showed the range of coals from dark brown to black in colour, sometimes with a greenish tinge, loose, matt and semi-bright, often limonitized, with mineral inclusions of calcite and quartz. Ash content of coal varies from 8.60 to 34.54% (average 23.11%), analytical moisture - 2.40-7.71% (average 4.96%), devolatilization - 31.71-50.86% (average 41.68%), mass fraction of sulphur - 0.04-1.05% (average 0.59%), specific heat of combustion - 5050-6376 kcal / kg (21.14-26.69 MJ / kg), on average - 5733 kcal / kg (24.0 MJ / kg).

Inferred resources are estimated on the coal beds I, III, IV, V, VI, VII, VIII when designing the exploration works in 1993-1996 (T.P. Pazylov et al.) in the amount of 62 million tons to the depth of 500 m.

3. Basic requirements for the subsoil use object.

3.1. Basic requirements for subsoil use object are specified in accordance with the legislation of the Kyrgyz Republic related to the subsoil use and should be included in the subsoil license. Detailed requirements are specified at registration of license in the licensed attachment.

3.2. The main requirements for the use of the licensed area are:

- Conclusion of a licensed attachment for the drafting of work designed to mining of licensed area;
- During the design the adjustment on the licensed area with the entering of the reserves on the state balance;
- submission, within the time specified in the licensed attachment period, of the operations plan designed to mining of licensed area, passed examination in respect of industrial, environmental safety and subsoil protection, as well as Certificate for temporary use of plot for subsoil use;
- Submission of semiannual information on progress of conditions of the licensed attachment until July 15 of this year;
- Submission of annual report till January 31 of the new year, in the prescribed form, approved by the authorized state body for the implementation of the state policy on subsoil use and on electronic media;
- Submission of program (plan) for the development of mining work until January 31 of the new year;
- Performance of all required types of mining operations in strict accordance with the project, which has been examined in the industrial, environmental safety and protection of mineral resources;

- Development of the Action Plan to ensure the requirements of industrial safety at work, including the prevention of accidents and their consequences localization with required justifications and calculations as at the site and as a result of accidents at other facilities in the area of location of the object. In developing these measures should be considered hazards (landslides, avalanche danger, etc.), risk factors, conditions for the occurrence of accidents and their scenario, the number and placement of production staff;

- Provide a report on the results of exploration work with graphic materials and the results of laboratory research;

- Technical and biological reclamation of disturbed soils in accordance with the design decisions which are passed examination for industrial, environmental safety and subsoil protection, and according to legislation of the Kyrgyz Republic.

In case of default by the auction winner in the future the main requirements for the use of subsoil object, then to it will be penalized at a rate of 0.1% per day of the paid value of the object subsoil by the subsoil user for each day of delay in the fulfillment of the commitments.

4. Time and place of the bidding: Auction will be held on July 20, 2015 at 12:00 o'clock in the building of the Batken district state administration.

Registration for the bidding starts from 11-00 to 11-50 hours. Start of the bidding in 12-00 hours.

5. Deadline: Bids would be submitted from May 29, 2015 to July 14, 2015 inclusively, daily on working days from 9-00 hours to 15-00 hours by Licensing Department of the State Agency for Geology and Mineral Resources under the Government of the Kyrgyz Republic, office No. 225.

6. Place and time for familiarization with the terms and conditions of the bidding:

Licensing Department of the State Agency for Geology and Mineral Resources under the Government of the Kyrgyz Republic, office No.217, every day from 9:00 to 18:00 hours.

7. To participate in the bidding the bidder personally or by the authorized representative is submitting bid to the auctioneer till 15-00 hours of July 14, 2015, inclusively, in duplicate, in the form prescribed by the auctioneer and posted on the official website of the auctioneer: www.geology.kg.

Filing by mail is not allowed.

Auction participation application for subsoil use of objects should be filled by a computer approach in state and/or official languages, printed by electronic printers.

Bid should be attached by the following documents:

- Copies of the founding documents and the certificate of incorporation;
- A copy of the certificate of state registration of the citizen as an individual entrepreneur;
- A copy of the appointment of the executive body of the organization;
- Power of attorney to the representative, executed in accordance with the legislation of the Kyrgyz Republic, where a person would act by his representative;
- document evidencing of payment of the guarantee fee;
- A document confirming payment for tender fee;

- A foreign entity additionally submits legalized extract from the state register or other certificate that it is a valid legal entity under the laws of their country;

- companies registered in the Kyrgyz Republic, including subsidiaries of foreign companies registered in the Kyrgyz Republic, additionally submits a certificate of tax service on the absence of overdue tax debts.

Bid submission is considered as consent of the bidder with all the terms of the bidding.

Certificates and documents executed by the bidder, signed by an authorized person and stamped by bidder.

Copies of the documents should be submitted duly certified.

Constituent and other documents submitted by the foreign entity should be apostilled and submitted their notarized translation into the state and/or official languages.

All the above mentioned documents should be delivered to the auctioneer along with the bid.

Application materials received after the bid submission deadline would not be registered and returned to the bidder.

8. The successful bidder, who signed the minutes of the bidding results, pays all established under legislation payments to the budget of the Kyrgyz Republic.

9. The tender fee in amount of 10,000 (ten thousand) soms paid by the bidder to the special account of the auctioneer:

State Agency for Geology and Mineral Resources under the Government of the Kyrgyz Republic

Beneficiary: Pervomay ROK (District Branch of Treasury)

Beneficiary's Bank: OJSC "Aiyl Bank" in Bishkek city

Settlement/account 1350108011368456

Personal/account 4402012100002662

BIC (MFO) 135001

TIN 03010199610110

OKPO 05804223

STS: 004 Pervomay rayon (district)

Payment code: 14238900 in the bank

Purpose of payment: to the State Geology Agency for tender fee or for the guarantee fee

Tender fee is not subject to return, except in case of cancellation of the bidding, or when the bidder withdraws its bid prior to the start of bidding, or would not be allowed to participate in the bidding. In case of return of the tender fee, it is payable to the bidder within 30 banking days.

10. Guarantee fee in the amount of 22900 (twenty two thousand nine hundred) dollars, paid by the bidder in the national currency at the exchange rate of the National Bank of the date of transfer or guarantee fee to the special account of the auctioneer specified in paragraph 9 of this document.

Guarantee fee is refunded to the bidder/participant within 30 banking days from the date of signing of the final minutes of the meeting of the tender committee.

A bidder, who refused to sign the minutes of the tender as a successful bidder, is eliminated from the number of bidders. Contributed by him guarantee fee is not refundable.

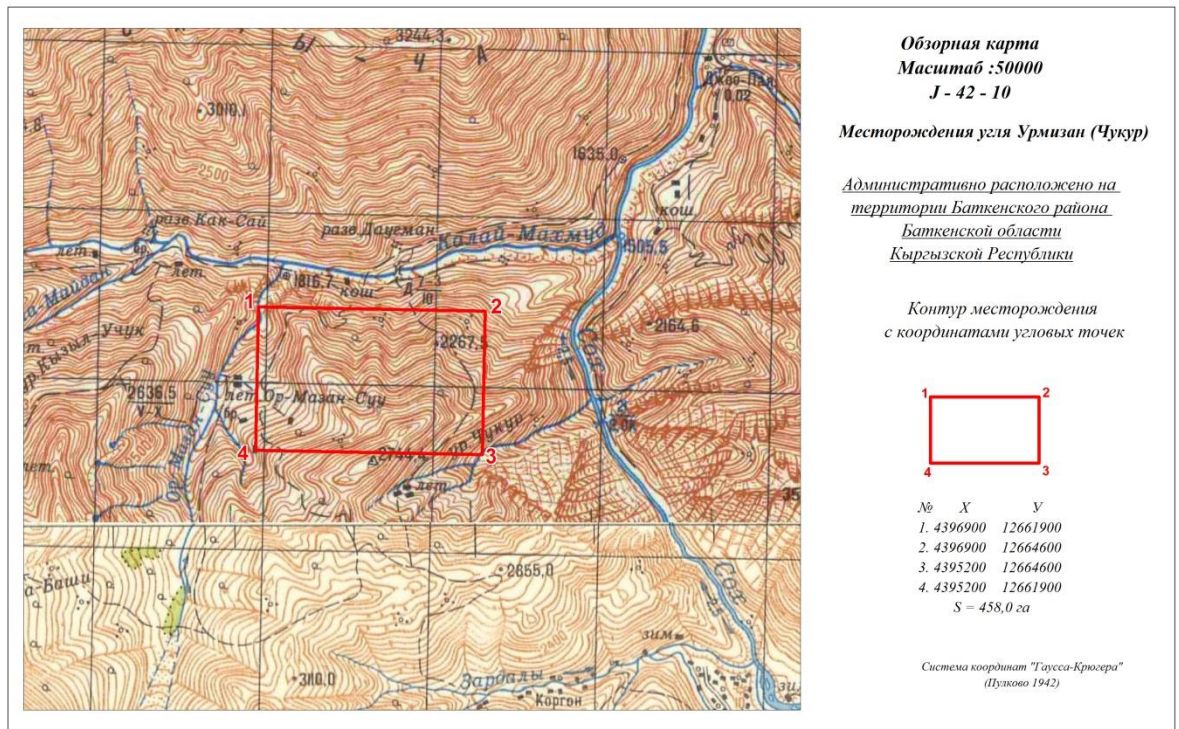
11. The starting price of the auction subject is 22900 (twenty two thousand nine hundred) U.S. dollars.

12. Bid increment is set at 2290 (two thousand two hundred and ninety) U.S. dollars, the maximum increment- 22900 (twenty two thousand nine hundred) U.S. dollars.

13. The bidding is acknowledged as void in following cases:

- 1) In the absence of bids or if only one bid is submitted;
- 2) To participate in the bidding admitted only one bidder or no one is admitted;
- 3) To participate in the bidding, only one registered bidder or nobody is registered;
- 4) Bidders offered a price not higher than the starting price.

14. The successful bidder is the bidder who offered the highest price for the lot. On the day of the bidding, the successful bidder signs the minutes. Refusal of the successful bidder to confirm its results the same day (i.e. refusal to sign the minutes) or non-payment of his proposed price for subsoil use within five banking days after the signing of the minutes on bidding is deemed to be a waiver of subsoil license of object, the guarantee fee is not refundable.



Appendix 2
"Approved"
Order of the State Agency for Geology
and Mineral Resources
under the Government of the Kyrgyz
Republic
No. _____ dated _____

Auction terms on granting of the subsoil licence for the graphite field Kuilyu Site Arpa-Takyr II)

Organizer of the auction in accordance with the Decree of the Kyrgyz Republic Government #834 dated December 14, 2012: the State Agency for Geology and Mineral Resources of the Kyrgyz Republic, the authorized State Authority.

1.1. Subject of the auction: Subsoil licence for the exploration of the field Kuilyu, site Arpa-Takyr II in accordance with the Law of the Kyrgyz Republic "On Subsoil".

Subsoil object, the licence of which is put up for auction: Kuilyu field, site Arpa-Takyr II.

Graphite deposit Kuilyu administratively belongs to Ak-Suu district of Issyk-Kul region.

1.2. Form of the auction: open.

1.3. Geographical location of the subsoil object:

The absolute altitude ranges 3600 – 3800 m.

1.4. Dimensions of licence area:

Within the Kuilyu field, site Arpa-Takyr II for the exploration:

Coordinates of the mining allotment on the topographic base with scale 1:50000 of the sheet K-44-63:

No	x	y
1	14338376	4673952
2	14338750	4673950
3	14338450	4673450
4	14338050	4593120
S = 0,19 km ²		

The area is – 19.4 ha.

2. Geological characteristics of the licence area

The field is located in the area of the sheet K-44-63-A, on the right valley side of the same-name river, tending to water-divide part of the northern slope of Kuilyu ridge within the altitude ranging 3600 - 3800 m.

The nearest residential area is the settlement Enilchek, locating 30 km from the field, which is connected with the regional center city Karakol by a highway of 156 km.

The nearest railway station is in Balykchy city, located in the western end of Issyk-Kul Lake, 225 km from Karakol city.

The high-voltage power line (110 kV) is stretched 20 km to the south, supplying the Sary-Jaz mining and refining plant and the highway Karakol – Enilchek is stretched 5 km to the east.

The nearest river - Kuilyu - flows 1.5 km to the north; it is the right tributary of Sary-Jaz River.

The field area is classified as the 8-point seismic zone.

The area population is few and mainly engaged in livestock breeding.

In 1980 - 1985 years V.A. Grishchenko, N.N. Ishalin et al carried out the exploration and geological surveying works with scale 1: 50 000 on this area. Graphite was noted in the description of the third unit of Kuilyu suite. Actually, the Kuilyu field was discovered in 1982 by Y.P. Rykov.

During 1982 – 1984, the employers of the laboratory of stannous ore and rare-metal ore deposits at the Institute of Geology of the Academy of Sciences of the Kyrgyz SSR had performed the mineralogical, petrographic, chemical and analytical, and technological researches. In the results of these researches, it was identified that the graphite of Kuilyu thickness complies with the industrial requirements to graphite, used for the manufacture of crucibles for metallurgical industry and meets the most high-quality varieties. Graphite mineralization of Kuilyu thickness is very similar to graphite mineralization of Zavalevskogo and Petrovskogo fields.

Since 1992, the exploration was performed by Aksu geological exploration party of the Issyk-Kul complex expedition.

During this period, the crew completed the following scope of principal works:

Table No. 1

No№	Type of work	Unit	Scope
1	Prospecting traverse	km	171,6
2	Trenches	m ³	5329,6
3	Dozer channels	m ³	9503
4	Well drilling	linear meter	414,8
5	Assignment	rub	3459

Kuilyu graphite field is located in Sary-Jaz unit of ancient metamorphic rocks, and the geological structure of the field contains the rocks of Proterozoic and Cenozoic age.

Kuilyu suite of Lower Proterozoic is split into four units, which are interconnected by gradual transitions.

Unit I is widespread in the northern and eastern parts of the area. Its structure contains mainly grey, light grey, sometimes dark grey, green dark grey, dark green, pink grey, usually finely banded leucocratic to melanocratic (inclusive) gneisses, including injection and migmatites. The interlayers and lenses of green dark grey and black biotites - amphibole and amphibole-biotite crystalline schists, single interlayers of light medium - and coarse-crystalline marbles have the tributary role.

The incomplete established power of the first unit is 419 meters, the true power, apparently, far exceeds 500 meters.

Unit II is often associated with a unit I, on which it occurs according to gradual transitions, and singles out on the right side of valley of the river Kuilyu in the mountain area Arpa-Takyr. The unit contains dark grey (to black) microcrystalline amphibole-biotite and biotite-amphibole schists, grey, pink melano- and mesocratic finely banded (striping of melanocratic and leucocratic bands with thickness 0.5 - 2.0 cm) gneisses.

Unit power is 470 - 540 meters.

Unit III overlies on the unit 2 according to the gradual transition. Its structure contains mostly white, sugary grained, sometimes greenish white massive and banded, clean, serpentized (ophicalcite), the micaceous (muscovite, biotite, muscovite-biotite), sometimes with graphite large and coarse-crystalline calciphyres, marbles. Among the latter there single out the interlayers with thickness from 2-3 cm to 15 m and lenses up to 1.5 m of dark grey; greenish grey micaceous quartz rocks, amphibole-biotite and biotite-amphibole crystalline schists, dark grey and black amphibolites, meso- and melanocratic finely banded gneisses.

Unit power is 270 - 350 meters.

Unit IV overlies on unit 3 according to the gradual transition. It is composed of grey, white, yellowish, dark grey massive sections, sometimes-banded medium- and coarse-grained uneven serpentized and micaceous marbles, calciphyres, including interlayers and lenses of amphibolites, amphibole-biotite crystalline schists, micaceous quartz rocks.

Unit power is incomplete and exceeds 500 m.

Graphite mineralization is developed in the upper part of the fourth unit of Kuilyu suite, forming three stratified horizons of granite gneisses, the power of which ranges from 20 to 50 meters. On the strike they stretch far beyond the researched site of Arpatakyr - 3.

The basis of Sary Jaz unit is formed by Lower Proterozoic metamorphic rocks of Kuilyu strata or Lower Proterozoic (?) granitoids of Sary Jaz complex. The south-eastern edge of Sary Jaz unit is limited by steep planes of Atbashi-Inylchek split set. Its north-north-eastern boundary is connected to the band of en echelon splits, cutting a set of steplike rubbles of ancient foundation descended to the north.

In the existing outbreaks, the basement rocks form the ride horses of upturned beds with mainly north-eastern strike. On large spaces in Kuilyu and Sary Jaz ridges one could see a flat dip of Lower Paleozoic strata on the surface of the

gneiss basement; these strata are usually divided by splits into elongated units, especially in mass selvages.

The majority of splits, crossing the Sary Jaz unit, roughly from the south-west to north-east and are steeply dipping over faults.

The ore bodies within the ore horizons are represented with lenses of graphitic granite - gneisses.

The ore bodies are mostly represented with graphitized gneissose granite and complex biotite, feldspathic-pyroxene, biotite-plagioclase and other differences, enriched with graphite to various extents.

The bodies are characterized by the clear cut rhythmic-layered composition and the layered structure.

Externally the graphite-bearing gneisses are loose, badly damaged rocks.

Graphite-bearing gneisses are dismembered with empty, without graphite flakes, quartzite, granite aplite dikes, and form the lens-shaped graphite bodies.

The distribution and size of graphite flakes in ore bodies are various and visually differ in granite-gneisses, less frequently in amphibolites. So, in gneisses (almost unchanged) the graphite with small flakes, 1-1.5 mm on average, is distributed in the form of inclusions. There are sections of ore bodies, where there are metasomatic elaborations of granite-gneiss, characterized by the rock of quartz, calcite veins, brecciate formations, consisting of feldspar, quartz and other varieties of rocks.

In amphibolites the graphite is visually observed very rarely in the form of small scattered flakes or it is absent at all. Graphite content in the ore bodies is uneven and varies from 1 to 26%, 3 - 4% on average.

Graphite mineralization is confined to the three horizons of granite-gneisses, with thickness from 20 to 50 m; on the strike these horizons are traced intermittently for 2.5 km.

Mineral and material composition was studied by E.B. Baibulatov and Y.K. Pomazkov; these authors have no discrepancies in determination of the ores mineral composition. There are serious discrepancies in determination of confinement of graphite mineralization to its genesis.

E.B. Baibulatov and others assert that the graphite mineralization is confined to the granite-gneisses, and the graphite source is the original organic substances, originally contained in sedimentary rocks, and following the regional metamorphism converted to graphite.

Based on the study of thin rock section, Y.K. Pomazkov concluded that graphite, particularly with large flakes, is confined to crushed and interstratified syenite dykes, and gneisses of Kuilyu suite contain no graphite.

If the graphite is of no metamorphic origin, the projections of E.B. Baibulatov and others (1985) about the possible presence of 7 million tonnes of graphite in the thickness of Kuilyu will be greatly exaggerated (S.M. Lee, 1995).

Graphite-bearing rock is composed of microcline, orthoclase, plagioclase, biotite, diopside, graphite, quartz.

In addition to the above mentioned mineral ores, there are present the table spar, zircon, sphene, zoisite, epidote in the form of individual grains.

Ore minerals are mainly represented with sulfides - pyrite, chalcopyrite.

The structure of graphite ores is interspersed, the texture – with large flakes, graphite rocks, represented by gneiss, banded structure is very poorly expressed here, the formation in its structure is close to granite and the researched gneisses can be called granite-gneisses.

On Granitogorsk processing plant in 1992, the ore was tested on wash ability and commercial concentrate receipt on a sample of 600 kg.

According to the results of wash ability, the mode of ore grinding and regrinding of concentrates was selected, flotation conditions (reagent mode, flotation time, number of operations, density).

Due to the small amount of the original ore and the lack of appropriate small-size equipment for recleaning operations, there was received only a rough concentrate on the enlarged facility. The recovery of the last was carried out in a laboratory environment.

The rough concentrate was sent for purification to Karabalta Mining Combine, where it was chemically purified by three stage leaching of impurities using nitric, hydrofluoric and again nitric acids.

The graphite, obtained after the third stage of purification, by physical-chemical parameters complied with GOST 17022 - 81 (Graphite, types, brands, and general technical requirements) and corresponds to the type ГСМ-2 (special low-ash graphite) (except for the volatile).

According to the conclusion of Kara-balta Mining Combine, using this method of purification, adjusting some parameters of leaching and washing, it is possible to obtain the graphite of highest grade, complying with the requirements of GOST 17022-81-ГСМ-1 from the flotation concentrate of Kuilyu graphite field.

Purified graphite was sent to ultra hard materials institute of academy of sciences of Ukraine for graphite and natural mineral testing as a component of the reaction batch upon synthesis of diamonds, and natural mineral as a material for containers manufacture.

At the synthesis of diamonds types AC-2 - AC-6 there was used the reaction batch, consisting of serially applied carbon solvent and graphite of Sary Jaz (Kuilyu) field. The synthesis of diamonds was carried out in high-pressure apparatus with hard-alloy matrix on presses with 6.3 MN force. The diamond powders, obtained at the synthesis, by visual evaluation of sinters, were not significantly different from those obtained by commercially applied technology.

At the synthesis of single-crystal diamonds there was used the reaction batch consisting of serially applied carbon solvent and mixture of artificial graphite of grade ГМ3 ОЧ - 7 - 3 and graphite of the field in the ratio by weight. During the synthesis, which was performed at parameters, accepted in accordance with the technological process, there were obtained single-crystal diamond powders.

There were determined the values of shear stress under high pressure for the submitted natural mineral according to the methodology developed by the ultrahard materials institute. The test results showed that according to shear stress the material submitted is similar to pyrophyllite, and it is lower than by lithographic stone, used for the containers manufacture. Following this, it is

concluded that the submitted mineral in a pure form is not suitable for the containers manufacture. At the same time, it may be used instead of pyrophyllite for the manufacture of containers of cylindrical type apparatus.

Based on these experiments, it was concluded that it was necessary to investigate the graphite properties and to perform an additional special processing in order to improve its characteristics at synthesis of diamonds.

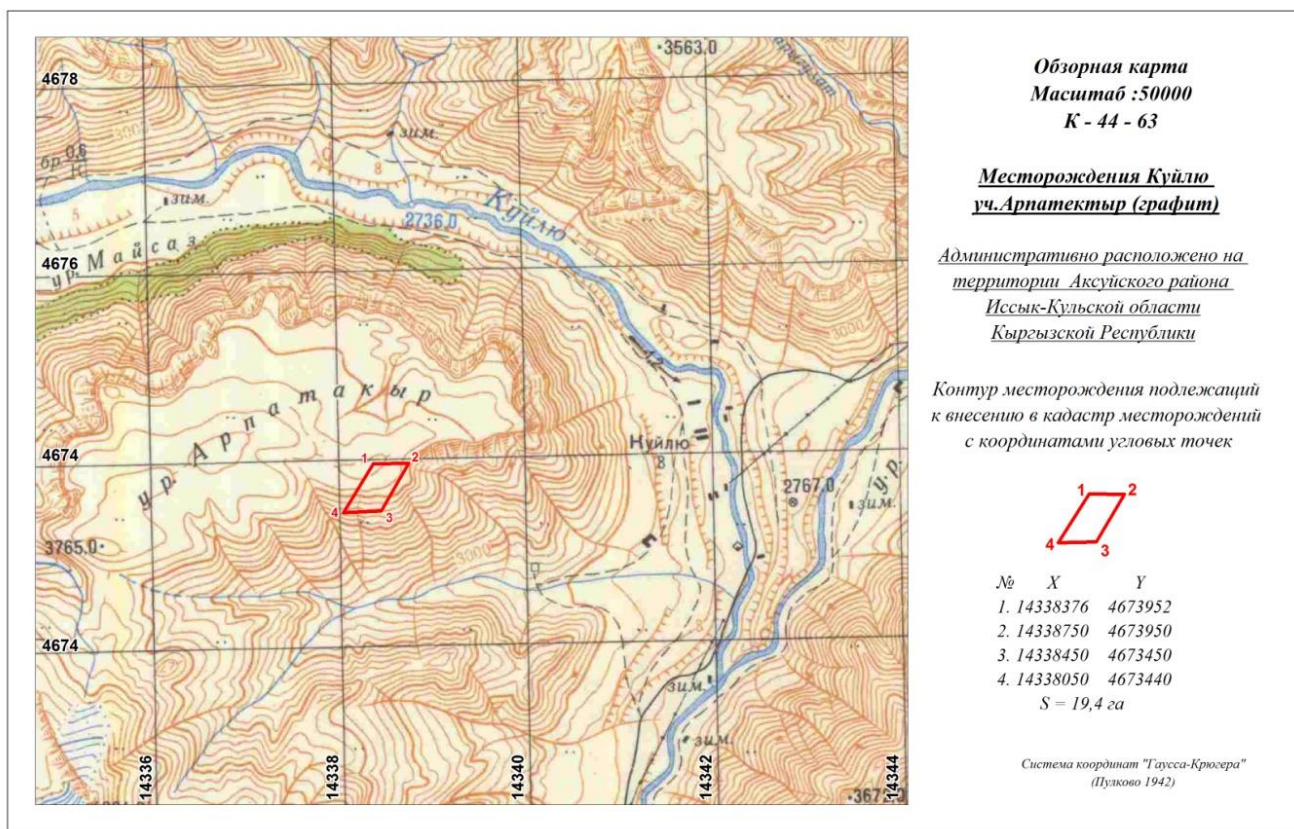
It is necessary to develop special additives, enhancing its shear stress under pressure, in order to use for containers manufacture.

Calculation of reserves was carried out at the Arpa-Takyr-II site, where there was determined an ore body at 2% cut-off grade of graphite and three ore bodies at 3% cut-off grade. Graphite content in ore ranges from percent fractions to 27%.

Estimated reserves of graphite-bearing ore by categories C1 + C2 is 2 670 661 tonnes, with the graphite content of 4.41%, graphite reserves amount to 117 775 tonnes.

Reference

S.M. Lee Report “On results of geologic exploration, performed at Kuilyu graphite field in 1992 – 1994”, Bishkek city, 1995, Funds of State Geological Agency, 8712.



3. Basic requirements for the subsoil use object.

3.1. Basic requirements for subsoil use object are specified in accordance with the legislation of the Kyrgyz Republic related to the subsoil use and should be included in the subsoil license. Detailed requirements are specified at registration of license in the licensed attachment.

3.2. The main requirements for the use of the licensed area are:

- Conclusion of a licensed attachment for the drafting of work designed to mining of licensed area;

- During the design the adjustment on the licensed area with the entering of the reserves on the state balance;

- submission, within the time specified in the licensed attachment period, of the operations plan designed to mining of licensed area, passed examination in respect of industrial, environmental safety and subsoil protection, as well as Certificate for temporary use of plot for subsoil use;

- Submission of semiannual information on progress of conditions of the licensed attachment until July 15 of this year;

- Submission of annual report till January 31 of the new year, in the prescribed form, approved by the authorized state body for the implementation of the state policy on subsoil use and on electronic media;

- Submission of program (plan) for the development of mining work until January 31 of the new year;

- Performance of all required types of mining operations in strict accordance with the project, which has been examined in the industrial, environmental safety and protection of mineral resources;

- Development of the Action Plan to ensure the requirements of industrial safety at work, including the prevention of accidents and their consequences localization with required justifications and calculations as at the site and as a result of accidents at other facilities in the area of location of the object. In developing these measures should be considered hazards (landslides, avalanche danger, etc.), risk factors, conditions for the occurrence of accidents and their scenario, the number and placement of production staff;

- Provide a report on the results of exploration work with graphic materials and the results of laboratory research;

- Technical and biological reclamation of disturbed soils in accordance with the design decisions which are passed examination for industrial, environmental safety and subsoil protection, and according to legislation of the Kyrgyz Republic.

In case of default by the auction winner in the future the main requirements for the use of subsoil object, then to it will be penalized at a rate of 0.1% per day of the paid value of the object subsoil by the subsoil user for each day of delay in the fulfillment of the commitments.

4. Time and place of the bidding: Auction will be held on July 23, 2015 in the building of Ak-Sui state administration building, Issyk-Kul oblast

Registration for the bidding starts from 11-00 to 11-50 hours. Start of the bidding in 12-00 hours.

5. Deadline: Bids would be submitted from June 2, 2015 to July 17, 2015 inclusively, daily on working days from 9-00 hours to 15-00 hours by Licensing

Department of the State Agency for Geology and Mineral Resources under the Government of the Kyrgyz Republic, office No. 225._

6. Place and time for familiarization with the terms and conditions of the bidding:

Licensing Department of the State Agency for Geology and Mineral Resources under the Government of the Kyrgyz Republic, office No.217, every day from 9:00 to 18:00 hours.

7. To participate in the bidding the bidder personally or by the authorized representative is submitting bid to the auctioneer till 15-00 hours of July 17, 2015, inclusively, in duplicate, in the form prescribed by the auctioneer and posted on the official website of the auctioneer: www.geology.kg.

Filing by mail is not allowed.

Auction participation application for subsoil use of objects should be filled by a computer approach in state and/or official languages, printed by electronic printers.

Bid should be attached by the following documents:

- Copies of the founding documents and the certificate of incorporation;
- A copy of the certificate of state registration of the citizen as an individual entrepreneur;
- A copy of the appointment of the executive body of the organization;
- Power of attorney to the representative, executed in accordance with the legislation of the Kyrgyz Republic, where a person would act by his representative;
- document evidencing of payment of the guarantee fee;
- A document confirming payment for tender fee;
- A foreign entity additionally submits legalized extract from the state register or other certificate that it is a valid legal entity under the laws of their country;
- companies registered in the Kyrgyz Republic, including subsidiaries of foreign companies registered in the Kyrgyz Republic, additionally submits a certificate of tax service on the absence of overdue tax debts.

Bid submission is considered as consent of the bidder with all the terms of the bidding.

Certificates and documents executed by the bidder, signed by an authorized person and stamped by bidder.

Copies of the documents should be submitted duly certified.

Constituent and other documents submitted by the foreign entity should be apostilled and submitted their notarized translation into the state and/or official languages.

All the above mentioned documents should be delivered to the auctioneer along with the bid.

Application materials received after the bid submission deadline would not be registered and returned to the bidder.

8. The successful bidder, who signed the minutes of the bidding results, pays all established under legislation payments to the budget of the Kyrgyz Republic.

9. The tender fee in amount of 10,000 (ten thousand) soms paid by the bidder to the special account of the auctioneer:

State Agency for Geology and Mineral Resources under the Government of the Kyrgyz Republic

Beneficiary: Pervomay ROK (District Branch of Treasury)

Beneficiary's Bank: OJSC "Aiyl Bank" in Bishkek city

Settlement/account 1350108011368456

Personal/account 4402012100002662

BIC (MFO) 135001

TIN 03010199610110

OKPO 05804223

STS: 004 Pervomay rayon (district)

Payment code: 14238900 in the bank

Purpose of payment: to the State Geology Agency for tender fee or for the guarantee fee

Tender fee is not subject to return, except in case of cancellation of the bidding, or when the bidder withdraws its bid prior to the start of bidding, or would not be allowed to participate in the bidding. In case of return of the tender fee, it is payable to the bidder within 30 banking days.

10. Guarantee fee in the amount of 47110 (forty seven thousand hundred and ten) dollars, paid by the bidder in the national currency at the exchange rate of the National Bank of the date of transfer or guarantee fee to the special account of the auctioneer specified in paragraph 9 of this document.

Guarantee fee is refunded to the bidder/participant within 30 banking days from the date of signing of the final minutes of the meeting of the tender committee.

A bidder, who refused to sign the minutes of the tender as a successful bidder, is eliminated from the number of bidders. Contributed by him guarantee fee is not refundable.

11. The starting price of the auction subject is 47110 (forty seven thousand hundred and ten) U.S. dollars.

12. Bid increment is set at 4711 (four thousand seven hundred and eleven) U.S. dollars, the maximum increment- 47110 (forty seven thousand hundred and ten) U.S. dollars.

13. The bidding is acknowledged as void in following cases:

1) In the absence of bids or if only one bid is submitted;

2) To participate in the bidding admitted only one bidder or no one is admitted;

3) To participate in the bidding, only one registered bidder or nobody is registered;

4) Bidders offered a price not higher than the starting price.

14. The successful bidder is the bidder who offered the highest price for the lot. On the day of the bidding, the successful bidder signs the minutes. Refusal of the successful bidder to confirm its results the same day (i.e. refusal to sign the minutes) or non-payment of his proposed price for subsoil use within five banking

days after the signing of the minutes on bidding is deemed to be a waiver of subsoil license of object, the guarantee fee is not refundable.

APPLICATION
for auction participation

For legal entities:

I, _____
(Surname, Name, Middle name)

(identification document)

(document type, serial code, number, issuing authority and date of issue)

On behalf of: _____

(full name, registration number, registration date and issuing authority

address, legal entity account details)

acting with reference to : _____

(document, authorizing the person, if the person authorized by power of attorney

- indicate details of power of attorney)

For individuals:

I, _____
(Surname, Name, Middle name)

(identification document)

(document type, serial code, number, issuing authority and date of issue)

Residing at the address: _____

(city, village, street, No. of house and apartment)

Hereby declare:

an intent to participate in auction, which will be held: _____

(place and time)

on subsoil use of the following site: _____

of lot (s): _____

Following this intent I had paid guarantee fee in amount of _____ KGS, against bank receipt(s):

- _____;
- _____;

And auction participation fee in amount of _____ KGS, against bank receipt(s):

- _____;
- _____.

In case of winning on the auction I undertake obligations to:

- 1) sign final report on results of auction;
- 2) make cost payment for right to subsoil use of site obtained on an auction to accredited state authority on implementation of state policy on subsoil use, at time period determined by terms of the auction;
- 3) make necessary fees to accredited state authority on implementation of state policy on subsoil use in accordance with the legislation of the Kyrgyz Republic;
- 4) follow the requirements of subsoil use of site set by auction organizing authority, which are inherent conditions for offering subsoil use of site to auction and in case of non-fulfillment – to make penalty fees set by the legislation of the Kyrgyz Republic.

I agree that in case of becoming a winner on the auction and the following refusal from my side to sign final report on results of auction or refusal of right on subsoil use, the guarantee fee which was paid would not be returned and would be held by accredited state authority on implementation of state policy on subsoil use.

Before obtaining license on subsoil use of site this application and the final report on results of auction will be valid ad agreement between accredited state authority on implementation of state policy on subsoil use.

The following are attachments to the application:

1. _____.
 2. _____.
 3. _____.
 4. Payment document confirming payment of guarantee fee.
 5. Payment document confirming payment of auction participation fee.
- Passport must be presented personally by an applicant when submitting application.

Applicant signature (authorized person): _____

Date " ___ " _____ 20__ y.

Submitted to: _____

(position of person in charge)

(date of application submittal with indicating accurate time)

(Full name and signature of person in charge)