



SUKHOKHUTIRSKA BLOCK OF TALC-MAGNESITE AND POLYMETALLIC ORE

Mineral: talc-magnesite, nickel, cobalt ores.

Type, period of subsoil use: 20-years licenses for exploration, pilot development and production.

Location: Krynychky district, Dnipropetrovsk region, 15 km southwest of the village of Krynychka, on the outskirts of Lozuvatske village.

Plot area: 127,6 ha

Geological summary. In the geological structure of the Sukhokhutirskaya block lay Archean talc-magnesite ores (minerals) with a thickness of 15.0 to 82.0 m, Mesozoic-Cenozoic weathering crust with an average thickness of 23.9 m and Neogene-Quaternary clay rocks (overburden) with an average capacity of 32.5 m. The weathering crust of serpentinites and talc-magnesite rocks of the block is characterized by the content in the ores of nickel (content from 0.2 to 2.0%), cobalt (average content of 0.055%), iron (average content of 24.3%) and silica.

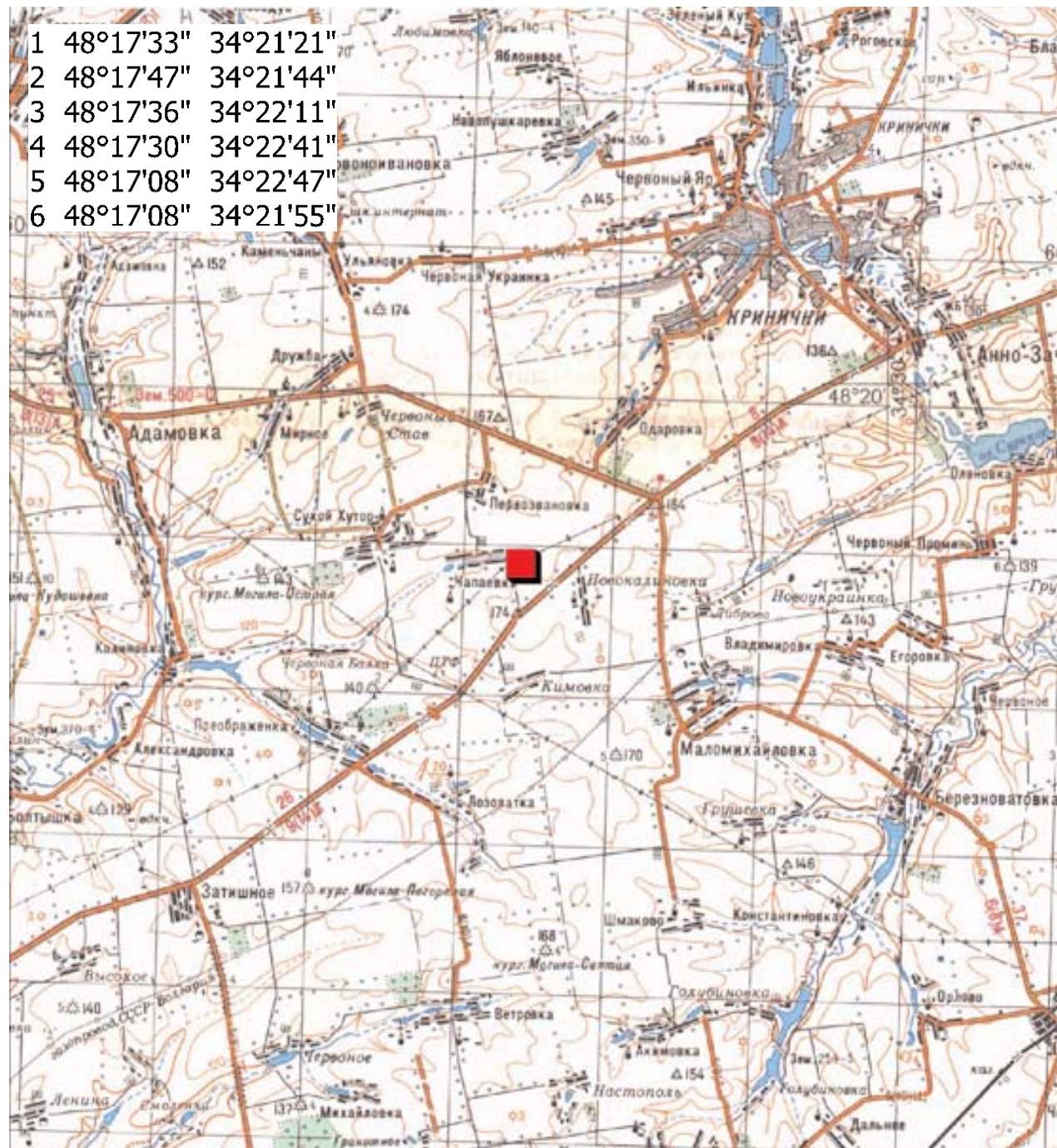
Available geological information. Field work on Sukhokhutirskaya area was carried out in the period 2004–2009 by a research group of the Kharkiv Complex Geological Party of “Pivdenukrgeologiya”. Laboratory researches were carried out by ME “Pivdenukrgeologiya”, laboratory technological researches were carried out by the Ukrainian Institute of Refractories, radiological assessment of raw materials was performed by Kharkiv SES. The chemical composition of the ores of the Sukhokhutirsk block is almost indistinguishable from the ores of the Pravdyn field. According to the results of laboratory studies, the content of MgO in the talc-magnesite ores of the site is 37.59%, SiO₂ - 30.34% (MgO / SiO₂ - 1.26), CaO and Al₂O₃ - less than 2.0%, which meets the industry quality requirements for refractory raw materials. Laboratory and technological studies have established the suitability of talc-magnesite ores after pre-firing at a temperature of 1580°C and with an impurity of 30%, periclase as a raw material for the forsterite refractories brand F1 manufacturing. According to the value of the total specific activity of natural radionuclides, talc-magnesite ores belong to the first class (14.7 Bq/kg). The average thickness of talc-magnesite ores (discovered by wells) is 42.6 m. The depth of the mineral varies from 42.0 m to 89.5 m, the average - 60.4 m. The average thickness of overburden is 56.4 m, including 23.9 m of weathering crust. The volume weight of the ore is 2.8 g / m³.

http://geoinf.kiev.ua/wp/geologichni_zviti.php_rep_fnd_shifr.rdf_schifr_6260

Resources/reserves assessment. The reserves of talc-magnesite ores of the Sukhokhutirskaya block for category C2 were 75,739.7 thousand tons, reserves estimates for category P1 - 164,693.3 thousand tons (resources are not included in the special permit). Estimated resources of overburden sand-clay rocks in category P1 as brick raw materials were: loam - 21383.2 thousand m³, red-brown clay - 8,668.8 thousand m³. Calculated by category C2 reserves of accompanying nickel of weathering crust (with nickel cutoff 0,5%) amounted to 72.96 thousand tons, cobalt - 4.77 thousand tons and iron - 1,420.21 thousand tons.

Minimum work program. Provided by agreements on the terms and conditions of subsoil resources use and defined in the Work Program appendix. Sample agreements can be found at: <https://www.geo.gov.ua/primirni-ugodi-pro-umovi-koristuvannya-nadrami/>

- 1 48°17'33" 34°21'21"
- 2 48°17'47" 34°21'44"
- 3 48°17'36" 34°22'11"
- 4 48°17'30" 34°22'41"
- 5 48°17'08" 34°22'47"
- 6 48°17'08" 34°21'55"



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List of cadastral numbers of land plots, within the contour of the deposit



Information on land plots, in particular by
cadastral number, can be obtained on the Public
Cadastral Map of Ukraine:
<https://cutt.ly/Fx0CuBg>

- State / municipal property
- Private property
- Not specified

- 1 1222085500:09:003:0001
- 2 1222085500:02:001:0314
- 3 1222085500:02:001:0315
- 4 1222085500:02:001:0316
- 5 1222085500:02:001:0317
- 6 1222085500:02:001:0318
- 7 1222085500:01:001:0379
- 8 1222085500:01:001:0097
- 9 1222085500:09:006:0010
- 10 1222085500:09:006:0008
- 11 1222085500:01:001:0096
- 12 1222085500:01:001:0106
- 13 1222055100:01:002:0259
- 14 1222085500:02:001:0227
- 15 1222055100:01:002:0260
- 16 1222085500:09:003:0006
- 17 1222085500:09:006:0007
- 18 1222085500:09:100:0005
- 19 1222085500:01:001:0008
- 20 1222085500:09:006:0006
- 21 1222085500:09:006:0009
- 22 1222085500:09:003:0010
- 23 1222085500:09:003:0007
- 24 1222085500:02:001:0226
- 25 1222055100:01:002:0261
- 26 1222055100:01:002:0305
- 27 1222055100:01:002:0270
- 28 1222085500:01:001:0193
- 29 1222085500:02:001:0027
- 30 1222085500:01:100:0312
- 31 1222085500:02:001:0225
- 32 1222085500:01:001:0456
- 33 1222055100:01:002:0271
- 34 1222055100:01:002:0272
- 35 1222085500:02:001:0026
- 36 1222085500:01:001:0224
- 37 1222055100:03:035:0394
- 38 1222055100:03:035:0395
- 39 1222085500:02:001:0028
- 40 1222085500:02:002:0217
- 41 1222085500:01:001:0223
- 42 1222055100:03:035:0396
- 43 1222085500:02:001:0043
- 44 1222055100:01:002:0276
- 45 1222055100:01:002:0279