



KORCHAKIVSKYI PROSPECTIVE AREA WITH TITANIUM-ZIRCONIUM ORE OCCURENCE

Mineral: titanium ores, zirconium ores.

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

Location: Sumy district, Sumy region, on the northern outskirts of the villages of Mala Korchakivka, Korchakivka and Nova Sich. From the south, there is adjacent Hrapivschyna titanium-zirconium ores promising accumulation and in 4 km to the north there is Belovodsky titanium-zirconium ores promising accumulation. From the east area is bordered by the highway N-07.

Plot area: 750 ha

Geological summary. The length of the prospective area is about 10 km, the width is on average 700–800 m, it is elongated in the north-eastern direction. Absolute marks (mss) of the earth's surface from +208, +210 m in the southwest up to +225 m in the northeast. In the geological structure of the area take part Upper Cretaceous, Paleogene, Neogene and Quaternary deposits. The writing chalk of the Maastricht tier lies at depths of 57–68 m. The upper layer of glauconite-quartz sands, which includes the Kaniv, Kyiv Eocenes and Mezhygirska deposit of the Lower Oligocene, has thickness of 34–37 m. The composition and structure of the Berets deposit are similar to those of Belovodskyi and Hrapivshchyna. The thickness of the Nyzhnyoberets subdeposit is 6.7–10.6 m, the absolute marks of its bottom range from +185 m to 198 m. The upper (Syvash) subdeposit of the Berets deposit is characterized by absolute marks of the bottom from 196 m to 208 m, on the right bank of the Oleshnya river they range from +196 m to +200 m. The thickness of the subdeposit is from 3 to 18 m, on average about 9 m, the thickness of the overlying Neogene mottled and red-brown clays and Quaternary sediments is from 3.6 to 16 m. During the geological survey at a scale of 1:50,000 at the site of the Korchakivskyi promising area, mapping and separate exploration wells were drilled, and several outcrops were described. Zircon-bearing sands (with zircon content > 4 kg/m³) of Verkhnyoberetsky deposit were discovered and tested in all 6 wells (№ 7, 8, 24, 47, 33, 320) and two outcrops (№ 1, 5), distance between exploration points researches from 500 m to 2.2 km. The ore mining is confined to the upper part of the Verkhnyoberetsky deposit. The average thickness of the ore deposit is 4 m, the opening is 10.8 m, the opening coefficient is 2.7. The weighted average content of zircon is 6.5 kg / m³, rutile is 7.6 kg / m³, conditional ilmenite is 51.4 kg / m³.

Available geological information

The promising area was discovered during a geological survey at a scale of 1:50000 in the Sumy city district (letters M-36-34-B, G and M-36-46-A, B) in 1969-1972 by Kharkiv GEE. Later, in 1992, the promising area was further studied and identified as one of the most promising. The Korchakivskyi promising area is a part of the Korchakivskyi ore field. The site is recommended for greenfield exploration.

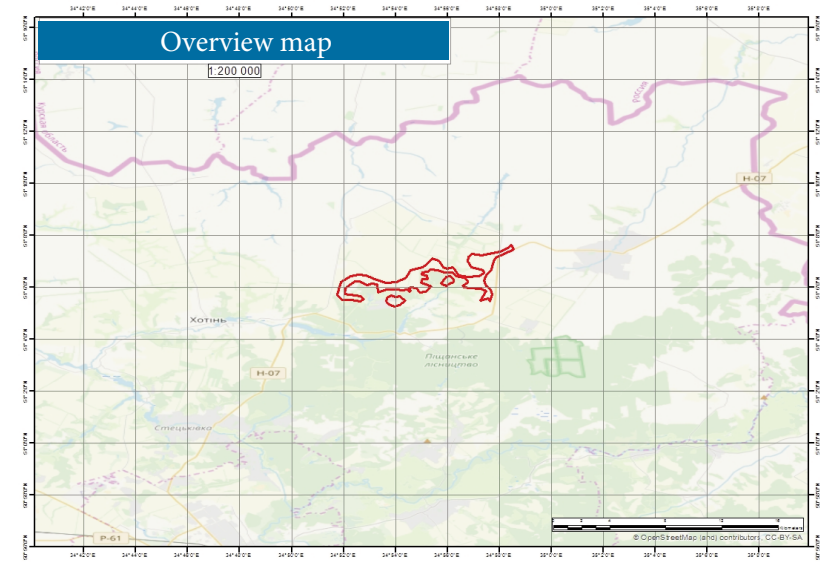
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Resources/reserves assessment. Preliminary calculated forecast resources of titanium-zirconium ores by category P2. Resource information has limited access.

Minimum work program. Provided by Mining terms Model agreements and defined in "Work Program" annex.

Model agreements are listed at the link: <https://www.geo.gov.ua/primirni-ugodi-prom-umovi-koristuvannya-nadrami/>



№№ томок	Система координат Пулково42		Система координат WGS84	
	ПШШ	СХА	ПШШ	СХА

Частина 1									
1.	51°03' 31"	34° 52' 25"	51°03' 31"	34° 52' 14"	60.	51°06' 29"	34° 53' 09"	51°06' 29"	34° 53' 01"
2.	51°03' 31"	34° 52' 25"	51°03' 31"	34° 51' 56"	61.	51°06' 27"	34° 53' 19"	51°06' 26"	34° 53' 12"
3.	51°03' 43"	34° 51' 51"	51°03' 42"	34° 51' 45"	62.	51°06' 16"	34° 53' 20"	51°06' 16"	34° 53' 14"
4.	51°06' 11"	34° 52' 06"	51°06' 11"	34° 51' 54"	63.	51°06' 19"	34° 53' 00"	51°06' 18"	34° 53' 02"
5.	51°06' 25"	34° 52' 22"	51°06' 25"	34° 52' 16"	64.	51°06' 16"	34° 53' 03"	51°06' 09"	34° 53' 06"
6.	51°06' 26"	34° 52' 42"	51°06' 26"	34° 52' 36"	65.	51°06' 26"	34° 53' 17"	51°06' 07"	34° 53' 11"
7.	51°06' 27"	34° 52' 39"	51°06' 27"	34° 52' 53"	66.	51°06' 02"	34° 53' 30"	51°06' 01"	34° 53' 24"
8.	51°06' 10"	34° 53' 23"	51°06' 12"	34° 53' 17"	67.	51°03' 49"	34° 53' 18"	51°03' 48"	34° 53' 11"
9.	51°06' 10"	34° 53' 44"	51°06' 09"	34° 53' 38"	68.	51°03' 48"	34° 53' 03"	51°03' 47"	34° 53' 06"
10.	51°06' 12"	34° 54' 06"	51°06' 11"	34° 54' 02"	69.	51°03' 58"	34° 53' 53"	51°03' 58"	34° 54' 09"
11.	51°06' 22"	34° 54' 33"	51°06' 22"	34° 54' 28"	70.	51°06' 01"	34° 53' 43"	51°06' 00"	34° 54' 37"
12.	51°06' 40"	34° 54' 41"	51°06' 39"	34° 54' 34"	71.	51°03' 58"	34° 54' 38"	51°03' 58"	34° 54' 32"
13.	51°06' 46"	34° 53' 09"	51°06' 45"	34° 53' 02"	72.	51°03' 51"	34° 54' 41"	51°03' 51"	34° 54' 35"
14.	51°06' 33"	34° 53' 19"	51°06' 32"	34° 53' 13"	73.	51°03' 49"	34° 54' 40"	51°03' 48"	34° 54' 33"
15.	51°07' 07"	34° 53' 31"	51°07' 07"	34° 53' 25"	74.	51°03' 54"	34° 54' 22"	51°03' 53"	34° 54' 26"
16.	51°07' 01"	34° 53' 46"	51°07' 01"	34° 53' 40"	75.	51°03' 54"	34° 54' 22"	51°03' 53"	34° 54' 16"
17.	51°06' 47"	34° 53' 56"	51°06' 46"	34° 53' 50"	76.	51°03' 56"	34° 54' 10"	51°03' 55"	34° 54' 03"
18.	51°06' 43"	34° 56' 03"	51°06' 43"	34° 55' 59"	77.	51°03' 53"	34° 53' 47"	51°03' 53"	34° 53' 41"
19.	51°06' 46"	34° 56' 18"	51°06' 45"	34° 56' 12"	78.	51°03' 48"	34° 53' 27"	51°03' 47"	34° 53' 20"
20.	51°06' 26"	34° 56' 33"	51°06' 27"	34° 56' 27"	79.	51°06' 06"	34° 53' 24"	51°06' 06"	34° 53' 18"
21.	51°06' 24"	34° 56' 24"	51°06' 23"	34° 56' 18"	80.	51°06' 08"	34° 53' 12"	51°06' 08"	34° 53' 05"
22.	51°06' 26"	34° 57' 19"	51°06' 25"	34° 57' 13"	81.	51°06' 04"	34° 53' 00"	51°06' 04"	34° 52' 54"
23.	51°06' 32"	34° 57' 31"	51°06' 31"	34° 57' 25"	82.	51°06' 13"	34° 52' 44"	51°06' 12"	34° 52' 38"
24.	51°06' 39"	34° 57' 28"	51°06' 38"	34° 57' 23"	83.	51°06' 13"	34° 52' 33"	51°06' 13"	34° 52' 26"
25.	51°06' 46"	34° 57' 46"	51°06' 46"	34° 57' 40"	84.	51°06' 27"	34° 52' 11"	51°06' 27"	34° 52' 05"
26.	51°07' 00"	34° 56' 54"	51°07' 00"	34° 56' 47"	85.	51°03' 42"	34° 52' 06"	51°03' 41"	34° 52' 02"
27.	51°07' 11"	34° 56' 54"	51°07' 10"	34° 56' 48"	86.	51°03' 42"	34° 52' 20"	51°03' 42"	34° 52' 14"
28.	51°07' 17"	34° 57' 09"	51°07' 16"	34° 57' 03"	87.	51°03' 40"	34° 52' 44"	51°03' 40"	34° 52' 38"
29.	51°07' 13"	34° 57' 26"	51°07' 13"	34° 57' 20"	88.	51°03' 33"	34° 52' 54"	51°03' 32"	34° 52' 47"
30.	51°07' 23"	34° 58' 10"	51°07' 22"	34° 58' 03"	89.	51°03' 27"	34° 52' 45"	51°03' 26"	34° 52' 39"
31.	51°07' 31"	34° 58' 34"	51°07' 31"	34° 58' 19"					
32.	51°07' 38"	34° 58' 34"	51°07' 38"	34° 58' 28"					
33.	51°07' 27"	34° 58' 40"	51°07' 27"	34° 58' 34"	1.	51°03' 37"	34° 53' 50"	51°03' 37"	34° 53' 44"
34.	51°07' 08"	34° 57' 39"	51°07' 08"	34° 57' 33"	2.	51°03' 41"	34° 53' 59"	51°03' 40"	34° 53' 56"
35.	51°06' 59"	34° 57' 58"	51°06' 59"	34° 57' 47"	3.	51°03' 37"	34° 54' 08"	51°03' 37"	34° 54' 01"
36.	51°06' 41"	34° 57' 46"	51°06' 41"	34° 57' 41"	4.	51°03' 39"	34° 54' 16"	51°03' 38"	34° 54' 12"
37.	51°06' 26"	34° 57' 36"	51°06' 27"	34° 57' 29"	5.	51°03' 33"	34° 54' 25"	51°03' 33"	34° 54' 19"
38.	51°06' 15"	34° 57' 31"	51°06' 15"	34° 57' 24"	6.	51°03' 36"	34° 54' 29"	51°03' 36"	34° 54' 23"
39.	51°06' 04"	34° 57' 35"	51°06' 03"	34° 57' 29"	7.	51°03' 19"	34° 54' 16"	51°03' 19"	34° 54' 10"
40.	51°03' 54"	34° 57' 47"	51°03' 54"	34° 57' 40"	8.	51°03' 16"	34° 54' 04"	51°03' 16"	34° 53' 57"
41.	51°03' 45"	34° 57' 59"	51°03' 44"	34° 57' 48"	9.	51°03' 21"	34° 53' 51"	51°03' 20"	34° 53' 45"
42.	51°03' 28"	34° 57' 45"	51°03' 28"	34° 57' 38"	10.	51°03' 27"	34° 53' 44"	51°03' 27"	34° 53' 38"
43.	51°03' 34"	34° 57' 42"	51°03' 33"	34° 57' 35"	11.	51°03' 34"	34° 53' 46"	51°03' 33"	34° 53' 40"
44.	51°03' 30"	34° 57' 28"	51°03' 29"	34° 57' 17"					
45.	51°03' 51"	34° 57' 31"	51°03' 51"	34° 57' 31"					
46.	51°03' 56"	34° 57' 24"	51°03' 56"	34° 57' 18"	1.	51°06' 25"	34° 56' 13"	51°06' 25"	34° 56' 06"
47.	51°03' 57"	34° 56' 59"	51°03' 57"	34° 56' 53"	2.	51°06' 19"	34° 56' 21"	51°06' 18"	34° 56' 14"
48.	51°06' 01"	34° 56' 43"	51°06' 00"	34° 56' 38"	3.	51°06' 12"	34° 56' 21"	51°06' 11"	34° 56' 13"
49.	51°06' 04"	34° 56' 42"	51°06' 03"	34° 56' 36"	4.	51°06' 09"	34° 56' 13"	51°06' 08"	34° 56' 06"
50.	51°06' 11"	34° 56' 53"	51°06' 10"	34° 56' 47"	5.	51°06' 04"	34° 56' 03"	51°06' 03"	34° 55' 57"
51.	51°06' 16"	34° 56' 57"	51°06' 15"	34° 56' 48"	6.	51°06' 01"	34° 55' 51"	51°06' 00"	34° 55' 43"
52.	51°06' 22"	34° 56' 44"	51°06' 21"	34° 56' 38"	7.	51°06' 24"	34° 56' 04"	51°06' 23"	34° 55' 57"
53.	51°06' 26"	34° 56' 27"	51°06' 26"	34° 56' 21"					
54.	51°06' 35"	34° 56' 39"	51°06' 34"	34° 56' 13"					
55.	51°06' 34"	34° 55' 59"	51°06' 33"	34° 55' 52"					
56.	51°06' 39"	34° 55' 45"	51°06' 38"	34° 55' 39"					
57.	51°06' 41"	34° 55' 28"	51°06' 41"	34° 55' 22"					
58.	51°06' 36"	34° 55' 22"	51°06' 35"	34° 55' 12"					
59.	51°06' 34"	34° 55' 09"	51°06' 33"	34° 55' 03"					