

Development Zone: Compton–Belkovich Thorium (CBT)

Name: Compton–Belkovich

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This research is designed to highlight prospective locations of space resources, that can be registered by select clients via our Lunar Resources Registrations as a Service Platform, and included in our Public Registry.

Resources Profile

The Compton – Belkovich Thorium Zone is an isolated Thorium-rich area on the Th-poor terrain. It is located within the Compton – Belkovich Volcanic Complex on the far side of the Moon, near the north pole, centered at 61.1° N, 99.5° E. It is situated between the Belkovich and the Compton craters, 900 km from the Procellarum KREEP Terrane, which is known for its high KREEP elements abundance.

It is inferred that the highest Th concentration is in the centre of the Th hotspot and is around 10 ppm. The remote sensing by Lunar Prospector in 1998 showed that the iron abundance in this region is very low – around 3% by mass, which might suggest alkali-anorthosite occurrence. Anorthositic rocks are composed in 90 – 100% of a mineral plagioclase.

The origin of the Thorium in this region is enigmatic and unknown, however, it is suggested that it might be associated with silicic volcanism caused by intrusions rich in KREEP elements. There is also a theory saying that the Th-anomaly might be a result of an ancient impact.

Further reading:

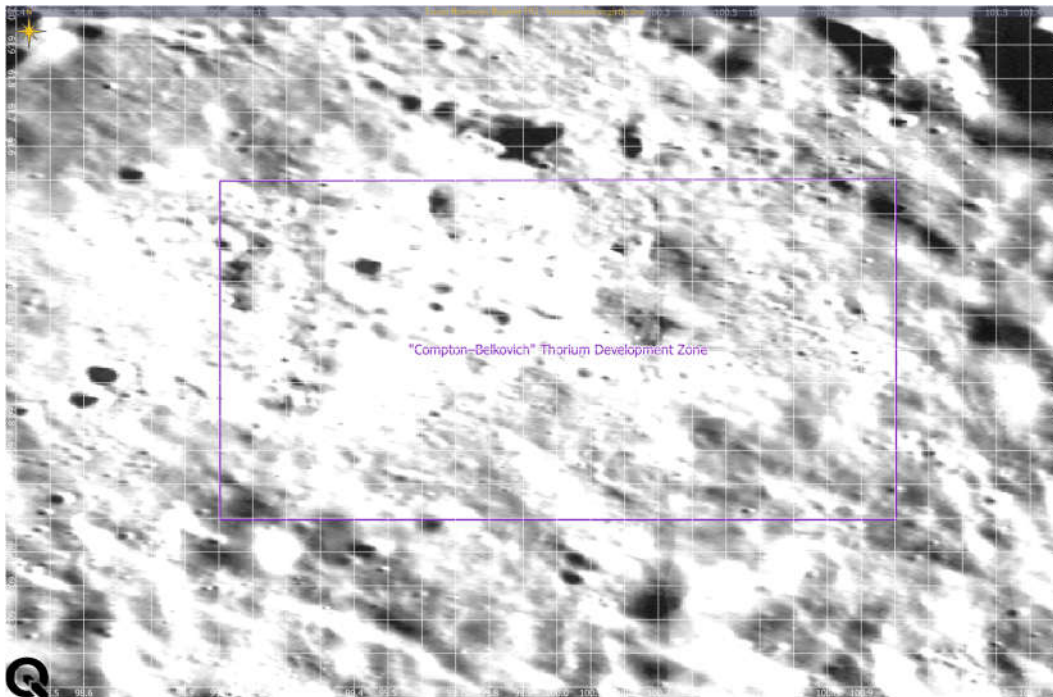
- 1) “The Constitution and Structure on the Lunar Interior”, Mark A. Wieczorek et al., Mineralogical Society of America geochemical society, Reviews in Mineralogy & Geochemistry Volume 60, 2006
- 2) “The subsurface structure of the compton-belkovich thorium anomaly as revealed by grail”, J. C. Jansen , J. C. Andrews-Hanna , Y. Li , J. Besserer , S. Goossens , J. W. Head III , W. S. Kiefer , P. J. McGovern , J. M. Soderblom , G. J. Taylor , M. A. Wieczorek and M. T. Zuber, 46th Lunar and Planetary Science Conference, 2015
- 3) Compton-Belkovich Volcanic Complex (CBVC): An ash flow caldera on the Moon, Chauhan, M.; Bhattacharya, S.; Saran, S.; Chauhan, P. ; Dagar, A., Icarus, Volume 253, p. 115-129., June 2015

Registration Development Status

Lunar Resources Registry and Lunar Station Corp have signed a Partnership Agreement to provide Registrations to selected clients in relation to this Development Zone.

Maps

CBT with Base Map. Source: LRR



Registrations Available

Registrations plots, 1km²

Source: Lunar Station - <https://lunarstation.space/>

