

USGS - Geological Survey 2022 Final List of Critical Minerals AGENCY: U.S. Geological Survey, Department of the Interior
Mineral **Tsodilo Y**

1 Aluminum

2 Antimony

3 Arsenic

4 Barite

5 Beryllium

6 Bismuth

7 Cerium **Y**

8 Cesium

9 Chromium

10 Cobalt

11 Dysprosium **Y**

12 Erbium **Y**

13 Europium **Y**

14 Flourspar

15 **Gadolinium** **Y**

16 Gallium

17 Germanium

18 Graphite

19 Hafnium

20 **Holmium** **Y**

21 Indium

22 Iridium

23 **Lanthanum** **Y**

24 Lithium

25 **Lutetium** **Y**

26 Magnesium

27 Manganese

28 **Neodymium** **Y**

29 Nickel

30 Niobium

31 Palladium

32 Platinum

33 **Praseodymium** **Y**

34 Rhodium

35 Rubidium

36 Ruthenium

37 **Samarium** **Y**

38 Scandium

39 Tatalum

40 Tellurium

41 **Terbium** **Y**

42 **Thulium** **Y**

43 Tin

44 Titanium

45 Tungsten

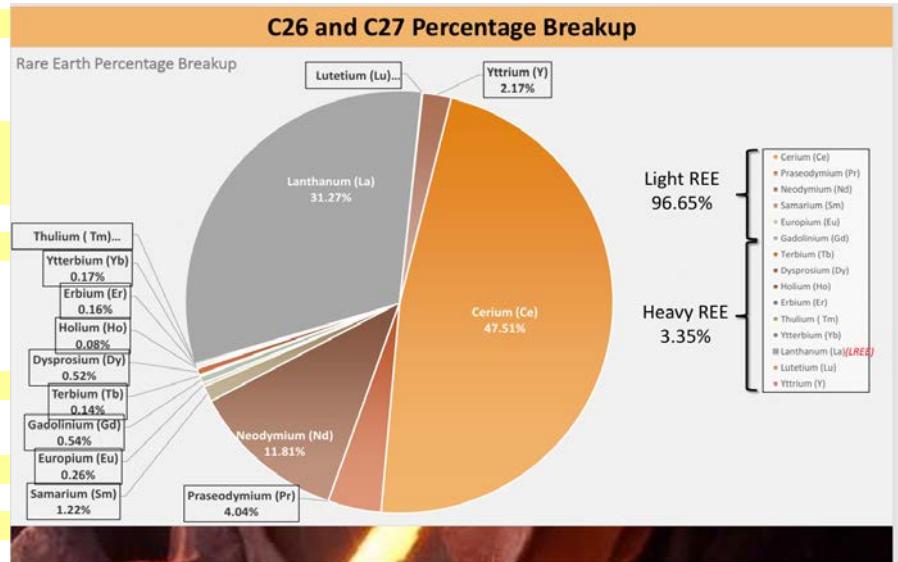
46 Vanadium

47 Ytterbium **Y**

48 Yttrium **Y**

49 Zinc

50 Zirconium



C26 & C27 REE Project and Lofdal (Namibia) Project comparison

	REE Oxide	REE Names	Lofdal Namibia (ppm)	C26 & C27 conceptual target (ppm)
Light	CeO ₂	Cerium (Ce)	395.75	1,253.59
Rare Earth Elements (LREE)	La ₂ O ₃	Lanthanum (La)	237.25	825.24
	Pr ₂ O ₃	Praseodymium (Pr)	41.25	106.55
	Nd ₂ O ₃	Neodymium (Nd)	158.50	311.65
	Sm ₂ O ₃	Samarium (Sm)	57.75	32.14
	Eu ₂ O ₃	Europium (Eu)	21.00	6.71
	Gd ₂ O ₃	Gadolinium (Gd)	75.00	14.23
Heavy	Tb ₂ O ₃	Terbium (Tb)	14.50	3.51
Rare Earth Elements (HREE)	Dy ₂ O ₃	Dysprosium (Dy)	89.50	13.59
	Ho ₂ O ₃	Holmium (Ho)	17.75	2.21
	Er ₂ O ₃	Erbium (Er)	51.50	4.32
	Tm ₂ O ₃	Thulium (Tm)	7.50	1.34
	Yb ₂ O ₃	Ytterbium (Yb)	47.00	4.59
	Lu ₂ O ₃	Lutetium (Lu)	7.00	1.57
	Y ₂ O ₃	Yttrium (Y)	571.50	57.19

➤ **C26 and C27 REE minerals:** bastnäsite, allanite, monazite, xenotime, akyllite, alcoancylite, britholite, yttrialite, and rhabdophane.

➤ **Lofdal Project minerals:** bastnäsite, allanite, monazite, xenotime, apatite, thorite, aeschynite, parisite, and synchysite,

Namibia Critical Minerals: On January 27, 2020, the Company announced that it had signed an agreement with Japan Oil, Gas and Metals National Corporation (“JOGMEC”) to jointly explore, develop, exploit, refine and/or distribute mineral products from Lofdal. The agreement provides JOGMEC with the right to earn a 50% interest in the project by funding \$20,000,000 USD in exploration and development expenditures.