

TASMANIA

CATALOGUE

OF THE

Minerals of Tasmania

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233. PECTOLITE (*Metasilicate of Sodium and Calcium*).

This substance occurs in fibrous radiating bunches of a pure white, with a silky subvitreous lustre; Upper Emu River. It is also found sparingly, of a light-green colour, in the tinguaite of Mt. Mary, Port Cygnet.

234. PELIONITE (*A Variety of Cannel Coal*).

A bituminous substance, bearing a close resemblance to the cannel coal of Scotland. From its physical appearance it has been termed "pitch coal" ("Catalogue of the Minerals of Tasmania," 1896).

Locality: Barn Bluff, near Mt. Pelion.

235. PENNINITE (*Basic Silicate of Magnesium, Aluminium, and Iron*).

This is a member of the chlorite group. It occurs in dark, olive-green masses and pseudo-rhombohedral crystals, many of the latter being $\frac{3}{4}$ -inch in diameter. It appears to be closely associated with granular quartz. Tharsis Copper Mine, Mt. Lyell.

Very fine implanted crystals, which are often as much as 2 to 3 inches across, are fairly abundant at Hampshire, near the old silver mine. They are of the characteristic dark-green, almost black, colour, and often have granular quartz attached.

236. PENTLANDITE (*Sulphide of Iron and Nickel*).

This is one of the principal ores of nickel, as it is extensively mined at Sudbury, Ontario, Canada. The crystallisation is isometric, but the crystals are extremely rare. It has a bronze-yellow colour, with metallic lustre. Apparently in fair quantity with metalliferous pyrites and pyrrhotite near Leslie Junction, Dundas; near Mt. Agnew in small quantity.

Variety—*Heazlewoodite*.

A distinct variety of Ni ore occurring in the Heazlewood district. It differs from pentlandite and its congener beyrichite in several important particulars, which may justify naming it as a variety.

It is distinctly of a metallic light-yellow-bronze colour, streak bright, light bronze. Mean specific gravity of several samples tested, 4·61; hardness, 5. It occurs in rather narrow bands in the characteristic serpentine rock of the Heazlewood. It is mined in fair-sized lumps, which

are usually from $\frac{1}{2}$ -inch to 2 inches in thickness. One peculiarity is that it is in all instances coated with a somewhat thick varnish-like film of zaratite: another is that it is highly magnetic. So far as is known, no full analysis has been made of this mineral, but the result of numerous assays distinctly shows that it is very rich in Ni. Some of these tests have given a return as high as 38 per cent. The normal beyrichite is lead-grey in colour; specific gravity, 4.7; hardness, 3 to 3.5. Pentlandite has about the same hardness and specific gravity, but the usual colour is bronze, with a bronze-brown streak. So far heazlewoodite appears to be confined to the locality above given, the Ni ores of the Dundas district belonging to distinct minerals.

237. PEROVSKITE (*Titanate of Calcium*).

This somewhat rare mineral occurs microscopically in the melilite-nepheline basalt of the Shannon Tier, as grains and small crystals of a yellowish-red colour. It is developed in the nepheline-eudialite basalt of the same locality in larger forms and without crystallographic boundaries. Dr. Paul states that it often enwraps other minerals, including eudialite in wreathed aggregates.

238. PHACOLITE (*Hydrated Silicate of Aluminium and Calcium*).

This is a variety of the zeolitic mineral chabasite, which occurs in modified crystals of lenticular form. It is abundant in basalt rocks. It occurs in plenty in the vesicles of the Tertiary basalt at Waratah, Hellyer River, Lefroy, Sheffield, Springfield, and Middlesex.

239. PHARMACOSIDERITE (*Arsenate of Iron*).

The primary form of crystallisation of this mineral is the cube, by which character it may be separated from scorodite, which is rhombic. It ranges in colour from shades of olive-green to brown. It is sectile and resinous. It occurs in some of the auriferous reefs of the Fingal district in drusy coatings of minute cubes of a grass-green colour, generally in hollows of quartz rich in arsenopyrite. The little cubes often show tetrahedral truncations of the corners. Also at Waterhouse in the quartz reefs, and at the Magnet Mine in coatings of microscopic crystals of a green colour, and bright lustre in the vesicular ferromanganese gossan capping the lode.