

Crystal Data: Hexagonal. *Point Group:* 3m. As corroded $\{10\bar{1}1\}$ rhombohedra to $\sim 150\ \mu\text{m}$.

Physical Properties: *Cleavage:* None. *Fracture:* Irregular to subconchoidal. *Tenacity:* Brittle. *Hardness* = 5 VHN = 534 (25 g load). D(meas.) = n.d. D(calc.) = 3.027
Weak yellowish fluorescence under SW and LW UV.

Optical Properties: Transparent. *Color:* Colorless to white to pale pink. *Streak:* White.
Luster: Vitreous.
Optical Class: Uniaxial (-). $\omega = 1.617(2)$ $\varepsilon = 1.613(2)$

Cell Data: *Space Group:* R3c. $a = 10.3926(2)$ $c = 37.1694(9)$ $Z = 6$

X-ray Powder Pattern: Tanco mine, Bernic Lake, Manitoba, Canada.
2.858 (100), 3.186 (88), 2.589 (68), 5.166 (33), 6.421 (32), 8.017 (31), 3.425 (29)

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|--------------------------------|--------|
| Chemistry: | (1) |
| P ₂ O ₅ | 46.40 |
| Al ₂ O ₃ | 0.38 |
| Fe ₂ O ₃ | [0.80] |
| FeO | 0.96 |
| MnO | 3.74 |
| MgO | 0.41 |
| CaO | 37.65 |
| SrO | 0.91 |
| Na ₂ O | 5.43 |
| H ₂ O | [2.00] |
| Total | 98.68 |

(1) Tanco mine, Bernic Lake, Manitoba, Canada; average of 14 electron microprobe analyses supplemented by IR and Raman spectroscopy, Fe₂O₃ and H₂O calculated from structure analysis; corresponding to $(\text{Ca}_{7.19}\text{Na}_{1.88}\text{Sr}_{0.09})_{\Sigma=9.16}(\text{Mn}_{0.56}\text{Mg}_{0.11}\text{Fe}^{2+}_{0.14}\text{Fe}^{3+}_{0.11}\text{Al}_{0.08})_{\Sigma=1.00}(\text{PO}_4)_{4.63}(\text{PO}_3\text{OH})_{2.37}$.

Occurrence: A secondary mineral in a phosphate-carbonate assemblage formed after the dissolution of primary lithiophosphate by hydrothermal solutions. From a spodumene-rich boulder found in the dumps of a zoned petalite-subgroup pegmatite.

Association: Rhodochrosite, quartz, whitlockite, apatite, fairfieldite, crandallite, calcite, overite, groatite, metswitzerite, sphalerite, bismuthinite.

Distribution: At the Tanco mine, Bernic Lake, Manitoba, Canada.

Name: Honors Wilfrid Reid “Wop” May (1896-1952) who was born in Carberry, Manitoba, Canada. “Wop” May was a pioneering aviator who created the role of the bush pilot, and opened the Canadian North to mineral exploration and mining.

Type Material: Department of Natural History, Royal Ontario Museum, Toronto, Canada (M40501).

References: (1) Cooper, M.A., F.C. Hawthorne, Y.A. Abdu, N.A. Ball, R.A. Ramik, and K.T. Tait (2013) Wopmayite, ideally $\text{Ca}_6\text{Na}_3\text{Mn}(\text{PO}_4)_3(\text{PO}_3\text{OH})_4$, a new phosphate mineral from the Tanco Mine, Bernic Lake, Manitoba: Description and crystal structure. *Can. Mineral.*, 51(1), 93-106.
(2) (2015) *Amer. Mineral.*, 100, 1332 (abs. ref. 1).