Eveslogite $(Ca,K,Na,Sr,Ba)_{48}(Ti,Nb,Fe,Mn)_{12}(OH)_{12}Si_{48}O_{144}(OH,F,Cl)_{14}$

Crystal Data: Monoclinic. *Point Group*: 2/*m*. As fibrous crystals, to 5 cm, that form plicated aggregates to 15 cm.

Physical Properties: *Cleavage*: Perfect {001}; good {010}. *Fracture*: Splintery. *Tenacity*: Brittle. Hardness = 5 D(meas.) = 2.85 D(calc.) = 2.91

Optical Properties: Translucent. *Color*: Light brown or yellow-brown. *Streak*: White. *Luster*: Vitreous to silky.
Optical Class: Biaxial (-). $\alpha = 1.631(2)$ $\beta = 1.641(2)$ $\gamma = 1.647(2)$ 2V(meas.) = 82° 2V(calc.) = 75°
Orientation: $X \approx a$, $Y \wedge c = 5°$ (in obtuse β), $Z = b$. *Absorption:* $Z \approx Y > X$.
Pleochroism: $Y = Z$ = pale yellow, X = colorless.

Cell Data: *Space Group: P*2/*m*. $a = 14.069(3)$ $b = 24.937(5)$ $c = 44.31(2)$ $\gamma = 95.02(4)°$ Z = 4

X-ray Powder Pattern: Mt. Eveslogchorr, Khibiny alkaline massif, Kola Peninsula, Russia.
2.835 (100), 3.127 (65), 2.990 (59), 3.110 (52), 12.33 (51), 2.940 (45), 6.199 (42)

Chemistry:

	(1)		(1)
Na_2O	4.59	SiO_2	41.96
K_2O	8.53	TiO_2	6.52
Rb_2O	0.20	ZrO_2	0.35
CaO	18.60	Nb_2O_5	6.56
SrO	2.75	Ta_2O_5	0.25
BaO	2.84	H_2O	2.85
MnO	1.00	F	2.72
FeO	0.88	Cl	0.42
Fe_2O_3	0.23	- O = F,Cl	1.24
Al_2O_3	0.32	Total	100.33

(1) Mt. Eveslogchorr, Khibiny alkaline massif, Kola Peninsula, Russia; wet chemical analysis supplemented by FTIR spectroscopy, Cl by electron microprobe; corresponds to $(Ca_{22.60}K_{12.32}Na_{10.08}Sr_{1.80}Ba_{1.28}Rb_{0.16})_{\Sigma=48.24}(Ti_{5.56}Nb_{3.36}Mn_{0.96}Fe^{2+}_{0.84}Fe^{3+}_{0.20}Zr_{0.20}Ta_{0.08})_{\Sigma=11.20}(Si_{47.56}Al_{0.44})_{\Sigma=48}[O_{139.36}(OH)_{20.64}F_{9.76}Cl_{0.80}]_{\Sigma=170.56}$.

Occurrence: In a veinlet that cuts nepheline syenite in an alkaline massif.

Association: Nepheline, K-feldspar, biotite, fluorapatite, shcherbakovite, eudialyte, astrophyllite.

Distribution: From Mt. Eveslogchorr, Khibiny alkaline massif, Kola Peninsula, Russia.

Name: Alludes to the locality, Mt. *Eveslog*chorr.

Type Material: A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia.

References: (1) Menshikov, Yu.P., A.P. Khomaykov, G. Ferraris, E. Belluso, A. Gula, and E.A. Kulchitskaya (2003) Eveslogite, $(Ca,K,Na,Sr,Ba)_{48}[(Ti,Nb,Fe,Mn)_{12}(OH)_{12}Si_{48}O_{144}](F,OH,Cl)_{14}$, a new mineral from the Khibiny alkaline massif, Kola Peninsula, Russia. Zap. Vseross. Mineral. Obshch., 132(1), 59-67 (in Russian, English abs.). (2) (2004) Amer. Mineral., 89(1), 249-250 (abs. ref. 1). (3) (2004) Can. Mineral., 42(1), 223 (abs. ref. 1 and comment).