

Crystal Data: Monoclinic. *Point Group:* 2/m. Crystals are needlelike to prismatic platy, with basal terminations, to 1.5 mm.

Physical Properties: *Cleavage:* Perfect on {100}. *Fracture:* Hackly. *Tenacity:* Brittle. Hardness = 2.5 D(meas.) = > 1.96 to < 2.09 D(calc.) = 2.037(1)

Optical Properties: Translucent. *Color:* Pale golden brown. *Streak:* White. *Luster:* Vitreous.

Optical Class: Biaxial (-). *Orientation:* Z = b; Y ∧ c = 17°. *Dispersion:* r < v. α = 1.612 β = 1.674 γ = 1.710 2V(meas.) = 74° 2V(calc.) = 72.7°

Cell Data: *Space Group:* C2/c. a = 38.954(2) b = 7.201(4) c = 16.3645(9) β = 97.602(1)° Z = 16

X-ray Powder Pattern: Firefly-Pigmy mine, Utah, USA. 9.704 (100), 5.843 (100), 3.139 (90), 8.117 (60), 2.920 (60), 4.061 (50), 2.707 (50)

Chemistry:	(1)	(2)
V ₂ O ₅	73.92	52.22
FeO	0.46	
MgO	15.38	11.57
H ₂ O		36.21
Total		100.00

(1) Firefly-Pigmy mine, Utah, USA; by electron microprobe, total Fe as FeO, highly volatilized in the electron beam due to rapid dehydration; atomic ratios correspond to (Mg_{0.95}Fe_{0.02})_{Σ=0.97}(V_{2.01}O₆)·nH₂O. (2) Mg(V₂O₆)·7H₂O as established by crystal-structure analysis.

Occurrence: In the oxidized zone of a sandstone U–V deposit.

Association: Pascoite, sherwoodite, selenium.

Distribution: From the Firefly-Pigmy U–V mine, 16 km east of La Sal, San Juan Co., Utah, USA.

Name: To honor Richard Wyatt?? Thomssen (1933–), American economic geologist and collector of microscopic mineral specimens, Dayton, Nevada, USA.

Type Material: National Museum of Natural History, Washington, D.C., USA, ??.

References: (1) Hughes, J.M., F.E. Cureton, J. Marty, R.A. Gault, M.E. Gunter, C.F. Campana, J. Rakovan, A. Sommer, and M.E. Brueseke (2001) Dickthomssenite, Mg(V₂O₆)·7H₂O, a new mineral species from the Firefly-Pigmy mine, Utah: descriptive mineralogy and arrangement of atoms. *Can. Mineral.*, 39, 1691–1700. (2) (2002) *Amer. Mineral.*, 87, 1731–1732 (abs. ref. 1).