Hummerite  \( \text{KMgV}^{5+}\text{O}_{14}\cdot 8\text{H}_2\text{O} \)

**Crystal Data:** Triclinic.  *Point Group:* \( \bar{1} \).  Massive, in veins and efflorescences.

**Physical Properties:** Hardness = n.d.  \( D(\text{meas.}) = \) n.d.  \( D(\text{calc.}) = [2.53] \)  Soluble in \( \text{H}_2\text{O} \), from which it may be recrystallized.

**Optical Properties:** Translucent.  *Color:* Bright orange.  *Optical Class:* Biaxial (\( - \)) (recrystallized).  \( \alpha = \) n.d.  \( \beta = 1.81 \)  \( \gamma = \) n.d.  \( 2V(\text{meas.}) = \) n.d.

**Dispersion:** Strong.

**Cell Data:** *Space Group:* \( \text{P}\bar{1} \).  \( a = 8.8178(4) \)  \( b = 10.7236(5) \)  \( c = 11.0707(5) \)  \( \alpha = 65.798(1)^\circ \)  \( \beta = 74.057(1)^\circ \)  \( \gamma = 71.853(1)^\circ \)  \( Z = [2] \)

**X-ray Powder Pattern:** Hummer mine, Colorado, USA.  8.2 (10), 7.4 (7), 2.73 (6), 7.0 (5), 3.31 (4), 3.13 (4), 2.11 (4)

**Chemistry:** Qualitative energy-dispersion analysis showed only K, Mg, V, and O; originally characterized by correspondence of properties with synthetic material.

**Occurrence:** Leached from vanadium oxide ores and deposited in veins in clay and as efflorescences on bedded or roll-front U-V deposits in sandstone.

**Association:** Huemulite, rossite, thenardite, gypsum, epsomite (Malargüe district, Argentina); gypsum, huemulite, metamunirite, munirite, bluestreakite (Blue Streak mine, USA).

**Distribution:** In the USA, in the Hummer mine, Blue Streak mine, Jo Dandy group, and the North Star mine, Paradox Valley, Uravan district, Montrose Co., Colorado; in the Mesa No. 1 mine, Lukachukai Mountains, Apache Co., Arizona; from the Grants district, McKinley Co., New Mexico; in the Corvusite mine, Beaver Mesa, La Sal Mountains, Grand Co., Utah; and in the Gold Quarry mine, near Carlin, Maggie Creek district, Eureka Co., Nevada. From the Malargüe district, Mendoza Province, Argentina. At the Ronneburg deposit, Thuringia, Germany.

**Name:** For the Hummer mine, Colorado, USA, where it occurs.

**Type Material:** Harvard University, Cambridge, Massachusetts, 102345; National Museum of Natural History, Washington, D.C., USA, 106899.