SMITHSONITE
ZnCO₃

Smithsonite is a relatively common secondary mineral that forms in oxidized zones of ore deposits bearing primary zinc minerals, such as sphalerite, from which it is derived. Northern Peninsula.

Marquette County: Dead River Storage Basin: As sparse cream-white-to-beige coatings on fracture surfaces in quartz-dolomite veins carrying sphalerite and galena exposed in a small prospect in section 25, T49N, R28W. This smithsonite is somewhat unusual, in that it fluoresces a rose-red color in shortwave ultraviolet light. Confirmed by X-ray diffraction and energy dispersion X-ray spectrometry.


UPDATE

Marquette County: Holyoke mine, NE ¼ section 2, T48N, R27W: As cream-white to beige coatings with hydrozincite on fracture surfaces in rock, very similar to the nearby lead-zinc prospect in section 25, T49N, R28W (M. Heilman, personal communication, 2008). Interestingly, the smithsonite from both these occurrences fluoresces a bright rose-pink color in shortwave ultraviolet light. Verified by energy dispersion X-ray spectrometry.