



TCN CHITISTONE AND NIZINA LIMESTONES (Upper Triassic)--Rohn (1900, p. 425) originally applied the name Chitistone Limestone to carbonate rocks that overlie the Nikolai Greenstone; subsequently, Martin (1916, p. 693) termed the upper, generally thinner bedded and darker parts of Rohn's Chitistone, the Nizina Limestone, a usage that persists. The Chitistone and Nizina Limestones are abundant along the southern flank of the Wrangell Mountains, mainly in central and western parts of the quadrangle, sparse in the northeastern part; maximum aggregate thickness of the two formations is about 1,100 m; both formations characterized by marked lateral changes in thickness, many Chitistone-Nizina sections thinner than a few hundred metres. Stratigraphic and petrographic details of the Chitistone and Nizina are best described by Armstrong, Mackevett, and Silberling (1970, p. D49-D62); Chitistone and Nizina Limestones both are cut by a few Jurassic and Tertiary plutons. The Chitistone disconformably overlies the Nikolai Greenstone and grades upward into the Nizina; its maximum thickness is about 600 m; the Chitistone characteristically contains strata between 0.5 and 7 m thick that are excellent cliff formers and locally brecciated or cavernous. The lowermost 105 m of the Chitistone contain abundant dolomite, algal mat chips, stromatolites, relicts of evaporites, and other features indicative of intertidal-supratidal conditions and local sabkha environments. The upper part consists of diverse limestones, including lime mudstone, wackestone, packstone, and grainstone (Dunham's 1962, p. 117, classification) and minor chert nodules, indicating deposition in neritic environments; some Chitistone and Nizina rocks emit fetid odors when freshly broken. The Nizina Limestone is about 500 m in maximum thickness; its upper parts are lithologically gradational with parts of the overlying McCarthy Formation. The Nizina consists of diverse limestones that generally contain subordinate chert as nodules, lenses, and coalescing masses; its upper strata contain small components of noncarbonate detritus. The Nizina formed in a neritic environment, generally under deeper water than the Chitistone. Diagnostic fossils rare in the Chitistone; the Chitistone's age, Karnian Stage of the Late Triassic, is mainly documented by ammonites of the genus *Tropites*. Nizina fossils, mainly ammonites and pelecypods, indicate a Late Triassic age span from late Karnian to middle Norian. Paleontological data for the Chitistone and Nizina Limestones are given by Armstrong, Mackevett, and Silberling (1970, p. D57-D60), Moffit (1938, p. 50-57), Mackevett (1970c, p. 15; 1971, p. 28). The Chitistone and Nizina are probable correlatives of other Triassic carbonate rocks that occur sparsely in the Nabesna quadrangle (Richter, 1975) and in central Alaska (Smith and Lanphere, 1971, p. 17); probably correlate with parts of the Mush Lake Group in the Yukon Territory (Muller, 1967, p. 47, 50; Read and Monger, 1975, p. 55, 58) and possibly with some other Upper Triassic limestones elsewhere in Alaska.

FOLIO OF THE McCARTHY QUADRANGLE, ALASKA
MAP MF-773 A
MACKEVETT--GEOLOGIC MAP