



Figure 13. PostRAT mosaic of target Drammersfjord, taken on sol 162 with target fully shadowed. Laminae are shown extending from left to right in the mosaic, with slight departures from parallelism indicated by the arrow. This has been interpreted as a rippleform with possible cross-lamination by *Grotzinger et al.* [2005] and highlights the sedimentary nature of this rock class. Note also the spherule ground through by the Rock Abrasion Tool (RAT) in the upper center of the image, with superficial dust grains but showing no evidence for internal structure.

in Gusev Crater [*Herkenhoff et al.*, 2006], which are also interpreted to be sulfate-cemented sandstones [*Squyres et al.*, 2006].

4.1.1.1. Lithology

[27] Figure 9 shows an MI mosaic of the target “Siula Grande,” an outcrop in Endurance Crater. The most conspicuous feature in the mosaic is submillimeter lamination. In other Meridiani sedimentary rocks targets, the laminae are plainly composed of sand grains, commonly a single grain in thickness. Here, grains are only occasionally

discernable, suggesting remobilization and recrystallization of sulfate salts to form secondary, cement-dominated textures.

[28] The primary nature of the layering observed on laminar rock surfaces is indicated by the common geometric truncations of laminae associated with low-angle stratification and cross-lamination, as described by *Grotzinger et al.* [2005, 2006]. There is a range of coherence to the surface expression of these laminae, from thick and continuous, as seen at Siula Grande, to highly discontinuous, such that