



Figure 23. Mosaic of postRAT MI images of target One Scoop, taken on sol 546 when target was partly shadowed (illumination from top, shadow contrast reduced). Note spherules ground through by RAT, lacking internal structure and in some cases having irregular outlines. Negative topography structures range from short, somewhat rounded, truncated cavities (black arrows) to long, thin fractures (white arrows).

resistant grains) formed in an environment with a consistent strong wind direction; pits represent regions where the more resistant grains have been plucked [Sullivan *et al.*, 2005]. This interpretation is preferred over one in which the linear features represent primary sedimentary structure that has been highlighted by erosion because the linear features are parallel to the wind tails.

4.1.5. Massive-Bright Rocks

[47] This rock class is composed of massive-textured rocks that are similar to the massive-dark class in terms of moderate to heavy fracturing and other features (e.g., postbrush target “EmilNolde2” compared to “Lemon Rind”). However, surfaces commonly are brighter and display undulating topography resistant to the RAT, ranging in relief from very flat (e.g., Lemon Rind) to very irregular (e.g., “Russett Eye,” Figure 22). Rock surfaces are bisected by cracks that continue at least as deep as RAT holes (a few millimeters), while postRAT images show spherules and randomly oriented cavities similar to nodular and laminar

classes (as seen in the postRAT target “One Scoop,” shown in Figure 23). Angular grains (300–600 μm across), similar in reflectance and texture to the rock, are sprinkled across the surfaces of these targets.

4.1.5.1. Lithology

[48] Like the massive-dark class, this rock class has a somewhat granular appearance. However, proximity as well as similarity in reflectance and texture suggests that rocks of this type are the source of the smaller, angular clasts that are scattered throughout the soil samples (Figure 22). PostRAT images reveal veins/cracks and vacancies, both randomly oriented (Figure 23).

4.1.5.2. Texture

[49] No grains are resolved to allow evaluation of individual grain texture, sorting or size. Instead, this class is characterized by a brighter, massive but granular appearance and severe dissection by fractures. Fractures through targets in this class do not appear to be oriented relative to any specific surface of stratification. The same is true for