

Stratigraphy of Alluvial Fans in Saheki Crater

Alluvial fans are gently-sloping wedges of sediments deposited by flowing water. Some of the best-preserved alluvial fans on Mars are in Saheki Crater, an area that we've imaged many times previously. This observation covers two impact craters that expose the stratigraphy of the fans.



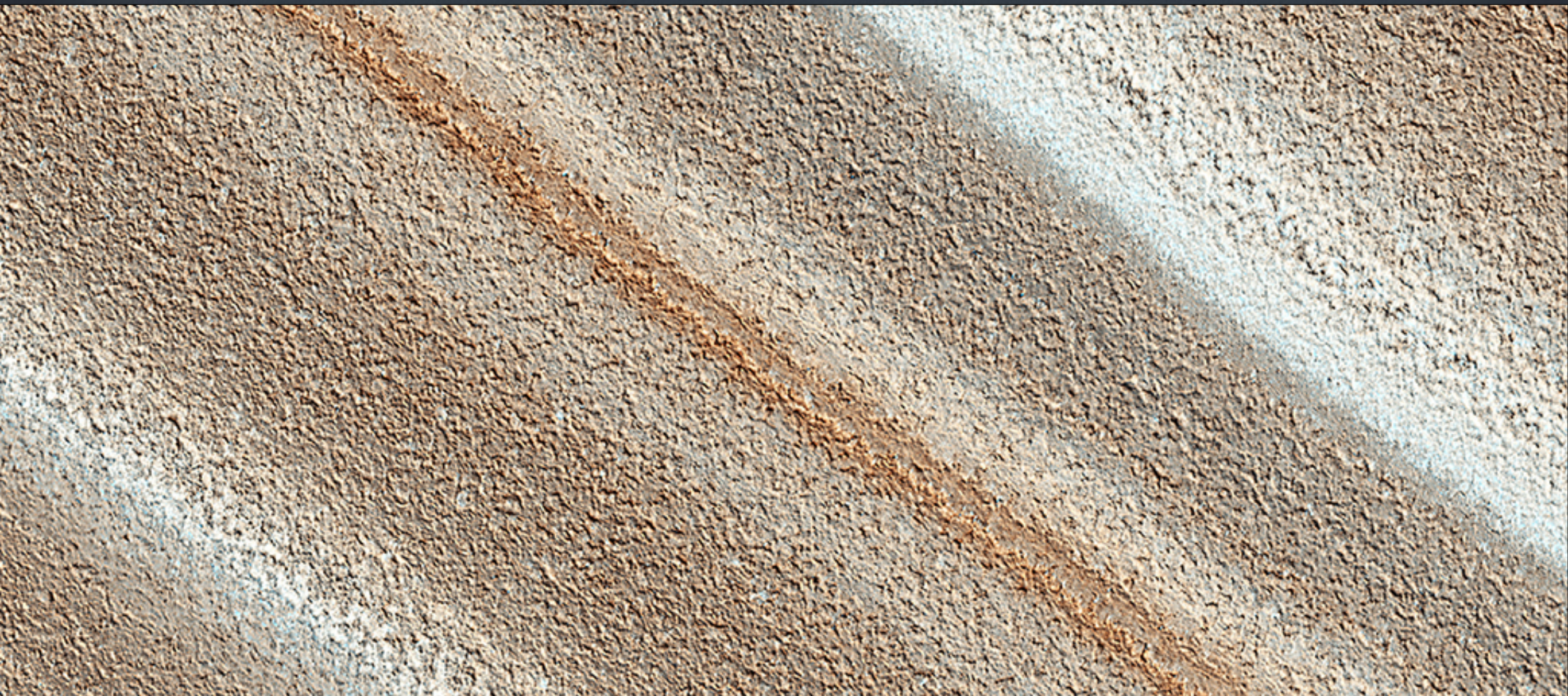
Old Salt

Scientists think the light-colored materials contains chlorides, like sodium chloride or table salt, or maybe chloride of calcium or magnesium. These salts can be deposited during the evaporation or water in lakes or playas. These deposits are billions of year old, so it is truly old salt, not a fish tale.



Looking for Ice

One of MRO's ongoing campaigns is a search for new impact craters. At high latitudes, such craters often expose ice, which appears bright in HiRISE enhanced-color images. This image was targeted to look at a candidate new crater on a lobate apron. Such aprons are often ice-rich, but the crater shows no bright material that would indicate ice.



Colorful Polar Layered Deposits

The North Polar layered deposits provide a record of recent climate changes on Mars. Color variations between layers are due to differences in composition of the dust that contaminates the ice, and differences in surface textures and residual seasonal frost.