

Thursday, March 20, 2003  
POSTER SESSION II  
7:00 p.m. Fitness Center

**Water On Mars Today (Maybe Yesterday)**

Crumpler L. S.

*Spring Deposits on Mars: Physical Processes from Terrestrial Analogs* [#2002]

This study evaluates the morphology of spring deposits as it relates to their (1) identification in image data, (2) formation, evolution, and preservation in the environment of Mars, and (3) potential as sites of long-term or late stage shallow groundwater emergence at the surface of Mars.

Travis B. J.

*On the Impact of Brines on Hydrothermal Circulation Below Martian Permafrost* [#2063]

A numerical model of hydrothermal circulation with phase change is extended to include salt transport. The model is applied to studying the impact of salt and brine formation on subsurface fluid flow, and contrasted to results obtained for the pure-water case.

Edgett K. S. Malin M. C. Williams R. M. E. Davis S. D.

*Polar- and Middle-Latitude Martian Gullies: A View from MGS MOC After 2 Mars Years in the Mapping Orbit* [#1038]

Martian gullies show no preference for poleward-facing slopes. Association with layers and regional clusters suggest relation to aquifers.

Calef F. J. III Sharpton V. L.

*Description and Hypotheses for Linear Features, Northwest Acidalia Planitia, Mars* [#1507]

MOC NA images reveal linear features in Acidalia with enigmatic morphologies. While some linear features are undoubtedly created by dust devils, others may be associated with seasonal phase changes of near-surface reservoirs of ground volatiles.

Browning L. Taylor G. J. Pickett D.

*Minimum Times to Form Clay in Martian Surface and Near-Surface Environments* [#1708]

We estimate the minimum time required to produce detectable amounts of clay by aqueous alteration of volcanic glasses under different sets of idealized Martian conditions. The effects of glass composition, alteration temperature, pH, and grain size on reaction rates are considered.