

Tuesday, March 8, 2011
POSTER SESSION I: MARTIAN LAYERED DEPOSITS
6:00 p.m. Town Center Exhibit Area

Bishop J. L. Weitz C. M.

[*Morphology and Mineralogy of Light-Toned Layered Deposits on the Juventae Chasma Plateau and the Location of a Proposed Future Landing Site*](#) [#2115]

LLD on the Juventae Chasma plateau contain opaline silica and hydroxylated ferric sulfate. Landing here would enable characterization of this enigmatic and uniquely martian sulfate material that is inaccessible to rovers elsewhere on the planet.

Hill K. S. Bridges J. C. Smith K. B. Tragheim D. G. Davies S. J.

[*What was the Role of Water in ILD Formation on Mars?: Insights from New CRISM Techniques*](#) [#2082]

We hypothesize that ILD sediments are analogous to NPLD, which suggests a climatic control dominated by orbital forcing. A statistical analysis of the spectral variance of CRISM has shown a lack of hydrated minerals over ILD features in Arabia Terra.

Fueten F. Harvey R. Stesky R. Hauber E. Rossi A.

[*Layer Thickness Determination of Interior Layered Deposits, with Particular Emphasis on Candor Mensa, Mars*](#) [#1255]

Candor Mensa consists of two distinct layer thickness-based units; a lower unit with layers ~4 m to 10 m and an upper unit with layers <1 m to 6 m thick. Continuity of layers and the lack of unconformities suggest a stable depositional environment.

Lucchitta B. K.

[*West Candor Chasma, Mars. What is New?*](#) [#1490]

Geologic mapping showed many stratigraphic discontinuities but major unconformities are scarce. Interbedded resistant dark layers could be volcanic. Curvilinear reentrants on Ceti Mensa may be caused by gravitational failure combined with erosion.

Grindrod P. M. West M.

[*Aqueous Mineralogy Recorded in Coprates Catena, Mars*](#) [#1290]

We combine HiRISE and CTX DTMs with CRISM data to determine the stratigraphy and mineralogy of an area of light-toned deposits within a closed trough of Coprates Catena.

Chapman M. G. Neukum G. Dumke A. Michael G. Kneissl T.

[*Dark Material on Valles Marineris Plateaus: A Preliminary Report*](#) [#2423]

This abstract suggests that the dark materials about Valles Marineris plateau are local, weathered outcrop remnants of *in situ*, lithified dark-toned layered rocks that erode to form aeolian deposits.

Le Deit L. Hauber E. Fueten F. Pondrelli M. Zegers T. van Gasselt S. Massé M.

Verpoorter C. ISSI ILD Team

[*Geological Comparison of the Gale Crater Mound to Other Equatorial Layered Deposits \(ELDs\) on Mars*](#) [#1857]

The Gale Crater Mound is composed of fine-grained, indurated and easily erodible material as many other layered deposits located in the equatorial region of Mars. The geological study of the Gale mound may provide clues on the origin of all ELDs.