

Tuesday, March 19, 2013

[T614]

**POSTER SESSION: MARS SCIENCE LABORATORY:
GEOLOGY REGIONAL AND LOCAL
6:00 p.m. Town Center Exhibit Area**

Gondet B. Audouard J. Bibring J. -P. Langevin Y. Poulet F. et al. **POSTER LOCATION #186**
[OMEGA/MARS Express Observation of Gale Crater](#) [#2175]

OMEGA/MEx has covered Gale Crater, and monitored the thermal evolution over seasons and local times.

Garvin J. B. Malin M. C. Ravine M. A. **POSTER LOCATION #187**
[Granulometry of the Surface of Mars from the Mars Descent Imager \(MARDI\) on Curiosity: Preliminary Comparisons with Earth](#) [#2493]

Analysis of clast size distributions from MARDI images (Curiosity) during and after descent suggests that gravel-cobble-sized particles are similar to Viking 1.

Arvidson R. E. Fuller D. Heverly M. Iagnemma K. Lin J. et al. **POSTER LOCATION #188**
[Mars Science Laboratory Curiosity Rover Terramechanics Initial Results](#) [#1193]

Initial results are presented using the MSL Curiosity rover as a virtual terramechanics instrument to sense terrain properties during drives at Gale Crater.

Rice M. S. Ayoub F. Ehlmann B. L. Leprince S. Grotzinger J. P. et al. **POSTER LOCATION #189**
[Co-Registration of CRISM and HiRISE Observations for Interpreting Mineral Stratigraphy at Gale Crater, Mars](#) [#2323]

We present a new methodology for co-registering CRISM and HiRISE observations for better interpreting the complex mineral stratigraphy at Gale Crater, Mars.

Parker T. J. Malin M. C. Calef F. J. Deen R. G. Gengl H. E. et al. **POSTER LOCATION #190**
[Localization and 'Contextualization' of Curiosity in Gale Crater, and Other Landed Mars Missions](#) [#2534]

Site locations are used for drive and science planning and map compilation. "Contextualization" is placement of location data into regional (orbiter) context.

Sumner D. Y. Palucis M. Dietrich B. Calef F. Stack K. M. et al. **POSTER LOCATION #191**
[Preliminary Geological Map of the Peace Vallis Fan Integrated with In Situ Mosaics from the Curiosity Rover, Gale Crater, Mars](#) [#1699]

Map relationships suggest that bedded rocks east of the MSL landing site, which are being investigated by Curiosity, are likely associated with an alluvial fan.

Calef F. J. III Dietrich B. Edgar L. Farmer J. Fraeman A. et al. **POSTER LOCATION #192**
[Geologic Mapping of the Mars Science Laboratory Landing Ellipse](#) [#2511]

We present the geologic map of the MSL landing ellipse constructed from HiRISE imagery, identifying six major geologic units to guide science investigations.

Fraeman A. A. Arvidson R. E. Bell J. F. III Ehlmann B. L. Grotzinger J. P. et al. **POSTER LOCATION #193**
[Curiosity's Traverse to Mount Sharp: Enhancing Scientific Investigation with Hyperspectral Orbital Data](#) [#1221]

We interpret CRISM observations over Curiosity's likely traverse to the base of Mount Sharp and describe how they can enhance Curiosity's science campaign.

Rice M. S. Williams J. M. Calef F. Anderson R. B. Edgar L. et al. **POSTER LOCATION #194**
[Detailed Geologic Mapping Along the Mars Science Laboratory \(MSL\) Curiosity Traverse Path from Glenelg to Mount Sharp](#) [#2892]

We have identified geologic unit boundaries along the MSL traverse path to Mt. Sharp to better understand the stratigraphy and identify potential waypoints.

Siebach K. L. Grotzinger J. P.

POSTER LOCATION #195

[Formation of Boxwork Structures on Mount Sharp, Gale Crater, Mars](#) [#1875]

Boxwork cement structures on Mount Sharp in Gale Crater are mapped and described in detail, and the volume of water required to form the boxwork is estimated.

Korn L. Allen C. C.

POSTER LOCATION #196

[The Gale Crater Mound in a Regional Geologic Setting: Mapping and Probing Surrounding Outcrops for Areas Akin to the Central Mound at Gale](#) [#1094]

A 1000-km area encircling Gale Crater was mapped using ArcGIS and remote sensing datasets to determine if areas analogous to the central mound exist.

Dietrich W. E. Parker T. Sumner D. Y. Hayes A. G. Palucis M. C. et al.

POSTER LOCATION #197

[Topographic Evidence for Lakes in Gale Crater](#) [#1844]

Topographic data for the MSL mission to Gale Crater reveal benches and deltas supporting prior hypotheses for multiple lake levels in the Crater.

Seelos K. D. Seelos F. P. Murchie S. L. Arvidson R. E. Fraemann A. A.

POSTER LOCATION #198

[Mosaicked Hyperspectral CRISM Data: Mineralogic Variability of the MSL Landing Site and Possible Traverse in Gale Crater](#) [#2814]

New CRISM hyperspectral targeted mosaics of Gale Crater, Mars, reveal both local mineralogic detail and regional context for MSL science.

Kraft M. D. Christensen P. R.

POSTER LOCATION #199

[Tectonic Formation of Mount Sharp, Gale Crater, Mars](#) [#3106]

The mound of material in Gale Crater formed by tectonic uplift rather than sedimentary deposition and erosion.

Buz J. Ehlmann B. L.

POSTER LOCATION #200

[Bedrock Composition and Surface Mineralogy of the Greater Gale Region](#) [#2549]

We analyzed CRISM images along the Gale Crater rim in an effort to determine the bedrock composition of Gale and the surrounding region.

Smith R. J. Christensen P. R.

POSTER LOCATION #201

[Quantitative Mineral Abundances in Gale Crater Using THEMIS](#) [#2925]

THEMIS is used to attempt to quantify mineral abundances in the central mound of Gale Crater where weathering products have been detected by CRISM.

Bierhaus E. B. McEwen A. S. Wade D. W. Ivanov B. A.

POSTER LOCATION #202

[A Fortuitous Impact Experiment at Mars](#) [#2800]

We describe the impact conditions for the MSL CBMD, and an initial analysis of the craters formed by the CBMD and cruise stage.