Thursday, March 22, 2018 **[R636]**
POSTER SESSION II: MARS ROVER RESULTS II: DEPOSITIONAL AND ENVIRONMENTAL HISTORY
6:00 p.m. Town Center Exhibit Area

Crumpler L. S. ***POSTER LOCATION #579***
In Situ Mapping of Fault-Control and Regolith Diversity at the Head of Perseverance Valley, Endeavour Crater, Mars **[#2205]**
In situ mapping with Opportunity confirmed the presence of fault control on Perseverance Valley, rim alteration zones, and Endeavour Crater rim segmentation.

Bradley N. J. Schmidt M. E. Bray S. L. ***POSTER LOCATION #580***
Analysis of Martian Dust Coverage and Correlations with APXS of Bedrock Targets Examined by the Opportunity Mars Exploration Rover **[#1685]**
Presenting APXS elemental concentrations, collected by the Opportunity Mars Exploration Rover, against martian dust coverages to constrain bedrock composition.

Bray S. L. Schmidt M. E. Bradley N. J. ***POSTER LOCATION #581***
Analysis of Martian Dust Coverage and Contribution to APXS Elemental Concentration for Rock Targets in Gale Crater **[#1684]**
Martian dust is analyzed on rock targets in Gale Crater and plotted against elemental concentrations in order to help improve interpretation of APXS data.

Arvidson R. E. Zhou F. Ballintyn N. Bellutta P. Toupet O. ***POSTER LOCATION #582***
Hill Driving with the Opportunity and Curiosity Mars Rovers **[#1514]**
Opportunity and Curiosity are used as virtual instruments to retrieve geomorphic and surface properties and show mobility limits associated with hill driving.

Peters G. H. Carey E. M. Anderson R. C. Abbey W. J. Kinnet R. et al. ***POSTER LOCATION #583***
Using Curiosity's Drill to Indicate the Uniaxial Compressive Strengths of Rocks Drilled at Gale Crater, Mars **[#2112]**
Paper describes the methodology that uses Curiosity's drill to indicate the uniaxial compressive strengths of rocks drilled at Gale Crater, Mars.

Adair B. M. Newsom H. E. Lewis K. Lemouelic S. Wiens R. C. et al. ***POSTER LOCATION #584***
Properties of the Smallest Impact Craters Along the Curiosity Traverse Using Virtual Reality Technology **[#1799]**
Impact craters along the Curiosity traverse have diameters using VR tools that cut off at 0.5 m, ruling out lower atmospheric density for millions of years.

Yawar Z. Schieber J. Minitti M. Van Beek J. Calef F. et al. ***POSTER LOCATION #585***
With the Nose to the Ground — Exploring the Pahrump Hills Outcrop with MARDI for New Perspectives on the Mudstones of the Murray Formation at Gale Crater, Mars **[#1101]**
Deriving a detailed strat column from continuous MARDI imaging across Pahrump, and integrating it with a sequence stratigraphic interpretation.

Schieber J. ***POSTER LOCATION #586***
How Small is It? Pushing MAHLI to the Limit in the Search for Mudstones at Gale Crater, Mars **[#1100]**
By comparing to terrestrial mudstones, random pixelation of MAHLI close-up images is assigned to the sub-20micron fraction of the mudstone matrix.

Kronyak R. E. Kah L. C. Miklusicak N. B. Edgett K. S. Nachon M. et al. ***POSTER LOCATION #587***
Formation of Fracture Networks in the Siccar Point Group: Implications for Timing of Post-Depositional Fluid Flow in Gale Crater, Mars **[#1371]**
Fractures in the rocks / Where they lie is important / To decipher time.

Borges S. R. Nachon M. Sumner D. Y. Rivera-Hernandez F.
Bjornerud M. et al. ***POSTER LOCATION #588***
Orientation of Calcium Sulfate Veins and Their Implications for Fluid Circulation Events at Gale Crater, Mars **[#2776]**
Orientations of calcium sulfate veins at Gale Crater, Mars were examined to determine their possible emplacement mechanisms and relative timing of formation.

Yingst R. A. Crumpler L. S. Garvin J. B. Gupta S. Kah L. C. et al. ***POSTER LOCATION #589***
Constraints on the Transport of Materials at Five Mars Landing Sites Using Clast Morphology **[#1353]**
Clast morphology retains a record of transport at five Mars sites. At Gale Crater, rounded pebbles may represent the vestigal remains of pebbly sandstone units.

Weitz C. M. Sullivan R. J. Lapotre M. G. A. Rowland S. K.
Grant J. A. et al. ***POSTER LOCATION #590***
Grain Size Measurements of Eolian Ripples in Gale Crater, Mars **[#1257]**
We used Curiosity's Mars Hand Lens Imager (MAHLI) to measure the size and shape of grains on or near ripple crests at several locations within Gale Crater.

Gwizd S. Fedo C. Grotzinger J. Edgett K. Rivera-Hernandez F. et al. ***POSTER LOCATION #591***
Depositional History of the Hartmann's Valley Member, Murray Formation, Gale Crater, Mars **[#2150]**
This study uses high-resolution, micron-scale images of the Hartmann's Valley member in Gale Crater, Mars to assess depositional environment.

Bennett K. A. Edgett K. Fey D. Edgar L. A. Fraeman A. et al. ***POSTER LOCATION #592***
Fine-Scale Textural Observations at Vera Rubin Ridge, Gale Crater, from the Mars Hand Lens Imager (MAHLI) **[#1769]**
Vera Rubin Ridge rocks are erosion-resistant mudstones, and the variations in diagenetic features may cause orbitally observed morphology changes.

Johnson J. R. Bell J. F. III Lemmon M. L. ***POSTER LOCATION #593***
Overview of Recent Mastcam and MAHLI Visible/Near-Infrared Spectrophotometric Observations: Big Sky to Vera Rubin Ridge **[#1354]**
For ongoing light scattering studies, Mastcam took photometry sequences at five new locations (Sols 1136–1544); MAHLI acquired a goniometer sequence on Sol 1904.

Calef F. J. III Zastrow A. M. Hughes M. Fox V. Arvidson R. ***POSTER LOCATION #594***
Rock Hazards Identified from Orbit Approaching the Vera Rubin Ridge, Gale Crater **[#2510]**
We conducted a traverse analysis using orbital imagery calibrated to *in situ* measurements for rock hazards on the approach to the Vera Rubin Ridge.

Heydari E. Parker T. J. Calef III F. J. Schroeder J. F. Van Beek J. et al. ***POSTER LOCATION #595***
Characteristics and the Origin of the Vera Rubin Ridge, Gale Crater, Mars **[#1817]**
This abstract provides lithologic, sedimentologic, and diagenetic characteristics of the Vera Rubin Ridge in Gale Crater and discusses its potential origin.

Dromart G. Le Deit L. Rapin W. Anderson R. B. Gasnault O. et al. ***POSTER LOCATION #596***
The Light-Toned Yardang Unit, Mount Sharp, Gale Crater, Mars Spotted by the Long Distance Remote Micro-Imager of ChemCam (MSL Mission) **[#1222]**
From the structures and cyclic cross-bedding of the layers, we infer that the Mount Sharp LTYu is composed of giant eolian climbing dunes pushed up by N-NE winds.

Le Deit L. Anderson R. B. Le Mouélic S. Mangold N.
Dromart G. et al. ***POSTER LOCATION #597***
Lower Mount Sharp, Gale Crater, Mars: Key Study Areas as Observed by Curiosity Remote Cameras **[#1437]**
We provide constraints on the nature and stratigraphy of future key study areas to be explored by Curiosity using ChemCam and Mastcam remote cameras.

Deen R. G. Abarca H. E. Algermissen S. S. Maki J. N.
Ruoff N. A. et al. ***POSTER LOCATION #598***
Mastcam Stereo Analysis and Mosaics (MSAM) **[#2332]**
Describes a PDART task to systematically generate and deliver to PDS stereo analysis products, meshes, and several kinds of mosaics from MSL Mastcam data.

Martinez-Sierra L. M. Jun I. Tate C. Moersch J. E. Martin A. C. et al. ***POSTER LOCATION #599***
Observations of Neutron Environment at the Surface and in Orbit of Mars **[#2561]**
Understanding the neutron background environment at the surface of Mars using surface data from MSL (DAN-RAD) and orbital measurements from Mars Odyssey (HEND).

Foroutan M. Zimbelman J. R. ***POSTER LOCATION #600***
Study of Wafer-Thin Rocks on Earth and Mars and How They can be a Clue to Past: Implications from Curiosity Observations and Their Terrestrial Analog **[#2727]**
The mineralogy and the formation process of wafer-thin rocks in Gale Crater are investigated by using rover images and samples from their terrestrial analog.