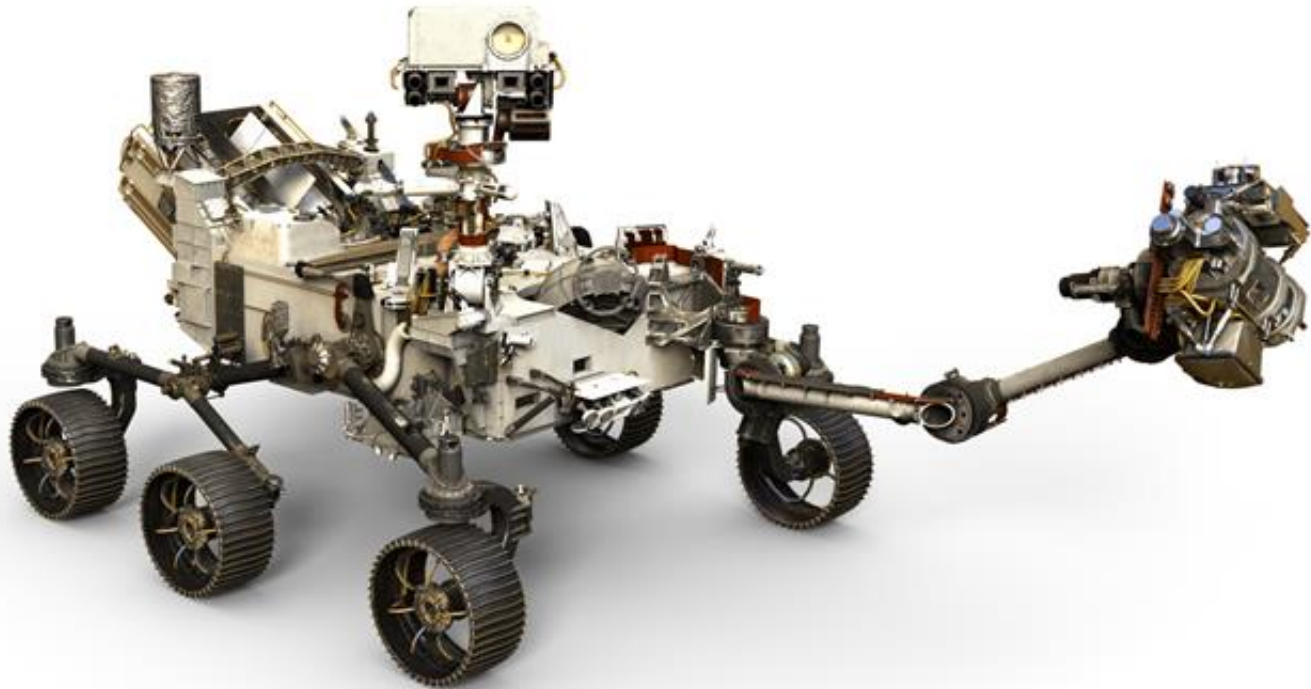


Mars 2020 Mission Update

Ken Farley (Caltech)
Project Scientist

MEPAG Meeting VM12
Monday, June 21, 2021



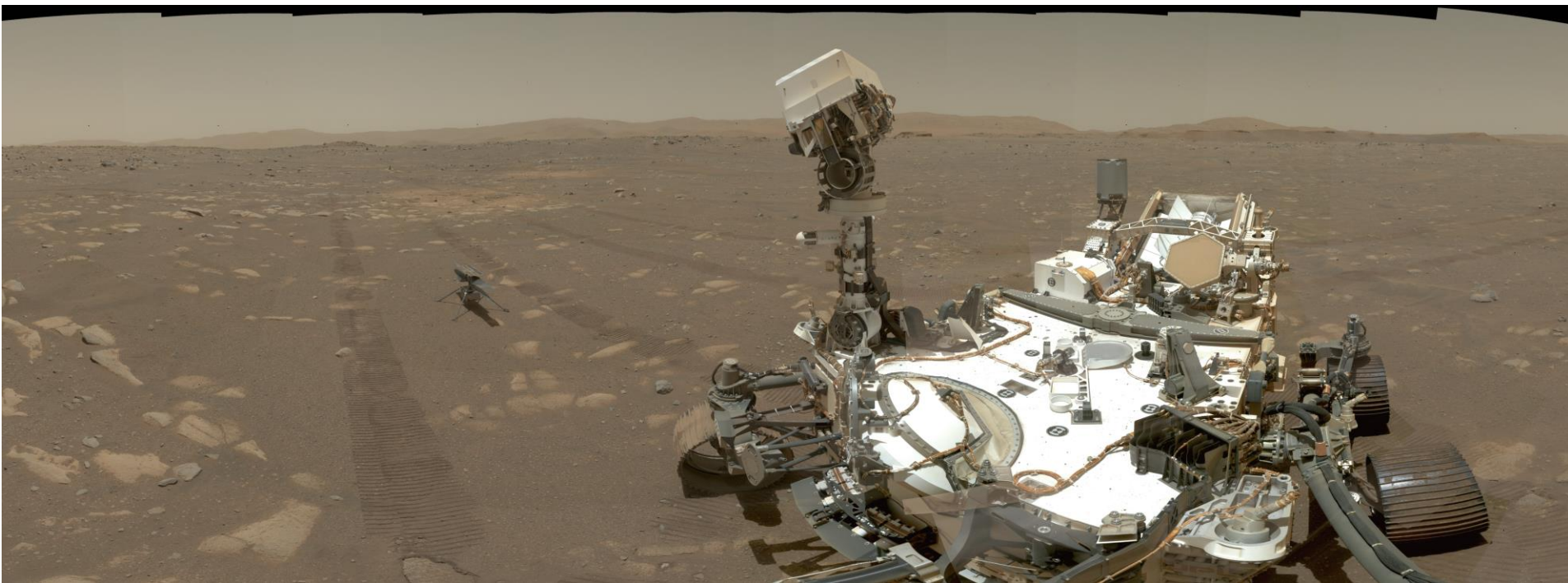
Today is *Perseverance* Sol 121



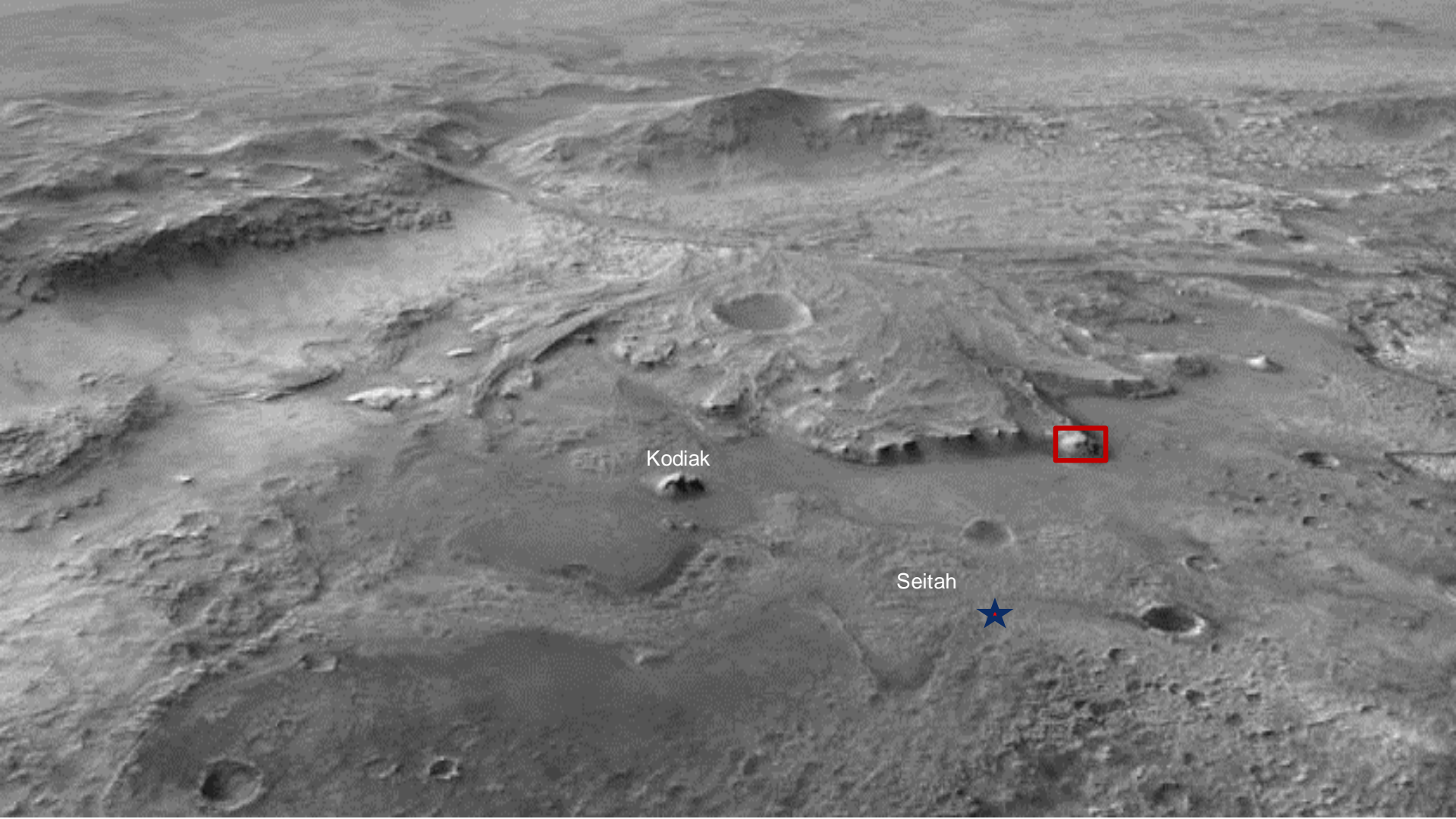
Kodiak - a delta remnant

Mission Accomplishments

- Rover commissioning activities completed successfully and on schedule
- Five-flight *Ingenuity* helicopter technology demonstration successfully completed
- All science instruments are functioning with no significant issues
- All instruments have successfully obtained data
 - a wealth of Supercam, RIMFAX, MEDA, SHERLOC (WATSON), and Mastcam-Z data obtained
 - literally thousands of images have been posted to M2020 raw image website
 - PIXL and SHERLOC (Spectroscopy) require precision surface placement with < few cm standoff
 - first time activities to permit such placement will be completed soon
 - expect routine PIXL and SHERLOC measurements in early summer, including on abraded surfaces
 - MOXIE has made multiple oxygen production runs with expected yield and purity



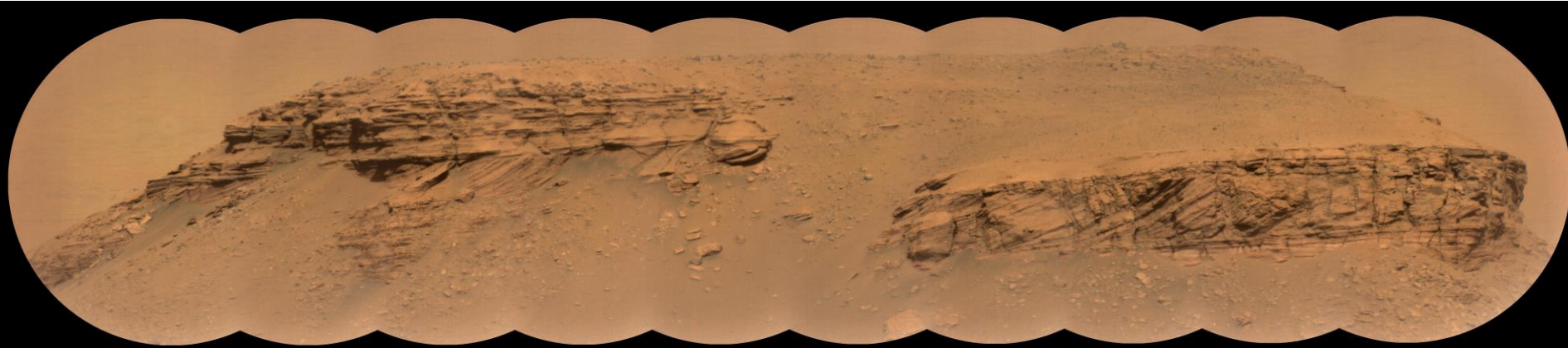
Ingenuity continues to fly as an operational demonstration

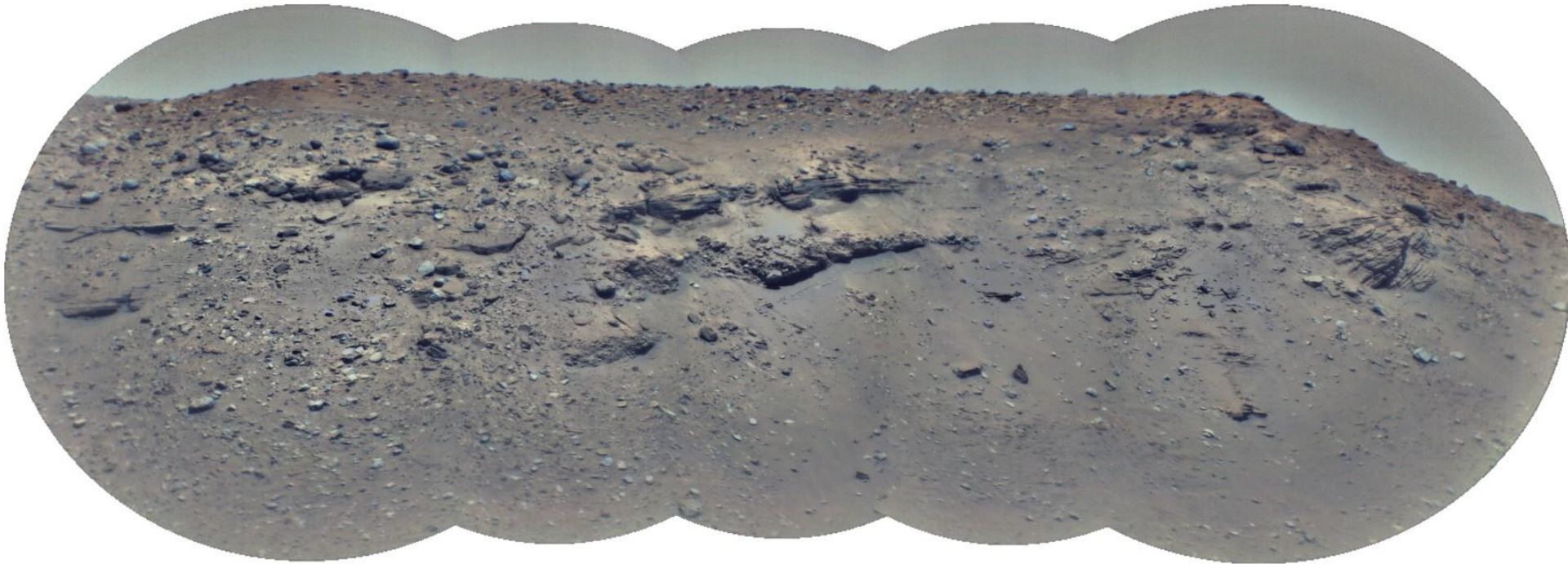


Kodiak

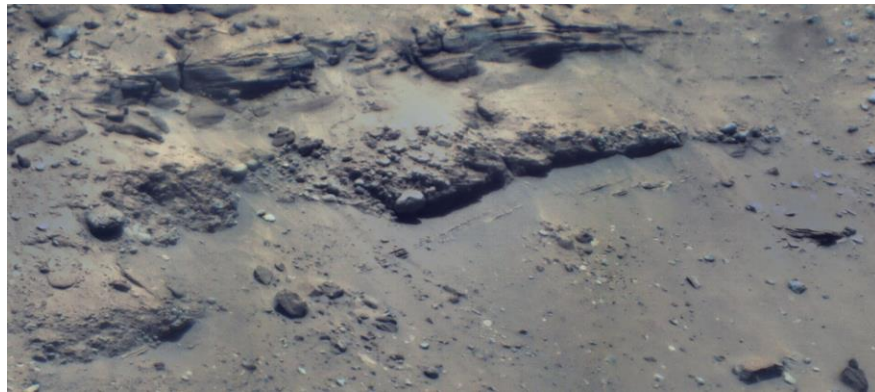
Seitah

Supercam RMI images of Kodiak

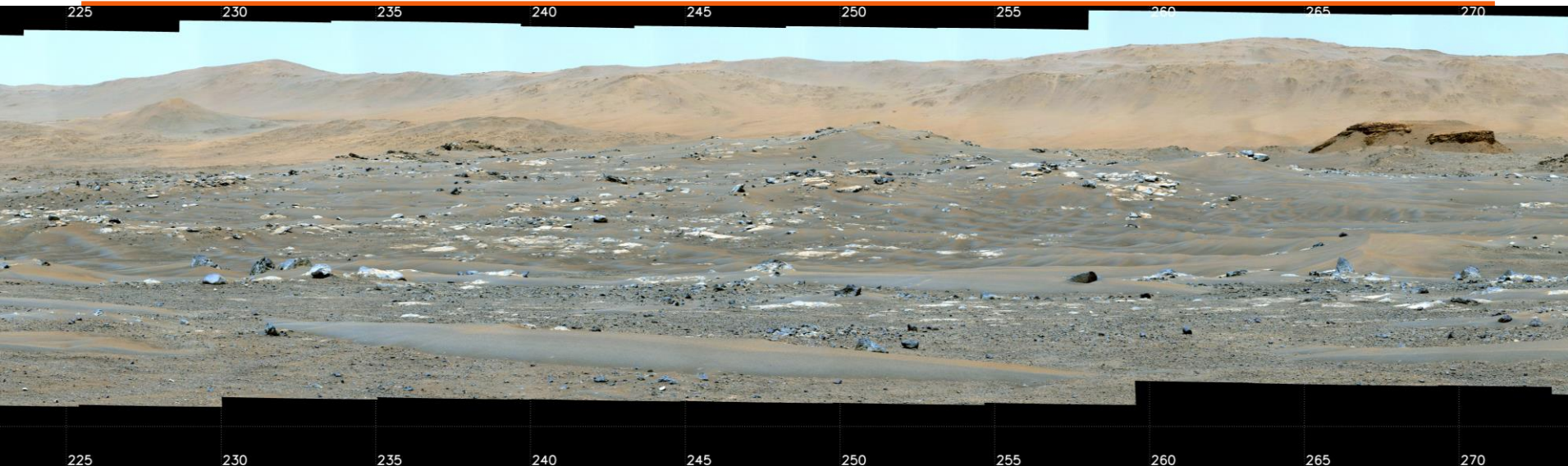




Delta Front



Sietah

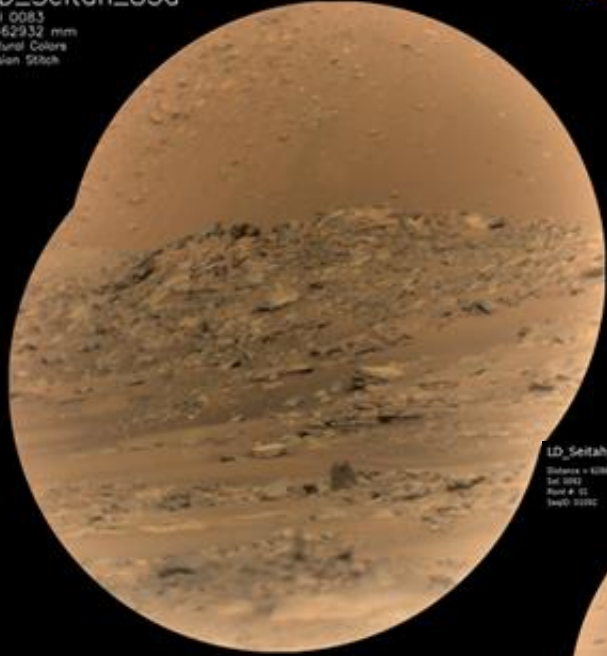


Seitah

LD_Seitah_83a

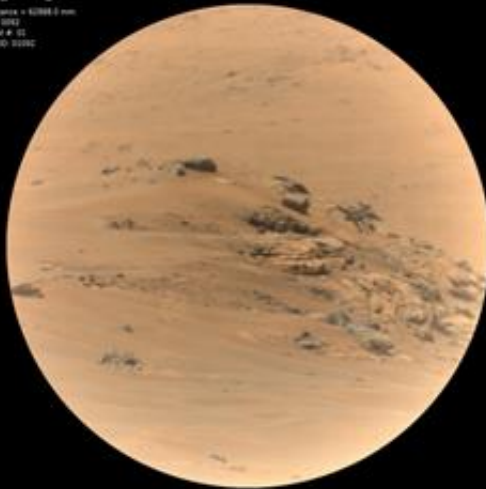
Sol 0083
d3-62932 mm
Natural Colors
Fusion Stitch

LRVIM



LD_Seitah_92

Distance = 62044.0 mm
Sol 0082
Frame 4 of 15
ImageID: 11082



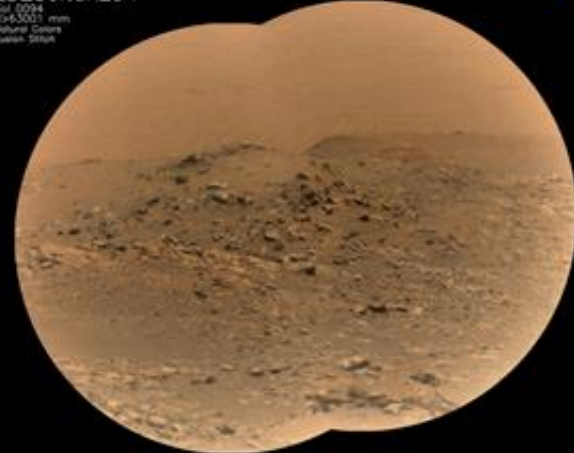
LD_Seitah_69

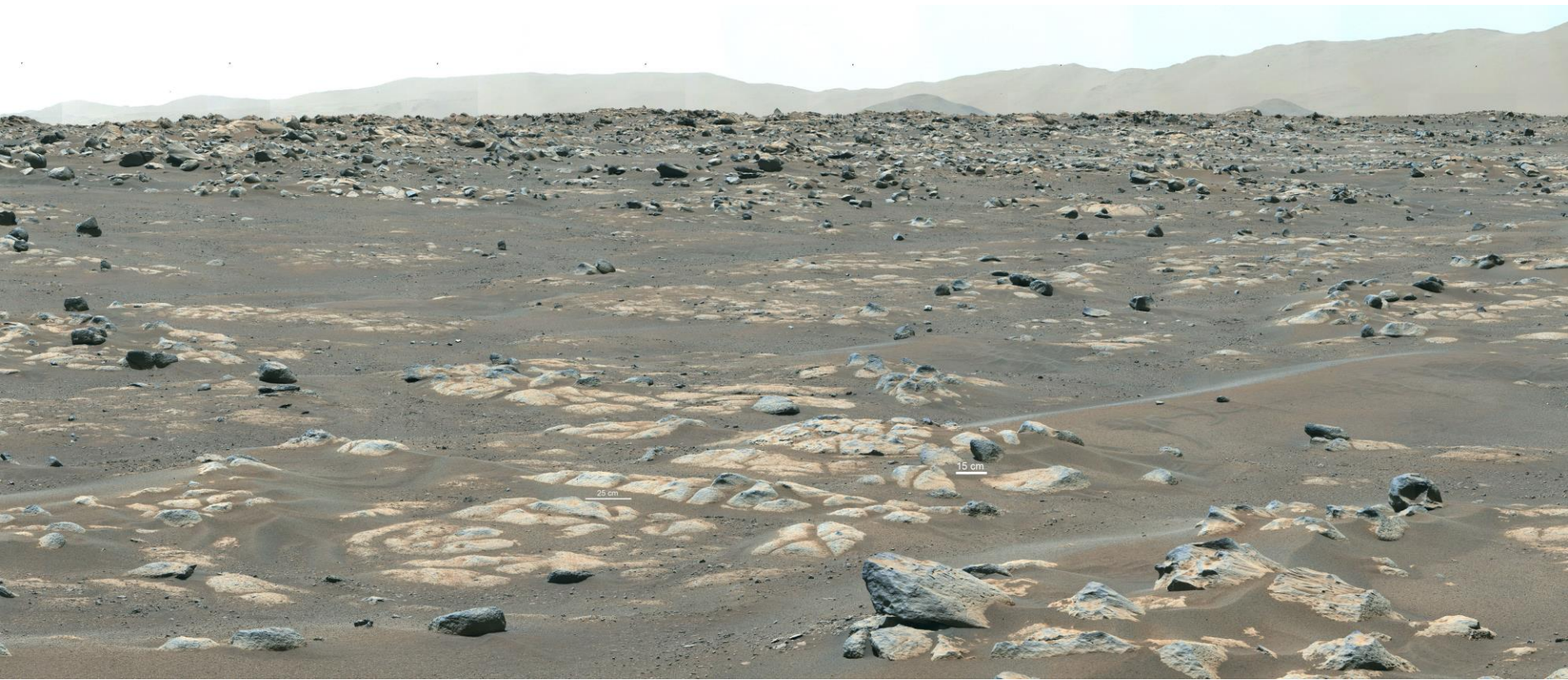


LD_Seitah_94

Sol 0094
d3-63001 mm
Natural Colors
Fusion Stitch

LRVIM





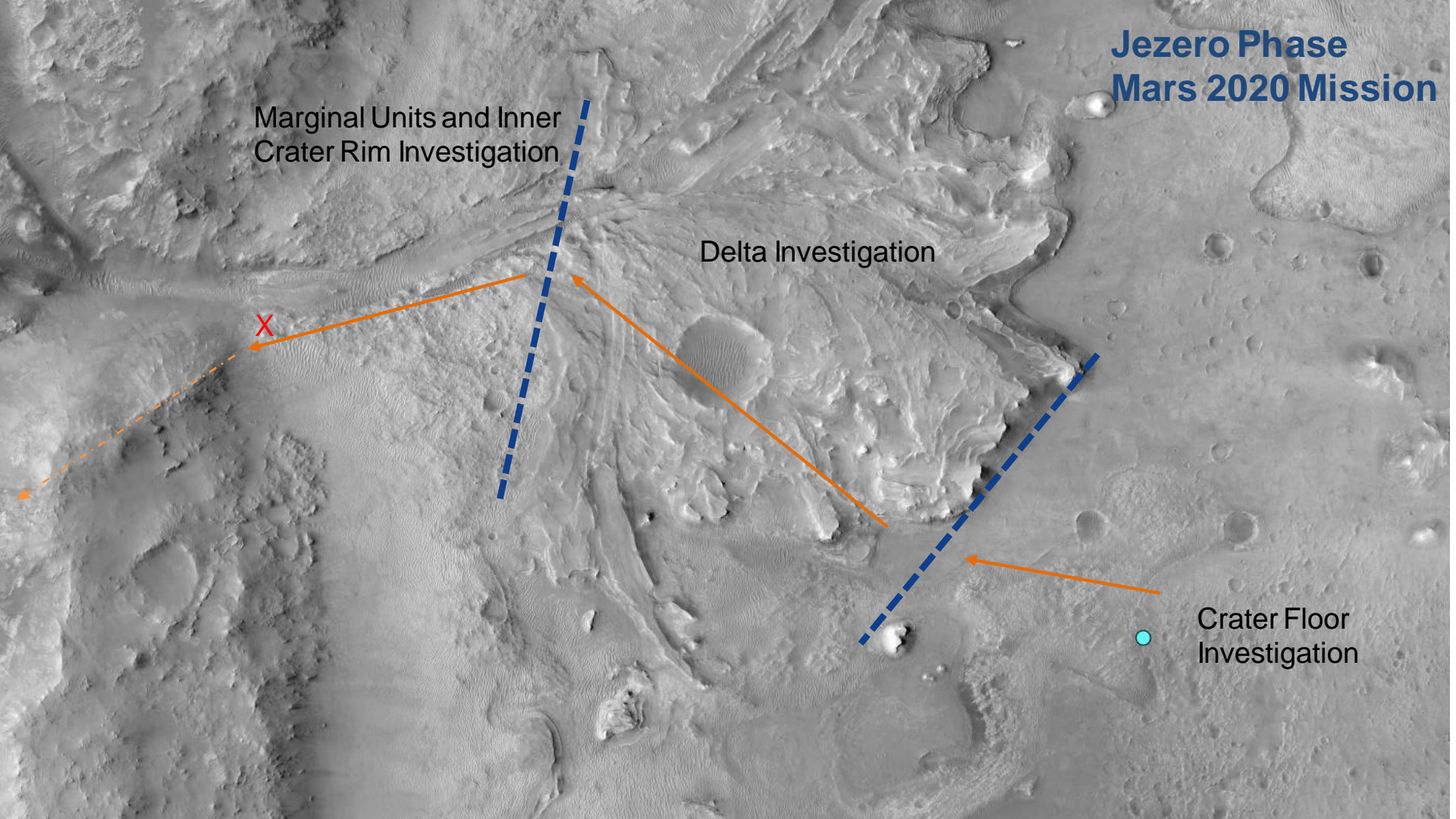


Jezero Phase Mars 2020 Mission

Marginal Units and Inner
Crater Rim Investigation

Delta Investigation

Crater Floor
Investigation



Crater Floor Investigation: Green Zone Campaign

- Study and and likely collect samples from Seitah, Crater Floor, and Raised Ridges
- Likely 4 unique samples (plus duplicates) will be collected. Also at least 1 witness tube.
- Traversability considerations strongly suggest an out-and-back approach, heading for the delta
- Time allocated to campaign in proportion to number of samples collected
- complete Crater Floor investigation Spring 2022

