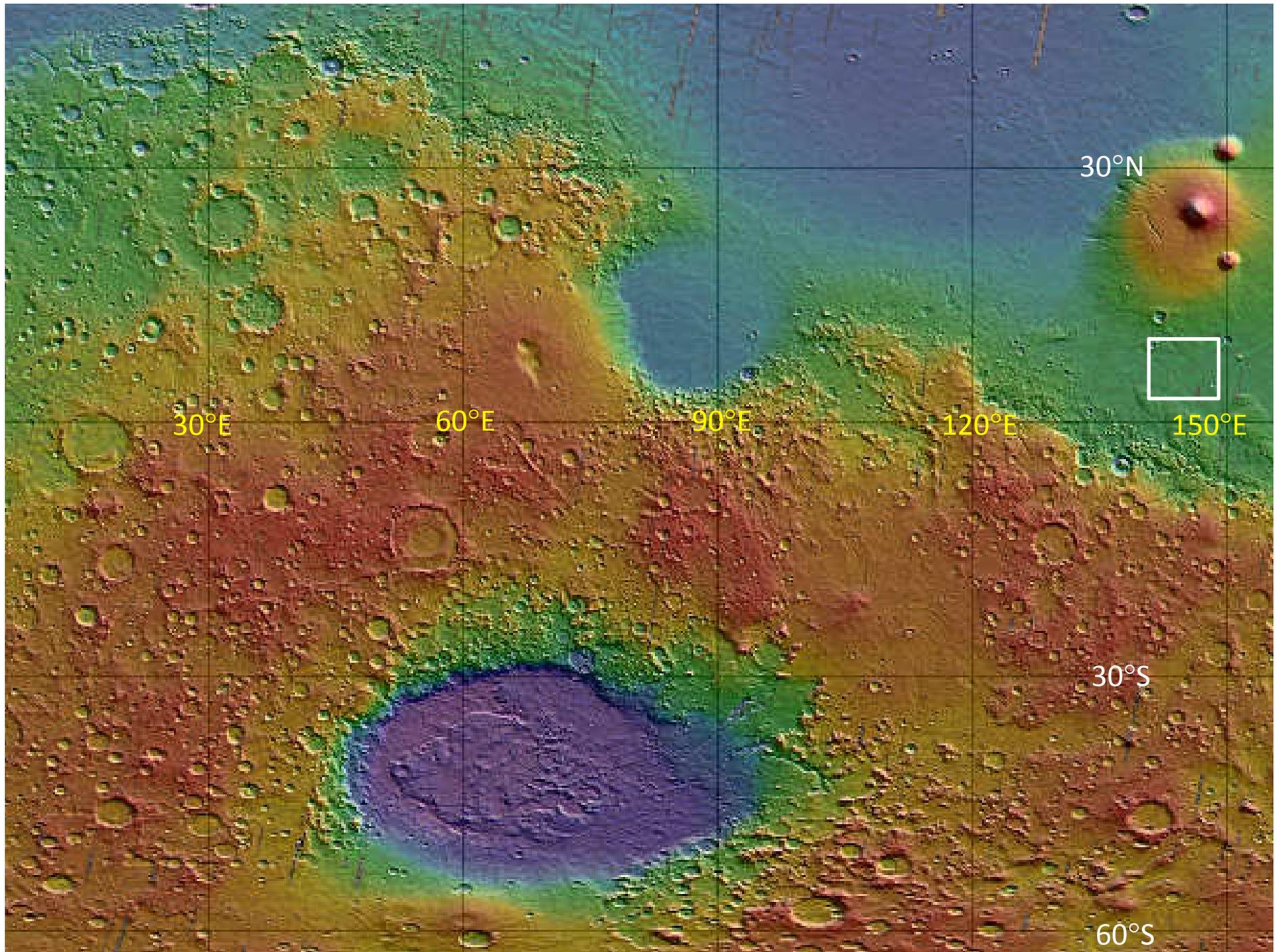


CERBERUS PALUS

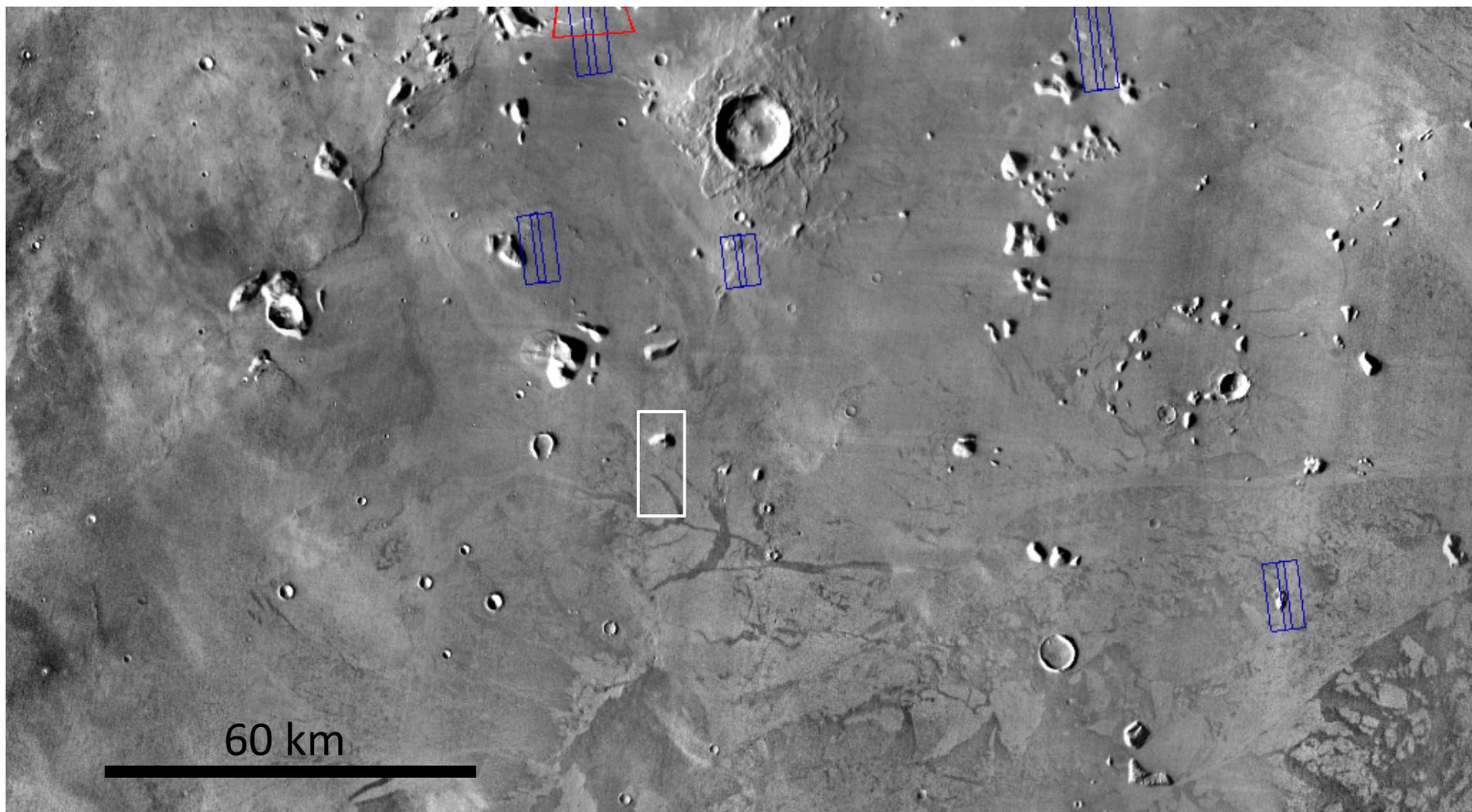
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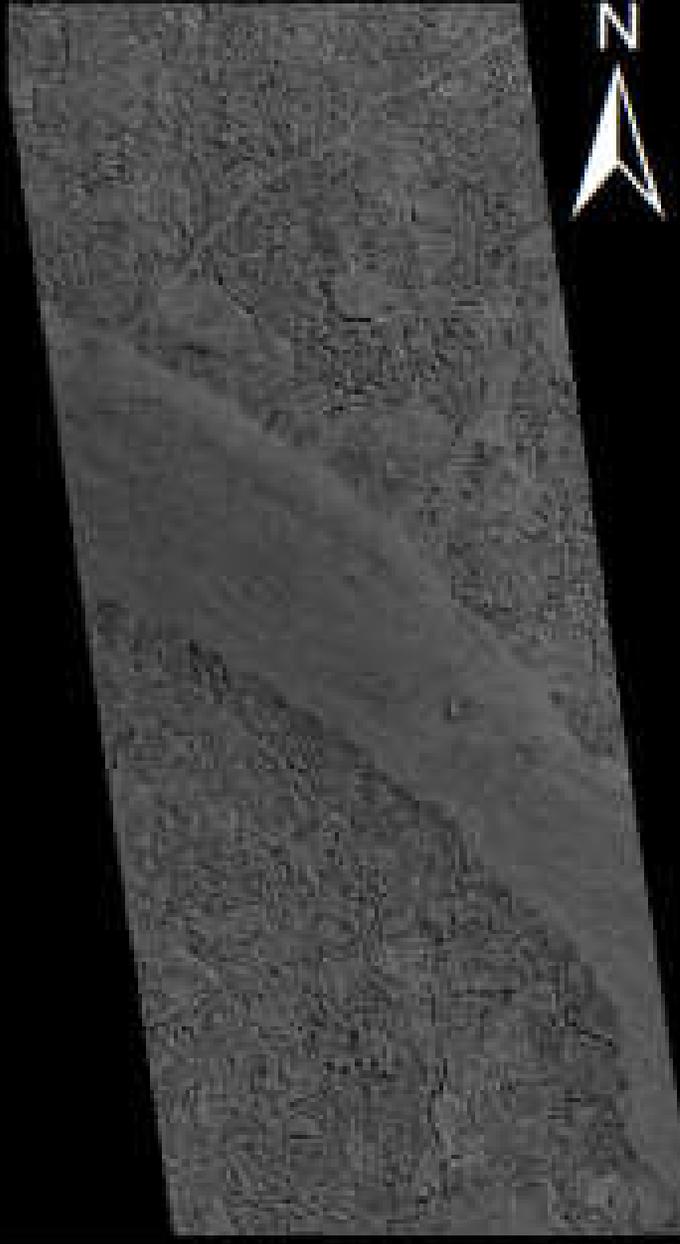
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THEMIS daytime IR



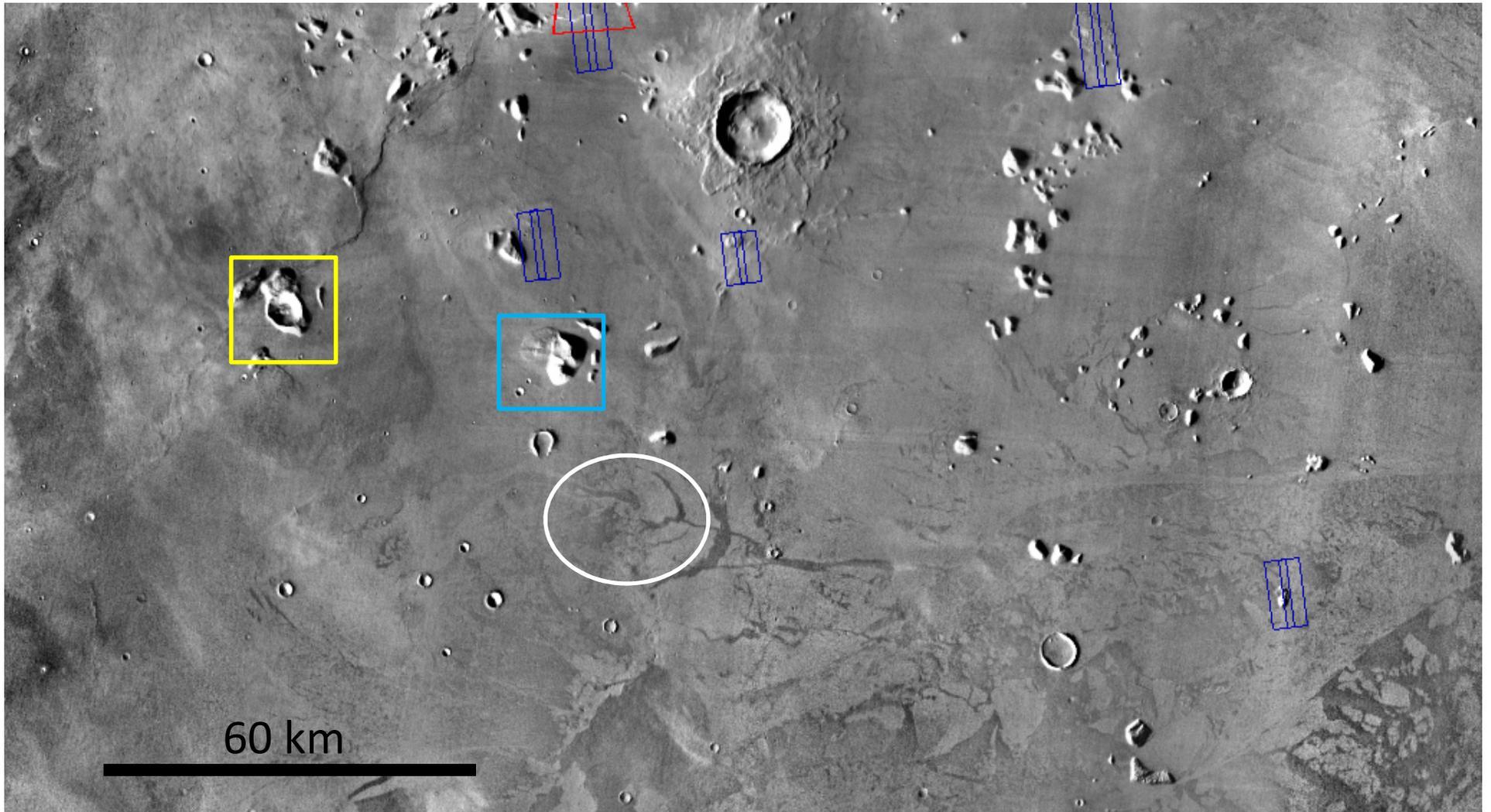
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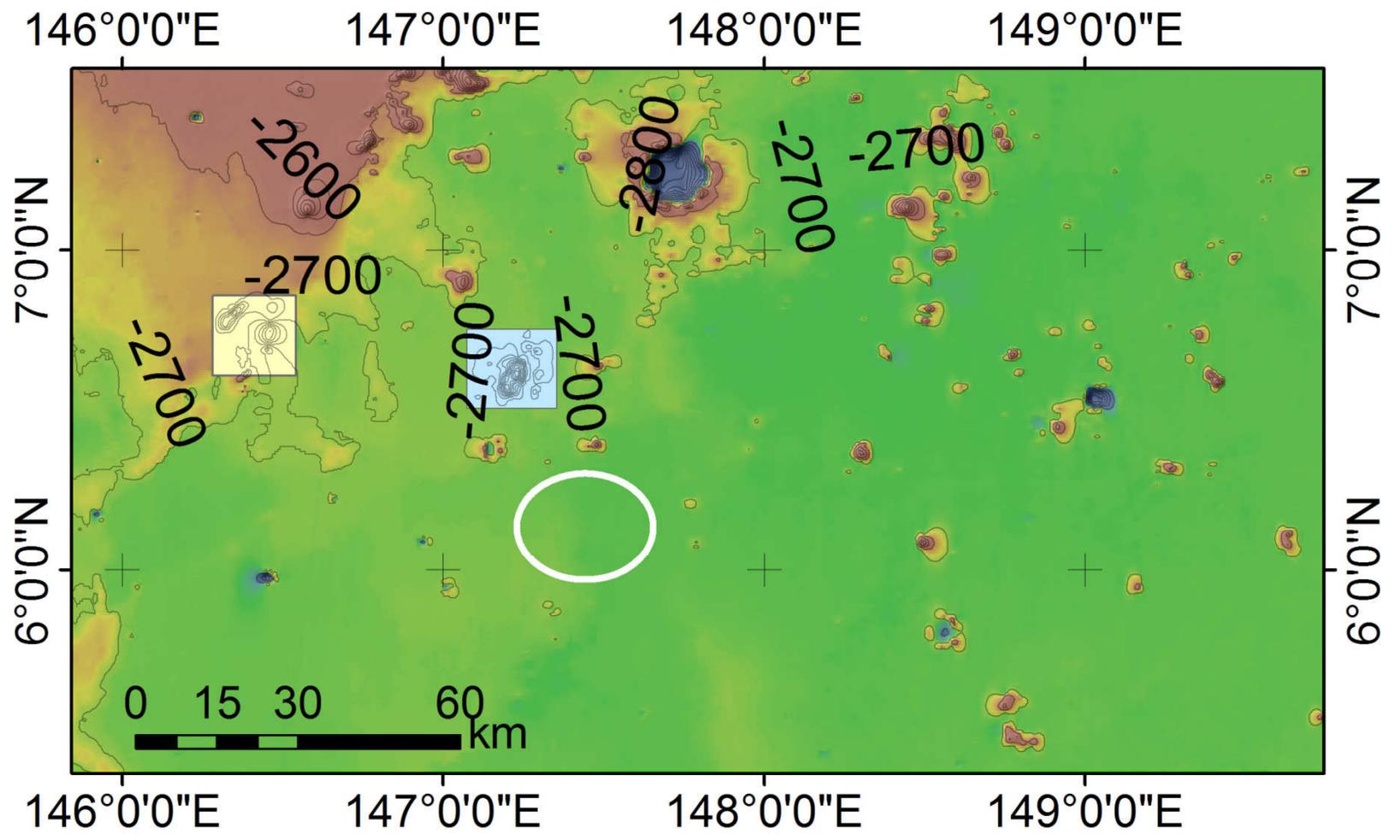


Previous work (Cerberus Palus)

- Allen (1979); Pedersen et al. (2010)
Sub-ice dikes (volcanism)
- Hartmann and Berman (2000)
Young lava flows on the surface
- Williams and Malin (2004)
Platy textures > Mud flows; Ice flows
- Murray et al. (2005)
Platy textures > Pack ice
- Keszthelyi et al. (2008)
Platy textures > Hot lava flows
- Orosei et al. (2010); Mouginot et al. (2012)
Ground-penetrating radar > Ice near surface

THEMIS daytime IR





Site Name	CERBERUS PALUS
Landing Ellipse Center Coordinates: Latitude, Longitude	6.126°N, 147.444°E
MOLA elevation	-2.72 km
Prime Science and Sampling Targets	<ol style="list-style-type: none">1. Basements rocks2. Impact crater debris
Distance of Science and/or Sampling Targets from Ellipse Center	30 – 70 km to NW, and elsewhere in the reachable area, where rocks and debris crop out of the volcanic cover



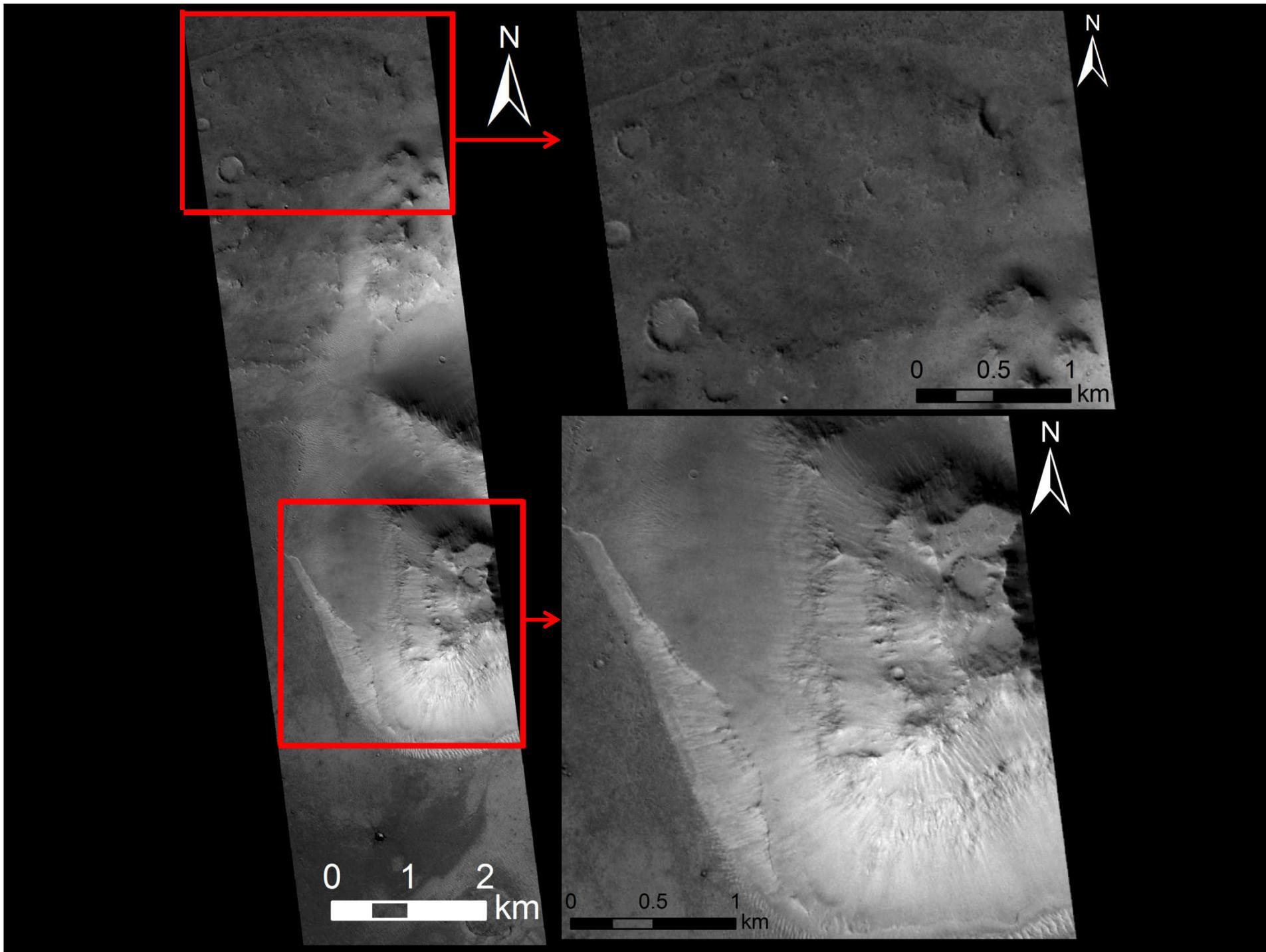
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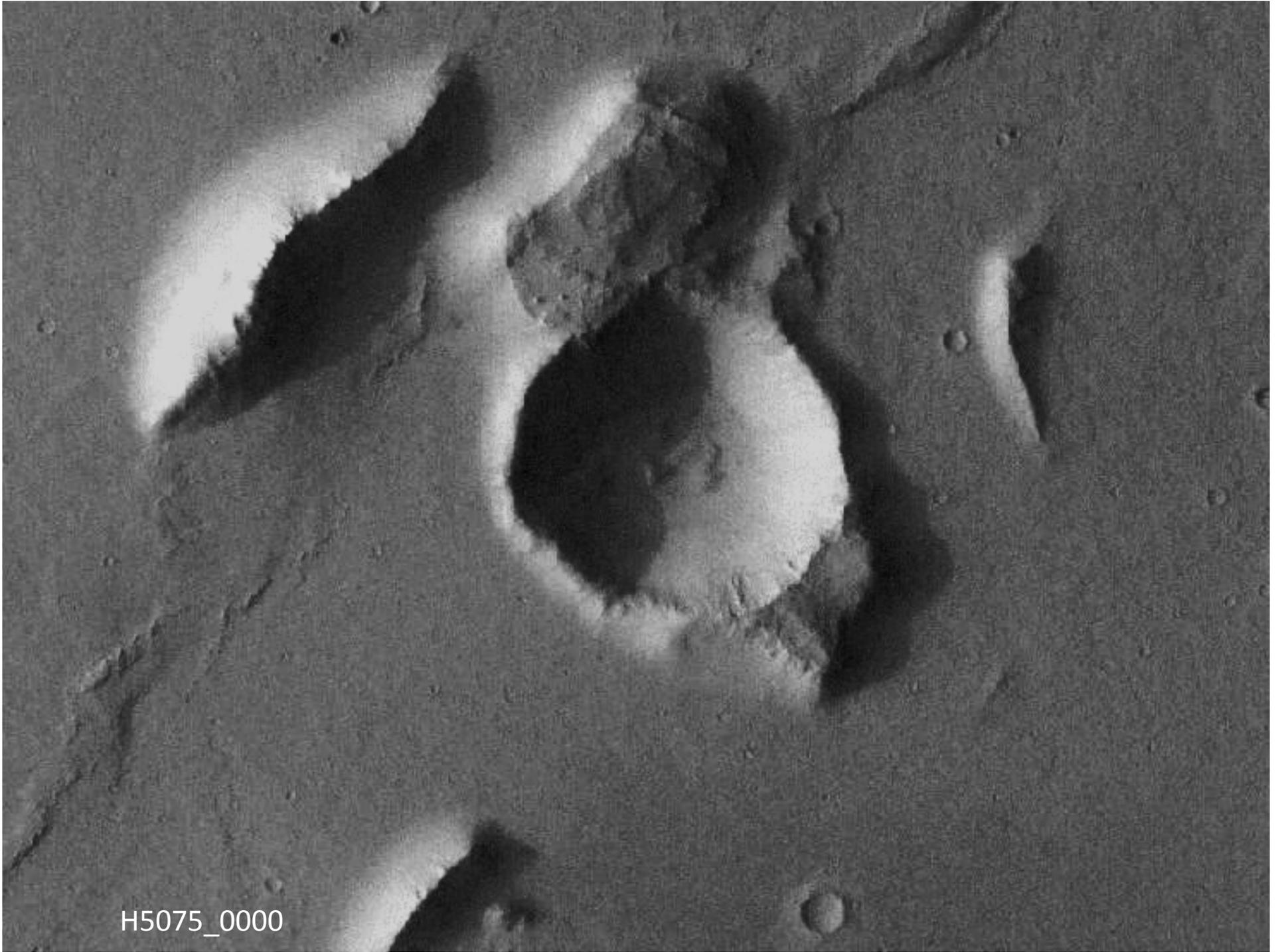
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0 1 2 km







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Rationale and Conclusion

- Recent geological activity
- Volcano-ice processes
- High water/magma ratios > hydrothermal settings
- “Safe” landing site (near Elysium, Kass et al., 2003)
- Observations of targets
 - Information on nature of basement rocks, presence of subsurface ice
- Proximity of landing site to:
 - Outcrops of possible “soft(er)” material for sampling