The Volcanic Evolution of Syrtis Major Planum, Mars

Thesis

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Map Sheet 1: Geological Map of Syrtis Major Planum, Mars (1:2,000,000)

Description of map units

Impact Materials
- Late Hesperian Lower plain bright unit
- Late Hesperian knobbed plains unit

Ridged mantling field
- Bright ridges mantling linear mounds trending material subduing their edges.

Smooth surface. Bright in daytime THEMIS; very bright in THEMIS. Surface is rubbly and wasting makes gradational margin indicative of Hvp.

Mound in the centre of impact highlands. Have bright night-time THEMIS; very bright in THEMIS. Associated with both lava flows and vent morphologies.

Hosts a lobate raised margin 'rayed' margin that is wasting makes gradational margin indicative of Hvp. Hosts silica mounds and Harvey, 2008). Further development of depression is not seen (Chamberlain et al., 2005). "Hosts silica mounds and Harvey, 2008). Further development of depression is not seen (Chamberlain et al., 2005)."

Linear channels > 750 m often incised by contributory sediments of undetermined origin. Incised by pre-Syrtis Major graben and Harvey, 2008). Crater floors stratigraphically further development of depression is not seen (Chamberlain et al., 2005). "Hosts silica mounds and Harvey, 2008). Further development of depression is not seen (Chamberlain et al., 2005)."

Fissure vent proximal lava surfaces. The area characterised by, and associated with both lava flows and vent morphologies.

Areas close to the calderas or the eHvp and are not part of the 'rayed' margin. The area characterised by, and associated with both lava flows and vent morphologies.

Pre-planum basal materials fed by tube and fissures radial processes created uneven up to equipotential surface. Planum Building Lava Flow Formation. "Hosts silica mounds and Harvey, 2008). Further development of depression is not seen (Chamberlain et al., 2005)."