

TABLE 3. Observed Characteristics of Venera Lander Sites

Site	Bedrock	Fragments (> 1 cm)	Fines/Soil (< 1 cm)
Venera 9	No unambiguous evidence for bedrock exposure.	Abundance of angular to subangular layered and platy blocks in the 5–70 cm range. Several blocks have elongate, rounded ridges and other undulatory surfaces. Some blocks polygonal in outline; some are steeply inclined relative to horizon. Finer fraction (1–5 cm) distributed in interblock areas.	Apparent bimodal distribution (fines below limits of resolution, coarse, ~1 cm). Few intermediate fragments between fines and 10-cm blocks. Distributed between blocks, little evidence of fillets around blocks.
Venera 10	Covers 40–60% of surface. Exposed as semicontinuous, generally flat, subrounded to polygonal patches up to several meters in width. Surface rough; in near field, 5–10 cm of topography, up to a meter in background. Surface texture is pitted and also contains a cusped scarp. Linear and orthogonal fractures.	Only a few discrete fragments > 5 cm. Located in areas dominated by fines, not on bedrock. Visible fragments in soil grade into roughness at the scale of resolution in intermediate and far field.	Fines distributed in extensive patches in low areas and in small patches on bedrock surfaces. Fines lower albedo than bedrock. Fines grade into small fragments in size.
Venera 13	Covers 20–50% of surface. Exposed as semicontinuous generally flat polygonal to subrounded patches. Surface rough in near field, bedrock plate edges and surface shows 5–10 cm of topography; pits and shallow linear depressions. Several rounded, elongate, and cusped scarps. Linear fractures. Surface has a somewhat layered appearance.	Larger fragments are angular to subangular, layered and platy; locally distributed in patches associated primarily with bedrock. Many fragment boundaries can be related to adjacent bedrock fractures. Smaller fragments are located on and within soil/fines patches and only occasionally on bedrock. Occur in two modes: 1) in an annulus surrounding the lander ring. The most rounded particles occur here; fragments lie on top of soil layer; 2) in soil patches between bedrock exposures. Particles mostly partly buried.	Fines distributed in extensive patches between bedrock exposures and in local small patches in bedrock pits and depressions. Fines lower albedo than bedrock. Bimodal distribution? Soil occurs on surface of lander ring on both sides of spacecraft and on lens cover.
Venera 14	Covers almost 100% of surface. Exposed as continuous areas of interlocking, generally flat, polygonal plates. Surface is rough at scale of centimeters. Surface structure dominated by subhorizontal to horizontal layered plates with thicknesses of several centimeters; some layers show different albedo, with uppermost layers darkest; uppermost plate in near field has hole or window revealing underlying layer; some surface sublayers show tongue-like overlaps. Surface textures include pitting, waviness, and elongate, cusped scarps. Abundant linear and polygonal fractures.	Only a few discrete blocks > 10 cm. One 50-cm block with layered/striated texture. Fragments are angular to subangular; several can be geometrically fitted into adjacent bedrock. In far field, fragments appear in local patches between extensive flat platy bedrock exposures. In near field, smaller fragments have two modes of occurrence: (1) in depressions and fractures in bedrock, and (2) distributed around lander ring on arm side of spacecraft.	Distinct paucity of fines compared to other sites. Some local accumulations in fractures in bedrock and in front of spacecraft on arm side. Soil occurs on surface of lander ring only on arm side of spacecraft.

most strongly influenced by the accumulations of larger fragments and the bedrock exposures that are most inclined relative to the flat surface. In general, the bedrock topography appears comparable to that of Venera 10.

The fine materials at Venera 13 are generally lower in albedo than any of the other materials at the site and are distributed in soil patches between bedrock exposures, as is

the case for the Venera 10 site. In addition, fine materials have been deposited in depression on bedrock surfaces. The edges of bedrock exposures throughout the landing site are sometimes diffuse, suggesting a cover of soil on top of such bedrock. It is clear from the panoramas of the Venera 13 site that the fine materials (< 1 cm) making up the soil patches are variable in size. Fine materials are also observed on the lander