Summary MSL Landing Site Criteria

Major Ouestions/ Criteria:

Landing Sites:

Science Criteria Nili N. E. Hol Ter Maw Gale **Ebers** Juven Nilo Mel Nili Eos Merid Iani Cand Fos den by rth walde Merid Syrt as Merid Crat Crat

Ability to Assess Biological

Potential w/MSL Payload

Evidence for Habitable

Environment (Environment of Formation and Deposition)

Aqueous Environment, Type of Habitable Environment

Preservation of Bio-

Signatures

Organic Material, (Pre) Biotic Materials,

Biologic Textures, Mineralogic Biosignatures

Ability to Characterize

Geology/Geochemistry

Context within Geologic

Timescale

Context within Geologic/

Geomorphic/

Stratigraphic Setting

Accessibility

Accessed by Rover/Arm

Go To

Distance/trafficability

to Materials of Interest

<1 km. <5 km, >10 km

Dust Obscuration

Reduced Performance

Thermal Constraints

Major Ouestions/ Criteria:

Landing Sites:

Safety Criteria Nili Ter Gale **Ebers** *W*. N. Nilo Mel E. Iani Nili Hol Maw Juven Eos Merid Cand Merid Fos den *by* rth walde Syrt as Merid Crat Crat

Surface Slope/Relief

2-10 km Slope

1-2 km Slope

200-1000 m Slope

2-5 m Slope

Relief in HiRISE

Warning Track Slope

2-10 km Slope

Flexibility Ellipse

Placement

Safe Haven? (non go to)

Rock Abundance

IRTM

TES

Rocks Present in HiRISE

Load Bearing Surface

Dust (DCI, Albedo)

Cold Temperatures

Trafficability

Atmospherically

Challenging Site