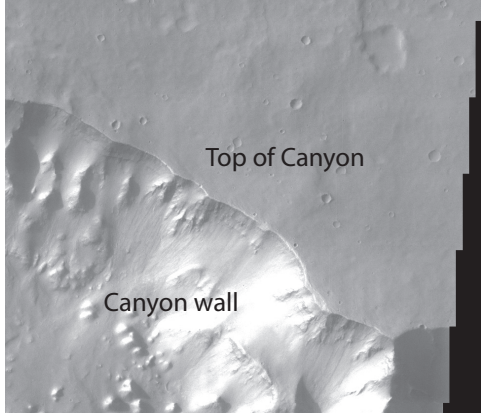
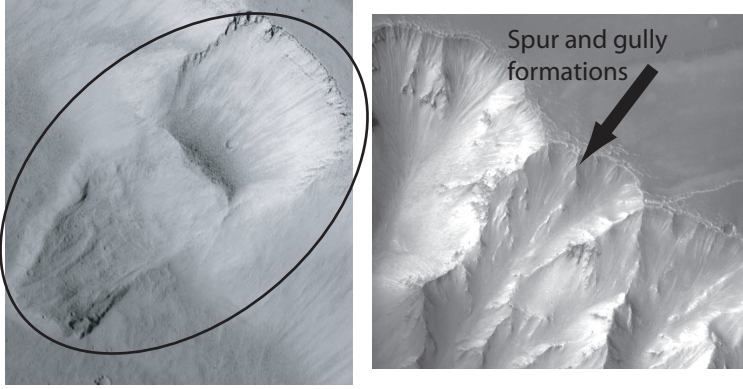
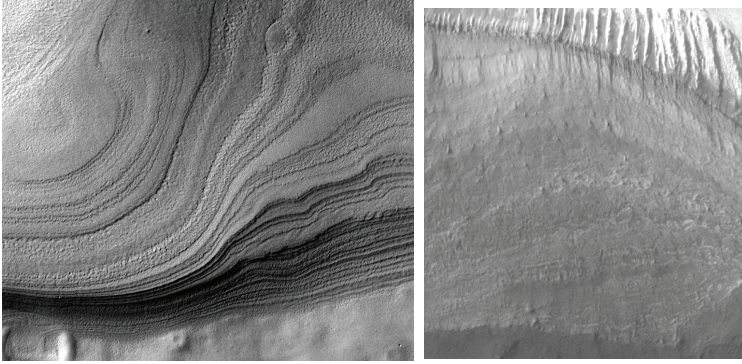
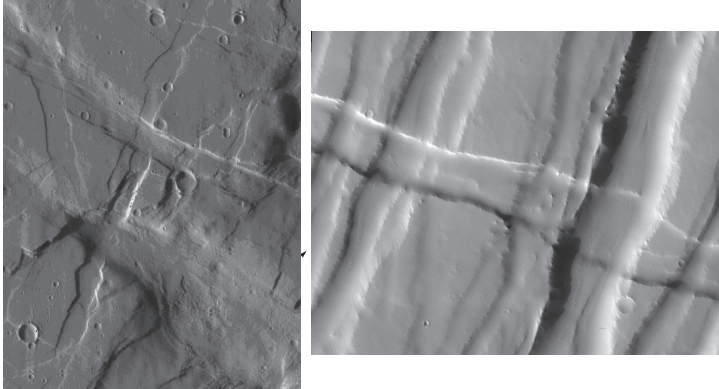


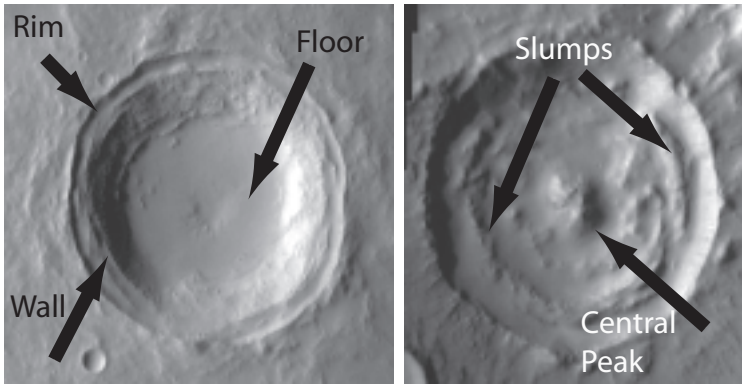
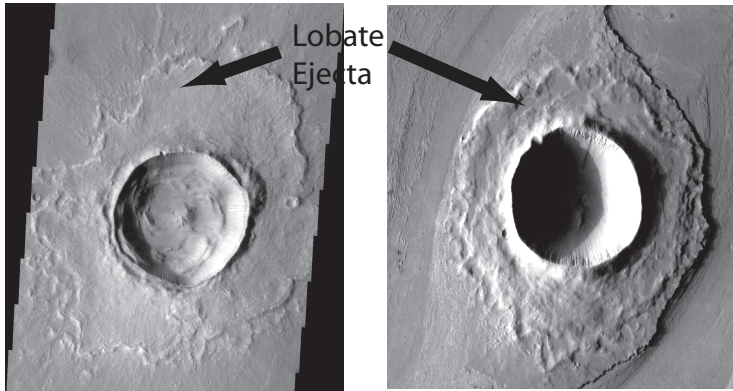
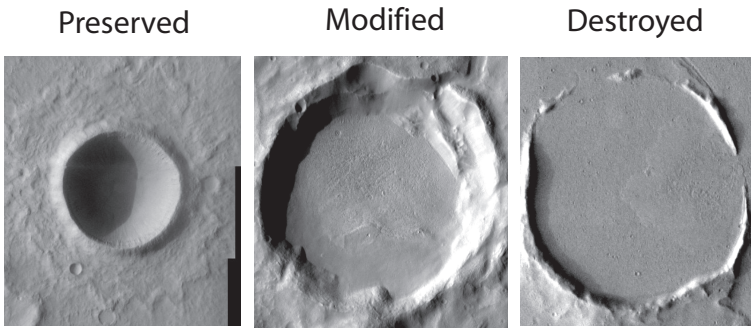
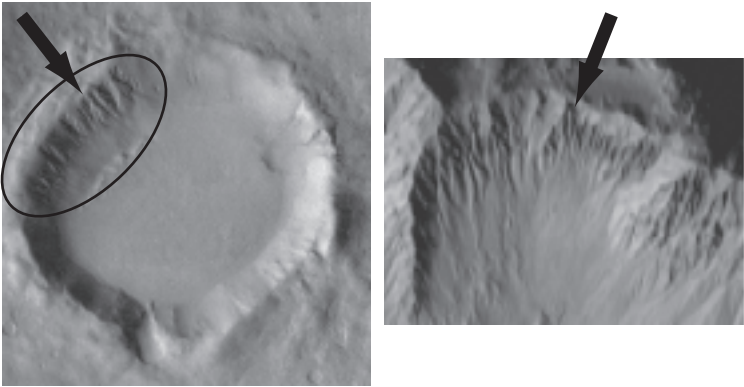
FEATURE IDENTIFICATION CHART

Features Often Associated with Canyons

Feature	An Example of this Feature	Description of Feature
Canyons		<ul style="list-style-type: none"> -Identified by a steep drop in elevation, similar to what we see with canyons on Earth -Canyon walls often show material that has fallen or slid down slope -Top of canyon is generally flat and smooth
Landslides		<ul style="list-style-type: none"> -Material that has fallen or slid down a steep slope -Landslide material piles up at the bottom of slope -Often seen on steep canyon walls -Spur and gully formations are landslides that look similar to gullies that can be seen on crater walls
Layers		<ul style="list-style-type: none"> -Layers of material can be seen in different areas of Mars, including canyon walls -May be formed by stacks of lava flows, ash from volcanoes, dust, or by sediments deposited in water
Fractures/Faults		<ul style="list-style-type: none"> -The result of a break in the surface -Thought to be a result of weaknesses in the crust -Generally straight features that scar the surface -Often run parallel in areas where multiple fractures occur

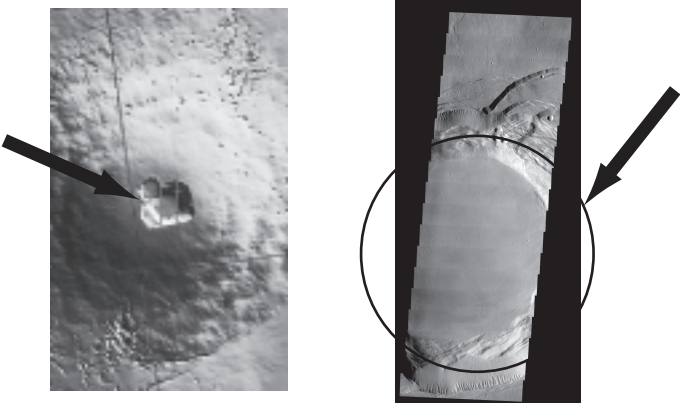
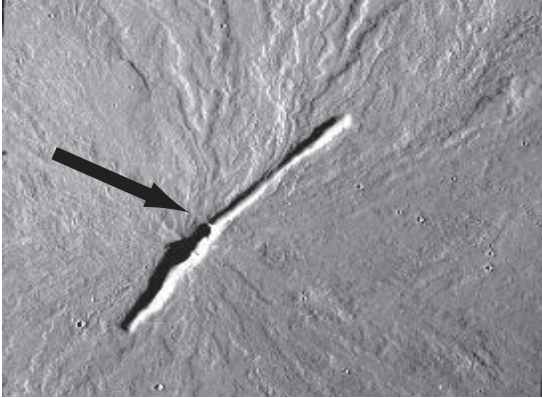
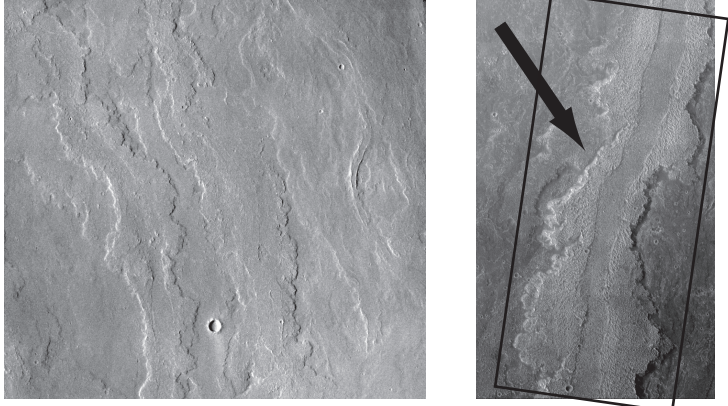
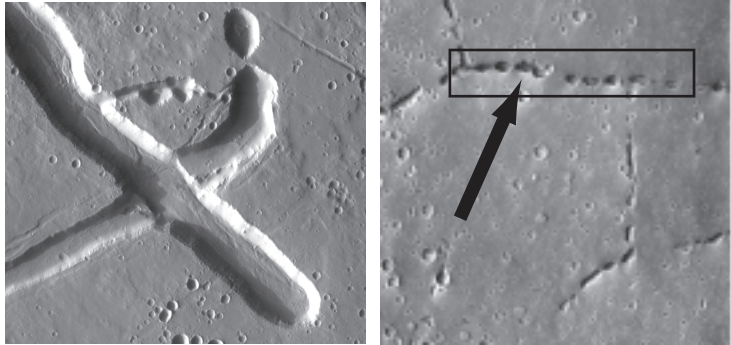
FEATURE IDENTIFICATION CHART

Features Often Associated with Craters

Feature	An Example of this Feature	Description of Feature
Crater		<ul style="list-style-type: none"> -Formed by meteorites striking the surface -Circular in shape -Have a rim, floor, and walls -Some have central peaks -Material can slump down to the bottom of the crater
Rampart Crater		<ul style="list-style-type: none"> -Have a special ejecta called lobate -Lobate ejecta looks like it flowed away from the crater (as if you dropped a ball into mud) -Are associated with liquid water or ice being below the surface at impact
<p>Crater Classifications:</p> <p>Preserved Modified Destroyed</p>		<p>Preserved Craters:</p> <ul style="list-style-type: none"> -Near perfect craters -Raised rims; look new <p>Modified Craters:</p> <ul style="list-style-type: none"> -Older craters -Changed by erosion or other impacts <p>Destroyed Craters:</p> <ul style="list-style-type: none"> -Very old -Look very worn away
Gullies		<ul style="list-style-type: none"> -Often found on crater walls or other slopes -Appear to be very young -Possibly associated with: <ol style="list-style-type: none"> 1. Past liquid water 2. Areas once covered with snow

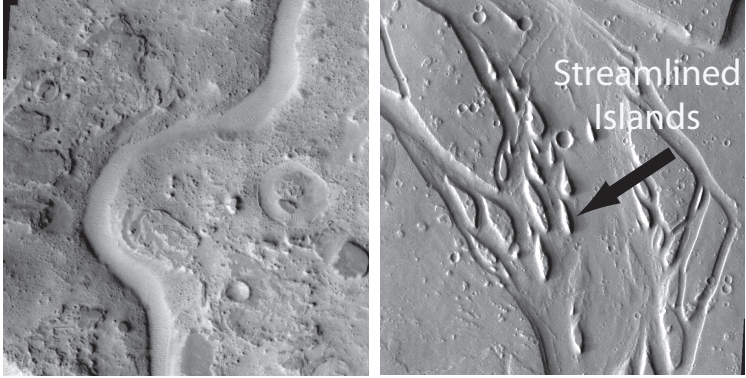
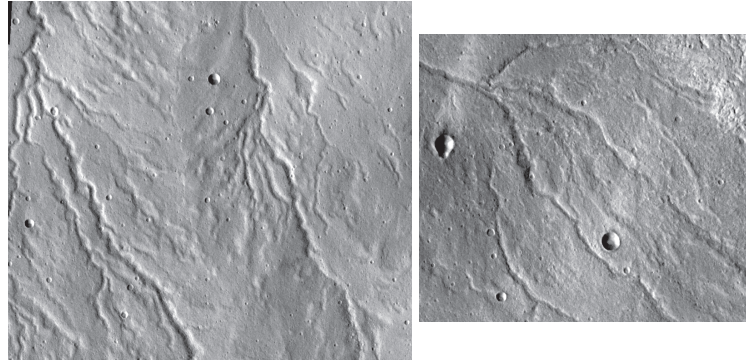
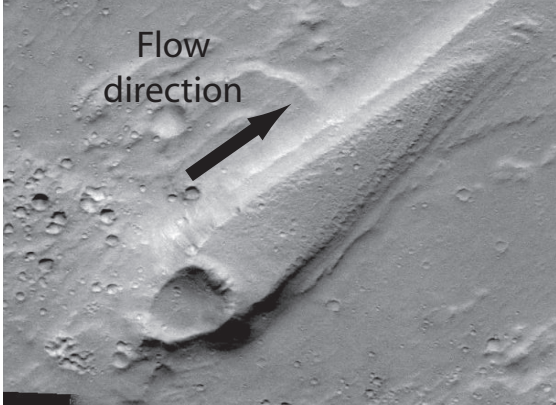
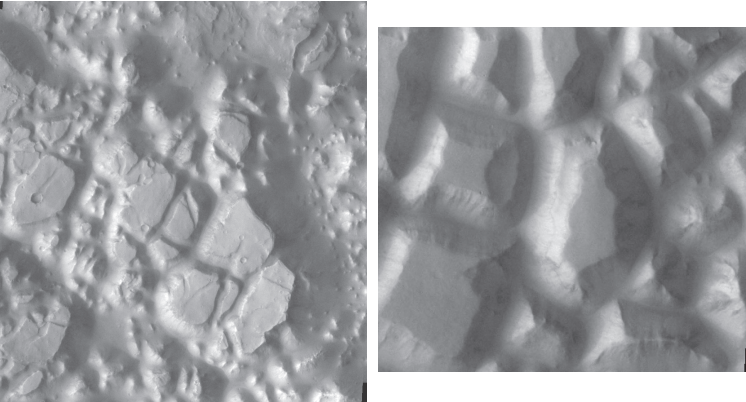
FEATURE IDENTIFICATION CHART

Features Often Associated with Volcanoes

Feature	An Example of this Feature	Description of Feature
Caldera		<ul style="list-style-type: none"> -A circular depression generally at the summit of a volcano -Considered a collapsed feature (magma comes up through a chamber and once the chamber is empty, collapse can occur) -Sometimes called a central vent
Fissures		<ul style="list-style-type: none"> -Cracks that are found sometimes on the sides of volcanoes -Lava flows can be seen trailing away from these cracks, indicating a fissure eruption
Lava Flows		<ul style="list-style-type: none"> -Formed by the eruption and flow of lava from a volcano -Flows can look "wavy" or "fingery" -You can often identify multiple lava flows in an image -Flows are raised features
Collapsed Lava Tubes		<ul style="list-style-type: none"> -Look similar to channels -Lava once flowed under ground through a "tunnel" and once the tunnel is empty these features often collapse -Some aren't completely collapsed and look like a chain of small craters

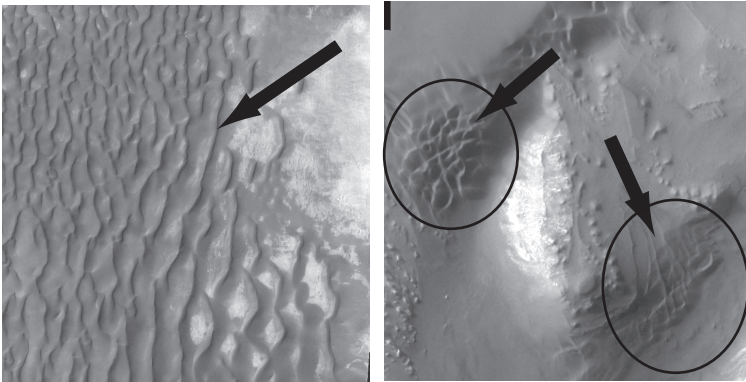
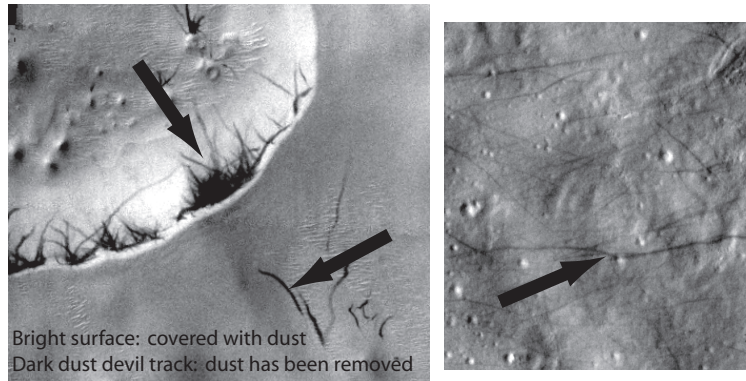
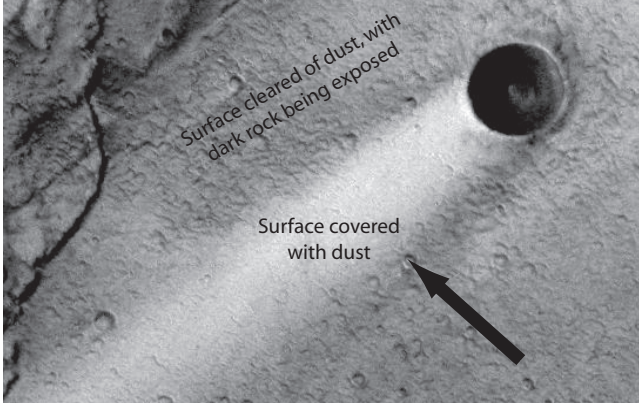
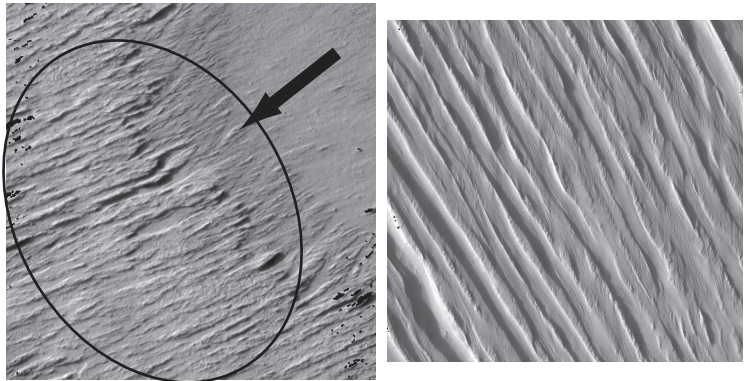
FEATURE IDENTIFICATION CHART

Features Often Associated with Water-Related (Fluvial) Processes

Feature	An Example of this Feature	Description of Feature
Channels	 <p style="text-align: center;">Simple Channel Outflow Channel</p>	<p>SIMPLE CHANNELS:</p> <ul style="list-style-type: none"> -Formed by a consistent flow of water over a long period of time -Has a curvy or meandering shape <p>OUTFLOW CHANNELS:</p> <ul style="list-style-type: none"> -Huge channels formed by a catastrophic flood -May have streamlined islands
Valley Networks		<ul style="list-style-type: none"> -Small channels -Generally formed by small amounts of water -May have branching (dendritic) pattern starting with small branches and feeding into larger ones.
Streamlined Islands		<ul style="list-style-type: none"> -Thought to be associated with the past flow of water around a feature, such as a crater -Often found in outflow channels where large amounts of water flowed -Indicate flow direction -Also called teardrop islands
Chaotic Terrain		<ul style="list-style-type: none"> -Often found at the head or start of large channels -Thought to be areas where water burst out from the ground causing a chaotic collapse of the surface -Can look like jumbled terrain

FEATURE IDENTIFICATION CHART

Features Often Associated with Wind-Related (Aeolian) Processes

Feature	An Example of this Feature	Description of Feature
Sand Dunes		<ul style="list-style-type: none"> -Can form in many areas -Often seen in the bottom of craters or channels -Generally darker than the surrounding terrain -Can range in size and shape -Look like ripples of material
Dust Devil Tracks	 <p>Bright surface: covered with dust Dark dust devil track: dust has been removed</p>	<ul style="list-style-type: none"> -Left by dust devils (mini-tornadoes) moving through an area -Dust devils pick up dust uncovering the darker surface underneath -Darker tracks are newer -Lighter tracks tend to be older, as they could have been recovered by some dust
Wind Streaks	 <p>Surface cleared of dust, with dark rock being exposed</p> <p>Surface covered with dust</p>	<ul style="list-style-type: none"> -Can be light or dark -Are often seen behind craters -Can give you an idea of wind direction
Yardangs		<ul style="list-style-type: none"> -Formed by sand-sized particles being blown against a surface wearing it away -Have a uniform direction -Are linear features -Found on surfaces that erode easily