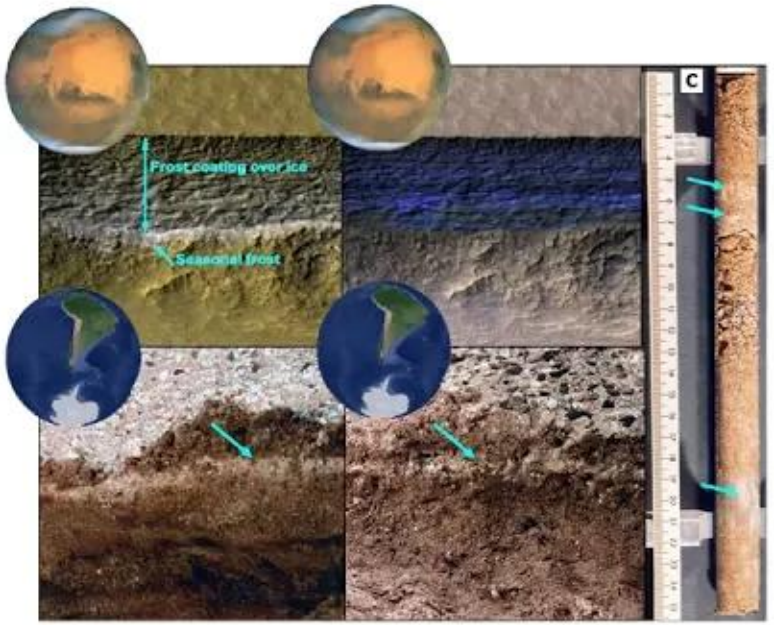
Gypsum as a potential water resource: Earth and Mars

Credit: NASA

EARTH

McMurdo Dry Valleys

Gypsum-salt expansion and collapse



Science Advances

RESEARCH ARTICLE PLANETARY SCIENCE

Martian subsurface cryosalt expansion and collapse as trigger for landslides

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Credits: ESA & MPS for OSIRIS Team

MARS

Gypsum dunes in Olympia Undae
Meridiani Planum
Gale Crater

Possible mechanism Recurring Slope Lineae (RSL) formation?

Fig 1. Near-surface salts and ice. (**top left**) Seasonal frost coating over ice at a scarp southeast of Hellas Planitia in early spring (5) from HiRISE image ESP_047338_1230 (56.6°S, 114.1°E). Image credit: NASA/JPL/University of Arizona. (**top right**) View of (top left) with an enhanced color stretch to emphasize the ice (blue shading). Image credit: NASA/JPL/University of Arizona. (**C**) Sediment core from the southern margin of Don Juan Pond, Wright Valley, Antarctica. Photo credit: Everett K. Gibson, NASA-JSC. (**bottom left** and **bottom right**) View of reddish, altered material below surface pebbles at soil pits on the southern margin of Don Juan Pond. Note the light-toned layers that are ~1 cm thick (cyan arrows) a few centimeters below the surface and occasionally also at deeper horizons. Photo credit: Everett K. Gibson, NASA-JSC.