Geologic Map of Mount Chignik Volcano, Alaska

Description of Map Units

Alluvial, Colliuvial, and Glacial Deposits

Fluvial deposits on lower volcano slopes are differentiated on the basis of origin and age. The western Chignik Valley region was covered by an extensive moraine field during the last glacial maximum about 20 ka as climate and sea level fluctuated. Fresh, steep-sided moraines extending as far as 1 km beyond snouts of active flows are characteristic of this period. These moraines are composed of a mixture of debris washed down by meltwater into the valley and of outwash and erratics transported from higher areas. Glacial deposits are characteristic of regions where ice was present during the last glacial period. Distinctive features include:

- Ice-contact lava-flow margin
- Flow lobe of lava-flow front
- Gradational contact
- Contact
- Fumarole field

Products of Mount Chignik Volcano

The Chignik Volcano region has produced a variety of volcanic products, including lava flows, pyroclastic deposits, and ash flows. These products have been influenced by the volcano's eruptive history and the environmental setting in which they were formed. The map includes features such as:

- Holocene lava-flow units
- Late Pleistocene lava-flow units
- Late Pleistocene pyroclastic deposits

Pre-Quaternary Bedrock

The map also highlights areas of pre-Quaternary bedrock, which are important for understanding the regional geology and the evolution of the volcano.

Symbol and Features

- Thermal springs (red symbols on map)
- Veins (white symbols on map)
- Glacial troughs (white symbols on map)
- Late Pleistocene pyroclastic deposits (white symbols on map)

Cartography by:

Geologic GIS data layers created by:

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NAD83 UTM Zone 10N, State Plane datum and NAVD29 vertical datum.

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