FIELD STATION LOCATIONS AND MAGNETIC SUSCEPTIBILITY DATA FOR THE YUKON RIVER CROSSING PROJECT, ALASKA, COLLECTED JUNE–JULY 2016

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Raw Data File 2025-22

The Little Dall River meanders through the field area northeast of the Dalton Highway bridge over the Yukon River.

2025
STATE OF ALASKA
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FIELD STATION LOCATIONS AND MAGNETIC SUSCEPTIBILITY DATA FOR THE YUKON RIVER CROSSING PROJECT, ALASKA, COLLECTED JUNE–JULY 2016

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INTRODUCTION

This report provides field observations from bedrock and surficial stations, as well as magnetic susceptibility measurements collected from bedrock samples. In June and July 2016, geologists from the Alaska Division of Geological & Geophysical Surveys (DGGS) conducted fieldwork for the Yukon River Crossing Capital Improvement Project. The work focused on a geologically complex and vulnerable segment of the Trans-Alaska Pipeline and the Dalton Highway. The objective of this work was to better understand the geology and potential for slope instability near the highway crossing of the Yukon River, where a 2012 landslide occurred on a slope west of the bridge's south abutment slope. The study area spans approximately 567 mi^2 (1,458 km^2) across the Livengood quadrangles D-6, C-6, and the northern portion of B-6 (fig. 1). These data are provided as a Raw Data File under an open end-user license and are available on the DGGS website: https://doi.org/10.14509/31726.

METHODS

Field station descriptions reflect DGGS geologists' direct observations and interpretations during site visits. The data include location information, rock descriptions, surficial morphology, material descriptions, and general observations. Staff may revise these descriptions as new information, such as geochemical analyses, microscopic investigations, or additional fieldwork, becomes available. Because they have not undergone technical review, rock descriptions should be considered preliminary.

Geologists employed Terraplus KT models 5, 6, 9, and 10 handheld meters to measure magnetic susceptibility at bedrock stations. Each value in this report represents a single Système International (SI) measurement taken from a representative surface of the sampled rock outcrop.

Staff used Trimble Juno T41/5 WAAS-enabled GPS devices running ArcGIS for Windows Mobile to record geographic coordinates at sample stations. These devices typically report a positional error of about 1 meter. Latitude and longitude values are based on the WGS84 coordinate system.

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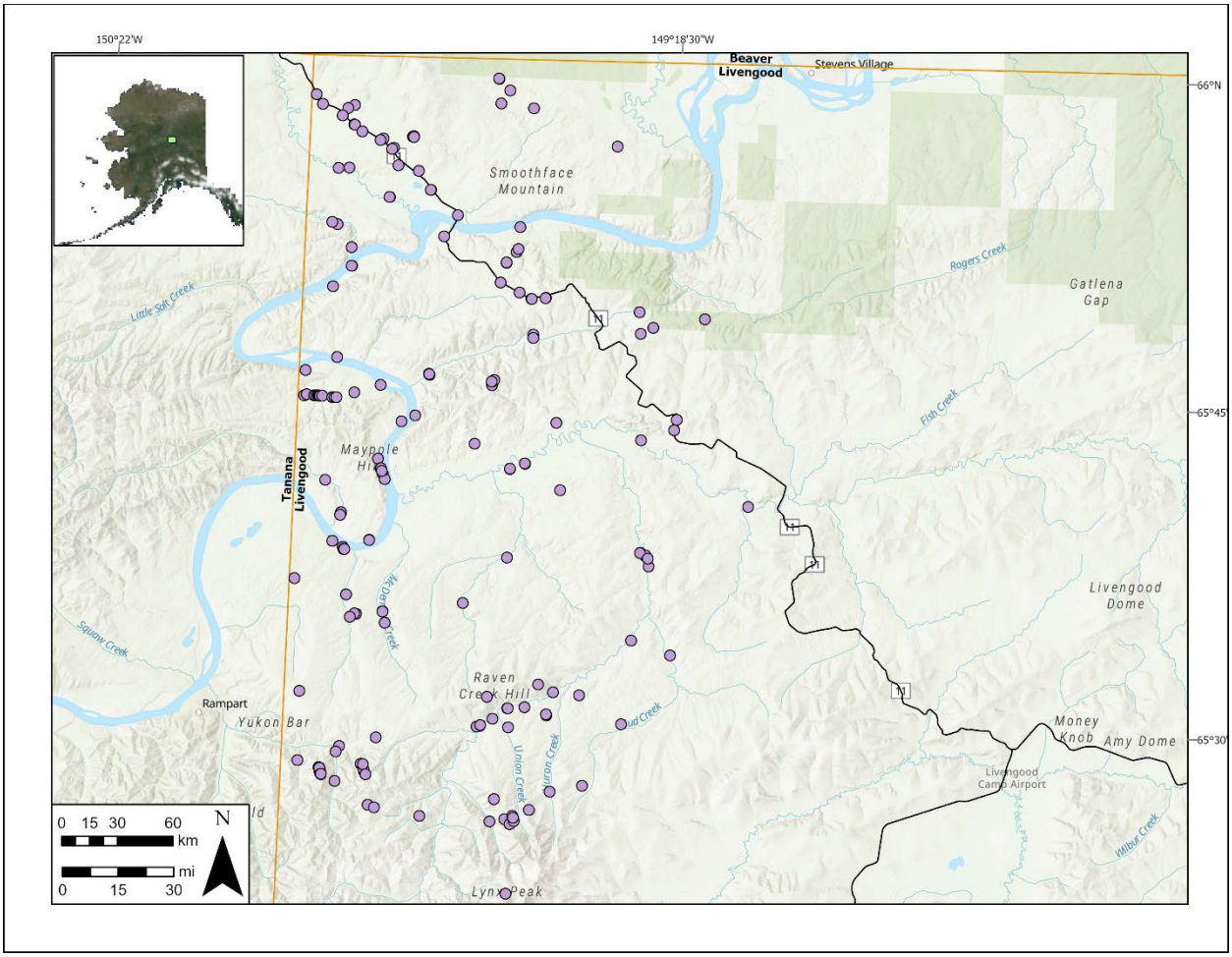

Figure 1. Station locations from the 2016 Yukon River project field work in the Livengood Quadrangle.

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