

Descriptive Notes

This map presents the surficial geology and landslide inventory covering the headwaters of Hout Creek, across Nimbus Mountain, and following sections of the main valleys and tributaries of Clore and Burnie rivers. The mapped area extends for a distance of about 22 km. The topography mainly features relatively narrow valleys confined by moderate to steep side slopes, and includes the slope areas around Nimbus Mountain and the very steeply entrenched canyon of Clore River. The highest elevation in this map area is 2280 m southeast of Nimbus Mountain. Surficial geology compilation was carried out following the Geological Survey of Canada Surface Data Model (Dentone et al., 2017) combined with the British Columbia Terrain Classification System (Howes and Kerk, 1997). This map is one of five surficial geology maps that cover the corridor from Kilmat, British Columbia at the head of Douglas Channel to the Morice River area at the western edge of the Interior Plateau.

The main objective of the surficial geology compilation is to provide baseline information on surface sediments and slope processes for stakeholders and decision-makers. In addition to the surficial geology, the authors have compiled information about landslides that were observed in the map area (Table 1).

The surficial geology consists of colluvium- and bedrock-dominated ridge crests, and valley slopes with valley floors and lower slopes mantled by thin to medium-thick deposits of many ill-sorted glacioluvial sediments. Bedrock-dominated terrain predominates in the area around Nimbus Mountain, and along the ridge and scarp bordering the canyon area of Clore River. Small slope glaciers remain on Nimbus Mountain, bordered by small, irregular moraines. In places along the valley floors, modern alluvial fans, terraces, and floodplains, and colluvial fans are superimposed on the older glacial and deglacial deposits.

The bedrock polygons have been labeled R2, indicating dominantly hard, unaltered igneous rocks (granitic, gneissic, and volcanic) and R, indicating an apparently softer and highly altered and fractured bedrock, likely consisting mainly of clastic volcanic, based on available bedrock geology maps (MacIntyre et al., 1994). The latter rock type occurs along the canyon of Clore River and on the ridge to its north.

Interpretation of landslides was carried out using Coulton and Verner's (1996) classification. Mapped landslide deposits and landslide tracks without possible deposits were compiled in Table 1. A variety of mapped landslide deposits are scattered throughout this map area. On sections of the valley walls, there are areas of undifferentiated landslide debris units (C1) and active talus slopes (unit C4) that occur beneath rockfall cone bedrock cliffs. Some low-slope areas also have larger accumulations of talus (unit C4), as well as deposits from smaller, shallow-seated translational landslides (unit C2). Valley-floor and gentle low-slope areas below steep-gradient ridges, are common sites for colluvial fan deposits, both generally inactive fans (unit C1) and those subject to recent and/or recurrent debris-flow activity (unit C2 and C2C). Talus-rock-avalanche deposits (unit C21) are present in a couple of places along the floors of Clore River tributaries. Other colluvial units (e.g., C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100, C101, C102, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C121, C122, C123, C124, C125, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C145, C146, C147, C148, C149, C150, C151, C152, C153, C154, C155, C156, C157, C158, C159, C160, C161, C162, C163, C164, C165, C166, C167, C168, C169, C170, C171, C172, C173, C174, C175, C176, C177, C178, C179, C180, 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