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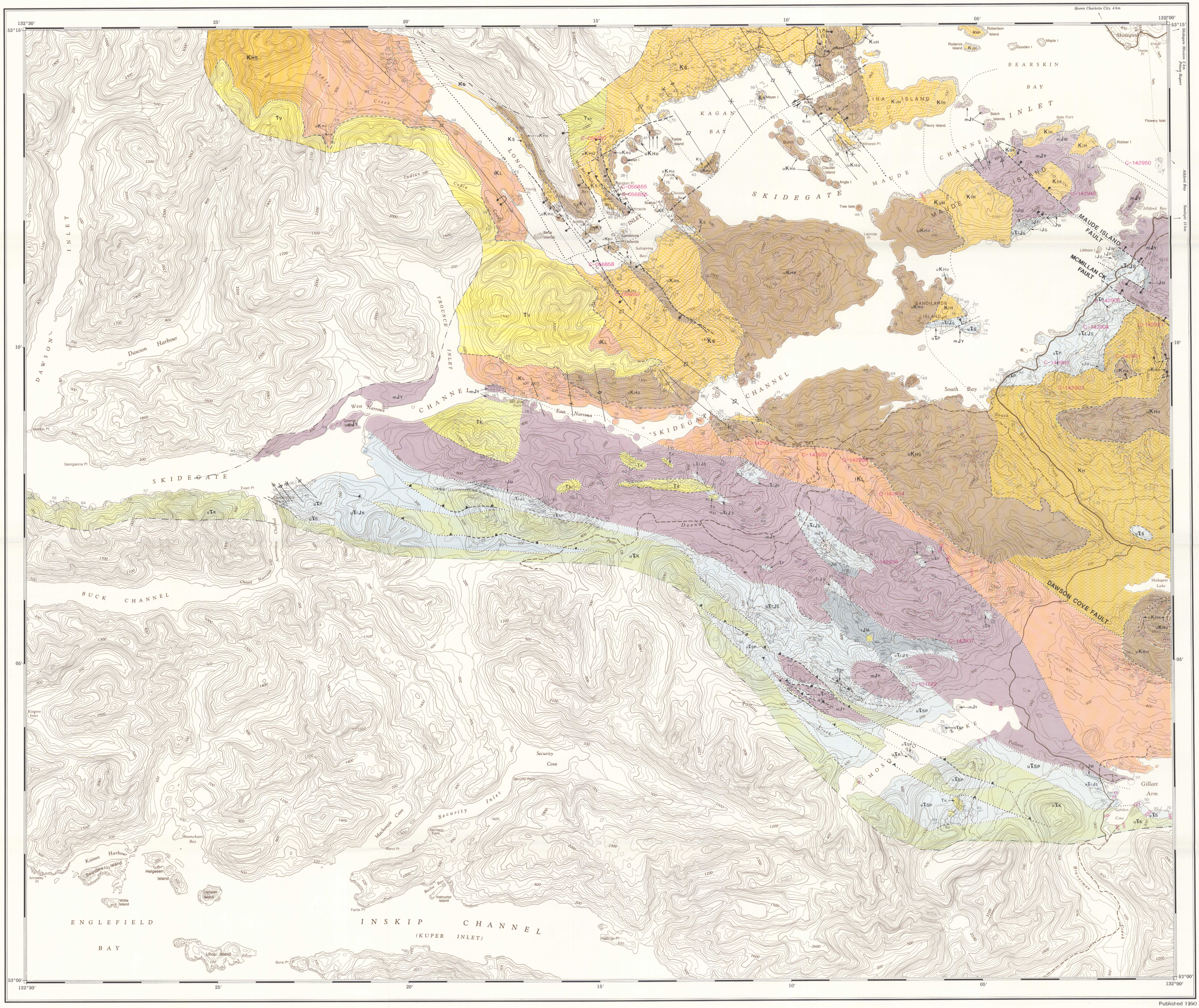
GEOLOGICAL SURVEY OF CANADA · COMMISSION GÉOLOGIQUE DU CANADA



Published 1990

LEGEND

Coloured legend blocks indicate map units that appear on this map.

QUATERNARY

Q	Recent alluvium, Pleistocene till, marine drift

TERTIARY

UPPER OLIGOCENE to LOWER PLIOCENE

Ts	SKONUN FORMATION: sandstone, conglomerate, shale, coal

UPPER OLIGOCENE to LOWER PLIOCENE

TM	MASSET FORMATION (mainly Graham Island): dominantly aphyric, mafic to felsic flows and pyroclastic rocks; local epiclastic interbeds. Feldspar is the dominant phenocryst phase; pyroxene is present in mafic rocks but rare in felsic ones; quartz is rarely present; phenocrysts are less than 3 mm in size and constitute less than 40% of the rock volume
TMf	Felsic unit undifferentiated: dacite to rhyolite flows, domes and pyroclastics; minor intercalated mafic flows and epiclastic rocks. Felsic rocks contain feldspar phenocrysts with or without quartz, pyroxene and biotite

Aphanitic, <5% feldspar phenocrysts (0.5-1 mm)

TMfa	Felsic flows and/or domes, minor pyroclastics and breccias. Flows and domes are flowbanded at the mm scale, the matrix is chalky; the base of flows may be vitreous, upper portions of flows contain drusy-quartz-filled vugs
TMfb	Felsic pyroclastics, commonly lithic-rich with conspicuous welding textures

15-40% feldspar phenocrysts (0.5-2 mm); contains <1% feldspar phenocrysts about 3 mm in length

TMfc	Felsic flows and/or domes; minor pyroclastics and breccias. Flows and domes are flowbanded at the mm scale, the matrix is aphanitic; lithic clasts are common in some flows
TMfd	Felsic pyroclastics, commonly lithic-rich with conspicuous welding textures

<10% quartz phenocrysts (0.5-1 mm), plus feldspar phenocrysts

TMfe	Felsic flows and/or domes. Chalky, aphanitic matrix, drusy-quartz-filled vugs in upper parts of flows, 0.5-1 mm quartz phenocrysts; <35% 0.5-1 mm feldspar phenocrysts
TMff	Felsic pyroclastics, commonly lithic-rich with distinctive welding textures

<10% pyroxene phenocrysts plus feldspar phenocrysts

TMfg	Felsic flows and minor pyroclastics with pyroxene (<0.5 mm across) as cores of feldspar and as glomerocrysts; matrix is aphanitic and flowbanded
TMfh	Felsic flows and minor pyroclastics having 5-40% feldspar phenocrysts. Feldspar phenocrysts are slightly rounded to euhedral, 0.5-3 mm in size, with altered cores; pyroxene occurs as 0.5 mm long euhedral laths and as glomerocrysts with feldspar; matrix is dense, black and aphanitic to vitrophyric

TMm	Mafic unit undifferentiated: basalt, basaltic andesite and andesite flows; minor felsic flows, pyroclastics and interflow breccias; rare sedimentary intercalations. Mafic flows and breccias contain feldspar phenocrysts with or without pyroxene, rare olivine and biotite.

Pale-grey aphanitic

TMma	Basalt, basaltic andesite and andesite flows. Flows are aphyric, aphanitic and flowbanded

Feldspar phenocrysts, with or without pryoxene

TMmb	Basalt, basaltic andesite and andesite flows; may be vesicular and/or amygdaloidal. Matrix is sugary, ophitic to subophitic

TMs	Sedimentary rocks undifferentiated: reworked epiclastic rocks and lahars

Reworked epiclastics

TMsa	Fine to coarse grained sandstone and conglomerate, heterolithic; rare plant fragments and thin coal beds

Lahar

TMsb	Debris flow deposits of primary volcanic origin, monolithologic and poorly sorted

EOCENE and OLIGOCENE

Tv	Unnamed volcanic rocks (Moresby Island and southern Graham Island; may contain some MASSET FORMATION): intercalated mafic to felsic lava flows and pyroclastic rocks: local epiclastic interbeds
Tk	Kano plutonic suite (U-Pb: 27-46 Ma; K-Ar: 24-40 Ma): fine-grained, seriate and locally miarolitic hornblende-biotite quartz monzodiorite, biotite granite, biotite-hornblende quartz diorite, hornblende gabbro; hornblende-biotite-plagioclase porphyry; rare agmatite
XXXXXXXX	Dykes (K-Ar: 43.7 Ma): andesite, basalt, some felsic rocks; fine- to medium-grained, aphyric, diabasic texture; rare feldspar and/or hornblende phenocrysts
Tsh	Unnamed shale: black fissile shale; sandstone; minor conglomerate and coal

CRETACEOUS

LOWER and UPPER CRETACEOUS

QUEEN CHARLOTTE GROUP (KH-uKSH)

SANTONIAN

uKsh	Unnamed shale: black fissile shale; shale with calcareous concretions; rare sandstone

CONIACIAN and younger

uKv	Unnamed volcanic unit: feldspar-phyric andesite flows and pyroclastics
uKHo	HONNA FORMATION: ● conglomerate; ● sandstone; ● minor shale

ALBIAN to LOWER TURONIAN

KHS	HAIDA and SKIDEGATE FORMATIONS undivided: ○ sandstone; ○ shale
Ks	SKIDEGATE FORMATION: ○ thinly interbedded sandstone and shale; ○ thick to massive sandstone with interbedded shale
KH	HAIDA FORMATION undivided: ● sandstone; ● shale
KuH	UPPER HAIDA FORMATION: shale and concretionary shale
KlH	LOWER HAIDA FORMATION: sandstone and concretionary sandstone

UPPER JURASSIC and LOWER CRETACEOUS

TITHONIAN to APTIAN

lKL	LONGARM FORMATION: ● sandstone; ○ conglomerate and pebbly sandstone; ● shale, concretionary shale, minor sandstone

JURASSIC

MIDDLE to LATE JURASSIC

mJB	Burnaby Island plutonic suite (U-Pb: 158-165 Ma; K-Ar: 145-164 Ma): medium-grained, equigranular, intensely veined biotite-hornblende quartz monzodiorite; hornblende-biotite quartz monzonite; (muscovite-) biotite trondhjemite; hornblende gabbro and diorite
mJSC	San Christoval plutonic suite (U-Pb: 171-172 Ma; K-Ar: 145-166 Ma): medium-grained, equigranular, mafic inclusion-bearing (biotite-) hornblende quartz diorite, quartz monzodiorite and diorite; unit includes Hunter Point, Kindakun Point and Beresford agmatite complexes; foliated inclusions and prismatic hornblende are characteristic

MIDDLE JURASSIC

UPPER BATHONIAN and LOWER CALLOVIAN

mJM	**MORESBY GROUP**: sandstone; conglomerate

LOWER BAJOCIAN

mJY	**YAKOUN GROUP** ● sandstone and minor shale; ● breccia; ● flows; ○ conglomerate

LOWER JURASSIC

lJM	**MAUDE GROUP**: (lJG - lJP): fissile shale; fine- to medium-grained sandstone; minor limestone

TOARCIAN and LOWER AALENIAN

lJP	PHANTOM CREEK FORMATION: fine- to coarse-grained fossiliferous sandstone

LOWER and MIDDLE TOARCIAN

lJW	WHITEAVES FORMATION: shale containing septarian and limestone nodules; minor sandstone

PLIENSBACHIAN and LOWER TOARCIAN

lJF	FANNIN FORMATION: tuffaceous sandstone; shale containing septarian nodules; siltstone; minor limestone

UPPER SINEMURIAN and LOWER PLIENSBACHIAN

lJG	GHOST CREEK FORMATION: shale; siltstone; minor flaggy limestone

UPPER TRIASSIC and LOWER JURASSIC

uTl JK	**KUNGA GROUP** (uTS - uTlJS): fine-grained sandstone; limestone

UPPER NORIAN to SINEMURIAN

uTl JS	SANDILANDS FORMATION: fine-grained sandstone; limestone; tuffaceous sandstone

UPPER CARNIAN to MIDDLE NORIAN

uTSP	PERIL FORMATION and SADLER LIMESTONE undivided: massive, grey, crystalline limestone; grey, medium-bedded limestone

LOWER to MIDDLE NORIAN

uTP	PERIL FORMATION: dark grey, medium-bedded limestone

UPPER CARNIAN and LOWER NORIAN

uTS	SADLER LIMESTONE: massive, crystalline, grey limestone; lesser secondary chert

UPPER TRIASSIC

CARNIAN

uTK	KARMUTSEN FORMATION: basalt flows; breccia; tuff; minor limestone

Stratigraphic or intrusive contact (defined, approximate, inferred) ....

Outcrop or outcrop area examined in field .... ○

Bedding, tops known (inclined, vertical, overturned) ....

Fault, steeply dipping to vertical, sense of motion not determined (defined, approximate, inferred) ....

Fault, extensional (symbol also applied to vertical faults; solid circle indicates downthrown side; defined, approximate, inferred) ....

Fault, contractional (synonomous with thrust fault; teeth indicate upthrust side; defined, approximate, assumed) ....

Strike slip fault (arrows give sense of displacement) ....

Anticline (trace of axial plane; upright; overturned) ....

Syncline (trace of axial plane; upright; overturned) ....

Fossil locality, GSC catalogue number .... Ⓕ C-101101

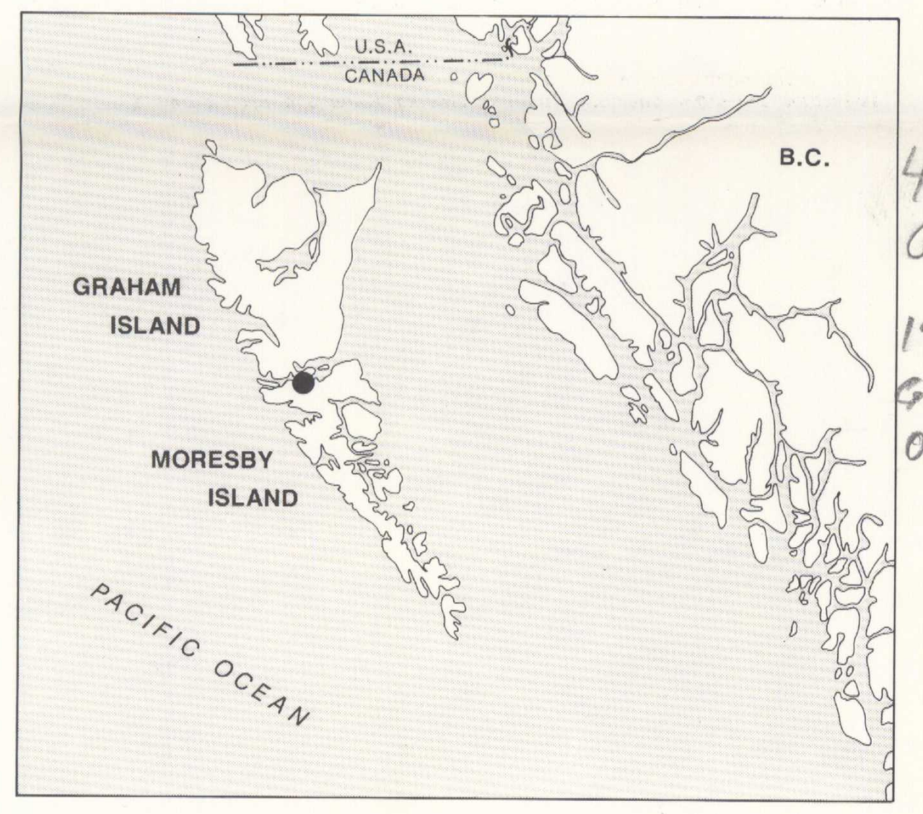
FOSSIL IDENTIFICATIONS:

Radiolaria: E.S. Carter
Conodonts: M.J. Orchard
Pollen and Spores: J.M. White
Foraminifera: B.E.B. Cameron
Triassic Molluscs: E.T. Tozer
Lower Jurassic Molluscs: H.W. Tipper, P.L. Smith
Middle Jurassic Molluscs: T.P. Poulton, R.L. Hall, H.W. Tipper
Upper Jurassic Molluscs: J.A. Jeletzky
Cretaceous Molluscs: J.W. Haggart

Geology by R.I. Thompson and P.D. Lewis, 1987-1988, with assistance from P. Benham and L. Maddison, 1987 and D. Thorkelson, 1988

Compiled by R.I. Thompson and P.D. Lewis, 1989

Cartography by B. Sawyer, G. L'Esperance, R. Franklin and E. Yorath



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Thompson, R.I. and Lewis, P.D.
1990: Geology, Skidegate Channel, British Columbia;
Geological Survey of Canada, Map 4-1990, scale 1:50 000

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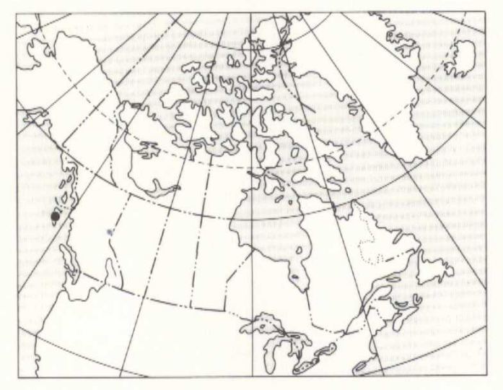

INDEX MAP—LIEU DE LA CARTE

MAP 4-1990
GEOLOGY

SKIDEGATE CHANNEL

BRITISH COLUMBIA

Scale 1:50 000 - Échelle 1/50 000

Kilometres 1 0 1 2 3 4 Kilomètres

Universal Transverse Mercator Projection
Projection transverse universelle de Mercator

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	103 C/16	103 B/13

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Canada

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