



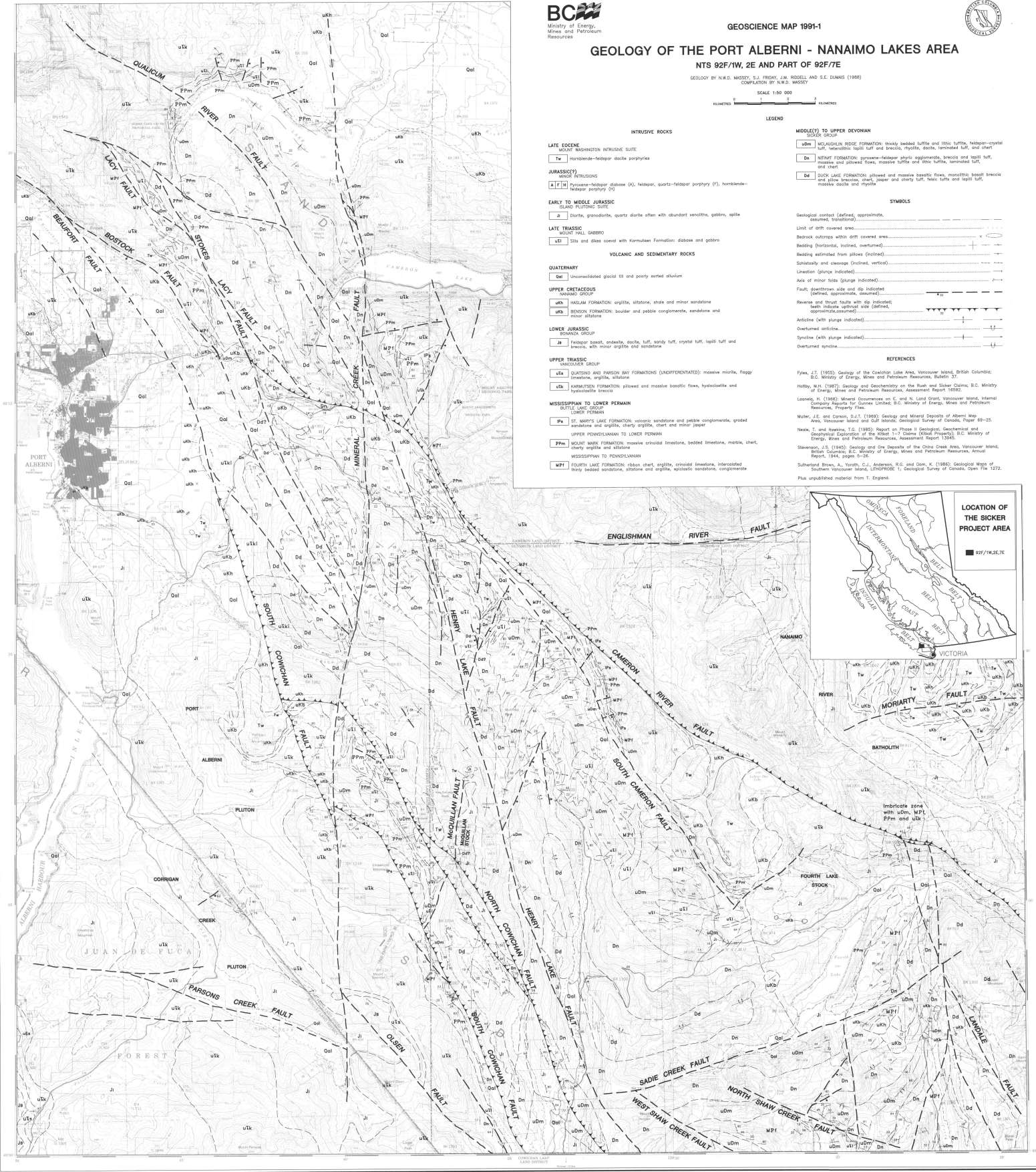
GEOSCIENCE MAP 1991-1

GEOLOGY OF THE PORT ALBERNI - NANAIMO LAKES AREA

NTS 92F/1W, 2E AND PART OF 92F/7E

GEOLOGY BY N.W.D. WATSEY, S.J. FRIDAY, J.A. RIDDELL AND S.E. DUMAS (1988)
 COMPILATION BY N.W.D. WATSEY

SCALE 1:50 000
 METRES 0 1 2 3



INTRUSIVE ROCKS

LATE EOCENE
 MOUNT WASHINGTON INTRUSIVE SUITE
 Tw hornblende-feldspar diorite porphyries

JURASSIC(?)
 MOUNT ROBINSON
 A F H Pysenite-feldspar diorite (A), feldspar-quartz-feldspar porphyry (F), hornblende-feldspar porphyry (H)

EARLY TO MIDDLE JURASSIC
 SQUAW PLUTONIC SUITE
 J diorite, gneissite, quartz diorite often with abundant xenoliths, gabbro, siltite

LATE TRIASSIC
 MOUNT HALL GABBRO
 UH siltite and diorite covered with Karmadon Formation: diabase and gabbro

VOLCANIC AND SEDIMENTARY ROCKS

QUATERNARY
 Qal unconsolidated glacial till and poorly sorted alluvium

UPPER CRETACEOUS
 MARIAN GROUP
 UKM HASLAM FORMATION: argillite, siltstone, shale and minor sandstone
 UKB BENDSON FORMATION: boulder and pebble conglomerate, sandstone and minor siltstone

LOWER JURASSIC
 BONDICK GROUP
 JB feldspar basalt, andesite, diorite, tuff, stony tuff, crystal tuff, lapilli tuff and breccia, with minor argillite and sandstone

UPPER TRIASSIC
 UNDEVELOPED GROUP
 UTK QUATERN AND PARSON BAY FORMATIONS (UNDIFFERENTIATED): massive micrite, faggy limestone, argillite, siltstone
 UTL KARMADON FORMATION: plowed and massive basaltic flows, hydrothermal and pyroclastic breccia

MISSISSIPPIAN TO LOWER PERMIAN
 BUTTE LA PUE FORMATION
 UPL ST. MARY'S LAKE FORMATION: volcanic sandstone and pebble conglomerate, graded sandstone and argillite, cherty argillite, chert and minor Jasper
 UPM UPPER PENNSYLVANIAN TO LOWER PERMIAN
 UPP MARY FORMATION: massive-crinoid limestone, bedded limestone, marble, chert, cherty argillite and siltstone
 UPL MISSISSIPPIAN TO PENNSYLVANIAN
 UPL FOURTH LAKE FORMATION: ribbon chert argillite, crinoid limestone, interbedded shaly bedded sandstone, siltstone and argillite, argillite sandstone, conglomerate

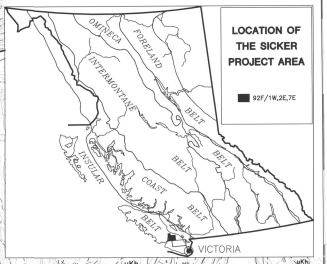
MIDDLE(?) TO UPPER DEVONIAN
 SICKER GROUP
 UDM MICHALFEN INTRUSIVE FORMATION: thickly bedded tuffite and lithic tuffite, feldspar-crystal tuff, metabasite lapilli tuff and breccia, rhyolite, diorite, laminated tuff, and chert
 UDN NITNET FORMATION: pyroxene-feldspar phyllic agglomerate, breccia and lapilli tuff, massive and pillared flows, massive tuffite and lithic tuffite, laminated tuff, and chert
 UDL DUCK LAKE FORMATION: allowed and massive basaltic flows, mosslike basalt breccia and silty breccia, chert, Jasper and cherty tuff, felsic tuffite and lapilli tuff, massive diorite and rhyolite

SYMBOLS

Geological contact (defined, approximate, assumed, isolated),
 Limit of drift covered area,
 Bedrock outcrop within drift covered area,
 Bedding (horizontal, inclined, overturned),
 Schistosity and cleavage (defined, vertical),
 Location (plunge indicated),
 Axis of minor folds (plunge indicated),
 Fault (downthrown side and dip indicated),
 Syncline (plunge indicated),
 Reverse and thrust faults with dip indicated,
 Teeth indicate upthrown side (defined, approximate, assumed),
 Anticline (with plunge indicated),
 Overturned anticline,
 Syncline (with plunge indicated),
 Overturned syncline.

REFERENCES

Fyles, J.T. (1955). Geology of the Cowichan Lake Area, Vancouver Island, British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 37.
 Holby, M.H. (1987). Geology and Geochemistry of the Ruan and Sicker Geoms. B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 1032.
 Leonard, H. (1965). Mineral Occurrences on E. and N. Linné Grant, Vancouver Island, Internal Company Reports for Dunsmuir Limited. B.C. Ministry of Energy, Mines and Petroleum Resources, Property File.
 Muller, J.C. and Carson, D.J. (1983). Geology and Mineral Deposits of Alberni Map Area, Vancouver Island and Gulf Islands. Geological Survey of Canada, Paper 89-25.
 Heath, I. and Hawkins, T.G. (1985). Report on Phase II Geological, Geochemical and Geophysical Exploration of the Ruan and Sicker Geoms (Final Report). B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 1394S.
 Stevenson, J.S. (1945). Geology and the Deposits of the Chilo Lake Area, Vancouver Island, British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources, Annual Report, 1944, pages 5-26.
 Schuchert Brooks, A., Young, C.S., Anderson, R.C. and Don, K. (1986). Geological Maps of Southern Vancouver Island, LITHOPROBE 1; Geological Survey of Canada, Open File 1272.
 Plus unpublished material from T. England.



LOCATION OF THE SICKER PROJECT AREA
 92F/1W, 2E, 7E