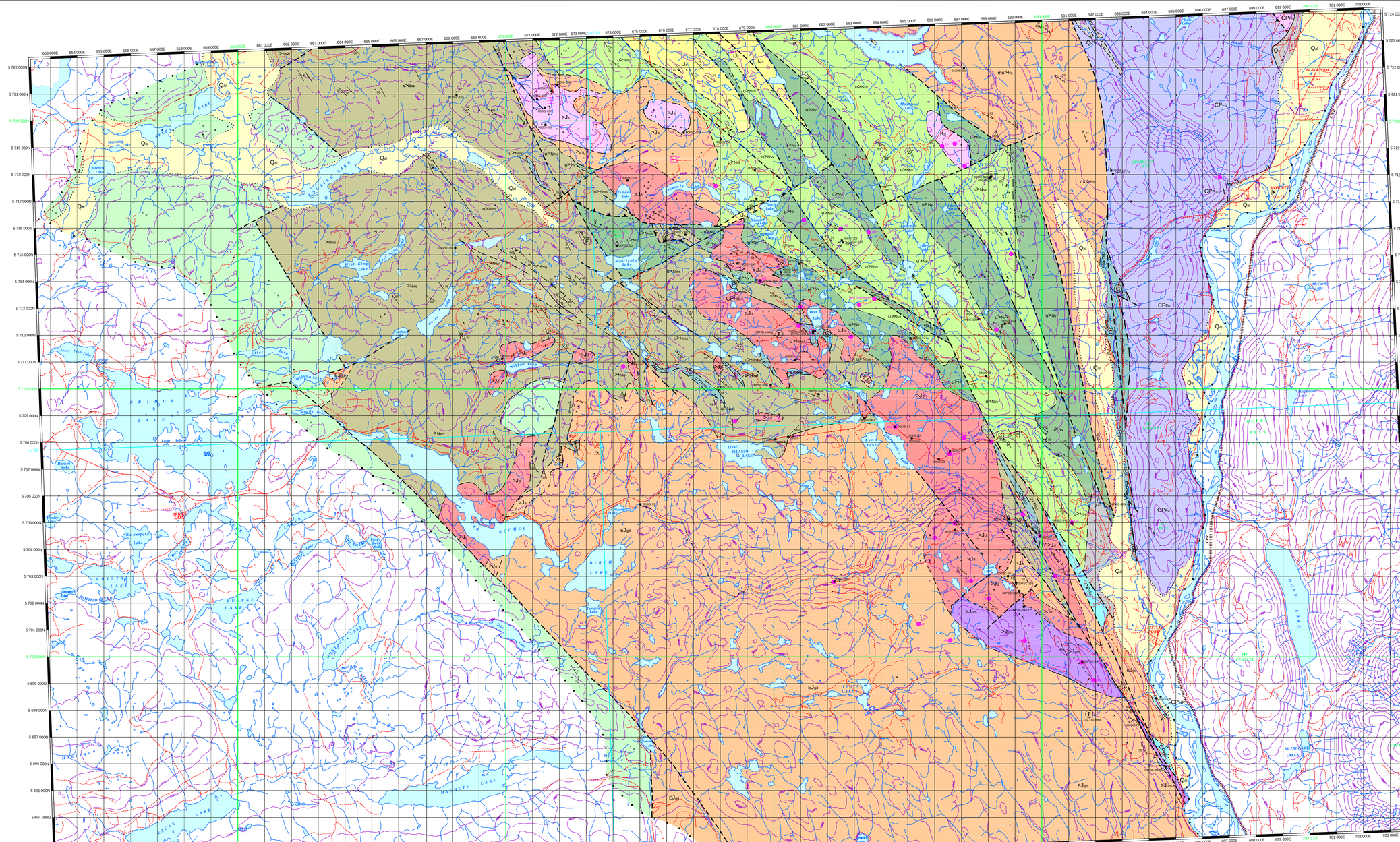
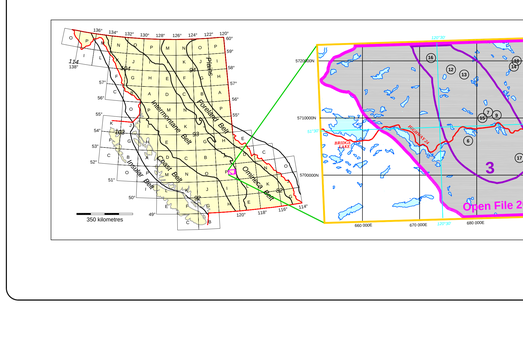




OPEN FILE 2002-4

Based on geological mapping by the B.C. Geological Survey Branch, 2000-2001.
Base: Topographic is North American Datum 1983, Zone 10, Transverse Mercator Projection.

Secondary Sources of Information

1. Uglow, W.L. (1922): Geology of the North Thompson Valley map area, British Columbia; *in* Summary Report, 1921, Part A, Geological Survey of Canada, pages 72A-106A, 1:126 720 scale.
2. Walker, J.F. (1931): Clearwater River and Foghorn Creek map-area, Kamloops District, British Columbia; *in* Summary Report, 1930, Part A, Geological Survey of Canada, pages 125A-153A; 1:126 720 scale.

   Preto, V.A.G. (1970): Geology of the area between Eakin Creek and Windy Mountain; *in* Geology, Exploration and Mining in British Columbia, *British Columbia Department of Mines and Petroleum Resources*, pages 307-312; 1:63 360 scale.
3. Campbell, R.B. and Tipper, H.W. (1971): Bonaparte Lake map area, British Columbia; *Geological Survey of Canada*, Memoir 363, 100 pages; 1:250,000 scale.
4. Schiarizza, P. (1983): Geology of the Barriere River-Clearwater area; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Preliminary Map 53; 1:50 000 scale.
5. Wells, N.A. (1967): Geological and Geochemical Report on the 92P/8 Eagle Creek Mos. 1, 2, 3 and 4 groups *British Columbia Department of Mines and Petroleum Resources*, Assessment Report 1055, 11 pages.

   Taylor, H. and White, L.G. (1972): Geological and geophysical report, Deer Lake area; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 3945, 9 pages.
6. Volo, N.B. (1980): 1980 geochemical and geological assessment report, Ankerman property; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 8482, 8 pages.
7. Troup, A.G. (1973): Geological and geophysical report on the Deer Lake option property (LV claim group), Laurel Lake, Little Fort area; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 4947, 25 pages.
8. Gilmour, W.R. (1985): Geochemical and geological assessment report, Anticlimax property; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 8482, 8 pages.
9. Gilmour, W.R. (1985): Geochemical and geological assessment report on the Bird property (Best 1-4 claims), Lemieux Creek area, Kamloops Mining Division, B.C.; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 13 312, 12 pages.
10. Hebagalle, C.M. (1987): Geological and geochemical assessment report: Geological survey, soil and lithogeochemical surveys, induced polarization geophysical survey and trenching on the Ta Hoola property; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 15 223, 76 pages.
11. Hebagalle, C.M. (1987): Ta Hoola property assessment report; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 16 462, 13 pages.
12. Kirkham, R.V. and Sinclair, W.D. (1988): Comb quartz layers in felsic intrusions and their relationship to porphyry deposits; *in* Recent Advances in the geology of granite-related mineral deposits, edited by R.P. Taylor and D.F. Strong, *Canadian Institute of Mining and Metallurgy*, Special Volume 39, pages 50-71.
13. Brulard, T. (1990): Assessment report of the 1989 and 1990 geological, geochemical and geophysical programs on the Ink property; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 20014, 27 pages.
14. Edwards, K. (1991): Geochemical and geological assessment report for the Bogg 1-4, 7-20, CC 1-8, Wind 3 claims ; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 21 816, 21 pages.
15. Wells, R.C. and Mead, J.F. (1993): Geological and geochemical assessment report for the Golden Loon claim group; *British Columbia Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 22 818, 16 pages.

TABLE 1: MINERAL OCCURRENCES

MINFILE No.	Name	Easting	Northing	Commodities	Type
92P-006	RO	676271	5718556	Cu, Mo, Pb	Porphyry Cu
92P-007	Bogg	671860	5720700	Cu, Pb, Pt, Pd, Ag	Porphyry Cu
92P-008	Silver	680977	5713044	Cu, Zn	Skarn
92P-009	PC	674386	5710884	Cu	Disseminated
92P-010	Lakeview	681423	5712111	Cu, Au	Skarn
92P-011	EC 60	678548	5708787	Pb, Cu, Zn	Skarn
92P-013	Hidden Cove	684045	5710804	Au, Ag, Cu	Disseminated
92P-014	Anticlimax A	686749	5719156	Mo, W, Bi	Porphyry Mo
92P-015	Anticlimax B	686284	5719060	Mo	Porphyry Mo
92P-016	Anticlimax C	687120	5718320	Mo	Porphyry Mo
92P-018	Ace	686680	5721420	Ag, Pb, Zn, Au, Cu	Polymetallic vein
92P-026	Cedar Island	686121	5708042	Cu, Ag, Au, Pb, Mo	Skarn
92P-027	Red	682880	5711940	Cu	Disseminated
92P-028	Mann Creek	686648	5717958	Cu, Pb	Vein
92P-043	Golden Loon Platinum	691478	5699793	Pt, Pd	unknown
92P-047	Central Golden Loon Vl Area	685400	5701230	Au, Ag, Pb, Cu	Vein
92P-048	Golden Loon Monterey Lake	684803	5700600	Au, Ag, Pb	Vein
92P-055	Eakin Creek Placer	692820	5703893	Au	Placer Au
92P-094	Golden Loon 6	691950	5699120	Au, Ag, Pb	Stockwork vein
92P-095	Golden Loon 5	689360	5700500	Au, Ag, Pb	Vein
92P-096	Golden Loon 4	686740	5704980	Zn, Cu, Pb	Skarn
92P-097	Golden Loon 3	686003	5704040	Ag	Vein
92P-103	G	686560	5707570	Au, Ag, Pb	Vein
92P-106	Thuya	682220	5702780	Cu	Disseminated
92P-107	Golden Loon Low Grade Zone	687360	5702800	Au, Ag, Pb	Vein
92P-134	FL	677829	5717572	Cu, Mo, Pb, Zn	Disseminated
92P-136	PYCU	680635	5712362	Cu, Au	Skarn
92P-137	PGR	681120	5716300	Au, Ag, Pb, Zn, Cu	Vein; disseminated
92P-141	Golden Loon High Grade Zone	688033	5702180	Au, Ag, Pb, Zn, Cu	Vein
92P-164	Worldsend	688036	5712314	Au	Porphyry Cu
92P-165	Olie	691117	5705000	Cu, Au	Vein
92P-166	Lacrimosa	684353	5708594	Cu, Ag, Au	Vein
92P-169	Bill	689289	5705307	Au, Pb	Vein
92P-170	Eakin Creek Copper	689932	5704511	Cu, Ag, Pb	Shear zone
92P-172	Circle Sheeted Veins	687093	5708170	Au, Ag, Pb	Vein
92P-181	Spider	683180	5713140	Cu, Pb	Stockwork vein
92P-183	Wandering Dog	679485	5714010	Cu	Skarn
92P-185	Crazy Fox	688849	5715032	Zn, Cu, Mo, Au, Ag	Till geochemical anomaly
92P-188	HC Gold	683537	5715858	Au, Cu, Ag	Vein
92P-189	HC Silver	682462	5715975	Ag, Pb, Zn, Au, Cu	Vein
92P-194	New Discovery A	683746	5713365	Cu, Ag, Au	Vein

BRITISH COLUMBIA
Ministry of Energy and Mines
Minerals Division
Geological Survey Branch

OPEN FILE 2002 - 4

GEOLOGY OF THE NEHALLISTON PLATEAU

NTS 92P/7, 8, 9, 10

Geology by P. Schiarizza, S. Israel, S. Heffernan and J. Zuber

Macrofossil Identifications: E.W. Bamber, T.P. Poulton, GSC Calgary; H.W. Tipper, GSC Vancouver; P.L. Smith, The University of British Columbia
Conodont Identifications: M.J. Orchard, GSC Vancouver
Isotopic Dating: R.M. Friedman, The University of British Columbia

Digital Cartography: V. Vilkos, J. Zuber

SCALE 1:50 000

0 1 2 3 4 5 Kilometres

QUATERNARY
- Qal — *Unconsolidated glacial, fluvial and alluvial deposits*
- Qv — *Basalt*

'OCENE
Kamloops Group
- ' v — *Skull Hill Formation: andesite, basalt, dacite, volcanic breccia; minor amounts of sandstone, siltstone, conglomerate*
- ' s — *Chu Chua Formation: conglomerate, sandstone*

CRETACEOUS
- Kg — *Granite, quartz-feldspar porphyry*

EARLY JURASSIC
- IJs — *Siltstone, sandstone, conglomerate*
- EJgd — *Granodiorite; locally includes quartz diorite, diorite and monzodiorite*

LATE TRIASSIC(?) and EARLY JURASSIC
- >Js — *Syenite, monzonite, quartz monzonite*
- >Ja — *Diorite, microdiorite, syenite, intrusion breccia; pyrite-silica-altered rock, skarn and chloritic schist derived from these intrusive rocks and/or associated country rocks*
- >Jd — *Diorite, microdiorite, gabbro; locally includes clinopyroxenite and intrusion breccia*
- >Jum — *Dunite, wehrlite, clinopyroxenite, serpentinite*

MIDDLE AND LATE TRIASSIC
Nicola Group
- uTrNv — *Volcanic sandstone, siltstone, conglomerate, volcanic breccia, tuff, basalt, chert, limestone*
- uTrNv — *Mafic volcanic breccia, massive to pillowed pyroxene-phyric basalt; minor amounts of volcanic sandstone, siltstone and conglomerate*
- uTrNlv — *Dacite, lenicite schist with felsic volcanic fragments*

Meridian Lake succession
- uTrNms — *Siltstone, argillite, slate, sandstone, conglomerate, limestone*
- uTrNmsl — *Limestone; locally includes slate, siltstone and chert*

Lemieux Creek succession
- muTrNs — *Siltstone, slate, phyllite, sandstone, quartzite, siltite, limestone*
- muTrNsl — *Limestone; lesser amounts of slate and siltstone*

Wavey Lake succession
- >Nwv — *Volcanic breccia, tuff, volcanic sandstone*
- >Nws — *Chert, slate, siltstone, volcanic sandstone, conglomerate*

CARBONIFEROUS - PERMIAN
Harper Ranch Group
- CPrHr — *Siltstone, argillite, chert; limestone*

Fennell Formation
- CPrFn — *Upper Structural Division: pillowed and massive basalt; minor amounts of chert, diabase, gabbro;* CPrv *- chert*
- CPrFn — *Lower Structural Division: chert, slate, siltstone, basalt, gabbro, diabase*

SYMBOLS

Geological contact (defined, approximate, inferred)
Fault (defined, approximate, inferred)
Thrust fault, teeth on upthrust block (inferred)
Bedding, tops known (inclined, overturned)
Bedding, tops unknown (inclined, vertical)
Slaty cleavage or schistosity (inclined, vertical)
Axis of mesoscopic fold
Fossil locality (macrofossil, conodont)
Location of isotopically dated sample (U-Pb zircon) (182.7±0.9Ma)
Mineral occurrence with MINFILE number (prefix 92P; Table 3)
- Past producer
- Prospect
- Showing

Assay sample with sample number (Table 2) 96009-166
Field station (shown only where not indicated by another symbol)
Limit of extensive Qal cover
Limit of mapping
Contours (100 metre intervals)
Roads (paved, gravel, rough)

TABLE 2: ASSAY DATA

Element				Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga	Au	Pt	Pd
Method				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lab				AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	AQ/GI	FA	FA	FA
Detection				0.05	0.01	0.01	0.01	0.1	0.1	0.1	1	0.01	0.1	0.1	1	0.01	0.1	0.1	0.01	0.02	0.02	0.02	0.01	0.001	0.01	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.01	0.02	0.02	5	0.01	0.02	2	2	3
Sample	Easting	Northing	Type																																							
00PSC-14-2	680117	5709000	quartz vein; qv, mal, cpy, gk	1.85	1826.08	569.07	8.3	15334	5.6	2.1	113	0.74	11.8	< 1	571.4	< 1	15.1	0.13	0.24	2.78	19	0.14	0.005	< 5	24.1	0.16	27	0.004	1	0.26	0.007	0.03	7.6	1	< .02	0.01	33	1.3	7.02	0.8	704	< 2	4
00PSC-76	693434	5710440	schist; basalt	1.91	62.06	25.16	97.4	177	11.2	22.8	1257	5.25	0.4	0.5	4.8	2.1	0.4	0.08	0.16	0.06	0.7	0.72	0.101	0.04	5.1	0.01	0.004	< .01	0.5	44.6	0.2	0.22	44	15.62	0 .001	< 5	458.7	7.46	29.9	0.002	< 1	0.11