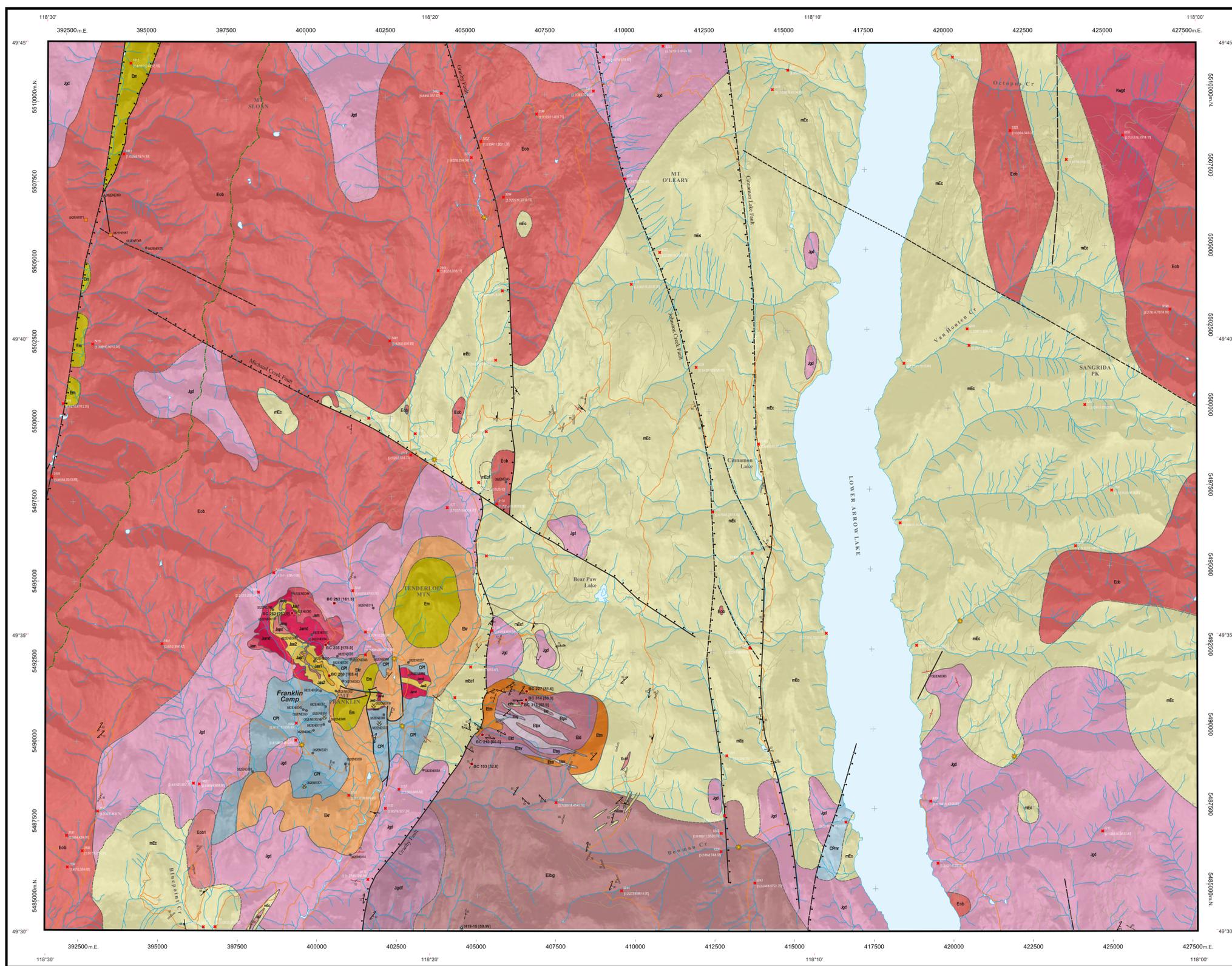




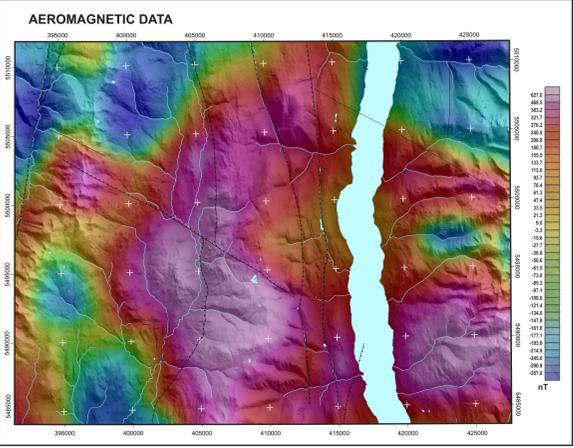
Geology and Compilation by Trygve Høy
Cartography by Wayne Jackaman



- CENOZOIC**
- EOCENE**
- PENTICTON GROUP**
- Em** MARRON FORMATION: Alkali basalt, trachyte, locally amygdaloidal, vesicular or porphyritic; well banded mafic tuff, blocky tephra; minor black or red shale or slate
 - Ekr** KETTLE RIVER FORMATION: basal conglomerate, overlain by feldspathic grit, conglomerate, siltstone and rare shale or argillite; minor felsic tuff; typically light coloured and well bedded
- CORYELL PLUTONIC SUITE**
- mEc** Undifferentiated syenite and monzonite
 - mEcsy** Syenite, syenite porphyry dikes, monzonite
 - mEct** Mixed Coryell dikes, fine-grained syenite, syenite porphyry and older granite
- TENDERLOIN PLUTONIC COMPLEX: zoned ultramafic to intermediate plutonic complex**
- Etsy** Syenite, commonly massive, forming dikes in the Tenderloin complex
 - Elm** Monzonite, quartz monzonite, monzodiorite; medium grained, commonly foliated; contains 10 to 25% mafic minerals (augite, hornblende, biotite)
 - Eld** Monzogabbro and diorite; medium to coarse grained; gradational with Etpx, with up to 50% plagioclase
 - Etpx** Pyroxenite, gabbro; dark grey to black, medium to coarse grained comprising mainly augite, hornblende, biotite and minor plagioclase; typically massive
- OKANAGAN BATHOLITH**
- Eob** Granite, locally megacrystic porphyritic; massive medium to coarse-grained granite; quartz monzonite
 - Eob1** Megacrystic granite; coarse-grained granite
- MESOZOIC**
- CRETACEOUS**
- kwgd** WHATSHAN LAKE BATHOLITH: Megacrystic K-feldspar quartz monzonite, granodiorite; massive to porphyritic; local pegmatite
- JURASSIC**
- NELSON PLUTONIC SUITE**
- Jgd** Granodiorite; less commonly quartz diorite; may include Eob
 - Jgdf** Undifferentiated granodiorite; minor diorite or granite, foliated
- AVERRILL PLUTONIC COMPLEX**
- Jas1** Syenite, generally coarse grained (possibly correlative with mEc)
 - Jas2** Syenite, fine to medium grained (possibly correlative with mEc)
 - Jem** Monzonite; K-feldspar and plagioclase with up to 50% mafic minerals
 - Jamo** Monzodiorite; grey, granular with variable (30-60%) mafic minerals, mainly augite with K-feldspar and plagioclase
 - Jamq** Monzogabbro, dark grey to black, with typically 60-90% augite, hornblende and biotite, interstitial K-feldspar and plagioclase
 - Jepx** Pyroxenite, ultramafics, medium to coarse grained, comprising mainly augite and biotite with minor interstitial K-feldspar
- PALEOZOIC**
- PERMIAN TO CARBONIFEROUS**
- CPi** FRANKLIN GROUP: Undifferentiated mafic volcanics, argillite, siltstone, minor limestone and skarn; typically fractured, altered and deformed
 - CPmr** MOUNT ROBERTS FORMATION: Undifferentiated metasedimentary and metavolcanic rocks (probably correlative with CPi)
 - CPa** ANARCHIST SCHIST: Undifferentiated mafic volcanics, argillite, dark schist

- SYMBOLS**
- CONTACT OF ALLUVIUM
CONTACT: DEFINED, APPROXIMATE, INFERRED
- FAULT: DEFINED, APPROXIMATE, INFERRED, HIDDEN
- NORMAL FAULT: APPROXIMATE, INFERRED, HIDDEN
- BEDDING
FOLIATION, CLEAVAGE
VEIN
DIKE
FAULT
- MINERAL OCCURRENCE - PAST PRODUCER
MINERAL OCCURRENCE - PROSPECT
MINERAL OCCURRENCE - SHOWING
- U-Pb AGE DATE (Ma)
Ar/Ar AGE DATE (Ma)
- PROVINCIAL RGS SILT-SAMPLE SITE
2019 BULK SEDIMENT SITE
- SECONDARY ROAD
FOREST SERVICE ROAD
STREAM, RIVER, LAKE
PARK BOUNDARY

- BASE MAP INFORMATION**
- NAD 1983 UTM ZONE 11
TRANSVERSE MERCATOR
PROJECTION
- National Topographic Data Base (NTDB)
URL: <http://www.geobase.ca>
Natural Resources Canada, Centre for Topographic Information
Canadian Digital Elevation Data (CDED)
URL: <http://www.geobase.ca>
Base Mapping and Geomatics Services - B.C. Government
- LOCATION MAP**
-



SOURCES OF DATA - Geology

BC Geological Survey (2012a): MapPlace GIS internet mapping system; BC Ministry of Energy, Mines and Natural Gas, MapPlace website.

Bohme, D.M. (1991): Diamond drilling report on the Outback claim group, Greenwood Mining Division; BC Ministry of Energy, Mines and Natural Gas, Assessment Report 21 916, 18 p.

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Høy, T. (2013): Burrell Creek map area: setting of the Franklin Mining Camp, southeastern British Columbia; in Geoscience BC Summary of Activities 2012, Geoscience BC, Report 2013-1.

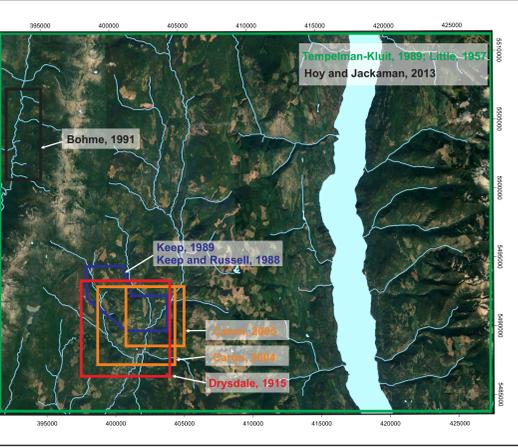
Høy, T. and Jackaman, W. (2013): Burrell Creek sheet (082E/09), Geoscience BC, Map 2013-07-1.

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Little, H.W. (1957): Kettle River, east half, Similkameen, Kootenay and Osoyoos Districts, British Columbia; Geological Survey of Canada, Map 6-1957, scale 1:253 440.

Tempelman-Kluit, D.J. (1989): Geology, Penticton, British Columbia; Geological Survey of Canada, Map 1736A, scale 1:250 000.



AGE DATES

SAMPLE UTM	UTM	ROCK TYPE	UNIT	REFERENCE	DATED BY	METHOD	AGE ERROR
BC 193	404862	5489113	hb granite	Tenderloin Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 52.8 ± 1.6
BC 213	405253	5489113	pyroxenite	Tenderloin Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 59.8 ± 0.8
BC 227	405634	54891346	qtz monzonite	Tenderloin Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 51.6 ± 0.6
BC 255	400651	5483198	monzonite	Averill Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 161.3 ± 2.4
BC 256	400355	5482907	monzodiorite	Averill Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 176.0 ± 2.5
BC 260	400452	5481927	syenite	Averill Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 165.4 ± 1.9
BC 262	399332	5483885	monzogabbro	Averill Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 175.9 ± 2.1
BC 313	406496	5490971	diorite	Tenderloin Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 58.9 ± 0.7
BC 314	406819	5489118	monzodiorite	Tenderloin Complex	Høy et al. (2020)	J. Gables, UBC	Ar/Ar hb 59.3 ± 0.7
H15-15	404434	5483958	granodiorite	Ladyfern granite	Høy et al. (2019)	R. Friedman, UBC	U-Pb ur 59.99 ± 0.41

SOURCES OF DATA - Age Dates

Høy, T., Friedman, R. and Gables, J. (2020): Porphyry, base-metal and gold potential in the Boundary area, southern British Columbia (NTS 082E); in Geoscience BC, Summary of Activities 2019, Report 2020-1.

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SOURCES OF DATA - Other

BC Geological Survey (2017): MINFILE BC mineral deposits database; BC Ministry of Energy and Mines, BC Geological Survey, URL <<http://minfile.ca>> [September 2011], (update December 2017 with date of data download)

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