

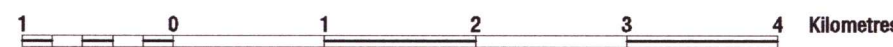
GEOLOGICAL SURVEY BRANCH
OPEN FILE 2002-6
GEOLOGY OF
BEALE LAKE MAP AREA
104I/14N

Geology by JoAnne L. Nelson and Luc D. Lepage, 1996, 2001

Digital cartography by Roger MacLeod (Geological Survey of Canada), Luc Lepage and JoAnne Nelson (B.C. Geological Survey)

Digital base map compiled by the Province of British Columbia, Ministry of Environment, Lands and Parks, modified by the Geological Survey of Canada
TRIM 104I-083, 084, 085, 093, 094, 095

Scale 1:50 000



Universal Transverse Mercator Projection
North American Datum 1983

Magnetic declination 1987, 20°33' E, decreasing 18.2' annually.
NE corner of the map

Elevations in metres above mean sea level

Legend
POST-ACCRETIONARY UNITS

- Quaternary**
- Qal outwash, till, fluvial deposits
- Eocene**
- Ei Zinc Lake intrusions: rhyolite and quartz-orthoclase-phryic granite dikes, plugs
 - Ev Zinc Lake volcanic complex: dacite, andesite, rhyolite flows and dikes
- EARLY CRETACEOUS (circa 110 Ma)**
- EKg Cassiar Batholith: granite, granodiorite

PRE-ACCRETIONARY UNITS
YUKON TANANA TERRANE

- UPPER PALEOZOIC**
SWIFT RIVER SUCCESSION
- UPSR phyllite, chert, clean gray to white quartz arenite
- DORSEY ASSEMBLAGE**
- Mississippian?**
- Pdu Upper Dorsey assemblage: metarhyolite, metadacite flows, tuff, quartz-sericite schist, metachert, phyllite, calc-silicate
 - PDugb foliated gabbro to diorite sills
 - PDub unfoliated basalt (Campbell Range equivalent?)
- Paleozoic (and older?)**
- PDI Lower Dorsey assemblage: amphibolite, metachert, pelite, quartzite, metagabbro
 - PDlgb foliated layered gabbro intrusion
 - PDlum ultramafite

BEALE MTN. THRUST FAULT
HARPER RANCH SUBTERRANE

- Mississippian?**
- PRC Ram Creek assemblage? Green, well-foliated metavolcanic and metaplutonic rocks

POST-TRIASSIC THRUST FAULT

- Mid-Permian**
- Pg Meek Pluton: coarse grained granite
 - Pi Nizi Creek Pluton: diorite, gabbro, tonalite, intrusive breccia

- Pennsylvanian-Permian**
- PPv aphanitic dacite and rhyolite flows, minor tuff and intermediate volcanic and pyroclastic rocks
 - PPvc felsic volcanic/limestone breccia and green bedded chert
 - PPb aphanitic basalt, andesite

- PPs volcanic siltstone, argillite, lagpill tuff with white-weathering felsic ash fragments, clay, laminated calcarenite

- PPI limestone

- PPvt well-foliated volcanic and pyroclastic/epiclastic rocks (may be pre-upper Paleozoic)

MID-PALEOZOIC

- Pbp black phyllite, argillite, laminated siltstone

- Pgd deformed to mylonitized hornblende granodiorite and tonalite; intrudes Pbp

Paleozoic

- Pi mafic intrusive complex near Meek Lake: diorite, gabbro, hornblende-phryic dikes

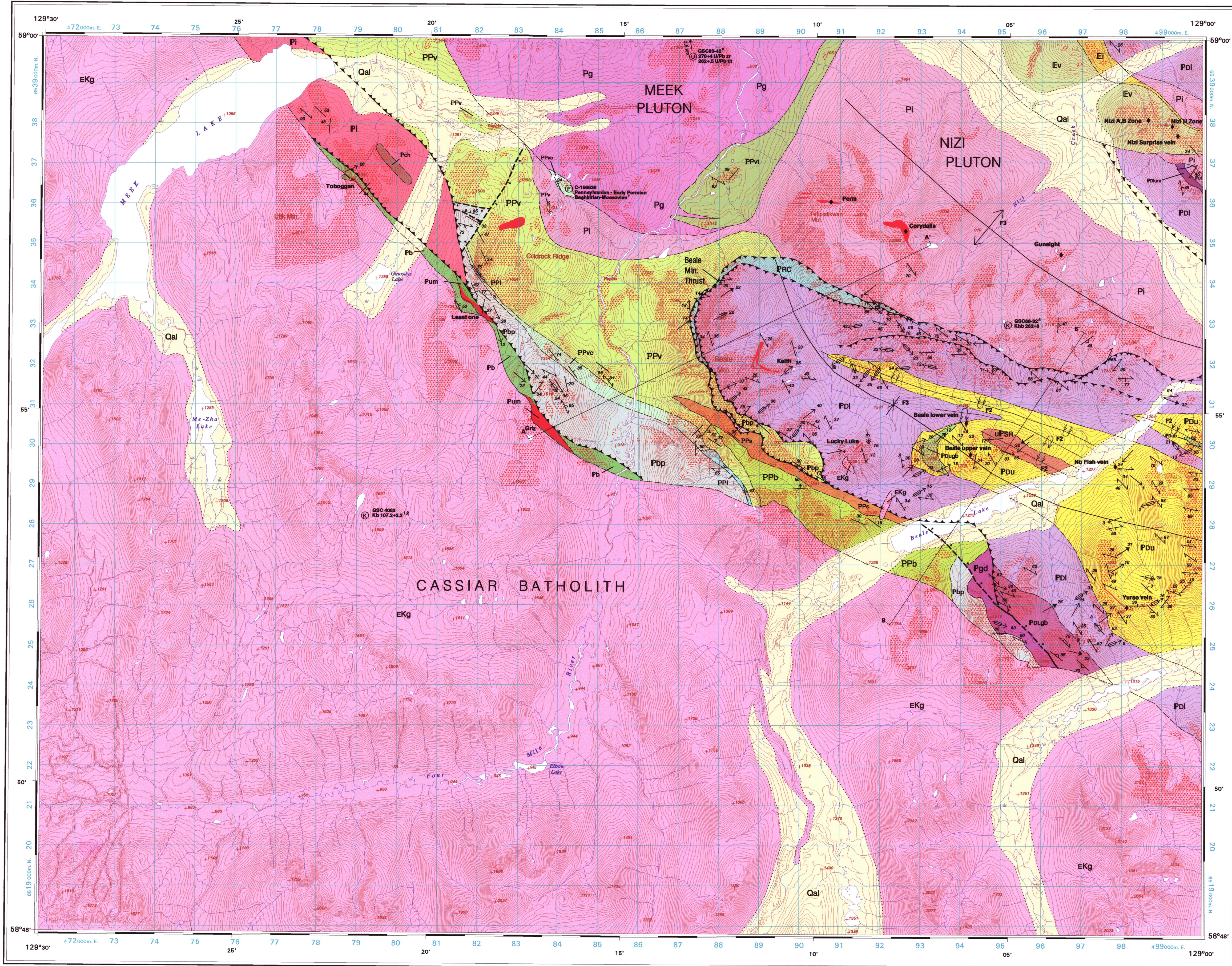
- Pch bedded chert enclaves in intrusive complex

POST-TRIASSIC THRUST FAULT

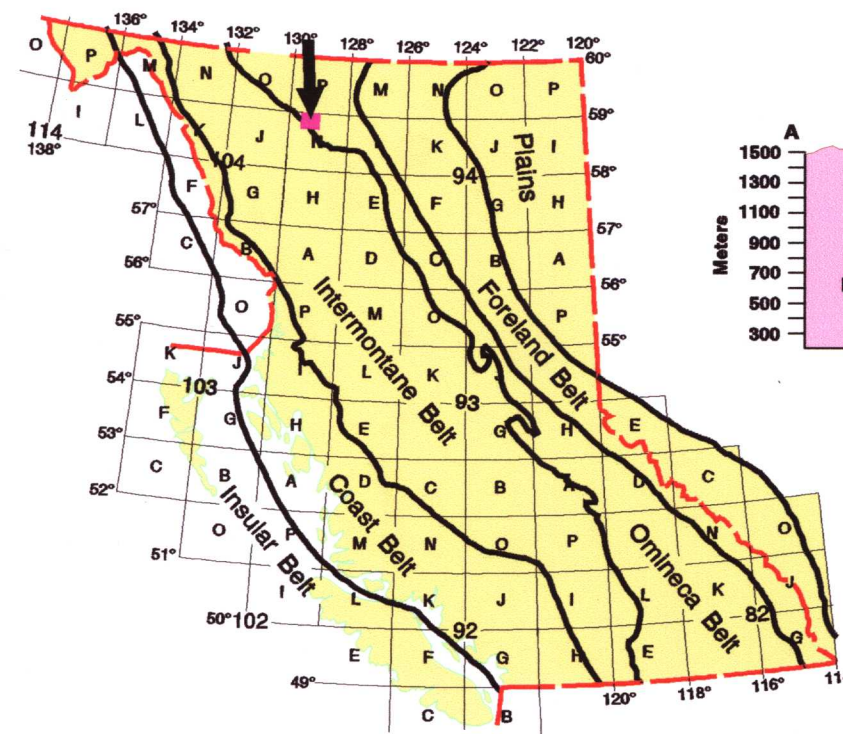
SLIDE MOUNTAIN TERRANE

- UPPER PALEOZOIC**
- Pb dark green basalt, minor gabbro
 - Pum ultramafite, listwanite

Recommended citation:
Nelson, J.L. and Lepage, L.D. (2002): Geology and mineral occurrences, Beale Lake map area (NTS 104I/14N), British Columbia; B.C. Ministry of Energy and Mines Open File 2002-6, 1:50,000 scale.

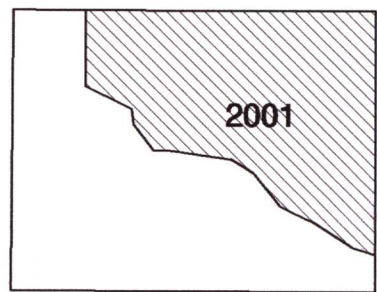


Location



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- Gabriele, H. (1998): Geology of Cry Lake and Dease Lake map areas, north-central British Columbia, British Columbia, Geological Survey of Canada Bulletin 504.
- Gabriele, H. (1994): Geology of Cry Lake (104I) and Dease Lake (104J/E) Map Areas, North Central British Columbia; Geological Survey of Canada, Open File Map 2779.
- Gabriele, H., Mortensen, J.K., Parrish, R.R., Harms, T.A., Nelson, J.L., and van der Heyden, P. (1993): Late Paleozoic Plutons in the Sylvester Allochthon, Northern British Columbia; in: Radiogenic Age and Isotopic Studies, Report 7, Geological Survey of Canada, Paper 93-1, pages 107-118.
- Hunt, P.A. and Roddick, J.C. (1988): A compilation of K-Ar ages, Report 18, in: Radiogenic Age and Isotopic Studies: Report 2, Geological Survey of Canada, Paper 88-2, pages 127-153.



Mineral occurrences, showings and alteration zones, Beale Lake map area, 104I/14N

	UTM east	UTM north	MINFILE number	Deposit type	Capable description
Nizi A, B Zone	498637	6538066	104032	Polymetallic veins	Samples assayed up to 12.0 g/tonne gold and up to 3428 g/tonne silver. These base metal zones are generally <20 centimetres wide and traceable for tens of metres.
Nizi H Zone	498240	6537900	104032	Polymetallic veins	Vein samples assayed up to 2.13 g/tonne gold and 627.43 g/tonne silver, 18.3% zinc and 7% lead.
Nizi Surprise vein	499380	6537663	104032	Polymetallic veins	Chip-chained samples assayed up to 27.09 g/tonne gold and Ag-Pb-Zn-Au. 1220.58 g/tonne silver over 2 metres.
Gunsight	496483	6534714	104041	Polymetallic veins	quartz vein with argenticiferous galena, pyrite and sphalerite. One 20 centimetre sample contained .09 g/tonne Au, 110 g/tonne Ag, 8.340% Pb and 1.09% Zn.
Beale upper vein	494235	6529734	104098	Polymetallic veins	quartz vein + Au, Ag
Beale lower vein	494146	6530533	104098	Polymetallic veins	quartz-arsenopyrite-galena vein-Au, Ag
Yurao vein	498116	6529596	104121	Polymetallic veins	Grab sample: Au (to 1250 ppb), Ag (to 1824 g/tonne), Bi (to 413 ppb), Pb (to 23,000 ppm), Sb (to 8000 ppm), anomalous Se, Te, Cu and Zn.
No Fish vein	497824	6529441	104122	Polymetallic veins	pyritic quartz vein with anomalous values of Cu, Te, Se, Ag, Mn
Perm	490989	6536006	104123	Porphyry Cu	altered intrusion breccia with disseminated pyrite, trace chalcocite
Corydalis	492624	6535272	104123	Porphyry Cu	altered intrusion breccia with disseminated pyrite, trace chalcocite
Keith	489414	6531816		Siliceous exhalite	chert + pyrite, garnet
Lucky Luke	491403	6529879		Siliceous exhalite	chert + pyrite, garnet
Toboggan	479062	6536366		Listwanite alteration	Fe-Mg carbonate-altered ultramafite, anomalous As, Sb, Mn
Least one	482128	6532259		Listwanite alteration	Fe-Mg carbonate-altered ultramafite, anomalous As, Sb, Mn
Griz	483689	6530499		Listwanite alteration	Fe-Mg carbonate-altered ultramafite, anomalous As, Sb, Mn

Additional information: Nelson, J.L. (2002): Tracking Yukon-Tanana Terrane VMS host stratigraphy and intrusion-related gold in the southern Sylvester Allochthon (Beale Lake map area, 104I/14N), British Columbia Ministry of Energy and Mines, Geological Survey Branch, Paper 2002-1, pp. 19-35.

SYMBOLS

- Bedding, tops unknown, upright, overturned
- Primary layering in plutonic bodies
- Cleavage, foliation (1st, 2nd, 3rd phase)
- Axial plane
- Shear band
- Elongation lineation (1st phase)
- Mineral lineation (1st phase)
- Fold axis (1st, 2nd, 3rd phase)
- Lineation (1st, 2nd, 3rd phase)
- Macrofossil Locality
- Radiometric Date: K/Ar, U
- Mineral Occurrence
- Gossan
- Outcrop
- Axial trace of upright fold: anticline, syncline
- Axial trace of overturned fold: antiform, synform
- Geological contact: defined, approximate, assumed
- Thrust fault: defined, approximate, assumed
- Normal fault: defined, approximate, assumed
- Quaternary limit
- Topographic contour (20m interval)
- Esker