

## YGS list of publications and maps for 2019

YGS released 19 publications in 2019: 1 Geoscience Map, 16 Open Files and 2 Annual Reports

### Geoscience Map

Bordet, E., 2019. Bedrock geology map of the eastern Lake Laberge area (parts of NTS 105E/2, 3, 6, 7 and 105D/15, 16). Yukon Geological Survey, **Geoscience Map 2019-1**, scale 1:50 000, 2 sheets.

### Open Files

- Bordet, E., Crowley, J.L. and Piercey, S.J., 2019. Geology of the eastern Lake Laberge area (105E), south-central Yukon. Yukon Geological Survey, **Open File 2019-1**, 120 p.
- Bond, J.D., 2019. Paleodrainage map of Beringia. Yukon Geological Survey, **Open File 2019-2**.
- Cobbett, R. and Keevil, H., 2019. Geology of northeastern Glenlyon area (NTS 105L/10, 13, 14, 15). Yukon Geological Survey, **Open File 2019-3**, 2 sheets, scale 1:50 000.
- Kiss, F., 2019. Residual Total Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105F (south half). Geological Survey of Canada, Open File 8601; Yukon Geological Survey, **Open File 2019-4**, <https://doi.org/10.4095/314827>.
- Kiss, F., 2019. First Vertical Derivative of the Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105F (south half). Geological Survey of Canada, Open File 8602; Yukon Geological Survey, **Open File 2019-5**, <https://doi.org/10.4095/314828>.
- Kiss, F., 2019. Residual Total Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105G (south half). Geological Survey of Canada, Open File 8603; Yukon Geological Survey, **Open File 2019-6**, <https://doi.org/10.4095/314829>.
- Kiss, F., 2019. First Vertical Derivative of the Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105G (south half). Geological Survey of Canada, Open File 8604; Yukon Geological Survey, **Open File 2019-7**, <https://doi.org/10.4095/314831>.
- Kiss, F., 2019. Residual Total Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105C (north half). Geological Survey of Canada, Open File 8605; Yukon Geological Survey, **Open File 2019-8**, <https://doi.org/10.4095/314832>.
- Kiss, F., 2019. First Vertical Derivative of the Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105C (north half). Geological Survey of Canada, Open File 8606; Yukon Geological Survey, **Open File 2019-9**, <https://doi.org/10.4095/314833>.
- Kiss, F., 2019. Residual Total Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105B (north half). Geological Survey of Canada, Open File 8607; Yukon Geological Survey, **Open File 2019-10**, <https://doi.org/10.4095/314834>.
- Kiss, F., 2019. First Vertical Derivative of the Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105B (north half). Geological Survey of Canada, Open File 8602; Yukon Geological Survey, **Open File 2019-11**, <https://doi.org/10.4095/314836>.
- Kiss, F., 2019. Residual Total Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105B (south half) and 105C (south half). Geological Survey of Canada, Open File 8609; Yukon Geological Survey, **Open File 2019-12**, <https://doi.org/10.4095/314837>.

Kiss, F., 2019. First Vertical Derivative of the Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105B (south half) and 105C (south half). Geological Survey of Canada, Open File 8610; Yukon Geological Survey, **Open File 2019-13**, <https://doi.org/10.4095/314838>.

Kiss, F., 2019. Residual Total Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105B (south half). Geological Survey of Canada, Open File 8611; Yukon Geological Survey, **Open File 2019-14**, <https://doi.org/10.4095/314839>.

Kiss, F., 2019. First Vertical Derivative of the Magnetic Field, Aeromagnetic Survey of the Wolf Lake Area, Yukon, Part of NTS 105B (south half). Geological Survey of Canada, Open File 8612; Yukon Geological Survey, **Open File 2019-15**, <https://doi.org/10.4095/314840>.

Colpron, M., 2019. Potential radiogenic heat production from granitoid plutons in Yukon. Yukon Geological Survey, **Open File 2019-16**, 1 map and data.

## Annual Reports

Yukon Exploration and Geology 2018. K.E. MacFarlane (ed.), 2019. Yukon Geological Survey, 142 p., digital only.

Yukon Exploration and Geology Overview 2018. K.E. MacFarlane (ed.), 2019. Yukon Geological Survey, 78 p.

## Annual Overview Papers (YEG)

Relf, C., 2019. Summary of Yukon Geological Survey 2018–19 activities. *In: Yukon Exploration and Geology Overview 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 1–16.

Bond, J.D. and van Loon, S., 2019. Yukon placer mining 2018 development overview. *In: Yukon Exploration and Geology Overview 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 17–24.

Torgerson, D., 2019. Yukon Mineral Exploration Program 2018 update. *In: Yukon Exploration and Geology Overview 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 25–36.

Lewis, L.L. and Casselman, S., 2019. Yukon Hard Rock Mining, Development and Exploration Overview 2018. *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 37–52.

Weston, L., 2019. Yukon Geological Survey's Outreach Program: Bringing earth science to all Yukoners. *In: Yukon Exploration and Geology Overview 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 53–64.

## Annual Report papers (YEG)

Bond, J.D., 2019. Analyses of regional wetland distribution using predictive ecosystem mapping data sets for west-central Yukon and east-central Alaska. *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 1–18.

Busch, J.F., Strauss, J.V., Saylor, M.H., Allen, T.J., Faehnrich, K. and Taylor, J.F., 2019. Preliminary observations of the Bouvette Formation at Nadaleen Mountain, Yukon (NTS 106C/2, 3). *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 19–42.

Cobbett, R., 2019. Preliminary observations on the geology of northeastern Glenlyon area, central Yukon (parts of NTS 105L/10, 14, 15). *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 43–60.

Cronmiller, D.C., Ward, B.C., Bond, J.D. and Layton-Matthews, D., 2019. Constraints on the evolution of placer deposits at Gladstone Creek, Yukon (NTS 115G/7, 8). *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 61–74.

Fraser, T., Colpron, M. and Relf, C., 2019. Evaluating geothermal potential in Yukon through temperature gradient drilling. *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 75–90.

- Manor, M.J. and Piercey, S.J., 2019. Geochemistry of Devonian–Mississippian volcanic and intrusive rocks of the Finlayson Lake district, Yukon–Tanana terrane, Yukon. *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 91–110.
- van Loon, S., 2019. Analyzing historic drilling data to investigate gold distribution on lower Hunker Creek and Klondike River. *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 111–126.
- Wiest, A.C. and Beranek, L.P., 2019. Stratigraphy of the Faro Peak formation, central Yukon: New field observations of Jurassic synorogenic sedimentation along the Yukon–Tanana–Slide Mountain terrane boundary. *In: Yukon Exploration and Geology 2018*, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 127–142.
- Articles of interest**
- Altena, B., Scambos, T., Fahnestock, M. and Käab, A., 2019. Extracting recent short-term glacier velocity evolution over southern Alaska and the Yukon from a large collection of Landsat data. *The Cryosphere*, vol. 13, p. 795–814.
- Bickerton, L., **Colpron, M.**, Gibson, H.D., Thorkelson, D.J. and Crowley, J.L., 2019. The northern termination of the Cache Creek terrane in Yukon: Middle Triassic arc activity and Jurassic–Cretaceous structural imbrication. *Canadian Journal of Earth Sciences*, **YGS Contribution 41**, <https://doi.org/10.1139/cjes-2018-0262>.
- Brideau, M.-A., Shugar, D.H., Bevington, A.R., Willish, M.J. and Wong, C., 2019. Evolution of the 2014 Vulcan Creek landslide-dammed lake, Yukon, Canada, using field and remote survey techniques. *Landslides*, published online May 2019, <https://doi.org/10.1007/s10346-019-01199-3>.
- Campbell, R.W., Beranek, L.P., Piercey, S.J. and Friedman, R., 2019. Early Paleozoic post-breakup magmatism along the Cordilleran margin of western North America: New zircon U–Pb age and whole-rock Nd and Hf-isotope and lithogeochemical results from the Kechika group, Yukon, Canada. *Geosphere*, vol. 15, 2019.
- Canil, D., Grundy, R. and Johnston, S.T., 2019. Thermal history of the Donjek harzburgite massif in ophiolite from Yukon, Canada with implications for the cooling of oceanic mantle lithosphere. *Lithos*, vol. 328–329, p. 33–42.
- Cave, B.J., Barnes, S.-J., Pitcairn, I.K., **Sack, P.J.**, Kuikka, H., Johnson, S.C. and Duran, C.J., 2019. Multi-stage precipitation and redistribution of gold, and its collection by lead–bismuth and lead immiscible liquids in a reduced-intrusion related gold system (RIRGS); Dublin Gulch, western Canada. *Ore Geology Reviews*, vol. 106, p. 28–55, **YGS Contribution 42**, <https://doi.org/10.1016/j.oregeorev.2019.01.010>
- Crawford, I., Layton-Matthew, D., Peter, J.M., Gadd, M.G. and Voinot, A., 2019. Toward the application of molybdenum and thallium isotopes as indicators of paleoredox conditions and genesis of hyper-enriched black shale (HEBS) deposits, Peel River, Yukon. *In: Targeted Geoscience Initiative: 2018 report of activities*, N. Rogers (ed.), Geological Survey of Canada, Open File 8549, p. 139–161.
- Eberle, J., Hutchinson, J.H., **Kennedy, K.**, von Koenigswald, W., MacPhee, R.D.E. and Zazula, G., 2019. The first Tertiary fossils of mammals, turtles, and fish from Canada’s Yukon. *American Museum Novitates*, no. 397k, 28 p; **YGS Contribution 2019-1**.
- Gadd, M.G., Peter, J.M. and **Fraser, T.A.**, 2019. Lithogeochemical and sulfur isotope indicators of environment of formation and genesis of the Moss hyper-enriched black shale showing, Yukon. Geological Survey of Canada Open File 8549; **YGS Contribution 40**.

- Gadd, M.G., Peter, J.M., Jackson, S.E., Yang, Z. and Petts, D., 2019. Platinum, Pd, Mo, Au and Re deportment in hyper-enriched black shale Ni-Zn-Mo-PGE mineralization, Peel River, Yukon, Canada. *Ore Geology Reviews*, vol. 107, p. 600–614.
- Grinter, M., Lacelle, D., Baranova, N., Murseli, S. and Clark, I.D., 2019. Late Leistocene and Holocene ice-wedge activity on the Blackstone Plateau, central Yukon, Canada. *Quaternary Research*, vol. 91, p. 179–193.
- Henderson, K.M., Williams-Jones, A.E. and Clark, J.R., 2019. Metal transport by liquid hydrocarbons: Evidence from metalliferous shale and pyrobitumen, Yukon. In: Targeted Geoscience Initiative: 2018 report of activities, N. Rogers (ed.), Geological Survey of Canada, Open File 8549, p. 179–187, <https://doi.org/10.4095/313650>.
- Igisu, M., Komiya, T., Awramik, S.M., Ikemoto, Y., Geng, Y., Uehara, H. and Takai, K., 2019. Fourier transform infrared microspectroscopic characterization of Neoproterozoic organic microfossils from the Fifteenmile Group in Yukon, Canada. *Island Arc*, vol. 28, <https://doi.org/10.1111/iar.12310>.
- Kochtitzky, W., Jiskoot, H., Copland, L., Enderlin, E., McNabb, R., Kreutz, K. and Main, B., 2019. Terminus advance, kinematics and mass redistribution during eight surges of Donjek Glacier, St. Elias Range, Canada, 1935 to 2016. *Journal of Glaciology*, published online May 2019, <https://doi.org/10.1017/jog.2019.34>.
- Leighton, C., Layton-Matthews, D., Peter, J.M. and Gadd, M.G., 2019. Application of pyrite chemistry to recognize a distal expression of hydrothermal activity in the MacMillan Pass SEDEX district, Yukon. In: Targeted Geoscience Initiative: 2018 report of activities, N. Rogers (ed.), Geological Survey of Canada, Open File 8549, p. 125–137.
- McDermott, R.G., Ault, A.K., Caine J.S. and Thomson, S.N., 2019. Thermotectonic history of the Kluane Ranges and evolution of the eastern Denali fault zone in southwestern Yukon, Canada. *Tectonics*, <https://doi.org/10.1029/2019TC005545>.
- Mortensen, J.K., Liverton, T. and Dodd, K., 2019. Chemostratigraphic constraints on the nature and origin of felsic schist units hosting stratabound and orogenic vein gold on Lone Star Ridge, Klondike Gold District, Yukon. *Journal of Geochemical Exploration*, vol. 204, p. 112–130.
- Ootes, L., Castonguay, S., Friedman, R. and Devine, F., 2019. Superimposed auriferous structural events along the Llewellyn-Tally Ho deformation corridor in southern Yukon and northwest British Columbia. In: Targeted Geoscience Initiative: 2018 report of activities, N. Rogers (ed.), Geological Survey of Canada, Open File 8549, p. 49–58, <https://doi.org/10.4095/313636>.
- Peter, J.M., Gadd, M.G., Layton-Matthews, D. and Voinot, A., 2019. Reconnaissance molybdenum isotope study of vent-distal SEDEX zinc-lead mineralization and host rocks in the Howard's Pass district, Selwyn Basin, Yukon: potential application to paleoredox determinations. In: Targeted Geoscience Initiative: 2018 report of activities, N. Rogers (ed.), Geological Survey of Canada, Open File 8549, p. 105–123.
- Piercey, S.J. and Kamber, B.S., 2019. Lead isotope geochemistry of shales from the Wolverine volcanogenic massive sulphide deposit, Yukon: Implications for Pb isotope vectoring in exhalative ore systems. *Economic Geology*, vol. 114, p. 47–66.
- Ramage, J.L., Fortier, D., Hugelius, G., Lantuit, H. and Morgenstern, A., 2019. Distribution of carbon and nitrogen along hillslopes in three valleys on Herschel Island, Yukon Territory, Canada. *Catena*, vol. 178, p. 132–140.

## Theses

- Cronmiller, D., 2019. Surficial geology, stratigraphy, and placer deposits of the Ruby Range, Yukon Territory. Unpublished MSC thesis, Simon Fraser University.