



## Occurrence Details

**Occurrence Number:** 105G 131

**Occurrence Name:** Dot

**Occurrence Type:** Hard-rock

**Status:** Anomaly

**Date printed:** 4/29/2025 2:48:54 PM

## General Information

**Secondary Commodities:** copper

**Deposit Type(s):** Volcanogenic Massive Sulphide (VMS) Kuroko Cu-Pb-Zn

**Location(s):** 61°50'15" N - -131°35'52" W

**NTS Mapsheet(s):** 105G13

**Location Comments:** .5 Kilometres

**Hand Samples Available:** No

**Last Reviewed:**

### Capsule

#### Work History

Staked as Dot cl 1-76 (YB49847) in Jun/94 by Cominco Ltd to cover geophysical anomalies identified in an airborne geophysical survey flown earlier in the year. The company carried out geological mapping, soil sampling and a combined HLEM, gravity and magnetic geophysical program later in the year.

In Feb/96 Expatriate Resources Ltd staked Replay cl 1-20 (YB77111) south of the Dot claims. The company carried out a small geological mapping and soil sampling program on the claims later in the summer and further soil sampling in 1997.

In 1996 Cominco carried out a small soil sampling program on the Dot claims. In Jul/97 Cominco optioned the claims to Pacific Bay Minerals Ltd which carried out geological mapping and soil sampling later in the year. Pacific Bay dropped its option in Nov/98 and returned the claims to Cominco.

In Dec/2004 shareholders of Expatriate approved a re-organization plan whereby all of Expatriate's non-Finlayson District exploration properties were transferred to a new company, Pacific Resources Ltd. Upon completion of the re-organization Expatriate changed its name to Yukon Zinc Corporation. Yukon Zinc's focus will be the development of company's Wolverine Deposit (Minfile Occurrence #105G 072) and its large surrounding claim holdings including the Replay claims (this occurrence).

#### Capsule Geology

The claims are located in the northwest corner of the Finlayson Lake massive sulphide district, a region that has been explored since the mid 1990's by Cominco Ltd, Expatriate Resources Ltd and other exploration companies. Geological mapping (Murphy et al. 2001) shows the area is dominantly underlain by a layered sequence of Devonian to Early Mississippian metavolcanic and metasedimentary rocks belonging to the Yukon-Tanana Terrane (YTT). The YTT is a volcanic-plutonic pericratonic arc assemblage that was strongly deformed and metamorphosed by Late Triassic time. Volcanic-hosted massive sulphide deposits exist at different stratigraphic positions within the YTT.

The area is in the footwall of the Money Creek thrust and is underlain by metavolcanic rocks of the Upper Devonian to lower Mississippian Grass Lake succession (Murphy et al., 2001).

The oldest rocks in the area are mafic metavolcanic rocks of the Upper Devonian Fire Lake unit (unit DF). These are in turn overlain by felsic metavolcanic rocks of the Upper Devonian Kudzu Ze Kayah unit (unit DK).

The occurrence is located in the centre of the Dot claims along the assumed boundary between Fire Lake mafic metavolcanics to the south and Kudzu Ze Kayah felsic metavolcanics to the north. South of the Replay claims, a large tongue of massive basalt belonging to the Early Permian Campbell Range succession overlies Fire Lake rocks.

Cominco reported that rock exposures in the area of the occurrence consist of a sequence of fissile, silvery grey muscovite phyllite, chlorite schist, and blue quartz-bearing wacke. As these descriptions were reported before the geology of the region was mapped, the exact correlation of these rocks is uncertain. However their description imply that they are more mafic in content thus suggesting Murphy's Fire Lake unit. Geological mapping at the east end of the property uncovered quartz-augen schists reflecting a more felsic metavolcanic thus suggesting the presence of the Kudzu Ze Kayah unit.

The combined geophysical survey carried out on the Dot claims identified 1 EM conductor that was attributed to an equigranular, medium-grained pyroxene-feldspar intrusive containing disseminated fine-grained magnetite and trace pyrrhotite. Based on recent geological mapping the unit appears to be a small Eocene sub-volcanic intrusive (unit Eg).

Soil sampling returned spotty, weak to moderately anomalous Cu +/- Fe and Ba values. Pb values are slightly elevated. A 3-4 m wide muscovite, mariposite-iron-carbonate-silica (listwanite?) shear zone containing trace disseminated chalcopyrite was also located.

Work on the Replay claims outlined three areas with anomalous Cu-Zn-Mo values in soil overlying quartz-sericite schist, chlorite schist, meta-andesite and shaley phyllite.

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#### References

BOND, J.D., MURPHY, D.C., COLPRON, M., GORDEY, S.P., PLOUFFE, A., ROOTS, C.F., LIPOVSKY, P.S., STRONGHILL, G., AND ABBOTT, J.G., 2002. Digital compilation of bedrock geology and till geochemistry, northern Finlayson Lake map area, Southeastern Yukon (105G), Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Open File Report, 2002-7(D) and Geological Survey of Canada Open File 4243.

COMINCO LTD, Feb/95. Assessment Report #093345 by P.A. MacRobbie.

COMINCO LTD, Mar/96. Assessment Report #093392 by I. Jackisch.

COMINCO LTD, Feb/98. Assessment Report #093678 by T.J. Bohay.

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EXPATRIATE RESOURCES LTD, News Release, 15 Dec/2004.

EXPATRIATE RESOURCES LTD, Jan/2004. Web Site: [www.expatriateresources.com](http://www.expatriateresources.com)

HUNT, J.A., 1998. The setting of volcanogenic massive sulphide deposits in the Finlayson Lake district. In: Yukon Exploration and Geology 1997, Exploration and Geological Services Division, Indian and Northern Affairs Canada, p. 99-104.

HUNT, J.A., 2001. Volcanic-associated massive (VMS) mineralization in the Yukon-Tanana Terrane and coeval strata of the North American miogeocline, in the Yukon and adjacent areas. Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Bulletin 12, 107 p.

MORTENSEN, J.K., AND JILSON, G.A., 1985. Evolution of the Yukon-Tanana terrane: evidence from southeastern Yukon Territory. *Geology*, v. 13, p. 806-810.

MURPHY, D.C. and PIERCEY, S.J., 1999a. Geological map of parts of Finlayson Lake (105G/7, 8 and parts of 1, 2, and 9) and Frances Lake (parts of 105H/5 and 12) map areas, southeastern Yukon (1:100 000-scale). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1999-4.

MURPHY, D.C., AND PIERCEY, S.J., 1999b. Finlayson project: Geological evolution of Yukon-Tanana Terrane and its relationship to Campbell Range belt, northern Wolverine Lake map area, southeastern Yukon. In: Yukon Exploration and Geology 1998, C.F. Roots and D.S. Emond (eds.), Exploration and Geological Services Division, Indian and Northern Affairs Canada, p.47-62.

MURPHY, D.C. AND PIERCEY, S.J., 2000. Syn-mineralization faults and their re-activation, Finlayson Lake massive sulphide district, Yukon-Tanana Terrane, southeastern Yukon. In: Yukon Exploration and Geology 1999, D.S. Emond and L.H. Weston (eds.), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 55-66.

MURPHY, D.C. ET AL., 2001. Preliminary bedrock geological map of northern Finlayson Lake area (NTS 105 G), Yukon Territory (1:100 000 scale). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Open File 2001-33.

MURPHY, D.C. ET AL., 2002. Finlayson Lake Targeted Geoscience initiative (southeastern Yukon), Part 1: Bedrock geology. In: Yukon Exploration and Geology 2001, D.S. Emond, L.H. Weston and L.L. Lewis (eds.), Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, p. 189-207.

PACIFIC BAY MINERALS LTD, Jul/98. Assessment Report #093846 by G.L Wesa and M.P. Phillips.

### Work History

Date	Work Type	Comment
12/31/1997	Geology	
12/31/1997	Geochemistry	
12/31/1996	Geology	
12/31/1996	Geochemistry	
12/31/1995	Ground Geophysics	Also HLEM, and magnetic surveys.
12/31/1994	Geology	
12/31/1994	Geochemistry	
12/13/1994	Ground Geophysics	Also HLEM and magnetic surveys.
12/13/1994	Airborne Geophysics	Also magnetic survey.

### Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
<a href="#">093846</a>	1997	Geological and Geochemical Report on the Dot Property Dot 3-34, 37-68 Claims	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
<a href="#">093678</a>	1996	1996 Assessment Report Dot Property Soil Geochemistry	Soil - Geochemistry		
<a href="#">093345</a>	1994	1994 Assessment Report Fret and Dot Properties Soil Geochemistry, Geological Mapping, Linecutting and Ground Geophysics (HLEM, Mag and Gravity)	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Gravity Survey - Ground Geophysics, Magnetism - Ground Geophysics, Line Cutting - Other		

### Related References

Number	Title	Page(s)	Reference Type	Document Type
<a href="#">ARMC016585</a>	Geochemical map - 105G/13 - Weasel Lake		Property File Collection	Geochemical Map
<a href="#">ARMC016595</a>	Geochemical results map - 105G/13 - Weasel Lake		Property File Collection	Geochemical Map
<a href="#">ARMC017617</a>	Geochemical map of Weasel Lake - Cu, Pb, Zn, Mn		Property File Collection	Geochemical Map
<a href="#">ARMC016593</a>	Geochemical sample stations map - 105G/13 - Weasel Lake		Property File Collection	Geochemical Map
<a href="#">ARMC016594</a>	Geology map - 105G/13 - Weasel Lake		Property File Collection	Geoscience Map (Geological - Bedrock)
<a href="#">ARMC018656</a>	Field map of 105G/13 and 105G/14 with notations		Property File Collection	Geoscience Map (General)