



Occurrence Details

Occurrence Number: 095D 027

Occurrence Name: Mel East

Occurrence Type: Hard-rock

Status: Showing

Date printed: 8/5/2025 9:05:12 AM

General Information

Secondary Commodities: barite, silver, zinc

Aliases: Joni

Deposit Type(s): Sediment hosted Mississippi Valley-Type Pb-Zn (MVT)

Location(s): 60°23'40.31" N - -127°18'22.79" W

NTS Mapsheet(s): 95D06

Location Comments: .Approximate center of mineralized zone.

Hand Samples Available: No

Last Reviewed: May 15, 2018

Capsule

WORK HISTORY

In 1981 Sulpetro Minerals Ltd and Sovereign Metals Corp carried out a regional silt sampling program in the area. In Aug/81 following receipt of the results, the companies staked Joni cl 1-8 (YA66846).

In 1982 the companies carried out rock sampling, reconnaissance geological mapping, prospecting, and collected grid soil samples over the newly discovered Mel East mineralized zone (part of the larger Mel property). In 1983 soil sampling, prospecting and reconnaissance geological mapping was extended southwards from the Mel East zone. In 1985 an airstrip was built south of the Mel Main zone (Minfile Occurrence #095D 055) approximately 7 km to the southwest. In addition an access road was built linking the Mel Main and the Mel East and other mineralized zones located on the property.

In 1985, Sulpetro transferred its interest to Novamin Resources Inc and in 1986 Sovereign changed its name to Barytex Resources Corp. Novamin was acquired by Breakwater Resources Ltd in 1988 leading to joint ownership of the Mel property by Breakwater and Barytex.

In Aug/92 Barytex optioned an 85% interest in the Mel project from Breakwater Resources in return for cash and staged exploration expenses. In Mar/93 Barytex reorganized and emerged as International Barytex Resources Ltd.

In Sep/96 Cominco Ltd optioned the Mel property in return for cash and staged exploration expenditures. In 1997 the company carried out contour soil sampling over the southern extension of the Mel East zone. The company also carried out ground IP and resistivity geophysical surveys over the zone. In Sep/97 the company terminated its option on the property.

On July 14, 2000 International Barytex reported that it had entered into an agreement with Breakwater Resources whereby International Barytex acquired a one hundred (100%) percent undivided interest in the Mel property in return for 600 000 shares of International Barytex and payment to Breakwater of a one (1%) percent Net Smelter Return (NSR) royalty interest from the property.

On September 30, 2009, International Barytex Resources changed its name to Kobex Minerals Inc. On June 15, 2011 Breakwater Resources was purchased by Nyrstar, an international integrated mining company. Breakwater's 1% (NSR) royalty interest in the Mel property was retained by the company.

In 2012 Kobex Minerals digitized all available drill hole data and used the data obtained, to create a wire-frame model which could be used to produce a resource estimate for the property. None of the holes tested the Mel East zone.

On June 19, 2014 Kobex Minerals sold 100 % interest in the Mel property to Silver Range Resources Ltd. Breakwater Resources retained its 1 % (NSR) royalty interest. In Sep/2014, Breakwater Resources sold its 1 % (NSR) royalty interest in the Mel property to Whirlwind Capital Ltd.

On November 12, 2014 Silver Range released 43-101 Compliant Technical Report on the Mel property which included an updated independent resource estimate for the Mel Main zone and the results of an independent barite marketing study relating to the entire property. On November 14, 2014 the company staked Mel cl 1-318 (YE60001) on the south end of the property to cover access routes to the Alaska Highway. A single claim MELBC (1032196) was staked on the British Columbia side of the route.

In 2015 Silver Range completed LIDAR, aerial photography, and a heritage resource overview assessment.

On February 1, 2017 Yukon Government passed an Order in Council (O.I.C. 2017/26) prohibiting entry on certain lands (the Kaska asserted territory outside of the Ross River Area) for the purpose of staking Quartz or Placer Mining claims. The Order was made to facilitate continuing consultation with the Liard First Nation and Kaska Dena Council and covers the entire Mel property and surrounding area. The Order in Council provides registered active claims holders in the affected area relief from annual assessment work obligations. The Order in Council was renewed on April 18, 2018 (OIC 2018-71) and has been extended to April 20, 2020 (it may be renewed in the future).

On March 15, 2017 Silver Range sold the Mel property to Benz Mining Corp. in return for a staged series of cash and shares. As part of the sale Benz Mining released an updated technical report on the property.

Benz Mining's 2017 exploration program focused on the Mel deposit where they collared 9 diamond drill holes (2 114 m). In 2018 the company hopes to explore the Mel East and other mineralized zones located on the property.

GEOLOGY

The Mel property consists of the Mel Main deposit (Minfile Occurrence 095D 005) located approximately 7 km to the southwest, the Mel East (this occurrence) and the Jeri and Jeri North (Minfile Occurrences #095D 032 and 035) mineralized zones. Access to the property is located off the Alaska Highway approximately 77 km east of the Town of Watson Lake in southeast Yukon. A seasonal bush/winter road runs northerly for approximately 47 km through gentle terrain to the property. A 640 m long air strip is located on the property provides additional access to the property.

L. Pigage of the Yukon Geological Survey remapped topographic map sheet 095D 06 at 1:50 000 scale during the summers of 2006 and 07 and published his map in the fall of 2007. In 2011 Pigage published a 1:250 000 scale map of topographic map sheet 095D which included updated stratigraphy. In 2015 Pigage released a geological bulletin (#17) which covered the geology and economic potential of topographic map sheet 095D. In 2016 M. Colpron of the Yukon Geological Survey released an updated geological compilation map of the Yukon which included Pigage’s updated stratigraphic units.

Based on Pigage’s bulletin and Benz Mining’s technical report all 4 occurrences are classified as stratabound zinc +/- lead +/- barite mineralized zones. The Mel, Mel East (this occurrence) and Jeri North occurrences are hosted in massive fine-grained limestone of the Cambrian - Ordovician Otter Creek Formation at the contact with the overlying argillaceous limestone of the Cambrian -Ordovician Rabbittkettle Formation. Benz Mining reports that the Jeri zone is hosted mainly within hydrothermally altered rocks that are thought to be equivalent to the Otter Creek fine-grained limestone.

The Mel East zone is the least explored mineralized zone located within the larger Mel property. No diamond drilling nor trenching has been carried out on this mineralized zone. Prospecting conducted in 1981 exposed three small mineralized outcrops over a strike length of 125 m. Assay samples from the outcrops returned an average of 9.6 % zinc, less than 0.1 % lead and 1.03 g/t silver.

Zinc mineralization consists of smithsonite located in in a silicified and dolomitized section of Otter Creek Formation limestone, close to the contact with overlying Rabbittkettle Formation calcareous phyllite and silty limestone, on a fault-offset (?) segment of the eastern fold limb. The smithsonite consists of disseminated blebs ranging from less than 1 mm to 20 mm in size that are associated with dolomitization and silicification of the massive limestone over a width of 10 m. Subsequent soil sampling revealed a 1 400 m long zinc in soil anomaly which coincides with the projected surface trace of the mineralized contact.

In 2017 Benz Mining did not carry out any work on the Mel East mineralized zone but the company hopes to explore it in 2018.

Work History

Date	Work Type	Comment
12/31/1981	Geochemistry	Regional silt sampling program carried out before staking.
12/13/2017	Studies	Updated resources estimate and technical report.
12/13/2015	Remote Sensing	Over entire property.
12/13/2015	Studies	Over entire property.
12/13/2014	Studies	Also completed technical report and updated barite marketing study.
12/13/2012	Pre-existing Data	Compiled and digitized all data for property.
12/13/1997	Geochemistry	Contour sampling south of mineralized zone.
12/13/1997	Ground Geophysics	Also resistivity survey.
12/13/1985	Development, Surface	Built south of Mel deposit (about 7 km to south).
12/13/1985	Development, Surface	Connecting various mineralized zones on property.
12/13/1983	Geochemistry	Grid sampling extended southwards.
12/13/1983	Geology	South of mineralized zone.
12/13/1983	Other	South of mineralized zone.
12/13/1982	Geochemistry	Sampled 3 outcrops.
12/13/1982	Geochemistry	Grid based.
12/13/1982	Geology	
12/13/1982	Other	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096813	2014	Aerial Photography , Lidar Topographic Surveys, Heritage Study , Barite Marketing Study, Resource Estimation and Scoping Study at the Mel Property	Orthophoto - Airphotography , LIDAR - Remote Sensing, Heritage/Archeological - Studies, Pre-feasibility - Studies, Resource Estimate - Studies		
093741	1997	1997 Assessment Report on the MEL Property Linecutting, Geophysics, and Soil Geochemistry	Soil - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology , IP - Ground Geophysics, IP - Ground Geophysics, Line Cutting - Other		
091551	1984	Geological and Geochemical Report Joni, Keli, Edy, Hose, Jeri, Sin, Ott, Toni, Yang, Ralfo, Mumbo, Chungo and Boz Claims	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology		
091471	1983	Geological and Geochemical Report Joni, Keli, Edy, Hose, Jeri, Win, Ott, Tomi, Ralfo, Mumbo, Chungo and Boz Claims	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology		
091077	1982	Geological and Geochemical Report Joni, Keli, Edy, Hose, Jeri, Sin, Ott, Tomi, Yang, Ralfo, Mungo, Chungo and Boz Claims	Soil - Geochemistry, Detailed Bedrock Mapping - Geology		

Related References

Number	Title	Page(s)	Reference Type	Document Type
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2011-1	Bedrock geology of Coal River map area (NTS 95D), Yukon		Yukon Geological Survey	Open File (Geological - Bedrock)
YEG1982	Yukon Exploration and Geology 1982	p. 83-84.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1983	Yukon Exploration and Geology 1983	p. 123.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1984	Yukon Exploration 1984	p. 32.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1985 86	Yukon Exploration 1985-86	p. 93-94.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2006 OV	Yukon Mining, Development and Exploration Overview 2006	p. 24	Yukon Geological Survey	Annual Report
YEG2017 OV4	Yukon Hard Rock Mining, Development and Exploration Overview 2017	p. 54-55, 59, 62.	Yukon Geological Survey	Annual Report Paper
2007-4	Preliminary Geology Map of NTS 95D/6 (1:50 000 scale)		Yukon Geological Survey	Open File (Geological - Bedrock)
17	Regional bedrock geology for Coal River map area (NTS 95D), southeast Yukon		Yukon Geological Survey	Bulletin