



Occurrence Details

Occurrence Number: 095D 032

Occurrence Name: Jeri

Occurrence Type: Hard-rock

Status: Prospect

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General Information

Secondary Commodities: barite, lead, zinc

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

Location(s): 60°22'48" N - -127°20'24" W

NTS Mapsheet(s): 95D05

Location Comments: Approximate center of deposit.

Hand Samples Available: No

Last Reviewed: May 9, 2018

Capsule

WORK HISTORY

Staked as Jeri cl 1-8 (YA66931), Mumbo cl 1-8 (YA66977), Boz cl 1-4 (YA66985), Keli cl 1-4 (YA66842) and cl 5-8 (YA66921) and 68 other claims in Aug/81 by Sulpetro Minerals Ltd and Sovereign Metals Corp. The companies performed reconnaissance geological mapping and silt, rock and grid soil sampling from 1981-84. Sulpetro added Dave cl 1-8 (YA72501) and Andy cl 1-8 (YA72509) along the northwest boundary of the claim group.

In 1985, Sulpetro transferred its interest to Novamin Resources Inc, which tested the Jeri mineralized zone with 10 holes diamond drill holes (1 010 m), in a joint venture with BP Canada Inc. The companies also constructed an airstrip south of the Mel deposit (Minfile Occurrence 095D 005) to improve access to the larger property.

In Apr/86, Sovereign changed its name to Barytex Resources Corp. Novamin was acquired by Breakwater Resources Ltd in 1988.

In Oct/89 Barytex carried out a small grid based soil sampling program on the Jeri claims. In Mar/83 Barytex reorganized and emerged as International Barytex Resources Ltd.

In Aug & Sep/93 International Barytex sampled and geologically mapped 11 newly dug trenches located over the Jeri zone and soil sampled the Jeri North zone. The company also staked Sam cl 1-86 (YB46141) north of the Jeri zone. In 1994 International Barytex carried grid soil sampling and ground magnetic, very-low-frequency (VLF) and IP geophysical surveys over the Jeri zone.

In Sept/96 International Barytex announced that they had signed a letter of intent whereby Cominco Ltd would have an option to earn a 60% interest in the Mel property (including all 4 mineralized zones) which comprised a total of 257 contiguous claims. Cominco carried out ground IP and resistivity geophysical and soil sampling surveys on southern end of the Jeri zone before dropping the option in Sept/97.

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 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% Net Smelter Return royalty interest in the Mel property was retained by the company.

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

On November 12, 2014 Silver Range released a 43-101 Compliant Technical Report on the Mel property which included an updated independent resource estimate for the Mel Main zone, descriptions of the Jeri and other mineralized zones 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 over the entire Mel property.

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 share payments. 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 Jeri and other mineralized zones located on the property.

GEOLOGY

The Mel property consists of the Mel Main deposit (Minfile Occurrence 095D 005) located approximately 4 km to the southwest, the Jeri (this occurrence), the Jeri North and Mel East (Minfile Occurrences 095D 035, 027) 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/6 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, Jeri North and Mel East 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 (this occurrence) is hosted mainly within hydrothermally altered rocks that are thought to be equivalent to the Otter Creek fine-grained limestone.

Mineralization at the Jeri zone is different from that observed at the other three occurrences found on the property. Mineralization is in part discordant to bedding and is hosted in hydrothermal dolomite and silicified dolomite considered to be the equivalent of the fine-grained limestone which underlines the Mel Main zone. This type of strong footwall alteration is exposed along the eastern limit of the main syncline for a strike length of about 8 kms.

At the Jeri zone, the footwall limestone is locally silicified, dolomitized, and brecciated at and immediately beneath, the contact with the overlying phyllite/mudstone. The altered and brecciated limestone commonly contains zinc minerals smithsonite and sphalerite. Geochemically elevated lead values have been reported but no economically significant lead mineralization has been identified. Barite is present as a gang mineral in quartz veins but does not appear to be sufficiently abundant to be economically important. The presence of the zinc carbonate mineral, smithsonite, suggests that some zinc mineralization may be secondary.

Geological mapping and soil sampling conducted between the Mel Main and Mel East zones in the early 1980's, located a zinc showing at the Jeri zone, located approximately 4 km north of the Mel Main zone. In 1985 Sulpetro collared 10 diamond drill holes (1 009 m) to test the zone. Nine of the holes drilled over a strike length of 550 m intersected zinc mineralization. Significant intersections of smithsonite and sphalerite from the drilling include 3.37 m of 13.11 % zinc in hole J-85-1, 4.5 m of 7.96 % zinc in hole J-85-2 and 2 m of 14.6 % zinc in hole J-85-4.

In 1993 International Barytex dug 11 trenches across the Jeri zone along a 2.5 km segment of the favorable horizon. Significant zinc values were obtained from several areas including trench 3 which returned an assay of 5.3 % zinc over 7 m length, trench 4 which returned 10.5 % zinc over a width of 5 m and trench 5 which returned 16.5 % zinc over a width of 5 m. The mineralization consisted of disseminated smithsonite and minor sphalerite hosted in silicified and dolomitized limestone. Work conducted to date on the Jeri zone is not sufficient to allow the calculation of a resource estimate.

In 2018, Benz Mining plans to carry out renewed exploration work on the Jeri zone.

Work History

Date	Work Type	Comment
12/31/1997	Ground Geophysics	Also resistivity survey south of Jeri zone.
12/31/1994	Geology	
12/31/1994	Geochemistry	
12/31/1994	Ground Geophysics	Also VLF and IP surveys.
12/31/1985	Drilling	Ten holes, 1,010 m.
12/31/1981	Geochemistry	Also soil and silt sampling.
12/31/1981	Geology	
12/13/2017	Studies	Updated Resource Estimate (no change from 2014) and updated technical report.
12/13/2015	Remote Sensing	Carried out over entire property.
12/13/2015	Studies	Carried out over entire property.
12/13/2014	Studies	Prepared technical report which covered entire property.
12/13/1997	Geochemistry	South of Jeri zone.
12/13/1993	Geochemistry	Samples collected from trenches.
12/13/1993	Trenching	Eleven trenches dug over Jeri zone.
12/13/1989	Geochemistry	Small grid based sampling program.
12/13/1985	Development, Surface	Air strip built to service entire property.

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		
095857	2012	Report on Preparation of Drill-Hole Data Base for the Mel Lead-Zinc-Barite Deposit and Jeri North Deposit	Digitizing Data - Pre-existing Data, 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		
093159	1993	Trenching Jeri Zone, Mel Property	Backhoe - Trenching		

091680	1985	Diamond Drilling Report Jeri and Sin Claims Mel Property	Air Strip - Development, Surface, Diamond - Drilling	10	1009.80
091679	1985	Report on Airstrip and Road Construction Mel Property, Yukon	Air Strip - Development, Surface, All Weather Road - Development, Surface		
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		
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
YEG2007_18	Preliminary bedrock geology for NTS 95D/6 (Otter Creek area), southeast Yukon.	p. 237-255.	Yukon Geological Survey	Annual Report Paper
2011-1	Bedrock geology of Coal River map area (NTS 95D), Yukon		Yukon Geological Survey	Open File (Geological - Bedrock)
YEG1985_86	Yukon Exploration 1985-86	p. 97-98.	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
YEG1995	Yukon Exploration and Geology 1995	p. 13.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2017_OV4	Yukon Hard Rock Mining, Development and Exploration Overview 2017	p. 54-55, 59, 62.	Yukon Geological Survey	Annual Report Paper
17	Regional bedrock geology for Coal River map area (NTS 95D), southeast Yukon		Yukon Geological Survey	Bulletin