



Occurrence Details

Occurrence Number: 106C 074

Occurrence Name: Sian

Occurrence Type: Hard-rock

Status: Prospect

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General Information

Secondary Commodities: arsenic, lead, mercury, silver, thallium, zinc

Aliases: Target N4, N3, Anubis Cluster

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

Location(s): 64°6'37.21" N - -132°46'36.16" W

NTS Mapsheet(s): 106C02

Location Comments: Coordinates supplied by ATAC 2019

Hand Samples Available: No

Last Reviewed: Feb 8, 2016

Capsule

WORK HISTORY

Staked within Sian cl 1-104 (YA6771) in Sep/76 by McIntyre Mines Ltd, which carried out a preliminary evaluation. In 1977 the company explored with geological mapping, rock sampling and a grid based soil sampling program. The company also carried out reconnaissance scale electromagnetic, magnetic and Self Potential geophysical surveys.

In Nov/76 the Ortell Syndicate (Precambrian Shield Resources Ltd, Giant Yellowknife Mines Ltd, Nemco Exploration Ltd, and Highland Resources Ltd) staked Glaw cl 1-74 (YA14569) on the south boundary of the Sian claim block. The company carried out geological mapping and geochemical sampling in 1977.

In 1979, McIntyre entered a joint venture with Canadian Superior Exploration Ltd, which explored with detailed geological mapping and hand trenching in 1979 and collared 1 diamond drill hole (240 m) in 1980. In 1982 the Sian claims were transferred to Serem Ltd.

Restaked within a large block of T claims (748 =YD22878) in Mar/2010 by ATAC Resources Ltd. In Jul/2010 the company staked a large block of ST claims (516 = YD27417) to cover the western portions of the occurrence area.

In 2012 ATAC Resources carried out regional wide rock, silt and soil sampling program. Areas previously found to host mineralization were sampled in detail while unknown areas were sampled at reconnaissance scale. In 2013 the company prospected geochemical anomalies and other targets identified the previous year.

GEOLOGY

The occurrence area is located in east-central Yukon within an area geologists have referred to as the Rackla belt. The Rackla belt straddles the northern edge of the Selwyn basin, where Neoproterozoic to Paleozoic rocks of the basin are juxtaposed against Paleozoic and older slope and basin rocks of the Ogilvie platform along the Dawson thrust zone. Selwyn basin rocks in the occurrence area are dominated by slope and facies carbonate, clastic rocks and siltstone with significant deep water black shale and chert, whereas the Ogilvie platform is dominated by shallow water platformal carbonate.

Geological mapping carried out by Colpron et al. shows that the occurrence area lies within an uplifted wedge of rocks located in the hanging wall of the Dawson Thrust. The occurrence is located within carbonate rocks assigned to Neoproterozoic (Edicaran) Hyland Group Algae Formation. The carbonate rocks are overlain by slightly younger siliciclastic rocks assigned to Neoproterozoic (Edicaran) to Lower Cambrian Hyland Group Narchilla Formation. A normal fault separates the wedge of rock from similar aged rocks to the south and a thrust fault, thrusts the wedge over top younger rocks to the north.

The Sian and the Glaw claims were staked as part of a staking rush which followed the discovery of massive lead, zinc and silver mineralization at the Craig deposit (Minfile Occurrence #106C 073) located approximately 28 km to the northwest. Reconnaissance geological mapping determined that the Sian and Glaw claim blocks host the same geological units which host the mineralization observed at the Craig deposit. The Sian claims were staked following a regional exploration program carried out in the summer of 1976.

Geological mapping and grid soil sampling carried out in 1977 on the Sian claims outlined 6 showings and 3 zones located across the middle of the claim block. The 6 showings appear to represent mineralization found in overburden/rubble while the 3 zones appear to represent bedrock sources of mineralization. All 6 showings and 3 zones are located within or near altered limestone beds. The best results were obtained from the Sidehill showing which consisted of a 150 m by 300 m zone of frost-heaved boulders of dolostone containing minor quartz and barite veins hosting up to 2 % sphalerite. Grab rock samples returned up to 0.28% lead, 2.92% zinc and trace silver. The company did run some samples for gold but assays only returned trace amounts for gold.

Limited electromagnetic, magnetic and Self Potential geophysical surveys were carried out over the Clinker zone which McIntyre Mines reports consists of a 12 m by 12 m heavily leached kill zone. The zone is underlain by a greywacke unit and not the typical altered limestone seen elsewhere on the claim block. Grab samples returned values of up to 3 % combined lead-zinc and trace silver. The various geophysical methods did not return any significant anomalies.

Canadian Superior Exploration's 1979 exploration program saw the company carry out detailed geological mapping and trenching on all the mineralized areas in an effort to pin down areas of economic mineralization. Work concentrated on outlining the altered limestone/dolostone unit thought to host the lead, zinc and silver mineralization. Trenching carried out at the E showing outlined weak but continuous mineralization in the form of small veinlets and disseminated mineralization across the nose of a fold. Rock sampling returned roughly the same grades as obtained during the 1977 program

The 1980 diamond drill hole was collared to test Showing E and the widest portion of the fold. It intersected 3.6 m of overburden followed by 236 m of altered limestone/dolostone. Negligible mineralization was found.

ATAC Resources carried out a large geochemical sampling program in 2012. Areas hosting known mineralization were sampled in more detail while unknown areas were generally sampled at a lower density. The sampling program outlined 9 high priority "N" series geochemical targets in the "Anubis Cluster" area. The targets strongly coincide with well-defined regional structural trends, indicative of district-scale systems. Two of the targets "N4" and "N3" are located within the area previously covered by the Sian claims.

The "N4" target represents a 600 m by 700 m soil anomaly enriched in arsenic, mercury and thallium. It appears to cover McIntyre Mines' showing "E", its downhill dispersion and the collar of Canadian Superior Exploration's 1980 diamond drill hole. Target "N3" represents a 2 400 m by 1 700 m intermittent soil anomaly enriched with arsenic, mercury, antimony and thallium. It covers McIntyre Mines' showing "D"; a 50 m long, 2 m high ridge of silicified dolostone which returned grab samples that assayed up to 0.6% lead and 0.43 % zinc.

Work History

Date	Work Type	Comment
12/13/2013	Other	Follow-up prospecting of all geochemical anomalies.
12/13/2012	Geochemistry	Sampled all known showing and newly discovered mineralization.
12/13/2012	Geochemistry	Grid, contour and spur and reconnaissance scale sampling.
12/13/2012	Geochemistry	Detailed silt sampling.
12/13/1980	Drilling	One hole collared (240 m). Tested E showing and widest part of fold.
12/13/1979	Trenching	Trenched and sampled all known areas of mineralization.
12/13/1979	Geology	Mapped all mineralized areas in detail.
12/13/1977	Geochemistry	Grid sampled claim block, rock sampled showings.
12/13/1977	Ground Geophysics	Also carried out magnetic and Self potential surveys. Reconnaissance scale (two lines of each method).
12/13/1977	Geology	Covered entire claim block.
12/13/1976	Other	Company prospected area and collected geochemical samples before staking property.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096607	2012	Assessment Report Describing Metallurgical Testing, Wildlife Monitoring, Heritage Evaluation, and Water Quality and Climate Monitoring Surveys	Water - Geochemistry, Metallurgical Tests - Lab Work/Physical Studies, Environmental Assessment/Impact - Studies, Heritage/Archeological - Studies		
096597	2012	Assessment Report Describing Geochemical Sampling, Auger Sampling, Geological Mapping, Diamond Drilling, and Geophysical Surveys	Air Strip - Development, Surface, Auger - Drilling, Diamond - Drilling, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Gravity Survey - Ground Geophysics, Magnetics - Ground Geophysics, Prospecting - Other, Hand - Trenching	172	37340.37
095938	2011	Assessment Report Describing Geochemical Sampling, Geological Mapping and Remote Sensing Surveys at the Rackla Gold Property	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, LIDAR - Remote Sensing, Heritage/Archeological - Studies		
090697	1980	1980 Diamond Drilling Report on the Sian Claim Group	Diamond - Drilling	1	240
090672	1980	1980 Diamond Drilling Report on the Craig Claim Group	Diamond - Drilling	9	1635
090613	1979	Geological Report on the Sian Claim Group	Rock - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other, Hand - Trenching		
090309	1977	Geological, Geochemical and Geophysical Report, Sian Claim Group	Soil - Geochemistry, Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Self-Potential - Ground Geophysics		

Related References

Number	Title	Page(s)	Reference Type	Document Type
MIR1977	Mineral Industry Report 1977	36.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Geology	Annual Report
2013-13	Geological map of the Rackla belt, east-central Yukon (NTS 106C/1-4, 106D/1)		Yukon Geological Survey	Open File (Geological - Bedrock)
2003-9(D)	Yukon Digital Geology (version 2)		Yukon Geological Survey	Open File (Geological - Bedrock)
YEG2012_OV	Yukon Exploration and Geology Overview 2012	33-34, 62, 65.	Yukon Geological Survey	Annual Report
YEG2013_11	Bedrock Geology of NTS 106B/04, Eastern Rackla Belt		Yukon Geological Survey	Annual Report Paper
2014-1	Geological map of NTS 106B/04, east-central Yukon		Yukon Geological Survey	Open File (Geological - Bedrock)
YEG1979_80	Yukon Geology and Exploration 1979-80	224.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report