Occurrence Details

Occurrence Number: 105G 070
Occurrence Name: Reno
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 6/15/2025 11:42:28 AM

General Information

Secondary Commodities: copper, lead, silver, zinc
Aliases: Electric Mine
Deposit Type(s): Sediment hosted Sedimentary Exhalative Zn-Pb-Ag (Sedex)
Location(s): 61°46'49" N - -131°9'4" W
NTS Mapsheet(s): 105G14
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

*Previous versions of Yukon Minfile reported the occurrence location to the northeast.

Early assessment reports report that Fred Eagle staked the Electric Mine cl (10707) in May/08 in the vicinity of this occurrence, however the exact location is not known.
The occurrence was staked within Shale cl 1-82 (YA12317) between Jan/77 and May/78 by A. Carlos, G. Harris & H. Johannes who formed the Pelly Banks Syndicate. The syndicate also staked Reno cl 1-66 (YA26449) to the south and east, at the same time and in 1977 carried out a preliminary prospecting and sampling program on both claim groups. In 1978 the syndicate carried out a more extensive exploration program consisting of geological mapping, airborne and ground magnetic and EM geophysical surveys, geochemical sampling, trenching, a gravity geophysical survey, followed by 4 diamond drill holes (445 m).
In Oct/79 Hudson Bay Exploration and Development Company Ltd optioned the Shale, Reno and adjoining Fred and Eagle claims (Minfile Occurrence #105G 100) from the syndicate. In May/80 Hudson Bay staked Big cl 1-40 (YA54718) to the northeast and southeast. During 1980 the company carried out soil sampling and Max-Min EM, gravity and magnetic geophysical surveys over selected portions of their claim holdings. Overburden testing using portable augering equipment was attempted but the equipment was unable to penetrate the perma frost.
In 1981 Hudson Bay carried out bulldozer trenching and drilled 7 diamond drill holes (683 m) near the Pelly River. The following year, the company drilled 4 follow-up diamond drill holes (455 m) and in 1983 drilled 5 auger holes (18 m). All of the holes tested EM anomalies.
The occurrence was restaked as Reno cl 1-56 (YB35389) in Jun/93 by B. Harris who subsequently optioned the property to Otis J. Exploration Corp, which carried out soil sampling later in the summer. In Jun/95 the company staked Reno cl A-K (YB60017) to the east.
Expatriate Resources Ltd staked Check cl 1-22 (YB70534) to the north in Oct/95. The company carried out geological mapping, prospecting and reconnaissance soil sampling in 1996.
In Apr/96, L. Barry staked various groups of Lip, Stand and On claims (claims staked non-sequentially) around Expatriate's Check claims and a block of surviving Reno claims. In Jul/96 Barry optioned the claims to Condor International Resources Inc, which joined them with neighbouring claims to form the Lip property. In 1996 Condor International carried out airborne geophysics, prospecting, preliminary geological mapping and silt and soil sampling. In Oct/96 the company staked Mnt cl 1-17 (YB87579 to the south.
In Dec/96 Expatriate optioned Condor International's Lip property and in the summer of 1997 carried out extensive soil sampling, followed by limited prospecting and geological mapping. Restaked as Dawn cl 1-40 (YB89190) in May/97 by Condor who also staked Hip cl 1-8 (YB89208) (fractional) between the Lip and Check claim blocks. The Dawn and Hip claims were included in the option agreement with Expatriate. In Nov/97 Expatriate dropped its option on the Lip property. In May/99 Condor International re-organized and changed its name to Northern Empire Minerals.

Capsule Geology

Geological mapping (Murphy et al., 2001) shows the region is dominantly underlain by a layered sequence of Devonian to Early Mississippian metavolcanic and metasedimentary rocks of the Yukon-Tanana Terrane (YTT) that have been intruded by Mississippian granitic intrusions and later Jurassic, Cretaceous and Eocene intrusions. 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 including the Fyre Lake deposit (Minfile Occurrence #105G 034) in the Devonian to lower Mississippian(?) Fire Lake mafic metavolcanic unit, the Kudz Ze Kayah deposit (Minfile Occurrence #105G 117) in the Mississippian Kudz Ze Kayah felsic metavolcanic unit, and the Wolverine deposit (Minfile Occurrence #105G 072) within the Lower Mississippian Wolverine Succession.
The occurrence lies within undifferentiated layered rocks of the hanging wall of the Money Creek Thrust (Murphy et al., 2001). This sequence consists of variably composed cherts, some possibly exhalative in origin, mixed with minor clastic sedimentary rocks and narrow basaltic horizons. Variably carbonaceous, banded quartz-muscovite-(biotite) phyllite, weakly carbonaceous quartz-biotite phyllite, quartzite and quartz-muscovite schist, and a rusty, dark grey, carbonaceous quartz-muscovite-biotite schist below the chert unit correlates with the Upper Devonian to Lower Mississippian(?) Kudz Ze Kayah felsic metavolcanic unit. The Kudz Ze Kayah unit lies above graphitic schist and interbedded siltstone and mudstone.
North of the occurrence, massive basalt of the Early Permian Campbell Range succession sporadically outcrops along northwest- trending ridges. The contact between the meta-basalts and underlying rocks is covered by deep overburden and has been traced largely from airborne geophysics.
Prior to 1996 the majority of exploration in the Finlayson Lake district was focussed on identifying and exploring Devonian to Mississippian layered metamorphic rocks. In 1996, Expatriate Resources Ltd announced the discovery of the Ice VMS deposit (Minfile Occurrence #105G 118) 12 km to the northwest. The Ice deposit is hosted in pillowed basalts, basalt breccias and ferruginous sediments of the Campbell Range succession. Exploration companies immediately included Campbell Range succession rocks as potential hosts for VMS deposits.
Historic accounts report that Fred Eagle staked his claim on a galena vein "on the Broad River, a tributary of the Pelly River coming in on the right limit at Campbell River, which is also a tributary of the Pelly. The above claim crosses Devils Canyon". The exact location of this claim is unknown.
The Pelly Banks Syndicate staked the Shale and Reno claims after prospectors discovered a 40 tonne float boulder of quartz, chlorite phyllite containing 30% combined lead-zinc and 102.9 g/t Ag in an area covered by extensive overburden. Detailed soil sampling in 1977 identified an soil anomaly, containing > 200 ppm Zn and measuring roughly 1 square km in size, in the southwest corner of the Shale claims where the mineralized boulder was previously found. A second anomaly located 1 km to the north, returned up to 512 ppm Zn and a single spot anomaly of 251 ppm Pb. The anomalies are underlain by thick glacial deposits suggesting the anomalies' source is up ice to the northeast.
A VLF-EM16 survey was completed over the soil anomalies in Dec/77 and magnetic and Bouguer gravity surveys were conducted in Mar/78. The gravity survey revealed a broad gravity high over the anomalous area. The magnetic survey was 'generally flat' while the VLF survey outlined four conductors, A, B, C, and D. A horizontal loop EM survey was completed to confirm the location and width of conductor 'A'.
Four diamond drill holes (430 m) were drilled in May/78 to test conductor 'A' and a conductor underlying the area where the mineralized boulder was found. Three of the holes drilled along the length of conductor 'A' intersected 10 m or more of carbonaceous phyllite immediately beneath 5 m or more of overburden. The best intersection, from hole SR#4, consisted of very fine-grained sulphides as lenses and blebs in chlorite sericite schist. The sulphides, mostly pyrite with chalcopyrite and trace sphalerite and galena, appear to have undergone the same deformation as the host rock suggesting a syngenetic genesis. No assays were taken because total sulphide content was estimated at less than 2%. The drill core is stored at the H.S. Bostock Core Library in Whitehorse.

Hudson Bay's work in 1980 included extending existing grids, geological mapping and further magnetic, gravity and Apex Max-Min II EM surveys. Permafrost hampered efforts to employ a portable power auger to collect soil samples at depth. Trenching on the location of diamond drill hole SR-1 (drilled in May/78) was abandoned at the 3 m mark after encountering permafrost.
In 1981 Hudson Bay drilled 7 diamond drill holes (683.4 m) near the location of the syndicate's 1978 drill program. The best results were returned from hole PB-6 which intersected quartz-chlorite-sericite phyllite, containing 3-4 mm wide bands of galena and sphalerite which assayed 3.12% Zn and 3.10% Pb over 0.3m. Hole PB-7 drilled to test the mineralization up section intersected a large scale fault truncating the favourable horizon. Hudson Bay concluded that the style of mineralization resembles that which occurs in the Anvil district to the northwest with hydrothermal solutions depositing Pb-Zn mineralization "stratigraphically below and adjacent to a graphitic phyllite horizon within a quartz-sericite altered chlorite phyllite".
In 1982 Hudson Bay drilled 4 diamond drill holes (454.9) to test the eastern strike potential of the mineralization encountered the previous year in hole PB-6. The first hole in the program, PB-8, intersected a major fault at 49 m, before the target horizon was encountered. A second hole, PB-9 tested the horizon at a greater depth (124 m) but did not intersect any mineralization. The remaining two holes tested two EM conductors to the south. Neither hole intersected any significant mineralization.
Otis J. Exploration carried out a soil sampling program to test the potential for mineralization east of the Pelly River. The survey identified several weak zinc (150 ppm to 320 ppm max.) spot anomalies trending northwest with corresponding weak Mo (2 ppm) and very weak Cu (40 ppm to 94 ppm max) anomalies. Lead results were very low. The entire survey was collected overtop glacial and fluvial sediments and is likely not representative of bedrock.
The Check claims were staked to cover a target developed from a reconnaissance geochemical survey conducted by Archer Cathro & Associates (1981) Limited in 1973. Regional mapping (Murphy et al., 2001) shows the claims overlie undifferentiated rocks of the hanging wall of the Money Creek thrust. Outcrop is sparse on the claim block but preliminary mapping identified three main rock types. Chlorite schist containing biotite on foliation planes and epidote throughout. Conformably overlying the schist is a dark grey, variably foliated and calcareous phyllite. A package of felsic volcanic rocks with a minor mafic component underlies the eastern portion of the property. The rocks are described as being massive with limonite and sulphate on fractures. Pyrite and chalcopyrite occurs as disseminations and fracture coatings in several places. Five samples of volcanic rocks were collected for assay and all returned background values for the major sulphide minerals.
A helicopter-supported geophysical survey was conducted over the Check claims in 1996. The survey outlined a 1 km long linear aeromagnetic high that trends east-southeast and is flanked to the north and south by linear lows. Two lines of soil samples were collected across the claim group, west and north of the Reno occurrence. Two samples in the northeastern corner of the property returned weakly to strongly anomalous Cu, Zn and Co values.
Condor International's airborne geophysical survey identified two first-order and two second-order EM conductors on their claim block. Follow-up geological investigation speculated that these conductors are thin mafic sills or thrust wedges. During the 1996 field season the company visited the original Reno occurrence. They reported that mineralization consists of conformable to discordant stringers and lenses of quartz-ankerite-sphalerite+/-galena, in a pale green phyllite with conformable quartz-ankerite+/-fuchsite alteration and veining. South of the occurrence the company reported occasional mineralized cobbles and rare boulders including the "40 ton boulder" reported by the Pelly Banks Syndicate. To the east, along the banks of the Pelly River, the company
noted green phyllites adjacent to the contact with underlying grey phyllite and black carbonaceous-graphitic phyllite. Three high-grade grab samples collected from the Reno area assayed in excess of 6% Zn.
Expatriate's 1997 soil sampling program outlined two areas of interest, Reno Northwest and Reno South. The Reno Northwest anomaly is located approximately 2 km northwest of the Reno occurrence. It extends for 6 km northwest and is defined by Cu, Pb, +/- Zn and Ba with a few scattered Au and Ag values. The Reno South is defined as a discontinuous areas of anomalous Pb, Zn, and minor Ba and Cu, and corresponds with the meander plain of the Pelly River. Follow-up of the anomalous samples found that all of the samples were river silt likely derived from erosion of mineralization up-stream at the Reno occurrence.
Expatriate recommended further work on the occurrence and the Lip property itself, but the company dropped its option at the end of 1997 to concentrate its efforts on the neighbouring Ice deposit and other company-owned prospects located in the region.

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Work History

Date	Work Type	Comment
12/31/1997	Geology	
12/31/1997	Geochemistry	
12/31/1997	Other	
12/31/1996	Geology	
12/31/1996	Geochemistry	Also silt sampling.
12/31/1996	Airborne Geophysics	Also magnetic and VLF-EM surveys. Surveys flown over Expatriate and Condor's properties. Both companies carried out simultaneous projects.
12/31/1996	Other	
12/31/1994	Geochemistry	
12/31/1983	Drilling	Five holes, 18 m. Gas operated hand drilling.
12/31/1982	Drilling	Four holes, 455 m.
12/31/1981	Drilling	Seven holes, 683 m.
12/31/1981	Trenching	
12/31/1980	Geochemistry	
12/31/1980	Ground Geophysics	Max-Min EM , gravity and magnetic surveys.
12/31/1978	Ground Geophysics	
12/31/1978	Drilling	Four holes, 445 m.
12/31/1978	Geology	
12/31/1978	Airborne Geophysics	Also magnetic survey.
12/31/1978	Trenching	
12/31/1977	Geochemistry	
12/31/1977	Other	
12/13/1978	Ground Geophysics	Also magnetic survey.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
093812	1997	Expatriate Resources Ltd. Geological and Geochemical Report on the Lip Property - Finlayson Project	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
093668	1996	Geological and Geochemical Report on the Lip and War Properties, Finlayson Project	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Regional Bedrock Mapping - Geology, Prospecting - Other		
093640	1996	Assessment Report Describing Geological Mapping, Prospecting, Geochemistry and Claim Surveys on the Check Property	Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
090230	1977	Report on 1977 Activities, Shale Claim Group	Rock - Geochemistry, Soil - Geochemistry, Prospecting - Other		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC005928	Claim and geology map - Reno claims		Property File Collection	Geoscience Map (General)
ARMC005951	Claim map showing Kerr ground mag, Kerr, Reno, Fred, Eagle, and Float		Property File Collection	Geoscience Map (General)
ARMC006006	Drill hole log - Shale-Reno		Property File Collection	Drill Logs
ARMC004943	Map - B.L. - 287 [deg] - Dec 34 [deg] 10'		Property File Collection	Geoscience Map (General)
ARMC004944	Correspondence Re: Shale claims		Property File Collection	Miscellaneous Company Documents
ARMC004945	Drill Hole Log - Hole number SR #4 - Shale-Reno claims		Property File Collection	Drill Logs
ARMC004946	Notes on shale group		Property File Collection	Miscellaneous Company Documents
ARMC004953	Map - Reno-Shale claims		Property File Collection	Geoscience Map (General)
ARMC008560	Bouger Gravity profiles - Reno-Shale claims - Pelly River area		Property File Collection	Geophysical Map
ARMC013638	Pelly Banks syndicate (Carlos/Harris) holdings southeast of Ross River -With figures 1, 5, 8, 4		Property File Collection	Report

Drill core at YGS core library

Number	Property	Year Drilled	Core Size	Photos	Data
PB-81-7	Pelly Banks	1987	NQ	8	4
PB-81-1	Pelly Banks	1981	NQ	12	3
PB-81-2	Pelly Banks	1981	NQ	6	4
PB-81-3	Pelly Banks	1981	NQ	6	4
PB-81-4	Pelly Banks	1981	NQ	4	4
PB-81-5	Pelly Banks	1981	NQ	10	4
PB-81-6	Pelly Banks	1981	NQ	8	4
SR-1	Electric	1978	BTW	22	1
SR-2	Electric	1978	BTW	6	1
SR-3	Electric	1978	BTW	2	1
SR-4	Electric	1978	BTW	6	1