Occurrence Details

Occurrence Number: 115K 077
Occurrence Name: Onion
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 12/16/2025 6:51:37 AM

General Information

Secondary Commodities: copper, gold, iridium, nickel, palladium, platinum, rhodium
Aliases: Discovery
Deposit Type(s): Ultramafic Mafic Gabbroid Cu-Ni-PGE
Location(s): 62°0'10" N - -140°37'25" W
NTS Mapsheet(s): 115K02
Location Comments: .5 Kilometres
Hand Samples Available: Yes
Last Reviewed:

Capsule

Work History

Staked as Beth cl 1-8 (63106) in Jul/52 by Prospectors Airways Ltd. The Marg claims (1-73, 66336) were staked to the west in Sep/53 by Canalask Nickel Mines Ltd following an aeromagnetic survey by Ontario Nickel Mines Ltd and Frobisher Ltd, conducted by Lundberg Exploration Ltd.
Restaked as Ellick cl 1-8 (72901) and Glacier cl 1-8 (72909) in Sep/56 by P. Johnson and W. Abraham, who hand trenched and sampled. Restaked as Success cl 1-4 (73253) in Sep/57 by G. Harris and as Onion cl 1-20 (75126) in Jul/60 by Conwest Exploration Ltd. Restaked by T. Eikland as Fox cl 1-8 (90349) and Sparky cl 1-8 (90349) in Jul/64; as Jumbo cl 1-8 (92303) in Jul/64; and as Owl cl 1-8 (92295) in Jul/65.
Cominco Ltd optioned the property in 1966 and performed mapping and sampling. Restaked as Porky cl 1-8 (Y20685) by J. Enoch in Aug/67; as Sparky cl 1-8 (Y26325) in Oct/68 by D. Backstrom and as the Micro cl 54-64 (Y40190) in Nov/69 by C. Gibbons.
Restaked as Onion cl 1-13 (YA96595) in Dec/86 by Kluane Joint Venture (All-North Resources Ltd and Chevron Minerals Ltd) and optioned in May/87 to Rexford Minerals Ltd which explored with mapping and geochemical sampling in the summer of 1987 and staked Onion cl 14-25 (YA97913) in Jun/87. In 1988 Rexford carried out further geochemical sampling and geophysical surveys. The company staked Onion cl 26-40 (YB25787) in May/89.
In early 1993 Expatriate Resources Ltd purchased a 100% interest in the Onion claims and in the Micro, Weng and Cana claims located nine km to the southeast (Minfile Occurrence #115F 045). In Aug/93 the company staked White cl 1-18 and 20 (YB38234) and River cl 1-8 (YB38253), (Minfile Occurrence #115F 047) 5 km to the southeast. Expatriate consolidated all of their claims into the Canalask property.
In Oct/96 Expatriate surrounded the Onion and White claims with numerous non-sequential blocks of WR claims (6-20, etc...(YB96873). Between 1993 and 1998 all exploration work on the property was carried out on claims located on the east side of the White River near Minfile Occurrence #115F 045. In Sep/97 Expatriate flew an airborne geophysical survey over the entire property. In 1998 the company carried out prospecting and silt sampling over the length of Miles Ridge which overlies the Onion and White claims. Detailed soil sampling was also carried out over selected areas of the ridge.
In Oct/99 the property was optioned by Uravan Minerals Inc and in 2001 the company carried out ground magnetometer, HLEM and IP geophysical surveys, geological mapping, hand trenching, sampling and prospecting on the Onion (this occurrence) and White claims (Minfile Occurrences 115F 047) located 5 km to the west. In 2002 Uravan drilled two diamond drill holes (410.5 m) on the White and Onion claims. One hole (229.12 m) was collared on Onion cl 7 (YA96601) to test the Discovery-Onion SW embayment. The company dropped its option at the end of 2002 and returned the property to Expatriate Resources. Expatriate transferred the property to StrataGold Corporation in May/2003.

Capsule Geology

The area is located on the west side of the Alaska Highway, northwest of the White River and east of the headwaters of Onion Creek. The area lies along the northwest margin of the Wrangellia Terrane within a steeply dipping package of Late Paleozoic and Early Mesozoic volcanic and sedimentary rocks. These rocks have been subdivided into two groups, the Skolai Group and the Nikolai Group. The mafic-ultramafic White River Intrusive complex intrudes at or near along the contact between the Station Creek and Hansen Creek formations (Skolai Group). A small Cretaceous age intrusive assigned to the Kluane Range Suite intrudes the Hansen Creek Formation adjacent to the southern margin of the mafic-ultramafic complex. The Shakwak-Denali Fault system bounds the area to the northeast and the Duke River Fault to the southwest.
The Skolai Group is comprised of the Pennsylvanian to Permian Station Creek Formation and the Lower Permian Hansen Creek Formation. The Station Creek Formation, represents the oldest rocks in the area, and forms the lower part of the Skolai Group. The lower 600 m of the formation consists of pale green pyroclastic andesites and interbedded phyllites. The upper 400 m of the formation consists of interbedded black phyllite, siltstone, argillaceous limestone and cherty argillites with minor tuff horizons. Together the formation regionally exceeds 1 000 m in thickness.
The Lower Permian Hansen Creek Formation forms the upper part of the Skolai Group and consists of various sedimentary rocks including black phyllite, chert siltstone, limestone and conglomerate. The basal contact with the Skolai Creek Formation is described as gradational and arbitrarily placed at the uppermost volcanic unit. The Hansen Creek Formation regionally attains a maximum thickness of 800 m.
The Nikolai Group consists of a kilometer or more thick sequence of Middle to Late Triassic basaltic flows and interbedded limestone with local volcanic breccia and conglomerate, chert and argillite that overlies the Skolai Group rocks along an angular unconformity. Flows are thin (2 to 10 m), vesicular to amygdaloidal and are locally hematite stained indicating shallow water to sub aerial deposition.
The volcanic and sedimentary sequence is intruded by the Lower to Middle Triassic White River Intrusive Complex, part of the larger Kluane Mafic-Ultramafic Belt which occurs within the Kluane Ranges of the Yukon. The White River Intrusive Complex consists of a sill-like body of ultramafic and mafic rocks that have an average thickness of 450 m and dip to the southwest. It intrudes at the contact between the Station Creek Formation volcanic breccia and tuff and the overlying Hansen Creek Formation limestone and clastic sedimentary strata. The northern margin of the complex represents the original intrusive basal contact zone, whereas the southern margin delineates the upper intrusive contact. The mafic-ultramafic complex grades abruptly into a marginal quartz- carbonate alteration zone. This enveloping alteration zone occurs at the footwall and hanging wall contacts where it is developed over a width of approximately 50 m. Contacts are poorly exposed with highly variable dips ranging from vertical to shallow.
The intrusions generally exhibit good zonation, characterized by a marginal gabbro that forms the base of the intrusion. These gabbros are generally fine grained, often mineralized and are overlain by melano-gabbro, clinopyroxenite, peridotite and dunite. Mineralization consists of gabbro and pyroxenite hosted magmatic sulphide concentrations occurring as massive to net textured pods or lenses hosting economic quantities of nickel-copper + platinum group elements + gold.
The occurrence lies at the northwest end of the White River Intrusive Complex which is centered over Miles Ridge and marks the location of the Discovery showing. Cominco reported finding semi-massive to massive, slightly foliated, pyrrhotite-pentlandite-chalcopyrite bands up to 10 cm thick in marginal gabbro at or near the base of the ultramafic sill. Similar mineralization was discovered 150 m to the northwest at the Onion Northwest showing. An article in the American Mineralogist reported that the two showings also contain magnetite, heazlwoodite and niccolite. Early assays dating from 1956 reported values of up to 17% nickel, 24 % copper, and approximately 34 g/t silver over thicknesses of 40 to 75 cm. Float samples collected from the occurrence in 1987 returned values of 3.2% nickel, 0.65% copper, 0.48 g/t platinum, 1.1 g/t palladium and 35 ppb gold.
Historical accounts also note the presence of a low grade porphyry-type copper-molybdenum showing in a diorite intrusion, silver-lead and lead-copper-barite veins and tungsten-fluorite

(possibly skarn?) mineralization in the area.
In 1987 Rexford Minerals discovered the Onion Southeast showing 300 m to the southeast. Mineralization consists of strongly sheared and altered mafic-ultramafic rocks containing malachite and minor limonite stains but no apparent sulphides. However, samples of this mineralization returned values of up to 19.2% nickel, 0.02% copper, 100 ppb palladium, 50 ppb platinum and 4 100 ppb Au. The high nickel and low copper content is believed to be due to the presence of niccolite rather than nickel-copper sulphides.
Blast trenching on the Discovery showing in 1988 exposed a 3 m wide zone of gabbro in contact with quartz-carbonate altered wall rocks. This gabbro forms the chilled margin of the peridotite sill and contains up to 2.66% nickel, 1.08% copper, 1 120 ppb platinum, 1 610 ppb palladium, 700 ppb rhodium and 640 ppb iridium, as well as anomalous levels of ruthenium and osmium.
Prospecting in 1988 uncovered the Sax showing 1 800 m southeast of the occurrence. The showing is hosted in marginal gabbro lying at the gabbro quartz-carbonate contact. Unlike the marginal gabbro at the Discovery showing, the Sax showing marginal gabbro is not as strongly oxidized and limonitic and contains minor disseminated, visible, net textured sulphides. A specimen of fine-grained limonitic gabbro float collected in 1987 and containing a trace of disseminated pyrrhotite and chalcopyrite returned values of 0.44% nickel, 0.22% copper, 140 ppb platinum, 440 ppb palladium and 35 ppb gold. Hand trenching completed by Uravan Minerals in 2001 allowed the company to map and collect fresh samples from the showing. Ten chip samples representing a 3.1 m continuous section of marginal gabbro from the showing returned values of between 0.258 - 0.489% nickel and 0.043 ¿ 0.149% copper.
Soil sampling carried out in 1988 lead to the discovery of the Rex zone 1 km to the southeast. The Rex zone consists of a 400 m long area located at the quartz carbonate contact that returned anomalous nickel, copper, platinum, palladium and gold values. Prospecting in 1988 failed to explain the source of the anomaly. Silt sampling carried out in 1998 returned highly anomalous values for copper and nickel. Trenching carried out by Uravan Minerals in 2001 exposed limonitic, oxidized marginal gabbro in contact with the very resistive quartz carbonate unit. The contact is very well defined, sharp albeit very irregular and resembles a saw blade with the quartz carbonate unit (the teeth) jutting into the gabbro. The orientation of the jutting quartz carbonate unit may be indicative of magmatic flow along the gabbro quartz carbonate contact in the southeast direction.
In general the various showings are marked by strong magnetic and coincident HELM geophysical conductors. Induced polarization surveys carried out by Uravan Minerals outlined two conductors centered over the Discovery-Onion showings and the Rex-Sax showings.
The two drill holes collared by Uravan were drilled to test for economic mineralization in two of the larger footwall embayments identified on the property. One hole each tested the Discovery (i.e. area between the Onion NW, Discovery and Onion SE showings) and the Sax-Cessna (i.e. area between Sax showing and the neighboring Cessna showing located at Minfile Occurrence #115F 047) embayments. The embayments marked areas along the footwall contact of the ultramafic sill where geological mapping, geochemical sampling and geophysical surveys showed that the contact zone was at its widest and best mineralized. Both holes intersected broad intersections of low grade nickel plus platinum group mineralization in ultramafic rocks (clinopyroxenite). Mineralization occurred in zones of net-textured and disseminated magnetite plus ferro-chromite and sulphide minerals. Intersections ranged in grade from about 1 100 ppm to 3 100 ppm nickel and 90 ppb to 634 ppb platinum plus palladium over intervals greater than 20 m in both holes.

References

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EXPATRIATE RESOURCES LTD, Aug/2003. Assessment Report #094421 by J. Moore.

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ISRAEL, S., 2004. Geology of Southwestern Yukon (1:250 00 scale). Yukon Geological Survey, Open File 2004-16.

KLUANE JOINT VENTURE, Feb/89. Assessment Report #092708 by C.A. Main and D.C. Davis.

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URAVAN MINERALS INC, News Release, 23 Aug/2002.

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YUKON EXPLORATION 1987, p. 245-246; 1988, p. 195.

YUKON EXPLORATION AND GEOLOGY 2002, p, 14-15, 24, 26.

YUKON MINING AND EXPLORATION OVERVIEW 1988, p. 39.

Work History

Date	Work Type	Comment
12/31/2002	Drilling	Two holes, 410.5 m. One hole (229.12 m) was collared on Onion claim 7 to test the Discovery-Onion SW embayment.
12/31/2001	Geochemistry	
12/31/2001	Geology	Uravan Minerals carried out extensive program over property including this occurrence.
12/31/2001	Ground Geophysics	Also HLEM and IP surveys.
12/31/2001	Other	
12/31/1998	Geology	Expatriate carried out program over western half of property. This occurrence and adjoining Minfile Occurrence #115F 047.
12/31/1998	Geochemistry	
12/31/1998	Geochemistry	
12/31/1998	Other	

12/31/1988	Geochemistry	
12/31/1988	Ground Geophysics	Also magnetic survey.
12/31/1987	Geochemistry	
12/31/1987	Geology	
12/31/1987	Geochemistry	
12/31/1956	Geochemistry	
12/31/1956	Trenching	
12/13/2001	Trenching	
12/13/1996	Airborne Geophysics	Also magnetic survey.
12/13/1953	Airborne Geophysics	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
094933	2007	Assessment Report for White River (""CanAlask') Ni-PGE	VTEM - Airborne Geophysics, Rock - Geochemistry, Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Petrographic - Lab Work/Physical Studies, Prospecting - Other, Data Compilation - Pre-existing Data		
094862	2006	Assessment Report on Year - 2006, Geological, Geochemical and Geophysical on "Canalask-Onion" Portion of the White River Nickel Project	Rock - Geochemistry, Silt - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Line Cutting - Other		
094599	2006	NI 43-101-Compliant Report on the 2006 Exploration Program on the White River Nickel Project-Xstrata plc (Falconbridge Ltd.)	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Line Cutting - Other, Prospecting - Other		
094331	2001	Assessment Report Summarizing Geological, Geochemical and Geophysical Surveys in the Miles Ridge Area, Canalsk Proprty	Rock - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, IP - Ground Geophysics, Magnetics - Ground Geophysics, Line Cutting - Other, Prospecting - Other, Hand - Trenching		
093957	1998	Assessment Report Describing Geological, Geochemical and Prospecting Surveys in the Miles Ridge Area, Canalask Property	Rock - Geochemistry, Silt - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
092708	1988	Report on Geophysical and Geochemical Surveys	Soil - Geochemistry, EM - Ground Geophysics, Magnetics - Ground Geophysics, Line Cutting - Other, Prospecting - Other, Handblast - Trenching		
091995	1987	Report on Mapping and Sampling, Onion 1-25 Claims	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
017472	1966	Geological Report-Hawk 1-8, Owl 1-8 and Jumbo 1-8 Mineral claims	Bedrock Mapping - Geology		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC006661	Logs of diamond drill holes, plan showing diamond drill holes and surface geology map - Mines Creek		Property File Collection	Drill Logs
ARMC006662	New staking map - White River area		Property File Collection	Geoscience Map (General)
ARMC006663	Situation report on White River claims		Property File Collection	Report
ARMC006666	Grouping plan map - White River staking		Property File Collection	Geoscience Map (General)
ARMC006667	Grouping plan map - White River staking		Property File Collection	Geoscience Map (General)
ARMC006668	Report on the White River group - Yukon Territory		Property File Collection	Report
ARMC006669	Report on mineral occurrences on the claims - White River group		Property File Collection	Report
ARMC006670	Correspondence Re: Jonathon, White River, Rex Asbestos work records		Property File Collection	Miscellaneous Company Documents
ARMC006671	Extract from letter from E.O. Chisholm to C.L. Coleman - White River claims		Property File Collection	Miscellaneous Company Documents