Occurrence Details

Occurrence Number: 116B 160
Occurrence Name: Brewery Creek
Occurrence Type: Hard-rock
Status: Deposit
Date printed: 12/16/2025 7:47:38 AM

General Information

Primary Commodities: gold
Deposit Type(s): Plutonic Related Au
Location(s): 64°3'28" N - -138°14'23" W
NTS Mapsheet(s): 116B01
Location Comments: .5 Kilometres
Hand Samples Available: Yes
Last Reviewed:

Capsule

Work History

Staked as Lee cl 1-32 (YB04486) by Noranda Exploration Company Ltd in Oct/1987. In 1988, Noranda substantially enlarged the property by adding Lee cl 33-82 (YB17700) and Eel cl 1-52 (YB23313), and performed 48 line-km of soil geochemistry and preliminary trenching. Between June and November, 1989, Noranda added the Ele cl 1-80 (YB23541) and Flee cl 1-104 (YB23923), prepared orthophotos and conducted mapping, 17 line-km of IP surveys, 70 km of geochemical sampling, 6 km of trenching, diamond drilling (9 holes - 1097 m) and percussion drilling (14 holes - 1646 m).

Loki Gold Corporation funded Noranda's exploration program in 1990 and 1991 to earn a 49% interest in the property, but Noranda continued as operator. The 1990 program included 6.3 km of excavator trenching, 309 percussion drillholes totaling 14 838 m and 21 diamond drill holes totaling 1290 m. Bulk samples from three zones were also shipped for metallurgical testing. Noranda enlarged the property with more Eel claims in Nov/1990, Jan/1991, Sep/1991 and Apr/1992 and more Flee claims in Sep/1991.

In 1991, Noranda sold its gold exploration properties to Hemlo Gold Mining Ltd, but continued to operate the Brewery Creek project on Hemlo's behalf. Work included 348 reverse circulation holes totaling 18 140 m, 21 excavator trenches (3 km) and 34 diamond drillholes totaling 1645 m). The soil grid was expanded and outlined three new zones. After the expenditure of $4 million, Loki became vested in Aug/1991.

L. Gatenby tied on Linz cl 1-4 (YB39983), and 11-14 (YB39983) to the south in May/91 and performed soil and chip sampling.
During the 1992 field season Noranda completed 614 test pits, 34.2 km of IP-resistivity and 10.7 km of magnetic surveys, geological mapping and 15 reverse circulation drillholes (1 223.5 m). Baseline environmental studies also continued.

In Jun/1993, Loki purchased a 100% interest in the property, and Noranda continued a program of test pitting. The Lee, Eel, Ele and Flee cl were transferred to Hemlo Gold Mines Inc in July/1993, and back to Loki Gold Corp in Sept/1993. In Oct/1993, Loki completed the acquisition of Hemlo's share in the property and became the project's sole owner.

Loki's 1994 exploration program consisted of soil geochemistry surveys, trenching, and 235 reverse circulation holes totaling 11 000 m. In addition the company initiated a feasibility study, filed for various environmental and governmental permits, carried out negotiations for financing and held discussions regarding economic development with the Yukon Territorial Government and the Tr'ondek Hwech'in First Nation. In September and Oct/1994 Loki staked the BDM cl 1-4 (YB52721) in the southwest corner of the property, near the old dam on Lee Creek.

In May 1995, Loki reached agreement with the Yukon Territorial Government and the Tr'ondek Hwech'in First Nation in regard to various economic issues. On Aug 10, 1995 Loki received a water license from the Government of Canada, which allowed it to begin mine construction. At the same time Loki announced that it had secured the financing required to put the property into production. Exploration work in 1995 included drilling the Big Rock Zone and the West Canadian Zone, both of which were discovered in 1994.

In Mar/1996 Loki Gold and Baja Gold Inc announced a merger with Viceroy Resources Corp and the resulting transfer of 100% interest in the Brewery Creek deposit to Viceroy. In May/1996 Viceroy announced that they had arranged with various brokerage houses sufficient funding to bring the deposit into production. Viceroy spent the bulk of 1996 building the mine site, stripping, constructing haul roads and heap leach pads and generally moving the deposit towards production. In Aug/1996 the company started loading ore onto heap-leach pads. The first gold was poured in Nov/1996 and production to the end of 1996 totalled 316 478 grams (10 175 oz) at an estimated cost of $6.43/gm U.S. ($ 200.00/oz).

The 1996 field program included soil sampling and mapping to better define anomalous trends east of known reserves, trenching (300 m) and reverse circulation drilling (53 holes, 3472 m) to expand on mineable oxide reserves outside deposit areas and diamond drilling (16 holes, 2528 m) to test for higher down dip sulphide mineralization. In the fall of 1996 and throughout 1997, International Kodiak Resources Ltd staked numerous claims along the northern boundary of the Brewery Creek property. In Jul/1997 Viceroy staked additional Eel claims in the southeast corner of their claim block.

The Brewery Creek Mine reached commercial production in May, 1997. During 1997, a total of 72 387 ounces of gold were produced from the Kokanee and Golden zones at a cash cost of US$ 184 per ounce. Exploration activities included 142 reverse circulation drill holes (10 253m), 33 trenches (2606m) 145 line km of soil sampling (2457 samples) and collecting 151 rock samples. In 1998 total production from the Kokanee and Golden zones totaled 79,396 ounces at a cash cost of US $177 per ounce. Exploration in 1998 consisted of 82 reverse circulation drill holes (6008.5 m), 94 trenches (15 395.5 m) and 81 rock samples. The purpose of the work was to increase the oxide resource within a feasible haul from the leach pad and to develop higher grade structural targets across the property.

Production in 1999 fell to 48 164 ounces while operating costs rose to a cash cost of US$ 288 per ounce. Viceroy suspended seasonal mining operations earlier than planned and hired an independent consulting company to study recovery processes in an effort to improve recoveries and reduce production costs. The company also conductive extensive exploration on the mine site to identify additional reserves. In 2000 Viceroy concentrated on selectively mining those ore bodies which contained the highest grade and were the most oxidized. Production fell to 48,048 ounces of gold at a cash operating cost of US$ 243 per ounce. No mining occurred at Brewery Creek in 2001, but heap leaching continued with production of 18,542 ounces of gold in the first six months of 2001 at a cash operating cost of US$ 222. Viceroy continues to monitor world gold prices and technological advances in ore recovery in hopes of re-starting mining production.

In 2002 Viceroy began reclaiming and revegetating various pits, dumps and mine site roads and detoxifying and stabilizing the heap leach piles. A rise in gold prices later in the year lead the company to re-examine the viability of the property and undertake a complete structural re-mapping program aimed at identifying further oxide reserves and the possibility of the property hosting significant sulfide reserves.

In May/2003 Viceroy provided SpectrumGold Inc an option to purchase the mineral properties comprising the Brewery Creek Gold Mine. In Jun/2003 Viceroy merged with Quest Investment Corporation, Quest Management Corp., and Avatar Petroleum Inc to form Quest Capital Corp. The new company will focus on the merchant banking business.

In Mar/2004 NovaGold Resources Inc announced a plan of arrangement with SpectrumGold to acquire all of that companies publically held common shares. Subsequent to this NovaGold drilled 5 holes (800 m), mostly at depth, by the Blue and Pacific deposits. No results of this drilling were released.

In 2006, Alexco released results of its nine-hole, 1184 m diamond drilling program.

Golden Predator Royalty & Development Corp. optioned the property in 2009 and performed diamond drilling (30 holes) on several targets. Drilling on the Pacific pit was undertaken to test for extensions of mineralization at depth. Several holes tested an area south of the Pacific pit where reverse circulation holes were drilled in 1993 and 1994. Further diamond drilling was completed on the North Slope (to test deep sulphide mineralization hosted in non-intrusive rocks) and the Blue zone (to test a northwest-trending fault and an area south of the pit).

The results of two assessent reports (Galambos, 2009 and Bourne, 2011) are still closed (as of January 2014).

In 2012, Golden Predator Corp released a Technical report and resource estimate.

In Februrary 2013, Golden Predator Corp. changed its name to Americas Bullion Royalty Corp (AMB).

In October 2013, Americas Bullion Royalty Corp released an updated resource estimate (Gustavson Associates, 2013) which included indicated and inferred categories. See below and resource tables for details.

Capsule Geology

This is a large, low grade oxide gold deposit hosted by Cretaceous quartz monzonite and interbedded shale and siltstone of the Devonian to Mississippian Earn Group. The property is located in unglaciated terrain on the west edge of the Selwyn Basin, adjacent to the Tintina Fault. Oxide reserves prior to start of mining and based on trenching and drilling results reported in Mar/97, were 17 145 988 tonnes grading 1.36 g/t Au, using a cutoff grade of 0.5 g/t and a specific gravity of 2.6.
The reserves were distributed in eight zones over a strike length of more than 6 km. Individual zones are about 100 m wide and 20 m thick. Most of the reserves lie within 60 m of surface on a south-facing dip slope, and are amenable to open pit mining with a stripping ratio of 1.3:1. 54-day column leach tests on oxide material gave an average recovery of 84%. Metallurgical test work completed in 1993 predicated an 81 percent gold recovery from run-of-mine material in a two-cycle heap leach operation, each cycle consisting of 45 days.

Noranda discovered the Brewery Creek deposit in a previously unexplored area, while following up a weak GSC regional silt anomaly. Soil samples on the ridge above the creek contained 2 000 ppb Au. Subsequent work outlined an east-west soil anomaly 3.3 km long, with 25-2 000 ppb Au and a uniform As:Au ratio of 1 000:1, along with Sb and widely dispersed Hg anomalies. Trenching uncovered a south-dipping slab of altered and brecciated intrusive rock with one chip sample averaging 3.1 g/t Au over 40 m.

The deposit is structurally controlled by several imbricated low-angle listric normal faults and sets of vertical shears which run northwest, northeast and east-west. The main thrust fault separates a sill-like slab of quartz monzonite from underlying graphitic argillite. It strikes 090-120 , dips 10 to 20 to the south and has been traced over a strike length of 10 km between the Pacific and Bohemian zones. Earn Group graphitic argillite beneath the fault is sheared and shows no evidence of hornfelsing. Lenses and slivers of sheared, altered argillite and sheared, bleached intrusive rock are common along the fault zone.

Mineralization consists of submicroscopic gold particles, sub-micron in size, associated with pyrite and fine-grained arsenopyrite. The gold appears to be associated with a fine quartz stockwork in areas of strong phyllic alteration in areas where the intrusive slabs are cut by a close-spaced fracture cleavage. Low-temperature quartz-stibnite veins appear to postdate the gold deposition. High grade pockets of oxide material occur locally, for instance in the Kokanee zone where a chip sample across 6 m assayed 17.1 g/t Au, and a 6 m drill intersection in hole DDH 91-42 graded 14.69 g/t Au.

In 1991, gold was discovered in siliclastic rocks in the Blue zone. Hole 91-328 encountered 5.667 g/t Au over 32 m of siltstone. This includes 4.935 g/t Au over 16 m and 9.822 g/t Au over 10 m. Another 1991 drill hole in the Blue zone (RC91-457) intersected 14 m averaging 4.7 g/t Au, including a 2 m high grade intersection of 19.98 g/t Au over 2 m.
Geochemistry in 1991 outlined a number of new zones including the Bohemian, Schooner, Sleemans and Classic zones which were explored by trenching and drilling. Soil sampling outlined several other anomalous areas, and demonstrated that geochemical response on parts of the property is masked by permafrost underlying north facing slopes and by thick loess deposits in gullies.

The 1992 exploration focused on the Schooner and Sleemans zones at the east end of the property. At the Schooner zone, the gold is hosted by Steel Formation siltstone which forms the lower most unit on the property. Chip samples assayed 2.03 g/t across 28 m in Trench 91-S6. A 1992 drill hole in the Schooner zone intersected 3.3 g/t Au over 4 m.
Drilling in 1993 concentrated on reserve definition in the Canadian and Fosters zones, as well as drill-testing of the Classic, Bohemian, Pacific and Schooner zones. A new zone was delineated downslope of the Fosters zone. This near-surface zone is gently-dipping and has a strike length of 240 metres. The average grade of the mineralized sections is 2.3 g/t Au over 11 metres with higher grade intersections.

The 1994 field program resulted in the complete definition of the Canadian, Lower Fosters and Blue zones for final detailed pit design. Loki also completed the final location selections for the leach pad, pond recovery plant, mine operations and waste dump sites. Stripping of the leach pad, pond recovery plant and construction camp sites began, as well as upgrading the access road within the property boundaries to required standards for a drive-to mining facility. Final environmental data collection for a production permit application was also completed.

A limited exploration drilling program of reverse circulation drilling, discovered two new areas of significant mineralization. The first area located 1.5 km grid east of the Moosehead zone returned values up to 3.2 g/t Au over 10 m. The second area (Big Rock Zone) located 2.0 km northwest of the Pacific zone Pit, returned values of 1.29 g/t Au over 24 m. In Jul/94 mineable oxide reserves stood at 16 487 000 tonnes averaging 1.483 gram of gold per tonne.

In 1996, 1.9 million tonnes of ore were placed on the heap leach pad with roughly 500 000 tonnes of ore under leach. The drip emitters on the pad are placed under a 4 m layer of ore to protect them from freezing. Cyanide solutions are heated to 12 degrees C by waste heat from on-site diesel generators and from a waste oil burner.
Reverse circulation drilling carried out in 1996 on the East and West Big Rock zones increased reserves of the two zones to 1 833 200 tonnes grading 0.95 g/t. The Big Rock zones consist of quartz monzonite intrusions in argillite similar to the other zones currently hosting the reserves on the property. These zones are the westernmost mineralized occurrences on the property and are located closest to the leach pad.

Drilling in 1997 and 1998 on the North Slope zone confirmed continuity of mineralization along a 300 m strike length in the calcareous Steel Formation. Mineralized sill thickness remained extensive in the Kokanee zone (10-15 m) but appears to steepen and narrow at depth in the Canadian zone. No significant mineralization was intersected in the South Canadian zone. Soil sampling and mapping between the Lucky and Sleemans zones defined a broad, southeasterly trending, 5 km anomalous trend. Soil results ranging from 20 to 15 800 ppb Au correlate with intercalated quartz monzonite sills, graphitic argillite and calcareous Steel Formation siltstone.

The 1999 drop in production and the resulting rise in costs was attributed to a combination of longer leach cycles for sediment-hosted ore and lower recoveries. Following consultations with various recovery experts, Viceroy determined that recoveries in the less-weathered material (that is, in the transitional zone) were much lower than anticipated and that leaching characteristics in the oxidized material already loaded on the pads were much better in the first half of the year than later on.

In 2001 low gold prices and poor heap leach recoveries from the less oxidized portions of the deposit forced Viceroy to suspend mining operations, however heap leaching continued. Reclamation and re-vegetation efforts begun in 2002 targeted the Blue, Canadian, Upper Fosters, Golden, Kokanee, Lucky, Moosehead and Pacific zones thus essentially eliminating any remaining reserves located within these deposits.

As of May 2003 the property hosts an Indicated Resource of 3 095 900 tonnes grading 1.135 g/t Au (0.5 g/t Au cutoff) in the Big Rock, Bohemian and Lower Foster zones. The company estimated that recovery grade would be approximately 58% (0.652 g/t Au). The property also hosts an Inferred Resource of 2 214 000 tonnes grading 2.01 g/t Au in the North Slope area. An estimated recoverable grade has not been calculated for this figure. SpectrumGold examined the sulphide gold potential of the property and also studied a small barite deposit located on the property.

In 2006, Alexco targeted drilling at the Bohemian zone near three 1998 RC drill holes and encountered high-grade mineralization in several intervals. Drilling in the Classic Zone returned thick intersections of low-grade oxide gold mineralization. Three untested IP anomalies were also targeted but only encountered weak sulphide mineralization. A single drillhole in the mined-out Blue pit encountered sulphide mineralization in a stibnite, silica-bearing breccia zone.

Golden Predator's technical report on the Brewery Creek property (August 13, 2009 news release), stated that current drilling depths were inadequate to assess sulphide potential along the main resrve trend. The report also observed that oxide-sulphide exploration targets such as the North Slope, Classic and Bohemian-Sleemans trend have not been fully drilled and remain open-ended.

The 2009-2013 work has not ben updated yet..

In October 2013, Americas Bullion Royalty Corp released an updated resource estimate (Gustavson Associates, 2013) which included indicated and inferred categories. The resource was calculated over fourteen deposits plus the historical heap leach pad, each with their own cut-off grade which ranged between 0.45 to 0.54 g/t Au for the 14 deposits, and which was set at 0.3g/t Au for the historical heap leach pad.

A detailed breakdown of each individual deposit is outlined in the report. Resources are reported for both oxide and sulfide material. The resource summary is listed as follows:

Indicated oxide resources (including historical heap leach pad): 14,152,000 tonnes at 1.27 g/t Au for total 17,947 kg (577,000 troy ounces) of contained gold .

Inferred oxide resources (including historical heap leach pad): 9,309,000 tonnes at 0.93 g/t Au, for total 8,6778 kg (279,000 troy ounces) of contained gold.

Indicated sulfide resources: 3,459,000 tonnes at 1.28 g/t Au for total 4,416.7 kg (142,000 troy ounces) of contained gold.

Inferred sulfide resource: 12,408,000 tonnes at 1.37 g/t Au, for a total of 16,982 kg (546,000 troy ounces) of contained gold.

Work History

Date	Work Type	Comment
12/31/2009	Drilling	Thirty holes, 5,011 m. Pacific and Blue pits and North Slope
12/31/2006	Drilling	Nineteen holes, 1,184 m. Drill program was managed by NovaGold on behalf of Alexco
12/31/2004	Drilling	Five holes, 800 m. Drilling mostly at depth by the Blue and Pacific deposits.
12/31/2001	Studies	Mining suspended indefinitely, began examining reclamation options.
12/31/2000	Development, Surface	Selected mining carried out. Encountered recovery problems reduced production.
12/31/1999	Studies	Company brought in experts to suggest ways of improving recoveries.
12/31/1999	Development, Surface	Expanded heap leach pads.
12/31/1998	Drilling	Eighty-two holes, 6,008.5 m.
12/31/1997	Trenching	
12/31/1996	Development, Surface	
12/31/1996	Geochemistry	Ongoing program.
12/31/1996	Development, Surface	Completed various access roads to property and individual deposits.
12/31/1996	Other	Viceroy went into production in Oct and poured first bar in Nov.
12/31/1995	Studies	
12/31/1995	Studies	
12/31/1995	Development, Surface	Began construction of major components of project.
12/31/1995	Development, Surface	
12/31/1995	Studies	Undertook all studies needed to place project into production.
12/31/1994	Drilling	Two hundred thirty-five holes, 11,000 m. Drilling was reverse circulation.
12/31/1994	Studies	Company began planning production of deposit
12/31/1994	Geochemistry	
12/31/1994	Trenching	
12/31/1991	Drilling	Thirty-four holes, 1,645 m.
12/31/1991	Drilling	Five hundred forty-five holes, 27,731 m.
12/31/1990	Drilling	Fifteen holes, 1,283 m.
12/31/1990	Drilling	Three hundred and nine holes, 14,790 m.

12/31/1990	Ground Geophysics	Also magnetic survey.
12/31/1990	Trenching	Dug approximately 5,926 m of trenches.
12/31/1989	Geology	
12/31/1989	Geochemistry	
12/31/1989	Ground Geophysics	
12/31/1989	Trenching	
12/31/1989	Development, Surface	
12/31/1988	Geology	
12/31/1988	Geochemistry	
12/31/1988	Trenching	
12/13/2012	Studies	Worked on various permits to advance property towards production.
12/13/2011	Drilling	One hundred and thirty-five holes, 23,930 m.
12/13/2011	Airborne Geophysics	Also magnetic survey.
12/13/2010	Drilling	Thirteen holes, 2,367 m.
12/13/2010	Drilling	Sixteen holes, 2,350 m.
12/13/1999	Drilling	Twenty-one holes, 2,500 m.
12/13/1999	Trenching	
12/13/1999	Development, Surface	Expanded haul roads.
12/13/1998	Geochemistry	
12/13/1998	Trenching	
12/13/1997	Geochemistry	
12/13/1997	Drilling	One hundred forty-two holes, 10,253 m.
12/13/1989	Drilling	Nine holes, 1,097 m.
12/13/1989	Drilling	Fourteen holes, 1,646 m.
10/25/2013	Studies	Resource consists of indicated and inferred categories, for both sulphide and oxide, and include the historical leach pad (oxide only).
1/1/2012	Drilling	One hundred ninety-seven holes, 22,231 m. Also 10,000 m of reverse circulation drilling.
1/1/2011	Drilling	Two and six holes, 30,691 m.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
097210	2018	Work Done on the Brewery Creek Property in the year 2018	Diamond - Drilling, Diamond - Drilling, Metallurgical Tests - Lab Work/Physical Studies	22	1708.50
093962	1998	Brewery Creek Project 1998 Geological, Geochemical, Trenching and Drilling Report on the BDM, EEL, FLEE, ELE, and LEE Claims	Reverse Circulation - Drilling, Rock - Geochemistry, Metallurgical Tests - Lab Work/Physical Studies, Mechanical - Trenching	82	6009
093820	1997	Brewery Creek Project 1997 Geological, Geochemical, Trenching and Drilling Report on the BDM, EEL, FLEE, ELE, and LEE Claims	Reverse Circulation - Drilling, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Mechanical - Trenching	142	10253
093601	1996	Assessment Report on the BDM, EEL, ELE, FLEE, LEE Claims	All Weather Road - Development, Surface, Diamond - Drilling, Reverse Circulation - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Line Cutting - Other, Mechanical - Trenching	69	6000
093309	1994	Assessment Report on the ELE, LEE, EEL, FLEE Claims	Auger - Drilling, Reverse Circulation - Drilling, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Bulk Sample - Lab Work/Physical Studies, Metallurgical Tests - Lab Work/Physical Studies, Geotechnical - Studies, Backhoe - Trenching, Mechanical - Trenching	316	11783.10
093191	1993	Drilling Report on the ELE, LEE, EEL, FLEE Claims	Interpretation - Airphotography, Mill/Concentrator Construction - Development, Surface, Reverse Circulation - Drilling, Drill Cuttings - Geochemistry, Soil - Geochemistry, Bulk Sample - Lab Work/Physical Studies, Metallurgical Tests - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, Environmental Assessment/Impact - Studies, Geotechnical - Studies	151	8523
093078	1992	Geological, Geochemical and Geophysical Report on the EEL Claims	Reverse Circulation - Drilling, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, IP - Ground Geophysics, Magnetics - Ground Geophysics, Petrographic - Lab Work/Physical Studies, Line Cutting - Other, Environmental Assessment/Impact - Studies, Backhoe - Trenching	19	1233.50

093027	1991	Geological, Geochemical, Geophysical and Drilling Report on the EEL, LEE, ELE, and FLEE Claims	All Weather Road - Development, Surface, Diamond - Drilling, Reverse Circulation - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Detailed Bedrock Mapping - Geology, IP - Ground Geophysics, Metallurgical Tests - Lab Work/Physical Studies, Line Cutting - Other, Environmental Assessment/Impact - Studies, Backhoe - Trenching, Mechanical - Trenching	409	20187
092928	1990	Geological, Geochemical, Geophysical and Drilling Report on the LEE, EEL, ELE and FLEE Claims	Diamond - Drilling, Reverse Circulation - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, IP - Ground Geophysics, Magnetics - Ground Geophysics, Bulk Sample - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, Backhoe - Trenching, Mechanical - Trenching	330	16201
092788	1989	Geological, Geochemical, Geophysical and Drilling Report on the LEE 1-82, EEL 1-52, and ELE 1-16 Claims	Diamond - Drilling, Reverse Circulation - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, IP - Ground Geophysics, Magnetics - Ground Geophysics, Process/Interpret - Pre-existing Data, Backhoe - Trenching, Mechanical - Trenching	23	2818.80
092678	1988	Geological and Geochemical Report on the Brewery Creek Project	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		

Related References

Number	Title	Page(s)	Reference Type	Document Type
YEG1990	Yukon Exploration 1990	21-23	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1991	Yukon Exploration 1991	6-12	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1994	Yukon Exploration and Geology 1994	4,10	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1995	Yukon Exploration and Geology 1995	7,16,18	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1996	Yukon Exploration and Geology 1996	10,30,32	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1998	Yukon Exploration and Geology 1998	5-6, 27, 30	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1999	Yukon Exploration and Geology 1999	5-6, 29, 31	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2000	Yukon Exploration and Geology 2000	6-7, 25	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2001	Yukon Exploration and Geology 2001	6,24	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1998_19	Brewery Creek gold deposit, central Yukon	225-230	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
YEG1995-pg57	Brewery Creek Gold Deposit	57-66	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
YEG1989	Yukon Exploration 1989	8,10	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG1999_20	The magmatic and structural setting of the Brewery Creek gold mine, central Yukon		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
YEG1990-pg21	Brewery Creek property, west-central Yukon		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
ARMC016772	Geology map with overlay - 116B/1 - Lee Creek		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC012686	Map of Lee Creek showing geology markings - Provisional map 116-B-1		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC016771	Geochemical locations and results map - 116B/1 - Lee Creek		Property File Collection	Geochemical Map
ARMC016770	Geochemical locations and results map - 116B/1 - Reef project		Property File Collection	Geochemical Map

Resource/Reserve

Year	Zone	Type	Commodity	Grade	Tonnage	Amount	Reported Amount	43-101 Compliant	Cut-off
2013	Oxide and leach pad (Open Pit)	Indicated	gold	1.27 g/t	14,152,000	17947	Yes	Yes	0.45 to 0.54 g/t Au
includes historical leach pad: 2.98 million tonnes grading 0.88g/t Au, using 0.3g/t Au as cutoff. From GUSTAVSON ASS.,October 2013.									
2013	Sulphide (Open Pit)	Inferred	gold	1.37 g/t	12,408,000	16982	Yes	Yes	0.7 g/t Au
From GUSTAVSON ASS..October 2013.									

2013	Oxide and leach pad (Open Pit)	Inferred	gold	.93 g/t	9,309,000	8678	Yes	Yes	0.45 to 0.54 g/t Au
includes historical leach pad: 2.98 million tonnes grading 0.88g/t Au, using 0.3g/t Au as cutoff. From GUSTAVSON ASS.,October 2013.									
2013	Sulphide (Open Pit)	Indicated	gold	1.28 g/t	3,459,000	4416.70	Yes	Yes	0.7 g/t Au
From GUSTAVSON ASS.,October 2013.									
2003	BREWERY CREEK - TOTAL OXIDE RESERVES (OPEN PIT)	Indicated	gold	1.135 g/t	3,975,900		No	Unknown	Unknown
Indicated Resources (using 0.5 g/t Au cutoff) = Big Rock, Bohemian and Lower Fosters Zones. Inferred Resources (using 0.5 g/t Au cutoff) = NorthSlope Zone.; Technical Report by R.M. Diment and R.G. Simpson for Viceroy Resource Corporation.									
2003	BREWERY CREEK - BOHEMIAN ZONE (OXIDE) (OPEN PIT)	Indicated	gold	1.126 g/t	1,180,900		No	Unknown	Unknown
Bohemian Zone has a recoverable grade of approximately 63%.; Brewery Creek Gold Project - Yukon Territory, Canada. Technical Report by R. Diment and R. Simpson, p. 55.									
2003	BREWERY CREEK - BIG ROCK ZONE (OXIDE) (OPEN PIT)	Indicated	gold	.95 g/t	1,833,200		No	Unknown	Unknown
Big Rock Zone comprised of West Big Rock = 815,800 tonnes @ 1.33 g/t Au and East Big Rock = 1,017,400 tonnes @ 0.907 g/t Au. Recoverable grade = approximately 66%.; Brewery Creek Gold Project - Yukon Territory, Canada. Technical Report by R. Diment and R. Simpson, p. 55.									
2003	BREWERY CREEK - FOSTERS ZONE (OXIDE) (OPEN PIT)	Indicated	gold	1.387 g/t	961,900		No	Unknown	Unknown
Upper Fosters Pit essentially mined out. Lower Fosters Pit contains Indicated Resources. Using 0.5 g/t Au cutoff. Recoverable grade = 0.576 g/t Au or about 42 %.; Brewery Creek Gold Project - Yukon Territory, Canada. Technical Report by R. Diment and R. Simpson, p. 55.									
2003	BREWERY CREEK - TOTAL OXIDE RESERVES (OPEN PIT)	Inferred	gold	2.01 g/t	2,214,000		No	Unknown	Unknown
Indicated Resources (using 0.5 g/t Au cutoff) = Big Rock, Bohemian and Lower Fosters Zones. Inferred Resources (using 0.5 g/t Au cutoff) = NorthSlope Zone.; Technical Report by R.M. Diment and R.G. Simpson for Viceroy Resource Corporation.									
2003	BREWERY CREEK - NORTH SLOPE AREA (OXIDE) (OPEN PIT)	Inferred	gold	2.01 g/t	2,214,000		No	Unknown	Unknown
Recoverable grade is unknown but recent bottle testes returned results ranging from 2 % to 75 % with an average recovery of 23 %.; Brewery Creek Gold Project - Yukon Territory, Canada. Technical Report by R. Diment and R. Simpson, p. 55.									
1998	BREWERY CREEK - TOTAL OXIDE RESERVES (OPEN PIT)	Historical Estimate	gold	1.44 g/t	13,317,000		No	No	Unknown
Company reported figures as Proven and Probable reserves. Probably would not meet National Instrument 43-101 standards.; Viceroy Resource Corporation, 1997 Annual Report, p. 7.									
1997	BREWERY CREEK - TOTAL OXIDE RESERVES (OPEN PIT)	Historical Estimate	gold	1.36 g/t	17,145,988		No	No	Unknown
Company reported figure as Proven Reserve. Probably wouldn't meet National Instrument 43-101 standards. Figures converted frrom Imperial Measurements.; Viceroy Resource Coporation, 1996 Annual Report, p. 8.									
1994	BREWERY CREEK - PACIFIC ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1 g/t	813,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore for Pacific Zone. Probably would not meet current National Instrument 43-101 standards.									
1994	BREWERY CREEK - MOOSEHEAD ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.089 g/t	1,033,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore for Moosehead Zone. Probably would not meet current National Instrument 43-101 standards.									
1994	BREWERY CREEK - LUCKY ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.462 g/t	1,607,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore for Lucky Zone. Probably would not meet current National Instrument 43-101 standards.									
1994	BREWERY CREEK - BLUE ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.937 g/t	945,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore for Blue Zone. Probably would not meet current National Instrument 43-101 standards.									
1994	BREWERY CREEK - GOLDEN ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.428 g/t	4,150,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore for Golden Zone. Probably would not meet current National Instrument 43-101 standards.									
1994	BREWERY CREEK - KOKANEE ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.629 g/t	4,416,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore for Kokanee Zone. Probably would not meet current National Instrument 43-101 standards.									
1994	BREWERY CREEK - FOSTERS ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.782 g/t	1,153,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore for Fosters Zone. Probably would not meet current National Instrument 43-101 standards.; Loki Gold Corporation, Brewery Creek Feasibility Study, Mine Planning, Volume 1, Report and Drawings.									
1994	BREWERY CREEK - CANADIAN ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.334 g/t	2,369,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore for Canadian Zone. Probably would not meet current National Instrument 43-101 standards.; Loki Gold Corporation, Brewery Creek Feasibility Study, Mine Planning, Volume 1, Report and Drawings.									
1994	BREWERY CREEK - TOTAL OXIDE RESERVES (OPEN PIT)	Historical Estimate	gold	1.483 g/t	16,487,000		No	No	Unknown
Total Mineable Ore Reserves, comprised of Oxide and Transition zone ore. Probably would not meet current National Instrument 43-101 standards.; Loki Gold Corporation, Brewery Creek Feasibility Study, Mine Planning, Volume 1, Report and Drawings.									
1994	BREWERY CREEK - TOTAL SULPHIDE RESERVES (OPEN PIT)	Historical Estimate	gold	1.141 g/t	190,000		No	No	Unknown
Sulfide reserves are for information only. Mine site can currently only process oxide material. Sulfide material would require completely different processing plant.									
1993	BREWERY CREEK - TOTAL OXIDE RESERVES (OPEN PIT)	Historical Estimate	gold	1.99 g/t	10,006,000		No	No	Unknown
Loki Gold Corporation, Corporate Review, sep/93. (available from EMR Library, Whitehorse, Yukon).; Total mineable geological reserves as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral AssociatesLtd of Vancouver B.C.									
1993	BREWERY CREEK - PACIFIC ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.44 g/t	22,300		No	No	Unknown
Mineable geological reserves for Pacific Zone as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral Associates Ltd of Vancouver, B.C.; Loki Gold Corporation, Corporate Review, Sep/93. (available from EMR Library, Whitehorse, Yukon).									
1993	BREWERY CREEK - MOOSEHEAD ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.29 g/t	737,000		No	No	Unknown
Mineable geological reserves for Moosehead Zone as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral Associates Ltd of Vancouver, B.C.; Loki Gold Corporation, Corporate Review, Sep/93. (available from EMR Library, Whitehorse, Yukon).									

1993	BREWERY CREEK - LUCKY ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	2.13 g/t	1,070,000		No	No	Unknown
Mineable geological reserves for Lucky Zone as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral Associates Ltd of Vancouver, B.C.; Loki Gold Corporation, Corporate Review, Sep/93. (available from EMR Library, Whitehorse, Yukon).									
1993	BREWERY CREEK - BLUE ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	2.4 g/t	504,000		No	No	Unknown
Mineable geological reserves for Blue Zone as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral Associates Ltd of Vancouver, B.C.; Loki Gold Corporation, Corporate Review, Sep/93. (available from EMR Library, Whitehorse, Yukon).									
1993	BREWERY CREEK - GOLDEN ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.7 g/t	2,530,000		No	No	Unknown
Mineable geological reserves for Golden Zone as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral Associates Ltd of Vancouver, B.C. Grade is approximate.; Loki Gold Corporation, Corporate Review, Sep/93. (available from EMR Library, Whitehorse, Yukon).									
1993	BREWERY CREEK - KOKANEE ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	2.36 g/t	2,570,000		No	No	Unknown
Mineable geological reserves for Kokanee Zone as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral Associates Ltd of Vancouver, B.C.; Loki Gold Corporation, Corporate Review, Sep/93. (available from EMR Library, Whitehorse, Yukon).									
1993	BREWERY CREEK - FOSTERS ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.72 g/t	529,000		No	No	Unknown
Mineable geological reserves for Fosters Zone as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral Associates Ltd of Vancouver, B.C.; Loki Gold Corporation, Corporate Review, Sep/93. (available from EMR Library, Whitehorse, Yukon).									
1993	BREWERY CREEK - CANADIAN ZONE (OXIDE) (OPEN PIT)	Historical Estimate	gold	1.64 g/t	2,040,000		No	No	Unknown
Mineable geological reserves for Canadian Zone as reported by Loki Gold in Sep/93. Figures calculated by Orcan Mineral Associates Ltd of Vancouver, B.C.; Loki Gold Corporation, Corporate Review, Sep/93. (available from EMR Library, Whitehorse, Yukon).									

Production

Date	Commodity	Amount	Comment
12/1/2002	Au	8.70 metric tonnes	approximate heap leach production from 1996 to 2002 (Gustavson Associates, 2013)

Drill core at YGS core library

Number	Property	Year Drilled	Core Size	Photos	Data
BC11-249	Brewery Creek	2011	NQ	0	3