



### Location/Identification

**MINFILE Number:** 104B 193 **National Mineral Inventory Number:** 104B8 Au8

**Name(s):** **BRUCEJACK**  
WEST, WEST (SULPHURETS), SULPHURETS (BRUCESIDE), WEST BRUCEJACK, BRUCESIDE, RED RIVER, R1-R8, ERASER, BIELECKI, MAGGIE, WEST ZONE FOOTWALL, PRETIUM, PRETIVM, VALLEY OF KINGS, VOK

**Status:** Producer **Mining Division:** Skeena  
**Mining Method:** Underground **Electoral District:** Stikine  
**Regions:** British Columbia **Resource District:** Skeena Stikine Natural Resource District

**BCGS Map:** 104B050  
**NTS Map:** 104B08E **UTM Zone:** 09 (NAD 83)  
**Latitude:** 56 28 03 N **Northing:** 6258750  
**Longitude:** 130 11 29 W **Easting:** 426600  
**Elevation:** 1432 metres  
**Location Accuracy:** Within 100M  
**Comments:** Located about 500 metres west of the southwest end of Brucejack Lake (Figure 2.4, Assessment Report 24610).

### Mineral Occurrence

**Commodities:** Gold, Silver, Lead, Zinc, Copper

**Minerals** **Significant:** Electrum, Pyrite, Tetrahedrite, Argentite, Galena, Sphalerite, Chalcopyrite, Pyrargyrite, Gold, Silver, Cerargyrite, Freibergite, Stephanite, Polybasite, Acanthite  
**Associated:** Quartz  
**Alteration:** Sericite, Silica  
**Alteration Type:** Sericitic, Silicific'n  
**Mineralization Age:** Unknown

**Deposit** **Character:** Stockwork, Vein, Breccia  
**Classification:** Epithermal, Epigenetic  
**Type:** H05: Epithermal Au-Ag: low sulphidation, L03: Alkalic porphyry Cu-Au, H08: Alkalic intrusion-associated Au  
**Dimension:** 600x240x40 metres  
**Comments:** Stockwork zone is open to the south.

### Host Rock

**Dominant Host Rock:** Volcanic

Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Jurassic	Hazelton	Unuk River	-----
Jurassic	-----	-----	Unnamed/Unknown Informal

Isotopic Age	Dating Method	Material Dated
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**Lithology:** Altered Tuff Breccia, Andesite, Hornblende Feldspar Porphyry Syenite

**Comments:** Mineralized tuff breccia occurs adjacent to a syenitic Jurassic intrusion.

### Geological Setting

**Tectonic Belt:** Intermontane **Physiographic Area:** Boundary Ranges  
**Terrane:** Stikine

## Inventory

**Ore Zone:** TOTAL **Year:** 2020  
**Category:** Combined **Report On:** Y  
**Quantity:** 23,200,000 tonnes **NI 43-101:** Y

Commodity	Grade
Gold	10.1 grams per tonne

**Comments:** Measured and indicated resource using a 3.5 grams per tonne gold cut-off grade.

**Reference:** Pretium Resources Inc. (2020-03-09): Technical Report on the Brucejack Gold Mine, Northwest British Columbia

**Ore Zone:** TOTAL **Year:** 2020  
**Category:** Combined **Report On:** Y  
**Quantity:** 15,700,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	59.6 grams per tonne
Gold	8.4 grams per tonne

**Comments:** Proven and probable reserve.

**Reference:** Pretium Resources Inc. (2020-03-09): Technical Report on the Brucejack Gold Mine, Northwest British Columbia

**Ore Zone:** TOTAL **Year:** 2020  
**Category:** Inferred **Report On:** Y  
**Quantity:** 9,400,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	44.3 grams per tonne
Gold	10.3 grams per tonne

**Comments:** Using a 3.5 grams per tonne gold cut-off grade.

**Reference:** Pretium Resources Inc. (2020-03-09): Technical Report on the Brucejack Gold Mine, Northwest British Columbia

**Ore Zone:** WEST **Year:** 2019  
**Category:** Combined **Report On:** Y  
**Quantity:** 4,900,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	267 grams per tonne
Gold	5.85 grams per tonne

**Comments:** Measured and indicated, using a 5 grams per tonne gold equivalent cut-off grade.

**Reference:** Jones, I. (2019-04-04): Technical Report on the Brucejack Gold Mine

**Ore Zone:** WEST **Year:** 2019  
**Category:** Combined **Report On:** Y  
**Quantity:** 2,900,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	278.5 grams per tonne
Gold	6.9 grams per tonne

**Comments:** Proven and probable, using a 5 grams per tonne gold equivalent cut-off grade.

**Reference:** Jones, I. (2019-04-04): Technical Report on the Brucejack Gold Mine

**Ore Zone:** WEST **Year:** 2019  
**Category:** Inferred **Report On:** Y  
**Quantity:** 4,000,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	82.0 grams per tonne
Gold	6.4 grams per tonne

**Comments:** Using a 5 grams per tonne gold equivalent cut-off grade.

**Reference:** Jones, I. (2019-04-04): Technical Report on the Brucejack Gold Mine

**Ore Zone:** TOTAL **Year:** 2016  
**Category:** Combined **Report On:** Y  
**Quantity:** 18,500,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	53.5 grams per tonne
Gold	14.6 grams per tonne

**Comments:** Combined, Proven plus Probable reserves for the VOK and the West zone.

**Reference:** 2016 Exploration Overview, page 155.

**Ore Zone:** WEST **Year:** 2012  
**Category:** Inferred **Report On:** N  
**Quantity:** 4,000,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	82 grams per tonne
Gold	4.0 grams per tonne

**Comments:** Inferred resource based on a cut-off grade of 5 grams per tonne gold equivalent.

**Reference:** <http://www.pretivm.com>

**Ore Zone:** WEST **Year:** 2012  
**Category:** Combined **Report On:** N  
**Quantity:** 4,900,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	267 grams per tonne
Gold	5.85 grams per tonne

**Comments:** Combined Measured and Indicated resources based on a cut-off grade of 5 grams per tonne gold equivalent

**Reference:** <http://www.pretivm.com>

**Ore Zone:** AREA **Year:** 2009  
**Category:** Combined **Report On:** N  
**Quantity:** 12,050,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	16.9 grams per tonne
Gold	1.04 grams per tonne

**Comments:** Combined Measured and Indicated resources based on a cut-off grade of 0.35 gram per tonne.

**Reference:** Stockwatch News Release December 1, 2009

**Ore Zone:** AREA **Year:** 2009  
**Category:** Inferred **Report On:** N  
**Quantity:** 198,000,000 tonnes **NI 43-101:** Y

Commodity	Grade
Silver	11.2 grams per tonne
Gold	0.76 grams per tonne

**Comments:** Based on a cut-off grade of 0.35 gram per tonne.

**Reference:** Stockwatch News Release December 1, 2009

### Summary Production

	Metric	Imperial
<b>Mined:</b>	1,557,808 tonnes	1,717,189 tons
<b>Milled:</b>	1,538,366 tonnes	1,695,758 tons
<b>Recovery</b>		
Gold	16,438,060 grams	528,496 ounces
Silver	5,574,890 grams	179,237 ounces

### Capsule Geology

The Brucejack area is on the eastern limb of the northerly trending McTagg anticlinorium, a regional scale, mid-Cretaceous structural culmination in the western Skeena fold belt.

The Brucejack property which contains the West zone is underlain by volcano-sedimentary rocks of the Stuhini Group (Upper Triassic) that are unconformably overlain by the Lower Jurassic Hazelton Group and Middle to Upper Jurassic Bowser Lake Group cover rocks. These rocks are cut by the Brucejack fault, which is interpreted to have had a long history of reactivation. Alteration is mainly pervasive quartz-sericite-pyrite replacement in zones several hundred metres wide and several kilometres long. Most of the five mineral resources (West Zone (104B 193), Valley of the Kings (104B 199), Bridge Zone (104B 612), Gossan Hill (104B 190), and Shore Zone (104B 189)) are in the intensely altered zones and associated with vein-stockworks. High-grade zones are either on the margins or contained in a zone of bulk low-grade mineralization up to several grams per tonne gold. Bulk low-grade mineralization tends to be associated with disseminated anhedral pyrite. High grade gold-silver electrum mineralization is hosted in deformed transitional epithermal stockwork veins up stratigraphy from several large and slightly older porphyry deposits; the multiphase Early Jurassic Mitchell intrusions.

There are more than 70 documented mineral occurrences and showings in the Sulphurets (Brucejack-Snowfield) area. Copper, molybdenum, gold and silver mineralization found within gossans have affinities to both porphyry and mesothermal to epithermal types of vein deposits. Most mineral deposits occur in the upper members of the Unuk River Formation or the lower members of the Betty Creek Formation.

The West Zone gold-silver deposit is hosted by a north-westerly trending band of intensely altered Lower Jurassic latitic to trachyandesitic volcanic and subordinate sedimentary rocks, as much as 400 to 500 metres thick, which passes between two more competent bodies of hornblende plagioclase hornblende phytic flows. The stratified rocks dip moderately to steeply to the northeast and are intensely altered, particularly in the immediate area of the precious metals mineralization.

The West Zone deposit itself comprises at least 10 quartz veins and mineralized quartz stockwork ore shoots. There are at least 10 northwest trending, steep northeast dipping, subparallel quartz veins/vein breccias that include the R1 to R8, Eraser and Bielecki structures. The R6 vein is the dominant structure, with other R structures splaying off the northeast side of R6 at northwest to westerly trends. The R8 structure is the highest grade and most important of these splaying R structures. It trends east, dips 60 degrees to the north, and is not exposed at surface. Individual veins are up to 250 metres in strike length and up to 6 metres in width, and several of the vein systems remain open along strike and downdip.

The stockwork zone abuts syenite on the northwest and has been traced for more than 600 metres to the southeast. The zone dips steeply northeast and strikes 138 degrees. It may be up to 40 metres thick and contain greater than 60 per cent vein material. The zone is defined to a depth of 240

metres and is open to the south.

Most mineralized shoots have vertical extents that are greater than their strike lengths. Crack-seal features shown by most of the veins are evidence of brittle deformation overlapping with crystallization of gangue minerals. It appears as if localized ductile strain may have generated dilatant structures that served as conduits for the hydrothermal fluids, which deposited silica and precious metals, but hydrostatic overpressures within the conduits may have intermittently induced brittle failure along sub-parallel structures. In terms of hydrothermal alteration, the West Zone is marked by a central silicified zone that passes outwards to a zone of sericite  $\pm$  quartz  $\pm$  carbonate and then an outer zone of chlorite  $\pm$  sericite  $\pm$  carbonate. The combined thickness of the alteration zones across the central part of the deposit is 100 to 150 metres.

The gold occurs mostly as electrum with pyrite, pyrrargyrite, tetrahedrite, argentite, galena and sphalerite occurring as the main metallic minerals. Also reported are chalcopyrite, pyrargyrite, polybasite, native gold, native silver, cerargyrite, freibergite, stephanite and acanthite. Gangue mineralogy of the veins is dominated by quartz, with accessory adularia, albite, sericite, and minor carbonate and barite.

Over 75,000 metres of diamond drilling with over 300 holes from surface and 422 holes from underground have been completed on the property. Underground workings total 5300 metres of decline plus level workings on four levels and numerous raises (Tremanco Resources Ltd. News Release May 1997).

Drilling (1994) of the western end of the R8 zone resulted in the discovery of a new zone, termed the Maggie zone, which is a quartz stockwork to breccia zone lying approximately subparallel to the R8 zone, 50 to 90 metres updip, and hosted within quartz-sericite-pyrite altered volcanics (Assessment Report 24610).

The West Zone Footwall Zone is located along the entire footwall of the West Zone. It lies approximately 50 to 200 metres south-west of the West zone and was intersected by holes SU-63, SU-98 and SU-100. These holes cover an area 600 metres long.

In 2009 Silver Standard reported a resource estimate for the Brucejack area of 120.5 million tonnes combined Measured and Indicated grading 1.04 grams per tonne gold and 16.9 grams per tonne silver and 198.0 million tonnes Inferred grading 0.76 gram per tonne gold and 11.2 grams per tonne silver (Stockwatch News Release Dec 1, 2009).

The September 2012 West zone resource estimate is reported at: 2.4 million tonnes Measured grading 5.85 grams per tonne gold and 347 grams per tonne silver; 2.5 million tonnes Indicated grading 5.86 grams per tonne gold and 190 grams per tonne silver; 4.0 million tonnes inferred grading 6.44 grams per tonne gold and 82 grams per tonne silver ([www.pretivm.com](http://www.pretivm.com)).

The following Brucejack Mineral Resource estimate encompasses nine distinct modelled mineralization zones, namely the West zone, West zone Footwall zone, Shore zone, Gossan Hill zone, Galena Hill zone, SG zone, VOK zone, Bridge zone and Bridge zone Halo. Based on a 0.3 gram per tonne gold equivalent the Measured and Inferred estimate is 297.0 million tonnes grading 0.86 gram per tonne gold and 12.17 grams per tonne silver; with a further Inferred estimate of 542.5 million tonnes grading 0.72 gram per tonne gold and 867 grams per tonne silver ([www.pretivm.com](http://www.pretivm.com): Technical Report and Preliminary Economic Assessment of the Brucejack Project, June 3, 2011).

## WORK HISTORY

The Property and the surrounding region have a history rich in exploration for precious and base metals dating back to the late 1800s. This section describes the mineral exploration, including the historical drilling carried out prior to Pretium's acquisition of Brucejack, and post-acquisition. The historical data have been summarized mostly from various Assessment Reports available through the BC Ministry of Energy, Mines and Petroleum Resources.

In 1935, prospectors discovered copper-molybdenum mineralization on the Sulphurets Property in the vicinity of the Main Copper zone, approximately six km north-west of Brucejack Lake; however, these claims were not staked until 1960.

From 1935 to 1959, the area was relatively inactive with respect to prospecting; however, it was intermittently evaluated by a number of different parties and several small copper and gold-silver occurrences were made in the Sulphurets-Mitchell Creek area.

The Snowfield property was initially staked in 1959 by Granduc Mines Ltd. to cover various porphyry copper and precious metal vein showings between Mitchell Glacier and Brucejack Lake. Between 1960 and 1975 the property was intermittently explored by Granduc, who completed geologic mapping, geochemical sampling, geophysical surveying and limited drilling primarily over known porphyry showings.

The property collectively became known as the Sulphurets Property, starting the era of modern exploration, outlined as follows:

From 1960 to 1979, Granduc continued exploration, conducting further geological mapping, lithogeochemical sampling, trenching, and diamond drilling on known base and precious metal targets north and north-west of Brucejack Lake resulting in the discovery of gold-silver mineralization in the Hanging Glacier area and molybdenum on the south side of Mitchell. In 1968, Granduc Mines drilled two diamond drill holes over the Quartz Stockwork zone (104B 178) totaling 711.12 metres. Results showed the system contained extensive anomalous, gold values of less than 0.5 gram per

tonne but carried no significant base metal values (as reported in Assessment Report 32047).

From 1980, Esso optioned the entire Sulphurets property from Granduc and subsequently completed an extensive program consisting of mapping, trenching, and geochemical sampling that resulted in the discovery of several showings including the Snowfield, Shore, West, and Galena zones. Gold was discovered on the peninsula at Brucejack Lake near the Shore zone.

From 1982 to 1983, exploration was confined to gold and silver-bearing vein systems in the Brucejack Lake area at the southern end of the property from

From 1982 to 1983, drilling was concentrated in 12 silver and gold-bearing structures including the Near Shore and West zones, located 800 metres apart near Brucejack Lake. Drilling commenced on the Shore zone. Regional mapping and sampling continued along the Sulphurets-Mitchell Ridge in 1982.

In 1983, Esso continued work on the property and (in 1984) outlined a deposit on the west Brucejack zone. The Josephine zone gold-silver veins were discovered.

In 1985, Esso dropped the option on the Sulphurets property.

In 1985, the property was optioned by Newhawk and Lacana Mining Corp. (Lacana) from Granduc under a three-way joint venture (the Newcana JV). The Newcana JV completed work on the Snowfield, Mitchell, Golden Marmot, Sulphurets Gold, and Main Copper zones, along with lesser known targets.

From 1986 to 1991 the Newcana JV spent approximately \$21 million developing the West zone and other smaller precious metal veins on what would later become the Bruceside Property.

Since 1985 on the Brucejack area, Newhawk completed extensive exploration programs including additional regional and detailed geologic mapping and sampling, rock saw and backhoe trenching, limited soil geochemical sampling, airborne geophysical surveying, and 35,241.6 metres of surface diamond drilling in 511 holes. In addition to surface work, a total of 5276 metres of exploratory underground drifting and 35,981 metres of underground drilling in 422 holes were completed on the West zone between 1986 and 1989. This work succeeded in outlining significant proven and probable on the West zone, and on the Shore zone (as reported in Assessment Report 24610). At least forty additional showings of precious metal mineralization have been located across the property, some of which have associated small reserves.

In 1985 on the Snowfield area, Newhawk completed five diamond drill holes totalling 740.0 metres on the Snowfield Gold zone. This work outlined a tabular, shallow south dipping zone, approximately 70 metres thick, of low grade disseminated gold mineralization. A preliminary geologic inventory based on surface trenching and five diamond drill holes was calculated at 7.04 million tonnes at 2.85 grams per tonne gold. In 1989, Newhawk and Corona Corporation completed a program consisting of grid emplacement and rock sampling over the Snowfield Gold zone to further define the zone. This led to the discovery of the Coffee Pot zone; a gold - silver bearing quartz vein system of limited size located 800 metres northwest of the Gold zone. In 1991, Newhawk, in conjunction with Granduc, completed additional mapping and sampling on the Snowfield Gold zone, and drilled two holes totalling 350 metres. The results of this program further defined the zone, but did not change its basic configuration. In early 1992, Newhawk purchased Granduc's interest in the Snowfield property. A small mapping and sampling program was completed later that year over the Dawson-Ross 1 and 3 claims which cover the Quartz Stockwork zone.

From 1991 to 1992, Newhawk officially subdivided the Sulphurets claim group into the Sulphside and Bruceside properties and optioned the Sulphside property (including Sulphurets and Mitchell zones) to Placer Dome Inc. Throughout the period from 1991 to 1994, joint venture exploration continued on the Sulphurets-Bruceside property including property-wide trenching, mapping, airborne surveys, and surface drilling, evaluating various surface targets including the Shore, Gossan Hill, Galena Hill, Maddux, and SG zones. Newhawk purchased Granduc's interest in the Snowfield Property in early 1992.

In 1991, six holes were drilled at the Shore zone, totalling 1,200 metres, to test its continuity and to determine its relationship to the West and R-8 zones. Results varied from 37 grams per tonne gold over 1.5 metres to 13 grams per tonne gold over 4.9 metres.

Diamond drilling continued in 1993 as Newhawk-International Corona Corp (Hornestake) completed 1,164 metres of drilling with three deep holes south of the known mineralization of the Snowfield zone and also drill tested the Josephine Vein system with three more drill holes totaling 295 metres.

In 1994, exploration in the Brucejack area consisted of detailed mapping and sampling in the vicinity of the Gossan Hill zone, and 7,352 metres of diamond drilling (over 20 holes), primarily on the West, R8, Shore, and Gossan Hill zones. Mapping, trenching, and drilling of the highest priority targets were conducted on 10 of the best deposits (including the West zone).

In 1996, Granduc merged with Black Hawk to form Black Hawk Mining Inc.

From 1997 to 1998, no exploration or development work was carried out on the Brucejack property (Budinski et al., 2001).

In 1999, Silver Standard acquired Newhawk and with it, Newhawk's 60 per cent interest and control of the Brucejack.

In 2001, Silver Standard entered into an agreement with Black Hawk whereby Silver Standard acquired Black Hawk's 40 per cent direct interest in the Brucejack property, resulting in 100 per cent interest in the property.

During the summer of 2006, Silver Standard Resources conducted a diamond drill program in order to test the economic potential of the low-grade disseminated gold occurrence at Snowfield. After completing 27 drill holes totaling approximately 6,000 metres, an inferred resource summary was completed for the Snowfield Gold zone. Utilizing a 0.5 gram per tonne gold cut-off; 64 million tonnes of material averaged 1.47 grams per tonne gold (as reported in Assessment Report 32047).

In 2009 Silver Standard began work on the Brucejack part of the property. The 2009 program included drilling, rock-chip and channel sampling, and re-sampling of historical drill core. Silver Standard collected a total of 1,940 drill core samples from 25 historical drillholes stored. Field work included the collection of 2739 rock-chip and channel samples. Specifically, rock-chip and channel sampling were completed at the Galena Hill, Bridge, SG, and Mammoth zones (where drilling was carried out in 2009), as well as at the Hanging Glacier zone, where historical surface sampling had identified rocks enriched in gold and silver. A total of 17,846 metres of diamond drilling were completed in 37 holes during the 2009 field season.

In 2010, Silver Standard sold to Pretium all the Brucejack Project and the adjacent Snowfield Project. In 2010 a total of 33,400 metres of diamond drilling was completed in 75 holes. Of this, 11 holes comprising 3693 metre were targeted at VOK (Valley of the Kings), and 2 holes, totalling 1119 metres at the footwall of West zone. 47 holes were drilled on the Snowfield project totalling 17,967 metres.

In 2011 Pretium's diamond drill program was the first in almost 20 years that was focused specifically on defining high grade resources. In this year a total of 178 holes was completed totaling 72,805 metres. Included in this were 97 holes (41,219 metres) on the VOK, 16 holes (7,471 metres) on the West zone, and 21 holes (7,220 metres) targeting the surrounding area. The remaining drilling was focused on expansion of Shore zone, testing for structurally controlled high grade mineralization in Galena Hill and Bridge zones, and testing new target areas. On the West zone, crews were in the process of de-watering the underground workings in order to advance exploration efforts.

The 2012 diamond drill program was focused on defining the high grade resource at the Valley of the Kings, specifically targeting geological and structural features believed to be associated with gold mineralization. Diamond drilling is also focused on expanding the VOK zone, both west of the Brucejack Fault and along trend to the east of the main mineralized zone. A total of 175 holes (55,849 metres) were completed.

In 2013, the primary focus was to further validate the deposit by completing a 10,000 tonne underground bulk sample from the Valley of the Kings (VOK) zone. Other major achievements included filing a positive feasibility study, significant advances in deposit geology, discovery of the Cleopatra vein, approximately 1.2 kilometre of underground development, completion of 44,601 metres of combined underground and surface drilling, and commissioning a 75 kilometre site access road from highway 37.

Mineralization at the Brucejack property is hypothesized to represent a deformed transitional meso – epithermal stockwork in pervasively altered lower Hazleton Group rocks; likely associated with the high levels of the multi-phase Mitchell intrusions.

In 2014, Pretium Resources Inc. continued exploration and development activities at the Brucejack-Snowfield high grade gold project. The company's Environmental Assessment application was formally accepted in mid-August. Surface drilling totalled 9,325 metres in 7 drill holes and 14 wedges. Results confirmed high-grade gold mineralization at the Valley of the Kings (VOK).

In 2015, nearly 20,000 metres of surface exploration drilling in 38 holes focussed on nearby geological and geophysical targets including the Flow Dome, Kitchen View, Hanging Glacier, Nip and the Lookout zones. The Flow Dome prospect located over 1 kilometre laterally from the Valley of the Kings zone, returned the most significant results including 0.5 metre grading 8,600 grams per tonne gold from drillhole Su-666 at 1267.45 metres depth. At the Kitchen View zone, drilling intercepted a sheared massive sulphide unit and yielded 4.5 metres grading 2 grams per tonne gold, 43.8 grams per tonne silver and 0.09 per cent copper (Exploration in BC 2015, page 128). Follow up ground based geophysics is planned for 2016. Lower grade gold-silver mineralization was intercepted at the Lookout and the Hanging Glacier zones.

Pretium completed a feasibility study in 2014. Provincial and Federal environmental assessment certificates were issued by the end of July 2015 and were followed by Mines Act and Environmental Management Act permits by September after which construction in September 2015 on their Brucejack underground gold-silver mine project. Underground mine development and the balance of approximately 40,000 metres of infill drilling will continue through the winter. Full-scale construction efforts have focussed on erecting the mill building, underground development, a permanent 330 person mine camp, and connecting a 57 kilometre power line. Construction timelines are on schedule and budget, with a start-up scheduled for 2017. Brucejack will be a 2,700 tonne-per-day underground mining operation with a forecasted 18-year mine life and will produce an estimated 7.27 million ounces of gold.

In 2016, outside of the Brucejack proposed mine area, evaluation of the surrounding 1200 square kilometres of mineral claims continued. Work in the previous two years included airborne geophysical surveys and regional sampling. In 2016, the regional program was focussed approximately 20 kilometres southeast of the mine project. New work included additional airborne magnetic, radiometric and hyperspectral surveys. Ground work included magneto-telluric geophysical surveys, property scale mapping, prospecting and diamond drilling.

Mineral Reserves as of December 2016 for the Valley of Kings are 3.3 million tonnes grading 14.5 grams per tonne gold and 12.9 grams per tonne silver in the Proven reserves category; and 12.3 million tonnes grading 16.5 grams per tonne gold and 11.3 grams per tonne silver in the Probable reserves category (News release dated December 14, Pretium Resources). For the West zone there are 1.4 million tonnes grading 7.2 grams per tonne gold and 383 grams per tonne silver in the Proven Reserves category; and 1.5 million tonnes grading 6.5 grams per tonne gold and 181 grams per tonne silver in the Probable reserves category (Feasibility Study and Technical Report Update on the Brucejack Project, dated June 19, 2014).

Combined, Proven plus Probable reserves for the VOK and the West zone remain unchanged from the 2014 feasibility study at 18.5 million tonnes grading 14.6 grams per tonne gold and 53.5 grams per tonne silver (2016 Exploration Overview, page 155).

The drill program increased Measured resources for the VOK by 58 per cent. Measured plus Indicated resources for the VOK zone now total 16.4 million tonnes grading 17.2 grams per tonne gold and 15.0 grams per tonne silver. Additional Inferred resources total 4.6 million tonnes grading 21.0 grams per tonne gold and 26.9 grams per tonne silver (2016 Exploration Overview, page 155).

Commercial production was achieved in July 2017 (Pretium News Release January 9, 2019).

In 2017 and 2018, Pretium completed 996 diamond drill holes, totalling 74,737 metres, and 349 RC drill holes, totalling 9,246 metres, on the Brucejack property. The underground exploration drilling targeting the Flow Dome Zone was successful in demonstrating the presence of Valley of the Kings Zone style mineralization from the Brucejack Gold Mine workings to the Flow Dome Zone, as well as in intersecting porphyry-style alteration and mineralization at depth beneath the Flow Dome Zone.

In January 2019, an updated mineral resource for the Brucejack (West) deposit was reported at 4.9 million tonnes measured and indicated grading 5.85 grams per tonne gold and 267 grams per tonne silver with an additional 4.0 million tonnes inferred grading 6.4 grams per tonne gold and 82 grams per tonne silver, using a 5 grams per tonne gold equivalent cut-off grade (Jones, I. (2019-04-04): Technical Report on the Brucejack Gold Mine). Also at this time mineral reserves were reported at 2.9 million tonnes proven and probable grading 6.9 grams per tonne gold and 278.5 grams per tonne silver (Jones, I. (2019-04-04): Technical Report on the Brucejack Gold Mine).

In 2019, Pretium Resources Inc. completed six underground diamond drill holes, totalling 8810 metres, which demonstrated the continuity of gold mineralization below the Valley of the Kings (MINFILE 104B 199), with visible gold mineralization observed more than 500 metres below the current Valley of the Kings resource.

In early 2020, Pretium Resources Inc. reported an updated mineral resource and mineral reserve for the Bruce Jack project (West and Valley of Kings [MINFILE 104B 199] zones) of 23 200 000 tonnes grading 10.1 grams per tonne gold and 65.5 grams per tonne silver measured and indicated with an additional 9 400 000 tonnes grading 10.3 grams per tonne gold and 44.3 grams per tonne silver using a 3.5 grams per tonne gold cut-off grade, whereas mineral reserves were reported at 15 700 000 tonnes proven and probable grading 8.4 grams per tonne gold and 59.6 grams per tonne silver (Pretium Resources Inc. [2020-03-09]: Technical Report on the Brucejack Gold Mine, Northwest British Columbia).

## ***Bibliography***

EMPR ASS RPT 6255, 9435, 10268, \*10698, 11667, \*14672, \*15684, 15688, 15724, 17133, \*17166, 18564, 21821, 21823, 21828, 21884, 22636, 22657, 22741, 23169, 23170, 23171, 23172, 23609, 23613, \*24610, 28925, \*32074, \*32718, 36214, 39314  
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EMPR INF CIRC 1993-13; 1994-19, p. 13  
EMPR OF 1988-4; 1992-1; 1994-1; 1998-10  
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<b>Date Coded:</b>	1988/03/28	<b>Coded By:</b>	Gordon S. Archer (GSA)	<b>Field Check:</b>	N
<b>Date Revised:</b>	2022/03/31	<b>Revised By:</b>	Karl A. Flower (KAF)	<b>Field Check:</b>	N