

## Cobalt and Silver History on the Properties

Work continues in several areas as the company continues to create shareholder value against a backdrop of increasing interest in silver and a robust medium – long term cobalt demand forecast. In the summer of 2018 the Company's proprietary environmentally friendly, metal separation technology (Re-2OX) was used to produce a cobalt sulphate compound that exceeded the specifications provided to the company.

Roughly 9.5 million ounces of silver and 300,000 pounds of cobalt was mined at Castle over the years, see [August 3rd 2015 Technical Report](#) with Beaver having historical documented cobalt production of another 140,000 pounds of cobalt plus 7.1 million ounces of silver. Back in 2011, CA11-08 returned **6,476 grams (188.8 ounces) of silver per tonne** over 3.09 metres including **0.91% cobalt** over 0.45 metres.

A few years later In February 2013, metallurgical tests on samples from Beaver were released. Four hundred kilograms of cobalt-nickel sulphide material was hand cobbled from the historic waste pile with a 20-kilogram sample used in a test program showing an average calculated assay of **7.98% cobalt**, 3.98% nickel and **1,246 g/t silver**. Combined gravity-flotation recoveries from the limited test program yielded **64.2% for cobalt**, 61.2% for nickel and 92.0% for silver.

More recently, on January 31, 2017 results from bench-scale metallurgical flotation and gravity test work showed **silver and cobalt recoveries of 98.5% and 70.5% respectively** with an extremely high concentrate grade of 11,876 grams per tonne silver and **10.5% cobalt** produced using a simple flotation process. The mineralized-material surface sample was a composite collected from a waste pile at Beaver assaying **2,064 grams per tonne silver** and **5.62% cobalt**. Read the entire press release here [Castle metallurgy results news release revised January 31 2017](#)

Then in June 2017 the company announced that chip sampling from the back of a quartz-carbonate vein on the first level adit at Castle had confirmed the presence of high-grade cobalt with all five chip sample results strongly mineralized including **1.8% cobalt**, 8.6% nickel and 25.2 g/t silver from (CSR-17-S03), **1.6% cobalt**, 7.6% nickel and 32 g/t silver from (CSR-17-S04) and **0.81% cobalt**, 5.9% nickel and 4.1 g/t silver from (CSR-17-S01). The following month an 82-kilogram sample of vein material from the first level adit at Castle was crushed to -10 mesh, blended and assayed, returning **1.48% cobalt**, 5.7 g/t gold and 46.3 g/t silver. On July 19<sup>th</sup> 2017 it was announced that SGS Lakefield had produced a **14.8% cobalt** concentrate from that sample.

On November 13, 2017 the results from an exploratory surface drill program 200 meters from the Castle adit were released with mineralization intersected in every hole highlighted by **1.55% cobalt**, 0.65% nickel, 0.61 g/t Au and 8.8 g/t Ag over 0.65 meters at a shallow depth (3.85 meters to 4.50 meters) in hole CA-17-16. It has been asserted and again evidenced that historical operator Agnico purposely overlooked the cobalt and base metals at Castle and focussed solely on the extraction of high-grade silver, targeting the biggest silver veins which tend to be associated with less cobalt mineralization.

On December 1, 2017 it was announced that ongoing underground sampling of muck rock from the floor of the drift and from chipping out vein material over 2 lengths of 10 metres resulted in approximately 20 kg of material. From that, a 2 kg composite sample was randomly selected with returns including **3.1%**

**cobalt** in sample CSR-UG-T-2, **1.04% cobalt** in sample CSR-UG-T-3, and **2.3% cobalt** in sample CSR-17-10. The follow week, results from the Beaver mine property were released also showing high-grade cobalt. Three composite samples totalling 38.7 kg were collected from select hand cobbled material at surface with averages coming in at **4.68% cobalt**, 46.9 g/t silver and 3.09% nickel.

On February 27, 2018 it was announced that high-grade cobalt values were returned from a continuing mini-bulk sample at Castle. The first sample, weighing 13.0 kg, assayed **2.47% cobalt**, 23.4 g/t silver, 0.68% nickel and 1.83 g/t gold. The second sample, weighing 14.0 kg, assayed **0.91% cobalt** and 460 g/t silver.

Then on March 16, 2018, material from a selected bulk sample from the floor of the first level at Castle was crushed, blended and assayed by SGS Lakefield, returning **2.46% cobalt**, 1.0% nickel and 6,173 g/t silver (198.5 ounces per tonne). Native silver was not included in that pulp assay. A metallic screen fire assay was performed on the native silver, producing a head grade of 818,254 g/t (26,307 ounces/ton).

On May 31, 2018 a breakthrough in the recovery of cobalt and other metals was achieved using the Company's proprietary "environmentally green" Re-2OX process at the SGS Lakefield lab with a recovery rate of **99% of cobalt** and 81% of nickel from a composite of gravity concentrates while also removing 99% of the arsenic. The gravity concentrates graded **9.25% cobalt**, 5.65% nickel, 9,250 g/t silver and 49.9% arsenic.

On June 8, 2018 during rehab in the first level adit, five selected cobalt samples of waste rock were assayed ranging from **1.05%** to **5.2% cobalt** averaging **2.3% cobalt**. These samples were used as part of a 500 kg composite sample put through the Re-2OX process to create a cobalt concentrate before being converted into a cobalt sulfate/cobalt hybrid formulation for evaluation by battery sector clients in Asia.

On June 28 it was announced a pilot plant was being assembled at Castle to produce bulk gravity concentrates on site for immediate processing into cobalt sulphate then on August 15 it was announced that a **technical grade cobalt sulphate hexahydrate at 22.6%** had been produced directly from those cobalt-rich gravity concentrates.

On November 2, 2018 it was announced that underground drilling on the first level of the Castle mine, returned high-grade cobalt, nickel and silver grades as follows:

- **2.28% cobalt**, 261 g/t silver and 1.65% nickel over 7.00 meters in hole CA18-001
- **1.87% cobalt**, 4,763 g/t silver, 1.29% nickel and 1.19 g/t gold over 2.54 m in CA18-002
- **3.16% cobalt** and 10,741 g/t silver (345 ounces per tonne) over 0.60 meter in hole CA18-003

Most recently, on February 19, 2019 it was announced that drill hole CA-18-54 hit two very high-grade silver intercepts starting just 9.71 meters downhole returning 93.7 ounces per tonne silver (3,213 g/t) over one meter including 286.3 ounces per tonne (9,816 g/t) over 0.33 meters and 385.2 ounces per ton silver (13,208 g/t), **0.67% cobalt** and 3.77 g/t gold over half a meter within a broader 5.51-meter zone that also included **1.87% cobalt** over 2.54 meters and 76.4 ounces per ton silver (2,620 g/t) over a core length of 5.51 meters starting at just 1.46 meters.