

# Boliden Summary Report

Resources and Reserves | 2022

## Laver project



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Front page: The historic old Laver mine looking south towards Lill-Laverberget. Photo from July, 2017

## 1 SUMMARY

Table 1 is a summary table containing estimated Mineral Resources of the Laver project as of 2022-12-31. These figures changed from the previous year's disclosure.

There are not currently and have not previously been any Mineral Reserves estimated for Laver project.

Table 1. Mineral Resources in Laver 2022-12-31.

Classification	2022					2021				
	kt	Au (g/t)	Ag (g/t)	Cu (%)	Mo (g/t)	kt	Au (g/t)	Ag (g/t)	Cu (%)	Mo (g/t)
<b>Mineral Resources</b>										
Measured	-	-	-	-	-	1 100	0.11	4.4	0.20	18
Indicated	<b>733 600</b>	<b>0.14</b>	<b>3.6</b>	<b>0.24</b>	<b>37</b>	512 400	0.13	3.1	0.22	36
<b>Total M&amp;I</b>	<b>733 600</b>	0.14	3.6	0.24	37	513 500	0.13	3.1	0.22	36
Inferred	<b>227 400</b>	<b>0.11</b>	<b>4.9</b>	<b>0.19</b>	<b>30</b>	550 600	0.10	3.1	0.21	33

Notes on Mineral Resource and Mineral Reserve statement.

- *Mineral Resources are reported exclusive of Mineral Reserves. No Mineral Reserves currently exist.*
- *Mineral Resource is a summary of Resource estimations and studies made over time. No adjustment to mining was required. Historical underground mining is located outside the current Resource area.*
- *Mineral Resource are reported without dilution.*
- *General reasonable prospects for economic evaluation was defined using Whittle software.*
- *Mineral Resources are reported at a 0.06% copper (Cu) cut-off.*
- *The previous Mineral Resource was reported using an NSR of 33 SEK/ton, which was roughly equivalent to an in-situ grade of 0.07% Cu.*
- *Currently, no mining permit exists. Studies on tailing storage are ongoing and consider the smallest environmental impact possible.*
- *Tonnes and grades are rounded which may result in apparent summation differences between tonnes, grade and contained metal content.*

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## 1.1 Competence

Table 2. Contributors and responsible competent persons for this report

Description	Contributors	Responsible CP
Compilation of this report	Sonja Pabst	Peter Svensson
Geology	David Suter, Sonja Pabst	Peter Svensson
Resource estimations	Sonja Pabst	Gunnar Agmalm
Mineral processing	Rickard Långström, Sonja Pabst	Peter Svensson
Mining	Gregory Joslin	Peter Svensson
Environmental and legal permits	Nils Eriksson, Sonja Pabst	Nils Eriksson

Peter Svensson works for Boliden as the Manager for Field Exploration. He is a member of Australian Institute of Geoscientists (AIG) since 2009. Peter Svensson has over 15 years of experience in the Exploration and Mining industry. Nils Eriksson works for Boliden Mines as the Manager for Permitting and Environmental Coordination. He is a member of Fennoscandian Association for Metals and Minerals Professionals (FAMMP) since 2020. Nils Eriksson has over 25 years of experience in Environmental Management and Permitting within the Mining industry. Gunnar Agmalm is Boliden's Ore Reserves and Project Evaluation Manager and a member of the Australian Institute of Mining and Metallurgy (AusIMM) and Fennoscandian Association for Metals and Minerals Professionals (FAMMP).

## 2 GENERAL INTRODUCTION

This report is issued annually to inform the public (shareholders and potential investors) of the mineral assets in Laver held by Boliden. The report is a summary of internal / Competent Persons' Reports for Laver. Boliden method of reporting Mineral Resources and Mineral Reserves intends to comply with the Pan-European Reserves and Resources Reporting Committee (PERC) "PERC Reporting Standard 2021".

The PERC Reporting Standard is an international reporting standard that has been adopted by the mining associations in Sweden (SveMin), Finland (FinnMin) and Norway (Norsk Bergindustri), to be used for exploration and mining companies within the Nordic countries.

Boliden is reporting Mineral Resources exclusive of Mineral Reserves.

### 2.1 Pan-European Standard for Reporting of Exploration Results, Mineral Resources and Mineral Reserves – The PERC Reporting Standard

PERC is the organization responsible for setting standards for public reporting of Exploration Results, Mineral Resources and Mineral Reserves by companies listed on markets in Europe. PERC is a member of CRIRSCO, the Committee for Mineral Reserves International Reporting Standards, and the PERC Reporting Standard is fully aligned with the CRIRSCO Reporting Template.

The PERC standard sets out minimum standards, recommendations and guidelines for Public Reporting of Exploration Results, Mineral Resources and Mineral Reserves in Europe.

### 2.2 Definitions

Public Reports on Exploration Results, Mineral Resources and/or Mineral Reserves must only use terms set out in the PERC standard (Figure 1).

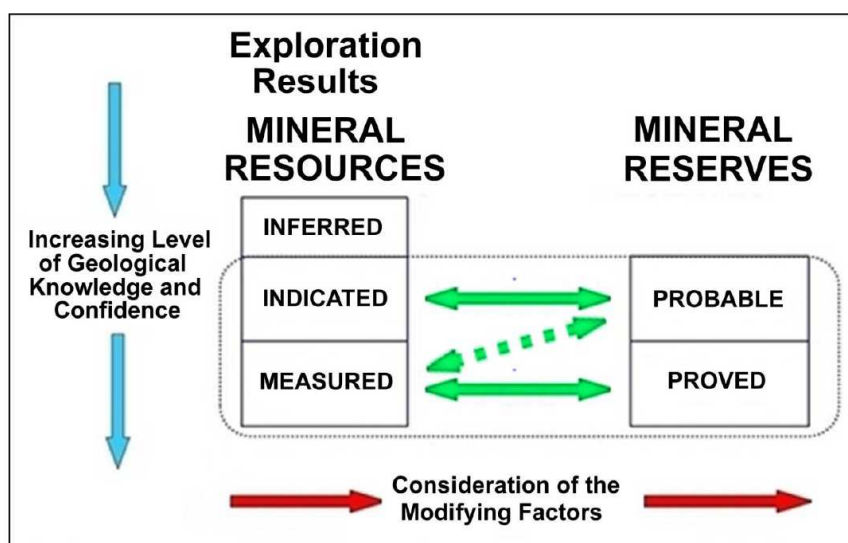


Figure 1. General relationship between Exploration Results, Mineral Resources and Mineral Reserves (PERC 2021).

### 2.2.1 Mineral Resource

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

### 2.2.2 Mineral Reserve

A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

## 3 THE LAVER PROJECT

### 3.1 Project Outline

The Laver project is an advanced exploration stage bulk open pit copper-gold-silver-molybdenum mining project focused on developing the Laver deposit in Norrbotten county, northern Sweden. The project has contained estimated Mineral Resources at the Laver deposit since 2012, with the latest Mineral Resource estimate completed in 2022. Exploration, technical, and economic evaluations at the Laver deposit have advanced to conceptual study level. No Mineral Reserves are currently estimated within the project.

Multiple key permits are outstanding in the Laver project that are required prior to development of the deposit. These include the mining concession permit, as well as multiple environmental permits. Work is currently ongoing internally within Boliden focused on permitting, improving, and advancing the Laver project.



### 3.2 Major changes

Since the last mineral resource update in 2013, work on the project was ongoing in the form of continued exploration, cost and CAPEX optimization, environmental monitoring, stakeholder relations, and permitting. An internal audit of the project was completed in 2017, highlighting opportunity for improvement through continued work in these areas.

Major changes have been made recently leading to updated Mineral Resources at Laver. Those include:

- Drilling between 2015 and 2021 and new geological interpretation and 3D modelling during 2019 to 2021 (Suter, 2021).
- Mineral resource estimation (MRE) using Leapfrog Geo EDGE (Pabst, 2022).
- Whittle pit optimization to define the reasonable prospect for eventual economic extraction (RPEEE) (Bernau, 2022).

### 3.3 Location

The Laver project is located in Älvsbyn municipality, Norrbotten county, Sweden, about 700 km north of the Swedish capital Stockholm and about 90 km west of the regional economic center of Luleå (Figure 2). The project consists of three exploration licenses totaling about 43 square kilometers, centered around the Laver deposit. Boliden holds a number of other exploration licenses in the region as part of its broader project portfolio.



Figure 2. Location map of the Laver project. Coordinate system is SWEREF99TM (meters).

### 3.4 History

Historic mining took place in the Laver project area during 1938-1946 at the old Laver mine. During this period a total of approximately 1.3 Mt grading 1.5 % Cu, 0.2 g/t Au, and 36 g/t Ag was ultimately processed, mainly from small scale underground mining. In the early 1970's, and again in 1997, Boliden placed renewed focus on copper exploration in the historic Laver mine area. These activities identified a broad area of low-grade copper and gold mineralization in near surface

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bedrock at Lill-Laverberget, centered approximately 1.5 km south of the historic old Laver mine workings.

In 2007 Boliden again restarted copper exploration in the historic Laver mine area. This time focus was placed on defining a large volume, near surface mineral resource suitable to low cost open pit mining. To this end exploration drilling commenced at Lill-Laverberget in 2009 and continued in three distinct campaigns through 2013. This work resulted in the definition of a new copper-gold-silver-molybdenum deposit, i.e. the Laver deposit. The first Mineral Resource estimate for the Laver deposit was dated 31<sup>st</sup> of December 2012.

As drilling advanced, scoping level technical studies were initiated by Boliden investigating areas including mineral processing, mining method and scale, rock mechanics, infrastructure layout, CAPEX estimation, and potential environmental and social impacts. The previously published Mineral Resource estimate for the Laver deposit, dated 31<sup>st</sup> of December 2013, is based on results from that work. In 2014 Boliden submitted an application for mining concession covering the entirety of the Laver deposit Mineral Resource which was rejected by the Swedish Mining Inspectorate in December 2016. Boliden subsequently appealed this decision to the Swedish Government and the Swedish Government rejected Boliden's appeal in December 2020. After an appeal of Boliden to the Supreme Administrative Court (Högsta Förvaltningsdomstolen) in early 2021, the court judged in June 2022 that the denial of the concession by the government was lawful. Exploration and other work have continued throughout the mining concession permitting process. An internal audit of the project was completed in 2017. Results of the audits confirmed the bulk open pit mining potential of the Laver deposit, and highlighted opportunity for project improvement through continued focus on exploration, operational cost, and CAPEX optimization. During 2021/2022 further scoping level technical studies were undertaken by Boliden, part of which was a Mineral Resource estimate for the Laver deposit during 2022, based on an updated geological interpretation using additional exploration drilling from 2019 to 2021.

### 3.5 Ownership and Royalties

The Laver project is 100% owned and operated by Boliden. Additionally, Boliden owns 100% of surface rights covering the Laver deposit Mineral Resource. However, substantial areas of land needed for future development of the Laver deposit Mineral Resource (examples include future tailings facility, processing plant, etc.) are not currently owned by Boliden and may be subject to future acquisition.

Surface ownership within the greater area of the Laver project is distributed between a variety of private and public entities and dominated by large land holdings by commercial forestry companies. The main land use activities in the project area are commercial forestry, reindeer husbandry, and recreation. Agricultural activity is present only locally within the project area.

All properties within the Laver project are subject to a standard legally prescribed royalty of 0.2% of the annual value of metal recovered after mineral processing. Calculation and other details of this royalty is governed by the Swedish Mineral Law (Minerallag (1991:45)). According to this law the royalty payment is to be distributed at a rate of  $\frac{3}{4}$  to the surface owner and  $\frac{1}{4}$  to the Swedish state. No additional royalties currently apply to the Laver project.

## 3.6 Environmental, Social and Governance (ESG)

### 3.6.1 Permitting and legal requirements

#### 3.6.1.1 Existing permits

The Laver project consists of three exploration licenses totaling 4 281 ha (Table 3). All licenses are currently in good standing with the Swedish Mining Inspectorate Bergsstaten. The Laver deposit lies fully within the exploration license Laver nr 1002.

The maximum allowable age of an exploration license under the Swedish Mineral Law is 15 years, after which it is relinquished and the areal is allowed a one year “resting” period. Only after the one year resting period is complete can a new exploration license covering the areal be established, with certain special exceptions.

Table 3. List of exploration licenses comprising the Laver project.

Exploration license (name)	Area (ha)	Valid through (date)	Age at expiration (yrs)
Laver nr 1002	2 232	2024-10-26	17*
Laver nr 1003	464	2024-02-14	12*
Laver nr 1004	1 585	2024-05-14	12*
<b>Total</b>	<b>4 281</b>		

\*Includes a one-time extra extension year related to special Covid-related regulations.

#### 3.6.1.2 Necessary permits

No mining concession currently exists covering the Laver deposit. Boliden applied in 2014 for a mining concession covering the entirety of the deposit’s Mineral Resource. However, in December 2016 Boliden’s application for the mining concession Laver K nr 1 at Laver was rejected by the Swedish Mining Inspectorate as they argued that Natura 2000 issues also needed to be part of the evaluation. Boliden appealed this decision to the Swedish Government. In December 2020, the Swedish Government rejected Boliden’s appeal. Boliden appealed the matter further to the Supreme Administrative Court (*Högsta Förvaltningsdomstolen*) in early 2021. In June 2022, the court judged that the denial of the concession by the government was lawful. Consequently, Boliden will now develop a new application for the mining concession at Laver.

Multiple environmental permits will be required prior to future production startup from the Laver deposit. Boliden has no plans to apply for these required environmental permits until after a valid mining concession in place, if at all.

### 3.6.2 Environmental, Social and Governance considerations

#### 3.6.2.1 ESG Commitments

Boliden’s business model sets ESG priorities and takes into consideration the risks and opportunities identified by business intelligence and risk mapping, as well as applicable requirements and expectations such as:

1. Stakeholder expectations
2. Current and potential legislative trends
3. ISO 9001, 45001, 14001 and 50001 standards and Forest Stewardship Council (FSC® COC-000122)



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4. OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk Areas
  5. GRI Standards (Global Reporting Initiative)
  6. UN Sustainable Development Goals (SDGs)
  7. UN Global Compact
  8. ICMM Mining principles

Boliden regularly consults prioritized stakeholder groups on sustainability performance from a broader perspective. These stakeholders are asked to comment on Boliden's performance to drive further improvement.

Boliden is a member of ICMM and the national mining associations in the countries where Boliden Mines operates. These commitments imply implementing relevant international and national EMS standards and guidelines, such as, e.g., the Global Industry Standard on Tailings Management on an international level and Mining RIDAS on a national level. In addition to this, Boliden Mines is certified according to a series of standards, such as:

- ISO 14001:2015 - Environmental management systems.
- ISO 45001:2018 - Occupational health and safety management systems.
- ISO 50001:2018 - Energy management systems.

Boliden has implemented an integrated management system (Boliden Management System, BMS) which sets a common base for all activities developed within the company.

Boliden strives to run a responsible business and expects its business partners to do the same. Good business ethics is essential for sustainable and successful business. Boliden has an ethics and compliance department to boost its compliance work. The department is responsible for the strategic development and coordination of Boliden's work regarding anti-money laundering, anti-corruption, competition law, sanctions, human rights, data protection, whistleblowing and Boliden's employees and management work together to create a compliance culture in which everyone knows what is expected of them - Boliden's codes of conduct. Regular risk assessments, trainings, audits and effective controls are important parts of Boliden's compliance efforts. The Group's whistleblower channel enables all employees and external stakeholders to report suspected and actual misconduct confidentially and anonymously. If misconduct is proven, disciplinary actions must be taken. Reprisals against anyone reporting misconduct in good faith will not be tolerated. Group management and the Board of Directors receive regular reports on risks, non-compliance and the status of initiatives in progress.

Boliden's Code of Conduct provides a framework for corporate responsibility based on the company's values and ethical principles. All employees and members of the Board are subject to the Code, which is based on international standards and relevant legislation. As a complement to the Code, there are internal policies that all employees are expected to comply with. Boliden strives for a sustainable value chain and therefore applies an overarching business ethics and risk management strategy when selecting business partners. The Business Partner Code of Conduct reflects the requirements placed on Boliden's own organization and sets the lowest standard of ethical conduct required of all parties in the value chain, whether Boliden is the buyer or seller. As with the internal Code of Conduct, this code is based on international standards such as the UN's Global Compact, the ILO's standard core conventions and guidance from the OECD. Compliance and sustainability risks are assessed when selecting business partners. If there is a risk of non-compliance by a business partner, a more detailed review is made. Depending on the outcome, an action plan may be developed and agreed upon, or the business relation may be terminated or rejected.

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Boliden is a member of the United Nations Global Compact and works constantly to implement its ten principles, including preventing and limiting negative impact in the own operations and those of its external business partners. Boliden runs operations in countries where the risk of human rights violations is considered low. No operations are conducted anywhere in UNESCO's World Heritage List. Boliden supports the right of indigenous peoples to consultations under Svemin's interpretation of FPIC. Other important aspects are fair working conditions and the position Boliden has adopted against any form of harassment, discrimination and other behavior that may be considered as victimization by colleagues or related parties. In addition to this, aspects such as child and forced labor as well as the freedom to form and join trade unions are taken into account when evaluating business partners.

Anti-corruption forms a central part of the ethics and compliance work, and Boliden has a zero-tolerance policy regarding all types of bribery and corruption. Boliden has an anti-money laundering policy for identifying and managing risks in various parts of the business and to strengthen its anti-money laundering efforts.

### **3.6.2.2 Socio-economical impact**

Laver is located in the municipality of Älvsbyn with about 8000 inhabitants. Even though Älvsbyn is sparsely populated Älvsbyn is well equipped with road and rail infrastructures and relatively close to bigger cities like Piteå, Luleå and Boden.

A mine in Laver would have a significant positive impact on the socio-economical situation in Älvsbyn municipality. In addition to jobs and taxes, Laver would contribute to the social sustainability and the socio-economical situation in many other ways.

### **3.6.2.3 Communities and land-owners**

The area surrounding Laver is mainly forest, often with high natural conservation values. The surface waters surrounding Laver are to a large extent declared as Natura 2000 areas due to their high conservation values within the Pite-river catchment area.

Apart from forestry and reindeer farming the most common land-use is hunting, fishing, berry picking and recreation. Laver would have a significant impact on land-use in the local area as the mining area would be surrounded by a fence for security reasons. This would limit access and cut off original access routes and imply additional work for the active reindeer farmers. Boliden tries to design and develop the Laver project in order to minimize negative impacts and in case such impacts cannot be avoided compensate for this inconvenience by e.g., providing alternative access roads as well as economical compensation to the reindeer farmers.

### **3.6.2.4 Indigenous people**

Laver is located within the reindeer management area Semisjaur-Njarg Sámi community. This Sami community conduct their activities within a 6245 km<sup>2</sup> area stretching from the mountains at the boarder to Norway down to the coast south of the Pite-river. Within the community there are approximately 30 active reindeer herding enterprises, and the maximum number of reindeers is 9000 in winter. The community is divided into two groups. The area where Laver is located is used for winter grazing.

In general, for the reindeer management a single project, as for e.g. Laver, is not the main problem, but rather the accumulated pressure on their lands. Mining affects reindeer management in various ways, such as its land requirements, noise, dust and transport which may result in the reindeers

avoiding the areas around the mine. The fence surrounding mines complicates the movements of the reindeer herds.

Boliden is well aware of the consequences and the problems mining at Laver could cause for Semisjaur-Njarg Sámi community. In order to minimize and to compensate for the impacts a well established dialogue is fundamental. Within this dialogue the mutual understanding of the two businesses is favored and measures to minimize and compensate for impact can be developed.

In addition to this, Boliden is engaged in a series of research projects and compensation measures to, e.g., improve forestry management to enhance lichen growth or facilitate the movements of the reindeer herds.

### 3.6.2.5 Historical Legacy

The old Laver mine was in operation between 1938-1946 during which period 1,4 Mton of sulfide copper ore was extracted in a small open pit and underground. The ore was processed at site and the tailings were deposited in a 12 ha tailings management facility (TMF) in the valley of the Gråbergs Creek. The downstream dam of the TMF failed in 1952 and about 20% of the tailings were released. Fortunately, the released tailings sedimented in a clarification pond which was created by building a small dam approximately 3 km downstream of the TMF.

The development of the Laver project would to a large extent remove the old legacy at the site.

## 3.7 Geology

### 3.7.1 Regional

The Laver project is located within a widespread geologic region of Northern Europe dominated by exposed Precambrian crystalline bedrock, known as the Fennoscandian shield (Figure 3). Rocks of the Fennoscandian shield range in age from greater than 2.5 billion years (Archean) to about 0.9 billion years (Late Proterozoic), generally growing younger from northeast to southwest across the region. A large proportion of base and precious metal deposits of Sweden, Finland, northern Norway, and northwestern Russia are hosted by Fennoscandian shield rocks. In Sweden, currently producing metal mining districts of the Fennoscandian shield include the prolific Bergslagen, Skellefte, Aitik, and Kiruna fields.

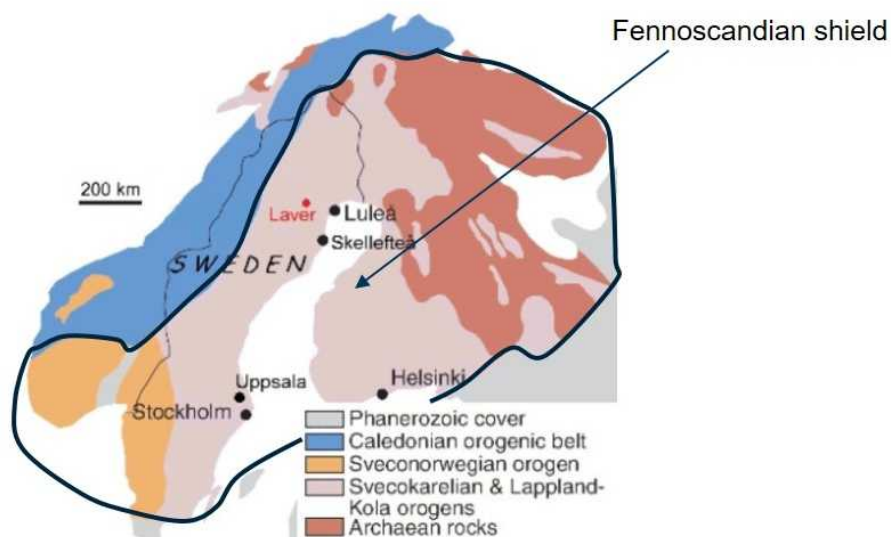


Figure 3. Regional geologic map of northern Europe showing location of the Laver project on the Fennoscandian shield.

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### 3.7.2 Local

On a local level, the Laver project is located within a tectonic sub-region of the Fennoscandian shield known as the Svecokarelian orogen. Supracrustal rocks in the project area are dominated by a diverse variety of 1.88-1.86 billion years old Svecofennian division meta-volcanic, volcanoclastic, and sedimentary rocks, known locally as the Arvidsjaur group (Kathol et al., 2012). Igneous rocks within Arvidsjaur group tend to be dominated by felsic to intermediate compositions (rhyolite to dacite), with observed rock textures indicating a predominantly sub-aerial to shallow sub-marine depositional environment. Mafic volcanic rock compositions (basalt) are rare within the Arvidsjaur group.

Intrusive rocks in the Laver project area are dominated by granites and granodiorites, ranging in age from syn-orogenic/volcanic (Perthite monzonite suite, 1.88-1.86 billion years) to late- to post-orogenic/volcanic (Edefors suite, 1.81-1.78 billion years). Mafic intrusive rocks, mainly of Perthite monzonite suite association, are most common in the Storsund area in the southeastern part of the project.

Deformation of the Arvidsjaur group and Perthite monzonite suite rocks is thought to have occurred in two main phases (D2 and D3) during the Svecokarelian orogen, between about 1.88 and 1.80 billion years (Bergman Weihed, 1997; Bark and Weihed, 2005; Lahtinen et al., 2008). Early, generally broad northwest to southeast oriented fold axes in the Laver area (D2) are thought to have been formed during 1.88-1.85 billion years old regional compression and accretion from the southwest (Lahtinen et al., 2008; Kathol et al., 2012). However, regional compressional stress is thought to have changed to a more east-west dominated orientation at around 1.83 billion years, resulting in the formation of overprinting north-south to northeast-southwest oriented (D3) regional foliation fabrics and deformation zones (Bergman Weihed, 1997; Lahtinen et al., 2008). Orientations of many of the late- to post-orogenic Edefors suite intrusives in the Laver area seem to roughly parallel to these overprinting D3 structures.

Peak regional metamorphism in the Laver project area is generally greenschist facies and is thought to have occurred at around 1.85 billion years (Bergman Weihed, 1997).

### 3.7.3 Deposit

Mineralization of the Laver deposit is hosted within Arvidsjaur group rocks dominated by complexly interbedded volcanoclastics including tuffs, lapilli tuffs, and agglomerates (Figure 4). Massive flow units are present in the deposit host sequence, but these are volumetrically subordinate. Igneous compositions are dominated by dacite, with lesser volumes of rhyolite and andesite-basalt. Observed rock textures indicate that most stratigraphic units in the host sequence were likely deposited in a sub-aerial to shallow sub-aqueous environment.

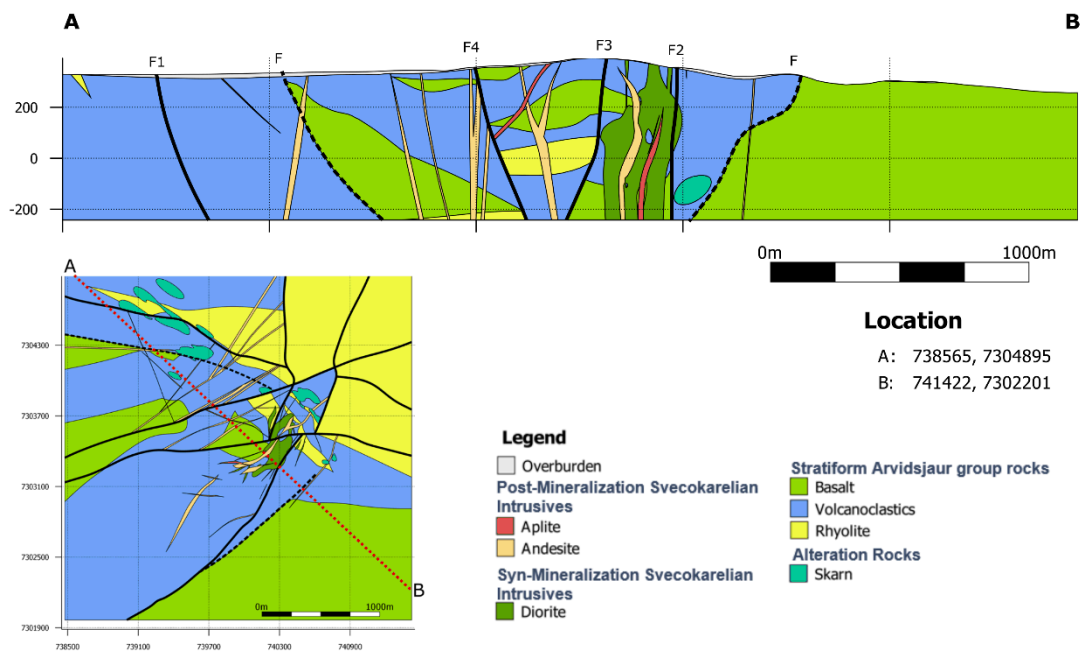


Figure 4. Cross section from NW to SE showing shallow dipping interbedding between dacitic volcanoclastics, an upper and lower basalt unit as well as a rhyolite unit in the bottom, divided by the identified major structures (F1-F4). Unnumbered F representing structures not visible in the aeromagnetic interpretation but indicated by geometry of the lithology. From Suter (2021).

### 3.7.4 Mineralization

Copper in the Laver deposit occurs primarily within the mineral chalcopyrite, with only rare bornite observed. No other mineral is known to be a significant carrier of copper in the deposit. Copper sulfides at Laver are generally fine to very-fine grained in texture and found in close association with the iron sulfides pyrrhotite and pyrite. Other sulfide minerals observed in minor quantities include molybdenite, sphalerite, galena, and arsenopyrite.

Silicate alteration minerals commonly observed in the deposit include quartz, muscovite, biotite, amphibole, garnet, and epidote.

The highest grade copper-gold-silver zones within the Laver deposit seem to be spatially centered around dike-like, steeply dipping, crystal tight porphyritic dioritic intrusives of Perthite monzonite suite association. Quartz alteration (i.e., “silicification”) also seems to be most intense within and around these intrusions. On a broad scale, sulfide mineralization in the deposit is zoned outwards from a chalcopyrite dominated core to more iron sulfide dominated (pyrite+pyrrhotite) distal halo. Steeply dipping post-mineralization barren dikes of aplite, andesite, and basalt locally cross-cut and dilute the mineralized zone.

Based on the above described regional geological context, deposit-scale geological and mineralogical relationships, and large size of the mineralization, Boliden has interpreted the Laver deposit as a member of the porphyry copper class of mineralization systems.

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## 3.8 Drilling procedures and data

### 3.8.1 Drilling techniques

Diamond core drilling was the sole source of all analysis data used in modeling and estimating the Laver deposit.

Early drilling was completed in several distinct campaigns between June 2009 and June 2013. Campaigns consisted of “Reconnaissance Exploration” drilling totaling 9 037 m, “Infill” for maiden Mineral Resource totaling 20 363 m, and “Expansion plus Mineral Resource upgrading” totaling 16 387 m.

Drilling continued from July 2015 to August 2016 with 16 drillholes totaling 4 416 m targeting mainly the northern and eastern extends of mineralization. During 2017, “Satellite” drilling executed 12 drillholes totaling 2 382 m far east of the estimated Laver deposit.

“Infill” drilling in the eastern part of Laver deposit was executed between May and September 2019 (19 drillholes totaling 5 309 m).

Between January and August 2021, further “Infill” drilling across the entire deposit area (drillholes LAVER540-594, 54 drillholes totaling 17 023.1 m) and “Satellite Drilling on Luspenåive” (drillholes LAVER595-606, 13 drillholes totaling 3 971.7 m), south of the Laver deposit, were executed. Infill and exploration drilling since 2013 targeted to improve confidence in the Mineral Resource area.

Core diameter during the 2009-2013 diamond drill campaigns was 39 to 42 mm (i.e. BQ size bit).

Core diameter for the “Expansion” diamond drilling was mainly 60 mm (i.e. NQ size bit).

However, some drill holes telescoped down to 39 mm cores in the deeper portion of the hole.

Drilling from 2015 to 2017 utilized BQTK bits with rods being of 60mm and core being of 40.7mm in diameter. During 2019, overburden material was drilled with HQ (upper meters) and NQ (deeper overburden) while drillholes were continued with BQ in bedrock. During 2021, holes were usually entirely drilled with NQ with casing applied for overburden.

Based on the mineralogy and geological texture of the copper-gold-silver mineralization at Laver, BQ rod size or larger was considered sufficient and appropriate for grade estimation. NQ holes were mainly drilled with the idea of achieving more predictable hole traces, as well as obtaining larger samples that could be used in metallurgical testing.

### 3.8.2 Downhole surveying

All drillholes from 2009 to 2013 drilling on the Laver deposit were deviation surveyed with Boliden’s borehole mag (BH\_MAG) system. The system uses an inclinometer to measure dip and magnetic measurement to use direction. The same system was used for deviation surveys for one drillhole in 2015/2016 and three drillholes in 2017. Reflex Gyro was the used tool for the rest of the drillholes during 2015/2016 (11), 2017 (9), 2019 (19) and 2021 (46). Five drillholes remained with the planned deviation (four in 2015/2016, one in 2019 and one in 2021).

### 3.8.3 Sampling

All metal grade input data for the Laver deposit model is derived from sampling of ½ sawed diamond drill core. Sample intervals were marked by Boliden geologists in conjunction with geological and core recovery logging in Boliden. Standard maximum sample interval length was 5 meters, assuming consistent geology and mineralization intensity within the interval. Shorter sample intervals were commonly taken in areas of variable geology and mineralization. Sawing and sampling of drill cores was done either “in house” at the Boliden core shed or by ALS Chemex in Sweden.



The total number of samples used in the Laver deposit resource model sums to 15 198 (from 159 drillholes) for Ag, Au, and Mo, giving an average sample interval length of 4.12 m with a median of 4.70 m. Not all drillholes were sampled for the entire assay suite resulting in lower sample counts; 15 197 for Cu, 15 179 for S, 14 446 for Zn, 13 746 for As, 7 209 for Hg and Sb. The dominant sample interval length of 5 m (representing 34% of the samples) was deemed appropriate based both on the style of mineralization and anticipated eventual bulk mining method of the deposit.

Sample preparation was conducted by ALS Minerals in Sweden using the Prep-31 method. Prep-31 consists of several stages including logging, weighing, drying, and crushing to 70% passing a screen of 2 millimeters. A split of 250 grams is then taken and ground to 85% passing a screen of 75 microns to form the final sample pulp.

Pre-2015, all sample pulps were delivered to ALS Chemex in Vancouver, Canada for analysis of copper, gold, silver, molybdenum, and sulfur. Analysis codes used for these elements included AA46 (copper), ICP-21 (gold less than or equal to 5 parts per million), GRA-22 (gold greater than or equal to 5 parts per million), AA45 (silver and molybdenum), and S-IR08 (sulfur). Many, but not all, samples were additionally analyzed for a broad suite of major and trace elements using various other ALS analysis codes including ME-MS81 and others. Detailed method descriptions of ALS analysis codes can be found at [www.alsglobal.com](http://www.alsglobal.com). Then, select payable and penalty metals were analyzed using ME-OG46 (As, Cu, Pb, Zn), ICP21 (Au), and trace AA45 (Ag, Mo) methods.

All relevant drillhole data including location, downhole surveying, geology, sample intervals, and analysis results were digitally archived in a secure relational database system at the Boliden exploration office in Boliden, Sweden.

### 3.8.4 Logging

Logged geology (and deformation) was historically captured in forms of excel tables or WellCAD logs. Logging codes were reviewed, translated and standardized in 2018. For the 2019-2021 a new WellCAD logging template was applied including information of rock types, alteration, structure, texture, veins, metallic minerals, chalcopyrite intensity, drilling events. Logging intervals reflect changes in logged features.

### 3.8.5 Density

While a constant in-situ density of 2.8 t/m<sup>3</sup> was applied to all bedrock blocks the Laver deposit model in the past, a review of density data was undertaken for the updated deposit model in 2022. The amount of density measurements available was increased significantly and a trend from high densities in basaltic rocks to lower densities in volcanoclastics and aplites and rhyolite can be observed (Table 4).

Table 4. Statistics (length weighted) of bedrock density measurements (specific gravity in t/m<sup>3</sup>) used for the Laver deposit model, sorted by "simplified" (i.e., modelled) rock type

Rock Type	Mean	Std Dev	CoV	Var	Min	Median	Max
Diabase Dyke	2.94	0.09	0.03	0.01	2.66	2.94	3.45
Skarn	2.90	0.12	0.04	0.01	2.73	2.86	3.46
Basalt	2.86	0.05	0.02	0.00	2.50	2.87	3.21
Andesite Dyke	2.79	0.06	0.02	0.00	2.60	2.79	3.14
Diabase Dyke	2.78	0.05	0.02	0.00	2.58	2.78	3.31

Volcanoclastics	2.77	0.07	0.02	0.00	2.50	2.76	3.88
Aplite Dyke	2.76	0.05	0.02	0.00	2.66	2.74	2.94
Rhyolite	2.73	0.06	0.02	0.00	2.56	2.72	3.04

A constant density of 2.1 t/m<sup>3</sup> was used for in-situ unconsolidated overburden (mainly glacial moraine) for the Laver deposit model. This figure is assumed to be correct, based on observed similarities between glacial moraines at the Laver deposit and those at Boliden's Aitik operation. No independent density sampling of unconsolidated overburden has been performed at the Laver deposit.

### 3.8.6 Analysis and QAQC

Throughout the 2009-2021 drilling phases a quality assurance / quality control (QAQC) program employing standards, blanks, and pulp duplicates was carried out for the Laver drill core analyses. Focus was placed primarily on monitoring the reliability of results for copper, gold, and silver, as these are the main payable metals of the deposit.

Standards (Table 5) were placed into the sample stream at a frequency of about 1 standard per 20 primary samples. Primary sample analysis results were approved or rejected on a batch by batch basis, based mainly on the analysis results of these standards. Accepted batches of primary samples were approved for immediate upload into the database, while rejected batches required re-analysis prior to approval for uploading. From 2019 onwards, silver was not considered for batch reject/accept and with focus given to copper and gold. Overall, metal analyses used for modeling the Laver deposit have passed QAQC reviews.

Blanks were inserted at a minimum of 2 per drillhole and results were analyzed graphically.

Minimal QAQC attention was placed on molybdenum due to its minor influence on NSR value in the deposit. Only pulp duplicate results were monitored for QAQC of molybdenum together with the other metals.

Table 5. Standards used for QAQC monitoring of drill core analyses used in the Laver deposit model

Standard	Analysis method tested	Expected Au [ppm]	Expected Ag [ppm]	Expected Cu [pct]
<i>Pre 2019:</i>				
BS-AU2	AA46, 45, ICP22	0.499	2.28	0.0168
BS-AU1	AA46, 45, ICP22	1.936	7.6	0.0663
BS-BM5	AA46, 45, ICP22	0.058	1.4	0.2020
<i>2019-2021:</i>				
BS-BM5-1*	OG46 / ICP21	**	(5)**	0.201
BS-AU1*	OG46 / ICP21	1.905	7.61	0.066
GBMS304-4*	OG46 / ICP21	5.67	3.4	0.979
*) BS-BM5-1: Boliden standard certified July 2016, BS-AU1: in house Boliden standard certified August 2011, GBMS304-4: Geostats Pty. Ltd.				
**) Standard not certified				

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### 3.9 Exploration activities and infill drilling

An internal audit of the Laver project completed in 2017 indicated positive exploration potential within and around the deposit. Both infill and expansion drilling were recommended. During 2015-2017, 2019 and 2021, Boliden conducted extensive infill drilling at the Laver deposit supporting an updated geological interpretation and increasing the confidence of the mineral resource. Further (satellite style) drilling in the Laver region was also undertaken. Detailed ground magnetic surveys were undertaken to assist structural interpretation.

### 3.10 Mining methods, mineral processing and infrastructure

#### 3.10.1 Mining methods

The Laver deposit Mineral Resource assumes a high ore-processing rate, low stripping ratio open pit mining and processing operation. Volumes of mineralized material and waste, as well as mining style and equipment, are estimated to be similar to Boliden's Aitik copper-gold-silver operation located outside the town of Gällivare in Norrbotten county, Sweden. Scoping study level investigations indicate that mining related technical risks at the Laver deposit are minimal and likely to be of similar nature and magnitude to those encountered at the Aitik operation.

#### 3.10.2 Mineral processing

Mineral processing of the Laver deposit mineral Resource is envisioned to produce separate floatation concentrates of copper (main mineral: chalcopyrite) and molybdenum (main mineral: molybdenite) for sale to smelter. Recoverable gold and silver will report mainly to the copper concentrate, with some extra gold recovery possible if post-floatation leaching of tailings is employed. A high ore processing rate is assumed, similar in layout and magnitude to that of Boliden's Aitik Cu-Au-Ag operation. However, scoping level investigations indicate that grindability of the Laver mineralization is significantly lower (i.e. harder to grind) than that experienced for Aitik mineralization. Additionally, investigations indicate that the Laver mineralization requires a finer grind size than Aitik in order to achieve an acceptable metallurgical recovery. Taken together these factors indicate that an eventual Laver operation will likely have a somewhat higher material processing cost than the existing Aitik operation.

Expected average metallurgical recoveries from the Laver deposit are listed in Table 6.

Table 6. Expected average metallurgical recoveries, based on varying recovery depending on the feed grade, from an eventual operation at the Laver mineral resource. Values are based on scoping study level investigations and thus contain a degree of uncertainty.

<b>Metal</b>	<b>Expected average metallurgical recovery (%)</b>
Copper	88
Gold	61
Silver	70
Molybdenum	57

In summary, scoping level studies indicated that mineral processing related technical risks are significant at the Laver deposit. Besides the grindability issues mentioned above, identified mineral processing risks include metal recovery, concentrate grade and quality, and cost-effective production and handling of high sulfur process waste. Work is ongoing in order to reduce these mineral processing technical risks.

### 3.10.3 Infrastructure

Good base infrastructure is present in the Laver project area including well-maintained power generation, rail, road, and airline transport systems. Abundant supplies of power, water, and skilled workers are also available. However, development of the Laver deposit will still require significant pre-production capital investment in new infrastructure.

Scoping study level investigations completed to date indicate major pre-production investment areas for the Laver deposit include property acquisition, mine pit development, crushing and conveying systems, and processing and tailings facilities. Additionally, development of the deposit will require major investments in road and bridge upgrades, connection to the local power grid, water catchment-diversion-pumping and treatment systems, concentrate re-handling facilities, fencing, and maintenance and other industrial site buildings.

### 3.11 Prices, terms and costs

The following section lists prices, terms, and costs used in estimating the Laver deposit Mineral Resource, per 31<sup>st</sup> December 2022 (Table 7 and Table 8). Note: The Laver deposit Mineral Resource estimate changed since previously reported Mineral Resources, which dated 31<sup>st</sup> December 2013.

Table 7. Long term planning prices, which are an expression of the anticipated future average prices for approximately 10 years, used in estimating the Laver deposit Mineral Resource.

	Net smelter return factor SEK/tonne/grade	Planning prices, 2022
Copper	459.12	USD 7,200/tonne
Gold	188.03	USD 1,400/tr.oz
Silver	3.1	USD 20/tr.oz
Currency exchange rate: USD/SEK		8.0
TC/RC copper concentrate		USD 80/tonne and USc 8.0/lb

Table 8. Costs used in estimating the Laver deposit Mineral Resource.

Definition	Cost
Mining cost, fixed	13.75 SEK/t
Stripping cost soil	10.00 SEK/t
Haulage cost to dump	3.00 SEK/t
Haulage cost to per km	2.00 SEK/tkm
Processing cost*	36.40 SEK/t

\* Includes costs for mineral processing, environmental monitoring, site reclamation, overhead, and gold dore

Net smelter return (NSR) factor has been calculated for each metal based on assumed planning prices, metallurgical recovery, and TC/RC costs per Table 6, Table 7, and Table 8.

The formula for calculating the NSR value for a block in the Laver deposit can thus be calculated according to the following formula:

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Net Smelter Return (SEK/ton) = (459.12\*% copper) + (188.03\*g/t gold) + (3.1\*g/t silver)

According to the current conditions, Boliden is not profitable in the extraction of molybdenum. Therefore, Mo is not included in the current NSR formula.

The cost of transporting copper concentrate from mine to smelter has not been taken into account in calculating NSR factors for the Laver deposit. However, this cost is not considered to have material effect on the deposit's reasonable prospects for eventual economic extraction (RPEEE).

Additionally, NSR factors for the Laver deposit assume no penalty metal charges for concentrate sold to smelter.

### 3.12 Mineral Resources

The 2022 Laver Mineral Resource was estimated as part of a recent scoping study and the statement was performed using a constraining undiscounted optimized Whittle pit shell to demonstrate RPEEE. Nine grade elements (Ag, As, Au, Cu, Hg, Mo, S, Sb and Zn) and density were estimated using Ordinary Kriging (OK) method (Inverse Distance Squared, ID2, for barren dykes). Input assays were composited downhole to 5m length.

An additional 95 diamond drillholes were available for geological modelling and estimation compared to the 2013 Mineral Resource estimate. The new Mineral Resource was informed by a total of 159 valid drillholes from 2009 to 2021 drilling campaigns (totaling 63 610 m).

Mineral Resource (i.e. mineralization) grade shells, representing bedrock hosted Cu-Au-Ag-Mo mineralization, were generated in Leapfrog Geo defining high grade (>0.25% Cu), low grade (>0.1% Cu) and very low grade (>0.05% Cu) copper domains. Figure 5 provides a plan view and cross section of the mineralization modelled relative to geology. Statistical analysis was undertaken using Leapfrog Geo EDGE and Snowden Supervisor.

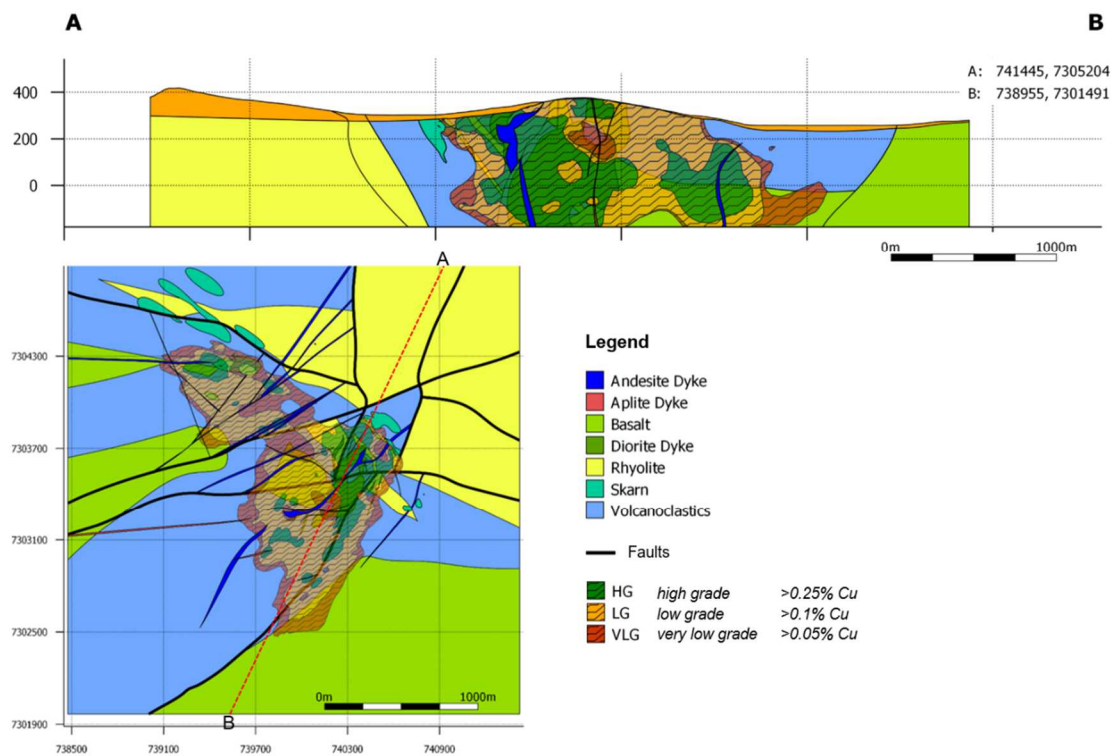


Figure 5. Cross section from SW to NE showing the copper mineralization envelopes relative to the modelled geology.

It should be noted that the Mineral Resource represents only a portion of the total known mass of mineralization in the Laver deposit. Boliden considers the Mineral Resource to fulfill the criteria for RPEEE.

Input data for the block model came exclusively from validated drill core analyses as described in section 3.7. A three-dimensional block size of 40 x 40 x 10 meters (X-length x Y-width x Z-height) was selected for the model. This block size was considered appropriate based on the density of geologic and metal analysis information available. Sub-blocking to 5 x 5 x 5 meters increased resolution along mineralization domain boundaries (Figure 6). The selected block size also took consideration of the large-scale open pit mining method deemed most appropriate for the deposit.



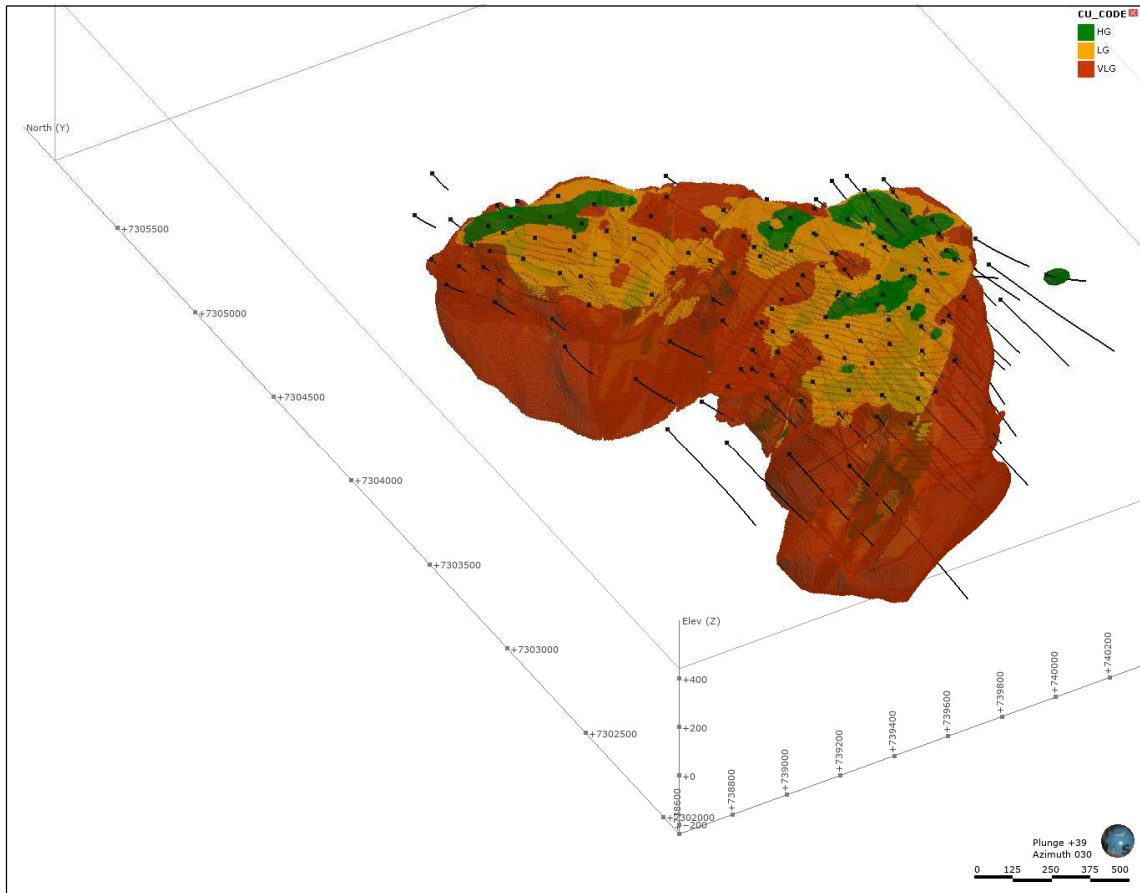


Figure 6. Image of 3D block model coded by Laver mineralization domains with drill hole traces for reference (looking NE, viewed from perspective). Coordinate system is Swedish RT90.

Search ellipsoids followed separate variograms established for the southern and northern areas of the mineralization. No geologic domaining was employed in the estimation.

Validation of the block model was performed per standard Boliden routine and found to be satisfactory. The estimated Cu grades, for the mineralized domains only, are represented in Figure 7.

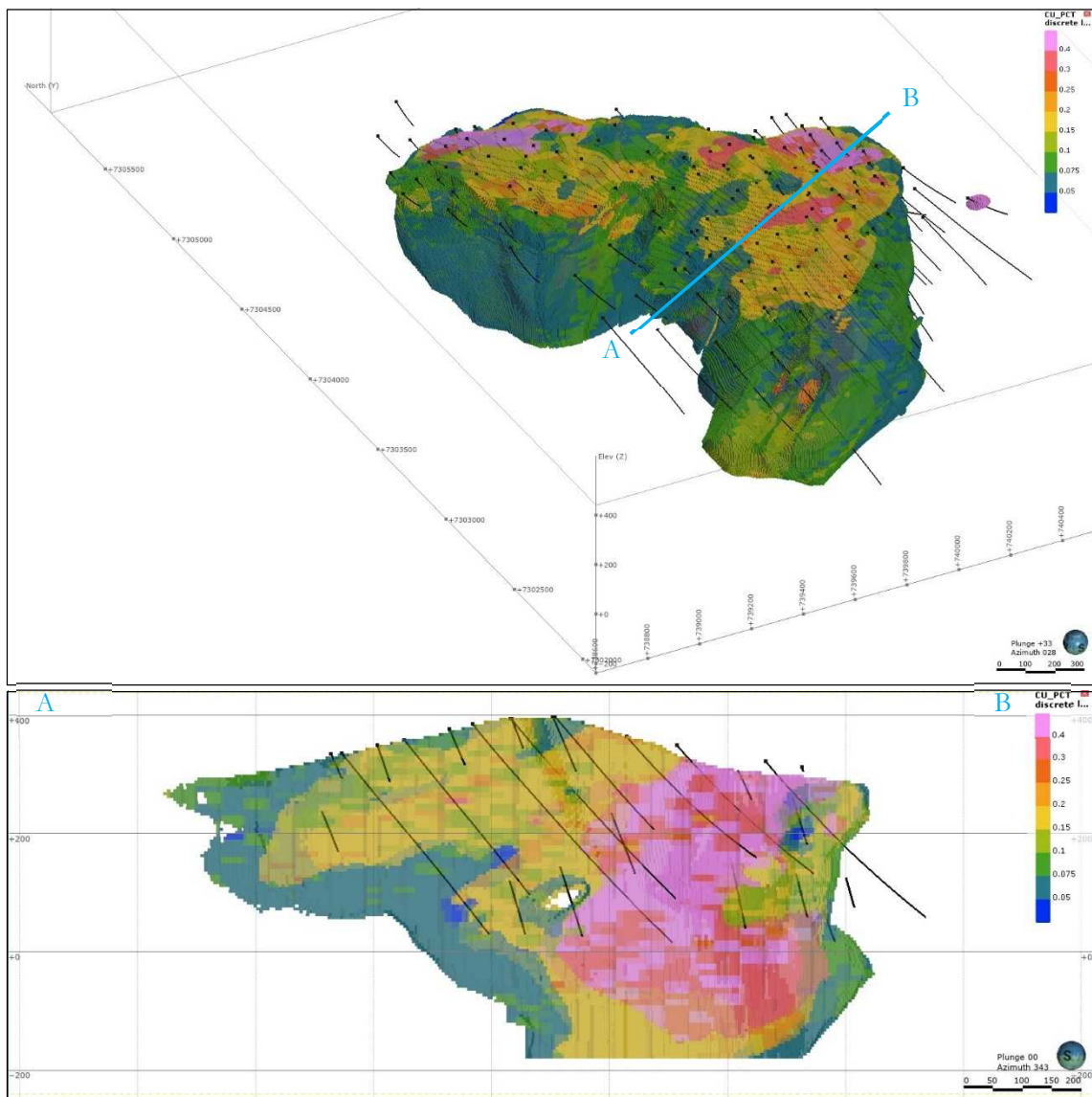


Figure 7. Block model (copper grade in percent) of the Laver deposit; top) viewed from perspective looking NE, bottom) section across southern mineralization. Blocks in image have dimensions of 40 x 40 x 10 meters (in XYZ direction).

Estimated blocks of the Laver deposit block model were classified based on primarily drill spacing, supported by grade continuity and knowledge of geologic confidence. Areas supported by drillholes with a distance of less than roughly 140m were usually classified as Indicated. Areas of larger drill spacing and/or lower confidence in geological interpretation or lateral support are classified as Inferred. An overview image showing the classification of the Laver deposit block model can be seen in Figure 8.

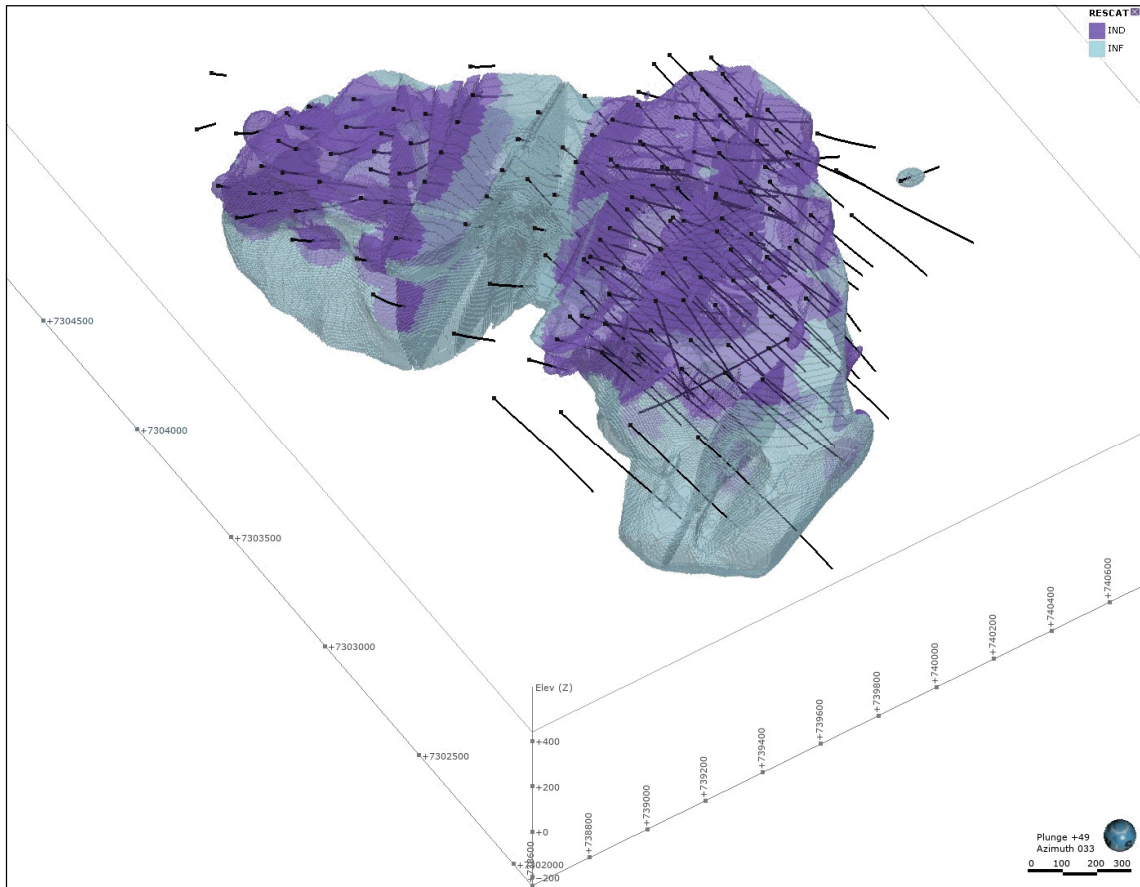


Figure 8. 3D overview showing classification of the Laver mineralization block model; IND – Indicated Resource, INF – Inferred Resource.

Following completion and validation of the 3D deposit block model an open pit optimization was performed by Robin Bernau using Whittle software (version 4.7.3). Several cases have been tested including a very conservative case considering Natura2000 areas. However, as consequences of restrictions are not fully understood yet, the undiscounted best case pit shell was selected to constrain the Mineral Resource meeting criteria for Reasonable Prospects for Eventual Economic Extraction (RPEEE).

Metallurgical recovery and price input parameters for the optimization are as per chapter 3.11 and Table 9.

Images of the resulting selected pit shell and how it relates to the Laver deposit model can be seen in Figure 9.

Table 9. Mining technical and discount rate input parameters used in creating the selected Whittle optimized pit shell for the Laver Mineral Resource

Dilution	0	%
Ore recovery	100	%
Max ore production	36	Mt/yr
Slope angle at bearing 000	45	Degrees
Slope angle at bearing 090	45	Degrees
Slope angle at bearing 180	50	Degrees

Slope angle at bearing 270	50	Degrees
Discount rate	0	%

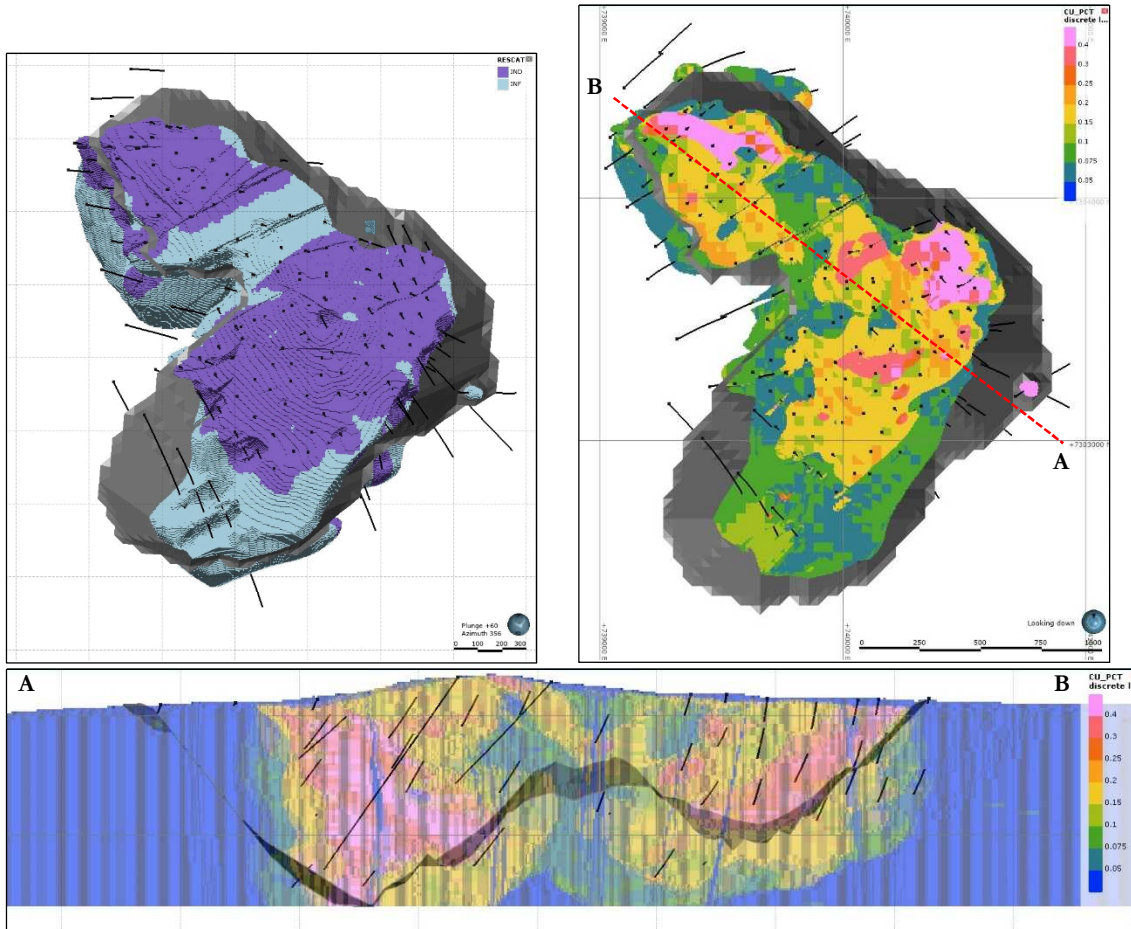


Figure 9. Laver deposit block model; top left) Perspective view of selected resource pit shell with classified mineralization, top right) plan view of selected resource pit shell with Cu grades of mineralization domains and bottom) cross section with unfiltered Cu grades compared against selected resource pit shell.

The Laver deposit Mineral Resource is constrained within the selected Whittle pit shell and using a grade cut-off of 0.06% Cu. This cut-off reflects assumptions for the Laver deposit being aligned to Boliden's Aitik operation. Expected higher processing costs are applied during the Whittle optimization process. Note that the previous Mineral Resource was reported at an NSR of 33 SEK/ton, which was roughly equivalent to an in-situ grade of 0.07% Cu. Below cut-off "waste" tonnage inside the 2022 resource pit sums to 368 Mt, giving a stripping ratio (waste/mineral resources) of 0.38.

Results of the Mineral Resource estimate summation are presented in Table 10.

Table 10. Laver Mineral Resource, 31<sup>st</sup> December 2022.

Classification	2022					2021				
	ktonnes	Au (g/t)	Ag (g/t)	Cu (%)	Mo (g/t)	ktonnes	Au (g/t)	Ag (g/t)	Cu (%)	Mo (g/t)
<b>Mineral Resources</b>										
Measured	-	-	-	-	-	1 100	0.11	4.4	0.20	18
Indicated	733 600	0.14	3.6	0.24	37	512 400	0.13	3.1	0.22	36
<b>Total M&amp;I</b>	<b>733 600</b>	<b>0.14</b>	<b>3.6</b>	<b>0.24</b>	<b>37</b>	513 500	0.13	3.1	0.22	36
Inferred	227 400	0.11	4.9	0.19	30	550 600	0.10	3.1	0.21	33

### 3.13 Mineral Reserves

Technical and economic investigations regarding development of the Laver deposit have only progressed to scoping study level detail. Thus, there are currently no Mineral Reserves estimated for the Laver deposit.

### 3.14 Comparison with previous year/estimation

The main differences between the 2013 Mineral Resource and the 2022 Mineral Resource are explained by:

- An additional drilling between 2015 and 2021 (95 DD holes totaling 27 789.1 m) lead to an updated and more detailed geological model. The actual mineralized volume decreased, mainly in the SW (Lill-Laver lake area).
- A reduction of tonnes due to using estimated density vs a default density.
- Economical consideration with higher processing costs.

A waterfall chart, quantifying some of the major differences, is presented in Figure 10.

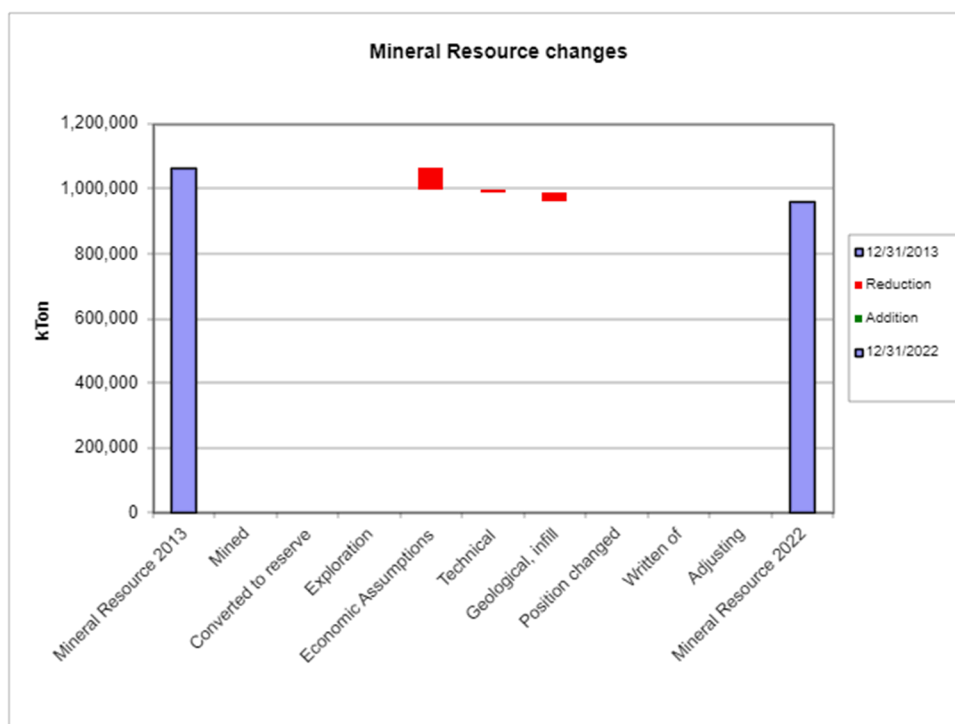


Figure 10. Mineral Resource changes with previous one from 31<sup>st</sup> December 2022.

### 3.15 Reconciliation

No mining activity exists at Laver and therefore no reconciliation can be reported.

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## APPENDIX 1 HISTORY OF LAVER DEPOSIT

Year(s)	Operator	Activity
1929	Boliden Gruvaktiebolag	Boulder hunter JE Dahlberg discovers first chalcopyrite bearing, weakly skarn mineralized boulder (ID nr. 24K 2953) in valley just to the NE of Björkbergets top, about 5 km SE of future Laver Mine discovery.
1930	Boliden Gruvaktiebolag	Follow up boulder hunting in valley between Björkberget and Västra Nattberget (area known as "Nattbergets utskifte") locates multiple, strongly skarn altered boulders showing significant chalcopyrite, sphalerite, and galena mineralization. Indications are that a significant subcropping skarn mineralization lies somewhere up ice.
1930	Boliden Gruvaktiebolag	Electrical geophysical surveys in area suspected to be source of mineralized boulders turns up some anomalies. Plans are made to dig test pits on the strongest of these anomalies during the coming summer.
1931	Boliden Gruvaktiebolag	Digging of test pits commenced in April 1931 on strongest of geophysical anomalies. Cu-skarn mineralization is intercepted at bedrock contact and diamond drilling on the deposit is immediately commenced.
1931-1933	Boliden Gruvaktiebolag	Delineation of the Laver Cu discovery carried out with diamond drilling. Drill results indicate mineralization of size and grade significant enough to warrant mining test pit and exploration drift development.
1934-1936	Boliden Gruvaktiebolag	Continued test mining and exploration drift development. Results confirm quality and extent mineralization leading to imminent decision on expansion to commercial production.
1936-1946	Boliden Gruvaktiebolag	Positive decision on commercial production from Laver mine taken in April 1936. Commercial production ramps up over a couple years, with full commercial underground production reached in 1938. Maximum processing rate of 179 kt ore/yr reached in 1942.  Mine ultimately shuts down in November 1946 having produced 1.3 Mt ore at an average head grade of 1.5% Cu, 36 g/t Ag, and 0.2 g/t Au. Maximum depth of underground production is about 150 m below surface, with exploration drifting and mine development reaching a maximum depth of about 302 m.
1970-1974	Boliden Mineral	Soil sampling and ground geophysics carried out over Laver area, particularly in area covering historic Laver Mine and Lill-Laverberget.
1989-1992	Boliden Mineral	"Laver nr 101" license (351 ha). Extent of work carried out unknown.
1997-2002	Boliden Mineral	"Laver nr 1001" license (918.5 ha). Percussion drill sampling, mapping, and some geophysics carried out, again mainly focused at Lill-Laverberget.

Year(s)	Operator	Activity
1999-2002	Ragnar K	"Luspenåive" licence (36 ha). Centered on Luspenåive "Mineraljakt showing". Extent and results of exploration work unknown.
2000-2003	Viscaria AB	"Stor-Laver" license (15,772 ha) over large area surrounding historic Laver mine. Extent and results of exploration work unknown.
2004-2007	Phelps Dodge Exploration Sweden	"Laver nr 1" license (1,582 ha). Ground covered historic Laver mine and Lill-Laverberget over period of three yrs. Extent of work carried out and results of exploration activities unknown.
2007-2013	Boliden Mineral	"Laver nr 1002" license. Exploration reconnaissance followed quickly by intensive resource definition drilling at Lill-Laverberget, about 1 km south-southeast of historic Laver mine. Work focused primarily on definition of a low-grade, large tonnage Cu-Au-Ag-Mo resource at Lill-Laverberget. Culminates in the release of 2013-12-31 resource estimate of 1064 Mt @ 0.11 g/t Au, 3.1 g/t Ag, 0.22% Cu, 0.6% S, and 34 g/t Mo.
2012-2013	Boliden Mineral	Conceptual Study for development of Lill-Laverberget resource indicates significantly negative NPV, even at throughput rates exceeding 54 Mt of ore per year. Resource drilling on the project is subsequently suspended and exploration focus turns to defining and testing higher-grade targets in the surrounding areas.
2013	Boliden Mineral	"Laver nr 1002, 1003, and 1004" licenses. Field mapping, geochemical sampling, airborne and ground geophysical surveying, and some new drill target testing carried out in greater Laver exploration license block. Goal is to define and test higher-grade, more modest tonnage target areas both within and outside of low grade, high-tonnage Lill-Laverberget resource. New target areas including Luspenåive and Stor-Stapeln are defined and explored.
2014	Boliden Mineral	Mining concession application for Lill-Laverberget Mineralization submitted to the Swedish Mining Inspectorate on 29/09/2014. Goal is to secure long-term title (25 yrs) of the resource. Application is politically sensitive and decision still pending.

Year(s)	Operator	Activity
2015	Boliden Mineral	<p>”Laver nr 1002, 1003, and 1004” licenses. Laver K nr 1 - applied for. Environmental permits for exploration – applied for. Geochemical sampling: 650 shovel till samples, percussion drilling (till and subcrop rock chip sampling across Luspenåive-Kullbergspolen-Golospolen area), outcrop grab sampling from the historic Laver mine open pit outcrop and the Luspenåive-Kullbergspolen target areas. IP surveys totaling 95.8 km (roughly 7.8 km<sup>2</sup>) in the Luspenåive-Kullbergspolen-Golospolen area (ca. 4-5km SW of Lill-Laverberget. Diamond drilling (8 holes, 2,715.2 m) at two main target areas testing for high-grade Cu mineralization along a WE-SE trending magnetic lineament. Those 8 DDH (512–519) and 3 older holes (465, 482, 484) surveyed with Boliden’s BHEM system.</p> <p>Consultant geologist visit by Bill Chavez during May 2015. Quaternary mapping of glacial transport features in the project area.</p>
2016		<p>Applications sent to Bergsstaten for new exploration tenements Stavsträsk nr 1001 and Finntjärnliden nr 1001. Diamond drilling (8 holes, ca. 1,699 m) – 4 DDH / 835 m at Lill-Laverberget, 3 DDH / 661.6 m at Luspenåive, 1 DDH / 18.6 m at the Gråbergstjärnen target area. 1,227 m percussion drilling at Killberget. Target generation C-horizon moraine sampling over Nattberget, infill C-horizon moraine sampling at the Stor-Stapeln C-horizon anomaly. Geophysical surveys - ground mag (in the area between Uttertjärnberget and Nattberget) and portable IP (laverIP16A area, south of Stor-Laver lake).</p>
2017		<p>Two new tenement areas, Finntjärnliden and Stavsträsk, were added to the Laver project during 2017 as part of the search for satellites strategy. These two new licenses were covered by systematic C-horizon shovel soil sampling during 2017.</p> <p>Continuous ground magnetic surveying in the Laver project totaled 3 492 ha of coverage during 2017, expanding the contiguous block surveyed during 2016-2017 to 3 962 ha. A total of 12 diamond drill holes (2 381.8 m), drilling was divided between four previously untested targets in the eastern half of the Laver block of tenements: Dalberget (4 holes totaling 800.5 m), Petmyran (4 holes totaling 795.3 m), Västra Nattberget (2 holes totaling 385.6 m) and Storstapeln (2 holes totaling 400.5 m).</p>

Year(s)	Operator	Activity
2018		<p>No drilling was conducted in the Laver project during 2018.</p> <p>The total size of the Laver project exploration license package summed to 30 697 hectare with a net increase of 5 776 hectare, mainly due to the addition of the Lauker nr 1001 and Korsträsk nr 1001 license areas.</p> <p>Soil geochemical sampling with main focus areas being the Laver block and Korsträsk.</p> <p>Detailed airborne magnetics (“aero mag”), detailed ground magnetics (“ground mag”), and ground electromagnetics (ground EM).</p> <p>Bedrock mapping, primarily focused on the Stavsträsk license.</p> <p>Desktop study regarding the regional geologic context of the Laver deposit.</p>
2019		<p>A total of 5 460.15 meters of diamond drilling (20 DDH).</p> <p>3D geologic model of the Laver deposit in Leapfrog Geo.</p> <p>A large proportion of Stavsträsk was covered with a double-offset 2.5D dipole-dipole IP survey conducted by the contractor GRM-Services. In addition, a total of 101 line-km EM34 in 3 survey loops was measured at Stavsträsk.</p> <p>Soil geochemical sampling was undertaken at Korsträsk, Lauker and Teuger 1001.</p> <p>Aeromagnetic survey over two blocks of the Laver project area; one block centered over Korsträsk, while the other filled a gap further to the south between the towns of Storsund and Koler.</p>
2020		<p>No drilling activity, no geochemical surveys.</p> <p>A moderately sized (252 line km) infill ground magnetics survey was conducted.</p> <p>Desktop QA/QC on a number of legacy drill holes in the Laver deposit.</p> <p>At the end of 2020, the Laver project consisted of three exploration licenses totaling 4 281 ha (Laver nr 1002, 1003, 1004).</p>
2021		<p>The second part of the 2019 drilling program got delayed due to the Covid-19 pandemic and finally executed between January and June 2021, with a total of 11 513 meters drilled (33 DDH).</p> <p>Update of geological model.</p>