Norra Metals Corp.

# 2021 TECHNICAL (N.I. 43-101) REPORT ON THE BLEIKVASSLI PROPERTY

Located in Hemnes Municipality, Nordland Fylke Province, Norway 65.898° N Latitude; 13.872° E Longitude

-prepared for-

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#### 1.0 SUMMARY

The Bliekvassli property is composed of six contiguous exploration licences totalling 6000 ha area, in the Hemnes Municipality of the Nordland Fylke Province of Norway. As of the effective date of this report, licences are held by Norra Metals 3 AS, a Norwegian subsidiary of Norra Metals Corp.

The most prominent feature of the property is the Bleikvassli mine, a past-producing SEDEX-style sediment-hosted massive sulphide Pb-Zn deposit with minor Cu and Ag credits. The mine closed in 1997, following continuous operation since 1957 which saw the extraction of 5.0 million tonnes of Zn-Pb-Cu-Ag ore. Following closure of the mine, mineral rights for the mine itself and surrounding areas became available and were staked by EMX in early 2018. The current extent of the property includes both the past-producing mine itself and areas of prospective geology with mineralized surface rock samples outside the footprint of the mine.

The area covered by the property is generally hilly, with vegetation dominated by boreal forests with a sub-arctic climate. Field work is possible through the summer months, with drilling operations possible yearround. Access and local infrastructure is well developed, with paved roads connecting the property to the rest of Norway, nearby rail and airport access and connections to Norway's power grid already existing on the property; much of this existing infrastructure is owing to the presence of the now-closed Bleikvassli mine.

Geology of the property is dominated by highly deformed and metamorphosed Late Proterozoic to Early Phanerozoic marine sedimentary sequences of the Scandinavian Caledonides, the Silurian-Devonian age orogenic belt which forms the bedrock of the majority of Norway. The historically mined Bleikvassli ore body is a sediment-hosted Pb-Zn SEDEX deposit composed of lenses of massive pyrite, pyrrhotite, sphalerite, galena and chalcopyrite enclosed within metasedimentary rocks of the Kongsfjellet Group. Though little work has been done on showings outside the main deposit, they too are interpreted to be of the same style and hosted in similar geology.

Work conducted for this report was limited to a one-day property visit, collection of two rock samples from outcrop on the property and visual inspection of drillcore from the mining operation. Personal inspection of the property by the author confirmed the presence of massive sulphide mineralization at surface near the historic mine workings, and geochemical analysis of the samples taken confirmed that the mineralization contained several percent combined lead and zinc with minor amounts of copper and silver. This is consistent with descriptions of mineralization from published sources on the Bleikvassli deposit. Visual inspection of drillcore likewise confirmed that historic descriptions of mineralization and geology are largely correct in the instances examined.

Development at the Bleikvassli mine spans several levels which extend for over a kilometer of strike length accessed via a portal and ramp system. Schematics and diagrams of the mine workings exist in hard-copy form stored in buildings at the former mine site, but have not been digitized or examined in detail for this report. Operations ceased at the mine in 1997 and there are no records of any subsequent development or exploration work. No NI 43-101 compliant estimates for quantity of mineralization remaining underground at the mine exist. Exploration work outside the immediate vicinity of the mine includes mapping and sampling by the Norwegian Geological Survey and minor exploration drilling; while this work has yielded promising results, it is quite limited in scope and should be expanded upon.

Based upon the author's examination of the property and available historical records, it is concluded that both the area immediately surrounding the Bleikvassli mine and the Bleikvassli property as a whole present attractive exploration targets. Two phases of exploration work are proposed. The first phase program consists of geological modeling and surface fieldwork with a budget of \$68,000. It is recommended that historical mining and geology records be used to determine if viable targets exist for exploration drilling near the historically mined deposit. It is also recommended that a systematic surface mapping and sampling program be undertaken in the area identified by sampling by the Norwegian Geological Survey as hosting Pb-Zn mineralization at surface. The remainder of the property should also be examined at a reconnaissance scale to determine if additional targets for detailed surface work are present. If results of this surface work and data examination are sufficiently encouraging to justify additional expenditures, a second phase consisting of 1500 m of drilling at targets identified during the first phase with an estimated budget of \$598,000 is recommended.



#### 2.0 INTRODUCTION

This report has been prepared for Norra Metals Corporation ("Norra Metals") in order to satisfy its disclosure requirements for the TSX-V exchange in connection with both its agreement with EMX Royalty Corporation ("EMX") on the Bleikvassli property and its 2020 Annual Information Form ("AIF"). Equity Exploration Consultants Limited. ("Equity") has been engaged by Norra Metals to examine the Bleikvassli property in the field, to compile all exploration information available on the property and to make recommendations for further exploration, if warranted. This report has been prepared on the basis of personal observations, on data and reports supplied by Norra Metals, publicly available scientific literature and on geological publications from the Norwegian Geological Survey ("NGU") and Directorate of Mineral Management ("DMF"). A complete list of references is provided in Appendix A.

The author is an independent Qualified Person under the meaning of National Instrument 43-101 ("NI 43-101"), visited and examined the Bleikvassli property on November 23, 2018. Additionally, the author examined core from several historical drillholes (currently housed at the NGU's drillcore repository in Løkken, Norway) on November 20, 2018. No work has been conducted on the Bleikvassli property subsequent to that date and prior to the effective date of this report.

The author is an employee of Equity, which has been contracted by Norra Metals to complete this NI 43-101 report on the Bleikvassli property. The author is not a director, officer or significant shareholder of Norra Metals or EMX and has no interest in the Bleikvassli property or any nearby properties.

Unless stated otherwise, all cost estimates are presented in Canadian Dollars. Units and abbreviations used in this report are as follows:

<u>Units:</u>	
cm	centimetre (0.01 m)
C\$	Canadian dollar
g/t	grams/tonne (1 ppm)
ha	hectare (0.01 km <sup>2</sup> )
km	kilometre (1000 m)
kg	kilogram
m	metre
mm	millimetre (0.001 m)
Mt	million tonnes
NOK	Norwegian Kroner (1 NOK = C\$0.154 at effective date)
ppm	parts per million
t	tonne (1000 kg)
Abbreviations:	
AAS	atomic absorption spectroscopy
Ag	silver
ASL	above sea level
Au	gold
Cu	copper
FA	fire assay
Ge	germanium
GPS	global positioning system
ICP-MS	inductively coupled plasma mass spectrometry
ISO	International Standards Organization
NGU	Norwegian Geological Survey
NI 43-101	National Instrument 43-101
NSR	net smelter return
Pb	lead
QA	quality assurance
QC	quality control

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TSX-V Toronto Stock Exchange – Ventures UTM Universal Transverse Mercator WGS-84 World Geographic System (1984) Zn zinc

#### 3.0 RELIANCE ON OTHER EXPERTS

In Section 4.0, the author has relied entirely upon information provided in a press release dated December 13, 2018 from Norra Metals concerning the terms of their option agreement with EMX. In Section 4.0, the author has relied entirely on the website of Geonorge (the Norwegian repository of geodata www.geonorge.no) for tenure data. Also in Section 4.0, the author has relied entirely upon a legal opinion dated January 15, 2019 written by Siv Sandvik and Ole Klevan from the firm of Advokatfirmaet Schjødt AS of Oslo, Norway regarding current ownership of the claims and legality of transfer of ownership (Sandvik and Klevan, 2019). This legal opinion was commissioned for, and provided to the author by, Norra Metals. The author has also relied upon financial statements of EMX, dated December 31, 2017, provided by EMX and Norra Metals regarding the relationship of EMX to Eurasian Minerals Sweden AB as described in section 4.0. In Section 4.0, the author has relied upon personal communications from Norra Metals regarding the position of the Norwegian Ministry of Mines with respect to the status of potential environmental liability associated with historic mining.

### 4.0 PROPERTY DESCRIPTION AND LOCATION

The Bleikvassli property consists of 6 contiguous exploration licences (alternatively termed or translated as "rights of inquiry") which cover 6000 hectares (60 km<sup>2</sup>) of northern Norway (Figure 1, Table 1). The property is centred at 65.898° N latitude and 13.872° E longitude (WGS84 UTM Zone 33W: 7309000N 448600 E).

Table 1: Tenure Data								
Exploration License	Licence Name	Issue Date	Expiry Date	Area (ha)				
0146-1/2018	Bleikvassli 1	April 25, 2018	April 25, 2025	1000				
0147-1/2018	Bleikvassli 2	April 25, 2018	April 25, 2025	1000				
0148-1/2018	Bleikvassli 3	April 25, 2018	April 25, 2025	1000				
0149-1/2018	Bleikvassli 4	April 25, 2018	April 25, 2025	1000				
0150-1/2018	Bleikvassli 5	April 25, 2018	April 25, 2025	1000				
0151-1/2018	Bleikvassli 6	April 25, 2018	April 25, 2025	1000				
				6000				

Table 1: Tapura Data

An exploration licence within this context is defined by the Norwegian government as a right to explore for state-owned minerals within a defined area for the validity of the licence; state-owned minerals are defined as any metal with a density greater than 5 g/cm<sup>3</sup>.

As of the effective date of this report, ownership of the exploration licences is held by Norra Metals through their wholly owned Norwegian subsidiary Norra Metals 3 AS. The exploration licenses were originally sold to Norra Metals 1 AS in 2019 and subsequently in 2020 all explorations licenses in Norway under Nora Metals Corp. were consolidated into one holding company being Nora Metals 3 AS.

EMX Royalty Corp. the previous owner and vendor of the licenses to Norra Metals 1 AS, retains an uncapped 3% NSR royalty on any production from the Bleikvassli property. Additionally, to retain title to the property Norra Metals is required to make annual advance royalty payments to EMX, beginning with a sum of \$20,000 on the second anniversary of the closing of the acquisition, with the royalty increasing by \$5,000 per year until such time as it reaches \$60,000 per year, after which point payment rates will be adjusted based on the United States Consumer Price Index (Norra Metals Corp, 2018)

The same transaction which transferred ownership of the Bleikvassli claims to Norra Metals also involved three other Scandinavian properties not covered in this report: Bastuträsk in Sweden, and Sagvoll and Meråker in Norway. In return for 100% interest in the four properties, Norra Metals will issue to EMX a number of post-consolidated common shares of Norra Metals that represents a 9.9% equity ownership in Norra Metals; Norra Metals will have the continuing obligation to issue additional shares of Norra Metals to EMX to maintain



its 9.9% interest in Norra Metals, at no additional cost to EMX, until Norra Metals has raised \$5-million (Canadian) in equity (capped at a maximum of 13,398,958 post-consolidated common shares); thereafter EMX will have the right to participate pro rata in future financings at its own cost to maintain its 9.9-per-cent interest in Norra Metals. Further, there is an additional provision that requires Norra Metals to raise and spend \$2,000,000 within 2 years otherwise such 9.9-per-cent equity ownership shall be increased to a 14.9% continuing equity interest (capped at a maximum of 21,350,956 post-consolidated common shares). This continuing obligation shall expire once Norra Metals has raised and spent \$5,000,000 in exploration and development expenditures on the foregoing Scandinavian properties.

Prior to the transaction to acquire the Bleikvassli property, Norra Metals was named OK2 Minerals Ltd. The name change was part of the transaction.

Each of the exploration licences is subject to an annual renewal fee of 10 NOK per hectare for the second and third calendar years of ownership, 30 NOK per ha per year for the fourth and fifth years and 50 NOK per ha per year for the sixth and seventh years of ownership. The licence expires at the end of the seventh year of ownership unless a specific exemption is granted by the Norwegian government. The licences which constitute the Bleikvassli property were initially acquired and registered on April 25, 2018.

The author has received and reviewed documents indicating that these annual renewal fees have been paid for the 2021 calendar year for the Bleikvassli property.

The Norwegian Directorate for Mineral Management ("DMF") requires that a permit be obtained to conduct sampling on an exploration licence. Required information to be provided for this permit includes details of the applicant, details of the geographic area to be sampled, and reason and methodology of sampling – additional details of the permit requirements can be found at on the DMF website at: <u>https://dirmin.no/soknad-om-tillatelse-til-proveuttak</u>. Notification to the DMF of specific work plans are required no later than three weeks before work initiates. Neither Norra Metals or EMX have applied for any permits as of the effective date of this report.

The author is not aware of any other royalties, back-in rights, payments or other agreements and encumbrances to which the property is subject.

Historic operations at the Bleikvassli mine have left mine tailings and a number of buildings on the property. The author has not evaluated the state or extent of these, and cannot comment on any potential environmental liabilities. However, it is worth noting that the Norwegian Ministry of Mines states that environmental liabilities related to small historic mines are responsibility of the landowners, not the mineral rights holders.

Surface rights to all claims are retained by landowners, who may have to be consulted depending on the scale of work being conducted. Published information from the DMF indicates as follows with regards to interactions with landowners:

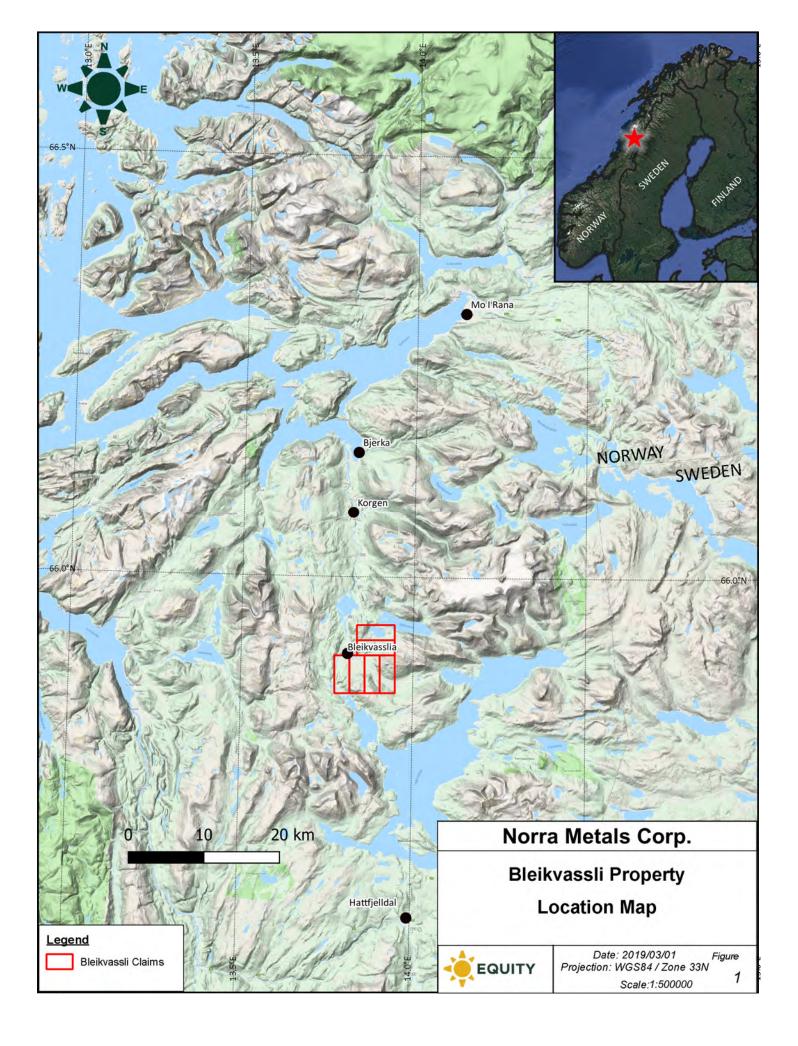
"With an exploration right one can carry out necessary interventions in the investigation area without the landowner's permission as long as this does not cause damage of significant importance. For interventions that may cause significant damage, the investigator must have the consent of the owner and user of the reason. What is considered significant damage is due to an overall assessment. Ordinary activities such as core drilling and smaller samples on the surface can normally be done without the permission of the landowner. Larger sampling and larger exposures always require landowner's consent or an expropriation permit." (Directorate of Mineral Management, 2019)

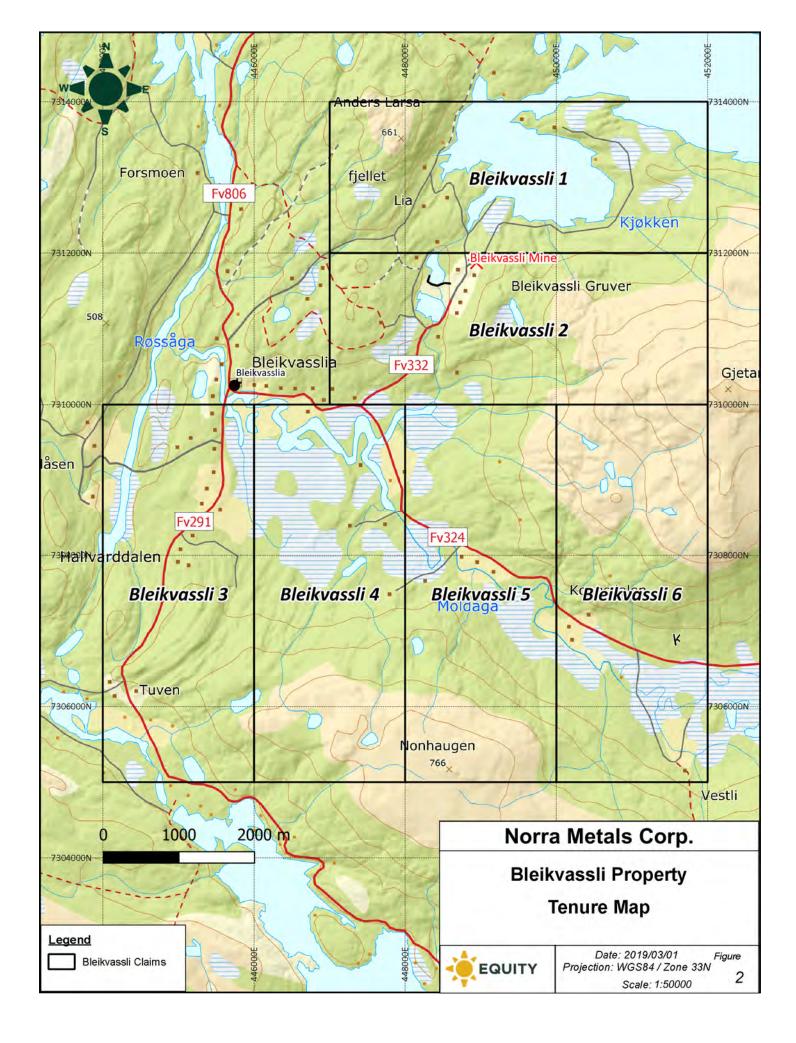
To the author's knowledge, no consultation with landowners on the Bleikvassli property has yet been conducted. Upon completion of preliminary work plans, it will be the responsibility of Norra Metals to contact and engage with landowners holding surface rights should that work meet the definition of damage of significant importance as defined by Norwegian law. It is beyond the scope of this report to determine what qualifies as "significant importance".

The author is not aware of any other factors which may affect access, title, or the right or ability to perform work on the property.

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# 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY

## 5.1 Accessibility

Primary access to the Bleikvassli property is via paved road, with the site of the former mine connected by paved and maintained road to the town of Bleikvasslia (Figure 2), which is itself connected to the rest of Norway via the national highway system (highway FV291 connects south to other communities; FV806 to the north; FV324 to the east). Apart from these maintained public highways, there are a variety of municipal and private access roads which allow access to much of the property. Mountainous areas in the southern and eastern parts of the property may require access methods other than public roadways, however no point on the property is more than a few kilometers from paved road access.

Passenger rail service is available from Oslo or Trondheim to the town to Bjerka (population 500), 30 km north of Bleikvasslia (Figure 1). The nearest airport is in Mo I Rana 60 km north of Bleikvasslia, which has daily connecting flights to Oslo and Trondheim.

Bleikvasslia town itself is located within the Hemnes municipality of the Norland Fylke province of Norway. Total population of the Hemnes municipality is 4500, spread between five communities including Bleikvasslia.

## 5.2 Local Resources and Infrastructure

The town of Mo I Rana (population 18,600) offers a range of services including hotel, fuel, freight, groceries, hardware and transport services to elsewhere in Norway. Hattfjelldal, and Korgen (both within an hour's drive of the property) provide similar services somewhat closer than Mo I Rana. Services in the town of Bleikvasslia itself are limited to a small grocery store. It is expected that these and other small towns in the area will provide a source of unskilled labor, with the possibility of lesser amounts of skilled labor given the mining history of the area.

Electrical power is actively supplied by commercial operators to both the town of Bleikvasslia and the site of the Bleikvassli mine; as the mine was last in operation in 1997 capacity should still exist to power any future mining operations without significant expansion of infrastructure.

Concentrates could be shipped through the port of Mo I Rana, located 60 kilometres north of Bleikvassli and accessible via existing paved roads.

Surface rights over the Bleikvassli property are owned by individual private landholders, and though the mineral tenure system in Norway grants the mineral right holder permission to explore for economically valuable resources, consultation with private landholders would be required before significant exploration work proceeds.

The state of water usage permits, tailings and waste storage facilities, and legacy processing infrastructure at the historic Bleikvassli mine site was not evaluated by the author and will not be commented on in this report. It is also beyond the scope of this report to determine if any of historic infrastructure would be appropriate for use in future mining operations.

# 5.3 Physiography and Climate

The Bleikvassli property covers an area to the north, south and east of the town of Bleikvasslia, Norway. Topography is varied, ranging from relatively flat farmland immediately south and east of the town to more rugged mountainous terrain surrounding and southeast of the mine (Figure 2). Elevations range from 284 m ASL southwest of the town on the western edge of the property to approximately 1000 m ASL in the mountainous area on the eastern edge of the property.

The property is within the boreal ecoregion, typified by spruce forests (with some birch, pine, willow and aspen) at lower elevations, transitioning to birch-dominated forest at higher elevations and eventually to an



alpine environment. Treeline is located at approximately 500 - 600 m ASL, depending on the facing direction of the slope.

The area is within the subarctic climate zone (classification Dfc in the Köppen climate classification), typified by moderately warm summers and moderately cold winters. Average temperatures range from 11° C in the summer months to -9° C in the winter months. Precipitation is highest in the winter months (generally as snow) with an average monthly rainfall-equivalent ranging from 100 mm in December to 34 mm in May. Lower elevations are generally snow-free from late May until late October, with snow remaining later and falling earlier at higher elevations. Maximum snow depth reported at the Varntresk weather station (406 m ASL, 20 km from Bleikvasslia) is generally less than a meter, with recorded snow depths at maximum accumulation (generally late March) reported between 0.5 m and 1.5 m. Higher snowfall accumulations should be expected at higher elevations.

Fieldwork on the property is possible from the end of May until early October, while snow may cover parts of higher elevations late into the summer. Drilling operations should be possible year-round, depending on access considerations dictated by snow cover and potentially avalanche risk in areas of steeper topography.

### 6.0 HISTORY

#### 6.1 Bleikvassli Mine

The area now covered by the Bleikvassli exploration licenses has an extensive history of exploration and mining, operating as the Bleikvassli Gruven from the years 1957-1997, producing a total of 5.0 Mt grading an average of 4% Zn, 2% Pb, 0.15% Cu and 25 g/t Ag (Geological Survey of Norway, 2017). As part of the mining operation, several hundred drillholes were completed and underground workings were excavated over nearly a kilometre strike length and to several hundred meters depth. There remain onsite at the Bleikvassli mine facility numerous paper records of drill sections, level and plans and production records that have not been digitized or evaluated by modern methods. A large number of paper drill logs have been scanned into PDF format, and it is possible that more exist in the hard-copy records onsite at the old mine facility. From these scanned drill logs, summary statistics for intercepts judged to be significant have been digitized; however there still exists a large quantity of geological and drill data from the mining operations which has not been digitized or examined using 3D modelling software. In addition to the paper records retained at the mine site, a large number of drillholes from the mining operation are currently housed and available for review at the NGU's National Drill Core and Sample Centre in the town of Løkken.

Though, as mentioned above, no summary datasets were available for review in preparation of this report, results of the in-mine drilling and exploration were sufficiently successful to keep the mine in operation for 40 years. Summary statements of historical records suggest there was an economically significant quantity mineralized material remaining within the mine at the time of closure (due to flooding) in 1997; historical records state that the area originally to contained 6.5 Mt of mineralized material (Rosenberg et al., 1998) of which only 5.0 Mt was mined, suggesting that 1.5 Mt could potentially remain un-mined. However, Rosenberg et al. did not outline their key assumptions, parameters and methods of resource estimation and did not specify resource categories for this estimate. Rosenberg et al.'s estimate was not compliant with NI 43-101 standards and is of unknown relevance and reliability. It has been provided for historical context only and cannot be relied upon.

Upon closure of the mine in 1997, the owners at the time transitioned their company from a mining operation to a mining and earthworks contractor, and are currently operating as Bleikvassli Gruber AS and utilizing several of the historical mine buildings as a base of operations. Mineral extraction rights to the mine itself were apparently allowed to lapse following closure; the current exploration rights were registered by EMX Royalty Corp. (then named Eurasian Minerals Inc) in 2018 and were subsequently transferred to Norra (Section 4.0 contains details of this transaction).



## 6.2 Regional Exploration

Prior to closure of the mine, a series of exploration programs were undertaken by the NGU in the Bleikvassli region, with the aim of finding additional mineralization for the mine. A series of stream sediment surveys took place in 1965, 1969, 1970, 1981 and 1982 over a large (several hundred square kilometre) area which includes the Bleikvassli mine (Krog, 1996a). Data from these surveys is not available and was not reviewed for this report. Additional soil and stream sediment surveys were carried out in 1985 and 1986, both of which were large-scale with sampling density of 1 sample/10 km<sup>2</sup> and 1 sample/40 km<sup>2</sup>, respectively. Data from these surveys shows anomalous lead and zinc values from both the immediate vicinity of the Bleikvassli mine and an area several kilometres southeast of the mine (Krog, 1996a). The area is not given a name as part of the work during 1985 & 1986, but corresponds to what was termed the Brunesbekken showing by later workers (Figure 5).

During the 1993 season, a large-scale C-horizon soil sampling program was undertaken, with samples taken at 1 km grid spacing over an 40 km x 35 km area, extending east from the Bleikvassli mine area towards the Swedish border (Krog, 1996a). This program outlined several anomalies in the immediate vicinity of the Bleikvassli mine which were followed up during the 1995 field season with several smaller scale surveys. Only one of these surveys was conducted over an area now encompassed by the Bleikvassli property (the area was termed Hallvarddalen in the report of Krog (1996a) and roughly corresponds to the area now covered by the northern portion of the Bleikvassli 3 and Bleikvassli 4 tenures). Sampling in this area returned several significant Pb-Zn-Cu soil anomalies, and additional work was recommended at the time (Krog, 1996b).

In addition to these soil anomalies, mineralization has been recorded in drilling at the Brunesbekken area, approximately 1.5 km south of the Bleikvassli mine (Figure 5). Two exploration holes were drilled in this area in 1987, with additional ground-based EM surveying in 1995 (Elvebakk and Dalsegg, 1996) and six more drillholes in 1997 (Bjerkgård, 1998b). Results of the EM survey showed a conductive zone at depth, which provided the basis for the follow-up drilling in 1997. Drilling intercepted a zone of weak mineralization; see sections 7.3 and 10.0 for additional details.

Finally, the NGU rock sample database contains a set of samples from the southeastern end of the property, many of which returned Zn and Pb values in excess of several percent (NGU, 2019). Though there is no mention of specific sampling dates or methodology, quality of the NGU's geochemical and spatial data is considered good, and these samples are a reliable basis for follow up work in the area.

# 7.0 GEOLOGICAL SETTING AND MINERALIZATION

## 7.1 Regional Geology

The Bleikvassli property is located within the Rödingfjället Nappe Complex ("RNC"), itself located within the Uppermost Allochthon (Figure 3), the highest structural unit of the Scandavian Caledonides (Cook et al., 1998). The Scandinavian Caledonides as a whole were formed during the Scandian Phase of the Caledonian orogeny, during the Silurian-Devonian collision of Baltica and Laurentia. The geology of the RNC is characterized by highly deformed and metamorphosed marine sedimentary units typical of the deeply eroded roots of such collisional orogenic belts. Original depositional age of the sediments is not entirely certain, but can be constrained by evidence from surrounding units to sometime within the Late Proterozoic to early Phanerozoic. A marble unit of Cambrian age is present at the base of the RNC, providing a possible age control, but overall the unit is poorly studied and understood (Corfu et al., 2015). The portion of the RNC located in the local area of the Bleikvassli deposit is a combination of mica schists, quartzo-feldspathic gneisses, metaquartzites and amphibolites (Cook et al., 1998), suggesting that a sequence of shallow to moderate depth marine sedimentary units formed the protolith of the present-day metamorphic complex.

## 7.2 Property Geology

The Bleikvassli property is underlain by highly deformed, moderate to high grade metamorphic units of the Anders Larsa Group and the stratigraphically lower Kongsfjellet Group (Figure 3). In the area of the

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Bleikvassli mine, the Anders Larsa Group is to the west of the Kongsfjellet Group; elsewhere on the property the relationship in more complex, and NGU mapping (NGU, 2019) suggests that a complex fold geometry may emplace an arm of the Anders Larsa Group south of the mine area (Figure 4). The Anders Larsa Group is composed primarily of thick sequences of marble, mica schist and amphibolite; the underlying Kongsfjellet Group is more varied, containing garnet-mica schists, feldspathic gneisses, calcareous schists, marble and amphibolite which are interpreted to be metamorphic products of mafic volcanic, clastic sedimentary and carbonate units (Rosenberg et al., 1998).

The Kongsfjellet Group hosts the Bleikvassli Pb-Zn-Cu-Ag deposit near its top within a unit termed the "Mine Sequence". The Mine Sequence has an approximate maximum thickness of 1 km, and is subdivided into upper and lower portions. The Upper Mine Sequence contains marble and calc-silicate bands, kyanite-mica schists and thin layers of graphitic schist; the Lower Mine Sequence lacks the carbonate units of the upper, containing kyanite-mica schists, graphitic schists, feldspathic gneisses and quartzites. The zone of historically mined mineralization is hosted within the Lower Mine Sequence.

It has been suggested (Bjerkgard et al., 1997) that the Anders Larsa and Kongsfjellet groups are spatially and temporally related; the Kongsfjellet Group represents a deep-water back-arc basin and the Andres Larsa Group a shelf sequence along the continental margin. The Bleikvassli deposit is situated within the upper several hundred meters of the Kongsfjellet Group, placing it quite proximal to the contact between the two groups.

## 7.3 Property Mineralization

Historical records indicate that the Bleikvassli orebody produced a total of 5.0 Mt of ore at 4% Zn, 2% Pb, 0.15% Cu and 25 g/t Ag over 40 years of mine life from 1957 – 1997 (Cook et al., 1998). The majority of historical work concurs that the deposit is a sediment-hosted massive sulphide Pb-Zn deposit of the SEDEX category.

Production came from two lenses (southern and northern) connected by a zone of disseminated sulphides. Together, these two lenses and intervening zone of disseminated mineralization compose a body at least 1500 m in strike length and 100 m - 300 m width which dips moderately towards the northwest with a plunge to the north. Within these boundaries, the mineralized body is highly deformed, primarily by a set of southwest plunging asymetrical S-shaped folds with long northwest and short southeast limbs (Cook et al., 1998). The southern end of the mineralized zone is truncated tectonically, while the northern extension is interpreted based on geophysical surveys to continue under Lake Bleikvatnet (Rosenberg et al., 1998). The main surface exposure of the orebody is a 500 m long portion of the southern lens southeast of the mine entrance. Thickness varies from 15 m in portions of the southern lens to 2 - 3 m in the northern lens; the majority of production came from the southern zone. Production at the southern lens came largely from two styles of mineralization: pyrite- and pyrrhotite-dominated massive sulphide zones. The pyrite-dominated is the more abundant of the two and is composed of medium-grained pyrite-sphalerite-galena with minor quantities of chalcopyrite and pyrrhotite. The (less abundant) pyrrhotite-dominated mineralization has similar associated amounts of sphalerite and galena to the pyrite-dominated ore but higher quantities of chalcopyrite. In addition to these two types of massive mineralization, sulphide mineralization is also found in disseminated and wallrock mineralization. Disseminated mineralization is described (Cook et al., 1998) as being composed of coarse crystals of pyrite disseminated along schistose partings proximal to the massive ore zones. Wall-rock mineralization is much more varied in style, with a wide variety of sulphide+quartz veins cutting wall rock primarily on the hanging wall side of the deposit. Sulphide species vary greatly between veins (sphalerite, galena, pyrrhotite-chalcopyrite, and quartz-galena veins are all described) and there are clearly a multitude of veining styles present. It is unclear if any commercial production was undertaken from the disseminated and wall-rock styles of mineralization.

Apart from the main mineralized body mined at Bleikvassli Gruven, there are two zones of known mineralization in bedrock on the property: first, a set of grab samples from the NGU rock sample database taken approximately 4 km southeast of the mine, and second, several mineralized intercepts in exploration drillholes at the Brunesbekken showing approximately 1.5 km south of the mine.



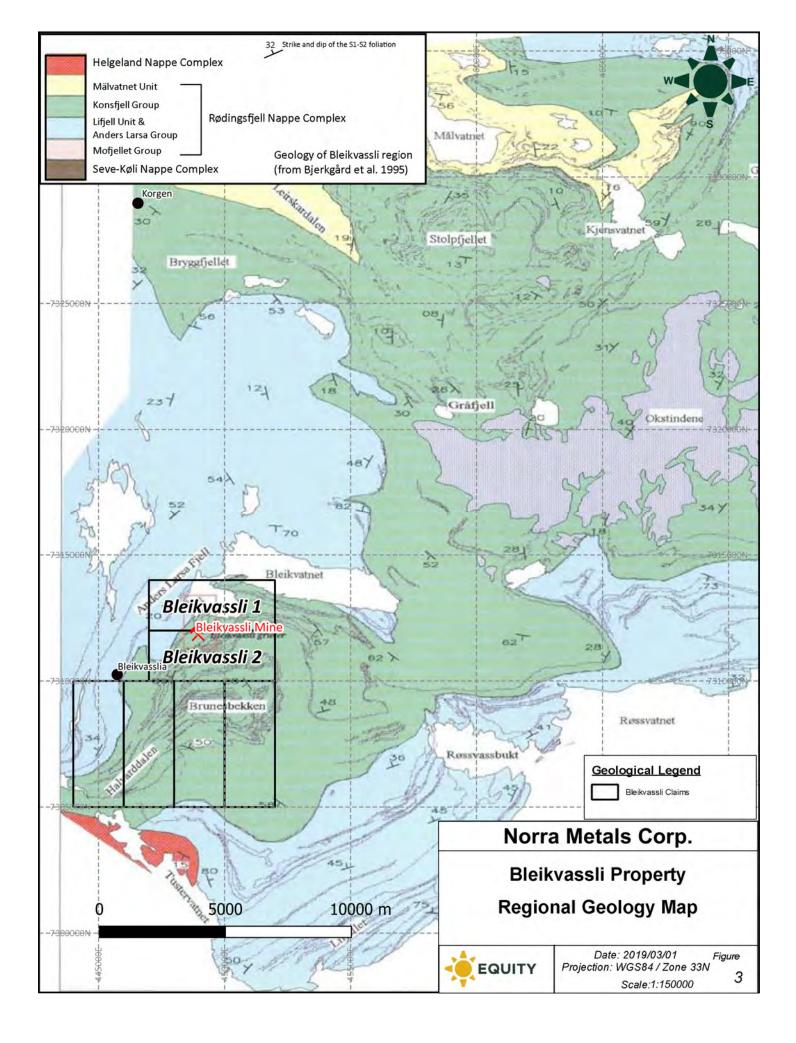
The grab samples from the NGU database are located along what they have mapped as a contact between garnet-mica schist and meta-rhyolite units (likely of the Kongsfjellet Group). It is worth noting that the unit identified as meta-rhyolite on the NGU 1:250,000 mapping dataset (which forms the basis for Figure 4) coincides with what workers more familiar with the mine geology (eg, Rosenberg et al., 1998) identify as kyanite-mica schist, microcline gneiss and quartzite. Additional work is necessary to resolve this discrepancy, but for the present it is interesting to note that this package directly underlies the main mineralized zone at the mine. Of the 35 samples taken by the NGU from this contact zone, 8 (distributed over a strike length of nearly 2 km) contain combined Pb+Zn values in excess of 5% and 28 are in excess of 1% (Figure 5).

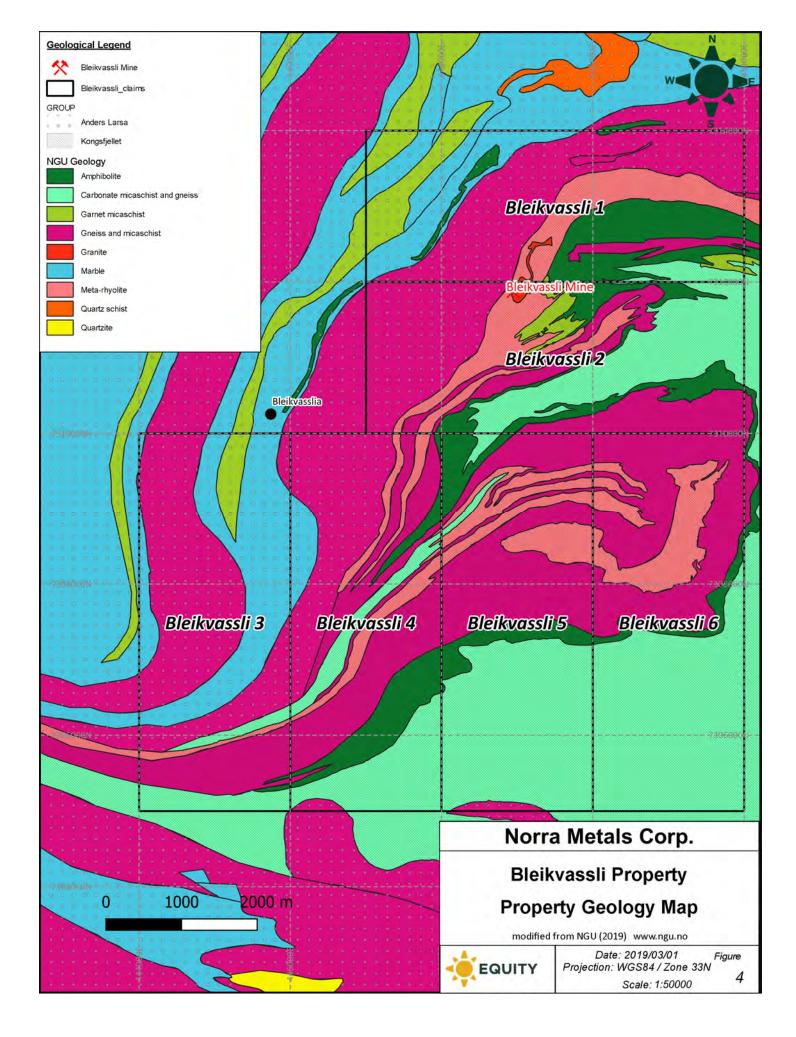
The exploration drillholes at Brunesbekken are spread out over an area of approximately 600 m x 400 m, 1.5 km directly south of the mine (Figure 5). The drillholes intercept geology similar to that mapped at surface; namely a sequence of amphibolite, calcareous schist, muscovite schist, biotite-muscovite schist and kyanite-garnet-mica schist. Several of the drillholes intercepted sulphide mineralization hosted in a the biotite-muscovite schist unit; the best reported intersection is from drillhole 1-97, and is reported to contain 1.22% Cu, 1.27% Zn and 0.14% Pb over 4.2 m (Bjerkgård, 1998b). None of the other drillholes contained any samples in excess of 1% copper, lead or zinc values.

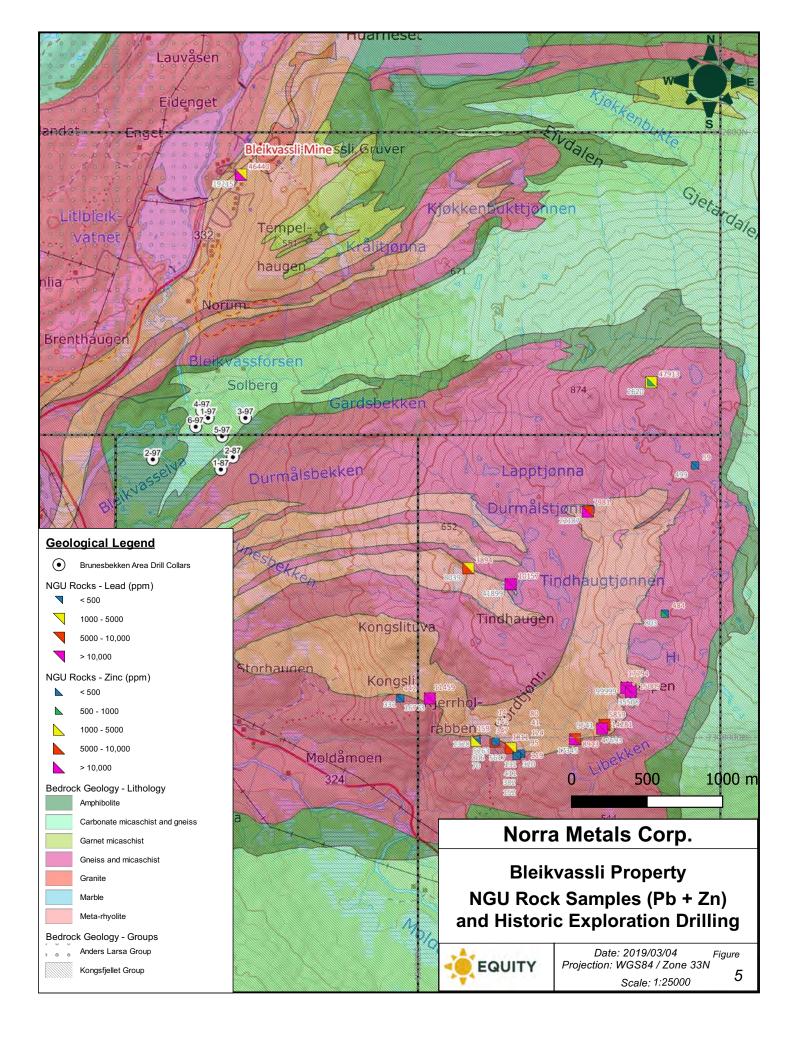
Though extremely early stage, these results suggest that Pb-Zn mineralization on the property is not confined solely to the vicinity of the Bleikvassli mine or its directly correlative stratigraphy.



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#### 8.0 DEPOSIT TYPES

Mineralization at the Bleikvassli property has been described by previous studies as a sediment-hosted Pb-Zn deposit of the SEDEX sub-type (Bjerkgård, 1998a), the following is a brief overview of sediment-hosted Pb-Zn deposits derived from the established scientific literature; for a more complete overview the reader is referred to the papers referenced in this section.

Sediment-hosted Pb-Zn deposits contain the world's greatest lead and zinc resources and dominate world production of these metals. They are a diverse group of ore deposits hosted by a wide variety of carbonate and siliciclastic rocks that have no obvious genetic association with igneous activity. A range of ore-forming processes in a variety of geologic and tectonic environments created these deposits over at least two billion years of Earth history. The metals were precipitated by basinal brines in synsedimentary and early diagenetic to low-grade metamorphic environments. The deposits display a broad range of relationships to enclosing host rocks that includes stratiform, strata-bound, and discordant ores. These ores are divided into two broad subsets: Mississippi Valley-type ("MVT") and sedimentary exhalative ("SEDEX"). Despite the "exhalative" component inherent in the term "SEDEX," direct evidence of an exhalite in the ore or alteration component is not essential for a deposit to be classified as SEDEX. The presence of laminated sulfides parallel to bedding is assumed to be permissive evidence for this type of ore. The distinction between some SEDEX and MVT deposits can be quite subjective because some SEDEX ores replaced carbonate, whereas some MVT deposits formed in an early diagenetic environment and display laminated ore textures. (Leach et al., 2005).

Ore mineralogy in sediment-hosted Pb-Zn deposits is generally dominated by sphalerite and galena; deposits are generally Cu-poor but can contain economically important quantities of Ag and Ge. (Leach et al., 2005). Gangue mineralogy is typically dominated by pyrite, carbonates, barite and quartz. In some rare cases, pyrrhotite can exceed pyrite in abundance. SEDEX ore bodies are generally composed of stacked tabular lenses of stratiform sulphide ore that when combined are typically a few tens of meters thick with a strike length ranging from hundreds of meters to <1.5 km (Emsbo et al., 2016). Present day geometry of these originally stratabound lenses is often strongly influenced by later deformation events. It is also common for SEDEX districts to contain multiple deposits within the same stratigraphic interval distributed over tens of kilometers.

SEDEX deposits show a wide global distribution, but are most common in North America, Australia and Asia, making the Bleikvassli deposit (located as it is in the Norwegian Caledonides) somewhat of an outlier to this global population. A variety of sub-classifications within this category are used; one of the more descriptive ones proposed by Leach et al. (2005) is to divide it by host rock lithology into carbonate-hosted, shale-hosted and coarse clastic-hosted. Of these three, shale-hosted deposits are on average larger than the other sub-types. Other than average size, differences in ore between the sub-types is minimal, with Pb and Zn grade similar across all three. However, coarse clastic-hosted deposits have higher mean concentrations of Ag, and shale-hosted deposits contain more Cu (Leach et al., 2005). Total tonnage and grade varies greatly across the deposit type, with summary statistics compiled by Leach et al. (2005) indicating a range from 0.01 Mt – 476 Mt (median value 11.5 Mt) tonnage and 0.6% - 33% total metal content (median value 7.4%). Zn:Pb ratios are generally consistent with a Zn/(Zn+Pb) value of approximately 0.7, with very minor credits from Cu and Ag.

SEDEX deposits occur in two broad settings, both of which are rifts that contain depositional basins: intracontinental failed rifts and rifted Atlantic type continental margins. In both categories, the basins which host the SEDEX deposits have the same basic stratigraphic elements comprising a basal clastic and/or volcanic dominated succession overlain by shales and carbonates. Deposits are generally found within the upper shale and carbonate sequences. In addition to this style of sedimentary basin, all SEDEX deposits are linked by the presence of synsedimentary faulting and/or sub-basin formation. These faults are considered to be an obvious pathway for mineralizing brines to ascend from deeper basin aquifers (Leach et al., 2005).

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## 9.0 EXPLORATION

Neither EMX nor Norra have conducted sampling or exploration work on the Bleikvassli property following staking of the exploration rights by EMX. However, as a part of the site visit and property inspection, the author examined core from historical drilling (currently housed at the NGU drillcore storage facility in Løkken) and took two bedrock rock samples from sites near the Bleikvassli mine. Norra Metals has examined and undertaken data compilation on hard copy records from the historical Bleikvassli mining operation.

## 9.1 Rock Sampling

Both rock samples were selectively taken from visibly mineralized areas of bedrock, and as such can be considered representative of mineralization at the locations sampled, but not necessarily of the geology of the area as a whole. Sample M411359 is composed of a series of chips taken by hand from sulphide mineralization exposed in a portion of the wall ~25 m into the underground workings (east) from the portal entrance to the Bleikvassli mine (Plate 1, Figure 6a – 6c). The surface of the wall is highly oxidized, but inspection of fresh faces shows the presence of pyrite, sphalerite, galena and chalcopyrite in the sample; these observations are backed up by assay values (Table 2) showing 5.6% Zn, 3.4% Pb and 0.5% Cu. The second sample (M411360) was taken by hand from an outcrop at the entrance to a small pit approximately 150 m northeast of the mine entrance (Plate 2). Material was selectively taken from one of the bands of massive sulphide which are present in the outcrop; mineralogy and base metal assay results were similar to the underground sample, returning 9.3% Zn, 0.76% Pb, and 0.1% Cu. Precious metal values vary greatly between the samples, though it is not possible based on the limited data available to speculate as to a cause for this variance.

Mapping shown in previous publications (Skauli et al., 1992) identifies the area from which both of these samples were taken as the outcropping expression of the southern lens of the Bleikvassli orebody. As such, these two samples are likely representative of the type of ore mined from this lens, and thus are valuable in providing confirmation of the composition of mineralization at the Bleikvassli property via modern analytical techniques.

Sample locations were recorded with a handheld GPS unit; in the case of M411360 the actual sample location was recorded. In the case of the M411359 it was not possible to record the precise location of the sample with a GPS unit as it was taken underground; the recorded sample location is at the portal entrance to the workings, with the sample taken from a spot on the wall approximately 25 m to the east of this point.

SampleID	Easting	Northing	Elevation	UTM	Pb	Zn	Cu	Au	Ag	Notes
·	-			Zone	(%)	(%)	(%)	(ppm)	(ppm)	
M411359	448933	7311896	423	33W	3.39	5.62	0.55	0.32	71.7	Composite sample of
										chips taken from
										sulphidic part of wall
										~50 m in from the
										portal
M411360	449056	7311985	438	33W	0.76	9.3	0.1	0.068	4.26	Sample of sulphide-
										rich layer outcropping
										on the right-hand
										entrance to the pit

Table 2: 2018 Bleikvassli Grab Samples

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Plate 1: Sulphide Mineralization Exposed in Wall of Bleikvassli Portal; Sample M411359



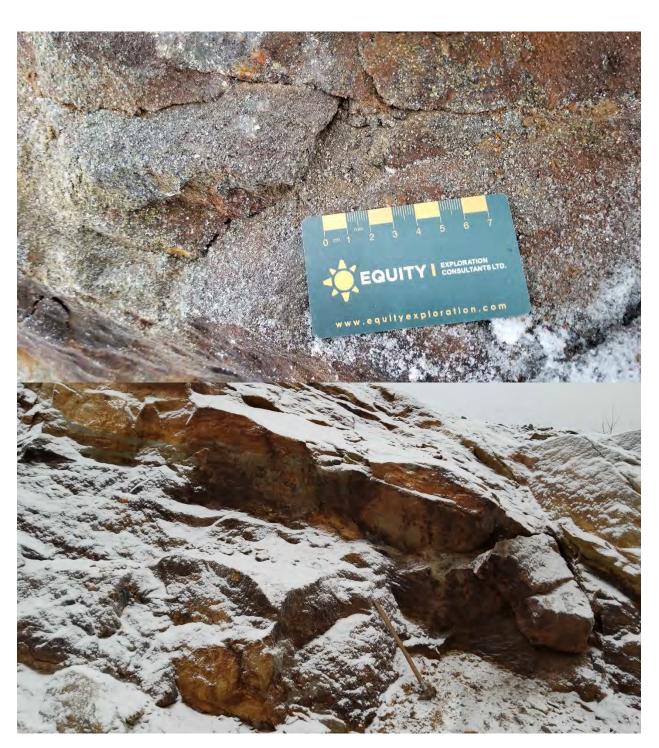
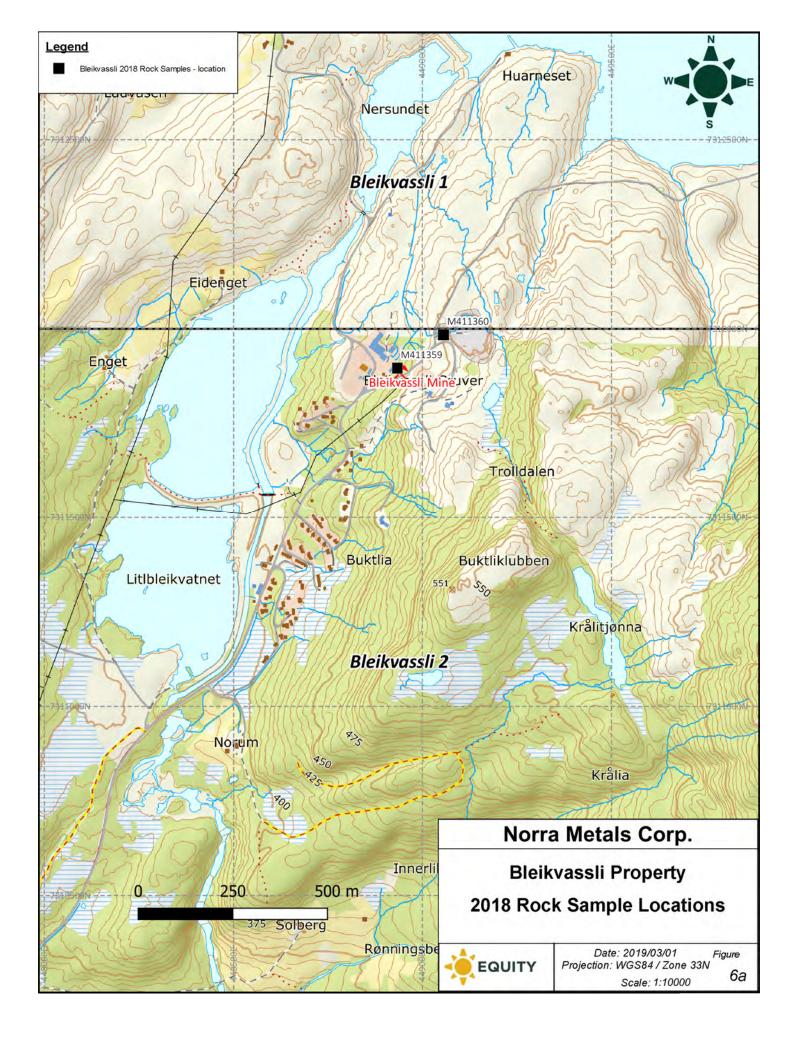
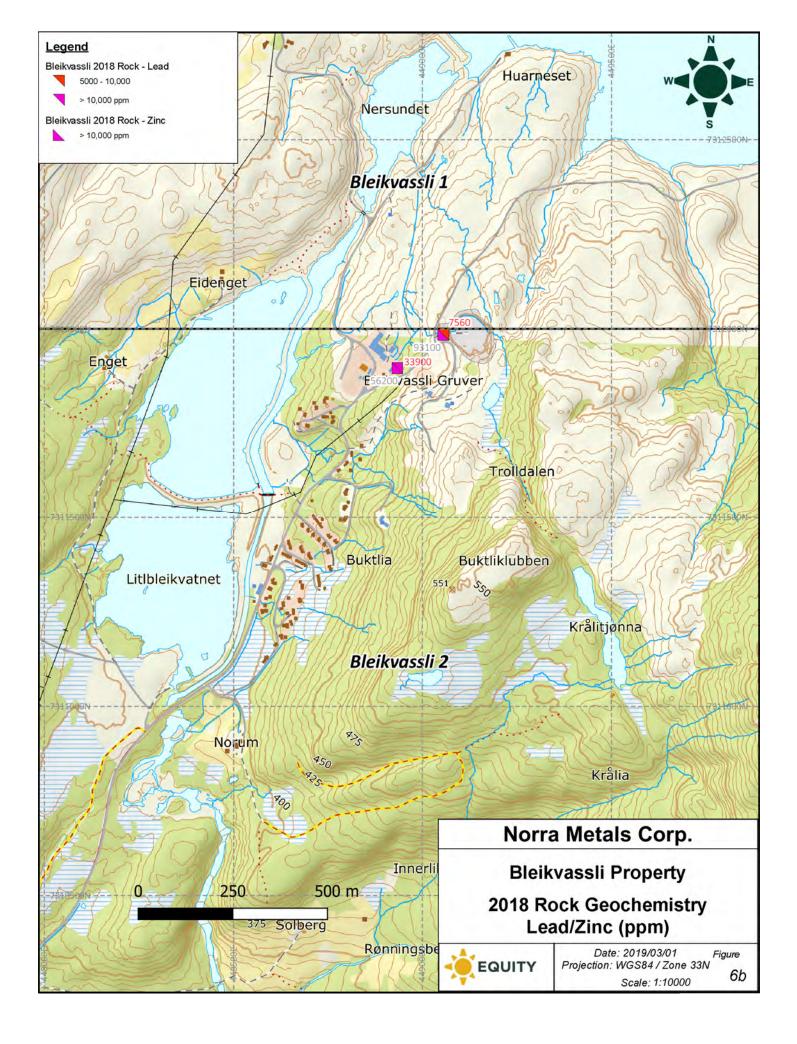
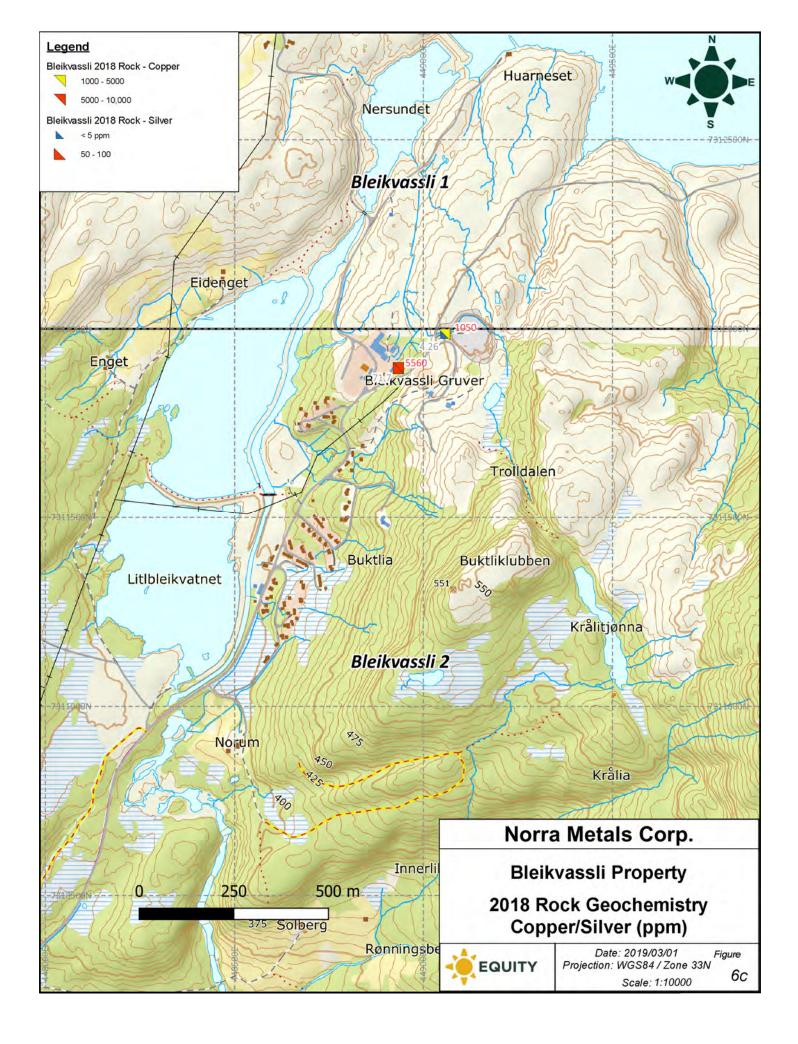


Plate 2: Outcrop and close-up view of sample location M411360









#### 9.2 Drillcore Review

The Norwegian Geological Survey maintains a drillcore repository at a facility near the town of Løkken which contains a number of holes from the Bleikvassli deposit drilled by the previous operator. As part of the 2018 site visit, the author examined several of these holes and compared them to historical paper logs. Results of this inspection indicate that the quality of the old logging is generally good, with all mineral and textural descriptions matching what was observed in the physical drill core.

For example, the interval of drillhole BH7-89 (Plate 3) is described in the historic logs as "malm" (ore) with a reported grade of 9.7% Zn and 6.7% Pb. A similar interval several meters further uphole is described as containing pyrite, chalcopyrite, sphalerite and galena. The author's personal observations of these intervals confirm the presence of galena and sphalerite in the intervals noted to be ore and to contain these minerals. Likewise, the intervals immediately surrounding these sulphide-rich bands were observed by the author to be comprised of feldspar-muscovite-biotite schist and quartzite; the log for BH7-89 describes "Biot Musk Gn" and "Kv-Sitt", interpreted to be abbreviations for biotite-muscovite gneiss and kvartsitt (the Norwegian term for quartzite) respectively. As with the ore zone descriptions, these entries are consistent with the author's observations and suggest the log is generally accurate.

Three additional drillholes (BH4-89, BH19-97 and BH40-90) were examined, and as with BH7-89 visual inspection found the logging to be of good quality, with text descriptions of the examined intervals matching the author's observations. Reported metal content is consistent with the visual abundance of base-metal containing sulphide minerals; for example BH19-97 (Plate 4) has a reported assay value of 12.4% Zn and 6.0% Pb over 2.5 m; visual inspection of this interval confirms the presence of massive galena, sphalerite and pyrite surrounded by a strongly foliated (gneissic) unit. Overall, the author has no reason to believe there are serious inaccuracies in the historical drill dataset as it currently exists. Despite this, it should be noted that no check assays were undertaken and as such reported metal contents have not been verified by certified analytical methods.

Collar location, dip and azimuth of the drillholes examined are reported on the original logs relative to a local coordinate system; conversion of this system into a standard geographic system (eg, UTM) has not been undertaken. Position and attitude of the drillholes is not considered relevant to the current report, as the purpose of the current work was to compare assays and geological descriptions to the actual rocks and thus determine whether further work in rectifying the coordinate system of the mine grid to UTM space and digitization of the historical logs is justified.

Overall, it is the opinion of the author that historical assays and drill logs are generally of good quality and can be relied upon to aid modern workers in gaining an understanding of the Bleikvassli deposit and to guide future exploration efforts.





Plate 3: Photo of BH7-89 @ ~36 m depth, showing massive pyrite with interstitial sphalerite and galena



Plate 4: Photo of BH19-97 @ 75.5 m depth, showing massive pyrite with interstitial sphalerite and galena

## **10.0 DRILLING**

There has not been any modern exploration drilling on the Bleikvassli property following closure of the mine in 1997 and none done by EMX or Norra Metals.

Significant drilling (on the order of several hundred drillholes) was conducted in and around the mine while the mine operated. Paper records exist for much of this work and review of available drillcore and comparison to historical logs (see section 9.2) suggests that historical logging may be of sufficient quality to be



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used in future work; however the data collation and verification required to render historical drilling data usable for modern reporting purposes has not been completed. Until that work has been performed, no summary of drilling results or their interpretation can be made. Similarly, no comment can be made regarding the drilling and sampling procedures or any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results. If such an exercise is undertaken, as recommended by this report, it should be possible to use this information to guide future exploration.

In addition to the drilling directly associated with the Bleikvassli mine, historical reports indicate eight exploration drillholes were completed at the Brunesbekken showing, approximately 1.5 km south of the mine. Two of these holes were completed in 1987, with the remaining six in 1997. Downhole data, including lithology and assays, are only available for the six holes drilled in 1997. Collar locations (Table 3) were digitized from maps provided by Bjerkgård (1998b), and length, azimuth and dip of the holes have been taken from drill logs provided in the same document. None of these values have been personally verified by the author and are included for historical reference only. Results of this drilling are discussed in sections 6.2 and 7.3.

Drillhole Name	Easting (WGS84, UTM Zone 33)	Northing (WGS 84, UTM Zone 33)	Length (m)	Azimuth	Dip
1-87	448696	7309772	Unknown	Unknown	Unknown
2-87	448776	7309853	Unknown	Unknown	Unknown
1-97	448612	7310112	155	138	-55
2-97	448246	7309838	136.6	135	-76
3-97	448858	7310112	157.8	139	-75
4-97	448571	7310160	272.4	139	-75
5-97	448704	7309991	100	139	-75
6-97	448530	7310054	182.4	139	-75

Table 3: Brunesbekken area drilling

# **11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY**

All rock sampling described in section 9.1 of this report was completed personally by the author, with samples taken by hand from accessible outcrop. Sample locations were recorded with a hand-help GPS unit. Following collection, samples were placed in individually labelled cloth sample bags and tagged with waterproof paper tags provided by ALS Global. The samples remained in the custody of the author until such time as they were hand delivered by the author to the ALS Global Geochemistry facility in Malå, Sweden.

Samples were crushed and pulverised at the ALS facility in Malå (ALS method code PREP-31), then subsequently analysed at the ALS Global Geochemistry facility in Loughrea, Ireland. Gold analysis was done via fire assay with an atomic absorption spectroscopy finish (ALS Method Au-AA23); multi-element analysis was performed via Aqua Regia digestion with an ICP-MS finish (ALS Method ME-MS41) with overlimits for Cu, Pb and Zn performed via the ME-OG46 for samples where those elements exceeded the detection limit (10,000 ppm) of the ME-MS41 method. All analytical methods (Au-AA23, ME-MS41 & ME-OG46) are listed by ALS as being ISO 17025:2005 accredited.

The insertion of QA/QC samples was not judged to be required due to the small number of samples collected and the preliminary stage of the exploration program; as such there were no analytical standards or blanks inserted into the sample stream.

It is the author's opinion that sample preparation, security and analytical procedures are all adequate for the purposes of this report.

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## **12.0 DATA VERIFICATION**

Much of the information regarding the Bleikvassli property is contained in publicly available summary reports for which the primary data has not been reviewed, and in hard copy records at the Bleikvassli mine site which have not been examined in detail. No surface drill collars were located, and the majority of the underground workings are not accessible at the present time; as such, it was not possible for the author to verify location or orientation of any drillholes, or the extent and orientation of underground workings. All descriptions of historic production from the Bleikvassli mine described in this report have been taken from historic reports and have not been verified by the author. No NGU sample sites were examined or resampled, and it is therefore not possible to comment on accuracy of sample locations or assays from this dataset. Similarly, descriptions of the property and deposit geology outside of the immediate vicinity of the surface exposures and drill intercepts examined by the author cannot be commented upon.

However, in cases where it was possible to compare historic records to personal observations by the author good correlation was observed. Historic drill core was examined at the NGU's Løkken facility and lithological descriptions, mineralogy and base metal contents reported by the mine's previous operator were consistent with the author's observations (Section 9.2). Due to NGU policy on usage of the core stored at their facility, it was not possible to sample the core, only to examine it. However, sampling may be possible in the future if arrangements for such are made with the NGU. Rock samples were taken from surface and underground exposures of the Bleikvassli deposit; mineralogy and geochemical analyses of these samples is consistent with historical descriptions. GPS locations for these samples have been checked against local topographic features and satellite imagery and found to be consistent.

Newly obtained and historic data is judged to be of sufficient quality for the purposes of this report.

## **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing or metallurgical testwork has been reported on samples from the Bleikvassli property.

### **14.0 MINERAL RESOURCE ESTIMATES**

No estimates of mineral resources or mineral reserves have been made for the Bleikvassli property.

#### **15.0 ADJACENT PROPERTIES**

There is no information on adjacent properties which is necessary to make the technical report understandable and not misleading.

#### **16.0 OTHER RELEVANT DATA AND INFORMATION**

No other information or explanation is necessary to make this technical report understandable and not misleading.

#### **17.0 INTERPRETATION AND CONCLUSIONS**

Inspection of drillcore, surface outcrops and historical records support the assertion of previous workers that a partially-mined SEDEX-style massive sulphide deposit is present on the Bleikvassli property. This massive sulphide mineralization was observed by the author in both outcrop and drillcore, with abundant sphalerite and galena and minor chalcopyrite dominating the observed mineralized intervals. Mineralization is present at surface where described by previous work, and together with the obvious history of production (ie, a portal, remnants of processing facilities and mine office buildings) this speaks to there clearly having been a deposit of economic significance on the property.

There remain onsite at the Bleikvassli facility a large volume of paper records from the mining days which could provide valuable insight into the geometry of the mineralized body as it was mined, its structural



and stratigraphic controls and whether mineralization is present in unmined areas. It is also possible that mineralized intersections are recorded in these historical logs which were not fully evaluated or followed up on during the operating life of the mine. Norra has examined, digitized and compiled some of these records into a preliminary 3D geological model of the mine and surrounding geology. Completion of this work and targeting based on the results may reveal areas of interest which would warrant a surface drilling program to explore for near-mine mineralization.

The set of mineral tenures which comprise the Bleikvassli property extends well beyond the footprint of the historical mine, and work by the Norwegian Geological Survey (NGU) suggests that there may be significant mineralization worth following up on several kilometres to the south of the mine (see section 7.3 for more detail). Two specific areas of interest exist: a trend of mineralized surface samples and a cluster of drilling with significant values of base metals.

The cluster of exploration drilling at the Brunesbekken showing demonstrated that base metal sulphide mineralization is present in similar geology to that which was mined, but outside of the footprint of the mine itself. Though the intersections in these holes were not massive sulphide of the same style exploited at the mine, confirmation of sub-surface mineralized zones outside the immediate footprint of the mine is encouraging from an exploration perspective.

The mineralized trend of surface samples extends for nearly 2 km and is underlain by geology mapped by the NGU as similar to that of the mine area. Given that this is a similar footprint to that of the total mined trend at the Bleikvassli mine and the tendency of SEDEX deposits to occur in clusters within similar stratigraphy, this set of samples constitutes a highly attractive early stage exploration target. Detailed surface work, both geological mapping and geochemical sampling of this area, is warranted and recommended. If a coherent zone of mineralization is found by this surface sampling program, a drilling program to follow up on the identified targets could be warranted. Reconnaissance level prospecting and geochemical sampling is also warranted over much of the rest of the property; despite there being large areas of bedrock mapped as having similar geology to that of the mine area, there has been limited sampling to test for the presence of near-surface mineralization which would have the potential to be a viable exploration target.

Though exploration on the Bleikvassli property is too early stage to evaluate specific economic parameters, the site's proximity to transport and electrical power infrastructure and history of mining are favourable indicators for the potential to develop any economically significant ore body which may be discovered on the property. In the author's opinion, further exploration is abundantly warranted on the Bleikvassli property directed at discovering another deposit similar to that mined there for 40 years.

## **18.0 RECOMMENDATIONS**

## 18.1 Program

Based on the results of the author's inspection of the Bleikvassli property and review of available records, a desktop targeting and surface exploration program is recommended. If results of this work are favourable, a second phase of work involving a focussed drilling campaign in recommended.

The desktop targeting portion of the program would be based on a 3D digital model of the mine workings, geology and mineralized intercepts which has already been compiled by Norra following their acquisition of the property. This work is expected to take one to two weeks by Norra geology personnel. The goal of this phase of work would be twofold. First, it would allow development of an understanding of the geometrical and geological controls on mineralization which would allow future exploration to proceed in an informed manner. Second, it will provide an answer to the question of whether any mineralized zones remain within the former mine footprint, and whether the grade and size of these zones warrants additional drilling to validate them to NI 43-101 standards. It may also serve to develop drill targets proximal to the mine but outside the presently known zones of mineralization. Total cost for this data compilation is budgeted at \$10,400 (Table 4).



The surface work portion of the program would consist of two weeks of field time for a senior geologist and two junior geologists/samplers. The primary objective would be to produce a detailed geological map of the area of mineralization highlighted by NGU rock sampling. Geological mapping would be supported by surface geochemical sampling, with budget allocated for 50 rock samples and 220 soil/silt samples. If time and budget allow, a secondary objective of the program should be to perform reconnaissance-scale geological mapping and prospecting on the remainder of the property to attempt to identify new prospective areas and follow up on historic soil and stream sediment anomalies. Total cost for this surface work is budgeted at \$52,700 (Table 4).

Contingent on the results of this first phase of work, a second phase of work involving drill testing of high priority targets identified by the first phase is recommended. Specifics of this phase will be largely determined by the data compilation and surface work, but the focus should be on identifying high quality, relatively shallow targets in order to maximize value from a relatively small-scale meterage allocation. Based on the currently available data, these targets are likely to be either proximal to the Bleikvassli mine or near the trend of mineralized surface samples several kilometres southeast of the mine. Bearing in mind that specifics of the program will be determined by the results of the first phase, a preliminary recommendation is made for a 1500 m diamond drill program, consisting of 5 - 10 drillholes. A total budget of \$600,000 is allocated for this phase of the exploration program (Table 5).

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### 18.2 Budget

The first phase of the recommended program will cost approximately \$68,000 to complete (Table 4). If warranted based on results of the first phase, a second phase of work with a budget of approximately \$600,000 (Table 5) is recommended.

Surface Work and Data Compilation Cost Estimate						
Sui	Surface Work					
Wages	\$	17,864				
Field Support&Supplies	\$	18,143				
Analytical	\$	12,504				
Post-field Reporting	\$	4,200				
Sub-Total			\$	52,710		
Desk	top 7	Fargeting				
Wages	\$	8,400				
Software usage	\$	2,000				
Sub-Total			\$	10,400		
Contingency \$ 5,271						
Total			\$	68,382		

#### Table 4: Proposed Bleikvassli Budget – Phase I

#### Table 5: Proposed Bleikvassli Budget - Phase II

Drilling Cost Estimate						
Drilling Costs	\$	364,481				
Analytical	\$	82,348				
Wages	\$	33,799				
Earthworks	\$	33,249				
Field Support & Supplies	\$	47,141				
Post-Field Reporting	\$	8,268				
Contingency	\$	28,464				
Total	\$	597,751				

Respectfully submitted,

(signed) "David Swanton"

David Swanton, M.Sc., P.Geo.

EQUITY EXPLORATION CONSULTANTS LTD.

Vancouver, British Columbia

Effective Date: January 27, 2021



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EQUITY

Appendix B: Qualified Person's Certificate



# **QUALIFIED PERSON'S CERTIFICATE**

- I, David Swanton, M.Sc., P.Geo., do hereby certify:
- THAT I am a Professional Geologist with offices at 1268-200 Granville Street, Vancouver, BC and reside at 2691 Maryport Ave, Cumberland, BC.
- THAT I am the author of the Technical Report entitled "2021 Technical (N.I. 43-101) Report on the Bleikvassli Property" with an effective date of January 27, 2021, relating to the Bleikvassli property (the "Technical Report"). I am responsible for all items within it.
- THAT I am a member in good standing of the Association of the Professional Geoscientists of Ontario (Membership #2748).
- THAT I graduated from the Acadia University with a Master Degree (Science) in geology in 2010, and have been active in the mineral exploration industry since 2006.
- THAT since 2006, I have been involved in mineral exploration for gold, silver, copper, lead, zinc, nickel and rare earth elements in Canada, Armenia, Norway and Sweden.
- THAT I am a Senior Project Geologist with Equity Exploration Consultants Ltd., a geological consulting and contracting firm, and have been an employee of the firm since 2010.
- THAT I have read the definition of "independence" set out in Part 1.5 of National Instrument 43-101 ("NI 43-101") and certify that I am independent of Norra Metals and EMX Royalties.
- THAT I have examined the property which is the subject of the Technical Report in the field (November 20 and 23, 2018) and that I have had no prior involvement with that property.
- THAT I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- THAT as of the effective date of the Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- THAT I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form. I am responsible for the entire content of this report.
- THAT I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated at Vancouver, British Columbia, with effective date of January 27, 2021:

"signed and sealed"

David Swanton, M.Sc., P.Geo.



Appendix C: Analytical Certificate





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#### To: EQUITY EXPLORATION CONSULTANTS 1510-250 HOWE STREET VANCOUVER BC V6C 3R8 CANADA

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# CERTIFICATE MS18299647

Project: Not Provided

This report is for 10 Rock samples submitted to our lab in Mala, Sweden on 26- NOV- 2018.

The following have access to data associated with this certificate:

DAVE SWANTON

	SAMPLE PREPARATION					
ALS CODE DESCRIPTION						
WEI- 21 Received Sample Weight						
LOG- 22 Sample login - Rcd w/o BarCode						
CRU- QC Crushing QC Test						
PUL- QC Pulverizing QC Test						
CRU- 31	Fine crushing - 70% < 2mm					
SPL- 21	Split sample - riffle splitter					
PUL- 31	Pulverize split to 85% <75 um					

	ANALYTICAL PROCEDURE	S
ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	
Pb- OG46	Ore Grade Pb - Aqua Regia	
Zn- OG46	Ore Grade Zn - Aqua Regia	
Au- AA23	Au 30g FA- AA finish	AAS
ME- MS41	Ultra Trace Aqua Regia ICP- MS	

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:



Andrey Tairov, Technical Manager, Ireland

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



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									0			. ,,			55617	
	Method Analyte Units	WEI- 21 Recvd Wt. kg	Au- AA23 Au ppm	ME- MS41 Ag ppm	ME- MS41 Al %	ME- MS41 As ppm	ME- MS41 Au ppm	ME- MS41 B ppm	ME- MS41 Ba ppm	ME- MS41 Be ppm	ME- MS41 Bi ppm	ME- MS41 Ca %	ME- MS41 Cd ppm	ME- MS41 Ce ppm	ME- MS41 Co ppm	ME- MS41 Cr ppm
Sample Description	LOD	0.02	0.005	0.01	0.01	0.1	0.02	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1
M411351		2.31	0.056	1.85	0.33	8.5	0.03	<10	10	<0.05	25.9	0.46	>1000	2.71	2.0	9
M411352		1.37	0.011	6.96	0.85	3.2	<0.02	<10	20	0.05	54.4	0.39	163.5	15.20	276	29
M411353		1.63	0.094	38.1	0.53	3.0	0.10	<10	50	0.08	41.5	0.33	90.8	6.45	326	19
M411354		1.53	0.045	5.42	1.53	2.4	0.04	<10	60	0.11	5.49	0.20	6.30	22.5	52.2	58
M411355		0.95	0.075	13.50	1.93	219	0.05	<10	<10	0.15	5.45	0.24	4.90	3.50	452	11
M411356		1.55	0.119	17.30	0.20	99.5	0.04	<10	<10	<0.05	14.95	0.12	31.7	0.37	182.0	4
M411357		1.08	0.036	12.40	0.18	51.4	0.04	<10	<10	<0.05	16.05	0.09	164.0	0.59	89.1	3
M411358		1.00	0.181	92.2	0.08	280	0.12	<10	10	<0.05	131.5	0.05	171.0	0.32	19.6	4
M411359		1.10	0.320	71.7	0.67	263	0.21	<10	20	0.24	186.5	0.30	179.0	35.7	99.6	5
M411360		1.59	0.068	4.26	0.02	589	<0.02	<10	<10	<0.05	6.18	<0.01	256	7.58	29.8	3
		Î														



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Sample Description	Method	ME- MS41														
	Analyte	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
	LOD	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01
M411351		<0.05	1670	8.22	40.2	0.27	0.07	3.00	38.3	<0.01	0.9	0.4	0.39	540	15.20	<0.01
M411352		0.49	5510	29.3	3.83	0.68	0.06	1.67	12.70	0.08	6.8	5.2	0.78	242	2.29	0.02
M411353		1.12	>10000	33.3	5.88	0.86	0.06	1.82	7.17	0.23	2.9	4.6	0.46	228	3.31	0.02
M411354		0.94	>10000	10.25	6.14	0.28	0.08	0.09	1.945	0.38	10.2	6.5	1.14	468	1.85	0.03
M411355		0.05	>10000	16.55	8.77	0.45	0.17	1.41	1.015	<0.01	1.1	3.9	2.30	308	8.76	0.01
M411356		<0.05	>10000	23.1	1.18	0.53	<0.02	1.77	1.425	<0.01	<0.2	0.6	0.33	50	12.05	0.01
M411357		<0.05	>10000	15.40	1.11	0.34	0.04	9.96	1.170	<0.01	0.2	0.3	0.48	99	15.85	0.01
M411358		<0.05	6240	27.0	10.90	0.76	0.02	11.10	0.370	<0.01	<0.2	0.3	0.20	137	6.72	0.01
M411359		1.84	5560	29.6	3.62	0.70	0.28	3.59	25.8	0.41	18.1	7.2	0.45	161	1.46	0.02
M411360		<0.05	1050	27.5	1.53	0.49	0.03	11.55	14.55	0.01	2.8	0.2	0.01	126	2.07	0.01



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Sample Description	Method Analyte Units LOD	ME- MS41 Nb ppm 0.05	ME- MS41 Ni ppm 0.2	ME-MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01	ME- MS41 Th ppm 0.2
M411351		0.05	8.0	10	84.3	0.1	<0.001	>10.0	0.06	0.8	7.4	3.3	5.8	<0.01	0.59	<0.2
M411352		0.08	62.4	140	2410	4.0	0.001	8.50	0.14	2.8	66.9	0.6	4.7	<0.01	9.48	2.9
M411353		0.19	45.9	70	1710	14.0	0.001	>10.0	0.57	2.5	89.0	14.4	3.9	<0.01	7.69	1.5
M411354		0.20	29.2	580	117.0	15.8	<0.001	4.81	0.08	2.9	38.9	2.6	6.7	<0.01	3.59	6.1
M411355		0.12	6.8	360	8.6	0.1	0.001	>10.0	0.26	3.0	59.8	0.8	1.9	<0.01	1.60	0.2
M411356		0.05	8.8	150	84.3	<0.1	0.002	>10.0	0.30	0.1	70.1	1.1	0.6	<0.01	6.13	<0.2
M411357		<0.05	3.4	220	394	0.1	0.002	>10.0	0.49	0.1	53.9	2.3	1.6	<0.01	2.77	<0.2
M411358		0.05	3.9	80	>10000	0.1	0.003	>10.0	3.94	0.2	162.0	16.0	1.4	<0.01	23.1	<0.2
M411359		2.00	5.6	50	>10000	27.0	0.001	>10.0	76.1	0.5	46.6	27.7	2.6	0.01	0.24	8.2
M411360		0.09	30.6	<10	7560	0.5	0.002	>10.0	16.45	0.1	1.2	7.7	<0.2	<0.01	0.08	0.8



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Sample Description	Method Analyte Units LOD	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5	Cu- OG46 Cu % 0.001	Pb- OG46 Pb % 0.001	Zn- OG46 Zn % 0.001	CRU- QC Pass2mm % 0.01	PUL- QC Pass75um % 0.01
M411351 M411352 M411353 M411354 M411355		0.006 0.013 0.031 0.069 0.034	0.03 0.91 1.35 1.29 0.10	1.47 0.66 0.48 1.21 0.13	15 28 23 33 31	0.14 0.15 0.38 0.13 0.07	0.86 4.61 1.86 5.54 4.17	>10000 >10000 >10000 3040 982	1.9 2.3 1.7 2.2 6.6	8.67 1.810 3.39		>30.0 9.09 5.03	97.9	94.0
M411356 M411357 M411358 M411359 M411360		<0.005 <0.005 <0.005 0.019 <0.005	0.12 0.31 2.91 24.7 2.00	0.09 0.94 0.30 6.78 0.91	3 2 3 13 2	<0.05 <0.05 0.05 0.19 0.06	0.29 0.61 0.35 13.80 1.02	7930 >10000 >10000 >10000 >10000	<0.5 1.5 1.2 7.0 0.5	3.56 1.700	3.44 3.39	5.09 5.78 5.62 9.31		



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# CERTIFICATE OF ANALYSIS MS18299647

		CERTIFICATE COMMENTS		
Applies to Method:	Gold determinations by this method a ME- MS41	<b>ANALYTICAL CO</b> re semi- quantitative due to the smal		
Applies to Method:	The methods immediately below this I Au- AA23	ACCREDITATION C ine are ISO 17025:2005 Accredited. ME- MS41		
		LABORATORY AD	DDRESSES	
Applies to Method:	Processed at ALS Loughrea located at Au- AA23 Pb- OG46	Dublin Road, Loughrea, Co. Galway, Cu- OG46 Zn- OG46	Ireland. ME- MS41	ME- OG46
Applies to Method:	Processed at ALS Mala located at Fabri CRU- 31 PUL- QC	ksgatan 1, 930 70 Malå, Sweden. CRU- QC SPL- 21	LOG- 22 WEI- 21	PUL- 31