Technical Report on the Selebi Mines, Central District, Republic of Botswana Report for NI 43-101

North American Nickel Inc.

Premium Nickel Resources Corporation

Premium Nickel Resources Ltd.

SLR Project No: 233.03374.R0000

Effective Date:
March 01, 2022

Signature Date:
June 16, 2022

Prepared by:
SLR Consulting (Canada) Ltd.

Qualified Persons:
Valerie Wilson, M.Sc., P.Geo.
Brenna J.Y. Scholey, P.Eng.
Sharon Meyer, M.Sc., Pr.Sci.Nat., EAPASA

SLR

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1.0 SUMMARY

1.1 Executive Summary

SLR Consulting (Canada) Ltd (SLR) was retained by North American Nickel Inc. (NAN) and Premium Nickel Resources Corporation (PNR) (the Project Team) to prepare an independent Technical Report on the Selebi and Selebi North nickel-copper-cobalt (Ni-Cu-Co) Mines (collectively, Selebi Mines or the Project), located in the Central District of the Republic of Botswana. On April 25, 2022, PNR, NAN and 1000178269 Ontario Inc. (Subco) entered into an amalgamation agreement (the Amalgamation Agreement) which provides the terms and conditions upon which PNR will complete a "go-public" transaction by way of a reverse take-over (RTO) of NAN under the policies of the TSX Venture Exchange (TSXV). The purpose of this Technical Report is to document the technical information available on the Project in connection with the RTO as required under the policies of the TSXV. This Technical Report has been addressed to NAN and PNR, as the authors intend that NAN and PNR be entitled to rely on it in connection with the RTO. The authors also intend for this Technical Report to be filed on SEDAR by the resulting issuer of the RTO (the Resulting Issuer or Premium Nickel Resources Ltd.). This Technical Report conforms to the requirements under NI 43-101 Standards of Disclosure for Mineral Projects (NI 43-101). Ms. Sharon Meyer, M.Sc., Pr.Sci.Nat., EAPASA, SLR Associate Environmental Consultant, visited the Project from May 2 to 6, 2021.

NAN is a Vancouver based junior mining company formed in September 1983 and is a reporting issuer in British Columbia, Alberta, Manitoba, and Ontario. NAN is under the jurisdiction of the British Columbia Securities Commission, and its common shares trade on the TSXV. NAN's exploration activities focus predominately on nickel, with several exploration properties in Greenland and Canada.

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In 2019, NAN became a founding shareholder in PNR and currently holds approximately 10% of the issued and outstanding shares of PNR together with a warrant that entitles NAN to acquire an additional undiluted 15% interest in PNR, for an exercise price of US$10 million (the 15% Warrant). In connection with the RTO, PNR and NAN entered into a waiver and suspension agreement, whereby NAN agreed to suspend its exercise privilege under the 15% Warrant until the later of the 61st calendar day following the date of the Amalgamation Agreement and the date the Amalgamation Agreement is terminated. NAN provides technical and management support to PNR through services and consulting agreements.

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On September 28, 2021, PNR announced that it had executed the definitive asset purchase agreement (the Selebi Purchase Agreement) with the Liquidator to acquire the Selebi Mines including the related infrastructure and equipment formerly operated by BCL. The acquisition closed on January 31, 2022, transferring the Selebi Mines and new Selebi mining lease to PNR.

On April 26, 2022, PNR and NAN announced that they had executed the Amalgamation Agreement which provides the terms and conditions upon which PNR will complete a "go-public" transaction by way of an RTO of NAN under the policies of the TSXV. The Amalgamation Agreement provides for, among other things, a three-cornered amalgamation pursuant to which (i) Subco will amalgamate with PNR under Section 174 of the *Business Corporation Act* (Ontario) to form one corporation, (ii) the securityholders of PNR will receive securities of the Resulting Issuer in exchange for their securities of PNR at an exchange ratio of 5.27 Resulting Issuer common shares for each outstanding share of PNR (subject to adjustments in accordance with the Amalgamation Agreement), and (iii) the transactions will result in a RTO of NAN in accordance with the policies of the TSXV, all in the manner contemplated by, and pursuant to, the terms and conditions of the Amalgamation Agreement.

BCL operated the combined Selebi-Phikwe project from 1970 until its closure in 2016. Ore was mined from four distinct underground production areas namely Phikwe (1 Shaft, Phikwe Central and Phikwe South), Southeast Extension, Selebi North, and Selebi. PNR's definitive asset purchase agreement pertains to the Selebi Mines only. In total, 26.6 million tonnes (Mt) grading 0.58% Ni and 1.03% Cu was mined from Selebi (1980 to 2016), and 13.9 Mt grading 0.74% Ni and 0.66% Cu was mined from Selebi North (1990 to 2016).

At the time of liquidation, South African Mineral Resource Committee (SAMREC) compliant Mineral Resources within the Selebi Mines property boundary were reported as in-situ and depleted for mining as of September 30, 2016. These historical Measured and Indicated Mineral Resources used a nickel equivalent (NiEq) cut-off grade of 0.4% and were estimated to total 17.83 Mt at grades of 0.87% Ni and 1.42% Cu containing 155, 000 tonnes (t) Ni and 253,000 t Cu. Historical Inferred Mineral Resources were estimated to total 15.34 Mt at grades of 0.71% Ni and 0.89% Cu containing 109,000 t Ni and 136,000 t Cu. The NiEq cut-off grade was based on a ratio of nickel and copper prices where NiEq = %Ni + (Cu price/Ni price)*%Cu. Nickel and copper prices used were US$8.00/lb Ni and US$3.00/lb Cu, respectively. This estimate is considered to be historical in nature and should not be relied upon, however, it is indicative of the presence of mineralization on the Selebi Mines property. A qualified person has not completed sufficient work to classify the historical estimate as a current Mineral Resource and PNRB is not treating the historical estimates as current Mineral Resources.

Exploration work completed by the Project Team to date has consisted of the sourcing and digitization of existing historical information, confirming collar and down hole location information of selected historical holes, and completing electromagnetic surveys (borehole electro-magnetic (BHEM)) on selected high priority historical exploration holes. This work has highlighted the potential for establishment of Mineral Resources at depth at the Selebi deposit. Selebi North mineralization is also open at depth, and additional potential to establish Mineral Resources occurs here. Given the basin structure, it is possible that the Selebi North mineralization extends at depth and flattens to the south, while also potentially extending southward.

1.1.1 Conclusions

SLR offers the following conclusions by area:

1.1.1.1 Geology and Mineral Resources

- While there are no current Mineral Resources estimated, there is good potential to establish Mineral Resources at the Selebi and Selebi North deposits, and additional exploration and technical studies are warranted.

- There is good understanding of the geology and the nature of nickel and copper mineralization of the Project.
- The sample collection, preparation, and analytical procedures as designed and implemented by former operator BCL are appropriate for the style of mineralization.
- With further verification in the form of validation of the digital database against original logs and assay certificates, compilation and analysis of quality assurance/quality control (QA/QC) support programs, hole twinning, and down hole survey confirmation, SLR anticipates that the historical information will be suitable for Mineral Resource estimation and a new Mineral Resource estimate can be prepared using updated economic parameters and mining and processing considerations.

1.1.1.2 Mineral Processing

- A preliminary 'proof of concept' metallurgical sampling and testing program over the Project area was completed in 2021 to support the production of market concentrates for both nickel and copper. Though the Project Team's procedure of sample selection and collection of non-oxidized material is not considered best practice it's method of hand picking samples was referenced to historical grades during production and is statistically representative of the Selebi mineralization. The test results based on composites prepared from these handpicked samples may not be indicative of the expected metallurgical performance.
- Preliminary comminution testing demonstrated that the samples were very soft at semi-autogenous grinding (SAG) mill grind sizes and progressively harder at finer grind sizes. The samples were also slightly abrasive.
- Preliminary flotation test results demonstrated that while nickel-copper separation is achievable, further representative sampling and testing is required to demonstrate that the target grades of the copper and nickel concentrates can be consistently met.

1.1.2 Recommendations

SLR offers the following recommendations by area:

1.1.2.1 Geology and Mineral Resources

1. SLR has reviewed and agrees with PNRB's proposed exploration budget. Phase I of the recommended work program will include a continuation of the current digitization and verification work, as well as completing 21,000 m of drilling within approximately 40 infill and exploration drill holes to confirm the existing in-situ mineralization and to test the down plunge extension of economic mineralization at Selebi Main and the potential connection of Selebi Main and Selebi North at depth. Infill and exploration drill holes will be surveyed using both a BHEM and a borehole televiewer and their results will be used to support the estimation of Mineral Resources at the Project. Additional budget will be used to support metallurgical studies, to advance existing development at Selebi North to promote accessibility for deep target drilling, and to maintain the existing infrastructure (Table 1-1).
    - A Phase II program, contingent upon the results of Phase I would include development of an underground exploration drift at Selebi Main, additional drilling and technical studies, permitting, and advanced metallurgical, engineering, and environmental studies, including the completion of a Preliminary Economic Assessment.

Table 1-1: Proposed Budget – Phase I (18 months)
Premium Nickel Resources Corporation – Selebi Mines

March 1. 2022

Item	Cost (US$ 000)
Exploration and Infill Drilling Programs (40 holes totalling 21,000 m)[1] BHEM and televiewer surveys	5,500
Additional Historical Data Verification and Digitization	10
Mineral Resource Estimate	150
Metallurgical Testing	200
Care and Maintenance	4,500
General Site and Administration Costs	4,500
Subtotal	**14,860**
Contingency (5%)	743
Total	**15,603**

Notes:

1. Drilling costs are estimated to be US$260/m including salaries, downhole gyro, BHEM and televiewer surveys and associated sample preparation and analysis fees.

1.1.2.2 Mineral Processing

1. Complete additional metallurgical testing using samples from drill core that are spatially representative of the deposits to confirm the metallurgical recoveries projected under nickel-copper separation and any process design parameters.

1.2 Technical Summary

1.2.1 Property Description and Location

The Project is located in Botswana approximately 150 km southeast of the city of Francistown, and 410 km northeast of the national capital Gaborone.

The Selebi Mines are readily accessed via paved and gravel roads from the town of Selebi-Phikwe, located just north of the mining licence. With a population of approximately 52,000, the town is accessed via a well-maintained paved road that branches due east from the major A1 highway at the town of Serule, 57 km from the Project.

1.2.2 Land Tenure

The Project consists of a single mining licence covering an area of 11,504 ha. The mining licence is centred approximately at 22°03’00”S and 27°47’00”E.

Mining licence 2022/1L was granted to PNRB on January 31, 2022 over the Selebi Mines deposits discovered under mining licence 4/72. The original licence which had been granted to BCL on March 7, 1972, covered both Selebi and Phikwe project areas, was amended several times and renewed once, and was set to expire on March 6, 2022. The new mining licence is limited to the Selebi and Selebi North deposits and their surrounding areas and expires January 30, 2032.

1.2.3 Existing Infrastructure

Project infrastructure includes two mines, currently on care and maintenance, Selebi (#2 Shaft) and Selebi North (#4 Shaft)**,** and associated surface infrastructure**.**

1.2.4 History

Exploration in the Project area was initiated in 1959 by Bamangwato Concessions Limited (Bamangwato) and included soil geochemistry, geological mapping, trenching, and diamond drilling over the then combined Selebi-Phikwe area. The Selebi and Phikwe discoveries were made in 1963 and 1967, respectively and a single mining lease was granted to Bamangwato in 1967 covering both areas.

Bamangwato changed its name to BCL in 1977 and operated the combined Selebi-Phikwe project from 1970 until its closure in 2016. Nickel and copper ore was mined from an open pit at Phikwe (1971 to 1980), as well as four distinct underground production areas namely Phikwe (1981 to 2016), Southeast Extension (at Phikwe, 1997 to 2016), Selebi North (1990 to 2016) and Selebi (1980 to 2016). Head grades declined from 2010 to 2015 and in October 2016 BCL was placed into provisional liquidation and all its operations put under care and maintenance.

PNR submitted an indicative offer to the Liquidator in June 2020 for the purchase of select assets owned by BCL. On March 24, 2021, PNR signed an exclusivity MOU with the Liquidator that would govern a six month exclusivity period to complete additional due diligence and related purchase agreements on the Botswana Ni-Cu-Co assets formerly operated by BCL.

The Project was acquired by PNR, a private corporation formed under the laws of the Province of Ontario, on January 31, 2022 through its wholly-owned indirect subsidiary, PNRB.

On September 28, 2021, PNR announced that it had executed the definitive asset purchase agreement (the Selebi Purchase Agreement) with the Liquidator to acquire the Selebi Mines including the related infrastructure and equipment formerly operated by BCL. The acquisition closed on January 31, 2022, transferring the Selebi Mines and new Selebi mining lease to PNR.

On April 26, 2022, PNR and NAN announced that they had executed the Amalgamation Agreement which provides the terms and conditions upon which PNR will complete a “go-public” transaction by way of an RTO of NAN under the policies of the TSXV. The Amalgamation Agreement provides for, among other things, a three-cornered amalgamation pursuant to which (i) Subco will amalgamate with PNR under Section 174 of the *Business Corporation Act* (Ontario) to form one corporation, (ii) the securityholders of PNR will receive securities of the Resulting Issuer in exchange for their securities of PNR at an exchange ratio of 5.27 Resulting Issuer common shares for each outstanding share of PNR (subject to adjustments in accordance with the Amalgamation Agreement), and (iii) the transactions will result in a RTO of NAN in accordance with the policies of the TSXV, all in the manner contemplated by, and pursuant to, the terms and conditions of the Amalgamation Agreement.

The current mining licence is smaller and covers the Selebi Mines and their surrounding areas only. The Selebi Mines were originally covered under mining licence 4/72 which also covered the Phikwe mines and associated infrastructure, including the concentrator and smelter plants used to process ore from both Selebi and Phikwe.

1.2.5 Geology and Mineralization

The eastern portion of Botswana forms part of the Limpopo Mobile Belt (LMB) which represents a deep crustal section through an orogenic province between the Kaapvaal and Zimbabwe Cratons.

The Project occurs in highly deformed and metamorphosed Archean gneisses near the north margin of the central zone (CZ) of the LMB. The CZ region is characterized by complex structural fold patterns accompanied by regional and cataclastic metamorphism with grades ranging from amphibolite to granulite facies and cataclastic tectonites.

The deposits in the Project area are categorized as ortho-magmatic nickel-copper sulphide-type deposits. They are hosted within amphibolite and understood as a tectono-metamorphically modified tholeiitic magma parents with an immiscible sulphide melt which has undergone all the phases of deformation that have affected the enclosing gneisses. They form part of the Selebi-Phikwe belt of intrusions that also contain the Phikwe, Dikoloti, Lentswe, and Phokoje deposits.

All mineralization horizons pinch and swell, are conformable to the gneissic foliation, and are hosted within or at the hanging wall contact of amphibolite with the gneissic country rocks. Mineralization horizons range in thickness from very thin to over 20 m thick and are commonly one to three metres thick (deposit dependent). Orientation follows country rock foliation, and the zones can dip moderately to steeply, and can extend from 150 m to over 2,000 m.

The principal sulphide minerals are pyrrhotite, chalcopyrite, and pentlandite which occur in massive, semi-massive, and disseminated form. Pyrite occurs as localized overgrowth. Magnetite occurs as rounded inclusions in massive sulphides and as later overgrowths.

1.2.6 Exploration Status

Exploration work completed by the Project Team in 2021 consisted of the sourcing and digitization of existing historical information, confirming collar and down hole location information of selected historical holes, and completing electromagnetic surveys (BHEM) on selected high priority historical exploration holes.

This work highlighted an off-hole BHEM anomaly in a 2010 drill hole located down-plunge of the Selebi deposit. The collection of new gyro data confirmed that the off-hole anomaly lies at the downdip edge of the modelled Selebi mineralization which was intersected by a drill hole which reported an estimated true thickness interval of 38.5 m averaging 1.58% Ni and 2.44% Cu, including 21.4 m of 2.34% Ni and 3.39% Cu. This drill hole intersection is located approximately 300 m down plunge of the existing mine workings and approximately 1,200 m below surface and provides support to the potential establishment of Mineral Resources at depth at the Selebi deposit.

Selebi North mineralization is also open at depth, and additional potential to establish Mineral Resources occurs here. Given the basin structure, it is possible that the Selebi North mineralization extends at depth and flattens to the south, while also potentially extending southward.

Over the next 18 months, PNRB plans to confirm the existing in-situ mineralization and test the down plunge extension of economic mineralization at Selebi Main, in addition to the potential connection of Selebi Main and Selebi North at depth using a series of infill and extension drill holes surveyed using both a BHEM and borehole televiewer with the objective of using their results to support the estimation of Mineral Resources at the Project.

1.2.7 Mineral Resources

There is no current Mineral Resource estimate for the Project.

1.2.8 Mineral Reserves

There is no current Mineral Reserve estimate for the Project.

1.2.9 Mineral Processing

The historical BCL operations consisted of an integrated mining, concentrating, and smelting complex which operated for over 40 years over the Selebi Phikwe project area. The smelter processed Selebi and Phikwe concentrates and toll treated nickel concentrates received from the Nkomati Nickel Mine (a joint venture (JV) between Norilsk Nickel Africa Pty. Ltd. and African Rainbow Minerals) and the Phoenix Mine (Tati Nickel Mining Company, later a subsidiary of BCL). The concentrator plant and smelter were placed on care and maintenance in 2016 and are located adjacent to the Project at the historical Phikwe Mine.

PNR intends to produce separate copper and nickel concentrates for commercial sale (instead of a bulk concentrate) and does not plan to restart the existing concentrator or smelter. In 2021, the Project Team carried out due diligence work that included metallurgical sampling and testing. A preliminary metallurgical study program for separate copper and nickel concentrate production at a conceptual level was completed by SGS Canada Inc. (SGS) in Lakefield, Ontario. The conceptual process flowsheet developed by SGS includes the key unit operations of crushing, grinding, and flotation. Preliminary flotation test results demonstrate that nickel-copper separation is achievable, however, further representative sampling and testing is required to demonstrate that the target grades of the copper and nickel concentrates can be consistently met.

2.0 INTRODUCTION

SLR Consulting (Canada) Ltd (SLR) was retained by North American Nickel Inc. (NAN) and Premium Nickel Resources Corporation (PNR) (the Project Team) to prepare an independent Technical Report on the Selebi and Selebi North nickel-copper-cobalt (Ni-Cu-Co) Mines (collectively, Selebi Mines or the Project), located in the Central District of the Republic of Botswana. On April 25, 2022, PNR, NAN and 1000178269 Ontario Inc. (Subco) entered into an amalgamation agreement (the Amalgamation Agreement) which provides the terms and conditions upon which PNR will complete a "go-public" transaction by way of a reverse take-over (RTO) of NAN under the policies of the TSX Venture Exchange (TSXV). The purpose of this Technical Report is to document the technical information available on the Project in connection with the RTO as required under the policies of the TSXV. This Technical Report has been addressed to NAN and PNR, as the authors intend that NAN and PNR be entitled to rely on it in connection with the RTO. The authors also intend for this Technical Report to be filed on SEDAR by the resulting issuer of the RTO (the Resulting Issuer or Premium Nickel Resources Ltd.). This Technical Report conforms to the requirements under NI 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

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2.1 Sources of Information

A site visit to the Project was conducted by Ms. Sharon Meyer, M.Sc., Pr.Sci.Nat., EAPASA, SLR Associate Environmental Consultant, from May 2 to 6, 2021. During the visit, Ms. Meyer toured the Project both on surface and underground, confirmed the presence of mineralization both in core and in underground openings, confirmed the geology in selected drill holes with respect to the corresponding drill log descriptions, confirmed the location of several drill hole collars, and assessed the environmental condition of the Project.

This Technical Report was prepared by Valerie Wilson, M.Sc., P.Geo., Principal Geologist, Technical Manager, Geology, Brenna J.Y. Scholey, P.Eng., Principal Metallurgist, and Sharon Meyer, M.Sc., Pr.Sci.Nat., EAPASA, SLR Associate Environmental Consultant, all of whom are independent QPs.

Table 2-1 presents a summary of the QP responsibilities for this Technical Report.

Table 2-1: Summary of QP Responsibilities
Premium Nickel Resources Corporation – Selebi Mines

Qualified Person	Title/Position	Section
Valerie Wilson, M.Sc., P.Geo.	Technical Manager, Geology	1.1, 1.1.1.1, 1.1.2.1, 1.2.1 to 1.2.8, 2.0 to 11.0, 14.0 to 22.0, 25.1, and 26.1
Brenna J.Y. Scholey, P.Eng.	Principal Metallurgist	1.1.1.2, 1.1.2.2, 1.2.9, 13.0, 25.2, and 26.2
Sharon Meyer, M.Sc., Pr.Sci.Nat., EAPASA	Associate Environmental Consultant	12.0, 23.0, and 24.0
All	-	27

Discussions were held online and onsite with the following personnel from BCL and the Project Team:

- Sharon Taylor, P. Geo., Exploration Manager, NAN/PNR
- Gerry Katchen, P. Geo., Senior Geologist, NAN/PNR
- Modiredi Tumaeletse, Mine Environmental Manager, BCL
- Mpho Mosarwe, Geologist, BCL

The documentation reviewed, and other sources of information, are listed at the end of this Technical Report in Section 27 References.

2.2 List of Abbreviations

Units of measurement used in this Technical Report conform to the metric system. All currency in this Technical Report is United States dollars (US$) unless otherwise noted.

μ	micron	kVA	kilovolt-amperes
μg	microgram	kW	kilowatt
a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
Btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C$	Canadian dollars	M	mega (million); molar
cal	calorie	m^2	square metre
cfm	cubic feet per minute	m^3	cubic metre
cm	centimetre	MASL	metres above sea level
cm^2	square centimetre	m^3/h	cubic metres per hour
d	day	mi	mile
dia	diameter	min	minute
dmt	dry metric tonne	μm	micrometre
dwt	dead-weight ton	mm	millimetre
°F	degree Fahrenheit	mph	miles per hour
ft	foot	MVA	megavolt-amperes
ft^2	square foot	MW	megawatt
ft^3	cubic foot	MWh	megawatt-hour
ft/s	foot per second	oz	Troy ounce (31.1035g)
g	gram	oz/st, opt	ounce per short ton
G	giga (billion)	ppb	part per billion
Gal	Imperial gallon	ppm	part per million
g/L	gram per litre	psia	pound per square inch absolute
Gpm	Imperial gallons per minute	psig	pound per square inch gauge
g/t	gram per tonne	RL	relative elevation
gr/ft^3	grain per cubic foot	s	second
gr/m^3	grain per cubic metre	st	short ton
ha	hectare	stpa	short ton per year
hp	horsepower	stpd	short ton per day

hr	hour	t	metric tonne
Hz	hertz	tpa	metric tonne per year
in.	inch	tpd	metric tonne per day
in^2	square inch	US$	United States dollar
J	joule	Usg	United States gallon
k	kilo (thousand)	Usgpm	US gallon per minute
kcal	kilocalorie	V	volt
kg	kilogram	W	watt
km	kilometre	wmt	wet metric tonne
km^2	square kilometre	wt%	weight percent
km/h	kilometre per hour	yd^3	cubic yard
kPa	kilopascal	yr	year

3.0 RELIANCE ON OTHER EXPERTS

This Technical Report has been prepared by SLR for NAN, PNR and the Resulting Issuer. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR at the time of preparation of this Technical Report.
- Assumptions, conditions, and qualifications as set forth in this Technical Report.

For this Technical Report, SLR has relied on ownership information provided by PNR. The client has relied on a legal opinion by Bookbinder Business Law (BBL) dated May 2, 2022 entitled "Title Opinion: Premium Nickel Resources Proprietary Limited", and this opinion is relied on in Section 4 and the Summary of this Technical Report. SLR has not researched property title or mineral rights for the Project and expresses no opinion as to the ownership status of the property.

Except for the purposes legislated under provincial securities laws and for use by the TSXV, any use of this Technical Report by any third party is at that party's sole risk.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Project consists of a single mining licence covering an area of 11,504 ha located near the town of Selebi Phikwe, approximately 150 km southeast of the city of Francistown, and 410 km northeast of the national capital Gaborone. The mining licence is centred approximately at 22°03'00" S and 27°47'00" E and is presented in Figure 4-1. This mining licence gives PNRB the right to carry out care and maintenance and conduct exploration work from both surface and underground.

4.1 Land Tenure

Mining licence 2022/1L was granted to PNRB on January 31, 2022 over the Selebi Mines deposits discovered under mining licence 4/72. The original licence which had been granted to BCL on March 7, 1972, covered both the Selebi and Phikwe project areas, was amended several times and renewed once, and was set to expire on March 6, 2022. The new mining licence is limited to the Selebi and Selebi North deposits and their surrounding areas and expires January 30, 2032.

The terms and conditions for the renewal of the mining licence is framed by the relevant sub-sections of Section 42 of the Mines Act (the Act) and indicate that:

(4) The Minister shall grant an application for renewal if satisfied that-
   (a) the applicant is not in default;
   (b) development of the mining area has proceeded with reasonable diligence;
   (c) the proposed programme of mining operations will ensure the most efficient and beneficial use of the mineral resources in the mining area; and

(5) The Minister shall not reject an application on the ground referred to in-
   (a) subsection (4)(a), unless the applicant has been given details of the default and has failed to remedy the same within three months of such notification;
   (b) subsection (4)(b), unless the applicant has been given reasonable opportunity to make written representations thereon to the Minister; or
   (c) subsection (4)(c), unless the applicant has been so notified and has failed to propose amendments to his proposed programme of mining operations satisfactory to the Minister within three months of such notification.

(6) Subject to the provisions of this Act, the period of renewal of a mining licence shall be such period, not exceeding 25 years, as is reasonably required to carry out the mining programme.

(7) On the renewal of a mining licence the Minister shall append thereto the programme of mining operations to be carried out in the period of renewal.

In order to maintain the mining licence in good order, the holder must make annual payments on its anniversary date in accordance with Section 71 of the Act and monthly royalty payments according to Section 66 of the Act, if appropriate, in each case to the Government of Botswana. The royalties payable are percentages of the gross market value of mineral or mineral products as follows: precious stones (10%), precious metals (5%), and other minerals or mineral products (3%). The term gross market value is defined in the Act as the sale value receivable at the mine gate in an arms-length transaction without discounts, commissions, or deductions for the mineral or mineral product on disposal. No annual payments are required until the mine is in production.

4.2 Mineral Rights

In Botswana, mining activities are regulated under the Act, which is administered by the Ministry of Mineral Resources, Green Technology and Energy Security (MMGE). The Act regulates the issuance of exploration and mining licences as well as harmonizing mining activities and environmental impacts. The Act entails:

- Introduction of the retention licence which allows exploration companies that have confirmed the discovery of a mineral deposit to retain rights over a period of three years, renewable once for a period of no more than three years.
- Issuing of a prospecting licence for up to 1,000 km^2 for an initial period of three years and renewed for two periods of two years each.
- The abolition the Botswanan government's right to free equity participation. The legislation allows for the Botswanan government to acquire up to 15% in new mining ventures on commercial terms.
- Royalty schedules have been revised, with rates reduced from 5% to 3% for all minerals except precious stones and precious metals, which remain at 10% and 5%, respectively.
- The granting, renewal, and automatic transfer of licences has been made more automatic and predictable.
- Introduction of new mining taxation, which includes:
  - A generalized tax regime that applies to all minerals except diamonds, with corporate income tax of 25%.
  - Immediate 100% capital write off in the year that the investment is made, with unlimited carry forward of losses.
  - Introduction of a variable rate income tax formula.

The Act further stipulates that the holder of the mineral concession shall:

- Conduct operations in a manner that will preserve the natural environment.
- Where unavoidable, promptly treat pollution and contamination of the environment. In the event of an emergency or extraordinary circumstances requiring immediate action, the holder of a mineral concession shall forthwith notify the Director of Mines and shall take all immediate action in accordance with the reasonable directions of the Director of Mines.
- Prepare and submit an Environmental Impact Assessment (EIA) report as part of the mining licence application or renewal.
- Restore the land substantially to the condition in which it was prior to the commencement of operations during and at the end of operations.
- The holder of a mineral concession shall make adequate on-going financial provision for compliance with environmental obligations as stipulated by the Act.

Any abstraction of water in Botswana is regulated through the Water Act of 1967.

PNRB was granted a mining licence to permit the ongoing care and maintenance activities at the Selebi Mines and to conduct exploration work from both surface and underground.

4.3 Surface Rights

The Project is subject to two land tenure systems namely, State Land within the Township boundary and Tribal Land for the remaining portions. The two land tenures are administered by the Department of Lands and Ngwato Land Board, respectively. PNRB holds a mining lease agreement granting exclusive surface rights over an 1,800 ha portion of the area covered by the mining licence that includes the Selebi Mines. The mining lease agreement is deemed effective January 31, 2022 and is valid for a period of 10 years, equivalent to the duration of mining licence no 2022/1L. If the mining licence is renewed, then the Grant of Lease shall automatically be renewed for the period equivalent to the renewed mining licence, subject to the conditions prevailing during the period of renewal. The rental amount for the first term of the Grant of Lease is Botswana Pula (BWP) 90,020.47 per annum (approximately US$7,700 based on a BWP 1 = US$0.08544 exchange rate) and if renewed, the Land Board and PNRB shall negotiate the appropriate fee for the renewed period. PNRB also holds the surface rights to a 181 ha strip of land for rail and power servitude. The rental amount on the rail and power servitude is BWP 9,052 per annum (approximately US$770 per annum) for the first term of the Grant of Lease, and the Land Board and PNRB shall negotiate the appropriate rental for any renewed period. Figure 4-2 illustrates the disposition of the surface rights.

4.4 Royalties and Other Encumbrances

PNRB has signed a royalty agreement and contingent compensation agreement with the Liquidator.

A 2% net smelter return (NSR) exists on the sale of concentrates (or any other economic mineral resource material produced and sold) subject to specific rights of purchase by the purchaser and the Government of Botswana:

- A reduction to a 1% NSR for a payment of US$20 million on or before the two year anniversary date of the first shipment.
- A general first right of purchase shared between the purchaser and the Government of Botswana.

There is also a contingent compensation agreement whereby PNRB would pay additional compensation to the Government of Botswana if and when it discovers additional resources over and above the base case scenario of 15.9 Mt:

- New resource discovery up until the end of the seven year mine life of the base case resource of 15.9 Mt (minimum grade of 2.5% Ni eq at Decision to Mine)
    - 25 Mt < new deposit > 50 Mt US$0.50 per ton
    - 50 Mt < new deposit> 75 Mt US$0.20 additional per incremental ton
    - 75 Mt < new deposit> 100 Mt US$0.30 additional per incremental ton
    - New deposit >100 Mt US$0.40 additional per incremental ton
- The payment of contingent compensation shall be made from operating cash flow of the mine(s) once in operation and subject to adequate liquidity.

4.5 Environmental, Social and Permitting Considerations

SLR is not aware of any environmental liabilities on the Selebi Mines property which was assumed by PNRB pursuant to the Selebi Purchase Agreement. PNRB has all required permits to conduct the proposed exploration work on the property. SLR is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

Figure 4-1: Location Map

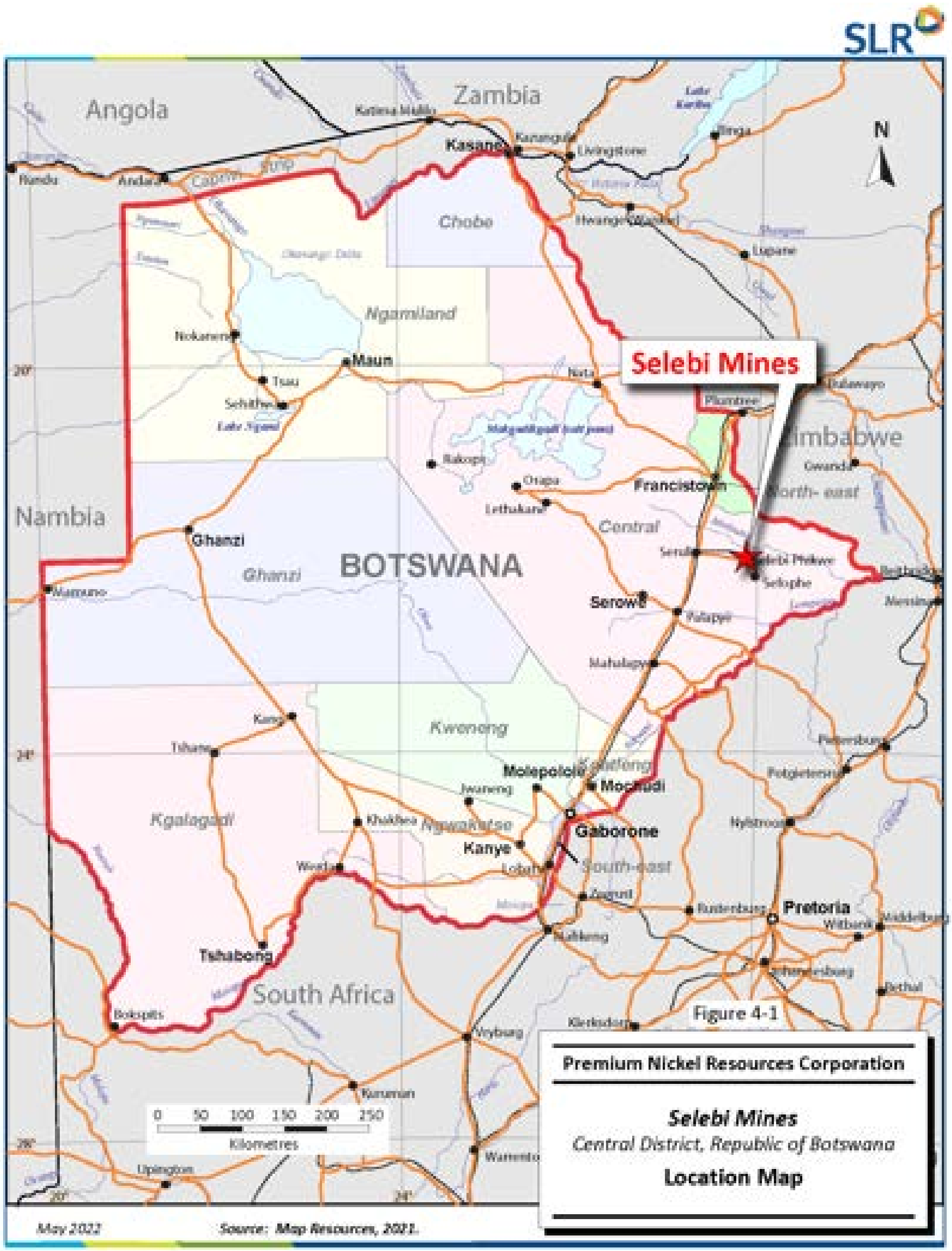
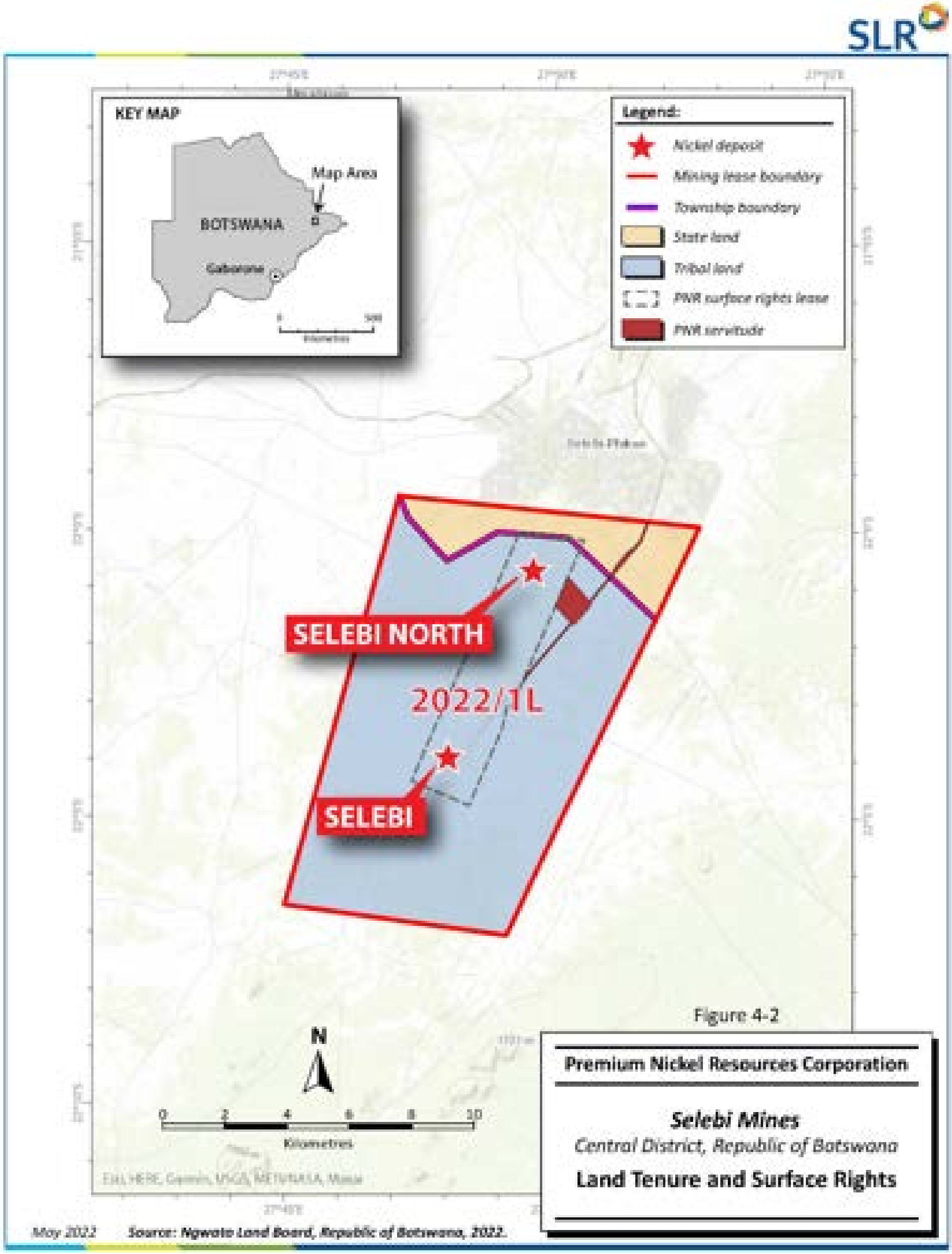


Figure 4-2: Land Tenure and Surface Rights Map



5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

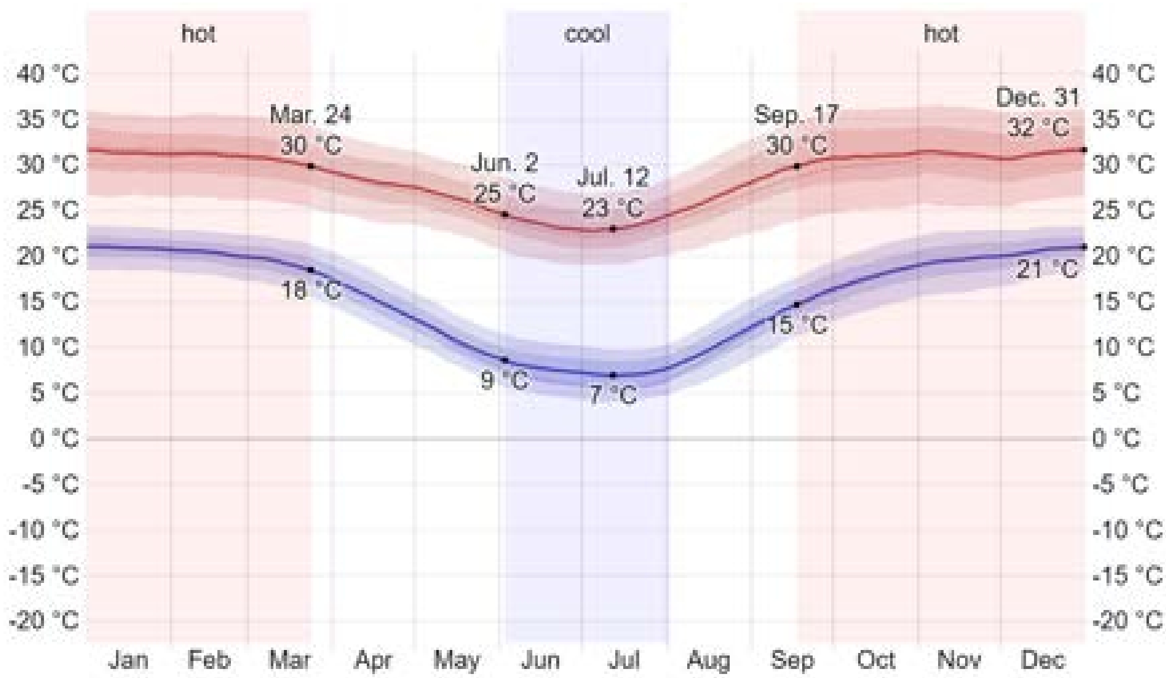
The Selebi Mines are readily accessed via paved and gravel roads from the town of Selebi-Phikwe, located just north of the mining licence. With a population of approximately 52,000, the town is accessed via a well-maintained paved road that branches due east from the major A1 highway at the town of Serule, 57 km from the Project.

5.2 Climate

The Project has a semi-arid climate with temperatures that typically vary from 7°C to 37°C. The warm season lasts from September to November with an average daily temperature above 30°C while the colder season lasts from June to the end of July with average lows of 7°C and highs of 24°C. The wetter season lasts 4.5 months, from November to mid March. The wettest month is usually January, with an average of 10 days with at least one millimetre of precipitation (Weatherspark.com, 2022).

No climatic risks exist that would affect the year round exploitation of the resources delineated in future.

Figure 5-1 illustrates the average annual temperature for the Project area.



Source: WeatherSpark.com, 2022.

Notes:

1. The daily average high (red line) and low (blue line) temperature, with 25th to 75th and 10th to 90th percentile bands. The thin dotted lines are the corresponding average perceived temperatures.

Figure 5-1: Average Annual Temperature and Rainfall Profiles

5.3 Local Resources

The town of Selebi Phikwe is serviced by a paved road and a railway line runs from Selebi Phikwe to Serule where it joins the main line from Gaborone to Francistown. The railway line is predominately used for the freighting of materials and goods to and from Selebi Phikwe.

Selebi Phikwe is serviced by a government run airport situated near the Project on the outskirts of town. The day time operated airport is open daily but has no fueling facility onsite and no commercial flights.

Reliable landline telephone communication, using the Botswana Telecommunications Corporation (BTC) network, is available throughout most of the country. BTC, as well as other private cellular network providers, also provide reliable cellphone coverage over most of the country.

Although, Botswana is in a semi-arid terrain, the town of Selebi Phikwe is adequately serviced by the Water Utilities Corporation which supplies treated water to the community as well as the Project. The Letsibogo Dam, located near Mmadinare, approximately 17 km from Selebi Phikwe, is the primary source of water for Selebi Phikwe and surrounding areas. The new Dikgatlhong Dam is approximately 40 km to the north and is also a major source of water, supplying the southern regions including Gaborone.

The source of water for BCL's mining operation was an underground aquifer at #3 Shaft. PNRB is currently dewatering #2 Shaft and pumping 1.0 Megalitre per day to surface. This volume is sufficient to support mining operations at the Selebi Mines.

All electricity and power supply in Botswana is transmitted and managed by the Botswana Power Corporation (BPC). The Project is supplied through the National Grid, via a 220/66/11KV substation. The 220 KV substation is fed by two 220 KV overhead lines which run 7.6 km from the Phokoje substation.

5.4 Infrastructure

The purchased infrastructure at the Selebi Mines includes two mines, currently on care and maintenance, Selebi (#2 Shaft) and Selebi North (#4 Shaft), and associated surface infrastructure.

The Selebi Mine has a vertical rock/service shaft down to the 300 m level, and a cable belt conveyor decline from the 300 m level to the 850 level. The shaft is 375 m deep, 6.1 m in diameter, concrete lined and equipped with steel buntons at six metre intervals. The shaft contains five main compartments comprising a 70 person, single deck cage running in balance with a counterweight, two, six tonne bottom discharge skips running in balance, and a ladderway. Stations are at 50 m vertical intervals, commencing on the 100 m level, with a 1,070 mm x 760 mm jaw crusher located on the 300 m level, loading boxes on the 340 m level, and a spillage box located on the 367 m level. The -18° decline currently runs from the 250 m level to the 850 m level providing access to deposits between the 300 m level and 800 m level horizons. A single drum winder at the top of the decline enables transport of personnel and material and is also used for waste rock handling from decline development. Stations are cut at 50 m vertical intervals, with a crusher station on the 850 m level and a cable belt loading facility on the 875 m level. A tertiary sub inclined shaft equipped with twin rails extends from the 850 m level to the 1,050 m level. This shaft provides access to the levels below the 850 m level. A 4.8 m diameter, concrete lined, ventilation shaft is located approximately 1,000 m north of the rock/service shaft.

The Selebi North Mine is serviced by a 3.5 m diameter shaft down to the 745 m level and a twin 7° decline trucking ramp which is currently down to the 900 m level. The shaft is equipped with a Koepe hoist with a two cage/six tonne skip. The cage has a four person capacity. The shaft limitation means that it was primarily used for ore skipping, and that the material and personnel were mainly transported via the ramp.

The Selebi Mines are powered by two overhead lines. The first one is from the 11 KV station at the Phikwe processing plant which follows the railway track. The second one is supplied by the BPC at 66 KV. Both power sources go through a booster station to regulate the voltage before supplying the Selebi Mines. The booster station works with two 11 kV transformers.

5.5 Physiography

The topography of the Project area is generally flat and typical of the basement system of Botswana. The Project lies at an altitude between 780 MASL and 980 MASL with a gentle gradient from southwest to northeast. A number of hills, ridges, kopjes, and iselbergs of granitoid rocks are found within the mining licence and surrounding areas with the most prominent hill being Selebi Hill located at the southwest corner of the township boundary.

6.0 HISTORY

6.1 Ownership

Discussions between the Roan Selection Trust and the Bamangwato tribal chiefs, initiated in 1956, culminated in the signing of an agreement in 1959 that formed Bamangwato Concessions Limited (Bamangwato), allowing for the exploration and exploitation of the nickel and copper deposits in the Project area (Lungu, 2016).

In 1967, the Botswanan government issued to Bamangwato mining lease 13-NQ (State Grant 4/72), covering an area of 27,310.43 ha. This mining lease was granted in regard to copper and nickel ores and associated minerals contained in these mined ores for a renewable period of 25 years.

In 1977, Bamangwato changed its name to BCL. BCL and predecessor Bamangwato operated the combined Selebi-Phikwe Project from 1970 until its closure in 2016. Ore was mined from an open pit at Phikwe, as well as four distinct underground production areas namely Phikwe (1 Shaft, Phikwe Central and Phikwe South), Southeast Extension, Selebi North, and Selebi. In October 2016 BCL was placed into provisional liquidation and all its operations placed on care and maintenance.

PNR submitted an indicative offer to the Liquidator in June 2020 for the purchase of select assets owned by BCL. On March 24, 2021, PNR signed an exclusivity MOU with the Liquidator that would govern a six month exclusivity period to complete additional due diligence and related purchase agreements on the Botswana Ni-Cu-Co assets formerly operated by BCL.

The Project was acquired by PNR, a private corporation formed under the laws of the Province of Ontario, on January 31, 2022 through its wholly-owned indirect subsidiary, PNRB.

On September 28, 2021, PNR announced that it had executed the Selebi Purchase Agreement with the Liquidator to acquire the Selebi Mines including the related infrastructure and equipment formerly operated by BCL. The acquisition closed on January 31, 2022, transferring the Selebi Mines and new Selebi mining lease to PNR.

On April 26, 2022, PNR and NAN announced that they had executed the Amalgamation Agreement which provides the terms and conditions upon which PNR will complete a “go-public” transaction by way of an RTO of NAN under the policies of the TSXV. The Amalgamation Agreement provides for, among other things, a three-cornered amalgamation pursuant to which (i) Subco will amalgamate with PNR under Section 174 of the *Business Corporation Act* (Ontario) to form one corporation, (ii) the securityholders of PNR will receive securities of the Resulting Issuer in exchange for their securities of PNR at an exchange ratio of 5.27 Resulting Issuer common shares for each outstanding share of PNR (subject to adjustments in accordance with the Amalgamation Agreement), and (iii) the transactions will result in a RTO of NAN in accordance with the policies of the Exchange, all in the manner contemplated by, and pursuant to, the terms and conditions of the Amalgamation Agreement.

The current mining licence is smaller and covers the Selebi Mines and their surrounding areas only. The Selebi Mines were originally covered under mining licence 4/72 which also covered the Phikwe mines and associated infrastructure, including the concentrator and smelter plants used to process ore from both Selebi and Phikwe mines.

6.2 Exploration and Development History

Information in this section describes work completed over the Selebi-Phikwe project and is mostly summarized from Lungu (2016). Information relevant to Phikwe has been retained as it is sometimes difficult to summarize regional exploration work completed concurrently over the Selebi and Phikwe prospects to represent results over Selebi only. Where possible, SLR has noted for which area work is relevant.

6.2.1 Early Exploration (1959 to 1990)

Exploration in the Project area was initiated in 1959 by Bamangwato.

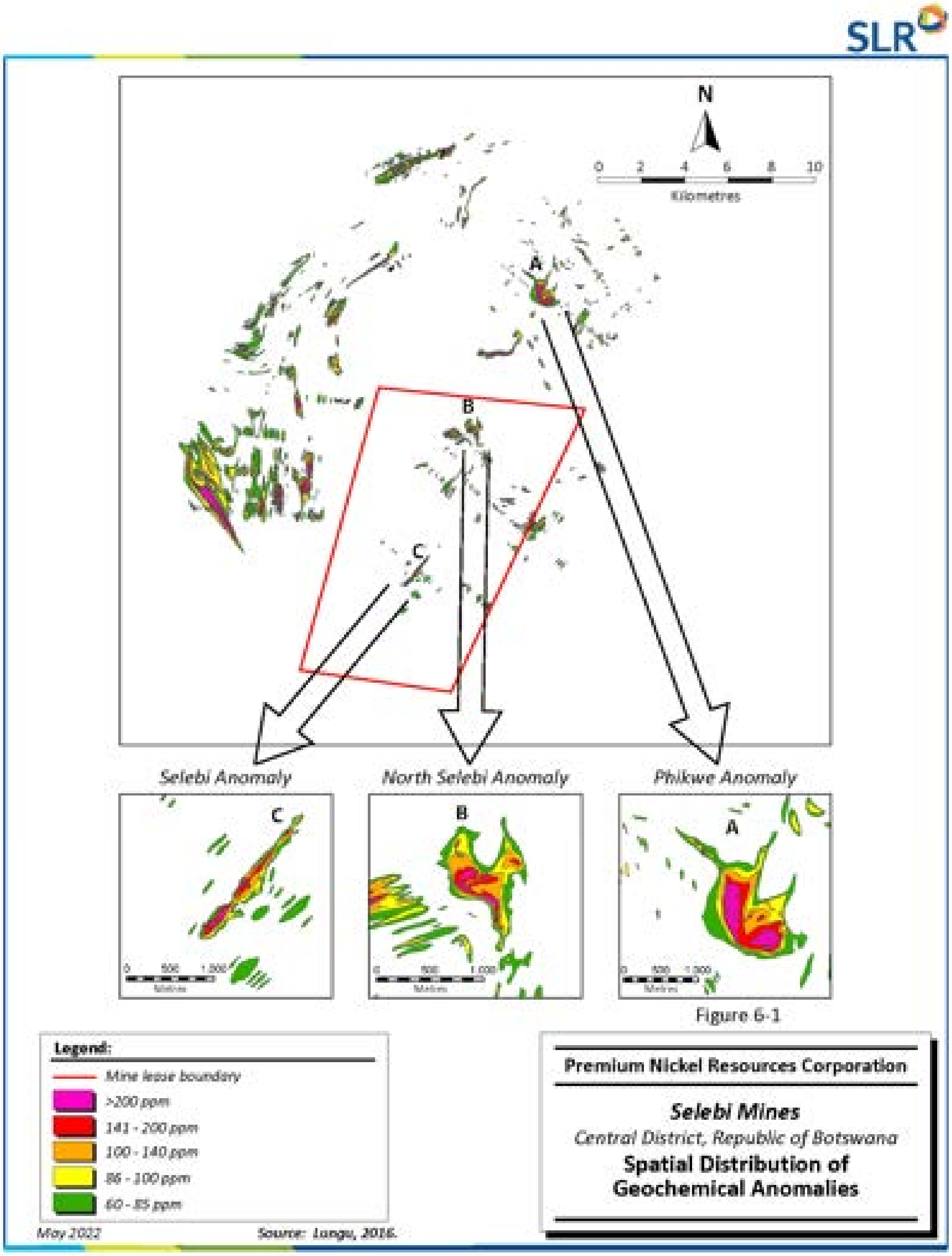
The anomalous copper and nickel occurrences in the Selebi Phikwe area were all discovered through geochemical soil surveys (Gordon, 1973). This geochemical soil sampling was conducted in stages from reconnaissance to close interval sampling on identified targets. The 1.6 km long nickel-copper geochemical anomaly at Selebi was defined in March/April 1963 and Selebi became a mineral occurrence in May/June 1963. Mineralization outcropped as gossans at the three main target areas of Selebi, Selebi North, and Phikwe. Trenching and mapping were undertaken to determine the lateral extent and geology of the mineralization and associated lithologies. To test for sulphide mineralization at depth, wagon and diamond drilling was conducted on the most favourable targets. Magnetic surveying to define sub-cropping mineralization was also undertaken.

This early stage of exploration is not well documented.

6.2.1.1 Soil Geochemistry

Reconnaissance geochemical traverses were planned from aerial photography. These traverses were planned such that they intersected major fold closures. At the reconnaissance stage, soil samples were collected at 61 m intervals along traverses that had a maximum separation of 16 km (Gordon, 1973). The reconnaissance sampling identified a number of geochemical anomalies. Regular closer spaced follow-up sampling was then conducted with samples collected at 30.4 m intervals on traverses 914 m apart. The distance between traverses was further narrowed down to 304 m in geochemically, geologically, and structurally anomalous areas. The samples were analysed using standard rapid colorimetric methods. The geochemistry was very successful in delineating significant mineralization within the Project area. Figure 6-1 illustrates the spatial distribution of the geochemical anomalies in the vicinity of the Project. Enlarged inserts of the three principal anomalies of Phikwe, Selebi North, and Selebi are also presented.

Figure 6-1: Spatial Distribution of Geochemical Anomalies



6.2.1.2 Geological Mapping

The discovery of the Selebi and Phikwe deposits in 1963 and 1967 respectively, triggered scientific research work undertaken by groups and individuals in the vicinity of Selebi Phikwe, encompassing the Project area. From 1964 to 1975, the Botswana Geological Survey conducted geological mapping and produced geological maps of the rock units and regional structures at a scale of 1:1,000,000 and 1:125,000. This mapping was completed concurrently with scholarly work by Gordon in 1973, Wakefield in 1974, and Gallon in 1986. These scholars were concerned with deciphering the structural occurrence and tectonic sequences of the amphibolites hosting the Selebi and Phikwe deposits.

6.2.1.3 Diamond Drilling

Drilling was first conducted in 1964 prior to close-spaced geochemical sampling. After completion of eight shallow wagon drill holes, drilling was suspended due to poor results (Gordon, 1973), however, three of the holes indicated possible enrichment with depth. A year later in 1965, drilling resumed and confirmed the improvement of sulphide mineralization grades with depth.

Close spaced geochemical surveys conducted as follow-up produced copper and nickel anomalies at Phikwe and Selebi and drilling was shifted to these areas. Drilling at these targets continued until 1971 with the subsequent opening of the Phikwe open pit. At the end of this drilling 124 holes totalling 34,206 m and 73 holes totalling 19,294 m were completed at Phikwe and Selebi, respectively (Gordon, 1973).

Further surface exploration drilling continued at Selebi between 1980 and 1994 to confirm the down-dip and northerly continuation of the mineralization.

6.2.2 Late Exploration (2004 to 2012)

Since 2004, several exploration methods have been employed to generate targets for further examination.

A desktop study employing satellite image interpretation coupled with field mapping was completed by Peter Williams of SRK (Williams, 2005) over the Selebi Phikwe project area. The study generated 23 independent prospects, ten of which were located on the current Project claim area, and Williams recommended specific follow up work including mapping, geochemical surveys, and ground electromagnetic surveys. Follow up work was commissioned and completed by several contractors from 2005 to 2008 and the most prospective areas following this work were drill tested. Surface drilling was also completed to test for down-dip extensions of the existing known deposits (described in Section 10).

6.2.2.1 Ground Electromagnetic Surveying

In June 2005, Lamontagne Geophysics Limited of Canada was commissioned to complete a UTEM/BHUTEM-3 survey within the Project area, centered on Universal Transverse Mercator (UTM) coordinate location 580500 E / 7558000 N. The survey was carried out to locate conductors in the immediate grid areas with the intention of outlining targets for future work. A total of 21 km of UTEM data was collected using one transmitter loop with the receiver operating in 10 channel mode at a transmitter frequency of 3.251Hz. All lines were surveyed measuring the vertical component. Readings were initially taken at 25 m intervals along 100 m spaced lines, however, the station spacing was later increased to 50 m.

6.2.2.2 Airborne Magnetic and VTEM Survey

From November to December 2006, Geotech Airborne Limited (Geotech) of South Africa completed a low level, high resolution magnetic and electromagnetic survey over the Project area (Figure 6-2).

The survey was flown in a N98°E direction at nominal traverse line spacing of 100 m for the main grids and 500 m over the additional central block over the town of Selebi Phikwe. Tie lines were flown perpendicular to traverse lines at a nominal tie line spacing of 1,000 m. The helicopter maintained a mean terrain clearance of 95 m which translated into an average height of 45 m above ground for the bird-mounted versatile time domain electromagnetic (VTEM) system and 82.5 m above ground for the magnetic sensor. SLR notes that this is higher than the nominal clearances due to many man-made structures in the area.

Data compilation and processing were carried out by Geotech personnel using Geosoft OASIS Montaj software and programs proprietary to Geotech. Digital databases, grids, and maps were presented to BCL.

6.2.2.3 DCIP/MT Survey

In 2008, Quantec Geosciences Limited of Canada (Quantec) completed a Titan-24 ground survey over the Project area. The system is designed to collected two separate geophysical parameters, direct current induced polarization (DCIP) (resistivity and chargeability) plus magnetotellurics (MT).

This survey was undertaken with the objective of defining conductive and chargeable geophysical features within the Project area. These features are indicative of possible nickel-copper mineralization and hence provide a guide to focused drilling. The survey lines were spaced 250 m apart and were two kilometres to four kilometres long.

The data acquired was modelled and interpreted by Quantec, who identified 208 targets for possible follow-up exploration.

Several two metre deep trenches, 600 m long and spaced 250 m apart, were dug over some of the targets. These were profiled and sampled but did not yield any significant host intersections or grade anomalies.

Figure 6-3 illustrates the plan of resistivity at a depth of 700 m.

6.2.2.4 Borehole Electromagnetic Surveys

Borehole electromagnetic surveys were completed by AEGIS Instruments (Pty) Limited (AEGIS) between April 2009 and March 2010. These surveys were designed to characterize the size and orientation of conductive mineralization intersected in drill core and search for off-hole conductors that could represent nickel-copper mineralization. A total of 21 drill holes were surveyed in the Selebi Project area utilizing the Geonics PROTEM digital receiver, TEM67 transmitter and MAG43-3D fluxgate probe. Surveys operated at a frequency of 6.25 Hz.

A review of the data completed by the Project Team in 2019 identified high quality off-hole anomalies in drill hole sd140, located down-plunge of the Selebi Mine, and in drill hole sdn137, located near the eastern edge of Selebi North Mine. There is no indication that these targets were drill tested by the previous operator.

Figure 6-2: Interpreted VTEM Map of the North Sector

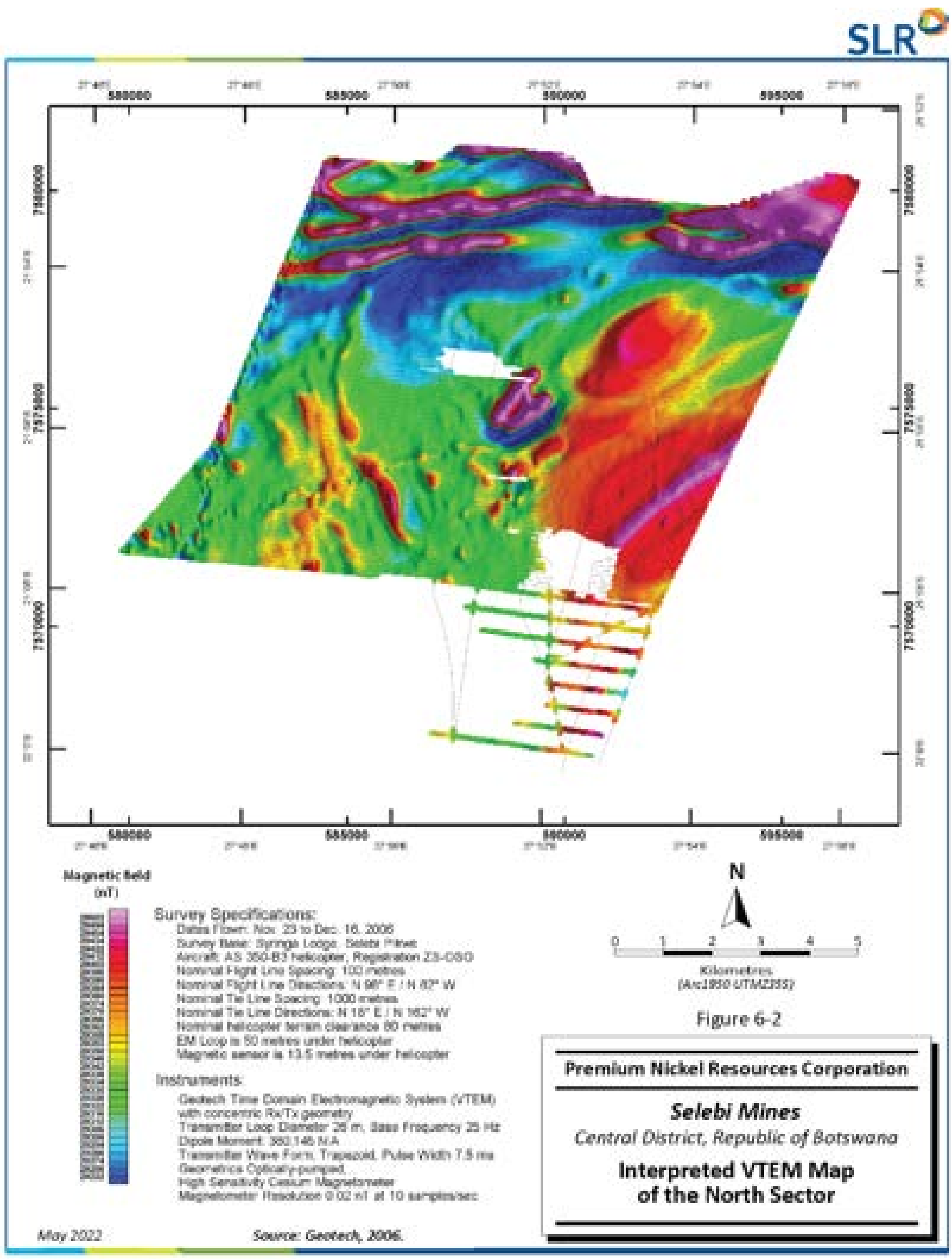
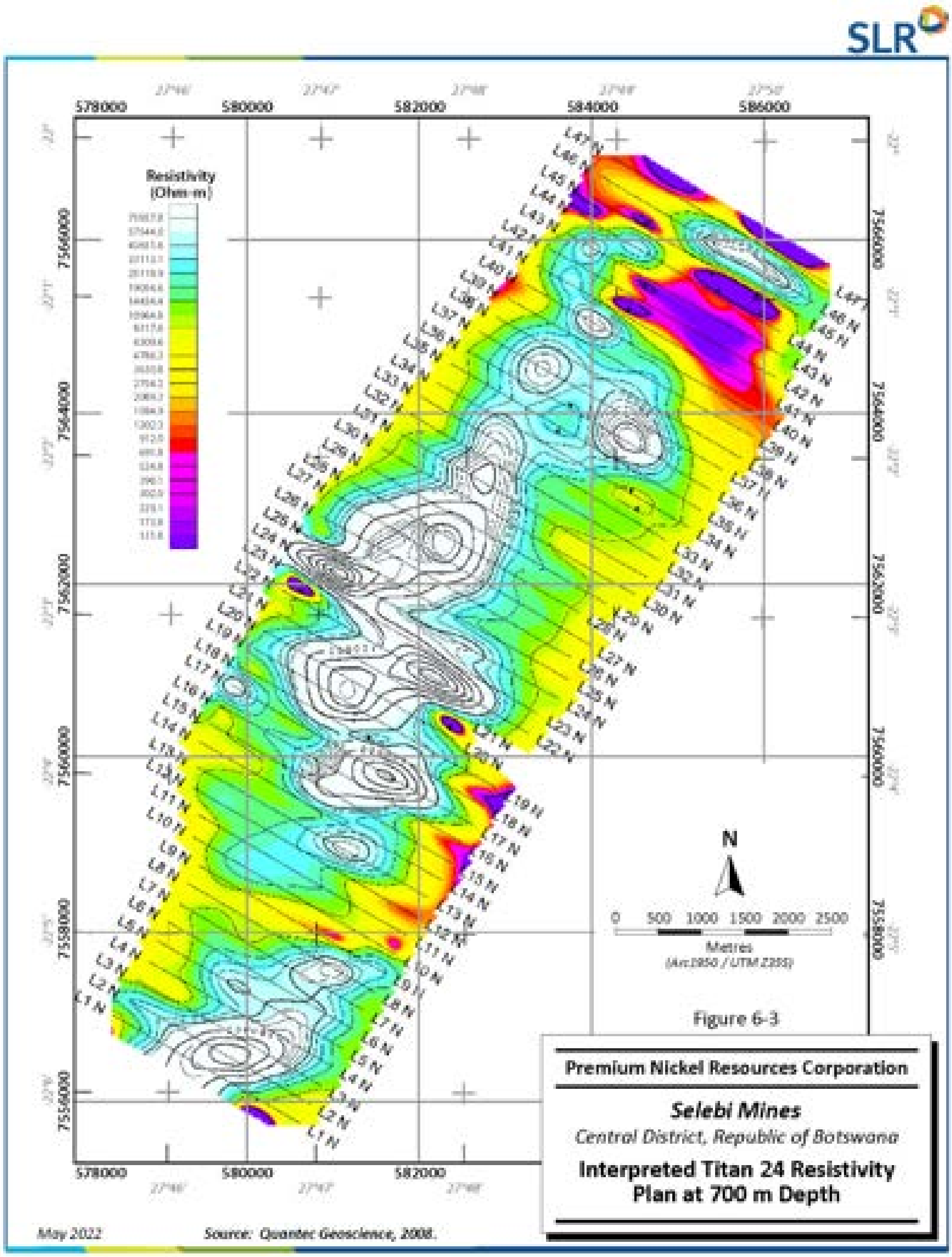


Figure 6-3: Interpreted Titan 24 Survey Resistivity at 700 m Depth



6.2.2.5 Surface Diamond Drilling

Diamond drilling was undertaken within the Project area from 2007 to 2012. A two tier approach was adopted targeting on-mine/brownfields and exploration targets. On-mine drilling was undertaken with the objective of defining down dip and strike extensions of existing operations while exploration work targeted areas outside the mining infrastructure to test geochemical, geophysical, and geological targets in order to delineate stand-alone deposits.

A more detailed description of the diamond drilling on the Project can be found in Section 10 of this Technical Report. As at the effective date of this Technical Report, PNRB had not sourced a complete database of regional exploration drilling over the Selebi Mines property.

6.3 Historical Resource Estimates

At the time of liquidation, Mineral Resources prepared in accordance with SAMREC within the Selebi Mines property boundary were reported as in-situ and depleted for mining as of September 30, 2016 (Lungu, 2017). Table 6-1 replicates the portion of those Mineral Resources relevant for the Project. This estimate is considered to be historical in nature and should not be relied upon. The QP has not completed sufficient work to classify the historical estimate as a current Mineral Resource and PNRB is not treating the historical estimates as current Mineral Resources. With further verification in the form of validation of the digital database against original logs and assay certificates, compilation and analysis of quality assurance/quality control (QA/QC) support programs, hole twinning, and down hole survey confirmation, SLR anticipates that the historical information will be suitable for Mineral Resource estimation and a new Mineral Resource estimate can be prepared using updated economic parameters and mining and processing considerations.

Table 6-1: Historical Mineral Resources as of September 30, 2016
Premium Nickel Resources Corporation – Selebi Mines

Class/Deposit	Tonnes (Mt)	Grade		Contained Metal	
		% Ni	% Cu	(000 t Ni)	(000 t Cu)
		Measured			
Selebi	0.37	1.01	2.19	3.69	8.01
Selebi North	0.71	1.24	1.03	8.83	7.34
Total Measured	1.08	1.16	1.42	12.53	15.34
		Indicated			
Selebi	6.82	1.05	2.29	71.65	156.27
Selebi Central	8.79	0.64	0.78	56.28	68.59
Selebi North	1.14	1.27	1.13	14.46	12.86
Total Indicated	16.76	0.85	1.42	142.39	237.73

Class/Deposit	Tonnes (Mt)	Grade		Contained Metal	
		% Ni	% Cu	(000 t Ni)	(000 t Cu)
		Measured and Indicated			
Selebi	7.19	1.05	2.28	75.35	164.28
Selebi Central	8.79	0.64	0.78	56.28	68.59
Selebi North	1.85	1.26	1.09	23.29	20.20
Total M&I	17.83	0.87	1.42	154.92	253.07
		Inferred			
Selebi	4.09	0.86	1.21	35.18	49.49
Selebi Central	8.46	0.57	0.74	48.21	62.59
Selebi North	2.79	0.93	0.87	25.97	24.30
Total Inferred	15.34	0.71	0.89	109.36	136.38

Notes:

1. Mineral Resources are in-situ and depleted for mining as at September 30, 2016.
2. Mineral Resources are exclusive of pillars left in mined out areas and are corrected for geological losses.
3. Mineral Resources are inclusive of Mineral Reserves.
4. Estimated grades and tonnages have been verified both visually and statistically and are considered reasonably representative of the data informing the estimation.
5. Mineral Resource models were created at a cut-off grade of 0.4% NiEq within a lithology constrained model.
6. NiEq is calculated using the equation NiEq = %Ni + (Cu price/Ni price)*%Cu.
7. Nickel and copper prices used are US$8.00/lb Ni and US$3.00/lb Cu, respectively.
8. Selebi Mineral Resources are exclusive of the Lower Ore Body (LOB) due to uncertainty in interpretation resulting from very low exposure of the zone.
9. Geological losses are based on estimated losses due to pinch outs, and geotechnical and structural features.
10. Numbers may not add due to rounding.

6.4 Past Production

Construction of the Phikwe processing plant began in 1970 concurrently with the sinking of the Phikwe No. 1, Phikwe No.2, and Selebi shafts. In 1972, development work at Selebi was suspended in favour of open pit mining at Phikwe. The concentrator began operations in 1973 at a rate of 6,000 tpd, and the capacity was increased to 10,000 tpd over time. In 1980, the Phikwe open pit was exhausted and the underground operations at Selebi were phased in. Production at all operations ceased in October 2016 when BCL was placed in liquidation.

Table 6-2 summarizes the historical mineral production from the Selebi Mines from 1981 to 2016 based on information supplied by BCL and includes production figures for 1980 from the US Department of the Interior (Morgan, 1982).

Table 6-2: Historical Production
Premium Nickel Resources Corporation – Selebi Mines

Year	Selebi			Selebi North		
	Tonnes (t)	Grade (% Ni)	Grade (% Cu)	Tonnes (t)	Grade (% Ni)	Grade (% Cu)
2016[1]	351,746	0.48	1.01	320,793	0.76	0.73
2015	500,403	0.49	0.99	512,442	0.81	0.68
2014	507,993	0.47	0.87	560,504	0.74	0.67
2013	483,314	0.48	0.74	588,247	0.71	0.64
2012	471,744	0.50	0.74	530,687	0.70	0.57
2011	531,848	0.51	0.78	562,518	0.79	0.69
2010	572,033	0.45	0.77	414,427	0.72	0.57
2009	581,517	0.46	0.75	400,334	0.70	0.68
2008	564,911	0.50	0.93	422,131	0.83	0.75
2007	585,495	0.55	0.97	500,109	0.88	0.80
2006	594,319	0.55	0.94	514,881	0.84	0.78
2005	648,124	0.60	0.99	632,671	0.83	0.73
2004	568,088	0.58	1.03	556,944	0.91	0.71
2003	610,808	0.65	1.20	625,382	0.90	0.76
2002	685,309	0.59	0.96	664,058	0.80	0.70
2001	757,580	0.61	1.01	638,712	0.69	0.62
2000	782,006	0.66	1.07	627,179	0.64	0.59
1999	830,430	0.62	1.11	616,476	0.66	0.62
1998	857,342	0.60	1.16	659,002	0.65	0.64
1997	887,383	0.58	0.97	587,470	0.67	0.62
1996	900,977	0.64	1.16	570,171	0.67	0.58
1995	814,195	0.68	1.00	482,027	0.72	0.65
1994	909,123	0.64	1.10	503,769	0.70	0.65
1993	914,560	0.66	0.96	543,484	0.68	0.63
1992	899,231	0.67	0.93	466,987	0.63	0.54
1991	825,389	0.61	0.96	325,986	0.61	0.53
1990	834,823	0.68	1.01	108,085	0.67	0.79
1989	806,936	0.64	1.06	-	-	-
1988	815,561	0.63	1.16	-	-	-

Year	Selebi			Selebi North		
	Tonnes (t)	Grade		Tonnes (t)	Grade	
		(% Ni)	(% Cu)		(% Ni)	(% Cu)
1987	827,068	0.64	1.30	-	-	-
1986	743,540	0.61	1.29	-	-	-
1985	758,949	0.59	1.28	-	-	-
1984	922,067	0.51	1.19	-	-	-
1983	940,302	0.49	1.14	-	-	-
1982	899,585	0.56	1.05	-	-	-
1981	826,683	0.52	0.91	-	-	-
1980	590,000	0.46	0.94	-	-	-
Total	26,601,382	0.58	1.03	13,935,474	0.74	0.66

Notes:

1. January 1 to September 30, 2016

7.0 GEOLOGICAL SETTING AND MINERALIZATION

The following section is summarized from Lungu (2016).

7.1 Regional Geology

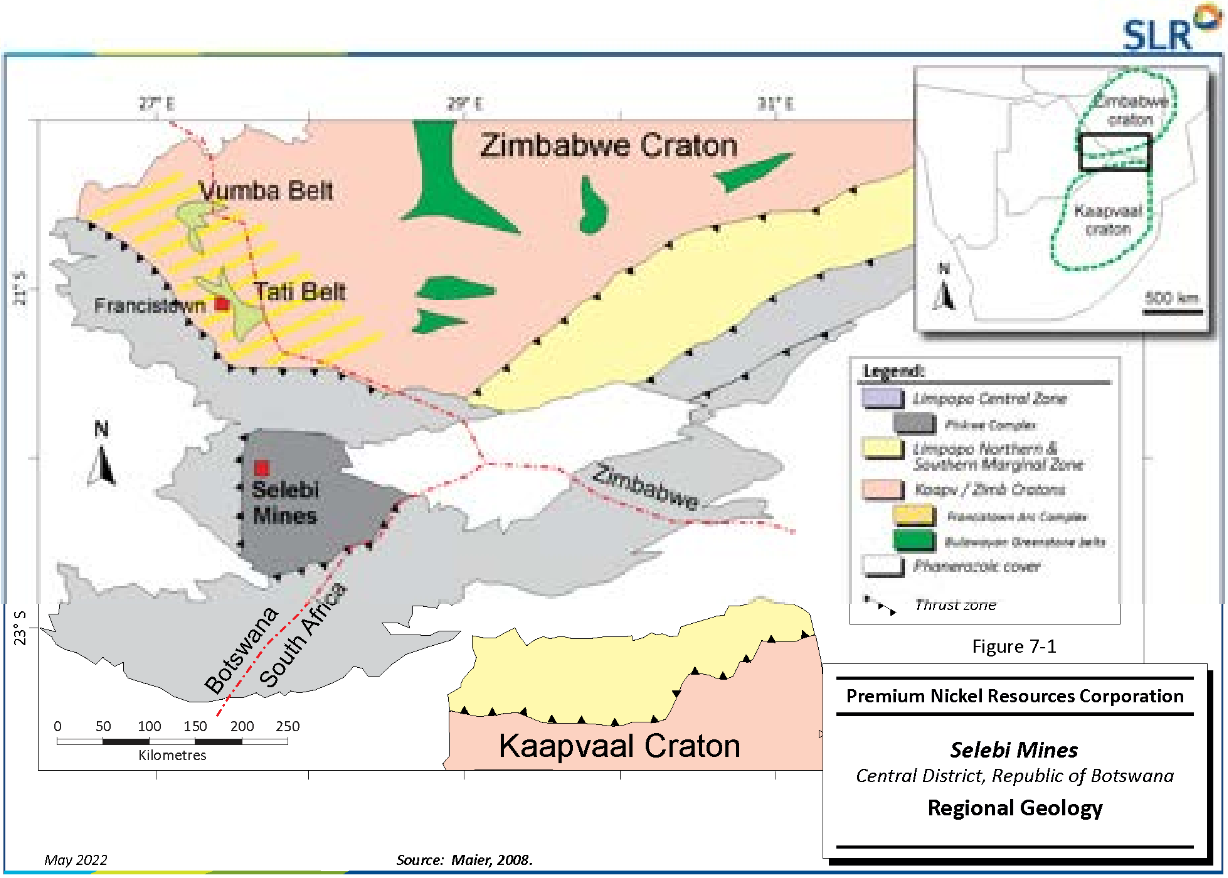
The eastern portion of Botswana forms part of the Limpopo Mobile Belt (LMB) which represents a deep crustal section through an orogenic province between the Kaapvaal and Zimbabwe Cratons (Carney et al., 1994). Each of these terranes is comprised of granitoids and supra-crustal rocks. The LMB consists of volcano-sedimentary sequences and granitoid rocks which have undergone strong deformation and granulite facies metamorphism and cratonic rocks which have undergone low grade metamorphism (Carney et al., 1994). The LMB extends as a broad zone of tectonically deformed and metamorphosed rocks for approximately 900 km, between the stable Zimbabwe and Kaapvaal Cratons. Recent geochronological studies indicate the age of major periods of folding and metamorphism are between 2.0 Ga to 2.69 Ga (Kampunzu et al., 2000).

The LMB is divided into three structural zones: two linear zones trending parallel to the belt, the northern and southern marginal zones, and the complex folded central zone (CZ) (Carney et al., 1994). The Project area described in this Technical Report lies in the northern portion of the CZ, just south of an east-northeast trending shear zone marked by the Letlhakane fault, at the boundary between the north marginal and central zones. The CZ region is characterized by complex structural fold patterns accompanied by regional and cataclastic metamorphism, with grades ranging from amphibolite to granulite facies and cataclastic tectonites (Carney et al., 1994).

The marginal zones are characterized by predominately metamorphosed igneous rocks whereas the CZ contains a significant amount of metasedimentary rocks (paragneisses, metapelites, quartzites, and marbles) coexisting with a variety of deformed and metamorphosed igneous rocks (Kampunzu et al., 2000). Treloar et al. (1992) suggested that the CZ is an exotic block inserted between the marginal zones during Himalayan type tectonics (Kampunzu et al., 2000). De Wit et al. (1992) considered it to represent a pop-up structure formed during the Neoarchaean convergence between the Kaapvaal and Zimbabwe cratons. Roering et al. (1992), modeled the pop-up geometry as post-collisional (Kampunzu et al., 2000). U-Pb zircon ages of gneiss granitoids from the CZ predominately range from 2,734 Ma ± 4 Ma to 2,637 Ma ± 3 Ma (Kampunzu et al., 2000). Brandl (1983) suggested that the supracrustal metasedimentary rocks exposed in the CZ represent a continental platform sequence, whereas Fripp (1983) considered it to be an arc-related sedimentary package (Kampunzu et al., 2000). Geochemical studies of granitoid gneiss and metamorphosed mafic igneous rocks from the CZ led Boryta and Condie, (1990) to suggest their emplacement in an arc setting.

Figure 7-1 illustrates the regional geological context.

Figure 7-1: Regional Geology



7.2 Local Geology

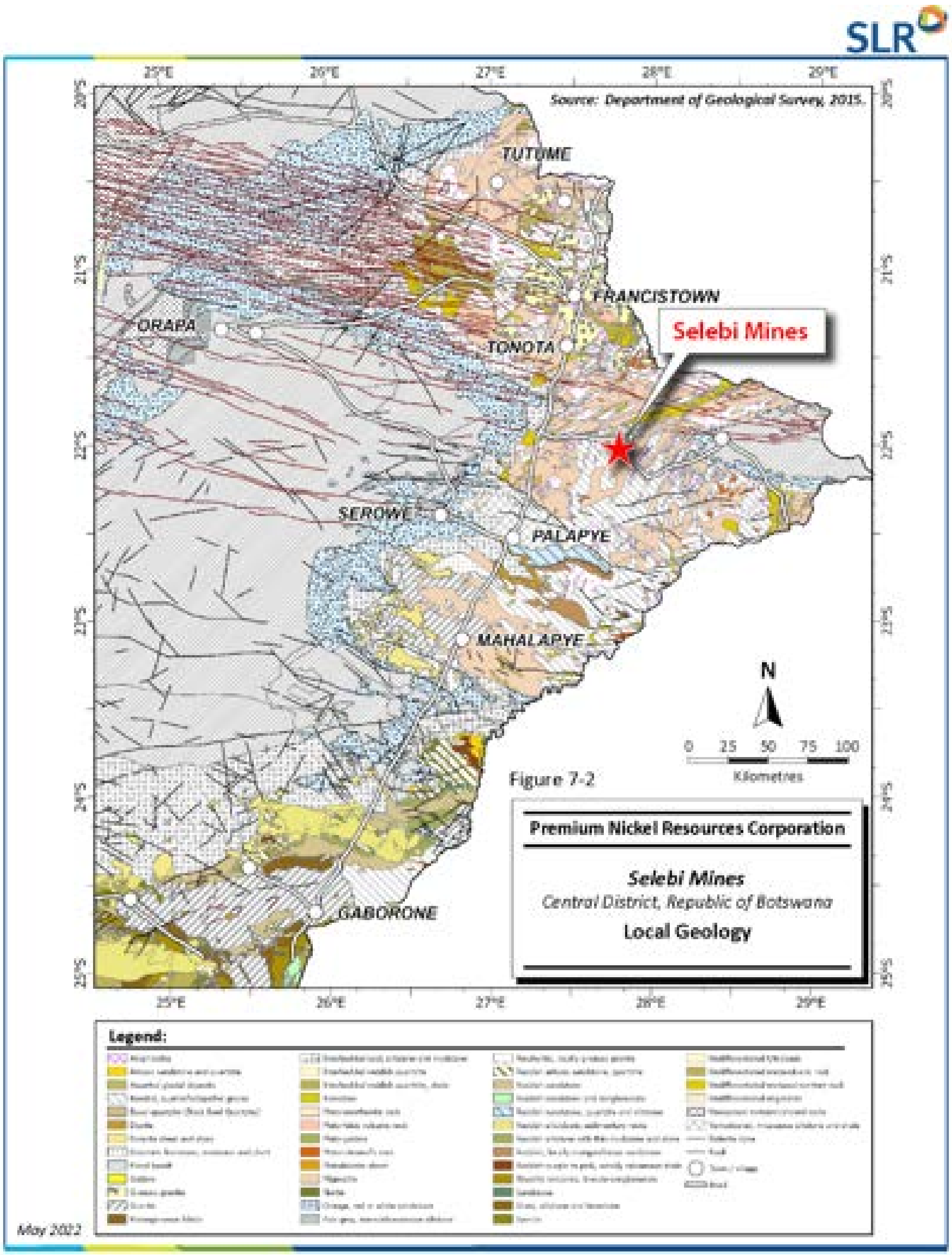
The Project occurs in highly deformed and metamorphosed Archean gneisses near the north margin of the CZ of the LMB. The ores and host rocks have experienced all the phases of deformation that have affected the enclosing gneisses (Brown, 1987). According to Brown (1987), a distinction has been made between extensive tracts of photogeologically homogeneous granitic gneisses and varied well-banded supracrustal assemblages of hornblende gneisses and amphibolites, quartzo-feldspathic grey gneisses, anorthositic and gabbroic gneisses, and minor metasediments (quartzites, marbles, and banded iron formations), characterized by abundant photogeological trend-lines. The supracrustal assemblage contains nickel-copper sulphide deposits. According to Hoffmann (2002), the deposits occur as conformable stratabound ore bodies associated with an amphibolite host within a sequence of gneisses at a similar stratigraphic position.

The Phikwe Complex is located within the CZ of the LMB, consisting predominately of Archean hornblende bearing tonalitic and trondhjemitic gneisses. The Phikwe Complex also contains the Selebi-Phikwe belt of mafic–ultramafic intrusions hosted by medium to coarse grained, massive to weakly foliated, granoblastic to porphyroblastic granite gneiss and a variety of banded supracrustal gneisses comprising hornblende-gneiss, quartzo-feldspathic gneiss, and anorthositic gneiss. The protoliths to the hornblende gneisses are believed to be volcanics and shallow intrusions of tholeiitic basaltic and titanium rich ferrobasaltic composition, whereas the protoliths to the quartzo-feldspathic gneisses may have been calcalkaline volcano-sedimentary rocks (Brown, 1987). Subordinate amounts of pelitic schists, marbles, impure quartzites, and ironstones are also observed. Most of the aforementioned rocks are very sulphide poor (<200 ppm S) (Maier et al., 2008). A map of the local geology is presented in Figure 7-2.

A few age determinations constrain relationships in the Selebi-Phikwe area. Samples of the granite gneisses have been dated at 2.6 Ga to 2.65 Ga (U-Pb SHRIMP method; McCourt et al. 2004). According to Wright (1977) and Brown (1987), the granite gneisses have intrusive relationships with the supracrustal rocks, implying that the latter are older than 2.6 Ga. The absolute and relative ages of the mafic–ultramafic intrusions remain unclear, as lithological contacts are mostly tectonic, however, it is clear that that they are older than 2.0 Ga.

Figure 7-3 illustrates the generalized stratigraphic column of the Phikwe Complex.

Figure 7-2: Local Geology



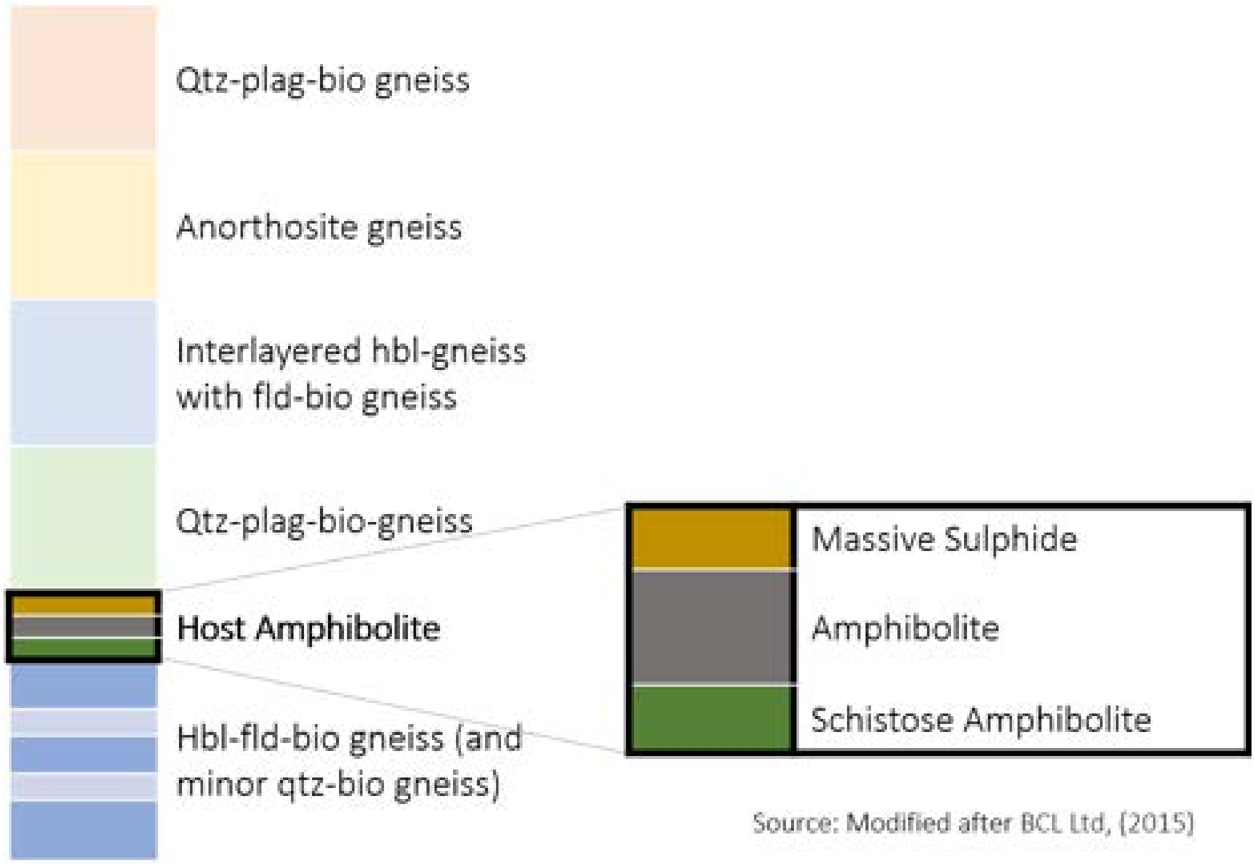


Figure 7-3: Generalized Stratigraphic Column

7.3 Property Geology

A schematic geological map of the Selebi-Phikwe area and a N-S section across the Selebi Phikwe nickel belt (along dense stippled line) is presented in Figure 7-4.

A structural and geological map was developed by Williams (2005) and is the most recent geological and structural map of the Project area (Figure 7-5). The map was developed using a combination of detailed mapping, GIS interpretation of remotely sensed images, integration of existing stratigraphic drill core, and geochemical datasets (Dirks, 2005). Within the Project area, all mineralized zones lie within the Selebi Synformal Basin.

The Selebi and Selebi North deposits form part of the Selebi-Phikwe belt of intrusions that also contain the Phikwe, Dikoloti, Lentswe, and Phokoje deposits. In all these deposits, the sulphide mineralization is predominately associated with boudinaged lenses and layers of fine to medium grained amphibolite interlayered with various types of gneisses (Gordon (1973), Wakefield (1976), Key (1976), Gallon (1986) and Brown (1987)). The ore bearing intrusions are generally relatively thin (e.g., on average 11 m in the Phikwe area), however, this may largely be the result of intense folding and shearing (Lear, 1979). The amphibolites predominately consist of hornblende, feldspar, gedrite, and mica. Minor metamorphic orthopyroxene and olivine also occur. Based on whole rock compositional data and CIPW norms of a large number of samples, Brown (1987) estimated that the parental magmas to the intrusions were tholeiitic basalts (with approximately 8 wt% MgO) that crystallized variable proportions of olivine, pyroxene, and plagioclase (Maier et al., 2008).

Figure 7-4: Schematic Map and Cross Section of the Selebi-Phikwe Area

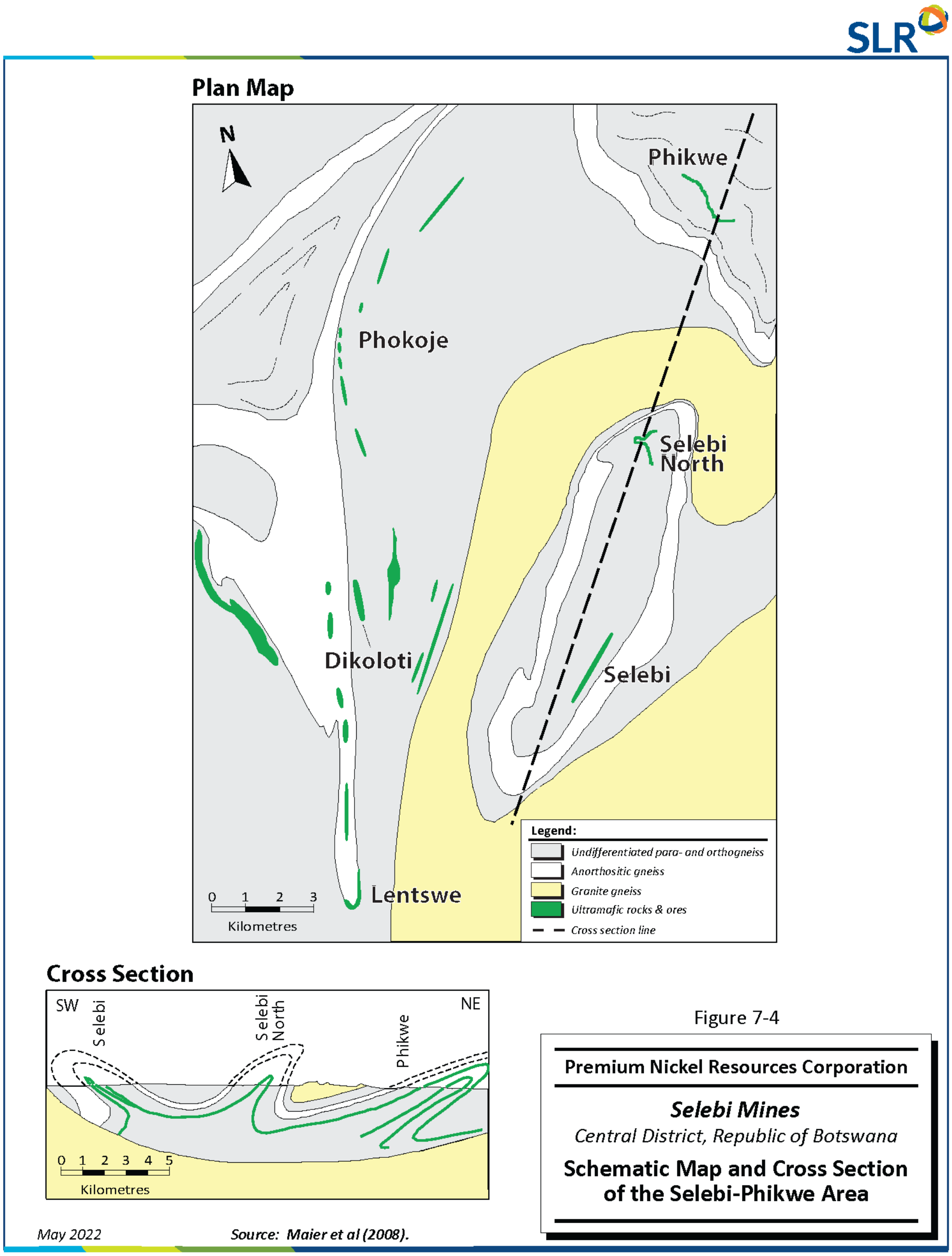
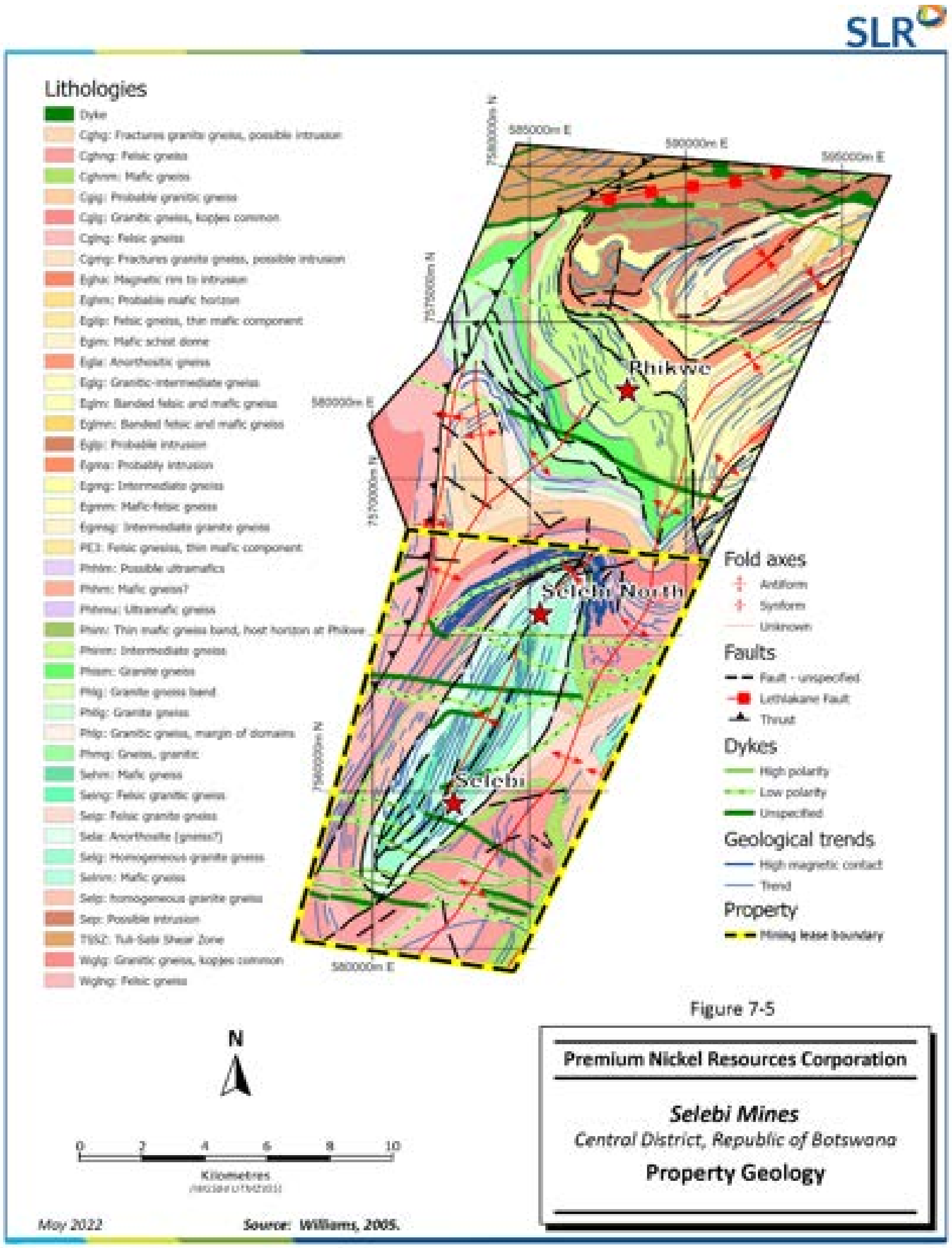


Figure 7-5: Property Geology



7.4 Mineralization

The following is taken from Lungu (2016).

Nickel-copper mineralization in the Selebi North and Selebi deposits is hosted by hornblende rich amphibolites with varying amounts of plagioclase (labradorite to bytownite), gedrite, phlogopite, biotite, garnet, and sulphides (Gordon (1973) and Brown (1987)). Spinel, olivine, and orthopyroxene have been reported (Brown, 1987). The principal sulphide minerals are pyrrhotite, chalcopyrite, and pentlandite which occur in massive, semi-massive, and disseminated form. Pyrite occurs as localized overgrowth. Magnetite occurs as rounded inclusions in massive sulphides and as later overgrowths.

The mafic, hornblende rich mineralogy of the Selebi-Phikwe host rocks, their association with nickel-copper mineralization, and their geochemistry has been used to infer an igneous protolith of troctolitic-noritic gabbros locally associated with ortho-pyroxenite (Brown, 1987). Trace element geochemistry suggests a tholeiitic protolith, and the wide ranging and locally high chromium content is indicative of a cumulate, intrusive rather than extrusive origin. Geochemical modeling suggests that the parent intrusive body of the Selebi-Phikwe deposits was a mixture of cumulus phases (plagioclase, olivine, pyroxene, and chromite), intercumulus liquid, and an immiscible sulphide liquid (Brown, 1987).

All the mined ore bodies over the Project area are observed within, or at the hanging wall contact of the hosting amphibolite with gneisses. The gneisses forming the country rock of the Selebi-Phikwe deposits can be divided into two main groups. The first is a suite of well-banded hornblende gneiss, grey quartzo-feldspathic gneiss, with anorthosite, minor magnetite quartzite, and marble, and the second a group of granitic gneisses.

7.4.1 Selebi

The Selebi deposit is an amphibolite-massive sulphide sill one metre to 25 m thick and 2,000 m long. Within the deposit three distinct, but interconnected, mineralized horizons were mined, the LOB, the Upper B (UB) ore body, and the Upper A (UA) ore body. The LOB is the eastern limb of an F1 age isoclinal fold, whereas the UB ore body forms the larger western fold limb. Four hundred and fifty metres up dip from the fold hinge, the UB ore body splits creating the UA ore body, which continues 150 m before pinching out. From the UA-UB split, the UB sulphide horizon continues, much thinner, for an additional 450 m eventually changing into a barren amphibolitic schist two metres to three metres thick. All ore horizons, massive sulphide, or amphibolite are conformable to the gneissic foliation. The contacts of the host amphibolite with the surrounding grey gneiss is conformable but typically sheared, with the development of abundant mica locally in the host amphibolite and coarse cataclastic textures in the grey gneiss (Brown, 1987).

The Selebi deposit can be divided into two distinct areas. The southern half of the Selebi deposit is characterized by thick amphibolite while the north fringe area is composed of multiple sulphide horizons rarely thicker than three metres. The major structural features in the north fringe area are drag folds and a pinch and swell habit within the sulphide horizon. Hanging wall drag folding has formed the UA ore body ore as well as several minor splits north of the UA body (Figure 7-6).

The major structural feature in the Selebi deposit is the F1 isoclinal fold which marks the southern limit of mineralization and links the UB to the LOB. With a hinge line plunging 20° on a N10°E bearing, the Selebi fold is synformal, but due to the anorthosite horizon lies on the footwall of the Selebi mineralization, Gordon (1973) considered the fold to be an overturned anticline. Gordon went on to illustrate the deposit as a drag fold on the flank of the Selebi structural basin. Isoclinal folding at Selebi strongly influenced the deposition of remobilized sulphides, since the thickest concentration of massive sulphide and the highest metal grades are both encountered along the nose of this major fold.

The host rock consists largely of hornblende rich amphibolites with varying amounts of plagioclase, gedrite, phlogopite mica, biotite mica, garnet, and sulphides. Magnetite is commonly associated with the sulphides. Also present in the amphibolite, though rarer, are green spinel, olivine, and orthopyroxene. The sulphide minerals occur as massive sulphides (70% to 100% sulphides), through semi-massive sulphides with increasing volumes of silicate minerals, to disseminated/stringered sulphides (0% to 30% sulphides).

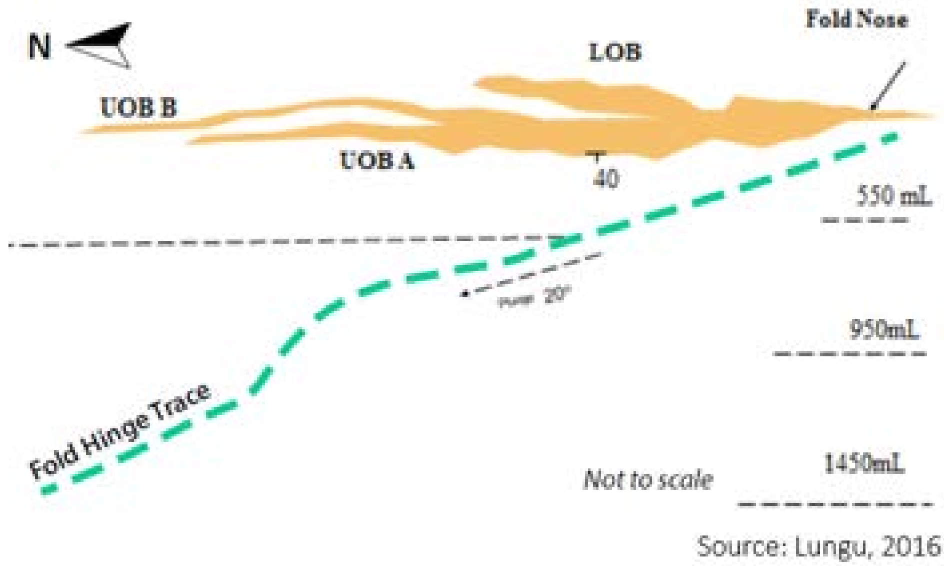


Figure 7-6: Longitudinal Sketch of the Selebi Ore Body Showing the Fold Plunge

The upper amphibolite is generally thicker, up to 27 m, while the lower amphibolite is almost always less than 10 m, lenticular, and locally absent. Thick amphibolite intersections have been observed from surface drilling for deep seated sulphides at Selebi. This has been debated as possible drilling through the isoclinal fold nose area or drilling along a fold limb as a result of folding.

Pinch and swell features, common in the Selebi deposit, are predominately due to D1 boudinage and not a result of D2 folding (Brown, 1987).

Within the UB ore body, the host amphibolites exhibit clear sulphide zonation. Massive sulphides occur at the hanging wall contact. Along the actual contact centimetre scale cummingtonite crystals form an alteration fringe growing into the hanging wall quartzo-feldspathic gneisses. The massive sulphides are underlain by a massive amphibolite consisting of gedrite-hornblende-phlogopite with very little to no plagioclase and stringers of sulphide as well as disseminated sulphide. The gedrite crystals are coarse grained and orientated in the regional mineral lineation, which plunges shallowly to the north. This unit probably represents a highly altered and recrystallized metapyroxinite (Brown, 1987). Progressing into the footwall, the rocks contain increasingly less phlogopite, gedrite, and disseminated sulphide and increasing amounts of hornblende and plagioclase, thus, gradually transitioning into a hornblende-plagioclase amphibolite, i.e., the type of amphibolite that is characteristic within the banded gneiss suite (Dicks, 2005).

7.4.2 Selebi Central

Ore distribution is complex in the Selebi Central area and has similarities to the ore zones encountered at Selebi, although it was not possible to map folding as described by Gallon (1986). Nickel and copper mineralization occur at a number of stratigraphic levels within the host amphibolite, and occasionally within the hanging wall gneiss. There are, however, three reasonably consistent mineralized horizons within the host amphibolite as follows:

- Ore Zone A: Developed at the contact between the hanging wall gneiss and the host amphibolite.
- Ore Zone B: Developed more or less within the middle of the host amphibolite.
- Ore Zone C: Developed at or near the base of the host amphibolite.

Of the three ore zones, Ore Zone C is the most consistent, covering most of the areal extent of the Selebi Central deposit. Mineralization occurs generally as sulphide stringers or disseminations with grades averaging 0.6 % Ni and 0.7 %Cu.

Similar to the Selebi deposit, the Selebi Central deposit dips approximately 40° to the west. The Selebi Central deposit is characterized by the three separate thin ore zones within a host amphibolite package which ranges in thickness from zero metres to 40 m.

7.4.3 Selebi North

The Selebi North structure consists of a South Limb which is connected to the North 2 (N2) Limb through the fold nose, which is in turn disconnected from the North 3 (N3) Limb by a shear zone (Figure 7-7). Underground exploration drilling indicates shortening of the South Limb strike length and tightening of the fold nose.

The host amphibolite is conformable with the surrounding grey gneiss. Massive sulphide thickness in the N3 Limb, vary from zero metres to 20 m, averaging three metres.

Folding within the footwall gneiss is evident, however, does not affect the structure and dip on the deposit. Nickel-copper mineralisation at the Selebi-Phikwe deposits is confined to what evidence suggests is a single layer of amphibolite occurring within a sequence of grey quartzo-feldspathic and hornblende gneisses. The host rocks consist predominately of hornblende rich amphibolites (tschermakite to ferroan pargasite) with varying amounts of plagioclase (labradorite to bytownite), gedrite, phlogopite mica, biotite mica, garnet (almandine), and sulphides (Brown, 1987).

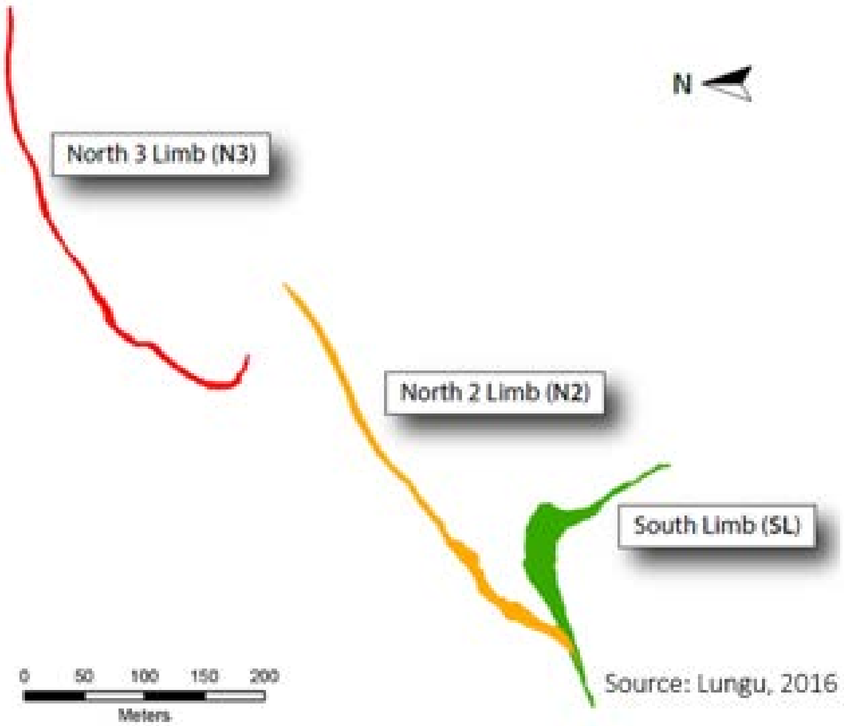


Figure 7-7: Relative Positions of Selebi North Ore Bodies (Looking Down)

7.4.3.1 South Limb

The South Limb dips 35° to 80° south and the amphibolite thickness ranges from 0.10 m on the fringes to 40 m in the central portion. The South Limb deposit is shallow dipping on the eastern extremity and steep towards the fold nose. Two segments can be defined separated by an open fold. The western portion of the fold is predominately thick massive sulphides with relatively high nickel in-situ grades while the eastern side of the open fold is predominantly disseminated sulphides and low grade massive sulphides. The strike length of the South Limb is 200 m. The South Limb is a mineralized amphibolite layer consisting of massive sulphide ore against the hanging wall, the massive sulphide ore zone is thick and rich towards the middle of the ore body and gets narrow at the fold nose and on the southern extremity. The South Limb has an average thickness of 40 m of lower grade disseminated amphibolite against the footwall. The disseminated zone often contains pods and lenses of massive sulphides ore. The footwall of the ore body is taken as the contact between crystalline amphibolite and biotite schistose amphibolite that grades into hornblende-phlogopite-plagioclase schist. This schist contains minor disseminated sulphides mineralization and rare lenses of massive sulphides but is uneconomic. To the east, the immediate hanging wall is barren schist grading into altered hornblende gneiss. The gneiss is invariably barren with occasional injections of massive sulphides.

7.4.3.2 North 2 Limb

The N2 Limb dips from 60° to 90° west with ore thicknesses ranging from 0.20 m to 3.5 m wide below the 828 m level and a plunge of 45° to the southwest. Structurally, the N2 Limb is aligned along a shear zone that has resulted in the separation of the N3 Limb and South Limb ore bodies but remains connected to the South Limb through the fold nose. The N2 Limb and South Limb were previously mined and modelled separately, split along the fold nose (Figure 7-7).

Economic mineralization in the N2 Limb is patchy although the total strike length is up to 300 m on the upper levels. Thicker mineralization occurs at the extreme limits of the N2 Limb while the middle portions are generally pinched out or with poor to barren amphibolite grading 0.22% Ni on average. The mineralization is predominantly confined to the hanging wall contact with the quartzo-feldspathic gneisses. The footwall is predominately altered micaceous schist with thicknesses of up to 40 m in places.

7.4.3.3 North 3 Limb

The N3 Limb at Selebi North is a sub vertical narrow massive sulphide deposit with dips of 70° in the deeper levels to 90° in the upper levels and a strike length of approximately 300 m on the 828 m level. The strike length narrows with depth to 50 m on the 1,100 m level. The N3 Limb is characterized by pinch and swell structures where the average mineralization thickness ranges between 0.10 m to 10 m. Although the N3 Limb is narrow, the massive sulphides percent in-situ nickel grade (approximately 2.50% Ni) is relatively high compared to the other limbs with a lower overall gangue mineral percentage. There is a marked decrease in grade towards the eastern extremity of the N3 Limb with the mineralization occurring as poorly mineralized to barren amphibolite. The western extremity is characterized by an open fold with mineralization thinning out to sub-economic thicknesses.

Shear structures observed at the western limit of the N3 Limb and northern limit of the N2 Limb is evidence of the connection of the two limbs prior to deformation.

8.0 DEPOSIT TYPES

The following section is taken from Lungu (2016).

The deposits in the Project area are categorized as ortho-magmatic nickel-copper sulphide-type deposits. They are hosted within amphibolite and understood as a tectono-metamorphically modified tholeiitic magma parents with an immiscible sulphide melt (Brown, 1987) which has undergone all the phases of deformation that have affected the enclosing gneisses.

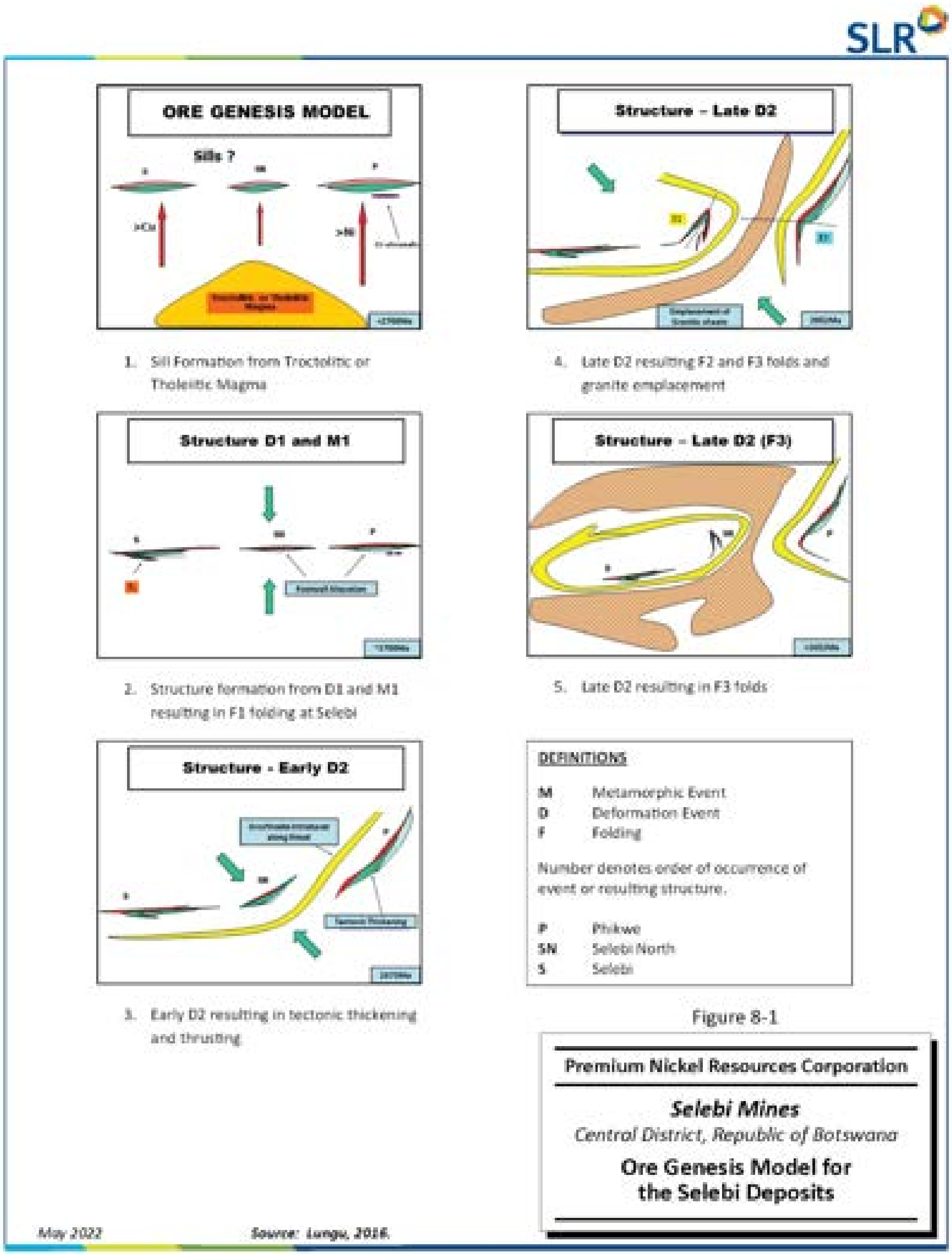
The mineralogical composition of the host rock bodies, the suggested geochemistry of the basaltic intercumulus liquid, and the nickel-copper content of the sulphide ores are consistent with the formation of the host rocks and sulphide ore bodies from a fractionating tholeiitic basaltic magma that intruded as a liquid mush (Gordon (1973), Wakefield (1983), and Brown (1987)) likely between 2,700 Ma to 2,650 Ma ago.

Intrusion of the host magma was followed by several phases of deformation and metamorphism which resulted in the ductile dismemberment and folding of the original intrusive complex as well as the massive sulphide lenses. The postulated genesis model (Figure 8-1) was originally suggested by Gordon, and later supported by Brown (Gordon (1973), Wakefield (1976), and Brown (1987)). The ages of syn-tectonic granitic gneiss units in the area vary between 2,650 Ma to 2,600 Ma indicating that deformation was concomitant with that recorded in the Zimbabwe Craton to the North (McCourt and Armstrong (1998), and Jelsma and Dirks (2002)).

Both the Selebi North and Selebi nickel-copper sulphide deposits are associated with an amphibolite layer which occurs within grey gneiss and lesser hornblende gneiss of Unit E of the Selebi Sequence (Brown, 1987). The sulphides mainly occur as massive sulphide, usually containing >70% sulphides with small amounts of silicate inclusions or as disseminated sulphides, usually <30% sulphides, with higher amounts of inclusions. Stringer sulphides are generally thin, <10 cm veins typically crosscutting the foliation in the amphibolite (Brown, 1987).

The Selebi-Phikwe sulphides have been interpreted as having formed as an immiscible sulphide fluid in a deeper lying, crystallising, mafic magma body, from which sills were injected to higher crustal levels, transporting the sulphide fluids. The host sill is now metamorphosed to amphibolite. Quartz-feldspar gneisses form the hanging wall and footwall.

Figure 8-1: Ore Genesis Model for the Selebi Deposits



9.0 EXPLORATION

Exploration work completed by PNRB in 2021 has consisted of the sourcing and digitization of existing historical information, confirming collar and down hole location information of selected holes, and completing electromagnetic (EM) surveys (BHEM) on high priority historical exploration holes.

9.1 Digitization of Existing Information

Collection, sorting, and digitization of hard copy reports, maps, and drill logs found within the Geology offices at the BCL administration building is ongoing and to date has included:

- Digitization of original drill logbooks including descriptive lithology logging, some structural information, and analytical results of secondary elements (iron, cobalt, sulphur).
- Digitization of detailed level plans with mapped mineralization, lithology, and structure.
- Georeferencing of surficial maps and surveys.

As part of this work, 3D digitization of mine development, ventilation raises, conveyors, ramps, and production stopes continues at Selebi and has been finalized at Selebi North.

Digital survey capture of the Selebi North ramp and lowest underground development levels has also been completed by PNRB. These were previously un-surveyed because of the sudden closure of operations in 2016.

9.2 Collar, Downhole, and BHEM Surveys

Location and re-entry of selected existing drill holes with the purpose of confirming collar and downhole survey information commenced in May 2021 and is ongoing. Using handheld GPS units, to date, a total of 44 collar locations were identified close to their expected positions in both real world (WGS84) and mine grid coordinates. A total of 34 of these holes were re-entered by the contractor, AEGIS, in June and July of 2021 to confirm access. Only three surface holes and two underground holes were observed to still be open to target depth.

Discovery Drilling, contractors engaged by the Project Team, began work in October 2021 to re-open high priority holes, while GEN WAY T/A/Mining Surveying Systems was engaged to provide gyro surveys and AEGIS was engaged to carry out BHEM surveys.

The drill arrived on site on October 17, 2021 and hole cleaning is ongoing. As of the effective date of this Technical Report, six holes have been re-opened: sd119, sd121b, sd131b, sd140, sdn106b, and sdn109. It is noted that 900 m of rods fell into sd131b and after considerable effort was deemed to be unretrievable.

Gyro surveys utilized the Reflex EZ-Gyro/Sprint Gyro, and due to the vertical nature of the holes, data was collected every 30 m in 'Multi-Shot Mode'. Readings within each survey are individual and independent of the other readings above and below. Surveys were completed both entering and exiting the hole. As of the effective date of this Technical Report, downhole survey information has been collected in five re-opened holes, between November 11, 2021 and February 26, 2022: sd119, sd121b, sd131b, sd140, and sdn106b.

Gyro data collected in sd140 indicated that the end of the hole (EOH) was located approximately 370 m to the southeast of its original position in the BCL database. Other holes were comparable to database information with an average 15.6 m difference between the original survey EOH and the new gyro EOH. Table 9-1 presents the comparisons between the database and gyro EOH locations.

Table 9-1: Gyro Survey Results
Premium Nickel Resources Corporation – Selebi Mines

Hole ID	Length (EOH) (m)	Survey Interval (m)	Date of Survey (DD-MM-YYYY)	Diff (3D) XYZ to XYZ Database vs New Gyro Survey (m)
sd140	1760	0-1640	11-11-2021	371.629
sd131b	1455	0-1,440	22-11-2021	7.811
sd121b	1275	0-1,260	10-12-2021	17.991
sd119	1329	0-1,315	15-02-2022	18.816
sdn106b	1164	0-1,110	26-02-2022	17.725

BHEM surveys were carried out in two phases between October 24 and November 29, 2021 using a TEM57-Mk2 or replacement TEM67A transmitter, a Geonics PROTEM digital TDEM receiver, and BH43-3D dB/dt inductive downhole probe or a MAG43-3D fluxgate probe with an orientation tool. Data was collected at survey intervals of 10 m to 25 m. Two surface holes, sdn106b and sdn112b, were surveyed from the north transmitter loop. The north loop is 780 m x 1,000 m in size and a Leica 1200 DGPS unit was used to collect loop and drill collar coordinates in UTM Projection WGS84z35. All of the surveys operated at a frequency of 2.5Hz. Two underground holes, 29006 and 29009 were also surveyed from the north loop. Drillhole sd140 was surveyed from the south loop, 1.0 km x 1.0 km in size, using both the MAG43-3D fluxgate and BH43-3D dB/dt inductive downhole probes. Table 9-2 presents the survey details for holes surveyed.

Table 9-2: BHEM Surveyed Holes
Premium Nickel Resources Corporation – Selebi Mines

Hole	Transmitter Loop	Frequency	Survey Interval (m)	Probe
sdn106b	North Loop	2.5Hz	100-1100	dB/dt
sdn112b	North Loop	2.5Hz	100-1150	dB/dt
sn29006	North Loop	2.5Hz	20-300	dB/dt
sn29009	North Loop	2.5Hz	20-300	dB/dt
sd140	South Loop	2.5Hz	100-1680	dB/dt
sd140	South Loop	2.5Hz	1175-1640	B Field

Results of the BHEM surveys indicated a high quality off-hole anomaly in sd140 as discussed further in Section 9.3. BHEM. While results at Selebi North indicate additional down-plunge continuation to the conductive mineralization, the surveys do not define the down-plunge limit.

For historical exploration work (pre-2015) completed at the Project refer to Section 6 of this Technical Report.

9.3 Exploration Potential

The 2019 due diligence work completed by the Project Team highlighted an off-hole BHEM anomaly in 2010 drill hole sd140, located down-plunge of the Selebi deposit. The collection of new gyro data in sd140 confirmed that the off-hole anomaly lies at the downdip edge of the Selebi mineralization. Figure 9-1 presents a long section of grade x intersected thickness and the location of the modeled EM anomaly. The modeled plate has been intersected by drill hole sd119, which reported an estimated true thickness interval of 38.5 m averaging 1.58% Ni and 2.44% Cu, including 21.4 m of 2.34% Ni and 3.39% Cu. True thickness was calculated assuming a dip/dip direction of 43°/206°, which is consistent with the existing modelling. This drill hole intersection is located approximately 300 m down plunge of the existing mine workings and approximately 1,200 m below surface. The product of grade x thickness is also elevated at the down-dip edge of the Selebi mineralization resource, making this EM target highly prospective for the discovery of Mineral Resources at depth.

Selebi North mineralization is also open at depth, and additional potential to establish Mineral Resources occurs here. Given the basin structure, it is possible that the Selebi North mineralization extends at depth and flattens to the south, while also potentially extending southward. This potentially mineralized corridor is presented in Figure 9-2.

Figure 9-1: Inclined Longitudinal Section Through the Selebi Deposit

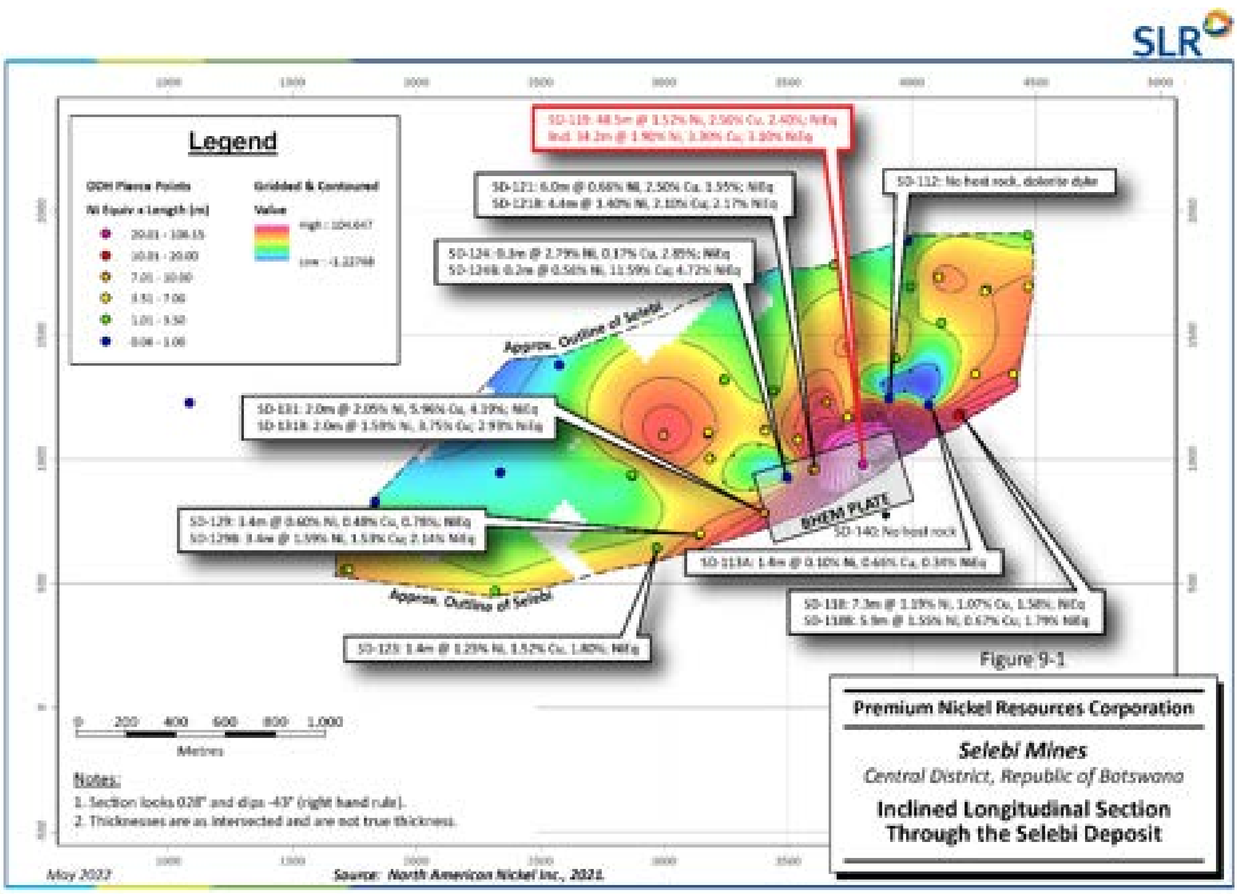
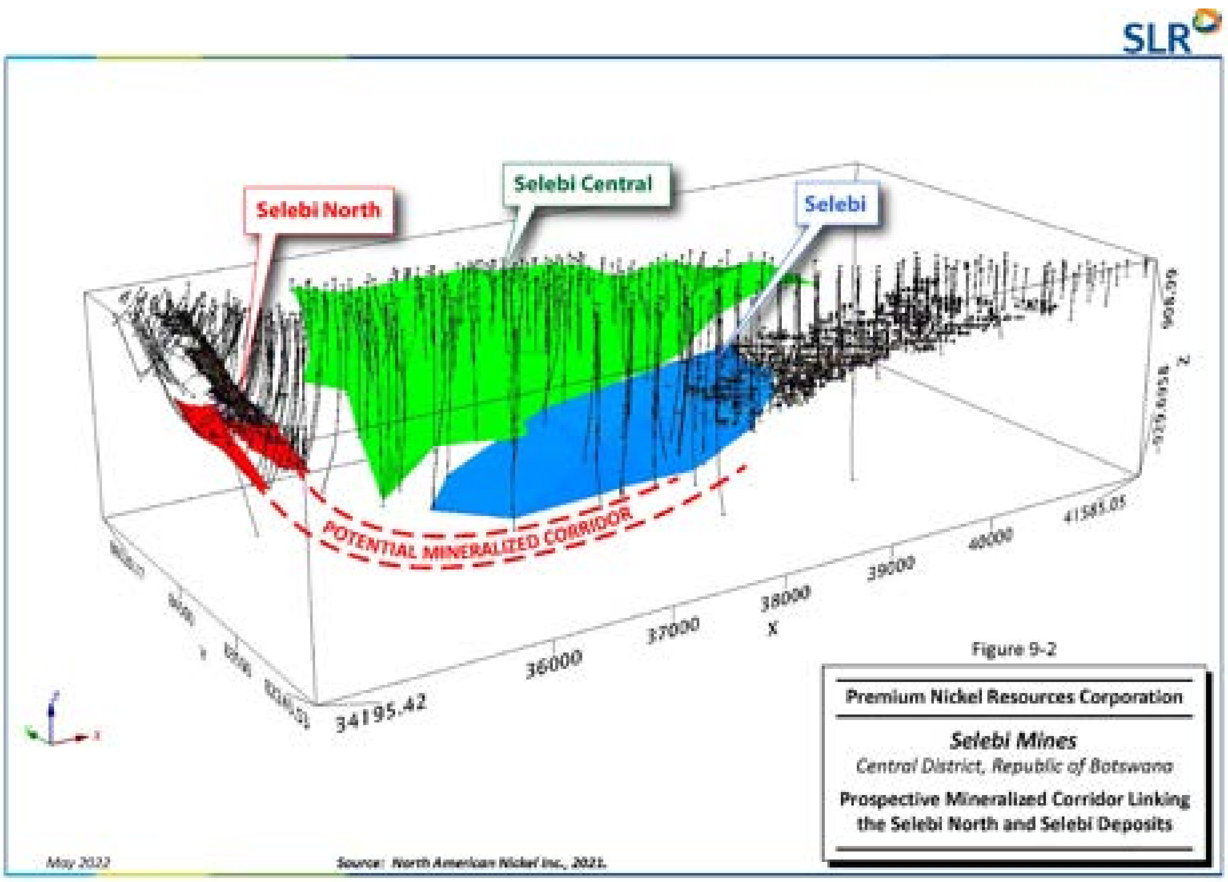


Figure 9-2: Prospective Mineralized Corridor Linking the Selebi North and Selebi Deposits



10.0 DRILLING

PNRB has not completed any drilling on the Project as of the effective date of this Technical Report. All currently available drilling information available for the Project was completed by previous operators.

10.1 Early Drilling (1964 to 1994)

The earliest diamond drilling on the Project area is reported to have been completed in 1964 (Lungu, 2016). Gordon (1973) reports that by the end of 1971, drilling on the Selebi targets totalled 73 holes for 19,294 m. Drilling is reported to have continued between 1980 and 1994 to confirm the down-dip and northerly continuation of the mineralization at Selebi (Lungu, 2016).

Documentation related to this early diamond drilling was not available for review. SLR is not aware of the sample preparation, analyses, and security procedures followed for the drilling completed prior to 2007.

10.2 Recent Drilling (2007 to 2010)

Diamond drilling was undertaken within the Project area from 2007 to 2010. A two-tier approach was adopted targeting on-mine/brownfield and greenfield targets. On-mine drilling was undertaken with the objective of defining down dip and strike extensions of existing deposits while greenfield work targeted areas away from the mining infrastructure.

Greenfield drilling was conducted on areas a considerable distance from the mining operations but within the Project area. The sole purpose of this drilling was to delineate new standalone ore bodies. Drilling was undertaken at nine sites as follow-up to combinations of geophysical, geochemical, and geological anomalies.

On-mine or brownfield drilling was focused at Selebi Central. A total of 48,291.85 m was drilled and continuity of mineralization with depth on these three targets confirmed.

Table 10-1 summarizes the available drill hole information for Selebi. SLR notes that this is incomplete, and is at minimum, missing details of regional target exploration drilling known to have been completed based on available maps. Figure 10-1 illustrates the locations of the surface and underground holes in the Selebi areas.

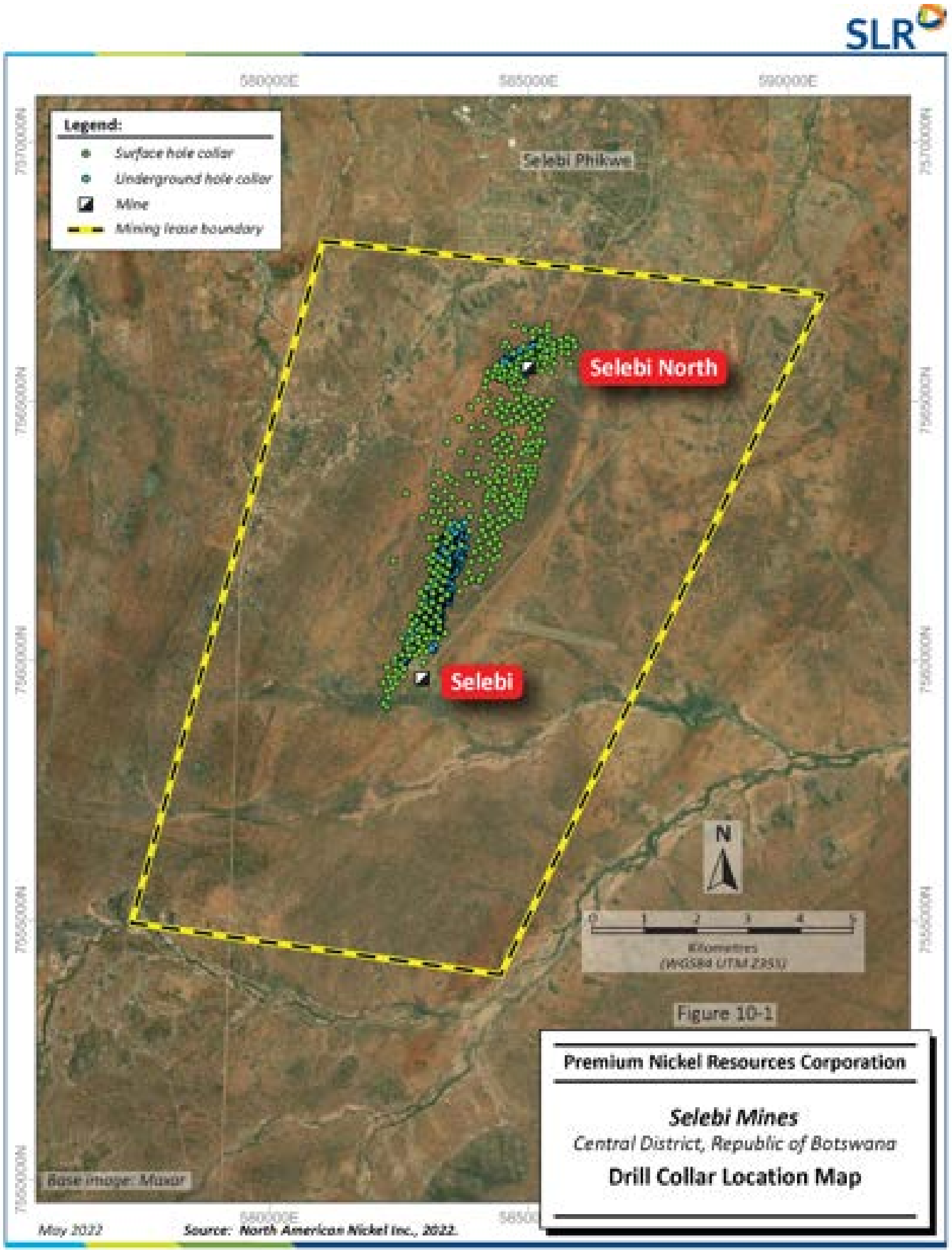
Table 10-1: Summary of Historical Surface and Underground Drilling
Premium Nickel Resources Corporation – Selebi Mines

Area[1]	Type	No. Holes	Total Length (m)	Mean Length (m)	Length Range (m)
Selebi North	Surface	138	74,321	539	46 - 1,358
	Underground	1,613	54,193	34	<1 - 362
Selebi Central	Surface	152	64,980	428	80 - 1,386
Selebi Main	Surface	131	99,359	758	93 - 1,760
	Underground	2,551	84,079	33	1 - 180
Total		4,585	376,933	82	1 - 1,760

Notes:

1. This table is not considered to be complete, and, at minimum, is missing regional exploration target drilling.

Figure 10-1: Drill Hole Collar Location Map



A summary of significant intercepts beneath the existing Selebi and Selebi North mine workings are included in Table 10-2.

Table 10-2: Summary of Significant Intercepts at the Project
Premium Nickel Resources Corporation – Selebi Mines

Hole ID	From (m)	To (m)	Intercept Length (m)	Estimated True Thickness (m)	Grade (% Cu)	Grade (% Ni)
			Selebi[1]			
sd102a	1,176.5	1,178.9	2.4	2.2	1.45	2.65
sd114	1,066.6	1,071.1	4.5	4.1	0.84	1.76
sd117	1,099.9	1,102.4	2.5	2.3	1.20	1.87
sd119	1,231.1	1,257.2	26.1	20.3	3.39	2.38
sd121	1,270.4	1,272.2	1.8	1.8	2.05	1.54
sd121b	1,262.0	1,265.2	3.2	2.8	1.88	1.59
sd123	1,443.4	1,444.9	1.4	1.4	1.48	1.32
sd128	1,159.8	1,161.9	2.1	1.9	0.90	1.31
sd129b	1,410.6	1,414.0	3.4	3.1	1.53	1.59
sd131	1,371.0	1,373.0	2.0	2.0	5.96	2.05
sd131b	1,370.3	1,372.3	2.0	1.9	3.75	1.59
			Selebi North[2]			
sn29006	263.60	274.10	10.50	8.4	1.46	2.05
sn29053	324.90	329.00	4.10	3.3	0.85	2.22
sn29005	236.90	257.10	20.20	16.2	1.33	1.91
sn29050	193.20	199.40	6.20	5.0	1.26	2.34
sn29050	206.30	211.70	5.40	4.3	1.45	1.66
sn29050	211.70	224.90	13.20	10.6	2.04	1.61
sn29001	185.40	193.20	7.80	6.2	2.18	2.17
sn29001	200.40	211.80	11.40	9.1	2.24	1.92
sdn102b	919.30	937.20	17.90	14.3	0.59	1.04
sdn103b	840.50	860.00	19.50	15.6	1.62	2.18
sdn106	1108.40	1114.30	5.90	4.7	0.50	1.44
sdn106b	1098.20	1111.40	13.20	10.6	1.33	2.34
sdn108	1025.90	1029.80	3.00	2.4	0.33	1.36
sdn109	1242.70	1244.20	1.30	1.0	0.50	1.51
sdn109	1252.40	1255.80	3.40	2.7	3.20	2.05

Hole ID	From (m)	To (m)	Intercept Length (m)	Estimated True Thickness (m)	Grade	
					(% Cu)	(% Ni)
sdn112	1111.50	1120.20	8.70	7.0	1.31	1.84
sdn112	1144.80	1152.40	7.60	6.1	0.52	1.64
sdn125	877.90	880.50	2.60	2.1	1.89	1.88
sdn132	1001.00	1002.80	1.80	1.4	1.83	3.00
sdn132a	1001.70	1002.77	1.06	0.8	0.81	2.34
sdn136a	1029.30	1032.50	3.20	2.6	0.58	1.14

Notes:

1. Estimated true thickness is based on a thickness evaluation in Leapfrog Geo.
2. Estimated true thickness is based on 80% of intersected thickness based on visual review against modelled mineralization and mine workings.

The QP is not aware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of these results. The following description of the drilling completed on some of the target areas is taken from Lungu (2016).

10.2.1 Selebi Central

Drilling at Selebi Central commenced as follow-up to a VTEM anomaly. A total of 163 holes totalling approximately 68,000 m were drilled over an area of approximately 4,500 ha. Selebi Central mineralization ranges from massive to disseminations hosted by amphibolite with an average thickness of one metre. Selebi Central forms the missing link between Selebi and Selebi North with the Selebi Central deposit joining the Selebi deposit at depth and Selebi North on strike to the north.

10.3 Surface Drilling and Core Handling Protocols

The following is taken from Lungu (2016).

Underground and surface diamond drilling core samples are the primary source of information for interpretation and modeling of the historical Mineral Resources. Routine procedures were completed to acceptable industry standards in order for the data to be acceptable for use in the interpretation of the geology and modelling of the ore bodies.

All data acquisition protocols, outlined below, were completed, or supervised by non-registered but adequately qualified BCL geologists and surveyors.

10.3.1 Collar and Down Hole Surveying

Collar positions were surveyed using a Trimble Differential GPS, models XT and XP, with ± 10 cm and ± 50 cm precision, respectively by qualified BCL geologists. Some collar positions were surveyed using Leica Total Station by qualified BCL surveyors.

Except for a few holes, down hole surveys were carried out immediately upon completion of a drill hole, by an external contractor using either the Reflex EZ-Shot or Gyro survey tool. Historical holes were surveyed using a Sperry Sun down hole camera.

In some cases, a time lag between drill hole completion and down hole survey opportunities rendered the survey impossible as holes collapsed in the interim period. These holes were flagged in the database and excluded from historical Mineral Resource estimation work.

Where core orientation was measured, it was completed using a spear core marking tool.

10.3.2 Core Logging

All core logging was completed by degree qualified BCL geologists. Core was logged on paper log sheets and later uploaded in Century System's Fusion database (now owned by Datamine). Core logging included identification of lithology, structure, alteration, mineralization, core recoveries, and other notable characteristics. Geotechnical logging was completed on selected holes.

Core was initially cleaned and meterage marked before delineating lithological contacts and marking sample intervals. Sample intervals were drawn based on different petrological and physical characteristics of each sample length.

All core was photographed with the start, end, and intermediate intervals clearly marked on each box. Core was photographed after sampling and marked clearly before storage.

The QP considers the lithological logging procedures for surface exploration holes to be consistent with standard industry practice.

10.3.3 Core Recovery

Qualified unregistered BCL exploration geologists regularly monitored core recoveries by daily visits to the drill rigs. Core recovered was reconciled at the drill rig and then entered into formatted Microsoft (MS) Excel spreadsheets.

The drilling contract stipulated 100% core recovery with ±5% deviation. Where anomalies were observed, immediate corrections were sought from the drillers. The recoveries for mineralized zones were good, ranging from 90% to 100%. Most of the lithologies in the Project area were competent gneisses which yielded good recoveries. There were only a few scenarios where core was lost due to collapsing formations or bad ground. In the weathered zone, generally to the first 50 m below surface, core recoveries were generally poor and holes were commonly steel cased to avoid collapse.

Core recovery is generally high (above 95%) in the host lithology and core losses are therefore considered to have minimal effect on the quality of the Project drill hole database.

10.3.4 Core Sampling

The BCL standard operating procedures required sampling of the entire amphibolite host plus a minimum length of one metre in the hanging wall and footwall lithologies. The minimum sample length for exploration samples was set at 0.3 m, although approximately 7% of samples in the database are shorter than this threshold, 95% of all samples at Selebi are sampled at or below 1.5 m length. Chosen sample length was at the discretion of the logging geologist and selected based on the style of mineralization and whether the sample was within or adjacent to visible mineralization.

Samples were marked directly on the core, which was cut and split longitudinally using a diamond saw. Sample bags and ticket books were prepared prior to sample cutting. Core was cut from bottom to top (down hole to up hole) with the orientation line facing vertically upwards. One core half was submitted for analysis in most cases, however, where a re-submission was requested, the remaining half core was quartered and a quarter was sent for duplicate or re-analysis.

10.3.5 Core Photography

Two photographs of core were taken, one wet and one dry prior to core cutting. After cutting the procedure was repeated.

10.3.6 Density Determination

Determination of Specific Gravity (SG), or density, was completed using the water immersion method (Archimedes method) by a trained BGL geological technician. The method entails the weighing of a dry sample in air and in water. SG determinations of all samples were carried out in a closed environment at the core shed to avoid external disturbances that may affect the scale reading. Dry samples were weighed using an electronic scale sensitive to 0.1 g and capable of measuring weights up to 3,100 g.

SG of a particular sample lithology was reviewed for correspondence with the sample description of the lithology on the log sheet and if there were any marked discrepancies, the process was repeated and the SG recalculated.

The recorded SGs were validated by a geologist to confirm if they correspond to the lithology as logged. If all was correct, the geologist signed-off the batch for dispatch to the laboratory and entered the SGs on a log sheet, otherwise the whole process was repeated.

The QP considers the SG determination procedure to be adequate and consistent with standard practices. Moving forward, SLR recommends recording density of all mineralized samples to be able to examine relationships between iron content (as a proxy for sulphide content), and to support the interpolation of density during resource estimation.

10.3.7 Sample Shipping

Following review and acceptance of the representativeness of the samples' SG by the geologist, a BCL technician completed the following processes prior to sample shipment to the laboratory:

- Secured the individual sample bags with cable tie to avoid sample loss.
- Packaged smaller secured bags into 430 mm x 760 mm x 250 µm plastic bags.
- Secured large bags with cable ties for added security.
- Prepared sample dispatch documents (analytical services request sheet) in duplicate listing sample numbers, elements to be analysed plus any other instructions.
- Handed samples over to BCL driver for transportation to the onsite laboratory.

10.3.8 Core and Sample Storage

It was a statutory requirement that all core obtained from exploration drilling be kept in storage for future reference. All BCL core was thus stored at the BCL core shed at the Phikwe Mine site.

All production pulp and coarse rejects from the BCL laboratory were kept in storage at the laboratory for three weeks before they were discarded. Coarse rejects from surface exploration campaigns were returned to the Geology department and kept in secured storage at the core shed for one year after the campaign before being discarded.

10.4 Underground Drilling and Core Handling Protocols

The following is taken from Lungu (2016).

Underground drilling was used for either ore body profiling, grade control, hazard identification, and/or service holes. Drilling information was collected by BCL diamond drill crews consisting of a Foreman, Miner-in-Charge, Operator, and Workman.

Underground borehole spacing along strike was generally 25 m apart along the primary developments although this was not strictly followed due to mining constraints resulting in the unavailability of drilling sites and erratic drill spacing. Drilling was also carried out from secondary developments such as stope-raises and drill-drives where the deposit was not fully exposed from footwall contact to hanging wall contact.

BCL underground exploration used an AXT bit size (48 mm diameter) for core sampling. Diamond drilling was carried out with slow rotation and gentle pressure with water used to lubricate and cool the bit.

The drilled core was extracted and placed in core boxes, which could hold up to six metres of core. The core boxes were then transported from the drilling sites to the Geology core yard on surface where core logging was undertaken.

Drillers were trained to take extra care when drilling through structurally weak ground caused by faulting and shearing.

Core was logged in appropriate detail including identification of lithology, structure, alteration, mineralization, and other notable characteristics. A geologist logged the drill hole and identified and marked the section of the core to be sampled. The entire host rock amphibolite was sampled together with part of the country rocks (footwall and hanging wall gneisses). A drill hole was sampled one metre into the hanging wall gneiss in contact with the host, and similarly on the footwall gneiss.

Channel sampling was performed underground predominately from stope raises mined on dip, along the hanging wall contact or extraction drives mined along string, within the ore body. These were predominately used for grade estimation for the mining stope.

The U2 and U3 Pneumatic Kempe Diamond Drilling machines were used at the BCL underground mines to drill AXT size holes. The smaller sized U2 machine was predominantly used in stope raises for pre-stoping evaluation drilling (footwall delineation) while the larger U3 machine was used for all other exploration drilling including haulage exploration drilling, cover drilling for water and other service holes.

For ore body profiling in haulages, multiple array holes were drilled with inclinations varying from -20° to +90°. The disadvantage of the wide spectrum drilling is that most of the holes intersected the ore body at oblique angles thereby giving an apparent thickness of the ore body. Holes drilled perpendicular to strike gave the true thickness of the ore body. Wide spectrum drilling was suitable for the Selebi deposit where the ore body was known to pinch and swell over short distances. Haulage drilling sites were normally spaced at 25 m to 50 m intervals.

Underground exploration drilling at Selebi North employed a U8 Diamec drill rig for drilling BQ holes (56 mm diameter) up to 300 m long. Drilling was performed from the 810 m level hanging wall exploration drive to confirm the down dip extension of the South Limb and N2 beyond the 850 m level resource model limit to the 1,100 m level.

At the drill site, drilled core was placed in secure core boxes capable of storing up to six metres of drilled core. The core boxes were then transported by the BCL drilling crew from the underground drilling site to the Geology surface core yard where core logging was undertaken by qualified BCL geologists.

Geologists planned and designed diamond drilling layouts, providing the drill site information, site name, location, measurements with reference to the nearest pegs, planned metres, borehole inclinations, and identities. It was the responsibility of the driller to track the progress of the drill hole and report the progress to the shift boss. The section geologist also checked this progress daily to verify the expected target. A copy of the drill layout was provided to the surveyor for collar survey to be completed. The daily drilling progress was captured on the drill ledger and any problems highlighted for prompt resolution.

10.4.1 Collar and Down Hole Surveying

Underground drill holes were only surveyed for the collar position and orientation using a Total Station Theodolite instrument, with a ± 20 mm accuracy. The survey was carried out by trained BCL surveyors.

Longer underground exploration holes drilled using the U8 Diamec drill at Selebi North, however, were also down hole surveyed by an external contractor, using the AUSLOG Model A698 nonmagnetic gyroscope with survey readings every 20 mm. The output survey log was then composited to provide readings over specified intervals e.g., every 10 m, depending on any observed deviations.

Shorter holes drilled for ore body delineation were not routinely down hole surveyed. These holes were generally less than 50 m long and it was assumed that no deviation occurred that warranted down hole surveying.

10.4.2 Core Logging

Qualified BCL geologists recorded lithology, structure, alteration, mineralization, and other notable characteristics on BCL Geology log sheets for each drill hole. Core photographs were taken on some drill holes. Below are the logging stages completed by the geologist:

- Core laid out on logging table.
- Meterage marking for core recovery.
- Detailed logging for lithology and mineralization.
- Core marking for sampling.

After the manual logging was completed as detailed above, the BCL geologist digitally captured the logging details in the Fusion Database using the DHLogger interface. Apart from being used for resource modelling, ore delineation drilling was used to inform the ore production department on ore body position and size to allow them to plan for eventual extraction. The logging detail thus captured was limited to defining the ore body and was sufficient for resource modelling and estimation but was of insufficient detail to permit detailed lithological or mineralogical studies.

10.4.3 Core Recovery

Core recovery reconciliation was completed during the logging process to check the discrepancy between the drilled metres and the recovered metres. Intersections used in BCL resource estimation should have a core recovery of at least 95%. Geotechnically, the Selebi Mines rock quality designation was generally high given the competent lithologies drilled through e.g., gneissic footwall and hanging wall and amphibolite host. The core recovery within the mineralized zone was generally above 90%. Drill holes with low core recovery, mostly encountered when drilling through weak fracture zones were not captured for resource estimation.

Drillers were always advised to drill slowly when experiencing blockages encountered when drilling through fractured or weak zones. In rare occurrences, where excessive core recovery was experienced, attempts were made to determine the reason instantly during onsite core inspection by the geologist.

Core losses were generally very low and therefore not likely to affect the outcome of the mineral resource estimate.

10.4.4 Core Sampling

Underground ore delineation drill core was subjected to whole core sampling over a variety of lengths as dictated by lithological contacts within the host rock. The main purpose of core sampling was to collect a sufficient amount of representative samples to support resource evaluation and estimation.

Sections of the core to be sampled were marked in red/white during logging. The entire host rock (amphibolite) was sampled together with at least one metre into the hanging wall gneiss in contact with the host, and similarly on the footwall gneiss. The minimum and maximum lengths of samples are 0.15 m and one metre, respectively. Where one lithological unit was greater than the maximum length (one metre), more samples were taken with the longest sample being one metre. For instance, a 2.5 m length of semi-massive sulphides unit would produce three samples, two 1.0 m in length and one 0.5 m in length.

Except for Selebi North underground exploration drilling, all drill core arising from underground ore delineation drilling at all other shafts was split prior to sampling for density determination and grade analysis.

Underground exploration core, drilled using the U8 Diamec drill rig at Selebi North, was first marked for sampling and then cut in half using a diamond saw. One half was sampled for density determination and grade analysis. The other half was kept in storage for future reference and re-submission, if required.

10.4.5 Core Photography

Drill core was not routinely photographed unless the responsible geologist required a photo of the core for discussion or reference. The QP is of the opinion that all future exploration drilling programs undertaken by PNRB should include core photography as part of the core handling procedures.

10.4.6 Density Determination

Density measurements on underground samples were made using the water immersion method. For a description of this method refer to Section 10.3.6 of this Technical Report.

10.4.7 Sample Shipping

Underground samples were transported to the laboratory using the identical procedures as the surface samples, described in Section 10.3.7 and handled as described in Section 10.3.8.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

As of the effective date of this Technical Report, no sampling has been completed on the Project by the Project Team other than the metallurgical study samples described in Section 13.1 and those collected during the visit by Ms. Sharon Meyer as described in Section 12.1.

As of the date of this Technical Report SLR had not been able to source documentation describing the sample preparation, analyses and security procedures followed prior to 2007. The following sections describe work undertaken by former operator BCL from 2007 to 2016.

11.1 Sample Preparation, Sample Security and Analysis

Core samples from both surface and underground drilling were delivered by BCL personnel to the onsite BCL laboratory, which served as the primary laboratory, for analysis. The BCL laboratory received accreditation from the Southern African Development Community Accreditation Service in accordance with the ISO/IEC 17025:2005 international standard for technical competence of nickel and copper analysis in March 2016. While most samples in the historical database were analysed prior to this accreditation, in the years prior to accreditation the laboratory had been actively working with the Botswana Bureau of Standards to achieve this goal and as part of this work, a selection of samples were sent to ALS Chemex (ALS) Tati-Phoenix and Nkomati laboratories for QA/QC purposes. The ALS laboratories are independent and were accredited according to the South African National Accreditation System.

At the BCL laboratory, samples were crushed in a two step process to ± 5 mm, then a ± 300 g sample was riffle split and pulverized to <325 mesh.

Both the BCL laboratory and the ALS laboratories used a four acid (HNO_3-$HClO_4$-HF-HCl) digestion to treat the samples.

At the BCL laboratory, surface samples were assayed for copper, nickel, iron, sulphur, and cobalt using flame atomic absorption spectroscopy (FAAS). ALS analysed the samples by inductively coupled plasma – atomic emission spectroscopy for a suite of 33 elements (including platinum group elements) according to its analytical code ME-ICP61. ALS analysed samples with copper and nickel values greater than 1% (>10,000 ppm) by inductively coupled plasma-atomic absorption spectroscopy according to its analytical codes Cu-OG62 and Ni-OG62, respectively.

Underground samples were routinely analysed by FAAS for nickel and copper, however, provisions were available for analysis of other elements including cobalt, iron, and sulphur, as required.

11.2 Quality Assurance and Quality Control

Quality assurance consists of evidence that the assay data has been prepared to a degree of precision and accuracy within generally accepted limits for the sampling and analytical method(s) to support its use in a mineral resource estimate. Quality control consists of procedures used to ensure that an adequate level of quality is maintained in the process of collecting, preparing, and assaying the exploration drilling samples. In general, QA/QC programs are designed to prevent or detect contamination and allow assaying (analytical), precision (repeatability), and accuracy to be quantified. In addition, a QA/QC program can disclose the overall sampling-assaying variability of the sampling method itself.

There is no evidence that QA/QC samples were submitted as part of analytical programs prior to 2007. QA/QC protocols including insertion rates as presented in Table 11-1 were implemented by BCL in 2007 and are summarized from Lungu (2016).

Table 11-1: Historical QA/QC Sample Insertion Rates
Premium Nickel Resources Corporation – Selebi Mines

QA/QC Sample Type	Frequency	Placement
Field Duplicate	1 in 20[1]	Random, Preference for Within Mineralized Zone
Check Assay (Pulp Return)	0 to 5 in 20	Random
Coarse Rejects (Coarse Return)	0 to 5 in 20	Random
Blank	1 in 20	Random, Preference for Within Mineralized Zone
Certified Reference Material (CRM)	1 in 20	Random

Source: modified from Lungu, 2016

Notes:

1. Field duplicate submission was limited to surface and Selebi North underground exploration holes only. Small diameter underground drill holes were submitted whole to the laboratory for analytical testing.

In addition to blind sample submissions to the laboratory by the BCL geological department, the BCL laboratory included CRM samples for internal monitoring at a rate of 1 in 10, as well as duplicate samples (rate unknown).

SLR received and reviewed a partial database of QA/QC results representing analytical results from 2010 to 2014 (Table 11-2). As of the time of writing this Technical Report it was unknown whether a complete database of QA/QC samples and results exists. In addition to this data, SLR received several partial datasets and analytical result compilations and summaries including:

- A comparison of 64 primary nickel and copper analytical results from the BCL laboratory analysed in 2010 with ALS Tati and Nkomati laboratories check assay results.
- A graphical comparison of 184 paired primary (BCL laboratory) copper and nickel analytical results against ALS analytical results (no date).
- A tabular and graphical comparison of 18 paired primary (BCL laboratory) copper and nickel analytical results against ALS check assays and internal pulp duplicates (no date).
- A dataset comparing 158 internal re-assays of nickel and copper pulp duplicate samples from six batches, alongside 17 CRMs (no date).
- A data and control plot of 58 blank reference material samples (no date).

Table 11-2: Summary of Historical QA/QC Database Entries (Incomplete)
Premium Nickel Resources Corporation – Selebi Mines

Year	Assay Count	Reference Sample Count		
		AMIS0060	AMIS0061	Blank
2010	20	2	2	-
2011	30	-	-	4
2012	252	6	6	6
2013	102,458	298	318	176
2014	18,325	33	65	160
Total	121,165	339	391	346

Notes:

1. Counts represent single variable results. A single CRM assayed for both nickel and copper may be represented twice.

Lungu (2016) concluded that BCL's QA/QC protocols were inconsistently followed both temporally and in different parts of Selebi-Phikwe but reviewed available results and observed them to be sufficient to support the estimation of Mineral Resources. Lungu (2016) recommended that QA/QC protocols be standardized across the site and for all sample types and that sample support from drill holes be delineated spatially and used to support classification criteria.

SLR reviewed the available information and noted some deficiencies in the QA/QC sample results, including evident sample mix-ups in CRM material results, as well as observed biases in some CRM and check assay results. The QP is of the opinion that the results are inconclusive and lack temporal and spatial context, the sample type and location information of the data the QA/QC samples were supporting, as well as the purpose, original conclusions drawn, and actions taken based on the results of the analysis. SLR was not able to source comprehensive QA/QC data or reports representing or summarizing QA/QC sample collection at the Project from 2007 to 2016. As a result, the QP is of the opinion that further compilation and verification is required to confirm that the QA/QC program results are adequate to support the inclusion of the historical drill hole information in a Mineral Resource estimate.

12.0 DATA VERIFICATION

12.1 SLR Site Verification Procedures

A site visit to the Project was conducted by Ms. Sharon Meyer, M.Sc., Pr.Sci.Nat., EAPASA, SLR Associate Environmental Consultant, from May 2 to 6, 2021. While onsite, Ms. Meyer held discussions with site personnel, visited the Selebi and Selebi North underground workings, as well as the adjacent Phikwe property infrastructure, waste disposal facilities, and open pit exposure. Ms. Meyer visited the core library and reviewed selected core intercepts against recorded lithology logging and assay results. Ms. Meyer also visited several collar casings.

12.1.1 Confirmation of Mineralized Intercepts

Mineralized intercepts representing the Selebi North and Selebi Main deposits stored in the onsite core storage facility for drill holes sd119, sd108, sd115A, sd121, sd140, sd121b, sd131b were examined and compared against both a 1992 logbook (where appropriate), as well as the Century Systems digital drill hole database. Visual estimates of oxidized sulphides were observed by both PNRB and SLR to correlate very well with logged intercepts and analytical values. Sample From-To values were observed to be consistent.

Underground development headings and faces were visited by the Project Team and SLR personnel at Selebi (Shaft #2), and Selebi North (Shaft #4) to view and sample mineralization. In addition to confirming visible mineralization, a total of nine samples from underground workings were collected and sent to ALS in Canada for assaying. The samples included the following:

- Six samples were collected from Selebi North South Limb
- One sample was collected from Selebi North N2 Limb
- One sample was collected from the Selebi North Limb
- One sample was collected from Selebi

Analytical results for the nine samples returned values ranging from 0.72% Cu to 4.11% Cu and 0.54% Ni to 2.86% Ni.

12.1.2 Confirmation of Drill Hole Location and Survey information

A total of 39 drill hole collars were located at the site, 33 of which were clearly labelled. Collar casings were observed in a variety of conditions, ranging from capped casings extending approximately one metre above the ground, to uncapped flush casings, to holes in the ground with no casings.

Locations were measured using a handheld GPS and approximate measurements of the hole dips and azimuths were taken using a Brunton Compass. All labelled holes were observed to closely approximate the digital database.

12.2 SLR Audit of the Drill Hole Database

Drill hole paper logs from sd108, sd117, and sd55 were reviewed against digital positioning, logging, and analytical results. The paper logs included lithology coding, detailed descriptions of the lithology, drill hole attribute data including collar location and core diameter, mineralogical information including sulphide mineral percentages and mineralogical descriptions, and analytical results for nickel, copper, cobalt, iron, sulphur, and SG.

Analytical values were compared between the logs and the digital database by PNRB and were observed to compare well. Of the samples reviewed, only two typographic errors in the elemental analysis results were noted. SLR notes, however, that the digital database has only upheld lithology designation and results for nickel and copper, and sporadically SG. The significant figures of the lithology interval lengths were rounded from to the nearest decimetre, and detailed descriptions of the lithologies, mineralogy, and alteration were absent from the digital database. SLR recommends undertaking a larger digitization and validation exercise to confirm a larger selection of historical logging and to incorporate missing qualitative and analytical values into the master database.

The QP reviewed the drill hole databases representing surface and underground drilling at Selebi Main, Selebi Central, and Selebi North in Leapfrog software and conducted a standard review of import errors and visual checks. In addition to the missing analytical data previously mentioned, there are a small number of overlapping, zero length, very long (> 10 m), and anomalous intervals. Varying significant figures in the From and To columns in some areas have created the appearance of a high number of small overlapping segments. These errors are unlikely to be real but may create issues in a compositing exercise and SLR recommends resolving them. Visually, survey deviations appear as expected, and elevation discrepancies between collar locations and topography appear to be small. SLR compared collar locations against georeferenced collar location maps. The QP observed very good agreement between surface collar locations in the digital database and the location maps for near mine drill holes but noted several regional drill holes indicated on the location map to be missing from the digital database. SLR queried the analytical (Ni, Cu, and SG) data to search for anomalous and impossible values. Values for nickel and copper ranged from 0% to 20% and from 0% to 32%, respectively. Some null values were observed in the SG field, as well as a high number of samples assigned a density of 2.8 t/m^3. Further work is required to determine whether there is a mixture of assigned and measured density values retained in a single column in the digital database.

For drill holes sd108 and sd117 laboratory sample numbers as recorded on the paper logs were not digitized and could not be found in the drill hole files. While currently not considered a material issue, the QP recommends digitizing the sample numbers to complete the digitized database and facilitate easier database verification.

In un-assayed and unmineralized sections drill hole sd117 generally has a SG of 2.8 t/m^3 assigned. SLR notes, however, that the 1.5 m intersections directly above and below the mineralization between 1,096.74 m and 1,102.39 m downhole depth have SG values of 2.78 t/m^3 and 2.70 t/m^3 for the assayed hanging wall and footwall, respectively. While the analysis of SG for all mineralized samples complies with modern industry best practice, it is recommended that PNRB assess the SG for unmineralized material in the future to better understand waste tonnage movements. The general application of a higher waste density appears conservative.

12.3 SLR Data Verification Conclusions and Recommendations

The Project Team continues to collect, compile, review, and validate technical data relevant for the Project. The field and computer based validation exercises conducted by SLR and the Project Team indicate the potential for a robust historical drill hole database to support Mineral Resource estimation work. The QP recommends PNRB continue its validation program and consider validation and digitization of missing information from hand written logs as part of that work.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The BCL concentrator and smelter plants located on the adjacent Phikwe property operated for over 40 years, processing ore from both Selebi and Phikwe until the operations were placed on care and maintenance in October 2016.

The concentrator operated at capacities ranging from 6,000 tpd up to a maximum of 10,000 tpd. The preferred technology adopted for the concentrator was designed to produce a low grade bulk sulphide nickel-copper concentrate. Presently, the metallurgical recoveries are based primarily on the historical operating performance achieved.

The Outokumpu flash smelting furnace was commissioned in 1973 and processed Selebi and Phikwe concentrates. The smelting equipment was upgraded over the years to facilitate the incorporation of nickel-copper concentrates received from the Nkomati Nickel Mine (a joint venture (JV) between Norilsk Nickel Africa Pty. Ltd. and African Rainbow Minerals) and the Phoenix Mine (Tati Nickel Mining Company, later a subsidiary of BCL). The smelter produced a high grade sulphide matte containing nickel, copper, and cobalt, which was shipped off-site to refineries for further processing.

PNR's metallurgical objectives moving forward are significantly different than those of the historical BCL operations. PNR considers the present smelter to be outdated, in poor condition, and not consistent with current environmental standards. PNR's current plan is to produce readily marketable copper and nickel concentrates without recommencing operation of the BCL concentrator or smelter. A preliminary metallurgical study program for separate copper and nickel concentrate production at a conceptual level was completed by SGS Canada Inc. (SGS) (SGS, 2021). The key results from the SGS testing are summarized in the sub-sections below.

The historical mineralogical data supports nickel-copper separation in flotation as pentlandite and chalcopyrite, however, these are not commonly associated, and the primary challenge is pentlandite liberation from pyrrhotite. Liberation data suggests that 70% of the pentlandite is finer than 40 µm and that non-liberated pentlandite is associated primarily with pyrrhotite. All copper occurs as chalcopyrite, which tends to liberate slightly coarser than pentlandite.

From June to September 2021, metallurgical testing was conducted by SGS on the Selebi and Phikwe deposits with the following objectives:

- Produce market concentrates for both nickel and copper so that the BCL smelter would not need to be recommissioned.
- Demonstrate that nickel-copper separation can successfully separate copper from nickel at high efficiency.
- Dramatically improve pyrrhotite rejection from the bulk nickel-copper concentrate, so that the nickel concentrate will be greater than 10% Ni (i.e., target 20% (Cu+Ni) in concentrate).

13.1 2021 SGS Test Work Program

The main objective of the 2021 SGS test work program was to evaluate a more typical flotation approach to the Selebi-Phikwe style of mineralization, with the goal of producing separate marketable nickel and copper concentrates (SGS, 2021). The metallurgical targets for this program were to maximize recoveries into concentrates having the following grades:

- Nickel concentrate grading >10% Ni, preferably close to 12% Ni.
- Copper concentrate grading approximately 30% Cu and < 1% Ni.

When the SGS test work program was initiated, PNR was still evaluating a restart scenario over the entire Selebi-Phikwe area. PNRB has since acquired mining rights over the Selebi Mines area only, as described in Section 4 of this Technical Report, and this summary is limited to relevant results from composite samples taken from Selebi Main (S-Comp) and Selebi North (SN Comp) deposits. The scope of work of the metallurgical test work program included feed characterization (assays and mineralogy), ore hardness evaluations, and flotation testing.

The information in this section is largely extracted from PNR and SGS reports.

13.1.1 Sample Selection and Preparation

PNRB's sampling program from the Project was constrained by the lack of available core and lack of blasting permits that would have been required to acquire fresh mineralization from underground (PNR, 2021).

The sampling program was limited to selecting rocks from the mine faces underground. The rocks were oxidized, so the plan was to bring the rocks to surface, "shave" the outer rind of oxidation off with the core saw, and then further trim the rocks with a grinding wheel to remove the surface "weathering rind" of oxidation. The joint fractures invariably exhibited signs of oxidation. PNR reported that flotation testing did not suggest significant oxidation, as selectivity between pentlandite and pyrrhotite appeared adequate.

Rock samples from Selebi North and Selebi were selected to represent the overall mineralogy, i.e., massive, disseminated, hanging wall, footwall, etc. and are summarized in Table 13-1. The table data contains the geology log summary for the samples and the mass and assay data from SGS.

The sample preparation plan was to crush the rocks to a nominal 50 mm size so that a portion of the samples (approximately 33%) could be removed for comminution testing, while the balance was for flotation testing. A head sample was taken from the flotation composite to determine the head grade for each sub sample. Final compositing mass for the sub samples was determined from the PNRB grade versus tonnage data from an early 2020 review of the BCL assets. For the Selebi North composite, the proportion of material from the three zones followed the distribution from the mine plans around the time of liquidation. Each of the three composites targeted the expected copper and nickel head grade targets as well as the ratio of pyrrhotite to pentlandite (Po:Pn = 10 to 12) expected for this mineralization.

Table 13-1: Sample Description and Selection for Selebi North and Selebi
Premium Nickel Resources Corporation – Selebi Mines

Sample ID / Location	%Cu	%Ni	%S	Lithology	Description	Sample Mass (kg)	Subsample Mass (kg)
				Selebi North			
				South Limb (925 mL / 750 Section) Composite			
D15551	1.08	2.30	33.30	HW MS	Massive Sulphides, coarse sub-euhedral magnetite (Mt), minimal oxidation (ox) along joint planes	12.3	9.1
D15552	0.86	2.44	35.70	HW MS	Massive Sulphides, coarse sub-euhedral Mt, minimal ox along joint planes	7.3	-
D15553	0.68	2.42	34.60	HW MS	Massive Sulphides, coarse sub-euhedral Mt, minimal ox along joint planes	8.0	5.9
D15554	0.00	0.00	0.14	HW GN	Hanging Wall Gneiss, quartz (Qtz) +feldspar (Fsp) +10-15% biotite (Bio) + 1-2% Garnet	14.9	10.7
D15555	1.11	2.24	33.10	FW MS	Massive Sulphides, coarse sub-euhedral Mt, minimal ox along joint planes, local minor green amphibole	17.0	12.6
D15556	1.21	2.46	36.10	FW MS	Massive Sulphides, coarse sub-euhedral Mt, minimal ox along joint planes, local minor green amphibole	17.7	-
D15558	0.41	0.40	5.78	FW AMPH	90% Dark green, coarse crystalline amphibole with garnet. Massive	14.2	10.5
D15559	0.07	0.10	0.96	SCHIST AMPH	Highly Friable Schistose Amphibole with strong biotite and elongated black amphibole	13.8	10.3
South Limb Subtotal	0.56	1.16	16.87			121.0	59.1

Sample ID / Location	%Cu	%Ni	%S	Lithology	Description	Sample Mass (kg)	Subsample Mass (kg)
				N2 Limb (895 mL/2,100 Section) Composite			
D15560	0.31	0.27	3.77	FW AMPH	Barren to very weakly disseminated sulphides within massive coarse grained crystalline amphibolite	9.7	7.2
D15561	0.03	0.02	0.18	HW/FW GN	Hanging Wall Gneiss-Qtz+Fsp +Bio+Amph with local blebs/stringers of sulphides	10.6	7.9
D15562	1.10	0.97	15.20	AMPH	Moderately mineralized with disseminated and stringers, coarse crystalline amphibolite with garnet	10.7	8.0
D15563	15.20	0.49	21.50	AMPH	Semi Massive Sulphide CPY rich with amph. Clasts + Mt + Po . Amphibolite host is coarse crystals	20.4	2.0
D15564	1.62	1.67	25.00	MS	Massive Sulphide, Various % Cpy, Massive Po with Trace-5% Mt	15.1	6.0
D15565	2.24	1.99	29.90	MS	Massive Sulphide, Various % Cpy, Massive Po with Trace-5% Mt	10.5	7.8
N2 Limb Subtotal	1.77	0.93	14.78			88.4	38.9
				N3 Limb (856 mL/1,600 Section and 796 mL Stope Access) Composite			
D15566	< 0.01	< 0.01	0.07	HW GN	Hanging Wall Gneiss, very siliceous, med gnd. Qtz+Fsp +Bio+Amph+garnet	16.1	-
D15567	< 0.01	< 0.01	0.10	FW GN	Footwall/Hanging Wall Gneiss, very siliceous, med gnd. Qtz+Fsp +Bio+Amph+garnet	14.5	10.4
D15568	1.90	2.57	34.00	MS	Massive Sulphide-Primarily Po + Cpy + Pn + Mt. Pn difficult to identify.	17.1	7.0
D15569	1.26	2.86	37.40	MS	Massive Sulphide-Primarily Po + Cpy + Pn + Mt. Pn difficult to identify.	13.8	6.0

Sample ID / Location	%Cu	%Ni	%S	Lithology	Description	Sample Mass (kg)	Subsample Mass (kg)
N3 Limb Subtotal	0.89	1.50	19.81			70.4	23.4
Selebi North Total	1.01	1.15	16.77			279.8	121.4
Selebi							
Selebi (850 mL) Composite							
D15578	20.20	0.88	32.20	MS	Massive Sulphide, Cpy Rich with Po and local Amphibole.	21.3	-
D15579	0.28	3.09	35.00	MS	Massive Sulphide, Cpy and/or Po rich with local Amphibole/Biotite.	20.1	14.3
D15580	16.00	1.24	31.50	MS	Massive Sulphide, Cpy Rich with Po and local Amphibole.	21.7	3
D15582	2.90	0.72	11.00	CT ORES	Contact ore between HW and Amphibolite, Disseminated, stringer, semi-massive sulphides with Amphibolite and local biotite and trace garnet.	21.1	14.8
D15583	3.28	0.74	11.90	CT ORES	Contact ore between HW and Amphibolite, Disseminated, stringer, semi-massive sulphides with Amphibolite and local biotite and trace garnet.	21.0	14.59
D15584	2.84	0.68	10.30	CT ORES	Contact ore between HW and Amphibolite, Disseminated, stringer, semi-massive sulphides with Amphibolite and local biotite and trace garnet.	20.8	14.76
D15585	3.98	0.22	6.43	CT ORES	Contact ore between HW and Amphibolite, Disseminated, stringer, semi-massive sulphides with Amphibolite and local biotite and trace garnet.	17.1	-

Sample ID / Location	%Cu	%Ni	%S	Lithology	Description	Sample Mass (kg)	Subsample Mass (kg)
D15586	0.00	0.00	0.04	HW/FWGN	Medium grey, medium grained, dark grey, well banded qtz/bio rich gneiss, highly siliceous. 10-25% Bio; +/- Amph w tr. Gt.	21.6	-
D15587	0.00	0.00	0.06	HW/FWGN	Medium grey, medium grained, dark grey, well banded qtz/bio rich gneiss, highly siliceous. 10-25% Bio; +/- Amph w tr. Gt.	20.1	14.05
D15588	0.17	0.07	0.60	AMPH	Barren Amphibolite host rock, Nil to v. weakly disseminated/local rare stringer mineralization. Weak fabric present.	19.8	14.11
D15589	0.10	0.06	0.28	AMPH	Barren Amphibolite host rock, Nil to v. weakly disseminated/local rare stringer mineralization. Very coarse crystalline massive fabric	20.3	-
D15590	0.10	0.68	7.44	PEG	Very Coarse Qtz/Fsp Pegmatite >80% Qtz, local strong coarse Biotite booklets. Pegmatites occur apparently random through ore body.	13.5	8.8
Selebi Total	1.91	0.88	11.77			238.4	98.4

Source: PNR, 2021

Notes:

1. Pyrrhotite (Po)
2. Pentlandite (Pn)

In SLR's opinion, PNRB's procedure of sample selection and collection of non-oxidized material is not considered best practice. However, PNRB's method of hand picking samples was referenced to historical grades during production and is statistically representative of the Selebi mineralization. The test results based on composites prepared from these handpicked samples may not be indicative of the expected metallurgical performance. Although considered adequate for a 'proof of concept' test, SLR recommends that proper sampling of drill core, that is spatially representative of the deposits, be undertaken prior to conducting any further metallurgical testing.

13.1.2 Feed Characterization

Table 13-2 provides a summary of the feed characteristics of the two Selebi test samples. Copper feed grade varied from 1.07% Cu to 1.90% Cu, while nickel feed grade varied from 0.88% Ni to 1.17% Ni. Nickel sulphide (Ni(s)) assays suggested that most of the nickel was in sulphide form.

Table 13-2: Head Assays of Test Samples
Premium Nickel Resources Corporation – Selebi Mines

Analysis	Unit	SN Comp	S Comp
Cu	%	1.07	1.90
Ni	%	1.17	0.88
Ni(s)	%	1.12	0.85
Fe	%	32.3	20.6
S	%	16.5	11.9

A subsample from each of the test samples was submitted for mineralogical analysis using Quantitative Evaluation of Materials by Scanning Electron Microscopy (QEMSCAN) at a grind size of 80% passing (P_{80}) 84 µm, 115 µm, and 122 µm, respectively. The major sulphide minerals were identified as chalcopyrite, pentlandite, and pyrrhotite, with lesser amounts of pyrite. Pyrrhotite content was very high in these samples, ranging from 22% to 37%. Approximately 80% of the nickel was contained in pentlandite and approximately 15% of the remaining nickel was mostly hosted by pyrrhotite in solid solution. Minor amounts of nickel (approximately 5%) were hosted by non-sulphide gangue minerals.

While chalcopyrite and pyrrhotite were well-liberated at the grind size submitted for mineralogy, pentlandite was poorly liberated. Results indicate that the use of regrinding will be critical to fully liberate pentlandite in order to maximize nickel recovery and grade.

13.1.3 Comminution Testing

The composite samples were submitted for a suite of comminution tests:

- SMC Test (abbreviated JK Drop Weight Test (DWT) for semi-autogenous grinding (SAG) Mill competency)
- RWI - Rod Mill Work Index
- BWI - Ball Mill Work Index
- Ai - Abrasion Index

Table 13-3 provides a summary of the hardness characteristics of the two Selebi composite samples. Hardness testing indicated the samples to be very soft at SAG mill grind sizes and progressively harder at finer grind sizes. The samples were also determined to be slightly abrasive. The RWI values indicate that the material is soft. The BWI values indicate that the material is considered medium-soft.

Table 13-3: Hardness Characteristics of Test Samples
Premium Nickel Resources Corporation – Selebi Mines

Analysis	Unit	SN Comp	S Comp
SMC	A x b	143	140
	t_a	0.99	1.04
	SCSE (kWh/t)	6.04	6.23
Ai	-	0.18	0.17
RWI	kWh/t	9.30	8.90
BWI	kWh/t	12.9	13.7

Notes:

1. A x b - The product of A and b, referred to as A x b, is universally accepted as the parameter which represents an ore's resistance to impact breakage based on JK DWT. A lower value of A x b indicates a harder ore.
2. t_a – value reported as part of the SMC procedure is an estimate describing the particle size distribution of the product. A lower value of t_a indicates a harder ore.
3. SCSE – SAG Circuit Specific Energy.

13.1.4 Flotation Testing

The flotation test program consisted of 25 batch tests and three locked cycle tests (LCTs) for the composite samples. The Selebi North composite was the main sample tested as it closely represented typical feed mineralization and was potentially the most challenging to process due to the highest sulphur head grade, however, results presented consider composite samples from Phikwe in addition to Selebi and Selebi North. Four batch flotation tests were conducted with Selebi Main and Phikwe samples.

The flotation flowsheet selected for testing is illustrated in Figure 13-1. The flowsheet involved grinding to P_{80} 70 µm to 160 µm, followed by nickel-copper bulk flotation to recover most of the copper and nickel. The nickel-copper rougher concentrate was reground to P_{80} 30 µm and cleaned once to reject pyrrhotite and non-sulphide gangue. The bulk nickel-copper cleaner concentrate was further ground to clean the mineral surface before undergoing nickel-copper separation. Nickel-copper tailings were processed via a pyrrhotite circuit to scavenge residual nickel. The pyrrhotite rougher material was reground to P_{80} 25 µm and cleaned to produce a lower grade nickel concentrate.

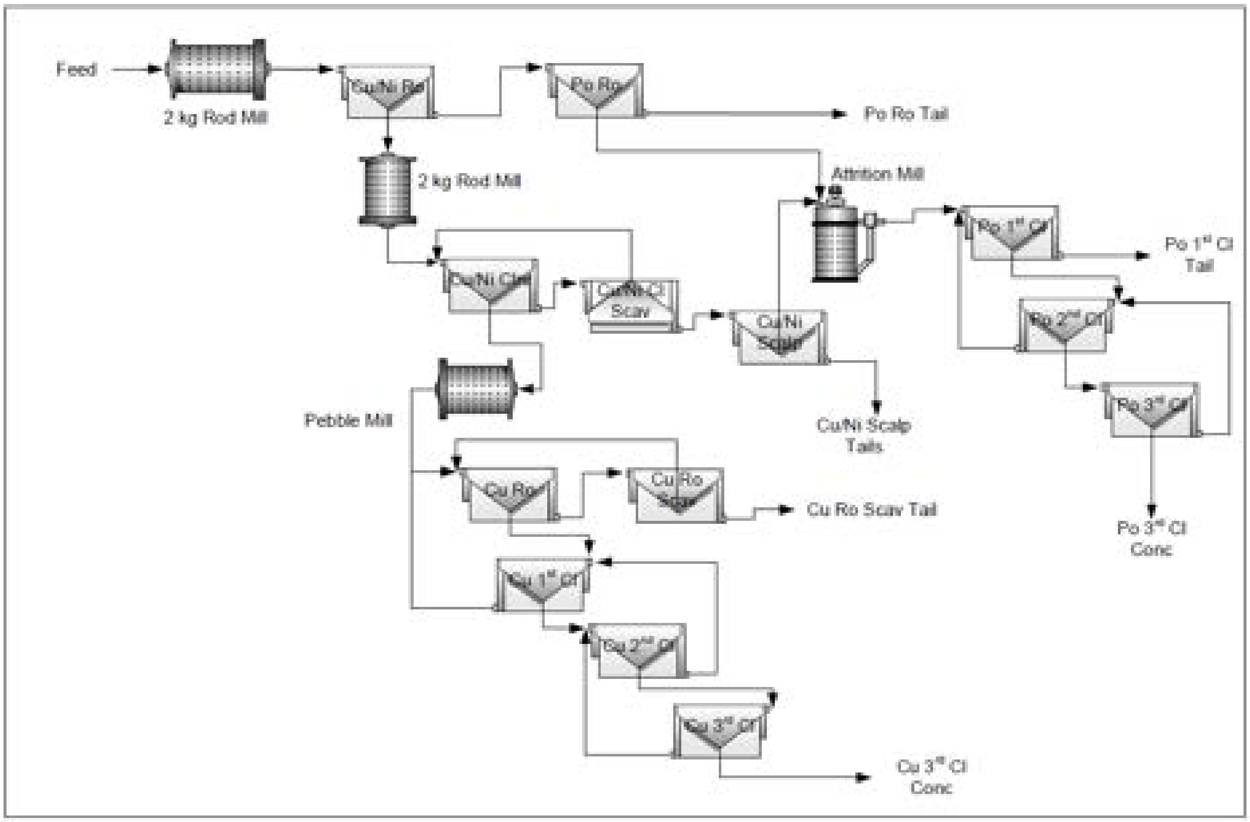


Figure 13-1: SGS Flotation Flowsheet for Final Locked Cycle Tests (LCT-2 and LCT-3)

LCT-1 and LCT-2 were completed to demonstrate the bulk nickel-copper and pyrrhotite circuits, while LCT-3 was performed to demonstrate the nickel-copper separation circuit. The combined LCT-1 and LCT-3 and LCT-2 and LCT-3 results are presented in Table 13-4 and Table 13-5, respectively.

Copper recovery ranged from 74% to 78% to the copper concentrate and 93% to 94% recovery was achieved between the two concentrates. The nickel recovery of LCT-1 was lower than expected (62%), likely due to the reagent dosages not being appropriate for the coarse primary grind (80% feed passing size, (F_{80}) 150 µm). LCT-2 used a more typical grind size (F_{80} 100 µm) and this resulted in slightly higher nickel recovery (64%).

High grade copper concentrates were achieved grading 29% Cu to 31% Cu. The low nickel content (< 1% Ni) in the copper concentrate was achieved as presented in the combined LCT-1 and LCT-3 results, when higher lime dosage in the grind and lower dosages of potassium amyl xanthate (PAX), a flotation reagent, were applied in the copper rougher and scavenger stages. Nickel concentrate grading 10.5% Ni to 12.0% Ni and 3% Cu were achieved. SGS reported the presence of low values of platinum group elements and no obvious deleterious elements in the concentrates.

The batch flotation test work also demonstrated that low sulphur tailings were achievable.

Table 13-4: LCT-1 and LCT-3 Metallurgical Projections
Premium Nickel Resources Corporation – Selebi Mines

Product	Wt %	Assays (%)			% Distribution		
		Cu	Ni	S	Cu	Ni	S
Cu 3rd Cl. Conc. 1-2 (**Cu Conc.**)	2.4	30.9	0.55	34.4	78.8	1.1	5.3
Cu Ro Scav. Tails (calc.)	4.3	3.64	14.5	34.2	15.4	54.2	9.2
Ni-Cu Scalp Tails	11.7	0.16	1.07	32.8	1.9	11.0	24.2
Po 3rd Cl. Conc.	1.7	0.78	5.54	37.1	1.3	8.1	3.9
Po 1st Cl. Tails	22.2	0.19	1.02	33.6	2.0	19.9	47.0
Po Rougher Tails	57.8	0.01	0.11	2.90	0.6	5.8	10.5
Combined Ni Conc. (Cu Ro Scav. Tails + Po 3rd Cl. Conc.)	5.9	2.84	12.00	35.0	16.7	62.3	13.0
Head (Calculated)	100.0	1.00	1.14	15.9	100	100	100
Head (Direct)	-	1.07	1.17	16.5	-	-	-

Note:

1. Pyrrhotite (Po)

Table 13-5: LCT-2 and LCT-3 Metallurgical Projections
Premium Nickel Resources Corporation – Selebi Mines

Product	Wt	Assays (%)			% Distribution		
	%	Cu	Ni	S	Cu	Ni	S
Cu 3rd Cl. Conc. 1-2 (**Cu Conc.**)	2.8	28.8	1.92	34.4	74.2	4.6	6.3
Cu Ro Scav. Tails (calc.)	6.6	3.19	11.0	35.0	19.2	59.0	14.2
Ni-Cu Scalp Tails	7.5	0.16	0.86	33.8	1.1	5.2	15.6
Po 3rd Cl. Conc.	0.8	1.66	7.02	36.3	1.3	4.8	1.9
Po 1st Cl. Tails	23.7	0.18	1.12	34.5	3.8	21.6	50.2
Po Rougher Tails	58.5	0.01	0.10	3.29	0.4	4.8	11.8
Combined Ni Conc. (Cu Ro Scav. Tails + Po 3rd Cl. Conc.)	7.4	3.02	10.5	35.1	20.5	63.7	16.1
Head (Calculated)	100.0	1.10	1.23	16.3	100	100	100
Head (Direct)	-	1.07	1.17	16.5	-	-	-

Note:

1. Pyrrhotite (Po)

13.2 Conclusions and Summary

Though the Project Team's procedure of sample selection and collection of non-oxidized material is not considered best practice, it's method of hand picking samples was referenced to historical grades during production and is statistically representative of the Selebi mineralization. The test results based on composites prepared from these handpicked samples may not be indicative of the expected metallurgical performance. Although considered adequate for a 'proof of concept' test, SLR recommends that proper sampling of drill core, that is spatially representative of the deposits, be undertaken prior to conducting any further metallurgical testing.

While preliminary flotation test results indicated that nickel-copper separation is achievable, further representative sampling and testing is required to demonstrate that the target grades of the copper and nickel concentrates can be consistently met.

14.0 MINERAL RESOURCE ESTIMATE

There is no current Mineral Resource estimate on the Project.

15.0 MINERAL RESERVE ESTIMATE

This section is not applicable.

16.0 MINING METHODS

This section is not applicable.

17.0 RECOVERY METHODS

This section is not applicable.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable.

22.0 ECONOMIC ANALYSIS

This section is not applicable.

23.0 ADJACENT PROPERTIES

Mining licence 2022/1L was granted to PNR on January 31, 2022 over the Selebi deposits initially discovered under mining licence 4/72. The original licence which had been granted to BCL on March 7, 1972, covered both the Selebi and Phikwe project areas. The new mining licence is limited to the Selebi and Selebi North deposits and their surrounding areas and expires January 30, 2032, however, BCL operated the combined Selebi-Phikwe Project from 1970 until its closure in 2016. Ore was mined from four distinct underground production areas namely the Phikwe (1 Shaft, Phikwe Central and Phikwe South), and Southeast Extension mines located on the Phikwe project area, and the Selebi North and Selebi mines located on the Selebi Mines project area. Ore from both areas was processed at the concentrator and smelter plants located at Phikwe. Production from the Phikwe property from 1981 to 2016 included 1.629 Mt at average nickel and copper grades of 1.08% Ni and 0.77% Cu, respectively (BCL, 2016).

SLR has not relied on information from adjacent properties in the writing of this Technical Report and has not verified the information relevant to the Phikwe Project. The information presented for the Phikwe Project is not necessarily indicative of the mineralization on the property that is the subject of this Technical Report.

24.0 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

PNRB's approach to re-starting the Selebi Mines operations is based on three primary concepts:

1. Potential for increasing the size and grade of the remaining resource through a combination of infill and exploration drilling.
2. Decoupling the smelter from BCL's historic business model. By doing this PNRB would develop a new optimized mine plan, independent of a 10,000 tpd throughput to maintain smelter production, and determined based on good practices and process optimization. Decoupling would also enable PNRB to re-define its business model around the production of separate nickel/cobalt and copper concentrates.
3. Recently completed modern metallurgy by the Project Team has indicated the potential for commercial Ni-Cu-Co concentrates to be produced at Selebi Mines without re-creating the environmental impact of the high sulphur emission flash furnace by eliminating the need for an onsite smelter.

PNRB's proposed work plan over the next 18 months is designed to advance the Selebi deposits towards establishing a NI 43-101 compliant Mineral Resource estimate and to further metallurgical studies. Additional budget has been allocated to maintain existing infrastructure at Selebi and to maintain and advance existing development at Selebi North in order to promote accessibility for deep target drilling.

SLR offers the following conclusions by area:

25.1 Geology and Mineral Resources

- While there are no current Mineral Resources estimated, there is good potential to establish Mineral Resources at the Selebi and Selebi North deposits, and additional exploration and technical studies are warranted.
- There is good understanding of the geology and the nature of nickel and copper mineralization of the Project.
- The sample collection, preparation, and analytical procedures as designed and implemented by former operator BCL are appropriate for the style of mineralization.
- With further verification in the form of validation of the digital database against original logs and assay certificates, compilation and analysis of QA/QC support programs, hole twinning, and down hole survey confirmation, SLR anticipates that the historical information will be suitable for Mineral Resource estimation and a new Mineral Resource estimate can be prepared using updated economic parameters and mining and processing considerations.

25.2 Mineral Processing

- A preliminary 'proof of concept' metallurgical sampling and testing program over the Project area was completed in 2021 to support the production of market concentrates for both nickel and copper. Though the Project Team's procedure of sample selection and collection of non-oxidized material is not considered best practice it's method of hand picking samples was referenced to historical grades during production and is statistically representative of the Selebi mineralization. The test results based on composites prepared from these handpicked samples may not be indicative of the expected metallurgical performance.

- Preliminary comminution testing demonstrated that the samples were very soft at SAG mill grind sizes and progressively harder at finer grind sizes. The samples were also slightly abrasive.
- Preliminary flotation test results demonstrated that while nickel-copper separation is achievable, further representative sampling and testing is required to demonstrate that the target grades of the copper and nickel concentrates can be consistently met.

26.0 RECOMMENDATIONS

SLR offers the following recommendations by area:

26.1 Geology and Mineral Resources

1. SLR has reviewed and agrees with PNRB's proposed exploration budget. Phase I of the recommended work program will include a continuation of the current digitization and verification work, as well as completing 21,000 m of drilling within approximately 40 infill and exploration drill holes to confirm the existing in-situ mineralization and to test the down plunge extension of economic mineralization at Selebi Main and the potential connection of Selebi Main and Selebi North at depth. Infill and exploration drill holes will be surveyed using both a BHEM and a borehole televiewer and their results will be used to support the estimation of Mineral Resources at the Project. Additional budget will be used to support metallurgical studies, to advance existing development at Selebi North to promote accessibility for deep target drilling, and to maintain the existing infrastructure (Table 26-1).
   - A Phase II program, contingent upon the results of Phase I would include development of an underground exploration drift at Selebi Main, additional drilling and technical studies, permitting, and advanced metallurgical, engineering, and environmental studies, including the completion of a Preliminary Economic Assessment.

Table 26-1: Proposed Budget – Phase I (18 months)
Premium Nickel Resources Corporation – Selebi Mines

March 1, 2022

Item	Cost (US$ 000)
Exploration and Infill Drilling Programs (40 holes totalling 21,000 m)[1] BHEM and televiewer surveys	5,500
Additional Historical Data Verification and Digitization	10
Mineral Resource Estimate	150
Metallurgical Testing	200
Care and Maintenance	4,500
General Site and Administration Costs	4,500
Subtotal	**14,860**
Contingency (5%)	743
Total	**15,603**

Notes:

2. Drilling costs are estimated to be US$260/m including salaries, downhole gyro, BHEM and televiewer surveys and associated sample preparation and analysis fees.

26.2 Mineral Processing

1. Complete additional metallurgical testing using samples from drill core that are spatially representative of the deposits to confirm the metallurgical recoveries projected under nickel-copper separation and any process design parameters.

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28.0 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the Selebi Mines, Central District, Republic of Botswana" with an effective date of March 01, 2022 was prepared and signed by the following authors:

(Signed & Sealed) ***Valerie Wilson***

Dated at Toronto, ON
June 16, 2022

Valerie Wilson, M.Sc., P.Geo.
Technical Manager, Geology

(Signed & Sealed) ***Brenna J.Y. Scholey***

Dated at Toronto, ON
June 16, 2022

Brenna J.Y. Scholey, P.Eng.
Principal Metallurgist

(Signed & Sealed) ***Sharon Meyer***

Dated at Johannesburg, South Africa
June 16, 2022

Sharon Meyer, M.Sc., Pr.Sci.Nat., EAPASA
Associate Environmental Consultant

29.0 CERTIFICATE OF QUALIFIED PERSON

29.1 Valerie Wilson

I, Valerie Wilson, M.Sc., P.Geo., as an author of this report entitled "Technical Report on the Selebi Mines, Central District, Republic of Botswana" with an effective date of March 01, 2022 prepared for North American Nickel Inc. Premium Nickel Resources Corporation, and Premium Nickel Resources Ltd. do hereby certify that:

1. I am a Technical Manager, Geology and Principal Geologist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of the Camborne School of Mines, University of Exeter, UK in 2010 with a master's degree in Mining Geology and a graduate of the University of Victoria, BC in 2006 with a bachelor's degree in Geoscience.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #2113). I have worked as a geologist for a total of 15 years since graduation from my bachelor's degree. My relevant experience for the purpose of the Technical Report is:
   - Exploration geologist on a variety of gold and base metal (including nickel) projects in Canada, Norway, and Sweden.
   - Resource geologist completing Mineral Resource estimation work and reporting on numerous mining and exploration projects around the world.
4. 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.
5. I did not visit the Selebi Mines.
6. I am responsible for Sections 1.1, 1.1.1.1, 1.1.2.1, 1.2.1 to 1.2.8, 2.0 to 11.0, 14.0 to 22.0, 25.1, and 26.1 and contributions to Section 27 of the Technical Report.
7. I am independent of the Issuer, the Vendor, and the Selebi Mines Property applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1, 1.1.1.1, 1.1.2.1, 1.2.1 to 1.2.8, 2.0 to 11.0, 14.0 to 22.0, 25.1, and 26.1 of the Technical Report, for which I am responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 16th day of June, 2022

(Signed & Sealed) ***Valerie Wilson***

Valerie Wilson, M.Sc., P.Geo.

29.2 Brenna J.Y. Scholey

I, Brenna J.Y. Scholey, P.Eng., as an author of this report entitled "Technical Report on the Selebi Mines, Central District, Republic of Botswana" with an effective date of March 01, 2022 prepared for North American Nickel Inc., Premium Nickel Resources Corporation, and Premium Nickel Resources Ltd. do hereby certify that:

1. I am Principal Metallurgist with SLR Consulting (Canada) Ltd., of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of The University of British Columbia in 1988 with a B.A.Sc. degree in Metals and Materials Engineering.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg. #90503137) and British Columbia (Reg. #122080). I have worked as a metallurgist for a total of 34 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Reviews and reports as a metallurgical consultant on numerous mining operations and projects for due diligence and regulatory requirements.
   - Senior Metallurgist/Project Manager on numerous base metals and precious metals studies for an international mining company.
   - Management and operational experience at several Canadian and U.S. milling, smelting and refining operations treating various metals, including copper, nickel, and precious metals.
4. 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.
5. I did not visit the Selebi Mines.
6. I am responsible for Sections 1.1.1.2, 1.1.2.2, 1.2.9, 13.0, 25.2, and 26.2 and contributions to Section 27 of the Technical Report.
7. I am independent of the Issuer, the Vendor, and the Selebi Mines Property applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 1.1.1.2, 1.1.2.2, 1.2.9, 13.0, 25.2, and 26.2 of the Technical Report, for which I am responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 16th day of June, 2022

(Signed & Sealed) ***Brenna J.Y. Scholey***

Brenna J.Y. Scholey, P.Eng.

29.3 Sharon Meyer

I, Sharon Meyer, M.Sc., Pr.Sci.Nat., EAPASA, as an author of this report entitled "Technical Report on the Selebi Mines, Central District, Republic of Botswana" with an effective date of March 01, 2022 prepared for North American Nickel Inc., Premium Nickel Resources Corporation, and Premium Nickel Resources Ltd. do hereby certify that:

1. I am Associate Environmental Consultant, Environmental Management, Africa, with SLR Consulting Ltd, of 178 Montecasino Blvd, Fourways, Johannesburg, 2192, South Africa.
2. I am a graduate of The University of the Witwatersrand in 1999 with a Bachelor of Science degree in Botany and Geography, in 2000 with a Science Honours degree in Geography and Environmental Science, and in 2007 with a Master of Science degree in Zoology and Environmental Education.
3. I am registered as a Professional Natural Scientist (Pr.Sci.Nat.) in Environmental Science (Reg. No. 400293/05) with the South African Council for Natural Scientific Professions (SACNASP). I have worked as an environmental scientist for a total of 21 years since my graduation. My relevant experience for the purpose of this Technical Report is:
   - Environmental scientist and project manager on a variety of authorisation and auditing processes within the mining sector including diamond, coal, gold, vanadium, and tailings reclamation projects
   - Management of multi-disciplinary and multi-national teams on mining projects within Africa, with the focus on the progress of mining implementation from prospecting through to mine closure, including closure options and closure costs in line with the relevant country financial provisioning regulations
   - Environmental and social feasibility screening, environmental impact and risk management, environmental and social due diligence for numerous projects within Mozambique, Botswana, Namibia, Nigeria, Lesotho, and South Africa
   - Experience in Resettlement Action Plans, Livelihood Restorations Plans and Community Census within southern Africa
4. 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.
5. I visited the Selebi Mines from May 2 to 6, 2021.
6. I am responsible for Sections 12.0, 23.0, and 24.0 and contributions to Section 27 of the Technical Report.
7. I am independent of the Issuer, the Vendor, and the Selebi Mines Property applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Sections 12.0, 23.0, and 24.0 of the Technical Report, for which I am responsible, contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 16th day of June, 2022

(Signed & Sealed) *Sharon Meyer*

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