# Technical Report for HN4 & Ni100 Claim Groups of the Nickel Project

BCGS Map Sheets 093K084; and 093N13, 093N023, 093N033 NTS Map Sheets 093K14; and 093N03, 093N04, 093N05, 093N06 Omineca Mining Division Takla Lake Area British Columbia, Canada

Prepared for



Surge Battery Metals Inc.

300 – 1455 Bellevue Avenue West Vancouver, BC, V7T 1C3

Authored by:

Jeremy Hanson, P.Geo.

Effective Date: June 7, 2023

## Table of Contents

1		Summary5								
2		Intr	oduct	ion	5					
3		Reliance on Other Experts6								
4		Property Description and Location								
	4.	1	Mine	eral Rights in British Columbia	12					
5		Acc	essibi	lity, Climate, Local Resources, Infrastructure and Physiography	14					
6		Hist	ory		17					
7		Geo	logica	al Setting and Mineralization	23					
	7.	1	Ni1C	0 Geological Setting	23					
	7.	2	Harc	Nickel 4 Geological Setting	24					
	7.	3	Mine	eralization	29					
8		Dep	osit T	ypes	30					
9		Exp	lorati	on	32					
	9.	1	2021	L Ni100 Geochemical Sampling and Analysis	32					
		9.1.	1	Soil Sampling Results	32					
		9.1.	2	Rock Sampling Results	33					
	9.	2	2021	L Hard Nickel 4 Geochemical Sampling and Analysis	36					
		9.2.	1	Soil Sampling	36					
		9.2.	2	Rock Sampling	36					
	9.	3	2022	2 Ni100 Geochemical Sampling and Analysis	37					
	9.4	4	2022	2 Hard Nickel 4 Geochemical Sampling and Analysis	49					
		9.4.	1	Soil Sampling	49					
		9.4.	2	Rock Sampling	49					
1(	כ	Dril	ling		53					
1:	L	Sam	ple P	reparation, Analyses and Security	59					
	11	L.1	2021	L Exploration Programs	59					
		11.1	.1	Ni100 Sampling Procedures	59					
		11.1	.2	Hard Nickel 4 Sampling Procedures	59					
	11	L.2	2022	2 Exploration Programs	60					
		11.2	2.1	Ni100 Sampling Procedures	60					
		11.2	2.2	Hard Nickel 4 Sampling Procedures	60					
		11.2	2.3	Hard Nickel 4 Drilling Sample Procedures	61					

12	Data Verification								
13	Mi	Mineral Processing and Metallurgical Testing							
14	Mi	ineral Resource Estimates	66						
23	Ad	ljacent Properties	66						
24	Other Relevant Data and Information69								
25	Int	terpretation and Conclusions	69						
2	5.1	Ni100 Claims	69						
2	5.2	Hard Nickel 4 Claims	70						
26	Re	commendations	71						
2	6.1	Phase 1 (Ni100)	72						
2	6.2 Phase 2 (Hard Nickel 4)72								
27	References								

# Table of Figures

Figure 4-1: HN4 & Ni100 Property Location Map (BC view)	8
Figure 4-2: NH4 & Ni100 Property Location Map (Central BC)	9
Figure 4-3: Hard Nickel 4 Tenure Map	10
Figure 4-4: Ni100 Tenure Map	11
Figure 5-1: Ni100 Project Location Map	15
Figure 5-2: Hard Nickel 4 Project Location Map	16
Figure 7-1: HN4 & Ni100 Regional Geology Map	26
Figure 7-2: HN4 Property Geology	27
Figure 7-3: Ni100 Property Geology	28
Figure 9-1: 2021 Ni100 Soil Sampling	33
Figure 9-2: 2021 Ni100 Rock Sampling	35
Figure 9-3: 2021 Hard Nickel 4 Rock and Soil Sampling with DTR Ni%	37
Figure 9-4: 2022 Ni100 Rock Sample Locations & Map Area Extents	39
Figure 9-5: 2022 Ni100 Area 1 Ni (ppm)	40
Figure 9-6: 2022 Ni100 Area 1 DTR Ni (%)	41
Figure 9-7: 2022 Ni100 Area 2 Ni (ppm)	42
Figure 9-8: 2022 Ni100 Area 3 Ni (ppm)	43
Figure 9-9: 2022 Ni100 Area 3 DTR Ni (%)	44
Figure 9-10: 2022 Ni100 Area 4 Ni (ppm)	45
Figure 9-11: 2022 Ni100 Area 4 DTR Ni (%)	46
Figure 9-12: 2022 Ni100 Area 5 Ni (ppm)	47
Figure 9-13: 2022 Ni100 Area 5 DTR Ni (%)	48
Figure 9-14: 2022 Hard Nickel 4 Ni (ppm) in Soils	50
Figure 9-15: 2022 Hard Nickel 4 Ni (ppm) in Rocks	51
Figure 9-16: 2022 Hard Nickel 4 DTR Ni (%) in Rocks	52
Figure 10-1: 2022 Hard Nickel 4 Collar Locations and Downhole Lithologies	53

Figure 10-2: HN4-22-01 Lithologies & DTR Ni (%)	56
Figure 10-3: HN4-22-02 Lithologies & DTR Ni (%)	57
Figure 10-4: HN4-22-03 Lithologies & DTR Ni (%)	58
Figure 12-1: Site Visit October 28th, 2022. Photo at Hard Nickel 4 tenure	62
Figure 13-1: Elemental Nickel Deportment Normalized	64
Figure 13-2: Modal Abundance of Minerals from QEMSCAN	65
Figure 23-1: Decar Project in relation to Nickel Project claims	67

## Table of Tables

Table 4-1: HN4 & Ni100 Claim Groups and Titles	7
Table 4-2: BC work requirements for mineral tenures	13
Table 4-3: BC cash-in-lieu for mineral tenures	13
Table 6-1: HN4 & Ni100 Historic Assessment Reports	17
Table 6-2: HN4 & Ni100 Historic Reports	
Table 6-3: HN4 and Ni100 Claim Groups MINFILE Occurrences	19
Table 7-1: HN4 & Ni100 Geological Legend	25
Table 9-1: Exploration conducted by Surge Battery Metals Inc.	32
Table 10-1: Drill Hole Collar Information, Grid North Azimuth	53
Table 10-2: Drill Hole Composite Intervals [Ni (%) and DTR Ni%]	55
Table 13-1: Elemental Deportment (Mass% Ni) in Minerals	64
Table 13-2: Modal Abundance (wt%) from QEMSCAN	65
Table 26-1: Proposed Phase 1 and Phase 2 Exploration Budget	71

### 1 Summary

This report summarizes exploration work completed on the Nickel Project "the Project," consisting of two non contiguous claim blocks, Hard Nickel 4 ("HN4") and Nickel 100 ("Ni100"). The Project consists of a total of six mineral tenures in the Takla Lake area of north-central British Columbia. Surge Battery Metals Inc. ("Surge" or the "Company") entered into an option agreement effective March 31<sup>st</sup>, 2023 to acquire the remaining 20% interest in the HN4 and Ni100 mineral claims. Previously the Company entered into and fulfilled a Property Option agreement dated July 8<sup>th</sup>, 2021 with Grid Battery Metals Inc ("Grid")., formerly known as Nickel Rock Resources Inc. ("Nickel Rock") to acquire 80% interest in the Nickel Project consisting of all six claims of the Hard Nickel 4 and the Nickel 100 properties. Currently Surge owns 80% of the HN4 and Ni100 claims, and Grid owns 20%.

The Nickel Project is located in the Takla Lake area of central British Columbia, in part adjacent to FPX Nickel Corp.'s Decar Nickel Project, and approximately 100 km west of Centerra Gold's Mount Milligan Copper-Gold Mine. The Decar Project is an advanced nickel project targeting awaruite, a nickel-iron alloy mineral, hosted by serpentinized ultramafic intrusive rocks of the Trembleur Ultramafic Unit within the Permian to Triassic age Cache Creek Complex, and is adjacent to the Ni100 and HN4 properties. The HN4 property is located in the Mount Sidney Williams area while the Ni100 claim group is located approximately 40 km to the north in the Mitchell Mountain Range (Figure 4-1 & Figure 4-2).

The Ni100 and HN4 properties are underlain by similar geological units and contain nickel mineralization on both properties. All the claim groups of the HN4 and Ni100 claims are partially underlain by rocks of the Trembleur Ultramafic Unit, which consist of variably serpentinized harzburgite, dunite and orthopyroxenite, and locally carbonate-talc altered rocks and listwanite. In the Hard Nickel claim group, metallic mineralization includes nickel, cobalt and chromium, and some of the nickel mineralization occurs as the nickel-iron alloy awaruite, and as sulphide minerals including heazlewoodite, pentlandite and millerite. In the Nickel 100 claim group, metallic mineralization includes nickel, cobalt and chromium as well, and although nickel-cobalt mineralization is relatively unexplored, the presence of awaruite has been documented.

The properties were both included in Geoscience BC's QUEST and QUEST-West projects, including multiparameter regional geophysical surveys, and regional stream sediment re-analyses and data compilations completed between 2008 and 2009. This modern exploration framework along with advancements at the nearby Decar Nickel Project may aid in developing future exploration programs on the Project.

There are no mineral resource estimates or mineral reserves on the Project.

The properties are of merit and further work is warranted. The HN4 and Ni100 claim groups of the Nickel Project are worthy of phased, systematic exploration programs totaling \$284,526.46. Work is to be proposed as a two phase program, designed, and implemented to delineate areas of known or high probability metallic nickel mineralization, and to discover new areas of similar mineralization.

## 2 Introduction

This technical report is prepared on behalf of Surge Battery Metals Inc of 1220-789 West Pender Street, Vancouver, BC V6C 1H2, a natural resource company incorporated in British Columbia and publicly listed on the TSX Venture Exchange. The author, Jeremy Hanson, P.Geo., has been commissioned by the

company to prepare this report for the purposes of documenting the geology, mineralization and exploration work completed to date, to recommend appropriate future exploration work to be completed on claim groups being acquired by the company, and to serve as a qualifying report for the company in filing transactions with the TSX Venture Exchange.

Sources of information for the report includes publicly available data on British Columbia Ministry of Energy, Mines and Low Carbon Innovation, Natural Resources Canada, and Geoscience BC websites, as well as privately owned data generated and available from the websites of publicly listed companies. The data used is summarized in various tables within the report and listed in the Reference section of the report

The author, Jeremy Hanson, P.Geo., has completed personal inspections of the Hard Nickel 4 and Nickel 100 Claims Groups on December 22<sup>nd</sup> 2020, May 28<sup>th</sup> 2021, and October 28<sup>th</sup> 2022. Mr. Hanson's Inspection Report appears in section 12 of this report. Mr. Hanson and is considered a qualified person under the definition in NI43-101 for the purpose of this technical report, and is independent of the company and title holders of the project claims.

## 3 Reliance on Other Experts

For the Property Location and Description section of this report, the author has relied entirely upon information from the Mineral Titles Branch of the British Columbia Ministry of Energy, Mines and Low Carbon Innovation regarding property status and legal title for the Project. The MTO website was accessed on April 24, 2023 and the data presented in this report should be considered to be accurate as of that date, including the Property Location and Description section, Table 1 and all the illustrations. The author has not relied upon a report, opinion or statement of another expert concerning legal, political, environmental or tax matters relevant to the technical report.

## 4 Property Description and Location

The Hard Nickel 4 and Nickel 100 claim groups collectively cover a combined area of 10,522 hectares. The southwest edge of the Hard Nickel 4 claim group partially overlaps Trembleur Lake Provincial Park, which is excluded from the claims. The mineral claims listed below include surficial mineral rights only, the mineral claims do not include surface rights, but do include access rights over crown land. See Table 4-1 and Figure 4-3 & Figure 4-4; Hard Nickel 4 (HN4) and Nickel 100 (Ni100) Claims maps, respectively.

The Hard Nickel 4 Claim Group, which consists of one cell mineral claim covers a total of 1,863 hectares, and is located along the northwest shore of Trembleur Lake. The tenure is centred approximately at UTM Zone 10N 353000E 607800N. First Nations' traditional territories covering portions of the claim group may include the Carrier Sekani Tribal Council and the Yekooche Nation.

The Nickel 100 Group consists of 5 cell mineral claims covering 8,659 hectares, is located east of Nesabut Peaks in the Mitchell Range, midway between Takla Lake to the west and Tchentlo Lake to the east, and is centred approximately at UTM Zone 10N 340000E 6130000N. First Nations' traditional territories covering portions of the claim group may include the McLeod Lake Indian Band, the Carrier Sekani Tribal Council and the Yekooche Nation.

#### Table 4-1: HN4 & Ni100 Claim Groups and Titles

Claim Group	Title Number	Claim Name	Ownership	Map No.	Good to Date	Area (ha)
Hard Nickel 4	1078942	HARD NICKEL 4	Surge Battery Metals Inc. (80%) Grid Battery Metals Inc. (20%)	093K	2034/Jan/20	1863
Nickel 100	1078880	NICKEL 100	Surge Battery Metals Inc. (80%) Grid Battery Metals Inc. (20%)	093N	2026/Jan/10	1844
Nickel 100	1078901	NICKEL 101	Surge Battery Metals Inc. (80%) Grid Battery Metals Inc. (20%)	093N	2026/Jan/10	1290
Nickel 100	1081858	NICKEL 103	Surge Battery Metals Inc. (80%) Grid Battery Metals Inc. (20%)	093N	2026/Jan/10	1838
Nickel 100	1081859		Surge Battery Metals Inc. (80%) Grid Battery Metals Inc. (20%)	093N	2026/Jan/10	1840
Nickel 100	1081860	NICKEL 104	Surge Battery Metals Inc. (80%) Grid Battery Metals Inc. (20%)	093N	2026/Jan/10	1847
Nickel 100 Group	5 titles					8659
Groups Total	6 titles					10522



Figure 4-1: HN4 & Ni100 Property Location Map (BC view)



Figure 4-2: NH4 & Ni100 Property Location Map (Central BC)



Figure 4-3: Hard Nickel 4 Tenure Map



Figure 4-4: Ni100 Tenure Map

Surge Battery Metals Inc. entered an option agreement with Grid Battery Metals., formerly Nickel Rock Resources Inc. dated March 31<sup>st</sup>, 2023 to acquire the remaining 20% interest in the Hard Nickel 4 and Ni100 claims of the Nickel Project. The terms of the option agreement include:

- Issuing 1,000,000 common shares of Surge Battery Metals to Grid Battery Metals
- Fully completed the terms of the previous Option Agreement dated July 8<sup>th</sup>, 2021
  - Issuing 5,000,000 common shares of Surge to Grid
  - Incurring an aggregate of \$200,000 in exploration expenditures on the Hard Nickel 4 and Nickel 100 claims on or before the two-year anniversary of the agreement date

Three of the claims are subject to a 2% NSR, including the HN4 claim and the two southernmost claims of the Nickel 100 claim group, these include tenures 1078942, 1081860 and 1078880.

All the mineral claims of the Hard Nickel 4 and Nickel 100 claim groups are presently held by Grid Battery Metals in the Mineral Titles Online system for British Columbia.

A five year area based Notice of Work permit has been approved on the HN4 claim group and is valid until June 9, 2027. The permit allows for 30 drill sites, three of which have been used, along with 3.1 km of exploration trail construction, 1700 m of trenching throughout 5 sites, and an exploration camp.

A notice of work permit for the Ni100 claim block has not been obtained.

There are no known environmental liabilities or other significant factors known to exist for the project. Non-mechanized exploration field work can be undertaken on the project at any time by the title holder or their designated agent. Mechanized exploration field work will require preparing and submitting a multi-year area-based notice of work (exploration permit) application to the BC government, and posting a reclamation security bond with the province of British Columbia upon approval of the application. Title maintenance of the mineral titles will require completing and filing statements of work for physical and/or technical exploration work costs on each non-contiguous mineral claim group prior to the expiry dates of the respective claims, each supported by separate physical and/or technical reports submitted within 30 or 90 days, respectively.

#### 4.1 Mineral Rights in British Columbia

Mineral Claims in British Columbia are subdivided into two major categories: Placer and Mineral. Both are acquired using the Mineral Titles Online (MTO) system. The online MTO system allows clients to acquire and maintain (register work, payments, etc.) mineral and placer claims. Mineral Titles can be acquired anywhere in the province where there are no other impeding interests (other mineral titles, reserves, parks, etc.). The electronic Internet map allows the selection of single or multiple adjoining grid cells. Cell sizes vary from approximately 21 hectares (457 m x 463 m) in the south to approximately 16 hectares at the north of the province. Cell size variance is due to the longitude lines that gradually converge toward the North Pole.

MTO will calculate the exact area in hectares according to the cells you select and calculate the required fee. The fee is charged for the entire cell, even though a portion may be unavailable due to a prior legacy title or alienated land. The fee for Mineral Claim registration is \$1.75 per hectare.

Upon immediate confirmation of payment, the mineral rights title is issued and assigned a tenure number for the registered claim. Email confirmation of your transaction and title is sent immediately.

Rights to any ground encumbered by existing legacy claims will not be granted with the cell claim except through the Conversion process. However, the rights held by a legacy claim or lease will accrue to the cell claim if the legacy claim or lease should terminate through forfeiture, abandonment, or cancellation, but not if the legacy claim is taken to lease. Similarly, if a cell partially covers land that is alienated (park, reserve etc.) or a reserve, no rights to the alienated or reserved land are acquired. But, if that alienation or reserve is subsequently rescinded, the rights held by the cell expand over the former alienated or reserve land within the border of the cell.

Upon registration, a cell claim is deemed to commence as of that date ("Date of Issue"), and is good until the "expiry ate" (Good to Date) that is one year from the date of registration. To maintain the claim beyond the expiry date, exploration and development work must be performed and registered, or a payment instead of exploration and development may be registered. If the claim is not maintained, it will forfeit at the end of the "expiry date" and it is the responsibility of every recorded holder to maintain their claims; no notice of pending forfeiture is sent to the recorded holder.

A mineral or placer claim has a set expiry date (the "Good to Date"), and in order to maintain the claim beyond that expiry date, the recorded holder (or an agent) must, on or before the expiry date, register either exploration and development work that was performed on the claim, or a payment instead of exploration and development. Failure to maintain a claim results in automatic forfeiture at the end (midnight) of the expiry date; there is no notice to the claim holder prior to forfeiture.

When exploration and development work or a payment instead of work is registered, you may advance the claim forward to any new date. With a payment, instead of work the minimum requirement is 6 months, and the new date cannot exceed one year from the current expiry date; with work, it may be any date up to a maximum of ten years beyond the current anniversary year. "Anniversary year" means the period of time that you are now in from the last expiry date to the next immediate expiry date. All recorded holders of a claim must hold a valid Free Miners Certificate ("FMC") when either work or a payment is registered on the claim.

Clients need to register a certain value of work or a "cash-in-lieu of work" payment to their claims in MTO. The following tables outline the costs required to maintain a claim for one year:

Anniversary Years	Work Requirements
1 and 2	\$5 / hectare
3 and 4	\$10 / hectare
5 and 6	\$15 / hectare
7 and subsequent	\$20 / hectare

Table 4-2: BC work requirements for mineral tenures

Table 4-3: BC cash-in-lieu for mineral tenures.

Anniversary Years	Cash Payment-in-Lieu of Work
1 and 2	\$10 / hectare
3 and 4	\$20 / hectare
5 and 6	\$30 / hectare
7 and subsequent	\$40 / hectare

# 5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The HN4 and Ni100 claim groups are situated near the transition between the rugged mountains of the Hogem Ranges to the northwest and the rolling hills, large rivers and lakes of the Nechako Plateau to the southeast. The climate in the area is northern temperate, characterized by cold snowy winters and warm summers. Elevations range from about 700 metres at the surfaces of Trembleur and Takla Lakes to about 2000 metres at the peaks of Mt. Sidney Williams and Nesabut Peaks in the Mitchell Range. Vegetation consists of mainly coniferous forest below 1600 metres elevation and sub-alpine to alpine conditions about 1600 metres elevation. Commercial logging activity and related road infrastructure has only begun to encroach the lower elevations with the area of the Nickel Project claims in the past decade or two.

Air access to the HN4 and Ni100 claims of the Nickel Project can be provided by chartered commercial helicopter either from Fort St. James, 100 km to the southeast or from Smithers, 100 km to the southwest. Fort St. James has a population of about 1,500 and offers all basic services. Smithers has a population of about 5,500 and offers a full range of services and supplies for mineral exploration, as well as daily commercial flights to Vancouver. Road access to the HN4 claims is possible through a network of logging roads, accessible through Fort St. James, Burns Lake, and Topley Landing. Access from Topley Landing and Burns Lake requires the use of private barges to cross Babine Lake. There is currently no road access to the known metallic mineral occurrences on the Ni100 claims. Road access to the general area is available via a series of paved and gravel forestry roads northwest from Fort St. James, the northern terminus of provincial highway 27 (Figure 5-1 & Figure 5-2).

The physiography and climate of the Nickel Project area are amenable to site-specific exploration activities such as diamond drilling and some geophysical surveys on a year-round basis. Geological mapping and geochemical sampling can be conducted from June to October when there is no snow cover. Surface rights over the Nickel Project area claims are owned by the Crown, administered by the BC government. The claims also have abundant water sources as required for exploration purposes.

The nearest power grid to both Ni100 and HN4 is at Fort. St. James. It is likely that future operations would require construction of additional power lines or diesel generators on site. On both claim blocks there are ample space and topography for access to water for mining operations, potential tailings storage areas, potential waste disposal areas, heap leach pad areas and potential processing plant sites.



Figure 5-1: Ni100 Project Location Map



Figure 5-2: Hard Nickel 4 Project Location Map

## 6 History

The history of mineral exploration and related geoscience activity in the immediate areas of the HN4 and Nickel 100 Claim Groups are documented in several publicly available web-based data sets:

- BC ARIS (Assessment Reports) submitted between 1969 and 2022 (see Table 6-1)
- Public geoscience agency (GSC, BCGS, GBC, and a university thesis) reports and maps published between 1937 and 2018 (see Table 6-2)
- BC MINFILE (Mineral Occurrences) summaries generated and updated between 1992 and 2009 (see Table 6-3)

Claim Group	ARIS No.	Year	Author	Owner / Operator	Work Done	Work Totals
Hard Nickel 4	17944	1988	Forbes, J.R.	Forbes, J.R.	Geochem.; Geology	3 HMC'; 20 silts; 30 rocks; 1 ha. mapping
Nickel 100	6814	1978	Kimura, E.T.	Placer Dev. Ltd.	Geochemistry	382 soils
Nickel 100	7468	1978	Nilsson, J.W.	Placer Dev. Ltd.	Geochemistry	162 soils
Nickel 100	8357	1980	Buckley, P.	Placer Dev. Ltd.	D. Drilling	16 m. in 1 hole
Nickel 100	8358	1980	Buckley, P.	Placer Dev. Ltd.	D. Drilling	28 m. in 1 hole
Nickel 100	16095	1987	Taylor, A.B.	Imperial Metals	Geology, Geochemistry	58 rocks; 355 soils; 500 ha. mapping
Nickel 100	19955	1989	Rear, B.	Placer Dome Inc	Geochemistry	68 silts; 151 soils; 12 rocks
Nickel 100	27857	2004	Mowat, U.	Mowat, Ursula	Geochem.	2 silts; 25 rocks
Nickel 100	31553	2009	Britten, R.; Rabb, T.	First Point Minerals Corp.	Geochem.	15 silts; 7 rocks; 16 cobbles
Nickel 100	40149	2021	Wasylyshyn, L.	Grid (formerly Nickel Rock)	Geochem.	54 rocks; 142 soils
Hard Nickel 4	40147	2021	Wasylyshyn, L.	Grid (formerly Nickel Rock)	Geochem.	53 rocks; 224 soils
Nickel 100	ARIS on confidential	2022	Dubé, R.G.	Grid (formerly Nickel Rock)	Geochem.	304 rocks
Hard Nickel 4	ARIS on confidential	2022	Dubé, R.G.	Grid (formerly Nickel Rock)	Geochem.; D. Drilling	189 rocks; 576 soils; 993m in 3 holes

Table 6-1: HN4 & Ni100 Historic Assessment Reports

#### Table 6-2: HN4 & Ni100 Historic Reports

Claims Group (s)	Agency	Report No.	Report Name	Year	Author(s)	Work Done	Work Totals
Hard Nickel 4	GSC	Map 631A	Fort Fraser Sheet	1937	Armstrong, J.E.	Regional Mapping	1 deg. By 1 deg.
Hard Nickel 4	GSC	Map 907A	Fort St. James Sheet	1948	Armstrong, J.E.	Regional Mapping	2 deg. By 2 deg.
Hard Nickel 4	GSC	Memoir 252	Fort St. James Map Area	1949	Armstrong, J.E.	Summary Report	231 pages
Hard Nickel 4	BCGS	Annual Report 1962	Mt. Sidney Williams	1962	BCDM	Asbestos exploration of	on claims N. slope
Hard Nickel 4	BCGS	G.E.M. 1969	Cu expl. On Diane Claims	1969	Terra Nova Expl.	Geochem., Mag., E.M.	Surveys
Hard Nickel 4	BCGS	G.E.M. 1970	Cu expl. On Diane Claims	1970	Terra Nova Expl.	Geochem., Trenching	
Hard Nickel 4	GSC	Map 1424A	Parsnip River Map Sheet	1974	Tipper, H.W. et.al.	Regional Mapping	8 deg. By 4 deg.
Hard Nickel 4	GSC	Paper 91-1A	Quaternary Geology NBC	1991	Plouffe, A. et.al.	Compilation	NTS 093K, 093N
Hard Nickel 4	BCGS	Open File 1995-25	Asbestos Occurrences BC	1995	Harvey-Kelly, F.E.L.	Compilation	97 occurrences
Hard Nickel 4	BCGS	Exploration 1995	Cu-Au expl. Diane claims	1995	Hera Resources	Geochem. D.Drill.	893 m. in 5 ddh.
Hard Nickel 4	GSC	Open File 3183	Cunningham Lake Sheet	1996	Plouffe, A. et.al.	Surficial Geology	3 deg. By 1.5 deg.
Hard Nickel 4	BCGS	Fieldwork 1997	Tochcha Map Sheet	1997	MacIntyre, D. et.al.	Regional Mapping	0.5 deg.x0.25 deg.
Hard Nickel 4	BCGS	Fieldwork 1998	Babine -Takla Lakes	1998	Schiarizza, P. et.al.	Regional Mapping	7 NTS sheets
Hard Nickel 4	BCGS	Exploration 1998	Cu-Ni expl. Bornite claims	1998	Mowat, U.	Geol., Geochem.	see ARIS 25477
Hard Nickel 4	BCGS	Open File 1999-11	Cunningham Lake Sheet	1999	MacIntyre, D. et.al.	Compilation	1 deg. By 0.5 deg.
Nickel 100	GSC	Paper 42-7	Preliminary Map Takla	1942	Armstrong, J.E.	Regional Mapping	1 deg. By 1 deg.
Nickel 100	GSC	Map 844A	Takla Sheet	1944	Armstrong, J.E.	Regional Mapping	1 deg. By 1 deg.
Nickel 100	GSC	Paper 45-6	2nd Prelim. Map Takla	1945	Armstrong, J.E.	Regional Mapping	1 deg. By 1 deg.
Nickel 100	GSC	Map 971A	Smithers-Fort St. James	1949	Rice, H.M.A.	Regional Mapping	4 deg. By 2 deg.
Nickel 100	GSC	Memoir 252	Fort St. James Map Area	1949	Armstrong, J.E.	Summary Report	231 pages
Nickel 100	GSC	Map 1008A	Mineral Map of BC	1951	GSC & BCDM	Compilation	E sheet, W sheet
Nickel 100	GSC	Map 1424A	Parsnip River Map Sheet	1974	Tipper, H.W. et.al.	Regional Mapping	8 deg. By 4 deg.
Nickel 100	GSC	Paper 82-1A	Chromite Occurrences	1982	Whittaker, P.J.	Mapping, Petro.	17 occurrences
Nickel 100	BCGS	Fieldwork 1982	Chromite Occurrences	1982	Whittaker, P.J.	Mapping, Petro.	17 occurrences
Nickel 100	Carleton	Geology & Petro. of Cl	nromite in Cache Ck. Group	1983	Whittaker, P.	Mapping, Petro.	N.C. & S.C. BC
Nickel 100	GSC	Open File 3071	Tsayta Lake Sheet	1996	Plouffe, A. et.al.	Surficial Geology	1 deg. By 0.5 deg.
Nickel 100	BCGS	Fieldwork 1997	Takla Lake Area	1997	Schiarizza P. et.al.	Regional Mapping	0.25 deg.x 1 deg.
	GBC	GBC 2008-03	QUEST Sample Reanalysis	2008	Jackaman, W. et.al.	Stream sediments	4481 samples
	GBC	GBC 2008-05	QUEST Infill Geochem.	2008	Jackaman, W. et.al.	Lake seds, waters	1959 samples
	GBC	GBC 2008-10	QUEST-West Aero-gravity	2008	Sander Geophysics	Aero-gravity	25,499 line-km
	GBC	GBC 2009-06	QUEST-West Geophysics	2009	Aeroquest Surveys	Aero-gravity, EM	13,219 line-km
	GBC	GBC 2009-11	QUEST-W. Infill Geochem.	2009	Jackaman, W. et.al.	SS/Lk seds, waters	1007 samples
	GBC	GBC 2009-18	Q-W EM Inversion Model.	2009	Aeroquest Surveys	EM data invers.	30 sub-blocks
	GBC	GBC 2009-24	Q-W Grav/Mag/EM Inv.	2009	Mira Geoscience	Data Inversion	Includes QUEST
	GBC	GBC 2010-12	QUEST-West Compilation	2010	Geoscience BC	MINFILE, Geol., Geoph	iys, Geochem.
	SEG	SEG 2017 V.112	Regional Metallogeny and	2017	Britten, R.	Technical paper main	y on Decar Project
	GBC	GBC-2020-15	Carbon Mineralization	2018	Dipple, G. et al., UBC	GBC-funded research	project in progress

Claim Group	MINFILE No.	Name(s)	Status	Updated	Commodities	Deposit Type(s)
Nickel 100	093N 016	Mitchell Range	Showing	1992	Gold, Chromium	podiform chromite
Nickel 100	093N 033	Simpson, Alloy, X12-X14	Prospect	1992	Chromium	podiform chromite
Nickel 100	093N 034	Bob, X4-X7	Prospect	2007	Chromium	podiform chromite
Nickel 100	093N 035	Irish, X1-X2	Prospect	2009	Chromium	podiform chromite
Nickel 100	093N 036	Hogem Ranges, X-3	Showing	1992	Chromium	podiform chromite
Nickel 100	093N 037	Hogem Ranges	Showing	1992	Chromium	podiform chromite
Nickel 100	093N 038	X9, X8, X17	Showing	2007	Chromium	podiform chromite
Nickel 100	093N 039	X15, X16	Showing	1992	Chromium	podiform chromite
Nickel 100	093N 129	X10, X11	Showing	2007	Chromium	podiform chromite

Table 6-3: HN4 and Ni100 Claim Groups MINFILE Occurrences

The following summaries describe sequentially work taken from ARIS reports completed by companies or individuals in areas now covered by the HN4 and Ni100 claim groups of the Project; or work taken from public agency geoscience reports completed over areas that include and surround the claim groups.

In 1978, Placer Development Limited acquired by staking and completed geochemical work on the Don and John claims located in the southern portion of the Mitchell Range in an area now partially covered by the Nickel 100 claim group. Three separate molybdenum in soil anomalies were found, including a large and continuous soil anomaly following a creek (Kimura, E.T., ARIS Report 6814, 1978). Also in 1978, Placer acquired by staking and completed geochemical work on the Dairy claim, located immediately south of the John claims and also partially covered by the Nickel 100 group claims. Several weak molybdenum in soil anomalies were found (Nilsson, J.W, ARIS Report 7468, 1979).

In 1980, Placer Development Limited acquired an interest in and completed work on the John 1 claim held by P. Buckley and located in the southern portion of the Mitchell Range in an area now partially covered by the Nickel 100 claim group. One short drill hole intersected thin quartz veins containing traces of molybdenite, chalcopyrite and pyrite hosted in quartz monzonite, but no samples were taken (Buckley, P., ARIS Report 8357, 1980). Also, in 1980, Placer Development Limited acquired an interest in and completed work on the Dairy Claim held by P. Buckley and located immediately south of the John 1 claim. One short drill hole failed to intersect any mineralization, and no samples were taken (Buckley, P., ARIS Report 8358, 1980). The claims were subsequently allowed to forfeit.

In 1982-1983, P.J. Whittaker completed and published a Ph.D. thesis through Carleton University in Ottawa on the Geology and Petrogenesis of Chromite and Chrome Spinel in Alpine-Type Peridotites of the Cache Creek Group (Whittaker, P.J., 1983). Two chapters of the thesis are individually dedicated to work completed on chromite occurrences in the Mitchell Range and Mt. Sidney Williams areas, respectively. In the Mitchell Range, seventeen chromite occurrences were identified and described in detail (see BC MINFILE reports 093N 033 to -039 inclusive and 093N 129). These occurrences are all covered by the Nickel 100 Claim Group. In the Mt. Sidney Williams area, three chromite occurrences were identified and described in detail, which are mainly covered by the claims of FPX Nickel Corp.'s Decar Project, which are adjacent to the HN4 claim group. The presence of awaruite and nickel sulphides was noted in serpentinized dunite in the Mt. Sidney Williams area. Related technical papers were published in 1982 by the GSC (Whittaker, P.J., GSC paper 82-1A, 1982) and the BCGS (Whittaker, P.J., Fieldwork 1982).

In 1987, Imperial Metals Corporation acquired by staking the Cyprus 1 and 2 claims targeting gold in the northern Mitchell Range, now covered by the Nickel 100 claim group. Soil and rock sampling combined with geological mapping yielded elevated values of gold-copper-nickel-chromium is soils correlating with sheared and faulted, quartz-carbonate altered and variably serpentinized ultramafic rocks. Gold values in rocks were generally low, yielding only one of 58 rock samples with an elevated value of 345 ppb. However, 12 rock samples yielded elevated nickel values of 899 ppm to 1992 ppm (Taylor, A.B., ARIS Report 16095, 1987). The claims were subsequently allowed to forfeit.

In 1987-1988, J.R. Forbes acquired by staking and completed exploration work on the New claims located along the northwest shore of Trembleur Lake, now covered by the Hard Nickel 4 claim group. The work targeted gold hosted by quartz-carbonate-mariposite-sulphide veins within structurally controlled listwanite alteration zones mainly surrounded by ultramafic rocks. Silt, rock and heavy mineral sample geochemistry, geological mapping and prospecting were completed, yielding elevated gold values in rocks. Most of the rock samples also yielded elevated values of nickel greater than 500 ppm and chromium greater than 250 ppm (Forbes, J.R., ARIS Report 17944, 1988). The claims were subsequently allowed to forfeit.

In 1989, Placer Dome Inc. acquired by staking the Tooth 1-8 claims targeting gold in the Mitchell Range, now covered by the Nickel 100 claim group. Stream sediment, soil and rock sampling failed to yield any significantly elevated values in the six elements analyzed, which did not include nickel, cobalt, or chromium. (Rear, B., ARIS Report 19955, 1990). The claims were subsequently allowed to forfeit.

In 1990, A. Plouffe of the GSC commenced a four-year joint Canada-BC study of the surficial geology of the northern interior of BC, covering NTS map sheets 093K and 093N, which contain all the claim groups of the Nickel Project (Plouffe, Preliminary study of the Quaternary geology of the northern interior of British Columbia, GPS Paper 91-1A, 1991). Also, in 1990, K. Hancock of the BCGS completed a compilation of the ultramafic associated chromite and nickel occurrences in BC based on BC MINFILE data, classified into four types displayed on a map of BC. The occurrences include those in the Mitchell Range classified as Alpine Type Chromite, now covered by the Nickel 100 claim group (Hancock, K., Ultramafic Associated Chromite and Nickel Occurrences in BC, BCGS Open File 1990-27, 1991).

In 1996, A. Plouffe of the GSC published two surficial geology maps at 1:100,000 scale covering NTS map sheet portions 093KNW (Cunningham Lake) and 093NSW (Tsayta Lake), which together cover the areas of the Nickel Project claims. These maps and related public data are potentially very useful for interpreting stream sediment, soil and till geochemistry results in mineral exploration programs. (Plouffe, A., GSC Open File 3183 and Open File 3071, 1996).

In 1997, P. Schiarizza, N. Massey and D.G. MacIntyre completed and published regional geological mapping of portions of map sheet 093N/3, -4, -6 and -12 (Takla Lake), which includes all of the Mitchell Range including the area now covered by the Nickel 100 claim group. (Schiarizza, P. et al., BCGS Fieldwork, 1997).

In 1998, P. Schiarizza and D.G. MacIntyre of the BCGS completed the regional geological mapping of portions of map sheets 093K and 093N (Babine-Takla Lake area), and released the final geological map for the northwest portion of map sheet 093K (Cunningham Lake). These public works include the areas now covered by the Hard Nickel Project claim groups (Schiarizza, P. et al., BCGS Fieldwork 1998; and MacIntyre, D.G. et al., BCGS Open File 1999-11).

In 2000, P. Schiarizza, N. Massey and D.G. MacIntyre completed and published the final regional geological map of portions of map sheet 093N (Tsayta Lake) at 1:100,000 scale. This public work includes the area now covered by the Hard Nickel North claim (Schiarizza, P. et al, BCGS Open File 2000-19).

In 2004, U. Mowat acquired by staking four, small, non-contiguous claims in the southern portion of the Mitchell Range to cover three of seven known chromite occurrences, including the IR claim over MINFILE prospect 093N035 – Irish, the PT claim over MINFILE showing 093N037 – Hogem Ranges, the OS claim over MINFILE showing 093N038 – X9, and the PD claim to the south of all seven occurrences. Initial work consisted of prospecting and rock sampling targeting gold and PGE mineralization. None of the twenty-two rock samples yielded elevated values of gold or PGE's. Sixteen of the rock samples were ultramafic, and most of those yielded elevated values of nickel exceeding 1000 ppm, cobalt exceeding 50 ppm and chromium exceeding 500 ppm. All the work was completed in areas now covered by the Nickel 100 claim group (Mowat, U., ARIS report 28857, 2005).

In 2007, W. Jackaman on behalf of Geoscience BC through their QUEST Project completed reanalysis of archived regional stream sediment samples which included those from NTS map sheet 093N. This map sheet contains and surrounds the area now covered by the Nickel 100 claim group (Jackaman et al., Geoscience BC Report 2008-3).

In 2007, W. Jackaman on behalf of Geoscience BC through their QUEST-West Project completed infill regional drainage sediment and water sampling which included NTS map sheet 093K. This map sheet contains and surrounds the Hard Nickel 4 claim (Jackaman et al., Geoscience BC Report 2008-5).

In 2008, Sander Geophysics Ltd. on behalf of Geoscience BC through their QUEST-West Project completed a regional airborne gravity survey which included all the areas covered by the Nickel Project claim groups (Meyer, S. et al, Geoscience BC Report 2008-10).

In 2008, Aeroquest Surveys on behalf of Geoscience BC through their QUEST-West Project completed a regional airborne electromagnetic and magnetic survey which included all the areas covered by the Nickel Project claim groups (Walker, S. et al., Geoscience BC Report 2009-6). Subsequently in 2008, Aeroquest Surveys completed inversion modeling of the regional airborne electromagnetic data in 30 sub-blocks. Four of the contiguous sub-blocks in the northeast portion of the survey area together include all the areas covered by the Nickel Project claim groups (Starrett, V. et al., Geoscience BC Report 2009-18).

In 2008, W. Jackaman on behalf of Geoscience BC through their QUEST-West Project completed infill regional drainage sediment and water sampling which included NTS map sheet 093K. This map sheet contains and surrounds what is now the Hard Nickel 4 claim (Jackaman et al., Geoscience BC Reports 2009-11, 2009).

In 2009, N. Philips of Mira Geoscience Ltd. on behalf of Geoscience BC through their QUEST-West and Nechako projects completed inversion modeling of previously collected airborne gravity, magnetic and electromagnetic data in multiple tiles. The tiles in the northeast portion of the project included all the areas covered by the Nickel Project claim groups (Philips et.al, Geoscience BC Report 2009-24).

In 2009, Geoscience BC completed and published compilation maps for the QUEST-West area including separate maps showing BCGS Geology, BCGS MINFILE, GSC aeromagnetics and gravity, Geoscience BC gravity, electromagnetics, magnetics, digital elevation model and RGS copper, molybdenum and silver (Geoscience BC Report 2010-12). These maps were subsequently updated and re-released in June 2012.

In 2009, First Point Minerals Corp. acquired by title selection and explored the Mesa Property in the southern portion of the Mitchell Range, generally to the east of the known chromite occurrences, and surrounding the four small pre-existing OS, PD, PT and IR claims held by Ursula Mowat. First Point was targeting possible awaruite mineralization similar to that of their Decar Property east of Mt. Sidney Williams, and completed prospecting and rock, stream sediment and stream cobble sampling including on-site and office-based analyses using portable spectrometers. One of sixteen stream cobble samples taken from five different sites yielded visible awaruite from an east flowing stream draining the area now covered by the claims of the Ni100 group between MINFILE showing 093N036 – X3 and MINFILE showing 093N037 – Hogem Ranges. Six of seven rock samples, eight of fifteen stream sediment samples and all sixteen stream cobble samples yielded elevated values of nickel exceeding 1000 ppm. All but three of the stream sediment samples were taken from the area now covered by the Nickel 100 claim group (Britten, R., ARIS report 31553, 2010). Both First Point and Ursula Mowat subsequently allowed their respective claims to forfeit.

In 2017, R. Britten of First Point Minerals Corp. published the technical paper "Regional Metallogeny and Genesis of a New Deposit Type – Disseminated Awaruite (Ni<sub>3</sub>Fe) Mineralization Hosted in the Cache Creek Terrane in Economic Geology published by the SEG. The paper is focused on the Baptiste deposit on the Decar Project, located immediately adjacent to the Hard Nickel 4 claim. The geological setting, mineralization and forming processes for the deposit and others in the area are described in detail (Britten, R., Economic Geology v.112, 2017).

In 2018, G. Dipple at the University of British Columbia began the Geoscience BC funded research project "Carbon Mineralization Potential Assessment for BC" scheduled for completion in early 2021. In late 2020 a preliminary assessment report was published. One of the key items from the report was "The use of reactive serpentinite tailings from nickel mining as a carbon sink has the potential to make nickel mining carbon neutral or a net carbon sink." The presence of serpentinized ultramafic rocks of the Trembleur intrusions has been repeatedly documented in the areas covered by the claims of the Nickel Project, as well as at FPX Nickel Corp.'s Decar Project (Dipple, G. et.al., Geoscience BC Report 2020-15).

In 2020 the Hard Nickel 4 (tenure 1078942) was staked by Malcom Bell. Additionally, Bell staked mineral tenures 1081860 and 1078880 in 2021, of the now Ni100 claims. These claims were all acquired by Grid Battery Metals., formerly known as Nickel Rock Resources as apart of the Nickel Project (see Grid, news release February 24, 2021) and combined with the three claims staked originally by Grid in early 2021.

In 2021 Grid Battery Metals ("formerly Nickel Rock Resources") conducted soil and rock sampling on the Hard Nickel 4 tenure (Figure 9-3). Exploration took place June 4 – 17, 2021 (Wasylyshyn, L., ARIS report 40147, 2022). A total of 148 soil samples were collected on 3 east-west oriented lines with 50-meter sample spacing. Soil lines were designed to cover magnetic anomalies identified in the 2008 Geoscience BC QUEST – West airborne magnetic survey and reported occurrences of peridotite and/or listwanite. Nickel values in soil ranged from 11 ppm to 2162 ppm, chromium from 13 ppm to 1877 ppm, cobalt from 2 ppm to 225 ppm, and copper from 5 ppm to 108 ppm. Iron and nickel were strongly corelated (0.770) indicating that the presence of Fe-Ni alloys or Fe-Ni sulphides are likely. Soil samples above 500 ppm Ni and 400 ppm Cr were all collected within the magnetic anomalies identified in the QUEST – West magnetic survey data. The bedrock below this anomalous trend has been ascribed to the Trembleur Ultramafic Unit of the Cache Creek Complex by the BC Geological Survey. This unit contains serpentinized ultramafic rocks with minor listwanite alteration.

A total of 50 rock samples were collected from the Hard Nickel 4 claim between June 4-17 2021 consisting predominantly of listwanite and serpentinized peridotite with minor quartz-carbonate listwanite-related veins. Nickel values ranged from 12 ppm to 2631 ppm with a total of 42 rock samples returning values above 0.1% Ni and seven above 0.2% Ni. Chromium values ranged from 38 ppm to 2744 ppm with 32 samples returning >0.1% Cr. Listwanite samples were at times observed to contain fuchsite; high fuchsite abundance may contribute to elevated chromium values. Samples of peridotite were commonly serpentine-altered and exhibited moderate to strong magnetism. Awaruite may be partly responsible for the magnetic response of peridotite samples which returned nickel values in excess of 0.1% Ni. However, no visible awaruite was observed in the field sampling.

Thirty six of the original 50 rock samples were tested with Davis Tube magnetic separation. Only one sample returned no magnetic fraction while 15 of the 36 samples returned a magnetic fraction insufficient for XRF analysis. DTR nickel values varied between 0.003% and 0.051% nickel, averaging 0.014%. Samples with magnetically recovered nickel were distributed relatively evenly across the prospecting areas with no distinct spatial trend within the rock sample dataset.

The claims were then optioned to Surge Battery Metals, apart of the Nickel Project (see news release, July 7<sup>th</sup>, 2021) from Grid Battery Metals (formerly Nickel Rock).

## 7 Geological Setting and Mineralization

The area of the Nickel Project is underlain by a 15 km wide belt of northwesterly-trending Pennsylvanian and Permian Cache Creek Group rocks consisting of ribbon chert, argillaceous quartzite, argillite, slate, greenstone, limestone with minor conglomerate and greywacke. The Cache Creek Group has been intruded by Upper Jurassic or Lower Cretaceous Omineca Intrusions consisting of granodiorite, quartz diorite, diorite with minor granite, syenite, gabbro and pyroxenite. Post-Middle Permian, Pre-Upper Triassic Trembleur Intrusions consisting of peridotite, dunite, minor pyroxenite and gabbro with serpentinized and steatized equivalents also intrude the Cache Creek Belt. The Trembleur ultramafic intrusions have been interpreted to represent part of a large and once continuous ophiolite complex that has been deformed and dismembered by subsequent intrusions and folding and faulting. The area covered by and surrounding the claim groups of the Nickel Project had surficial geological mapping completed by the GSC in 1996, and bedrock regional mapping completed by the BCGS in 1997-1999. See Figures Figure 7-2Figure 7-3 with the geology legend appearing in Table 7-1.

#### 7.1 Ni100 Geological Setting

The Ni100 property is underlain by the Trembleur Ultramafic Unit (*PnTrCTum,us*) and the Sowchea Succession (*PJCS, PnTrCSvb*) of the Cache Creek Group which likely represents obducted or imbricated upper Paleozoic and lower Mesozoic oceanic rocks. The older Trembleur Unit represent mantle and lower crustal portions of an ophiolite sequence dominated by peridotite and lesser dunite. The Sowchea succession consists of chert, limestone, phyllite, basalt, gabbro, and mafic dykes. To the west of these units is the Sitlika Assemblage of the Cache Creek Complex consisting of clastic sedimentary rocks. The Cache Creek rocks are intruded by the early Cretaceous Mitchell Batholith (*EKgd*) of the Omineca Intrusive Suite (Figure 7-3).

#### Trembleur Ultramafic Unit – PnTrCTum,us

Ultramafics of the Trembleur Unit in the property consist of variably sheared, foliated, and serpentinetalc altered peridotite, harzburgite, and dunite. Tectonized harzburgites are moderately to intensely foliated grading to mylonitic, exhibiting stretched and flattened orthopyroxene porphyroblasts altered to talc and magnesite (Whittaker, 1983). Dunite is subordinate to harzburgite-peridotite, weathering to orange-brown and containing pervasively serpentinized olivine. Dunite is sparsely distributed within the harzburgite as lenses typically tens of meters across. Rare gabbro, gabbro-norite, and norite occur in sharp contact with harzburgite as medium to fine grained dykes and sills measuring 5-10 meters wide with a general north-northeast strike.

#### Sowchea Succession – PJCS

The eastern and southwestern margin of the Trembleur Unit is in fault contact with the Sowchea Succession consisting of heterolithic meta-sediments. Sowchea Succession rocks are poorly exposed on the Ni100 property with some schistose argillite observed in the south-central portion of the claim group.

#### Mitchell Batholith – EKgd

The youngest rocks on the property are the early Cretaceous intrusive rocks belonging to the Mitchell Batholith. The predominant rock type is coarse grained and porphyritic pink quartz monzonite in a large stock intruding the Cache Creek rocks north of Nesabut Peaks. Phases of aplite myrmekite are noted within the predominantly grey-pink coarse grained and porphyritic biotite hornblende quartz monzonite. Local weak argillic alteration occurs along with local quartz-molybdenite-chalcopyrite veins which sometimes exhibit a weak potassic alteration selvage. The Mitchell Batholith has been targeted for porphyry Mo-Cu at the Don/Jon/Dairy showing west of the Ni100 claims (MINFILE 093N 181).

#### 7.2 Hard Nickel 4 Geological Setting

The Cache Creek terrane, which underlies the Hard Nickel 4 claim, is subdivided into the Rubyrock Igneous Complex, Sitlika Assemblage, Trembleur Ultramafic, and Sowchea Succession (Figure 7-2). These units are structurally intercalated by faults internal to the Cache Creek terrane. The western margin of the Cache Creek terrane is bound by the Takla Fault, separating it from the Stikine Terrane, while the eastern boundary is separated from the Quesnel Terrane by the Pinchi Fault.

The Rubyrock Igneous Complex consists of upper Paleozoic to Triassic gabbro, basalt, and diabase (Struik et al., 2001) possibly analogous to the upper part of a typical ophiolite succession. Rocks ascribed to the Rubyrock Igneous Complex occur along the southern margin of the claim as a approximately 1 km long, 100m thick sliver.

Sitlika Assemblage rocks have been mapped by the BC Geological Survey along the southwestern boundary of the Hard Nickel 4 claim. The Sitlika assemblage is a clastic unit of medium to dark grey slate, phyllite, banded siltstone, sandstone and conglomerate.

The Trembleur Ultramafic Unit occurs as northwest trending tabular bodies of peridotite-harzburgite with lesser dunite, pyroxenite, and gabbro. This unit makes up the majority of the Hard Nickel 4 claim. Ultramafic rocks are variably serpentinized and/or locally silica-talc-carbonate±fuchsite altered. The Trembleur unit is interpreted to represent the mantle and lower crustal portion of the ophiolite succession and hosts the Ni-Fe and Cr mineralization targeted on the property.

The Sowchea Succession is comprised of phyllite, slate, siltstone, siliceous argillite, quartzite, conglomerate, and chert with lesser carbonate. This unit bisects the claim stretching from the southeastern to northwestern margins. The Sowchea Succession occurs as fault-bound panels

intercalated within the Trembleur Ultramafic and Rubyrock units and is interpreted to be the upper column of the typical ophiolite succession.

Table 7-1: HN4 & Ni100 Geological Legend

#### **OVERLAP ASSEMBLAGES**

#### **Early Cretaceous**

Mitchell Range Intrusions: granodiorite intrusive rocks

#### STIKINE TERRANE

#### Middle Jurassic

Spike Peak Intrusive Suite: quartz dioritic intrusive rocks

#### Late Triassic

#### Takla Group

basaltic volcanic rocks

mudstone, siltstone, shale, fine clastic sedimentary rocks

#### CACHE CREEK TERRANE

#### SITLIKA ASSEMBLAGE

#### Late Triassic to Early Jurassic

clastic sedimentary rocks

#### CACHE CREEK COMPLEX

#### **Permian to Triassic**

#### North Arm Succession

Rubyrock Intrusive Complex: greenstone, greenschist metamorphic rocks, gabbroic to dioritic intrusive rocks

#### **Pennsylvanian to Triassic**

#### Trembleur Ultramafic Unit

carbonate-talc altered ultramafic rocks

variably serpentinized ultramafic rocks

serpentinized ultramafic rocks

ultramafic rocks undifferentiated

#### Sowchea Succession

undifferentiated sedimentary rocks

mudstone, siltstone, shale, fine clastic sedimentary rocks

#### Faults



Fault Normal Fault Thrust



Figure 7-1: HN4 & Ni100 Regional Geology Map



Figure 7-2: HN4 Property Geology



Figure 7-3: Ni100 Property Geology

#### 7.3 Mineralization

The presence of nickel mineralization present as awaruite (Ni<sub>2</sub>Fe to Ni<sub>3</sub>Fe) and/or nickeliferous sulphides in serpentinized dunite was first documented in the Mount Sidney Williams area in 1982 by P.J. Whittaker using petrographic studies in his PhD thesis. In 1995 J. Payne of Vancouver Petrographics Ltd. on behalf of Hera Resources Inc. used a scanning electron microscope to identify nickel sulphide minerals heazlewoodite (Ni<sub>3</sub>S<sub>2</sub>), bravoite ((Fe,Ni)S<sub>2</sub>) and possibly siegenite (Ni,Co)<sub>3</sub>S<sub>4</sub>, along with nickel-iron (awaruite), magnetite (Fe<sub>3</sub>O<sub>4</sub>) and chromite (FeCr<sub>2</sub>O<sub>4</sub>) in serpentinized ultramafic rock samples from the Mount Sidney Williams area. The presence of awaruite, nickel sulphides and magnetite were confirmed in 1996 by petrographic work completed by C. Leitch of Vancouver Petrographics Ltd. on behalf First Point Capital Corp. on re-sampled drill core from a 1994 drilling program targeting gold mineralization at the Lower and Oro zones in the Mount Sidney Williams area, and also from rock samples taken at the B Zone and Baptiste Deposit on the adjacent property now held by FPX Nickel Corp.

The geological process of serpentinization of ultramafic rocks creates magnetite along with awaruite and nickel sulphide minerals. Therefore, since both magnetite and awaruite are magnetic minerals, high magnetic susceptibility can be used to help target awaruite and any spatially associated nickel sulphide mineralization both at regional and projects scales. Sulphide minerals are also electrically conductive, so high conductivity can be used to help target nickel sulphide minerals and any spatially associated awaruite mineralization both at regional and project scales.

Most of BC is covered by GSC regional aeromagnetic coverage, which is displayed in BC MapPlace, used to generate Figure 9-3 and Figure 9-2. Between 2008 and 2010 as part of the QUEST-West project Geoscience BC completed regional aeromagnetic, electromagnetic and aerogravity surveys and geophysical data modeling covering and surrounding the claim groups of the Nickel Project. This data and selected map products are available through Geoscience BC's website and may be useful for directly targeting magnetic and conductive mineralization on the Nickel Project.

In 2008 and 2009, as part of the QUEST and QUEST-West projects Geoscience BC completed regional geochemistry work including re-analyses of previously sampled archived of stream sediments, and new infill sampling of stream sediments and lake sediments and waters covering and surrounding the claim groups of the Nickel Project. This data and selected map products are available through Geoscience BC's website and may be useful for targeting areas of nickel and cobalt mineralization on the Nickel Project.

Most of the historic exploration work completed on the HN4 and Ni100 claim groups of the Nickel Project targeted commodities other than nickel, including chromite, asbestos, copper and precious metals. Nickel analyses are available from some of the historic geochemistry work and locally display broad areas of consistently elevated values of nickel, along with cobalt and/or chromium from all media types sampled. However, it is not known what proportions of the nickel values obtained from the various sampled media taken from different locations on the HN4 and Ni100 claim groups of the Nickel Project claims consists of awaruite, nickel sulphides and/or other modes of occurrence. This is because all historical analyses for nickel were done using ICP methods only.

The mineral awaruite is both highly magnetic and very dense, and is therefore amenable to concentration by mechanical processes including magnetic and gravity separation. This highly magnetic aspect of its mineral properties also allows the awaruite content of a nickel-bearing sample to be determined by combining two simple, industry-standard analytical methods: whole rock analysis for nickel oxide (NiO) and the Davis Tube Method for magnetic mineral separation. The awaruite content of a sample is expressed as David Tube Recoverable (DTR) nickel, calculated as follows:

 $DTR Ni = Ni\% (of magnetic fraction) \times \frac{weight magnetic fraction}{(weight magnetic fraction + weight nonmagnetic fraction)}$ 

The remaining nickel content of a sample can be determined by subtracting the DTR Ni content from the total Ni assay using industry-standard ICP analysis, and could consist of nickel sulphide and/or nickel silicate minerals. The sulphur content of a sample can be determined using the industry-standard LECO method, which can be used to estimate the amount of sulphide minerals present if any, including nickel sulphides. If present nickel sulphide minerals can be identified optically using polished thin sections, scanning electron microscopy (SEM) and/or automated commercial mineralogy technologies. If sulphur is absent any nickel present other than DTR Ni in a sample is probably occurring in silicate minerals.

Future exploration work targeting awaruite and nickel sulphide mineralization on the HN4 and Ni100 claim groups of the Project can utilize new geoscience data and modern exploration technology which was not available at the time most of the historic exploration work was completed in the project area. Although most of the historical exploration work targeted commodities other than nickel, much of the data can be digitally recompiled, presented and utilized to help save considerable time and effort and to help maximize success in future exploration programs.

## 8 Deposit Types

Mineralization types documented or suggested in the areas covered by the HN4 and Ni100 claim groups of the Nickel Project may include the following, with reference to appropriate BC Mineral Deposit Profiles (with codes) or if absent USGS Mineral Deposit Models (with codes):

- Podiform chromite (M03) within the Trembleur ultramafic intrusions
- Ultramafic-hosted asbestos (M06) within serpentinized Trembleur ultramafic intrusions
- Jade (Q01) within serpentinized Trembleur ultramafic intrusions
- Au-Quartz Veins (I01) within listwanite alteration zones in the Trembleur ultramafic intrusions
- Dunitic nickel-copper (USGS 6b) or Limassol Forest Co-Ni (USGS 8c) within serpentinized Trembleur ultramafic intrusions

The Nickel 100 claim group covers nine chromite occurrences, as documented in BC MINFILE occurrences listed in Table 6-3, of which three are prospects and six are showings, but all are too small to justify any further exploration work.

Exploration work targeting nickel mineralization occurring on the claims of the Nickel Project is at an early stage, and mineral deposit models and profiles containing nickel primarily as awaruite have not yet been developed by agencies such as USGS and BCGS, probably because no such deposits have yet been mined. The USGS's models 6b and 8c are the closest yet developed to describing awaruite nickel deposits, and those models should be considered in exploration programs on the Nickel Project.

Other advanced exploration and development projects targeting awaruite nickel include Magneto Investments Limited Partnership's Dumont deposit in Quebec, and FPX Nickel Corp.'s Decar project which is located in between the Ni100 and Hard Nickel 4 projects.

Awaruite is pervasively disseminated in serpentinized peridotite and occurs as relatively coarse grains between 50 to 400 micrometres in size. Compositionally, awaruite (Ni2Fe-Ni3Fe) is comprised of approximately 75% nickel, 25% iron and 0% sulfur, and therefore it is considered "natural steel".

Disseminated awaruite (Ni2Fe to Ni3Fe) mineralization is an unusual deposit type, with the nearby Decar Property comprising the most advanced projects in the world (Britten, 2016). Awaruite forms during serpentinization of peridotite whereby nickeliferous olivine is altered to serpentine minerals and awaruite (+magnetite) under conditions of low oxygen fugacity (Frost 1985). Historically, awaruite has been mined in river placer deposits derived from serpentinized peridotites and ophiolites. Awaruite often occurs in association with heazlewoodite, pentlandite, violarite, chromite, and millerite in peridotites. A general unbalanced reaction that illustrates this mineralogical and metal exchange is as follows (from Britten, 2016):

 $\begin{array}{rl} 4(MgFeNi)2SiO4 + 2H2O \leftrightarrows 2Mg3Si2O5(OH)4 + Fe3O4 + Ni3Fe + H2(g) \\ & & \\ olivine + water \leftrightarrows serpentine + magnetite + awaruite \end{array}$ 

The alteration of olivine-rich ultramafic rocks to 60-80% serpentine results in a density decrease from 3.3-3.4 g/cm3 for olivine-rich rocks to 2.7 g/cm3 for serpentinite, and a volume increase of 18% to 55% related to a gain of 10-14 wt% H2O (Britten, 2016). A recent overview of the awaruite deposits hosted in Cache Creek terrane (Britten, 2016) suggested that a key part of the ore forming process was a prolonged period of post-accretionary transpression, which resulted in significant strike-slip displacement and, more importantly, ingress of relatively clean and possibly oxygenated meteoric water. The hydration of olivine to serpentine minerals, ingress of water with low sulfur and CO2 activity, oxidation of iron to produce magnetite, the maintenance of low oxygen fugacity and, eventually, addition of H2 through reduction of Fe and Ni. Hydration at temperatures of 400°C are probably necessary to form the larger grains associated with antigorite. The highest temperature (>450°C) conditions produce the highest amount of magnetically recovered awaruite, in association with the metamorphism of serpentine and magnetite to olivine and diopside (Britten, 2016).

Awaruite is highly magnetic and dense ( $\rho = 8.2 \text{ g/cm3}$ ) and is consequently more amenable to concentration by mechanical processes (i.e., magnetic, gravity separation). In addition, the ultramafic tailings from awaruite concentrate production could potentially be used for CO2 sequestration (e.g., Vanderzee et al., 2018), offering a significant environmental advantage over Ni-sulphide sources.

Because metallurgical properties play such a vital role in the economics of awaruite projects the grades are presented as Davis Tube Recoverable (DTR) nickel. The Davis Tube consists of an inclined water-filled tube placed between electromagnets (Svoboda, 2004) and is used to split finely-ground powder into magnetic and non-magnetic fractions. (See 7.3 for DTR Ni calculations)

Data required to calculate DTR Ni percent is provided by the analytical lab, which besides reporting nickel Ni (%) of the magnetic component captured from the Davis tube, also reports the weights of the magnetic and non-magnetic fractions split with the Davis Tube. DTR Ni content is calculated by multiplying Ni of magnetic component by the ratio of magnetic to non-magnetic weight fractions.

## 9 Exploration

Surge Battery Metals Inc. has completed exploration on the Project claims as summarized below (Table 9-1) since the effective date July 8<sup>th</sup>, 2021 of the option agreement with Grid Battery Metals (formerly Nickel Rock).

Claim Group	ARIS No.	Year	Author	Owner / Operator	Work Done	Work Totals
Nickel 100	40149	2021	Wasylyshyn, L.	Grid	Geochem.	54 rocks; 142 soils
Hard Nickel 4	40147	2021	Wasylyshyn, L.	Surge / Grid	Geochem <sup>1</sup>	3 rocks; 76 soils <sup>(1)</sup>
Nickel 100	Not off confidential	2022	Dubé, R.G.	Surge / Grid	Geochem.	304 rocks
Hard Nickel 4	Not off confidential	2022	Dubé, R.G.	Surge / Grid	Geochem.; Drilling	189 rocks; 576 soils; 993m drilling

Table 9-1: Exploration conducted by Surge Battery Metals Inc.

<sup>1</sup>Only includes work paid for by Surge following July 8<sup>th</sup>, 2021 agreement date.

### 9.1 2021 Ni100 Geochemical Sampling and Analysis

The Ni100 property was explored between July 22-25 and September 20-28, 2021 to conduct surface geochemical sampling for a total of 142 soil and 54 rock samples. Soil samples were collected along six north-south oriented lines spaced 100 meters apart with 50 meter sample spacing and one east-west oriented line with 100 meter sample spacing.

Soil samples were taken along pre planned lines with 50 meter spaced samples. Approximately 500 grams of B-horizon material was taken using a Dutch auger and placed in a kraft soil bag and sealed shut. Sample numbers were written on the sample bag, sample information including ID, coordinates, depth, colour were recorded in a notebook and digitized. Flagging with sample ID was left at the location of the soil sample. Station coordinates were recorded using Garmin 64s handheld GPS. Soil samples were shipped to SGS Minerals in Burnaby, BC, via Bandstra Transportation Systems. and analyzed for 34 elements by two-acid digest with ICP-OES finish (lab code GE\_ICP21B20). In the assay lab soils were dried, weighed, fine crushed, screened and split.

Rock samples were collected from outcrop in the field and placed in poly ore bags with unique sample IDs and sealed with zip ties. Rock descriptions, sample location, and sample quality (outcrop, float, etc.) were recorded for each sample. Rock samples were collected in sizes large enough to retain a duplicate split of each sample for follow-up mineralogical or metallurgical study in the future, with duplicate samples being stored in sealed poly ore bags in Smithers. Rocks were shipped to SGS labs in Burnaby, BC, via Bandstra Transportation Systems; in-house chain of custody and sample security measures were implemented for all sample shipments. Samples were analyzed for 49 elements by four-acid digest with ICP-OES/MS finish (lab code GE\_ICM40Q12).

#### 9.1.1 Soil Sampling Results

Soil sample lines were conducted across magnetic features identified in the 2008 Geoscience BC QUEST – West airborne magnetic survey on tenure 1081858 on the northern portion of the Nickel 100 claim group. Nickel values range from >LOD (2 ppm) to 2110 ppm, chromium from 8 ppm to 1003 ppm, and cobalt between >LOD (1 ppm) to 108 ppm. Nickel is most strongly correlated with cobalt (0.923) and chromium (0.689), with a modest positive correlation with iron (0.496). Soil samples show increasing nickel and

chromium values as sample locations cross the magnetic feature. Samples on the westernmost soil lines returned anomalous nickel values in all samples (>500 ppm Ni, average 1442 ppm over 20 samples) likely due to poor soil development in alpine terrain (Figure 9-1).

Soil sample results indicate the magnetic features may result from underlying nickel-chromium bearing ultramafic rocks of the Trembleur Ultramafic Unit which are often observed in outcrop to exhibit magnetic properties and contain iron-nickel alloys, nickel sulphides, and chromite.



Figure 9-1: 2021 Ni100 Soil Sampling

#### 9.1.2 Rock Sampling Results

Rock samples were collected along ridges and peaks in areas with high magnetic response from the 2008 QUEST – West airborne magnetic survey. A total of 54 original samples were collected with 51 grab samples from outcrop and 3 float samples. Rocks samples are predominantly described as peridotite, pyroxenite, or norite-grabbro. Ultramafic rocks have been observed to have tan-orange weathering with fine-medium grained dark green-black fresh surfaces. Fracture controlled and groundmass serpentine+/-talc alteration is commonly observed and many rocks exhibit weak to strong magnetic response. Sulphides

are present in some samples and trace amounts of possible awaruite and chromite are noted. Structural fabric is commonly oriented SW-NE.

Nickel values in ultramafic rocks are consistently elevated, ranging from 61 to 2201 ppm with 41 of the 54 samples returning >1500 ppm Ni. Nickel values exceeding 1900 ppm occur at four locations over 8 km along strike of the magnetic feature. Chromium values range from 57 to 2250 ppm and cobalt values range from 35 to 194 ppm (Figure 9-2). Prospecting and sampling indicate that the high magnetic response in the QUEST-West data is associated with nickel-chromium bearing ultramafic rocks ascribed to the Trembleur Unit. It is apparent from field observations that this unit could exceed 8 km in strike length and up to 3 km wide, and that elevated nickel and chromium are common within this unit.



Figure 9-2: 2021 Ni100 Rock Sampling

#### 9.2 2021 Hard Nickel 4 Geochemical Sampling and Analysis

Exploration work on the hard Nickel 4 claim was conducted between September 26 – 29 of 2021. A total of 76 soil samples and 3 rock samples were collected across the claim block.

Soil samples were taken along pre planned lines with 50-meter spaced samples. Approximately 500 grams of B-horizon material was taken using a Dutch auger and placed in a kraft soil bag and sealed shut. Sample numbers were written on the sample bag, sample information including ID, coordinates, depth, colour were recorded in a notebook and digitized. Flagging with sample ID was left at the location of the soil sample. Station coordinates were recorded using Garmin 64s handheld GPS. Soil samples were shipped to SGS Minerals in Burnaby, BC, via Bandstra Transportation Systems. and analyzed for 34 elements by two-acid digest with ICP-OES finish (lab code GE\_ICP21B20). In the assay lab soils were dried, weighed, fine crushed, screened and split.

Rock samples were collected from outcrop in the field and placed in poly ore bags with unique sample IDs and sealed with zip ties. Rock descriptions, sample location, and sample quality (outcrop, float, etc.) were recorded for each sample. Rock samples were collected in sizes large enough to retain a duplicate split of each sample for follow-up mineralogical or metallurgical study in the future, with duplicate samples being stored in sealed poly ore bags in Smithers. Rocks were shipped to SGS labs in Burnaby, BC, via Bandstra Transportation Systems; in-house chain of custody and sample security measures were implemented for all sample shipments. Samples were analyzed for 49 elements by four-acid digest with ICP-OES/MS finish (lab code GE\_ICM40Q12).

#### 9.2.1 Soil Sampling

A total of 76 soil samples were collected on the Hard Nickel 4 property on 4 east-west oriented lines with 50 meter sample spacing. Soil lines were designed to cover magnetic anomalies identified in the 2008 Geoscience BC QUEST – West airborne magnetic survey and reported occurrences of peridotite and/or listwanite.

Nickel values in soil range from 43 ppm to 821 ppm, chromium values range from 50 ppm to 953 ppm, cobalt from 8 ppm to 146 ppm, and copper from 4 ppm to 59 ppm (Figure 9-3). Iron and Nickel were strongly corelated (0.770) indicating that the presence of iron-nickel alloys such as awaruite is likely. Soil samples above 500 ppm Ni and 400 ppm Cr were all collected within the magnetic anomalies identified in the QUEST – West magnetic survey data. The bedrock below this anomalous trend has been ascribed to the Trembleur Ultramafic Unit of the Cache Creek Complex by the BC Geological Survey. This unit contains serpentinized ultramafic rocks with minor listwanite alteration.

#### 9.2.2 Rock Sampling

A total of three rock samples were collected from the Hard Nickel 4 Group consisting of undifferentiated ultramafic rocks and listwanite. Nickel values range from 1317 ppm to 1737 ppm and chromium values range from 1052 ppm to 1371 ppm (Figure 9-3).


Figure 9-3: 2021 Hard Nickel 4 Rock and Soil Sampling with DTR Ni%

#### 9.3 2022 Ni100 Geochemical Sampling and Analysis

The Ni100 property was explored from July 13 - 21, 2022. A total of 304 rock samples were taken for geochemical analysis.

Rock samples were collected along ridges and peaks in areas with high magnetic response from the 2008 QUEST – West airborne magnetic survey (Figure 9-4). Of the 304 original samples collected, 301 were grab samples from outcrop and 3 were float samples. Rock samples are predominantly described as peridotite, pyroxenite, serpentinite, or norite-gabbro. Ultramafics are described as having tan-orange surface weathering with fine-medium grained dark green-black fresh surfaces. Fracture controlled and groundmass serpentine +/-talc alteration is commonly observed and many rocks exhibit weak to strong magnetic response. Sulphides are present in some samples and trace amounts of possible awaruite and chromite are noted. Structural fabric is commonly oriented SW-NE.

Nickel values in ultramafic rocks are consistently elevated, ranging from 64 to 3164 ppm(Figure 9-4 to Figure 9-13). Of the 304 total samples taken, 197 returned Nickel concentrations over 1500 ppm. Nickel values exceeding 1900 ppm typically occur within the magnetic feature. Chromium values range from 4 - 6690 ppm and cobalt values range from 0.5 to 174 ppm. Prospecting and sampling indicate that the high magnetic response in the QUEST-West data is associated with nickel-chromium bearing ultramafic rocks

ascribed to the Trembleur Unit. It is apparent from field observations that this unit could exceed 8 km in strike length and up to 3 km wide, and that elevated nickel and chromium are common within this unit.

Magnetic separation via DTR was performed on 197 samples high in nickel to determine the proportion of nickel mineralized as iron-nickel alloys such as awaruite. Values ranged from 0 to 0.087% DTR Ni with 69 of the samples grading over 0.03%.

There are notable differences in the DTR Ni values from the different areas sampled. The northmost group of samples (Figure 9-6) returned values between 0-0.071% DTR Ni, with seven out of 27 samples grading over 0.03% DTR Ni and three grading over 0.05% DTR Ni. None of the samples in Area 2 graded high enough to justify DTR analysis. This area is the least prospective for awaruite mineralization. Samples from Area 3 returned values between 0-0.068% DTR Ni with 24 out of 79 samples grading over 0.03% DTR Ni and one grading over 0.05% DTR Ni. Samples from Area 4 returned values between 0-0.087% DTR Ni with 30 out of 72 samples grading over 0.03% DTR Ni and nine grading over 0.05% DTR Ni. This is the most promising area studied with potential awaruite mineralization. The southmost group of samples (Figure 9-13) returned values between 0-0.06% DTR Ni with eight out of 19 samples grading over 0.03% DTR Ni and one sample in excess of 0.05% DTR Ni (Figure 9-4 to Figure 9-13).



Figure 9-4: 2022 Ni100 Rock Sample Locations & Map Area Extents







Figure 9-7: 2022 Ni100 Area 2 Ni (ppm)



Figure 9-8: 2022 Ni100 Area 3 Ni (ppm)









Figure 9-12: 2022 Ni100 Area 5 Ni (ppm)



Figure 9-13: 2022 Ni100 Area 5 DTR Ni (%)

### 9.4 2022 Hard Nickel 4 Geochemical Sampling and Analysis

The Hard Nickel 4 claim was visited during the summer of 2022 to conduct soil and rock sampling. The project was visited again in the late fall to conduct diamond drilling. A total of 576 soil samples and 189 rock sample were analyzed. Three diamond drill holes on the HN4 property in November 2022, totalling 993m.

#### 9.4.1 Soil Sampling

A total of 576 soil samples were collected from 11 east-west oriented lines with 50 meter sample spacing. Soil lines were designed to cover magnetic anomalies identified in the 2008 Geoscience BC QUEST – West airborne magnetic survey and reported occurrences of peridotite and/or listwanite. Nickel values in soil range from 12 ppm to 1870 ppm (Figure 9-14), chromium values range from 13 ppm to 1426 ppm, cobalt from 2 ppm to 172 ppm, and copper from 2.8 ppm to 202 ppm. Nickel concentrations were found to be strongly correlated to iron concentrations (0.798), chromium concentrations (0.834) and Cobalt concentrations (0.869). The correlation of these elements suggests the presence of Ni-Co-Cr bearing ultramafic rocks with potential iron-chromium and iron-nickel alloys and oxides (chromite, awaruite). Generally, samples high in Nickel lie within bedrock ascribed to the Trembleur Ultramafic Unit of the Cache Creek Complex by the BC Geological Survey.

#### 9.4.2 Rock Sampling

One hundred eighty nine rock samples were collected from the Hard Nickel 4 claim consisting predominantly of ultramafic rocks including listwanite and serpentinite. Nickel values range from 4 ppm to 2554 ppm with a total of 139 rock samples returning values above 0.1% Ni and 37 above 0.2% Ni (Figure 9-15). Chromium values range from 10 ppm to 2325 ppm with 112 samples returning >0.1% Cr and 15 samples returning >0.2% Cr.

Listwanite samples are at times observed to contain fuchsite; high fuchsite abundance may contribute to elevated chromium values. Possible annabergite is observed on some fractured and weathered surfaces of carbonate-listwanite altered samples. Samples of peridotite are commonly foliated and serpentine-altered and exhibit moderate to strong magnetism. Awaruite may be partly responsible for the magnetic response of peridotite samples which returned nickel values in excess of 0.1% Ni, however no visible awaruite was observed in the field.

Samples above 1000 ppm Ni (139 out of 189 samples) were tested with Davis Tube magnetic separation. DTR Nickel Values from samples with sufficient magnetic fractions for analysis range from 0.00078%-0.065% Ni, with 10 samples grading over 0.05% Ni (Figure 9-16). Samples higher in DTR Ni (>0.04%) were generally found within the magnetic anomaly.



Figure 9-14: 2022 Hard Nickel 4 Ni (ppm) in Soils



Figure 9-15: 2022 Hard Nickel 4 Ni (ppm) in Rocks



Figure 9-16: 2022 Hard Nickel 4 DTR Ni (%) in Rocks

# 10 Drilling

Surge Battery Metals competed three diamond drill holes on the HN4 property in November 2022, totalling 993m.

Collar locations were recorded using a Garmin hand held GPS with ±3 m accuracy. Individual drill holes are summarized in Table 10-1.

Hole ID	Azimuth (°)	Dip (°)	Easting	Northing	Elevation	Depth_m	Start	Finish
HN4-22-01	219	-50	351651	6078092	1035	297	3-11-2022	6-11-2022
HN4-22-02	221	-50	396240	6271502	1016	297	7-11-2022	10-11-2022
HN4-22-03	221	-47	350755	6078611	1031	399	10-11-2022	14-11-2022

 Table 10-1: Drill Hole Collar Information, Grid North Azimuth, UTM Zone 10N



Figure 10-1: 2022 Hard Nickel 4 Collar Locations and Downhole Lithologies

#### <u>HN-22-01</u>

Drillhole HN-22-01 was drilled to a depth of 297m with 155 core samples taken. The hole encountered an upper unit of listwanite altered ultramafic rocks comprised of talc, Ca-Mg-Fe carbonates, quartz, and locally specular hematite, magnetite, and chromite to a depth of 152.5m. Variably serpentine altered peridotite was intersected from 152.54 m to 269.78 m exhibiting strong magnetic response, elevated nickel, and chromium in portable XRF readings, and weak to near complete serpentinization. From 269.78 m to 297.0 m (EOH) the hole intersected a second listwanite unit. Lithologies encountered through this hole are all likely part of the Trembleur Ultramafic unit. Nickel concentrations ranged from 11 ppm to 2507 ppm with an average of 1759 ppm Ni. One hundred thirty nine out of 156 samples had nickel concentrations over 1500 ppm while 36 were over 2000 ppm. Chromium concentrations ranged from 5 ppm to 2524 ppm with an average of 1039 ppm Cr. Fifteen samples had chromium concentrations over 1500 ppm while 1 was over 2000 ppm. Out of 155 total core samples, 144 were selected to undergo DTR magnetic separation. DTR Nickel Values from samples with sufficient magnetic fractions for analysis range from 0.0030%-0.099% Ni, with 30 samples grading over 0.05% Ni (Figure 10-2: HN4-22-01 Lithologies & DTR Ni (%)).

The most prospective interval occurs between 160 and 254 m downhole where 0.058% DTR Ni over 94 meters is recorded (Table 10-2).

#### <u>HN-22-02</u>

Drillhole HN-22-02 was drilled to a depth of 297m with 119 core samples taken. The hole was collared directly into moderate to strongly serpentine altered ultramafics of the Trembleur Ultramafic unit from 15 to 87m, and exhibited moderate to strong magnetic response and elevated chromium-nickel values in portable XRF readings. Below the peridotite the hole encountered intercalated listwanite-peridotite from 87 – 124.25m before entering greenstone assemblages of basalt and mudstone from 124.45-181.05 m. The hole ended in an interval of variably serpentinized peridotite from 181.05 m-297 m. Nickel concentrations ranged from 40 ppm to 2636 ppm with an average of 1643 ppm Ni. Eighty nine out of 119 samples had nickel concentrations over 1500 ppm while 32 were over 2000 ppm. Chromium concentrations over 1500 ppm wile one was over 2000 ppm. Out of 119 total core samples, 99 were selected to undergo DTR magnetic separation. DTR Nickel Values from samples with sufficient magnetic fractions for analysis range from 0.0043%-0.123% Ni, with 19 samples grading over 0.05% Ni (Figure 10-3: HN4-22-02 Lithologies & DTR Ni (%)).

The most prospective interval occurs at the bottom of the hole from 282-297 m where 0.119% DTR Ni over 15 meters was intersected and remains open to depth (Table 10-2).

#### <u>HN-22-03</u>

Drillhole HN-22-03 was drilled to a depth of 399 metres, with 142 core samples analyzed. This hole targeted the northern magnetic high in an area where surface grab samples returned DTR nickel values of up to 0.065% Ni. An upper unit of variably serpentine altered peridotite ultramafic rocks was encountered between 33 and 114.67 m. A distinctive listwanite unit comprised of talc, Ca-Mg-Fe carbonates, quartz, and locally specular hematite, magnetite, and chromite was intersected between the serpentinized peridotites from 114.67 m to 313.50 m. The listwanite unit was bisected by a short interval of

metabasite/basaltic rocks between 207.65 m to 229.0 m. Another unit of variably serpentine altered peridotite ultramafic rocks was intersected from 313.5 m to the end of the hole at 399 m. Nickel concentrations ranged from 33 ppm to 2315 ppm with an average of 1636 ppm Ni. One hundred eleven out of 142 samples had nickel concentrations over 1500 ppm while 32 were over 2000 ppm. Chromium concentrations ranged from 22 ppm to 2057 ppm with an average of 1107 ppm Cr. Seventeen samples had chromium concentrations over 1500 ppm while 1 was over 2000 ppm. Out of 142 total core samples, 121 were selected to undergo DTR magnetic separation. DTR Nickel Values from samples with sufficient magnetic fractions for analysis range from 0.00093%-0.077% Ni, with six samples grading over 0.05% Ni (Figure 10-4: HN4-22-03 Lithologies & DTR Ni (%) .

The most prospective interval occurs at the top pf the hole (between 33.75 and 60 m) where 0.054% DTR Ni over 26.25 meters is recorded (Table 10-2).

BHID	From (m)	To (m)	Width (m)	Ni (%)	DTR Ni%
HN4-22-01	158	297	139	0.194	0.045
including	158	254	96	0.201	0.058
also including	160	194	34	0.195	0.062
and	213	254	41	0.211	0.061
HN4-22-02	15	30	15	0.2	0.049
including	204	297	93	0.201	0.053
also including	222	246	24	0.188	0.051
and	276	297	21	0.226	0.105
	282	297	15	0.231	0.119
HN4-22-03	33.75	60	26.25	0.22	0.054

Table 10-2: Drill Hole Composite Intervals [Ni (%) and DTR Ni%]

True thickness of mineralization and orientation of the mineralization is unknown. Samples widths and reported intervals are measured lengths of the core samples. Induvial samples were three metres long.

There are no known factors that could materially impact the accuracy and reliability of the results. The procedures and analysis in this report meet or exceed industry standards and the data is considered accurate and precise.





Location

A: 351468, 6077881 B: 351666, 6078106

Figure 10-2: HN4-22-01 Lithologies & DTR Ni (%)





Location

A: 350817, 6078225 B: 351021, 6078445

Figure 10-3: HN4-22-02 Lithologies & DTR Ni (%)

HN4-22-03



Figure 10-4: HN4-22-03 Lithologies & DTR Ni (%)

# 11 Sample Preparation, Analyses and Security

The following sampling procedures were observed by the author for exploration work conducted on behalf of the Company. It is the author's opinion that the adequacy of the sample preparation, security and analytical procedures fulfills and exceeds best practices and result in accurate and reliable data.

### 11.1 2021 Exploration Programs

#### 11.1.1 Ni100 Sampling Procedures

Soil samples were taken along pre-planned lines with 50 meter spaced samples. Approximately 500 grams of B-horizon material was taken using a Dutch auger and placed in a kraft soil bag and sealed shut. Sample numbers were written on the sample bag, sample information including ID, coordinates, depth, colour were recorded in a notebook and digitized. Flagging with sample ID was left at the location of the soil sample. Station coordinates were recorded using Garmin 64s handheld GPS. Soil samples were shipped to SGS Minerals in Burnaby, BC, via Bandstra Transportation Systems. and analyzed for 34 elements by two-acid digest with ICP-OES finish (lab code GE\_ICP21B20). In the assay lab soils were dried, weighed, fine crushed, screened and split.

Rock samples were collected from outcrop in the field and placed in poly ore bags with unique sample IDs and sealed with zip ties. Rock descriptions, sample location, and sample quality (outcrop, float, etc.) were recorded for each sample. Rock samples were collected in sizes large enough to retain a duplicate split of each sample for follow-up mineralogical or metallurgical study in the future, with duplicate samples being stored in sealed poly ore bags in Smithers. Rocks were shipped to SGS labs in Burnaby, BC, via Bandstra Transportation Systems; in-house chain of custody and sample security measures were implemented for all sample shipments. Samples were analyzed for 49 elements by four-acid digest with ICP-OES/MS finish (lab code GE\_ICM40Q12).

QA/QC procedures undertaken by Grid (formerly "Nickel Rock") consisted of 5% QA/QC samples including a certified blank and certified reference (CDN-ME-1309) with a value of 0.191% Ni.

#### 11.1.2 Hard Nickel 4 Sampling Procedures

Soil lines were conducted running east-west at 50 or 100 meters spacing. Soil was collected from the Bhorizon using a soil auger and placed in kraft paper bags with unique sample and station identification numbers. Duplicate samples were collected by sampling additional soil from the same station and placing in a separate bag with a unique sample ID. Station coordinates were recorded using Garmin 64s handheld GPS. Samples were shipped to SGS Minerals in Burnaby, BC, via Bandstra Transportation Systems and analyzed for 34 elements by two-acid digest with ICP-OES finish (lab code GE\_ICP21B20).

Rock samples were collected from outcrop in the field and placed in poly ore bags with unique sample IDs and sealed with zip ties. Rock descriptions, sample location, and sample quality (outcrop, float, etc.) were recorded for each sample. Rock samples were collected in sizes large enough to retain a duplicate split of each sample for follow-up mineralogical or metallurgical study in the future, with duplicate samples being stored in sealed poly ore bags in Smithers. Rocks were shipped to SGS labs in Burnaby, BC, via Bandstra Transportation Systems; in-house chain of custody and sample security measures were implemented for all sample shipments. Samples were analyzed for 49 elements by four-acid digest with ICP-OES/MS finish (lab code GE\_ICM40Q12) and for Au, Pt, and Pd by 30g fire assay (GE-FAIV5).

36 samples were selected based on initial nickel values and rock descriptions to undergo Davis Tube separation by SGS Laboratories in Burnaby, BC. A 40-gram subsample was passed through the Davis Tube and agitated for four minutes. Magnetic concentrate was then collected, filtered, dried and weighed. An approximately10 g subsample of the Davis Tube concentrates was analyzed) by XRF.

QA/QC procedures undertaken by Grid (formerly "Nickel Rock") consisted of 5% QA/QC samples including a certified blank and certified reference (CDN-ME-1309) with a value of 0.191% Ni.

### 11.2 2022 Exploration Programs

#### 11.2.1 Ni100 Sampling Procedures

Rock samples were collected from outcrop and float in the field and placed in poly ore bags with unique sample IDs and sealed with zip ties. Rock descriptions, sample location, and sample quality (outcrop, float, etc.) were recorded for each sample. Rock samples were collected in sizes large enough to retain a duplicate split of each sample for follow-up mineralogical or metallurgical study in the future, with duplicate samples being stored in sealed poly ore bags in Smithers. Rocks were shipped to SGS labs in Burnaby, BC, via Bandstra Transportation Systems; in-house chain of custody and sample security measures were implemented for all sample shipments. Samples were analyzed for 49 elements by four-acid digest with ICP-OES/MS finish (lab code GE\_ICM40Q12).

Results from ICP-OES finish for elemental concentrations of nickel were examined and a total of 197 pulps were selected to undergo further magnetic separation via Davis Tube Recovery at SGS Metallurgical labs in Burnaby, BC. Magnetic separation is performed using a 20-gram sub-sample of the pulp and reported as a magnetic percentage. Additionally, a magnetic concentrate undergoes nickel analysis by X-Ray Fluorescence (XRF). Data required to calculate Ni is provided by the analytical lab which reports weight% Ni by XRF and the weights of the magnetic and non-magnetic fractions split with the Davis Tube.

Quality control procedure was implemented for both rock and soil analytical batches involving the insertion of standards and blanks. Sixteen (16) standards and blanks were inserted randomly into the flow of sample analysis. The results of the control samples are within the accepted parameters for accuracy, precision and overall performance of the certified materials. Analytical standards used were from CDN Resource Laboratories Ltd., Langley, BC and ORE RESEARCH & EXPLORATION, Victoria, Australia.

#### 11.2.2 Hard Nickel 4 Sampling Procedures

Soil lines were conducted along east-west orientation with samples set at 50 meter spacing. Soil was collected from the B-horizon using a soil auger and placed in kraft paper bags with unique sample and station identification numbers. Duplicate samples were collected by sampling additional soil from the same station and placing in a separate bag with a unique sample ID roughly every 20<sup>th</sup> sample. Station coordinates were recorded using Garmin 64s handheld GPS. Samples were shipped to SGS Minerals in Burnaby, BC, via Bandstra Transportation Systems and analyzed for 34 elements by aqua regia digest with ICP-AES finish (lab code GE\_ICP21B20).

Rock samples were collected from outcrop and subcrop settings, samples were placed in poly ore bags with unique sample IDs and sealed with zip ties. Rock descriptions, sample location, and sample quality (outcrop, float, etc.) were recorded for each sample. Rock samples were collected in sizes large enough to retain a duplicate split of each sample for follow-up mineralogical or metallurgical study in the future, with duplicate samples being stored in sealed poly ore bags in Smithers. Rocks were shipped to SGS labs

in Burnaby, BC, via Bandstra Transportation Systems; in-house chain of custody and sample security measures were implemented for all sample shipments. In total 189 rock samples were analyzed for 49 elements by four-acid digest with ICP-AES/MS finish (lab code GE\_ICM40Q12) and 20 of those were selected to undergo Au, Pt, and Pd analysis by 30g fire assay (GE-FAI30V5).

139 samples were selected based on initial nickel values and rock descriptions to undergo Davis Tube separation by SGS Laboratories in Burnaby, BC. A 40-gram subsample was passed through the Davis Tube and agitated for four minutes. Magnetic concentrate was then collected, filtered, dried and weighed. An approximately 10 g subsample of the Davis Tube concentrates was analyzed) by XRF.

Quality control procedure was implemented for both rock and soil analytical batches involving the insertion of standards and blanks. Twenty (20) standards and blanks were inserted randomly into the flow of sample analysis for soils, while twelve (12) were inserted for rocks. The results of the control samples are within the accepted parameters for accuracy, precision and overall performance of the certified materials. Analytical standards used were from CDN Resource Laboratories Ltd., Langley, BC and ORE RESEARCH & EXPLORATION, Victoria, Australia.

#### 11.2.3 Hard Nickel 4 Drilling Sample Procedures

Standard wireline drilling practice was applied. Each run of drill core was collected in a 3 meter core barrel. Drill core was retrieved and placed into wooden core boxes with marking blocks that recorded depth of drilling. Drill casing was left in place at the end of the drilling work and all holes were plugged. Stick-up lengths of casing above surface were subsequently cut to surface level. Core was geologically logged, geotechnically teched and photographed prior to cutting.

Sampled intervals were cut in half along the core axis using a diamond saw in Smithers, BC. Cut samples were tagged, sealed inside a poly- bag and grouped into rice bags. These samples were then transported by Bandstra Transport to SGS Labs in Burnaby, BC, for analysis. A chain of custody was recorded, no issues regarding sample integrity were encountered.

A total of 416 half core samples and 24 QA/QC samples were submitted for assay. An additional 75 intralab QA/QC samples were included by SGS apart of internal QAQC validation, no issues were reported. Samples were geochemically analyzed using a multi-acid (4 acid) ICP method (GE\_ICP40Q12). The half core remaining after sampling was placed back into wooden core boxes, stacked on pallets, and returned to site.

Furthermore, 364 of the initial 416 half core samples submitted for assay were selected based on initial nickel values to undergo Davis Tube separation with pyrosulphate fusion and XRF finish for magnetically recoverable nickel content.

# 12 Data Verification

Data verification undertaken by the author includes a visit to the Hard Nickel 4 and Ni100 Property on 28 October 2022, internal auditing of assays in the database against lab certificates and overall lab performance, re-calculation of composite intervals presented in section 10 of this report, and compilation and review of QA/QC data.

Before, during and after the site visit the author verified the data for this report by:

- Verifying the access to the Property, ownership and expiry dates of mineral titles that comprise the Property
- Reviewing and assessing the historical exploration literature, assessment and technical reports and data concerning the Property
- Outcrop examination consistency with property and regional scale mapping
- Auditing of geochemical results from surface sampling, and drillhole assays against original assay certificates associated with past assessment reports. Visual verification from produced maps matched created maps in previous reports. No data entry or other errors were found.
- Verifying and recreating historic maps of drill plans, cross sections, and interval calculations.
- Verifying access and location of proposed drill sites
- Confirming the presence of water locations for camp, staging, and infrastructure

The procedures and analysis in described this report, including previous exploration programs and the 2022 drilling program meet or exceed industry standards. The author considers the data in this report is accurate and precise, and there are no material factors that may materially impact the reliability and accuracy of the data.



Figure 12-1: Site Visit October 28th, 2022. Photo at Hard Nickel 4 tenure.

# 13 Mineral Processing and Metallurgical Testing

Surge engaged SGS Minerals Services to preform High Definition Quantitative Evaluation of Materials by Scanning Electron Microscopy ("QEMSCAN") analysis on select samples collected from the Property.

Sample ID	Claim	Description	Ni (%)	DTR Ni (%)	Ni <sub>mag</sub> (%)
C00183556	HN4	Medium green. Fine to medium grained serpentinite displaying schistose texture. Soft soapy texture on surfaces. Very fine grained magnetite crystals are distinguished. No sulphide mineralization.	0.1869	0.051	0.33
C00178737	Ni100	FG. Black-green. Strongly magnetic. Black-green colouration. Fine grained. Strong pervasive and fracture controlled serpentinite alteration. Weak-moderate orange oxidized weathering faces. Trace sulfides <1% possibly awaruite.	0.1952	0.052	0.36

Sample C00178737 was collected from the Ni100 claims, originally assayed 0.1952% Ni and 0.052% DTR Ni. The QEMSCAN elemental deportment of Ni shows that pentlandite hosts 15.6% of total Ni, awaruite hosts 1.11% of total Ni while moderate amounts of Ni reside in serpentine and magnetite and lesser amounts in nickel sulphides including millerite and heazlewoodite (Table 13-1 and Figure 13-1). QEMSCAN analysis shows that sample C00178737 consists mostly of serpentine and magnetite with lesser amounts of olivine, spinel and clinopyroxene and trace amounts of awaruite, pentlandite, heazlewoodite and brucite (Table 13-2 and Figure 13-2).

Sample C00183556 was sampled in the HN4 claim group, originally assayed containing 0.1869% Ni and 0.051% DTR Ni. The QEMSCAN elemental deportment of Ni shows that awaruite hosts 0.74% of total Ni while most of the Ni reside in serpentine and magnetite with lesser amounts hosted in pentlandite, millerite and heazlewoodite (Table 13-1 and Figure 13-1). QEMSCAN analysis shows that sample C00178737 consists mostly of serpentine and magnetite with lesser amounts of olivine, spinel and clinopyroxene and trace amounts of awaruite, pentlandite, heazlewoodite and brucite (Table 13-2 and Figure 13-2).

#### Table 13-1: Elemental Deportment (Mass% Ni) in Minerals

	C00178737:	C00183556:
Pentlandite	15.6	0.21
Awaruite	1.11	0.74
Millerite	5.41	1.22
Heazlewoodite	6.03	0.44
Ni-Arsenide	0.00	0.00
Cu-Ni-(Fe) alloys	0.00	0.05
Other Sulphides	0.02	0.01
Serpentine	35.2	51.1
Clinopyroxene	0.21	0.02
Olivine/Orthopyroxene	8.29	7.30
Chlorite	0.53	0.56
Talc	0.02	1.54
Chromian Spinel	1.34	0.83
Magnetite/Hematite	26.2	36.0
Other	0.00	0.01
Total	100.0	100.0



Figure 13-1: Elemental Nickel Deportment Normalized



Figure 13-2: Modal Abundance of Minerals from QEMSCAN

Sample		C00178737	C00183556
Fraction		As Rec'd	As Rec'd
Mineral	Pentlandite	0.06	0.00
Mass (%)	Awaruite	0.00	0.00
	Millerite	0.01	0.00
	Heazlewoodite	0.01	0.00
	Ni-Arsenide	0.00	0.00
	Cu-Ni-(Fe) alloys	0.00	0.00
	Other Sulphides	0.01	0.01
	Serpentine	56.9	55.2
	Clinopyroxene	1.15	0.03
	Olivine/Orthopyroxene	4.39	4.23
	Chlorite	0.62	0.39
	Talc	0.01	0.83
	Other Silicates	0.03	0.03
	Chromian Spinel	10.2	4.23
	Magnetite/Hematite	26.1	25.8
	Magnesite/Brucite	0.07	8.99
	Ca–Mg Carbonates	0.21	0.04
	Other	0.20	0.16
	Total	100.0	100.0

## 14 Mineral Resource Estimates

Not applicable.

## 23 Adjacent Properties

Immediately north of the Hard Nickel 4 claim group, FPX Nickel Corp is advancing the Baptiste awaruite deposit (the "Baptiste Deposit") of the Decar Property, central British Columbia (Figure 23-1). Awaruite is a nickel-iron alloy (formula Ni2-3Fe) that is strongly magnetic and has a higher density than associated gangue minerals, mostly magnetite and serpentine. Metallurgical testing, shows that awaruite can be concentrated through a simple grinding and magnetic separation process. Since this process captures only the nickel contained within awaruite, and not nickel contained in relict olivine and sulphide minerals, nickel grades are reported as the percent (%) nickel recoverable by Davis Tube magnetic separation ("DTR Ni").

The Decar Property is underlain by bedrock of the Cache Creek terrane, which includes an obducted Upper Paleozoic and Lower Mesozoic ophiolite of the Trembleur ultramafic unit. Other rocks underlying the Property include metasedimentary and metavolcanic rocks of the Sitlika assemblage and Sowchea succession. Ultramafic rocks of the Trembleur unit are variably serpentinized, with awaruite formed during serpentinization of nickeliferous olivine in the peridotite.

According to BC MINFILE, the claims of the Decar Nickel Project cover seven BC MINFILE occurrences. Since 2008, FPX Nickel Corp. and predecessor First Point Minerals Inc. explored the area of the Decar Nickel Project culminating in the discovery of the Baptiste Nickel Deposit and three other nickel targets on the property: Van, Sid, and B. See FPX Nickel's website <a href="https://fpxnickel.com/">https://fpxnickel.com/</a> for current information and the approximate locations of the Baptiste deposit and the other targets relative to the company's claims groups.



Figure 23-1: Decar Project in relation to Nickel Project claims

On November 14<sup>th</sup>, 2022 FPX Nickel Corp reported an updated mineral resource estimate for the Baptiste Nickel Project (Flynn and Voordouw, 2022). See FPX Nickel's website <u>https://fpxnickel.com/</u> for current information.

Category	Tonnes	Grade				Contained Metal			
	(Mt)	DTR Ni (%)	Total Ni (%)	DTR Co (%)	DTR Fe (%)	DTR Ni (Kt)	Total Ni (kt)	DTR Co (kt)	DTR Fe (Mt)
Indicated	1,815	0.129	0.211	0.0035	2.40	2,435	3,828	64.4	43.5
Inferred	339	0.131	0.212	0.0037	2.55	444	720	12.5	8.6

- 1. Mineral Resource estimate prepared by Richard Flynn, P.Geo of NMC using ordinary kriging within grade shell domains and inverse distance squared in dike domains.
- 2. Resources are reported using the 2014 CIM Definition Standards and were estimated in accordance with the CIM 2019 Best Practices Guidelines.
- 3. Davis Tube magnetically-recovered ("DTR") nickel is the nickel content recovered by magnetic separation using a Davis Tube, followed by fusion XRF to determine the nickel content of the magnetic fraction; in effect a mini-scale metallurgical test. The Davis Tube method is the global,
- 4. industry standard metallurgical testing apparatus for recovery of magnetic minerals.
- 5. Indicated resources are drilled on approximate 200 x 200 metre drill spacing and confined to mineralized lithologic domains. Inferred resources are drilled on approximate 300 x 300 metre drill spacing.
- 6. A cut-off grade of 0.06% DTR Ni was applied.
- 7. An optimized pit shell was generated using the following assumptions: US \$8.50 per pound nickel price; pit slopes between 42-44°; nickel payability of 96%; mining recovery of 97% DTR Ni; process recovery of 85% DTR Ni; exchange rate of US\$1.00 = C\$0.77; and total operating cost and minimum profit of US\$9.37 per tonne.
- 8. Totals may not sum due to rounding.
- 9. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

The qualified person has been unable to verify the information and that the information is not necessary indicative of the mineralization on the property that is the subject of the technical report.

# 24 Other Relevant Data and Information

To the author's best knowledge, all the relevant data and information has been provided in the preceding text.

## 25 Interpretation and Conclusions

This technical report on the Hard Nickel Property composed of the Hard Nickel 4 and Nickel 100 claim groups has been prepared for Surge Battery Metals Inc. to satisfy its disclosure requirements under applicable Canadian securities laws and the rules of the TSX Venture Exchange.

The Property consists of two non-contiguous mineral claims groups held by Grid Battery Metals Inc (formerly known as "Nickel Rock Resources Inc.") entered into an option agreement effective March 31<sup>st</sup>, 2023 to acquire the remaining 20% interest in the HN4 and Ni100 mineral claims. Previously the Company had a Property Option agreement dated July 8<sup>th</sup>, 2021 with Grid Battery Metals Inc ("Grid")., formerly known as Nickel Rock Resources Inc. ("Nickel Rock ") to acquire 80% interest in the Nickel Project consisting of all six claims of the Hard Nickel 4 and the Nickel 100 properties.

The early-stage exploration project is in the Takla Lake area of central British Columbia, partially adjacent to FPX Nickel Corp.'s Decar Nickel Project. The Decar Nickel Project is an advanced project targeting awaruite, a nickel-iron alloy mineral, hosted by serpentinized ultramafic intrusive rocks of the Trembleur Ultramafic Unit within the Permian to Triassic age Cache Creek Complex.

The Ni100 and HN4 properties are underlain by similar geological units and contain nickel mineralization on both properties. All the claim groups of the HN4 and Ni100 claims are partially underlain by rocks of the Trembleur Ultramafic Unit, which consist of variably serpentinized harzburgite, dunite and orthopyroxenite, and locally carbonate-talc altered rocks and listwanite. In the Hard Nickel claim group, metallic mineralization includes nickel, cobalt and chromium, and some of the nickel mineralization occurs as the nickel-iron alloy awaruite, and as sulphide minerals including heazlewoodite, pentlandite and millerite. In the Nickel 100 claim group, metallic mineralization includes nickel, cobalt and chromium as well, and although nickel-cobalt mineralization is relatively unexplored, the presence of awaruite has been documented. The principal target on the project is nickel occurring as awaruite, but all other styles of mineralization should be considered including disseminated and high grade nickel mineralization.

The properties are of merit and further work is warranted. The HN4 and Ni100 claim groups of the Nickel Project are worthy of phased, systematic exploration programs totaling \$284,526.46. Work is to be proposed as a two phase program, designed, and implemented to delineate areas of known or high probability metallic nickel mineralization, and to discover new areas of similar mineralization.

#### 25.1 Ni100 Claims

Results from the 2021 and 2022 exploration work program on the Ni100 property confirm initial indications from the 2021 program that the magnetic response seen in the QUEST – West airborne magnetic data is associated with nickel-chromium bearing ultramafic rocks of the Trembleur Ultramafic Unit. Prospecting along this feature consistently produced magnetic ultramafic rocks with elevated nickel-chromium values and DTR Ni values. Of the 304 rock samples collected in 2022, 197 of them returned values greater than 1500 ppm Ni.

Magnetic separation via DTR was performed on 197 samples high in nickel to determine the proportion of nickel mineralized as iron-nickel alloys such as awaruite. Values ranged from 0 to 0.087% DTR Ni with 69 of the samples grading over 0.03%. The most promising location is in the NW corner of Area 4 where six samples graded over 0.05% DTR Ni within an area of 0.25 km<sup>2</sup>.

The 2022 program was successful in identifying numerous locations of nickel alloy bearing ultramafic rocks. These results, coupled with the kilometre scale magnetic anomalies, of which all the higher-grade samples are within, provide ample potential for the discovery of significant amounts of disseminated awaruite mineralization within the property.

#### 25.2 Hard Nickel 4 Claims

Exploration results from the 2021 and 2022 work conducted on the Hard Nickel 4 claim reaffirm the presence of nickel-chromium bearing ultramafic rocks associated within magnetic features identified in regional geophysics. Northwest-trending magnetic features appear to be associated with tabular, southwest dipping ultramafic units which returned high nickel and chromium in soil and rock samples. Rock sampling and prospecting confirmed the existence of serpentinized ultramafic rocks exhibiting weak to strong magnetic response and returned elevated nickel and chromium values. Davis Tube analysis of select rocks successfully identified magnetic minerals as a source for some of the nickel contained within the ultramafic rocks.

Follow up mineralogical studies are recommended to determine the exact mineralogy and morphology of magnetic nickel bearing minerals is recommended as a next step.

Past exploration has primarily targeted listwanite hosted gold mineralization, however, recent work suggests nickel-chromium within serpentinized peridotite may present a viable target. Future work should focus on determining the extent of the geochemical trend and the extent of the prospective Trembleur Ultramafic Unit.

Diamond drilling on the Hard Nickel 4 property produced positive results. Hole HN4-22-01 returned an interval of 0.058% DTR Ni over 94 meters. Hole HN4-22-02 returned the most positive results with 0.105% DTR Ni from 276 m to 297 m (over 21 meters) and ending in mineralization. As this interval was taken at the bottom of the hole, it is possible that magnetic nickel concentrations over 0.1% DTR Ni continue with depth. Hole HN4-22-03 returned moderate results with an interval of 0.054% DTR Ni over 26.25m at the top of the hole.

BHID	From	То	Width	Ni (%)	DTR Ni%
HN4-22-01	158	297	139	0.194	0.045
including	158	254	96	0.201	0.058
also including	160	194	34	0.195	0.062
and	213	254	41	0.211	0.061
HN4-22-02	15	30	15	0.2	0.049
including	204	297	93	0.201	0.053
also including	222	246	24	0.188	0.051
and	276	297	21	0.226	0.105
	282	297	15	0.231	0.119
HN4-22-03	33.75	60	26.25	0.22	0.054

## 26 Recommendations

The recommended work program for the HN4 and Ni100 Claim Groups of the Nickel Project is approximately \$284,500, including approximately \$55,000 in Phase 1 exploration, and approximately \$230,000 in Phase 2, as outlined in Table 26-1. Advancing to Phase 2 is not contingent on results from Phase 1 as they are non contiguous claim blocks.

Phase 1 Ni100 Follow Up		
Item	Description	Estimate
Preseason Planning	Database review and compilation, Logistics	\$1,636.25
Post Season reporting	assessment reports	\$3,835.00
Field Personnel	4 person team, 4 days	\$10,732.40
Equipment	vehicle rentals	\$741.00
Rentals	communications, XRF,	\$1,080.00
Analytical	rocks samples, thin sections	\$10,100.00
Expenses	mob, room and board, fuel, accommodations	\$9,166.25
Subcontractors	helicopter	\$11,370.00
Taxes and Fees	Applicable taxes and fees	\$5,637.58
Total		\$54,298.48

Table 26-1: Proposed Phase 1 and Phase 2 Exploration Budget

Phase 2 HN4 Follow Up		
Item	Description	Estimate
Preseason Planning	Database review and compilation, Logistics	\$1,636.25
Post Season reporting	assessment reports	\$5,471.25
Field Personnel	8 Days	\$22,304.80
Equipment	Trucks, trailers, atvs, dGPS, core shack	\$6,218.33
Rentals	communications, XRF, leapfrog, gyro	\$6,060.00
Analytical	rocks samples, thin sections	\$32,060.00
Expenses	mob, room and board, fuel, accommodations	\$29,707.05
Subcontractors	Drilling 500 m	\$105,633.00
Taxes and Fees	Applicable taxes and fees	\$21,137.29
Total		\$230,227.98

Phase 1 & 2	\$284,526.46
Plidse I & Z	ŞZ04,5Z0.4

### 26.1 Phase 1 (Ni100)

Future work should focus on determining the extent of nickel mineralization at the property scale. Mineralogical and metallurgical studies should be conducted on targeted zones to assess the source of nickel and the relationships between structure, lithology, alteration, and mineralization style and to assess the amenability of nickel minerals to concentration techniques. A four day follow up program of work should include:

- Further geological mapping and prospecting at the property scale to determine the surface extent of Trembleur Ultramafic rocks and nickel-chromium mineralization.
- Targeted sampling of high-grade areas for mineralogical and metallurgical study to assess the controls on style and grade of nickel mineralization.
- Mineralogical studies and QEMSCAN of rocks with greater than 1500 ppm nickel may also be required to determine the modal abundance of nickel, in addition to Davis Tube analysis.

#### 26.2 Phase 2 (Hard Nickel 4)

Follow up work on Hard Nickel 4 should include:

- Geological mapping to determine the extent and possible orientation of the nickel-chromium bearing ultramafic rocks.
- Database review and planning from previous programs to delineate high priority targets
- 500 m of diamond drilling targeting the higher-grade zone at the bottom of drill hole HN4-22-02 in order to determine the extent of the anomaly. A step out from original collar or from same pad location is recommended.
- Additional drilling is contingent on positive results of field exploration and drilling. Furthermore, drilling may also be warranted in the southern portion of the claim where several rock samples previously returned above 0.05% DTR Ni.
## 27 References

- Aeroquest Surveys, Report on a Helicopter-Borne AeroTEM System Electromagnetic & Magnetic Survey, QUEST-West, Central B.C., for Geoscience BC, January 2009, Geoscience BC Report 2009-6, 2009.
- Aeroquest Surveys, Report on 1D Inversion Modelling of the QUEST-West Helicopter-Borne AeroTEM System Electromagnetic Data, Central B.C., for Geoscience BC, April 2009, Geoscience BC Report 2009-19, 2009.
- Armstrong, J.E., GSC Geology Map 631A, Fort Fraser (West Half) Sheet, British Columbia, 1937.
- Armstrong, J.E., GSC Paper 42-7, Preliminary Geology Map Takla, British Columbia, 1942.
- Armstrong, J.E., GSC Geology Map 844A, Takla Sheet, British Columbia, 1944.

Armstrong, J.E., GSC Paper 45-6, 2<sup>nd</sup> Preliminary Geology Map Takla, British Columbia, 1945.

- Armstrong, J.E., GSC Geology Map 907A, Fort St. James Sheet, British Columbia, 1948.
- Armstrong, J.E., GSC Memoir 252, Fort St. James Map Area, British Columbia, 1949.
- British Columbia Department of Mines, Annual Report 1962, Departmental Work Omineca Mining Division p. A67.
- Britten, R., and Rabb, T., Geology and Geochemistry, Mesa Property, NTS 093N2, N3, Omineca Mining Division for First Point Minerals Corp., ARIS Report 31553, June 2010.
- Britten, R., Regional Metallogeny and Genesis of a New Deposit Type Disseminated Awaruite (Ni₃Fe) Mineralization Hosted in the Cache Creek Terrane, Economic Geology, V112, pp. 517-550, 2017.
- Buckley, P., Diamond Drilling Report for the Don 1 Mineral Claim, Omineca Mining Division, Takla Lake, for Placer Development Limited, ARIS Report 8357, August 1980.
- Buckley, P., Diamond Drilling Report for the Dairy Group of Mineral Claims, Omineca Mining Division, Takla Lake, for Placer Development Limited, ARIS Report 8358, August 1980.
- Dipple, G. et.al., The Carbon Mineralization Potential of Ultramafic Rocks in British Columbia: A Preliminary Assessment, Geoscience BC Report 2020-15, 2020.
- Dubé, R.G., Report on 2022 geochemical surveys on the Ni100 property. BC Assessment Report Under Review, 2023
- Dubé, R.G., Report On 2022 Geochemical Surveys and Drilling on the Hard Nickel 4 Property. BC Assessment Report Under Review, 2023
- Forbes, J.R., Geological and Geochemical Report on the New Claim Group, Omineca Mining Division, NTS 093K14, ARIS Report 17944, October 1988.
- Geoscience BC, QUEST-West Project Compilation Maps 2010-12-1 to 2010-12-18, Geoscience BC Report 2010-12, 2010.

Geological Survey of Canada, Mineral Map of British Columbia Map 1008A, 1951.

Harvey-Kelly, F.E.L., Asbestos Occurrences in British Columbia, BCGS Open File 1995-25, pp. 60-61, 1995.

- Hanson, J. and Houle, J., Technical Report for the Nickel Project, Omineca Mining Division, Takla Lake Area, British Columbia, for Nickel Rock Resources Inc., January 2021.
- Hutter, J. and Houle, J., Technical Report for HN4 & N100 Claim Groups of the Nickel Project, Omineca Mining Division, Takla Lake Area, British Columbia, for Nickel Rock Resources Inc., October 2021.
- Jackaman, W. et al., Re-analyses of archived stream sediment samples as part of Geoscience BC QUEST Project, Geoscience BC Report 2008-3, 2008.
- Jackaman, W. et al., Regional Lake Sediment and Water Geochemical Data, Northern Fraser Basin, Central British Columbia as part of Geoscience BC QUEST Project, Geoscience BC Report 2008-5, 2008.
- Jackaman, W. et al., Regional Drainage Sediment and Water Geochemical Data, Central British Columbia as part of QUEST-West Project, Geoscience BC Report 2009-11, 2009.
- Kimura, E.T., Geochemical Report, Don and John Mineral Claims, Omineca Mining Division, NTS 093N/5E, ARIS Report 6814, July 1978.
- MacIntyre, D.G., et al., Preliminary Bedrock Geology of the Tochcha Lake Map Area (093K/13), British Columbia, BCGS Geological Fieldwork 1997, Paper 1998-1, 1998.
- MacIntyre, D.G., et al., Bedrock Geology Cunningham Lake Sheet 093K/11,12,13 & 14, British Columbia, BCGS Open File 1999-11, 1999.
- Mira Geoscience, QUEST-West Gravity, Magnetic and EM Inversion Modeling as part of QUEST-West Project, Geoscience BC Report 2009-24, 2009.
- Mowat, U., Sampling on the Os, Pt, Pd and Ir Claims, Omineca Mining Division, NTS 093N/06W, BCGS 093N023, ARIS Report 27858, May 2005.
- Nilsson, J.W., Geochemical Report, Dairy Mineral Claims, Omineca Mining Division, Takla Lake, NTS 093N/5E, ARIS Report 7468, August 1979.
- Plouffe, A., et al., Preliminary Study of the Quaternary Geology of the Northern Interior of British Columbia, Current Research, Part A, Geological Survey of Canada, Paper 91-1A, pp. 7-13, 1991.
- Plouffe, A., et al., Surficial Geology of the Tsayta Lake Sheet, British Columbia, Geological Survey of Canada Open File 3071, 1996.
- Plouffe, A. et al., Surficial Geology of the Cunningham Lake Sheet, British Columbia, Geological Survey of Canada Open File 3183, 1996.
- Rear, B., Geological, Geochemical Report on the Tooth 108 Claims for Placer Dome Inc., Omineca Mining Division, 093N5, -6, ARIS Report 19955, March 1990.
- Rice, H.M.A., et al., Geology of the Smithers-Fort St. James Map Sheet, Geological Survey of Canada Map 971A, 1949.
- Sander Geophysics, Project Report Airborne Gravity Survey, QUEST-West, British Columbia 2008, Geoscience BC Report 2008-10, 2008.

- Schiarizza, P., et al., Geology of the Babine Lake Takla Lake Area, Central British Columbia (093K/11, 12, 13, 14; 093N/3, 4, 5, 6), BCGS Geological Fieldwork 1998, Paper 1999-01.
- Taylor, A.G., Geology and Geochemistry of the Cyprus Claims, Mitchell Range for Imperial Metals Corporation, Omineca Mining Division, ARIS Report 16095, May 1987.
- Tipper, H.W., et al., Geology of the Parsnip River Map Sheet, NTS 093, Geological Survey of Canada Map 1424a, 1974.
- Voordouw, R.J., 2018 Technical (N.I. 43-101) Report on the Decar Nickel-Iron Alloy Property, FPX Nickel Corp., 2018
- Wasylyshyn, L., Report on 2021 geochemical surveys on Hard Nickel 3, Hard Nickel 4, and Hard Nickel center claim groups. BC Assessment Report 40147, 2022
- Wasylyshyn, L., Report on 2021 geochemical surveys on the Ni100 property. BC Assessment Report 40149, 2022
- Whittaker, P.J., Chromite Occurrences in Ultramafic Rocks in the Mitchell Range, Central British Columbia, Current Research, Part A, Geological Survey of Canada, Paper 82-1A, pp. 239-245, 1982.
- Whittaker, P.J., Chromite Occurrences in Mitchell Range Ultramafic Rocks of the Stuart Lake Belt, Cache Creek Group (093N), BCGS Geological Fieldwork 1981, pp. 239-245, Paper 1982-01.
- Whittaker, P.J., Geology and Petrogenesis of Chromite and Chrome Spinel in Alpine-type Peridotites of the Cache Creek Group, British Columbia, PhD Thesis, Department of Geology, Carleton University, 1983.

## Definitions

alloy	a combination of metals or metals combined with one or more other elements	
arsenopyrite	an iron arsenic sulphide mineral with composition FeAsS	
asbestosone of six naturally occurring silicate minerals composed of long and thin fibrous crystals		
awaruite	a naturally occurring alloy of nickel and iron with composition from $Ni_2Fe$ to $Ni_3Fe$	
bravoitea nickel bearing mineral variety of pyrite (FeS $_2$ ) with composition (Fe,Ni)S $_2$		
carbonate	a mineral containing CO $_3$ such as calcite CaCO $_3$ , dolomite CaMgCO $_3$ , magnesite MgCO $_3$	
cell claim	title granted in BC for mineral or placer rights over an area through on-line selection	
chalcopyrite	a copper iron sulphide mineral with composition CuFeS <sub>2</sub>	
dunite	an igneous intrusive ultramafic rock composed of greater than 90% olivine	
FMC	Free Miners Certificate required to acquire and manage mineral or placer titles in BC	
harzburgite	an igneous intrusive ultramafic rock composed mostly of olivine and orthopyroxene	
heazlewoodite	a sulphur-poor nickel sulphide mineral with composition Ni <sub>3</sub> S <sub>2</sub>	

legacy claim	pre-1995 title granted in BC for mineral or placer rights through staking in the field	
listwanite	an altered rock formed from carbonatized ultramafic rocks	
mariposite	a chromium-rich and silica-rich mineral variety of muscovite mica	
MINFILE mineral occurrence database in BC available on-line at <u>https://minfile.gov.bc.ca/</u>		
molybdenite	a molybdenum sulphide mineral with composition MoS <sub>2</sub>	
ophiolite	a section of oceanic crust and underlying upper mantle that has been uplifted and often emplaced onto continental crust through plate tectonic processes	
orthopyroxenite an igneous intrusive ultramafic rock composed of greater than 90% orthopyroxene		
PGE	Platinum Group Elements occurring as metals including platinum, palladium, rhodium, osmium, iridium and ruthenium	
peridotite	an igneous intrusive ultramafic rock such as dunite, harzburgite, orthopyroxenite	
quartz monzonite an igneous intrusive felsic rock containing mainly feldspars and 5-20% quartz		
QEMSCAN – insert reasonable explanation of the process		
serpentinite	a metamorphic rock formed by hydration and oxidation of mafic and ultramafic rocks	
siegenite	a cobalt nickel sulphide mineral with composition (Ni,Co) <sub>3</sub> S <sub>4</sub>	
talc	a clay mineral composed of hydrated magnesium silicates	
ultramafic	an igneous rock containing less than 45% silica, more than 18% magnesia, and high iron	

## **Certificate of Qualified Person**

I, Jeremy Hanson, P.Geo, of 7351 Cedar Road, Smithers B.C., do hereby certify that:

- 1. I am President of the consulting business Hardline Exploration Corp, at 7351 Cedar Rd, Smithers BC, V0J2N2, Permit to Practice Number 1002230
- 2. This certificate applies to this report titled "Technical Report on the HN4 & Ni100 Claim Groups of the Nickel Project, British Columbia," dated June 7, 2023
- 3. I graduated from Simon Fraser University in 2013 with a B.Sc. (Hons) with distinction in Earth Sciences and have been employed continuously in the mineral exploration and mining industry since 2010 and have been practising as a professional geoscientist continuously since 2017
- 4. I am a Qualified Person with over five years of professional experience as defined in National Instrument 43-101.I have relevant experience through 5.5 years of professional practise, exploring and managing mineral exploration projects from grass roots to advanced stage drilling programs throughout British Columbia. I have worked as a professional geoscientist on porphyry deposits, intrusion related gold, magmatic Ni-Cu PGE, volcanic hosted massive sulphide, sediment hosted deposits and ultramafic nickel mineral systems
- I am a Professional Geoscientist in good standing with Engineers and Geoscientist B.C., registration number 45904 and am a "qualified person" for the purposes of National Instrument 43-101
- I visited the Nickel Project site on October 28, 2022, to conduct the site visit described in this report
- 7. I am responsible for all items in this technical report.
- I am independent of Surge Battery Metals Inc and Grid Battery Metals Inc (formerly "Nickel Rock Resources Corp") and as defined by section 1.5 of NI 43-101, and hold no options or securities in either company.
- 9. I have advised Grid Battery Metals Inc (formerly "Nickel Rock Resources Corp") and Surge Battery Metals in exploration programs for the Nickel Project but have not completed any of the field work on the project personally.
- 10. I have read the National Instrument 43-101 and the technical report has been prepared in compliance with this Instrument; and
- 11. That at the effective date of the technical report, I have read the document and to the best of my knowledge, information, and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Signed this 7<sup>th</sup> day of June 2023.

Jeremy Hanson, P.Geo

HANSON # 45904