Independent Technical Report on the Crawford Nickel-Cobalt Sulphide Project

Timmins-Cochrane Area
Ontario, Canada

Report Prepared for:

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AND

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Effective Date: October 25, 2019
Report Date: October 30, 2019

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Project Number: 594.19.00

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1.0 SUMMARY

1.1 Introduction

At the request of private Canadian company Canada Nickel Company ("CNC" or the "Company") and public company Noble Mineral Exploration Inc. ("Noble"), Caracle Creek International Consulting Inc. ("Caracle" or the "Consultant"), a Canadian company, has prepared this technical report as a National Instrument 43-101 ("NI 43-101") Technical Report (the "Report") on the Crawford Nickel-Cobalt Sulphide Project (the "Project" or the "Property"), located in the Timmins-Cochrane Area of northern Ontario, Canada, about 42 km north of the city of Timmins.

This Report was prepared as an NI 43-101 Technical Report for CNC to be used in support of a transaction between publicly listed company, Noble Mineral Exploration Inc. (TSX-V: NOB), and the private company Canada Nickel Company Inc. (the "Transaction"). The planned consolidation of the Property will be implemented under the terms of a binding letter of intent ("LOI") that has been entered into by Noble, Mr. Mark Selby, Spruce Ridge Resources Ltd. (TSX-V:SHL) ("Spruce Ridge") and certain private investors (the "Investors"), subject to certain specified conditions including required regulatory and shareholder approvals. For further details, see the Noble news release dated October 1, 2019.

The Effective Date of this Report is October 25, 2019. The agreement between CNC and Caracle permits CNC to file this Report with Canadian securities regulatory authorities pursuant to NI 43-101 Standards of Disclosure for Mineral Projects.

This Report has been completed by Dr. Scott Jobin-Bevans and Mr. John Siriunas (together the "Consultants" or the "Authors") who work for Caracle Creek International Consulting Inc. Dr. Scott Jobin-Bevans and Mr. John Siriunas, by virtue of their education, experience, and professional association, are both considered to be a Qualified Person ("QP"), as that term is defined in NI 43-101, for this Report. Mr. Siriunas visited the Property on Saturday October 12th, 2019, for one day, accompanied by CNC personnel.

Dr. Jobin-Bevans is responsible for all sections of this Report except for Section 2.3. Mr. Siriunas is responsible for all sections of this Report including Section 2.3.

1.2 Property Description and Location

The Crawford Nickel-Cobalt Sulphide Project is located in Crawford Township, about 42 km north of the city of Timmins, and on NTS map sheet 42A/14. The approximate centre of the Property is at UTM coordinates 472571mE, 5409607mN (NAD83, UTM Zone 17 North; EPSG:2958) and elevation ranges from about 265 to 290 m above mean sea level.

The Crawford Nickel-Cobalt Sulphide Project covers approximately 650 ha (6.5 km^2) and comprises eight (8) Crown Patents (mining rights only) and 18 Single Cell Mining Claims. The patented lands are subject to a 2% Net Smelter Return Royalty. No permits are necessary to complete exploration work on the mining rights only patented lands, however notice must be given to the owners of the surface rights prior to beginning an exploration on the Property. The Company has advised the Authors that they are in communication with the surface rights owners.

1.3 Exploration History

Prior to 1964, little was known about the geology of Crawford Township. The first aeromagnetic survey was completed in 1955, followed by a 1956 Geological Survey of Canada aeromagnetic survey, and a 1964 Geological Survey of Canada aeromagnetic survey. All three magnetic surveys showed a large, roughly circular, strongly magnetic high zone in the east-central part of the township that was interpreted to be an ultramafic rock mass (*i.e.*, the Crawford Ultramafic Complex or "CUC").

The 1963 discovery of the rich base metal deposit in Kidd Township (Kidd Creek Mine), about 15 km south of the CUC, led to a flurry of exploration in Crawford Township through the latter 1960s and the 1970s. The first exploration recorded in Crawford Township dates back to 1964. The International Nickel Company of Canada Limited led the way in exploring the township during the 1960s with multiple drill holes testing numerous geophysical MAG-EM anomalies.

In 2011, after a long exploration hiatus in Crawford Township, Ring of Fire Resources entered into a purchase agreement with AbiBow Canada to acquire a large patented land package and began exploration in late 2011. Ring of Fire Resources became Noble Mineral Exploration with a name change in early 2012 and continued to explore in the region, focusing mainly on the Kingsmill Nickel target in nearby Kingsmill Township. In late 2017, Spruce Ridge Resources entered into an agreement with Noble Mineral Exploration to explore certain lands in Crawford Township, including the CUC. Spruce Ridge began a diamond drilling program in late 2018 and they continue to drill in 2019.

In 2017, Noble Mineral Exploration completed a 1,031.3 line km airborne helicopter MAG-EM survey and in 2018, a fixed-wing 936.1 line km FALCON© Airborne Gravity Gradiometer and magnetics survey, both covering Crawford Township and the Property.

1.4 Historical Mineral Processing and Metallurgical Testing

In 2019, Spruce Ridge commissioned a mineralogical study of ultramafic rock material collected from drill core samples from the 2018 diamond drilling program. The purpose of the study was to determine whether the nickel (and other elements) occur in the sulphide state, which could be economically extracted from the altered ultramafic host rocks of the CUC. The study identified nickel and/or cobalt bearing minerals that included pentlandite (50%), heazlewoodite (35%), awaruite (15%), and minor godlevskite. The pentlandite dominates the nickel-bearing mineral assemblage and is considered most promising for economic nickel extraction. Heazlewoodite is one of the most nickel rich sulphide minerals and is generally thought to be of hydrothermal origin.

In 2019, selective leach analysis tests were performed on pulp samples of the 12 core intervals from which the mineralogy samples were taken. All drill core samples had been initially analysed by ICP after sample preparation using sodium peroxide fusion for total digestion of nickel and cobalt. Pulps from the same 12 sample intervals selected for SEM analysis were re-analysed using the same ICP procedure, after digestion using aqua regia, which does not attack silicate minerals to any significant degree. In comparing the results, this provided a semi-quantitative estimate of the amount of nickel and cobalt that had been liberated from their parent olivine by serpentinization. the difference between the two methods showed that average nickel liberation was 62% and average cobalt liberation was 77 percent.

1.5 Geology and Mineralization

The Crawford Nickel-Cobalt Sulphide Project is situated in the Timmins Mining Camp of northeastern Ontario, in the western portion of the mineral-rich Abitibi Greenstone Belt (2.8 to 2.6 Ga), which is within the Superior Province, Canada. The Abitibi Greenstone Belt of the Abitibi Subprovince, spans across the Ontario-Quebec provincial border and is considered to be the largest and best preserved greenstone belt in the world (Jackson and Fyon, 1991; Sproule et al., 2003). The Timmins Mining camp has a history of nickel production from komatiite-associated Ni-Cu-(PGE) deposits.

Recent work (2003-2012) suggests that the rocks underlying the Property are part of the Deloro Assemblage (Monecke et al., 2017). The Deloro Assemblage (2730 to 2724 Ma) hosts the CUC and consists mainly of mafic to felsic calc-alkaline volcanic rocks with local tholeiitic mafic volcanic units and an iron formation cap which is typically iron-poor, chert-magnetite (Ayer et al., 2005; Thurston et al., 2008).

The surrounding Lower Blake River Assemblage (2704 to 2701 Ma), not underlying the Property, consists predominantly of tholeiitic mafic volcanic rocks with isolated units of tholeiitic felsic volcanic rocks and turbiditic sedimentary rocks (Ayer et al., 2005; Thurston et al., 2008) and is host to several mafic-ultramafic sills in the northern part of Crawford Township and in neighbouring Mahaffy and Aubin townships.

The rocks have undergone greenschist facies metamorphism with widespread carbonate, chlorite and sericite alteration in volcanic rocks and serpentinization in ultramafic rocks (*i.e.,* dunite, peridotite).

1.6 Crawford Ultramafic Complex (CUC)

The Crawford Ultramafic Complex "(CUC"), entirely undercover but geophysically recognized as early as 1964, is an approximately 8.0 km long body (original estimated shape as defined by geophysics) consisting of dunite, peridotite and their serpentinized equivalents, as confirmed in four diamond drill holes completed in 2018 by Spruce Ridge Resources. Historical diamond drilling (1960s and 1970s) also reported intersections of gabbro, peridotite, pyroxenite, dunite and serpentinite.

The type example of the intrusion-hosted Ni-Cu-PGE exploration model that the Company is using for the Crawford Ultramafic Complex is the Dumont Nickel Deposit (the "Dumont"), located about 220 km to the east of Crawford Township. The Archean Dumont Sill is about 7 km long and up to 1 km in width and like the CUC, is located within the Abitibi Greenstone Belt (Quebec) and is interpreted to be hosted by rocks of the Deloro Assemblage (Monecke *et al.*, 2017; Mercier-Langevin *et al.*, 2017).

The Dumont Sill has undergone pervasive serpentinization and local talc-carbonate alteration due to metamorphism to mid-upper greenschist facies. The observed mineralogy of the Dumont is a result of the serpentinization of a dunite protolith (>90% olivine), which locally hosted a primary, disseminated (intercumulus) magmatic sulphide assemblage and contained “trapped” nickel within the unaltered olivine. The pervasive serpentinization process, whereby olivine reacts with water to produce serpentine, magnetite and brucite, creates a strongly reducing environment where the nickel released from the decomposition of olivine is partitioned into low-sulphur nickel sulphides (*i.e.,* Heazlewoodite) and newly formed awaruite. The final mineral assemblage and texture of the disseminated nickel mineralization in the Dumont deposit and the variability has been controlled primarily by the variable degree of serpentinization that the host dunite has undergone. Metallurgical test work by Royal Nickel has yielded concentrates with over 29% Ni and 1% Co.

Historical drilling of the CUC and other differentiated ultramafic-mafic intrusions in Crawford Township intersected extensively serpentinized dunite and peridotite. On the basis of limited historical metallurgical work completed in the 1960s and a more recent mineralogical study, the serpentinized ultramafic rocks in the CUC are considered to have potentially recoverable nickel.

While some similarities between the Dumont and the CUC exist, exploration of the CUC is very early-stage and, as such, mineralization hosted by the advanced stage Dumont Nickel Project is not necessarily indicative of mineralization hosted on the Company’s Crawford Nickel-Cobalt Sulphide Project.

1.7 Environmental Studies, Permitting and Social or Community Impact

Caracle is not aware of any environmental liabilities on the Property. In 2012, Ring of Fire Resources, now Noble Mineral Exploration, signed a Memorandum of Understanding with Mattagami First Nation and Matachewan First Nation in relation to exploration to be conducted on its Project 81. CNC intends to honour the conditions of the legally binding agreement and intends to work with the Wabun Tribal Council on an amendment to the original agreement with Mattagami First Nation and Matachewan First Nation.

1.8 Adjacent Properties

The Kingsmill Ni Target is located in the northeast quadrant of Kingsmill Township, the northwest quadrant of Aubin Township, and the southeast quadrant of Mabee Township, about 23 km northwest of the CUC. This differentiated ultramafic-mafic intrusion was first drilled by INCO Canada Ltd. in 1964, 1965, and 1966 (at least 23 drill holes) intersecting serpentinized peridotite in several drill holes (*e.g.*, DDH 27090: 385.57 m grading 0.36% Ni and DDH 25064: 190.20 m grading 0.28% Ni) and explaining the strong magnetic anomaly. McIntyre Porcupine Mines Ltd. completed at least four drill holes on the Kingsmill target in 1974, intersecting serpentinized peridotite.

In January 2012, Ring of Fire Resources began its first phase of drilling on the Kingsmill Ni Target with 11 of the 12 drill holes intersected serpentinized peridotite, interpreted to be part of a high-angle ultramafic sill with the top of the sill in the south and the bottom of the sill in the north. Mineralogical studies carried out by Noble Mineral Exploration reported a similar nickel-bearing mineral assemblage to that which is described in the CUC, including awaruite (naturally occurring alloy of nickel and iron), heazlewoodite (rare sulphur-poor nickel-rich sulphide) and cobaltian pentlandite (iron-nickel-cobalt sulphide).

1.9 Conclusions

The main target on the Property is the Archean-age Crawford Ultramafic Complex, a differentiated ultramafic to mafic sill that intrudes the Deloro Assemblage of the AGB and comprises interlayered dunite (+90% olivine) and peridotite (+40% olivine) which have undergone extensive serpentinization, along with minor gabbro and pegmatite which have all been cut by late felsic (aplite) and mafic dikes. The CUC is estimated to be about 8.0 km long and up to 2.0 km wide (original estimated shape as defined by geophysics) and consists of three distinct portions, the Main, North and East areas. The CUC is completely covered and as such is currently mainly defined by its geophysical signature (strong magnetic highs) and a few historical diamond drill holes dating back to 1964, and recent 2018 and 2019 (ongoing drilling program) drilling by Spruce Ridge.

The ultramafic rocks (peridotite-dunite) from the CUC intersected in drill core have, for the most part, undergone intense serpentinization, the process by which water penetrates the ultramafic rocks, breaking down the olivine and other silicate minerals, and resulting in a substantial volume increase and the liberation of nickel and iron. This pervasive serpentinization process creates a strongly reducing environment where the nickel released from the decomposition of olivine is partitioned into low-sulphur sulphides like heazlewoodite and into the nickel-iron alloy, awaruite.

In 2019, Spruce Ridge commissioned a mineralogical study of ultramafic rock material collected from drill core samples (2018 diamond drilling) in order to determine whether nickel (and other elements) could be economically extracted from altered ultramafic host rocks of the CUC. The study identified several nickel- and cobalt-bearing minerals (in order of decreasing abundance): pentlandite (50%: iron-nickel sulphide), heazlewoodite (35%: sulphur poor, nickel-rich sulphide), awaruite (15%: nickel-iron alloy) and minor godlevskite (nickel-iron sulphide). The pentlandite, which dominates the nickel-bearing mineral assemblage, is considered most promising for economic nickel extraction. Heazlewoodite, one of the most nickel rich sulphide (low) minerals, is generally thought to be of hydrothermal origin and contains potentially recoverable nickel.

Also, in 2019, Noble commissioned selective leach analytical tests on pulp samples from the 2018 diamond drilling program. All 2018 drill core samples had been initially analysed by ICP after sample preparation using sodium peroxide fusion for total digestion (palladium, platinum and gold were determined by fire assay). Pulps from the same 12 sample intervals selected for SEM analysis were re-analysed using the same ICP procedure, after digestion using aqua regia, which does not attack silicate minerals to any significant degree. This provided a semi-quantitative estimate of the amount of nickel and cobalt that had been liberated from their parent olivine by serpentinization. After eliminating the one sample that showed much lower liberation, the average overall nickel liberation was 62%, and the average cobalt liberation was 77 percent.

On the basis of limited historical metallurgical work completed in the 1970s (McIntyre Porcupine Mines Ltd., 1973) on ultramafic rocks similar to those of the CUC, and more recent mineralogical studies and selective leach analysis by Spruce Ridge Resources and Noble Mineral Exploration, the serpentinized ultramafic rocks in the CUC are considered to have potentially recoverable nickel. In addition, metallurgical test work was completed in 2012 by Noble on drill core samples from the nearby (23 km to the northwest) Kingsmill Ni Target (Deposit), which has similar geology, mineralogy and nickel mineralization to that of the CUC. The metallurgical test work suggests that serpentinization of olivine in the ultramafic rocks liberated nickel that complexed with sulphides (heazlewoodite) and iron (awaruite) and that some portion of the nickel could therefore be recovered through flotation and magnetic separation.

1.10 Recommendations

As the target Crawford Ultramafic Complex is completely covered by tens of metres of overburden, there are realistically two options for exploring and evaluating the target: geophysical surveying and drilling. As the CUC has been flown with the latest technologies for airborne magnetic, electromagnetic and gravity surveying, the Company should consider follow-up ground and/or borehole geophysical surveys to refine existing targets and potentially define new targets including off-hole anomalies.

It is recommended that metallurgical test work be done on peridotite and/or dunite with nickel grades of >0.20% Ni to determine the amount of nickel in the silicates (*i.e.*, olivine) and the amount of nickel that can be separated by sulphide flotation and/or magnetic separation. A sample size of at least 500 kg of material should be considered. The ultimate determination of whether an economic size and grade of deposit can be drilled out will be determined on the success of the metallurgical tests and the price of nickel.

The bulk of future work programs should focus on diamond drilling of the generated geophysical targets and trends. The goal of the diamond drilling program is to delineate an area of mineralized ultramafic rocks and complete a maiden NI 43-101 Mineral Resource Estimate.

With respect to a maiden Mineral Resource Estimate, an approximately 9,000 to 11,000 metre diamond drilling program is recommended in order to adequately delineate the target area. The azimuth and dip of the drill holes has not been considered in this estimate of metres, but in addition to angled holes, vertical drill holes should also be considered in order to better define the geometry and geology of the CUC within the target area. Using an all-in price (drilling, assays, project management) of C$148 per metre, calculated based on 2018 drilling completed by Spruce Ridge, the estimated cost of a 9,000 to 11,000 metre drilling program is in the range of C$1.33 to C$1.63 million.

2.0 INTRODUCTION

At the request of private Canadian company Canada Nickel Company ("CNC" or the "Company") and public company Noble Mineral Exploration Inc. ("Noble"), Caracle Creek International Consulting Inc. ("Caracle" or the "Consultant"), a Canadian company, has prepared this technical report as a National Instrument 43-101 ("NI 43-101") Technical Report (the "Report") on the Crawford Nickel-Cobalt Sulphide Project (the "Project" or the "Property"), located in the Timmins-Cochrane Area of northern Ontario, Canada, about 42 km north of the city of Timmins (Figure 2-1).

2.1 Terms of Reference and Purpose of the Report

This Report was prepared as an NI 43-101 Technical Report for CNC to be used in support of a transaction between publicly listed company, Noble Mineral Exploration Inc. (TSX-V: NOB), and the private company Canada Nickel Company Inc. (the "Transaction").

On October 1, 2019, Noble Mineral Exploration Inc. announced the creation of private company Canada Nickel Company, which will own a consolidated 100% interest in the Crawford Nickel-Cobalt Sulphide project, and to distribute a significant portion of Noble's interest in Canada Nickel to Noble shareholders and qualify CNC as a new public entity. Noble also announced the plan to complete a fully subscribed C$5 million private placement into CNC, subject to regulatory approval, to fund the Project consolidation, to continue with exploration on the Project, and to provide working capital requirements. Under the proposed C$5 million private placement of common shares and flow-through common shares into CNC, it is expected that CNC will issue 13 million common shares at $0.25 per share and 5 million flow-through shares at $0.35 per share. This financing will be completed by way of a private placement to qualified investors.

The planned consolidation of the Property will be implemented under the terms of a binding letter of intent ("LOI") that has been entered into by Noble, Mr. Mark Selby, Spruce Ridge Resources Ltd. (TSX-V:SHL) ("Spruce Ridge") and certain private investors (the "Investors"), subject to certain specified conditions including required regulatory and shareholder approvals. For further details, see the Noble news release dated October 1, 2019.

The quality of information, conclusions, and recommendations contained herein is consistent with the level of effort involved in Caracle's services, determined using: i) information available at the time of Report preparation; ii) data supplied by outside sources; and, iii) the assumptions, conditions, and qualifications set forth in this Report. This Report is intended for use by CNC subject to the terms and conditions of its contract with Caracle and relevant securities legislation.

The agreement between CNC and Caracle permits CNC to file this Report with Canadian securities regulatory authorities pursuant to NI 43-101 Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other uses of this Report by any third party is at that party's sole risk. The responsibility for this disclosure remains with CNC. The user of this document should ensure that this is the most recent technical report for the Project as it is not valid if a new technical report has been issued.

2.2 Qualifications of Consultants

This Report has been completed by Dr. Scott Jobin-Bevans and Mr. John Siriunas (together the "Consultants" or the "Authors") who work for Caracle Creek International Consulting Inc. Dr. Jobin-Bevans is a professional geoscientist (APGO#0183, P.Geo.) with experience in geology, mineral exploration, Mineral Resource and Mineral Reserve estimation and classification, land tenure management, metallurgical testing, mineral processing, capital and operating cost estimation, and mineral economics. Mr. Siriunas is a professional engineer (PEO Licence Number 42706010, P.Eng.) with experience in geology, geochemistry, mineral exploration, Mineral Resource and Mineral Reserve estimation and classification, land tenure management, and mineral economics.

Dr. Scott Jobin-Bevans and Mr. John Siriunas, by virtue of their education, experience, and professional association, are both considered to be a Qualified Person ("QP"), as that term is defined in NI 43-101, for this Report. Dr. Jobin-Bevans is responsible for all sections of this Report except for Section 2.3. Mr. Siriunas is responsible for all sections of this Report including Section 2.3. The Certificate of Author for the Consultants are provided in Appendix 1.

A Qualified Person, for the purposes of NI 43-101, has not done sufficient work to classify the historical estimates referenced is this Report as current mineral resources or mineral reserves. CNC is not treating the historical mineral resource estimates contained herein as current.

The Consultants employed in the preparation of this Report have no beneficial interest in CNC and the Consultants are not insiders, associates, or affiliates of CNC. The results of this Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between CNC and the Consultants. The Consultants are being paid a fee for their work in accordance with normal professional consulting practices.

2.3 Details of Inspection – Site Visit

Mr. John Siriunas (M.A.Sc., P.Eng.) visited the Project on Saturday October 12, 2019, for one day, accompanied by Mr. William MacRae (M.Sc., P.Geo.), CNC's Project Manager. The purpose of the site visit was to observe general property conditions and access, verify the locations of some historical drill hole collars, and examine drill core from recent diamond drilling programs.

Travel from the city of Timmins, Ontario to the Project took approximately 30 minutes, followed by about 2 hours on site, and 30 minutes for the return trip to Timmins. Approximately 3 hours was spent reviewing diamond drill core which is housed in a secure storage facility in Timmins. As there is no outcrop on the Property, no surface grab samples of target mineralization/lithologies could be collected and after verification of existing core logs and assay results against drill core observations, Mr. Siriunas did not feel it necessary to re-sample the drill core. Photographs taken during the site visit are provided in Appendix 2.

Figure 2-1. Province-scale location of the Crawford Nickel-Cobalt Sulphide Project (red star) in the Timmins-Cochrane Area of Northeastern Ontario, Canada.

2.4 Sources of Information

Standard professional review procedures were used by the Authors in the preparation of this Report. The Consultants reviewed data and information provided by CNC and its associates and conducted a site visit to confirm the data and mineralization as presented.

Company personnel and associates were actively consulted post and during report preparation and during the Property site visit. Company personnel include Mr. Mark Selby (Chairman and CEO, CNC), Mr. Stephen Balch (Vice President Exploration, CNC), and Mr. William MacRae (Project Manager, CNC).

This Report is based in part on internal Company technical reports, previous studies, maps, published government reports, Company letters and memoranda, and public information as cited throughout this Report and listed in Section 27, References. The mining lands system for Ontario was accessed online through MLAS (Mining Lands Administration System) at:

https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/mining-lands-administration-system-mlas-map-viewer

Digital data and historical work reports (assessment reports) filed with the Ministry of Energy, Northern Development and Mines ("MENDM"), Ontario were accessed online at:

http://www.geologyontario.mndm.gov.on.ca/index.html

Information relating to Crown Patents, freehold patented lands with mining rights, was provided by the Company and verified where possible through the Ontario Land Registry Access portal:

https://www.onland.ca/ui/6

and the Teranet Express portal:

https://www.teranetexpress.ca/csp/land-transfer-tax-info-login.

Additional information was reviewed and acquired through public online sources including SEDAR (www.sedar.com) and various corporate websites.

2.5 Effective Date

The Effective Date of this Report is October 25, 2019.

2.6 Units of Measure

All units in this Report are based on the International System of Units ("SI"), except for units that are industry standards, such as troy ounces for the mass of precious metals. Table 1-1 provides a list of commonly used terms and abbreviations.

Unless specified otherwise, the currency used is Canadian Dollars ("C$") and coordinates are given in North American Datum 83 ("NAD83"), UTM Zone 17N (EPSG:2958; suitable between 84°W and 78°W).

Table 1-1. Commonly used terms and abbreviations.

Units of Measure	
above mean sea level	AMSL
annum (year)	a
billion years ago	Ga
centimetre	cm
degree	°
degrees Celsius	°C
dollar (Canadian)	C$
eotvos	Eo
foot	ft
gram	g
grams per tonne	g/t
greater than	>
hectares	ha
hour	hr
inch	in
kilo (thousand)	K
kilogram	kg
kilometre	km
less tan	<
litre	L
megawatt	Mw
metre	m
millimetre	mm
million	M
millon years ago	Ma
nanotesla	nT
ounce	oz
parts per million	ppm
parts per billion	ppb
percent	%
pound(s)	lb
short ton (2,000 lb)	st
specific gravity	SG
square kilometre	km2
square metre	m2
three-dimensional	3D
tonne (1,000 kg) (metric tonne)	t

Initialisms	
AA	Atomic Absorption
AGB	Abitibi Greenstone Belt
APGO	Association Professional Geoscientists of Ontario
ATV	All-Terrain Vehicle
BCMC	Boundary Claim Mining Claim
CRM	Certified Reference Material
CUC	Crawford Ultramafic Complex
DDH	Diamond Drill Hole
DFO	Department of Fisheries and Oceans Canada
EM	Electromagnetic
EOH	End of Hole
EPSG	European Petroleum Survey Group
FA	Fire Assay
GSC	Geological Survey of Canada
ICP	Inductively Coupled Plasma
Int.	Interval
LDL	Lower Detection Limit
LLD	Lower Limit of Detection
LOI	Letter of Intent
LUP	Land Use Permit
MAG	Magnetics or Magnetometer
MENDM	Ministry of Energy Northern Development and Mines
MLO	Mining Licences of Occupation
MNR	Ministry of Natural Resources
MR	Mining Rights (only)
MSR	Mining and Surface Rights
NAD83	North American Datum 83
NI 43-101	National Instrument 43-101
NSR	Net Smelter Return Royalty
OGS	Ontario Geological Survey
PEO	Professional Engineers Ontario
PGE	Platinum Group-Element
QA/QC	Quality Assurance / Quality Control
QP	Qualified Person
RC	Reverse Circulation
ROFR	Right of First Refusal
SCMC	Single Cell Mining Claim
SEM	Scanning Electron Microscope
SG	Specific Gravity
SI	International System of Units
SRM	Standard Reference Material
SR	Surface Rights (only)
Twp	Township
UTM	Universal Transverse Mercator
VMS	Volcanogenic Massive Sulphide

3.0 RELIANCE ON OTHER EXPERTS

The Authors have relied on Mark Selby (Chairman and CEO, CNC) for the legal description and title evaluations of the Property. The Authors express no legal opinion as to the land tenure title or ownership status, other than to comment on the status of mining lands and other information that is publicly available:

Ontario Government MLAS website:

https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/mining-lands-administration-system-mlas-map-viewer

Ontario Land Registry Access portal (Crown Patents):

https://www.onland.ca/ui/6

Teranet Express portal (Crown Patents):

https://www.teranetexpress.ca/csp/login

Along with information available in the public domain, the Authors have relied on assistance from Spruce Ridge Resources' President & CEO John Ryan, and CNC principals and affiliated technical staff, including Stephen Balch (Vice President Exploration, P.Geo.), William MacRae (Project Manager, P.Geo.), Colin Bowdidge (Senior Geologist, P.Geo.), and John Walmsley (Consulting Geologist) for providing geological, geochemical, assay, mineralogical, metallurgical, diamond drilling, and geophysical information. The Authors express their confidence in the information provided to them by CNC and their consultants, and in the information available from the Government of Ontario.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Crawford Nickel-Cobalt Sulphide Project is situated within the Timmins Mining Camp in the province of Ontario, an area with a strong mining history (gold, nickel, zinc, lead etc.), and a pro-mining Canadian province with regulations that reflect that history.

In general, all known mineralization, economic or potentially economic that is the focus of this Report and that of CNC, is located within the boundary of the tenements that comprise the Crawford Nickel-Cobalt Sulphide Project.

4.1 Property Location

The Crawford Nickel-Cobalt Sulphide Project is located in Crawford Township, about 42 km north of the city of Timmins, and on NTS map sheet 42A/14 (Figure 4-1). The approximate centre of the Property is at UTM coordinates 472571mE, 5409607mN (NAD83, UTM Zone 17 North; EPSG:2958) and elevation ranges from about 265 to 290 m above mean sea level ("AMSL").

4.2 Mineral Disposition

The Crawford Nickel-Cobalt Sulphide Project comprises approximately 650 ha (6.5 km^2), consisting of a combination of patented lands (Crown Patents) and unpatented mining claims. The Crown Patents were owned by Abitibi Pulp and Paper Co. Ltd. and more recently by Noble Mineral Exploration Inc. As patents were returned to the Crown the unpatented lands were staked by Noble and others and are now classified as unpatented mining claims (single cell mining claims).

The Property comprises seven (8) Crown Patents (freehold patented lands) and 18 single cell mining claims ("SCMC"). The eight Crown Patents are mining rights only ("MR"), are registered with the Land Registry Office, District of Cochrane (LRO 06), and were verified as "Active" by Caracle Creek through Teranet Express (www.teranetexpress.ca). A summary of the mining lands is provided in Table 4-1 and shown on Figure 4-2. The SCMCs shown in Figure 4-2 apply only to the portions of lands that were originally defined by the Legacy Claims.

The Ontario Mining Act (2010) grants surface access to an unpatented mineral claim without owning the surface rights and given proper consultation with appropriate stakeholders. Access to mining rights only patented lands or unpatented SCMC in which the Company owns or has rights to the sub-surface rights only, requires that the surface rights owner be contacted in writing and that agreed upon compensation be paid to the surface rights owner for any significant surface disturbances.

On the basis of the information provided by the Company and from what is available in the public domain, the Authors confirm that all of the unpatented and patented mining lands are in good standing. As of the Effective Date, it is the understanding of the Authors that all unpatented and patented mining claims subject to the Transaction are in the process of being transferred from Noble to Canada Nickel Company.

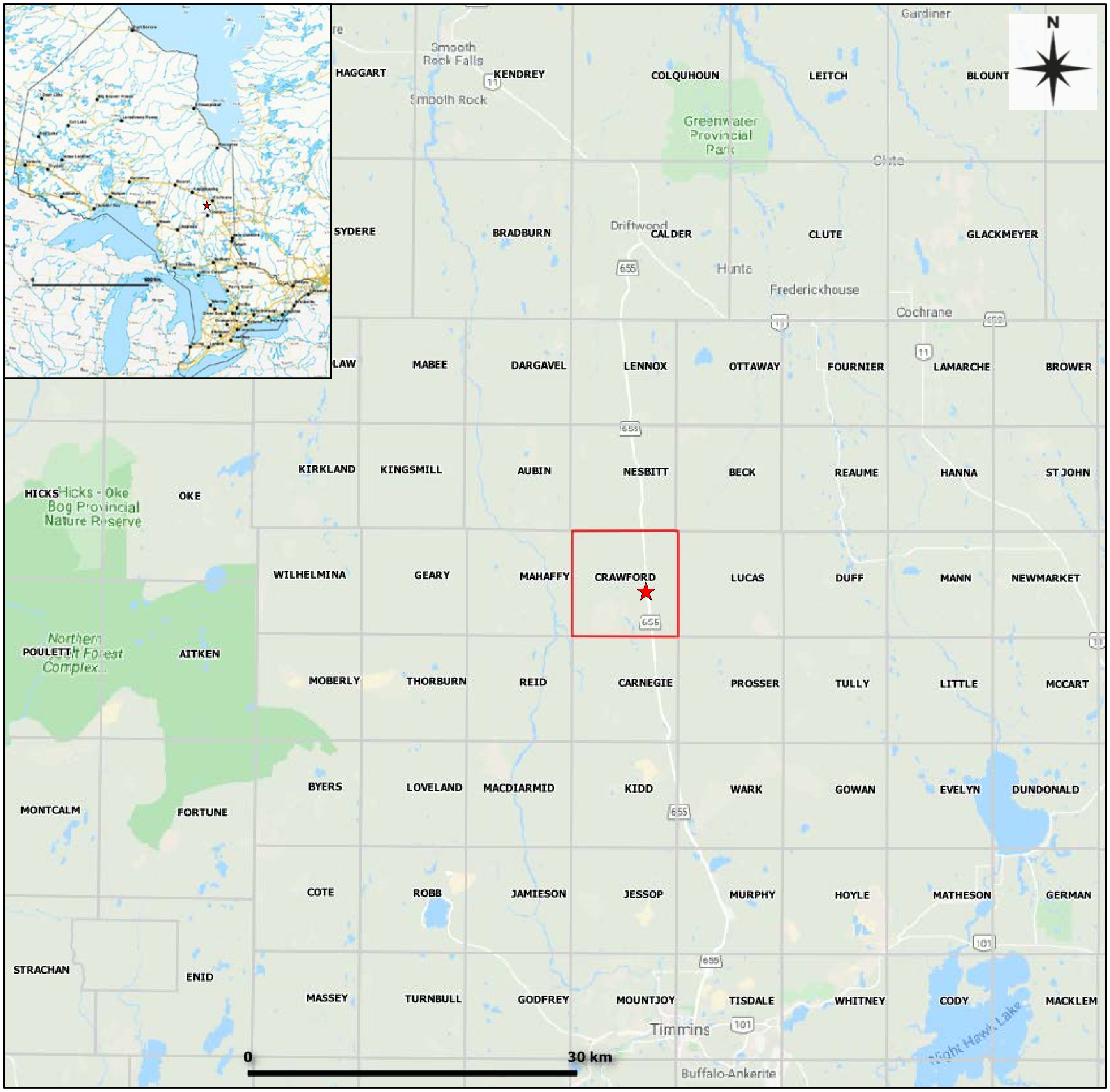

Figure 4-1. Township-scale location of Crawford Township in which the Crawford Nickel-Cobalt Sulphide Project is located (red star), in the Timmins-Cochrane Area of Ontario, Canada. The city of Timmins is located in the lower south-central area of the map.

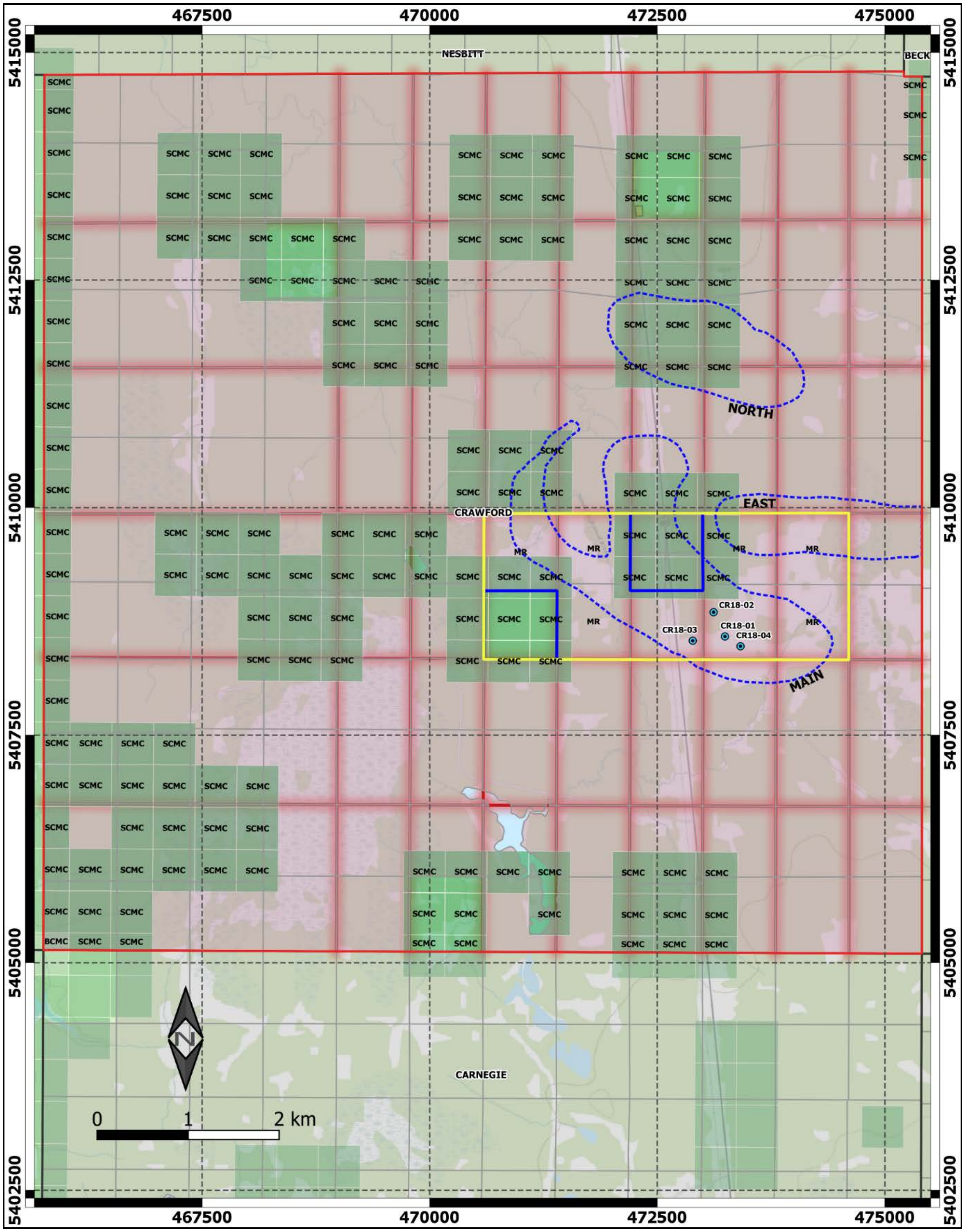

Figure 4-2. Land tenure, Crawford Nickel-Cobalt Sulphide Project, Crawford Township (red outline) with boundary of the Property (yellow) encompassing unpatented mining claims (green), Crown Patents (pink), and Legacy mining claims (blue outline). Also shown are the approximate magnetic-high outlines (dashed blue lines) of the three areas (Main, North, East) that make up the Crawford Ultramafic Complex and the location of 2018 drill hole collars (see Table 4-1) [SCMC=Single Cell Mining Claim; MR=Mining Rights Only].

Table 4-1. Summary of Mining Lands located in Crawford Township, Ontario.

Patented Properties (Mineral Rights Only)					
Title Holder	**Description**	**Old PIN**	**New PIN**	**Parcel**	**Area (ha)**
Noble Mineral Exploration Inc.	S 1/2 LOT 2 CON 3	65321-0111(LT)	65321-0313	4580NEC	65.21
Noble Mineral Exploration Inc.	N 1/2 LOT 2 CON 3	65321-0112(LT)	65321-0315	4653NEC	65.21
Noble Mineral Exploration Inc.	S 1/2 LOT 3 CON 3	65321-0099(LT)	65321-0293	4496NEC	65.21
Noble Mineral Exploration Inc.	N 1/2 LOT 3 CON 3	65321-0100(LT)	65321-0295	4537NEC	65.21
Noble Mineral Exploration Inc.	S 1/2 LOT 4 CON 3	-	65321-0280	-	65.21
Noble Mineral Exploration Inc.	S 1/2 LOT 5 CON 3	65321-0084(LT)	65321-0268	4517NEC	65.21
Noble Mineral Exploration Inc.	N 1/2 LOT 5 CON 3	65321-0085(LT)	65321-0270	4524NEC	65.21
Noble Mineral Exploration Inc.	N 1/2 LOT 6 CON 3	65321-0073(LT)	65321-0250	4540NEC	65.21
Unpatented Single Cell Mining Claims					
Registered Holder	**SCMC**	**Legacy Claim**	**Reference**	**Anniversary**	**Area (ha)**
Noble Mineral Exploration Inc.	249993	4267383	42A14E396	05-Oct-20	-
Noble Mineral Exploration Inc.	249992	4267383	42A14E397	05-Oct-20	-
Noble Mineral Exploration Inc.	332101	4267383	42A14E398	05-Oct-20	-
Noble Mineral Exploration Inc.	260736	4267383	42A14D018	05-Oct-20	-
Noble Mineral Exploration Inc.	212747	4267383	42A14D017	05-Oct-20	-
Noble Mineral Exploration Inc.	315319	4267383	42A14D016	05-Oct-20	-
Noble Mineral Exploration Inc.	3.8592	4267383	42A14D038	05-Oct-20	-
Noble Mineral Exploration Inc.	160092	4267383	42A14D037	05-Oct-20	-
Noble Mineral Exploration Inc.	328599	4267383	42A14D036	05-Oct-20	60.77
Noble Mineral Exploration Inc.	256604	4263066	42A14E360	05-Oct-20	-
Noble Mineral Exploration Inc.	325300	4263066	42A14F341	05-Oct-20	-
Noble Mineral Exploration Inc.	312574	4263066	42A14F342	05-Oct-20	-
Noble Mineral Exploration Inc.	334714	4263066	42A14E380	05-Oct-20	-
Noble Mineral Exploration Inc.	171995	4263066	42A14F361	05-Oct-20	-
Noble Mineral Exploration Inc.	305769	4263066	42A14F362	05-Oct-20	-
Noble Mineral Exploration Inc.	256605	4263066	42A14F382	05-Oct-20	-
Noble Mineral Exploration Inc.	222029	4263066	42A14F381	05-Oct-20	-
Noble Mineral Exploration Inc.	171996	4263066	42A14E400	05-Oct-20	67.60
				Total Area (ha):	**650.05**

4.2.1 Mining Lands Tenure System

Traditional claim staking (physical staking) in Ontario came to an end on January 8, 2018 and on April 10, 2018 the Ontario Government converted all existing claims (referred to as Legacy Claims) into one or more “cell” claims or “boundary” claims as part of their new provincial grid system. The provincial grid is latitude- and longitude-based and is made up of more than 5.2 million cells ranging in size from 17.7 ha in the north to 24 0 in the south. Dispositions such as leases, patents, and licences of occupation were not affected by the new system. Mining claims are registered and administrated through the Ontario Mining Lands Administration System (“MLAS”), which is the online electronic system established by the Ontario Government for this purpose.

Mining claims can only be obtained by an entity (person or company) that holds a Prospector’s Licence granted by the MENDM (a “prospector”). A licenced prospector is permitted to enter onto provincial Crown and private lands that are open for exploration and stake a claim on those lands. Notice of the staked claim can then be recorded in the mining register maintained by the MENDM.

Once the mining claim has been recorded, the prospector is permitted to conduct exploratory and assessment work on the subject lands. To maintain the mining claim and keep it properly staked, the prospector must adhere to relevant staking regulations and conduct all prescribed work thereon. The prescribed work is currently set at $400 per annum per 16-hectare claim unit. The prescribed work must be completed as no payments in lieu of work can be made. No minerals may be extracted from lands that are the subject of a mining claim – the prospector must possess either a mining lease or a freehold interest to mine the land, subject to all provisions of the Ontario Mining Act.

A mining claim can be transferred, charged or mortgaged by the prospector without obtaining any consents. Notice of the change of owner of the mining claim or charge thereof should be recorded in the mining registry maintained by the MENDM.

4.2.2 Mining Lease

If a prospector wants to extract minerals, the prospector may apply to the MENDM for a mining lease. A mining lease, which is usually granted for a term of 21 years, grants an exclusive right to the lessee to enter upon and search for, and extract, minerals from the land, subject to the prospector obtaining other required permits and adhering to applicable regulations.

Pursuant to the provisions of the Ontario Mining Act (the “Act”), the holder of a mining claim is entitled to a lease if it has complied with the provisions of the Act in respect of those lands. An application for a mining lease may be submitted to the MENDM at any time after the first prescribed unit of work in respect of the mining claim is performed and approved. The application for a mining lease must specify whether it requests a lease of mining and surface rights or mining rights only and requires the payment of fees.

A mining lease can be renewed by the lessee upon submission of an application to the MENDM within 90 days before the expiry date of the lease, provided that the lessee provides the documentation and satisfies the criteria set forth in the Act in respect of a lease renewal.

A mining lease cannot be transferred or mortgaged by the lessee without the prior written consent of the MENDM. The consent process generally takes between two and six weeks and requires the lessee to submit various documentations and pay a fee.

4.2.3 Freehold Mining Lands

A prospector interested in removing minerals from the ground may, instead of obtaining a mining lease, make an application to the Ontario Ministry of Natural Resources (“MNR”) to acquire the freehold interest in the subject lands. If the application is approved, the freehold interest is conveyed to the applicant by way of the issuance of a mining patent. A mining patent can include surface and mining rights or mining rights only.

The issuance of mining patents is much less common today than in the past, and most prospectors will obtain a mining lease in order to extract minerals. If a prospector is issued a mining patent, the mining patent vests in the patentee all of the provincial Crown's title to the subject lands and to all mines and minerals relating to such lands, unless something to the contrary is stated in the patent.

As the holder of a mining patent enjoys the freehold interest in the lands that are the subject of such patent, no consents are required for the patentee to transfer or mortgage those lands.

4.2.4 Licence of Occupation

Prior to 1964, Mining Licences of Occupation ("MLO") were issued, in perpetuity, by the MENDM to permit the mining of minerals under the beds of bodies of water. MLOs were associated with portions of mining claims overlying adjacent land. As an MLO is held separate and apart from the related mining claim, it must be transferred separately from the transfer of the related mining claim. The transfer of an MLO requires the prior written consent of the MENDM. As an MLO is a licence, it does not create an interest in the land.

4.2.5 Land Use Permit

Prospectors may also apply for and obtain a Land Use Permit ("LUP") from the MNR. An LUP is considered to be the weakest form of mining tenure. It is issued for a period of 10 years or less and is generally used where there is no intention to erect extensive or valuable improvements on the subject lands. LUPs are often obtained when the land is to be used for the purposes of an exploration camp. When an LUP is issued, the MNR retains future options for the subject lands and controls its use. LUPs are personal to the holder and cannot be transferred or used as security.

4.3 Royalties, Agreements and Encumbrances

On October 24, 2019, Noble announced that Resolute Forest Products (previously AbitibiBowater Inc.) signed off on a Royalty Assignment Agreement ("RAA") which assigns the rights to a 5% Net Smelter Return Royalty ('NSR") to Noble. As of the Effective Date, the transaction has not been completed.

According to the Company, a 2% NSR will be assigned from Noble to Franco-Nevada Corporation (TSX: FNV). With respect to this 2% NSR, there are no provisions for a buy-back of the NSR and the NSR applies only to Crown Patents that were originally purchased by Noble from Abi AbiBow Canada Inc., a subsidiary of AbitibiBowater Inc., now Resolute Forest Products (*see* Table 4-1). Further information is available in news releases posted on Noble's website and dated October 5, 2011 and March 19, 2019.

4.4 Plans and Permits

In Ontario, there are two types of applications that must considered prior to a prospector starting an exploration program. An Exploration Plan is a document provided to the MENDM by an Early Exploration Proponent indicating the location and dates for prescribed early exploration activities. An Exploration Permit is an instrument which allows an Early Exploration Proponent to carry out prescribed early exploration activities at specific times and in specific locations. An Exploration Plan or Exploration Permit must be submitted prior to undertaking any of the prescribed work listed by the Ministry but neither of these permits are necessary on Crown Patents (patented lands).

4.4.1 Exploration Plans

Exploration Plans are used to inform Aboriginal Communities, Government, Surface Rights Owners and other stakeholders about these activities. In order to undertake certain prescribed exploration activities, an Exploration Plan application must be submitted, and any surface rights owners must be notified. Aboriginal communities potentially affected by the Exploration Plan activities will be notified by the MENDM and have an opportunity to provide feedback before the proposed activities can be carried out.

Early Exploration Proponents who wish to undertake prescribed exploration activities on claims, leases or licences of occupation must submit an Exploration Plan. The early exploration activities that require an Exploration Plan are:

- Line cutting that is a width of 1.5 m or less;
- Geophysical surveys on the ground requiring the use of a generator;
- Mechanized stripping a total surface area of less than 100 square metres within a 200-metre radius;
- Excavation of bedrock that removes one cubic metre and up to three cubic metres of material within a 200-metre radius; and,
- Use of a drill that weighs less than 150 kilograms.

Exploration Plan applications should be submitted directly to the MENDM at least 35 days prior to the expected commencement of activities. Submission of an Exploration Plan is mandatory.

4.4.2 Exploration Permits

Exploration Permits include terms and conditions that may be used to mitigate potential impacts identified through the consultation process. Some prescribed early exploration activities will require an Exploration Permit. Those activities will only be allowed to take place once the permit has been approved by the MENDM.

Surface rights owners must be notified when applying for an Exploration Permit. Aboriginal communities potentially affected by the Exploration Permit activities will be consulted by the MENDM and have an opportunity to provide comments and feedback before a decision is made on the Exploration Permit. Permit proposals will be posted for comment on the Ontario Ministry of the Environment Environmental Registry for 30 days.

Early Exploration Proponents who wish to undertake prescribed exploration activities on claims, leases or licences of occupation should submit an Exploration Permit application. The early exploration activities that require an Exploration Permit are:

- Line cutting that is a width greater than 1.5 metres;

- Mechanized stripping of a total surface area of greater than 100 square metres within a 200-metre radius (and below advanced exploration thresholds);
- Excavation of bedrock that removes more than three cubic metres of material within a 200-metre radius; and,
- Use of a drill that weighs more than 150 kilograms.

Exploration Permit applications should be submitted directly to the MENDM at least 55 days prior to the expected commencement of activities. Submission of an Exploration Permit is mandatory.

4.4.3 Current Permits and Project Status

The current and 2018 diamond drilling programs are being conducted on mining rights only Crown Patents and as such do not require an Exploration Plan or an Exploration Permit.

4.5 Environmental Liabilities

Caracle is not aware of any environmental liabilities on the Property.

4.6 Other Applicable Regulations

Some other regulatory permits and notable requirements for early exploration activities, outside of the MENDM, can apply. As an example, permits should be obtained from the MNR for road construction, cutting timber, fire permit for burning, water crossings, etc. Projects near water may require provisions to protect fish habitats under the jurisdiction of the Department of Fisheries and Oceans Canada.

4.7 Other Significant Factors and Risks

Caracle is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access to Property

Access to the Property is gained from paved Ontario Highway 655 which leads north from the city of Timmins to Ontario Highway 11, part of the Trans-Canada Highway, and the towns of Smooth Rock Falls, Cochrane and Kapuskasing. The current target area lies within 1.5 km of Ontario Highway 655. The Property is traversed by numerous former logging trails and winter drill roads suitable for ATV and snowmobile. There are no lakes large enough for float planes in the immediate area.

5.2 Climate

The local climate is typical of Northeastern Ontario and consists of a continental climate with cold winters and relatively short hot summers (Figure 5-1). Occasionally, fieldwork is not permitted due to forest fire danger and the Ontario MNR may prevent access during such times.

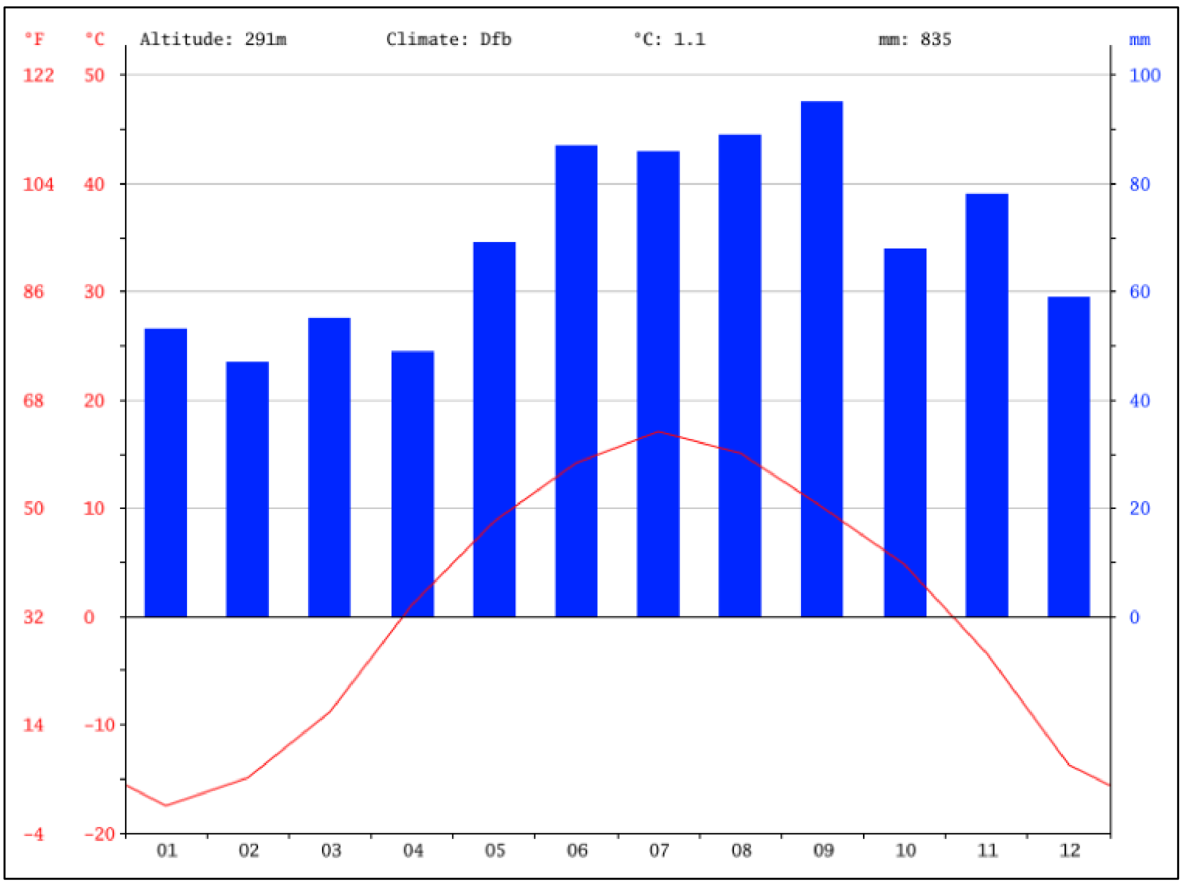

Figure 5-1. Average annual temperature (red line) and precipitation (blue bars) for Timmins, Ontario.

5.3 Local Resources and Infrastructure

Supplies, food, fuel, lodgings and the full range of equipment, supplies and services that are required for exploration and mining work are available in Timmins, the fourth-largest city in Northeastern Ontario (population of 41,788 in 2016). Services are also available in Black River-Matheson (population of 2,438 in 2016) and Cochrane (population of 5,321 in 2016). The centre of the Property is approximately 30 km to a railhead and Ontario Highway 11 to the north and 17 km to a rail spur near the Kidd Creek Mine (Glencore) to the south.

One major hydro transmission line runs through Crawford Township, paralleling the western side of Ontario Highway 655, and a second runs parallel about 4 km east of the centre of the Property. The Lower Sturgeon hydro-electric generating station with a capacity of 14 Mw is situated along the Mattagami River to the west of the Project in Mahaffy Township.

5.4 Physiography

The Property lies within the Abitibi upland physiographic region and has a typical "Laurentian Shield" landscape, composed of forest covered ridges, very few outcrops, boulder and gravel tills, as well as swampy tracts, ephemeral Spring-runoff stream beds and swales, beaver ponds, and small lakes. It is largely a low relief, bedrock- dominated peneplain with isolated, lithologically controlled topographic highs. Locally, glacial landforms add to relief which is generally less than 15 metres. Thick fine-grained, glaciolacustrine deposits subdue local landscape and form terrain characterized by broad, poorly drained, swampy conditions.

Overburden, predominantly glacial till consisting of sand, clay, loose gravel and boulders, varies from less than 10 m to as much as 85 m and an average thickness of about 50 metres. For reference, the Kidd Creek Mine, located about 15 km south of the Property, is located under about seven metres of overburden. In general outcrop exposure on the Property is nil to one percent.

5.4.1 Topography

In general, the area is well drained with moderate topographic relief and minor, steep depressions along river and stream routes. Elevations on the Property range from 265 to 290 m AMSL with large sand and outcrop ridges trending north-south. Ultramafic rocks tend to lie in topographic lows, covered by swamps and lakes, and rare outcrop along the edges of large volcanic rock ridges.

5.4.2 Water Availability

Water accessibility is excellent throughout the year with several small ponds and numerous swampy areas associated with small lakes and creeks, and a shallow water table.

5.4.3 Flora and Fauna

The Property lies within the Boreal Shield Ecozone, as defined by the Commission for Environmental Cooperation ("CEC") and is the largest ecozone in Canada. Tree species include white and black spruce, balsam fir, tamarack, trembling aspen (poplar), white and red pine, jack pine, maple, eastern red cedar, eastern hemlock, paper birch, speckled alder, pin cherry, and mountain ash. Many of the forests in the area have been designated for cutting or have already been cut by forestry companies, leaving a majority of secondary growth forests. Other plants include ericaceous shrubs, sphagnum moss, willow, Labrador tea, blueberries, feathermoss, cotton grass, sedges, kalmia heath, shield fern, goldenrod, water lilies, horsetails and cattails.

Mammals include moose, black bear, wolf, chipmunk, beaver, muskrat, snowshoe hare, vole, red squirrel, mice, marten, short-tailed weasel, fisher, ermine, mink, river otter, coyote, and red fox. Garter snakes and frogs are also present. Waterfowl are seen on lakes during the ice-free season, and fish can be abundant in some lakes and the larger perennial streams.

6.0 HISTORY

The Porcupine Mining District of Ontario was founded in 1908 after the discovery of gold in the Ontario portion of the Abitibi Greenstone Belt (“AGB”) near Timmins. Since then, gold production in the region has been substantial and the Timmins region is one of the richest goldfields in the world, producing more gold than any other mining camp in Canada (about 230 tonnes).

In the early years, prospectors followed rivers and lakeshores hunting for gold and base metals, but the extensive drift-covered ridges and valleys left by the Pleistocene Laurentide Ice Sheet meant that they could not explore the area in detail. Because of immature surficial covers of the glacial landscape, there were no alluvial gold trains in creek bottoms extending from hard-rock mineralization. Without outcropping mineralization, ore deposits of all kinds remained undetected.

The advent of airborne geophysics post World War Two, allowed for new and renewed exploration campaigns in the AGB. Starting in the early 1960s, subsidiaries of the International Nickel Company of Canada Ltd. (“INCO”), private and public companies and the Ontario and Canadian governments flew airborne magnetic and electromagnetic surveys across the AGB looking for nickel sulphide deposits. The targets were magnetic anomalies reflected by a magnetic response from pyrrhotite-dominated nickel sulphide mineralization. Since many, but not all, nickel sulphide ores are dominated by semi-massive to massive pyrrhotite with associated chalcopyrite, they generate coincident magnetic-electromagnetic anomalies which are high priority targets in nickel sulphide exploration. This geophysical signature (coincident mag-EM targets) led to the discovery of the “Type IV hydrothermal-metamorphic” nickel sulphide deposits (Layton-Matthews et al., 2010) at and near Thompson, Manitoba in the 1950s and in subsequent decades.

Not all coincident magnetic-electromagnetic anomalies are due to pyrrhotite dominated sulphides as magnetite will naturally generate a very strong magnetic response and if present, graphite will generate a very strong conductive response. Ultramafic rocks, including extrusive komatiite flows, komatiitic channelized sheet sills, and intrusive mafic-ultramafic bodies, the host lithologies to many of the nickel sulphide ores discovered to date in the Timmins Mining Camp and the AGB, are commonly serpentinized by dynamic metamorphism which results in the liberation of magnetite from olivine, which in turn results in a very strong magnetic response, overwhelming weaker magnetic signatures, and lower specific gravity. The serpentinization also results in the liberation of nickel which forms iron-nickel alloy and nickel sulphides, reflected in increased concentrations of available nickel. This in comparison to “fresh” non-serpentinized ultramafic rocks which have relatively high specific gravity, a relatively low magnetic signature, and low (background) concentrations of nickel.

The enormous number of magnetic and conductive anomalies generated by airborne and ground geophysical surveys and the masking of a “clean” response from potential nickel sulphide deposits, by both magnetic and electromagnetic effects, means that not all targets may have been tested and/or delineated. In the Timmins region of the AGB and specifically in Crawford Township, given the lack of outcrop and the deep overburden, the only solution was and is to drill-test targets.

6.1 Exploration - Crawford Township

A summary of historical exploration work in Crawford Township, Ontario is provided in Appendix 3. Prior to 1964, little was known about the geology of Crawford Township. The first aeromagnetic survey was completed in 1955 (Aeromagnetic Surveys Limited: 1 inch to ¼ mile scale), followed by a 1956 Geological Survey of Canada aeromagnetic survey (Map 301G, Crawfish Lakes: 1 inch to 1 mile), and a 1964 Geological Survey of Canada aeromagnetic survey (Map 2319G, Crawfish Lakes: 1 inch to 1 mile). All three magnetic surveys showed a large, roughly circular, strongly magnetic high zone in the east-central part of the township that was interpreted to be an ultramafic rock mass (*i.e.*, the Crawford Ultramafic Complex or “CUC”).

The 1963 discovery of the rich base metal deposit in Kidd Township (Kidd Creek Mine), about 15 km south of the CUC, led to a flurry of exploration in Crawford Township through the latter 1960s and the 1970s. The first exploration recorded in Crawford Township dates back to 1964. The International Nickel Company of Canada led the way in exploring the township during the 1960s with multiple drill holes testing numerous geophysical MAG-EM anomalies. Anomalous base and precious metal (Cu, Zn, Pb, Ag) results were reported from intermediate to felsic volcanic rocks and long intersections (*e.g.*, 236 m) of nickel (*e.g.*, 0.25-0.40% Ni) in peridotite with very low sulphide content were noted (*e.g.*, Skrecky, 1971). McIntyre Porcupine Mines Ltd. dominated exploration in the township during the 1970s with exploration waning significantly through the 1980s and thereafter. No significant work has been conducted in Crawford Township or the Property since the 1980s.

6.1.1 Ring of Fire Resources: 2010-2012

Ring of Fire Resources Inc. (TSX-V:ROF) (“ROF”), previously known as Hawk Uranium Inc. (TSX-V:HUI), announced July 15, 2011 that it had entered into an exclusive agreement AbiBow Canada Inc., a subsidiary of AbitibiBowater Inc. (now Resolute Forest Products) of Montreal, to purchase a 100% title and interest in 60,701 hectares of land in the Smooth Rock Falls, Iroquois Falls and Timmins area of Northeastern Ontario. The property consists of 2 blocks (Block “A” & Block “B”- collectively named “Project 81”) in 15 townships with Block “A” consisting of 58,314 hectares, covering 10 contiguous townships, adjacent to the Kidd Creek Mine Complex near Timmins, Ontario. Block “B” comprises 2,387 hectares and is made up of 35 parcels of land covering five townships around Iroquois Falls and Smooth Rock Falls.

The majority of the parcels acquired were freehold patented lands, with a smaller number of parcels conferring only title to subsurface mineral rights, and in a few cases only the surface rights. With this latter exception, the company acquired a 100% interest and title to mineral and surface rights. A significant portion of the project area is productive forest land and timber rights are included in the purchase agreement. In addition, AbiBow Canada Inc. was granted a 5% NSR in connection with the property, with ROF having the right to buy back 2.25% of the NSR at a price of $2,500,000 per percentage of the NSR. Under the agreement, ROF has also granted AbiBow Canada Inc. a right of first refusal (“ROFR”) with respect to any timber harvesting proposed to be conducted on the property, and with respect to any timber harvested on the property.

A definitive agreement with AbiBow Canada Inc. was announced October 5, 2011, along with news that Franco-Nevada Corporation ("FNC") had agreed to fund part of the purchase of Project 81 and acquire the rights to purchase the property royalty. The close of transactions with FNC and AbiBow Canada Inc. was announced October 11, 2011 (see Section 4.3, Royalties, Agreements and Encumbrances).

Initial work by ROF (2011-2012) focused on the Kingsmill Ni Target located in nearby Kingsmill Township, including airborne helicopter MAG-TEM-VLF-Radiometric survey in late 2011 and targeted diamond drilling in January 2012.

6.1.2 Noble Mineral Exploration: 2012-2019

On March 2, 2012, Ring of Fire Resources Inc. announced a name change to Noble Mineral Exploration Inc. (TSX-V: NOB). Noble continued to explore the Kingsmill Ni Target, announcing March 29, 2012 that it had completed 4,922.2 m of diamond drilling which had intersected long sections (e.g., 546 m) of serpentinized peridotite (see Section 23, Adjacent Properties).

On April 29, 2014, Noble announced the closing of its sale of the timber and surface rights to Block A of Project 81 which included the lands in Crawford Township. Noble was paid $6.8 million for the property and related assets sold. Noble retained the mineral rights to Block A of Project 81 and a 50% net royalty on carbon credit revenue from Block A of Project 81. In addition to the timber and surface rights to Block A of Project 81, the purchaser in this transaction also purchased any sand, gravel (including hard rock aggregate), peat, gas or oil located on or under the property, as well as a 5% net profits interest in any mineral retained by Noble. The Company has the right to repurchase up to one half of this net profits interest at a cost of $800,000 per 1% interest.

On June 7, 2017, Noble announced the start of a 2,100 line-kilometre airborne helicopter MAG-EM survey which was completed by Triumph Instruments and managed by Balch Exploration Consulting Inc. ("BECI") and covered Crawford and Carnegie Townships. The object of the survey was to identify discrete conductors that could represent copper-lead-zinc mineralization (*e.g.*, Kidd-Creek style) or nickel-copper sulphide, plus to map weakly conductive trends that could represent gold associated with disseminated sulphide-bearing mineralization. Previous airborne work on nearby townships within Project 81 identified conductive trends in bedrock that correlated with historical drilling that encountered anomalous copper, lead, zinc and gold. The system used was the AirTEM-150, a compact and concentric helicopter time domain EM system that can penetrate to depths of 400 m with high resolution. Measurements of the three axes of the EM secondary field are measured in a full waveform mode and the resulting profiles are used to determine the size, orientation, conductance and depth of the anomalous source.

On May 3, 2018, Noble announced that it had commissioned Albert Mining Inc. (TSXV: AIMM) of Brossard, Quebec to complete an Artificial Intelligence ("AI") technology Interpretation over Crawford and Carnegie townships. On October 18, 2019 Albert Mining Inc. announced a name change to Windfall Geotek Inc. (www.windfallgeotek.com). Results of the study including a final report were delivered to Noble in June 2019 and announced July 17, 2019. The objective within Crawford Township (approx. 9,321 hectares or 93.21 km^2) was to use their proprietary Computer

Aided Resources Detection Software ("CARDS") AI Technology to identify potential Cu-Zn and Ni-Co targets. By using its CARDS technology, Windfall Geotek assisted Noble in identifying targets and possible sites with the same signature as known copper-zinc and nickel-cobalt occurrences. Windfall Geotek used its proprietary technology to analyze geophysical, geochemical, and geological data to discover the patterns hidden in the large amount of data that Noble has compiled over the years. The AI study generated nine (9) Ni targets that show +80% similarity prediction using the AGEO (Aggregation of GEO-referenced model) Ni model (Figures 6-1 and 6-2) and 12 Cu-Zn targets that show +80% similarity prediction using the AGEO Cu-Zn model. AGEO is one of two (2) algorithms used to determine and validate the accuracy of prediction of the model. The other being the C-Cluster (Clustering for Classification) algorithm which is used to compare and validate predictions generated by the AGEO algorithm. The AI study incorporated a total of 2,632 training points that were subjected to evaluation using merged helicopter-borne Time Domain Electromagnetic ("HTEM") and Magnetic surveys completed by Triumph Geophysics in 2017 (at 25 m resolution), together with an historical diamond drill hole database to construct the Cu-Zn and Ni "Predictive Models". CARDS use data mining techniques and pattern recognition algorithms to analyze and compile the exploration data into many layers of gridded variables, in order to identify target zones with high statistical similarity to known areas of mineralization.

On May 8, 2018, Noble announced that it had signed an Option and Joint Venture Agreement with Spruce Ridge Resources Ltd. (TSX-V: SHL) to earn a 75% interest in the Crawford Township Property on specific target areas having a size up 2,000 hectares.

On August 27, 2018, Noble announced that it had contracted CGG Multi-Physics to complete a FALCON© Airborne Gravity Gradiometer and magnetics survey over parts of Project 81 including Crawford Township. The Falcon AGG technology is a gravity gradiometer system specifically designed for airborne survey use and reportedly provides several key advantages over other standard Full Tensor Gradiometer ("FTG") systems such as: lower noise, higher resolution and sensitivity, measured error and redundancy and high production rate. Results of the survey were delivered to Noble in a final report in November 2018.

On June 11, 2019, Noble announced that it had received and released the results of mineralogical studies on drill core samples from its Crawford Nickel-Cobalt Sulphide Property. Twelve samples of drill core were selected from 1.5 metre analyzed intervals, to cover a range of nickel, cobalt, palladium and sulphur contents as well as differing degrees of serpentinization. Polished thin sections were made from the core samples and were examined under reflected-light microscope and a Scanning Electron Microscope ("SEM"), which provided chemical analyses of individual mineral grains to aid in their identification (see Section 6.3, Historical Mineral Processing and Metallurgical Testing).

On October 1, 2019, Noble announced the creation of Canada Nickel Company which will own a consolidated 100% interest in the Crawford Nickel-Cobalt Sulphide Property.

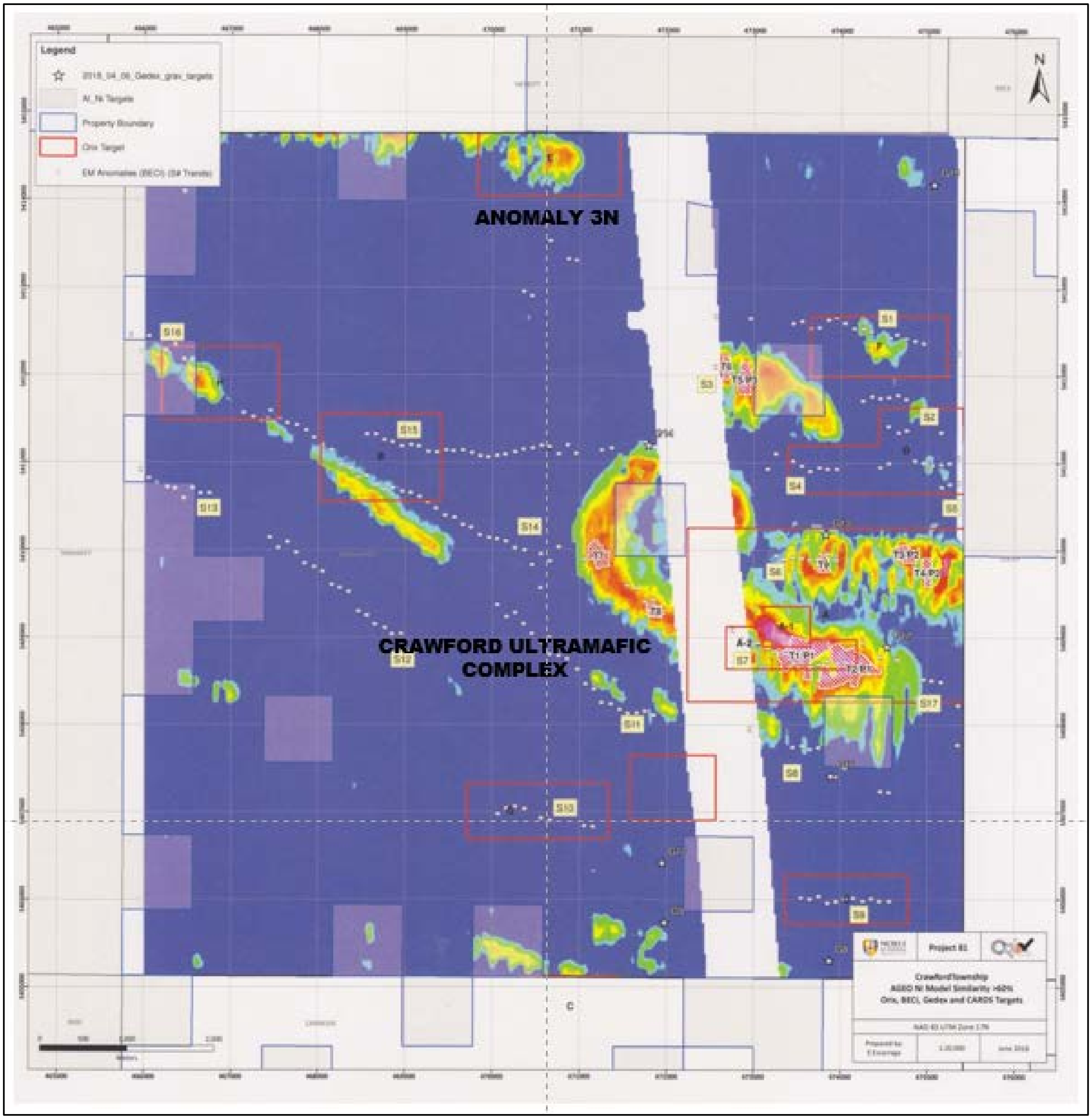

Figure 6-1. Distribution of generated nickel targets based on a level of similarity at >60%. Note the intense cluster of targets around the three areas of the known Crawford Ultramafic Complex and the north-central target area close to the township boundary. North-south swath without data reflects interference from Hydro One high-voltage electricity transmission line.

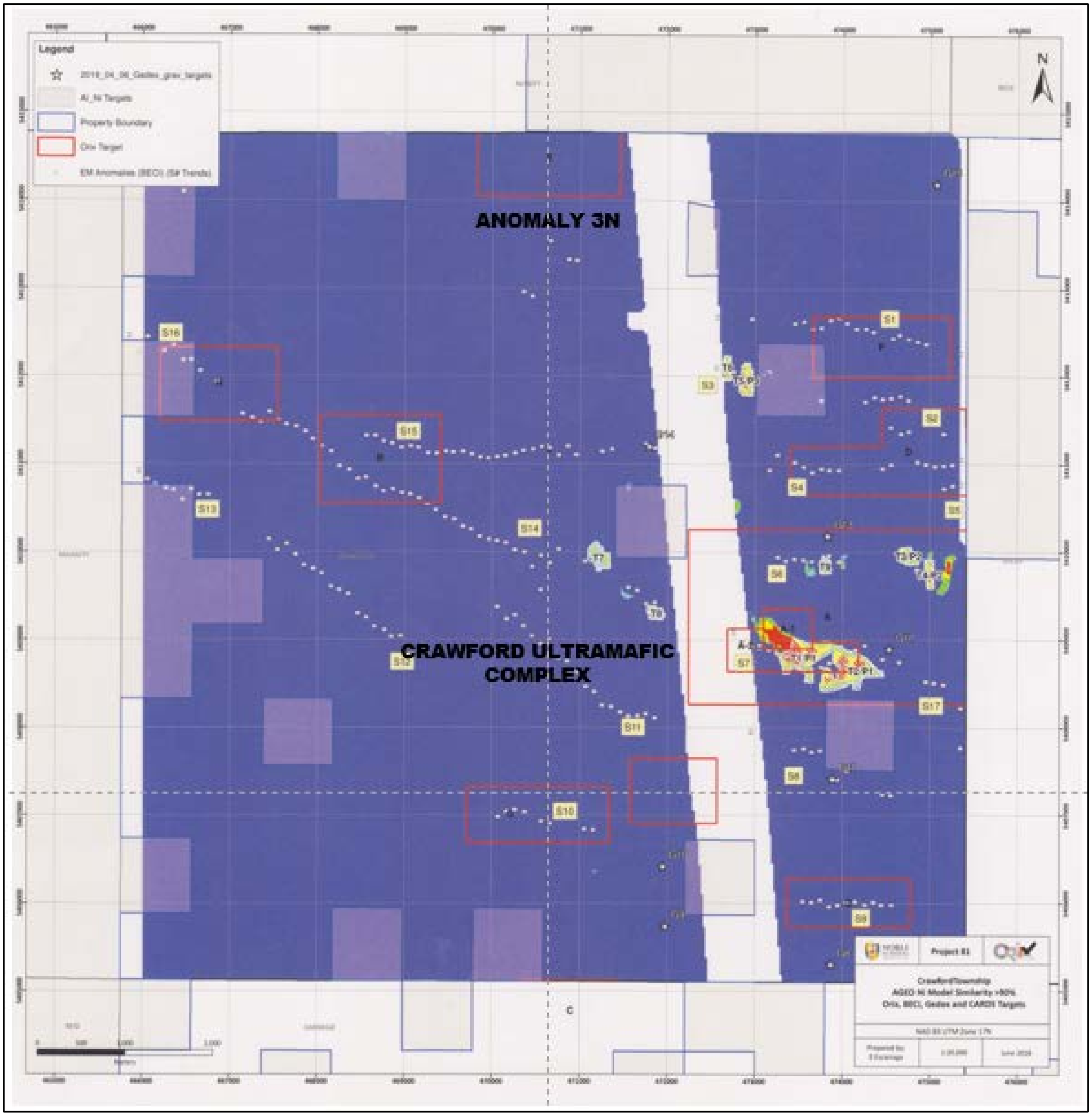

Figure 6-2. Distribution of generated nickel targets based on a level of similarity at >90%. Note the refined target cluster around the southern portion of the known Crawford Ultramafic Complex. This area was the focus for Spruce Ridge drilling in winter 2018. North-south swath without data reflects interference from Hydro One high-voltage electricity transmission line.

6.1.3 Spruce Ridge Resources Inc.: 2017-2019

On September 25, 2017, Spruce Ridge announced that it had signed a binding Letter of intent ("LOI") with Noble to earn a 75% interest in specific target areas having a size of up to 2,000 hectares within Noble's Crawford Township Property. Under the terms of the option agreement, the Company can earn an initial 51% interest in the Crawford Property by making a cash payment of C$100,000 to Noble, issuing 6,000,000 common shares to Noble, issuing 6,000,000 warrants to Noble exercisable at the lowest exercise price as may be permitted by the TSX Venture Exchange ("TSXV") and having a term expiring five (5) years after issuance, and incurring a minimum of C$1,000,000 of qualifying expenditures in the 12 months following the execution of the option agreement. Spruce Ridge can earn an additional 24% interest in the Crawford Property by issuing 6,000,000 common shares to Noble, issuing 6,000,000 warrants to Noble exercisable at the greater of (i) $0.15 per share, and (ii) the lowest exercise price permitted by the TSXV, and having a term expiring five (5) years after issuance, and incurring a further C$1,000,000 of qualifying expenditures on or before the second anniversary of the execution of the option agreement. Once 75% is earned (or 51% should Spruce Ridge elect not to acquire a 75% interest), the Crawford Property will be operated as a participating Joint Venture. On May 8, 2018, Spruce Ridge announced that it had entered into an Option and Joint Venture Agreement with Noble under the terms set out in the LOI between the two companies.

On September 27, 2018, Spruce Ridge announced that it has signed an additional LOI with a private group of knowledgeable mining investors to acquire up to 50% of its Option and Joint Venture agreement with Noble on its Crawford Township Property.

On November 15, 2018, Spruce Ridge (and Noble) announced that it had begun a 2,000-metre program of diamond drilling on the Crawford Township Property. The target of the drilling program was a 3,000-metre long, magnetic anomaly interpreted to be a differentiated ultramafic to mafic intrusive complex, the Crawford Ultramafic Complex. On March 1, 2019, Spruce Ridge (and Noble on March 4) announced the results of its 2018 winter drilling program which totalled 1,818 m in four drill holes. Drill hole plans and sections are provided in Appendix 4.

On September 19, 2019, Spruce Ridge (and Noble on September 20) announced that it had begun a second phase of diamond drilling on the Crawford Nickel Property. The phase 2 drilling program was planned to comprise approximately 4,000 m of drilling in eight holes. Planned drill holes include infill drilling between the four drill holes put down in the winter of 2018, as well as step-out drilling to the northwest and southeast.

On October 1, 2019, Spruce Ridge announced that it had agreed to sell its interest in the Crawford Nickel-Cobalt Sulphide Property to the private company Canada Nickel Company, which was created by Noble. Spruce Ridge retains its interest in various base metal targets located in Crawford Township.

6.2 Historical Drilling

In Crawford Township, between 1964 and 2018, at least 147 drill holes (diamond core and reverse circulation), totalling more than 14,600 m, were completed. This drilling tested numerous geophysical anomalies, targeting base metals, gold and nickel sulphides in volcanic and mafic-ultramafic rocks (Orix Geoscience, 2019). Reported overburden intervals are drill hole casing lengths and do not necessarily represent true thickness of overburden.

6.2.1 INCO Canada Ltd.: 1965-1966

The earliest drilling in Crawford Township, targeting the Crawford Ultramafic Complex, was by INCO Canada Ltd. in 1965. A total of eight drill holes are reported, targeting magnetic anomalies "4-89", "4-313", and "4-B" which were collectively referred to as "Owl" (Table 6-2). Anomaly "4-89", "4-313", and "4-B" correspond to the "Main", "East", and "North" components of the CUC, respectively. The 1965 drilling intersected broad intervals (*e.g.*, 467.56 m) of mafic-ultramafic rocks, largely serpentinized peridotite and/or serpentinized dunite. Overburden intervals (drill hole casing length) ranged from 34.75 to 86.87 metres.

Table 6-2. Drill holes and assays summary, INCO Canada Ltd., Crawford Ultramafic Complex.

Year	Drill Hole	Target	Anomaly	[1]OB (m)	[2]EOH (m)	From (m)	To (m)	Int (m)	Ni (%)	Comments
1964	25050	Main Mag	4-89	34.75	502.31	39.62	502.31	462.69	0.25	34.75 m to EOH: mafic-ultramafic rocks
1965	26636	Main Mag	4-89	43.89	43.89	-	-	-	-	abandoned in overburden
1965	26637	Main Mag	4-89	61.87	474.57	-	-	-	-	83.06 m to EOH: mafic-ultramafic rocks; no assays reported
1965	27005	Main Mag	4-89	63.40	245.97	63.67	220.98	157.31	0.16	63.40 m to 185.93 m: mafic-ultramafic rocks
1965	27064	East Mag	4-313	86.87	602.89	165.70	419.10	253.40	0.24	165.72 m to EOH: mafic-ultramafic rocks
1966	27086	Main Mag	4-89	50.90	384.05	50.90	384.05	333.15	0.07	50.90 to EOH: mafic-ultramafic rocks
1966	27095	Main Mag	4-89	37.19	273.41	37.20	273.40	236.20	0.34	37.19 to EOH: mafic-ultramafic rocks
1966	29173	North Mag	4-B	68.89	364.24	-	-	-	-	148.59 m to EOH: mafic-ultramafic rocks; no assays reported

[1]OB=overburden; [2]EOH=End of Hole

6.2.2 McIntyre Porcupine Mines Ltd.: 1973

McIntyre Porcupine Mines Ltd. completed a drilling campaign in 1973 targeting a magnetic high in the north-central area of Crawford Township, near the border with Nesbitt Township to the north. The company completed four drill holes targeting a magnetic anomaly referred to as "Anomaly 3N" (Table 6-3). The drilling intersected broad intervals (*e.g.*, 153.11 m) of mafic-ultramafic rocks, largely serpentinized peridotite and/or serpentinized dunite. Overburden intervals (drill hole casing length) ranged from 27.43 to 97.54 metres.

Table 6-3. Drill hole summary with significant assays, McIntyre Porcupine Mines, Anomaly 3N.

Year	Drill Hole	Target	Anomaly	[1]OB (m)	[2]EOH (m)	From (m)	To (m)	Int (m)	Ni (%)	Comments
1973	904-73-3	Mag High	3N	60.96	163.68	-	-	-	-	intersected felsic volcanic rocks
1973	904-73-4	Mag High	3N	60.96	134.42	120.85	122.38	1.53	0.35	120.85 m to EOH: peridotite
						129.24	129.69	0.45	0.43	
						132.89	134.42	1.53	0.21	
1973	904-73-5	Mag High	3N	97.54	208.18	-	-	-	-	intersected felsic volcanic rocks
1973	904-73-27	Mag High	3N	27.43	163.37	35.36	36.88	1.52	0.17	27.43 m to EOH: ultramafic rocks
						57.91	59.44	1.53	0.30	

[1]OB=overburden; [2]EOH=End of Hole

6.2.3 Spruce Ridge Resources Ltd.: 2018

In late 2018, Spruce Ridge completed a drilling program targeting the “Main” magnetic high that defines a portion of the CUC. Results from the four-hole, 1,818 m (NQ size core, 47.6 mm diameter) winter drilling program were announced in March 2019 (Table 6-4; Spruce Ridge news release March 1, 2019). All four drill hole collars are located immediately east of Ontario Highway 655, about 40 km north of Timmins. The holes were drilled toward the north-northeast (azimuth 35°) at dips of -50° or -60°. Interpreted drill hole plans, sections, profiles, and core logs are provided in Appendix 4.

Three of the holes intersected serpentinized dunite with persistent nickel concentrations greater than 0.25% Ni over core lengths of up to 291 metres. Using a lower threshold of 0.20% Ni, long intervals are present in all four holes, with a maximum core length of 558 metres. Individual samples of 1.5 metre core intervals reported up to 0.669% Ni and all four holes were terminated in dunite or peridotite.

With the exception of drill hole CR18-02, which was terminated early (216 m) and in dunite, drill core assays show increasing nickel concentrations down the holes. Drill hole CR18-01 recorded nickel grades of about 0.20% Ni in the upper peridotite, which compares favourably relative to the nickel grades in peridotite from the Dumont Sill which are generally very low to nil. Nickel grades in CR18-01 increase further down-hole and through a central intercept, and then decline toward the bottom of the hole.

Palladium concentrations show a strong correlation with increased nickel concentrations, suggesting the presence of nickel sulphides.

Table 6-4. Summary of drill holes completed by Spruce Ridge Resources in winter 2018.

Summary of Intervals Passing 0.25% Ni cut-off										
Drill Hole	**Az**	**Dip**	**From (m)**	**To (m)**	**Int (m)**	**Ni (%)**	**Co (ppm)**	**Pt (ppb)**	**Pd (ppb)**	**Au (ppb)**
CR18-01	35	-60	234.00	525.00	291.00	0.293	118	11	20	2
CR18-03	35	-50	475.50	606.00	130.50	0.299	140	28	55	6
CR18-04	35	-50	205.50	402.00	196.50	0.332	135	10	27	2
Summary of Intervals Passing 0.20% Ni cut-off										
Drill Hole	**Az**	**Dip**	**From (m)**	**To (m)**	**Int (m)**	**Ni (%)**	**Co (ppm)**	**Pt (ppb)**	**Pd (ppb)**	**Au (ppb)**
CR18-01	35	-60	36.00	594.00	558.00	0.261	127	10	16	2
CR18-02	35	-50	24.00	175.50	151.50	0.224	126	5	5	1
CR18-03	35	-50	288.00	606.00	318.00	0.248	126	19	28	3
CR18-04	35	-50	193.50	402.00	208.50	0.324	135	18	28	3
Selected Intervals with Elevated PGEs										
Drill Hole	**Az**	**Dip**	**From (m)**	**To (m)**	**Int (m)**	**Ni (%)**	**Co (ppm)**	**Pt (ppb)**	**Pd (ppb)**	**Au (ppb)**
CR18-03	35	-50	492.00	493.50	1.50	0.285	140	219	567	4
CR18-03	35	-50	507.00	511.50	4.50	0.339	140	59	498	48
CR18-04	35	-50	165.00	166.50	1.50	0.182	120	69	570	6

Note, the lengths reported are core lengths and not true widths. Spruce Ridge has insufficient information to determine the attitude, either of the ultramafic body or of mineralized zones within it. True widths will be less than the core lengths by unknown factors.

6.2.4 Spruce Ridge Resources Ltd.: 2019

On September 19, 2019, Spruce Ridge began a second round of drilling, planned to comprise 4,000 m (NQ size core) of diamond drilling in eight holes. No results have been released into the public domain as of the Effective Date of this Report.

6.3 Historical Mineral Processing and Metallurgical Testing

6.3.1 Sulphide Flotation Tests: 1973

In 1973, McIntyre Porcupine Mines Ltd. drill-tested magnetic anomaly “Anomaly 3N” (interpreted to be serpentinized ultramafic rocks), located in the northeast part of Crawford Township (drill hole collar in N1/2 Lot 7, Con 6). Drill hole 904-73-4 (134.5 m) required 61 m of casing before intersecting mafic-felsic volcanic rocks (61-100 m) before intersecting diorite (100-121 m) and then serpentinized peridotite (121-134.5 m) which had an overall low sulphide content; the drill hole ended in peridotite. Core assays are provided in Table 6-6.

Table 6-6. Summary of drill core assays from historical drill hole 904-73-4.

Sample	From (m)	To (m)	Int (m)	Ag (oz/t)	Cu (%)	Ni (%)
12670	97.23	98.45	1.22	0.03	0.04	-
12671	116.77	116.92	0.15	-	0.06	nil
12672	118.26	118.48	0.22	-	0.05	nil
12673	120.85	122.38	1.53	-	0.06	0.35
12674	129.24	130.00	0.76	-	0.05	0.43
12675	132.89	134.42	1.53	-	0.08	0.21

A 6.8 kg composite sample of this drill core (samples 12673, 74, and 75) was sent into the McIntyre Mine laboratory for sulphide flotation tests. The sample was described as serpentinized peridotite with about 5% sulphide mineralization and an assayed head grade that averaged 0.44% Ni and 0.04% Cu.

Three separate flotation tests were completed on the drill core from hole 904-73-4, showing an average 61.7% recovery of nickel (not optimized). Copper recoveries varied from 30% to 50% but was inconclusive due to the very low copper head grade. The final nickel concentrate averaged 1.80% Ni and 0.24% Cu.

This ultramafic intrusion is not located on the current Property and as such the results are not necessarily indicative of results we might expect from similar rocks in the CUC.

6.3.2 SEM/BEI Mineralogical Study: 2019

In 2019, Spruce Ridge commissioned a mineralogical study of ultramafic rock material collected from drill core samples from the 2018 diamond drilling program (news release Noble Mineral Exploration, June 11, 2019). The purpose of the study was to determine whether the nickel (and other elements) occur in the sulphide state, which could be economically extracted from the altered ultramafic host rocks of the CUC.

Twelve samples of drill core were selected from 1.5 metre analyzed intervals, to cover a range of nickel, cobalt, palladium and sulphur contents as well as differing degrees of serpentinization. Polished thin sections were made from the core samples and examined under reflected-light microscope to determine target areas for subsequent relocation and analysis using a JEOL 733 Electron Microprobe. Backscattered Electron Images ("BEI") were captured and areas of interest within each grain were analysed using an Oxford Instruments X-Act Energy Dispersive System ("EDS") attached to the electron microprobe (Renaud, 2019).

The following minerals were identified as carrying most of the nickel and cobalt (in order of decreasing abundance): pentlandite (50%: iron-nickel sulphide), heazlewoodite (35%: sulphur poor, nickel-rich sulphide), awaruite (15%: nickel-iron alloy) and minor godlevskite (nickel-iron sulphide). The pentlandite, which dominates the nickel-bearing mineral assemblage, is considered most promising for economic nickel extraction. Heazlewoodite is one of the most nickel rich sulphide minerals, and is generally thought to be of hydrothermal origin, most often found in dunite and lherzolite.

6.3.3 Selective Leach Analysis

A selective leach analysis was performed on pulp samples of the 12 core intervals from which the mineralogy samples were taken. Table 6-7 shows a comparison between the Peroxide Fusion analysis and the Aqua Regia analysis for cobalt and nickel and establishes the potential percentages of "Liberation" of these key elements (Noble Mineral Exploration news release, June 11, 2019).

All drill core samples had been initially analysed by ICP after sample preparation using sodium peroxide fusion ("FUS-ICP") for total digestion (palladium, platinum and gold were determined by fire assay). Pulps from the same 12 sample intervals selected for SEM analysis were re-analysed using the same ICP procedure, after digestion using aqua regia ("AR-ICP"), which does not attack silicate minerals to any significant degree. This provided a semi-quantitative estimate of the amount of nickel and cobalt that had been liberated from their parent olivine by serpentinization. After eliminating the one sample that showed much lower liberation, the average overall nickel liberation was 62%, and the average cobalt liberation was 77 percent (Table 6-7).

Table 6-7. Comparison between Peroxide Fusion and Aqua Regia analyses for cobalt and nickel.

Drill Hole	From (m)	To (m)	Int (m)	Co (ppm) FUS-ICP	Co (ppm) AR-ICP	Percent Liberated	Ni (%) FUS-ICP	Ni (%) AR-ICP	Percent Liberated	S (%) FUS-ICP
CR18-01	165.0	166.5	1.5	240	193	**80%**	**0.669**	**0.431**	**64%**	0.28
CR18-01	238.5	240.0	1.5	120	105	**88%**	**0.297**	**0.203**	**68%**	0.02
CR18-01	243.0	244.5	1.5	170	149	**88%**	**0.487**	**0.332**	**68%**	0.15
CR18-01	286.5	288.0	1.5	150	130	**87%**	**0.345**	**0.232**	**67%**	0.18
CR18-01	423.0	424.5	1.5	120	85	**71%**	**0.317**	**0.203**	**64%**	0.03
CR18-01	588.0	589.5	1.5	110	87	**79%**	**0.272**	**0.178**	**65%**	0.01
CR18-03	508.5	510.0	1.5	140	108	**77%**	**0.332**	**0.217**	**65%**	0.01
CR18-03	535.5	537.0	1.5	140	109	**78%**	**0.337**	**0.227**	**67%**	0.07
CR18-03	594.0	595.5	1.5	150	110	**73%**	**0.349**	**0.205**	**59%**	0.05
CR18-04	165.0	166.5	1.5	120	52	**43%**	**0.182**	**0.050**	**27%**	< 0.01
CR18-04	216.0	217.5	1.5	260	206	**79%**	**0.647**	**0.423**	**65%**	0.60
CR18-04	337.5	339.0	1.5	130	103	**79%**	**0.427**	**0.275**	**64%**	0.20
					Mean Co Liberation	**77%**		**Mean Ni Liberation**	**62%**	

6.3.4 Drill Core Characterization

Drill core samples from four drill holes completed in 2018 by Spruce Ridge, holes CR18-01, 02, 03 and 04, were used to determine average specific gravity and magnetic susceptibility of the intersected rock units and to run laboratory tests comparing recovery differences using two different analytical methods. Down hole profiles showing metal concentrations, specific gravity and magnetic susceptibility are provided in Appendix 4.

Specific Gravity

Drill core from the 2018 drilling had specific gravity ("SG") measurements made at regular intervals using the "weight in water vs weight in air" relative density method. Average SG for mafic volcanic rocks was 2.67 (n=60) and average SG for serpentinized ultramafic rocks was 2.66 (n=436).

Specifically, with respect to the ultramafic rocks, average SG for intervals grading over 0.25% Ni was 2.61, for intervals between 0.20% and 0.25% Ni was 2.62, and for intervals less than 0.20% Ni was 2.63. Fresh, unaltered dunite and peridotite, typically have a SG in the range of 3.2 to 3.4. The process of serpentinization involves the introduction of water into the rock, resulting in a substantial volume increase. The low average SG of the CUC ultramafic rocks (2.66) implies a high degree of serpentinization.

Magnetic Susceptibility

Magnetic susceptibility readings were collected along the drill core from the four drill holes completed in 2018. On the basis of more than 1,400 readings it was shown that the ultramafic rocks (average 129 units) were some 100 times higher than host mafic volcanic rocks (average 0.72 units). The serpentinized rocks are extremely magnetic relative to the host rocks and non-serpentinized ultramafic rocks, a result amplified by the serpentinization of olivine which releases iron to form magnetite.

6.4 Historical Sample Preparation, Analysis, Security

There was no Quality Assurance/Quality Control ("QA/QC") information found regarding sample preparation, analyses, and security procedures for the diamond drill core assay results prior to the 2018 and 2019 drilling programs by Spruce Ridge. No casing was left in drill holes prior to the work done by Spruce Ridge, so in the field it is not possible to confirm the location of historical, pre-2018 drill holes. The following information comes from a review of Spruce Ridge's completed 2018 program and the ongoing 2019 diamond drilling program.

6.4.1 Sample Collection and Transportation

Drill core (NQ size) was placed in core boxes at the drill by the drilling contractor (NPLH Drilling of Timmins, Ontario: www.nplhdrilling.ca) following industry standard procedures. Small wooden tags mark the distance drilled in metres at the end of each run. On each filled core box, the drill hole number and sequential box numbers are marked by the drill helper and checked by the site geologist. Once filled and identified, each core tray is covered and secured shut.

Core was delivered to the side of Highway 655 by the drilling contractor as the drilling progressed. Company personnel transported the core to the core shack from that location. Casing has been left in the completed drill holes with the casing being capped and marked with a metal flag.

6.4.2 Core Logging and Sampling

The Company used a rented core shack in Timmins (3700 Highway 101 West), a driving distance of approximately 50 km from the Project area access point. Once the core boxes arrive at the logging facility in Timmins, the boxes are laid out on the logging table in order and the lids removed. Core is stored sequentially, hole by hole, in racks for logging. Core logging consists of two major parts: geotechnical logging and geological logging.

Geological core logging records the lithology, alteration, texture, colour, mineralization, structure and sample intervals. All geotechnical and geological logging and sample data are recorded directly into a computer spreadsheet (MS Office Excel). As the core was logged the target rock type (dunite and/or peridotite) was marked for sampling at a nominal sample interval of 1.5 metres. The entire intercept of ultramafic rocks was sampled in each drill hole. Magnetic susceptibility was measured every metre. Relative density of core samples was calculated at a variable interval of three to six metres.

Samples are identified by inserting three identical pre-fabricated, sequentially-numbered, weather-resistant sample tags at the end of each sample interval. Once the core is logged, photographed and the samples are marked, the core boxes are transferred to the cutting room for sampling. In general, the core recovery for the diamond drill holes on the Property has been better than 95% and little core loss due to poor drilling methods or procedures has been experienced.

Sections marked for sampling was cut in half with a diamond saw; a separate cutting room is located adjacent to the logging area. Once the core was cut in half it was returned to the core box. A geotechnician prepared the sample tags, selecting half of the core in each interval, placing said core in a sample bag and sealing the bag with a cable tie. The boxes containing the remaining half core are stacked and stored on site in the secure core storage facility.

Individual samples were then placed in large polypropylene bags (rice bags), five samples to a bag, and then the larger bag secured with a cable tie. Company personnel were responsible for transporting the samples to the Activation Laboratories Ltd. (“Actlabs”) Timmins analytical facility, a driving distance of approximately 4.5 km from the core shack.

6.4.3 Analytical

A total of 952 drill core samples were submitted to Actlabs (Timmins and Ancaster, Ontario) for analysis by Spruce Ridge. Actlabs is a Canadian-owned analytical and assay laboratory certified to ISO/IEC 17025 with CAN-P-1579 (Mineral Analysis). Analyses for precious metals (Pt, Pd, Au) were done by Fire Assay on 30-gram splits with ICP-OES analysis. Nickel and cobalt were determined by ICP-OES after sample preparation by sodium peroxide fusion.

Additionally, the Company performed independent analysis of a duplicate pulp from approximately every fifth sample (184 samples), using a portable X-Ray fluorescence instrument. Results accorded closely to those from the Actlabs ICP-OES peroxide fusion analyses. Cobalt and precious metal concentrations were too low to be reliably determined by portable XRF technology.

Control Samples

No QA/QC samples were introduced to the sample stream by Spruce Ridge. Actlabs inserted internal certified reference material and blanks into the sample stream and also carried out duplicate and replicate (“preparation split”) analyses within each sample batch as part of their own internal monitoring of quality control. It is the results of Actlabs’ internal quality control that Spruce Ridge relied upon to service the quality control of the Project and it is those results that are reported on herein.

A total of 154 duplicate analyses (including six replicate analyses) were carried out by Actlabs in the course of their work. Of those duplicate analyses, 90 were performed by FA digestion and 82 by sodium peroxide (Na_2O_2) fusion digestion. A total of 83 analyses of blank material were performed by FA digestion and 91 samples of blank material were analysed after the sodium peroxide fusion digestion. For the purposes of this Report only the elements of major economic importance to the project (*i.e.*, Ni, Co, Au, Pd, Pt) were examined in detail for an assessment of the quality of the analytical data. The elements Cu, Mg and S were also examined in a cursory manner for the assessment.

The Actlabs laboratory in Timmins, Ontario carried out the sample login/registration, sample weighing and sample preparation.

For statistical purposes within this Report any analytical result that was reported to be less than the detection limit was set to one half of that detection limit (*e.g.*, a result reported as <0.5 was set to a numeric value of 0.25). Results reported to be greater that maximum value reportable, and where no corresponding over limit analysis was performed, were set to that maximum value (*e.g.*, a result reported as >15.0 was set to a numeric value of 15).

6.4.4 QA/QC Data verification

Blank Material

All analyses performed on blank material are considered to be acceptable as the majority of results were reported to be below the detection limits for each element examined. The exception with respect to those elements examined in detail was S where 5.5% of the blank samples reported at the lower limit of detection (0.01%) or above (maximum 0.06%); however, this failure rate is still considered to be acceptable.

Certified Reference Material

Certified reference materials (“CRM”) are used by Actlabs to internally monitor the accuracy of their analyses. A number of different reference materials for different combinations of elements were used during the course of the analytical work being reported on herein, including: CDN-PGMS-28, DTS-2b, CCU-1e, GBW 07113, PTM-1a, CD-1, GBW 07238, OREAS 74a, OREAS 134b, MP-1b, AMIS 0129, OREAS 13b, NCS DC86314, PK2, CZN-4, W 106, OREAS 922.

For the purpose of this Report we have focused on the results of the first two reference materials in the preceding list (CDN-PGMS-28 and DTS-2b) as they report certified values in ranges similar to material that was submitted to Actlabs for analysis. Certificates for these two CRMs are provided in Appendix 5.

It is observed that all the certified reference material examined in detail averaged within two standard deviations of the certified concentrations over the span of the laboratory work (Figures 6-3, 6-4 and 6-5). That all analyses of certified reference material, over time, averaged close to their certified concentration gives reason that the accuracy of the analyses be considered as acceptable.

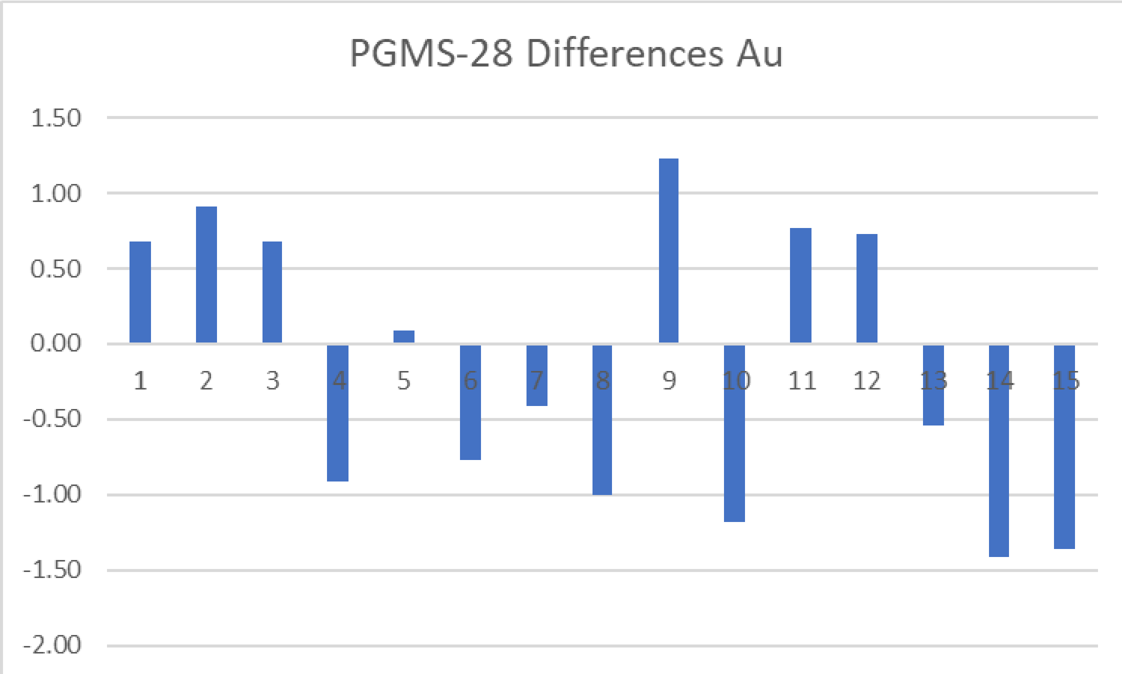

Figure 6-3. CRM CDN-PGMS-28 – Number of standard deviations difference for Au analysis from the Certified Value for various analytical runs.

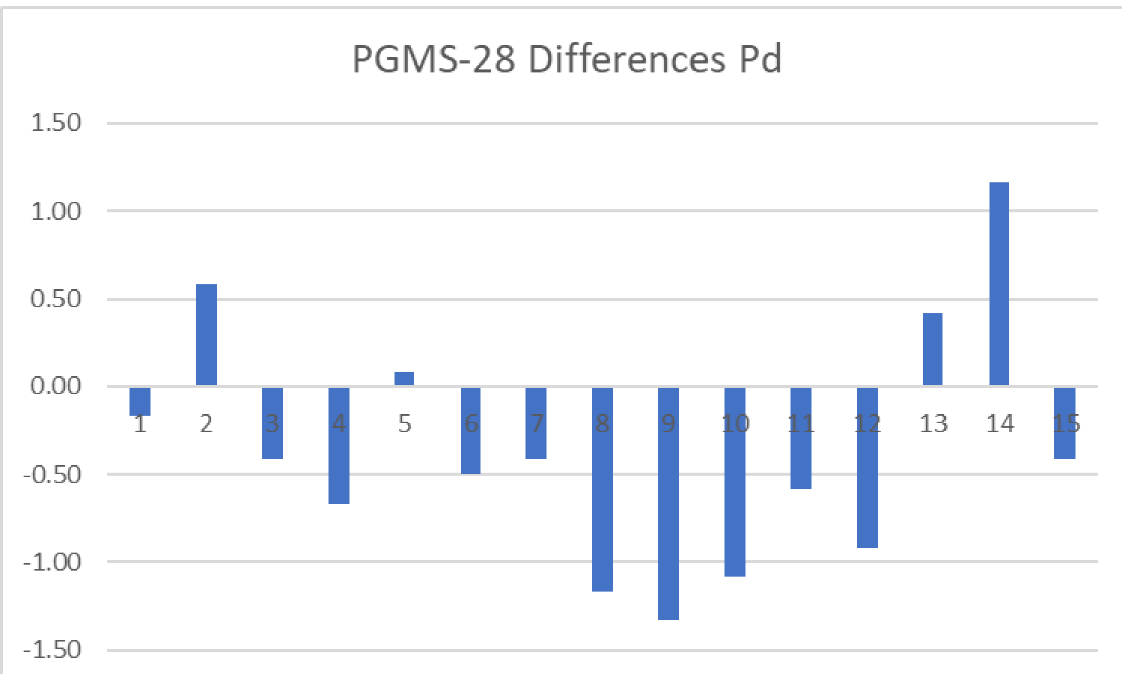

Figure 6-4. CRM CDN-PGMS-28 – Number of standard deviations difference for Pd analysis from the Certified Value for various analytical runs.

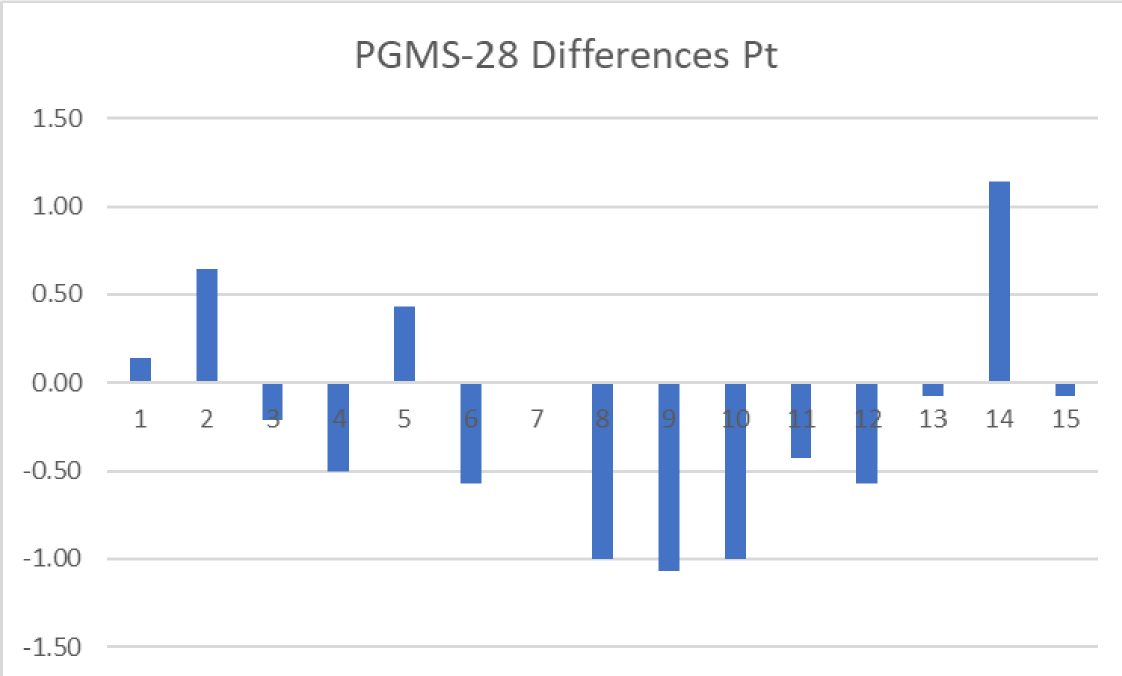

Figure 6-5. CRM CDN-PGMS-28 – Number of standard deviations difference for Pt analysis from the Certified Value for various analytical runs.

6.4.5 Duplicate Samples

In general, the duplicate material for the precious metal analyses has indicated good reproducibility of the assays (Figures 6-6, 6-7 and 6-8).

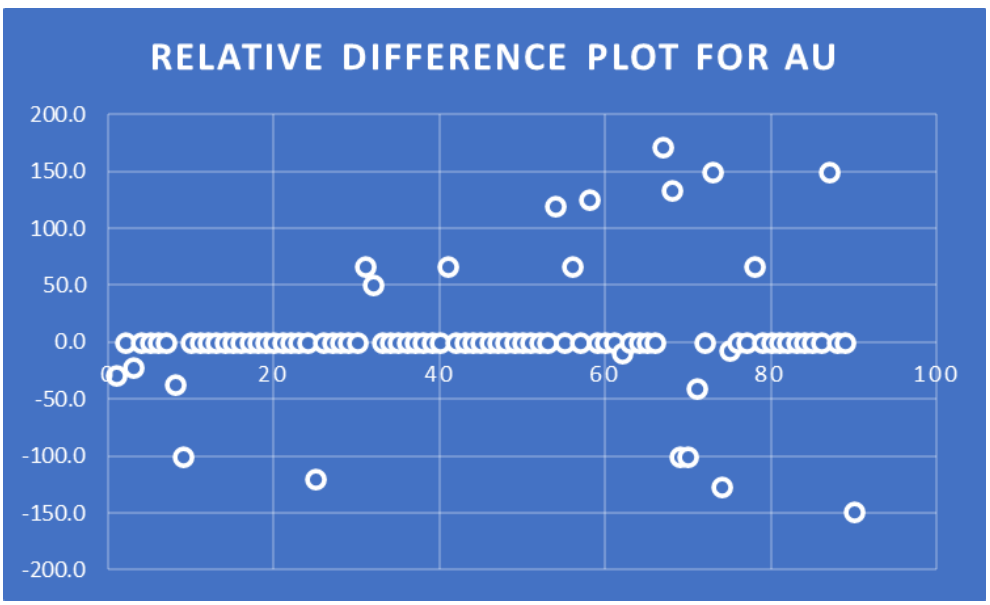

Figure 6-6. Relative percent difference of pairs of duplicate samples analyzed for Au.

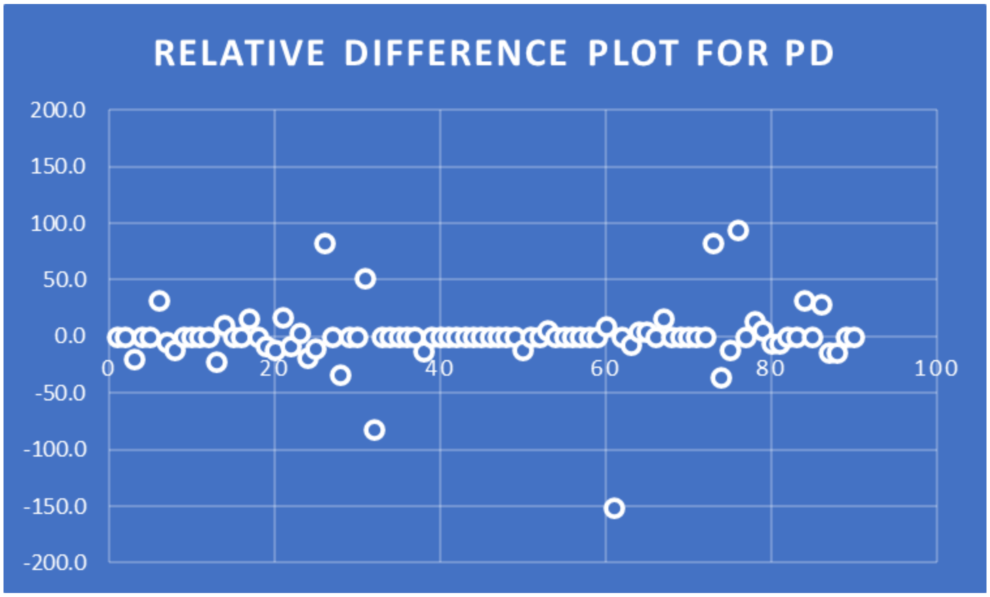

Figure 6-7. Relative percent difference of pairs of duplicate samples analyzed for Pd.

Where relative differences of over 100% are observed, sample pairs generally exhibit low absolute concentrations of the precious metals and the order of magnitude difference at those levels is not considered to be of importance.

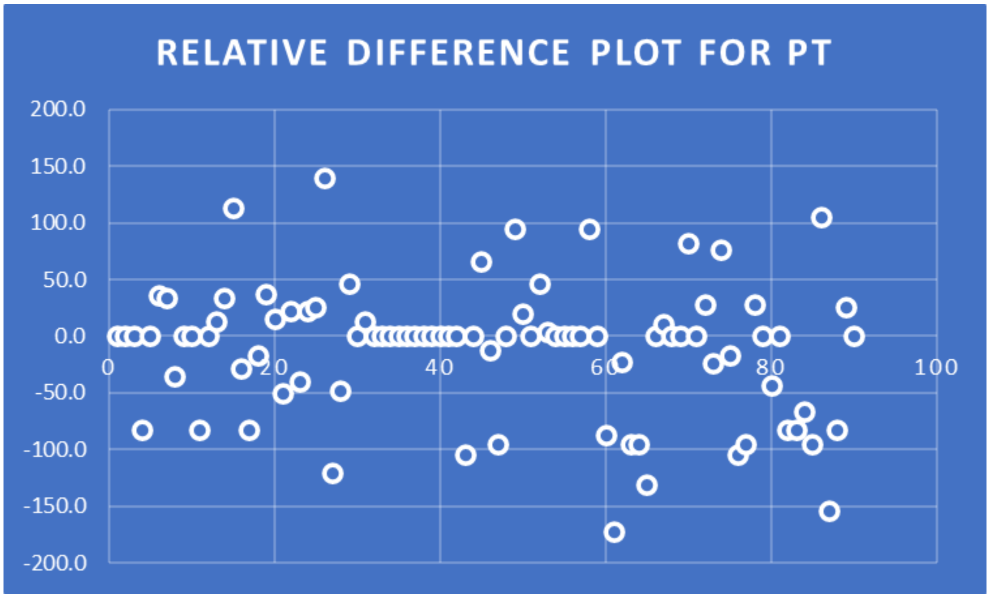

Figure 6-8. Relative percent difference of pairs of duplicate samples analyzed for Pt.

The relative differences for Co and Ni were under 20% with the exception of one sample, 701330, where the relative difference between the pair of Ni analyses was over 100 percent (Figure 6-9). Again, this appears to be a case where exceptionally low Ni values were returned and as such the relative difference is not considered to be of importance.

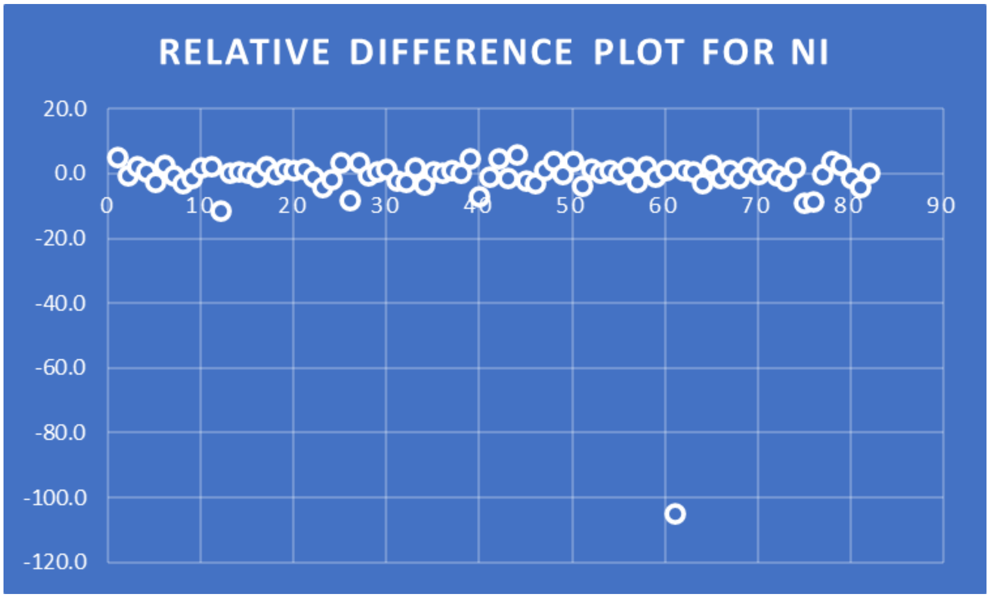

Figure 6-9. Relative percent difference of pairs of duplicate samples analyzed for Ni.

In the Authors' opinion, the assay data is adequate for the purpose of verification of the drill core assays and for future calculations of mineral resource estimations; however, it is strongly recommended that an internal system of QA/QC be introduced in conjunction with future analytical work.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Crawford Nickel-Cobalt Sulphide project is situated in northeastern Ontario, in the western portion of the mineral-rich Abitibi Greenstone Belt (2.8 to 2.6 Ga), which is within the Superior Province, Canada (Figures 7-1 and 7-2). The AGB of the Abitibi Subprovince, spans across the Ontario-Quebec provincial border and is considered to be the largest and best preserved greenstone belt in the world (Jackson and Fyon, 1991; Sproule et al., 2003), covering an area of approximately 700 km from the southeast to northwest and 350 km from north to south and comprising several major east-trending successions of folded volcanic and sedimentary rocks, with associated felsic to ultramafic intrusions. The supracrustal rocks of the AGB are uniquely well preserved and have mostly been overprinted only at a low metamorphic grade (Monecke et al., 2017). The economic importance of the AGB is of incredible importance as it contains some of the most important gold and base metal mining camps in Canada, as well as a long history of punctuated production from komatiite- hosted Ni-Cu-(PGE) sulphide deposits.

More than an estimated 50% of the supracrustal rocks of the AGB, including those on the Property, are under tens of metres of clay-dominated cover (referred to as the "Abitibi Clay Belt" or "Great Clay Belt" and formed from the lakebed sediments of Glacial Lake Ojibway), making mineral exploration challenging and expensive and hampering the discovery rate of new metal mines. At the same time this also creates an opportunity for discovery.

The AGB has been subdivided into nine lithotectonic assemblages or volcanic episodes (Ayer et al., 2002a, 2002b and 2005), however, the relationships between these assemblages are for the most part ambiguous. Allochthonous greenstone belt models, with each terrane having been formed in a different tectonic environment, predict them to be a collage of unrelated fragments. Autochthonous greenstone belt models allow for the prediction of syngenetic mineral deposits hosted by specific stratigraphic intervals and formed within a structurally deformed singular terrane. Greenstone belts in the Superior Province consist mainly of volcanic units unconformably overlain by largely sedimentary "Timiskaming-style" assemblages, and field and geochronological data indicate that the AGB developed autochthonously (Thurston *et al.*, 2008).

Proterozoic dikes of the Matachewan Dyke Swarm and the Abitibi Dyke Swarm intrude all of the rock in the region. Matachewan dikes generally trend north-northwest while the younger Abitibi Dyke Swarm trends northeast.

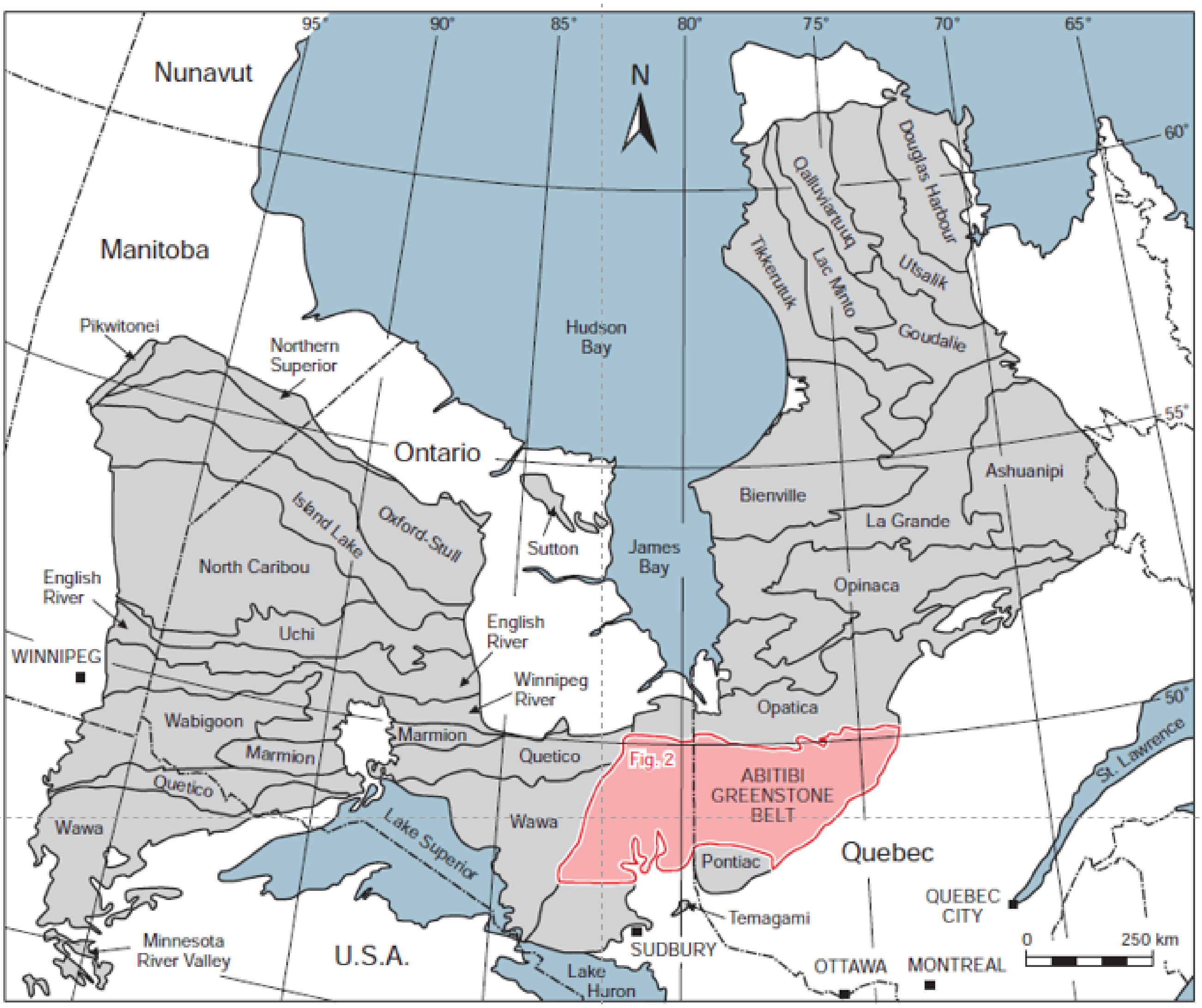

Figure 7-1. Location of the Abitibi Greenstone Belt within the Archean Superior Province, Canada (Monecke *et al.*, 2017).

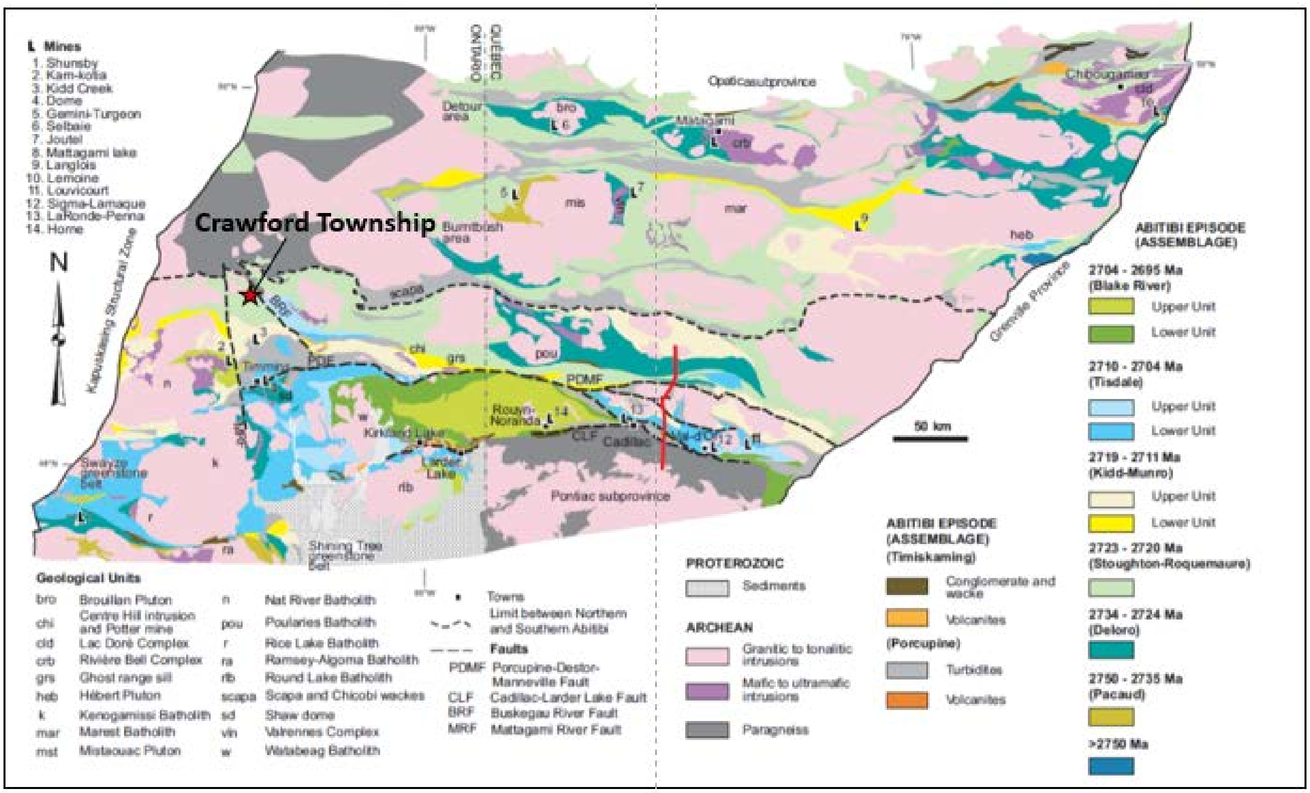

Figure 7-2. General geology of the Abitibi Greenstone Belt and the location (red star) of the Crawford Nickel-Cobalt Sulphide Project (Crawford Township) in Northeastern Ontario (Thurston *et al.*, 2008; MERC, 2017). The Deloro Assemblage in which the CUC is hosted is not shown at this scale.

7.1.1 Komatiitic Rocks

Of the nine distinct lithotectonic assemblages defined in the AGB, only four of these are generally accepted to contain komatiitic rocks (ultramafic mantle-derived rock with ≥18 wt% MgO) and therefore considered prospective for komatiite-associated Ni-Cu-(PGE) sulphide deposits.

These four assemblages, which differ considerably in the physical volcanology and geochemistry of the komatiitic flows, have distinct and well-defined ages as well as spatial distribution (Sproule *et al.*, 2003; Thurston *et al.*, 2008):

- Pacaud Assemblage (2750-2735 Ma)
- Stoughton-Roquemaure Assemblage (2723-2720 Ma)
- Kidd-Munro Assemblage (2719-2711 Ma)
- Tisdale Assemblage (2710-2704 Ma)

The Kidd-Munro and Tisdale assemblages contain a much greater abundance of cumulate komatiites than the other assemblages. The Kidd-Munro Assemblage is east to southeast-striking and comprises komatiitic flows, magnesium to iron-rich mafic volcanic rocks, thin rhyolite units (FIII-type to calc-alkaline), clastic sedimentary rocks (argillite and greywackes, many graphitic), and chemical sedimentary rocks (limestone, dolomite) occurring as interflow horizons. These units are intruded by mafic to ultramafic bodies and minor felsic dikes (Ayer *et al.*, 2002a and 2002b; Sproule *et al.*, 2005; Ayer *et al.*, 2005).

Almost all komatiite-associated Ni-Cu-(PGE) deposits in the AGB are interpreted to be localized in lava channels/channelized sheet flows (*e.g.*, Alexo, Hart, Langmuir, Marbridge, and Texmont) or channelized sheet sills (*e.g.*, Sothman, Dumont, Kelex-Dundeal-Dundonald South). One exception is the McWatters deposit, which occurs within a thick mesocumulate to adcumulate peridotite that is interpreted to be a synvolcanic dike (Houlé and Lesher, 2011).

7.1.2 Economic Geology

The Timmins-Porcupine Gold Camp of Northeastern Ontario represents the largest Archean orogenic greenstone-hosted gold camp in the world in terms of total gold production (*e.g.*, Monecke *et al.*, 2017). The Kidd Creek Cu-Zn deposit, north of Timmins and about 15 km south of Crawford Township, is the world's largest and highest-grade Archean Volcanogenic Massive Sulphide ("VMS") deposit currently in production. Monecke *et al.* (2017), reported historical past production, reserves and resources to the 2,990 m level as 170.9 Mt grading 2.25% Cu, 5.88% Zn, 0.22% Pb, and 77 g Ag/t. Discovery hole K55-1 was drilled in 1963 and encountered ore at a depth of 7 m, intersecting 190 m (entire hole) grading 1.21% Cu, 8.5% Zn, 0.8% Pb, and 138 g Ag/t. Today, the orebodies of the deposit are exploited from surface to more than 3 km depth and are open at depth, making Kidd Creek the deepest base metal mine in the world (Monecke *et al.*, 2017).

The Timmins Mining camp has a history of nickel production from komatiite-associated Ni-Cu-(PGE) deposits (Figure 7-3; Table 7-3). Several of these deposit types have been identified within the Kidd-Munro Assemblage (*e.g.*, Alexo, Dundonald, Mickel, and Marbridge) and the Tisdale Assemblage (*e.g.*, Hart, Langmuir, Redstone, Texmont, and Sothman).

Table 7-3. Summary of pre-mining geologic resource estimates plus mined ore, Komatiite-Associated Ni-Cu-(PGE) mines/deposits, Timmins Mining Camp, Ontario (modified after Houle *et al.*, 2017).

Name	Status	Township	Notes	Assemblage	Milled (t)	Reported (t)	Ni (%)
Alexo	Past Producer	Dundonald	extrusive	Kidd-Munro	115,000	-	3.18
Kelex	Past Producer	Clergue	intrusive (subvolcanic sill)	Kidd-Munro	279,000	-	0.97
Dundeal	Deposit	Dundonald	intrusive (subvolcanic sill)	Kidd-Munro	-	400,000	2.00
Dundonald	Deposit	Dundonald	intrusive (subvolcanic sill)	Kidd-Munro		141,000	2.73
Langmuir #1	Deposit	Langmuir	extrusive; Shaw Dome	Tisdale	1,834,000	-	0.58
Langmuir #2	Past Producer	Langmuir	extrusive; Shaw Dome	Tisdale	1,369,000	-	1.40
McWatters	Past Producer	Langmuir	intrusive; Shaw Dome	Tisdale	1,688,000	-	0.75
Redstone	Past Producer	Eldorado	extrusive; Shaw Dome	Tisdale	2,043,000	-	1.62
Hart	Deposit	Eldorado	extrusive; Shaw Dome	Tisdale	1.868,000	-	1.38
Texmont	Past Producer	Bartlett Geikie	extrusive	Tisdale	3,369,000	-	0.92

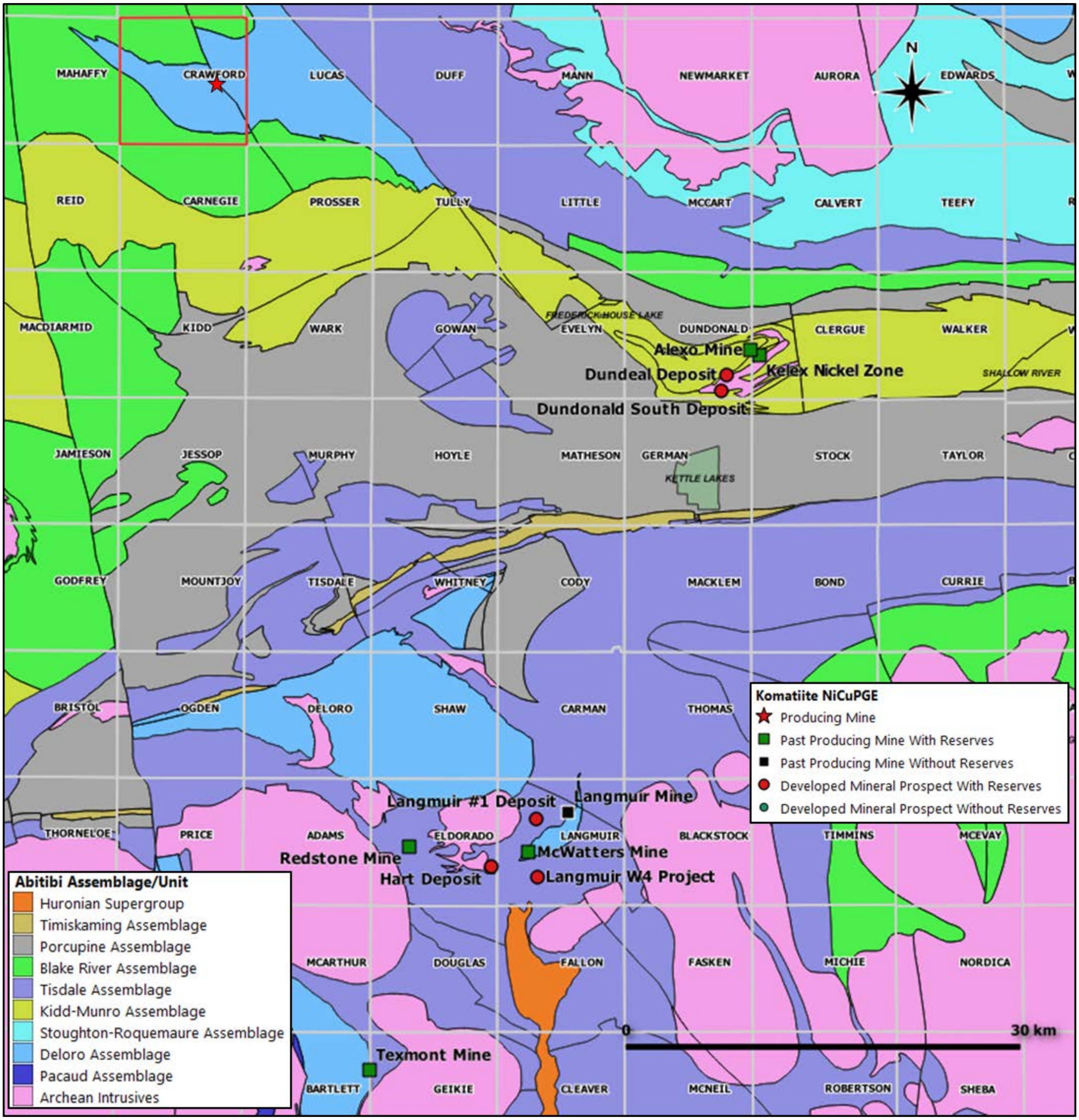

Figure 7-3. Locations of komatiite-hosted Ni-Cu-(PGE) deposits/mines in the Timmins Mining Camp and location of the Project area (Crawford Township – red square) and the Crawford Ultramafic Complex (red star). Geology of the Abitibi assemblages (volcanic episodes) is from Ayer *et al.*, (2005) and Ontario Geological Survey MRD155.

7.2 Local and Property Geology

The Greenstone Architecture Project (2003-2005) and Discover Abitibi Initiative (2001-2012), lead by the Ontario Geological Survey ("OGS"), resulted in reclassification of the lithological assemblages in the southern AGB (Ontario portion) by using detailed U/Pb geochronology, and updated geological and geophysical compilations (Ayer *et al.*, 2005; Thurston *et al.*, 2008). This work suggests that the rocks underlying the Property are part of the Deloro Assemblage (Figure 7-4) (Monecke *et al.*, 2017).

The Deloro Assemblage (2730 to 2724 Ma) consists mainly of mafic to felsic calc-alkaline volcanic rocks with local tholeiitic mafic volcanic units and an iron formation cap which is typically iron-poor, chert-magnetite (Ayer *et al.*, 2005; Thurston *et al.*, 2008). This assemblage (volcanic episode) is host to the CUC on the Property and other ultramafic sills in the area.

The surrounding and regional lithologies (not underlying the Property) belong to the Blake River Assemblage (2704 to 2701 Ma) which consists mainly of tholeiitic mafic volcanic rocks with isolated units of tholeiitic felsic volcanic rocks and turbiditic sedimentary rocks (Ayer *et al.*, 2005; Thurston *et al.*, 2008). This assemblage, also referred to as the Blake River Group, is host to several mafic-ultramafic sills in the northern part of Crawford Township and in Mahaffy and Aubin townships. The Blake River Assemblage, the youngest volcanic-dominated package, is one of the most prospective Archean stratigraphic packages for VMS exploration, especially for gold-rich VMS deposits (Ross *et al.*, 2009).

The rocks have undergone greenschist facies metamorphism with widespread carbonate, chlorite and sericite alteration in volcanic rocks and serpentinization in ultramafic rocks (*i.e.*, dunite, peridotite).

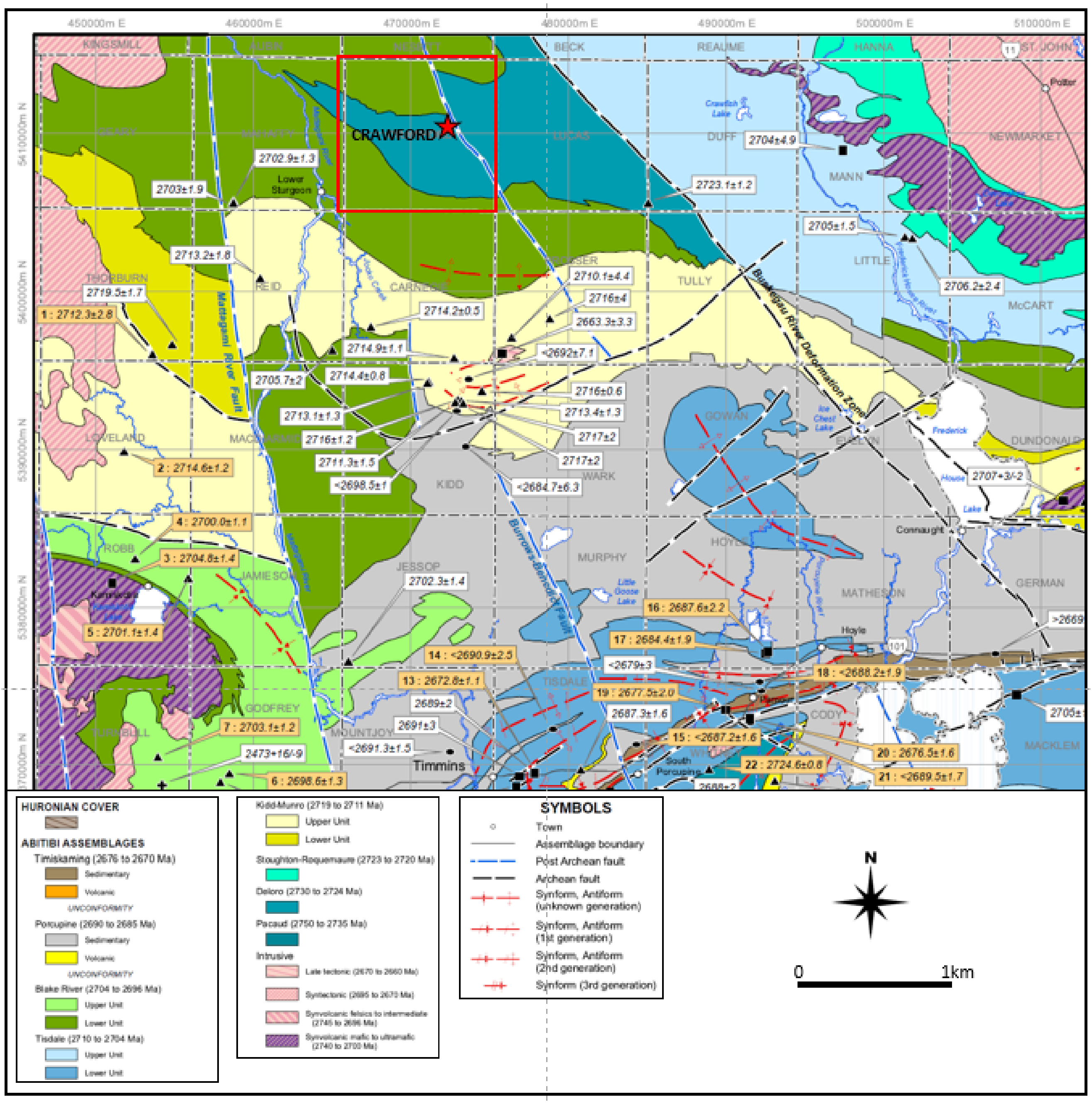

Figure 7-4. Regional geology (Abitibi Assemblages) and location of the Property in Crawford Township (red square) and the approximate location of the Crawford Ultramafic Complex (red star). Also shown are the age dates from U/Pb geochronology samples taken from various Abitibi assemblages (Ayer *et al.*, 2005).

7.2.1 Crawford Ultramafic Complex (CUC)

Historical work in Crawford Township has generated several generations of geological maps with geology inferred almost entirely from diamond drill core, overburden bedrock interval sampling, and the interpretation of geophysical surveys (Figure 7-5). The principal target, entirely undercover, is an approximately 8.0 km long by 2.0 km wide body (original estimated shape as defined by geophysics) of dunite, peridotite and their serpentinized equivalents, as confirmed in four diamond drill holes completed in 2018 (Spruce Ridge Resources, 2019; Noble Mineral Exploration, 2019). Historical diamond drilling (1960s and 1970s) also reported intersections of gabbro, peridotite, pyroxenite, dunite and serpentinite (*e.g.*, George, 1970).

The geophysical expression and limited diamond drilling suggest that the CUC is an originally ovoid-shaped plug or thick sill, differentiated ultramafic to mafic intrusion. Strong magnetic anomalies defined three distinct portions of the CUC, namely, the Main, North and East areas (Figures 7-5 and 7-6).

The CUC, although geophysically recognized as early as 1964, was recently redefined by a high-resolution helicopter-borne magnetic and electromagnetic survey in 2017 (Balch, 2017) and a high-sensitivity aeromagnetic and airborne gravimetric survey in 2018 (CGG, 2018), both conducted over the entire Crawford Township, and followed up with 3D inversion and detailed interpretation (St-Hilaire, 2019) (Figures 7-7 and 7-8).

7.2.2 Structure

The dominant structural trend on the Property is west-northwest to east-southeast with lesser, localized east-west striking stratigraphy. The CUC, interpreted to be an ovoid shaped intrusion, has had its eastern portion (North and East areas) displaced about 1.8 km to the northwest by a regional, northwest-trending sinistral strike-slip fault (Figure 7-5). Limited descriptions from 2018 drill core logs describe the upper contact between mafic volcanic rocks and dunite in the CUC as brecciated.

7.2.3 Alteration

Dunite intersected in Spruce Ridge’s 2018 diamond drilling campaign was extensively serpentinized. The process of serpentinization involves the introduction of water into the rock which leads to a substantial volume increase. Fresh, unaltered dunite and peridotite typically has an SG ranging from 3.2 to 3.4. Core samples from the 2018 Spruce Ridge drilling had SG measurements ranging from 2.61 to 2.63, and this along with observations recorded from drill core, support the inference that the rocks have been strongly serpentinized.

Serpentinization breaks down the olivine and other silicate minerals, resulting the liberation of nickel and iron in a strongly reducing environment. The result is the liberated nickel partitions into low-sulphur sulphides like heazlewoodite and into the nickel-iron alloy, awaruite.

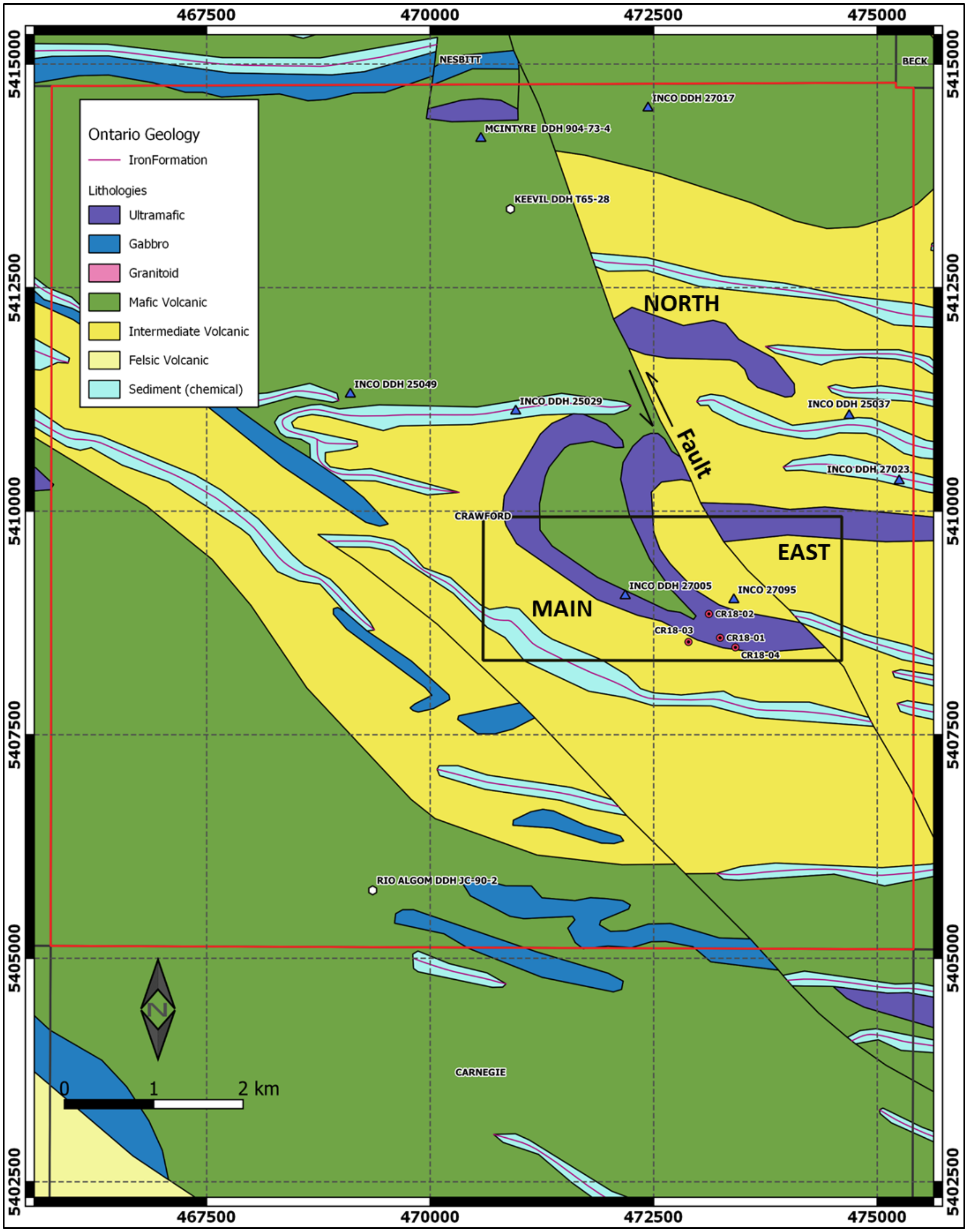

Figure 7-5. Generalized property-scale geology of Crawford Township (red outline) and the Property (black outline). Also shown are the locations of drill hole collars (red circles) from Spruce Ridge's 2018 drilling program (CR18 series) and historical INCO (1960s) and McIntyre (1970s) drill holes/occurrences, targeting the ultramafic rocks (purple) of the Crawford Ultramafic Complex (geology from Ontario Geological Survey, MRD126).

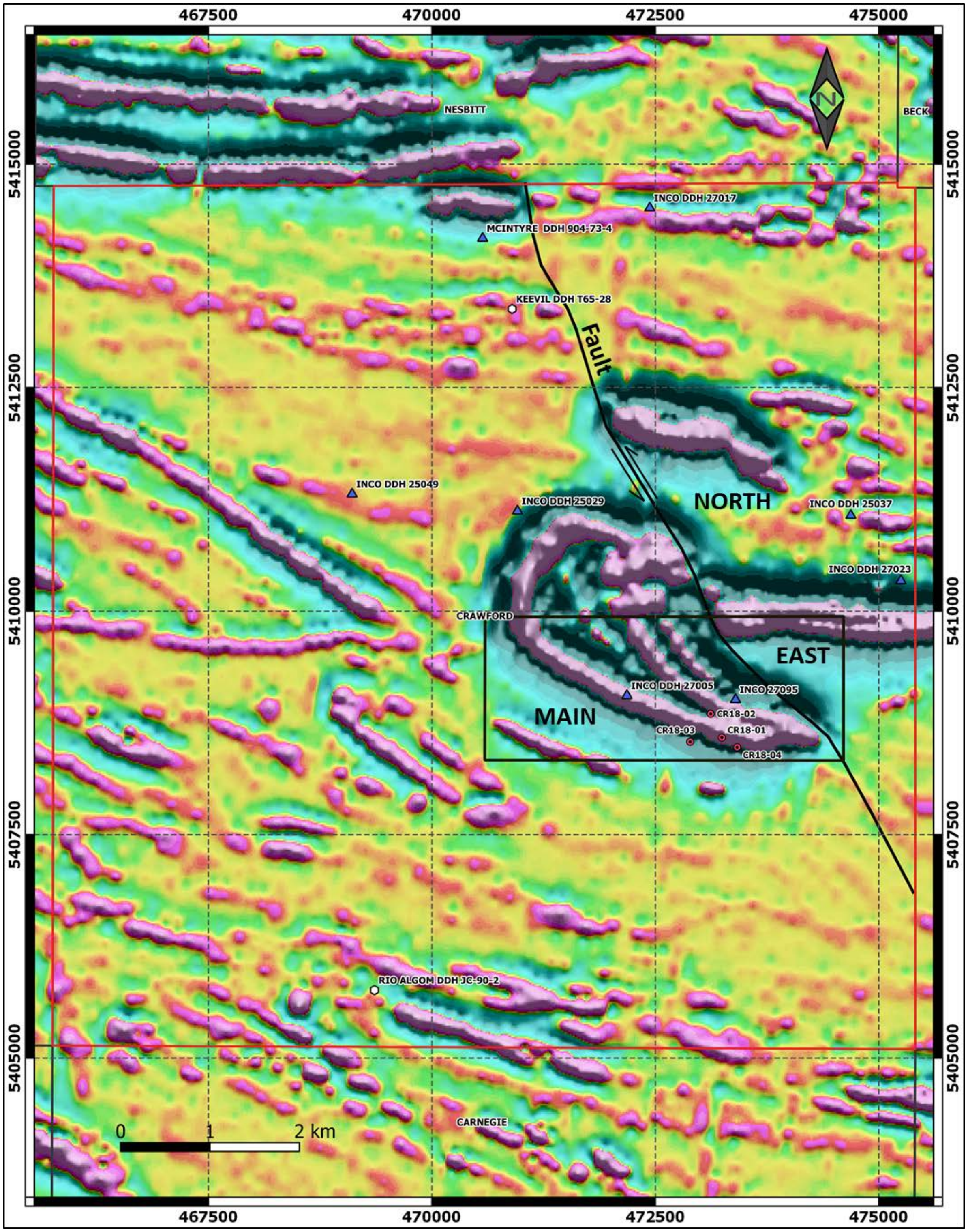

Figure 7-6. MEGATEM II (2002), second derivative magnetic map focused on Crawford Township (red outline) and showing the outline of the Property (black outline). The eastern part of the CUC is interpreted to have been displaced to the northwest by a regional northwest strike-slip sinistral fault (see Figure 7-5), with the east side of the CUC displaced to the north-northwest. Also shown are drill hole collars (blue circles) from Spruce Ridge's 2018 diamond drilling program targeting the Main portion of the Crawford Ultramafic Complex.

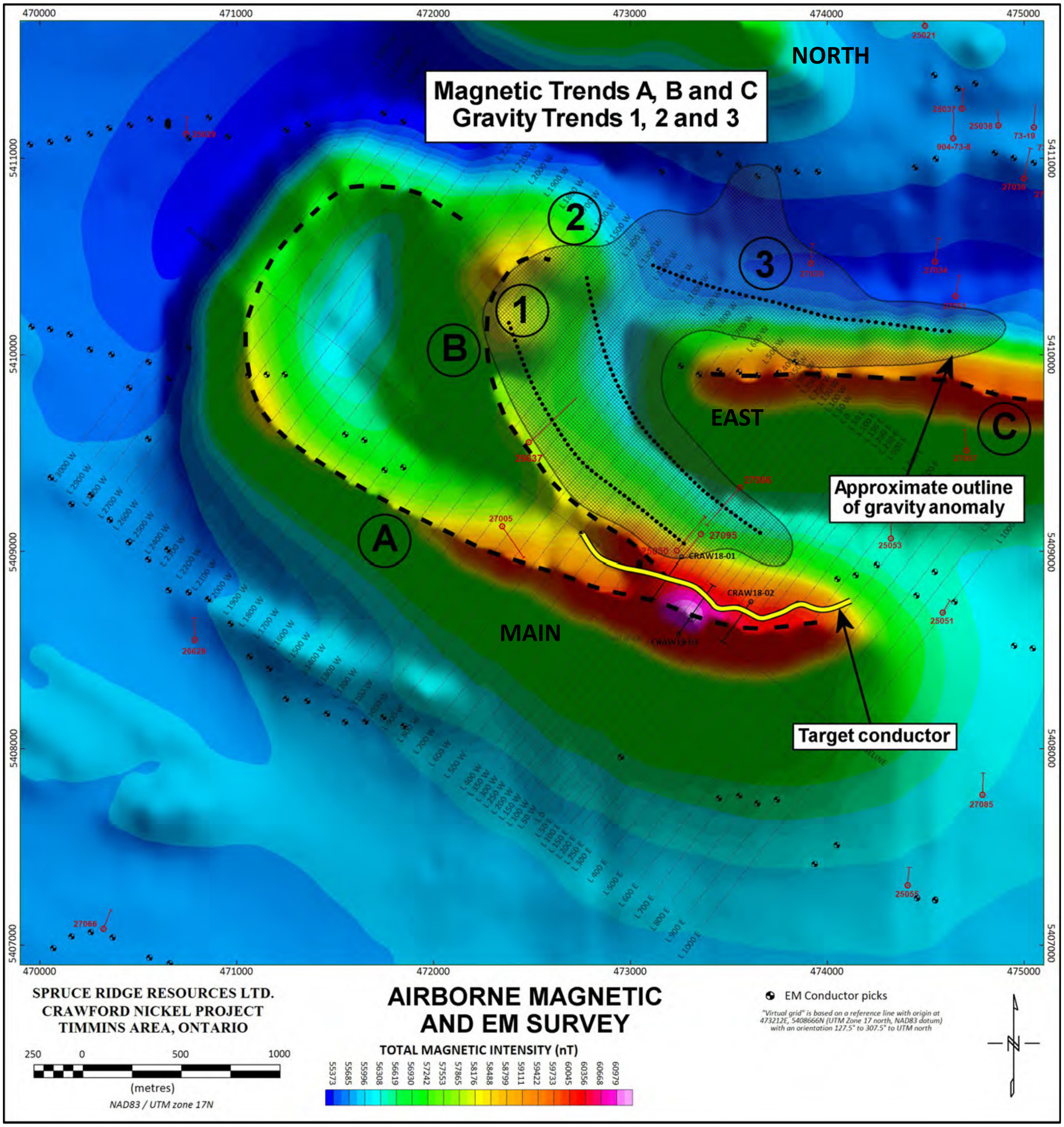

Figure 7-7. Crawford Township high-resolution helicopter-borne magnetic and electromagnetic survey flight lines, results, and interpretation (Balch, 2017). Shown are the general magnetic trends (A, B, C), the gravity anomaly outline and trends (1, 2, 3) and the EM conductor picks. The east-west "Target Conductor" (yellow) in the southeast portion of the Main target area is the focus of 2018 and current diamond drilling (historical drill hole traces shown). The North and East areas of the CUC have been offset to the northwest by a regional sinistral strike-slip fault.

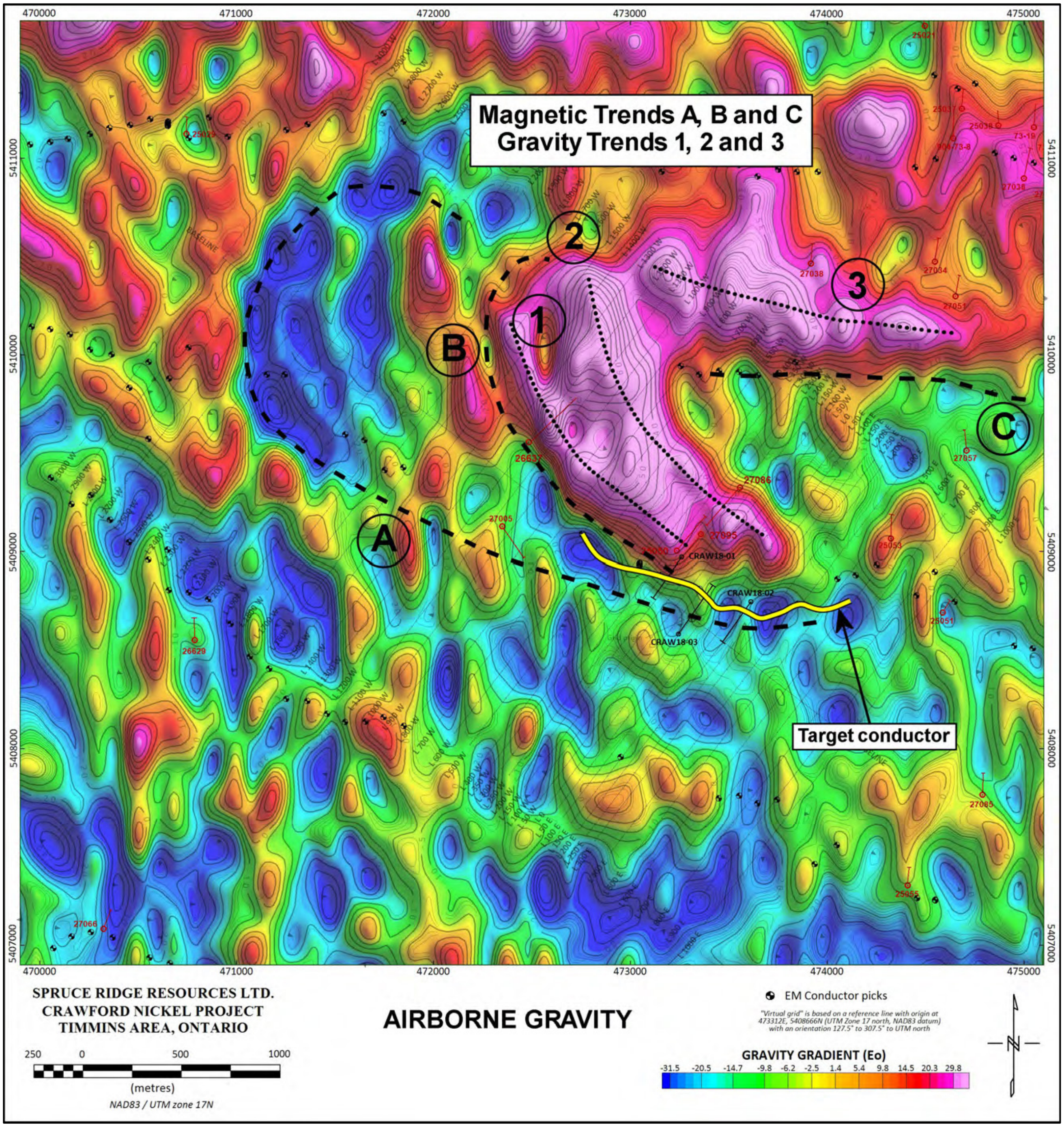

Figure 7-8. Results of the Crawford Township airborne gravimetric survey completed in 2018 (CGG, 2018). Shown are the general magnetic trends (A, B, C), the gravity anomaly outline and trends (1, 2, 3) and the EM conductor picks. The east-west electromagnetic “Target Conductor” (yellow) in the southeast portion of the Main target area is the focus of 2018 and current diamond drilling; historical drill hole traces from INCO (1960s) and Spruce Ridge (CR18 series, 2018) are also shown.

7.3 Mineralization

The Abitibi Greenstone Belt affords a mineral exploration company with several target deposit types and commodities, including Ni-Cu-(PGE), VMS, and orogenic gold (Figure 7-9).

Within Crawford Township, several prominent mafic-ultramafic intrusions (*i.e.*, sills) offer the potential for magmatic sulphide, nickel, copper, and platinum-group element (PGE) style of mineralization. This mineralization style forms the principal target deposit type for the Crawford Nickel-Cobalt Sulphide Project, which in this case is intrusion-hosted Ni-Cu-PGE sulphide mineralization. Core log descriptions from historical drill holes (1960s/1970s) and from the 2018 and 2019 diamond drill holes, describe intersections of ultramafic rocks (dunite-peridotite) and their serpentinized equivalents, but do not report any significant visible sulphide mineralization, suggesting very low sulphur conditions.

Many mineralized structures have been mapped previously and typically show a strike length of several hundred metres to a few kilometres, with conductive graphite and/or pyrrhotite and pyrite mineralization (Balch, 2017). Within these conductive trends, economic concentrations of sulphide minerals can concentrate (*e.g.*, the Kidd Creek Volcanogenic Massive Sulphide or VMS base metal mine) and would have a lateral footprint of several hundred metres. These deposits may or may not be magnetic, but they would be associated with an anomalous gravity high (positive Bouguer anomaly) and would likely be strongly conductive (Balch, 2017).

The possibility for the discovery of gold mineralization also exists within Crawford Township, largely associated with felsic volcanic tuffs that form a part of the thicker mafic-intermediate volcanic sequences. An example of structurally controlled, felsic volcanic hosted (tuff-pyrite-chert-quartz) gold mineralization occurs at the Lucas Gold deposit, west of the Property in Lucas Township (Noble Mineral Exploration Inc.).

Summaries of mineral occurrences from the Mineral Deposits Inventory (MDI) and drill holes from the Ontario Drill Hole Database (ODHD) that are found in Crawford Township are provided in Appendix 6.

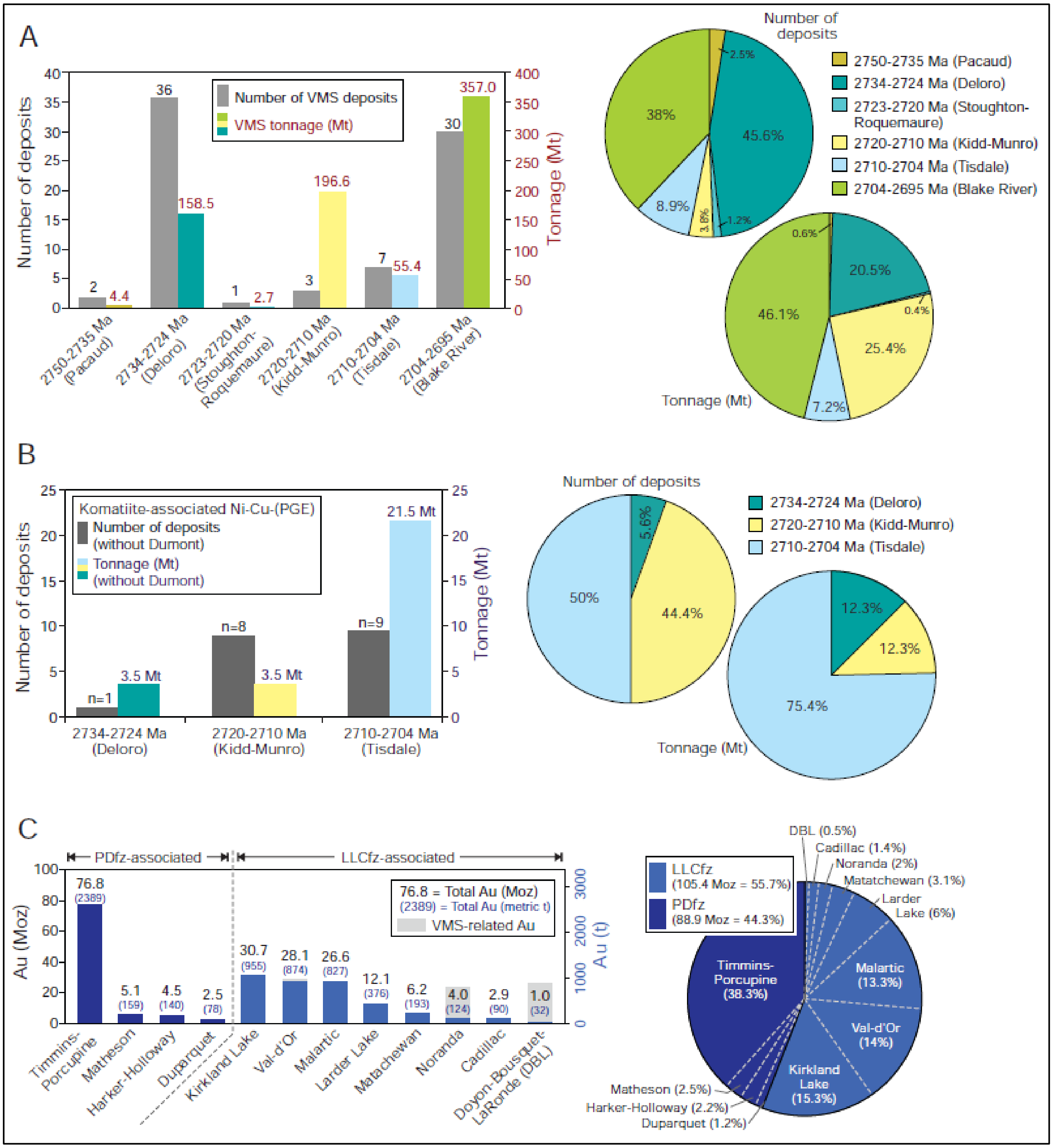

Figure 7-9. Base and precious metal endowment of the Abitibi Greenstone Belt. [A] VMS Deposits; [B] Komatiite-Associated Ni-Cu-(PGE); [C] Main Orogenic Gold Camps (Monecke *et al.*, 2017).

8.0 DEPOSIT TYPES

Intrusion-hosted magmatic Ni-Cu-(Co-PGE) deposits occur as sulphide concentrations associated with a variety of mafic and ultramafic magmatic rocks. The magmas are thought to originate in the upper mantle, and an immiscible sulphide phase occasionally separates from the magma as a result of the processes occurring during emplacement into the crust. The sulphide phase generally partitions and concentrates nickel, copper and PGE from the surrounding magma. Agglomerating sulphide droplets scavenge PGEs as they separate from the parent magma, become heavy, and sink towards the base of the magma chamber, forming concentrated bodies or layers of sulphides that upon cooling, crystallize to form mineral deposits. Styles of sulphide mineralization range from disseminated to semi-massive and massive, depending on the level of sulphide agglomeration prior to the crystallization of the host silicate magma.

8.1 Nickel Deposit Type Example

The type example of the intrusion-hosted Ni-Cu-PGE exploration model that the Company is using for the Crawford Ultramafic Complex is the Dumont Nickel Deposit (the “Dumont”) of Royal Nickel Corporation (“RNC”), located 220 km to the east of Crawford Township (Figure 8-1). The Archean Dumont Sill, first reported in 1925, is located about 60 km northeast of Rouyn-Noranda and 25 km by road, northwest of the city of Amos, and within the Abitibi Greenstone Belt (Abitibi Region), northwestern Quebec (Ausenco, 2013).

The komatiitic (>18 wt% MgO), synvolcanic Dumont Sill occurs within a sequence of iron-rich tholeiite lavas and volcaniclastic rocks assigned to the Amos Group and which are part of the Barraute Volcanic Complex. Although the exact age of the Dumont Sill is not known, stratigraphic studies in the AGB suggest that the host rocks (Amos Group) are correlative with the Deloro Assemblage (Monecke *et al.*, 2017; Mercier-Langevin *et al.*, 2017).

The differentiated Dumont Sill, about 7 km long, up to 1 km wide, and extending to a depth of more than 500 m, dips steeply to the northeast (Figure 8-2). Its lower Ultramafic Zone (~450 m thick) comprises the Lower Peridotite Subzone, an olivine + chromite cumulate, the Dunite Subzone, an olivine ±sulphide cumulate, and the Upper Peridotite Subzone, an olivine + chromite cumulate. The overlying Mafic Zone (~250 m thick) comprises the Clinopyroxenite Subzone, a clinopyroxene cumulate, the Gabbro Subzone, a clinopyroxene + plagioclase cumulate, and the Quartz Gabbro which includes plagioclase + pyroxene cumulates as well as non-cumulate gabbros (Duke, 1986).

The Dumont is usually categorized with its most analogous counterpart, the Mt. Keith nickel deposit located in the Agnew-Wiluna Greenstone Belt, in the Archean Yilgarn craton of Western Australia (Naldrett, 1989). The Dumont is differentiated from the Mt. Keith nickel deposit by the abundance of the nickel-iron alloy awaruite and by the restricted extent of talc-carbonate alteration, which is limited to the basal contact of the intrusion and occurs outside the resource envelope. In addition, the Dumont has not been subjected to the extensive supergene weathering alteration present at the Mt. Keith deposit.

Both the Dumont and Mt. Keith deposits have undergone pervasive serpentinization and local talc-carbonate alteration due to metamorphism to mid-upper greenschist facies. The observed mineralogy of the Dumont is a result of the serpentinization of a dunite protolith (>90% olivine), which locally hosted a primary, disseminated (intercumulus) magmatic sulphide assemblage and contained “trapped” nickel within the unaltered olivine. The pervasive serpentinization process, whereby olivine reacts with water to produce serpentine, magnetite and brucite, creates a strongly reducing environment where the nickel released from the decomposition of olivine is partitioned into low-sulphur sulphides and newly formed awaruite (see Section 6.3.2, Mineralogical Study). The final mineral assemblage and texture of the disseminated nickel mineralization in the Dumont deposit and the variability has been controlled primarily by the variable degree of serpentinization that the host dunite has undergone.

An NI 43-101 Mineral Resource Estimate reported by RNC in July 2019 (Ausenco, 2019), quotes Measured plus Indicated Mineral Resources of 1.66 billion tonnes grading 0.27% Ni, 107 ppm Co, 9 ppb Pt and 20 ppb Pd, plus an Inferred Mineral Resource of 0.5 billion tonnes grading 0.26% Ni, 101 ppm Co, 6 ppb Pt and 12 ppb Pd. The same study also included a Mineral Reserve statement with Proven Reserves of 163,140,000 tonnes grading 0.33% Ni, 114 ppm Co, 13 ppb Pt and 31 ppb Pd, and Probable Reserves of 864,908,000 tonnes grading 0.26% Ni, 106 ppm Co, 8 ppb Pt and 17 ppb Pd.

Metallurgical test work by RNC has yielded concentrates with over 29% Ni and 1% Co. The high concentrate grade is a function of the very low sulphur content of the rock, so that most of the recoverable nickel is in low-sulphur minerals like heazlewoodite, or sulphur-free minerals like awaruite, a nickel-iron alloy.

Historical drilling of the CUC and other mafic-ultramafic intrusions in Crawford Township intersected extensively serpentinized dunite and peridotite. On the basis of limited historical metallurgical work completed in the 1960s and a more recent mineralogical study (see Section 6.3, Historical Mineral Processing and Metallurgical Testing) the serpentinized ultramafic rocks in the CUC are considered to have potentially recoverable nickel. Historical drill hole intercepts to date have returned average nickel, cobalt, platinum, and palladium concentrations that are notably higher than those at the Dumont.

While some similarities between the Dumont and the CUC exist, exploration of the CUC is very early-stage and, as such, mineralization hosted by the advanced stage Dumont Nickel Project is not necessarily indicative of mineralization hosted on the Company’s Crawford Nickel-Cobalt Sulphide Project.

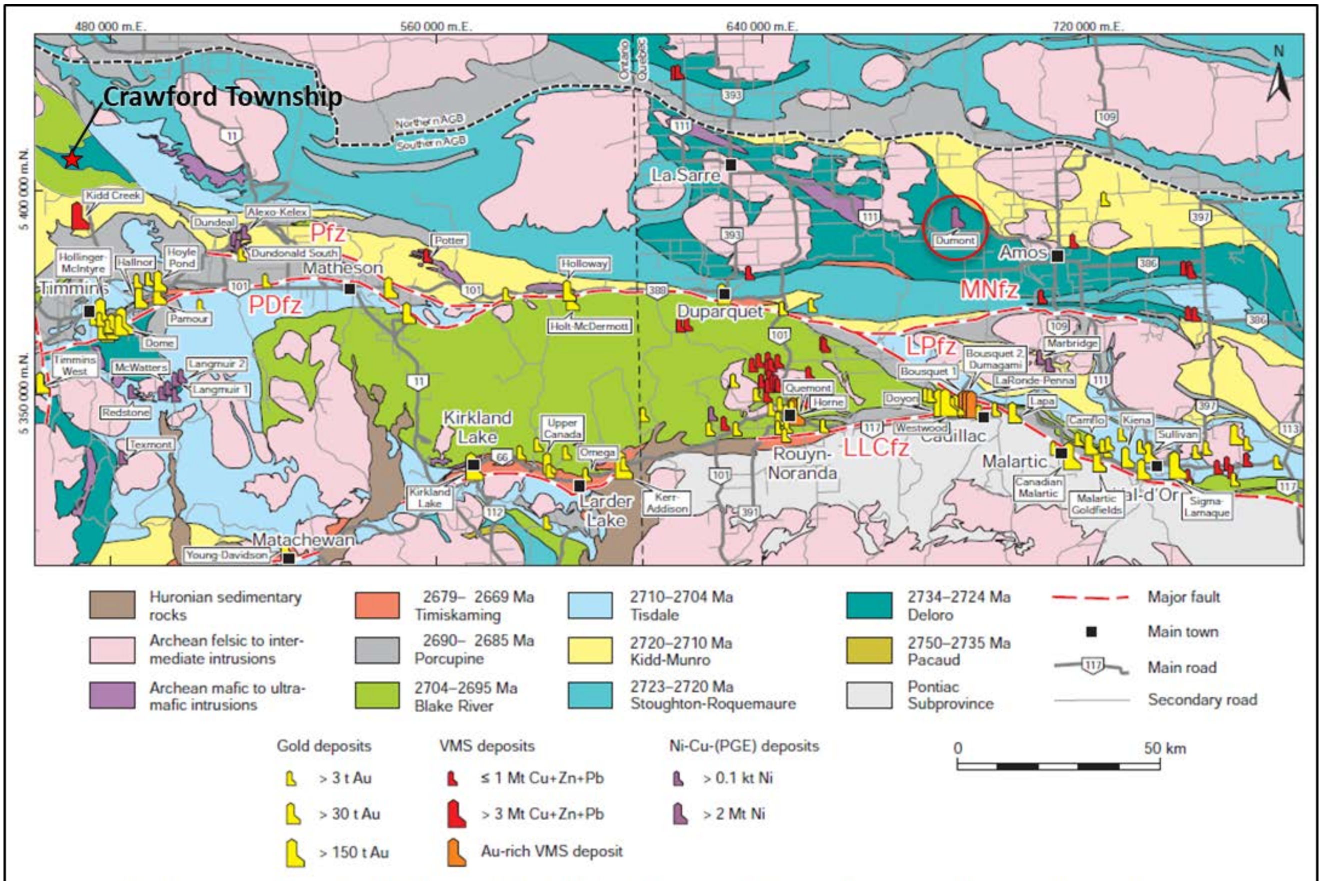

Fig. 12. Geologic map of the southern Abitibi greenstone belt (modified from Thurston et al., 2008) showing the location of ore deposits. Significant ore deposits are labeled. LLCfz = Larder Lake-Cadillac fault zone, LPfz = La Pause fault zone, MNfz = Manneville North fault zone, PDfz = Porcupine-Destor fault zone, Pfz = Pipestone fault zone.

Figure 8-1. Simplified regional geological setting of the Abitibi Greenstone Belt (Abitibi Assemblages) and location of the Dumont Sill, Quebec (red circle) and the approximate location of Crawford Township and the Crawford Ultramafic Complex Ontario (red star). Both the Crawford Ultramafic Complex and the Dumont Sill are interpreted to be hosted by Deloro Assemblage rocks (modified after Monecke *et al.*, 2017).

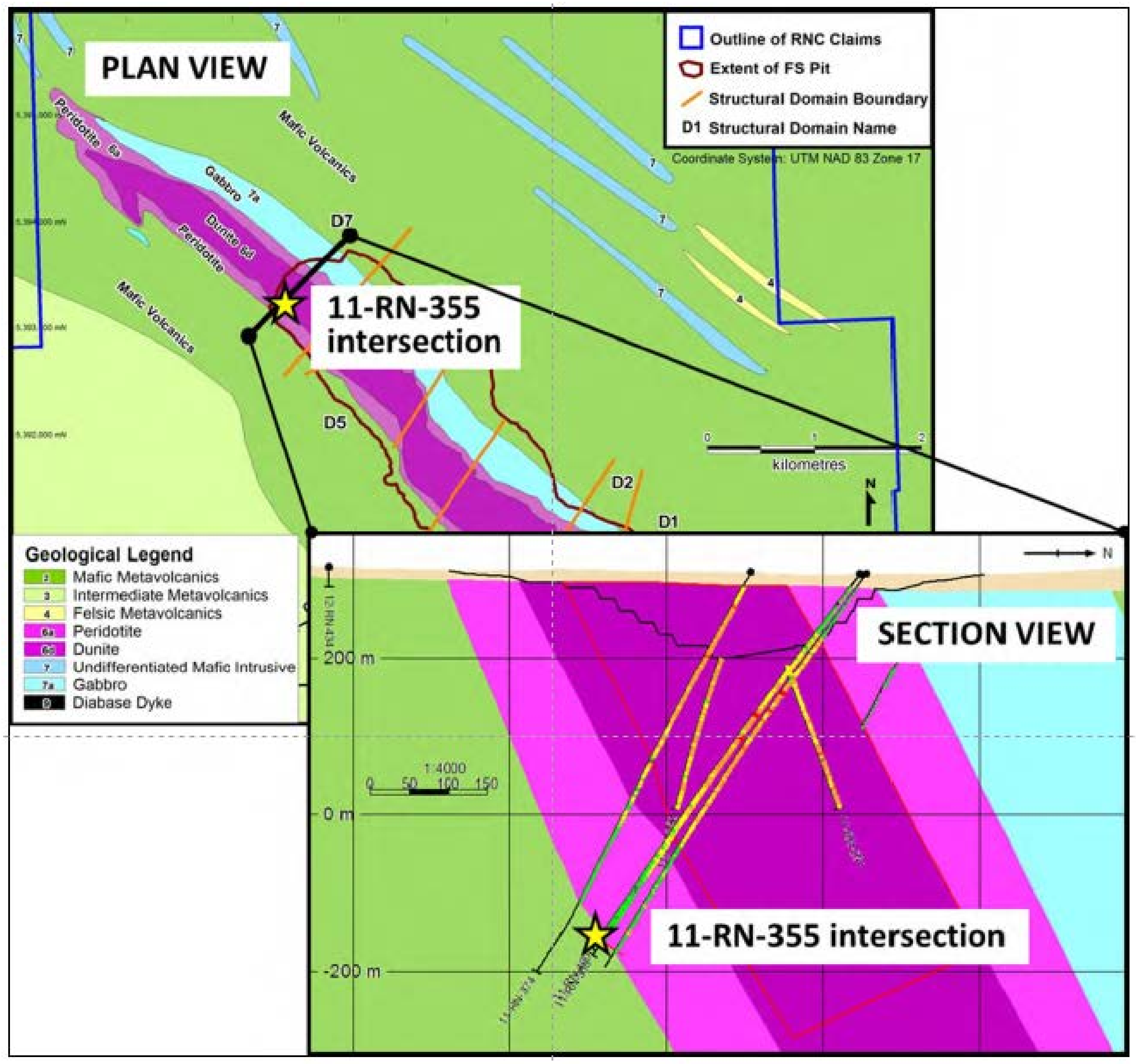

Figure 8-2. Plan view and cross-section view (looking northwest) of the Dumont Nickel Deposit showing the outline of the proposed open pit. Section is from a massive sulphide interval in drill hole 11-RN-355 (Ausenco, 2019).

9.0 EXPLORATION

As of the Effective Date, there has been no exploration completed by CNC on the Property.

10.0 DRILLING

Canada Nickel Company assumed control of the diamond drilling program from Spruce Ridge on October 1, 2019. No results from this drilling program have been made public. The Authors have reviewed preliminary drill core logs from this program and the procedures being used, which follow on from those put in place by Spruce Ridge in its 2018 drilling program. Details of the current drilling program are presented along with a review of historical drilling (2018) in Section 6.2, Historical Drilling.

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

This section is not relevant at this stage of the Property. Historical QA/QC is reviewed in Section 6.4, Historical Sample Preparation, Analysis, Security.

12.0 DATA VERIFICATION

The Authors have reviewed historical data and information regarding past exploration work on the Property. More recent exploration work, having complete databases and documentation such as assay certificates, could be thoroughly reviewed; however, older historical records are not as complete and so the Authors do not know the exact methodologies used in the data collection. Nonetheless, the Authors have no reason to doubt the adequacy of the historical sample preparation, security and analytical procedures and have complete confidence in all historical information and data that was reviewed.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

There has been no mineral processing and metallurgical testing completed by CNC on rocks or mineralization from the Property. Historical test work is covered in Section 6.3, Historical Mineral Processing and Metallurgical Testing.

14.0 MINERAL RESOURCE ESTIMATES

The Project has no current NI 43-101 Mineral Resources.

15.0 MINERAL RESERVE ESTIMATES

The Project has no historical or current NI 43-101 Mineral Reserves.

16.0 MINING METHODS

At this time, there is no mining on the Property and as such this section does not apply.

17.0 RECOVERY METHODS

At this time, there is no mining on the Property and as such this section does not apply.

18.0 PROJECT INFRASTRUCTURE

This section is not relevant at this stage of the Property.

19.0 MARKET STUDIES AND CONTRACTS

This section is not relevant at this stage of the Property.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

The land tenure consists of both patented lands (Crown Patents) that were original land grants to returning veterans after the end of the Boer War (1899-1902) and unpatented mining claims. There appears to be no past environmental, permitting, and social or community impact studies.

20.1 Community Consultation

Consultation is the process of discussing mining sequence activities with individuals or communities who may be or will be affected by the proposed mineral exploration and/or mining activities. In Ontario, consultation is carried out with three main groups or stakeholders:

- Aboriginal Communities: Aboriginal communities must be consulted before beginning early exploration activities requiring exploration plans and exploration permits.
- Surface Rights Holder: Mineral rights are the rights to the minerals located in, on or under a surveyed portion of land. A surface rights holder is an individual who owns rights to land which do not include the mineral rights. Contact with surface rights holders should be made and maintained throughout the mining sequence, as they have a legal right to the land. In most cases, contacting surface rights holders is a requirement under the Ontario Mining Act. Regardless, it is highly recommended to contact surface rights holders before entering their property to prospect, begin new exploration activities, make changes to existing exploration activities, etc.
- Public: includes all citizens and communities located within a distance from the mineral exploration/mining project who may be affected directly or indirectly by the proposed activities. Contact with the public should be made and maintained throughout the mining sequence, as changes to the land may influence recreational activities, raise environmental concerns or cause health or safety issues.

20.1.1 Aboriginal Consultation - Ontario

In Canada, the term “Aboriginal” refers to the first inhabitants of Canada, and includes First Nations and Metis peoples in Ontario, and additionally Inuit people in other parts of Canada. The Company is encouraged to engage with the Metis Nation of Ontario and is obligated to engage the Mattagami and Matachewan First Nation communities. These First Nations plus three other First Nations and one Aboriginal Affiliate are served by the Wabun Tribal Council to organize and facilitate the members’ economic and resource development and other Community services.

On January 17, 2012, ROF (now Noble) announced that it had signed a Memorandum of Understanding (“MOU”) with Mattagami First Nation and Matachewan First Nation (together the “First Nations”) in relation to exploration to be conducted on its Project 81, in the Timmins area, Northeastern Ontario. The legally binding MOU, dated January 9, 2012, was approved by the TSXV on February 3, 2012.

Under the exploration agreement, ROF (now Noble) and the First Nations have agreed to terms that underline each party’s mutual respect for the land and a responsible approach to exploring in their traditional territory. The agreement remains in effect during the initial program and until such time as the Company and the First Nations enter into an Impact Benefit Agreement (“IBA”).

ROF (now Noble) will contribute toward the First Nations Communities in amounts based on a percentage of its exploration expenditures on the mining claims within their traditional lands relative to the Company’s Project 81. ROF will, subject to all regulatory approvals, issue 50,000 common shares of ROF to each of the First Nations over a period of eighteen months and issue options to purchase 50,000 common shares of the ROF to each of the First Nations with the exercise price to be determined as at the date of issue. The agreement also includes terms outlining environmental protection, employment, training and business opportunities, and the mitigation of impacts on the traditional pursuits the members of the respective communities.

CNC intends to honour the conditions of the MOU and intends to work with the Wabun Tribal Council on an amendment to the original MOU with Mattagami First Nation (http://mattagami.com/) and Matachewan First Nation (http://www.matachewanfirstnation.com/mining-lands-and-resources.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable.

22.0 ECONOMIC ANALYSIS

This section is not applicable.

23.0 ADJACENT PROPERTIES

The locations of four adjacent properties that have similar geology, mineralization and deposit model targets as the CUC, are shown in Figure 23-1. Given the extensive overburden in the region, many of these mafic-ultramafic intrusion-hosted nickel sulphide targets were defined using a combination of survey techniques, including geophysical surveys (airborne and ground), bedrock till sampling surveys, overburden/reverse circulation ("RC") drilling, and diamond core drilling. Historical diamond drilling, prior to 2018, does not report any assay results for cobalt, platinum or palladium.

The Qualified Persons of this Report have been unable to verify the information and the information presented is not necessarily indicative of the mineralization on the Property that is the subject of this Report.

23.1 Kingsmill Ni Target (Deposit)

The Kingsmill Ni Target ("Kingsmill") is located in the northeast quadrant of Kingsmill Township, the northwest quadrant of Aubin Township, and the southeast quadrant of Mabee Township, about 23 km northwest of the CUC. Within Kingsmill Township, there are nine Ontario work assessment files (1965 to 2012), eight Mineral Deposit Inventory (MDI) records, and 46 Ontario Drill Hole Database records (http://www.geologyontario.mndm.gov.on.ca/index.html).

The Kingsmill was first drilled by INCO Canada Ltd. in 1964, 1965, and 1966 (at least 23 drill holes) intersecting serpentinized peridotite in several drill holes (*e.g.*, DDH 27090: 385.57 m grading 0.36% Ni and DDH 25064: 190.20 m grading 0.28% Ni) and explaining the strong magnetic anomaly. McIntyre Porcupine Mines Ltd. completed at least four drill holes on the Kingsmill target in 1974, intersecting serpentinized peridotite.

In January 2012, Ring of Fire Resources Inc. (now Noble Mineral Exploration Inc.) began its first phase of drilling on the Kingsmill and announced final drill core assay results on April 12, 2012 (Figure 23-2). The objective of the drilling program was to determine the size of the intrusive body and the extent of recoverable low-grade but potentially economic nickel mineralization. The Kingsmill Nickel Deposit was modeled similar to Royal Nickel Corp.'s Dumont Nickel Deposit in Quebec. Results from the 2012 diamond drilling campaign are provided in Table 23-1.

Eleven of the 12 drill holes intersected serpentinized peridotite (one hole was abandoned) which was interpreted to be part of a high-angle ultramafic sill with the top of the sill in the south and the bottom of the sill in the north. The intrusion is reported as depleted in sulphur with distinct zones of native copper. Mineralization zonation was also reported, with a distinct increase in nickel grades toward a central core and in general as you move from top (south) to bottom (north).

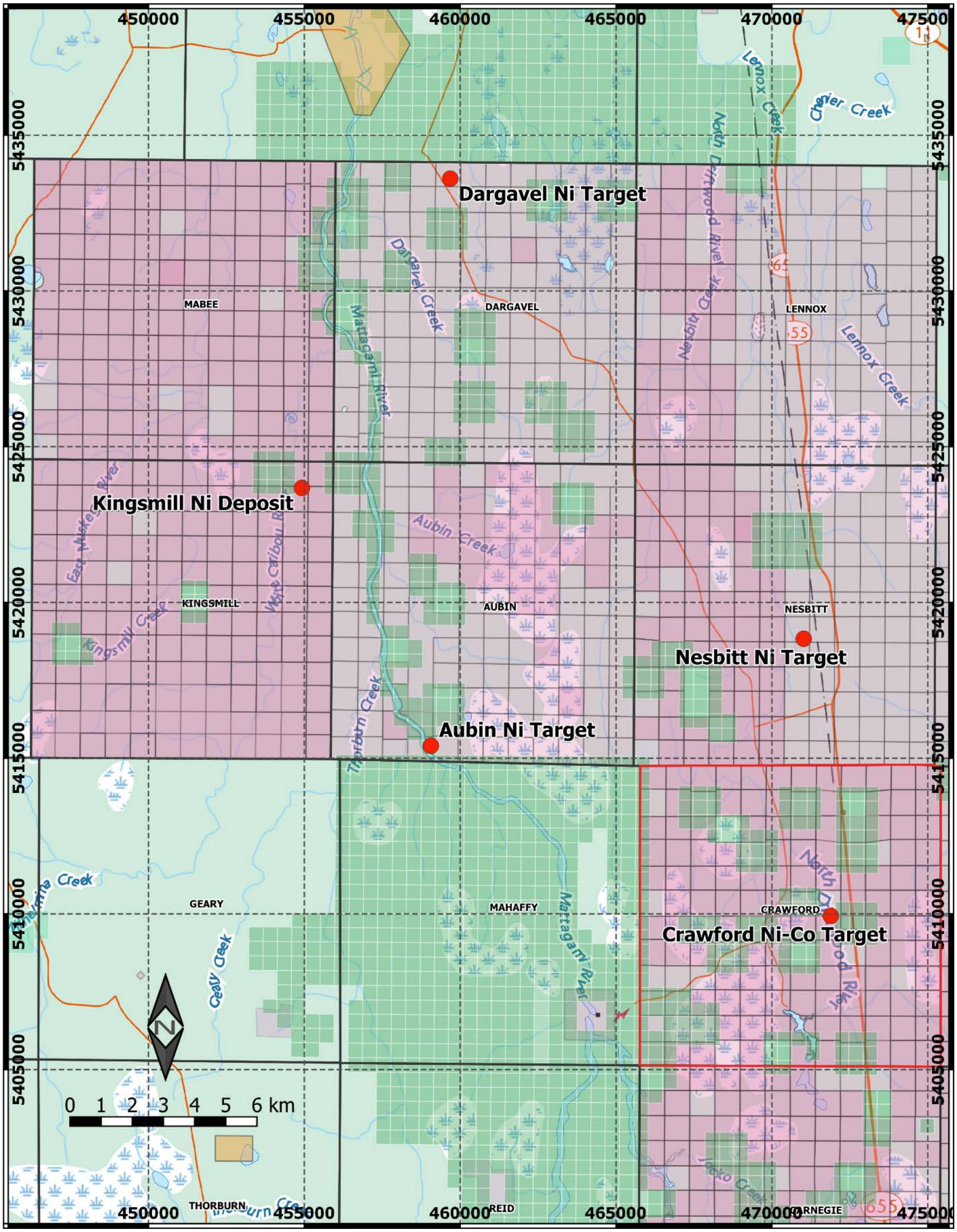

Figure 23-1. Locations of significant nickel sulphide targets (red circles) in the region of the Crawford Ni-Co Sulphide Project and the Main target area, the Crawford Ultramafic Complex in Crawford Township. The four nickel targets in the surrounding townships are within Noble Mineral Exploration's "Project 81" land holdings. The base map comprises Crown Patents (pink) and unpatented mining claims (green).

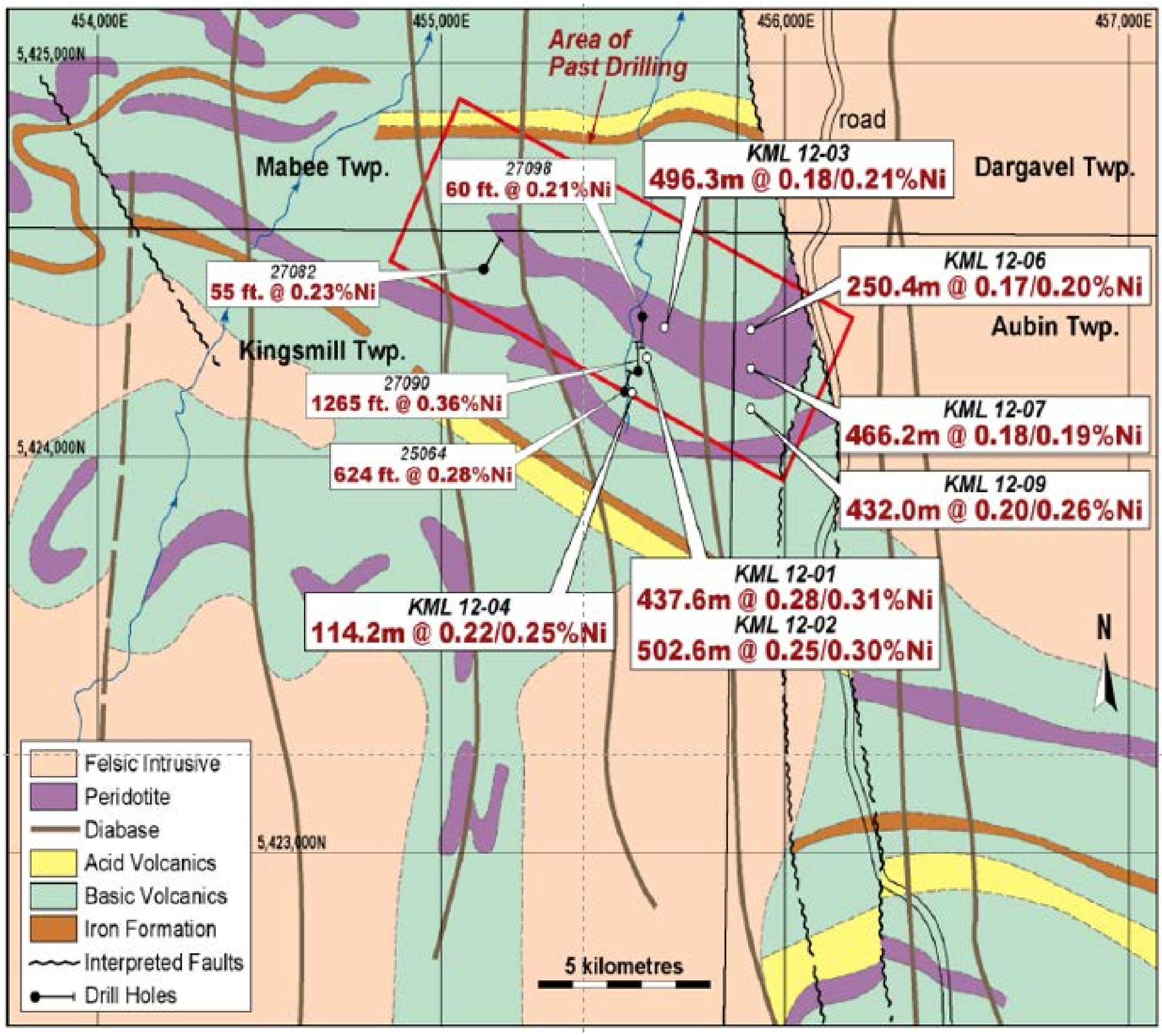

Figure 23-2. Plan map showing the location of historical diamond drilling targeting the Kingsmill Ni Target in Kingsmill Township (Noble Mineral Exploration, 2013).

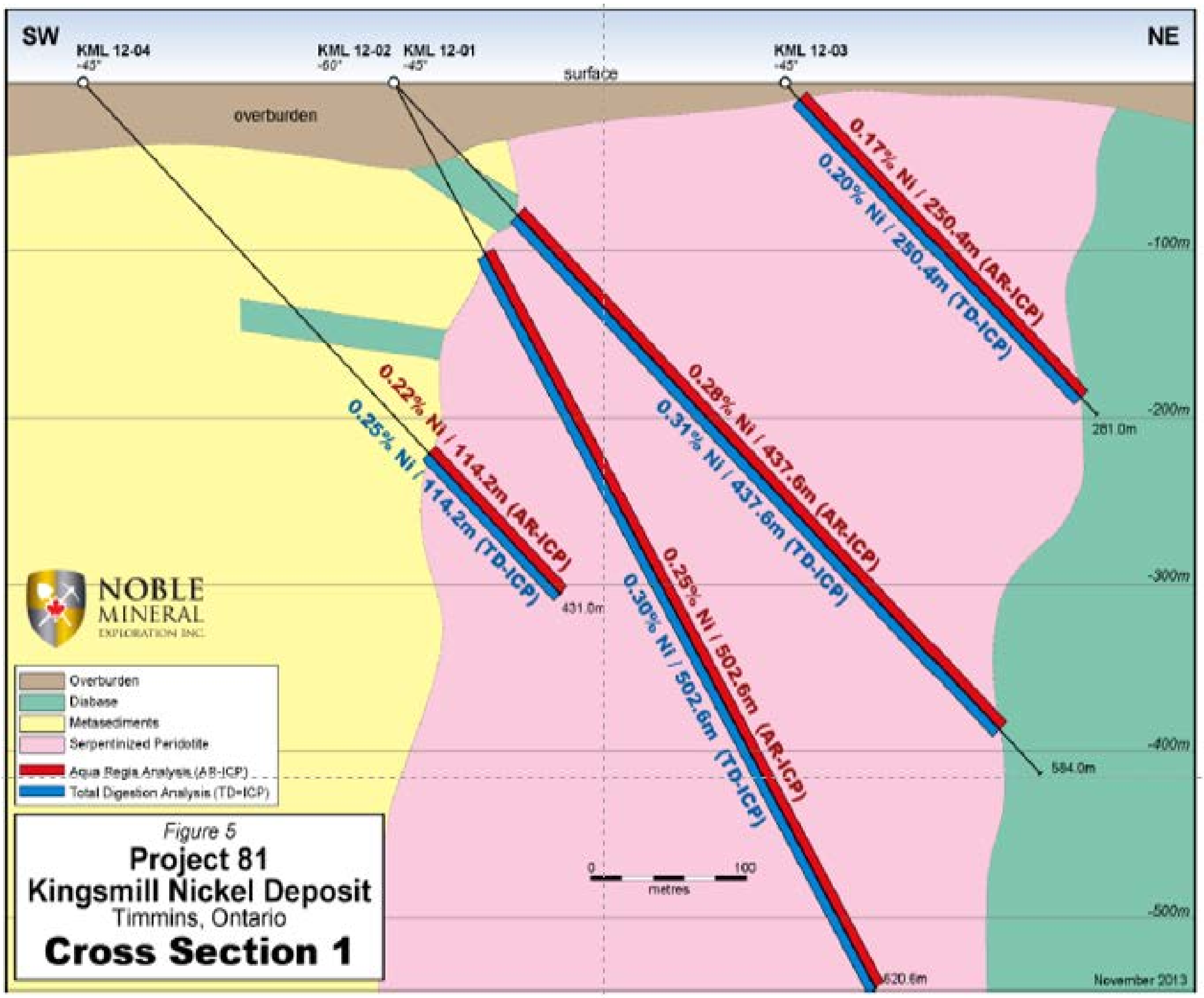

Figure 23-3. Idealized cross-section through the Kingsmill Nickel Deposit, Noble Mineral Exploration (2013).

Table 23-1. Summary of drill core assays from 2012 diamond drilling on the Kingsmill Ni Target.

Drill Hole	From (m)	To (m)	Int (m)	Ni (%)	Comments
KML-12-01	111.00	548.60	437.60	0.28	west line; large magnetic anomaly; 60m overburden
KML-12-02	118.00	620.60	502.60	0.25	west line; large magnetic anomaly; 60m overburden
KML-12-03	14.00	264.40	250.40	0.17	west line; large magnetic anomaly; 14m overburden
KML-12-04	314.00	428.20	114.20	0.22	west line; large magnetic anomaly; south contact of body
KML-12-05	58.00	159.00	101.00	0.23	east line; large magnetic anomaly
KML-12-06	54.70	551.00	496.30	0.18	east line; large magnetic anomaly
KML-12-07	80.00	546.20	466.20	0.18	east line; large magnetic anomaly
KML-12-09	221.00	653.00	432.00	0.20	east line; large magnetic anomaly
KML-12-10	78.00	307.50	229.50	0.21	east line; large magnetic anomaly
KML-12-11	108.00	308.00	200.00	0.20	east line; large magnetic anomaly
KML-12-12	175.00	272.00	97.00	0.16	east line; large magnetic anomaly

23.1.1 Metallurgical Studies

Twenty samples with elevated nickel concentrations and low sulphur content, determined from original geochemical analyses, were submitted to Activation Laboratories or “Actlabs” (Ancaster, Ontario) for Davis Tube separation in order to determine the presence of magnetically upgradeable Ni and to identify the presence of Ni-Fe alloy (awaruite). Samples of the Davis Tube concentrates were characterized by Scanning Electron Microscope equipped with back scattered electron (“BSE”) detection and Energy Dispersive (“EDS”) X-Ray capability. Seven of the 20 samples were from the east side of the intrusive body (holes KML-12-07 to KML-12-10) and 13 samples from the west side of the intrusive body (holes KML-12- 01 to KML-12-04).

Awaruite, a naturally occurring alloy of nickel and iron, was identified in every sample, along with heazlewoodite, a rare sulphur-poor nickel-rich sulphide, and cobaltian pentlandite, an iron-nickel-cobalt sulphide (Phung and Hamilton, 2012; Singh and Lahti, 2013). Preliminary modal analysis, using a Mineral Liberation Analyser (“MLA”), was performed on the seven samples from the east side of the intrusion. The MLA results suggest an antipathetic relationship between nickel sulphide and awaruite where samples with higher nickel sulphide mineralogy have lower or no awaruite.

A second metallurgical study utilizing 239 reject samples from the 12 drill holes and weighing approximately 456 kg (final test-weight 200 kg), was undertaken by G&T Metallurgical Services (Kamloops, British Columbia). The objective of this study, a Particle Mineral Analysis (“PMA”) using QUEMSCAN X-Ray processing techniques, was to better understand the characteristics (grindability, sizing and particle size distribution) and recoverability of nickel sulphides from the serpentinized ultramafic rocks (Johnston and Ma, 2012; Singh and Lahti, 2013). The final 200 kg composite sample graded 0.3% Ni and 0.06% total sulphur.

About 0.07% of the sample was in the form of sulphide minerals (copper, nickel and iron sulphides) with the bulk of the sample containing magnesium silicate minerals serpentine (54.1%) and olivine (37.6%). About 84% of the nickel was found within the olivine and serpentine and spectra collected for the mineral olivine indicated that this mineral consistently graded about 0.4% nickel. The nickel content of serpentine varied substantially from 0% to about 0.2% nickel. Extraction of the nickel from within the olivine and serpentine would not be possible via flotation nor magnetic separation and therefore extraction of most of the nickel (84%) in the rocks represented by this sample would be considered difficult at best. The remaining 16% of nickel was contained either in nickel sulphide (6%) (*i.e.*, heazlewoodite, pentlandite), nickel-iron alloy (6%) (*i.e.*, awaruite), or Cr-magnetite (4%) forms. Extraction of such forms of nickel in the rocks represented by this sample might be possible by flotation for nickel sulphides or magnetic separation for nickel-iron alloy (Johnston and Ma, 2012; Singh and Lahti, 2013).

23.2 Aubin Ni Target

The Aubin Ni Target (“Aubin”) is located in the southwest quadrant of Aubin Township, about 16.5 km northwest of the CUC and is situated on ultramafic rocks that trend northwest from Mahaffy Township to the south. Within Aubin Township, there are 13 Ontario work assessment files (1965 to 2011), 12 Mineral Deposit Inventory (MDI) records, and 26 Ontario Drill Hole Database records (http://www.geologyontario.mndm.gov.on.ca/index.html). Historical diamond drilling reports broad intercepts, 418 m grading 0.24% Ni, in serpentinized peridotite and individual samples up to 0.36% Ni (*e.g.*, INCO Canada Ltd., 1966).

23.3 Dargavel Ni Target

The Dargavel Ni Target ("Dargavel") is located in the northwest quadrant of Dargavel Township, near the boundary with Bradburn Township, about 27 km northwest of the CUC. Within Dargavel Township, there are six Ontario work assessment files (1965 to 2011), 12 Mineral Deposit Inventory (MDI) records, and six Ontario Drill Hole Database records (http://www.geologyontario.mndm.gov.on.ca/index.html). Historical diamond drilling reports intercepts of serpentinized peridotite with up to 0.50% Ni and 13.35% Cr_2O_3 (*e.g.*, Canadian Nickel Company Ltd. (Canico), 1964).

23.4 Nesbitt Ni Target

The Nesbitt Ni Target ("Nesbitt") is located in central Nesbitt Township, about 9.5 km north-northwest of the CUC. Within Nesbitt Township, there are 21 Ontario work assessment files (1964 to 2011), 15 Mineral Deposit Inventory (MDI) records, and four Ontario Drill Hole Database records (http://www.geologyontario.mndm.gov.on.ca/index.html). Historical diamond drilling reports broad intercepts, 535 m grading 0.28% Ni, in serpentinized peridotite and individual samples up to 0.39% Ni (*e.g.*, INCO Canada Ltd., 1966).

24.0 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information to disclose.

25.0 INTERPRETATION AND CONCLUSIONS

The objective of this Report was to prepare an independent NI 43-101 Technical Report capturing historical information (1964-2019) available for the Project area and Crawford Township, evaluate this information with respect to the prospectivity of the Project, and present recommendations for future exploration and development on the Property.

The Crawford Nickel-Cobalt Sulphide Project is situated within a land package that comprises eight patented lands (Crown Patents – mining rights only) and unpatented mining claims (Single Cell Mining Claims) totalling about 6.5 km^2 and contained within Crawford Township. Located about 42 km north-northwest of Timmins, the Project is easily accessible from Ontario Highway 655, a main paved highway, and work can continue on the Project year-round.

The main target on the Property is the Archean-age Crawford Ultramafic Complex, a differentiated ultramafic to mafic sill that intrudes the Deloro Assemblage of the AGB and comprises interlayered dunite (+90% olivine) and peridotite (+40% olivine) which have undergone extensive serpentinization, along with minor gabbro and pegmatite which have all been cut by late felsic (aplite) and mafic dikes. The CUC is estimated to be about 8.0 km long and up to 2.0 km wide (original estimated shape as defined by geophysics) and consists of three distinct portions, namely the Main, North and East areas, with the Main area being the primary target. The CUC is completely covered and as such is currently mainly defined by its geophysical signature (strong magnetic highs) and a few historical diamond drill holes dating back to 1964, and recent 2018 and 2019 (ongoing drilling program) drilling by Spruce Ridge.

The ultramafic rocks (peridotite-dunite) from the CUC intersected in drill core have, for the most part, undergone intense serpentinization, the process by which water penetrates the ultramafic rocks, breaking down the olivine and other silicate minerals, and resulting in a substantial volume increase and the liberation of nickel and iron. This pervasive serpentinization process creates a strongly reducing environment where the nickel released from the decomposition of olivine is partitioned into low-sulphur sulphides like heazlewoodite and into the nickel-iron alloy, awaruite.

The history of exploration work in Crawford Township began in 1955 with the completion of the first aeromagnetic survey, cutting-edge at the time, followed by two more aeromagnetic surveys carried out by the Geological Survey of Canada in 1956 and 1964. The CUC and other covered ultramafic sills generated strong magnetic responses which were followed up on by several drilling programs through the 1960s that reported 100s of metres of altered ultramafic rocks containing 0.25% to 0.40% nickel. With the completion of more recent high-sensitivity airborne magnetic-electromagnetic surveys (2017, 2018), the limits of the CUC, inclusive of the distinct areas (the Main, North, and East), have been well-defined. The delineation of the CUC by high resolution magnetics, coupled with state-of-the-art HTEM and FALCON Gravity surveys, has generated well-defined drill targets. In addition, a 2019 AI assessment which combined geological and geophysical data, confirmed the favourable interpretation of the CUC as a target for nickel mineralization, as well as highlighting VMS-type targets elsewhere in Crawford Township.

Other than a 2002 MEGATEM II regional geophysical survey, the 2017-2018 airborne geophysical surveys and the 2018 diamond drilling program (Spruce Ridge) marked the first work on the CUC target since the 1960s. The first four drill holes completed in late 2018, were reported by Spruce Ridge and Noble (March 2019) to have broad intersections of pervasively serpentinized, low-sulphur dunite and peridotite with nickel concentrations ranging from 0.224% to 0.339% Ni over intervals ranging from 130.5 to 558 metres.

Like the Kingsmill Ni Target located in neighbouring Kingsmill Township, the Main area of the Crawford Ultramafic Complex is interpreted to be a high-angle ultramafic-mafic body, with tops in the south and the base toward the north. Metal zonation in the CUC, defined by three of the four 2018 drill holes, is characterized by a general increase in nickel concentration from the top (south) toward the base (north). The limits of the intrusive body have not been well defined with many of the drill holes completed to date having been terminated in ultramafic rocks.

The deposit type being considered for the primary exploration target on the Project is intrusion-hosted magmatic Ni-Cu-(Co-PGE) mineralization. The geological analogue for the CUC is the Dumont Nickel Deposit, hosted by the Dumont Sill in the Abitibi Greenstone Belt of north-central Quebec (Duke, 1986), some 220 km east of the CUC. Stratigraphic studies in the AGB suggest that the host rocks of the Dumont Sill are correlative with the Deloro Assemblage, the same stratigraphy in which the CUC is hosted. Ultramafic rocks in the CUC have magnesium oxide contents that range from 18.43 to 46.81 wt% MgO (determined by ICP Peroxide Fusion) and average 39.3 wt% MgO (937 samples). Although not yet confirmed by rock textures or sill geometry, the CUC may be a thick komatiitic channelized sheet sill or a resultant intrusive body, the former being the geological model used to describe the Dumont Sill.

Metallurgical test work by RNC on the Dumont Nickel Deposit has yielded concentrates with over 29% Ni and 1% Co. The high concentrate grade is a function of the very low sulphur content of the rock, so that most of the recoverable nickel is in low-sulphur minerals like heazlewoodite, or sulphur-free minerals like awaruite, a nickel-iron alloy (Ausenco, 2013).

It should be noted that exploration of the CUC is at a very early-stage and as such mineralization hosted by the Feasibility Study stage Dumont Nickel Project is not necessarily indicative of mineralization hosted on the Company’s Crawford Nickel-Cobalt Sulphide Project.

In 2019, Spruce Ridge commissioned a mineralogical study of ultramafic rock material collected from drill core samples (2018 diamond drilling) in order to determine whether nickel (and other elements) could be economically extracted from altered ultramafic host rocks of the CUC. The study identified several nickel- and cobalt-bearing minerals (in order of decreasing abundance): pentlandite (50%: iron-nickel sulphide), heazlewoodite (35%: sulphur poor, nickel-rich sulphide), awaruite (15%: nickel-iron alloy) and minor godlevskite (nickel-iron sulphide). The pentlandite, which dominates the nickel-bearing mineral assemblage, is considered most promising for economic nickel extraction. Heazlewoodite, one of the most nickel rich sulphide (low) minerals, is generally thought to be of hydrothermal origin and contains potentially recoverable nickel.

Also, in 2019, Noble commissioned selective leach analytical tests on pulp samples from the 2018 diamond drilling program. All 2018 drill core samples had been initially analysed by ICP after sample preparation using sodium peroxide fusion for total digestion (palladium, platinum and gold were determined by fire assay). Pulps from the same 12 sample intervals selected for SEM analysis were re-analysed using the same ICP procedure, after digestion using aqua regia, which does not attack silicate minerals to any significant degree. This provided a semi-quantitative estimate of the amount of nickel and cobalt that had been liberated from their parent olivine by serpentinization. After eliminating the one sample that showed much lower liberation, the average overall nickel liberation was 62%, and the average cobalt liberation was 77 percent.

On the basis of limited historical metallurgical work completed in the 1970s (McIntyre Porcupine Mines Ltd., 1973) and more recent mineralogical studies and selective leach analysis (Spruce Ridge and Noble, 2019), the serpentinized ultramafic rocks in the CUC are considered to have potentially recoverable nickel. In addition, metallurgical test work was completed in 2012 by Noble on drill core samples from the nearby (23 km to the northwest) Kingsmill Ni Target (Deposit), which has similar geology, mineralogy and nickel mineralization to that of the CUC. The metallurgical test work suggests that serpentinization of olivine in the ultramafic rocks liberated nickel that complexed with sulphides (heazlewoodite) and iron (awaruite) and that some portion of the nickel could therefore be recovered through flotation and magnetic separation.

25.1 Opportunities and Risks

The Crawford Ultramafic Complex offers good potential for developing a low-grade, large tonnage nickel (+/-Co, Pt, Pd) resource and should be investigated further. It's analogue, the Dumont Nickel Deposit (Dumont Sill) in Quebec, shares many similarities to the CUC and extensive exploration work at Dumont, largely diamond drilling, has resulted in the delineation of large tonnage, low-grade nickel resources and the delivery of a positive Feasibility Study (Ausenco, 2019). Given that the CUC is completely covered by 10 m (or more) of overburden and with only some twenty historical drill holes targeting the CUC completed to date, there is much additional sampling (*i.e.,* drilling) required in order to understand the geology, mineralization and geometry of the intrusion.

The Crawford Nickel-Cobalt Sulphide Project is still very much early-stage, but initial metallurgical work and mineralogical studies have shown that the nickel contained within the serpentinized ultramafic rocks of the CUC can be liberated. However, critical to the success of this Project is completing further thorough metallurgical test work to determine if the nickel could be economically extracted.

It is the opinion of the Authors, that at this stage of the Project, there are no reasonably foreseen contributions from risks and uncertainties identified in the Report that could affect the Project's continuance at its current stage of exploration.

26.0 RECOMMENDATIONS

It is the opinion of the Authors that additional exploration expenditures are warranted on the Crawford Nickel-Cobalt Sulphide Project. A number of recommendations arising from the Report and a suggested future work program are provided below.

26.1 General Recommendations

- An internal QA/QC process should be implemented inclusive of the insertion of a certified blanks and Certified Reference Material into the sampling stream at regular intervals and duplicate sampling of drill core (1/4 core), also at regular intervals.
- Rock Quality Designation ("RQD") measurements should be collected from the drill core as part of the geotechnical logging process.
- Specific Gravity determinations should be completed by an independent laboratory in order to verify the accuracy of the specific gravity measurements being made as part of the in-field geotechnical logging.

26.1.1 Metallurgical Test Work

It is recommended that metallurgical test work be done on peridotite and/or dunite with nickel grades of >0.20% Ni to determine the amount of nickel in the silicates (*i.e.*, olivine) and the amount of nickel that can be separated by sulphide flotation and/or magnetic separation. A sample size of at least 500 kg of material should be considered. The ultimate determination of whether an economic size and grade of deposit can be drilled out will be determined on the success of the metallurgical tests and the price of nickel.

26.2 Exploration Program

As the target Crawford Ultramafic Complex is completely covered by tens of metres of overburden, there are realistically two options for exploring and evaluating the target: drilling and geophysical surveying. As the CUC has been flown with the latest technologies for airborne magnetic, electromagnetic and gravity surveying, the future work programs should focus on diamond drilling of the generated geophysical targets and trends. The goal of the diamond drilling program is to delineate an area of mineralized ultramafic rocks and complete a maiden NI 43-101 Mineral Resource Estimate.

The Company should also consider the possibility of follow-up ground and/or borehole geophysical surveys to refine existing targets and potentially define new targets including off-hole anomalies.

26.2.1 Diamond Drilling - Maiden Mineral Resource Delineation

The target lithologies for nickel mineralization are serpentinized ultramafic rocks (peridotite and dunite) that form the bulk of the CUC. The Dumont Nickel Deposit, the analogue deposit model for the CUC, has been advanced to positive Feasibility Study stage and so can provide some guidance as to the parameters to use for the calculation of CNC's maiden mineral resource estimate. The 2019 updated Feasibility Study on the Dumont (Ausenco, 2019) utilized the following criteria:

- 240 x 240 m borehole spacing for Inferred
- 120 x 120 m borehole spacing for Indicated
- 60 x 60 m borehole spacing for Measured

At this stage of exploration, and until the geometry of the intrusion is better understood, Inferred Mineral Resources can be calculated using a maximum drill hole collar spacing of approximately 200 m and a maximum section spacing of about 200 metres. The initial target area dimensions are 1,200 m strike, 450 m width and 500 m depth and 2018 and 2019 (up to hole CR19-11) drill holes completed to date are on approximately 100 m spaced sections.

Assuming nine sections, three to four drill holes per section, and an average drill hole length of 500 m, approximately 9,000 to 11,000 metres of diamond drilling will be required to adequately delineate the target area for an Inferred Mineral Resource calculation. The azimuth and dip of the drill holes has not been considered in this estimate of metres, but in addition to angled holes, vertical drill holes should also be considered in order to better define the geometry and geology of the CUC within the target area.

Using an all-in price (drilling, assays, project management) of C$148 per metre, calculated based on 2018 drilling completed by Spruce Ridge, the estimated cost of a 9,000 to 11,000 metre drilling program is in the range of C$1.33 to C$1.63 million.

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27.2 Website References

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www.noblemineralexploration.com
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www.spruceridgeresources.com
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Physiography:
https://atlas.gc.ca/phys/en/

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https://www.mndm.gov.on.ca/en/mines-and-minerals/mining-act

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www.sedar.com

Mining Lands Administration System (MLAS):
https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/mining-lands-administration-system-mlas-map-viewer

ServiceOntario/Ontario Land Registry Access:
https://www.onland.ca/ui/6

Teranet Express:
https://www.teranetexpress.ca/csp/login

APPENDIX 1 - Certificate of Author
[2 pages]

CERTIFICATE OF AUTHOR

John M. Siriunas (P.Eng.)

I, John M. Siriunas, P.Eng., do hereby certify that:

1. I am an associate independent consultant of Caracle Creek International Consulting Inc. (Caracle) and have an address at 25 3rd Side Road, Milton, Ontario, Canada, L9T 2W5.
2. I graduated from the University of Toronto (Toronto, Ontario) with a B.A.Sc. (Geological Engineering) in 1976 and from the University of Toronto (Toronto, Ontario) with an M.A.Sc. (Applied Geology and Geochemistry) in 1979.
3. I have been a member, in good standing, of the Association of Professional Engineers of Ontario since June 1980 (Licence Number 42706010) and possess a Certificate of Authorization to practice my profession.
4. I have practiced my profession continuously for 39 years and have been involved in mineral exploration, mine site geology, mineral resource and reserve estimations, preliminary economic assessments, pre-feasibility studies, due diligence, valuation and evaluation reporting, and have authored or co-authored numerous reports on a multitude of commodities including nickel-copper-platinum group element, base metals, precious metals, lithium, iron ore and coal projects in the Americas.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for the preparation of all sections in the report titled "National Instrument 43-101 Technical Report, Crawford Nickel Property, Timmins-Cochrane Area, Ontario, Canada (the "Technical Report"), dated October 30, 2019 and with an Effective Date of October 25, 2019.
7. I personally visited the Crawford Nickel Property on October 12, 2019.
8. I am independent of Canada Nickel Company applying all of the tests in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the Property that is the subject of the Technical Report.
10. I have read NI 43-101, Form 43-101F1 and confirm the Technical Report has been prepared in compliance with that instrument and form.
11. As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the Sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed at Milton, Ontario this 30th day of October 2019.

"electronic signature"

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John M. SIriunas (M.A.Sc., P.Eng.)

CERTIFICATE OF AUTHOR

Scott Jobin-Bevans (P.Geo.)

I, Scott Jobin-Bevans, P.Geo., do hereby certify that:

1. I am an independent consultant of Caracle Creek International Consulting Inc. (Caracle) and have an address at 1545 Maley Drive, Ste. 2018, Sudbury, Ontario, Canada, P3A 4R7.
2. I graduated from the University of Manitoba (Winnipeg, Manitoba) with a B.Sc. Geosciences (Hons) in 1995 and from the University of Western Ontario (London, Ontario) with a Ph.D. (Geology) in 2004.
3. I am a member, in good standing, of Association of Professional Geoscientists of Ontario, License Number 0183.
4. I have practiced my profession continuously for 24 years and have been involved in mineral exploration, mine site geology, mineral resource and reserve estimations, preliminary economic assessments, pre-feasibility studies, due diligence, valuation and evaluation reporting, and have authored or co-authored numerous NI-43-101 reports on a multitude of commodities including nickel-copper-platinum group element, base metals, gold, silver, vanadium, and lithium projects in Canada, the United States, China, Central and South America, Europe, Africa, and Australia.
5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.
6. I am responsible for the preparation of all sections except Section 2.3 in the report titled “National Instrument 43-101 Technical Report, Crawford Nickel Property, Timmins-Cochrane Area, Ontario, Canada (the “Technical Report”), dated October 30, 2019 and with an Effective Date of October 25, 2019.
7. I have not visited the Crawford Nickel Property.
8. I am independent of Canada Nickel Company applying all of the tests in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the Property that is the subject of the Technical Report.
10. I have read NI 43-101, Form 43-101F1 and confirm the Technical Report has been prepared in compliance with that instrument and form.
11. As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the Sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed at Santiago, Chile this 30th day of October 2019.

“electronic signature”

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Scott Jobin-Bevans (Ph.D., PMP, P.Geo.)

APPENDIX 2 – Photographs from Crawford Project Site Visit
(Coordinates in NAD83 Zone 17N)
[5 pages]

Photo 1: Current (began September 2019) diamond drilling program being undertaken by Spruce Ridge Resources in Crawford Township. Drilling is under contract by NPLH Drilling of Timmins, Ontario.

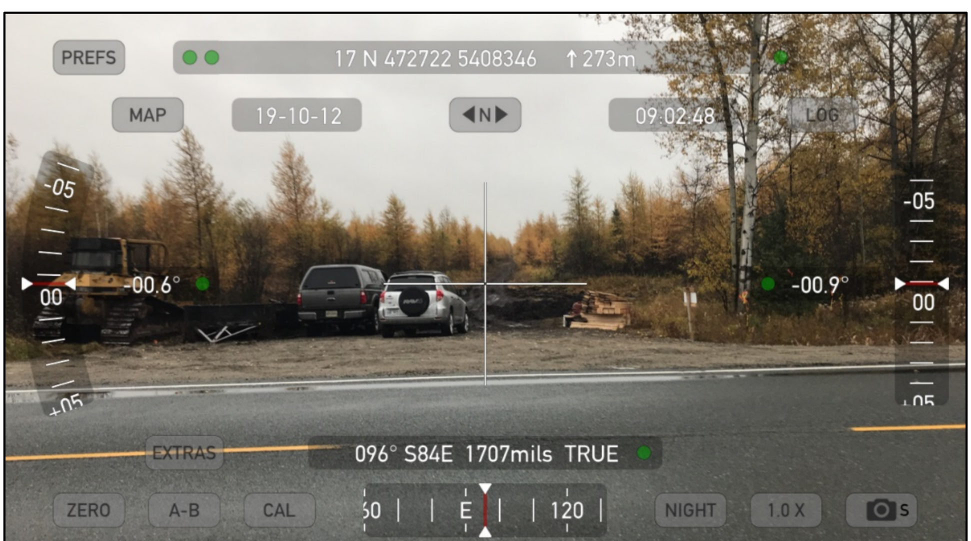


Photo 2: Access road to work areas from Ontario Highway 655. Location and viewing direction per photo overlay.

Photo 3: Previous (2018, Spruce Ridge Resources) drill pad and collar marked with cap and metal flag.

Photo 4: Drill hole number stamped on marker flag. Number is also stamped on casing cap.. From 2018 drilling program, Spruce Ridge Resources.

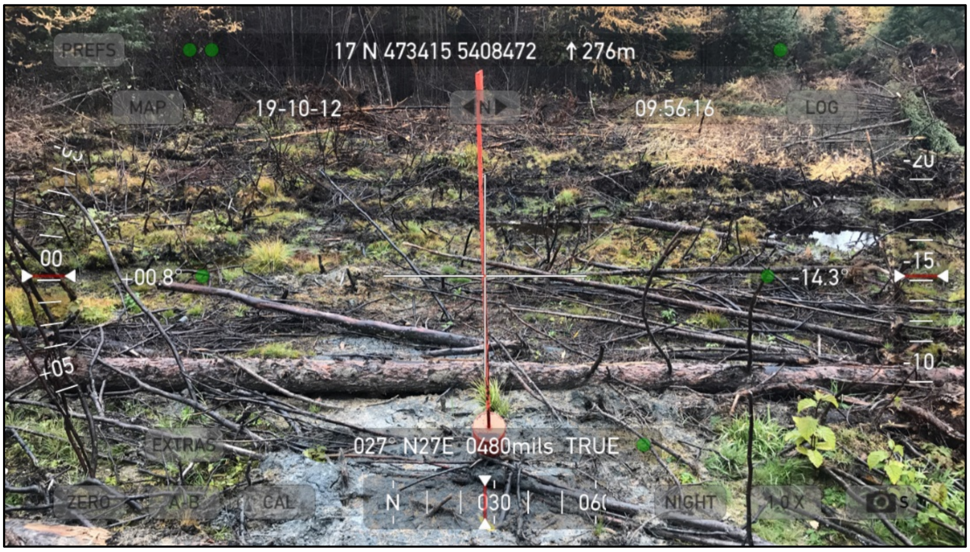


Photo 5: Approximate direction of casing and location per photo overlay. Reported orientation of drill holes was at azimuth of ~35° and dip of -50°.

Photo 6: Logging and sampling facility in Timmins, Ontario. Core saw for splitting the logged core is located in the room at the rear of the core shack.

Photo 7: Prepared samples secured in bags and ready for delivery to the analytical laboratory (Activation Laboratories Ltd.) in Timmins, Ontario, a distance of approximately 4.5 km from the core shack.

Photo 8: Logged and sampled core is currently archived outdoors in cross-stacked piles outside the core shack in Timmins, Ontario.

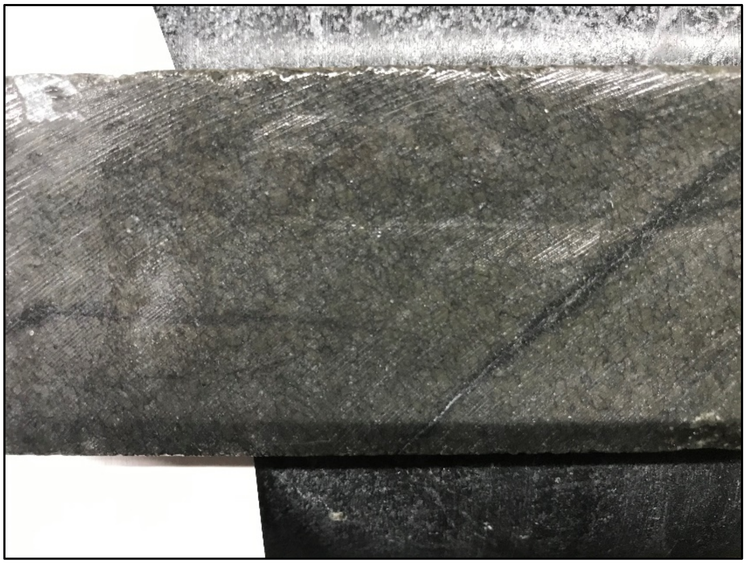


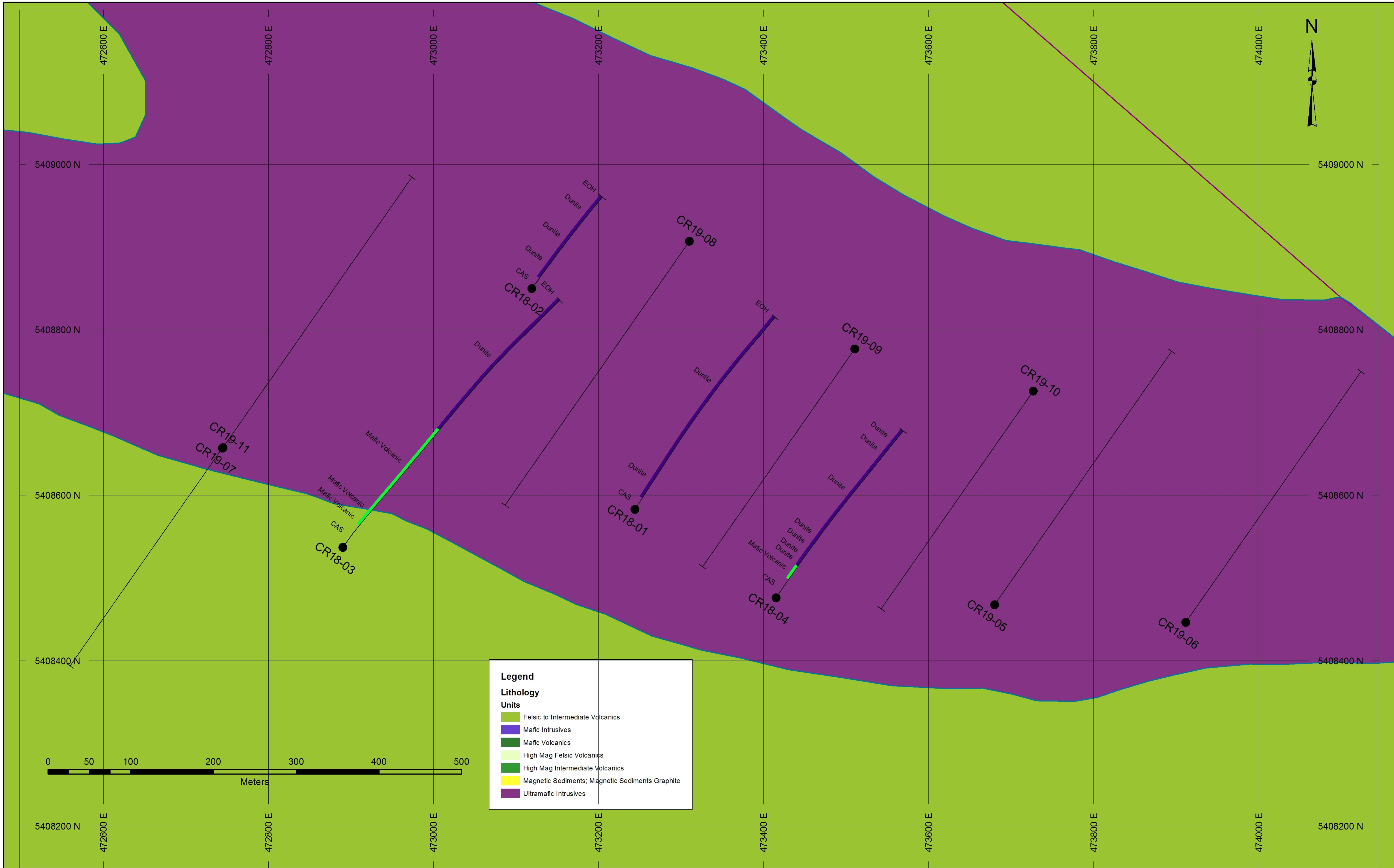
Photo 9: Cumulate texture of the dunite as observed in drill core. Green olivine grains are rimmed by magnetite (black).

Photo 10: Cumulate texture of slightly weathered dunite. Weathering as a result of the core lying outdoors. Sample comes from a depth of about 190 m in hole CRAW18-02.

APPENDIX 3 – Summary of Historical Exploration Work, Crawford Township, Ontario
[1 page]

Year	Month	Category	Type	Details	Company	Consultant
1955	-	Geophysics	Airborne	first aeromagnetic survey over the township		Aeromagnetic Surveys Limited
1956	-	Geophysics	Airborne	magnetics; mag anomalies interpreted as ultramafic intrusions (Map 301G)	Geological Survey of Canada	
1964	-	Geophysics	Airborne	magnetics; mag anomalies interpreted as ultramafic intrusions (Map 2319G)	Geological Survey of Canada	
1964	June-July	Drilling	Diamond Drilling	3 holes; 349.6 m	INCO Canada Ltd.	
1964	July-Aug	Drilling	Diamond Drilling	1 hole; 149.7 m	INCO Canada Ltd.	
1964	June-July	Geophysics	Ground	Mag-EM	United Comstock Lode Mines Ltd.	Winchester Explorations Ltd.
1964-66	-	Drilling	Diamond Drilling	40 holes; 7232 m; tested multiple targets (mostly graphitic)	INCO Canada Ltd.	Heath & Sherwood
1965	July	Drilling	Diamond Drilling	1 hole; 121.9 m	Keevil Mining Group Ltd.	
1965	Jan	Drilling	Diamond Drilling	2 holes; 518.5 m	INCO Canada Ltd.	
1965	Mar	Drilling	Diamond Drilling	1 hole; 148.4 m	INCO Canada Ltd.	
1965	June-July	Drilling	Diamond Drilling	2 holes; 156.4 m	Keevil Mining Group Ltd.	
1965	Mar	Geophysics	Ground	Mag-EM	Conduc Mines Ltd.	Geophysical Engineering and Surveys Ltd.
1965	Feb	Geophysics	Ground	Mag-EM	Zincfields Mining Corporation Ltd.	Geophysical Engineering and Surveys Ltd.
1965	Mar	Geophysics	Ground	Mag-EM	Keevil Mining Group Ltd.	Geophysical Engineering and Surveys Ltd.
1965	Feb	Geophysics	Ground	Mag-EM	Keevil Mining Group Ltd.	Geophysical Engineering and Surveys Ltd.
1966	Mar	Drilling	Diamond Drilling	1 hole; 364.2 m; intersected peridotite-pyroxenite	INCO Canada Ltd.	
1966	-	Geophysics	Ground	Mag-VLEM	Chance Mines Ltd.	
1966	Apr	Geophysics	Airborne	Mag-EM; mag anomaly interpreted as peridotite intrusion	Keevil Mining Group Ltd. Conduc Mines Ltd.	
1970	Apr	Geology Geophysics	Compilation	review of historical work in Crawford Township	McIntyre Porcupine Mines Ltd.	Shield Geophysics Ltd.
1971-73	-	Geology Geophysics	Compilation	interoffice correspondence; VLEM, Turam, Mag, IP; Overburden Sampling	McIntyre Porcupine Mines Ltd.	Various
1972	-	Geology Geophysics	Maps	inferred geological map; magnetics maps	McIntyre Porcupine Mines Ltd.	
1972	-	Geophysics	Maps	input EM anomalies	McIntyre Porcupine Mines Ltd.	
1972	Nov	Geophysics	Ground	Mag	McIntyre Porcupine Mines Ltd.	
1973	-	Drilling	Diamond Drilling	DDH 904-73-4; tested anomaly 3N in NE area of township	McIntyre Porcupine Mines Ltd.	
1973	July	Metallurgy	Core Sample	15 lb core sample from DDH 904-73-4 for testing at mill	McIntyre Porcupine Mines Ltd.	
1973	Sept	Metallurgy	Core Sample	results of flotation from drill core sample	McIntyre Porcupine Mines Ltd.	
1973	July	Drilling	Diamond Drilling	1 hole; 107 m	McIntyre Porcupine Mines Ltd.	
1973	Mar	Geophysics	Ground	Mag-EM	McIntyre Porcupine Mines Ltd.	
1980-81	-	Drilling	Diamond Drilling	2 holes; 200 m	Selco Mining Corp. Ltd.	
1981	-	Geophysics	Ground	Pulse-EM, Mag; Group 4	Home Oil Company Ltd.	Exsics Exploration Ltd.
1981	-	Geophysics	Ground	HL-EM (MaxMin II), Mag; Group 9	Home Oil Company Ltd.	Exsics Exploration Ltd.
1981	-	Geophysics	Ground	Pulse-EM, Mag; Group 5	Home Oil Company Ltd.	Exsics Exploration Ltd.
1981	-	Geophysics	Ground	HL-EM (MaxMin II), Mag; Group 7	Home Oil Company Ltd.	Exsics Exploration Ltd.
1981	-	Geophysics	Ground	HL-EM (MaxMin II), Mag; Group 6	Home Oil Company Ltd.	Exsics Exploration Ltd.
1981	-	Geophysics	Ground	HL-EM (MaxMin II), Mag; Group 8	Home Oil Company Ltd.	Exsics Exploration Ltd.
1981	-	Geophysics	Ground	HL-EM (MaxMin II), Mag; Group 10	Home Oil Company Ltd.	Exsics Exploration Ltd.
1981	-	Geophysics	Ground	Pulse-EM, Mag; Groups 11 & 12	Home Oil Company Ltd.	Exsics Exploration Ltd.
1982	Mar	Drilling	Diamond Drilling	1 hole; 106 m	Home Oil Company Ltd.	Heath & Sherwood
1985	Mar	Geophysics	Ground	HL-EM (MaxMin II), Mag, Gravity; follow up on airborne survey	Chevron Canada resources Ltd.	Robert S Middleton Exploration Services Inc.
1990	-	Geophysics	Ground	HL-EM (MaxMin II), Mag; airborne survey follow up	Rio Algom Exploration	Rayan Exploration ltd.
1990	Dec	Geophysics	Ground	HL-EM (MaxMin II), Mag; airborne survey follow up	Rio Algom Exploration	Exsics Exploration Ltd.
1990	-	Geophysics	Ground	HL-EM (MaxMin II), Mag; airborne survey follow up	Rio Algom Exploration	Exsics Exploration Ltd.
1996	Mar	Geophysics	Ground	Mag	Falconbridge Ltd.	Rayan Exploration ltd.
1996	Apr	Geophysics	Ground	HL-EM	Falconbridge Ltd.	Rayan Exploration ltd.
1997	Mar	Geophysics Drilling	Ground Diamond Drilling	1 drill hole tested HL-EM anomaly; graphitic horizon	Inco Limited	Inco Exploration Bradley Brothers Ltd.
2002	Feb-Mar	Geophysics	Airborne	MEGATEM Survey (Mag-EM); Geophysical Data Set 1041	Ontario Geological Survey; MNDM	Fugro Airborne Surveys
2017	June-July	Geophysics	Airborne	1,031.3 l-km; heliborne TDEM-MAG survey; Crawford and Carnegie Twps.	Noble Mineral Exploration Inc.	BECI Exploration Consulting Inc.
2018	-	Interpretation	Artificial Intelligence	Computer Aided Resources Detection Software (CARDS) “AI Technology”; identify Cu-Zn and Ni-Co targets in Crawford and Carnegie Twps.	Noble Mineral Exploration Inc.	Alberta Mining Inc.
2018	Aug	Geophysics	Airborne	936.1 line-km; fixed-wing; FALCON Airborne Gravity Gradiometer Survey; Magnetic Survey	Noble Mineral Exploration Inc.	CGG Canada Services Ltd.
2018	Dec	Drilling	Diamond Drilling	4 holes; 1,818 metres (NQ size core)	Spruce Ridge Resources Ltd.	NPLH Drilling (Timmins)
2019	Aug	Geophysics	Interpretation 3D Inversion	qualitative interpretation and a 3D-unconstrained inversion of the magnetic and gravity data acquired by CGG	Spruce Ridge Resources Ltd.	Geophysique Camille St-Hilaire Inc.

APPENDIX 4 – 2018 Spruce Ridge Res. Drill Hole Plans, Sections, Profiles and Logs
[13 pages]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Lithology
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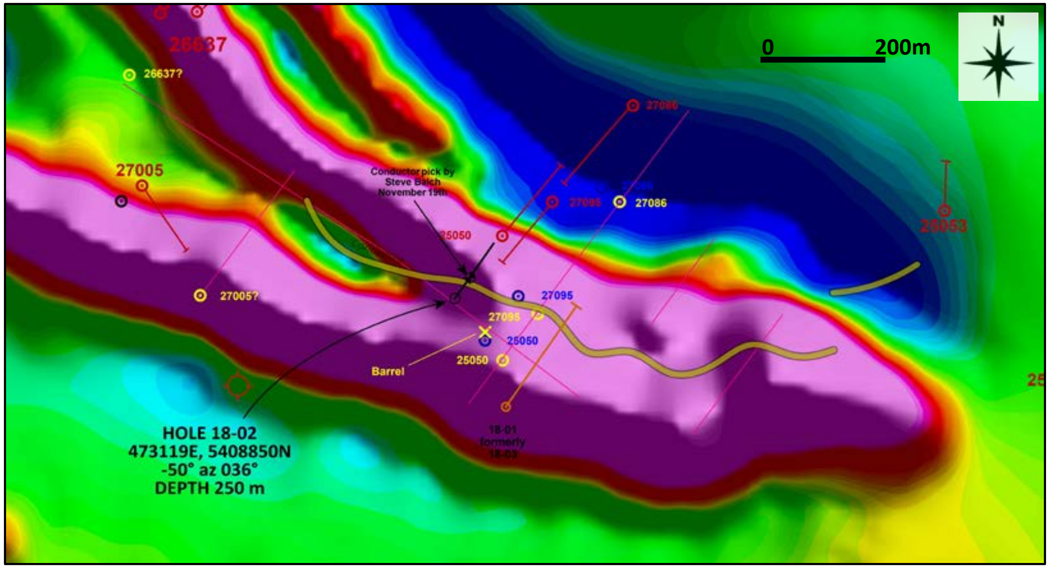
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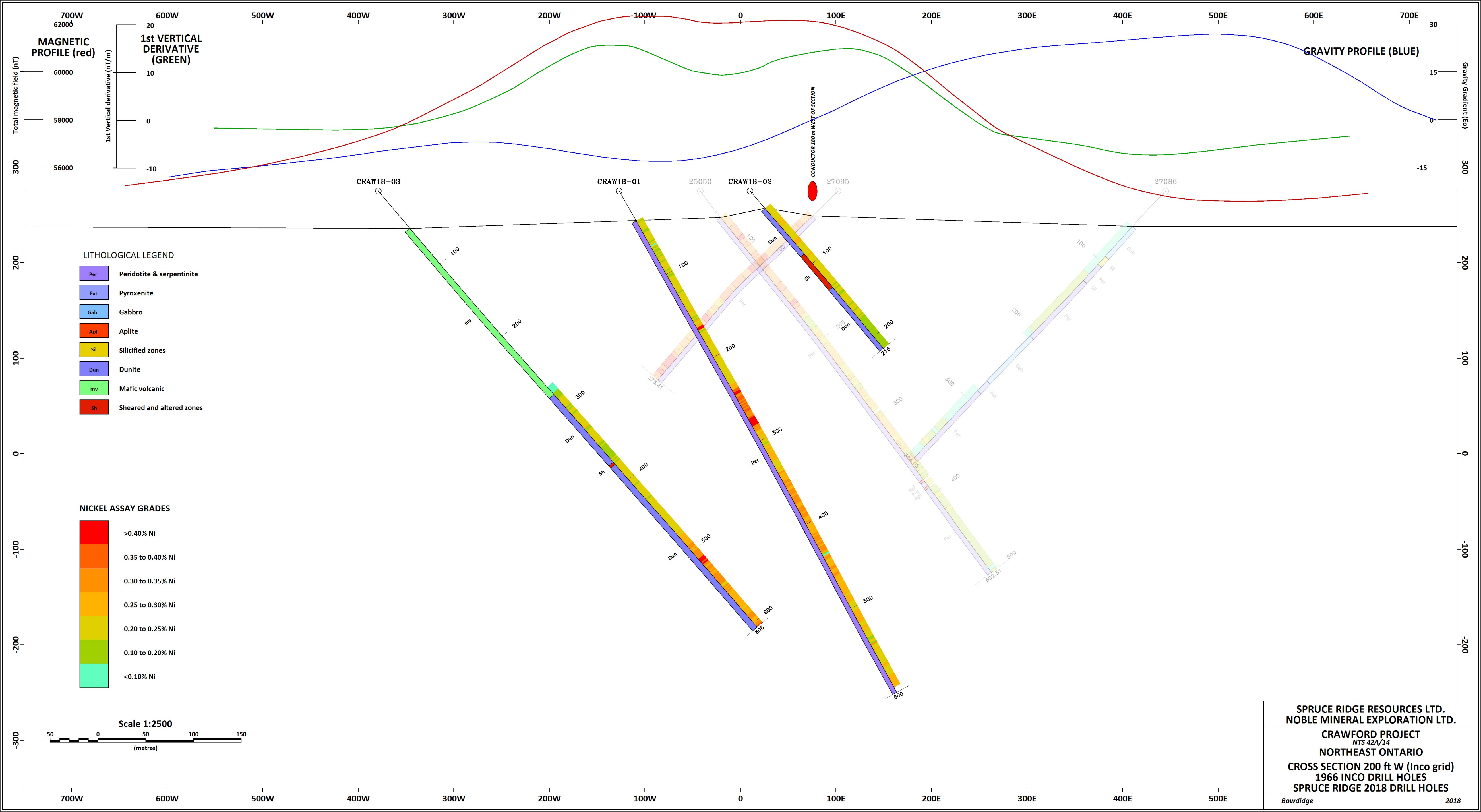
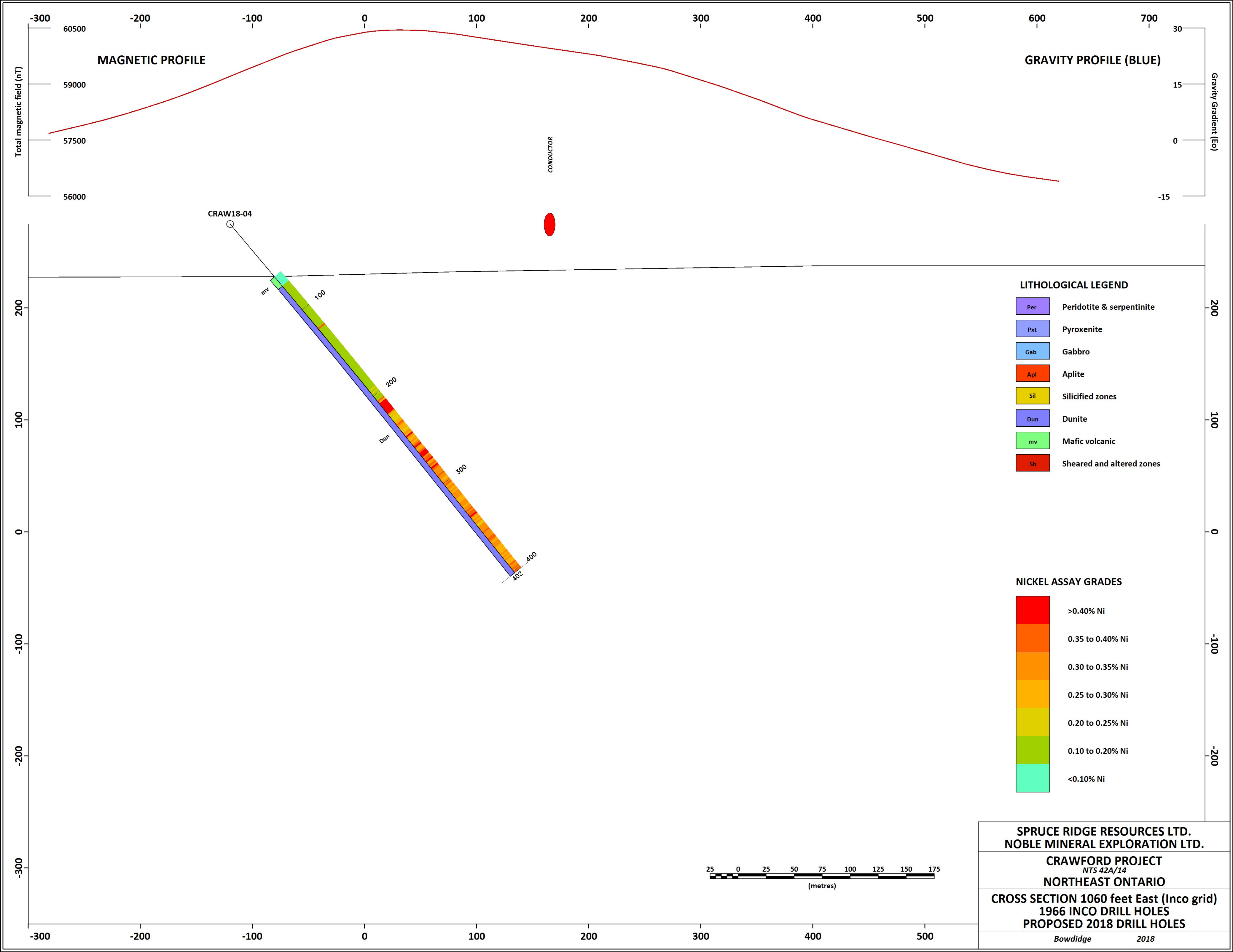
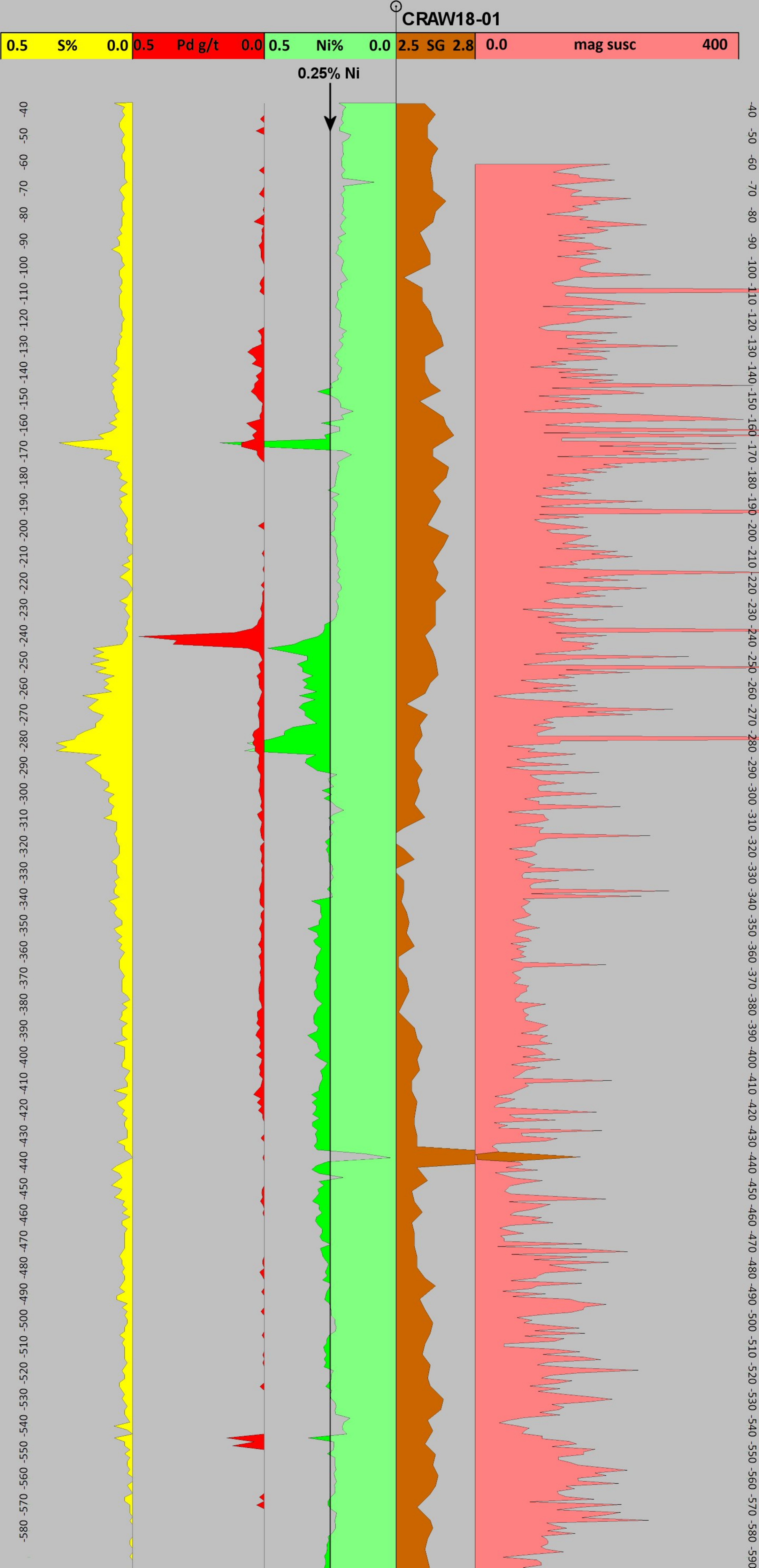
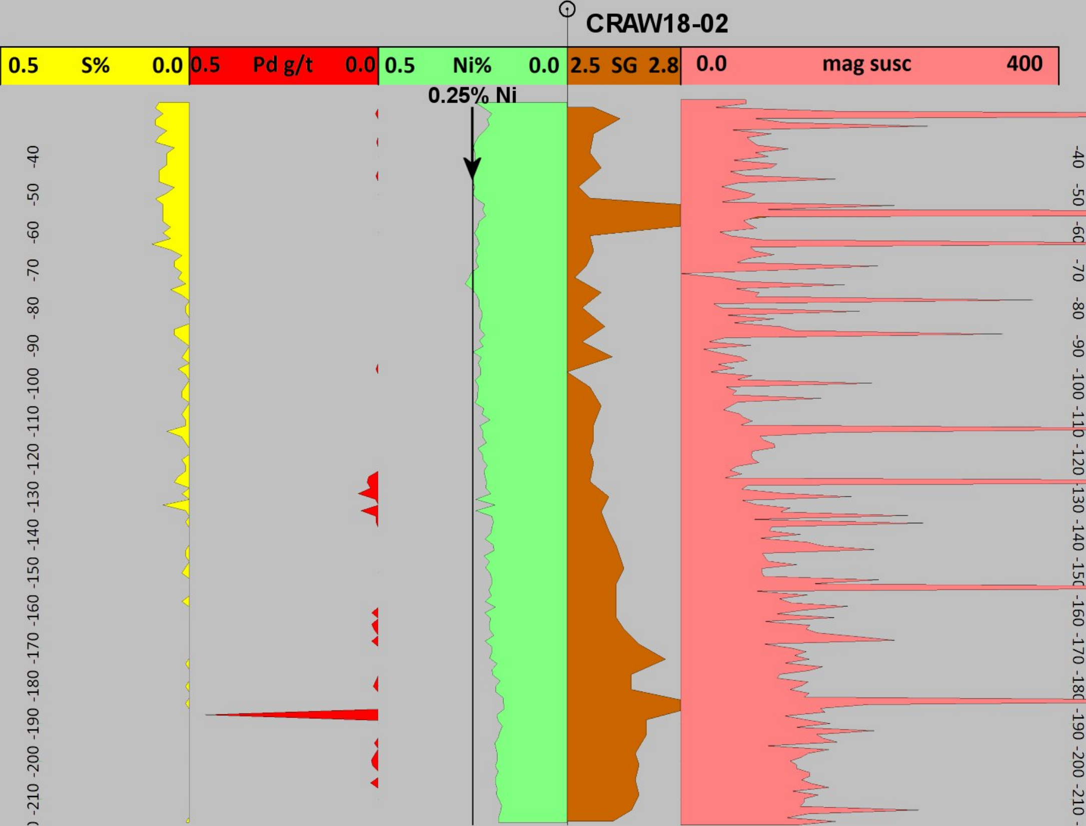
DEPTH 250 m

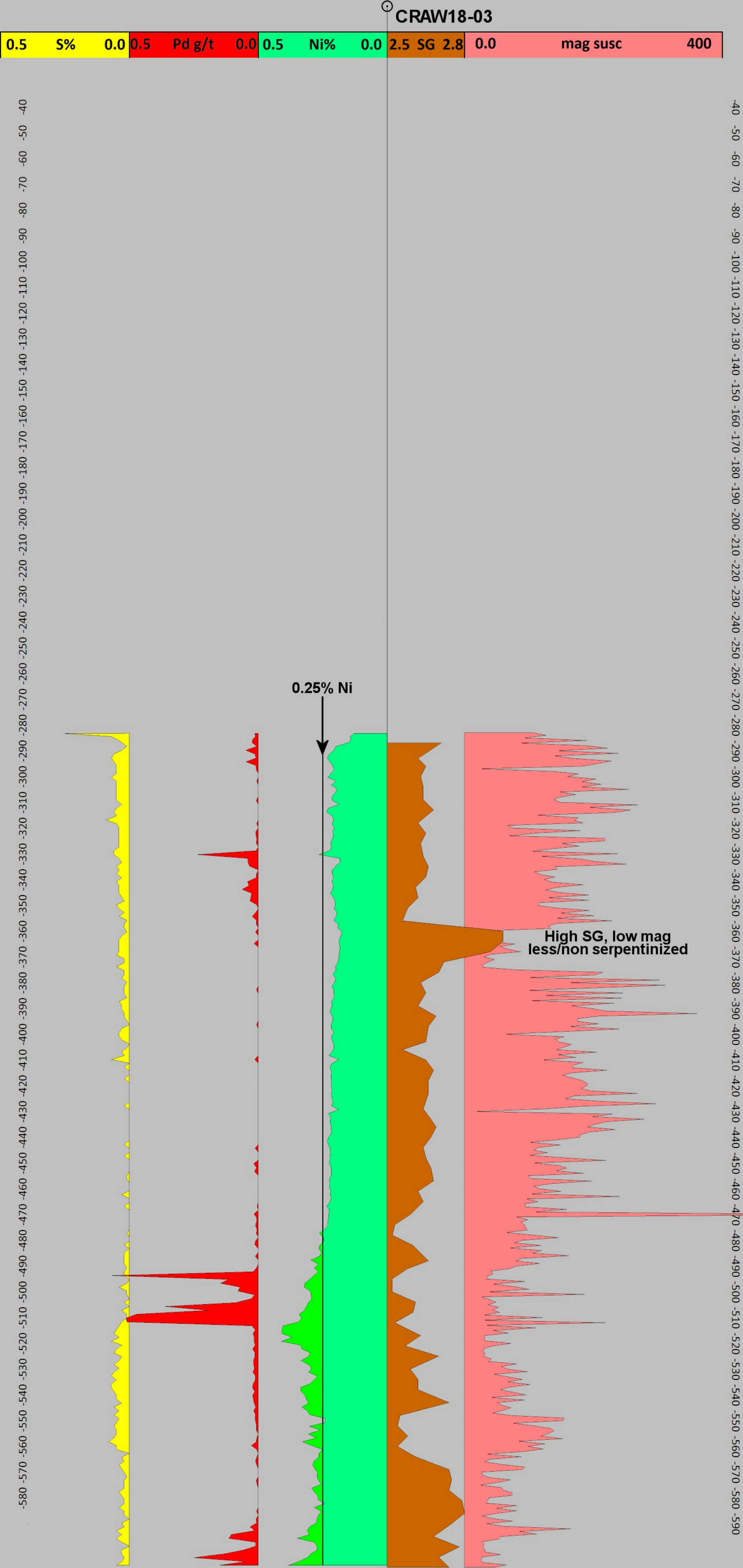


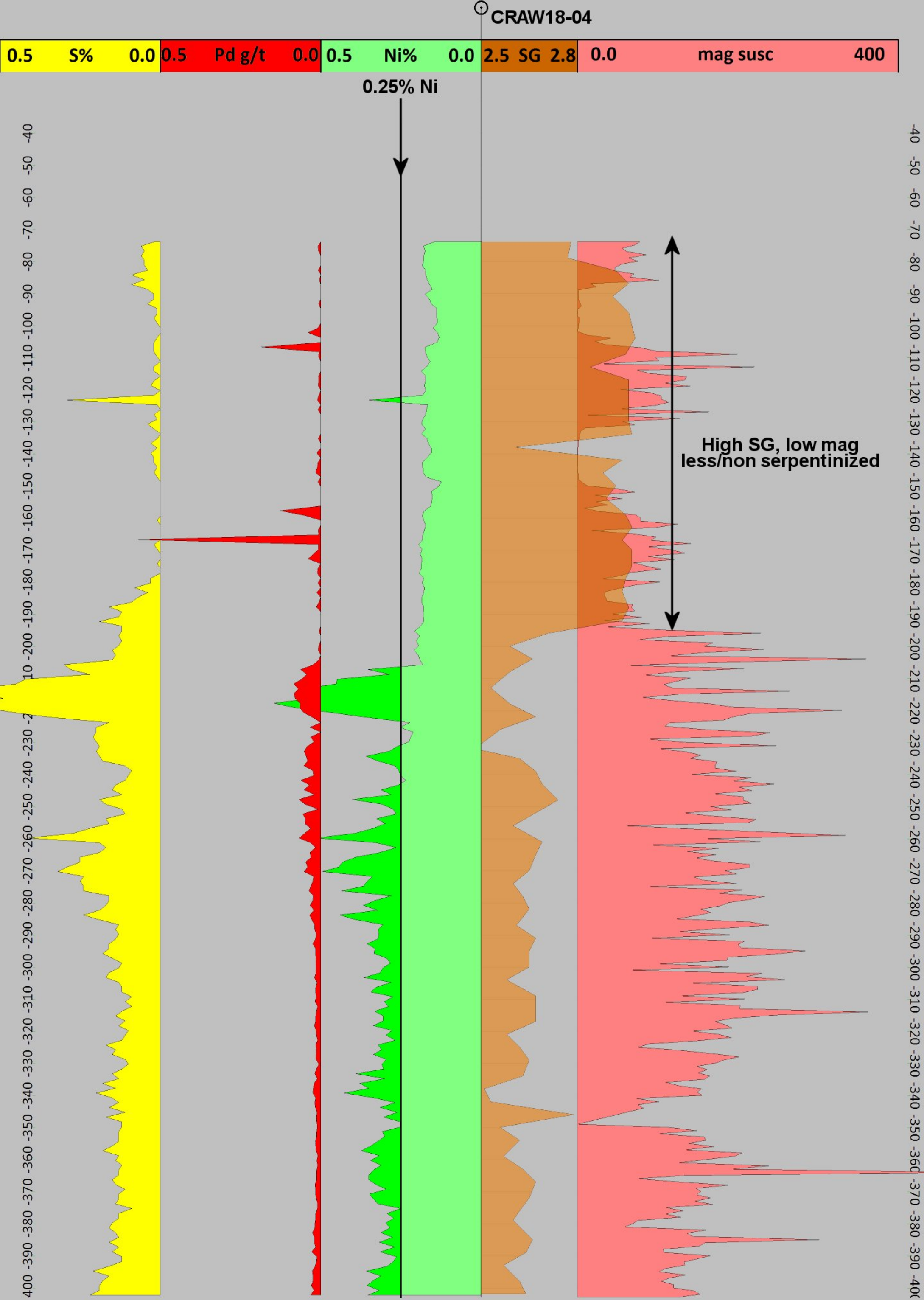
MAGNETIC PROFILE (red)
1st VERTICAL DERIVATIVE (GREEN)
GRAVITY PROFILE (BLUE)
Total magnetic field (nT)
1st Vertical derivative (nT/m)
Gravity Gradient (Eo)
CONDUCTOR 180 m WEST OF SECTION
CRAW18-03
CRAW18-01
CRAW18-02
25050
27095
27086
LITHOLOGICAL LEGEND
Per Peridotite & serpentinite
Pxt Pyroxenite
Gab Gabbro
Apl Aplite
Sil Silicified zones
Dun Dunite
mv Mafic volcanic
Sh Sheared and altered zones
NICKEL ASSAY GRADES
>0.40% Ni
0.35 to 0.40% Ni
0.30 to 0.35% Ni
0.25 to 0.30% Ni
0.20 to 0.25% Ni
0.10 to 0.20% Ni
<0.10% Ni
Scale 1:2500
(metres)
700W 600W 500W 400W 300W 200W 100W 0 100E 200E 300E 400E 500E 600E 700E
SPRUCE RIDGE RESOURCES LTD.
NOBLE MINERAL EXPLORATION LTD.
CRAWFORD PROJECT
NTS 42A/14
NORTHEAST ONTARIO
CROSS SECTION 200 ft W (Inco grid)
1966 INCO DRILL HOLES
SPRUCE RIDGE 2018 DRILL HOLES
Bowdidge
2018


MAGNETIC PROFILE
GRAVITY PROFILE (BLUE)
Total magnetic field (nT)
Gravity Gradient (Eo)
60500
59000
57500
56000
30
15
0
-15
-300
-200
-100
0
100
200
300
400
500
600
700
CONDUCTOR
CRAW18-04
mv
Dun
100
200
300
400
402
LITHOLOGICAL LEGEND
Per Peridotite & serpentinite
Pxt Pyroxenite
Gab Gabbro
Apl Aplite
Sil Silicified zones
Dun Dunite
mv Mafic volcanic
Sh Sheared and altered zones
NICKEL ASSAY GRADES
>0.40% Ni
0.35 to 0.40% Ni
0.30 to 0.35% Ni
0.25 to 0.30% Ni
0.20 to 0.25% Ni
0.10 to 0.20% Ni
<0.10% Ni
25 0 25 50 75 100 125 150 175
(metres)
SPRUCE RIDGE RESOURCES LTD.
NOBLE MINERAL EXPLORATION LTD.
CRAWFORD PROJECT
NTS 42A/14
NORTHEAST ONTARIO
CROSS SECTION 1060 feet East (Inco grid)
1966 INCO DRILL HOLES
PROPOSED 2018 DRILL HOLES
Bowdidge 2018


CRAW18-01
0.5 S% 0.0
0.5 Pd g/t 0.0
0.5 Ni% 0.0
2.5 SG 2.8
0.0 mag susc 400
0.25% Ni


CRAW18-02
0.5 S% 0.0
0.5 Pd g/t 0.0
0.5 Ni% 0.0
2.5 SG 2.8
0.0 mag susc 400
0.25% Ni
-40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210


CRAW18-03
0.5 S% 0.0
0.5 Pd g/t 0.0
0.5 Ni% 0.0
2.5 SG 2.8
0.0 mag susc 400
0.25% Ni
High SG, low mag
less/non serpentinized



CRAW18-04
0.5 S% 0.0
0.5 Pd g/t 0.0
0.5 Ni% 0.0
2.5 SG 2.8
0.0 mag susc 400
0.25% Ni
High SG, low mag
less/non serpentinized
-40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210 -220 -230 -240 -250 -260 -270 -280 -290 -300 -310 -320 -330 -340 -350 -360 -370 -380 -390 -400

SPRUCE RIDGE RESOURCES Ltd.

Hole #	Easting	Northing	Elevation	Length	Date	Test	Core Size	Logged By	U/S	Target	Location \ Comments:
CRAW18-01	473244	5408583	273	594	08/01/2019	Reflex	NQ	W. MacRae	S		

DISTANCE	AZIMUTH	DIP	REMARKS
0.00	35	-60	

Drilling Company	Drilling Started	Drilling Ended	Date Logged
NPLH Drilling	14/11/2018	22/11/2018	08/01/2019

Remarks:

FROM	TO	ROCK-TYPE	C.A.	RQD	REMARKS	FROM	TO	WIDTH	SAMPLE #	AU G/T	Cu ppm	Pb ppm	Zn ppm	Remarks
0.00	33.00	CAS												
33.00	137.10	UM			DUNITE: Dark green in colour. Fault gogue at 38.8 (5 cm), rubbly from 38.8 to 39.35. Weak serpentinization with 1% TO 2% hairline stringers of serpentine. Serpentine altered to asbestose at 50.7 to 51.1. From 84.9 to 85.75 rubbly with fault gogue. From 86.8 to 87.1 fault gogue of serpentine and talc.From 84.9 to 91.8 moderate to strong foliation containing tacose material. From 91.8 to 102.0 talcose with colour varying from dark olive green to dark green/black (weak serpentinization). From 102.0 to 125.0 weak serpentinization and talcose material. Fault gogue at: 103.3 to 193.8, 106.6 to 106.65, 107.6 to 107.7, 108.0 to 108.05, 110.6 to 110.9. From 125.0 to 126.7 lifht grey to dark grey in colour, strongly talcose. From 126.7 to 135.0 dark green to black in colour medium talcose. From 135.0 to 135.85 light green in colour, strong talc. From 136.0 to 137.1 mottled medium green in colour medium serpentinization.									

FROM	TO	ROCK-TYPE	C.A.	RQD	REMARKS	FROM	TO	WIDTH	SAMPLE #	AU G/T	Cu ppm	Pb ppm	Zn ppm	Remarks
137.10	594.00	UM			DUNITE: Dark green to black in colour. From 150.4 to 151.5 rubble and fault gogue. At 172.1 a 5 cm fault gogue at 90 deg to CA. At 177.1 a 7 cm fault gogue. From 189.7 to 190.3 rubbly with fault gogue. From 210.8 to 210.95 rubbly with fault gogue. From 216.13 to 216.2 fault gogue. From 225.05 to 225.1 fault gogue. At 228.6 5 cm of strong shearing. From 186.5 to 237.3 massive, dark green to black in colour and minor serpentine stringers. From 242.8 to 243.95 Fault gogue. From 262.5 to 263.0 sub-parallel to parralel slip containing asbestos, serpentine and magnetite. From 258.0 onward gradually becomes lighter colour with weak serpentinization. From 271.0 to 271.3 fault gogue. From 272.0 to 273.1 rubbly with fault gogue. From 305.6 to 305.85 Fault gogue. From 310.2 to 310.5 fault gogue with serpentine and fault gogue.From 310.3 to 384.0 moderate to strong serpentinization. From 328.6 to 328.7 fault gogue. From 345.0 to 345.8 rubble. From 390.0 to 398.0 dark green in colour, massive with 5% serpentine stringers. 398.0 to 403.2 up to 30% serpentine varying from dark green to white, magnetite exsolution, white patches conductive. From 403.2 to 435.7 dark green in colour, fine grained with 5% serpentine stringers and asbestos. From 435.7 to 438.1 felsic dike, light pink to grey in colour, sharp contactacts at 90deg to core axis and inclusions of dunite (1% to 2%). From 438.1 to 441.65 dark green in colour with 5% serpentine/asbestos stringers. From 441.65 to 451.4 strong serpentinization with up to 30% talc/serpentine veins. From 451.4 to 486.9 massive, fine grained with 5% serpentine/talc stringers. From 459.3 to 459.6 rubbly with fault gogue. From 479.4 to 479.6 rubbly with fault gogue. From 486.9 to 502.5 30% rubble sections. From 502.5 to 509.4 dark green in colour with 90% fault gogue from 504.4 to 506.0. From 509.4 to 532.2 more massive with 10% fault gogue in stringers, moderately bserpentinized. From 535.5 to 539.65 20% serpenting stringers. From 539.9 to 541.0 dark green in colour, 5% serpentine. From 541.0 to 543.8 strong serpentinization with shearing and fault gogue from 543.2 to 543.8. From 548.8 to 565.6 dark green in colour, massive with 2% serpentine stringers. From 565.6 to 570.6 50% shearing with fault gogue. From 570.6 to 594.0 weak serpentinization with fault gogue from 591.23 to 591.5.									
594.00	594.00	EOH												

Assay QC

SPRUCE RIDGE RESOURCES Ltd.

Hole #	Easting	Northing	Elevation	Length	Date	Test	Core Size	Logged By	U/S	Target	Location \ Comments:
CRAW18-02	473119	5408850	273	216	08/01/2019	Reflex	NQ	W. MacRae	S		

DISTANCE	AZIMUTH	DIP	REMARKS
0.00	36	-50	

Drilling Company	Drilling Started	Drilling Ended	Date Logged
NPLH Drilling	23/11/2018	25/11/2018	08/01/2019

Remarks:

FROM	TO	ROCK-TYPE	C.A.	RQD	REMARKS	FROM	TO	WIDTH	SAMPLE #	AU G/T	Cu ppm	Pb ppm	Zn ppm	Remarks
0.00	24.00	CAS												
24.00	86.90	UM			Dunite: Dark green in colour and massive. Contains 5% serpentine and asbestos irregular stringers. From 25.5 to 26.0 reconsolidated fault gogue. From 50.8 to 51.0 rubble and fault gogue. From 61.55 to 62.0 rubble.									
86.90	132.80	UM			Dunite: Dark green in colour. Very rubbly with fault gogue. From 96.8 to 97.1 fault gogue. From 120.2 to 122.3 fault gogue. From 130.0 to 132.7 fault gogue.									
132.80	216.00	UM			Dunite: Dark green in colour and massive. Fine grained texture. Minor serpentinization. At 157.0 start of the development of light grey irregular masses progressing from <1% to 120%.									
216.00	216.00	EOH												

Assay QC

SPRUCE RIDGE RESOURCES Ltd.

Hole #	Easting	Northing	Elevation	Length	Date	Test	Core Size	Logged By	U/S	Target	Location \ Comments:
CRAW18-03	472890	5408537	273	606	08/01/2019	Reflex	NQ	W. MacRae	S		

DISTANCE	AZIMUTH	DIP	REMARKS
0.00	36	-50	

Drilling Company	Drilling Started	Drilling Ended	Date Logged
NPLH Drilling	26/11/2018	03/12/2018	08/01/2019

Remarks:

FROM	TO	ROCK-TYPE	C.A.	RQD	REMARKS	FROM	TO	WIDTH	SAMPLE #	AU G/T	Cu ppm	Pb ppm	Zn ppm	Remarks
0.00	51.00	CAS												
51.00	63.90	VM			Mafic Volcanic: Light grey to light green in colour and massive. Fine grained. Brown weathering along joints and fractures. Rubbly nature with 10% fault gogue.									
63.90	105.00	VM			Mafic Volcanic: Light green in colour and massive. Moderately fractured. Porphyritic with irregular phenocrysts up to 2 mm in size. From 101.4 to 101.5 a grey quartz vein.									
105.00	281.60	VM			Mafic Volcanic: Grey to light green in colour and massive. 2% to 3% quartz stringers and veins up to 7 cm in width. At 178.4 a 2cm pyrrhotite vein, magnetic. From 96.1 to 98.2 5% to 8% pyrrhotite in flow contact. Quartz vein material in flow contacts at: 207.1 to 207.35, 229.8 to 231.1 and 234.7 to 234.9.									
281.60	606.00	UM			Dunite: Dark green to black in colour and massive. Upper contact is brecciated from 281.6 to 286.0. From 293.9 to 293.95 serpentine vein. Generally weakly serpentinized. From 350.0 to 355.0 moderately serpentinized. From 367.6 to 369.9 rubbly. From 376.9 to 377.6 rubble with fault gogue. From 377.9 to 378.0 fault gogue. From 377.0 to 378.6, 384.4 to 385.15 and 386.15 to 387.4 brighter green withy strong serpentinization. From 387.4 to 407.4 spotty sermentinization. From 407.4 to 408.35 strong serpentinization ending in a 20 cm green/white serpentine vein. Thr complete unit is strongly magnetic. From 430.3 to 430.9 rubble with fault gogue. 446.35 to 446.6 rubble with fault gogue. From 476.4 to 476.4 fault gogue with rubble. From 501.0 to 509.0 narrow serpentine rich slips with exolved magnetite. From 548/.6 to 553.9 3 occurences , >5 cm of white and green serpentine. 562.0 to 606.0 dark green in colour with 5% serpentine slips up to 2 cm in width. From 594.7 to 594.8 rubble and talcose.									
606.00	606.00	EOH												

SPRUCE RIDGE RESOURCES Ltd.

Hole #	Easting	Northing	Elevation	Length	Date	Test	Core Size	Logged By	U/S	Target	Location \ Comments:
CRAW18-04	473415	5408476	273	402	08/01/2019	Reflex	NQ	W. MacRae	S		

DISTANCE	AZIMUTH	DIP	REMARKS
0.00	36	-50	

Drilling Company	Drilling Started	Drilling Ended	Date Logged
NPLH Drilling	03/01/2019	06/12/2018	08/01/2019

Remarks:

FROM	TO	ROCK-TYPE	C.A.	RQD	REMARKS	FROM	TO	WIDTH	SAMPLE #	AU G/T	Cu ppm	Pb ppm	Zn ppm	Remarks
0.00	42.00	CAS												
42.00	72.40	VM			Mafic Volcanics: Light green in colour and massive. Fine grained. Moderately rubbly. Non magnetic. Rusty weathering on seams and fractures to 47.0 metres.									
72.40	87.15	UM			Dunite: Dark green in colour and massive. Fine grained. Moderately magnetic.									
87.15	103.30	UM			Dunite: Dark green in colour and massive. Fine grained. Non magnetic.									
103.30	131.85	UM			Dunite: Dark green in colour and massive. Fine grained. Moderately magnetic. At 122.4 a bleb of pyrrhotite 2cmX5cm in size.									
131.85	148.55	UM			Dunite: Dark green in colour and massive. Fine grained. Non magnetic.									
148.55	339.50	UM			Dunite: Dark green in colour and massive. Fine grained. Magnetic. From 204.0 to 205.0 fault gogue. From 215.0 to 215.3 rubbly with fault gogue. From 215.0 to 224.0 several short fault gogue occurrances. From 224.0 to 231.0 up to 5% irregular serpentine stringers. 231.0 to 339.5 1% irregular serpentine stringers. Fropm 321.9 to 332.4 fault gogue.									
339.50	348.30	UM			Dunite:Light green in colour and massive. Fine grained. Non magnetic.									
348.30	402.00	UM			Dunite: Black in colour and massive. Fine grained. Up to 2% scattered serpentine stringers.									
402.00	402.00	EOH												

Assay QC

APPENDIX 5 – CRM Certificates (DTS-2b-P and CDN-PGMS-28)
[6 pages]

Product Information Sheet

Microanalytical Reference Material

DTS-2b-P

Nano-particulate pressed powder pellet

November 2018

Assigned Values

Analyte	Value	Uncertainty (standard deviation)	Unit
MgO	49.4	1.8	g/100g
Al2O3	0.45	0.06	g/100g
SiO2	39.4	0.8	g/100g
CaO	0.12	0.01	g/100g
Fe2O3(t)	7.76	0.21	g/100g
Na	200		µg/g
Mg	298000	11000	µg/g
Al	2400	300	µg/g
Si	184000	4000	µg/g
Ca	900	100	µg/g
Sc	3		µg/g
V	22	8	µg/g
Cr	15500	1100	µg/g

Analyte	Value	Uncertainty (standard deviation)	Unit
Mn	830	40	µg/g
Fe(II)	42700	2000	µg/g
Fe(t)	54300	1500	µg/g
Co	120	10	µg/g
Ni	3780	220	µg/g
Cu	3		µg/g
Zn	45	5	µg/g
Ge	0.7		µg/g
Rb	2		µg/g
Sb	0.6		µg/g
Ba	16		µg/g
Pb	4		µg/g

The assigned values including their uncertainties are taken from the certificate of analysis for the original powder. These values result from a round robin study. Elements written in italic have been assigned information values, which means they did not fulfil all necessary statistical criteria to be called a recommended value and should not be considered for validation.

Intended Use

This microanalytical reference material (MRM) is designed for use by laboratories undertaking the determination of major and trace element mass fractions in dunite and equivalent matrices with LA-ICP-MS (Laser Ablation Inductively Coupled Plasma Mass Spectrometry) and µXRF (Micro X-ray Fluorescence). It is suitable as a secondary reference material for the assessment of a measurement procedure and quality control. Note that the material may only be used only for a single purpose in the same measurement process. For example, it must not be used for calibration and method validation at the same time.

Description of the MRM

A nanoparticular pressed powder pellet of the dunite powder "DTS-2b" provided by the United States Geological Survey (USGS). The white fortification surrounding the reference material is, according to the manufacturer, an "organic compound". The exact composition is not specified any closer. The certificate of analysis is available on demand.

myStandards GmbH
Schauenburger Straße 116
24118 Kiel
Germany

General Manager
Christina Wittke
Simon Nordstad

Amtsgericht Kiel
HRB 20094 KI

Banking details
IBAN: DE26 2003 0000 0016 3423 11
BIC: HYVEDEMM300
Hypo Vereinsbank

Handling advice

Avoid touching the pellet's surface directly in order to prevent contamination. Also, do not clean the surface with any liquids as it may compromise the pellet's integrity.
Please note the label marks the bottom of the pellet. In case of XRF please consider the sample thickness.

Storage

Store the MRM in a desiccator in a dark and dry environment.

Period of Validity

The assigned values have no explicit expiration. Provided the storage and handling conditions are met, no chemical alteration is known to exist. Although, the manufacturer will inform the customer if any alterations occur.

Safety instructions

Nano-particulate powders can cause harm if ingested, inhaled or in contact with skin. In their pressed form however, they do not exhibit any dusting. If a pellet should accidently break, we advise wearing a dust mask during clean up.

Further Information

This MRM has been produced in accordance with the recommendations specified in ISO Guides 30 to 35.

References

Wilson S.A. United States Geological Survey, Certificate of Analysis, Dunite, Twin Sisters Mountain DTS-2B, United States Geological Survey, 2001.

Legal notice

The myStandards GmbH shall not be liable to the user of this material for loss (whether direct or indirect) of profits, business, anticipated savings or reputation or for any indirect or consequential loss or damage whatsoever even if previously advised thereof and whether arising from negligence, breach of these Terms and Conditions or howsoever occurring.
In any event, and notwithstanding anything contained in these Terms and Conditions, myStandards GmbHs liability in contract, tort (including negligence, defamation or breach of statutory duty) or otherwise arising by reason of or in connection with these Terms and Conditions shall be limited to the price paid for the material giving rise to such liability.
The original manufacturer (USGS) is not liable for any issues occurring from the use of this material since they took no part in the manufacturing of the pellets.

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Schauenburger Straße 116
24118 Kiel
Germany

General Manager
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Simon Nordstad

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HRB 20094 KI

Banking details
IBAN: DE26 2003 0000 0016 3423 11
BIC: HYVEDEMM300
Hypo Vereinsbank

CDN Resource Laboratories Ltd.

#2, 20148 - 102nd Avenue, Langley, B.C., Canada, V1M 4B4, Ph: 604-882-8422 Fax: 604-882-8466 (www.cdnlabs.com)

REFERENCE MATERIAL: CDN-PGMS-28

Recommended values and the "Between Lab" Two Standard Deviations

Gold	***0.193 g/t***	±	***0.022***	***Certified value***	***30g FA / ICP or AA***
Platinum	***1.51 g/t***	±	***0.14 g/t***	***Certified value***	***30g FA / ICP or AA***
Palladium	***1.75 g/t***	±	***0.12 g/t***	***Certified value***	***30g FA / ICP or AA***
Copper	***0.144 %***	±	***0.008 %***	***Certified value***	***4-Acid / ICP or AA***
Nickel	***0.271 %***	±	***0.018 %***	***Certified value***	***4-Acid / ICP or AA***

PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: 7-Oct-15

ORIGIN OF REFERENCE MATERIAL:

The material was sourced from the Drenthe deposit located on the northern limb of the Bushveld mafic intrusive complex in northern South Africa. The deposit is hosted in the Platreef pyroxenite unit and PGE mineralization is associated with pyrrhotite, chalcopyrite and pentlandite.

METHOD OF PREPARATION:

Reject ore was dried, crushed, pulverized and then passed through a 270 mesh screen. The +270 material was discarded. The -270 material was mixed in a double-cone blender for 5 days. Splits were taken and sent to 15 commercial laboratories for round robin analysis. Round robin results are displayed below:

Approximate chemical composition (by whole rock analysis) is as follows:

	Percent			Percent
SiO_2	48.6		Na_2O	0.8
Al_2O_3	9.1		MgO	18.1
Fe_2O_3	10.8		K_2O	0.3
CaO	7.0		TiO_2	0.2
MnO	0.19		LOI	3.9
Total S	0.7		Total C	0.1

Statistical Procedures:

The final limits were calculated after first determining if all data was compatible within a spread normally expected for similar analytical methods done by reputable laboratories. Data from any one laboratory was removed from further calculations when the mean of all analyses from that laboratory failed a t test of the global means of the other laboratories. The means and standard deviations were calculated using all remaining data. Any analysis that fell outside of the mean ±2 standard deviations was removed from the ensuing data base. The mean and standard deviations were again calculated using the remaining data. This method is different from that used by Government agencies in that the actual "between-laboratory" standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Confidence Limits published on other standards.

Results from round-robin assaying are presented on the following pages:

REFERENCE MATERIAL: CDN-PGMS-28

Assay Procedure: 30g fire assay, AA or ICP finish.

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12	Lab 13	Lab 14	Lab 15
SAMPLE	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t
PGMS-28-1	0.197	0.188	0.208	0.179	0.209	0.201	0.200	0.174	0.207	0.211	0.220	0.212	0.202	0.190	0.204
PGMS-28-2	0.183	0.182	0.184	0.193	0.199	0.203	0.190	0.175	0.242	0.195	0.197	0.182	0.161	0.206	0.199
PGMS-28-3	0.191	0.196	0.198	0.174	0.221	0.204	0.200	0.176	0.201	0.196	0.183	0.224	0.175	0.179	0.190
PGMS-28-4	0.204	0.188	0.189	0.190	0.201	0.182	0.210	0.170	0.227	0.211	0.194	0.182	0.190	0.188	0.200
PGMS-28-5	0.183	0.192	0.205	0.193	0.221	0.203	0.190	0.177	0.213	0.206	0.186	0.233	0.180	0.185	0.181
PGMS-28-6	0.188	0.180	0.200	0.178	0.192	0.195	0.190	0.178	0.210	0.203	0.191	0.211	0.207	0.191	0.194
PGMS-28-7	0.203	0.185	0.205	0.174	0.209	0.200	0.210	0.172	0.205	0.200	0.218	0.182	0.172	0.199	0.196
PGMS-28-8	0.183	0.180	0.190	0.178	0.187	0.197	0.210	0.173	0.207	0.191	0.197	0.232	0.205	0.194	0.189
PGMS-28-9	0.193	0.200	0.196	0.197	0.201	0.192	0.200	0.172	0.204	0.203	0.194	0.231	0.230	0.197	0.195
PGMS-28-10	0.186	0.182	0.194	0.179	0.207	0.204	0.210	0.173	0.206	0.199	0.177	0.203	0.176	0.227	0.200
Mean	0.191	0.187	0.197	0.184	0.205	0.198	0.201	0.174	0.212	0.202	0.196	0.209	0.190	0.196	0.195
Std. Dev'n	0.0080	0.0069	0.0078	0.0087	0.0111	0.0070	0.0088	0.0025	0.0127	0.0066	0.0138	0.0212	0.0209	0.0134	0.0067
%RSD	4.20	3.68	3.97	4.76	5.42	3.52	4.36	1.43	5.98	3.29	7.07	10.14	11.03	6.83	3.45
	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t
PGMS-28-1	1.48	1.48	1.57	1.41	1.61	1.50	1.59	1.49	1.38		1.58	1.58	1.36	1.52	1.55
PGMS-28-2	1.41	1.51	1.57	1.38	1.48	1.49	1.56	1.49	1.43		1.51	1.39	1.30	1.45	1.47
PGMS-28-3	1.49	1.46	1.61	1.38	1.62	1.48	1.59	1.49	1.54		1.49	1.57	1.38	1.43	1.52
PGMS-28-4	1.53	1.49	1.53	1.40	1.59	1.50	1.57	1.45	1.46		1.61	1.42	1.48	1.60	1.51
PGMS-28-5	1.56	1.52	1.55	1.39	1.56	1.56	1.64	1.50	1.48		1.59	1.55	1.46	1.59	1.51
PGMS-28-6	1.49	1.47	1.57	1.39	1.52	1.46	1.62	1.51	1.49		1.58	1.63	1.58	1.54	1.49
PGMS-28-7	1.47	1.48	1.61	1.38	1.61	1.47	1.61	1.48	1.56		1.61	1.42	1.44	1.57	1.46
PGMS-28-8	1.56	1.49	1.52	1.46	1.62	1.49	1.61	1.49	1.45		1.53	1.62	1.45	1.55	1.57
PGMS-28-9	1.52	1.49	1.63	1.44	1.54	1.48	1.60	1.46	1.52		1.55	1.67	1.40	1.57	1.51
PGMS-28-10	1.56	1.44	1.56	1.47	1.61	1.49	1.65	1.49	1.47		1.57	1.59	1.41	1.46	1.65
Mean	1.50	1.48	1.57	1.41	1.58	1.49	1.60	1.48	1.48		1.56	1.54	1.43	1.53	1.52
Std. Dev'n	0.0486	0.0231	0.0355	0.0347	0.0484	0.0268	0.0284	0.0172	0.0533		0.0413	0.0987	0.0759	0.0611	0.0561
%RSD	3.23	1.56	2.26	2.46	3.07	1.79	1.77	1.16	3.61		2.65	6.39	5.32	4.00	3.68
	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t
PGMS-28-1	1.76	1.66	1.73	1.65	1.79	1.69	1.82	1.67	1.62		1.82	1.83	1.70	1.76	1.64
PGMS-28-2	1.65	1.67	1.73	1.53	1.69	1.65	1.77	1.69	1.64		1.70	1.58	1.58	1.70	1.60
PGMS-28-3	1.80	1.70	1.77	1.54	1.79	1.68	1.79	1.69	1.74		1.76	1.86	1.73	1.72	1.73
PGMS-28-4	1.80	1.73	1.72	1.54	1.80	1.68	1.82	1.66	1.70		1.82	1.67	1.72	1.82	1.73
PGMS-28-5	1.85	1.73	1.79	1.59	1.82	1.71	1.81	1.71	1.73		1.83	1.77	1.74	1.85	1.79
PGMS-28-6	1.81	1.67	1.78	1.56	1.81	1.72	1.82	1.72	1.71		1.81	1.82	1.71	1.78	1.69
PGMS-28-7	1.82	1.71	1.87	1.55	1.82	1.69	1.81	1.67	1.78		1.89	1.61	1.73	1.80	1.74
PGMS-28-8	1.84	1.67	1.79	1.65	1.84	1.72	1.82	1.67	1.76		1.80	1.80	1.68	1.77	1.72
PGMS-28-9	1.81	1.67	1.83	1.69	1.80	1.71	1.79	1.67	1.79		1.82	1.91	1.74	1.77	1.70
PGMS-28-10	1.83	1.61	1.73	1.73	1.80	1.72	1.85	1.67	1.81		1.80	1.88	1.70	1.76	1.77
Mean	1.79	1.68	1.77	1.60	1.79	1.70	1.81	1.68	1.73		1.80	1.77	1.70	1.77	1.71
Std. Dev'n	0.0570	0.0365	0.0490	0.0706	0.0410	0.0230	0.0221	0.0183	0.0623		0.0507	0.1147	0.0474	0.0440	0.0577
%RSD	3.17	2.17	2.76	4.40	2.29	1.36	1.22	1.09	3.61		2.81	6.47	2.78	2.48	3.37

Notes: **Au data from Lab 12 was excluded for failing the t test.**
Pd data from Lab 4 was excluded for failing the t test.
Lab 10 did not provide Pt and Pd data.

REFERENCE MATERIAL: CDN-PGMS-28

Assay Procedure: 4-Acid Digest / AA or ICP finish

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12	Lab 13	Lab 14	Lab 15
	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %
PGMS-28-1	0.144	0.148	0.150	0.135	0.146	0.146	0.148	0.149	0.147	0.150	0.143	0.138	0.141	0.146	0.148
PGMS-28-2	0.136	0.143	0.140	0.132	0.133	0.148	0.140	0.143	0.133	0.140	0.140	0.128	0.135	0.140	0.145
PGMS-28-3	0.159	0.156	0.140	0.136	0.143	0.138	0.144	0.146	0.144	0.150	0.141	0.141	0.140	0.140	0.147
PGMS-28-4	0.162	0.156	0.150	0.134	0.143	0.141	0.145	0.141	0.145	0.150	0.143	0.143	0.138	0.146	0.146
PGMS-28-5	0.162	0.159	0.140	0.136	0.137	0.146	0.145	0.145	0.146	0.150	0.144	0.144	0.143	0.150	0.146
PGMS-28-6	0.157	0.155	0.140	0.140	0.141	0.148	0.147	0.145	0.143	0.150	0.150	0.142	0.142	0.149	0.151
PGMS-28-7	0.161	0.152	0.150	0.139	0.144	0.142	0.149	0.148	0.144	0.150	0.145	0.144	0.144	0.142	0.148
PGMS-28-8	0.157	0.155	0.150	0.141	0.144	0.148	0.146	0.144	0.146	0.150	0.144	0.143	0.142	0.149	0.147
PGMS-28-9	0.158	0.152	0.150	0.141	0.144	0.148	0.144	0.143	0.140	0.150	0.146	0.138	0.138	0.148	0.146
PGMS-28-10	0.151	0.154	0.140	0.138	0.146	0.139	0.149	0.146	0.149	0.150	0.149	0.140	0.138	0.150	0.152
Mean	0.155	0.153	0.145	0.137	0.142	0.144	0.146	0.145	0.144	0.149	0.145	0.140	0.140	0.146	0.148
Std. Dev'n	0.0087	0.0046	0.0053	0.0032	0.0041	0.0040	0.0028	0.0023	0.0045	0.0032	0.0032	0.0048	0.0028	0.0041	0.0023
%RSD	5.60	3.00	3.63	2.30	2.90	2.77	1.89	1.58	3.11	2.12	2.19	3.42	2.00	2.78	1.59
	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %	Ni %
PGMS-28-1	0.274	0.254	0.270	0.260	0.273	0.264	0.277	0.270	0.279	0.280	0.276	0.275	0.261	0.256	0.304
PGMS-28-2	0.266	0.260	0.270	0.260	0.255	0.259	0.265	0.261	0.258	0.260	0.275	0.253	0.251	0.248	0.292
PGMS-28-3	0.288	0.269	0.270	0.260	0.275	0.275	0.280	0.262	0.274	0.280	0.275	0.280	0.256	0.248	0.296
PGMS-28-4	0.301	0.269	0.280	0.259	0.275	0.274	0.274	0.261	0.279	0.280	0.277	0.288	0.254	0.261	0.295
PGMS-28-5	0.295	0.277	0.260	0.262	0.273	0.273	0.275	0.268	0.277	0.280	0.278	0.284	0.257	0.266	0.292
PGMS-28-6	0.290	0.266	0.270	0.267	0.273	0.279	0.281	0.270	0.272	0.280	0.287	0.280	0.261	0.264	0.302
PGMS-28-7	0.293	0.271	0.280	0.267	0.277	0.276	0.279	0.263	0.275	0.280	0.278	0.287	0.263	0.254	0.301
PGMS-28-8	0.290	0.275	0.270	0.270	0.276	0.275	0.277	0.266	0.275	0.280	0.278	0.284	0.255	0.264	0.299
PGMS-28-9	0.290	0.274	0.280	0.270	0.276	0.272	0.268	0.266	0.271	0.280	0.281	0.281	0.254	0.260	0.294
PGMS-28-10	0.283	0.271	0.270	0.263	0.279	0.273	0.284	0.265	0.284	0.290	0.286	0.276	0.255	0.261	0.307
Mean	0.287	0.269	0.272	0.264	0.273	0.272	0.276	0.265	0.274	0.279	0.279	0.279	0.257	0.258	0.298
Std. Dev'n	0.0103	0.0070	0.0063	0.0042	0.0067	0.0060	0.0058	0.0034	0.0069	0.0074	0.0043	0.0100	0.0038	0.0064	0.0053
%RSD	3.58	2.62	2.33	1.58	2.45	2.20	2.11	1.26	2.51	2.64	1.53	3.59	1.48	2.49	1.76

Notes: **Cu data from Labs 1 & 2 was excluded for failing the t test.**
Ni data from Lab 15 was excluded for failing the t test.

REFERENCE MATERIAL: CDN-PGMS-28

Participating Laboratories:

(not in same order as listed in table of results)

Bureau Veritas Ltd., Vancouver, British Columbia, Canada
Activation Laboratories Ltd., Ancaster, Ontario, Canada
Activation Laboratories Ltd., Thunder Bay, Ontario, Canada
AGAT, Mississauga, Ontario
Argetest, Ankara, Turkey
ALS Canada, North Vancouver, British Columbia, Canada
ALS, Loughrea, Ireland
American Assay Laboratories, Nevada, USA
Certimin, Peru
Labtium, Finland
Met-Solve Analytical, Langley, British Columbia, Canada
SGS, Lima, Peru
SGS, Vancouver, B.C., Canada
Skyline Assayers & Laboratories, Arizona, USA
TSL Laboratories, Saskatoon, SK, Canada
Ultra Trace Analytical Laboratories, Perth, Australia

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This certificate and the reference material described in it have been prepared with due care and attention. However CDN Resource Laboratories Ltd. or Barry Smee accept no liability for any decisions or actions taken following the use of the reference material. Our liability is limited solely to the cost of the reference material.

Certified by Duncan Sanderson

Duncan Sanderson, Certified Assayer of B.C.

Geochemist BW Smee

Barry Smee, Ph.D., P. Geo.

APPENDIX 6 – MDI Occurrences, Prospects and ODHD Drill Holes, Crawford Township, Ontario
[13 pages]

Names	Classification	MDI Identification
INCO DDH 27005	Mineral Occurrence	MDI42A14SW00031
RIO ALGOM DDH JC-90-2	Discretionary Mineral Occurrence	MDI42A14SW00033
INCO DDH 27017, ANOMALY 4-249	Mineral Occurrence	MDI42A14NW00023
INCO DDH 25029	Mineral Occurrence	MDI42A14SW00028
INCO DDH 25037, ANOMALY 4-153	Mineral Occurrence	MDI42A14SW00029
KEEVIL DDH T65-28, ANOMALY 9	Discretionary Mineral Occurrence	MDI42A14SW00014
INCO 27095, ANOMALY 4-89	Mineral Occurrence	MDI42A14SW00032
INCO DDH 25049, ANOMALY 4-11B	Mineral Occurrence	MDI42A14SW00027
INCO DDH 27023, Anomaly 25	Mineral Occurrence	MDI42A14SW00030
MCINTYRE DDH 904-73-4, ANOMALY 3N	Mineral Occurrence	MDI42A05NE00111

Names	Point Location	Datum	UTM Zone	UTM EAST
INCO DDH 27005	Drill collar on S 1/2, lot 4 concession 3	NAD83	17N	472182.65
RIO ALGOM DDH JC-90-2	Drill collar on L22E/13+75N, S1/2 lot 8 con 1	NAD83	17N	469357.45
INCO DDH 27017, ANOMALY 4-249	Drill collar in N1/2, lot 4, concession 6	NAD83	17N	472437.97
INCO DDH 25029	Drill collar in N 1/2, lot 6, concession 4	NAD83	17N	470957.75
INCO DDH 25037, ANOMALY 4-153	Drill collar in N1/2, lot 1 concession 4	NAD83	17N	474687.81
KEEVIL DDH T65-28, ANOMALY 9	Drill hole in SW 1/4, S 1/2 lot 6 concession 6 on former claim P69957	NAD83	17N	470897.88
INCO 27095, ANOMALY 4-89	Drill hole collar	NAD83	17N	473397.66
INCO DDH 25049, ANOMALY 4-11B	Drill collar in north 1/2, lot 9, concession 4	NAD83	17N	469107.73
INCO DDH 27023, Anomaly 25	Drill collar on NE 1/4, lot 1 concession 4	NAD83	17N	475247.78
MCINTYRE DDH 904-73-4, ANOMALY 3N	Drill collar in north half of lot 7, concession 6 in Crawford Tp	NAD83	17N	470567.92

Names	UTM NORTH	Mining Division	Name	Primary Commodity	Secondary Commodity
INCO DDH 27005	5409053.68	Porcupine (Timmins)	INCO DDH 27005	NICKEL, COPPER	
RIO ALGOM DDH JC-90-2	5405758.47	Porcupine (Timmins)	RIO ALGOM DDH JC-90-2	ZINC	
INCO DDH 27017, ANOMALY 4-249	5414509.04	Porcupine (Timmins)	INCO DDH 27017	ZINC	SILVER
INCO DDH 25029	5411118.79	Porcupine (Timmins)	INCO DDH 25029	COPPER	NICKEL
INCO DDH 25037, ANOMALY 4-153	5411068.86	Porcupine (Timmins)	INCO DDH 25037	COPPER	ZINC, NICKEL
KEEVIL DDH T65-28, ANOMALY 9	5413378.94	Porcupine (Timmins)	KEEVIL DDH T65-28	ZINC	SILVER, COPPER
INCO 27095, ANOMALY 4-89	5409008.71	Porcupine (Timmins)	INCO 27095	NICKEL	COPPER
INCO DDH 25049, ANOMALY 4-11B	5411308.77	Porcupine (Timmins)	INCO DDH 25049	ZINC	
INCO DDH 27023, Anomaly 25	5410338.83	Porcupine (Timmins)	INCO DDH 27023	COPPER, NICKEL	SILVER, GOLD, ZINC
MCINTYRE DDH 904-73-4, ANOMALY 3N	5414168.99	Porcupine (Timmins)	MCINTYRE DDH 904-73-4	NICKEL	COPPER

Names	Details - Website Link
INCO DDH 27005	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14SW00031.html
RIO ALGOM DDH JC-90-2	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14SW00033.html
INCO DDH 27017, ANOMALY 4-249	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14NW00023.html
INCO DDH 25029	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14SW00028.html
INCO DDH 25037, ANOMALY 4-153	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14SW00029.html
KEEVIL DDH T65-28, ANOMALY 9	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14SW00014.html
INCO 27095, ANOMALY 4-89	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14SW00032.html
INCO DDH 25049, ANOMALY 4-11B	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14SW00027.html
INCO DDH 27023, Anomaly 25	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A14SW00030.html
MCINTYRE DDH 904-73-4, ANOMALY 3N	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/mdi/data/records/MDI42A05NE00111.html

Year	Drill Hole	MNDM Hole	AFRI ID	Type	NTS	Datum	Zone	UTM East	UTM North	Dip	Az	Length (m)
1965	T65-28	45134	42A14SW0036	DDH	42A14SW	NAD27	17	470972.71	5413011.8	-48	15	121.95
1964	25042	45031	42A14SW0026	DDH	42A14SW	NAD27	17	474057.7	5410218.53	-90	0	10.67
1964	25021	45025	42A14SW0026	DDH	42A14SW	NAD27	17	475149.69	5412287.77	-55	360	131.1
1964	25066	45043	42A14SW0026	DDH	42A14SW	NAD27	17	466397.97	5410913.8	-55	360	149.09
1965	27017	45050	42A14SW0026	DDH	42A14NW	NAD27	17	472566.44	5414135.26	-50	360	187.8
1972	G-3	45070	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470469.99	5408774	-90	0	42.68
1972	H-2	45076	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471925.41	5407616.85	-90	0	60.98
1972	H-4	45078	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	472144.96	5407287.33	-90	0	46.95
1973	904-73-6	45084	42A14SW0026	DDH	42A14SW	NAD27	17	468575.14	5409040.72	-50	43	210.06
1972	4	45096	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471047.21	5413121.78	-90	0	11.59
1972	10	45102	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470950.4	5412831.25	-90	0	0
1972	17	45109	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470368.01	5412685.88	-90	0	22.56
1972	22	45114	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470245.24	5412517.22	-90	0	0
1973	904-73-27	45092	42A14SW0026	DDH	42A14NW	NAD27	17	470661.02	5414007.95	-50	360	163.41
1972	G-7	45074	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470914.48	5409138.54	-90	0	28.96
1973	904-73-3	45081	42A14SW0026	DDH	42A14NW	NAD27	17	470717.87	5413742.26	-50	360	163.72
1972	7	45099	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471090.79	5413033.6	-90	0	0
1964	25049	45032	42A14SW0026	DDH	42A14SW	NAD27	17	468892.98	5410779.82	-55	360	253.35
1964	25056	45039	42A14SW0026	DDH	42A14SW	NAD27	17	468662.38	5410613.52	-55	360	140.85
1972	23	45115	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470271.79	5412480.4	-90	0	25.61
1997	BH 87601	205490	42A14SW0053	DDH	42A14SW	NAD27	17	471299.25	5408060	-50	20	178
1972	H-5	45079	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	472148.57	5407123.06	-90	0	54.88
1971	904-71-1	45080	42A14SW0026	DDH	42A14SW	NAD27	17	473388.29	5407665.65	-60	360	198.17
1973	904-73-4	45082	42A14SW0026	DDH	42A14NW	NAD27	17	470589.97	5413903.99	-50	360	134.45
1965	27045	45056	42A14SW0026	DDH	42A14SW	NAD27	17	475349.33	5410357.66	-50	360	214.33
1972	F-2	45066	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	469641.05	5409435.89	-90	0	39.02
1972	F-3	45067	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	469643.53	5409436.14	-90	0	40.55
1972	G-1	45068	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470232.5	5408602.73	-90	0	33.54
1972	G-2	45069	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470349.02	5408680.25	-90	0	39.33
1972	G-4	45071	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470572.66	5408827.23	-90	0	39.94
1972	G-5	45072	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470711.35	5408970.23	-90	0	54.88
1972	G-6	45073	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470859.08	5409044.49	-90	0	35.37
1972	H-1	45075	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471846.6	5407725.89	-90	0	60.98
1965	27057	45057	42A14SW0026	DDH	42A14SW	NAD27	17	474726.3	5409200.79	-55	360	160.37
1965	27064	45058	42A14SW0026	DDH	42A14SW	NAD27	17	475227.9	5409356.47	-45	360	603.05
1965	27066	45059	42A14SW0026	DDH	42A14SW	NAD27	17	470282.05	5406763.87	-55	360	185.37
1966	27078	45060	42A14SW0026	DDH	42A14SW	NAD27	17	475072.24	5412151.98	-50	360	193.9
1966	27084	45061	42A14SW0026	DDH	42A14SW	NAD27	17	475314.02	5407863.44	-55	360	148.17
1966	27085	45062	42A14SW0026	DDH	42A14SW	NAD27	17	474807.01	5407482.95	-55	360	203.35
1966	27086	45063	42A14SW0026	DDH	42A14SW	NAD27	17	473579.41	5409013.76	-45	180	384.15

Year	Drill Hole	Company	OB (m)	Elements
1965	T65-28	Keevil Mining Group	18.29	
1964	25042	Intl Nickel Co Of Canada Ltd	0	
1964	25021	Intl Nickel Co Of Canada Ltd	34.15	Presence Of Copper: At Least 0.1%
1964	25066	Intl Nickel Co Of Canada Ltd	64.94	
1965	27017	Intl Nickel Co Of Canada Ltd	23.78	Presence Of Zinc: At Least 0.25%
1972	G-3	Mcintyre Porcupine Mines Ltd	39.94	
1972	H-2	Mcintyre Porcupine Mines Ltd	59.45	
1972	H-4	Mcintyre Porcupine Mines Ltd	45.12	Presence Of Copper: At Least 0.1%
1973	904-73-6	Mcintyre Porcupine Mines Ltd	56.4	
1972	4	Mcintyre Porcupine Mines Ltd	11.59	
1972	10	Mcintyre Porcupine Mines Ltd	0	
1972	17	Mcintyre Porcupine Mines Ltd	22.56	
1972	22	Mcintyre Porcupine Mines Ltd	0	
1973	904-73-27	Mcintyre Porcupine Mines Ltd	27.44	Presence Of Nickel: At Least 0.1%
1972	G-7	Mcintyre Porcupine Mines Ltd	25.3	
1973	904-73-3	Mcintyre Porcupine Mines Ltd	60.98	
1972	7	Mcintyre Porcupine Mines Ltd	0	
1964	25049	Intl Nickel Co Of Canada Ltd	48.17	Presence Of Nickel: At Least 0.1%, Presence Of Zinc: At Least 0.25%
1964	25056	Intl Nickel Co Of Canada Ltd	53.05	
1972	23	Mcintyre Porcupine Mines Ltd	25.61	
1997	BH 87601	Inco Expl	62	
1972	H-5	Mcintyre Porcupine Mines Ltd	53.35	
1971	904-71-1	Mcintyre Porcupine Mines Ltd	43.75	
1973	904-73-4	Mcintyre Porcupine Mines Ltd	60.98	Presence Of Copper: At Least 0.1%, Presence Of Nickel: At Least 0.1%
1965	27045	Intl Nickel Co Of Canada Ltd	20.73	
1972	F-2	Mcintyre Porcupine Mines Ltd	37.5	
1972	F-3	Mcintyre Porcupine Mines Ltd	38.41	
1972	G-1	Mcintyre Porcupine Mines Ltd	31.25	
1972	G-2	Mcintyre Porcupine Mines Ltd	36.89	
1972	G-4	Mcintyre Porcupine Mines Ltd	37.2	
1972	G-5	Mcintyre Porcupine Mines Ltd	51.83	
1972	G-6	Mcintyre Porcupine Mines Ltd	33.54	
1972	H-1	Mcintyre Porcupine Mines Ltd	59.45	
1965	27057	Intl Nickel Co Of Canada Ltd	54.27	
1965	27064	Intl Nickel Co Of Canada Ltd	85.06	Presence Of Nickel: At Least 0.1%
1965	27066	Intl Nickel Co Of Canada Ltd	62.8	
1966	27078	Intl Nickel Co Of Canada Ltd	48.17	
1966	27084	Intl Nickel Co Of Canada Ltd	39.02	
1966	27085	Intl Nickel Co Of Canada Ltd	39.02	
1966	27086	Intl Nickel Co Of Canada Ltd	49.39	Presence Of Nickel: At Least 0.1%

Year	Drill Hole	MNDM Link
1965	T65-28	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0036.html
1964	25042	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25021	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25066	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27017	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	G-3	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	H-2	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	H-4	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	904-73-6	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	4	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	10	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	17	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	22	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	904-73-27	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	G-7	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	904-73-3	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	7	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25049	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25056	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	23	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1997	BH 87601	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0053.html
1972	H-5	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1971	904-71-1	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	904-73-4	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27045	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	F-2	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	F-3	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	G-1	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	G-2	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	G-4	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	G-5	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	G-6	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	H-1	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27057	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27064	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27066	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1966	27078	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1966	27084	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1966	27085	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1966	27086	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html

Year	Drill Hole	MNDM Hole	AFRI ID	Type	NTS	Datum	Zone	UTM East	UTM North	Dip	Az	Length (m)
1966	27095	45064	42A14SW0026	DDH	42A14SW	NAD27	17	473376.57	5408773	-45	180	273.48
1972	F-1	45065	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	469642.44	5409437.97	-90	0	35.67
1973	904-73-5	45083	42A14SW0026	DDH	42A14NW	NAD27	17	470681	5413872.34	-60	180	208.23
1973	904-73-8	45086	42A14SW0026	DDH	42A14SW	NAD27	17	474676.29	5410537.53	-50	360	278.05
1973	904-73-9	45087	42A14SW0026	DDH	42A14SW	NAD27	17	475047.89	5410807.48	-50	360	196.34
1973	904-73-11	45088	42A14SW0026	DDH	42A14SW	NAD27	17	475048.45	5410807.19	-90	0	162.5
1972	H-3	45077	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	472040.15	5407443.95	-90	0	51.83
1973	5-73-1	45135	42A14SW0036	DDH	42A14SW	NAD27	17	470904.45	5413113.83	0	360	0
1965	T65-21	45139	42A14SW0043	DDH	42A14SW	NAD27	17	468813.58	5407000.95	-50	225	153.05
1965	T65-24	45140	42A14SW0043	DDH	42A14SW	NAD27	17	468882.91	5407157.1	-50	225	155.79
1972	25	45117	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470323.6	5412404.08	-90	0	0
1972	26	45118	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470352.99	5412362.35	-90	0	0
1964	26629	45122	42A14SW0044	DDH	42A14SW	NAD27	17	471096.12	5408419.8	-55	360	149.7
1972	1	45093	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471058.69	5413157.05	-90	0	7.7
1972	2	45094	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471040.83	5413140.94	-90	0	7.07
1972	3	45095	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471065.47	5413136.94	-90	0	12.5
1972	5	45097	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471070.49	5413117.62	-90	0	0
1972	6	45098	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471079.7	5413073.37	-90	0	0
1972	8	45100	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471102.23	5412992.08	-90	0	0
1972	9	45101	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	471111.46	5412950.98	-90	0	9.76
1972	11	45103	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470867.28	5412813	-90	0	0
1972	12	45104	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470783.66	5412791.74	-90	0	0
1972	13	45105	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470702.36	5412769.56	-90	0	13.11
1972	14	45106	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470623.64	5412731.67	-90	0	11.13
1972	15	45107	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470534.63	5412728.41	-90	0	12.96
1972	16	45108	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470451.08	5412706.13	-90	0	16.46
1972	18	45110	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470283.52	5412666.07	-90	0	18.9
1972	19	45111	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470202.67	5412645.31	-90	0	14.94
1972	20	45112	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470192.16	5412592.28	-90	0	18.14
1972	21	45113	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470219.68	5412554.29	-90	0	23.78
1972	24	45116	42A14SW0026	RC (Sonic)	42A14SW	NAD27	17	470297.07	5412443.01	-90	0	0
1982	AB-82-03	44955	42A14SW0042	DDH	42A14SW	NAD27	17	469366.44	5409357.99	-55	190	106.1
1966	29173	44965	42A14SW0038	DDH	42A14SW	NAD27	17	472577.92	5411501.78	-45	180	364.33
1965	26636	44969	42A14SW0040	DDH	42A14SW	NAD27	17	472537.02	5409306.69	-45	360	43.9
1965	26637	44970	42A14SW0040	DDH	42A14SW	NAD27	17	472537.65	5409306.69	-45	360	474.7
1964	25041	45030	42A14SW0026	DDH	42A14SW	NAD27	17	471084.43	5410853.67	-90	0	6.1
1964	25050	45033	42A14SW0026	DDH	42A14SW	NAD27	17	473268.72	5408681.07	-55	360	502.44
1964	25051	45034	42A14SW0026	DDH	42A14SW	NAD27	17	474602.53	5408368.86	-55	360	143.29
1964	25053	45036	42A14SW0026	DDH	42A14SW	NAD27	17	474340.12	5408751.05	-55	360	128.66
1964	25054	45037	42A14SW0026	DDH	42A14SW	NAD27	17	468857.29	5410490.2	-55	360	95.12

Year	Drill Hole	Company	OB (m)	Elements
1966	27095	Intl Nickel Co Of Canada Ltd	37.2	Presence Of Nickel: At Least 0.1%
1972	F-1	Mcintyre Porcupine Mines Ltd	33.84	
1973	904-73-5	Mcintyre Porcupine Mines Ltd	97.56	
1973	904-73-8	Mcintyre Porcupine Mines Ltd	25.61	
1973	904-73-9	Mcintyre Porcupine Mines Ltd	6.1	Presence Of Nickel: At Least 0.1%
1973	904-73-11	Mcintyre Porcupine Mines Ltd	9.15	Presence Of Copper: At Least 0.1%
1972	H-3	Mcintyre Porcupine Mines Ltd	48.78	
1973	5-73-1	Keevil Mining Group	0	
1965	T65-21	Keevil Mining Grp Ltd	23.17	
1965	T65-24	Keevil Mining Grp Ltd	29.27	
1972	25	Mcintyre Porcupine Mines Ltd	0	
1972	26	Mcintyre Porcupine Mines Ltd	0	
1964	26629	Intl Nickel Co Of Canada Ltd	73.78	
1972	1	Mcintyre Porcupine Mines Ltd	7.7	
1972	2	Mcintyre Porcupine Mines Ltd	7.07	
1972	3	Mcintyre Porcupine Mines Ltd	12.5	
1972	5	Mcintyre Porcupine Mines Ltd	0	
1972	6	Mcintyre Porcupine Mines Ltd	0	
1972	8	Mcintyre Porcupine Mines Ltd	0	
1972	9	Mcintyre Porcupine Mines Ltd	0	
1972	11	Mcintyre Porcupine Mines Ltd	0	
1972	12	Mcintyre Porcupine Mines Ltd	0	
1972	13	Mcintyre Porcupine Mines Ltd	13.11	
1972	14	Mcintyre Porcupine Mines Ltd	11.13	
1972	15	Mcintyre Porcupine Mines Ltd	12.96	
1972	16	Mcintyre Porcupine Mines Ltd	16.46	
1972	18	Mcintyre Porcupine Mines Ltd	18.9	
1972	19	Mcintyre Porcupine Mines Ltd	14.94	
1972	20	Mcintyre Porcupine Mines Ltd	18.14	
1972	21	Mcintyre Porcupine Mines Ltd	23.78	
1972	24	Mcintyre Porcupine Mines Ltd	0	
1982	AB-82-03	Home Oil Co Ltd	61.89	
1966	29173	International Nickel Co Canada Ltd	68.9	
1965	26636	International Nickel Co Of Canada Ltd	0	
1965	26637	International Nickel Co Of Canada Ltd	61.89	
1964	25041	Intl Nickel Co Of Canada Ltd	0	
1964	25050	Intl Nickel Co Of Canada Ltd	34.76	Presence Of Copper: At Least 0.1%, Presence Of Nickel: At Least 0.1%
1964	25051	Intl Nickel Co Of Canada Ltd	42.68	
1964	25053	Intl Nickel Co Of Canada Ltd	62.2	
1964	25054	Intl Nickel Co Of Canada Ltd	53.96	

Year	Drill Hole	MNDM Link
1966	27095	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	F-1	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	904-73-5	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	904-73-8	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	904-73-9	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	904-73-11	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	H-3	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	5-73-1	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0036.html
1965	T65-21	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0043.html
1965	T65-24	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0043.html
1972	25	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	26	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	26629	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0044.html
1972	1	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	2	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	3	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	5	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	6	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	8	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	9	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	11	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	12	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	13	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	14	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	15	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	16	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	18	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	19	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	20	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	21	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1972	24	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1982	AB-82-03	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0042.html
1966	29173	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0038.html
1965	26636	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0040.html
1965	26637	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0040.html
1964	25041	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25050	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25051	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25053	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25054	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html

Year	Drill Hole	MNDM Hole	AFRI ID	Type	NTS	Datum	Zone	UTM East	UTM North	Dip	Az	Length (m)
1964	25055	45038	42A14SW0026	DDH	42A14SW	NAD27	17	474415.23	5407035.73	-50	360	132.32
1964	25057	45040	42A14SW0026	DDH	42A14SW	NAD27	17	468373.47	5408916.75	-55	90	209.45
1964	25058	45041	42A14SW0026	DDH	42A14SW	NAD27	17	468607.01	5410525.09	-60	360	139.63
1964	25029	45026	42A14SW0026	DDH	42A14SW	NAD27	17	470749.41	5410813.6	-55	360	113.72
1964	25037	45027	42A14SW0026	DDH	42A14SW	NAD27	17	474716.78	5410918.93	-45	360	203.05
1964	25038	45028	42A14SW0026	DDH	42A14SW	NAD27	17	475030.62	5410584.6	-40	360	101.22
1964	25039	45029	42A14SW0026	DDH	42A14SW	NAD27	17	475071.22	5411931.53	-55	360	151.22
1973	005-73-1	45217	42A14SW0047	DDH	42A14SW	NAD27	17	470869.83	5413046.57	-45	360	107.01
1965	27031	45052	42A14SW0026	DDH	42A14SW	NAD27	17	474668.66	5409969.86	-50	360	140.85
1965	27034	45053	42A14SW0026	DDH	42A14SW	NAD27	17	474570.15	5410140.19	-55	360	205.79
1965	27038	45054	42A14SW0026	DDH	42A14SW	NAD27	17	473945.54	5410134.68	-55	360	181.4
1965	27041	45055	42A14SW0026	DDH	42A14SW	NAD27	17	475025.49	5412844.81	-55	360	132.93
1964	25059	45042	42A14SW0026	DDH	42A14SW	NAD27	17	466893.69	5410207.66	-55	360	142.07
1964	25067	45044	42A14SW0026	DDH	42A14SW	NAD27	17	466683.01	5411372.14	-55	360	224.39
1964	25074	45047	42A14SW0026	DDH	42A14SW	NAD27	17	474520.86	5405708.1	-50	360	90.24
1965	27005	45048	42A14SW0026	DDH	42A14SW	NAD27	17	472358.12	5408808.33	-45	142	246.04
1965	27012	45049	42A14SW0026	DDH	42A14SW	NAD27	17	469089.97	5405585.91	-55	180	176.83
1965	27023	45051	42A14SW0026	DDH	42A14SW	NAD27	17	475128.5	5410547.92	-45	360	220.73

Year	Drill Hole	Company	OB (m)	Elements
1964	25055	Intl Nickel Co Of Canada Ltd	49.7	
1964	25057	Intl Nickel Co Of Canada Ltd	68.9	
1964	25058	Intl Nickel Co Of Canada Ltd	47.56	
1964	25029	Intl Nickel Co Of Canada Ltd	55.49	Presence Of Copper: At Least 0.1%, Presence Of Nickel: At Least 0.1%
1964	25037	Intl Nickel Co Of Canada Ltd	6.1	Presence Of Copper: At Least 0.1%
1964	25038	Intl Nickel Co Of Canada Ltd	15.55	
1964	25039	Intl Nickel Co Of Canada Ltd	56.71	
1973	005-73-1	Mcintyre Porcupine Mines	14.02	
1965	27031	Intl Nickel Co Of Canada Ltd	77.44	
1965	27034	Intl Nickel Co Of Canada Ltd	56.71	
1965	27038	Intl Nickel Co Of Canada Ltd	51.52	
1965	27041	Intl Nickel Co Of Canada Ltd	40.24	
1964	25059	Intl Nickel Co Of Canada Ltd	83.54	
1964	25067	Intl Nickel Co Of Canada Ltd	60.98	Presence Of Copper: At Least 0.1%, Presence Of Nickel: At Least 0.1%
1964	25074	Intl Nickel Co Of Canada Ltd	47.56	
1965	27005	Intl Nickel Co Of Canada Ltd	63.41	Presence Of Copper: At Least 0.1%, Presence Of Nickel: At Least 0.1%
1965	27012	Intl Nickel Co Of Canada Ltd	56.1	
1965	27023	Intl Nickel Co Of Canada Ltd	8.23	Presence Of Nickel: At Least 0.1%, Presence Of Zinc: At Least 0.25%

Year	Drill Hole	MNDM Link
1964	25055	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25057	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25058	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25029	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25037	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25038	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25039	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1973	005-73-1	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0047.html
1965	27031	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27034	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27038	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27041	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25059	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25067	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1964	25074	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27005	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27012	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html
1965	27023	http://www.geologyontario.mndm.gov.on.ca/mndmfiles/drillhole/data/records/DrillHoleSummary_42A14SW0026.html