



**P&E MINING
CONSULTANTS INC.**

Geologists and Mining Engineers

201 County Court Blvd., Suite 304
Brampton, Ontario
L6W 4L2

Tel: 905-595-0575
Fax: 905-595-0578
www.peconsulting.ca

**TECHNICAL REPORT,
AND UPDATED MINERAL RESOURCE ESTIMATE
OF THE
LITTLE DEER COMPLEX COPPER DEPOSITS,
NEWFOUNDLAND, CANADA**

**LONGITUDE 56° 02'29" W AND LATITUDE 49° 33'55" N
UTM NAD83 ZONE 21N 569,330 m E AND 5,490,725 m N**

FOR

**RAMBLER METALS AND MINING CANADA LIMITED
AND 1948565 ONTARIO INC.**

**NI 43-101 & 43-101F1
TECHNICAL REPORT**

**William Stone, P.Geo., P&E Mining Consultants Inc.
Fred Brown, P.Geo., P&E Mining Consultants Inc.
Jarita Barry, P.Geo., P&E Mining Consultants Inc.
D. Grant Feasby, P.Eng., P&E Mining Consultants Inc.
Eugene Puritch, P.Eng., FEC, CET, P&E Mining Consultants Inc.
Timothy Froude, P.Geo., Independent Consultant**

**Prepared by:
P&E Mining Consultants Inc.
Report 401**

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IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 Technical Report, in accordance with Form 43-101F1, for Rambler Metals and Mines Canada Limited and 1948565 Ontario Inc. (“Rambler”) by P&E Mining Consultants Inc. (“P&E”). The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in P&E’s services and based on:

- i) information available at the time of preparation;
- ii) data supplied by outside sources; and
- iii) the assumptions, conditions, and qualifications set forth in this Technical Report, which is intended to be used by Rambler, subject to the terms and conditions of its contract with P&E. This contract permits Rambler to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects. Any other use of this Technical Report by any third party is at that party’s sole risk.

1.0 SUMMARY

This Technical Report was prepared to provide a National Instrument 43-101 (“NI 43-101”) compliant Technical Report and Updated Mineral Resource Estimate of the copper mineralization in the Little Deer Copper Complex (“Complex”), Newfoundland and Labrador (Canada). The Little Deer Complex is owned 100% by Rambler Metals and Mining PLC (“Rambler”), a Surrey (U.K.) based junior mining company. P&E Mining Consultants Inc. (“P&E”) prepared this Technical Report for Rambler Metals & Mining Canada Limited and 1948565 ONTARIO INC.

1.1 PROPERTY DESCRIPTION AND LAND TENURE

The Little Deer Complex Property (“Property”) is located approximately 10 km north of the town of Springdale, in north-central Newfoundland. The centre of the Property is located approximately at 569,330 m E and 5,490,725 m N UTM (NAD 83, Zone 21N) grid coordinates which is at approximately 56°02’29” West longitude and 49°33’55” North latitude.

The Property comprises two (2) mineral licenses containing a total of 162 staked claims covering an area of approximately 4,039.7 ha. Surface rights are not part of the land holdings and the claim boundaries of all the map-staked claims are currently established by geographic (UTM grid) reference. The claims have not been surveyed.

Mineral License No. 010215M is owned 50% by Rambler Metals and Mining Canada Limited and 50% by 1948565 Ontario Inc., a wholly owned subsidiary of Rambler, and covers the Little Deer Deposit. Mineral License No. 027468M owned 100% by Rambler Metals and Mining Canada Limited and covers the Whalesback Deposit. As of the effective date of this Technical Report, both of the Little Deer Complex mineral licenses are in good standing.

From 2013 to 2016, the Little Deer Complex Property was held 50% by Rambler Metals and Mining Canada Limited and 50% by Thundermin Resources Inc. (“Thundermin”). Rambler acquired complete ownership of the assets following a merger with Thundermin. In a press release dated January 13, 2016, Rambler reported that it had closed the acquisition by way of a three-cornered amalgamation under the Business Corporations Act (Ontario) pursuant to which 2496825 Ontario Inc., a wholly owned subsidiary of Rambler, amalgamated with Thundermin.

1.2 ACCESS, INFRASTRUCTURE, PHYSIOGRAPHY

The Property site is easily accessible via a series of gravel roads that extend northwards from paved highway Route 392, which connects Springdale to the small community of Little Bay 20 km to the northeast. Route 392 southwards connects with the Trans-Canada Highway via Route 390 from Springdale.

There are excellent local resources and infrastructure to support exploration and mining activities and personnel are readily available from the Town of Springdale, Newfoundland.

The area is characterized by a series of northeast-trending ridges and valleys, which reflect the underlying geology.

1.3 HISTORICAL EXPLORATION, DEVELOPMENT AND MINING

The Whalesback Deposit was discovered by the Betts Cove Mining Company in 1879. In 1880, the Whalesback Property was sold to the Newfoundland Consolidated Copper Mining Company, which excavated trenches and dug an 18 m deep shaft in the hanging wall of the Whalesback Deposit. However, no mineralization was found and exploration of the Property stopped until 1957, when mining rights were granted to the British Newfoundland Exploration Company (BRINEX).

From 1960 to 1962, exploration programs jointly performed by BRINEX and the Anglo-American Corporation delineated a 2.7 Mt mineral resource at 1.8% copper. The Whalesback Mine commenced production in 1963 and produced 3.8 Mt at 1% Cu over nine years. In July 1972, production at the mine ceased due to a major cave-in that breached the surface and to low copper prices.

The Little Deer copper deposit was initially mined from 1970 to 1972 by British Newfoundland Exploration Limited (“BRINEX”) via a 1,044 m drift on the 244 m (800) level of the Whalesback Mine, located approximately 800 m northeast. Operations at Little Deer ceased in 1972 with the closure of the Whalesback Mine. In 1973, Little Deer was leased by the Green Bay Mining Company Limited (“Green Bay”) and they accessed the shallower portion of the deposit via a 329 m decline from surface. Development and mining were performed between 1973 and 1974, at which time operations ceased due to low copper prices.

In the mid-2000s, increased copper price triggered a new exploration cycle at Whalesback and the adjacent Little Deer Properties by joint venture partners Thundermin Resources Inc. (“Thundermin”) and Cornerstone Capital Resources Inc. (“Cornerstone”). A major drill program was completed in 2010-2011 to support NI 43-101 Mineral Resource Estimates published in 2011 (Little Deer) and 2012 (Whalesback). Since 2011, no major exploration programs have been undertaken.

1.4 GEOLOGY, MINERALIZATION, DEPOSIT TYPE

The Little Deer Complex consists of Cu-rich volcanogenic massive sulphide (“VMS”) deposits in highly deformed rocks within the Newfoundland Appalachians. The deposits formed as Cyprus-type VMS deposits on or near the seafloor by precipitation from hydrothermal fluids at temperatures between 200°C and 350°C in deposits in extensional geodynamic regimes (mid-ocean ridges, back-arc basins, and intra-oceanic rifts). Subsequently, the Little Deer Complex deposits were strongly deformed during the accretion of the composite Lushs Bight oceanic tract-Dashwoods terrane onto the Humber Margin at approximately 480 Ma.

Mineralogically, the Little Deer Complex Deposits consist of chalcopyrite, pyrrhotite, and pyrite with minor sphalerite and trace Ag, Bi, and Hg tellurides. Four styles of sulphide mineralization are present: (1) disseminated (5%); (2) vein (50%); (3) breccia (25%); and (4) semi-massive to massive (20%). Independent of mineralization style, massive pyrite and pyrrhotite (and some chalcopyrite) are commonly parallel to main S2 schistosity in the Little Deer Deposit, whereas late chalcopyrite piercement veins occur at a high angle to S2. Progressive increase in pressure and

temperature produced a remobilization sequence wherein sphalerite was the first sulphide phase to cross the brittle-ductile boundary, followed by pyrrhotite and, finally, chalcopyrite. Maximum temperature was not high enough for the pyrite to cross the brittle-ductile boundary. Instead, pyrite grains were incorporated and transported by pyrrhotite and chalcopyrite during the ductile remobilization events, rounding and fracturing them. Remobilization of the sulphides occurred mainly by plastic flow, but some solution transport and reprecipitation occurred locally.

1.5 EXPLORATION AND DRILLING

In 2014, 50:50 joint venture partners Rambler and Thundermin drilled 3,800 m in four drill holes from surface and two wedge holes on the Little Deer Complex Property. The drill program focused on the higher-grade, eastern portion of the Little Deer Deposit. Its primary purposes were to further upgrade the Inferred Mineral Resources to Indicated Mineral Resources and expand the Mineral Resources in the Little Deer Footwall Zone Splay, prior to undertaking a pre-feasibility study. Since then, no significant exploration programs have been undertaken on the Property.

The 2014 drill hole collar locations and orientations, mineralized intervals, and assay result highlights are presented in Table 10.1. The most notable drill hole intercepts are:

- LD-14-63; 2.9% Cu over 3.4 m from 800.5 m downhole.
- LD-14-65; 3.8% Cu over 2.0 m from 206.5 m downhole.
- LD-14-65; 2.3% Cu over 6.2 m from 635.3 m downhole.

1.6 DATA SECURITY AND VERIFICATION

Previous operators, Thundermin-Cornerstone, implemented and monitored a thorough QAQC program for the drilling undertaken at the Little Deer Property over the 2007-2011 period and also undertook umpire assaying to further confirm the integrity of the Project data. It is the Section 11 Qualified Person's opinion that sample preparation, security and analytical procedures for the Little Deer Project are adequate and that the data is of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report.

The Section 11 Qualified Person also recommends that Rambler continue with the current QC protocol, which includes the insertion of standards and blanks and umpire assaying (on at least 5% of samples) at a reputable secondary laboratory. The addition of duplicate samples in future sampling programs will also aid in the identification of repeatability issues. Quality control data should be monitored closely and any QC failures followed-up with the relevant laboratory immediately.

A P&E independent Qualified Person visited the Property on June 15, 2021 for the purpose of carrying out a site visit and independent verification sampling program. Initially, check sampling was to consist of ¼ splitting of archived drill cores stored at the Whalesback Mine site. However, flooding of the access road to the core storage area prevented examination and sampling of the core, therefore it was decided to take a suite of pulp samples stored at the Rambler Mine site. A total of 24 archived pulp and reject samples were selected from twelve Thundermin-Cornerstone holes for independent verification sampling. Efforts were made to sample a range of grades.

The copper contents of the due diligence samples were determined and checked against the original copper assays in Rambler's database. The Section 12 Qualified Person considers that there is acceptable correlation between the Cu assay values in the Company's database and the independent verification samples collected by P&E and analyzed at AGAT and Eastern Analytical. It is the Section 12 Qualified Person's opinion that the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

1.7 MINERAL PROCESSING AND METALLURGICAL TESTING

A characterization and flotation test program on a composite sample from the Little Deer Deposit was completed by SGS Mineral Services of Lakefield, Ontario ("SGS") for Thundermin in 2010 (Imeson, 2010). A Bond ball mill index of 13.2 kWh/T (14.6 kWh/t) was measured, indicating a material of average hardness. Rougher flotation tests at a grind of 90 µm with a moderately elevated pH of 9–9.5 using lime and isopropyl xanthate as collector, yielded 99% recovery at a concentrate grade of 12% Cu, indicating excellent performance. A regrind size of approximately 30 µm was indicated. Locked cycle testing yielded approximately 97% copper recovery and concentrate grades of 28% Cu. Further work on the recovery of pyrrhotite is recommended to avoid any impact on recovery or concentrate grade.

Based on these data, a conventional process flowsheet was selected, including crushing and grinding to a 90 µm grind at a rate of 1,800 tonnes per day ("tpd"), followed by flotation recovery of copper to a rougher concentrate. The rougher concentrate would be re-ground to -30 µm and cleaned in a three-stage flotation circuit to yield a final concentrate containing copper at a marketable grade. The concentrate would be filtered to an assumed 8% moisture content for shipment. Power requirements for the entire process plant are estimated to be approximately 28 kWh/t.

1.8 MINERAL RESOURCES

Rambler engaged P&E Mining Consultants Inc. ("P&E") as independent Mineral Resource consultants to re-examine the Little Deer and Whalesback deposits and update the Mineral Resource Estimates. Due to the adjacent proximity of the two deposits, together with the underground drift connection between them at 240 Level and shared infrastructure, Rambler combined the two small adjacent properties into the larger Little Deer Complex Property.

The updated Mineral Resource Estimate for the Little Deer Complex is presented in Table 1.1. The updated Indicated Mineral Resource for the Little Deer Complex includes 2.9 million tonnes (Mt) at 2.13% copper ("Cu") containing 135.4 million pounds (Mlb) or 61.4 kilo-tonnes (kt) at 1% Cu cut-off, compared to the previous Indicated Mineral Resource Estimate from 2012 of 2.7 Mt at 2.16% Cu for 129.2 Mlb or 58.6 kt Cu at 1% Cu cut-off. An Inferred Mineral Resource of 6.2 Mt at 1.79% Cu, containing 243.8 Mlb or 110.6 kt (at 1% Cu cut-off), compared to the previous Inferred Mineral Resource Estimate from 2012 of 4.2 Mt at 2.07% Cu for 191.3 Mlb or 86.8 kt Cu at 1% Cu cut-off.

TABLE 1.1
SUMMARY OF LITTLE DEER COMPLEX UPDATED MINERAL RESOURCE ESTIMATE AT
1.0% COPPER CUT-OFF ⁽¹⁻¹⁰⁾

Deposit	Classification	Tonnes (k)	Cu (%)	Ag (g/t)	Au (g/t)	Co (%)	Copper (Mlb)	Copper (kt)
Little Deer	Indicated	2,029	2.33	4.12	0.13	0.03	104.2	47.2
	Inferred	5,882	1.78	2.16	0.05	0.02	230.9	105
Whalesback	Indicated	854	1.67	1.79	0.03	0.01	31.4	14.2
	Inferred	294	1.85	2.32	0.03	0.02	12	5.6
Total Complex	Indicated	2,883	2.13	3.43	0.1	0.02	135.4	61.4
Total	Inferred	6,176	1.79	2.17	0.05	0.02	243.8	110.6

Notes:

- 1) Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- 2) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
- 3) The Mineral Resources in this news release were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions (2014) and adopted by the CIM Council.
- 4) Inverse Distance Squared was used for Cu and Co grade interpolation with Inverse Distance Cubed for Au and Ag.
- 5) Grade capping by domain for Cu on 1.5 m composites was as follows: LD200 = 12%, LD210 = 6%, LD220 = 6%, WB100 = 12% and WB110 = 3%
- 6) A variable bulk density based on numerous field measurements was used for tonnage calculations.
- 7) Domain models were generated with Leapfrog™ software, oriented along the trend of the mineralization and determined by selecting copper grades $\geq 1.0\%$ Cu with demonstrated continuity along strike and down-dip. Grade interpolation was undertaken with GEOVIA GEMS™ software.
- 8) A copper price of US\$3.60/lb (May 31, 2021 Consensus Economics long-term price) and a USD:CDN exchange rate of 0.76 was utilized to derive the 1% Cu cut-off grade. Mining costs were C\$50/t, process costs were C\$22/t and G&A was C\$18/t. Concentrate freight and smelter treatment charges were C\$10/t mined. Concentrate mass pull was 7%, process recovery was 97%, smelter payable was 96%, and Cu refining was US\$0.08/lb.
- 9) All assays were analyzed at Eastern Analytical Limited of Springdale Nfld. A QAQC program of field and lab duplicates, certified standards and blanks was in place.
- 10) The Mineral Resource Estimate is based on a database containing 622 diamond drill holes from surface and underground totalling 132,972 m.

Compared to the previous Indicated Mineral Resource, the updated Indicated Mineral Resource reflects a 6.5% increase in tonnes and a 4.8% increase in contained copper metal, based on a 1% Cu cut-off. Similarly, the updated Inferred Mineral Resource represents a 47.4% increase in tonnes and a 27.5% increase in contained copper metal. The increases are due to: use of smaller block size (2.5 m) in the Y-direction (across dip) reducing modelling dilution; greater scrutiny on vein intercept picks, which reduced sub-marginal assay intercepts; smoother, slightly less conservative wireframes; and use of Inverse Distance Squared grade interpolation instead of Ordinary Kriging.

The 2021 Updated Mineral Resource Estimate is based on modelling of all historical and 2014 diamond drilling results, detailed review of the grade shell boundaries, reducing the horizontal (y-axis) block size from 5.0 m to 2.5 m to improve the capture of vein thickness, and overall smoother wireframe modelling strategy.

1.9 ENVIRONMENT, PERMITTING, AND COMMUNITY AND SOCIAL IMPACTS

Mining and exploration activity had previously occurred on the Whalesback and Little Deer portions of the Little Deer Complex Property. Although the mineral rights at both the Whalesback Mine and Little Deer Mine areas are held by Rambler, the surface rights are held by the Crown. The management and remediation of the Whalesback Mine is currently the responsibility of the Newfoundland and Labrador Department of Industry, Energy and Technology, which has been completing remediation activities.

Some remediation work has been conducted by the Newfoundland and Labrador Department of Industry, Energy and Technology, and included the capping of a ventilation raise, removing the portal/adit infrastructure and backfilling the area in order to mitigate any safety hazards.

An Environmental Assessment (EA) would be required for the Little Deer Complex Property. The EA and permitting process in NL is well established and harmonized with the Federal EA process. Public consultation and a social baseline study would precede the EA process. When the EA is approved, the Project would be issued an Environmental Certificate of Approval and water rights under the Water Resources Act of NL.

In August of 2010, SGS Mineral Services (SGS) of Lakefield, Ontario was commissioned by Thundermin to complete a basic environmental characterization of the tailings produced during scoping level flotation testing of a mineralized composite from the Little Deer Property (described in Section 13). The Little Deer flotation tailings (locked cycle test no. 2 tailings) were found to be potentially acid generating, as confirmed by acid-base accounting (ABA) and Net Acid Generation (NAG) testing. Analyses of the fresh and aged tailings decant solutions reported all controlled parameters at concentrations below the Metal Mining Effluent Regulation (MMER) limits. Also, the aged tailings decant solution was determined to be acutely non-toxic to *Daphnia Magna* and Rainbow Trout.

In addition, the environmental test results also indicate minor environmental concerns for tailings management. However, the presence of pyrrhotite and the measured acid generation potential exceeding neutralization potential by 2:1, suggested the need to include ‘kinetic’ tailings testwork in future investigations. Kinetic tests simulate oxidizing exposure of tailings. The proposed toll process facility has a licensed tailings facility that stores tailings under a water cover, a proven method to manage acid generating tailings.

1.10 CONCLUSIONS AND RECOMMENDATIONS

P&E recommends that Rambler advance the Little Deer Complex with the following Mineral Resource and exploration drilling programs and project development work in the next 12 months to 18 months:

- Infill drilling to continue the conversion of Inferred to Indicated Mineral Resources;
- Delineation drilling to further define the down-dip and along strike extensions of the mineralized zones;
- Exploration drilling to identify close-proximity targets to the mine footprint;
- Borehole EM surveys on selected exploration drill holes;
- Differential GPS surveys of the collar location of all new drill holes;
- Updated Mineral Resource Estimate, following completion of all recommended drill programs;
- Access and mine road improvement work;
- Metallurgical testing on representative samples of the mineralized zone(s), to assess and confirm metal recoveries, reagent usages, process flow sheets, and additional associated operating issues. Mineralized material sorting testwork should also be undertaken;
- Baseline studies on brownfield characteristics and evaluation of reclamation work completed to date; and
- Updated Preliminary Economic Assessment.

P&E's recommended actions and associated preliminary cost estimates are listed in Table 1.2. The estimated drilling costs are "all-in" costs, which include direct drilling costs, salaries and wages, assaying, room and board, vehicle rentals, management fees etc. The total preliminary budget for the recommended activities is \$3.8M (CDN).

TABLE 1.2 RECOMMENDED PROGRAM AND BUDGET FOR EXPLORATION AND PROJECT DEVELOPMENT TO UPDATED PRELIMINARY ECONOMIC ASSESSMENT		
Activity	Planned Metres	Cost (CDN\$)
Resource conversion and delineation drilling	15,000	\$1,875,000
Exploration drilling of nearby targets	10,000	\$1,250,000
BHEM surveying of select holes		\$80,000
Differential GPS surveying all new drill holes		\$5,000
Updated Mineral Resource Estimate		\$50,000
Access and mine site road improvements		\$90,000
Metallurgical testwork studies: mineralized material sorting, additional flotation and concentrate characteristics work		\$90,000
Baseline studies on brownfield characteristics and evaluation of reclamation to date		\$50,000
Updated Preliminary Economic Assessment		\$350,000
Total	25,000	\$3,840,000

2.0 INTRODUCTION

2.1 TERMS OF REFERENCE

This report has been prepared to provide a fully compliant NI 43-101 Technical Report and Mineral Resource Estimate of the existing mineralization at the Little Deer Complex (or the “Complex” or “Property”). This Technical Report was prepared using an Updated Mineral Resource Estimate completed in order to incorporate recent metal pricing. The Mineral Resource Estimate is fully conformable to the “CIM Standards on Mineral Resources and Reserves – Definitions and Guidelines” as referred to in National Instrument (“NI”) 43-101 and Form 43-101F, Standards of Disclosure for Mineral Projects.

This Technical Report was prepared by P&E Mining Consultants Inc. (“P&E”) at the request of Mr. Peter Mercer, P.Geo. Vice President and General Manager of Rambler Metals & Mining Canada Limited (“Rambler”), a Newfoundland and Labrador-based resource company trading on the London-AIM under the stock symbol RMM, and Ontario Numbered Company – 1948565 Ontario Inc. The corporate office of Rambler is located at: Route No. 418, Ming’s Bight Road, NL, A0K 3S0. Rambler is a wholly owned subsidiary of Rambler Metals and Mining PLC, a Surrey (U.K.)-based resource company trading on the London-AIM under the stock symbol RMM, with their corporate office located at: 3 Sheen Road, Richmond upon Thames, Surrey TW9 1AD.

This Technical Report is considered current as of June 15, 2021, the effective date. P&E understands that this Technical Report will support the public disclosure requirements of the Company and will be filed on SEDAR as required under NI 43-101 disclosure regulations.

Rambler has accepted that the qualifications, expertise, experience, competence and professional reputation of P&E’s Principals, Associate Geologists and Engineers are appropriate and relevant for the preparation of this Technical Report. The Company has also accepted that P&E’s Principals are members of professional bodies, which are appropriate and relevant for the preparation of this Technical Report.

2.2 SOURCES OF INFORMATION

This Technical Report is based, in part, on internal company technical reports, maps and technical correspondence, published government reports, press releases and public information as listed in the References (Section 27) of this Technical Report. Several sections from reports authored by other consultants have been directly quoted or summarized in this report and are indicated as such where appropriate.

With regard to certain sections of this Technical Report, the authors have drawn heavily upon selected portions or excerpts from material contained in previous NI 43-101 Technical Reports prepared by P&E and a press release by Cornerstone Capital Resources Inc. (“Cornerstone”) and Thundermin Resources Inc. (“Thundermin”) (previous owners of the Property), as listed below:

- P&E. 2011a. Technical Report and Resource Estimate Update on the Little Deer Copper Deposit Newfoundland, Canada, dated August 5, 2011;

- P&E. 2011b. Technical Report and Preliminary Economic Assessment (PEA) of the Little Deer Copper Deposit, Newfoundland, Canada, dated December 15, 2011; and
- Cornerstone and Thundermin announce significant copper Mineral Resources at the Whalesback Copper Deposit in Newfoundland. Company press release dated July 26, 2012.

P&E has made two site visits to the Little Deer Complex Property. Mr. Eugene Puritch, P.Eng., FEC, CET, a Qualified Person under the regulations of NI 43-101, completed the site visit and independent verification sampling program at the Property on May 16, 2011 (P&E, 2011a). A data verification sampling program was completed on-site (see Section 12 of this Technical Report). The second site visit was made by Mr. Tim Froude, P.Geo., a Qualified Person under the regulations of NI 43-101, on June 15, 2021 and a data verification program completed (see Section 12 of this Technical Report).

In addition to the site visit, P&E has held discussions with technical personnel from Rambler regarding all pertinent aspects of the Property and performed a review of all available literature and documented results concerning the Property. The reader is referred to those data sources, which are outlined in the References, Section 26.0 of this Technical Report, for further detail.

Considerable previous work was performed on the Little Deer Complex Property by Falconbridge Nickel Mines Ltd. in the early 1950s (discovery), BRINEX (exploration and mining) from 1955 to 1972, Green Bay Mining Co. from 1973 to 1974 (mining), Mutapa Gold Corp. from 1998-2000 (exploration), and Thundermin Resources Inc. and Cornerstone Resources Inc. from 2007-2016 (exploration). Rambler acquired the Property in 2016, as a result of merger with Thundermin.

For this Technical Report, principals of P&E or Associates of P&E, reviewed technical documents and prepared an Updated Mineral Resource Estimate on the Little Deer Complex using data supplied by Rambler and past filed Technical Reports. All participants are Qualified Persons.

Table 2.1 presents the authors and co-authors of each section of the Technical Report, who acting as a Qualified Person as defined by NI 43-101, take responsibility for those sections of the Technical Report, as outlined in Section 28 “Certificate of Author” of this Technical Report.

TABLE 2.1		
QUALIFIED PERSONS RESPONSIBLE FOR THIS TECHNICAL REPORT		
Qualified Person	Employer	Sections of Technical Report
Mr. William Stone, Ph.D., P.Geo.	P&E Mining Consultants Inc.	Author 2 to 10, 15 to 24 and Co-author 1, 12, 25, 26
Mr. Fred Brown, P.Geo.	P&E Mining Consultants Inc.	Co-author 1, 14, 25, 26
Ms. Jarita Barry, P.Geo.	P&E Mining Consultants Inc.	Author 11 and Co-author 1, 12, 25, 26
Mr. D. Grant Feasby, P.Eng.	P&E Mining Consultants Inc.	Author 13 and 20 and Co-author 1, 25, 26
Mr. Eugene Puritch, P.Eng., FEC, CET	P&E Mining Consultants Inc.	Co-author 1, 14, 25, 26
Mr. Tim Froude, P.Geo.	Independent Consultant	Co-author 1, 12, 25, 26

2.3 UNITS AND CURRENCY

Unless otherwise stated all units used in this Technical Report are metric. Copper values are reported in pounds per tonne (“lb Cu/t”) unless some other unit is specifically stated. The CDN\$ is used throughout this Technical Report unless otherwise specifically stated. In this Technical Report, the currency exchange rate utilized between the US dollar and the Canadian dollar is 1 US\$ = 1.32 CDN\$ or 1 CDN\$ = 0.76 US\$.

2.4 GLOSSARY AND ABBREVIATION OF TERMS

In this document, the following terms have the meanings set forth below, Table 2.2, unless the context otherwise requires.

TABLE 2.2 TERMINOLOGY AND ABBREVIATIONS (NI 43-101)	
Abbreviation	Meaning
“\$”	dollar(s)
“°”	degree(s)
“°C”	degrees Celsius
<	less than
>	greater than
“%”	percent
“3-D”	three-dimensional
“AAS”	atomic absorption spectrometry
“ABA”	acid-base accounting
“Ag”	silver
“AGAT”	AGAT Laboratory
“ALS”	ALS Minerals, part of ALS Limited
“asl”	above sea level
“Au”	gold
“Az”	azimuth
“BRINEX”	British Newfoundland Exploration Company
“°C”	degree Celsius
“CDN\$”	Canadian Dollar
“CIM”	Canadian Institute of Mining, Metallurgy, and Petroleum
“cm”	centimetre(s)
“Co”	cobalt
“Complex”	Little Deer Copper Complex
“Cornerstone”	Cornerstone Capital Resources Inc.
“CRM” or “standards”	certified reference material
“Cu”	copper
“DDH”	diamond drill hole
“\$M”	dollars, millions
“EA”	Environmental Assessment
“EM”	electromagnetic

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS (NI 43-101)

Abbreviation	Meaning
“ENE”	east-northeast
“Fe”	iron
“ft”	foot
“g”	gram
“g/t”	grams per tonne
“Green Bay”	Green Bay Mining Company Limited
“ha”	hectare(s)
“ID”	identification
“ID ³ ”	inverse distance cubed
“ID ² ”	inverse distance squared
“IP”	induced polarization
“ICP-OES”	Inductively Coupled Plasma Optical Emission Spectroscopy
“ISO”	International Organization for Standardization
“k”	thousand(s)
“kg”	Kilograms(s)
“km”	kilometre(s)
“kW”	kilowatt
“kt”	thousands of tonnes
“lb”	pound (weight)
“level”	mine working level referring to the nominal elevation (m RL), e.g. 4285 level (mine workings at 4285 m RL)
“M”	million(s)
“m”	metre(s)
“m ³ ”	cubic metre(s)
“Ma”	millions of years
“masl”	metres above sea level
“Mlb”	millions of pounds
“mm”	millimetre
“MMER”	Metal Mining Effluent Regulation
“Mt”	mega tonne or million tonnes
“Mutapa”	Mutapa Gold Corp.
“NAD”	North American Datum
“NAG”	Net Acid Generation
“NE”	northeast
“NI”	National Instrument
“NN”	Nearest Neighbour
“NNW”	north-northwest
“NPV”	net present value
“NW”	northwest
“P ₈₀ ”	80% percent passing
“P&E”	P&E Mining Consultants Inc.

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS (NI 43-101)

Abbreviation	Meaning
“Pb”	lead
“PEA”	Preliminary Economic Assessment
“P.Eng.”	Professional Engineer
“P.Geo.”	Professional Geoscientist
“ppb”	parts per billion
“ppm”	parts per million
“Property”	the Little Deer Copper Complex Property that is the subject of this Technical Report
“QAQC” or “QA/QC”	quality assurance/quality control
“QMS”	quality management system
“Rambler”	Rambler Mines & Metals PLC
“RPA”	Scott Wilson Roscoe Postle Associates Inc.
“RQD”	rock quality determination
“S”	sulphur
“SE”	southeast
“SEDAR”	System for Electronic Document Analysis and Retrieval
“SGS”	SGS Mineral Services of Lakefield, Ontario
“standards” or “CRM”	certified reference material
“SW”	southwest
“t”	metric tonne(s)
“T”	short ton(s)
“Technical Report”	this NI 43-101 Technical Report
“Thundermin”	Thundermin Resources Inc.
“t/m ³ ”	tonnes per cubic metre
“tpd”	tonnes per day
“the Company”	Rambler Mines & Metals PLC
“US\$”	United States dollar(s)
“UTM”	Universal Transverse Mercator grid system
“VMS”	volcanogenic massive sulphide
“VTEM”	Versatile Time Domain Electromagnetic
“wmt”	wet metric tonnes
“Zn”	zinc

3.0 RELIANCE ON OTHER EXPERTS

P&E has assumed, and relied on the fact, that all the information and existing technical documents listed in the References (Section 27) of this Technical Report are accurate and complete in all material aspects. Whereas P&E carefully reviewed all the available information presented, P&E cannot guarantee its accuracy and completeness. P&E reserves the right, but will not be obligated, to revise our Technical Report and conclusions if additional information becomes known to P&E subsequent to the effective date of this Technical Report.

The authors have relied largely on the documents listed in the Sources of Information and a site visit related to the previous Technical Report for the information in this Technical Report. However, the conclusions and recommendations are exclusively those of the authors of this Technical Report. The results and opinions outlined in this Technical Report are dependent on the aforementioned information being current, accurate and complete as of the effective date of this Technical Report. It has been assumed that no information has been withheld which would impact the conclusions or recommendations made herein.

On the subject of mineral tenure records, the Section 4 Qualified Person confirmed the status and registration of the mineral tenures via information available through the web page of the Newfoundland and Labrador Geoscience Atlas: <https://www.geoatlas.gov.nl.ca> and the Mineral Rights Inquiry Form. Furthermore, the Mines Branch of the NL Department of Natural Resources records tenure information for all mineral claims in the province. The Qualified Persons of this Technical Report did not rely on experts regarding political, environmental, or tax matters relevant to this Technical Report.

A draft copy of this Technical Report has been reviewed for factual errors by Rambler management. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence, the statement and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the effective date of this Technical Report.

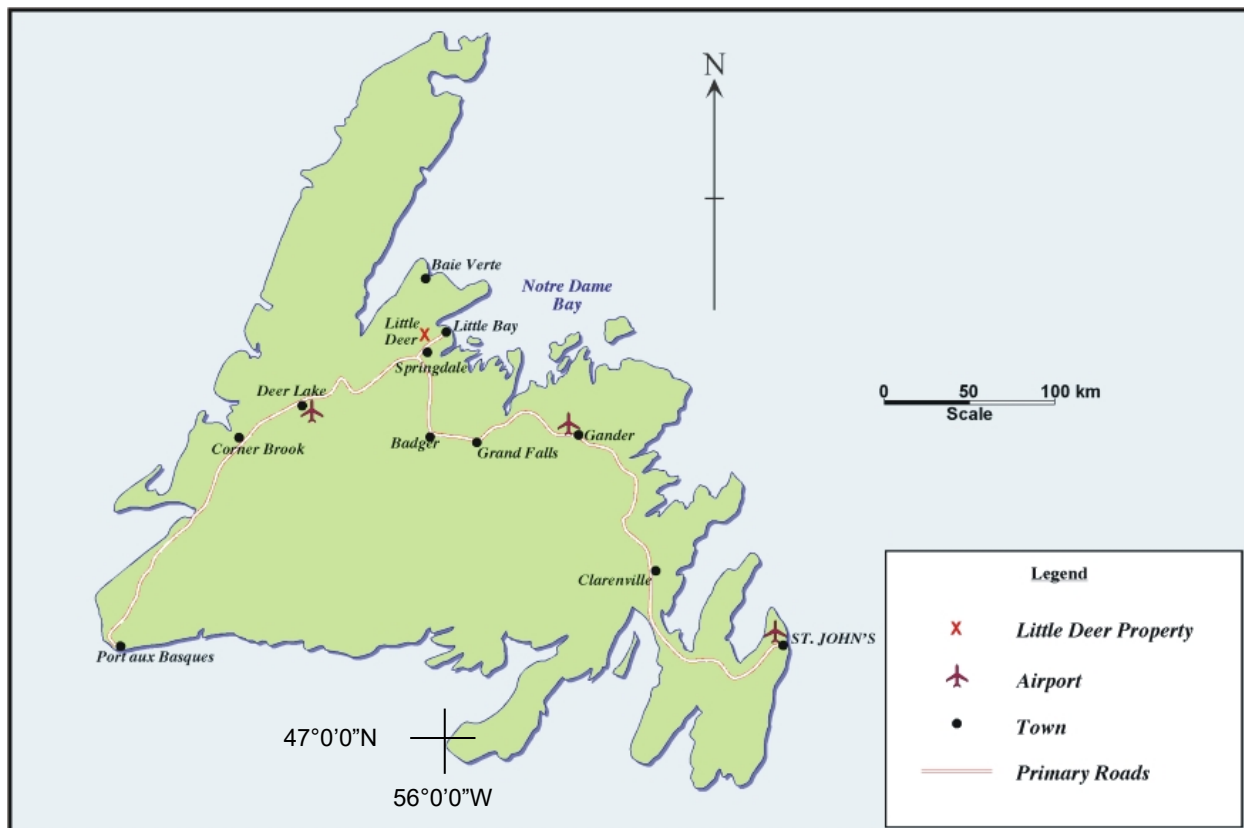
The authors of this Technical Report wish to emphasize that they are Qualified Persons only in respect of the areas in this Technical Report identified in their “Certificates of Qualified Persons” submitted with this Technical Report to the Canadian Securities Administrators.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LITTLE DEER COMPLEX PROPERTY LOCATION

The Little Deer Complex Property is located approximately 10 km north-northeast of the Town of Springdale in north-central Newfoundland (Figure 4.1), at approximate UTM (NAD 83, Zone 21N) grid coordinates 569,330 m E and 5,490,725 m N (approximately 56°02'29" West longitude and 49°33'55" North latitude).

FIGURE 4.1 LOCATION OF THE LITTLE DEER COMPLEX PROPERTY



Source: Pressacco (2009)

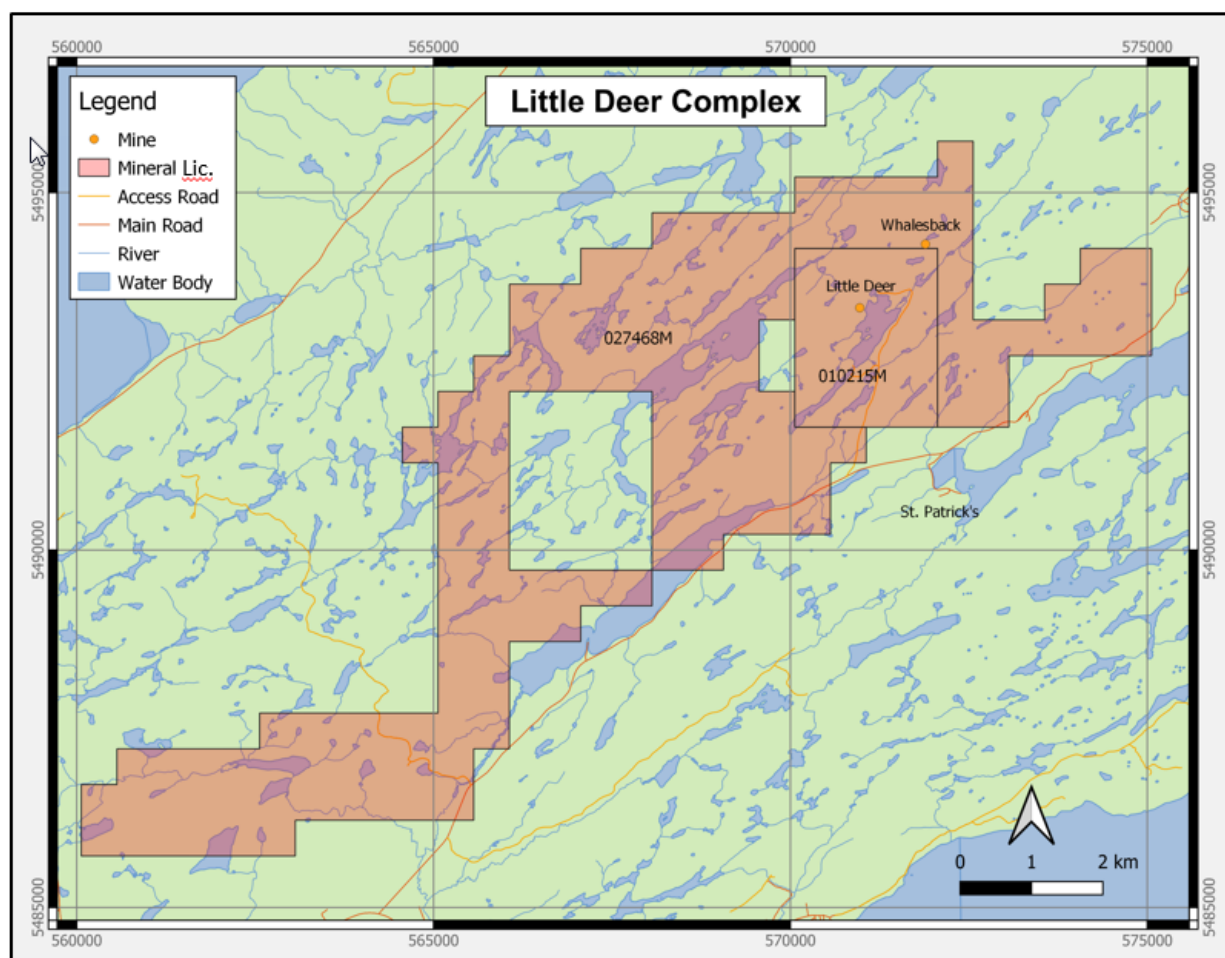
4.2 PROPERTY DESCRIPTION AND TENURE

The Property comprises two mineral licenses containing a total of 162 staked claims covering a total area of approximately 4,039.7 ha (Table 4.1 and Figure 4.2). Surface rights are not part of the land holdings and the claim boundaries of all the map-staked claims are currently established by geographic (UTM grid) reference. The claims have not been surveyed.

<p style="text-align: center;">TABLE 4.1 LITTLE DEER COMPLEX LAND TENURE</p>							
License No.	Holder	Claims	Status	Issue Date	Report Date	Map Sheets	Area (ha)
010215M	Rambler Metals and Mining Canada Limited (50%) and 1948565 Ontario Inc. (50%)	20	Issued	1995/01/09	2022/03/10	12H09	498.7
027468M	Rambler Metals and Mining Canada Limited	142	Issued	2019/11/07	2022/01/06	02E12, 12H09	3,541.0
Total							4,039.7

Note: Land tenure information effective June 15, 2021.

FIGURE 4.2 LAND TENURE MAP OF THE LITTLE DEER - WHALESBACK PROPERTY



Source: Rambler (2021).

Note: Lic. = License.

Mineral License No. 010215M is owned 50% by Rambler Metals and Mining Canada Limited and 50% by 1948565 Ontario Inc. and covers the Little Deer Deposit. Mineral License No. 027468M and is owned 100% by Rambler Metals and Mining Canada Limited and covers the Whalesback Deposit. Both of the Little Deer Complex mineral licenses are in good standing as of the effective date of this Technical Report.

From 2013 to 2016, the Little Deer Complex Property was held 50% by Rambler Metals and Mining Canada Limited and 50% by Thundermin Resources Inc. ("Thundermin"). Rambler completed the acquisition of Thundermin 2016. In a press release dated January 13, 2016, Rambler reported that it had closed the acquisition by way of a three-cornered amalgamation under the Business Corporations Act (Ontario) pursuant to which 2496825 Ontario Inc., a wholly owned subsidiary of Rambler, had amalgamated with Thundermin.

Under the terms of the Amalgamation, shareholders of Thundermin received 0.061261 ordinary shares in the capital of Rambler for every one common share held (the "Exchange Ratio"). As a result of the Amalgamation, Rambler issued 7,142,857 ordinary shares. In addition, Rambler issued 183,474 options of Rambler to the previous holders of options of Thundermin, based on the Exchange Ratio. The Amalgamation results in the consolidation of the assets of Rambler and Thundermin under one single corporate structure.

4.3 PERMITS AND OBLIGATIONS

There are no known environmental impacts affecting the Little Deer Complex Property at this time. Work and water use permits for exploration work are required to be obtained from the Newfoundland and Labrador Department of Industry, Energy and Technology.

4.4 OTHER SIGNIFICANT FACTORS AND RISKS

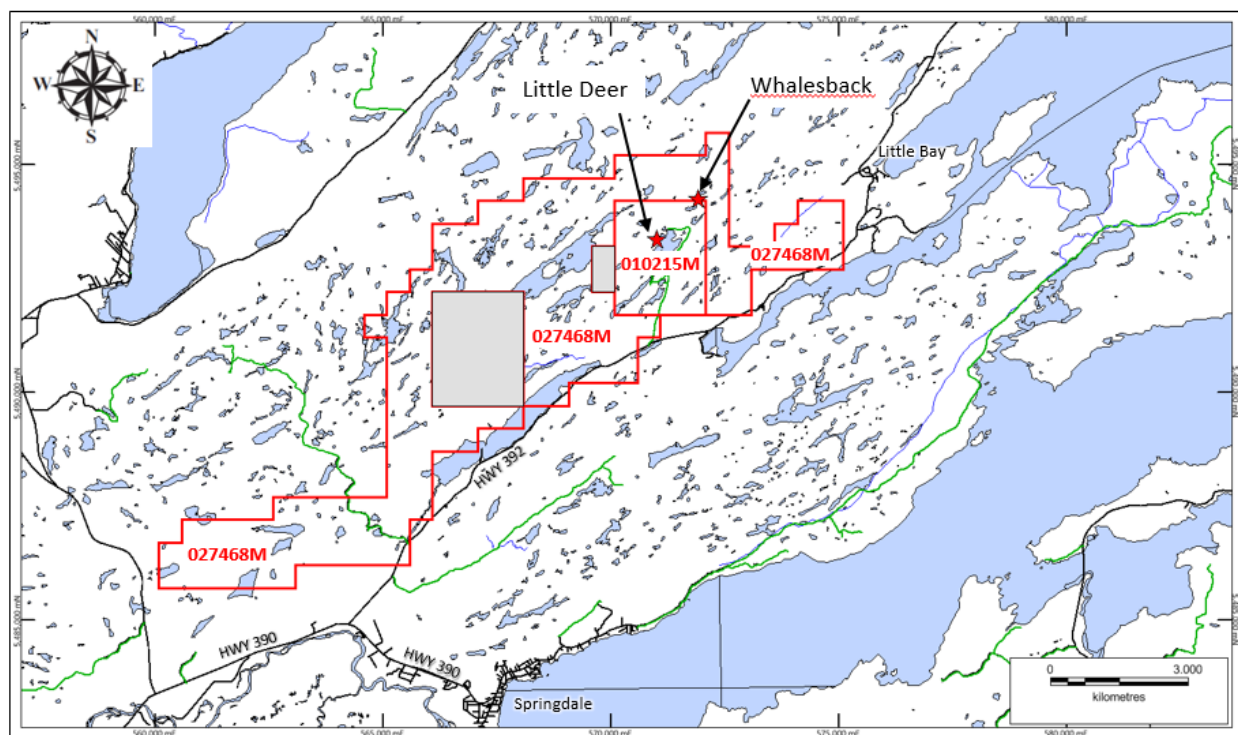
To the extent known to the authors of this Technical Report section, there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the Little Deer Complex Property that have not been discussed in this Technical Report.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The Property is located in the western Notre Dame Bay area of north-central Newfoundland, approximately 10 km north northeast of the Town of Springdale (Figure 5.1). The Property site is easily accessed via a network of gravel roads that extend north from paved highway Route 392, which connects Springdale to the port community of Little Bay (20 km to the northeast) and via Highway 390 to the Trans-Canada Highway (10 km to the southwest).

FIGURE 5.1 ACCESS TO THE LITTLE DEER COMPLEX AREA, NORTH-CENTRAL NEWFOUNDLAND



Source: P&E (2021).

Note: Highway 390 connects southwards to the Trans-Canada Highway.

5.2 CLIMATE

The climate of north-central Newfoundland is northern temperate generally with cold winters and short, moderately hot summers. Temperatures range from approximately 22°C during the summer to -15°C during the winter. Yearly precipitation averages approximately 1,000 mm, with Environment Canada reporting an average of 747 mm of rain and 253 cm of snow for Springdale during the period 1970 to 2000.

It is anticipated that mining activity on the Property could be conducted year-round.

5.3 LOCAL RESOURCES

The Notre Dame Bay area has a long history of copper mining. Between 1860 and 1918, more than two dozen copper mines had been in production, including the Tilt Cove, Betts Cove and Little Bay Mines. Copper production peaked in the 1880s, when Newfoundland was the sixth largest copper mining jurisdiction in the world. The Notre Dame Bay area still retains a strong mining culture and local residents are supportive of the mining industry.

The nearby Town of Springdale has a population of approximately 2,800 and is a service centre for the Green Bay area, with general amenities and community services available. Springdale also has several local diamond drilling contracting companies and an analytical laboratory. The area also has a skilled work force, many of whom have experience working in the mineral exploration and mining industry.

5.4 INFRASTRUCTURE

The Property site is located immediately north of paved highway Route 392 and 18 km northeast of the Trans-Canada Highway. An electrical power transmission line parallels Route 392 and a high voltage electrical substation is located 10 km south-southwest, just outside Springdale.

The Property area has several lakes and ponds (Figure 5.2), which hold an ample supply of fresh water. Although the historical Whalesback Mine concentrator has been removed from site, the tailing storage area exists in the north part of the Property (Figure 5.3). Several deep-water marine ports suitable for shipping future copper concentrates are located nearby (e.g., Little Bay, 10 km away). In addition to the Little Deer Complex Property, Rambler owns 100% of the Ming Copper-Gold Mine, ~150 km away, and a fully operational base metal processing facility at Nugget Pond, all in the Baie Verte Peninsula region (Figure 5.4). The Nugget Pond facility is capable of processing gold- and copper-bearing mineralized material. The copper concentrator is designed for 1,000 tpd. The facility is expandable if required. The Nugget Pond site also has a tailings management facility.

FIGURE 5.2 **VIEW LOOKING SOUTHWEST AT DEER POND**



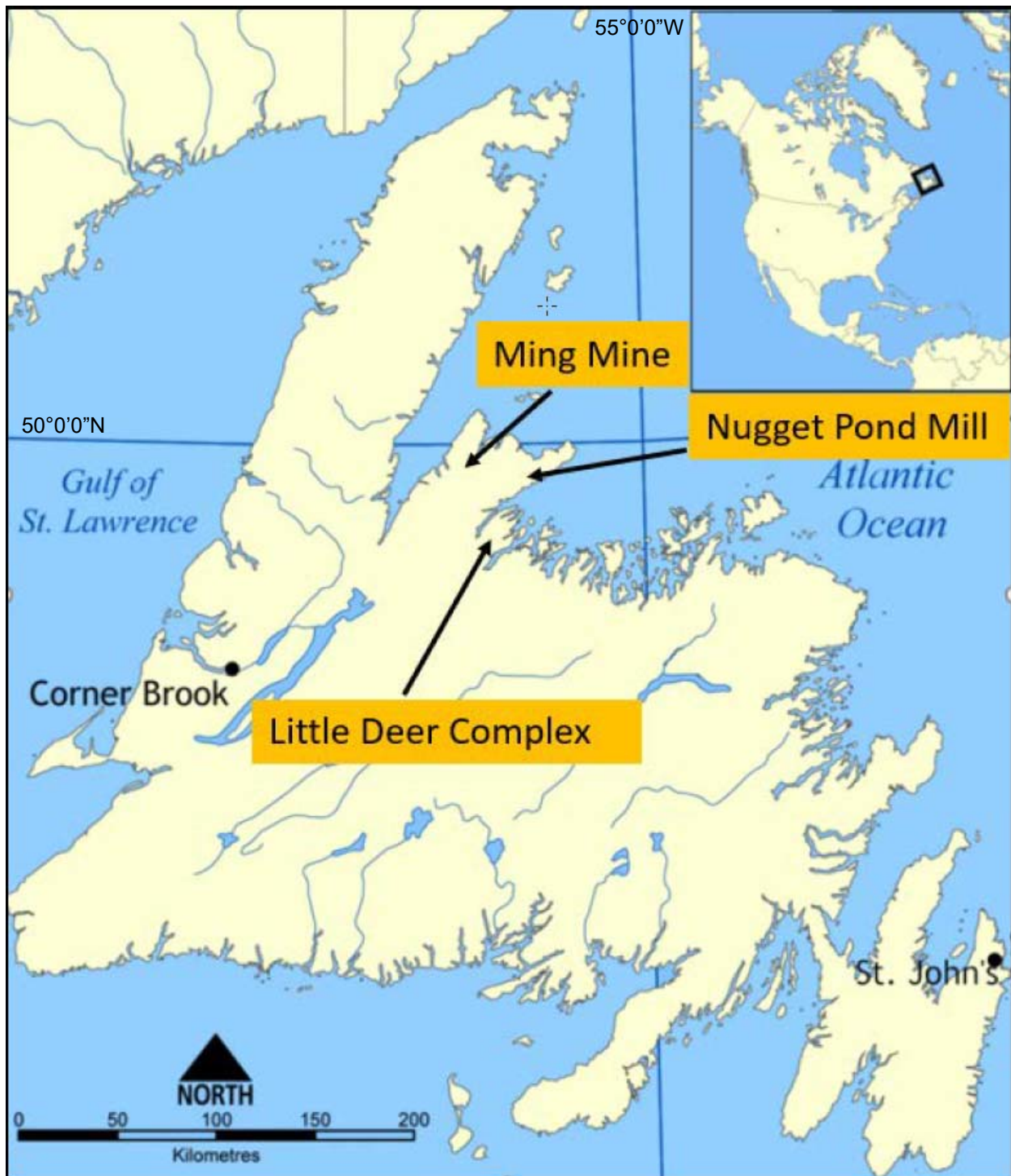
Source: Pressacco (2009).

FIGURE 5.3 **VIEW OF THE WHALESBACK TAILINGS STORAGE AREA**



Source: Pressacco (2009).

FIGURE 5.4 REGIONAL INFRASTRUCTURE SETTING OF THE LITTLE DEER COMPLEX



Source: Rambler press release dated July 12, 2021.

In addition, a year-round, fully integrated concentrate storage and shipping facility is available at Goodyear's Cove Port Site (Figure 5.5), located approximately 30 km south of the Little Deer Complex Property. The Site is fully functional with conveyer and loading systems in place.

The storage warehouse has a capacity of 9,500 wet metric tonnes (“wmt”) of copper concentrate. Storage capacity can be expanded if required.

FIGURE 5.5 GOODYEAR’S COVER STORAGE AND SHIPPING FACILITIES NEAR SPRINGDALE, NEWFOUNDLAND AND LABRADOR



Source: Rambler website (July 2021).

5.5 PHYSIOGRAPHY

The regional physiography of the western Notre Dame Bay area is characterized by a series of northeast-trending ridges and valleys that reflect the underlying geology (lithology and fault structures). Elongated coastal bays, as well as inland drainage patterns and the orientation of lakes, also generally parallel this structural trend.

The Property area exhibits gently to steeply rolling topography that is forested with spruce, fir and birch. Hilltops are occasionally barren and low-lying areas and valleys are covered by bogs, swamps, lakes and ponds. The Little Deer Deposit is located underneath and to the west of Deer Pond (Figure 5.2), at an elevation ranging from approximately 105 masl to 150 masl.

6.0 HISTORY

The histories of the Little Deer and Whalesback Properties are described separately below.

6.1 LITTLE DEER PROPERTY

A summary of historical exploration and development work on the Little Deer Property is presented below in Table 6.1.

TABLE 6.1 SUMMARY OF HISTORICAL WORK ON THE LITTLE DEER PROPERTY		
Year	Company	Exploration
1952	Falconbridge Nickel Mines Ltd	Initial discovery of the Little Deer Deposit.
1955	BRINEX	General prospecting and soil geochemical surveys.
1960-1962	BRINEX	Detailed geological mapping, magnetic, electromagnetic and self-potential geophysical surveys. Additional geochemical surveys detected a series of copper anomalies extending from the north shore of Little Deer pond to the east bay of the lake. Twenty-five holes drilled beneath the lake, which revealed the continuation of the mineralized zone over a strike length of 244 m with an average width of 8 m.
1963	BRINEX	Twelve more holes drilled, which indicated an easterly extension of the mineralization at depth and a parallel (East) lens.
1965-1972	BRINEX	Extensive drilling on Property. Mining activities treated as a co-development to the underground operations at the nearby Whalesback Mine. Achieved by driving a 1,044 m drift at a depth of 244 m (800 ft. level) which served as the main haulage level. Limited development, no accurate production records from this time. Production was thought to be limited due to the secondary nature of its development to Whalesback, the inadequate nature of the exploration work (i.e. there were no established mineable reserves) and the premature closure of the Whalesback Mine due to low copper prices.
1973-1974	Green Bay Mining Co.	Little Deer Mine re-opened. Financial difficulties and poor copper prices caused operations to cease. Development limited to shallow, low-grade copper resources that were accessible from a 329 m ramp driven from surface at the Little Deer Mine site.
1998-2000	Mutapa Gold Corp.	Geological mapping, surface and borehole geophysical surveys. Twelve diamond drill holes advanced for a total of 6,815 m of drilling. Drilling focused on the possible west-southwest strike extension.
2000	Mutapa Gold Corp.	Mutapa Gold Corp. returned Property to owners due to low copper prices and a change in business focus to the technology sector.

<p align="center">TABLE 6.1 SUMMARY OF HISTORICAL WORK ON THE LITTLE DEER PROPERTY</p>		
Year	Company	Exploration
2007	Thundermin & Cornerstone	Option to earn a 100% interest in the Property acquired from Weyburn. Initial program of diamond drilling (4,941.55 m in 8 DDH), line cutting, GPS surveying, and data compilation followed by a program of diamond drilling (8,887.85 m in 17 DDH), GPS surveying, data compilation, gyro surveying, whole-rock sampling, borehole EM surveying, along with 227 line km of airborne versatile time domain electromagnetic (VTEM) surveying.
2008	Thundermin & Cornerstone	Fourteen holes drilled totalling 9,004 m. 150 samples taken for analysis. Down-hole geophysics using Pulse EM completed on 14 boreholes. 227 line-km of Versatile Time Domain Electromagnetic and magnetic airborne survey was flown over a portion of the Little Deer Deposit and the adjoining Weyburn licenses to the east.
2009	Thundermin & Cornerstone	Diamond drilling (11,377 m in 17 DDH), GPS surveying, compilation, borehole Pulse-EM geophysical surveys, initial NI 43-101 Mineral Resource Estimate, prospecting.
2010	Thundermin & Cornerstone	Diamond drilling (11,501.6 m in 18 DDH, including 3 holes drilled in December as part of 2011 drill program), line-cutting, GPS surveying, data compilation, borehole Pulse-EM geophysical surveys, Induced Polarization (IP) geophysical survey, updated NI 43-101 Mineral Resource Estimate, initial metallurgical testwork, and prospecting.
2011	Thundermin & Cornerstone	Diamond drilling (12,576 m in 25 holes drilled from December 2010 to June 2011); updated Mineral Resource Estimate; Preliminary Economic Assessment.

The 2014 drill program by joint venture partners Rambler and Thundermin is described in Section 10 of this Technical Report.

6.1.1 1960 to 1972 BRINEX

Between 1960 and 1972, BRINEX completed several drill programs on the Little Deer Property. Selected highlights from the surface drilling, as compiled by Cornerstone and Thundermin from the archive of the NL Department of Natural Resources (St. John's Newfoundland) in 2010, are listed below (Cornerstone press releases dated May 1, 2007 and February 25, 2009):

- LD-61-54 grading 1.6% Cu over 9.2 m;
- LD-62-66 grading 2.4% Cu over 2.7 m;
- LD-62-76 grading 1.4% Cu over 8.5 m
- LD-62-77 grading 2.3% Cu over 27.1 m;
- LD-62-78 grading 2.9% Cu over 60.1 m, including intervals of 3.1% Cu over 11.6 m, 5.3% Cu over 15.5 m and 5.9% Cu over 7.9 m;
- LD-62-80 grading 4.3% Cu over 3.7 m;
- LD-63-83 grading 3.1% Cu over 10.4 m;

- LD-66-106 grading 3.3% Cu over 3.1 m;
- LD-66-132 grading 1.2% Cu over 3.7 m
- LD-66-135 grading 3.5% Cu over 8.0 m
- LD-66-136 grading 1.9% Cu over 6.2 m; and
- LD-67-143 grading 5.8% Cu over 1.5 m

Selected highlights from the BRINEX underground drilling are presented in Table 6.2.

<p>TABLE 6.2 HISTORICAL LITTLE DEER UNDERGROUND DRILL RESULTS</p>								
Hole No.	East (m)*	North (m)*	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)	Cu (%)
8-146	13,977	4,713	-11.7	154.1	93.2	109.7	16.5	3.0
incl					93.2	100.8	7.6	5.3
8-147	13,977	4,713	-33.1	153.6	118.9	126.5	7.6	2.8
8-150	13,947	4,721	-34.0	151.5	65.5	78.3	12.8	3.5
incl					74.7	76.2	3.7	7.0
and					95.4	119.6	24.2	1.8
incl					114.3	119.6	5.3	4.1
8-151	13,947	4,721	-15.2	150.7	51.8	57.6	5.8	2.3
and					65.5	73.1	7.6	1.1
and					85.3	87.7	2.4	4.4
8-152	13,947	4,721	-8.0	151.5	42.7	59.5	16.8	1.7
8-159	13,981	4,729	-17.6	151.2	53.3	60.9	7.6	1.2
8-160	13,981	4,729	-27.3	151.2	57.3	68.9	11.6	2.1
8-161	13,981	4,729	-36.1	151.9	73.1	83.5	10.4	2.5
8-162	13,916	4,729	-36.1	152.5	71.6	77.2	5.6	4.6
8-163	13,916	4,729	-26.4	149.9	58.5	61.6	3.1	2.6
8-166	13,825	4,754	-47.1	153.2	72.5	75.9	3.4	2.0
8-167	13,795	4,754	-54.0	151.5	81.2	84.7	3.5	6.0
8-168	13,764	4,755	-51.0	151.5	60.2	62.2	2.0	3.9
8-170	13,961	4,722	-32.0	151.5	71.6	73.1	1.5	2.3
8-171	13,961	4,722	-22.0	151.5	59.4	77.4	18.0	5.8
incl					70.7	77.4	6.7	10.0
and					102.1	108.8	6.7	2.6
8-173	13,992	4,711	-12.0	151.5	22.4	25.6	3.2	1.0
8-174	13,992	4,711	-29.0	151.5	108.2	111.3	3.1	2.1
8-175	14,038	4,681	-18.0	149.9	91.4	92.9	1.5	1.7
and					112.2	115.9	3.7	7.0
and					131.1	132.3	1.2	3.1
8-177	13,852	4,577	-60.0	14.5	160.6	162.1	1.5	0.9
8-178	13,849	4,577	-60.0	331.5	166.1	172.2	6.1	1.4
8-179	13,847	4,577	-56.0	299.5	210.3	213.4	3.1	5.2
8-180	13,852	4,575	-53.0	49.5	194.0	195.1	1.1	5.5

Source: Cornerstone press release dated February 25, 2009 (available on SEDAR).

Notes: The majority of these holes were drilled from the Whalesback Mine crosscut. The intersections are true widths or approach true widths.

* Local grid coordinates.

6.1.2 1998-2000 Mutapa Gold Corp.

An historic exploration program was undertaken on the Little Deer property from 1998 to 2000 by Mutapa Gold Corp. ("Mutapa"). Their work consisted of geological mapping, surface and borehole geophysical surveys and 6,815 m diamond drilling in 12 holes. Mineralized intersections in Mutapa's 12 drill holes are listed in Table 6.3.

TABLE 6.3 MUTAPA 1998 TO 2000 LITTLE DEER DRILL RESULTS								
Hole No.	East (m)**	North (m)**	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)	Cu (%)
LD-98-01	13,706	4,526	-60	325	338.4	340.5	2.1	5.2
LD-98-02	13,706	4,526	-65	325	405.1	412.4	7.3	3.0
including					405.1	407.2	2.1	4.0
including					410.8	412.4	1.6	8.0
LD-98-03	13,706	4,526	-67	325	434.7	447.6	12.9	3.1
LD-98-04	13,706	4,526	-72	325	542.9	552.5	9.6	4.3
LD-98-05	13,646	4,533	-65	325	423.3	431.5	8.2	2.3
LD-98-06	13,646	4,533	-69	325	452.0	468.9	16.9	1.1
including					452.0	458.0	6.0	1.5
including					465.0	468.9	3.9	2.2
LD-98-07	13,596	4,541	-70	325	563.0	568.8	5.8	2.9
LD-98-08	13,790	4,523	-70	325	533.4	572.1	38.7	1.6
including					533.4	541.7	8.3	2.5
including					549.7	572.1	22.4	1.6
LD-99-09	13,786	4,518	-72	346	438.6	443.1	4.5	1.8
LD-99-10*	13,747	4,500	-74	330	382.2	387.2	5.0	1.5
LD-00-11*	13,496	4,515	-52	325	382.5	383.0	0.5	1.7
					387.5	387.8	0.3	1.5
LD-00-12	13,396	4,500	-65	325	622.0	623.8	1.8	3.5
					643.3	654.0	10.7	3.8

Source: Cornerstone press release May 1, 2007.

Notes:

* Hole LD-99-10 steepened in dip and deviated to the east, and was stopped short of the main mineralized horizon.

* Hole LD-00-11 intersected the mineralized horizon above the area of the higher-grade copper values.

* Hole LD-66-132 is at the same approximate elevation as hole LD-00-11 and intersected only the very top part of the main copper mineralization.

Copper is the predominate economic metal at Little Deer. However, values from 1.0% to 4.0% Zn, 1.0 g/t to 2.0 g/t Au, and up to 0.1% cobalt over a few metres are recorded in the drilling records.

* All widths recorded above are core intercept lengths.

** Local grid coordinates.

6.1.3 2007-2011 Cornerstone and Thundermin Joint Venture

Between 2007 and 2011, the Cornerstone-Thundermin 50:50 Joint Venture completed several drill programs on the Little Deer Property. The purpose of the drill programs was to generate and update Mineral Resource Estimates for the Little Deer Deposit. Selected highlights from the 2007 to 2009 drill programs are listed in Table 6.4.

TABLE 6.4 SELECTED 2007 TO 2009 LITTLE DEER DRILL RESULTS									
Hole No.	East (m)*	North (m)*	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)	Cu (%)	Co (%)
LD-07-01	13,486	4,513	-68.0	325.0	561.3	561.4	0.1	8.90	NA
					566.1	566.7	0.6	3.20	NA
LD-07-02	13,634	4,536	-74.6	344.2	644.5	670.0	25.5	1.24	NA
incl					644.5	650.0	5.5	2.50	NA
and					644.5	648.5	4.0	2.82	NA
and					664.0	670.0	6.0	1.75	NA
LD-07-03	13,634	4,536	-76.9	330.8	hole terminated short of target				
LD-07-04	13,634	4,536	-73.4	336.5	hole terminated short of target				
LD-07-05	13,751	4,507	-67.6	328.6	479.85	484.05	4.2	1.1	0.01
incl					479.85	481.45	1.6	1.8	0.02
LD-07-06	13,751	4,507	-71.3	328.0	541.15	551.25	10.1	2.0	0.02
incl					541.15	543.95	2.8	4.2	0.03
and					549.6	551.25	1.65	4.2	0.04
LD-07-07	13,751	4,507	-62.7	328.7	408.8	417.55	8.75	4.5	0.03
incl					413.8	417.55	3.75	7.5	0.05
LD-07-08					615.2	619.40	4.40	0.2	NA
LD-98-07A	13,596	4,541	-70	325	530.0	530.1	0.1	12.2	0.01
incl					616.5	623.70	7.20	3.1	0.03
LD-98-07B	13,596	4,541	-70	325	hole stopped due to drilling problems				
LD-98-07C	13,596	4,541	-70	325	498.0	501.9	3.9	2.3	0.02
incl.					498.0	499.2	1.2	6.1	0.05
					542.5	556.5	14.0	1.9	0.02
incl.					542.5	549.5	7.0	2.7	0.02
LD-98-07D	13,596	4,541	-70	325	639.4	713.4	74.0	2.2	0.02
incl.					644.6	657.6	13.0	2.6	0.03
incl.					663.1	670.4	7.3	2.8	NA
incl.					691.4	713.4	22.0	4.0	0.02
incl.					691.4	702.0	10.6	2.9	NA
incl.					704.8	713.4	8.6	6.5	NA
LD-08-10A	12,983	4,655	-69.9	315.1	794.1	810.9	16.8	2.2	NA
incl.					794.1	796.4	2.3	3.5	NA
incl.					799.9	801.7	1.8	2.5	NA

TABLE 6.4
SELECTED 2007 TO 2009 LITTLE DEER DRILL RESULTS

Hole No.	East (m)*	North (m)*	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)	Cu (%)	Co (%)
incl.					799.9	810.9	11.0	2.6	NA
incl.					805.0	810.9	5.9	3.9	0.06
LD-07-01A	13,486	4,513	-68.0	325.0	680.2	682.4	2.2	6.0	NA
and					697.7	698.2	0.5	6.0	NA
LD-08-11	13,533	4,545	-67.7	328.2	529.6	530.8	1.2	2.2	NA
LD-08-12	12,977	4,652	-66.6	315.1	minor massive sulphides in large alteration zone				
LD-08-13	13,090	4,597	-68.5	324.5	609.1	610.6	1.5	3.4	NA
					675.4	683.5	8.1	1.3	NA
incl.					675.4	678.4	3.0	1.7	NA
incl.					681.5	683.5	2.0	1.9	NA
LD-08-14	13,580	4,543	-68.7	323.3	511.5	516.7	5.2	3.0	NA
LD-08-15	13,580	4,543	-71.9	324.8	631.8	678.4	46.6	2.7	NA
incl.					631.8	652.3	20.5	2.0	NA
incl.					661.8	678.4	16.6	4.7	NA
LD-08-16	12,987	4,636	-72.0	319.5	888.3	919.4	31.1	1.3	NA
incl					888.3	907.1	18.8	1.5	NA
incl					888.3	891.7	3.4	4.0	NA
incl					897.1	907.1	10.0	1.4	NA
LD-08-17	13,404	4,499	-61.9	311.4	602.0	608.6	6.6	1.8	NA
and					626.9	638.2	11.3	1.0	NA
incl					626.9	631.5	4.6	1.6	NA
incl					636.2	638.2	2.0	1.6	NA
and					667.0	670.5	3.5	2.2	NA
LD-09-19	13,493	4,532	-60.6	333.5	no significant values				NA
LD-09-20	13,577	4,545	-72.7	337.5	710.6	722.6	12.0	2.5	NA
incl.					718.8	722.6	3.8	6.0	NA
incl.					715.1	722.6	7.5	3.5	NA
LD-09-21	13,396	4,514	-68.1	319.3	761.9	768.2	6.3	2.1	NA
LD-08-16A	12,979	4,650	-72.9	319.5	881.9	891.3	9.4	1.2	NA
and					922.9	946.2	23.3	1.5	NA
incl.					940.0	946.2	6.2	3.1	NA
and					961.3	977.1	15.8	1.9	NA
incl.					971.4	977.1	5.7	2.9	NA
LD-08-09B	13,090	4,597	-70.5	343.8	717.9	718.7	0.8	5.5	NA
					921.4	921.8	0.4	5.6	NA
					930.2	958.0	27.8	1.2	NA
incl.					930.2	939.6	9.4	1.2	NA
and					944.5	957.0	12.5	1.6	NA

TABLE 6.4
SELECTED 2007 TO 2009 LITTLE DEER DRILL RESULTS

Hole No.	East (m)*	North (m)*	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)	Cu (%)	Co (%)
incl.					946.3	951.6	5.3	2.3	NA
LD-09-22	13,001	4,668	-70.6	334.9	697.1	706.2	9.1	3.8	NA
incl.					698.7	700.3	1.6	13.9	NA
LD-09-23	13,142	4,640	-70.7	315.2	803.3	807.0	3.7	2.4	NA
LD-09-24	13,001	4,667	-72.2	336.2	751.7	755.9	4.2	2.6	NA
LD-09-25	13,494	4,532	-71.8	326.0	703.9	713.4	9.5	-	NA
					811.5	821.0	9.5	1.6	NA
LD-09-25A	13,494	4,532	-71.8	326.0	612.4	619.4	7.0	-	NA
and					654.5	656.9	2.4	2.2	NA
and					753.2	754.7	1.5	5.0	NA
					786.4	790.3	3.9	3.3	NA
LD-09-28	13,138	4,634	-62.9	313.5	584.3	587.8	3.5	2.0	NA
incl.					638.2	642.2	4.0	2.2	NA
LD-09-30	13,399	4,513	-67.0	311.9	687.4	691.0	3.6	2.2	NA
incl.	13,090	4,597	-70.5	343.8	687.4	688.1	0.7	5.8	NA
and					690.5	691.0	0.5	7.2	NA
					700.2	700.8	0.6	5.5	NA
					716.0	717.7	1.7	2.0	NA

Sources: Cornerstone press releases dated October 31, 2007; December 11, 2007; May 15, 2008; June 17, 2008; July 25, 2008; November 26, 2008; Feb 25, 2009; May 12, 2009; 16 June 2009; 27 Aug 2009; Feb 3, 2010.

Notes:

* Local grid coordinates.

All widths are core intercept lengths.

Holes LD-98-07A to -07D are wedge holes cut from historical hole LD-98-07; LD-08-09B and LD-09-25A are wedge holes.

Holes LD-08-10A and LD-07-01A are previous holes that were deepened.

The 2010 compilation of data from historical surface and underground diamond drill holes completed by “BRINEX” during the 1960s, suggested potential to add significant Mineral Resources of high-grade copper mineralization at shallower levels in the eastern portion of the Little Deer Deposit above the -400 m elevation and, specifically, above the -250 m elevation. This conclusion led to the drill program that began in December 2010 and continued through to July 2011.

The objective of the 2010 to 2011 diamond drilling program was to increase and update the Mineral Resource Estimate made by Pressacco (2010). The drilling focused on three main areas:

- Above the -400 m elevation where historical drilling indicated a good potential for outlining high-grade Mineral Resources in the eastern portion of the Little Deer Deposit, especially above the -250 m elevation;

- Along strike both east and west of the limits of the 2010 RPA Mineral Resource outline between the -650 m and -400 m elevations; and
- At depth below the -650 elevation.

Two drills were utilized. One drill tested the shallow portion of the Little Deer Deposit and the second drill tested deeper targets. Three holes (LD-10-39, LD-10-40 and LD-10-41) totalling 966 m were drilled in December 2010. These holes confirmed the high-grade copper mineralization known to exist in the upper portion of the Deposit, based on a review of historical data. Twenty-two holes totalling 11,610 m were drilled between January 2011 and June 2011. Each drill hole intersected copper mineralization over varying widths. Hole LD-11-60 was abandoned due to technical difficulties. In total, twenty-five holes were drilled for a total of 12,576 m.

Drill hole pierce point locations are represented in Figure 6.1 and a list of selected 2010 to 2011 intersections is provided in Table 6.5. The collar location for holes LD-11-61 and LD-11-62 is shown in Figure 6.2.

<p>TABLE 6.5 SELECTED INTERCEPTS FROM 2010-2011 LITTLE DEER DRILLING</p>								
Hole No.	East (m)*	North (m)*	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)**	Cu (%)
LD-00-12A	13,393	4,515	-65.4	323.0	697.3	706.9	9.6	1.8
incl					697.3	700.4	3.1	4.5
LD-09-21A	13,399	4,513	-68.1	319.3	865.0	871.8	6.8	1.2
LD-09-30A	13,399	4,514	-67.0	311.9	843.5	850.7	7.2	2.1
incl					848.5	850.7	2.2	4.2
LD-10-31	13,535	4,546	-71.8	330.1	687.3	689.0	1.7	6.0
					725.3	749.5	24.2	2.0
incl					735.3	741.3	6.0	3.7
LD-08-16B	12,977	4,652	-72.9	319.5	783.8	809.0	25.2	1.4
incl					783.8	785.7	1.9	5.1
incl					801.3	807.6	6.3	2.0
					846.3	850.2	3.9	1.9
					891.1	893.7	2.6	2.8
					1,050.9	1,053.6	2.7	2.2
					1,062.7	1,066.1	3.4	1.3
LD-07-03A	13,620	4,548	-77.0	329.9	878.7	883.6	4.9	0.7
LD-10-32	13,140	4,633	-75.3	326.3	776.2	784.6	8.4	0.8
and					795.1	796.2	1.1	1.2
And					1073.3	1075.3	2.0	1.0
LD-10-32A	13,140	4,633	-75.3	326.3	740.0	741.8	1.8	8.8
and					1,002.9	1,022.5	19.6	2.1
incl					1,002.9	1,008.8	5.9	4.6

TABLE 6.5
SELECTED INTERCEPTS FROM 2010-2011 LITTLE DEER DRILLING

Hole No.	East (m)*	North (m)*	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)**	Cu (%)
incl					1,006.3	1,007.8	1.5	14.5
incl					1,015.8	1,022.5	6.7	1.8
LD-10-33	13,620	4,548	-71.6	334.6	496.1	497.2	1.1	4.5
and					545.0	550.6	5.6	1.4
LD-10-39	14,057	4,459	-37.1	321.6	208.6	209.1	0.5	13.4
and					213.9	218.1	4.2	4.6
and					233.9	250.4	16.5	5
incl.					233.9	239	5.1	6.1
incl.					244.9	250.4	5.5	9.2
LD-10-40	14,057	4,459	-35.8	315	294.5	295.2	0.7	2.4
LD-10-41	14,057	4,459	-36.1	335.1	202.6	203	0.4	5.1
and					219.2	222.2	3	2.1
and					229.7	235.6	5.9	4.5
LD-11-42	14,057	4,459	-63	305.5	306.8	308	1.2	1
LD-11-43	13,536	4,545	-56.5	331.3	no significant values			
LD-11-44	13,943	4,337	-48.1	318.8	413.8	415.4	1.6	9.3
and					469.3	479.9	10.6	4.1
incl.					469.3	475.1	5.8	6.7
LD-11-45	13,536	4,545	-66.2	337.7	472.9	473.9	1	4
and					488.8	494.2	5.4	1.4
LD-11-46	13,536	4,545	-60.8	338.7	no significant values			
LD-11-47	13,943	4,337	-54	323.2	no significant values			
LD-11-48	13,536	4,545	-54.5	351.5	366.2	367.2	1	1.4
LD-11-49	13,943	4,337	-63	314.5	620.9	623.6	2.7	5.7
LD-11-50	13,749	4,530	-59.6	326.8	365.3	368.7	3.5	3.4
LD-11-51	13,749	4,530	-60.7	351	372.7	374.7	2	2.5
incl.					373.2	373.7	0.5	8.8
LD-11-52	13,943	4,337	-50.8	330.2	443.4	447.1	3.7	2
LD-09-18A	13,518	4,133	-48	329.4	no significant values			
LD-11-53	13,817	4,277	-54.5	326.6	596.5	597	0.5	3.3
and					603.65	605.15	1.5	1.7
and					628.9	629.8	0.9	3.4
LD-11-54	13,754	4,228	-55.6	324.2	782.2	786.9	4.7	1
and					817.7	823.2	5.5	0.9

TABLE 6.5
SELECTED INTERCEPTS FROM 2010-2011 LITTLE DEER DRILLING

Hole No.	East (m)*	North (m)*	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)**	Cu (%)
LD-11-55	13,517	4,131	-55.6	337.3	973.8	977.9	4.1	1.1
LD-11-56	13,754	4,228	-55.8	332.2	728.1	729.6	1.5	1.3
LD-11-57	13,517	4,131	-56.2	326.5	no significant values			
LD-11-58	13,765	4,920	-42	154.8	149.85	150.45	0.6	2.5
and					173	175.9	2.9	3.5
LD-11-59	13,812	4,900	-44.7	134.2	178	178.95	0.95	3
and					185.1	191.1	6	2.1
incl.					189	190.1	1.1	8.6
LD-11-60	13,881	4,820	-42.4	100.4	abandoned			
LD-11-61	13,865	4,832	-40.2	99.4	86.7	87.3	0.6	1.2
LD-11-62	13,865	4,832	-40.5	116.8	73.4	74.8	1.4	2.2
and					87	89.7	2.7	1.6

Sources: Cornerstone press releases dated April 13 and April 29, 2010 and P&E (2011b).

Notes:

* Mine grid coordinates.

** All intervals are core intercept lengths.

Holes 12A – historical hole deepened; 21A and 30A previous Thundermin/Cornerstone holes deepened; 16B and 03A wedge holes from original pilot holes.

Note: Coordinates are local mine grid coordinates.

FIGURE 6.2**CASING FOR LITTLE DEER DRILL HOLES LD-11-61 AND -62**

Source: Tim Froude (June 2021).

6.2 WHALESBACK PROPERTY

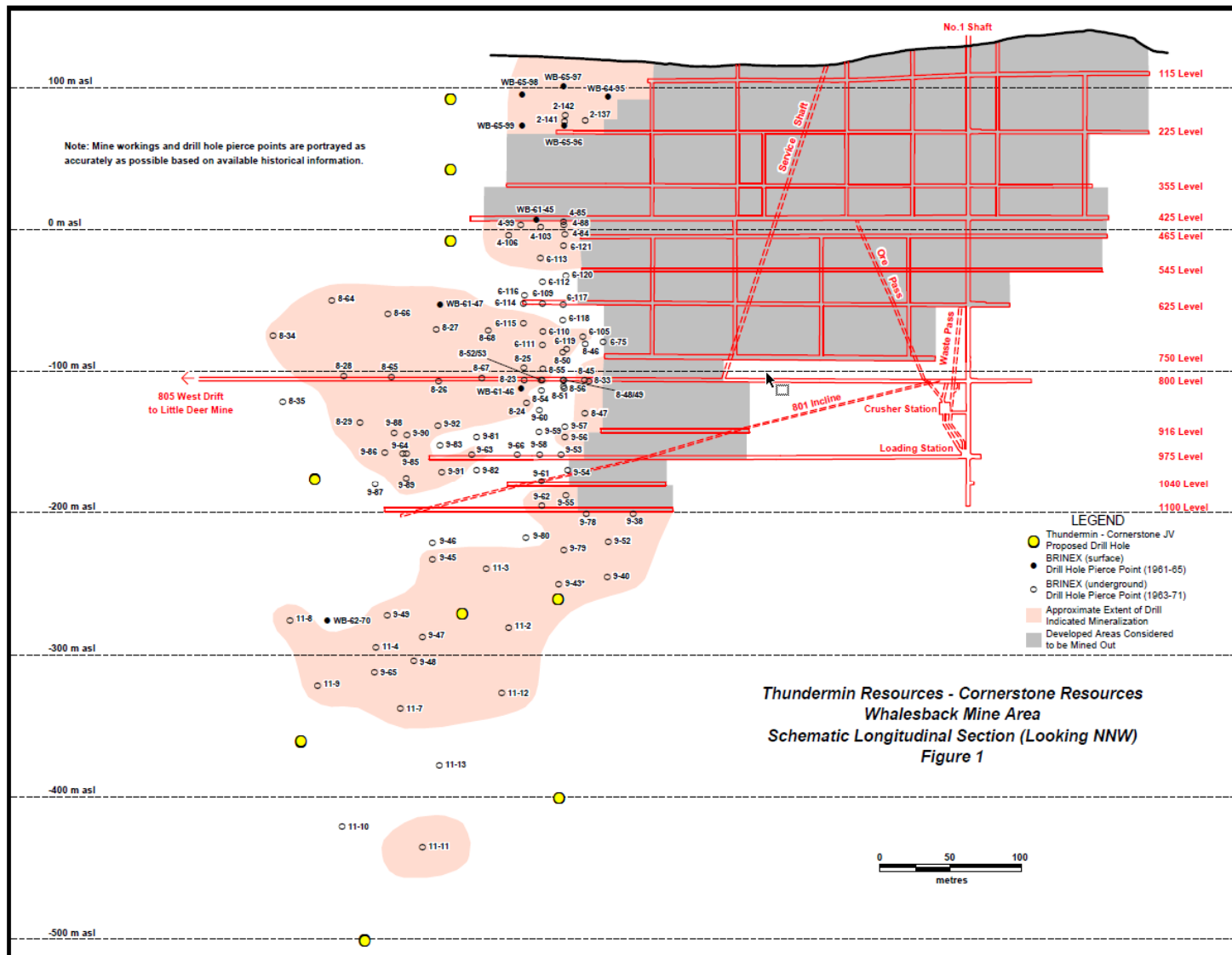
The following summary is based largely on information presented in Cloutier et al. (2015).

The Whalesback Deposit was discovered by the Betts Cove Mining Company in 1879 (Martin, 1983; Kean et al., 1995). In 1880, the Whalesback Property was sold to the Newfoundland Consolidated Copper Mining Company, which excavated trenches and an 18 m deep shaft in the hanging wall of the Deposit. However, no mineralization was found and exploration of the Property stopped until 1957, when mining rights were granted to the British Newfoundland Exploration Company (BRINEX) (Maclean, 1947; Kean et al., 1995).

From 1960 to 1962, exploration programs completed jointly by BRINEX and the Anglo-American Corporation delineated a 2.7 Mt mineral resource at 1.8% copper. The Whalesback Mine commenced production in 1963 and produced 3.8 Mt grading 1% Cu over nine years. In July 1972, production at the mine ceased due to a major cave-in that breached the surface and to low copper prices (Kean et al., 1995). More recently, increased copper price triggered a new exploration cycle at Whalesback and the adjacent Little Deer Properties by Thundermin and Cornerstone.

In 2011, Thundermin and Cornerstone completed a geological compilation of historical surface and underground diamond drilling information for Whalesback dating back to the 1960s. Diamond drill logs and assay data for 60 surface and 242 underground holes from the Whalesback Copper Mine were recovered from the archives of the Newfoundland and Labrador Department of Natural Resources in St. John's. Drill hole numbers and pierce points for 107 holes drilled in the mineralized zone below and to the west of the areas mined by BRINEX are shown on Figure 6.3. Corresponding assay results and assay widths, many of which approach true width, are presented in Tables 6.6 and 6.7. Twenty-four of the historical holes had copper intersections grading $>2.0\%$ Cu, 49 had copper intersections grading between 1.0% and 2.0% Cu, and 33 had copper intersections grading $<1.0\%$ Cu. Only one of the historical holes did not intersect significant copper mineralization. Underground hole 11-11 is the deepest hole drilled to date on the Whalesback Deposit. This hole, which intersected 1.7% Cu over 8.4 m at a vertical depth of approximately 565 m, has never been followed-up with additional drilling.

FIGURE 6.3 SCHEMATIC LONGITUDINAL PROJECTION OF WHALESBACK MINE AREA LOOKING NNW



Source: Cornerstone press release dated October 20, 2011.

Note: Coordinates are local mine grid coordinates.

TABLE 6.6 WHALESBACK PRE-2011 SURFACE DRILL HOLE RESULTS				
Hole No.	From (m)	To (m)	Width (m)	Cu (%)
WB-61-45	201.47	207.26	5.79	2.23
and	213.97	215.19	1.22	4.48
WB-61-46	273.10	274.62	1.52	1.35
and	308.46	310.59	2.13	1.15
WB-61-47	246.58	248.11	1.53	2.10
and	256.64	261.21	4.57	1.15
WB-62-70	482.50	484.33	1.83	0.31
WB-64-95	53.34	56.39	3.05	1.10
WB-65-96	51.82	57.91	6.09	1.91
WB-65-97	21.34	24.38	3.04	1.03
WB-65-98	29.26	36.42	7.16	1.13
WB-65-99	65.53	68.58	3.05	2.25

Source: Cornerstone and Thundermin press release dated October 20, 2011.

TABLE 6.7 WHALESBACK PRE-2011 UNDERGROUND DRILL HOLE RESULTS				
Hole No.	From (m)	To (m)	Width (m)	Cu (%)
2-137	4.57	6.10	1.53	1.26
2-141	1.52	8.53	7.01	1.03
2-142	6.10	10.67	4.57	1.37
and	19.05	20.73	1.68	2.42
4-84	1.22	3.05	1.83	1.08
and	21.03	25.91	4.88	1.67
4-85	3.96	5.79	1.83	0.72
4-88	2.13	4.57	3.05	1.74
and	24.38	25.91	1.53	1.24
4-99	1.22	10.97	9.75	1.45
incl.	1.22	6.10	4.88	1.80
4-103	0.91	14.02	13.11	1.19
4-106	15.24	18.29	3.05	2.01
6-75	29.57	32.61	3.04	0.71
6-105	44.81	49.38	4.57	1.08
6-109	49.38	51.82	2.44	0.97
6-110	47.70	52.12	2.13	1.28
6-111	45.72	48.77	3.05	1.28
and	64.01	65.03	1.52	1.19
6-112	19.81	21.34	1.53	0.60

TABLE 6.7
WHALESBACK PRE-2011 UNDERGROUND DRILL HOLE RESULTS

Hole No.	From (m)	To (m)	Width (m)	Cu (%)
6-113	32.00	33.53	1.53	1.16
6-114	20.42	22.86	2.44	0.50
6-115	25.91	30.48	4.57	1.25
and	41.15	42.98	1.83	1.22
6-116	7.01	10.06	3.05	0.48
6-117	51.82	53.34	1.52	0.58
6-118	32.00	32.61	0.61	0.95
6-119	53.34	54.86	1.52	1.17
6-120	28.96	30.48	1.52	0.92
6-121	41.76	43.59	1.83	1.06
8-23	0.00	1.98	1.98	1.20
and	11.28	14.63	3.35	1.32
8-24	0.00	1.52	1.52	1.00
and	19.81	22.86	3.05	1.10
8-25	13.72	22.86	9.14	0.93
incl.	13.72	16.76	3.04	1.40
incl.	19.81	22.86	3.05	1.20
8-26	81.69	83.21	1.52	2.02
8-27	99.06	111.25	12.19	1.61
8-28	119.79	125.27	5.48	3.23
8-29	106.68	115.82	9.14	1.16
8-33	17.07	18.59	1.52	1.18
8-34	226.16	226.47	0.31	1.61
8-35	216.41	217.02	0.61	0.32
8-45	13.72	15.24	1.52	1.11
8-46	25.91	27.43	1.52	0.95
8-47	24.38	27.43	3.05	1.21
and	30.18	32.00	1.82	1.05
8-48	1.52	4.57	3.05	0.69
8-49	7.92	9.14	1.22	0.91
8-50	13.72	15.24	1.52	1.28
and	19.81	22.86	3.05	1.04
8-51	5.18	5.49	0.31	0.91
8-52	12.80	15.24	2.44	1.64
8-53	1.22	9.14	7.92	0.56
8-54	8.23	10.06	1.83	0.42
8-55	4.57	15.09	10.52	0.84
incl.	4.57	7.62	3.05	1.30
8-56	1.52	7.62	6.10	1.50

TABLE 6.7
WHALESBACK PRE-2011 UNDERGROUND DRILL HOLE RESULTS

Hole No.	From (m)	To (m)	Width (m)	Cu (%)
8-64	138.68	139.60	0.92	1.01
and	144.48	146.61	2.13	2.37
8-65	96.01	97.54	1.53	1.99
and	105.16	108.20	3.04	2.00
8-66	122.68	124.21	1.53	3.30
8-67	77.72	89.92	12.20	1.35
incl.	83.82	89.92	6.10	1.84
8-68	94.49	96.01	1.52	1.04
and	100.58	102.11	1.53	2.05
9-38	21.03	24.38	3.35	2.18
and	53.04	56.39	3.35	2.29
9-40	74.83	76.66	1.83	1.29
and	99.06	102.11	3.05	0.91
9-43*	---	---	3.35	4.01
and*	---	---	6.10	4.50
9-45	110.03	111.56	1.53	1.57
9-46	120.40	123.44	3.04	0.75
9-47	122.38	124.97	2.59	1.45
and	160.02	166.12	6.10	2.90
9-48	170.69	176.78	6.09	0.76
9-49	146.30	147.83	1.53	1.30
9-52	62.48	65.53	3.05	1.05
and	73.15	80.01	5.33	2.51
9-53	17.83	21.34	3.51	0.87
9-54	23.93	25.91	1.98	0.95
9-55	30.48	32.00	1.52	1.60
and	36.42	39.62	3.20	2.01
and	48.77	53.34	4.57	1.55
9-56	27.43	28.96	1.53	1.52
9-57	22.86	24.69	1.83	0.65
9-58	---	---	---	NSV
9-59	32.31	33.22	0.91	0.50
9-60	38.40	39.93	1.53	0.81
9-61	36.88	39.93	3.05	0.52
9-62	48.16	48.46	0.30	1.05
9-63	42.67	44.20	1.53	1.35
9-64	42.67	44.20	1.53	1.29
and	51.82	55.78	3.96	1.73
9-65	149.35	150.88	1.53	1.15

TABLE 6.7
WHALESBACK PRE-2011 UNDERGROUND DRILL HOLE RESULTS

Hole No.	From (m)	To (m)	Width (m)	Cu (%)
and	160.02	163.07	3.05	1.87
and	184.40	192.33	7.93	1.35
9-66	36.58	38.10	1.52	0.40
9-78	51.82	60.96	9.14	2.44
9-79	51.82	53.34	1.52	1.70
and	68.58	81.69	13.11	2.13
and	84.58	86.87	2.29	1.10
9-80	64.01	68.73	4.72	0.79
9-81	32.92	35.97	3.05	0.60
9-82	35.05	38.10	3.05	0.80
9-83	15.24	17.07	1.83	0.84
9-85	41.15	45.7	4.57	2.55
and	65.84	67.97	2.13	1.61
9-86	46.48	49.53	3.05	1.13
9-87	60.66	63.70	3.04	0.40
9-88	36.58	44.96	8.38	2.88
9-89	47.24	50.29	3.05	1.12
and	68.58	71.63	3.05	1.12
9-90	39.93	44.20	4.27	2.96
9-91	18.90	19.81	0.91	3.46
9-92	27.43	35.97	8.54	2.20
11-2	111.71	114.30	2.59	1.89
11-3	67.36	75.90	8.54	1.99
and	83.36	84.73	1.37	1.14
11-4	118.26	121.92	3.66	1.15
11-7	179.53	181.05	1.52	1.10
and	189.59	198.42	8.83	1.71
11-8	207.26	208.18	0.92	1.02
11-9	196.29	197.21	0.92	3.40
11-10	253.59	255.42	1.83	0.77
11-11	264.57	272.19	8.36	1.68
11-12	192.33	196.29	5.79	1.62
11-13	223.72	226.77	3.05	0.64

Notes:

1. Holes in this Table marked with an asterisk and shown in Figure 6.3 have grades and widths shown as portrayed on a historical Whalesback longitudinal projection (original assay data not on drill logs recovered from the archives).
2. The reported copper intersections are core lengths. However, the widths reported for many of the holes in Table 6.7, in particular the holes drilled underground, approach true thickness.

In a press release dated October 20, 2011, Cornerstone and Thundermin planned to undertake 3,800 m of diamond drilling in nine holes on the Whalesback Property. The purpose of that drilling was to confirm the historical results and to expand the copper Mineral Resources to the west and at depth below the areas mined previously by BRINEX.

In a subsequent press release dated May 10, 2012, Cornerstone and Thundermin announced completion of a 6,198 m of diamond drilling in a 14-hole program at Whalesback. The results included extension of the Deposit to a vertical depth of 625 m below surface and from 50 m to 100 m to the east and west. The results of the drilling program are represented in Figure 6.4, the collar location for Hole WB-11-100 is shown in Figure 6.5, and the assay results are listed in Table 6.8. The results of this drill program suggested that the copper mineralization at Whalesback remains open to the east, west and at depth.

Figure 1 is a schematic longitudinal section (looking NNW) of the Whalesback Mine Area. The diagram illustrates the mine's layout, including various levels (115 Level, 225 Level, 355 Level, 425 Level, 465 Level, 545 Level, 625 Level, 750 Level, 800 Level, 916 Level, 975 Level, 1040 Level, 1100 Level) and key infrastructure such as the 805 West Drift to Little Deer Mine, the 801 Incline, the Crusher Station, and the Loading Station. The diagram also shows the approximate extent of drill indicated mineralization and developed areas considered to be mined out. A legend identifies symbols for Thundermin - Cornerstone JV Proposed Drill Hole, Thundermin - Cornerstone JV Drill Hole Pierce Point (2011-12), BRINEX (surface) Drill Hole Pierce Point (1961-65), BRINEX (underground) Drill Hole Pierce Point (1963-71), Approximate Extent of Drill Indicated Mineralization, and Developed Areas Considered to be Mined Out. A scale bar indicates 0 to 100 metres.

Note: Coordinates are local mine grid coordinates.

FIGURE 6.5 CASING FOR 2011 WHALESBACK DRILL HOLE WB-11-100



Source: Tim Froude (June 2021).

<p>TABLE 6.8 WHALESBACK 2011 TO 2012 PROGRAM DRILL RESULTS</p>								
Hole No.	East (m)	West (m)	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)¹	Cu (%)
WB-11-100	571,528	5,493,983	-43.9	329.9	51.4	51.8	0.4	0.9
WB-11-101	571,560	5,493,911	-43.0	336.1	122.8	124.5	1.7	3.4
WB-11-102	571,560	5,493,911	-62.5	334.9	163.8	164.0	0.2	12.6
and					169.0	170.0	1.0	1.5
WB-11-103	571,534	5,493,873	-48.8	332.6	172.7	173.6	0.9	1.4
WB-12-104	571,725	5,493,778	-62.8	324.6	376.9	395.1	18.2	2.8
including					376.9	381.1	4.2	5.2
including					390.1	393.6	3.5	3.4
and					403.0	405.0	2.0	2.6
WB-12-105					402.8	403.2	0.4	7.5

TABLE 6.8
WHALESBACK 2011 TO 2012 PROGRAM DRILL RESULTS

Hole No.	East (m)	West (m)	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m) ¹	Cu (%)
and					468.0	475.0	7.0	1.6
including					472.0	475.0	3.0	2.2
and					483.7	484.4	0.7	1.3
WB-12-106	571,725	5,493,778	-70.5	331.7	no significant values			
WB-12-106A2	571,725	5,493,778	NA	NA	559.1	564.7	5.6	1.2
WB-12-107	571,682	5,493,730	-57.6	324.8	441.9	442.4	0.5	2.1
WB-12-108	571,614	5,493,669	-69.8	337.1	649.6	658.0	8.4	1.1
and					668.8	671.1	2.3	3.4
WB-12-109	571,614	5,493,669	-60.5	316.9	578.6	580.8	2.2	1.1
WB-12-110	571,614	5,493,669	-47.4	316.1	no significant values			
WB-12-111	571,725	5,493,778	-65.2	340.0	373.7	376.8	3.1	2.7
and					437.9	442.3	4.4	2.1
and					452.4	454.3	1.9	1.6
WB-12-112	571,751	5,493,605	-60.3	329.3	no significant values			

Source: Cornerstone and Thundermin press release dated May 10, 2012.

Notes:

- 1) Reported copper intersection are core lengths. True thicknesses are undetermined and highly variable due to the stringer style of mineralization.
- 2) Hole WB-12-106A was wedged from hole WB-12-106 at 500 m depth.

6.3 HISTORICAL AND PREVIOUS MINERAL RESOURCE ESTIMATES

Historical Mineral Resource Estimates (pre-2009) and previous NI 43-101 compliant Mineral Resource Estimates (2009 to 2012) completed for the Little Deer and Whalesback deposits are summarized below.

6.3.1 Pre-2009 Mineral Resource Estimates

There are no technically supported historical Mineral Resource evaluations of the sulphide mineralization at Little Deer. Former staff at the Whalesback and Little Deer mines stated that no mineral resource estimates were attempted during the BRINEX period, because the deposit shape, geometry and grade characteristics were poorly understood. Mining at Little Deer was via a development drift at the 244 m level (the 800-foot level), which was established from the Whalesback Mine located approximately 1,800 m to the northeast.

At the cessation of the Green Bay Mining Company's operations in 1974, an unsupported statement was released suggesting that a Mineral Reserve of 210,200 t grading 1.53% Cu remained above the 245 m elevation. **It should be noted that this Mineral Reserve Estimate is historical in nature and has not been reviewed by a Qualified Person and should not be relied upon.**

6.3.2 2009-2010 Mineral Resources – Little Deer

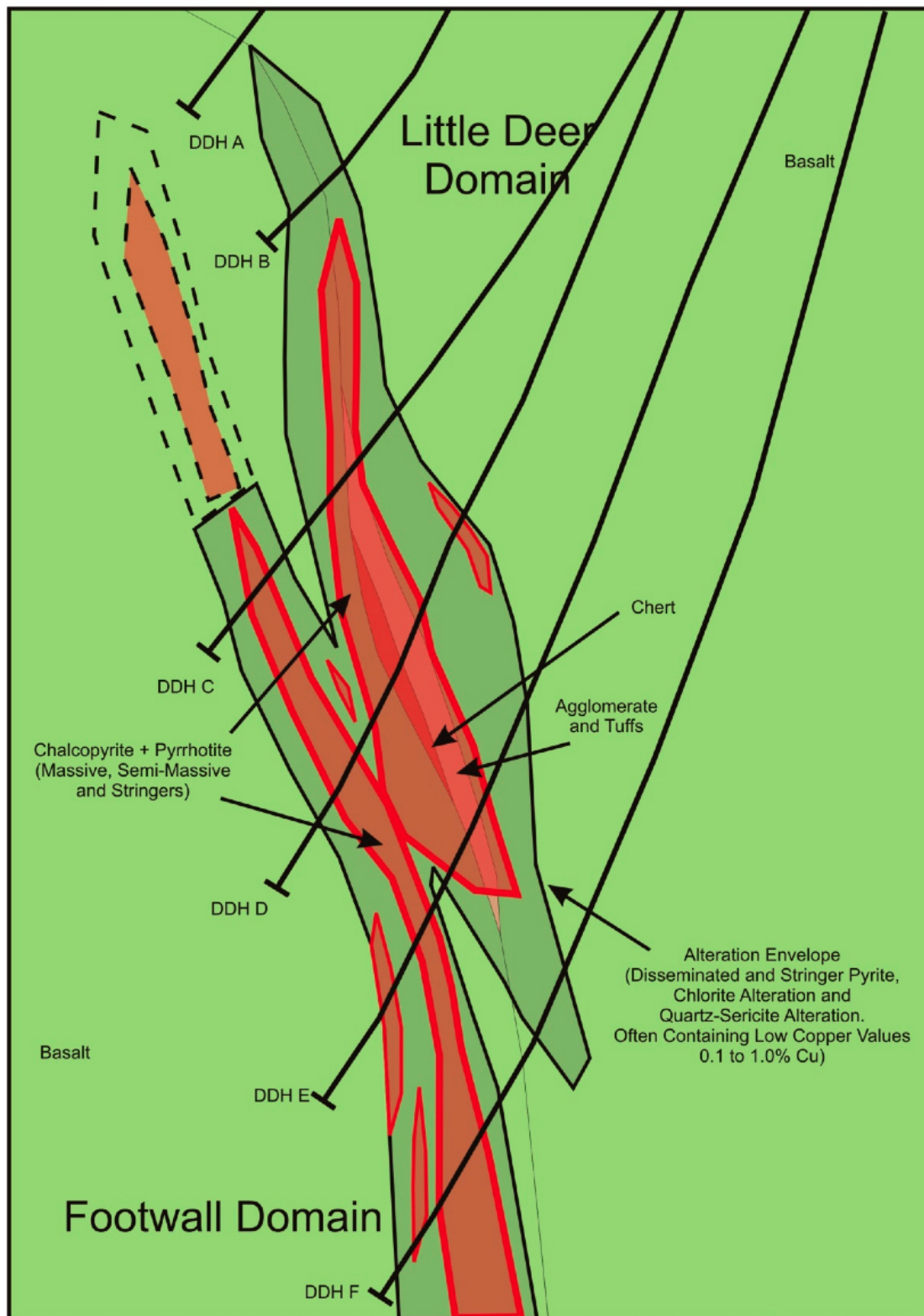
In 2009, Micon prepared a NI 43-101 compliant Mineral Resource Estimate for the Little Deer Deposit (Pressacco, 2009) using the Gemcom™ software package. Micon estimated that the Deposit contained Indicated Mineral Resources of 1,087,000 t grading 2.90% Cu and Inferred Mineral Resources of 1,950,000 t grading 2.29% (Table 6.9).

TABLE 6.9 SUMMARY OF MICON LITTLE DEER MINERAL RESOURCES AS OF AUGUST 14, 2009			
Mineral Resource Classification	Tonnes (k)	Cu (%)	Cu (Mlb)
Indicated	1,087	2.90	69.5
Inferred	1,950	2.29	98.5

Source: Pressacco (2009).

In 2010, Scott Wilson Roscoe Postle Associates Inc. (“RPA”) updated the Mineral Resource Estimate for Little Deer (Pressacco, 2010) (Figure 6.6). Pressacco (2010) estimated that the Little Deer Deposit contained Indicated Mineral Resources of 1,150,500 t grading 2.79% Cu and Inferred Mineral Resources of 2,335,500 t grading 2.06% Cu (Table 6.10).

FIGURE 6.6 SCHEMATIC CROSS SECTION, LITTLE DEER DEPOSIT



Source: Pressacco, (2010).

TABLE 6.10 SUMMARY OF RPA LITTLE DEER UPDATED MINERAL RESOURCES AS OF SEPTEMBER 30, 2010			
Mineral Resource Classification / Zone	Tonnes (k)	Cu (%)	Cu (Mlb)
Indicated			
Little Deer Zone	1,150.5	2.79	70.8
Inferred			
Little Deer Zone	1,227.3	2.21	59.8
Little Deer Footwall Zone	1,108.2	1.89	46.2
Total Inferred	2,335.5	2.06	106.1

Source: Pressacco (2010).

P&E has not independently verified the Mineral Resource Estimate presented in Table 6.9 and Table 6.10, and makes no assurances as to their validity or economic viability, in whole or in part.

6.3.3 2011 Mineral Resources – Little Deer

The 2011 drill program (December 2010 to June 2011) comprised a total of 12,576 m in 25 holes. The program was designed to update and expand the previous NI 43-101 Mineral Resource. The updated Mineral Resource Estimate is based on assay results from 48,432 m of drilling 82 holes completed by Thundermin and Cornerstone since June 2007 and assay data from a total of 102 surface and 122 underground historical holes that were drilled by BRINEX between 1961 and 1970 and Mutapa Gold Corporation between 1998 and 2000. The historical information was recovered from the archives of the Newfoundland and Labrador Department of Natural Resources in St. John's, Newfoundland. The 2011 Mineral Resource Estimate is presented in Table 6.11.

TABLE 6.11 SUMMARY OF LITTLE DEER MINERAL RESOURCES AT 1% CU CUT-OFF			
Mineral Resource Classification / Zone	Tonnes (k)	Cu (%)	Cu (Mlb)
Indicated			
Little Deer Zone	1,911	2.37	99.8
Inferred			
Little Deer Zone	1,240	1.93	52.8
Little Deer Footwall Zone	1,711	2.04	77.0
Little Deer Footwall Zone Splay	797	2.64	46.2
Total Inferred	3,748	2.13	175.9

Source: P&E (2011a).

The 2011 Mineral Resource supported a Preliminary Economic Assessment (P&E, 2011b).

6.3.4 2012 Mineral Resources - Whalesback

In a press release dated July 26, 2012, Cornerstone and Thundermin announced an NI 43-101 compliant Mineral Resource Estimate for the Whalesback Deposit. The Mineral Resource Estimate was prepared by P&E and consisted of Indicated Mineral Resources of 797,000 t grading 1.67% Cu (29.3 Mlb Cu) and Inferred Mineral Resources of 443,000 t grading 1.57% Cu (15.3 Mlb Cu) (Table 6.12).

TABLE 6.12 SUMMARY OF WHALESBACK MINERAL RESOURCES AT 1% CU CUT-OFF			
Mineral Resource Classification / Zone	Tonnes (k)	Cu (%)	Cu (Mlb)
Indicated			
Whalesback	797	1.67	29.3
Inferred			
Whalesback	443	1.57	15.3

Source: Cornerstone press release dated July 26, 2012.

The Mineral Resource Estimate for Whalesback was based on diamond drill hole records from 316 surface and underground holes totalling 37,163 m of drilling. Fourteen of the holes were drilled by Cornerstone and Thundermin in 2011 (news releases dated October 20, 2011 and February 23 and May 10, 2012). The remainder of the holes were drilled by BRINEX between 1961 and 1970.

It should be further noted that the above Mineral Resource Estimates for Little Deer and for Whalesback are superseded by the Updated Mineral Resource Estimate prepared by P&E and presented in Section 14.0 of this Technical Report.

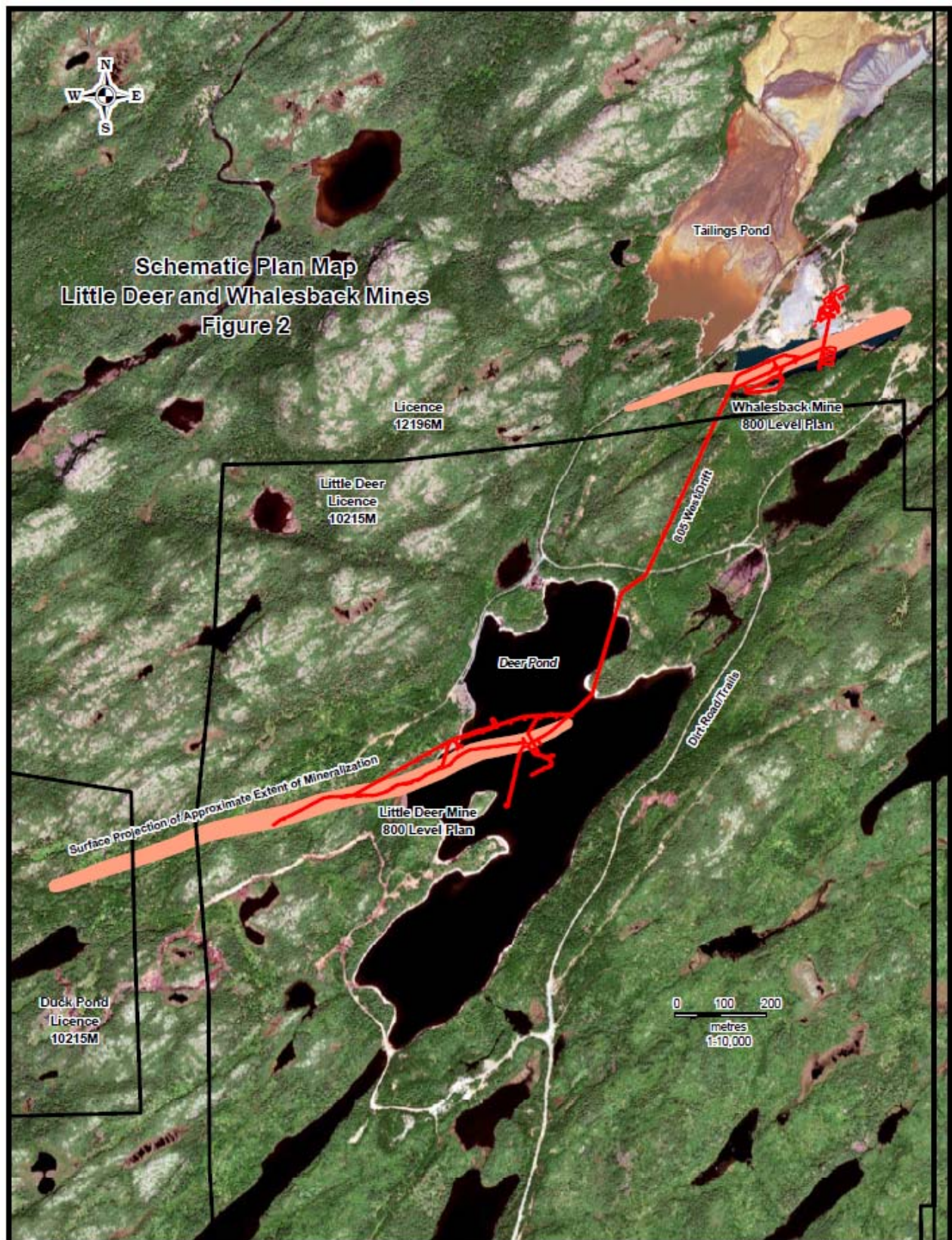
6.4 PRELIMINARY ECONOMIC ASSESSMENT

A Preliminary Economic Assessment (“PEA”) of the little Deer Project was completed by P&E Mining Consultants Inc. in 2011 (P&E, 2011). The PEA was based on the previous Mineral Resource Estimates of the Little Deer Copper Deposit shown above in Table 6.11. Again, that Mineral Resource Estimate is superseded by the updated Mineral Resource Estimate prepared by P&E and presented in Section 14.0 of this Technical Report.

6.5 PAST PRODUCTION

The Little Deer Deposit initially underwent development in 1966 with production from 1970 to 1972 by British Newfoundland Exploration Limited (“BRINEX”) via a 1,044 m drift on the 244 m (800) level of the Whalesback Mine (Figure 6.7).

FIGURE 6.7 SCHEMATIC PLAN MAP OF THE LITTLE DEER AND WHALESBACK MINES



Source: Cornerstone and Thundermin press release dated October 20, 2011.

Operations at Little Deer ceased in 1972 with the closure of the Whalesback Mine. In 1973, the Little Deer Deposit was leased by Green Bay Mining Company Limited. The shallower portion of the Deposit was accessed via a 329 m ramp from surface. Development and mining were performed between 1973 and 1974, at which time operations ceased due to low copper prices.

The Whalesback Mine operated between 1963 and 1972. Production at Whalesback commenced in 1963 and the mine produced 3.8 Mt grading 1% Cu over nine years. In July 1972, production ceased due to low copper prices and a major cave-in that breached the surface (Kean et al., 1995).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

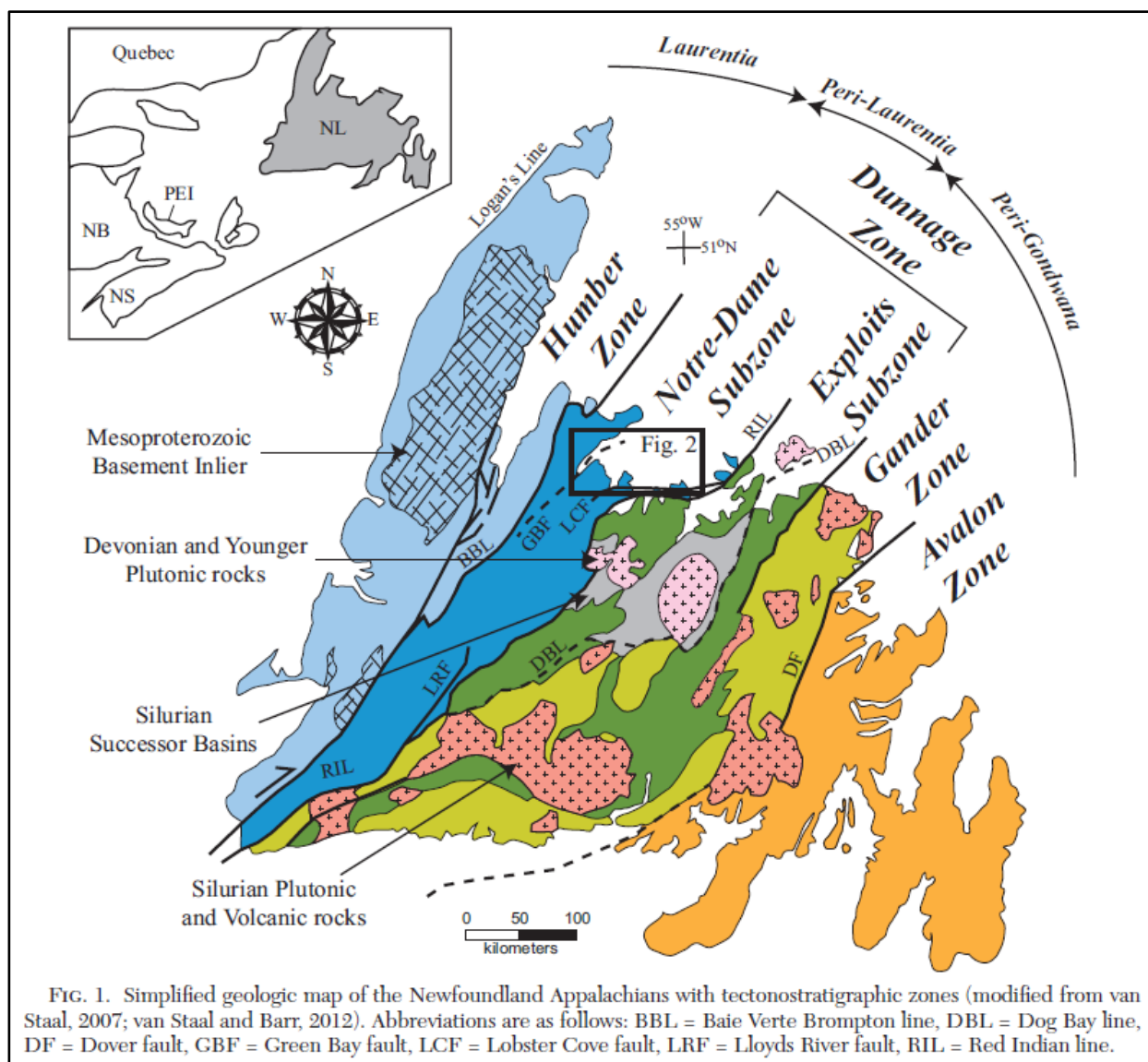
The regional geology described below is based largely on Cloutier et al. (2015) and references therein.

The Little Deer Complex is situated within the Notre Dame Subzone of the Dunnage Zone in the Newfoundland Appalachians, Canada (Figure 7.1). The Dunnage Zone is bound to the west by the Humber Zone and to the east by the Gander Zone (Williams, 1979; Williams et al., 1988; Hibbard et al., 2004). The Dunnage Zone represents deformed vestiges of arcs, back arcs and ophiolite complexes assembled during closure of the Iapetus Ocean (Swinden et al., 1989; Swinden, 1991b; Kena et al., 1995; van Staal and Colman-Sadd, 1997; Evans and Kean, 2002; Rogers and van Staal, 2002; Rogers et al., 2006; van Staal, 2007; Zagorevski et al., 2010).

The Dunnage Zone is divided into the western Notre Dame Subzone, formed near the Laurentian Equatorial Margin, and the eastern Exploits Subzone, formed on the edge of Gondwana and related micro-continents at mid- to high-southerly latitudes (Cocks and Torsvik, 2002; Zagorevski et al., 2006; van Staal et al., 2007). The Notre Dame Subzone is subdivided into five zones, which are, from oldest to youngest, (1) the late Neoproterozoic-Cambrian ribbon-shaped Dashwoods Microcontinent, (2) the 510 Ma to 501 Ma mafic to ultramafic ophiolitic rocks of the Lushs Bight Oceanic Tract, (3) the 489 Ma to 477 Ma mafic to ultramafic ophiolitic rocks of the Baie Verte Oceanic Tract, 4) the 488 to 453 Ma granodioritic to gabbroic Notre Dame Magmatic Arc, and 5) the 481 Ma to 460 Ma ophiolite-arc-back arc tectonic collage of the Annieopsquotch Accretionary Tract (Dunning and Krogh, 1985; Elliott et al., 1991; Szybinski, 1995; Cawood et al., 1996; Swinden et al., 1997; Waldron and van Staal, 2001; Zagorevski et al., 2006; van Staal, 2007; van Staal et al., 2007; Skulski et al., 2010; van Staal and Barr, 2012).

The Deer Lake Complex occurs within the Lushs Bight Oceanic Tract sequence. Obduction of the Lushs Bight Oceanic Tract sequence onto the western margin of the Dashwoods Microcontinent occurred during phase 1 of the Taconic Orogeny, initiated between 500 Ma and 493 Ma (Szybinski, 1995; Swinden et al., 1997; van Staal and Barr, 2012). The composite Lushs Bight Oceanic Tract-Dashwoods Terrane accreted onto the Humber Margin at ca. 480 Ma during phase 2 of the Taconic Orogeny, resulting in the closure of the Taconic Seaway and producing high-grade metamorphism and polyphase deformation in large parts of the Notre Dame Subzone (van Staal, 2007; van Staal et al., 2007; van Staal and Barr, 2012). Collision of the Notre Dame Subzone with the Exploits Subzone occurred during phase 3 of the Taconic Orogeny (455 Ma to 450 Ma), initiating the collision of composite Laurentia with Ganderia, in which the peak of deformation occurred during the Salinic Orogeny (445 Ma to 423 Ma; Dunning et al., 1991; van Staal et al., 2003; van Staal, 2007; Zagorevski et al., 2010; van Staal and Barr, 2012). Subsequent collision with the Avalon terrane during the Acadian Orogeny (421 Ma to 390 Ma), with the Meguma Terrane during the Neo-Acadian Orogeny (ca. 395 Ma to 340 Ma), and with Gondwana during the Alleghenian Orogeny (ca. 340 Ma to 260 Ma), led to the formation of the Pangea Supercontinent and terminated ca. 250 Ma of convergent tectonism (Hicks et al., 1999; Hatcher, 2002; Keppie et al., 2002; Reynolds et al., 2004; van Staal et al., 2009; van Staal and Barr, 2012).

FIGURE 7.1 REGIONAL GEOLOGIC SETTING OF THE LITTLE DEER COMPLEX

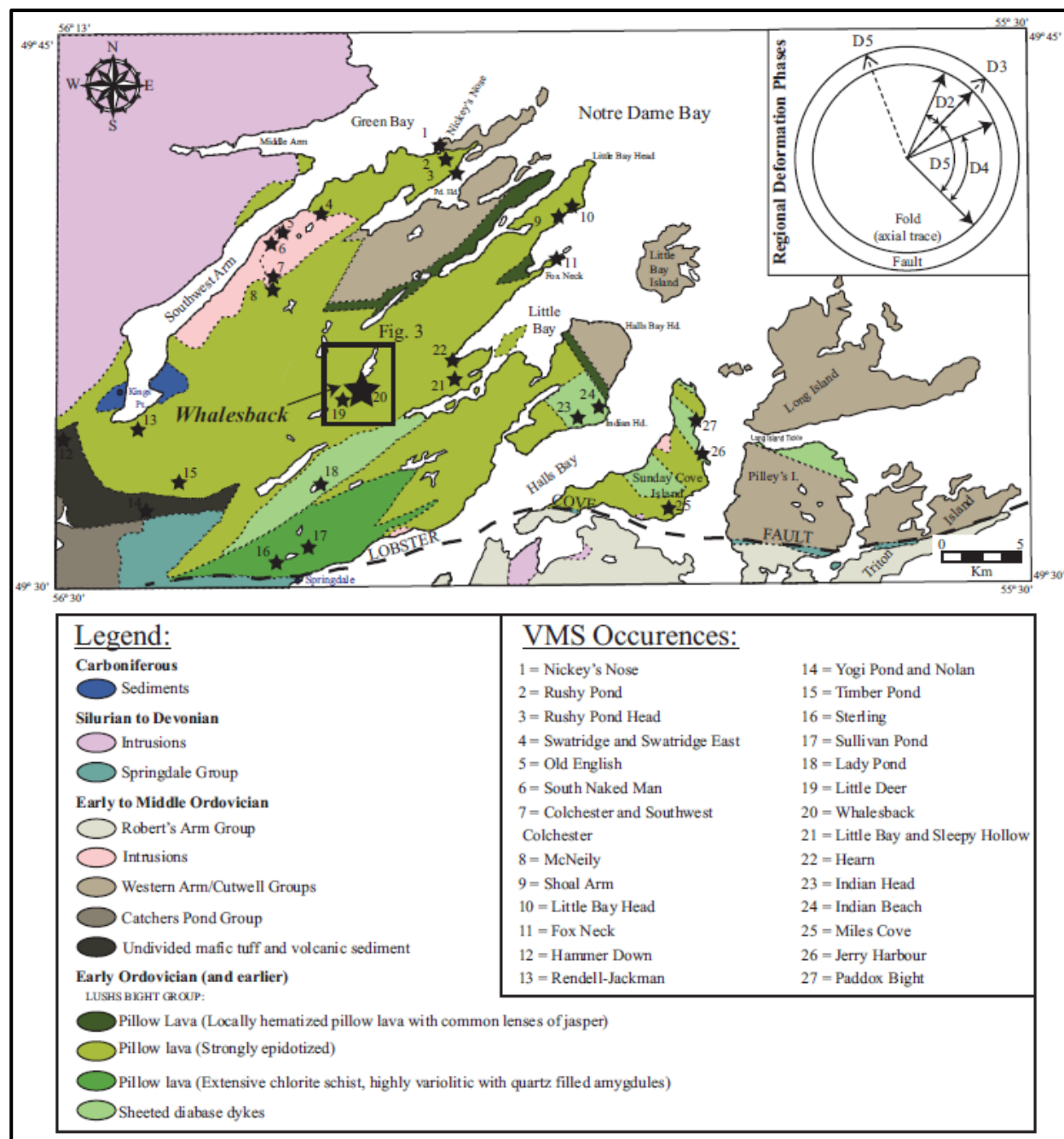


Source: Cloutier et al., (2015)

7.2 PROPERTY SCALE GEOLOGY

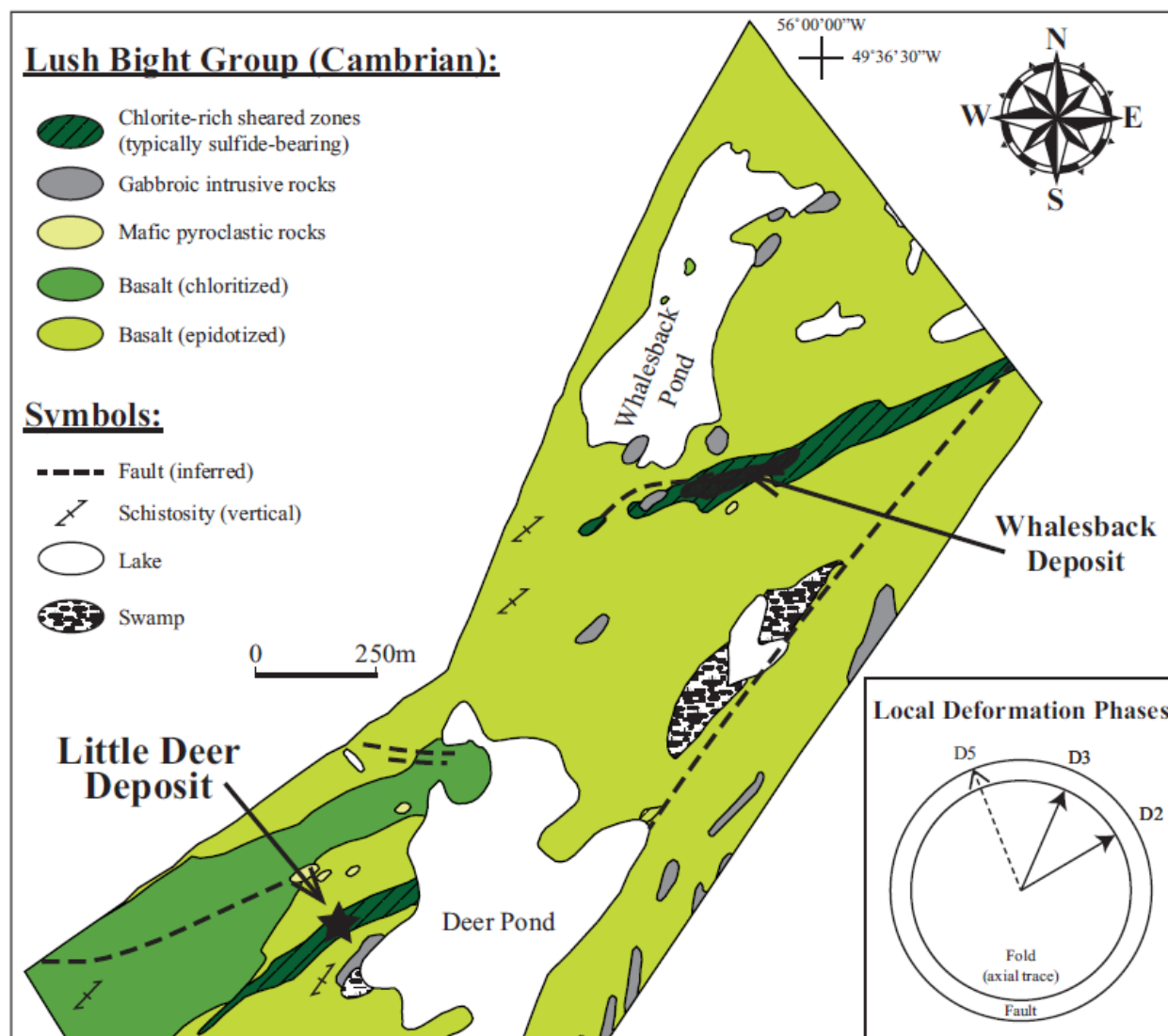
In the stratigraphic model of Szybinski (1995), the Lushs Bight Oceanic Tract is subdivided into three groups, which from oldest to youngest are: (1) the mafic Lushs Bight Group; (2) the dominantly mafic volcanic with minor felsic volcanic Western Arm Group; and (3) the bimodal volcanic Cutwell Group (Figure 7.2; Marten, 1971a, b; Kean, 1973; Kean and Strong, 1975; Kean et al., 1995; Szybinski, 1995). The Whalesback Deposit occurs in the Lushs Bight Group (Figures 7.2 and 7.3).

FIGURE 7.2 GEOLOGICAL MAP OF THE SPRINGDALE PENINSULA AREA WITH LOCATION OF THE WHALESBACK AND LITTLE DEER DEPOSITS



Source: Cloutier et al., (2015)

FIGURE 7.3 GEOLOGICAL MAP OF THE LITTLE DEER AND WHALESBACK DEPOSITS AREA



Source: Cloutier et al., (2015).

The Lushs Bight Group is 3 km to 4 km thick and consists mainly of lower greenschist facies metamorphosed tholeiitic basalt with local boninite and minor diorite to gabbro sheeted intrusions. Rare felsic pyroclastic rocks, jasper, and magnetite-bearing chert are also present. The basalts occur as pillowed or massive flows, and can locally be variolitic. In most cases, the variolitic basalts are of boninitic affinity and have quartz-filled amygdules. Areas of VMS mineralization tend to be spatially associated with areas of abundant boninites and felsic pyroclastic rocks (Kean et al., 1995; Szybinski, 1995). The Lushs Bight Group is crosscut by several generations of intrusive rocks, which include gabbro, quartz dacite, plagioclase porphyry, hornblende porphyry, hornblende-plagioclase porphyry, and pyroxene porphyry (Kanehira and Bachinski, 1968; Szybinski, 1995). The Lushs Bight Group is characterized by strong epidote alteration of the basalts, with a general decrease in epidote abundance toward the stratigraphic top of the group, and by locally extensive quartz \pm carbonate veins (Kean et al., 1995).

On the basis of alteration, the Lushs Bight Group was informally sub-divided by Papezik and Fleming (1967) and Fleming (1970) into a spilitic and chlorite-altered “St. Patrick type” and an epidote-altered “Whalesback type.” More recently, Szybinski (1995) subdivided the Lushs Bight Group into the basal Indian Head Complex (dominated by sheeted dykes) and the overlying Little Bay Formation (dominated by basalt).

7.3 STRUCTURAL GEOLOGY

Szybinski (1995) recognized five stages of deformation in the Notre Dame Bay region. The first phase (D_1) is a non-penetrative deformation linked to the mylonitization of pre-existing chlorite-rich synvolcanic faults that were the feeder conduits to VMS mineralization, creating an S_1 foliation. During D_1 , the chlorite-rich shear zones accommodated a component of dextral transcurrent shearing (Szybinski, 1995) related to dextral oblique convergence of the Lushs Bight Oceanic Tract and the Dashwoods Microcontinent (Dewey, 2002), and during phase 1 of the Taconic Orogeny (van Staal, 2007; van Staal and Barr, 2012).

The second phase of deformation (D_2) produced a regional penetrative S_2 foliation and tight to isoclinal upright folds with NE-NNE axial planes throughout the Lushs Bight Group. Szybinski (1995) concluded that D_2 was synchronous with the emplacement of the Colchester and Coopers Cove plutons (465 ± 2 Ma), and coincident with phase 2 of the Taconic Orogeny. At Whalesback, D_2 produced a steep S_2 schistosity trending $\sim 060^\circ$ N and dipping southeast (Papezik, 1965; West, 1972).

The third phase of deformation (D_3) is also a significant regional event that produced large NE-trending folds and numerous brittle-ductile NE-striking thrust faults related to the emplacement of an alpine-style nappe in the Notre Dame Bay region (Szybinski, 1995). At Whalesback, D_3 resulted in the creation of an open fold with an axial trace trending $\sim 025^\circ$ N and dipping steeply to the north, deforming the chlorite schists into a major dextral drag fold (West, 1972).

The fourth phase of deformation (D_4) is locally developed in the Lushs Bight Group as ENE- to SE-plunging antiforms, folds, and thrusts. D_4 reaches its maximum intensity in the vicinity of the Lobster Cove Fault, located approximately 10 km southeast. The fifth phase of deformation (D_5) represents the third major regional event in the Lushs Bight Group and resulted in the creation of NE- to SW-trending folds verging to the NW-, NNW-trending high-angle thrust faults, and foreland propagating duplexes of various sizes (Szybinski, 1995). At Whalesback, mafic dykes emplaced during D_1 deformation are affected by NW-directed high-angle reverse faults (Szybinski, 1995).

7.4 GEOLOGY AND MINERALIZATION AT THE LITTLE DEER DEPOSIT

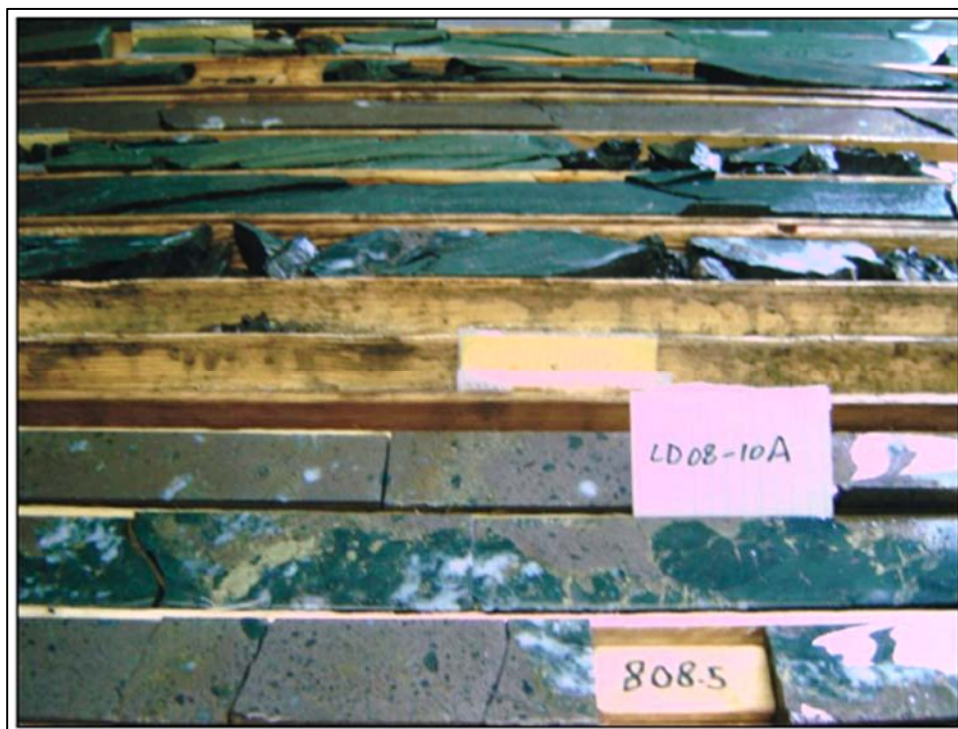
The Little Deer Deposit is hosted in a typical ophiolitic sequence that underlies most of the Springdale Peninsula. Similar ophiolite sequences are known to host volcanogenic massive sulphide (“VMS”) and related deposits elsewhere in Newfoundland, including the former producing mines at Little Bay, Betts Cove, Tilt Cove, Gullbridge, Rambler and Whalesback.

The major host lithology of Little Deer consists of steeply-dipping mafic metavolcanic rocks with few continuous stratigraphic marker units relative to copper mineralization, as is commonly found in VMS deposits. Agglomerates, tuffs and chert-rich units are observed in drill core. However, these units sometimes are not found in adjacent drill holes, which suggests that such units were deposited in small, isolated depressions.

The mineralized host rocks consist of chlorite- and epidote-altered pillow basalts and an intermediate chlorite schist zone. The schist zone ranges from chlorite schist through chlorite-sericite schist and quartz-sericite schist to sericite schist. The dominant alteration mineral is chlorite. The host volcanic sequence is bound by two faults – the Davis Pond Fault and the Middle Arm – Clam Pond Fault. There are several small faults in the schist zone.

The Little Deer Deposit contains mainly stringer and disseminated sulphide mineralization, with smaller amounts of massive sulphide mineralization (Figure 7.4), associated mainly with Upper Cambrian age mafic volcanic rocks of the Lushs Bight Group. The predominant sulphides present are pyrrhotite, chalcopyrite, pyrite and sphalerite. The copper mineralization appears to be stratiform in overall form and generally follows the orientation of the host mafic volcanic units.

FIGURE 7.4 **SULPHIDE RICH MINERALIZATION INTERSECTION IN LITTLE DEER DRILL HOLE LD-08-10A**



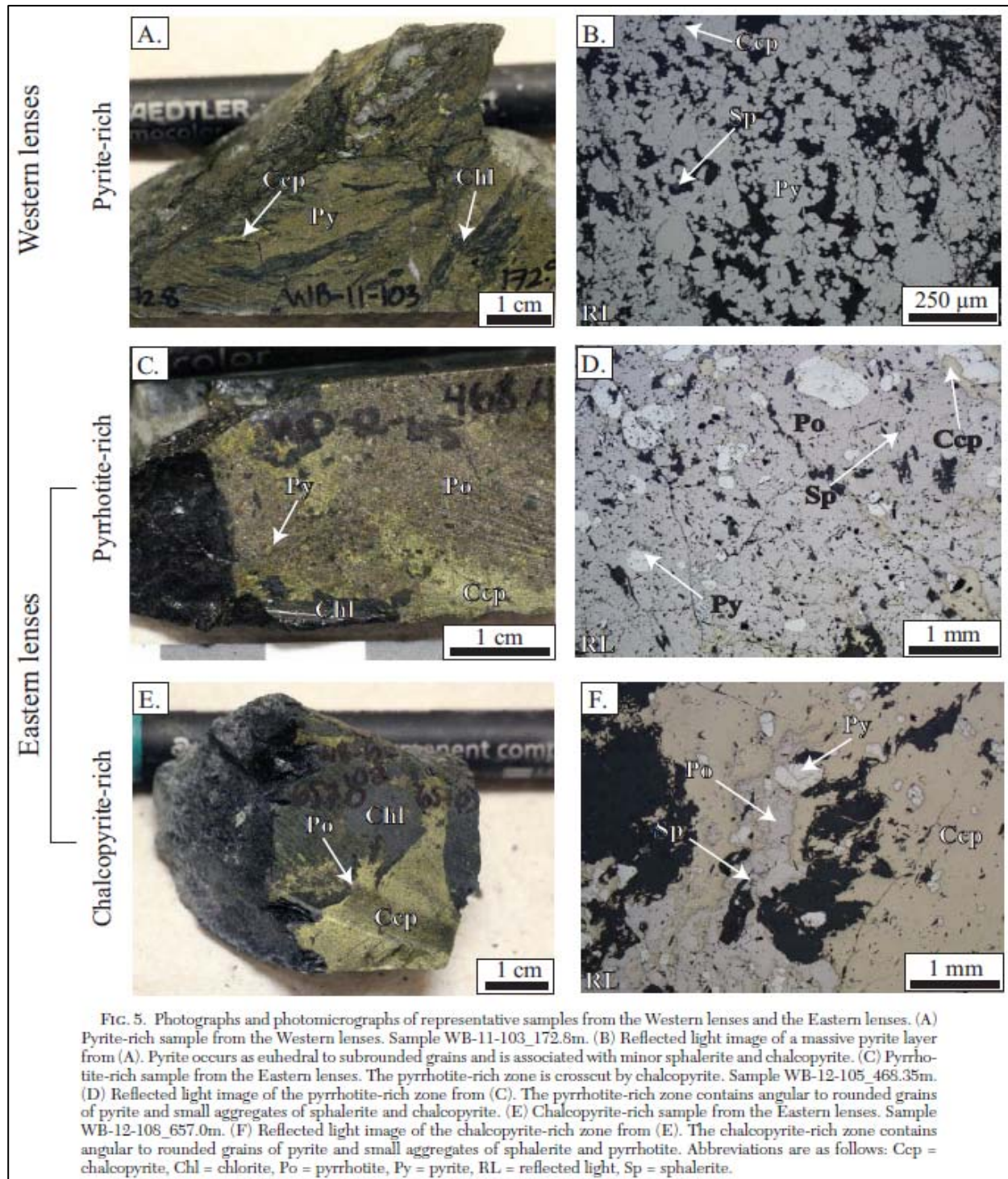
Source: P&E (2011a).

The copper mineralization occurs as narrow intervals of massive sulphide, wider intervals of semi-massive sulphide (i.e.-sulphide-matrix breccia), stringers, veinlets and disseminations. The sulphide mineral assemblage in copper-rich areas is a mix of chalcopyrite and pyrrhotite with smaller amounts of sphalerite. From drill hole data, the copper rich mineralization is present in a series of discrete lenses and zones arranged in an en-echelon pattern.

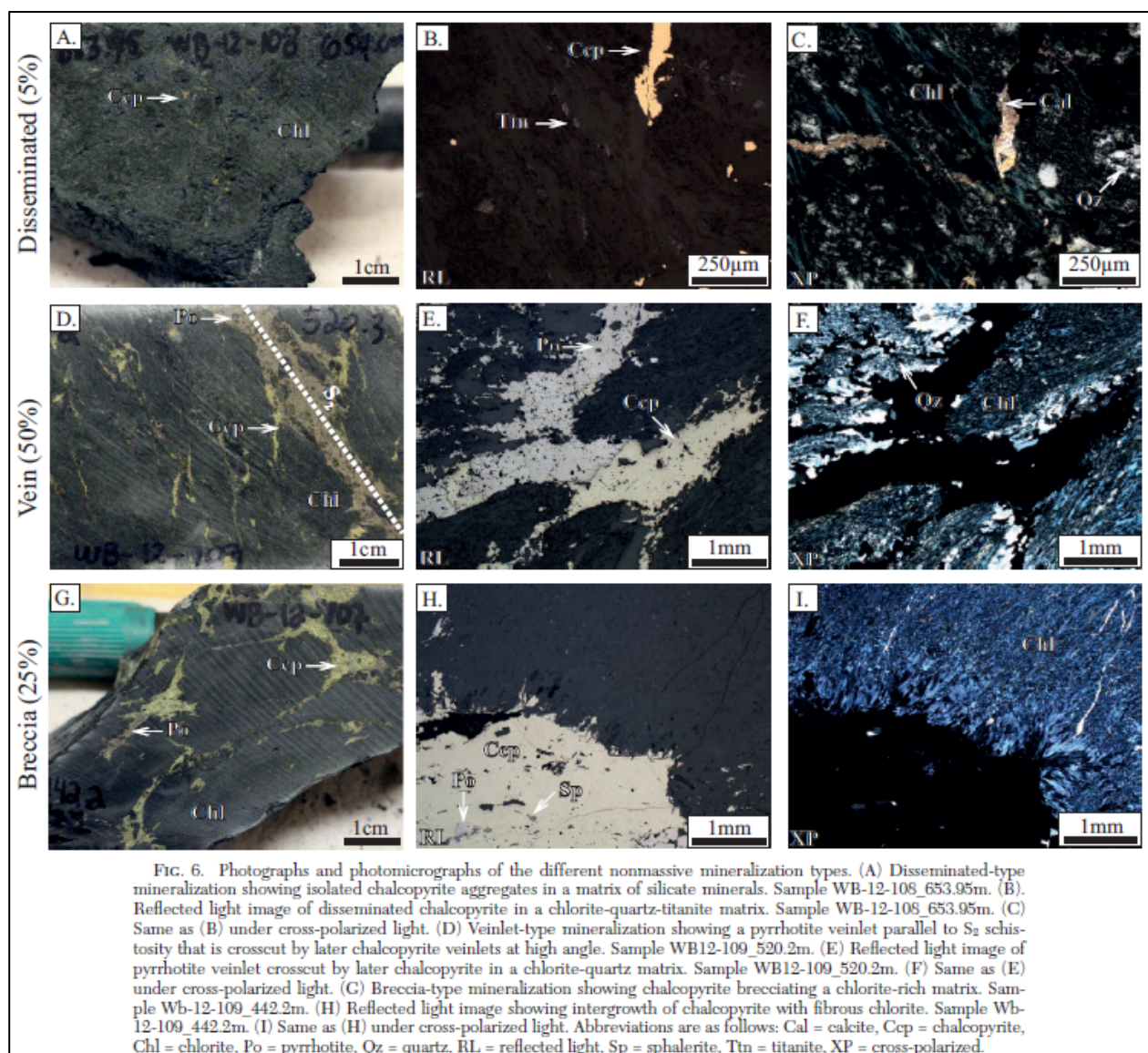
7.5 GEOLOGY AND MINERALIZATION AT THE WHALESBACK DEPOSIT

The Whalesback Deposit is a Cu-rich (Cyprus-type) VMS deposit hosted in mafic volcanic rocks (Kanehira and Bachinski, 1968). The Deposit consists of massive, veins, pods, and disseminated sulphides (Figures 7.5 and 7.6) that form 0.3 m to 15 m wide mineralized lenses. The lenses are hosted within a 720 m long and 120 m wide, highly chloritized shear zone that strikes 245 N and dips steeply (Figure 7.3). The Whalesback massive sulphide lenses are located in the central and hanging wall portions of a chlorite shear zone that plunges southwest at approximately 50° (Kanehira and Bachinski, 1968). These lenses occur at the site of maximum deformation intensity within the chlorite shear zone(s), suggesting extensive remobilization during post-VMS formation deformation events. With increasing proximity to the main shear zone, pillow basalts from the Lushs Bight Group become increasingly sheared and elongated parallel to the shear planes, primary pyroxenes are replaced by secondary chlorite, epidote alteration decreases in intensity, and quartz aggregates replace albite laths (Kanehira and Bachinski, 1968). Barren, weakly altered, regionally metamorphosed, and deformed gabbro, quartz dacite, plagioclase porphyry, hornblende porphyry, hornblende-plagioclase porphyry, and pyroxene porphyry intrude the chlorite-altered shear zone and the mineralized lenses (Kanehira and Bachinski, 1968).

FIGURE 7.5 MASSIVE AND SEMI-MASSIVE SULPHIDE MINERALIZATION AT WHALESBACK DEPOSIT



Source: Cloutier et al., (2015).



Source: Cloutier et al., (2015).

The sulphide lenses consist of pyrite, chalcopyrite, pyrrhotite, and sphalerite with minor mackinawite, pentlandite, magnetite, cubanite, galena, and ilmenite (Kanehira and Bachinski, 1968). The sulphides assemblages at Whalesback are spatially zoned, with pyrrhotite and chalcopyrite being the dominant sulphides in the Eastern lenses, whereas pyrite, sphalerite, and chalcopyrite are the most abundant sulphides in the Western lenses (West, 1972). Silicate alteration minerals associated with mineralization are predominantly chlorite and quartz with minor muscovite, carbonate, titanite, albite, and epidote (Kanehira and Bachinski, 1968). Alteration of the rocks surrounding the Whalesback Deposit within the chlorite-rich shear zone is marked by depletion in Na and Ca and enrichment in Fe, S and K (Bachinski, 1977a), typical of VMS alteration systems (e.g., Franklin et al., 2005; Hannington, 2014).

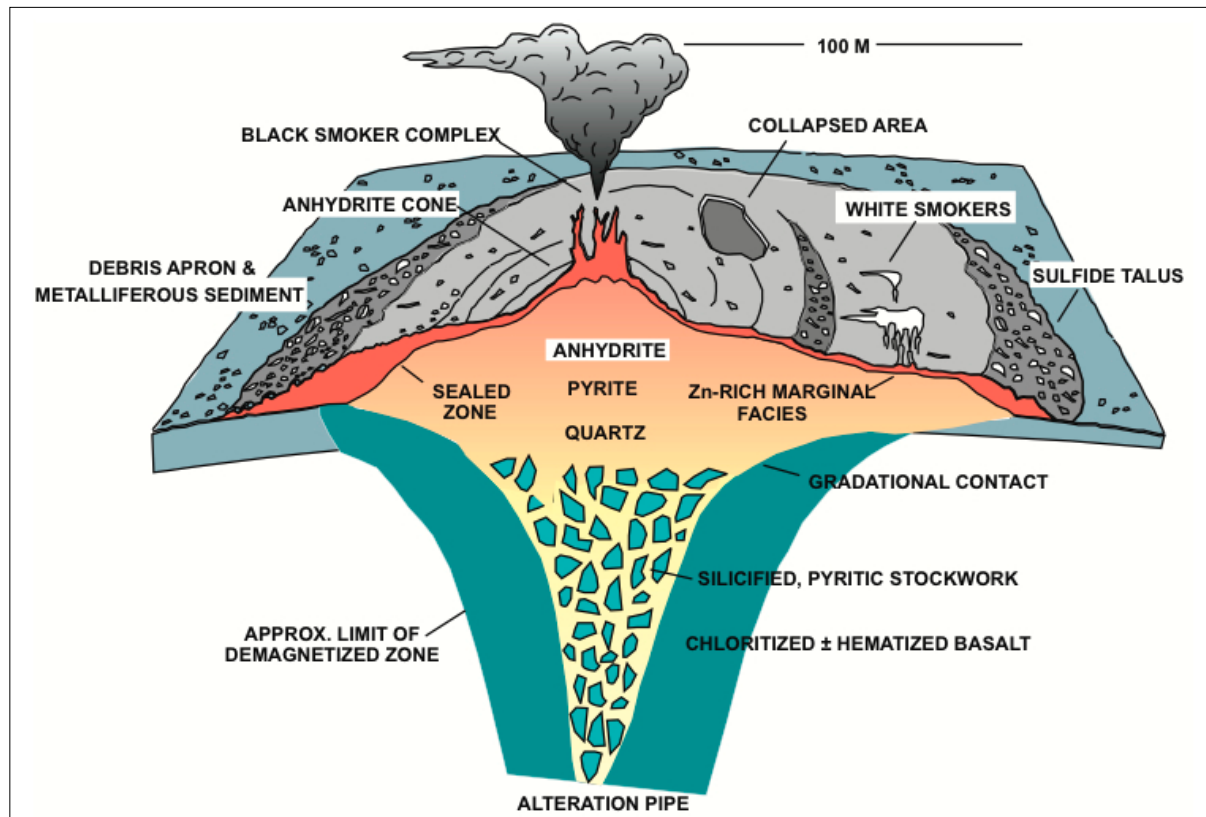
8.0 DEPOSIT TYPES

The Little Deer and Whalesback deposits are considered to be Appalachian stringer-dominated Cyprus-type VMS deposits. The two deposits and their host rocks are highly deformed by post-depositional geotectonic events.

8.1 METALLOGENIC MODEL – CYPRUS VMS DEPOSITS

Globally, Cyprus-type (also known as mafic-type) VMS deposits are Cu-rich stratabound to stratiform, syngenetic deposits that form on or near the seafloor by precipitation from hydrothermal fluids at temperatures between 200°C and 350°C (Large, 1977; Franklin et al., 1981, 2005; Lydon, 1984, 1988; Hannington, 2014). Cyprus-type deposits commonly consist of pyrite, chalcopyrite, pyrrhotite, and sphalerite with minor amounts of galena, tetrahedrite, tennantite, arsenopyrite, bornite, and magnetite (Large, 1977, 1992; Eldridge et al., 1983; Lydon, 1988; Ohmoto, 1996; Franklin et al., 2005). They commonly have metal zoning patterns driven by temperature-dependent metal solubility differences with low-temperature Zn-(Pb) deposition followed by higher-temperature Cu deposition; the latter leading to zone refining of earlier-formed Zn-(Pb) sulphides (Ohmoto, 1996). The Cu-rich sulphides in Cyprus-type deposits, like those at Whalesback, generally precipitate from hotter fluids, adjacent to or within the footwall feeder conduit or at the base of the sulphide mound (Figure 8.1). Conversely, Zn- and Pb-rich sulphides precipitate from cooler hydrothermal fluids at the top and outer margins of the deposits.

FIGURE 8.1 SCHEMATIC DIAGRAM OF A VMS DEPOSIT



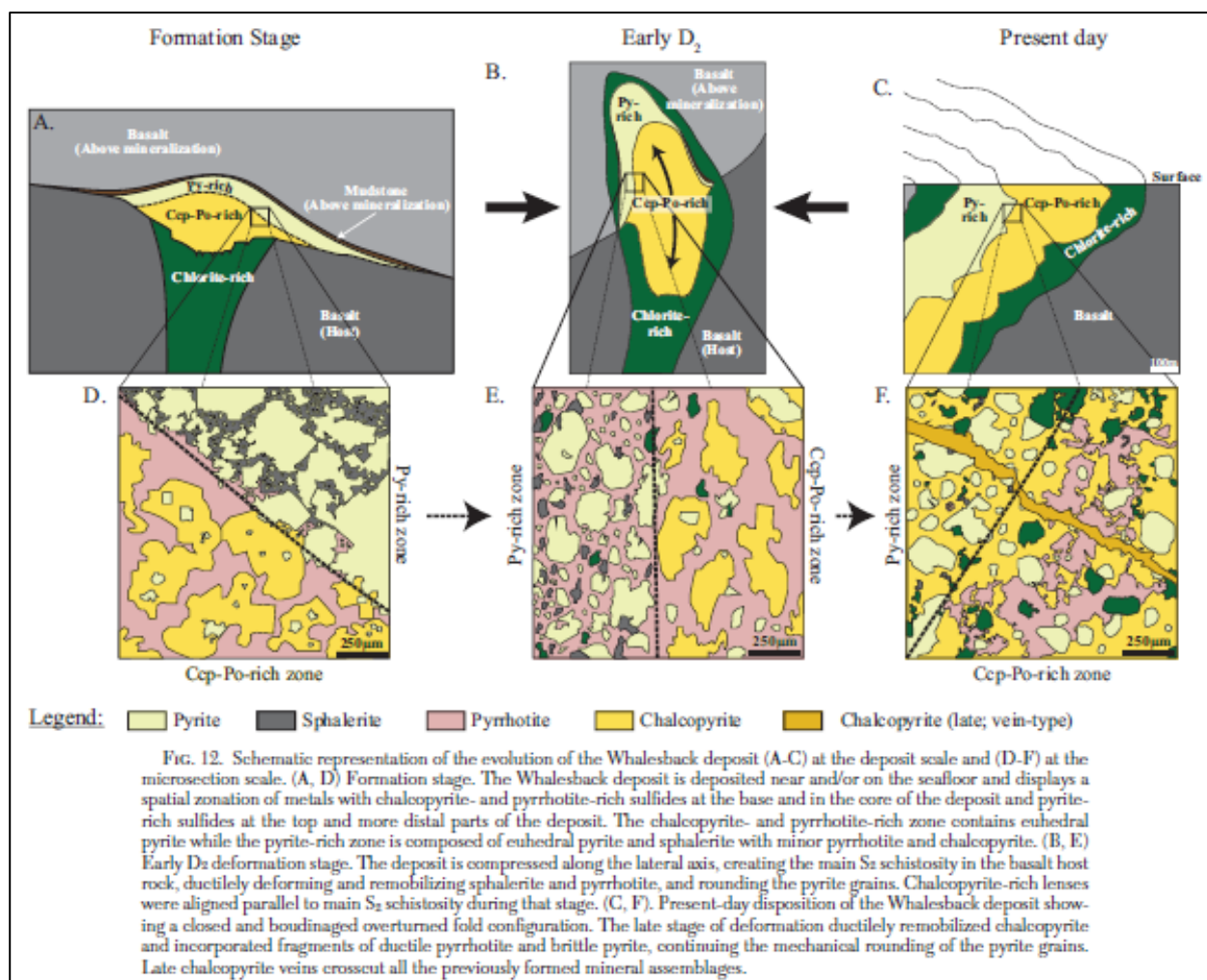
Source: modified from Galley et al., (2007).

Cyprus-type deposits, like all VMS deposits, form within extensional geodynamic regimes, with Cyprus-type systems generally forming at mid-ocean ridges, back-arc basins and intra-oceanic arc rifts (Swinden, 1991a; Piercey, 2010, 2011; Hannington, 2014). In ancient environments, the extensional stage of tectonic activity is commonly followed by uplift, basin inversion, compressional deformation, and metamorphism of the volcanic sequence hosting the massive sulphide deposits, due to post-VMS formation accretionary tectonics (e.g., McClay, 1995; Nelson, 1997). During this accretionary activity, rheological differences between sulphides and more competent silicate minerals in the host sequence can lead to significant remobilization of the sulphides during deformation, creating distinct deformation and metamorphic textures such as *durchbewegung* (Cox, 1987; Marshall and Gilligan, 1987, 1989, 1993). *Durchbewegung* texture, as defined by Marshall and Gilligan (1989), consists of a mixture of secondary tectonic origin composed of angular to rounded clasts of competent materials (silicates) within a matrix of predominantly less competent material (sulphides), where the competent clasts are generally contorted and disoriented.

8.2 DEFORMATION AT WHALESBACK DEPOSIT

Whalesback consists of a tightly folded and boudinaged sulphide deposit dominated by chalcopyrite and pyrrhotite in the Eastern lenses and by pyrite in the Western lenses (Papezik, 1965; West, 1972; Szybinski, 1995). In most genetic and descriptive models for Cyprus-type VMS deposits, there is a well-developed zonation of metals with chalcopyrite and pyrrhotite concentrated at the base and in the core of the deposits, and pyrite and sphalerite concentrated at the top and more distal parts of the deposit (Figure 8.2a; Large, 1977; Franklin et al., 1981, 2005; Lydon, 1984, 1988; Ohmoto, 1996; Hannington, 2014). The metal distribution at Whalesback suggests that the pyrite-rich Western lenses represent the top or distal parts of the Deposit, whereas the chalcopyrite-pyrrhotite-rich Eastern lenses represent the core and base of the Deposit, in accordance with a younging direction toward west. Metal zoning projected above the present-day surface implies that D2 deformation produced a closed overturned fold (Figure 8.2b). Overturned folds here have not been previously documented and have implications for the longer-term exploration. Furthermore, it confirms the Whalesback Deposit has been highly deformed, folded, and boudinaged during D2, resulting in a closed overturned anticline (Figure 8.2c), and creating the characteristic *durchbewegung* deformation texture observed at hand-specimen scale.

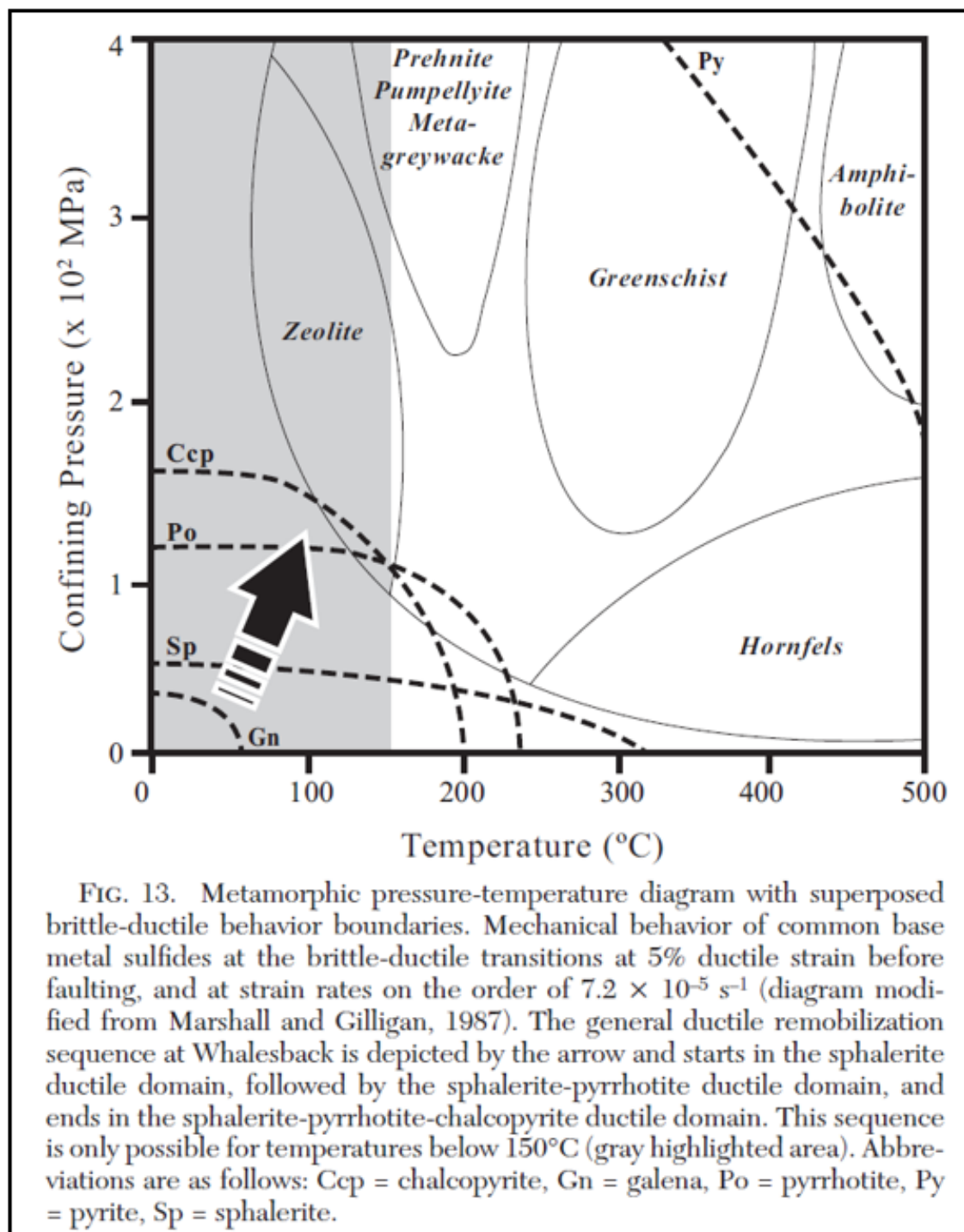
FIGURE 8.2 SCHEMATIC DEFORMATION MODEL FOR THE WHALESBACK DEPOSIT



Source: Cloutier et al., (2015).

At Whalesback and independent of mineralization style, massive pyrite and pyrrhotite (and some chalcopyrite) are commonly parallel to main S₂ schistosity in the deposits, whereas late chalcopyrite piercement veins occur at a high angle to S₂. The progressive increase in pressure and temperature produced the remobilization sequence wherein sphalerite was the first sulphide phase to cross the brittle-ductile boundary, followed by pyrrhotite, and finally, chalcopyrite (Figure 8.3). Maximum temperature was not high enough for the pyrite to cross the brittle-ductile boundary. However, pyrite was incorporated and transported by pyrrhotite and chalcopyrite during the ductile remobilization events, rounding and fracturing grains. Remobilization of the sulphides occurred mainly by plastic flow, but some solution transport and reprecipitation also occurred locally.

FIGURE 8.3 METAMORPHIC PRESSURE-TEMPERATURE MODEL FOR SULPHIDE REMOBILIZATION DURING DEFORMATION OF WHALESBACK

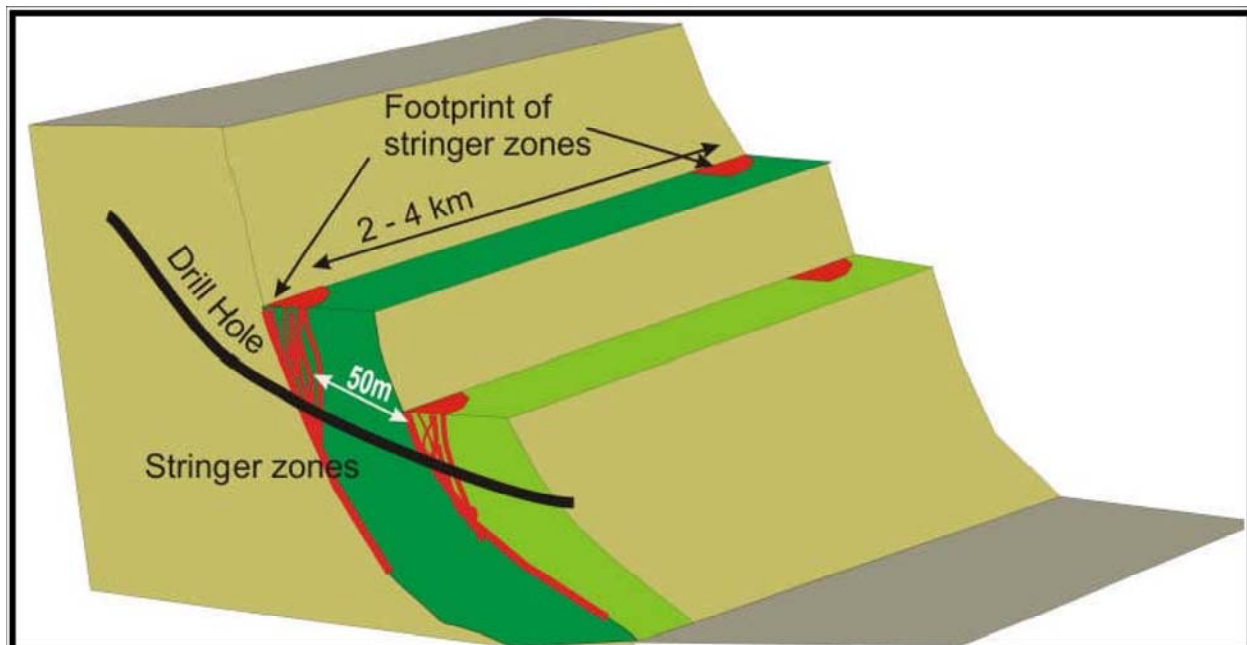


Source: Cloutier et al., (2015).

8.3 LITTLE DEER DEPOSIT MODEL

The mineralogy of the Little Deer Deposit is predominantly copper with subsidiary cobalt and silver and minor gold. Low to moderate zinc values are present and that metal is normally zoned away from copper. In this regard, the Deposit is closer to a Cyprus-type VMS deposit characterized by a metal content that is generally restricted to copper, gold, and less commonly, zinc. A possible explanation for the presence of the two copper-stringer zones is represented in (Figure 8.4), whereby the mineralization is deposited along paleo-volcanic listric normal faults.

FIGURE 8.4 SCHEMATIC MODEL ILLUSTRATING MINERALIZATION ALONG PALEOVOLCANIC LISTRIC NORMAL FAULTS AT A POSSIBLE EXPLANATION FOR TWO COPPER-STRINGER ZONES AT LITTLE DEER



Source: P&E (2011b).

9.0 EXPLORATION

All exploration performed on the Property is historical and summarized in Section 6.0 of this Technical Report.

10.0 DRILLING

In 2014, 50:50 joint venture partners Rambler and Thundermin drilled 3,800 m in four drill holes from surface and two wedge holes on the Little Deer Complex Property. The drill program focused on the higher-grade, eastern portion of the Little Deer Deposit. Its primary purposes were to further upgrade the Inferred Mineral Resources to Indicated Mineral Resources and expand the Mineral Resources in the Little Deer Footwall Zone Splay (Figure 8.4), prior to undertaking a Pre-Feasibility Study. This program was the most recent drilling activity on the Property.

The drill hole collar locations and orientations, mineralized intervals, and assay result highlights are presented in Table 10.1. Drill hole locations are shown in plan view in Figure 14.1 and Appendix A. The most notable intercepts are 2.9% Cu over 3.4 m in hole LD-14-63, 3.8% Cu over 2.0 m in hole LD-14-65, and 2.3% Cu over 6.2 m in hole LD-14-65.

TABLE 10.1 LITTLE DEER 2014 DRILL HOLE COLLAR LOCATIONS AND ASSAY RESULTS								
Hole No.	UTM Zone 21		Dip (°)	Az (°)	From (m)	To (m)	Interval (m) ¹	Cu (%)
	East (m)	North (m)						
LD-14-63	571,149	5,492,702	-58.2	328	800.5	803.9	3.4	2.9
and					819	819.7	0.7	1.9
and					886.6	887.2	0.6	1.9
LD-14-63A ²	571,149	5,492,702	-58.2	328	763.3	766.3	3.0	1.0
and					775.2	777.7	2.5	1.0
LD-14-64	571,149	5,492,702	-52.6	328	729.6	732.6	3.0	1.0
LD-14-64A	571,149	5,492,702	-52.6	328	723.3	724.3	1.0	0.9
LD-14-65	571,174	5,492,756	-51.2	329	206.5	208.5	2.0	3.8
and					414.8	417.4	2.6	2.1
and					629.6	630	0.4	8.0
and					635.3	641.5	6.2	2.3
LD-14-66	571,189	5,492,780	-57.7	328	409.5	409.8	0.3	2.4
and					678.5	679.5	1.0	1.5

Notes:

- 1) The reported copper intersections are core lengths. The true thicknesses of the copper intersections are highly variable due to the nature of the mineralization.
- 2) The "A" suffix in the drill hole number indicates a wedge hole.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The data reviewed for this Technical Report and used for geological modelling and Mineral Resource estimation combines various phases of exploration by several companies. Historical drilling was completed by BRINEX between 1961 and 1970 and Mutapa Gold Corporation between 1998 and 2000. The following section examines the most recent phases of drilling completed by Thundermin and Cornerstone between 2007 and 2011.

11.1 SAMPLE PREPARATION AND SECURITY

11.1.1 2007 to 2011 Drilling

After logging of the drill core, but prior to sampling, each interval to be sampled was subjected to a number of procedures including accurate measurement of core angles, measurement of rock quality designations (RQD), and photographing of both the wet and dry drill core. The geologist then marked the sampling intervals to be submitted for analysis, assigned each interval a unique sample tag in triplicate, noting the date, project, drill hole number, depth from, depth to and sample width. Care was taken to ensure that the samples corresponded to either geological or alteration intervals present in the drill core. Aside from some narrow intervals of fault gouge and blocky drill core, no drilling, sampling or recovery factors were encountered that would materially impact the accuracy and reliability of the analytical results. The drill core provided samples of high quality, which were representative of any alteration, veining or sulphide accumulations that were intersected by the drill hole. No factors were identified which may have resulted in a sample bias.

After the intervals to be sampled were marked, the drill core was cut lengthways in half using an electric tile saw equipped with a diamond-impregnated blade. One-half of the drill core sample was then placed in a plastic bag containing a sample tag for easy identification, sealed and placed and further sealed in a container (fibre bag) for shipping to the assay lab. The remaining half drill core was left in the core box for future reference.

Density measurements were made on all samples considered to represent a zone of significant copper mineralization. In these cases, the densities of all individually marked samples were determined on the whole-core sample by the core technician or geologist using the Archimedes (water immersion) principle.

When all the samples had been collected for a drill hole, they were transported under the direct supervision of the geologist or core technician to the sample receiving facilities of Eastern Analytical Ltd. in Springdale, Newfoundland (“Eastern Analytical”). When all the samples for one drill hole had been cut, the remaining half drill core was stored in a secure indoor location. A total of 706 samples of half-cut drill core were taken during the 2007 to 2009 drilling program at the Little Deer Deposit and a total of 541 samples during the 2010 to 2011 drilling program.

11.2 SAMPLE PREPARATION AND ANALYSIS

11.2.1 2007 to 2011 Drilling

All samples of cut drill core were delivered as individual (per drill hole) shipments to the sample receiving facilities of Eastern Analytical, where all aspects of the sample preparation were conducted. When received, the samples were organized and labelled, and then oven dried and crushed to approximately -10 mesh size. The entire crushed sample was then riffle split to provide a ~300 g sample. The ~300 g split was then ring-milled to 98% -150 mesh material. The sample preparation technician also inspected the rings and bowls after each sample and silica sand is used to clean equipment as needed. A sub-sample of the resulting rock powder was then transferred to a small envelope for further laboratory use. The remaining un-pulverized sample was then bagged as coarse rejects and returned for possible future use.

Initially, all samples were analyzed utilizing a 30-element aqua regia digestion/ICP-OES suite and the metal concentrations reported in parts per million (ppm). Later in the drill program, all samples were also analyzed for their gold content using the gold fire assay method (1 assay ton) with an atomic absorption finish where the concentrations were reported in parts per billion (ppb).

The laboratory was instructed that any samples found to contain greater than the upper detection limits for copper (10,000 ppm), lead (2,200 ppm), zinc (2,200 ppm), cobalt (550 ppm) or silver (6 ppm) were to be subjected to ore grade analysis, whereby a sample is digested with three acids before analysis by atomic absorption. In this case, the base metal concentrations were reported in percent (lower detection limit 0.01%, no upper detection limit) and the silver in grams per tonne (lower detection limit 0.34 g/t, no upper detection limit).

Eastern Analytical is independent of Thundermin and Cornerstone and has implemented a quality system compliant with the International Standards Organization (ISO) requirements for the competence of testing and calibration laboratories. Thundermin and Cornerstone regularly participated in the CANMET Round-Robin proficiency test and passed all criteria.

Eastern Analytical was not an ISO certified lab during the Company's drill campaigns at the Property, but had provided independent laboratory analysis to the mining community for many years prior to that time. The lab opened in 1987 to provide a local assay laboratory service to the exploration industry of Newfoundland & Labrador. In February 2014, Eastern Analytical achieved ISO/IEC 17025 accreditation and is ISO 17025 accredited in Fire Assay Au, and multi-acid ore grade assays in Cu, Pb, Zn, Ag, Fe and Co.

11.3 QUALITY ASSURANCE/QUALITY CONTROL REVIEW

Thundermin and Cornerstone implemented a quality assurance/quality control ("QAQC") program for the 2007 to 2011 drilling programs, with the addition of certified reference materials ("CRM" or "standards") and a pulverized blank material at a rate of approximately 1:20. Eastern Analytical also inserts its own blanks, standards and duplicates during the analytical process to monitor for accuracy, contamination and precision.

11.3.1 2007 to 2009 Drilling

A Cu-Au CRM, supplied by CDN Resource Laboratories Ltd. in Langley, BC, (“CDN”), was inserted by Thundermin-Cornerstone with the samples delivered to Eastern Analytical. This standard was inserted either with each batch of samples or as every 20th sample in larger batches. Later in the program, a series of certified blank standard reference materials (also supplied by CDN) were inserted into the sample stream, either with each batch or as every 21st sample in larger batches to monitor for contamination.

11.3.1.1 Performance of Certified Reference Materials

The CDN-CGS-2 standard, with a certified mean value of 1.177% Cu, was used during 2007 to 2009 drilling and a total of 37 standards were inserted into the sample stream.

The data were graphed using ± 2 standard deviations from the mean for the warning limits and ± 3 standard deviations from the mean for the tolerance limits.

Seven data points failed below the tolerance limit of -3 standard deviations from the mean and the remaining data points were all within ± 2 standard deviations from the mean. A consistent low bias is noted within the data with the vast majority of all data points falling below the mean.

11.3.1.2 Performance of Blank Material

The CDN-BL-4 blank material used was pre-pulverized, and therefore did not go through the sample reduction process – it monitored possible analytical contamination only. There were 18 data points for the blank material and all were well below the upper threshold of three times the detection limit.

11.3.1.3 Performance of Secondary Laboratory Checks

A series of 36 pulp samples were submitted to ALS Minerals (ALS) in Sudbury, ON for check analyses. The pulps were taken from various drill holes and covered the complete range of copper values (0.00% to 13.3% Cu) encountered by the sampling at that time. A number of QC samples were also included with the check pulps, including two standards and two certified blanks.

Samples were analyzed at ALS for copper only by aqua regia digestion with an ICP finish. The results of the check sampling plotted on a 1:1 line. The data correlation was excellent with all points plotting on or close to a 1:1 line.

11.3.2 2010 to 2011 Drilling

11.3.2.1 Performance of Certified Reference Materials

Two CRM, both purchased from CDN Resource Laboratories Ltd. in Langley, BC, were used for the drill programs: one with a certified mean of 1.58% Cu and the other 1.18% Cu.

There were 22 data points for the higher-grade CRM. The data were graphed, using ± 2 standard deviations from the mean for the warning limits and ± 3 standard deviations from the mean for the tolerance limits.

Two data points failed below the tolerance limit of -3 standard deviations. Six data points were above the mean and the remaining 14 data points were all within ± 2 standard deviations.

The standard certified at a mean value of 1.18% Cu had 81 data points. This standard performed very poorly with the majority of the data points failing below -3 standard deviations.

P&E examined the analysis methods for the round robin characterization of the standards, and the method used at the principal lab, in order to ascertain the possible source of error. The standards were characterized using a four-acid digest, whereas the principal lab used a three-acid digest. It is possible that this difference is partly responsible for the inaccuracy issues. The fact that the standards failed low is a cause for concern, in that the Mineral Resource grade may in fact be higher than estimated. This concern was discussed with Thundermin and Cornerstone (previous owners), who investigated this issue with the principal laboratory.

11.3.2.2 Performance of Blank Material

The blank material used was pre-pulverized, and therefore did not go through the sample reduction process – it monitored possible analytical contamination only. There were 82 data points for the blank material and all were well below the upper threshold of three times the detection limit.

11.3.2.3 Performance of Secondary Laboratory Checks

Thirty-six pulp samples were sent from Eastern Analytical to ALS Minerals of Vancouver for verification purposes. The data correlation was excellent with all points plotting on a 1:1 line, or very close to it.

11.4 CONCLUSION

Thundermin-Cornerstone implemented and monitored a thorough QAQC program for the drilling undertaken at the Little Deer Project over the 2007-2011 period and also undertook umpire assaying to further confirm the integrity of the Project data.

A potential issue with under-reporting of copper grades was identified, through consistent negatively biased CRM results during both the 2007-2009 and 2010-2011 drilling phases. However, umpire assaying performed by ALS confirm the tenor of the original Eastern Analytical data. No further material issues with accuracy, contamination or precision in the data were encountered.

It is the author's opinion that sample preparation, security and analytical procedures for the Little Deer Project are adequate and that the data is of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report.

The author of this Technical Report section recommends that Rambler continue with the current QC protocol, which includes the insertion of standards and blanks and umpire assaying (on at least 5% of samples) at a reputable secondary laboratory. The addition of duplicate samples in future sampling programs will also aid in the identification of repeatability issues. The author also recommends ongoing and timely monitoring of QC data; following-up on any QC failures and potential issues with the relevant laboratory immediately.

12.0 DATA VERIFICATION

12.1 2011 DATA VERIFICATION

The database as received by P&E contained assay results from 48,432 m of drilling in 82 drill historical drill holes completed by Thundermin and Cornerstone since June 2007, and assay data from a total of 102 surface and 122 underground historical holes that were drilled by BRINEX between 1961 and 1970 and Mutapa Gold Corporation between 1998 and 2000. The historical information was recovered from the archives of the Newfoundland and Labrador Department of Natural Resources in St. John's, Newfoundland and Labrador (Table 12.1).

TABLE 12.1 SUMMARY OF LITTLE DEER PROJECT DRILL HOLE DATABASE		
Type	Number of Drill Holes	Total Metres
Historical Surface Drilling	102	23,546.42
Historical Underground Drilling	122	12,077.09
Historical Surface Drilling	82	48,432.00
Total	306	84,055.51

Industry standard validation checks were completed on the supplied databases with no assay entry errors detected. No significant validation errors were noted and the author of this Section of this Technical Report considers that the supplied database is suitable for Mineral Resource Estimation.

12.2 2011 P&E SITE VISIT AND INDEPENDENT SAMPLING

Mr. Eugene Puritch, P. Eng., FEC, CET, visited the Property on May 16, 2011 for the purpose of carrying out a site visit and completing an independent verification sampling program. The Little Deer drill core was examined during the site visit, with 13 samples taken from 11 holes during the May 2011 site visit. The archived half drill core samples were sawn into ¼ splits, with one ¼ split sent for analysis and the remaining ¼ drill core split returned to its storage box. An effort was made to sample a range of grades.

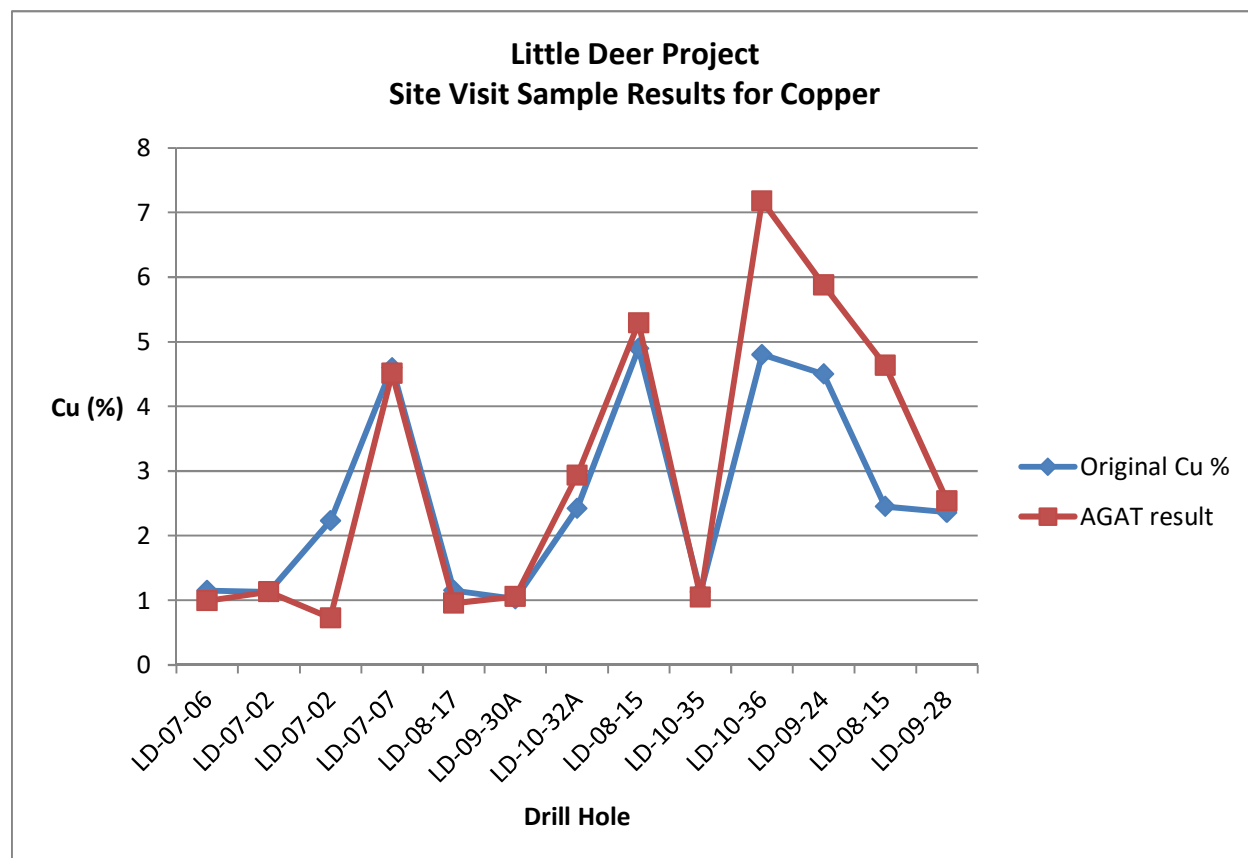
At no time were any employees of Thundermin or Cornerstone advised as to the identification of the samples to be chosen during the visit.

The samples were selected by Mr. Puritch and placed into sample bags that were sealed with tape and placed in a rice bag. The samples were brought by Mr. Puritch to AGAT Laboratory, ("AGAT") in Mississauga, Ontario for analysis.

AGAT has developed and implemented at each of its locations a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards. AGAT maintains ISO registrations and accreditations (ISO 9001:2015 and ISO/IEC 17025:2017).

Copper samples were digested using a four-acid technique and analyzed using atomic absorption spectrometry (“AAS”) finish. Overlimits were run using peroxide fusion and AAS analysis. Results of the Little Deer Project site visit samples are presented in Figure 12.1.

FIGURE 12.1 2011 SITE VISIT SAMPLE RESULTS FOR COPPER



12.3 2021 P&E SITE VISIT AND INDEPENDENT SAMPLING

Mr. Tim Froude, P. Geo. and Independent Consultant, visited the Property on June 15, 2021 for the purpose of carrying out a site visit and independent verification sampling program. Initially, check sampling was to consist of ¼ splitting of archived drill core stored at the Whalesback Mine site. However, unexpected flooding of the access road to the core storage area prevented examination and sampling of the core (Figure 12.2), therefore it was decided to take a suite of pulps stored at the Rambler Mine site. Mr. Froude selected a total of 24 archived pulp and reject samples from 12 Thundermin-Cornerstone holes for independent verification sampling. The majority of samples were from archived pulp material. However, two of the samples sent for verification analysis were from stored reject material. Efforts were made to sample a range of grades.

FIGURE 12.2 FLOODING OF THE WHALESBACK MINE ACCESS ROAD



Source: Tim Froude (June 2021).

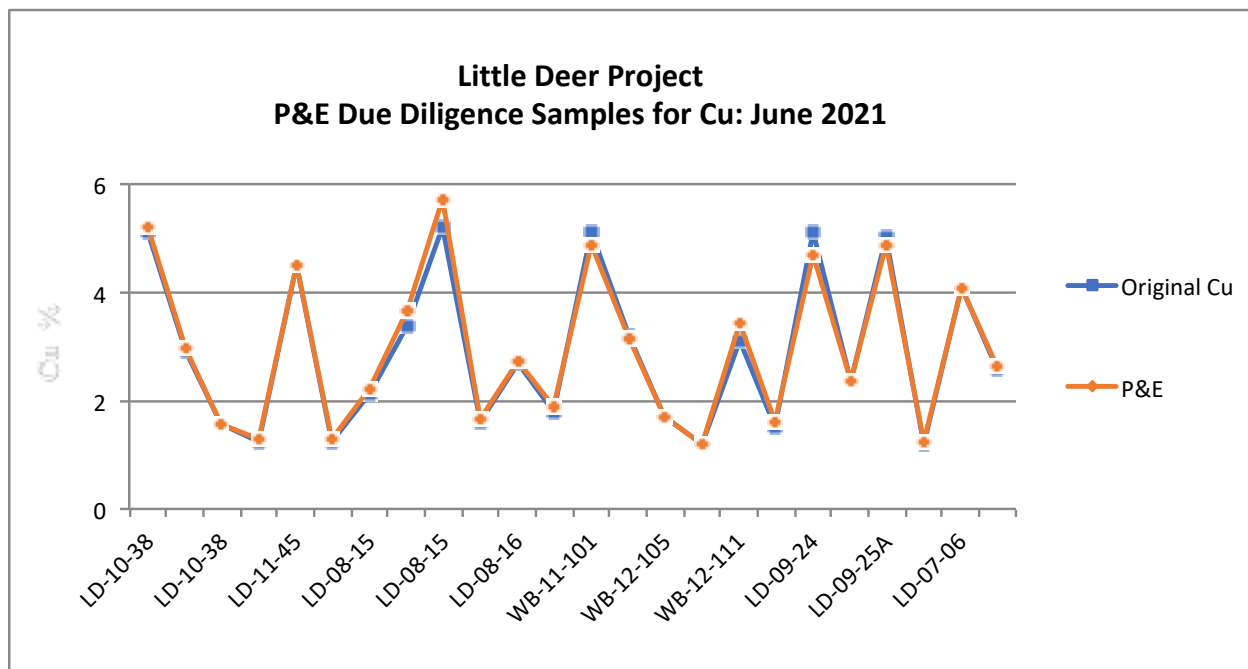
At no time were any employees of Rambler advised as to the identification of the samples to be chosen during the visit. The samples selected by Mr. Froude were sealed in sample bags and given new and unique sample numbers, to ensure that laboratory staff were not able to discern the original sample identities. All samples were placed into a rice bag and brought by Mr. Froude to Eastern Analytical for analysis.

Eastern Analytical is independent of Thundermin and Cornerstone, and has implemented a quality system compliant with the International Standards Organization (ISO) requirements for the competence of testing and calibration laboratories. Eastern Analytical regularly participates in the CANMET Round-Robin proficiency test and passes all criteria.

Eastern Analytical achieved ISO/IEC 17025 accreditation in February 2014 and is ISO 17025 accredited in Fire Assay Au, and multi-acid ore grade assays in Cu, Pb, Zn, Ag, Fe and Co.

Copper samples underwent ore grade analysis using three acid digestion before analysis by atomic absorption. Results of the Little Deer Project site visit samples are presented in Figure 12.13.

FIGURE 12.3 2021 SITE VISIT SAMPLE RESULTS FOR COPPER



The author of this Technical Report section considers there is acceptable correlation between the Cu assay values in the Company's database and the independent verification samples collected by P&E and analyzed at AGAT and Eastern Analytical. It is this Technical Report section author's opinion that the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

SGS Mineral Services of Lakefield, Ontario was retained by Thundermin Resources in 2010 to complete a characterization and flotation concentration test program on a 200 kg representative composite sample from the Little Deer Deposit. The objectives of initial metallurgical study were to examine the basic characteristics of the material (grindability and mineralogy) and to conduct a scoping-level flotation study to assign grade-recovery values to the test sample and to assess Co and impurity levels in the concentrate. A schematic of the locked cycle test flowsheet is presented in Figure 13.1 and a summary of the locked cycle test results in Table 13.1.

350 g/t lime

Pri. Grind

Target $P_{80} = 160 \mu\text{m}$ (LCT1), $100 \mu\text{m}$ (LCT2)

10 g/t SIPX

10 g/t SIPX

5 g/t SIPX

5 g/t SIPX

1 min

2 min

3 min

4 min

5 min

Rougher

Rougher pH = 9.0

Rougher Tail

2.5 g/t SIPX

Regrind

Target $P_{80} = 30\text{-}35$ microns

1st Clnr

3.5 min

2.5 g/t SIPX

1st Clnr Scav

2 min

1st Clnr Scav Tail

2nd Clnr

2.5 min

3rd Clnr

2 min

3rd Clnr Conc

Cleaner pH = 10.5

TABLE 13.1
SUMMARY OF LOCKED CYCLE TEST RESULTS

Test No.	Grind Size	Product	Weight %	Assays %			% Distribution		
				Cu	S	Co	Cu	S	Co
LCT-1	1° - 162µm 2° - 34µm	Cu 3rd Cleaner Conc	8.3	28.0	34.3	0.065	96.7	49.0	20.8
		Cu 1st Cl Scav Tail	11.6	0.28	14.2	0.078	1.4	28.1	34.9
		Cu Rougher Tail	80.1	0.059	1.67	0.014	2.0	22.9	44.3
		Head (calc.)	100.0	2.41	5.82	0.026	100.0	100.0	100.0
LCT-2	1° - 96µm 2° - 32µm	Cu 3rd Cleaner Conc	8.2	28.3	34.4	0.061	97.2	48.9	17.0
		Cu 1st Cl Scav Tail	10.6	0.33	16.0	0.107	1.5	29.3	38.7
		Cu Rougher Tail	81.1	0.038	1.56	0.016	1.3	21.8	44.2
		Head (calc.)	100.0	2.40	5.80	0.029	100.0	100.0	100.0

The composite material graded 2.43% Cu and the Cu occurred almost exclusively as chalcopyrite. Approximately 10.5% of the mass was iron sulphides; 85% of which was pyrrhotite and 15% was pyrite. The non-sulphides were mainly chlorite (51%), quartz (15%), and plagioclase (7%). Liberation characteristics of the chalcopyrite required the primary grind (P₈₀) to be 150 µm, because the losses are likely to increase in coarser fractions. Regrinds in the P₈₀ range 30 µm to 40 µm would likely be necessary.

According to the SGS Bond ball mill work index database, the material was found to be of average hardness at the derived test result of 14.6 kWh/t.

The flotation tests classified the material as ‘easy-to-treat.’ A common xanthate, SIPX, used at a reasonable level, 30 g/t, was selected along with lime to modify pH to 9.0. Copper rougher recovery was as high as 99% at a grade of 12% Cu. Following a rougher concentrate regrind to P₈₀ of 50 µm, cleaner flotation recovery was 95% at a Cu grade exceeding 25%.

Locked cycle testing, applying a standard rougher-cleaner circuit, yielded 97% copper recovery and concentrate grade of 28% Cu.

The locked cycle testing revealed some minor issues with pyrrhotite loading. SGS recommended further flotation testing to optimize several key process variables and to test other composites from the Little Deer Deposit. These composites could represent different spatial regions in the Deposit, different lithologies, or different grade ranges.

An example concentrate was analyzed as shown in Table 13.2, and the mineral composition of the concentrate is shown in Table 13.3. Pyrite and pyrrhotite, each present at over 8%, were significant components of the concentrate. Liberation and association data generated by QEMSCAN determined that 76% of the pyrite and 11% of the pyrrhotite were free mineralization. Further enrichment of the concentrate would be possible with the application of a more precise flotation reagent scheme.

TABLE 13.2
LITTLE DEER CONCENTRATE ANALYSIS

Element	Assay	Element	Assay	Element	Assay
<u>XRF</u>		<u>ICP Scan</u>		<u>ICP Scan</u>	
Cu %	27.7	Ag g/t	24	Na g/t	370
Co %	0.063	Al g/t	2900	Ni g/t	104
<u>Fire Assay</u>		As g/t	< 30	P g/t	< 200
Au g/t	0.29	Ba g/t	5.4	Pb g/t	< 200
Pt g/t	< 0.02	Be g/t	< 0.03	Sb g/t	< 10
Pd g/t	< 0.02	Bi g/t	< 60	Se g/t	170
<u>Leco</u>		Ca g/t	1400	Sn g/t	< 20
S %	34.5	Cd g/t	11	Sr g/t	3
		Cr g/t	84	Ti g/t	410
Hg g/t	2.2	Fe g/t	340000	Tl g/t	< 30
F %	< 0.005	K g/t	310	U g/t	< 50
Cl g/t	60	Li g/t	< 20	V g/t	14
		Mg g/t	1300	Y g/t	1.9
		Mn g/t	66	Zn g/t	2000
		Mo g/t	73		

TABLE 13.3
CONCENTRATE MINERAL COMPOSITION

Mineral / Mineral Class	Mineral Mass, %	Upgrade Ratio versus Feed
Chalcopyrite	78.9	11.1
Cobaltite	0.02	3.50
Pyrite	8.23	4.87
Pyrrhotite	8.84	1.01
Sphalerite	0.56	6.26
Other Sulphides	0.02	6.23
Quartz	0.62	0.04
Plagioclase	0.25	0.04
Epidote	0.25	0.17
K-Feldspar	0.05	0.08
Amphiboles	0.15	0.49
Clays	0.02	0.09
Muscovite	0.18	0.07
Biotite	0.13	0.15
Chlorites	1.27	0.02
Titanite/sphene	0.14	0.11
Fe-Ti-Oxides	0.12	0.20
Calcite	0.20	0.15
Siderite	0.00	0.03
Sulphates	0.07	3.54
Other	0.02	0.17
Total	100.0	-

The robust flotation response indicated that mineralized material from Little Deer would be a suitable feed for an existing process plant in the region. A minor modification to the existing circuit could include the installation of a small concentrate regrind mill.

Additional tests that might be relevant for toll processing could include the following:

- Mineralized material at the mine site to increase grade and reduce transport tonnage and cost;
- Improve concentrate grade by rejecting more pyrite and pyrrhotite; and
- Determine concentrate dewatering and shipping characteristics: for example, self-heating and moisture relation to fluidization.

Based on data from the historical (2010) testwork, the expected metallurgical performance could be:

- Concentrate Grade: 28% Cu, 0.06% Co, 0.3 g/t Au.
- Copper Recovery: 97%.

14.0 MINERAL RESOURCE ESTIMATE

The Mineral Resource Estimate for Rambler Metals and Mining PLC (“Rambler”) presented herein has been prepared following the guidelines of the Canadian Securities Administrators’ National Instrument 43-101 and Form 43-101F1, and in conformity with generally accepted “CIM Estimation of Mineral Resource and Mineral Reserves Best Practices” guidelines (2019). Mineral Resources have been classified in accordance with the “CIM Standards on Mineral Resources and Reserves: Definition and Guidelines” (2014) as adopted by CIM Council. The effective date of this Mineral Resource Estimate is June 15, 2021.

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into a Mineral Reserve. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure.

P&E is not aware of any known permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource Estimate. All the Mineral Resource estimation work reported herein was performed or reviewed by Fred Brown, P.Geo., or Eugene Puritch, P.Eng., FEC, CET., each independent Qualified Persons as defined by National Instrument 43-101 by reason of education, affiliation with a professional association, and past relevant work experience.

Wireframe modelling utilized Seequent Leapfrog Geo™ software. Mineral Resource estimation was performed using GEOVIA GEMS™ software. Variography was performed using Snowden Supervisor™. Open-pit optimization was performed using the NPV Scheduler™ software.

14.1 PREVIOUS MINERAL RESOURCE ESTIMATE

The previous Mineral Resource Estimate was reported for the Little Deer Complex with an effective date of July 4, 2011, using a cut-off of 1.0% Cu (Table 14.1).¹

TABLE 14.1 LITTLE DEER COMPLEX PREVIOUS MINERAL RESOURCE ESTIMATE			
Classification	Tonnes (k)	Cu (%)	Cu (Mlb)
Indicated	1,911	2.37	99.8
Inferred	3,748	2.13	175.9

14.2 DATA SUPPLIED

Drill hole data were supplied by Rambler electronically as csv format tables. The supplied drill hole tables include collar, survey, assay, lithology and bulk density data. The coordinate system used is NAD27 UTM Zone 21.

Assay data included Cu assays and Co, Ag and Au assays, primarily for the Little Deer Mineral Resource domains. The supplied database contains 622 drill holes records totalling 132,972 m, of which 48 drill holes have no associated assays, one has no Cu assays, and one has an erroneous collar location. Two wedge drill holes were excluded from modelling and an additional six drill holes are outside the immediate area of the deposits, leaving a total of 564 drill holes available for Mineral Resource modelling (Table 14.2). The drilling extends approximately three km along the strike of the Little Deer and Whalesback deposits (Figures 14.1 and 14.2, and Appendix A).

¹ Puritch E & Ewert W (2013). *Technical Report and Resource Estimate update on the Little Deer Copper Deposit Newfoundland Canada*. Technical report for Thundermin Resources and Rambler Metals & Mining prepared by P&E Mining Consultants Inc. Effective date July 4, 2011.

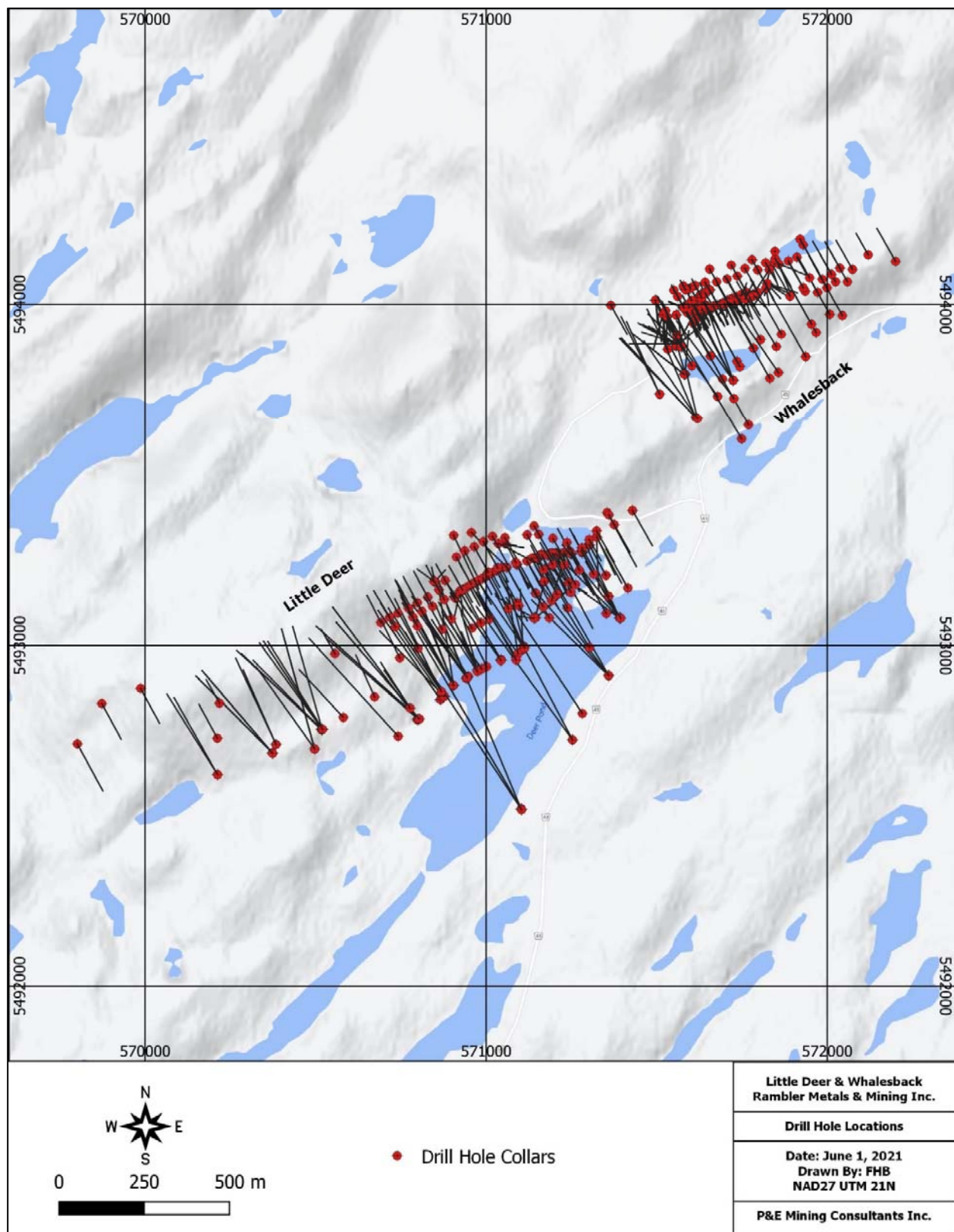
TABLE 14.2 DRILL HOLE SUMMARY		
Area	Count	Total (m)
Little Deer	267	79,934.1
Whalesback	297	31,862.5
Total	564	111,796.6

Rambler supplied a Digital Terrain Model for the Project, and AutoCAD™ format wireframes of the historical workings.

Industry standard validation checks were performed on the supplied databases, and minor corrections made where necessary. P&E typically validates a Mineral Resource database by checking for inconsistencies in naming conventions or analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields.

No significant errors were noted with the supplied databases. The authors of this Technical Report section consider that the drill hole database supplied is suitable for Mineral Resource estimation. The drill hole data were imported into a GEOVIA GEMS™ format Access database.

FIGURE 14.1 DRILL HOLE PLAN VIEW



14.3 ECONOMIC CONSIDERATIONS

Based on knowledge of similar projects, review of available historical data, and consideration of potential mining scenarios, the economic parameters listed in Table 14.3 were deemed appropriate for the Mineral Resource Estimate.

TABLE 14.3 ECONOMIC PARAMETERS		
Item	Unit	Cost (US\$)
Cu	US\$/lb	3.60
Exchange Rate	USD:CDN	0.76
Mining Cost	C\$/t	50.00
Process Cost	C\$/t	22.00
G&A	C\$/t	18.00
Freight & Treatment Charges*	C\$/t	10.00
Cu Refining Charge	US\$/lb	0.08
Mass Pull	%	7
Process Recovery	%	97
Smelter Payable	%	96
Cut-off	Cu %	1

Note:

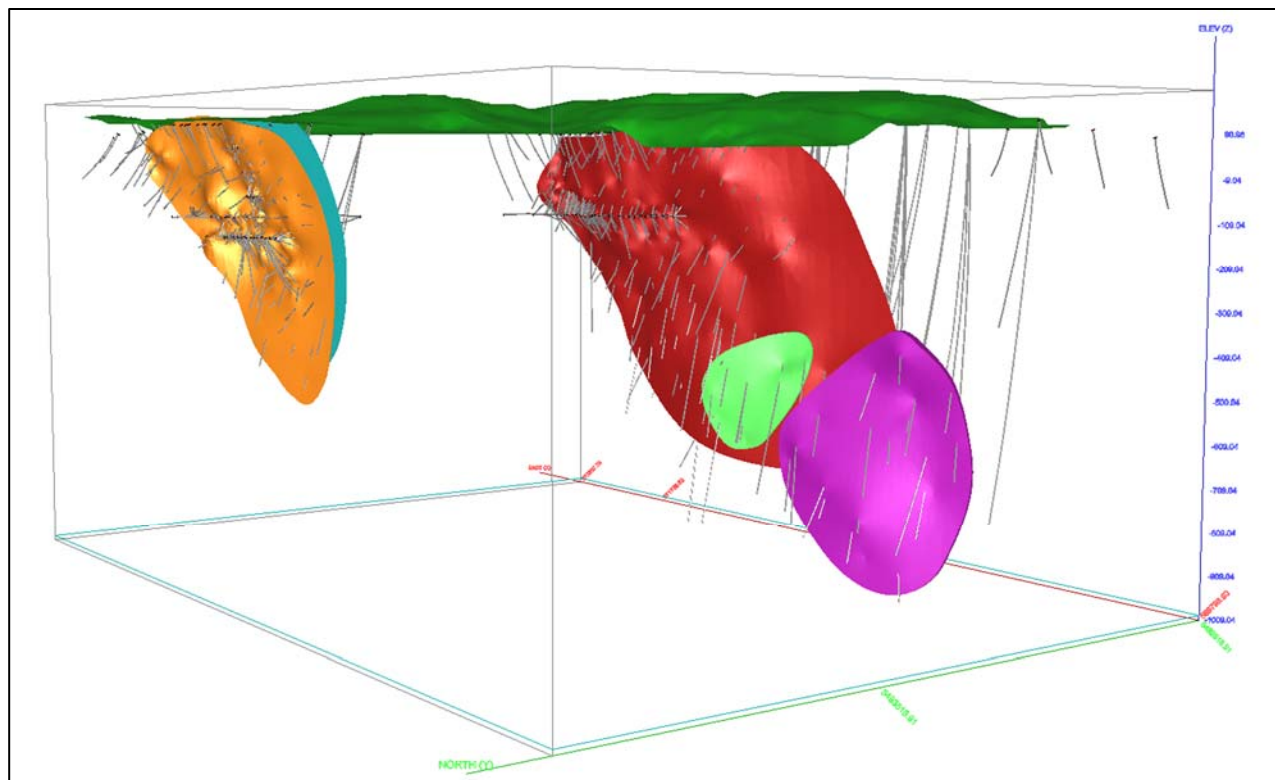
**All costs/t are for mineralized material mined.*

14.4 MINERALIZATION DOMAINS

Interpreted mineralization wireframes were developed based on Cu assay grades. P&E identified continuous zones of mineralization within the supplied wireframes from assay grades equal to or greater than 1.0% Cu with observed continuity along strike and down-dip. The selected intervals include lower-grade material where necessary to maintain continuity between drill holes. Three-dimensional wireframes linking the selected drill hole sections were subsequently constructed using the LeapfrogTM Radial Basis Function, with hanging wall and footwall surfaces snapped directly to the selected drill hole intercepts.

A total of five individual mineralized domains were defined (Figure 14.2). Appendix A shows the drill holes and domain wireframes projected to surface. Appendix B shows a different view of the five individual mineralized domains with drill holes. The mineralized domain wireframes were used to back-tag the assay, bulk density and composite tables with unique rock codes (Table 14.4).

FIGURE 14.2 MINERALIZED DOMAINS



**TABLE 14.4
MINERALIZED DOMAINS**

Area	Rock Code	Strike Length (m)	Width (m)
Whalesback	WB 100	620	6
Whalesback	WB 110	640	6
Little Deer	LD 200	1,100	5
Little Deer	LD 210	510	10
Little Deer	LD 220	310	8

14.5 EXPLORATORY DATA ANALYSIS

The average length of the Little Deer drill holes is 299 m, and the average length of the Whalesback drill holes is 107 m. Summary statistics for the constrained assay data are listed in Table 14.5.

TABLE 14.5 SUMMARY ASSAY STATISTICS						
Statistic	WB100	WB110	LD200	LD210	LD220	Total
Count of Cu	1,324	64	916	325	166	2,795
Average of Cu %	1.825	2.077	2.509	1.528	2.365	2.053
Minimum of Cu %	0.006	0.250	0.010	0.008	0.016	0.006
Maximum of Cu %	17.290	6.700	18.130	14.500	15.700	18.130
Std. Dev. of Cu	1.895	1.372	2.889	1.934	2.778	2.346
CoV of Cu	1.038	0.660	1.152	1.266	1.175	1.143
Count of Co	48	8	323	325	166	862
Average of Co %	0.018	0.006	0.024	0.021	0.023	0.022
Minimum of Co %	0.002	0.004	0.001	0.001	0.003	0.001
Maximum of Co %	0.052	0.013	0.116	0.142	0.137	0.142
Std. Dev. of Co	0.010	0.003	0.020	0.018	0.021	0.019
CoV of Co	0.572	0.454	0.865	0.820	0.909	0.855
Count of Ag	48	8	284	325	166	823
Average of Ag g/t	2.734	0.275	3.355	1.367	2.127	2.286
Minimum of Ag g/t	0.200	0.200	0.200	0.200	0.200	0.200
Maximum of Ag g/t	14.600	0.800	28.760	82.800	19.500	82.800
Std.Dev. of Ag g/t	3.097	0.198	4.892	5.296	2.887	4.724
CoV of Ag	1.133	0.722	1.458	3.874	1.357	2.067
Count of Au	48	8	288	325	166	827
Average of Au g/t	0.057	0.016	0.108	0.025	0.023	0.055
Minimum of Au g/t	0.005	0.005	0.005	0.005	0.005	0.005
Maximum of Au g/t	0.669	0.051	1.569	0.741	0.253	1.569
Std. Dev. of Au	0.110	0.017	0.196	0.082	0.036	0.136
CoV of Au	1.945	1.028	1.824	3.285	1.583	2.470

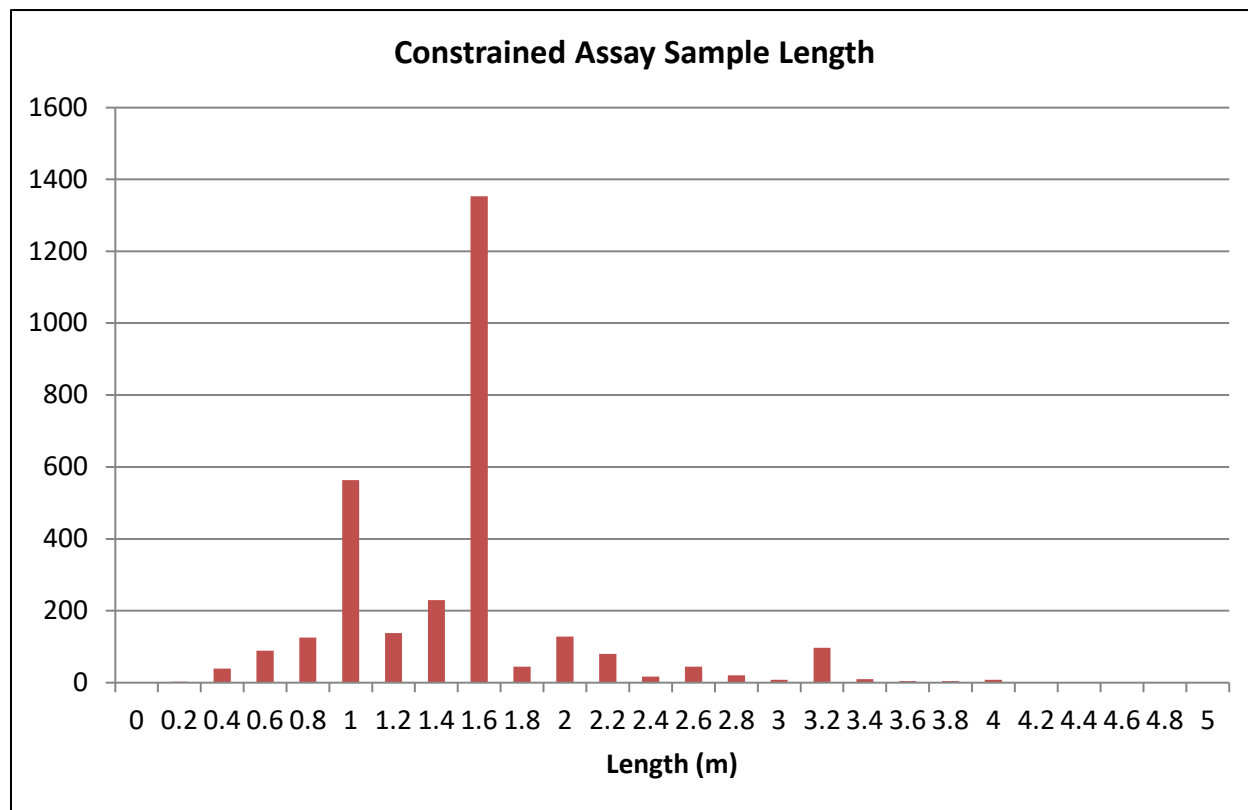
Rambler supplied 1,865 bulk density measurements collected from drill core. The average bulk density measured is 3.0 tonnes per cubic metre (t/m³) (Table 14.6).

TABLE 14.6 SUMMARY OF BULK DENSITY STATISTICS	
Item	Bulk Density (t/m³)
Count	1,865
Minimum	2.64
Maximum	3.90
Average	3.00
Standard Deviation	0.16
Median	2.96
Mode	2.95

14.6 COMPOSITING

Constrained assay sample lengths within the defined mineralized domains range from 0.10 m to 5.30 m, with an average sample length of 1.44 m, a median sample length of 1.52 m, and a mode of 1.52 m (Figure 14.3).

FIGURE 14.3 PLOT OF CONSTRAINED ASSAY SAMPLE LENGTHS



All domain constrained assays were composited to 1.50 m order to ensure equal sample support. Length-weighted composites were calculated within the defined mineralized domains. A small number of un-sampled Cu intervals in the data were assigned a nominal grade of 0.001 prior to compositing. Due to the irregularity of the Co, Ag and Au sampling, the unsampled intervals for these elements were treated as nulls.

The compositing process started at the first point of intersection between the drill hole and the mineralized domain intersected, and halted upon exit from the mineralization. Downhole residual composites that were less than half the compositing length were discarded, so as to not introduce a short sample bias into the composite sample population. The wireframes that represent the mineralized domains were used to back-tag a rock code variable into the composite workspace. The composite data were then visually validated against the mineralization wireframes, and extracted for analysis and grade estimation. Summary composite statistics are listed in Table 14.7. Log-normal histograms for the five domains are presented in Appendix C.

TABLE 14.7 SUMMARY COMPOSITE STATISTICS						
Statistic	WB100	WB110	LD200	LD210	LD220	Total
Count of Cu	1,822	599	1,207	359	255	4,242
Average of Cu %	1.255	0.271	1.665	0.889	0.841	1.177
Minimum of Cu %	0.001	0.001	0.001	0.001	0.001	0.001
Maximum of Cu %	17.285	5.773	16.994	13.900	9.841	17.285
Std. Dev. of Cu	1.516	0.766	2.280	1.403	1.675	1.756
CoV of Cu	1.208	2.826	1.369	1.579	1.992	1.492
Count of Co	31	7	300	260	127	725
Average of Co %	0.017	0.005	0.022	0.020	0.020	0.020
Minimum of Co %	0.003	0.004	0.002	0.002	0.002	0.002
Maximum of Co %	0.052	0.010	0.092	0.119	0.120	0.120
Std. Dev. of Co	0.009	0.002	0.016	0.015	0.016	0.015
CoV of Co	0.541	0.380	0.733	0.733	0.844	0.755
Count of Ag	31	7	231	260	127	656
Average of Ag g/t	2.709	0.243	2.710	1.230	1.764	1.914
Minimum of Ag g/t	0.200	0.200	0.200	0.200	0.200	0.200
Maximum of Ag g/t	14.600	0.504	24.675	41.601	10.044	41.601
Std. Dev. of Ag g/t	2.885	0.106	3.734	3.459	1.909	3.350
CoV of Ag	1.065	0.437	1.378	2.812	1.082	1.750
Count of Au	31	7	282	260	127	707
Average of Au g/t	0.042	0.020	0.085	0.022	0.019	0.047
Minimum of Au g/t	0.005	0.005	0.005	0.005	0.005	0.005
Maximum of Au g/t	0.229	0.036	1.565	0.527	0.125	1.565
Std. Dev. of Au	0.053	0.012	0.153	0.059	0.024	0.109
CoV of Au	1.285	0.625	1.798	2.728	1.270	2.298

14.7 TREATMENT OF EXTREME VALUES

Capping thresholds were determined by the decomposition of individual composite log-probability distributions (Appendix D). Composites were capped to the defined threshold prior to estimation (Table 14.8).

TABLE 14.8 CAPPING THRESHOLDS					
Element	Domain	Threshold	Average Uncapped	Number Capped	Average Capped
Cu%	WB100	12.0	1.26	3	1.25
	WB110	3.0	0.27	10	0.25
	LD200	12.0	1.67	7	1.65
	LD210	6.0	0.89	2	0.85
	LD220	6.0	0.84	7	0.80

<p align="center">TABLE 14.8 CAPPING THRESHOLDS</p>					
Element	Domain	Threshold	Average Uncapped	Number Capped	Average Capped
Co%	WB100	0.03	0.02	1	0.02
	WB110	NA	0.005	0	0.005
	LD200	0.06	0.02	10	0.01
	LD210	0.04	0.02	14	0.02
	LD220	0.08	0.02	2	0.02
Ag g/t	WB100	6	2.71	2	0.16
	WB110	NA	0.24	0	0.24
	LD200	15	2.71	4	1.94
	LD210	15	1.23	3	1.08
	LD220	8	1.76	3	1.74
Au g/t	WB100	0.10	0.04	3	0.03
	WB110	NA	0.02	0	0.02
	LD200	0.40	0.09	9	0.08
	LD210	0.30	0.02	3	0.02
	LD220	0.10	0.02	2	0.02

14.8 CONTINUITY ANALYSIS

Three-dimensional continuity analyses (variography) were conducted on the domain-coded uncapped composite data using a normal-scores transformation within each domain. The downhole variogram was viewed at a 1.50 m lag spacing (equivalent to the composite length) to assess the nugget variance contribution. Standardized spherical models were used to model the experimental semi-variograms in normal-score transformed space. Only the WD100 and LD200 Cu domains had sufficient spatial coverage to model acceptable semi-variograms (Appendix E).

Semi-variogram model ranges were checked and iteratively refined for each model relative to the overall nugget variance, and the back-transformed variance contributions were then calculated (Table 14.9).

<p align="center">TABLE 14.9 EXPERIMENTAL SEMI-VARIOGRAMS CU COMPOSITES</p>			
WD100	-75 > 165	0 > 255	-15 > 345
C0: 0.18			
C1: 0.55	38 m	15 m	15 m
C2: 0.28	90 m	90 m	20 m
LD200	0 > 75	-80 > 165	-10 > 345
C0: 0.10			
C1: 0.46	45 m	20 m	10 m
C2: 0.43	60 m	68 m	20 m

14.9 BLOCK MODEL

A rotated block model was established with the block model limits selected to cover the extent and orientation of the mineralized domains (Table 14.10). The block model consists of separate variables for estimated grades, volume percent wireframe inclusion, rock codes, bulk density and classification attributes.

TABLE 14.10 BLOCK MODEL SETUP			
Direction	Origin	Number of Blocks	Block Size (m)
Minimum X	570,100	440	5.0
Minimum Y	5,492,660	440	2.5
Maximum Z	200	240	5.0
Rotation	15° counter-clockwise		

14.10 GRADE ESTIMATION AND MINERAL RESOURCE CLASSIFICATION

Block grades for Au, Ag and Co were estimated by Inverse Distance Cubed (“ID³”) estimation of capped composites using a minimum of four and a maximum of twelve composites. Block grades for Cu were estimated by Inverse Distance Squared (“ID²”) estimation of capped composites using a minimum of four and a maximum of twelve composites. Composite selection was restricted to a maximum of three composites from a single drill hole.

The orientation of the search ellipsoid used to select composites was defined by the modelled Cu variography, observed grade trends and historical mining. Composites were selected within a 300 m x 300 m x 30 m ellipsoid oriented parallel to the modelled mineralization domains (Table 14.11), which were treated as hard boundaries for grade estimation. Capped Nearest Neighbour (“NN”) models were also generated using the same search parameters.

TABLE 14.11 SEARCH ORIENTATION			
Domain	Z (R)	Y (R)	Z (R)
WB100	105	-75	90
WB110	105	-80	90
LD200	105	-80	90
LD210	115	-90	90
LD220	110	-85	90

Bulk density was estimated by Inverse Distance Squared estimation using between four and twelve bulk density samples selected using the same search criteria applied to grade estimation. Sample selection was restricted to a maximum of three bulk-density samples from a single drill hole.

The parameters used to define the classification limits included spatial analysis, drill hole spacing, and the observed continuity of the mineralization. Mineral Resources were classified algorithmically based on the local drill hole spacing within each individual mineralization domain. All blocks within 40 m of two or more drill holes were classified as Indicated, and all additional estimated blocks were classified as Inferred.

Subsequent to the initial classification, blocks were re-classified using a maximum a-posteriori selection pass that corrected isolated classification artifacts and consolidated areas of similar classification into continuous zones. Cu block model cross-sections and plans can be seen in Appendix F.

14.11 MINERAL RESOURCE ESTIMATE

The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council. The effective date of this Mineral Resource Estimate is June 15, 2021.

The Mineral Resources are reported at a cut-off grade of 1.0% Cu (Table 14.12). Historical mining has been accounted for by setting the volume percent inclusion to zero for known stoping and development.

Highlights of the Mineral Resource Estimate include:

- Indicated Mineral Resources of 2.88 Mt at a grade of 2.13% Cu; and
- Inferred Mineral Resources of 6.18 Mt at a grade of 1.79% Cu.

The sensitivity of the Mineral Resource to changes in cut-off grade was also calculated across a range of potentially economic cut-offs (Tables 14.13 and 14.14).

TABLE 14.12 MINERAL RESOURCE ESTIMATE ⁽¹⁻¹⁰⁾							
Area	Classification	Tonnes (k)	Cu (%)	Ag (g/t)	Au (g/t)	Co (%)	Cu (Mlb)
Little Deer	Indicated	2,029	2.33	4.12	0.13	0.03	104.2
	Inferred	5,882	1.78	2.16	0.05	0.02	230.9
Whalesback	Indicated	854	1.67	1.79	0.03	0.01	31.4
	Inferred	294	1.85	2.32	0.03	0.02	12.0
Total	Indicated	2,883	2.13	3.43	0.10	0.02	135.4
	Inferred	6,176	1.79	2.17	0.05	0.02	243.8
1) Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. 2) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected							

TABLE 14.12
MINERAL RESOURCE ESTIMATE ⁽¹⁻¹⁰⁾

- that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.*
- 3) *The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.*
 - 4) *Inverse Distance Squared was used for Cu grade interpolation with Inverse Distance Cubed for Au, Ag and Co.*
 - 5) *Grade capping for Cu between 3% and 12% was utilized on 1.5 m composites.*
 - 6) *A variable bulk density based on numerous field measurements was used for tonnage calculations.*
 - 7) *Domain models were generated with Leapfrog™ software, oriented along the trend of the mineralization and determined by selecting copper grades equal to or greater than 1.0% Cu with demonstrated continuity along strike and down dip. Grade interpolation was undertaken with GEOVIA GEMSTM software.*
 - 8) *A copper price of US\$3.60/lb (May 31, 2021 Consensus Economics long term price) and a USD:CDN exchange rate of 0.76 was utilized to derive the 1% Cu cut-off grade. Mining costs were C\$50/t, process costs were C\$22/t and G&A was C\$18/t. Concentrate freight and smelter treatment charges were C\$10/t mined. Concentrate mass pull was 7%, process recovery was 97%, smelter payable was 96% and Cu refining was US\$0.08/lb.*
 - 9) *All assays were analyzed at Eastern Analytical Limited of Springdale Nfld. A QAQC program of field and lab duplicates, certified standards and blanks was in place.*
 - 10) *Totals may not add due to rounding.*

TABLE 14.13
MINERAL RESOURCE ESTIMATE SENSITIVITY – LITTLE DEER

Classification	Cut-off Cu (%)	Tonnes (k)	Cu (%)	Ag (g/t)	Au (g/t)	Co (%)
Indicated	2.0	988	3.29	4.47	0.14	0.03
	1.8	1,119	3.13	4.41	0.14	0.03
	1.6	1,273	2.95	4.34	0.14	0.03
	1.4	1,474	2.76	4.24	0.13	0.03
	1.2	1,714	2.55	4.17	0.13	0.03
	1.0	2,029	2.33	4.12	0.13	0.03
	0.8	2,323	2.15	4.00	0.12	0.03
	0.6	2,588	2.00	3.88	0.12	0.03
	0.4	2,878	1.85	3.76	0.12	0.03
Inferred	2.0	1,673	2.56	2.84	0.07	0.02
	1.8	2,400	2.36	2.64	0.06	0.02
	1.6	3,178	2.2	2.5	0.05	0.02
	1.4	4,098	2.04	2.4	0.05	0.02
	1.2	4,965	1.91	2.3	0.05	0.02
	1.0	5,882	1.78	2.16	0.05	0.02
	0.8	6,776	1.67	2.06	0.04	0.02
	0.6	7,556	1.57	2	0.04	0.02
	0.4	8,314	1.47	1.98	0.04	0.02

TABLE 14.14 MINERAL RESOURCE ESTIMATE SENSITIVITIES – WHALESBACK						
Classification	Cut-off Cu (%)	Tonnes (k)	Cu (%)	Ag (g/t)	Au (g/t)	Co (%)
Indicated	2.0	988	3.29	4.47	0.14	0.03
	1.8	1,119	3.13	4.41	0.14	0.03
	1.6	1,273	2.95	4.34	0.14	0.03
	1.4	1,474	2.76	4.24	0.13	0.03
	1.2	1,714	2.55	4.17	0.13	0.03
	1.0	2,029	2.33	4.12	0.13	0.03
	0.8	2,323	2.15	4.00	0.12	0.03
	0.6	2,588	2.00	3.88	0.12	0.03
	0.4	2,878	1.85	3.76	0.12	0.03
Inferred	2.0	1,673	2.56	2.84	0.07	0.02
	1.8	2,400	2.36	2.64	0.06	0.02
	1.6	3,178	2.2	2.5	0.05	0.02
	1.4	4,098	2.04	2.4	0.05	0.02
	1.2	4,965	1.91	2.3	0.05	0.02
	1.0	5,882	1.78	2.16	0.05	0.02
	0.8	6,776	1.67	2.06	0.04	0.02
	0.6	7,556	1.57	2	0.04	0.02
	0.4	8,314	1.47	1.98	0.04	0.02

P&E notes that the Ag, Au and Co grade estimates are based on a reduced number of scattered assays compared to the more comprehensive Cu assays, and that additional sampling may affect the estimated global averages.

Classification block model cross-sections and plans can be seen in Appendix G. Appendix H shows the proposed mine layout by longitudinal section and Appendix I displays proposed mine development plans.

14.12 VALIDATION

The block model was validated visually by the inspection of successive section lines in order to confirm that the block models correctly reflect the distribution of high-grade and low-grade values (see Appendices).

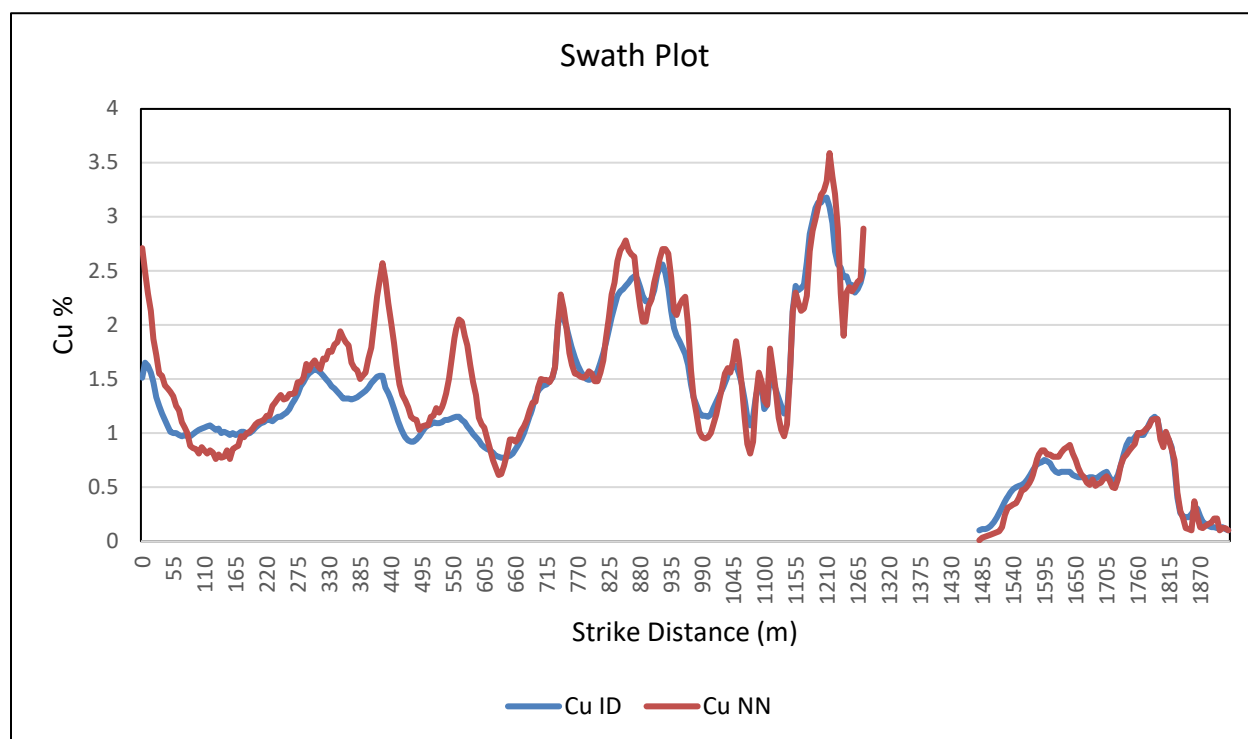
The average estimated block grades were compared to the average Nearest Neighbour block estimate at a zero cut-off for Indicated and Inferred Mineral Resources (Table 14.15). The results fall within acceptable limits for grade estimation.

TABLE 14.15 COMPARISON OF ID AND NN AVERAGE BLOCK GRADES			
Classification	Domain	Cu ID (%)	Cu NN (%)
Indicated	Little Deer	1.52	1.55
	Whalesback	0.70	0.71
	Total	1.18	1.20
Inferred	Little Deer	1.25	1.40
	Whalesback	0.35	0.32
	Total	1.10	1.20

The volume estimated was also checked against the reported volume of the individual mineralized domains. Estimated volumes are based on partial block volumes and include areas of historical mining. The results fall within acceptable limits for grade estimation.

A check for local estimation bias was completed by plotting vertical swath plots of the estimated ID³ block grade and the Nearest Neighbour grade. The results demonstrate a reasonable level of smoothing for the ID estimate. The results fall within acceptable limits for linear estimation (Figure 14.4).

FIGURE 14.4 SWATH PLOT



15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this Technical Report.

16.0 MINING METHODS

This section is not applicable to this Technical Report.

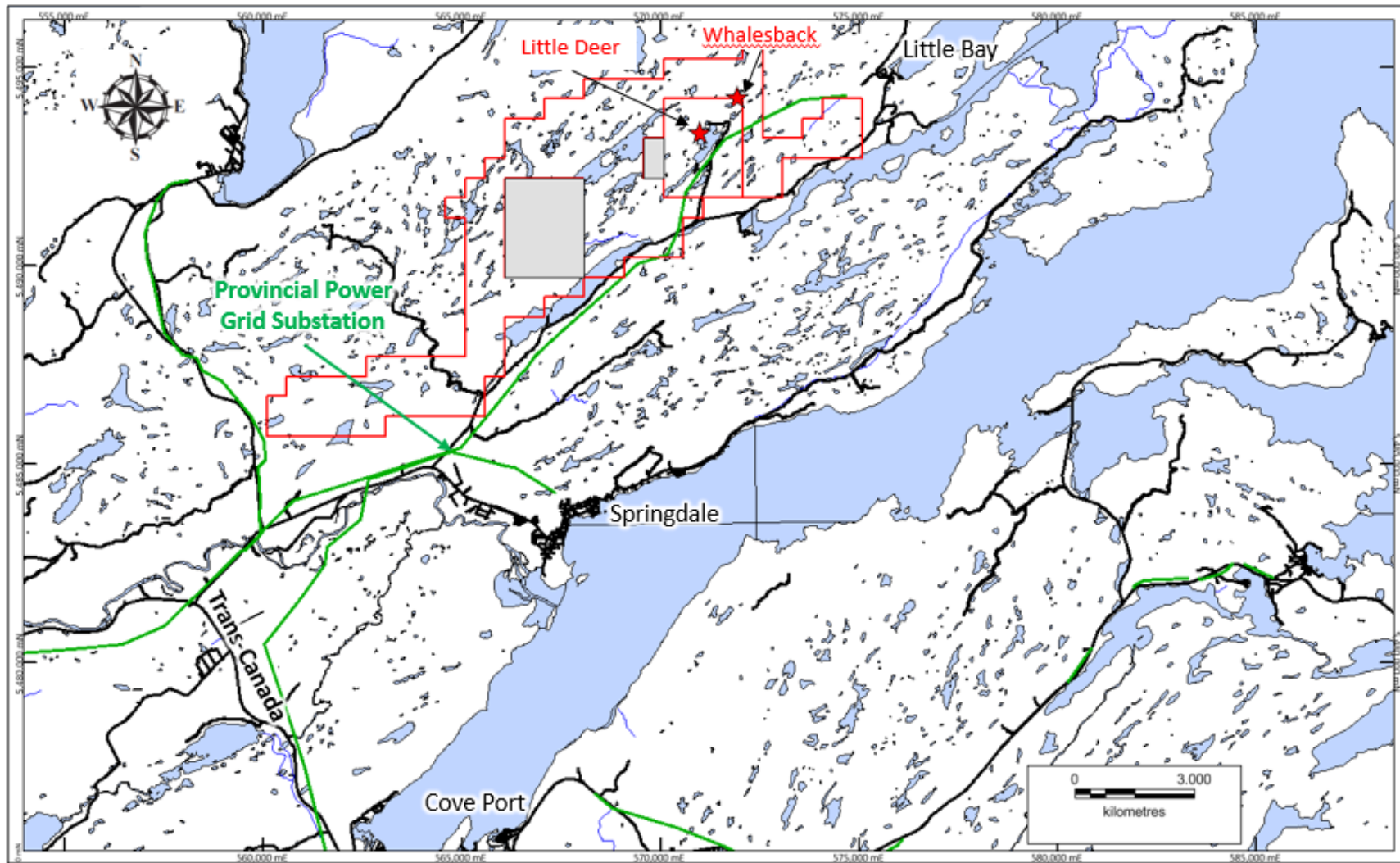
17.0 RECOVERY METHODS

This section is not applicable to this Technical Report.

18.0 PROJECT INFRASTRUCTURE

Established infrastructure at the Little Deer Project includes a gravel access road from paved Highway 392 and existing tailings dam and building foundations at Whalesback. An electrical power transmission line parallels Highway 392, two km away, and a provincial electrical power substation is located on Highway 392, just outside of Springdale, approximately 10 km southwest of the Project. The Project area has several lakes and ponds, which hold a large amount of fresh water. Several deep-water marine ports (e.g., Little Bay and Cove Port) potentially suitable for shipping copper concentrates are located nearby (Figure 18.1).

FIGURE 18.1 LITTLE DEER COMPLEX PROJECT INFRASTRUCTURE



Source: P&E (2021)

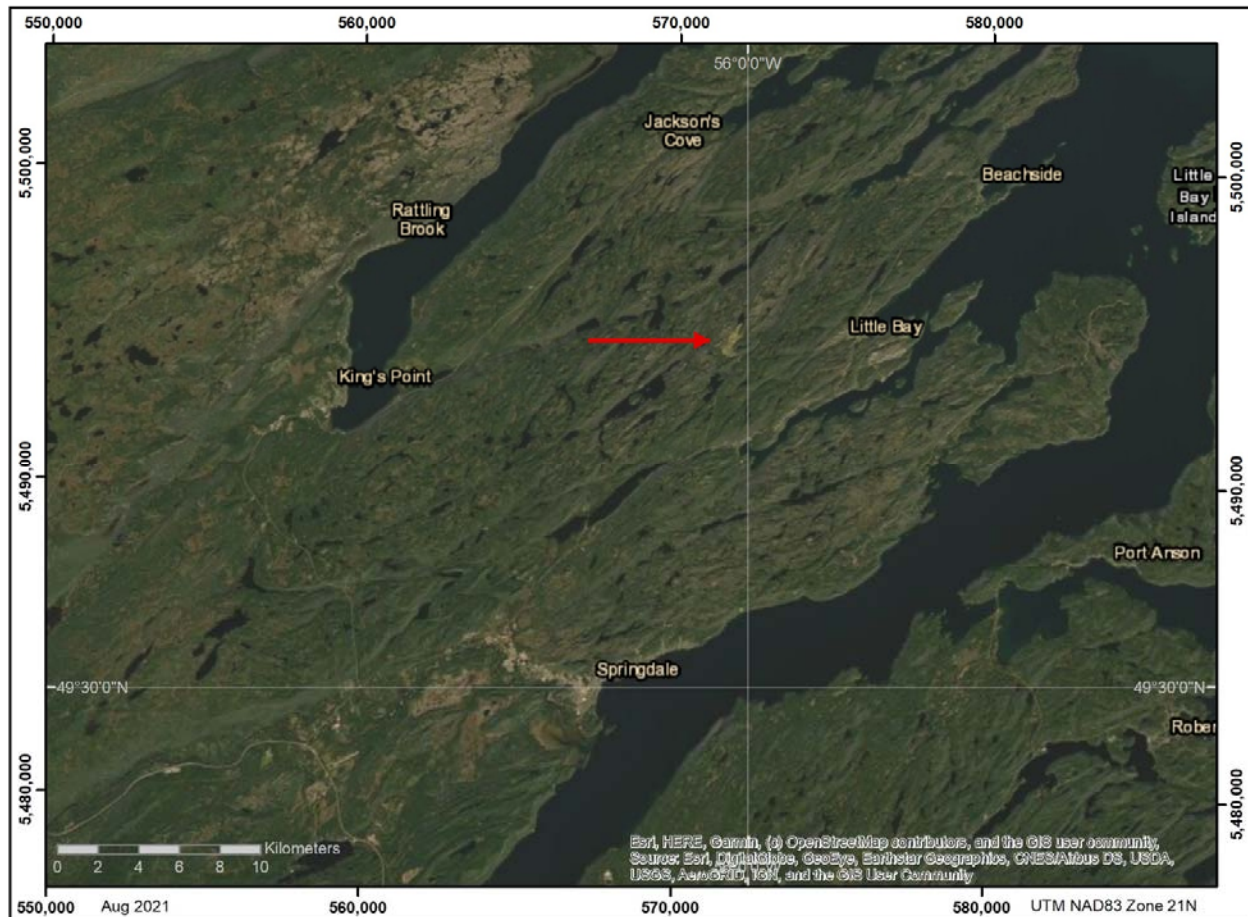
19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable to this Technical Report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

The Little Deer Deposit is located approximately 10 km north of Springdale NL, as shown in Figure 20.1.

FIGURE 20.1 LITTLE DEER LOCATION (RED ARROW)



Mining and exploration activity had previously occurred on the Whalesback and Little Deer portions of the land holdings. Although the mineral rights of both the Whalesback and Little Deer mine areas are held by Rambler, the surface rights are held by the Crown. The management and remediation of the Whalesback Mine is currently the responsibility of the Newfoundland and Labrador Department of Natural Resources, which has been completing remediation activities.

The mineralized material selected for metallurgical and environmental tests had been removed from the Little Deer Mine by accessing the Mineral Resource via the Whalesback Mine workings.

Some remediation work has been conducted by the Newfoundland and Labrador Department of Industry, Energy and Technology and included the capping of a ventilation raise, removing the portal/adit infrastructure and backfilling the area in order to mitigate any safety hazards.

The Little Deer Project would include accessing Mineral Resources by a ramp and establishment of ventilation raises. No on-site process plant is proposed. Mineralized material would be stockpiled on surface and transported to a toll processing facility in the region. Surface infrastructure would include a mine water treatment plant, warehouse and repair shop, a workers' dry, an office and an analytical laboratory. A power transmission line from Springdale could be considered.

An Environmental Assessment (EA) would be required for the Little Deer Project. The EA and permitting process in NL is well established and is harmonized with the Federal EA process. Public consultation and a social baseline study would precede the EA process. When the EA is approved, the Project would be issued an Environmental Certificate of Approval and water rights under the Water Resources Act of NL.

In August of 2010, SGS Mineral Services (SGS) of Lakefield, Ontario was commissioned by Thundermin to complete a basic environmental characterization of the tailings produced during scoping level flotation testing of a mineralized composite from the Little Deer Property (described in Section 13). The results of this work are contained in an SGS report dated August 18, 2010 and titled "An Investigation into Scoping Level Environmental Characterization of Little Deer Flotation Tailings prepared for Thundermin Resources Inc."

The Little Deer flotation tailings (locked cycle test no. 2 tailings) were found to be potentially acid generating, as confirmed by acid-base accounting (ABA) and Net Acid Generation (NAG) testing. Analyses of the fresh and aged tailings decant solutions reported all controlled parameters at concentrations below the Metal Mining Effluent Regulation (MMER) limits. Also, the aged tailings decant solution was determined to be acutely non-toxic to *Daphnia Magna* and Rainbow Trout. The environmental test results indicate minor environmental concerns for tailings management. However, the presence of pyrrhotite and the measured acid generation potential exceeding neutralization potential by 2:1 suggested the need to include 'kinetic' tailings testwork in future investigations. Kinetic tests simulate oxidizing exposure of tailings. The toll milling facility has a licensed tailings facility that stores tailings under a water cover, a proven method to manage acid generating tailings.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this Technical Report.

22.0 ECONOMIC ANALYSIS

This section is not applicable to this Technical Report.

23.0 ADJACENT PROPERTIES

There are no adjacent properties that materially affect the Little Deer Complex Property.

24.0 OTHER RELEVANT DATA AND INFORMATION

P&E is not aware of any other relevant data or information as of the effective date of this Technical Report.

25.0 INTERPRETATION AND CONCLUSIONS

The Little Deer Complex Copper Deposits occur within the Cambro-Ordovician Lushs Bight Group sequence of ophiolitic intermediate to mafic volcanic rocks in north-central Newfoundland. The main sulphide mineralization consists of disseminated, stringer, and semi-massive to massive pyrite, pyrrhotite and chalcopyrite with minor sphalerite. The Deposits are considered to be Cyprus-type VMS deposits.

Rambler engaged P&E Mining Consultants Inc. (“P&E”) as independent consultants to re-examine the Little Deer and Whalesback deposits and update the Mineral Resource Estimates. Due to the adjacent proximity of the two Deposits, together with the underground drift connection between them at 240 Level and shared infrastructure, Rambler combined the two small adjacent projects into the larger Little Deer Complex Project.

The Mineral Resources were estimated in compliance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions (2014) and adopted by the CIM Council. National Instrument 43-101 reporting standards and formats were followed in this document, in order to report the Mineral Resource Estimates in a fully compliant manner.

The updated Indicated Mineral Resource Estimate for the Little Deer Complex includes 2.9 Mt at 2.13% Cu containing 135.4 million pounds (Mlb) or 61.4 kilo-tonnes (kt) Cu at 1% Cu cut-off, compared to the previous Indicated Mineral Resource Estimate from 2012 of 2.7 Mt at 2.16% Cu for 129.2 Mlb or 58.6 kt Cu at 1% Cu cut-off. An Inferred Mineral Resource of 6.2 Mt at 1.79% Cu, containing 243.8 Mlb or 110.6 kt Cu (at 1% Cu cut-off), compared to the previous Inferred Mineral Resource Estimate from 2012 of 4.2 Mt at 2.07% Cu for 191.3 Mlb or 86.8 kt Cu at 1% Cu cut-off.

Compared to the previous Indicated Mineral Resource, the updated Indicated Mineral Resource reflects a 6.5% increase in tonnes and a 4.8% increase in contained copper metal, based on a 1% Cu cut-off. Similarly, the updated Inferred Mineral Resource represents an 47.4% increase in tonnes and a 27.5% increase in contained copper metal. The increases are due to: use of smaller block size (2.5 m) in the Y-direction (across dip) to reduce modelling dilution; greater scrutiny on vein intercept picks, which reduced sub-marginal assay intercepts; smoother, slightly less conservative wireframes; and use of Inverse Distance Squared instead of Ordinary Kriging for grade interpolation.

The Updated 2021 Mineral Resource Estimate is based on modelling of all historical and 2014 diamond drilling results, detailed review of the grade shell boundaries, reducing the horizontal (y-axis) block size from 5.0 m to 2.5 m to improve the capture of vein thickness, and overall smoother wireframe modelling strategy. Exploration drilling can extend the known copper mineralized zones at depth and infill drilling can convert Inferred Resources to Indicated Resources

P&E concludes that the Little Deer Complex Project has economic potential as an underground mine producing copper for concentration off-site.

26.0 RECOMMENDATIONS

P&E recommends that Rambler advance the Little Deer Complex with the following Mineral Resource and exploration drilling programs and project development work studies in the next 12 to 18 months:

- Infill drilling to continue the conversion of Inferred to Indicated Mineral Resources;
- Delineation drilling to further define the down-dip and along strike extensions of the mineralized zones;
- Exploration drilling to identify close-proximity targets to the mine footprint;
- Borehole EM surveys on selected exploration drill holes;
- Differential GPS surveys of the collar location of all new drill holes;
- Updated Mineral Resource Estimate, following completion of all the recommended drill programs;
- Access and mine road improvement work;
- Metallurgical testing on representative samples of the mineralized zone(s), to assess and confirm metal recoveries, reagent usages, process flow sheets, and additional associated operating issues. Mineralized material sorting testwork should also be undertaken;
- Baseline studies on brownfield characteristics and evaluation of reclamation work completed to date; and
- Updated Preliminary Economic Assessment.

Table 26.1 lists recommended actions and associated preliminary cost estimates for the recommendations. The estimated drilling costs are “all-in” costs, which include direct drilling costs, salaries and wages, assaying, room and board, truck rentals, management fees etc. The total preliminary budget for the recommended activities is \$3.8M (CDN).

TABLE 26.1 RECOMMENDED PROGRAM AND BUDGET FOR EXPLORATION AND PROJECT DEVELOPMENT TO UPDATE PRELIMINARY ECONOMIC ASSESSMENT		
Activity	Planned Metres	Cost (CDN\$)
Resource conversion and delineation drilling	15,000	1,875,000
Exploration drilling of nearby targets	10,000	1,250,000
BHEM surveying of select holes		80,000
Differential GPS surveying all new drill holes		5,000
Updated Mineral Resource Estimate		50,000
Access and mine site road improvements		90,000
Metallurgical testwork studies: mineralized material sorting, additional flotation and concentrate characteristics work		90,000
Baseline studies on brownfield characteristics and evaluation of reclamation work to date		50,000
Updated Preliminary Economic Assessment		350,000
Total	25,000	3,840,000

27.0 REFERENCES

- Bachinski, D.J. 1977a. Alteration Associated with Metamorphosed Cupriferous Iron Sulphide Deposits: Whalesback Mine, Notre Dame Bay, Newfoundland. *Mineralium Deposita* 12, 48-63.
- Bachinski, D.J. 1977b. Sulfur Isotopic Composition of Ophiolitic Cupriferous Iron Sulfide Deposits, Notre Dame Bay, Newfoundland. *Economic Geology* 72, 243-257.
- Bowman, B.A. and Caldwell, R.J. 2010 An Investigation into Scoping Level Environmental Characterisation of Little Deer Flotation Tailings prepared for Thundermin Resources Inc. Project 12426-002 Final Report, SGS Minerals Services.
- Cawood, P.A., van Gool, J.A.M. and Dunning, G.R. 1996. Geological Development of Eastern Humber and Western Dunnage Zones: Corner Brook-Glover Island Region, Newfoundland: *Canadian Journal of Earth Sciences* 33, 182–198.
- Cloutier, J., Piercey, S.J., Layne, G., Henlop, J., Hussey, A. and Piercey, G. 2015. Styles, Textural Evolution, and Sulfur Isotope Systematics of Cu-Rich Sulfides from the Cambrian Whalesback Volcanogenic Massive Sulfide Deposit, Central Newfoundland, Canada. *Economic Geology* 110, 1215-1234.
- Cocks, L.R.M. and Torsvik, T.H. 2002. Earth Geography from 500 to 400 Million Years Ago; a Faunal and Palaeomagnetic Review. *Journal of the Geological Society of London* 159, 631–644.
- Cornerstone and Thundermin Announce Significant Copper Resources at the Whalesback Copper Deposit in Newfoundland. Company press release dated July 26, 2012.
- Cox, S.F. 1987. Flow Mechanisms in Sulphide Minerals. *Ore Geology Reviews* 2, 133–171.
- Dewey, J.F. 2002. Transtension in Arcs and Orogens. *International Geology Reviews* 44, 402–439.
- Dunning, G.R., Swinden, H.S., Kean, B.F., Evans, D.T.W. and Jenner, G.A. 1991. A Cambrian Island Arc in Iapetus: Geochronology and Geochemistry of the Lake Ambrose Volcanic Belt, Newfoundland Appalachians. *Geological Magazine* 128, 1–17.
- Dunning, G.R. and Krogh, T.E. 1985. Geochronology of Ophiolites of the Newfoundland Appalachians. *Canadian Journal of Earth Sciences* 22, 1659–1670.
- Eldridge, C.S., Barton, Jr., P.B. and Ohmoto, H. 1983. Mineral Textures and Their Bearing on Formation of the Kuroko Orebodies. *Economic Geology Monograph* 5, 241–281.

- Elliott, C.G., Dunning, G.R. and Williams, P.F. 1991. New Constraints on the Timing of Deformation in Eastern Notre Dame Bay, Newfoundland, from U/Pb Zircon Ages of Felsic Intrusions. *Geological Society of America Bulletin* 103, 125–135.
- Evans, D.T.W. and Kean, B.F. 2002. The Victoria Lake Supergroup, central Newfoundland - its definition, setting and volcanogenic massive sulphide mineralization. Newfoundland Department of Mines and Energy, Geological Survey Open File NFLD 2790, 68 p.
- Fleming, J.M. 1970. Petrology of the Volcanic Rocks of the Whalesback Area, Springdale Peninsula, Newfoundland. Unpublished M.Sc. Thesis, St. John's, Memorial University of Newfoundland, 107 p.
- Franklin, J.M., Lydon, J.W., and Sangster, D.F., 1981, Volcanic-Associated Massive Sulfide Deposits: *Economic Geology* 75th Anniversary Volume, 485–627.
- Franklin, J.M., Gibson, H.L., Galley, A.G., and Jonasson, I.R., 2005, Volcanogenic Massive Sulfide Deposits: *Economic Geology* 100th Anniversary Volume, 523–560.
- Galley, A.G., Hannington, M.D. and Jonasson, I.R. 2007. Volcanogenic Massive Sulphide Deposits, in Goodfellow, W.D., ed., *Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods*: Geological Association of Canada, Mineral Deposits Division, Spec. Publ. No. 5, 141-161.
- Hatcher, Jr., R.D. 2002. Alleghenian (Appalachian) Orogeny, a Product of Zipper Tectonics: Rotational Transpressive Continent-Continent Collision and Closing of Ancient Oceans Along Irregular Margins. *Geological Society of America, Special Paper* 364, 199–208.
- Hannington, M.D. 2014. Volcanogenic Massive Sulfide Deposits, in Holland, H.D. and Turekian, K.K., eds., *Treatise on Geochemistry* (second edition): Oxford, Elsevier, 463–488.
- Hicks, R.J., Jamieson, R.A. and Reynolds, P. 1999. Detrital and Metamorphic ⁴⁰Ar/³⁹Ar Ages from Muscovite and Whole-Rock Samples, Meguma Supergroup, Southern Nova Scotia. *Canadian Journal of Earth Sciences* 36, 23–32.
- Imeson, D. 2010. An Investigation into the Recovery of Copper from the Little Deer Deposit prepared for Thundermin Resources Inc. Project 12426-001 Final Report, SGS Minerals Services.
- Kanehira, K. and Bachinski, D.J. 1968. Mineralogy and Textural Relationships of Ores from the Whalesback Mine, Northeast Newfoundland. *Canadian Journal of Earth Sciences* 5, 1387-1395.

- Kean, B.F. 1973. Stratigraphy, Petrology and Geochemistry of Volcanic Rocks of Long Island, Newfoundland. Unpublished M.Sc. Thesis, St. John's, Memorial University of Newfoundland, 155 p.
- Kean, B.F., Evans, D.T.W. and Jenner, G.A. 1995. Geology and Mineralization of the Lushs Bight Group. Newfoundland Department of Natural Resources, Report 95-2, 204p.
- Kean, B.F. and Strong, D.F. 1975. Geochemical Evolution of an Ordovician Island-Arc of Central Newfoundland Appalachians. American Journal of Science 275, 97–118.
- Keppie, D.F., Keppie, J.D. and Murphy, J.B. 2002. Saddle Reef Auriferous Veins in a Conical Fold Termination (Oldham Anticline, Meguma Terrane, Nova Scotia, Canada): Reconciliation of Structural and Age Data. Canadian Journal of Earth Sciences 39, 53–63.
- Large, R.R. 1977, Chemical Evolution and Zonation of Massive Sulfide Deposits in Volcanic Terrains: Economic Geology 72, 549–572.
- Large, R.R. 1992. Australian Volcanic-Hosted Massive Sulfide Deposits: Features, Styles, and Genetic Models. Economic Geology 87, 471–510.
- Lydon, J.W. 1984. Volcanogenic Massive Sulphide Deposits, Part I: A Descriptive Model: Geoscience Canada 11, 195–202.
- Lydon, J.W. 1988. Volcanogenic Massive Sulphide Deposits, Part 2: Genetic Models: Geoscience Canada 15, 43–65.
- MacLean, H.J. 1947. Geology and Mineral Deposits of the little Bay area. Geological Survey of Newfoundland, Bulletin 22, 36p.
- Marshall, B. and Gilligan, L.B. 1987. An Introduction to Remobilization: Information from Ore-Body Geometry and Experimental Considerations. Ore Geology Reviews 2, 87–131.
- Marshall, B. and Gilligan, L.B. 1989. Durchbewegung Structure, Piercement Cusps, and Piercement Veins in Massive Sulfide Deposits: Formation and Interpretation. Economic Geology 84, 2311–2319.
- Marshall, B. and Gilligan, L.B. 1993. Remobilization, Syn-Tectonic Processes and Massive Sulphide Deposits. Ore Geology Reviews 8, 39–64.
- Marten, B.E. 1971a. The Geology of the Western Arm Group, Green Bay, Newfoundland. Unpublished M.Sc. Thesis, St. John's, Memorial University of Newfoundland, 72 p.

- Martin, W. 1983. Once Upon a Time: Story of Pre-Confederation Mines on the Island of Newfoundland. Canadian Institute of Mining and Metallurgy, Special Volume 26, 98p.
- McClay, K.R., 1995, The Geometries and Kinematics of Inverted Fault Systems: A Review of Analogue Model Studies: Geological Society Special Publication 88, 97–118.
- McDougall, D.J. 1966. A study of the distribution of thermo-luminescence around an ore deposit. Economic Geology 61, 1090-1103.
- Nelson, J. 1997. The Quiet Counter-Revolution: Structural Control of Syngenetic Deposits. Geoscience Canada 24, 91–98.
- Ohmoto, H. 1996. Formation of Volcanogenic Massive Sulfide Deposits: The Kuroko Perspective. Ore Geology Reviews 10, 135–177.
- Papezik, V.S. 1965. Report on the Geology of the Whalesback Southeast Area in the Halls Bay Area: British Newfoundland Exploration Limited, Unpublished Report.
- Papezik, V.S. and Fleming, J.M. 1967. Basic Volcanic Rocks of the Whalesback Area, Newfoundland. Geological Survey of Canada, Spec. Publ. 4, 181-192.
- P&E. 2011a. Technical Report and Resource Estimate Update on the Little Deer Copper Deposit, Newfoundland, Canada. Prepared by P&E Mining Consultants Inc. for Thundermin Resources Inc. and Cornerstone Resources Inc, with an effective date of July 4, 2011. 65p.
- P&E. 2011b. Technical Report and Preliminary Economic Assessment (PEA) of the Little Deer Copper Deposit, Newfoundland, Canada. Prepared by P&E Mining Consultants Inc. for Thundermin Resources Inc. and Cornerstone Resources Inc., with an effective date of November 1, 2011. 86p.
- Piercey, S.J. 2010. An Overview of Petrochemistry in the Regional Exploration for Volcanogenic Massive Sulphide (VMS) Deposits. Geochemistry, Exploration, Environment, Analysis 10, 1–18.
- Piercey, S.J. 2011. The Setting, Style and Role of Magmatism in the Formation of Volcanogenic Massive Sulfide Deposits. Mineralium Deposita 46, 449–471.
- Pressacco, R. 2009. Technical Report on the Initial Mineral Resource Estimate for the Little Deer Copper Deposit, Newfoundland, Canada. Micon International Limited.
- Pressacco, R. 2010. Mineral Resource Update for the Little Deer Project. Scott Wilson Roscoe Postle Associates Inc.

- Reynolds, P.H., Barr, S.M., White, C.E. and Teniere, P.J. 2004. $^{40}\text{Ar}/^{39}\text{Ar}$ Dating in the Lochaber-Mulgrave Area, Northern Mainland Nova Scotia: Implications for Timing of Regional Metamorphism and Sediment Provenance in the Late Devonian-early Carboniferous Horton Group. *Canadian Journal of Earth Sciences* 41, 987–996.
- Rogers, N. and van Staal, C.R. 2002. Toward a Victoria Lake Supergroup: A Provisional Stratigraphic Revision of the Red Indian to Victoria Lakes Area, Central Newfoundland. Newfoundland Department of Mines and Energy, Geological Survey, Current Research, Report 02-1, 185–195.
- Rogers, N., van Staal, C.R., McNicoll, V., Pollock, J., Zagorevski, A. and Whalen, J. 2006. Neoproterozoic and Cambrian Arc Magmatism Along the Eastern Margin of the Victoria Lake Supergroup: A Remnant of Ganderian Basement in Central Newfoundland? *Precambrian Research* 147, 320–341.
- Skulski, T., Castonguay, S., McNicoll, V., van Staal, C.R., Kidd, W., Rogers, N., Morris, W., Ugalde, H., Slavinski, H., Spicer, W., Moussalam, Y. and Kerr, I. 2010. Tectonostratigraphy of the Baie Verte Oceanic Tract and its Ophilitic Cover Sequence on the Baie Verte Peninsula. Newfoundland and Labrador Department of Natural Resources, Geological Survey, Current Research, Report 10-1, 315–335.
- Swinden, H.S. 1991a. Paleotectonic Settings of Volcanogenic Massive Sulphide Deposits in the Dunnage Zone, Newfoundland Appalachians. *Canadian Institute of Mining and Metallurgy Bulletin* 84, 59–89.
- Swinden, H.S. 1991b. Regional Geology and Metallogeny of Central Newfoundland. Geological Survey of Canada, Open File Report 2156, 1–27.
- Swinden, H.S., Jenner, G.A., Kean, B.F. and Evans, D.T.W. 1989. Volcanic Rock Geochemistry as a Guide for Massive Sulphide Exploration in Central Newfoundland: Government of Newfoundland and Labrador, Department of Mines and Energy, Mineral Development Division, Report of Activities 89-1, p. 201–219.
- Swinden, H.S., Jenner, G.A., and Szybinski, Z.A. 1997. Magmatic and Tectonic Evolution of the Cambrian-Ordovician Laurentian Margin of Iapetus: Geochemical and Isotopic Constraints from the Notre Dame subzone, Newfoundland. *Geological Society of America, Memoir* 191, 367–395.
- Szybinski, Z.A. 1995. Paleotectonic and Structural Setting of the Western Notre Dame Bay Area, Newfoundland Appalachians. Unpublished Ph.D. thesis, St. John's, Memorial University of Newfoundland, 481 p.
- Taylor, C., Zierenberg, A., Goldfarb, R., Kilburn, J., Seal II, R. and Kienkopf, D. 1995. Volcanic-Associated Massive Sulfide Deposits. USGS OFR-95-0831.

- Van Staal, C.R. 2007. Pre-Carboniferous Tectonic Evolution and Metallogeny of the Canadian Appalachians in Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit –Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Spec Publ 5, 793-818.
- van Staal, C.R. and Barr, S.M. 2012. Lithospheric Architecture and Tectonic Evolution of the Canadian Appalachians and Associated Atlantic margin. Geological Association of Canada, Special Paper 49, 41–98.
- van Staal, C.R. and Colman-Sadd, S.P. 1997. The Central Mobile Belt of the Northern Appalachians. Oxford Monographs on Geology and Geophysics 35, 747–760.
- van Staal, C.R., Whalen, J.B., McNicoll, V.J., Pehrsson, S.J., Lissenberg, C.J., Zagorevski, A., van Breemen, O. and Jenner, G.A. 2007. The Notre Dame arc and the Taconic Orogeny in Newfoundland. Geological Society of America, Memoir 200, 511–552.
- van Staal, C.R., Whalen, J.B., Valverde-Vaquero, P., Zagorevski, A. and Rogers, N. 2009. Pre-Carboniferous, Episodic Accretion-Related, Orogenesis Along the Laurentian Margin of the Northern Appalachians. Geological Society London, Special Publication 327, 271–316.
- Waldron, J.W.F. and van Staal, C.R. 2001. Taconic Orogeny and the Accretion of the Dashwoods block: A Peri-Laurentian Microcontinent in the Iapetus Ocean. *Geology* 29, 811–814.
- West, J.M. 1972. Structure and Ore-genesis, Little Deer Deposit, Whalesback Mines, Springdale, Newfoundland: Unpublished M.Sc. Thesis, Kingston, ON, Queen's University, 71p.
- Williams, H. 1979. Appalachian Orogen in Canada. *Canadian Journal of Earth Sciences* 16, 792–807.
- Williams, H., Colman-Sadd, S.P. and Swinden, H.S. 1988. Tectonostratigraphic Subdivisions of Central Newfoundland. Geological Survey of Canada, Current Research Paper 88-1B, 9p.
- Zagorevski, A., Rogers, N., van Staal, C.R., McNicoll, V., Lissenberg, C.J. and Valverde-Vaquero, P. 2006. Lower to Middle Ordovician Evolution of Peri-Laurentian Arc and Back-Arc Complexes in the Iapetus: Constraints from the Annieopsquotch Accretionary Tract, Central Newfoundland. *Geological Society of America Bulletin* 118, 324–362.
- Zagorevski, A., van Staal, C.R., Rogers, N., McNicholl, V., Dunning, G.R. and Pollock, J.C. 2010. Middle Cambrian to Ordovician Arc-Back Arc Development on the Leading Edge of Ganderia, Newfoundland Appalachians. Geological Society of America, Memoir 206, 367–396.

28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

WILLIAM STONE, PH.D., P.GEO.

I, William Stone, Ph.D., P.Geo, residing at 4361 Latimer Crescent, Burlington, Ontario, do hereby certify that:

1. I am an independent geological consultant working for P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report, and Updated Mineral Resource Estimate of the Little Deer Complex Copper Deposits, Newfoundland, Canada”, (The “Technical Report”) with an effective date of June 15, 2021.
3. I am a graduate of Dalhousie University with a Bachelor of Science (Honours) degree in Geology (1983). In addition, I have a Master of Science in Geology (1985) and a Ph.D. in Geology (1988) from the University of Western Ontario. I have worked as a geologist for a total of 35 years since obtaining my M.Sc. degree. I am a geological consultant currently licensed by the Professional Geoscientists of Ontario (License No 1569).

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

• Contract Senior Geologist, LAC Minerals Exploration Ltd.	1985-1988
• Post-Doctoral Fellow, McMaster University	1988-1992
• Contract Senior Geologist, Outokumpu Mines and Metals Ltd.	1993-1996
• Senior Research Geologist, WMC Resources Ltd.	1996-2001
• Senior Lecturer, University of Western Australia	2001-2003
• Principal Geologist, Geoinformatics Exploration Ltd.	2003-2004
• Vice President Exploration, Nevada Star Resources Inc.	2005-2006
• Vice President Exploration, Goldbrook Ventures Inc.	2006-2008
• Vice President Exploration, North American Palladium Ltd.	2008-2009
• Vice President Exploration, Magma Metals Ltd.	2010-2011
• President & COO, Pacific North West Capital Corp.	2011-2014
• Consulting Geologist	2013-2017
• Senior Project Geologist, Anglo American	2017-2019
• Consulting Geoscientist	2020-Present

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 2 to 10, and 15 to 24 and co-authoring Sections 1, 12, 25 and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: June 15, 2021

Signed Date: August 26, 2021

{SIGNED AND SEALED}

[William Stone]

William E. Stone, Ph.D., P.Geo.

CERTIFICATE OF QUALIFIED PERSON

FRED H. BROWN, P.GEO.

I, Fred H. Brown, of PO Box 332, Lynden, WA, USA, do hereby certify that:

1. I am an independent geological consultant and have worked as a geologist continuously since my graduation from university in 1987.
2. This certificate applies to the Technical Report titled “Technical Report, and Updated Mineral Resource Estimate of the Little Deer Complex Copper Deposits, Newfoundland, Canada”, (The “Technical Report”) with an effective date of June 15, 2021.
3. I graduated with a Bachelor of Science degree in Geology from New Mexico State University in 1987. I obtained a Graduate Diploma in Engineering (Mining) in 1997 from the University of the Witwatersrand and a Master of Science in Engineering (Civil) from the University of the Witwatersrand in 2005. I am registered with the Association of Professional Engineers and Geoscientists of British Columbia as a Professional Geoscientist (171602) and the Society for Mining, Metallurgy and Exploration as a Registered Member (#4152172).

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

- | | |
|---|--------------|
| • Underground Mine Geologist, Freegold Mine, AAC | 1987-1995 |
| • Mineral Resource Manager, Vaal Reefs Mine, AngloGold | 1995-1997 |
| • Resident Geologist, Venetia Mine, De Beers | 1997-2000 |
| • Chief Geologist, De Beers Consolidated Mines | 2000-2004 |
| • Consulting Geologist | 2004-2008 |
| • P&E Mining Consultants Inc. – Sr. Associate Geologist | 2008-Present |

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 1, 14, 25, and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: June 15, 2021

Signed Date: August 26, 2021

{SIGNED AND SEALED}

[Fred H. Brown]

Fred H. Brown, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

JARITA BARRY, P.GEO.

I, Jarita Barry, P.Geo., residing at 4 Creek View Close, Mount Clear, Victoria, Australia, 3350, do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report, and Updated Mineral Resource Estimate of the Little Deer Complex Copper Deposits, Newfoundland, Canada”, (The “Technical Report”) with an effective date of June 15, 2021.
3. I am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have worked as a geologist for over 15 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by Engineers and Geoscientists British Columbia (License No. 40875), Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 08399) and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (License No. L3874). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

- Geologist, Foran Mining Corp. 2004
- Geologist, Aurelian Resources Inc. 2004
- Geologist, Linear Gold Corp. 2005-2006
- Geologist, Búscore Consulting 2006-2007
- Consulting Geologist (AusIMM) 2008-2014
- Consulting Geologist, P.Geo. (APEGBC/AusIMM) 2014-Present

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Section 11 and co-authoring Sections 1, 12, 25, and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: June 15, 2021

Signed Date: August 26, 2021

{SIGNED AND SEALED}

[Jarita Barry]

Jarita Barry, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

D. GRANT FEASBY, P. ENG.

I, D. Grant Feasby, P. Eng., residing at 12,209 Hwy 38, Tichborne, Ontario, K0H 2V0, do hereby certify that:

1. I am currently the Owner and President of:
FEAS - Feasby Environmental Advantage Services
38 Gwynne Ave, Ottawa, K1Y1W9
2. This certificate applies to the Technical Report titled “Technical Report, and Updated Mineral Resource Estimate of the Little Deer Complex Copper Deposits, Newfoundland, Canada”, (The “Technical Report”) with an effective date of June 15, 2021.
3. I graduated from Queens University in Kingston Ontario, in 1964 with a Bachelor of Applied Science in Metallurgical Engineering, and a Master of Applied Science in Metallurgical Engineering in 1966. I am a Professional Engineer registered with Professional Engineers Ontario. I have worked as a metallurgical engineer for over 50 years since my graduation from university.

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report has been acquired by the following activities:

- Metallurgist, Base Metal Processing Plant.
 - Research Engineer and Lab Manager, Industrial Minerals Laboratories in USA and Canada.
 - Research Engineer, Metallurgist and Plant Manager in the Canadian Uranium Industry.
 - Manager of Canadian National Programs on Uranium and Acid Generating Mine Tailings.
 - Director, Environment, Canadian Mineral Research Laboratory.
 - Senior Technical Manager, for large gold and bauxite mining operations in South America.
 - Expert Independent Consultant associated with several companies, including P&E Mining Consultants, on mineral processing, environmental management, and mineral-based radiation assessment.
4. I have not visited the Property that is the subject of this Technical Report.
 5. I am responsible for authoring Sections 13, and 20 and co-authoring Sections 1, 25 and 26 of this Technical Report.
 6. I am independent of the issuer applying the test in Section 1.5 of NI 43-101.
 7. I have had no prior involvement with the Project that is the subject of this Technical Report.
 8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
 9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: June 15, 2021

Signed Date: August 26, 2021

{SIGNED AND SEALED}

[D. Grant Feasby]

D. Grant Feasby, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

EUGENE PURITCH, P. ENG., FEC, CET

I, Eugene J. Puritch, P. Eng., FEC, CET, residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report, and Updated Mineral Resource Estimate of the Little Deer Complex Copper Deposits, Newfoundland, Canada”, (The “Technical Report”) with an effective date of June 15, 2021.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen’s University. In addition, I have also met the Professional Engineers of Ontario Academic Requirement Committee’s Examination requirement for a Bachelor’s degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

I have practiced my profession continuously since 1978. My summarized career experience is as follows:

- Mining Technologist - H.B.M. & S. and Inco Ltd., 1978-1980
- Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
- Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
- Self-Employed Mining Consultant – Timmins Area, 1987-1988
- Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
- Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
- President – P&E Mining Consultants Inc, 2004-Present

4. I have visited the Property that is the subject of this Technical Report on May 16, 2011.
5. I am responsible for co-authoring Sections 1, 14, 25, and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for a Technical Report titled “Technical Report and Preliminary Economic Assessment (PEA) of the Little Deer Copper Deposit Newfoundland, Canada”, with an effective date of November 1, 2011.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: June 15, 2021

Signed Date: August 26, 2021

{SIGNED AND SEALED}

[Eugene Puritch]

Eugene Puritch, P.Eng., FEC, CET

CERTIFICATE OF QUALIFIED PERSON

TIMOTHY FROUDE, B.SC., P.GEO.

I, Timothy Froude, B.Sc., P.Geo., residing at 113 Monument Road, Conception Bay South, NL, A1W 2B4, do hereby certify that:

1. I am an independent geologist working for Sokoman Minerals Corp.
2. This certificate applies to the Technical Report titled “Technical Report, and Updated Mineral Resource Estimate of the Little Deer Complex Copper Deposits, Newfoundland, Canada”, (The “Technical Report”) with an effective date of June 15, 2021.
3. I am a graduate of Memorial University of Newfoundland with a Bachelor of Science degree in Geology (1988). I have worked as a geologist for a total of 33 years since graduating in 1988. I am a professional geologist currently licensed by the Association of Professional Engineers and Geoscientists of Newfoundland and Labrador (License No 03046).

I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

- | | |
|--|--------------|
| • President and CEO, Sokoman Minerals Corp. | 2007-present |
| • Vice President Exploration, Crosshair Exploration Inc. | 2003-2007 |
| • Vice President Exploration, Cornerstone Resources Inc. | 2000-2003 |

4. I have visited the Property that is the subject of this Technical Report on June 15, 2021.
5. I am responsible for co-authoring Sections 1, 12, 25 and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report, but have worked on multiple occasions in the jurisdiction.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: June 15, 2021

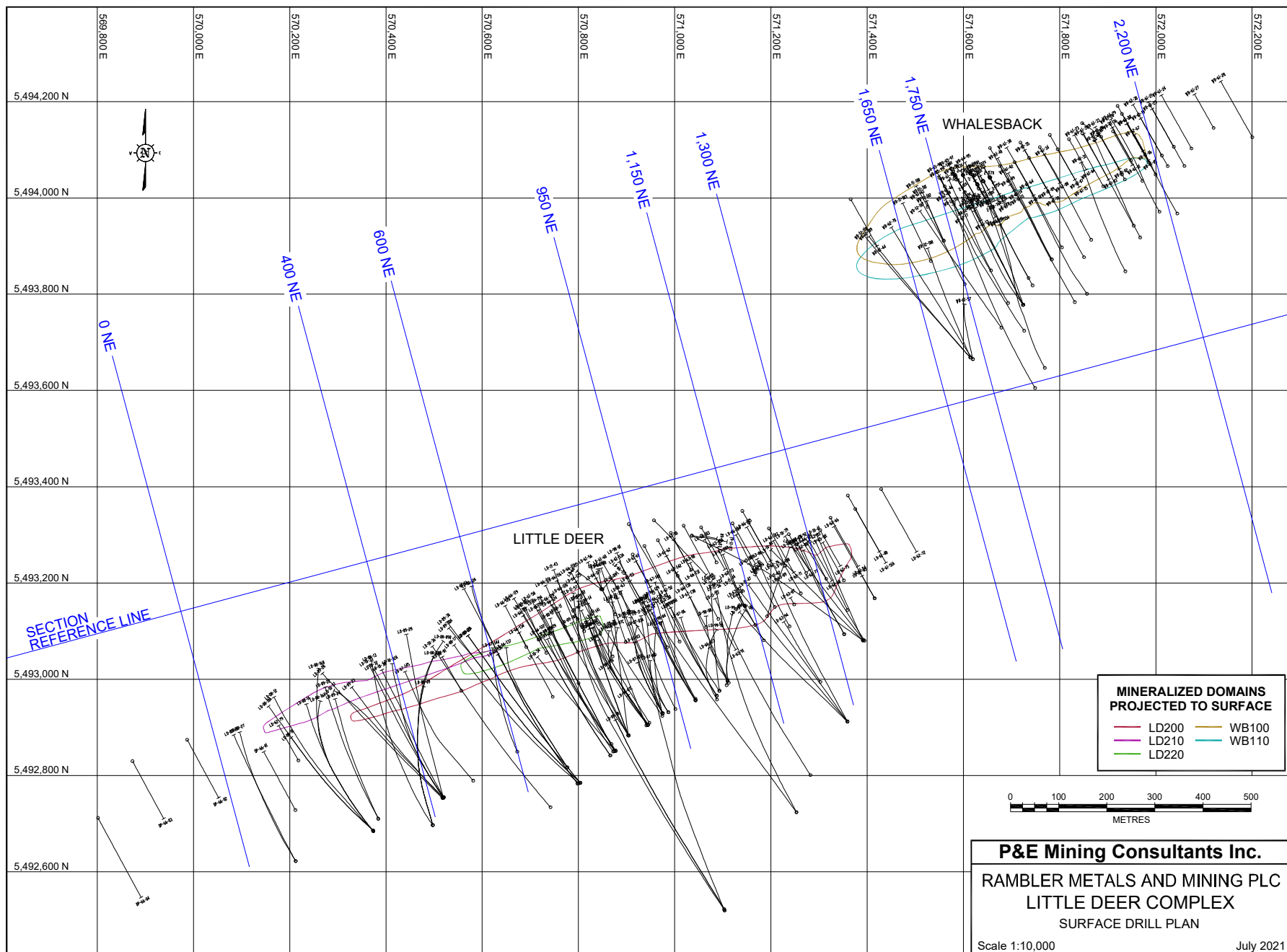
Signed Date: August 26, 2021

{SIGNED AND SEALED}

[Timothy Froude]

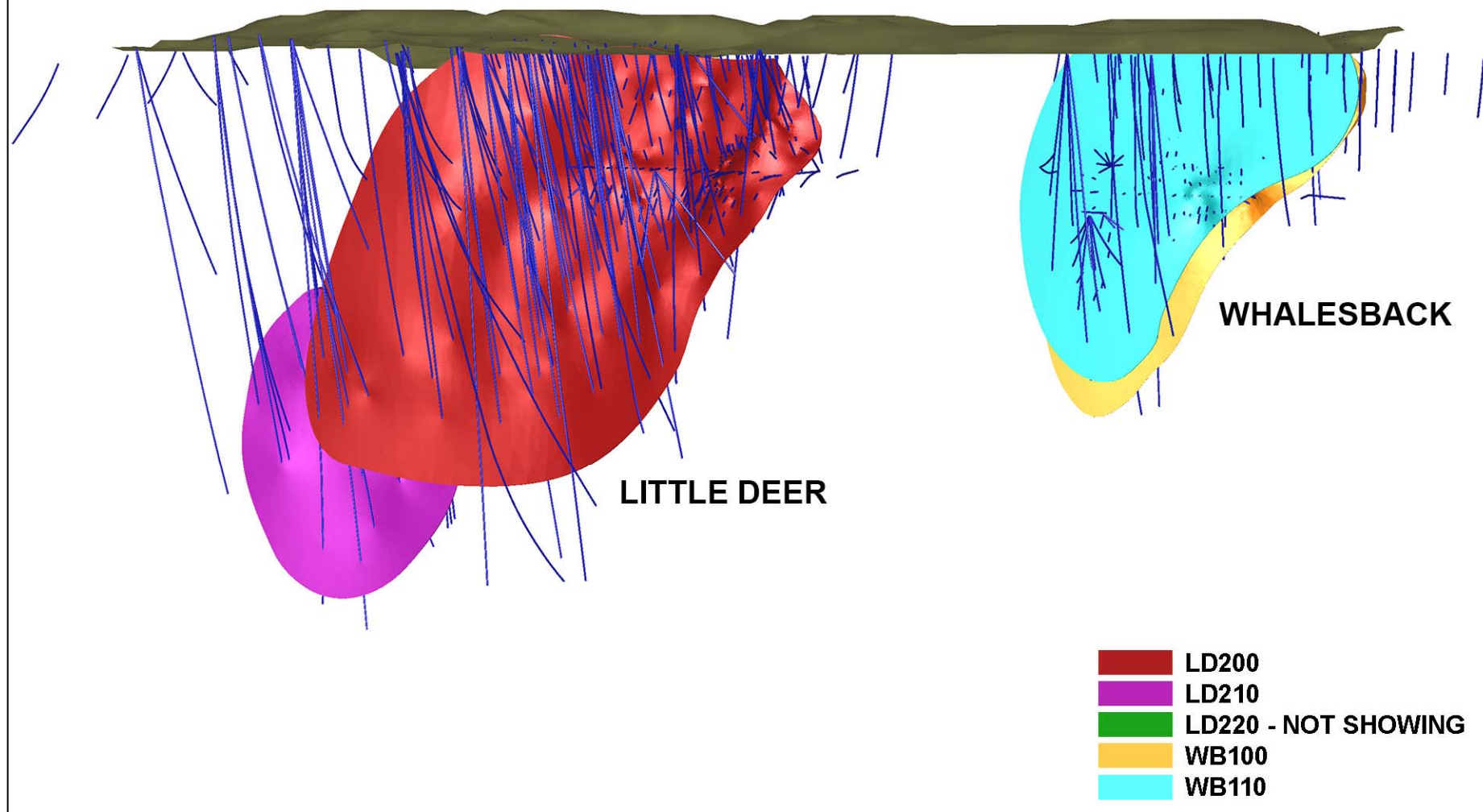
Timothy Froude, B.Sc., P. Geo.

APPENDIX A SURFACE DRILL HOLE PLAN

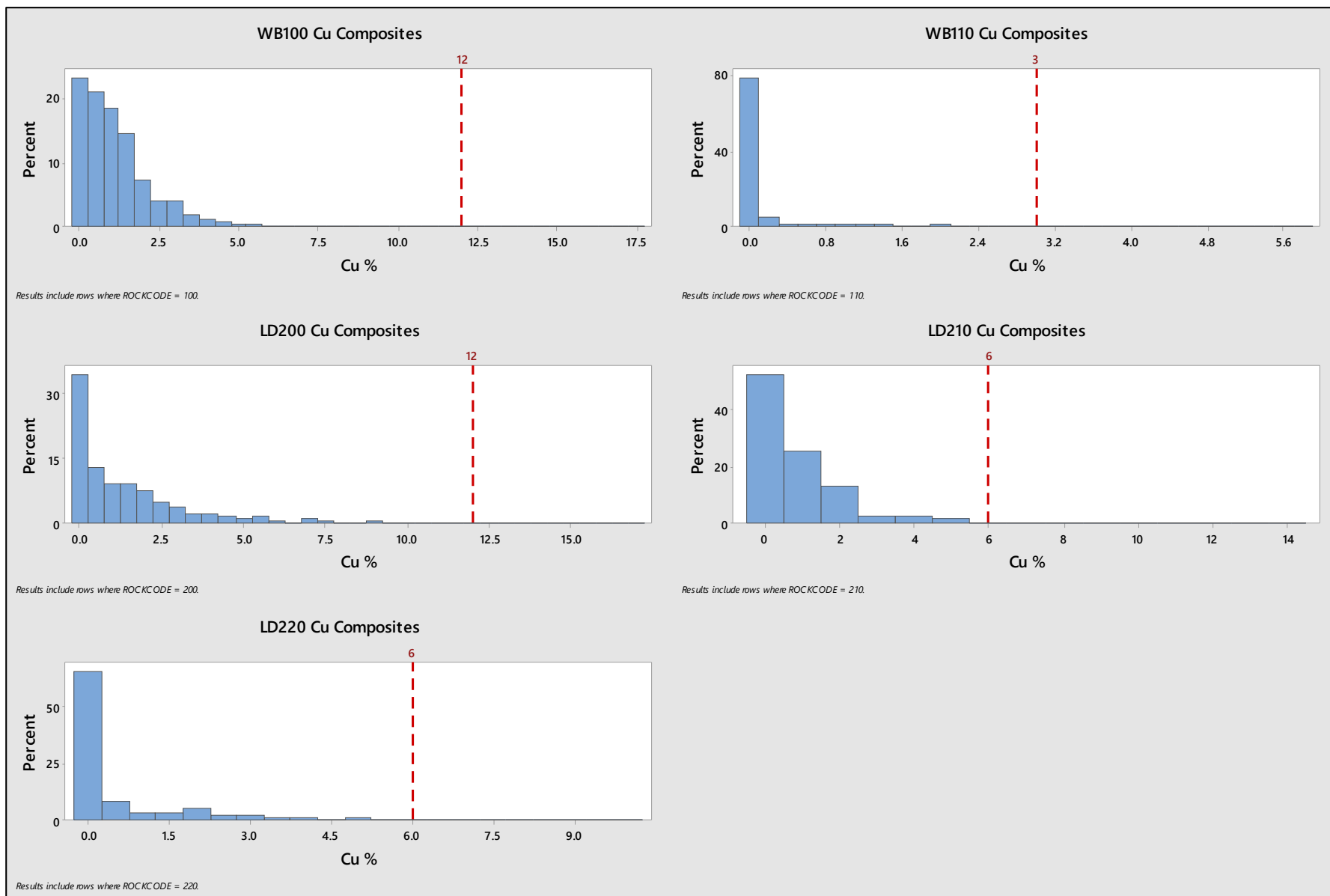


APPENDIX B 3-D DOMAINS

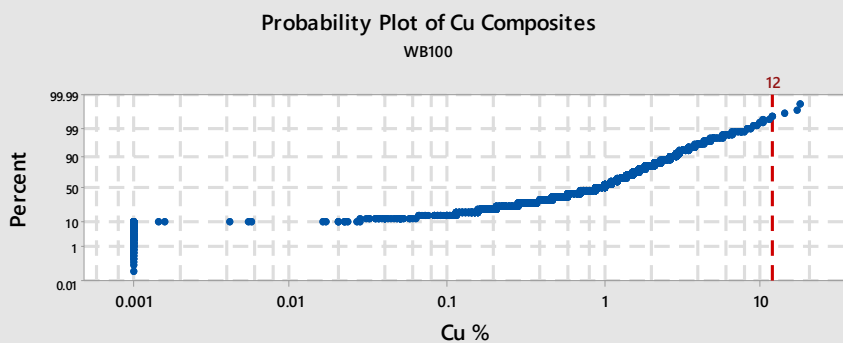
LITTLE DEER COMPLEX - 3D DOMAINS



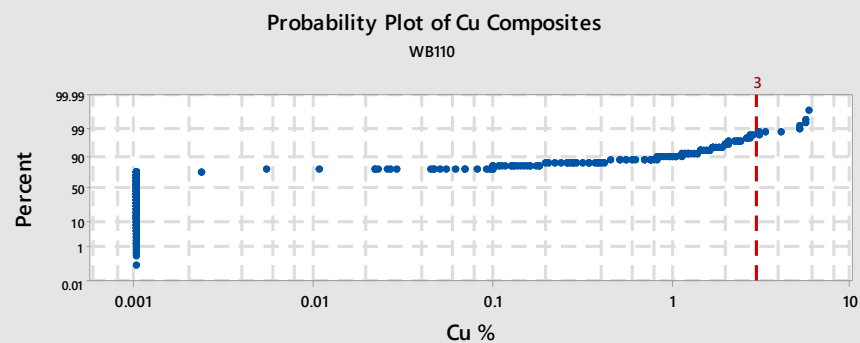
APPENDIX C LOG-NORMAL HISTOGRAMS



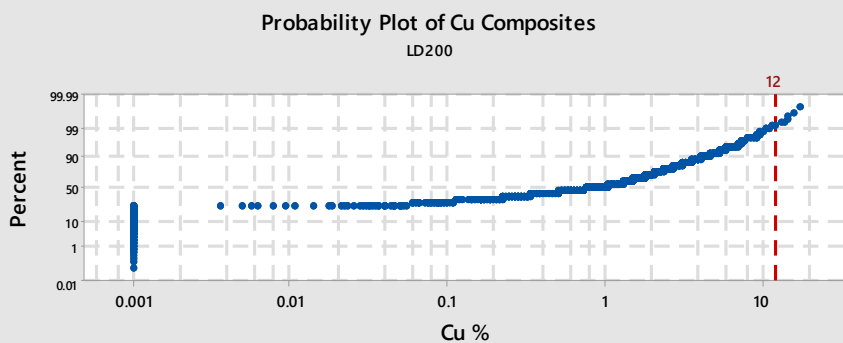
APPENDIX D PROBABILITY PLOTS



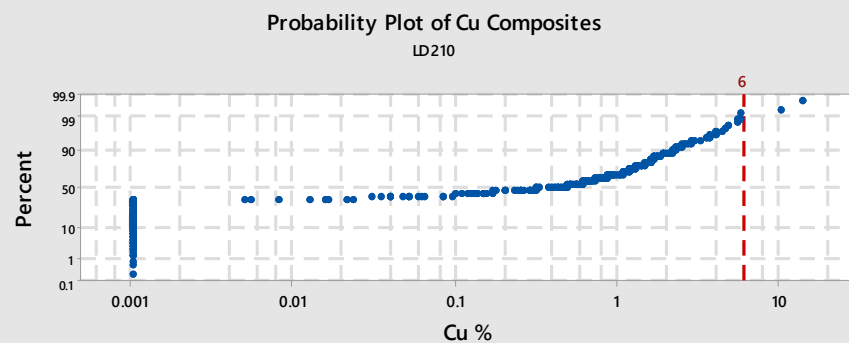
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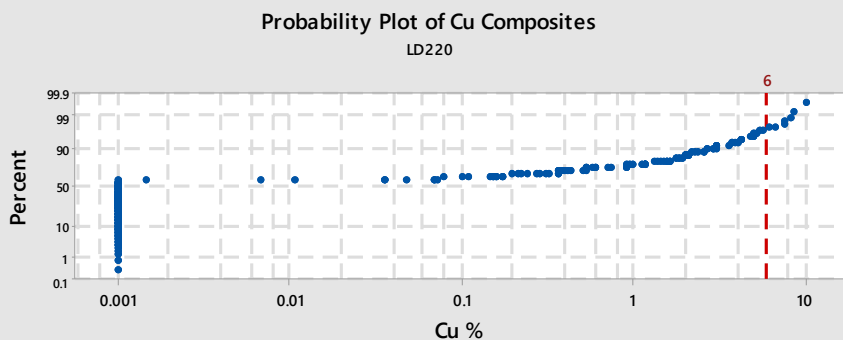
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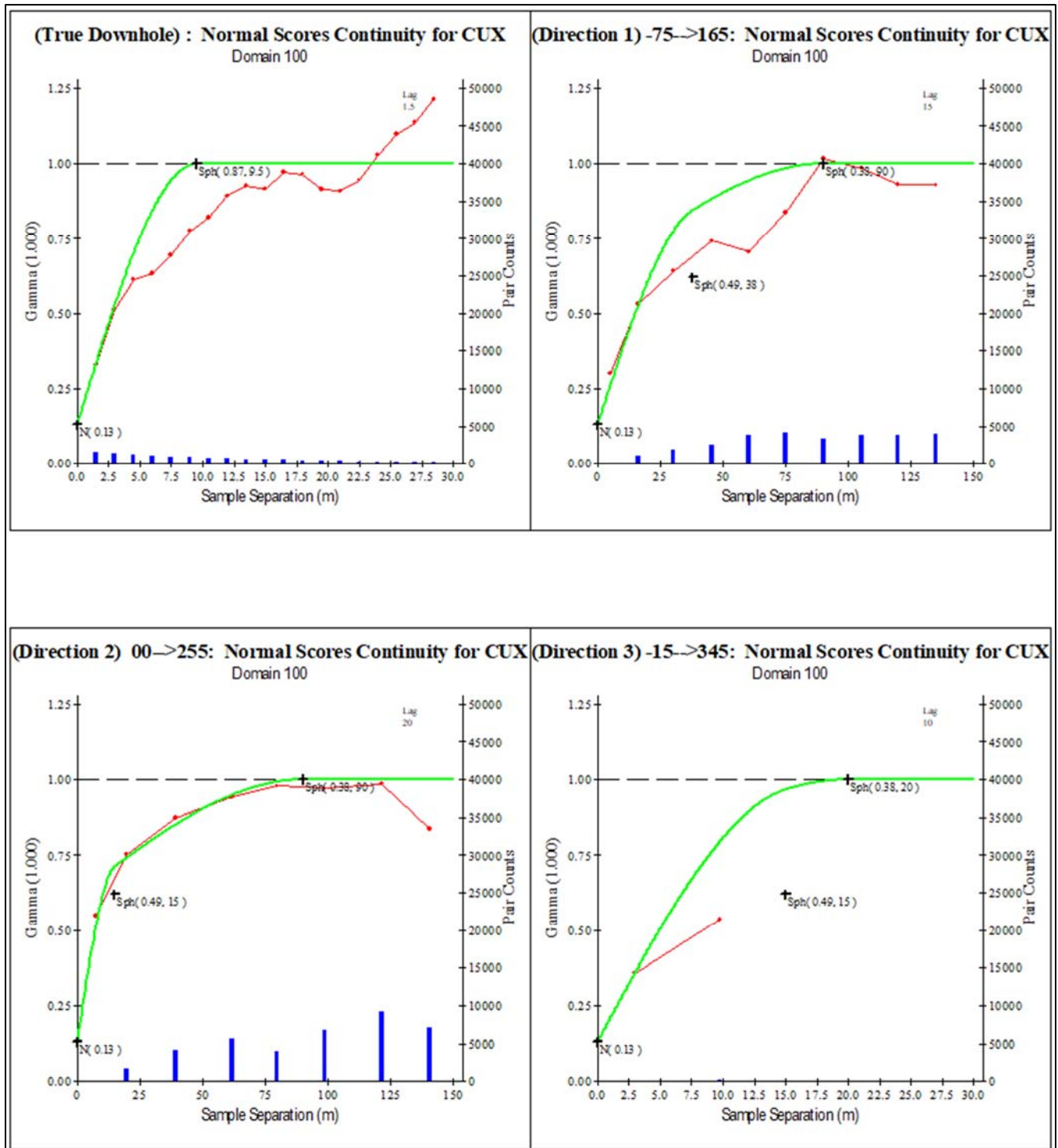


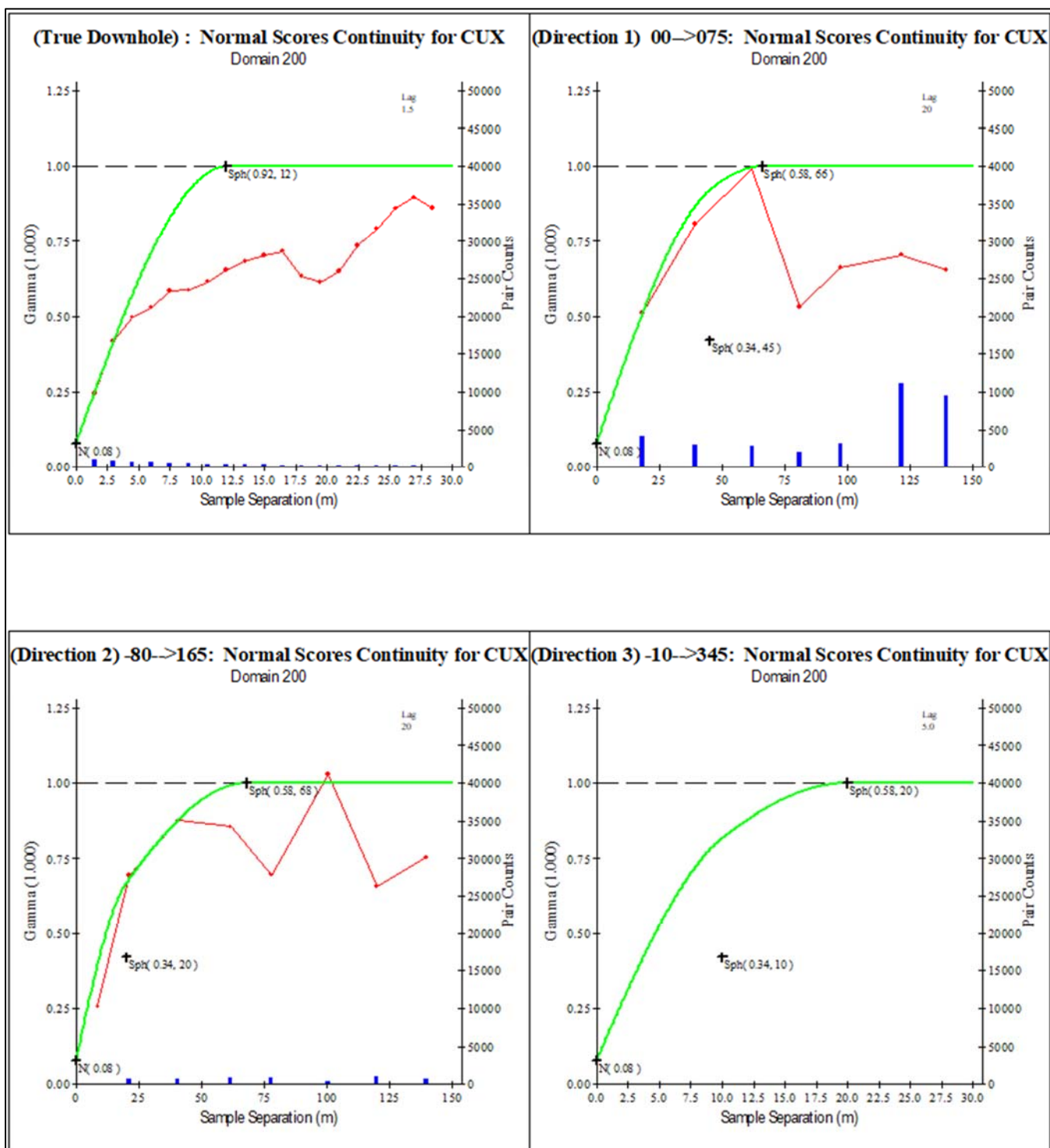
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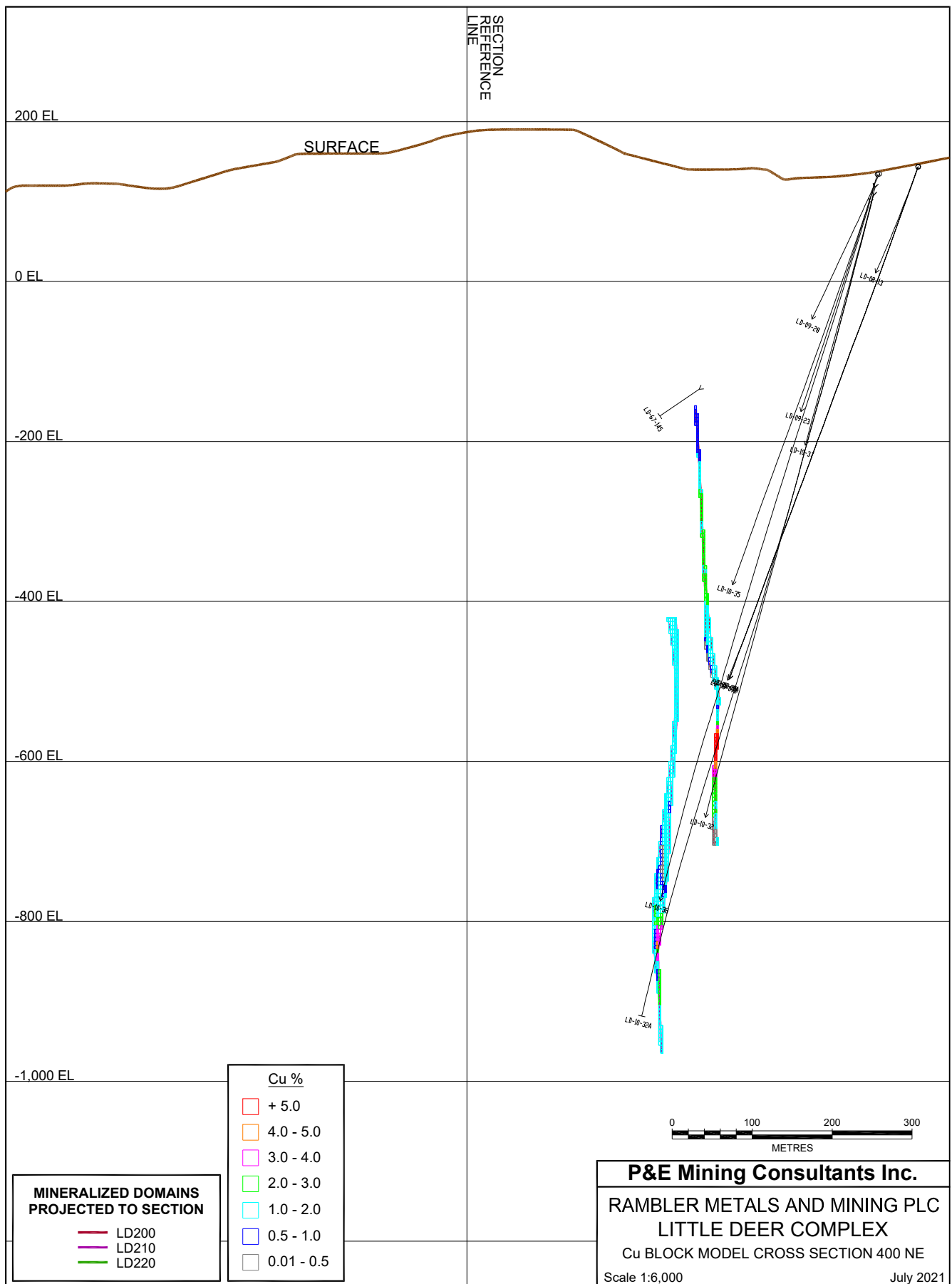
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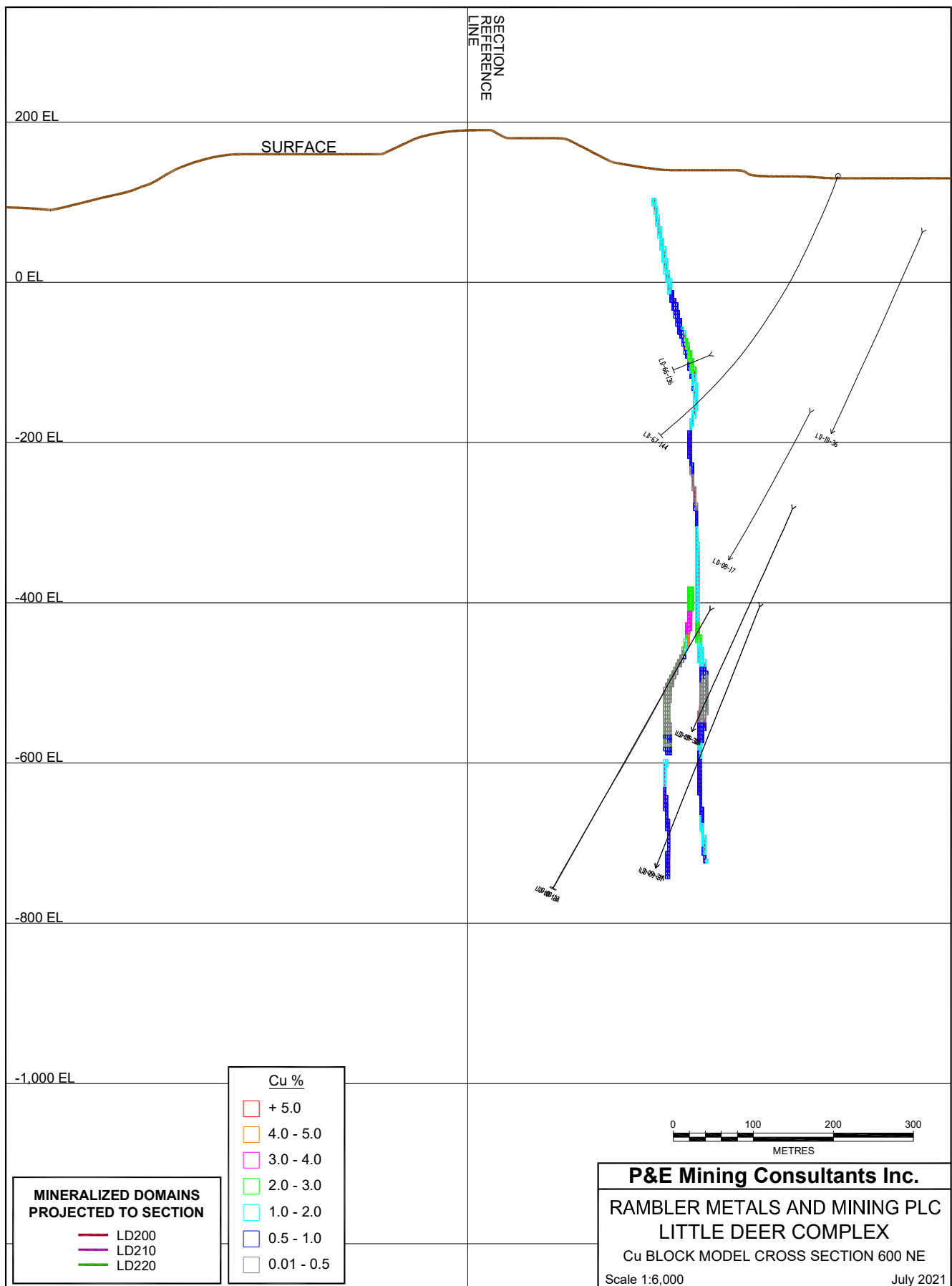
APPENDIX E VARIOGRAMS

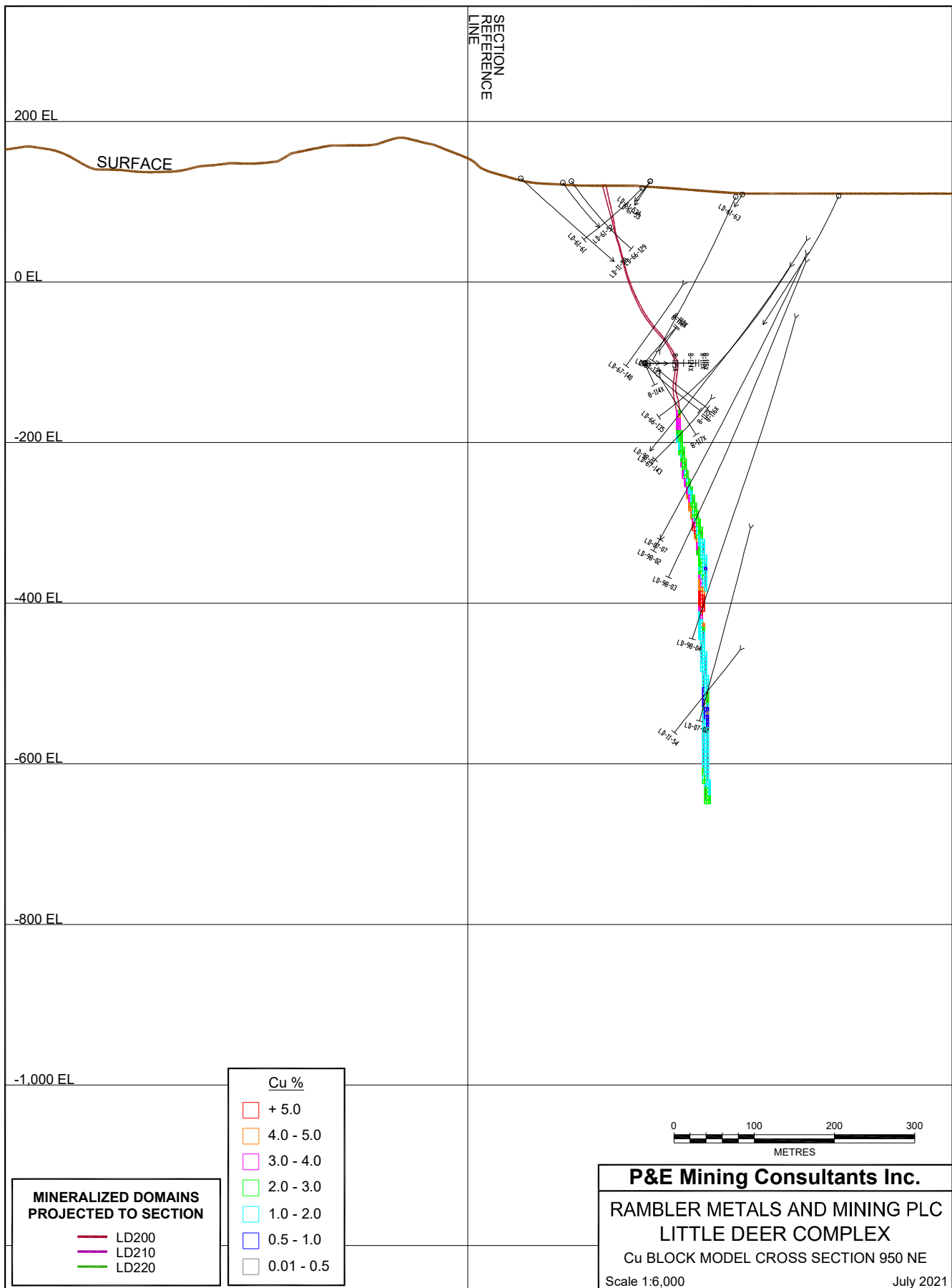


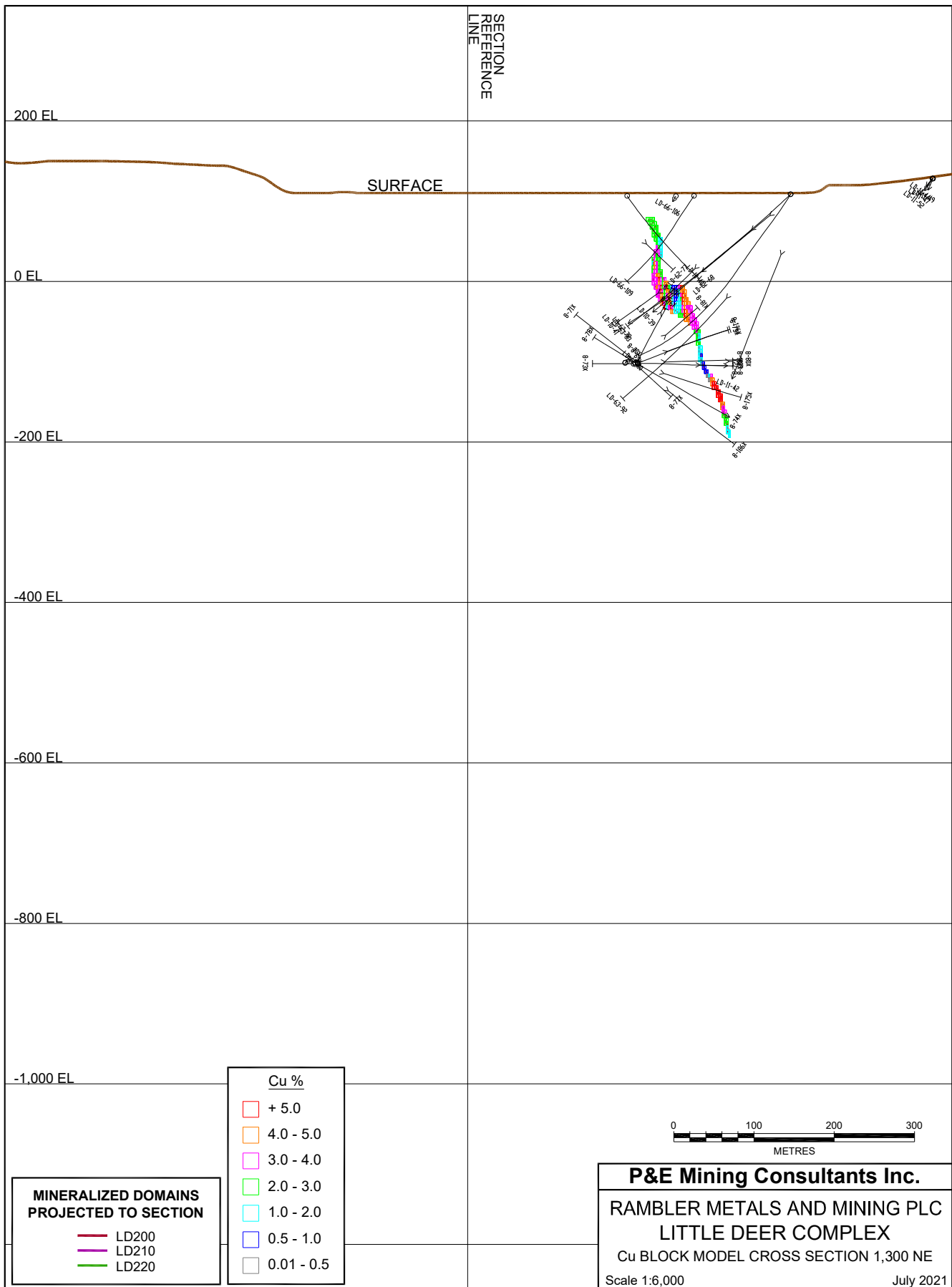


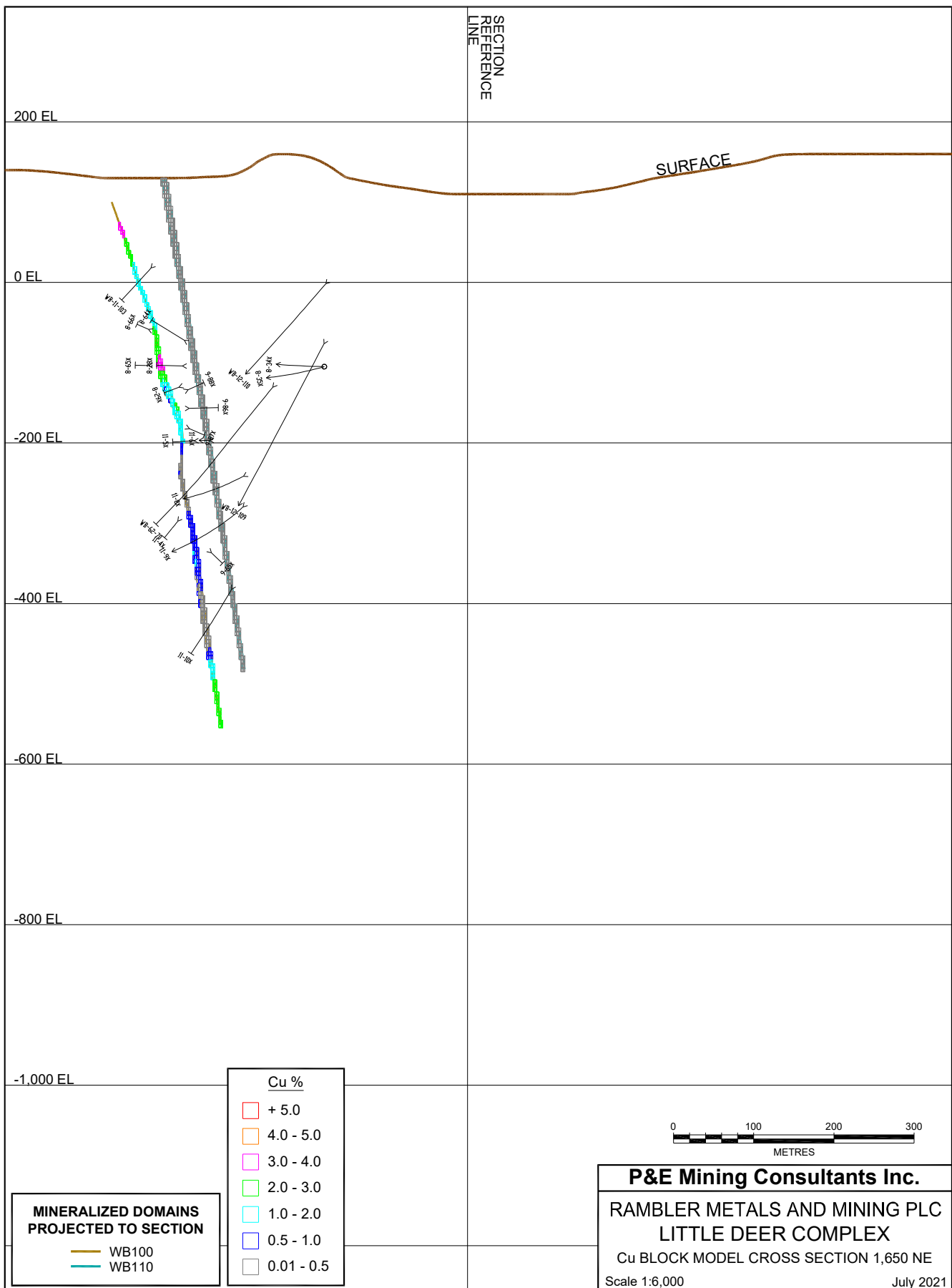
APPENDIX F CU BLOCK MODEL CROSS SECTIONS AND PLANS

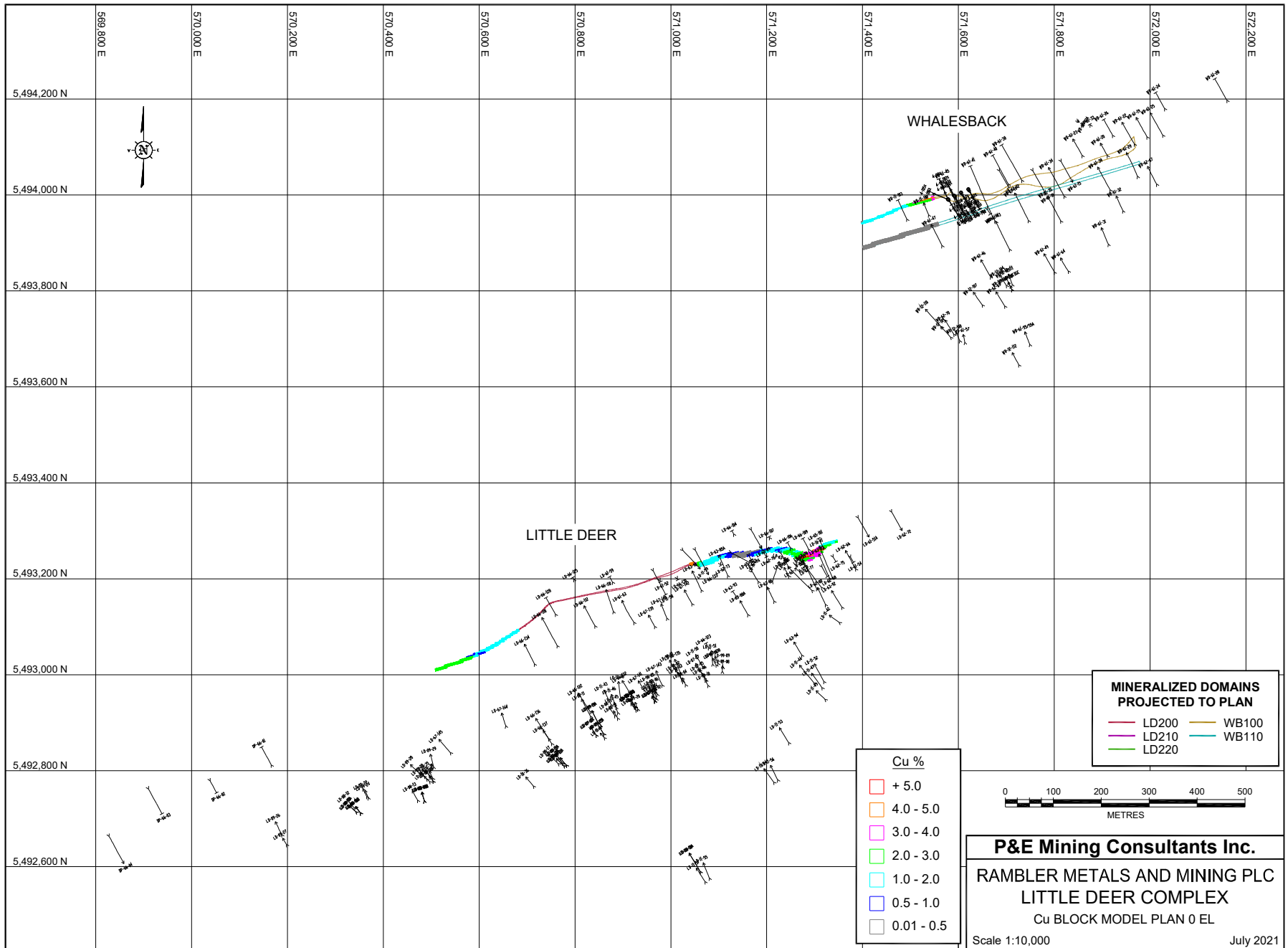


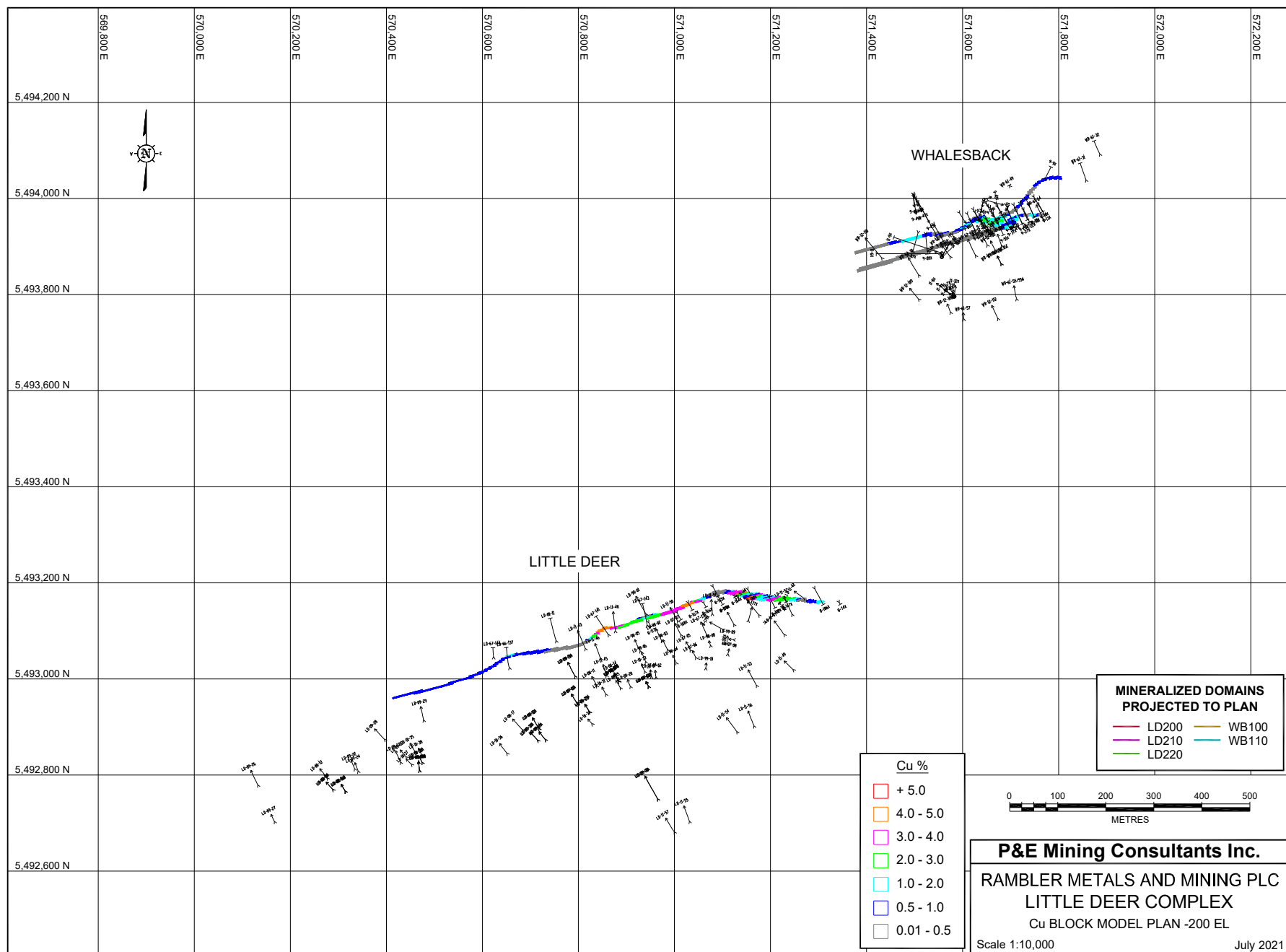


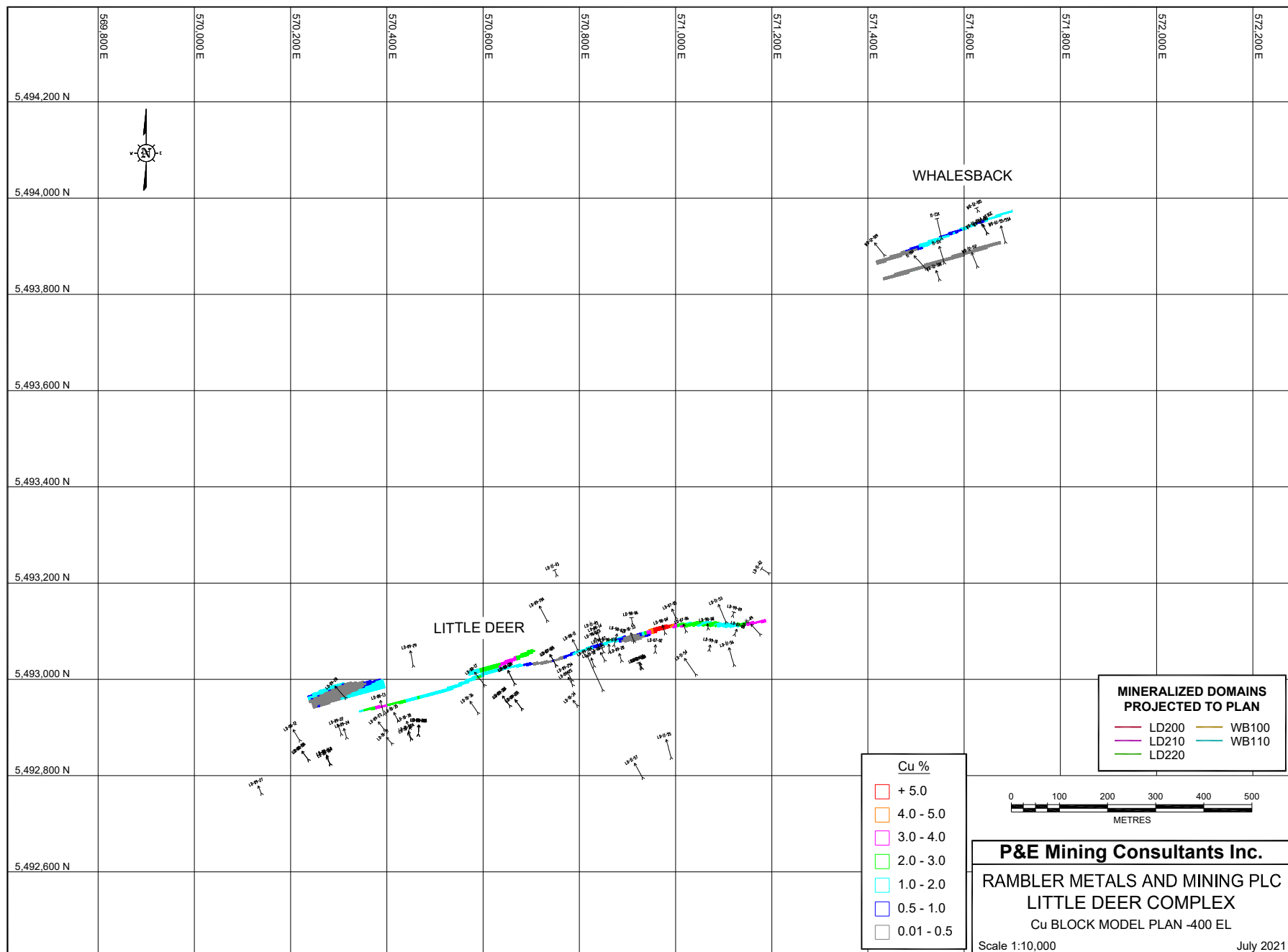


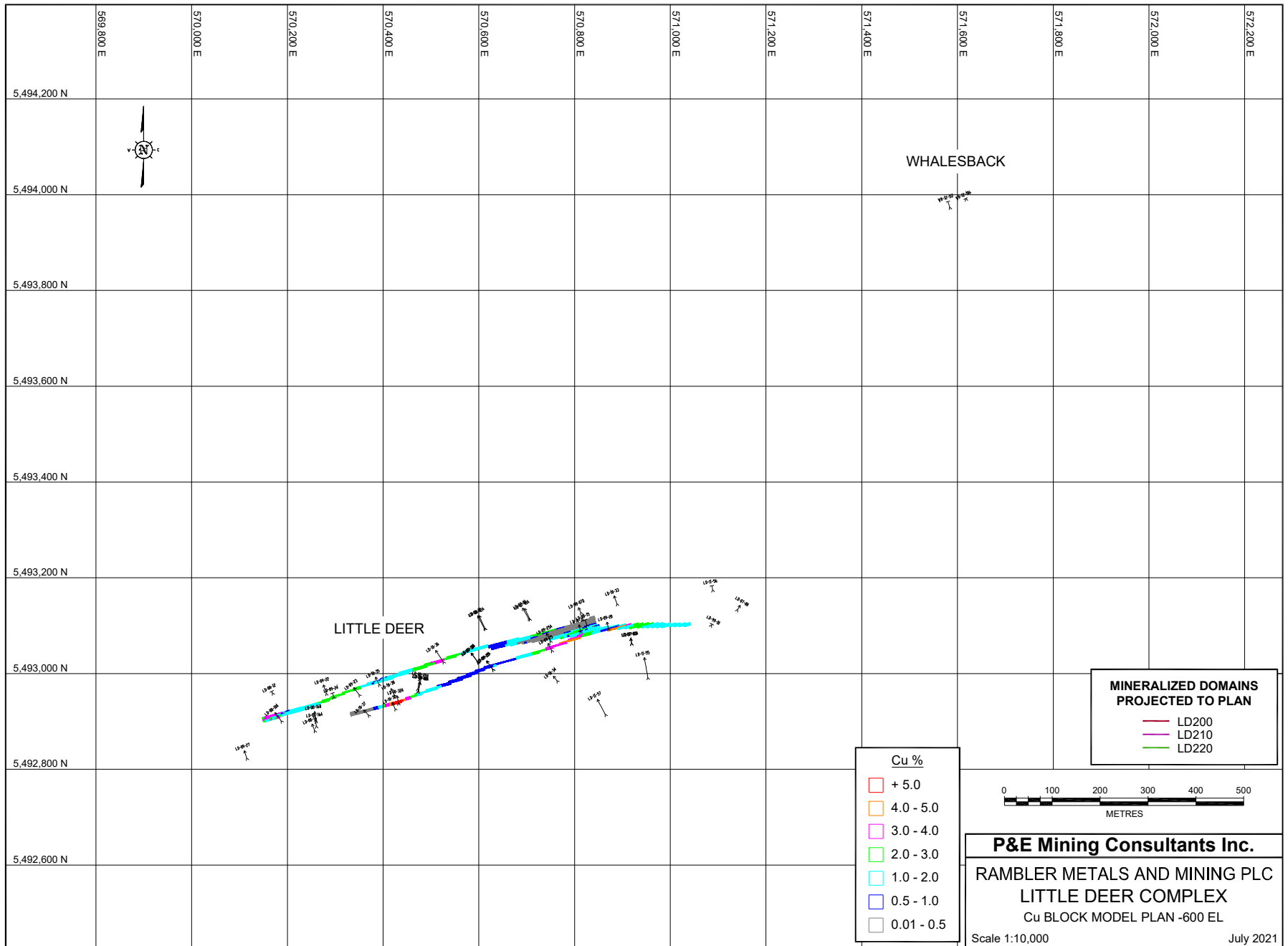


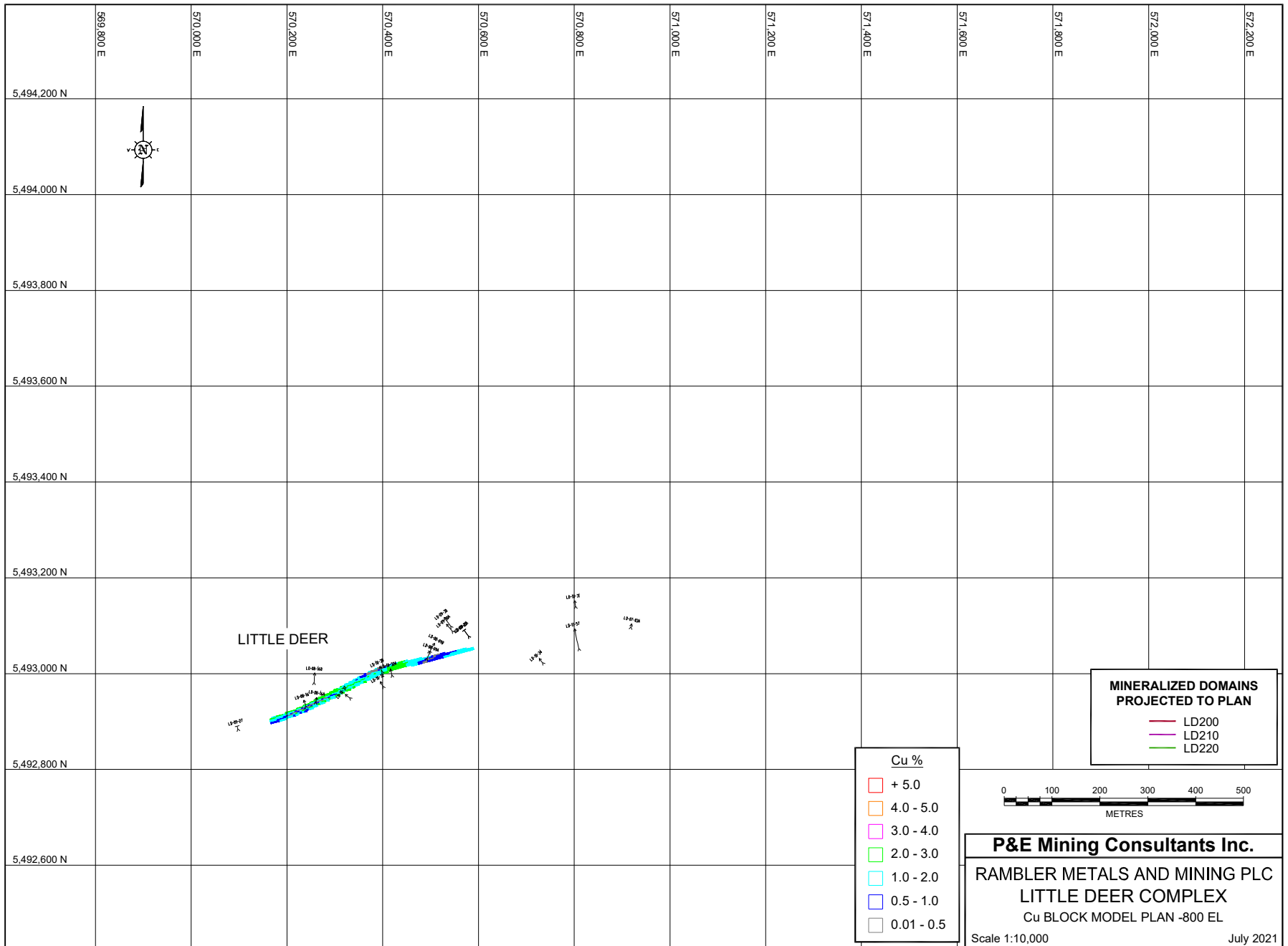




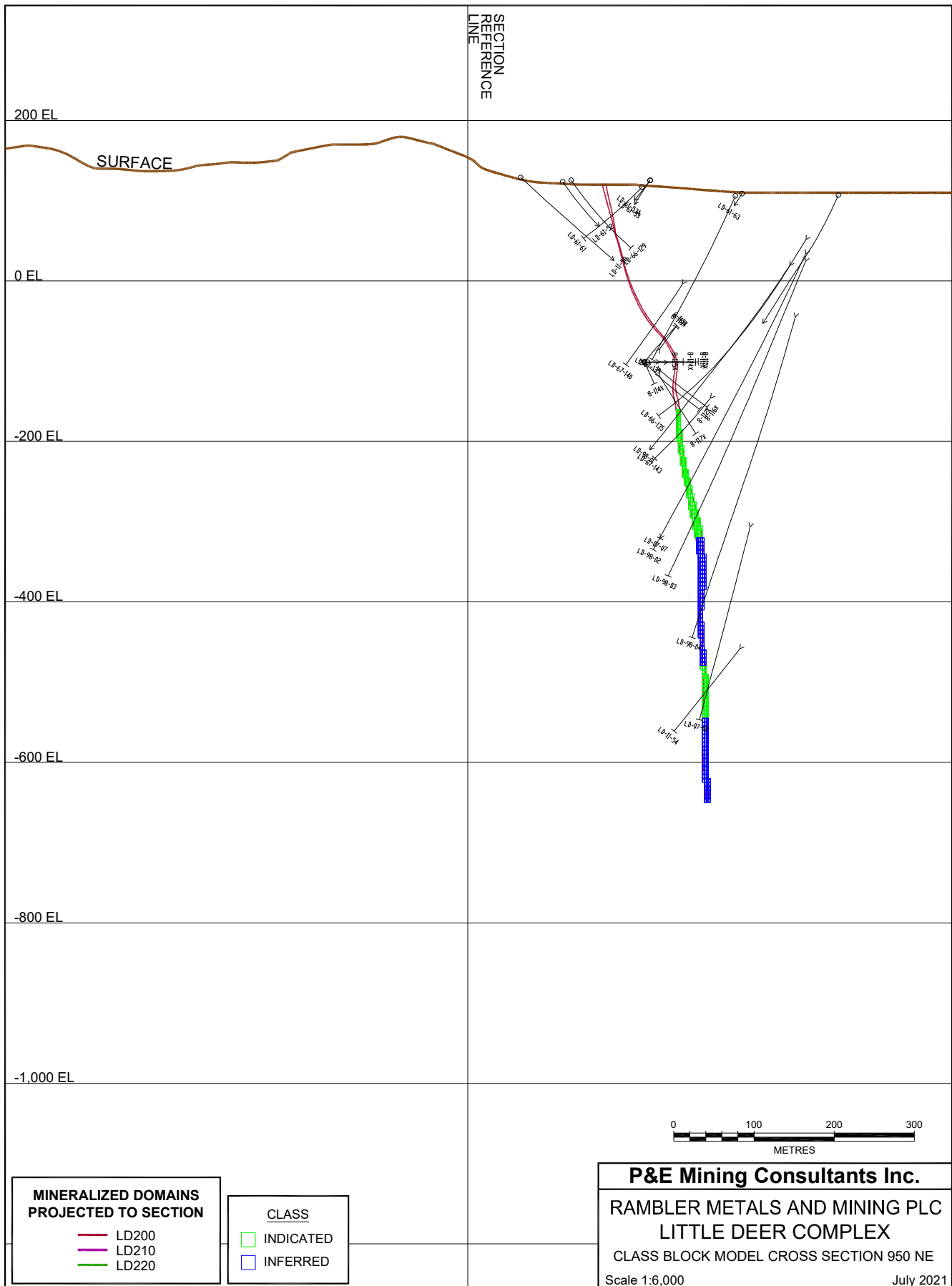


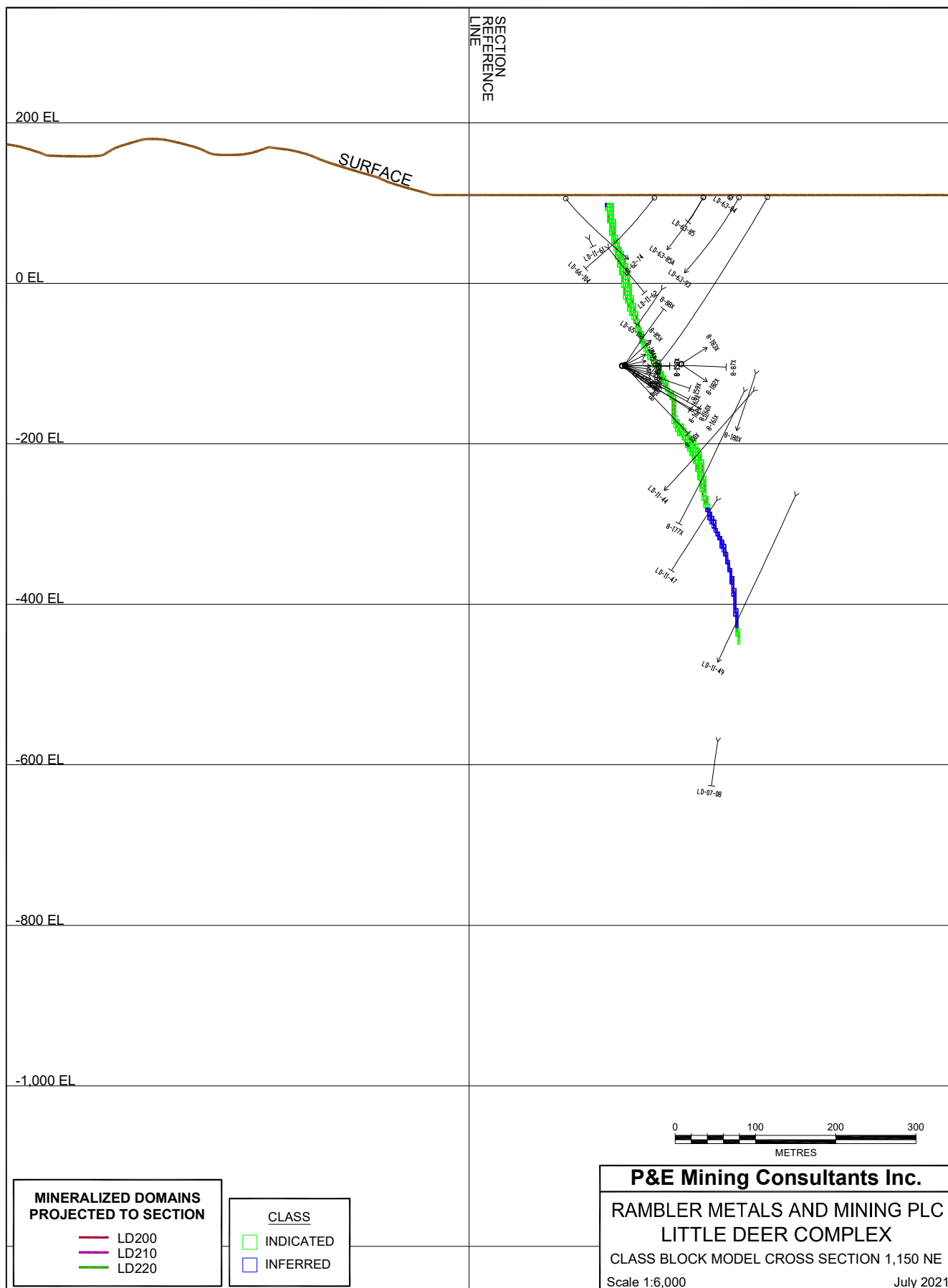


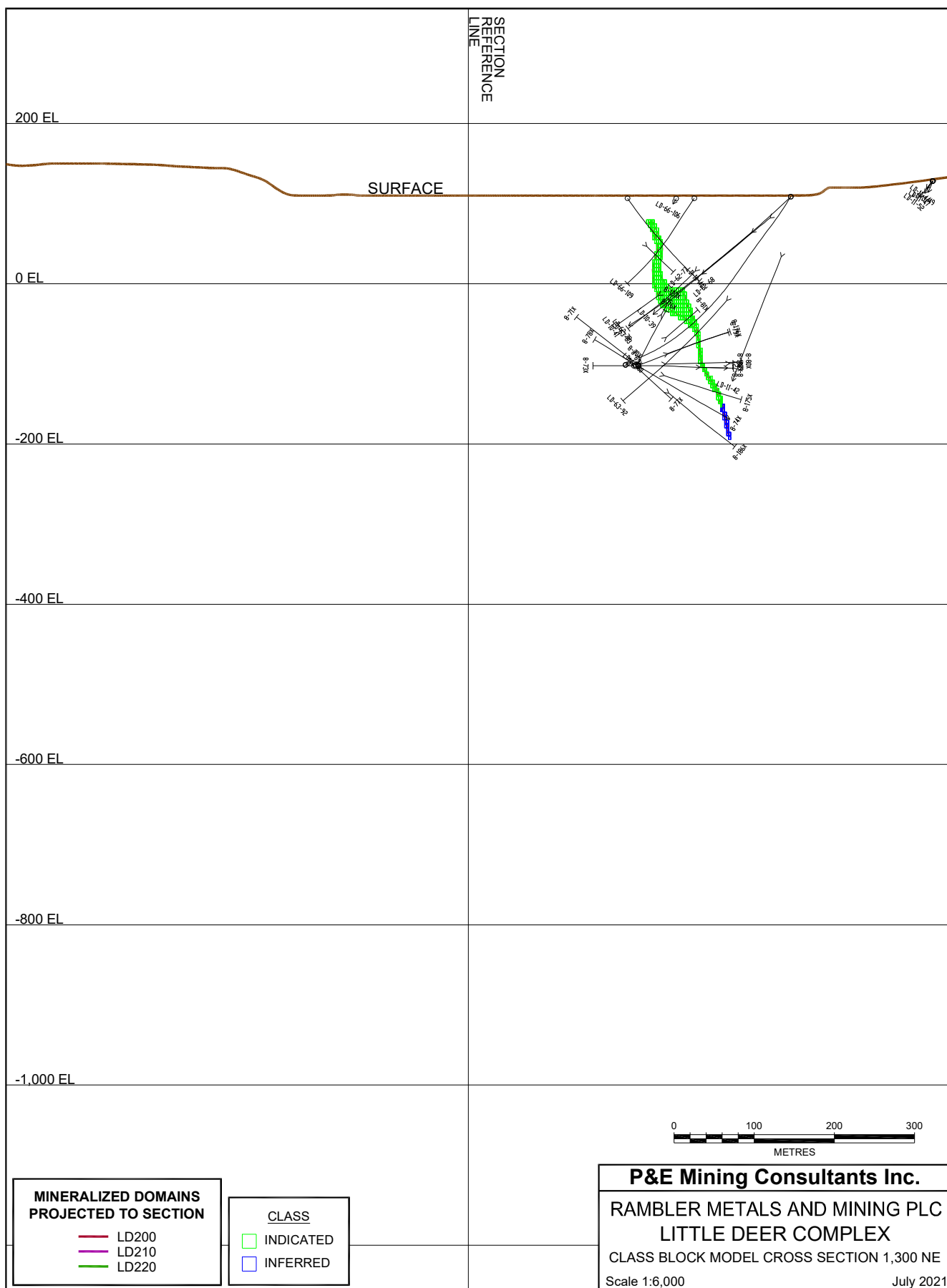


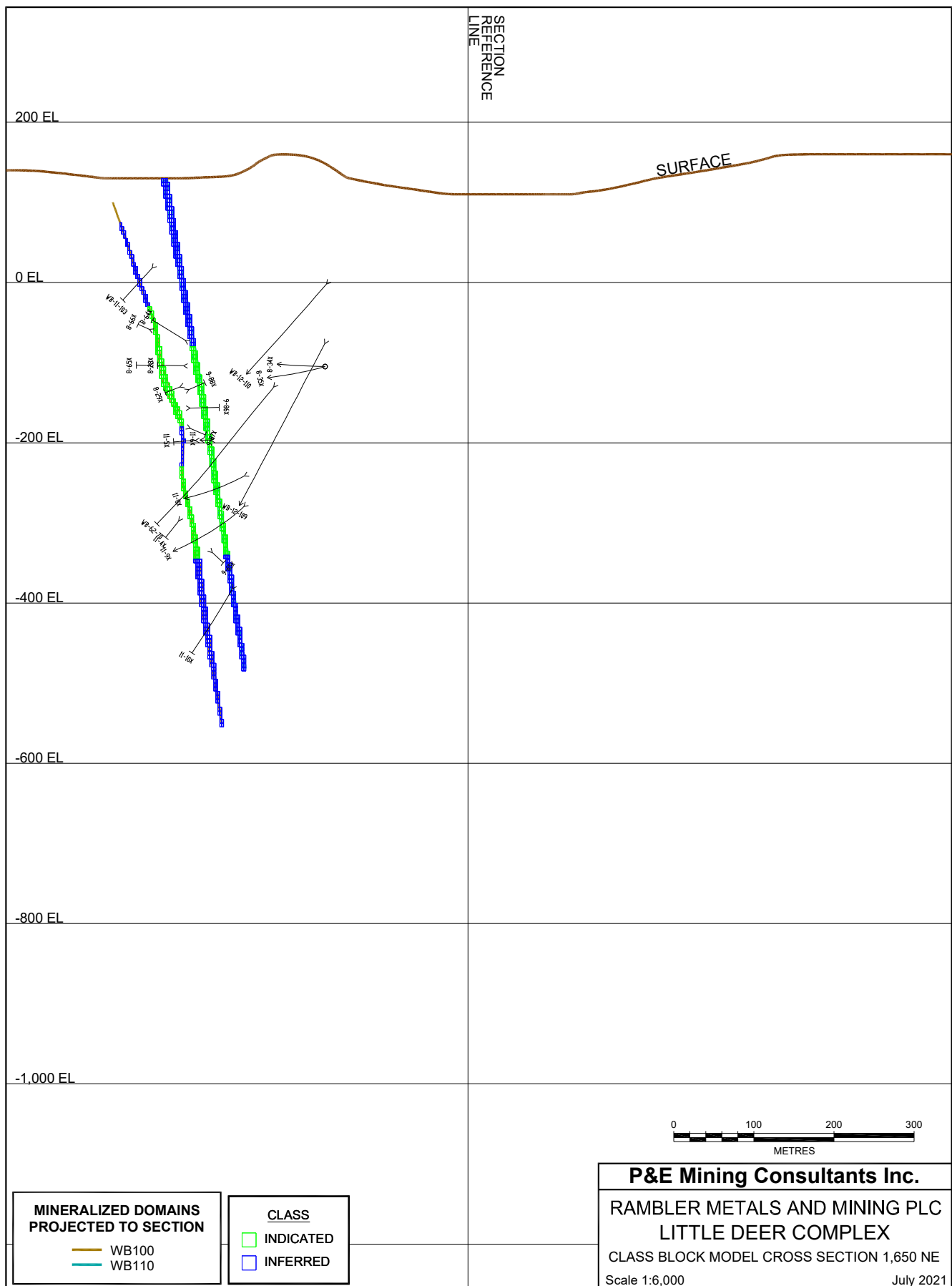


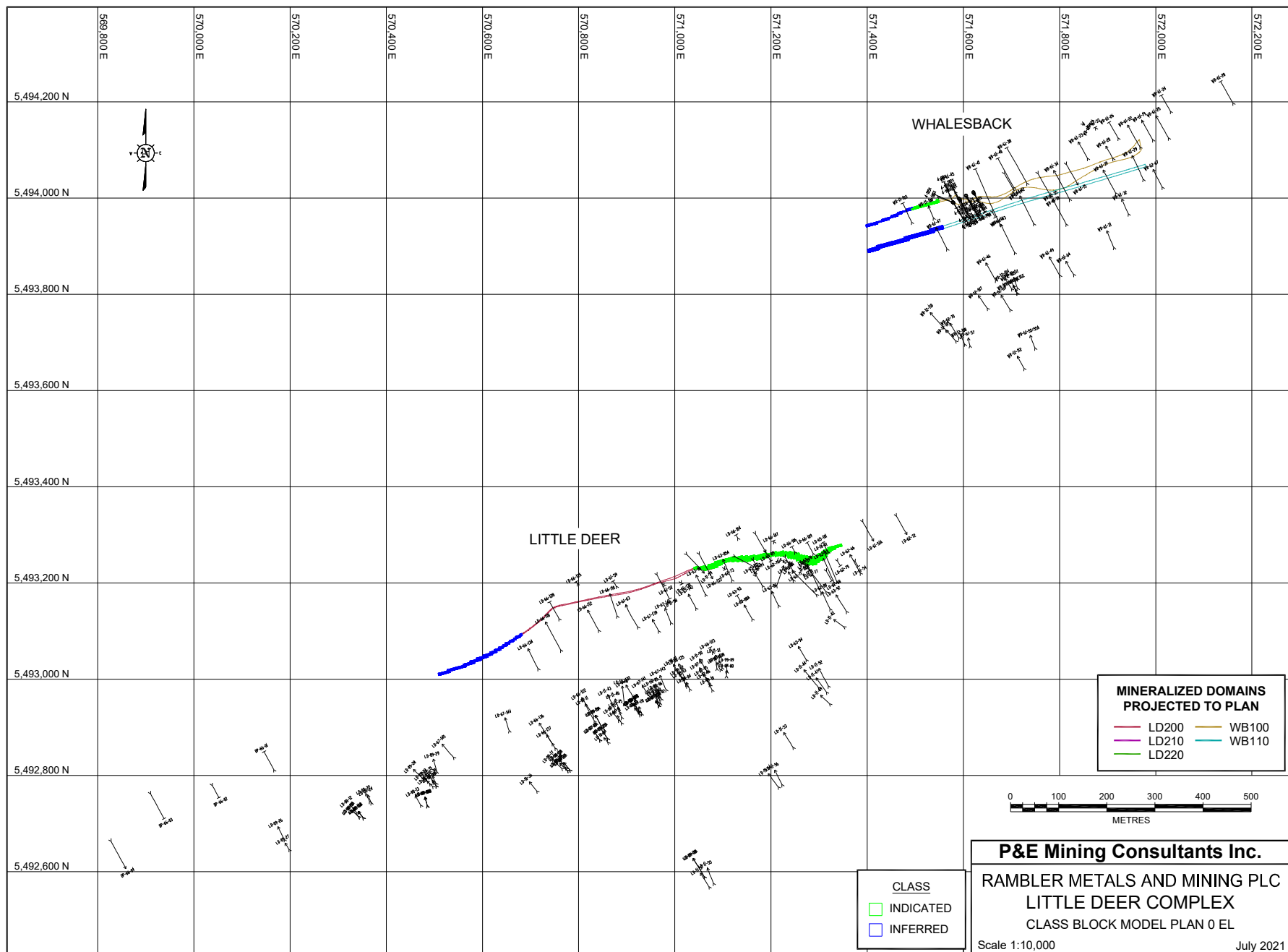
APPENDIX G CLASSIFICATION BLOCK MODEL CROSS SECTIONS AND PLANS

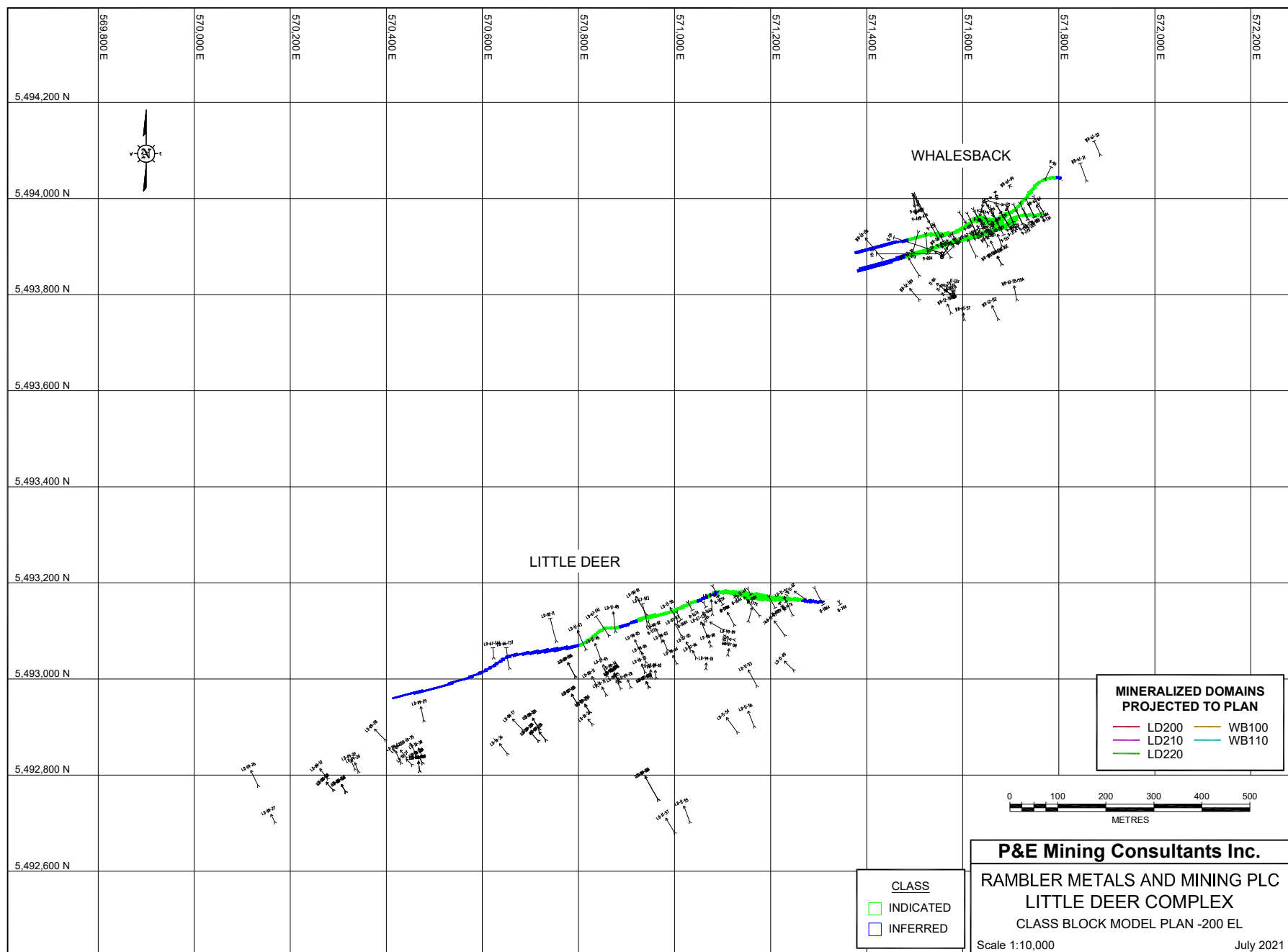


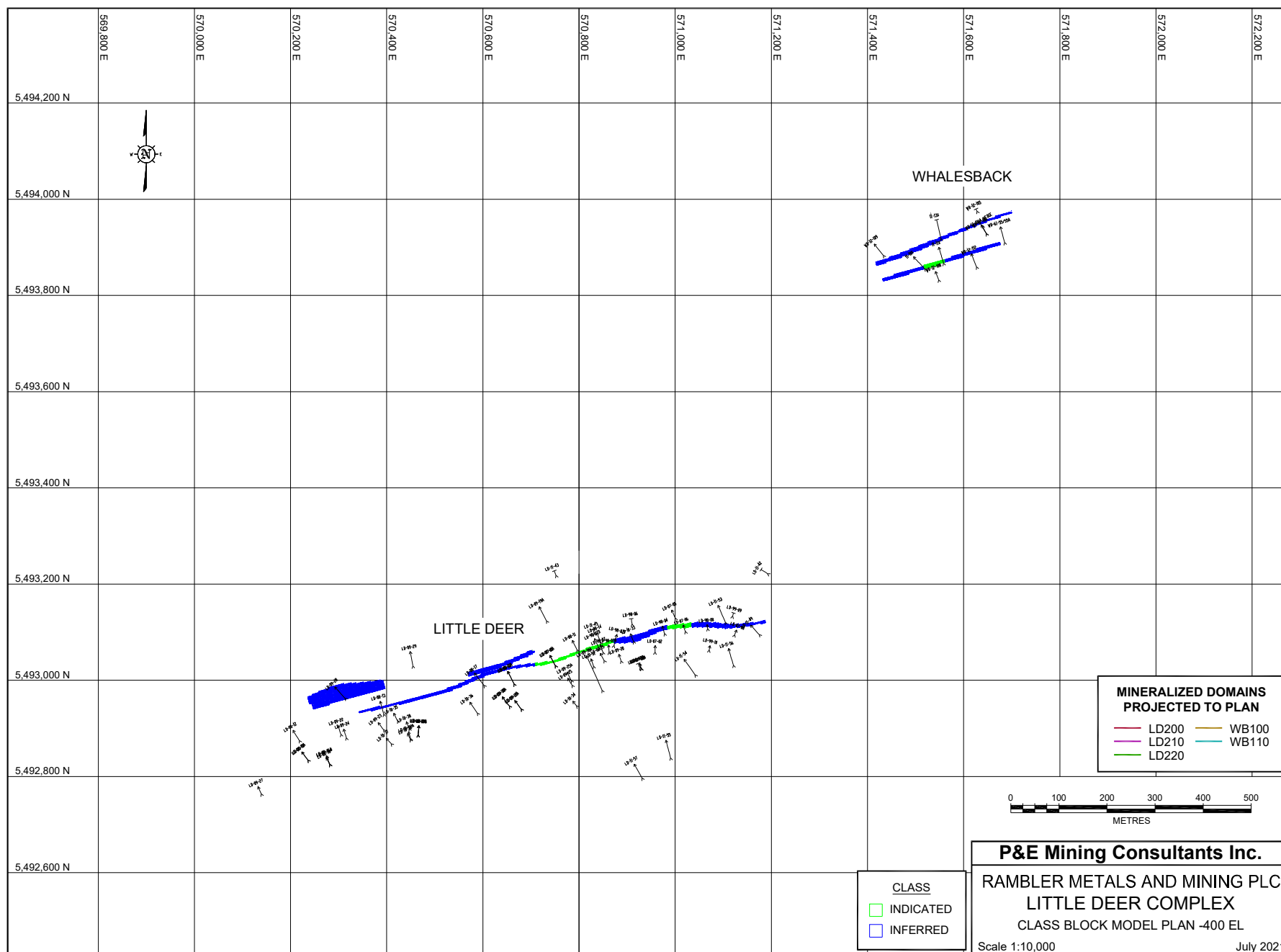


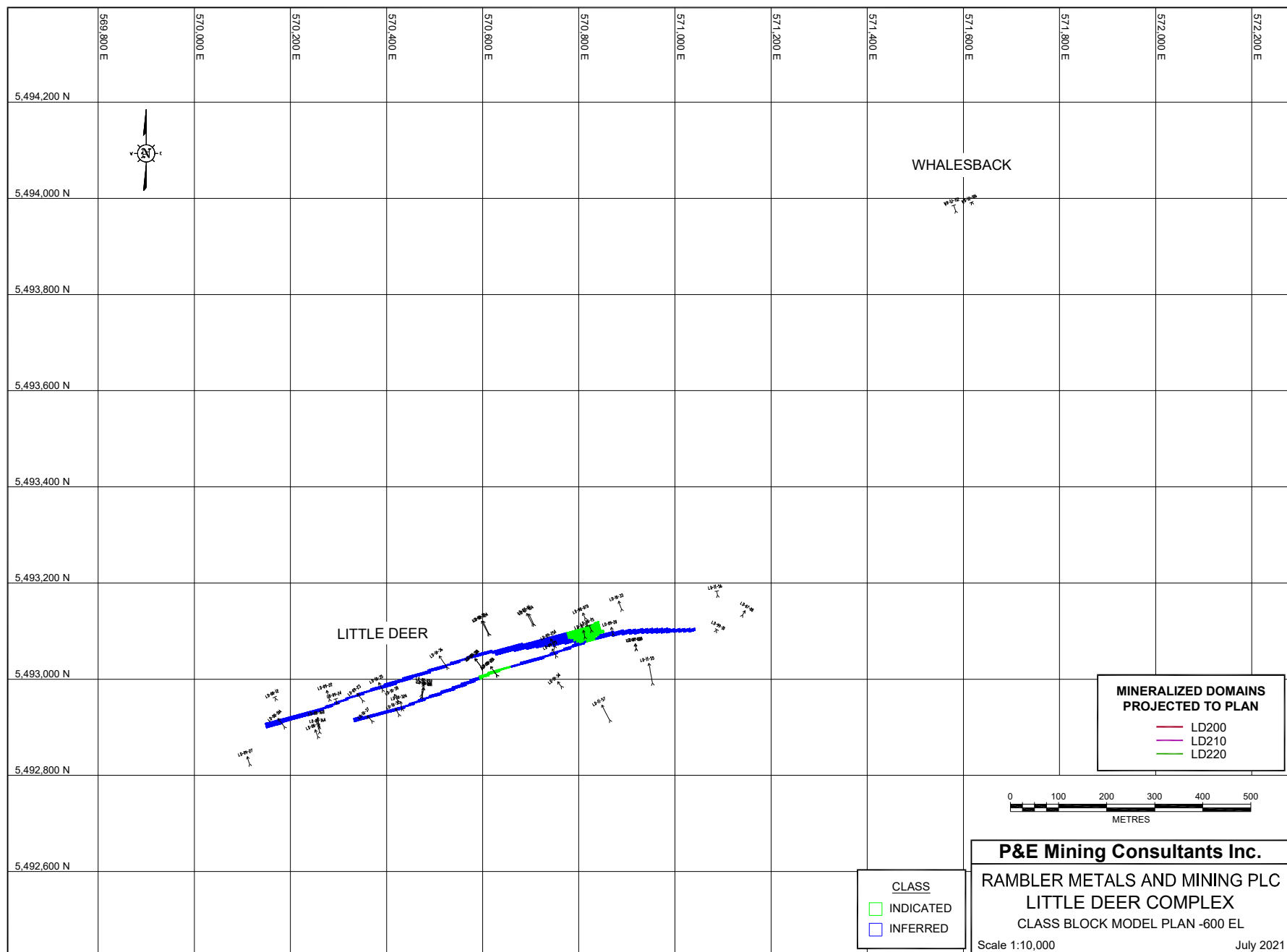


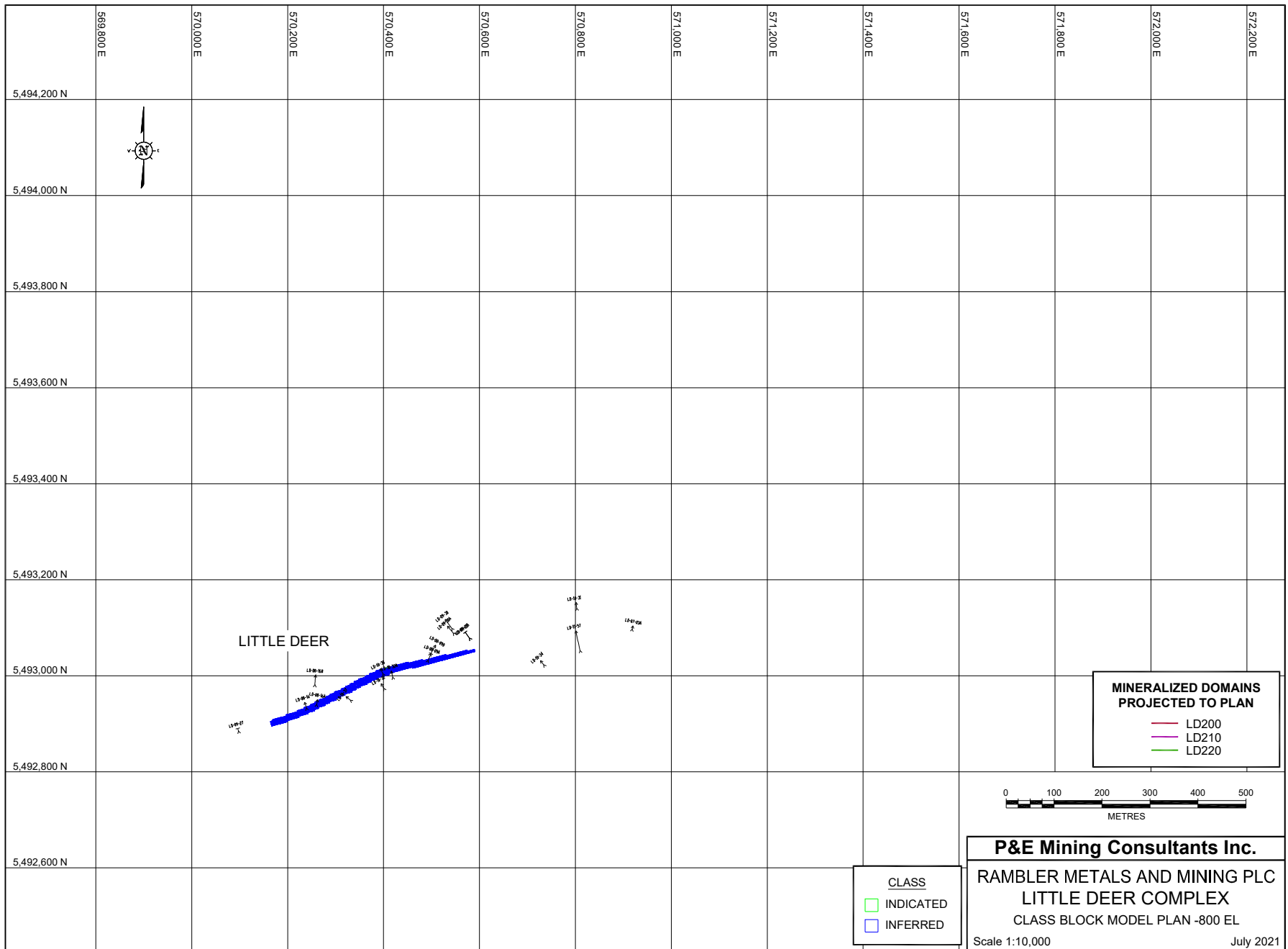




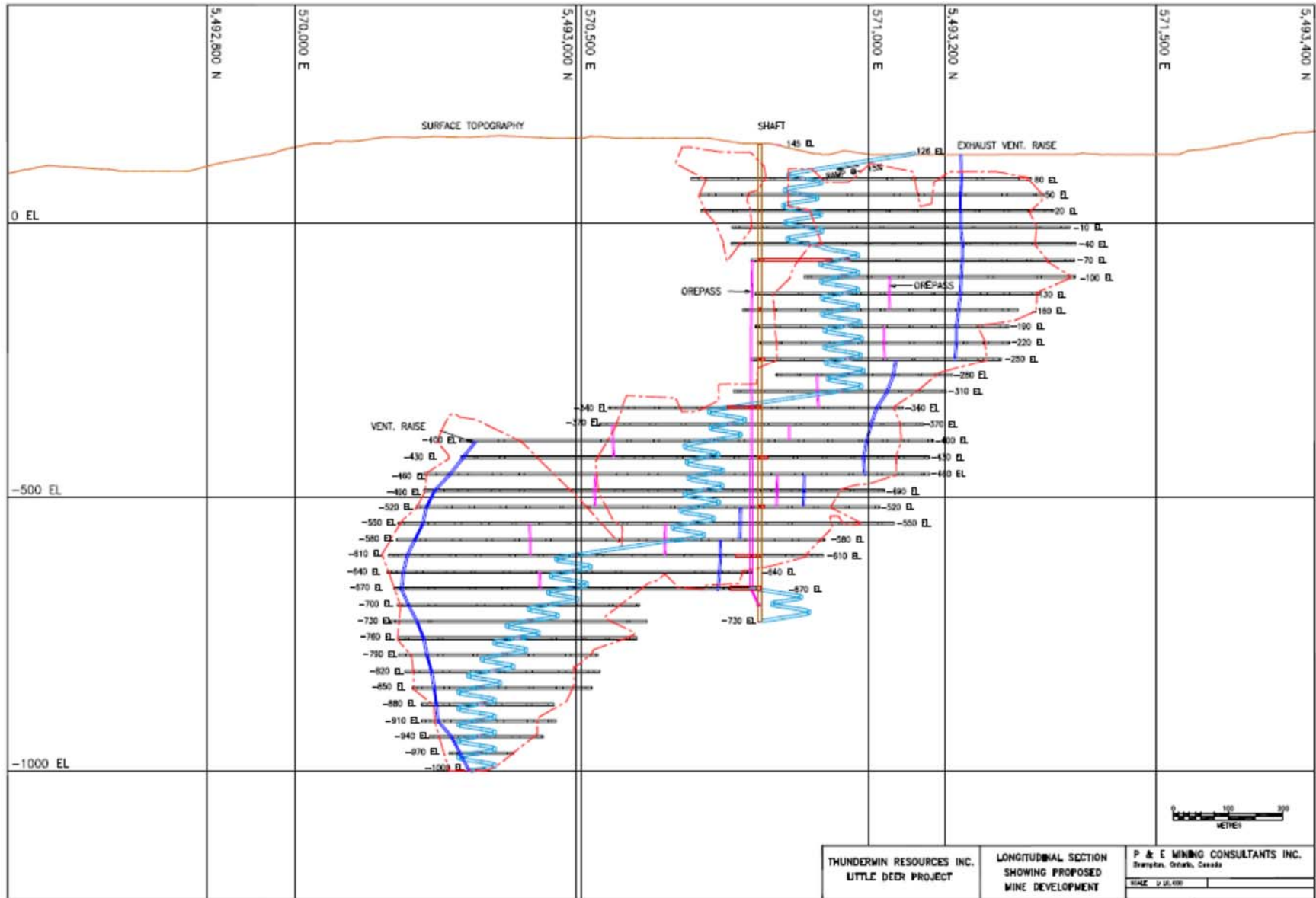








APPENDIX H A LONGITUDINAL SECTION OF THE PROPOSED MINE LAYOUT



APPENDIX I TYPICAL PLANS OF PROPOSED MINE DEVELOPMENT

