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TECHNICAL REPORT
AND
UPDATED MINERAL RESOURCE ESTIMATE
OF THE
MURRAY BROOK ZN-PB-CU-AG PROJECT
NEW BRUNSWICK, CANADA

LATITUDE 47° 31' 30'' N AND LONGITUDE 66° 26' 00'' W
UTM NAD83 ZONE 19N 5,266,700 m N AND 6,932,00 m E

FOR
CANADIAN COPPER INC.

NI 43-101 and 43-101F1
TECHNICAL REPORT

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P&E Mining Consultants Inc.
Report 450

Effective Date: October 3, 2023
Signing Date: November 16, 2023

TABLE OF CONTENTS

List of Tables

LIST OF FIGURES

1.0 SUMMARY

This report was prepared to provide a National Instrument 43-101 ("NI 43-101") compliant Technical Report and Updated Mineral Resource Estimate on the Lead-Zinc-Copper-Silver mineralization contained in the Murray Brook Deposit, located approximately 60 km to the west of the City of Bathurst, New Brunswick. The Murray Brook Project ("the Property" or "the Project") is subject to purchase agreements between Canadian Copper Inc. ("Canadian Copper"; the Project operator) and Votorantim Metals Canada Inc. ("VMC"; 72% ownership) and MetalQuest Mining Inc. ("MQM"; 28% ownership).

This Technical Report ("the Report") was prepared by P&E Mining Consultants Inc. ("P&E") at the request of Mr. Simon Quick, Director and CEO of Canadian Copper. Canadian Copper is a Canadian based, publicly held Company trading on the Canadian Securities Exchange ("CSE") under the symbol "CCI" with its corporate head office in Toronto, Ontario.

1.1 LOCATION, LAND TENURE, ACCESS, PHYSIOGRAPHY

The Property is located approximately 60 km west of the City of Bathurst in the Parish of Balmoral, Restigouche County, New Brunswick, Canada and consists of surveyed Mineral Lease No. 252, which covers approximately 505 ha, and Murray Book East claim 4925 covering an area of 5,082 ha.

Canadian Copper Inc. (Canadian Copper) intends to acquire the Murray Brook Joint Venture Property through separate agreements with Votorantim Metals Canada ("VMC") and MetalQuest Mining ("MQM") for 100% ownership of the Property. On August 2, 2023, Canadian Copper successfully executed a definitive purchase agreement to acquire VMC's 72% interest in the Murray Brook Joint Venture. The Company and VMC agreed to the conditions for the transaction under the Letter of Intent signed February 13, 2023. Five of the seven conditions of the transaction have been satisfied as of the effective date of this Report.

Canadian Copper announced on September 12, 2023 its intention to acquire MQM's (previously El Nino Ventures Inc.) 28% interest in the Murray Brook Joint Venture. The Company and MQM have agreed to considerations under a Letter of Intent ("LOI") signed September 11, 2023, which is subject to Exchange approvals and the execution of a definitive purchase agreement ("PA"). After the Company satisfies conditions 1 to 4 of the Purchase Agreement, Canadian Copper will have completed its purchase of the remaining 28% interest in the Murray Brook Joint Venture.

The Property is located in the Miramichi Highlands, which is characterized by rounded and glacially scoured hills. Land use in the area is mainly for tourism, forestry, and mining. The Property is accessible for exploration work and project development year-round and water is plentiful in nearby streams and creeks. Although the site has been reclaimed from the 1990s silver-gold mining and the equipment sold off, part of the historical open pit mine, leach pads and tailings storage area are still evident. The massive sulphide deposit has never been mined. A 10 kV powerline links Murray Brook to the power station at the Caribou Mine, 10 km to the east. However, service was discontinued in 1996.

1.2 HISTORY

Kennco Exploration Ltd. staked what is now the Murray Brook area in 1955 to follow-up airborne conductors. The conductors are due to graphitic shale, but mineral prospecting led to the discovery of gossan boulders and a stream sediment survey led to the discovery of the massive sulphide deposit in 1956. The deposit was systematically drilled by Kennco and they produced a historical mineral resource estimate.

Several companies carried out drill programs and metallurgical testwork between 1970 and 1989, at which time NovaGold Resources Ltd. began production on the gossan to recover gold and silver. The underlying massive sulphide deposit was not mined. The mining operation was discontinued in 1992 and the open pit was reclaimed.

Further work on the sulphide deposit, including ground surveys, diamond drilling and tonnage and grade calculations continued intermittently until 2010, at which time Votorantim Metals Canada Inc. ("VMC") acquired the Murray Brook Property. Later in 2010, VMC signed a participation agreement for the Murray Brook Property with El Nino Ventures Inc. ("ELN"). VMC completed drilling, mineral processing and metallurgical studies, an in 2013 an NI 43-101 Mineral Resource Estimate and a Preliminary Economic Assessment of the Murray Brook Project.

In 2016, Puma Exploration Inc. ("Puma") signed a deal with VMC and El Nino for the Murray Brook Property. Puma completed an updated Mineral Resource Estimate, drilling and mineral processing and metallurgical studies as part of a strategic Agreement with Trevali Mining Corp. ("Trevali"), then owner and operator of the nearby Caribou Mining and Process Plant operation 10 km to the east of the Murray Brook Deposit. The Murray Brook Property reverted back to VMC and ELN in 2020. Canadian Copper Inc. (Canadian Copper) acquired VMC's ownership interest (72%) and ELN's ownership interest (28%) in the Murray Brook Property in 2023.

1.3 GEOLOGY AND MINERALIZATION

The Murray Brook area is located in the Bathurst Mining Camp ("BMC") in northern New Brunswick. The BMC is hosted in an Ordovician back-arc complex of polydeformed sedimentary, felsic volcanic and mafic volcanic rocks that are collectively referred to as the Bathurst Supergroup. The sedimentary and volcanic rocks have been intruded by gabbro, diabase and quartz porphyritic rocks of Ordovician age. The BMC includes at least 46 volcanogenic massive sulphide ("VMS") deposits, including the world-renowned Brunswick No. 12 Mine.

The Murray Brook Deposit is hosted by sedimentary rocks in the lower part of the Mount Brittain Formation. The upper felsic volcanic member of the Mount Brittain Formation is host to the Restigouche Deposit, 10 km to the west. The Mount Brittain Formation is considered to be equivalent of the Spruce Lake Formation, which hosts the Caribou Mine 10 km to the east.

The Murray Brook Deposit dips moderately to the northwest, plunges shallowly to the north and appears to pinch-out at depth and to the east. The geometry of the Deposit was probably lens-shaped, but the up-dip portion of the body has been eroded and pre-Pleistocene weathering has produced a gossan. Whereas the Deposit is a single body of massive sulphide, drilling by VMC indicates that it consists of two connected thick lenses or lobes, the western lens being richer in zinc and lead, and the eastern lens richer in copper.

The sulphides are massive to semi-massive, and include copper, pyrite, lead-zinc zones. Sulphides are mainly fine-grained, massive, laminated pyrite with disseminated and banded sphalerite, chalcopyrite and galena, with minor tetrahedrite, covellite, marcasite and arsenopyrite. The Murray Brook sulphide mineralization is classified as a sedimentary rock-hosted volcanogenic massive sulphide deposit.

1.4 EXPLORATION AND DRILLING

Mineral prospecting, geological mapping, trenching, soil geochemistry, ground geophysical surveys and airborne geophysical exploration surveys have been completed by VMC and Puma between 2010 and 2020. The ground and airborne geophysical surveys include magnetics, gravity and electromagnetics, which with the geological and geochemistry work led to the development of targets for drill testing.

Since 2010, a total of 190 drill holes for 37,070 m have been completed on the Murray Brook Property. A total of 162 drill holes for 29,938.7 m were completed by VMC between 2010 and 2016. An additional 28 drill holes totalling 7,131 m were completed by Puma between 2017 and 2019.

1.5 SAMPLING, ANALYSES AND DATA VERIFICATION

Robust quality assurance/quality control ("QA/QC") programs have been used since the commencement of exploration activities on the Property in 2010. In the Author's opinion, their sample preparation, analytical procedures, security and QA/QC program meet industry standards, and that the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report.

Mr. Yungang Wu, P.Geo. of P&E, an independent Qualified Person under the terms of NI 43-101, conducted a site visit to the Murray Brook Property on September 7 and 8, 2023. The site visit included an inspection of the Property, drill sites, drill collars, and drill core storage facilities. A data verification sampling program was completed as part of the on-site review. Drill core samples were collected to independently confirm the presence and grades of base and precious metal mineralization. Previously, Mr. Eugene Puritch, P.Eng. of P&E, an independent Qualified Person under the terms of NI 43-101, conducted a site visit to the Property on March 18, 2013. A data verification sampling program was conducted as part of the on-site review. The Authors consider that there is good correlation between gold and silver assay values in the Project database and the independent verification samples. In the Authors' opinion, the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

1.6 MINERAL PROCESSING AND METALLURGICAL TESTING

The most recent metallurgical testwork was reported for the Murray Brook Deposit by Puma and Trevali in 2019. The testwork program investigated the potential of processing the Murray Brook mineralization using the existing process plant flowsheet at the Caribou Mine, 10 km to the east. Flotation testwork was conducted on fresh drill core materials from the Zn-Pb zone and the Cu-Zn zone, under the prevailing Caribou process plant grinding and flotation conditions. Additional scoping-level flotation testwork was also conducted to evaluate the Murray Brook oxide zone for potential optimization of near-surface mineralization processing.

The zinc-lead zone yielded recoveries of 86.6% Zn and 70.4% Pb with 39.9% of Ag reporting to the Pb concentrate. These results are higher than the published results by Trevali for the Caribou (underground) Mine and significantly higher than those for the initial recovery tests conducted by VMC in 2013. For the first time, recovery tests were conducted on a newly defined copper-zinc zone of the Murray Brook Deposit. The Copper-Zinc Zone also reported an initial copper recovery of 79.5% Cu with 54.9% of Ag reporting to the copper concentrate and a zinc recovery of 65.6% Zn.

1.7 MINERAL RESOURCE ESTIMATE

This Technical Report incorporates P&E's NI 43-101 Mineral Resource Estimate ("MRE") for sulphide and oxide mineralization at a CAD$23/t Net Smelter Return ("NSR") cut-off, which is summarized in Table 1.1. The MRE was prepared by the Authors in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards and National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("43-101") (2014) and Best Practices Guidelines (2019).

The MRE for the sulphide mineralization consists of: 15.8 Mt grading 2.60% Zn, 0.43% Cu, 0.92% Pb, 0.52 g/t Au and 39.0 g/t Ag (4.83% ZnEq or 1.51% CuEq) in Measured Mineral Resources; 5.3 Mt grading of 2.14% Zn, 0.52% Cu, 0.85% Pb, 0.67 g/t Au and 37.3 g/t Ag (4.58% ZnEq or 1.43% CuEq) in Indicated Mineral Resources; and 0.1 Mt grading 1.82% Zn, 0.41% Cu, 0.68% Pb, 0.62 g/t Au and 30.4 g/t Ag (3.75% ZnEq or 1.17% CuEq) or in Inferred Mineral Resources. The oxide mineralization consists of: 1.6 Mt grading 2.2% Zn, 1.05% Cu, 0.73% Pb, 0.36 g/t Au and 38.0 g/t Ag (5.94% ZnEq or 1.85% CuEq) in Measured Mineral Resources and 0.4 Mt grading 2.31% Zn, 0.97% Cu, 0.78% Pb, 0.51 g/t Au and 44.7 g/t Ag (6.02% ZnEq or 1.88% CuEq) in Indicated Mineral Resources.

TABLE 1.1
MURRAY BROOK IN-PIT MINERAL RESOURCE ESTIMATE AT CD$23/T NSR CUT-OFF (1 TO 9)

Zone	Classification	Tonnes (k)	Cu (%)	Cu (Mlb)	Pb (%)	Pb (Mlb)	Zn (%)	Zn (Mlb)	Au (g/t)	Au (koz)	Ag (g/t)	Ag (Moz)	ZnEq (%)	CuEq (%)	NSR (CAD $/t)
Oxide	Measured	1,641	1.05	37.9	0.73	26.6	2.20	79.6	0.36	19	38.0	2.0	5.94	1.85	156
	Indicated	373	0.97	7.9	0.78	6.4	2.31	19.0	0.51	6	44.7	0.5	6.02	1.88	158
	Measured + Indicated	2,014	1.03	45.9	0.74	32.9	2.22	98.6	0.39	25	39.2	2.5	5.95	1.86	157
Sulphide	Measured	15,830	0.43	150.8	0.92	322.2	2.60	908.3	0.52	264	39.0	19.8	4.83	1.51	115
	Indicated	5,275	0.52	60.9	0.85	98.9	2.14	248.9	0.67	114	37.3	6.3	4.58	1.43	114
	Measured + Indicated	21,105	0.45	211.7	0.91	421.1	2.49	1,157.2	0.56	378	38.6	26.2	4.77	1.49	115
	Inferred	110	0.41	1.0	0.68	1.6	1.82	4.4	0.62	2	30.4	0.1	3.75	1.17	92

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 that 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 report were estimated using 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. *The Mineral Resource Estimate was based on July 2023 approx. consensus economics forecast US$ metal prices of $4.00/lb Cu, $1.25/lb Zn, $0.95/lb Pb and $23/oz Ag at a $0.76 USD/CAD exchange rate.*
5. *Process recoveries used were 80% Cu, 87% Zn, 75% Pb and 90% Ag. Au was not recoverable.*
6. *Overburden, waste and mineralized mining costs per tonne mined were respectively $2.00, $2.25 and $2.50.*
7. *Processing and G&A costs per tonne processed were respectively $20 and $3.*
8. *Constraining pit shell slopes were 50 degrees.*
9. *NSR $/t = (Cu % x 81) + (Pb % x 12) + (Zn % x 13) + (Ag g/t x 0.90).*

The drilling database for the Murray Brook Project contains 12,900 samples, all of which were analyzed for copper ("Cu") %, lead ("Pb") % zinc ("Zn") %, gold ("Au") g/t, and silver ("Ag") g/t. A total of 10,200 assays from 187 drill holes have been utilized for the Mineral Resource Estimate. One hundred and fifty-nine drill holes were completed prior to 2013.

Grade capping was investigated on 1 m composite values within the constraining domains to ensure that the possible influence of erratic high values did not bias the database. Based on the log-normal histogram performance, Pb was capped at 16%, Zn at 24% and Ag at 410 g/t, whereas capping was not applied to Cu and Au.

The Murray Brook Mineral Resource block model was constructed using Gemcom™ GEOVIA GEMS™ modelling software. The block model is oriented with X axis at 110° azimuth with 3 m x 3 m x 3 m blocks. Inverse Distance Squared (ID^2) grade interpolation was utilized for the Cu, Pb and Zn grade estimates, whereas Inverse Distance Cubed (ID^3) was used for the Au and Ag grade estimates, both with the capped composites. The average block-model mineralized bulk density was calculated to be 4.24 t/m^3.

The Mineral Resource model classification was determined from the Zn interpolation, due to Zn generating the highest proportionate contribution to the NSR value in the block model. Based on the semi-variogram performance and density of the drilling data, the Measured Resource classification was justified for blocks interpolated by the first pass using at least seven composites from a minimum of four drill holes within a spacing of 25 m along strike, 40 m down dip and 15 m on the across dip direction. Indicated Mineral Resource blocks were classified with the second pass and Inferred Mineral Resources were classified for all remaining constrained blocks.

The NSR cut-off sensitivities to the Sulphide Pit-Constrained Mineral Resource Estimate are presented in Table 1.2.

TABLE 1.2
IN-PIT MINERAL RESOURCE ESTIMATE SENSITIVITY

Classification	Cut-off (NSR CAD$/t)	Tonnes (k)	Cu (%)	Cu (Mlb)	Pb (%)	Pb (Mlb)	Zn (%)	Zn (Mlb)	Au (g/t)	Au (koz)	Ag (g/t)	Ag (Moz)	NSR (CAD$/t)
Measured	100	7,910	0.56	97.6	1.40	243.3	3.80	662.3	0.68	172	57.2	14.5	163
	50	13,995	0.46	142.1	1.02	313.9	2.85	878.1	0.56	251	42.6	19.2	125
	45	14,524	0.45	144.9	0.99	317.0	2.78	889.3	0.55	255	41.5	19.4	122
	40	14,982	0.45	147.2	0.97	319.3	2.72	897.5	0.54	259	40.6	19.6	120
	35	15,349	0.44	148.9	0.95	320.7	2.67	902.9	0.53	261	39.9	19.7	118
	30	15,633	0.44	150.1	0.93	321.7	2.63	906.3	0.52	263	39.4	19.8	116
	25	15,795	0.43	150.7	0.93	322.1	2.61	908.0	0.52	264	39.0	19.8	115
	23	15,830	0.43	150.8	0.92	322.2	2.60	908.3	0.52	264	39.0	19.8	115
	15	15,901	0.43	151.0	0.92	322.4	2.59	908.8	0.52	264	38.8	19.8	115
	10	15,917	0.43	151.0	0.92	322.4	2.59	908.9	0.52	264	38.8	19.8	114
Indicated	100	2,720	0.70	41.9	1.22	73.0	2.94	176.3	0.94	82	53.0	4.6	157
	50	4,707	0.56	58.3	0.92	95.9	2.30	239.1	0.73	110	40.6	6.1	123
	45	4,861	0.55	59.1	0.90	96.9	2.26	242.5	0.71	112	39.7	6.2	121
	40	5,009	0.54	59.9	0.89	97.8	2.22	245.2	0.70	113	38.8	6.3	118
	35	5,112	0.54	60.3	0.87	98.3	2.19	246.8	0.69	113	38.3	6.3	117
	30	5,202	0.53	60.7	0.86	98.7	2.16	248.0	0.68	114	37.8	6.3	115
	25	5,258	0.53	60.9	0.85	98.9	2.14	248.7	0.68	114	37.4	6.3	114
	23	5,275	0.52	60.9	0.85	98.9	2.14	248.9	0.67	114	37.3	6.3	114
	15	5,322	0.52	61.0	0.84	99.0	2.12	249.2	0.67	115	37.0	6.3	113
	10	5,331	0.52	61.0	0.84	99.0	2.12	249.2	0.67	115	37.0	6.3	113

1.8 ADJACENT PROPERTIES

The two most important properties adjacent to Murray Brook are the Caribou Mine Property 10 km to the east and the Restigouche Mine Property 10 km to the west. The geology and mineralization at both of these mines is broadly similar to the Murray Brook Deposit, which altogether define the fertile Caribou Horizon that has been traced on surface for a distance of 18 km.

Trevali Mining Corporation ("Trevali") owned the Caribou (underground) Mine and 3,000 tpd process plant, metallurgical and geochemical assay labs, and a tailings management facility. Trevali received approval to operate the Caribou underground mine, crushing facility, concentrator, mine water treatment plant and tailings impoundment on May 1, 2013 and produced zinc, lead and copper concentrates. Trevali achieved commercial production at Caribou in early 2016. The Caribou facilities are currently under the custody of the Province of New Brunswick following closure of operations in August 2022 and subsequent bankruptcy of Trevali in January 2023. Total production from the Caribou Mine was more than 700 Mlb of Zn, Cu, Pb, Au and Ag. Trevali released updated Mineral Reserve and Mineral Resource statements dated December 31, 2021, in their press release dated March 31, 2022.

The Restigouche Mine Property is located west adjacent to Murray Brook. The Restigouche massive sulphide deposit consists of at least two separate lenses of massive sulphide underlain by a chlorite-pyrite stringer zone. Trevali acquired the Restigouche Mine in July 2017. Trevali released an updated Mineral Resource statement for Restigouche dated December 31, 2021, in their press release dated March 31, 2022.

1.9 CONCLUSIONS AND RECOMMENDATIONS

The Murray Brook Project contains a significant zinc-lead-copper-silver Mineral Resource and the Authors recommend that Canadian Copper proceed with an updated Preliminary Economic Assessment. Canadian Copper should also proceed with: additional drilling to better delineate the western and at depth margins of the Murray Brook Deposit; further metallurgical testwork to increase Zn, Pb, Cu and Ag recoveries from Murray Brook feed and to potentially recover gold; property environmental studies and project stakeholder engagement work for future permitting; and regional exploration to generate new targets for drill testing.

Specifically, it is recommended that Canadian Copper take the following actions:

- Complete a 12-hole, 3,000 m drill program to determine the extent of a recently recognized copper and gold zone defined previously by twelve of the 2017 to 2019 drill holes, which are an approximate 50-m step-out to prior drilling;

- Future drill core sampling at the Project include the insertion and monitoring of suitable CRMs to monitor gold analyses and umpire assaying of 5% of all drill core samples;

- Conduct rougher-cleaner confirmation tests on fresh drill core of specific mineralization types. Drill core samples should be frozen during shipment and storage;

- Review process options to potentially recover the 400,000 ozs gold that exists within the current oxide and sulphide Mineral Resources. Presently, 0% recovery is attributed for gold;

- Review the envisaged Project with regulatory authorities and local communities, including possible environmental and social impact assessment study requirements and related public consultation aspects, timelines, etc. and consider proactively commencing studies that are likely to be required or that may require an extended time, whilst also recalling that environmental assessment supporting studies requirements are established as part of the environmental impact assessment process;

- Complete an updated Preliminary Economic Assessment ("PEA") to include several critical trade-off studies. For example, the open pit Murray Brook Deposit is high-grade and potentially conducive to low capital cost toll processing within the Bathurst Region. A toll processing development scenario will improve permitting timelines and reduce project execution risk; and

- Conduct several trade-off studies that consider ore sorting test work in addition to haul road design considerations.

The estimated cost of the recommended program is $2.5M (Table 1.3).

TABLE 1.3
RECOMMENDED PROGRAM AND BUDGET FOR MURRAY BROOK

Activity	Purpose	Units/Metres	Estimated Cost (CAD$)
Drilling	Further deposit delineation	3,000	750,000
Metallurgy	Further optimize metal recoveries; recover gold	1	250,000
Updated PEA	Improve project definition	1	350,000
Exploration	Review and drill nearby targets	2,000	500,000
Support			300,000
Subtotal			2,150,000
Contingency (15%)			322,500
Total			**2,472,500**

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

At the request of Canadian Copper Inc. ("Canadian Copper"), P&E Mining Consultants Inc. ("P&E") have been retained to prepare a National Instrument 43-101 (NI 43-101) compliant Technical Report and Updated Mineral Resource Estimate for the Murray Brook Project, New Brunswick, Canada. The purpose of the Technical Report is to update the Mineral Resource Estimate for this lead-zinc-copper-silver-gold-bearing massive sulphide deposit. As of the effective date of this Technical Report, Canadian Copper has executed asset purchase agreements with Votorantim Metals Canada Inc. ("VMC") and MetalQuest Mining Inc. ("MQM") to acquire approximately 72% and 28%, respectively, beneficial interest in the Murray Brook Project.

Canadian Copper is a Canadian based, publicly held company trading on the Canadian Securities Exchange ("CSE") under the symbol "CCI" with its corporate head office at:

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Website: www.canadiancopper.com

The purpose of the current Report is to provide an independent Technical Report and Updated Underground Mineral Resource Estimate on the base metal and precious metal mineralization present at the Murray Brook Project in conformance with the standards required by NI 43-101 and Form 43-101F. The estimate of the Mineral Resource contained in this Technical Report conforms to the CIM Mineral Resource and Mineral Reserve definitions referred to in National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects (2014) and Best Practices Guidelines (2019).

The effective date of this report is October 3, 2023.

2.2 SITE VISITS

Mr. Eugene Puritch, P.Eng. of P&E, an independent Qualified Person under the terms of NI 43-101, conducted a site visit to the Property on March 18, 2013.

More recently, Mr. Yungang Wu, P.Geo. of P&E, an independent Qualified Person under the terms of NI 43-101, conducted a site visit to the Murray Brook Property on September 7 and 8, 2023. The site visit included an inspection of the Property, drill sites, drill collars, and drill core storage facilities. A data verification sampling program was completed as part of the on-site review and the findings are summarized in Section 12 of this Report.

2.3 SOURCES OF INFORMATION

In addition to the site visit, the Authors carried out a study of relevant available literature on documented results concerning the Project, and held discussions with technical personnel from the Company regarding pertinent aspects of the Project. The reader is referred to these data sources that are outlined in the References section of this report for further details on the Project.

This Report is based in part on internal company technical reports and maps, published government technical reports, published scientific papers, company letters and memoranda, and public information listed in Section 27.0 "References" of this Report. Several sections from historical and previous reports authored by other consultants have been directly quoted or summarized in this Report and indicated as such in the appropriate sections. The Authors held discussions with technical personnel from the Company regarding pertinent aspects of the Project. The Authors have not conducted detailed land status evaluations, and has relied on previous qualified reports, public documents and statements by the prior owners regarding the Property status and legal title to the Project.

The Authors and co-Authors of each section of this Report are presented in Table 2.1. In acting as independent Qualified Persons as defined by NI 43-101, they take responsibility for those sections of this Report as outlined in their "Certificate of Author" included in Section 28 of this Report.

TABLE 2.1
QUALIFIED PERSONS RESPONSIBLE FOR THIS TECHNICAL REPORT

Qualified Person	Contracted By	Sections of Technical Report
William Stone, Ph.D., P.Geo.	P&E Mining Consultants Inc.	2, 3, 4, 5, 6, 7, 8, 9, 10, 23 and Co-Author 1, 25, 26, 27
Yungang Wu, P.Geo.	P&E Mining Consultants Inc.	Co-author 1, 12, 14, 25, 26, 27
Jarita Barry, P.Geo.	P&E Mining Consultants Inc.	11 and Co-author 1, 12, 25, 26, 27
D. Grant Feasby, P.Eng.	P&E Mining Consultants Inc.	13, 20 and Co-author 1, 25, 26, 27
Antoine Yassa, P.Geo.	P&E Mining Consultants Inc.	Co-author 1, 14, 25, 26, 27
Eugene Puritch, P.Eng., FEC, CET	P&E Mining Consultants Inc.	Co-author 1, 14, 25, 26, 27

2.4 UNITS AND CURRENCY

Unless otherwise stated all units used in this report are metric. Gold assay values (Au) are reported in grams per tonne of metal ("g/t Au") unless ounces per ton ("oz/T Au") are specifically stated. The CAD$ is used throughout this report unless the US$ is specifically stated. For the purpose of this Technical Report, the rate of exchange between the US$ and the CAD$ is 0.76 $US = 1.00 $CAD.

Table 2.2 lists the meaning of the abbreviations for technical terms used throughout the text of this report and Table 2.3 lists the units of measurement.

TABLE 2.2
ABBREVIATIONS TABLE

Abbreviation	Meaning
$	dollar(s)
°	degree(s)
°C	degrees Celsius
<	less than
>	greater than
%	percent
µm	micrometre, micron
3-D	three-dimensional
AA	atomic absorption
AAS	atomic absorption spectrometry
ACME	ACME Laboratories, ACME Analytical Laboratories Limited, part of the Bureau Veritas Group
ACS	Armour Courier Services
Actlabs	Activation Laboratories Ltd.
AGG	airborne gravity gradiometry (survey)
ALS	ALS Laboratories, ALS Laboratory Group, part of ALS Global/ALS Limited
AOI	area of interest
As	arsenic
Au	gold
BHEM	borehole electro-magnetic
BMC	Bathurst Mining Camp
CAD$	Canadian dollar
Canadian Copper	Canadian Copper Inc., the company that the report is written for
CDN	CDN Resource Laboratories Ltd.
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	centimetre
Company, the	Canadian Copper Inc., the company that the report is written for
Conc or conc	concentrate
CRM	certified reference material(s)
CSE	Canadian Securities Exchange
Cu	copper
CuEq	copper equivalent
deg	degree(s)
DL	(lower) limit of detection
DMT	dry metric tonne

TABLE 2.2 ABBREVIATIONS TABLE	
Abbreviation	**Meaning**
$M	dollars, millions
E	east
EIA	environmental impact assessment
ELN	El Nino Ventures Inc.
EM	electromagnetic
Fe	iron
g	gram
g/t	grams per tonne
G&A	general and administration
Ga	giga annum, billions of years
GPS	Global Positioning System
ha	hectare(s)
HLEM	horizontal-loop electromagnetic
ICP	inductively coupled plasma
ICP-AES	inductively coupled plasma-atomic emission spectroscopy
ICP-MS	inductively coupled plasma-mass spectrometry
ICP-OES	inductively coupled plasma optical emission spectroscopy
ID	identification
ID^2	inverse distance squared method
ID^3	inverse distance cubed
IP/RES	induced polarization/resistivity
ISO	International Organization for Standardization
ISO/IEC	International Organization for Standardization/International Electrotechnical Commission
JV	joint venture
k	thousands
Kennco	Kennecott Copper Exploration Limited
kg	kilogram(s)
km	kilometre(s)
koz	thousands of ounces
kt	thousands of tonnes
Kv	kilovolt(s)
kWh/t	kilowatt hour(s) per tonne
L	litre(s)
lb	pounds
LCT	locked cycle test

TABLE 2.2
ABBREVIATIONS TABLE

Abbreviation	Meaning
LiDAR	Light Detection and Ranging
LOI	Letter of Intent
m	metre(s)
M	millions
m^3	cubic metres
masl	metres above sea level
MBM	Murray Brook Minerals Inc.
MBR	Murray Brook Resources Inc.
Mira	Mira Geoscience of Quebec
Mlb	millions of pounds
mm	millimetre
Moz	million ounces
MQM	MetalQuest Mining Inc.
MRE	Mineral Resource Estimate
Mt	millions of tonnes
N	north
NB	Province of New Brunswick
NAD	North American Datum
NE	northeast
NI 43-101	National Instrument 43-101
NN	Nearest Neighbour (analysis)
NovaGold	NovaGold Resources Ltd.
NRED	New Brunswick Ministry of Natural Resources and Energy Development
NSR	net smelter return
nsv	no significant values
OSC	Ontario Securities Commission
oz	troy ounce
P_{80}	80% percent passing
P_{90}	90% percent passing
P&E	P&E Mining Consultants Inc.
PA	purchase agreement
Pb	lead
PEA	Preliminary Economic Assessment
P.Eng.	Professional Engineer
P.Geo.	Professional Geoscientist

TABLE 2.2
ABBREVIATIONS TABLE

Abbreviation	Meaning
ppb	part per billion
ppm	part per million
Project, the	the Murray Brook Project that is the subject of this Technical Report
Property, the	the Murray Brook Property that is the subject of this Technical Report
Puma	Puma Exploration Inc.
QA	quality assurance
QA/QC	quality assurance/quality control
QC	quality control
QEMSCAN	quantitative evaluation of materials by scanning electron microscopy
S	sulphur
S	south
SAG	semi-autogenous grinding (mill)
Sb	Antimony
SCME	Standing Committee on Mining and the Environment
SE	southeast
SEM-EDS	scanning electron microscopy-energy dispersive X-ray spectroscopy
SMC	SAG mill comminution
STTP	South Tributary Tailings Pond
SPG	Sheridan Platinum Group Ltd.
RQD	rock quality determination
RPC	Research and Productivity Council of New Brunswick
t	tonne
t/m^3	tonnes per cubic metre
Technical Report	this NI 43-101 Technical Report
TEM	transient electromagnetic (survey)
tpd	tonnes per day
TSL	TSL Laboratories Inc.
Trevali	Trevali Mining Corp.
US$ or $US	United States dollars
UTM	Universal Transverse Mercator grid system
VMC	Votorantim Metals Canada Inc.
VMS	volcanogenic massive sulphide
VWAP	volume-weighted average price
W	west
WMT	wet metric tonne
Zn	zinc

Table 2.2 **Abbreviations Table**	
Abbreviation	**Meaning**
ZnEq	zinc equivalent

Table 2.2 **Unit Measurement Abbreviations**			
Abbreviation	**Meaning**	**Abbreviation**	**Meaning**
µm	microns, micrometre	m^3/s	cubic metre per second
$	dollar	m^3/y	cubic metre per year
$/t	dollar per metric tonne	mØ	metre diameter
%	percent sign	m/h	metre per hour
% w/w	percent solid by weight	m/s	metre per second
¢/kWh	cent per kilowatt hour	Mt	million tonnes
°	degree	Mtpy	million tonnes per year
°C	degree celsius	min	minute
cm	centimetre	min/h	minute per hour
d	day	mL	millilitre
ft	feet	mm	millimetre
GWh	Gigawatt hours	MV	medium voltage
g/t	grams per tonne	MVA	mega volt-ampere
h	hour	MW	megawatts
ha	hectare	oz	ounce (troy)
hp	horsepower	Pa	Pascal
k	kilo, thousands	pH	Measure of acidity
kg	kilogram	ppb	part per billion
kg/t	kilogram per metric tonne	ppm	part per million
km	kilometre	s	second
kPa	kilopascal	t or tonne	metric tonne
kV	kilovolt	tpd	metric tonne per day
kW	kilowatt	t/h	metric tonne per hour
kWh	kilowatt-hour	t/h/m	metric tonne per hour per metre
kWh/t	kilowatt-hour per metric tonne	$t/h/m^2$	metric tonne per hour per square metre
L	litre	t/m	metric tonne per month
L/s	litres per second	t/m^2	metric tonne per square metre
lb	pound(s)	t/m^3	metric tonne per cubic metre
M	million	ton	short ton
m	metre	tpy	metric tonnes per year

Table 2.2 Unit Measurement Abbreviations			
Abbreviation	**Meaning**	**Abbreviation**	**Meaning**
m^2	square metre	V	volt
m^3	cubic metre	W	Watt
m^3/d	cubic metre per day	wt%	weight percent
m^3/h	cubic metre per hour	y	year

3.0 RELIANCE ON OTHER EXPERTS

The Authors have assumed that all the information and technical documents listed in the References section (Section 27) of this Technical Report are accurate and complete in all material aspects. Although the Authors have carefully reviewed all the available information presented, they cannot guarantee its accuracy and completeness. The Authors reserve the right, but will not be obligated to revise the Technical Report and conclusions, if additional information becomes known to them subsequent to the effective date of this Technical Report.

The Authors have reviewed and interpreted the historical documentation of data and observations of past activities by previous claim holders and exploration personnel who operated in the vicinity of the Murray Brook Property. The majority of this information is located within internal reports and memorandums of historical claim holders for this Property. The information concerning Adjacent Properties in Section 23 of this Technical Report is in the form of published NI 43-101 Technical Reports. The list of information used to complete this Technical Report is located herein under Section 27 References.

Although selected copies of the tenure documents, operating licenses, permits, and work contracts were reviewed, an independent verification of land title and tenure was not performed. The Authors have not reviewed or verified the legality of any underlying agreement(s) that exist concerning the claims, leases and licenses or other agreement(s) between third parties. Information on tenure and permits was obtained from Canadian Copper. Selected information was verified by the Authors.

Copies of the tenure documents, operating licenses, permits, and work contracts were not reviewed. Information relating to tenure was reviewed on September 15, 2023 by means of the public information available on the Government of New Brunswick website at: https://nbeclaims.gnb.ca/nbeclaims/. The Authors of this Technical Report have relied on this public information and tenure information from Canadian Copper, and have not undertaken an independent detailed legal verification of title and ownership of the Murray Brook Property. The Authors have not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties, but have relied on, and considers that it has a reasonable basis to rely on Canadian Copper to have conducted the proper legal due diligence.

Draft copies of this Technical Report have been reviewed for factual errors by Canadian Copper. 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.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 PROPERTY LOCATION

The Murray Brook Property is located approximately 60 km west of the City of Bathurst in the Parish of Balmoral, Restigouche County, Province of New Brunswick, Canada (Figure 4.1).

FIGURE 4.1 GENERAL LOCATION MAP, MURRAY BROOK PROPERTY

Source: *Google Earth (October 3, 2023)*

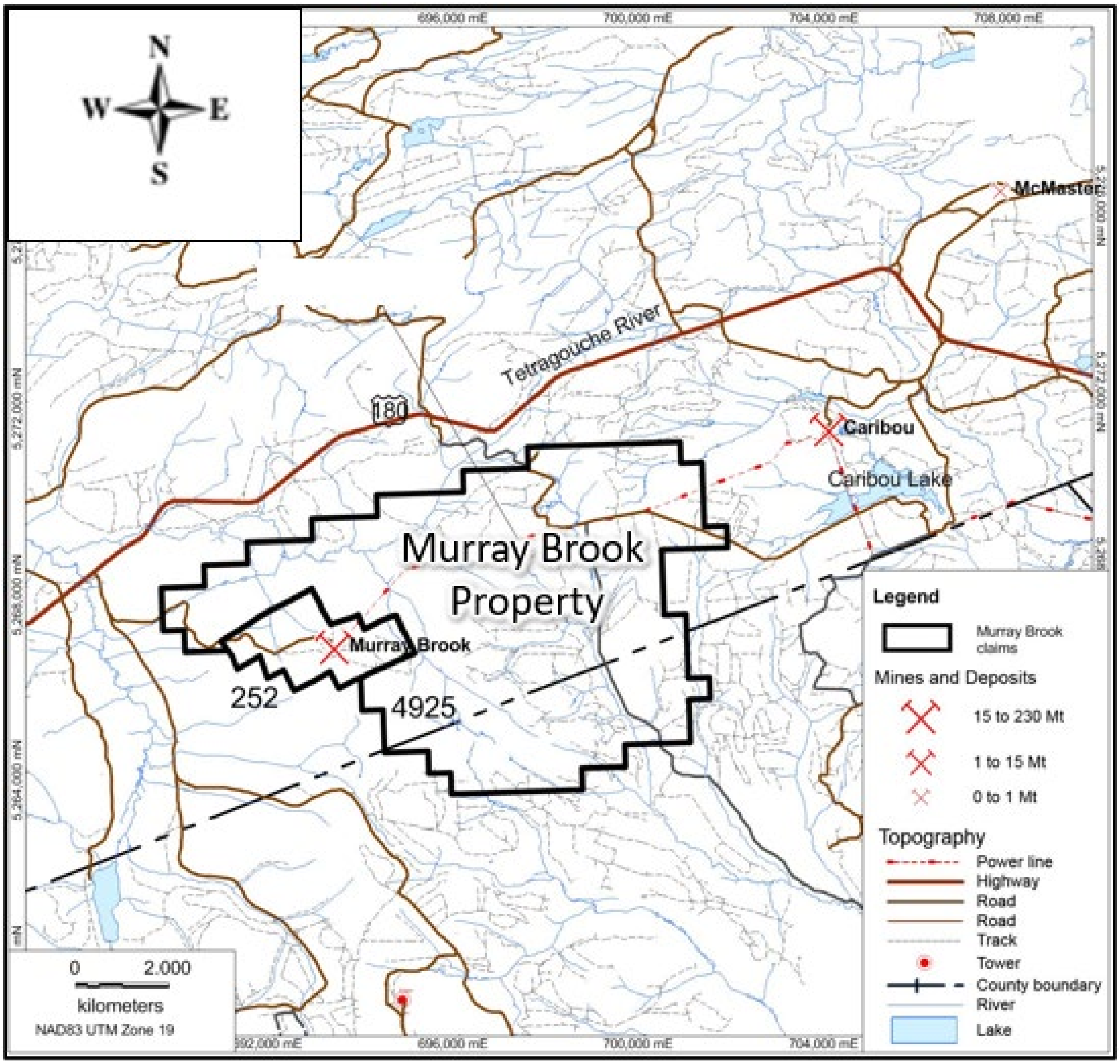
4.2 PROPERTY DESCRIPTION AND TENURE

The Property consists of surveyed Mineral Lease No. 252 covering an area of 505 ha and mineral claim 4925 covering an area of 5,341 ha, for a total area of 5,846 ha. The location of the lease and claim is shown in Figure 4.2.

Mineral Lease No. 252 was issued on October 17, 1989 to Murray Brook Resources Inc. The initial term was for 20 years with three automatic 20-year renewals. The current expiry date is October 16, 2029. The annual fee is CAD$3,030 and the rental fees are current. According to the information on the New Brunswick website www.nbeclaims.gnb.ca, the Mineral Lease is owned

100% by Votorantim Metals Canada Inc. ("VMC") and is in good standing as of the effective date of this Report (Table 4.1). The surface rights are held by the Crown.

FIGURE 4.2 MURRAY BROOK PROPERTY MAP



Source: *P&E (2023)*

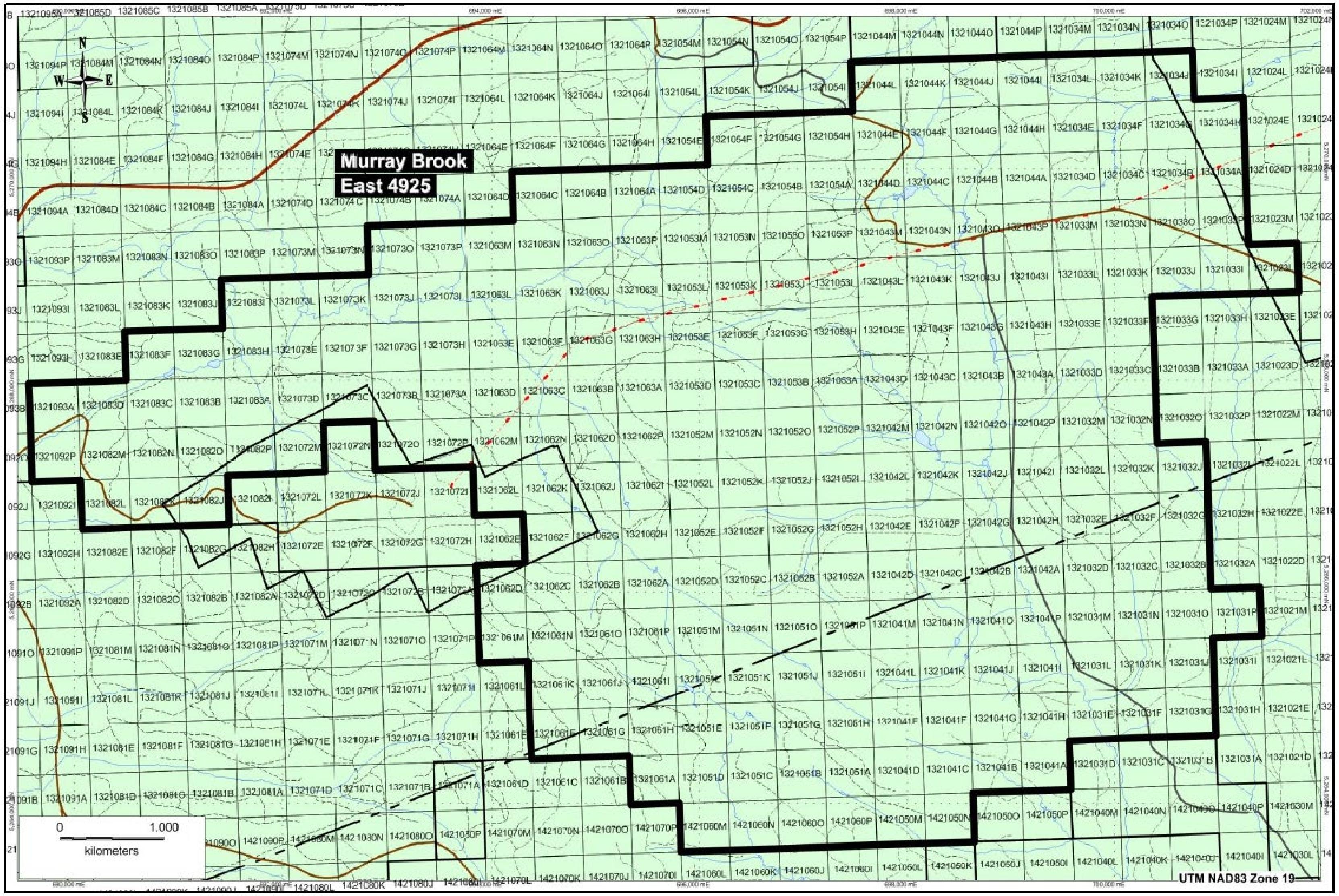
Murray Brook East claim block 4925 (a.k.a. Camelback) was staked on September 7, 2006 (Table 4.1) and consisted of 215 units. The claim block was converted to the map-staked format in January 2012 and now consists of 245 larger units covering an area of 5,082 ha (Figure 4.3) (Table 4.2). Note that the apparent infringement of the claim units on Mining Lease No. 252 in Figure 4.3 is an artifact of the Map-Staked unit system. The original surveyed boundaries of Lease No. 252 mark the legal boundary between the lease and the claims. According to the information on the New Brunswick website www.nbeclaims.gnb.ca, the claim units are owned 100% by VMC and in good standing as of the effective date of this Report (Table 4.1).

TABLE 4.1 MURRAY BROOK PROPERTY LAND TENURE								
Claim Number	**Title Type**	**Expiry Date**	**Issue Date**	**Claim Name**	**Area (ha)**	**Status**	**NTS Sheet**	**Owner (100%)**
252	Mineral Lease	2029-10-16	1989-10-17	Murray Brook	505	Active	21 O/09	Votorantim Metals Canada Inc.
4925	Mineral Claim	2024-09-07	2006-09-07	Murray Brook East	5,082	Active	21 O/08 & 21 O/09	Votorantim Metals Canada Inc.
Total					**5,587**			

Note: *Land tenure information effective October 3, 2023.*

TABLE 4.2 CLAIM UNITS IN CLAIM BLOCK 4925			
1321023L (1)	1321031E-G (3)	1321031J-P (7)	1321032B-G (6)
131032J-N (5)	1321033C-F (4)	1321033I-P (8)	1321034A-H (8)
1321034 (3)	1321041A-P (16)	1321042A-P (16)	1321043A-P (16)
1321044A-L (12)	1321051A-P (16)	1321052A-P (16)	1321053A-P (16)
1321054A-D (4)	1321054F-H (3)	1321061A (1)	1321061F-K (6)
132106M-P (4)	1321062A-D (4)	1321062F-P (11)	1321063A-P (16)
1321064A-C (3)	1321072M (1)	1321072O-P (2)	1321073A-L (12)
1321073O-P (2)	1321082J-P (7)	1321083A-D (4)	1321083F-I (4)
1321092P (1)	1321093A (1)	1421050M-N (2)	1421060M-P (4)
Total Claim Units			**245**

FIGURE 4.3 CLAIM UNITS OF CLAIM BLOCK 4925



Source: *Gagné and Hupé (2017).*

Note that the claim units of claim block 4925 overlapping Mineral Lease 252 is an artifact of the Map-Staked unit system. The boundaries of Mineral Lease 252 are surveyed and mark the legal boundary between the lease and the adjacent contiguous claims.

The New Brunswick Energy and Resource Development had provided approval for VMC to access the Murray Brook Property, maintain service roads, and carry out exploration activities, such as drilling and trenching. The current Approval to Operate (I-10445) is valid to March 31, 2024. The approval required that VMC maintain a rehabilitation bond in the form of an irrevocable letter of credit for the value of CAD$2,000,000.

4.3 ACQUISITION AGREEMENTS

Canadian Copper intends to acquire the Murray Brook Joint Venture Property through separate agreements with Votorantim Metals Canada ("VMC") and MetalQuest Mining ("MQM"). The terms and conditions of each of these agreements are summarized below.

4.3.1 Acquisition Agreement with VMC

Canadian Copper announced on August 2, 2023 that it had successfully executed a definitive purchase agreement to acquire VMC's 72% interest in the Murray Brook Joint Venture. The Company and VMC agreed to the following conditions for the transaction under the Letter of Intent signed February 13, 2023:

1. A CAD$250,000 deposit paid to VMC on expiration of Right of First Refusal;

2. The execution of a definitive purchase agreement;

3. A CAD$750,000 installment to be paid by the Company to VMC;

4. The issuance of 2,000,000 units of Canadian Copper. Each unit to consist of one common share priced using the 30-day volume-weighted average price ("VWAP") ending on the date immediately prior to the closing date of the Purchase Agreement ("Unit Price") with a twelve month hold period, and one full warrant exercisable for five years at an exercise price that is a 50% premium to the Unit Price;

5. A 0.25% net smelter return ("NSR") royalty on the MB asset. 50% of NSR can be repurchased by the Company for CAD$1.0 M. The NSR has a zinc price sliding scale defined as: <US$1.50/lb = 0.25%, US$1.50-1.59/lb = 0.50%, US$1.59-1.68/lb = 0.75%, >US$1.68/lb = 1%;

6. The replacement of the Seller's bond provided to the Government of New Brunswick totalling CAD$2,000,000 within three months of closing the transaction. (To be completed November 2023); and

7. A final installment of CAD$2,000,000 to be paid by the Company to the Seller within 31 days of commercial production.

Conditions 1 to 5 have been satisfied as of the effective date of this Report. After the Company satisfies condition 6 above, Canadian Copper will have completed its purchase of 72% interest in the Murray Brook Joint Venture.

4.3.2 Acquisition Agreement with MQM

Canadian Copper announced on September 12, 2023 its intention to acquire MQM's (previously El Nino Ventures Inc.) 28% interest in the Murray Brook Joint Venture. With the completion of this acquisition, Canadian Copper will control 100% of the Murray Brook Property.

The Company and MQM have agreed to the following considerations under a Letter of Intent ("LOI") signed September 11, 2023, which is subject to exchange approvals, and the execution of a definitive purchase agreement ("PA"):

1. A CAD$100,000 deposit paid to MQM on signing LOI and commencement of five-month exclusivity arrangement ending January 31, 2024;

2. A CAD$200,000 to be paid by the Company to MQM on PA execution;

3. The issuance of 2,500,000 units of Canadian Copper. Each unit to consist of one common share priced using the 30-day volume-weighted average price ("VWAP") ending on the date immediately before the closing of the PA ("Unit Price") with a four month hold period plus one day after which, 25% of the total units shall be released to MQM every three months (a "quarter"), resulting in 100% of the units being released to MQM after four quarters from the conclusion of the initial hold period, and one full warrant exercisable for five years at an exercise price that is a 50% premium to the Unit Price;

4. A 0.33% net smelter return ("NSR") royalty on the Murray Brook asset, 50% of which can be repurchased by the Company for CAD$1.0M; and

5. A final installment of CAD$1,000,000 to be paid by the Company to MQM within 31 days of commercial production.

After the Company satisfies conditions 1 to 4 above, Canadian Copper will have completed its purchase of the remaining 28% interest in the Murray Brook Joint Venture. On completion of the purchase, MQM will retain an existing 0.67% NSR royalty on the Murray Brook Property from an earlier transaction.

4.4 TENURE MAINTENANCE

In New Brunswick, the holder of the mineral claim has the right of free access by any reasonable means to and from the claim area, and the exclusive right to prospect for minerals and carry-on mining in or on the claim area and to remove minerals from the claim area for purposes of sampling and testing (Mining Act, SNB 1985, c M-14.1).

Retention of claims in good standing from year to year requires payment of a renewal fee for each claim plus submission of documentation to the government describing work programs and associated costs applicable to the Property during the reporting year. The work commitments and renewal fees are summarized in Table 4.3.

TABLE 4.3 MINERAL ASSESSMENT WORK REQUIREMENTS IN NEW BRUNSWICK			
Year of Issue	**Required Work per Claim (CAD$)[1]**	**Renewal Period**	**Renewal Fees per Claim (CAD$)**
Year 1	100	1 to 5	$10.00
Year 2	150	6 to 10	$20.00
Year 3	200	11 to 15	$30.00
Year 4	250	16 and more	$50.00
Years 5 to 10	300		
Years 11 to 15	500		
Years 16 to 25	600		
Years 26 and Over	800		

Note:
1. *Per mineral claim unit per year*

Reports of Work (mineral assessment reports) are received and processed by the New Brunswick Department of Natural Resources ("DNR") and Energy Development, Mineral and Petroleum Branch ("NBDNRED"). The reports are kept for a confidential period of 2 years from the date of submission. The reports are made public when the confidential period is finished or when all claims in a report have lapsed or were surrendered. The work can be performed on any one or more claims. Mineral claims must be contiguous, are held in the name of one person or company and have the same recording date.

4.5 PERMITTING

The Company will be required to obtain the following permits and licences to conduct mineral exploration in New Brunswick:

- A prospecting licence is required to prospect or register mineral claims. Application is made through NB e-CLAIMS and is valid for a lifetime;
- Notification requirements prior to performing exploration work and general prospecting must notify private landowners; Recorder, DNR; District Forest Ranger, DNR; Work Safe NB; and Offices of the Recorder (Bathurst in this case);
- Prior to commencing work that would cause actual damage to or interference with the use and enjoyment of Crown lands; the following procedures must be followed;
    - Submit to the Recorder the completed Notice of Planned Work on Crown Land-Form 18.1, listing the proposed work and enclosing a map showing the area of work and the claims.

- The Recorder will review the submitted form and give permission on behalf of the DNR for the work to proceed.
    - In some cases, the Recorder will advise the person planning the work that a reclamation plan and security are required before the work commences.
    - Obtain the consent of the lessee if work is done on a Crown land lease.

- A lease or a right to occupy as issued under the *Crown Lands and Forests Ac*t is required to erect a permanent camp, building or other structure on Crown Land;

- Review the Mining Act for standard conditions for mineral exploration; and

- Claim holders wishing to conduct advanced exploration on mineral claims may require additional approvals beyond a Form 18 under the *Mining Act* depending on the scope of work involved.

Anyone with a Mineral Claim in New Brunswick who has decided to produce minerals from the Mineral Claim can apply for a Mining Lease. A Mining Lease allows mineral production and requires an application fee, rent per hectare per of $6.00 and a minimum dollar value of work required per hectare per year of $60.00. Guides to the Mine Approval Process, and Development of a Mining and Reclamation Plan are provided by the DNRED at the following website: (https://welcomenb.ca/content/gnb/en/departments/erd/energy/content/minerals/content/Minerals_exploration.html).

4.6 ENVIRONMENTAL LIABILITY

The Murray Brook Mineral Lease is the site of past production from open-pit mining of the oxidized surficial portion of the Murray Brook Deposit. A site assessment by Stantec (2012) for VMC reports that the liability associated with the Murray Brook Property consists of short-term monitoring liability and long-term restoration liability. The current liability is for monitoring rather than restoration of fish habitat in nearby Gossan Creek and Copper Creek. VMC provided a CAD$2,000,000 irrevocable letter of credit to the New Brunswick government as security for this liability.

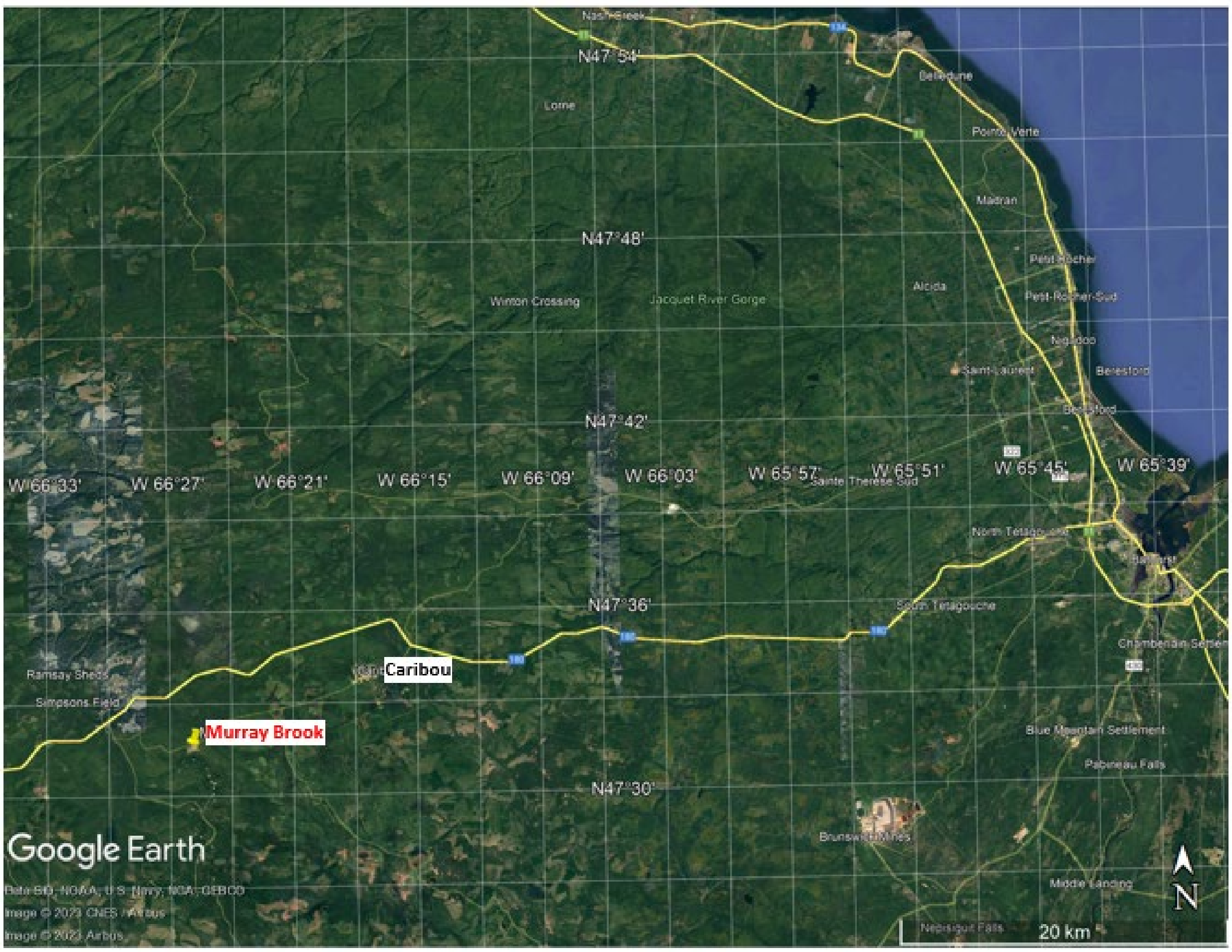
To the extent known, and apart from the aforementioned land encumbrances, the Author is not aware of any other significant factors or risks that may affect access, title or right or ability to perform work on the Murray Brook Property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The Murray Brook Property is located approximately 60 km west of the City of Bathurst, New Brunswick. At kilometre 60 from Bathurst, a 5 km gravel road extends southward from Highway 180 to the Murray Brook Mine site. The City of Bathurst provides access to rail and ocean shipping facilities into the Gulf of St. Lawrence, the Atlantic Ocean and globally (Figure 5.1).

FIGURE 5.1 MURRAY BROOK PROPERTY ACCESS



Source: *Google Earth (October 3, 2023)*

5.2 LOCAL RESOURCES AND INFRASTRUCTURE

Several communities in the region, particularly the City of Bathurst, offer commercial goods, social, educational, and financial amenities, and a pool of skilled labour. Bathurst is the closest important city, with a population of 12,157 (Census Canada, 2021) has been an important centre for mining, forestry, fishing and tourism and has the closest accommodations to the Murray Brook Property. The Town of Saint-Quentin, with a population of 2,141 (Census Canada, 2021) and location 65 km west of Murray Brook along Highway 180, is another potential source of goods, amenities, skilled labour and accommodation.

Although the site has been reclaimed and the equipment sold off, part of the historical open pit mine (Figure 5.2), leach pad and tailings storage area are still evident. A 10 kV powerline links Murray Brook to the power station at the Caribou Mine, 10 km to the east (Figure 5.1). However, service was discontinued in 1996.

FIGURE 5.2 VIEW OF THE HISTORICAL OPEN PIT MINE

Source: *El Nino Ventures Inc. (Autumn, 2011).*
View looking southwesterly.

5.3 CLIMATE

Located south of Chaleur Bay, the Bathurst Mining Camp, has a typically continental climate. January is the coldest month and July is the warmest. The area experiences very cold winters with a mean temperature of -13˚C in January. Frigid temperatures are not infrequent in the Murray Brook area with extreme low temperatures of -30˚ to -35˚C reported every winter. The Murray Brook area generally receives between 300 and 400 cm of snow annually for approximately 33% of its annual total of precipitation. In summer, average daytime highs vary between 20° and 28˚C. The highest temperature ever recorded in the area is 39˚C. Spring and early summer are generally dry, but there is ample water during the growing season. The area records approximately 1,200 mm of rainfall a year, with the heaviest amounts falling during the summer months.

Winds generally blow predominantly from the west and northwest in the cold months and from the south and southwest in the warm months. Wind speeds average 15 to 20 km/h in winter and 12 to 15 km/h in summer.

The Murray Brook Property is accessible for exploration year-round.

5.4 PHYSIOGRAPHY

The Property is located in the Miramichi Highlands, characterized by rounded, glacially scoured hills. Topographic maps show a broad plateau in the east at approximately 630 masl with deeply incised water courses reaching down to approximately 470 masl in the western portion of the area. Drainage in the area is eastward towards the Atlantic Ocean. Land use in the region is mainly for tourism, forestry, and mining.

Vegetation on the Property is characterized by poplar and birch trees that dominate the higher elevations, mixed with pines and firs. Much of the Murray Brook Project area was historically logged, and re-vegetated with secondary growth.

6.0 HISTORY

The history of the Murray Brook Property is summarized below from mainly Derosiers (2008) and P&E (2017).

6.1 EARLY HISTORY

Prior to 1955, very little prospecting was carried out in the Murray Brook area, mainly due to the lack of access. The gossan had been discovered at the end of the 19th Century and an old shaft had been sunk in it to a depth of 7.6 m. After the construction of the New Brunswick Lumber Co. gravel road, which follows the east side of the Upsalquitch River, some prospectors and mining companies started to explore the area.

6.2 KENNECOTT 1955 TO 1980

The Murray Brook Property was staked originally by Kennecott Copper Exploration Limited ("Kennco") in 1955 to cover seven airborne electromagnetic anomalies. Ground follow-up of the anomalies, however, proved that the electromagnetic responses were caused by graphitic sedimentary rocks rather than sulphide mineralization.

In 1956, an "intermediate lava" float assaying 1.35% Cu was discovered in the western part of the Property (Perusse, 1957), which stimulated further exploration. Ground geophysical surveys missed the Murray Brook Deposit, because there was no airborne survey immediately over it. Field determinations of heavy metal contents of active steam and bank sediments pinpointed an anomaly source at the head of Gossan Creek. Subsequent trenching outlined an area of gossan measuring 760 m by 120 m. Packsack drilling failed to intersect fresh sulphides below the gossan. A horizontal-loop electromagnetic ("HLEM") survey was carried out to determine if any part of the gossan was underlain by massive sulphides. Results indicated that massive sulphide lenses were present.

In 1956, a drill hole intersected 89 m of massive sulphides under 16 m of gossan. By 1958, Kennco had sufficient drilling to complete an initial mineral resource estimate (Perusse, 1958).

In 1970, the Property was optioned to Cominco who drilled three holes that did not increase the tonnage.

In 1973, the Property was optioned to Gowganda Silver Mines Limited. In 1974, Canex Placer Explorations Ltd. gained control of the deposit through exploration expenditures. An extensive drilling program was carried out to obtain material for metallurgical testing.

The property reverted to Kennco Explorations in 1979.

6.3 NORTHUMBERLAND AND NOVAGOLD 1980 TO 1996

In 1985 Northumberland Mines Ltd. optioned the Property to examine the precious metals content of the gossan. Thirty-six drill holes (NM-1 to NM-36) were completed to test the economic potential of the gossan zone. A feasibility study of an open pit mine using an indoor vat leaching process using a Merryl-Crowe system for gold and silver production was submitted and approved by the Department of Natural Resources and Energy in 1986.

In 1988, NovaGold Resources Ltd. ("NovaGold") acquired Northumberland Mines and the Murray Brook Deposit. NovaGold completed a mineral resource estimate and vat leaching of the gossan zone commenced commercial production in September 1989. The process facility operated year-round and yielded recoveries in the 85% range. The mining and vat leaching activities were discontinued in 1992, leaving the sulphide deposit unmined. The pit and Property were reclaimed in 1996. Production from 1989 to 1992 totalled 2.7 Mt for 1,384 kg Au and 9,829 kg Ag (Desrocher, 2008).

In 1998, a drilling campaign and a mineral resources calculation were completed by NovaGold.

6.4 MURRAY BROOK RESOURCES INC. 1996 TO 2010

In July 1995, Murray Brook Resources Inc. ("MBR") signed an agreement with the Sheridan Platinum Group Ltd. ("SPG") for the development of the copper mineral resource of the Deposit. SPG was able to acquire 60% of the massive sulphide deposit. SPG and MBR intended to restart the leaching operation utilizing the 50,000 tonnes which were placed on the leach pads and the technical operation of the copper leach recovery plant. MBR also expected to start a drilling program to determine the extent and potential of developing underground mineral reserves of high-grade copper. This drilling campaign was finally undertaken in 1998, but the agreement was terminated.

In 2007, MBR resampled 645.65 m of NovaGold drill core for Cu, Pb, Zn, Au and Ag. The assays indicated comparable Cu and Pb values, slightly elevated Zn values, and a 10% decrease in Ag values compared to those previously reported. In January 2008, GEOSTAT Systems International Inc. completed a study of open pit exploitation of the copper mineralization for MBR (Desrosiers, C., 2008). It was noted that Cu grade decreases with depth, and Pb, Zn and Au values increase with depth.

In 2008, MBR carried out a 42 line-km Magnetic Survey and a 20.8 line-km Induced Polarization/Resistivity survey ("IP/RES"). The magnetic survey delineated the volcanic rocks of the Boucher Brook Formation. The IP/RES survey delineated a 900 m long conductive anomaly with a positive chargeability and a low resistivity response. The response is comparable with the response of massive sulphides below the open pit, and appears to be a southwest extension of the known massive sulphide zone. The IP/RES response is validated by the presence of a gravimetric anomaly and a soil geochemical copper anomaly.

6.5 VVMC-EL NINO OPTION-JV AGREEMENT: 2010 TO 2016

Under an Option and Joint Venture Agreement with Murray Brook Minerals Inc. and Murray Brook Resources Inc., both privately held companies, VMC earned 50% interest in the Property by funding CAD$2,250,000 in exploration expenditures and making payments totalling CAD$300,000 over a three-year period commencing November 1, 2010. VMC earned an additional 20% interest in the Property by funding an additional CAD$2,250,000 over an additional two-year period. On January 3rd, 2011, VMC and ELN entered into a participation agreement, wherein the latter could earn 50% of VMC's interest by paying 50% of the costs incurred by VMC in the Option and Joint Venture Agreement.

VMC completed drill programs in 2010, 2011 and 2012. In 2010, VMC completed four due diligence drill holes for 595.2 m to confirm results of the historical drilling. These holes were consistent with historical results with significant intersections of zinc, copper, lead, gold and silver reported. VMC duly finalized its Agreement with the Property owners.

VMC's 2011 drill program consisted of 63 vertical drill holes totalling 10,499.45 m. The results were announced in news releases dated August 30, 2011, November 28, 2011, January 16, 2012, and January 23, 2012. The objectives of the drilling were three-fold: 1) infill drilling to close gaps of up to 100 m in the drill coverage; and 2) step-out drilling to define the size of the Murray Brook Deposit. A new Mineral Resource Estimate was released in 2012 (Harron, 2012), now an historical Mineral Resource.

The objective of the 2012 drilling was to upgrade the Inferred and Indicated Mineral Resources to Measured Resources, define additional near-surface Mineral Resources along the northwest margin of the Deposit, and provide material for completion of preliminary metallurgical testing on selected portions of the Deposit. The drill program commenced in February 2012 and consisted of 99 vertical drill holes totalling approximately 18,264 m. Therefore, in the period 2010 to 2012, 166 drill holes were completed for a total of 29,718 m.

Analysis of the drilling results identified two distinct north-trending massive sulphide zones with different mineralogical characteristics and thicknesses. The western zone appears to be thicker and richer in Zn, Pb and Ag, whereas the eastern zone is thinner and richer in Cu-Au mineralization.

In July 2013, VMC and El Nino released a positive NI 43-101 Preliminary Economic Assessment and Mineral Resource Estimate based on open-pit mining and an on-site process facility (P&E, 2013).

6.6 PUMA EXPLORATION INC. 2017 TO 2020

On October 13, 2016, Puma Exploration Inc. executed an asset purchase agreement with VMC and on October 25, 2016, Puma executed an asset purchase agreement with ELN to acquire, respectively, approximately 67.9% and 32.1% beneficial interest in the Murray Brook Deposit. Puma signed the acquisition agreement in order to evaluate the Murray Brook Property for potential underground development.

In February 2017, Puma released an amended and restated Technical Report and Updated Mineral Resource Estimate based on underground mining at Murray Brook. Puma completed drilling programs in late-2017 and early-2018 on the Murray Brook Property (see Section 10 of this Report).

In April 2018, Puma entered into a Strategic Exploration and Development Alliance with Trevali Mining Corporation ("Trevali") for development of the Murray Brook Deposit and exploration of the surrounding properties. The development was to be completed on the basis of 75% Trevali and

25% Puma ownership of Murray Brook. Trevali was the owner and operator of the Caribou Mine and Process Plant, 10 km east of the Muray Brook Deposit. The alliance completed drilling, trenching and metallurgical testwork programs in 2018 and 2019 (see Sections 9, 10 and 13 of this Report). Trevali, however, terminated the option agreement with Puma for the Murray Brook Property in March 2019.

On February 26, 2020, Puma terminated the asset purchase agreement with VMC. Puma's decision was based on unfavourable equity market conditions that prevented completion of the financing required to complete the transaction and attracting a partner to the Project. On August 4, 2020, Puma terminated the asset purchase agreement with ELN.

6.7 VMC-EL NINO OPTION JOINT VENTURE 2020-2023

The Murray Brook Property reverted back to VMC and ELN in the summer of 2020. In June and August of 2023, Canadian Copper Inc. signed agreements with VMC and ELN to acquire their respective interests in the Property.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY OF THE BATHURST MINING CAMP

The Murray Brook Deposit is located in the Bathurst Mining Camp ("BMC") in northern New Brunswick. The BMC is an Ordovician back-arc complex of polydeformed sedimentary, felsic volcanic, and mafic volcanic rocks formed in separate sub-basins within the back-arc basin. These rocks have been juxtaposed by five periods of folding and thrusting, and are collectively referred to as the Bathurst Supergroup. The sedimentary and volcanic rocks are intruded by gabbro, diabase and quartz porphyritic rocks of Ordovician age.

The Bathurst Mining Camp is underlain by Cambro-Ordovician age rocks of the Bathurst Supergroup. The Bathurst Supergroup consist of Mafic volcanic and sedimentary rocks of the Fournier, California Lake, Tetagouche and Sheephouse Brook Groups, in order of highest to lowest structural level (Figure 7.1). The various groups were juxtaposed by thrusting and internally imbricated into thrust nappes during successive incorporation into the Brunswick Subduction Complex.

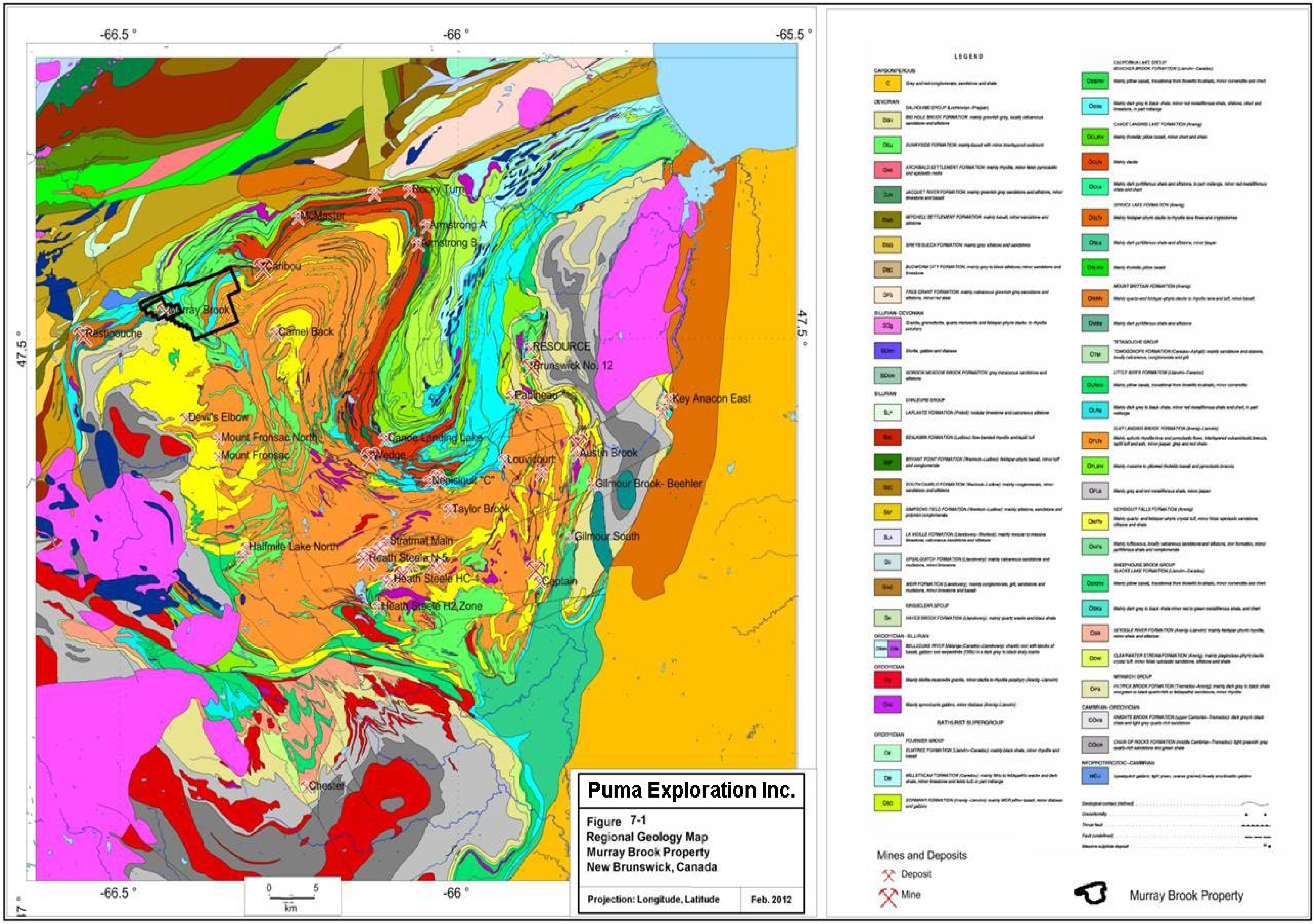
The Bathurst Supergroup encompasses all Ordovician volcanic and sedimentary rocks overlying the Miramichi Group in the Bathurst Mining Camp, a roughly circular area 70 km in diameter in the northern Miramichi Highlands, and Ordovician rocks of the Elmtree Inlier, an elliptical area measuring approximately 25 x 15 km on the shore of Chaleur Bay.

Rocks of the Bathurst Supergroup lie conformably to disconformably on the Miramichi Group, and are unconformably overlain by, or in fault contact with, Silurian rocks of the Chaleurs Group to the north and west, and the Silurian Kingsclear Group and Carboniferous Mabou and Pictou Groups to the east.

Cambro-Ordovician aged rocks in the Bathurst Camp have undergone five episodes of regional deformation. Two structural domains are recognized: (1) a flat-lying belt in the south and west parts of the Camp characterized by recumbent or overturned F2 folds; and (2) a steeply dipping belt in the north and east, in which F2 folds are upright. Thrusting related to closure of the Iapetus back-arc basin and regional faulting has also affected the present distribution of major stratigraphic units (van Staal, 1987).

The BMC hosts 46 known volcanogenic massive sulphide deposits with a total sulphide resource of over 500 million tonnes (McCutcheon and Walker, 2009). The camp also hosts the world renowned Brunswick No. 12 Mine, which from 1964 to 2013 (49 years) produced 136.6 Mt grading 3.44% Pb, 8.74% Zn, 0.37% Cu and 102.2 g/t Ag. The Brunswick No. 12 Mine has since been de-commissioned.

FIGURE 7.1 REGIONAL GEOLOGY MAP, MURRAY BROOK PROPERTY



Source: *van Staal et al. (2003).*

The 46 massive sulphide deposits of the Bathurst Camp occupy more than one stratigraphic position; 32 are in the Tetagouche Group and 13 occur in the probably coeval California Lake Group. Within the Tetagouche Group in the southern part of the BMC, massive sulphide deposits occur largely in the first volcanic cycle, represented by crystal tuffs of the Nepisiguit Falls Formation (e.g. Brunswick 12 and 6, Heath Steele and Half Mile Lake Deposits), which may be related to a volcanic centre in the southeastern part of the BMC (Helmstaedt, 1973; Franklin *et al.*, 1981. Most of the deposits are hosted by chloritic mudstones at or near the top of this formation ("Brunswick Horizon"), in association with oxide facies iron formation. Within the California Lake Group, in the northern part of the BMC, massive sulphide deposits occur in local sedimentary units within the volcanic sequence (Murray Brook and Caribou Deposits) and in the volcanic sequence (Restigouche Deposit). These massive sulphide deposits lack associated iron formation and may be related to a second volcanic centre in this area of the BMC, probably near Restigouche (Helmstaedt, 1973).

7.2 LOCAL GEOLOGY OF THE MURRAY BROOK DEPOSIT AREA

The geology of the Murray Brook Deposit area was mapped and incorporated into a regional geological map of the Bathurst Mining Camp (*Staal et al.,* 2003) (Figure 7.2). The Murray Brook Property area overlies a structurally compressed area of juxtaposed formations and members of the Miramichi, Tetagouche, California Lake and Fournier Groups.

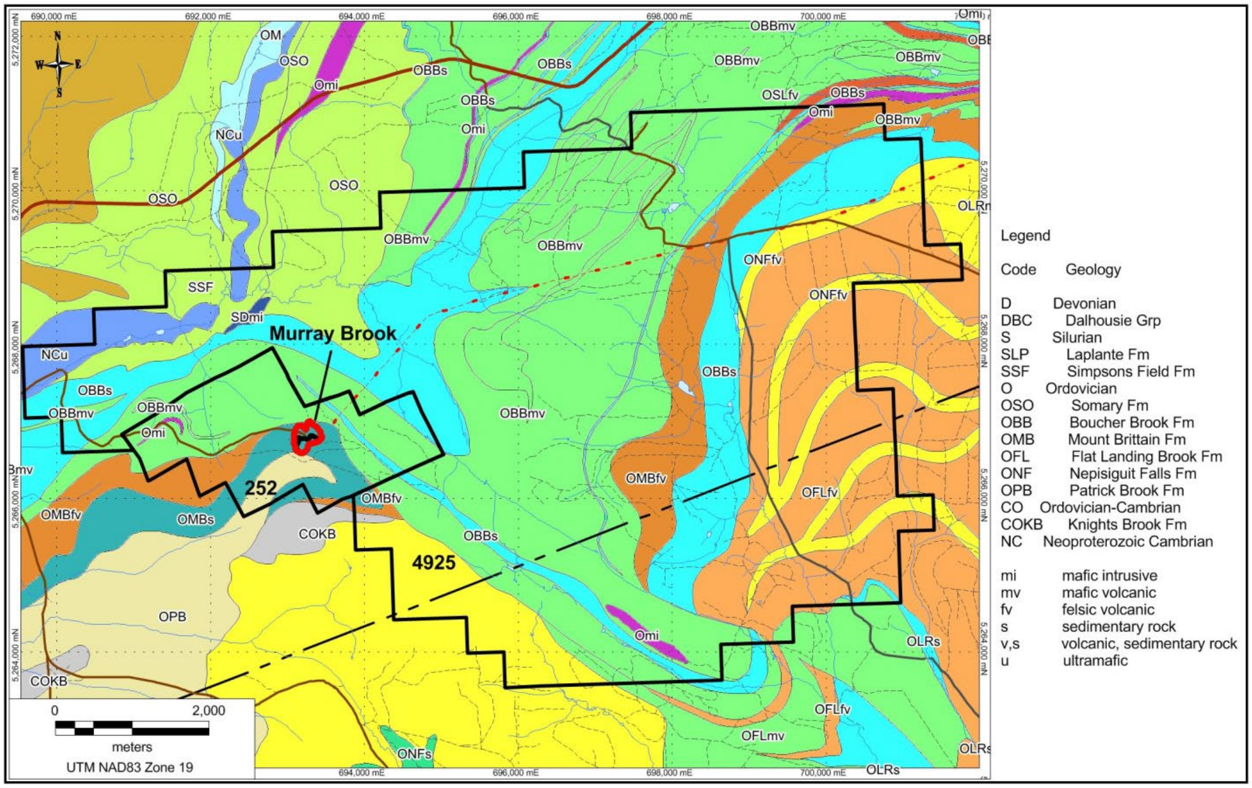
The Murray Brook Deposit is hosted by sedimentary rocks of the Charlotte Brook Member in the lower part of the Mount Brittain Formation. The upper felsic volcanic member of the Mount Brittain Formation hosts the Restigouche Deposit, 10 km to the west of Murray Brook. The Mount Brittain Formation is considered to be equivalent of the Spruce Lake Formation, which hosts the Caribou Mine, 10 km to the east.

7.3 DEPOSIT GEOLOGY, ALTERATION AND MINERALIZATION

The Murray Brook Deposit is elliptical in plan with a strike length of approximately 350 m and a maximum thickness of up to 100 m. The Deposit dips approximately 40° to the northwest with a dip extent of >350 m. It plunges moderately to the north and appears to pinch-out at depth and to the east. The geometry of the Deposit was probably lens-shaped, but the up-dip portion of the body has been eroded and pre-Pleistocene weathering produced the gossan that was historically mined for silver and gold.

Structurally, the massive sulphides occupy the core of an F1/F2 synform (sheath fold) that is deformed by F3 folds, such that the hanging wall footwall are part of the same unit. Although the Murray Brook Deposit is a single body of massive sulphide with good continuity, in-fill drilling indicates that it consists of two connected lenses or lobes. The western, deeper lobe is richer in zinc and lead and the eastern, shallower lobe richer in copper (Figure 7.3). Given that zoned VMS deposits tend consist of Cu-rich lower zones and Zn-Pb rich upper zones (see Section 8 of this Report), it appears possible that the Murray Brook Deposit may be overturned.

FIGURE 7.2 GEOLOGY OF THE MURRAY BROOK PROPERTY AREA

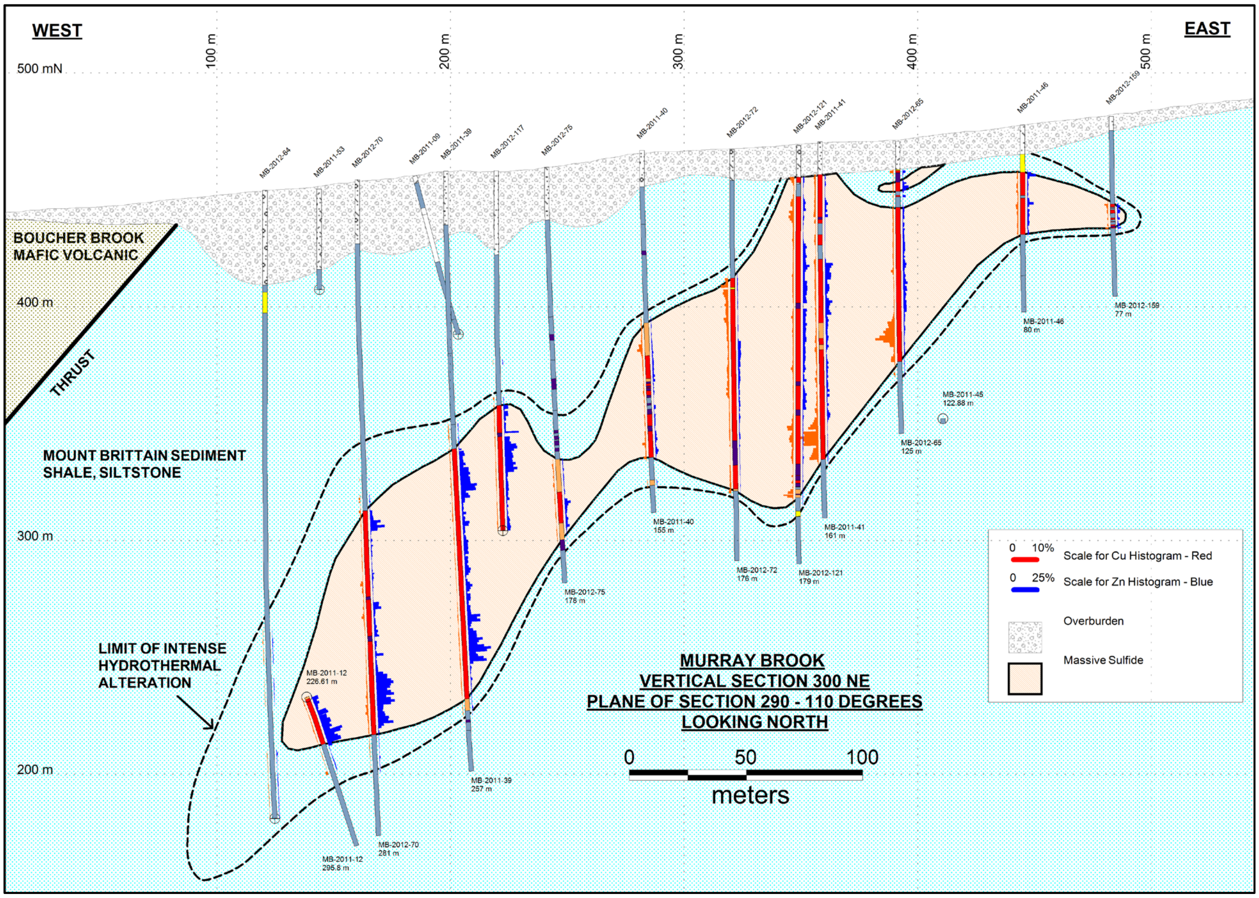


Source: *Van Staal et al. (2003).*

The Murray Brook Deposit is enclosed in a 1 to 3 m wide halo of chloritized sedimentary rocks containing disseminated pyrite. The hanging wall is moderately chloritic and locally intensely deformed. The footwall consists of fine grained-felsic tuff, and tuffaceous sedimentary rocks with moderate to strong chlorite and sericite alteration.

The Murray Brook Deposit sulphides are massive to semi-massive, locally banded, and pyrite rich. The sulphides are mainly fine grained, massive, weakly laminated pyrite with disseminated and banded sphalerite, chalcopyrite and galena, and minor tetrahedrite, covellite, marcasite and arsenopyrite (Figures 7.4 to Figure 7.7).

FIGURE 7.3 VERTICAL CROSS-SECTION OF THE MURRAY BROOK DEPOSIT



Source: *P&E (2013)*

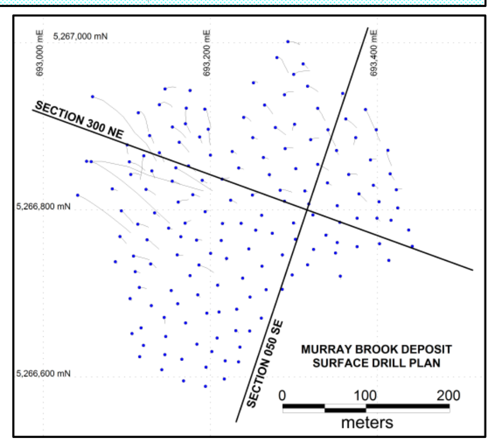
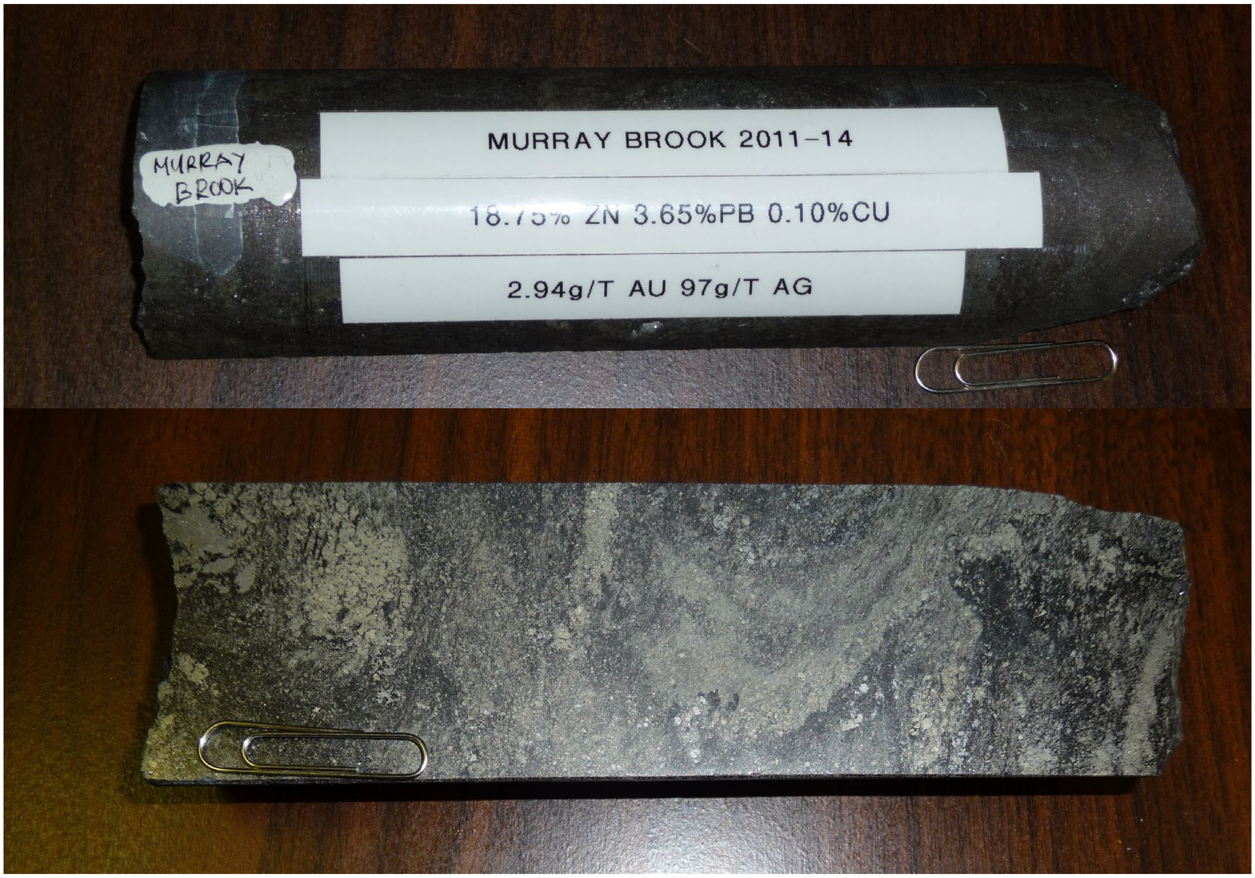
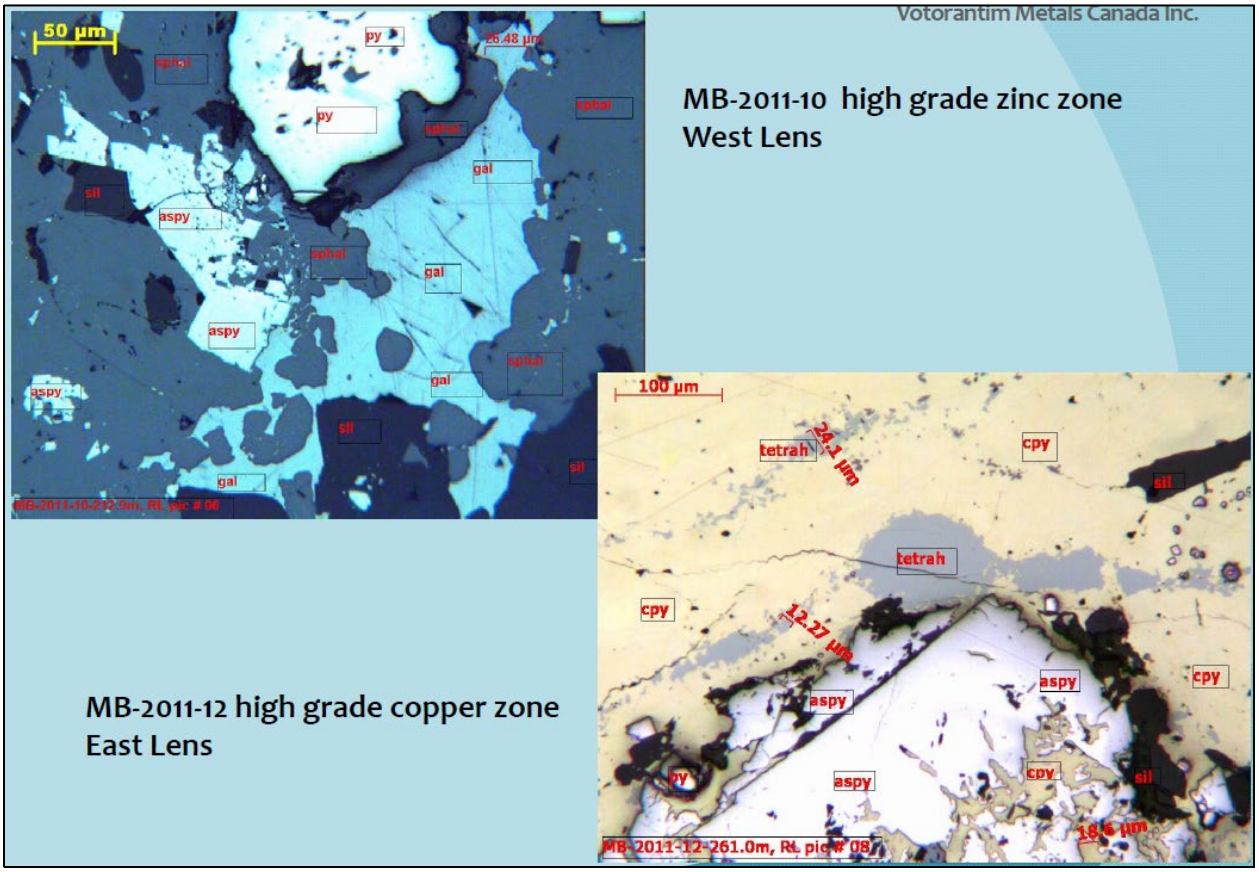


FIGURE 7.4 MASSIVE SULPHIDES FROM MURRAY BROOK DRILL CORE



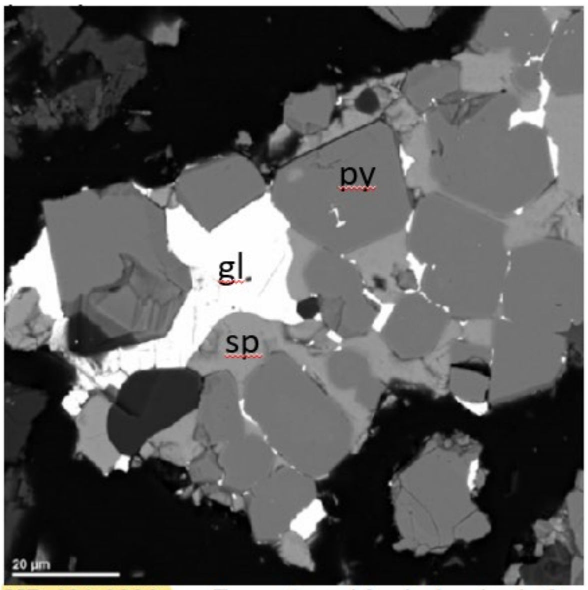
Source: *VMC (PDAC 2013)*

FIGURE 7.5 HIGH-GRADE ZN AND HIGH-GRADE CU MINERAL ASSEMBLAGES

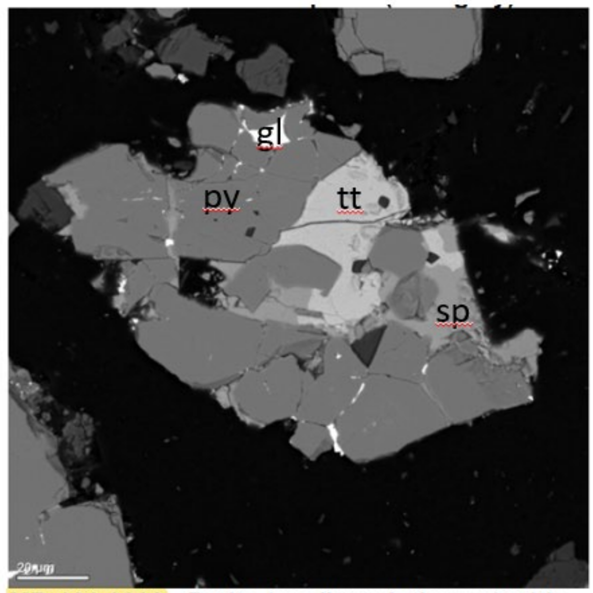


Source: *VMC (CIM 2012)*

FIGURE 7.6 PB-ZN MINERALIZATION



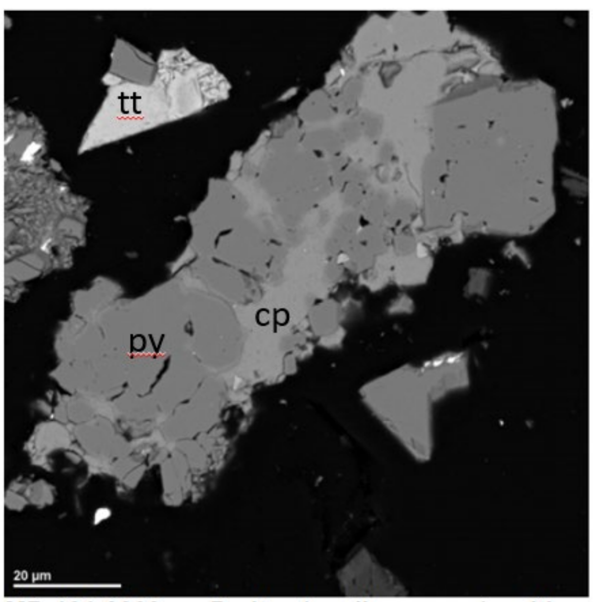
MB-121-0006: Equant subhedral-anhedral pyrite (medium grey) with interstitial sphalerite (light grey) galena (white), and quartz (dark grey).



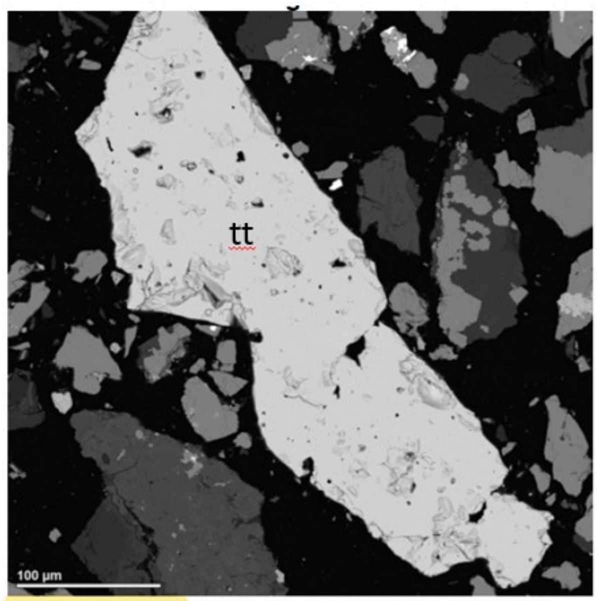
MB-121-0002: Pyrite (medium-dark grey) with sphalerite (medium grey), tetrahedrite (light grey) and galena (white). The fragment also contains minor fine-grained calcite (dark grey).

Source: *Gilders and Cheung (2012)*

FIGURE 7.7 TETRAHEDRITE (AG) MINERALIZATION



MB-121-0003: Pyrite (medium grey) with chalcopyrite (light grey). The very fine-grained (<5µm) equant grains (lighter grey) are arsenopyrite. The angular fragment at upper left consists of tetrahedrite (light grey) and pyrite.



MB-121-0010: Coarse fragment of tetrahedrite. This grain contains 0.9 wt.% Ag.

Source: *Gilders and Cheung (2012)*

8.0 DEPOSIT TYPE

8.1 CLASSIFICATION

The Murray Brook sulphide mineralization is classified as a volcanogenic massive sulphide ("VMS") deposit hosted in sedimentary rocks. VMS deposits are well studied and documented, and a major global source of Zn, Pb, Cu, Ag and Au and other metals (Galley, 2007; Franklin, 2007; Shanks *et al.,* 2009). Although VMS deposits tend to be hosted volcanic rocks, some of those in the BMC are hosted in sedimentary rocks proximal to felsic volcanic-sedimentary interfaces (Franklin *et al.*, 1981). However, at Murray Brook and elsewhere in the BMC, the original depositional and stratigraphic relationships are obscured by the overprinting effects of post-depositional metamorphism and polyphase deformation.

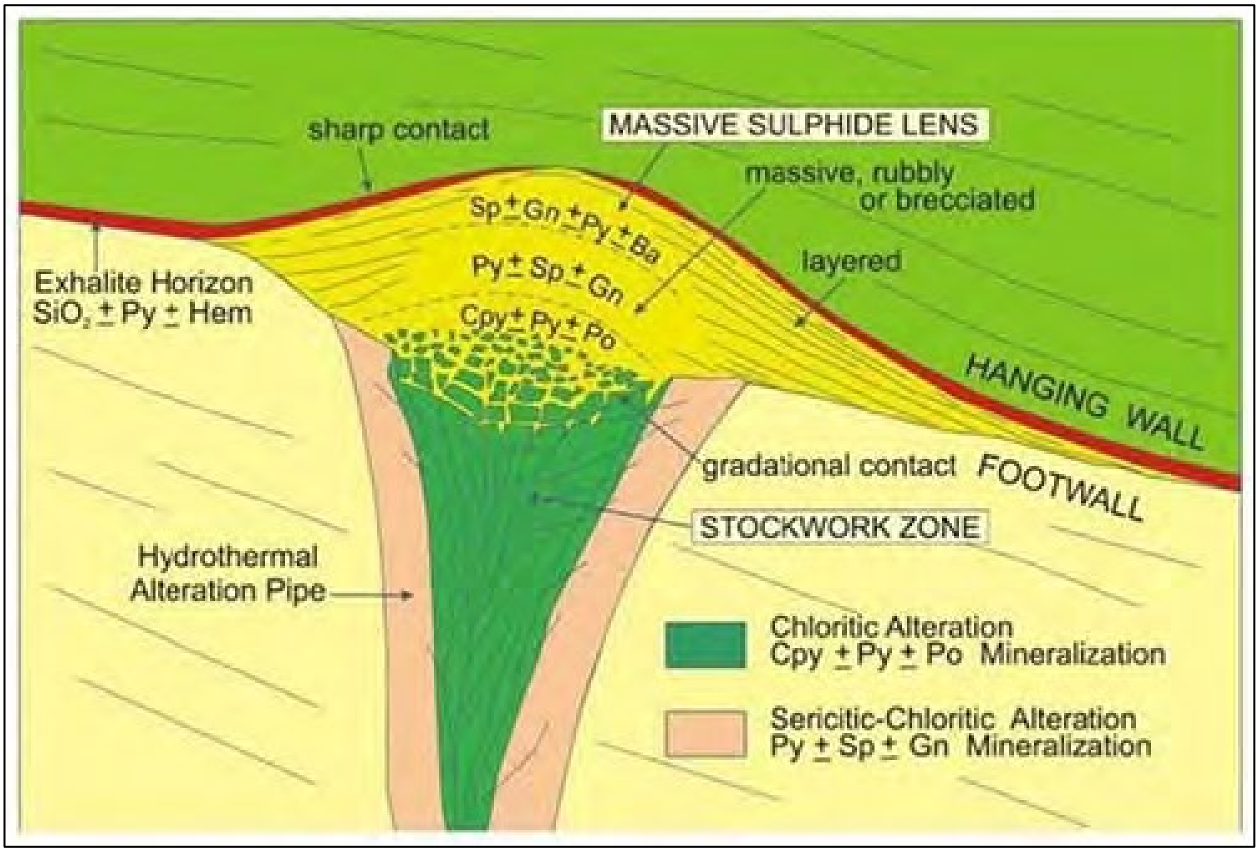
8.2 VMS DEPOSITS

VMS deposits are characterized by mound-shaped to tabular, stratabound bodies composed of massive to semi-massive sulphides, quartz, phyllosilicate minerals, iron-oxides and altered wall rock (Galley *et al.*, 2007) (Figure 8.1). Individual massive sulphide lenses can be >100 m thick, hundreds of metres in length and tens of metres wide, and form proximal to the active hydrothermal vent. The vents tend to be faults or fissures active during volcanism. The stratabound sulphide bodies are typically underlain by a "stockwork zone" or "pipe" composed of stockwork veins and disseminated sulphides surrounded by altered wall rocks.

The most common sulphide minerals in VMS deposits are pyrite, pyrrhotite, chalcopyrite, sphalerite and galena (Lydon, 1988). Magnetite, hematite and cassiterite are common non-sulphide metallic minerals. The mineral deposits are typically zoned, with decreasing values of chalcopyrite/(sphalerite + galena) and Cu/Zn ratios upward and downward from the core of the alteration pipe and base of the massive sulphide lens.

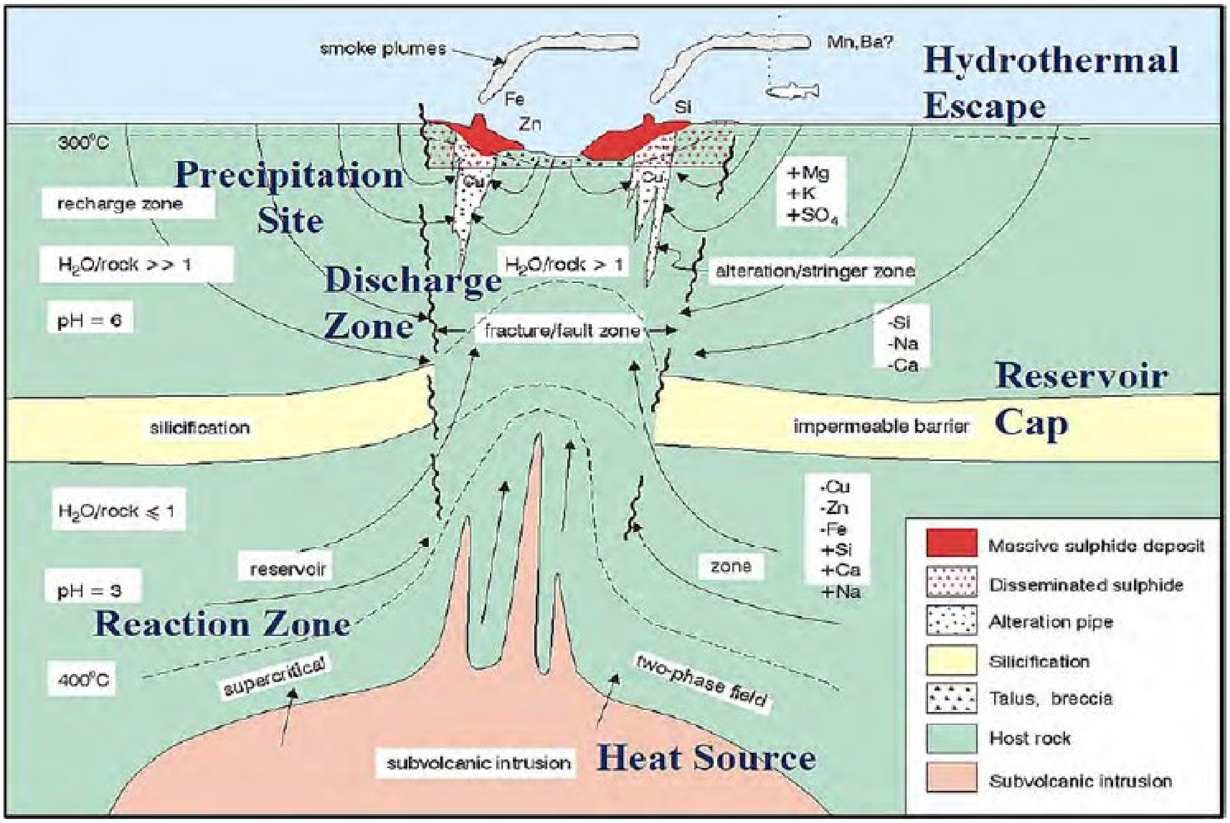
VMS deposits are typically hosted in submarine mafic-felsic volcanic rock sequences formed during periods of rifting and volcanism along volcanic arcs, fore arcs and in back-arc basins (Franklin *et al.,* 2005). The deposits form at or near the seafloor by reaction of metal-rich hydrothermal fluids with wall rock and seawater during volcanism (Lydon, 1988; Franklin, 2007) (Figure 8.2). Heat sources driving the hydrothermal systems are subvolvanic intrusions at depth.

FIGURE 8.1 IDEALIZED CHARACTERISTICS OF A VMS DEPOSIT



Source: *Lydon (1988) and Galley et al. (2007b).*

FIGURE 8.2 IDEALIZED SCHEMATIC OF VMS DEPOSIT FORMING HYDROTHERMAL FLUID SYSTEM



Source: *Franklin (2007)*

VMS deposits are characterized by a distinctly zoned alteration halo, which consists of an inner chloritized central zone and an outer potassic distal zone (Lydon, 1988). In VMS deposits of the Archean Abitibi Greenstone Belt in Ontario and Quebec, the predominant alteration mineral in the outer potassic zone is sericite. In higher-grade regional metamorphosed environments, such as the Flin Flon and Snow Lake VMS camps, lower temperature alteration minerals are replaced by higher temperature metamorphic mineral assemblages (Galley *et al*., 2007).

VMS deposits are classified based on base metal content, gold content and host rock lithology (Galley *et al.,* 2007). The deposits are divided into Cu-Zn, Zn-Cu and Zn-Pb-Cu groups based on metal ratios (Large, 1992, Franklin *et al.*, 2005;). Gold-rich VMS deposits are defined as those in which the amount of gold in ppm numerically exceeds that of the combined base metals in weight percent (Poulsen and Hannington, 1995). The Murray Brook Deposit, along with the BMC deposits, belongs to the Zn-Pb-Cu group classification, which have little or no mafic rocks in their footwall sequence (McCutcheon, 1992). Other examples of Zn-Pb-Cu group deposits are found in the Sudbury Basin (Ontario), Omineca crystalline belt and enclaves in the Coast Batholith (British Columbia) (Franklin, 1993), and in the Iberian Pyrite Belt in Spain and Portugal (Baily and Hudson, 1991). Modern examples of the Zn-Pb-Cu group have been discovered in the Lau Basin (Von Stakelburg and Brett, 1990; and the Okinawa Trough (Urabe *et al*., 1990).

Most of VMS deposits occur in clusters that define a mining camp. Canadian examples are Bathurst, Flin Flon (Manitoba), and Noranda (Québec) (Galley *et al.*, 2007). These clusters of deposits typically occur in linear rifts or caldera features. Regional scale alteration reflects a fluid convection system developed above subvolcanic intrusions, in the order of 5 to 15 km long and 1 to 3 km thick, and reacting with the surrounding country rocks and seawater to form hydrothermal minerals and massive Cu-Zn-Pb (Ag, Au) sulphide deposits (Dimroth *et al*., 1983; Gibson and Watkinson, 1990; Galley *et al*., 1993; Powell *et al*., 1993; Franklin, 2007).

VMS deposits occur worldwide and range in age from 3.4 Ga to actively forming deposits of modern seafloor hydrothermal vents in bimodal mafic-dominated volcanic settings (Galley *et al*., 2007). More than 800 VMS mineral deposits are known globally, ranging from <0.2 to >150 Mt in size.

9.0 EXPLORATION

Canadian Copper have yet to carry out any exploration on the Murray Brook Property. The work summarized in this Section was conducted by VMC from 2010 to 2016 and Puma from 2017 to 2019. As exemplified by the discovery history of the Murray Brook Deposit, heavy mineral and soil geochemical surveys are effective exploration tools. Geophysical surveys, such as magnetic, electromagnetic, and gravity surveys are also effective exploration tools for concealed deposits. Trenching and stripping work has also been completed.

9.1 GEOPHYSICAL SURVEYS

In 2010 and 2011, VMC carried out a Fugro airborne gravity gradiometry survey and a Fugro HeliTEM electromagnetic survey over their various properties and areas of interest, including the Murray Brook Deposit. The ground geophysical portion of the exploration consisted of a gravimetric survey, which detected the massive sulphide deposit at depth.

In addition to the reports listed above, the Murray Brook area has been covered during the regional government-industry geological and geophysical surveys, such as the 1994-1999 Extech II program, the 2004 Bell Geospace airborne Full Tensor Gravity survey, the 2004 MegaTEM II airborne EM and magnetic survey, and the 2013 Falcon Airborne Gravity Gradiometry survey (AGG).

9.2 MINERAL PROSPECTING AND GEOLOGICAL MAPPING

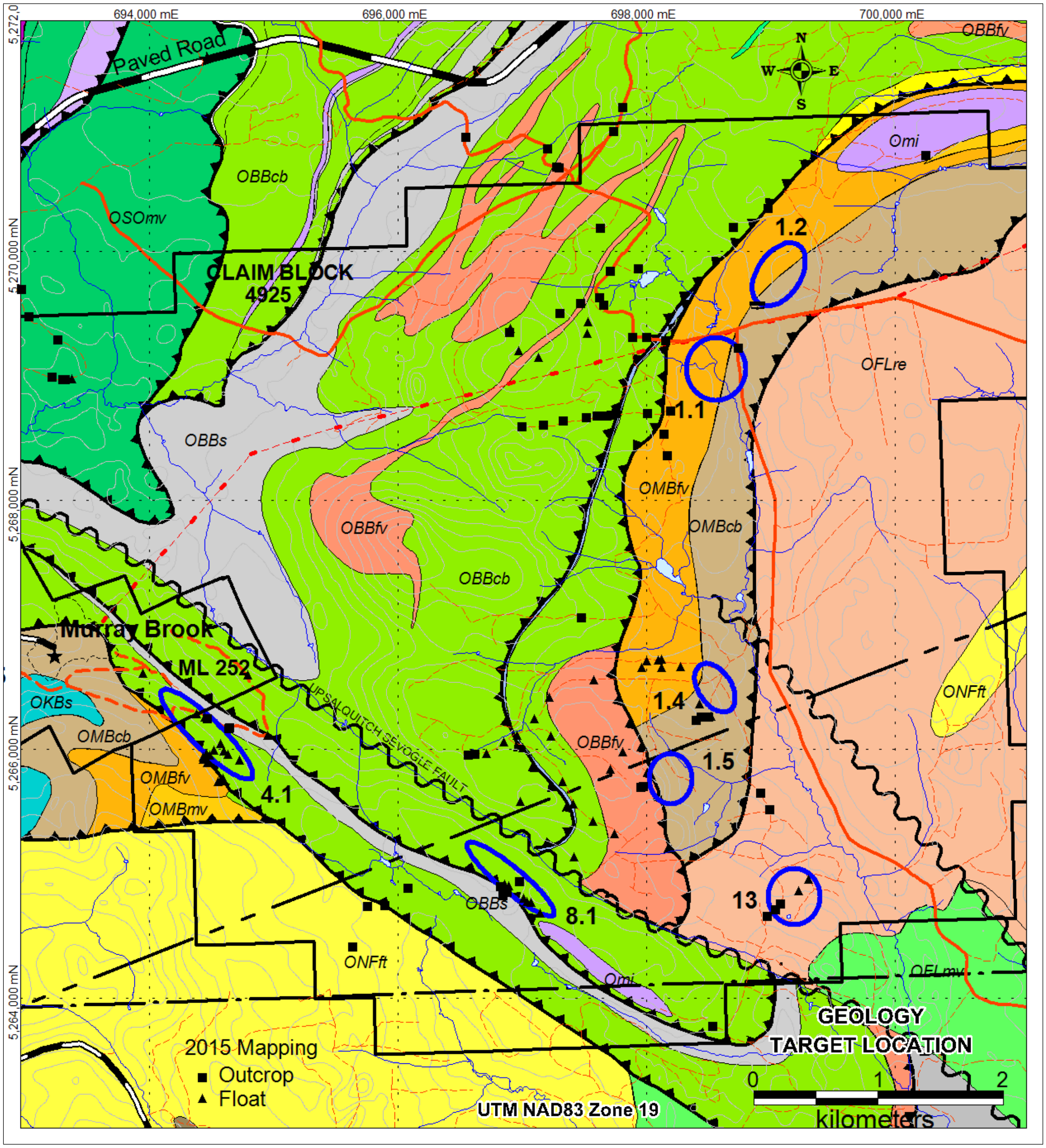
The geophysical surveys resulted in the definition of seven drill targets. In July and August 2015, mineral prospecting and geological mapping and soil geochemical surveys were completed over sections of the eastern part of Mining Claim 4925 by Garth Graves and GeoXplore Surveys Inc. of Bathurst, New Brunswick. The targets are shown on Figure 9.1.

Regional geological mapping and prospecting were conducted on the Murray Brook East claim 4925 in July and August of 2015. The prospecting and mapping was carried out on soil sampling grids that covered the exploration targets and on a more regional scale outside the target areas.

The geological mapping program confirmed results of previous survey work that defined the regional geological setting of the Murray Brook East claim block. The felsic volcanic rocks of the Mount Brittain Formation are more extensive in some areas, specifically Target 1.4 and Target 1.5, than previously indicated. Gravity anomalies associated with Targets 4.1 and 8.1 may be the result of gabbro intruding basalt. However, the area is structurally complex and the possibility that Mount Brittain rocks have been thrust into the geological sequence is indicated by previous drilling at Target 4.1.

Prospecting and mapping in the area of Targets 1.1, Target 1.2, Target 1.4 and Target 1.5 found no obvious explanation for the gravity and EM anomalies. These targets are underlain by the Mount Brittain Formation and are in a geological environment similar to the Murray Brook Deposit. They were considered to be valid targets for drill follow-up.

FIGURE 9.1 GEOLOGY AND TARGET LOCATIONS ON THE MURRAY BROOK PROPERTY



Source: *VMC (2015).*

9.3 SOIL SURVEYS

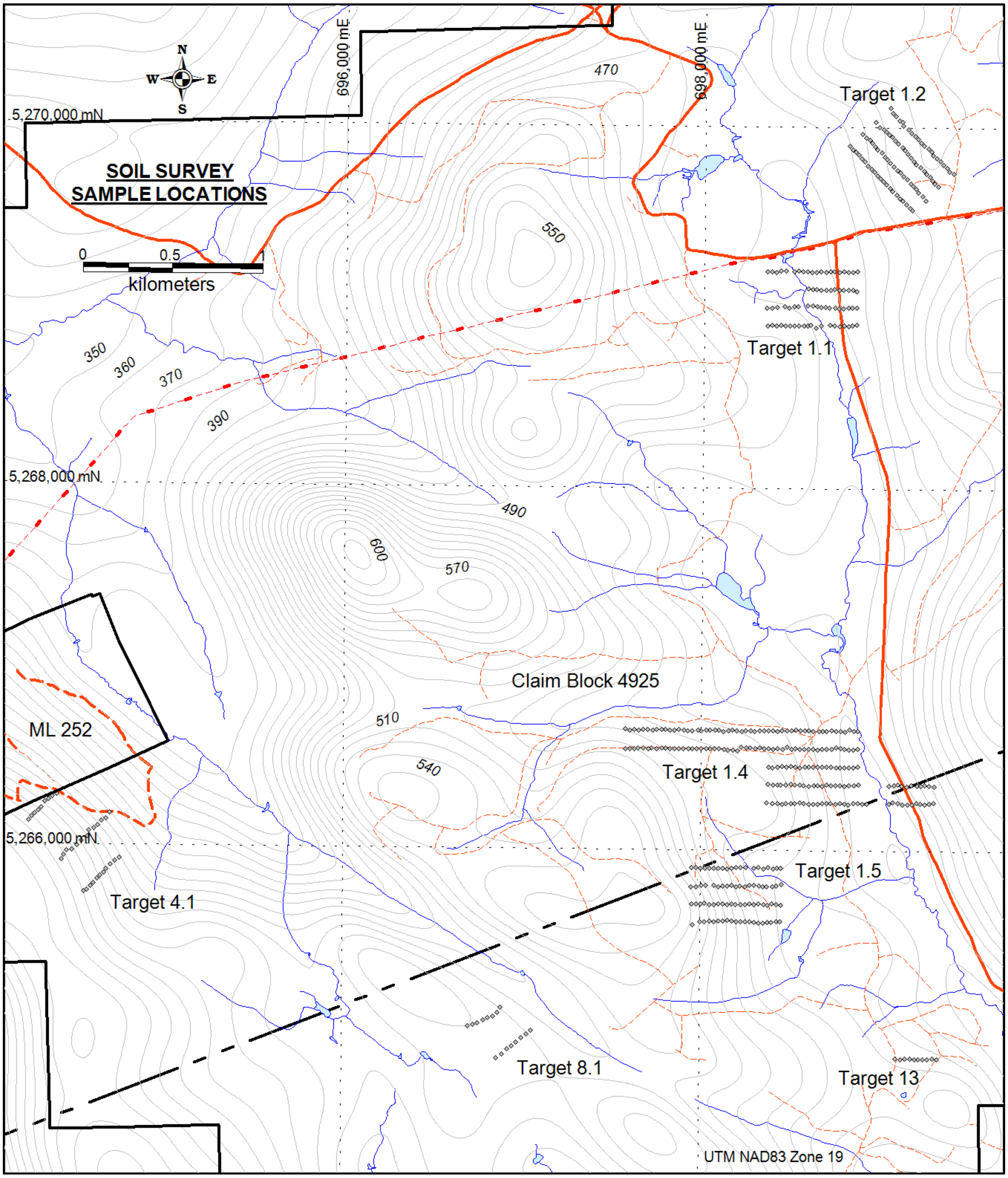
During July and August of 2015, 488 B-horizon soil samples across sections of the Murray Brook East claim were collected. These samples covered the seven target areas selected for detailed follow-up. Samples were collected at 25 m intervals on uncut grids along flagged lines. Lines were spaced at various distances depending on the target, and were 100 m apart on Targets 1.1, 1.2, and 1.5 (Figure 9.2). Locations were recorded using a handheld GPS.

The soil profile is well developed throughout the area and the B-horizon was sampled at a depth of 10 to 20 cm for >90% of the samples. Some samples were light grey-brown in areas of steep terrain with rocky soil and a few slightly organic brown coloured samples were collected in low ground. Samples were dried and shipped to TSL Labs in Saskatoon, Saskatchewan. Samples were sieved to -80 mesh, dissolved using an aqua regia digestion and analyzed by ICP-AES for 29 elements.

The soil survey has provided detail over the selected targets areas. Target 1.4 and Target 1.5 are associated with strongly anomalous lead and arsenic and elevated copper, zinc, antimony and molybdenum in soil. Targets 1.1 and Target 1.2 have sporadic elevated copper and zinc values, but they are probably affected by thick till cover. Target 4.1, Target 8.1, and Target 13 do not have associated soil anomalies, which indicates an extensive hydrothermal system that is not exposed at surface. All of the soil results are affected by glacial transport that has dispersed till in an eastward direction.

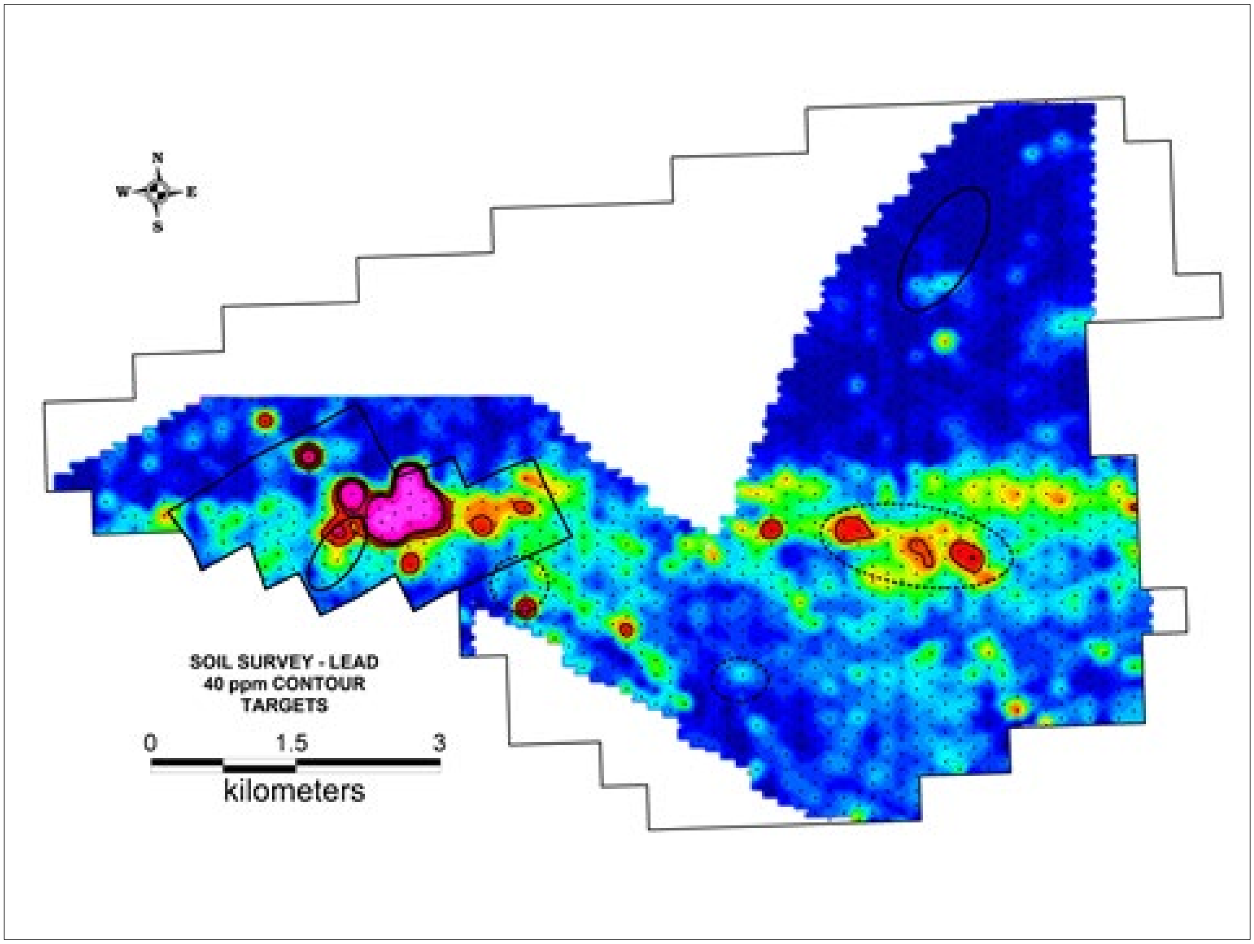
The soil surveys, along with the prospecting and mapping surveys further defined the prospective stratigraphy for several km on strike from the Murray Brook Deposit and identified base metal soil anomalies for additional exploration. Soil geochemistry results for lead are shown in Figure 9.3.

FIGURE 9.2 SOIL SURVEY SAMPLE LOCATIONS



Source: *VMC Assessment Report (2015)*

FIGURE 9.3 CONTOURED RESULTS FOR ANALYSIS OF LEAD IN SOIL



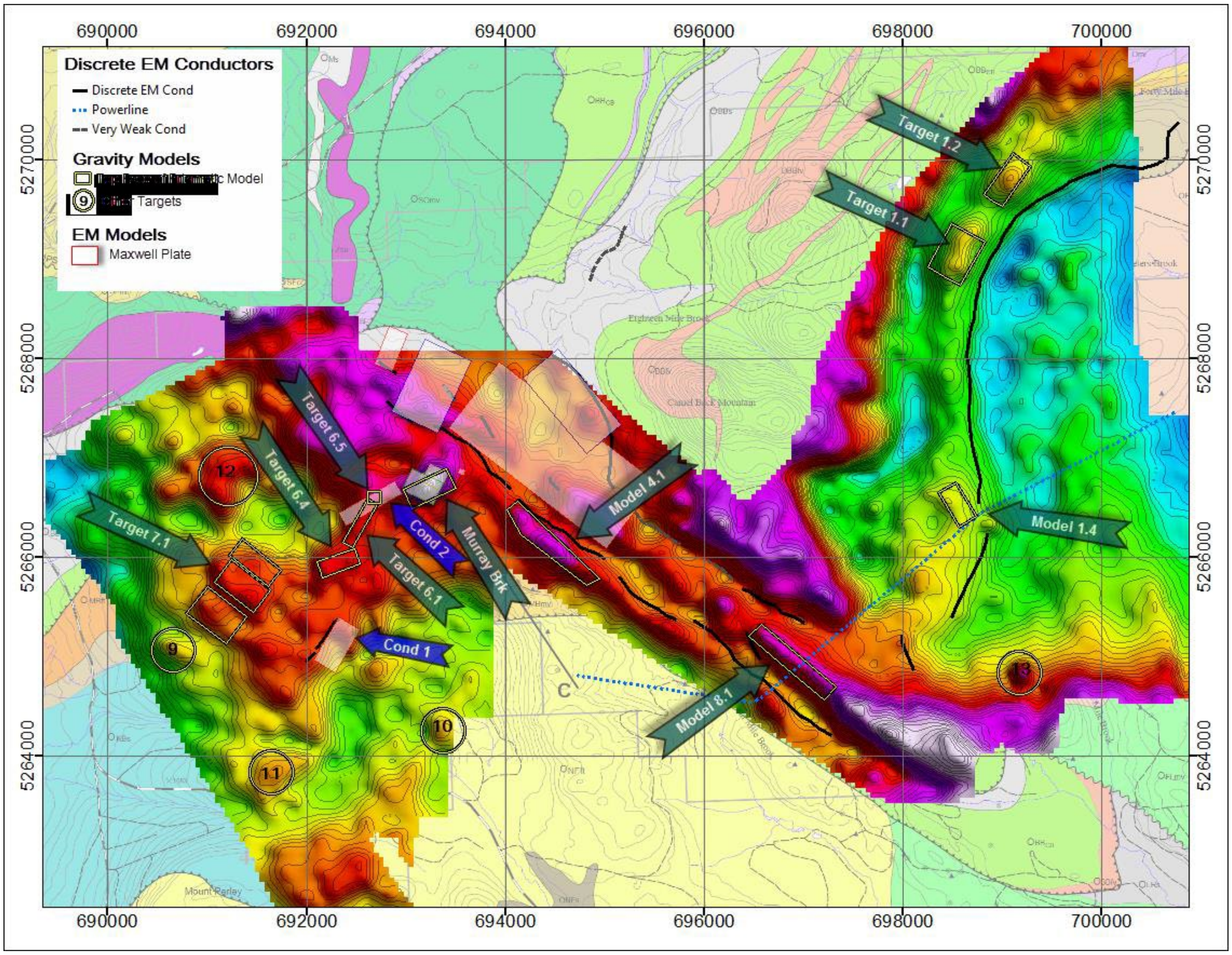
***Source**: Puma Exploration (2017)*

9.4 TRENCHING

The trenching and prospecting work completed by Puma on the eastern part of claim block 4925 from May to July 2017 is summarized here from the assessment reports of Gagne and Hupe (2017 and 2019). The Mount Brittain Formation was targeted to locate and delineate the sedimentary unit of the Charlotte Brook Member, which hosts the Murray Brook Deposit 5 km to the west.

The 2017 program was focused around gravity anomalies (Figure 9.4) and along the contact between the felsic volcanic and the sedimentary rock of the Mount Brittain Formation. A previous ground gravity survey identified density anomalies 1.1, 1.2 and 1.4. Anomalies 1.1 and 1.2 are located between the felsic volcanic and sedimentary rocks of the Mount Brittain Formation, which is a similar geological setting to the Murray Brook Deposit. Anomaly 1.4 is within sedimentary rocks (Charlotte Brook Member) of the Mount Brittain Formation, near the thrust contact with volcanic rocks of the Flat Landing Brook Formation.

FIGURE 9.4 GRAVITY TARGET AREAS RESIDUAL GRAVITY IMAGE



Source: *Gagné and Hupé (2017)*

The Charlotte Brook Member had been previously mapped over 6.5 km on the eastern part of the Property. Outcrops are very rare, but trenching with an excavator successfully reached bedrock (Figure 9.5). A previous LiDAR survey was helpful in locating old access roads and define areas for trenching. All access roads, trails and streams in this area of claim 4925 were prospected to locate the favourable horizon (sediment unit). Twenty prospecting samples were taken, but only four samples were analysed with no significant results. However, a new outcrop of black shale was found in the north part of the area.

Trenches were excavated over 6.5 km along the Charlotte Brook Member. The 34 trenches totalling 3,831 m are located on Figure 9.6. Most of the trenches succeeded in exposing sedimentary rock in contact with felsic volcanic unit. Some of the trenches were too deep to reach bedrock with thick overburden, because the excavator boom was only approximately 3 m long.

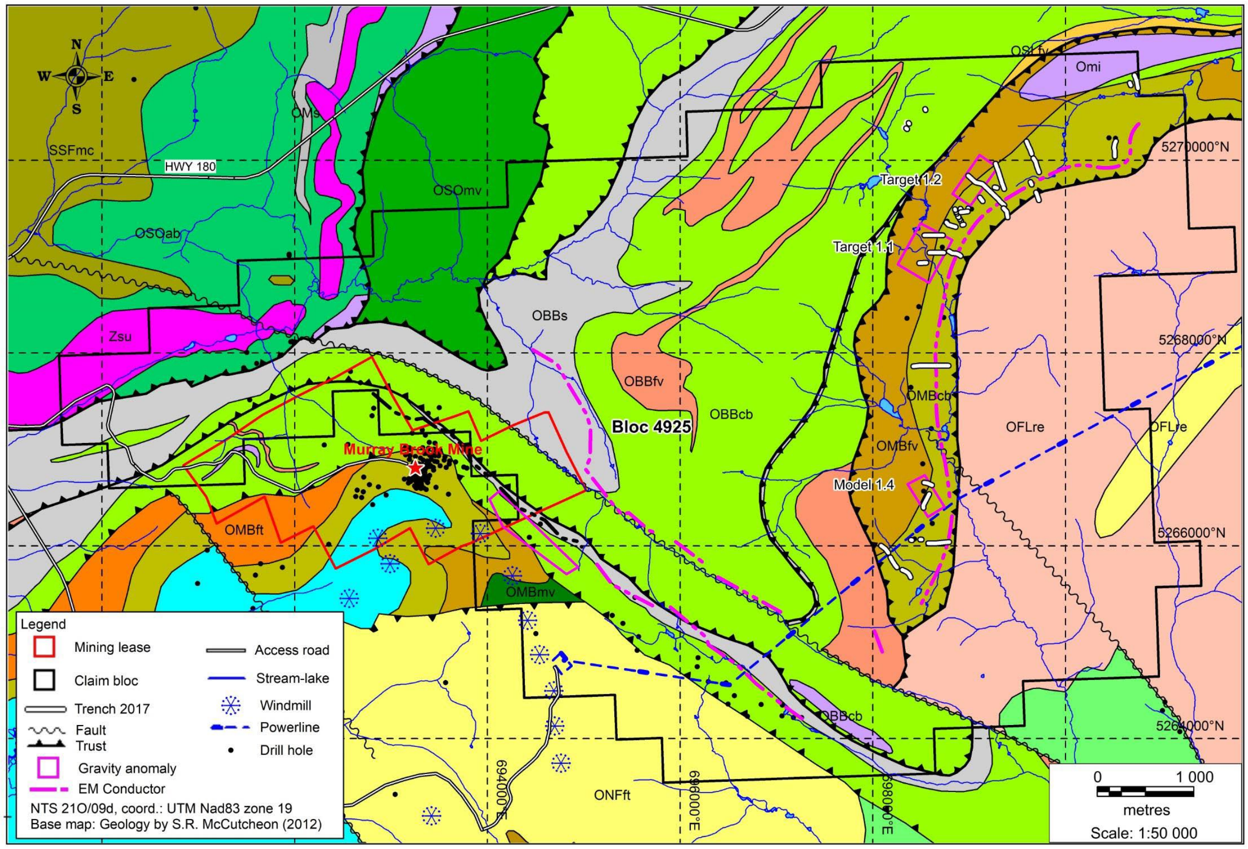
On completion, the geology of each of the trenches was mapped and a total of 127 samples were collected for assay. All samples were analyzed for gold by AA and 41 elements by ICP-41 at ALS Minerals Laboratory. The black shales (sediment unit) were analyzed (64 samples) for whole rock by ICP-09.

The contact between the felsic volcanic rock (OMBfv) and the sedimentary rock (OMBcb) was observed in Trenches 1, 2, 3 and 33. It seems gradually interbedded from black shale, sandstone, tuff to rhyolite cross-cut by gabbro. Contacts are rarely well exposed, but some are faulted. In Trench 4, the black shale is directly in fault contact with gabbro.

FIGURE 9.5 PHOTOGRAPHS OF TRENCHES 17-07 AND 17-26

Source: *Gagné and Hupé (2017)*

FIGURE 9.6 2017 TRENCHES ON GEOLOGICAL MAP



Source: *Gagné and Hupé (2017)*

The contact between the sediment (OMBcb) and felsic volcanic of the Flat Landing Formation (OFLre) was observed in Trenches 25 and 29. Overburden around Trenches 15, 16 and 17, near the Forth Miles stream, is >3 m thick.

Anomalies in As, Cu, Zn >100 ppm and Fe or Fe_2O_3 >10% are observed in the black shale of Trenches 4, 5, 10, 26, 27, 33 and 34. They are located mainly near the gravity Target 1.2 and toward northeast, where the sedimentary unit seems to thicken. Precious metal results are below the detection limit. Typical disseminated to small, massive bands or veins of sulphide (mainly pyrite) were observed in Trenches 26, 27 and 34.

Similar disseminated sulphide (pyrite) has been seen in Trenches 4 and 10 with SiO_2 >80% probably associated with silicification or quartz vein around those samples. The black shale in Trenches 4 and 5 is also graphitic with irregular quartz veins.

Although sulphide mineralization was found in the area of gravity anomaly 1.2 and toward northeast, no indication of mineralization was found around Targets 1.1 and 1.4, due to thick overburden.

The 2017 assay results for the trench samples were subject to an alteration study in 2019. Specifically, a series of geochemical discrimination diagrams were generated to determine mineralized and altered areas. Many of the samples present coincident alteration in some diagrams and most of the anomalous or altered samples are located in the northeastern part of the claim. The northeastern part of claim 4925 should be prioritized for future exploration.

9.5 GEOPHYSICAL INVERSION AND RE-MODELLING STUDIES

The information in this section is taken largely from Gagné and Hupé (2019).

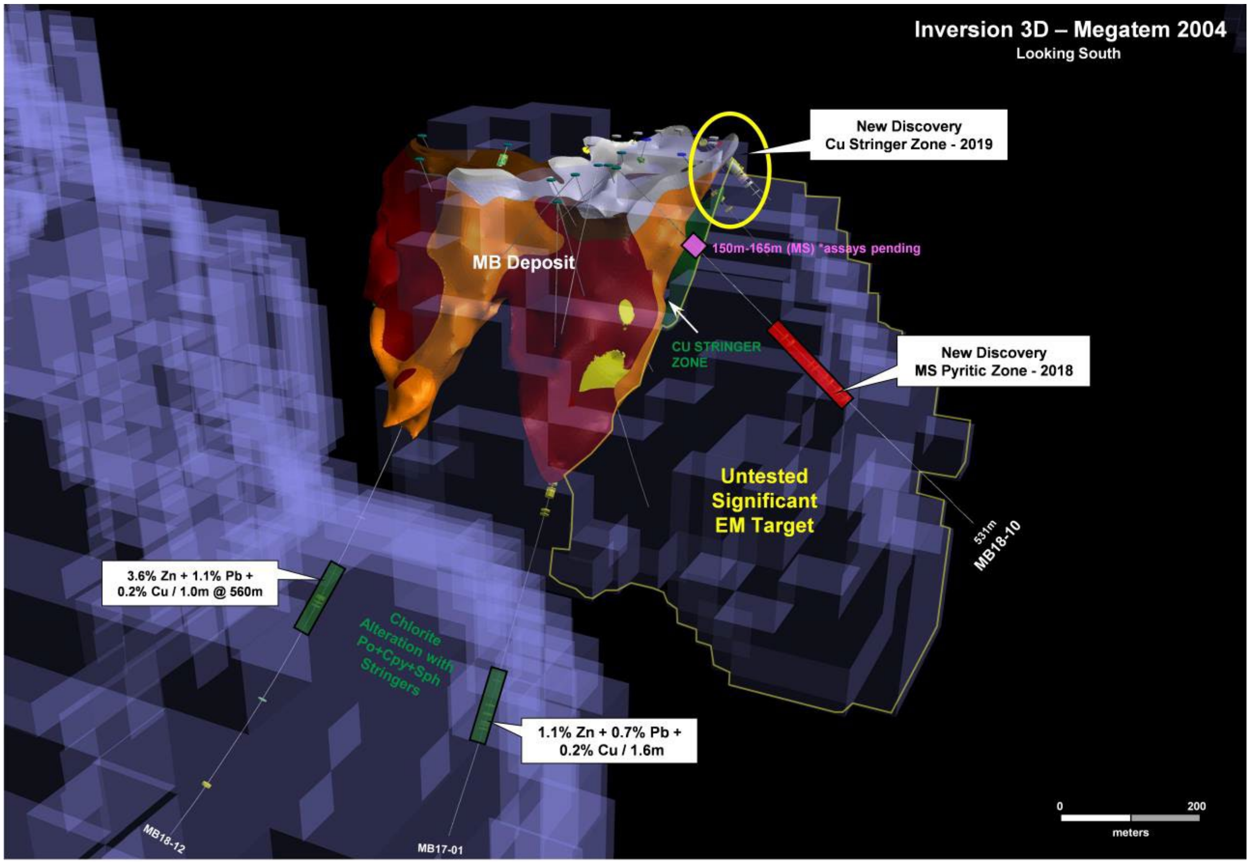
The first geophysical re-modelling study was completed by Fullagar Geophysics and consisted in 1D TEM inversion using VPem1D software and 3D TEM inversion using VPem3D software. The database used was the Noranda 2004 MegaTEM survey (Block 2). The VPemID software performs layered earth inversion of airborne and ground transient electromagnetic (TEM) data, both "unconstrained" and geologically constrained. The VPem3D software performs approximate 3-D inversion (both "unconstrained" and geologically-constrained) of airborne, ground and downhole transient electromagnetic (TEM) data. The VPem1D (channels 6 to 20) method suggests the conductive unit (shale) dips mainly to the northwest. The VPem3D method gives a similar result, except with less accuracy on surface.

The second geophysical re-modelling study was performed by Fathom Geophysics and consisted in 3-D inversion and structure detection of magnetic and gravity data. The database used was the Noranda 2004 MegaTEM survey for the magnetic data and extra data from the Murray Brook Project. Two magnetic inversions were calculated including one coarse cell dimension (250 m x 250 m x 125 m) and one more detailed (75 m x 75 m x 37.5 m). Both gravity and magnetic inversions indicate that in the eastern part of the area, geological units with relatively steep dips in the north and shallower southeast dipping in the east-central and southeast parts areas. In the central part, inversion indicates geological units have steep dips and a generally north-northeast strike.

In the eastern part of the area, geological units with relatively steep dips in the north and shallower southeast dipping, in the east-central and southeast parts of the areas. These results will be used to plan the next phases of the exploration program. Note that this geophysical interpretation was performed after the trenching and drilling programs. In general, the magnetic interpretation corelate well with the mafic volcanic rocks of the Boucher Brook Formation and the conductivity corelate well with the sedimentary rocks of the Mont Brittain Formation.

Geophysical data were afterward interpreted in closer integration with the geological data by Mira Geoscience of Quebec ("Mira") in 2018, by combining the geophysical modelling and inversion with 3-D geological modelling. Mira completed 3-D inversion modelling, integration, and visualization of airborne gravity, magnetic, electromagnetic and integrated the results with the geological data for the area. The objective of this work was to provide useful 3-D physical property products that can be employed in regional exploration to target prospective ground. The products are 3-D inversion models of density contrast, magnetic susceptibility, and electrical conductivity, and integrated products with combined geology. Target features around the Murray Brook Deposit are shown in Figure 9.7.

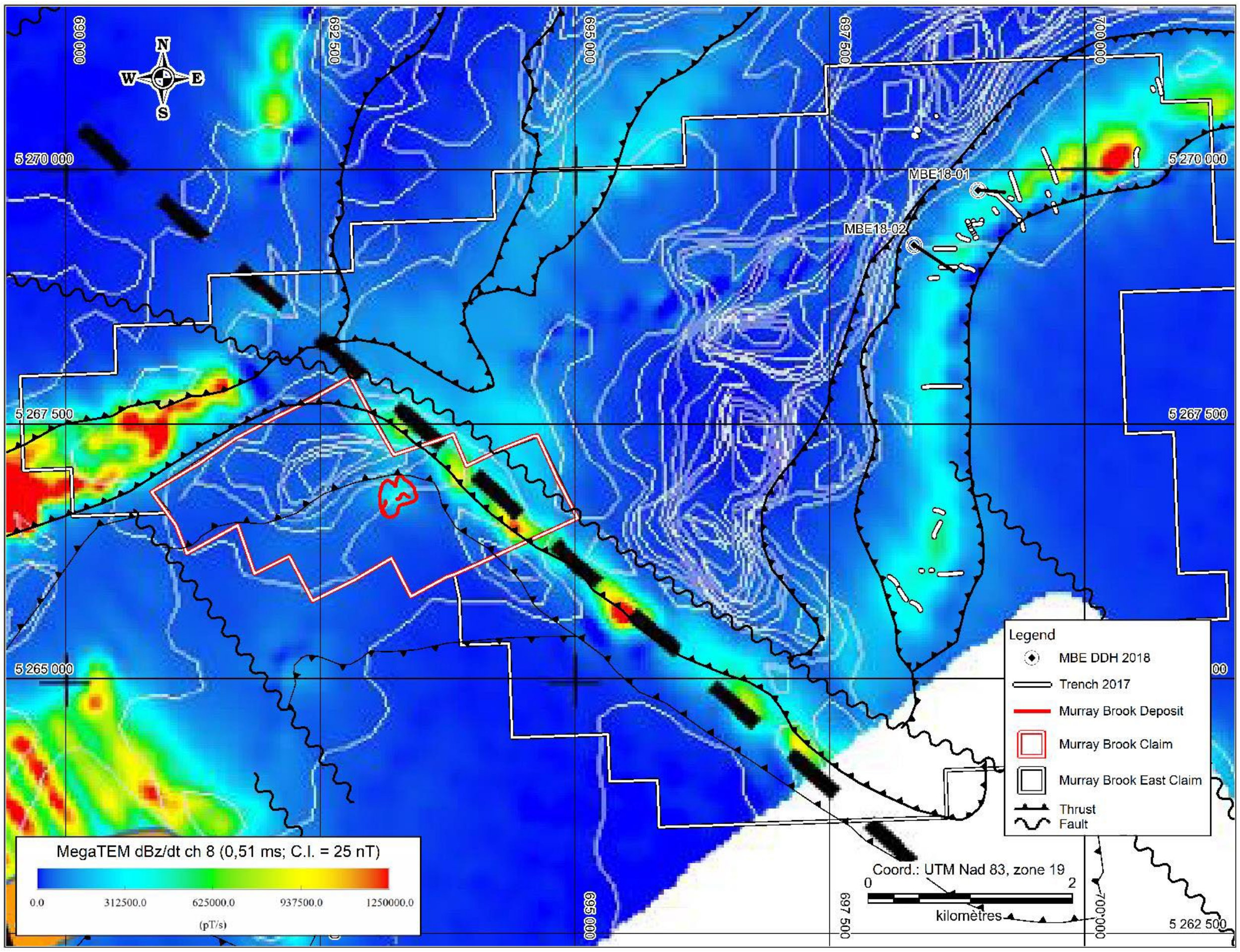
FIGURE 9.7 MEGATEM INVERSION 3-D MODEL TARGET WEST OF MURRAY BROOK DEPOSIT



Source: *Puma press release dated April 10, 2019.*

Geological features like the major Upsalquitch-Sevogle Fault and the upper and lower contacts of the Mount Brittain Formation were also interpreted. Compared with the Murray Brook Deposit, which has coincident gravity and conductivity (EM) features, similar proximate gravity and conductivity (EM) anomalies are evident to the east on claim 4925 that may warrant further exploration (Figure 9.8).

FIGURE 9.8 MODELLED MAGNETIC AND MEGATEM FEATURES



Source: *Gagné and Hupé (2019)*

10.0 DRILLING

As of the effective date of this Report, Canadian Copper has not conducted any drilling on the Murray Brook Property. The drilling work summarized in this Section was previously conducted by VMC and Puma and forms the basis for the Mineral Resource Estimate described in Section 14 of this Report.

The drilling was completed using a skid-mounted diamond drill with NQ size drill core. Most of the drill holes were completed vertically and cross-cut the mineralization at angles of 40° to 45°.

10.1 2010 AND 2011 DRILL PROGRAMS - VMC

VMC's drilling at Murray Brook commenced in 2010 with the drilling of four 'due diligence' holes totalling 595.2 m (drill hole MB-10-14 was abandoned at 39 m). These holes were consistent with historical results, with significant intersections of zinc, copper, lead, gold and silver were reported. VMC duly finalized its Agreement with the Owners.

In 2011, 63 vertical drill holes totalling 10,499.4 m were drilled. The results were announced in ELN news releases (August 30, 2011, November 28, 2011, January 16, 2012 and January 23, 2012). The drill hole specifications for the 2010-2011 drilling are presented in Table 10.1. The composite assay results are presented in Table 10.2.

TABLE 10.1
DIAMOND DRILL SPECIFICATIONS PHASE I AND PHASE II (1)(2)

Drill Hole ID	Easting (m)	Northing (m)	Elevation (masl)	Azimuth (°)	Inclination (°)	Length (m)
MB-10-15	693,051.7	5,266,858	449.32	90	-60	276
MB-10-16	693,213.0	5,266,763	469.33	360	-90	164.2
MB-10-17	693,301.8	5,266,765	470.14	360	-90	116
MB-2011-01	693,246.1	5,266,753	469.45	360	-90	125
MB-2011-02	693,186.2	5,266,734	469.74	110	-75	197
MB-2011-03	693,328.6	5,266,854	471.69	360	-90	206
MB-2011-04	693,300.8	5,266,903	467.10	360	-90	233.6
MB-2011-05	693,283.6	5,266,824	468.26	360	-90	177
MB-2011-06	693,416.3	5,266,788	479.24	360	-90	107
MB-2011-07	693,395.2	5,266,829	477.57	360	-90	167
MB-2011-08	693,351.8	5,266,761	471.35	360	-90	92
MB-2011-09	693,158.6	5,266,850	455.81	120	-75	179.1
MB-2011-10	693,197.5	5,266,897	456.49	360	-90	245
MB-2011-11	693,193.2	5,266,921	451.01	360	-90	277
MB-2011-12	693,059.1	5,266,935	443.60	110	-70	295.8
MB-2011-13	693,210.4	5,266,678	470.09	360	-90	153
MB-2011-14	693,057.4	5,266,858	449.61	110	-70	305
MB-2011-15	693,266.7	5,266,705	470.65	360	-90	98

Table 10.1 Diamond Drill Specifications Phase I and Phase II [(1)(2)]						
Drill Hole ID	**Easting (m)**	**Northing (m)**	**Elevation (masl)**	**Azimuth (°)**	**Inclination (°)**	**Length (m)**
MB-2011-16	693,041.1	5,266,817	457.23	110	-75	272
MB-2011-17	693,160.9	5,266,688	473.44	360	-90	182
MB-2011-18	693,170.3	5,266,665	474.56	360	-90	131
MB-2011-19	693,146.6	5,266,649	478.82	360	-90	100
MB-2011-20	693,195.8	5,266,676	471.16	360	-90	152
MB-2011-21	693,167.9	5,266,595	482.54	360	-90	63.5
MB-2011-22	693,208.2	5,266,647	472.68	360	-90	119
MB-2011-23	693,208.6	5,266,710	469.78	360	-90	155
MB-2011-24	693,247.6	5,266,696	470.16	360	-90	98
MB-2011-25	693,261.0	5,266,670	471.11	360	-90	74
MB-2011-26	693,153.2	5,266,704	473.13	360	-90	173
MB-2011-27	693,238.6	5,266,718	469.58	360	-90	86
MB-2011-28	693,261.8	5,266,733	470.03	360	-90	72
MB-2011-29	693,286.3	5,266,746	470.35	360	-90	86
MB-2011-30	693,236.7	5,266,784	470.64	360	-90	128
MB-2011-31	693,160.2	5,266,746	479.84	360	-90	218
MB-2011-33	693,169.6	5,266,784	475.80	360	-90	243
MB-2011-34	693,113.1	5,266,783	477.11	360	-90	245
MB-2011-37	693,161.5	5,266,809	470.49	360	-90	251
MB-2011-38	693,261.4	5,266,794	469.11	360	-90	152.5
MB-2011-39	693,173.7	5,266,853	457.96	360	-90	257
MB-2011-40	693,250.3	5,266,818	466.82	360	-90	155
MB-2011-41	693,322.8	5,266,794	470.61	360	-90	161
MB-2011-42	693,298.0	5,266,722	470.79	360	-90	75
MB-2011-43	693,340.3	5,266,832	473.05	360	-90	170
MB-2011-44	693,351.9	5,266,805	472.78	360	-90	143
MB-2011-45	693,375.7	5,266,790	475.00	360	-90	125
MB-2011-46	693,402.5	5,266,760	477.75	360	-90	80
MB-2011-47	693,413.6	5,266,740	479.76	360	-90	75
MB-2011-48	693,193.6	5,266,798	468.89	360	-90	182
MB-2011-49	693,183.5	5,266,764	473.80	360	-90	227
MB-2011-50	693,150.0	5,266,778	476.79	360	-90	251
MB-2011-51	693,133.2	5,266,797	472.07	360	-90	245
MB-2011-52	693,123.0	5,266,824	464.54	360	-90	257
MB-2011-53	693,120.2	5,266,865	450.28	200	-85	233
MB-2011-54	693,200.2	5,266,866	455.92	360	-90	251
MB-2011-55	693,263.4	5,266,863	463.54	360	-90	191
MB-2011-56	693,349.9	5,266,749	471.23	360	-90	75

Table 10.1 **Diamond Drill Specifications Phase I and Phase II (1)(2)**						
Drill Hole ID	**Easting (m)**	**Northing (m)**	**Elevation (masl)**	**Azimuth (°)**	**Inclination (°)**	**Length (m)**
MB-2011-57	693,162.7	5,266,881	451.73	360	-90	266
MB-2011-58	693,129.3	5,266,685	474.86	360	-90	140
MB-2011-59	693,183.9	5,266,639	472.84	360	-90	116
MB-2011-60	693,230.5	5,266,656	469.12	360	-90	141
MB-2011-61	693,128.5	5,266,735	484.12	360	-90	209
MB-2011-62	693,124.3	5,266,764	477.20	360	-90	233
MB-2011-63	693,170.1	5,266,903	452.60	360	-90	272

1) *Coordinates are in UTM NAD83 Zone 19;*
2) *Drill holes MB-2011-32, MB-2011-35 and MB-2011-36 were abandoned.*

Table 10.2 **Significant Phase I and Phase II Drill Intercepts**								
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Au (g/t)**	**Ag (g/t)**
MB-2010-15	163.8	167.7	3.9	0.10	2.00	9.16	1.6	77.00
and	201.0	218.0	17.0	0.10	4.24	7.51	0.96	84.0
and	232.0	235.0	3.0	0.13	2.65	6.25	1.02	58.0
MB-2010-16	44.0	71.0	27.0	0.47	3.39	9.56	0.21	122.0
and	79.0	91.0	12.0	0.08	2.22	6.89	0.10	89.0
MB-2010-17	15.0	95.0	80.0	0.33	0.63	1.28	0.65	26.32
MB-2011-01	53.0	77.8	24.8	0.11	1.22	3.34	0.20	41.00
MB-2011-02	42.5	164.3	121.8	0.26	1.07	3.32	0.26	34.61
MB-2011-03	92.0	172.6	80.6	0.83	0.98	1.89	0.80	47.06
MB-2011-04	141.0	217.0	76.0	0.53	1.21	2.35	1.31	45.28
MB-2011-05	73.5	155.0	81.5	1.12	0.44	1.02	0.46	20.97
MB-2011-06	47.4	77.7	30.3	0.26	0.99	2.13	0.90	46.31
MB-2011-07	112.5	138.1	25.6	0.34	1.05	2.28	0.92	46.52
MB-2011-08	11.0	64.2	53.2	0.30	0.80	1.74	1.04	39.66
MB-2011-09	101.0	176.1	75.1	0.13	1.43	3.84	0.36	59.37
MB-2011-10	179.5	216.0	36.5	0.25	1.90	4.65	1.00	69.86
MB-2011-11	187.6	201.8	14.2	0.20	1.52	3.73	0.79	52.94
MB-2011-13	27.0	126.0	99.3	0.22	1.16	3.38	0.62	40.59
MB-2011-14	160.5	225.0	64.5	0.23	0.78	3.87	0.66	35.5
MB-2011-15	29.0	35.3	6.3	0.16	1.21	3.84	0.11	8.38
MB-2011-17	24.1	126.65	102.6	0.65	0.47	1.84	0.20	23.65
MB-2011-18	47.0	107.0	60.0	1.01	0.04	0.19	0.20	11.95
MB-2011-19	23.0	77.0	54.0	0.40	0.43	1.14	0.86	22.29

TABLE 10.2
SIGNIFICANT PHASE I AND PHASE II DRILL INTERCEPTS

Drill Hole ID	From (m)	To (m)	Width (m)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)
MB-2011-20	15.0	125.0	110.0	0.32	0.71	2.41	0.25	27.34
MB-2011-21	19.65	31.6	12.0	0.90	0.04	0.15	0.15	10.72
MB-2011-22	17.6	95.2	77.6	0.29	0.81	2.42	0.44	32.96
MB-2011-23	31.5	107.0	75.5	0.38	0.68	2.16	0.30	24.69
MB-2011-24	38.0	55.9	17.9	0.08	0.43	0.68	0.03	8.56
MB-2011-25	nsv							
MB-2011-26	29.0	142.7	113.7	0.31	0.26	1.19	0.26	18.94
MB-2011-27	38.0	69.5	31.5	0.51	0.20	0.63	0.04	7.82
MB-2011-28	38.0	42.5	4.5	0.34	0.20	0.63	0.04	7.82
MB-2011-29	21.0	57.3	36.3	0.19	0.92	1.90	0.80	33.39
MB-2011-30	44.0	103.0	59.0	0.14	1.55	4.58	0.51	68.15
MB-2011-31	53.0	193.3	140.3	0.32	1.03	3.73	0.27	43.24
MB-2011-33	59.0	215.1	156.1	0.23	0.85	2.64	0.41	29.94
MB-2011-34	129.6	212.0	82.4	0.13	1.19	5.05	0.3	44.03
MB-2011-37	88.0	234.4	146.4	0.16	1.33	3.83	0.45	49.2
MB-2011-38	46.10	111.6	65.54	0.59	0.40	0.84	0.78	21.5
MB-2011-39	118.9	222.0	103.1	0.11	1.81	5.45	0.51	65.7
MB-2011-40	83.0	131.0	48.0	0.33	0.41	0.93	0.69	21.2
MB-2011-41	14.0	136.0	122.0	0.89	0.73	1.58	0 .94	37.8
MB-2011-42	15.0	18.0	3.0	0.21	0.32	2.65	0.73	22.8
MB-2011-43	76.0	143.8	67.8	0.41	0.60	0.97	0.71	36.1
MB-2011-44	36.0	60.0	24.0	0.53	0.59	1.00	0.61	32.9
and	65.8	110.7	44.9	0.66	0.79	1.49	0.90	40.4
MB 2011-45	20.2	33.6	13.4	0.31	1.14	2.73	0.97	47.0
and	41.0	95.0	54.0	0.42	0.74	1.78	0.63	35.1
MB-2011-46	20.15	46.80	26.6	0.39	0.63	1.79	0.26	33.9
MB-2011-47	nsv							
MB-2011-48	60.5	161.0	100.5	0.16	1.71	4.65	0.36	56.5
MB-2011-49	35.0	181.0	146.0	0.59	1.40	3.85	0.63	56.1
MB-2011-50	55.0	223.1	168.1	0.28	1.12	3.62	0.38	41.6
MB-2011-51	83.7	220.8	137.1	0.35	0.73	2.23	0.53	28.5
MB-2011-52	134.5	145.0	10.5	0.19	0.06	0.53	0.07	3.8
and	159.5	231.7	72.2	0.26	2.33	5.61	0.71	77.7
MB-2011-53	170.0	204.8	34.8	0.47	0.20	0.59	0.13	13.2
MB-2011-54	156.2	201.0	44.8	0.17	1.55	4.26	0.70	60.7
MB-2011-55	102.0	149.2	47.2	0.99	0.39	0.79	0.37	16.0
and	153.2	155.7	2.47	0.67	0.05	0.09	0.09	5.3
MB-2011-56	15.2	43.0	27.8	0.22	0.35	1.08	0.29	17.0

TABLE 10.2 SIGNIFICANT PHASE I AND PHASE II DRILL INTERCEPTS								
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Au (g/t)**	**Ag (g/t)**
MB-2011-57	143.3	231.0	87.7	0.14	2.77	7.23	0.61	103.3
MB-2011-58	23.0	72.0	49.0	0.45	0.31	2.02	0.38	23.2
and	98.1	105.0	6.9	1.09	0.05	0.17	0.13	6.9
MB-2011-59	24.50	88.0	63.5	0.47	0.26	1.03	0.21	19.5
MB-2011-60	21.5	54.0	32.5	0.89	0.09	0.44	0.08	6.2
MB-2011-61	80.2	178.0	98.8	.3	0.22	0.80	1.15	15.8
MB-2011-62	118.9	201.0	82.1	0.15	0.98	3.17	0.31	39.8
MB-2011-63	168.4	240.0	71.6	0.18	1.89	4.98	0.91	79.9

Three objectives of the Phase I and Phase II drilling program were realized: (1) infill drilling to close large (100 m) gaps in the historical drill coverage; (2) step-out drilling to define the margins of the deposit, and (3) due diligence drilling (595.2 m) to confirm results from historical drill programs. The results of the 2011 drilling provided additional data for use in estimating Indicated and Inferred Mineral Resources. An analysis of the 2011 drill program indicated that approximately 18,000 m of additional infill and definition drilling was warranted in a 2012 drill program.

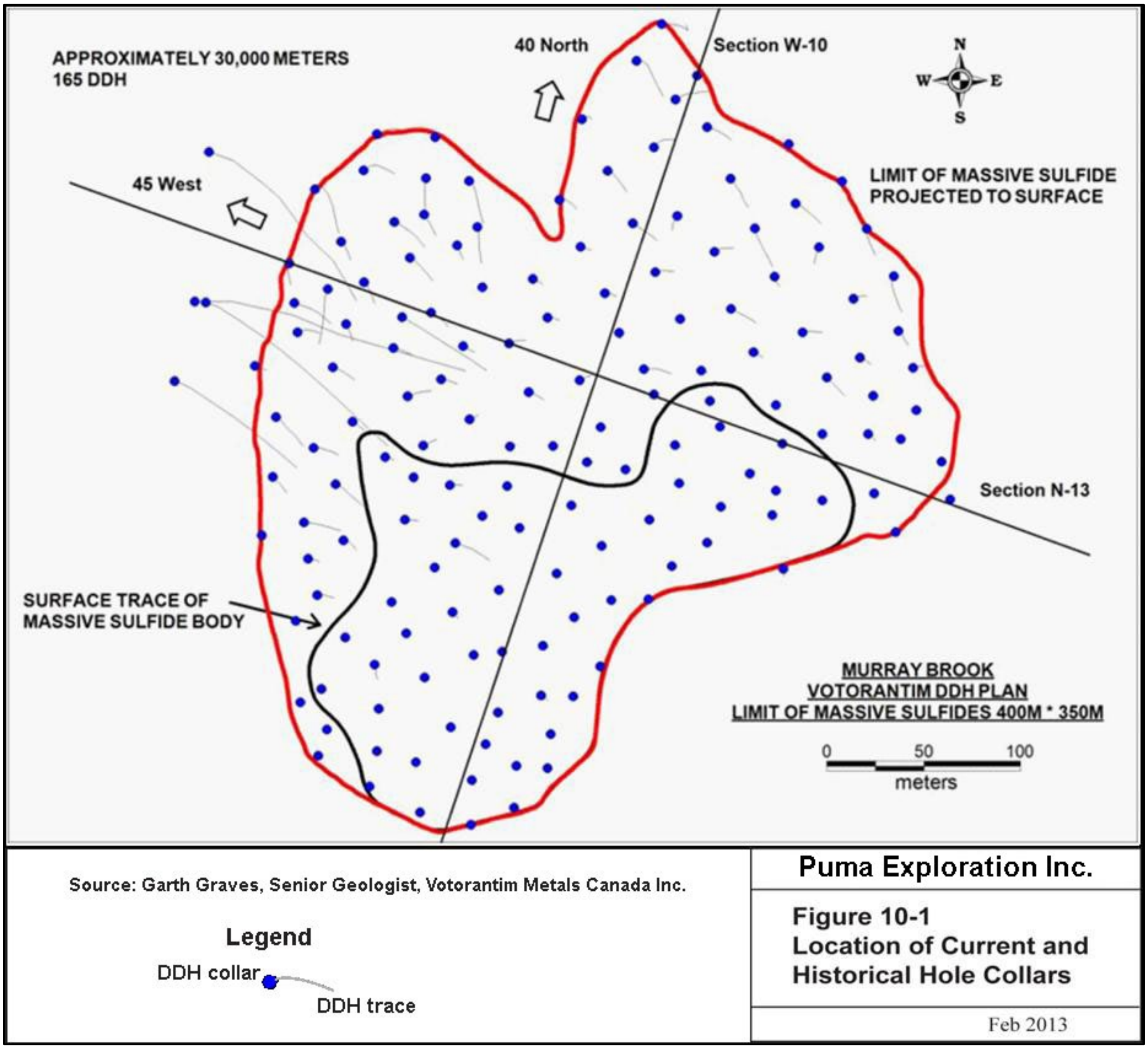
10.2 2012 DRILLING - VMC

The objective of the 2012 drilling was to upgrade the Inferred and Indicated Mineral Resources to Measured Mineral Resources, define additional near-surface Mineral Resources along the northwest margin of the Murray Brook Deposit, and completing preliminary metallurgical testing on selected portions thereof. The drill program commenced in February 2012 and consisted of 99 vertical drill holes totalling 18,264 m. The drill hole specifications are presented in Table 10.3. From 2010 to 2012, 166 drill holes were completed for a total of 29,718 m.

Analysis of the drilling results identified two distinct north-trending massive sulphide zones with different mineralogical characteristics and thicknesses. The deeper, western zone appears to be thicker and richer in Zn, Pb and Ag mineralization, whereas shallower, eastern zone is thinner and richer in Cu-Au mineralization.

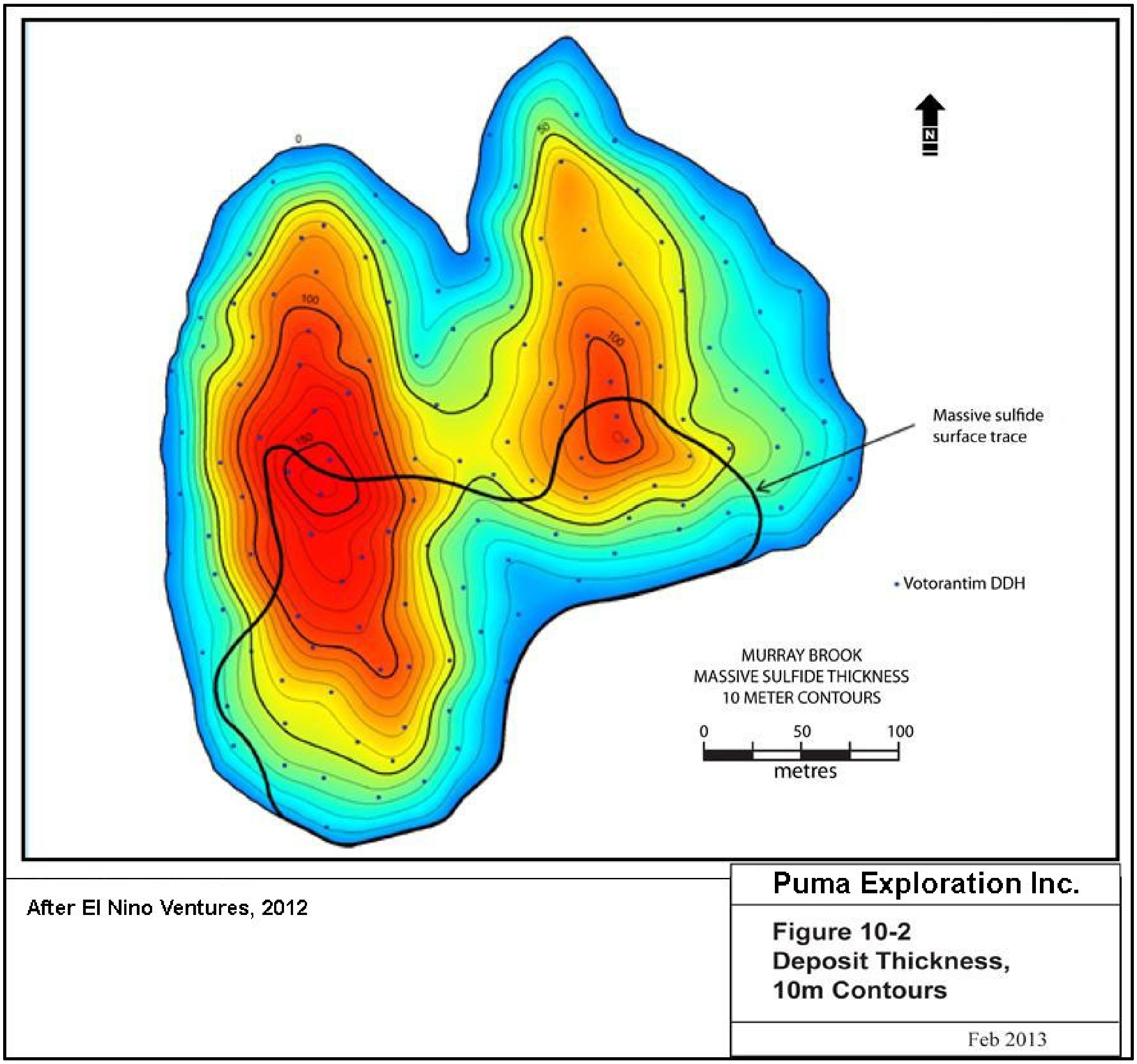
The location of VMC, historical and current drill collars are shown in Figure 10.1. The dimensions of the Murray Brook Deposit are illustrated in Figure 10.2. The massive sulphide portion of the deposit measures approximately 320 m north-south by approximately 300 m east-west with a thickness of 120 to 150 m as two north-south lobes. Typical vertical cross-section projections, normal and perpendicular to the axes of deposit are presented in Figure 10.3 to 10.5.

FIGURE 10.1 LOCATION OF CURRENT AND HISTORICAL DRILL HOLE COLLARS



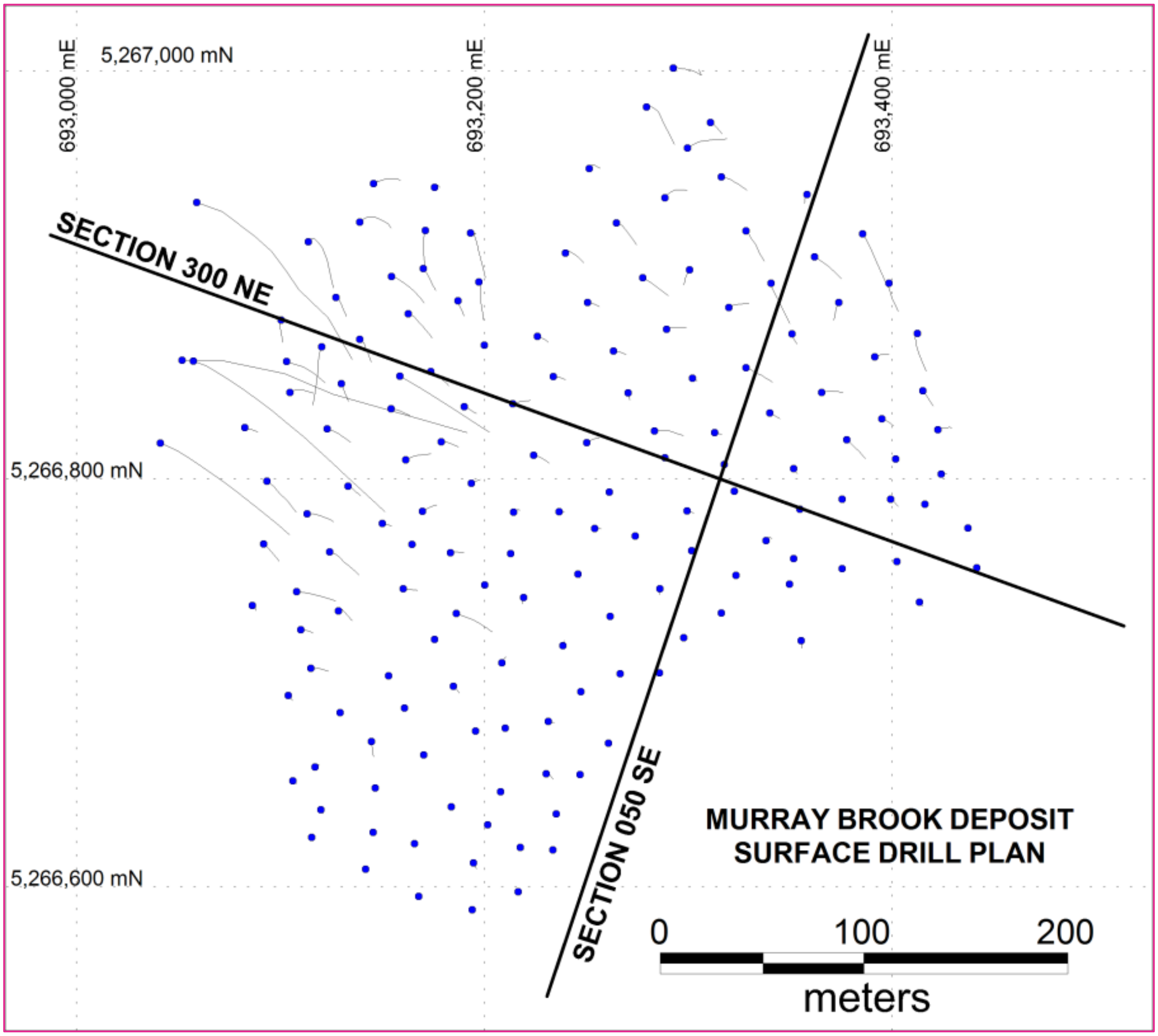
Source: *P&E (2017)*

FIGURE 10.2 DEPOSIT THICKNESS VARIATIONS



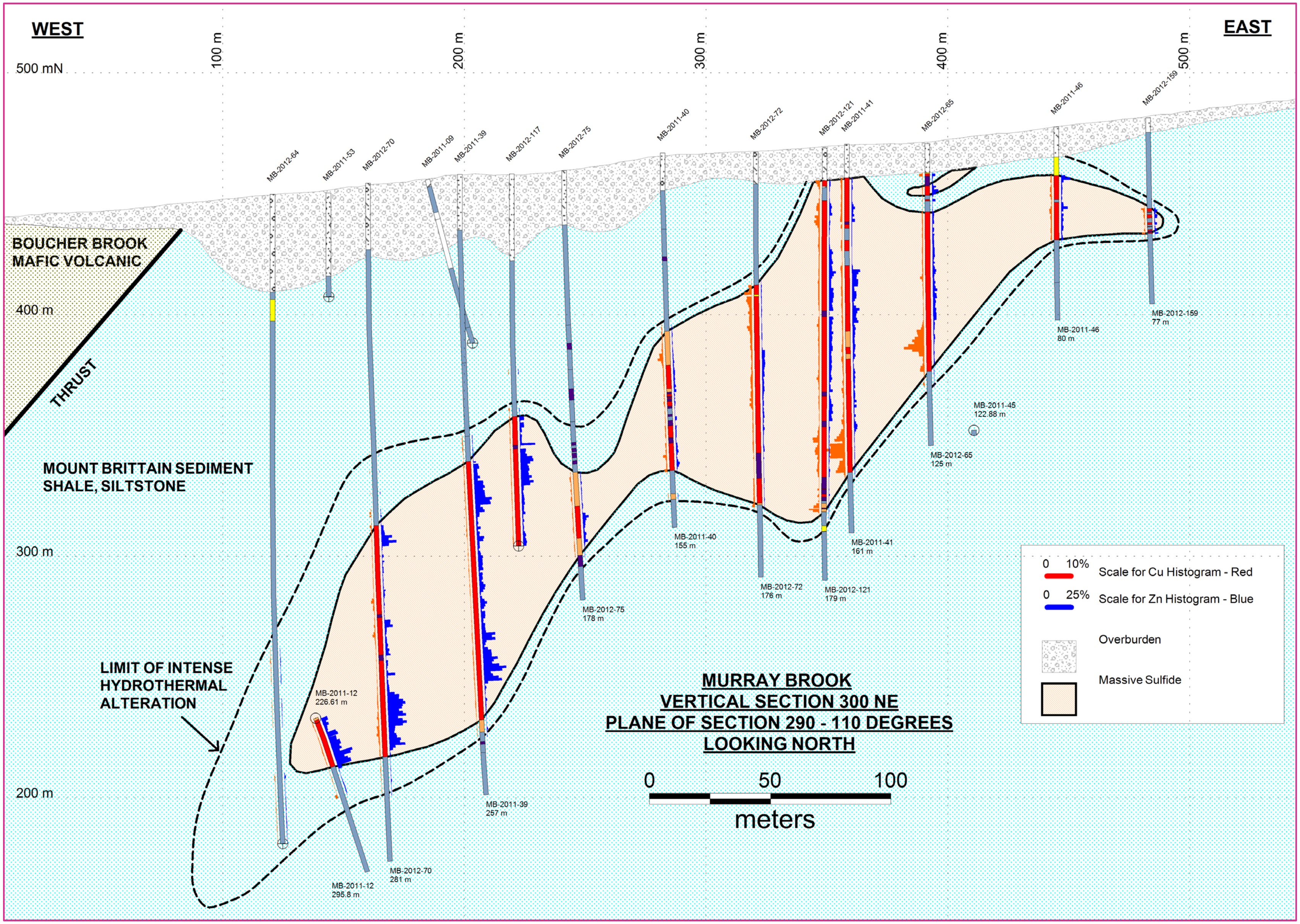
Source: *P&E (2017)*

FIGURE 10.3 ORIENTATION OF MURRAY BROOK VERTICAL CROSS-SECTION PROJECTIONS 300NE AND 050SE



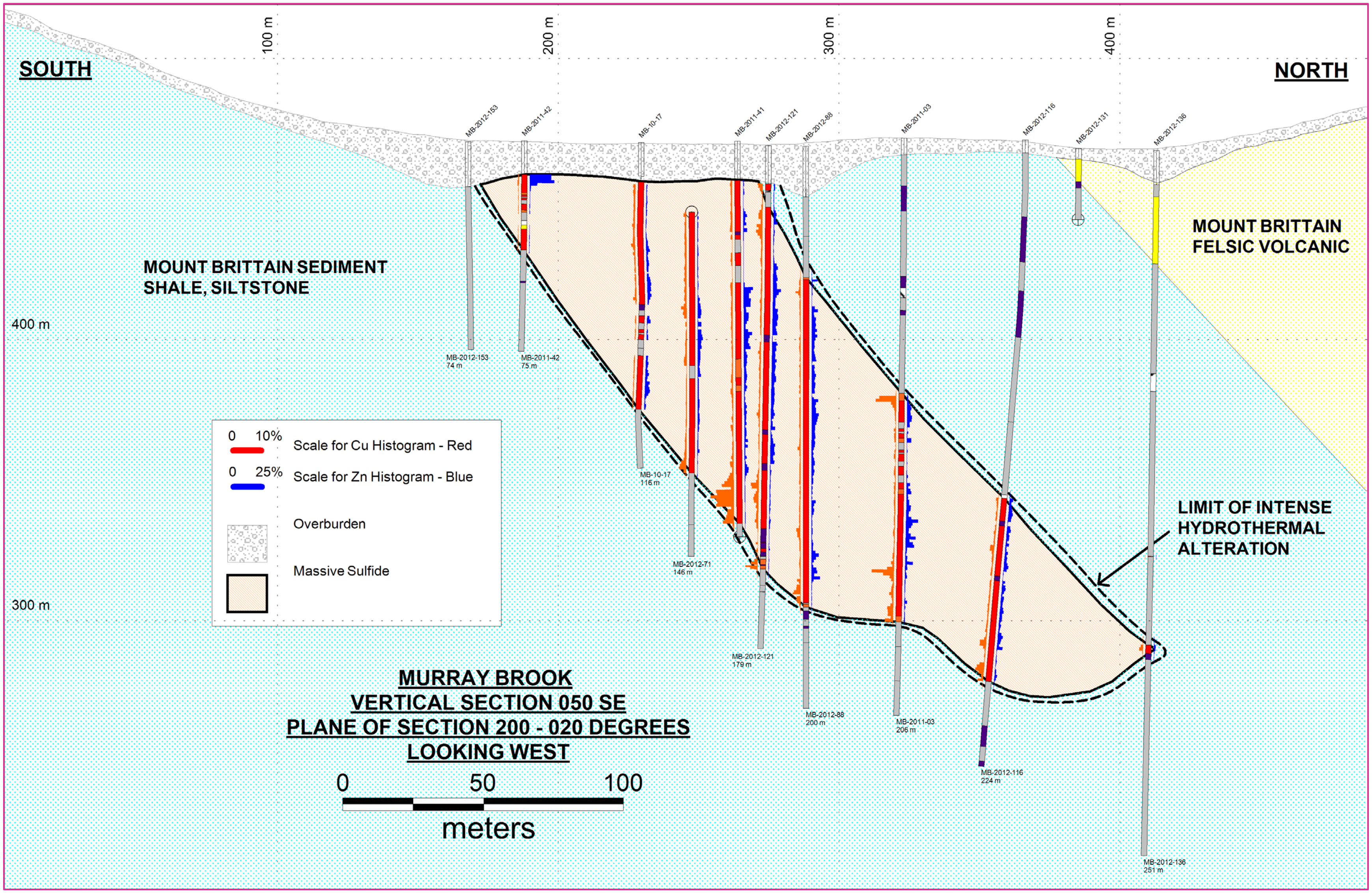
Source: *P&E (2017)*

FIGURE 10.4 TYPICAL VERTICAL CROSS-SECTION PROJECTION 300 NE, MURRAY BROOK PROPERTY



Source: *P&E (2017)*

FIGURE 10.5 TYPICAL VERTICAL CROSS-SECTION PROJECTION 050SE, MURRAY BROOK PROPERTY



Source: *Puma (2017)*

The objective of the 2012 Phase III diamond drilling was to upgrade the Inferred and Indicated Mineral Resources to Measured Mineral Resources, define additional near-surface Mineral Resources along the northwest margin of the Deposit. In addition, three HQ size diamond drill holes MB-2012-121, MB-2012-124 and MB-2012-132 were completed to yield an approximately three tonne sample for metallurgical testing.

The diamond drill specifications for the Phase III program are listed in Table 10.3, which commenced in February 2012 and ceased June 17, 2012. A total of 99 NQ size vertical holes, totalling 18,624 m were completed in this program, which was designed to infill gaps in the drill data and to better define the shape and size of the mineralized zone (ELN News Release August 14, 2012). Significant intercepts for the Phase III drilling are listed in Table 10.4.

TABLE 10.3
DIAMOND DRILL SPECIFICATIONS FOR PHASE III DRILL PROGRAM (1)(2)

Drill Hole ID	Easting (m)	Northing (m)	Elevation (masl)	Azimuth (°)	Inclination (°)	Length (m)
MB-2012-64	693,100.5	5,266,878	449.82	360	-90	275
MB-2012-65	693,355.0	5,266,785	470.78	360	-90	125
MB-2012-66	693,338.2	5,266,770	469.33	360	-90	104
MB-2012-67	693,323.5	5,266,753	470.01	360	-90	98
MB-2012-68	693,127.3	5,266,889	451.97	360	-90	275
MB-2012-69	693,316.3	5,266,734	469.12	360	-90	74
MB-2012-70	693,139.0	5,266,868	454.40	360	-90	281
MB-2012-71	693,299.6	5,266,784	468.80	360	-90	146
MB-2012-72	693,288.7	5,266,810	467.27	360	-90	176
MB-2012-73	693,224.2	5,266,812	462.77	360	-90	176
MB-2012-74	693,274.1	5,266,772	467.54	360	-90	125
MB-2012-75	693,213.9	5,266,837	459.59	360	-90	178
MB-2012-76	693,254.2	5,266,776	466.78	360	-90	125
MB-2012-77	693,187.2	5,266,887	455.01	360	-90	269
MB-2012-78	693,375.7	5,266,756	473.29	360	-90	77
MB-2012-79	693,145.7	5,266,945	443.49	360	-90	300
MB-2012-80	693,378.0	5,266,819	474.53	360	-90	161
MB-2012-81	693,399.5	5,266,790	476.30	360	-90	120
MB-2012-82	693,138.9	5,266,926	444.52	360	-90	302
MB-2012-83	693,401.9	5,266,810	476.32	360	-90	152
MB-2012-84	693,422.7	5,266,824	478.10	360	-90	152
MB-2012-85	693,113.7	5,266,916	444.47	360	-90	350
MB-2012-86	693,424.3	5,266,802	478.31	360	-90	137
MB-2012-87	693,437.3	5,266,776	479.84	360	-90	99
MB-2012-88	693313.1	5,266,823	468.78	360	-90	200
MB-2012-89	693,292.8	5,267,001	462.23	360	-90	308
MB-2012-90	693,154.6	5,266,899	448.85	360	-90	275
MB-2012-91	693,302.2	5,266,849	467.69	360	-90	215
MB-2012-92	693,175.8	5,266,943	446.92	360	-90	299

TABLE 10.3
DIAMOND DRILL SPECIFICATIONS FOR PHASE III DRILL PROGRAM (1)(2)

Drill Hole ID	Easting (m)	Northing (m)	Elevation (masl)	Azimuth (°)	Inclination (°)	Length (m)
MB-2012-93	693,270.7	5,266,842	465.70	360	-90	188
MB-2012-94	693,289.5	5,266,873	463.79	360	-90	230
MB-2012-95	693,233.8	5,266,850	460.27	360	-90	200
MB-2012-96	693,316.4	5,266,948	465.51	360	-90	259
MB-2012-97	693,320.0	5,266,884	468.45	360	-90	242
MB-2012-98	693,226.2	5,266,870	457.84	360	-90	203
MB-2012-99	693,299.8	5,266,962	463.99	360	-90	269
MB-2012-100	693,250.8	5,266,886	459.09	360	-90	192
MB-2012-101	693,351.0	5,266,871	471.61	360	-90	202
MB-2012-102	693,164.6	5,266,768	474.18	360	-90	242
MB-2012-103	693,391.7	5,266,860	475.13	360	-90	191
MB-2012-104	693,288.8	5,266,938	464.29	0	-90	287
MB-2012-106	693,365.5	5,266,842	473.92	360	-90	200
MB-2012-107	693,214.4	5266,784	473.14	360	-90	179
MB-2012-108	693,251.6	5,266,952	458.64	360	-90	302
MB-2012-109	693,277.8	5,266,899	462.61	360	-90	233
MB-2012-110	693,154.3	5,266,834	461.57	360	-90	275
MB-2012-111	693,264.9	5,266,926	461.34	360	-90	251
MB-2012-112	693,328.4	5,266,922	466.24	360	-90	251
MB-2012-113	693,219.4	5,266,742	468.49	360	-90	152
MB-2012-114	693,200.2	5,266,748	469.99	360	-90	206
MB-2012-115	693,201.7	5,266,631	473.95	360	-90	107
MB-2012-116	693,340.8	5,266,896	470.95	360	-90	224
MB-2012-117	693,190.3	5,266,835	458.23	360	-90	245
MB-2012-118	693,231.5	5,266,681	468.93	360	-90	123
MB-2012-119	693,239.9	5,266,911	454.80	360	-90	260
MB-2012-120	693,235.4	5,266,636	469.17	360	-90	74
MB-2012-121	693,317.8	5,266,807	468.98	360	-90	179
MB-2012-122	693,217.8	5,266,619	473.36	360	-90	101
MB-2012-123	693,194.8	5,266,612	477.09	360	-90	86
MB-2012-124	693,175.6	5,266,721	467.39	360	-90	188
MB-2012-125	693,165.8	5,266,621	477.04	360	-90	101
MB-2012-126	693,184.9	5,266,698	468.49	360	-90	176
MB-2012-127	693,145.6	5,266,627	478.64	360	-90	92
MB-2012-128	693,119.9	5,266,638	482.33	360	-90	101
MB-2012-129	693,144.6	5,266,671	473.28	360	-90	152
MB-2012-130	693,117.0	5,266,659	481.79	360	-90	125
MB-2012-131	693,362.1	5,266,909	467.89	360	-90	227
MB-2012-132	693,178.9	5,266,818	466.11	360	-90	227
MB-2012-133	693,103.0	5,266,858	452.17	360	-90	251
MB-2012-134	693,373.9	5,266,886	471.52	360	-90	224

TABLE 10.3 **DIAMOND DRILL SPECIFICATIONS FOR PHASE III DRILL PROGRAM (1)(2)**						
Drill Hole ID	**Easting (m)**	**Northing (m)**	**Elevation (masl)**	**Azimuth (°)**	**Inclination (°)**	**Length (m)**
MB-2012-135	693,093.5	5,266,799	472.15	360	-90	258
MB-2012-136	693,358.5	5,266,939	467.31	360	-90	251
MB-2012-137	693,107.9	5,266,745	484.63	360	-90	224
MB-2012-138	693,129.9	5,266,847	455.72	360	-90	269
MB-2012-139	693,110.1	5,266,726	486.42	360	-90	200
MB-2012-140	693,114.9	5,266,707	483.92	360	-90	185
MB-2012-141	693,104.7	5,266,842	458.367	360	-90	245
MB-2012-142	693,103.8	5,266,694	485.23	360	-90	152
MB-2012-143	693,082.6	5,266,825	460.87	360	-90	224
MB-2012-144	693,412.6	5,266,871	475.41	360	-90	200
MB-2012-145	693,398.7	5,266,896	472.16	360	-90	200
MB-2012-146	693,086.2	5,266,738	488.97	360	-90	176
MB-2012-147	693,385.8	5,266,920	470.42	360	-90	200
MB-2012-148	693,091.9	5,266,768	479.47	360	-90	230
MB-2012-149	693,415.1	5,266,843	477.21	360	-90	167
MB-2012-150	693,141.8	5,266,609	483.86	360	-90	74
MB-2012-151	693,279.7	5,266,982	460.75	360	-90	290
MB-2012-152	693,247.1	5,266,655	468.81	360	-90	74
MB-2012-153	693,286.0	5,266,705	470.14	360	-90	74
MB-2012-154	693,233.8	5,266,618	472.96	360	-90	75
MB-2012-155	693,216.6	5,266,598	474.17	360	-90	74
MB-2012-156	693,194.2	5,266,589	477.11	360	-90	74
MB-2012-157	693,115.3	5,266,624	483.82	360	-90	74
MB-2012-158	693,106.2	5,266,652	484.12	360	-90	101
MB-2012-159	693,441.7	5,266,757	481.44	360	-90	77
MB-2012-160	693,355.6	5,266,721	477.45	360	-90	74
MB-2012-161	693,171.1	5,266,922	449.35	360	-90	302
MB-2012-162	693,311.0	5,266,975	463.92	360	-90	287

(1) Coordinates are in UTM NAD83 Zone 19;
(2) Drill hole MB-2012-105 was abandoned.

TABLE 10.4 **SIGNIFICANT PHASE III DRILL INTERCEPTS (2012)**								
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Au (g/t)**	**Ag (g/t)**
MB-2012-65	17.5	23.9	6.4	0.09	0.89	2.75	0.56	31.4
and	43.0	47.0	4.0	0.29	1.10	2.05	1.01	47.4
and	51.0	54.0	3.0	0.28	1.75	2.92	1.10	62.7
and	57.0	73.0	16.0	0.11	1.09	2.79	0.50	41.8

TABLE 10.4
SIGNIFICANT PHASE III DRILL INTERCEPTS (2012)

Drill Hole ID	From (m)	To (m)	Width (m)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)
MB-2012-66	32.0	48.5	16.5	0.37	1.50	3.03	1.41	65.2
and	51.0	56.0	11.0	0.17	1.69	3.40	1.22	65.4
MB-2012-67	15.0	41.0	26.0	0.32	1.41	3.35	1.07	62.0
and	77.65	83.0	5.35	0.11	1.26	2.92	0.60	61.8
MB-2012-68	207.22	216.0	8.78	0.06	2.24	7.29	0.16	62.5
and	220.0	236.0	16.0	0.10	2.34	6.83	0.64	85.3
MB-2012-69	17.0	19.15	2.15	0.31	1.03	2.13	1.63	53.5
MB-2012-70	141.75	150.40	8.65	0.16	3.67	6.43	0.60	85.5
and	181.0	184.0	3.0	0.22	2.82	6.60	0.31	69.4
and	191.0	195.75	4.75	0.05	0.86	3.08	0.22	24.2
and	201.0	211.0	10.0	0.09	1.59	4.07	0.61	54.7
and	211.0	235.0	24.0	0.49	4.55	11.58	1.53	147.8
MB-2012-71	56.00	61.25	5.25	1.18	1.29	2.59	0.79	50.3
and	65.3	76.0	10.7	0.41	1.57	2.80	0.97	56.1
MB-2012-72	82.0	93.0	11.0	0.43	1.24	2.59	0.92	51.2
MB-2012-74	55.0	62.0	7.0	0.96	1.42	2.52	0.82	58.0
MB-2012-75	142.0	154.0	12.0	0.17	0.93	2.58	0.64	36.0
MB-2012-76	32.1	80.80	48.7	0.49	0.63	1.53	0.49	22.1
MB-2012-77	166.0	226.0	60.0	0.25	1.61	4.43	1.24	69.8
MB-2012-78	12.0	28.0	16.0	0.44	0.83	1.89	1.27	38.1
MB-2012-80	70.40	76.2	5.8	0.42	1.16	2.75	1.13	60.5
and	90.6	120.35	29.75	0.32	0.98	2.02	1.14	47.3
MB 2012-81	38.6	42.3	3.7	0.27	1.90	4029	1.06	71.5
and	48.35	85.10	36.75	0.50	1.16	2.90	0.71	56.6
MB-2012-82	249.15	265.0	15.85	0.13	1.96	5.02	0.82	99.9
MB-2012-83	67.65	76.0	8.35	0.46	1.11	2.46	1.09	53.2
and	90.95	93.6	2.65	0.37	1.14	2.48	1.60	49.4
and	97.70	116.45	18.75	0.41	0.82	2.01	0.87	42.1
MB-2012-84	100.45	103.3	2.85	0.66	1.35	2.85	1.35	56.9
MB-2012-86	82.0	105.2	23.2	0.28	1.15	2.46	1.19	51.0
MB-2012-87	64.4	67.25	2.85	0.27	1.42	3.41	0.49	90.1
MB-2012-88	47.5	162.45	114.95	0.39	0.96	2.06	0.74	38.2
MB-2012-89	227.95	229.90	1.95	0.90	0.94	1.91	1.15	45.8
MB-2012-90	151.16	198.28	47.12	0.12	2.97	7.94	0.68	114.6
and	205.64	240.0	34.36	0.34	3.41	7.02	2.0	1.07
MB-2012-91	73.65	184.65	111.0	0.68	0.73	1.53	0.72	35.71
MB-2012-92	208.06	210.60	2.54	0.10	1.16	2.86	0.51	39.29
MB-2012-93	86.6	141.05	54.45	0.96	0.47	0.84	0.48	20.44

Table 10.4 **Significant Phase III Drill Intercepts (2012)**								
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Au (g/t)**	**Ag (g/t)**
MB-2012-94	118.0	196.1	78.1	0.52	0.86	1.66	1.04	36.64
MB-2012-95	153.45	156.4	2.95	0.09	0.65	2.27	0.34	19.45
MB-2012-96	189.9	228.3	38.4	0.52	1.03	2.12	1.14	48.82
MB-2012-97	126.0	201.0	75.0	0.46	1.13	2.66	1.05	56.84
MB-2012-98	167.0	174.05	7.05	0.29	1.55	4.66	1.45	57.38
MB-2012-99	195.9	240.5	44.6	0.93	0.90	1.92	1.73	44.95
MB-2012-101	118.0	171.72	53.72	0.49	1.07	2.36	0.95	50.36
MB-2012-102	68.0	118.2	50.2	0.83	1.05	4.15	0.32	42.5
incl	83.0	104.0	21.0	1.07	1.56	6.12	0.27	60.8
and	122.5	174.00	51.5	0.09	0.89	3.39	0.20	34.7
MB-2012-103	133.1	150.3	17.2	0.79	1.06	2.24	1.38	47.8
and	159.0	162.25	3.25	0.32	1.25	2.11	1.31	30.20
MB-2012-104	165.0	182.0	17.0	1.37	0.65	1.32	0.58	33.7
and	183.0	241.0	58.0	0.44	1.06	1.89	1.38	49.3
and	246.51	254.57	8.06	2.52	0.10	0.18	0.38	17.3
MB-2012-106	93.95	104.45	10.5	0.33	1.57	3.86	1.30	74.2
and	129.0	149.5	20.5	0.32	1.23	2.99	1.11	54.5
MB-2012-107	54.80	112.0	57.2	0.15	1.82	5.89	0.32	79.9
Incl	62.0	93.0	31.0	0.18	2.58	9.23	0.34	108.7
MB-2012-109	128.0	202.95	74.95	1.29	0.27	0.67	0.67	22.3
MB-2012-110	108.0	233.0	125.0	0.26	1.27	4.56	0.60	47.1
incl	108.0	145.0	37.0	0.14	1.64	7.92	0.24	61.88
MB-2012-111	145.30	162.5	17.2	0.91	0.13	0.38	0.25	16.1
MB-2012-112	167.2	220.15	52.95	0.49	0.87	1.96	0.85	45.7
MB-2012-113	53.0	94.25	41.25	0.61	0.26	1.24	0.36	16.4
MB-2012-114	56.0	135.5	79.5	0.53	0.98	3.45	0.32	46.5
incl	98.0	126.0	28.0	0.18	2.48	7.59	0.56	102.2
and	153.6	169.0	15.5	0.10	1.63	4.12	0.53	51.9
incl	153.6	163.0	9.4	0.12	2.30	5.41	0.75	71.0
MB-2012-115	23.0	75.0	52.0	0.59	0.24	1.55	0.21	22.4
MB-2012-116	127.0	193.6	66.6	0.35	0.81	1.63	0.91	42.8
MB-2012-117	100.4	185.0	84.6	0.15	1.82	4.62	0.52	69.8
incl	170.0	183.0	13.0	0.29	4.11	10.34	1.39	126.0
MB-2012-118	40.0	59.0	19.0	4.10	0.03	0.12	0.12	12.0
MB-2012-120	14.0	29.0	15.0	3.40	0.08	0.51	0.12	18.5
MB-2012-121	24.0	113.1	89.1	0.43	1.12	2.42	1.14	55.5
incl	42.0	58.0	16.0	0.33	1.19	3.13	2.21	66.0
MB-2012-122	17.0	29.3	12.3	2.60	0.24	1.81	0.12	24.9

TABLE 10.4
SIGNIFICANT PHASE III DRILL INTERCEPTS (2012)

Drill Hole ID	From (m)	To (m)	Width (m)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)
incl	14.4	22.0	7.6	4.79	0.10	0.62	0.20	35.6
and	34.7	50.4	15.7	1.92	0.06	0.18	0.02	9.4
MB-2012-123	18.0	54.9	36.9	0.80	0.13	1.22	0.21	19.8
MB-2012-124	29.0	110.0	81.0	0.23	1.35	4.27	0.24	54.0
Incl	29.0	38.0	10.0	0.80	2.55	7.39	0.28	114.8
Incl	56.0	67.0	11.0	0.03	2.00	5.33	0.13	61.6
incl	84.9	92.0	7.1	0.07	1.10	5.41	0.28	46.6
and	128.0	137.0	9.0	0.18	1.08	4.22	0.33	56.7
MB-2012-125	22.0	60.3	38.3	0.54	0.03	0.10	0.17	10.4
MB-2012-126	22.5	94.0	71.5	0.55	0.89	3.65	0.38	38.5
Incl	22.5	34.0	11.5	2.41	2.13	7.10	0.44	87.6
incl	39.0	74.0	35.0	0.18	0.75	3.60	0.49	32.2
MB-2012-127	26.0	62.3	36.3	0.62	0.36	1.18	0.85	21.5
MB-2012-128	27.0	49.4	22.4	1.05	0.30	0.82	0.13	20.3
MB-2012-129	71.0	77.0	6.0	0.78	0.80	2.67	0.59	28.9
MB-2012-130	46.0	50.6	4.6	1.12	0.06	0.34	0.08	8.7
and	52.7	67.7	15.0	1.19	0.14	0.56	0.20	18.1
MB-2012-131	152.0	173.0	21.0	0.73	83.0	1.64	1.12	33.6
MB-2012-132	89.0	201.0	112.0	0.10	1.92	6.15	0.64	70.6
incl	167.0	200.0	33.0	0.10	3.60	10.50	1.37	126.7
MB-2012-133	183.0	210.2	27.2	0.93	0.03	0.08	0.07	8.9
incl	191.0	210.2	19.2	1.10	0.02	0.10	0.10	7.8
MB-2012-134	139.0	157.4	18.4	0.41	1.54	3.21	1.16	61.9
MB-2012-135	144.8	147.0	2.2	0.42	0.14	0.54	0.03	7.5
MB-2012-136	nsv							
MB-2012-137	nsv							
MB-2012-138	197.6	225.0	45.4	0.18	4.58	8.49	0.59	152.2
incl	214.0	225.0	11.0	0.2	9.6	13.7	1.10	269.7
MB 2012-139	88.0	114.0	26.0	0.47	0.36	2.06	0.28	21.4
MB 2012-140	64.6	91.6	27.0	0.60	0.64	2.73	0.75	36.7
incl	67.0	77.0	10.0	0.10	1.10	4.90	0.18	50.5
MB-2012-141	178.3	180.7	2.4	0.15	1.93	6.27	0.47	99.3
MB-2012-142	53.0	56.9	3.9	0.16	3.69	8.89	0.58	86.4
MB-2012-143	nsv							
MB-2012-144	147.4	159.0	11.6	0.65	1.78	2.82	1.57	63.9
MB-2012-145	nsv							
MB-2012-146	nsv							
MB-2012-147	nsv							

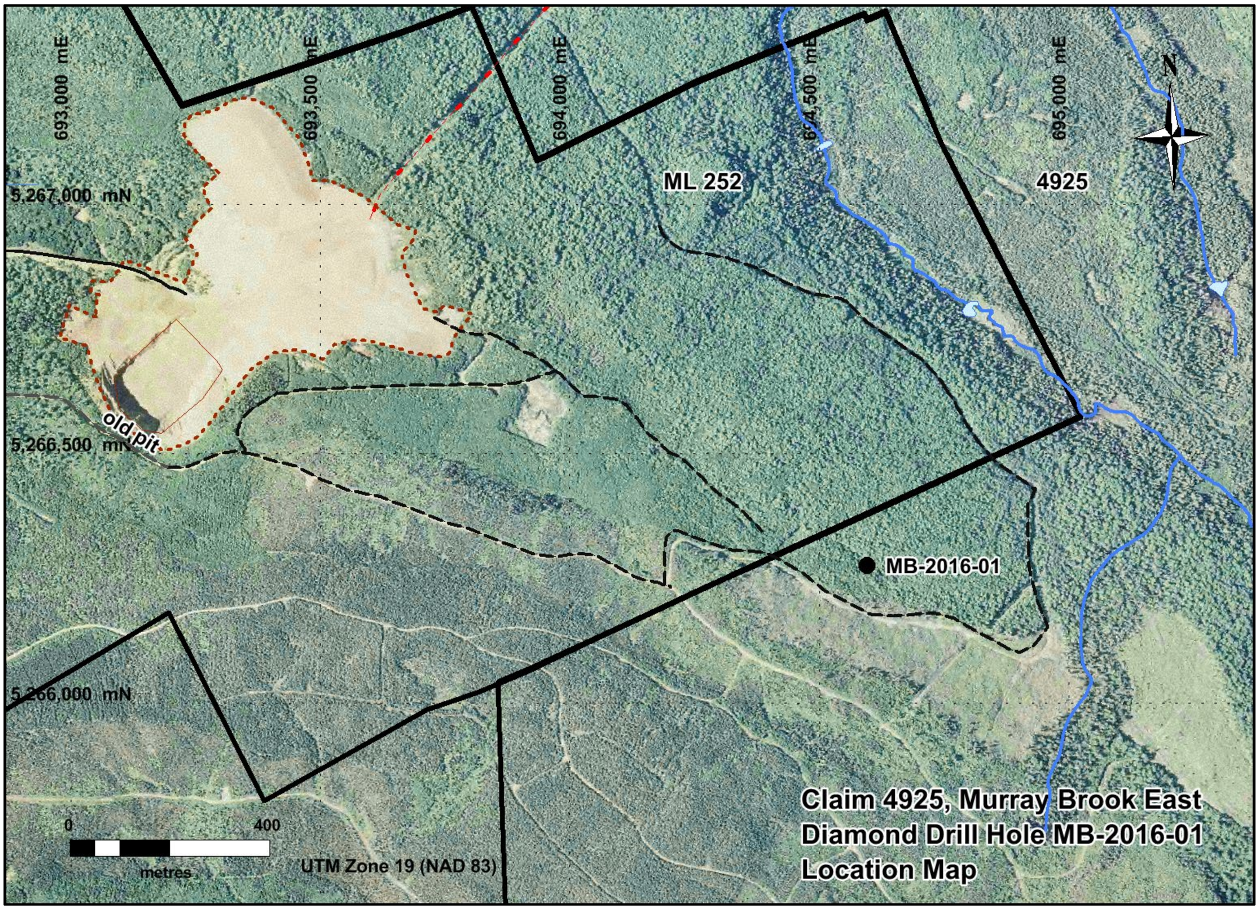
TABLE 10.4 SIGNIFICANT PHASE III DRILL INTERCEPTS (2012)								
Drill Hole ID	**From (m)**	**To (m)**	**Width (m)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Au (g/t)**	**Ag (g/t)**
MB-2012-148	nsv							
MB-2012-149	123.3	133.6	10.3	0.51	1.18	2. 30	1.55	45.9
MB-2012-150	26.0	30.15	4.15	4.18	0.21	0.40	0.42	24.3
MB-2012-151	200.8	225.1	24.3	1.4	0.38	1.13	0.61	27.4
and	244.8	248.6	3.8	4.65	0.19	0.41	0.72	30.3
MB-2012-152	21.25	22.75	1.5	0.09	0.67	3.38	0.04	9.00
MB-2012-153	nsv							
MB-2012-154	nsv							
MB-2012-155	14.7	30.05	15.35	1.91	0.05	0.18	0.04	8.3
MB-2012-156	20.25	30.0	9.75	5.26	0.03	0.07	0.18	9.9
MB-2012-157	18.0	27.7	9.7	3.94	0.38	1.82	0.44	45.8
MB-2012-158	24.8	53.0	28.2	1.27	0.22	0.82	0.17	22.7
MB-2012-159	37.45	48.0	10.55	0.36	0.67	1.52	0.75	26.8
MB-2012-160	nsv							
MB-2012-162	219.1	238.15	19.05	1.94	1.04	1.48	2.16	47.0

10.3 2016 EXPLORATION DRILLING - VMC

During June of 2016 a diamond drilling program consisting of a single drill hole was completed on Claim Block 4925 immediately east of Mining Lease 252. The drilling was carried out by Maritime Diamond Drilling based in Truro, NS and supervised by geological consultant Garth Graves. GeoXplore Surveys Inc. of Bathurst, New Brunswick completed site preparation and cleared some access roads into the site. A handheld GPS with an implied accuracy of ±4 m was used to determine the field location for the drill hole. A water source for the drilling operation was located 100 m east of the drill hole location.

Diamond drill hole MB-2016-01 is located in an area of strong relief approximately 1,500 m east of the Murray Brook Mine open pit (Figure 10.6). The drill hole is located at UTM coordinates 694,596 m E and 5,266,276 m N (NAD 83 Zone 19N) at 477.9 masl. The drill hole was completed at azimuth 220° and dip of -50° to a final depth of 572 m. A downhole survey took readings for azimuth, dip and magnetic susceptibility every 50 m. The drill hole cut basalt and associated sedimentary rocks of the Boucher Brook Formation from the top of the hole to a depth of 361 m. A fault zone at 30 m to 34 m downhole is probably part of the southeast trending thrust faults mapped in this area. A vertical cross-section is presented in Figure 10.7.

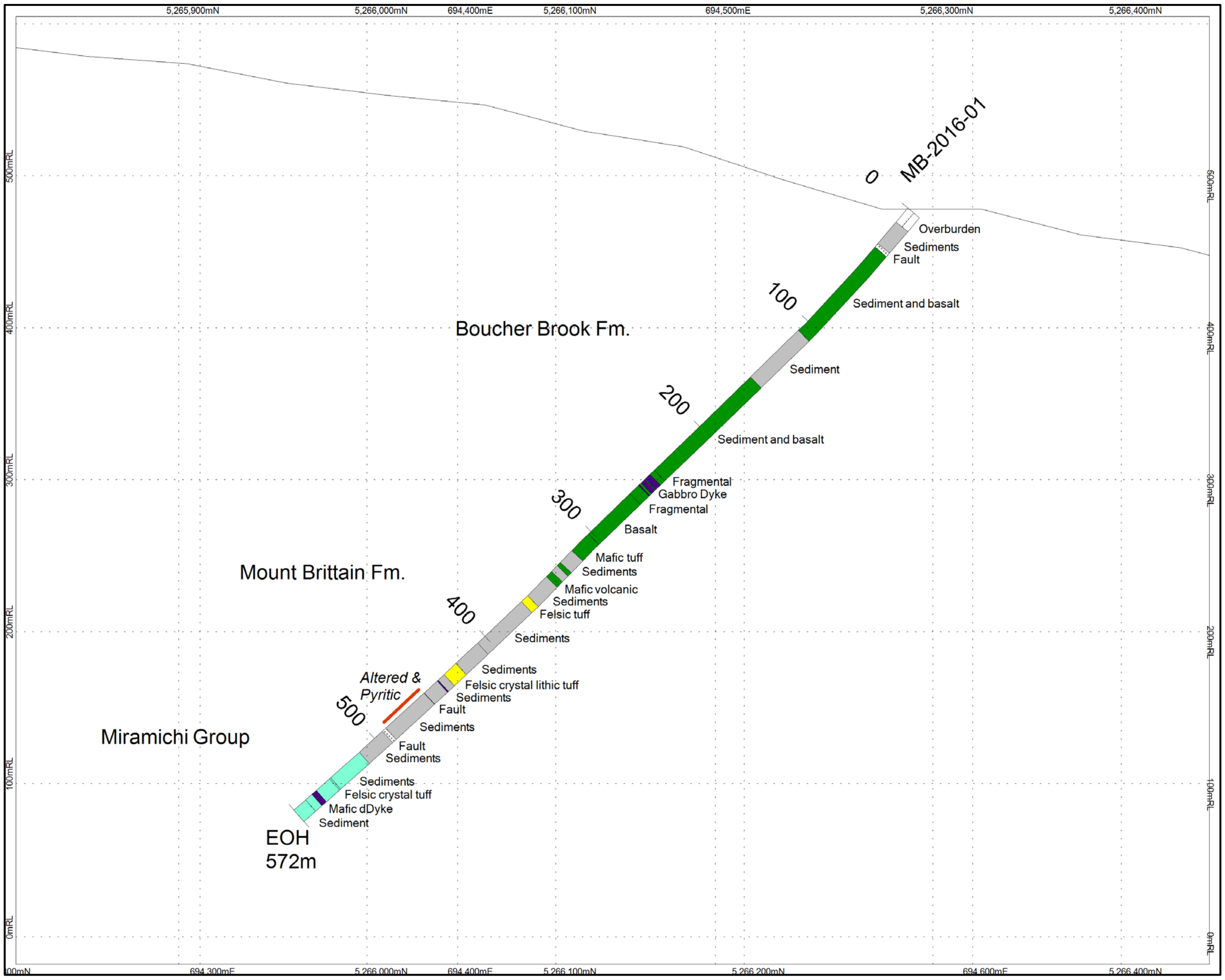
FIGURE 10.6 DRILL HOLE LOCATION FOR MB-2016-01



Source: *VMC (2016)*

A total of 15 drill core samples collected from the hydrothermal alteration zone cut in drill hole MB-2016-01 and were sent for analysis. The samples were at 1 m intervals from the alteration zone and were sawed and stored in plastic sample bags. The samples were sent in two 5-gallon plastic buckets by Day and Ross courier to TSL Laboratories in Saskatoon, Saskatchewan for analysis. A hydrothermally altered zone with pyrite and trace base metals was intersected in drill hole MB-2016-01 and is hosted by Charlotte Brook Member sedimentary rocks of the Mount Brittain Formation. This alteration zone is the stratigraphic equivalent of the Murray Brook Deposit. The 2016 drilling did not intersect significant mineralization. Assay results for selected elements are presented in Table 10.5.

FIGURE 10.7 DRILL HOLE VERTICAL CROSS-SECTION FOR MB-2016-01



Source: *VMC (2016)*

TABLE 10.5
ASSAY RESULTS FOR DRILL HOLE MB-2016-01

Sample ID	From (m)	To (m)	Ag (ppm)	As (ppm)	Ba (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
577245	468.9	470	0.5	28	70	61.2	4.35	421	1.3	244.2	308
577246	470	471	<0.1	21	578	26.1	5.28	1023	2.3	18.4	96
577247	472	473	0.1	23	452	35.1	4.43	1027	1.4	93.5	95
577248	473	474	0.1	19	206	26.2	4.48	867	1.3	135.8	178
577249	479	480	0.1	39	109	20.9	4.32	546	1.5	67.5	75
577250	480	481	<0.1	14	746	28.1	4.92	938	0.9	20.0	102
577251	481	482	<0.1	15	243	14.8	3.38	460	0.9	36.1	101
577252	482	483	0.1	16	65	13.2	3.02	396	0.9	222.0	342
577253	483	484	<0.1	20	227	11.9	2.61	468	1.1	43.6	83

TABLE 10.5 ASSAY RESULTS FOR DRILL HOLE MB-2016-01											
Sample ID	**From (m)**	**To (m)**	**Ag (ppm)**	**As (ppm)**	**Ba (ppm)**	**Cu (ppm)**	**Fe (%)**	**Mn (ppm)**	**Mo (ppm)**	**Pb (ppm)**	**Zn (ppm)**
577254	484	485	<0.1	9	713	12.4	2.45	381	0.9	33.5	79
577255	485	486	<0.1	6	671	20.9	2.33	404	1.1	204.0	403
577256	486	487	<0.1	25	111	16.4	3.78	722	1.5	90.7	134
577257	487	488	<0.1	24	38	33.7	7.50	682	1.8	221.7	247
577258	488	489	<0.1	42	35	21.6	7.03	820	1.5	79.1	132
577259	489	490	0.3	46	54	42.3	7.01	443	1.9	245.1	339

10.4 2017 DRILLING - PUMA

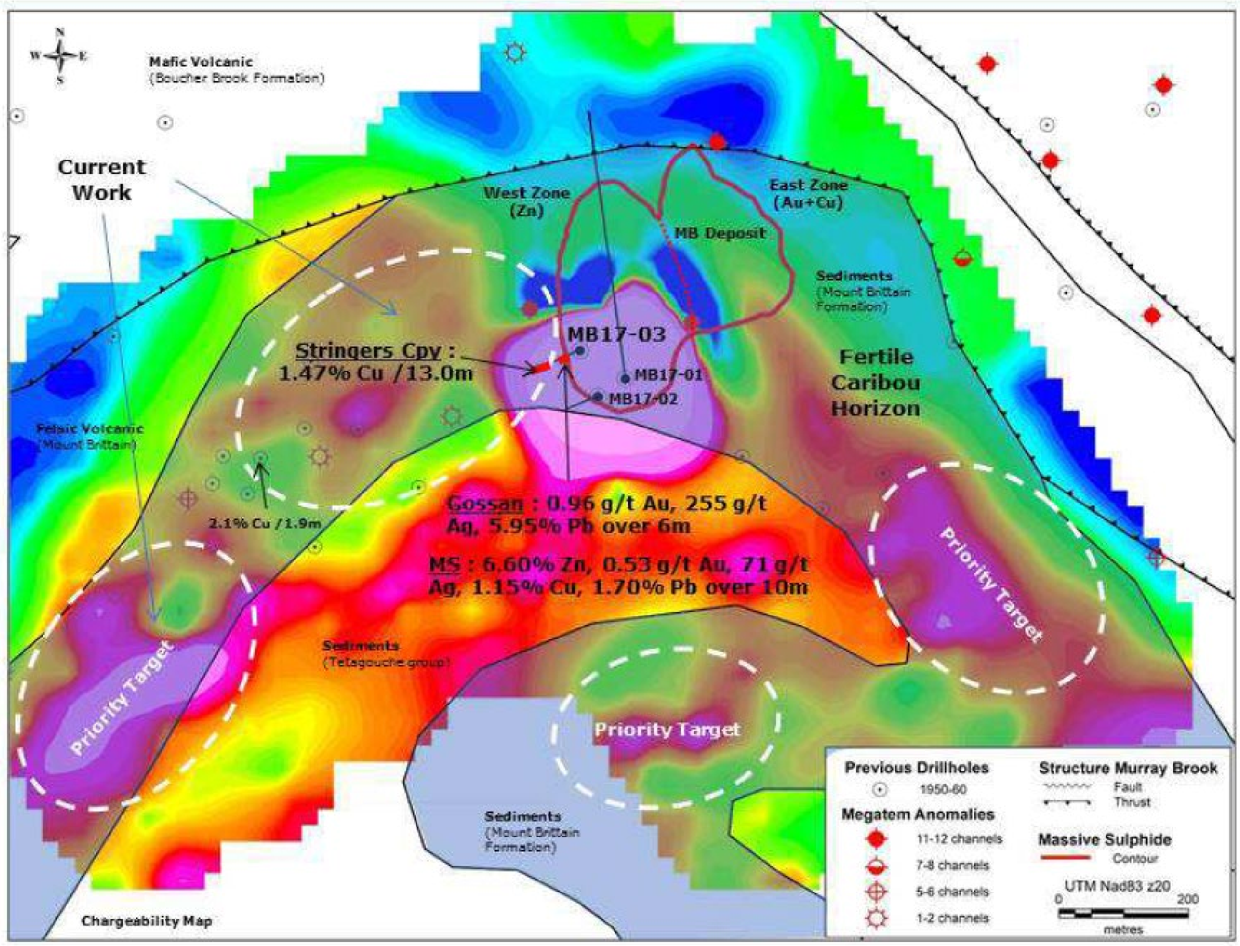
In 2017, Puma completed three diamond drill holes at Murray Brook totalling 1,025 m. Drill hole locations and results are shown in Figures 10.8 and 10.9 and Table 10.6. Selected assay results are listed in Table 10.7.

The 2017 drill holes included one deep hole (MB17-01) and two shallow drill holes (MB17-02 and MB17-03). Drill hole MB17-01 was designed to verify the extensions, at depth, of the Murray Brook Deposit. That drill hole successfully intersected 405 m of massive sulphide mineralization grading 3.3% Zn, 1.1% Pb, 0.95 g/t Au, 42 g/t Ag, and 0.30% Cu.

The two shallow drill holes, MB17-02 and MB17-03, followed to confirm the continuity of the fertile Caribou Horizon near the Murray Brook Deposit. Drill hole MB17-02 was collared in the south part of the West Zone (Zinc) and drilled at -45° declination for a total length of 72 m (Figure 10.8). A major fault 8 m wide was intercepted and consisted mainly of quartz veins. The sedimentary rocks in this drill hole were less altered, with a few interbedded intervals of felsic volcanic rocks. The best mineralized intersection was 2.7 m grading 0.42 g/t Au, 0.96% Pb+Zn in the altered footwall sedimentary rocks. However, drill hole MB17-02 confirmed previous exploration results and directs future exploration programs to the more favourable Caribou Horizon located directly west of that drill hole.

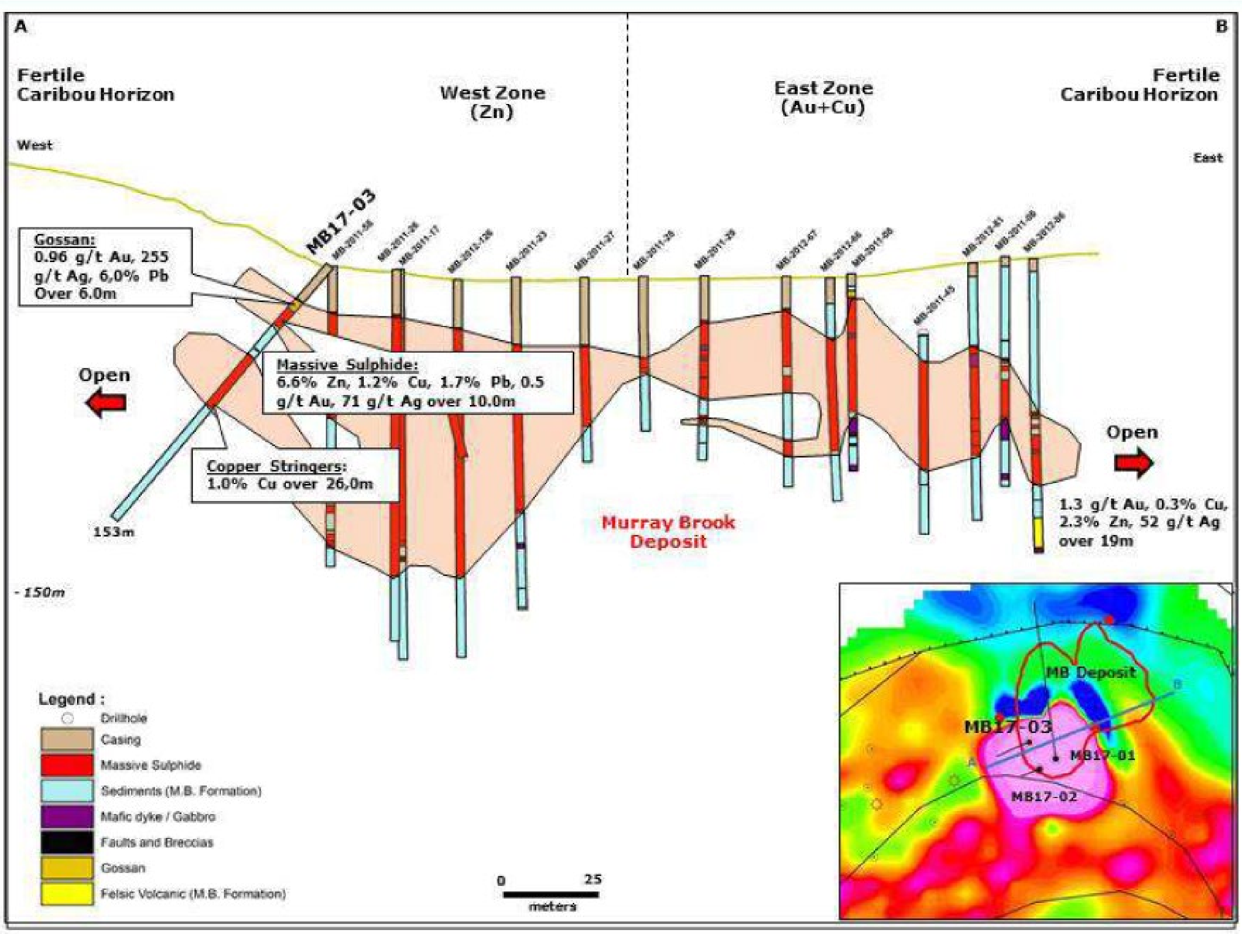
Drill hole MB17-03 completed at a -50 declination to a total depth of 153 metres, was collared at the western boundary of the West Zone (Zinc) of the Murray Brook Deposit (Figure 10.8). A new zone of copper stringers was intersected near surface that graded 1.02% Cu over 26 m, including a higher-grade intersection of 1.47% Cu over 13 m (Figure 10.9). This new zone opens the western side of the Murray Brook Deposit along the favorable and fertile Caribou Horizon, which shows over a length of 1 km high priority targets (refer to Figure 10.8). Results from drill hole MB17-02 allowed to outline structural constraints and to orient future exploration work.

FIGURE 10.8 2017 DRILLING PLAN VIEW



Source: *Puma press release dated November 9, 2017*

FIGURE 10.9 2017 CROSS-SECTIONAL PROJECTION OF DRILL HOLE MB2017-03



Source: *Puma press release dated November 9, 2017.*

TABLE 10.6 2017 DRILL HOLE COLLAR INFORMATION						
Drill Hole ID	**Easting (m)**	**Northing (m)**	**Elevation (masl)**	**Length (m)**	**Azimuth (deg)**	**Dip (deg)**
MB17-01	693,193	5,266,628	475	800.00	354.0	-45.0
MB17-02	693,142	5,266,608	484	72.00	245.0	-45.0
MB17-03	693,129	5,266,682	475	153.00	245.0	-50.0
Total				**1,025.00**		

TABLE 10.7 SIGNIFICANT INTERCEPTS IN 2017 DRILLING									
Drill Hole ID	**From (m)**	**To (m)**	**Length (m)**	**Au (g/t)**	**Ag (g/t)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Comment**
MB17-01	27	432	405	0.95	41	0.34	1.14	3.30	continuous massive sulphide
incl.	27	39	12	0.31	28	2.15	1.02	4.54	extends Cu+Zn zone by 50 m
incl.	65	77	12	0.20	97	0.38	3.10	5.57	fills 73 m gap between 2 holes
incl.	134	160	26	0.34	36	0.08	1.05	5.14	fills 70 m gap between two holes
incl.	174	180	6	0.03	50	0.02	2.09	5.12	
incl.	253	306	53	1.05	77	0.06	2.83	5.83	
incl.	341	400	59	2.62	72	0.68	1.52	5.26	below Mineral Resources
MB17-02*	23.3	26	2.7	0.42	8	0.16	0.28	0.68	disseminated
MB17-03*	21	27	6	0.96	255	-	5.95	-	gossan
and	27	37	10	0.53	71	1.15	1.70	6.60	massive sulphides
and	56	82	26	0.05	12	1.02	0.15	0.52	stockwork
incl.	56	69	13	0.05	15	1.47	0.2	0.62	stockwork

** True thickness estimated to be approximately 70 to 90% of the reported intervals.*

10.5 2018 DRILLING - PUMA

The year 2018 saw exploration and metallurgical drilling at the Murray Brook Deposit and exploration drilling on Murray Brook east claim 4925. In total, 16 drill holes were completed totalling 5,392 m (Table 10.8).

TABLE 10.8 2018 DRILL HOLE COLLAR INFORMATION						
Drill Hole ID	**Easting (m)**	**Northing (m)**	**Elevation (masl)**	**Length (m)**	**Azimuth (deg)**	**Dip (deg)**
MB18-01	693,363	5,266,826	474	125.00	185.0	-65.0
MB18-02	693,192	5,266,696	473	264.00	350.0	-65.0
MB18-03	693,192	5,266,696	473	125.00	180.0	-75.0
MB18-04	693,197	5,266,798	469	275.00	60.0	-50.0
MB18-05	693,190	5,266,852	453	374.00	240.0	-75.0
MB18-06	693,197	5,266,798	469	47.00	250.0	-72.0
MB18-06A	693,220	5,266,806	463	242.00	250.0	-63.0
MB18-07	693,190	5,266,852	453	278.00	330.0	-80.0
MB18-08	693,189	5,266,761	473	200.00	350.0	-45.0
MB18-09	693,177	5,266,762	474	341.00	170.0	-45.0

Table 10.8 2018 Drill Hole Collar Information						
Drill Hole ID	**Easting (m)**	**Northing (m)**	**Elevation (masl)**	**Length (m)**	**Azimuth (deg)**	**Dip (deg)**
MB18-10	693,165	5,266,770	474	551.00	250.0	-45.0
MB18-11	693,165	5,266,770	474	296.00	70.0	-45.0
MB18-12	693,315	5,266,723	475	831.00	354.0	-45.0
MB18-13	693,413	5,266,740	479	329.00	170.0	-45.0
MBE18-01	698,955	5,269,804	500	554.00	95.0	-60.0
MBE18-02	698,327	5,269,265	450	560.00	125.0	-48.0
Total				**5,392.00**		

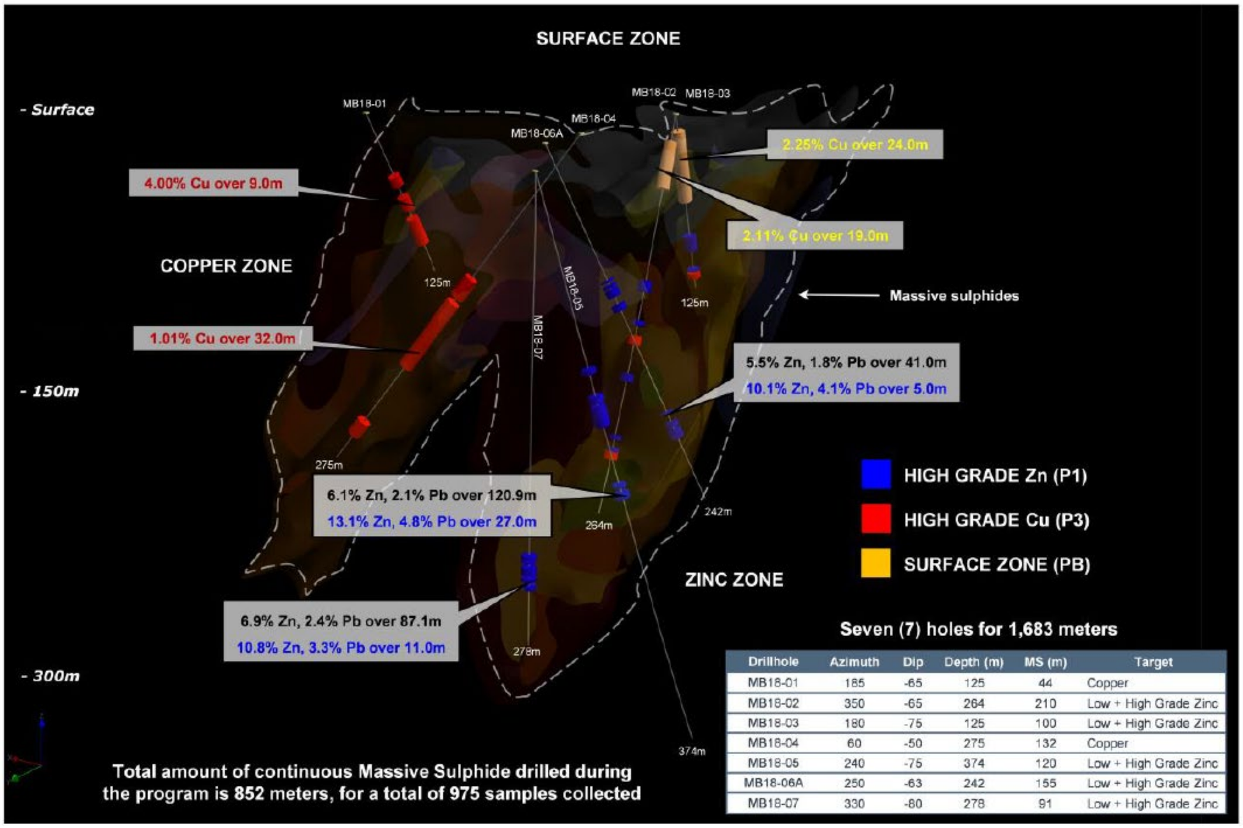
10.5.1 2018 Drilling at Murray Brook

The 2018 drilling program at Murray Brook saw completion of 14 drill holes totalling 4,278 m. Drill holes MB18-01 to MB-07 were completed as metallurgical drill holes; that is, drill holes completed to sample fresh material for metallurgical testwork. The drill hole traces and assay results are represented in Figure 10.10. Significant mineralized intercepts are listed in Table 10.9. Note that drill hole MB18-06 was abandoned for technical reasons and redrilled as MB18-06A. Drill holes MB18-05 and MB18-07 were extended to characterize the alteration halo and sulphide content of the host rock surrounding the massive sulphide deposit. The results show that within 40 to 50 m of the main deposit, the base metals content varies from 0.1% to 0.3% Zn+Pb. Beyond that distance, the base metals background is generally <100 ppm Zn.

The remaining six drill holes, MB18-08 to MB18-13 were completed to explore for mineralization along strike to the west and down-dip to the north of the Murray Brook Deposit. The drill hole collars and traces with mineralized intercepts are illustrated in Figures 10.11 and 10.12. Drill hole MB18-10 was completed on an azimuth of 250 degrees and intersected a highly silicified semi-massive to massive pyritic zone that graded 0.10 g/t Au and 0.12% Zn+Pb over 110.4 m, including 0.14 g/t Au and 0.18% Zn+Pb over 30.9 m. Drill hole MB18-11 was completed on an azimuth of 70 degrees and intersected 0.84 g/t Au. 0.75% Cu and 3.27% Zn+Pb over 50 m, including 1.0 g/t Au, 1.03% Cu and 3.16% Zn+Pb over 20 m. Drill hole MB18-12, completed on an azimuth of 354 degrees, intersected 1.17 g/t Au, 0.50% Cu and 4.16% Zn+Pb over 153.2 m, including 1.18 g/t Au, 0.80% Cu and 2.52% Zn+Pb over 50.6 m. Drill hole MB18-12 also intersected the deepest alteration and zinc mineralization drilled below the Murray Brook Deposit, which graded 1.05% Zn over 5.4 m from 556.0 m downhole.

In addition, exploration drill hole MB-2017-01 from 2017 was extended to 800 m depth during the 2018 program and intersected additional mineralization (see Figures 10.11 and 10.12). Mineralized intercepts in the extension of drill hole MB-2017-01 are listed in Table 10.9. From 435 to 635 metres, the drill hole intersected the favourable sedimentary host rock lacking significant alteration and mineralization. From 625 to 700 m, a chloritic alteration zone was observed that overprints weak silicification and sericitization with four mineralized intervals grading above 1% Zn. The alteration halo is also present, which suggests potential for the Murray Brook Deposit to continue at depth.

FIGURE 10.10 2018 METALLURGICAL DRILLING 3-D MODEL VIEW AT MURRAY BROOK



Source: *Puma press release dated March 28, 2019*

TABLE 10.9
SIGNIFICANT INTERCEPTS IN 2018 DRILLING

Drill Hole ID	From (m)	To (m)	Length (m)*	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Comment
MB-2017-01**	644.30	649.00	4.70	0.02	7	0.12	0.15	0.37	Zn mineralization below Murray Brook
and	669.90	680.40	10.50	0.06	10	0.04	0.11	0.38	
and	686.50	694.90	8.40	0.02	1	0.05	0.02	0.32	
MB-2018-01	48.00	54.00	6.00		51	2.00	0.83	1.71	metallurgical drill hole
and	64.40	101.00	36.60		41	1.35	0.63	1.38	
incl.	80.00	101.00	21.00		45	2.18	0.65	1.46	
MB-2018-02	19.00	38.00	19.00		31	2.11	0.61	1.85	metallurgical drill hole
incl.	20.00	29.00	9.00		37	3.12	0.70	1.99	
and	220.00	224.00	4.00		26	2.20	0.15	0.25	

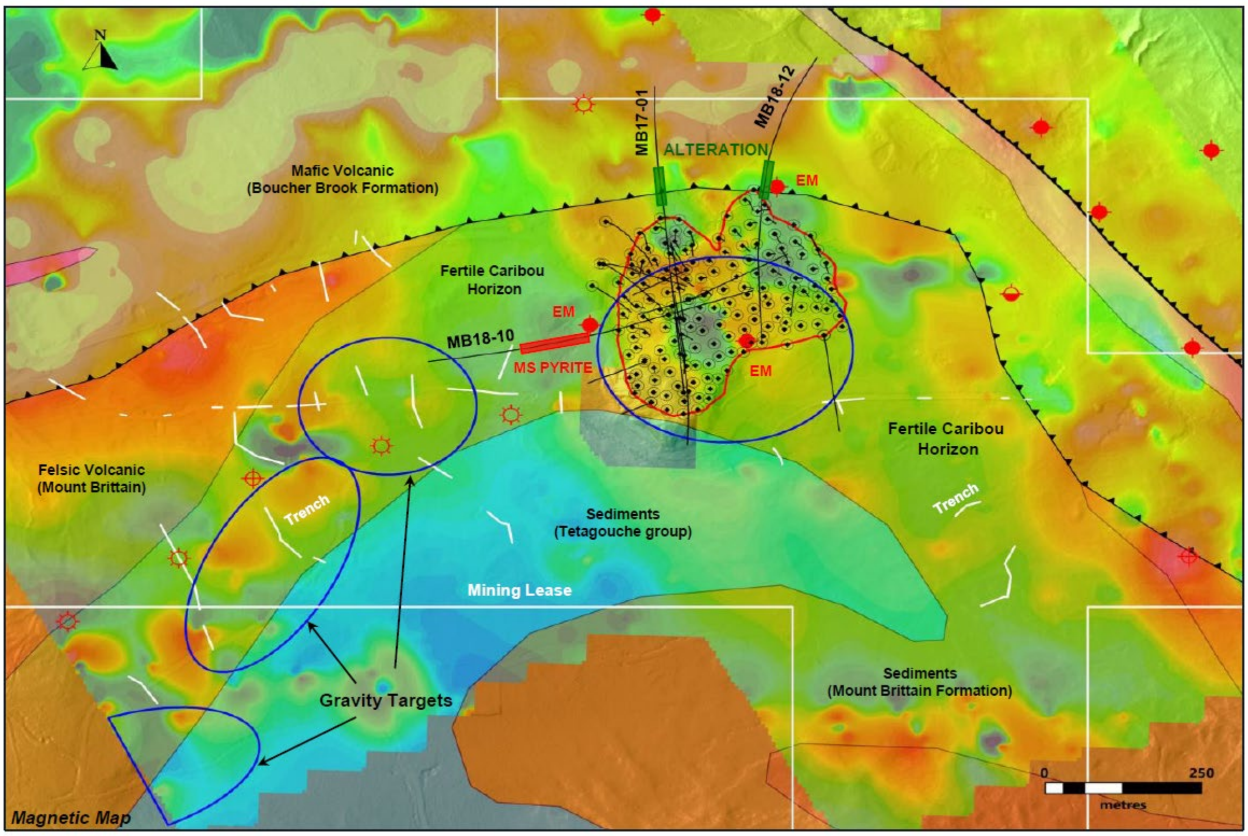
TABLE 10.9
SIGNIFICANT INTERCEPTS IN 2018 DRILLING

Drill Hole ID	From (m)	To (m)	Length (m)*	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Comment
MB-2018-03	12.00	36.00	24.00		41	2.53	0.63	3.19	metallurgical drill hole
incl.	12.00	26.00	14.00		42	3.12	0.43	2.75	
MB-2018-04	114.00	189.00	75.00		33	0.85	0.67	1.30	metallurgical drill hole
incl.	114.00	128.00	14.00		20	1.03	0.22	0.48	
and	240.00	252.30	12.30		14	1.20	0.37	0.92	
MB-2018-05	74.00	79.00	5.00	0.13	3	0.05	0.06	0.31	metallurgical drill hole
and	88.00	102.00	14.00	0.09	4	0.06	0.12	0.20	
and	109.40	230.30	120.90		70	0.11	2.05	6.11	
incl.	112.00	139.00	27.00		88	0.07	2.22	7.31	
incl.	179.00	230.30	51.30		93	0.13	3.07	8.54	
and	241.00	243.00	2.00	0.00	2	0.00	0.11	0.21	
and	271.00	276.00	5.00	0.01	1	0.04	0.05	0.14	
MB-2018-06A	57.00	215.10	158.10		38	0.18	1.20	3.75	metallurgical drill hole
incl.	79.00	97.00	18.00		89	0.10	1.76	6.08	
incl.	120.00	125.00	5.00		35	0.08	1.24	5.17	
incl.	146.00	151.00	5.00		52	0.03	1.79	5.33	
incl.	173.00	214.00	41.00		46	0.13	1.82	5.45	
MB-2018-07	132.00	150.00	18.00	0.06	4	0.04	0.09	0.21	metallurgical drill hole
and	154.90	242.00	87.10		96	0.13	2.35	6.86	
incl.	154.90	193.00	38.10		142	0.12	2.93	9.04	
incl.	223.00	241.00	18.00		97	0.23	3.16	9.66	
and	257.60	263.00	5.45	0.02	1	0.00	0.13	0.22	
MB-2018-10	253.10	363.50	110.40	0.10	2	0.02	0.04	0.08	mineralization west of Murray Brook
incl.	265.20	269.00	3.85	0.39	9	0.13	0.16	0.30	
incl.	298.00	300.00	2.00	0.13	4	0.06	0.12	0.28	
incl.	326.70	357.60	30.90	0.14	2	0.02	0.06	0.12	
incl.	339.30	347.30	7.95	0.08	2	0.01	0.06	0.20	
MB-2018-12	14.60	336.60	321.95	0.82	48	0.33	1.08	2.09	Cu mineralization below Murray Brook
and	522.00	561.40	39.40	0.07	5	0.02	0.07	0.21	
and	665.00	669.00	3.95	0.15	7	0.26	0.18	0.32	

TABLE 10.9 SIGNIFICANT INTERCEPTS IN 2018 DRILLING									
Drill Hole ID	**From (m)**	**To (m)**	**Length (m)***	**Au (g/t)**	**Ag (g/t)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Comment**
and	767.00	771.00	4.00	0.01	7	0.15	0.17	0.55	

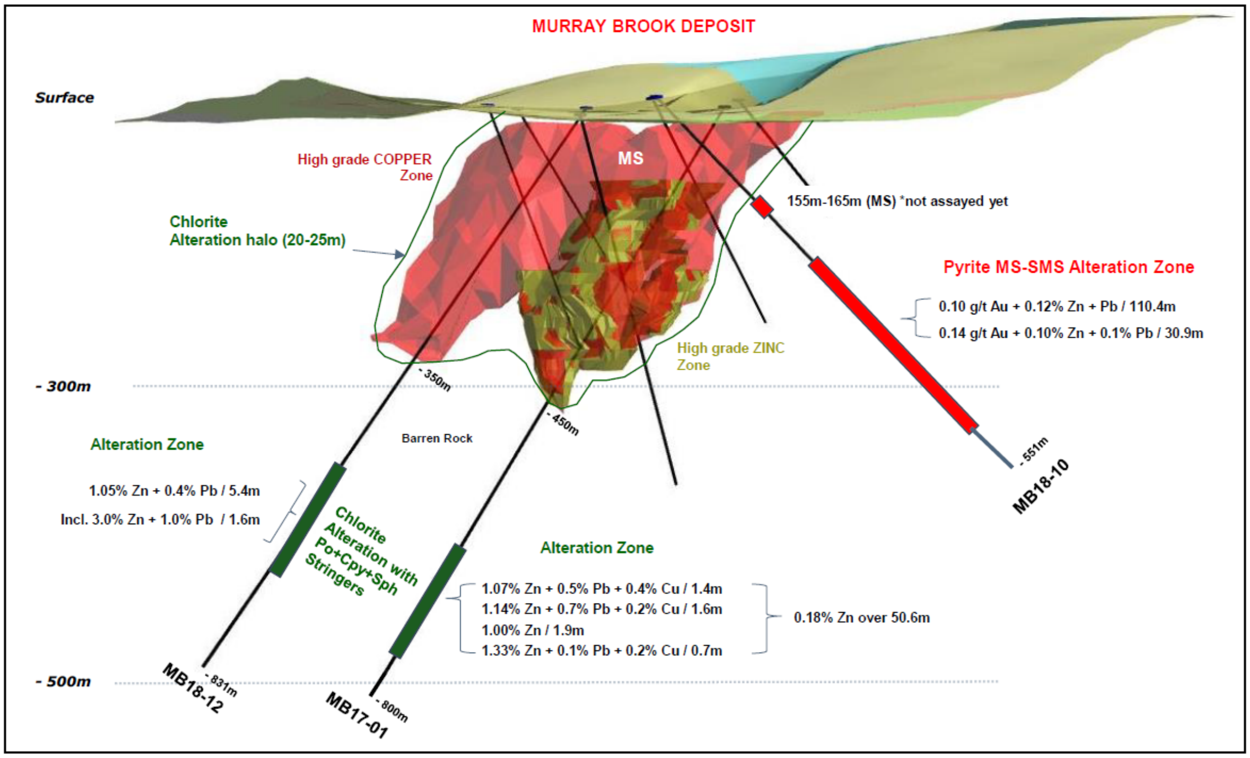
Notes:
** True thickness is estimated to be approximately 70 to 90% of the drill core intercepts*
***Drill hole MB-2017-01 extended from 435 m to 800 m long during the 2018 drilling program*

FIGURE 10.11 2018 EXPLORATION DRILLING PLAN VIEW AT MURRAY BROOK



Source: *Puma press release dated January 31, 2018*

FIGURE 10.12 2018 EXPLORATION DRILLING 3-D MODEL VIEW AT MURRAY BROOK



Source: *Puma press release dated January 31, 2018*

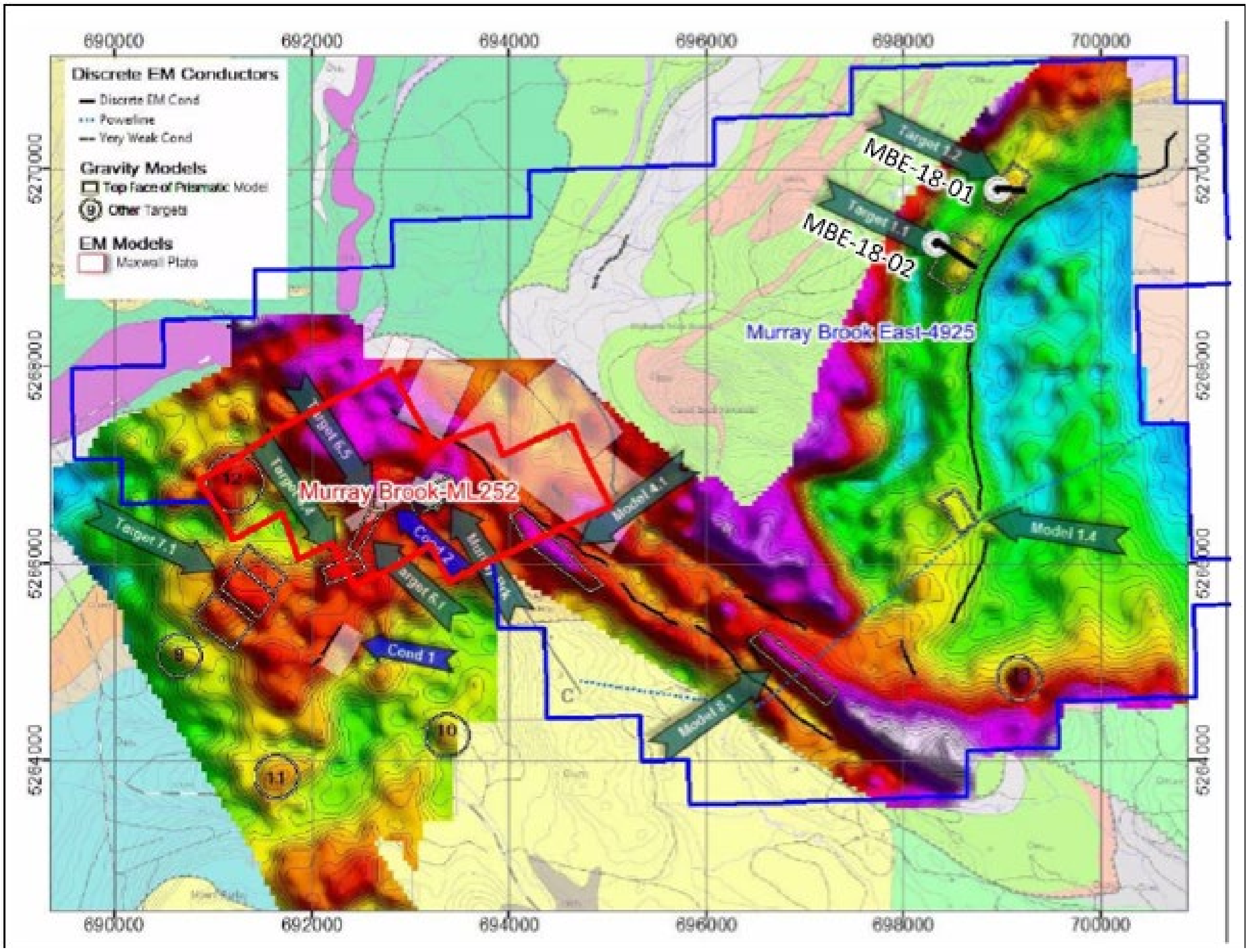
The extension of drill holes MB17-01 and MB18-12 to depths of 800 and 831 m, respectively, successfully confirmed the potential for making new discoveries at depth. The extension of the favorable horizon continues at least to 700 m deep and significant alteration with small higher-grade intervals were intersected in both drill holes, which are located 300 m away from each other. At Murray Brook, the alteration and mineralization halo consists a low-grade mineralization grading between 0.10 to 0.40% Zn located within 50 m of the high-grade massive sulphide deposit.

10.5.2 Drilling on Murray Brook East Claim 4925

10.5.2.1 Drilling Results

The Puma Exploration diamond drilling program completed during the summer of 2018 on Claim 4925 totalled two NQ-size drill holes and 1,114 m. Their locations are shown in Figure 10.13. The details of the two drill holes are presented in Table 10.13. No significant assay results were reported for these two drill holes. However, each of these two drill holes was surveyed for off-hole conductor features of interest.

FIGURE 10.13 DRILL HOLES MBE18-01 AND MBE18-02 LOCATIONS ON GRAVITY ANOMALY MAP



Source: *Gagné and Hupé (2019)*

10.5.2.2 Borehole Electromagnetic Surveys

The information in this section is taken largely from Gagné and Hupé (2019).

The selected drill holes were surveyed by Eastern Geophysics during September 2018 for off-hole conductive features of interest. Due to the blocky characteristic of the bedrock, this program required installation of pvc tubes prior to the surveying. This work was completed by the drilling company. The insertion of the pvc tubes was blocked at 290 m downhole in drill hole MBE18-01 and was completed to the bottom in drill hole MBE18-02.

The BHEM survey in drill hole MBE18-01 revealed an in-hole anomaly at below 240 m that suggested a large moderate to low conductor below to the right of the hole (Figure 10.14). This drill hole, collared to test the 1.2 Gravity Anomaly, intercepted four main lithic domains:

- **Domain 1:** 2 to 188.8 m, a mafic domain (mafic sill/dyke and possibly volcanic) including numerous felsic tuff interlayers between 108.3 and 155.7 m;

- **Domain 2:** 188.8 to 282.4 m, a felsic volcaniclastic (crystal tuff) domain (Mount Brittain Formation);

- **Domain 3:** 282.4 to 500 m, a sedimentary rock (siltstone/shale) unit with local melange units (Mount Brittain Formation); and

- **Domain 4:** 500 to 554 (end-of-hole) an altered felspar crystal tuff (Nepisiguit Falls Formation).

Sulphide mineralization (mainly pyrite) in drill hole MBE18-01 was discontinuously encountered in Domains 1, 3 and 4. Mafic units of Domain 1 include numerous intervals with trace to 5% fine grained pyrite. Domain 3 showed two main intervals with mineralization consisting of disseminated pyrite ± graphite in two shear zones. Domain 4 contains mineralized pyrite in quartz stringers from 509 to 515 m.

Considering that the lithic domains encountered in this drill hole contained only disseminated mineralization, the EM conductor anomaly is not explained. However, the anomaly is near the contact with the sedimentary rocks below 282.4 m. Those sedimentary rocks generally contain graphite in the foliation that could be conductive.

The BHEM survey of drill hole MBE18-02 indicates a large in-hole anomaly with moderate to low conductance at the bottom of the hole and centered at 500 m (Figure 10.14). This drill hole was completed to test the 1.1 Gravity Anomaly (see Figure 10.13). The hole intercepted three main lithic domains:

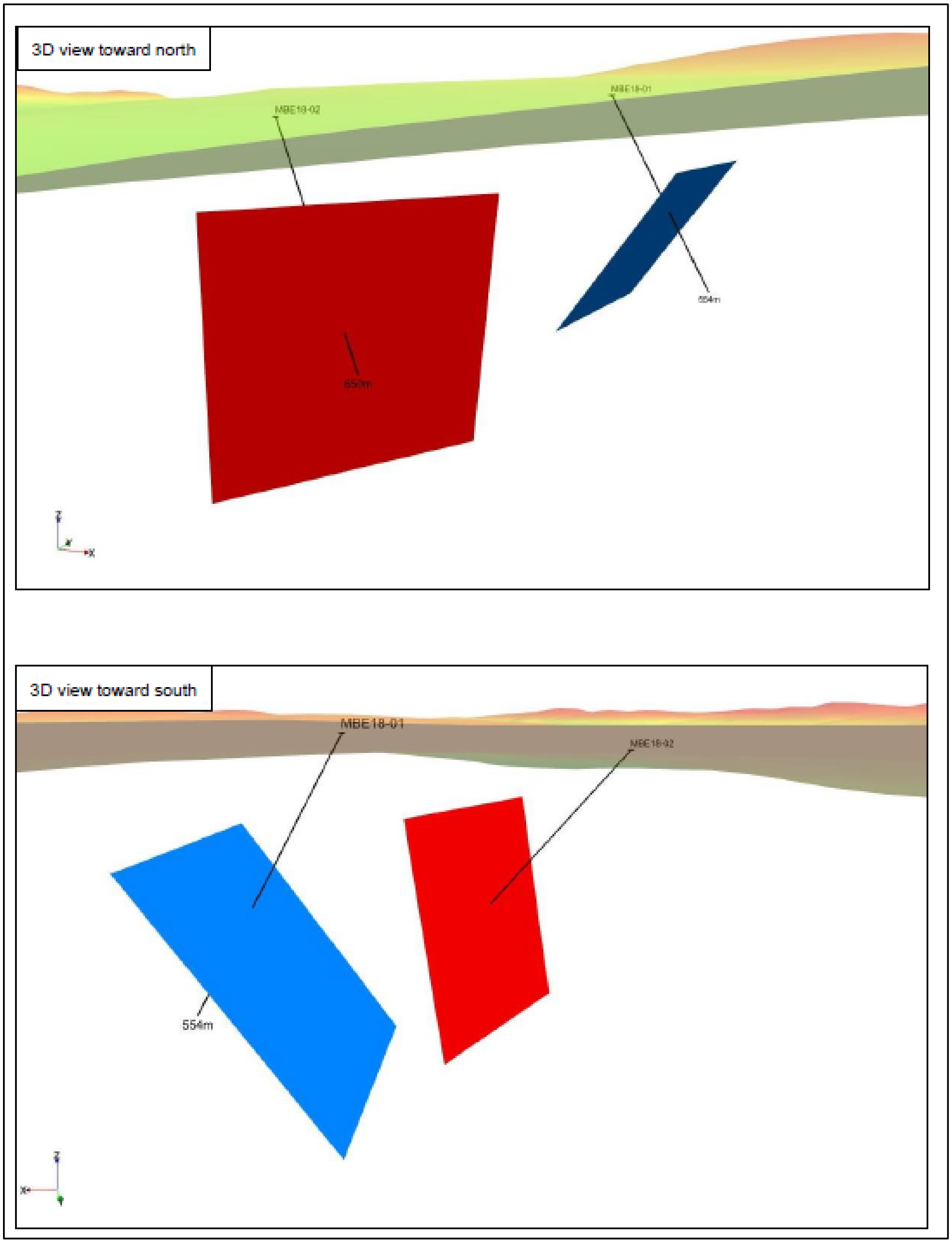
- **Domain 1:** 6 to 257.2 m, a felsic volcanic lava flow (rhyodacite)/feldspar crystal tuff domain (Mount Brittain Formation);

- **Domain 2:** 257.2 to 411 m, a mixed mafic, sedimentary rock and felsic volcaniclastic (crystal tuff) domain; and

- **Domain 3:** 411 to 560 m, a sedimentary rock (siltstone with interbedded fine grain sandstone) unit (Mount Brittain Formation).

Sulphide mineralization in MB18-02 was encountered only in lithic Domain 2, which contained trace to 7% fine-grained pyrite. As in drill hole MB18-01, the mineralization observed does not explain the EM anomaly. However, graphite occurs in the sedimentary rocks from 411 to 560 m downhole.

FIGURE 10.14 BHEM CONDUCTOR PLATE MODELS FOR DRILL HOLES MBE18-01 AND MBE18-02



Source: *Gagné and Hupé (2019)*

10.6 2019 DRILLING – PUMA

The year 2019 saw completion of a small drilling program and a precious metal study of Murray Brook drill core. Each of these activities and results are summarized below.

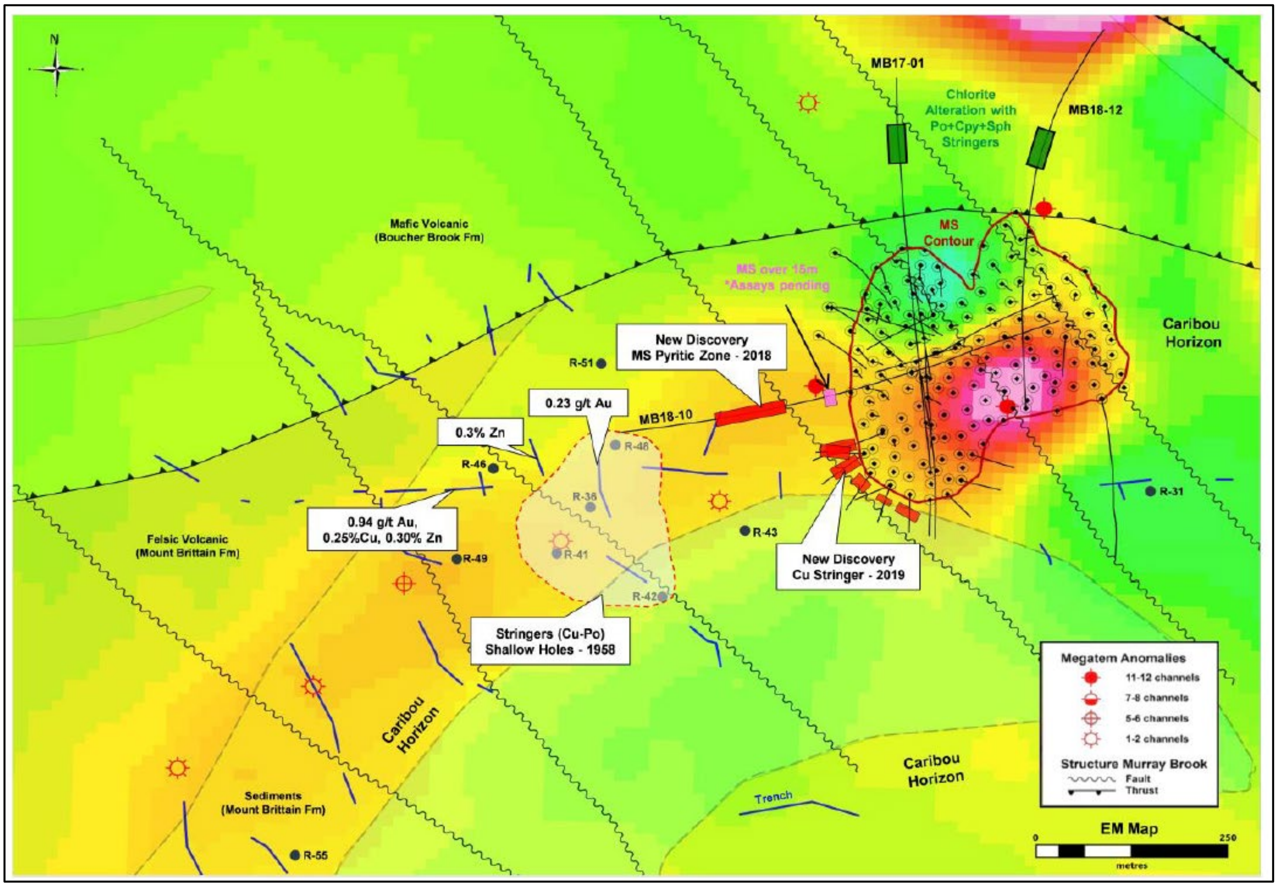
10.6.1 Drilling

In 2019, Puma completed nine relatively short drill holes totalling 714 m. The drill hole collar locations, trajectories and lengths are demonstrated in Figure 10.15 and listed in Table 10.10.

The nine drill holes were collared on the southwestern margin of the Murray Brook Deposit and drilled outwards with the purpose of exploring for mineralization to the west and south. The drilling resulted in the discovery of a new zone containing copper stringers extending from surface and outside of the Murray Brook Mineral Resources. The new discovery is a new horizon adjacent to the massive sulphide mineralization and corresponds to a strong historical MegaTEM anomaly at depth, in the same area where drill hole MB18-10 had intersected significant sulphide mineralization over 100 m (see Figure 10.15). This newly discovered copper stringer zone was traced over a distance of 180 m at surface by four drill holes of the January 2019 drilling program and by previous drill hole MB17-03 (Figure 10.16). These drilling results together with those from the 2011 to 2012 drilling results suggest that the copper stringer zone extends from surface to a depth of 170 m and varies in apparent thickness from 1.6 to 26.6 m. Such copper stringer zones adjacent to massive sulphide zones are a common feature of VMS deposits.

Drill hole MB19-01 returned 26.4 m grading 1.35% Cu, 19 g/t Ag and 0.18 g/t Au, including 4.0 m grading 2.24% Cu and 0.25 g/t Au. Furthermore, several additional sulphide intercepts with grades >1% Cu over >20 m were recorded in the 2019 drill holes MB-2019-02, MB-2019-03, MB-2019-04 and MB-2019-05 along the western boundary of Murray Brook (Table 10.11). In addition, the 2019 drill holes intersected the Gossan Zone on the Murray Brook massive sulphide deposit with similar grades of gold, silver and lead to those found by NovaGold in the late 1980s and early 1990s (Table 10.12).

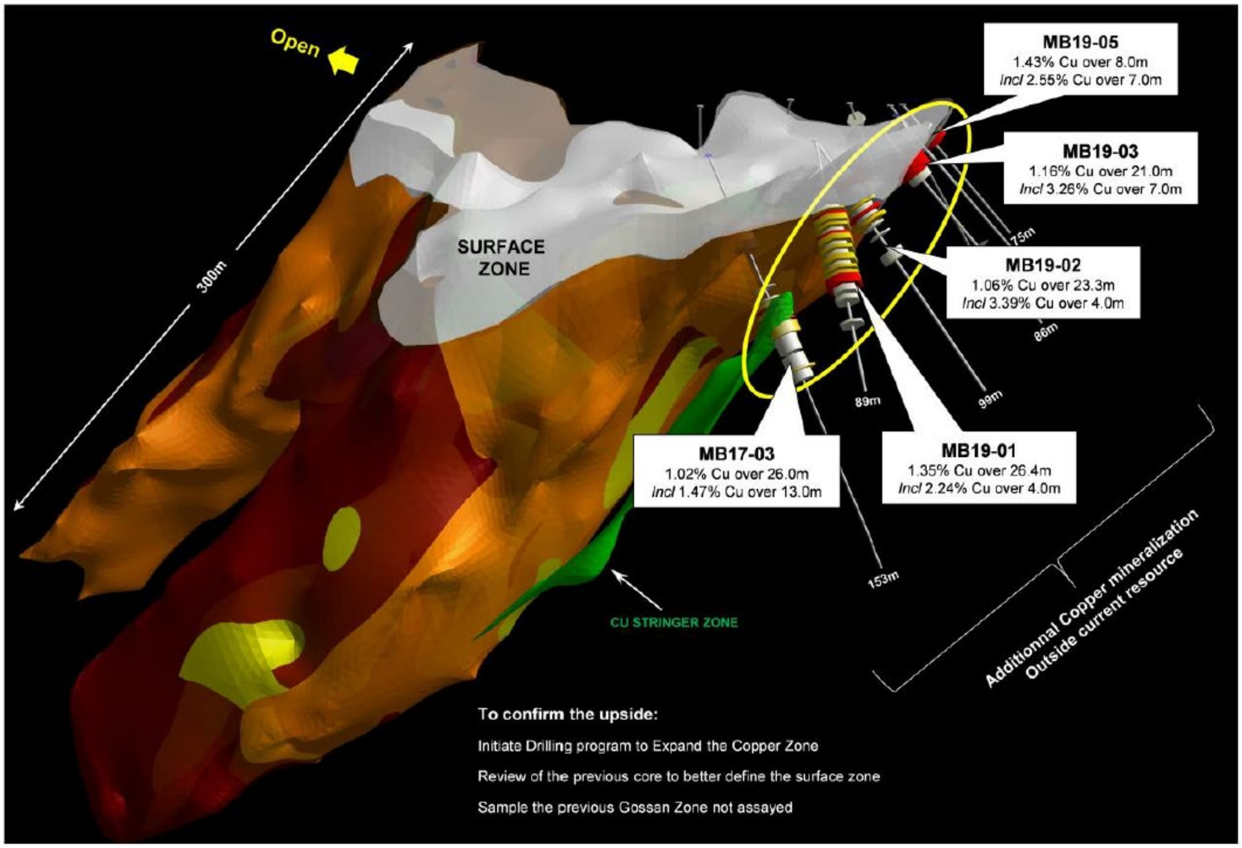
FIGURE 10.15 2019 DRILLING PLAN VIEW



Source: *Puma press release dated April 10, 2019.*

TABLE 10.10 2019 DRILL HOLE COLLAR INFORMATION						
Drill Hole ID	**Easting (m)**	**Northing (m)**	**Elevation (masl)**	**Length (m)**	**Azimuth (deg)**	**Dip (deg)**
MB-2019-01	693,106	5,266,652	484	89.00	270.0	-45.0
MB-2019-02	693,106	5,266,652	484	99.00	230.0	-45.0
MB-2019-03	693,115	5,266,624	484	86.00	210.0	-45.0
MB-2019-04	693,142	5,266,609	484	78.00	196.0	-45.0
MB-2019-05	693,168	5,266,595	483	75.00	180.0	-45.0
MB-2019-06	693,194	5,266,589	477	71.00	180.0	-45.0
MB-2019-07	693,217	5,266,598	474	62.00	135.0	-45.0
MB-2019-08	693,234	5,266,618	473	74.00	103.0	-45.0
MB-2019-09	693,247	5,266,655	469	80.00	107.0	-45.0

FIGURE 10.16 2019 DRILLING IN 3-D MODEL VIEW



Source: *Puma press release dated April 10, 2019.*

TABLE 10.11
SIGNIFICANT INTERCEPTS FROM 2019 DRILLING

Drill Hole ID	From (m)	To (m)	Length (m)*	Cu (%)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
MB-2019-01	20.0	70.0	50.0	0.81	0.13	13	0.17	0.54
incl.	27.6	54.0	26.4	1.35	0.18	19	0.23	0.74
MB-2019-02	17.0	48.0	31.0	0.88	0.12	14	0.12	0.65
incl.	17.0	40.3	23.3	1.06	0.13	17	0.14	0.80
MB-2019-03	11.0	32.0	21.0	1.16	0.22	12	0.13	0.22
incl.	11.0	21.0	10.0	2.40	0.36	22	0.10	0.22
MB-2019-05	15.0	23.0	8.0	1.43	0.26	12	0.05	0.12
incl.	16.0	20.1	4.1	2.55	0.35	16	0.03	0.13
MB-2019-06	13.3	19.2	5.9	0.25	0.02	1	0.01	0.03

** True thickness ranges from 75 to 95% of the drill core intercepts.*

TABLE 10.12 SIGNIFICANT INTERCEPTS FROM 2019 DRILLING OF THE GOSSAN ZONE								
Drill Hole ID	**From (m)**	**To (m)**	**Length (m)**	**Au (g/t)**	**Ag (g/t)**	**Cu (%)**	**Pb (%)**	**Zn (%)**
MB-2019-03	6.6	11.0	4.4	1.09	80	0.05	0.38	0.02
MB-2019-04	15.0	19.5	4.5	0.23	23	0.09	0.34	0.39
MB-2019-05	13.0	15.0	2.0	1.09	10	0.18	0.06	0.03
MB-2019-07	8.4	10.9	2.5	0.19	18	0.10	0.53	0.03

10.6.2 Precious Metals Evaluation Program

In addition to the drilling program in 2019, Puma also commenced a precious metal evaluation program on the Murray Brook Deposit. The Murray Brook Deposit contains gold and silver in its three main metallogenic sub-domains, which from surface to depth are the Gossan Zone, Oxide Zone and main Massive Sulphide Zone. The evaluation program includes the study of the gold and silver zonation, the precious metals association and respective recovery within the main three (3) metallogenic sub-domains. The different mining and processing options available were to be evaluated to recover the maximum value of the precious metals contained.

Results for drill holes MB-2018-15 and MB-2018-07 from the 2018 metallurgical drilling program are summarized in Table 10.13. In drill hole MB18-07, the massive sulphide contains broad gold and silver enrichment over its entire length with 0.67 g/t Au and 96 g/t Ag over 87.0 m. The higher results of 1.15 g/t Au and 87 g/t Ag over 22.0 m are for samples from the footwall contact with the altered sedimentary rocks.

TABLE 10.13 SIGNIFICANT GOLD ASSAYS FOR THE 2019 PRECIOUS METAL EVALUATION PROGRAM				
Drill Hole ID	**From (m)**	**To (m)**	**Length (m)**	**Au (g/t)***
MB-2018-05	110	230	120	0.39
incl.	180	230	50	0.68
MB-2018-07	155	242	87	0.62
incl.	155	168	13	0.61
incl.	181	193	12	0.75
incl.	220	242	22	1.15

** Au assays by ALS Laboratories. Assay results for Ag, Zn, Pb and Cu given in Table 10.9.*

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The following section discusses sampling conducted by VMC and Puma at the Murray Brook Property between 2010 and 2019.

11.1 SAMPLE PREPARATION AND SECURITY MEASURES

11.1.1 VMC (2010 to 2012)

The Murray Brook drilling and sampling program was supervised by VMC Senior Geologist Garth Graves, P. Geo. Drill core logging and sample marking was performed by VMC staff geologists Laura Coutts, B. Sc., GIT; Denise Martinez, B. Sc. GIT and Barry MacCallum, B. Sc. GIT. Drill core cutting and sampling were performed by experienced technicians.

Drill core is placed in wooden drill core boxes beside the drill and secured using rubber bands (pieces of tire inner tubes). Drill core boxes are picked up once or twice a day from the drill site by VMC's staff, and delivered directly to VMC's secure drill core logging facility at 1095 Bridge Street, Bathurst, NB.

Drill core is aligned, measured and checked for drill core recovery and RQD. Magnetic susceptibility and conductivity are measured by scanning the drill core using an MPP2 metre from Geophysics GDD of Québec City. When a certified operator is present, the drill core may also be scanned using a Niton XL2-500 XRF instrument to gain a qualitative estimate of base metal, As and Sb distribution.

Drill core is then logged geologically and results recorded in Excel™ format. All massive and strongly disseminated sulphide intervals are marked and tagged for sampling, and up to three 'shoulder' samples beyond the limits of the strong sulphide mineralization, depending on whether the contact is sharp or gradational. Samples are generally 1.0 m long, unless lithologic contacts make for more logical breaks. Short intervals (<30 cm) of country rock may be included in sulphide samples; larger intervals are sampled separately.

Tags are placed in the drill core boxes to indicate where a certified reference material ("CRM") or blank should be inserted in the sample stream. A line is drawn on the drill core to indicate to the sampler where to cut the drill core. When marked-up and assay tags positioned, the drill core is photographed to preserve a record of the sample numbers and intervals before it is sawn.

Drill core is sawn in half using a VanCon diamond saw. One-half of the drill core is placed in a standard plastic sample bag and secured by a nylon cable tie and tagged for analysis, and the other half returned to the drill core box for future reference.

A duplicate drill core sample is taken at random approximately every 20th sample by sawing the remaining drill core in half, leaving a ¼ drill core for reference. One of three CRM and one blank sample are inserted into the sample stream at the rate of one for every 20 samples.

Up to five or six bagged samples are placed in large polypropylene 'rice bags', which are tied with a numbered plastic security tag, placed in a 20-litre plastic pail and capped. Samples are shipped on palettes in batches of 30 samples (about six pails) or multiples thereof. These are picked up from the drill core facility by Day and Ross Inc., a bonded courier, and driven to TSL Laboratories Inc., ("TSL") in Saskatoon.

11.1.2 Puma Exploration (2017 to 2019)

All sampling, drilling, testing and analyses are conducted rigorously according to regulatory guidelines. The driller is responsible for ensuring that the drill core is placed into boxes in the correct order and marking the length tags inside the drill core boxes for each rod-length of drill core. This step is examined by the technician and supervised by the on-duty project geologist. The driller picks up drill core boxes from the drill site and takes them to the drill core logging facilities in Bathurst.

Boxes are then laid out on logging tables and checked to make sure that the drill core is continuous and in the right order in each box. Geological logging of drill core is conducted, and sample positions are marked to conform to lithological/alteration changes. Sample numbers are written inside of the drill core boxes corresponding to pre-printed sample tags. Quality control procedures include routine insertion of prepared CRMs, sourced blank material and field duplicates. All samples were weighed by a company technician, with certain samples weighed both in air and water to measure bulk density by immersion method. Chalk lines are marked on the drill core to identify the drill core axis and boxes for sampling are moved to the cutting area. Drill core is sawn in half using a using a hydraulic drill core saw. Drill core boxes are returned to their place on the logging tables in sequential order. Strong plastic rock sample bags are labelled with the sample number on the outside and the corresponding sample tags are placed inside the bag. One-half of the drill core is then placed in its respective sample bag, and the second half is carefully returned to the drill core box and stored at the Alliance warehouse for future reference. Individual sample bags are secured with a nylon cable tie or industrial adhesive tape and tagged for analysis, then placed in a numbered rice bag and tied with cable-ties. Drill core samples designated for metallurgical testing are entirely sampled, with ½ of the drill core sample bagged for geochemical assaying and the other half dried and bagged for metallurgical testing. Metallurgical samples are placed into 45-gallon barrels filled with nitrogen to evacuate the air before shipping.

Strict chain of custody procedures are followed at the Project. Samples are picked up from the drill core facility by Armour Courier Services of New Brunswick (ACS) and transported to the ALS Global facility in Sudbury for sample preparation, before being shipped to the ALS Global laboratory in Vancouver for geochemical assaying. Company employees delivered drill core samples designated for metallurgical testing by truck to either the Trevali Caribou Mine laboratory for geochemical assaying or shipped to the RPC (New Brunswick's provincial research organization) facility in Fredericton for metallurgical testing. No security issues were noted during the 2017 to 2019 programs.

11.2 SAMPLE ANALYSES

11.2.1 VMC (2010 to 2012)

Drill core samples at TSL are crushed to 70% passing -10 mesh (1.70 mm), from which a 1,000-g portion is riffle split and pulverized to 95% passing -150 mesh (106 µm). All equipment is cleaned with compressed air and brushes after every sample. Both pulps and rejects are stored at TSL in Saskatoon.

Samples are assayed for Cu, Pb, Zn and Ag using a 4-acid total digestion followed by AAS. Gold is determined by a standard lead-collection fire assay procedure using a 30-g aliquot with an AAS finish. Samples exceeding 3,000 ppb are re-analyzed using the fire assay procedure followed by gravimetric weighing.

TSL was established in 1981 and was an accredited laboratory certified to perform, inter alia, assay and umpire assay work for the five elements routinely assayed for the Murray Brook Project. The TSL quality system conformed to requirements of ISO/IEC Standard 17025 guidelines, and the lab qualified for the Certificates of Laboratory Proficiency since the program's inception in 1997.

11.2.2 Puma Exploration (2017 to 2019)

Samples at ALS Global are crushed to 70% less than 2 mm, from which a 250-g portion is riffle split and pulverised to better than 85% passing 75 µm. Samples at the Caribou Mine laboratory are crushed and pulverized to a range of 80 to 100 µm.

Samples at ALS are assayed for Cu, Pb, Zn and Ag using an Ultra Trace Aqua Regia followed by ICP-MS. Samples returning assay grades greater than 10,000 ppm for Cu, Pb and Zn or 100 ppm for Ag, are further analyzed by "ore" grade aqua regia digestion with ICP-AES finish. Gold is determined by a standard lead collection fire assay procedure using a 30-g aliquot with an AAS finish, with overlimit samples re-analyzed by fire assay with gravimetric finish. Samples at the Caribou Mine laboratory are assayed for Cu, Pb, Zn, Ag and Fe content by Atomic Absorption.

QC protocol at the lab includes monitoring performance via the use of CRMs and duplicate samples at a frequency of one in every 30 samples. There are typically eight CRMs run for each batch of 25. A duplicate is analyzed at least once every 50 samples. No blanks are run. Pulps are currently stored in the lab in labelled brown sealed bags, which in turn are stored in organized labelled boxes. Coarse rejects are stored in labelled 18 L pails on pallets inside the Alliance warehouse.

ALS Minerals is independent of Puma and has developed and implemented strategically designed processes and a global quality management system at each of its locations. The global quality program includes internal and external inter-laboratory test programs and regularly scheduled internal audits that meet all requirements of ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures.

11.3 BULK DENSITY

As discussed in Section 14.11 of this Report, the database consists of a total of 2,961 bulk density measurements, of which 1,888 densities were tested from 2017 and 2018 drill holes, and 1,073 analyses performed on 2011 and 2012 drill core using wet immersion method. The bulk density varied from 2.04 to 6.86 t/m^3 and averaged 4.14 t/m^3. A total of 2,050 of these bulk densities are included inside the mineralization wireframes. The bulk density block model was interpolated with the constrained data, which was capped at 6.5 t/m^3.

Independent verification sampling carried out by the site visit Qualified Person in 2023 confirmed the on-site measurements taken. A total of 14 due diligence samples were measured independently at Actlabs, returning a mean value of 4.25 t/m^3, median value of 4.37 t/m^3, minimum value of 3.26 t/m^3 and a maximum value of 4.8 t/m^3.

11.4 VMC (2010 TO 2012) QUALITY ASSURANCE/QUALITY CONTROL REVIEW

VMC implemented a quality assurance/quality control ("QA/QC" or "QC") program for all phases of drilling from 2010 to 2012.

11.4.1 Performance of Certified Reference Materials

The three CRMs used were CDN-ME-13, CDN-ME-16 and CDN-ME-17, which were supplied by CDN Resource Laboratories Ltd. of Vancouver, BC. CDN-ME-13 and CDN-ME-17 were prepared from massive and semi-massive sulphides from the Archean-aged Izok Lake VMS deposit, whereas CDN-ME-16 was prepared from a "mixture of ores". CRMs were inserted into the sample stream at a rate of 1:20.

There were 201 CRMs inserted into the batches sent for geochemical assaying. VMC geologists monitored the results on a real-time basis as the reports were received from the lab. For monitoring purposes, two standard deviations above and below the mean were used as warning limits. VMC also produced a complete and detailed QC report at the end of the drilling phase. The Author reviewed all results received from the lab and the Murray Brook Joint Venture QC report, and no material issues were observed.

11.4.2 Performance of Blanks

Sandblasting-grade ground glass purchased in Bathurst was employed as the blank material at the Project. It was inserted into the sample stream at a rate of 1:20 (5%).

There were 201 blanks inserted into the sample stream. Gold reported at or below its lower limit of detection ("DL") of 5 ppb, with six outliers. The highest Au value was 15 ppb (0.015 g/t). Silver reported almost all values less than 1 g/t, with six outliers. The highest Ag value was 2.0 g/t. Copper and zinc reported all values at or below detection limit with six and seven outliers respectively. Most lead values exceeded the lower detection limit, with a mean value of 220 ppm Pb. Only seven outliers were flagged, with a high value of 800 ppm. It is likely that these assays are most simply explained by the nugget effect of high-lead glass particles, since lead is a common constituent of glass. None of the outliers was judged to have any impact on the metal value.

11.4.3 Performance of Duplicates

Drill core duplicates were produced by ¼ sawing drill core roughly every 20 samples and sending the ¼ split to the lab as a duplicate of the half drill core, leaving a ¼ drill core sample in the box as a witness in those cases. Two hundred and one duplicate drill core samples were taken. Simple scatter graphs for each of the five elements were plotted to show the correlation between the ¼ and half drill core sample. Even the gold in the deposit, which would be expected to demonstrate poor precision at this level of homogeneity, in fact demonstrated excellent precision. All the other four elements demonstrated excellent precision close to 1:1.

11.4.4 Umpire Sampling Program

Sample pulps were forwarded from the principal lab (TSL) to a secondary lab (ACME labs in Vancouver) for umpire sampling to verify the performance at TSL. A total of 151 pulp samples were sent for analysis at VMC's request, with effort made to select samples representative of the distribution of grades of the massive sulphide body. The correlation coefficients between the original and umpire samples were all very close to one. Silver displayed the poorest precision, with a correlation coefficient of 0.89. Results for silver at ACME were on average 11% lower than the results at TSL. This difference is nevertheless considered acceptable by the Author, considering that the samples were analyzed at two different labs.

11.5 PUMA (2017 TO 2019) QUALITY ASSURANCE/QUALITY CONTROL REVIEW

Puma implemented a QA/QC" program for all phases of drilling from 2017 to 2019.

11.5.1 Performance of Certified Reference Materials

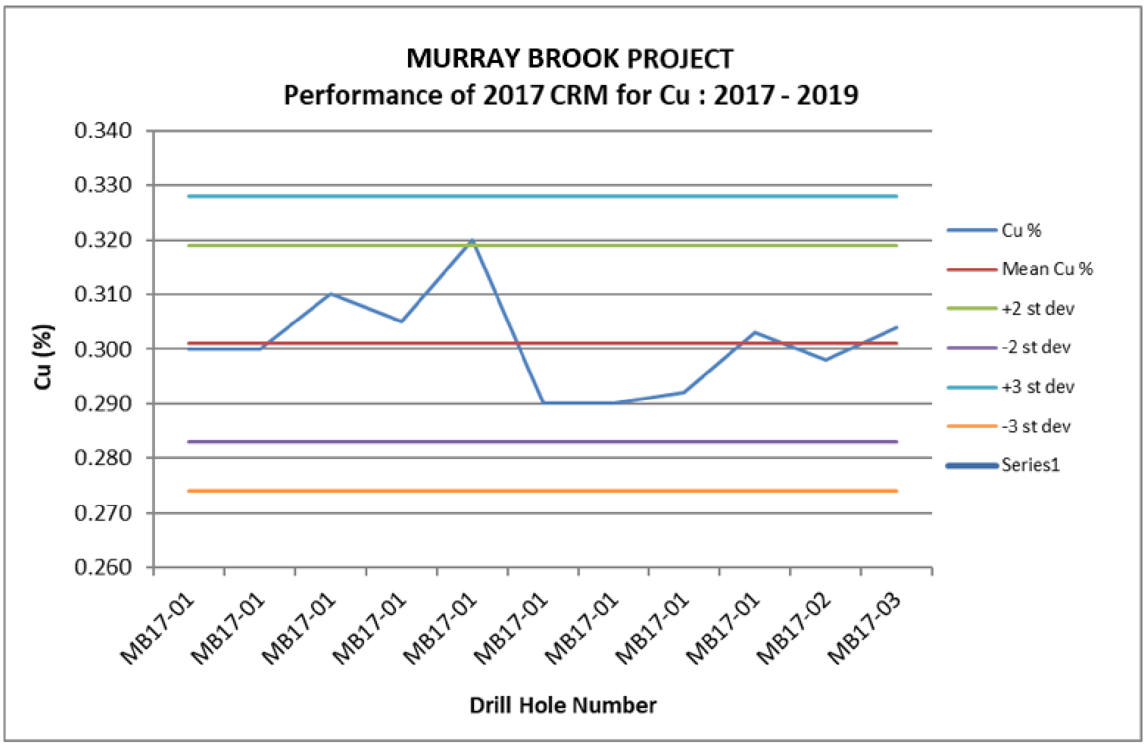
CRMs were inserted into the analysis stream at different rates each year from 2017 to 2019 at the Project. The insertion rate of CRMs in 2017 was 1:50, with this rate increased in 2018 to 1:20, and decreased the insertion rate slightly to 1:25 in 2019. The CRMs utilized during the drilling programs were sourced from CDN Resource Laboratories Ltd., of Langley BC and included: CDN-ME-1402, CDN-ME-1204, CDN-ME1410 and CDN-ME-1706. All four CRMs are certified for copper, lead, zinc, gold and silver. However, no gold data were available except for a single data point for the CDN-ME-1204 CRM. A fifth CRM was utilized in 2017 alone, but there are no records available as to which CRM it is, or of the certified mean value or between-lab standard deviation is. As a result, the Author will refer to this CRM as the "2017 CRM" and has calculated the mean and standard deviation from the available 2017 data to evaluate performance.

Criteria for assessing CRM performance are based as follows. Data falling within ±2 standard deviations from the accepted mean value pass. Data falling outside ±3 standard deviations from the accepted mean value fail.

There were 11 data points to review for the 2017 CRM and no failures recorded. A total of 27 CDN-ME-1402 results were reviewed, with one low failure recorded for all four elements. Slight low biases were noted for copper, lead and silver for this CRM. The CDN-ME-1204 CRM returned 25 results for copper, lead, zinc and silver, and a single result for gold. A single failure only for copper was noted, returning a result slightly greater than +3 standard deviations from the accepted mean value. There were seven data points to review for the CDN-ME-1410 CRM and only one failure recorded for lead, slightly below -3 standard deviations from the accepted mean value. There was a total of eight CDN-ME-1706 results to review, and a single high failure for lead was noted, and one low and one high failure for zinc. Performance charts for all five CRMs are shown in Figures 11.1 to 11.21.

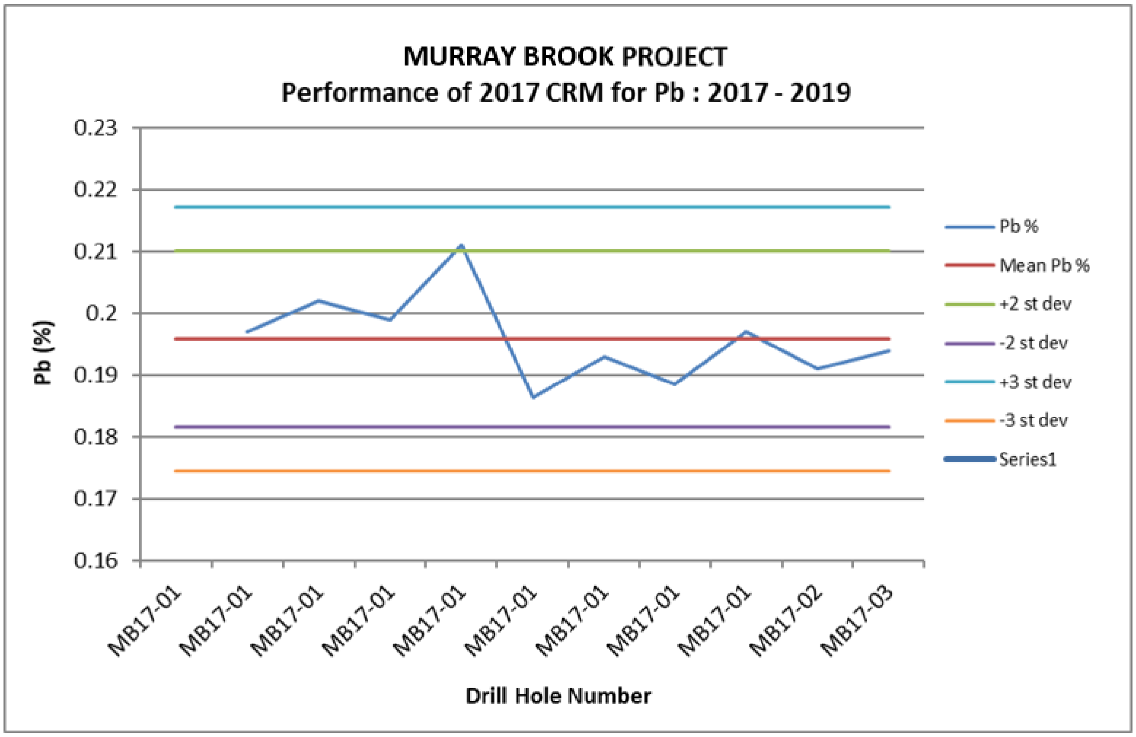
The Author considers that the CRM data demonstrate acceptable accuracy in the 2017 to 2019 Murray Brook data.

FIGURE 11.1 PERFORMANCE OF 2017 CRM CU FOR 2017 TO 2019 DRILLING



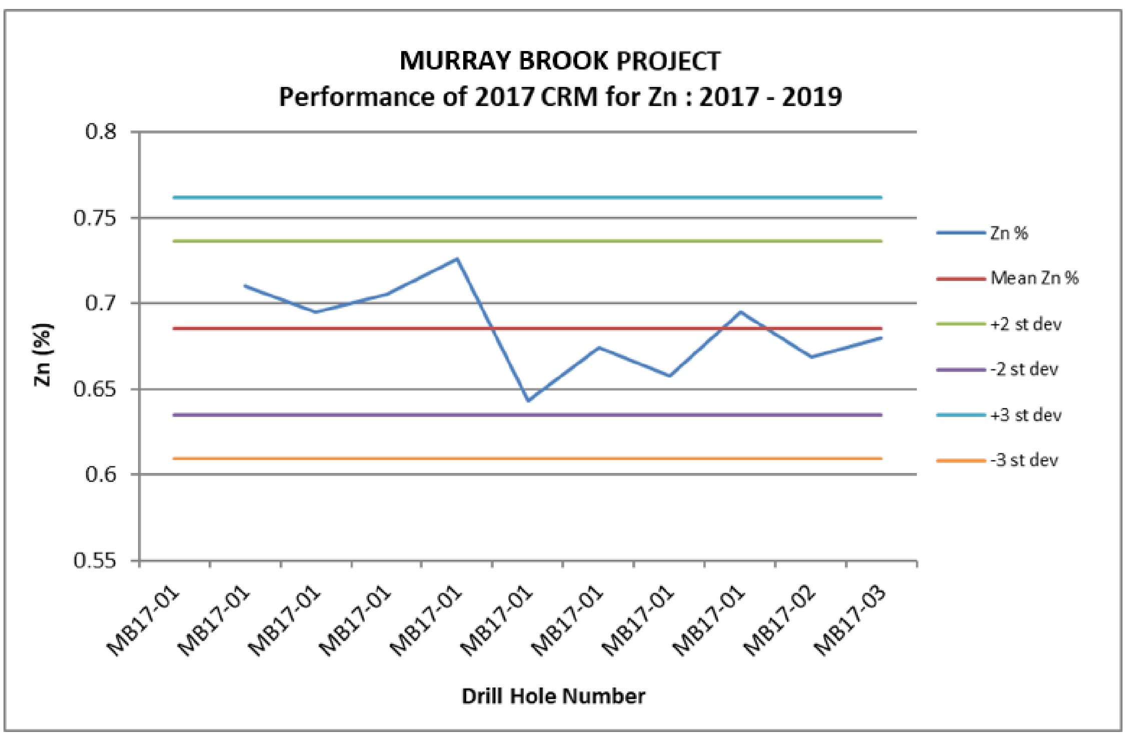
Source: *P&E (2023)*

FIGURE 11.2 PERFORMANCE OF 2017 CRM PB FOR 2017 TO 2019 DRILLING



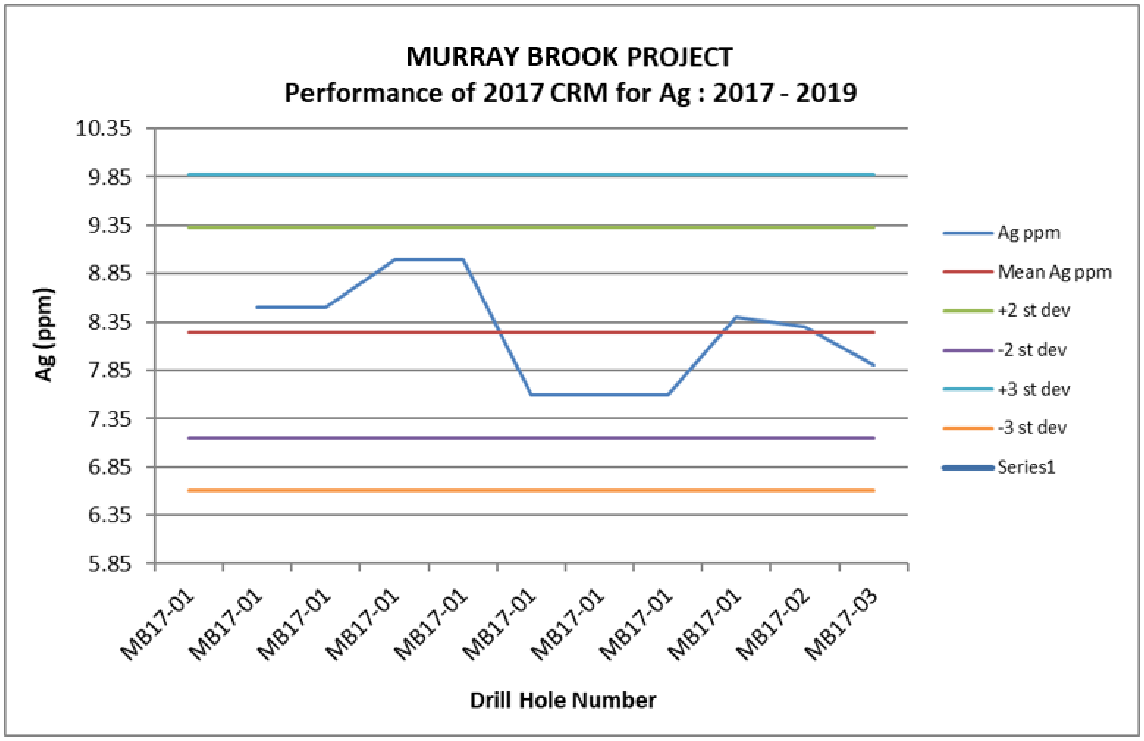
Source: *P&E (2023)*

FIGURE 11.3 PERFORMANCE OF 2017 CRM ZN FOR 2017 TO 2019 DRILLING



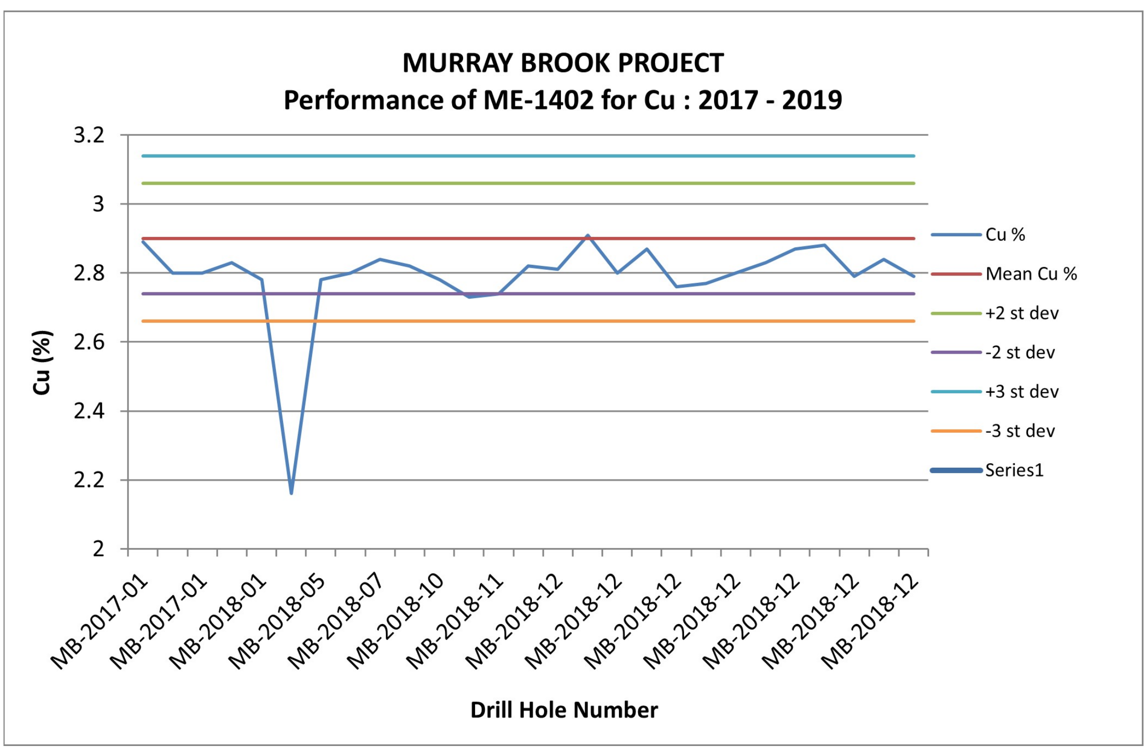
Source: *P&E (2023)*

FIGURE 11.4 PERFORMANCE OF 2017 CRM AG FOR 2017 TO 2019 DRILLING



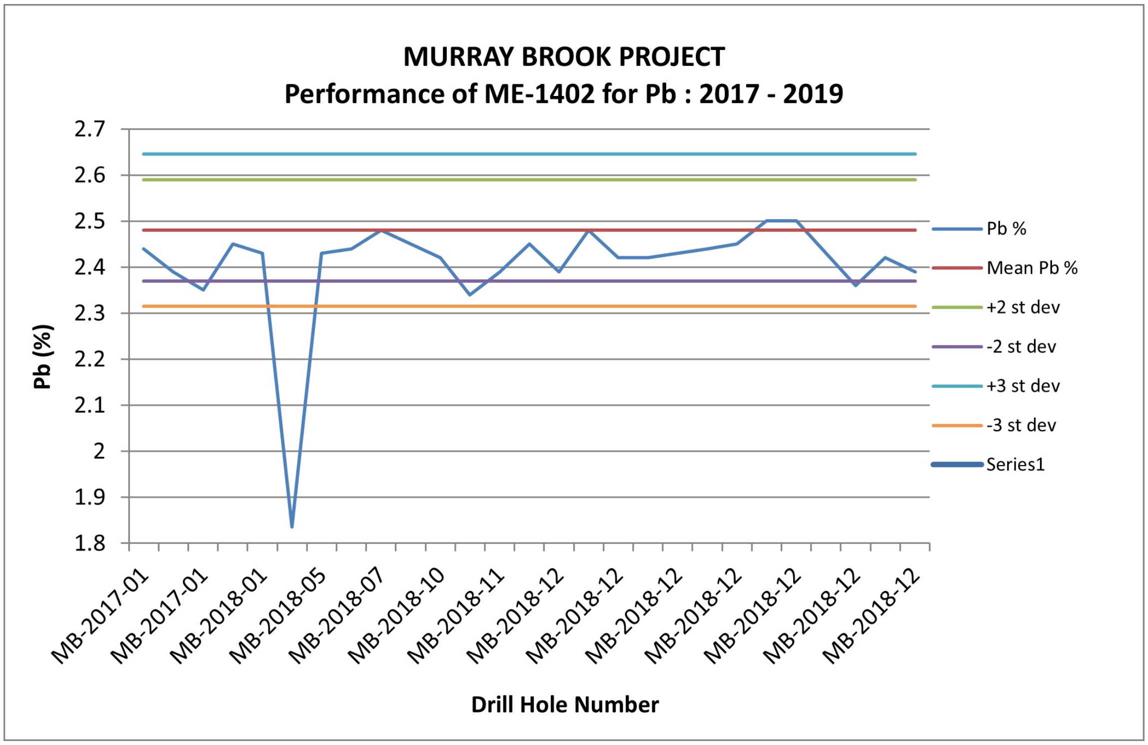
Source: *P&E (2023)*

FIGURE 11.5 PERFORMANCE OF CDN-ME-1402 CRM CU FOR 2017 TO 2019 DRILLING



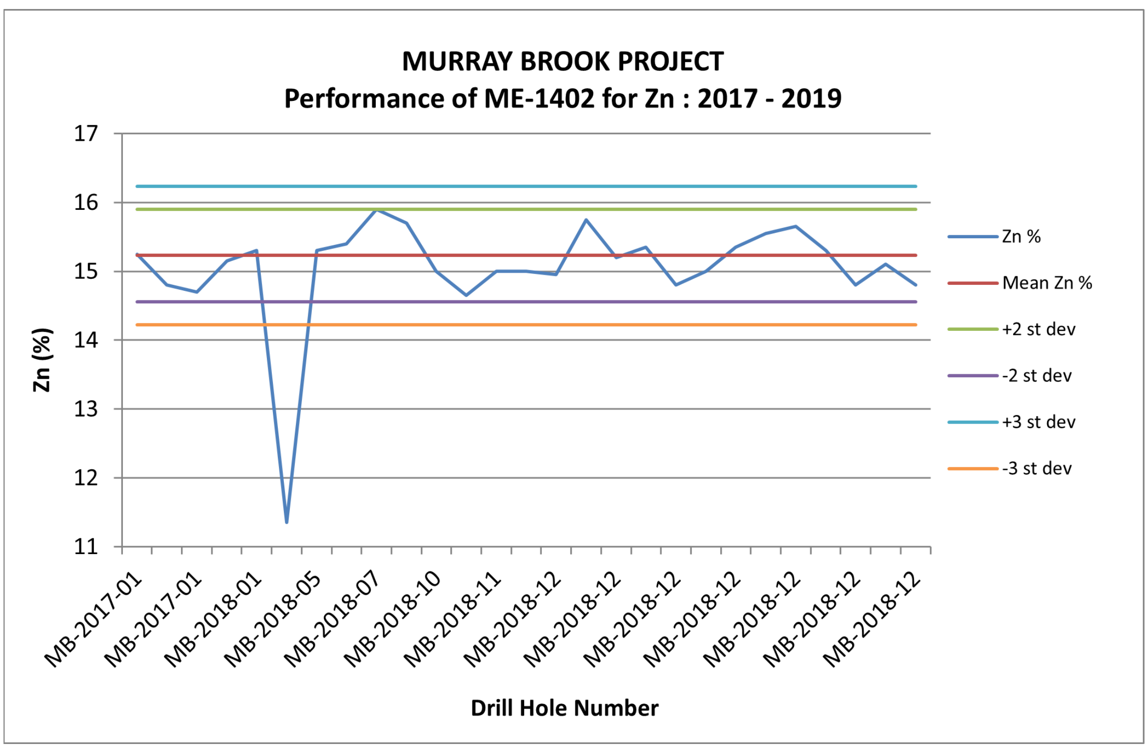
Source: *P&E (2023)*

FIGURE 11.6 PERFORMANCE OF CDN-ME-1402 CRM PB FOR 2017 TO 2019 DRILLING



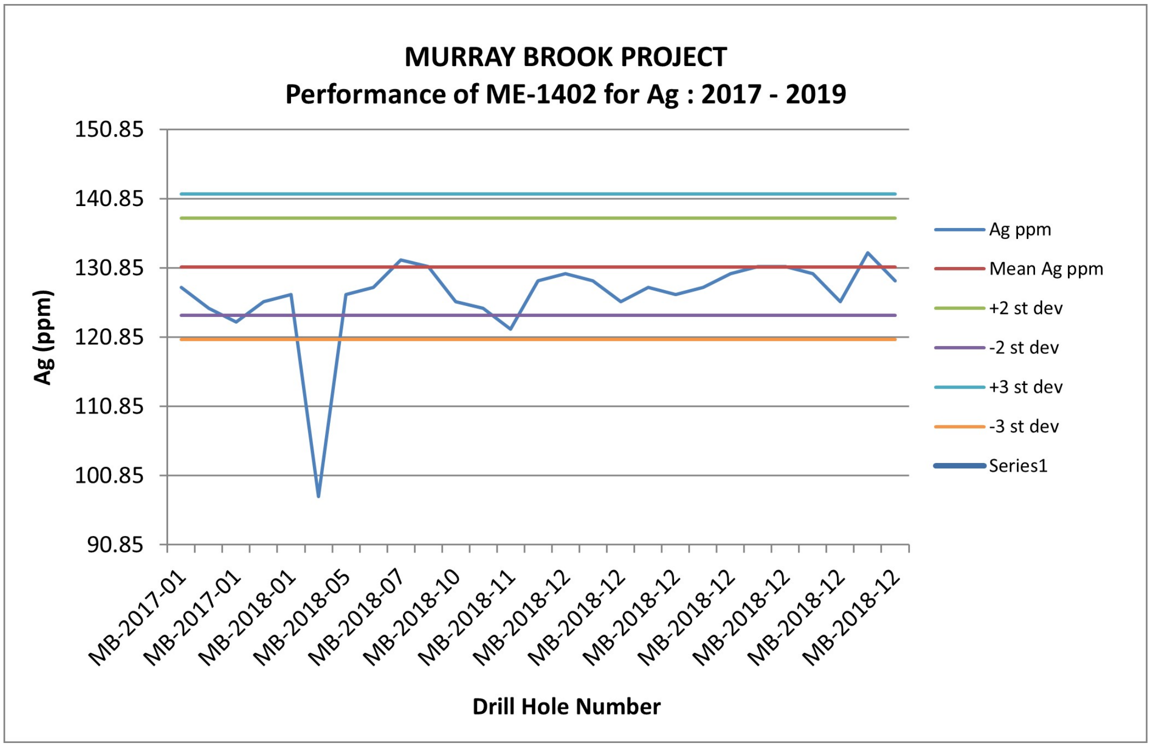
Source: *P&E (2023)*

FIGURE 11.7 PERFORMANCE OF CDN-ME-1402 CRM ZN FOR 2017 TO 2019 DRILLING



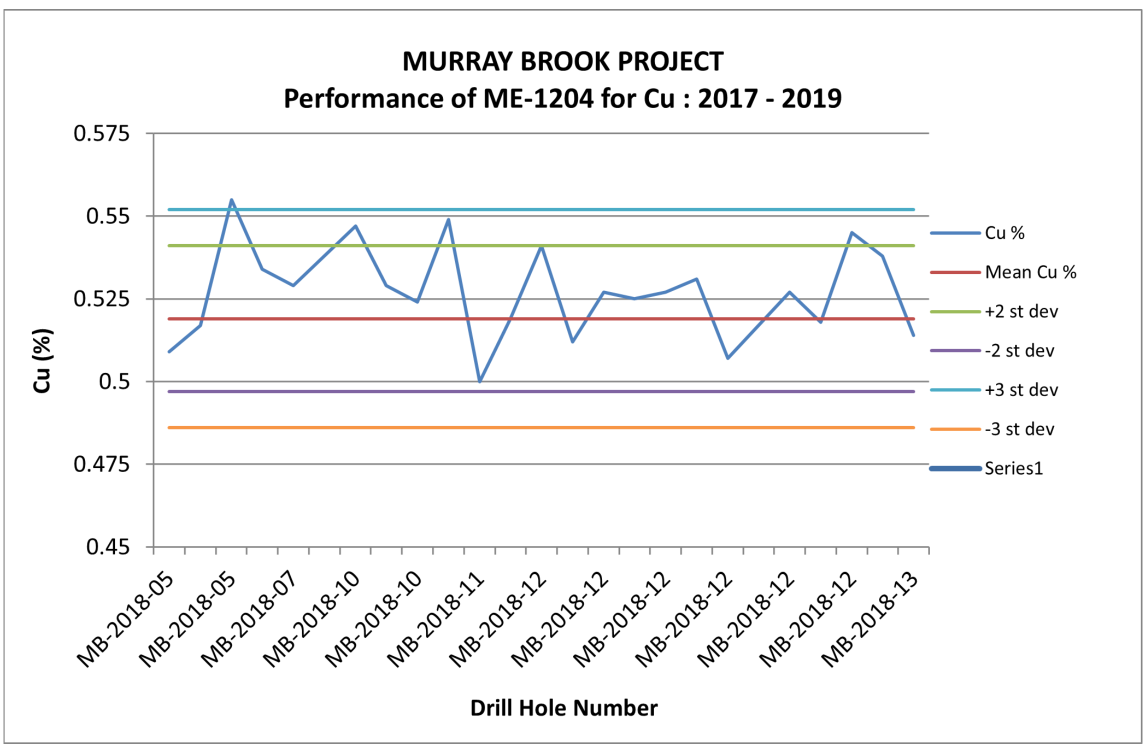
Source: *P&E (2023)*

FIGURE 11.8 PERFORMANCE OF CDN-ME-1402 CRM AG FOR 2017 TO 2019 DRILLING



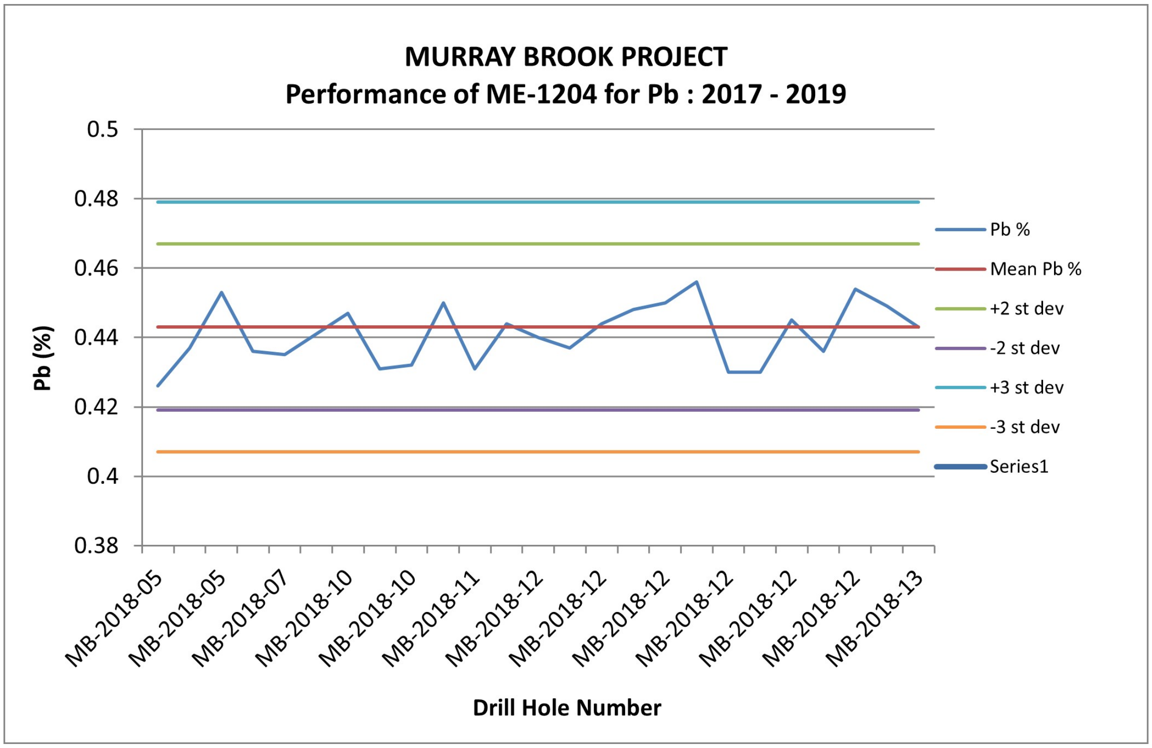
Source: *P&E (2023)*

FIGURE 11.9 PERFORMANCE OF CDN-ME-1204 CRM CU FOR 2017 TO 2019 DRILLING



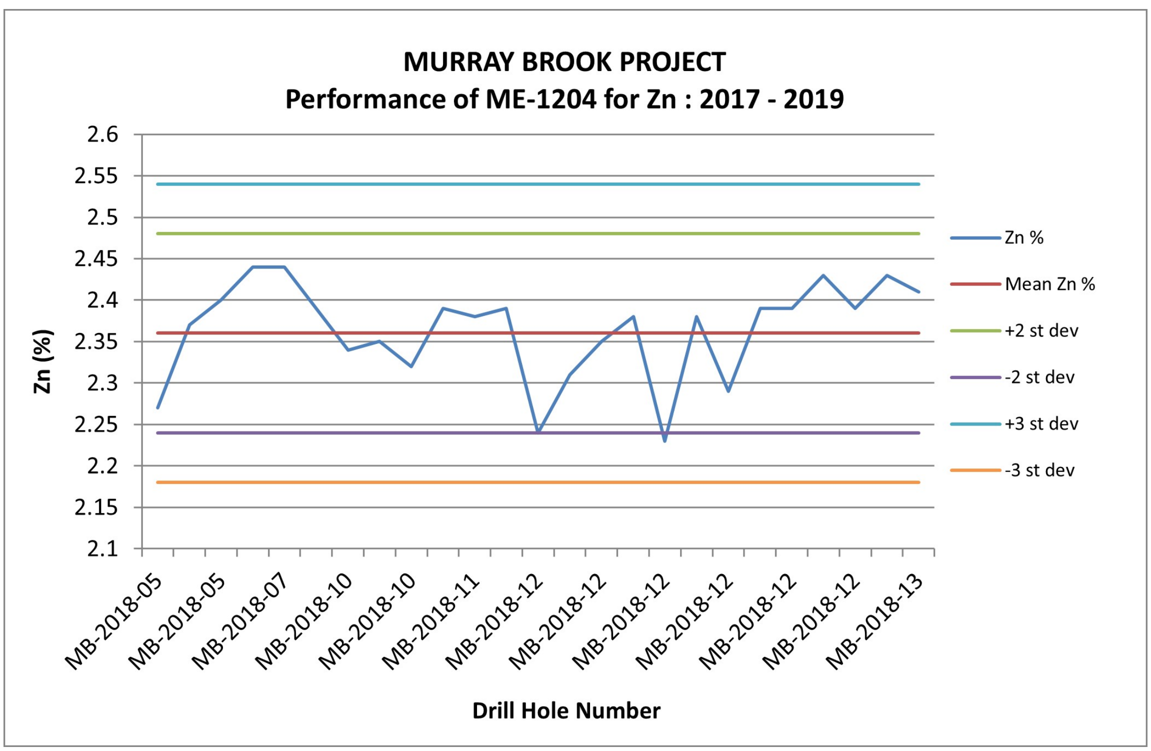
Source: *P&E (2023)*

FIGURE 11.10 PERFORMANCE OF CDN-ME-1204 CRM PB FOR 2017 TO 2019 DRILLING



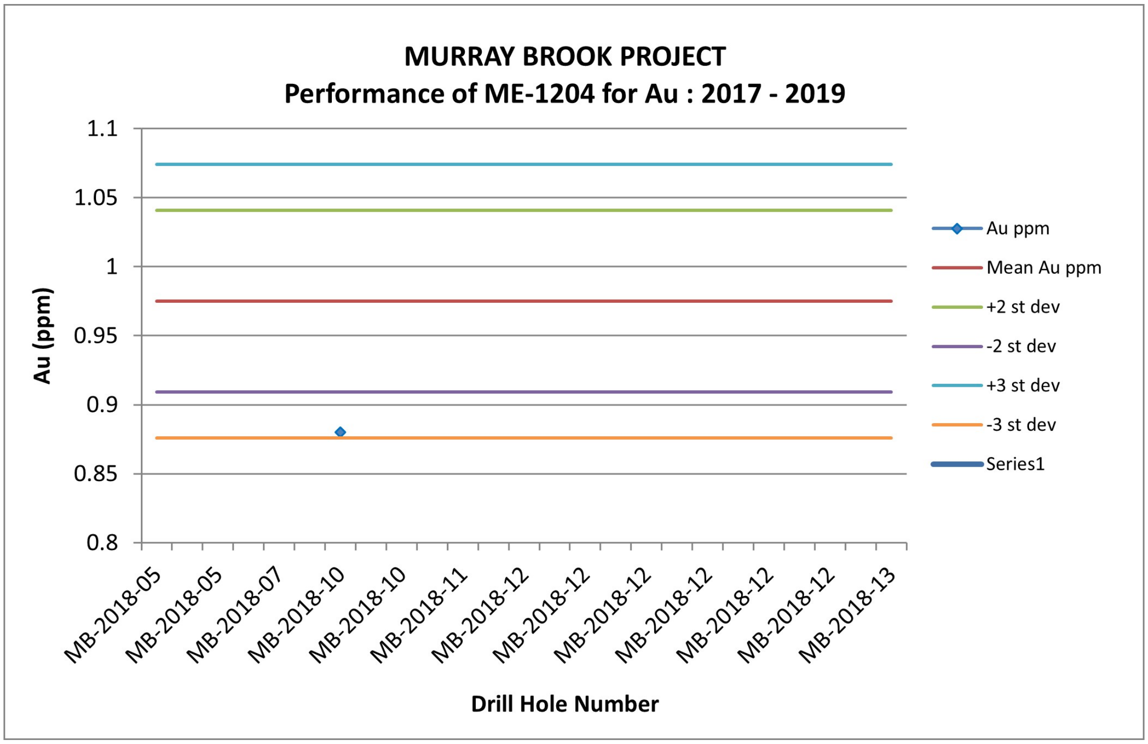
Source: *P&E (2023)*

FIGURE 11.11 PERFORMANCE OF CDN-ME-1204 CRM ZN FOR 2017 TO 2019 DRILLING



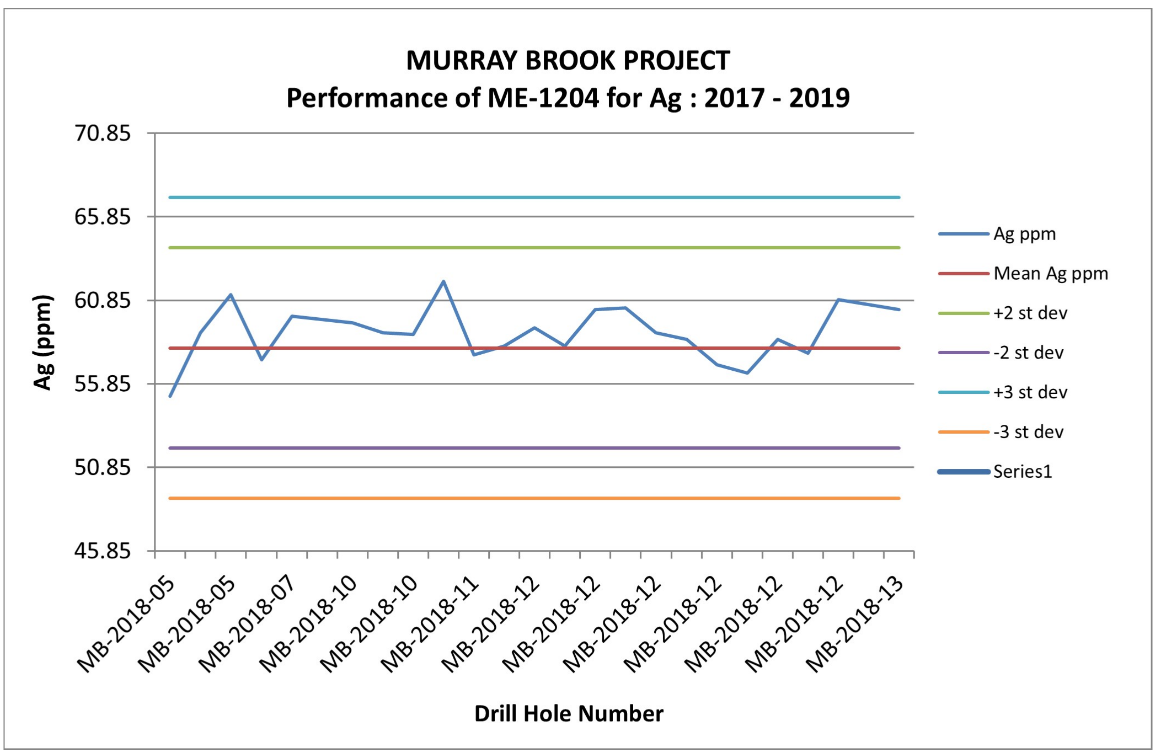
Source: *P&E (2023)*

FIGURE 11.12 PERFORMANCE OF CDN-ME-1204 CRM AU FOR 2017 TO 2019 DRILLING



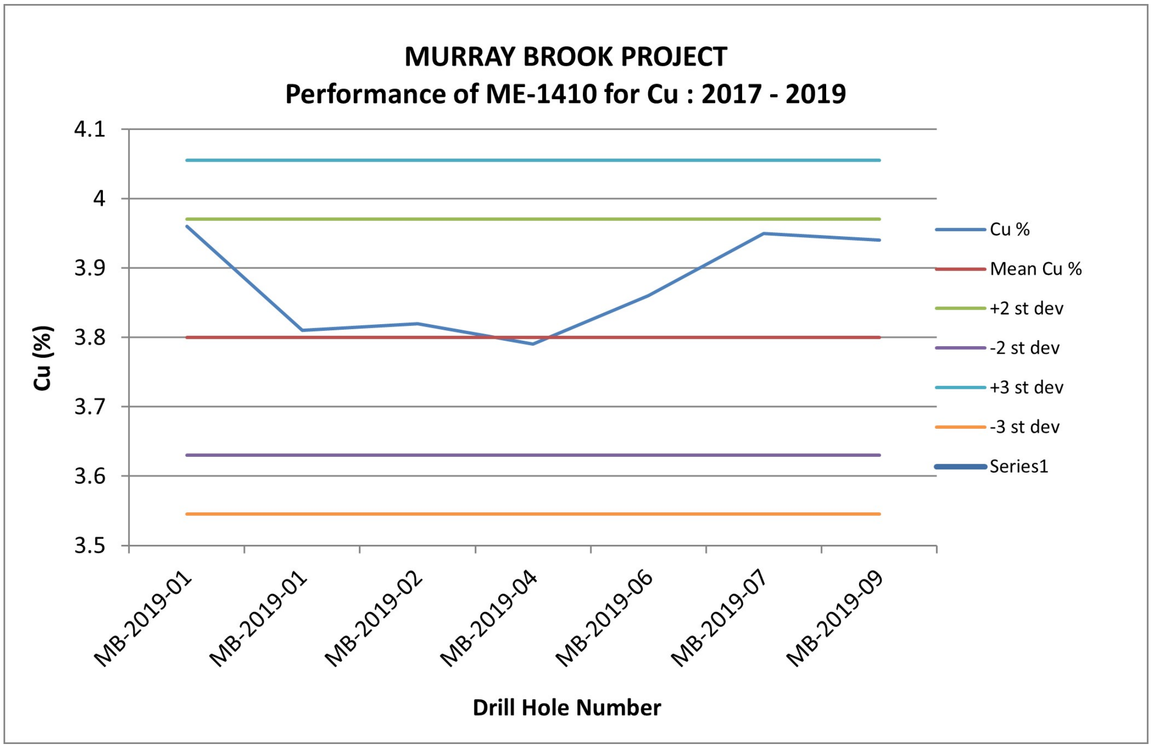
Source: *P&E (2023)*

FIGURE 11.13 PERFORMANCE OF CDN-ME-1204 CRM AG FOR 2017 TO 2019 DRILLING



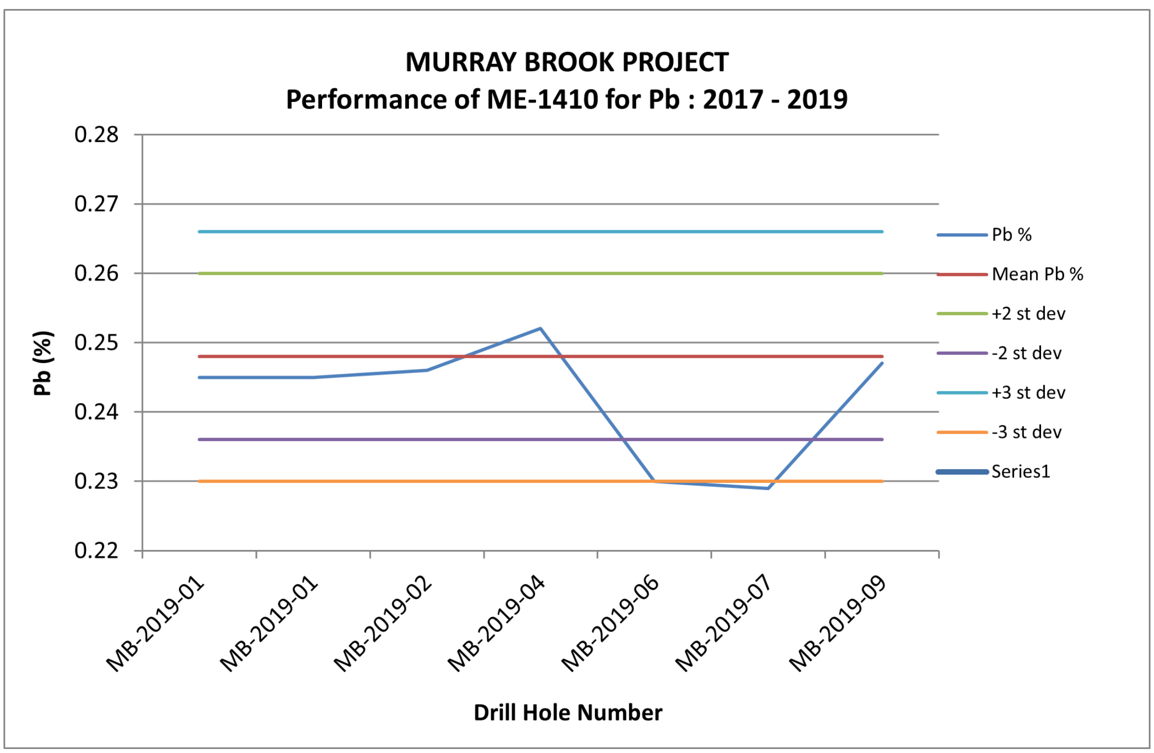
Source: *P&E (2023)*

FIGURE 11.14 PERFORMANCE OF CDN-ME-1410 CRM CU FOR 2017 TO 2019 DRILLING



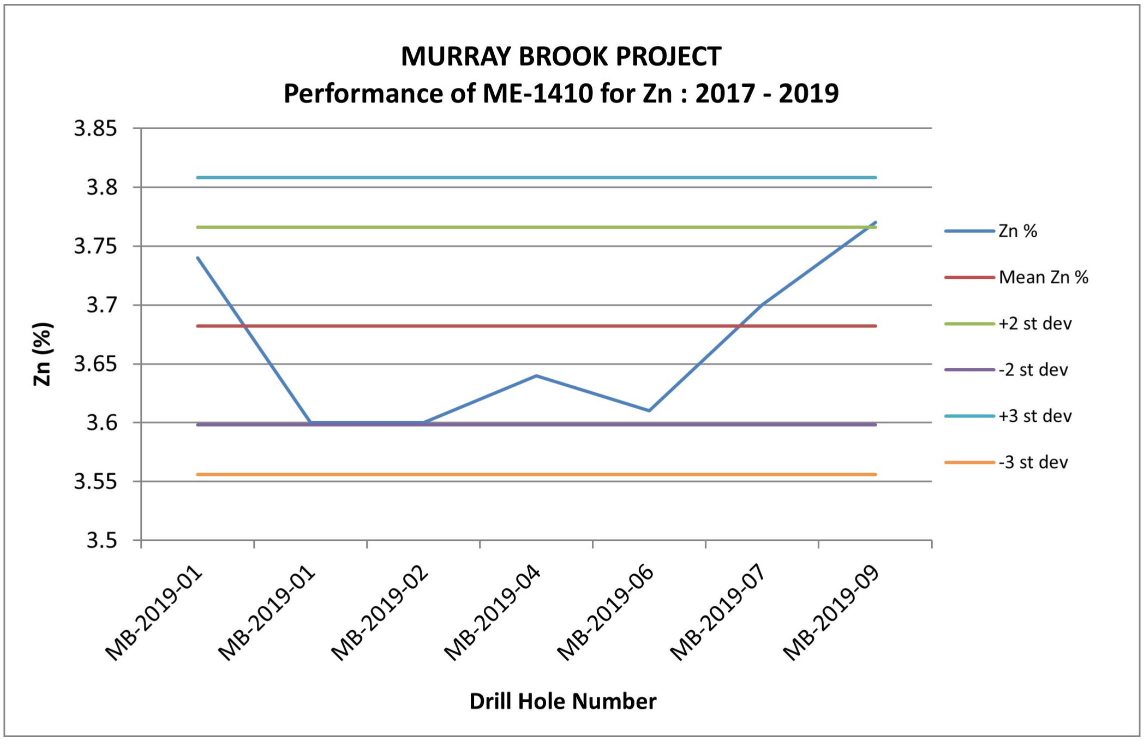
Source: *P&E (2023)*

FIGURE 11.15 PERFORMANCE OF CDN-ME-1410 CRM PB FOR 2017 TO 2019 DRILLING



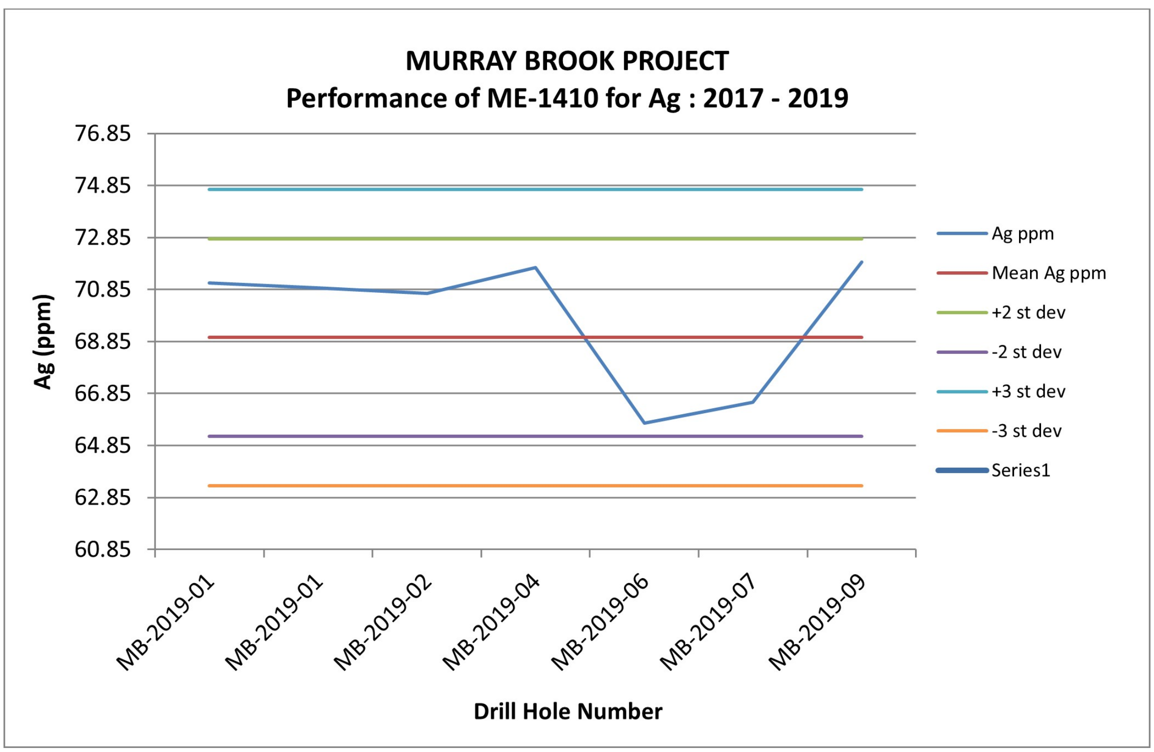
Source: *P&E (2023)*

FIGURE 11.16 PERFORMANCE OF CDN-ME-1410 CRM ZN FOR 2017 TO 2019 DRILLING



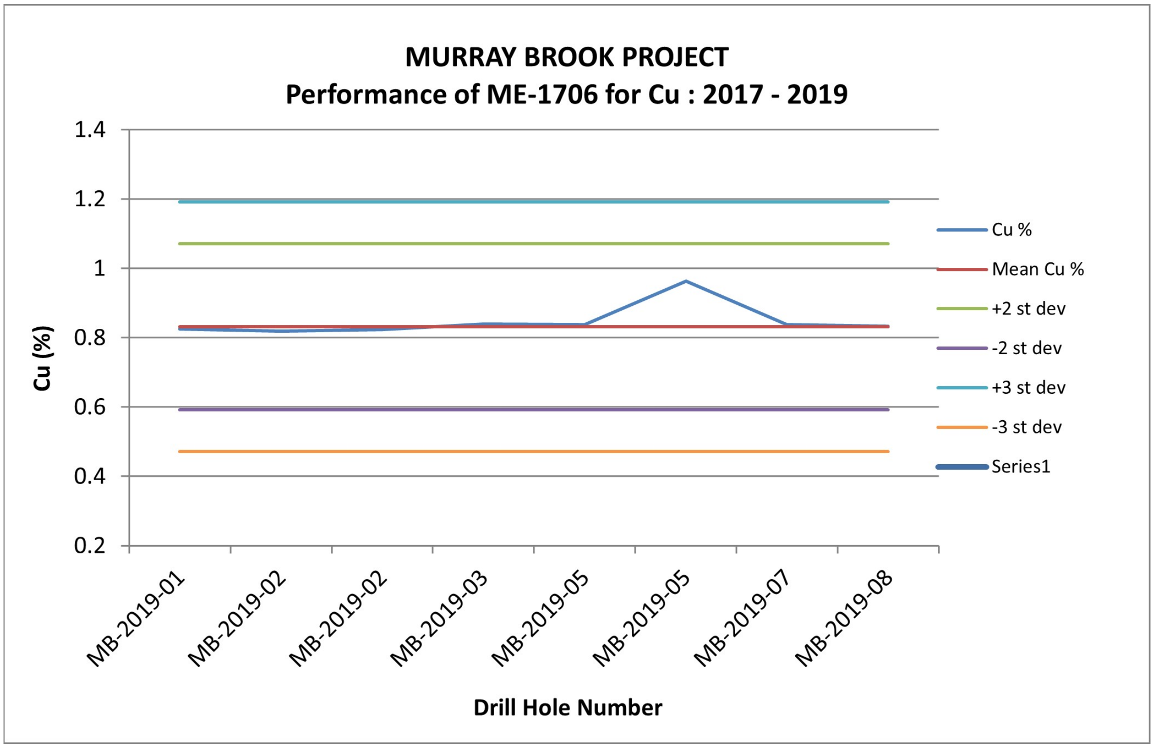
Source: *P&E (2023)*

FIGURE 11.17 PERFORMANCE OF CDN-ME-1410 CRM AG FOR 2017 TO 2019 DRILLING



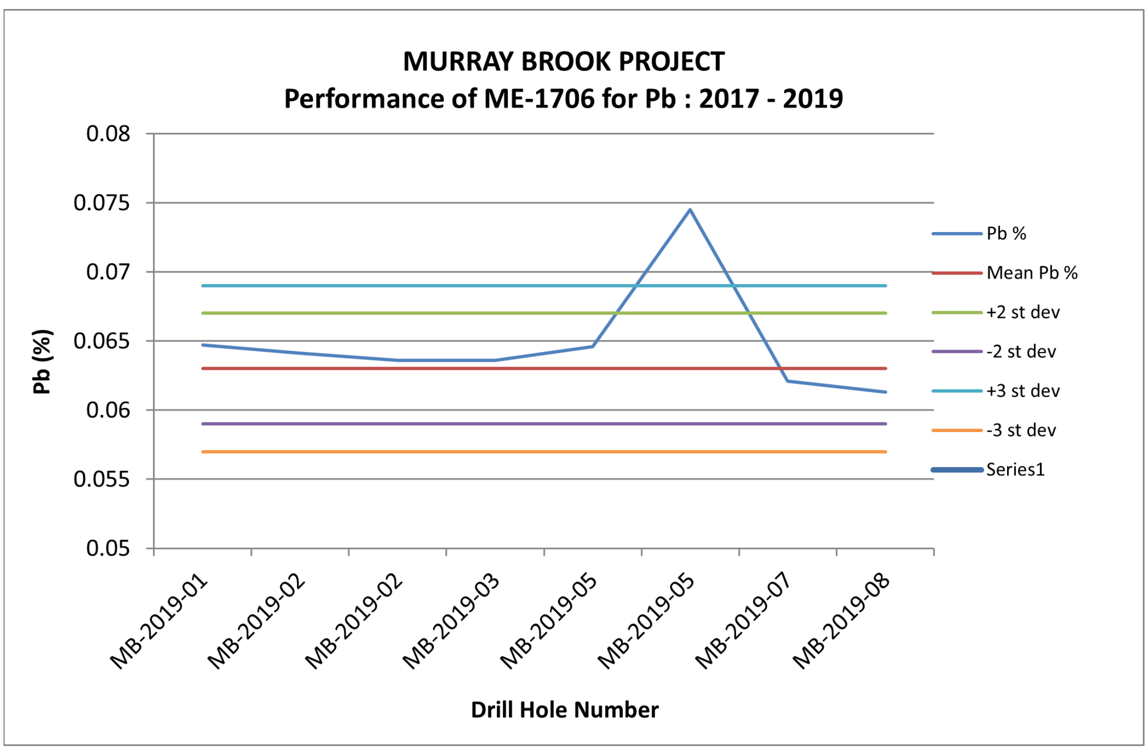
Source: *P&E (2023)*

FIGURE 11.18 PERFORMANCE OF CDN-ME-1706 CRM CU FOR 2017 TO 2019 DRILLING



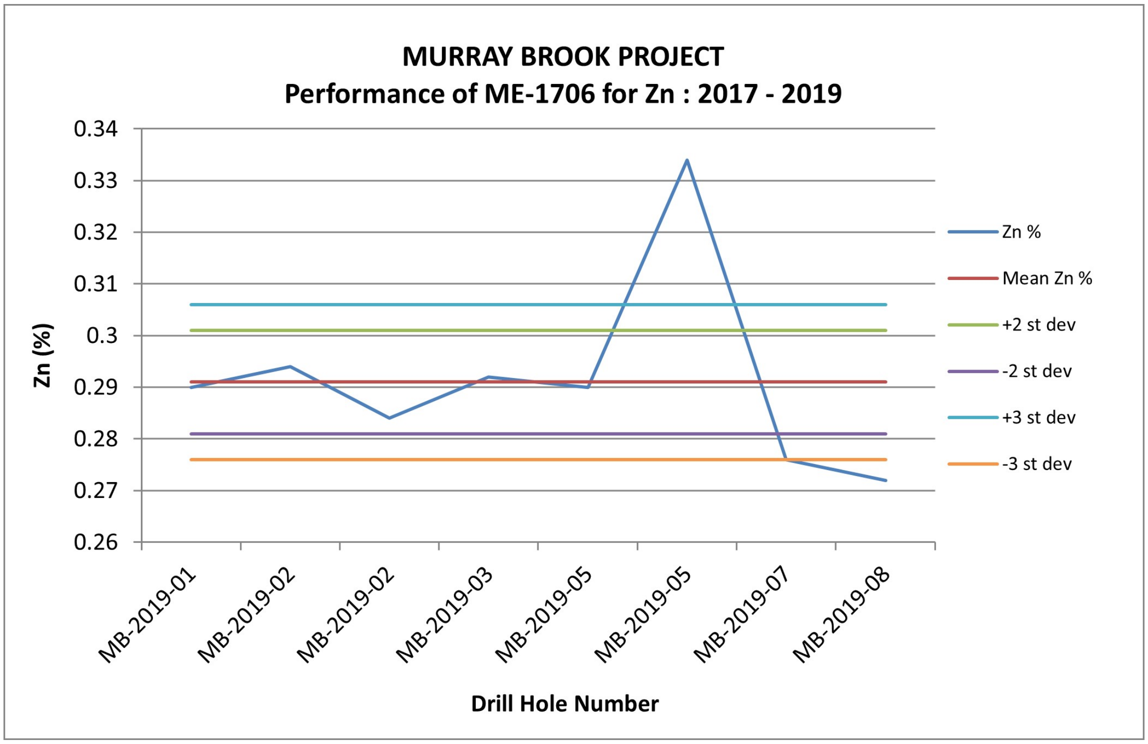
Source: *P&E (2023)*

FIGURE 11.19 PERFORMANCE OF CDN-ME-1706 CRM PB FOR 2017 TO 2019 DRILLING



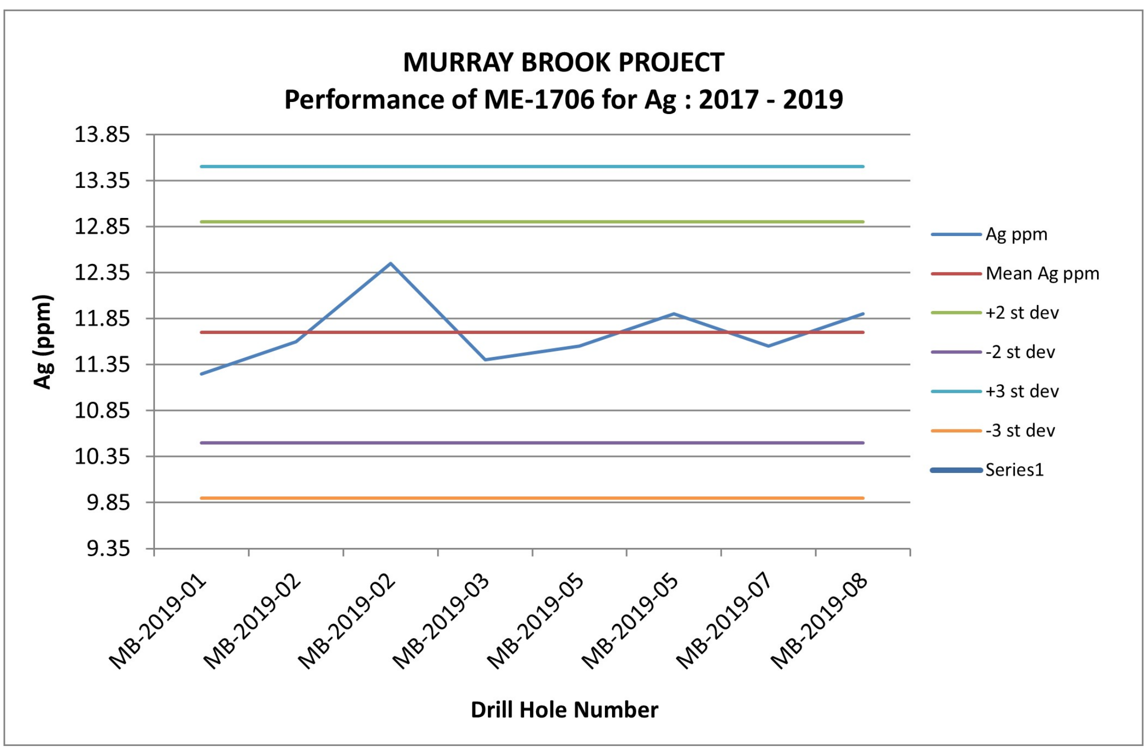
Source: *P&E (2023)*

FIGURE 11.20 PERFORMANCE OF CDN-ME-1706 CRM ZN FOR 2017 TO 2019 DRILLING



Source: *P&E (2023)*

FIGURE 11.21 PERFORMANCE OF CDN-ME-1706 CRM AG FOR 2017 TO 2019 DRILLING



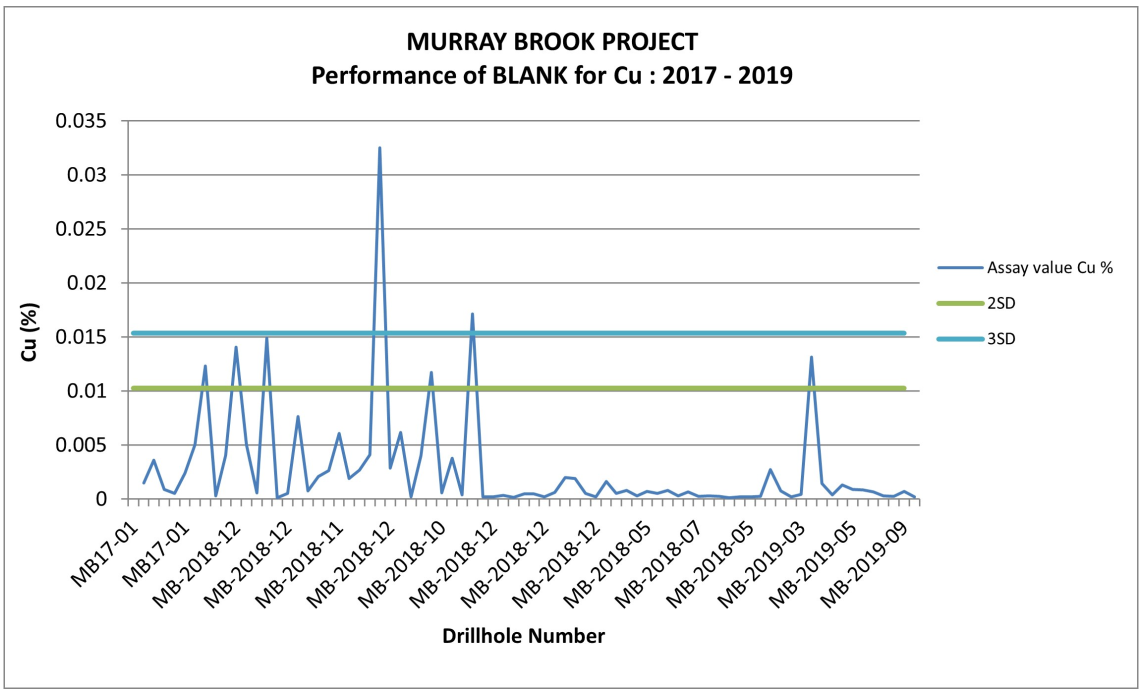
Source: *P&E (2023)*

11.5.2 Performance of Blanks

All blank data for copper, lead, zinc, silver and gold were reviewed by the Author. The blank material used was a decoration white stone, consisting of white marble devoid of significant levels of zinc, lead, copper, gold or silver, and sourced from a local hardware store. There were 76 data points to examine. If the assayed value in the certificate was indicated as being less than detection limit, the value was assigned the value of one-half the detection limit for data treatment purposes. An upper tolerance limit of three times the standard deviation of all 76 data points was used.

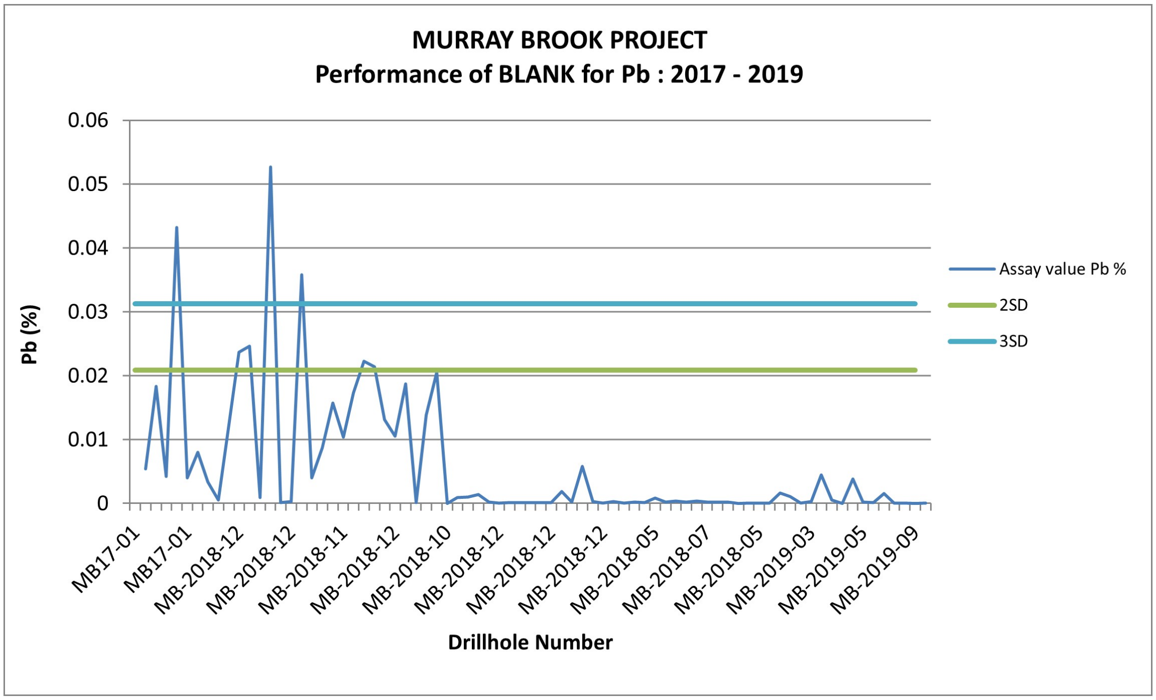
The vast majority of data plots at or below the set tolerance limits for all elements (Figures 11.22 and 11.26) and the carryover contamination observed in the data is considered acceptable. The Author does not consider the very few outliers to be significant to the integrity of the data.

FIGURE 11.22 PERFORMANCE OF BLANKS CU FOR 2017 TO 2019 DRILLING



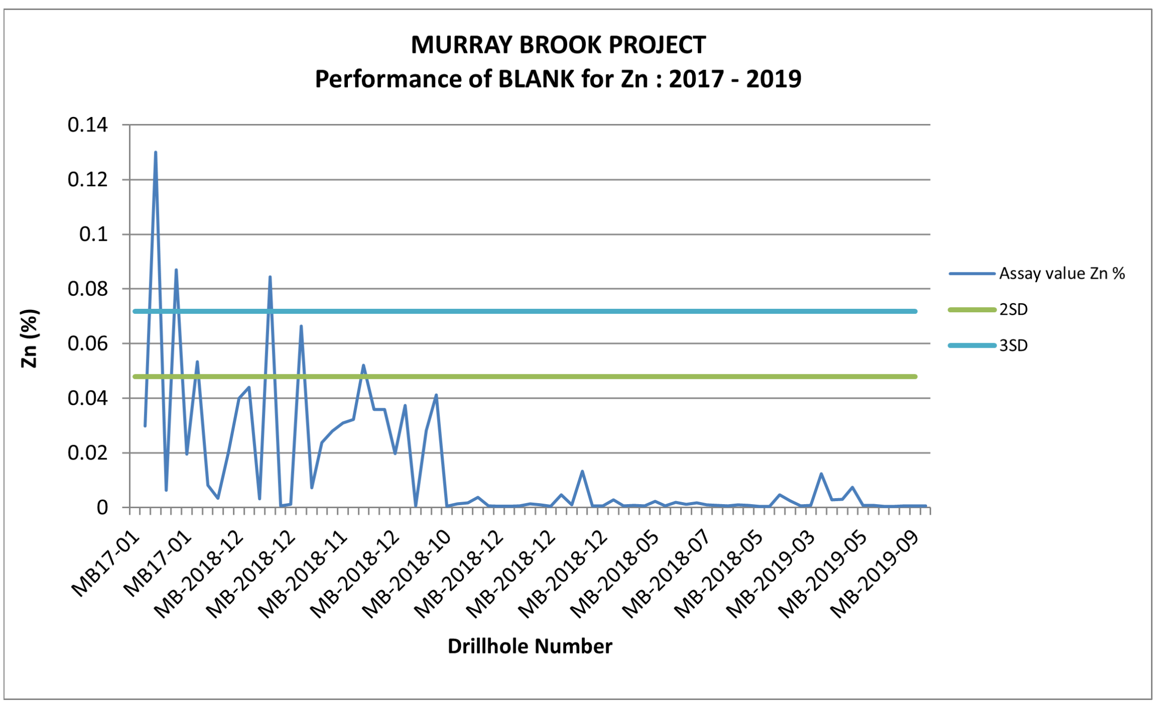
Source: *P&E (2023)*

FIGURE 11.23 PERFORMANCE OF BLANKS PB FOR 2017 TO 2019 DRILLING



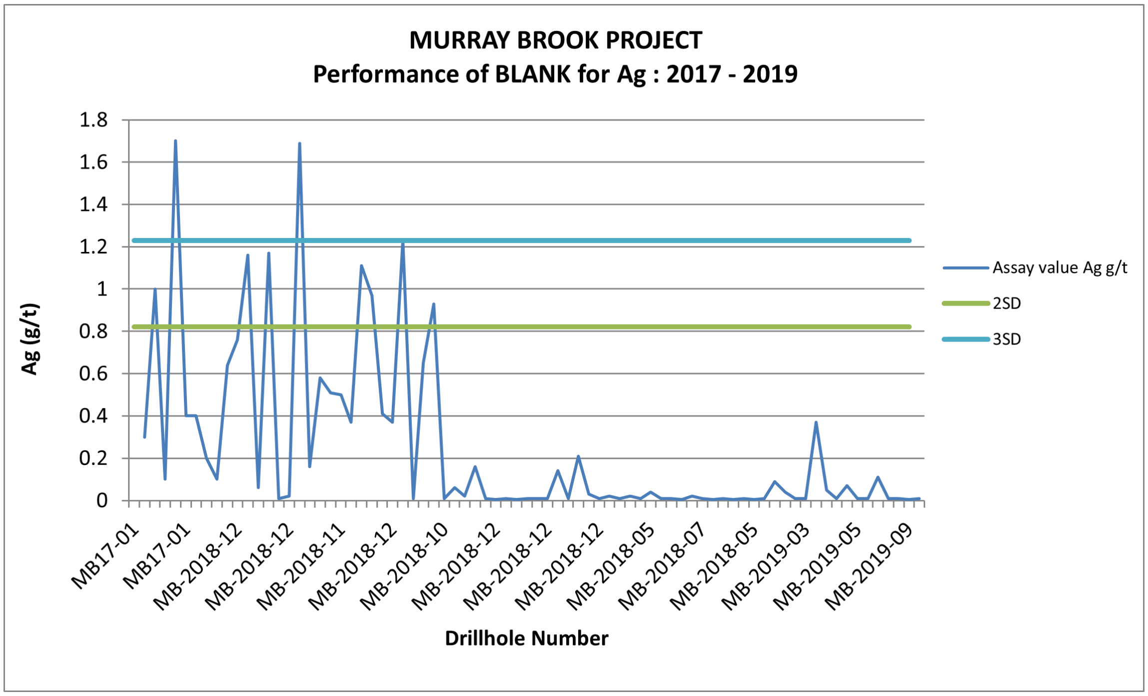
Source: *P&E (2023)*

FIGURE 11.24 PERFORMANCE OF BLANKS ZN FOR 2017 TO 2019 DRILLING



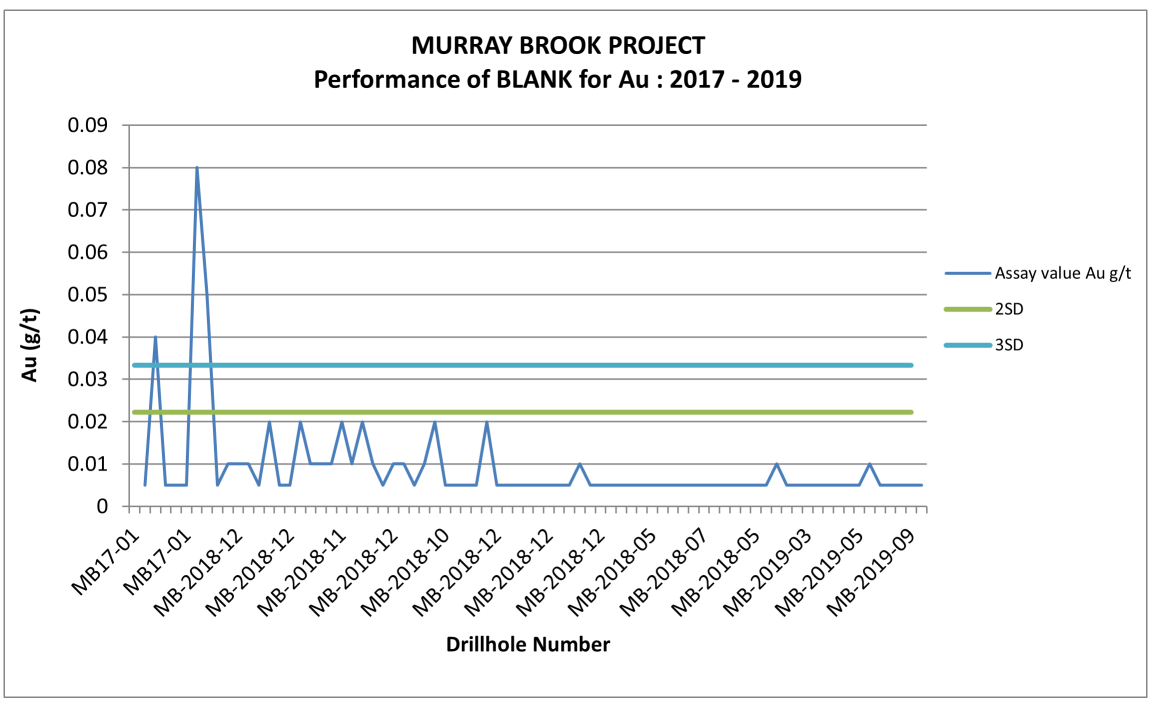
Source: *P&E (2023)*

FIGURE 11.25 PERFORMANCE OF BLANKS AG FOR 2017 TO 2019 DRILLING



Source: *P&E (2023)*

FIGURE 11.26 PERFORMANCE OF BLANKS AU FOR 2017 TO 2019 DRILLING

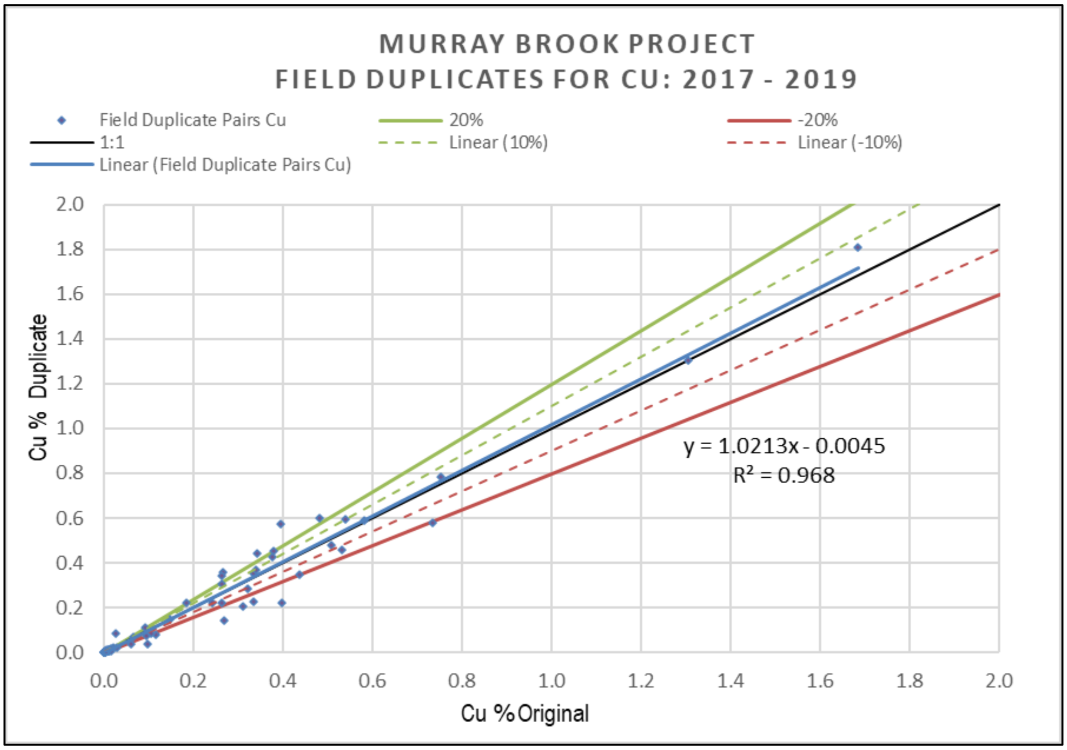


Source: *P&E (2023)*

11.5.3 Performance of Field Duplicates

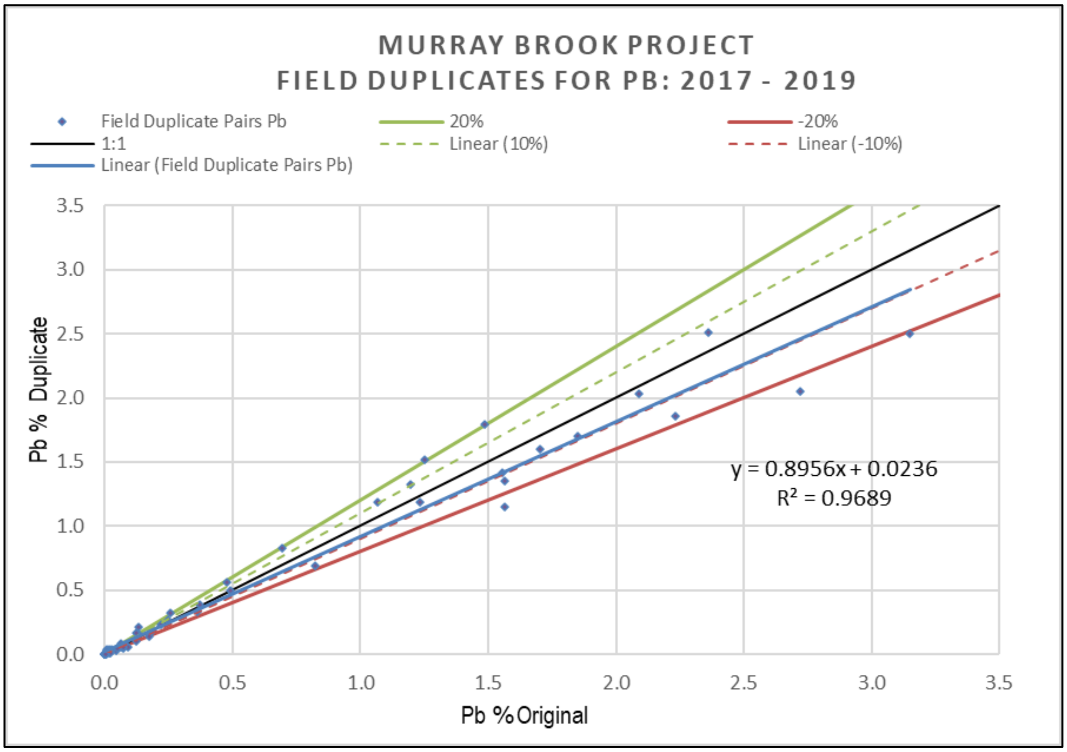
Field duplicate data for copper, lead, zinc, silver and gold were examined for the 2017 to 2019 drill program at Murray Brook. There were 76 duplicate pairs in the dataset. Data were scatter graphed (Figures 11.27 and 11.31) and found to have acceptable precision at the field level for all elements, with R-squared values ranging from 0.925 to 0.985 and the majority of the data plotting close to the 1:1 line.

FIGURE 11.27 PERFORMANCE OF CU FIELD DUPLICATES FOR 2017 TO 2019 DRILLING



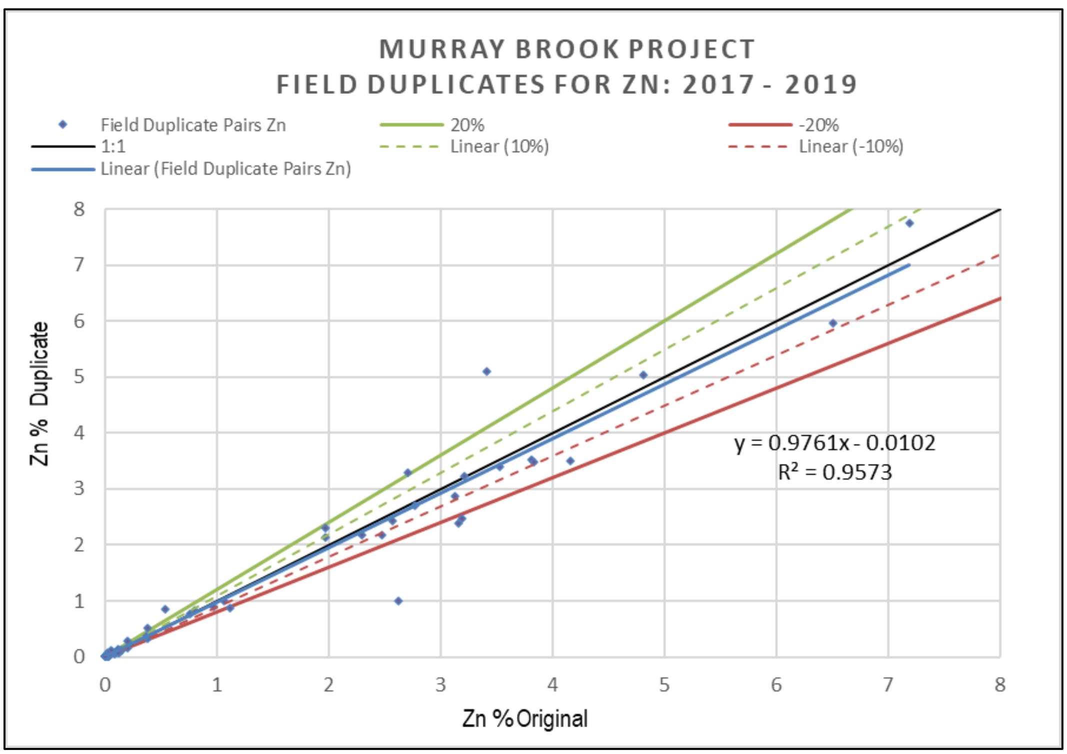
Source: *P&E (2023)*

FIGURE 11.28 PERFORMANCE OF PB FIELD DUPLICATES FOR 2017 TO 2019 DRILLING



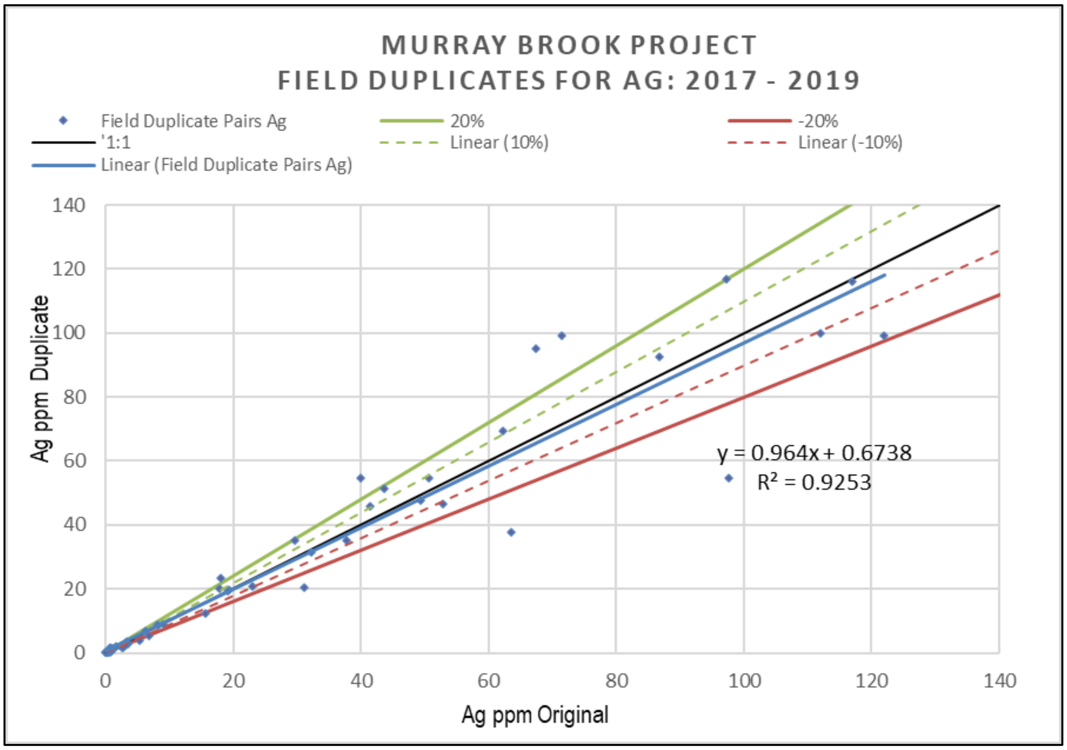
Source: *P&E (2023)*

FIGURE 11.29 PERFORMANCE OF ZN FIELD DUPLICATES FOR 2017 TO 2019 DRILLING



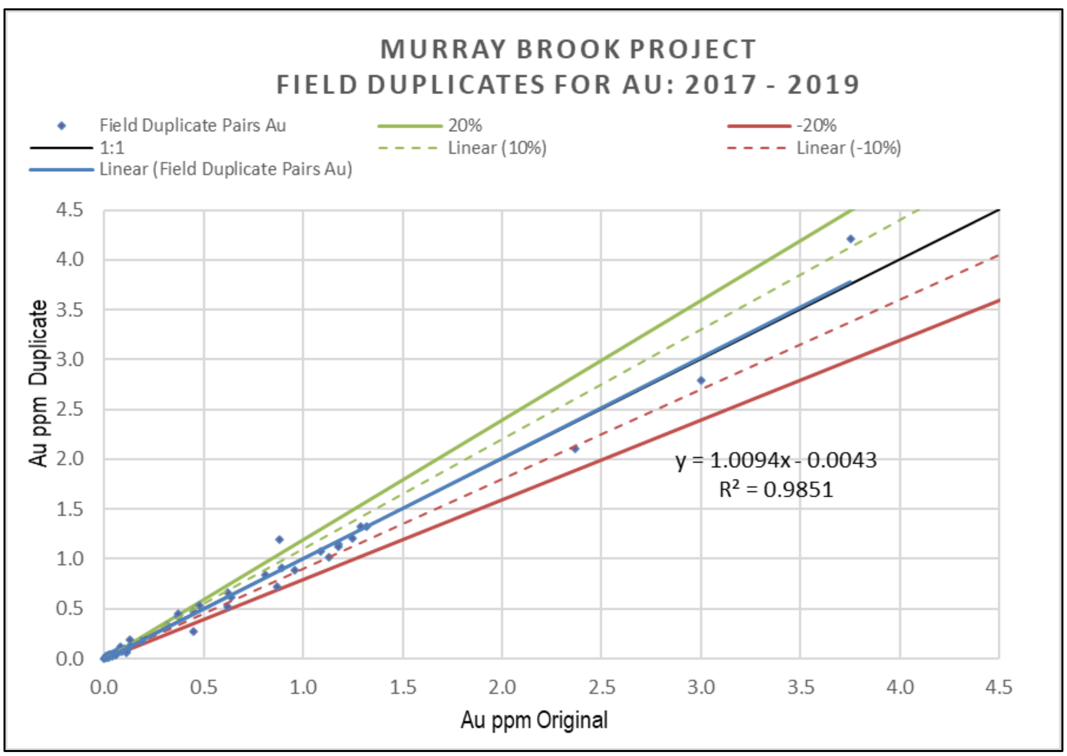
Source: *P&E (2023)*

FIGURE 11.30 PERFORMANCE OF AG FIELD DUPLICATES FOR 2017 TO 2019 DRILLING



***Source:** P&E (2023)*

FIGURE 11.31 PERFORMANCE OF AU FIELD DUPLICATES FOR 2017 TO 2019 DRILLING



***Source:** P&E (2023)*

11.6 CONCLUSION

It is Author's opinion that sample preparation, security and analytical procedures for the Murray Brook Project 2010 to 2019 drill programs were adequate, and that the data are of good quality and satisfactory for use in the current Mineral Resource Estimate. It is recommended that future drill core sampling at the Project include the insertion and monitoring of suitable CRMs to monitor gold analyses and umpire assaying of 5% of all drill core samples.

12.0 DATA VERIFICATION

12.1 MURRAY BROOK MINERALS DATA VERIFICATION

Murray Brook Minerals Inc. ("MBM") undertook a resampling program of the historical drill core previously drilled by NovaGold, who operated at the Property between 1988 and 1998. Resampling was undertaken in 2007 to verify NovaGold's previously reported copper, lead, zinc, gold and silver grades, with a total of 645.65 m of NovaGold drilled-core resampled. The assays indicated comparable copper and lead values, slightly elevated zinc values and a 10% decrease in Ag values compared to those previously reported. The Authors have not reviewed details of the work carried out by MBM, nor cited any of the associated laboratory certificates.

12.2 VMC DATA VERIFICATION

VMC's drilling at Murray Brook commenced in 2010 with the drilling of four 'due diligence' holes, totalling 595.2 m (drill hole MB-10-14 was abandoned at 39 m). These drill holes were reported to be consistent with historically reported results with significant intersections of zinc, copper, lead, gold and silver reported.

VMC also re-assayed 1,034 samples selected from historical and recent drill core to verify the database in preparation for a Mineral Resource Estimate exercise. The samples were collected by VMC employees, and the analytical determinations were carried out by TSL. The program of re-analyzing historical drill core confirmed the assay results of the previous operators. The Authors have not reviewed details of the work carried out by MBM, nor cited any of the associated laboratory certificates.

12.3 P&E DATA VERIFICATION

12.3.1 April 2012 Assay Verification

The Authors conducted verification of the Murray Brook Project drill hole assay database for copper, lead, zinc, silver and gold by comparison of the database entries with assay lab certificates from TSL Laboratories. Verification of assay data entry was performed on 3,890 assay intervals and few very minor data entry errors were observed and corrected. The checked assays represented 100% of the data used in the 2012 Mineral Resource Estimate and approximately 64% of the entire 2012 database.

12.3.2 June 2013 Assay Verification

The Authors conducted verification of the Murray Brook Project 2012 drill hole assay data for copper, lead, zinc, silver and gold in June 2013. Approximately 96% (5,710 out of 5,980) of the assay data from 2012 were checked against the original laboratory certificates from TSL. During the verification process, it was found that some assays returning results below the laboratory detection limits were set to zero or half of detection limit in the database, which is acceptable for Mineral Resource estimation.

12.3.3 September 2023 Assay Verification

The Authors again conducted verification of the Murray Brook Project drill hole assay data for copper, lead, zinc, silver and gold in September 2023 by comparison of the database entries with assay certificates. Original digital assay laboratory certificates were downloaded directly from the ALS Webtrieve™ website by the Authors in .xls (Microsoft Excel™ spreadsheet file) and .pdf (Portable Document Format file) format. Assay data from the 2017 to 2019 drilling undertaken at the Murray brook Project were verified, with approximately 17% (483 out of 2,852 entries) of the overall data and approximately 21% (375 out of a total of 1,788 entries) of the constrained data verified. Very few minor discrepancies were encountered during the verification process, which the Authors do not consider to be of material impact to the data for the Mineral Resource Estimate.

12.3.4 Drill Hole Data Validation

Industry standard validation checks were carried out on the supplied databases, and minor corrections made where necessary. The Authors typically validate 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.

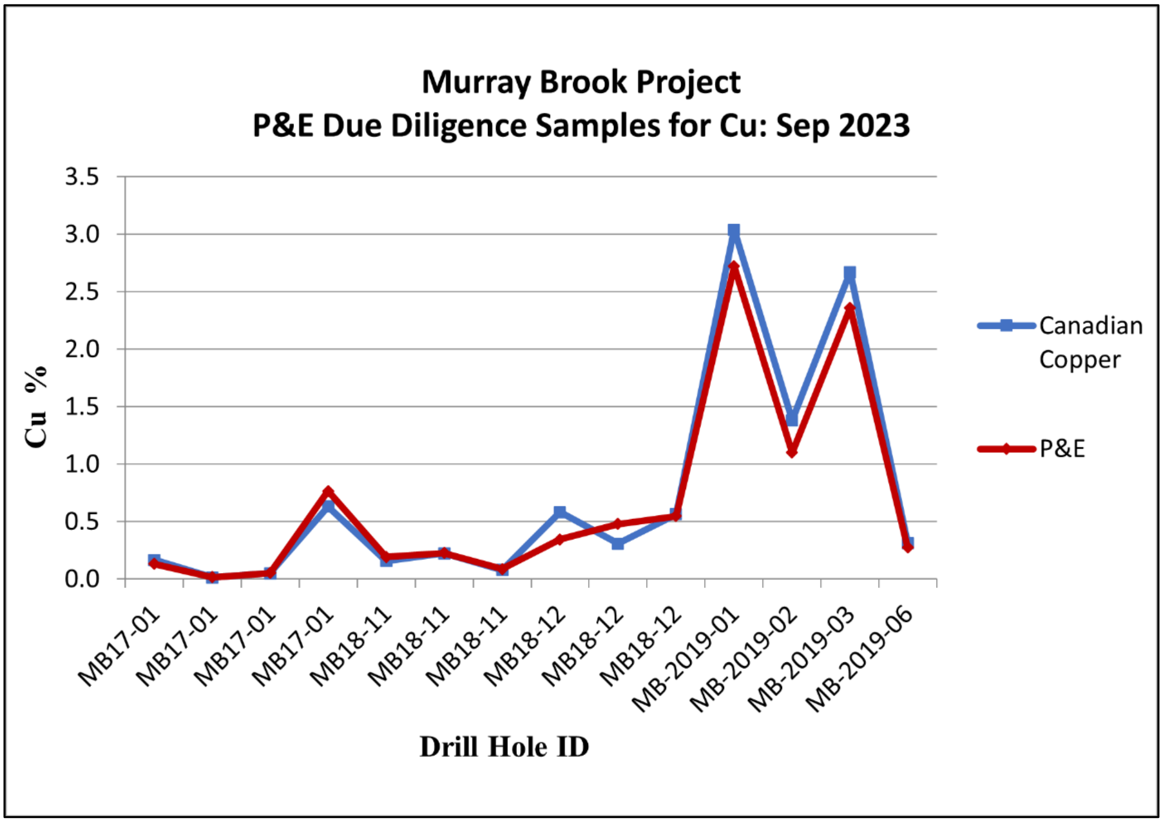
12.3.5 P&E September 2023 Site Visit and Independent Sampling

The Murray Brook Project was visited by Mr. Yungang Wu, P.Geo., of P&E, on September 9, 2023, for the purpose of completing a site visit that included drilling sites, outcrops, GPS location verifications, discussions, and due diligence drill core sampling.

Mr. Wu collected 14 drill core samples from seven diamond drill holes during the 2023 site visit. All samples were selected from holes drilled between 2017 and 2019. A range of high, medium and low-grade samples were selected from the stored drill core. Samples were collected by taking a quarter drill core, with the other quarter drill core remaining in the drill core box. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag and delivered by Mr. Wu to the Activation Laboratories Ltd., facility in Ancaster, Ontario for analysis. Samples at Actlabs were analyzed for copper, lead and zinc by aqua regia digestion with ICP-OES finish and for gold and silver by fire assay with a gravimetric finish. Bulk density determinations were measured on all drill core samples by water displacement.

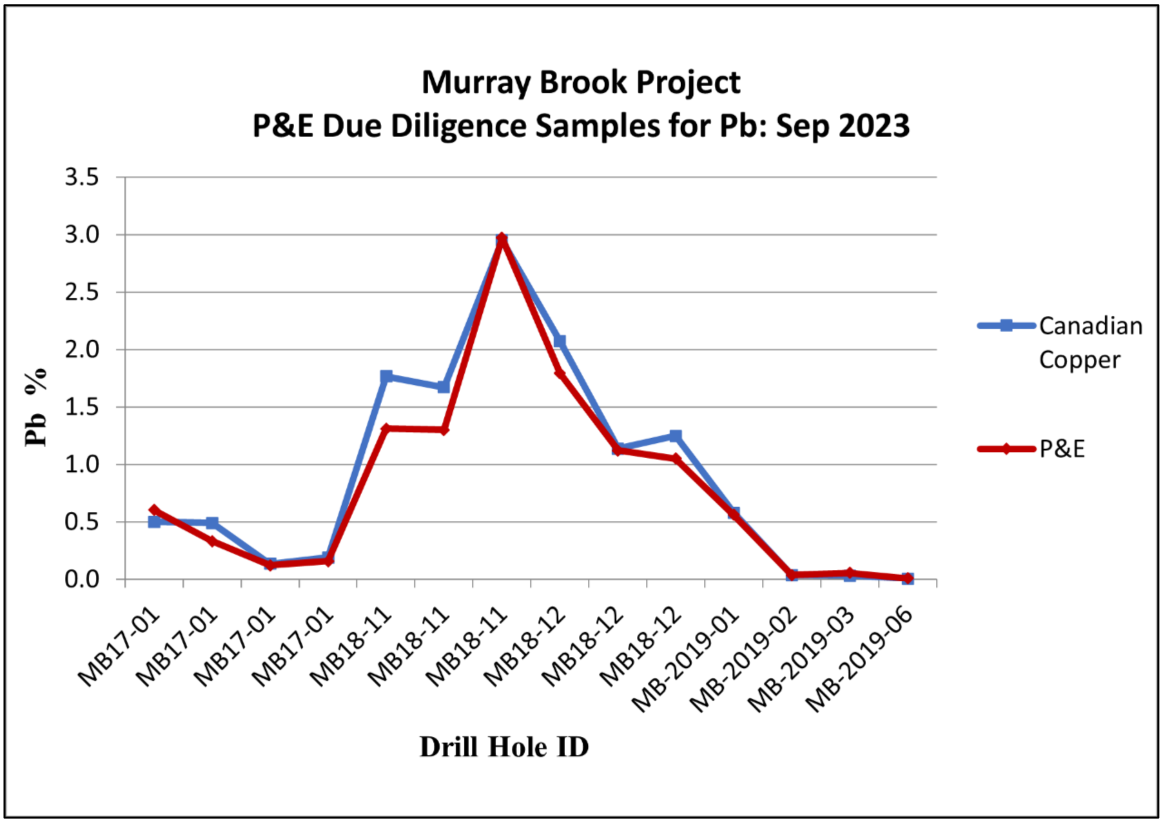
The Quality System at Actlabs is accredited to international quality standards through ISO/IEC 17025:2017 and ISO 9001:2015. The accreditation program includes ongoing audits, which verify the QA system and all applicable registered test methods. Actlabs is also accredited by Health Canada. Actlabs is independent of Canadian Copper. Results of the Murray Brook 2023 site visit verification samples for copper, lead, zinc, silver and gold are presented in Figures 12.1 through 12.5.

FIGURE 12.1 RESULTS OF SEPTEMBER 2023 CU VERIFICATION SAMPLING



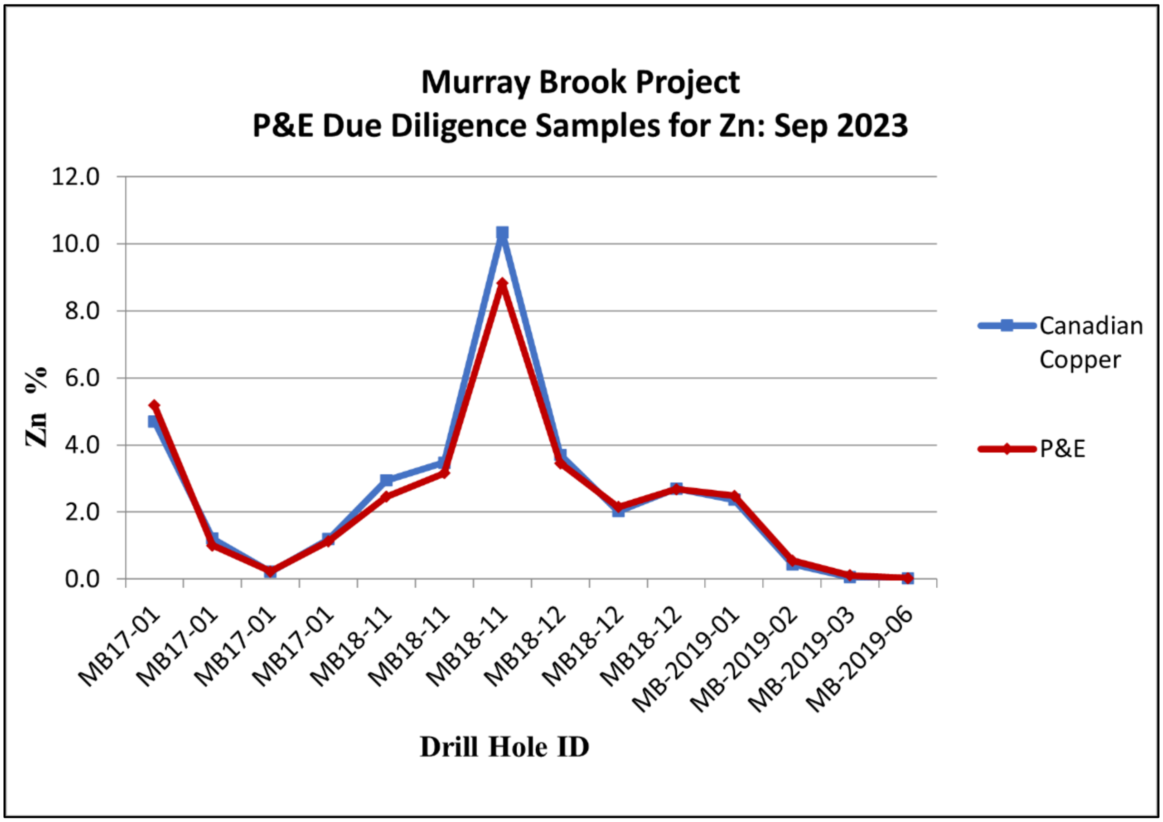
Source: *P&E (2023)*

FIGURE 12.2 RESULTS OF SEPTEMBER 2023 PB VERIFICATION SAMPLING



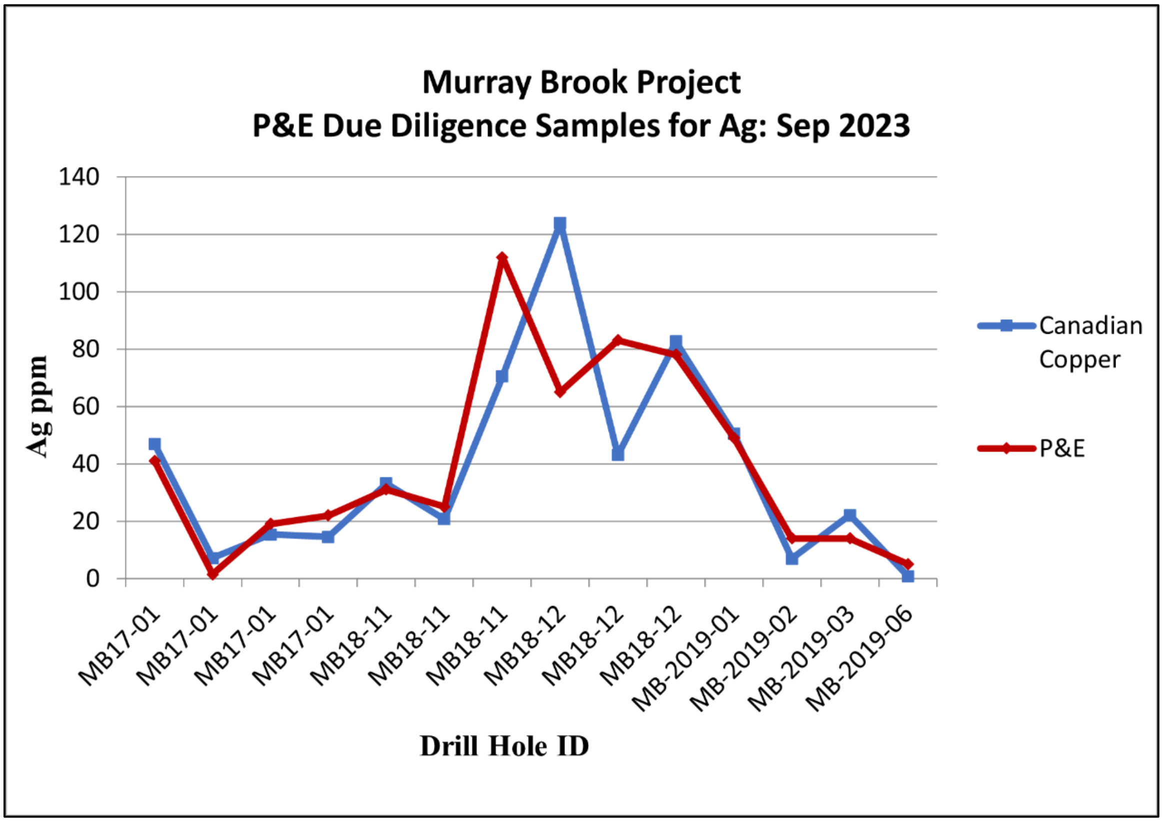
Source: *P&E (2023)*

FIGURE 12.3 RESULTS OF SEPTEMBER 2023 ZN VERIFICATION SAMPLING



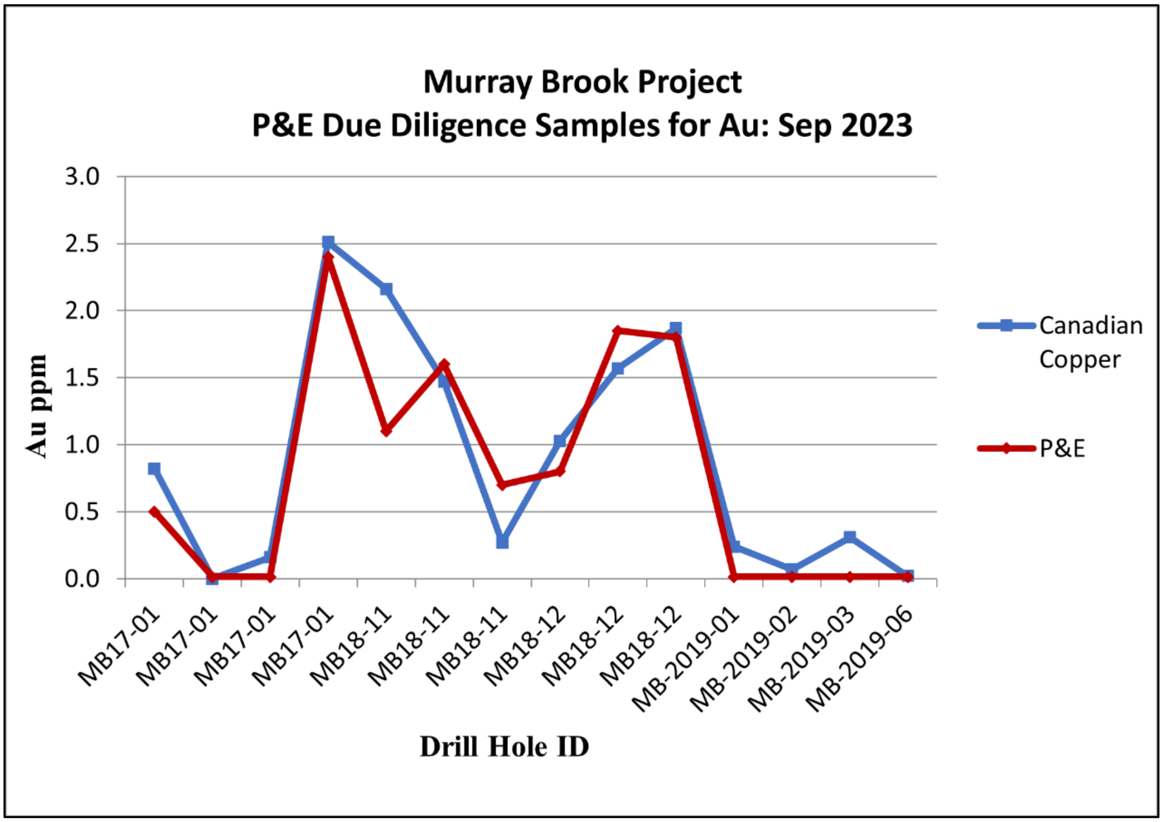
Source: *P&E (2023)*

FIGURE 12.4 RESULTS OF SEPTEMBER 2023 AG VERIFICATION SAMPLING



Source: *P&E (2023)*

FIGURE 12.5 RESULTS OF SEPTEMBER 2023 AU VERIFICATION SAMPLING



Source: *P&E (2023)*

12.4 ADEQUACY OF DATA

Verification of the Murray Brook Project data, used for the current Mineral Resource Estimate, has been undertaken by the Authors, including multiple site visits, due diligence sampling, verification of drilling assay data from electronic assay files, and assessment of the available QA/QC data. The Authors consider that there is good correlation between the copper, lead, zinc, silver and gold assay values in Canadian Copper's database and the independent verification samples collected by the Authors and analyzed at Actlabs. In the Authors opinion, the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 INTRODUCTION

The results of two metallurgical testing campaigns are available for the Murray Brook polymetallic massive sulphide deposit. The first was sponsored by VMC to carry out metallurgical studies at Research and Productivity Council of New Brunswick ("RPC") on a Murray Brook composite prepared from drill core during 2012 and the first quarter of 2013 (RPC, 2012). The second testing campaign was a detailed study by RPC on three Murray Brook composites in 2018-2019 that was sponsored by Trevali (RPC, 2019).

13.2 MINERALOGY

In the 2012-2013 RPC study, sulphides in the deposit were identified as fine-grained, massive, weakly laminated pyrite with disseminated and banded sphalerite, chalcopyrite and galena. An SEM-EDS mineralogical examination showed that pyrite was the predominant mineral in all samples. No pyrrhotite was identified, in spite of the widespread occurrence of this mineral phase in the BMC. In general, sphalerite and galena were observed to occur as an interstitial phase and as inclusions, fine veinlets, and grains attached to the pyrite. Chalcopyrite was reported to be rare and interstitial to pyrite. Another copper mineral, covellite, was reported to be rare. The silver-bearing mineral was tetrahedrite. Grain sizes were observed to be <20 µm, with some occurrences up to 50 to 100 µm in size.

Of the three mineralogical zones identified in the 2018-2019 study, a representative composite of the P1 zone (the zinc and lead rich zone) was studied. The results indicated that P1 contained 71.8% pyrite, 11.2% sphalerite, 2.1% galena and 0.24% chalcopyrite. The total S content was 46.1%. Gangue minerals present were quartz, calcite, dolomite, ankerite ($Ca(Fe,Mg,Mn)(CO_3)_2$), siderite, chlorite, and clay minerals. The estimated mean grain sizes were 207 µm for pyrite, ~11 µm for galena, ~20 µm for sphalerite and ~12 µm for chalcopyrite.

The fineness of the valuable minerals and the close association with pyrite indicated the likelihood of challenges in producing clean and high-grade base metal concentrates.

13.3 GRINDABILITY AND HEAVY LIQUID SEPARATION

Rod and ball mill indices or 14.6 and 10.7 kWh/t were determined in the earlier laboratory study. RPC (2019) determined the rod and ball mill indices to be 15.7 and 11.4, respectively. The SAG Mill Comminution ("SMC") value was 54.7. The mineralization was classified as moderately soft. Due to the presence of a large amounts of sulphides, an elevated bulk density measurement of 4.37 t/m^3 was obtained.

Heavy liquid separation test results indicated that Dense Media Separation would not be of any advantage in processing the Murray Brook mineralization. Also, the results indicated that the gangue mineralization was too intertwined with the sulphides to justify attempts at mineralized material sorting.

13.4 COMPOSITE SAMPLE ASSEMBLY

Four composites had been prepared as summarized in Table 13.1.

TABLE 13.1
METALLURGICAL TEST COMPOSITES PREPARED BY RPC NEW BRUNSWICK

Sample ID	Description	Date	Original Weight (kg)	Assays					
				Cu (%)	Pb (%)	Zn (%)	Fe (%)	Au (g/t)	Ag (g/t)
Drill Cores 121-132		2012	3,200	0.33	1.14	3..42	39.4	0.51	47
P1	Zn & Pb-rich zones	2018	269	0.16	1.7	5.15	37.0	0.37	68
PB	Cap, rich in Cu & Zn	2018	195	1.31	0.55	2.48	38.5	0.36	27
P3	Cu rich zone	2018	471	1.01	0.63	1.31	42.6	0.50	44

The Table 13.1 assay values are compared with the Measured and Indicated Murray Brook Mineral Resources reported in 2013 (P&E, 2013) (Table 13.2). The P1 composite sample is considerably higher in grades of lead and zinc than the composite tested in 2012 and grades of the Measured & Indicated Mineral Resources estimated in 2013.

TABLE 13.2
MURRAY BROOK 2013 IN-PIT MINERAL RESOURCE ESTIMATE

Zone	Classification	Tonnes (Mt)	Assays				
			Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)
Oxide	Measured & Indicated	1.3	0.93	0.84	2.57	0.51	47
Sulphide	Measured & Indicated	17.9	0.47	0.99	2.73	0.59	42

13.5 CONCENTRATION TEST RESULTS

13.5.1 2012 RPC Testwork

An initial series of bulk rougher tests were conducted to optimize grind size – a fine grind of <30 µm was determined to be required. This is similar to the 90% <400 Mesh (P_{90} 37 µm) grind required at the former Brunswick No. 12 process plant[1].

Sample oxidation was observed and, due to difficulties in separation of copper and lead from a bulk concentrate, a sequential flotation strategy was adopted; that is, copper followed by lead, and then by zinc.

[1] Personal experience, G. Feasby, P&E

Two locked cycle tests ("LCT") were performed. The first LCT test ("LCT1") was selected as the basis for grade and recovery estimates for the 2013 PEA (P&E, 2013), as shown in Table 13.3.

TABLE 13.3
2013 LOCKED CYCLE SUMMARY – GRADES AND RECOVERIES

Product	Wt (%)	Grades					Distribution (%)				
		Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Cu	Pb	Zn	Au	Ag
Cu Conc	0.9	17.5	6.2	6.0	1.1	590	51	4.5	1.7	2	13
Pb Conc	0.8	2.4	50	5.3	0.9	833	7.2	37	1.4	18	2
Zn Conc	6.1	0.48	1.1	54	0.4	95	16	8.3	89	6	25
Heads	100	0.31	1.16	3.25	0.5	43					

Note: *highlighted data are summary grade and recoveries*

Zinc grade and recovery could be assessed as acceptable. However, copper and lead grades and recoveries were significantly less than desirable. Minor element analyses of concentrates indicated elevated arsenic analyses (>1,500 ppm) in all three concentrates, which could trigger smelter penalties. The cadmium content in the zinc concentrate exceeded 0.1%, also a potential penalty value.

13.5.2 2018-2019 RPC Testwork

RPC conducted a detailed test program on the P1, PB and P3 composites in 2018-2019 (RPC, 2019). The origin and handling of the original drill core samples was not listed in the RPC report. However, some peroxidation could be assumed. On receipt, RPC did take some measures to preserve the samples by storing in nitrogen-purged plastic bags. In addition, storage in freezers would have been recommended. RPC conducted rougher flotation tests on samples that were allowed to remain damp and exposed to oxidation for some time. The results indicated that after as little as 3 days, the response to concentration by flotation was significantly inhibited.

Heavy liquid separation tests again confirmed that Dense Media Separation is not applicable to the Murray Brook mineralization. Grinding tests were also performed as noted above.

Scoping, rougher flotation tests were conducted on all three composites. Using the nearby, formerly operating Caribou process plant circuit parameters. With the addition of some variations, positive lead and zinc results were obtained on the P1 lead and zinc-rich composite.

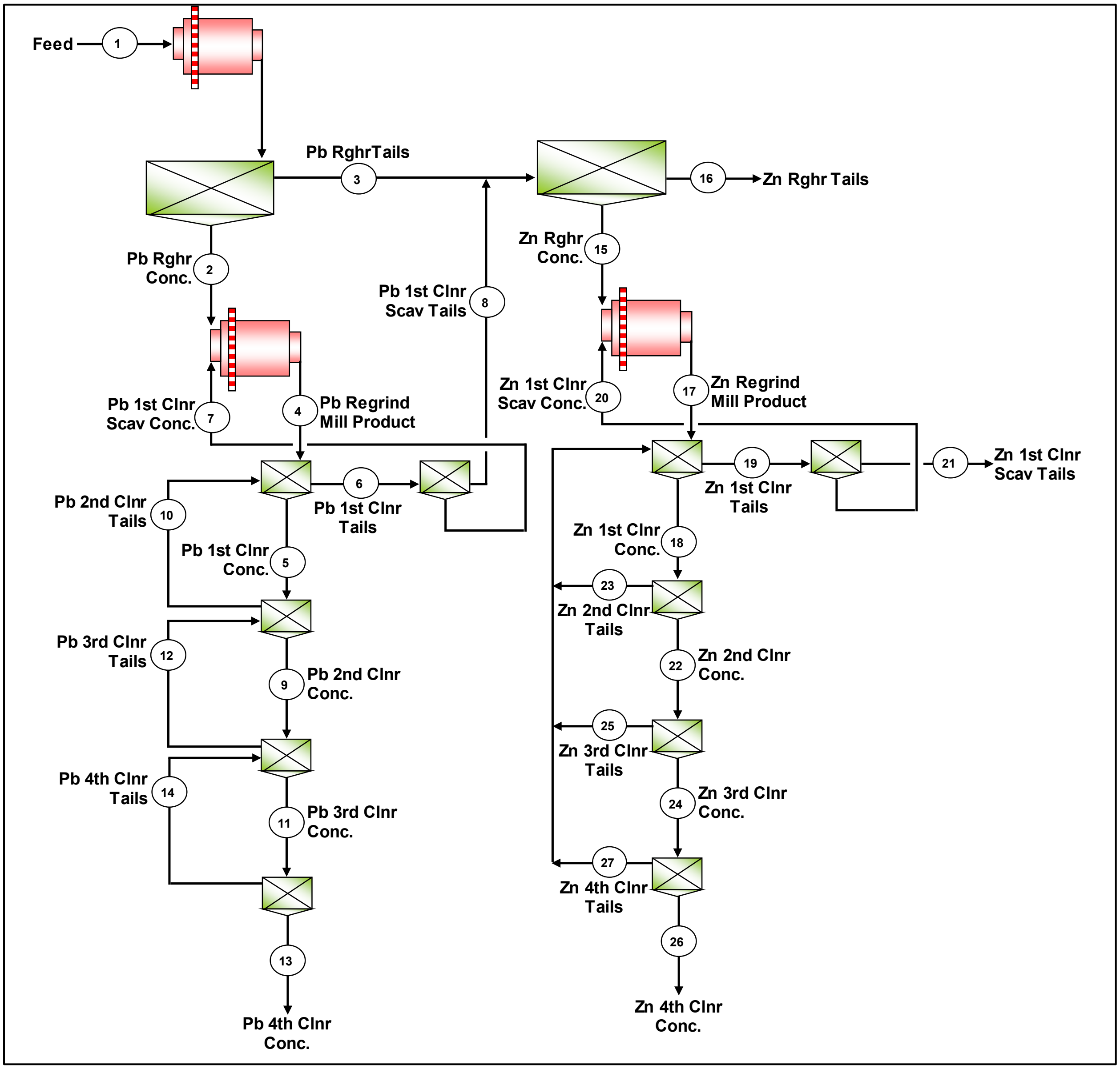
Rougher tests results on the oxidized zone PB composite were poor, in particular with limited success in preventing zinc from reporting to a copper-lead rougher concentrate. RPC suggested that further tests be conducted on specific sub-zones of the oxidized cap. The Author agrees with this recommendation.

The rougher flotation test results on the P3 copper-rich zone composite were positive following a very fine primary grind (P_{80} 28 µm).

Cleaner flotation tests included the fine grinding of rougher concentrates produced from the P1 and P3 composites, with lead rougher ground to P_{80} 11 µm and copper to P_{80} 20 µm. Zinc rougher concentrates were also ground to P_{80} 20 µm.

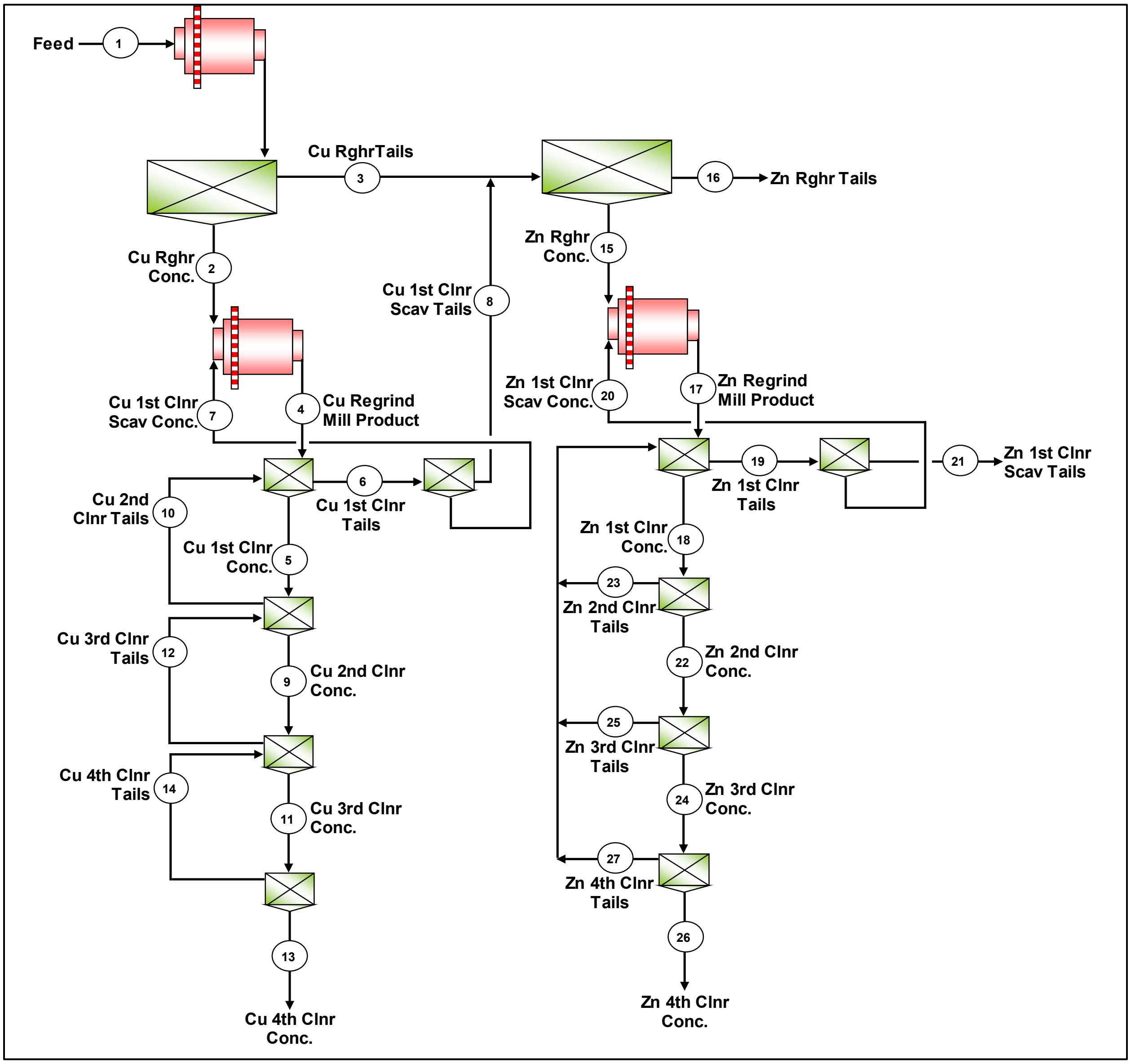
LCT were performed on both P1 and P3 composites. The P1 LCT flowsheet is shown in Figure 13.1. The P3 LCT flowsheet it shown in Figure 13.2.

FIGURE 13.1 P1 COMPOSITE LOCKED CYCLE FLOWSHEET



Source: *RPC MIS-J2079, Feb 28, 2019 Murray Brook Met Testing Program*

FIGURE 13.2 P3 COMPOSITE LOCKED CYCLE FLOWSHEET



Source: *RPC MIS-J2079, Feb 28, 2019 Murray Brook Met Testing Program*

The flowsheets for both P1 and P3 are similar. However, the reagents used and the applied addition rates were significantly different. These flowsheets approximate that of the formerly operating Caribou process plant, 10 km east of the Murray Brook Mineral Resource.

The P1 LCT results are summarized in Table 13.4.

TABLE 13.4 P1 6TH STAGE LCT RESULTS											
Test	**Wt (%)**	**Grade**					**Distribution (%)**				
		Cu (%)	**Pb (%)**	**Zn (%)**	**Au (g/t)**	**Ag (g/t)**	**Cu**	**Pb**	**Zn**	**Au**	**Ag**
Measured Heads		0.16	1.70	5.15	0.37	68					
Calculated Heads	100	0.19	1.53	4.18	0.489	60	100	100	100	100	100
Pb Cleaner Conc	2.7	0.88	39.3	4.3	0.47	833	12.2	68.9	2.7	2.6	37
Zn Cleaner Conc	7.4	0.63	1.3	49.0	0.26	83	24.1	6.3	86.6	3.9	10.1
Rougher + Cleaner Scavenger Tails	90.0	0.14	0.42	0.66			63.6	24.8	10.6		

The P1 LCT results are summarized as follows:

- The lead concentrate grade is low-grade. Copper and gold are not payable. Silver should be mostly payable;
- The zinc concentrate's grade and recovery are fair; and
- Gold does not appear to concentrate and is not of payable concentration.

The P3 LCT results are summarized in Table 13.5.

TABLE 13.5 P3 6TH STAGE LCT RESULTS											
Test	**Wt (%)**	**Grade**					**Distribution (%)**				
		Cu (%)	**Pb (%)**	**Zn (%)**	**Au (g/t)**	**Ag (g/t)**	**Cu**	**Pb**	**Zn**	**Au**	**Ag**
Calculated Heads	100	0.93	0.50	0.83	Not measured	26	100	100	100	N.A.	100
Cu Cleaner Conc	3.8	19.4	5.05	2.0		367	79.5	38.8	9.2		55
Zn Cleaner Conc	1.1	1.42	0.91	48.7		77	1.7	2.1	65.6		3.4
Rougher + Cleaner Scavenger Tails	90.0	0.14	0.42	0.66		17	18.8	59.2	25.1		42

The P3 LCT results are summarized as follows:

- Copper grade is moderate – a copper grade over 20% is generally desirable; however copper recovery is predicted (P3 mineral type) to be higher than experienced at formerly operating Caribou (Trevali, 2015) and Brunswick Mines; and

- Zinc grade is also moderate – a Zn grade exceeding 50% and recovery approaching 75% is desirable, but 66% recovery at a grade of 49% zinc is reasonable considering the low Zn head grade.

Based on the recent tests, the following may be used as guides for metal recovery and grades:

Cu Concentrate
P3 LCT: Cu recovery and grade 80% at 19% Cu; Au recovery – unknown (estimated 50%), Ag recovery 55% at 350 g/t Ag; mass pull 3.8%.

Pb Concentrate
P1 LCT: Pb recovery and grade 69% at 39% Pb; Ag recovery 37% at 870 g/t Ag, mass pull 2.7%.

Zn Concentrates
P1 LCT: Zn recovery 86% at 49% Zn; Pb recovery 6.3%, Ag recovery 10% at 80 g/t Ag; mass pull 7.4%.

P3 LCT: Zn Recovery 66% at 49% Zn, Pb recovery 2%, Ag recovery 3.4%; mass pull 1.1%

The production of saleable copper, lead and zinc concentrates from the P1 and P3 type mineralogy appears fairly promising. Additional testwork is needed to demonstrate the production of marketable concentrates from the PB type of mineralisation (oxidized Mineral Resource Cap).

13.6 COMMENTS

The RPC metallurgical testwork appears to have been thorough and appropriately guided by the potential use of the nearby, dormant Caribou process facilities.

The Murray Brook mineralization is very high in iron sulphides and can readily oxidize when exposed to the atmosphere. Components of the Mineral Resource respond differently to flotation concentration conditions. A rapidly responding process flowsheet will be required and (or) stockpiling specific Mineral Resource types for campaign (dedicated) processing could be a successful strategy. However, oxidation of stockpiled material could be a challenge.

Recommendations for future testwork include:

- Conduct a detailed mineralogical examination, such as QEMSCAN, on all key mineralization types;

- Perform a gold deportment study;

- Using previous test results and the mineralogical findings, conduct rougher-cleaner confirmation tests on fresh drill core of specific mineralization types. Drill core samples should be frozen during shipment and storage. Sub-zones of the oxidized cap (gossan) could be targeted;

- Produce a high-grade Cu-Pb-Zn-Ag bulk sample from the Cap mineralization. Analyze in detail and investigate marketability of this material; and
- Subject to bulk sample availability and financial resources, conduct laboratory-scale pilot tests on specific Mineral Resource zones and types.

14.0 MINERAL RESOURCE ESTIMATE

14.1 INTRODUCTION

The purpose of this Technical Report section is to update the Mineral Resource Estimate with drill holes completed in 2017 to 2019 for the Murray Brook Project. The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 (2014) and has been estimated in conformity with the generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines (2019). 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 Resource is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral Resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent Mineral Resource Estimates.

This Mineral Resource Estimate was based on information and data supplied by Canadian Copper, and was undertaken by Yungang Wu, P.Geo., Antoine Yassa, P.Geo., and Eugene Puritch, P.Eng., FEC, CET of P&E Mining Consultants Inc. of Brampton, Ontario, all independent Qualified Persons in terms of NI 43-101. The effective date of this Mineral Resource Estimate is October 3, 2023.

14.2 PREVIOUS MINERAL RESOURCE ESTIMATE

The previous Mineral Resource Estimate for Murray Brook dated December 21, 2016, at an NSR cut-off of CAD$85/t for potential underground mining is presented in Table 14.1. This previous Mineral Resource Estimate is superseded by the Mineral Resource Estimate reported herein.

TABLE 14.1
MINERAL RESOURCE ESTIMATE ON DECEMBER 21, 2016, AT CAD$85/T NSR CUT-OFF

Zone	Classification	Tonnes (kt)	Cu (%)	Cu (Mlb)	Pb (%)	Pb (Mlb)	Zn (%)	Zn (Mlb)	Au (g/t)	Au (koz)	Ag (g/t)	Ag (Moz)
Oxide	Measured	434	1.13	10.8	1.44	13.8	4.51	43.2	0.31	4.3	60.5	0.8
	Indicated	105	1.94	4.5	0.82	1.9	2.84	6.6	0.46	1.6	45.3	0.2
	Measured + Indicated	539	1.29	15.3	1.32	15.7	4.19	49.8	0.34	5.9	57.5	1.0
	Inferred	4	3.94	0.3	0.19	0.0	0.62	0.0	0.46	0.1	26.6	0.0
Sulphide	Measured	3,681	0.36	29	1.87	151.9	5.57	451.7	0.56	65.8	70.5	8.3
	Indicated	1,603	0.7	24.8	1.63	57.4	4.48	158.4	0.88	45.1	65.3	3.4
	Measured + Indicated	5,284	0.46	53.8	1.8	209.3	5.24	610.1	0.65	110.9	68.9	11.7
	Inferred	125	2.16	5.9	0.92	2.5	2.58	7.1	0.54	2.2	47.3	0.2

14.3 DATABASE

All drilling data consisting of collar coordinates, survey, lithology, bulk density, assay and drill core recovery were provided in the form of Excel data files by Canadian Copper. The GEOVIA GEMS™ V6.8.4 database for this Mineral Resource Estimate, compiled by the Authors, consisted of 189 drill holes totalling 36,498 m, of which 28 drill holes totalling 7,131 m were completed from 2017 to 2019, after the previous Mineral Resource Estimate. A total of 165 drill holes intersected the mineralized wireframes used for the Mineral Resource Estimate (see Table 14.2). All pre-2010 drill holes were not utilized for this Mineral Resource Estimate due to their non-verifiable nature. A drill hole plan is shown in Appendix A.

TABLE 14.2
MURRAY BROOK DRILL HOLE DATABASE SUMMARY

Drill Hole Year	Number of Drill Holes	Drill Hole Length (m)	Number of Drill Holes Intersecting Wireframes	Length* of Drill Holes Intersecting Wireframes (m)
2010 to 2012	161	29,367	146	26,544
2017 to 2019	28	7,131	19	4,395
Total	**189**	**36,498**	**165**	**30,939**

Note: **- entire length of hole.*

The drill hole database contained assays for Cu, Zn, Pb, Ag, Au and other lesser elements of non-economic importance as well as bulk density. The basic statistics of all raw assays are presented in Table 14.3.

TABLE 14.3
MURRAY BROOK ASSAY DATABASE SUMMARY

Variable	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Length (m)	Density (t/m³)
Number of Samples	12,896	12,896	12,896	12,896	11,921	12,896	2,961
Minimum Value	0.00	0.00	0.00	0.00	0.00	0.08	2.04
Maximum Value	11.88	30.66	20.50	729.90	5.49	21.00	6.86
Mean	0.39	2.14	0.78	32.92	0.46	1.02	4.14
Median	0.17	0.94	0.29	18.70	0.21	1.00	4.31
Variance	0.52	9.77	1.58	1,754.68	0.38	0.11	0.72
Standard Deviation	0.72	3.13	1.26	41.89	0.61	0.33	0.85
Coefficient of Variation	1.87	1.46	1.61	1.27	1.32	0.33	0.21
Skewness	5.22	2.72	4.06	3.21	2.37	25.20	-0.09
Kurtosis	41.83	12.85	32.86	23.88	10.78	1196.02	1.99

Note: *Cu = copper, Zn=Zinc, Pb=Lead, Ag=Silver, Au=Gold, Length=assay interval.*

All drill hole survey and assay values are expressed in metric units, whereas grid coordinates are in NAD 83 UTM Zone 19.

14.4 DATA VERIFICATION

The Authors verified the assay data against the original laboratory certificates during previous and current Mineral Resource Estimates; and also validated the database by checking for inconsistencies in 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, survey and missing interval and coordinate fields. No errors were identified in the database. The Authors consider that the supplied database is suitable for Mineral Resource estimation.

14.5 DOMAIN INTERPRETATION

A single mineralized domain was created with computer screen digitizing on drill hole cross-sections in GEOVIA GEMS™ by the Authors. The domain outline was determined from lithology, structure and NSR value by visually inspecting the drill hole vertical cross-sections. Twenty drill cross-sections were developed on 20 m spacing looking along an azimuth of 290°. The digitized outlines were influenced by the selection of mineralized material above a cut-off NSR value of CAD$20/t that demonstrated zonal continuity along strike and down dip. In some cases, mineralization below CAD$20/t NSR were included for the purpose of maintaining zonal continuity. On each cross-section, polyline interpretations were digitized from drill hole to drill hole, but not extended nominally more than 30 m into untested territory. Minimum constrained drill core length for interpretation was approximately 2.0 m. The interpreted polylines from each cross-section were connected from each vertical cross-section to form a 3-D wireframe of each domain in GEMS™.

As presented in Table 14.4, Cu is negatively correlated with Zn and Pb. Higher-grade copper is predominately resided at edge, whereas higher-grade Zn and Pb are at the middle of the deposit. Using Cu >0.5% and Zn+Pb <2% as boundary limits, a copper sub-domain and a Pb+Zn sub-domain have been generated within the mineralized domain.

TABLE 14.4 CORRELATION COEFFICIENT TABLE OF CONSTRAINED ASSAYS								
Element	**Cu**	**Zn**	**Pb**	**Pb+Zn**	**Ag**	**Au**	**Length**	**Bulk Density**
Cu	1	-0.16	-0.15	-0.16	-0.05	0.02	0.04	0.04
Zn	-0.16	1	0.87	0.99	0.80	0.23	-0.00	0.18
Pb	-0.15	0.87	1	0.93	0.86	0.28	-0.01	0.14
Pb+Zn	-0.16	0.99	0.93	1	0.84	0.25	-0.01	0.17
Ag	-0.05	0.80	0.86	0.84	1	0.36	0.02	0.11
Au	0.02	0.23	0.28	0.25	0.36	1	-0.02	0.28
Length	0.04	-0.00	-0.01	-0.01	0.02	-0.02	1	-0.10
Bulk Density	0.04	0.18	0.14	0.17	0.11	0.28	-0.10	1

Continuous interior waste (NSR <CAD$20/t) intervals were excluded from the mineralized domain.

Topographic, overburden and oxidation boundary surfaces were generated too. The mineralized domain was truncated with the overburden surface. Oxidized and sulphide mineralization were separated with an Oxidation surface. The resulting domains were utilized for statistical analysis, grade interpolation, rock coding and Mineral Resource reporting purposes. The wireframe of the mineralized domain is displayed in Appendix B.

14.6 ROCK CODE DETERMINATION

A unique rock code was assigned to each domain in the Mineral Resource model as presented in Table 14.5.

TABLE 14.5 ROCK CODES USED FOR THE MINERAL RESOURCE ESTIMATE		
Rock Type	**Rock Code**	**Notes**
Zn+Pb	100	Mineralization sub-domain
Cu	200	Mineralization sub-domain
Oxide	110	Oxidized Mineralization
Sulphide	120	Fresh Mineralization
Air	0	
Overburden	10	
Waste	99	

14.7 WIREFRAME CONSTRAINED ASSAYS

Wireframe constrained assays were back coded in the assay database with model rock codes that were derived from intersections of the mineralization solids and drill holes. The basic statistics of mineralized wireframe constrained assays are presented in Table 14.6.

TABLE 14.6
BASIC STATISTICS OF CONSTRAINED ASSAYS

Domain	Variable	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Length (m)
Zn+Pb	Number of Samples	8,880	8,880	8,880	8,880	8,097	8,880
	Minimum Value	0.001	0.001	0.001	0.01	0.001	0.08
	Maximum Value	11.88	30.66	20.50	729.90	5.49	11.00
	Mean	0.32	3.00	1.09	44.23	0.62	1.01
	Median	0.20	1.96	0.68	31.90	0.36	1.00
	Variance	0.21	11.75	1.95	2,062.50	0.45	0.05
	Standard Deviation	0.46	3.43	1.40	45.41	0.67	0.22
	Coefficient of Variation	1.44	1.14	1.28	1.03	1.09	0.22
	Skewness	6.43	2.31	3.60	2.98	1.98	17.19
	Kurtosis	85.51	10.15	27.10	21.57	8.54	619.29
Cu	Number of Samples	1,434	1,434	1,434	1,434	1,353	1,434
	Minimum Value	0.001	0.000	0.001	0.001	0.000	0.16
	Maximum Value	9.48	6.77	1.58	109.60	5.08	21.00
	Mean	1.42	0.49	0.18	17.33	0.29	1.06
	Median	0.91	0.32	0.11	13.70	0.19	1.00
	Variance	2.06	0.29	0.04	187.57	0.12	0.56
	Standard Deviation	1.43	0.54	0.20	13.70	0.35	0.75
	Coefficient of Variation	1.01	1.11	1.09	0.79	1.21	0.71
	Skewness	2.28	2.81	2.37	1.90	4.16	17.24
	Kurtosis	8.97	19.34	11.13	8.36	37.32	395.28

Note: *Cu = copper, Zn=Zinc, Pb=Lead, Ag=Silver, Au=Gold, Length=assay interval.*

14.8 COMPOSITING

In order to regularize the assay sampling intervals for grade interpolation, a 1.0 m compositing length was selected for the drill hole intervals that fell within the constraints of the above-mentioned Mineral Resource wireframe domains. The composites were calculated over 1.0 m lengths starting at the first point of intersection between assay data hole and hanging wall of the 3-D zonal constraint. The compositing process was halted on exit from the footwall of the aforementioned constraint. A total of 864 intervals missing Au assays from the 2018 drill holes were treated as nulls. If the last composite interval was <0.25 m, the composite length was adjusted to make all composite intervals equal within the domain. The resulting composite length ranged from 0.9 to 1.3 m. This process would not introduce any short sample bias in the grade interpolation process. The constrained composite data were extracted to a point file for a grade capping analysis. The composite statistics are summarized in Table 14.7.

TABLE 14.7
COMPOSITE SUMMARY STATISTICS

Variable	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Length (m)
Number of Samples	10,411	10,411	10,411	10,411	9,538	10,411
Minimum Value	0.00	0.00	0.00	0.00	0.00	0.90
Maximum Value	9.06	30.25	19.81	501.07	5.28	1.30
Mean	0.48	2.65	0.96	40.84	0.57	1.00
Median	0.25	1.62	0.54	28.01	0.33	1.00
Variance	0.60	10.42	1.68	1782.10	0.40	0.00
Standard Deviation	0.77	3.23	1.30	42.21	0.63	0.01
Coefficient of Variation	1.60	1.22	1.35	1.03	1.11	0.01
Skewness	4.49	2.42	3.57	2.73	2.14	3.83
Kurtosis	30.29	10.82	26.09	16.05	9.54	106.27

Note: *Cu = copper composite, Zn=Zinc composite, Pb=Lead composite, Ag=Silver composite, Au=Gold composite, Length=Composite Length.*

14.9 GRADE CAPPING

Grade capping was investigated on the 1.0 m composite values in the database within the constraining domain to ensure that the possible influence of erratic high-grade values did not bias the database. Log-normal histograms and probability plots for Cu, Zn, Pb, Ag and Au composites were generated for each mineralized domain and the selected resulting graphs are exhibited in Appendix C. The grade capping values are detailed in Table 14.8. The capped composite statistics are summarized in Table 14.9. The capped composites were utilized to develop variograms and for use in block model grade interpolation.

TABLE 14.8 MURRAY BROOK GRADE CAPPING VALUES									
Domain	**Element**	**Total No. of Composites**	**Capping Value***	**No. of Capped Composites**	**Mean of Composites ***	**Mean of Capped Composites ***	**CoV of Composites**	**CoV of Capped Composites**	**Capping Percentile (%)**
Zn+Pb	Cu	8,831	No Cap	0	0.320	0.320	1.37	1.37	100.0
	Zn	8,831	24	5	3.038	3.035	1.10	1.10	99.94
	Pb	8,831	16	3	1.104	1.103	1.23	1.22	99.97
	Ag	8,831	410	5	44.800	44.750	0.99	0.98	99.94
	Au	8,831	No Cap	0	0.620	0.620	1.06	1.06	100.0
Cu	Cu	1,580	No Cap	0	1.400	1.400	0.98	0.98	100.0
	Zn	1,580	No Cap	0	0.500	0.500	1.08	1.08	100.0
	Pb	1,580	No Cap	0	0.180	0.180	1.06	1.06	100.0
	Ag	1,580	No Cap	0	18.720	18.720	0.84	0.84	100.0
	Au	1,499	No Cap	0	0.290	0.290	1.15	1.15	100.0

Notes: *CoV = Coefficient of Variation.*
** Unit of Cu, Zn and Pb is %; Unit of Au and Ag is g/t.*

Table 14.9 Capped Composite Summary Statistics					
Variable	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**
Number of Samples	10,411	10,411	10,411	10,411	9,538
Minimum Value	0.00	0.00	0.00	0.00	0.00
Maximum Value	9.06	24.00	16.00	410.00	5.28
Mean	0.48	2.65	0.96	40.80	0.57
Median	0.25	1.62	0.54	28.01	0.33
Variance	0.6	10.33	1.66	1,750.20	0.40
Standard Deviation	0.77	3.21	1.29	41.84	0.63
Coefficient of Variation	1.60	1.21	1.34	1.03	1.11
Skewness	4.49	2.35	3.40	2.53	2.14
Kurtosis	30.29	10.03	22.55	13.11	9.54

Notes: *Cu = copper capped composite, Zn = zinc capped composite, Pb = lead capped composite, Ag = silver capped composite, Au = gold capped composite.*

14.10 VARIOGRAPHY

A variography analysis was performed as a guide to determining a grade interpolation search strategy. Directional variograms were attempted using the capped composites. Selected variograms are attached in Appendix D.

Continuity ellipses based on the observed ranges were subsequently generated and utilized as the basis for estimation search ranges, distance weighting calculations and Mineral Resource classification criteria.

14.11 BULK DENSITY

The database consists of a total of 2,961 bulk density measurements, of which 1,888 bulk densities were determined from 2017-2018 drill holes, and 1,073 analyses were performed on 2011-2012 drill core, all using the wet immersion method. The bulk density varied from 2.04 to 6.86 t/m^3 and averaged 4.14 t/m^3. A total of 2,050 of these bulk densities were constrained inside the mineralization wireframes. The bulk density block model was interpolated with the constrained data, which was capped at 6.5 t/m^3.

14.12 BLOCK MODELLING

The Murray Brook block model was constructed using GEOVIA GEMS™ V6.8.4 modelling software. The block model origin and block size are presented in Table 14.10. The block model consists of separate model attributes for estimated grades of Cu, Zn, Pb, Ag, Au and NSR, rock type (mineralization domains), volume percent, bulk density and classification.

Table 14.10 Murray Brook Block Model Definition			
Direction	**Origin**	**No. of Blocks**	**Block Size (m)**
X	692,511.73	368	3
Y	5,266,507.171	362	3
Z	612	154	3
Rotation	-20 (clockwise)		

Note: *Origin for a block model in GEMS™ represents the coordinate of the outer edge of the block with minimum X and Y, and maximum Z.*

All blocks in the rock type block model, were initially assigned a waste rock code of 99, corresponding to the surrounding country rocks. The mineralized domain was used to code all blocks within the rock type block model that contain 0.01% or greater volume within the domain. These blocks were assigned rock type codes as presented in Table 14.5. The oxidation surface was utilized to update all mineralization blocks above the surface to oxide and below to sulphide. The surfaces of overburden and topography were subsequently utilized to assign rock codes 10 and 0, corresponding to overburden and air respectively, to all blocks 50% or greater above the surfaces.

A volume percent block model was set up to accurately represent the volume and subsequent tonnage that was occupied by each block inside the constraining wireframe domain. As a result, the domain boundary was properly represented by the volume percent model ability to measure individual infinitely variable block inclusion percentages within that domain. The minimum percentage of the mineralized block was set to 0.01.

The Cu, Pb, Zn and bulk density blocks were interpolated with Inverse Distance Squared (“ID^2”), while Inverse Distance Cubed (ID^3) was used for the Au and Ag grade interpolation, with the capped composites. Nearest Neighbour (“NN”) was utilized for validation. Multiple passes were executed for the grade interpolation to progressively capture the sample points to avoid over-smoothing and preserve local grade variability. Search ranges and directions were based on the variograms. Grade blocks were interpolated using the parameters in Table 14.11.

TABLE 14.11 MURRAY BROOK BLOCK MODEL INTERPOLATION PARAMETERS							
Attribute	**Pass**	**Major Range (m)**	**Semi-major Range (m)**	**Minor Range (m)**	**Max No. of Samples per Hole**	**Min No. of Samples**	**Max No. of Samples**
Cu	I	25	15	10	3	7	12
	II	40	25	15	3	4	12
	III	80	50	30	3	2	12
Zn, Pb, Ag, Au & bulk density	I	35	25	20	3	7	12
	II	55	40	35	3	4	12
	III	110	80	70	3	2	12

The NSR value of the mineralized blocks was calculated using the formula below:

NSR $/t = (Cu % x 81) + (Pb % x 12) + (Zn % x 13) + (Ag g/t x 0.90).

Selected cross-sections and plans of the Cu, Zn and NSR grade blocks are presented in Appendices E, F and G.

14.13 MINERAL RESOURCE CLASSIFICATION

It is the opinion of the Authors that all drilling, assaying and exploration work on the Murray Brook Project supports this Mineral Resource Estimate and are sufficient to indicate a reasonable potential for economic extraction, and thus qualify it as a Mineral Resource under the CIM definition standards. The Mineral Resource was classified as Measured, Indicated and Inferred based on the geological interpretation, variogram performance and drill hole spacing. The Measured Mineral Resource was qualified for the blocks interpolated using at least four drill holes with average spacing <25 m; Indicated Mineral Resource was classified for the blocks interpolated with the Pass II, which used at least four composites from a minimum of two holes; and Inferred Mineral Resources were categorized for all remaining grade blocks within the mineralized domain. The classifications have been adjusted on a longitudinal projection to reasonably reflect the distribution of each classification. Selected classification block cross-sections and plans are attached in Appendix H.

14.14 NSR CUT-OFF CALCULATION

The Murray Brook Mineral Resource Estimate was derived from applying NSR cut-off to the block models and reporting the resulting tonnes and grades for potentially mineable areas. The following parameters were used to calculate the NSR cut-off that determines the open pit mining potentially economic portions of the constrained mineralization.

Open Pit NSR Cut-off Grade Calculation CAD$

The NSR cut-off value was based on July 2023 approximate consensus economics forecast US$ metal prices of:

Cu Price:	US$4.00/lb
Pb Price:	US$0.95/lb
Zn Price:	US$1.25/lb
Ag Price:	US$23.00/oz
Au Price:	US$1,850/oz
$CDN/$US Exchange Rate:	$0.76
Cu Concentrate Recovery:	80%
Zn Concentrate Recovery:	87%
Pb Concentrate Recovery:	75%
Ag Concentrate Recovery:	90%
Au Concentrate Recovery:	0%
Cu Smelter Payable:	96.5%
Pb Smelter Payable:	95%
Zn Smelter Payable:	90%
Ag Smelter Payable:	90%
Au Smelter Payable:	0%
Transport/Storage/Loading:	US$45/t per WMT
Zn Smelter Treatment Charge:	US$250/t per DMT
Cu Smelter Treatment Charge:	US$85/t per DMT
Pb Smelter Treatment Charge:	US$150/t per DMT
Humidity Factor:	8.0%
Processing Cost:	CAD$20.00/t processed
General & Administration:	CAD$3.00/t processed

In the anticipated open pit operation, processing and G&A costs combine for a total of (CAD$20 + CAD $3) = CAD$23/t processed which becomes the NSR cut-off value.

NSR value was calculated based on the above parameters. The formula is:

NSR $/t = (Cu % x 81) + (Pb % x 12) + (Zn % x 13) + (Ag g/t x 0.90).

Pit Optimization Parameters

In order for the constrained open pit mineralization in the Murray Brook Mineral Resource model to be considered potentially economic, a first pass Whittle 4X pit optimization was carried out to create a pit shell for resource reporting purposes (see Appendix I) utilizing the criteria below:

Overburden Mining Cost per t:	CAD$2.00
Waste mining cost per t:	CAD$2.25
Mineralized mining cost per t:	CAD$2.50
Process cost per t:	CAD$20.00
General & Administration cost per t:	CAD$3.00
Process production rate (t per year):	2,000,000
Pit rock slopes (overall wall angle):	50 degrees
Pit overburden slopes:	30 degrees
Average Mineralized Rock Bulk Density:	4.26/m^3
Waste Rock Bulk Density:	2.70 t/m^3
Overburden Bulk Density:	1.80 t/m^3

14.15 MINERAL RESOURCE ESTIMATE

The resulting Mineral Resource Estimate as of the effective date of this Technical Report is tabulated in Table 14.12. The mineralization of the Murray Brook Project is considered to be potentially amenable to open pit economic extraction. The Mineral Resource Estimates are sensitive to the selection of a reporting NSR cut-off value, as demonstrated in Table 14.13.

Table 14.12 Murray Brook In-Pit Mineral Resource Estimate on at CD$23/t NSR Cut-off (1 to 6)															
Zone	**Classification**	**Tonnes (k)**	**Cu (%)**	**Cu (Mlb)**	**Zn (%)**	**Zn (Mlb)**	**Pb (%)**	**Pb (Mlb)**	**Au (g/t)**	**Au (koz)**	**Ag (g/t)**	**Ag (Moz)**	**ZnEq (%)**	**CuEq (%)**	**NSR (CAD $/t)**
Oxide	Measured	1,641	1.05	37.9	2.2	79.6	0.73	26.6	0.36	19	38	2	5.94	1.85	156
	Indicated	373	0.97	7.9	2.31	19	0.78	6.4	0.51	6	44.7	0.5	6.02	1.88	158
	Measured + Indicated	2,014	1.03	45.9	2.22	98.6	0.74	32.9	0.39	25	39.2	2.5	5.95	1.86	157
Sulphide	Measured	15,830	0.43	150.8	2.6	908.3	0.92	322.2	0.52	264	39	19.8	4.83	1.51	115
	Indicated	5,275	0.52	60.9	2.14	248.9	0.85	98.9	0.67	114	37.3	6.3	4.58	1.43	114
	Measured + Indicated	21,105	0.45	211.7	2.49	1,157.20	0.91	421.1	0.56	378	38.6	26.2	4.77	1.49	115
	Inferred	110	0.41	1	1.82	4.4	0.68	1.6	0.62	2	30.4	0.1	3.75	1.17	92
Total	Measured	17,471	0.49	188.7	2.56	987.9	0.91	348.8	0.5	283	38.9	21.8	4.93	1.54	119
	Indicated	5,648	0.55	68.9	2.15	267.8	0.85	105.3	0.66	120	37.8	6.9	4.68	1.46	117
	Measured + Indicated	23,119	0.51	257.5	2.46	1,255.70	0.89	454.1	0.54	403	38.6	28.7	4.87	1.52	118
	Inferred	110	0.41	1	1.82	4.4	0.68	1.6	0.62	2	30.4	0.1	3.75	1.17	92

Notes:

1. *Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.*
2. *The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.*
3. *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.*
4. *The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.*
5. *Totals of tonnage and contained metal may differ due to rounding.*
6. *NSR $/t = (Cu % x 81) + (Pb % x 12) + (Zn % x 13) + (Ag g/t x 0.90).*

Table 14.13 In-Pit Mineral Resource Estimate Sensitivity													
Zone	**Classification**	**Cut-off NSR (CAD$/t)**	**Tonnes (k)**	**Cu (%)**	**Cu (Mlb)**	**Zn (%)**	**Zn (Mlb)**	**Pb (%)**	**Pb (Mlb)**	**Au (g/t)**	**Au (koz)**	**Ag (g/t)**	**Ag (Moz)**
Oxide	**Measured**	100	1,115	1.31	32.3	2.81	69.1	0.94	23.1	0.38	14	46.9	1.7
		50	1,540	1.10	37.4	2.31	78.5	0.77	26.2	0.36	18	39.6	2.0
		45	1,563	1.09	37.5	2.29	78.9	0.76	26.3	0.36	18	39.2	2.0
		40	1,587	1.08	37.7	2.26	79.2	0.76	26.4	0.36	19	38.9	2.0
		35	1,608	1.07	37.8	2.24	79.4	0.75	26.5	0.36	19	38.5	2.0
		30	1,627	1.06	37.8	2.22	79.5	0.74	26.5	0.36	19	38.2	2.0
		25	1,638	1.05	37.9	2.20	79.6	0.74	26.6	0.36	19	38.0	2.0
		23	1,641	1.05	37.9	2.20	79.6	0.73	26.6	0.36	19	38.0	2.0
		15	1,642	1.05	37.9	2.20	79.6	0.73	26.6	0.36	19	38.0	2.0
		10											
	Indicated	100	260	1.20	6.8	2.78	15.9	0.93	5.3	0.54	4	56.3	0.5
		50	358	1.00	7.9	2.37	18.7	0.80	6.3	0.52	6	46.1	0.5
		45	362	0.99	7.9	2.36	18.9	0.79	6.3	0.52	6	45.7	0.5
		40	366	0.98	7.9	2.35	18.9	0.79	6.4	0.52	6	45.4	0.5
		35	367	0.98	7.9	2.34	19.0	0.79	6.4	0.51	6	45.3	0.5
		30	369	0.97	7.9	2.33	19.0	0.78	6.4	0.51	6	45.1	0.5
		25	372	0.97	7.9	2.32	19.0	0.78	6.4	0.51	6	44.8	0.5
		23	373	0.97	7.9	2.31	19.0	0.78	6.4	0.51	6	44.7	0.5
		15	374	0.97	8.0	2.30	19.0	0.78	6.4	0.51	6	44.6	0.5
		10											
Sulphide	**Measured**	100	7,910	0.56	97.6	3.80	662.3	1.40	243.3	0.68	172	57.2	14.5
		50	13,995	0.46	142.1	2.85	878.1	1.02	313.9	0.56	251	42.6	19.2
		45	14,524	0.45	144.9	2.78	889.3	0.99	317.0	0.55	255	41.5	19.4
		40	14,982	0.45	147.2	2.72	897.5	0.97	319.3	0.54	259	40.6	19.6
		35	15,349	0.44	148.9	2.67	902.9	0.95	320.7	0.53	261	39.9	19.7

Table 14.13 In-Pit Mineral Resource Estimate Sensitivity													
Zone	**Classification**	**Cut-off NSR (CAD$/t)**	**Tonnes (k)**	**Cu (%)**	**Cu (Mlb)**	**Zn (%)**	**Zn (Mlb)**	**Pb (%)**	**Pb (Mlb)**	**Au (g/t)**	**Au (koz)**	**Ag (g/t)**	**Ag (Moz)**
		30	15,633	0.44	150.1	2.63	906.3	0.93	321.7	0.52	263	39.4	19.8
		25	15,795	0.43	150.7	2.61	908.0	0.93	322.1	0.52	264	39.0	19.8
		23	15,830	0.43	150.8	2.60	908.3	0.92	322.2	0.52	264	39.0	19.8
		15	15,901	0.43	151.0	2.59	908.8	0.92	322.4	0.52	264	38.8	19.8
		10	15,917	0.43	151.0	2.59	908.9	0.92	322.4	0.52	264	38.8	19.8
	Indicated	100	2,720	0.70	41.9	2.94	176.3	1.22	73.0	0.94	82	53.0	4.6
		50	4,707	0.56	58.3	2.30	239.1	0.92	95.9	0.73	110	40.6	6.1
		45	4,861	0.55	59.1	2.26	242.5	0.90	96.9	0.71	112	39.7	6.2
		40	5,009	0.54	59.9	2.22	245.2	0.89	97.8	0.70	113	38.8	6.3
		35	5,112	0.54	60.3	2.19	246.8	0.87	98.3	0.69	113	38.3	6.3
		30	5,202	0.53	60.7	2.16	248.0	0.86	98.7	0.68	114	37.8	6.3
		25	5,258	0.53	60.9	2.14	248.7	0.85	98.9	0.68	114	37.4	6.3
		23	5,275	0.52	60.9	2.14	248.9	0.85	98.9	0.67	114	37.3	6.3
		15	5,322	0.52	61.0	2.12	249.2	0.84	99.0	0.67	115	37.0	6.3
		10	5,331	0.52	61.0	2.12	249.2	0.84	99.0	0.67	115	37.0	6.3
	Inferred	100	45	0.37	0.4	2.70	2.7	1.08	1.1	0.92	1	45.1	0.1
		50	98	0.42	0.9	1.98	4.3	0.74	1.6	0.67	2	33.1	0.1
		45	101	0.42	0.9	1.94	4.3	0.73	1.6	0.65	2	32.5	0.1
		40	103	0.42	0.9	1.92	4.4	0.72	1.6	0.65	2	32.0	0.1
		35	105	0.41	1.0	1.89	4.4	0.71	1.6	0.64	2	31.6	0.1
		30	107	0.41	1.0	1.86	4.4	0.69	1.6	0.63	2	31.0	0.1
		25	110	0.41	1.0	1.82	4.4	0.68	1.6	0.62	2	30.4	0.1
		23	110	0.41	1.0	1.82	4.4	0.68	1.6	0.62	2	30.4	0.1
		15	110	0.41	1.0	1.82	4.4	0.68	1.6	0.62	2	30.4	0.1
		10											

14.16 CONFIRMATION OF ESTIMATE

The block model was validated using a number of industry standard methods, including visual and statistical methods.

- Visual examination of composites and block grades on successive plans and vertical cross-sections were performed on-screen to confirm that the block models correctly reflect the distribution of composite grades. The review of estimation parameters included:
    - Number of composites used for estimation;
    - Number of drill holes used for estimation;
    - Number of passes used to estimate grade;
    - Mean value of the composites used;
    - Mean distance to sample used;
    - Actual distance to closest point; and
    - Grade of true closest point.
- A comparison of mean grades of composites with the block model is presented in Table 14.14.

TABLE 14.14
AVERAGE GRADE COMPARISON OF COMPOSITES WITH BLOCK MODEL

Data Type	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)
Composites	0.48	2.65	0.96	40.84	0.57
Capped Composites	0.48	2.65	0.96	40.80	0.57
Block Model ID	0.52	2.32	0.85	37.34	0.54
Block Model NN	0.52	2.28	0.83	36.89	0.54

Notes: *ID= Cu, Zn and Pb block model grades were interpolated with Inverse Distance Squared, whereas Ag and Au grades were interpolated with Inverse Distance Cubed.*
NN= block model grades were interpolated using Nearest Neighbour.

The average grades of block models were different from that of composites used for the grade estimations. These were most likely due to smoothing by the grade interpolation process. The block model values will be more representative than the composites, due to 3-D spatial distribution characteristics of the block models. Additional confirmative comparisons are summarized below:

- A volumetric comparison was performed with the block model volume versus the geometric calculated volume of the domain solids and the differences are shown in Table 14.15.

TABLE 14.15 VOLUME COMPARISON OF BLOCK MODEL WITH GEOMETRIC SOLID	
Geometric Volume of Wireframe	5,537,668 m^3
Block Model Volume	5,537,683 m^3
Difference	0.0%

- A comparison of the grade-tonnage curve of the grade model interpolated with Inverse Distance Squared ("ID^2") for Cu and Zn and Inverse Distance Cubed ("ID^3") for Ag, and Nearest Neighbour ("NN") on a global Mineral Resource basis are presented in Figures 14.1 to 14.3.

FIGURE 14.1 CU GRADE-TONNAGE CURVE FOR ID^2 AND NN INTERPOLATION

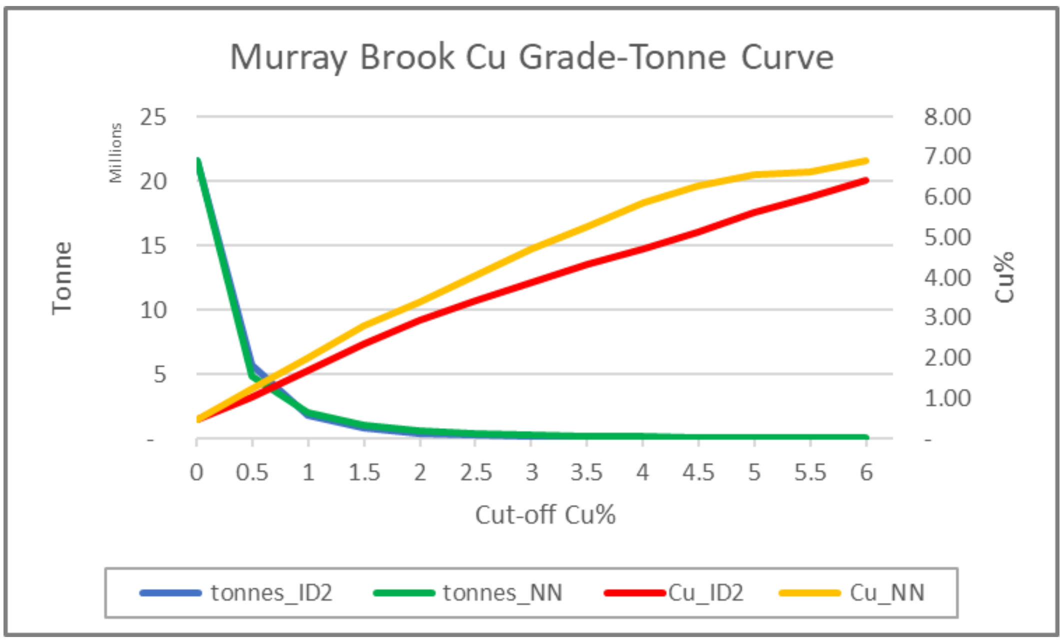


FIGURE 14.2 ZN GRADE-TONNAGE CURVE FOR ID^2 AND NN INTERPOLATION

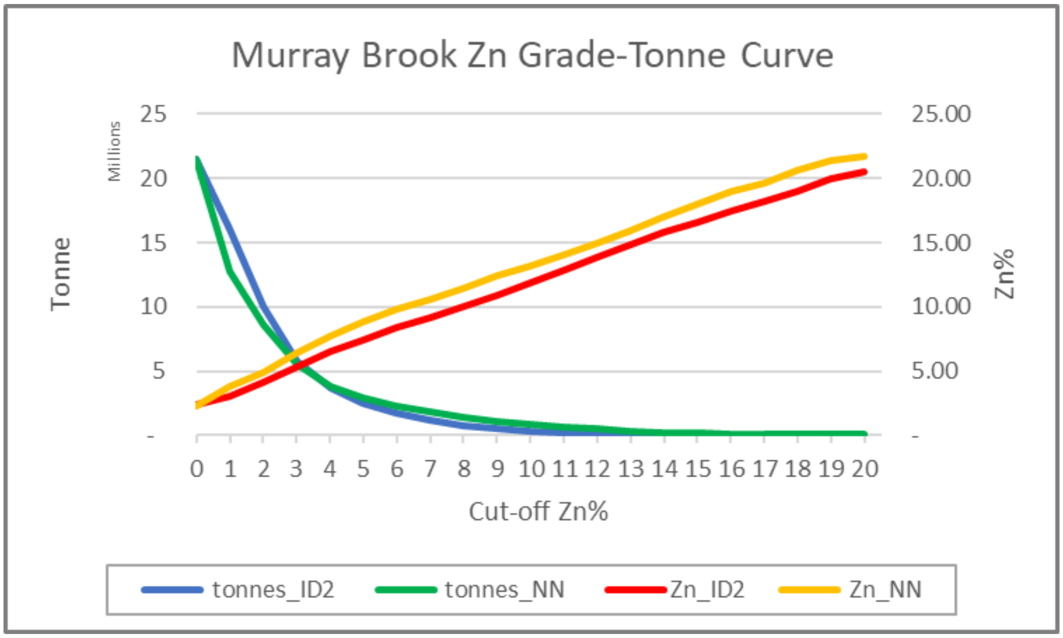
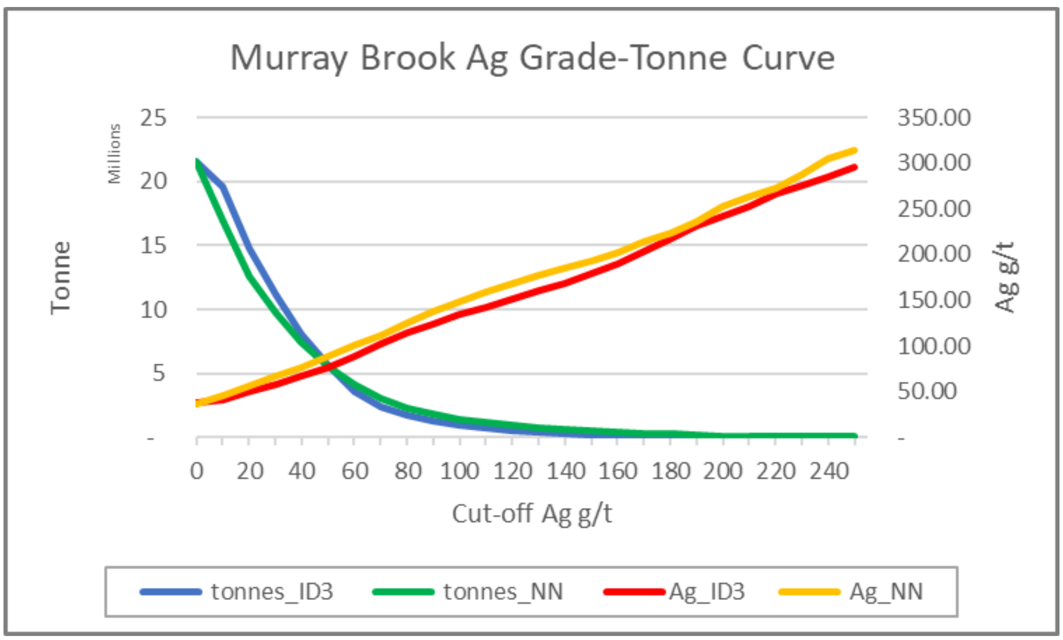
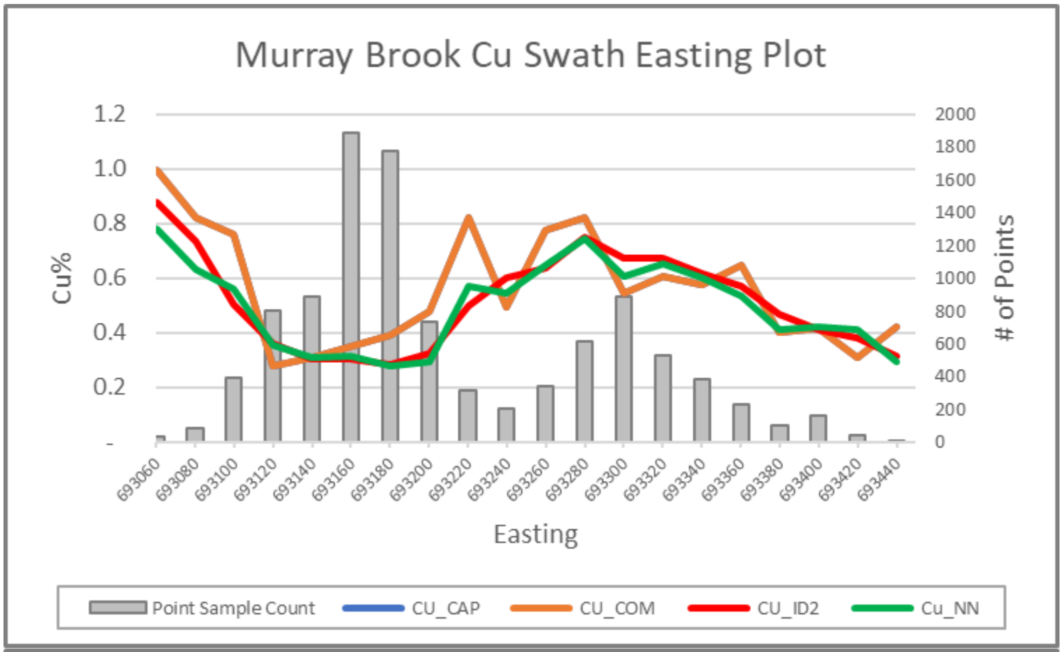


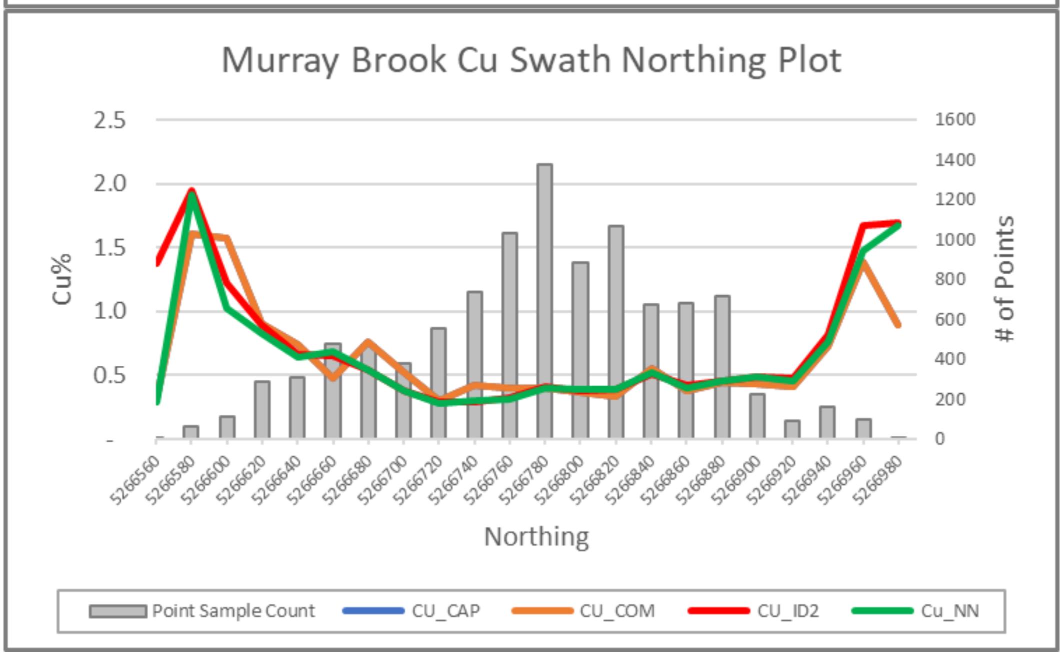
FIGURE 14.3 AG GRADE-TONNAGE CURVE FOR ID^3 AND NN INTERPOLATION



- Cu, Zn and Ag local trends were evaluated by comparing the Inverse Distance and NN estimate against the composites. As shown in Figures 14.4 to 14.6, the grade interpolations with ID and NN agreed well.

FIGURE 14.4 CU GRADE SWATH PLOTS





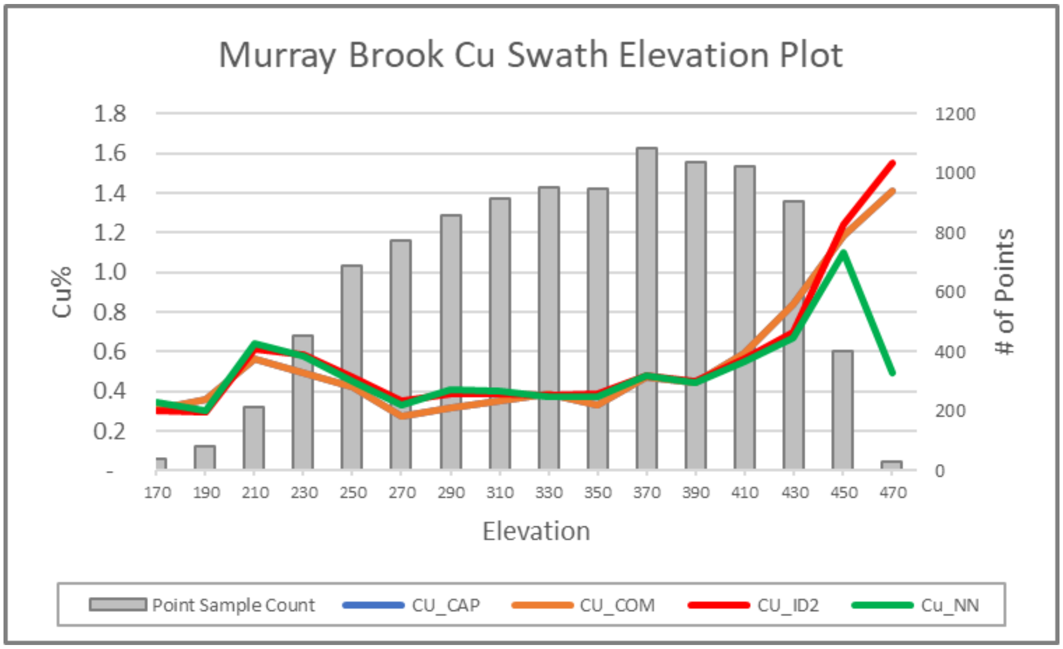
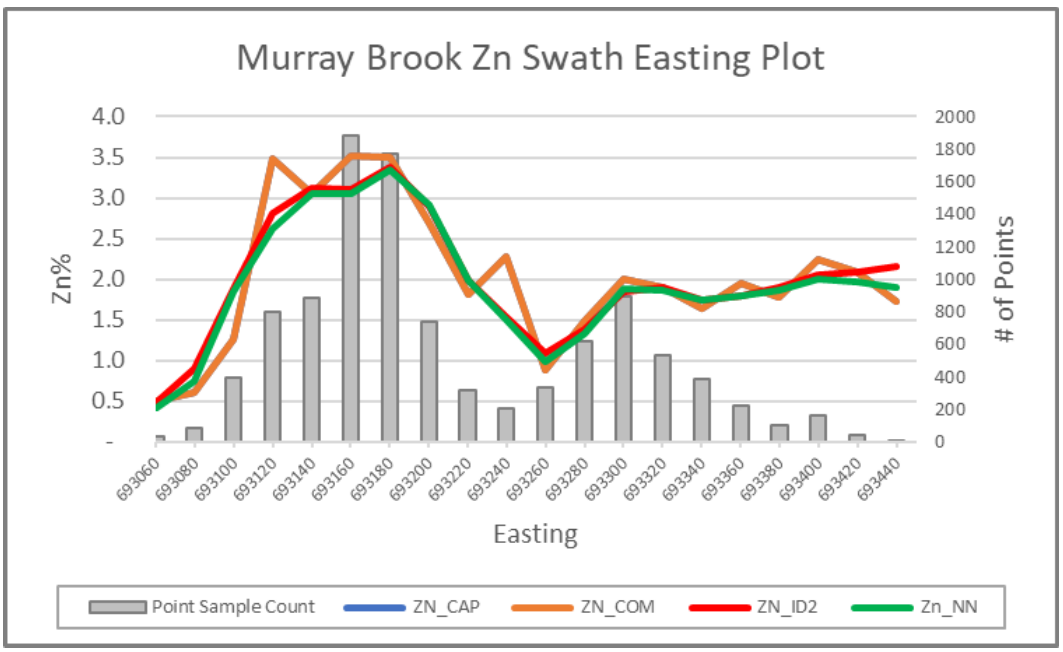
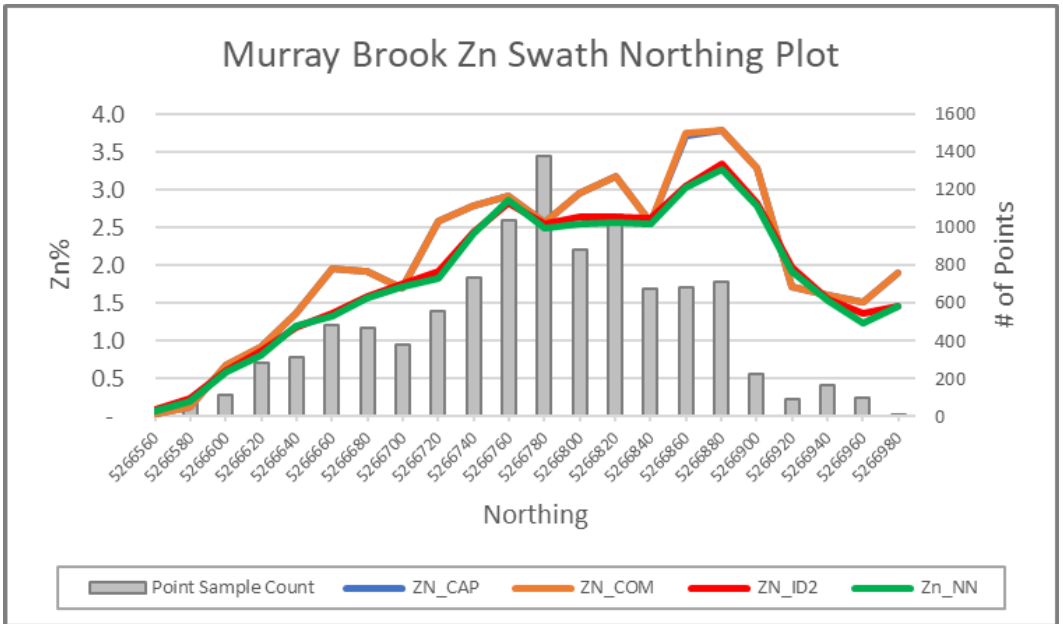


FIGURE 14.5 ZN GRADE SWATH PLOTS




Murray Brook Zn Swath Northing Plot
Zn%
# of Points
Northing
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-
1600
1400
1200
1000
800
600
400
200
0
5266560
5266580
5266600
5266620
5266640
5266660
5266680
5266700
5266720
5266740
5266760
5266780
5266800
5266820
5266840
5266860
5266880
5266900
5266920
5266940
5266960
5266980
Point Sample Count
ZN_CAP
ZN_COM
ZN_ID2
Zn_NN

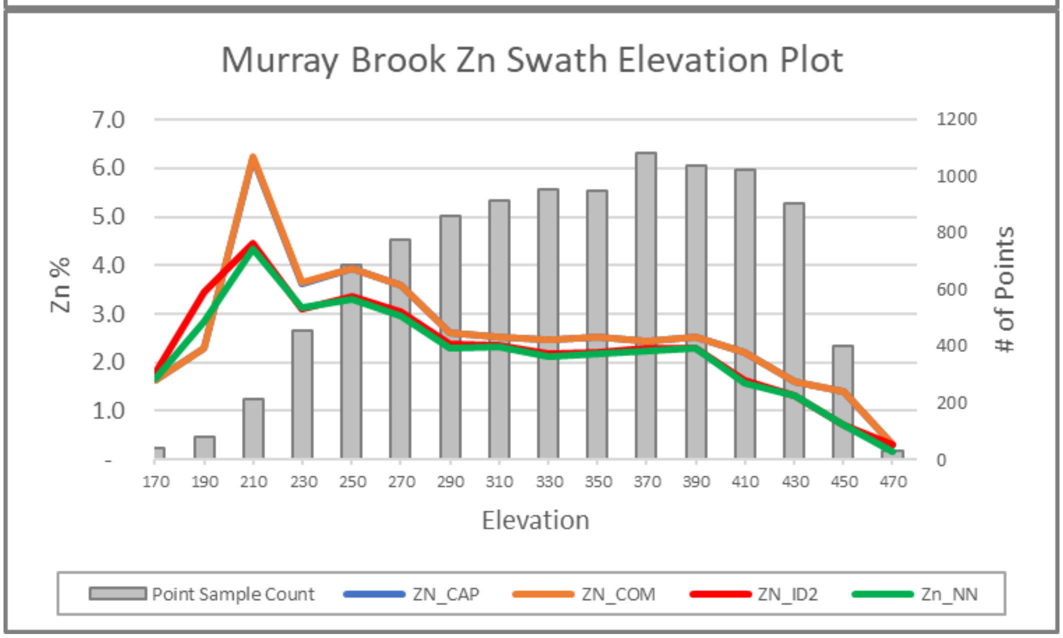
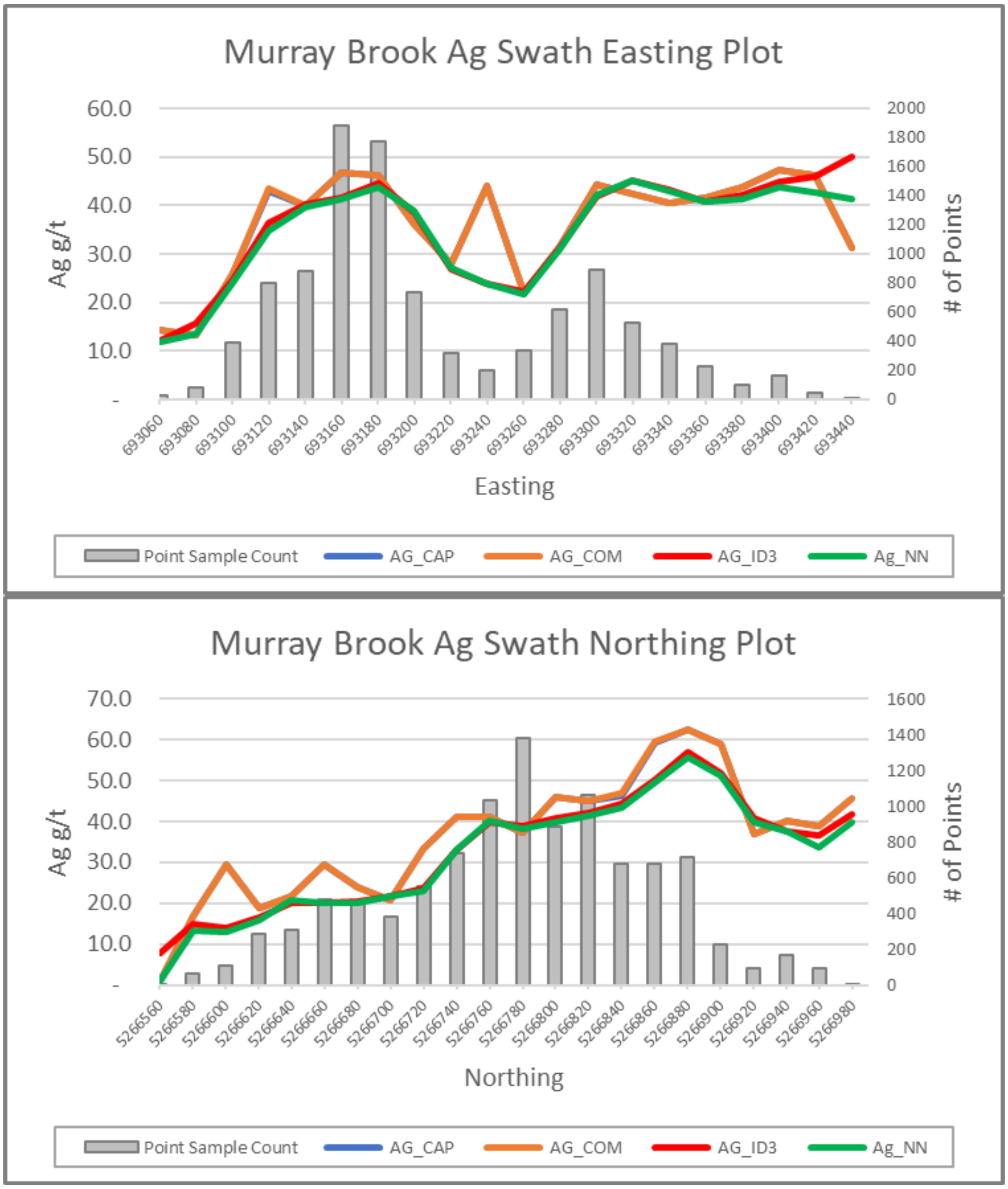
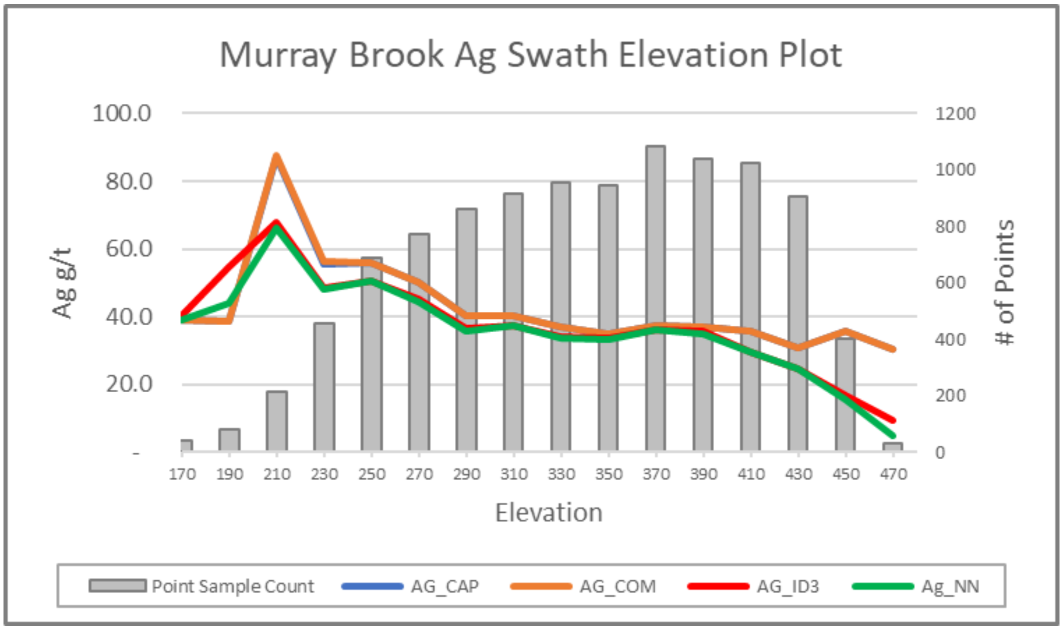

Murray Brook Zn Swath Elevation Plot
Zn %
# of Points
Elevation
7.0
6.0
5.0
4.0
3.0
2.0
1.0
-
1200
1000
800
600
400
200
0
170
190
210
230
250
270
290
310
330
350
370
390
410
430
450
470
Point Sample Count
ZN_CAP
ZN_COM
ZN_ID2
Zn_NN

FIGURE 14.6 AG GRADE SWATH PLOTS




Murray Brook Ag Swath Elevation Plot
Ag g/t
100.0
80.0
60.0
40.0
20.0
-
# of Points
1200
1000
800
600
400
200
0
170
190
210
230
250
270
290
310
330
350
370
390
410
430
450
470
Elevation
Point Sample Count
AG_CAP
AG_COM
AG_ID3
Ag_NN

15.0 MINERAL RESERVE ESTIMATES

This section does not apply to this report as of the effective date of this report.

16.0 MINING METHODS

This section does not apply to this report as of the effective date of this report.

17.0 RECOVERY METHODS

This section does not apply to this report as of the effective date of this report.

18.0 PROJECT INFRASTRUCTURE

This section does not apply to this report as of the effective date of this report.

19.0 MARKET STUDIES AND CONTRACTS

This section does not apply to this report as of the effective date of this report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section summarizes the scope of a proposed Murray Brook Mine Project, the regulatory regime, and the projected environmental and site reclamation requirements.

20.1 PROJECT SCOPE

The entire Murray Brook Project would include open pit mining, mineral processing, mine and process plant waste materials storage, concentrate loading and shipping, effluent treatment, Project support activities, and an integrated site reclamation program.

Although the focus of this document is on a Murray Brook Mine Project, an opportunity exists for the revival and utilization of the Caribou process plant and associated facilities to process Murray Brook material, located 10 km east of Murray Brook (Figure 20.1). This strategy would reduce permitting complexity, reduce project capital costs, and reduce project execution risk given the nearby as-built Caribou facility. Murray Brook is 60 km west of Bathurst, New Brunswick. The Caribou facilities are currently under the custody of the Province of New Brunswick following closure of operations in August 2022 and subsequent bankruptcy of the owner-operator Trevali Mining Corp. in January 2023.

The Caribou process plant had a nameplate capacity of 3,000 tpd of mineralized material received from underground. Notionally, Murray Brook would operate an open pit mine and haul 3,000 tpd of mineralized material to a revived Caribou process plant. Some engineering and processing unit upgrading could reasonably be anticipated. Historically, on a toll basis, the Caribou facility had received feed from the Restigouche Mine site 11 km west of Murray Brook. It is considered that a storage pad and other mineralized material receiving components could be readily revived.

The notional Murray Brook open pit mining would use the conventional open pit drill-blast-load method. Sulphide-free overburden stripped from the pit area would be separately stockpiled for later use in site reclamation. The mine waste rock and low-grade mineralized material would be stockpiled in designated rock storage areas. These areas will include drainage collection to facilitate treatment of potentially acid, metal-containing drainage.

The Murray Brook mining project location can be considered a brownfield site. The volcanogenic massive sulphide (VMS) deposit was discovered in 1955 and was determined to underlie a large gossan zone. From 1989 to 1992, a significant portion of the gossan zone was processed by cyanide vat leaching for gold and silver recovery. Later, copper-rich mineralization was pilot tested for bioleaching. The pilot bioleaching plant was dismantled and the spent leach material was returned to the pit and gossan-capped prior to its flooding. The flooded pit is considered by the Author to have been lime-treated to increase pH and reduce dissolved copper concentrations in the open pit water.

The development of the proposed new open pit is expected to require the relocation of historically-leached gossan that had been encapsulated in two areas located on the Murray Brook Property. Newly engineered storage cell(s) would be needed.

FIGURE 20.1 MURRAY BROOK PROJECT AND CARIBOU PROCESS PLANT LOCATIONS

Source: *Modified by P&E after Google Earth (2023)*

Assuming the utilization of the dormant Caribou process plant, the existing equipment and flowsheet would be used – crushing, grinding and multi-stage flotation with interstage fine grinding, thickening, and drying and storage truck loading of concentrates. Process plant tailings would be pumped to tailings storage management facilities (e.g., the South Tributary Tailings Pond or "STTP"), where tailings would be kept submerged under a water cover of at least 1 m depth. During operations, the tailings pond water would be recycled back to the plant as metallurgically possible and excess tailings pond water would be lime and flocculent treated to prior to release.

The permitting, environmental; and social aspects regarding the use of the Caribou facilities are not discussed in this Report. The details of these aspects and assigned responsibilities would be determined following detailed investigations and agreements with the Province of New Brunswick. A toll process strategy with the process plant and tailings facilities operated by a third party is one of multiple scenarios (Canadian Copper press release dated October 3, 2023). Common to all process options would be the production of copper, lead and zinc concentrates that will contain some payable Ag values. The concentrates would be trucked from the process site using covered trailers to a New Brunswick marine port or to a rail facility.

20.2 REGULATORY REGIME

A Murray Brook Mine Project, depending on its development strategy could be subject to mostly provincial and local regulatory requirements. The principal provincial legislation related to the environmental impact assessment ("EIA") and approval of mining projects are the Mining Act and General Regulation 86-98, and the Clean Environment Act and EIA Regulation 87-83, and Water Quality Regulation 82-126. Relevant key federal legislation includes the Canadian Environmental Assessment Act, Fisheries Act and a subsection of the Fisheries Act – the Metal and Diamond Mining Effluent Regulations.

20.3 MINE APPROVAL PROCESS

The principal documentation required for a mine approval process in New Brunswick includes the following:

- **Expression of Interest** - The mine approval process would be initiated by the proponent submitting an Expression of Interest to develop its mine property. The Standing Committee on Mining and the Environment ("SCME") provides direction to the proponent on issues, deficiencies and concerns to assist it in developing the required project documentation, including a Feasibility Study and a Mining and Reclamation Plan;

- **Feasibility Study** - This would include both the mine development and the selected process scenario and waste management at both the mine and the process plant locations,

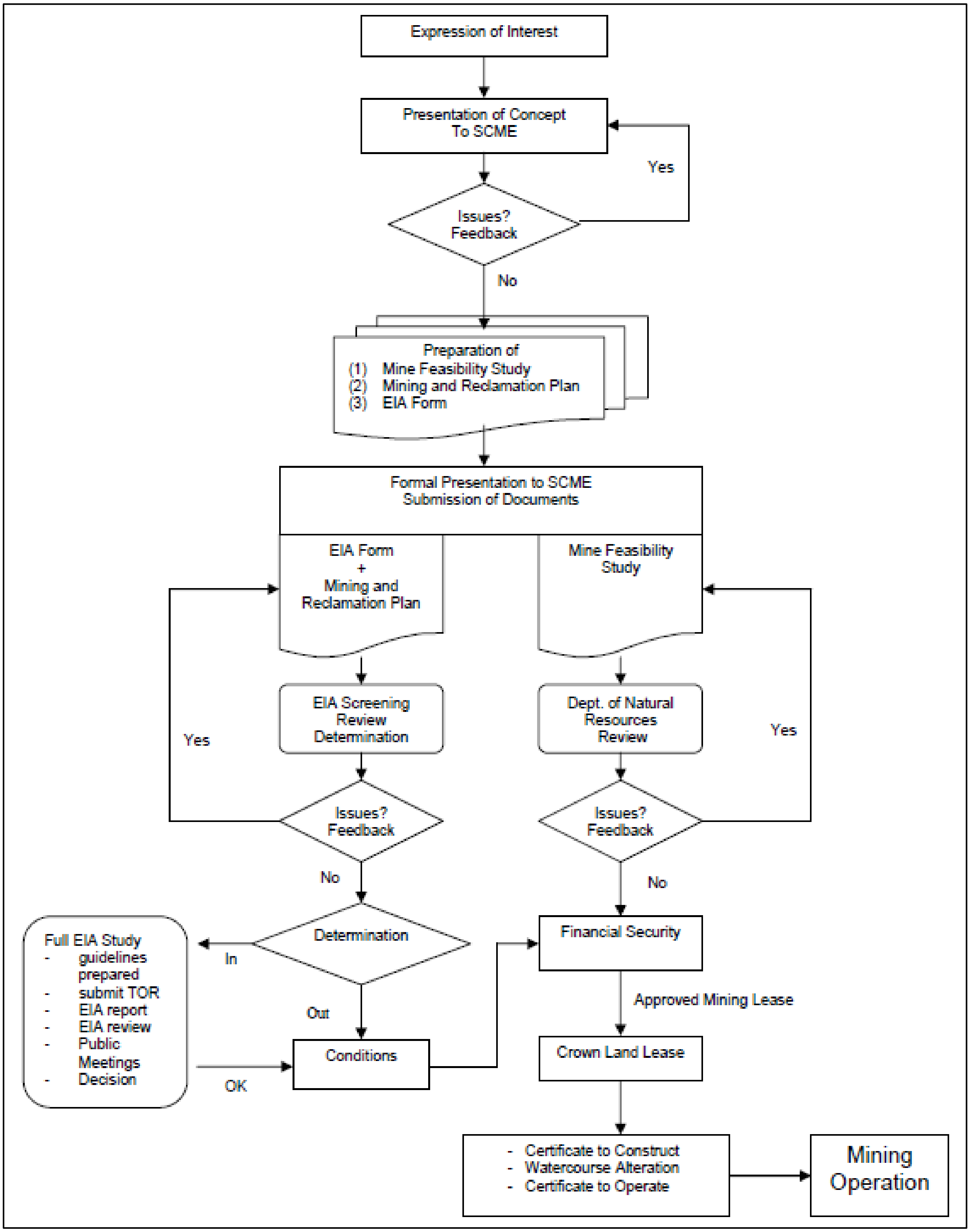
- **Mining and Reclamation Plan**; and

- **Environmental Impact Assessment ("EIA")** - The EIA will be prepared in an Environment and Climate Change-recommended format, reviewed by New Brunswick government ministries, and presented in public meetings. The official and public reviews will outline recommendations and conditions in advance of the approvals of an Operating Permit.

A recent outline of the mine approval process in New Brunswick is shown in Figure 20.2.

A Murray Brook Project could be expected to be subject to a provincial EIA with some federal considerations and would involve public consultations.

FIGURE 20.2 NEW BRUNSWICK MINE APPROVAL PROCESS



Source: *New Brunswick Department of Natural Resources*

20.4 FINANCIAL SECURITY, RECLAMATION AND APPROVALS

20.4.1 Financial Security

The New Brunswick Ministry of Natural Resources and Energy Development ("NRED") requires financial security for mine site reclamation. The optional forms of security are: 1) cash deposit; 2) a negotiable bond that would be assigned to the Province; 3) an irrevocable letter of credit; 4) an insurance company bond; or 5) another form of security acceptable to the Minister. A reclamation security holdback can be required during the post-reclamation monitoring stage when the success of the reclamation program is assessed. A "walk-away" condition is possible following the completion of a rehabilitation program demonstrating that a site does not pose a public safety hazard, and long-term water treatment and site maintenance are minimal or not required. Walk-away conditions are challenging to achieve when high sulphide mineralization is exploited; the long-term maintenance of a water cover over potentially acid generating and metal leaching tailings and waste rock is common strategy. The treatment of waste rock drainage and mine-water seepage is also common.

20.4.2 Site Reclamation

The Murray Brook Mine Project would be expected to apply best management practices and engineered controls to eliminate or mitigate potential environmental impacts and be designed to take the early commitments to progressive, reclamation requirements into consideration.

A Reclamation Plan for the Project, including management of the reclaimed historic gossan, will be developed based on available information and conservative assumptions. As required in the mine permitting process, the Reclamation Plan will be refined as the Project progresses.

Till and non-treated/non-processed gossan excavated from the proposed new open pit would be stockpiled separately. It is assumed that a portion of the waste rock excavated from the proposed open pit would be acid generating and metal leaching, and that these materials would be segregated and stockpiled in a containment area over the mine life. A low-grade stockpile of mineralized material can also be anticipated. Relocation to a suitable location and stored underwater is a widely-accepted strategy. The slopes of non-acid generating waste rock piles would be terraced to prevent instability and prepared for self-revegetation.

Sulphide tailings from the process plant, that would possibly be operated by others, would expect to be disposed underwater in well-engineered tailings management storage areas and kept underwater for the long term.

The mine site infrastructure and non-mobile equipment would be salvaged and (or) demolished. Disturbed land areas would be reclaimed and left under safe and stable conditions.

The performance of the Reclamation Plan would be assessed over a three-to-five-year period of a post-reclamation monitoring program.

20.4.3 Approvals, Permits and Leases

The approvals, permits and leases that the Minister of NRED would issue, after receiving approval for a Mine and Reclamation Plans from other Ministries, including the Minister of Agriculture, Aquaculture and Fisheries and the Minister of the Environment and Climate Change, are outlined in Figure 20.2. The proponent would also need to obtain a surface industrial lease from the NRED, Crown Lands Branch, for project components situated on Crown land. The Approval to Operate the Project would set out water and air quality limits and monitoring and reporting requirements.

21.0 CAPITAL AND OPERATING COST

This section does not apply to this report as of the effective date of this report.

22.0 ECONOMIC ANALYSIS

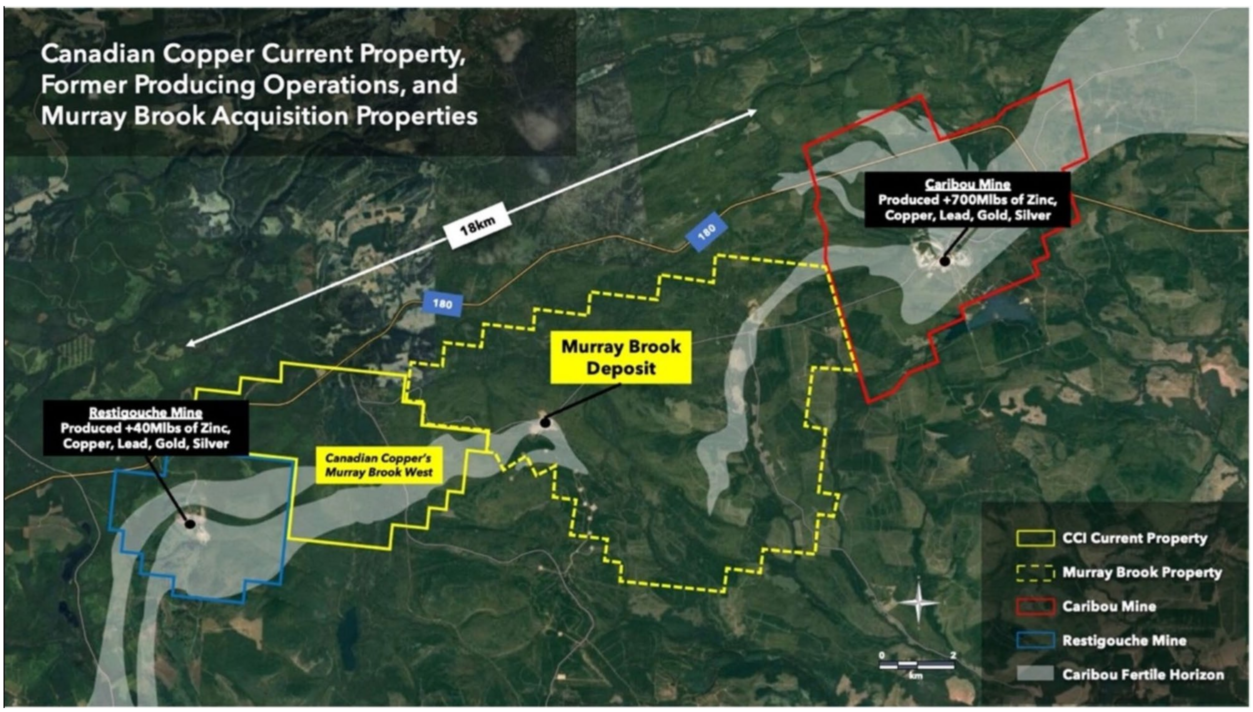
This section does not apply to this report as of the effective date of this report.

23.0 ADJACENT PROPERTIES

The Murray Brook Deposit is hosted by the Ordovician California Lake Group, an important host to mineralization in the Bathurst Mining Camp. Murray Brook is in the northwest part of Bathurst and is located approximately 42 km west-northwest of the decommissioned Bathurst No. 12 Mine, formerly the largest producer in the camp. In the vicinity of Murray Brook, the California Lake Group has a regional strike direction of approximately 70°.

The two most important properties adjacent to Murray Brook are the Caribou Mine Property immediately adjacent to the east and the Restigouche Mine Property immediately adjacent to the west (Figure 23.1). The Caribou Mine Deposit is located approximately 10 km east of the Murray Brook Deposit and the Restigouche Mine Deposit is located 10 km to the west. The geology and mineralization at both of these mines is broadly similar to the Murray Brook Deposit.

FIGURE 23.1 PROPERTIES ADJACENT TO MURRAY BROOK



Source: *Canadian Copper press release (October 3, 2023).*

23.1 CARIBOU MINE

Trevali Mining Corporation ("Trevali") owned the Caribou Mine and 3,000 tpd flotation plant, metallurgical and geochemical assay labs, and a tailings management facility. Trevali received approval to operate the Caribou underground mine, process plant, mine water treatment plant and tailings impoundment on May 1, 2013 and produced zinc, lead and copper concentrates. The most recent Mineral Reserve and Mineral Resource statements for the Caribou Property was provided by Trevali in their press release dated March 31, 2022 (Tables 23.1 and 23.2).

Table 23.1 **Caribou Mineral Reserves as of December 31, 2021** (1 to 4)							
Classification	**Tonnes (M)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Zn (Mlb)**	**Pb (Mlb)**	**Ag (koz)**
Proven	1.75	6.13	2.21	65.92	236	85	3,707
Probable	2.66	5.67	2.14	65.39	332	125	5,584
Proven & Probable	4.41	5.85	2.14	65.60	568	211	9,291

Source: *Trevali press release dated March 31, 2022*

Notes:

1. *All Mineral Reserves have been estimated in accordance with the CIM Definition Standards. Numbers may not add due to rounding.*
2. *The Technical Report titled "Technical Report on the Caribou Mine, Bathurst, New Brunswick. Canada, dated May 31, 2018, is the current Technical Report for the Caribou Mine Property.*
3. *The Caribou Underground Mine Mineral Reserve Estimate is reported based on optimized slopes designed on an incremental net smelter return cut-off value of US$ 80/t with average metal prices of US$1.25/lb Zn, US$1.00/lb Pb and US$25/oz Ag.*
4. *Caribou Underground Mine Mineral Reserve Estimate has been prepared by Trevali's Technical Group with an effective date of December 31, 2021, under the supervision of Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. M. Bourasa was Vice President Technical Services & Exploration of the Company and accordingly, was not independent.*

Table 23.2 **Caribou Mine Mineral Resources as of December 31, 2021** (1 to 3)							
Classification	**Tonnes (M)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Zn (Mlb)**	**Pb (Mlb)**	**Ag (koz)**
Measured	6.82	6.55	2.44	71.49	984	367	15,664
Indicated	4.91	6.31	2.49	75.03	683	270	11,846
Measured & Indicated	11.73	6.45	2.46	72.97	1,667	636	27,510
Inferred	2.61	5.68	2.4	72.61	327	138	6,099

Source: *Trevali press release dated March 31, 2022*

1. *All Mineral Resources have been estimated in accordance with the CIM Definition Standards. Mineral Resources are inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Numbers may not add due to rounding.*
2. *The Technical Report titled "Technical Report on the Caribou Mine, Bathurst, New Brunswick, Canada" dated May 31, 2018, is the current Technical Report for the Caribou Property.*
3. *The Caribou Underground Mine Mineral Resource Estimate is reported based on zinc equivalent cut-off grade of 5% ZnEq. The Caribou Underground Mine Mineral Resource Estimate has been prepared by Trevali's technical group with an effective date of December 31, 2021, under the supervision of and approval by Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. Mr. Bourassa was Vice President Technical Services & Exploration of the Company and accordingly, is not independent.*

Trevali achieved commercial production operations at the Caribou concentrator in early 2016 (Trevali press release dated July 7, 2016). However, the Caribou Mine operation shut down in 2022 and is currently under the administration of the New Brunswick government, who seeks a buyer. Total production from the Caribou Mine was more than 700 Mlb of Zn, Cu, Pb, Au and Ag.

The Authors cautions that a Qualified Person has not done the work necessary to verify the validity or reliability of these Mineral Reserve and Mineral Resource Estimates or mine production. The key assumptions and parameters used to prepare the estimates have not been verified by a Qualified Person and, as such. the estimates should not be relied on.

23.2 RESTIGOUCHE MINE

The Restigouche Mine Property is located west adjacent to Murray Brook (Figure 23.1). The Restigouche massive sulphide deposit consists of at least two separate lenses of massive sulphide underlain by a chlorite-pyrite stringer zone. Trevali acquired the Restigouche Mine in July 2017. The most recent Mineral Resource Statement for the Restigouche Underground Mine was provided by Trevali in their press release dated March 31, 2022 (Table 23.3).

TABLE 23.3
RESTIGOUCHE PROJECT MINERAL RESOURCES AS OF DECEMBER 31, 2021 (1 TO 3)

Classification	Tonnes (M)	Zn (%)	Pb (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (Mlb)	Pb (Mlb)	Cu (%)	Ag (koz)	Au (koz)
Measured	0.29	4.63	3.08	0.21	38.80	0.45	30	20	1.4	364	4
Indicated	0.79	5.19	3.36	0.22	49.07	0.55	91	59	3.8	1,249	14
Measured & Indicated	1.08	5.00	3.30	0.22	46.30	0.52	119	79	5.3	1,613	18
Inferred	0.58	6.10	4.30	0.28	67.83	0.81	77	55	3.6	1,256	15

Source: *Trevali press release dated March 31, 2022*

1. *All Mineral Resources have been estimated in accordance with the CIM Definition Standards. Mineral Resources are inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Numbers may not add due to rounding.*
2. *The Restigouche Underground Mine Mineral Resource Estimate is reported based on zinc equivalent cut-off grade of 3% ZnEq. The Restigouche Underground Mine Mineral Resource Estimate has been prepared by Trevali's exploration geology department and non-independent technical consultants to the Company with an effective date of December 31, 2021, under the supervision of and approval by Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. Mr. Bourassa was Vice President Technical Services & Exploration of the Company and accordingly, is not independent.*

The Author cautions that a Qualified Person has not done the work necessary to verify the validity or reliability of the Mineral Resource Estimate. The key assumptions and parameters used to prepare the estimate have not been verified and, as such, the estimate should not be relied upon.

The Author has not done sufficient work to verify the information about the mineral properties discussed in this Report section and the information in this section of the Report is not necessarily indicative of the mineralization on the Murray Brook Property.

24.0 OTHER RELEVANT DATA AND INFORMATION

The Authors are not aware of any other relevant data or information as of the effective date of this Technical Report.

25.0 INTERPRETATION AND CONCLUSIONS

The Murray Brook Property is located approximately 60 km west of Bathurst in the Parish of Balmoral, Restigouche County, New Brunswick, Canada. The Property consists of surveyed Mineral Lease No. 252, which covers 505 ha, and the larger Murray Brook east claim 4925, which covers 5,082 ha. A 5 km gravel access road extends southward from Highway 180 to the Property. The City of Bathurst to the east provides access to rail and ocean shipping facilities.

Mineral Lease No. 252 was recorded on October 17, 1989 by Murray Brook Resources Inc. The initial term of the Lease was for 20 years with three automatic twenty-year renewals. The current expiry date is October 16, 2029 and the rental fees are current. Murray Brook East claim 4925 is currently in good standing with an expiry date of September 7, 2024.

Canadian Copper intends to acquire the Murray Brook Joint Venture Property through separate agreements with VMC and MQM for 100% ownership of the Property. Canadian Copper announced on August 2, 2023 that it had successfully executed a definitive purchase agreement to acquire VMC's 72% interest in the Murray Brook Joint Venture. The Company and VMC agreed to conditions for the transaction under the Letter of Intent signed February 13, 2023. Five of the seven conditions of the transaction have been satisfied as of the effective date of this Report.

Canadian Copper announced on September 12, 2023 its intention to acquire MQM's (previously El Nino Ventures Inc.) 28% interest in the Murray Brook Joint Venture. The Company and MQM have agreed to considerations under a Letter of Intent ("LOI") signed September 11, 2023, which is subject to exchange approvals, and the execution of a definitive purchase agreement ("PA"). After the Company satisfies conditions 1 to 4 of the Purchase Agreement, Canadian Copper will have completed its purchase of the remaining 28% interest in the Murray Brook Joint Venture.

The Property is located in the Miramichi Highlands, which is characterized by rounded and glacially scoured hills. Land use in the area is mainly for tourism, forestry and mining. The Property is accessible for work year-round and water is plentiful in streams and creeks. Although the site has been reclaimed from the 1990s silver-gold mining and the equipment sold off, part of the historical open pit mine, leach pads and tailings storage area are still evident. The massive sulphide deposit has never been mined. A 10 kV powerline links Murray Brook to the power station at the Caribou Mine, 10 km to the east. However, service was discontinued in 1996.

The Murray Brook area is located in the Bathurst Mining Camp ("BMC") in northern New Brunswick. The BMC is an Ordovician back-arc complex of polydeformed sedimentary, felsic volcanic, and mafic volcanic rocks formed in separate sub-basins within the back-arc basin, and which have been juxtaposed by five periods of folding and thrusting, and collectively referred to as the Bathurst Supergroup. The sedimentary and volcanic rocks have been intruded by gabbro, diabase and quartz porphyritic rocks of Ordovician age.

The Murray Brook Deposit is hosted in sedimentary rocks of the Charlotte Brook Member, in the lower part of the Mount Brittain Formation. The upper felsic volcanic member of the Mount Brittain Formation hosts to Restigouche Deposit, 10 km to the west of Murray Brook. The Mount Brittain Formation is considered to be equivalent of the Spruce Lake Formation, which hosts the Caribou Mine Deposit, 10 km to the east.

Although Murray Brook is a single body of massive sulphide, infill drilling results indicate that the Deposit consists of two connected thick lenses or lobes. The western lens is deeper and richer in zinc and lead, and the eastern lens is closer to surface and richer in copper.

Mineral prospecting, geological mapping, trenching, soil geochemistry, ground geophysical surveys and airborne geophysical exploration surveys have been completed by VMC and Puma between 2010 and 2020. The ground and airborne geophysical surveys include magnetics, gravity and electromagnetics, which with the geological and geochemistry work led to the development of targets for drill testing. Since 2010, 190 drill holes totalling 37,070 m have been completed on the Murray Brook Property. A total of 162 drill holes for 29,938.7 m were completed by VMC between 2010 and 2016 and 28 drill holes totalling 7,131 m were completed by Puma between 2017 and 2019.

Robust quality assurance/quality control ("QA/QC") programs have been used since the commencement of exploration activities on the Property in 2010. In the Author's opinion, the sample preparation, analytical procedures, security and QA/QC program meet industry standards, and that the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report.

Mr. Yungang Wu, P.Geo. of P&E, an independent Qualified Person under the terms of NI 43-101, carried out a site visit to the Property on September 7 and 8, 2023. The site visit included Property inspections of drill sites, drill collars, and drill core storage facilities. As part of the on-site review, drill core samples were collected to independently confirm the presence and grades of the base and precious metal mineralization. Previously, Mr. Eugene Puritch, P.Eng. of P&E, an independent Qualified Person under the terms of NI 43-101, conducted a site visit to the Property on March 18, 2013. A data verification sampling program was conducted as part of the site visit. The Authors consider that there is good correlation between gold and silver assay values in the Project database and the independent verification samples. It is the Authors' opinion that the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

The most recent metallurgical testwork was reported Puma and Trevali in 2019. The testwork program was designed to investigate the potential of processing the Murray Brook mineralization by utilizing the existing flowsheet at Trevali's Caribou process plant, 10 km to the east. Flotation testwork was conducted on fresh drill core materials from the Zn-Pb zone and the Cu-Zn zone under the prevailing Caribou process plant grinding and flotation conditions. Additional scoping-level flotation testwork was also conducted to evaluate the oxide zone at Murray Brook for potential optimizations of near surface mineralization.

The zinc-lead zone yielded recoveries of 86.6% Zn and 70.4% Pb with 39.9% of Ag reporting to the Pb concentrate. These results are higher than the published results by Trevali for the Caribou (underground) Mine and also significantly higher than those for the initial recovery tests conducted by VMC in 2013. For the first time, recovery tests were conducted on the newly defined copper-zinc zone at Murray Brook. The Copper-Zinc Zone also reported positive results with initial copper recovery of 79.5 % Cu with 54.9% of Ag reporting to the copper concentrate and zinc recovery of 65.6 % Zn. Further optimization testwork was recommended to evaluate the potential to further upgrade recovery and reduce reagent consumption. This Technical Report incorporates P&E's NI 43-101 Mineral Resource Estimate ("MRE") for sulphide and oxide mineralization at a

CAD$23/t Net Smelter Return ("NSR") cut-off. The MRE for the sulphide mineralization consists of: 15.8 Mt grading 2.60% Zn, 0.43% Cu, 0.92% Pb, 0.52 g/t Au and 39.0 g/t Ag (4.83% ZnEq or 1.51% CuEq) in Measured Mineral Resources; 5.3 Mt grading of 2.14% Zn, 0.52% Cu, 0.85% Pb, 0.67 g/t Au and 37.3 g/t Ag (4.58% ZnEq or 1.43% CuEq) in Indicated Mineral Resources; and 0.1 Mt grading 1.82% Zn, 0.41% Cu, 0.68% Pb, 0.62 g/t Au and 30.4 g/t Ag (3.75% ZnEq or 1.17% CuEq) in Inferred Mineral Resources. The oxide mineralization consists of: 1.6 Mt grading 2.2% Zn, 1.05% Cu, 0.73% Pb, 0.36 g/t Au and 38.0 g/t Ag (5.94% ZnEq or 1.85% CuEq) in Measured Mineral Resources and 0.4 Mt grading 2.31% Zn, 0.97% Cu, 0.78% Pb, 0.51 g/t Au and 44.7 g/t Ag (6.02% ZnEq or 1.88% CuEq) in Indicated Mineral Resources.

The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council (2014) and Best Practices Guidelines (2019). 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. The Inferred Mineral Resource in this estimate has a lower level of confidence that 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.

The two most important properties adjacent to Murray Brook are the Caribou Mine Property immediately adjacent to the east and the Restigouche Mine Property immediately adjacent to the west. The Caribou Mine Deposit is located approximately 10 km east of the Murray Brook Deposit and the Restigouche Mine Deposit is located 10 km to the west. The Caribou Project consists of an underground mine, 3,000 tpd flotation plant, metallurgical and geochemical assay labs, and a tailings management facility. The Mine operated intermittently between 2013 and 2022. The Restigouche Mine Deposit consists of at least two separate lenses of massive sulphide underlain by a chlorite-pyrite stringer zone. The geology and mineralization at both of these mines is broadly similar to the Murray Brook Deposit, which altogether define the fertile Caribou Horizon that has been traced on surface for a distance of 18 km.

26.0 RECOMMENDATIONS

The Murray Brook Project contains a significant zinc-lead-copper-silver Mineral Resource and the Authors recommend that Canadian Copper proceed with an updated Preliminary Economic Assessment. Canadian Copper should also proceed with: additional drilling to better delineate the western and at depth margins of the deposit; further metallurgical testwork to increase Zn, Pb, Cu and Ag recoveries from Murray Brook feed and to potentially recover gold; property environmental studies and project stakeholder engagement work for future permitting; and regional exploration to generate new targets for drill testing.

Specifically, it is recommended that Canadian Copper take the following actions:

- Complete a 12-hole, 3,000 m drill program to determine the extent of a recently recognized copper and gold zone defined previously by twelve of the 2017 to 2019 drill holes, which are an approximate 50-m step-out to prior drilling;

- Future drill core sampling at the Project include the insertion and monitoring of suitable CRMs to monitor gold analyses and umpire assaying of 5% of all drill core samples;

- Conduct rougher-cleaner confirmation tests on fresh drill core of specific mineralization types. Drill core samples should be frozen during shipment and storage;

- Review process options to potentially recover the 400,000 ozs gold that exists within the current oxide and sulphide Mineral Resources. Presently, 0% recovery is attributed for gold;

- Review the envisaged Project with regulatory authorities and local communities, including possible environmental and social impact assessment study requirements and related public consultation aspects, timelines, etc. and consider proactively commencing studies that are likely to be required or that may require an extended time, whilst also recalling that environmental assessment supporting studies requirements are established as part of the environmental impact assessment process;

- Complete an updated Preliminary Economic Assessment ("PEA") to include several critical trade-off studies. For example, the open pit Murray Brook Deposit is high-grade and conducive to low capital cost toll processing within the Bathurst Region. A toll processing development scenario will improve permitting timelines and reduce Project execution risk; and

- Restart regional exploration along the 18 km long Caribou Horizon corridor.

The estimated cost of the recommended program is $2.5M (Table 26.1).

TABLE 26.1
RECOMMENDED PROGRAM AND BUDGET FOR MURRAY BROOK

Activity	Purpose	Units/ Metres	Estimated Cost (CAD$)
Drilling	Further deposit delineation	3,000	750,000
Metallurgy	Optimize metal recoveries; recover gold	1	250,000
Updated PEA	Improve project definition	1	350,000
Exploration	Review and drill nearby targets	2,000	500,000
Support			300,000
Subtotal			2,150,000
Contingency (15%)			322,500
Total			**2,472,500**

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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 Murray Brook Zn-Pb-Cu Project New Brunswick, Canada", (The "Technical Report") with an effective date of October 3, 2023.
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, 3, 4, 5, 6, 7, 8, 9, 10, and 23 and co-authoring Sections 1, 25, 26, and 27 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 Property that is the subject of this Technical Report. I was an executive with El Nino Ventures Inc. from 2011 to 2013 and a geological consultant to El Nino Ventures Inc. from 2014 to 2017 and from 2019 to 2022.
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: October 3, 2023

Signed Date: November 16, 2023

{SIGNED AND SEALED}

[William Stone]

____

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

CERTIFICATE OF QUALIFIED PERSON

YUNGANG WU, P.GEO.

I, Yungang Wu, P. Geo., residing at 3246 Preserve Drive, Oakville, Ontario, L6M 0X3, do hereby certify that:

1. I am an independent consulting geologist 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 Murray Brook Zn-Pb-Cu Project New Brunswick, Canada", (The "Technical Report") with an effective date of October 3, 2023.
3. I am a graduate of Jilin University, China, with a Master's degree in Mineral Deposits (1992). I have worked as a geologist for 25 plus years since graduating. I am a geological consultant and a registered practising member of the Association of Professional Geoscientists of Ontario (Registration No. 1681).

   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 as follows:

   - Geologist –Geology and Mineral Bureau, Liaoning Province, China 1992-1993
   - Senior Geologist – Committee of Mineral Resources and Reserves of Liaoning, China 1993-1998
   - VP – Institute of Mineral Resources and Land Planning, Liaoning, China 1998-2001
   - Project Geologist–Exploration Division, De Beers Canada 2003-2009
   - Mine Geologist – Victor Diamond Mine, De Beers Canada 2009-2011
   - Resource Geologist– Coffey Mining Canada 2011-2012
   - Consulting Geologist 2012-Present
4. I have visited the Property that is the subject of this Technical Report on September 7 and 8, 2023.
5. I am responsible for co-authoring Sections 1, 12, 14, 25, 26, and 27 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 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 of the Murray Brook Project New Brunswick, Canada" for Votorantim Metals Canada Inc. and El Nino Ventures Inc., with an effective date of June 4, 2013; and "Technical Report on the Murray Brook Property, Restigouche County New Brunswick, Canada" for El Nino Ventures Inc., dated April 13, 2013.
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: October 3, 2023
Signed Date: November 16, 2023

{SIGNED AND SEALED}
[Yungang Wu]

Yungang Wu, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

JARITA BARRY, P.GEO.

I, Jarita Barry, P.Geo., residing at 9052 Mortlake-Ararat Road, Ararat, Victoria, Australia, 3377, 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 Murray Brook Zn-Pb-Cu Project New Brunswick, Canada", (The "Technical Report") with an effective date of October 3, 2023.
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 17 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by Engineers and Geoscientists British Columbia (License No. 40875) and Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 08399). 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. (EGBC/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, 26, and 27 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: October 3, 2023

Signed Date: November 16, 2023

{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 Murray Brook Zn-Pb-Cu Project New Brunswick, Canada", (The "Technical Report") with an effective date of October 3, 2023.
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, 26, and 27 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: October 3, 2023
Signed Date: November 16, 2023

{SIGNED AND SEALED}
[D. Grant Feasby]

D. Grant Feasby, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

ANTOINE R. YASSA, P.GEO.

I, Antoine R. Yassa, P.Geo. residing at 3602 Rang des Cavaliers, Rouyn-Noranda, Quebec, J0Z 1Y2, 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 Murray Brook Zn-Pb-Cu Project New Brunswick, Canada", (The "Technical Report") with an effective date of October 3, 2023.
3. I am a graduate of Ottawa University at Ottawa, Ontario with a B. Sc (HONS) in Geological Sciences (1977) with continuous experience as a geologist since 1979. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No 224) and by the Association of Professional Geoscientist of Ontario (License No 1890);

   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:

   - Minex Geologist (Val d'Or), 3-D Modeling (Timmins), Placer Dome 1993-1995
   - Database Manager, Senior Geologist, West Africa, PDX, 1996-1998
   - Senior Geologist, Database Manager, McWatters Mine 1998-2000
   - Database Manager, Gemcom modeling and Resources Evaluation (Kiena Mine) 2001-2003
   - Database Manager and Resources Evaluation at Julietta Mine, Bema Gold Corp. 2003-2006
   - Consulting Geologist 2006-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, 26, and 27 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. 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: October 3, 2023
Signed Date: November 16, 2023

{SIGNED AND SEALED}
[Antoine R. Yassa]

Antoine R. Yassa, P.Geo.

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 Murray Brook Zn-Pb-Cu Project New Brunswick, Canada", (The "Technical Report") with an effective date of October 3, 2023.
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 September 7 and 8, 2023.
5. I am responsible for co-authoring Sections 1, 14, 25, 26, and 27 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 of the Murray Brook Project New Brunswick, Canada" for Votorantim Metals Canada Inc. and El Nino Ventures Inc., with an effective date of June 4, 2013; and "Technical Report on the Murray Brook Property, Restigouche County New Brunswick, Canada" for El Nino Ventures Inc., dated April 13, 2013.
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: October 3, 2023

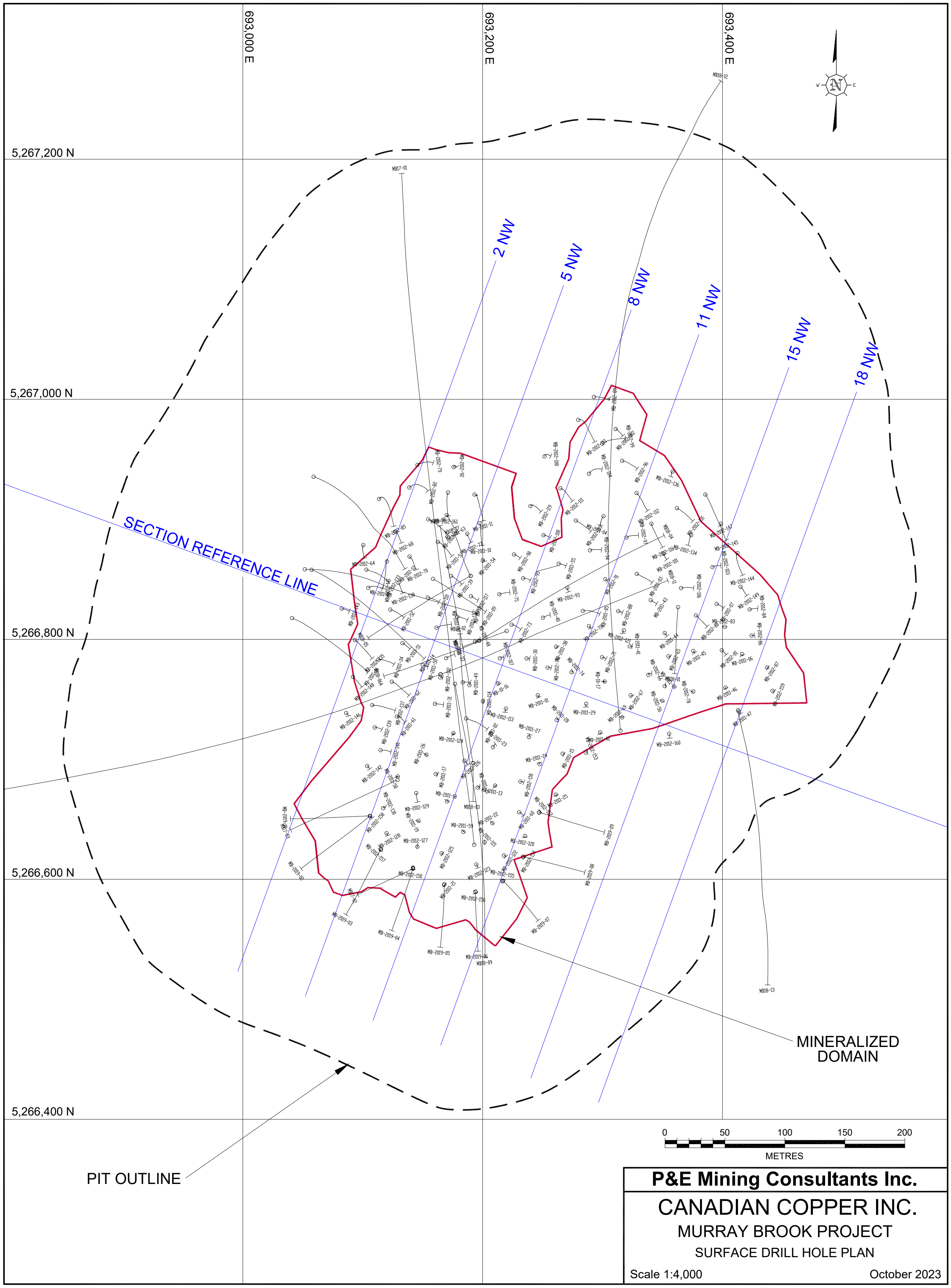
Signed Date: November 16, 2023

{SIGNED AND SEALED}

[Eugene Puritch]

Eugene Puritch, P.Eng., FEC, CET

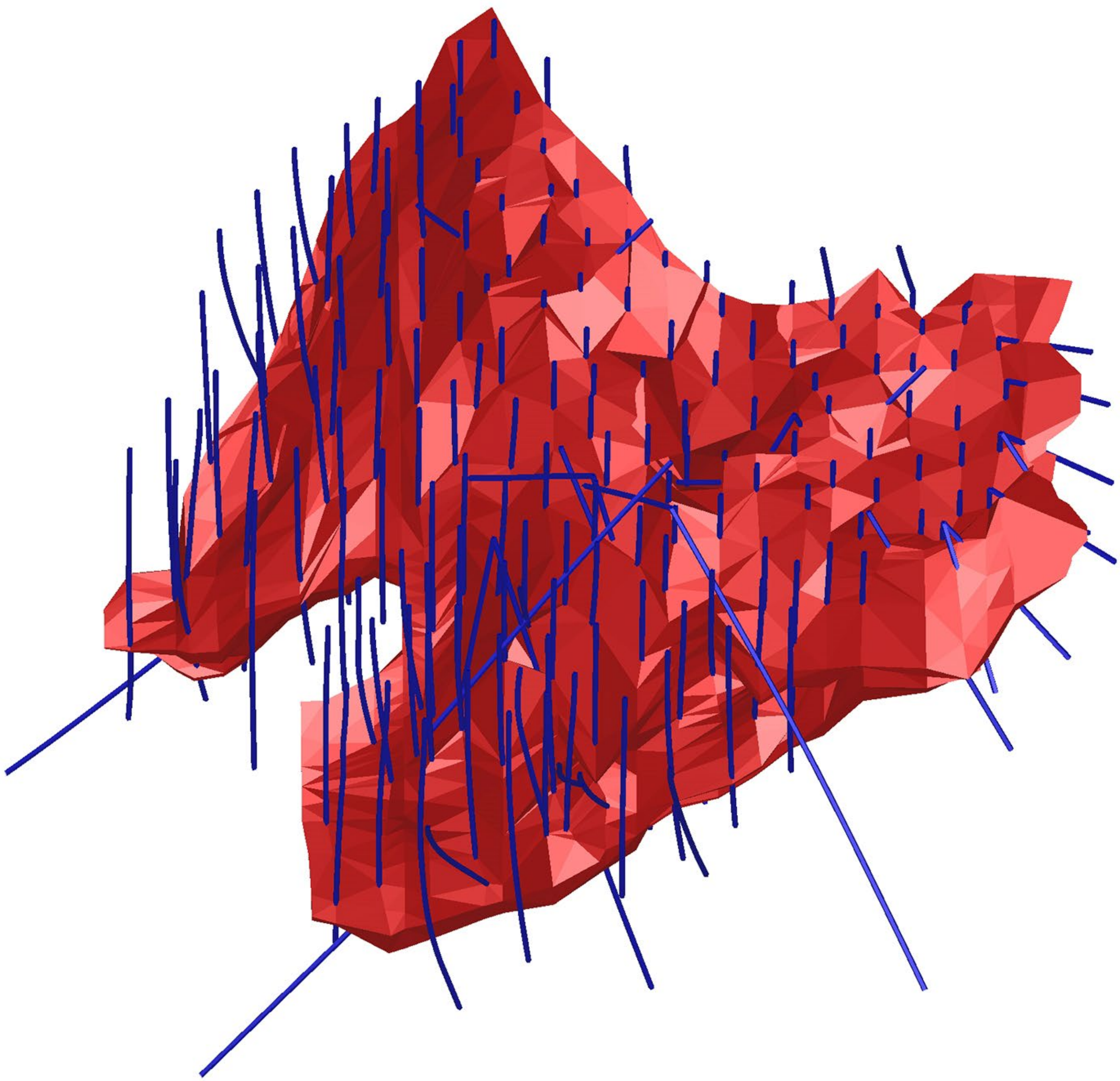
APPENDIX A DRILL HOLE PLAN



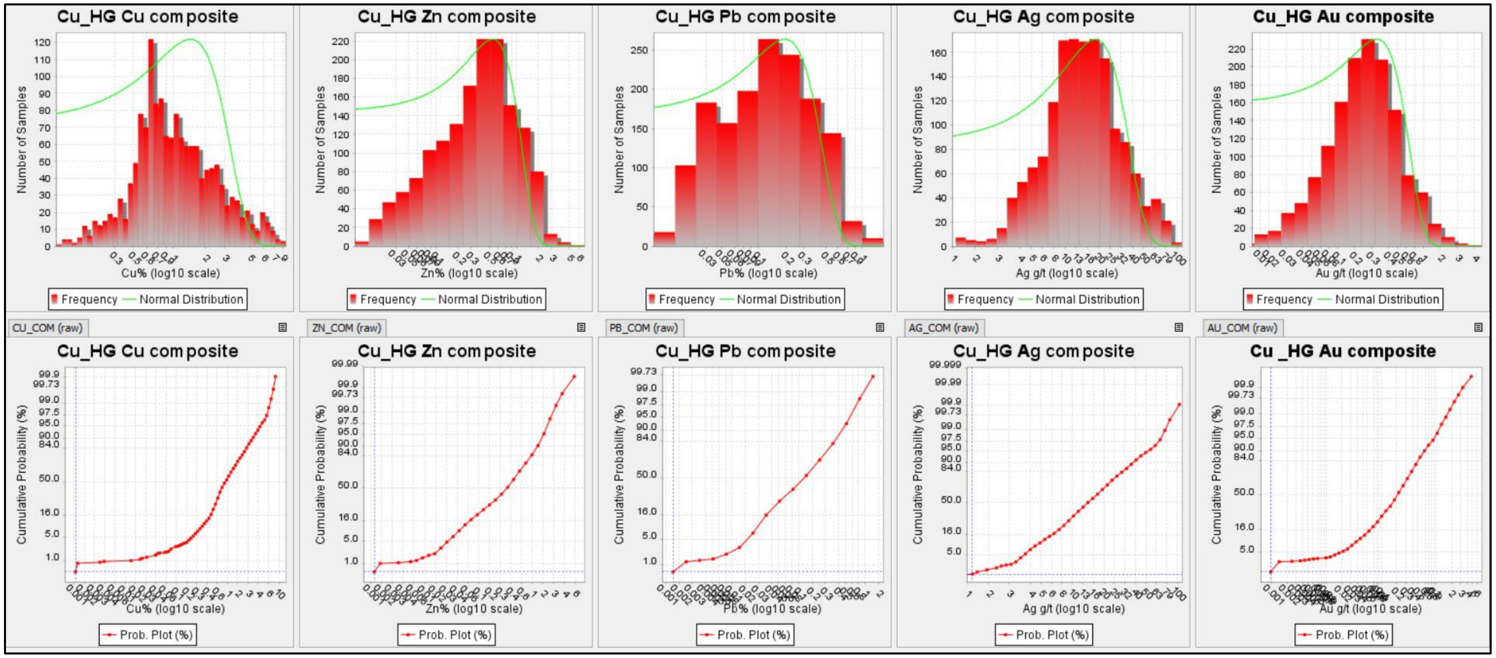
693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
5,266,400 N
2 NW
5 NW
8 NW
11 NW
15 NW
18 NW
SECTION REFERENCE LINE
MINERALIZED DOMAIN
PIT OUTLINE
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
SURFACE DRILL HOLE PLAN
Scale 1:4,000
October 2023

APPENDIX B 3-D DOMAINS

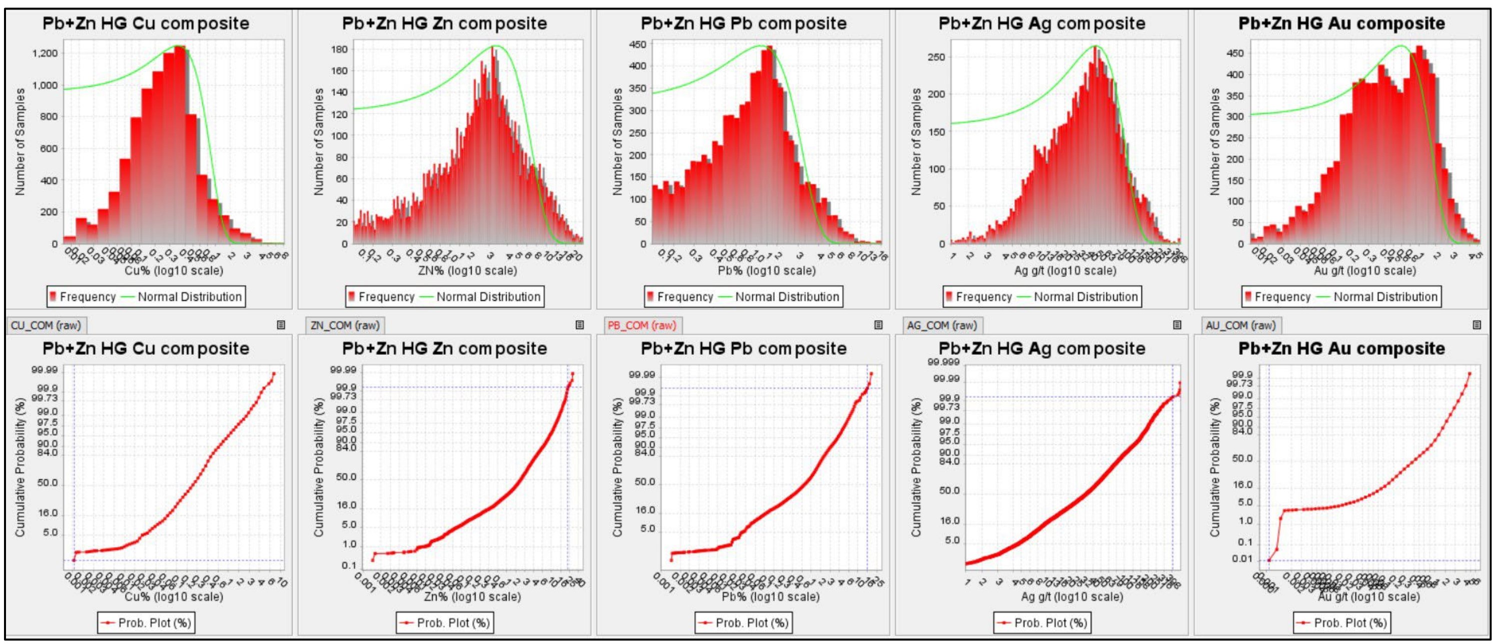
MURRAY BROOK PROJECT
3D DOMAIN



APPENDIX C LOG NORMAL HISTOGRAMS AND PROBABILITY PLOTS

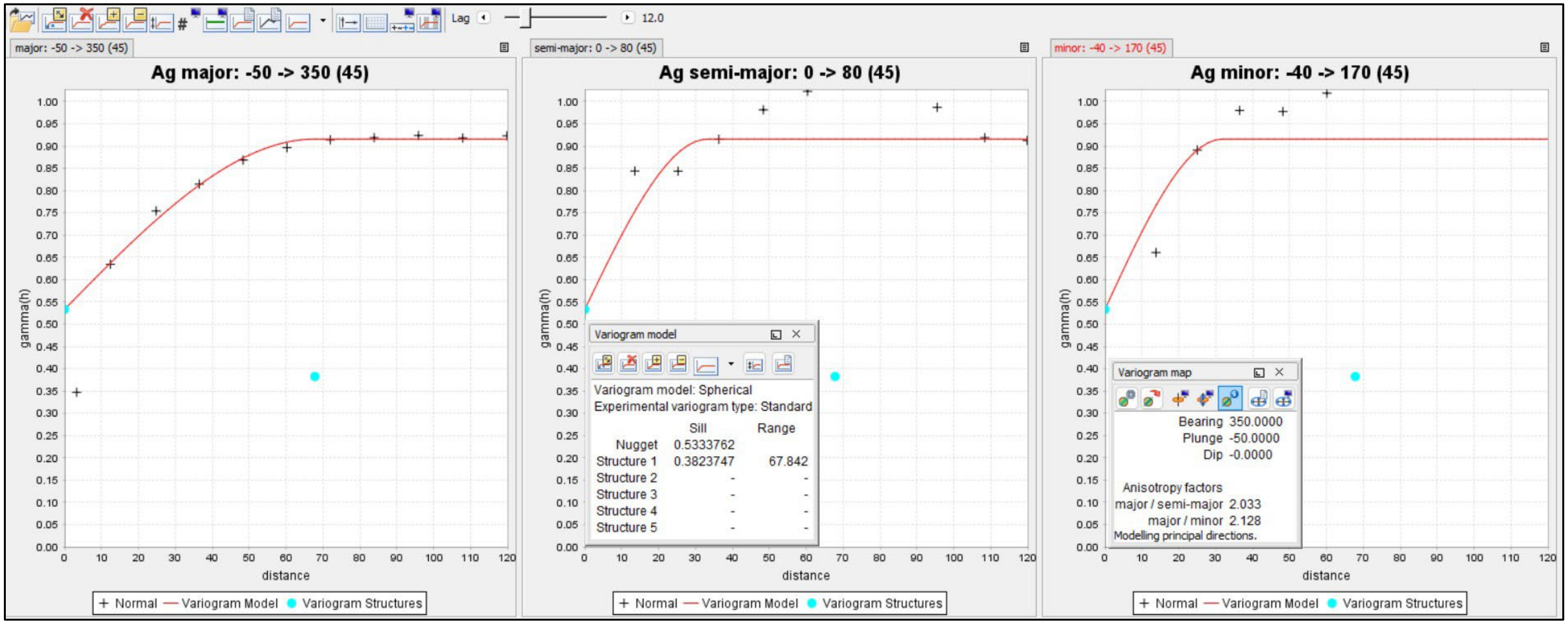


Cu_HG Cu composite
Cu_HG Zn composite
Cu_HG Pb composite
Cu_HG Ag composite
Cu_HG Au composite
Number of Samples
Cu% (log10 scale)
Zn% (log10 scale)
Pb% (log10 scale)
Ag g/t (log10 scale)
Au g/t (log10 scale)
Frequency
Normal Distribution
CU_COM (raw)
ZN_COM (raw)
PB_COM (raw)
AG_COM (raw)
AU_COM (raw)
Cumulative Probability (%)
Prob. Plot (%)

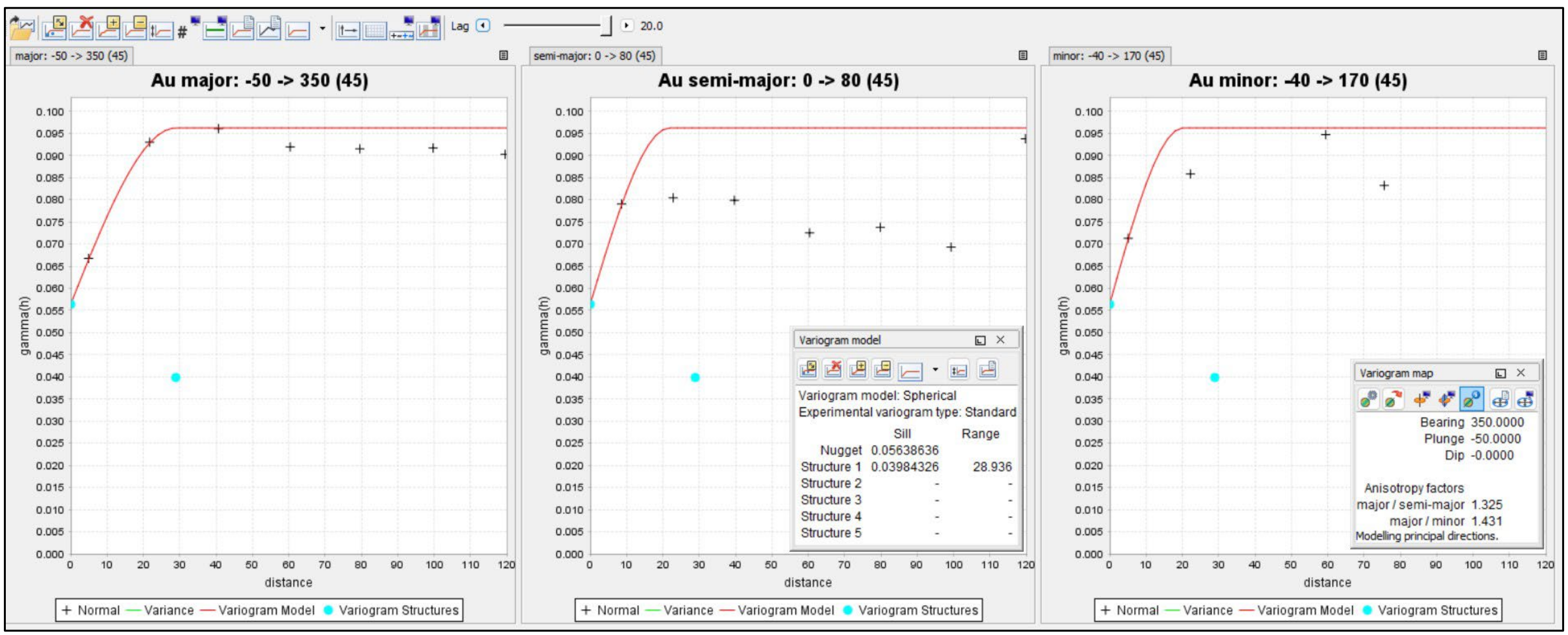


Pb+Zn HG Cu composite
Pb+Zn HG Zn composite
Pb+Zn HG Pb composite
Pb+Zn HG Ag composite
Pb+Zn HG Au composite
Number of Samples
Cu% (log10 scale)
ZN% (log10 scale)
Pb% (log10 scale)
Ag g/t (log10 scale)
Au g/t (log10 scale)
Frequency
Normal Distribution
CU_COM (raw)
ZN_COM (raw)
PB_COM (raw)
AG_COM (raw)
AU_COM (raw)
Cumulative Probability (%)
Zn% (log10 scale)
Prob. Plot (%)

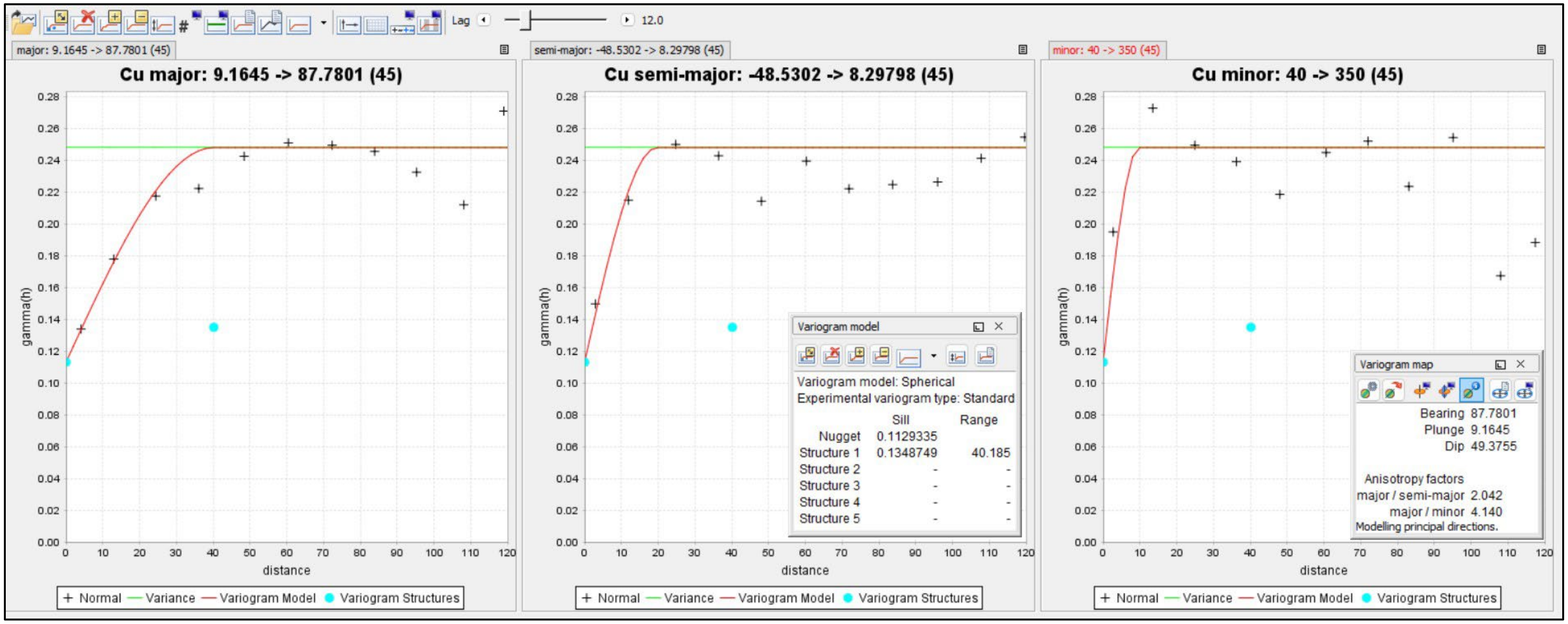
APPENDIX D VARIOGRAMS

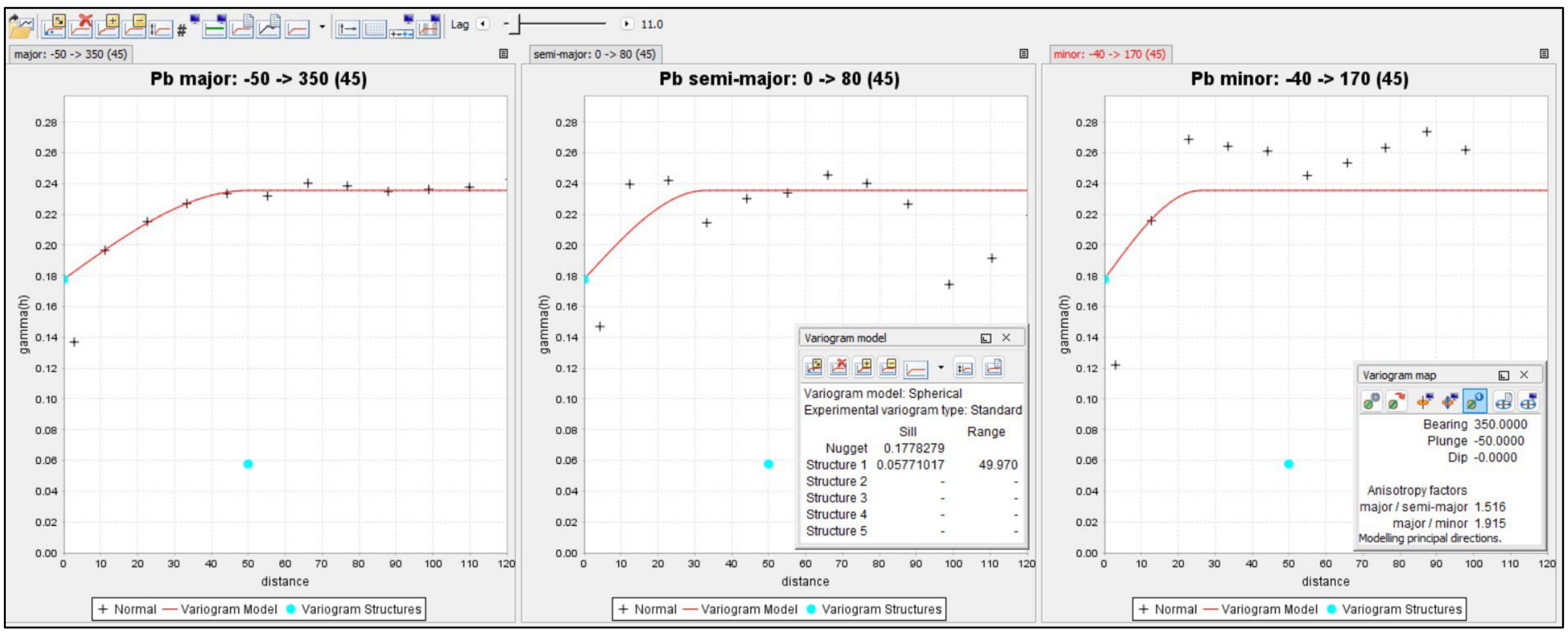


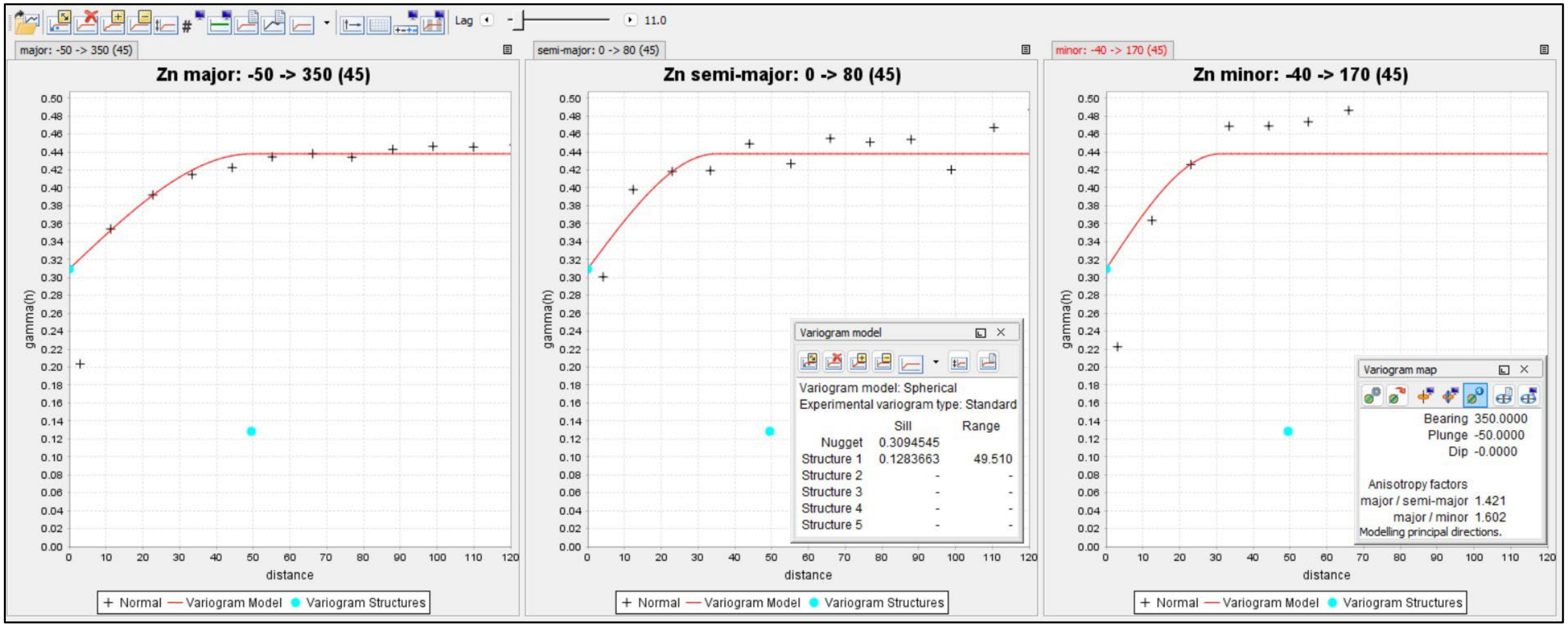
Ag major: -50 -> 350 (45)
Ag semi-major: 0 -> 80 (45)
Ag minor: -40 -> 170 (45)
Variogram model
Variogram model: Spherical
Experimental variogram type: Standard
Sill Range
Nugget 0.5333762
Structure 1 0.3823747 67.842
Structure 2 - -
Structure 3 - -
Structure 4 - -
Structure 5 - -
Variogram map
Bearing 350.0000
Plunge -50.0000
Dip -0.0000
Anisotropy factors
major / semi-major 2.033
major / minor 2.128
Modelling principal directions.
gamma(h)
distance
Normal Variogram Model Variogram Structures



Au major: -50 -> 350 (45)
Au semi-major: 0 -> 80 (45)
Au minor: -40 -> 170 (45)
Variogram model
Variogram model: Spherical
Experimental variogram type: Standard
Sill Range
Nugget 0.05638636
Structure 1 0.03984326 28.936
Structure 2 - -
Structure 3 - -
Structure 4 - -
Structure 5 - -
Variogram map
Bearing 350.0000
Plunge -50.0000
Dip -0.0000
Anisotropy factors
major / semi-major 1.325
major / minor 1.431
Modelling principal directions.
gamma(h)
distance
Normal Variance Variogram Model Variogram Structures

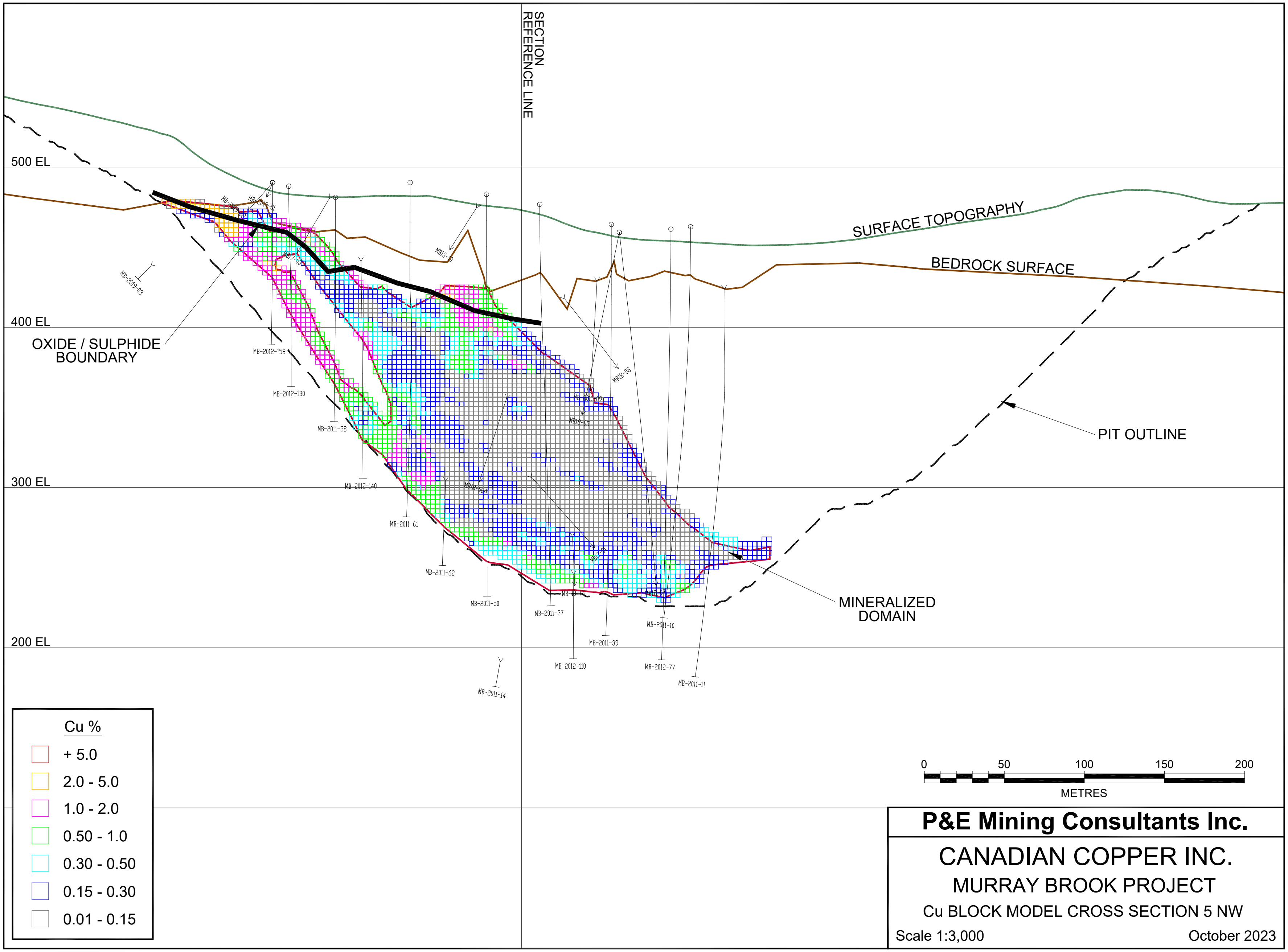

Lag 12.0
major: 9.1645 -> 87.7801 (45)
Cu major: 9.1645 -> 87.7801 (45)
semi-major: -48.5302 -> 8.29798 (45)
Cu semi-major: -48.5302 -> 8.29798 (45)
minor: 40 -> 350 (45)
Cu minor: 40 -> 350 (45)
gamma(h)
distance
Normal
Variance
Variogram Model
Variogram Structures
Variogram model
Variogram model: Spherical
Experimental variogram type: Standard
Sill Range
Nugget 0.1129335
Structure 1 0.1348749 40.185
Structure 2 - -
Structure 3 - -
Structure 4 - -
Structure 5 - -
Variogram map
Bearing 87.7801
Plunge 9.1645
Dip 49.3755
Anisotropy factors
major / semi-major 2.042
major / minor 4.140
Modelling principal directions.


Lag 11.0
major: -50 -> 350 (45)
Pb major: -50 -> 350 (45)
semi-major: 0 -> 80 (45)
Pb semi-major: 0 -> 80 (45)
minor: -40 -> 170 (45)
Pb minor: -40 -> 170 (45)
gamma(h)
distance
Normal
Variogram Model
Variogram Structures
Variogram model
Variogram model: Spherical
Experimental variogram type: Standard
Sill Range
Nugget 0.1778279
Structure 1 0.05771017 49.970
Structure 2 - -
Structure 3 - -
Structure 4 - -
Structure 5 - -
Variogram map
Bearing 350.0000
Plunge -50.0000
Dip -0.0000
Anisotropy factors
major / semi-major 1.516
major / minor 1.915
Modelling principal directions.



major: -50 -> 350 (45)
Zn major: -50 -> 350 (45)
semi-major: 0 -> 80 (45)
Zn semi-major: 0 -> 80 (45)
minor: -40 -> 170 (45)
Zn minor: -40 -> 170 (45)
gamma(h)
distance
Normal
Variogram Model
Variogram Structures
Variogram model
Variogram model: Spherical
Experimental variogram type: Standard
Sill Range
Nugget 0.3094545
Structure 1 0.1283663 49.510
Structure 2
Structure 3
Structure 4
Structure 5
Variogram map
Bearing 350.0000
Plunge -50.0000
Dip -0.0000
Anisotropy factors
major / semi-major 1.421
major / minor 1.602
Modelling principal directions.

APPENDIX E CU BLOCK MODEL VERTICAL CROSS-SECTIONS AND PLANS



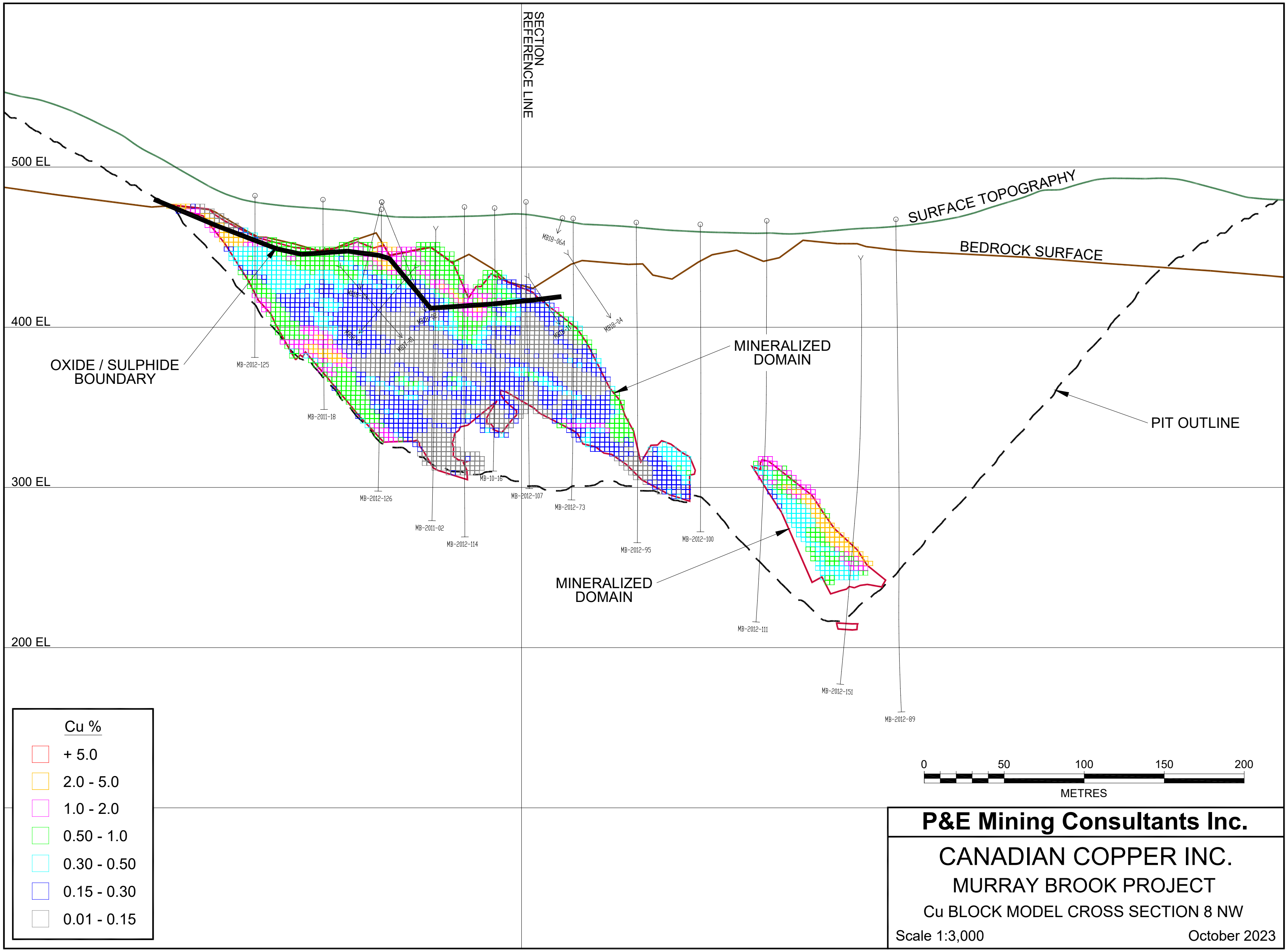
P&E Mining Consultants Inc.

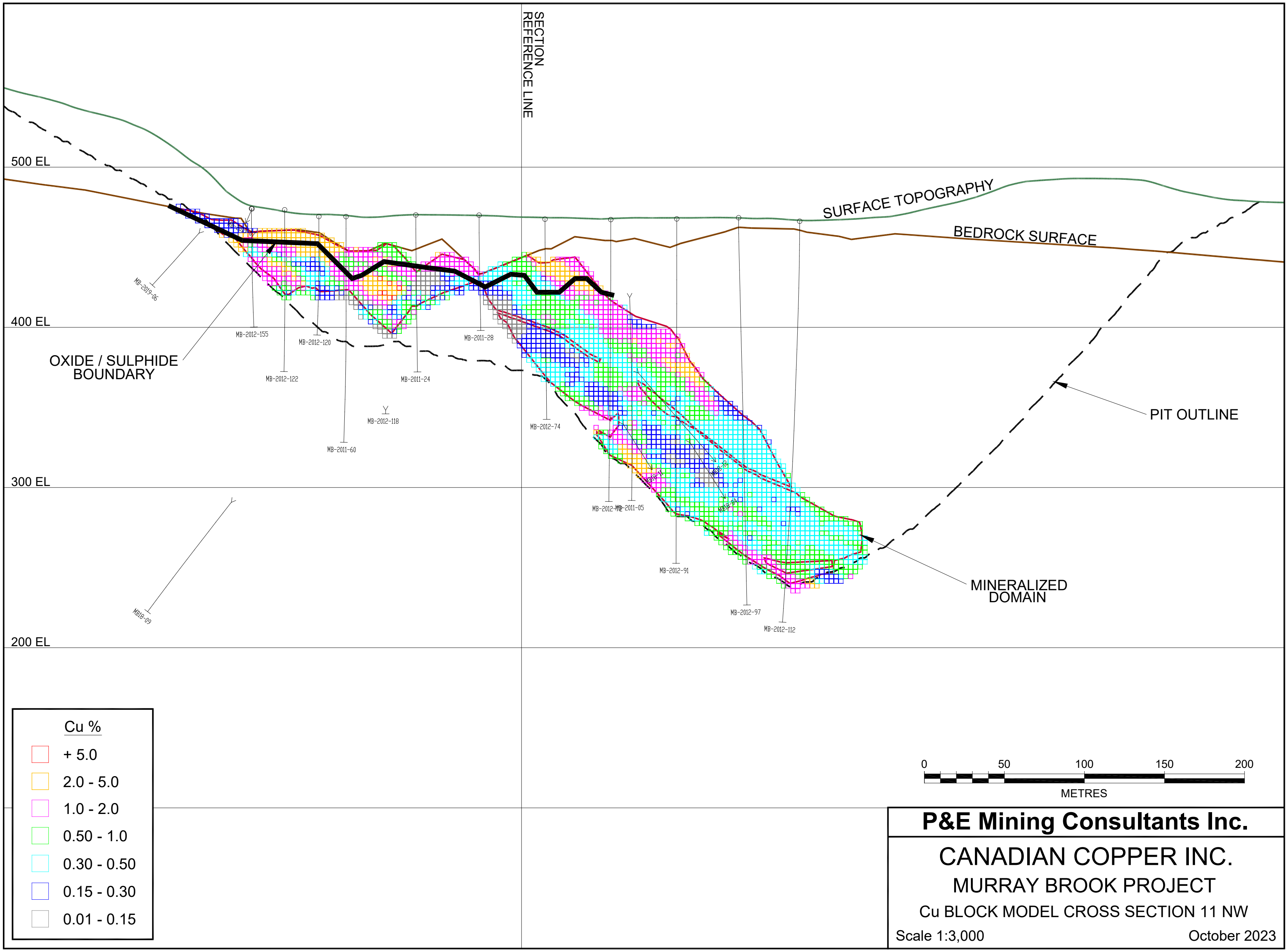
CANADIAN COPPER INC.

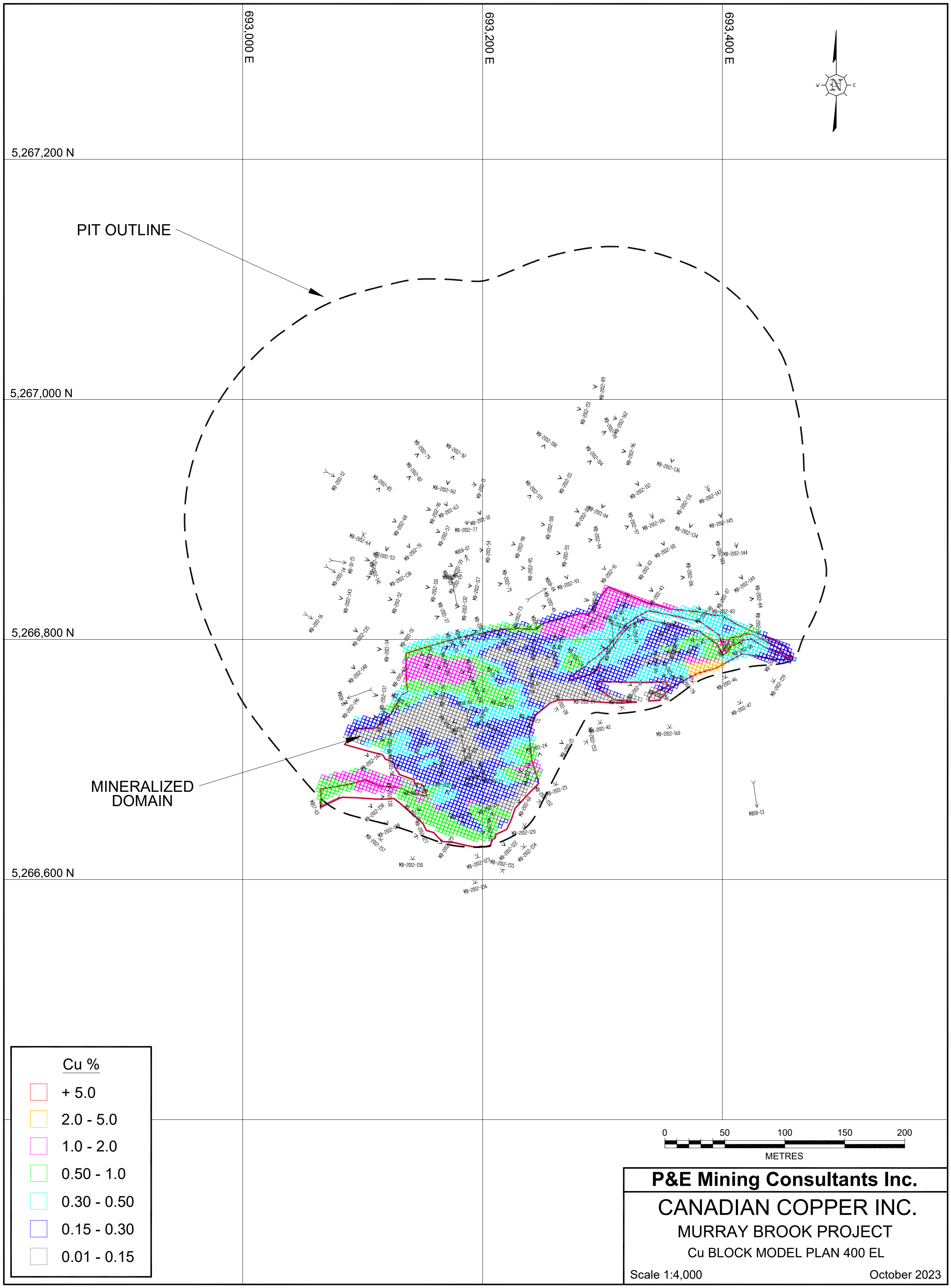
MURRAY BROOK PROJECT

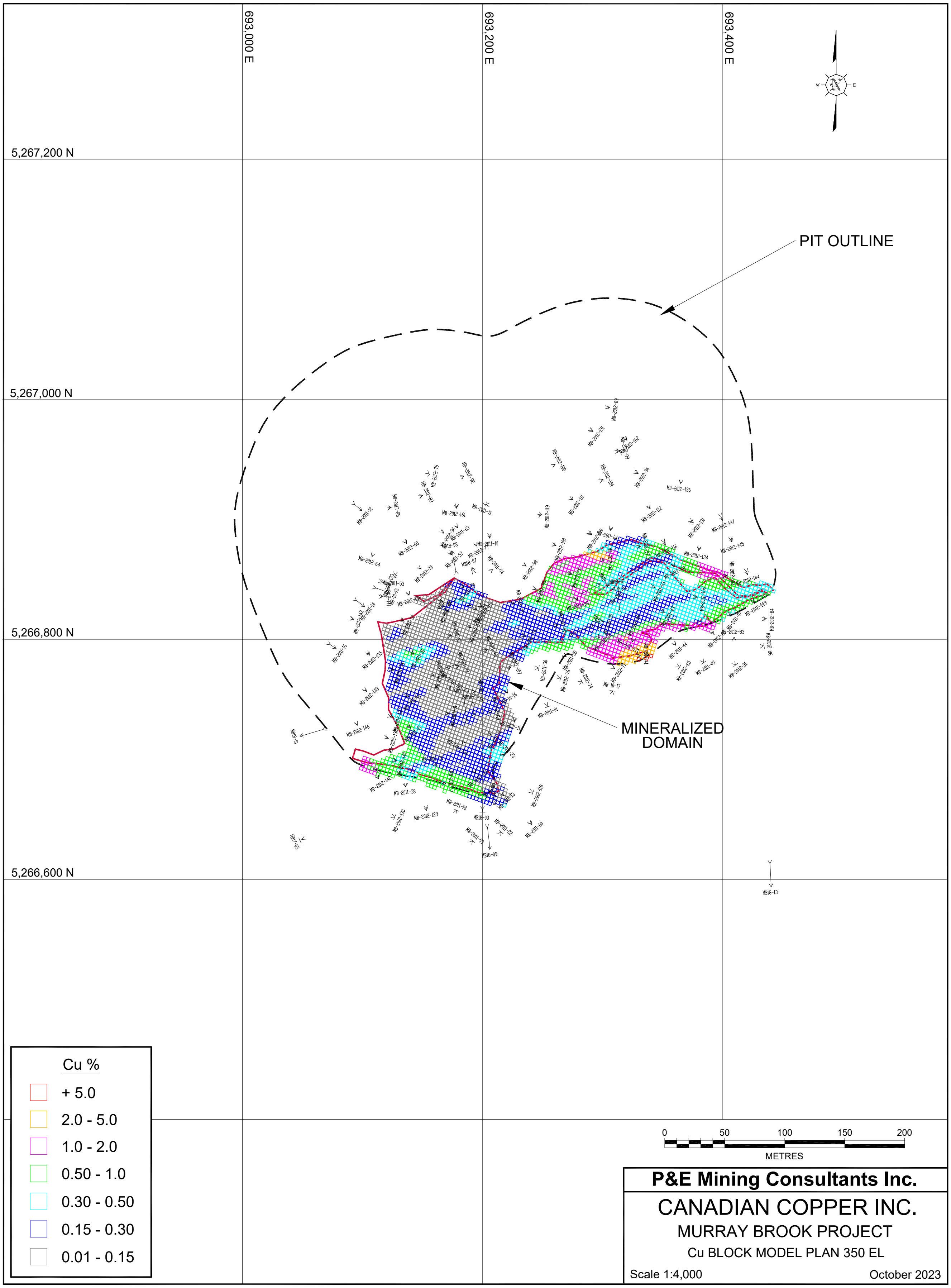
Cu BLOCK MODEL CROSS SECTION 5 NW

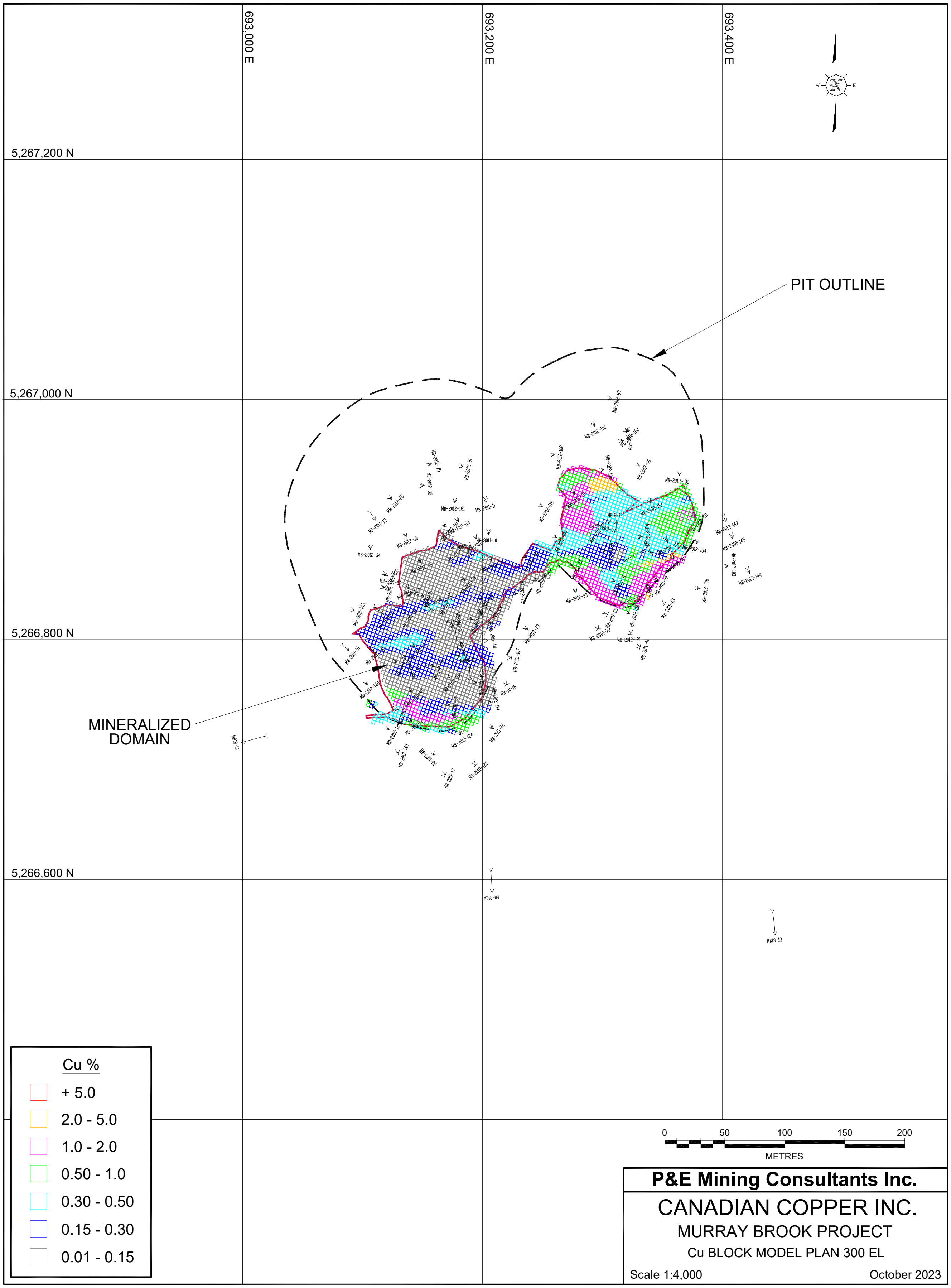
Scale 1:3,000 October 2023


SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
MINERALIZED DOMAIN
MINERALIZED DOMAIN
PIT OUTLINE
Cu %
+ 5.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.30 - 0.50
0.15 - 0.30
0.01 - 0.15
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Cu BLOCK MODEL CROSS SECTION 8 NW
Scale 1:3,000
October 2023

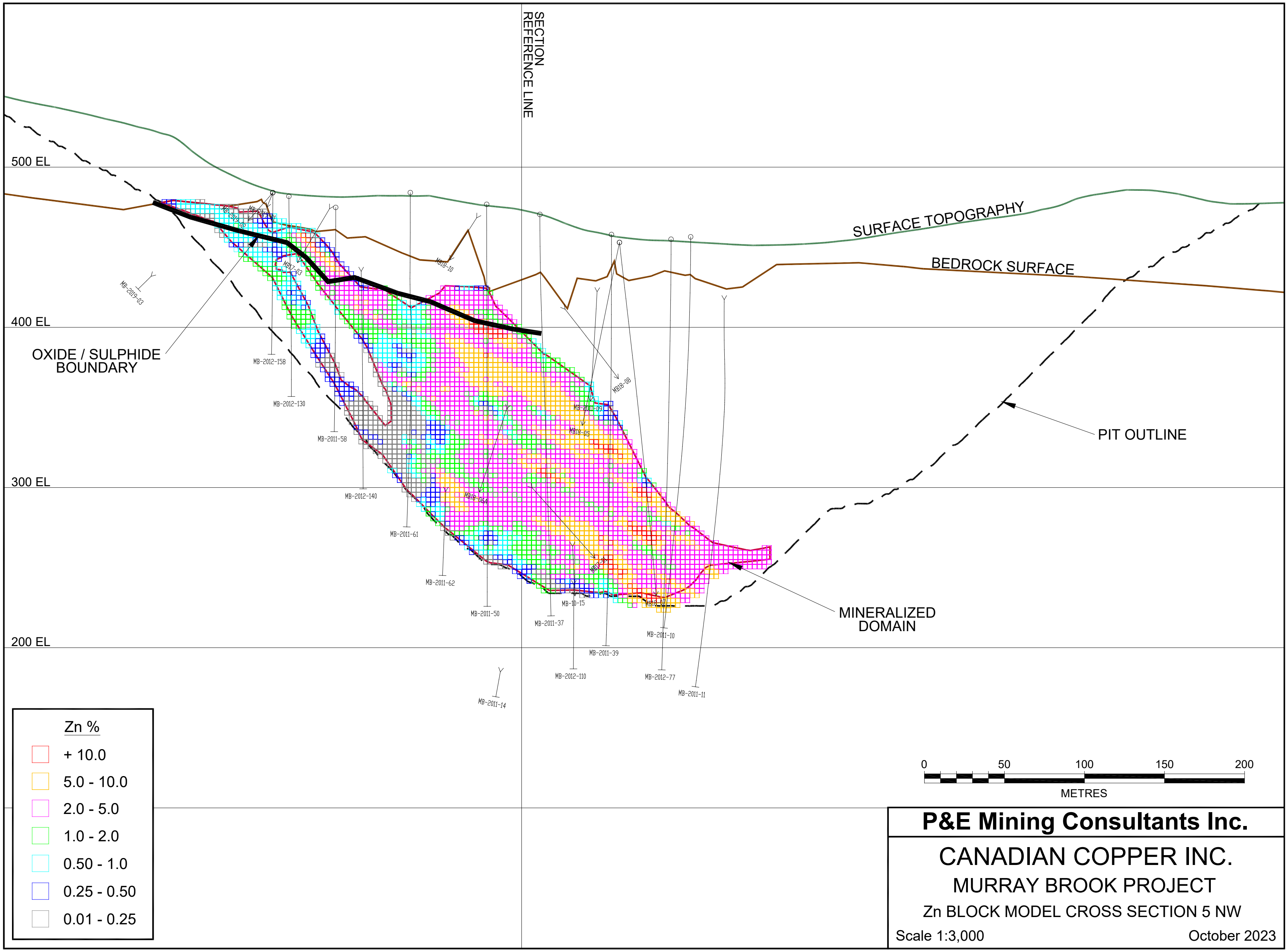

SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
PIT OUTLINE
MINERALIZED DOMAIN
Cu %
+ 5.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.30 - 0.50
0.15 - 0.30
0.01 - 0.15
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Cu BLOCK MODEL CROSS SECTION 11 NW
Scale 1:3,000
October 2023

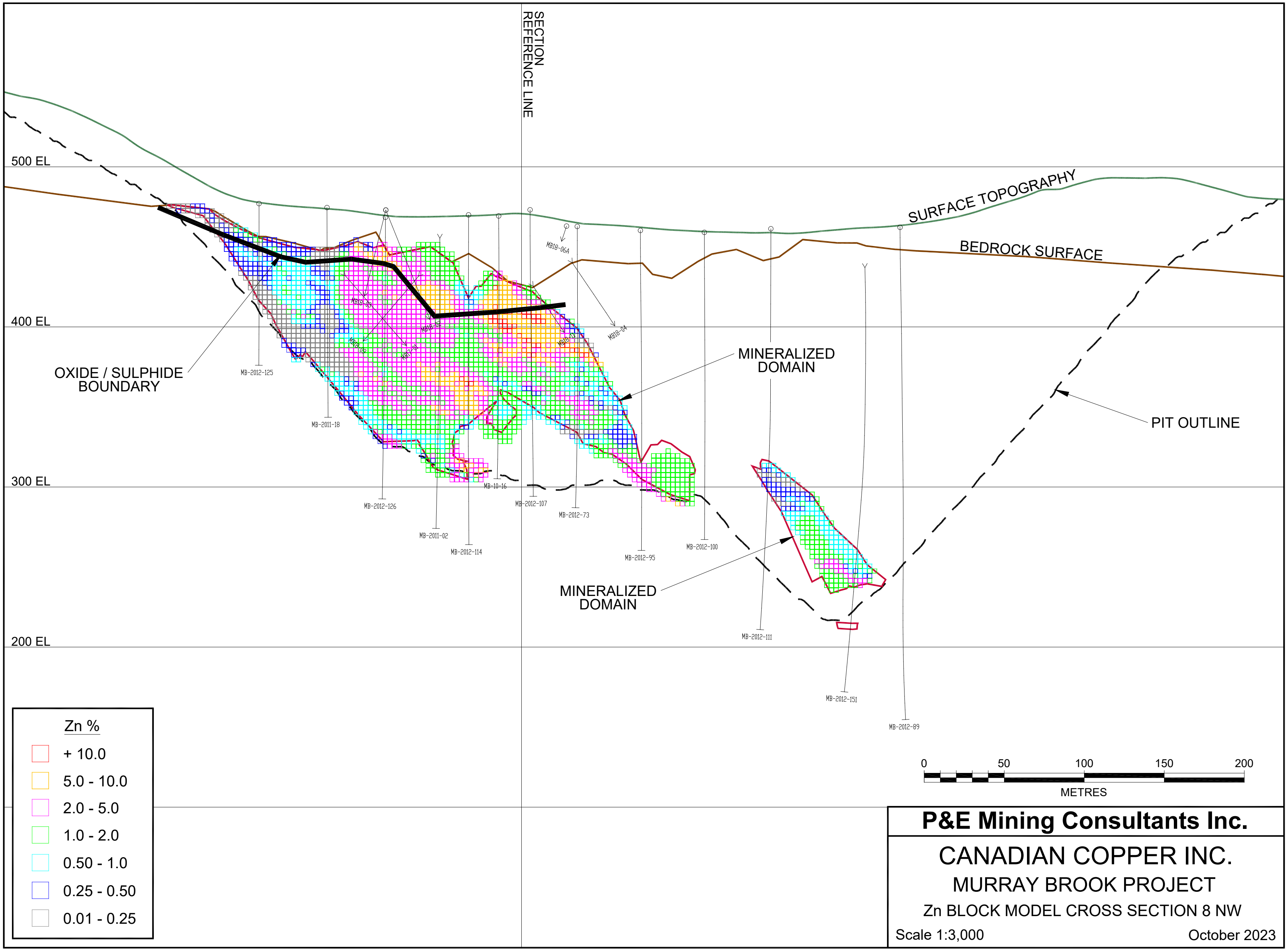

693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED DOMAIN
Cu %
+ 5.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.30 - 0.50
0.15 - 0.30
0.01 - 0.15
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Cu BLOCK MODEL PLAN 400 EL
Scale 1:4,000
October 2023

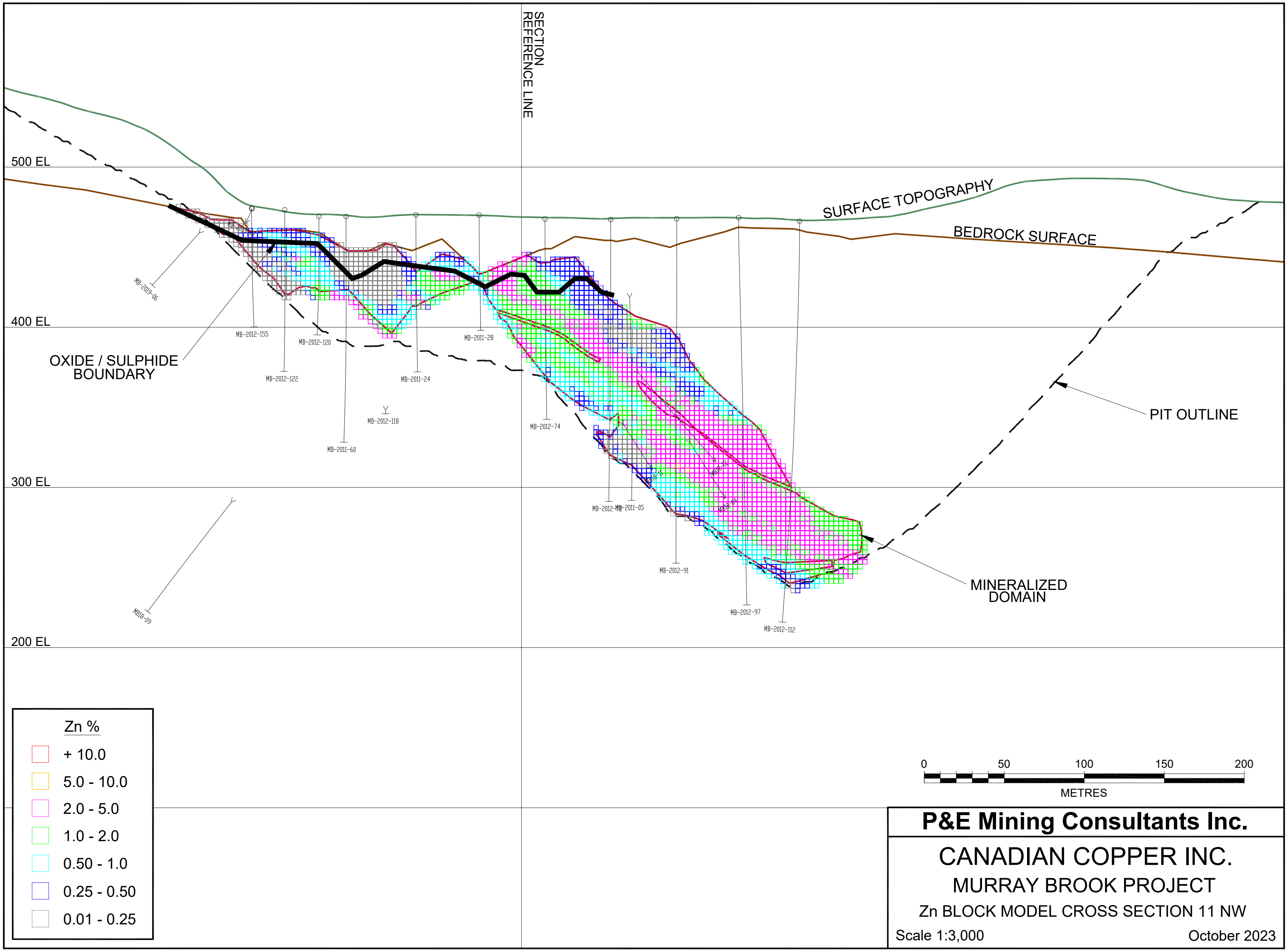

693,000 E
693,200 E
693,400 E
N
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED DOMAIN
Cu %
+ 5.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.30 - 0.50
0.15 - 0.30
0.01 - 0.15
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Cu BLOCK MODEL PLAN 350 EL
Scale 1:4,000
October 2023

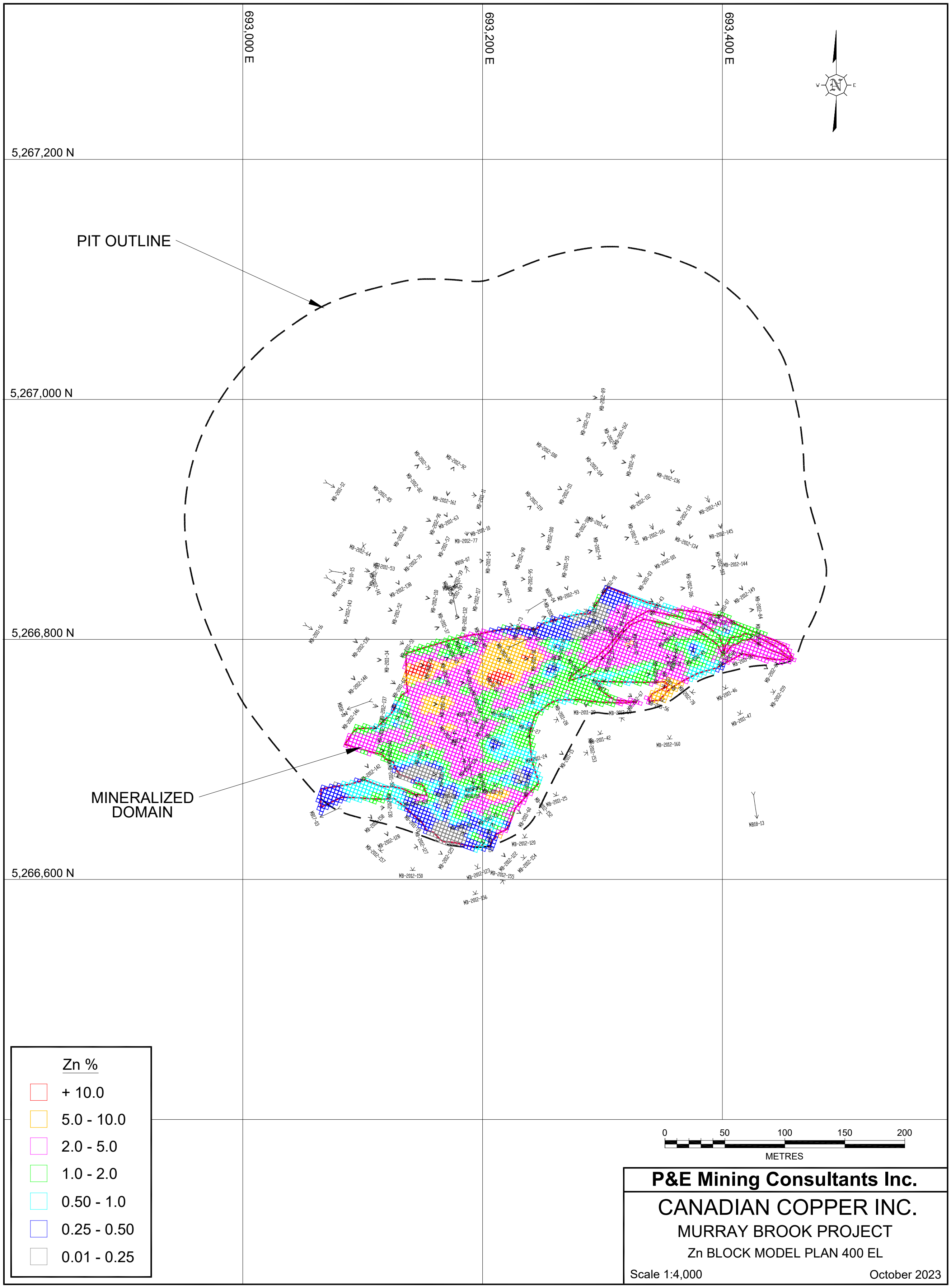

693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED DOMAIN
Cu %
+ 5.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.30 - 0.50
0.15 - 0.30
0.01 - 0.15
0 50 100 150 200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Cu BLOCK MODEL PLAN 300 EL
Scale 1:4,000
October 2023

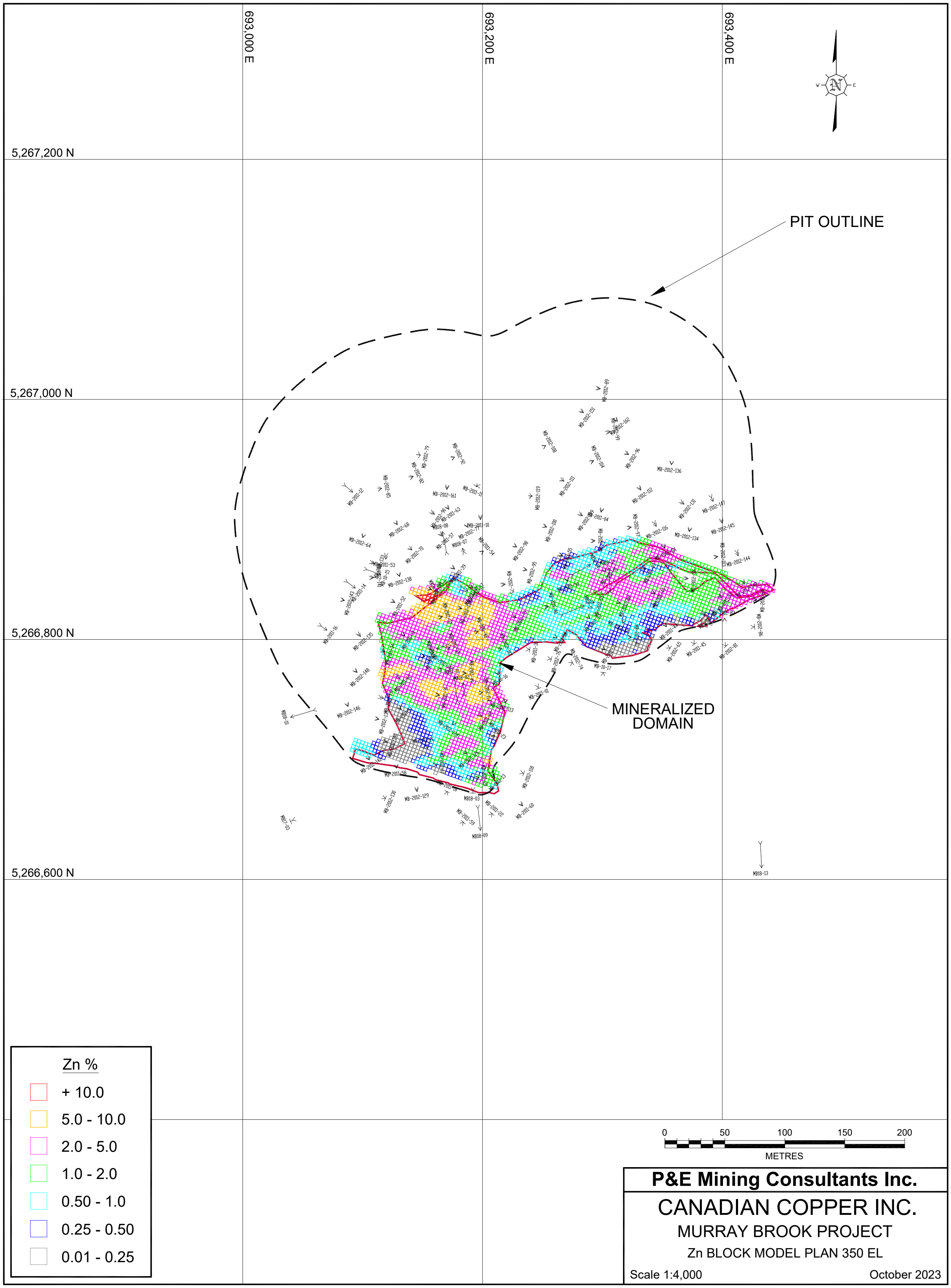
APPENDIX F ZN BLOCK MODEL VERTICAL CROSS-SECTIONS AND PLANS

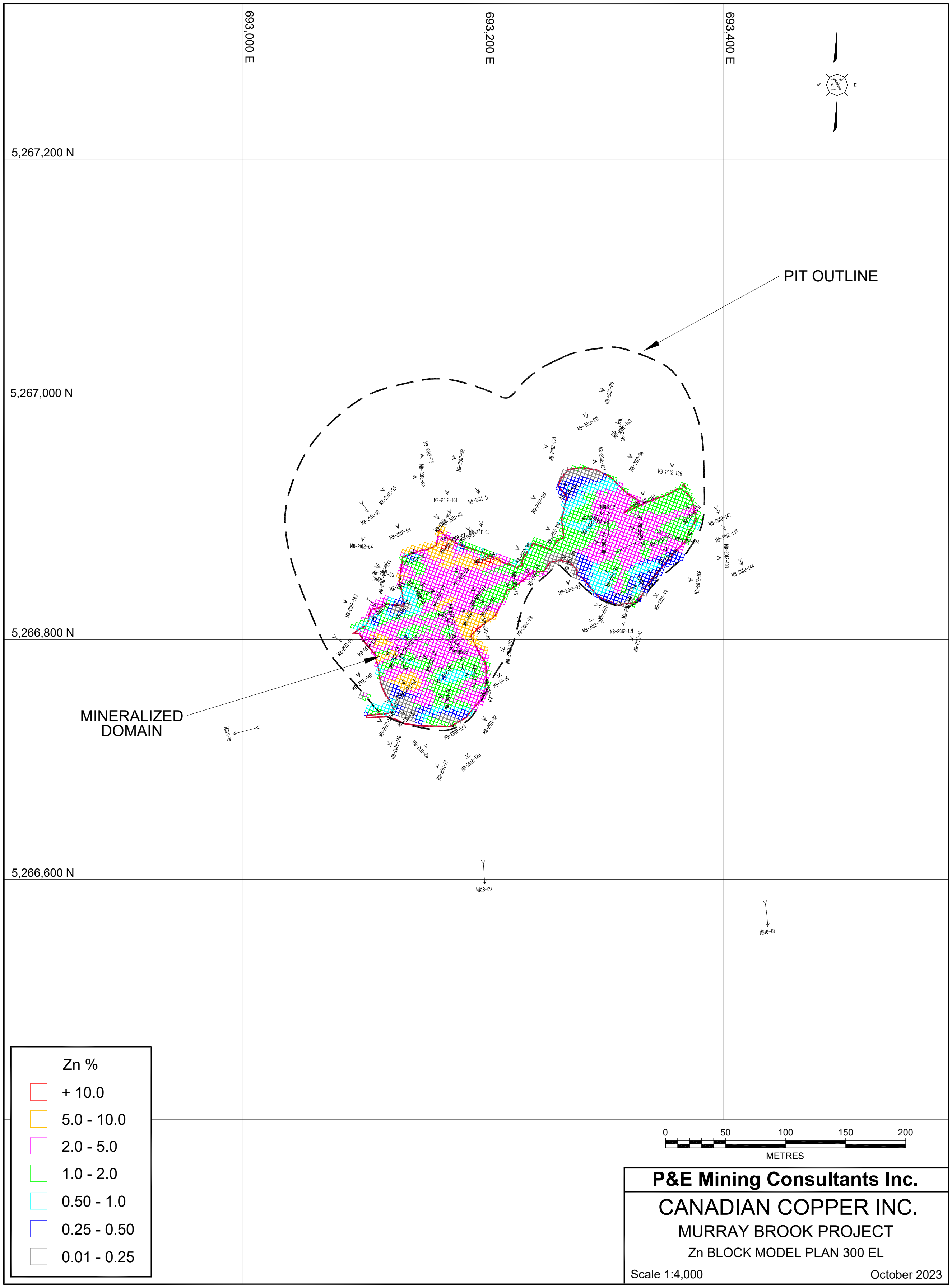

SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
PIT OUTLINE
MINERALIZED DOMAIN
MB-2019-03
MB-2012-158
MB-2012-130
MB-2011-58
MB-2012-140
MB-2011-61
MB-2011-62
MB-2011-50
MB-2011-37
MB-10-15
MB-2012-110
MB-2011-39
MB-2011-10
MB-2012-77
MB-2011-11
MB-2011-14
Zn %
+ 10.0
5.0 - 10.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.25 - 0.50
0.01 - 0.25
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Zn BLOCK MODEL CROSS SECTION 5 NW
Scale 1:3,000
October 2023


SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
MINERALIZED DOMAIN
MINERALIZED DOMAIN
PIT OUTLINE
Zn %
+ 10.0
5.0 - 10.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.25 - 0.50
0.01 - 0.25
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Zn BLOCK MODEL CROSS SECTION 8 NW
Scale 1:3,000
October 2023

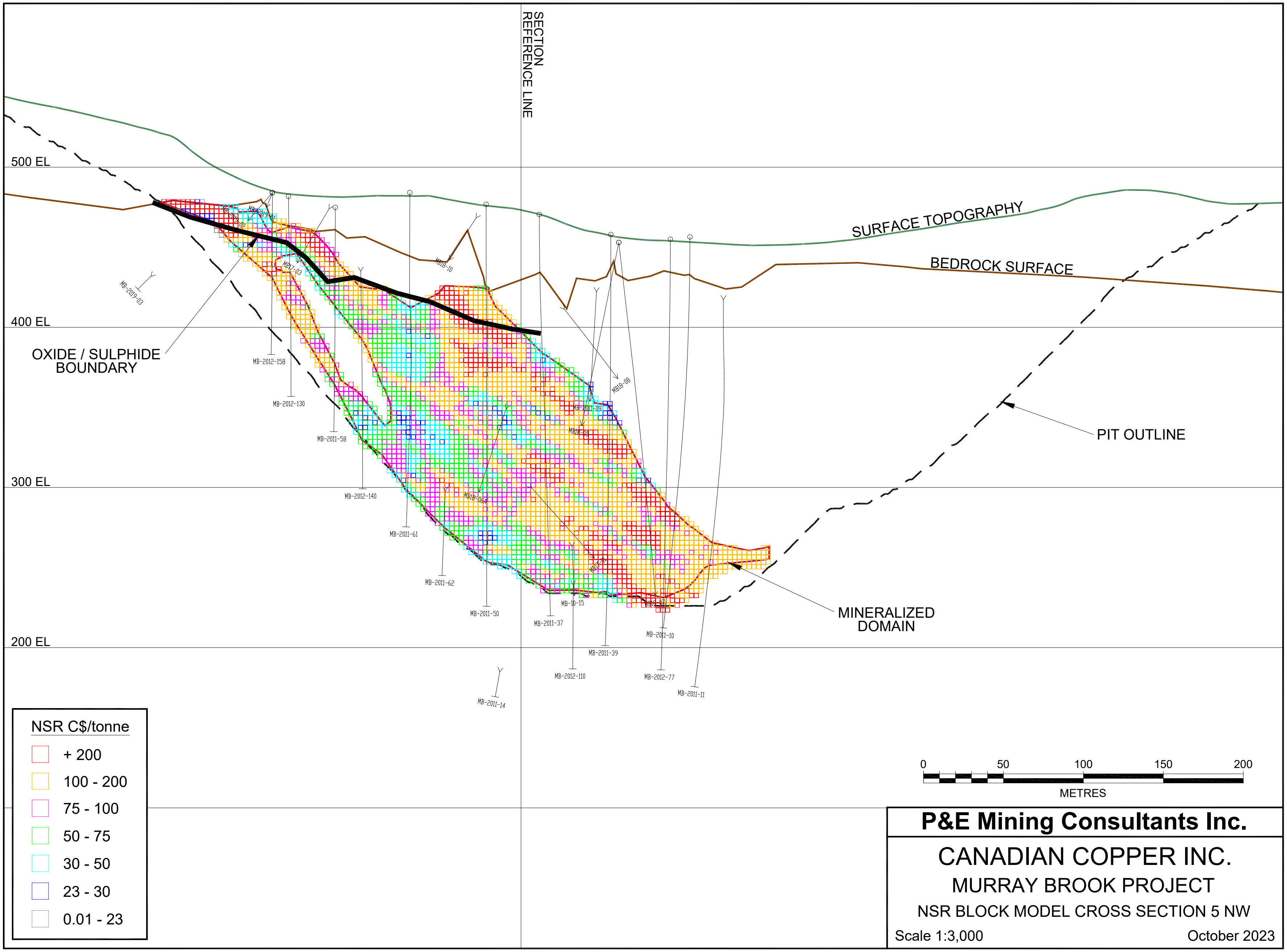

SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
PIT OUTLINE
MINERALIZED DOMAIN
Zn %
+ 10.0
5.0 - 10.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.25 - 0.50
0.01 - 0.25
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Zn BLOCK MODEL CROSS SECTION 11 NW
Scale 1:3,000
October 2023

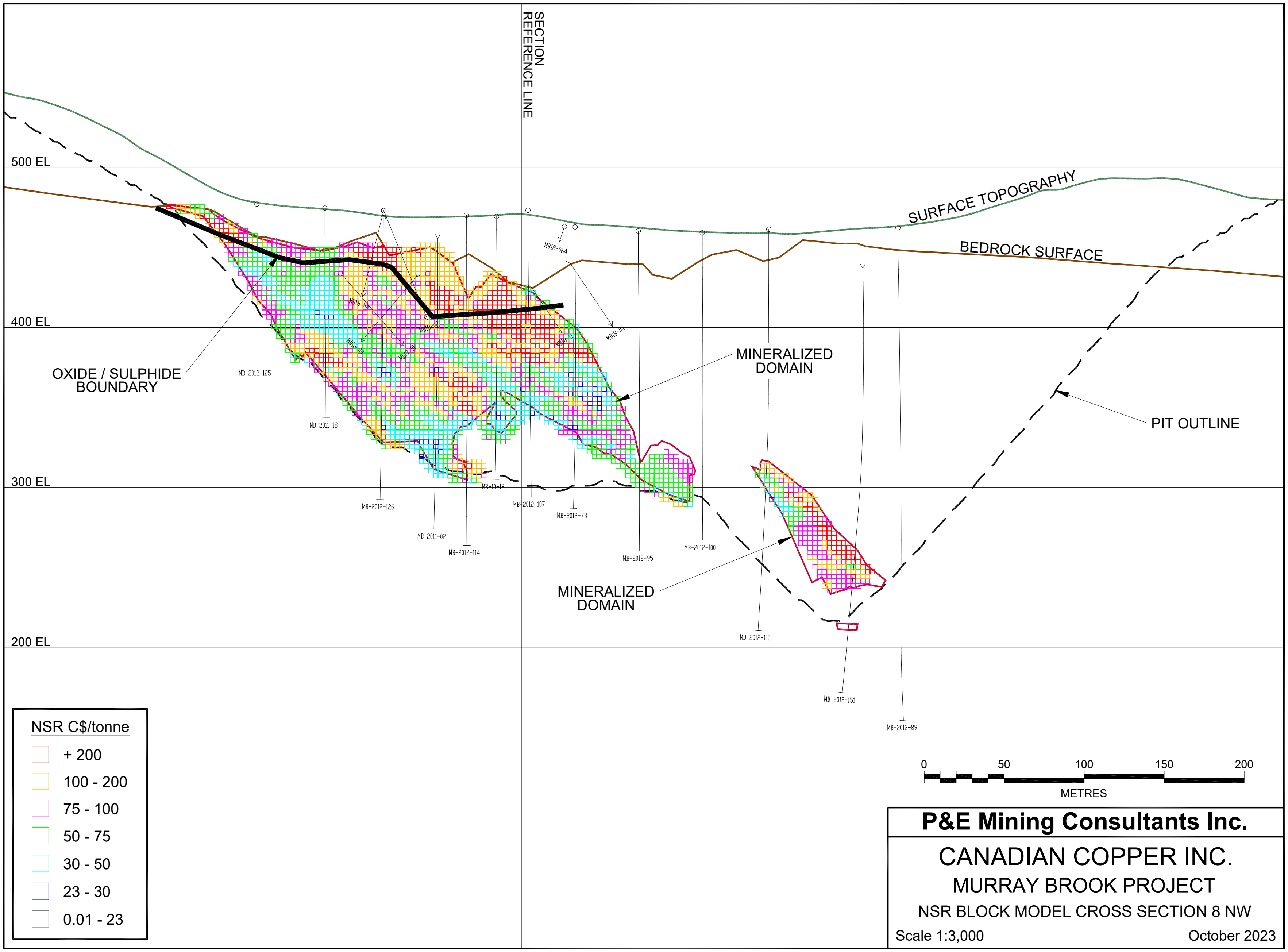

693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED
DOMAIN
Zn %
+ 10.0
5.0 - 10.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.25 - 0.50
0.01 - 0.25
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Zn BLOCK MODEL PLAN 400 EL
Scale 1:4,000
October 2023

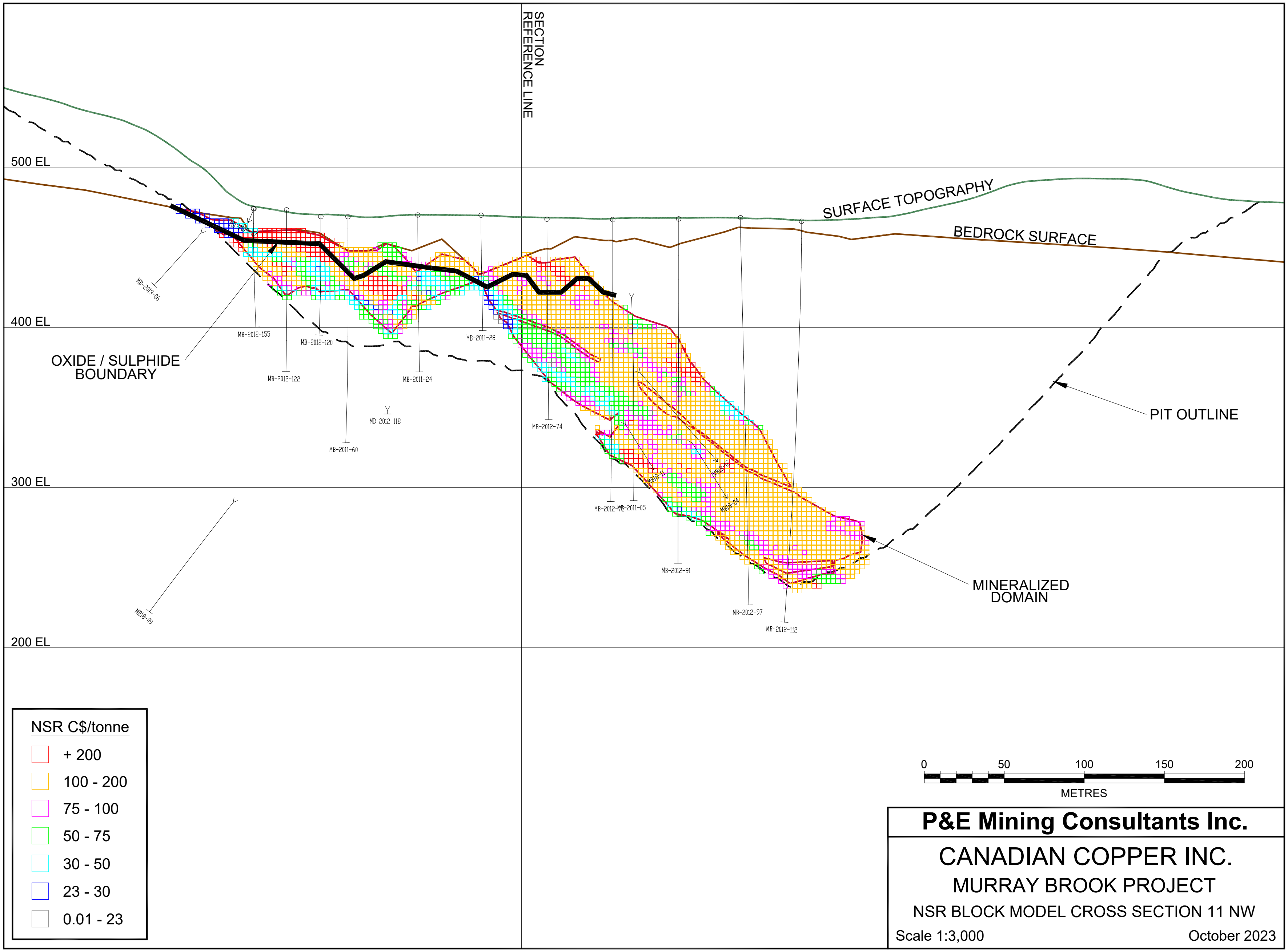

693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED
DOMAIN
Zn %
+ 10.0
5.0 - 10.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.25 - 0.50
0.01 - 0.25
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Zn BLOCK MODEL PLAN 350 EL
Scale 1:4,000
October 2023

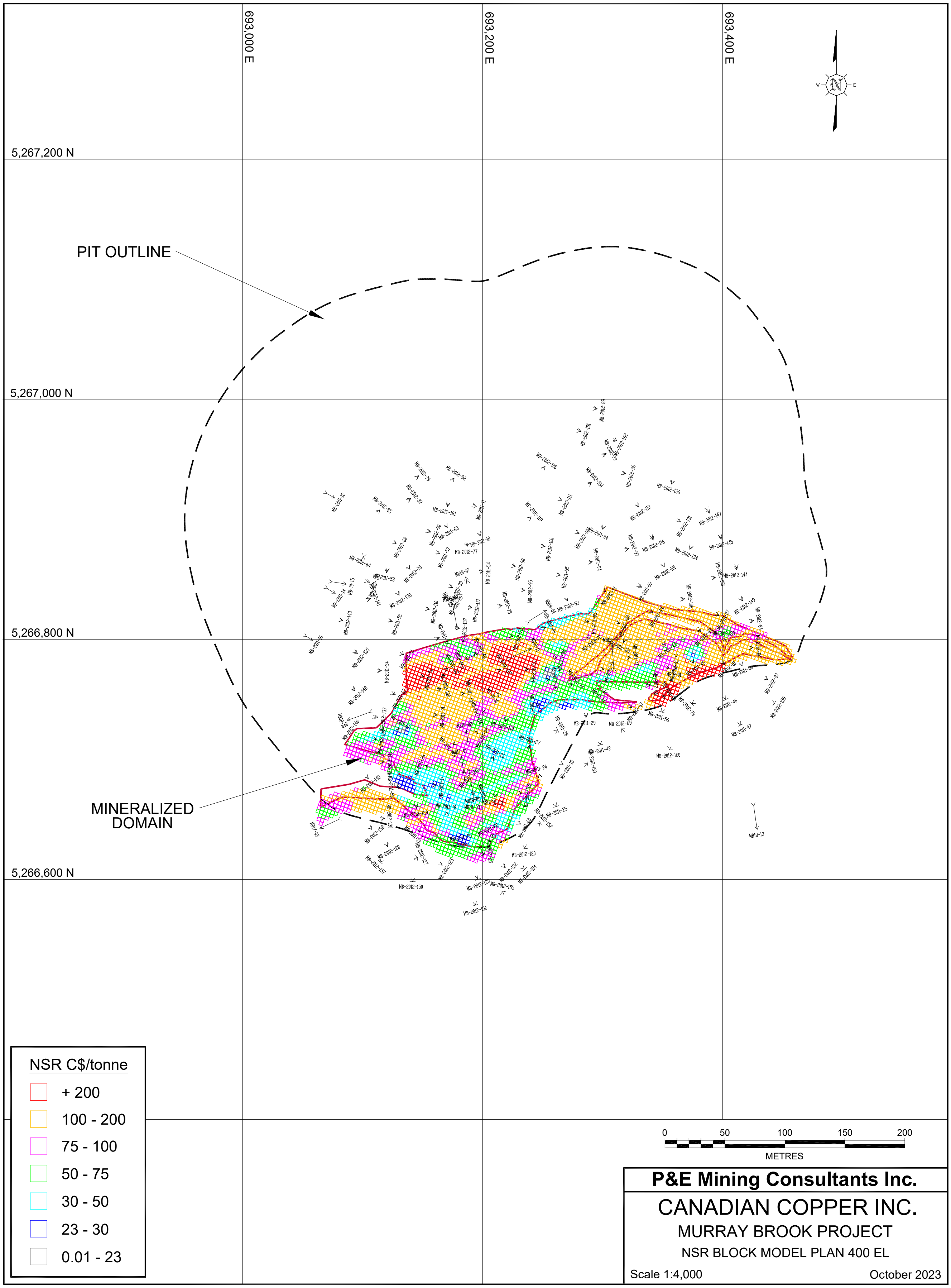

693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED DOMAIN
Zn %
+ 10.0
5.0 - 10.0
2.0 - 5.0
1.0 - 2.0
0.50 - 1.0
0.25 - 0.50
0.01 - 0.25
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
Zn BLOCK MODEL PLAN 300 EL
Scale 1:4,000
October 2023

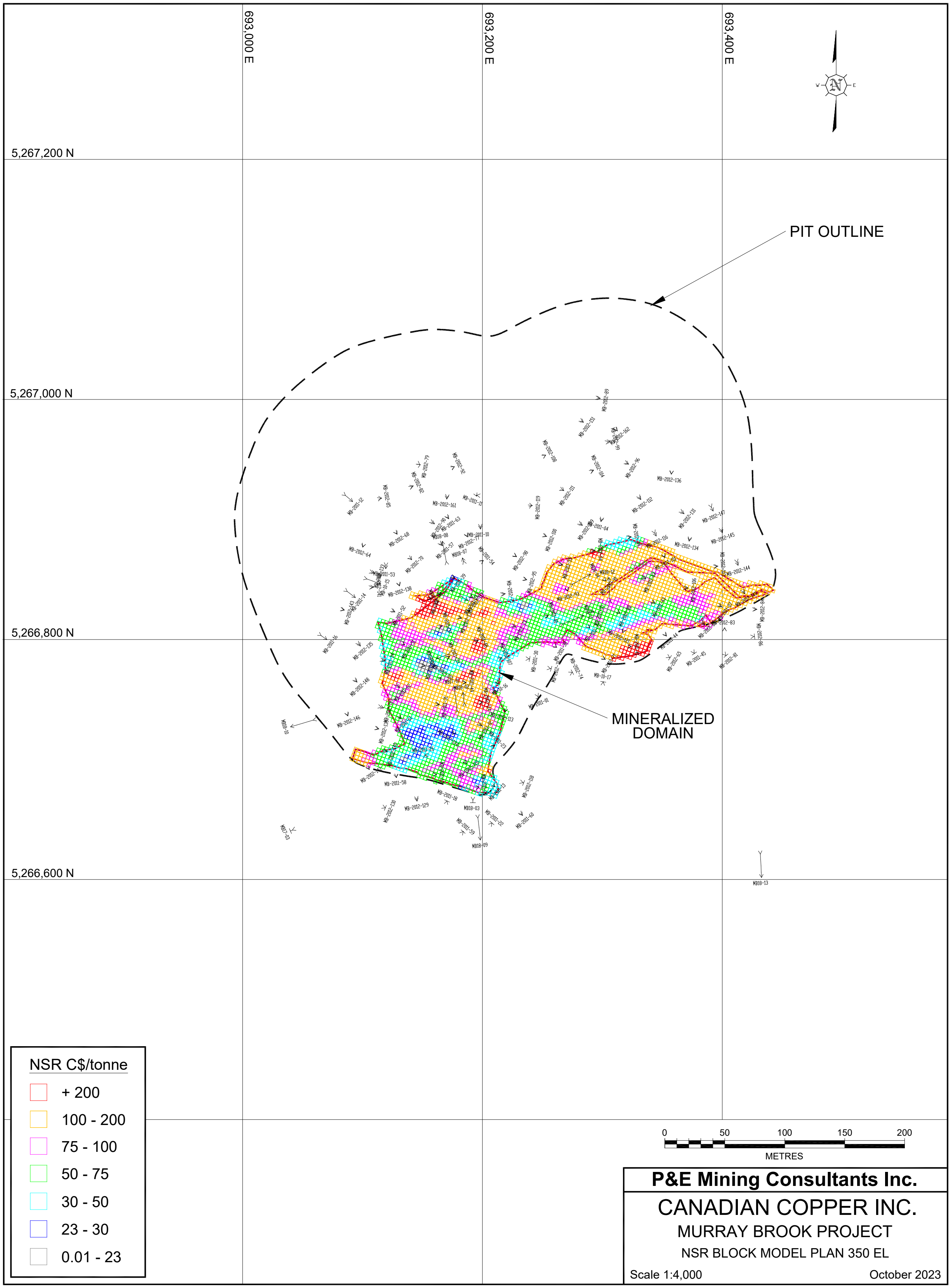
APPENDIX G NSR BLOCK MODEL VERTICAL CROSS-SECTIONS AND PLANS

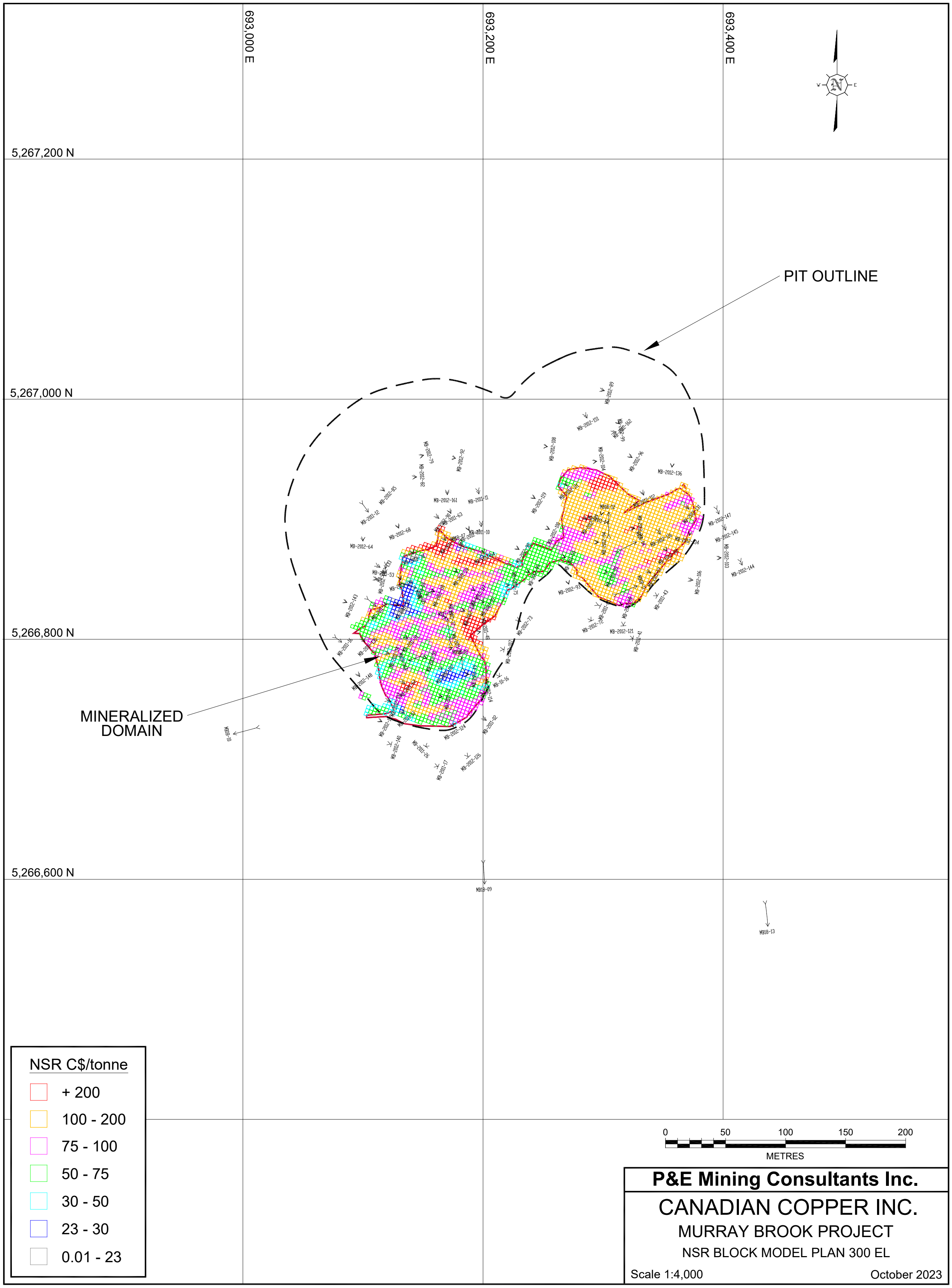

SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
PIT OUTLINE
MINERALIZED DOMAIN
MB-2012-158
MB-2012-130
MB-2011-58
MB-2012-140
MB-2011-61
MB-2011-62
MB-2011-50
MB-2011-37
MB-10-15
MB-2011-39
MB-2012-110
MB-2011-10
MB-2012-77
MB-2011-11
MB-2011-14
MB-2019-03
NSR C$/tonne
+ 200
100 - 200
75 - 100
50 - 75
30 - 50
23 - 30
0.01 - 23
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
NSR BLOCK MODEL CROSS SECTION 5 NW
Scale 1:3,000
October 2023


SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
MINERALIZED DOMAIN
MINERALIZED DOMAIN
PIT OUTLINE
NSR C$/tonne
+ 200
100 - 200
75 - 100
50 - 75
30 - 50
23 - 30
0.01 - 23
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
NSR BLOCK MODEL CROSS SECTION 8 NW
Scale 1:3,000
October 2023

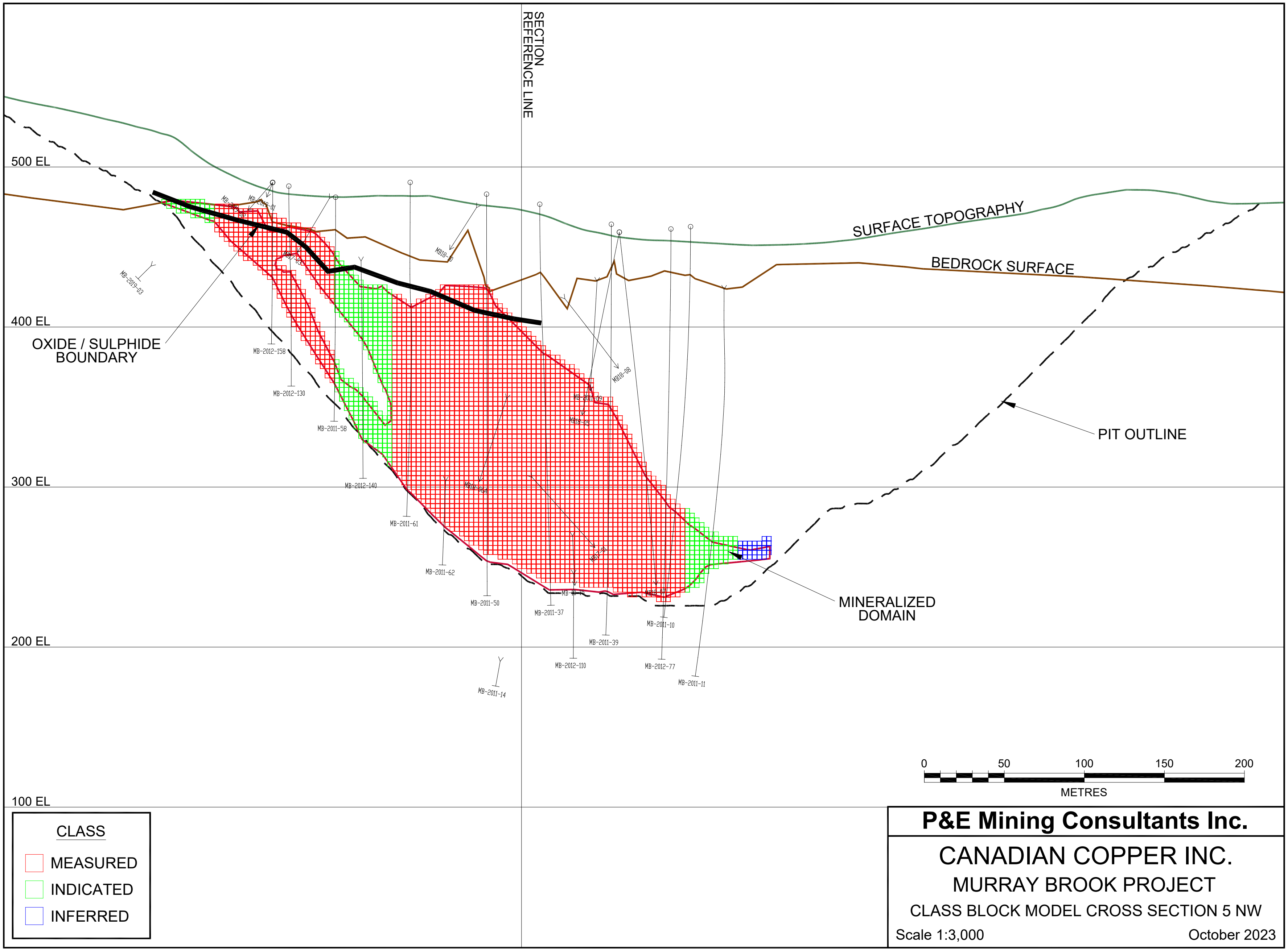

SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
PIT OUTLINE
MINERALIZED DOMAIN
NSR C$/tonne
+ 200
100 - 200
75 - 100
50 - 75
30 - 50
23 - 30
0.01 - 23
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
NSR BLOCK MODEL CROSS SECTION 11 NW
Scale 1:3,000
October 2023


693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED DOMAIN
NSR C$/tonne
+ 200
100 - 200
75 - 100
50 - 75
30 - 50
23 - 30
0.01 - 23
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
NSR BLOCK MODEL PLAN 400 EL
Scale 1:4,000
October 2023

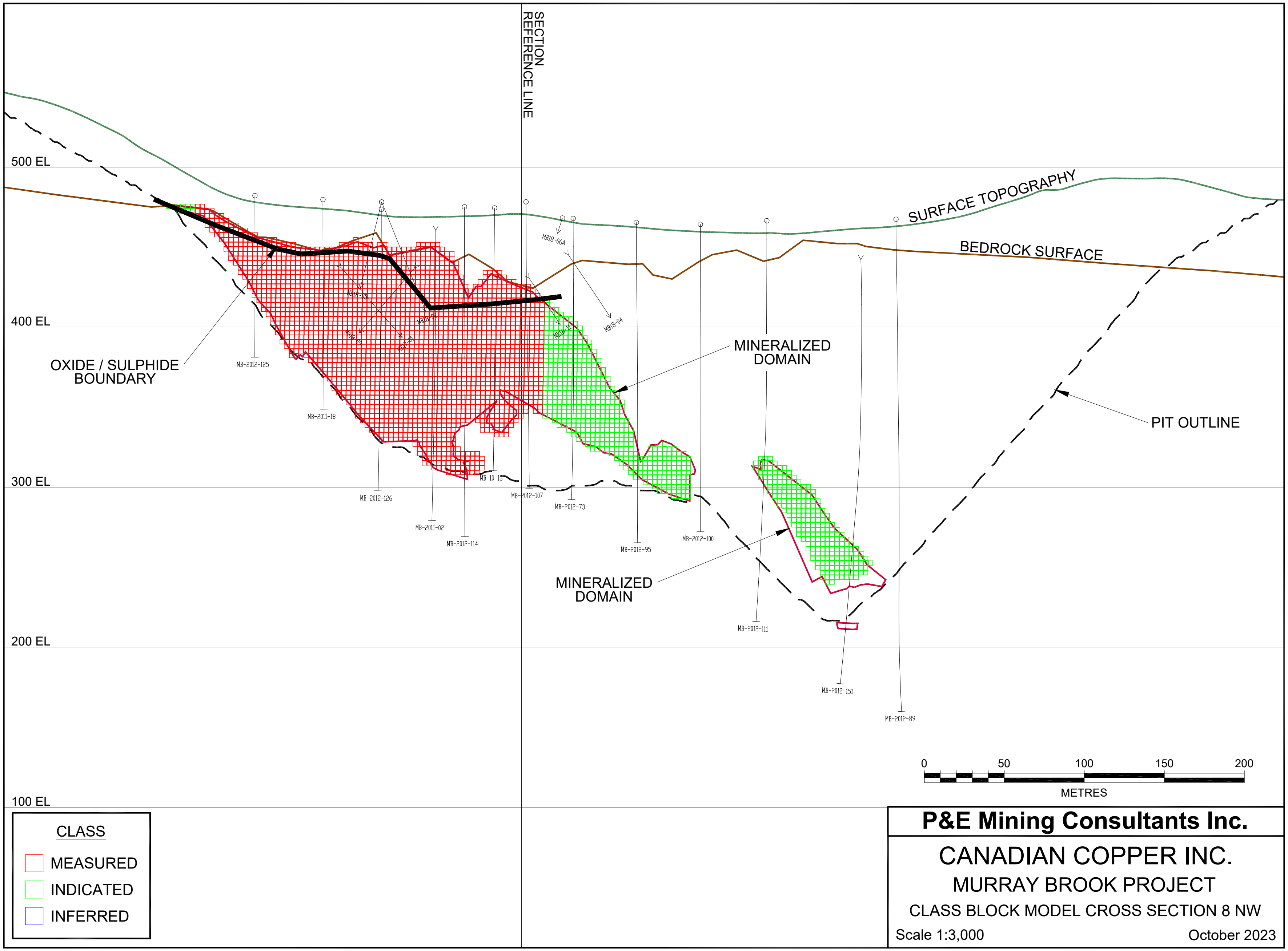

693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED DOMAIN
NSR C$/tonne
+ 200
100 - 200
75 - 100
50 - 75
30 - 50
23 - 30
0.01 - 23
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
NSR BLOCK MODEL PLAN 350 EL
Scale 1:4,000
October 2023

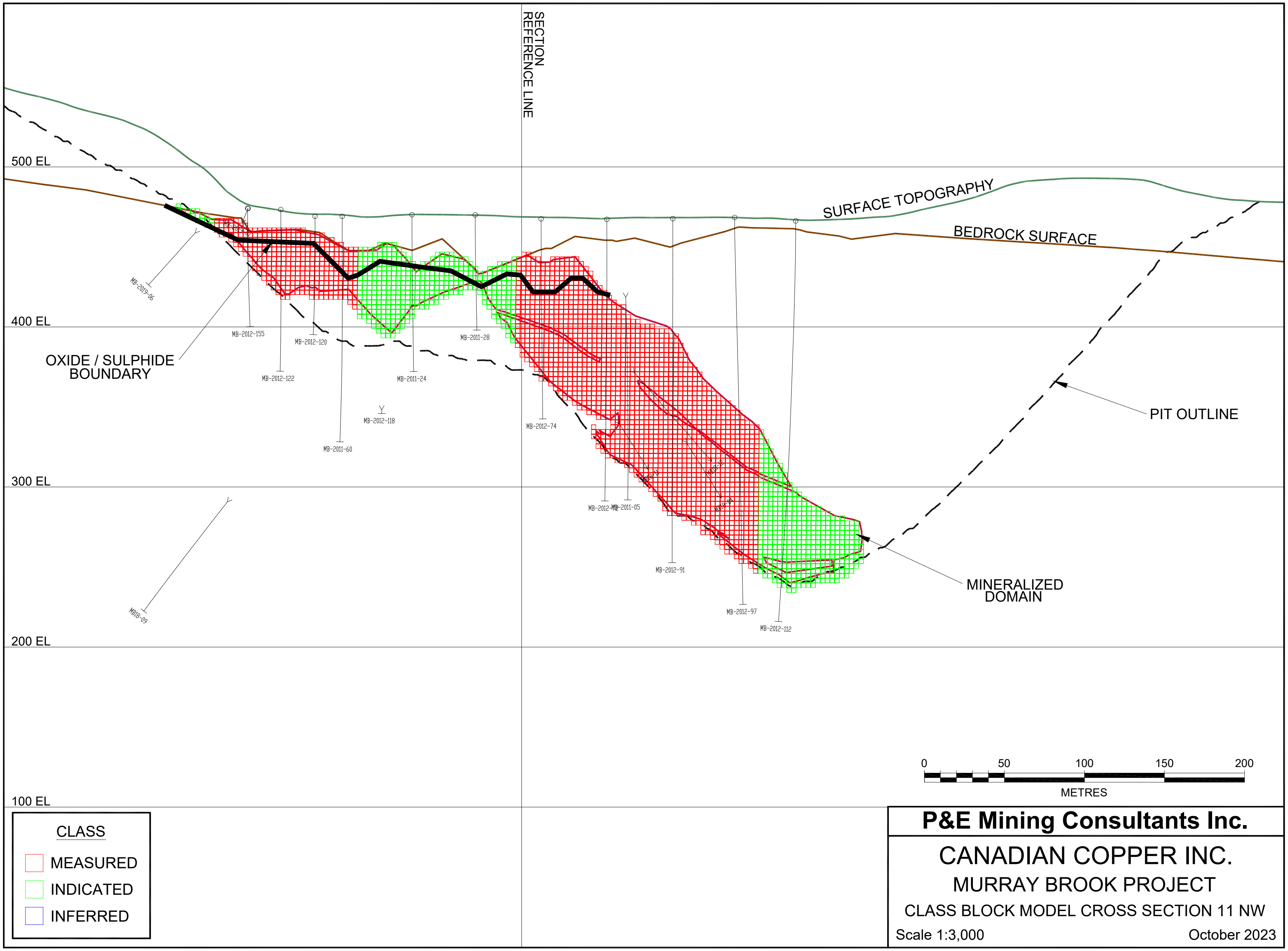

693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
PIT OUTLINE
MINERALIZED DOMAIN
NSR C$/tonne
+ 200
100 - 200
75 - 100
50 - 75
30 - 50
23 - 30
0.01 - 23
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
NSR BLOCK MODEL PLAN 300 EL
Scale 1:4,000
October 2023

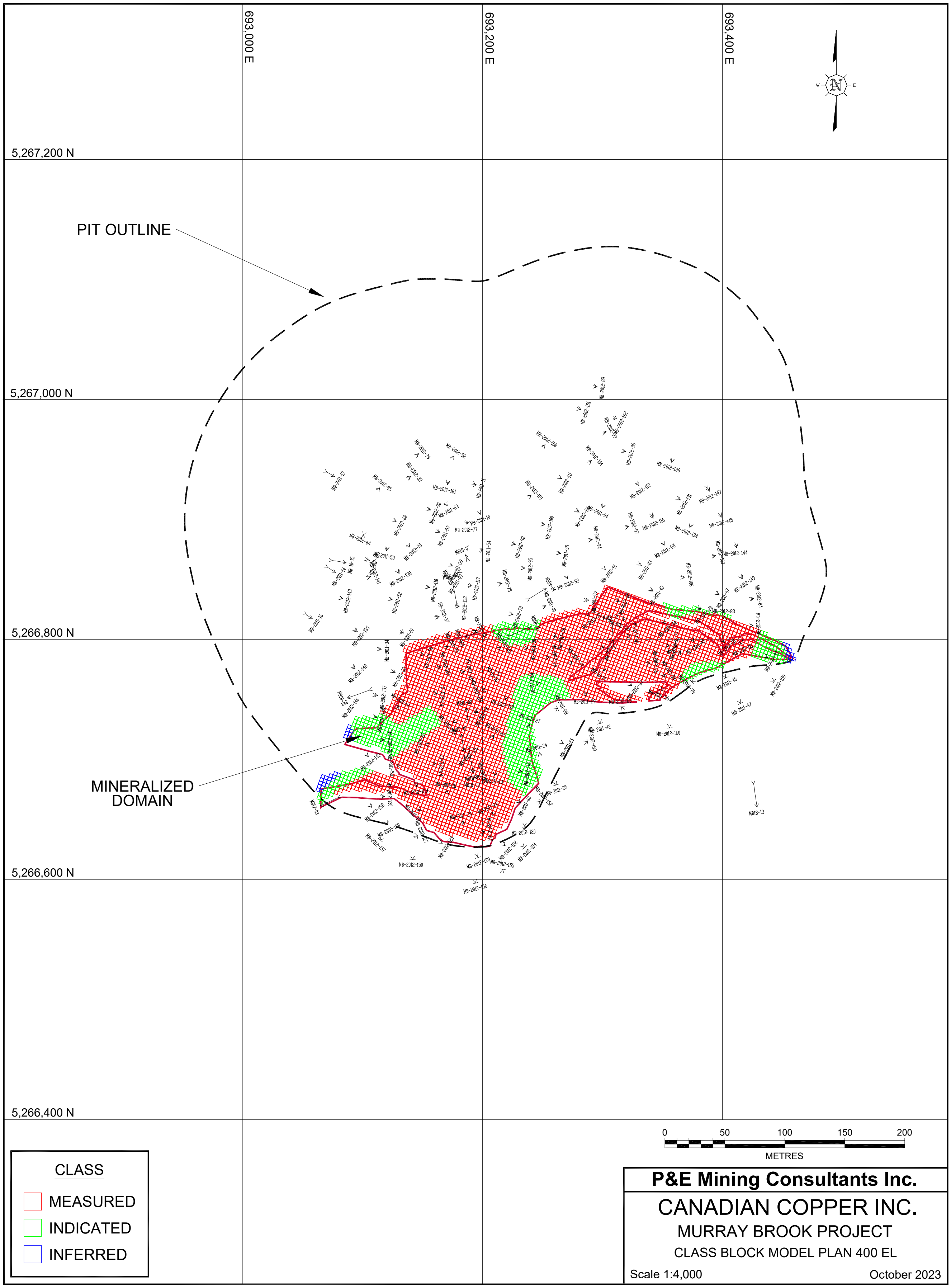
APPENDIX H CLASSIFICATION BLOCK MODEL VERTICAL CROSS-SECTIONS AND PLANS

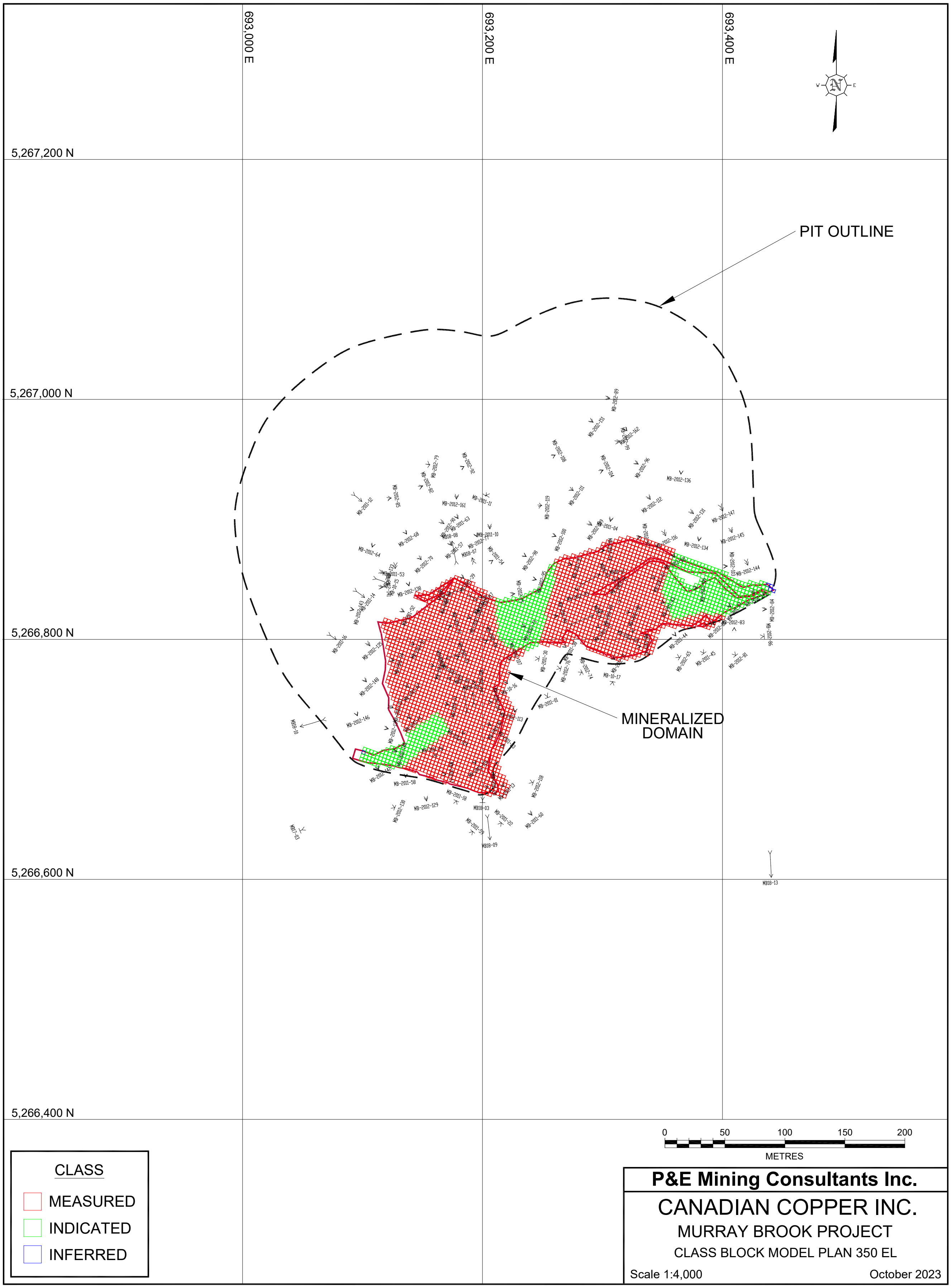


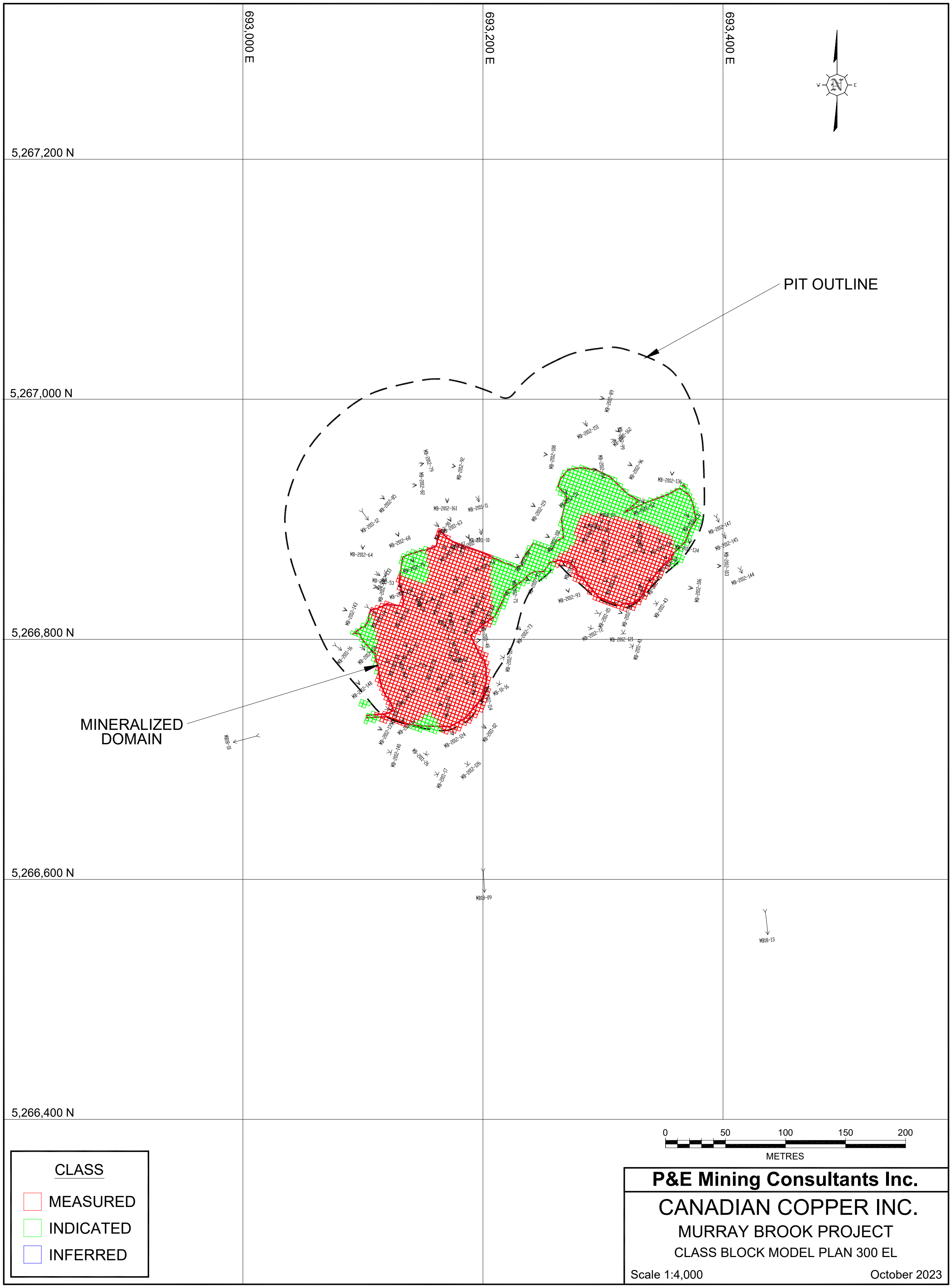
SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
100 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
PIT OUTLINE
MINERALIZED DOMAIN
MB-2019-03
MB-2012-158
MB-2012-130
MB-2011-58
MB-2012-140
MB-2011-61
MB-2011-62
MB-2011-50
MB-2011-37
MB-2012-110
MB-2011-39
MB-2011-10
MB-2012-77
MB-2011-11
MB-2011-14
MB18-08
0
50
100
150
200
METRES
CLASS
MEASURED
INDICATED
INFERRED
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
CLASS BLOCK MODEL CROSS SECTION 5 NW
Scale 1:3,000
October 2023


SECTION REFERENCE LINE
SURFACE TOPOGRAPHY
BEDROCK SURFACE
500 EL
400 EL
300 EL
200 EL
100 EL
OXIDE / SULPHIDE BOUNDARY
MINERALIZED DOMAIN
MINERALIZED DOMAIN
PIT OUTLINE
0
50
100
150
200
METRES
CLASS
MEASURED
INDICATED
INFERRED
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
CLASS BLOCK MODEL CROSS SECTION 8 NW
Scale 1:3,000
October 2023


SECTION REFERENCE LINE
500 EL
400 EL
300 EL
200 EL
100 EL
SURFACE TOPOGRAPHY
BEDROCK SURFACE
OXIDE / SULPHIDE BOUNDARY
PIT OUTLINE
MINERALIZED DOMAIN
0
50
100
150
200
METRES
CLASS
MEASURED
INDICATED
INFERRED
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
CLASS BLOCK MODEL CROSS SECTION 11 NW
Scale 1:3,000
October 2023


693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
5,266,400 N
PIT OUTLINE
MINERALIZED DOMAIN
CLASS
MEASURED
INDICATED
INFERRED
0
50
100
150
200
METRES
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
CLASS BLOCK MODEL PLAN 400 EL
Scale 1:4,000
October 2023


693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
5,266,400 N
PIT OUTLINE
MINERALIZED DOMAIN
0
50
100
150
200
METRES
CLASS
MEASURED
INDICATED
INFERRED
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
CLASS BLOCK MODEL PLAN 350 EL
Scale 1:4,000
October 2023


693,000 E
693,200 E
693,400 E
5,267,200 N
5,267,000 N
5,266,800 N
5,266,600 N
5,266,400 N
PIT OUTLINE
MINERALIZED DOMAIN
0 50 100 150 200
METRES
CLASS
MEASURED
INDICATED
INFERRED
P&E Mining Consultants Inc.
CANADIAN COPPER INC.
MURRAY BROOK PROJECT
CLASS BLOCK MODEL PLAN 300 EL
Scale 1:4,000
October 2023

APPENDIX I OPTIMIZED PIT SHELL

MURRAY BROOK PROJECT - OPTIMIZED PIT SHELL