NI 43-101 Technical Report

Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex

Québec, Canada

Prepared for:

Doré Copper Mining Corp.

DORÉ COPPER MINING

Effective Date: May 9, 2022

Signature Date: June 15, 2022; FINAL R00

Prepared by the following Qualified Persons:

- Mathieu Belisle, P.Eng. ________________BBA Inc.
- Colin Hardie, P.Eng.___________________BBA Inc.
- Priyadarshi Hem, P.Eng. ________________BBA Inc.
- Patricia Dupuis, P.Eng. ________________BBA Inc.
- David Willock, P.Eng.__________________BBA Inc.
- Luke Evans, P.Eng. ____________________SLR Consulting (Canada) Ltd.
- Jean-François St-Laurent P.Eng.__________SRK Consulting (Canada) Inc.
- Simon Latulippe, P.Eng. ________________WSP Inc.

BBA srk consulting SLR wsp

Date and Signature Page

This technical report is effective as of the 15 day of June 2022.

"Signed and Sealed original on file"	*June 15, 2022*
Mathieu Belisle, P.Eng. BBA Inc.	Date
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Colin Hardie, P.Eng. BBA Inc.	Date
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Priyadarshi Hem, P.Eng. BBA Inc.	Date
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Patricia Dupuis, P.Eng. BBA Inc.	Date

"Signed and Sealed original on file"	*June 15, 2022*
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"Signed and Sealed original on file"	*June 15, 2022*
Luke Evans, P.Eng. SLR Consulting (Canada) Ltd.	Date
"Signed and Sealed original on file"	*June 15, 2022*
Jean-François St-Laurent P.Eng. SRK Consulting (Canada) Inc.	Date
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CERTIFICATE OF QUALIFIED PERSON

Mathieu Bélisle, P.Eng.

This certificate applies to the technical report titled "Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex, Québec, Canada" prepared for Doré Copper Mining Corp. (the "Company") dated June 15, 2022, with an effective date of May 9, 2022 (the "Technical Report").

I, Mathieu Bélisle, P.Eng., as a co-author of the Technical Report, do hereby certify that:

1. I am a Metallurgist with the firm BBA Inc., located at 990 route de l'Église, Suite 590, Québec, QC, G1V 3V7, Canada.
2. I am a graduate of Laval University, with a Bachelor of Engineering in Metallurgy and Materials in 2002.
3. I am a member of the Ordre des Ingénieurs du Québec (OIQ 128549), Professional Engineers of Ontario (PEO 10210546), and Professional Engineers and Geoscientists of British-Colombia (EGBC 49319).
4. My relevant experience includes 20 years of experience working for mining operations and engineering consultants. I have been involved in numerous projects requiring detailed engineering design and produced several studies for the mining industry.
5. I have read the definition of "qualified person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("N 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am an author and responsible for the preparation of sections 2,3,18.5.2, 21.4.2 and 24 of the Technical Report. I am also responsible for the relevant portions of sections 1, 2, 3, 25, 26 and 27 of the Technical Report.
8. I have visited Corner Bay, Delvin, Joe Mann and Copper Rand Complex Property that is the subject of the Technical Reporting September 27 to 30, 2021
9. I have had no involvement with the properties that is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 15 day of June 2022.

Original signed and sealed on file

Mathieu Bélisle, P.Eng.

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CERTIFICATE OF QUALIFIED PERSON

Colin Hardie, P.Eng.

This certificate applies to the technical report titled "Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex, Québec, Canada" prepared for Doré Copper Mining Corp. (the "Company") dated June 15, 2022, with an effective date of May 9, 2022 (the "Technical Report").

I, Colin Hardie, P.Eng., as a co-author of the Technical Report, do hereby certify that:

1. I am the National Director, Mining and Metals Business Line with the firm BBA Inc., located at 2020 Robert-Bourassa Blvd., Suite 300, Montréal, Québec, H3A 2A5, Canada.
2. I graduated from the University of Toronto, Ontario Canada, in 1996 with a B.A.Sc. in Geological and Mineral Engineering. In 1999, I graduated from McGill University of Montréal, Québec Canada, with an M.Eng. in Metallurgical Engineering and in 2008 obtained a Master of Business Administration (MBA) degree from the University of Montréal (HEC), Québec Canada.
3. I am a member in good standing of the Professional Engineers of Ontario (PEO No: 90512500) since August 2000. I am also a member of the Canadian Institute of Mining, Metallurgy, and Petroleum (Member No. 140556). I have practiced my profession continuously since my graduation.
4. I have been employed in mining operations, consulting engineering and applied metallurgical research for over 20 years. My relevant project experience includes metallurgical testwork analysis, flowsheet development, cost estimation and financial modeling. Since joining BBA in 2008, I have worked as a senior process engineer, project financial analyst and/or lead study integrator for numerous North American iron ore, precious metal, industrial mineral, and base metal projects.
5. I have read the definition of "qualified person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("N 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am an author and responsible for the preparation of chapter 22 of the Technical Report. I am also responsible for the relevant portions of sections 1, 2, 3, 25, 26 and 27 of the Technical Report.
8. I have visited the Property that is the subject of the Technical Report on September 6, 2017.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 15 day of June 2022.

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CERTIFICATE OF QUALIFIED PERSON

Priyadarshi Hem, P.Eng.

This certificate applies to the technical report titled "Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex, Québec, Canada" prepared for Doré Copper Mining Corp. (the "Company") dated June 15, 2022, with an effective date of May 9, 2022 (the "Technical Report").

I, Priyadarshi Hem, P.Eng., do hereby certify that:

1. I am a Mining Engineer with BBA Inc. located at 1010 Lorne Street, Unit 103, Sudbury, ON, P3C 4R9, Canada.
2. I graduated from the Indian Institute of Technology, Dhanbad, India in 2010 with a Bachelor of Technology in Mining Engineering. In 2012, I graduated from University of British Columbia, Vancouver, Canada, with an M. Eng. in Mining and Mineral Engineering.
3. I am a member in good standing of the Professional Engineers of Ontario (PEO: 100567251) and of the Engineers & Geoscientists British Columbia (Member No. 48184). I have practiced my profession continuously since my graduation.
4. My relevant experience includes 12 years of experience working for mining operations and engineering consultants. I have been involved in numerous projects requiring detailed engineering design and produced several studies for the mining industry.
5. I have read the definition of "qualified person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("N 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am an author and responsible for the preparation of sections 15, 16, 20.2.2, 20.2.3 and 21 (except 21.3.4.2, 21.3.5, and 21.4.3) of the Technical Report. I am also responsible for the relevant portions of sections 1, 2, 3, 25, 26 and 27 of the Technical Report.
8. I did not visit the property that is the subject to the Technical Report.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 15 day of June 2022.

Original signed and sealed on file

Priyadarshi Hem, P.Eng.

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CERTIFICATE OF QUALIFIED PERSON

Patricia Dupuis, P.Eng.

This certificate applies to the technical report titled "Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex, Québec, Canada" prepared for Doré Copper Mining Corp. (the "Company") dated June 15, 2022, with an effective date of May 9, 2022 (the "Technical Report").

I, Patricia Dupuis, P.Eng., do hereby certify that:

1. I am a Process Engineer with the firm BBA Inc. located at 173 A., avenue Mercier, Rouyn-Noranda, QC, J9X 4X6, Canada.
2. I am a graduate of Université de Sherbrooke, with a bachelor's degree in Chemical Engineering completed in 2009.
3. I am a member of the Ordre des Ingénieurs du Québec (OIQ 5011173).
4. My relevant experience includes over 10 years of experience working for mining and smelting operations and engineering consultant firm. I have been involved in many projects for all engineering stages.
5. I have read the definition of "qualified person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("N 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am an author and responsible for the preparation of sections 13, 17 & 21.4.3 of the Technical Report. I am also responsible for the relevant portions of sections 1, 2, 25, 26 and 27 of the Technical Report.
8. I personally visited the property that is the subject to the Technical Report on September 27 to 30, 2021.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 15 day of June 2022.

Original signed and sealed on file

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CERTIFICATE OF QUALIFIED PERSON

David Willock, P. Eng.

This certificate applies to the technical report titled "Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex, Québec, Canada" prepared for Doré Copper Mining Corp. (the "Company") dated June 15, 2022, with an effective date of May 9, 2022 (the "Technical Report").

I, David Willock, P. Eng., as a co-author of the Technical Report, do hereby certify that:

1. I am a Mining Engineer with the firm BBA Inc., located at 1010 Lorne Street, Unit 101, Sudbury, ON, P3C 4R9, Canada.
2. I graduated from the Laurentian University in 2000 with a Bachelor of Engineering.
3. I am a member in good standing of the Professional Engineers of Ontario (No: 100113931).
4. I have been employed in mining engineering, operations and projects for over 20 years. My relevant experience includes underground hard-rock production planning, mine studies, operations supervision and project execution. I have worked as a senior project engineer for numerous North American base metal projects.
5. I have read the definition of "qualified person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("N 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am an author and responsible for the preparation of section 18 (except 18.5) of the Technical Report. I am also responsible for the relevant portions of sections 1, 2, 3, 25, 26 and 27 of the Technical Report.
8. I have not visited the Property that is the subject of the Technical Report.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 15 day of June 2022.

Original signed and sealed on file

David Willock, P. Eng.

CERTIFICATE OF QUALIFIED PERSON

Luke Evans, M.Sc., P.Eng.

This certificate applies to the technical report titled "Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex, Québec, Canada" prepared for Doré Copper Mining Corp. (the "Company") dated June 15, 2022, with an effective date of May 9, 2022 (the "Technical Report").

I, Luke Evans, P.Eng., do hereby certify that:

1. I am Global Technical Director – Geology Group Leader, and Principal Geologist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of University of Toronto, Ontario, Canada, in 1983 with a Bachelor of Science (Applied) degree in Geological Engineering and Queen's University, Kingston, Ontario, Canada, in 1986 with a Master of Science degree in Mineral Exploration.
3. I am registered as a Professional Engineer and a Consulting Engineer in the Province of Ontario (Reg. #90345885) and as a Professional Engineer in the Province of Quebec (Reg. # 105567). I have worked as a professional geologist for a total of 39 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Consulting Geological Engineer specializing in resource and reserve estimates, audits, technical assistance, and training since 1995.
    - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements.
    - Senior Project Geologist in charge of exploration programs at several gold and base metal mines in Quebec.
    - Project Geologist at a gold mine in Quebec in charge of exploration and definition drilling.
    - Project Geologist in charge of sampling and mapping programs at gold and base metal properties in Ontario, Canada.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
6. I am an author and responsible for the preparation of sections 4 to 12, 14 and 23 of the Technical Report. I am also responsible for the relevant portions of sections 1, 2, 3, 25, 26 and 27 of the Technical Report.
7. I personally visited Corner Bay and Cedar Bay on July 17 and 18, 2018.
8. I have had no prior involvement with Devlin, Joe Mann, and Cedar Bay. I was the QP for the previous resource estimate and NI 43-101 Technical Report for Corner Bay.
9. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101 and Form 43-101F1.
10. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 15 day of June 2022.

Original signed and sealed on file

Luke Evans, M.Sc., P.Eng.

CERTIFICATE OF QUALIFIED PERSON

Jean-François St-Laurent, ing., P.Eng. (Ont.), M.Sc.

This certificate applies to the technical report titled "Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex, Québec, Canada" prepared for Doré Copper Mining Corp. (the "Company") dated June 15, 2022, with an effective date of May 9, 2022 (the "Technical Report").

I, Jean-François St-Laurent, ing., P.Eng. (Ont), M.Sc., do hereby certify that:

1. I am a Senior Consultant (Mine Waste Management & Geoenvironmental Engineering) with SRK Consulting (Canada) Inc. located at 2200–1066 West Hastings Street, Vancouver, BC V6E 3X2, Canada
2. I am a graduate of University Laval (Québec City, Québec. Canada) as Geological Engineer in 2005. I completed a master's degree in civil engineering in 2007 at University Laval.
3. I am a member of Ordre des Ingénieurs du Québec (# 140 657, Professional Engineer Ontario (#100541518). I am a Member of the Canadian Geotechnical Society and Canadian Dam Association.
4. Senior geotechnical engineer with 16 years of experience in soils geotechnics, mine waste management and site reclamation. Currently Engineer of Record of two closed sites in Québec and identified as potential EoR for two additional mining operations. His experience includes modelling embankment behaviour under various loading conditions, performing risk assessments, statutory inspections and safety reviews of tailings storage facilities. He's been involved in the preparation of detailed engineering designs with drawings and technical specifications for numerous embankment and tailings storage facilities.
5. I have read the definition of "qualified person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am an author and responsible for the preparation of sections 18.5.3, 18.6, 20.2.1.1, 20.2.4 and 20.2.5 of the Technical Report. I am also responsible for the relevant portions of sections 1, 21, 25, 26 and 27 of the Technical Report.
8. I have visited the property that is the subject to the Technical Report on April 30, 2021.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 15 day of June 2022.

Original signed and sealed on file

Jean-François St-Laurent, ing., P.Eng (Ont). M.Sc.

CERTIFICATE OF QUALIFIED PERSON

Simon Latulippe, P.Eng.

This certificate applies to the technical report titled "Preliminary Economic Assessment for the Chibougamau Hub-and-Spoke Complex, Québec, Canada" prepared for Doré Copper Mining Corp. (the "Company") dated June 15, 2022, with an effective date of May 9, 2022 (the "Technical Report").

I, Simon Latulippe, P.Eng., do hereby certify that:

1) I am a senior engineer currently employed as Team Lead for geotechnical & Mine waste management as part of the Mining-Earth & Environment Group, with WSP Canada inc. in an office located at 1135, Blvd Lebourgneuf, Québec, Québec, Canada, G2K OM5.
2) I am a graduate of Laval University in Québec City, Canada with a B.Sc. in geological engineering in 1998.
3) I am a Professional Engineer registered with the Ordre des ingénieurs du Québec, (OIQ Licence: (#121692). I am a Member of the Mining Association of Canada (MAC) as part of the Tailings committee.
4) I have practised my profession almost continuously in the mining industry since my graduation from university. I have been involved in mining projects and engineering for 24 years, including (Selbaie Mine and Gaspé Mine Closure projects, Nunavik Nickel Mine, Royal Nickel Project, Mine Arnaud Project, Arcelor Mittal Mont-Wright, SFPPN Transhipment and Load out facility-water management, Glencore Kidd TMA Closure, QIO-Bloom Lake Mine-tailings management, Ministry Orphaned sites New Calumet, Main Mine and Preissac Mine Sites Closure) Environmental engineering, Mine Closure and reclamation, geochemistry, water management and geotechnical engineering for surface infrastructures.
5) I have read the definition of "qualified person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("N 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6) I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7) I am an author and responsible for the preparation of section 20, with the exception of sections 20.2.1.1, 20.2.2, 20.2.3, 20.2.4, and 20.2.5 of the Technical Report. I am also responsible for the relevant portions of sections 1, 25, 26 and 27 of the Technical Report.
8) I personally did not visit the property that is the subject to the Technical Report
9) I have had no prior involvement with the property that is the subject of the Technical Report.
10) I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
11) As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this 15 day of June 2022.

Original signed and sealed on file

Simon Latulippe, P.Eng.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
ABA	Acid Base Accounting Data
Ag	Silver
AGB	Abitibi Greenstone Belt
AGP	AGP Mining Consultants Inc
Ai	Abrasion index
AISC	all-in sustaining costs
ALS	Australian Laboratory Services
AMD	Acid Mine Drainage
AR	Aqua Regia
asl	above sea level
Au	Gold
Baas	Battery as a Service
BBA	BBA Inc.
BWi	Bond Work index
$Ca(OH)_2$	Calcium Hydroxide
CAD or $	Canadian dollars
Camchib	Campbell Chibougamau Mines Limited
Campbell	Campbell Resources Inc.
CAPEX	Capital Expenditure
CBAY	CBAY Minerals Inc.
CCAA	Companies' Creditors Arrangement
CCIC	Caracle Creek International Consulting
CCR	central control room
CDF	Cumulative frequency or cumulative distribution function
CDN	CDN Resource Laboratories Ltd.
CFILNQ	Chemin de Fer d'Intérêt Local interne du Nord du Québec
Chibex	Chibex Mines Ltd.
Chibougamau McKenzie	Chibougamau McKenzie Mines Ltd.
CIM	Canadian Institute of Mining
CNG	Cree Nation Government
CNR	Canadian National Railway
CNSC	Canadian Nuclear Safety Commission

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
CoA	Certificate of Authorization
COG	Cut-off Grade
COMEV	Comité d'évaluation des répercussions sur l'environnement et le milieu social
COMEX	Comité d'examen des répercussions sur l'environnement et le milieu social du territoire régi par la Convention de la Baie-James et du Nord Québécois
Cominco	Consolidated Mining and Smelting Company
CRF	Cemented Rock Fill
CRM	Certified Reference Materials
CRN	Canadian National Railway
Cu	Copper
CuEq	Copper Equivalent
CV	Coefficient of Variation
CWi	Crusher Work index
DA	Dynamic Anisotropy
DES	Development electrical stations
DFO	Fisheries and Oceans Canada
DLC	Doré Lake Complex
DSI	DSI Underground Canada
ECCC	Environment and Climate Change Canada
EDA	Exploratory data analysis
EEM	Environmental Effects Monitoring
EIA	Environmental Impact Assessment
EIJB	Regional Government: Eeyou Ishtchee James Bay Regional Government
EM	Electromagnetic
EPCM	Engineering Procurement and Construction Management
EQA	Environment Quality Act
ESEE	*L'étude de suivi des effets sur l'environnement*
EXP	Les Services Exp Inc.
FAR	Fresh Air Raise
FEL	Front End Loading
FIP	Fibre Interface Panels

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
G&A	General and Administration
GCL	Geosynthetic Clay Liner
GCSP	Galvanized Corrugated Steel Culvert
GDIOR	Granodiorite
GDIOR-DIOR-BX	Granodiorite-Diorite-Breccia
GEMS	Geovia GEMS™
GESTIM	*Gestion des titres miniers*
GHG	Greenhouse Gases
Gold Bullion	Gold Bullion Development Corp.
GPS	Garmin handheld global positioning system
H	Height
HCl	hydrochloric acid
HMI	Human Machine Interface
Holmer	Holmer Gold Mines Ltd.
HQ	Hydro-Québec
HR	Human Resources
ICP-AES	Induced Coupled Plasma-Atomic Emission Spectroscopy
ID	Identification
ID^2	Inverse Distance Squared
ID^3	Inverse Distance Cubed
IFRS	International Financial Reporting Standards
IP	Induced Polarization
IRR	Internal Rate of Return
ISO/IEC	International Organization for Standardization/International Electrotechnical Commission
IT	Information Technology
JBNQA	James Bay and Northern Québec Agreement
JWE	James Wade Engineering
KAX51	Potassium Amyl Xanthate
L	Length
Lakefield	Lakefield Research of Canada Ltd
Lakeshore	Lake Shore Gold Corp.
Legault	Ressources Jessie and Legault Metals Inc.

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
LHD	Load-Haul-Dump (Loader)
LHP	Longhole With Pillar
LLDPE	Linear Low-Density Polyethylene
LME	London Metal Exchange
LOM	Life of mine
LTE	Long Term Evolution
Ma	Mega annum or Millions of years
MAC	Mining Association of Canada
masl	metres above sea level
MASW	Multichannel Analysis of Surface Waves
MBBR	Moving bed biofilm reactor
MDDEP	*Ministère du Développement durable, de l'Environnement et des Parcs*
MDMER	Metal and Diamond Mining Effluent Regulations
MELCC	*Ministère de l'Environnement et de la Lutte conte les changements climatiques*
MERN	*Ministère de l'Énergie et des Ressources Naturelles*
Metson Lake	Meston Lake Resources Inc.
MFFP	*Ministère des Forêts, de la Faune et des Parcs*
MIBC	Methyl Isobutyl Carbinol
ML	Metal Leaching
Mo	Molybdenum
MPC	Mine power center
MQV	Massive Quartz Vein
MRE	Mineral Resources Estimates
MS	Microsoft
MSV	Ressources MSV Inc.
Na_2SO_3	Sodium sulfite
NH_3	Ammonia
NI 43-101	Canadian Securities Administrators National Instrument 43101
NN	Nearest Neighbour
NPAG	Non potentially acid generating
NPI	Net Profits Interest

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
NPV	Net Present Value
NRC	National Research Council Canada
NSR	Net Smelter Return
Nuinsco	Nuinsco Resources Inc.
Ocean Partners	Ocean Partners Holdings Limited
OPEX	Operating Expense
PAG	Potentially acid generating
Pb	Lead
PCB	Polychlorinated Biphenyls
PCN	Process control network
PEA	Preliminary Economic Assessment
PES	Primary electrical stations
PFS	Pre-feasibility study
PGE	Platinum Group Element
pH	Potential of hydrogen
PLC	Programmable Logic Controller
PPB	Parts per billion
Preussag	Preussag Canada Ltd.
Q1	First quarter
Q2	Second quarter
Q3	Third quarter
Q4	Fourth quarter
QA/QC	Quality Assurance/Quality Control
QEMSCAN	Quantitative Evaluation of Materials by Scanning Electron Microscopy
QP(s)	Qualified Person(s)
R208	AEROSIL® R208
RAR	Return Air Raise
RBQ	*Régie du bâtiment du Québec*
Riocanex	Rio Tinto Canadian Exploration Limited
RMR	Rock Mass Rating
ROM	Run off Mine
RPA	Roscoe Postle Associates Inc.

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
RPEEE	Prospects for Eventual Economic Extraction
RQD	Rock Quality Designation
RWi	Rod Work index
S	Sulfur
SCC	Standards Council of Canada
SCR	Social and Corporate Responsibilities
SD	Standard Deviation
SDBJ	*Société de Développement de la Baie James*
SEC	U.S. Securities and Exchange Commission
SES	Secondary Electrical Station
SGS	Société Générale de Surveillance
SLR	SLR Consultant (Canada) Ltd.
SQ	*Sûreté du Québec*
SRK	SRK Consulting (Canada) Inc.
SUSEX	Sustaining Capital
TARP	Trigger active response plan
TFP	Tailings Filter Press
Ti	Titanium
TMF	Tailings Management Facility (i.e., filtered tailings)
TSX-V	Toronto Stock Venture Exchange
TTD	tonalite-trondhjemite-diorite
USD	United States dollars
V	Vanadium
VMS	Volcanogenic Massive Sulphide
W	Width
WGM	Watts, Griffis and McOuat
WWM	Welded Wire Mesh
WSP	WSP Inc.
WTP	Water Treatment Plant
XRT	X-ray Transmission
YMT	Chibougamau Chapais Airport
Zn	Zinc

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
TABLE OF ABBREVIATIONS – UNITS OF MEASUREMENT	
Unit	**Description**
$/t	Dollars per tonne
°C	Degrees Celsius
µm	micron
cm	centimetre
cm^3	cubic centimetre
d	day (24 hours)
deg or °	angular degree
F_{80}	80% passing - Feed
ft	feet (12 inches)
ft^2	square feet
g	gram
g/g	grams per gram
g/L	gram per litre
g/t	grams per tonne
gal	gallon
gpm	(US) gallons per minute
h	hour (60 minutes)
ha	hectare
hp	horsepower
in	inch
kg	kilogram
kg/m^2	kilograms per square metre
kg/t	kilograms per tonne
km	kilometre
km/h	kilometres per hour
Koz	Kiloounces
Kt/y	thousand tonnes per year
kV	kilovolt
kW	kilowatt
kWh/t	kilowatt hour per ton

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
kWh/t	kilowatt hour per tonne
L	litre
L/m	litres per minute
lb	pound
lb/ft	pounds per foot
lb/s	pound/second
lb/t	pounds per ton
m	metre
m^2	square metre
m^3	cubic metre
m^3/d	cubic metres per day
m^3/h	cubic metres per hour
m^3/t	cubic metres per ton
mesh	US Mesh
mE	Metre East
mil	equals 0.0254 mm (millimetre)
min	minute (60 seconds)
mm	millimetre
mN	metre North
Moz	Million ounces
Mlbs	Million pounds
Mt	Million tonnes
MW	Megawatt
oz	Troy ounce
oz/y	Troy ounces per year
oz/st	Troy ounces per short ton
P_{100}	100% passing - Product
P_{80}	80% passing - Product
ppm	parts per million
st	short ton (2,000 lbs) (907 kg)
st/d	(short) tons per day
st/h	(short) tons per hour

TABLE OF ABBREVIATIONS	
Abbreviation	**Description**
t	tonne (2,204.62 lbs / 1000 kg)
t/d	tonnes per day
t/h	tonnes per hour
t/m³	tonne per cubic metre
t/y	tonnes per year
USD or US$	United States dollar
V	Volt
wt%	weight percent
y	year (365 days)

1. Summary

This NI 43-101 Technical Report Corner Bay Preliminary Economic Assessment (the Report) was prepared and compiled by BBA Inc. (BBA) at the request of Doré Copper Mining Corp. (Doré Copper). Doré Copper is pursuing a hub-and-spoke development strategy that would see the Corner Bay copper-gold deposit serve as the main underground mine along with the Devlin copper deposit and the former Joe Mann gold mine providing feed to its Copper Rand mill (collectively, the Project). The purpose of this Report is to summarize the results of the Preliminary Economic Assessment (PEA) for the Project in accordance with the guidelines of the Canadian Securities Administrators National Instrument 43-101 (NI 43-101) and Form 43-101F1.

This Report was prepared under the supervision of the QPs named herein with contributions from BBA, SLR Consulting Ltd. (SLR), SRK Consulting (Canada) Inc. (SRK), and WSP Inc. (WSP). This PEA study provides a base case assessment for developing the Corner Bay deposit as the main underground mine, supplemented with material from the Devlin deposit for years one through four followed by material from the former Joe Mann mine. The run-of-mine material will feed a crushing and mineral sorting plant, located at the Corner Bay site, with a design production capacity of 3,600 t/d, followed by a flotation plant (located at Copper Rand) to produce a saleable concentrate. The tailings will be dewatered and drystacked at the existing tailings management facility (TMF), also located at Copper Rand.

All monetary units in the Report are in Canadian dollars (CAD or $), unless otherwise specified. Costs are based on second quarter (Q2) 2022 dollars. Quantity and grades are rounded to reflect that the reported values represent approximations.

1.1. Contributors

The major PEA contributors and their respective areas of responsibility are presented in Table 1-1.

Table 1-1: Report contributors

Qualified Person / Consulting Firm	General overview of responsibilities
BBA inc.	
Hem Priyadarshi, P.Eng. David Willock, P.Eng. Patricia Dupuis, P.Eng. Mathieu Bélisle, P.Eng. Colin Hardie, P.Eng.	▪ Mine and plant design, mines capital costs and operating costs ▪ Infrastructure ▪ Metallurgy, processing and process plant operating costs ▪ Process plant and infrastructure capital cost ▪ Financial analysis

Qualified Person / Consulting Firm	General overview of responsibilities
SLR Consulting (Canada) Ltd.	
Luke Evans, P.Eng.	▪ Mineral Resource Estimates ▪ Geological technical information ▪ QA/QC review of drilling and sampling data
SRK Consulting (Canada) Inc.	
Jean-François St-Laurent, P.Eng.	▪ Tailings geotechnical engineering ▪ Filtered tailings management facility (TMF) design and capital costs ▪ High-sediment and contact water management at the TMF
WSP (Canada) Inc.	
Simon Latulippe P.Eng.	▪ Environmental studies and permitting ▪ Mine closure requirements and costs

1.2. Key Project Outcomes

The reader is advised that the results of the PEA summarized in this Report are intended to provide an initial, high-level review of the Project and potential design options. The PEA mine plan and economic model include numerous assumptions and the use of Inferred Resources. Inferred Resources are considered to be too speculative to be used in an economic analysis, except as allowed for by Canadian Securities Administrators' National Instrument 43-101 in PEA studies. There is no guarantee that Inferred Resources can be converted to Indicated or Measured Resources and, as such, there is no guarantee the Project economics described herein will be achieved.

The following list details the key Project outcomes of the Report:

- Project Mineral Resource estimates (MREs) (Corner Bay, Devlin, Cedar Bay and Joe Mann): 3.58 Mt containing 198 Mlbs of copper at 2.51% Cu and 0.07 Moz of gold at 0.58 g/t Au (Measured and Indicated) and 7.18 Mt containing 477 Mlbs of copper at 3.01% Cu and 0.25 Moz of gold at 1.08 g/t Au (Inferred);
- Total mineralized material mined: 9.2 Mt at 2.61% Cu and 0.59 g/t Au at diluted grades;
- Mine life of 10.5 years, with peak year production of 79 Mlbs of copper and 51 Koz of gold, and average life of mine (LOM) payable annual production of 50 Mlbs of copper and 17 Koz ounces of gold;
- Overall mill recovery of Cu at 93.3% and Au at 81.4%;
- Metal production (LOM) of 492 Mlbs of copper and 142 Koz of gold;
- Initial capital costs of $180.6 million;
- Sustaining costs of $402.4 million, including $53.6 million of reclamation costs;

- Salvage value of $17.0 million;
- Operating costs (total) of $186/t milled;
- All-in sustaining costs of US$2.24/lb of copper equivalent (CuEq) including royalties, smelting and mine closure costs over LOM;
- Gross revenue of $2.52 billion and a cumulative LOM cash flow of $455 million on an after-tax basis and $747 million pre-tax;
- Net present value (NPV) of $367 million at an 8% discount rate, and an internal rate of return (IRR) of 30.7% before taxes;
- LOM taxes of $322 million and royalties of $13 million;
- NPV of $193 million at an 8% discount rate, and an IRR of 22.1% after taxes and mining duties;
- Payback period (after start of operations) of 4.2 years pre-tax and 5.5 years after-tax;
- Peak workforce of 321 persons or 372 persons including contractors during operations;
- The Project targets to complete infill drilling programs at Devlin and Corner Bay in 2022 and complete a Feasibility Study in 2023.

1.3. Property Description and Location

The Project is comprised of three non-contiguous project areas: the Copper Rand property, host to the Cedar Bay deposit and Copper Rand mill and tailings facility, the Corner Bay-Devlin property, host to the Corner Bay and Devlin deposits, and the Joe Mann property, host to the former Joe Mann mine. All properties are located in the vicinity of the town of Chibougamau, approximately 500 km north of Montreal, in the Administrative Region of Nord du Québec.

Land tenure over the properties includes:

- Copper Rand:
  - 1 mining license, 19 mining concessions, and 147 exploration claims totalling 6,398 ha;
- Corner Bay – Devlin:
  - 1 mining license, and 111 exploration claims totalling 5,446 ha; and
- Joe Mann:
  - 2 mining concessions, and 74 exploration claims totalling 2,732 ha.

The Copper Rand and Corner Bay – Devlin land tenure are held 100% by CBAY Minerals Inc. (CBAY), a wholly-owned subsidiary of Doré Copper. A portion of the Joe Mann land tenure is held by CBAY (767 ha), with the remainder (1,965 ha), held under an option agreement between Doré Copper and Ressources Jessie. The properties collectively making up the Project are in good standing based on the Ministry of Energy and Natural Resources (Ministère de l'Énergie et des Ressources Naturelles) GESTIM claim management system of the Government of Québec.

1.4. Accessibility, Climate, Local Resources, Infrastructure and Physiography

The properties are easily accessible from Chibougamau along Route 167. Chibougamau is serviced by the Canadian National Railway and Air Creebec, as well as two major driving routes from either Lac Saint-Jean or Val-d'Or.

The Project lies within the Abitibi Plains ecoregion and is characterized by short warm summers and long cold, snowy winters. Mean temperatures ranging from -19°C in January to 16°C in July. At their most extreme, temperatures can reach -40°C in the winter and 35°C in the summer.

The town of Chibougamau is a former copper and gold mining centre, with abundant skilled workforce and equipment availability. Power, water, telephone and mobile communication infrastructure are readily available regionally.

The Corner Bay deposit benefits from ramp access to a vertical depth of 115 m with 2 km of development on three levels. There are a few abandoned buildings, two waste rock piles, and a sedimentation pond. At the Devlin deposit, there is a 305 m decline and 364 m of drifts, as well as several surface forestry roads. At the Joe Mann mine, most of the former infrastructure has been maintained in place and is in good condition. The key current infrastructure includes, but is not limited to, one shaft with hoist in place (second shaft was dismantled), office building, core facilities, garage, and connection to the provincial hydroelectric grid. At the Copper Rand site, the field office, core facilities and mill are located in the same general vicinity, and the existing TMF is accessed by a 1.3 km privately owned gravel road to the south-southwest. The Copper Rand mill, which closed in 2008, comprises crushing, fine mineral storage, grinding, gravity recovery of particulate gold, flotation of a copper concentrate, thickening, and filtration.

The ecoregion is classified as having a humid, mid-boreal eco-climate. The topography is comparatively flat, with no hills rising more than 35 m in the immediate vicinity of the Project.

1.5. History

The Corner Bay deposit was discovered in 1982 by a joint venture between Corner Bay Exploration Ltd. and Rio Algom Inc. In 1995, the property was acquired by Ressources MSV Inc. (MSV), which subsequently merged with Campbell Resources Inc. (Campbell) and carried out several exploration drilling programs up to 2008. An initial MRE was prepared in 2006 and in 2008, Campbell initiated an underground bulk sampling program by driving a ramp down to 115 m and establishing three levels (55 m, 75 m, and 105 m). Development muck totalling approximately 36,395 t, averaging 2.48% Cu and 0.44 g/t Au, was processed at the Copper Rand mill. At the end of 2008, Campbell suspended the bulk sample exploration program at Corner Bay.

In 2009, Campbell entered bankruptcy and the asset emerged out of bankruptcy as part of CBAY, which was at that time a wholly-owned subsidiary of Ocean Partners Holdings Limited (Ocean Partners) and Nuinsco Resources Inc. (Nuinsco), and any royalties that existed on the property were no longer valid. The property remained inactive up to 2017 when it was acquired by a private company AmAuCu Mining Corporation (AmAuCu), Doré Copper's predecessor.

The Devlin deposit was discovered in 1972 following an airborne survey flown by the Québec Ministry of Natural Resources, following which the land was staked by Flanagan, McAdam & Co. (Flanagan McAdam) and optioned to Rio Tinto Canadian Exploration Limited (Riocanex). From 1973 to 1981, Riocanex undertook a number of geophysical surveys and exploration drill hole campaigns, as well as some metallurgical test work. In 1981, Campbell Chibougamau Mines Ltd. (Camchib), purchased the property from Riocanex and completed additional drilling, upgraded site access and established site facilities, including an access decline and exploration drifts. In late 1981, a development bulk sample collected underground was processed through the Camchib mill. Following a negative pre-feasibility study (PFS), given the market price of copper in 1982, Devlin was put on standby, the decline was flooded, and the entrance was obstructed with coarse boulders. Additional studies were undertaken sporadically by various owners from 1992 to 2004. In 2013, Nuinsco and Ocean Partners acquired Devlin through their jointly held subsidiary CBAY. Nuinsco completed some confirmatory drill holes and updated the MRE in 2015. The property remained inactive up to 2017 when it was acquired by AmAuCu.

Doré Copper was formed from a business combination between ChaiNode and AmAuCu in 2019. Following the acquisition of both Corner Bay and Devlin, Doré Copper increased its land position to form a contiguous land package, the Corner Bay-Devlin Property.

SLR, as Roscoe Postle Associates Inc. (RPA), prepared a NI 43-101 report on the Corner Bay Project dated June 15, 2019. The report supported the disclosure of updated MREs on the Corner Bay and neighbouring Cedar Bay deposits, effective as of December 31, 2018. AGP Mining Consultants Inc. (AGP) prepared a NI 43-101 report on the Devlin Project in 2015 for then operator Nuinsco. The report supported disclosure of an updated MRE on the Devlin deposit, effective June 30, 2015. These MREs are superseded by the estimates included in this Report.

Chibougamau Explorer Ltd., which became Anacon Mines in 1954, began exploration on Joe Mann in 1951, with the commencement of mining activities occurring in 1956. Anacon Mines operated the former Joe Mann mine until 1960, at which point it was abandoned for a period of 13 years. Chibex Mines Ltd. (Chibex) acquired the former Joe Mann mine in 1970, commencing a ramp and dewatering in 1973-74 and production in 1975, ultimately ceasing activities in 1976 due to financial difficulties and recovery issues. In 1980, Meston Lake Resources Inc. (Meston Lake) acquired the former Joe Mann mine property from Chibex. Société de Développement de la Baie James (SDBJ) became a partner in the former Joe Mann mine project in 1981. In 1983, Campbell acquired a minority position in Meston Lake and became the operator of the former Joe Mann mine project. In 1987, SDBJ withdrew, and Campbell became the sole owner of the former Joe Mann mine, after acquiring all the shares of Meston Lake. Campbell continued to hold the former Joe Mann mine property until 2007. The ore from Joe Mann was processed at Campbell's Merrill mill until 2004 and then at Copper Rand mill from 2005 to 2007.

In 2007, Gold Bullion Development Corp. (Gold Bullion), now Granada Gold Mine Inc., optioned the former Joe Mann mine property from Campbell and commenced underground exploration. Gold Bullion allowed the former Joe Mann mine to flood during August 2008. In December 2008, Campbell filed for bankruptcy protection and in January 2009 obtained creditor protection under the Companies' Creditors Arrangement (CCAA). Gold Bullion did not pursue its offer to purchase the former Joe Mann mine property.

Ressources Jessie, a private company, acquired the former Joe Mann mine in July 2012 from the insolvency trustee. Ressources Jessie has only conducted surface exploration work on the property.

1.6. Geological Setting and Mineralization

Corner Bay and Devlin are located at the northeastern extremity of the Abitibi subprovince in the Superior province of the Canadian Shield and are examples of Chibougamau-type copper-gold deposits. The Abitibi subprovince is considered as one of the largest and best-preserved greenstone belts in the world and hosts numerous gold and base metal deposits.

The Corner Bay deposit is located on the southern flank of the Doré Lake Complex (DLC). It is hosted by a N 15° trending shear zone more or less continuous with a strong 75° to 85° dip towards the west. The host anorthosite rock is sheared and sericitized over widths of 2 m to 25 m. The deposit is cut by a diabase dyke and is limited to the north by a fault structure and to the south by the LaChib deformation zone.

The Corner Bay deposit consists of three main mineralized veins (subparallel Main Vein 1 and Main Vein 2 above the dyke, and Main Vein below the dyke that make up the bulk of the deposit, and four other parallel smaller veins (three West Veins and East Vein). The Corner Bay deposit has been traced over a strike length to over 1,100 m to a depth of 1,350 m and remains open at depth.

The mineralization is characterized by veins and/or lenses of massive to semi-massive sulphides associated with a brecciated to locally massive quartz-calcite material. The sulphide assemblage is composed of chalcopyrite, pyrite, and pyrrhotite with lesser amounts of molybdenite and sphalerite. Late remobilized quartz-chalcopyrite-pyrite veins occur in a wide halo around the main mineralization zones.

Devlin is a flat-lying, copper-rich veins-hosted deposit in a polygenic igneous breccia that is less than 100 m from the surface. The tabular bodies have been modelled as four nearly horizontal veins: a more continuous lower zone and three smaller veins comprising the upper zone. Mineralization is reflected as a fracture zone often composed of two or more sulphide-quartz veins and stringers. Thickness of the mineralized zones range from 0.5 m to 4.4 m. It has been diluted during modelling to reflect a minimum mining height of 1.8 m.

The Joe Mann deposit is characterized by east-west striking shear hosted veins that extend beyond 1,000 m vertically with mineralization identified over a 3 km strike length. These shear zones form part of the Opawica-Guercheville deformation zone, a major deformation corridor cutting the mafic volcanic rocks of the Obatogamau Formation in the north part of the Caopatina Segment. The gabbro sill hosts the Main Zone and the West Zone at the mine, while the South Zone is found in the rhyolite. These three subvertical E-W (N275°/85°) ductile-brittle shear zones are sub-parallel to stratigraphy and to one another, with up to 140 m to 170 m of separation between them. These shear zones are hosted within a stratigraphic package composed of iron-magnesium (Fe-Mg) carbonate and sericite altered gabbro sills, sheared basalts, and intermediate to felsic tuffs intruded by various felsic intrusions. The Joe Mann gold mineralization is hosted by decimetre scale quartz-carbonate veins (Dion and Guha 1988). The veins are mineralized with pyrite, pyrrhotite, and chalcopyrite disposed in lens and veinlets parallel to schistosity, and occasionally visible gold. There are some other minor, mineralized structures, e.g., North and South-South Zones, with limited vertical and horizontal extensions.

1.7. Deposit Types

The Corner Bay and Cedar Bay deposits are examples of Chibougamau-type copper-gold deposits, which typically host massive to semi-massive pyrite-chalcopyrite-pyrrhotite-sphalerite-molybdenite sheared quartz veins. The main alteration assemblage consists of quartz, carbonate, sericite, chlorite, and K-feldspar with occasional albitization locally.

The Devlin deposit is a copper-rich veins-hosted deposit in a polygenic igneous breccia. These types of deposits are structurally controlled and occur in faults, fault systems, and vein-breccia zones. Vein copper deposits tend to be relatively small. Copper grades are typically 1% to 3% although some deposits contain greater than 10% copper. Two main sub-types are recognized: 1) associated with mafic intrusions (Churchill type); and 2) associated with felsic and intermediate intrusion.

The Joe Mann deposit is categorized as a greenstone-hosted quartz-carbonate vein deposit, a sub-type of lode-gold deposits. Greenstone-hosted quartz-carbonate vein deposits correspond to structurally controlled, deformed to folded deposits hosted in metamorphosed terranes (Dubé and Gosselin, 2007; Gaboury, 2019). They can coexist regionally with iron formation-hosted vein and disseminated deposits as well as with turbiditic-hosted quartz-carbonate vein deposits.

1.8. Exploration

At the Corner Bay – Devlin property relevant exploration works other than drilling conducted by Doré Copper included downhole geophysics and a ground geophysical survey. Downhole surveys were conducted in 2020 and 2021, and a small geophysical survey was conducted in 2021. The downhole surveys resulted in the identification of a zone of weak mineralization and potential extensions of existing mineralized zones at Corner Bay. The geophysical survey did not find any economic mineralization. The exploration potential at Corner Bay remains substantial as all of the veins still remain open in one or more direction. In addition, there is a potential for finding parallel zones of mineralization.

Doré Copper has not conducted any exploration work on Joe Mann other than drilling on the property. The previous operator, Ressources Jessie, carried out two small geophysical surveys on its property, which identified several interesting targets.

No exploration work has been undertaken by Doré Copper at the Copper Rand property, including over the Cedar Bay deposit.

1.9. Drilling

Drilling at Corner Bay took place between 1973 and 2008 by previous operators, drilling 254 holes. Doré Copper and its predecessor (AmAuCu) carried out a number of drilling programs from 2017 to 2021, drilling 70 holes, including wedge holes. The 2022 drilling program at Corner Bay is ongoing.

Drilling at Devlin took place in two periods: from 1974 to 1982 and from 2013 to 2014, totalling 177 holes. Doré Copper has not carried out any exploration drilling programs yet at Devlin; however, in 2021-2022, Doré Copper completed seven drill holes totalling 669 m from the same pad for metallurgical and mineral sorting tests.

In 2020 at Joe Mann, Doré Copper drilled a total of 8,343 m testing the Main Zone and West Zone below the underground workings, the Far West Zone, and the South-South Zone.

In 2018 at Cedar Bay, AmAuCu completed a four-hole (including wedges) drilling program totalling 4,841.8 m . Doré Copper completed 9,025 m of drilling in 2020.

1.10. Sample Preparation, Analyses and Security

Historical samples at Corner Bay were prepared and analyzed at the Copper Rand laboratory. Under AmAuCu's ownership (2017–2019), Corner Bay and Cedar Bay samples were prepared at ALS in Val-d'Or before being shipped to the ALS facility in Vancouver for analysis.

Doré Copper samples (2020–2022) for Corner Bay and Joe Mann were prepared at SGS in Val-d'Or before being sent to SGS's Burnaby Laboratory for analysis. Starting in March 2022, samples from the 2022 drilling program at Corner Bay are being processed at AGAT laboratories in Mississauga.

For the 2013 and 2014 programs at Devlin, sample preparation was completed by Les Services Exp Inc. in Chibougamau and analyzed by ALS in Val-d'Or, Québec (gold) or in Vancouver, British Columbia (copper).

Quality Assurance and Quality Control (QA/QC) protocols and monitoring were in place for all recent drill programs at all properties and the results support the adequacy of the assay results within the databases for the purposes of Mineral Resource estimation.

1.11. Data Verification

SLR audited the AmAuCu and Doré Copper drill hole information over all projects by selecting a spatially and temporally representative set of assay certificates for comparison against the supplied information. A random selection of historical data was also compared against original drill hole logging and analytical results and conversion equations were confirmed to have been applied correctly. In addition, drill hole databases were scrutinized in Leapfrog Geo and GEMS software and a standard review of import errors and visual checks was conducted.

1.12. Mineral Processing and Metallurgical Testing

Mineral processing and metallurgical testwork was conducted on three different deposits: Corner Bay, Joe Mann and Devlin. The Corner Bay deposit's preliminary metallurgical testwork program was undertaken in 1982 by Lakefield Research of Canada Ltd. (Lakefield)on samples prepared from the Corner Bay Main Zone. The testwork consisted of flotation analysis for copper (Cu), gold (Au), silver (Ag) and molybdenum (Mo) grade estimation. Corner Bay's preliminary testwork was reassessed for confirmation of metallurgical flotation results in 2005 by Corem testing facilities (Corem). A bulk sample program was conducted on the ramp and three developed underground levels of the Corner Bay deposit in 2008. An additional material sorting program was conducted in 2021 on Corner Bay material by Corem, consisting of X-Ray sorting tests using commercial scale sorting units.

For Joe Mann, preliminary metallurgical testwork was undertaken in 1981 by Lakefield. The testwork consisted of an investigation of cyanidation and flotation for recovery effectiveness. After several years of production at Campbell' Merrill mill, which closed in 2004, the mined material from Joe Mann was trucked and processed at Copper Rand mill from 2005 to 2007.

Preliminary metallurgical testwork for Devlin was undertaken in 1979 by Lakefield. The testwork consisted of bench-scale flotation and heavy-media separation. In 1981 and 1982, a plant-scale test program and conductivity testing was completed. In 2021, a small-scale metallurgical test program was undertaken by Corem on the Devlin deposit. The samples were prepared from three HQ drill holes and the testwork consisted of a series of gravity, flotation and grindability tests. An additional material sorting test program was conducted in 2022 by Corem using the same approach as that used for Corner Bay in 2021.

1.13. Mineral Resource Estimate

Mineral Resources for the Chibougamau Hub-and-Spoke Complex are presented in Table 1-1. The MREs represent a combination of updated and restated MREs over the Project as shown in Table 1-2.

The metal of interest at the Corner Bay and Devlin deposits is copper with a small gold by-product. At Joe Mann and Cedar Bay, the metal of interest is gold, and there is significant copper mineralization at Cedar Bay and minor amounts at Joe Mann. It has been assumed that the deposits would be mined using underground methods.

The MREs are defined by mineralization domain shapes built in Leapfrog Geo or GEMS. Uncapped or capped copper and capped gold assays within the domains were composited and estimated into a sub-blocked model (Leapfrog Edge) or a percent model (GEMS) using a multi-pass inverse distance squared (ID^2) or cubed (ID^3) interpolation approach.

In addition to standard historical data and database validation techniques, wireframe and block model validation procedures, including wireframe to block volume confirmation, statistical comparisons with composite and nearest neighbour (NN) estimates, visual reviews in longitudinal section were also completed for all deposits. All deposits were reviewed, and classified blocks were limited to those areas that met Reasonable Prospects for Eventual Economic Extraction (RPEEE) criteria with respect to above cut-off grade mineralization continuity and minimum thickness.

Table 1-2: Consolidated Mineral Resources at the Chibougamau Hub-and-Spoke Complex

Project	Deposit	Category	Tonnage (kt)	Grade (% Cu)	Grade (g/t Au)	Contained Metal Copper (Mlb)	Contained Metal Gold (000 oz)
Corner Bay - Devlin	Corner Bay	Indicated	2,677	2.66	0.26	157	22
		Inferred	5,858	3.43	0.27	443	51
	Devlin	Measured	121	2.74	0.29	7.3	1
		Indicated	654	2.06	0.19	29.7	4
		Measured & Indicated	775	2.17	0.2	37	5
		Inferred	484	1.79	0.17	19.2	3
Copper Rand	Cedar Bay	Indicated	130	1.55	9.44	4.4	39
		Inferred	230	2.13	8.32	10.8	61
Joe Mann	Joe Mann	Inferred	608	0.24	6.78	3.2	133
Total		**Measured & Indicated**	**3,582**	**2.51**	**0.58**	**198.2**	**66**
Total		**Inferred**	**7,180**	**3.01**	**1.08**	**476.5**	**248**

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. The effective date of the Mineral Resources is March 30, 2022 for all projects, except Cedar Bay which has an effective date of December 31, 2018.
3. Mineral Resources are estimated using an exchange rate of USD$1.00:CAD$1.33 for all projects, except Cedar Bay which used an exchange rate of USD$1.00:CAD$1.25.
4. Mineral Resources at Joe Mann are estimated using a long-term gold price of US$1,800/oz Au, and a metallurgical gold recovery of 83%. Mineral Resources at Corner Bay and Devlin are estimated using a long-term copper price of US$3.75 per pound, and a metallurgical copper recovery of 95%. Mineral Resources at Cedar Bay are estimated using a long-term gold price of US$1,400/oz Au, and a metallurgical gold recovery of 90%.
5. Mineral Resources are estimated at a cut-off grade of 2.6 g/t Au at Joe Mann, 1.3% Cu at Corner Bay, 2.9 g/t Au at Cedar Bay and 1.2% Cu at Devlin.
6. A minimum mining width of 1.2 m was used at Joe Mann and a small number of lower-grade blocks have been included for continuity. A minimum mining width of 2.0 m was used at Corner Bay and Cedar Bay, and a minimum height of 1.8 m was applied at Devlin.
7. Bulk density ranges by deposit and vein from 2.84 t/m^3 to 3.1 t/m^3.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Numbers may not add up due to rounding.

Table 1-3: Summary of MRE Updates

Property	Deposit	Effective Date of Previous MRE	Author of Previous MRE	Revised Effective Date	Changes to MRE
Corner Bay Devlin	Corner Bay	Oct 1, 2021	SLR	March 30, 2022	14 drill holes added
Corner Bay Devlin	Devlin	Oct 7, 2021	SLR	March 30, 2022	none
Joe Mann	Joe Mann	July 21, 2021	SLR	March 30, 2022	none
Copper Rand	Cedar Bay	December 31, 2018	RPA (now SLR)	December 31, 2018	none

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the MREs. Details of the Mineral Resource estimation process for the individual deposits are summarized in the relevant sections below.

1.14. Mineral Reserve Estimate

No Mineral Reserves have been estimated for the Corner Bay, Devlin or Joe Mann projects as per NI 43-101 guidelines.

1.15. Mining Methods

The Corner Bay, Devlin and Joe Mann deposits are all characterized by high-grades and narrow vein widths. Projected mined tonnes from the Project (Corner Bay, Devlin, and Joe Mann) are expected to total 9.15 Mt, ramping up to a maximum capacity of 3,000 t/d over a mine life of 10.5 years.

Table 1-4: Mineable Resource Summary

Projects	Mineralized Tonnes	% Cu	Au g/t	% CuEq
Corner Bay	7,603,194	2.90	0.24	2.96
Devlin	951,234	1.85	0.17	1.90
Joe Mann	596,281	0.21	5.78	4.96
Total	**9,150,710**	**2.61**	**0.59**	**2.98**

1.15.1. Corner Bay

Underground mining at Corner Bay would use the existing single portal and 2 km of development to three levels down to 115 m. The development would extend the decline ramps to a depth of 1,326 m. Most of the material would be mined by longhole open stoping with pillars, which is then backfilled, and by Avoca, a longitudinal longhole retreat mining method. A fleet of nine battery electric haul trucks with trolley assist and six loaders would be required at maximum capacity. Trade off studies were completed to evaluate between a shaft, 42 t battery electric trucks with BaaS (Battery as a Service) technology and 50 t diesel trucks, and it was concluded that the use of 42 t battery electric trucks was the best economic option. In addition, the electric truck technology will provide benefits related to less ventilation requirements, better air quality and lower diesel consumption.

The mined material would be transported to surface and crushed and sorted at the Corner Bay site. Results from the material sorting testwork on material selected from the development stockpile at surface, which was extracted during the preparation of the 2008 bulk sample, indicated that the average grade of the mineralized material is upgraded 1.54 times and 47% of the crushed mined material would be rejected. The high-grade pre-concentrate would be transported by trucks to the Copper Rand mill located approximately 47 km from the mine site.

Total projected mined tonnes from Corner Bay are expected to be 7.60 Mt ramping up to a maximum capacity of 2,600 t/d over a mine life of 10.5 years.

1.15.2. Devlin

Access to the shallow Devlin deposit would require the enlargement of the existing decline ramp (305 m) and existing drifts (364 m). Underground mining would use a combination of room and pillar and drift and fill mining methods. Devlin will produce 951,000 t of material over a mine life of four years and reach a maximum mining rate of 760 t/d. Mining and surface activities at Devlin will be done by a contractor.

The mined tonnes would be trucked 15.6 km to the Corner Bay site for crushing and sorting in combination with the Corner Bay mined tonnes. With the mineralized material having a thickness of 1 m to 2 m and the wall rock being essentially barren, mineral sorting technology is expected to work well. Preliminary testwork on core from drilling simulating a 2.3 m mining height resulted in improving the grade by 65% and rejecting 40% of the material.

1.15.3. Joe Mann

As the Devlin mine becomes depleted, the Joe Mann mine would be restarted. Once the mine would be dewatered, the Doré Copper would start an underground exploration program with the objective of increasing the mineral resources to increase the mine life beyond the PEA study.

A longhole mining method was chosen for Joe Mann with the mined material brought to surface using the existing shaft and hoist. The mined material would be transported by trucks to the Corner Bay site (total of 43.5 km) for crushing, and then transported by trucks to the Copper Rand mill for processing.

In the PEA, the Joe Mann mine has a mine life of four years with maximum production of 590 t/d. It is anticipated that additional mineral resource can be defined to increase mine life.

1.16. Recovery Methods

Mineralized material will be recovered through the Copper Rand mill, which will be upgraded and restarted following its closure in 2008. The feed will be a blend of mineralized material from Corner Bay, Delvin and Joe Mann. The crushing plant will have a design production rate of 3,600 t/d and the mill will accommodate a design throughput of 2,240 t/d of crushed material assuming a grind size of 80% passing 100 microns. With an average head grade of 2.61% Cu, the concentrate production is estimated to be at an average of 85,475 t/y at 23.7% Cu. The combined recovery of the mineral sorter and mill is estimated to be 93.3% copper.

Recovery of the material consists of two categories: crushing and processing. The crushing circuit consists of a primary jaw crusher, secondary cone crusher, and an integrated X-ray transmission (XRT) mineral sorter circuit. The grinding circuit consists of a single primary grinding ball mill in closed circuit with a hydrocyclone and two Knelson gravity concentrators. The flotation circuit consists of four rougher cells, one scavenger bank, three cleaner banks, a single regrind ball mill, and a regrind hydrocyclone. The final concentrate, a combination of product from the gravity circuit and third cleaner, is thickened before it is passed through a filter press, recovering a concentrate with moisture content of 8%. The copper concentrate will be sent to a concentrate stockpile and from there it will be transported for sale. Tailings will be dewatered by thickening and filtration, and then loaded onto trucks and transported to the drystack tailings facility (TMF).

Several changes will be made to the processing plant to improve the treatment of three different sources of mineralized material and the overall capital expenditure for the refurbishment of the equipment. Modification includes the following:

- Decommissioning of the crushing and grinding sections;
- The addition of a new crushing circuit at the Corner Bay mine site, including a mineral sorter;

- The addition of a new grinding circuit that will comprise a single ball mill in closed loop with hydrocyclones and Knelson gravity concentrators;
- The addition of a conditioning tank;
- Expanded capacity of the concentrate filter;
- The addition of a new tailings filter plant; and
- The reconfiguration of some piping around the flotation circuit.

From Year 4 to Year 7 of operation, an increase in tonnage is expected with the increase in mined tonnes from Corner Bay and the processing of Joe Mann. At year three of operation, additional capacity at the rougher and cleaner flotation stages will be added to accommodate the increase in tonnage. At full production, the crushing plant will process an average of 831.9 Kt/y of ROM and the mill will be processing an average of 492.8 Kt/y of mineralized material. The concentrate produced will either be transported to the port of Québec City for onward shipping to international smelters or to a local smelter.

1.17. Project Infrastructure

The Project benefits greatly from substantial infrastructure in place, including the mill facility, TMF, all-weather access roads, 25 kV powerline and a 10.5 MW substation, which is sufficient for the mill power requirements, office building, core shack and water supply.

A 16 km forestry road from Québec Route 167 will be upgraded and constructed to access the Corner Bay mine site, decreasing the distance between Corner Bay and Copper Rand mill by over 9 km going one way. The Devlin mine site will be accessed via a 3.25 km upgraded road branching off from the Corner Bay road. Both mine sites are designed to be compact with required infrastructure near the portal. A substation connected to the Hydro-Québec grid and a 34 kV powerline will supply power to the Corner Bay and Devlin mines. The Joe Mann mine will utilize the existing logging roads and powerline to site.

Access to the TMF will be through a combination of a mine hauling road and a light vehicle access road. The existing access road to the TMF at Copper Rand will be used as a hauling road. The access road within the forest, east of the TMF, will be upgraded for light vehicle use only.

The filtered drystack TMF will be built on top of the existing TMF. An engineered platform will be built on the surface of the existing tailings to facilitate the construction of the drystack. The 40.1 ha footprint of the drystack will be fully lined with an impermeable liner. The facility will be built against the hill located southeast of the facility. A staged construction process is proposed to minimize the stack footprint, quantity of contact water, and encourage progressive reclamation. The stack will be built using a 10H:1V external slope with 7 m wide benches every 5 m. The final stack elevation will be 398.0 m, same as the highest elevation of the adjacent hill. The proposed stack geometry follows the hill topography promoting visual integration within the landscape.

The proposed TMF has capacity to be expanded to approximately 12 Mt of tailings, representing an increase of 7.5 Mt from the current design of 4.5 Mt. The quantity of tailings to be produced over the 10.5-year mine life is 3.62 Mt.

Surface water diversion and collection channels for non-contact and high sediment/contact water, culverts, and high sediment/contact water containment structures, including a water treatment plant, will be built for each of the mine sites.

1.18. Market Studies and Contracts

No market studies or product valuations were completed as part of this PEA. Market price assumptions were based on a review of public information, industry consensus, standard practice, and specific information from comparable projects.

Table 1-5: Metal prices and exchange rate used for PEA study.

Description	Unit	24-month trailing average to March 31, 2022
Copper	US$/lb	$3.75
Gold	US$/oz	$1,820
Exchange rate	USD:CAD	1.28

Doré Copper has an offtake agreement with Ocean Partners Limited with known terms for the sale of its future concentrate production. Ocean Partners will determine the destination copper smelter for the concentrate.

1.19. Environmental Studies, Permitting, and Social or Community Impact

Several inventories and studies are underway to document the Environmental and Social Impact Assessment (ESIA) of the Project. Following receipt of provincial ESIA approval, Doré Copper will require several approvals, permits and authorizations to initiate the construction phase, operate, and close the Project. Various components of the biophysical and social environments will be the subject of specific inventories and analyses, and the assessment of impacts will take into consideration applicable mitigation measures and follow-up programs. Doré Copper will engage in formal social consultation activities with the Oujé-Bougoumou Cree Nation, the Chibougamau community as well as the Eeyou Istchee James Bay Regional Government.

Doré Copper also has to carry detailed geochemical assessments on mine rejects such as waste rock and tailings to adequately identify potential risks for acid generation or metal leaching. The results of the geochemical assessments and the ESIA will provide valuable inputs to waste and water management infrastructures designed in the Feasibility Study stage of the Project.

Doré Copper will need to comply with the requirements for mine site closure and rehabilitation in the province of Québec, established by the Québec regulatory authorities. The submittal and approval of a closure plan is conditional to the release of the mining lease and the beginning of mining operations. Included in sustaining costs within the scope of this PEA is the estimated reclamation and closure costs for the Project, which totals $53.6 million, including indirect costs. This cost includes site rehabilitation works as well as post-restoration monitoring as described above. The financial guarantee required by the MERN is equal to the cost of the closure works, including engineering and monitoring. The cost of the financial guarantee is estimated to be $61.4 million (including 15% contingency).

1.20. Capital and Operating Costs

1.20.1. Capital Cost

The PEA for the Project outlines an initial (pre-production) capital cost estimate of $180.6 million and sustaining capital costs over the LOM of $402.4 million, which includes the capital to restart Joe Mann and overall closure costs of $53.6 million as noted above. Initial underground capital costs include:

- The rehabilitation of the portals at Corner Bay and Devlin, facilities for water capture and treatment at both locations, construction of a powerline (16 km, 34 kV powerline to Corner Bay, and 3.25 km, 34 kV powerline to Devlin);
- A crushing circuit and mineral sorter at Corner Bay, improvements to existing roads and 4 km of new roads connecting Corner Bay and Devlin;
- A new feed material reception and mill feed conveyor, ball milling and gravity circuit, rehabilitated flotation and concentrate filtration circuit and new tailings filtration circuit at the mill; and
- The preparation of an area on the existing TMF for the placement of filtered tailings, and a water treatment facility.

Table 1-6: Capital cost estimates

Cost Element	Initial Capital ($M)(1)	Sustaining Capital ($M) (1), (3)
Mine Costs		
Corner Bay	14.8	247.3
Devlin	7.0	0.4
Joe Mann(2)	0.0	51.9
Processing (including Mineral Sorting)	54.2	1.1
Infrastructure	34.5	15.5
Tailings	13.8	16.7
EPCM and Indirect Costs(4)	22.8	5.5
Owner's Costs(4)	9.9	3.1
Subtotal Capex	**157.1**	**341.6**
Contingency(5)	23.6	7.2
Reclamation and Closure	0.0	53.6
Total Capex	**180.6**	**402.4**

Notes:

(1) All values stated are undiscounted. No inflation or depreciation of costs were applied.

(2) Contingency, owner's costs, EPCM and indirect costs on Joe Mann's initial capital also included in the sustaining capital.

(3) Sustaining capital does not include salvage values, estimated at $17 million for all sites.

(4) Includes owner's costs of 8%, construction indirect costs of 10%, and EPCM of 12% for mill and tailings and 4% for mining of direct costs.

(5) Includes contingency of 15% for all initial capital, owner's costs, construction indirect costs, and EPCM.

1.20.2. Operating Cost

Operating cost estimates were developed using first principles methodology, vendor quotes received from Q4 2021 to Q1 2022, and productivities being derived from benchmarking and industry best practices. Over the LOM, the average operating cost for the Project is estimated at $106/t mined and $186/t milled (Table 1-7).

The average cash operating costs over the LOM is US$1.35/lb CuEq and the average all-in sustaining cost (AISC) is US$2.24 /lb CuEq.

Table 1-7: Operating cost estimates

Cost Element	Average LOM
Mining	\$61/t mined / \$108/t milled
Processing (including Mineral Sorting)	\$32/t milled
Tailings(1)	\$7/t milled
Infrastructure and Transport G&A	\$28/t milled \$12/t milled
Total operating costs	**\$186/t milled**
Cash operating costs(2)(4)(5)	**US\$1.35 /lb CuEq**
All-in sustaining costs(3)(4)(5)	**US\$2.24 /lb CuEq**

Notes:

(1) Tailings filtration costs are in processing costs.

(2) Cash operating cost includes mining, processing, tailings, surface infrastructures, transport, and G&A to the point of production of the concentrate at the Copper Rand site divided by copper equivalent pounds produced. It excludes off-site concentrate costs, sustaining capital expenses, closure/rehabilitation and royalties. CuEq calculation assumes metal base case prices.

(3) AISC includes cash operating costs, sustaining capital expenses to support the ongoing operations, concentrate transport and treatment charges, royalties and closure and rehabilitation costs divided copper equivalent pounds produced.

(4) Copper equivalent (CuEq) costs uses only payable gold in concentrate and is applied as a credit against costs.

(5) Cash operating cost and AISC are non-IFRS financial performance measures with no standardized definition under IFRS.

(6) Numbers may not add up due to rounding.

1.21. Economic Analysis

The economic/financial assessment of the Project was carried out using a discounted cash flow approach on a pre-tax and after-tax basis, based on consensus equity research, long-term commodity price projections in the United States currency, and cost estimates in Canadian currency. Current Canadian and Québec tax regulations were applied to assess the corporate tax liabilities, while the most recent provincial regulations were applied to assess the Québec mining tax payments.

The pre-tax base case financial model resulted in an IRR of 30.7% and a NPV of \$367 million using an 8% discount rate. The pre-tax payback period after start of operations is 4.2 years.

On an after-tax basis, the base case financial model resulted in an IRR of 22.1% and a NPV of \$193 million using an 8% discount rate. The after-tax payback period after start of operations is 5.5 years.

1.22. Adjacent Properties

There are no significant or relevant mineral resource properties immediately adjacent to the Corner Bay-Devlin, Joe Mann, and Copper Rand properties.

1.23. Other Relevant Data and Information

Doré Copper has several early explorations to advanced-stage exploration properties having either a NI 43-101 MRE or historical resources that with further exploration could result in an increase in Mineral Resources and over time could be incorporated into the proposed hub-and-spoke operation, thereby enhancing the economics of the Project.

Doré Copper plans to proceed directly to a Feasibility Study due the brownfield status of the Project and will continue the permitting process. Upon completing the Feasibility Study, expected in Q4 2023, Doré Copper will evaluate its options to advance the detailed engineering and construction of the Project.

1.24. Interpretations and Conclusions

This PEA demonstrates the economic viability of developing the Project utilizing a hub-and-spoke concept and with the high-grade Corner Bay copper-gold deposit as its main underground mine, along with the Devlin copper deposit and the Joe Mann deposit providing feed to its Copper Rand mill. This Report provides a summary of the results and findings from each major area of investigation. Standard industry practices, equipment and processes were used. To date, the (QPs) are not aware of any unusual or significant risks or uncertainties that could materially affect the reliability or confidence in the Project based on the information available.

The following conclusions are based on the detailed review of all pertinent information made by the QPs:

- There is good understanding of the geology and nature of the copper and gold mineralization of the Corner Bay, Devlin and Joe Mann deposits;
- The operations will start with the underground development of the Devlin deposit via a ramp, followed by the underground development of the Corner Bay deposit via a ramp. After the Devlin deposit is mined out after approximately 4 years, production at the Joe Mann mine would start. Joe Mann benefits from an existing headframe and shaft, including all surface infrastructure;
- The selected flowsheet for processing material from the deposits includes mineral sorting, grinding, gravity and flotation. Based on the testwork results and the proposed mining plan at the time, the overall projected Cu recovery is 93.3%;

- The environmental baseline work completed to date is sufficient to support a PEA. Further work is underway, as required, to support the ESIA process and permit applications for the Project;
- The production mine plan and schedule provide continuous feed to the Copper Rand mill. The Project generates 9.15 Mt of mined mineralized material at 2.61% Cu and 0.59 g/t Au. Mining production occurs over a 10.5-year period with an average production rate of 2,385 t/d;
- The initial (pre-production) capital cost estimate is $180.6 million and sustaining capital cost estimate over the LOM is $402.4 million, which includes the capital to restart Joe Mann and overall closure costs of $53.6 million; and
- The Project generates cumulative cash flow of $455 million on an after-tax basis and $747 million pre-tax.

1.25. Recommendations

The mutual conclusion of the Qualified Persons (QPs) is that the Project as summarized in this PEA, contains adequate detail and information to support the positive economic outcome shown. The results of this study indicate that the Project is technically feasible and has financial merit at the base case assumptions considered.

In summary, the QPs recommend that the Project proceeds to the Feasibility Study phase. It is also recommended that environmental and permitting continue as needed to support the Project's development plans and the Project schedule. Concurrently, it is recommended that Doré Copper continues its exploration program.

2. Introduction

2.1. Overview

This Technical Report (the Report) was prepared and compiled by BBA Inc. (BBA) under the supervision of the Qualified Persons (QPs) named herein at the request of Doré Copper Mining Corp. (Doré Copper). BBA is an independent engineering consulting firm headquartered in Montréal, Québec, Canada.

Doré Copper is pursuing a hub-and-spoke development strategy that would see the Corner Bay copper-gold deposit serve as the main underground mine along with the Devlin copper deposit and the former Joe Mann gold mine providing feed to its Copper Rand mill (collectively, the Project). All assets are currently 100% owned by the company or in the case of the Joe Mann mine, Doré Copper holds the option to earn a 100% interest.

The purpose of the Report is to summarize the results of the Preliminary Economic Assessment (PEA) for the Project. This Report has been prepared in accordance with the provisions of National Instrument 43-101 Standards of Disclosure for Mineral Projects, including Companion Policy 43 101CP and Form 13 101F1. The Report supports the Doré Copper May 10, 2022, news release "Doré Copper Announces Preliminary Economic Assessment for Restarting Chibougamau Mining Camp".

This Report was prepared under the supervision of the QPs named herein with contributions from BBA, SLR Consulting (Canada) Ltd. (SLR), SRK Consulting (Canada) Inc. (SRK), and WSP Inc. (WSP).

2.2. Basis of the Technical Report

Doré Copper engaged engineering consulting group BBA (BBA) to lead the PEA study, with the contributions from several independent consulting firms including SLR, SRK, and WSP.

This Report was prepared at the request of Mr. Ernest Mast, President and CEO of Doré Copper. As of the date of this Report, Doré Copper is an exploration and development company trading on the Toronto Stock Venture Exchange (TSX-V) under the trading symbol DCMC and OTCQX under the trading symbol DRCMF.

The Doré Copper corporate office is situated at:

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2.3. Study Contributors

A summary of the PEA contributors and their general areas of input are presented in Table 2-1.

Table 2-1: Primary PEA contributors

Consulting Firm or Entity	Scope of Services
BBA Inc.	▪ Mine engineering ▪ Mine capital and operating costs ▪ Surface infrastructure design and capital costs ▪ Metallurgical testwork analysis and process plant design ▪ Process plant capital and operating costs ▪ General and administration operating costs ▪ Financial analysis ▪ Overall NI 43-101 integration
SLR Consulting (Canada) Ltd.	▪ Mineral Resource estimation ▪ Geological technical information ▪ QA/QC review of drilling and sample data
SRK Consulting (Canada) Inc.	▪ Tailings geotechnical engineering ▪ Filtered tailings management facility (TMF) design and capital costs ▪ High-sediment and contact water management at the TMF
WSP Inc.	▪ Mine closure requirements and closure cost estimate

2.4. Report Responsibility and Qualified Persons

The individuals listed in Table 2-2, by virtue of their education, experience and professional association, are considered QPs as defined by NI 43-101, and are members in good standing of appropriate professional institutions. All persons and their respective companies listed are independent of Doré Copper, as defined by NI 43-101.

The QPs have supervised the preparation of this Report and take responsibility for the contents of the Report as set out in Table 2-2. Each QP has also contributed relevant figures, tables and portions of Sections 1 (Summary), 25 (Interpretation and Conclusions), 26 (Recommendations), and 27 (References).

Table 2-2: Qualified Persons and areas of report responsibility

Qualified Person	Consultant	Site Visit	Section Responsibility
Mathieu Belisle	BBA Inc.	September 27 to 30, 2021	Sections 2, 3, 18.5.1, 18.5.2, 21.4.2, 24 and the relevant portions of Sections 1, 25, 26, and 27.
Priyadarshi Hem	BBA Inc.	No Site Visit	Sections 15, 16, 20.2.2, 20.2.3 and 21(except 21.3.4.2, 21.3.5, and 21.4.3) and the relevant portions of Sections 1, 25, 26, and 27.
Patricia Dupuis	BBA Inc.	September 27 to 30, 2021	Sections 13,17, 21.4.3 and the relevant portions of Sections 1, 25, 26, and 27.
Colin Hardie	BBA Inc.	September 6, 2017	Section 22 and the relevant portions of Sections 1, 25, 26, and 27.
David Willock	BBA Inc.	No Site Visit	Sections 18 (expect 18.5) and the relevant portions of Sections 1, 25, 26, and 27.
Luke Evans	SLR Consulting (Canada) Ltd.	July 17-18, 2018	Sections 4 to 12, 14 and the relevant portions of Sections 1, 25, 26, and 27.
Jean-François St-Laurent	SRK Consulting (Canada) Inc.	April 30, 2021	Sections 18.5.3, 18.6, 20.2.1.1, 20.2.4 and 20.2.5 and the relevant portions of Sections 1, 21, 25, 26, and 27.
Simon Latulippe	WSP Inc.	No Site Visit	Sections 20, with the exception of Sections 20.2.1.1, 20.2.2, 20.2.3, 20.2.4 and 20.2.5, and the relevant portions of Sections 1, 25, 26, and 27.

The following list describes which Qualified Persons visited the site(s), the date of the visit, and the general objective of the visit:

- Mathieu Bélisle, visited the sites from September 27 to 30, 2021 to conduct an assessment of the Project as hub-and-spoke development strategy. The visit included: Corner Bay, Delvin, Joe Mann properties as well as the Copper Rand mill complex and existing TMF;
- Patricia Dupuis visited the Copper Rand mill from September 27 to 30, 2021 to conduct a review of the actual installation;
- Colin Hardie visited the Copper Rand mill on September 6, 2017 to conduct a review of the actual installation;
- Luke Evans conducted a site visit from July 17-18, 2018. The visit included the Corner Bay and Cedar Bay properties;
- Jean-François St-Laurent conducted a site visit on April 30, 2021. The visit included the Copper Rand existing TMF.

2.5. Personal Inspection of the Doré Copper Properties

The QPs inspected the Doré Copper project sites on the dates shown in Table 2-2 above.

2.6. Effective Dates and Declarations

This Report supports the Doré Copper news release "Doré Copper Announces Preliminary Economic Assessment for Restarting Chibougamau Mining Camp" dated May 10, 2022.

The basis for the PEA uses an updated Mineral Resource Estimate (MRE) for the Corner Bay deposit (effective date March 30, 2022) and previously published MRE for Devlin and Joe Mann, respectively October and July 2021, restated with an updated effective date of March 30, 2022. Cedar Bay has an effective date of December 31, 2018. The PEA reports on Mineral Resources, not Mineral Reserves.

The overall effective date of the Report is taken to be the date of the financial analysis and is May 9, 2022.

As of the effective date of this Report, the QPs are not aware of any known litigation potentially affecting the Project. The QPs did not verify the legality or terms of any underlying agreement(s) that may exist concerning the permits, royalties or other agreement(s) between third parties.

The results of this Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Doré Copper and the QPs. The QPs are being paid a fee for their work in accordance with the normal professional consulting practice.

The opinions contained herein are based on information collected throughout the course of the investigations by the QPs, which in turn reflect various technical and economic conditions at the time of writing. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results can be significantly more or less favourable.

2.7. Sources of Information

2.7.1. General

This Report has been completed using the aforementioned sources of information and discussions, as well as available information contained in, but not limited to, reports and documents listed in Section 27 References.

- Technical discussions with Doré Copper personnel;
- Personal inspections of the Project's properties by the QPs;
- Reports detailing mineralogical, metallurgical and grindability characteristics of the deposits, conducted by industry recognized metallurgical testing laboratories on behalf of Doré Copper;
- Internal and commercially available databases and cost models;
- Various reports covering site hydrology, hydrogeology, geotechnical and geochemistry; and
- Additional information from public domain sources.

2.7.2. BBA

The following entities or individuals provided specialist input to Mathieu Belisle, QP:

- Sylvain Boily (BBA) provided Copper Rand rehabilitation cost estimates for the Copper Rand mill; and
- Francois Marcoux (BBA) provided inputs for the industrial standards and norms for the various materials, manpower and construction costs used in the development of the process plant capital costs (Section 21).

The following entities or individuals provided specialist input to Priyadarshi Hem, QP:

- Jason Gander (BBA) provided the design and cost estimates for the mine sites complexes electrical substation, power line and electrical power distribution; and
- Neil Thompson (BBA) provided the design and cost estimates for the primary ventilation for the three mine sites.

The following entities or individuals provided specialist input to Patricia Dupuis, QP:

- Vanessa Ferrara (BBA) provided support for the development of process design criteria and process flow diagram; and
- Ben Steyn (BBA) provided crushing and grinding simulation for confirmation of equipment's capacities and sizing.

These specialists are not considered as QPs for the purposes of this NI 43-101 Report.

2.7.3. SRK

The following entities or individuals provided specialist input to Jean-Francois St-Laurent, QP:

- Julien Declercq (SRK) provided information about tailings and waste rock PAG/ML potential;

- Luan Assis (SRK) provided helped assessing the TMF slope stability; and
- Michel Noël (SRK) reviewed the proposed TMF design.

These specialists are not considered as QPs for the purposes of this NI 43-101 Report.

2.7.4. SLR

The following entities or individuals provided specialist input to Luke Evans, QP:

- Marie-Christine Gosselin (SLR) completed the data verification, compiled and analyzed the QA/QC information, and prepared Mineral Resource estimates for both Corner Bay and Joe Mann. This work was completed under the direction of Valerie Wilson and with senior review by Luke Evans; and
- Valerie Wilson (SLR) supported the QP with report compilation.

These specialists are not considered as QPs for the purposes of this NI 43-101 Report.

2.7.5. WSP

The following entities or individuals provided specialist input to Simon Latulippe, QP:

- Audrey Bédard (WSP) provided Copper Rand, Devlin, Corner Bay and Joe Mann rehabilitation cost estimates and mine closure requirements; and
- Jean Lavoie (WSP) provided the inputs pertaining to environmental studies, permitting and social or community impacts.

These specialists are not considered as QPs for the purposes of this NI 43-101 Report.

2.8. Currency, Units of Measure, and Calculations

This Report assumes that the Project will be constructed using metric units. Therefore, to the maximum extent practicable, any design work and equipment descriptions were completed and reported in metric units. Where Imperial units are reported, metric units are shown alongside in parentheses. Every effort has been made to clearly display the appropriate units being used throughout this Report.

Unless otherwise specified or noted, this Report uses the following assumptions and units:

- Currency is in Canadian dollars (CAD or $);
- All ounce units are reported in troy ounces, unless otherwise stated: 1 oz (troy) = 31.1 g;
- All metal prices are expressed in US dollars (US$);

- For financial modelling, tonnages are reported in tonne (t), with all costs reported in $/t;
- All cost estimates have a base date of the first quarter (Q1) of 2022.

This Report includes technical information that required subsequent calculations to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QPs consider them immaterial.

2.9. Acknowledgments

The authors would like to acknowledge the general support provided by the Doré Copper management team during this assignment. The Report benefitted from the knowledge and specific input of the following individuals:

- Ernest Mast, President & CEO;
- Jean Tanguay, General Manager;
- Steve Simard, Project Director;
- Sylvain Lépine, Vice-President Exploration;
- André Rinta, Exploration Manager;
- Laurie Gaborit, Vice-President Investor Relations.

Their commitment, contributions and teamwork are gratefully acknowledged and appreciated.

2.10. Forward-Looking Statements

This Report includes certain "forward-looking statements" under applicable Canadian securities legislation. Forward-looking statements include predictions, projections and forecasts and are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "estimate", "forecast", "expect", "potential", "project", "target", "schedule", "budget" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions and includes the negatives thereof. Specific forward-looking statements are not limited to the results of the PEA, including the projected production, operating costs, capital costs, sustaining costs, metal price assumptions, cash flow projections, processing mineralized material, metal recoveries and grades, concentrate grade, mine life projections, production rates at each project, process capacity, mining and processing methods, changes to the existing TMF, proposed PEA production schedule and metal production profile, estimation of Mineral Resources, estimated NPV and IRR, payback period, sensitivities, risk and opportunities outlined in the PEA, potential to further enhance the economics of the Project, securing the required permits and licenses for further studies to consider operation, advancement of on the Projects, initiating a Feasibility Study and permit applications after the PEA, completing a Feasibility Study in Q4 2023, submitting permit application with the provincial government later this year,

All statements other than statements of historical fact included in this report, including, without limitation, statements regarding the timing and ability of Doré Copper to receive necessary regulatory approvals, and the plans, operations and prospects of Doré Copper and its properties are forward-looking statements. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable, are subject to known and unknown risks, uncertainties and other factors which may cause actual results and future events to differ materially from those expressed or implied by such forward-looking statements. Such factors include, but are not limited to, actual exploration results, changes in project parameters as plans continue to be refined, future metal prices, availability of capital and financing on acceptable terms, general economic, market or business conditions, uninsured risks, regulatory changes, delays or inability to receive required regulatory approvals, health emergencies, pandemics and other exploration or other risks detailed herein and from time to time in the filings made by Doré Copper with securities regulators. Although the Corporation has attempted to identify important factors that could cause actual actions, events or results to differ from those described in forward-looking statements, there may be other factors that cause such actions, events or results to differ materially from those anticipated. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. The Corporation disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

2.11. Information Concerning Estimates of Mineral Resources

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Therefore, investors are cautioned not to assume that all or any part of an Inferred Mineral Resource could ever be mined economically. It cannot be assumed that all or any part of "Measured Mineral Resources," "Indicated Mineral Resources," or "Inferred Mineral Resources" will ever be upgraded to a higher category. The MREs contained herein may be subject to legal, political, environmental, or other risks that could materially affect the potential development of such Mineral Resources.

2.12. Non-IFRS Financial Measures

Doré Copper has included certain non-IFRS financial measures in this Report, such initial capital cost, cash operating cost and AISC per pound of copper equivalent produced, unit operating costs, and EBITDA which are not measures recognized under IFRS and do not have a standardized meaning prescribed by IFRS. As a result, these measures may not be comparable to similar measures reported by other corporations. Each of these measures used are intended to provide additional information to the user and should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS.

A description of the significant cost components that make-up the forward-looking non-IFRS financial measures cash operating cost and AISC per pound of copper equivalent produced is shown in the table below.

Total Sustaining Capital and Closure Costs	$402.4M
Total Cash Operating Costs	$966.5 M
Historical All-in Sustaining Costs	$0.0 M
Commercial Costs	$223.9 M
NSR Royalties	$13.3 M
Total All-In Sustaining Costs for AISC Calculation	**$1,606.1 M**
Mill Recovered Copper Equivalent (Mlbs)	**561.0**
Exchange Rate USD/CAD	1.28
Cash Operating Costs	**US$1.35/lb CuEq**
All-in Sustaining Costs	**US$2.24/lb CuEq**

2.13. Cautionary Note to United States Investors

Doré Copper prepares its disclosure in accordance with the requirements of securities laws in effect in Canada, which differs from the requirements of U.S. securities laws. Terms relating to Mineral Resources in this Report are defined in accordance with NI 43-101 under the guidelines set out in CIM Definition Standards on Mineral Resources and Mineral Reserves, adopted by the Canadian Institute of Mining, Metallurgy and Petroleum Council on May 19, 2014, as amended ("CIM Standards"). The U.S. Securities and Exchange Commission (the "SEC") has adopted amendments effective February 25, 2019 (the "SEC Modernization Rules") to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the U.S. Securities Exchange Act of 1934. As a result of the adoption of the SEC Modernization Rules, the SEC will now recognize estimates of "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources", which are defined in substantially similar terms to the corresponding CIM Standards. In addition, the SEC has amended its definitions of "Proven Mineral Reserves" and "Probable Mineral Reserves" to be substantially similar to the corresponding CIM Standards.

U.S. investors are cautioned that while the foregoing terms are "substantially similar" to corresponding definitions under the CIM Standards, there are differences in the definitions under the SEC Modernization Rules and the CIM Standards. Accordingly, there is no assurance any Mineral Resources that Doré Copper may report as "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources" under NI 43-101 would be the same had Doré Copper prepared the resource estimates under the standards adopted under the SEC Modernization Rules. In accordance with Canadian securities laws, estimates of "Inferred Mineral Resources" cannot form the basis of feasibility or other economic studies, except in limited circumstances where permitted under NI 43-101.

3. Reliance on other Experts

The Qualified Persons (QPs) have relied upon reports, information sources and opinions provided by outside experts, including Doré Copper personnel, as it relates to the Project mineral rights, surface rights, property agreements, concentrate offtake agreements, royalties, and fiscal situation.

The Report has been reviewed for factual errors by Doré Copper. Any changes made as a result of these reviews did not involve any alteration to the conclusions made.

As of the date of this PEA for the Chibougamau Hub-and-Spoke Complex (Report), Doré Copper indicates that there are no known litigations potentially affecting the Project.

The statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are neither false nor misleading at the date of this Report.

3.1. Taxation and Royalties

Colin Hardie, QP, has fully relied on, and disclaims responsibility for, information supplied by Doré Copper personnel and its outside consulting experts for information related to taxes, royalty agreements, and other government levies or interests, applicable to potential revenue or income from the Project. This information is used in Section 19 (Market Studies and Contracts) and Section 22 (Economic Analysis) of the Report.

3.2. Permitting and Environmental Studies

Simon Latulippe, QP, has relied on, and disclaims responsibility for, information supplied by EnGlobe Corp. personnel for information related to the information from ongoing environmental studies. This information is used in Section 20 (Environmental Studies, Permitting, and Social or Community Impact) of the Report.

4. Property Description and Location

4.1. Location

The Project is comprised of three non-contiguous project areas: the Copper Rand property, host to the existing Copper Rand mill and tailings facility and Cedar Bay gold-copper deposit, the Corner Bay-Devlin property, host to the Corner Bay and Devlin copper deposits, and the Joe Mann property, host to the former Joe Mann gold mine, located in the vicinity of the town of Chibougamau, approximately 500 km north of Montreal, in the Administrative Region of Nord du Québec (Figure 4-1). Property locations are described in this chapter using UTM coordinate system NAD 83, Zone 18 and are shown in Figure 4-1.

The Corner Bay and Devlin deposits on the Corner Bay-Devlin property are both road accessible via Route 167 from the town of Chibougamau, Québec. The town of Chibougamau is 55 km north-northwest by road from Corner Bay and approximately 32 km by road north from Devlin. Corner Bay is approximately 10 km east of Devlin.

Corner Bay and Devlin straddle the southeastern corner of Obalski Township, the southwestern corner of Lemoine Township, and the northern part of the Queylus and Dollier townships.

The Corner Bay deposit is centred at approximately 555,248 mE and 5,509,264 mN (UTM Zone 18) at the south end of Lac Chibougamau. The Devlin deposit is centred at 549,226 mE and 5,511,059 mN (UTM Zone 18) and is situated on the Devlin Peninsula at the south end of Lac Chibougamau between Inlet Bay and Dulieux Bay.

Corner Bay and Devlin are presently approximately 55 km and 35 km, respectively, by road from the Company's Copper Rand mill (Figure 4-2). With connection between logging roads, the distance between Corner Bay and the Copper Rand mill will be reduced to 46 km.

The Joe Mann property is located approximately 60 km south of the town of Chibougamau in Fancamp, La Dauversière, Gamache et Rohault Townships (Figure 4-1). The shaft of the Joe Mann mine is centered on 540,000 mE and 5,481,800 mN.

The Copper Rand property is located approximately 5 km southeast of Chibougamau in north central McKenzie Township. The centre of the claim block is located at approximately 550,836 mE and 5,527,011 mN, and the centre of the currently defined Cedar Bay mineralization is located at approximately 549,700 mE and 5,526,900 mN. Access to the Copper Rand mill and tailings facility is readily accessible by road.

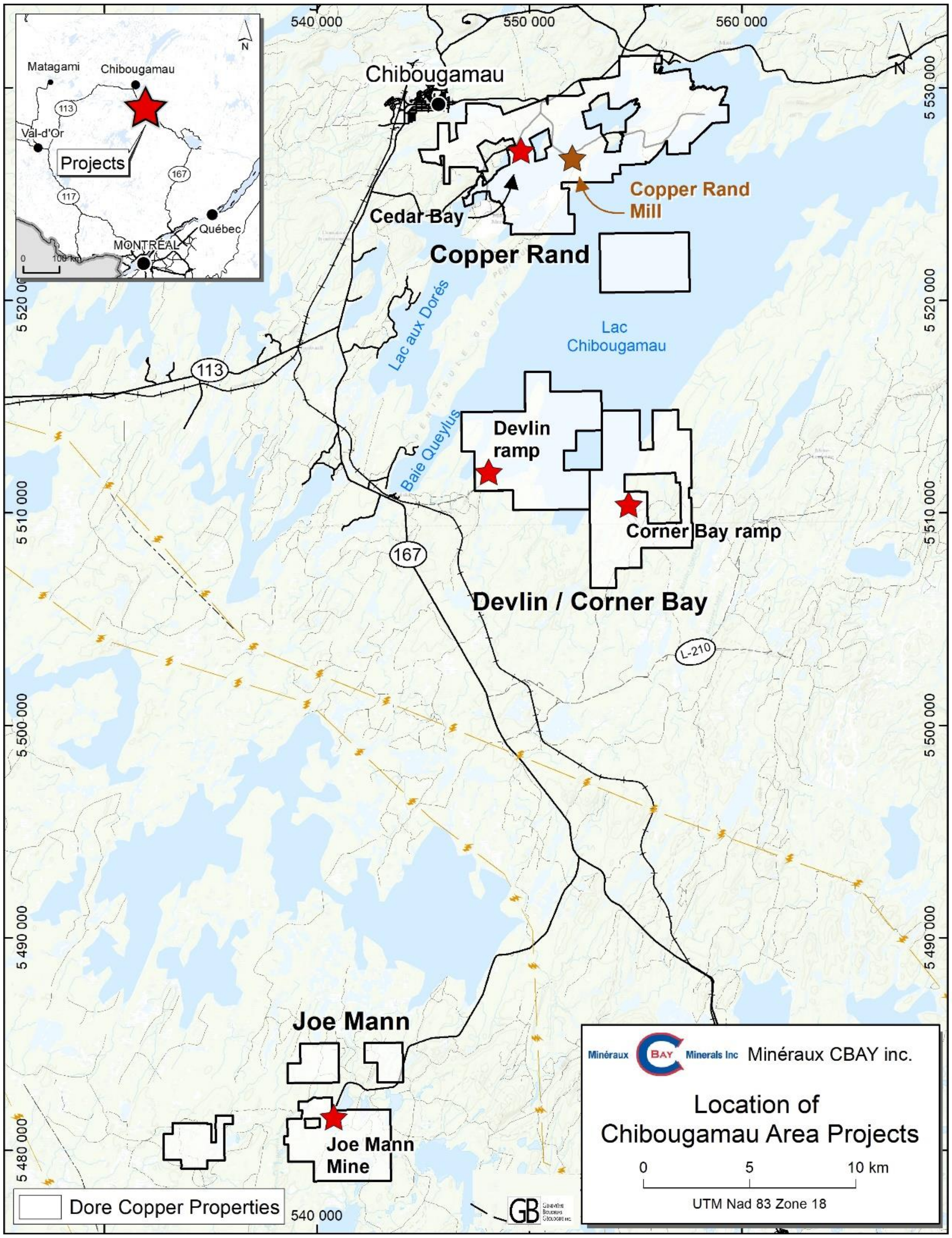


Figure 4-1 Property location map

4.2. Property Tenure

Land tenure for the properties collectively making up the Project is summarized in Table 4-1 and illustrated in Figure 4-2 to Figure 4-4. For complete land tenure information, please refer to Appendix A.

The Corner Bay – Devlin property includes one mining lease and 111 exploration claims over four areas – Corner Bay, Devlin, Baie Line, and Corner Back – covering a total land area of 5,446 ha (Table 4-1). CBAY Minerals Inc. (CBAY), a wholly owned subsidiary of Doré Copper, is the owner of all claims and leases.

Land tenure at the Copper Rand property is 100% owned by CBAY and totals 6,398 ha, including one mining lease, 19 mining concessions, and 147 exploration claims over two non-contiguous claim groups.

Land tenure at Joe Mann totals 2,732 ha within four groups of non-contiguous mineral titles, including 74 claims and two mining concessions. CBAY owns 22 of these claims (767 ha) and the remaining mineral titles (1,965 ha) are under an option agreement (see Section 4.3) between Doré Copper and Ressources Jessie, covering the former Joe Mann mine area (Joe Mann Option Property).

The properties collectively making up the Project are in good standing based on the Ministry of Energy and Natural Resources (Ministère de l'Énergie et des Ressources Naturelles, or MERN) GESTIM claim management system of the Government of Québec.

Table 4-1 Land tenure

Property / Holder / Sub-Area	Type	Count	Area (ha)	Expiry Date Range
Copper Rand				
100% CBAY	BM	1	63	20-Jan-24
	CDC	147	4,482	12-May-22 - 26-May-24
	CM	19	1,852	
Copper Rand Total		**167**	**6,398**	**12-May-22 -26-May-24**
Corner Bay - Devlin				
100% CBAY				
Baie Line	CDC	6	334	1-Jun-22
Corner Back	CDC	48	2,107	10-Dec-23
Corner Bay	BM	1	61	9-Nov-29
Corner Bay	CDC	7	164	18-Dec-23
Devlin	CDC	6	334	16-Jan-24
Devlin Ext.	CDC	44	2,446	1-Jul-23
Corner Bay - Devlin Total		**112**	**5,446**	**1-Jun-22 - 9-Nov-29**
Joe Mann				
100% CBAY	CDC	22	767	24-Oct-23 - 21-Mar-24
Joe Mann Option Property	CM	2	66	
	CDC	52	1,899	13-Feb-24 - 4-Apr-24
Joe Mann Total		**76**	**2,732**	**24-Oct-23 - 4-Apr-24**
Project Total		**355**	**14,576**	**12-May-22 - 9-Nov-29**

Notes:

1. CM: Mining Concession
2. BM: Mining Lease
3. CDC: Exploration Claim
4. A full list of land tenure claims is included in Appendix A.
5. Claim renewal is being finalized for 20 claims set to expire 12-May-22 at Copper Rand and for six claims set to expire 1-Jun-22 at Baie Line.

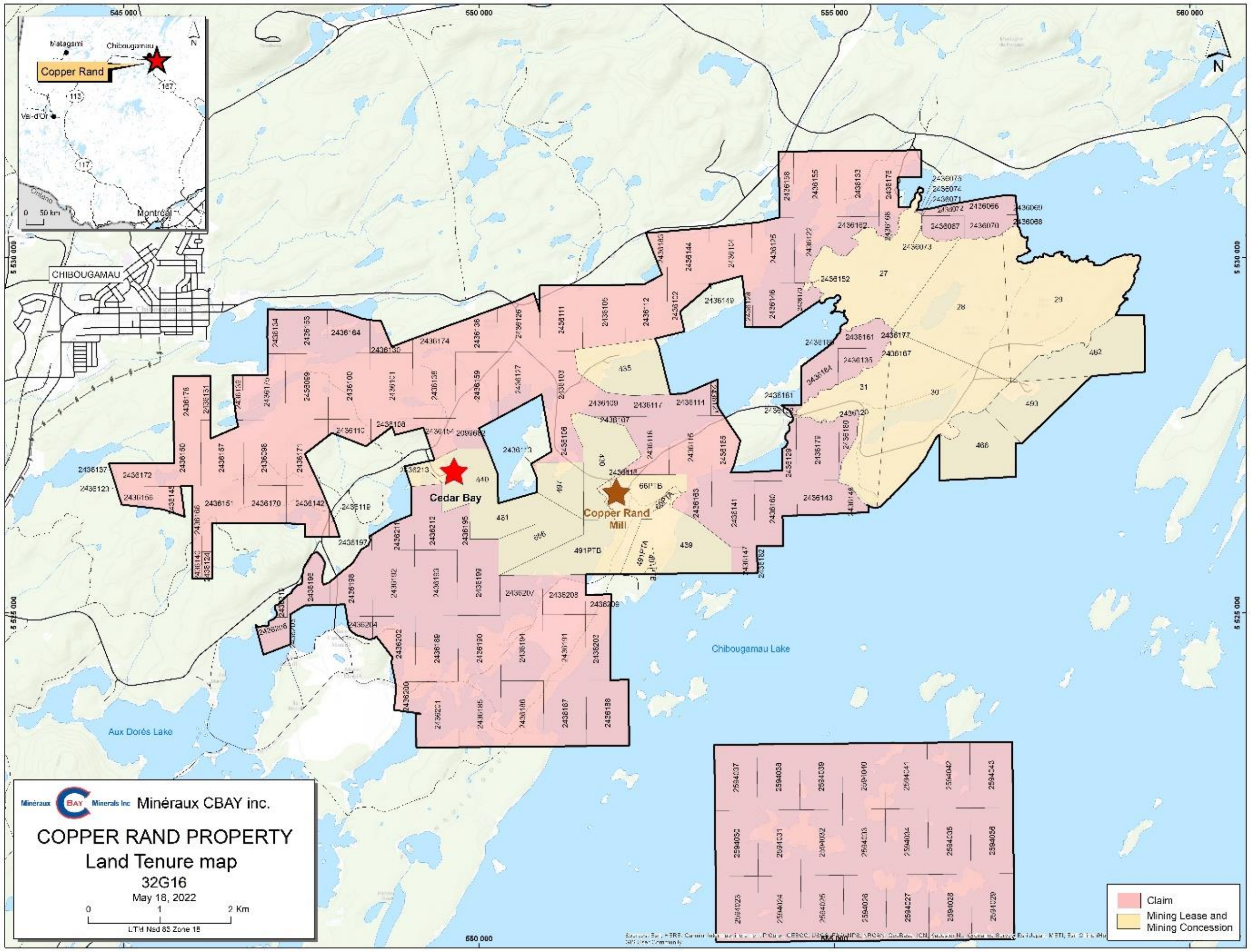


Figure 4-2 Land tenure map – Copper Rand property (Doré Copper, 2022)

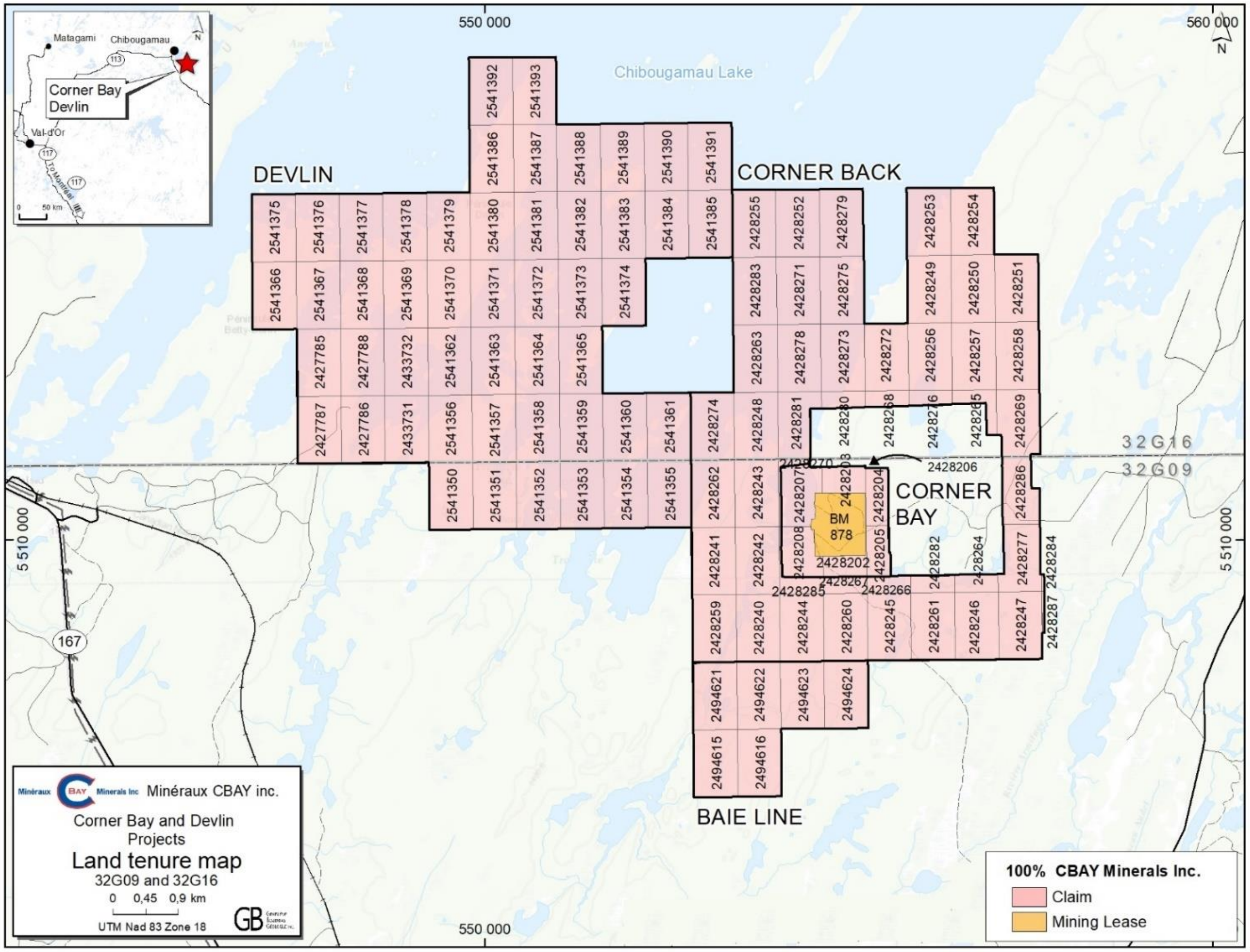


Figure 4-3 Land tenure map - Corner Bay - Devlin property (Doré Copper, 2022)

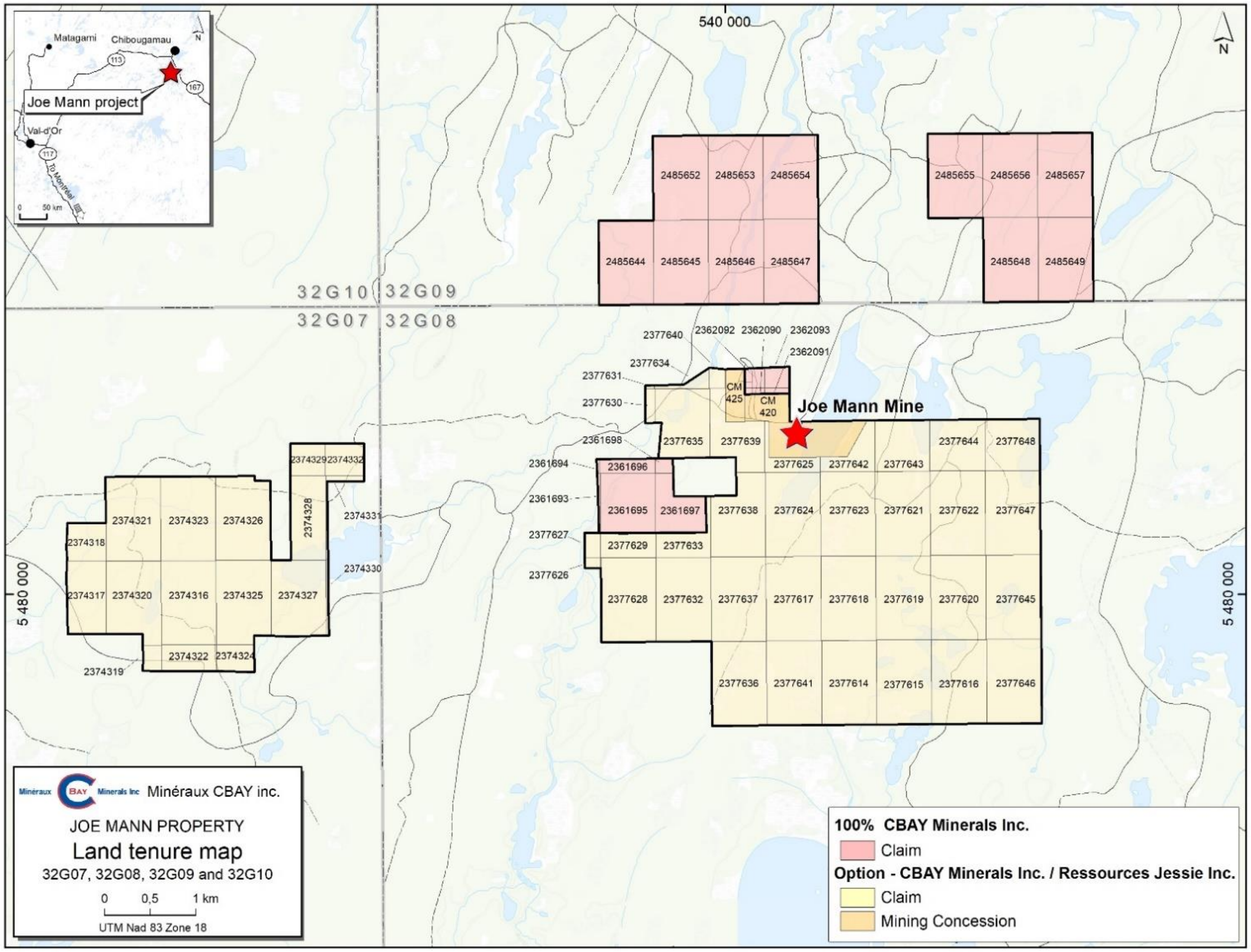


Figure 4-4 Land tenure map - Joe Mann property (Doré Copper, 2022)

4.3. Property Ownership

4.3.1. Corner Bay – Devlin and Copper Rand

On August 27, 2017, Doré Copper's predecessor AmAuCu entered into an option agreement with Ocean Partners Holdings Limited (Ocean Partners) and CBAY to acquire the Corner Bay – Devlin and Copper Rand properties. On May 31, 2019, Ocean Partners, CBAY, and Doré Copper modified the option agreement whereby Doré Copper obtained a 100% interest in CBAY in exchange for an immediate 20% equity interest in Doré Copper and, once commercial production was achieved, payments totalling $7.5 million over three years and 500,000 shares of additional equity. Ocean Partners retains off-take rights of 100% of any future production at arm's length market terms from the CBAY properties.

In September 2017, AmAuCu signed an option agreement with Vanadium Corp. Resource Inc. (Vanadium Corp) to earn a 100% interest in 48 claims totalling 2,107 ha (Corner Back claim block), which surround the Corner Bay deposit. In May 2021, Doré Copper completed the option agreement after making cash payments of $250,000. In addition, Vanadium Corp. retains a 2% net smelter return (NSR) royalty, of which 50% (or 1% NSR) can be bought back for $1 million, and upon commencement of commercial production on the Corner Back claim block, Doré Copper would make a $250,000 cash payment.

In March 2019, Doré Copper signed an agreement with Multi-Resources Boréal to acquire six claims (the Baie Line block of claims) located south of the Corner Bay deposit.

In July 2019, Doré Copper, through its subsidiary CBAY, staked 44 claims; part of the Devlin claim block.

4.3.2. Joe Mann

On January 2, 2020, Doré Copper entered into an option agreement with the registered owners, Ressources Jessie and Legault Metals Inc. (Legault), to acquire a 100% interest in 54 mineral titles including the majority of the former Joe Mann mine (the Joe Mann Option Property). During the earn-in period, Doré Copper will be the operator of the Joe Mann Option Property.

If Doré Copper successfully achieves commercial production on the Joe Mann Option Property, Doré Copper shall make an additional payment consisting of $1.0 million in cash, payable to Ressources Jessie, and $1.5 million in Doré Copper shares issuable to Legault. In addition, Doré Copper will grant Ressources Jessie a 2% NSR royalty on the Joe Mann Option Property. Doré Copper will hold the option to buy back 1% of the NSR royalty for $2.0 million, with the further option to buy back an additional 0.5% for $4.0 million.

4.4. Royalties

The Corner Bay – Devlin and Joe Mann properties are subject to NSR royalties ranging from 0% to 2%. Refer to Table 4-2 for a detailed description and Figure 4-4 for their respective location. There is no royalty on the Copper Rand property.

For clarification purposes, only the original Devlin property (four claims: CL 5114821-24) is subject to the following royalties:

1. A 15% Net Operating Profits interest (NPI) royalty payable to T. Flanagan and J. McAdam or their successors pursuant to an option agreement dated January 1, 1973, between the two prospectors and Rio Tinto Canadian Exploration Limited (Riocanex).
2. A 2% NSR between Lake Shore Gold Corp. (1.1%) and Rio Algom Exploration Inc. (0.9%) on the gross value of the mineral products exceeding US$60 million pursuant to CBAY's acquisition of the Devlin project, announced on May 2, 2013.

Table 4-2 Royalty agreements

Party	Date	NSR Value	Details
Corner Bay – Devlin property			
Corner Back claim block			
Vanadium Corp Resource Inc.	Sept.6, 2017	2%	Doré Copper has the right at any time to buy back 0.5% of the NSR royalty for a payment of $1M . Mining claims: 2428240-87
Devlin original claim block			
Rio Algom Exploration Inc. (subsidiary of BHP Billiton)	Apr. 16, 2013	0.9%	NSR of 0.9% retained by the vendors on the gross value of the mineral products from the Devlin property exceeding $60 M. Mining claims: 5114821-24 (refer to Figure 4-4)
Lake Shore Gold Corp. (now Pan American Silver Corp.)	Apr. 9, 2013	1.1%	NSR of 1.1% retained by the vendors on the gross value of the mineral products from the Devlin property exceeding $60 M. Mining claims: 5114821-24 (refer to Figure 4-4)
T. Flanagan and J. McAdam	Jan. 1, 1973	-	15% net operating profits interest royalty. Mining claims: 5114821-24 (refer to Figure 4-4)

Party	Date	NSR Value	Details
Joe Mann property			
Multi-Ressources Boreal[2]	12-Apr-18	1%	Doré Copper has the right at any time to buy back 0.5% of the NSR royalty for a payment of $125,000. Mining claims: 2485652-57, 2485644-49
David Malouf[1]	30-Aug-19	2%	No buy back option. Advanced royalty payments of $30,000 per year starting on August 30, 2021. These payments shall be a credit against the royalty payable under the purchase agreement. Mining claims: 2362090-93 (16 ha)
Ressources Jessie[2]	2 Jan - 2020	2%	Doré Copper has the right at any time to buy back 1.0% of the NSR for $2 M payment and an additional 0.5% of the NSR royalty for a payment of $4 M. Mining claims: 2374316-32; 2377614-48; CM 420, 425; and BM 799

Notes:

(1) Owned by CBAY Minerals Inc. (100%).

(2) Joe Mann Option Property.

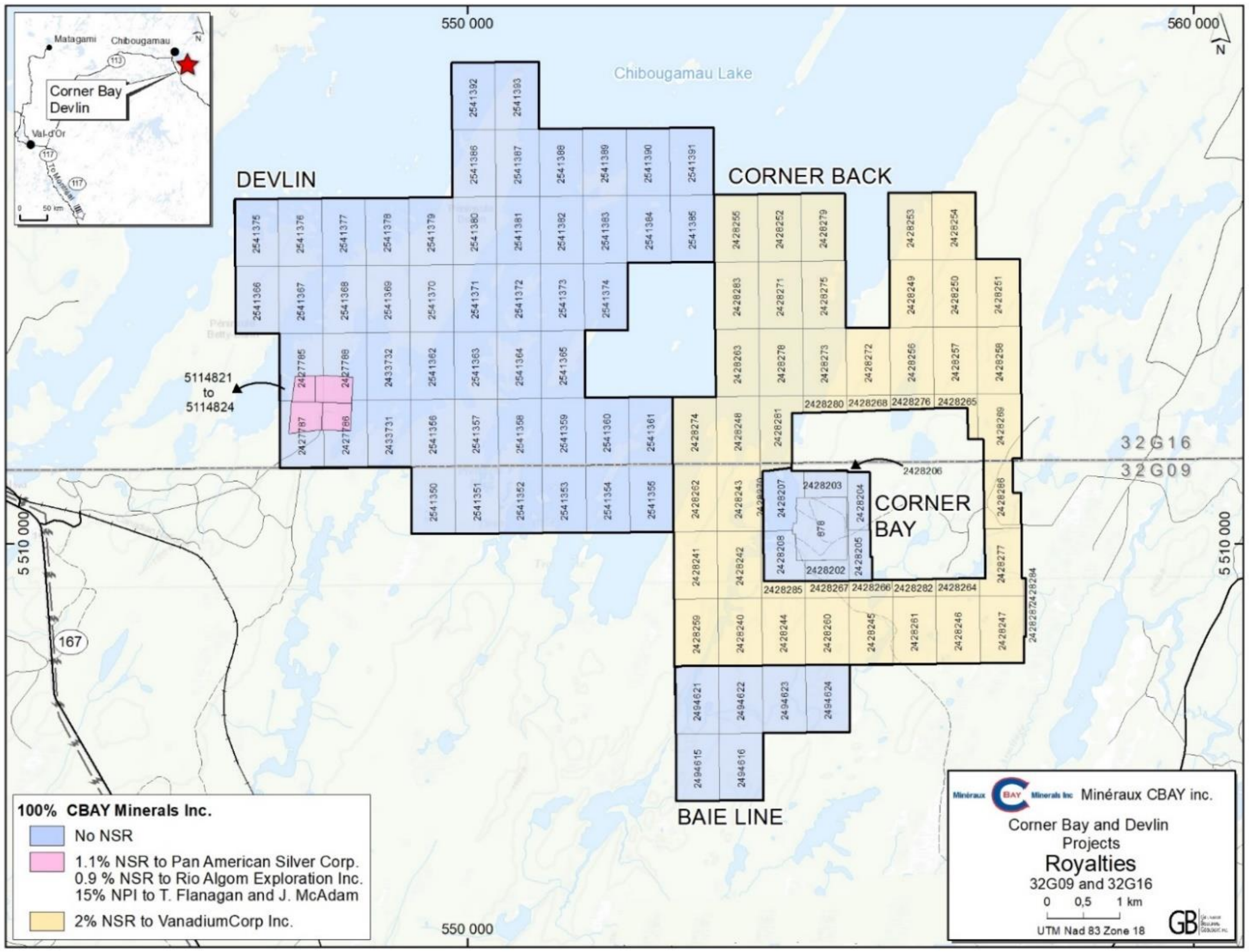


Figure 4-5 Royalty agreements map - Corner Bay – Devlin
(Doré Copper, 2022)

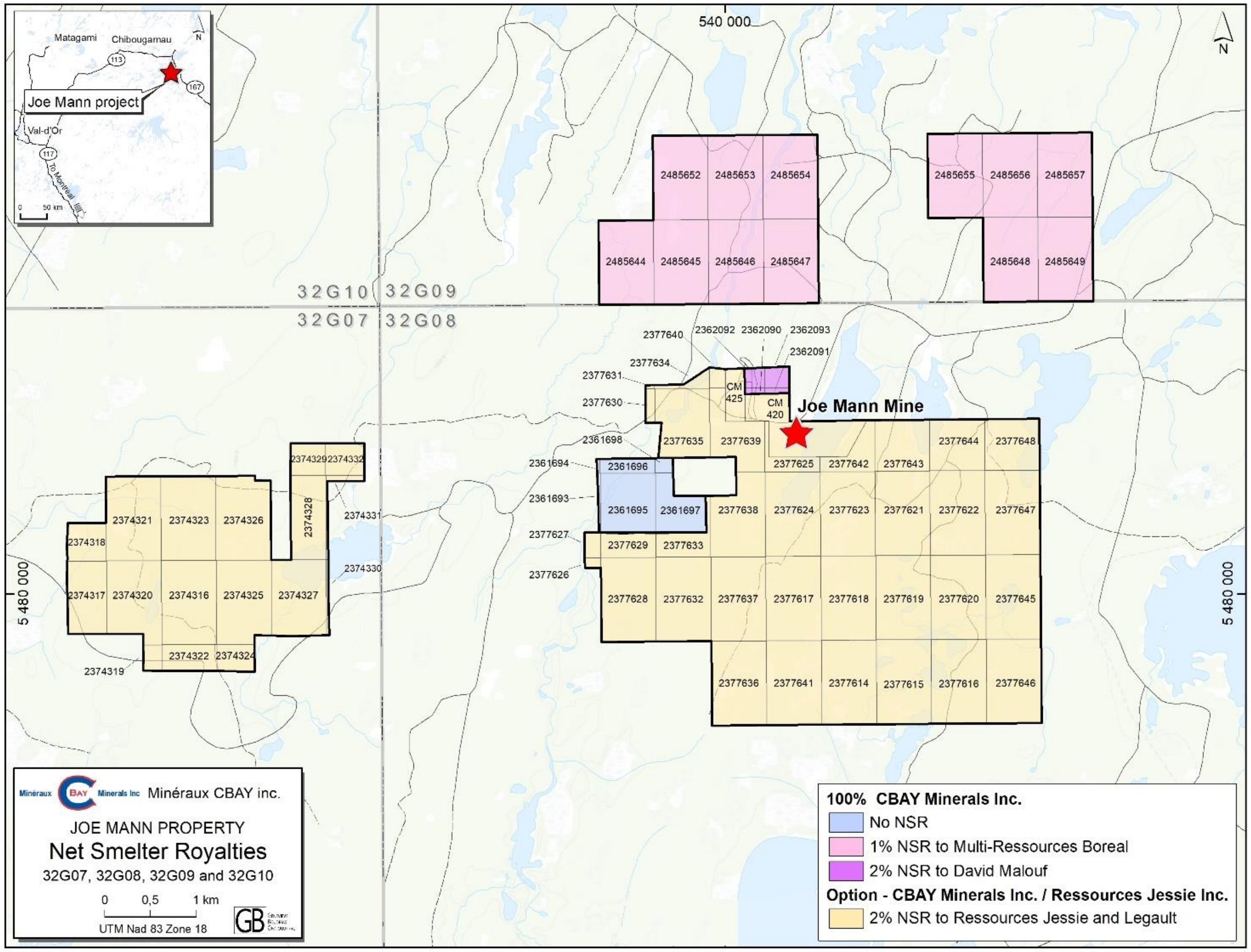


Figure 4-6 Royalty agreements map – Joe Mann
(Doré Copper, 2022)

4.5. Québec Mineral Tenure

In Québec, the Mining Act (Loi sur les mines) regulates the management of mineral resources and the granting of exploration rights for mineral substances during the exploration phase. It also deals with the granting of rights pertaining to the use of these substances during the mining phase. The Mining Act establishes the rights and obligations of the holders of mining rights to ensure maximum development of Québec's mineral resources (website: Québec Mining Act).

4.5.1. Mineral Claims

In Québec, mineral claims have pre-established positions and a legal survey is not required. A map designated claim is valid for two years and can be renewed indefinitely, subject to the completion of necessary expenditure requirements. The map designated mineral claims are approximately 54 ha but may be smaller due to areas where other rights supersede the claim. Each claim gives the holder the exclusive right to explore for mineral substances, except sand, gravel, clay, and other unconsolidated deposits, on the land subject to the claim. The claim also guarantees the holder's right to obtain an extraction right upon the discovery of a mineral deposit. Ownership of the mining rights confers the right to acquire the surface rights.

4.5.2. Mining Lease and Mining Concessions

The following information is summarized from LégisQuébec (2021).

In Québec, any person who already holds a claim or a mining concession limited to specific mineral substances as described under Section 5 of the Mining Act can obtain a mining lease (bail minier) if they can demonstrate that the deposit is mineable.

The initial term of a mining lease is 20 years, and it can be renewed every 10 years while mining continues. The above terms and conditions apply to three periods of lease renewal for a total period of 50 years. Thereafter, MERN can prolong the lease under conditions that it determines.

The holder of a mining lease is required to:

- Pay an annual rent;
- Submit a mine site rehabilitation plan before starting mining work;
- Begin mining work during the four years following the date on which the lease is issued; and
- Remit information on mining activities.

The lessee of a mining lease or the concession holder has surface access and usage rights, except when the land is used as a cemetery. On public lands, access and usage rights are limited to mining purposes only. If the land covered by the lease or concession was granted or alienated by the State, the lessee or concession holder must obtain the owner's permission to access the land and carry out work. They may acquire these rights through amicable agreement or, if necessary, by expropriation. On land leased by the State, the lessee of a mining lease or the holder of a mining concession must obtain the consent of the lessee of the land surface or pay him compensation. In the event of a disagreement, a court can determine this compensation.

The lessee or concession holder may also use adjacent land for their mining activities; however, they must do so in compliance with other laws, in particular those relating to public lands, forests, and the environment.

On lands of the domain of the State, the lessee or concession holder may purchase or rent land to set up mine tailings or any other facility required for mining purposes. They may also obtain a right of way to install transport routes or tracks, pipelines, and water conduits.

A lessee who wishes to set up a mill on land that is covered by their lease or lies outside its boundaries must first have the location approved by the MERN. The location, however, can be subjected to an environmental and social impact assessment (ESIA) or review in accordance with the Environment Quality Act, in which case the site must be approved by the Ministry of Environment and Fight Against Climate Change (*Ministère de l'Environnement et de la Lutte contre les changements climatiques*, or MELCC).

The lessee or concession holder may cut wood on the land of their lease or concession, provided that this wood is only used for the purposes of erecting buildings or carrying out mining-related activities. To do this, they must obtain a forest management permit from the Minister of Forests, Wildlife and Parks (Ministère des Forêts, de la Faune et des Parcs, or MFFP). The terms and conditions for issuing the permit vary according to the amount of wood to be cut.

Prior to the start of each year, the lessee must pay an annual rent, the amount of which depends on the use of the land surface covered by the lease:

- $23.60/ha for private land;
- $49.25/ha for lands in the public domain; and
- $0.0105/m^2 for land used for mine tailings.

The amount of the rent per hectare is stipulated in the Regulation Respecting the Sale, Lease and Granting of Immovable Rights on Lands in the Public Domain, passed by Order in Council 231-89 of February 22, 1989 (RLRQ, Chapter M-13.1, r.2).

The holder of a mining concession whose letters patent were issued after July 1, 1911, must carry out exploration or mining work each year worth at least $35/ha. In addition, the holder must submit a report detailing this work before February 1 of each year. The work may be completed on adjacent mining concessions belonging to the same concession holder. It is acceptable to the MERN that all work be performed on only one of the concessions if the total surface area of adjacent mining concessions does not exceed 2,000 ha. If a concession holder fails to carry out the required work before February 1 of each year, the holder must pay a sum equivalent to the minimum amount of the required work, namely $35/ha.

4.6. Permitting

4.6.1. Copper Rand, Devlin and Corner Bay

Doré Copper is currently preparing the Preliminary Information Statement of the Environmental and Social Impact Assessment (ESIA) to restart a hub-and-spoke operation, i.e., Copper Rand mill and TMF, and the Corner Bay and Devlin projects. The Preliminary Information Statement is the first step of the environmental and social assessment and review procedure under the Environment Quality Act (EQA). The Preliminary Information Statement for Copper Rand, Devlin and Corner Bay will be filed to the Environmental and Social Impact Evaluating Committee (COMEV) later in 2022. The COMEV will then issue a project Directive, the proponent roadmap under which the ESIA will be carried out.

4.6.2. Drilling Activities

Drilling activities at the three sites that require clearing trees for road access to the drill site or to build drill pads necessitate a tree clearing permit. The permit for tree cutting is issued by the MFFP. This permit can generally be obtained within a month. The water used in drilling can be sourced from a lake or river without a specific water use permit. The drilling operation ensures that the used water is recycled, with any excess water that is returned to a body of water having acceptable sediment levels. The municipality and First Nation community of Oujé-Bougoumou are given notice of any upcoming drilling programs. Doré Copper will apply for all required permits prior to conducting the proposed work on its properties.

4.6.3 Joe Mann Dewatering

Following the ESIA, Doré Copper will be initiating plans to dewater the former Joe Mann mine and will be completing the required studies prior to applying for an attestation of exemption (*demande d'attestation de non-assujettissement*) to COMEV of the MELCC.

4.7. Environmental Liabilities

4.7.1. Devlin and Corner Bay

The QP is not aware of any environmental liabilities on the Corner Bay and Devlin projects. Work carried out by previous owners consisted of drilling, surface exploration, and underground development, including ramp access at Corner Bay and Devlin. It is believed that this work was conducted under the necessary authorizations and permits.

The Devlin and Corner Bay properties fall within Category III lands of the Eeyou Istchee/Baie-James Territory. Category III lands are regulated such that some specific hunting and harvesting rights are reserved for the Cree Nation, while all other rights are shared subject to a joint regulatory scheme (JBNQA, 1975).

In January 2004, the Oujé-Bougoumou Cree initiated legal procedures against Campbell Resources Inc. (Campbell), the then owner of a number of mining properties in the region, claiming that the poor condition of lakes in the region of Chibougamau, Québec, was due to mining activities in the area. At the time, the Public Health Department, the Ministère de l'Environnement du Québec, and the Québec Fish and Wildlife Association began to study the issue. As a temporary measure, in 2004, Campbell and the plaintiffs agreed to request that the proceedings be suspended for one year. Subsequently, there have been a series of suspensions of the hearings and it is now postponed until June 30, 2022. Meanwhile, the former Mine Principale (1953-1979), now the property of the Québec government, is being remediated by the Québec government and the First Nations community. The proceedings have yet to be tried in the courts. Neither Doré Copper, AmAuCu, nor CBAY is a defendant in this matter.

4.7.2. Joe Mann

There is an existing waste rock stockpile and a TMF on the Joe Mann property. Doré Copper holds accountability for the waste rock stockpile and is not environmentally liable for the TMF, which is under the responsibility of the provincial government.

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

4.7.3. Copper Rand

There are existing waste rock stockpiles and two TMFs on the Copper Rand property. Doré Copper holds accountability for the waste rock stockpiles, and the Copper Rand TMF (south of mill) that has been selected as the TMF in this PEA. Doré Copper is not environmentally liable for the Eaton Bay TMF (east of Copper Rand mill) that ceased operations in the early 1970s.

The QP is not aware of any environmental liabilities on the Cedar Bay project. Work carried out by previous owners consisted of drilling, surface exploration, and underground development including shaft access at Cedar Bay, drifts and cross-cuts. It is believed that this work was conducted under necessary authorizations and permits.

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

5.1. Accessibility

The Corner Bay and Devlin properties are easily accessible by driving south from Chibougamau along Route 167. Access to Devlin is approximately 23 km south of Chibougamau to marker 209 east of Queylus Bay, then along an unnamed gravel road for 5 km. Access to Corner Bay is approximately 40 km south of Chibougamau to forestry road R-1004, then along a succession of gravel roads for approximately 15 km.

The Joe Mann property is accessed by paved and gravel roads, approximately 60 km south of Chibougamau. From provincial Highway Route 167, access is via a 19 km well maintained gravel road.

The Copper Rand site (mill, field office, and core facilities) is accessed by provincial Highway Route 167 and Chemin de Copper Rand. The mill is located approximately 8.5 km east of Chibougamau. The Copper Rand TMF is located south-south-west from the mill and is accessed by a 1.3 km privately owned gravel road.

Chibougamau is accessible by Route 167 from Lac Saint-Jean (230 km) or by Route 113 via Lebel-sur-Quevillon from Val-d'Or (415 km). Chibougamau is serviced by the Canadian National Railway (CNR). The CNR rail line also crosses the unnamed gravel road used to access Devlin approximately 700 m from the turn-off from Route 167 (Figure 4-2). Air Creebec flies in and out of the Chibougamau Chapais Airport (YMT) daily with flights to Montréal and other destinations further to the north. The airport is conveniently located less than a 30-minute drive from downtown Chibougamau.

5.2. Climate

The Corner Bay-Devlin, Joe Mann, and Copper Rand properties lie within the Abitibi Plains ecoregion of the Boreal Shield ecozone and is characterized by short warm summers and long cold, snowy winters. Mean temperatures ranging from -19°C in January to 16°C in July. At their most extreme, temperatures can reach -40°C in the winter and 35°C in the summer. Mean annual precipitation ranges from 40 mm in February to 120 mm in September. Climate data are presented in Table 5-1.

Table 5-1: Chibougamau climate data

	Unit	J	F	M	A	M	J	J	A	S	O	N	D
Temperature													
Daily Average	°C	-18.8	-16.6	-9.5	-0.5	7.9	14	16.3	14.9	9.3	2.9	-5.4	-14.8
Standard Deviation		2.8	3.4	2.7	2.1	2.1	1.8	1.1	1.4	1.4	1.8	1.9	3.5
Daily Maximum	°C	-13.4	-10.6	-3.3	5	13.7	20	22.2	20.4	13.9	6.6	-2	-10.2
Daily Minimum	°C	-24.2	-22.6	-15.6	-5.9	2.1	8	10.4	9.4	4.7	-0.8	-8.7	-19.3
Extreme Maximum	°C	8.5	9	16	28	31.5	34.5	35	33.3	29	24.4	17.8	11
Extreme Minimum	°C	-43.3	-42.8	-38	-27.2	-16.1	-5.6	-0.6	-2.2	-6	-13.3	-30	-42
Precipitation													
Rainfall	mm	2.8	1.7	8.6	28.2	71.9	95.6	120.7	105.3	123.4	66.7	31.7	3.1
Snowfall	cm	58.1	37	40.9	27.2	5.6	0.4	0	0	1.5	22.4	51.7	57
Precipitation	mm	60.9	38.7	49.4	55.4	77.5	95.9	120.7	105.3	125	89.1	83.4	60.1

Source: Environment Canada (2011)

Despite the harsh winters, drilling and geophysical surveys can be performed year-round. Geological and geochemical surveys are generally restricted to the months from May to October.

5.3. Local Resources

The population of the Eeyou Istchee James Bay Regional Government was estimated at 18,629 people (2022) and with 7,405 inhabitants in Chibougamau, the largest population in the region (2016 Census, Statistics Canada).

Chibougamau's economy is mainly based on the forestry and mining sectors. Social, educational, commercial, medical, and industrial services, a helicopter base, an airport, and a seaplane base, as well as forestry and mining offices of MERN are present in the town. Chibougamau is a mining community and has abundant skilled manpower and equipment availability. It is well serviced by heavy equipment suppliers and maintenance providers.

Telephone and mobile communication infrastructure are readily available regionally. A Hydro-Québec 161 kV power line and a CNR rail line (CFILNQ) are located along Route 167. Water is readily available on site from various sources including local lakes and creeks.

5.4. Infrastructure

The Corner Bay deposit benefits from ramp access to a vertical depth of 115 m with 2 km of development on three levels (55 m, 75 m, and 105 m). There are a few abandoned buildings in various stages of disrepair, two waste rock piles, and a sedimentation pond. The ventilation shafts and ramp portal have been secured and a locked gate prevents vehicular access to the property. Overall, the Corner Bay site and the recent drill setups are clean.

At the Devlin deposit, existing underground development (circa 1981-1982) includes a 305 m decline driven to a vertical depth of 70 m with another 305 m of exploration drifting. All surface structures have since been removed. Extensive logging activities have taken place over the Devlin property and several forestry roads are present.

At the Joe Mann mine, most of the former infrastructure has been maintained in place and is in good condition. The key current infrastructure includes:

- Two old shafts (Headframe #1 has been removed and Headframe #2 with hoist is in place);
- Office building;
- Core logging facility;
- Outdoor core storage area;
- Garage;
- Gatehouse and gate;
- Connection to the provincial hydroelectric grid; and
- Water (non-potable).

At the Cedar Bay deposit located on the Copper Rand property, an exploration shaft was sunk to the 159 m (522 ft) level with lateral development on two levels totalling 1,442 m (4,732 ft). Subsequently, a production shaft was sunk to the 1,036 m (3,400 ft) level. Production took place above the 670.5 m (2,200 ft) level. All surface infrastructure buildings including the headframe and offices have been removed. A large earth berm blocks vehicular access to this site.

The Copper Rand process plant building occupies a surface area of 2,830 m^2 and comprises crushing, fine mineralized material storage, grinding, gravity recovery of particulate gold, flotation of a copper concentrate, thickening, and filtration. The mil closed in 2008 and had a capacity to process 2,700 t/d of mineralized material. When operational, the tailings were pumped 2 km at a level elevation to the Copper Rand TMF, 1.3 km south-southwest of Copper Rand mill.

5.5. Physiography

The ecoregion is classified as having a humid, mid-boreal eco-climate. The topography is comparatively flat, with no hills rising more than 35 m in the immediate vicinity of the Project, where the elevation ranges from approximately 375 to 425 m above sea level (ASL).

The Copper Rand, Corner Bay and Devlin properties are located on generally flat ground next to Lac aux Dorés and Lac Chibougamau. In the west corner of the Devlin deposit where the Devlin decline portal was established, the elevation is in the order of 7 to 9 m above the level of Lac Chibougamau. This is the only region where outcrops of the brecciated host rock were found. Overburden deepens eastward to depths more than 15 m.

The area is moderately to densely forested by black spruce, birch, and tag alders wherever the ground is swampy. In clearings along the historic logging and drill trails, exploration grid lines, and along the shoreline the ground is typically blanketed by thick moss and Labrador tea.

The region provides habitat for moose, black bear, lynx, snowshoe hare, porcupine, beaver, wolf, and coyote. Bird species include sharp-tailed grouse, black duck, wood duck, hooded merganser, and pileated woodpecker.

The average elevation of the Joe Mann property is approximately 400 m asl, with the vertical relief being low and generally not exceeding 15 m. Most of the property is covered with overburden, which consists of a thick layer (up to 40 m) of fluvio-glacial till, with several outcrop areas present. Lakes and rivers account for approximately 10% of the project area and a swampy area covers approximately 5% of the property.

The vegetation on the Joe Mann property is predominantly conifers (balsam, tamarack, spruce, pine, and fir) with minor leafy trees (birch, aspen, and poplar) as well as muskeg areas (bogs or wetlands common to all boreal forest regions). Due to extensive logging in the project area in the last decades, only small stands of original forest remain around the lakes. The land is not used for agriculture.

Corner Bay, Devlin and Joe Mann are at the Mineral Resource development stage. The QP is of the opinion that, to the extent relevant to the mineral projects, there is a sufficiency of surface rights and water for mining operations.

6. History

6.1. Ownership, Exploration, and Development History

6.1.1. Corner Bay - Devlin

6.1.1.1. Corner Bay

The following summary of the exploration and development work on Corner Bay is mainly taken from Campbell's Technical Report on Corner Bay (Geostat, July 2006).

From the identification of Corner Bay as a prospect in 1956 until 1972, eight drilling programs totalling 1,463 m and various geophysical and electromagnetic (EM) surveys were completed on the property.

From 1973 to 1974, Riocanex and Flanagan McAdam jointly explored the Corner Bay property, as well as claims to the southeast of Lac Chibougamau. Work included ground geophysical surveys and 17 diamond drill holes totalling 2,055 m to test four northwest-southeast striking geophysical anomalies identified by the Québec Ministry of Natural Resources' regional airborne magnetic-EM survey (1972). This work led to the discovery of four small, mineralized zones (Zones A, B, C, and D) with only Zones C and D being weakly mineralized with copper and containing significant amounts of pyrite. From 1975 to 1976, four diamond holes totalling 1,219 m completed on Zone A returned some marginal and/or sub-economic copper values.

In 1979, Flanagan McAdam formed Corner Bay Exploration Ltd. (Corner Bay Exploration). Between 1979 and 1981, Corner Bay Exploration carried out a drilling program of 22 holes totalling 2,488 m (Campbell, Annual Report 2007). In addition, the drilling on a geophysical anomaly 500 m long led to the discovery of the West Zone.

In early 1982, Riocanex entered into an agreement with Corner Bay Exploration, whereby it could earn up to a 55% interest in the Corner Bay property, then increased with 331 claims to cover possible extensions of the zones. The Main Zone was discovered in March 1982 by drilling a weak north-south trending EM conductor. The Main Zone is parallel to the West Zone and is located less than 500 m to the east. Riocanex completed 38 holes totalling 14,470 m on these two zones. The Main Zone was defined to a vertical depth of 400 m and a "Mineral Reserve" of 1.5 Mt at 4.0% Cu was reported (Table 6-1). The QP notes that this estimate is historical in nature and should not be relied upon. However, it is considered relevant as it gives indication of mineralization at the property. Other work during this time included metallurgical tests on 41 samples from the Main Zone by Lakefield Research of Canada Ltd. (Lakefield).

In 1984, Riocanex withdrew from the project after completing a pre-feasibility study (PFS) and Preussag Canada Ltd. (Preussag) acquired an option to earn a 25.1% interest in the property. Preussag completed 16 drill holes totalling 6,815 m on the Main Zone in 1984 and 1985 followed by geophysical surveys on the property.

In 1988, Corner Bay Exploration completed 68 vertical holes in two phases: 53 vertical holes were carried out to verify the thickness of the overburden over the Main Zone and 15 diamond drill holes totalling 932.3 m were drilled to check the thickness and extent of the oxidized and supergene enriched zone of the Corner Bay deposit.

In 1989, Corner Bay Exploration commissioned Watts, Griffis and McOuat (WGM) to carry out a mineral resource estimate (MRE) at Corner Bay. WGM estimated a Mineral Resource of 1.26 Mt at 4.63% Cu using a copper cut-off grade of 3% to a vertical depth of 450 m (Table 6-1).

In 1991, Corner Bay Exploration was reorganized and became Corner Bay Minerals Inc. (Corner Bay Minerals).In 1992, Westminer Canada Ltd. carried out a geological characterization of the Corner Bay deposit with an estimate of Mineral Reserves.

From 1992 to 1994, SOQUEM optioned and acquired a 30% interest in the "Inner Block" of the Corner Bay property, including the Corner Bay deposit. SOQUEM completed 16,155 m of diamond drilling, including 34 holes totalling 13,519 m in the Main Zone and 2,635 m of exploration drilling on geological and geophysical targets, including the East, La Chib, Central, and other zones. In 1993, SOQUEM re-estimated the Mineral Reserves at 772,000 t at 6.41% Cu to a depth of 600 m using a copper cut-off grade of 3.75% (Table 6-1), following the discovery of the Main Zone below the dyke.

In 1994, Explorations Cache Inc. (Cache) and Ressources MSV Inc. (MSV) concluded an option agreement to acquire a 100% interest in the Corner Bay "Inner Block" property, held jointly by SOQUEM (30%) and Corner Bay Minerals (70%) and subject to a production royalty. Following the option agreement, Cache held a 45% interest and MSV held a 55% interest. Cache carried out engineering studies for the sinking of a pilot shaft, access road repairs (10.5 km), geotechnical surveys (seismic refraction and borehole), land surveying, and site preparation for the sinking of the shaft. In September 1995, Cache drilled one hole for 1,096 m aimed at evaluating the depth extension of the Main Zone as well as a parallel zone intersected previously at a depth of 500 m. No economic mineralization was intercepted; however, the structural extension at depth was confirmed. In October 1995, MSV acquired the remaining 45% interest when it merged with Cache.

MSV had planned to begin developing Corner Bay in the second half of 1996 by driving a ramp from surface to a final depth of 340 m. Due to a drop in copper prices at the end of the first half of 1996, MSV postponed this development. In December 1997, MSV renegotiated their October 1994 option agreement with Corner Bay Minerals and SOQUEM.

On June 30, 2001, Campbell merged, by way of plan of arrangement, with MSV and GéoNova Explorations Inc. (GéoNova). Following this merger, GéoNova and MSV became wholly owned subsidiaries of Campbell.

During the summer of 2004, 86 holes totalling 14,434 m were drilled by MSV to increase the drilling density in the upper part of the deposit. During May 2005, four NQ (47.6 mm) holes totalling 639 m were drilled in the upper part of the deposit. In the second half of 2005, eight new BQ (36.5 mm) holes were drilled, and one old hole was deepened for a total of 10,698 m. These holes were drilled to verify the continuity of the mineralized zone at depth, to the west of the diabase dyke.

In July 2006, Campbell filed the first Technical Report on the Corner Bay project reporting a MRE (Table 6-1).

From 2007 to 2008, MSV completed 14 drill holes totalling 5,166 m to increase the drilling density from 200 m to 300 m below surface. In May 2007, MSV started the development of a decline ramp on the Corner Bay deposit. The ramp extended to a vertical depth of 115 m with 2 km of development on three levels (-55 m, -75 m, and -105 m). From March to October 2008, 40,119 st (36,395 t) of mineralized material were extracted grading 2.48% Cu, 0.0127 oz/st Au (0.435 g/t Au), and 0.2039 oz/st Ag (6.99 g/t Ag). (Sources: Campbell internal monthly reports; Minopro Inc., Lapointe and Paquet 2021). In October 2008, the bulk sample exploration program was suspended due to Campbell's financial difficulties and the drop in copper prices.

In November 2008, Campbell and Nuinsco jointly agreed to terminate their Operating Consulting Agreement signed in 2006, which was subject to 50-50 sharing of future cash flow.

In 2009, Campbell entered bankruptcy and the asset emerged out of bankruptcy as part of CBAY, Ocean Partners' wholly owned subsidiary, and any royalties that existed on the property were no longer valid.

In 2012, CBAY retained Roscoe Postle Associates Inc. (RPA, now SLR) to update the MRE on the Corner Bay project (Table 6-1). The property remained inactive up to 2017 when it was acquired by AmAuCu (Doré Copper's predecessor). From October 2017 to May 2018, AmAuCu completed 14 holes, including wedges, totalling 14,047 m on the Corner Bay property and reported a MRE in June 2019 (Table 6-1).

6.1.1.2. Devlin

The following history is adapted from Nuisnco's 2015 Technical Report, prepared by AGP Mining Consultants Inc. (AGP), which referenced Pilote, 1995; Tremblay and O'Gorman, 1982; Tremblay, 1983; and WGM, 1995.

In 1972, an airborne survey flown by the MERN identified three targets on the property. The claims covering the survey responses were staked by Flanagan McAdam and optioned to Riocanex. In 1973, Riocanex undertook several geophysical surveys near the input responses, and in 1974, completed three AQ (27 mm) holes (R3-1 to R3-3) totalling 301 m. In 1975, an induced polarization (IP) survey was conducted that identified two anomalous zones interpreted to indicate the presence of sulphide more than 15% (Pudifin, 1976). From 1976 to 1978, Riocanex completed 92 diamond drill holes (R3-4 to R3-95) totalling 9,722 m. In 1978, Riocanex estimated a Mineral Reserve using a minimum thickness of 8 ft (2.44 m) and a 1.0% copper cut-off grade (Table 6-2).

This historical Mineral Reserve estimate was independently verified by Campbell Chibougamau Mines Ltd. (Camchib, later renamed to Campbell) and were within 91% of the Riocanex estimate at the same minimum mining thickness and cut-off grade. Camchib repeated the study in 1979 using a rectangular method and arrived at 1.4 M st (1.27 Mt) grading 1.72 % Cu (Table 6-2).

In 1979, Lakefield conducted flotation tests of 21 drill core samples submitted by Riocanex to try to produce a high-grade copper concentrate (Wyalouzil and Sarbutt, 1979). During the same year, Camchib and Falconbridge Copper jointly carried out an 11-hole AQ drill program totalling 1,017 m (R3-96 to R3-106) to check the validity of the drill pattern and to narrow the drill pattern down to approximately 100 ft (30 m) in certain locations. Falconbridge Copper dropped out of the joint venture agreement with Camchib and retained no interest in the property.

In April 1981, S.E. Malouf Consulting Geologists Ltd. (Malouf) estimated Mineral Reserves using 1.0% Cu and 0.50% Cu cut-off grades with a dilution to a minimum height of 8 ft (2.44 m) (Table 6-2). Malouf recommended a mechanized room and pillar mining approach and provided a breakdown of estimated capital and operating costs (Malouf, 1981).

In May 1981, Camchib purchased the property from Riocanex. A. Desbarats and IREM/MER estimated Mineral Reserves (Table 6-2) using data from 106 drill holes. The study found no evidence of any systematic bias in the Riocanex grades and concluded that there was no justification for the application of a correction factor to the Riocanex Mineral Reserve estimate (Desbarats, 1981).

During the same year, Camchib completed a two-phase drilling program of 41 BQ-sized holes (R3-107 to R3-147) totalling 2,918 m in the south end of the Devlin deposit. The drilling indicated the mineralized vein is flat lying, tabular, generally planar, and has a general strike of N45°W and dip of 5° to 8° to the northwest (Tremblay, 1981). Following this drill program, Camchib estimated Mineral Reserves diluted to 6.0 ft (1.83 m) with a cut-off grade of 1% Cu (Tremblay, 1981) (Table 6-2).

In June 1981, the road into the site was upgraded to provide improved site access, overburden was stripped, and site facilities were established. The access decline was collared and 1,000 ft (305 m) of 11 ft by 15 ft (3.35 m x 4.57 m) decline was driven at 15% to intersect the mineralization at approximately 180 ft (55 m) below surface. The exploration drifting was completed along the vein confirming the continuity and grade of the copper zone (Tremblay and O'Gorman, 1982). Chip samples were collected at 10 ft (3 m) intervals along both walls in the mineralized zone and geology, alteration, mineralization, and structure along the decline and drifts were mapped in detail.

In late 1981, 2,744 st (2,489 t) of development muck was processed through the Camchib mill. From an average head grade of 1.26% Cu, a copper concentrate grading 17.79% Cu was obtained with an overall copper recovery of 96.9% (Tremblay and O'Gorman, 1982). In 1982, tests on a 100 lb (45.4 kg) sample indicated that the sample was amenable to sorting technology. The best recovery for copper of 98.75% was achieved with 39% of the sorter feed being eliminated.

In 1982, a pre-feasibility study prepared by G.R. O'Gorman of James Wade Engineering Ltd. (JWE) and A. Tremblay of Camchib concluded that the quoted "Mineral Reserves" of 1 M st of 2.25% copper did not represent a viable operation given the market price of copper in 1982. JWE added that a minimum mining width of 6 or 8 ft (1.83 or 2.44 m) was used to estimate the Mineral Reserve when in most cases the actual vein thickness is 3 ft (0.91 m) or less. JWE suggested a more selective mining method that would mine the thicker areas of the mineralization, leaving the thinner areas to be used as pillars. They also recommended more drilling and conducted a test using a room and pillar long hole mining method. The project was then put on standby following a drop in the market value of copper. The decline was later flooded, and the entrance was filled with coarse boulders.

In late 1982, Camchib completed six BQ diamond drill holes (R3-148 to R3-153) totalling 2,334 m to test the possibility of finding similar mineralized structures parallel to the main zone at greater depth, as well as the extension of the host breccia. No potentially economic intersections were encountered between the known zone and the depth of 305 m.

In 1992, Holmer Gold Mines Ltd. (Holmer) acquired Campbell's (formerly Camchib) 55% interest in the property. Riocanex retained the remaining 45% interest.

In 1995, WGM estimated Mineral Resources and Mineral Reserves (Table 6-2) for Devlin. WGM also developed a mine plan suggesting a room and pillar approach with a mining rate of 200 st/d (181 t/d) for a total annual production of 50,000 st (45,359 Mt). The anticipated mine life was four years with the potential for additional resources to be converted to minable reserves, thereby extending the mine life.

In December 2004, Lake Shore Gold Corp. (Lake Shore) completed the acquisition of Holmer.

In May 2013, Nuinsco and Ocean Partners announced that their jointly held subsidiary CBAY had acquired the Devlin project through two separate purchase agreements: Lake Shore (for its 55% interest in Devlin) and Rio Algom Exploration Inc. (formerly Riocanex) (for its 45% interest in Devlin), with the intent to provide feed for its Copper Rand mill and to supplement future production from CBAY's partially developed, high-grade Corner Bay project.

By December 2014, Ocean Partners owned a 92.5% interest in CBAY with the remaining 7.5% owned by Nuinsco. At that time, the Devlin property was comprised of one block of four claims covering an area of 59 ha (Figure 4 4). In 2015, Nuinsco commissioned AGP to provide a MRE for the Devlin project (Table 6-2). In August 2017, Nuinsco announced the sale of its 7.5% interest in CBAY to the sole other CBAY shareholder, Ocean Partners. The property remained inactive up to 2017 when it was acquired by AmAuCu (Doré Copper's predecessor).

Following the acquisition of Corner Bay and Devlin, Doré Copper increased its land position, forming a contiguous land package through staking and additional property acquisition.

6.1.2. Joe Mann

6.1.2.1. Prior Ownership

Chibougamau Explorer Ltd., which became Anacon Mines in 1954, began exploration on what would become the Joe Mann mine property in 1951, with the commencement of mining activities occurring in 1956. Anacon Mines operated the Joe Mann mine until 1960, at which point it was abandoned for a period of 13 years.

Chibex Mines Ltd. (Chibex) acquired the former Joe Mann mine in 1970, commencing a ramp and dewatering in 1973-74 and production in 1975, ultimately ceasing activities in 1976 due to financial difficulties and recovery issues. In 1980, Meston Lake Resources Inc. (Meston Lake) acquired the former Joe Mann mine property from Chibex. Société de Développement de la Baie James (SDBJ) became a partner in the former Joe Mann mine project in 1981. In 1983, Campbell Resources acquired a minority position in Meston Lake and became the operator of the former Joe Mann mine project. In 1987, SDBJ withdrew, and Campbell Resources became the sole owner of the former Joe Mann mine after acquiring all of the shares of Meston Lake. Campbell continued to hold the former Joe Mann mine property until 2007, processing Joe Mann mineralized material at Campbell' Merrill mill until 2004 and then at Copper Rand mill from 2005 to 2007.

In 2007, Gold Bullion Development Corp. (Gold Bullion), now Granada Gold Mine Inc., optioned the former Joe Mann mine property from Campbell Resources and commenced underground exploration. Gold Bullion allowed the former Joe Mann mine to flood during August 2008. In December 2008, Campbell filed for bankruptcy protection and in January 2009 obtained creditor protection under the Companies' Creditors Arrangement (CCAA). Gold Bullion did not pursue its offer to purchase the former Joe Mann mine property.

Ressources Jessie, a private company, acquired the former Joe Mann mine in July 2012 from the insolvency trustee. Ressources Jessie has only conducted surface exploration work on the property.

6.1.2.2. Exploration and Development History

In 1950, gold-bearing mineralized showings were discovered on the Joe Mann property by a prospector. The exploration conducted by Chibougamau Explorer Ltd. (and later Anacon Mines) led to the construction of a 137 m deep shaft in 1952, which was further deepened to 381 m in 1954.

The former Joe Mann mine operated underground during three different periods from 1956 to 2007.

From 1956 to 1960, 685,864 st (622,205 t) grading 0.222 oz/st (7.61 g/t Au) was extracted and milled on site to produce 135,048 oz Au at recovered grade of 0.197 oz/st (6.75 g/t) Au. Shaft No. 1 was deepened to 561 m in 1959. Low gold prices and the decrease in recovered grade caused the shutdown of mining operations in 1959. The mill was dismantled after a fire destroyed the facilities in 1961.

From 1973 to 1974, after a few years of exploration work, an exploration ramp was sunk 1.5 km west of the former Joe Mann mine. The dewatering of the shaft and reconstruction of the mine infrastructure were completed, including a 750 st/d (680 t/d) mill. From 1974 to 1975, 173,143 st (157,073 t) grading 0.154 oz/st Au (5.28 g/t Au) were processed at the mill. A low recovery grade at the mill (approximately 80%) in combination with the prevailing gold prices resulted in the mine closure.

In early 1985, the former Joe Mann mine was dewatered and underground drilling proved approximately 800,000 st (725,748 t). Commercial production commenced in April 1987. During 1989, a new production shaft (Shaft No. 2) was sunk to a depth of 625 m. During 1992, Shaft No. 2 was deepened to a depth of 816 m, opening four new levels over a lateral distance of 900 m. During 1997 and 1998, this shaft was deepened to a depth of 1,145 m, and six new levels were mined afterwards.

In 1999, operations were significantly affected by ground control problems and excessive dilution.

Development and mining operations were temporarily suspended during re-evaluation of the economic viability of the mine and the development of a new mining plan.

Mining operations resumed in April 2000, under a new mine plan using the cut and fill mining method. While this method achieved improved ground conditions, it resulted in lower than expected productivity and higher operating costs, with Campbell reporting gold production of 5,000 oz Au at a cash cost of US$330/oz Au for the month of October 2007. Given the low gold price environment at the time and the operating difficulties, Campbell temporarily suspended operations in November 2000.

Following a review of the development plan, mining resumed in April 2002 between the 716 m and 1,036 m levels using mainly the longhole mining method. Exploration activity was gradually scaled down in 2004. Mineralized material from the former Joe Mann mine was transported by truck (approximately 60 km) to the Copper Rand mill for processing. Prior to January 2005, mineralized material had been transported and processed at Campbell' Merrill mill.

Production ceased in September 2007 for several reasons, including depletion of reserves, financial difficulties, and Campbell' decision to focus on other development projects. The former Joe Mann mine was placed on care and maintenance in September 2007.

In September 2007, Gold Bullion optioned the Joe Mann mine property and completed three diamond drill holes from the 945 m level. The first hole (EE-189B) intercepted the Main Zone at 170 m underneath the lowest level (1,052 m) and returned 26.66 g/t Au and 0.40% Cu over 1.88 m and 14.72 g/t Au over 1.2 m. Hole EE-188 also intersected the Main Zone with 30.3 g/t Au and 1.3% Cu over 3.02 m, and in the South Zone, and 9.23 g/t Au over 0.91 m. Hole EE-190 did not reach the Main Zone.

Lacking the financial resources to further continue this exploration program, Gold Bullion dropped the option and the former Joe Mann mine was allowed to flood during the summer of 2008.

In July 2012, Ressources Jessie acquired the Joe Mann mine property, but conducted only surface exploration work.

6.1.3. Copper Rand

The following is mainly taken from Tanguay and Giroux (2016) and Wagg and Giroux (2013).

Mineralization at the Cedar Bay deposit located on the Copper Rand property was discovered prior to 1927 by Chibougamau McKenzie Mines Ltd. (Chibougamau McKenzie). In 1928, Chibougamau McKenzie sunk a shaft down to 26 ft (7.92 m).

In 1934, the property was purchased by Consolidated Mining and Smelting Company (Cominco) and the shaft was deepened to 522 ft (159.1 m). Two drifts were driven on the 250 ft (76.2 m) and 500 ft (152.4 m) levels for a total development of 4,732 ft (1,442 m). Cominco also completed approximately 5,000 ft (1,524 m) of drilling.

From late 1937 to early 1938, Consolidated Chibougamau Goldfields Limited de-watered the mine and completed work including 154 ft (46.9 m) of drifting, 257.1 ft (78.4 m) of cross-cutting, 3,546 ft^3 (approximately 100 m^3) of slashing, 1,613 ft (491.6 m) of channel sampling, and 434 ft (132.3 m) of test drilling (Corbett, 1938).

In 1951, CamChib acquired the property and completed 23 drill holes from surface totalling 13,456 ft (4,101 m).

From 1956 to 1958, CamChib undertook an assessment of the old shaft and sank a new shaft to 1,023 ft (311.8 m). During that period, CamChib drilled 69 diamond drill holes from surface totalling 36,828 ft (11,225 m) and completed approximately 80,000 ft (24,383 m) of underground drilling (Duquette, 1966).

From 1963 to1966, CamChib completed an additional 24 drill holes from surface totalling 5,207 ft (1,587 m).

From 1958 to 1990, production from the Cedar Bay mine totalled 4,255,700 st (3,860,707 t) grading 1.63% Cu and 3.3 g/t Au (Gervais and Blais, 1994).

Mining production stopped at the 2,200 ft (670.5 m) level. Mineralization was undercut on the lowermost 2,475 ft (754.3 m), level but was never mined due to deteriorating economic circumstances. The existing Cedar Bay shaft extended to a depth of 3,400 ft (1,036 m).

During the winter of 1985 to 1986, a 1,513 m hole was drilled to test whether the "Hanging Wall Zone" of the Copper Rand mine, then owned by Northgate-Patino, extended to the northwest onto CamChib's Cedar Bay property (Roy, 1985).

In 1987, five holes were drilled from the 2,700 ft (822.9 m) drift of the nearby Copper Rand mine to intersect the extension of the Cedar Bay deposit at depths ranging from 1,700 ft (518.1 m) to 2,500 ft (762 m).

From January 1994 to February 1995, MSV drilled an additional 10 holes from the 2,700 ft (823 m) drift at the Copper Rand mine. This drilling confirmed the extension of the Cedar Bay deposit to a depth of 4,000 ft (1,219 m). No follow-up drilling was carried out at the time because the holes drilled previously required many wedges to intersect the target zones (strong deviation within the intersected shear zones because of the small core diameter – BQ). All intercepted mineralized zones were sampled at 0.3 m to 1.5 m intervals and assayed in the on-site laboratory.

In 2013, the original drill logs for the 1994 to 1995 drill holes completed from Copper Rand to Cedar Bay were digitized along with the outline of the levels and mined veins by CBAY. Caracle Creek International Consulting (CCIC) was retained to construct a 3D digital model of the Cedar Bay deposit to aid with the planning of future exploration.

In 2016 to 2017, CBAY with the aid of Orix Geoscience Inc. undertook the digitization of available drill logs from surface drill holes on the Cedar Bay deposit. Data was entered in MS Excel format from paper drill logs for 141 holes drilled between 1934 and 1986. Logs were found to be missing for approximately 30 holes from the 1934 drilling program. Collar, assay, and downhole survey data were recorded. Assays were not included in the drill logs for 65 holes. Lithologies were only partially entered. Additional work is required to complete the data entry and to recode the lithologies to create a consistent rock code for all holes.

6.2. Historical Resource Estimates

6.2.1. Corner Bay and Devlin

Table 6-1 and Table 6-2 present summaries of historical MREs at Corner Bay and Devlin. The estimates are historical in nature and should not be relied upon, however, they do give indications of mineralization on the properties. The QP has not done sufficient work to classify them as current Mineral Resources or Mineral Reserves and Doré Copper is not treating the historical estimates as current Mineral Resources or Mineral Reserves. They are superseded by the Mineral Resource estimates in Section 14 of this Report.

Table 6-1: Corner Bay historical MREs

Estimate (Year)	Resource Types	Cut-off (% Cu)	Tonnes Mt	Cu (%)	Au (g/t)
WGM (1982)	-	-	1.5	4.00	-
WGM (1989)	-	3.00	1.26	4.63	-
SOQUEM (1993)	-	3.75	0.700	6.41	-
Geostat (2006)	Measured	2.00	0.208	4.73	-
	Indicated	2.00	0.344	5.22	-
	Inferred	2.00	1.861	5.84	-
RPA (now SLR) 2012	Measured & Indicated	2.00	0.825	3.42	0.32
	Inferred	2.00	0.734	3.33	0.28
RPA (now SLR) 2018	Indicated	1.50	1.35	3.01	0.29
	Inferred	1.50	1.66	3.84	0.27

Notes:

1. All resource estimates quoted in the above table are historical in nature and in some cases, used categories other than those defined by CIM (2014) and outdated methodologies. These Mineral Resources have not been reviewed by the QP and should not be relied on.
2. The QP has not done sufficient work to classify them as current Mineral Resources or Mineral Reserves and Doré Copper is not treating the historical estimates as current Mineral Resources or Mineral Reserves.

Table 6-2: Devlin historical MREs

Estimate (Year)[3] Method	Resource Types	No. Holes Used	Cut-off (% Cu)	Minimum Height (m)	Tonnes	Cu (%)
Riocanex (1978)	-	95	1.5	2.4	617,079	2.96
(Method unknown)	-		1	2.4	914,393	2.45
Campbell Chibougamau Mines Ltd - L. Coté (1979) Rectangular method	-	95	1.5	2.4	894,254	2.12
	-		1	2.4	1,321,105	1.72
Campbell Chibougamau Mines Ltd - Expl. Dept (1979) Triangular/Polygonal method	-	95	1.5	2.4	830,109	2.33
	-		1	2.4	932,458	2.23
S.E. Malouf (1981) Rectangular method	-	106	1	2.4	421,328	2.32
	-		1.5	2.4	586,788	2.73
	Total			**2.4**	**1,008,116**	**2.08**

Estimate (Year)[3] Method	Resource Types	No. Holes Used	Cut-off (% Cu)	Minimum Height (m)	Tonnes	Cu (%)
A. Desbarats (1981) Geostatistical (Kriging)	-	106	0.5	2.4	1,881,240	1.45
	-		1	2.4	1,539,843	1.516
Camchib A. Tremblay (1981) Rectangular block	Pot. Res. North part	147	2	1.8	158,558	2.9
	Prob. Res. South part		2	1.8	245,003	3.52
	Total (Prob + Pot)		2	1.8	403,560	3.28
	Total deposit		1	1.8	873,728	2.32
WGM (1995)	Measured & Indicated	153	2.5	1.8	78,018	3.48
	Inferred		2.5	1.8	87,997	4.33
AGP (2015) Inverse Distance Squared	Measured	174	1.6	1.8	107,900	2.9
	Indicated		1.6	1.8	304,500	2.33
	Inferred		1.6	1.8	347300	2.4

Notes:

1. All resource estimates quoted in the above table are historical in nature; and in some cases, used categories other than those defined by CIM (2014). These Mineral Resources have not been reviewed by the QP and should not be relied on.
2. The QP has not done sufficient work to classify them as current Mineral Resources or Mineral Reserves and Doré Copper is not treating the historical estimates as current Mineral Resources or Mineral Reserves.
3. Modified from WGM (1995).

6.2.2. Joe Mann

Campbell Resources reported Mineral Reserves and Resources for the former Joe Mann Mine as of December 31, 2006 (Table 6-3) (Campbell Resources, 2007). The estimate is relevant as it indicates the mineralization on the property and was prepared by Campbell' internal QP. The key assumptions are in the footnotes below the table.

This estimate is considered to be historical in nature and should not be relied upon. The QP has not completed sufficient work to classify the historical estimate as a current Mineral Resource or Mineral Reserve and Doré Copper is not treating the historical estimates as current Mineral Resources or Mineral Reserves.

Doré Copper has carried out diamond drilling in 2020-2021. The historical estimate has been superseded by the current Mineral Resource estimate in Section 14 of this Report.

Table 6-3: Joe Mann Mine historical MREs (Dec. 31, 2006)

Vein	Level (ft)	Mineral Reserves				Mineral Resources					
		Proven		Probable		Measured		Indicated		Inferred	
		Tonnage (st)	Grade (oz/st Au)	Tonnage (st)	Grade (oz/st Au)	Tonnage (st)	Grade (oz/st Au)	Tonnage (st)	Grade (oz/st Au)	Tonnage (st)	Grade (oz/st Au)
Main	Below	14,000	0.181	3,000	0.130	6,000	0.292	46,000	0.305	82,000	0.259
South	Below	3,000	0.129	3,000	0.255	3,000	1.156	9,0000	0.188	-	-
West	Below	9,000	0.242	1,000	0.429			57,000	0.222	74,000	0.208
Footwall	Below 2350	2,000	0.215	-				29,000	0.182	-	-
North	Below	4,000	0.230	-	-	-	-	-	0.239	10,000	0.209
Total		**32,000**	**0.201**	**6,000**	**0.211**	**9,000**	**0.240**	**142,000**	**0.239**	**165,000**	**0.233**
									Total Proven and Probable Reserves	**39,000**	**0.203**
									Total Measured and Indicated Reserves	**151,000**	**0.239**
									Total Inferred Reserves	**165,000**	**0.233**

Notes:

1. These estimates were verified internally by Ghislain Deschênes, Chief Geologist for Campbell Resources, a QP under NI 43-101.
2. Price assumption of US$575/oz Au and an exchange rate of USD$1.00: CAD$1.22.
3. All high-grades were cut to 2.0 oz/st (68.6 g/t) Au except the South Vein where grades were cut to 5.0 oz/st (171.4 g/t) Au.
4. Dilution of six feet minimum horizontal width.
5. Mill recovery of 84.6% for gold.
6. A tonnage factor of 11 ft3/st (0.34 m3/t) was assigned to all rock types.
7. Method used: polygon on orthogonal projection. Cut-off grade of 0.200 oz/st (6.86 g/t) Au.
8. Numbers may not add due to rounding.

6.2.3. Copper Rand

The Copper Rand mine closed in December 2008. Historical resources were reported by Campbell Resources effective January 1, 2008 (Larouche, 2008). The historical resource estimate is shown in Table 6-4 and includes two areas of mineralization: C-R 5000 and higher levels (shaft 4, shaft 6 and ramp).

This estimate is considered to be historical in nature and should not be relied upon. The QP has not completed sufficient work to classify the historical estimate as a current Mineral Resource or

Mineral Reserve and Doré Copper is not treating the historical estimates as current Mineral Resources or Mineral Reserves.

Table 6-4: Copper Rand historical resource

Category	Tonnage	Grade		Contained	
	'000 t	Cu %	Au (g/t)	M lb Cu	'000 oz Au
Proven	209	1.92	2.40	8.8	16
Probable	762	1.55	3.19	26.9	78
Proven & Probable	971	1.67	2.91	35.6	94
Measured(6)	94	1.23	2.09	2.6	6
Indicated(6)	536	1.39	2.98	16.4	51
Measured & Indicated(6)	630	1.37	2.84	18.9	58
Inferred	416	1.89	2.78	17.3	37

Notes:

1. The Copper Rand mine closed in December 2008. The Proven Reserves reported in the table were adjusted from the published Mineral Reserves at year-end 2007 by subtracting the total mined tonnes in 2008 (data sourced from Campbell Resources Q3 MD&A 2008 and internal reports for Q4 2008). The mineralized material mined in Q4 2008 was selectively high-grade and most likely brought down the remaining grade of the Proven category; accurate calculations of the copper grade of the remaining mineralized material in the Proven category is not possible as no reconciliation was done at year-end 2008. Other categories remain unchanged. The data has been converted from short tons to tonnes (x 0.907) and from oz/short ton to g/t (x 34.28).
2. Based on a copper price of US$2.75/lb, gold price of US$800/oz, and an exchange rate of USD$1.00:CAD$1.00.
3. All high gold grades brought back to 0.40 oz/t Au. All high copper grades brought back to 6.0%.
4. Mineral resources are estimated at a 1.6% Cu cut-off grade. Cut-off determined by using a copper price of US$3.25/lb.
5. Method used, polygon on orthogonal projection. Cut-off = $58 NSR
6. Mill recovery: 81.33% for gold and 96.6% for copper.

6.3. Past Production

Both the Corner Bay and Devlin deposits are unmined and so neither deposit has had past production. As part of exploration and development activities, however, both have an access ramp. A bulk sample was extracted at both Corner Bay and Devlin and returned copper recoveries of 94.0% and 96.9%, respectively, as discussed in this section and Section 13.

The cumulative production from the former Joe Mann Mine (1957 to 2007) totalled 4,754,377 t grading 8.26 g/t Au and approximately 0.3% Cu (Faure, 2012). For the nine months of operation in 2007 (prior to closure), the recovery rate was 82.7% for gold, 94.2% for copper, and 59.8% for silver.

The production summary from the former Joe Mann mine for the last four years of operation is presented in Table 6-5. After 2004, there were limited exploration and development activities.

Table 6-5: Production summary for Joe Mann Mine from 2004 to 2007 (From Campbell Resources, 2008)

	Unit	2007 (Jan. to Sept.)	2006	2005	2004
Tons Milled	st (t)	67,292 (61,046)	80,639 (73,154)	139,064 (126,157)	185,490 (168,274)
Gold Grade	oz/st Au (g/t Au)	0.181 (6.21)	0.207 (7.10)	0.254 (8.71)	0.230 (7.89)
Copper Grade	% Cu	0.22	0.29	0.34	0.23
Gold Produced	oz Au	10,092	14,146	29,434	39,175
Copper Produced	000 lb Cu	281	440	897	801
Cash Operating Costs(1)	US$/oz Au	NA	818	427	411

Notes:

(1) Operating costs include all onsite mining, processing, and administrative costs, net of copper and silver by-product credits.

Blais and Gervais (1994) reported past production from the Cedar Bay deposit of 3,860,707 t grading 1.63% Cu and 3.3 g/t Au from 1958 to 1990.

The Copper Rand mine was the largest past producing mine in the Lac Doré (Chibougamau) mining camp. It operated from 1959 to 2008 and extracted 16,445,493 st (14,919,100 t at an average grade of 1.8% Cu and 0.089 oz/st (3.05 g/t Au) (Nuinsco May 2012 Annua Report).

7. Geological Setting and Mineralization

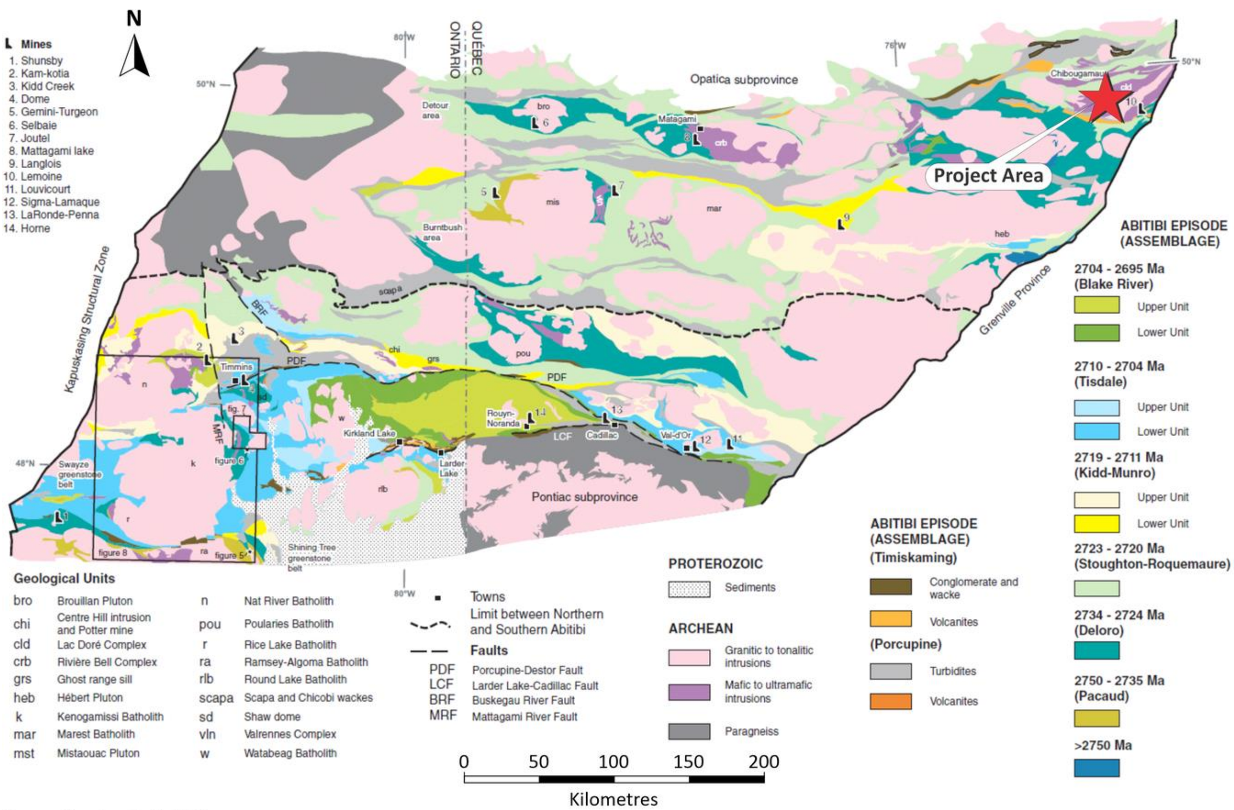
7.1. Regional Geology

The Corner Bay, Devlin, Joe Mann, and Cedar Bay deposits are located at the northeastern extremity of the Abitibi Subprovince in the Superior province of the Canadian Shield. The Abitibi Subprovince is considered to be one of the largest and best-preserved greenstone belts in the world and hosts numerous gold and base metal deposits (Card, 1990). The total value of minerals produced from this subprovince was estimated in 2005 to be greater than $120 billion (Thurston et al., 2008).

The Abitibi Greenstone Belt (AGB) has an Archean age bedrock comprising large volumes of mafic to felsic volcanic rocks overlain by and/or interbedded with sedimentary rocks, with a core of massive felsic to intermediate batholiths and plutons with various compositions (Figure 7-1). On a large scale, the stratigraphy is regarded as a sequence of laterally continuous mafic and felsic volcanic units unconformably overlain by successor basins (Figure 7-2). The AGB's early volcano-plutonic construction has been dated from ca. 2,750 Ma to 2,690 Ma (Corfu, 1993; Ayer et al., 2002).

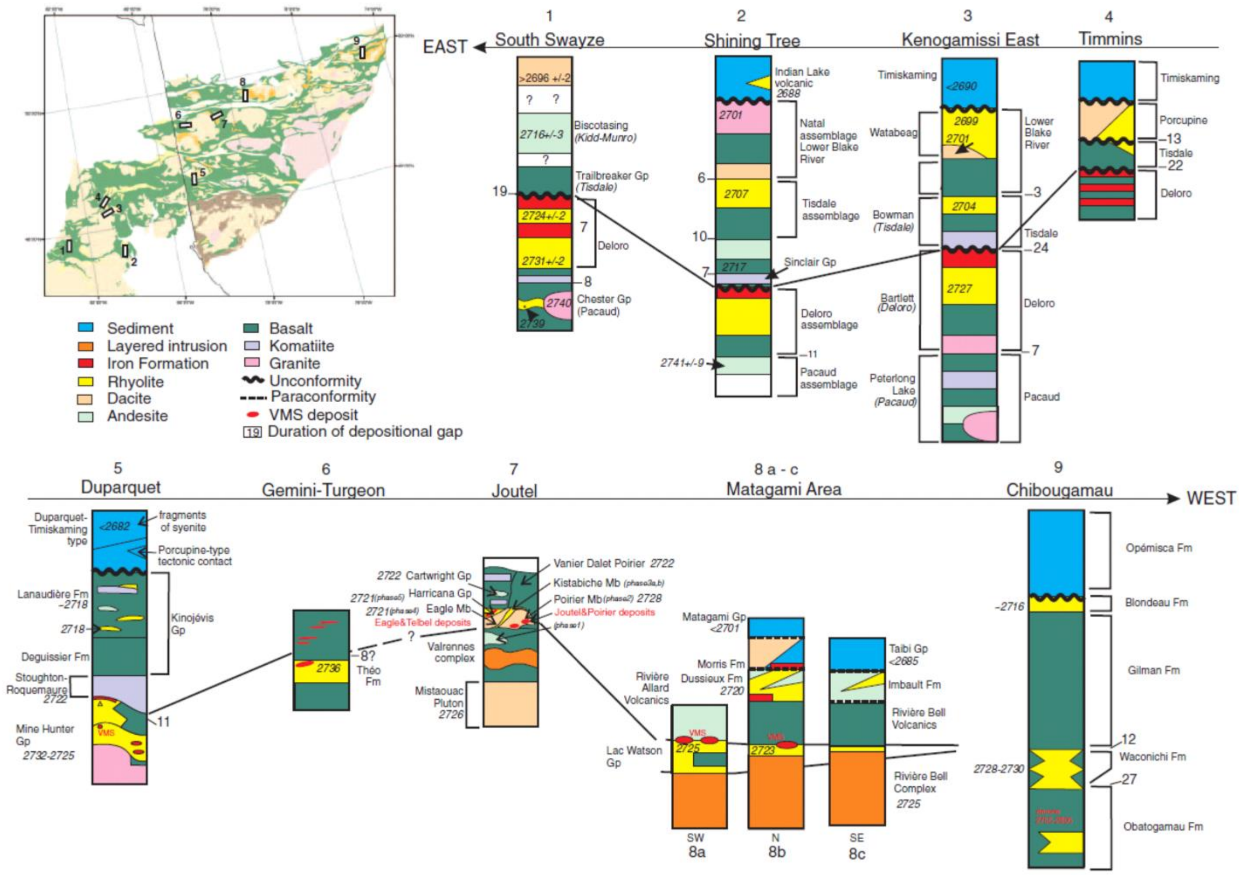
Most of the volcanic rocks, deep-water sedimentary rocks, massive subvolcanic intrusive complexes, and felsic to intermediate plutons formed during the magmatic activity referred to as the synvolcanic period (Dimroth et al., 1982; Mueller and Donaldson, 1992; Sage et al., 1996; Chown et al., 2002; Laurent et al., 2014). This period was followed by the syn- and -post-tectonic periods, characterized by erosion, sedimentation, deformation, and alkaline magmatism (Mueller and Donaldson, 1992; Chown et al., 2002; Moyen et al., 2003; Beakhouse et al., 2011; Laurent et al., 2014).

The AGB is divided into northern and southern volcanic zones based on stratigraphic and structural criteria (Ludden et al., 1986; Chown et al., 1992). Both zones are made of thick mafic volcanic successions, whereas komatiites are most abundant in the southern zone (Dimroth et al., 1982; Daigneault et al., 2004) and uncommon in the northern zone, e.g., Chibougamau area. The southern part of the AGB was originally estimated to represent a composite stratigraphic thickness of 45 km or more (Ayres and Thurston, 1985). It is characterized by internal heterogeneity and is cut by major structures such as the Cadillac-Larder Lake and Destor-Porcupine Manneville fault zones. The northern part of the AGB represents an initially complete terrane with various stages of volcano sedimentary evolution, which underwent volcanic construction and basin development, as well as several phases of deformation and plutonism (Chown et al., 1992). The AGB is renowned for its numerous gold deposits, which are mostly observed in the southern zone along major faults, such as the Cadillac-Larder Lake and the Destor-Porcupine Manneville fault zones (Daigneault et al., 2002; Bateman et al., 2008). Most gold deposits are orogenic, formed during the syntectonic period, such as the Lamaque-Sigma deposit (Taner and Trudel, 1991). The AGB also hosts many volcanogenic massive sulphide (VMS) deposits, which can be gold-rich, such as the Lemoine deposit in the Chibougamau area (Mercier-Langevin et al., 2014). These VMS form clusters around paleo-heat sources, i.e., sub-volcanic intrusive complexes, such as the Flavrian Pluton in the southern part of the AGB and the Bell River Intrusive Suite (Matagami mining camp) in the northern zone (Hannington et al., 2003; Ross et al., 2014). VMS systems are abundant in both the southern and northern parts of the AGB.



Source: Thurston et. al., 2008.

Figure 7-1: Regional geology of the Abitibi Greenstone Belt



Source: Thurston et. al., 2008.

Figure 7-2: Stratigraphic column of the Abitibi Greenstone Belt

7.2. Local Geology

The Chibougamau region is located in the northeastern part of the AGB of the Superior Province (Figure 7-1). The Archean rocks of the Chibougamau region were deformed (large-scale folds and faults) and metamorphosed (greenschist to amphibolite facies) during the Kenoran orogeny (Daigneault et al., 1990).

7.2.1. Stratigraphy

The stratigraphy of the Chibougamau region is dominated by two bimodal (mafic-felsic) volcanic cycles forming the Archean Roy Group, a 3-4-km thick basalt to basaltic andesite assemblage, which is overlain by unconformably volcaniclastic and sedimentary rocks of the Opemisca Group (Figure 7-3; Daigneault et al., 1990; Leclerc et al., 2011; Leclerc et al., 2017). The Vents Formation and the Chrissie Formation, both made of mafic lava flows, are defined as the basement of the Roy Group (Leclerc et al., 2017).

The first volcanic cycle of the Roy Group consists of the undated Obatogamau Formation, a pile of massive to pillowed tholeiitic andesite-basalt to basalt with interbedded gabbroic sills (Midra, 1989; Boucher et al., 2021). It is overlain by the 2,730 Ma to 2,726 Ma mafic to felsic lava flows and volcanoclastic units of the Waconichi Formation (Mortensen, 1993; Legault, 2003; David et al., 2012) defined as the main VMS bearing unit of the Chapais-Chibougamau area.

The Joe Mann deposit is a structurally controlled deposit hosted by the Opawica-Guercheville deformation zone. This major east-west trending deformation corridor is approximately 2 km wide and extends for over 200 km (Tait, 1992a; Pilote 1998; Leclerc et al. 2012). The structure cuts the mafic volcanic rocks of the Obatogamau Formation in the north part of the Caopatina Segment.

The second volcanic cycle (2,720 Ma to 2,717 Ma; Leclerc and al., 2011) is made, from the base to the top, of the Bruneau Formation composed of tholeiitic basalt and andesite, the Blondeau Formation dominated by calc-alkaline volcanic-sedimentary sequences, and the Bordeleau Formation consisting of mainly sedimentary rocks (Lefebvre, 1991).

The Opemisca Group representing the top of the stratigraphic column is composed of the Stella and Haüy Formations (Leclerc et al., 2017). Rocks are mainly sedimentary in nature and composition and are formed of conglomerates, subarkoses, claystones, and potassic-enriched interstratified lenses of andesite lavas.

7.2.2. Intrusive rocks

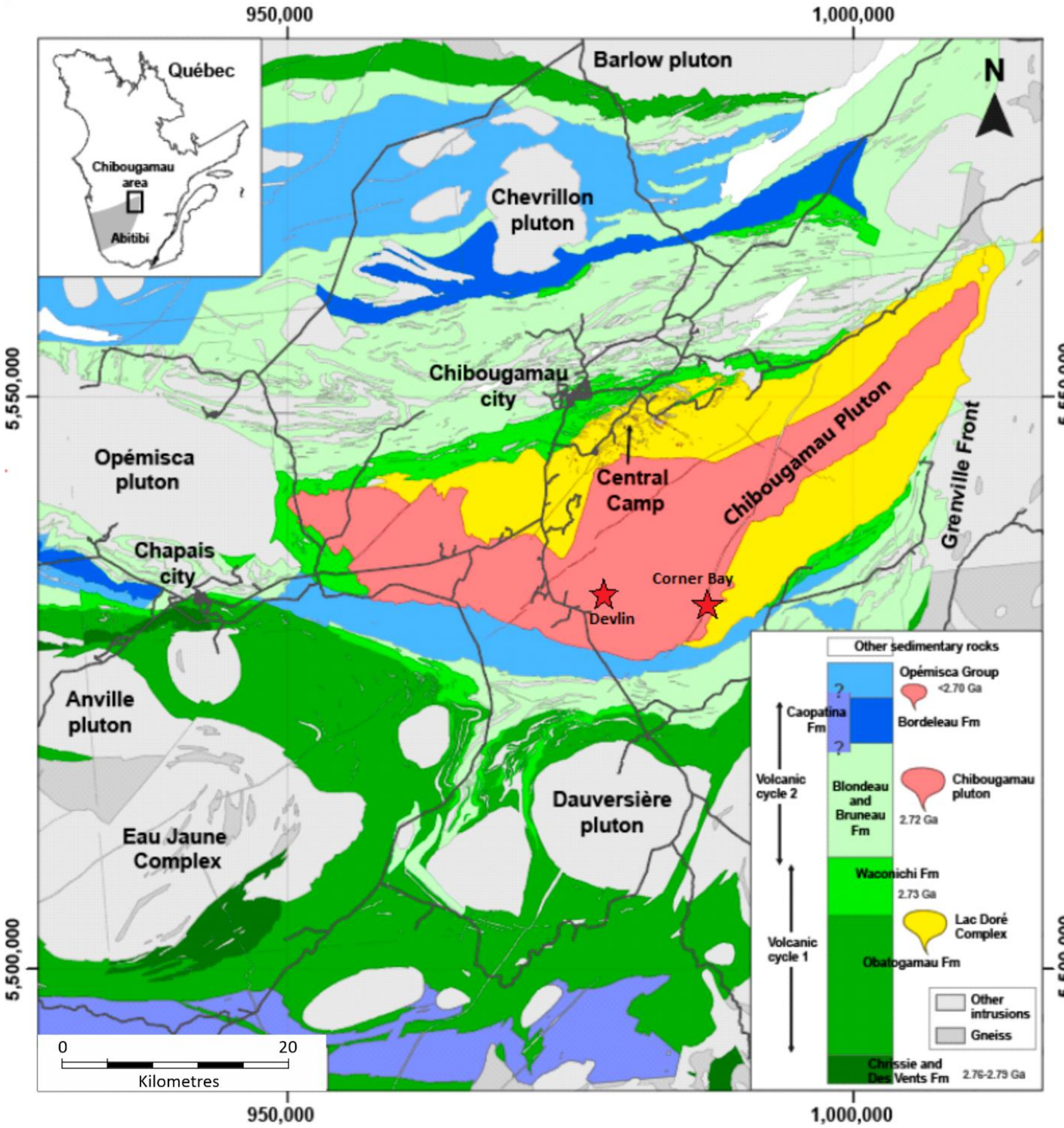
The Chapais-Chibougamau area recorded major intrusive activities of various nature, genetically linked to the volcanism and tectonism periods of the geological history of the region. The three important intrusive bodies of the region are: 1) the Doré Lake Complex (DLC); 2) the Chibougamau Pluton; and 3) the differentiated mafic to ultramafic sills of the Cumming Complex that formed in the second volcanic cycle.

The DLC hosts the Corner Bay and Cedar Bay deposits as well as several other regional copper-gold deposits (Figure 7-4). It dates to 2,728.3 ± 1.2 Ma (Mortensen, 1993) and is a synvolcanic layered intrusion emplaced during the first volcanic cycle in the region between the Obatogamau and Waconichi Formations. It is folded and metamorphosed to the greenschist facies (Allard, 1976; Daigneault and al., 1990). The DLC is a mafic to ultramafic intrusion with a tholeiitic to calc-alkaline magmatic affinity (Allard, 1976; Daigneault and al., 1990; Ahmadou and al., 2019). From the bottom to the top of the layered intrusion, it is subdivided into three main known series (Figure 7-4). The Lower Series represents 70% to 80% of the DLC. It consists mainly of anorthosite and gabbroic-anorthosite, and a peridotite zone. The Layered Series is formed of alternating layers of magnetite-enriched ferrograbbro, vanadiferous magnetite, dunite, peridotite, pyroxenite, and ferrodiorite. The Upper Series is composed of the granophyric zone (Ahmadou et al., 2019) and a discontinuous border zone (Allard, 1976).

The Chibougamau Pluton hosts the Devlin deposit (Figure 7-4). The pluton was emplaced in the DLC and part of the Waconichi Formation; however, it is coeval with the second volcanic cycle of the Roy Group. This Neoarchean multiphase pluton is a tonalite-trondhjemite-diorite (TTD) suite, with a calc-alkaline affinity (Mathieu et Racicot, 2019). The Chibougamau Pluton is composed of an abundance of tonalite and diorite dykes, pegmatites, feldspar-phyric units, as well as hydrothermal and magmatic breccia (Figure 7-4); all of which point to a shallow emplacement depth (Mathieu and Racicot, 2019). The pluton occupies the core of the Chibougamau anticline, which is part of the major folding structures of the region.

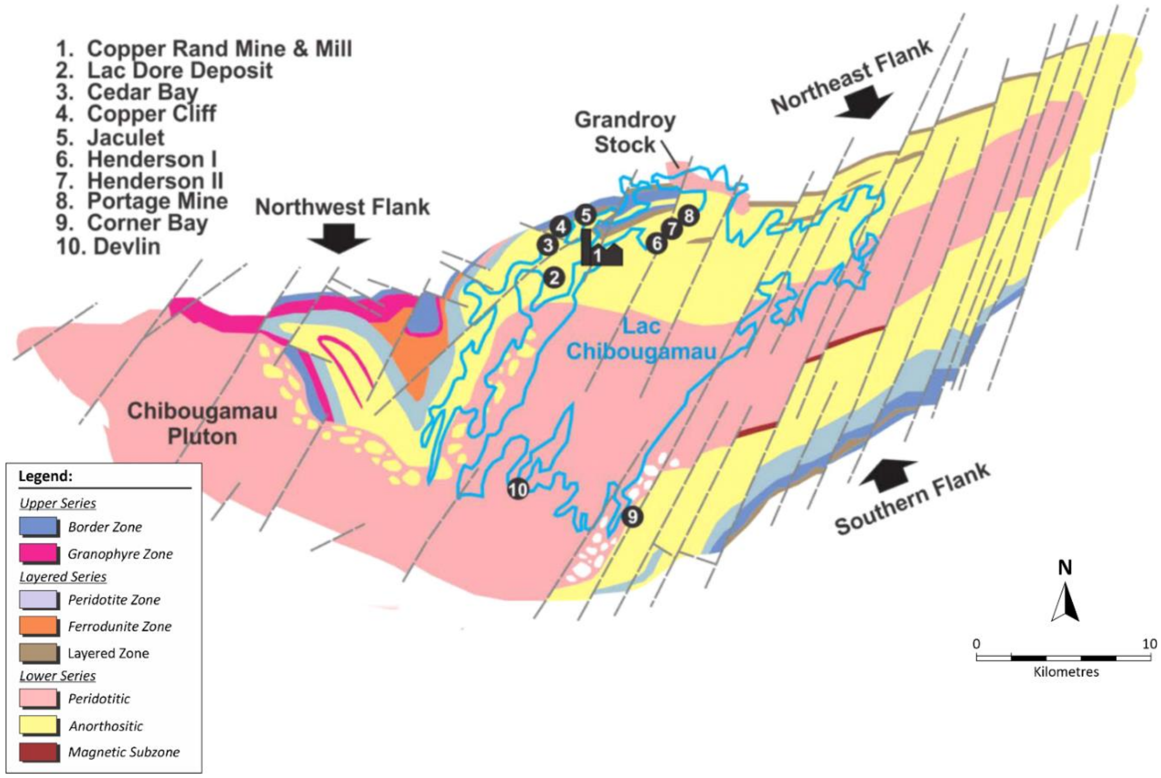
7.2.3. Structures

According to Daigneault et al. (1990), the geological units of the Chapais-Chibougamau area have recorded three main brittle to ductile Archean deformation events (D1–D3) followed by a fourth event (D4) known as "the Grenvillian" which dates from the Proterozoic. Phase D1 corresponds to an early large regional folding whose footprints appear only locally. Phase D2 represents the major deformation event, which created a series of synclines and east-west orientation anticlines. Phase D2 is characterized by the development of an east-west oriented schistosity fabrics, called "main schistosity Sp", which is well developed in volcanic and sedimentary rocks. The D3 deformation event resulted in the formation of northeast faults and northeast-southwest oriented dextral detachments. Finally, the last deformation phase, D4, corresponds to small asymmetric folds in Z style, which are associated with crenulation cleavages and a series of faults oriented northeast-southwest.



Source: Modified from Mathieu and Racicot, 2019.

Figure 7-3: Geological map of the Chibougamau area



Source: Adapted from Daigneault & Allard, 1990.

Figure 7-4: Geology of the Doré Lake Complex and Chibougamau Pluton

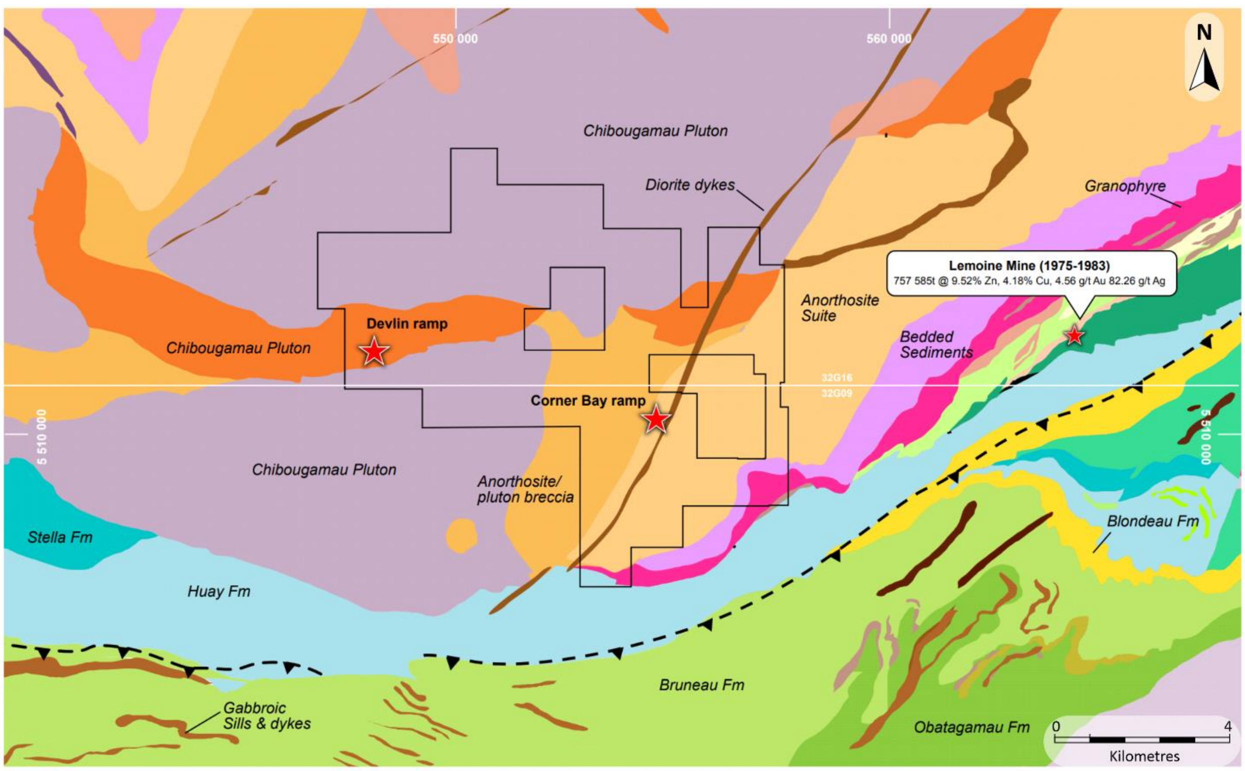
7.3. Property Geology

7.3.1. Corner Bay

The Corner Bay deposit is located on the southern flank of the DLC (Figure 7-5). It was emplaced in the Lower Series of the DLC layered intrusion, which is composed mainly of anorthosite to gabbroic anorthosite. To the southwest of the deposit, anorthositic rocks are overlain by a succession of pyroxenite, gabbro, and magnetite beds part of the Layered Series. Numerous dykes of various compositions (diorite to tonalite) are found injected into anorthosite and are related to the intrusive activity of the Chibougamau Pluton (Mathieu et Racicot, 2019). A Proterozoic diabase dyke striking north-northeast traverses the entire region and cuts the Corner Bay deposit. The anorthositic sequence hosts copper mineralization, which generally consists of lenses and/or veins of quartz, carbonate with chalcopyrite and pyrite and lesser pyrrhotite, sphalerite, and molybdenite.

The regional alteration expression is characterized by a moderate to strong pervasive sericite and interstitial chlorite. Near the mineralized zones occurs a carbonate flooding and veining with various intensities.

The various lithologies encountered at Corner Bay are cut by numerous north-south, northwest-southeast, and a series of north-northeast striking brittle-ductile shears. These structures are of different ages. The north-south (N15) shear zones are interpreted to represent early alteration patterns and/or late activated extension fractures with syn- to late-orogenic tectonic movement. The Corner Bay deposit occurs within these structures.



Source: SIGEOM, 2021.

Figure 7-5: Corner Bay – Devlin property geology

7.3.2. Devlin

The Devlin deposit is located in the Chibougamau Pluton in the middle of the Chibougamau anticline. The deposit is hosted by tonalite ("granodiorite"), diorite, and an extensive zone of chloritic-epidotic breccia (Figure 7-5). Generally, the tonalite and diorite are interbedded at varying scales, with banding striking east-west and dipping subvertically to 75° to the north, reflecting the original banded nature of the pluton at this locality.

The tonalite occurs on the southern end and east of the Devlin deposit and consists of pale grey to pink rock with a medium grain size and granitic texture, the latter locally obliterated by intense silicification. The tonalite is locally cut by dioritic bands, which are generally porphyritic and give to the rock a banded appearance. The diorite is generally light to medium grey-green in colour and varies texturally from granular to porphyritic.

The dominant lithology is the tonalite, whereas the diorite occurs mainly on the borders and contacts of the pluton with the anorthositic rocks of the DLC. This contact zone represents the intrusive breccia zone and contains various polygenic sharpen fragments in the fine-grained dioritic matrix. It consists of varying proportions of tonalite, diorite, gabbro, and anorthosite fragments.

The mineralized vein is hosted by a brecciated zone with a widespread chlorite-epidote alteration association. An important amount (1% to 5%, locally up to 15%) of vugs with various sizes are presents in the brecciated tonalite, indicating a high level of porosity leading to a proficient fluid circulation. These vugs are occasionally filled by a mineral assemblage of epidote-chlorite-quartz-pyrite and carbonate.

The propylitic alteration assemblage is the most widespread in the area of the deposit and characterized by the presence of chlorite, epidote, and carbonate. It occurs throughout the brecciated zone in fragments, in the matrix, and in much of the vein mineralogy. The propylitic alteration is locally superposed by a phyllic alteration represented by plagioclase altered to sericite. A weak tourmaline alteration is locally observed and is restricted to the matrix and the veins.

The flat mineralized vein is also the main fault structure in the area. Faults are also observed in the same direction of the joints where displacement of horizons or veins is discernable. The east-west trending faults show variable dips from 0° to 75° but north-northeast faults dip steeply to the northwest and north-northwest faults dip steeply to the northeast. Faults are generally tight but can be up to 8 cm wide. The filling materials include quartz-pyrite and locally gouge.

7.3.3. Joe Mann

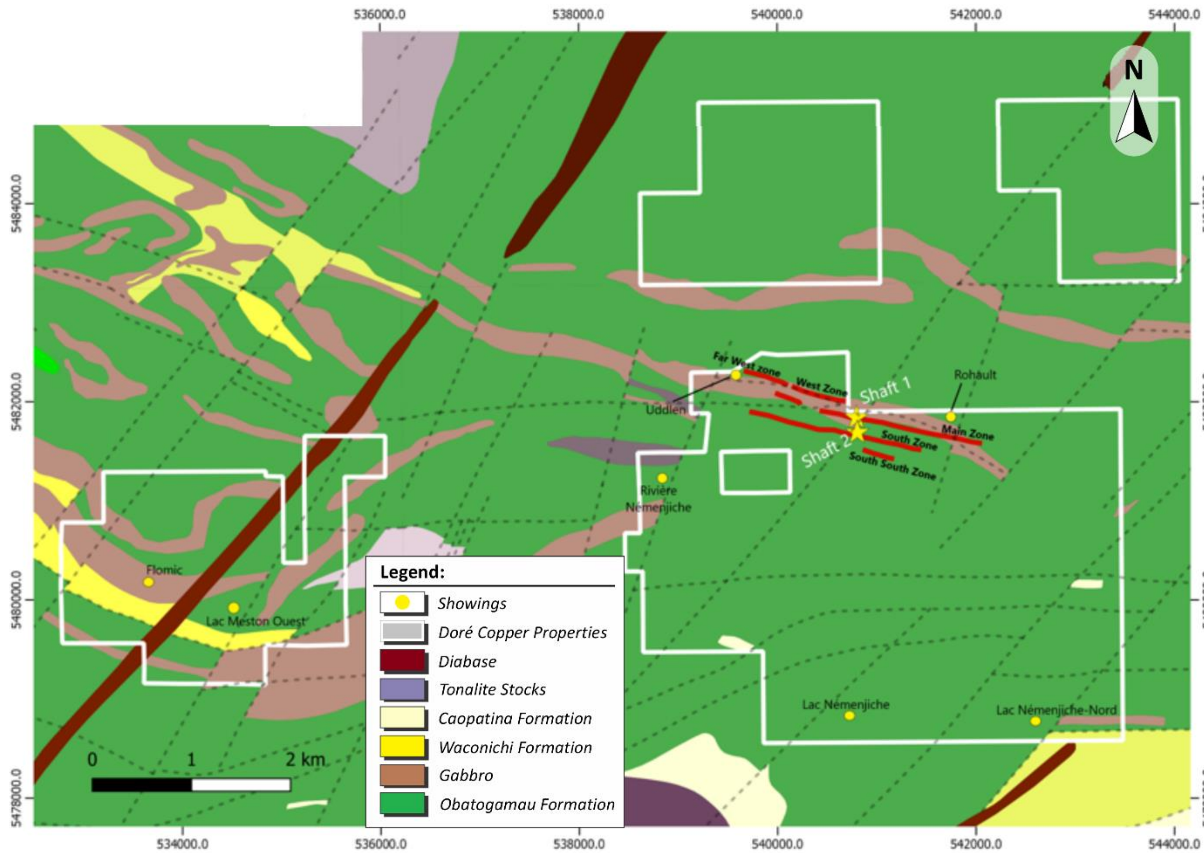
The Joe Mann deposit is located in the middle of the Obatogamau Formation (Figure 7-6), which is a thick (3 to 4 km) volcanic unit, composed of mafic to intermediate lava flows and co-magmatic gabbro sills, which may contain centimetric-long feldspar megacrysts (Midra 1989; Boucher et al. 2021). The Obatogamau Formation is recognized over 150 km in the east-west direction and has been considered either as a lava plain or as a cluster of low relief shield volcanoes (Cimon, 1977; Allard and Gobeil, 1984; Mueller et al., 1989; Daigneault and Allard, 1990; Charbonneau et al., 1991).

The Obatogamau Formation is bounded at the base by the Vents and the Chrissie Formations, and at the top by the Caopatina Formation, a 1 to 2 km thick sedimentary sequence derived from the erosion of volcanic rocks. The sediments include sandstones, conglomerates and argillites locally interbedded with ash tuffs and basalt flows, which indicate coeval volcanic activity.

In the western portion of the region, the Obatogamau Formation is intruded by the Opawica River anorthosite complex. This stratiform intrusion is the product of fractional crystallization from tholeiitic magma. Its morphological and chemical characteristics suggests an affinity to the Obatogamau Formation basalts. The granitoid intrusions of the region are divided into two groups, synvolcanic plutons, which generally core regional anticlines, and syn-tectonic plutons. The synvolcanic intrusions are generally polyphased and were emplaced prior to regional deformation. They are related to the volcanic sequences and one of them is the Eau Jaune Complex (Kieffer et al. 2020), which probably represents the magmatic chamber that fed the felsic centre of the Vents Member. Regional deformation controlled the emplacement of the syntectonic intrusions. They are generally elongated parallel to regional foliation and were intruded along the margins of syn-volcanic plutons. Two felsic intrusions, La Dauversière and Verneuil, are found respectively to the northeast and northwest of the property.

From a structural point of view, the Joe Mann deposit is located on the south flank of the overfold La Dauversière anticlinal. The regional schistosity (S2) is considered to be east-west, with a subvertical dip. In addition, many intense and decametric northeast to north-northeast Proterozoic and/or Grenvillian fault structures affect the lithologies. The east-west trending Guercheville deformation corridor is the main structure that cuts the property and represents an important metallotect as most of gold occurrences are located along this major structure.

The metamorphism in the region is defined as upper greenschist facies to locally lower amphibolite facies near pluton contacts, and it affects all the geological units except diabase Proterozoic dykes.



Source: Doré Copper, 2021.

Figure 7-6: Geology and location of main mineralized zones at Joe Mann

At the mine scale, the geology is dominated by basalt flows and gabbro sills (Figure 7-6) (Dion and Guha 1994). Of a more secondary nature, many horizons of volcaniclastic mafic to felsic sediments are observed at the point of contact with lava flows. These horizons are layered, fine-grained and often silicified and qualified as acid or felsic tuffs. They are also often sheared in areas with the propensity to develop faults. Finally, many metric to decametric felsic dykes cross-cut these units. Their contact with the host rock is generally sheared and contains sulphides (pyrite and pyrrhotite).

The mine stratigraphy consists of, from base to top and north to south, a gabbro sill, followed by deformed and altered basalt lava flows overlain by a thin rhyolite horizon, which is capped by a basalt unit. This sequence is typical of the upper part of the Obatogamau Formation. Strata are oriented east-west and dip subvertical and are metamorphosed to the upper greenschist facies (Dion and Guha, 1994).

7.3.4. Cedar Bay

The following is mainly taken from Tanguay and Giroux (2016). The Cedar Bay deposit is hosted by a sheared and altered gabbroic-anorthosite of the DLC. The meta-anorthosites are typically comprised of 70% to 90% plagioclase, which has been heavily altered to epidote and albite. The Cedar Bay deposit generally has a northwest strike and dips steeply to the northeast. The gold-copper sulphide veins average approximately 1.5 m in width and are tens to hundreds of metres in strike length. The individual mineralization lenses have approximately 3:1 down dip to along strike anisotropies. The veins are comprised of pyrite and chalcopyrite with some gold and minor sphalerite and arsenopyrite. The main alteration minerals are chlorite, quartz, and carbonates. Locally, pyrrhotite dominates the vein mineral assemblage. Pyrrhotite has a very heterogeneous distribution within the mineralization.

The mineralization zone is bounded by a diabase dyke in the north, striking in the same direction as mineralization. The 10_20 zone is located along the dyke's southern contact. The same style of dyke is prevalent in the Copper Rand mineralization zones.

The shears hosting the mineralization at Cedar Bay and other deposits with similar orientation are extensional in nature.

7.4. Mineralization

7.4.1. Corner Bay

The Corner Bay deposit is a significant high-grade copper-gold deposit located on the south flank of the DLC. It is hosted by a N 15° trending shear zone more or less continuous with a strong 75° to 85° dip towards the west. The host anorthosite rock is sheared and sericitized over widths of 2 to 25 m. The deposit is cut by a diabase dyke and is limited to the north by a fault structure and to the south by the known LaChib deformation zone-oriented N 150° with a dip of 60° to the south.

The mineralization is characterized by veins and/or lenses of massive to semi-massive sulphides associated with a brecciated to locally massive quartz-calcite material. The sulphides assemblage is composed of chalcopyrite, pyrite, and pyrrhotite, with lesser amounts of molybdenite and sphalerite. Late remobilized quartz-chalcopyrite-pyrite veins occur in a common wide halo around the main mineralization zones.

Alteration developed in the proximal environment of the deposit consists in pervasive black chlorite in the strongly sericitized shear zone with carbonate flooding and veining. The mineralized veins themselves show a pervasive calcite alteration and an interstitial moderate potassic content as interstitial minerals occurs between brecciated quartz grains. The distal alteration is pervasive sericite occurring mainly in the host anorthosite rock.

Mineralization was emplaced within an east-west striking major structural corridor of less than 1 m to 25 m wide. It is characterized by strong penetrative schistose anorthosite with mylonitic fabrics and intermixed dioritic to other intermediate intrusive dykes. Mineralized veins are quite uniform and very consistent section to section in terms of widths and style of mineralization.

The Corner Bay deposit consists of three main mineralized veins (subparallel Main Vein 1 and Main Vein 2 above the dyke, and Main Vein below the dyke that make up the bulk of the deposit (Figure 7-7), and four other parallel smaller veins (three West Veins and East Vein). The Corner Bay deposit has been traced over a strike length to over 1,100 m and remains open at depth.

The main vein above the dyke is oriented at N010° with a dip of 75-85° to the west. The vein seems to be controlled to the south by the "La chib" fault which has a NW-SE orientation and to the north by another fault with the same orientation. The thickness of the zone varies from 15 cm to 8.0 metres for an average thickness of 2.2 metres and is located within a shear zone with a thickness of 2.0 to 25.0 metres. A superficial alteration zone (weathering) can be observed from the surface to a depth of 100 metres.

The Main Vein below the dyke is the continuation of the mineralization above in Main Vein 1 and 2, but as the name implies, it is located below the north-striking diabase dyke that cuts the deposit with a dip 80° towards the west. Thicknesses range from 15 cm to 8 m. An oblique view of the mineralization is shown in Figure 7-7. This part of the deposit has limited strike extension and remains open down plunge.

Identified and drilled in 2020 and 2021, the West Veins consist of three parallel veins located 60 m to 100 m below surface and approximately 400 m west of Main Veins 1 and 2. They are subvertical and range in thickness from 0.5 m to 3.0 m. The mineralized structure hosting these veins extends for hundreds of metres along strike and still remains sparsely drilled. A new parallel vein (East Vein) was identified 200 m to the east of the Main Vein above the dyke. Both the West and East Veins are open along strike and at depth. The red zones in Figure 7-7 are the mineralization domains defined in this Report. The diorite dyke bisects the deposit: Main Vein above the dyke and Main Vein below the dyke.

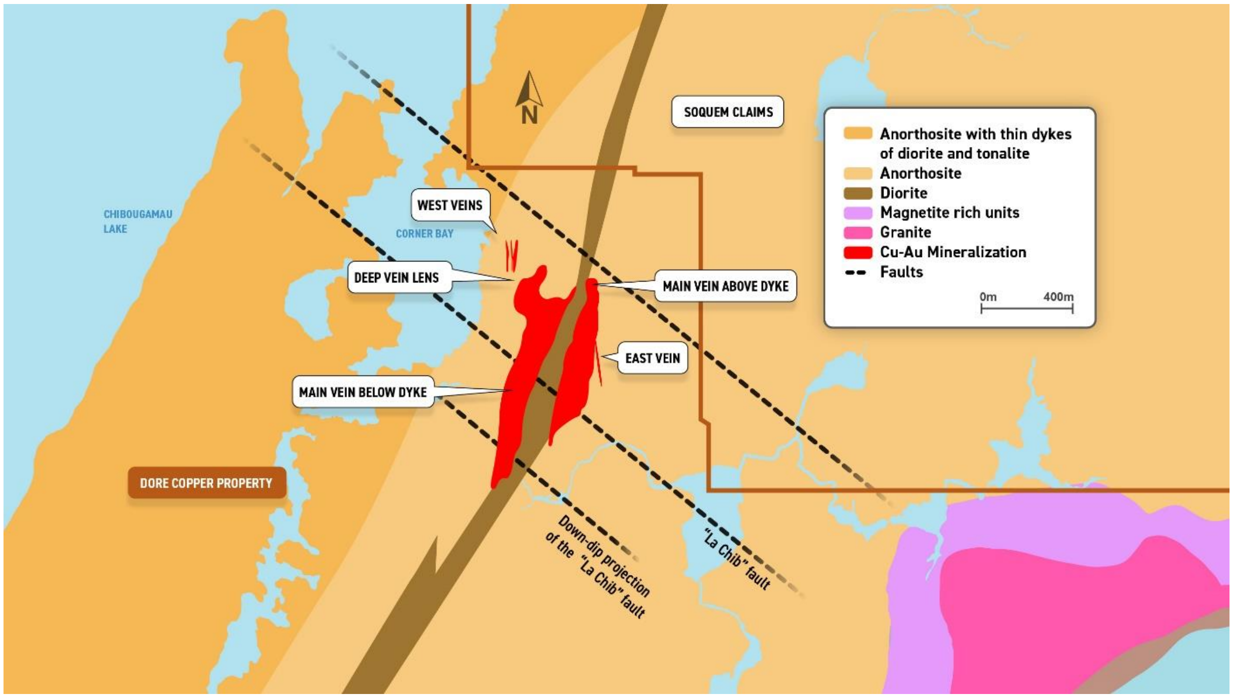


Figure 7-7: Corner Bay project area geology

7.4.2. Devlin

The Devlin deposit is a flat-lying (horizontal) and undulating magmatic massive sulphide deposit occurring at a depth of less than 100 m from surface. The tabular zone of mineralization (or Main Vein) is nearly horizontal at the southern extremity and dipping slightly at 7° to the northeast at the northern extremity.

The deposit is hosted by a hydrothermal breccia, though the Main Vein also extends out into unbrecciated banded tonalitic and dioritic rocks. The deposit consists of a massive chalcopyrite-pyrite-quartz +/- carbonate vein, which pinches and swells. Minor hematite and magnetite are present locally, both being erratically distributed. The mineralized vein is characterized by occasional zoning, with a quartz-chalcopyrite zone at the bottom, a quartz-chlorite-pyrite zone in the middle, and a mixed pyrite-chalcopyrite-quartz zone at the top. Minor gold is present within the deposit with values typically less than approximately 0.3 g/t Au.

High-grade intersections usually consist of one or several parallel quartz veins varying from a few centimetres to one metre in thickness, in which the occurrence of chalcopyrite may vary from occasional blebby specks to massive bands. Usually, a thin semi-massive to massive sulphide zone is present in the quartz vein. Chalcopyrite and pyrite also occur as fine disseminated patches and fine stringers outside of the mineralized zone.

The brecciated zone of the Chibougamau Pluton hosting the deposit is strongly silicified near the mineralized zone. Alteration patterns around the deposit consist of a propylitic alteration characterized by chlorite, epidote, and carbonate. This alteration assemblage is overprinted by a phyllic alteration with strong sericitization of the plagioclase minerals.

7.4.3. Joe Mann Mine

Part of this section has been reproduced and extracted from the following MERN reports:

- DV 98-04: Geology and Metallogeny of the Chapais-Chibougamau Mining District, Pierre Pilote, (1998) P109-114.
- MB 88-29: Etude métallogénique de la bande Caopatina-Quévillon: Gîtologie de la mine Joe Mann-Région de Chibougamau, Dion and Guha (1988).

The Joe Mann deposit is a structurally controlled deposit hosted by the Opawica-Guercheville deformation zone. This major east-west trending deformation corridor is approximately 2 km wide and extends for over 200 km (Tait, 1992a; Pilote 1998; Leclerc et al. 2012). The structure cuts the mafic volcanic rocks of the Obatogamau Formation in the north part of the Caopatina Segment.

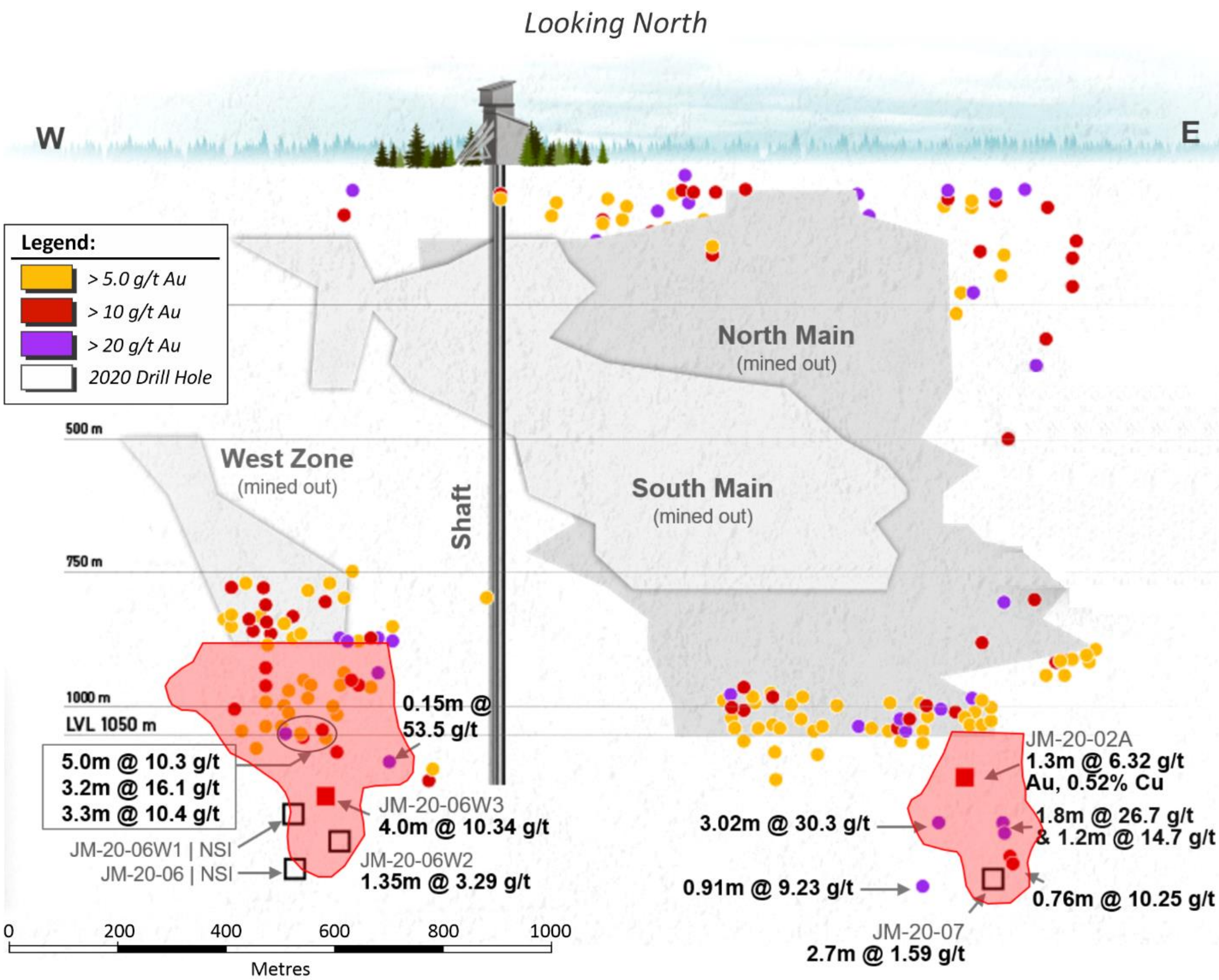
The primary mineralized zones that were mined at the former Joe Mann mine include the Main, South and West Zones (Figure 7-8). These three subvertical east-west (N275°/85°) ductile-brittle shear zones are subparallel to stratigraphy and to one another, with up to 140-170 m of separation between them. These shear zones are hosted within a stratigraphic package composed of a Fe-Mg carbonate and sericite altered gabbro sills, sheared basalts, and intermediate to felsic tuffs intruded by various felsic intrusions.

The gold mineralization at the former Joe Mann mine is hosted by decimetre scale quartz-carbonate veins (Dion and Guha 1988). The veins are mineralized with pyrite, pyrrhotite, and chalcopyrite disposed in lens and veinlets parallel to schistosity, and occasionally visible gold. The veins are dominated by vitreous white quartz with minor plagioclase and iron carbonate. They are intensely brecciated and often boudinaged and folded. Furthermore, these veins are characterized by their laminated or banded structure, consisting of alternating ribbons of quartz and mineralized wall rock. The majority of the vein sulphide mineralization is contained in these wall-rock fragments.

The veins are associated with two types of felsic dykes: 1) weakly-deformed, quartz-feldspar porphyry dykes; and 2) highly deformed, aphyric dykes. These dykes are often in direct contact with the veins and are subparallel to them. Zircons extracted from an aphyric dyke yield a U-Pb age of 2,717 Ma +5/-2 Ma (Dion et Guha, 1994), identical within error to the La Dauversière Pluton, a synvolcanic intrusion located a few kilometres north of the former Joe Mann mine. No zircon suitable to radiometric dating was identified in the porphyric dykes, but it is assumed that their emplacement is synchronous (2,690 Ma to 2,699 Ma; Dion et al. 1995) to the syntectonic Lac Meston intrusion located west of the former Joe Mann mine.

These relationships and the fact that the Lac Meston intrusion is cut by auriferous quartz-tourmaline veins suggest that the Joe Mann gold mineralization is posterior to the emplacement of syntectonic porphyric dykes.

The shear zones are characterized by a high schistosity, strongly carbonatized rocks, and subvertical to vertical stretching lineation. The dominant schistosity direction is parallel to the envelope of the shears at approximately N095°, but the steep dip to the south of the schistosity (80° to 85°) is at an angle with the walls of the shear zone envelopes, which dip to the north. This structural relationship indicates that an inverse vertical movement, i.e., a thrusting from north to south, took place. Steeply-plunging (80° to 85°) mineral or stretching lineations also argue in favour of a vertical movement with a small lateral component. This stretching lineation is particularly well-defined in the South Zone. The elongation of the mineralized lens in the Main Zone visible on the longitudinal section is parallel to this lineation.



Source: Doré Copper, 2021.

Figure 7-8: Joe Mann deposit long section with mined zones (Main, South, and West) and 2020 drill program results

7.4.4. Cedar Bay

The Cedar Bay deposit is located on the "North Flank" of the Chibougamau anticline with the copper-gold mineralization being largely hosted within various magmatic facies of the DLC. The gold-copper mineralization at Cedar Bay occurs mostly as hydrothermal sulphide veins. The main sulphide minerals (10% to 30%) consist largely of pyrite and chalcopyrite with some pyrrhotite (1% to 5%, up to 80+% locally) along with traces of sphalerite and galena. The matrix of the mineralization is composed of chlorite (70% to 90%) with minor quartz and carbonate which could amount to 15% to 20% of the matrix.

8. Deposit Types

From 1955 to 2008, after which the Copper Rand mill site closed, the Chibougamau mining district (Figure 8-1) had produced a total of 55 Mt of ore containing 994,802 t of copper, 120 t of gold, 102 t of silver, and 72,066 t of zinc (Leclerc et al., 2017). Thus, the district is considered as the second largest mining district in the Québec portion of the AGB.

Mineral deposits of the Chibougamau area comprise the following (Guha et al., 1988; Pilote and Guha, 2006) (Figure 8-1):

- Synmagmatic Fe-Ti-V and Ni-Cu-platinum group element (PGE) mineralization in mafic-ultramafic layered intrusion;
- Volcanogenic Massive Sulphide deposits;
- Early polymetallic (Au-Ag- Cu-Zn-Pb) mineralization;
- Porphyritic Cu-Au ± Mo;
- Cu-Au veins in northwest-southeast and east-west shears (Chibougamau-type copper-gold); and
- Shear zone-hosted.

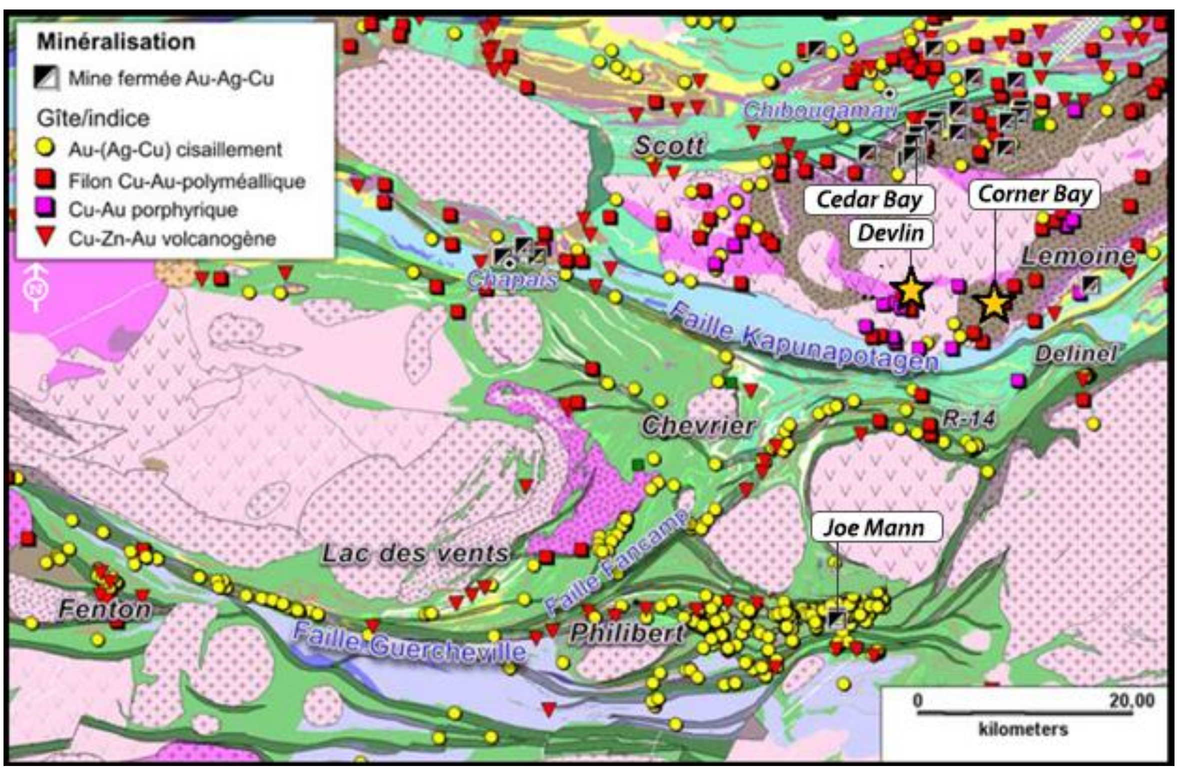


Figure 8-1 Geological map of the Chibougamau-Chapais region with minerals occurrences and deposits (From Faure, 2012, modified from Chown et al., 2002)

8.1. Corner Bay and Cedar Bay

The Corner Bay and Cedar Bay deposits are examples of Chibougamau-type copper-gold deposits, which typically host massive to semi-massive pyrite-chalcopyrite-pyrrhotite-sphalerite-molybdenite sheared quartz veins. The main alteration assemblage consists of quartz, carbonate, sericite, chlorite, and K-feldspar with occasional albitization locally.

The Chibougamau-type deposits host copper-gold vein mineralization and are spatially associated with the Chibougamau Pluton, which hosts the Devlin deposit. The nearby DLC hosts the Corner Bay and Cedar Bay deposits as well as several other regional copper-gold deposits. They demonstrate several characteristics of "Magmato-Hydrothermal Systems", including: 1) hydrothermal alteration located in and around an intrusion; and 2) oxidized, high-salinity fluids and the related alteration minerals, e.g., K-feldspar and magnetite. (Mathieu et Racicot, 2019).

8.2. Devlin

Kavanagh (1978) first proposed that Devlin may represent a distinct, late Archean porphyry-like mineralization event. Guha et al. (1984) also suggested that Devlin was a near-surface expression of a porphyry system.

Devlin is a copper-rich veins-hosted deposit in a polygenic igneous breccia. These types of deposits are structurally controlled and occur in faults, fault systems, and vein-breccia zones. Vein copper deposits tend to be relatively small. Copper grades are typically 1% to 3% although some deposits contain greater than 10% copper. Two main sub-types are recognized: 1) associated with mafic intrusions (Churchill type); and 2) associated with felsic and intermediate intrusion.

The Devlin deposit falls into the felsic and intermediate intrusion sub-type along with deposits of the Rossland camp in British Columbia and the copper-gold deposits of the Chibougamau and Opemiska mining camps in Québec.

Felsic and intermediate intrusion copper deposits characteristically occur in subduction-related continental and island arc settings, typically in areas of high-level felsic and intermediate intrusions and particularly those related with porphyry copper deposits. The Devlin deposit is in a different geological setting as it was emplaced in an Archean intermediate intrusion.

8.3. Joe Mann

The Joe Mann deposit is categorized as a greenstone-hosted quartz-carbonate vein deposit, a sub-type of lode-gold deposits. Greenstone-hosted quartz-carbonate vein deposits correspond to structurally controlled, deformed to folded deposits hosted in metamorphosed terranes (Dubé and Gosselin, 2007; Gaboury, 2019). They can coexist regionally with iron formation-hosted vein and disseminated deposits as well as with turbiditic-hosted quartz-carbonate vein deposits.

Greenstone-hosted quartz-carbonate vein deposits consist of simple to complex networks of gold bearing, laminated quartz-carbonate fault-fill veins in moderately to steeply dipping, compressional brittle-ductile shear zones and faults with locally associated shallow-dipping extensional veins and hydrothermal breccias. They are hosted by greenschist and formed at intermediate depth in the crust (5 to 10 km). They are distributed along deformed greenstone terranes of all ages, but are more abundant and significant, in terms of total gold content, in Archean terranes (Robert and al., 1990).

9. Exploration

9.1. Corner Bay – Devlin

Relevant exploration works other than drilling conducted by Doré Copper includes downhole geophysics and a ground geophysical survey.

In February 2020, a downhole geophysical survey was completed by Abitibi Geophysics in hole CB-19-08 of the Corner Bay deposit. The Borehole InfiniTEM survey (Time Domain Electromagnetics) recorded readings every 5 m and 10 m and measured the three components of the secondary magnetic field.

The survey identified the known mineralized zones and identified a target approximately 300 m further east. Hole CB-19-08 was extended by over 300 m later in 2020 to test the identified down hole target. A small zone of weak mineralization was identified at approximately the predicted location, representing the contact zone between the anorthosite suite and the felsic pluton.

In September 2021, a follow-up downhole survey was completed on the extension of hole CB-19-08. Downhole surveys were also completed in holes CB-21-43 and CB-21-46 to identify possible extensions of the mineralized zones at the southern end of the Corner Bay deposit below the dyke. The survey in hole CB-19-08 showed two anomalies. One seems to be the response of a sizeable subvertical conductor associated with the Main Vein intersected inside the hole. The other one is the response of a dipping conductor associated with the East Vein intersected inside the hole. The response indicates that the bulk of the mineralization likely sits 100 metres lower and 100 metres to the east. Surveys in holes CB-21-43 and CB-21-46 indicated that a sizeable and dipping conductor may be present some 200 m south of the sector targeted by these holes.

In the spring of 2021, a ground EM geophysical survey (Figure 9-1) was carried out by Abitibi Geophysics over several claims of the Devlin group of claims covering a part of Lac Chibougamau and Ile Yvonne. The survey covered approximately 25 km^2 with lines 100 m apart and stations every 25 m. The survey was carried out to further explore a prospective flat lying structure thought to be similar to and northeast of the Devlin deposit. The survey identified a weak magnetic anomaly that was confirmed with drilling as a flat-lying alteration zone with magnetite mineralization. No economic mineralization was found.

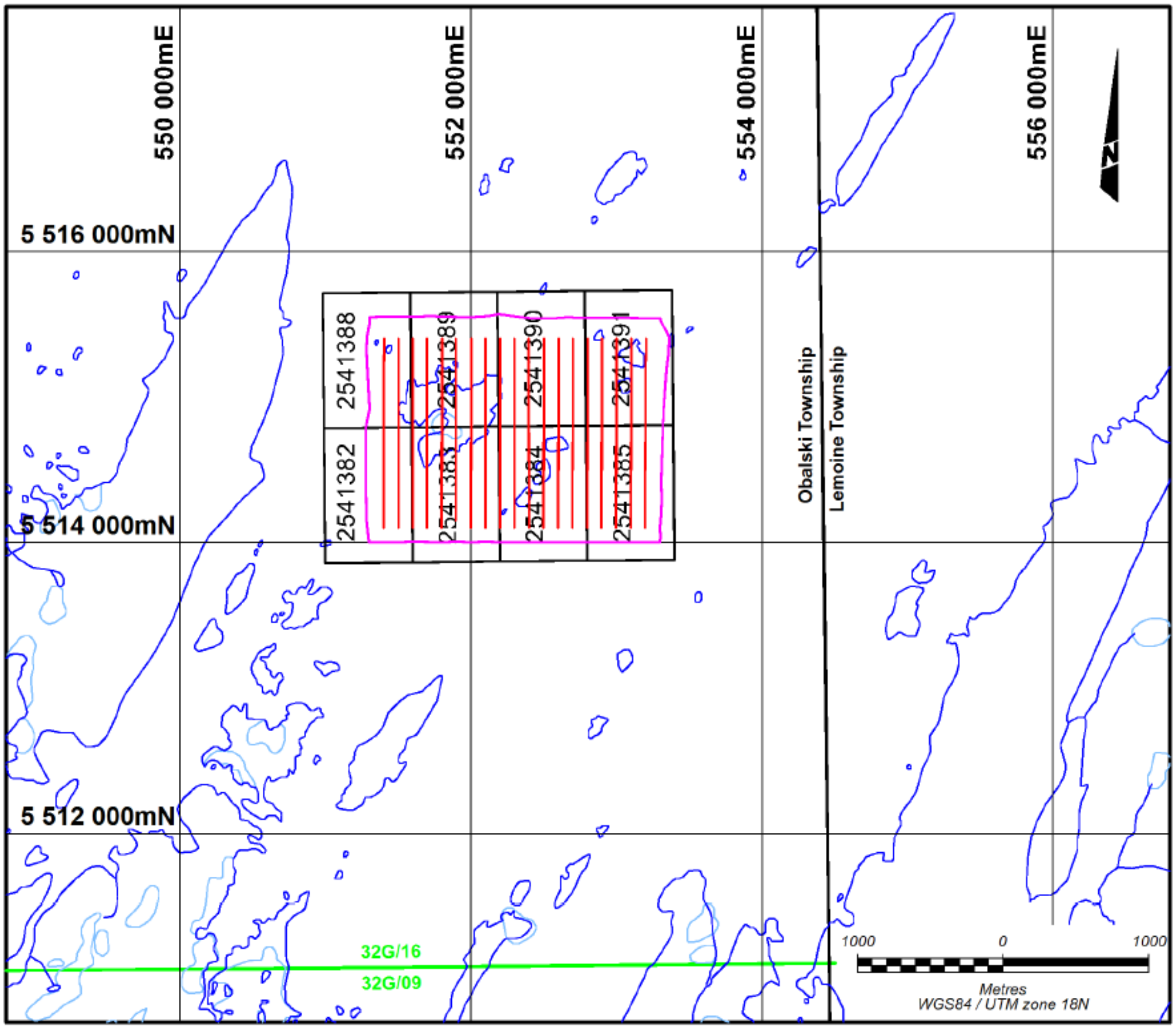


Figure 9-1: Location of the 2021 Ground EM survey at Devlin

9.1.1. Exploration Potential

The exploration potential at Corner Bay remains substantial as all of the veins still remain open in one or more direction: the two subparallel Main Veins above the dyke remain open along strike to the south, the East Vein is open in all directions, the three West Veins are open down dip and along strike, the Main Vein below the dyke is open down dip. In addition, there is potential for finding parallel zones of mineralization. Intercepts approximately 100 m (up-hole) from the Main Vein below the dyke shows the possibility for mineralized lenses as well. The combination of the parallel zones and expansion of the known mineralized zones indicates that the Corner Bay deposit can be further expanded with more drilling.

9.2. Joe Mann

Doré Copper has not conducted any exploration work on Joe Mann other than the 2020 drilling on the property (see Section 10). The previous operator, Ressources Jessie, carried out two small geophysical surveys on its property, part of the Joe Mann Option Property, in 2017. Gold Bullion only carried out a small underground drilling campaign at the former Joe Mann mine in 2008. In October and December 2017, Abitibi Geophysics was mandated by Ressources Jessie to complete two small geophysical surveys to characterize the metal potential on its Joe Mann property, now part of the Joe Mann Option Property.

The OreVision Time Domain Induced Polarization (IP) and Resistivity survey covered nine lines ranging in length from 860 m to 1,390 m at a 150 m line interval. The survey identified several interesting targets. Abitibi Geophysics' recommendations included additional survey lines to fully delineate the extent of target trends, prospecting/trenching on near-surface targets, and a drilling program to test the chargeable targets.

An AeroVision magnetic survey was carried out in the same area as the OreVision IP/Resistivity survey. The survey area covered 48 lines (1 km in length) spaced at 50 m and oriented N 0°. Five tie lines completed the survey grid.

Several magnetic anomalies of moderate to strong amplitudes were identified from this detailed magnetic survey.

9.3. Copper Rand

No exploration work has been undertaken by Doré Copper on the Copper Rand property, including the Cedar Bay deposit.

10. Drilling

10.1. Corner Bay - Devlin

Drilling at Corner Bay took place between 1973 and 2008 by previous operators. Doré Copper and its predecessor (AmAuCu) carried out a number of drilling programs from 2017 to 2021.

Drilling at Devlin took place in two periods: from 1974 to 1982 and from 2013 to 2014. Doré Copper drilled three holes in 2021 for a total of 333 m for metallurgical testing and drilled four holes in 2022 for a total of 336 m for sorting test. A summary of drilling completed over the Corner Bay and Devlin projects is presented in Table 10-1.

Table 10-1: Corner Bay-Devlin drill hole summary[7]

Area / Operator	No. Drill Holes	Period	Total Length (m)[2][3]
Corner Bay			
Historical[1]	254	1973 - 2008	74,506
AmAuCu	13	2017 - 2018	14,643
Doré Copper	57[5]	2019 - 2021	54,866
Corner Bay Total	**324**	**1973 - 2021**	**144,015**
Devlin			
Historical[4]	177	1974 - 2014	18,746
Doré Copper	7[6]	2021-2022	669
Devlin Total	**177**	**1974 - 2014**	**19,415**
Property Total	**501**	**1973 - 2022**	**163,430**

Notes:

(1) Historical operators at Corner Bay include Riocanex/Flanagan McAdam (1973-1976), Corner Bay Exploration (1979-1981), Riocanex (1982), Preussag (1984-1985), Corner Bay Exploration (1988), SOQUEM (1992-1994), Cache (1995), and MSV (2004-2008).

(2) The length of wedge holes reported in the table is represented as the hole extension length only.

(3) In 2017 and 2018, 11 drill holes and wedges did not meet the intended target depth or were abandoned due to poor ground conditions. These holes have been excluded from this summary. Additional drilling completed by Corner Bay Exploration to test overburden depth, and regional exploration targeting by SOQUEM (2,635 m) are also excluded.

(4) Historical operators at Devlin include Riocanex (1974-1978), Camchib (1979-1982), and Nuinsco (2013-2014).

(5) Meterage and hole count includes drill holes from CB-19-08 to CB-21-60.

(6) In 2021, three drill holes (from same drill pad) totalling 333 m for metallurgical testing. In 2022, four holes (from same drill pad as 2021 drill holes) totalling 336 m for mineral sorting tests.

(7) The ongoing 2022 drilling program at Corner Bay is excluded from the table.

10.1.1. Corner Bay

10.1.1.1. Historical Drilling (pre-2017)

Historical operators at Corner Bay include Riocanex/Flanagan McAdam (1973-1976), Corner Bay Exploration (1979-1981), Riocanex (1982), Preussag (1984-1985), Corner Bay Exploration (1988), SOQUEM (1992-1994), Cache (1995), and MSV (2004-2008). Limited documentation on the drilling procedures is available for all operators with the exception of MSV. The QP reviewed the historical drill hole traces and intersections and found them to line up reasonably well with the structures identified with Doré Copper's drilling.

MSV undertook drilling campaigns in 2004, 2005, and 2008 with the intention of infill drilling the upper part of the Corner Bay deposit and to verify mineralization continuity at depth. Drill holes were BQ or NQ sized and were completed by Forages Mercier of Val-d'Or, Québec. Core recovery was noted by the logging geologist as very good in fresh rock, and moderate in oxidized rock near surface. Lithology, alteration, and mineralization were logged in detail and samples ranging from 0.04 m to 1.0 m were taken across mineralization and alteration zones.

10.1.1.2. AmAuCu Drilling (2017-2018)

From October 2017 to May 2018, AmAuCu completed a 13-hole drill hole program totalling 14,643 m to target and confirm mineralization at depth. An additional 11 drill holes and wedges did not reach the intended target depth or were abandoned due to poor ground conditions.

The drilling was contracted to Miikan Drilling, a subsidiary of Chibougamau Diamond Drilling, of Chibougamau, Québec. Miikan Drilling used skid-mounted, hydraulic drills to produce NQ core. Setting of wedges was completed by the drilling company with the supervision of an AmAuCu contracted geologist. AmAuCu contracted Orix Geoscience Inc. to plan the hole collar locations, azimuth, and dip.

The locations of the drill holes in the field were spotted using a Garmin handheld global positioning system (GPS) instrument and the azimuth and dip of the holes was established using a compass and inclinometer. Downhole surveys were completed using a Reflex EZ-Gyro instrument in single-shot mode with readings taken at 25 m intervals. Upon completion, the holes were surveyed using the multi-shot mode.

Hole terminations were determined by the AmAuCu geologist. Casings were left in the ground and marked for easy retrieval. The final location of the Corner Bay collars was determined by a handheld GPS instrument.

Drill core was placed sequentially in wooden core boxes at the drill by the drillers and was transported to a secure core logging facility at the Copper Rand site daily. The core was descriptively logged and marked for sampling by AmAuCu contract geologists paying particular attention to lithology, structure, alteration, veining, and sulphide mineralization. Logging and sampling information was entered into a Microsoft (MS) Excel-based core logging sheet. Core photography and geotechnical data, i.e., rock quality designation (RQD), core recovery, and number of fractures per metre, were not taken consistently. Core was noted as very competent, with few fractures.

The drilling campaign was successful in identifying the continuation of high-grade copper mineralization at Corner Bay. The drilling program expanded the mineralization around historic drill hole CB-05-92 and helped define the lower part of the deposit. Although the new intercepts in this program were not as thick or high-grade as the historic holes, they still maintained grades of above 1.5% Cu over a 2 m true width. Below the dyke, the drill campaign expanded the 2012 historic resources by extending the Main Vein mineralization along strike to the south. The intercepts are thicker on the southernmost section drilled in holes CB-18-05/06/07.

10.1.1.3. Doré Copper Drilling (2019-2021)

From December 2019 to end of 2021, Doré Copper completed 57 drill holes (including wedges) on the Corner Bay deposit totalling 54,866 m. Most of the drilling targeted mineralization in the Main Vein above and below the dyke. Only drill holes with assays returned up to March 13, 2022, were included in the MRE. Note that no holes from the ongoing 2022 drilling program were included in the MRE.

The drilling was contracted to Miikan Drilling, which used skid-mounted, hydraulic drills to produce NQ core. Setting of wedges was completed by the drilling company with the supervision of a geologist from Doré Copper.

The locations of the drill holes in the field were spotted using a Garmin handheld GPS instrument and the azimuth of the holes was established by compass, DeviAligner and TN-14. An inclinometer was used to establish the dip.

The downhole survey was carried out using a Gyro supplied by IMDEX out of Val-d'Or, Québec. Surveys were taken every 50 m down the hole and a continuous read survey was done on the hole once it was completed.

A Doré Copper geologist checked the core at the drill before making the decision to terminate the holes. Upon completion of the holes, the casings were left in the ground and properly marked for easy retrieval. The final location of the Corner Bay collars was determined by a handheld GPS instrument.

Drill core was placed sequentially in wooden core boxes at the drill by the drillers and was transported daily to Doré Copper's secure core logging facility at the Copper Rand site by the drillers.

Drill core was delivered every morning to the core shack by the drilling contractor (Miikan Drilling) and arranged on tables by the geological technicians after which it was logged by geologists. The core recovery was very high and normally above 95%. Mineralized material drill core, veins, and shoulder samples were identified and marked on the drill core by the geologists. Sample lengths ranged from 0.4 m to 1 m, commonly being 1 m, and respected geological contacts. Sample tags are placed at the beginning of each sample interval and the tag numbers are recorded in an MS Excel-based core logging sheet.

The core was descriptively logged and marked for sampling by Doré Copper geologists paying particular attention to lithology, structure, alteration, veining, and sulphide mineralization. Logging and sampling information was entered into the core logging sheet.

Once the core was logged and marked up for sampling (if any), pictures were systematically taken of the wet core. The core was then moved to pallets and stored in the core yard and covered with tarps to slow weathering. The mineralized portions of the drill core were stored inside on metal core racks to slow oxidation of the sulphides even further.

The drilling campaign was successful in identifying the continuation of high-grade copper mineralization at Corner Bay.

A summary of the 2019-2021 drilling campaign results by Doré Copper is shown in Table 10-2.

Table 10-2: Corner Bay drilling results summary (2019-2021) up to the prior MRE

Hole	From (m)	To (m)	Width[1] (m)	Cu (%)	Au (g/t)	Ag (g/t)	Zone
CB-19-08	899.3	902.2	2.9	1.52	0.11	7.3	
CB-19-09	No significant mineralization						Main Vein above dyke
CB-19-10	No significant mineralization						Main Vein above dyke
CB-19-11	No significant mineralization						East Vein
CB-20-12	850.6	852.85	2.25	3.21	0.11	18.8	Main Vein below dyke (south)
CB-20-13	862.5	863.1	0.6	1.89	0.10	4.0	Main Vein below dyke (south)
	907.4	910.1	2.7	1.40	0.05	7.3	

Hole	From (m)	To (m)	Width[1] (m)	Cu (%)	Au (g/t)	Ag (g/t)	Zone
CB-20-14	805.7	806.7	1.0	0.79	0.14	6.0	Main Vein below dyke (south)
CB-20-15	1,066.15	1,073.6	7.45	2.38	0.12	4.2	Main Vein below dyke (south)
Including	1,068.95	1,072.6	3.65	3.65	0.18	6.2	
CB-20-16	1,187.95	1,195.2	7.25	2.46	0.59	5.0	Main Vein below dyke (south)
CB-20-16W1	1,156.0	1,158.3	3.3	1.94	0.13	4.5	Main Vein below dyke (south)
CB-20-17	974.0	981.0	7.0	9.08	0.41	30.6	Main Vein below dyke (south)
Including	976.0	980.75	4.75	11.07	0.48	36.1	
CB-20-18	1,021.9	1,028.2	6.30	3.03	0.11	6.6	Main Vein below dyke (south)
CB-20-19	1,160.75	1,167.2	6.45	4.06	0.38	13.2	Main Vein below dyke (south)
Including	1,164.85	1,167.2	2.35	6.10	0.74	15.3	
CB-20-20[2]	257.0	261.0	4.0	2.31	0.11	7.0	West Vein
	1,055.5	1,057.8	2.3	0.87	0.12	1.9	Deep Main Vein Lens (north)
CB-21-21	106.2	110.1	3.9	1.35	0.10	4.4	West Vein
CB-21-22	313.0	316.2	3.2	2.84	0.32	6.3	West Vein
CB-21-23	120.6	123.3	2.7	1.67	0.15	3.8	West Vein
CB-21-24	No significant mineralization						West Vein
CB-21-25	634.4	640.4	6.0	1.75	0.09	5.4	New lens
including	636.2	640.4	4.2	2.13	0.11	6.7	New lens
	766.65	767.5	0.85	0.48	0.04	4.7	Main Vein below dyke (north)
CB-21-26	214.5	228.05	13.55	2.06	0.33	9.3	West Vein
including	219.45	227.0	7.55	3.22	0.56	13.7	West Vein
CB-21-27	No significant mineralization						Main Vein below dyke (north)

Hole	From (m)	To (m)	Width[1] (m)	Cu (%)	Au (g/t)	Ag (g/t)	Zone
CB-21-28	1,146.7	1,150.4	3.7	5.05	0.15	11.3	Main Vein below dyke (south)
including	1,147.2	1,149.0	1.8	9.12	0.17	19.2	
CB-21-29	1,050.6	1,054.3	3.7	2.47	0.87	9.3	Main Vein below dyke (south)
including	1,051.6	1,053.1	1.5	5.25	2.05	12.7	
CB-21-30	1,005.0	1,015.45	10.45	2.23	0.52	7.7	Main Vein below dyke (south)
including	1,010.3	1,014.9	4.6	4.04	1.02	13.7	
CB-21-31	424.4	427.4	3.0	4.09	0.37	10.9	Main Vein above dyke
CB-21-32	1,119.5	1,125.0	5.5	3.46	0.25	8.4	Main Vein below dyke (south
including	1,120.4	1,124.0	3.6	4.63	0.30	11.4	
CB-21-32W1	1071.0	1085.2	14.2	2.26	0.18	7.4	Main Vein below dyke (south)
including	1071.8	1078.6	6.8	3.67	0.26	9.7	
CB-21-32W	1036.6	1046.2	9.6	2.19	0.20	6.58	Main Vein below dyke (south)
including	1043.6	1046.2	2.6	5.86	0.66	14.75	
CB-21-33	471.8	472.9	1.1	1.96	0.26	5.0	Main Vein above dyke
CB-21-34	1,160.2	1,163.8	3.6	4.52	0.12	8.1	Main Vein below dyke (south)
including	1,161.2	1,162.85	1.65	9.75	0.24	14.7	
CB-21-35	427.8	435.1	7.3	1.43	0.17	4.9	Main Vein above dyke
including	431.5	434.6	3.1	2.03	0.32	6.6	
CB-21-36	607.8	610.4	2.6	1.35	0.22	10.2	Main Vein above dyke
CB-21-37	534.5	539.05	4.55	3.02	0.42	12.9	Main Vein above dyke
CB-21-38	679.6	682.6	3.0	2.57	0.39	15.0	Main Vein above dyke

Notes:

1. The true width of the structures intersected is estimated at approximately 55% to 65% of the downhole width, except for holes CB-20-20, and CB-20-21 to CB-21-24 where the orientation of the vein in the West Vein is yet to be properly determined. It is interpreted that the intercept in hole CB-21-26 is subparallel to the dip and therefore the true width is estimated at <30%.
2. Hole CB-20-20 was completed in 2021.

Table 10-3: Corner Bay drilling results summary (2021) up to MRE in this Report

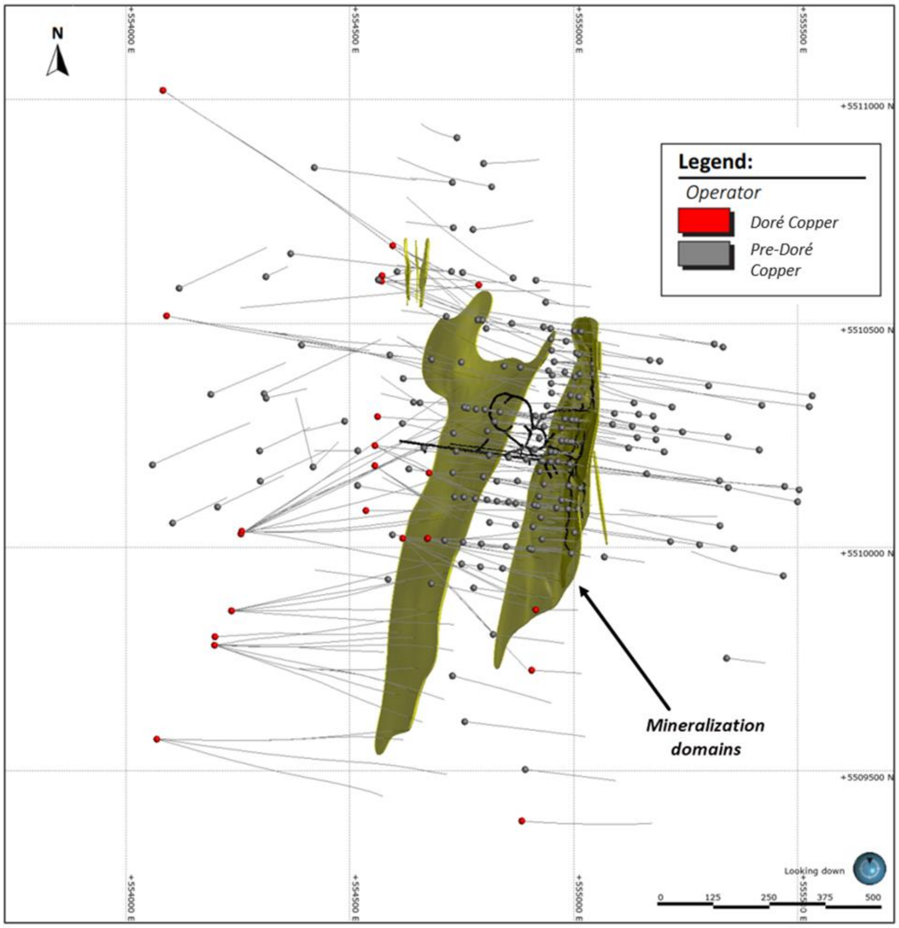
Hole	From (m)	To (m)	Width(1) (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)	Zone
CB-21-39	1,175.55	1,177.6	2.05	2.04	0.24	17.1	-	Main Vein below dyke (south)
CB-21-39W1	No significant mineralization							Main Vein below dyke (south)
CB-21-40	No significant mineralization							Main Vein below dyke (south)
CB-21-41	967.6	971.1	3.5	2.66	0.40	16.6	195	Main Vein below dyke (south)
CB-21-42	1,045.0	1,048.0	3.0	2.71	0.18	22.3	-	Main Vein below dyke (south)
CB-21-43	No significant mineralization							Main Vein below dyke (south)
CB-21-44	1,191.6	1,193.75	2.15	2.42	0.46	4.3	322	Between Main Vein and Deep Lens
CB-21-45	1,157.2	1,161.0	3.8	2.97	0.45	4.4	682	Between Main Vein and Deep Lens
CB-21-46	No significant mineralization							Main Vein below dyke (south)
CB-21-47 Including	1,230.0 1,230.0	1,237.35 1,234.1	7.35 4.1	5.08 6.06	0.27 0.23	8.6 10.6	182 189	Between Main Vein and Deep Lens
CB-21-48	1,261.3	1,263.8	2.5	2.42	0.15	-	-	Main Vein below Dyke
CB-21-49 including	1,122.3 1,124.9	1,128.4 1,128.4	7.1 3.5	3.24 4.28	0.23 0.28	- -	582 682	Between Main Vein and Deep Lens
CB-21-50	667.3	673.5	6.2	5.77	0.51	32.2	1,373	Main Vein above dyke
CB-21-51 including	1,141.5 1,144.0	1,146.9 1,146.9	5.4 2.9	2.24 3.44	0.10 0.17	- -	142 262	Between Main Vein and Deep Lens
CB-21-52	598.9	602.6	3.7	9.41	2.84	36.5	890	Main Vein above dyke
CB-21-53	768.3	770.3	2.0	3.34	0.56	15.6	-	Main Vein above dyke
CB-21-54	1,149.5	1,152.3	2.8	1.85	0.29	3.9	614	Between Main Vein and Deep Lens

Hole	From (m)	To (m)	Width(1) (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)	Zone
CB-21-55	673.7	677.6	3.9	8.03	0.86	42.1	1,109	Main Vein above dyke
CB-21-56	1,294.0	1,297.0	3.0	2.10	0.10	-	-	Between Main Vein and Deep Lens
CB-21-57	720.0	724.2	4.2	6.18	0.12	26.6	271	Main Vein above dyke
CB-21-58	823.9	826.0	2.1	8.85	0.16	52.1	188	Main Vein above dyke
CB-21-59	No significant mineralization							Outside the deposit
CB-21-60	759.5	763.2	3.7	8.61	0.16	56.5	141	Main Vein above dyke
CB-21-61	No significant mineralization							Outside the deposit

Notes:

(1) The true width of the structures intersected is estimated at approximately 60-75% of the downhole width. For holes CB-21-48, 50, 58,59, 60 and 61, the true width of the structures intersected is estimated at approximately 55-60% of the downhole width.

Drill hole collar locations at Corner Bay are shown in Figure 10-1.



Source: SLR, 2022. Date: May 2022

Figure 10-1: Corner Bay drill hole collar locations

The QP recommends that:

- Core handling procedures include systematic core photography of the entire length of holes, both wet and dry;
- Sampled intervals should be photographed both before and after sawing; and
- Geotechnical data including RQD, core recovery, and the number of fractures per metre should be collected for the entire length of the holes on a regular basis as part of the core logging protocol as opposed to only indicating any poor-quality core in the logs.

10.1.2. Devlin

All drilling on the Devlin property has been completed using various sizes of wireline core drilling. Figure 10-2 displays the extent of the various drill campaigns on the Devlin deposit. All drilling at Devlin is historical, except for a total of 669 m of drilling conducted for metallurgical and mineral sorting tests. Procedures related to drilling and logging are summarized from AGP (2015).

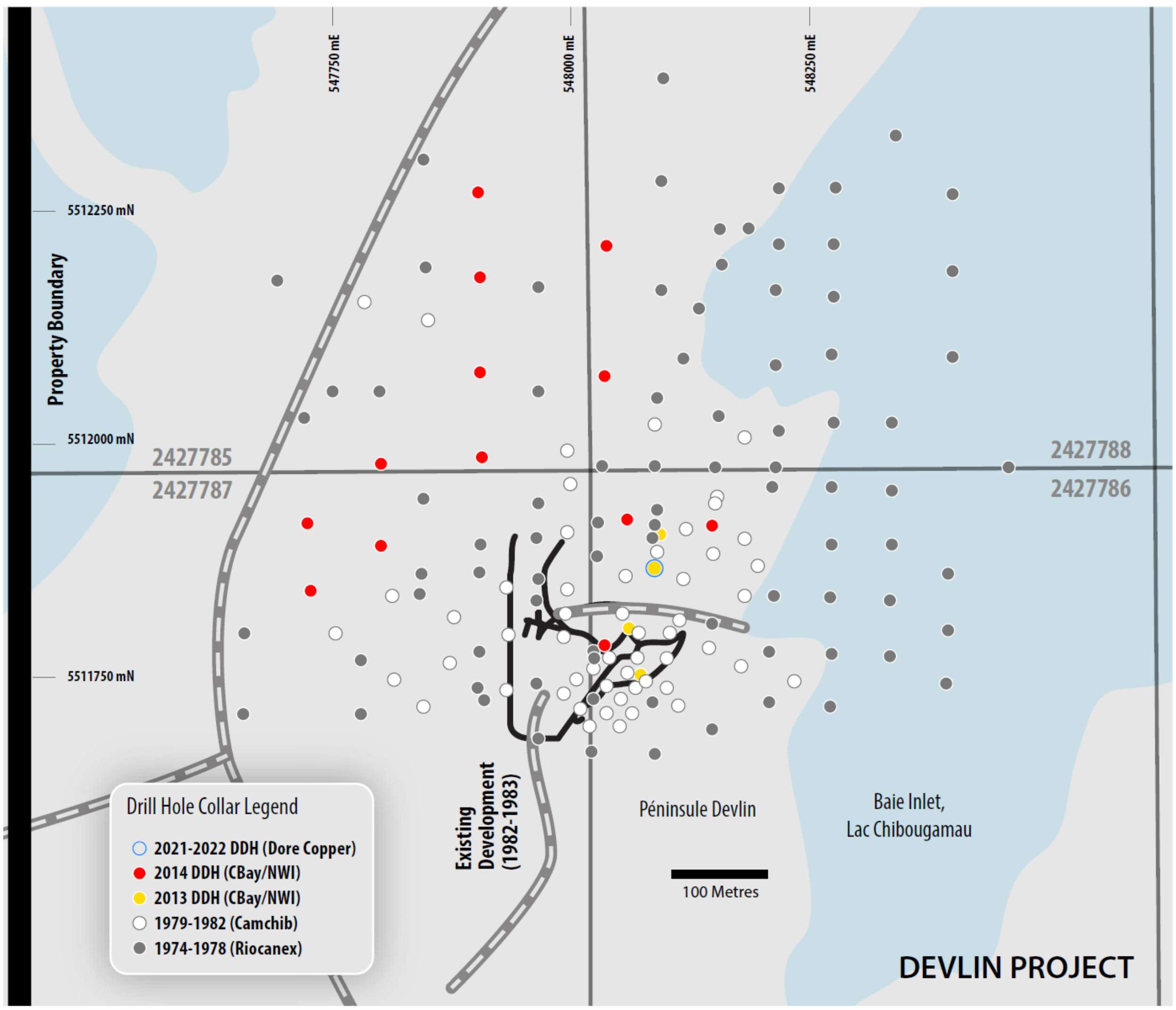


Figure 10-2: Devlin drill hole collar locations

10.1.2.1. Riocanex Diamond Drill Program: 1974 – 1978

Riocanex completed four rounds of diamond drilling on the Devlin property from 1974 to 1978; drilling 95 AQ holes with a total cumulative length of 10,023 m (32,855 ft).

The drilling was done on a pattern of 200 ft (approximately 60 m) centres. Some casings were left behind on land. Holes drilled on the lake were cemented.

The dip of the holes was checked for deviation using acid tests. Riocanex did not survey any of the holes for azimuth deviation. Collars were located using an imperial grid originally established on the property in 1973 for geophysical surveying. The grid consists of an east-west baseline with north-south gridlines cut at 200 ft spacing. Grid North is parallel to True North. Drill hole collar elevations were measured using a reference lake level of 100 ft as the datum elevation. Holes were not surveyed with a transit.

There is no record of which drill contractor was used for the various programs; however, it was most likely Contact Drilling Ltd. of Chibougamau as it is known that the core from the Riocanex programs were stored at Contact Drilling Ltd.'s warehouse in Chibougamau until a 55% stake in the property was purchased by Camchib. Core from holes R3-62 and R3-95 were reportedly sent to Riocanex's offices in Toronto. Camchib's internal company memos reported that the Riocanex core was then moved to a fenced area of the Mine Principale in Chibougamau. This mine site is currently owned by the government of Québec. There is no core present at the site.

Elevations were converted from the Riocanex imperial grid to UTM using the relative elevation of hole R3-62 and a known UTM elevation for R3-62 obtained by differential GPS.

The Riocanex drilling defined a flat lying zone of mineralization within a breccia zone, dipping 7° to 10° to the northeast at approximately 200 ft (60 m) below surface. It was noted that the south end of the deposit is cut off by a possible fault zone at the contact with a dioritic unit.

10.1.2.2. Camchib Diamond Drill Program: 1979 – 1982

Camchib completed three additional diamond drill programs on the property from 1979 to 1982 with 20,568 ft (6,269 m) drilled in 58 holes.

In 1979, Camchib and joint venture partner Falconbridge Copper, carried out an 11-hole AQ drilling program totalling 3,335 ft (1,017 m). The companies contracted Contact Drilling Ltd. of Chibougamau to drill holes R3-96 to R3-106. The holes were drilled to check the validity of the Riocanex drill pattern and to infill the drill pattern down to approximately 100 ft (30 m) in certain locations.

In 1981, a two phase 9,574 ft (2,918 m) drilling program was conducted in the south end of the deposit. Larocque Sounding of Montréal, Québec was subcontracted by Maisonneuve Energy Metals Inc. of Ottawa, Ontario to carry out the diamond drilling. The 41 BQ-sized holes (R3-107 to R3-147) were drilled to study the character and structure of the deposit in detail and to aid in mine planning.

- The Phase I drilling (18 holes; R3-107 to R3-124) was performed at 50 ft (15.2 m) centres in a 100 ft (30.5 m) diamond pattern encompassing a high-grade zone indicated in older holes (R3-50, 51, 53, and 55). This drilling resulted in significant changes to the boundary of the mineralized zone in that part of the deposit (Tremblay, 1981);
- The Phase II drilling program covered the south part of the deposit at 200 ft (61 m) drill spacing. Several higher-grade lenses in the north, east, and west parts of the Main Zone were defined. Both phases indicated that the mineralized vein was flat lying, tabular, generally planar, and had a general strike of N45°W and dip of 5° to 8° to the northwest (Tremblay, 1981).

In late 1982, six additional BQ diamond drill holes (R3-148 to R3-153) totalling 7,659 ft (2,334 m) were drilled to test the possibility of finding similar mineralized structures parallel to the Main Zone at greater depth, as well as the extension of the host breccia. Chibougamau Diamond Drilling was contracted for the program. No potentially economic intersections or potential new vein structures were encountered below the Main Zone at a depth of 1000 ft (305 m).

All holes drilled by Camchib were drilled on land. The dip of the holes was confirmed using acid tests. Some casings were left and not capped, and it is unknown if the holes were cemented. Similar to the Riocanex drilling, Camchib did not use a down-the-hole tool to measure the azimuth deviation.

Core from the 1979 to 1981 programs was reportedly stored at Camchib's Mine Principale in Chibougamau. The mine site is currently owned by the government of Québec and there is no core present at site. Some unmineralized BQ (36.5 mm diameter) core from the 1981 or 1982 Camchib program was found dumped near the shoreline on the Devlin property.

Camchib utilized the same grid lines cut by Riocanex to locate the drill holes but employed an alternate numbering system for the imperial grid. The conversion point between the two grids was the casing for hole R3-8, with 200E on the Riocanex grid being equal to 5,000E on the Camchib grid, and 0N for Riocanex being equal to 8,000N on the Camchib grid. Collar elevations were measured using a reference datum elevation of 9,200 ft (2,804.2 m) with reported lake levels ranging between 9,201 ft (2,804.5 m) and 9,203.67 ft (2,805.3 m).

10.1.2.3. Nuinsco/CBAY: 2013 - 2014

In the fall of 2013, Nuinsco/CBAY contracted Chibougamau Diamond Drilling to drill approximately 1,500 m across several of CBAY's properties in the Chibougamau area. The work was managed by Nuinsco and four drill holes totalling 288 m were drilled on the Devlin property.

The four NQ-sized holes were drilled vertically and ranged from 69 m to 75 m in length. Drill hole dips and azimuths were surveyed by the drill crew using a Reflex Multi-Shot instrument. Collar locations were initially surveyed by handheld GPS and later in 2014 by differential GPS (DGPS).

Core logging was done at the core shack located at the Copper Rand mine. All drill core was photographed and RQD measurements and estimates of core recovery were measured.

A total of 56 core samples were collected from the four holes. Copper mineralization (chalcopyrite) was encountered in all holes. Samples from the 2013 program returned assay values of up to 10.85% Cu although the weighted averages for the best intersection(s) in each drill hole ranged between 0.38% Cu and 5.68% Cu, as shown in Table 10-4.

The purpose of the drill program was to confirm copper values obtained previously by Riocanex and Camchib in the central part of the deposit. The four drill holes were spaced 30 m to 60 m apart along the north-south course of the Riocanex grid line 200E (DEV-CB-1 and 2) and between lines 200E and 300E (DEV-CB-3 and 4).

The mineralized zones were observed to be associated with multiple veins as noted previously in work done by Camchib. Pyrite and chalcopyrite occur within the vein itself, or along its margin, but were also detected within cross cutting fractures. A carbonate alteration was also noted in the walls of some of the veins.

In 2014, Nuinsco/CBAY contracted Chibougamau Diamond Drilling for a second, more extensive drill program on the Devlin property. The 2014 drilling program totalled 1,461 m in 13 NQ-sized vertical holes, ranging from 90 m to 120 m in length.

Drill hole dips and azimuths were surveyed by the drill crew using a Reflex Single-Shot instrument. Collar locations were surveyed using a Trimble DGPS unit. Core logging was performed at the Copper Rand mine core logging facility. All drill core was photographed and RQD measurements and estimates of core recovery were measured.

The purpose of the program was to do infill drilling in preparation for resource estimation work as well as to confirm copper values obtained previously by Riocanex and Camchib by twinning some of the historic holes. Among the 13 vertical drill holes, 10 were infill holes and three were twin holes. The twin holes were DEV-14-01, DEV-14-12, and DEV-14-13, twinned to R3-104, R3-62, and R3-51, respectively. The underground development intersects hole R3-51, so the twin was set back approximately 7 m to ensure it missed the opening.

Table 10-4: Significant results from the Devlin 2013 and 2014 drill programs

Drill Hole	From (m)	To (m)	Width (m)	Cu (%)	Au (g/t)
DEV-CB-3	59.02	62.18	3.16	2.41	0.435
including	59.34	60.00	0.66	6.88	1.750
DEV-CB-3	67.00	67.50	0.50	0.51	nil
DEV-CB-4	56.81	57.58	0.77	5.68	0.710
including	57.10	57.42	0.42	10.85	1.410
DEV-14-01	65.50	67.70	2.20	4.33	0.104
including	66.70	67.20	0.50	11.00	0.211
DEV-14-04	36.80	37.30	0.50	3.87	0.160
DEV-14-05	45.50	46.00	0.50	1.60	0.076
	48.00	48.70	0.70	1.09	0.091
DEV-14-07	35.80	36.10	0.30	1.45	0.288
	52.20	52.60	0.40	1.10	0.024
	55.40	55.90	0.50	5.53	0.110
DEV-14-09	20.40	20.70	0.30	1.11	0.042
	56.80	57.10	0.30	1.06	0.091
DEV-14-10	No significant results				
DEV-14-12	21.00	21.70	0.70	1.68	0.064
	73.40	75.50	2.10	4.17	n/a
including	74.40	74.70	0.30	16.05	0.331
and	75.10	75.50	0.40	5.96	0.190
	84.10	84.40	0.30	1.85	n/a

The QP notes that in Table 10-4 the intercept width should be very close to a true width since the vertical holes are drilled more or less perpendicular to the vein orientation.

As seen in the 2013 drill program, mineralization was observed to be associated with multiple quartz veins, with pyrite and chalcopyrite occurring within the veins or along their margins. Pyrite and chalcopyrite were also observed within cross cutting fractures (Bossé, 2014b).

The core from the 2013 and 2014 programs is stored in the Company's roofed core shack adjacent to the Copper Rand mill site.

10.2. Joe Mann

In 2020, Doré Copper drilled a total of 8,343 m to test the Main Zone and West Zone below the underground workings, the Far West Zone, and the South South Zone (Figure 10-3). The West Zone is 100% owned by Doré Copper starting at 842 m below surface, dipping into the Joe Mann property boundary, and the other areas are part of the option agreement with Ressources Jessie. The results from the surface drilling program are summarized in Table 10-5.

The results from the 2020 drilling program were incorporated where appropriate in the 2021 MRE and are discussed below.

Previous drilling activities are discussed in Section 6 of this Technical Report.

Table 10-5: Summary of 2020 drilling program results at Joe Mann

Hole ID	Zone	From (m)	To (m)	Width (m)	Grade	
					(g/t Au)	(% Cu)
JM-20-02A	Main (unidentified)	1,213.30	1,213.70	0.40	33.20	0.03
	Main	1,258.35	1,259.65	1.30	6.32	0.52
	including	1,258.35	1,258.80	0.45	17.7	1.23
	Main	1,276.50	1,282.45	5.95	2.29	0.04
	including	1,276.50	1,278.20	1.70	5.64	0.02
JM-20-03	South South	18.00	24.0	6.00	0.62	0.01
JM-20-04	South South	NSI				
JM-20-05	South South	16.60	21.00	4.40	0.80	0.02
	South	129.00	130.80	1.80	1.92	0.04
JM-20-06	West (unidentified)	906.00	907.00	1.00	4.63	0.03
JM-20-06W1	West (unidentified)	940.80	941.50	0.70	4.34	0.15
	West (unidentified)	862.70	866.70	4.00	3.60	0.01
JM-20-06W2	West	1,241.60	1,242.95	1.35	3.29	0.04
JM-20-06W3	West	1,174.40	1,178.40	4.00	10.34	0.27
	West	1,188.70	1,189.20	0.50	13.70	0.42
JM-20-07	Main	1,357.90	1,360.40	2.50	1.87	0.02
JM-20-08	Far West	NSI				
JM-20-09	Far West	171.50	179.90	1.90	0.60	0.49

Hole ID	Zone	From (m)	To (m)	Width (m)	Grade	
					(g/t Au)	(% Cu)
	Far West	188.55	189.00	0.45	5.97	0.20
JM-20-10	Far West	204.50	213.00	8.50	3.92	0.08
	including	206.50	209.50	3.00	10.00	0.08
	incl.	208.80	209.50	0.70	35.20	0.11
	Far West	235.50	236.00	0.50	9.20	0.13
JM-20-11	Far West	120.40	120.80	0.40	8.45	0.04
	Far West	263.60	264.20	0.60	5.790	0.19
	Far West	305.50	305.90	0.40	40.80	0.60

Note:

1. NSI indicate no significant intercepts.
2. True widths are estimated to be 57% to 68% for West Zone and 75% for Main Zone.
3. No true width could be determined for the Far West Zone or the South South Zone.

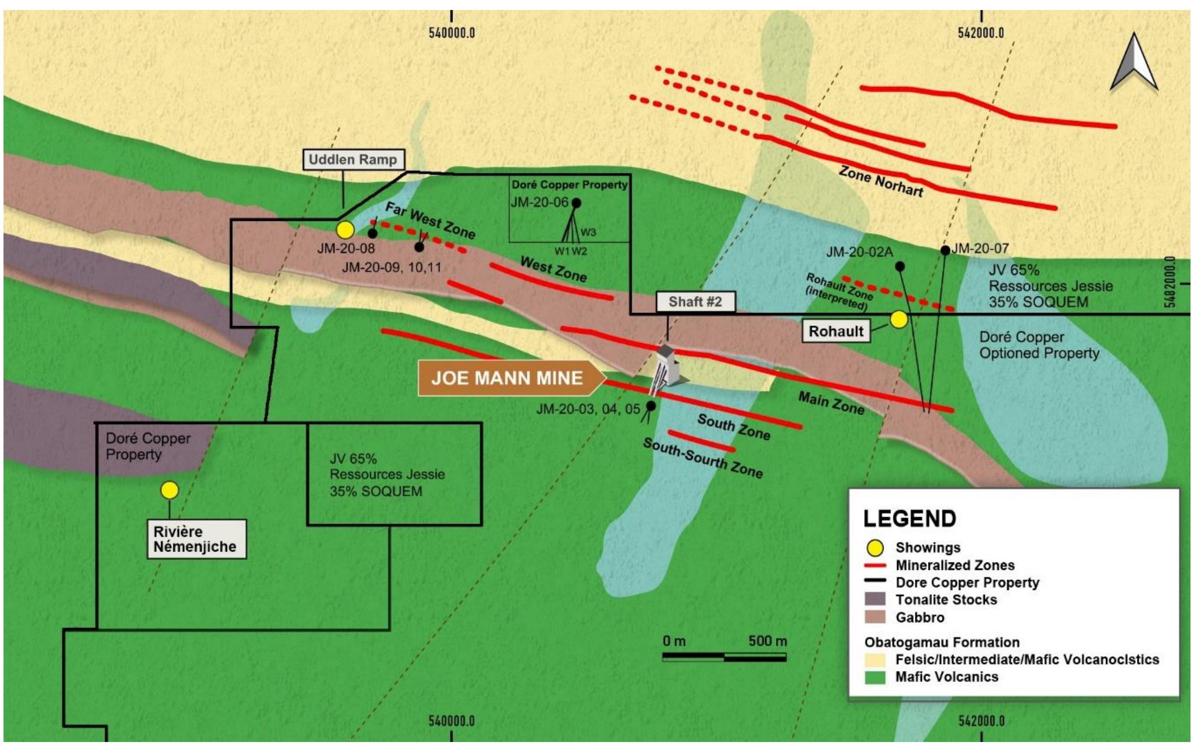


Figure 10-3: Joe Mann drill hole location map

10.2.1.1. Main Zone

The Main Zone was drilled on surface with seven holes totalling 1,746.8 m. Only two drill holes reached target due to severe deviation and depth of drilling. Wedges and directional drilling contractors (Aziwell) were employed to help control the deviation and guide the hole to target. All drill holes were drilled in NQ diameter except hole JM-20-07, which started in HQ and necked down to NQ at 400 m downhole.

Two holes intersected the Main Zone and tested the continuity of the gold mineralization identified with two high-grade historical intercepts 150 m apart and located approximately 170 m beneath the lowest mining level (1,050 m) of the Joe Mann mine. These two prior holes were drilled in 2008 after the Joe Mann Mine had ceased operations and intersected 3.02 m of 30.3 g/t Au and 1.30% Cu (hole EE-188) and 1.88 m of 26.66 g/t Au and 0.40% Cu (hole EE-189B). Doré Copper collared the holes on the land portion of the JV between Ressources Jessie (65%) and SOQUEM (35%) and drilled south towards the Main Zone.

Hole JM-20-02A intersected the Main Zone shear zone approximately 120 m up-dip from the two historical intercepts mentioned above. The shear zone returned two intercepts of 1.3 m of 6.32 g/t Au and 0.52% Cu, including 0.45 m of 17.7 g/t Au and 1.23% Cu, and 5.95 m of 2.29 g/t Au, including 1.7 m of 5.64 g/t Au. In addition, JM-20-02A intersected 0.4 m of 33.2 g/t Au in an unidentified zone above the Main Zone. The second hole (JM-20-07) intersected the Main Zone at approximately 100 m below hole EE-189B with an intercept of 2.5 m of 1.87 g/t Au within a wider, weakly mineralized shear zone of 20 m.

The Main Zone intercepts are characterized by zones of quartz-carbonate veining that are thin, up to 20 cm in size, but quite dense and averaged a few centimetres. Sulphides, mostly pyrite, are present in trace amounts up to 2%.

The Main Zone is subvertical in locations that were historically mined and the only other zone with a northern dip is the West Zone. The change in dip of the Main Zone could explain the lack of a focused gold bearing quartz vein as was present in the historic upper portions and the presence of disseminated veinlets. These jogs and changes in dip direction occur in other deposits in the Chibougamau region, such as Cedar Bay where the main subvertical structures behave in a step like manner with the dip changes associated with lower to no grade zones before the structure opens up again.

On the West Zone, Doré Copper drilled four holes from surface totalling 2,944.1 m, one near-vertical hole (JM-20-06) and three wedges from that hole, with two using directional drilling, (JM-20-06W1, JM-20-06W2 and JM-20-06W3) to test the extension of the West Zone at a depth of 270 m to 400 m below the mined area. Three of the four holes reached the target structure, and one hole was stopped short (JM-20-06W1). All four intersected mineralized shear zones.

Hole JM-20-06W3 intersected 4.0 m of 10.34 g/t Au and 0.27% Cu and at a further 11 m downhole intersected 0.5 m of 13.70 g/t Au and 0.42% Cu. These two intercepts are located 100 m down plunge from the historical intercepts of 5.0 m of 10.3 g/t Au (hole EW78_D), 3.2 m of 16.1 g/t Au (hole EW79_D), and 3.3 m of 10.4 g/t Au (hole EW57_D). It is interpreted that both JM-20-06 and JM-20-06W1 intercepted the structure to the west of the mineralized material plunge structure and therefore did not carry high-grade gold mineralization. Hole JM-20-06W2 intersected the well-defined West Zone structure a further 100 m down dip from hole JM-20-06W3, but with weaker gold mineralization (1.35 m of 3.29 g/t Au).

The West Zone intercepts were characterized by zones of quartz carbonate veining and elevated blebby to net texture sulphides, mostly pyrite with small amounts of pyrrhotite and chalcopyrite. The intercepts down dip of the historic drilling pierced in the expected locations and the mineralization was of similar composition to the historic mineralization.

10.2.1.2. Far West Zone

Doré Copper completed four holes totalling 1,230 m at the Far West Zone, which is located approximately 900 m west along strike from the westernmost part of the Main Zone. The QP notes that the Far West Zone is not included in the MRE.

Historically, the Far West Zone was accessed by the Uddlen ramp to the west and an exploration drift at a depth of 137 m. The Far West Zone is interpreted to be the horse tailings of the Joe Mann structure at the west end and is characterized by very heterogeneous gold distribution that is nuggety in nature and historically has returned some shallow, very high-grade gold intercepts.

The surface drilling confirmed the nuggety nature of the Far West Zone with three holes intersecting gold mineralization. The best intercepts returned 8.5 m of 3.92 g/t Au, including 3.0 m of 10.0 g/t Au, which included 0.7 m of 35.2 g/t Au, and 0.5 m of 9.2 g/t Au in hole JM-20-10. Other highlights included: 0.4 m of 8.45 g/t Au, 0.6 m of 5.79 g/t Au, and 0.4 m of 40.8 g/t Au and 0.60% Cu in hole JM-20-11 and 0.45 m of 5.97 g/t Au in hole JM-20-09.

10.2.1.3. Sout South Zone

Doré Copper completed three exploration surface holes totalling 402 m on the South South Zone, located approximately 300 m south of the Main Zone, to follow up on a historical intercept of 0.8 m grading 32.0 g/t Au at a downhole depth of 18 m (hole H349). The results indicated weak gold mineralization near-surface and did not replicate the high-grade gold intercept. The South South Zone is not included in the MRE.

10.3. Copper Rand

10.3.1. Cedar Bay

Details of historical drill holes at Cedar Bay are described in Section 6. Doré Copper's predecessor AmAuCu completed a 14-hole (including wedges) drilling program totalling 14,047.45 m on the Corner Bay property, from October 2017 to May 2018, and a four-hole (including wedges) drilling program totalling 4,841.8 m on the Cedar Bay property, from February 2018 to May 2018 (Table 10-6). The historical and AmAuCu drilling was included in a MRE reported in the June 15, 2019 Technical Report prepared by RPA (now SLR).

Table 10-6: Summary of AmAuCu 2018 drilling program at Cedar Bay

Hole	Structure	From (m)	To (m)	Width[(1)] (m)	Cu (%)	Au (g/t)	Ag (g/t)
CDR-18-01	10_20 Zone	NSI					
CDR-18-02	Shallow	67.7	69.0	1.3	4.9	0.3	21.4
	Main	705.0	714.0	9.0	0.7	1.4	9.5
	Main	721.5	723.2	1.7	1.6	0.7	24.1
	10_20 Zone	1,185.5	1,188.8	3.3	0.9	3.4	10.2
	10_20 Zone	1,282.5	1,283.6	1.1	0.6	10.2	9.6
	10_20 Zone	1,287.2	1,288.6	1.4	0.5	4.9	3.9
CDR-18-02W2	10_20 Zone	1,204.4	1,206.0	1.6	0.6	8.6	6.0
	10_20 Zone	1,223.3	1,225.6	2.3	0.9	4.6	4.7
	10_20 Zone	1,249.9	1,252.3	2.4	1.7	19.5	16.2
CDR-18-03	Shallow	67.3	69.1	1.8	2.7	0.3	11.3
	10_20 Zone	1,165.7	1,167.9	2.2	2.0	7.5	24.8
	10_20 Zone	1,258.0	1,260.1	2.1	4.5	15.4	27.4

Note:
(1) The true width of the structures intersected is estimated at approximately 50% of the downhole width.

In 2020, Doré Copper completed 9,025 m of drilling at Cedar Bay. The drilling program mainly targeted the 10-20A, 10-20B and Central veins at a depth slightly deeper than the shaft at 1,036 m. Results from drill holes intersecting the 10-20A and 10-20B structures extended known mineralization by approximately 250 m downdip. All the veins at Cedar Bay were determined to be open downdip; however, the strike extensions were determined to be limited. Drill collars were located to the southwest and to the northeast. The northeast drill collars intersected mineralized structures close to surface (e.g., Copper Cliff Crown Pillar and Zone 21, both located near the former Copper Cliff mine).

The results from the 2020 drilling program at Cedar Bay are shown in Table 10-7. A plan view and isometric view of the drill hole location are shown in Figure 10-4 and Figure 10-5, respectively. These drill holes are yet to be incorporated into an updated MRE at Cedar Bay; however, they do not materially impact the current MRE.

Table 10-7: Results of the 2020 drilling program at Cedar Bay.

Hole	Structure	From (m)	To (m)	True Width(1) (m)	Cu (%)	Au (g/t)	Ag (g/t)
CDR-20-04	Copper Cliff Crown Pillar	36.0	40.8	2.1	4.9	7.3	25.0
CDR-20-04B	Copper Cliff Crown Pillar	32.7	38.0	2.3	7.3	13.6	38.0
CDR-20-04C	Copper Cliff Crown Pillar	34.5	39.5	2.2	5.8	7.7	36.0
	Central	1,430.65	1,435.05	4.0	0.5	1.0	1.5
CDR-20-04CB	Central	1,554.9	1,556.4	1.2	14.2	1.16	28.0
	Main	1,593.7	1,597.0	2.0	0.3	2.87	4.2
CDR-20-05	Copper Cliff Crown Pillar	31.0	36.0	2.2	1.3	1.1	7.8
CDR-20-06	Zone 21_2	No significant mineralization					
CDR-20-07	Zone 21_1	600.0	602.25	1.3	4.9	0.46	8.6
	Zone 21_2	633.85	636.0	1.2	2.4	0.34	8.9
CDR-20-08A	10-20A	1,454.0	1,456.2	1.7	1.65	7.57	17.4
	10-20B	1,440.2	1,442.4	2.2	1.67	1.67	20.7
CDR-20-08AW1	Main	1,090.4	1093.0	2.6	0.96	1.88	8.7
	Central	1,315.5	1,318.9	3.4	6.92	3.10	24.2
CDR-20-08AW2	10_20A	1,337.8	1,338.4	0.65	0.35	7.2	8.0

Note:

(1) The true width of the structures intersected is estimated at approximately 50-75% of the downhole width.

Zone 21

Zone 21 occurs as the north-easternmost vein at Cedar Bay or south-westernmost vein at Copper Cliff. It was mined over the historic Copper Cliff and Cedar Bay claims. The zone mined had a strike of 150 m to 200 m and a vertical extent of 400 m (490 m from surface). The western half of the mineralized zone is within Doré Copper's current land tenure boundary. Hole CDR-20-07 targeted the down-dip extension of the deposit on its west side, approximately 40 m beneath the lowest mining level, and intersected 2.25 m (true thickness (TW) 1.3 m) at 4.9% Cu, 0.46 g/t Au and 8.6 g/t Ag. A second parallel vein, 22 m down hole, intercepted 2.15 m (TW1.2 m) with grades of 2.4% Cu, 0.34 g/t Au, and 8.4 g/t Ag. Zone 21 remains open down dip and along strike at this level. Hole CDR-20-06 tested Zone 21 approximately 100 m along strike to the northwest of previous mining areas at a depth of 300 m and did not intersect mineralization. This new drilling has not been incorporated into the MRE for Cedar Bay.

Copper Cliff Crown Pillar

The Copper Cliff crown pillar is 85 m in height downdip according to historic sections and plans with the first development level being that depth below the surface. In the 2020 drilling program at Cedar Bay, a number of drill holes were collared at Copper Cliff and drilled to the southwest.

Three of the holes intersected the crown pillar near the surface with high-grade copper and gold mineralization in holes (CDR-20-04, -04B, and -04C) and a lower-grade intercept in hole CDR-20-05.

In 2021, Doré Copper completed 2,043 m of drilling in 10 holes to test the extension of the Copper Cliff Crown Pillar. Eight of the holes were shallow and two of the holes extended to approximately 700 m. Only three of the eight holes intersected high-grade copper mineralization as shown in Table 10-8. The Copper Cliff Crown Pillar extends for approximately 300 m along strike from surface to a vertical depth of 85 m (mined out below).

Table 10-8: Highlights of the 2021 drilling program at the Copper Cliff Crown Pillar

Hole	From (m)	To (m)	Width(1) (m)	Cu (%)	Au (g/t)	Ag (g/t)
CC-21-02	79.9	81.1	1.2	12.63	0.19	48.0
CC-21-03	34.3	35.7	1.4	2.18	0.43	15.0
CC-21-04	14.0	16.0	2.0	4.46	4.10	25.0

Note:

(1) The true width of the structures intersected is estimated at approximately 40% of the downhole width.

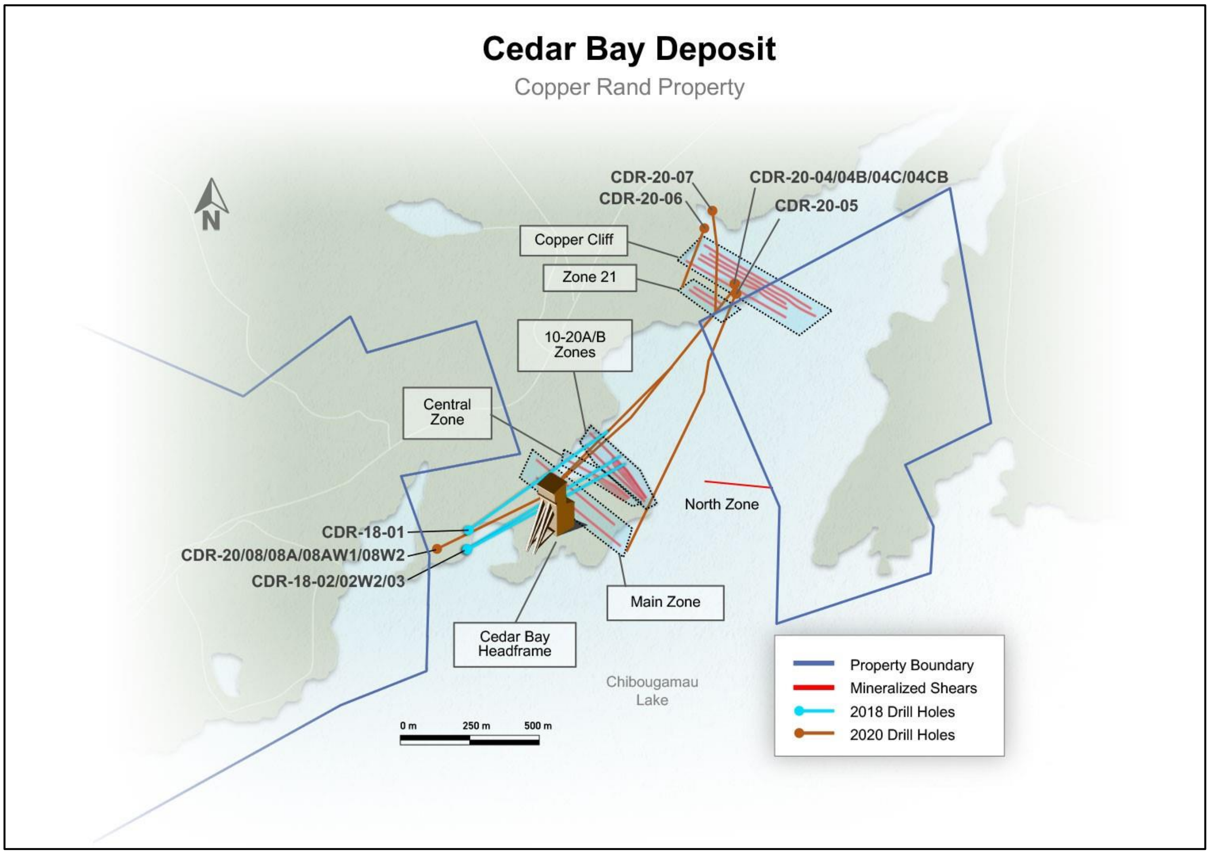


Figure 10-4: Plan view of the 2018 and 2020 drilling programs

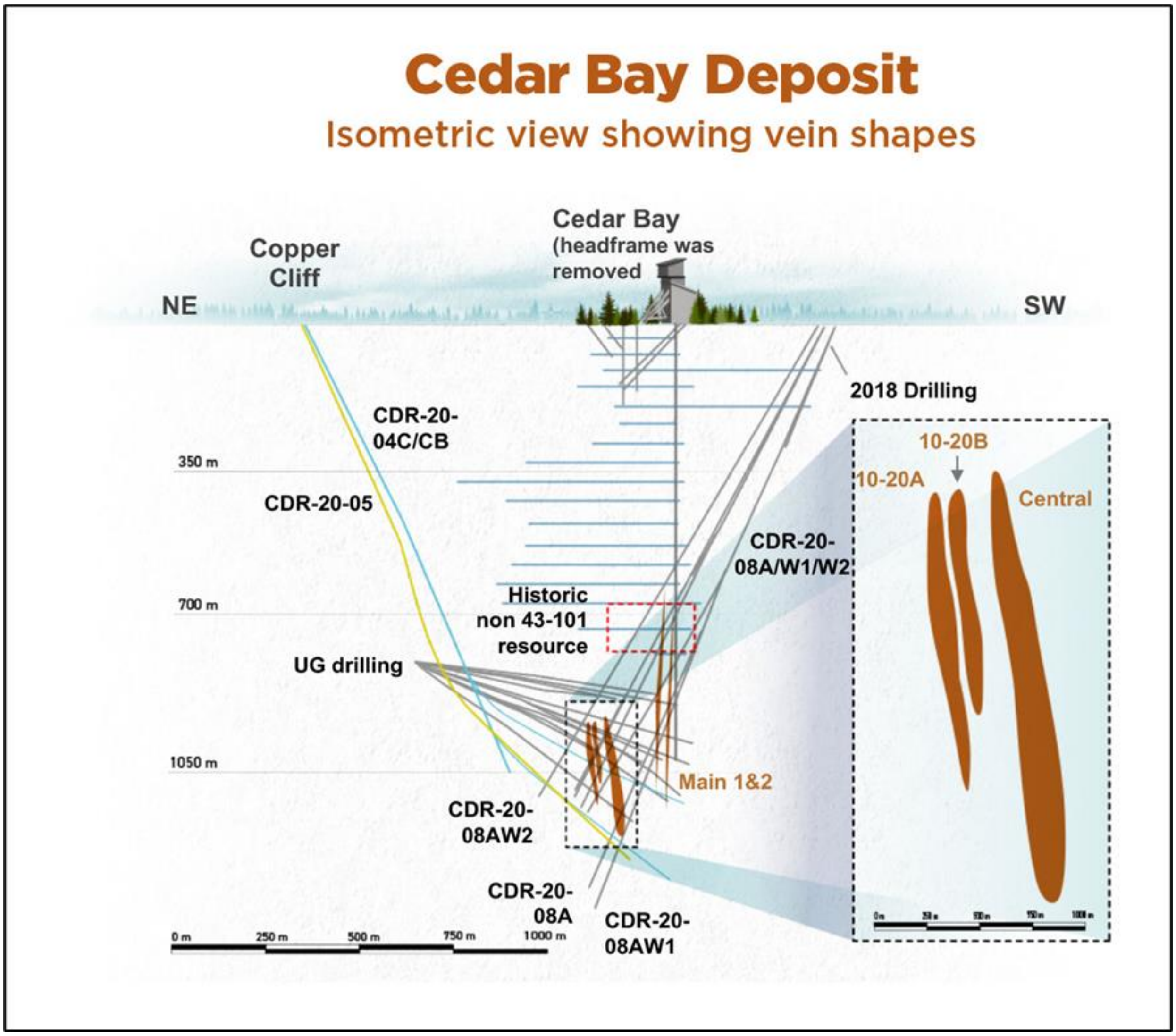


Figure 10-5: Isometric view showing the vein shapes from the 2019 NI 43-101 Technical Report and drill hole traces of the Cedar Bay 2020 drilling program

11. Sample Preparation, Analyses, and Security

11.1. Corner Bay

11.1.1. Sampling Method and Approach

Details of sampling methods and approach for drill holes completed prior to 2004 at Corner Bay are not available.

11.1.1.1. Resources MSV Inc: 2004 – 2008

The Corner Bay samples were prepared and analyzed by MSV employees at the Copper Rand mine laboratory. The laboratory was not independent of MSV. Control samples were sent to an external laboratory. The marked drill hole core sections were taken from the core boxes and split using a hydraulic core splitter. The core halves were put in plastic bags numbered on the outside with a pen marker. A sample tag was placed inside the bags and the bags were folded and stapled. Attention was paid to always use the same core side. The remaining half core was put back in the core box in proper order. The sample bags were then sent to the Copper Rand mine laboratory for analysis.

11.1.1.2. AmAuCu and Doré Copper: 2017 – 2021

Drill core was delivered every morning to the core shack by the drilling contractor (Miikan Drilling Ltd.) and arranged on tables by the geological technicians, after which it was logged by geologists. The core recovery was very high and normally above 95%. Mineralized drill core, veins, and shoulder samples were identified and marked on the drill core by the geologists. Sample lengths ranged from 0.4 m to 1.0 m, commonly being 1.0 m, and respected geological contacts. Sample tags were placed at the beginning of each sample interval and the tag numbers were recorded in an MS Excel database.

Diamond drill core was split in two using a Pothier diamond saw following a reference line as defined by the geologists. If sampling was necessary, one half was collected, bagged with one sample tag, and submitted for sample preparation and analysis. The remaining half core was placed back in the core tray and the other portion of the sample tag was stapled to the box. It was then stored on site in well mapped core storage facilities. Unsampled intervals were stacked on wood pallets and their location was mapped for reference. Sampled core was bagged in rice bags or could be double bagged for H core size. The geologists marked the batch and sample numbers on the rice bag and reviewed the core shipment prior to being transported to the ALS

Limited Laboratory (ALS; 2017–2019) or the SGS Laboratory (SGS; 2020–2021), both in Val-d'Or, by Transcol courier. Transcol stacked the rice bags on pallets during transport.

Under AmAuCu's ownership (2017–2019), samples were prepared at ALS in Val-d'Or before being shipped to the ALS facility in Vancouver for analysis.

Doré Copper samples (2020–2021) were prepared at SGS in Val-d'Or before being sent to SGS's Burnaby Laboratory for analysis. At Corner Bay, an in-house water immersion device was used to calculate density as part of the description work.

11.1.2. Sample Preparation and Analysis

11.1.2.1. Copper Rand Mine Laboratory

Primary assays from the Corner Bay deposit were prepared and analyzed at the Copper Rand mine laboratory from 2004 to 2008.

At the laboratory, the contents of the sample bags were transferred into metal pans. Paper bags were prepared, and the sample numbers were recorded on them. The samples were crushed to -0.25 in (-6.35 mm) and split to keep 100 to 200 g. Rejects were put back into the plastic bags and stored.

The split was pulverized with a disk pulverizer and the pulp was stored in the paper bag. A 5 g sample was weighed and put in a beaker. Trays of 35 beakers were used. The samples were dissolved using a mixture of 20 mL of hydrochloric acid (HCl) and 10 mL of nitric acid. The trays were then heated for five minutes and left to sit and cool for 45 minutes.

The solution was vacuum filtered into Erlenmeyer flasks and levelled to 100 mL. The Erlenmeyer flasks were mixed for one minute. The solution was then placed into test tubes, 35 test tubes per tray, and diluted with water at a ratio of 1:15.

The test tubes were subjected to analysis by atomic absorption for copper, gold, and silver. Results were displayed on the screen of the atomic absorption analyzer. There was no electronic storage of results. Assay results were manually transcribed onto assay sheets by the operator. They were later entered into computer spreadsheets for further processing by the geology department. The handwritten assay sheets were archived in files at the laboratory.

11.1.2.2. ALS

Primary assays from the Corner Bay deposit were prepared and analyzed at ALS from 2017 to 2019.

ALS is independent of Doré Copper and its facilities are accredited to the recognized quality standard of International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 17025: 2005 for all relevant procedures. The following analysis was undertaken at the ALS Val-d'Or and Vancouver facilities:

- **Sample Preparation:** Val-d'Or facility, PREP-31. Crush to 70% less than 2 mm, riffle split off 250 g, pulverize split to better than 85% passing 75 microns.
- **Copper Analysis**: Vancouver facility, ME-MS61. Four acid digestion of 0.25 g sample for analysis of a 48-element suite by inductively coupled plasma mass spectrometry (ICP-MS).
- **Overlimit Analysis**: Vancouver facility, Ag-OG62. Samples yielding analyses of certain metals over 10,000 ppm were re-analyzed by HCl leach with an atomic absorption spectroscopy (AAS) finish after a three-acid digestion.
- **Gold Analysis**: Vancouver facility, Au-AA23. A 30 g fire assay standard fusion method with AAS finish. The lower detection limit is 0.005 g/t Au, and the upper detection limit is 10 g/t Au.
- **Overlimit Gold Analysis**: Vancouver facility, Au-GRA21. Gold values above 10 g/t Au are re-assayed using a 30 g fire assay standard fusion method with a gravimetric finish.

11.1.2.3. SGS

Primary assays from the Corner Bay deposit were prepared and analyzed at SGS during 2020, 2021, and part of the 2022 drilling programs.

SGS is independent of Doré Copper and its facilities are accredited to the recognized quality standard of ISO/IEC 17025: 2005 for all relevant procedures. The following analysis was undertaken at the SGS Val-d'Or and Burnaby facilities:

- **Sample Preparation:** Val-d'Or facility, PRP94 and PRP89. Samples are dried at 105°C, crushed to 75% less than 2 mm, riffle split to 1 kg (PRP94) and 250 g (PRP89), pulverized split to greater than 85% passing 75 µm.
- **Copper Analysis**: Burnaby Facility, GE_IMS90A50. A 50 g sodium peroxide fusion, with an ICP-MS finish and lower and upper copper detection limits of 5 ppm Cu and 5% Cu.
- **Gold Analysis:** Burnaby facility, GE_FAA50V5. A 50 g fire assay standard fusion method with an AAS finish. The lower detection limit is 0.005 g/t Au and the upper detection limit is 10 g/t Au.
- **Gold Analysis:** Burnaby facility, GO_FAG30V. Gold analyses returned from GE_FAA50V5 with a gold value above 10 g/t Au are re-assayed using a 30 g fire assay standard fusion method with a gravimetric finish. The upper limit of detection is 100 g/t Au.

In the QP's opinion, the sample preparation and analytical procedures are acceptable for the purposes of Mineral Resource estimation.

11.1.2.4. AGAT Laboratories

For the 2022 drilling program, since March 2022, primary assays from the Corner Bay deposit are prepared and analyzed at AGAT Laboratories (AGAT) n Mississauga, Ontario.

AGAT offers specialized geochemical and assaying services for the mineral exploration industries. Our Mining Geochemistry Laboratory is accredited to ISO 17025 by the Standards Council of Canada (SCC).

- **Sample Preparation**: Samples are dried, crushed to 75% passing 10 mesh (2 mm) and split into 250 g subsample size using a Riffle Splitter. These sub-samples are then pulverized to 85% passing 200 mesh (0.075 mm) and homogenized prior to analysis (200-001).
- Sample preparation is completed at Val-d'Or facility.
- **Gold Analysis**: 50 g sample fused using fire assay lead collection and ICPOES finish (202-552 package). The lower detection limit is 10 ppb, and the upper detection limit is 10,000 ppb for this analysis.
- A gravimetric finish (202-564 package) is completed for any samples that return concentrations greater than 10,000 ppb. 50 g is fused using fire assay lead collection.
- **Multi-elemental analysis**: 0.2 g of sample digested in four acid with ICPOES finish (201-070).
- **Cu over limit**: 0.2 g sodium peroxide fusion with ICPOES finish (201-079).
- Four acid digestion and Gold analysis are completed at Mississauga facility.

Blanks, sample replicates, duplicates, and Certified Reference Materials (both aqueous and geochemical standards) are QC samples which are routinely used as part of AGAT Laboratories quality assurance program in order to provide accurate and quality results.

11.1.3. Sample Security and Database Management

From the 2017-2021 drilling campaigns, samples were handled by Doré Copper and its predecessor and transported by Transcol personnel or contractors. Drill core is stored at the Copper Rand core storage facility, the grounds of which are supervised. The Copper Rand storage facilities are completely covered, being inside a hangar. A core storage map is maintained by Doré Copper. Sample pulps and rejects are stored in a closed hangar on site.

Drill hole logging and sample data are maintained in an MS Excel database, with regularly scheduled back-ups. The database was migrated to GeoticLog in March 2022.

In the QP's opinion, the sample security procedures are acceptable for the purposes of Mineral Resource estimation.

11.1.4. Quality Assurance and Quality Control

Corner Bay

The QA/QC program is managed by the Doré Copper geology team, and QA/QC samples are blind to the laboratory. Each sample shipment of 20 to 300 samples is submitted to the laboratory every week and includes one certified reference material (CRM) for every 50 samples. Blank samples and field duplicates (quarter split) are inserted at a rate of one per 50 samples and are placed either preceding or following a mineralized interval. CRM samples are mostly inserted at random but are sometimes added if a mineralized zone is present in the batch. All QA/QC sample insertions maintain consecutive numerical order. Coarse blank material samples are approximately 300 g to 500 g of ornamental quartz-calcite rock from the local hardware store. Pulp and reject samples are not systematically selected for reanalysis. Following receipt of results from the laboratory, Doré Copper geologists would review, and sample batches identified as anomalous were repeated by the laboratory at the request of Doré Copper. QA/QC reports are produced punctually upon receiving new results. The QP recommends the preparation of quarterly and yearly QA/QC reports to track possible issues that might arise over time.

A summary of annual QA/QC submittals from 2017 to 2021 and part of 2022 is presented in Table 11-1.

Table 11-1: Summary of QA/QC submittals from 2019 to 2022

Sample Type	2019		2020		2021		2022	
	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate
Regular Samples	216		890		1,446		604	
Blanks	5	2.3%	26	2.9%	52	3.6%	19	3.1%
CRMs	2	0.9%	21	2.4%	35	2.4%	13	2.2%
Field Duplicates	4	1.9%	17	1.9%	33	2.3%	10	1.7%
Check Assays			-	-	47	1.5	22	3.6%

Notes:
1. Annual summaries are from January 1 to December 31 of the given year except for 2022, which ends March 13.

Certified Reference Material

Results of the regular submission of CRMs (standards) are used to identify issues with specific sample batches, and biases associated with the SGS laboratory. Doré Copper has sourced CRMs principally from two different international laboratories, OREAS and CDN Resource Laboratories Ltd. (CDN). Results of the CRMs were plotted on control charts and failure rates, defined as a gold value reporting more than three standard deviations (SD) from the expected value, as well as warning rates, defined as gold values reporting more than two SD, but less than three SD from the expected values, were reviewed by onsite geologists.

A total of seven different CRMs were inserted at Corner Bay by Doré Copper between 2021 and 2022, totalling 48 individual samples, with an insertion rate of approximately 2.4% for 2021 and 2.2% for 2022. A summary of these CRMs, which range in expected value from 0.495% Cu to 26.8% Cu, is presented in Table 11-2.

The QP selected three CRMs representing the average copper grade, and a high copper grade CRM with a period used between 2021 and 2022. The QP prepared control charts and analyzed temporal and grade trends, reviewed the data for low and high biases as well as the failure rate of each CRM. The QP also noted that there are no CRMs with values close to the 1.3% copper cut-off grade.

Table 11-2: Expected values and ranges of CRMs at Corner Bay

Standard	Grade (% Cu, g/t Au*)	1 SD	Assay Technique	Source	Date in Use Range	Count	Grade Represented
OREAS 111b	2.44	0.12	Peroxide Fusion	OREAS	2020-2021	15	Average-Grade Copper
OREAS 113	13.3	0.5	Peroxide Fusion	OREAS	2020-2022	17	High-Grade Copper
OREAS 239	26.8	1.99	Aqua Regia Digestion	OREAS	2021	1	High-Grade Copper
OREAS 502c (Cu) OREAS 502c (Au)	0.783 *0.488	0.022 *0.015	4 acid-digestion Pb, FA	OREAS	2018-2021	8	Low-Grade Copper Average-Grade Gold
OREAS 609	0.495	0.011	4 acid-digestion	OREAS	2022	1	Low-Grade Copper
OREAS 930	2.52	0.062	4 acid-digestion	OREAS	2018-2022	19	Average-Grade Copper
OREAS 933	8.37	0.250	4 acid-digestion	OREAS	2017-2022	35	High-Grade Copper

Notes:
1. FA=Fire Assay.
2. SD=Standard Deviation.

Results from OREAS 930 CRM samples analyzed at SGS, which are representative of the average copper grade at Corner Bay deposit, are presented in Figure 11-1 and indicate a low bias. All samples except for four are below the accepted average of 2.52% Cu of this CRM. Three out of 19 values failed and are below the three standard deviations. A similarly low bias was observed for OREAS 95 by RPA (2019), for OREAS 111b by SLR (2021), representing samples analyzed from 2017 to 2018 at ALS and from 2020-2021 at SGS.

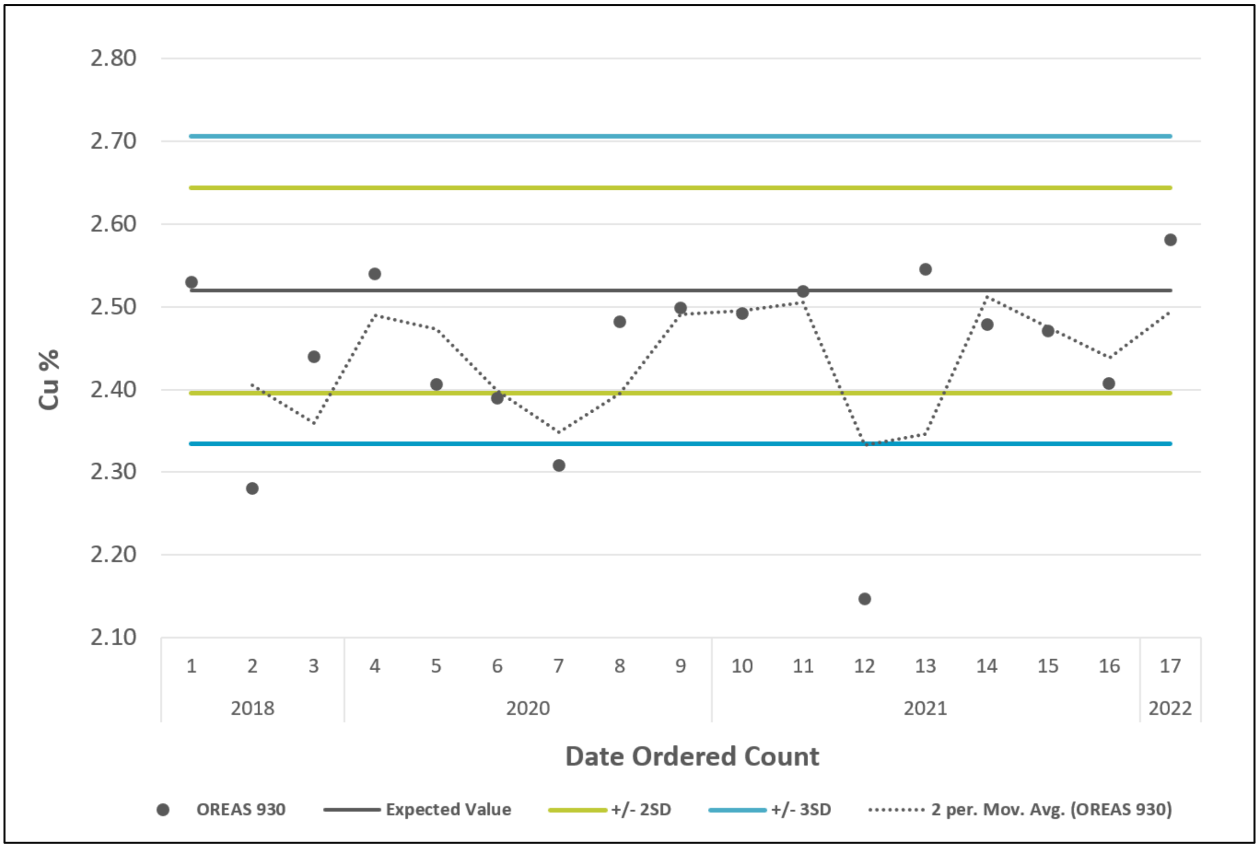


Figure 11-1: Control chart of CRM OREAS 930 for copper: 2018-2022

The copper control chart for OREAS 933 is shown in Figure 11-2. This CRM is representative of high copper grades in the deposit, covers both ALS and SGS periods of use, and has an expected value of 8.33% Cu. All copper samples returned values within the three SD range, and only one value was found between two and three SD. From 2018, the values are mostly distributed below the mean, possibly indicating a low bias. The QP recommends investigating this bias with ALS. There are too few samples analyzed by SGS to determine if a bias is also present.

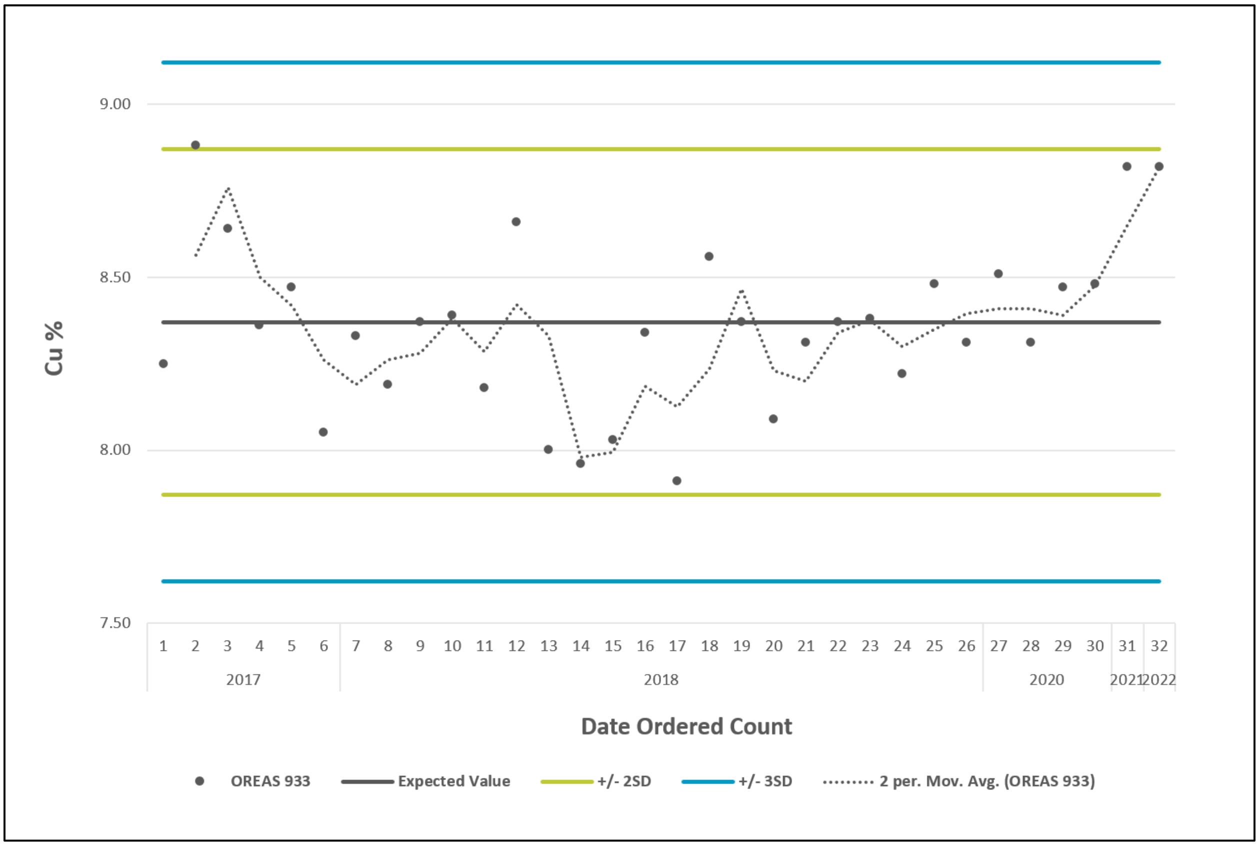


Figure 11-2: Control chart of CRM OREAS 933 for copper: 2017-2022

The gold control chart for CRM OREAS 502c is shown in Figure 11-3. One sample has returned a value outside of three SD of the mean since 2018, and gold values show a distribution mostly below the mean. The 2020 and 2021 samples that were included were analyzed at SGS and seem to indicate a low bias. However, the sample set is too small to allow firm conclusions to be made. This CRM mean value represents the average gold grade of the deposit.

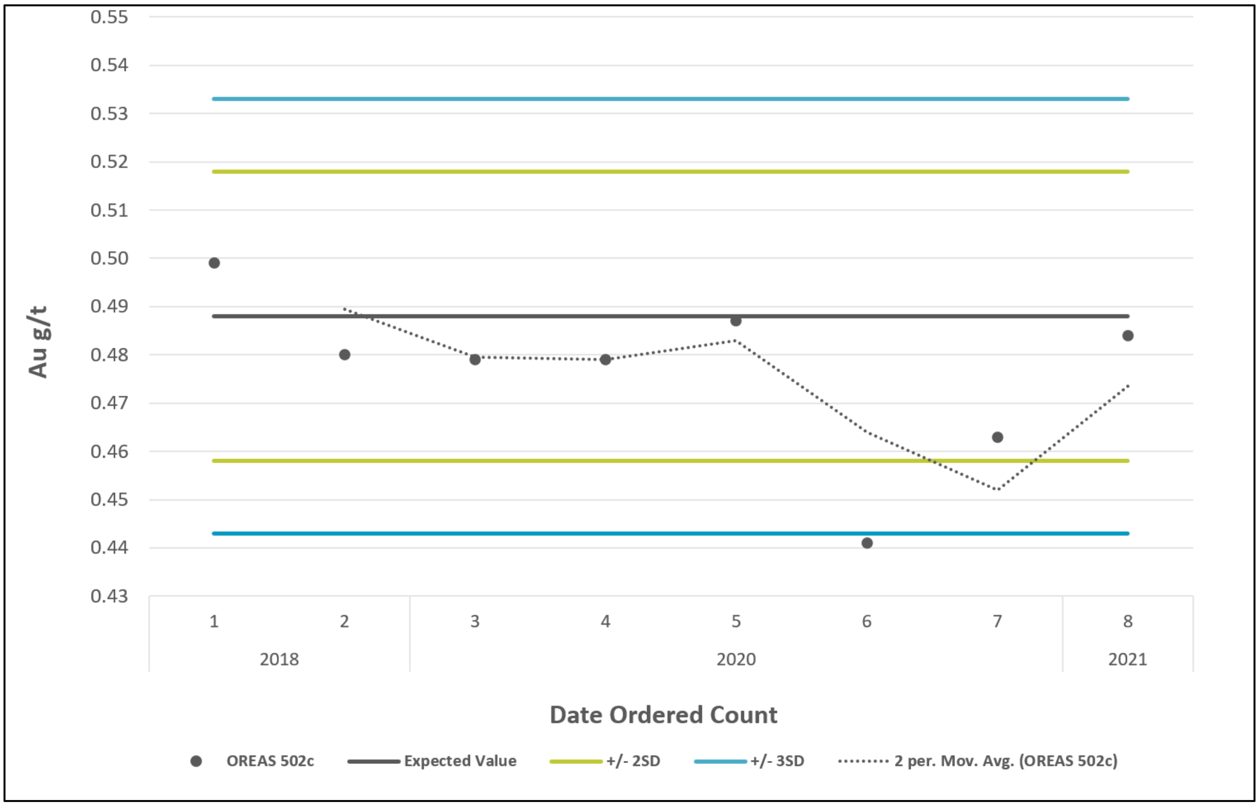


Figure 11-3: Control chart of CRM OREAS 502c for gold: 2018-2021

The QP recommends limiting the number of inserted CRMs at Corner Bay to four, and to have those CRMs represent values as close as possible to the cut-off grade (1.3% Cu), the average copper grade of the deposit (approximately 3% Cu), the high copper grades (>5% Cu), and the average gold grade (approximately 0.25 g/t Au). The QP also recommends continuing the elimination of the very low-grade CRMs that are still in use, but do not reflect the economic copper grades present at Corner Bay. Most of the CRM samples utilized since 2020 appear to exhibit a low potential bias; however, the sample set is small, and conclusions cannot be made with great certainty.

Blank Material

The regular submission of blank material is used to assess contamination during sample preparation and to identify sample numbering errors. Blank material was coarse, weighing approximately 300 g to 500 g, and obtained from a local hardware store. Blank material was inserted at an approximate rate of 2%. The QP prepared charts of blank assay results against an error limit of 10 times the lower detection limit of the assay technique, 0.05 g/t Au and 10 ppm Cu.

Results for the 2021-2022 blank samples indicate an important amount of sample contamination at Corner Bay with a failure rate of 36.6% for copper. However, the highest failure grade was 1,590 ppm Cu (0.16%) and approximately 88% (23 of 26 failures) were below 500 ppm (0.05%). A null failure rate was obtained for gold.

Field, Coarse Reject, and Pulp Duplicates

Duplicate samples help monitor preparation, assay precision, and grade variability as a function of sample homogeneity and laboratory error. QA/QC protocols for the Project stipulate the inclusion of field duplicates, while pulp and coarse duplicate samples are not included. Field duplicates test the natural variability of the original core sample as well as all levels of error, including core splitting, sample size reduction in the preparation laboratory, subsampling of the pulverized sample, and analytical error.

The QP analyzed a complete database of field duplicate data compiled by Doré Copper using basic statistics, scatter, and quantile-quantile plots. A total of 43 sample pairs taken between 2021 and 2022 were included in the analysis. Although the correlation coefficient of the Corner Bay field duplicate dataset is high, with a value of 0.97, the scatter plot of the field duplicate sample pairs shows a significant number of results outside of the ±20% acceptability reference lines (Figure 11-4) indicating that the amount of chalcopyrite mineralization is not homogeneously distributed in the core and it can vary from one side to the other. All samples analyzed returned copper values below 5.8%. The small and low-grade dataset limits the conclusion that can be made from the different plots, but a low bias may be present below approximately 4,000 ppm Cu (0.4%) in the Quantile-Quantile (Q-Q) Plot (Figure 11-5).

Coarse and pulp duplicates provide a measure of the sample homogeneity at different stages of the preparation process, i.e., crushing and pulverizing, while field duplicates assess the unpredictability of the core as well as all levels of sampling, preparation, and analysis. Coarse and pulp duplicates are not currently included in the QA/QC programs at the Project. The QP recommends including pulp and coarse duplicate samples in future drill programs to better understand the field duplicate sample results as well as selecting higher grade samples for duplicate results to allow more meaningful conclusions to be made.

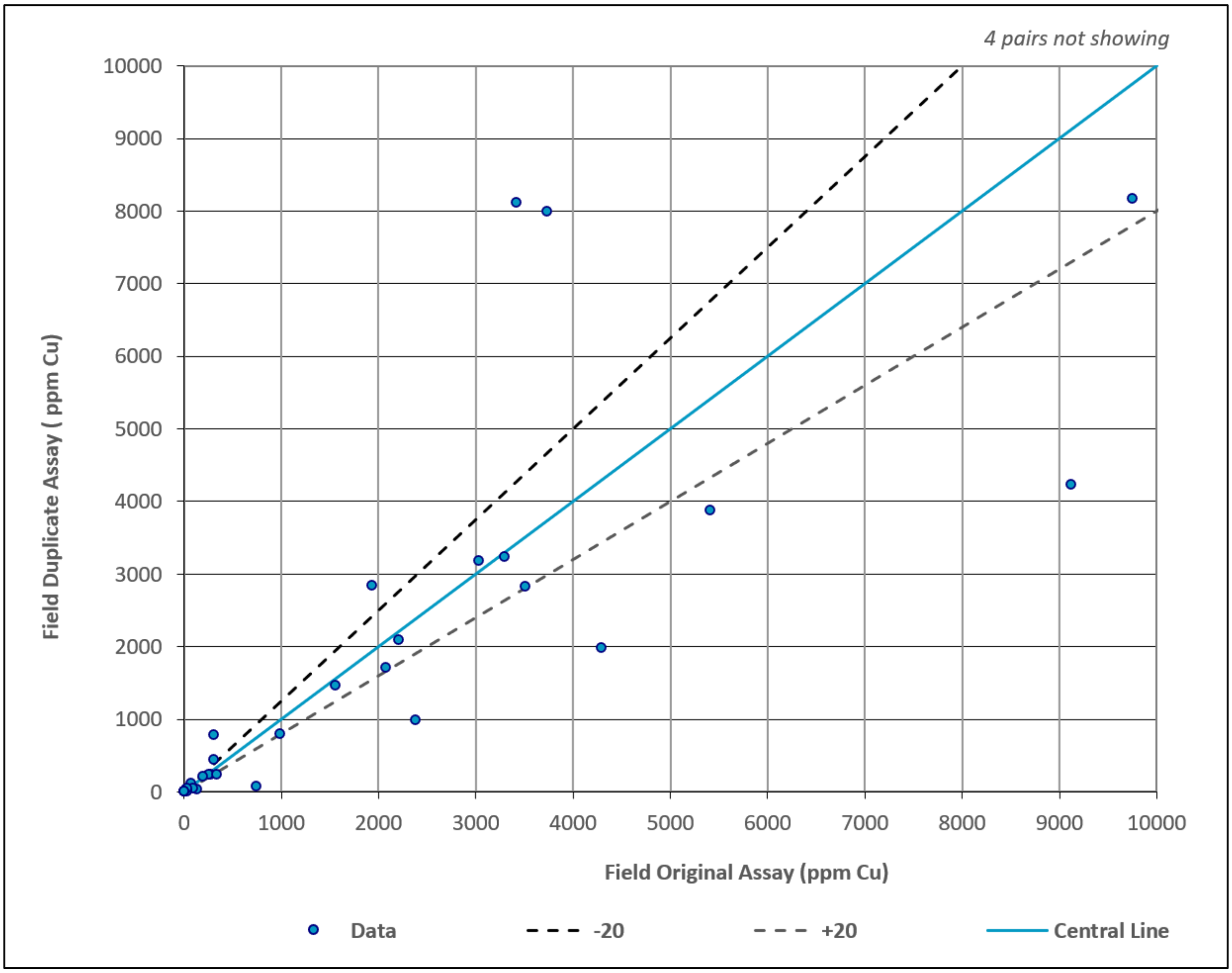


Figure 11-4: Scatter plot of 2021-2022 Corner Bay field duplicate samples

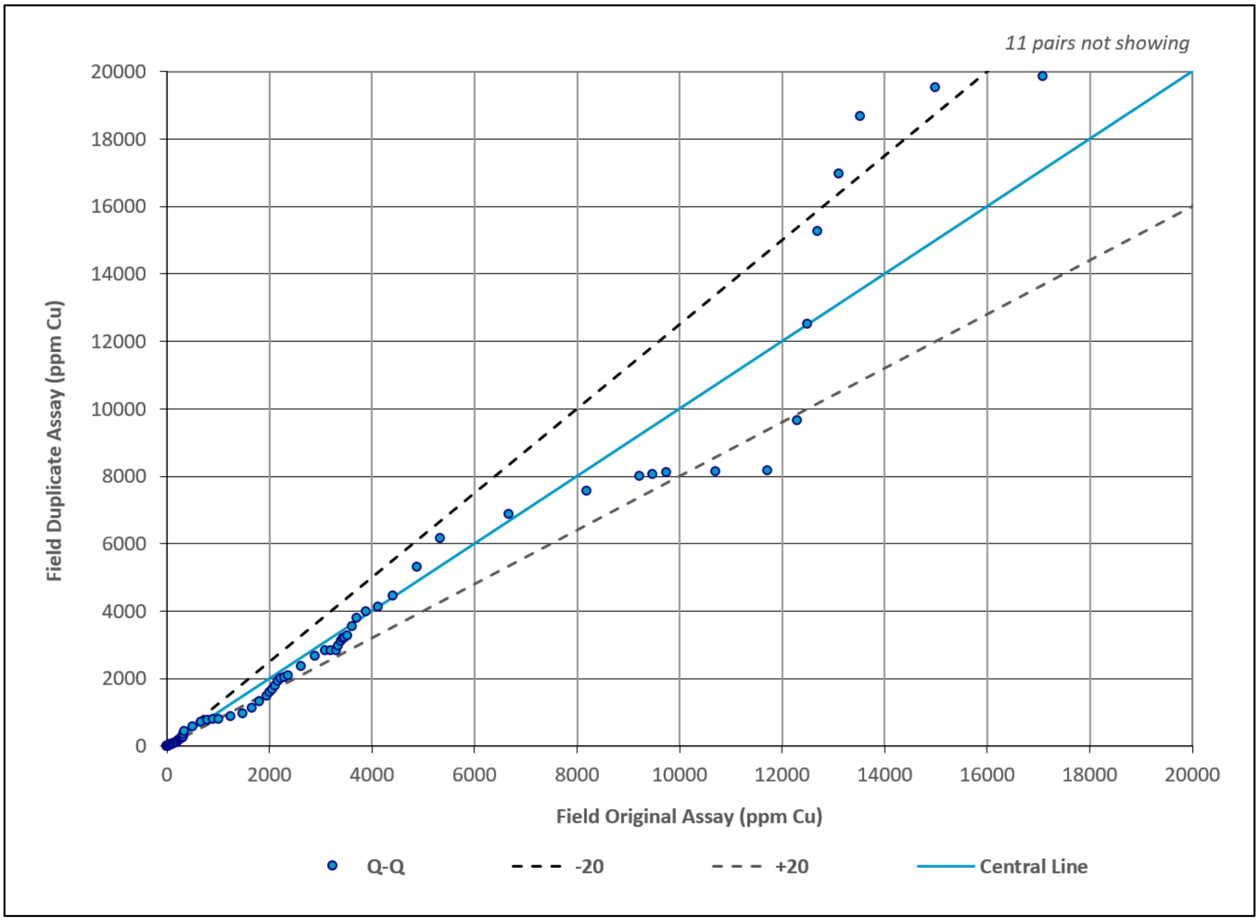


Figure 11-5: Quantile-Quantile plot of 2021-2022 Corner Bay field duplicate samples

Check Assays

The QP notes that Doré Copper implemented a checks assay program in January 2022. Pulp samples have been submitted to AGAT, the selected secondary laboratory for analysis using the same analytical procedure as the primary laboratory. However, there were no results available at the time of this study.

Conclusions

The QP offers the following conclusions regarding QA/QC data and reports collected for Corner Bay from 2021 and 2022:

- The QA/QC program as designed and implemented by Doré Copper is adequate and the assay results within the database are acceptable for the purposes of Mineral Resource estimation;

- The results of the CRM program indicate good precision and a possible low bias at SGS laboratories at grades approximating the average copper and gold grade at Corner Bay;
- The copper results of the blank sampling program indicate some low-grade sample contamination and the three samples with grades above 0.05% Cu may be due to sample numbering errors; and
- No firm conclusions can be made from the field duplicate program at Corner Bay, but a low bias appears to be present.

Recommendations

The QP offers the following recommendations regarding QA/QC data collection at Corner Bay:

1. Prepare quarterly and annual QA/QC reports across the Project to evaluate longer-term trends and contextualize results from the individual properties.
2. Revise the QA/QC protocol to include CRM material that is representative of the cut-off grade of the deposit.
3. Include pulp and coarse duplicate samples in future programs to help understand the field duplicate sample results.
4. Investigate and resolve discrepancies observed in the CRMs currently in use.
5. Examine and resolve the copper discrepancies observed in blank samples and evaluate the copper baseline of the blank sample currently in use.

11.2. Devlin

The following section has been summarized from AGP (2015). The QP has reviewed the comprehensive review and analysis completed by AGP and in part replicated their results.

11.2.1. Sampling Method and Approach

The sampling methods and approach in place during the historic drill programs conducted by Riocanex and Camchib are unknown.

For the 2013 and 2014 drill programs by Nuinsco/CBAY, upon receiving the drill core from the drill contractor, it was laid out in the core shack at the Copper Rand mine and all boxes were measured and checked for tag errors. The RQD and percentage recovery measurements were then made on the core. All drill core was then photographed, and the photos were labelled with the hole identification (ID) and depth range. The core was described in detail and all logging information was recorded using the Geotic Log software. As the core was logged, the sample intervals were marked on the core by the geologist. A minimum sample interval of 0.16 m and a maximum interval of 2.0 m were utilized with an average sample width of 0.8 m. Sampling was based primarily on the presence of chalcopyrite.

The drill core was cut lengthwise with a saw by a local technician contracted by CBAY. Core from two drill holes from the 2014 program were split with a Pothier style core splitter rather than sawed so as to not impede progress of work in the core shack while the core saw was repaired. The technician was responsible for placing the cut or split samples into bags labelled with the sample identification assigned by the geologist and included the corresponding sample tag provided by the analytical laboratory. Samples were then placed in numerical sequence into larger rice bags to be shipped to the laboratory.

For the 2013 program, the sample preparation was completed at the Les Services Exp Inc. (EXP) preparation laboratory in Chibougamau, Québec and then the pulps were sent by EXP via Les Autobus Maheux Ltée bus lines (Maheux) to ALS in Val-d'Or, Québec. Gold was analyzed at the ALS facility in Val-d'Or, Québec and copper was analyzed at the ALS facility in Vancouver, British Columbia.

For the 2014 program, the drill core was either delivered by Nuinsco/CBAY personnel directly to the ALS facility in Val-d'Or or sent via Maheux; all of the sample preparation was performed at ALS in Val-d'Or. Similar to the 2013 program, gold was analyzed at the ALS facility in Val-d'Or, Québec and copper was analyzed at the ALS facility in Vancouver, British Columbia.

All samples submitted to ALS were accompanied by an ALS issued Sample Chain of Custody form.

Both the Val-d'Or and Vancouver ALS laboratories are accredited to international quality standards through ISO/IEC for the General Requirements for the Competence of Testing and Calibration Laboratories (ISO/IEC 17025-2005) and by the Standards Council of Canada (SCC) for the Requirements for the Accreditation of Mineral Analysis Testing Laboratories (CAN-P-1579). The accreditation program includes ongoing audits which verify the QA system and all applicable registered test methods. They are independent of the operator.

11.2.2. Density Analysis

Samples from both 2013 and 2014 drill programs conducted by Nuinsco/CBAY were also selected for density measurements from the main mineralized zone as well as within five metres above and below the zone.

For the 2013 program, density measurements were made at the EXP preparation laboratory in Chibougamau on 17 drill core samples following the Archimedes principle where the sample is weighed in air and then weighed immersed in water. Samples were not coated with paraffin. A quartz standard was used, and duplicate measurements were conducted on a small number of samples.

For the 2014 program, the measurements were made on 35 pulp samples using a pycnometer at the ALS location in Vancouver using procedure code OA-GRA08b.

AGP compared the two datasets and found them to be reasonably close especially when the data was sorted by rock types.

11.2.3. Sample Preparation and Analysis

Samples from the Riocanex drill programs (1974–1978) were analyzed at X-Ray Assay Laboratories (XRAL) in Toronto. All samples were analyzed for copper. Occasional samples were analyzed for gold and/or silver. Details of the preparation and analysis methods used are not available.

Samples from the Camchib drill programs (1979–1982) were analyzed at Camchib's internal analytical laboratory. Samples were analyzed for copper, gold, and silver. Rare analyses for zinc were also done. Details of the preparation and analytical methods used are not available.

For the 2013–2014 drilling campaign by Nuinsco/CBAY, a total of 354 drill core samples were submitted to ALS along with 17 blank samples, one split duplicate sample, and 15 pulp analytical standards (CH-3 and CGS-28). All samples were analyzed using the 34 element ME-ICP41a package using Aqua Regiaand induced coupled plasma-atomic emission spectroscopy The preparation details are not available.

The ME-ICP41a package includes the following elements: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, and Zn.

- **Copper analysis:** The detection range for copper by the ME-ICP41a method is 5 ppm to 50,000 ppm. Copper over-limits were also analyzed by the Cu-OG62 method which utilizes a four-acid digestion ICP-AES or AAS finish with a detection range of 0.001% to 40%.
- **Gold analysis:** Gold was analyzed in select samples within the main mineralized zone. Gold was analyzed using the Au-AA23 method which utilizes fire assay and AAS finish on a 30 g sample with a detection range of 0.005 ppm to 10 ppm.

In the QP's opinion, the sample security procedures are acceptable for the purposes of Mineral Resource estimation.

Since Doré Copper only conducted limited drilling for the purpose of metallurgical and ore sorting tests and nor exploration work on the Devlin property, the discussion below reflects the procedures in place from the previous operators.

11.2.4. Sample Security and Database Management

Nuinsco/CBAY/Doré Copper is not in possession of the drill core from the historic 1974-1982 programs and the security and chain of custody cannot be assessed.

For the 2013–2014 campaign, sampling, sample preparation, sample handling, and transport followed routines that provided a well-controlled chain of custody from the field to the point of shipping. The core from the 2013 and 2014 programs is stored in the Company's roofed core shack adjacent to the Copper Rand mill site. The building is locked and accessible only to authorized personnel. Drill hole logging and sample data is maintained in paper format and in an MS Excel database. The database was migrated to GeoticLog in March 2022.

11.2.5. Quality Assurance and Quality Control

The QA/QC program in place during the early years (1974–1982) was limited in scope and only consisted of duplicate and inter-laboratory check assays. This is documented in various memoranda; most notably a memorandum dated August 10, 1979, authored by Leo Cote of Camchib, which described the comparison of 24 assays for the first and second half of the core. These core duplicates show reasonable agreement considering that the high-grade zones of chalcopyrite tend to be massive and not necessarily distributed evenly on both sides of the core. A regression analysis carried out by AGP reveals an R2 of 0.93 with a slope of regression of 1.19, which is considered acceptable with these types of samples.

Another memorandum dated July 10, 1979, authored by G. E. Sivain, detailed a suite of samples assayed at the Campbell Chibougamau Mine Laboratory and resubmitted at the XRAL. It is not known if the samples were pulps, core duplicate, or coarse rejects. The assays between the two laboratories for the eight samples submitted compared well with a regression R2 of 0.99 and a slope of 1.07.

The QP agrees with AGP's comment (AGP, 2015) that the QA/QC programs described above were consistent with the industry practice at the time the drilling was conducted.

A limited QA/QC program was introduced during the 2013 drill program and continued in 2014. The program included the insertion of blank and standard material. During the 2013 program, QA/QC samples consisted of crushable blank material, pulp blank, and standard reference material. The overall insertion rate, including ALS QA/QC samples, was approximately 1:2, with 17 blanks and 13 standards out of 56 normal assays.

For the 2014 program, QA/QC samples consisted of crushable blank material, standard reference material, and one duplicate assay. The 2014 overall insertion rate was 1:11, with 28 control samples over a total of 298 normal assays.

Certified Reference Materials

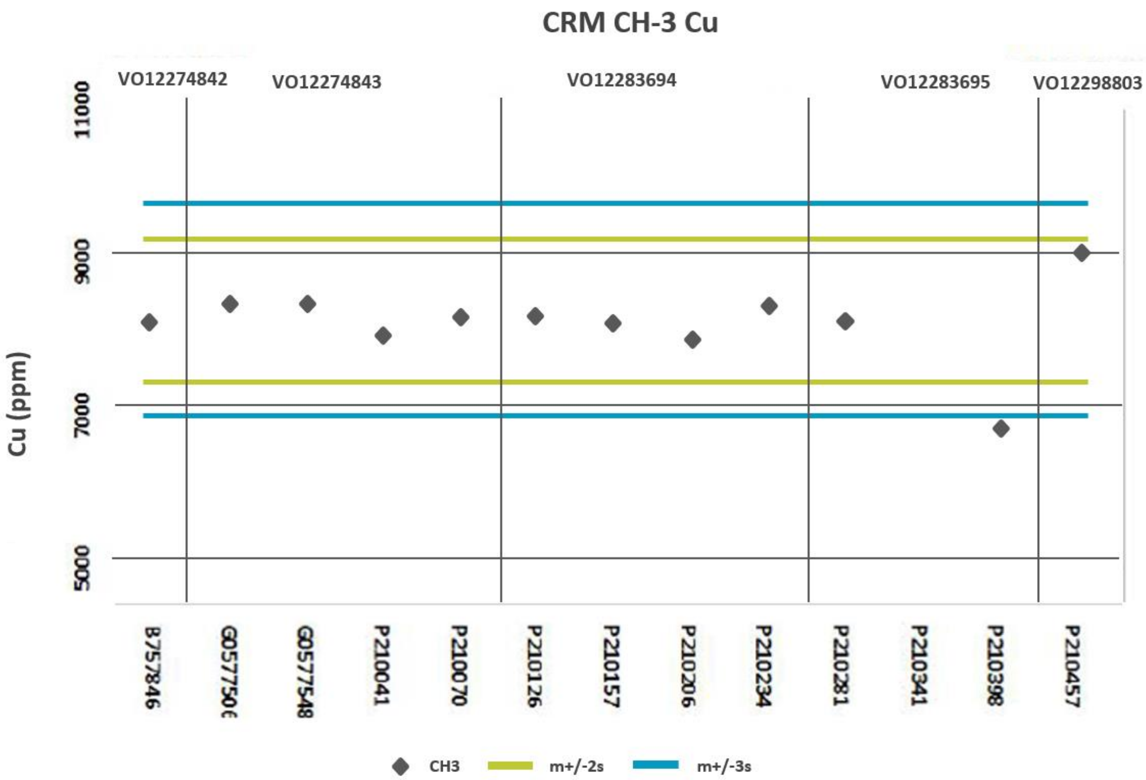
In 2013, Nuinsco/CBAY used relatively low-grade CRM provided by Natural Resources Canada CANMET-MMSL. The CH-3 CMR is certified for gold, copper, and silver. Table 11-3 lists the recommended values along with the upper and lower limits.

For 2014, a higher copper grade CRM was acquired from CDN. The CDN-CGS-28 CRM (Table 11-3) originated from the Minto Mine owned by Capstone Mining Corp. Mineralization is primarily chalcopyrite and bornite.

Table 11-3: Standard reference material used by Nuinsco for Devlin

Standard	Element	Recommended Value	2-Sigma		3-Sigma	
			Upper	Lower	Upper	Lower
CH-3 (2013)	Gold	1.4	1.7	1.1	1.8	1.0
	Copper	8,258	9,195	7,322	9,663	6,854
CGS-28 (2014)	Gold	0.727	0.8	0.6	0.9	0.6
	Copper	20,338	21,492	19,183	22,070	18,606

The 2013 drill campaign reported laboratory performance for 13 insertions of reference standard CH-3 from five reports from ALS. Two failures, defined as exceeding three times the expected SD, were observed for standard CH-3 (Figure 11-6).



Note: One outlier not showing.

Figure 11-6: Standard CH-3 for copper at Devlin

Blank Material

In 2013, the primary blank material consisted of a pulverized certified blank material. In addition, whole blanks consisting of unmineralized anorthosite and locally collected were inserted into the sample stream after any high-grade copper intervals to monitor carryover grade during sample preparation. During the 2014 program, only whole blanks consisting of crushable laboratory silica quartz gravel were inserted in the sample stream.

Results of the blank material program are presented in Figure 11-7 and are plotted alongside the value of the preceding assay. Good correlation exists between these datasets, indicating evidence of carryover from copper rich core samples. It is possible that the blank material used bears some low-grade copper background values; however, the pattern observed in Figure 11-7 suggests a relationship between preceding assay value and blank result. The QP agrees with previous reviewers, AGP that these results will not materially affect the MRE but recommends working with the preparation laboratory to ensure adequate cleaning of crushing equipment in future programs.

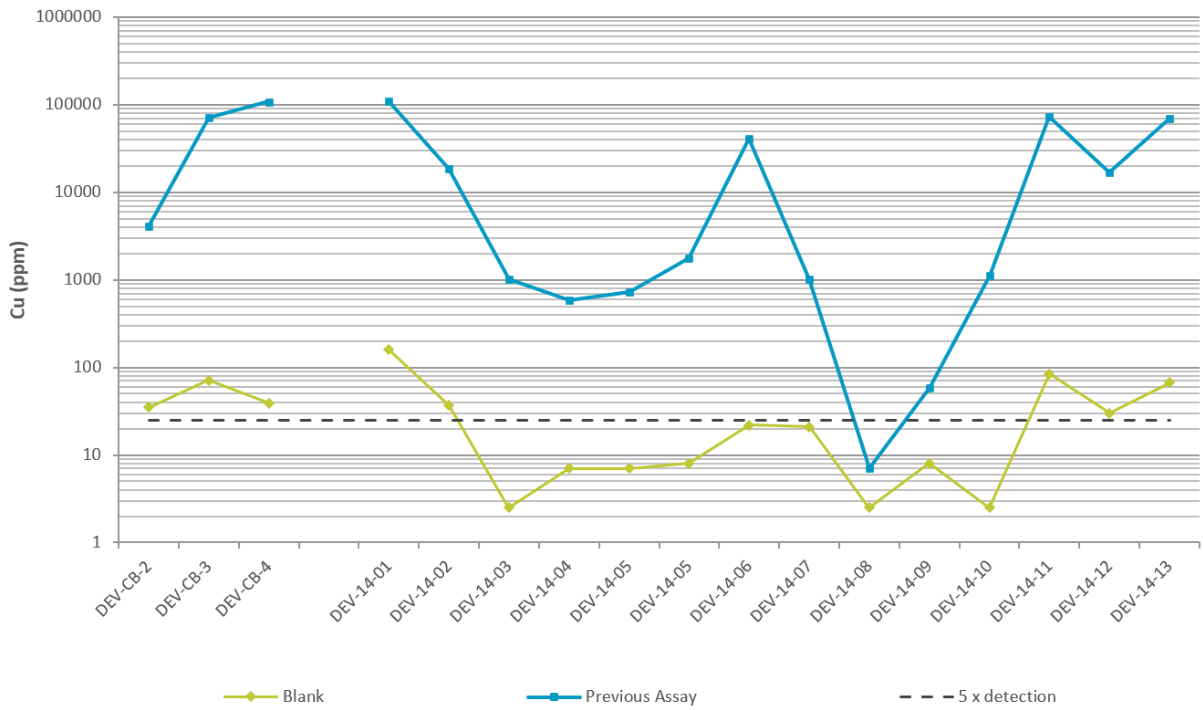


Figure 11-7: Blank vs. previous sample at Devlin from AGP (2015)

Field, Coarse Reject and Pulp Duplicates

QA/QC protocols at Devlin historically did not include the insertion of field, coarse reject, and pulp duplicate samples. Field duplicates test the natural variability of the original core sample, as well as all levels of error including core splitting, sample size reduction in the preparation laboratory, subsampling of the pulverized sample, and analytical error. Coarse and pulp duplicates provide a measure of the sample homogeneity at different stages of the preparation process, i.e., crushing and pulverizing. The QP recommends including field, pulp, and coarse duplicate samples in future drill programs to help quantify the precision of sample results.

Check Assays

The QP notes that historic QA/QC protocols did not include check assays on pulps at a second laboratory using the same analytical procedure. Furthermore, the QP recommends sending approximately 5% of the pulps assayed at the primary laboratory to an accredited secondary laboratory.

Confirmation and Twin Drill Holes

As part of the 2013 and 2014 drill program, nine historical holes were twinned to:

- Validate the original historical assay; and
- Allow the inclusion of the historical holes for resource estimation.

In addition to these twin holes, Camchib twinned a portion of its own holes to confirm the grade and continuity of the Lower Zone prior to underground development.

Separation distance (Table 11-4) between the vertical twins range from 0.82 m to 24.29 m, with an average separation distance of 12.5 m. Unlike the other holes in the set, hole DEV-CB-2 and corresponding hole R3-8 are not parallel to each other; however, at the Lower Zone intersection with the drill holes, the separation distance is less than 20 m. Due to the large separation distances between the original and twin holes, the QP is of the opinion that only the results of holes DEV14-01 and DEV-14-02 should be considered as twin holes and the rest are useful as confirmation holes.

Table 11-4: Twin drill hole spacing for Devlin

Series 1	Series 2	Separation Distance (m)
DEV-14-01	R3-104	0.8
DEV-14-12	R3-62	1.3
DEV-14-13	R3-51	9.3
DEV-CB-1	R3-19	10.9
DEV-CB-3	R3-120	13.6
DEV-CB-3	R3-127	14.4
R3-120	R3-127	24.3
DEV-CB-4	R3-100	12.6
DEV-CB-4	R3-119	15.0
DEV-CB-4	R3-122	11.8
R3-100	R3-119	15.1
R3-100	R3-122	20.4
R3-119	R3-122	11.7
R3-114	R3-51	14.1
DEV-CB-2	R3-8	< 20 m at the Lower Zone position

To compare the holes, the collar locations of the Series 2 holes were moved to the same collar location as the Series 1 holes, and then the drill hole assays were length weight averaged in one metre intervals starting at the collar toward the toe of the holes. The resulting sample pairs were written to an MS Excel spreadsheet to allow side by side comparison of the grade.

A typical graph is displayed in Figure 11-8: where it is evident that the Upper and Lower Zones were intersected by the Nuinsco/CBAY drill hole DEV-14-12 at about the same location as what is seen in the historical hole R3-62. While the location of the Upper and Lower Zones corresponds very well between the paired drill holes, grades can differ.

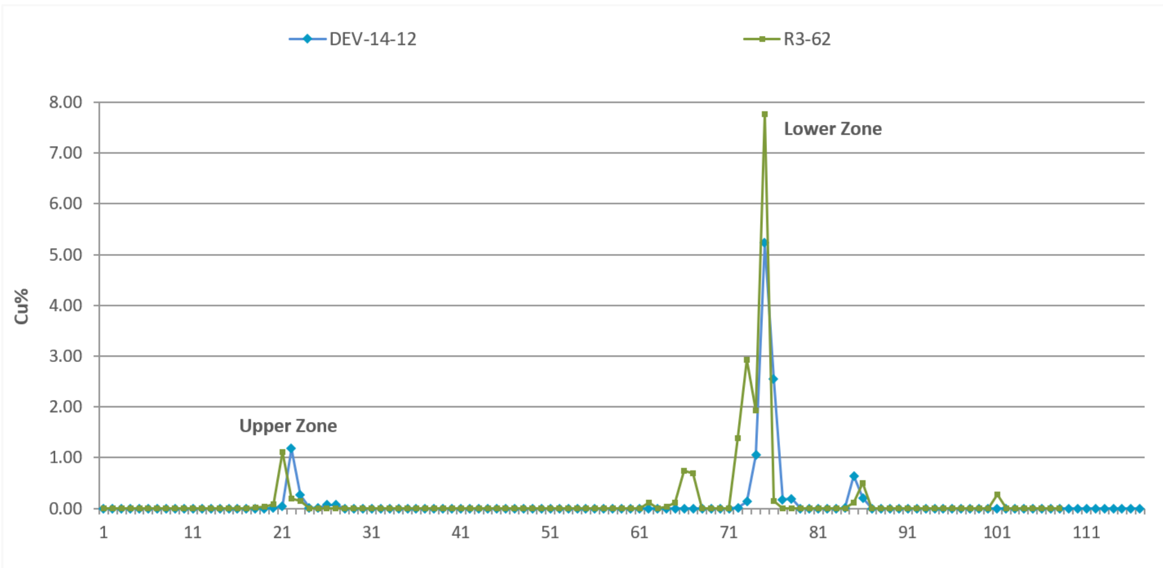


Figure 11-8: Nuinsco DEV-14-12 hole versus historical R3-62 hole at Devlin from AGP (2015)

AGP (2015) concluded that the twin drill hole program was successful at replicating the location of the Upper and Lower Zones, indicating the position of the zones can be relied upon in the historical holes. The grade is somewhat comparable in that the high-grade present in the historical holes is consistently matched with a high-grade intersection in the Nuinsco/CBAY drill holes. The QP agrees with these conclusions.

The difference in copper grades can be attributed to erratic distribution of the high-grade massive chalcopyrite bands and patches observed in the core, which is difficult to accurately replicate by holes located at more than a few metres apart, in the QP's opinion.

Conclusions

The QP offers the following conclusions regarding QA/QC, historic data, and reports collected for Devlin:

- The QA/QC program as designed and implemented historically presents assay results within the database that are acceptable for the purposes of Mineral Resource estimation;

- The results of the CRM program indicate good precision, low failure rate, and negligible bias at ALS (2013–2014 drilling campaign;
- The results of the blank sampling program indicate some sample contamination from previous high-grade copper samples in the sequence. Neither the QP nor AGP is of the opinion that the issue is serious enough to materially affect the resource estimate; and
- The 2014 twin and confirmation drilling campaign confirm that the location of the mineralization is accurate, while the copper grades can vary significantly for drill holes spaced at more than approximately 10 m apart.

Recommendations

The QP offers the following recommendations regarding QA/QC, historic data, and reports collected for Devlin:

1. Communicate with the analytical laboratory to ensure proper cleaning of the equipment.
2. Include some confirmation and closer spaced drilling in future drill programs to better define the short-range copper grade continuity trends and distances.

11.3. Joe Mann

11.3.1. Sampling Method and Approach

11.3.1.1. Gold Analysis

For the Doré Copper drilling program in 2020 at Joe Mann, the drill core was delivered every morning to the Copper Rand core shack by the drilling contractor (Miikan Drilling Ltd.) and arranged on tables by the geological technicians, after which it is logged by geologists. The core recovery is normally above 90% in the host rock and dyke, but occasionally drop to 50% in fault zones. The main mineralized shear zone or vein is usually above 75%. Mineralized drill core, veins, and shoulder samples are identified and marked on the drill core by the geologists. Sample lengths range from 0.4 m to 1.0 m, commonly being 1.0 m, and respect geological contacts. Sample tags were placed at the beginning of each sample interval and the tag numbers were recorded within a Microsoft (MS) Excel database.

Diamond drill core was split in two using a Pothier diamond saw following a reference line as defined by the geologists. If sampling is necessary, one half was collected, bagged with one sample tag, and submitted for sample preparation and analysis. The remaining half core was placed back in the core tray and the other portion of the sample tag was stapled to the box. It was then stored on site in well-mapped core storage facilities. Unsampled intervals were stacked on wood pallets and their location was mapped for reference. Sampled core was bagged in rice bags or double bagged for H core size. The geologists recorded the batch and sample numbers on the rice bag and reviewed the core shipment prior to being transported to the SGS Laboratory in Val-d'Or (SGS) by Transcol courier. Transcol stacked the rice bags on pallets for their delivery to SGS for preparation. Samples were prepared at SGS before being sent to SGS's Burnaby Laboratory for fire assay and multi-element analysis as well as LeachWELL analysis for the mineralized zones. SGS used the services of FedEx to transport samples between its two locations.

11.3.1.2. Density Analysis

At Joe Mann, a homemade water immersion device was used to calculate density as part of the description work. No specific gravity on pulp samples using pycnometer has been completed for Joe Mann material.

11.3.2. Sample Preparation and Analysis

11.3.2.1. SGS

Primary assays from the Joe Mann deposit were prepared and analyzed at SGS during the 2020 drilling program.

SGS is independent of Doré Copper and its facilities are accredited to the recognized quality standard of International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 17025: 2005 for all relevant procedures. The following analysis is undertaken at the SGS Val-d'Or and Burnaby facilities:

- **Sample Preparation:** Val-d'Or facility, PRP94. Samples are dried at 105°C, crushed to 75% less than 2 mm, riffle split to 1 kg, pulverized split to greater than 85% passing 75 µm.
- **Gold Analysis:** Burnaby facility, GE_FAA50V5. A 50 g fire assay standard fusion method with AAS finish. The lower detection limit is 0.005 g/t Au, and the upper detection limit is 10 g/t Au.
- **Gold Analysis:** Burnaby facility, GO_FAG30V. Gold analyses returned from GE_FAA50V5 with a gold value above 10 g/t Au are re-assayed using a 30 g fire assay standard fusion method with a gravimetric finish. The upper limit of detection is 100 g/t Au.
- **Gold Analysis:** Burnaby facility, GE_LWE69M. A 1,000 g accelerated cyanide leach, AAS finish gold analysis with a lower detection limit of 0.01 g/t Au and upper detection limit of 1,000 g/t Au.

In the QP's opinion, the sample preparation and analytical procedures are acceptable for the purposes of Mineral Resource estimation.

11.3.3. Sample Security and Database Management

Samples were handled by Doré Copper and transported by Transcol personnel or contractors. Drill core is stored at the Copper Rand core storage facility, the grounds of which are supervised. The Copper Rand storage facilities are completely covered, being inside a hangar. A core storage map is maintained by Doré Copper. Sample pulps and rejects are stored in a closed hangar on site.

Drill hole logging and sample data are maintained in an MS Excel database, with regular back-ups. The database was migrated to GeoticLog in March 2022.

In the QP's opinion, the sample security procedures are acceptable for the purposes of Mineral Resource estimation.

11.3.4. Quality Assurance and Quality Control

11.3.4.1. QA/QC Protocols

The following QA/QC protocols were implemented by Doré Copper. The QA/QC program is managed by the Doré Copper geology team, and QA/QC samples are blind to the SGS laboratory. Each sample batch of 20 to 300 samples is submitted to the SGS laboratory every week and includes one certified reference material (CRM) for every 50 samples. Blank samples and field duplicates (quarter split) are inserted at a rate of one per 50 samples and are placed, either preceding or following a mineralized interval. CRM samples are mostly inserted at random but are sometimes added if a mineralized zone is present in the batch. All QA/QC sample insertions maintain consecutive numerical order. Coarse blank material samples are approximately 300 g to 500 g of ornamental quartz-calcite rock from the local hardware store. Pulp reject samples are not systematically selected for reanalysis. Following receipt of results from SGS, Doré Copper geologists review, and sample batches identified as anomalous are repeated by SGS at the request of Doré Copper. QA/QC reports are produced punctually upon receiving new results. The QP recommends the preparation of a quarterly and yearly QA/QC report to track possible issues that might arise over time.

In 2021, Doré Copper undertook a comparison between fire assay and LeachWELL results. This was primarily conducted to verify if the half-core preparation for fire assays was exacerbating the nugget effect, usually accentuated in orogenic gold deposits by its nature and its gold distribution heterogeneity. Samples of 1,000 g in weight were used for LeachWELL assays and compared with fire assays results. Additionally, LeachWELL samples were taken to cover mineralized shoulder sampling gaps in the previous fire assay sampling.

A summary of annual QA/QC submittals from 2020 to 2021 is presented in Table 11-5.

Table 11-5: Summary of QA/QC Submittals from 2020 to 2021 at Joe Mann

Sample Type	2020		2021	
	Count	Insertion Rate	Count	Insertion Rate
Regular Samples	2,337	-	345	-
Blanks	59	2.5%	7	2%
CRMs	51	2%	16	4.5%
Field Duplicates	49	2%	7	2%
Duplicates (SGS Lab- LeachWELL)	-	-	643	24%
CRM (SGS Lab- LeachWELL)	-	-	20	3%
Blanks (SGS Assay Lab- LeachWELL)	-	-	26	4%

Notes:

1. Annual summaries are from January 1 to December 31 of the given year with the exception of 2021, which ends June 18.
2. Insertion rates of LeachWELL duplicates sent to SGS are calculated based on the submission of LeachWELL samples on the total of regular samples from 2020 to 2021.
3. Insertion rates of CRM and blank samples sent to the check assay laboratory (SGS) are calculated based on the total of duplicate LeachWELL sample submission to SGS.

11.3.4.2. Certified Reference Materials

Results of the regular submission of CRMs (standards) are used to identify issues with specific sample batches, and biases associated with the SGS laboratory. Doré Copper has sourced CRMs principally from two different international laboratories, OREAS and CDN Resource Laboratories Ltd. Results of the CRMs were plotted in control charts, and failure rates, defined as a gold value reporting more than three standard deviations (SD) from the expected value, and warning rates, defined as gold values reporting more than two SD, but less than three SD from the expected values, were reviewed by onsite geologists.

A total of six different CRMs were inserted at Joe Mann by Doré Copper during 2020 and 2021, totalling 67 individual samples, with an insertion rate of 2% for 2020 and approximately 4% for 2021. The QP reviewed all the Certificates of Analysis of these CRMs and found them to vary in grade from 0.488 g/t Au to 14.22 g/t Au.

The QP selected two CRMs, representing the cut-off grade and a low-grade CRM with a high sample population for additional review. The technique used to assay the CRM material, expected values, and SD of each CRM are listed in Table 11-6. The QP prepared control charts and analyzed temporal and grade trends, reviewed the data for low and high biases, and the failure rate of each CRM.

Table 11-6: Expected values and ranges of gold CRMs for Doré Copper Mining Corp. Joe Mann

Standard	Grade (g/t Au)	1 SD	Assay Technique	Source	Date in Use Range	Number	Grade Represented
OREAS 239	3.55	0.086	Pb, FA	OREAS	2020-2021	24	Closest to Cut-off grade
OREAS 257b	14.22	0.373	Pb, FA	OREAS	2020-2021	12	High grade
OREAS 501c	0.221	0.007	Pb, FA	OREAS	2020	3	Low Grade
OREAS 502c	0.488	0.015	Pb, FA	OREAS	2020-2021	10	Low Grade
OREAS 503d	0.666	0.015	Pb, FA	OREAS	2020-2021	14	Low Grade
CDN-CM-18	5.28	0.175	Pb, FA	CDN Resource Laboratories Ltd.	2020	4	High grade

Notes:
1. FA=fire assay.
2. SD=standard deviation.

Results from Joe Mann CRM OREAS 239 samples, presented in Figure 11-9, indicate very good and consistent laboratory precision, and a slightly high bias in the early 2020 samples. The result of OREAS 239 is the only value that approximates the gold cut-off grade at the Joe Mann deposit. It is also the CRM that was most frequently used between 2020 to 2021 by Doré Copper. Only two out of the 24 CRMs were outside two SD, and there was only one failure, which has been removed for better visualization in Figure 11-9.

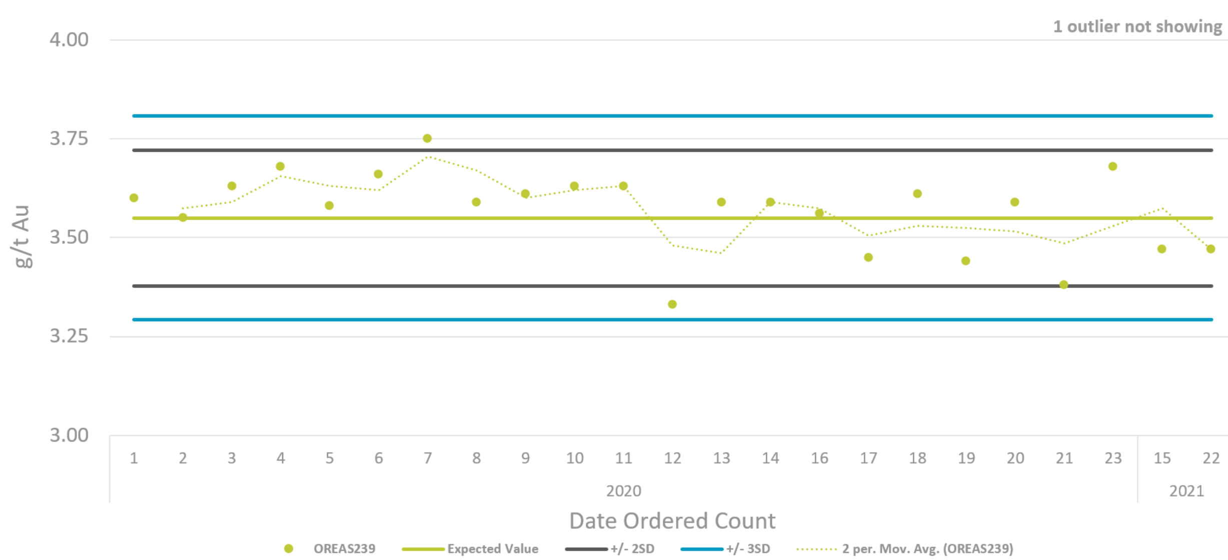


Figure 11-9: Control chart of Joe Mann gold CRM OREAS 239: 2020 to 2021

Results from Joe Mann OREAS 503d samples, which is only representative of the very low grade at Joe Mann deposit, are presented in Figure 11-10 and indicate mostly good laboratory accuracy and precision at SGS. No failure or bias were observed over the period the CRM has been in use and four out of 14 samples were outside two SD.

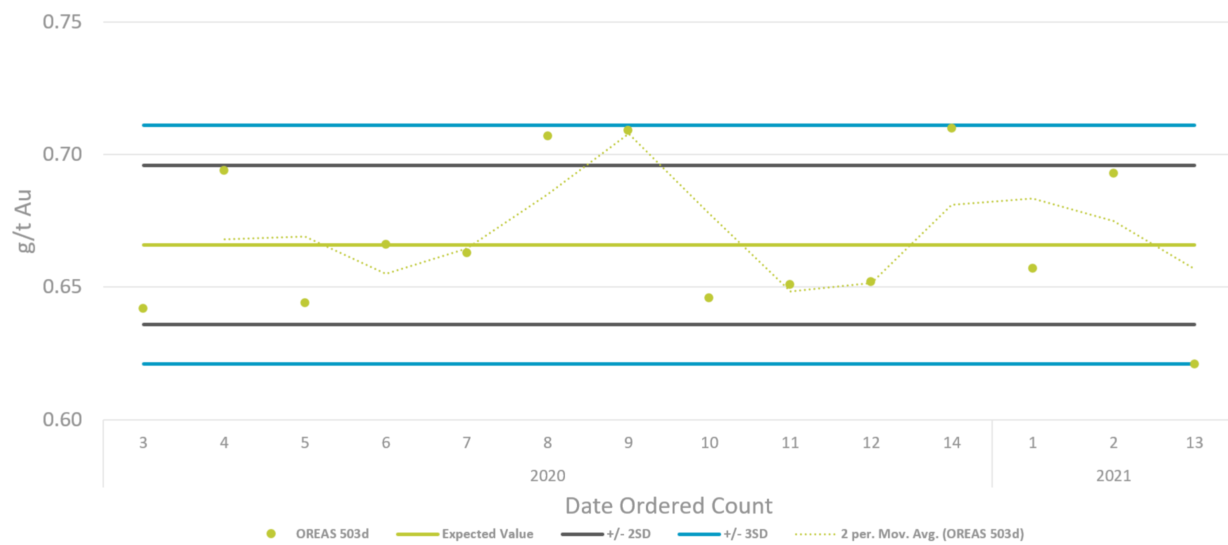


Figure 11-10: Control chart of Joe Mann gold CRM OREAS 503d: 2020

The QP recommends limiting the number of inserted CRMs at Joe Mann to three, and to have those CRMs represent values as close as possible to the cut-off grade (2.6 g/t Au), the average grade of the Main Zone, approximately 10 g/t Au, and the average grade of the West Zones, approximately 5 g/t Au. The QP also recommends eliminating most of the very low-grade CRMs, which do not reflect the economic gold grades present at Joe Mann.

11.3.4.3. Blank Material

The regular submission of blank material is used to assess contamination during sample preparation and to identify sample numbering errors. Blank material was coarse, weighing approximately 300 g to 500 g, and obtained from a local hardware store. Blank material was inserted at an approximate rate of 2%. The QP prepared charts of sterile assay results against an error limit of ten times the lower detection limit of the assay technique, or 0.05 g/t Au. Results indicate a negligible amount of sample contamination associated with samples from the Joe Mann property, with a failure rate of 1.5%.

11.3.4.4. Field, Coarse Reject and Pulp Duplicates

Duplicate samples help to monitor preparation, assay precision, and grade variability as a function of sample homogeneity and laboratory error. QA/QC protocols for the Project stipulate the inclusion of field duplicates; pulp and coarse duplicate sample monitoring are not included. Field duplicates test the natural variability of the original core sample as well as all levels of error including core splitting, sample size reduction in the preparation laboratory, subsampling of the pulverized sample, and analytical error.

The QP analyzed a complete database of field duplicate data compiled by Doré Copper using basic statistics, scatter, and quantile-quantile plots. A total of 85 sample pairs were included in the analysis. The correlation coefficient of the Joe Mann field duplicate dataset is high, with a value of 0.981. A scatter plot of the field duplicate sample pairs is presented in Figure 11-11. The small and low-grade dataset limits the conclusion that can be made from the different plots. The QP recommends that Doré Copper increase the proportion of duplicate sample pairs with grades above the cut-off grade of 2 g/t Au.

Coarse and pulp duplicates provide a measure of the sample homogeneity at different stages of the preparation process, i.e., crushing and pulverizing, while field duplicates assess the unpredictability of the core, as well as all levels of sampling, preparation, and analysis. Coarse and pulp duplicates are not currently included in the QA/QC programs at the Project. The QP recommends including pulp and coarse duplicate samples in future drill programs to better understand the field duplicate sample results.

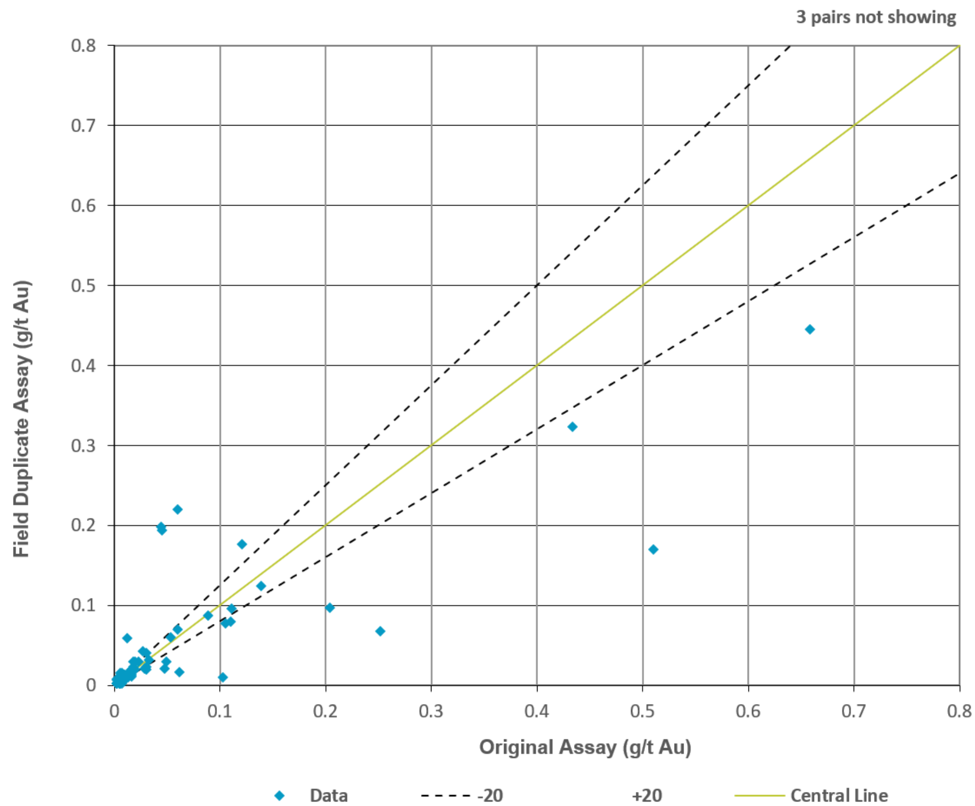


Figure 11-11: Scatter plot of field duplicate samples at Joe Mann

11.3.4.5. LeachWELL Check Assays

Submitting assays to be evaluated with a different method helps to monitor bias at the laboratory. Assays were first sent to SGS to be analyzed using the fire assay method and some samples were resubmitted afterwards to verify their grade using a LeachWELL method. The QP prepared an analysis that included a comparison of the original fire assay and LeachWELL duplicate assay results. Doré Copper has also submitted to LeachWELL analysis, CRMs and blank material to evaluate their performance. Doré Copper implemented the LeachWELL check assay in 2021 and resubmitted 24% of its 2020 to 2021 fire assays to SGS.

The low pool of samples for each CRM limited the possible interpretation of accuracy and precision that could normally be obtained from a check assay dataset. Furthermore, SGS could not process the samples due to an insufficient sample size. None of the blank samples sent to LeachWELL failed.

The original fire assay value and its LeachWELL duplicate value are plotted in Figure 11-12 as a scatter plot and in Figure 11-13 as a quantile-quantile plot. A total of 639 sample pairs were included in the check assay analysis.

Consistent with internal duplicate sample results, Joe Mann sample pairs exhibit a high number of poorly correlating sample pairs. An investigation in duplicate sampling practices is required to determine whether an improvement of the results is possible. The Joe Mann sample pairs mostly follow an x-y linear trend, 2 g/t Au in Figure 11-12, but exhibit a lower precision with a high number of poorly correlating sample pairs above 2 g/t Au. Joe Mann has a large pool of sample pairs below 6 g/t Au, samples with a slightly low bias that can be observed in both Figure 11-12 and Figure 11-13. While the presence of a low bias is observable in both figures, the high number of outliers and small sample set at Joe Man prevent firm conclusions from being made. The QP recommends working with SGS to address the low bias of LeachWELL gold values and discrepancies between LeachWELL and fire assays gold values at all grade ranges.

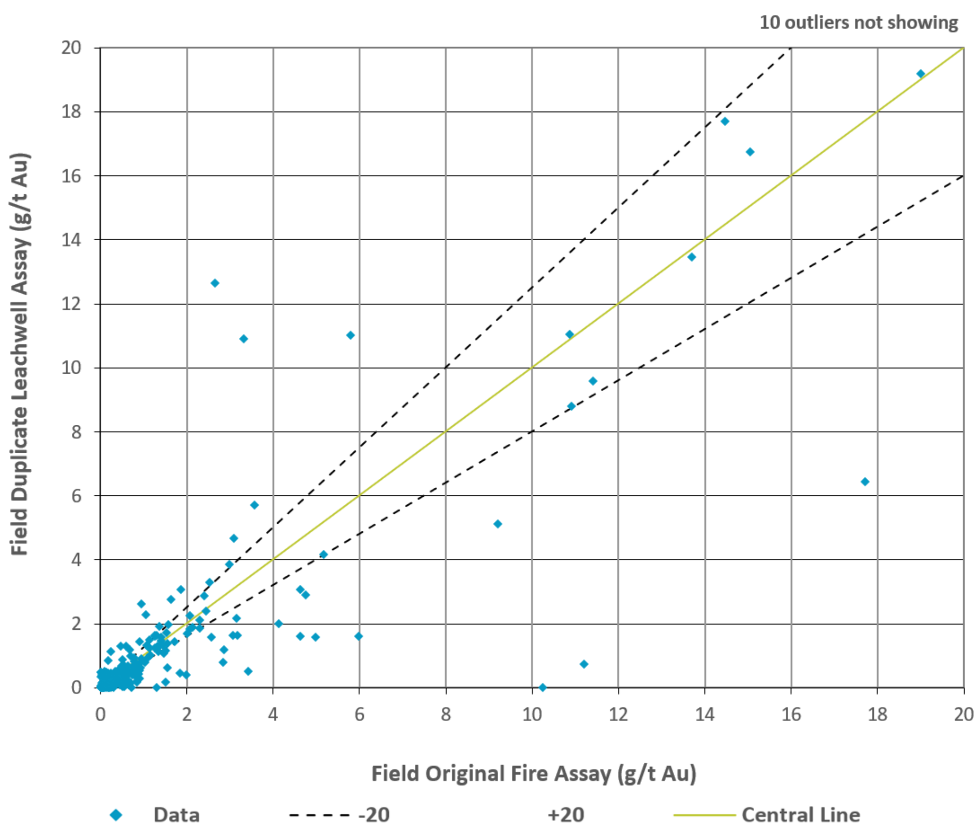


Figure 11-12: Scatter plot of original SGS fire assay and LeachWELL field duplicate assay values at Joe Mann

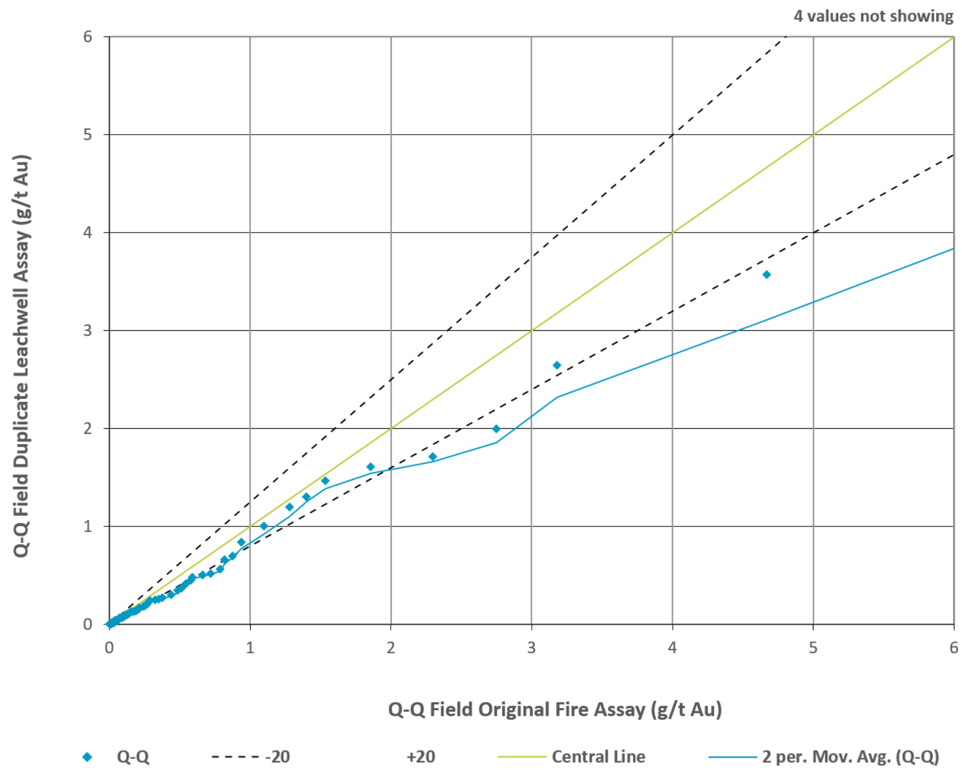


Figure 11-13: Quantile-Quantile plot of original SGS fire assay and LeachWELL field duplicate assay values at Joe Mann

11.3.4.6. Check Assays

The QP notes that Doré Copper QA/QC protocols should include check assays on pulps at a second laboratory using the same analytical procedure. The QP recommends sending approximately 5% of the pulps assayed at the primary laboratory to an accredited second laboratory.

11.3.4.7. Conclusions

The QP offers the following conclusions regarding QA/QC data and reports collected for the Joe Mann property from 2020 to 2021:

- The QA/QC program as designed and implemented by Doré Copper is adequate and the assay results within the database are acceptable for the purposes of Mineral Resource estimation;
- The results of the CRM program indicate very good precision and negligible bias at the SGS laboratory;

- The results of the blank sampling program indicate negligible sample contamination and few samples numbering errors;
- The results of the field duplicate program at Joe Mann are inconclusive as the sample results do not address the grade range of interest;
- The LeachWELL results from the check assay program identify differences between the two assay techniques; and.
- Doré Copper QA/QC protocols should include check assays on pulps at a second laboratory using the same analytical procedure.

11.3.4.8. Recommendations

The QP offers the following recommendations regarding QA/QC data collection on the Joe Mann property:

1. Prepare quarterly and annual QA/QC reports across the Project, which evaluate longer-term trends and contextualize results from the individual properties.
2. Review the QA/QC protocol to include CRM material that is representative of the cut-off grade, the average grade of the Main and West zones.
3. Increase the proportion of duplicate sample pairs with grades above the cut-off grade.
4. Include pulp and coarse duplicate samples in future programs to better understand the field duplicate sample results.
5. Investigate and resolve the discrepancies observed in fire assay results versus LeachWELL results for all grade ranges at the SGS laboratory.
6. Work with the primary laboratory (SGS) to determine whether field duplicate and check assay results from Joe Mann can be improved with procedural modifications.
7. Send approximately 5% of the pulps assayed at the primary laboratory to an accredited second laboratory.

11.4. Cedar Bay

11.4.1. Sampling Method and Approach

Details of sampling methods and approach for drill holes completed in 2017, 2018, and 2020 are aligned with Corner Bay and detailed in Sections 11.1.1.2, and 11.1.2.2. Full details of the 2017 and 2018 programs and results are detailed in RPA (2019). In the QP's opinion, the QA/QC program as designed and implemented at Cedar Bay is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

12. Data Verification

12.1. Corner Bay

12.1.1. SLR Site Verification Procedures

SLR personnel (SLR) visited the Corner Bay property on June 17 and 18, 2021. While on site, discussions were held with site personnel, and Corner Bay infrastructure, an active drill, outcrops, and the current core shack were visited, and previously selected core intercepts were compared against recorded lithology logging and assay results. In addition, data collection and QA/QC procedures were reviewed. The QP also visited the Corner Bay property on July 17, 2018. During the site visit, drill core and logs from several drill holes were reviewed and a number of the recent drill collar locations were visited.

The QP considers the geological and mineralization interpretations used to support Mineral Resource estimation to be consistent with the drill core, and that the Doré Copper geologists have a good understanding of the geology and mineralization.

12.1.2. SLR Audit of the Drill Hole Database

Drill hole databases for Corner Bay were reviewed in Leapfrog software and a standard review of import errors and visual checks was conducted.

A spatially and temporally representative set of assay certificates for the deposit was requested, which was sourced directly from the SGS laboratory, where possible, or scanned paper records in the case of historic results. In 2021, assay certificate verification exercises were performed comparing both historic and Doré Copper's recent drilling certificates to the assays in the drill hole databases for the Corner Bay project. In 2022, nine assay certificates were randomly added to the validation process from 12 of the most recent Doré Copper drill holes. The review included the validation of meterage and assay results between the database and the assay certificate pdfs. A summary of the certificate matching results is presented in Table 12-1. No errors were identified by the QP for information being used in the MRE. No discrepancies were found in sample naming or interval recording.

Overall, the QP is of the opinion that the results of Doré Copper's database workflows and controls comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

Table 12-1: Summary of Doré Copper 2021-2022 assay certificate verification for Corner Bay

Drill Hole ID	Certificate Number	Sample Number	Assay Result in Database (%Cu)	Assay Result in Certificate (%Cu)	Assay Result in Database (g/t Au)	Assay Result in certificate (g/t Au)	Δ Cu %	Δ Au g/t
CB-21-52	BBM21-13769	94395	8.1	8.1	16.2	16.2	0	0
CB-21-55	BBM21-14305	94470	12.79	12.79	2.86	2.86	0	0
CB-21-53	BBM21-14171	94454	10.46	10.46	1.81	1.81	0	0
CB-21-50	22O862139	D00174019	5.47	5.47	1.75	1.75	0	0
CB-21-47	BBM21-12925	503645	10.34	10.34	1.31	1.31	0	0
CB-21-45	BBM21-12459	503572	4.8398	4.8398	0.821	0.821	0	0
CB-21-54	BBM21-14175	503927	3.0846	3.0846	0.736	0.736	0	0
CB-21-50	22O862139	D00174017	6.88	6.88	0.336	0.336	0	0
CB-21-49	BBM21-13347	503823	5.86	5.86	0.31	0.31	0	0
CB-21-55	BBM21-14305	94472	13.65	13.65	0.227	0.227	0	0
CB-21-57	BBM21-14588	94491	13.75	13.75	0.094	0.094	0	0
CB-21-52	BBM21-13769	94396	14.09	14.09	0.088	0.088	0	0
CB-21-51	BBM21-13769	503850	5.65	5.65	0.05	0.05	0	0
CB-21-58	22O862139	D00174002	17.7	17.7	0.292	0.292	0	0
CB-21-60	22O862139	D00174006	18.5	18.5	0.246	0.246	0	0

12.2. Devlin

In 2015, AGP, the QP of the 2015 Devlin MRE, undertook an exhaustive study of the Devlin project, including the verification of collar coordinates, downhole surveys, site procedures, and drill hole database. Following this examination, AGP concluded that the data provided was complete, well documented, traceable, and useable for Mineral Resource estimation. In addition to work completed by AGP, in 2021, a spot check on the database was completed and no errors were found that could impact the Mineral Resource estimation.

SLR visited the Devlin property on June 17 and 18, 2021. While on site, the location of the Nuinsco drill hole collars and the access ramp location were reviewed, as well as the drill core from Devlin holes DEV-14-01 and DEV-14-11 at the Copper Rand core storage facility.

12.2.1. AGP Database Verification

Following the site visit and prior to the resource evaluation in 2015, AGP had carried out an internal validation of the drill holes collar and survey from the database. These results are presented in the following subsections.

12.2.2. Collar Coordinate Validation

Collar coordinates were validated with the aid of a handheld Garmin GPS Map, model 60CSx. A series of collars were randomly selected, and the GPS position was recorded. Nuinsco had used a Trimble Nomad GNSS handheld GPS instrument with a rover antenna. The difference with the GEMS database was calculated in an X-Y 2-D plane using the following formula:

$$\text{X} - \text{Y difference} = \sqrt{(\Delta\text{East})^2 + (\Delta\text{North})^2}$$

As shown in Table 12-2, the results indicated an average difference in the X-Y plane of 4.2 m for the 12 holes where the instrument was located on the monument or near the drill string on the rig. On the Z-plane, an average difference of -0.3 m was recorded. The average difference seen is within the accuracy of the handheld GPS unit used for the validation.

Table 12-2: Devlin collar coordinate verification

Gemcom Database Entry				GPS Point Recorded During Site Visit				Differences Between	
Hole-ID	East	North	Elev.	Site Visit Point	East	North	Elev.	X-Y Plane (m)	Z Plane (m)
DEV-CB-4(1)	548072.0	5511753.0	383.7	DEV-CB-4	548069	5511757	372	5.0	11.7
DEV-14-13(1)	548033.7	5511784.8	384.9	DEV-14-13	548033	5511786	377	1.4	7.9
R3-100(1)	548059.8	5511750.8	381.4	R3-100?	548057	5511756	379	5.9	2.4
R3-131	548179.1	5511839.6	378.6	R3-131	548180	5511844	383	4.5	-4.4
R3-27(1)	548147.2	5511808.1	380.0	R3-27?	548151	5511811	385	4.8	-5.0
DEV-CB-1(1)	548090.6	5511902.8	382.9	DEV-CB-1	548092	5511904	382	1.9	0.9
DEV-14-12	548148.6	5511915.3	381.4	DEV-14-12	548150	5511918	381	3.0	0.4
R3-62	548148.2	5511914.1	381.4	R3-62	548150	5511918	381	4.3	0.4
DEV-14-01(1)	548058.3	5511918.6	381.4	DEV-14-01	548060	5511919	384	1.8	-2.6
DEV-14-11(1)	547800.0	5511893.3	383.2	DEV-14-11	547803	5511892	390	3.3	-6.8
DEV-14-10(1)	547726.1	5511843.0	384.3	DEV-14-10	547733	5511840	391	7.5	-6.7
R3-59(1)	547907.0	5511726.2	387.0	R3-59?	547901	5511723	389	6.8	-2.0
Average				**4.2**				**-0.3**	

Note:
(1) Indicates photo record of hand-held GPS located on the monument.

12.2.3. Downhole Survey Validation

Most of the holes on the Devlin project are collared vertically. Holes are rather short and do not deviate much from the collar location. AGP validated the down-the-hole survey by inspecting the holes on screen in GEMS and looked for issues with the hole trace. AGP did not find any holes displaying abnormal deviations. For a number of historical holes, the down the hole test results were spot-checked against the entry in the Gemcom database with no discrepancy noted.

12.2.4. AGP Site Verification Procedures

Mr. Pierre Desautels, P.Geo., visited the Devlin property on October 21, 2014, accompanied by Ms. Julie Bossé, M.Sc., P.Geo., and Mr. Gorman Sears, P.Geo. All individuals worked for AGP and were independent consultants to Nuinsco. The diamond drill rig operated by Chibougamau Diamond Drilling had just completed the 2014 drill program prior to the site visit; and therefore, core logging and sampling procedures could still be observed.

The 2014 site visit entailed brief reviews of the following:

- Overview of the geology and exploration history of the Devlin project;
- Current exploration program on the property;
- In-fill drill program for resource category conversion and twin drill holes;
- Visits to drill hole pad and collars;
- Drill rig procedures, including core handling on site;
- Surveying (topography, collar, and downhole deviations);
- Sample collection protocols at the core logging facility;
- Sample transportation and sample chain of custody and security;
- Core recovery;
- QA/QC program (insertion of standards, blanks, duplicates, etc.);
- Monitoring of the QA/QC program;
- Review of diamond drill core, core logging sheets, and core logging procedures. The review included commentary on typical lithologies, alteration and mineralization styles, and contact relationships at the various lithological boundaries;
- Specific gravity sample collection;
- Geological and geotechnical database structure and all procedures associated with populating the final assay database with information returned from the laboratory.

During the 2014 visit, AGP collected three, quarter core samples despite the obvious appearance of the copper mineralization (character samples). AGP retained full custody of the sample from the Devlin site to the city of Barrie, Ontario, where the samples were shipped to Activation Laboratories Ltd., Ancaster, Ontario via Canada Post. This sample analysis allowed an independent laboratory, not previously used by Nuinsco, to confirm the presence of copper and gold in the deposit and to verify the presence of other accessory elements. Samples were analyzed for copper using a four-acid total digestion inductively coupled plasma optical emission spectrometry (ICP-OES, code 8-4) and gold using fire assay with an AA finish (code 1A2-50). All samples were also analyzed for Ag, Zn, Pb, Ni, Cd, Mo, Co, Mn, Fe, and Li using an ICP-OES.

From the assay results shown in Table 12-3, AGP concluded the presence of copper and gold on the deposit as evidenced by the nature of the samples and the grades returned, corresponded well with the sample results obtained by Nuinsco. AGP pointed out that due to the small number of samples, these results were not statistically significant.

Table 12-3: Devlin copper and gold character sample results From AGP (2015)

Sample Nb	Cu (%)	Au (g/t)	Hole Number	From	To	Nuinsco Number	Cu (%)	Au (g/t)	Cu Difference
83608	16.4	0.8	DEV-14-12	74.4	74.7	P211419	16.05	0.331	0.35
83609	6.93	1.94	DEV-CB-3	59.34	59.7	P211062	7.1	2.95	-0.17
83610	0.413	0.066	DEV-14-07	56.3	57.3	R149869	0.28	0	0.13

Other elements that were analyzed for these character samples are listed in Table 12-4. The data showed no anomalous values. Iron was high for two of the high-grade copper samples due to the presence of pyrite/chalcopyrite.

Table 12-4: Devlin character sample results - other elements from AGP (2015)

Element	Unit	Analysis Method	Sample Number		
			83608	83609	83610
Ag	ppm	ICP-OES	< 3	< 3	< 3
Zn	%	ICP-OES	0.003	0.003	0.002
Pb	%	ICP-OES	< 0.003	< 0.003	< 0.003
Ni	%	ICP-OES	< 0.003	0.005	< 0.003
Cd	%	ICP-OES	< 0.003	< 0.003	< 0.003
Mo	%	ICP-OES	< 0.003	< 0.003	< 0.003

Element	Unit	Analysis Method	Sample Number		
			83608	83609	83610
Co	%	ICP-OES	< 0.003	0.032	0.003
Mn	%	ICP-OES	0.017	0.013	0.020
Fe	%	ICP-OES	14.8	10.8	3.00
Li	%	TD-ICP	< 0.01	< 0.01	< 0.01
Density	g/cm³	GRAV	3.31	2.94	3.04

Geologists responsible for logging the core could easily recognize the mineralized zone, i.e., the massive quartz vein (MQV), when it was encountered. The MQV is characterized by massive chalcopyrite/pyrite bands that are often present within a brecciated quartz vein (Figure 12-1).

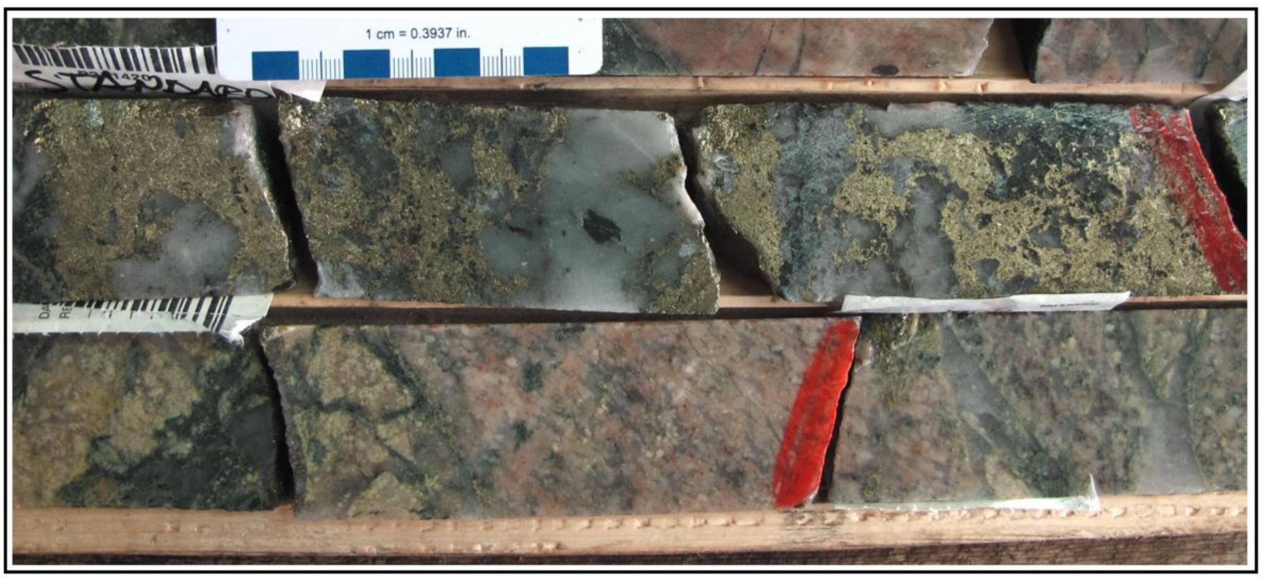


Figure 12-1: Massive chalcopyrite in quartz - hole DEV-14-12 at 74.55 m
From AGP (2015)

The transition zone between the mineralized vein and wall rock is generally less than 1 m, therefore the contacts with the veins are sharp for resource modelling purposes.

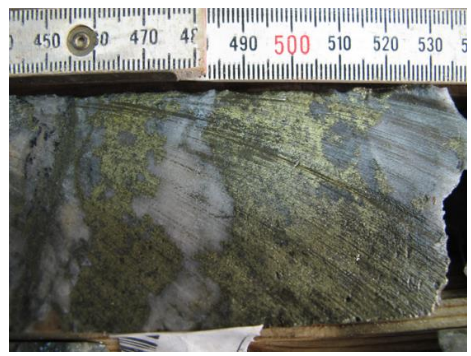
The core drilled by Nuinsco is easily accessible and stored in racks at the former Copper Rand mine and mill complex. However, historical core previously stored at Copper Rand is no longer available for review. Figure 12-2 displays a few photographs taken during the 2014 site visits.

Casing - Hole DEV-CB-04

Historical Core (R3-115, R3-136, R3-123)

Twin Hole R3-62 and DEV-14-12

High-Grade - DEV-CB-3 @ 59.52 m



Nuinsco Core Storage with Sample Bags

Upper Zone DEV-14-12 @ 21.5m (1.68% Cu)

Figure 12-2: Devlin site visit photos from AGP (2015)

12.2.5. AGP Audit of the Drill Hole Database

AGP compiled all of the original laboratory certificates for the 2013 and 2014 drill campaigns and validated them against the Gemcom database. The certificates were typically received as a series of text files in MS Excel format along with signed pdf(s). For the historical holes, a random number of paper copies of the original laboratory certificates were re-typed into an MS Excel spreadsheet. The oz/ton unit for the gold assays was converted to grams per tonne (g/t). Copper did not need conversion as the value was already expressed in percent.

A total of 654 assay results were first compiled from the laboratory certificates and matched against the sample number in the GEMS database. The overall validation rate amounted to 21% of the 3,122 assays in the database. The validation rate for 2013/2014 reached 77%, while the validation rate for the historical data amounted to 14%. The error rate was close to 0% for the Nuinsco data. This was not the case for the historical data, which showed an error rate of 7% as shown in Table 12-5. Due to the high error rate for the historical data, the validation was escalated to include 2,415 assays (out of 2,768) amounting to 87% of the historical dataset. A total of 69 entries were corrected representing a 3% error rate (Table 12-5).

AGP considered the Gemcom database to be complete and sufficiently error free for use in resource estimation.

Table 12-5: Devlin assay validation rate from AGP (2015)

	Overall	2013/2014	Historic (pass 1)	Historic (pass 2)
Total assays in the database	3,122	354	2768	2768
Total assays compiled from the certificate	654	271	383	2415
Validation rate	21%	77%	14%	87%
Number of errors identified	28	1	27	69
Error rates vs. assay compiled	4%	0%	7%	3%

12.2.6. 2021 Database Verification

For the current MRE, no new drilling data has been added to the previous 2015 resource estimate. The information of selected drill holes was reviewed to support the exhaustive analysis carried out by AGP in 2015. The drilling data consists of collar information, downhole surveys, lithological descriptions, %Cu, g/t Au, and g/t Ag assays, and density.

12.2.6.1. SLR Audit of the Drill Hole Database

The drill hole database for Devlin was reviewed in Leapfrog software and a standard review of import errors and visual checks was conducted.

A spatially and temporally representative set of assay certificates for the deposit was requested, which was sourced from historic Excel files or scanned paper records. Assay certificate verification exercises were performed comparing historic drilling certificates to the assays in the drill hole database for Devlin. A total of 10 historic drill holes from Devlin were reviewed with attention to assay values, interval recording, and in the case of some historic results, value conversion, i.e., imperial to metric. A summary of the certificate matching results is presented in Table 12-6. Only one conversion error from imperial to metric units for silver was found. No significant or impactful errors were identified by the QP for information being used in the MRE. No discrepancies were found in sample naming or interval recording.

Overall, the QP is of the opinion that the results of Doré Copper's database workflows and controls comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

Table 12-6: Summary of Devlin historic assay certificates verification

Drill Hole ID	Sample ID	Database (%Cu)	Certificate (%Cu)	Database (g/t Au)	Certificate (g/t Au)	Database (g/t Ag)	Certificate (g/t Ag)	Δ %Cu	Δ g/t Au	Δ g/t Ag
R3-96	T-29514	4.63	4.63	0.343	0.343	1.714	1.714	0	0	0
R3-104	T-29716	3.5	3.5	0.171	0.171	1.714	1.714	0	0	0
R3-135	Ex-25357	5.2	5.2	0.377	0.377	1.714	1.714	0	0	0
R3-142	Ex-25493	4	4	1.303	1.303	2.743	2.743	0	0	0
DEV-14-01	R149717	11	11	0.211	0.211	1	1	0	0	0
DEV-14-12	P211419	16.05	16.05	0.331	0.331	3	3	0	0	0
DEV-14-11	R149963	7.26	7.26	0.103	0.103	1	1	0	0	0
DEV-14-03	R149769	8.74	8.74	2.99	2.99	2	2	0	0	0
DEV-14-07	R149867	5.53	5.53	0.11	0.11	2	2	0	0	0
R3-101	T-29618	11.25	11.25	0.857	0.857	0.343	3.43	0	0	-3.09

12.3. Joe Mann

12.3.1. SLR Site Verification Procedures

SLR visited the Joe Mann property on June 16, 2021. While on site, discussions were held with site personnel, and Joe Mann infrastructure, the current core shack, and the historic tailings were visited. Previously selected core intercepts were also reviewed and compared against recorded lithology logging and assay results. In addition, the data collection and QA/QC procedures were reviewed.

The QP regards the geological and mineralization interpretations used to support Mineral Resource estimation to be consistent with the drill core, and that the Doré Copper geologists have a good understanding of the geology and mineralization.

12.3.2. SLR Audit of the Drill Hole Database

The drill hole databases for Joe Mann were reviewed in Leapfrog software and a standard review of import errors and visual checks was conducted.

A spatially and temporally representative set of assay certificates for the Joe Mann deposit was requested, which was sourced directly from the ALS laboratory where possible, or scanned paper records in the case of historic results. Assay certificate verification exercises were performed comparing both historic and Doré Copper's recent drilling certificates to the assays in the drill hole databases for the Joe Mann project. A total of three recent Doré Copper drill holes (of four) and 10 historic drill holes (of 44) from the Joe Mann project were reviewed with attention to assay values, interval recording, and in the case of historic results, value conversion, i.e., imperial to metric. A summary of the certificate matching results is presented in Table 12-7. While the QP noted some gold assay errors over 11.71 m in drill hole EW30_D, just outside West01 in the mined-out area, no other significant or impactful errors were identified for information being used in the MRE. The QP has verified all historic assays that are inside the mineralized wireframes and recommends verifying all historic drill hole assay values outside the mineralized wireframes. No discrepancies were found in sample naming or interval recording.

Overall, the QP is of the opinion that the results of Doré Copper's database workflows and controls comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

Table 12-7: Summary of Doré Copper and historic assay certificate verification at Joe Mann

Drill Hole ID	Sample Number	Assay Result in Certificate (g/t Au)		Assay Result in Database (g/t Au)	Δ g/t Au
Doré Copper Mining					
JM-20-07	93386	2.56		2.56	0
JM-20-06W2	435341	2.44		2.44	0
JM-20-06W3	95057	33.7		33.7	0
Drill Hole ID	**Sample Number**	**Assay result in Certificate (oz/st Au)**	**Assay Conversion to g/t Au**	**Assay Result in Database (g/t Au)**	**Δ g/t Au**
Historic					
EW1_D	50500	0.115	3.94	3.94	0
EW22_D	51564	0.657	22.53	22.53	0
EW30_D	51831	2.75	94.29	18.86	75.43
EW79_D	53374	1.038	35.59	35.59	0
EW44_D	52426	0.733	25.13	26.50	1.37
EW77_D	53271	1.107	37.95	37.95	0
EW46_D	52456	1.18	40.46	40.46	0
EW23_D	51580	0.856	29.35	29.35	0
EE-188	6059	2.28	78.17	78.16	0.01
EE-189B	6295	1.512	51.84	51.83	0.01

12.4. Cedar Bay

12.4.1. Database Verification

The drill hole database for the Cedar Bay property was provided to the QP as a set of comma-separated files. The data includes underground drilling from 1994-1995 and surface drilling from 2018. The drilling data consists of collar information, downhole surveys, lithological descriptions, g/t Au, % Cu, and g/t Ag assays.

Entries from the assay data table were compared with laboratory assay certificates for the 2018 drilling program. SLR, RPA at the time, verified 514 samples, representing 26% of the samples in the assay database, with values from 12 assay certificates. No issues were identified.

Routine database validation checks specific to GEMS were performed to ensure the integrity of the database records. Also performed were visual drill hole trace inspections and checks on extreme and zero assay values, intervals not sampled or missing, and interval overlapping.

Additional checks for the conversion from imperial to metric units for the 1994 data were also performed.

The QP carried out a site visit on July 18, 2018. During the site visit, the QP reviewed drill core and logs from several drill holes and visited a number of the recent drill collar locations.

12.4.1.1. Density Verification

A total of 23 specific gravity measurements were made on core samples from two drill holes, consisting of two Vein 1 intercepts, one Vein 2 intercept, and one Middle Vein intercept. The measured values ranged from 2.17 g/cm^3 to 3.4 g/cm^3. An average bulk density value of 2.9 g/cm^3 was used for Cedar Bay mineralized veins.

The QP recommends that Doré Copper begin measuring bulk density for all mineralized samples and update the density database for use in future MREs.

The QP is of the opinion that database verification procedures for Cedar Bay comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

13. Mineral Processing and Metallurgical Testing

13.1 Corner Bay Historical Testwork Review

13.1.1 Corner Bay Preliminary Flotation Testwork (July 1982)

In 1982, Lakefield Research of Canada Ltd. (Lakefield) was mandated to conduct preliminary flotation testwork to estimate Cu, Au, Ag and Mo recoveries in a bulk concentrate.

Lakefiled received 41 samples totalling 11.3 kg. The samples were combined and crushed to 10 mesh before being split in four samples of 2 kg, a reject and a head sample.

A 2-kg sample from the main composite was ground to 74.2% minus 200 mesh (-74 µm) prior to flotation testing. The sample assay indicated an average head grade of 4.44% Cu and 0.26 g/t Au. The specific gravity of the sample was determined to be 3.17 g/cm^3 using an air comparison pycnometer.

A total of four flotation tests were performed to study the effectiveness of three different reagent schemes and the impact of particle size distribution. The following reagents were considered: calcium hydroxide ($Ca(OH)_2$) modifier, sodium sulfite (Na_2SO_3) depressant, MIBC, aero promoter 3302, aero promoter 3477 (R3477), Pennflot 3 promoter (P-3), and aero xanthate collector 350 (A350). The tests were standardized with a five-minute conditioning time prior to rougher flotation and a pH set between 9 and 10.6. The rougher concentrate was reground in a pebble mill and underwent three stages of cleaner flotation. Table 13-1 shows the final concentrate copper and gold grade/recovery results of all four flotation tests.

Table 13-1: Flotation testwork concentrate grade and recovery

Test #	Weight (%)	Assays		Distribution (%)	
		Cu (%)	Au (g/t)	Cu	Au
1	14.81	29.1	0.98	97.6	55.2
2	15.14	28.9	0.99	97.8	-
3	19.4	22.7	-	98.1	-
4	18.36	22.8	-	96.2	-

Tests 1 and 2 had almost identical reagent schemes and produced very similar results that are comparatively the best results from this testwork program. The reagent schemes for Test 1 and Test 2 included 900 g/t CaO, 600 g/t Na_2SO_3, 62 g/t A350, and 14 g/t MIBC. The difference between the two reagents schemes is that the use of 47 g/t R3477 for Test 1 was replaced with 42 g/t P-3 for Test 2. Test 3 utilized a fine grind of 92.9% minus 200 mesh (-74 µm) to determine the impact of particle size on copper grade/recovery. Although Test 3 results in a slightly higher copper recovery, the resulting copper grade is significantly lower than in Test 1 and 2. Test 4 generated the poorest results in terms of grade and recovery.

13.1.2 Corem Flotation Testwork (2005)

In 2005, the Corem testing facilities in Québec City, Canada were mandated to confirm the metallurgical flotation results generated by Lakefield in 1982 using the same flotation reagents as those used at the Copper Rand mill at the time.

The sample was composed of drill core collected from the Corner Bay site approximately 20 years prior to the 2005 testwork. The chemical analysis of the sample, used for characterization testwork, revealed head grades equivalent to 4.26% Cu and 0.3 g/t Au. Scanning electron microscopy and optical microscopy were also used to identify the sample mineralogy.

Unfortunately, the analysis of the samples showed high levels of chalcopyrite alteration to iron hydroxides and led to inconclusive flotation results.

13.1.3 Bulk Sample Program (2008)

In 2008, a bulk sample program on the Corner Bay exploration ramp material was carried out by Campbell's subsidiary MSV. Samples were taken from the ramp and three developed levels underground. No documentation is available that detailed the sources and representativeness of the samples. The material was fed to the Copper Rand mill in batches from March to October 2008.

During the combined eight months of the program, a total of ~36,395 t of material was treated in the mill. An average copper recovery of 94.2% was realized with an average grade of 21.2% Cu. Gold recovery from the combined gravity and flotation circuits was estimated to be 81.5%.

Although, there is not much information available on the test program, the results showed great response to flotation and confirmed the potential for producing high-grade concentrate. Table 13-2 presents the metallurgical results of the test program.

Table 13-2: Metallurgical results of the 2008 test program

Month (2008)	Tonnage	Head-grade		Concentrate Grade	Concentrate Recovery		Gravity Recovery
	t	% Cu	g/t Au	% Cu	%Cu	%Au	%Au
March	973	2.15	0.92	21.92	94.38	67.72	18.29
April	2,737	3.14	0.41	22.60	92.44	61.95	19.09
May	4,384	2.78	0.34	19.83	88.65	55.10	19.87
June	1,947	3.61	0.48	21.70	92.60	64.86	18.64
July	6,877	2.19	0.44	20.70	92.60	63.84	18.16
August	8,076	2.42	0.38	21.20	96.30	63.12	18.38
September	9,438	2.35	0.41	21.62	96.78	62.76	22.69
October	1, 965	1.86	0.79	20.30	95.60	54.13	18.07
Total	**36,396**	**2.48**	**0.44**	**21.15**	**94.23**	**61.84**	**19.68**

13.2 Joe Mann Historical Testwork and Operation Review

13.2.1 Lakefield Flotation and Cyanidation Testwork (1981)

In 1981, Lakefield was requested to complete flotation and cyanidation tests on a sample from the Joe Mann deposit to confirm its metallurgical potential. Lakefield received a 6 kg sample that was crushed to minus 10 mesh (-2 mm) and split into 2 kg charges along with a head sample for elemental analysis. The head sample assay yielded 0.72% Cu and 12.9 g/t Au.

Lakefield carried out the flotation test by grinding the sample charges to about 80 percent passing (P_{80}) 200 mesh (-74 µm), followed by copper flotation at a pH of 10.5 with R-208 and R-238 collectors. A grade of 24.5% Cu and 288 g/t Au was realized after three stages of cleaner flotation. However, the respective recoveries for copper and gold were low at 89.5% and 44.5%.

Cyanidation testing was conducted to investigate the effectiveness of recovering more gold from the rougher flotation tailings. Lakefield carried out the cyanidation test on rolls over the course of 24 h with 500 g of rougher tailings mixed with sodium cyanide (NaCN) and hydrated lime ($Ca(OH)_2$). The test was conducted at pH 11 using 1 g/L NaCN. A 1 g dosage of NaCN and a 0.60 g dosage of $Ca(OH)_2$ were added to the solution within the first 17 h, followed by an additional 0.26 g dose of NaCN in the following 4.5 h. The resulting pregnant solution at the end of the 24-h test yielded a gold recovery of 68.4% from the rougher flotation tailings.

13.2.2 Joe Mann Production Overview (2005-2007)

From January 2005 to September 2007, Joe Mann ore was transported approximately 60 km by truck to the Copper Rand mill for processing. Previously, the ore from Joe Mann was processed at Campbell' Merrill Mill, which closed in 2004 and has since been dismantled. Monthly reports were available to establish metallurgical performance at the Copper Rand mill over those three years where approximately 260,000 t from Joe Mann mine were processed at Copper Rand mill.

Production data showed an average copper recovery of 94.6%, with an average grade of 16.0% Cu. A combined gold recovery of 83.6% from both gravity concentration and flotation circuits was achieved.

Figure 13-1 presents the monthly average recovery obtained for processing Joe Mann mine ore at the Copper Rand mill.

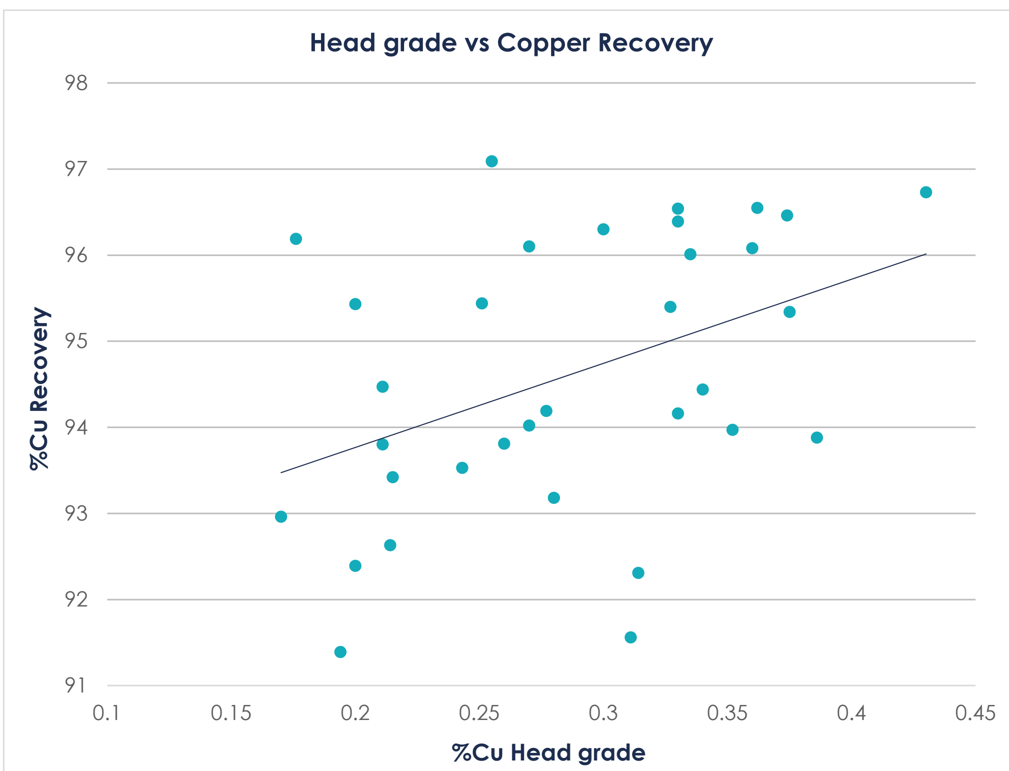


Figure 13-1: Production recovery results of Joe Mann at Copper Rand mill

13.3 Devlin Historical Testwork Review (1979-1982)

In 1979, on behalf of Riocanex, Lakefield was mandated to conduct metallurgical testwork on the Devlin deposit. The scope of the testworks includes bench-scale flotation and a single heavy-media separation.

Flotation tests were conducted on individual and drill core samples of Devlin in the Campbell Chibougamau mill laboratory in 1979. Sample was ground to 200 mesh and flotation test were carried out to replicate the operational conditions of the Campbell mill at the time. An overall 97.9% Cu was recovered from a head grade of 1.79% Cu. The assay for the final concentrate is at 26.1% Cu.

The results of the single heavy media test conducted by Lakefield in 1979 are summarized in Table 13-3.

Table 13-3: Devlin historical flotation results

Product 3/4" x 1/4"	Wt %	Cu %	Distribution Cu %
S.G 2.96 sink	17.9	5.6	52.5
S.G 2.76 sink	18.5	1.16	11.2
S.G 2.69 sink	26.2	0.1	1.4
S.G 2.69 float	16.8	0.12	1
Minus 1/4" fines	20.6	3.14	33.9
Heads (Calculated)	100	1.91	100

Then from November 1981 to March 1982, plant-scale flotation runs with bulk sample was carried out at the Camchib's mill at Chibougamau. A 2,489 tonnes of sample were taken from development muck at an average head grade of 1.26%Cu. A copper concentrate grading 17.79% Cu was obtained with an overall copper recovery of 96.9% (SLR. Technical Report on the Corner Bay-Devlin Property. November 2021). No information related to gold recovery was available.

In 1982, a 100 lbs sample from the Devlin copper mineralization was submitted to Ore Sorter (Canada) Limited for conductivity and photometric sorting testing. The sample was screened at ½'' and 1'' and the coarser and intermediate fractions were processed for sorting prior to be sent to Lakefield for assaying. Results from the test shows that the material was amenable to sorting. In May 1982, a 4,600-pound sample was sent to Ore Sorter (Canada) Limited to carry out a continuous pilot test. The conclusions of the 1982 Pre-feasibility study on Devlin (G.R. O'Gorman and James Wade, 1982) was that the conductivity sorting does not appear to show the selectivity required for a successful up-grading procedure. However, it was noted that the sized distribution of the sample was not representative of a typical run-of-mine sample.

13.4 Devlin Testwork Review (2021-2022)

Doré Copper initiated gravity and flotation testwork on Devlin at Corem's laboratory in 2021. The tests were conducted on a composite sample from three HQ drill holes. The three holes were drilled from the same drill pad and the description is provided below:

Table 13-4: Drill core description

Hole #	X	Y	Z	Hole length (m)	Core size	Sample length (m)
DV-21-01	548083	5511863	380	120	HQ	2.3
DV-21-02	548083	5511863	380	102	HQ	2.3
DV-21-03	548083	5511863	380	111	HQ	2.3

The composite assay indicated a grade of 1.70% Cu and 0.12 g/t Au. The purpose of the gravity test was to evaluate the amenability of the material to gravity separation. A 14-kg sample was ground to a P_{80} of approximately 200 µm prior to being fed to a Knelson concentrator at a rate of approximately 75 kg/h. The water flowrate was set at 3.5 L/min and the rotation speed was 60 G. Table 13-5 shows the gravity test results. The gold recovery was low at 11.6%.

Table 13-5: Devlin gravity tests results

Product	Weight		Assays			% Distribution		
	g	%	Au g/t	Ag g/t	Cu (%)	Au	Ag	Cu
Gravity Concentrate	12.550	0.09	21.5	5.00	1.80	11.6	1.8	0.1
Gravity Tail	13 763	99.9	0.15	0.25	1.52	88.4	98.2	99.9
Calculated Head	13 776	100.0	0.17	0.25	1.52	100.0	100.0	100.0
Direct Head	-	100.0	0.12		1.70			

The tailings of the gravity separation test were used to perform flotation tests. The purpose of the flotation tests was to evaluate different flotation parameters, including grind size, reagent scheme, and the performance of a regrind step. A total of four flotation tests and one locked cycle test were performed. Ahead of each flotation test, a 2-kg sample was ground to a P_{80} of approximately 125 µm. The results of each test were analysed, and Test 4 was identified as showing the best metallurgical performance. with a copper grade of 28.3% and recovery of 90.8%. However, the gold recovery was low at 51.7% and the gold grade was less than 10 g/t. Therefore, a locked cycle test was carried out to assess the stability of the Test 4 conditions. Six 1 kg charges of minus 10 mesh (-2 mm) were used for the locked cycle test. The locked cycle tests yielded a concentrate grade at 20.5% Cu with 98.2% recovery and a gold recovery of 74.6%.

13.5 Grindability Testwork

Limited grindability testwork has been done on any of the source materials.

Bond ball mill grindability tests were performed by Corem in 2021 for both Corner Bay and Devlin. The Corner Bay sample was taken from the remaining stockpile from the 2008 bulk sampling test, while the Devlin sample was a composite from the same composite sample as the metallurgical testing (see Section 13.4).

The results obtained are as follows:

Table 13-6: Work index test results

Sample ID	Mesh of Grind	F_{80} (µm)	P_{80} (µm)	Gram per Revolution	Work Index (kWh/t)
Corner Bay	100	2,351	117	2.12	11.7
Comp Devlin	100	2,379	126	1.76	14.2

13.6 Material Sorting Testwork

13.6.1 Corner Bay Material Sorting Test Program (2021)

In 2021, mineral sorting tests were carried out at Corem's laboratory using commercial scale Comex OCXR-1000 sorting units (integrated X-ray and optical sorting system). The objective of this test program was to evaluate the response of the Corner Bay material to sensor-based sorting at scale.

Samples were selected from the Corner Bay site from the remaining stockpile from the 2008 bulk sampling test. The material provided for the test program was a mixture of massive sulphide, ore zone, shear zone, diorite and anorthosite rock types, the latter three rock types being gangue. In total approximately 100 kg of material was sent at Corem for testing.

The material received at Corem was first crushed to a 100% passing 25 mm. The material provided was selected from the -25 mm +19 mm coarse size fractions of each of the rock types. The samples were deemed to be representative of the Corner Bay deposit based on grade and size distribution. Figure 13-2 shows examples of the four rock types where massive sulphide rocks were replaced with ore zone rocks.

Figure 13-2: One set of 100 rocks used for dynamic sorting tests

Three series of sorting tests were completed with different combinations of rock types. All three series of sorting tests entailed three passes through the sorter, with each pass having different sorting parameters.

The dynamic sorting test results demonstrate that particles of interest could be efficiently separated from the three gangue rock types. Table 13-7 shows the results from the sorting testwork. A global copper recovery of 95.5% was realized with the copper grade upgraded from 2.66% to 6.84% Cu.

Table 13-7: Corner Bay sorting results

Combined product	Sorter concentrate			Sorter reject		
	% Mass	%Cu	%Cu recovery	% Mass	%Cu	%Cu recovery
Product 1	28.3	8.05	85.5	71.7	0.54	14.5
Product 1-2	33.9	7.36	93.7	66.1	0.26	6.3
Product 1-3	37.2	6.84	95.5	62.8	0.19	4.5

Bond ball mill work index (BWi) tests were performed on the high-grade concentrate from the sorter and a 20% decrease in the BWi was observed, decreasing from 13.7 kWh/t to 11.0 kWh/t.

13.6.2 Devlin Mineral Sorting Test Program (2022)

In 2022, mineral sorting tests were carried out at Corem's laboratory using the same approach and with the same objectives as those for Corner Bay in 2021. Fresh drill core from the Devlin deposit (four HQ holes from the same drilling pad) and haft of a drill core left from the 2021 metallurgical test was combined to generate a representative sample. The locations of the 2022 drill core are described in Table 13-8.

Table 13-8: Devlin Drill core description

Hole #	X	Y	Z	Hole length (m)	Core size	Sample length (m)
DV-22-04	548083	5511859	380	84	HQ	2.3
DV-22-05	548083	5511859	380	84	HQ	2.3
DV-22-06	548083	5511859	380	84	HQ	2.3
DV-22-07	548083	5511859	380	84	HQ	2.3

Table 13-9 presents the results from the sorting testwork.

Table 13-9: Delvin sorting results

Combined product	% Mass	%Cu	%Cu recovery
Product 1+ fines	44.6	6.10	92.3
Product 1-2	52.9	5.35	96.0
Product 1-3	59.5	4.82	97.2
Product 1-4	65.5	4.40	97.7
Product 5 (rejects)	34.5	0.20	2.3

The test results showed that particles of interest could be efficiently separated from the gangue. An overall copper recovery of 97.2% was achieved with an upgraded copper content from 2.95% to 4.82% Cu after three passes of sorting.

14. Mineral Resource Estimates

Mineral Resources for the Project are presented in Table 14-1. The Mineral Resources Estimates (MREs) represent a combination of updated and restated MREs over the four properties as described below and as shown in Table 14-2.

The metal of interest at the Corner Bay and Devlin deposits is copper with gold and silver as by-products. At Joe Mann, the main metal of interest is gold with copper as a by-product. At Cedar Bay, the metal of interest is gold and copper. It has been assumed that these deposits would be mined using underground methods.

The MREs are defined by mineralization domain shapes built in Leapfrog Geo or GEMS. Uncapped or capped copper and capped gold assays within the domains were composited and estimated into a sub-blocked model (Leapfrog Edge) or a percent model (GEMS) using a multi-pass inverse distance squared (ID^2) or cubed (ID^3) interpolation approach.

In addition to standard historical data and database validation techniques, wireframe and block model validation procedures, including wireframe to block volume confirmation, statistical comparisons with composite and nearest neighbour (NN) estimates, visual reviews in longitudinal section were also completed for all deposits.

Definitions for resource categories used in this Report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the "economically mineable part of a Measured and/or Indicated Mineral Resource" demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

All deposits were reviewed, and classified blocks were limited to those areas that met Reasonable Prospects for Eventual Economic Extraction (RPEEE) criteria with respect to the above cut-off grade mineralization continuity and minimum thickness. There are no Mineral Reserves at the Project.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the MREs.

Table 14-1: Consolidated Mineral Resources

Project	Deposit	Category	Tonnage	Grade		Contained Metal	
			(kt)	(% Cu)	(g/t Au)	Copper (Mlbs)	Gold (000 oz)
Corner Bay - Devlin	**Corner Bay**	Indicated	2,677	2.66	0.26	157	22
		Inferred	5,858	3.43	0.27	443	51
	Devlin	Measured	121	2.74	0.29	7.3	1
		Indicated	654	2.06	0.19	29.7	4
		Measured & Indicated	775	2.17	0.2	37	5
		Inferred	484	1.79	0.17	19.2	3
Copper Rand	**Cedar Bay**	Indicated	130	1.55	9.44	4.4	39
		Inferred	230	2.13	8.32	10.8	61
Joe Mann	**Joe Mann**	Inferred	608	0.24	6.78	3.2	133
Total Measured & Indicated			**3,582**	**2.51**	**0.58**	**198.2**	**66**
Total Inferred			**7,180**	**3.01**	**1.08**	**476.5**	**248**

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. The effective date of the Mineral Resources is March 30, 2022, for all projects, except Cedar Bay which has an effective date of December 31, 2018.
3. Mineral Resources are estimated using an exchange rate of USD$1.00:CAD$1.33 for all projects, except Cedar Bay, which used an exchange rate of USD$1.00:CAD$1.25.
4. Mineral Resources at Joe Mann are estimated using a long-term gold price of US$1,800/oz Au, and a metallurgical gold recovery of 83%. Mineral Resources at Corner Bay and Devlin are estimated using a long-term copper price of US$3.75 per pound, and a metallurgical copper recovery of 95%. Mineral Resources at Cedar Bay are estimated using a long-term gold price of US$1,400/oz Au, and a metallurgical gold recovery of 90%.
5. Mineral Resources are estimated at a cut-off grade of 2.6 g/t Au at Joe Mann, 1.3% Cu at Corner Bay, 2.9 g/t Au at Cedar Bay and 1.2% Cu at Devlin.
6. A minimum mining width of 1.2 m was used at Joe Mann and a small number of lower-grade blocks have been included for continuity. A minimum mining width of 2.0 m was used at Corner Bay and Cedar Bay, and a minimum height of 1.8 m was applied at Devlin.
7. Bulk density ranges by deposit and vein from 2.84 t/m^3 to 3.1 t/m^3.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Numbers may not add up due to rounding.

Table 14-2: Summary of MRE updates

Property	Deposit	Effective Date of Previous MRE	Author of Previous MRE	Revised Effective Date	Changes to MRE
Corner Bay - Devlin	Corner Bay	Oct 1, 2021	SLR	March 30, 2022	14 drill holes added
Corner Bay - Devlin	Devlin	Oct 7, 2021	SLR	March 30, 2022	none
Joe Mann	Joe Mann	July 21, 2021	SLR	March 30, 2022	none
Copper Rand	Cedar Bay	December 31, 2018	RPA (now SLR)	none	

Details of the Mineral Resource estimation process for the individual deposits are summarized in the relevant sections below.

14.1. Corner Bay

14.1.1. Summary

An updated MRE for the Corner Bay deposit was prepared using available drill hole data as of March 13, 2022.

The MRE is defined by seven veins, three above the diabase dyke (CBAD1, CBAD2, and CBAD3), one below (CBUD), and three to the west side of the deposit (WV, WV2, and WV3). A minimum thickness of 2 m was applied to all veins.

Uncapped copper and capped gold assays within the veins were either composited to 2 m or across the full vein intercept. Composite values were estimated into a sub-blocked model using a three-pass inverse distance squared (ID^2) or cubed (ID^3) interpolation approach. Indicated and Inferred Mineral Resources represent areas with approximate drill hole spacings of up to 60 m and 120 m, respectively, and are limited to areas of continuous mineralization. It was assumed that the deposit would be mined using underground methods.

Mineral Resource domains and block modelling work was performed using Leapfrog Geo and Edge software. In addition to standard historical data and database validation techniques, wireframe and block model validation procedures, including wireframe to block volume confirmation, statistical comparisons with composite and NN estimates, visual reviews in longitudinal section were also completed.

At a copper cut-off grade of 1.3%, Indicated Mineral Resources at Corner Bay are estimated to total 2.68 Mt at average grades of 2.66% Cu and 0.26 g/t Au and to contain 157Mlbs Cu and 22,000 oz Au. Inferred Mineral Resources are estimated to total 5.86 Mt at average grades of 3.43% Cu and 0.27 g/t Au and to contain 443Mlbs Cu and 51,000 oz Au (Table 14-3).

Table 14-3: Corner Bay Mineral Resources (effective date of March 30, 2022)

Classification	Tonnage (Mt)	Cu Grade (%)	Au Grade (g/t)	Cu Contained (Mlb)	Au Contained (000 oz)
Indicated	2.68	2.66	0.26	157	22
Inferred	5.86	3.43	0.27	443	51

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 1.3% Cu.
3. Mineral Resources are estimated using a long-term copper price of US$3.75 per pound, metallurgical copper recovery of 95%, and an exchange rate of USD$1.00:CAD$1.33.
4. A minimum mining width of 2 m was used.
5. Bulk density was 3.1 g/cm^3 for CBAD1 and CBAD2, 2.90 g/cm^3 for CBAD3, 3.0 g/cm^3 for CBUD, 2.85 g/cm^3 for WV and WV2, and 2.92 g/cm^3 for WV3.
6. Numbers may not add due to rounding.

14.1.2. Mineral Resource Cut-Off Grades

Metal prices used for Mineral Reserves are based on consensus, long-term forecasts from banks, financial institutions, and other sources. For Mineral Resources, metal prices used are slightly higher than those used for Mineral Reserves.

A cut-off grade of 1.3% Cu was developed for the Corner Bay deposit and reflects assumed mining costs of sub-level stoping, i.e., steeply dipping domains, in addition to processing costs and copper price. The full operating cost, including mining, processing, and general and administration (G&A) costs, have been used in the calculations. Capital costs, including sustaining capital, have been excluded. Table 14-4 lists the parameters used to calculate the cut-off grades.

Table 14-4: Corner Bay mineral resource cut-off grade inputs

Item	Unit	Sub-Level Stoping
Mining Rate	dry t/d	1,000
Processing Rate	dry t/d	1,000
Copper Metallurgical Recovery	%	95
Copper Price	US$/lb	3.75
Exchange Rate	USD:CAD	1.33
Mining cost	$/t milled	85

Item	Unit	Sub-Level Stoping
ROM Transport (no crushing)	$/t milled	10
Processing Cost	$/t milled	25
G&A	$/t milled	20
Total	$/t milled	140
Break-Even Cut-Off Grade	% Cu	1.3

14.1.3. Resource Database

The drill hole database was maintained in Microsoft Excel up to March 2022 (now in GeoticLog), with drill hole location information in NAD83 projection, UTM Zone 18. The database for the Corner Bay MRE consists of diamond drilling spaced from 20 m to 100 m apart and includes 2,027 domain-intersecting copper and gold assays from 245 drill holes with a total length of 115,584 m and a total assay length of 1,621 m completed from 1973 to 2021. The data was imported into Seequent's Leapfrog Geo version 2021.2 for statistical analysis, wireframe building, block modelling, and resource estimation. The most recent drill hole included in the resource database is CB-21-60.

Corner Bay was explored previously via an underground decline and exploration drifts in the Main Zone above the dyke to collect a bulk sample and to confirm the continuity of the mineralization.

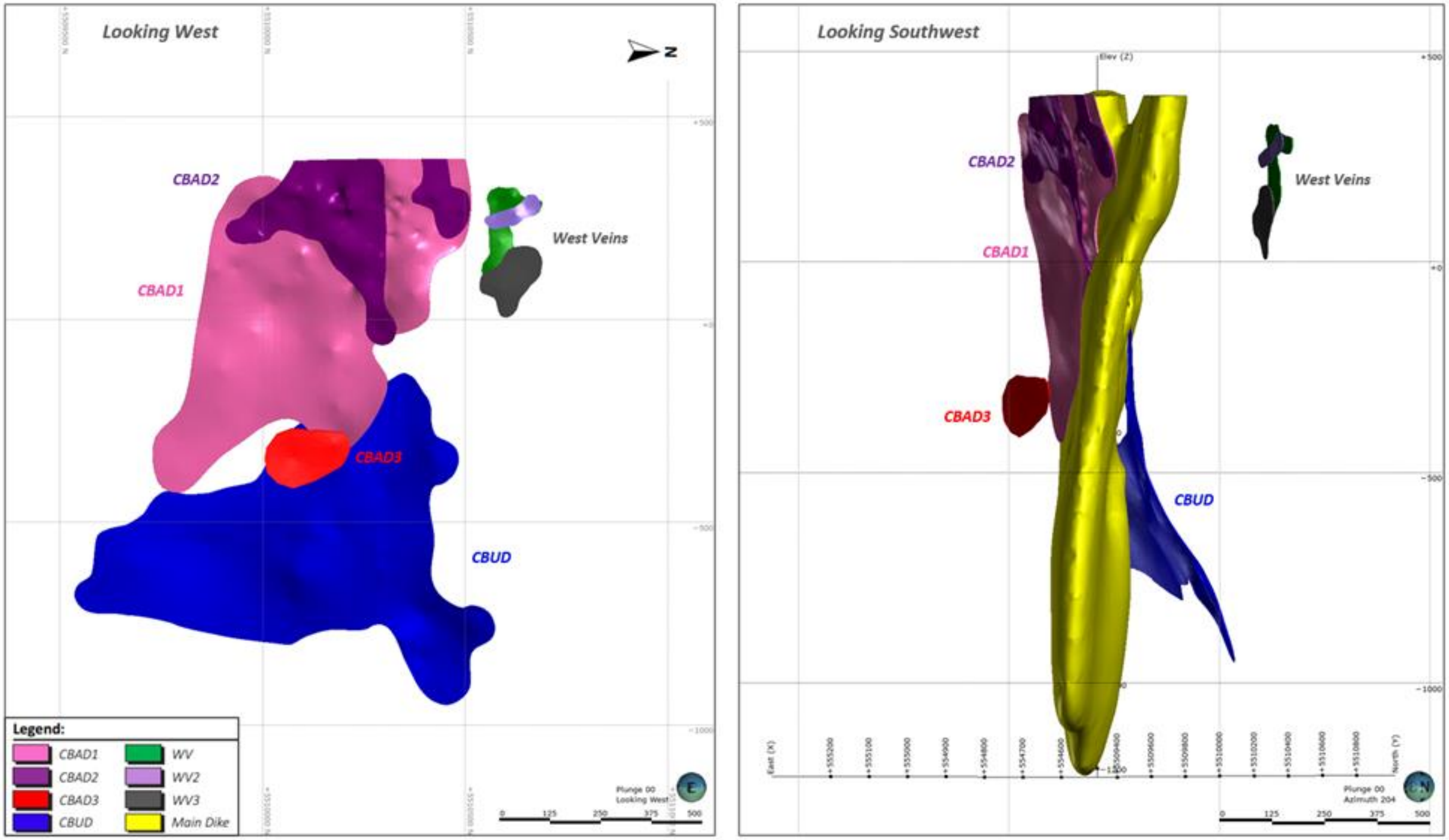
14.1.4. Geological Interpretation

The MRE is defined by seven veins, three above the large post-mineralization barren dyke (the Main Dyke) – CBAD1, CBAD2, and CBAD3 – and one below – CBUD. An additional three veins are defined on the west side of the deposit – WV, WV2, and WV3.

Wireframe domains were built using an approximate copper grade cut-off grade of 1% Cu and an approximate minimum thickness of 2 m. Domain extensions were defined at a limit of the closer of 50% of the local drill hole spacing, or 50% of the distance to an excluded drill hole.

All veins are subvertical and extend from surface to approximately 1,350 m vertical distance below. The veins range in width from 2 m to 10 m, and domain dimensions along strike and down dip range from 130 m by 80 m (WV2) up to 1,060 m by 850 m (CBAD1).

Final domains are presented in Figure 14-1.



Source: SLR, 2022. Date: May 2022

Figure 14-1: Corner Bay mineralization wireframes

14.1.5. Resource Assays

14.1.5.1. Treatment of High-Grade Assays

Capping Levels

Table 14-5 summarizes the capped gold and uncapped copper assay statistics at Corner Bay. A capping strategy was developed by reviewing raw assays using basic statistics, histograms, log probability plots, and decile analysis to determine a copper and gold cap, if necessary, for each domain independently. Copper was shown to be insensitive to capping, with low coefficient of variation and low metal risk. A cap of 6.0 g/t Au was applied to all domains.

Table 14-5: Corner Bay gold and copper assay statistics and capping levels

Domain	Count	Count Capped	Cap	Mean	Capped Mean	Min	Max	Capped Max	CV(1)	Capped CV
Gold										
			(g/t Au)	(g/t Au)	(g/t Au)	(g/t Au)	(g/t Au)	(g/t Au)		
All	2,012	4	6	0.25	0.24	0	16.20	6	2.66	2.09
Copper										
			(% Cu)	(% Cu)	(% Cu)	(% Cu)	(% Cu)	(% Cu)		
All	2,012	0	-	2.46	2.46	0	27.8	27.8	1.35	1.35

Note:
(1) Coefficient of Variation (CV)

Capping analysis for gold within all domains is presented in Figure 14-2.

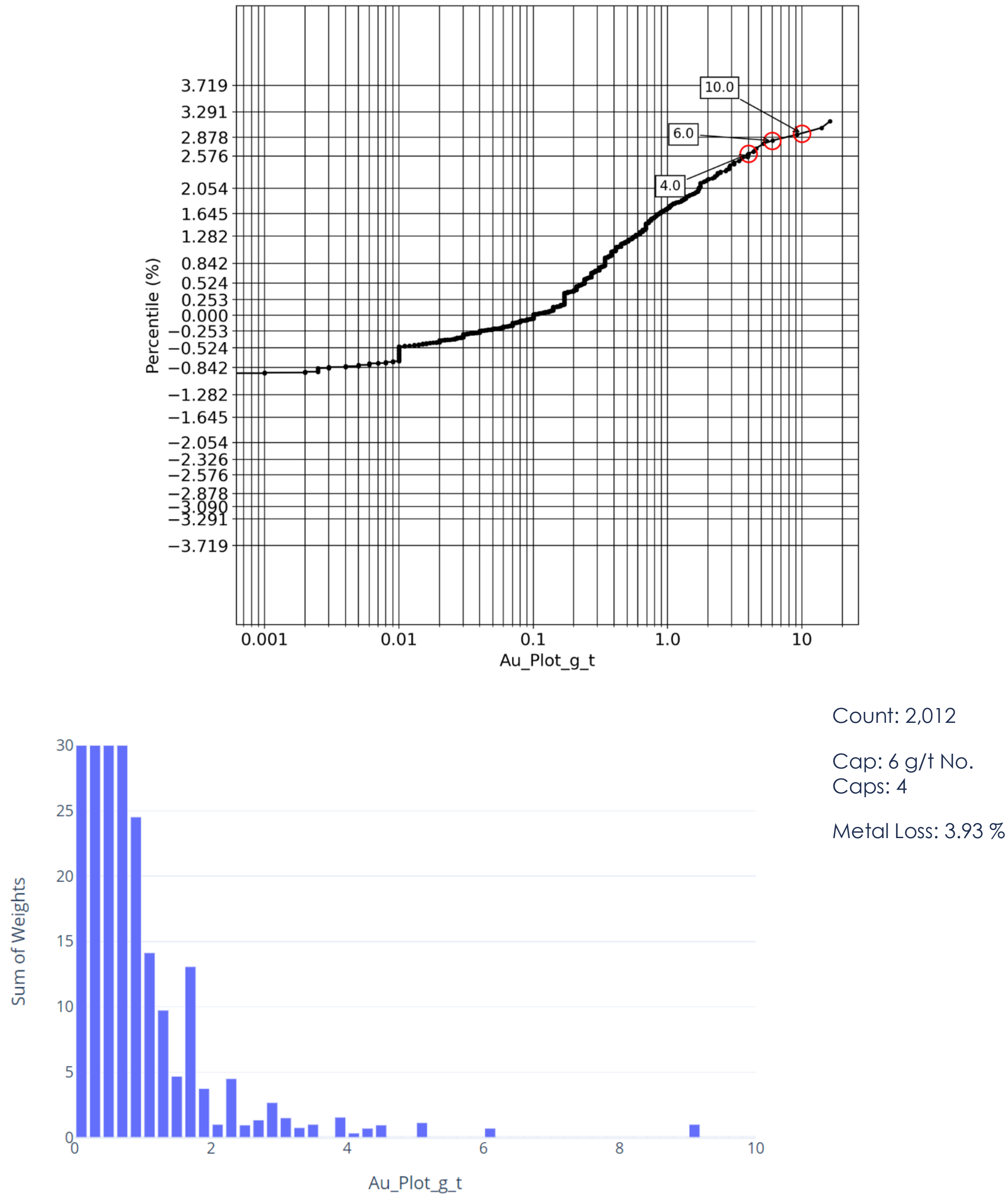


Figure 14-2: Probability plot and histogram of length weighted gold assays within all domains at Corner Bay

High-grade Restriction

High-grade restrictions were not applied in the copper and gold interpolation.

14.1.6. Compositing

Uncapped copper and capped gold assay values were composited to 2 m intercepts within each domain, except CBUD, which was composited to full-width intercepts. Residual lengths of 0.5 m are distributed equally. Histograms of the 2 m and full-length composite lengths in CBUD are shown in Figure 14-3 and copper and gold assay and composite statistics by domain are summarized in Table 14-6. The QP notes that the longer full-length composites are the representation of drill holes oriented down dip, due to the low intersection angle of drilling with respect to the vein, necessary due to the very deep target depth. Historical drill holes were not consistently analyzed for gold. Where gold or copper values are missing within the domain, a null value was assigned.

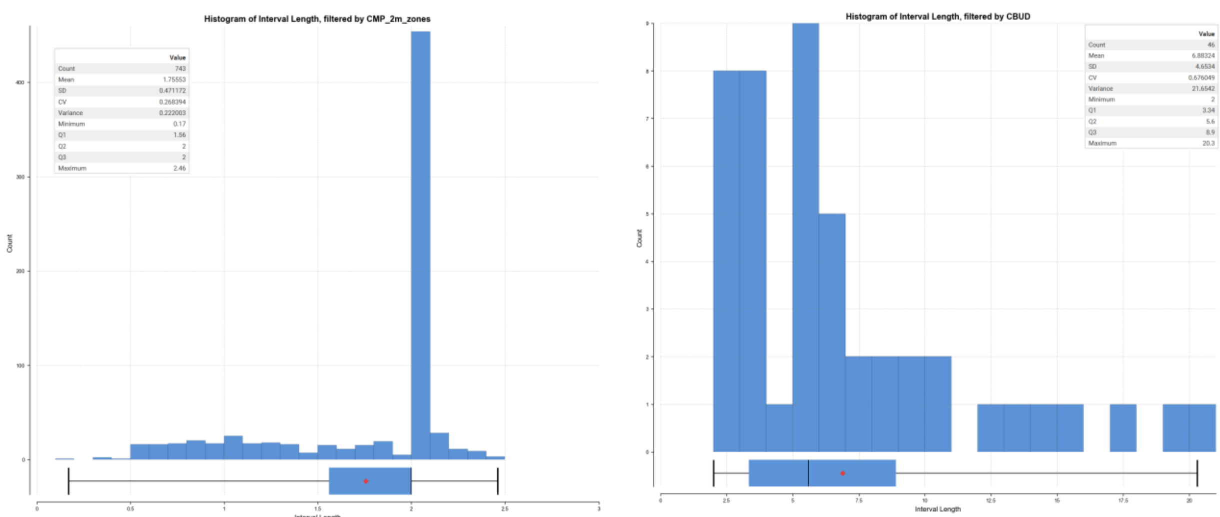


Figure 14-3: Histogram of composite interval lengths within mineralization domains

Table 14-6: Corner Bay capped gold and copper assay and composite statistics

Domain	Original Assay						Composite Assay					
	Count	Length	Mean	CV	Min[4]	Max	Count	Length	Mean	CV	Min[4]	Max
Gold		(m)	(g/t Au)		(g/t Au)	(g/t Au)	Capped	(m)	(g/t Au)		(g/t Au)	(g/t Au)
CBAD1	1,040	848.97	0.27	2.27	0	16.2	477	848.97	0.26	1.31	0.00	2.55
CBAD2	388	334.72	0.25	3.61	0	14	200	334.72	0.22	1.99	0.00	6.00
CBAD3	14	12.37	0.2	0.89	0.01	0.62	7	12.37	0.20	0.54	0.02	0.32
CBUD	425	316.63	0.25	2.02	0	5.16	46	316.63	0.25	0.80	0.00	0.99
WV	90	61.59	0.25	3.51	0	6.06	36	67.19	0.23	2.12	0.00	2.25
WV2	21	12.25	0.12	0.99	0	0.418	9	15.15	0.09	0.81	0.00	0.21
WV3	39	25.95	0.09	2.56	0	1.45	14	25.95	0.09	1.70	0.00	0.74
Copper		(m)	(%)		(%)	(%)	Uncapped	(m)	(%)		(%)	(%)
CBAD1	1,040	848.97	2.75	1.28	0	24.8	477	848.97	2.75	1.06	0.00	16.07
CBAD2	388	334.72	1.65	1.66	0	27.8	200	334.72	1.65	1.28	0.00	10.37
CBAD3	14	12.37	2.94	1.02	0.1	9.74	7	12.37	2.94	0.61	0.18	4.90
CBUD[3]	425	316.63	3.13	1.1	0	19.94	46	316.63	3.13	0.58	0.00	7.64
WV	90	61.59	1.44	1.26	0.01	9.82	36	67.19	1.32	0.97	0.00	4.61
WV2	21	12.25	0.92	0.99	0.03	2.93	9	15.15	0.74	0.95	0.00	1.70
WV3	39	25.95	1.49	1.59	0	14.55	14	25.95	1.49	1.04	0.01	5.90

Notes:

1. Length weighted.
2. Unsampled intervals assigned a null value.
3. Full-length composites.
4. Missing or unsampled intervals were assigned a value of -0.01. They were post-processed in the estimate to 0.00.

14.1.7. Trend Analysis

14.1.7.1. Variography

Experimental variograms were computed and plotted for CBAD1 to assess the spatial continuity of the copper grades inside the mineralized envelopes and confirm observed trends. The variograms were based on the domain's 2 m composites.

The copper variogram for CBAD1 indicates that the continuity is highest down dip. The relative nugget effect is interpreted at a level of approximately 10%. The QP notes that the variogram is somewhat erratic and difficult to interpret; however, the results were useful in supporting the range of expected grade continuity. A variogram map as well as experimental and model results, are presented in Figure 14-4 and point to mineralization continuity of approximately 60 m.

The CBAD3, CBUD, and West (WV, WV2, WV3) veins do not have enough drill hole intercepts to build meaningful variograms.

	Variogram Model	Dip	Dip Azimut	Pitch	Major (m)	Semi-major (m)	Minor (m)	Nugget	Total Sill	Variance
Structure 1	Spherical	80	276	123	58	35	22	0.1	1.13	8.20

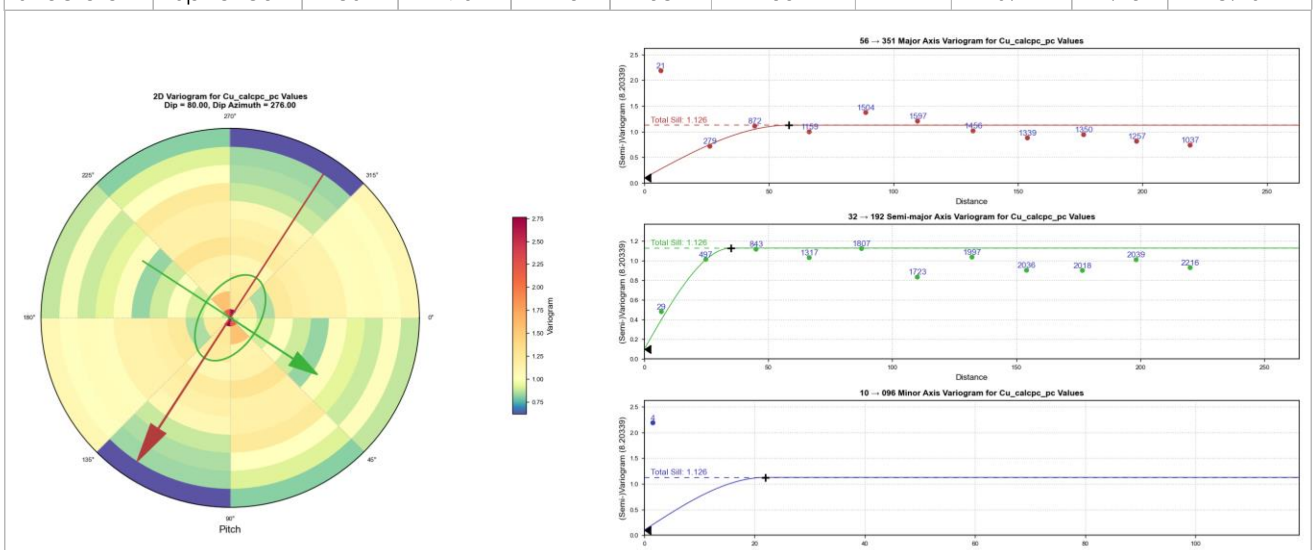
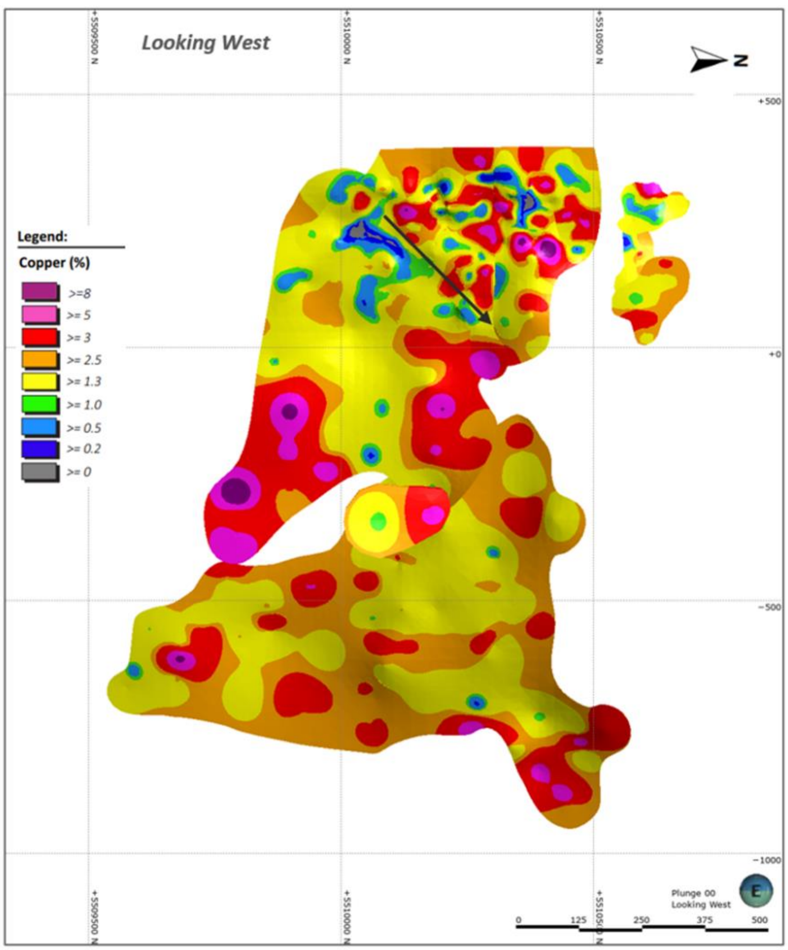


Figure 14-4: Domain CBAD1 variogram map and back-transformed model results

14.1.7.2. Grade Contouring

To assist in conducting variography studies and to understand the continuity of the copper grades in the mineralized wireframes, a traditional longitudinal projection was prepared for the Corner Bay wireframes. For this exercise, the average uncapped copper grade across the entire width of all the mineralized wireframes were contoured to identify the copper trends (Figure 14-5).

Examination of the grade distributions in the contouring indicate one principal trend of elevated copper grades in the CBAD1 and CBAD2 domains (Figure 14-5). The QP notes that the trend has not been drill-tested laterally towards the north. Results are sensitive to the drilling density, which is much lower in the other veins, and preferred continuity directions were not observed. The QP recommends reviewing the observed grade trend and plunges at Corner Bay following additional drilling.



Source: SLR, 2022. Date: May 2022

Figure 14-5: Copper grade contours at Corner Bay

14.1.8. Search Strategy and Grade Interpolation Parameters

Grade interpolation was performed on parent blocks using a three-pass inverse distance squared (ID^2) or cubed (ID^3) interpolation approach with progressively larger interpolation passes. Search ellipses for grade interpolation were anisotropic for all zones and oriented either using dynamic anisotropy (DA) or isotropically. Search ellipse dimensions and orientations are detailed in Table 14-7 and the composite selection plan is outlined in Table 14-8.

Table 14-7: Corner Bay search strategy and grade interpolation parameters

Domain	Method	1st Pass				2nd Pass				3rd Pass			
		X-axis (m)	Y-axis (m)	Z-axis (m)	Orientation	X-axis (m)	Y-axis (m)	Z-axis (m)	Orientation	X-axis (m)	Y-axis (m)	Z-axis (m)	Orientation
CBAD1, CBAD2, CBAD3	ID^2	80	80	50	DA	160	160	100	DA	240	240	150	DA
WV,WV2, WV3	ID^2	50	25	80	0/0/90	100	50	160	0/0/90	150	75	240	0/0/90
CBUD	ID^3	115	100	75	DA	230	200	150	DA	345	300	225	DA

Table 14-8: Corner Bay composite selection plan

Domain	1st Pass			2nd Pass			3rd Pass		
	Min No.	Max No.	DH Limit	Min No.	Max No.	DH Limit	Min No.	Max No.	DH Limit
Corner Bay									
CBAD1, CBAD2, CBAD3, CUBD	2	20	4	2	20	4	1	20	-
WV, WV2, WV3	2	20		2	20		1	20	-

14.1.9. Bulk Density

A total of 1,671 density measurements were collected at Corner Bay and analyzed using the water immersion method. Some 367 specific gravity samples were taken inside the mineralized domains. Densities ranged from 1.70 g/cm^3 to 4.10 g/cm^3 within mineralization domains and from 1.00 g/cm^3 to 3.70 g/cm^3 in adjacent material. It is the QP's opinion that with the exception of a small number of outliers, these are reasonable densities for this type of mineralization and host rock.

Density values were assigned based on average density readings by domain, by proximal vein, or by the dataset average where no samples were taken. Assigned density values by vein are presented alongside the basic statistics of density readings in Table 14-9. The QP recommends adding density measurements in domains that were not previously sampled and continuing measurements in all mineralized zones.

Table 14-9: Corner Bay density statistics by domain

	Count	Mean (t/m³)	SD	CV	Min (t/m³)	Max (t/m³)	Density Value Assigned in Block Model (t/m³)
CBAD1	40	3.05	0.30	0.10	1.70	3.80	3.10
CBAD2	0	-	-	-	-	-	3.10
CBAD3	0	-	-	-	-	-	2.90
CBUD	182	2.95	0.26	0.09	1.70	4.10	3.00
WV	94	2.85	0.13	0.05	2.70	3.30	2.85
WV2	12	2.87	0.08	0.03	2.80	3.00	2.85
WV3	39	2.92	0.14	0.05	2.80	3.40	2.92
Main Dyke	2	3.00	0.14	0.05	3.00	3.20	2.97
Unknown	453	2.87	0.20	0.07	1.00	3.70	
All	1,671	2.89	0.19	0.07	1.00	4.10	

14.1.10. Block Models

Block model construction and estimation was completed in Seequent's Leapfrog Edge software. Block model position and dimensions for Corner Bay are presented in Table 14-10. The QP considers the block model sizes appropriate for the deposit geometry and proposed mining methods.

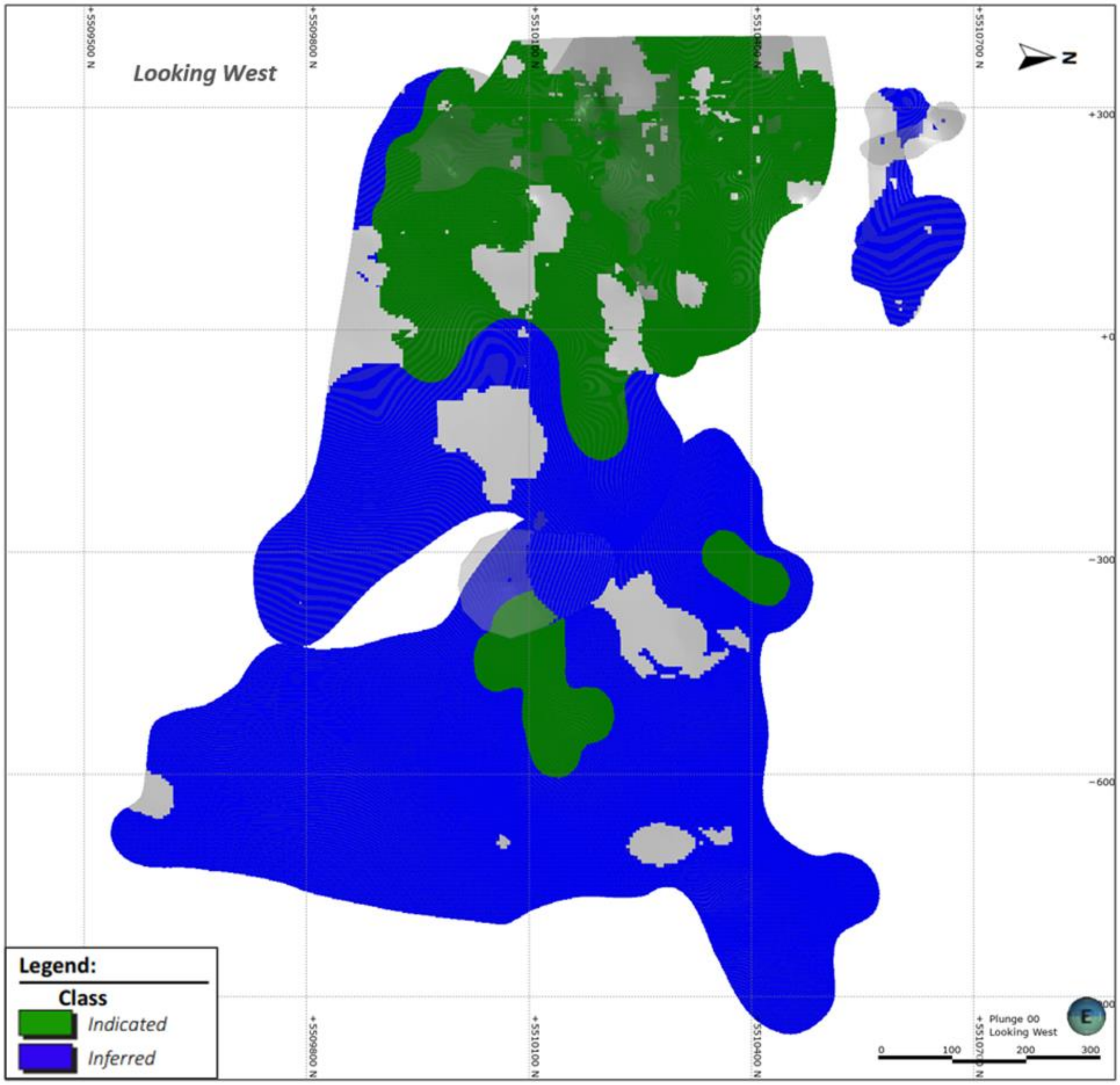
Table 14-10: Corner Bay block model extents and dimensions

Type	X	Y	Z
Base Point (m)	554,490	5,509,530	440
Boundary Size (m)	620	1,215	1,440
Parent Block Size (m)	5	5	5
Min. Sub-block Size (m)	1.25	0.625	1.25
Rotation (°)	0	5	0

14.1.11. Classification

Definitions for resource categories used in this Report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the "economically mineable part of a Measured and/or Indicated Mineral Resource" demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

At Corner Bay, Indicated Mineral Resources represent areas defined with drill holes spaced up to approximately 60 m apart (100% of the variogram range) and Inferred Mineral Resources represent areas defined with drill holes spaced between approximately 60 m and 120 m apart, modified to consider geological understanding, copper grade continuity, and the creation of cohesive class boundaries. The QP notes that some lower-grade material was included to preserve continuity. Figure 14-6 illustrates the classification with the Indicated and Inferred material above the 1.3% Cu cut-off-grade.



Source: SLR, 2022. Date: May 2022

Figure 14-6: Corner Bay Mineral Resource classification

14.1.12. Block Model Validation

Blocks were validated using industry standard techniques including: 1) visual inspection of composite versus block grades (Figure 14-7 to Figure 14-10 for copper and Figure 14-11 for gold); 2) comparison between ID and NN mean swath plots (Figure 14-12); and three wireframe to block model volume confirmation (Table 14-11).

Gold grades and proportions relative to the blocks, drilled grades, composites, and modelled solids were viewed. It was observed that the block grades exhibited general accord with drilling and sampling and did not appear to smear significantly across sampled grades. Swath plots generally demonstrated good correlation, with gold block grades being somewhat smoothed relative to composite grades, as expected.

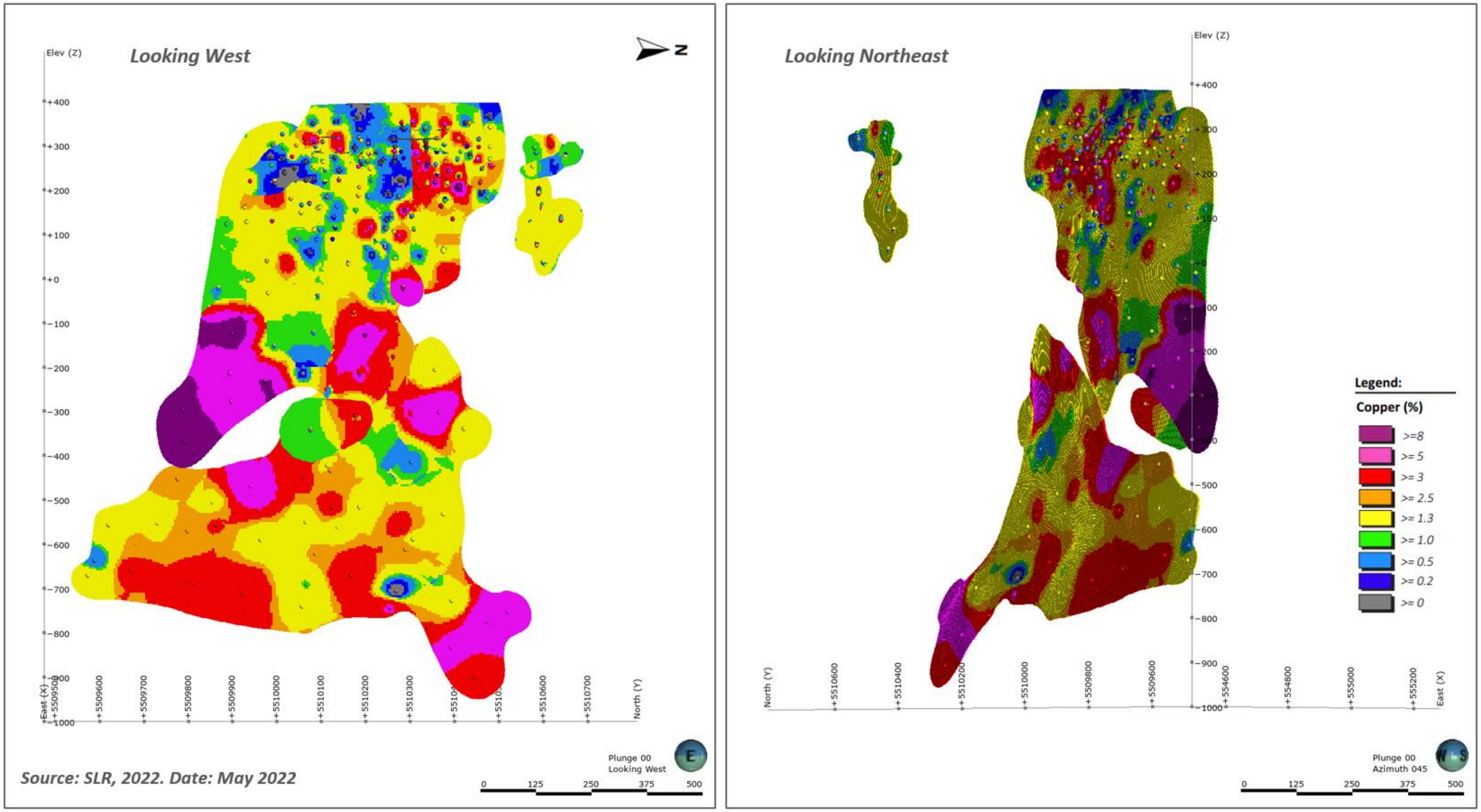
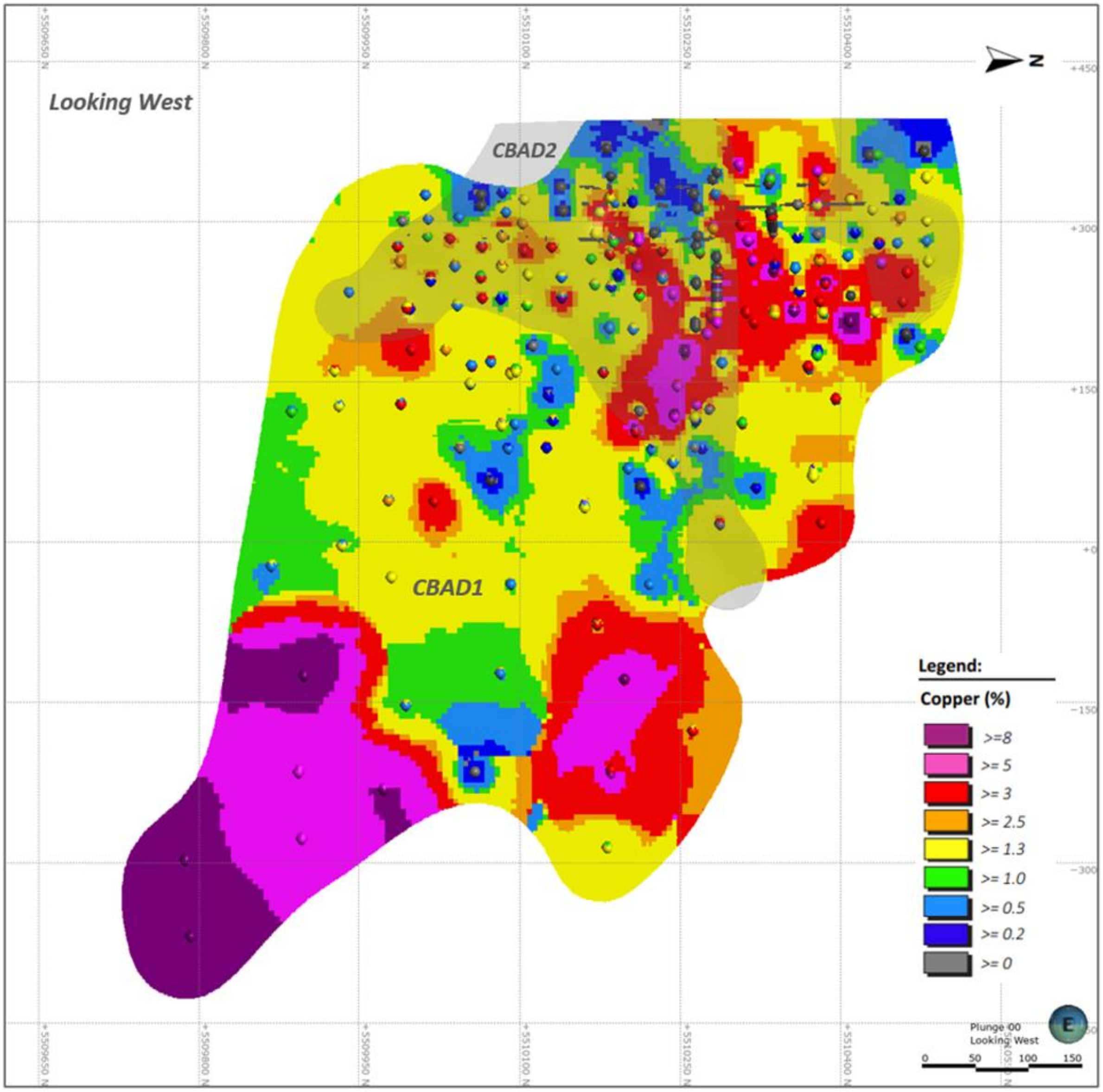
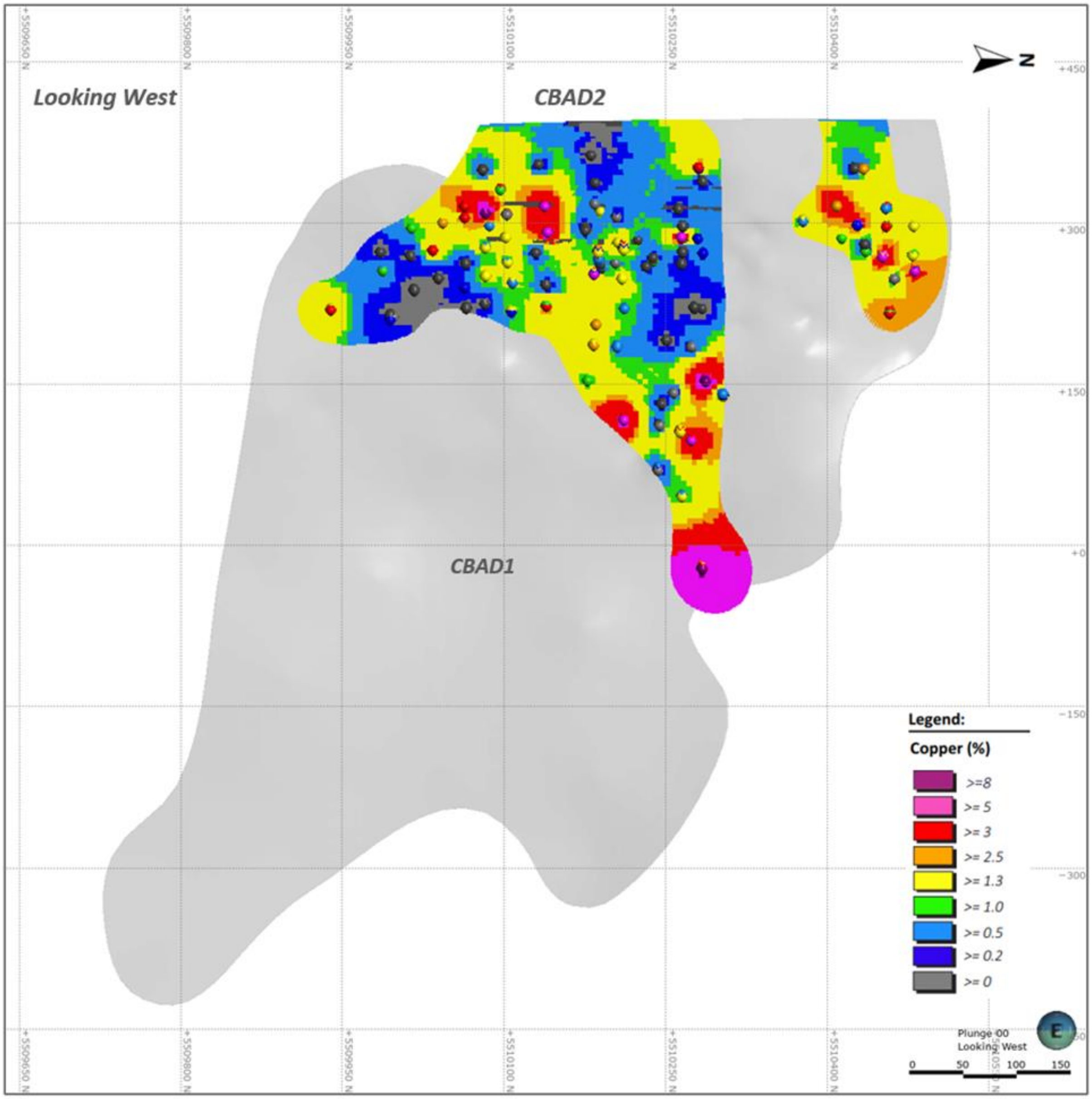


Figure 14-7: Comparison of Corner Bay copper composite and block grades



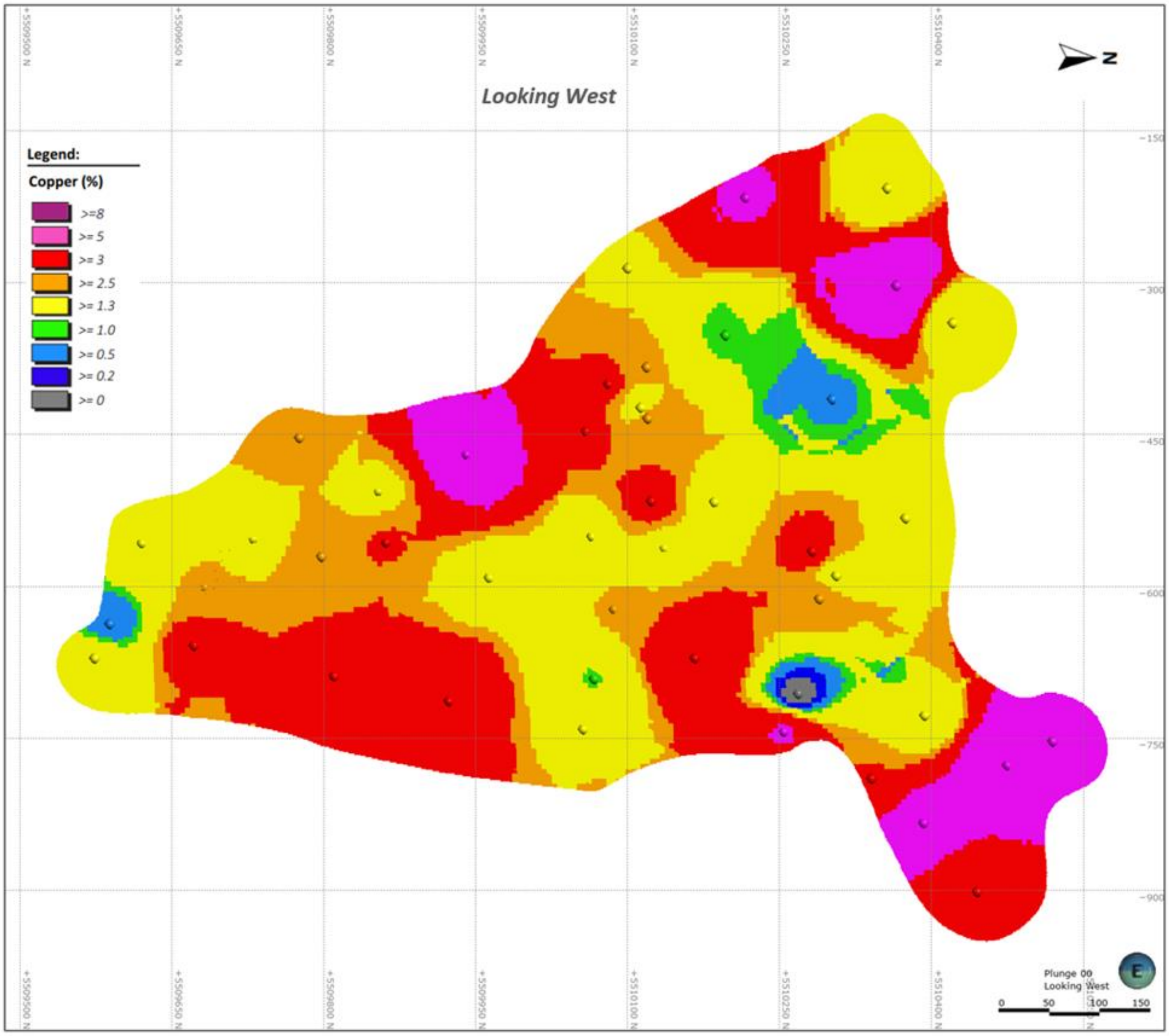
Source: SLR, 2022. Date: May 2022

Figure 14-8: Comparison of copper composite and block grades in CBAD1 at Corner Bay



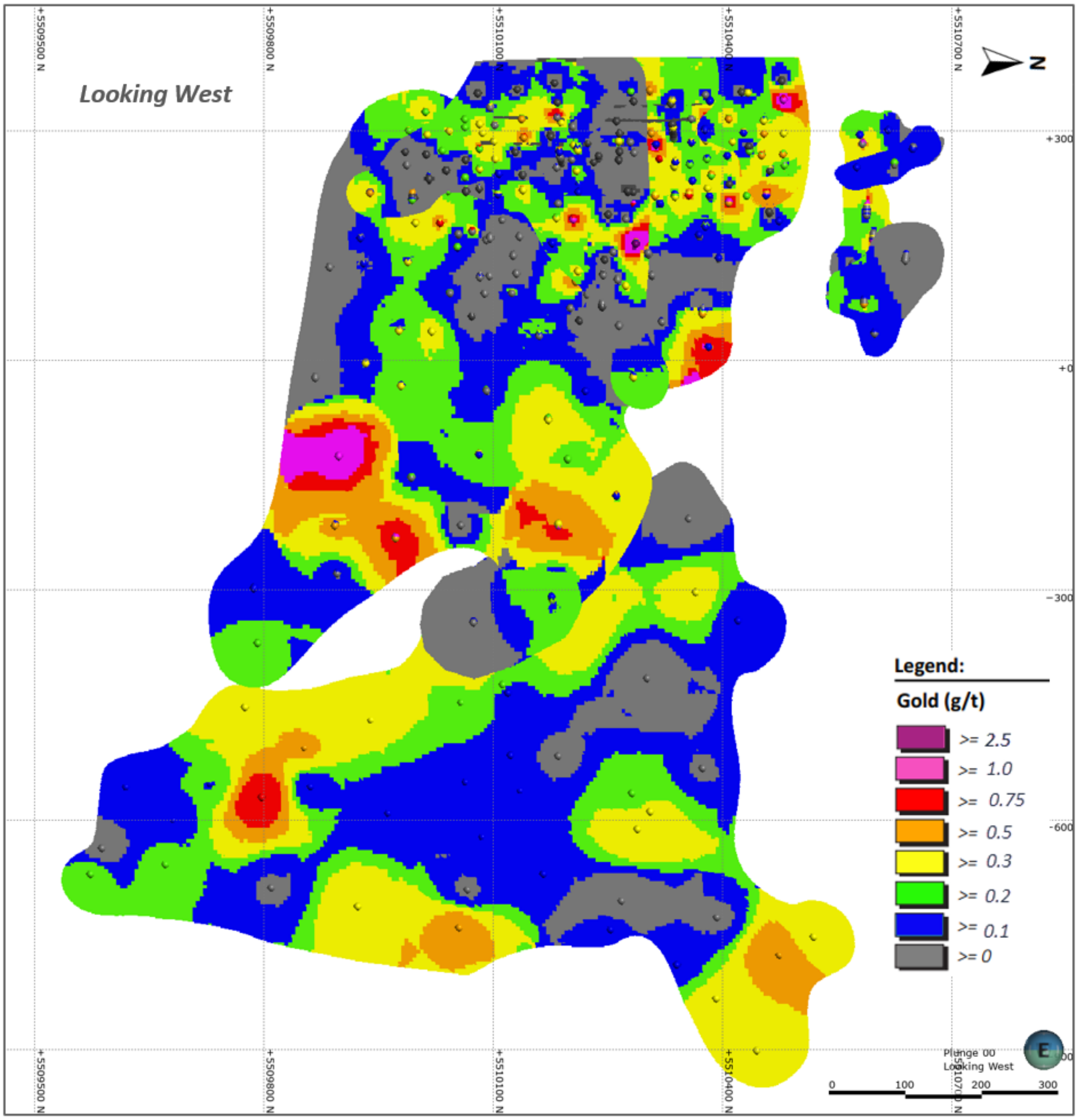
Source: SLR, 2022. Date: May 2022

Figure 14-9: Comparison of copper composite and block grades in CBAD2 at Corner Bay



Source: SLR, 2022. Date: May 2022

Figure 14-10: Comparison of copper composite and block grades in CBUD at Corner Bay



Source: SLR, 2022. Date: May 2022

Figure 14-11: Comparison of gold composite and block grades at Corner Bay

Figure 14-12: Swath plots comparing ID³ and NN estimate results within all domains

Table 14-11: Corner Bay wireframe to block model volume confirmation

Zones	Wireframe Volume (000 m³)	Block Model Volume (000 m³)	Confirmation %
CBAD1	1,055.3	1,054.2	99.89
CBAD2	269.8	269.7	99.95
CBAD3	65.6	65.6	100
CBUD	1,724.5	1,717.7	99.60
WV	48.1	47.9	99.71
WV2	12.1	12.2	99.17
WV3	57.7	57.8	99.84
Total	**3,233.1**	**3,225.1**	**99.75**

14.1.13. Mineral Resource Reporting

Mineral Resources at the Corner Bay deposit are reported as per the Mineral Resource estimation methodologies and classification criteria detailed in this Report. They are reported using a minimum thickness of 2 m, and a copper cut-off grade of 1.3%. Mineral Resources for the Corner Bay deposit are summarized by domain in Table 14-12.

Table 14-12: Corner Bay MRE by domains (effective date of March 30, 2022)

Classification	Domain	Tonnage (Mt)	Cu Grade (%)	Au Grade (g/t)	Cu Contained (Mlbs)	Au Contained (000 oz)
Indicated	CBAD1	1.79	2.53	0.26	100	15
	CBAD2	0.50	2.89	0.28	32	4
	CBUD	0.39	2.95	0.21	25	3
	Total	**2.68**	**2.66**	**0.26**	**157**	**22**
Inferred	CBAD1	0.90	5.20	0.40	103	12
	CBAD3	0.11	2.91	0.21	7	1
	CBUD	4.59	3.20	0.26	324	38
	WV	0.09	1.74	0.29	3	1
	WV2	0.00	1.41	0.11	0	0
	WV3	0.17	1.66	0.10	6	1
	Total	**5.86**	**3.43**	**0.27**	**443**	**51**

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 1.3% Cu.
3. Mineral Resources are estimated using a long-term copper price of US$3.75 per pound, metallurgical copper recovery of 95%, and an exchange rate of USD$1.00:CAD$1.33.
4. A minimum mining width of 2 m was used.
5. Bulk density was 3.1 g/cm^3 for CBAD1 and CBAD2, 2.90 g/cm^3 for CBAD3, 3.0 g/cm^3 for CBUD, 2.85 g/cm^3 for WV and WV2 and 2.92 g/cm^3 for WV3.
6. Numbers may not add due to rounding.

14.1.13.1. Sensitivity to Cut-off Grade

The Mineral Resources have been estimated at a base case cut-off grade of 1.3% Cu. To assess the sensitivity of the Mineral Resources to potential variations in economic parameters, the resources were reported at cut-off grades ranging from 0% Cu to 8% Cu. Figure 14-13 summarizes the results, showing the tonnage and average copper grade above cut-off.

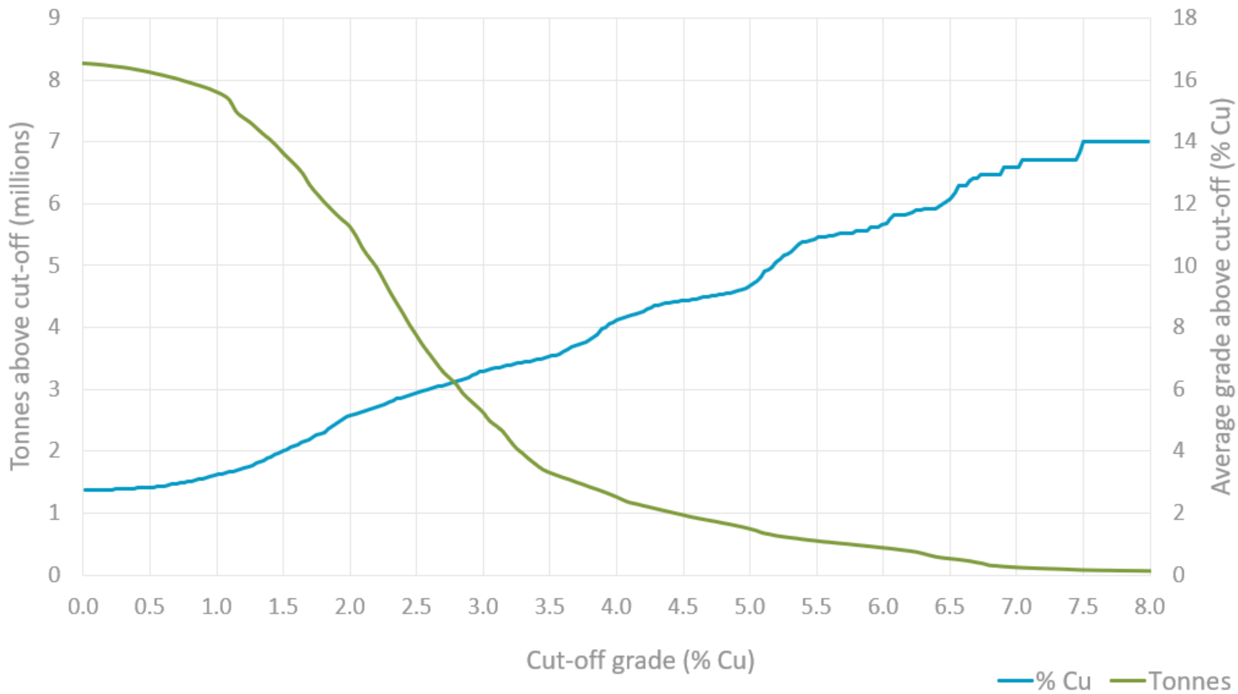


Figure 14-13: Copper grade vs. tonnage curve (all veins)

14.1.14. Comparison with Previous MRE

Table 14-13 presents a comparison of the current MRE with the October 1, 2021 MRE (published on October 6, 2021) above a copper cut-off grade of 1.3%.

Doré Copper completed 23 drill holes over Corner Bay subsequent to the October 1, 2021 MRE, principally targeting the extension of veins CBAD1 and CBUD. Of these drill holes:

Six holes in Vein CBAD1 intersected higher-grade mineralization than previously estimated and extended the domain at depth by approximately 350 m.

Ten holes in Vein CBUD intersected similar grade mineralization than previously estimated and facilitated the merging of veins CBUD and a deeper lens, referred to as DL in the prior technical report. CBUD was extended to the north by 370 m and by both extension and merging of CBUD and DL, a further 185 m at depth.

The drill hole program increased the Inferred Mineral Resources at Corner Bay by 1.32 Mt of material and 123 Mlbs of copper. As the drill hole program targeted extension of existing mineralization, there was very little change to the Indicated material. Individual changes by vein are outlined in Table 14-13.

Table 14-13: Comparison with previous MRE at Corner Bay

Domain	March 30, 2022					October 1, 2021					Difference				
	Tonnes	Average Value		Material Content		Tonnes	Average Value		Material Content						
		Cu	Au	Cu	Au		Cu	Au	Cu	Au	Tonnes	Cu	Au	Cu	Au
	Mt	%	g/t	Mlbs	(000 oz)	Mt	%	g/t	Mlbs	(000 oz)	Mt	%	g/t	Mlbs	(000 oz)
Indicated															
CBAD1 (Vein 1)	1.79	2.53	0.26	99.54	15.12	1.77	2.56	0.27	100.27	15.30	1%	-1%	-2%	-1%	-1%
CBAD2 (Vein 2)	0.50	2.89	0.28	31.81	4.44	0.50	2.87	0.27	31.92	4.45	-1%	1%	1%	0%	0%
CBUD (Main Below Dyke)	0.39	2.95	0.21	25.46	2.62	0.38	2.96	0.21	25.07	2.58	2%	0%	-1%	2%	1%
Total	**2.68**	**2.66**	**0.26**	**157**	**22**	**2.66**	**2.68**	**0.26**	**157**	**22**	**0%**	**-1%**	**0%**	**0%**	**0%**
Inferred															
CBAD1 (Vein1)	0.89	5.21	0.40	102.68	11.55	0.35	2.77	0.32	21.58	3.68	153%	88%	24%	376%	214%
CBAD3	0.11	2.91	0.21	7.09	0.75	0.11	2.91	0.21	7.09	0.75	0%	0%	0%	0%	0%
CBUD (Main Below Dyke)	4.59	3.20	0.26	323.94	37.82	3.39	3.09	0.25	231.01	27.08	35%	4%	3%	40%	40%
DL (Lower Deep)	-	-	-	-	-	0.42	5.43	0.44	50.64	5.99	-	-	-	-	-
WV	0.09	1.73	0.29	3.38	0.82	0.09	1.73	0.29	3.38	0.82	0%	0%	0%	0%	0%
WV2	0.00	1.41	0.11	0.14	0.02	0.00	1.41	0.11	0.14	0.02	0%	0%	0%	0%	0%
WV3	0.17	1.66	0.10	6.08	0.54	0.17	1.66	0.10	6.08	0.54	0%	0%	0%	0%	0%
Total	**5.86**	**3.43**	**0.27**	**443**	**51**	**4.54**	**3.2**	**0.27**	**320**	**39**	**29%**	**7%**	**0%**	**38%**	**31%**

14.2. Devlin

14.2.1. Summary

The block model estimate prepared for the Devlin deposit by AGP in 2015 was audited and adopted by SLR in the current study with a revised classification approach, higher metal prices, and a lower cut-off grade. This revised estimate was disclosed initially in a Technical Report entitled "Technical Report on the Corner Bay-Devlin Property, Northwest Québec, Canada, Report for NI 43-101" by SLR (2021) with a Mineral Resource effective as of October 7, 2021. There has been no additional information collected at Devlin between October 2021 and May 2022 and the only change to the MRE disclosed here is an alignment of the effective date with other Mineral Resources at Doré Copper's properties for this PEA. The primary metal of interest at Devlin is copper with a small gold by-product.

The Devlin MRE is based on four veins, three of which compose the Upper Zone and one other, the Lower Zone, which is separated into four sub-domains. For this estimation, assays from the mineralized zones were capped at 15% Cu and 2.5 g/t Au for the Lower Zone and 10% Cu and 1.5 g/t Au for the Upper Zone. Full-length composites were also used. The domains were estimated using a three-pass inverse distance squared (ID^2) interpolation approach. The resource model was interpreted under the assumption that the deposit would potentially be mined by a low-profile underground room and pillar method. A minimum mining height of 1.8 m was applied to all veins and a bulk density of 2.90 t/m^3 was used. Measured Mineral Resources criteria of 15 m from underground openings is retained and Indicated Mineral Resources represent areas with drill hole spacing of approximately 60 m, with a copper cut-off grade of 1.2%.

As of March 30, 2022 and above a copper grade of 1.2%, Measured and Indicated Mineral Resources at Devlin are estimated to total 0.78 Mt at average grades of 2.17% Cu and 0.20 g/t Au, containing 37 Mlbs Cu and 5,100 oz Au. Inferred Mineral Resources are estimated to total 0.48 Mt at average grades of 1.79% Cu and 0.17 g/t Au, containing 19.2 Mlbs Cu and 2,700 oz Au (Table 14-14).

Table 14-14: Devlin MRE (effective date of March 30, 2022)

Classification	Tonnage (Mt)	Cu Grade (%)	Au Grade (g/t)	Cu Contained (Mlbs)	Au Contained (000 oz)
Measured	0.12	2.74	0.29	7.3	1.1
Indicated	0.65	2.06	0.19	29.7	4.0
Measured & Indicated	0.78	2.17	0.20	37.0	5.1
Inferred	0.48	1.79	0.17	19.2	2.7

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 1.2% Cu.
3. Mineral Resources are based on a long-term copper price of US$3.75 per pound, metallurgical gold recovery of 95%, and an exchange rate of USD$1.00:CAD$.133.
4. A minimum mining height of approximately 1.8 m was used.
5. Bulk density is 2.90 t/m^3.
6. Numbers may not add due to rounding.

14.2.2. Mineral Resource Cut-Off Grades

Metal prices used for Mineral Reserves are based on consensus, long-term forecasts from banks, financial institutions, and other sources. For Mineral Resources, metal prices used are slightly higher than those used for Mineral Reserves.

A cut-off grade of 1.2% Cu was developed for the Devlin deposit and reflects assumed mining costs of a room and pillar mining method, in addition to processing costs and copper price. The full operating cost, including mining, processing, and G&A have been included in the calculations. Capital costs, including sustaining capital, have been excluded. Table 14-15 lists the parameters used to calculate the cut-off grades.

Table 14-15: Devlin Mineral Resource cut-off grade inputs

Item	Unit	Room and Pillar
Mining Rate	dry t/d	1,000
Processing Rate	dry t/d	1,000
Copper Metallurgical Recovery	%	95
Copper Price	US$/lb	3.75
Exchange Rate	USD:CAD	1.33
Mining cost	$/t milled	75
ROM Transport (no crushing)	$/t milled	10
Processing Cost	$/t milled	25
G&A	$/t milled	20
Total	$/t milled	130
Break-Even Cut-Off Grade	% Cu	1.2

14.2.3. Resource Database

The drill hole database was maintained in MS Excel up to March 2022 (now in GeoticLog), with drill hole location information in NAD83 projection, UTM Zone 18. The database for the Devlin MRE consists of diamond drilling spaced from 20 m to 100 m apart, including 2,849 domain intersecting copper and gold assays from 140 drill holes with a total length of 14,924 m from 1974 to 2014. Drilling was conducted exclusively from surface locations. The data was imported into GEMS for statistical analysis, wireframe building, block modelling, and resource estimation.

Additional information was provided, such as surface geology maps, logs, assay certificates, ground geophysics, and other various reports. Historical data was expressed in a local imperial grid coordinate system that was converted to NAD 83 Zone 18. The digital drill hole database included only core holes drilled from surface.

Devlin was explored previously via an underground decline and exploration drifts within the Lower Zone, to collect a bulk sample and to confirm the continuity of the mineralization.

No reverse circulation drill holes, underground sludge holes, or chip samples were used in this MRE.

14.2.4. Geological Interpretation

Mineralization domains for Devlin, divided into the Lower and Upper Zones, are shown in Figure 14-14.

14.2.4.1. Lower Zone

The Lower Zone consists of a mineralized fracture zone that is usually composed of two or more sulphide-quartz veins and stringers, with a thickness is generally less than 0.5 m in width. The zone is often logged as MQV in the higher-grade sections of the structure. The lower-grade sections are typically logged as Granodiorite-Diorite-Breccia (GDIOR-DIOR-BX) or simply as Granodiorite (GDIOR). Hanging wall and footwall contact with the structure is generally sharp; a lower-grade halo is sometimes present but poorly developed. Since economic mineralization occurs in various lithologies, the 3D wireframes developed to control the grade interpolation of the resource model were based upon copper grade distribution along the narrow-mineralized structure.

During the construction of the wireframe, the top contact of the mineralized structure was selected where a copper grade generally started to exceed 1%. Top contact was then lowered by 1.8 m vertically and the zone intervals, as defined by the top to bottom contacts, were extracted to an MS Excel spreadsheet. The intervals were modified to optimize the grade, while remaining as close as possible to a 1.8 m minimum mining height. With this method, mineralized intervals less than 1.8 m minimum mining height were diluted with shoulder assays, if available, or at zero grade. These manually-generated composites were spot-checked against core photos for reasonableness, but this was not done with all composites. The lithology was only partially useful; in some there was a clear indication of massive sulphide or MQV veins, but not always. The zone was also checked against the location of the underground drift.

Once the zone composites were finalized, a top and bottom surface was created and stitched into a 3D wireframe solid, which was then clipped to eliminate the massive diorite waste areas located west and north of the deposit and the massive diorite/granodiorite to the south of the deposit.

Out of the 140 composites defining the Lower Zone, 94 composites (67%) required the intervals to be diluted to the minimum mining height of 1.8 m.

14.2.4.2. Upper Zone

The Upper Zone wireframe construction followed the same procedure as the Lower Zones described in the previous section. This zone is not as well developed; in the core photo the best intersection shows small bands of chalcopyrite/pyrite mixed with quartz. It is uncertain whether the continuity expressed by the wireframe will actually be realized during underground development and as such the resource category was downgraded to Inferred regardless of the drill density through the zone.

Essentially the model is representative of a typical vein model, driven by structure and grade. Contacts within the mineralization are very sharp and a low-grade halo is poorly developed.

14.2.4.3. Topography and Overburden

Topography polylines were provided by Nuinsco in AutoCAD dxf format. The topography originated from the CanVec digital topographical dataset at 1:50,000 scale (CanVec 032G16). The edges of the lake polylines were assigned an elevation of 378.69 m and the drill hole collar locations were added to the dataset to provide additional data points over the deposit during the creation of the topographical surface.

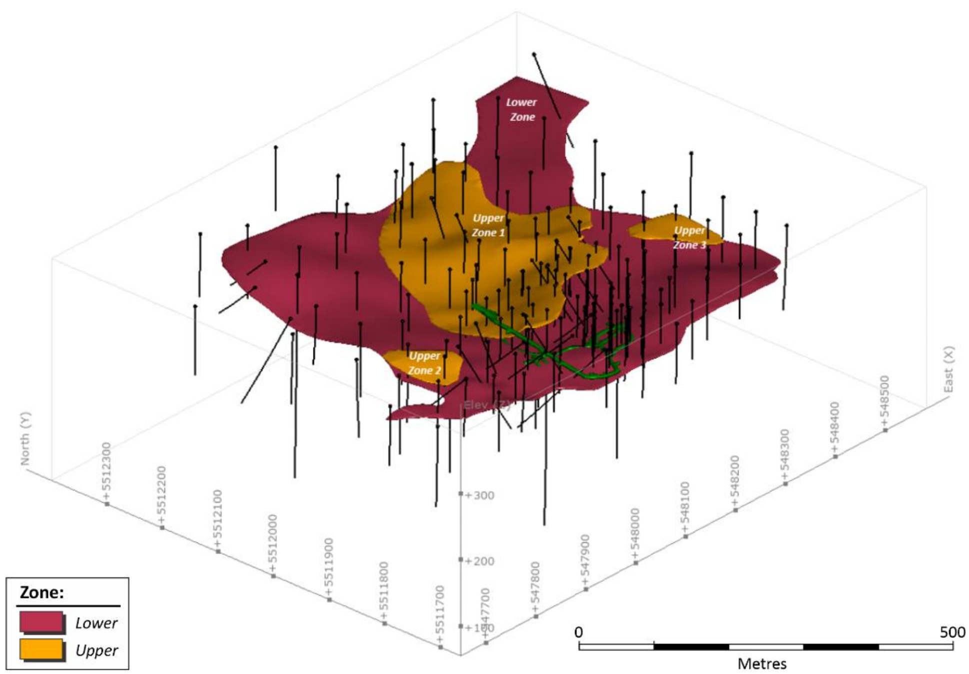
Bathymetric contours were geo-referenced and digitized from a report by Tremblay (1983). A second topographical surface was created that is representative of the land surface and the lake bottom.

The overburden surface was created using a combination of drill hole casing depth and information derived from the depth to bedrock contour map.

The average overburden depth is 12.5 m with a median of 9 m and a 25th and 75th percentile of 6 m and 18.6 m, respectively.

Lake bottom and top of bedrock information is necessary to establish a proper pillar thickness during mine planning activity. As the bathymetric contours and the top of bedrock depth in the Tremblay report is dependent on the lake elevation at the time of the survey, AGP recommended validating the measurements prior to a PFS. The QP concurs with this recommendation.

Looking Northeast



Source: SLR, 2021.

Figure 14-14: Devlin mineralization wireframes

14.2.5. Resource Assays

The raw assay statistics were evaluated by grouping all assays intersecting the Upper and Lower Zones. Cumulative frequency or cumulative distribution function (CDF) diagrams demonstrated the relationship between the cumulative frequency, expressed as a percentile or probability, and grade on a logarithmic scale. They are useful for characterizing grade distributions and identifying possible multiple populations within a data set.

The frequency distribution for copper (Figure 14-15) shows a log-normal distribution with 90% of the copper values below 5%. The coefficient of variation values are moderate at 1.4 and 1.8 for copper and gold, respectively. The CDF pattern of the copper assay data shows evidence for two populations: 1) a lower-grade population to 1.5% Cu; and 2) a higher grade one of between 1.5% Cu and 8% Cu. The lower-grade population is in part representative of the grade dilution of the massive sulphide vein originating from the minimum sampling width. The higher-grade population is representative of the thicker massive sulphide veins. The CDF shows that grades above the 10% Cu are likely in the outlier population.

Table 14-16 provides descriptive statistics for raw copper and gold assays for the Upper and Lower Zones.

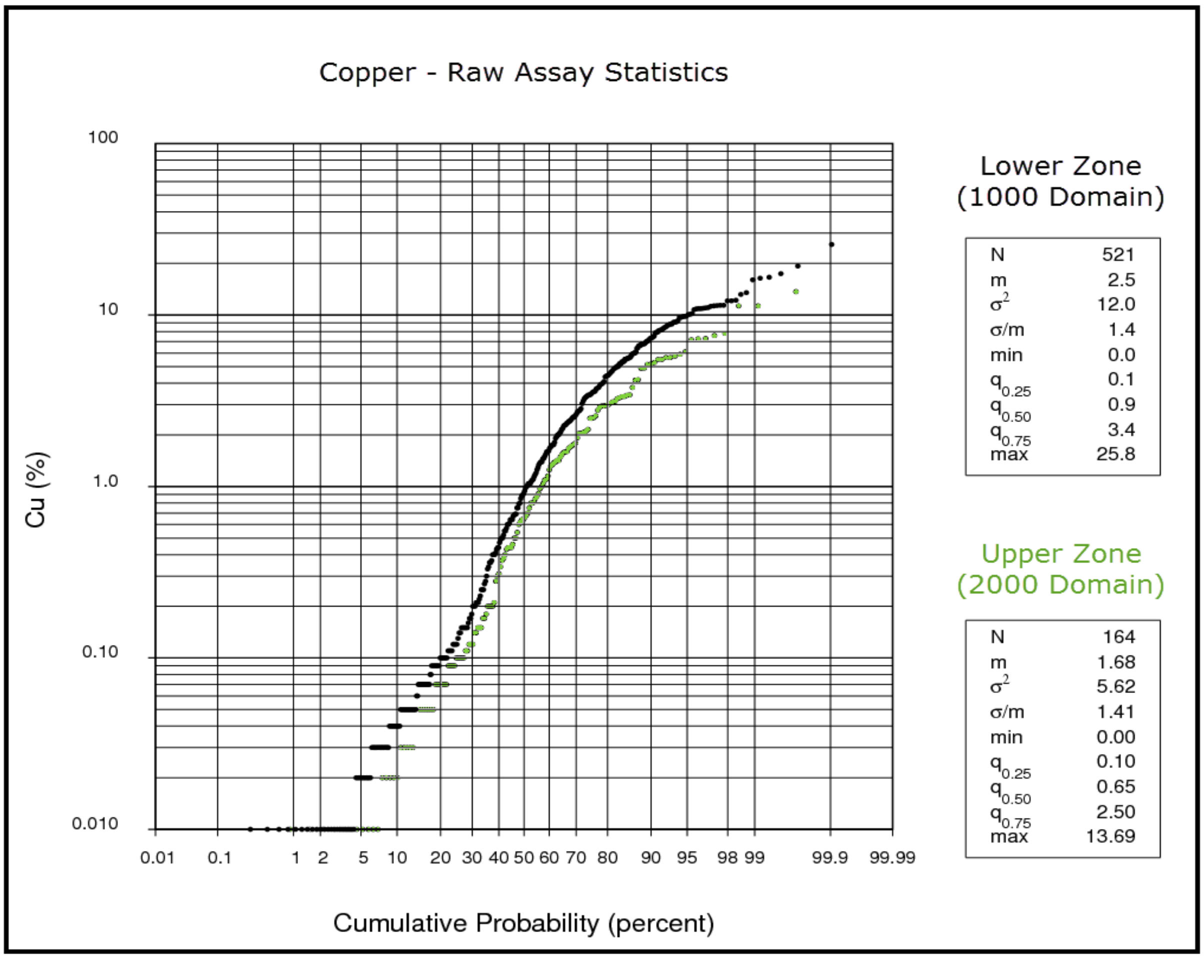


Figure 14-15: Copper probability plot
From AGP (2015)

Table 14-16: Devlin descriptive raw assays statistics

	Copper (%) Both zones	Copper (%) Lower Zone	Copper (%) Upper Zone	Gold (g/t) Both Zone	Gold (g/t) Lower Zone	Gold (g/t) Upper Zone
Count	687	521	166	687	521	166
Mean	2.27	2.46	1.67	0.27	0.30	0.17
Coefficient of Variation (CV)	1.43	1.41	1.42	1.85	1.81	1.83
Minimum	0.00	0.01	0.00	-	-	-
Maximum	25.78	25.78	13.70	7.89	7.89	2.06

14.2.5.1. Capping Levels

A combination of decile analysis and a review of probability plots were used to determine the potential risk of grade distortion from higher-grade assays.

The decile analysis results indicated that grade capping was warranted for copper and gold assays; however, the data also indicated that an aggressive capping level was not necessary for copper.

After conducting a careful examination of the data set, AGP elected to use a simple high-grade outlier top cut approach for each of the domains to limit the grade distortion from the extreme outliers.

Table 14-17 shows a summary of the treatment of high-grade outliers during the interpolation. The 15% and 10% copper cap values that were respectively selected for the Lower and Upper Zones corresponded to the average grade between the 98th and 99th percentiles of the raw assay distribution and affected six samples in the Lower Zone and three samples in the Upper Zone.

The 2.5 g/t Au and 1.5 g/t Au cap values for the Lower and Upper Zone, respectively corresponded to the average grade between the 98th and 99th percentiles of the raw assay distribution and affected six samples in the Lower Zone and one sample in the Upper Zone.

Table 14-17: High-grade treatments for Devlin

Element	Zone	Block Model Code	Cap Level	Number of Samples Affected	Total Number of Samples	% of Samples Affected
Copper	LZ	1000	15 %	6	521	1.2
	UZ	2000	10 %	3	166	1.8
Gold	LZ	1000	2.5 g/t	6	521	1.2
	UZ	2000	1.5 g/t	1	166	0.6

The total metal capped was evaluated by grade bins in the final model. The capping strategy removed from 1.5% to 2.6% of the copper and from 4.8% to 6.2% of the gold ounces, assuming a resource cut-off grade of 1.5% Cu to 2.0% Cu.

14.2.6. Compositing

14.2.6.1. Sampling Length Statistics and Composites

Sampling intervals at Devlin averaged 0.78 m with a median of 0.59 m and a third upper quartile of 1.00 m; however, the high-grade portion of the deposit is disproportionally sampled in smaller intervals. Since the Upper and Lower Zones typically have a minimum mining width of 1.8 m, AGP elected to calculate a length weighted average grade, i.e., for copper and gold, for each hole between the upper and lower contact of the mineralized wireframe, creating a single point composite for each drill hole through the Upper or Lower Zones. Grade capping was applied to the raw assay data prior to compositing. True gaps in sampling and assays below detection limits were composited at zero grade. Table 14-18 shows the descriptive statistics for composites.

Table 14-18: Devlin descriptive statistics for composites

	Copper (%) Both Zones	Copper (%) Lower Zone	Copper (%) Upper Zone	Gold (g/t) Both Zones	Gold (g/t) Lower Zone	Gold (g/t) Upper Zone
Valid cases (Number)	195	140	55	195	140	55
Mean	1.57	1.87	0.81	0.18	0.21	0.11
CV	0.94	0.87	0.56	1.20	1.05	1.78
Minimum	0.16	0.16	0.27	0.00	0.00	0.00
Maximum	9.95	9.95	2.26	1.29	1.29	0.89

14.2.7. Trend Analysis

14.2.7.1. Variography

Experimental variograms were computed and plotted for the Lower Zone to assess the spatial continuity of the copper grades inside the mineralized envelopes, to confirm observed trends, and to support the development of robust classification criteria. The variograms were based on the domain's full-width composites. Variograms were computed on untransformed copper grade values producing variograms with a normalized sill value of 1.0.

The QP notes that the variogram is somewhat erratic and difficult to interpret; however, the results were useful in supporting the range of expected grade continuity. An experimental variogram is presented in Figure 14-16 and points to mineralization continuity of approximately 60 m.

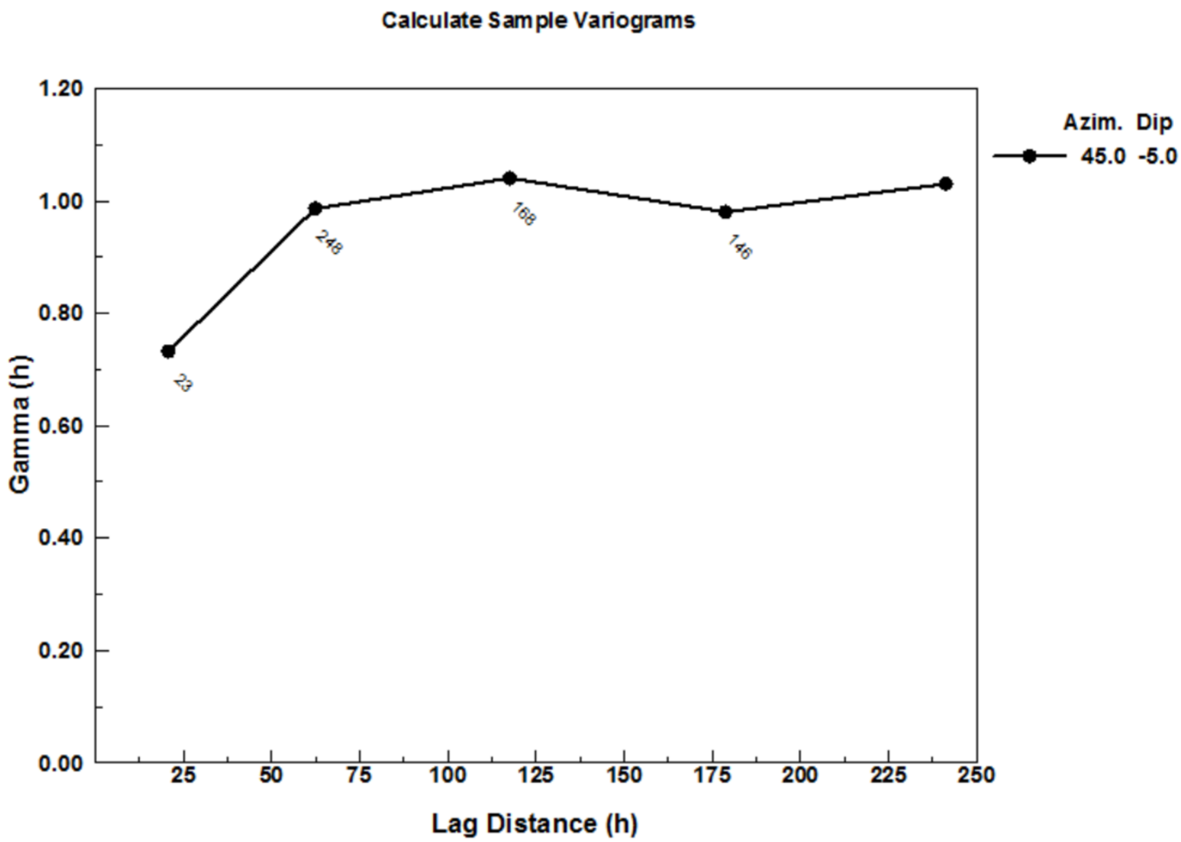


Figure 14-16: Lower Zone experimental variogram result

14.2.8. Search Strategy and Grade Interpolation Parameters

14.2.8.1. Search Strategy

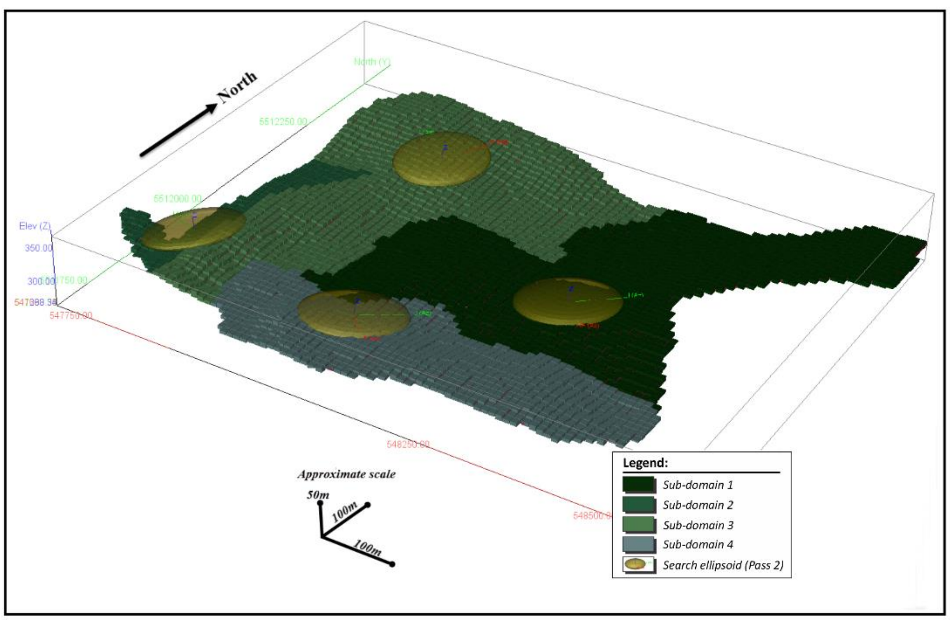
AGP used the overall geometry of the Main Zone as one of the guiding principles to set the search ellipsoid dimension in combination with the ratio between the variogram axes.

The first pass was sized to reach at least the next drill section spacing. A second and third multiplier was then used to set the subsequent search dimension for Pass 2 and Pass 3.

Due to the undulating nature of the Lower Zone, four subdomains were delineated. The subdomains allowed for the rotation of the search ellipsoid to optimize the sample search with the orientation of the vein, without resorting to any unfolding methodology. No subdomains were used for the Upper Zone. Table 14-19 lists the final values used in the resource model for the range of the major, semi-major, and minor axis. Figure 14-17 illustrates the location of the subdomain along with the range of the search ellipsoid for Pass 2. Rotation angles are based on the Gemcom ZXZ methodology, which uses a conventional right-hand rule.

Table 14-19: Devlin search ellipsoid dimensions

Domain	Rotation	Pass 1 Range	Pass 2 Range	Pass 3 Range
	Z, X, Z (degrees)	X, Y, Z (m)	X, Y, Z (m)	X, Y, Z (m)
Lower Zone - Sub-domain 1	-45, -3, 0	36, 27, 15	72, 54, 12	144, 108, 20
Lower Zone - Sub-domain 2	+65, -10, 0	36, 27, 15	72, 54, 12	144, 108, 20
Lower Zone - Sub-domain 3	+65, 10, 0	36, 27, 15	72, 54, 12	144, 108, 20
Lower Zone - Sub-domain 4	-45, 10, 0	36, 27, 15	72, 54, 12	144, 108, 20
Upper Zone 1	+25, -10, 0	36, 27, 15	72, 54, 12	144, 108, 20
Upper Zone 2	+30, 3, 0	36, 27, 15	72, 54, 12	144, 108, 20
Upper Zone 3	-45, -5, 0	36, 27, 15	72, 54, 12	144, 108, 20



Source: AGP Mining Consultants, 2014.

Figure 14-17: Pass 2 search ellipsoid form and subdomains in Devlin Lower Zone

14.2.8.2. Grade Interpolation Parameters

The resource model was created in GEMS using a single folder set up using ID^2 with a NN model used for validation. True distance weighting was used on the selected samples. The interpolation was carried out in a multi-pass approach, with an increasing search dimension coupled with decreasing sample restrictions, interpolating only the blocks that were not interpolated in the earlier pass:

- Pass 1 uses an ellipsoid search with a minimum of six samples and a maximum of 15 samples. A maximum number of samples per hole was not needed due to the single point composites. The minimum setting ensures at least six holes were used in the estimate.
- Pass 2 uses an ellipsoid search with a minimum of four samples and a maximum of 15 samples. The minimum setting ensures at least four holes were used in the estimate.
- Pass 3 uses an ellipsoid search with a minimum of two samples and a maximum of 15 samples. The minimum setting ensures at least two holes were used in the estimate.

All subdomain boundaries were treated as soft boundaries, allowing samples from one subdomain to be used in the interpolation of the adjacent subdomain. No composites from the hanging wall or footwall of the zone were included in the sample set treating the boundary with the mineralized zone as hard boundaries. No blocks were interpolated outside the mineralized wireframes.

14.2.9. Bulk Density

The 52 density samples collected from 2013 and 2014 averaged 2.87 g/cm^3 (Table 14-20). The mineralized zone contains significant heavy sulphide minerals, which is apparent in the higher SG in the MQV lithology. As the massive sulphide vein is less than the minimum mining height, it is considered important to factor the waste dilution lithologies in order to have a representative bulk density.

From the data provided, AGP compiled the average density by lithologies within the Upper and Lower Zones. Since some of the lithologies contribute more than others to the density, AGP calculated weighted average based on the count of each lithologies.

Table 14-20: Devlin density by lithology code in the raw data provided

Lithology (Data)	Data Count	Density (g/cm³)	Other Lithologies Where the Same Density was Applied
GDIOR	5	2.87	DIOR, DIOR-GDIOR, GDIOR-DIOR, GDIOR-GRN
GDIOR-BX	23	2.81	DIOR-BX, DIOR-GDIOR-BX, GANO-BX, GDIOR-DIOR-BX, GDIOR-GANO-BX, GDIOR-QDIOR-BXQDIOR-BX
GDIOR-GRAN	13	2.79	
GRAN	2	2.78	Also used for FAULT, FP
MQV	9	3.18	Also used for MS
Weighted Average	**52**	**2.87**	

With this methodology, the Lower Zone was assigned a bulk density of 2.90 g/cm³ and the Upper Zone was assigned 2.85 g/cm³ after the entire model was initialized to 2.77 g/cm³.

14.2.10. Block Model

The block model was constructed using GEMS Version 6.5™ software. A block size of 10 m by 10 m by 2.5 m vertically was selected based on mining selectivity considerations and the density of the dataset.

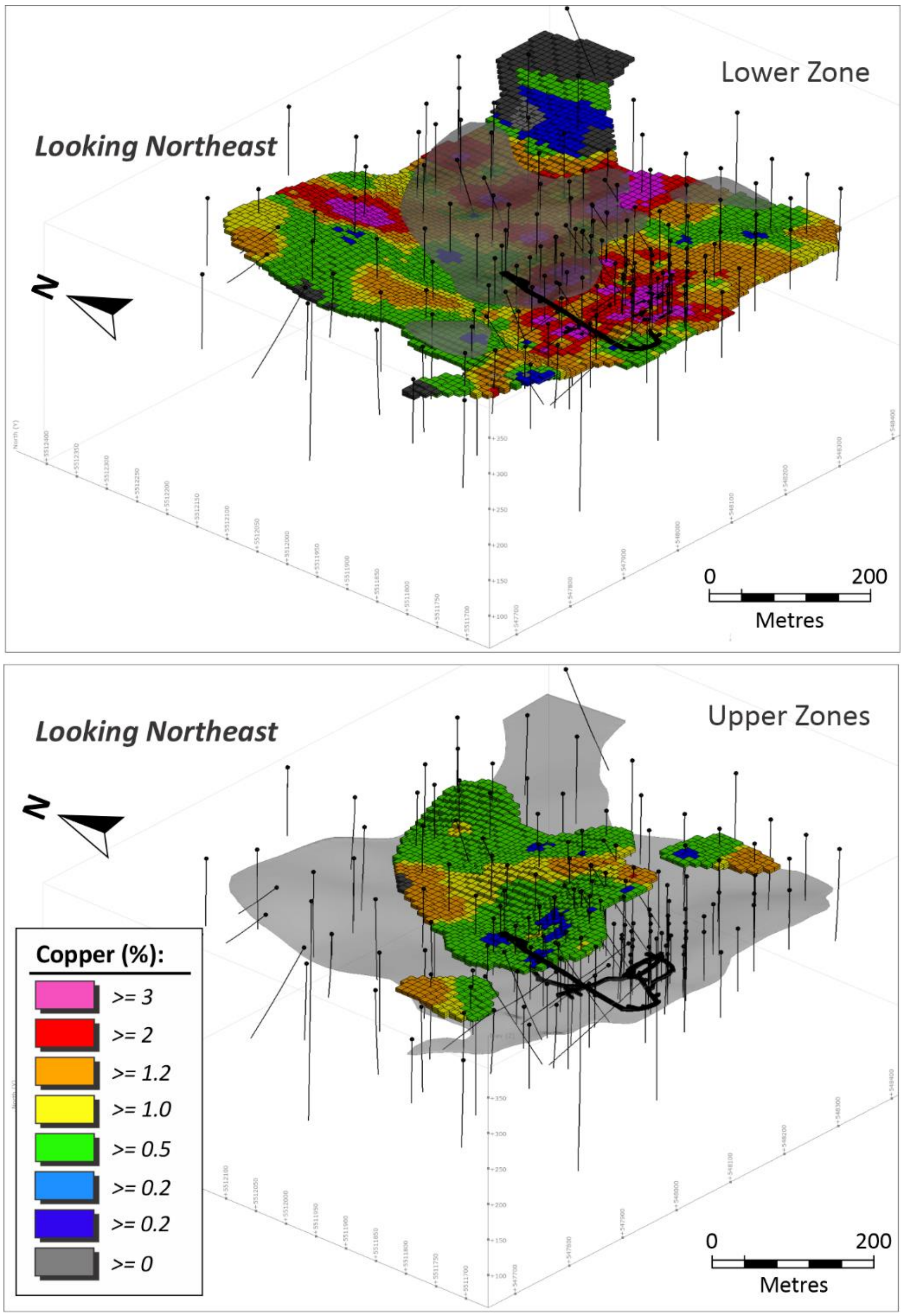
The block model was defined on the project coordinate system with no rotation. Table 14-21 lists the upper southeast corner of the model and is defined on the block edge.

The rock type model was coded by combining the geology model code with the subdomain code, controlling the search ellipsoid orientation. The 1000 series code represents the Lower Zone and the 2001, 2002, and 2003 codes represent the three Upper Zone wireframes. The Lower Zone subdomains were simply assigned a code of 1 to 4. A block-model manipulation-script calculated the final rock type code by adding the subdomain code to the main geology code.

Table 14-21: Devlin block model definition (block edge)

Resource Model Items	Parameters
Easting	547,550
Northing	5,511,575
Top Relative Elevation	400
Rotation Angle (counterclockwise)	0
Block Size (X, Y, Z in metres)	10, 10, 2.5
Number of Blocks in the X Direction	110
Number of Blocks in the Y Direction	90
Number of Blocks in the Z direction	60

The final block model copper grades are shown in Figure 14-18.



Source: SLR, 2021.

Figure 14-18: Devlin block model copper grades

14.2.11. Classification

At Devlin, Measured Mineral Resources represent areas defined within 15 m or underground openings. Indicated Mineral Resources represent areas defined with drill holes spaced up to approximately 60 m apart (100% of the variogram range) and Inferred Mineral Resources represent areas defined with drill holes spaced between approximately 60 m and 100 m apart, modified to consider geological understanding, copper grade continuity, and the creation of cohesive class boundaries. The Upper Zone was restricted to a classification of Inferred. The QP notes that some lower-grade material was included to preserve continuity. Classification is shown in Figure 14-19.

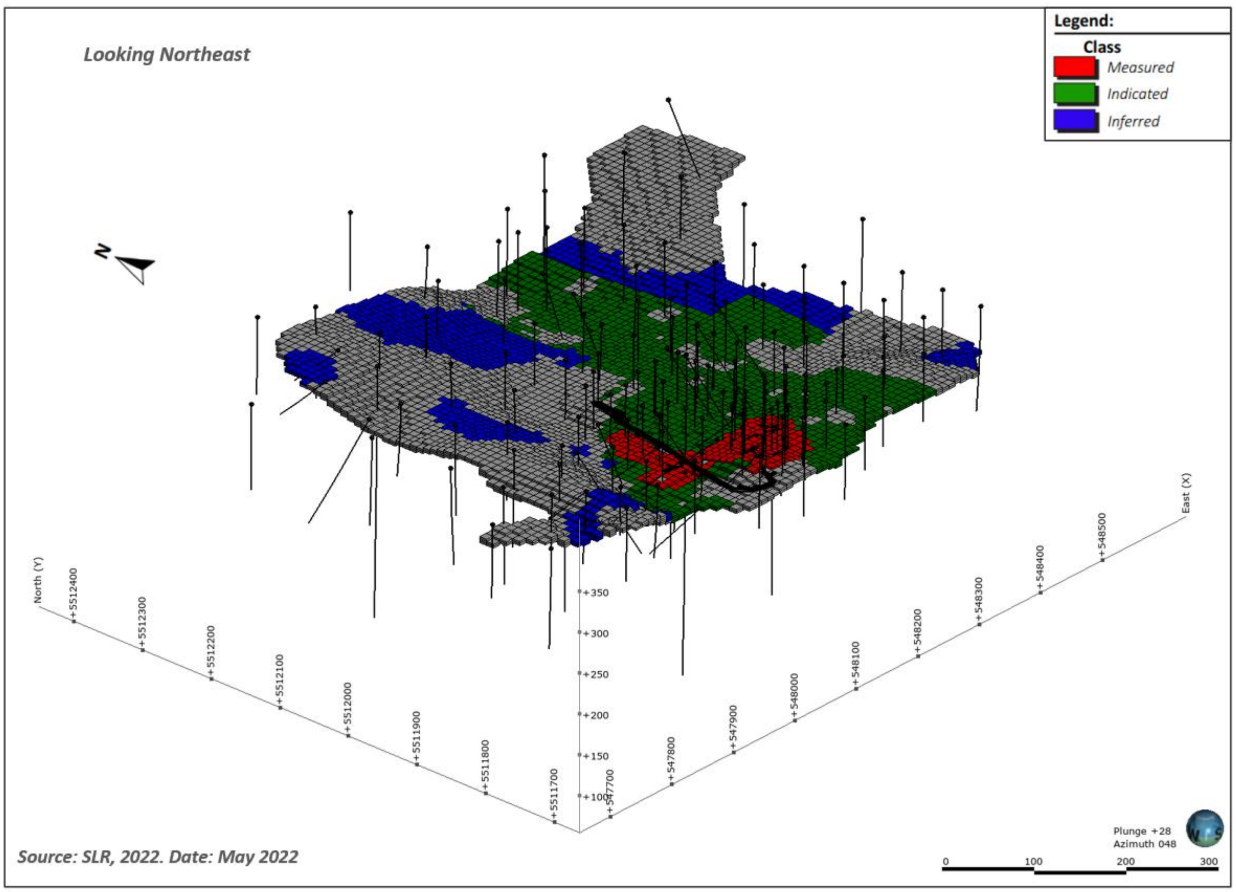


Figure 14-19: Block model classification for Devlin Lower Zone with copper values above 1.2% cut-off grade

14.2.12. Block Model Validation

In addition to validation work completed by AGP, blocks were validated by SLR using industry standard techniques including:

- Visual inspection of composite versus block grades (Figure 14-20);
- Comparison between ID and NN means (Table 14-22);
- Swath plots (Figure 14-21); and
- Wireframe to block model volume confirmation (not shown).

Gold and copper grades and proportions were viewed relative to the blocks, drilled grades, composites, and modelled solids. The QP observed that the block grades exhibited general accord with drilling and sampling and did not appear to smear significantly across sampled grades. Swath plots generally demonstrated good correlation, with block grades being somewhat smoothed relative to composite grades, as expected.

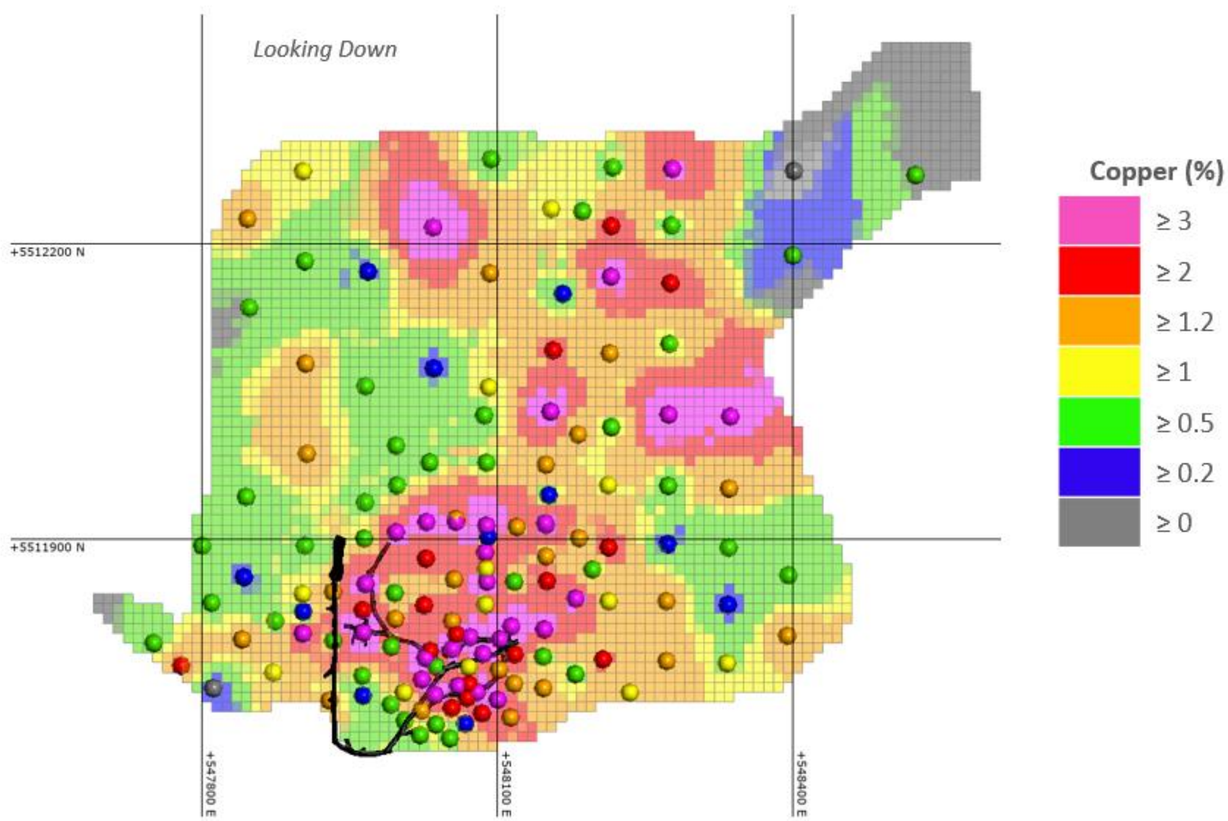


Figure 14-20: Comparison of Devlin Lower Zone composite and block copper grades

Table 14-22: Comparison of Lower Zone interpolated copper grades for Devlin

Methodology	Cu (%)
Declustered Composites	1.48
NN	1.50
ID^2	1.52

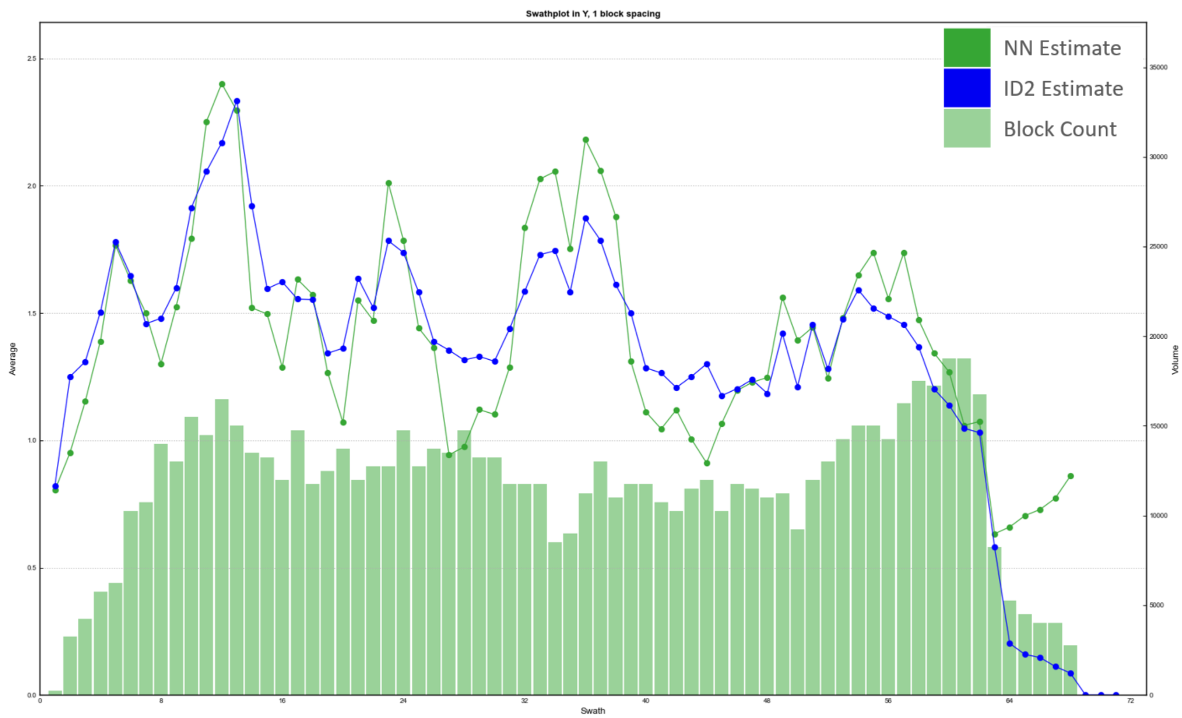


Figure 14-21: Y dimension swath plot of NN and ID^2 estimated copper grades

14.2.13. Mineral Resource Reporting

Devlin Mineral Resources are reported as per the Mineral Resource estimation methodologies and classification criteria detailed in this Technical Report. They are reported using a minimum height of 1.8 m and a copper cut-off grade of 1.2%. Mineral Resources for the Devlin deposit are summarized in Table 14-23.

Table 14-23: Devlin MRE (effective date of March 30, 2022)

Classification	Tonnage (Mt)	Cu Grade (%)	Au Grade (g/t)	Cu Contained (Mlbs)	Au Contained (000 oz)
Measured	0.12	2.74	0.29	7.3	1.1
Indicated	0.65	2.06	0.19	29.7	4.0
Measured & Indicated	0.78	2.17	0.20	37.0	5.1
Inferred	0.48	1.79	0.17	19.2	2.7

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 1.2% Cu.
3. Mineral Resources are based on a long-term copper price of US$3.75 per pound, metallurgical gold recovery of 95%, and an exchange rate of USD$1.00:CAD$1.33.
4. A minimum mining height of approximately 1.8 m was used.
5. Bulk density is 2.85 t/m^3 or 2.90 t/m^3.
6. Numbers may not add due to rounding.

14.2.13.1. Comparison with Previous Resource Estimate

Table 14-24 presents a comparison of the current MRE above a copper cut-off grade of 1.2% with the 2015 MRE, originally estimated above a cut-off grade of 1.6%.

Since the previous MRE in 2015, there has been no additional drilling or geological data collection at Devlin. Wireframes and block grade estimates remain unchanged; however, additional variography studies completed by SLR supported a classification revision which increased the number of blocks classified as Indicated. In addition, the 2021 copper price was increased to US$3.75/lb from US$3.25/lb in 2015, resulting in a lower cut-off grade.

Compared to the 2015 estimate, there is a large increase in the tonnage and a moderate decrease in the copper grade for the Measured and Indicated Mineral Resources, and a minor increase in tonnage and a moderate decrease in the copper grade for the Inferred Mineral Resources.

Table 14-24: Comparison with previous MRE at Devlin

Classification	2021 (1.2% Cu COG)					2015 (1.6% Cu COG)				
	Tonnage (000 t)	Grade (% Cu)	Grade (g/t Au)	Contained Metal (Mlbs Cu)	Contained Metal (000 oz Au)	Tonnage (000 t)	Grade (% Cu)	Grade (g/t Au)	Contained Metal (Mlbs Cu)	Contained Metal (000 oz Au)
Measured	121	2.74	0.29	7.3	1.1	108	2.90	0.30	6.9	1.1
Indicated	654	2.06	0.19	29.7	4.0	304	2.33	0.24	15.6	2.4
Measured & Indicated	775	2.17	0.20	37.0	5.1	412	2.48	0.26	22.5	3.4
Inferred	484	1.79	0.17	19.2	2.7	347	2.40	0.20	18.4	2.2

14.3. Joe Mann Mineral Resource Estimate

14.3.1. Summary

The MRE for the Joe Mann deposit was prepared using available drill hole data as of March 30, 2022. The MRE is unchanged from when it was originally disclosed in the Technical Report entitled "Technical Report on the Joe Mann Project, Northwest Québec, Canada, Report for NI 43-101" by SLR (2021) dated September 10, 2021, with a MRE effective date of July 21, 2021. There has been no additional information collected at Joe Mann between July 2021 and May 2022 and the only change to the MRE disclosed here is the alignment of the effective date with other Mineral Resources for this Report.

The Joe Mann MRE is based on the following drill hole information:

- DCM drilling: 26 assays from four surface drill holes with a total depth of 5,312 m, completed between 2020 and 2021; and
- Historic drilling: 435 assays from 48 underground drill holes with a total depth of 12,311 m completed between 1951 and 2019.

The Joe Mann MRE is based on three veins in two zones, West and Main, directly below existing mine infrastructure, within which capped, full-length composites have been estimated into sub-blocked models using a two-pass ID^3 interpolation approach. Vein orientations were confirmed through observed vein angles in drill core with consideration to overlying mined-out stope orientations. A minimum thickness of 1.2 m was applied to all veins. Inferred Mineral Resources represent areas with drill hole spacing up to 100 m and above a gold cut-off grade of 2.6 g/t Au. Within Main 01, a small amount of lower-grade material was included to preserve continuity.

Mineral Resource domains and block modelling work was performed using Leapfrog Geo and Edge software. In addition to standard historical data and database validation techniques, wireframe and block model validation procedures including wireframe to block volume confirmation, statistical comparisons with composite and NN estimates, swath plots; and visual reviews in 3D, longitudinal, cross-section, and plan views were completed for the Joe Mann deposit.

The MRE of July 21, 2021, restated as of March 30, 2022, for the Project is presented in Table 14-25 and is prepared in accordance with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions)) for Mineral Resource classification.

Table 14-25: Summary of Joe Mann Mineral Resources (effective date of March 30, 2022)

Category	Tonnage (000 t)	Grade		Contained Metal	
		(g/t Au)	(% Cu)	(000 oz Au)	(000 lb Cu)
Inferred	608	6.78	0.24	133	3,281

Notes:
1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 2.60 g/t Au.
3. Mineral Resources are estimated using a long-term gold price of US$1,800/oz Au, metallurgical gold recovery of 83%, and an exchange rate of USD$1.00:CAD$1.33.
4. A minimum mining width of 1.2 m was used. A small number of lower-grade blocks within Main 01 have been included for continuity.
5. Bulk density is 2.84 t/m^3.
6. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
7. Numbers may not add due to rounding.

14.3.2. Mineral Resource Cut-off Grade Parameters

Metal prices used for Mineral Reserves are based on consensus, long-term forecasts from banks, financial institutions, and other sources. For Mineral Resources, the metal prices used are slightly higher than those used for Mineral Reserves.

A cut-off grade of 2.6 g/t Au was developed for Joe Mann deposit and reflects assumed mining costs of sub-level stoping (steeply dipping domains) in addition to processing costs and gold price. The full operating cost, including mining, processing, and general and administration (G&A) have been included in the calculations. Capital costs, including sustaining capital have been excluded. Table 14-26 lists the parameters used to calculate the cut-off grades.

Table 14-26: Mineral Resource cut-off grade inputs for Joe Mann

Item	Unit	Sub-Level Stoping
Mining Rate	t/d (wet)	400
Processing Rate	t/d (wet)	400
Gold Metallurgical Recovery	%	83
Gold Price	US$/oz	1,800
Exchange Rate	USD:CAD	1.33
Mining cost	$/t milled	110
ROM mineralized material Transport (no crushing)	$/t milled	15
Processing Cost	$/t milled	25
G&A	$/t milled	20
Total	**$/t milled**	**170**
Breakeven Cut-off Grade	g/t Au	2.6

14.3.3. Resource Database

The drilling database was maintained in MS Excel up to March 2022 (now in GeoticLog), with drill hole location information in NAD83 projection, UTM Zone 18. While the drill hole database is in metric units, historical drilling was in imperial units, however, this has since been converted to metric units by Jessie Resources and Doré Copper on-site geologists since 2019.

The database for the Joe Mann MRE consists of diamond drilling spaced 20 m to 100 m apart, including 461 domain intersecting gold and copper assays from 52 drill holes with a total length of 17,622 m and a total assay length of 222 m completed from 1951 to 2021. The QP notes that LeachWELL assays results were used for a small number of samples when fire assays were not available. Drilling was conducted from surface and from underground infrastructure. The data was imported into Seequent's Leapfrog Geo version 2021.2 for statistical analysis, wireframe building, block modelling, and resource estimation.

14.3.4. Geological Interpretation

The Joe Mann MRE is based on interpretations of vein structures modelled using Seequent's Leapfrog Geo software in a total of three domains within the Main and West areas. The Main area includes one sub-vertical vein, Main01, while the West area includes two domains, West01 and West02. Wireframe domains were built using an approximate gold cut-off grade of 2.0 g/t Au and a 1.2 m minimum thickness, and domain extensions were defined at a limit of closer to 50% of the local drill hole spacing, or 50% of the distance to an excluded drill hole. Vein orientations at Joe Mann mimic overlying or adjacent mined-out areas in both orientation and form. Final domains are presented in

Figure 14-22.

Source: SLR, 2021.

Figure 14-22: Mineralization wireframes

14.3.5. Resource Assays

14.3.5.1. Treatment of High-grade Assays

Capping Levels

Table 14-27 summarizes the Joe Mann capped gold assay statistics. A capping strategy was developed by reviewing raw assays using basic statistics, histograms, log probability plots, and decile analysis to determine a gold cap for each domain independently.

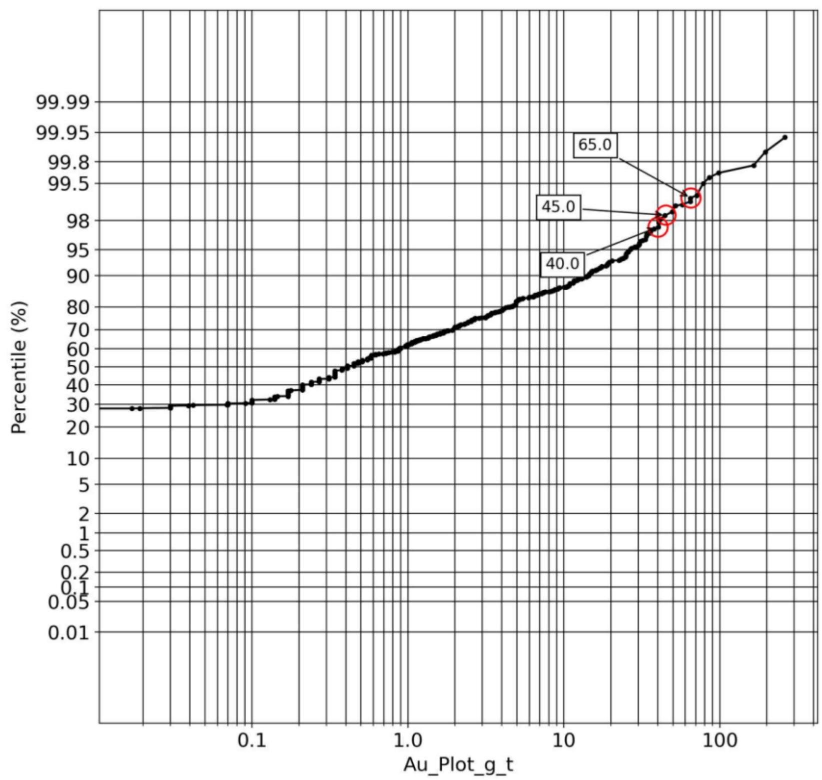
Table 14-27: Gold and copper assay statistics and capping levels for Joe Mann

Domain	Count	Count Capped	Cap (g/t Au)	Mean (g/t Au)	Capped Mean (g/t Au)	Min. (g/t Au)	Max. (g/t Au)	Capped Max. (g/t Au)	CV(1)	Capped CV
					Gold					
Main01	24	2	45	6.59	5.64	0	78.16	45	2.27	2.0
West01	296	9	45	5.77	4.74	0	261.6	45	3.06	2.06
West02	139	1	45	3.19	3.07	0	85.58	45	2.65	2.43
Domain	**Count**	**Count Capped**	**Cap (% Cu)**	**Mean (% Cu)**	**Capped Mean (% Cu)**	**Min. (% Cu)**	**Max. (% Cu)**	**Capped Max. (% Cu)**	**CV(1)**	**Capped CV**
					Copper					
West01, West02 and Main01	461	2	2.5	0.14	0.14	0	2.55	2.5	2.28	2.27

Note:

(1) Coefficient of Variation (CV).

The result of the gold capping analysis for the combined domains is presented in Figure 14-23.



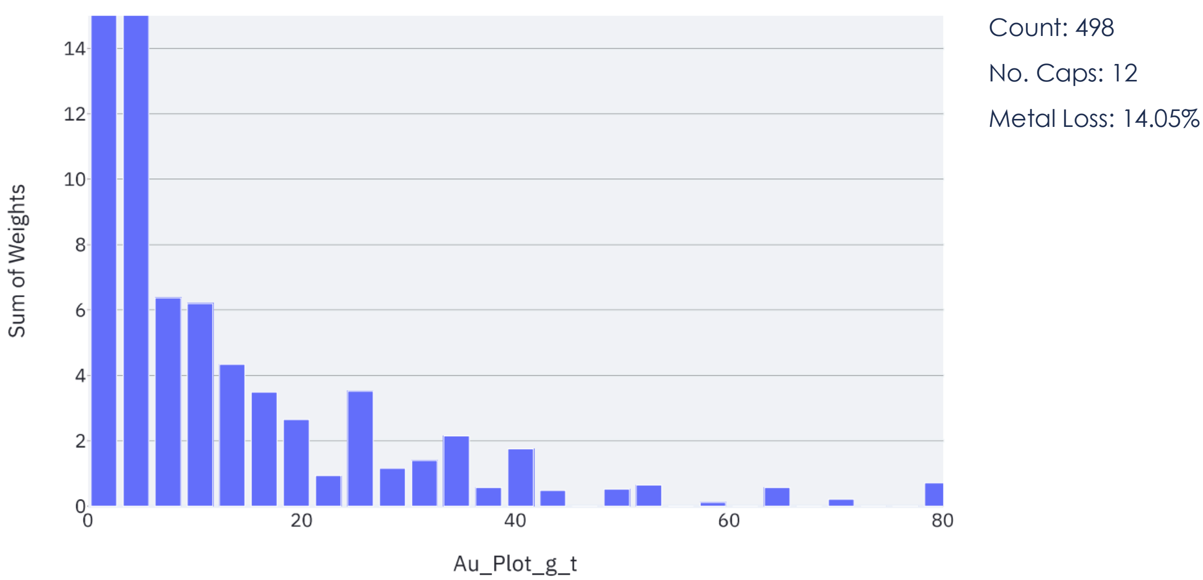


Figure 14-23: Probability plot and histogram of length weighted gold assays within all domains

High-Grade Restriction

The Main Zone (Main01) is composed of seven drill hole intercepts, three of which lie above the gold cut-off grade of 2.6 g/t Au, with capped full-length composite values of 4.94 g/t Au, 22.58 g/t Au, and 23.13 g/t Au. The influence of these high-grade gold intercepts was moderated by the application of a high-grade gold restriction during interpolation which capped the composites to 20 g/t Au at distances greater than 18.75 m in the x-axis and 75 m in the y-axis on the second pass of ID^3. Additional high-grade restrictions were not applied in the copper interpolation.

14.3.6. Compositing

Capped assay samples at Joe Mann were composited to represent the full-length intercept of each domain. A histogram of assays lengths within all mineralization domains is presented in Figure 14-24 and gold and copper assay and composite statistics per domain are summarized in Table 14-28. The QP notes that the longer full-length composites are the representation of drill holes oriented down dip, due to the angle of drilling with respect to the vein orientation, necessary due to the deep target depth.

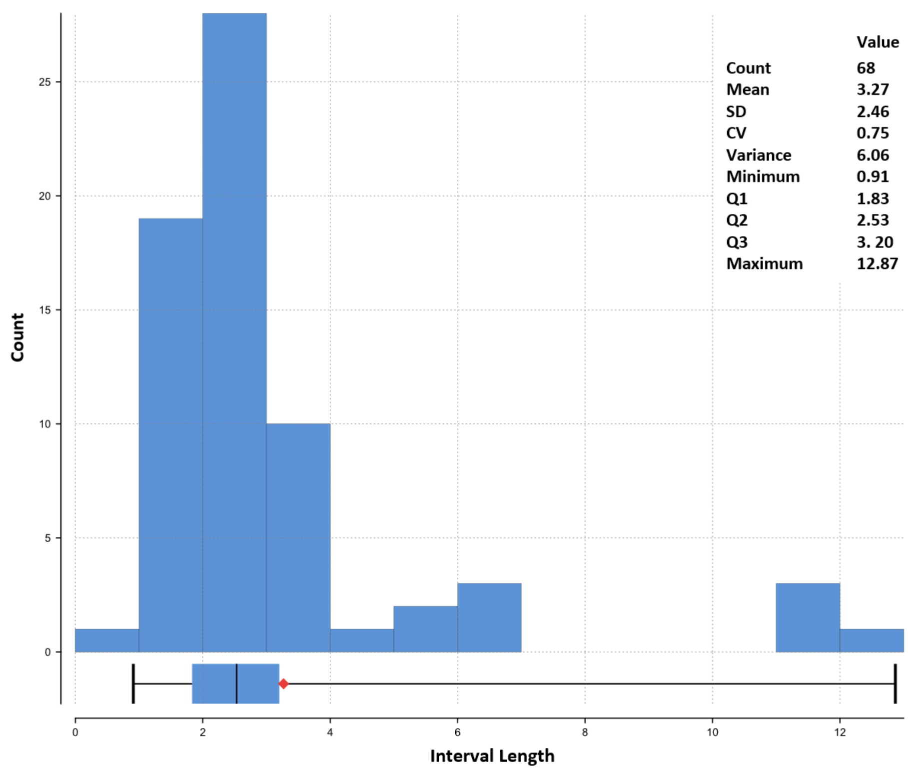


Figure 14-24: Histogram of composite interval lengths within the mineralization domains

Table 14-28: Capped full-length gold and copper assay and composite statistics for Joe Mann

Domain	Assay							Composite				
	Original					Capped		Capped				
	Count	Length	Min	Mean	Max	Mean	Max	Count	Length	Min	Mean	Max
Gold		(m)	(g/t Au)	(g/t Au)	(g/t Au)	(g/t Au)	(g/t Au)		(m)	(g/t Au)	(g/t Au)	(g/t Au)
Main01	26	21.03	0.00	8.47	78.16	7.14	45.00	7	21.03	0.87	7.14	23.13
West01	296	121.79	0.00	5.77	261.60	4.74	45.00	42	121.79	0.00	4.74	17.47
West02	139	79.41	0.00	3.19	85.58	3.07	45.00	19	79.41	0.00	3.07	12.82
Total	**461**	**222.22**	**0.00**	**5.10**	**261.60**	**4.37**	**45.00**	**68**	**222.22**	**0.00**	**4.37**	**23.13**
Copper		(m)	(%)	(%)	(%)	(%)	(%)		(m)	(%)	(%)	(%)
Main01	26	21.03	0.00	0.24	2.55	0.23	2.50	7	21.03	0.00	0.23	1.30
West01	296	121.79	0.00	0.15	2.55	0.15	2.50	42	121.79	0.00	0.15	0.47
West02	139	79.41	0.00	0.10	2.05	0.10	2.05	19	79.41	0.00	0.10	0.65
Total	**461**	**222.22**	**0.00**	**0.14**	**2.55**	**0.14**	**2.50**	**68**	**222.22**	**0.00**	**0.14**	**1.30**

Notes:
1. Length weighted.
2. Unsampled intervals assigned a null value.

14.3.7. Trend Analysis

14.3.7.1. Variography

Experimental semi variograms and transformed variograms oriented in the plane of mineralization were constructed for domains Main01 and West01, to assess grade continuity and confirm observed mineralization trends. The mineralization domains lacked sufficient samples to obtain robust variograms, however, the results were useful in supporting the range of expected grade continuity. Variogram maps results are presented in Figure 14-25 (West01) and indicate mineralization continuity of approximately 60 m.

	Variogram Model	Dip	Dip Azimuth	Pitch	Major (m)	Semi-major (m)	Minor (m)	Nugget	Total Sill	Variance
Structure 1	Spherical	68	28	102	60	33	28	0.1	0.99	0.99

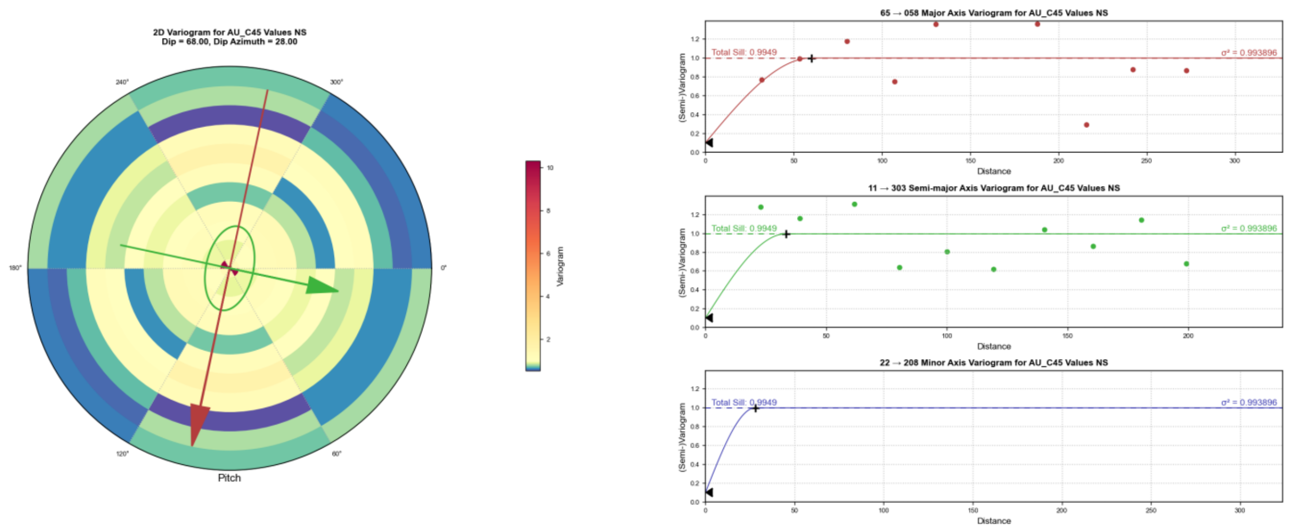
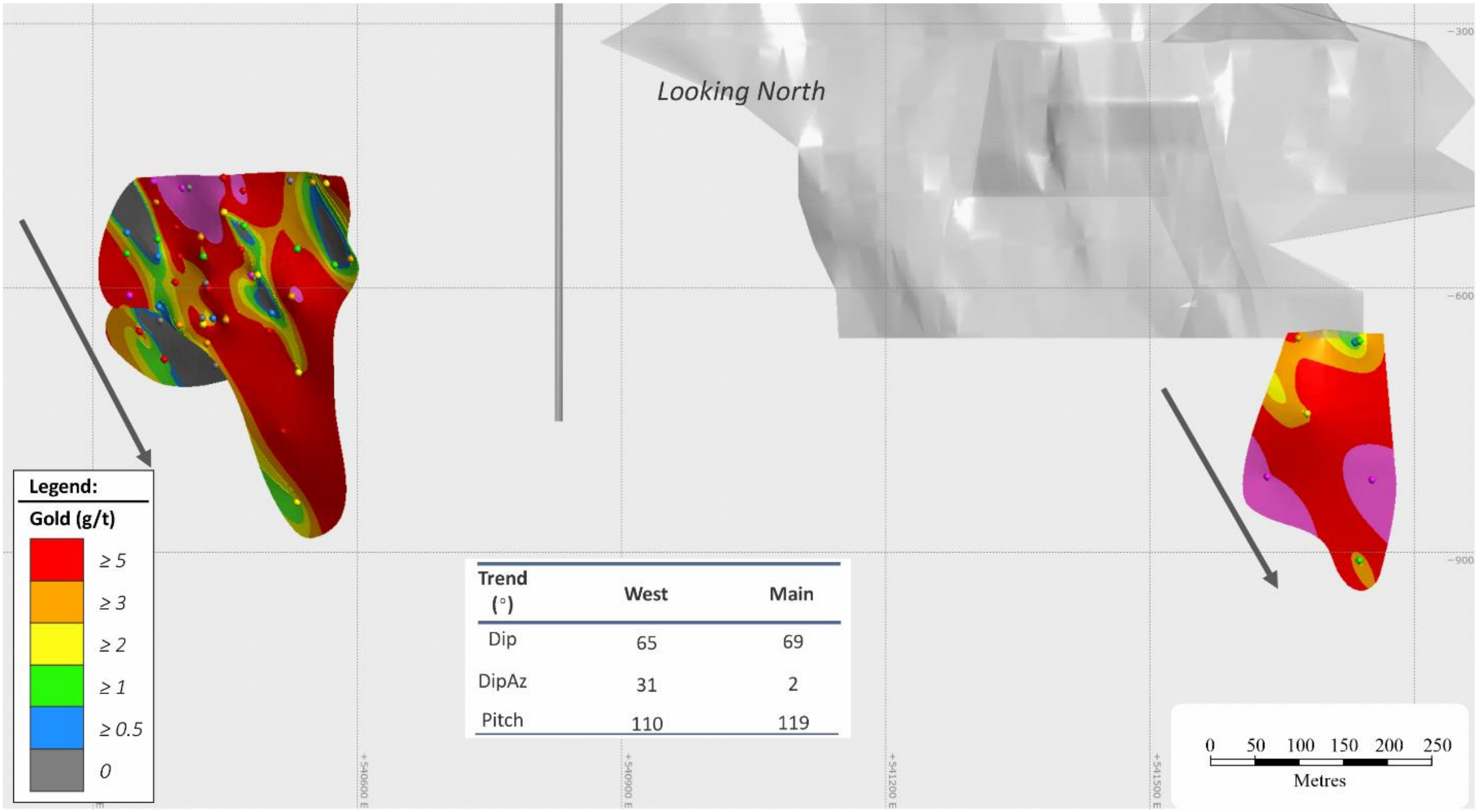


Figure 14-25: Domain West01 variogram map and back-transformed model results

14.3.7.2. Grade Contouring

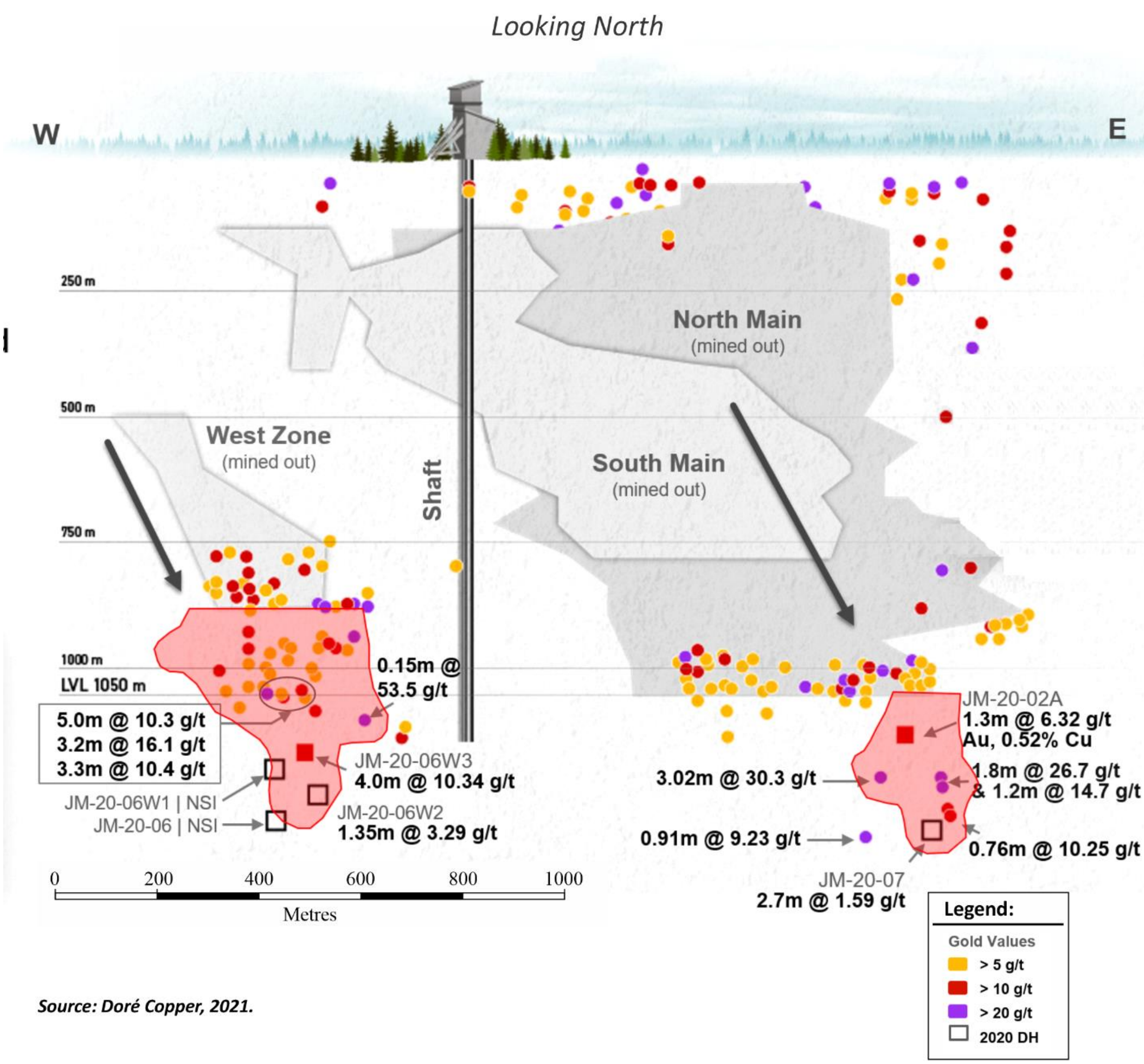
To assist in conducting variography studies and to understand the continuity of the gold grades in the mineralized wireframes, a traditional longitudinal projection was prepared for the Joe Mann wireframes. For this exercise, the average uncapped gold grade across the entire width of all the mineralized wireframes were contoured to identify the gold trends (Figure 14-26).

Examination of the grade distributions in the contouring indicate one principal trend of elevated gold grades in the West01 domain. Results are sensitive to the drilling density, which is much lower in the Main01 domain, as such no trend could be defined from grade contouring in that area. The QP notes, however, that the Main01 domain is located directly beneath the former Joe Mann mine and it was possible to identify a principal gold assay trend in the Main01 domain (Figure 14-27), where the historic stopes and grades indicate a continuation of the previously mined material shoots at depth. This trend is presented visually in Figure 14-27. The QP notes that the trends have not been drilled tested at depth. The search ellipse parameter selection for the ID^3 was also influenced by these trends. The QP recommends reviewing the observed grade trend and plunges at Joe Mann following additional drilling.



Source: SLR, 2021.

Figure 14-26: Gold assay trends in grade contouring



Source: Doré Copper, 2021.

Figure 14-27: Historically understood gold assay trends with mined-out view

14.3.8. Search Strategy and Grade Interpolation Parameters

Grade interpolation was performed on a parent block basis using ID^3 and two progressively larger interpolation passes. Search ellipses for grade interpolation were anisotropic for all zones and designed to mimic the observed and historically understood grade trends. Search ellipse dimensions and orientations are detailed in Table 14-29 and the composite selection plan is outlined in Table 14-30.

Table 14-29: Search strategy and grade interpolation parameters for Joe Mann

Domain	Method	1st Pass				2nd Pass			
		X-axis (m)	Y-axis (m)	Z-axis (m)	Orientation	X-axis (m)	Y-axis (m)	Z-axis (m)	Orientation
Joe Mann									
Main01	ID^3	25	75	25	68/85/179	75	300	75	68/85/179
West01, West02	ID^3	25	75	25	68/85/179	50	175	50	68/85/179

Table 14-30: Composite selection plan for Joe Mann

Domain	1st Pass		2nd Pass		
	Min No.	Max No.	Min No.	Max No.	Gold Grade Restriction
Joe Mann					
Main01	2	15	1	15	20 g/t, 25% distance
West01, West02	4	15	1	15	

14.3.9. Bulk Density

A total of 603 density measurements were collected at Joe Mann during 2020 and 2021 and analyzed using the water immersion method. Densities ranged from 2.78 g/cm³ to 3.07 g/cm³ within mineralization domains and from 1.28 g/cm³ to 3.24 g/cm³ in adjacent material. Basic density statistics for Joe Mann are presented in Table 14-31. In the QP's opinion, the densities are reasonable for the type of mineralization.

A density of 2.84 g/cm³ was applied to the mineralization domains. The QP recommends continuing to measure density in the mineralized zones.

Table 14-31: Density statistics by domain for Joe Mann

Domain	Count	Mean	CV	Min	Max
Main01	12	2.92	0.03	2.78	3.07
West01	14	2.86	0.02	2.79	2.95
Waste	577	2.84	0.04	1.28	3.24
All	**603**	**2.84**	**0.04**	**1.28**	**3.24**

14.3.10. Block Models

Block model construction and estimation was completed in Seequent's Leapfrog Edge software. Block model positions and dimensions for the Main and West zones are presented in Table 14-32. The QP considers the block model sizes appropriate for the deposit geometry and proposed mining methods.

Table 14-32: Metric dimensions and position of block models (local grid) for Joe Mann

Type	X	Y	Z
Main			
Base Point (m)	541,594	5,481,767	-655
Boundary Size (m)	190	140	305
Parent Block Size (m)	5	1	5
Min. Sub-block Size (m)	1.25	0.25	1.25
Rotation (°)	0	5	0
West			
Base Point (m)	540,181	5,482,277	-476
Boundary Size (m)	530	255	455
Parent Block Size (m)	5	1	5
Min. Sub-block Size (m)	1.25	0.25	1.25
Rotation (°)	0	30	0

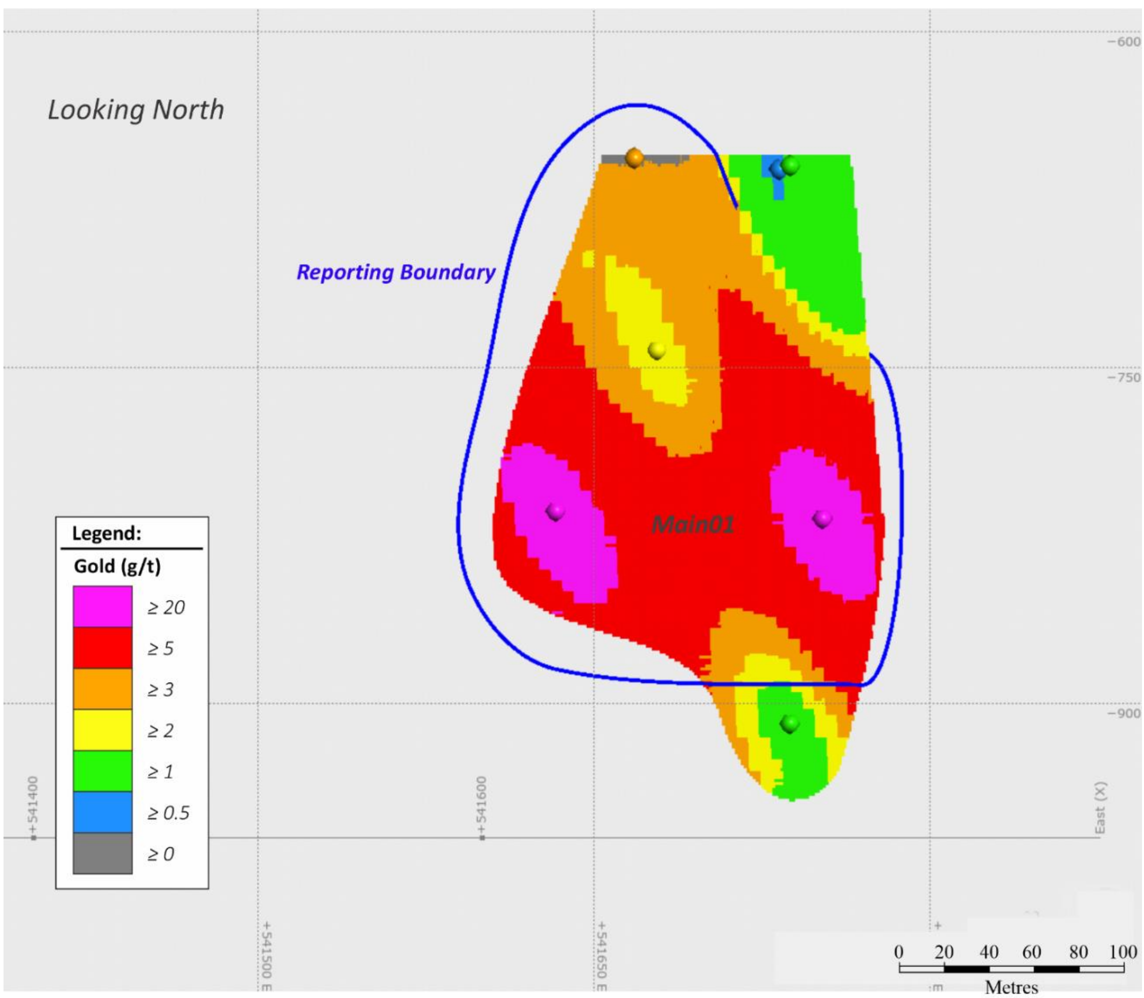
14.3.11. Classification

At Joe Mann, only Inferred Mineral Resources have been defined, since drill hole spacing ranged between approximately 20 m and 100 m. Also, considering geological understanding and grade continuity, it was opted to classify all material as Inferred. During the design of the Main01 wireframe, lower-grade material was included to preserve continuity. A reporting boundary shape was created to exclude this material at classification apart from one composite, which is midway with above cut-off grade samples.

14.3.12. Block Model Validation

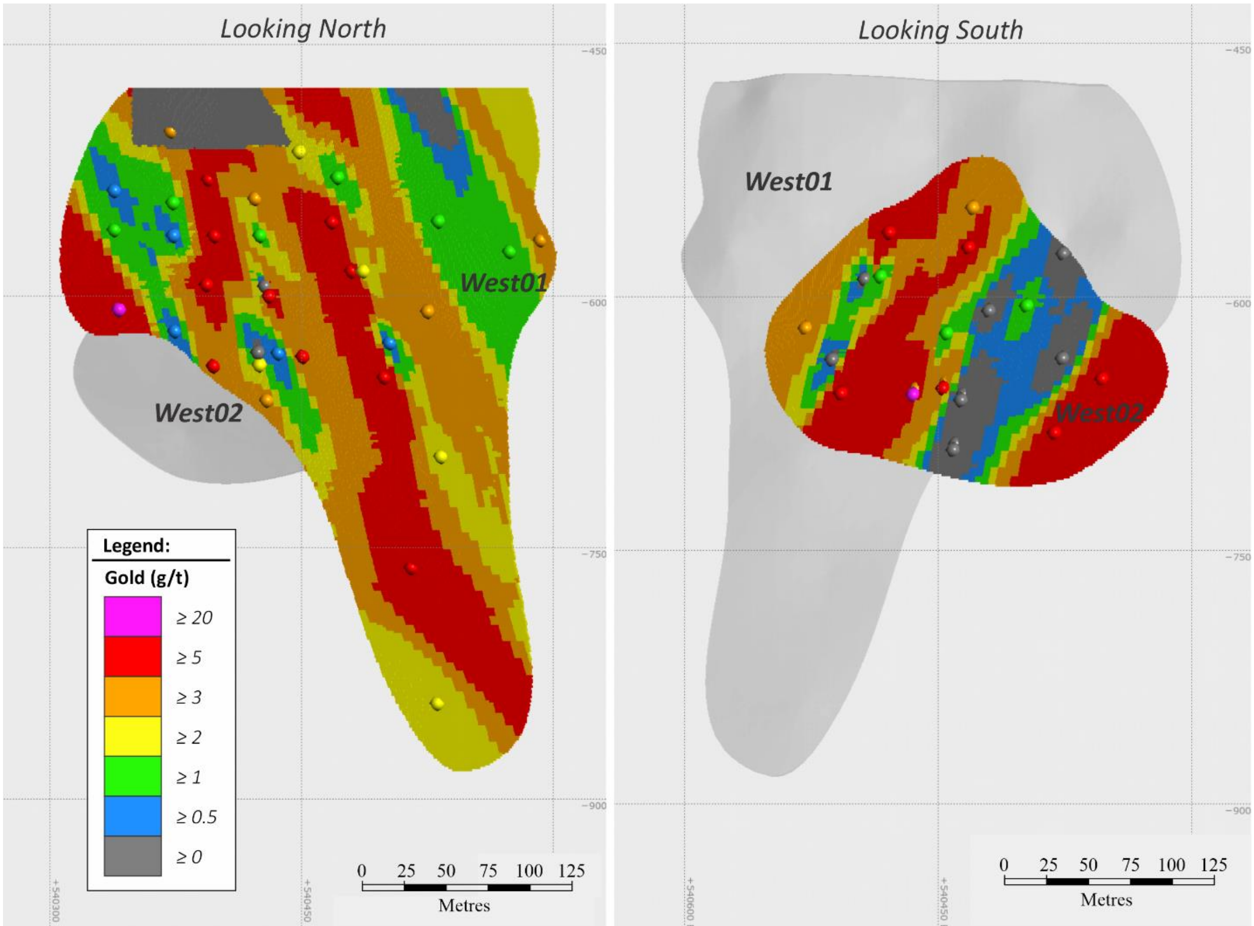
Blocks were validated using industry standard techniques including: 1) visual inspection of composite versus block grades (Figure 14-28, and Figure 14-29 for gold and Figure 14-30, and Figure 14-31 for copper); 2) comparison between ID³ and NN means swath plots (Figure 14-33); and 3) wireframe to block model volume confirmation (Table 14-33)

SLR reviewed gold grades and proportions relative to the blocks, drilled grades, composites, and modelled solids. The QP observed that the block grades exhibited general accord with drilling and sampling and did not appear to smear significantly across sampled grades. Swath plots generally demonstrated good correlation, with gold block grades being somewhat smoothed relative to composite grades, as expected.



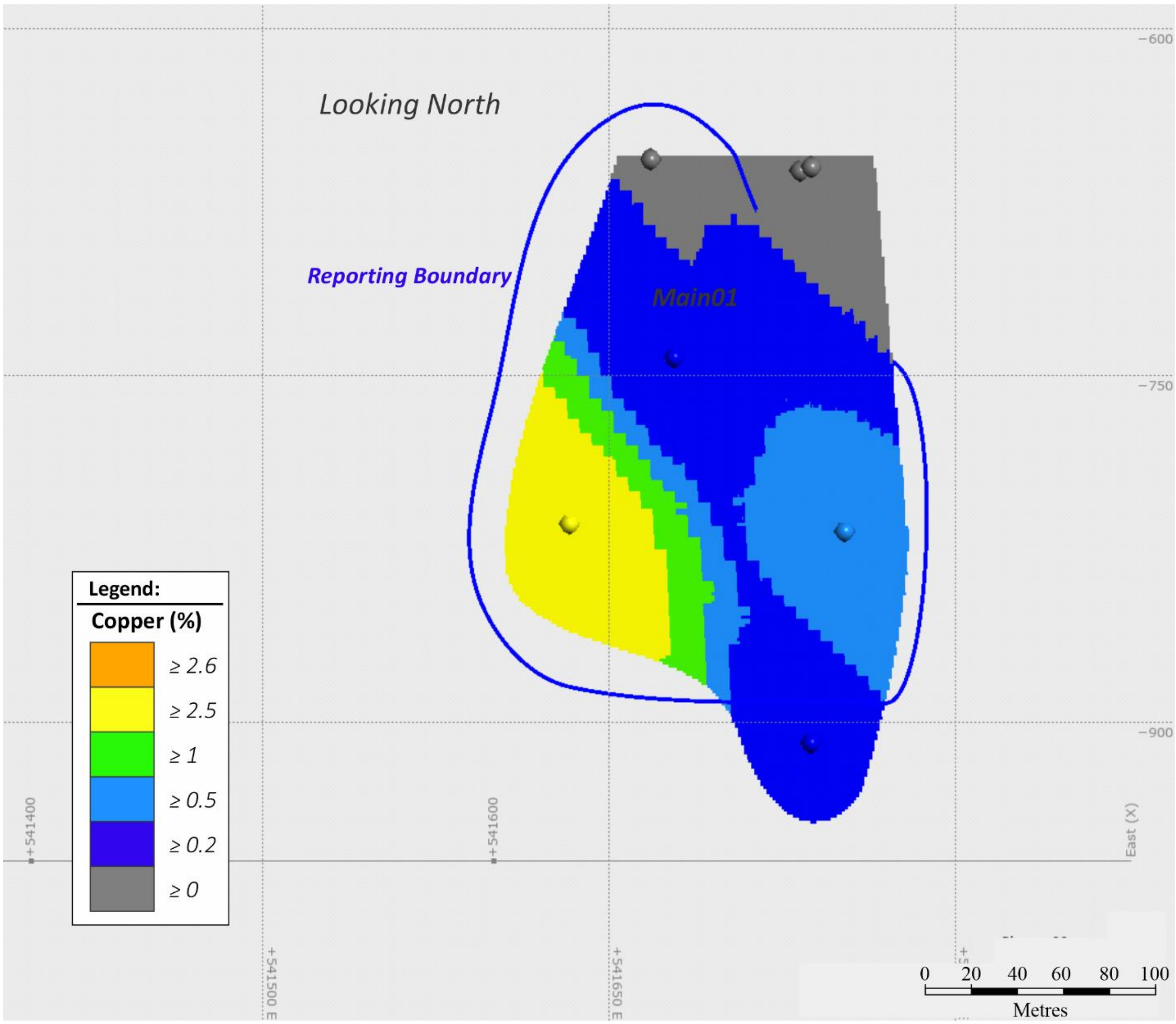
Source: SLR, 2021.

Figure 14-28: Main Domain Longitudinal Comparison of Composite and Block Gold Grades



Source: SLR, 2021.

Figure 14-29: West Domains Longitudinal Comparison of Composite and Block Gold Grades



Source: SLR, 2021.

Figure 14-30: Main Domain Longitudinal Comparison of Composite and Block Copper Grades

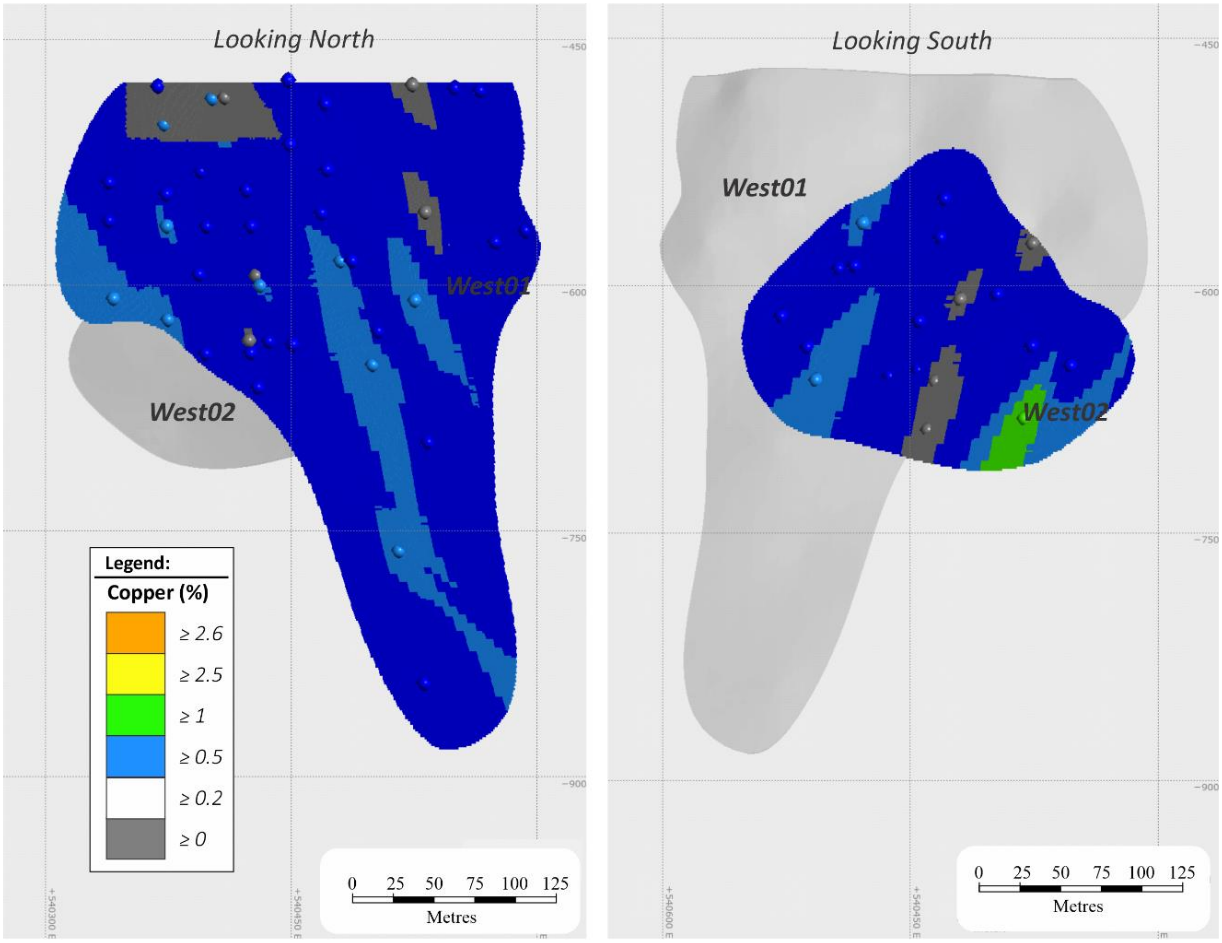


Figure 14-31: West Domains Longitudinal Comparison of Composite and Block Copper Grades

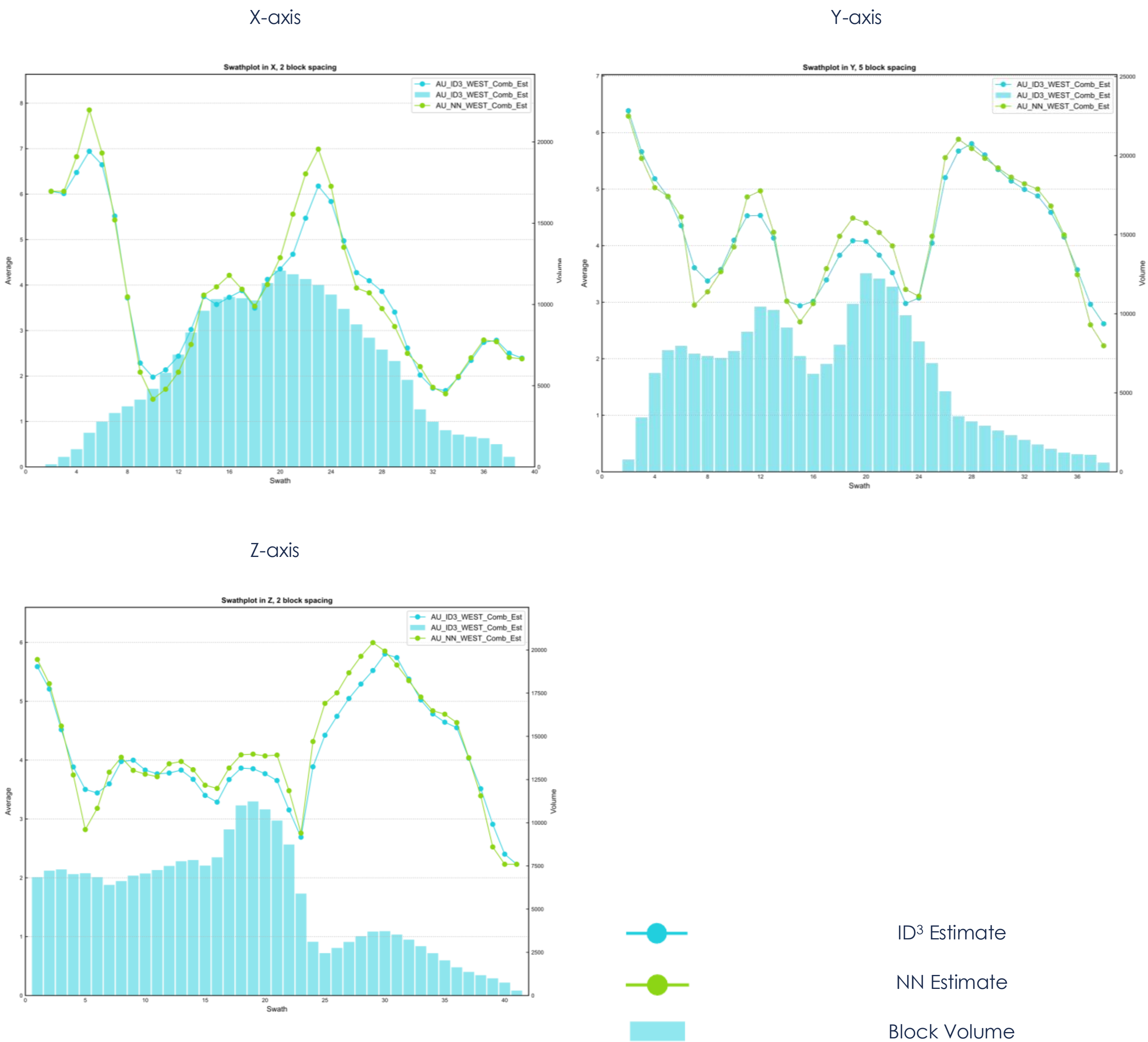


Figure 14-32: Swath plot comparing ID³ and NN estimate results within the West domains

Table 14-33: Wireframe to block model volume confirmation for Joe Mann

Domain	Wireframe Volume (000 m³)	Block Model Volume (000 m³)	Confirmation
Main01	89.67	88.41	98.6%
West01	151.79	149.13	98.3%
West02	76.10	76.08	99.9%

14.3.13. Mineral Resource Reporting

Joe Mann Mineral Resources are reported as per the Mineral Resource estimation methodologies and classification criteria detailed in this Report. They are reported using a minimum thickness of 1.2 m, and a gold cut-off grade of 2.6 g/t. Mineral Resources at Joe Mann are underlying existing mine workings and have been depleted where such workings were present. Joe Mann Mineral Resources are summarized in Table 14-34.

Table 14-34: Joe Mann MRE (effective date of March 30, 2022)

Category	Domain	Tonnage (000 t)	Grade		Contained Metal	
			(g/t Au)	(% Cu)	(000 oz Au)	(000 lb Cu)
Inferred	West 01	282	4.98	0.16	45	982
Inferred	West 02	128	5.23	0.18	22	496
Inferred	Main 01	197	10.36	0.41	66	1,803
Inferred	Total	608	6.78	0.24	133	3,281

Notes:
1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 2.60 g/t Au.
3. Mineral Resources are estimated using a long-term gold price of US$1,800/oz Au, metallurgical gold recovery of 83%, and an exchange rate of USD$1.00:CAD$1.33.
4. A minimum mining width of 1.2 m was used. A small number of lower-grade blocks within Main 01 have been included for continuity.
5. Bulk density is 2.84 t/m³.
6. Mineral resources that are not Mineral Reserves do not have demonstrated economic viability.
7. Numbers may not add due to rounding.

14.4. Cedar Bay Mineral Resource Estimate

14.4.1. Summary

An initial MRE for the Cedar Bay deposit was prepared by the SLR QP while at SLR's predecessor RPA, using available drill hole data as of December 31, 2018. The MRE in this Report is unchanged from when it was originally disclosed in the Technical Report entitled "Technical Report on The Corner Bay and Cedar Bay Projects, Northwest Québec, Canada, Report for NI 43-101" (RPA, 2019) dated June 15, 2019, with a Mineral Resource effective date of December 31, 2018. The MRE was prepared using a gold price of US$1,400/oz and therefore the effective date has not been aligned with the more recent work at Corner Bay – Devlin and Joe Mann, which were prepared using a gold price of US$1,800/oz.

As RPA, the QP prepared an MRE under the assumption that the deposit would potentially be mined by underground methods using Geovia GEMS 6.8 software. A 3D geological model was built and used to constrain and populate resource block models. The block grade estimate was based on inverse distance cubed (ID3) interpolation methods. High-grade assays were capped at various levels depending on the assay statistics for each domain. This initial MRE is not updated with the additional assay results obtained from the 2020 drilling program at Cedar Bay.. The QP has reviewed the results of these drill holes and is of the opinion that they do not materially affect the MRE.

The Cedar Bay Mineral Resource includes 130 kt at average grades of 9.44 g/t Au and 1.55% Cu, containing 39,000 oz Au and 4.4 Mlbs Cu in the Indicated category, and 230 kt at average grades of 8.32 g/t Au and 2.13% Cu, containing 61,000 oz Au and 10.8 Mlbs Cu in the Inferred category.

The following sections replicate Section 14 subsections from the RPA (2019) report related to Cedar Bay.

14.4.2. Mineral Resource Cut-off Grade Parameters

For the purpose of Mineral Resource reporting, a cut-off grade of 2.9 g/t Au was estimated based on the assumptions listed below. It is RPA's opinion that this cut-off grade is adequate for reporting Mineral Resources that represent a reasonable prospect of eventual economic extraction. The principal assumptions and parameters used to derive this cut-off grade were:

- Underground mining method;
- Gold price of US$1,400/oz, with no revenue contribution from copper and silver;
- Au metallurgical recovery of 90%;
- Processing cost of $25/t;

- G&A cost of $25/t;
- Mining cost of $75/t;
- Ore transportation cost to Copper Rand mill of $5/t; and
- Exchange rate of USD$1.00:CAD$1.25.

Metal prices used above were based on consensus, long-term forecasts from banks, financial institutions, and other sources.

14.4.3. Resource Database

The drill hole database was provided to RPA as a set of comma-separated files and includes underground drilling from 1994 and 1995 and surface drilling from 2018. The drilling data consists of collar information, downhole surveys, lithological descriptions, Au g/t, Cu %, and Ag g/t assays. RPA had not estimated resources for silver, because silver is not a significant by-product; however, RPA did include silver in its exploratory data analysis (EDA) work.

The database includes 22 holes with a total length of 19,430.4 m, including full length for wedge holes. These consist of 16 underground holes totalling 12,863.3 m, drilled from the 2,700-level exploration drift, extending from the former Copper Rand mine, and four surface holes and two wedges with a total length of 4,841.8 m drilled in 2018. Of these, seven holes were used for the resource estimate, three from surface and four from underground, with a total of 1,085 samples and 651.9 m sampled. The resource is based on 79 samples with a total length of 48.3 m.

The Geovia GEMS database validation routines were applied to the resource database. No errors were detected in the critical data tables. Based on this assessment and the checks described in RPA, 2019 Section 12, it was RPA's opinion that the drill hole database was appropriate to form the basis of the MRE for the Cedar Bay gold-copper deposit.

14.4.4. Geological Interpretation

The Cedar Bay deposit consists of three mineralized narrow veins, 10_20, Central A, and Central B (Figure 14-33). The Central B Vein is rotated 10° with respect to the 10_20 Vein. The Central B Vein is parallel to the Central A Vein and offset approximatively 40 m towards the southeast.

All veins remain open at depth and towards the northwest. The Central B Vein is open at depth and towards the southeast.

The mineralized wireframes were modelled using a nominal 2.5 g/t Au wireframe cut-off grade and approximately a 2 m minimum horizontal width. The geological interpretation of the veins was completed by the Project with minor adjustments made by RPA.

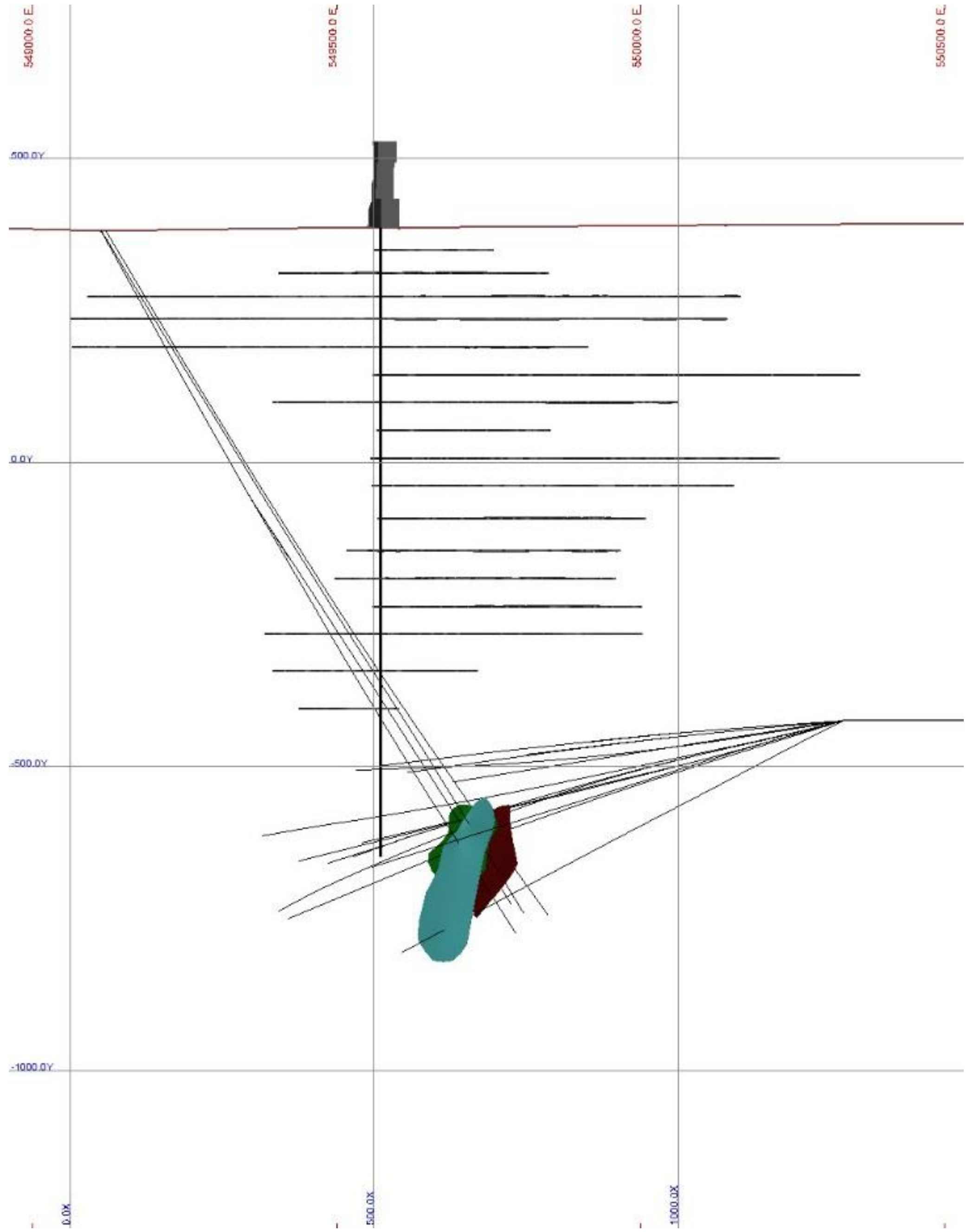


Figure 14-33: Cedar Bay deposit cross-section

14.4.5. Resource Assays

Drill hole intercepts passing through the modelled mineralized wireframes were used to identify the resource assays. The flagged assays were then examined on a vein by vein basis (Table 14-36) and for all veins combined (Table 14-36). The CV range from 0.74 to 1.74. The 10_20 Vein has the highest gold mean grade at 12.64 g/t and the 10_20 and Central B veins have similar copper and silver means.

Table 14-35: Assay descriptive statistics - by vein for Cedar Bay

Vein	Grade	Count	Minimum	Maximum	Mean*	SD	Variance	CV
10_20	Au g/t	38	0.00	75.43	12.54	13.89	193.02	1.11
Central A	Au g/t	21	0.02	13.71	3.69	3.77	14.24	1.02
Central B	Au g/t	20	0.06	53.83	7.05	12.28	150.83	1.74
10_20	Cu %	38	0.00	17.30	2.07	3.24	10.47	1.56
Central A	Cu %	21	0.00	1.40	0.40	0.37	0.14	0.94
Central B	Cu %	20	0.00	11.15	2.12	3.25	10.54	1.53
10_20	Ag g/t	38	0.50	72.34	14.28	15.59	242.91	1.09
Central A	Ag g/t	21	1.00	10.97	3.19	2.36	5.57	0.74
Central B	Ag g/t	20	0.50	74.00	15.10	19.48	379.37	1.29

Table 14-36: Assay descriptive statistics – all veins for Cedar Bay

Grade	Count	Minimum	Maximum	Mean*	SD	Variance	CV
Au (g/t)(1)	79	0.00	75.43	8.78	12.03	144.68	1.37
Cu (%)(1)	79	0.00	17.30	1.61	2.82	7.97	1.75
Ag (g/t)(1)	79	0.50	74.00	11.37	15.12	228.49	1.33
Length (m)	79	0.15	1.70	0.61	0.29	0.08	0.47

Notes:

(1) Length weighted.

14.4.5.1. Capping of High-grade Assays

A statistical approach was used to determine the capping levels for Cedar Bay resource assays. Histograms, log probability plots, and decile analyses on assays from all veins were used to assess the impact of high-grade values for copper and gold. The capping levels selected were 40 g/t for Au and 12% for Cu. The metal loss after capping is 7% for gold and 4% for copper.

Table 14-37 presents the uncapped and capped assay values by vein. The histograms of assays from all veins are shown in Figure 14-34 for gold and in Figure 14-35 for copper.

Table 14-37: Capped assay descriptive statistics - by vein for Cedar Bay

Vein	Grade	Count	Minimum	Maximum	Mean	Stdev	Variance	CV
10_20	Capped Au g/t	38	0.00	40.00	11.60	10.61	112.54	0.91
Central A	Capped Au g/t	21	0.02	13.71	3.69	3.77	14.24	1.02
Central B	Capped Au g/t	20	0.06	40.00	6.30	9.31	86.65	1.48
10_20	Capped Cu %	38	0.00	12.00	1.93	2.62	6.87	1.35
Central A	Capped Cu %	21	0.00	1.40	0.40	0.37	0.14	0.94
Central B	Capped Cu %	20	0.00	11.15	2.12	3.25	10.54	1.53

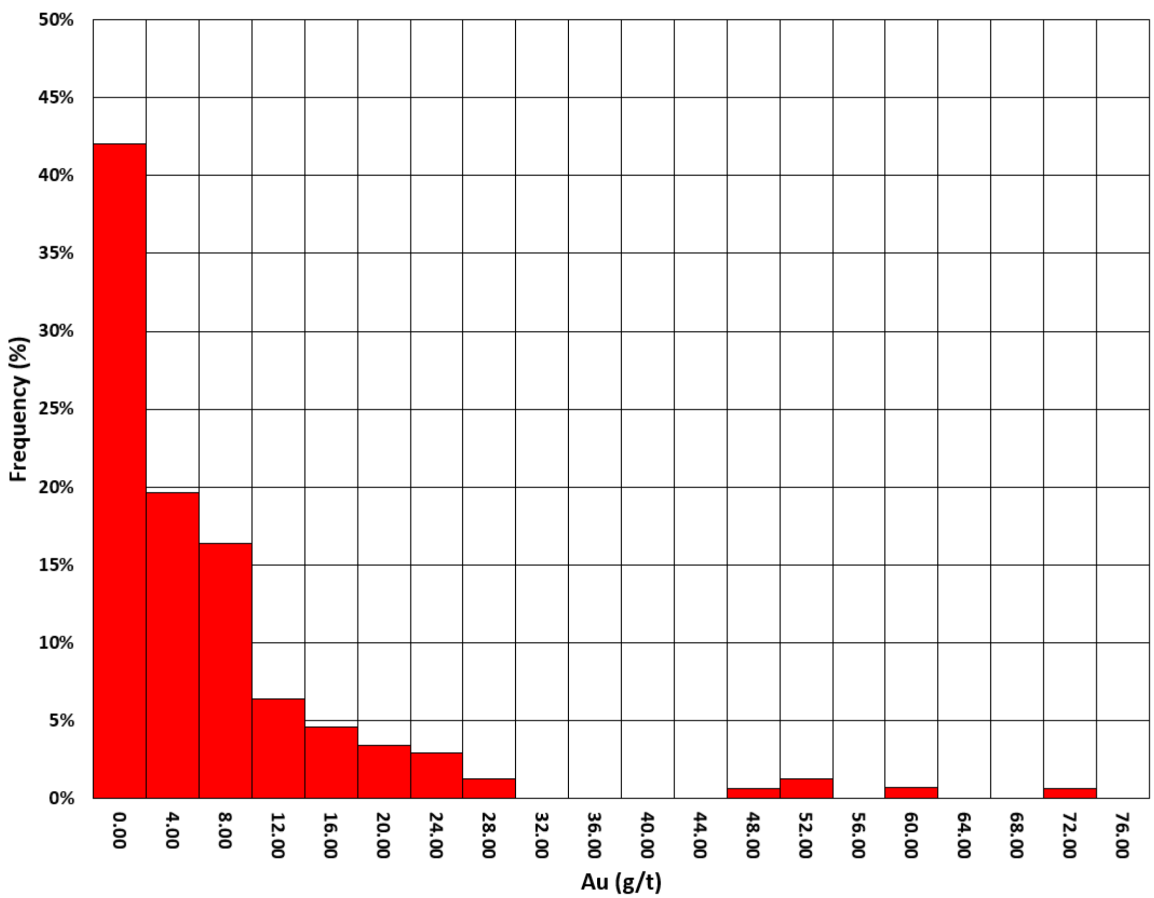


Figure 14-34: Gold assays histogram – all veins

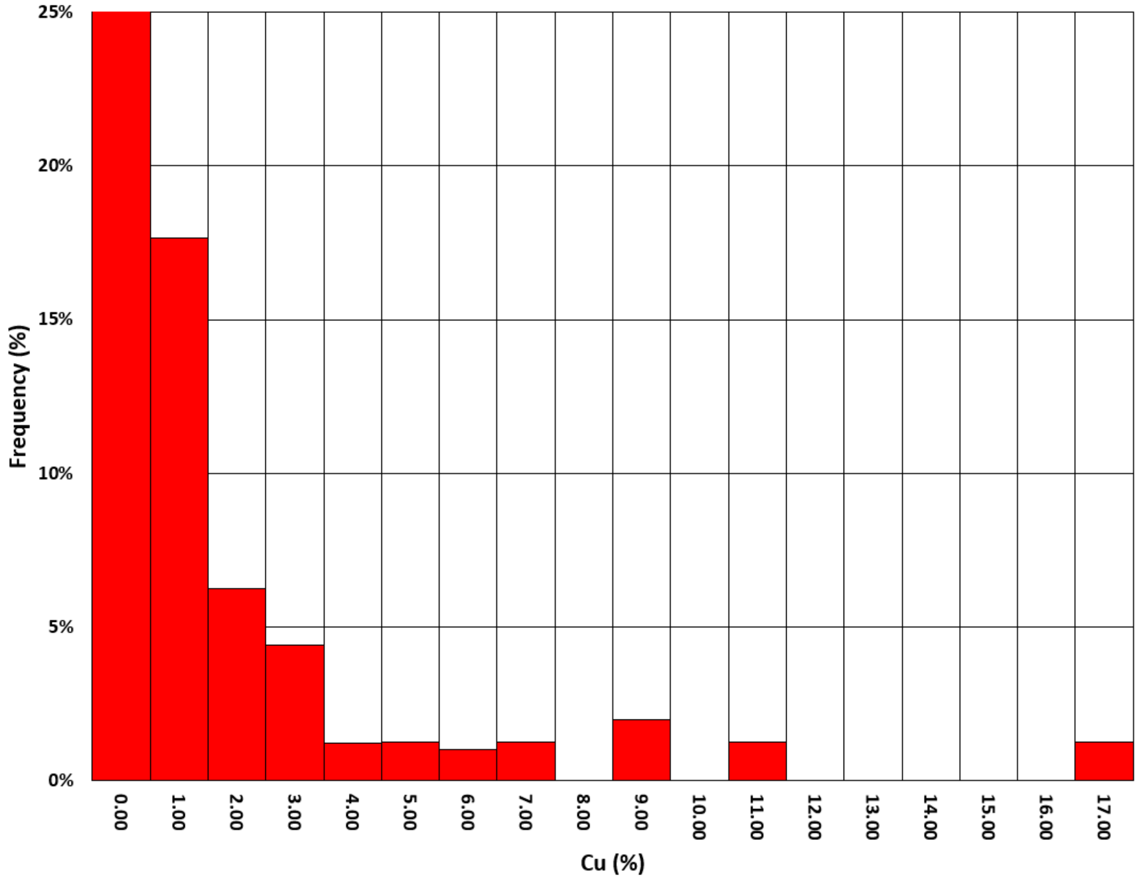


Figure 14-35: Copper assays histogram – all veins

14.4.6. Compositing

Full width composites were calculated for each modelled vein intercept. Occasional missing or unsampled intervals were assigned zero grade prior to compositing. It is reasonable to consider that the full width of the veins will be mined, hence using the full intercept for compositing is appropriate. Using the full intercept also helps to avoid grade interpolation artefacts that may occur when the drill holes intersect the veins at low angles, as it is the case at Cedar Bay. Figure 14-35 shows the composite descriptive statistics.

Table 14-38: Composite descriptive statistics for Cedar Bay

Zone	Grade	Count	Minimum	Maximum	Mean	Stdev	Variance	CV
10_20	Au g/t	5	3.38	20.61	12.61	6.25	39.05	0.50
Central A	Au g/t	4	2.55	4.87	3.51	0.98	0.95	0.28
Central B	Au g/t	3	2.93	12.63	6.65	5.23	27.33	0.79
10_20	Capped Au g/t	5	3.38	16.31	11.31	4.88	23.81	0.43
Central A	Capped Au g/t	4	2.55	4.87	3.51	0.98	0.95	0.28
Central B	Capped Au g/t	3	2.93	10.55	5.96	4.04	16.34	0.68
10_20	Cu %	5	0.27	3.18	2.05	1.25	1.56	0.61
Central A	Cu %	4	0.28	0.60	0.38	0.15	0.02	0.39
Central B	Cu %	3	0.82	3.96	2.00	1.71	2.93	0.86
10_20	Capped Cu %	5	0.27	3.18	1.98	1.21	1.47	0.61
Central A	Capped Cu %	4	0.28	0.60	0.38	0.15	0.02	0.39
Central B	Capped Cu %	3	0.82	3.96	2.00	1.71	2.93	0.86

14.4.7. Block Model

A rotated block model was created in Geovia GEMS 6.8 to support the MRE. The block model was oriented at an azimuth of 140° to match the average strike direction of the veins. The block size was selected at 5.0 m along strike by 2.5 m across strike by 5.0 m vertical. Each block stores various types of information including domain, percent volume in the resource domain, density, interpolated gold and copper grades, and classification. The block model definition is presented in Table 14-39.

Table 14-39: Block model setup for Cedar Bay

Parameter	
Minimum East	549,725 m
Minimum Northing	5,526,850 m
Maximum Elevation	400 m
Number of Columns	100
Number of Rows	70
Number of Levels	100
Column size	2.5 m
Row size	5 m
Level size	5 m
Counter-Clockwise Rotation	40°

14.4.8. Search Strategy and Grade Interpolation Parameters

Block grades were interpolated using the ID3 estimation method. An isotropic search ellipse was used of a size sufficient to populate all the blocks in the three veins, with a relatively minor number of blocks informed by a single hole. The distance to nearest sample was within 90 m. The block grades were estimated in one pass. Hard boundaries were applied between veins. Table 14-40 presents the search strategy and grade interpolation parameters.

Table 14-40: Grade interpolation and search parameters for Cedar Bay

Vein	Method	Pass	Search Ellipse (m)	Minimum Number of Samples	Maximum Number of Samples
10_20	ID^3	1	150/150/150	1	4
Central A	ID^3	1	150/150/150	1	4
Central B	ID^3	1	150/150/150	1	4

14.4.9. Bulk Density

A total of 23 specific gravity measurements were made on core samples from two drill holes, consisting of two 10_20 Vein intercepts, one Central A Vein intercept, and one Central B Vein intercept. The measured values ranged from 2.17 t/m^3 to 3.4 t/m^3. An average bulk density value of 2.9 t/m^3 was determined for Cedar Bay mineralized veins. The average value was assigned to all the mineralized blocks in the block model.

14.4.10. Classification

For Cedar Bay, RPA had classified blocks into Indicated or Inferred category considering the geological continuity of the mineralization and drill hole spacing.

For the 10_20 and Central A veins, blocks located in areas with drill hole spacing of up to approximately 60 m were selected, then a manual override was applied to consolidate or discard isolated patches of blocks. The blocks in the final selection were classified as Indicated category. The remaining interpolated blocks were classified as Inferred Resources. Blocks from the Central B Vein were classified as Inferred. Figure 14-36 shows the classified blocks for the 10_20 Vein.

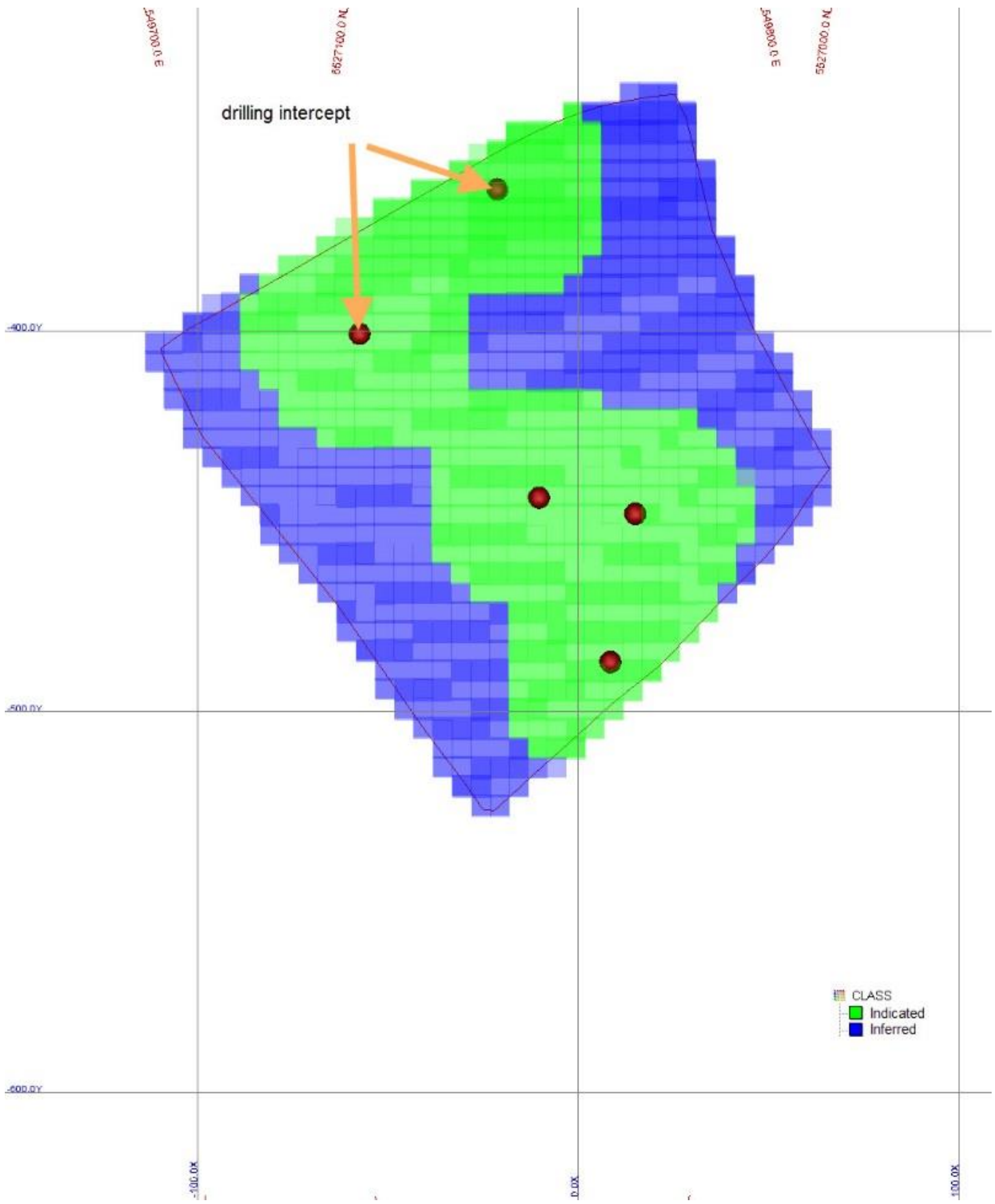


Figure 14-36: Cedar Bay 10_20 Vein classified blocks

14.4.11. Block Model Validation

Block model estimated grades were validated by various methods including visual comparison of the interpolated block grades versus composite grades on plan views and vertical sections, and comparison with alternative grade interpolation methods. The distribution of interpolated grades inside the mineralized wireframes was carefully inspected. Figure 14-37 presents the colour-coded block gold grades and composites for the 10_20 Vein.

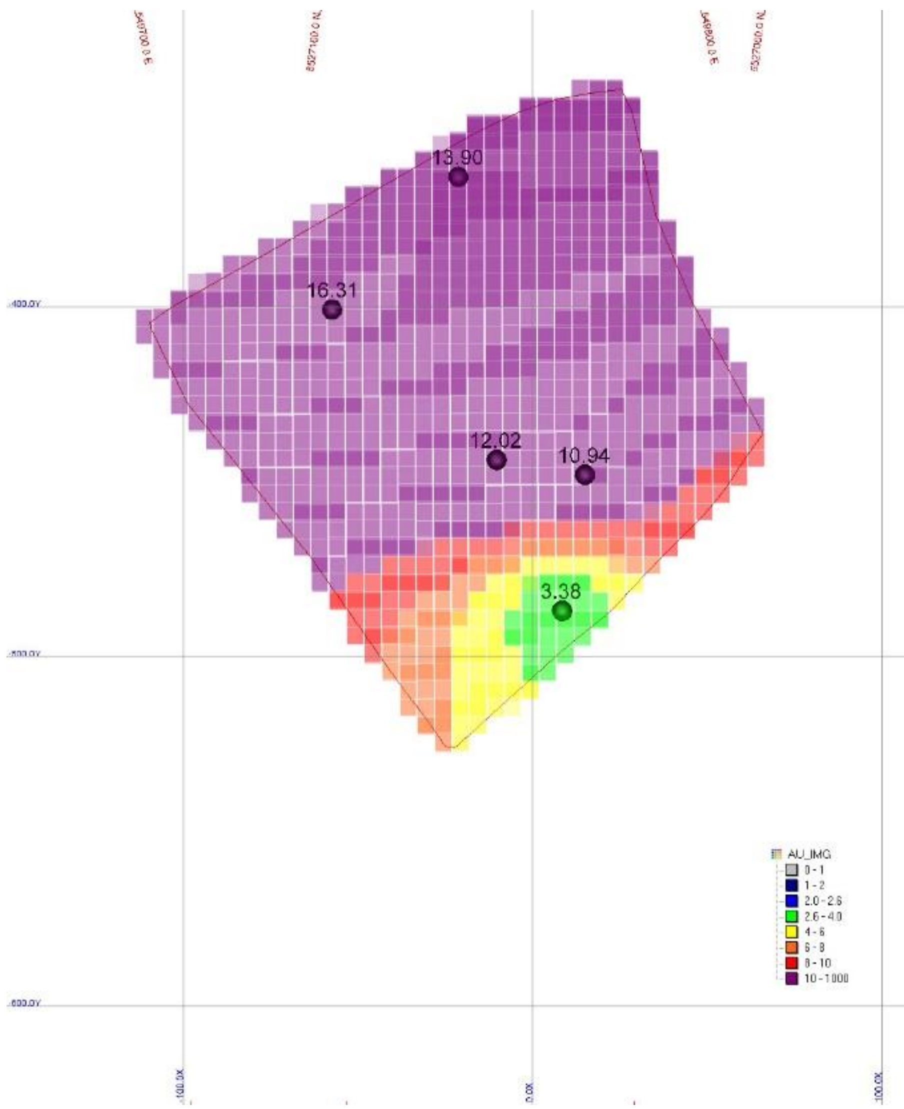


Figure 14-37: Cedar Bay 10_20 Vein block grades

14.4.12. Mineral Resource Reporting

The Mineral Resources for Cedar Bay are presented in Table 14-41. The Mineral Resources are estimated at a cut-off grade of 2.9 g/t Au.

Table 14-41: Cedar Bay MRE (effective date of December 31, 2018)

Classification	Vein	Tonnage (kt)	Au (g/t)	Cu (%)	Au Metal (koz)	Cu Metal (Mlbs)
Indicated	10_20	87	12.33	2.12	34	4.1
	Central A	43	3.63	0.38	5	0.4
	Central B	-	-	-	-	-
	Total	**130**	**9.44**	**1.55**	**39**	**4.4**
Inferred	10_20	76	12.16	2.15	30	3.6
	Central A	25	3.35	0.38	3	0.2
	Central B	129	7.01	2.45	29	7.00
	Total	**230**	**8.32**	**2.13**	**61**	**10.8**

Notes:
1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 2.9 g/t Au.
3. Mineral Resources are estimated using a gold price of US$1,400 per ounce and an exchange rate of USD$1.00:CAD$1.25.
4. A minimum mining width of 2 m was used.
5. A bulk density of 2.90 g/cm^3 was used.
6. Numbers may not add due to rounding.

15. Mineral Reserve Estimates

There are no Mineral Reserves for the Project.

16. Mining Methods

All figures used in Section 16 Mining Methods are not to scale.

16.1. Brownfield Early Works

A review of early works was completed for each of the three proposed mines. Early works are defined as the period prior to starting any greenfield capital development and includes rehabilitation of all old underground workings. A review of the early works was conducted with the client for each of the sites and a duration of 6 months, 12 months and 24 months were selected for Devlin, Corner Bay and Joe Mann, respectively. Other activities like road construction, surface electrical and some other surface infrastructure may continue over the duration of these early works. See Table 16-1, Table 16-2 and Table 16-3 for more details. The dewatering and inflow amount mentioned in these tables only represent the water balance during the Project phase. For more details on water balance on each site, see Section 16.6.4.

Table 16-1: Devlin mine early works

Task	Duration (Months)	Months						
		1	2	3	4	5	6	7
Mobilization	2							
Water Treatment Plant and Water Pond	4							
Portal Ventilation Setup	1							
Dewatering 14,000 m³ (@50 m³/hr D/W and 20 m³/hr Inflow)	2							
U/G Development Rehabilitation	2							
Duration of Early Works (Months)	**6**							
Start of New Underground CAPEX Development	1							

Table 16-2: Corner Bay mine early works

Task	Duration (Months)	Months												
		1	2	3	4	5	6	7	8	9	10	11	12	13
Mobilization	2													
Water Treatment Plant and Water Pond	4													
Dewatering 59,900 m³ (@75 m³/h D/W and 25 m³/h Inflow)	2													
Primary Ventilation Stage #1 Setup	2													
U/G Development Rehabilitation	7													
Duration of Early Works (Months)	**12**													
Start of New Underground CAPEX Development	1													

Table 16-3: Joe Mann mine early works

Task	Duration (Months)	Months																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Mobilization	2																									
Water Treatment Plant and Water Pond	4																									
Hoist System Commissioning	2																									
Dewatering 1,118,000 m³ (@250 m³/h D/W and 130 m³/h Inflow)	14																									
Shaft Rehabilitation and Skip System Commissioning	13																									
Primary Ventilation Setup	3																									
U/G Loading System Rehabilitation/Construction	3																									
U/G Development Rehabilitation	4																									
U/G Infrastructure Construction	5																									
Duration of Early Works (Months)	**24**																									
Start of New Underground CAPEX Development	1																									

16.2. Mining Method

16.2.1. Devlin Mine

The proposed Devlin mine includes two flatly dipping (Dip: 0° to 20°) thin deposits. The average thickness of the mineralization is 1.8 m. However, most of it has a thickness ranging between 1.5 m to 2.0 m as shown in Figure 16-1 below.

Two mining methods are selected for the Devlin deposit: 1) drift and fill with slash; and 2) room and pillar with partial pillar recovery.

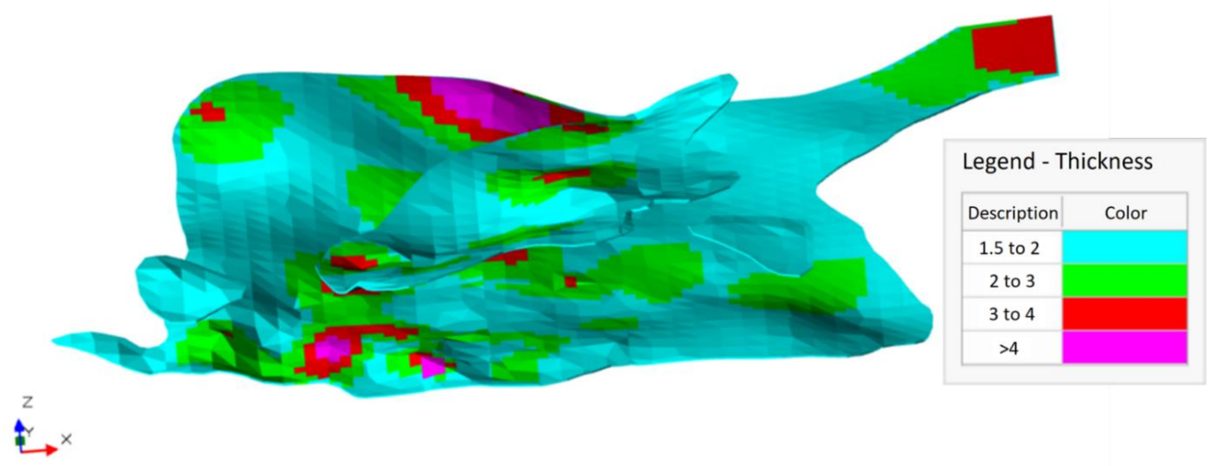


Figure 16-1: Thickness (in metres) of mineralization at the Devlin deposit (oblique view image not to scale)

16.2.1.1. Drift and Fill with Slash

At Devlin, a minimum mining thickness of 2.3 m is used in the design. The 2.3 m minimum height ensures that the operator will always have a minimum clearance of 2 m as required to meet O.C. 213-93, s. 42 in Québec's Regulation respecting occupational health and safety in mines. See Figure 16-2 for a schematic drift cross-section, indicating clearance for equipment and ventilation duct.

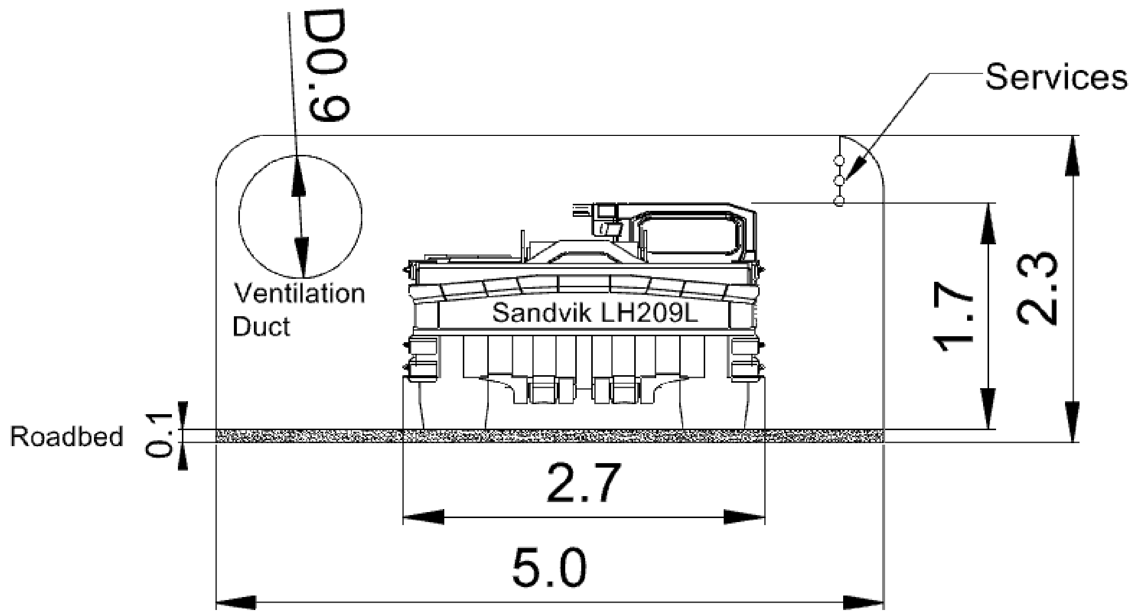


Figure 16-2: Drift dimensions in mining panels (drift section view with measurements in metre)

Figure 16-3 shows the mining cycle/steps involved in a typical drift and fill with slash. The panel dimensions shown in the figure are 56 m W x 65 m L. However, this method can be adjusted to different panel dimensions.

The panel is typically mined in 6 steps:

Step 1: Develop drifts 5 m W x 2.3 m H. A minimum of 8 m pillar is left between any two open drifts.

Step 2: Drill slash area (3 m W x 2.3 m H) using Jumbo and blast. This will result in a drift opening of 8 m W x 2.3 m H. The slashed area does not need to be supported.

Step 3: Backfill (tight fill) with cemented rock fill (CRF) in the open drifts and slash area.

Step 4: Develop drifts adjacent to the backfilled drifts. These drifts shall be developed in contact with the drifts developed in Step 1 and do not come in contact with the slashed drifts in Step 2.

Step 5: Repeat Step 2 for the remaining drifts.

Step 6: Isolate the panel to prevent any access. Backfilling in not required.

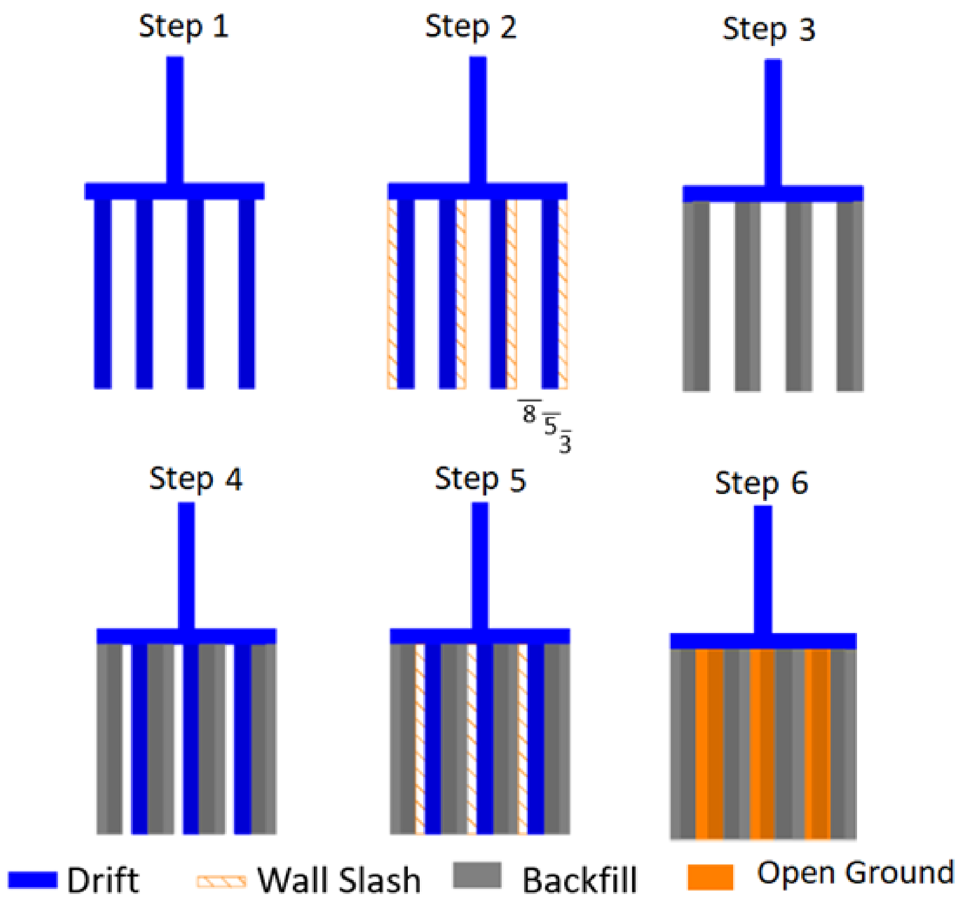


Figure 16-3: Typical drift and fill with slash mining method (plan view)

16.2.1.2. Room and Pillar

Figure 16-4 shows a typical room and pillar layout in a 56 m W x 65 m L panel, while Figure 16-5 shows a typical mining room and pillar mining sequence. Each drift is developed at 5 m wide, while pillars are 5 m W x 8 m L. A minimum mining thickness of 2.3 m is used in the design. A 50% pillar recovery is assumed.

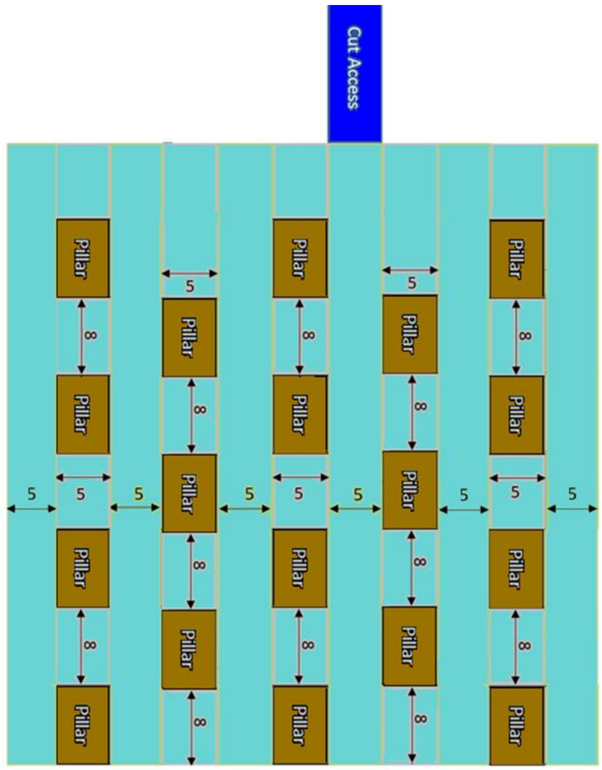


Figure 16-4: Typical room and pillar layout (plan view)

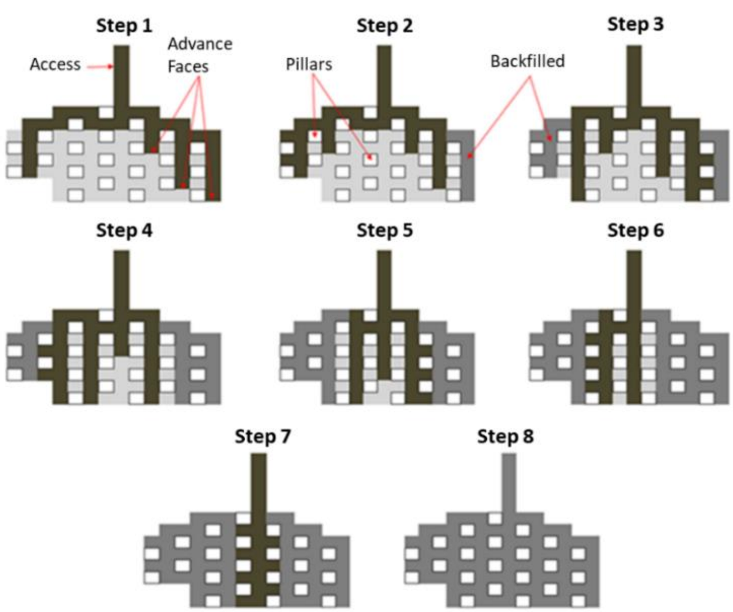


Figure 16-5: Typical room and pillar mining sequence (plan view)

Figure 16-6 shows the distribution of these two mining methods at the proposed Devlin mine. The drift and fill mining method was selected for mineralized zones under land areas only, primarily because of geotechnical concern associated with possible gaps near the back in tight-filled panels. The room and pillar method was selected for mining panels located under the lake area. Drift and fill panels will be partially backfilled with CRF, while room and pillar panels will be partially backfilled with rock/waste.

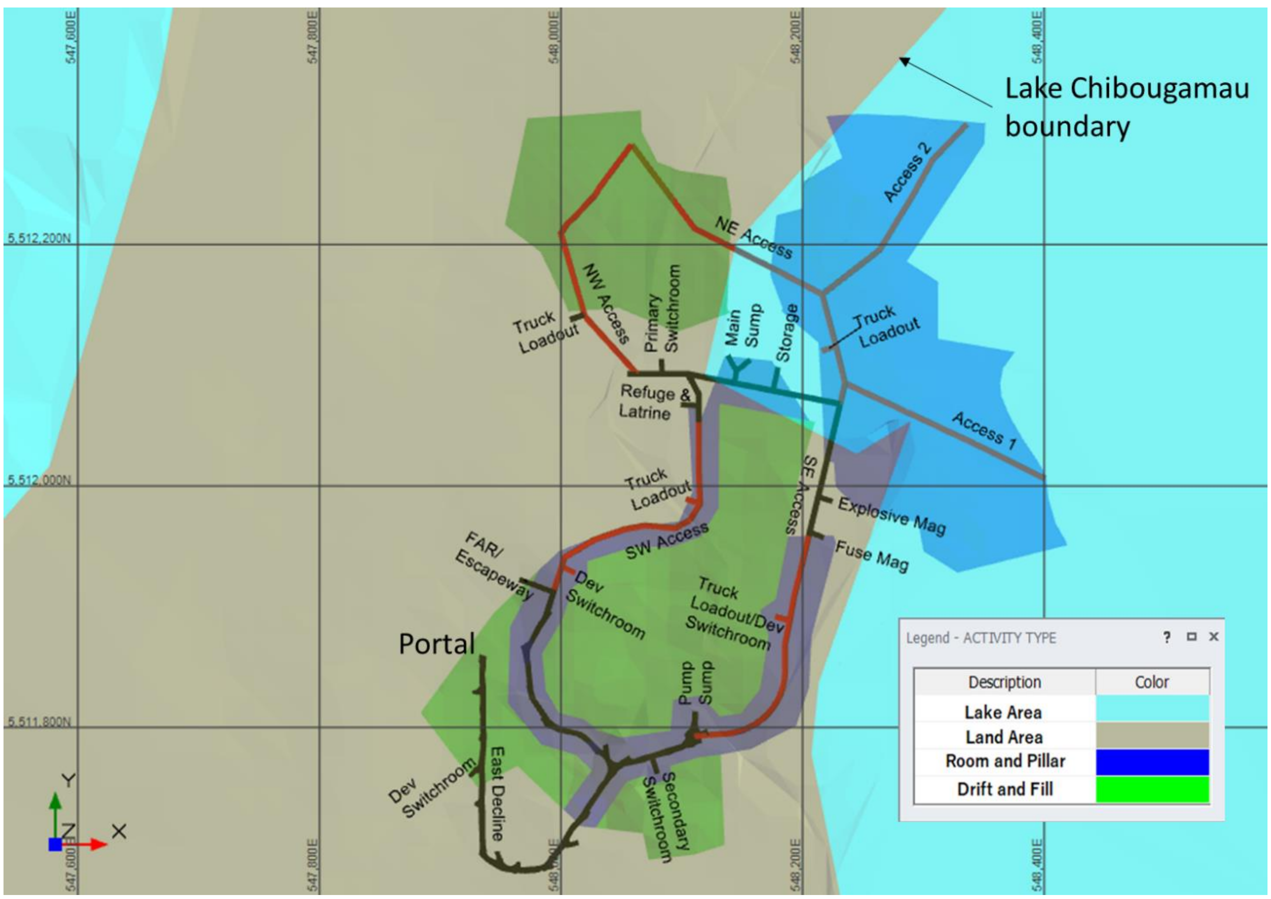


Figure 16-6: Mining method - Proposed Devlin mine (plan view)

16.2.2. Corner Bay

Corner Bay includes subvertical and predominantly narrow mineralization. The average thickness of all mineralization is 3.5 m. However, the thickness of the mineralization ranges from 1.1 m to 9.0 m as shown in Figure 16-7.

Longhole mining was selected for the Corner Bay deposit. Two options of longhole mining are selected for Corner Bay: longhole with pillar (LHP) and Avoca.

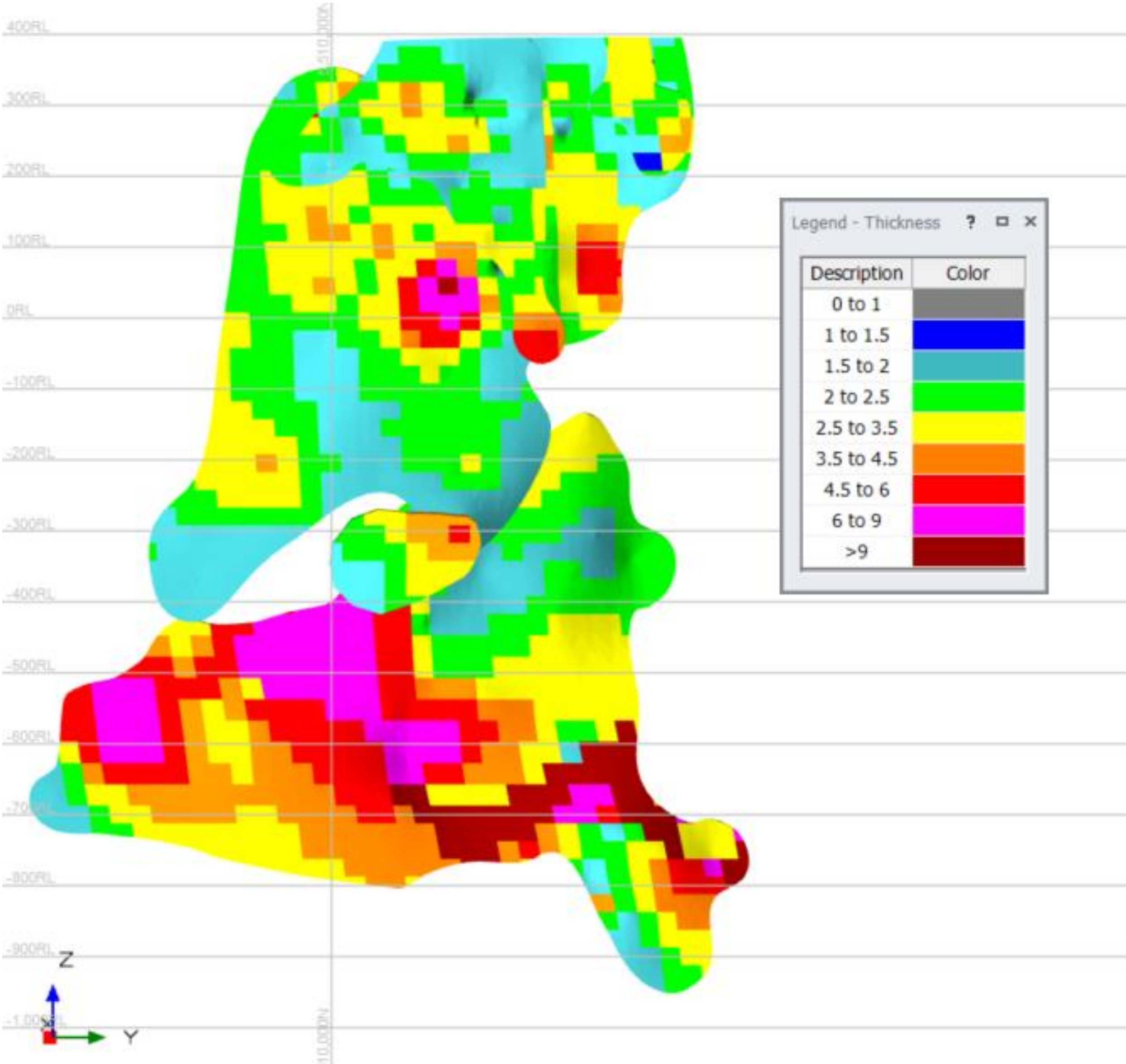


Figure 16-7: Mineralized zone thickness (in metres) at the Corner Bay deposit

16.2.2.1. Longhole with Pillar (LHP)

Figure 16-8 shows the mining cycle/steps involved in a typical LHP mining method in a level with one access. Pillars (P1 to P6), 2.5 m in strike, are left to isolate rock-filled stopes from adjacent stopes. These pillars will not be recovered. Backfilling will be done with unconsolidated waste rock.

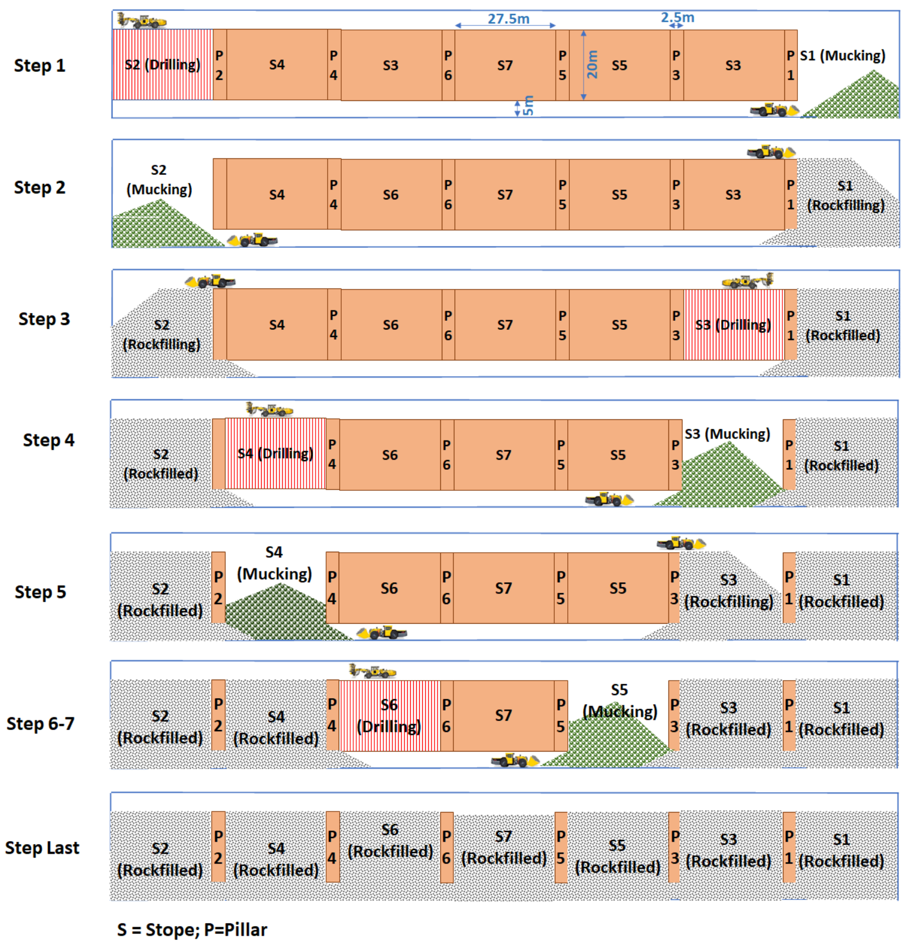


Figure 16-8: Typical level mining sequence in longhole with pillar (LHP) method (section view)

Multiple mining fronts can be established in a level if multiple accesses to the mineralization are available through a footwall drift as shown in Figure 16-9. Stopes will be mined in multiple levels using overhand longhole stoping.

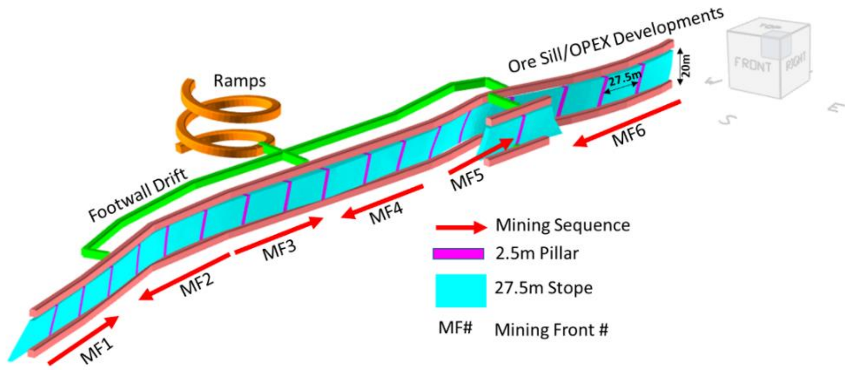


Figure 16-9: Multiple mining fronts in a level in LHP method (development for infrastructure is not shown)

16.2.2.2. Avoca

Figure 16-10 shows the mining cycle/steps involved in a typical Avoca mining method. Access is available from both sides of the mineralization to facilitate both backfilling and longhole stoping from opposite directions at the same time. Figure 16-11 shows that a maximum of four mining fronts can be established in a level at Corner Bay with the Avoca mining method.

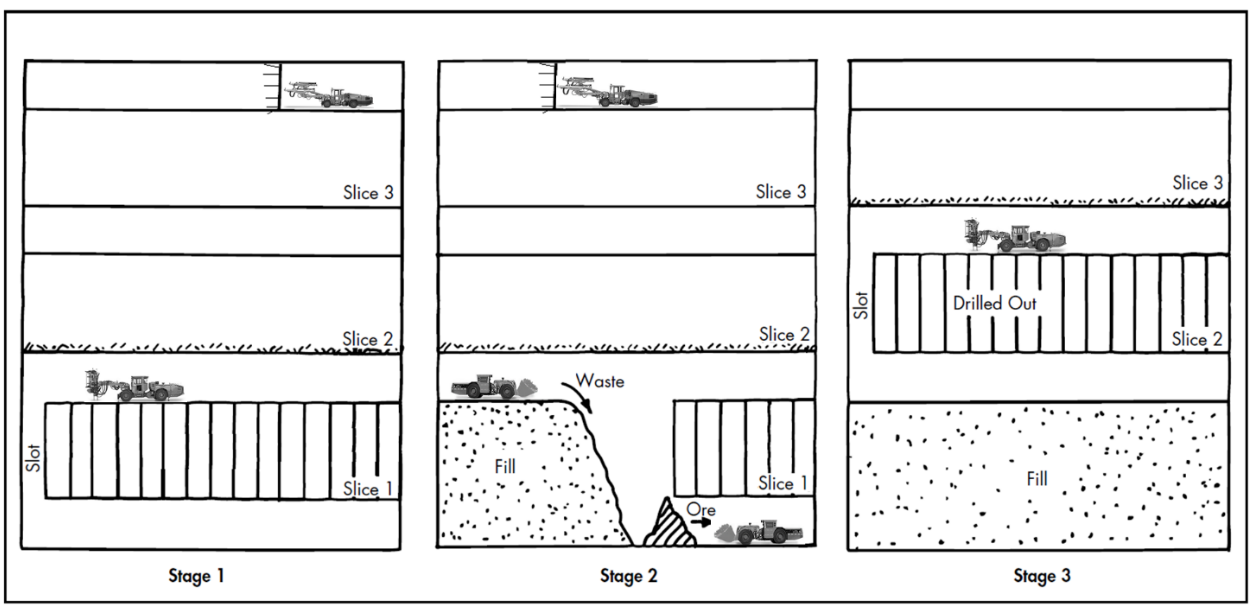


Figure 16-10: Avoca mining method (section view)
(source: Darling, 2011)

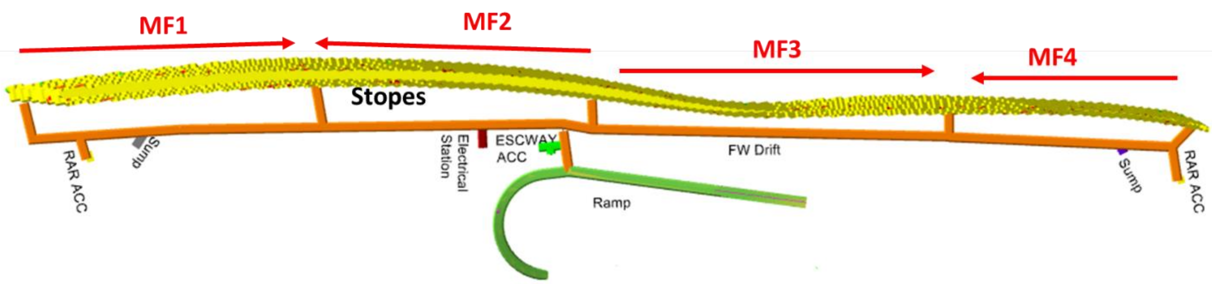


Figure 16-11: Mining fronts in a level with the Avoca mining method (plan view)

The Avoca mining method has a higher recovery and requires higher CAPEX than the LHP mining method. As a result, Avoca is selected in levels with higher-grade mineralization. Rockfill is the primary backfill. However, CRF is also used in some levels, as per the production sequence, to support production ramp-up through multiple mining fronts. Figure 16-12 shows the distribution of the two mining methods at Corner Bay.

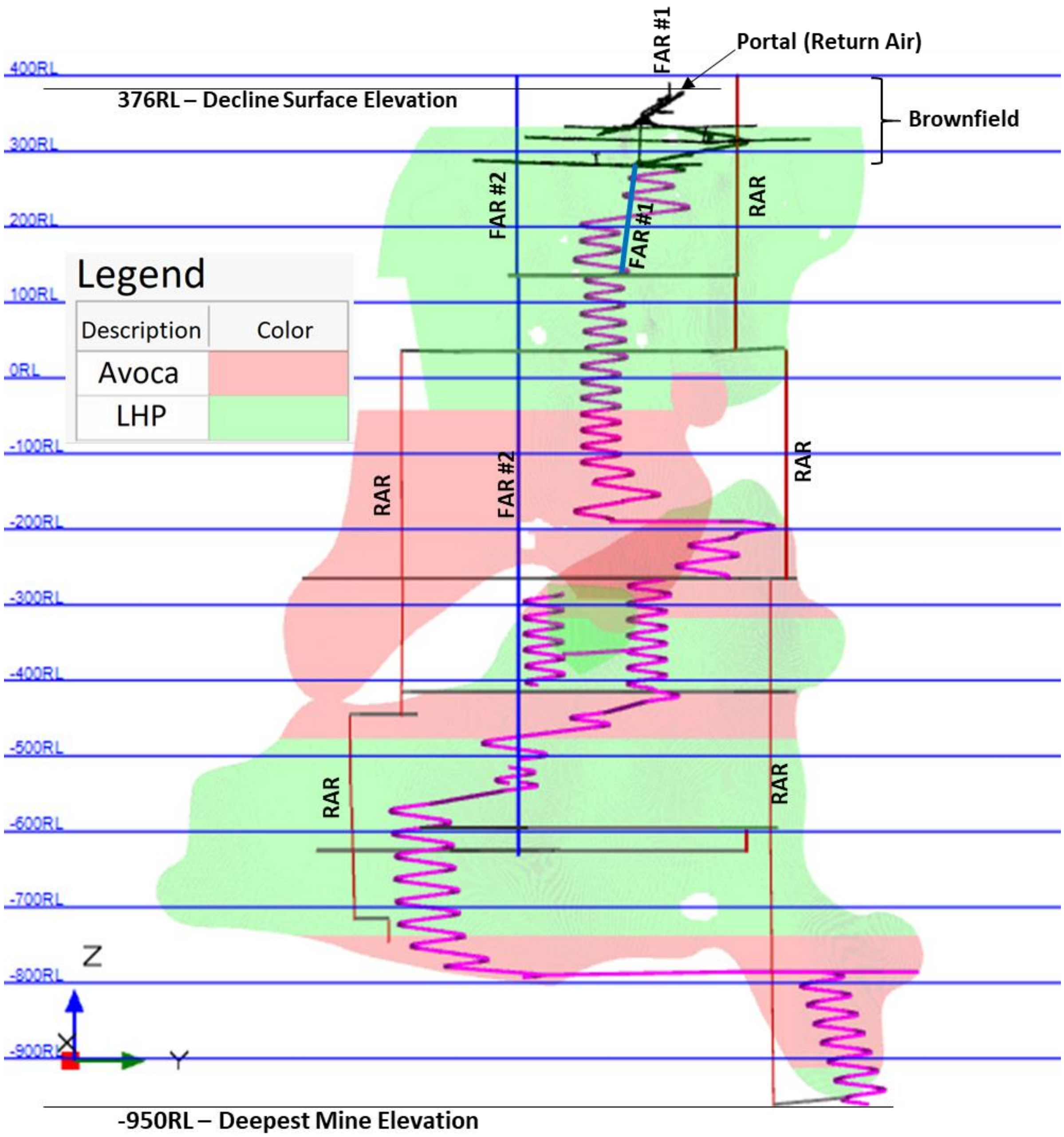


Figure 16-12: Mining methods in Corner Bay (looking west, Az: 270°, Dip: -70°)

16.2.3. Joe Mann

Joe Mann includes steeply dipping (65° to 75°) and predominantly narrow mineralization. The average thickness of the mineralization is 2.3 m. However, the thickness of the mineralization ranges from 1.0 m to 5.5 m as shown in Figure 16-13 below. LHP is selected as the primary stoping method at Joe Mann. Refer to Section 16.2.2.1 for description of LHP.

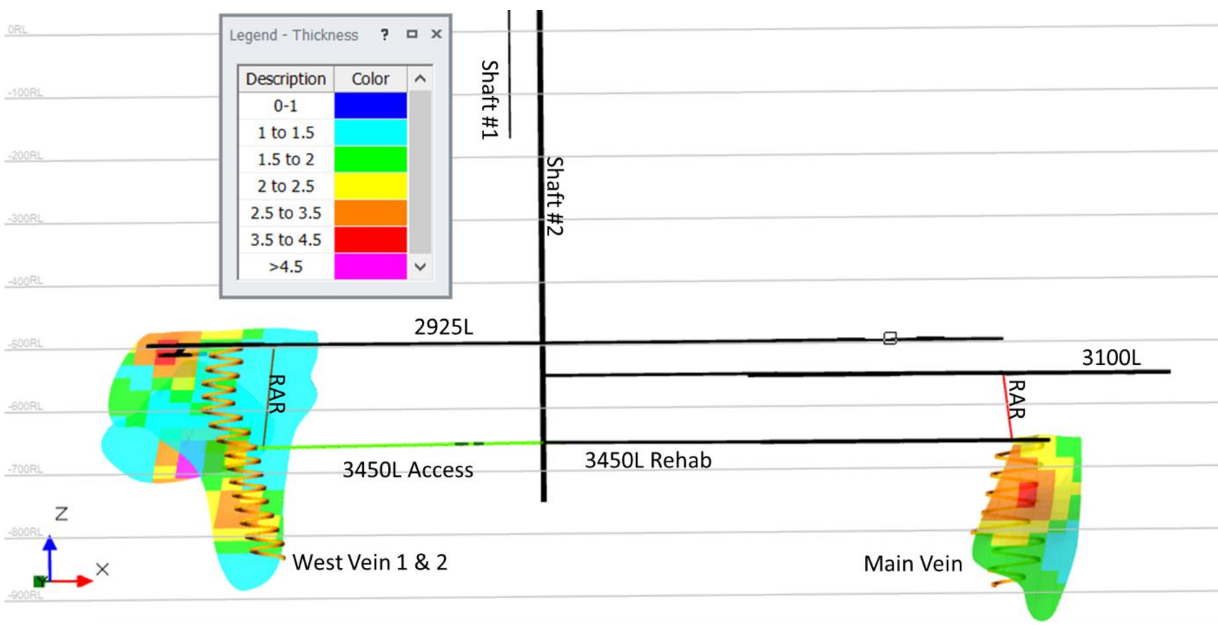


Figure 16-13: Thickness of mineralization in the Joe Mann mine (long section looking northeast)

16.3. Mine Design Criteria

16.3.1. Minimum Mining Width

At Devlin, a minimum drift height of 2.3 m is used, which resulted in an additional 41% waste dilution in the stopes. At Corner Bay, a minimum mining width of 2.0 m is used for all longhole stopes. Most of the mineable stopes (around 99.7%) have widths greater than 2.0 m and as a result no extra dilution is added. At Joe Mann, a minimum mining width of 1.5 m is used for all longhole stopes, which resulted in an additional 6.8% waste dilution in the stopes. See Table 16-4 for more details and Section 16.3.4 for more information on dilution and recovery.

Table 16-4: Minimum mining width

Mine	Activity	Level Intervals (m)	Minimum Mining Width/Dimensions (m)	Average Mining Width/Dimensions (m)
Devlin	Drift and Fill	N/A	5.0 W X 2.3 H	5.0 W X 2.5 H
	Room and Pillar	N/A	5.0 W X 2.3 H	5.0 W X 2.5 H
Corner Bay	Longhole Stoping	25	2.0	3.0
		30	2.0	4.9
Joe Mann	Longhole Stoping	20	1.5	2.3

16.3.2. Development Dimensions and Advance Rates

Table 16-5 shows the dimensions and advance rate of lateral and vertical developments. Besides these maximum advance rates, annual development metres are also levelled with mobile equipment fleet productivity. Corner Bay includes one dedicated development fleet to advance main ramps and decline to achieve fast advance rate.

Table 16-5: Development dimensions and advance rates

Mine	Activity	Dimensions (m)	Maximum Advance Rate (m/d)
Devlin	East Decline (rehabilitation)	4.5 W X 4.5 H	6.1
	SW, SE, and NW access	5.0 W X 5.0 H	3.2
	NE Access (as per Ventsim modelling)	5.0 W X 4.0 H	2.5
	Access 1 & 2	5.0 W X 3.0 H	
	Truck loadout	5.0 W X 6.0 H	
	All other infrastructure	4.5 W X 4.5 H	
Corner Bay	Main ramps and decline (Single heading)	5.5 W X 5.0 H	3.1
	Sill drives	3.5 W X 5.0 H	2.5
	Footwall drifts, level access, ventilation access	5.0 W X 5.0 H	
	All other lateral developments	5.0 W X 5.0 H	
	Surface ventilation raises (as per Ventsim modelling)	4.3 diameter raise	4.3
	Interlevel ventilation raises (as per Ventsim modelling)	Rectangle 2.4 x 2.4 and 3.0 x 3.0	None
	Interlevel escapeway raise (with Laddertube)	1.3 diameter	None
Joe Mann	3450L reconditioning	4.5 W X 4.5 H	6.1
	Sill Drives	3.5 W X 4.0 H	2.5
	All other developments (ramps, access, footwall drift, infrastructure, etc.)	5.0 W X 5.0 H	
	Return Air Raises	Alimak rectangle 2.4 x 2.4	None

16.3.3. Production Rates

Production rates for Corner Bay and Joe Mann are calculated separately using different production task rates shown in Table 16-6. Production rates are shown in tonnes per day (t/d) of mineralized material and are only shown for the average thickness of the mineralization for both Corner Bay and Joe Mann.

Table 16-6: Production rates – Corner Bay and Joe Mann

Mine	Corner Bay		Joe Mann	
Average Thickness of Mineralization	3.5 m		2.3 m	
Longhole Stope Dimensions	27.5 m L x 20 m H		27.5 m L x 15 m H	
Tonnes per Stope	5,778		2,971	
Task	**Rate**	**Duration (days)**	**Rate**	**Duration (days)**
Stope Prep	3 days	3.0	3 days	3.0
Drilling, 3.5" to 4" Diameter Holes	530 m @ 130 m/d	4.0	396 m @ 130 m/d	3.0
Blasting, 3 Blasts	1.5 days/blast	4.5	1.5 days/blast	4.5
Mucking	1,100 t/d	5.0	1,100 t/d	3.0
Backfilling (Rockfill), 63% of Mineralized Tonnes	1.5 days + 1,100 t/d	5.0	1.5 days + 1,100 t/d	3.0
Total Duration, days	**21.5**		**16.5**	
Average per Stope (t/d)	269		180	
Number of Active Stopes in a Level (1)	4		2	
Average per Level (t/d)	**1,075**		**360**	
No. of Active Stopes in a Mining Front (2)	6		4	
Average per Mining Front (t/d) (3)	**1,612**		**720**	

Notes:

(1) Active Stope means a stope in any one stage of its mining cycle, i.e., stope prep, drilling, blasting, mucking and backfilling. At Corner Bay, the maximum number of active stopes in a level is six. However, four is chosen to include variation in level extent and mine schedule.

(2) At Corner Bay, the mine schedule uses a balanced approach and assumes a maximum of six active stopes per mining front.

(3) The maximum rate in the mine schedule is 2,629 t/d at Corner Bay and 590 t/d at Joe Mann.

At Devlin, the room and pillar panels take on average of 87 days to mine, resulting in a productivity of 260 t/d from each panel. In drift and fill, two more tasks, backfilling and curing, are added. This results in a longer mining cycle of 135 days with a productivity of 185 t/d from each panel. See Table 16-7 for more details.

As most of the mineralization is easily accessible by the two main points of access (SW and SE), the annual production rate is limited by the mobile equipment fleet. Devlin will have two development fleets with each Jumbo developing at two rounds/day in 5 m W x 2.5 m H drifts, resulting in a maximum production rate of 767 t/d.

Table 16-7: Production rates – Devlin mine

Mining Method		Drift and Fill with Slash		Room and Pillar	
Panel Dimensions		65 m L x 56 m W x 2.5 m H		65 m L x 56 m W x 2.5 m H	
Recovery		95%		86%	
Recovered Tonnes		25,071		22,591	
Task	**Rates (m/d per panel)**	**Total Quantity**	**Duration (days)**	**Total Quantity**	**Duration (days)**
Drifting	7.6 m/d	476 m	63	608 m	80
Slash	15.2 m/d	420 m	28	0 m	0
Backfilling	200 m³/d	4,800 m³	24	1,460 m³	7
Curing Time	21 days	N/A	21	N/A	0
Total Duration per panel		**135 days**		**87 days**	
Average per panel (t/d)		**185 t/d**		**260 t/d**	

16.3.4. Recovery and Dilution

Recovery and dilution are calculated using data from similar operations for the selected mining methods. Table 16-8 shows the recovery and dilution in each of the three proposed mines. Below are the key points:

- Devlin:
  - All lateral developments have 95% recovery and 5% dilution.
  - In room and pillar, it is assumed that 50% of the pillars will be recovered during retreat. The unrecovered pillars lead to a 9% reduction in recovery, resulting in 86% net recovery.
  - Drift and fill is assumed to have 95% recovery and 5% dilution.
  - In both room and pillar and drift and fill, a minimum development height of 2.3 m is assumed. All mineralization with thickness under 2.3 m is first diluted with waste as required to reach 2.3 m and then an additional 5% dilution is applied on the overall tonnes. This resulted in a net 46% dilution on average. All panels have different dilution based on the thickness of mineralization.
- Joe Mann and Corner Bay:
  - All longhole stopes are assumed to have 90% recovery and 15% dilution. In the LHP mining method, the 2.5 m pillars left between each stope (see Figure 16-8) are not recovered. This leads to another 7% reduction in recovery, resulting in 83% recovery. At Corner Bay, a minimum 2 m stope width is used for all longhole stopes.

- At Joe Mann, a minimum 1.5 m stope width is used for all longhole stopes. This resulted in an increased waste dilution of 21.8%.
- With the Avoca mining method, a higher dilution of 20% is assumed as per industry experience.
- All sill drives are assumed to have the same recovery and dilution values as the stopes on the same level. These drives will usually have higher recoveries and higher dilution than longhole stopes. However, a lower recovery of 83%-90% and dilution of 15%-22% provide a reasonable estimate of total value recovered from these operating developments.

Table 16-8: Mining dilution and recovery

Mine Site	Mining Methods	Recovery	Dilution
All Mine Sites	Lateral and Vertical Developments	95%	5%
Devlin	Drift and Fill	95%	46%
	Room and Pillar	86%	46%
Corner Bay	LHP	83%	15%
	Avoca	90%	20%
Joe Mann	LHP	83%	21.8%

16.3.5. Cut-off Grade (COG)

Cut-off values are calculated for each mining method and for each proposed mine separately. The costs estimated are taken from similar mines in Québec and other similar operations in Canada. The metal pricing used for the cut-off grade analysis was determined by the Doré Copper team. The COG calculations are shown in Table 16-9 and do not include the anticipated silver revenue credit or waste development costs.

Table 16-9: COG calculation

Mining Method	Unit	Cost				
		Corner Bay		Joe Mann	Devlin	
		LHP	Avoca	LHP	Room and Pillar	Drift and Fill
Mining Cost	$/t	54.7	53.8	72.6	70.3	61.6
Indirect Labour	$/t	18.0	17.6	21.3	8.9	8.9
Site Overhead	$/t	26.0	26.0	9.7	6.5	6.5
Milling	$/t	24.2	24.2	24.2	24.2	24.2
Diamond Drilling	$/t	1.8	1.8	1.8	1.8	1.8
Tailings Management	$/t	1.5	1.5	1.5	1.5	1.5
Total	**$/t**	**126.2**	**124.9**	**131.1**	**113.2**	**104.5**
Revenue						
Cu Price	US$/lb	3.37	3.37	3.37	3.37	3.37
Au Price	US$/oz	1,600	1,600	1,600	1,600	1,600
Mill Cu Recovery	%	94.18	94.18	91.7	97.2	97.2
Mill Au Recovery	%	82.83	82.83	81.89	83.4	83.4
TC, RC and Concentrate Transportation Cost	$/t	162.3	162.3	155.06	135.68	135.68
Cut-off Grade(1)						
Cut-off Grade, Cu	%	1.7	1.7	None	1.45	1.45
Cut-off Grade, Au	g/t	None	None	2.6	None	None

Note:

(1) Near the COG, only 1-3% of the total revenues from Devlin and Corner Bay come from gold. For Joe Mann, less than 2% of the total revenues come from copper. As a result, only copper is used as cut-off grade for Devlin and Corner Bay, and only gold is used as cut-off grade for Joe Mann.

16.3.5.1. Stope Optimizer

No stope optimizer was used to create individual stopes. Instead, each mineralization was reviewed on a section-by-section basis to identify the profitable zones and include them in the mine plan.

Several trials of stope optimizer were run for each of the three mines, but because of narrow vein deposits the stope optimizer resulted in uneven distribution of stope solids and a loss of more than 10% in total resource even at 0.1% Cu Eq cut-off. The primary reason of unreliable results from stope optimizer can be attributed to dimensions of the block sizes in the geological block model, which is not small enough to capture the true thickness of the deposits. In some cases, more in Devlin mine, block sizes are larger than the thickness of the mineralization, which makes the stope optimizer outputs unreliable.

At Devlin, mineralization panels were created based on the location, mining method and grade. These panels were then interrogated at 1.45% Cu cut-off to report in situ tonnes and grades. At Corner Bay, mineralization zones are split by level height and then interrogated at 1.7% Cu cut-off to report in situ tonnes and grades. At Joe Mann, mineralization zones are split by level height and then interrogated at 2.3 g/t Au cut-off to report in situ tonnes and grades. The reported tonnes and grades are then diluted as per the parameters mentioned in Section 16.3.4.

Figure 16-14, Figure 16-15 and Figure 16-16 shows the section view presenting grade distribution in Corner Bay, Devlin and Joe Mann, respectively.

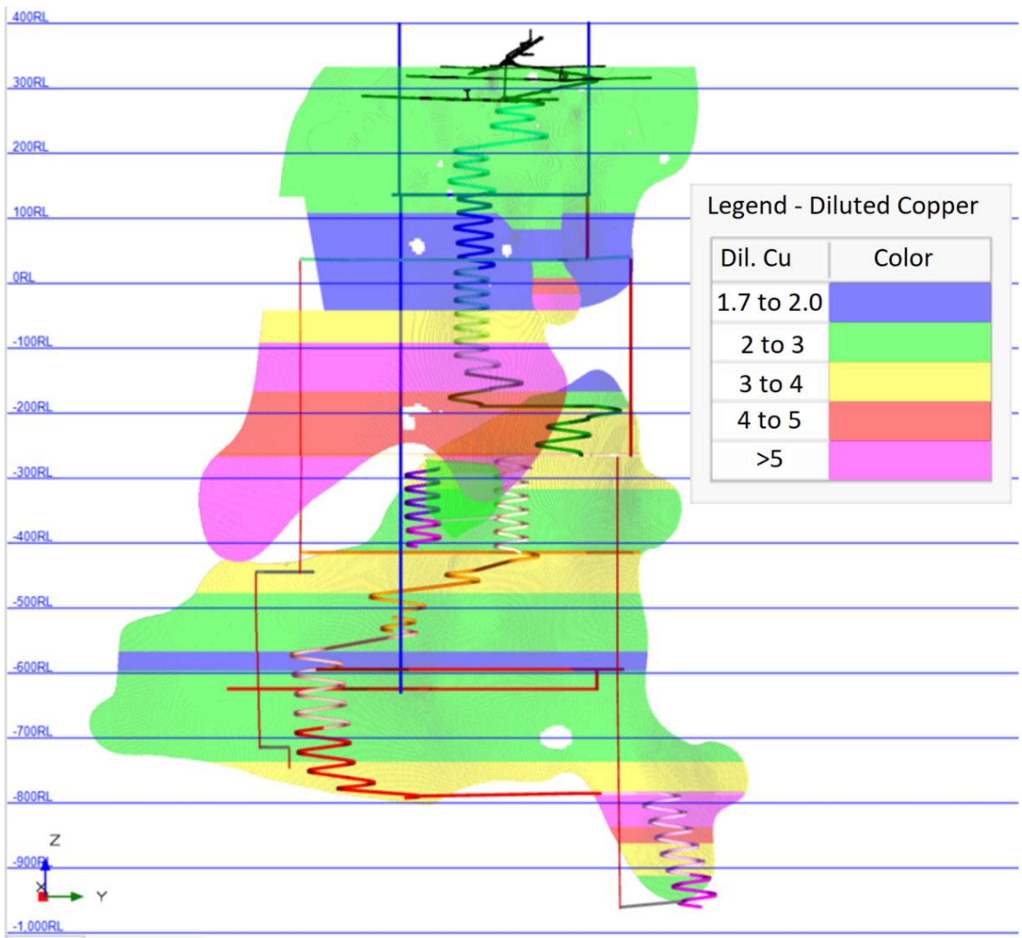


Figure 16-14: Long Section view (looking west) of grade distribution at Corner Bay

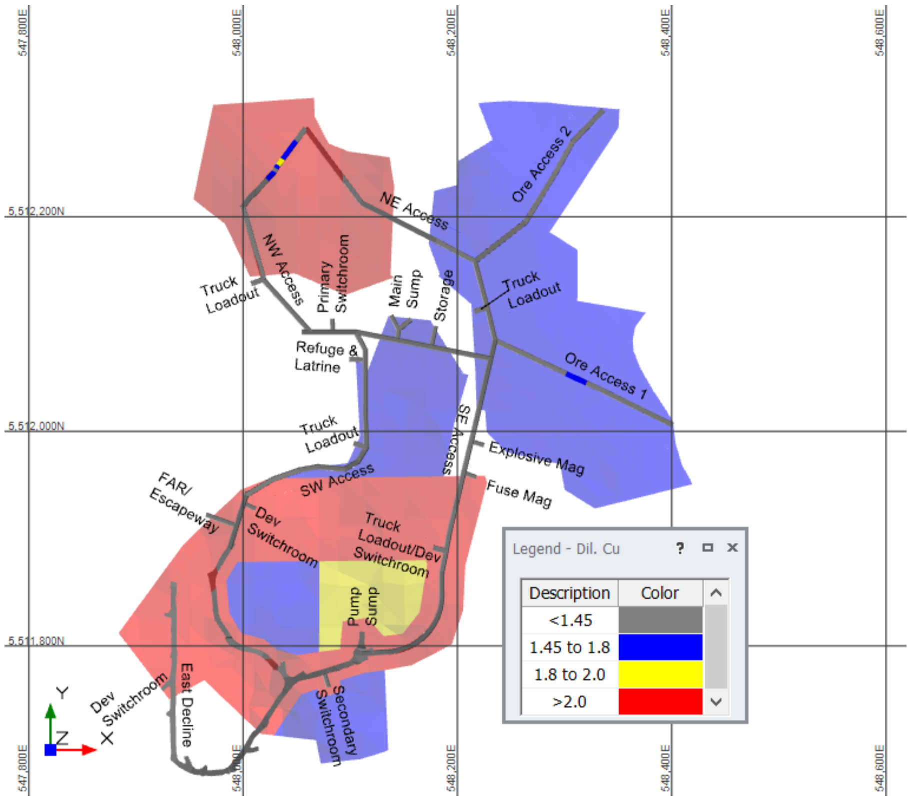


Figure 16-15: Plan view of grade distribution at Devlin

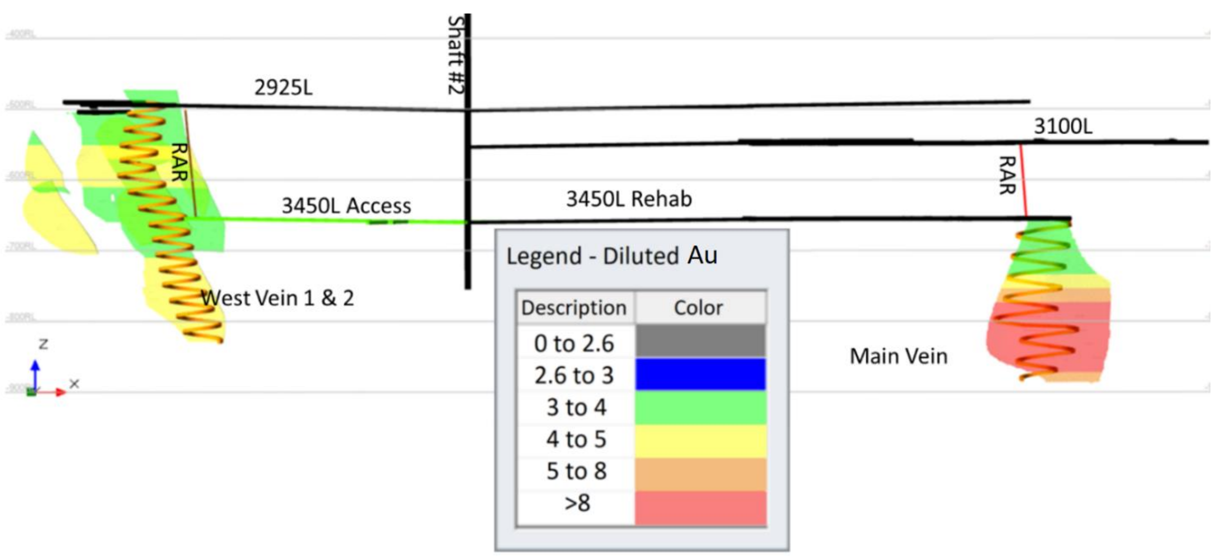


Figure 16-16: Long section view (looking northeast) of grade distribution at Joe Mann backfilling

Table 16-10 shows the backfilling type selected for the different mining methods at the three proposed mines.

Table 16-10: Backfilling details

Mine Site	Mining Methods	Backfill %	Backfill Type
All Mine Sites	Lateral and Vertical Developments	N/A	N/A
Devlin	Drift and Fill with slash	60%(2)	CRF(1)
	Room and Pillar	20%(3)	Rockfill
Corner Bay	LHP	100%	Rockfill/CRF(1)
	Avoca	100%	Rockfill
Joe Mann	LHP	100%	Rockfill/CRF(1)

Notes:

(1) At Corner Bay and Joe Mann, bottom up longhole stoping is planned. However, because of the trucking system, a new mining front starts every 6th-7th level or as required. As a result, these mining fronts will be close to previously mined out and backfilled levels. Stopes in these previously backfilled levels will be backfilled with 60% CRF to provide stability for the stopes underneath. The remaining 40% will be rockfill. See Figure 16-17 and Figure 16-18 details on distribution of backfill types at Joe Mann and Corner Bay, respectively.

(2) Only 60% of the drift and fill panels will be backfilled as shown in Figure 16-3.

(3) Around 20% of the room and pillar panels will be backfilled with rock to allow for extraction of neighbouring panels.

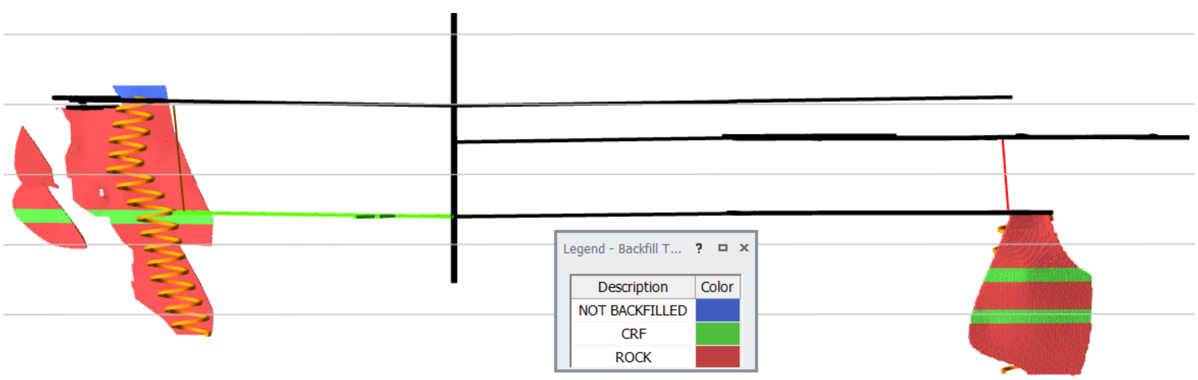


Figure 16-17: Backfill type – Joe Mann (long section looking northeast)

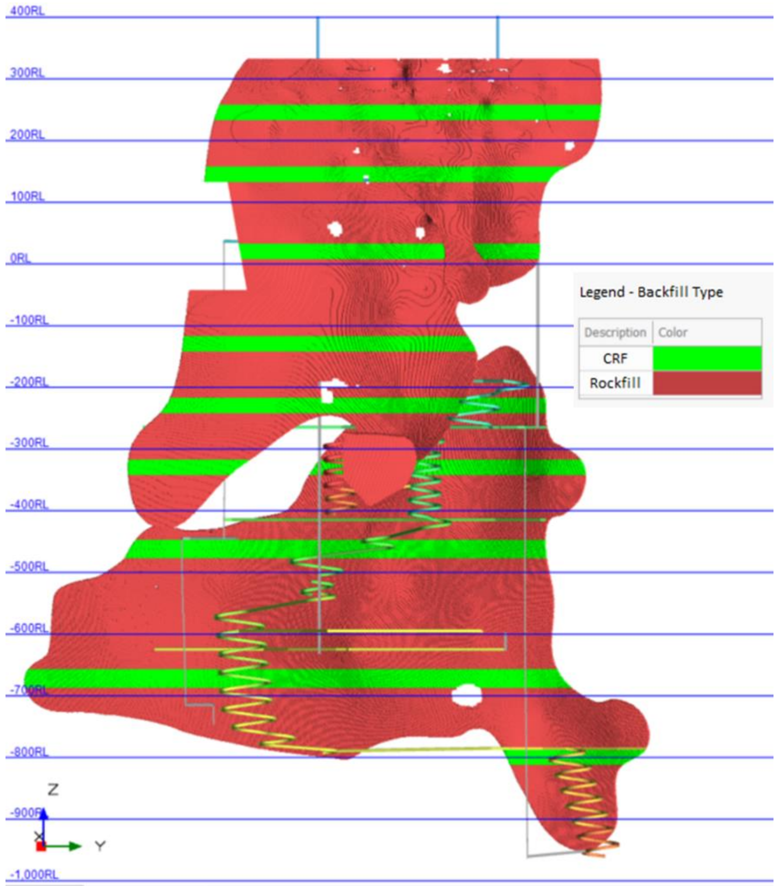


Figure 16-18: Backfill type – Corner Bay (long section looking west)

16.3.6. Mobile Equipment

At Devlin, all mobile equipment will be diesel-powered, rubber-tired equipment supplied by the mining contractor. At Corner Bay, all mobile equipment, except mine trucks, will be diesel-powered, rubber-tired equipment owned by Doré Copper. All mine trucks will be battery-powered equipment owned by Doré Copper and will run on trolley overhead lines in the ramps. At Joe Mann, all mobile equipment will be diesel-powered, rubber-tired equipment owned by Doré Copper. The underground equipment will be leased and purchased over the mine life. The equipment fleet was selected based on the planned development methodologies and excavation sizes, mining methods, and ventilation requirements. It includes primary gear for development, production, and support equipment.

16.3.6.1. Equipment Productivity and Utilization

The mine plan assumes 365 working days/year, 12-hour shifts, and two shifts/day for underground mining. Table 16-11 highlights the net utilization of underground mobile equipment used to calculate the productivity. The productivity of major mobile equipment in the three proposed mines are shown in Table 16-12. At Corner Bay, tele-remote operation of underground mine trucks, load-haul-dump loaders (LHDs) and longhole drills will be done during shift breaks to increase net utilization and productivity.

Table 16-11: Net utilization of mobile equipment

Mine	Equipment	Net Utilization(1)
Devlin	Trucks	51%
	All Other Equipment	41%
Corner Bay	Trucks (With Automation)	60%
	All Other Equipment	41%
Joe Mann	Trucks	51%
	All Other Equipment	41%

Note:

(1) Net Utilization (41%) = Calendar Time (100%) – Scheduled Maintenance (12%) – Unscheduled Maintenance (4%) – Standby Delays (26%) – Operating Delays (8%) – Operator Inefficiency Factor (9%). Trucks will have smaller standby and operating delays.

Table 16-12: Productivity of underground mobile equipment

Mine	Equipment	Productivity
Devlin	Jumbo and Boltec	385 t/d
	LHD - 6.6 Tonnes	550 t/d
	Truck - 30 Tonnes	550 t/d
Corner Bay	Jumbo and Boltec	7 m/d in 5 m x 5 m arched heading
	LHD - 10 Tonnes	870 t/d
	Truck - 42 Tonnes	650 t/d(1)
	Longhole Drill	1,400 t/d
	Explosive Loader	1,870 t/d
Joe Mann	Jumbo DD422i and Boltec M	7 m/d in 5 m x 5 m arched heading
	Jumbo S1L and Boltec SL	4 m/d in 5 m x 5 m arched heading
	LHD - 10 Tonnes	870 t/d
	Truck - 20 Tonnes	400 t/d

Note:

(1) Truck productivity is calculated separately for each mining level and averages 651 t/d over LOM.

16.4. Production Schedule

The overall production schedule is based on a hub-and-spoke model operation with the Corner Bay copper-gold deposit as its main underground mine along with the Devlin copper deposit and Joe Mann gold mine providing feed to the Copper Rand mill. The mine production schedule effectively starts in Year 1 and includes these concurrent operations:

- Devlin and Corner Bay mines from Year 1 to Year 4;
- Joe Mann and Corner Bay mines from Year 4 to Year 7; and
- Corner Bay mine only from Year 8 onwards.

Table 16-13 shows the total life of mine production from the underground operations. The mine production from the three proposed mines are shown in Figure 16-19, Figure 16-20 and Figure 16-21.

Table 16-13: Mine production schedule

Mine	Diluted Tonnes	Cu %	Au g/t
Devlin	951,234	1.85	0.17
Corner Bay	7,603,194	2.90	0.24
Joe Mann	596,281	0.21	5.78
Total	**9,150,710**	**2.61**	**0.59**

Notes:
1. All diluted tonnes are Mineable Resources.
2. Tonnages are diluted and recovered, and grades are diluted.

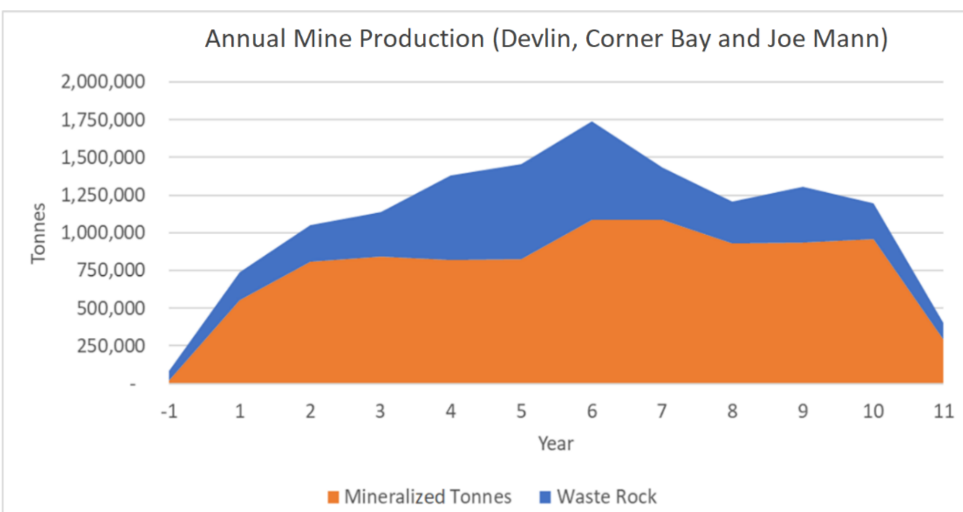


Figure 16-19 Annual mine production graph (mineralized material and waste)

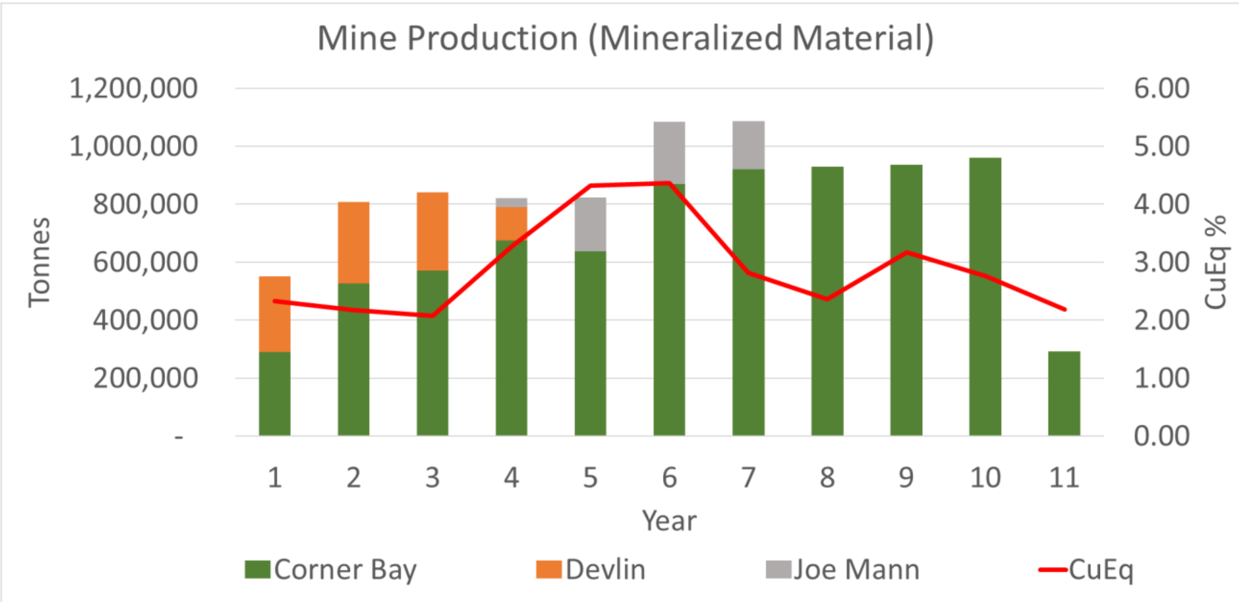


Figure 16-20 Mine production (mineralized material) for each operation in tonnes per year vs CuEq grade

Note:

1. Copper Equivalent (CuEq) % = Cu (%) + Au (g/t) x 0.71, where 0.71 is calculated using metal prices of copper at US$3.75/lb and gold at US$1,820/oz.

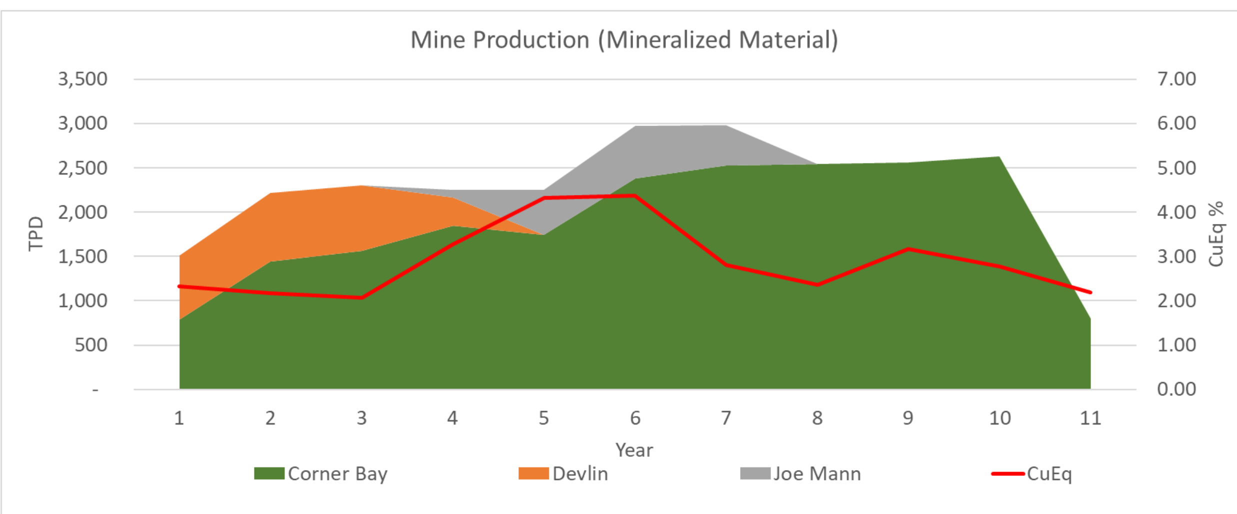


Figure 16-21 Mine production (mineralized tonnes) for each operation in tonnes per day vs CuEq grade

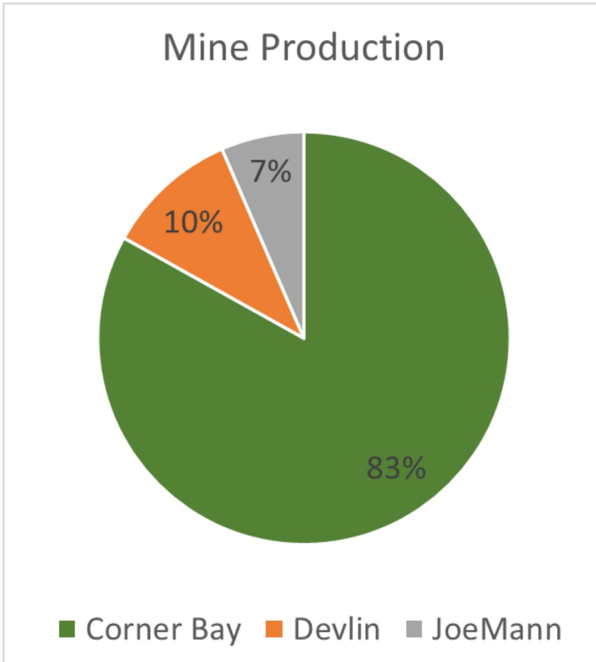


Figure 16-22 Mine production (mineralized material) distribution

Table 16-14: Mine production quantities

Corner Bay, Devlin & Joe Mann[1]	Total	Year -1[2]	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Mined Tonnes (Mineralized)	**9,151**	23	552	807	840	821	823	1,084	1,086	928	935	960	291
Waste Tonnes	**3,977**	64	188	242	296	558	635	652	346	281	372	233	111
Total Tonnes	**13,127**	87	740	1,049	1,136	1,379	1,457	1,736	1,432	1,210	1,307	1,192	402
Rockfill Tonnes	**4,819**	-	179	335	353	400	456	583	679	484	589	577	183
CRF Tonnes	**594**	-	99	92	40	59	73	104	-	101	-	27	-
Cu (%)	**2.61**	0.97	2.23	2.10	2.01	3.10	2.99	3.31	2.22	2.32	3.10	2.70	2.14
Au (g/t)	**0.59**	0.11	0.26	0.22	0.21	0.38	1.77	1.45	0.84	0.17	0.26	0.23	0.17
Cu (lbs)	**526,997**	492	27,130	37,349	37,189	56,041	54,219	79,032	53,281	47,576	63,857	57,104	13,728
Au (oz)	**174**	0	5	6	6	10	47	51	29	5	8	7	2
Brownfield Rehabilitation (m)	**7,247**	3,947	-	-	2,100	1,200	-	-	-	-	-	-	-
Development (m)[3]	**97,299**	517	3,788	5,460	7,143	13,187	15,894	16,508	9,309	6,769	9,416	6,796	2,513

Notes:

1. Tonnes, Cu (lbs) and Au (oz) are in thousands. Tonnages are diluted and recovered, and grades are diluted.
2. Mineralized tonnes produced in Year -1 are from lateral development of main access at Devlin.
3. Development (m) are lateral and vertical metres.
4. Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade, and contained metal content.

16.4.1. Devlin Mine Schedule

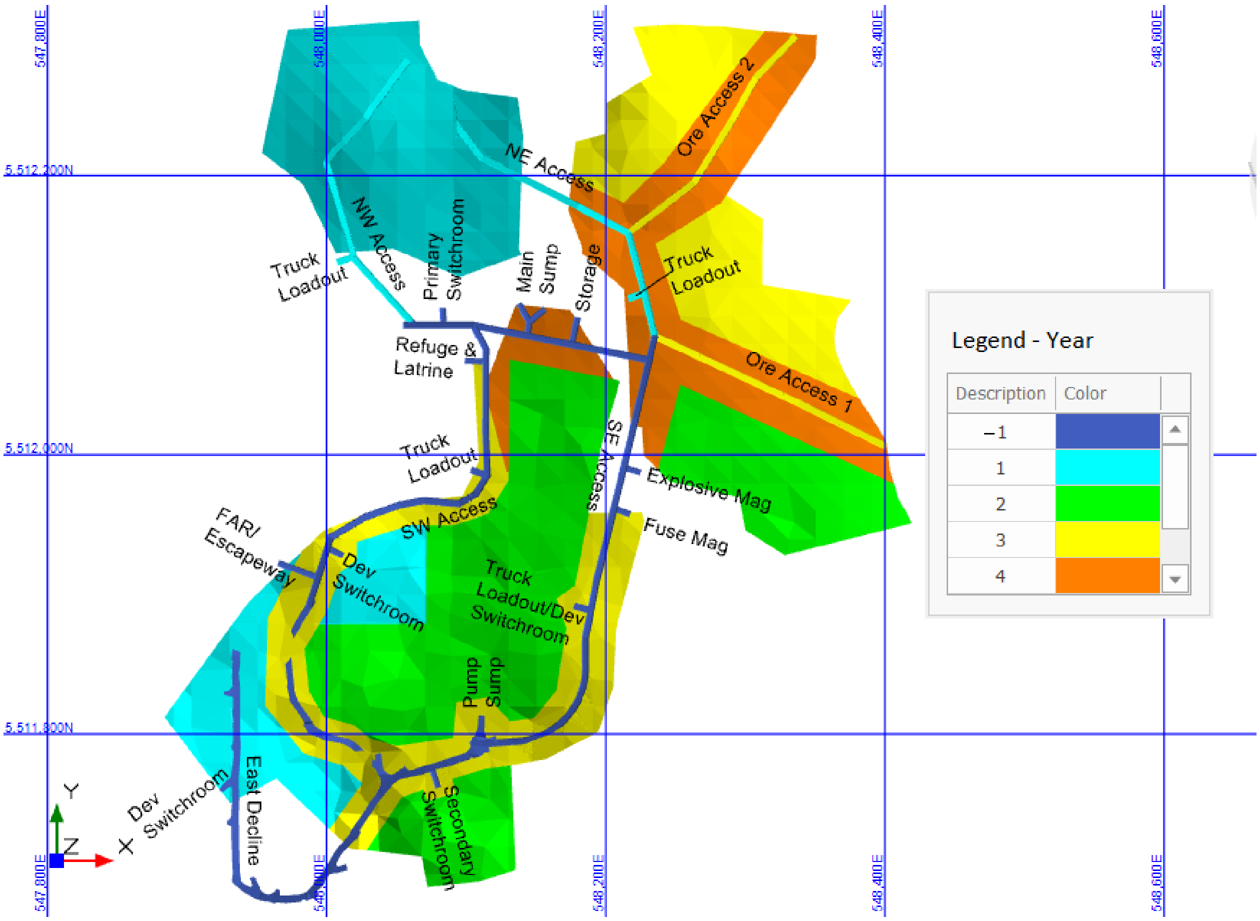


Figure 16-23 Devlin mine schedule plan view

Table 16-15: Devlin mine schedule

Year	Total	-1	1	2	3	4
Development						
Lateral Reconditioning (m)	669	-	-	-	-	-
Total Lateral Advance (m)	**1,817**	**940**	**504**	**373**	**-**	**-**
Lateral CAPEX Advance (m)	481	451	30	-	-	-
Lateral OPEX Advance (m)	1,336	489	474	373	-	-
Total Vertical Advance (m)	**65**	**65**	**-**	**-**	**-**	**-**
Raiseboring (m)	-	-	-	-	-	-
Vertical Alimak Raising (m)	65	65	-	-	-	-
Tonnes (in '000s)						
Total	**1,056**	**87**	**283**	**279**	**290**	**117**
Mineralized	**951**	**23**	**263**	**279**	**269**	**117**
Sill Drive	34	23	10	-	1	-
Stope	917	-	253	279	268	117
Room and Pillar	432	-	-	47	268	117
Drift and Fill	486	-	253	232	-	-
Waste	**104**	**64**	**20**	**-**	**21**	**-**
Grade						
Cu %	1.85	0.97	2.20	1.83	1.73	1.59
Au g/t	0.17	0.11	0.25	0.18	0.14	0.07
Density	2.90	2.90	2.90	2.90	2.90	2.90
Backfill Tonnes (in '000s)						
Backfill	**238**	**-**	**96**	**94**	**34**	**15**
CRF	92	-	48	44	-	-
Rockfill	146	-	48	50	34	15

16.4.2. Corner Bay Mine Schedule

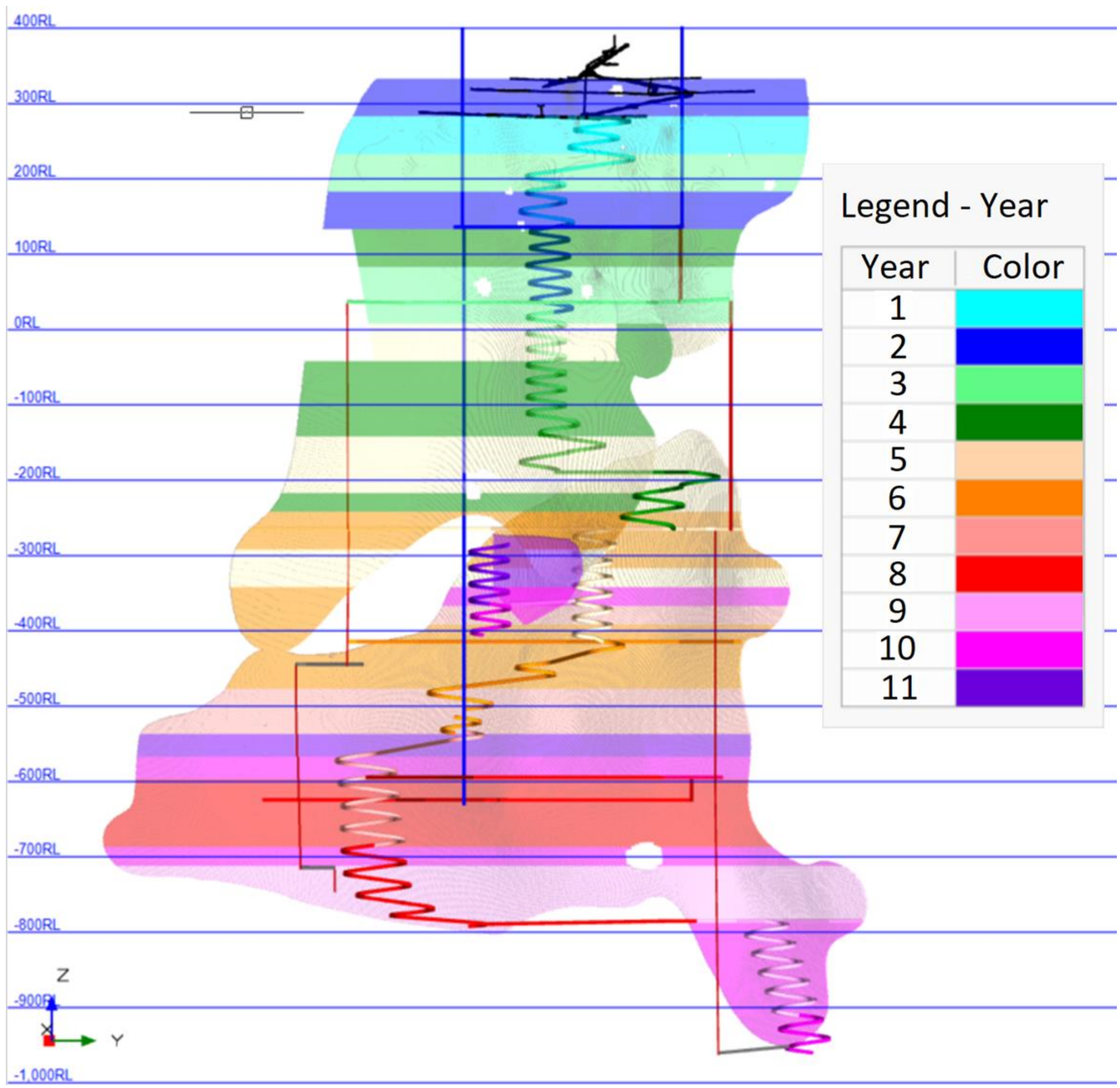


Figure 16-24 Corner Bay mine schedule long section view (looking west)

Note: Only ramps and level stoping areas are scheduled in this image.

Table 16-16: Corner Bay mine schedule

Year	Total	-1	1	2	3	4	5	6	7	8	9	10	11
Development													
Lateral Reconditioning (m)	**3,278**	3,278	-	-	-	-	-	-	-	-	-	-	-
Total Lateral Advance (m)	**77,558**	-	**3,598**	**4,604**	**6,703**	**10,138**	**10,816**	**11,206**	**6,450**	**6,472**	**9,017**	**6,248**	**2,306**
Lateral CAPEX Advance (m)	**45,403**	-	2,342	2,785	3,782	5,775	6,333	6,745	3,903	3,900	5,150	3,168	1,519
Lateral OPEX Advance, (m)	**32,155**	-	1,255	1,819	2,921	4,363	4,484	4,460	2,547	2,572	3,867	3,081	786
Total Vertical Advance (m)	**5,041**	-	**160**	**856**	**440**	**660**	**500**	**608**	**368**	**296**	**399**	**548**	**208**
Raiseboring (m)	**536**	-	-	536	-	-	-	-	-	-	-	-	-
Vertical Alimak Raising (m)	**4,505**	-	160	320	440	660	500	608	368	296	399	548	208
Tonnes (in '000s)													
Total	**10,933**	-	**457**	**769**	**846**	**1,093**	**1,094**	**1,357**	**1,205**	**1,210**	**1,307**	**1,192**	**402**
Mineralized	**7,603**	-	**289**	**528**	**571**	**674**	**637**	**869**	**922**	**928**	**935**	**960**	**291**
Sill Drive	**1,420**	-	58	106	114	135	127	162	156	155	185	171	51
Stope	**6,183**	-	231	422	457	539	509	707	765	774	750	788	240
LHP Method	**4,310**	-	231	422	457	227	176	80	681	774	408	614	240
Avoca Method	**1,873**	-	-	-	-	312	333	628	84	-	342	174	-
Waste	**3,329**	-	**168**	**242**	**275**	**419**	**457**	**488**	**283**	**281**	**372**	**233**	**111**
Grade													
Cu %	**2.90**	-	2.25	2.24	2.14	3.50	3.78	4.07	2.60	2.32	3.10	2.70	2.14
Au g/t	**0.24**	-	0.26	0.24	0.24	0.30	0.28	0.25	0.22	0.17	0.26	0.23	0.17
Density	**3.01**	-	3.06	3.06	3.06	3.05	3.02	2.99	2.98	2.98	2.98	2.98	2.96
Backfill Tonnes (in '000s)													
Backfill	**4,790**	-	**182**	**332**	**360**	**425**	**401**	**548**	**581**	**585**	**589**	**605**	**183**
CRF	**487**	-	51	48	40	59	62	100	-	101	-	27	-
Rockfill	**4,303**	-	131	285	320	366	339	447	581	484	589	577	183

16.4.3. Joe Mann Mine Schedule

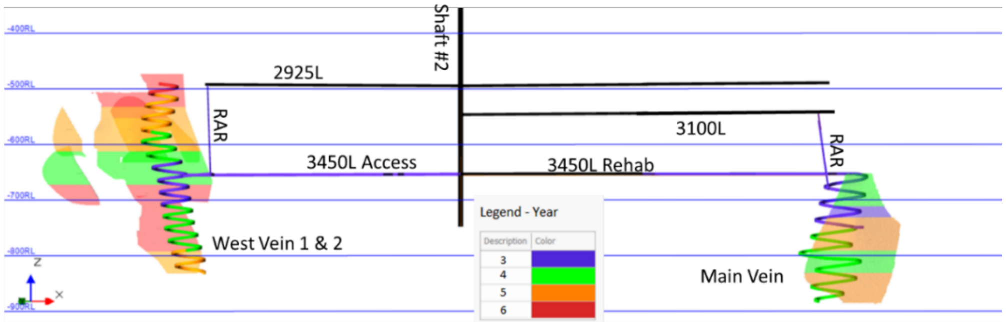


Figure 16-25 Joe Mann mine schedule long section view (looking northeast)

Table 16-17: Joe Mann mine schedule summary

Year	Total	3	4	5	6	7	8
Development							
Lateral/Vertical Reconditioning, (m)	**3,300**	0	2,100	1,200	0	0	0
Total Lateral Advance, (m)	**13,300**	**0**	**0**	**1,983**	**4,458**	**4,511**	**2,348**
Lateral CAPEX Advance, (m)	**7,323**	0	0	1,760	2,474	2,255	834
Lateral OPEX Advance, (m)	**5,977**	0	0	224	1,983	2,256	1,514
Total Vertical Advance, (m)	**853**	**0**	**0**	**405**	**120**	**184**	**144**
Raiseboring, (m)	**0**	0	0	0	0	0	0
Vertical Alimak Raising (m)	**853**	0	0	405	120	184	144
Tonnes (in '000s)							
Total	**1,139**	**0**	**0**	**169**	**363**	**379**	**227**
Mineralized	**596**	**0**	**0**	**30**	**186**	**215**	**165**
Sill Drive	**136**	0	0	5	45	51	34
Stope	**460**	0	0	25	141	164	130
LHP Method	**460**	0	0	25	141	164	130
Waste Tonnes	**543**	**0**	**0**	**139**	**178**	**164**	**63**
Grade							
Cu %	**0.21**	0.00	0.00	0.04	0.27	0.24	0.14
Au g/t	**5.78**	0.00	0.00	3.33	6.88	6.32	4.28
Density	**2.90**	0.00	0.00	2.90	2.90	2.90	2.90
Backfill (in '000s)							
Backfill	**385**	**0**	**0**	**19**	**128**	**139**	**99**
CRF	**14**	0	0	0	11	4	0
Rockfill	**370**	0	0	19	117	136	99

16.4.4. Mobile Equipment

The underground mobile equipment fleet is summarized in Table 16-18, while the surface mobile equipment is summarized in Table 16-19.

Table 16-18: List of underground mobile equipment

Mine	Type	Model	Diesel/ Battery	Size	Owner	Maximum Units	Required Units in Year											
							-1	1	2	3	4	5	6	7	8	9	10	11
Devlin	Jumbo	Epiroc's Boomer S1L Single Boom	Diesel		Contractor	2	2	2	2	2	2							
	Bolter	Epiroc's Boltec SL				2	2	2	2	2	2							
	LHD	Sandvik LH208L		727 tonnes		2	2	2	2	2	2							
	Mine Truck	Sandvik TH430L		30 tonnes		2	1	2	2	2	2							
	Boom Truck	MacLean Minemate BT2				1	1	1	1	1	1							
	Scissor Lift	MacLean Minemate SL2.5				1	1	0	0	0	0							
	ForkLift	Minecat FL6000				1	0	1	1	1	1							
	Utility Vehicle	Minecat UT150				3	2	3	3	3	3							
Devlin Total Units						**13**	**11**	**13**	**13**	**13**	**13**							
Corner Bay	Jumbo	2 Boom DD422i	Diesel		Doré Copper	4	1	2	3	3	4	4	4	4	4	4	3	1
	Bolter	Epiroc Boltec M	Diesel			4	2	2	3	3	4	4	4	4	4	4	3	1
	LHD	Sandvik LH410	Diesel	10 tonnes		6	1	2	4	4	5	5	6	6	6	6	6	2
	Mine Truck	Epiroc MT42 with Trolley Assist	Battery	42 tonnes		9	0	1	2	2	3	4	7	9	9	9	9	3
	Longhole Drill	CMAC Thyssen LH II	Diesel			2	0	1	1	1	2	1	2	2	2	2	2	1
	Explosive Loader	MacLean Mine-mate EC3				2	0	1	2	2	2	2	2	2	2	2	2	1
	Scissor Lift	MacLean Mine-mate SL2.5				2	1	1	1	1	1	2	2	2	2	2	2	2
	Boom Truck	MacLean Mine-mate BT2				2	1	2	2	2	2	2	2	1	1	1	1	1
	Grader	CAT 12M				1	0	0	0	0	0	1	1	1	1	1	1	1
	ForkLift	Minecat FL6000				2	0	1	2	2	2	2	2	2	2	2	2	1
	Utility Vehicle	Minecat UT150				8	2	6	8	8	8	8	8	8	8	8	8	7
Corner Bay Total Units						**41**	**8**	**19**	**28**	**28**	**33**	**35**	**40**	**41**	**41**	**41**	**39**	**21**
Joe Mann	**Jumbo**	2 Boom DD422i	Diesel		Doré Copper	1				0	1	1	1	1				
	Jumbo	Boomer S1L Single Boom				1				1	1	1	1	1				
	Bolter	Epiroc's Boltec M				1				0	1	1	1	1				
	Bolter	Epiroc's Boltec SL				1				1	1	1	1	1				
	LHD	Sandvik LH209L		9.6 tonnes		1				0	1	1	1	1				
	LHD	Sandvik LH410L		10 tonnes		1				1	1	1	1	1				
	Mine Truck	Sandvik TH430L		30 tonnes		1				0	1	1	1	1				
	Longhole Drill	CMAC Thyssen LH II				1				0	1	1	1	1				
	Scissor Lift	MacLean Minemate SL2.5				1				1	1	1	1	1				
	ForkLift	Minecat FL6000				1				0	1	1	1	1				
	Utility Vehicle	Minecat UT150				2				1	2	2	2	2				
Joe Mann Total Units						**12**				**5**	**12**	**12**	**12**	**12**				

Table 16-19: List of surface mobile equipment

Mine	Type	Unit	Comments
Devlin	Cat 914 Loader	1	For Warehouse, opening of roads, etc.
Devlin	Dozer	-	Rented as required from Chibougamau(1)
Devlin	Utility Vehicles (Pickup Trucks)	-	Rented as required from Chibougamau(1)
Devlin	Ambulance	-	Rented as required from Chibougamau(1)
Devlin	Excavator	-	Rented as required from Chibougamau(1)
Devlin	Snowmobiles	-	Rented as required from Chibougamau(1)
Devlin	Trailers	-	Rented as required from Chibougamau(1)
Devlin	Grader	-	Shared with Corner Bay
Devlin	Highway Trucks (for transport of mineralized materials from mine to mill)	-	Included in surface trucking contractor's estimate(2)
Devlin	Loader (for transport of mineralized materials from mine to mill)	-	Included in surface trucking contractor's estimate(2)
Corner Bay	Cat 938M Loader	1	For Warehouse, opening of roads, etc.
Corner Bay	Dozer	-	Rented as required from Chibougamau(1)
Corner Bay	Utility Vehicles (Pickup Trucks)	5	Rented as required from Chibougamau(1)
Corner Bay	Ambulance	-	Rented as required from Chibougamau(1)
Corner Bay	Excavator	-	Rented as required from Chibougamau(1)
Corner Bay	Snowmobiles	-	Rented as required from Chibougamau(1)
Corner Bay	Trailers	-	Rented as required from Chibougamau(1)
Corner Bay	Grader	-	Shared with Underground Grader
Corner Bay	Highway Trucks (for transport of mineralized materials from mine to mill)	-	Included in surface trucking contractor's estimate2
Corner Bay	Loader (for transport of mineralized materials from mine to mill)	-	Included in surface trucking contractor's estimate2
Joe Mann	Cat 914 Loader	1	For Warehouse, opening of roads, etc.
Joe Mann	Dozer	-	Rented as required from Chibougamau2
Joe Mann	Utility Vehicles (Pickup Trucks)	-	Rented as required from Chibougamau2
Joe Mann	Ambulance	-	Rented as required from Chibougamau2
Joe Mann	Excavator	-	Rented as required from Chibougamau2
Joe Mann	Snowmobiles	-	Rented as required from Chibougamau2
Joe Mann	Trailers	-	Rented as required from Chibougamau2
Joe Mann	Grader	-	Rented as required from Chibougamau2
Joe Mann	Highway Trucks (for transport of mineralized materials from mine to mill)	-	Included in surface trucking contractor's estimate(2)
Joe Mann	Loader (for transport of mineralized materials from mine to mill)	-	Included in surface trucking contractor's estimate(2)

Notes:

(1) Doré Copper elected to rent surface equipment from the local community of Chibougamau. The OPEX associated with surface activities have been adjusted to include these equipment rentals.

(2) All loaders and highway trucks required to transport mineralized materials from the three mine sites to the mill will be provided, operated, and maintained by the trucking contractor. The surface trucking cost also includes the maintenance costs associated with maintaining the haul roads to mine sites.

16.5. Geotechnical and Groundwater Considerations

16.5.1. Devlin

Devlin is located partially under Lac Chibougamau as shown in Figure 16-6. All mining panels under the lake are designed with the room and pillar mining method because of the risk associated with inefficient tight filling in drift and fill. These panels are 67-100 m below the waterbed of Lac Chibougamau and are scheduled towards the end of mine life.

Further information on rock mechanics, geotechnical properties, or hydrogeology was not available for Devlin at the time of this PEA. No geotechnical study has been conducted at Devlin to the knowledge of BBA. Based on inputs from the Doré Copper team, Devlin was generally dry during the bulk sampling program from the East Decline back in 1982. This PEA assumes a LOM average ground water inflow of 20 m³/hr based on experiences at other similar operations. This equates to 40 m³/hr of average dewatering capacity after including 20 m³/hr of process water consumption. The mine dewatering system and surface water treatment plant are sized to dewater 40 m³/hr from the mine. See Section 16.6.4 for more details.

16.5.2. Corner Bay

In most places, mineralization starts at the contact with overburden, which is 7 m to 13 m from surface. No mining is planned within 50 m from the overburden and within 67 m from surface.

Further information on rock mechanics, geotechnical properties, or hydrogeology was not available for Corner Bay at the time of this PEA. Based on inputs from the Doré Copper team, Corner Bay was generally dry during the end of the bulk sampling program from the ramp and three development levels back in 2008. This PEA assumes a LOM average ground water inflow of 20 m³/hr has been assumed. This equates to 50 m³/hr of average dewatering capacity after including 30 m³/hr of process water consumption. The mine dewatering system and surface water treatment plant is sized to dewater 50 m³/hr from the mine. See Section 16.6.4 for more details.

16.5.3. Joe Mann

SRK Consulting completed a geological/structural review of the mine in 2004 following a field visit, and only provided a preliminary diagnostic (J.-F. Couture, 2004). It recommended a strategy of tasks involving documenting the geology and structural setting of the Joe Mann mine. Historically, the mine had encountered ground control problems and excessive dilution. No other geotechnical study has been conducted at this property to the knowledge of BBA. Further information on rock mechanics and geotechnical properties was not available for Joe Mann at the time of this PEA.

An extra 10% of the unit development cost for all capital and operating developments is added to account for poor ground conditions.

The Joe Mann mine ranks among those mines where the mine water flow rate is high. The mine is characterized by the presence of an NNE fault, located in many levels, and constitutes a route of penetration of surface water to underground workings, particularly from Lake Norhart. The average water flows over seven years, from 1991 to 1997, amounted to 6,240 m³/d (Boutin, 2001). Pumping took place at a relatively constant rate throughout the year. In 2001, the underground mine dewatering setup had a maximum dewatering capacity of 540 m³/hr (Boutin, 2001).

This PEA assumes a similar dewatering system for Joe Mann as existed in 2001, with maximum dewatering capacity of 540 m³/hr. This study also includes a water treatment plant, a containment pond, and polishing pond capable of treating 275 m³/hr on average.

16.5.4. Ground Support Strategy

Because of the lack of available geotechnical information, the ground support strategy uses the same standard for all three proposed mines. The ground support design assumes that no significant ground stress will occur in any of the three proposed mines. Doré Copper provided input that the ground conditions at Devlin and Corner Bay during the bulk sampling program were generally good. However, there is no documentation to validate this information.

16.5.4.1. Permanent Headings

Figure 16-26 shows the ground support standard used in permanent headings and are summarized below:

1. Bolt and Screen with #4 Welded Wire Mesh (WWM) screen and 2.4 m #7 (7/8") rebar in a staggered pattern and tighten the screen with 1.2 m FS-39 friction bolts/split-sets.
2. The gap between the bottom of screen/rebar bolts and sill shall not exceed 1.2 m.

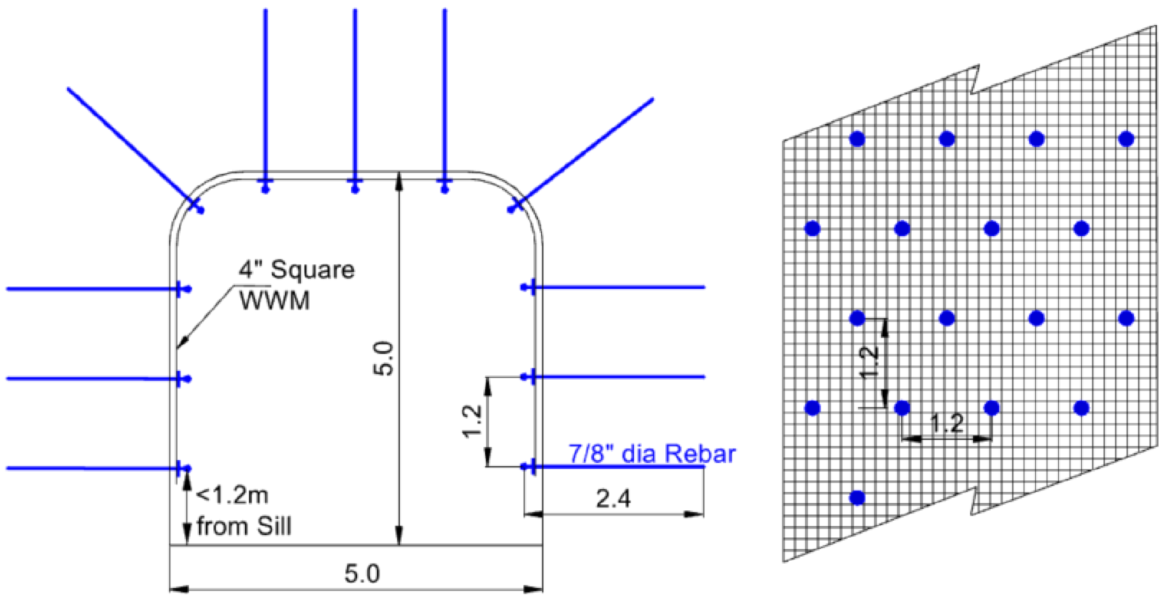


Figure 16-26 Typical ground support standard in permanent headings

16.5.4.2. Temporary Headings

The ground support standard in temporary headings, for example all sill drives, follow the same standard as in permanent headings, except the rebar will be replaced by 12 tonne DSI OMEGA-BOLT® friction stabilizer.

No additional ground support is assumed. However, additional ground support costs are included in the estimate as per the points below:

- Corner Bay: 5% extra cost is added to the development cost of all ramps.
- Joe Mann: 10% extra cost is added to all lateral developments based on difficult ground conditions encountered during mine production.

Below are some other key points in the ground support strategy:

- All old workings will be fully re-supported as per the ground support standard mentioned above;
- All work to be done under a supported back;
- At Corner Bay and Joe Mann, a bottom-up mining sequence is generally followed using development rock as primary backfill material. In some cases, stoping under CRF backfilled stopes will be required (see Section 16.3.6 for more details); and
- At Corner Bay, no mining is planned within 50 m from the overburden and within 67 m from surface.

16.6. Mine Infrastructure

16.6.1. Mine Access & Internal Ramps

Underground mining at Corner Bay would use the existing single portal and 2 km of development to three levels down to 115 m. The main existing decline will be enlarged to 5.5 m wide by 5.0 m high to accommodate the haulage trucks. The development would extend the decline ramps to a depth of 1,326 m, designed nominally at 15% grade and 5.5 m wide by 5.0 m high. The main decline is designed with a flat area at each level access to provide a location for truck loading in the main ramp. This design reduces the amount of maneuvering a truck driver must perform to be loaded. The mine also develops re-muck bays and electrical substations at each main level intersection, these are present approximately every 60 m vertically. The decline is located at least 30 m away from the stoping zone to provide adequate length for level infrastructure while minimizing the level access drift. This decline also provides access to other internal declines for access to the other mineralization zones. Apart from general mine services, the main decline will feature an overhead electrical track line for a trolley assist battery truck application. The mine will have approximately 10.8 km of trolley overhead line in main decline ramps that will extend trolley line from surface to 1,265 m below surface.

At Devlin, access to the deposit would require the enlargement of the existing decline ramp (305 m) and existing drifts (364 m) to 5 m wide and 5 m high. The decline will then divide to two main accesses (East Access and West Access) to provide access to all parts of the mines.

Joe Mann benefits from an existing headframe and shaft, including some surface infrastructure. At Joe Mann, east and west ventilation raises provide an additional source of ventilation and secondary egress.

16.6.2. Level Drives and Stope Access

The average drift size for lateral developments is mentioned in Section 16.3.2. The drift size in mineralized zones is based on the size of mobile equipment selected for the mine. Sill drives are only designed for a few levels in each mining zone and the values are used as a factor to calculate sill drive length for each mining level and zone. Sill drives are driven under geological control to closely follow the economic veins.

16.6.3. Mine Ventilation

The ventilation design for each of the three proposed mines were modelled using VentSim Visual software. The airflow requirements are calculated based on the equipment lists and comply with Québec's Regulation respecting occupational health and safety in mines, chapter S-2.1, r. 14.

See Table 16-20 for details on primary ventilation, secondary ventilation and bulkheads used in the three proposed mines.

Table 16-20: Ventilation infrastructure

Primary Ventilation				
Mine Site	**Ventilation Phases**	**System**	**Airflow (m^3/s)**	**Details(1)**
Devlin	Phase 1 (Pre-FAR Construction)	Push	18	**Intake:** 1 (42 in,100 hp) fan on portal **Return:** Decline
	Phase 2 (Post-FAR Construction)	Push	73	**Intake:** 2 (54 in, 150 hp) fans on FAR on surface **Return:** Decline
Corner Bay(2)	Phase 1 (Pre-FAR#2 Construction)	Push	56	**Intake:** 1 (60 in, 200 hp) fan on FAR #1 on surface **Return:** Decline
	Phase 2 (Post-FAR #2 Construction)	Push	163	**Intake:** 1 (60 in, 200 hp) fan on FAR #1 and 2 (76 in, 350 hp) fans on FAR #2 on surface **Return:** Decline and RAR
Joe Mann	Life of Mine	Push-Pull	104	**Intake:** 2 (84 in,100 hp) fans on Shaft #2 on surface **Return:** 2 (54 in, 200 hp) booster fans on 2925L pushing air to surface via East Raise, West Raise and Shaft #1

Secondary Ventilation and Bulkheads	
Mine Site	**Details**
Devlin	Fans & Ducting: ▪ 5 (75 hp) fans ▪ Layflat ducting is included in all lateral development Bulkheads: ▪ One ventilation regulator with mandoor for escapeways
Corner Bay	Fans & Ducting: ▪ A blend of 21 (35 hp), 13 (75 hp) and five (150 hp) fans ▪ 3,000 m of 48 in rigid plastic ducting; Layflat ducting is included in all lateral development 3,000 m of 48 in rigid plastic ducting; Layflat ducting is included in all lateral development Bulkheads: ▪ 58 ventilation regulators ▪ 41 shotcreted bulkheads with mandoor for escapeways
Joe Mann	Fans & Ducting: ▪ A blend of 10 (35 hp), 2 (75 hp) and 3 (150 hp) fans ▪ 1,800 m of 48 in rigid plastic ducting; Layflat ducting is included in all lateral development 1,800 m of 48 in rigid plastic ducting; Layflat ducting is included in all lateral development Bulkheads: ▪ 34 ventilation regulators ▪ 23 shotcreted bulkheads with mandoor for escapeways

Notes:

(1) All primary ventilation includes fan stations, E-house, heater house, propane tank farm, access roads, bulkheads, civil and structural as required.

(2) The use of battery electric trucks in Corner Bay mine has led to a significant reduction in the total mine airflow requirement.

16.6.4. Mine Dewatering

A mine water balance was completed for each proposed mine separately. Process water consumption was calculated based on equipment lists, while each of the three proposed mines have their own independent dewatering system, water treatment plant, containment pond and polishing pond on surface. Each pump sump will feature pumps, starters, and other mechanical and electrical equipment as required. Water from underground will be pumped to the containment ponds that supply the water treatment plants, which will then send the treated water to polishing ponds before discharging to the environment. Pumps at the polishing ponds will provide process water to the operation. See Section 18 for more details. Table 16-21 shows the process water and dewatering consumption for each proposed mine.

Table 16-21: Dewatering infrastructure

Mine Site	Water Balance (m^3/s)	Infrastructure
Devlin	Process Water Consumption – 20 Inflow – 20 Dewatering – 40	One pump sump with 25 hp pump reporting to one main sump with 100 hp pump
Corner Bay	Process Water Consumption – 30 Inflow – 20 Dewatering – 50	A set of 14 pump sumps with 25 hp pumps reporting to 6 other main sumps with 56 to 100 hp pumps. These pump sumps are strategically placed to comply with the mine schedule and process water requirements.
Joe Mann	Process Water Consumption – 25 Inflow – 225 Dewatering – 250 (Avg), 540 (Max)	Water from pump sumps in greenfield will report to the 3450L intermediate sump. Water from 3450L and 3750L sumps will be sent to surface via four staged pumping station in brownfield. Inflow water in brownfield area will be contained to closest pumping station below. **Greenfield:** 11 pump sumps each with 25 hp pumps **Brownfield:** 3450L: 2 pumps (200 hp, 90 m^3/hr, 320 m head) 3750L shaft bottom: 2 pumps (200 hp, 90 m^3/hr, 320 m head) 2350L: 2 pumps (200 hp, 90 m^3/hr, 320 m head) 1650L: 2 pumps (125 hp, 80 m^3/hr, 180 m head) 1050L: 2 pumps (200 hp, 90 m^3/hr, 320 m head) 600L: 2 pumps (200 hp, 90 m^3/hr, 320 m head), and 1 pump (125 hp, 350 gpm, 180 m head)

16.6.5. Compressed Air

Compressed air is required underground for various underground equipment, including handheld drilling equipment as well as utility requirements. The compressed air requirement is calculated using equipment lists for each mine site. Each mine site will feature a new compressed air system on surface and will include air compressors, air dryer, vertical tanks, purifiers and other valve and indicators. See Table 16-22 for more details.

Table 16-22: Compressed air infrastructure

Mine Site	Consumption (m³/min)	Infrastructure - Compressors
Devlin	Avg. 7 (260 cfm) Peak 14 (500 cfm)	One standard 50 hp (251 cfm @110 psi) One variable speed 50 hp (256 cfm @100 psi)
Corner Bay	Avg. 31 (1,100 cfm) Peak 45 (1,600 cfm)	One standard 150 hp (784 cfm @100 psi) One variable speed 150 hp (846 cfm @100 psi)
Joe Mann	Avg. 17 (450 cfm) Peak 27 (600 cfm)	One standard 50 hp (251 cfm @110 psi) One variable speed 50 hp (256 cfm @100 psi)

16.6.6. Electrical

The electrical power requirements for each proposed mine are calculated separately. Electrical infrastructure is sized to accommodate peak power requirements for all underground and surface infrastructure, buildings, and equipment. Each proposed mine will feature three kinds of electrical stations underground: primary, secondary and development.

Primary electrical stations (PES) are located at centralized locations when possible and where mine power centre skids and fibre interface panels (FIP) or programmable logic controller cabinets are required within the mining zones. PES will be used to feed power to the secondary electrical stations (SES) as well as the loads on the level on which they are located.

SES are located when possible and where necessary on a level and shall be fed from a PES. Power from the SES will be used to feed mobile equipment, auxiliary ventilation fans, sump pumps, general area lighting, etc. for the level on which they are located.

Development electrical stations are located where Momentary Voltage Dip Multiple Power Compensator (MPC) skids are required to support the development of the access drifts to the mineralized zones. These electrical stations will provide power for mobile equipment operation and charging as well as power to the development ventilation fans. As development progresses, the MPCs typically advance with the development crew, while the high-voltage switch and low-voltage equipment, e.g., lighting panel, network infrastructure, etc., remain.

See Table 16-23 for a list of underground electrical infrastructure.

Table 16-23: Underground electrical infrastructure

Mine	Peak Load (MVA)	Underground Infrastructure
Devlin	1.1	1 PES, 1 SES and 2 DES
Corner Bay	4.5	3 PES, 8 SES and 9 DES; 10,790 m of overhead track line in ramps for electric mine trucks
Joe Mann	1.6	1PES, 2 SES and 5 DES

16.6.7. Automation and Communications

The automation and communication systems form the backbone infrastructure to allow personnel within the mine to communicate, monitor and control equipment.

All three operations will feature a basic communication system, which will include:

- Analog telephone network (for refuge stations);
- Business network to support business-related communication and Voice over Internet Protocol on surface and in new mining areas; and
- Leaky Feeder network for radio communication.

At Corner Bay, tele-remote operation of mine trucks, LHDs and production drilling will be done during shift breaks from a central control room located on surface. Operation of this production equipment during shift breaks will lead to an increase in productivity. As a result, Corner Bay will feature a more advanced automation and communication system, and will include:

- Basic communication system as described above;
- Long-term evolution network for remote equipment monitoring, central blasting system, etc.;
- Process control network to support all process system related information, video system, equipment, and personnel tracking;
- Instrumentation, programmable logic controller and human-machine interface required for automation; and
- Central control room on surface.

16.6.8. Emergency Safety System

16.6.8.1. Refuge Stations

Each proposed mine will feature a combination of permanent and portable refuge stations.

Permanent refuge stations provide a safe gathering place for the mining crew and to secure that crew in the event of an emergency. Personnel working in the area may also use the refuge station for their lunchroom, and/or as a meeting and communications area. The refuge station is sized for a 24-person capacity.

Temporary refuge stations are 8-person portable refuge stations called MineArcs that will be moved as required based on the mine schedule. These will be purchased as prefabricated portable refuge stations.

Corner Bay will have two of each permanent and temporary refuge stations. Devlin will have one permanent refuge station. Joe Mann will have one permanent and two temporary refuge stations.

16.6.8.2. Escapeways

At Corner Bay, all levels are connected via interlevel dedicated escapeways. The dedicated escapeway will be made strictly for moving personnel between levels for emergency egress. The escapeway will be mined using a 1.3 m raisebore and will feature the Safescape Laddertube. The ladder tube is a straight-line ladder system with landing gate style platforms. The design allows for a rapid stretcher extraction and has a built-in fall arrest static line. A concrete slab provides support for the bottom ladder on the base level. On the top level, a square grated steel platform, surrounded by a handrail, is supported on a concrete pad. This pad is anchored into the bedrock with rock anchors. Corner Bay will have 1,305 m of dedicated escapeway.

At Devlin and Joe Mann, escapeways are installed in air raise escapeways, which has the purpose of moving personnel while facilitating air flow between levels. Devlin will have a 65 m long 3 m x 3 m Alimak FAR escapeway.

At Joe Mann, the escapeway will feature rehabilitation of existing ventilation raises in brownfield, and FAR with escapeway in greenfield. All interlevel escapeways in greenfield will be in a 2.4 m x 2.4 m rectangle FAR. The escapeway between 3450L and 2925L will be in a new 2.4 m x 2.4 m Alimak return air raise (RAR). The escapeway between 2925L to surface will use previously mined raises, also used as RAR, and via 1650L to West Raise on surface. At Joe Mann, escapeways will include 800 m of rehabilitation of old raises, and 853 m of new raises.

16.6.8.3. Alarm Systems

A typical stench gas warning system will inject ethyl mercaptan into the fresh air supply through a manual activation at the injection points in all the three proposed mines, and from a remote interface at the CCR (Corner Bay only).

16.6.9. Other Infrastructure

Table 16-24 lists other underground infrastructure at the three proposed mines and are explained below:

- Explosive and Fuse Magazine: Explosive and Fuse Magazine are dedicated locations for the storage of emulsion explosives and fuses/caps, respectively to support the development and production activities. Explosive and fuse magazines are appropriately sized and will be in the close vicinity of each other. One of the explosive magazines at Corner Bay will feature storage of bulk emulsion and a 10 tonnes jib crane to load the emulsion loaders. All other explosive magazines at all mine sites will feature storage of cartridge explosives.
- Garage Area (Shop, Lube Bay, Wash Bay, Hose Room and Fuel Bay): This will provide a dedicated location for the maintenance and servicing of the mobile fleet and includes two service bays, a lube bay, a hose cutting room, wash bay and a fuel bay near by. The shop will be single excavation which can accommodate two vehicles head to tail under a single 10-ton overhead crane. At Corner Bay, mine trucks will be maintained on surface.
- Underground Slurry Plant: Corner Bay will have a moveable cement slurry plant to prepare CRF mixture underground. A Split Mobile CRF Slurry Plant (Model: BB-BN7-VM1500), supplied by SIMEM Underground Solutions Inc. is included for Corner Bay operation. It will feature:
  - Bulk bag unloader:
    - 1.5 m^3 with integrated reverse pulse dust collection;
    - Screw conveyor discharge;
    - Aeration;
    - Air compressor and dryer;
    - Heavy-duty skid with pick eyes and scoop tram pockets for relocation; and
    - "Kneeling" design to allow for lower profile for relocation underground.
  - Cement Hopper:
    - 7.5-tonne capacity;
    - Aeration pad;
    - High/low-level probes; and
    - Discharge screw.

- Mixer:
  - 500, 1,000 or 2,000L colloidal mixer options;
  - High-pressure wash head for self-cleaning;
  - 30 kW Slurry pump for discharge to mixing pit or spray bar;
  - Fully automatic PLC system to allow for continuous batching as required and remote call station for batches;
  - MCC with VFDs for screw conveyor and discharge pump; and
  - Heavy-duty skid with pick eyes and scoop tram pockets for relocation.
- Underground Storage: A dedicated location for the storage of consumables and materials required to support development / production activities.

Table 16-24: Other underground infrastructure

Infrastructure	Corner Bay	Devlin	Joe Mann
Explosive Magazine	2	1	1
Fuse Magazine	2	1	1
Garage Area (Shop, Lube Bay, Wash Bay, Hose Room and Fuel Bay)	2	0	1
Underground Slurry Plant	1	0	0
Underground Storage	3	0	1

17. Recovery Methods

The recovery methods for the Project were established on the basis of historical operational data and testwork as described in Section 13, equipment information from suppliers as well as BBA's experience on similar projects. The work completed forms the basis of the plant design, capital costs and operating costs that were developed in this study.

The crushing plant's major areas consist of the following:

- Crushing; and
- Mineral sorting.

The process plant's major areas consist of the following:

- Grinding and gravity concentration;
- Flotation;
- Concentrate dewatering;
- Tailings dewatering;
- Reagents preparation circuits; and
- Process and freshwater distribution.

The generalized process flowsheet (Figure 17-1) shows the process from crushing of run-of-mine mineralized material to the dewatering of the final copper concentrate.

17.1. Production Overview and Ramp-Up

After having been closed since 2008, Doré Copper will re-start the Copper Rand mill. The mill feed will be a blend of the three different mineralized materials from Corner Bay, Delvin, and Joe Mann. Several changes and improvements will be made to the existing processing plant to accommodate the treatment of the three materials and to optimize the capital expenditures required for the refurbishment of the equipment, in particular the crushing and grinding circuits. Modifications to the plant will include:

- Decommissioning of the crushing and grinding sections;
- The addition of a new crushing circuit at the Corner Bay mine site, including a mineral sorter;
- The addition of a new grinding circuit that will comprise a single ball mill in closed loop with hydrocyclones and Knelson gravity concentrators;
- The addition of a conditioning tank;
- Expanded capacity of the concentrate filter;
- The addition of a new tailings filter plant (TFP); and
- The reconfiguration of some piping around the flotation circuit.

At Year 3 of operation, the addition of a new rougher tank cell and additional cells to the existing cleaner flotation bank will be done to accommodate the increase in throughput, mainly due to an increase in the grade and tonnes of Corner Bay material and the start of processing of Joe Mann mined material.

The crushing and mineral sorter plant will have a design production rate of 3,600 t/d and the mill will accommodate a design throughput of 2,240 t/d of crushed, sorted feed material.

At full production, the crushing plant will process an average of 831.9 Kt/y of ROM and the mill will be processing 492.8 Kt/y of mineralized material. The crushing circuit availability is estimated at 65% while concentrator availability is estimated at 95%.

At an average head grade of 2.61% Cu, the concentrate production is estimated to be 85,475 t/y at 23.7% Cu. The copper recovery for the mineral sorter and mill combined is estimated to be 93.3%.

The concentrate produced will either be transported to the port of Québec City for onward shipping to international smelters or to a local smelter. Tailings will be dewatered and dry stacked at the TMF.

All sizing was made to accommodate the highest throughput from ROM with a design factor of 15%.

17.2. Concentrate Production

17.2.1. Process Plant Production Schedule

The Project is scheduled to deliver at an average rate of 2,280 t/d of blended mineralized material from the three deposits to the primary crusher on a 365 days per year basis. The crushing plant located at the Corner Bay site, which includes primary and secondary crushing, screening, and mineral sorting, is designed to operate with an availability of 65%. Mineralized material from Joe Mann and Delvin will be trucked to the Corner Bay site for crushing prior to it being transported to the Copper Rand mill site; note that in the case of Devlin material, it will be crushed and sorted.

From the crushed material stockpile at the Copper Rand mill site, an average of 1,350 t/d at 95% plant availability is then processed in the grinding and flotation circuits. The mill will operate on a 24-hour per day and 7 days per week basis.

For the mill, operations crews (hourly) will work based on two 12-hour shifts.

17.2.2. Plant Operating Design Parameters

The design criteria to determine sizing of the equipment is based on a crusher feed of 3,600 t/d at 65% plant availability and 2,240 t/d to the mill at 95% plant availability. Table 17-1 presents an overview of the main design criteria factors employed. Operating costs are based on the average crusher and mill feed over the life of mine (LOM), which are 2,280 t/d and 1,350 t/d, respectively.

Table 17-1: General process design criteria

Criterion	Unit	Value
General Design Data		
Process Plant Operating Life	y	11
Crusher Plant Availability	%	65
Crusher Operating Hours Per Year	hr	5,690
Mill Availability	%	95
Mill Operating hours per year	hr	8,322
Crushing Plant Feed		
Average Yearly Rom of Mine Feed	t/y	831,883
Design Hourly Feed Tonnage	t/h	220
Average Hourly Feed Tonnage	t/h	146
Average Rom Mine Grade	% Cu	2.61
Mill Feed and Production		
Design Mill Feed	t/h	93
Average Mill Feed	t/h	56
Average Yearly Mill Feed	t/y	492,750
Average Mill Feed Grade	% Cu	4.71
Average Concentrate Production	t/y	85,475
Average Concentrate Grade	% Cu	23.7
Concentrate Humidity	% H_2O	8
Corner Bay		
Copper Recovery Data		
Overall Crushing and Sorting Copper Recovery (A)	%	96.4
Gravity and Flotation Copper Recovery (B)	%	96.7
Overall Copper Recovery (A×B)	%	93.2

Criterion	Unit	Value
Devlin		
Copper recovery data		
Overall Crushing and Sorting Copper Recovery (A)	%	97.2
Gravity and Flotation Copper Recovery (B)	%	98.2
Overall Copper Recovery (A×B)	%	95.5
Joe Mann		
Copper Recovery Data		
Gravity and Flotation Copper Recovery	%	93.9

17.2.3. Process Plant Facilities Description

The Project crushing and mineral sorter plant, located at the Corner Bay mine site, incorporates primary and secondary crushers with primary double-deck screen and an x-ray mineral sorter. The process plant located at the Copper Rand site, incorporates a ball mill in closed circuit with gravity concentration to recover gold bearing minerals from slurry material ahead of the flotation circuit, which is comprised of rougher and scavenger cells, followed by three stages of cleaning.

Figure 17-1 is a simplified process flowsheet of the mill facilities. The next sections describe the selected flowsheet in more detail.

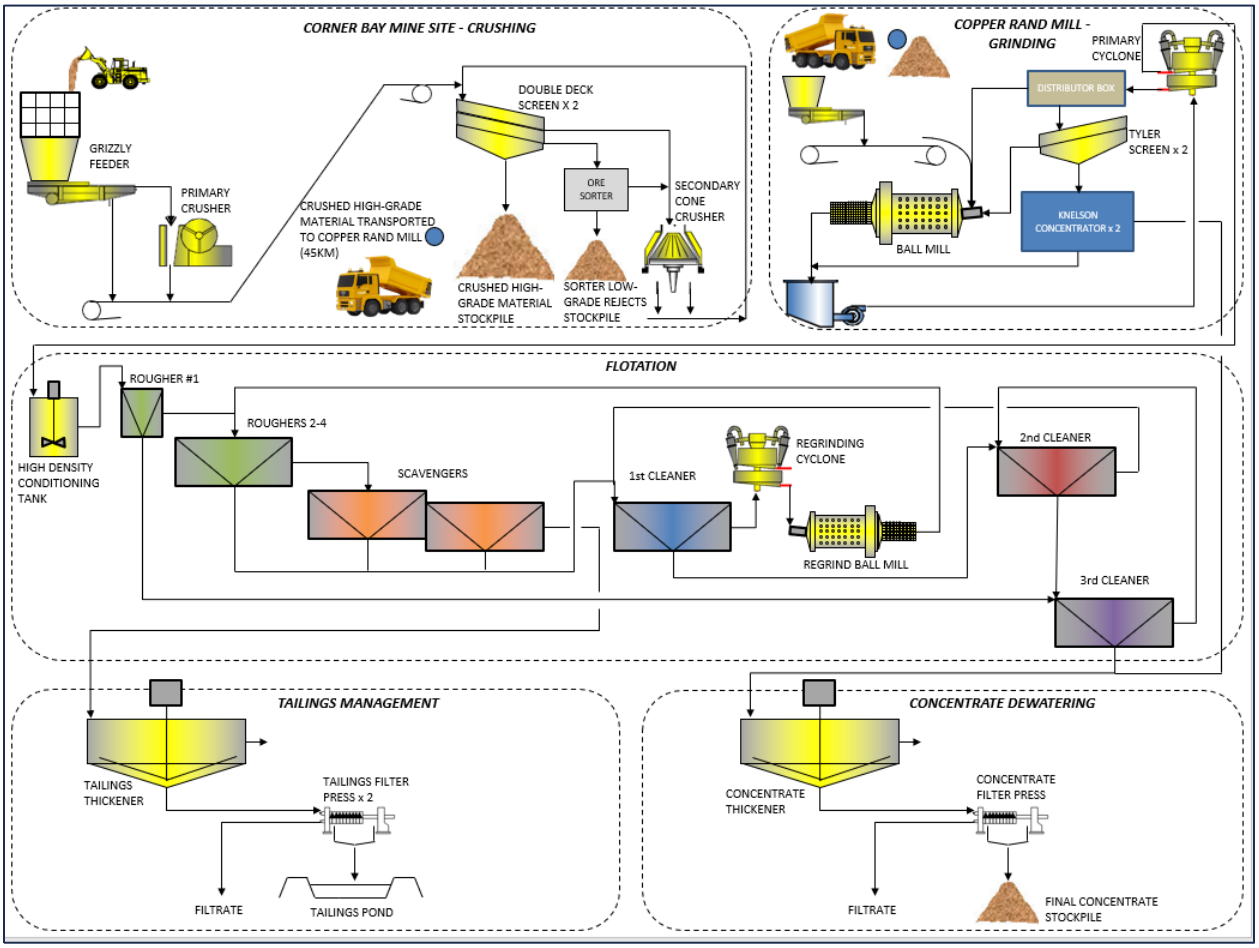


Figure 17-1: Simplified process flowsheet of the mill facilities

17.2.3.1. Primary Crushing

The primary crushing system includes a grizzly feeder to the jaw crusher. The jaw crusher is sized at 30 in × 42 in (76.2 cm × 106.7 cm) for a daily throughput of 3,600 t/d. The oversize product of the grizzly feeder provides feed to the primary crusher, while the undersize product is conveyed directly to the primary double-deck screen.

The crusher selection is based upon a feed size of 362 mm and a product (P_{80}) of 90 mm, with an expected utilization of 65% at a maximum throughput of 3,600 t/d. The jaw crusher is rated with a connected power of 125 hp or 93 kW.

17.2.3.2. Secondary Crushing

One double-deck vibrating screen, with a nominal feed size (F_{80}) of 64 mm, receives the jaw crusher product and grizzly undersize product. The top deck opening is 38 mm and the bottom deck opening is 10 mm. The top deck oversize is directed to the secondary crusher and the bottom deck oversize is directed to the mineral sorter. The screen undersize will go directly to the crushed material stockpile.

The secondary cone crusher crushes the material from both the top deck of the double-deck screen and the mineral sorting concentrate. The cone crusher is rated with a connected power of 300 hp or 224 kW.

A crushing circuit and mineral sorter will be installed at Corner Bay and will reject the low-grade and dilution material from the Devlin and Corner Bay mines. The high-grade material is trucked to the Copper Rand mill site, where it is first stored in a crushed material stockpile covered with a mega-dome. The stockpile has a storage capacity of approximately 50 hours and supplies the grinding circuit.

The copper recovery after crushing and sorting is estimated at 96.4%.

17.2.3.3. Grinding Circuit

The primary grinding circuit consists of one ball mill in closed circuit with classifying cyclones. The ball mill has an installed power of 1,500 kW, reducing the feed from an 80% passing of 8,148 µm to 1,064 µm, with a design feed of 2,240 t/d. The product of the ball mill is sent to primary cyclones that divides it into an overflow product having a P_{80} of 100 µm, which is discharged to the flotation circuit. The underflow, which is discharged to a distributor box, splits the primary cyclone underflow into two streams; two thirds of the slurry reports back to the ball mill and one third of the slurry reports to two vibrating screens feeding two Knelson gravity concentrators that operate in parallel. Gravity concentrate from the Knelson concentrators will be sent directly to the final copper concentrate, while tails will be sent back to the hydrocyclones feed pump box.

17.2.3.4. Flotation Circuit

The ground product is fed to a conditioning tank with the addition of chemical reagents. The conditioned material is floated to yield a copper concentrate with an average grade of 23.7% Cu after three stages of cleaning.

The conditioning tank discharge is directed to the first rougher cell bank, which is comprised of one 32 m^3 Maxwell 12 flotation cell. The concentrate reports directly to the third stage of cleaner flotation and the tailings report to three 20 m^3 Maxwell 10 flotation cells operated in series. The nominal flotation time is 16 minutes and solids density is 42%. The concentrate from the second rougher cells reports directly to the first stage of cleaner flotation and the concentrate target grade is 10% Cu. The second rougher cell's tailings report to the scavenger flotation cells.

Rougher flotation is followed by scavenger flotation, consisting of six 14 m^3 Denver DR-500 flotation cells. The concentrate is sent to the first stage of cleaner flotation. The tailings from the scavengers will be collected in a pump box and pumped to the tailings filtration circuit.

The first cleaning stage consist of four Denver DR-300 flotation cells, each with a capacity of 8.5 m^3. The first cleaner concentrate will report to the second stage of the cleaning circuit. The first cleaner tailings will be collected in a pump box and pumped to the ball mill regrind and returned to the second stage of rougher flotation cells.

The second stage cleaner circuit consists of four Denver DR-300 flotation cells, each with a capacity of 8.5 m^3. The tailings from the second stage cleaner circuit are recirculated to the first cleaner.

The third stage cleaner circuit consists of four Denver DR-200 flotation cells, each with a capacity of 5.1 m^3. The tailings from the third bank are recycled to the second cleaner circuit and the concentrate grade is expected to be 23.7% Cu. The recovery of copper in the flotation circuit is estimated to be 96.8%.

From Year 4 to Year 7 of operation, an increase in tonnage is expected with the increase in mined tonnes from Corner Bay and the processing of Joe Mann. At Year 3, to accommodate the increase in throughput, additional capacity will be added to the flotation area. Additional 50 m^3 rougher flotation cells will be added as well as new cells to the three cleaner flotation banks.

The final concentrate, a combination of product from the gravity circuit and third cleaner, is directed to 8 m diameter concentrate dewatering thickener equipped with an agitator, before it is passed through a filter press, recovering a concentrate with moisture content of 8%. The copper concentrate will be sent to a concentrate stockpile and from there it is transported for sale.

17.2.3.5. Tailings Dewatering

The total final tailings coming from the scavenger, at 30% solids density, will be thickened and filtered to reach a density of approximately 88% solids. The filters will be situated in a new building next to the mill. Tailings are pumped to an agitated filter feed tank from where slurry will be fed to the tailings filter presses. The filtration plant is comprised of two filter presses, both operating with no stand-by, with 50 chambers each (3.9 m^3 per chamber).

The filters bring the moisture content of the filter cake to 12%. Filtrate and wash water are collected and pumped back to the process.

The filter cake is dropped onto an underlying conveyor that discharges the material to a stockpile in the tailings filter plant building. Tailings are then loaded onto trucks and transported to the dry-stack tailings facility (TMF).

17.2.3.6. Process Plant Consumables

The main consumables for the process plant are the grinding media and liners for the primary ball mill and the regrind mill and the reagents used in the flotation circuit and thickener.

All process reagents will be contained in a separate area within the process plant building to prevent any contamination of any surrounding areas in case of a spill. Safety showers will be provided in the different reagent mixing and utilization areas in case of contact with the reagents. Grinding media will be stored in pits located indoors and near their points of use.

The primary reagents used in the process include collectors, frother, hydrated lime, and flocculant. Consumption rates are mostly based upon historical operational data.

Table 17-2 and Table 17-3 list all reagents, media, areas of usage and their purpose.

Table 17-2: Reagents and area of use

Reagent	Area	Use	Consumption (t/y)
Collector (KAX51)	Rougher, Scavenger, and Cleaner Flotation	Surface-active agent	131
Collector (R208)	Scavenger Flotation	Surface-active agent	7
Frother (MIBC)	Rougher, Scavenger, and Cleaner Flotation (1st stage only)	Change bubble characteristics and aid in stability of foam/froth	25
Hydrated lime	Conditioning tank and Cleaner Flotation (1st stage only)	pH control	830
Flocculant	Thickener	Flocculate solids to assist in solid/liquid separation	14

Table 17-3: Grinding media and area of use

Media	Area	Consumption (t/y)
Balls (50 mm diameter)	Primary ball mill	339
Balls (25 mm diameter)	Regrind ball mill	68

The collector is added to the conditioning tank for use in the rougher and scavenger flotation circuits and it is added in all three stages of cleaner flotation.

Lime will be used for pH control in the concentrator and will be added to the conditioning tank and the first cleaner. Lime will be sourced from the reagent preparation area and will come in dissolved form.

17.2.3.7. Process Water

All the water requirements related to the process will be provided by the recirculation of process water from thickeners overflows, surface water or reclaim water.

The process water systems are divided as follow:

- Process water: receiving water from both concentrate and tailings thickener overflows and will service the requirements for water for the grinding, flotation and dewatering circuits; and
- Fresh water: receiving water from surface source or tailings pond reclaim and will service the requirements for reagents preparation and equipment gland seals.

17.2.3.8. Concentrator Personnel

A total of 72 employees are required in the process plant, including 12 salaried staff and 60 hourly workers assuming management, operations and maintenance functions.

Table 17-4 and Table 17-5 present the salaried and the hourly manpower requirements, respectively, for the process plant (Corner Bay crushing facility and Copper Rand mill).

Table 17-4: Process plant salaried manpower

Position	Number of Employees
Process Plant Manager	1
General Foreman Operation & Maintenance	1
Production Clerk	1
Operation Foreman	1
Chief Metallurgist	1
Plant Metallurgist	1
Technician (3 in lab & 1 in metallurgy)	4
Maintenance Planner	1
Mechanical Foreman	1
Total – Salaried	**12**

Table 17-5: Process plant hourly manpower

Position	Number of Employees
Crushing plant	
Crushing Operator	4
Crusher/Screening/Conveying Area Attendant	4
Millwrights	1
Mechanic/Welder	1
Total – Crushing plant	**10**
Processing plant	
Flotation Operator	4
Grinding & Gravity Operator	4
Filtration & Thickener Operator	4
Mill Attendant	4
Mill General Labour	8
Millwrights	11
Mechanic/Welder	7
Instrumentation Technician	4
Maintenance Helpers	4
Total – Processing plant	**50**
Total – Hourly	**60**

17.2.3.9. Electricity

The electricity to the process plant will be supplied by Hydro-Québec. An average power demand of 40.75 GWh is estimated for both the crushing and process plants. The estimated cost of electricity is based on Hydro-Québec's average cost of 0.0527$/kWh.

18. Project Infrastructure

18.1. Overview

The Project is comprised of three mine sites, namely Corner Bay, Devlin, and Joe Mann, as well as the existing Copper Rand mill and TMF.

Mined material from all three mine sites will be transported to the Corner Bay site for primary and secondary crushing. The crushed material from Corner Bay and Devlin will then pass through a mineral sorting facility to improve the grade and reduce the amount of mineralized tonnage that will be transported to the Copper Rand mill.

While all three mine sites have been active in the past, Joe Mann is the only site that was formerly a producing mine.

18.2. Corner Bay

18.2.1. Current State

The existing underground development at the Corner Bay site was completed between 2007 and 2008. As part of an underground bulk sample program, a decline was driven from the surface to a depth of 115 m with approximately 2 km of lateral development on three levels: 55 m, 75 m and 105 m.

There are four existing buildings on the site that have not been maintained since 2009, two waste rock piles, and a sedimentation pond (Figure 18-1 and Figure 18-2).

Figure 18-1: Corner Bay site looking south

Figure 18-2: Corner Bay site looking southwest

18.2.2. Access/Haulage Roads

The Corner Bay site is currently accessible through a series of existing gravel roads that extend approximately 15 km from Route 167.

The study includes provisions for a new haulage road, constructed mainly through upgrades to existing forest roads that will reduce the round-trip haulage distance between the Corner Bay mine and the Copper Rand mill site sites by 19 km. This also provides a more direct route between Devlin mine and Corner Bay mine which is advantageous as all Devlin mine production will be transported to the Corner Bay mine site for crushing and sorting prior to being transported to the Copper Rand mill.

A forest road bypass had been included in the site layout to allow public access to the existing forest road beyond the mine site.

To minimize risk to on-site personnel, a dedicated haulage road has been included in the site layout that isolates on-road haulage truck traffic from the rest of the site.

Also, with the aim of reducing risk, independent roads have been included in the site layout for utility vehicle traffic to and from the ramp portal.

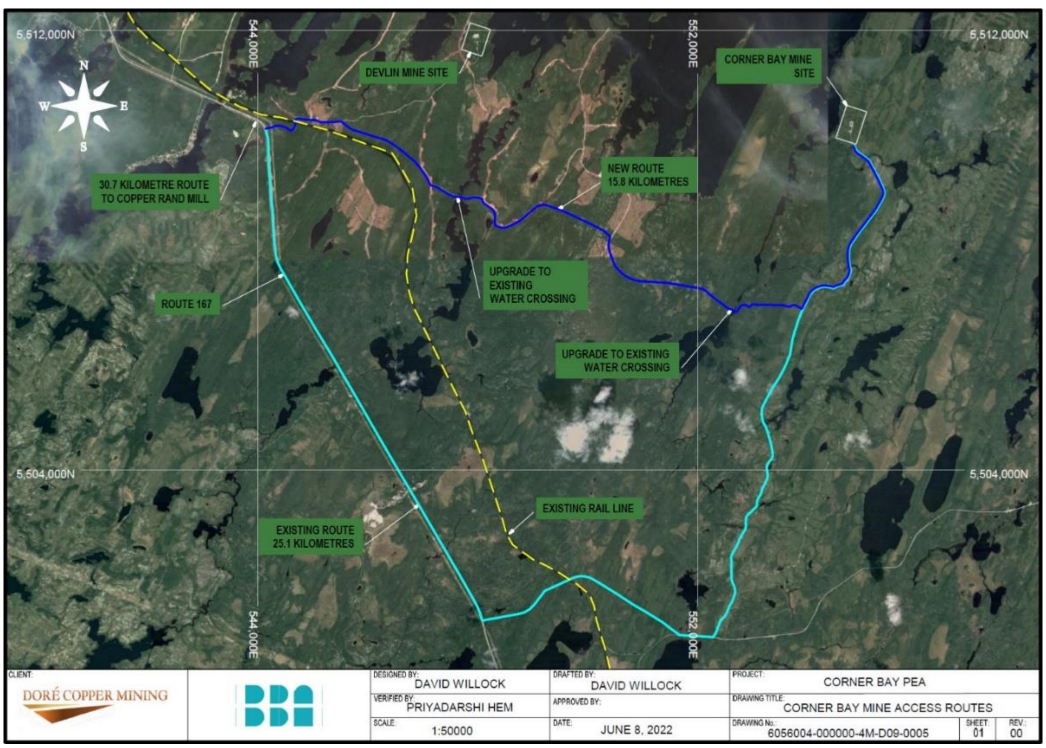


Figure 18-3: Corner Bay mine access routes

18.2.3. Surface Electrical

There is no existing electrical infrastructure at the Corner Bay site.

The provincial high-voltage transmission lines run parallel to Route 167.

This study includes a new 34.5 kV distribution substation located where the new Corner Bay haulage road splits from the Devlin mine site access road. Approximately 1.6 km of 161 kV transmission line will be constructed to connect this new station to the provincial transmission line.

Connecting Corner Bay mine site to the distribution station will be 14 km of new 34.5 kV that roughly follows the path of the new haulage route. This 34.5 kV line will feed a new 13.8 kV substation that will provide power for all surface and underground requirements at the Corner Bay site.

An allowance has also been made for a backup generator capable of powering the mine dewatering system as well as limited mine ventilation.

18.2.4. Water Treatment Facilities

This study includes provisions for a water treatment plant (WTP) that consists of a 3,600 m^3 wastewater containment pond, self-contained container-based water treatment plant and a 1,200 m^3 polishing pond.

Water from underground will be pumped to the containment pond that supplies the WTP, which will then send the treated water to a polishing pond before discharging to the environment. Pumps at the polishing pond will provide process water to the operation. The WTP includes moving bed biofilm reactor (MBBR) for nitrification and denitrification to comply with Directive 019 MELCC, and includes MBBR field erected reactors, blowers, chemical dosage equipment, automation, electrical feed, pumps, and installation. The containment pond is sized to store three days of average mine dewatering, while the polishing pond is sized to one-third of the size of the containment pond. Both the containment pond and polishing ponds will be lined facilities.

Domestic wastewater, i.e., grey and black water, will be collected in holding tanks and will be removed from the site by a local septic contractor. No provision for sewage treatment has been included in this study.

Similar facilities for water treatment and domestic wastewater will also be set in place for Devlin and Joe Mann.

18.2.5. Material Stockpiles

The study includes a 7,000-t production stockpile and waste rock stockpiles, for both clean and potentially acid generating rock, with a combined capacity of 2.9 Mt. All of the potentially acid generating material will be moved underground prior to the conclusion of production.

The mineral sorting facility will require a series of stockpiles for incoming mined material from Devlin and Joe Mann, and as well as for waste and pre-concentrate. The footprint of these piles will be maintained at minimum levels, only providing enough capacity to allow for efficient operation of the crushing and mineral sorting facilities.

Topsoil removed during site preparation will be stored to the north of the waste rock stockpile. This material will be available for use in site reclamation upon closure.

18.2.6. Surface Facilities

Surface facilities included in as part of this study include, but are not limited to, the following items:

- Security/gate house;
- Staff parking area;
- Offices for engineering and geology;
- Offices for mine operations personnel and a dry facility;
- Maintenance shop;
- Warehouse/storage facility;
- Diesel fuel storage/dispensing facility;
- Liquified petroleum tanks;
- Mineral sorting facility complete with crushers and conveyors; and
- Air compressors.

There is no provision for explosive or detonator storage on surface. All explosives will be delivered to underground magazines upon arrival to site.

Where possible structures will be modular.

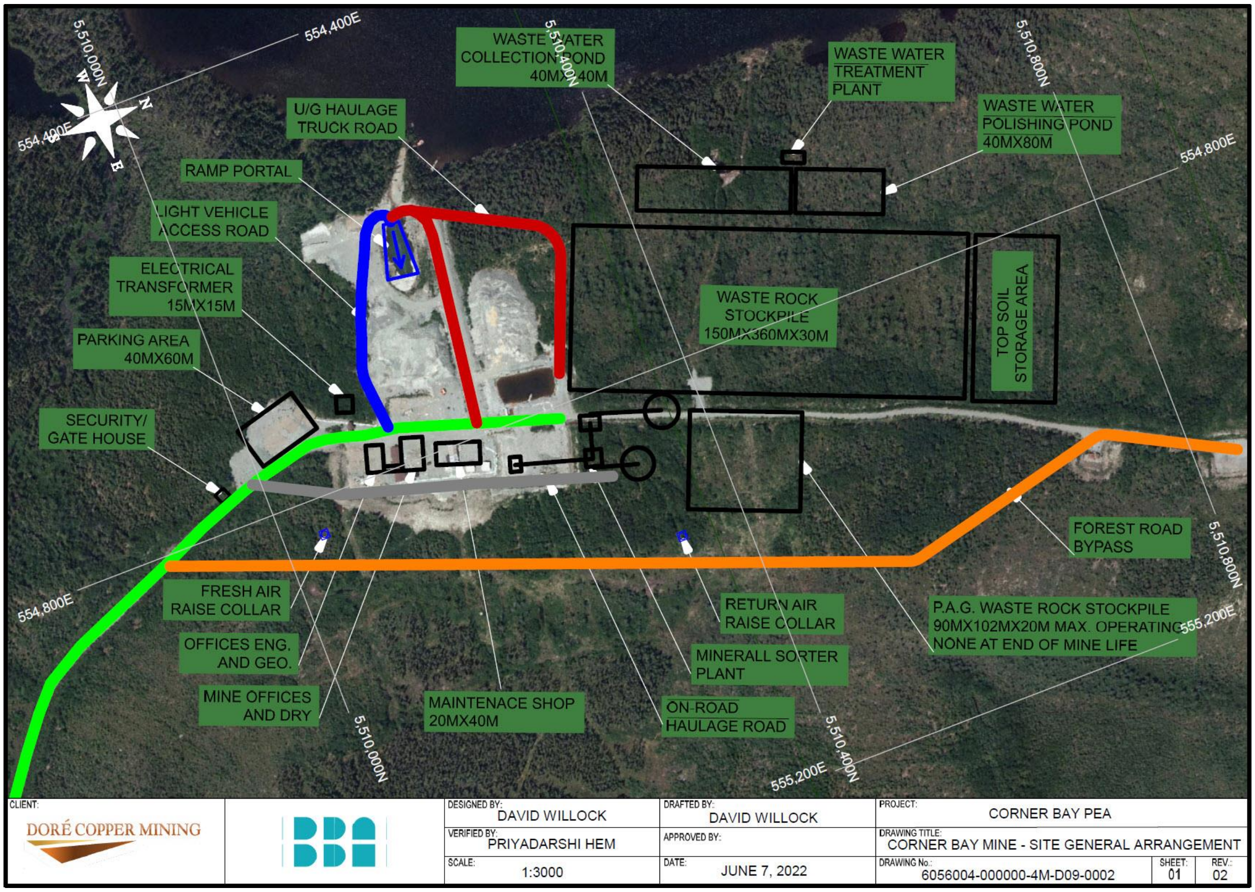


Figure 18-4: Corner Bay mine – Site general layout

18.3. Devlin

18.3.1. Current State

There are no existing structures or infrastructure of any kind at the Devlin site.

Existing underground development at the site, excavated in 1981-1982, consists of a 305 m decline from surface to a depth of 70 m and 364 m of drift development that was used to obtain a bulk sample.

Figure 18-5: Devlin mine site

18.3.2. Access/Haulage Roads

The Devlin site is currently accessible through a 4.7 km gravel road from Route 167.

This study includes provisions to upgrade the existing road to allow for safe access and haulage of mine production to the Corner Bay mine site for crushing and mineral sorting prior to being transported to the Copper Rand mill. The new haulage route from Devlin mine to Corner Bay mine is 15.1 km in length and is 14.6 km shorter than the existing route between the two sites.

To minimize the risk to on-site personnel a dedicated haulage road has been included in the site layout that isolates on-road haulage truck traffic from the rest of the site.

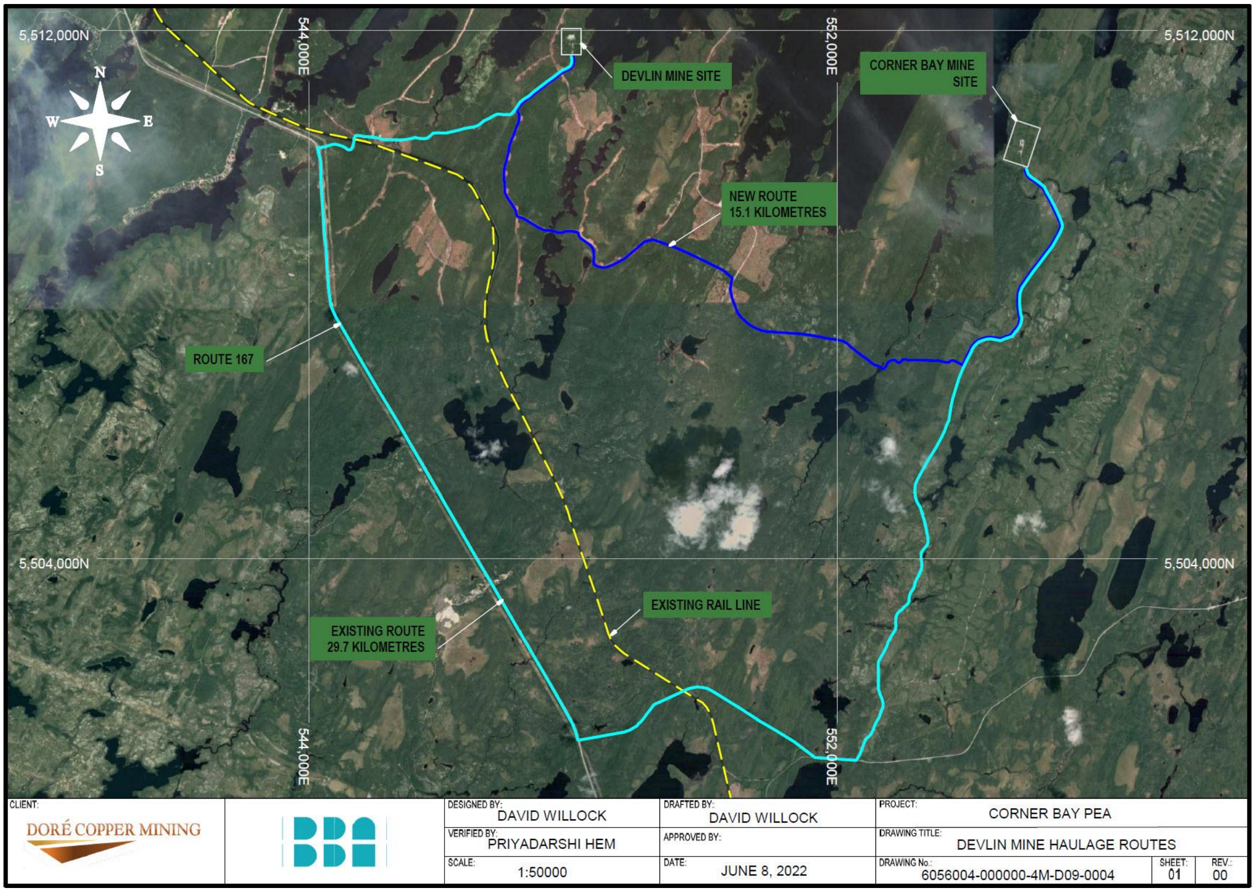


Figure 18-6: Devlin mine to Corner Bay mine haulage route

18.3.3. Surface Electrical

There is no existing electrical infrastructure at the Devlin site.

A new 13.8 kV substation will be constructed on the Devlin mine site as well as 3.25 km of 34.5 kV line to connect it to the distribution substation, outlined in Section 18.1.3, which will provide power for both Corner Bay and Devlin mine sites.

An allowance has also been made for a backup generator capable of powering the mine dewatering system as well as limited mine ventilation.

18.3.4. Water Treatment Facilities

A provision has been made for a water treatment facility that consists of an 1,800 m^3 wastewater containment pond, self-contained container-based water treatment plant, and a 600 m^3 polishing pond.

Water from underground will be pumped to the containment ponds that supply the water treatment plants, which will then send the treated water to polishing ponds before discharging to the environment.

Domestic wastewater, i.e., grey and black water, will be collected in holding tanks and will be removed from site by a local septic contractor. No provision for sewage treatment has been included in this study.

18.3.5. Material Stockpiles

The study includes a 1,000-t production stockpile and waste rock stockpiles, for both clean and potentially acid generating rock, with a combined capacity of 123,433 t.

The size of the production stockpile is small since it is a staging area between the underground haulage trucks and the on-road haulage trucks.

Topsoil removed during site preparation will be stored to the north of the staff parking area. This material will be available for use in site reclamation upon closure.

18.3.6. Surface Facilities

Surface facilities included as part of this study include, but are not limited to, the following items:

- Security/gate house;
- Staff parking area;
- Mine dry facility;
- Offices for mine operations personnel;
- Maintenance shop;
- Diesel fuel storage/dispensing facility;
- Liquified petroleum tanks;
- Warehouse/Storage containers; and
- Air compressor.

There is no provision for explosive or detonator storage on surface. All explosives will be delivered to underground magazines upon arrival to site.

Where possible structures will be modular.

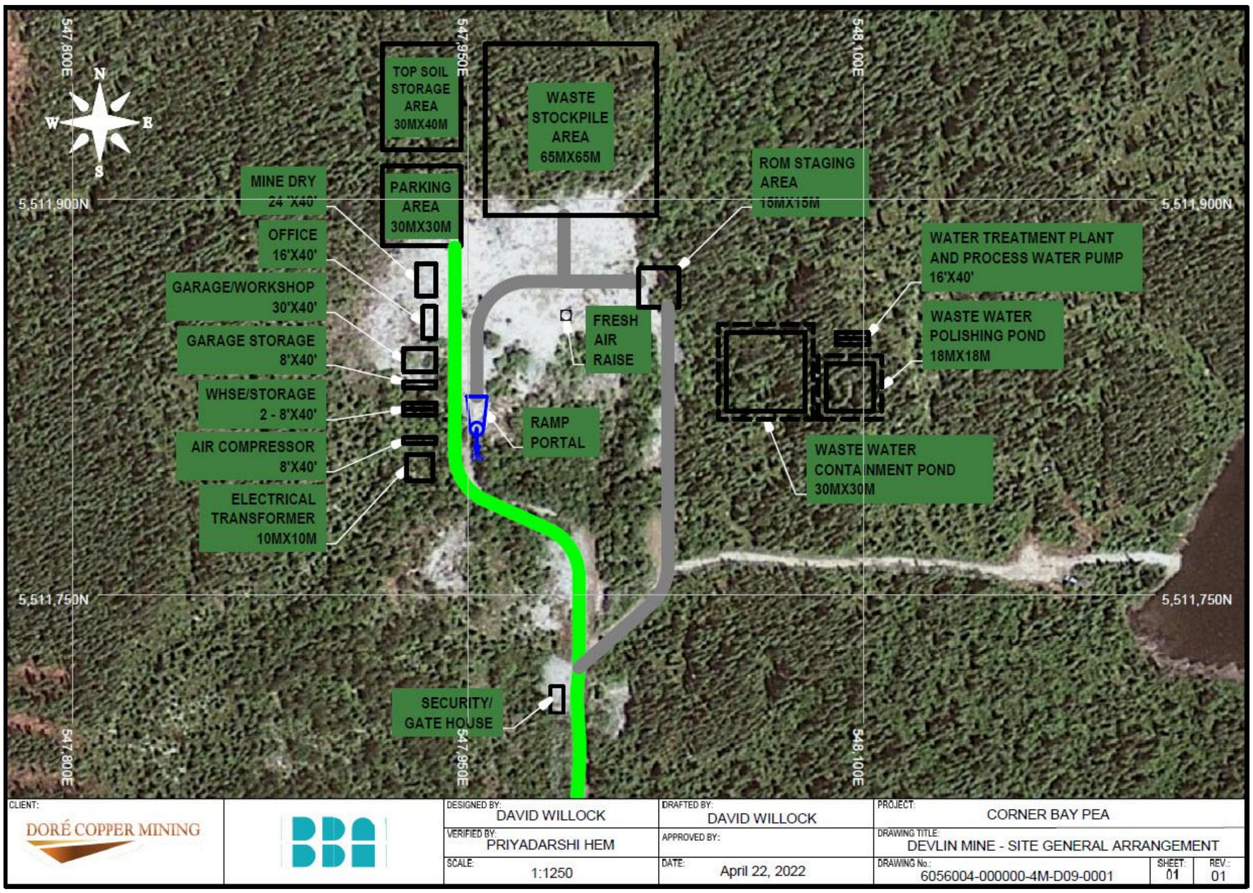


Figure 18-7: Devlin mine site general arrangement

18.4. Joe Mann Mine

18.4.1. Current State

Most of the surface infrastructure at the Joe Mann site has been maintained in place and is in good condition. The key current infrastructure includes:

- Two existing shafts:
  - No.1 Shaft is decommissioned, i.e., headframe and hoist have been removed;
  - No.2 Shaft (flooded) has a headframe and hoist.

- Office building;
- Core logging facility;
- Outdoor core storage area;
- Numerous shops and maintenance structure;
- Gatehouse and gate;
- Connection to the provincial hydroelectric grid; and
- Water distribution system (non-potable).

Joe Mann was in operation intermittently between 1956 and 2007; however, the underground workings have been flooded since 2008. It is assumed that none of the existing underground infrastructure will be in a serviceable state once the workings have been dewatered.

Originally sunk to a depth of 1,650 ft (503 m) between 1990 and 1993, the No. 2 shaft was deepened to 3,758 ft (1,145 m) between 1997 and 1998. The No. 2 shaft has a rectangular profile with four compartments of approximately 1.83 m x 1.83 m each arranged as follows:

- Compartment No.1 – Hoisting only;
- Compartment No.2 – Hoisting and transporting personnel;
- Compartment No.3 – Ventilation; and
- Compartment No.4 – Services and escape way.

A Nordberg double-drum hoist is equipped with two 1,250 hp motors and has a capacity of 65,000 lbs (29,500 kg).

It is anticipated that the hoisting plant, once refurbished, will be sufficient to meet production requirements.

Figure 18-8: Joe Mann No. 2 shaft headframe looking south

18.4.2. Access/Haulage Roads

The Joe Mann mine site is currently accessed by a 19 km road from Route 167. The haulage route from Joe Mann mine site to Corner Bay mine site is 43 km. No significant improvements to this road have been allowed for as this was a previously operating mine.

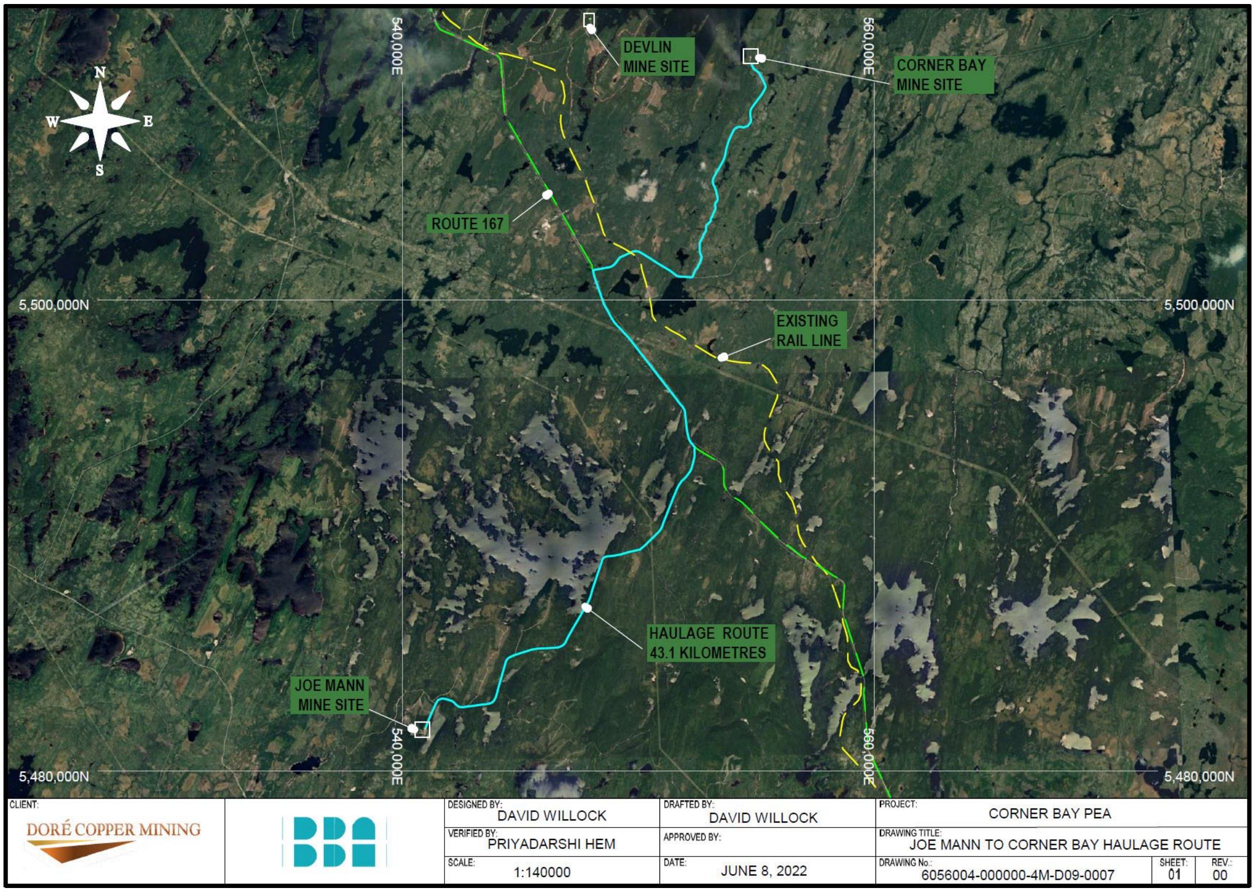


Figure 18-9: Joe Mann Mine to Corner Bay mine haulage route

18.4.3. Surface Electrical

While there is an existing line in place to provide electrical power to the Joe Mann site, a provision has been made for a new 13.8 kV substation to be constructed on site.

An allowance has also been made for a backup generator capable of powering the mine dewatering system as well as limited mine ventilation.

18.4.4. Water Treatment Facilities

This study includes provisions for a water treatment facility that consists of an 18,000 m^3 wastewater containment pond, self-contained container-based water treatment plant and a 6,000 m^3 polishing pond. This system is scaled to accommodate the volume of water that must be treated as the mine is dewatered.

Water from underground will be pumped to the containment ponds that supply the water treatment plants, which will then send the treated water to polishing ponds before discharging to the environment.

Domestic wastewater, i.e., grey and black water, will be collected in holding tanks and will be removed from site by a local septic contractor. No provision for sewage treatment has been included in this study.

18.4.5. Material Stockpiles

The study includes a 1,000-t production stockpile and waste rock stockpiles, for both clean and potentially acid generating rock, with a combined capacity of 184,000 t.

The size of the production stockpile is small since it is only required as a buffer to maintain efficient operation of haulage trucks transporting the mineralized material to the Corner Bay mine site for crushing.

Topsoil removed during site preparation will be stored in the northern portion of the site. This material will be available for use in site reclamation upon closure.

18.4.6. Surface Facilities

With most of the surface infrastructure in a serviceable or near-serviceable state, additions to the surface infrastructure will be limited to the following items:

- Top-soil storage area;
- Wastewater collection pond (50 m x 80 m); and
- Waste rock stockpile (90 m x 90 m x 20 m).

There is no provision for explosive or detonator storage on surface. All explosives will be delivered to underground magazines upon arrival to site.

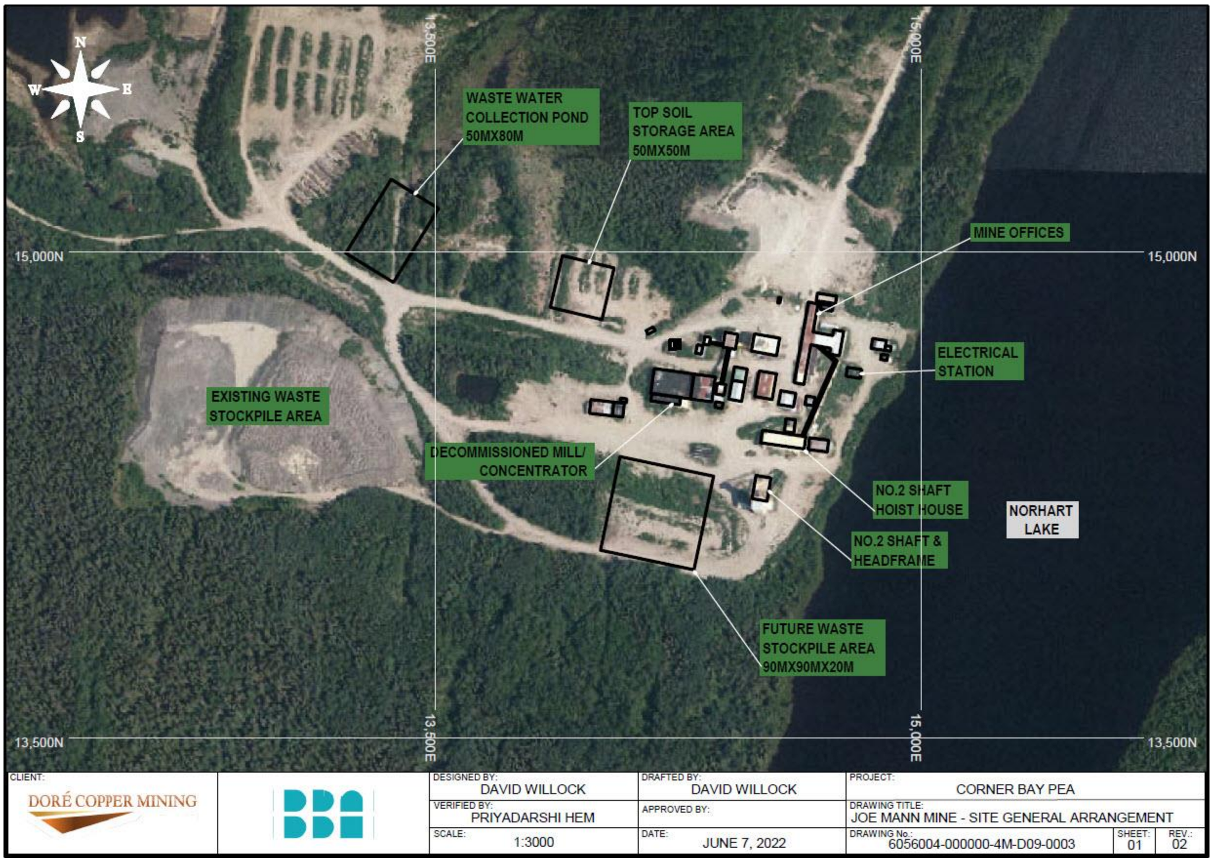


Figure 18-10: Joe Mann mine site general arrangement

18.5. Copper Rand

18.5.1. Current State

Figure 18-11 shows the Copper Rand site general arrangement. In addition to the Copper Rand TMF (not shown), the following infrastructure can be identified in the image.

- Administration and gate building;
- Process Plant Building;
- Assay Laboratory) and Core Shack;
- Warehouses (not in use);
- Mechanical Workshop/Garage (not in use);
- Electrical Station; and
- Other facility infrastructure.

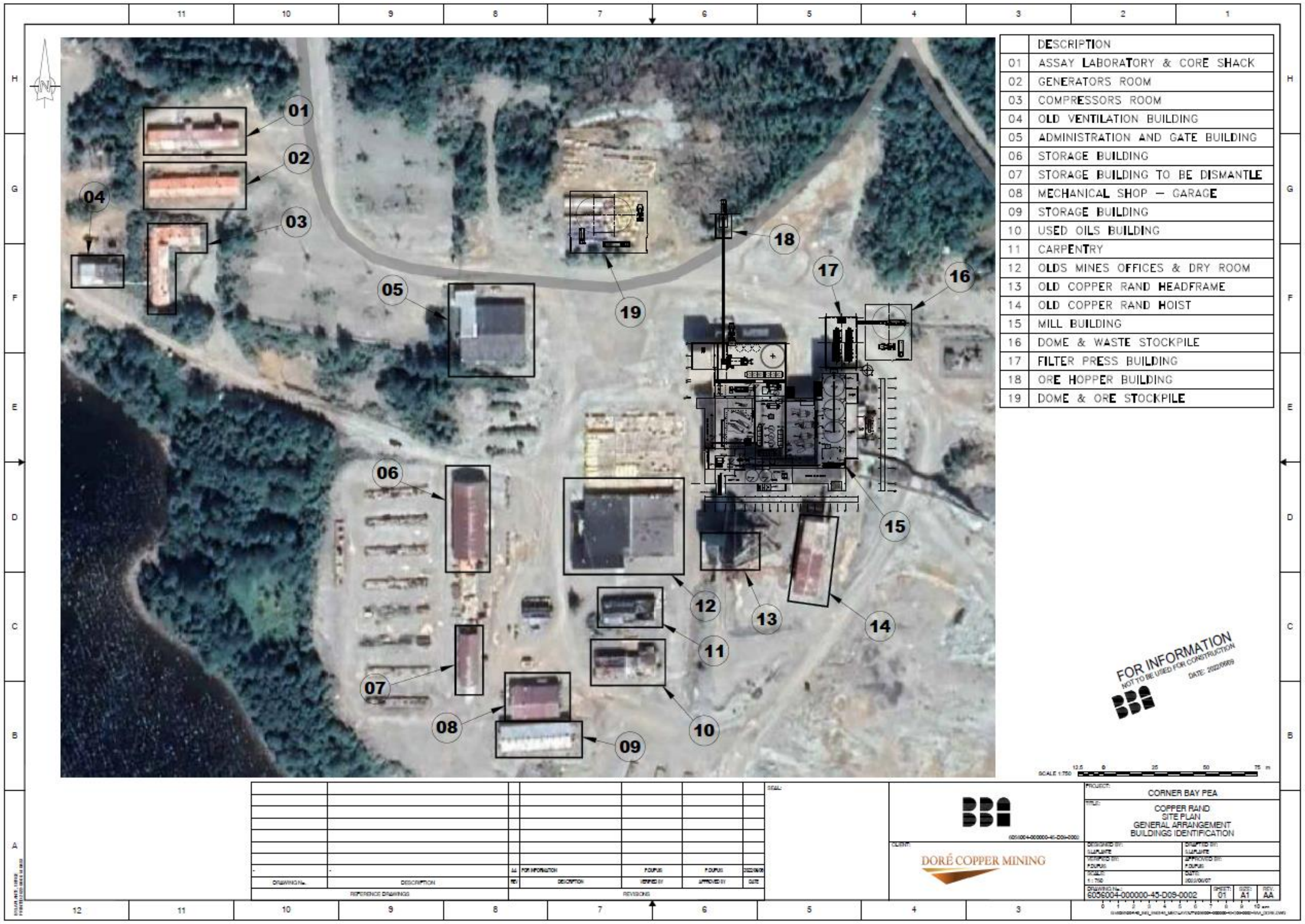


Figure 18-11: Copper Rand site general arrangement

Items 07, 11, 12 identified in Figure 18-11 are in poor condition and will be dismantled prior to resuming operations.

The office building includes a security office and serves as the regional office for Doré Copper.

The process plant building is a wood and steel structured building with an approximate surface area of 4,400 m². The building houses the mill, including the ball mill, flotation, thickening and concentrate filtration equipment. There are dedicated areas for offices, a control room, electrical room and a metallurgical laboratory, none of which are operational. The building is equipped with overhead cranes for service and maintenance.

18.5.2. New buildings

The crushed material silos will be replaced with a mega-dome (1,125 m²) covering a 3000-t stockpile, which will be added north of the mill building (Figure 18-11, item 19). A covered hopper discharging onto a belt feed conveyor to the new grinding ball mill will be installed.

A separate building extension, with an approximate area of 350 m² will be added adjacent to the actual mill building to house the new tailings filtration plant. The filtered material will be discharged to a dome (22.5 m x 27 m) prior to being transported to the TMF.

18.5.3. Copper Rand TMF

To minimize environmental risks, ease permitting processes, and limit capital costs, the existing Copper Rand TMF was identified as the logical and most viable location for the new TMF.

The Copper Rand TMF was built in the 1970s. An area of Lac aux Dorés was separated by multiple embankment dams constructed with granular material and following islands around the lake. However, there is limited information on the configuration and composition of the dams. Based on the available information, the original embankment height above the lake varied from 1 m to +/- 10 m. Near the final effluent discharge, the embankment was raised to elevation 378.4 m in 2012 and 2013 to increase storage capacity (Roche, 2012 and LEQ 2012, 2013).

The Copper Rand TMF consists of an area of approximately 1,180 m by 490 m (+/- 131 ha) containing approximately 13 Mt of tailings. The available information suggests that an initial dyke was constructed and subsequently raised by an upstream method, using the tailings as foundation for the granular material. The tailings appeared to have been deposited as a slurry via spigots along the dykes, with water management at the west end of the TMF, where the final effluent is located. Water flows from the TMF to Lac aux Dorés via a spillway weir. A beach of subaerial tailings constitutes more than 50% of the Copper Rand TMF area. The elevation of the unsaturated tailings varies between 376.8 and 379.6 m. Although it is indicated in the specifications produced by Roche and LEQ (Roche, 2012 and LEQ 2012, 2013) that the dykes consist of a granular shell composed of mine waste rock with an impervious till core, the till core is not represented on the typical section provided by NCL Envirotech inc. (1991).

18.5.3.1. Geotechnical Investigation

PEA-level field geotechnical investigations were carried out in 2021 and 2022 by SRK to provide overburden and in situ tailings characterization in support of the drystack facility siting evaluation and geotechnical design.

Overburden deposits mapped in the Copper Rand area are mainly colluvium deposits covering the hill slope, located east of the existing Copper Rand TMF. The overburden deposit is characterized by boulders, cobbles, and gravels in a fine-grained matrix, i.e., silty sand to sand and silt. The overburden thickness varies. Performed test pits reached refusal at depths varying from 0.3 to +5.0 m and no groundwater was encountered.

A total of five piezocones and six seismic piezocone soundings, as well as nine geophysics lines, i.e., four georadars, three seismic reflections + MASW and two MASW, were completed within the existing Copper Rand TMF. A total of eight vibrating wire piezometers were strategically installed within the footprint of the proposed drystack.

The piezocone soundings reached refusal at an average depth of 7.7 m. The minimal penetration depth was 3.9 m and the maximum 14.0 m. The tailings are mainly characterized as contractive sand or silt mixture or silt to clay with an average shear wave velocity of 150 m/s. The material seems to be coarser at surface and finer at depth. A total of ten Vane Shear tests were also performed within the tailings to assess the peak and remodeled undrained shear strength.

The water table within the tailings varies from a depth of 0.10 m, near the polishing pond west of the facility, to 2.5 m, near the embankment north of the facility, and seems to be at equilibrium with Lac aux Dorés near the main embankment.

18.5.3.2. Design Criteria

The basis of the drystack design is provided in Table 18-1. Values were determined from Project-specific information, judgment, and experience with other projects.

The PEA design was performed in accordance with the following guidelines and regulations and comply with the general industry guidelines and standards of practice:

- Directive 019 sur l'industrie minière, Mars 2012 (MDDEP, 2012);

- Guide de préparation du plan de réaménagement et de restauration des sites miniers au Québec (MERN, 2017);
- Canadian Dam Association, 2013. Technical Bulletin: Application of Dam Safety Guidelines to Mining Dams. (CDA, 2014);
- Mining Association of Canada (MAC). 2017. A Guide to the Management of Tailings Facilities;
- Mining Association of Canada (MAC). 2011. Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities;
- Mining Association of Canada (MAC). 2011. A Guide to Audit and Assessment of Tailings Facility Management; and
- Global Industry Standard on Tailings Management (2020).

In addition to elements listed in Table 18-1, the development of the design criteria for the Copper Rand drystack considered the following:

- Tailings are potentially acid generating (PAG) and metal leaching (ML) until demonstrated otherwise;
- Closure cost expenditures and complexity of rehabilitation work;
- Minimizing surface erosion by quickly draining stormwater towards designated zones and minimizing the watershed reporting to the TMF; and
- Minimizing CAPEX as much as possible.

Table 18-1: Drystack design parameters and design criteria

Design Item	Criterion	Reference
Operational Life of TMF	10 years	BBA/Doré Copper
Total Tailings	3.6 Mt	BBA
Average Filtered Tailings Production (Solids)	301,632 t/y	BBA
Compacted Tailings Dry Density	1.5 t/m^3	SRK
Target Storage Requirement	2.4 Mm^3	SRK
Tailings Stack Maximum Elevation (height)	398 m (20 m)	SRK
Depth Water Table Within Existing Copper Rand TMF	2.0 m	SRK
Stability Factor of Safety (FOS)	1.1 (post-liquefaction) 1.5 (static)	SRK
Stack Outer Shell Slope (overall)	10H:1V (11.5H:1V)	SRK
Stack Bench Configuration (width & step height)	7 m & 5 m	SRK
Starter Working Platform Storage Capacity	0.36 Mm^3 @ Year -1,	SRK
Working Platform Storage Capacity Increase #1	1.81 Mm^3 @ Year 2	SRK
Working Platform Storage Capacity Increase #2	0.96 Mm^3 @ Year 9	SRK

The design criteria were based on site conditions as of April 2021, on assumptions interpreted from a review of available information, and on prefeasibility-level field investigations and associated reporting. Where data were not available, obtained or generated, prefeasibility-level assumptions were made.

18.5.3.3. Access Road

Access to the TMF will be through a combination of private access roads. The current access road to the existing TMF will be used as a hauling road by an articulated truck for filtered tailings transport. The access to the drystack and associated water treatment plant by light vehicle will be through the access road located within the forest, east of the TMF.

18.5.3.4. General Description

The drystack will be built on the existing Copper Rand TMF. The expected maximum tailings production rate is 369,742 t/y and the drystack are designed to store approximately 3.0 Mm^3 (4.5 Mt) of tailings at an elevation of 398.0 m. The proposed TMF has capacity to be expanded to approximately 12 Mt of tailings, representing an increase of 7.5 Mt from the current design of 4.5 Mt. The quantity of tailings to be produced over the 10.5-year mine life is 3.62 Mt. The maximum stacking height (above existing grade) of the drystack is planned at 20.0 m. The drystack will be constructed in 5 m lifts with benches setback 7 m every lift to achieve an overall slope of 11.5H:1V. The facility will be built against the hill located east of the facility. A staged construction process is proposed to minimize stack footprint, quantity of contact water and encourage progressive reclamation. The proposed final stack elevation (398.0 m) is the same as the highest elevation of the hill. The proposed stack geometry follows the hill topography promoting visual integration within the landscape. The final design is expected to have variations in the slope aspect, to best manage overland flow, resulting in a transitioning convex to concave shape of the drystack face.

Filtered tailings will be brought on site with articulated hauling trucks, dumped and placed with a dozer. The 0.3 m to 0.5 m thick layers will be compacted to the targeted dry density with a drum roller compactor. A dry density of 1.5 t/m^3 was used to estimate the storage capacity of the facility. The operation scheme of the facility will result in zones for summer period and winter seasons. The external shell of the drystack will be constructed during summertime, when targeted dry density can easily be reached. The inner core of the stack will be built during heavy rain periods and wintertime, when tailings moisture and snow will negatively impact the compaction process. Instrumentation will be installed strategically within the impoundment to monitor the performance of underlying foundation material and drystack. The drystack construction/operation would be guided under an adaptive management plan or TARP.

The drystack will be constructed over an engineered working platform. The working platform will have a minimum thickness of 2.0 m and constructed directly on the consolidated tailings. An initial working platform with an area of 10.7 ha will be constructed one year prior to the start of operations. Two additional construction periods will bring the final footprint of the working platform to its final 40.1 ha in Year 9 of operation. The 40.1 ha footprint of the drystack will be fully lined with an impermeable LLDPE geomembrane 2 mm thick.

Figure 18-9 and Figure 18-10 illustrated the drystack configuration for the initial construction phase and the LOM footprint. Typical cross-section of the facility is provided in Figure 18-11 and detail of the working platform and seepage management system are provided in Figure 18-12.

Figure 18-12: TMF configuration at Year -1

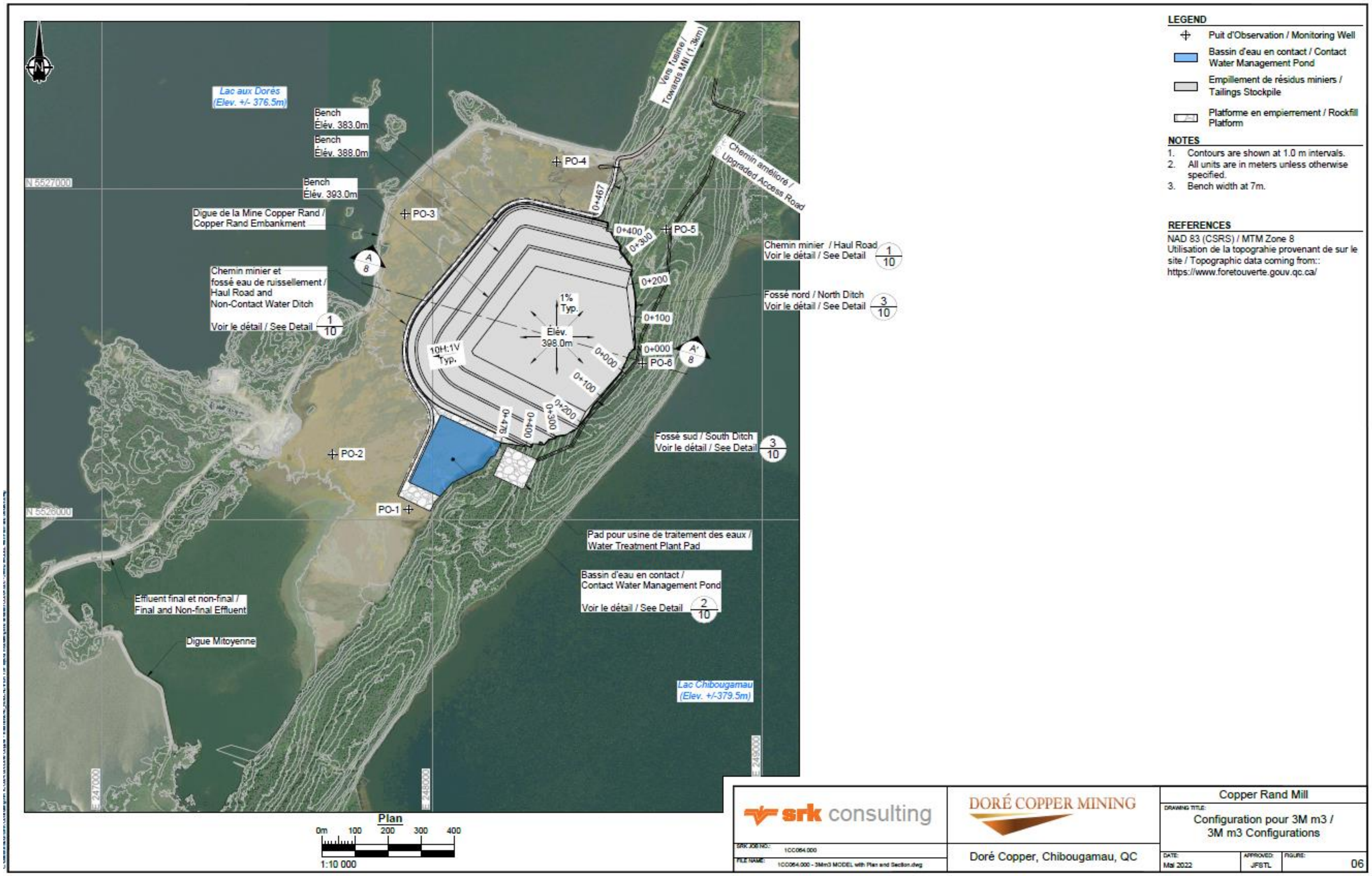


Figure 18-13: TMF configuration at end of LOM

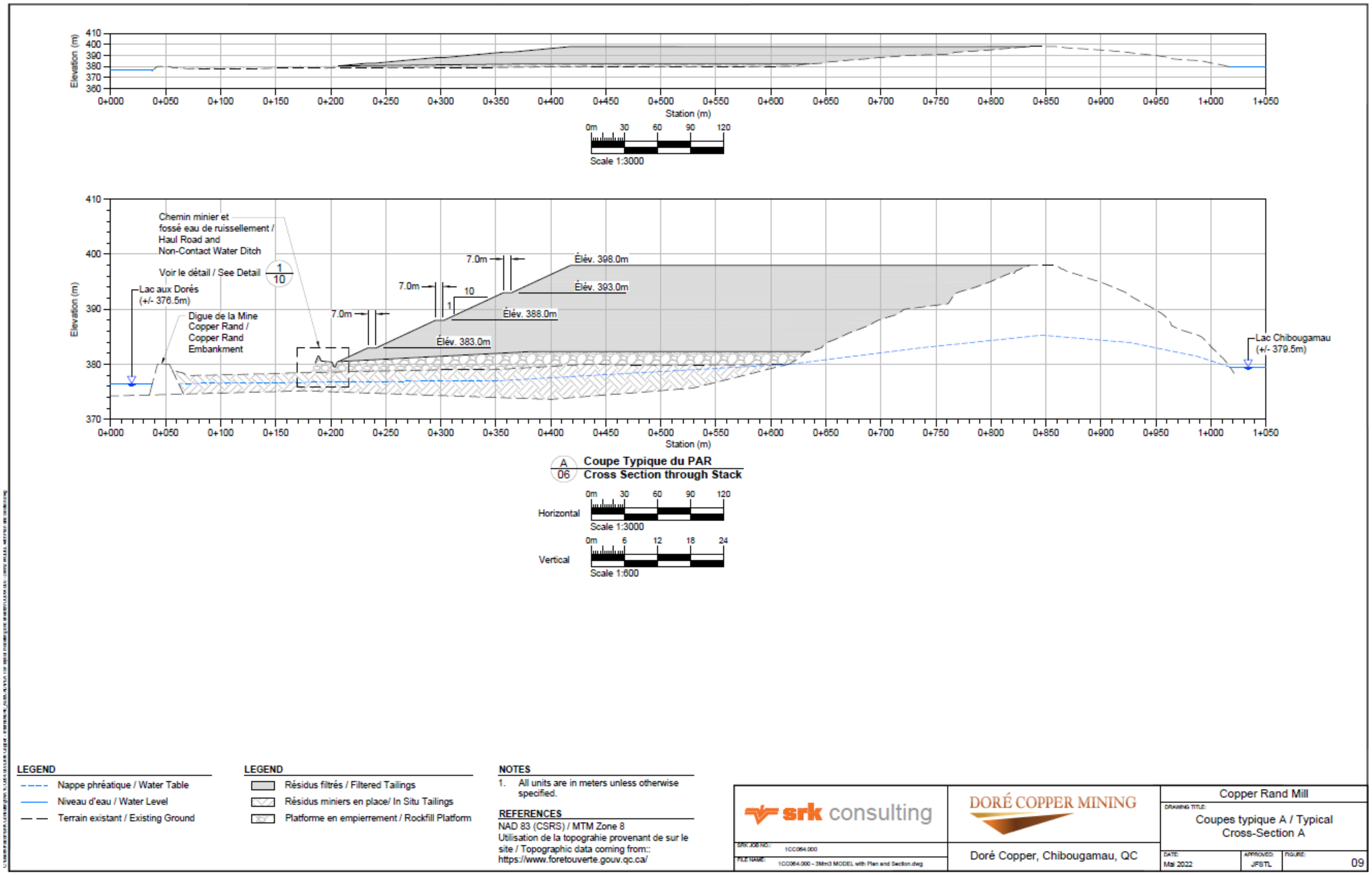


Figure 18-14: Drystack typical cross-section

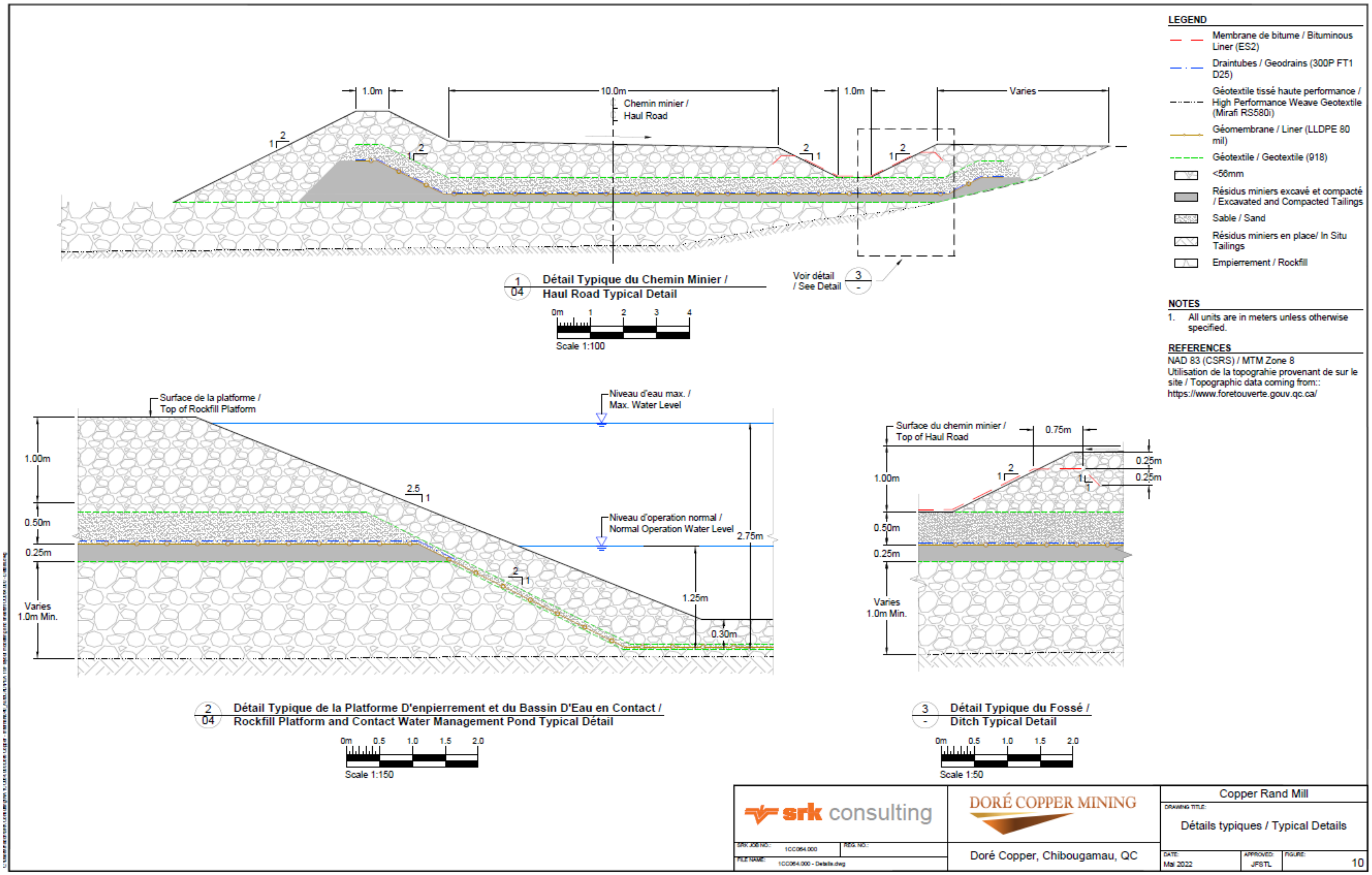


Figure 18-15: Drystack working platform typical details

18.5.3.5. Surface Water Management

The objectives of the water management infrastructure at the TMF are to:

- Manage non-contact and high sediment/contact water separately to minimize volume of water collected and treated on site;
- Collect the potentially acidic and metal-containing contact water with high-sediment content that could otherwise impair the water quality of the receiving lake;
- Protect mine infrastructure from damage from unmanaged run-off; and
- Reduce suspended solid loading in the surface runoff prior to discharge.

The brownfield TMF is a combination of terrain, soils and vegetation and could potentially result in high runoff, especially early in the season when the soil is still frozen.

The catchment area of the drystack will increase through time and should be approximately 41 ha at the end of operations. An evolutive surface water management system will be constructed and modified through time to segregate contact and non-contact water.

Stormwater will be managed within the existing Copper Rand TMF boundaries by capturing and conveying high sediment/contact water from the drystack for treatment and diverting non-contact water away from the stack. Water conveyance for non-contact, high sediment/contact water and a proposed storage facility include the following types of structures:

- Diversion and collection channels with culverts;
- Energy dissipation basin; and
- Collection pond.

Non-contact water will be diverted away and around the drystack to the extent possible to reduce infiltration into the TMF inflows. Non-contact water will be discharged to the existing Copper Rand TMF polishing pond during operations and closure and will flow by gravity towards Lac aux Dorés. The diversion of non-contact water will reduce water treatment costs, and storage volume requirements. Channel construction will be phased during the construction period, and prior to commencement of operation to maximize non-contact water diversion.

High sediment/contact water will be generated when precipitation or runoff comes into contact with the filtered tailings. High sediment/contact water will be collected during operations and treated through ditches and culvert systems to enable the water quality to comply with environmental requirements prior to discharge in the existing Copper Rand TMF polishing pond. Runoff from the drystack should be mitigated by using durable and non-erodible surfaces to prevent or reduce erosion until reclamation. Filtration curtains and/or baffles will be contingency measures to mitigate or reduce the sediment concentration within the water.

Non-contact and high-sediment/contact water diversions will be designed to convey the peak flow from a 100-year return period for a 24-hour rain-on-snow event. All channels will have a minimum depth and width of 1.0 m. Permanent channels will be lined with riprap to provide appropriate erosion protection. Riprap will be sized to provide a stable non-erodible conveyance route, with riprap of a reasonable size and sourced locally on-site. The riprap will be placed on geotextile fabric to limit erosion below the armour and reduce sediment loading downstream. Channel depths will be designed to have a minimum freeboard of 0.3 m above the design peak flow depth to accommodate potential ice or sediment accumulation, unforeseen climatic events or other uncertainties.

The high sediment/contact water pond will maintain a permanent pool depth of 1 m to dissipate the water velocity entering and allow for particles to settle out prior to treatment. The ponds will have a dimension ratio to optimize residence time allowing for sedimentation to occur within the pond. Sediments that accumulate in the contact water pond will be periodically removed to maintain the design capacity. The sedimentation ponds will be equipped with a spillway designed to convey the peak flow from a storm event.

An access road will be located adjacent to each of the channels to provide access during construction and then for maintenance and cleaning of ice and sediment accumulation.

Figure 18-12 and Figure 18-13 illustrate the TMF configuration and surface water management scheme for the initial construction phase and the LOM footprint of the drystack.

18.5.3.6. Groundwater Protection System

Until otherwise demonstrated, it is assumed that small amounts of water will be seeping out at the base of the drystack and will need to be collected to prevent degradation of groundwater quality. A seepage interception system was integrated within the drystack platform. This system includes:

- LLDPE 2 mm thick geomembrane inclined towards the high sediment/contact water pond;
- Drain tubes embedded in a sand layer directly above the geomembrane, allowing the seepage to flow towards the high sediment/contact water pond; and
- Down gradient performance monitoring wells with completions in historical Copper Rand tailings, overburden, weathered bedrock and competent bedrock (Figure 18-12 and Figure 18-13).

A groundwater management system would be guided under an adaptive management plan or trigger action response plan (TARP).

18.6. Site Water and Load Balance

At this stage, no water and load balance model has been generated.

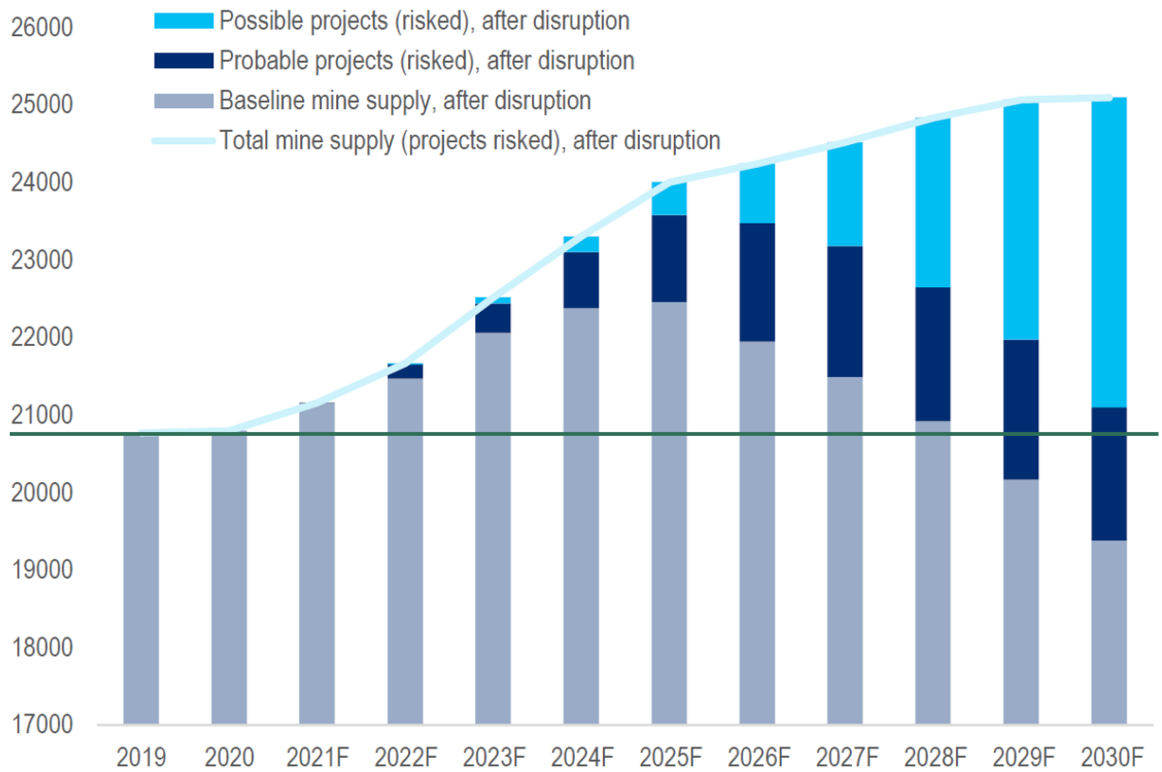
19. Market Studies and Contracts

19.1. Supply and Demand Forecast

No market studies or product valuations were completed as part of this PEA. Market price assumptions were based upon a review of public information, industry consensus, standard practice, and specific information from comparable projects.

Copper is an industrial metal used in many facets of our lives. Its principal use is as an electrical conductor in buildings, transportation, power transmission, appliances, and electronic devices amongst others. It is also used as a heat conductor, in architecture, in plumbing, in motors, and as coinage. Copper is an essential metal for our modern society, especially as governments and industries continue to advance the transition to a low carbon economy.

Growth in copper demand is expected to average approximately 2.7% over the rest of the decade (Citi Research, 2021-10-07). The majority of the world's copper is supplied from mines. Mines are a non-renewable source and with time they become depleted in terms of both grade and tonnes. Copper can be recycled infinitely, and of the current supply, approximately 15% to 20% is sourced from recycling. With annual copper demand projected at 23 million tonnes (Mt), the additional annual production required is approximately 460,000 tonnes by the end of the decade (Figure 19-1). This is comparable to two very large, new mines entering production each year. The industry currently is unable to meet this requirement and thus a production shortfall is predicted. If this and other similar studies are correct, a sizable copper deficit will exist at the end of the decade and copper prices should remain strong for the foreseeable future. In brief, the demand for copper is expected to grow and new copper projects are needed to meet the increased demand to offset declining production from existing mature mines.



Source: Citi Research

Figure 19-1: Annual copper supply – Demand projection to 2030

19.2. Metal Prices and Foreign Exchange

The PEA study assumes one saleable product from the Project, a copper concentrate containing gold. The forecast base case copper and gold metal prices for this study are based on the LME 24-month trailing averages. The prices and foreign exchange used in this study are shown in Table 19-1, and the copper and gold prices trend over the two-year period to March 31, 2022 are shown in Figure 19-2 and Figure 19-3.

Table 19-1: Metal prices and exchange rate used for the PEA

Description	Unit	24-month trailing average to March 31, 2022
Copper	US$/lb	3.75
Gold	US$/oz	1,820
Exchange rate	USD:CAD	1.28

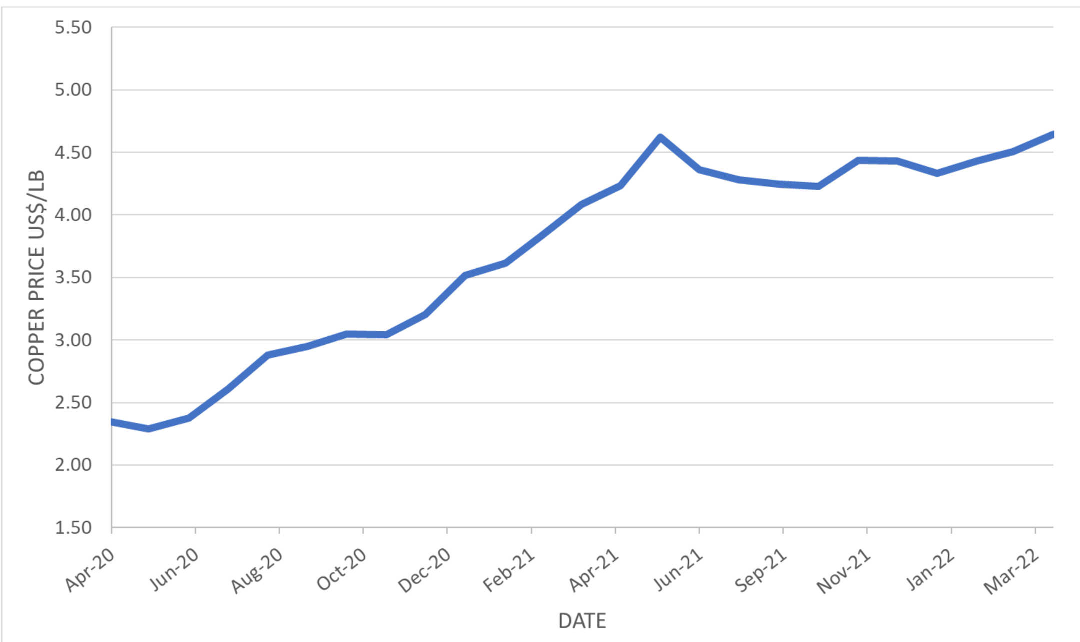


Figure 19-2: Trailing two-year monthly copper price chart to March 31, 2022

The two-year daily average for copper was US$3.77/lb, which was rounded to US$3.75/lb for this study. As of the effective date of this report, the copper price has been considerably higher than the two-year trailing average over the past year.

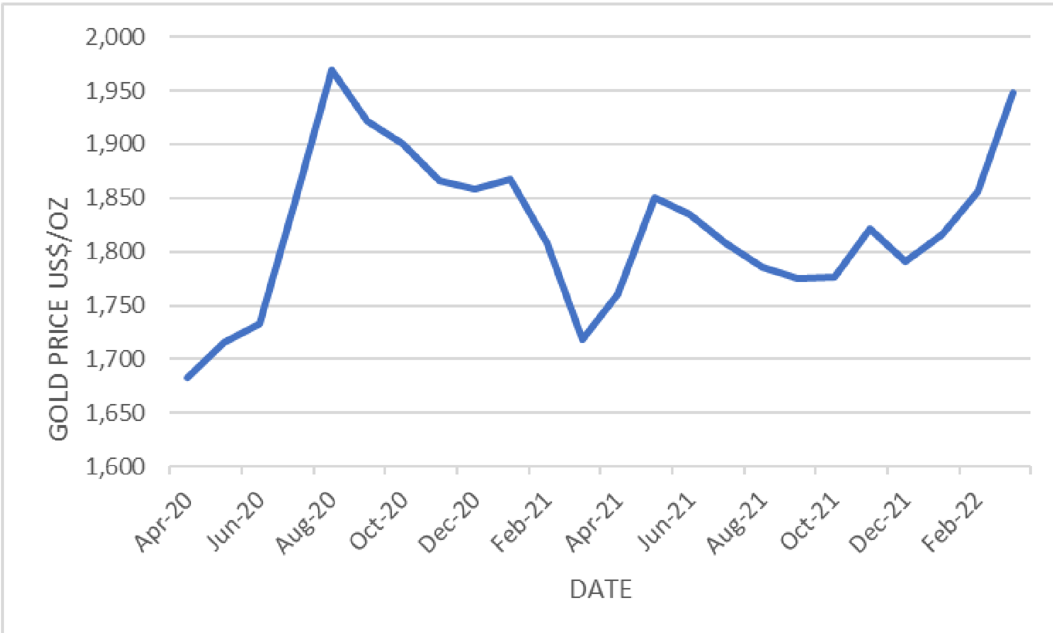


Figure 19-3: Trailing two-year monthly gold price chart to March 31, 2022

The two-year monthly average for gold was US$1,821/oz, which was rounded to US$1,820/oz for this study.

The Project's economic sensitivity to changing metal prices is discussed in Section 22 of this Report.

19.3. Concentrate Sales

Doré Copper has an offtake agreement with Ocean Partners Limited for the sale of all future concentrate production from the Copper Rand mill. Ocean Partners will determine the destination copper smelter for the concentrate.

The main terms of the Ocean Partners contract are the following:

- Copper payable is equal to the lower of 96.5% or a one-point deduction. For example, at a concentrate grade of 25%, the payable would be (25%-1%)/25% = 96%;
- Gold payable is equal to the lower of 95% or a 1 g/t deduction;
- Silver payable is equal to the lower of 95% or a 30 g/t deduction. This PEA does not include silver as it is not in the MRE. Silver revenues have not been estimated. This may represent a future opportunity to improve Project economics. It is anticipated that silver will be included in future studies;

- Treatment and refining charges equal to the annual benchmarks established by the major mines and smelters. For this study, treatment charges of US$70/t (dry basis) and US$0.07/lb of payable copper is used in the economic model;
- A refining charge of US$6.00/oz of payable gold was used;
- Payment of 85% of the payable metals is advanced to Doré Copper once the material arrives at the destination port or smelter, whichever occurs earlier.

It was assumed that no penalties will be incurred on the sale of the concentrate. This is consistent with the results of the concentrate produced from the 36,000-t bulk sample test in 2008 on Corner Bay material and minor element assays of core from the Corner Bay, Devlin, and Joe Mann projects. Additional testing is recommended to test the assumption that the concentrate is clean and will not incur penalties, based on historic production information.

Doré Copper is responsible for the freight until delivery to the smelter. For the purposes of this study, it is assumed that the concentrate will be transported to the port of Québec City and then transported in 5,000 t lots to a smelter in Northern Europe at a total estimated cost of $105/t (wet) of concentrate. The company does not have a logistic service agreement in place. It is recommended that the company evaluate the logistics costs, including land transport, port handling and ocean freight costs during the next phase of the Project.

20. Environmental Studies, Permitting, and Social or Community Impact

The Project must comply with the environmental and social impact assessment and review procedure under Schedules A and B of the Environment Quality Act. Consequently, an environmental and social impact assessment (ESIA) must be prepared and submitted to the competent authorities in order to determine whether the impacts of the project are deemed acceptable. To achieve this, many technical studies will have to be carried out and these will have to cover at least the various potential environmental and social issues related to the realization of the mining project. These studies will not only make it possible to document the baseline state of the receiving environment, but also to assess the nature and extent of the potential impacts of the Project.

So, as required by the legal framework in Québec, Canada, Doré Copper has mandated Englobe to carry out the ESIA. The ESIA includes the following parts of the Project: Corner Bay and Devlin site, and Copper Rand mill and TMF (Joe Mann is excluded from the ESIA; the term Project is still used in this Section). The ESIA will be performed in accordance with the regulatory requirements as stated below. Baselines studies, the first part of the ESIA, have started in 2021 and are underway throughout 2022. These studies will allow for a better understanding of the environmental and social receiving study area. The preliminary information statement, which is the first step to initiate the ESIA, will be filed later in 2022, while the ESIA will extend to 2023. The ESIA will be focusing on the analysis and the evaluation of the impacts of the Project on social and environmental components, with the objective of integrating the Project as well as possible into its receiving environment. Since the ESIA is still at its early stage, information provided here remains preliminary and will be detailed in the ESIA as required by the authorities.

20.1. Environmental Baseline Studies

To document the ESIA, several inventories and studies are in progress, while others are planned for 2022.

The studies aimed at documenting the baseline have targeted the following environmental components:

- Hydrology;
- Hydrogeology and groundwater quality;
- Physicochemical characterization of the initial state of the aquatic environment;
- Physicochemical characterization of soil condition;
- Sound environment and vibrations;

- Air quality;
- Greenhouse gas (GHG);
- Climate change;
- Natural environment:
  - Aquatic Fauna;
  - Wildlife;
    - Micromammal;
    - Chiropteran (bats);
    - Amphibians and reptiles;
    - Birds;
  - Vegetation, wetlands and watercourses;
- Social Environment;
  - First Nations;
  - Territory and resources uses;
  - Quality of life and well-being;
  - Stakeholders consultations;
  - Visual aspects; and
  - Archaeological potential.

Among the components listed, some have already begun to be documented. In fact, exploratory inventories were carried out in the fall of 2021 to document the presence of wetlands and bodies of water. In addition, water samples were taken from Lac Chibougamau and the surrounding water bodies to collect data identifying interannual variations. This first visit made it possible to determine that wetlands occupy a significant surface on the sites where the Corner Bay and Devlin mining projects are located. The wetlands are primarily forested bogs and some swamps. The vegetation in these wetlands is typical of the region.

Subsequent visits are planned for the beginning and end of summer 2022 to complete the observations necessary to allow the delimitation of wetlands and bodies of water, in addition to obtaining a representative database to document surface water quality and sediment.

Finally, all inventories related to wildlife will be held in the summer of 2022. A first inventory of birds will be carried out at the beginning of the summer, while most of the others will be carried out at the end of the summer. Throughout these inventories, a special attention will be given to status species, including those at risk.

The rest of the components requiring field surveys will also be addressed during the summer of 2022 in order to prepare the sector study reports for the end of the year.

20.1.1. Modelling and other technical studies

Each of the technical studies conducted to document and describe the baseline will be used to assess the potential impacts of the Project on the environmental and social components.

In addition, using inputs from the baseline studies, technical modelling and simulation studies will also be carried out to understand the nature and extent of the impacts. Among others, the following models are planned:

- **Noise and vibrations**: Modelling of the potential increase in ambient noise when Project noise sources are added to the baseline. To do this, listening stations are planned for sensitive receivers surrounding the noise sources. This will make it possible to simulate the amount of noise during the various phases of the Project.
- **Air Quality**: Modelling the dispersion of atmospheric contaminants. This modelling will make it possible to consider the atmospheric contaminants produced by the various emitting sources of the Project, while being matched with meteorological conditions and initial concentrations of contaminants representative of the sector.
- **Hydrogeological conditions**: Modelling of current and projected hydrogeological conditions. This modelling makes it possible to document the effect of the Project on the water table, thus promoting a better understanding of the effects of underground mining and certain other activities.

20.2. Mineralized Material, Waste Rock, Tailings and Water Management Requirements

Based on the available data, mainly geological and mineralogical considerations, the following assumptions are made. Directive 019 is the main guideline for mineralized material, waste rock, tailings, and environmental water management requirements.

20.2.1. Geochemical Assessment

20.2.1.1. Metal Leaching and Acid Base Accounting Data (ML/ABA)

No acid-base accounting testing has yet been performed as part of the ESIA study and no filtered tailings were available for laboratory testing. AGP (2015, 2018), RPA (2019) and SLR (2021) noted that the mineralized material contains a high percentage of sulphides, mainly chalcopyrite and pyrite in massive to semi-massive form. The distribution of the sulphides decreases significantly away from the mineralized lenses or veins. In other words, the sulphide minerals are reduced in concentration and more disseminated as a function of distance from the mineralized lenses or veins. Based on the review of existing data, the following is assumed:

- Portion of the waste rock produced by mining the Devlin deposit is likely to be potentially acid generating (PAG):
  - Sulphide mineralization in the deposit is comprised of chalcopyrite and pyrite generally occurring as semi-massive to massive sulphides. Minor hematite and magnetite are also present locally, both erratically distributed;
  - Limited presence of carbonates associated with a quartz gangue; and
  - Results of a QEMSCAN study (SGS, 2021) on a composite sample of core show the presence of 5.58% S ($S^{=}$/S), due mostly to pyrite (6.90% by mass) and chalcopyrite (5.49% by mass). These minerals are shown to be free, i.e., not encapsulated, and therefore amenable to oxidation upon contact with atmospheric oxygen.
- Portion of the waste rock produced by mining the Corner Bay deposit is likely to be PAG:
  - Copper mineralization is hosted in sheared quartz vein within mylonized anorthosite and associated dykes related to the Chibougamau Pluton. It consists of massive to semi-massive sulphides, mainly chalcopyrite and pyrite, that is cross-cut by a second generation of hematized quartz veins; and
  - Carbonate minerals are present within quartz carbonate veins associated with the sulphide mineralization and within the alteration zone.
- In the existing Copper Rand TMF, it is likely that the water associated with the tailings is representative of the process water chemistry and as such is likely to be neutral, but metal rich. The pH measurements of the water by Doré Copper in the existing tailings facility indicate a pH > 7 and low concentrations of metals below the threshold values.

The data received included information pertaining to the Corner Bay and Devlin exploration programs, detailing the regional geology of the respective sites and mineralization. The diamond drilling database has not been reviewed by SRK. The historical mines and the existing Copper Rand TMF are also described in detail. This information is based upon report descriptions and very little is georeferenced. Based on the above, a portion of the waste rock produced by mining Devlin and Corner Bay will likely have the potential to develop acid rock drainage and metal leaching (PAG/ML material). Acknowledging that the mineralized material contains a high percentage of sulphides, the filtered tailings will likely have the potential to develop acid rock drainage and metal leaching (PAG/ML material). These hypotheses will be verified during the detailed geochemical assessment through static and kinetic testing of the filtered tailings in a subsequent study phase. Tailings from the existing Copper Rand TMF will also be tested in a subsequent study phase, to accurately understand the site conditions and help inform the short- and long-term monitoring programs, which would also include the overall closure concept.

20.2.1.2. Existing Copper Rand Tailings Facility Effluent Monitoring

According to Aecom (2020), effluent monitoring on the existing sites and tailings impoundment provides the following findings:

- The historical average final effluent flowrate ranges from 5,114 m^3/day (2017), 2,745 m^3/day (2019). The effluent is intermittent depending on the year and month, therefore, the annual volume discharged between 2017 and 2019 has varied, ranging from a high of 1,087,142 m^3 in 2017 to a low of 761,960 m^3 in 2018;
- All deleterious substance monitoring results comply with applicable regulations and are below the maximum allowable monthly average concentrations;
- From 2017 to 2019, conductivity and hardness were higher in the exposure zone compared to the reference zone, demonstrating the presence of mine effluent;
- The effluent appears to be a point source of various metals and nutrients, specifically nitrates, in the water of Lac aux Dorés. In general, copper is a parameter that tends to be slightly higher in the exposed area than in the reference area; mercury and lead, however, show levels exceeding water quality criteria/ guidelines. i.e., chronic effect, in some of the years sampled years (2017-2019) and are often higher in the reference zone. This suggests that natural levels of these parameters are present in the environment.

20.2.2. Management of Mined Material

Mined (mineralized) material from Devlin will be transported by 35-t truck to Corner Bay. A fixed crushing circuit and mineral sorter (XRT) will be installed at Corner Bay. The sorter will sort on the basis of copper content and reject the low-grade and dilution material from the Corner Bay and Devlin mines. Mined material from Joe Mann will be transported by truck to Corner Bay for crushing The blended high-grade material will be transported by truck to the refurbished and optimized Copper Rand mill.

20.2.3. Waste Rock Management

Acid generating waste rock piles, whether permanent or temporary, will have an underlying 80 mm linear low-density polyethylene (LLDPE) liner installed above a layer of geosynthetic clay liner (GCL).

At Corner Bay, two waste rock piles will be constructed, and will remain at the end of the mine life. All waste rock mined in capital developments from non-mineralized zones are estimated to be primarily clean. For this PEA, 20% of this waste rock is assumed to be PAG, while 80% is assumed to be non-acid generating (NPAG). A waste rock dump, which will be a lined facility, will contain the rejects from the sorter and the PAG waste rock from the mine. The second waste rock facility, which will be unlined, will contain the estimated 80% NPAG rock from the mine. The mineral sorter rejects will be temporarily stored on the surface before they are transported by mining trucks for backfilling stopes in Corner Bay mine. Around 93% of total mineral sorter rejects and all acid rocks will be used as backfill underground. This site has both natural and man-made terrain.

At mine closure of Corner Bay, a NPAG pile with 2.60 Mt of non-acid generating rock will remain on the surface. The mine will have an additional capacity to backfill 1.6 Mt of material in its lateral and vertical capital developments. Approximately 55% NPAG rock left on the surface at mine closure can be reclaimed back underground, if required.

At the Devlin mine site, all waste rock will be returned underground. The temporary waste rock pile will have a very low risk of acid generation and, in addition, will be a lined facility as explained above.

At the Joe Mann mine site, there is an existing waste rock pile and a new one will be constructed. The new waste rock pile will contain all waste rock mined in non-mineralized zones and will have a very low risk of being acid generating. The new waste rock pile will be a lined facility to store both NPAG and PAG waste rock in one single pile.

20.2.4. Tailings Management

The dry-stack TMF, located 1.3 km from the Copper Rand mill will be constructed on the existing Copper Rand TMF tailings deposition area, resulting in no additional footprint. As summarized in Section 18, geosynthetic liner, i.e., LLDPE and bituminous liner, will be used to mitigate the likelihood of seepage from the TMF to the underlying foundation. Also, geodrains will be installed within the dry stack working platform to improve seepage management.

20.2.5. Water Management

This section provides a general description of the surface water management plan and water balance for all Project sites. A detailed description of the water management structures as well as water balances for the multiple sites, is provided in Section 18.

Water management at all mine sites will include:

- Diverting runoff from undisturbed areas through diversion channels to the extent practicable;
- Collecting runoff and seepage from mine facilities (mine water) in containment ponds with excess conveyed to the water treatment plants; and
- Water from containment ponds will be sent to water treatment plants, which will then send the treated water to polishing ponds before discharging to the environment.

Runoff from different mine areas and groundwater inflows will be collected separately based on water quality to the extent practicable.

Both containment ponds and polishing ponds at Corner Bay and Devlin will be lined with an 80 -mm linear low-density polyethylene (LLDPE liner installed above a layer of geosynthetic clay liner (GCL).

Water treatment is required to ensure that the mining effluent discharge meets the Directive 019 and the Metal and Diamond Mining Effluent Regulations (MDMER) water quality criteria. The water treatment system is described in Section 18.

20.2.6. Site Monitoring

The objective of an environmental monitoring program is to detect and document any changes in the environment in relation to the baseline studies, to verify the impact, and to evaluate the effectiveness of the mitigation or compensation measures that will be proposed in the EIA study. As part of the Project, an environmental monitoring program will be implemented. The main components of the environmental monitoring program for all the sites are as follows:

- Effluents Quality Monitoring (Directive 019 and MDMER);
- Groundwater Quality and Piezometric Level (Directive 019);
- Water Quality Monitoring Studies (MDMER);
- Biological Monitoring Studies (MDMER); and
- Mitigation Measures Monitoring, e.g., air quality, noise, vibration, runoff, etc.

An additional monitoring program could be required as a condition of an authorization delivered by various levels of government.

At the existing Copper Rand TMF, environmental effects monitoring (EEM) studies are regularly conducted by Doré Copper (sampling) or qualified consultants (sampling/analysis) acting on behalf of the Company.

20.3. Regulatory Context

The regulatory context described in the following sections is based on regulations and acts in force at the time of the preparation of this Report.

20.3.1. Environmental Impact Assessment Process

20.3.1.1. Provincial Authorities

The ESIA procedure in the province of Québec is divided into two regimes: Southern and Northern. These two regimes are administrated by the ministry, the MELCC (*Ministère de l'Environnement et de la Lutte contre les changements climatiques*). By virtue of its location, the Project falls into the Northern regime, with the provisions applicable to the James Bay region located south of the 55th parallel (EQA, Title II, Chapter II). The Project is in the territory covered by the James Bay and Northern Québec Agreement (JBNQA). The projects listed in Schedule A of the Environment Quality Act (EQA) are automatically subject to the ESIA and review procedure. Mining projects are listed in Paragraph (a) of Schedule A:

(a) All mining developments, including the additions to, alterations or modifications of existing mining developments.

Therefore, the Project must follow the environmental assessment and review procedures under the Regulation respecting the ESIA and review procedure applicable to the territory of James Bay and Northern Québec.

As the first step in the procedure, the proponent must complete a preliminary information form. This will provide the administrator (MELCC) with the basic information on the project and its potential impacts. Once filed, the form is submitted to the Environmental and Social Impact Evaluating Committee (COMEV), the environmental and social impact evaluating committee, for analysis and recommendations. As a next step, a project directive is issued by the COMEV, sent to the MELCC and then forwarded to the proponent. This directive provides the proponent with all the information on the nature and scope of the ESIA. The directive is the proponent roadmap for initiating and completing the ESIA.

The next steps in the provincial ESIA process are:

- Preparation and transmission of the ESIA statement to the MELCC according to the directive of the Minister;
- The Minister sends a copy of the ESIA statement to the Environmental and Social Impact Review Committee (COMEX) and to the Cree Nation Government (CNG). The CNG, and any Band or Cree community may, within 30 days following the reception of the ESIA statement by the CNG, submit representations to the COMEX. Furthermore, where the interested Band or Cree community so allows, any person interested may submit written or verbal representations to the COMEX;
- Within 45 days following the reception of the ESIA statement by the COMEX, the latter shall recommend to the Minister whether to authorize the project or not and, as the case may be, on what conditions, or shall recommend that the applicant is required to carry out supplementary research or studies; and
- Where the Minister is satisfied with the ESIA statements provided, the Minister shall transmit a global certificate of authorization (CoA) or a refusal in writing. A copy of such a decision is transmitted to the CNG. Conditions that the applicant must respect in the carrying out and in the operation of their project may be added to the CoA.

The release of the global CoA does not affect or restrict the application of the EQA. It is the responsibility of the proponent to verify with the MELCC and any other municipal or government entity whether additional authorizations are required to carry out mining operations (see Section 20.3.1.3).

20.3.1.2. Federal Authorities

Due to the nature of the Project and its components, the Project does not trigger a federal impact assessment, in accordance with Physical Activities Regulations (SOR/2019-285).

20.3.1.3. Permitting Requirements

Throughout all stages of the Project, i.e., construction, operations, and closure, activities conducted by Doré Copper will be required to comply with provincial and federal acts and regulations. The detailed engineering and operations will consider the conditions, mitigation measures and monitoring requirements associated with the global CoA and the federal authorization. It shall also consider all applicable environmental standards included in other relevant provincial acts, regulations, guidelines and policies. The most relevant ones are listed below. This list is non-exhaustive and is based on information known so far. Their applicability will need to be reviewed as the Project components are defined.

Provincial Jurisdiction

- Mining Act (M-13.1)
  - Regulation respecting mineral substances other than petroleum, natural gas and brine (M 13.1, r. 2)
- Environmental Quality Act (Q-2)
  - Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact (Q-2, r.17.1)
  - Regulation respecting activities in wetlands, bodies of water and sensitive areas (Q-2, r.01)
  - Clean Air Regulation (Q-2, r. 4.1)
  - Regulation respecting industrial depollution attestations (Q-2, r. 5)
  - Regulation respecting pits and quarries (Q-2, r. 7.1)
  - Regulation respecting compensation for adverse effects on wetlands and bodies of water (Q-2, r. 9.1)
  - Regulation respecting the declaration of water withdrawals (Q-2, r. 14)
  - Regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere (Q-2, r. 15)
  - Regulation respecting the burial of contaminated soils (Q-2, r. 18)
  - Regulation respecting the landfilling and incineration of residual materials (Q-2, r. 19)
  - Regulation respecting waste water disposal systems for isolated dwellings (Q-2, r. 22)
  - Regulation respecting halocarbons (Q-2, r. 29)

  - Regulation respecting hazardous materials (Q-2, r. 32)
  - Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains (Q-2, r.35)
  - Water Withdrawal and Protection Regulation (Q-2, r. 35.2)
  - Land Protection and Rehabilitation Regulation (Q-2, r. 37)
  - Regulation respecting the quality of the atmosphere (Q-2, r. 38)
  - Regulation respecting the quality of drinking water (Q-2, r. 40)
  - Regulation respecting the charges payable for the use of water (Q-2, r. 42.1)
- Threatened or Vulnerable Species Act (E-12.01)
  - Regulation respecting threatened or vulnerable wildlife species and their habitats (E 12.01, r.2)
  - Regulation respecting threatened or vulnerable plant species and their habitats (E-12.01, r.3)
- Watercourses Act (R-13)
  - Regulation respecting the water property in the domain of the State (R-13, r. 1)
- Sustainable Forest Development Act (A-18.1)
  - Regulation respecting the sustainable development of forests in the domain of the State (A-18.1, r. 0.01)
- Conservation and Development of Wildlife Act (C-61.1)
  - Regulation respecting wildlife habitats (C-61.1, r. 18)
- Lands in the Domain of the State Act (c. T-8.1)
- Building Act (c. B-1.1)
  - Construction Code (B-1.1, r. 2)
  - Safety Code (B-1.1, r. 3)
- Explosives Act (E-22)
  - Regulation under the Act respecting explosives (E-22, r. 1)
- Cultural Heritage Act (P-9.002)
- Highway Safety Code (C-24.2)
  - Transportation of Dangerous Substances Regulation (C-24.2, r. 43)
- Occupational Health and Safety Act (S-2.1)
  - Regulation respecting occupational health and safety in mines (S-2.1, r. 14)
- Dam Safety Act (S-3.1.01)
  - Dam Safety Regulation (S-3.1.01, r. 1)
- Directives and Guidelines
  - *Directive 019 sur l'industrie minière (2012)*
  - *Lignes directrices relatives à la valorisation des résidus miniers (2015)*

- Guidelines for preparing mine closure plans in Québec (2017)
- *Guide d'intervention – Protection des sols et réhabilitation des terrains contaminés (2019)*
- *Guide de caractérisation des résidus miniers et du minerai (2020)*

Federal Jurisdiction

- Fisheries Act (R.S.C., 1985, c. F-14)
  - Metal and Diamond Mining Effluent Regulations (SOR/2002-222)
- Canadian Environmental Protection Act (S.C. 1999, c. 33)
  - PCB Regulations (SOR/2008-273)
  - Environmental Emergency Regulations (SOR/2003-307)
  - Federal Halocarbon Regulations (SOR/2003-289)
  - National Pollutant Release Inventory
- Species at Risk Act (S.C. 2002, c. 29)
- Canada Wildlife Act (R.S.C., 1985, c. W-9)
  - Wildlife Area Regulations (C.R.C., c. 1609)
- Migratory Birds Convention Act, 1994 (S.C. 1994, c. 22)
  - Migratory Birds Regulations (C.R.C., c. 1035)
- Nuclear Safety and Control Act (S.C. 1997, c. 9)
  - General Nuclear Safety and Control Regulations (SOR/2000-202)
  - Nuclear Substances and Radiation Devices Regulations (SOR/2000-207)
- Hazardous Products Act (R.S.C., 1985, c. H-3)
- Explosives Act (R.S.C., 1985, c. E-17)
- Transportation of Dangerous Goods Act (1992)
  - Transportation of Dangerous Goods Regulations (SOR/2001-286)
- Directives and Guidelines
  - Environment Canada Environmental Code of Practice for Metal Mines (2009)
  - Guidelines for the Assessment of Alternatives for Mine Waste Disposal (2016)
  - Strategic climate change assessment (2020)

Following receipt of the provincial ESIA approval, Doré Copper will require several approvals, permits and authorizations to initiate the construction phase, operate, and close the Project. Doré Copper will also be required to comply with any other terms and conditions associated with the provincial global authorization.

Table 20-1 presents a non-exhaustive list of required approval, authorizations, permits or licences and their application status.

Table 20-1: Non-exhaustive list of permitting requirements

Activities	Authority	Status
General Authorization		
Closure plan – Mine	MERN	To submit
Mining lease	MERN	
Mine waste management facilities location approval. Placement of temporary waste rock piles at Devlin and permanent waste rock piles at Corner Bay and Joe Mann	MERN	To submit
Processing plant location approval	MERN	To submit
Permanent infrastructure implantation and mine waste management facilities on public land leases	MERN	To submit
Harmful alteration, disruption or destruction of fish habitat	DFO	To submit
Use of water frequented by fish for mine waste disposal and fish habitat compensation plan	DFO	To submit
Implementation of the fish habitat compensation plan	MELCC and MFFP	To submit
Implementation of the wetlands compensation plan	MELCC	To submit
Construction Phase		
Closure plan - Site Preparation	MERN	To submit
Site preparation: Overburden pile at Corner Bay, Devlin, and Joe Mann	MELCC	To submit
Temporary occupancy permit	MERN	To submit
Site preparation	MERN	To submit
Tree cutting	MFFP	To submit
Construction of roads between Devlin and Corner Bay sites	MFFP	To submit
TMF construction	MELCC	To submit
Civil works	MELCC	To submit
General construction permit	City of Chibougamau	To submit
Domestic wastewater treatment system	MELCC	To submit
Septic systems license	City of Chibougamau	To submit
Operation / Maintenance Phase		
Mobile surface water treatment system	MELCC	To submit
Mine water treatment system	MELCC	To submit
Withdrawal of water	MELCC	To submit
Potable water treatment system (Corner Bay and Joe Mann)	MELCC	To submit

Activities	Authority	Status
Mining and processing plant operation	MELCC and MFFP	To submit
TMF operation	MELCC and MFFP	To submit
Industrial depollution attestation	MELCC	To submit
Connection to the HQ electrical network	HQ	To submit
High-risk petroleum equipment	RBQ	To submit
Use of nuclear substances and radiation devices	CNSC	To submit
Explosives possession, magazine and transportation	SQ	To submit
Explosive transportation	NRC	To submit
Explosive manufacturing plant and magazines	NRC	To submit
Notice and Environmental Emergency Plan	ECCC	To submit

20.4. Social or Community Considerations

The Project is located in the Québec administrative region of Nord-du-Québec. North of the 49ie parallel, this vast area covers about half of Québec.

The Project study area includes the Oujé Bougoumou Cree Nation and the municipality of Chibougamau, part of the Eeyou Istchee James Bay Regional Government (EIJB Regional Government). Cree traplines are present throughout the project study area but no federal lands or protected areas are located within the project study area.

20.4.1. Communities in the study area

20.4.1.1. Oujé-Bougoumou Cree Nation

After long-lasting negotiations with the governments, an agreement was reached in the early 1990s to allow for the construction of a new village. Crees were hunting, fishing, and living on the territory for many generations until they could settle in a permanent village. Members of the Cree community of Oujé-Bougoumou are now close to one thousand people.

20.4.1.2. Chibougamau Community

While the town was founded in 1954, this region has been hosting people long before becoming the town it is today. Resources harvesting has been a staple since the beginning, especially through forest harvest and mining. Chibougamau now has a population of more than 7,000 and mining is still a significant part of the region’s economy.

20.4.1.3. Eeyou Istchee James Bay Regional Government

On July 24, 2012, the Crees of Eeyou Istchee and the *Gouvernement du Québec* signed the *Agreement on Governance in the Eeyou Istchee James Bay Territory* for the creation of a joint Regional Government composed of Crees and Jamésiens. This regional government has allowed for the establishing of a partnership between Crees and Jamésiens in favour of respectful and mutual collaboration for the region's development and prosperity. The Eeyou Istchee James Bay Territory is made up of 16 communities inhabited by some 15,000 Jamésiens and 15,000 Crees.

20.4.2. Communications and Consultation Activities

Since the ESIA is still at its early stage, with the Project concept being refined, ESIA consultations have not been initiated yet. However, as part of its communications, Doré Copper has met several times with the Chibougamau town, stakeholders and local representatives and the Cree Oujé-Bougoumou representatives to provide them with updates on the Project.

While these communications will continue throughout the project, ESIA consultations will also be planned. Englobe, a consulting firm retained by Doré Copper, will accompany the Company in the next steps of consultations with government authorities, communities and stakeholders, in the context of the ESIA.

A consultation plan will be set up and will focus on the engagement of populations affected by the Project to ensure a meaningful public participation in the ESIA. The consultation plan will be based on approaches detailed in the Québec provincial "*Guide sur la démarche d'information et de consultation réalisée auprès des communautés autochtones par l'initiateur d'un projet assujetti à la procédure d'évaluation et d'examen des impacts sur l'environnement*" (for the implementation of information and consultation process with Indigenous communities for projects subject to the EQA assessment and review procedure), the MERN Native Community Consultation Policy specific to the mining sector, and the COMEX guideline for consultations and public engagement activities for projects located south of the 55th parallel and within the territory governed by the James-Bay and Northern Québec Agreement.

The main objectives of the consultations are to:

- Inform communities potentially affected by the Project and gather their concerns and comments;
- Document the land use in the study area;
- Communicate results of field studies;
- Communicate the results of the impact assessment; and

- Improve the Project and its social acceptability by incorporating the First Nations and local community concerns and comments into the project design and implementation.

The approach, which integrates the communities' traditional knowledge, also wishes to facilitate the Project's harmonious integration within the receiving environment. Information sharing and consultation activities are an ongoing process that will continue throughout the course of Project development, the authorization process, and the construction, operation and closure phases of the Project.

20.4.2.1. Agreements

As of the date of this Report, Doré Copper has not signed a project development agreement (PDA) with the Oujé Bougoumou Cree Nation; however, the consultation process has been initiated.

20.5. ESIA procedure and environmental and social issues

The ESIA has been initiated with the baseline studies aimed at understanding the valued components of the receiving environment (section 20.1). Studies are still ongoing in 2022 and will serve as a basis for the analysis of the project infrastructures and operations potential impacts on the environment and communities. A better understanding of the environment and Project interactions will allow for a clear vision of the potential impacts. Results of this evaluation will be shared with the communities through consultations.

20.5.1. Approach and Context

The ESIA process will be performed in respect with the procedure for northern Québec and with the presence of Cree First Nation in the study area.

Impacts on any component are triggered by a source of impacts, which could be project infrastructures, works or activities. Impacts are typically observed during the construction, the operation, or the closure phase. Impacts are determined for each biophysical and social component, through the analysis of the technical characteristics of the Project, the knowledge of the surrounding environment and experience from similar projects.

The general approach for the identification of impacts is to analyze the interactions between the valued environmental and social components and the sources of impacts. Once the interrelations are identified, the significance of the impact is evaluated through a series of criteria, namely: the geographic extent of the impact, its magnitude and its duration. Mitigation measures are then applied to lessen the impact identified. Finally, compensation measures can also be identified, if needed.

Potential impacts are typically driven by a few main elements:

- The location of the main infrastructures and the footprint of the Project in the surrounding environment;
- The choice of the design criteria regarding activities such as the mine planning;
- The management of waste and water, production schedule, setting the tone for the magnitude and the duration of the influence that the infrastructures will exercise on the surrounding environment;
- The construction of the Project infrastructures; including many works such as clearcutting, blasting, excavating, building, etc., that will change the landscape; and
- The operation of the Project infrastructures; including mining, mineral processing, handling of waste and tailings, water management and all the inputs and outputs required for the operation and produced throughout the operation.

20.5.2. Potential impacts of the Project

Considering some key features of the Project and the setting of the receiving environment, potential impacts of the Project will be influenced by a few features that will help to avoid and minimize the overall impacts:

- The two mining sites, Devlin and Corner Bay, are underground mines and their surface footprints are small, that will allow for the avoidance of many impacts typically seen with open pits;
- Ore processing will be performed only on the Copper Rand site, avoiding any tailing management on the Devlin and Corner Bay sites;
- The two mining sites, Devlin and Corner Bay, are located away from any town, the Cree community or public infrastructures;
- Many operations will avoid using fossil fuels, electricity will be preferred for the most critical operations.

With the implementation of mitigation measures, these features will help to avoid and to minimize the overall impacts of the project on the environmental and social components.

Since the ESIA is still in its early stage, the impacts of the Project have not been evaluated yet. However, QP experience of similar projects enables to identify typical impacts of such projects.

20.5.2.1. Potential impacts on the physical components

The key issue with the physical components will be to limit and control impacts of the infrastructures on the soil, water and air components, in order to avoid contamination of the environment.

The main potential impacts that will be assessed for the physical components are:

- Potential changes in local hydrology due to the presence of new infrastructures;
- Potential effects on surface water quality and availability: concerning water runoff
- Modification, higher suspended matter associated with potential subsidence and erosion
- Risks and potential contamination from effluents;
- Potential local contamination of soil and water: concerning accidental spillage of petroleum products and other contaminants;
- Potential effect on groundwater near the infrastructures;
- Potential local changes in air quality: in relation with dust and contaminants during the mine operation, as well as GHG emissions; and
- Potential local changes in noise and vibrations during the mine operation.

20.5.2.2. Potential impacts to the biological components

The key issue with the biological components will be to limit the effects of the project footprint on the natural habitats.

The main potential impacts that will be assessed for the biological components are:

- Potential local loss of vegetation and wetlands;
- Potential local loss of habitats for terrestrial fauna and birds;
- Potential perturbation and displacement of fauna resulting from noise and activities during construction and operation; and
- Potential local disturbance of fish habitats due to the presence of new infrastructures and changes in hydrology and hydraulics.

20.5.2.3. Potential impacts on the social components

The key issue with the social components will be to control detrimental effects of any nuisance on the land occupation and resources uses by the communities on the territory.

The main potential impacts that will be assessed for the social components are:

- Potential local modifications of land and resource uses;
- Potential local increase in road traffic during construction and operation phases;
- Potential disturbance of historical and archaeological sites;
- Potential local nuisances (noise, traffic, dust) during construction and operation;
- Potential local visual modification of the landscape; and
- Potential short-term as well as long-term economic spin-offs for local communities.

As stated, the ESIA will allow for the evaluation of the detailed impacts of the Project. Emphasis will be directed towards the avoidance and the mitigation of the impacts. Surveillance during construction as well as follow-up during operation will also be mandatory. Communications and reporting to the authorities as well as to the communities will also be implemented so that information on the status of the Project and its effects on the environment are readily available.

In accordance with the Mining Act, Doré Copper will need to establish a monitoring committee to foster the involvement of the local community. The committee must be established within 30 days after the mining lease is issued and must be maintained until all the work provided for in the rehabilitation and restoration plan has been completed.

20.6. Mine Closure Requirements

Québec regulatory authorities have established requirements for mine site closure and rehabilitation in the province of Québec. A person who performs exploration or mining work is required, under the Mining Act, to submit a rehabilitation and restoration plan to the MERN for approval and must carry out the work detailed in the plan within three years after the end of mining operations on the site. The approval of the plan is conditional to the release of the mining lease and the beginning of mining operations.

In addition to the Mining Act, the MERN published in 2017 the Guidelines for Preparing Mine Closure Plans in Québec, which details the Minister's requirements for mine rehabilitation works. The main objectives of these works, as stipulated by the MERN are the following:

- Eliminating unacceptable health hazards and ensuring public safety;
- Limiting the production and spread of contaminants that could damage the receiving environment and, in the long term, aiming to eliminate all forms of maintenance and monitoring;
- Returning the site to a condition in which it is visually acceptable (reclamation); and
- Returning the infrastructure areas, excluding the tailings impoundment and waste rock piles, to a state that is compatible with future use (rehabilitation).

Furthermore, as per the Mining Act, the proposed works must include the following:

- The rehabilitation and restoration of accumulation areas;
- Geotechnical soil stabilization;
- The securing of openings and surface pillars;
- Water treatment; and
- Road-related work.

Indirect costs, such as engineering, supervision fees and site monitoring must also be considered.

A financial guarantee covering the anticipated costs of completing the works proposed in the closure plan as well as a contingency representing 15% to 30% of the closure costs must be submitted before the start of the mining operations and is withheld until restoration and rehabilitation works have been completed to the satisfaction of the MERN at the end of the LOM.

The closure plan must be revised every five years or whenever changes to the mining activities justify the revision of the content or cost estimation of the closure plan.

20.6.1. Closure Concept

The proposed reclamation works for the Devlin, Corner Bay, Joe Mann mines and Copper Rand mill and tailings sites for the purpose of the PEA are the following:

- Dismantling of all buildings and surface infrastructure, including water management infrastructure, i.e., ditches and ponds, unless it is shown that they will be necessary for future use;
- Securing the mine openings including shafts, raises and access ramps to underground work sites;
- Scaring and revegetating of all affected areas, namely the industrial area of each site;
- Environmental assessment of the sites as well as contaminated soil excavation and management;
- Restoration to ensure geotechnical stability and vegetating the waste rock stockpiles on the Devlin, Corner Bay and Joe Mann sites, including the existing waste rock stockpile on the Joe Mann site for which it is assumed Doré Copper holds accountability; and
- Restoring the existing Copper Rand TMF to ensure erosion control and restoring the proposed TMF using an engineered cover to prevent the production or spread of contaminants to ensure geotechnical stability of the pile.

The proposed works are developed with the intent of ensuring that the sites are returned to a natural appearance and integrate with the surrounding environment, whilst limiting the production and transport of contaminants as well as limiting erosion.

Post-closure monitoring programs, as required by the MERN, will need to be carried out to ensure the physical and geochemical stability of the site and to assess the need for additional remedial measures. Post-closure estimated costs must include geotechnical monitoring, water quality monitoring, and agronomical monitoring programs.

Included in sustaining costs within the scope of this PEA is the estimated reclamation and closure costs for the Project, which totals $53.6 million, including indirect costs. This cost includes site rehabilitation works as well as post-restoration monitoring as described above.

The financial guarantee required by the MERN is equal to the cost of the closure works, including engineering and monitoring, etc., plus contingency. The cost of the financial guarantee is estimated to be $61.4 million.

20.6.2. Doré Copper Mining Accountability for Existing Waste Management Infrastructure

The ownership of the existing site infrastructure will need to be confirmed.

Doré Copper holds accountability for the existing buildings and some waste management infrastructure on the sites covered by this PEA. At the Copper Rand site, some of the existing buildings will be dismantled or replaced before the start of mining operations. The existing Copper Rand TMF located south of the process plant site, and the existing waste rock piles located on the process plant site are under the responsibility of Doré Copper. The cost for restoring these impacted areas is considered in the closure cost estimate.

It is considered that Doré Copper does not hold responsibility for the existing Eaton Bay TMF located east of the process plant, and therefore its restoration has not been considered in the cost estimate provided within the scope of this PEA.

It is considered that the existing waste rock stockpile located west of the Joe Mann shaft is under the responsibility of Doré Copper, and the cost for its restoration is included in the closure costs. However, it is considered that the existing TMF located northwest of the Joe Mann shaft does not fall under the responsibility of Doré Copper.

Upon starting the proposed mining operations described within the scope of this PEA, it is considered that Doré Copper will be responsible for the waste rock stockpiles and buildings present on the Corner Bay mine site.

Independent closure plans for each of the sites will need to be filed and approved by the MERN and MELCC prior to starting mining operations.

21. Capital and Operating Costs

Capital and operating costs have been estimated for the Project. The capital cost estimates are based on the PEA and address the engineering, procurement, construction, and start-up of the mine and processing facilities, as well as the ongoing sustaining capital costs. The operating cost estimate includes the cost of mining, indirect labour, transportation of mined material, processing, waste management, and related G&A services. Cost estimates for the proposed Corner Bay mine, Devlin mine, Joe Mann mine and Copper Rand mill were developed by BBA, while cost estimates for the TMF at Copper Rand and mine closure were developed by SRK and WSP, respectively.

The Corner Bay and Joe Mann proposed mines and the Copper Rand mill will be operated by Doré Copper, while Devlin and the transport of tailings to the TMF facilities at Copper Rand will be operated by a contractor. The following sections present the responsibilities of the Owner and the Contractor that were assumed for the economic evaluation.

Costs were estimated based on budgetary quotes and information from similar operating mines in Canada.

All capital and operating cost estimates cited in this Report are referenced in Canadian dollars as of Q1 2022 and, unless otherwise stated, are referred as "$". An exchange rate of USD$1.00:CAD$1.28 is used in all calculations.

Note that the numbers shown in the section's tables are rounded and may not add up in the table's totals.

21.1. Cost Estimate Accuracy

The potential variance of the actual costs compared to the cost estimates developed in this analysis, i.e., cost estimate accuracy, is dependent upon the level of engineering, the estimating methodology, and the degree to which the Project implementation activities have been estimated.

The accuracy of the capital cost estimate is within +/-35% as of Q1 2022.

21.2. Exclusions

The following were not included in this estimate:

- Costs associated with scope changes;
- Escalation beyond 2022 Q1;

- Financing costs;
- Costs associated with schedule delays such as those caused by:
  - Scope changes;
  - Unidentified ground conditions;
  - Labour disputes.
- Accommodations for local labour;
- Sunk costs; and
- Residual risk reserve.

21.3. Capital Cost

All direct and indirect capital expenditures incurred in pre-production (Year -1) are included as project period expenditures (CAPEX). All capital expenditures during the operating years (Year 1 onwards) are categorized under sustaining capital (SUSEX).

21.3.1. Summary

The PEA for the Project established an initial (pre-production) capital cost estimate of $180.6 million with sustaining capital costs over the LOM of $402.4 million, including the capital to restart Joe Mann and closure costs of $53.6 million. Initial underground capital costs include the rehabilitation of the portals at Corner Bay and Devlin, facilities for water capture and treatment at both locations, construction of power transmission lines (16 km, 34 kV to Corner Bay, and 3.25 km, 34 kV to Devlin), a crushing circuit and mineral sorter at Corner Bay, improvements to existing roads and 4 km of new roads connecting Corner Bay and Devlin, a new mine feed material receiving and mill feed conveyor, ball mill and gravity circuit, rehabilitated flotation and concentrate filtration circuit, a new tailings filtration circuit at the mill, and the preparation of an area on the existing TMF for the placement of filtered tailings and a water treatment facility. Capital costs are summarized in Table 21-1 and details are shown in Table 21-2.

Table 21-1: CAPEX summary

Cost Element	Initial Capital(1)		Sustaining Capital(1)(3)		Total Capital	
	LOM ($M)	$/t(6)	LOM ($M)	$/t(6)	LOM ($M)	$/t(6)
Corner Bay	14.8	1.6	247.3	27.0	262.2	28.7
Devlin	7.0	0.8	0.4	0.0	7.4	0.8
Joe Mann(2)	0.0	-	51.9	5.7	51.9	5.7
Processing	54.2	5.9	1.1	0.1	55.3	6.0
Infrastructure	34.5	3.8	15.5	1.7	50.0	5.5
Tailings	13.8	1.5	16.7	1.8	30.4	3.3
Direct Costs	**124.3**	**13.6**	**332.9**	**36.4**	**457.2**	**50.0**
EPCM and Indirect Costs(4)	22.8	2.5	5.t5	0.6	28.4	3.1
Owner's Costs(4)	9.9	1.1	3.1	0.3	13.1	1.4
Subtotal CAPEX	**157.1**	**17.2**	**341.6**	**37.3**	**498.7**	**54.5**
Contingency(5)	23.6	2.6	7.2	0.8	30.8	3.4
Reclamation and Closure	0.0	-	53.6	5.9	53.6	5.9
Total CAPEX	**180.6**	**19.7**	**402.4**	**44.0**	**583.1**	**63.7**

Notes:

(1) All values stated are undiscounted. No inflation or depreciation of costs were applied.

(2) Contingency, owner's costs, (Engineering, Procurement and Construction Management) EPCM and indirect costs on Joe Mann's initial capital are included in the sustaining capital.

(3) Sustaining capital does not include salvage values, estimated at $17 million for all sites.

(4) Includes owner's costs of 8%, construction indirects of 10%, and EPCM of 12% for mill and tailings and 4% for mining of direct costs.

(5) Includes contingency of 15% for all initial capital, owner's costs, construction indirects, and EPCM.

(6) The $/t value is calculated against total tonnes mined from all the three mine sites.

Table 21-2: LOM capital cost

Cost Element	LOM ($M)	Year												
		-1	1	2	3	4	5	6	7	8	9	10	11	12
Mining	**321.5**	21.8	22.6	27.6	17.9	38.8	50.2	48.4	31.4	20.2	21.5	14.5	6.4	0.0
Corner Bay	**262.2**	14.8	22.4	27.6	16.2	30.8	31.2	37.9	22.2	16.6	21.5	14.5	6.4	0.0
Devlin	**7.4**	7.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joe Mann	**51.9**	0.0	0.0	0.0	1.6	8.0	19.1	10.5	9.2	3.6	0.0	0.0	0.0	0.0
Processing	**55.3**	54.2	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Infrastructure	**50.0**	34.5	0.0	0.0	11.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corner Bay	**27.0**	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Devlin	**7.5**	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joe Mann	**15.5**	0.0	0.0	0.0	11.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tailings	**30.4**	13.8	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0
Direct Costs	**457.2**	**124.3**	**22.6**	**37.8**	**30.1**	**43.3**	**50.2**	**48.4**	**31.4**	**20.2**	**28.0**	**14.5**	**6.4**	**0.0**
EPCM and Indirect Costs	**28.4**	22.8	0.0	0.0	1.8	1.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Owner's Costs	**13.1**	9.9	0.0	0.0	1.0	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal CAPEX	**498.7**	**157.1**	**22.6**	**37.8**	**32.9**	**46.0**	**53.4**	**48.4**	**31.4**	**20.2**	**28.0**	**14.5**	**6.4**	**0.0**
Contingency	**30.8**	23.6	0.0	0.0	2.3	2.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reclamation and Closure	**53.6**	0.0	0.4	0.4	0.4	0.5	2.7	0.4	0.4	9.0	0.4	0.4	0.4	38.2
Total CAPEX	**583.0**	**180.6**	**23.0**	**38.2**	**35.6**	**48.8**	**58.7**	**48.9**	**31.9**	**29.2**	**28.4**	**14.9**	**6.8**	**38.2**

21.3.2. Owner's Responsibility

21.3.2.1. Direct Costs:

- Corner Bay and Joe Mann proposed mines:
  - Surface Infrastructure: Shop, mine dry, office, fuel (diesel) storage, warehouse, sewage management, water treatment plant, containment pond and polishing pond, process water system, compressed air system, portable water system, surface electrical system, surface stockpiles, and primary ventilation.
  - All underground tasks including rehabilitation, construction, equipment, etc.
- TMF: Access Road, non-contact water ditch, high-sediment and contact water management system, and TMF working platform.
- Mill Infrastructure: Construction of crushing and mineral sorting facilities at Corner Bay, as well as refurbishment of existing Copper Rand mill, including addition of tailings filtration plant.
- Mine closure and rehabilitation of Devlin, Corner Bay, and Joe Mann proposed mines, Copper Rand mill and TMF.

21.3.2.2. Indirect Costs

- Engineering, Procurement and Construction Management (EPCM):
  - Mines: Only the engineering portion is included in the estimate for the mines. Procurement and construction management will be covered by the owner. Engineering costs were factored from the total initial direct costs at 4%.
  - Copper Rand mill, TMF and mine closure: Engineering and Procurement are included in the estimate. Construction Management will be covered by the owner. Engineering and Procurement costs were factored from the total direct costs at 12%.
- Construction Indirect:
  - Construction indirect costs were factored from the total initial direct capital at 10%.
  - Construction indirect costs typically include first fill (mine, others), security, health and safety, environmental compliance, room and board, construction management staff (owner's team), training, recruiting, lodging of employees, mobile and communication, internet, fuel cost for owners' vehicles, repairs, ancillary equipment rental for construction, e.g., light towers, pumps, generators, etc., utilities, e.g., water and waste.
- Owner's Cost:
  - Owner's costs include expenses incurred to advance the Project during the early construction stage and 8% of initial capital is assumed.

21.3.2.3. Contingencies

- Contingency is defined as additional capital costs allowed for over and above the base estimate to account for unexpected items and unforeseen activities and requirements not anticipated in the cost estimate. Contingencies were factored from the total direct and indirect costs at 15%.

21.3.3. Contractor's Responsibility

The mining contractor is assumed to provide all the administration and maintenance facilities to support mining and construction activities at the proposed Devlin mine. They would also remove all equipment and movable buildings at the end of the LOM. An allowance is included in the unit cost of development and production to cover mobilization and demobilization costs.

21.3.4. Direct Capital Cost Estimates

21.3.4.1. Mining

Capital costs for mining include:

- Reconditioning of existing old workings, including drilling, blasting and mucking as required for the equipment selection, as well as full-ground support and services installation for all the headings;
- Lateral advance of all capital headings, including development required for ramps, crosscuts, accesses, and underground infrastructure. This cost includes use of primary (Jumbo, Bolter, LHD and Truck) and support equipment (Boom Truck, Forklift and utility vehicles) and installation of general mine services required for ventilation, process water, compressed air, low and high-voltage distribution cable, leaky feeder and fibre-optic cable;
- Vertical advance for both raisebore raises and Alimak raises and is based on contractual rates from local contractors and includes mobilization and demobilization costs;
- At Devlin, all underground equipment is provided by a third party while at Corner Bay and Joe Mann, it is purchased;
- Construction, including all equipment, parts, and materials of all underground infrastructure. See Section 16 for list of infrastructure and their details; and
- Primary and secondary ventilation, including bulkheads required for ventilation airways and escapeways.

Table 21-3, Table 21-4, and Table 21-5 show details on capital estimate for Corner Bay, Devlin and Joe Mann respectively.

Table 21-3: Corner Bay capital cost estimate

Item	LOM ($M)
Lateral Developments	
Brownfield Reconditioning	5.3
Ramps and Remucks	62.0
Footwall Drifts, Infrastructure, and Others	99.1
Vertical Developments	
Alimak Raises	4.4
Raisebore 4.5 m Diameter Raises	1.6
Raisebore 1.3 m Raises and Escapeway Infrastructure	4.4
Ventilation	
Phase 1 Primary Ventilation	1.0
Phase 2 Primary Ventilation	5.2
Secondary Ventilation & Bulkheads	3.0
UG Infrastructure	
Electrical Stations & Sumps	3.3
Trolley Line for Trucks	16.5
Tele-remote/Automation	4.0
Others	4.3
UG Mobile Equipment	
Jumbos & Bolters	8.8
LHDs & Trucks	31.3
Longhole Drills & Explosive Loaders	3.7
Support Equipment	4.3
Total	**262.2**

Table 21-4: Devlin capital cost estimate

Item	LOM ($M)
Lateral Developments	
Brownfield Reconditioning	1.8
Access, Infrastructure, and Others	1.9
Vertical Developments	
Alimak 3.0 m x 3.0 m Raise and Escapeway Infrastructure	0.5
Ventilation	
Phase 1 Primary Ventilation	0.4
Phase 2 Primary Ventilation and Secondary Ventilation	1.0

Item	LOM ($M)
UG Infrastructure & Equipment	
Electrical Stations & Sumps	0.5
Others	0.2
UG Mobile Equipment Rentals	1.1
Total	**7.4**

Table 21-5: Joe Mann capital cost estimate

Item	LOM ($M)
Lateral Developments	
Brownfield Lateral Reconditioning	5.5
Ramps and Remucks	23.7
Main Access, Infrastructure, and Others	4.1
Vertical Developments	
Brownfield Vertical Reconditioning	1.0
Alimak Raises	2.9
Ventilation & UG Infrastructure	
Primary Ventilation	1.9
Secondary Ventilation & Bulkheads	1.5
UG Infrastructure	1.5
UG Mobile Equipment	
Jumbos & Bolters	3.8
LHDs & Truck	3.8
Longhole Drill	1.2
Support Equipment	1.2
Total	**51.9**

21.3.4.2. Processing

The existing milling complex was audited. The audit was not able to define quantities for a final detailed estimate. Consequently, allocations based on similar projects were considered in the estimate to arrive at an overall budget for the recommissioning of the milling complex.

The direct costs have been evaluated by considering observations made during the site visits. The electrical and automation costs were generally efficient for the recommissioning. They are redistributed between sector according to a ratio based on the amount of equipment in each sector.

The mineral sorter and grinding area cost for major equipment were derived through package bids from equipment manufacturers. See Table 21-6 and Section 17 for more details.

Table 21-6: Processing capital cost estimate

Discipline Description	Labour	Material	Equipment	LOM ($M)
Civil	0.5	0.1	-	**0.6**
Concrete	1.0	0.6	-	**1.6**
Structural	2.2	3.7	-	**6.0**
Architectural	0.7	1.1	-	**1.7**
Mechanical	5.4	1.5	23.3	**29.1**
Piping	4.3	1.2	-	**5.5**
Electrical	1.8	0.8	3.8	**6.5**
Automation / Telecommunications	1.8	0.4	1.1	**3.3**
Direct Costs Total	**17.5**	**9.5**	**28.3**	**55.3**

21.3.4.3. Infrastructure

See Sections 16 and 18 for more details on surface infrastructure at the three proposed mine sites and at the Copper Rand site. Capital costs for surface infrastructure include:

- Surface dewatering facilities include water treatment plants, containment ponds, and polishing ponds, as well as surface piping. The old workings in the three proposed mines are assumed to be filled with water and an initial dewatering cost has been included. At Joe Mann, apart from the surface dewatering facilities, the dewatering cost also includes the staged dewatering facilities at six locations in brownfield to dewater the mine prior to any development activity;
- Facilities for compressed air include compressors and other associated facilities, e.g., air dryers, tanks with pressure gauge and relief valves, drain and purifiers, and housing. Compressor sizes are based on the compressed air requirements calculated for each mine;
- The cost of road construction includes construction of new roads and repurposing of existing roads to Devlin and Corner Bay;
- The hoist and control room at Joe Mann are currently in good shape. A $1 million allowance is included for any rehabilitation, maintenance checks, and modernization to current standards. Shaft rehabilitation includes rehabilitation of Shaft #2 and includes rehabilitation of sets and guides as well as new lines for services. The underground Rockbreaker Station rehabilitation includes installation of a new rock breaker and picker combination. The grizzly and storage bin are expected to be in working order. No significant ground support measure is expected to be required within the shaft; and

- Other costs include surface preparation for the site, maintenance shop for surface equipment and underground mine trucks (Corner Bay mine only), dry facilities, offices, portable water system, warehouse and laydown area, sewage tank and purification system, process water facilities to receive water from polishing ponds, compressed air facility and fuel storage.

Table 21-7 summarizes the infrastructure capital requirements. The costs shown are direct costs only.

Table 21-7: Surface infrastructure capital cost estimate

Item	Devlin	Corner Bay	Joe Mann	LOM ($M)
Dewatering	1.3	2.1	5.3	8.7
Process Water and Compressed Air	0.2	0.4	0.2	0.8
Surface Electrical	4.3	16.8	3.8	25.6
Surface Stockpiles and Equipment	0.6	2.5	0.9	3.2
Road Construction	-	3.3	-	3.3
Hoist System/Shaft/Rock Breaker Station Rehabilitation	-	-	4.6	4.6
Others	1.1	2.0	0.7	3.8
Total	**7.5**	**27.0**	**15.5**	**50.0**

21.3.4.4. Tailings

The capital cost estimate for the dry stack included provisions for constructing the initial working platform for the TMF, which is sufficient to store the first 1.5 years of tailings production. The costs, summarized in Table 21-8, are based upon site conditions as of April 2021 and the following assumptions were adopted:

- The earthworks will be performed by contractors, i.e., general and specialized;
- General contractors will be locally sourced, and the executed contract will be on a time and material basis;
- The following material will be provided by the general contractor:
  - Sand;
  - Crushed rock (Minus 20 mm);
  - Crushed rock (Minus 56 mm) ;
  - Crushed rock (Minus 300 mm); and
  - 500 - 600 mm diameter GCSP (Galvanized Corrugated Steel Culvert).
- The following material will be adequate for construction purposes, i.e., NPAG and not ML:
  - Eaton Bay tailings; and
  - Copper Rand waste rock.

- The following material will be provided by specialized contractor:
  - High-Performance Geotextile (Mirafi RS580i);
  - Non-woven geotextile 3.5 mm thick, 407 g/m2 (918 or equivalent);
  - Black textured LLDPE 2 mm thick; and
  - Geodrains 300P FT1 D25.

The following construction approach/methodology is considered appropriate and representative:

- Where required, trees will be harvested using a skidder and a three-person team. Cut trees will be removed from site.
- The current road on the island south of the existing Copper Rand TMF is in good condition and minimum effort will be required to upgrade it.
- The water treatment plant pad will be built with rockfill.
- The working platform at the surface of the existing Copper Rand TMF, required at the base of the dry stack, will be built through a combination of rockfill, geosynthetics, tailings and sand as described in Section 18.5. The high sediment/contact water pond will be built as part of the working platform.

An allowance was made for producing, excavating, transporting, spreading and compacting all construction material. However, no allowance was made for non-Eaton Bay tailings usage. Only the supply and installation of the geosynthetics were considered in the capital cost.

The storage capacity of the dry stack will be increased through two additional stages in Years 2 and 9 to an ultimate footprint of 40.1 ha. Sustaining capital has been estimated for each of these capacity increases to accommodate placement of material and installation of geosynthetics as part of the extend working platform construction.

Table 21-8: Summary of TMF infrastructure capital cost estimate

Item	Initial Capital (Y-1) ($M)	Sustaining Capital (Y 2) ($M)	Sustaining Capital (Y 9) ($M)
Access Road East of the existing TMF	0.10	--	--
Non-contact water ditch within the hill	0.03	--	--
TMF Based Platform of 139 685 m^2	12.22	10.20	6.50
Contact water management system	1.45	--	--
Total	**13.80**	**10.20**	**6.50**

21.3.5. Closure

The closure designs and closure cost estimate, as summarized in Table 21-9, were completed by WSP. The estimated cost includes a factor of 30% of total direct costs for the indirect cost., and a contingency of 15% of total direct and indirect costs. The study assumed a financing strategy provided by Doré Copper. The cost of financing assumes a collateral requirement of 40% for the total financial assurance amount and 2.4% as the annual rate for the cost of the financial guarantee.

Table 21-9: Summary of closure costs

Item	Direct Costs ($M)	Indirect Costs ($M)	Contingency ($M)	Cost of Financing ($M)	Available Bonds ($M)	Total ($M)
Copper Rand Mill and Tailing	26.9	8.1	5.3	3.7	(5.3)	38.7
Corner Bay	5.8	1.7	1.1	0.4	-	9.0
Devlin	1.5	0.5	0.3	0.1	-	2.4
Joe Mann	2.2	0.6	0.4	0.3	-	3.5
Total	**36.4**	**10.9**	**7.1**	**4.5**	**(5.3)**	**53.6**

21.4. Operating Costs

21.4.1. Summary

Operating cost estimates were developed using first principles, vendor quotes received from Q4 2021 to Q1 2022, and productivity being derived from benchmarking and industry best practices. Over the LOM, the average operating cost for the Project is estimated at $106/t mined and $186/t milled.

The average cash operating costs over the LOM is US$1.35/lb CuEq and the average all-in sustaining cost (AISC) is US$2.24 /lb CuEq.

Table 21-10: Operating cost summary

Cost Element	Total LOM ($M)	Average LOM
Mining	$557.6	$61/t mined / $108/t milled
Processing	$168.1	$32.5/t milled
Tailings(1)	$34.2	$7/t milled
Infrastructure and Transport	$146.8	$28/t milled
G&A	$59.8	$12/t milled
Total operating costs	**$966.5**	**$186/t milled**
Cash operating costs(2)(4)(5)	**$966.5 or US$755.1**	**US$1.35/lb CuEq**
All-in sustaining costs(3)(4)(5)	**$1,606.1 or US$1,254.8**	**US$2.24/lb CuEq**

Notes:

Numbers may not add up due to rounding.

(1) Tailings filtration costs are in processing costs.

(2) Cash operating cost includes mining, processing, tailings, surface infrastructure, transport, and G&A to the point of production of the concentrate at the Copper Rand site divided by copper equivalent pounds produced. It excludes off-site concentrate costs, sustaining capital expenses, closure/rehabilitation, and royalties. CuEq calculation assumes metal base case prices.

(3) AISC includes cash operating costs, sustaining capital expenses to support the ongoing operations, concentrate transport and treatment charges, royalties and closure and rehabilitation costs divided copper equivalent pounds produced.

(4) Copper equivalent (CuEq) costs use only payable gold in concentrate and is applied as a credit against costs.

(5) Cash operating cost and AISC are non-IFRS financial performance measures with no standardized definition under IFRS. Refer to Section 2 for details.

21.4.1.1. Owner's Responsibility

Covered under Owner's responsibilities are the following:

- Mine engineering and geology;
- Water treatment plant and other rock storage facilities at the mines;
- Health, safety, environment (monitoring, compliance), training and security;
- Mine manager and other G&A manpower;
- G&A: nursing, non-contractor employees, site maintenance (electricity and plumbing), human resources (HR) for non-contractor activities, information technology (IT), social and corporate responsibilities (SCR);
- All utilities – supply of diesel, power, propane, and water supply;
- Mineral tenure and royalties; and
- All other tasks not included under the contractor's responsibility as outlined below.

21.4.1.2. Contractor's Responsibility

During the operating period, the Project will have three contractors responsible for equipment, raw materials, and labour. Contractor responsibilities are outlined as follows:

1. Mining Contractor:
   - At Devlin, all underground activities, i.e., development, production, construction, maintenance, and other support services.
   - At Devlin, surface operations, i.e., stockpile management, rock storage facilities, site services, road maintenance, etc.
2. Trucking Contractor:
   - Transportation of mined material from Joe Mann to Corner Bay, Devlin to Corner Bay and Corner Bay to Copper Rand mill. Contractor will be responsible for the purchase and operation of surface haul trucks and surface loaders at mines, required for loading muck and maintenance of mine haul roads.
3. TMF Contractors:
   - General Contractor: Construction of the dry stack working platform, access road and water treatment plant platform. The general contractor will also be responsible for the transportation of filtered tailings from the mill to the TMF and construction of the dry stack. The contractor will be responsible for the purchase, operation and maintenance of surface haul trucks, bulldozers, excavators, drum roller compactor and loaders. Tree harvesting is also under the general contractor’s responsibility.
   - Specialized Contractor: Providing and installing geosynthetics included in the TMF working platform. QA/QC also falls under the responsibility of specialized contractors.

21.4.2. Mining

Table 21-11 summarizes the mine operating cost, separately for each mine and for the LOM. The study uses $1.40/L for diesel and $0.0527/kWh for electricity. The points below outline assumptions used in the estimate:

- Hauling cost considers average hauling distance for LOM and is applied across all LOM tonnes;
- Backfilling cost assumes that all the voids in the mineralized stopes and operating developments are backfilled with either rockfill or CRF. This allows getting rid of all underground development rocks into open stopes and helps to maintain a smaller rock stockpile at surface;
- Operating development includes cost of developing all sill and crosscuts and is based on the mine design;

- Rebuild costs for all mobile equipment at Corner Bay and cost of equipment rental at Devlin. No rebuild cost is included for equipment at Joe Mann because of a shorter mine life;
- Fixed equipment cost includes surface and underground ventilation (heating and power), dewatering, compressed air, process water, electrical system, communication, personnel handling, and underground infrastructure, e.g., service bay, fuel bay, refuge station, etc.;
- Indirect labour includes construction crews, mine superintendent, shift supervisors; maintenance supervisors, IT/electricians, maintenance planner, engineering, and geology;
- Diamond drilling cost includes definition drilling for mineable zones; and
- Other costs include environment, mineral tenure fees and rights as well as the cost of early hiring.

Table 21-11: Mining cost summary

Cost Item	LOM ($M)				$/t mined			
	Corner Bay	Devlin	Joe Mann	Total	Corner Bay	Devlin	Joe Mann	Average
Drilling, Blasting, Loading, and Hauling	117.8	44.4	12.1	**174.3**	15.5	46.7	20.4	19.1
Backfilling	50.2	2.7	4.4	**57.4**	6.6	2.8	7.4	6.3
Fixed Equipment	72.2	5.1	9.2	**86.5**	9.5	5.4	15.5	9.5
Operating Development	66.5	4.4	11.4	**82.2**	8.7	4.6	19.1	9.0
Rebuild & Equipment Rental	18.6	7.6	0.0	**26.2**	2.4	8.0	0.0	2.9
Indirect Labour	93.6	7.7	10.0	**111.3**	12.3	8.0	16.8	12.2
Diamond Drilling	13.2	1.5	0.8	**15.4**	1.7	1.6	1.3	1.7
Others	3.6	0.4	0.3	**4.3**	0.5	0.5	0.5	0.5
Total Operating Cost	**435.6**	**73.8**	**48.2**	**557.6**	**57.3**	**77.6**	**80.9**	**60.9**

21.4.3. Processing

The average processing operating costs were calculated over the LOM and include both the crushing and mineral sorting plant at Corner Bay, and milling at Copper Rand, including tailings filtration. The operating cost was estimated to be $18.4/t mined or $32.5/t milled.

The operating costs also include reagents, grinding media, plant maintenance materials, energy and personnel required for operating the processing plant. A breakdown of the steady-state processing operating costs, without contingency, is presented in Table 21-12.

Table 21-12: Processing operating costs

Cost Area	$/t Mined	$/t Milled	Total $M/year
Mill and Crusher (Labour)			
Total Salaried Employees	2.1	3.6	1.7
Total Hourly Operations	8.6	15.2	7.1
Total Labour Mill	**10.6**	**18.8**	**8.8**
Electric Power	2.6	4.6	2.1
Process Consumables (Mantles, Plates, Liners)	0.4	0.8	0.4
Grinding Media	0.9	1.6	0.7
Reagents	1.9	3.3	1.6
Maintenance and Supplies	2.0	3.5	1.7
Total Mill (General)	**7.8**	**13.7**	**6.5**
Total Mill	**18.4**	**32.5**	**15.4**

21.4.3.1. Media and Reagents

Reagent and grinding media consumption were reported in Section 17.2.3.6. Budget quotes were obtained from suppliers in 2021. A factor was added to the budgetary prices to cover transportation expenses. A summary of the average annual reagent and grinding media costs is presented in Table 21-13.

Table 21-13: Mill reagents costs

Reagents	$/t Mined	$/t Milled	Total $M/y
MIBC (Methyl Isobutyl Carbinol)	0.16	0.28	0.14
KAX51 (Potassium Amyl Xanthate)	0.80	1.41	0.67
Aerosil R208	0.06	0.11	0.05
Lime	0.78	1.38	0.65
Flocculant	0.09	0.16	0.08
Total	**1.89**	**3.34**	**1.58**

Table 21-14: Grinding media costs

Grinding media	$/t Mined	$/t Milled	Total $M/y
Primary Mill – Grinding media	0.74	1.33	0.61
Regrind Mill – Grinding media	0.15	0.27	0.12
Total	**0.88**	**1.60**	**0.74**

21.4.3.2. Personnel and Contractors

A total of 72 workers are required for processing, including 12 salaried staff and 60 hourly workers divided amongst management and technical services, operations, and maintenance departments.

The labour cost estimate is based on similar operations and is estimated at an average cost of $8.8 million per year or $10.64/t mined.

21.4.3.3. Maintenance Materials

Processing plant maintenance materials were estimated based on past operational experience and with a percentage of new equipment capital cost. Allowances were also added to cover miscellaneous expenses.

The total cost for these items was estimated to average $1.7 million per year or $2.00/t mined.

21.4.3.4. Energy

The estimate of electrical energy consumption was reported in Section 17.2.3.9 and is based on the preliminary load list. The cost of electricity was calculated based on a Hydro-Québec average cost of $0.0527 per kWh.

The energy costs represent at an average yearly cost of $2.1 million or $2.58 /t mined.

21.4.3.5. Process Consumables

The crusher and grinding mills wear parts consumption were estimated based on similar operations. Budget quotes were obtained from suppliers in 2021. A factor was added to the budgetary prices to cover transportation expenses.

The total cost for these items was estimated to average $0.36 million per year or $0.44/t mined.

21.4.4. Tailings

The unit rate for tailings disposal was provided by Doré Copper and is based on a quote provided by a contracting company based in Chibougamau. A unit rate of $6.85/t of tailings was used for this study.

21.4.5. Surface Infrastructure and transport

Surface operations include all labour and equipment associated with rental of surface equipment, e.g., loaders, dozers, graders, water-truck, pick-up trucks, and personnel vehicles, operation of water treatment plants, utilities, rock storage facilities at mines, maintenance of surface equipment, software licensing, winter maintenance, and operation of all other surface infrastructure or facilities. The cost of surface operations is estimated at $9.70/t mined for each of the three mine sites.

The cost of transporting mined material from each mine site was provided by Doré Copper and is based on a quote from a local trucking company based in Chibougamau. Mined material from Devlin and Joe Mann will be trucked to the Corner Bay crushing and mineral sorting facility. Mined material from Devlin and Corner Bay will be crushed and sorted, and the high-grade material will be transported by trucks to the Copper Rand mill. Mined material from Joe Mann will only be crushed, and then transported by truck to the Copper Rand.

The mineral sorting facility rejects low grade and dilution material, and only higher-grade material will be transported to the Copper Rand mill. This leads to a significant saving in the surface transportation cost, primarily for Corner Bay. This, however, resulted in only minimal savings for Devlin and an increase in the transportation cost for Joe Mann, as the mined material from these two mines requires multiple rehandling and an effectively longer surface haul distance. See Table 21-15 for more details.

Table 21-15: Transportation cost

Unit rate of transportation		
From	**To**	**$/t**
Devlin	Corner Bay	3.6
Joe Mann	Corner Bay	8.2
Corner Bay	Copper Rand mill	10.4
LOM transportation cost		
Mine	**LOM ($M)**	**$/t Milled**
Corner Bay	42.0	10.4
Devlin	9.3	16.4
Joe Mann	10.5	17.7
Total	**61.8**	**11.9**

21.4.6. General and Administrative (G&A)

The on-site G&A for Doré Copper is calculated separately. All surface costs associated with G&A, e.g., office accessories, utilities, software licenses, etc., are included in the cost of surface operations (see Section 21.4.5). The on-site G&A cost for all the three mine sites and the Copper Rand site is estimated at $5.6 million per year or a LOM average of $12.0/t milled. The G&A cost includes:

- General management that is not already included within mining and processing, as well as administrative assistants;
- Human resources, finances and accounting, purchasing and warehouse, health and safety, IT, training, environment, and security; and
- Municipal and school tax, insurance, donations and sponsorships, house rental, travel, community engagement and land management.

21.4.7. Workforce Requirements

The Project plans to source most of its workforce locally. The peak workforce during operations is estimated at approximately 321 persons or 372 persons including contractors. The forecast manpower for the operating labour is summarized in Table 21-16. Personnel required during the construction phase and for mine closure is not included. The estimated manpower requirements for the LOM will average a total of 310 employees and contractors.

Table 21-16: Manpower forecast

Year	1	2	3	4	5	6	7	8	9	10	11	Avg.
Corner Bay	62	111	112	129	136	157	162	162	162	157	94	**131**
Joe Mann	0	0	0	25	46	46	44	0	0	0	0	**15**
Copper Rand Mill, and Crushing and Mineral Sorting Facility	72	72	72	72	72	72	72	72	72	72	72	**72**
G&A	43	43	43	43	43	43	43	43	43	43	43	**43**
Total Doré Copper	**177**	**226**	**227**	**269**	**297**	**318**	**321**	**277**	**277**	**272**	**209**	**261**
Devlin	45	46	45	25	0	0	0	0	0	0	0	**15**
Transport, Tailings and Others	23	33	34	30	28	48	51	47	36	37	10	**34**
Total Contractor	**68**	**79**	**79**	**55**	**28**	**48**	**51**	**47**	**36**	**37**	**10**	**49**
Total	**245**	**305**	**306**	**324**	**325**	**366**	**372**	**324**	**313**	**309**	**219**	**310**

22. Economic Analysis

22.1. Overview

The economic/financial assessment of the Project for Doré Copper was carried out using a discounted cash flow approach on a pre-tax and after-tax basis, based on 24-month trailing commodity prices in the United States currency and cost estimates in Canadian currency. An exchange rate of USD$1.00:CAD$1.28 was assumed to convert US$ market price projections and particular components of the capital cost estimates into Canadian Dollars ($). No provision was made for the effects of inflation. Current Canadian and Québec tax regulations were applied to assess the corporate tax liabilities, while the most recent provincial regulations were applied to assess the Québec mining tax liabilities.

The internal rate of return (IRR) on total investment was calculated based on 100% equity financing, even though Doré Copper may decide in the future to finance part of the Project with debt financing. The net present value (NPV) was calculated from the cash flow generated by the Project, using a discount rate of 8%. The payback period is also indicated as a financial measure. Furthermore, a sensitivity analysis on an after-tax basis has been performed on the project NPV and IRR to assess the impact of variations in the Project capital costs (initial and sustaining), feed grade, USD:CAD exchange rate, price of copper, price of gold, operating costs and discount rate.

22.2. Cautionary Statement

The production schedules and financial analysis annualized cash flow tables are presented with conceptual years shown. Years shown in these tables are for illustrative purposes only. If additional mining, technical, and engineering studies are conducted, these may alter the Project assumptions as discussed in this Report and may result in changes to the calendar timelines presented.

The preliminary economic analysis is partly based on Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the PEA based on these Mineral Resources will be realized.

22.3. Methods, Assumptions and Basis

The economic analysis was performed on the following assumptions and basis:

- The Project execution plan as developed for the PEA;
- Commercial production start-up is scheduled to begin in the Year 1 Q1. The first full year of production is therefore Year 1. Operations are estimated to span a period of approximately 10.5 years;
- The financial analysis was performed on the Mineral Resources as outlined in this Report for the Corner Bay, Devlin and Joe Mann deposits;
- The LOM NPV was determined on a pre-tax and after-tax basis with discounting to the start of Year -1. Annual cash flows used for NPV calculations are assumed to be realized at year-end;
- The exchange rate has been assumed to be USD$1.00:CAD$1.28;
- Base-case copper and gold metal selling prices are US$3.75 $/lb and US$1,820/oz, respectively based on the 2-year trailing average
- A one-month delay in the copper and gold sales are assumed compared to when they are produced;
- Details of capital and operating costs are provided in Section 21 of this Report;
- Class specific Capital Cost Allowance rates are used for the purpose of determining the allowable taxable income;
- Final rehabilitation and closure costs are assumed to be incurred a year after the end of operations at each site; and
- Concentrate transport, smelting and refining assumptions and costs are referenced in Section 19.

This financial analysis was performed on both a pre-tax basis and after-tax basis with the assistance of an external tax consultant. The general assumptions used for this financial model, LOM plan tonnage and grade estimates are summarized in Table 22-1.

Table 22-1: Financial model parameters

Description	Unit	Value
Long-Term Copper Price	US$/lb	3.75
Long-Term Gold Price	US$/oz	1,820
Exchange Rate	USD:CAD	1.28
Discount Rate	%	8
Mine Life	year	10.5
Daily Mill Throughout	t/d	1,326
Total Material Processed (LOM)	Mt	9.15
Copper Grade (LOM)	%	2.61
Gold Grade (LOM)	g/t	0.59
CuEq Grade (LOM)	%	2.98
Overall Copper Recovery (LOM)	%	93.4
Overall Gold Recovery (LOM)	%	81.4
Total Copper Production (in concentrate)	Mlbs	492.1
Total Gold Production (in concentrate)	Koz	142.0
Total Copper Equivalent Production (in concentrate)	Mlbs	561.0
Average Annual Copper Production (in concentrate)	Mlbs per year	46.8
Average Annual Gold Production (in concentrate)	koz per year	13.5
Underground Mining Operating Cost	$/t milled	107.56
Processing Operating Cost (including Mineral Sorting)	$/t milled	32.42
Tailings Operating Cost	$/t milled	6.60
Infrastructure and Transport Operating Cost	$/t milled	28.31
General and Administration Operating Cost	$/t milled	11.53
Total Operating Cost	$/t milled	186.43
Royalties	$/t milled	2.56
Pre-production Capital Cost	$M	180.6
Sustaining Capital Cost(1)	$M	348.8
Reclamation and Closure Cost	$M	53.6
Salvage Value	$M	17.0

Note:
(1) Sustaining Capital excludes the reclamation and closure costs and salvage value.

22.4. Capital and Operating Costs

22.4.1. Capital Costs

All capital costs (pre-production, sustaining, reclamation and closure) for the Project have been distributed against the development schedule to support the economic cash flow model. Figure 22-1 presents the planned annual and cumulative LOM capital cost profile.

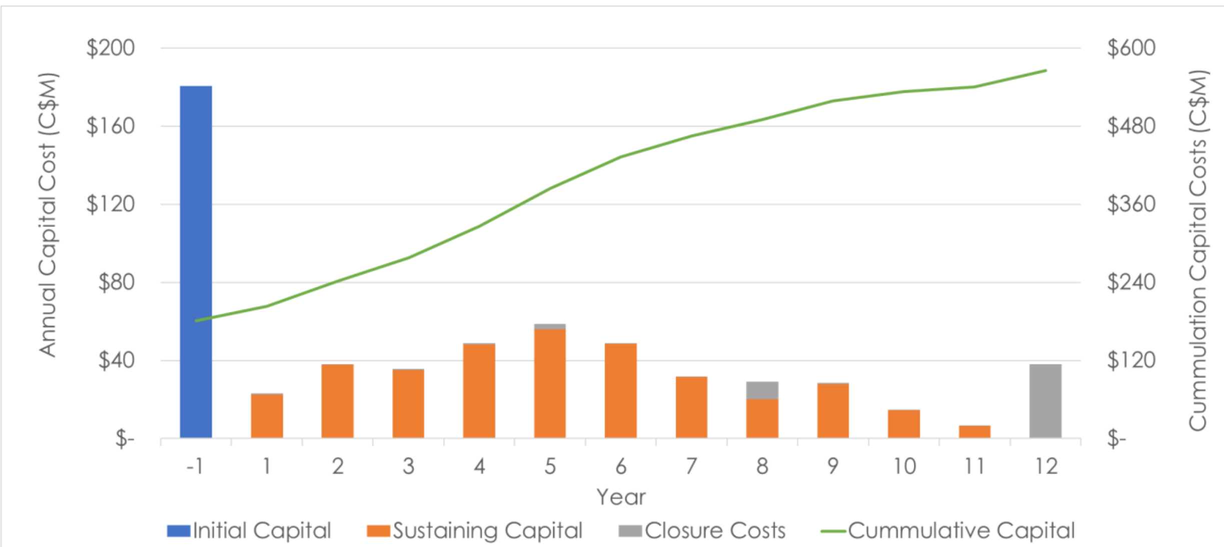


Figure 22-1: LOM capital costs for the Project

22.4.2. Operating Costs

The LOM operating costs total $966.5 million, or $186.43/t milled. The LOM operating costs by area and year are shown in Figure 22-2.

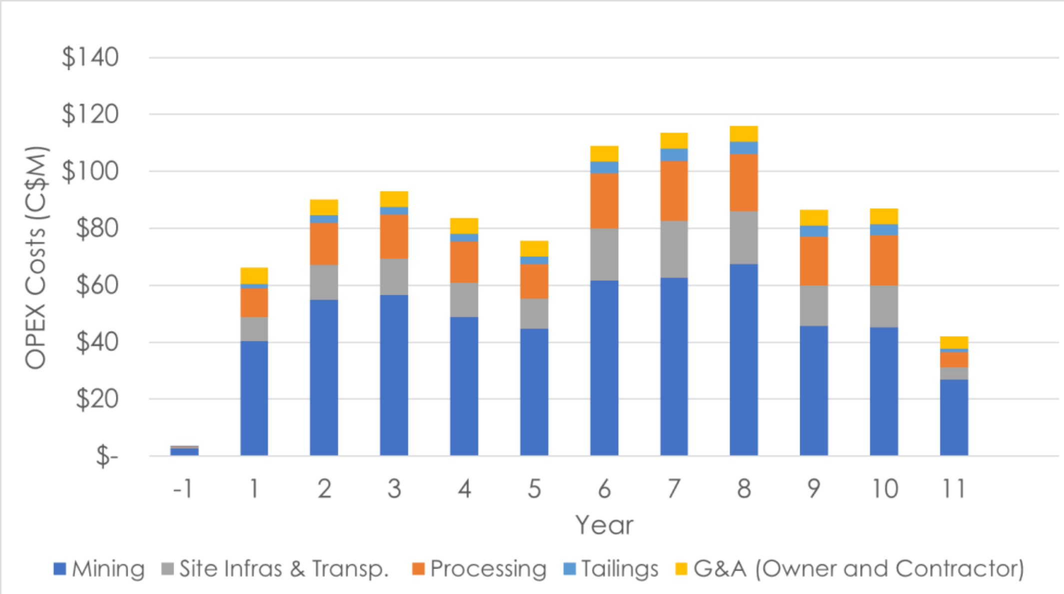


Figure 22-2: LOM operating costs by category and year

22.5. Metal Production

Over the LOM, a total of 492 Mlb of copper and 141,991 oz of gold in concentrate are produced. This produces 472 Mlb of payable copper and 108,073 oz of payable gold after smelting. Figure 22-3 provides a summary of the payable copper and gold by year.

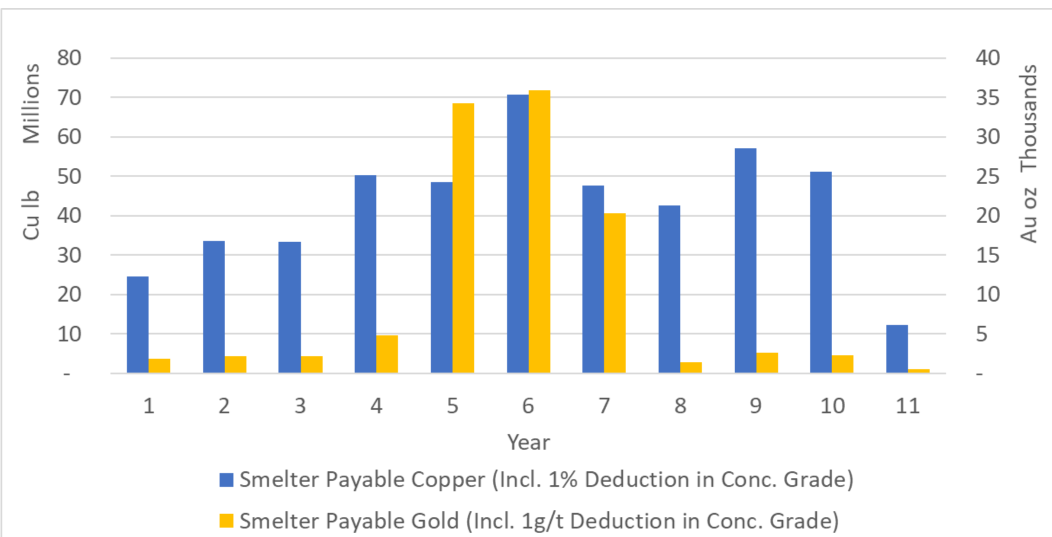


Figure 22-3: Annual copper and gold production (Payable Basis)

22.6. Royalties, and NSRs

Various royalties will apply, ranging from 0% to 2%, based on the property claims. The Table 22-2 below shows a summary of the royalties' agreements for the Project properties. Section 4 describes the royalty agreements in detail.

Over the LOM, approximately $13.3 million in royalties is expected to be paid based on the base case metal prices and Project assumptions. Corner Bay is 100% owned by Doré Copper and has no NSR royalty agreements. See Table 22-2 for more details.

Table 22-2: Total Royalties for the LOM

Royalties	$M
Devlin to Lakeshore Gold	1.24
Devlin to Rio Algom	1.01
Joe Mann to David Malouf	2.24
Joe Mann to Resource Jessie	2.04
Joe Mann commercial production to Resource Jessie	1.00
Net Operating Profit Royalty - Devlin	5.74
Total Royalties	**13.28**

22.7. Salvage Value

The Project equipment salvage value has been calculated for company-owned equipment and is based on the following assumptions:

- 15% of the purchase price of all mobile equipment;
- 15% of the purchase price of salvageable parts in fixed equipment. On average, 50% of the construction cost is assumed to be salvageable. This equates to 7.5% of construction cost (including parts) of fixed equipment;
- 5% for buildings with structural steel and sheeting, plate works, and modular buildings; and
- No salvage value for earth works or remediation works, or any services lines installed underground.

Table 22-3 below shows the salvage value of the equipment and structural steel on the various properties of the Project.

Table 22-3: Associated properties salvage values

Salvage Value	$M
Copper Rand	1.42
Corner Bay	11.00
Devlin	0.66
Joe Mann	3.94
Total Salvage Value	**17.02**

22.8. Closure Costs

The closure designs and costs for the Project were calculated and costed by WSP. The closure costs schedule is shown in the Table 22-4. The total closure costs are estimated to be $53.6 million. The closure costs are bonded with an annual insurance premium to be paid every year. The cost of financing assumes a collateral requirement of 40% for the total financial assurance amount and 2.4% as the annual rate for the cost of the financial guarantee. The total mine closure cost comes out to be $58.9 million, including the cost of financing. See Section 21 for more details. Dore Copper currently has $5.3 million in bonds towards mine closure. This available bond is removed from Copper Rand closure cost, which resulted in a net capital requirement of $53.6 million.

The closure costs are spent for Devlin in Year 5, Joe Mann is closed in Year 8, and Corner Bay and Copper Rand at Year 12. The mill and TMF at Copper Rand require the largest costs at the end of the mine life in Year 12. Table 22-4 shows the total closure costs by property.

Table 22-4: Schedule of closure costs per property

Closure Costs/Year	1	2	3	4	5	6	7	8	9	10	11	12	Total
Copper Rand	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	34.96	**38.7**
Corner Bay	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	3.24	**3.6**
Devlin	0.02	0.02	0.02	0.02	2.27	-	-	-	-	-	-	-	**2.4**
Joe Mann	-	-	-	0.08	0.08	0.08	0.08	8.67	-	-	-	-	**9.0**
Total Closure Costs	**0.4**	**0.4**	**0.4**	**0.5**	**2.7**	**0.4**	**0.4**	**9.0**	**0.4**	**0.4**	**0.4**	**38.2**	**53.6**

22.9. Taxation

The Project is subject to three levels of taxation, including federal corporate income tax, provincial corporate income tax and provincial mining taxes. Doré Copper compiled the taxation calculations for the Project with the assistance of external taxation consultants.

The current Canadian tax system applicable to mineral resource income was used to assess the annual tax liabilities for the Project. This consists of federal and provincial corporate income taxes as well as provincial mining taxes. The federal and provincial (Québec) corporate income tax rates assumed over the operating life of the Project are 15.0% and 11.5% of taxable corporate income, respectively. The marginal tax rates applicable under the Mining Tax Act in Québec are 16%, 22% and 28% of taxable income and are dependent on the profit margin. It has been assumed that a 10% processing allowance rate associated with transformation of the mine product to a more advanced stage within the province would be applicable in this instance.

The tax calculations are based on the following key assumptions:

- The Project is held 100% by a corporate entity carrying on its activities solely in the Chibougamau, Québec, area and the after-tax analysis does not attempt to reflect any future changes in corporate structure or property ownership;
- Financing with 100% equity and therefore does not consider interest and financing expenses;
- Tax legislation, i.e., federal, provincial and mining, will apply up to the end of the period covered by the calculations as currently enacted and considering currently proposed legislation; and
- Actual taxes payable will be affected by corporate activities.

The combined effect on the Project of the three levels of taxation, including the elements described above, is a cumulative effective tax rate of approximately 42%. It is also anticipated, based on the Project assumptions, that Doré Copper will pay approximately $322 million of taxes over the LOM.

Table 22-5: Summary of total taxes

Description	$ M
Federal Income Tax	101.1
Provincial Income Tax	77.4
Québec Mining Tax	143.0
Total Taxes	**321.5**

22.10. Project Summary

An 8% discount rate was applied to the cash flow to derive the NPV for the Project on a pre-tax and after-tax basis. Cash flows have been discounted to Year 1 Q1 under the assumption that major Project financing would be carried out at this time. The summary of the financial evaluation for the base case of the Project is presented in Table 22-6.

Table 22-6: Financial analysis summary (pre-tax and after-tax)

Description		Unit	Base Case
Pre-Tax	Net Present Value (0% disc)	$M	747
	Net Present Value (8% disc)	$M	367
	Internal Rate of Return	%	30.7
	Simple Payback Year[1]	year	4.2
After-Tax	Net Present Value (0% disc)	$M	455
	Net Present Value (8% disc)	$M	193
	Internal Rate of Return	%	22.1
	Simple Payback Year[1]	year	5.5

Notes:
(1) The payback period is counted after start of operations.

The pre-tax base case financial model resulted in an internal rate of return of 30.7% and an NPV of $367 million with a discount rate of 8%. The simple pre-tax payback period is 4.2 years. On an after-tax basis, the base case financial model resulted in an internal rate of return of 22.1% and an NPV of $193 million with a discount rate of 8%. The simple after-tax payback period is 5.5 years.

The summary of the Project discounted cash flow financial model (pre-tax and after-tax) is presented in Table 22-7.

Table 22-7: LOM Financial details

	Unit	Total	-1	1	2	3	4	5	6	7	8	9	10	11	12
Physicals															
Total Material Mined	Mt	**13.13**	0.09	0.74	1.05	1.14	1.38	1.46	1.74	1.43	1.21	1.31	1.19	0.40	-
Mine Tonnes	Mt	**9.15**	0.02	0.55	0.81	0.84	0.82	0.82	1.08	1.09	0.93	0.94	0.96	0.29	-
Mine Grade - Copper	%	**2.61**	0.97	2.23	2.10	2.01	3.10	2.99	3.31	2.22	2.32	3.10	2.70	2.14	-
Mine Grade - Gold	g/t	**0.59**	0.11	0.26	0.22	0.21	0.38	1.77	1.45	0.84	0.17	0.26	0.23	0.17	-
Mine Grade - Copper Equivalent	%	**2.98**	1.05	2.33	2.18	2.07	3.27	4.32	4.37	2.81	2.37	3.17	2.76	2.18	-
Mill Feed Tonnes	Mt	**5.18**	0.01	0.31	0.45	0.46	0.46	0.52	0.68	0.65	0.49	0.49	0.51	0.15	-
Mill Feed Grade - Copper	%	**4.45**	1.58	3.85	3.68	3.53	5.38	4.54	5.12	3.57	4.24	5.64	4.92	3.90	-
Mill Feed Grade - Gold	g/t	**1.03**	0.18	0.45	0.38	0.37	0.67	2.78	2.32	1.39	0.31	0.47	0.41	0.31	-
Mill Feed Grade - Copper Equivalent	%	**5.18**	1.71	4.17	3.95	3.79	5.85	6.50	6.77	4.55	4.46	5.98	5.21	4.12	-
Mill Recovered Copper	Mlb	**492.07**	0.47	25.58	35.07	34.90	52.32	50.54	73.67	49.66	44.34	59.51	53.22	12.79	-
Mill Recovered Gold	koz	**141.99**	0.06	3.47	4.36	4.33	8.00	38.86	41.98	24.14	4.02	6.10	5.43	1.24	-
Mill Recovered Copper Equivalent	Mlb	**560.99**	0.50	27.26	37.18	37.00	56.21	69.40	94.04	61.38	46.29	62.48	55.86	13.40	-
Smelter Payable Copper (Incl. 1% Deduction in Conc. Grade)	Mlb	**471.77**	0.45	24.44	33.56	33.40	50.17	48.47	70.66	47.64	42.54	57.10	51.06	12.28	-
Smelter Payable Gold (Incl. 1g/T Deduction in Conc. Grade)	koz	**108.07**	0.03	1.81	2.15	2.15	4.81	34.21	35.86	20.29	1.40	2.59	2.28	0.49	-
Revenue															
Copper	$ M	**2,265**	2	117	161	160	241	233	339	229	204	274	245	59	-
Gold	$ M	**252**	0	4	5	5	11	80	84	47	3	6	5	1	-
Total Gross Revenue	**$ M**	**2,516**	**2**	**122**	**166**	**165**	**252**	**312**	**423**	**276**	**207**	**280**	**250**	**60**	**-**
Selling Costs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
TC/RC/Transportation/Commission	$ M	**223.88**	0.24	12.32	16.45	16.31	23.69	23.09	33.43	22.45	19.81	26.60	23.78	5.72	-
NSR Royalties	$ M	**13.28**	-	2.91	2.60	1.99	1.62	1.60	1.69	0.87	-	-	-	-	-
Total Selling Costs	**$ M**	**237.16**	**0.24**	**15.22**	**19.05**	**18.30**	**25.31**	**24.68**	**35.12**	**23.32**	**19.81**	**26.60**	**23.78**	**5.72**	**-**
Operating Costs															
Mining	$ M	**557.64**	2.70	40.43	54.87	56.57	48.73	44.71	61.56	62.71	67.38	45.74	45.26	26.82	0.015
Processing	$ M	**168.10**	0.42	10.14	14.83	15.43	14.52	12.25	19.38	20.88	20.08	17.18	17.63	5.35	-
Tailings	$ M	**34.22**	0.03	1.55	2.53	2.69	2.87	2.67	4.22	4.55	4.37	3.74	3.84	1.16	-
Site Infrastructure & Transportation	$ M	**146.79**	0.35	8.42	12.31	12.81	12.05	10.54	18.35	19.96	18.68	14.26	14.63	4.44	-
G&A (Owner and Contractor)	$ M	**59.78**	0.00	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	4.17	-
Total Operating Costs	$ M	**966.53**	**3.51**	**66.10**	**90.10**	**93.06**	**83.74**	**75.73**	**109.07**	**113.66**	**116.07**	**86.47**	**86.92**	**41.95**	**0.15**
Capital Costs															
Initial Capital Costs	$ M	**180.63**	180.63	-	-	-	-	-	-	-	-	-	-	-	-
Sustaining Capital	$ M	**348.81**	-	22.61	37.79	35.19	48.28	56.00	48.41	31.42	20.18	28.00	14.52	6.40	22.61
Closure Costs	$ M	**53.59**	-	0.39	0.39	0.39	0.47	2.72	0.45	0.45	9.04	0.37	0.37	0.37	38.20
Salvage Value	$ M	**(17.02)**	-	-	-	-	-	(0.66)	-	-	(3.94)	-	-	-	(12.42)
Total Capital Costs	**$ M**	**566.01**	**180.63**	**23.00**	**38.18**	**35.58**	**48.76**	**58.06**	**48.86**	**31.87**	**25.27**	**28.37**	**14.88**	**6.77**	**25.78**

	Unit	Total	-1	1	2	3	4	5	6	7	8	9	10	11	12
Taxes															
Federal Income Tax	$ M	**101.09**	-	-	-	-	8.86	19.90	27.56	12.02	2.82	16.26	13.66	-	-
Provincial Income Tax	$ M	**77.43**	-	-	-	-	6.17	15.44	21.26	9.31	2.23	12.51	10.51	0.00	-
Québec Mining Tax	$ M	**143.00**	0.00	0.11	0.11	0.22	13.00	25.76	43.69	12.59	8.34	21.83	17.31	0.06	-
Total Taxes	**$ M**	**321.52**	**0.00**	**0.11**	**0.11**	**0.22**	**28.03**	**61.10**	**92.51**	**33.92**	**13.39**	**50.60**	**41.48**	**0.06**	
Income Tax Refund - Federal and Provincial	$ M	**29.88**	-	-	-	-	-	-	-	-	-	-	0.01	28.77	1.10
All-in Sustaining Cash Costs	**US$/lb**	**2.24**	**5.88**	**2.99**	**3.10**	**3.10**	**2.19**	**1.79**	**1.60**	**2.15**	**2.79**	**1.77**	**1.76**	**3.17**	-
Pre-tax Cash Flow - After Working Capital Requirements	$ M	**746.6**	(182.33)	8.86	15.50	18.39	87.86	149.00	221.67	117.87	51.51	133.41	127.00	19.41	(21.58)
NPV @ 8% (Pre-Tax)	**$ M**	**367.0**													
IRR (Pre-Tax)		**30.7%**													
Discounted Payback (Pre-Tax)	**year**	**4.2**													
Post-Tax Cash low	$ M	**454.9**	(182.34)	8.75	15.39	18.17	59.83	87.91	129.15	83.95	38.12	82.82	85.52	19.36	8.29
NPV @ 8% (After-Tax)	**$ M**	**193.2**													
IRR (After-Tax)		**22.1%**													
Discounted Payback (After-Tax)	**year**	**5.5**													

The pre-tax and post tax cumulative cash flow is shown in Figure 22-4. The graph shows that the post-tax cash flow has payback period of 6.5 years and positive cash flow for the LOM.

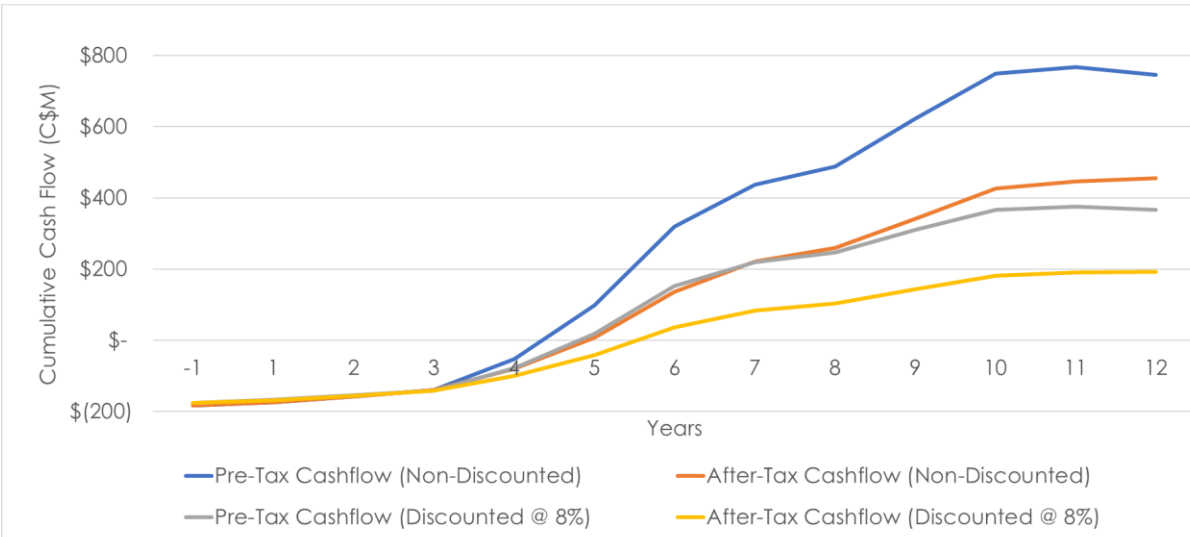


Figure 22-4: Cumulative cash flow pre-tax and after-tax

22.11. Production Costs

The LOM average cash operating cost for the Project is US$1.35/lb CuEq and the LOM average AISC for the Project is US$2.24/lb CuEq, shown in Table 22-8. The AISC includes cash operating costs, sustaining capital expenses to support the ongoing operations, selling costs (concentrate transport and treatment charges, royalties) and closure and rehabilitation costs divided by the copper equivalent pounds produced.

Table 22-8: All-in sustaining costs (AISC)

AISC Costs	Total ($M)	US$/CuEq lb
Total Selling Costs	237.2	0.33
Total Operating Costs	966.5	1.35
Sustaining Capital	402.4	0.56
All-in Sustaining Costs	**1,606.1**	**2.24**

Note:

1. AISC includes cash operating costs, sustaining capital expenses to support the ongoing operations, concentrate transport and treatment charges, royalties and closure and rehabilitation costs divided copper equivalent pounds produced.
2. Selling costs includes treatment and refining costs, transportation, commission and NSR royalties.

Figure 22-5 shows the variation of the AISC for the LOM.

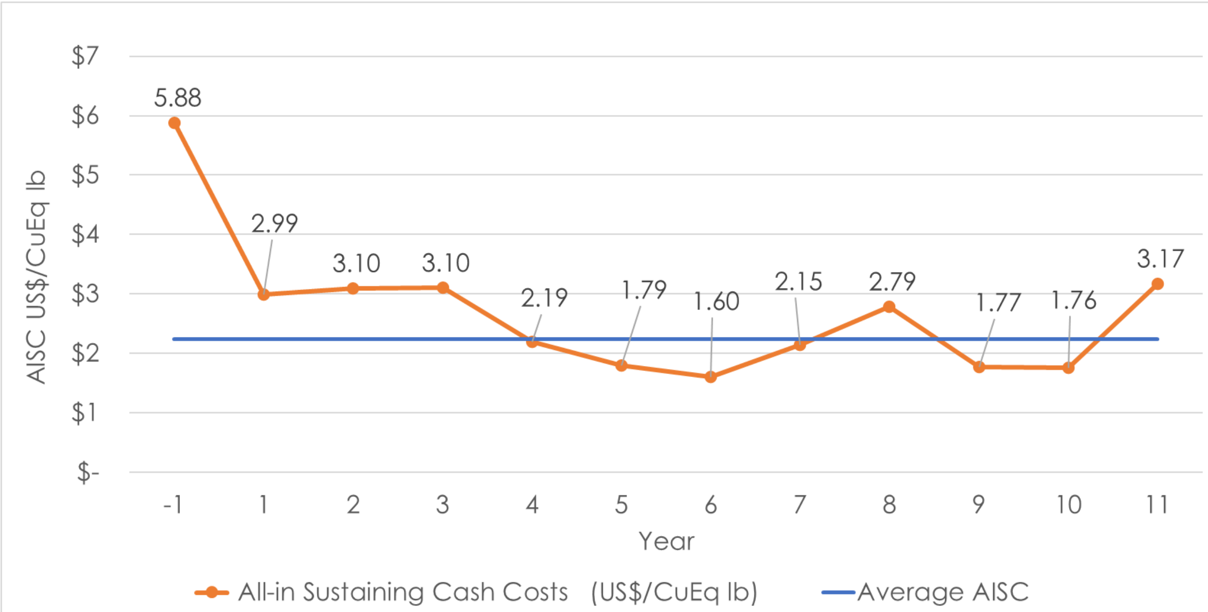


Figure 22-5: Annual and LOM AISC costs

22.12. Project Value Drivers

Figure 22-6 shows the cost distribution of the Project from the total resource value to the after-tax cash flow.

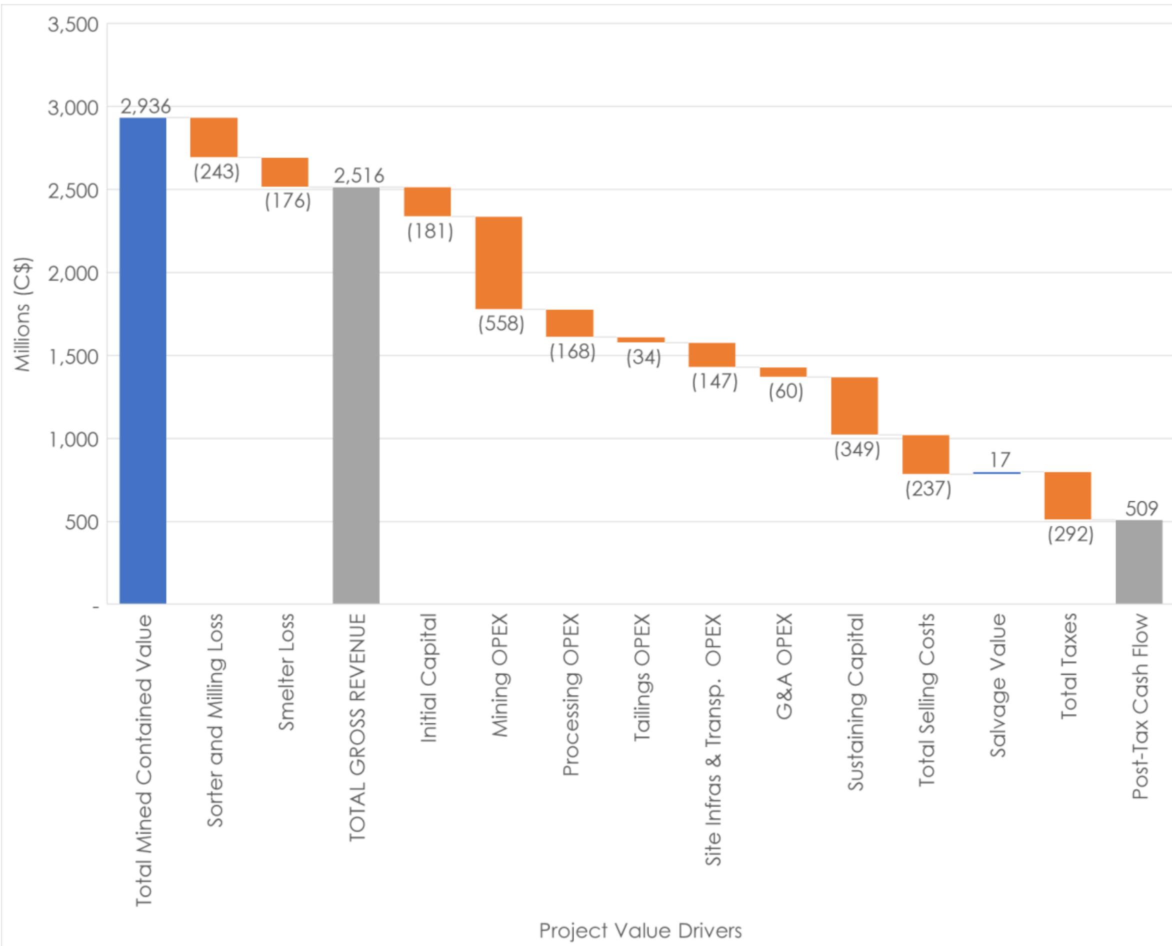


Figure 22-6: Project costs distribution

22.13. Sensitivities

The Project sensitivity analysis was performed on the pre- and after-tax NPV and IRR financial. The parameters used were copper price, gold price, CuEq grade, exchange rate, CAPEX, sustaining CAPEX and OPEX. The range for the sensitivities is between +/-30% as it is suitable range to provide robustness of level to the study. Table 22-9 to Table 22-15 shows the results of the sensitivities. Table 22-17 shows the sensitivity of the project NPV to variations in discount rate.

The results of the sensitivities show that the Project is most sensitive to copper prices, grade, exchange rate and operating costs, respectively. The gold price is the least sensitive parameter and has immaterial impact on the Project financials. The graphs show that the copper prices, grade and exchange rate are overlapping, which infers that these parameters are correlated as shown in Figure 22-7 and Figure 22-8. Initial capital and sustaining capital are also overlapping. The graphs prioritize the copper prices and the initial capital as main sensitive factors.

Table 22-9: Copper price sensitivities

Copper Price Sensitivity	-30%	-20%	-10%	0%	10%	20%	30%
Copper Prices (US$/lb)	2.63	3.00	3.38	**3.75**	4.13	4.50	4.88
Pre-tax NPV (8% discount) ($ M)	(42)	96	233	**367**	503	639	775
After-tax NPV (8% discount) ($ M)	(86)	16	110	**193**	274	350	425
Pre-tax IRR (%)	4.4%	15.0%	23.5%	**30.7%**	37.6%	44.2%	50.5%
After-tax IRR (%)	0.1%	9.3%	16.3%	**22.1%**	27.5%	32.4%	36.9%

Table 22-10: Gold price sensitivities

Gold Price Sensitivity	-30%	-20%	-10%	0%	10%	20%	30%
Gold Prices (US$/oz)	1,274	1,456	1,638	**1,820**	2,002	2,184	2,366
Pre-tax NPV (8% discount) ($ M)	321	336	352	**367**	382	398	413
After-tax NPV (8% discount) ($ M)	166	175	184	**193**	201	210	218
Pre-tax IRR (%)	28.5%	29.2%	30.0%	**30.7%**	31.4%	32.2%	32.9%
After-tax IRR (%)	20.4%	21.0%	21.5%	**22.1%**	22.6%	23.1%	23.6%

Table 22-11: Grades (CuEq) sensitivities

Grades Sensitivity	-30%	-20%	-10%	0%	10%	20%	30%
CuEq Mine Grade (%)	2.09	2.39	2.68	**2.98**	3.28	3.58	3.88
Pre-tax NPV (8% discount) ($ M)	(47)	93	231	**367**	505	642	780
After-tax NPV (8% discount) ($ M)	(86)	17	109	**193**	274	351	427
Pre-tax IRR (%)	4.0%	14.8%	23.4%	**30.7%**	37.6%	44.1%	50.3%
After-tax IRR (%)	0.0%	9.3%	16.2%	**22.1%**	27.5%	32.3%	36.8%

Table 22-12: Exchange rate sensitivities

Exchange Rate Sensitivity	-30%	-20%	-10%	0%	10%	20%	30%
USD:CAD	0.90	1.02	1.15	**1.28**	1.41	1.54	1.66
Pre-tax NPV (8% discount) ($ M)	(47)	93	231	**367**	505	642	780
After-tax NPV (8% discount) ($ M)	(86)	17	109	**193**	274	351	427
Pre-tax IRR (%)	4.0%	14.8%	23.4%	**30.7%**	37.6%	44.1%	50.3%
After-tax IRR (%)	0.0%	9.3%	16.2%	**22.1%**	27.5%	32.3%	36.8%

Table 22-13: Initial CAPEX sensitivities

Initial CAPEX Sensitivity	-30%	-20%	-10%	0%	10%	20%	30%
Initial Capital ($ M)	128	145	163	**181**	198	216	233
Pre-tax NPV (8% discount) ($ M)	429	409	388	**367**	346	325	307
After-tax NPV (8% discount) ($ M)	235	222	208	**193**	178	163	151
Pre-tax IRR (%)	40.3%	36.6%	33.4%	**30.7%**	28.3%	26.2%	24.5%
After-tax IRR (%)	29.4%	26.6%	24.2%	**22.1%**	20.2%	18.6%	17.3%

Table 22-14: Sustaining CAPEX sensitivities

Sustaining CAPEX Sensitivity	-30%	-20%	-10%	0%	10%	20%	30%
Sustaining Capital ($ M)	296	332	367	**402**	438	473	508
Pre-tax NPV (8% discount) ($ M)	432	410	389	**367**	345	324	302
After-tax NPV (8% discount) ($ M)	236	222	208	**193**	178	163	148
Pre-tax IRR (%)	34.3%	33.1%	31.9%	**30.7%**	29.5%	28.3%	27.1%
After-tax IRR (%)	25.3%	24.2%	23.2%	**22.1%**	21.0%	19.9%	18.8%

Table 22-15: Operating costs sensitivities

Operating Costs Sensitivity	-30%	-20%	-10%	0%	10%	20%	30%
Operating Costs ($ M)	677	773	870	**967**	1,063	1,160	1,256
Pre-tax NPV (8% discount) ($ M)	548	488	427	**367**	307	246	186
After-tax NPV (8% discount) ($ M)	328	284	239	**193**	147	102	44
Pre-tax IRR (%)	41.0%	37.6%	34.2%	**30.7%**	27.2%	23.7%	20.1%
After-tax IRR (%)	31.5%	28.4%	25.3%	**22.1%**	18.8%	15.5%	11.5%

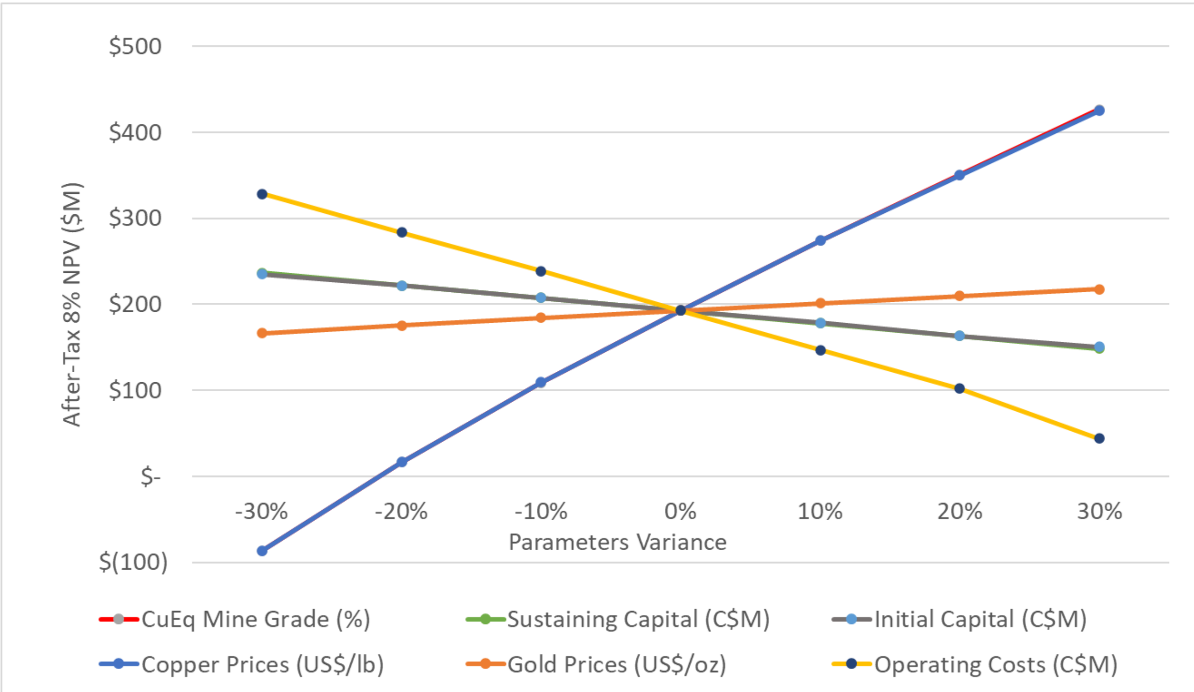


Figure 22-7: NPV sensitivities (after tax) at 8%

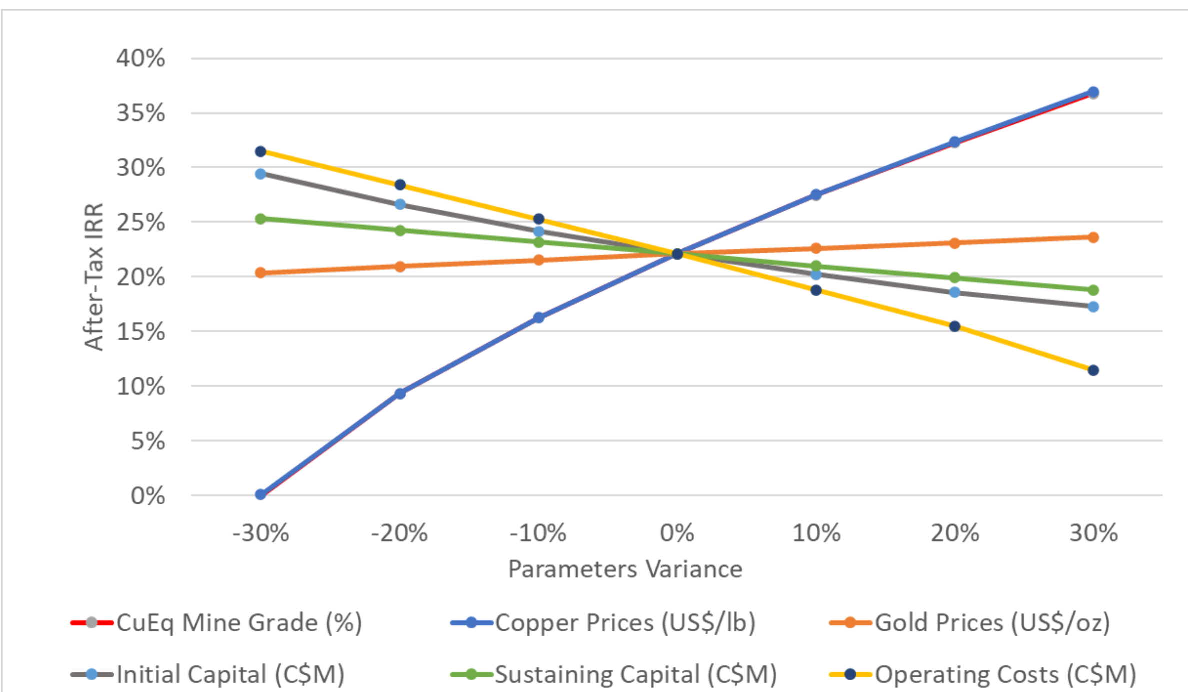


Figure 22-8: IRR sensitivities (after-tax)

The discount rate sensitivities are shown in Table 22-17 and illustrated in Figure 22-9. The Project NPV remains positive at a discount rate of 15%.

Table 22-16: Discount rate sensitivities

Discount Rate Sensitivity	0%	5%	8%	12%	15%
Pre-tax NPV ($ M)	747	481	**367**	252	186
After-tax NPV ($ M)	455	271	**193**	116	72

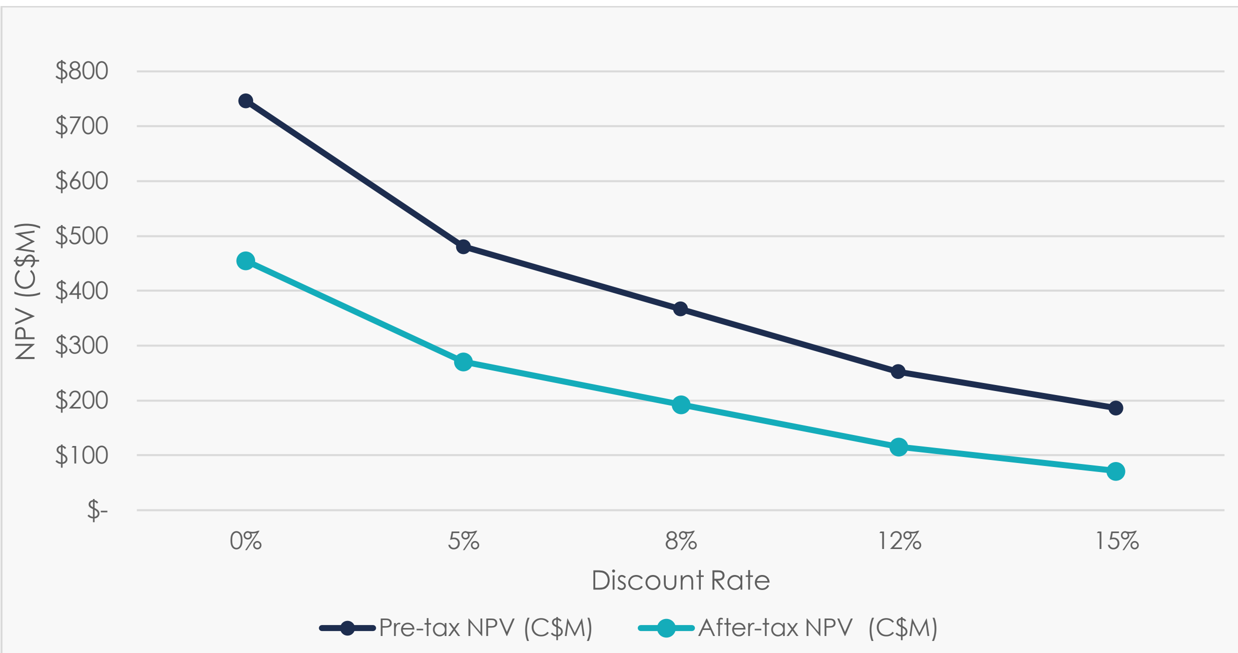


Figure 22-9: Discount rate sensitivities

23. Adjacent Properties

There are no significant or relevant mineral resource properties immediately adjacent to the Corner Bay-Devlin, Joe Mann, and Copper Rand properties. The QP has not relied upon any information from the adjacent properties in the writing of this report.

24. Other Relevant Data and Information

This Section summarizes additional opportunities that are not reflected in this PEA. These opportunities are to be evaluated at the appropriate time.

24.1. Exploration Potential

Doré Copper has several early explorations to advanced-stage exploration properties having a NI 43-101 MRE or historical resources that with further exploration could result in an increase in Mineral Resources and over time could be incorporated into the proposed hub-and-spoke operation, thereby enhancing the economics of the Project.

Table 24-1: Exploration projects not in PEA

Opportunity Area	Description	Comment
Cedar Bay deposit (Cu-Au)	Advanced exploration 2019 MRE (See Section 6)	2019 MRE of 130,000 t at 1.55% Cu and 9.44 g/t Au in Indicated categories and 230,000 t at 2.13% Cu and 8.32 g/t Au in Inferred category. Drilling was conducted in 2020 . Deposit remains open at depth (below 1,150 m). Potential to define additional resources. Drilling would be more effective from UG at those depths.
Copper Rand deposit (Cu-Au)	Advanced exploration Historical resources (See Section 6)	Copper Rand was the largest mine and the last mine to operate in the Chibougamau camp. Historical resources at closure (Dec. 2008): P&P of 970 kt , M&I of 630 kt and Inferred of 416 kt. The C-R 500 zone (depth of 1,500 m) is open at depth. Drilling would be more effective from UG at those depths.
Gwillim deposit (Au)	Early Exploration	Gwillim is comprised of the past producing Gwillim gold mine (254,066 st (230,485 t) were mined at a grade of 4.79 g/t Au(1) up to a depth of 115 m) and the KOD zone. Both deposits are open at depths below 300-400 m. Encouraging drill results obtained from the two holes drilled in 2021. Drilling warranted to determine the extension of mineralization at depth.
Lac Doré deposit (Cu-Au) (on Copper Rand property)	Early Exploration	A double ramp was built in 1991-92 from Pilcher Island to Lac Doré deposit. It is located 2 km SW of Copper Rand mill. Deposit starts at 80 m below surface and has been tested over a strike length of approx. 500 m. Historical resources reported by Westminer Canada in 1992. Numerous intercepts of +1% Cu and +5 g/t Au are reported. Deposit remains open to depth (below 400 m) and along strike towards the Lac Doré fault.

Opportunity Area	Description	Comment
Jaculet deposit (Cu-Au)	Early Exploration	The Jaculet mine operated from 1960-74 and was mined to a depth of 550 m. In 2005, drilling intersected high-grade copper mineralization below the historic underground development, e.g., 9.26% Cu over 0.78 m at a downhole depth of 675 m. The Jaculet mineralized system is open at depth and along strike with very little development below 365 m.

Notes:

(1) Structural and Stratigraphic Control on Magmatic, Volcanogenic, and Shear Zone-Hosted Mineralization in the Chapais-Chibougamau Mining Camp, Northeastern Abitibi, Canada – Leclerc et al., 1992 Society of economic geologist inc. V 107, pp. 963-989.

The location of the above mentioned projects that are not part of the PEA listed in Table 24-1 Figure 24-1, except for the Gwillim project which is located approximately 8 km northwest of Chibougamau and less than 20 km by road northwest of the Copper Rand mill.

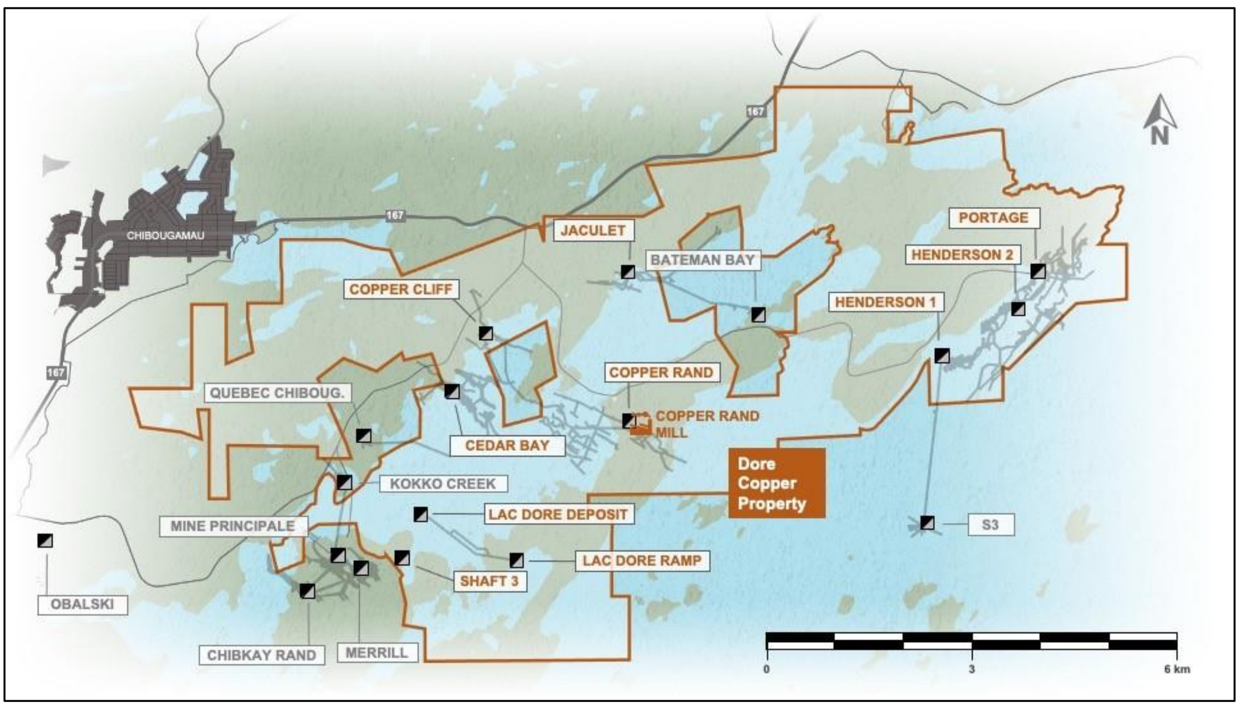


Figure 24-1: Location of exploration projects not included in PEA

24.2. Environmental, Social, Governance

Table 24-2: Opportunity to have a carbon neutral operation

Opportunity Area	Description	Comment
Carbon footprint	Achieve a carbon neutral operation	The Project design has implemented numerous initiatives to reduce carbon emissions, e.g., use of electric vehicles at Corner Bay and mineral sorter that will decrease by about 50% the amount of mineralized material to be transported from Corner Bay and Devlin to Copper Rand mill; a new road from Corner Bay to the mill will decrease travel distance by 16% and the replacement of the existing Copper Rand milling circuit with one ball mill will improve energy efficiency. Once Devlin is depleted, the Project should be in a position to achieve carbon neutrality, assuming electric vehicles are readily available in the market and can be used for transporting mineralized material from Joe Mann and Corner Bay to the mill. It is anticipated that such vehicles will reach the market in a few years.

24.3. Project Milestones

Doré Copper plans to proceed directly to a Feasibility Study due the brownfield status of the Project and will continue the permitting process. Upon completing the Feasibility Study, expected in Q4 2023, Doré Copper will evaluate its options to advance the detailed engineering and construction of the Project.

25. Interpretation and Conclusions

25.1. Overview

The QPs noted the following interpretations and conclusions in their respective areas of expertise, based upon the review of data available for this Project.

25.2. Data Verification and Mineral Resources

- Good potential exists to further increase the Mineral Resource base, and additional exploration and technical studies are warranted.
- There is good understanding of the geology and nature of the copper and gold mineralization on the properties:
  - Corner Bay lies at the contact with an intrusive breccia, a transition zone between the Chibougamau Pluton and the Doré Lake Complex (DLC). A zone of pyroxenites, gabbros, and magnetites separates this breccia from the gabbroic anorthositic sequence that hosts the copper mineralization. It generally consists of lenses and/or veins of quartz, carbonate with chalcopyrite and pyrite, and lesser pyrrhotite, sphalerite, and molybdenite;
  - Devlin is located in the Chibougamau Pluton in the middle of the Chibougamau anticline. The deposit is hosted by tonalite, diorite, and an extensive zone of chloritic-epidotic breccia. The tabular zone of mineralization generally consists of a chalcopyrite-pyrite-quartz +/- carbonate vein (the main vein); and
  - Joe Mann is a greenstone-hosted quartz carbonate vein deposit, which consists of three principal mineralized zones with similar morphologies, structural controls, and mineralization styles.
- The sample collection, preparation, analytical, and security procedures, as well as the quality assurance/quality control (QA/QC) program as designed and implemented by Doré Copper and predecessor AmAuCu at Corner Bay, Devlin, Joe Mann and Cedar Bay are adequate, and the assay results within the database are suitable for use in Mineral Resource estimation.
- The QA/QC program indicates good precision, negligible sample contamination, and potential low bias for both gold and copper at the primary laboratory.
- The twin drilling campaign at Devlin indicated that the grade of the historical drill holes may be biased high. The number of pairs is low and not considered statistically significant.

25.3. Metallurgy and Recovery Methods

The key results from the review of mineral processing testwork are as follows:

- The metallurgical projections were established based upon the historical bulk sampling program at Corner Bay, historical flotation tests done on Corner Bay mineralized material, recent mineral sorting test results completed by Corem on Corner Bay and Devlin mineralized material, recent flotation tests on Devlin completed by SGS Canada Inc., and historic operating data from Joe Mann, when it was treated at Copper Rand mill;

- The mineralization at Corner Bay and Devlin are compatible with sorting technology due to the semi-massive to massive nature of the chalcopyrite mineralization, vein thicknesses and barren host rock; and
- Flotation testwork showed the potential for producing high-grade concentrate.

A crushing circuit including a mineral sorter would be installed at the Corner Bay site and would reject the low-grade and dilution material from the Devlin and Corner Bay mines. The implementation of a sorter eliminates the need to rehabilitate the existing crushing and conveying circuit at the mill. It also allows to relocate the mill feed hopper and minimizes tailings generation. The crushing plant will include a primary jaw crusher, secondary cone crusher, and a mineral sorter.

Mineral processing will occur at Copper Rand mill, a facility that has been closed since 2008. The mill will be refurbished and upgraded to accommodate processing of the three deposits. The process flowsheet is comprised of a grinding circuit with a single primary grinding ball mill in closed circuit with hydrocyclones and two Knelson gravity concentrators, followed by rougher and scavenger flotation with three cleaning flotation stages. The final concentrate, a combination of product from the gravity circuit and third cleaner, is thickened before it is passed through a filter press, recovering a concentrate with moisture content of 8%. The copper concentrate will be sent to a concentrate stockpile and from there it will be transported for sale. Tailings will be dewatered by thickening and filtration, and then loaded onto trucks and transported to the TMF.

Modifications to the mill at Copper Rand, such as the addition of a new grinding circuit located in the 1984 expansion area of the mill as well as the implementation of a tailings filter plant, are the main upgrades to the mill. With the installation of a new 1,500 kW ball mill within one of the existing mill buildings, the process plant is simplified by having fewer mills in operation, lower manpower requirements, improved process control and improved energy efficiency. The process plant also has additional capacity over and above the required mill throughput.

Based on the testwork and proposed flowsheet, the overall Project metallurgical recoveries are as presented in Table 25-1.

Table 25-1: Projected metallurgical recoveries

CORNER BAY		
Copper recovery data	**Unit**	**Value**
Overall crushing and sorting copper recovery (A)	%	96.4
Gravity and flotation copper recovery (B)	%	96.7
Overall copper recovery (A×B)	%	93.2

DEVLIN		
Copper recovery data	**Unit**	**Value**
Overall crushing and sorting copper recovery (A)	%	97.2
Gravity and flotation copper recovery (B)	%	98.2
Overall copper recovery (A×B)	%	95.5
JOE MANN		
Copper recovery data	**Unit**	**Value**
Gravity and flotation copper recovery	%	93.9

25.4. Mineral Reserves

The Project has no Mineral Reserves.

25.5. Mining Methods

Reasonable mine plans, production schedules and capital and operating costs have been developed for this Project. Operations will start with the underground development of the Devlin deposit via a ramp, followed by the underground development of the Corner Bay deposit via a ramp. After the Devlin deposit is mined out (approximately 4 years), production at the Joe Mann mine would start. Joe Mann benefits from an existing headframe and shaft, including all surface infrastructure.

Underground mining at Corner Bay would use the existing single portal and 2 km of development to three levels down to 115 m. The development would extend the decline ramps to a depth of 1,326 m. Most of the material would be mined by longhole open stoping with pillars, which is then backfilled, and by Avoca, a longitudinal longhole retreat mining method. A fleet of nine battery electric haul trucks with trolley assist and six loaders would be required at maximum capacity. Corner Bay will produce 7,603,000 t of mineralized material over a mine life of 10.5 years and reach a maximum mining rate of 2,630 t/d.

Access to the shallow Devlin deposit would require the enlargement of the existing decline ramp (305 m) and existing drifts (364 m). Underground mining would use a combination of room and pillar and drift and fill mining methods. Devlin will produce 951,000 t of mineralized material over a mine life of four years and reach a maximum mining rate of 760 t/d. Mining and surface activities at Devlin will be done by a contractor.

Longhole mining method was chosen for Joe Mann with the mined material brought to surface using the existing shaft and hoist. Joe Mann will produce 569,000 t of mineralized material over a mine life of four years and reach a maximum mining rate of 590t/d.

The resulting production mine plan and schedule provides continuous feed to the Copper Rand mill from Years 1 to 11. The mine production schedule includes these concurrent operations:

- Devlin and Corner Bay mines from Year 1 to Year 4;
- Joe Mann and Corner Bay mines from Year 4 to Year 7; and
- Corner Bay mine only from Year 8 onwards.

The Project generates 9.15 Mt of mined mineralized material at 2.61% Cu and 0.59 g/t Au. Mining production occurs over a 10.5-year period with an average production rate of 2,385 t/d.

25.6. Infrastructure

A 16 km forestry road from Route 167 will be upgraded and constructed to access the Corner Bay mine site, decreasing the distance between Corner Bay and the Copper Rand mill by over 9 km going one way. The Devlin mine site will be accessed via a 3.25 km upgraded road branching off from the Corner Bay road. Both mine sites are designed to be compact with required infrastructure near the portal. A substation connected to the Hydro-Québec grid and a 34 kV powerline will supply power to the Corner Bay and Devlin mines. The Joe Mann mine will utilize the existing logging roads and power line to site.

The filtered tailings will be stored in a drystack facility (TMF) to be built on the existing Copper Rand TMF, a brownfield site, and will require the construction of access roads, a working platform, and a high sediment/contact water collection pond and water treatment plant. The maximum storage capacity of the TMF will be approximately 3.0 Mm^3. The 40.1 ha footprint of the drystack will be fully lined with an impermeable LLDPE liner. The effluent from this site has a pH over 7.0 and all concentrations of dissolved metals are well below the minimum permissible levels. No metal leaching and acid rock drainage (ML/ARD) studies have been performed to date on the anticipated tailings from future operations.

25.7. Market Studies and Contracts

The demand for copper is expected to grow and new copper projects are needed to meet the increased demand to offset declining production from existing mature mines.

Currently, Doré Copper has an offtake agreement in place with known terms for all concentrate produced over the LOM.

The Company does not have a logistic service agreement in place.

25.8. Environmental Studies, Permitting, and Social or Community Impact

The ESIA and related studies and inventories to support the Project are underway. No formal consultation activities with the stakeholders have been conducted by Doré Copper. The submittal and approval of the closure plan by the regulating authorities are conditional to the release of the mining lease and the beginning of mining operations. The estimated closure cost for the Project, including indirect costs, is estimated to be $53.6 million. The estimated financial guarantee required by the MERN is estimated to be $61.4 million.

25.9. Capital and Operating Costs

The total capital costs (pre-production initial, expansion and sustaining) for the Project were estimated at $583 million. The pre-production initial capital costs were estimated at $180.6 million, including a $23.6 million contingency. Sustaining capital costs were estimated at $341.6 million. Closure costs were evaluated at $53.6 million.

The total capital costs are summarized as follows (Table 25-2).

Table 25-2 Project capital costs

Cost Element	Initial Capital ($M)(1)	Sustaining Capital ($M)(1,3)
Mine Costs		
Corner Bay	14.8	247.3
Devlin	7.0	0.4
Joe Mann(2)	0.0	51.9
Processing	54.2	1.1
Infrastructure	34.5	15.5
Tailings	13.8	16.7
EPCM and Indirect Costs(4)	22.8	5.5
Owners Costs(4)	9.9	3.1
Subtotal Capex	**157.1**	**341.6**
Contingency(5)	23.6	7.2
Reclamation and closure	0.0	53.6
Total Capex	**180.6**	**402.4**

Notes:

(1) All values stated are undiscounted. No inflation or depreciation of costs were applied.

(2) Contingency, owner's costs, EPCM and indirect costs for Joe Mann's initial capital also included in sustaining capital.

(3) Sustaining capital does not include salvage values, estimated at $17 million for all sites.

(4) Includes owner's costs of 8%, construction indirects of 10%, and EPCM of 12% for mill and tailings and 4% for mining of direct costs.

(5) Includes contingency of 15% for all initial capital, owner's cost, construction indirects, and EPCM.

The total operating costs are summarized as follows (Table 25-3).

Table 25-3 Project operating costs

Operating Costs	Avg LOM
Mining	$61/t mined / $108/t milled
Processing (including sorting)	$32/t milled
Tailings(1)	$7/t milled
Infrastructure and Transport	$28/t milled
G&A	$12/t milled
Total Operating Costs	**$186/t milled**
Cash Operating Costs(2,4,5)	**US$1.35/lb CuEq**
All-in Sustaining Costs(3,4,5)	**US$2.24/lb CuEq**

Notes:

(1) Tailings filtration costs included in processing costs.

(2) Cash operating cost includes mining, processing, tailings, surface infrastructures, transport, and G&A to the point of production of the concentrate at the Copper Rand site divided by copper equivalent pounds produced. It excludes off-site concentrate costs, sustaining capital expenses, closure/ rehabilitation and royalties. CuEq calculation assumes metal base prices.

(3) AISC includes cash operating costs, sustaining capital expenses to support the on-going operations, concentrate transport and treatment charges, royalties and closure and rehabilitation costs divided copper equivalent pounds produced.

(4) Copper equivalent (CuEq) costs uses only payable gold in concentrate and is applied as a credit against costs.

(5) Cash operating cost and AISC are non-IFRS financial performance measures with no standardized definition under IFRS.

(6) Numbers may not add up due to rounding.

25.10. Indicative Economic Results

The PEA indicates that the potential economic returns from the Project justify its further evaluation by advancing to a Feasibility Study

At a base case of US$3.75/lb copper price, the Project generates an after-tax NPV of $193 million at a 8% discount rate and an IRR of 22.1% (pre-tax NPV of $367 million and IRR of 30.7%). After-tax, payback on initial capital is 5.5 years (4.2 years pre-tax).

The Project generates cumulative cash flow of $747 million on pre-tax basis and $455 million on an after-tax basis. based on an average mill throughput of 1,350 t/d over 10.5 years.

The key economic results are summarized as follows (Table 25-4).

Table 25-4: Project key economic results

Metal Price Assumptions (US$)	$3.75 Cu, $1,820/oz Au	
Exchange Rate	USD$1.00:CAD$1.28	
	Pre-tax	After-tax
NPV (8% discount)	$367M	$193 M
IRR	30.7%	22.1%
Payback Period	4.2 years	5.5 years
EBITDA	$1,313 M	$1,313 M
LOM Undiscounted Net Cash Flow	$747 M	$455 M

Notes:

1. The analysis assumes that the Project is 100% equity financed (unlevered).
2. Appropriate deductions are applied to the concentrate produced, including treatment, refining, transport and insurance costs.

25.11. Project Risks and Opportunities

The Project is subject to risks that are typical to all mining projects as well as specific risks for this Project. These risks are summarized in Table 25-5. Opportunities identified for the Project are summarized in Table 25-6

Table 25-5: Project risks (preliminary risk assessment)

Risk Description and Potential Impact	Mitigation Approach
Geology and Mineral Resources	
▪ The QA/QC program supporting the sample database as executed by Doré Copper is adequate, however, improvements are warranted. ▪ Mineral Resources that are not Mineral Reserves do not currently demonstrate economic viability.	▪ Update the QA/QC protocol, including QA/QC reporting and use of certified reference material (CRM) aligned to the cut-off grade. ▪ Investigate and resolve the discrepancies observed in the CRMs currently in use. ▪ Increase surface exploration work, confirmatory drilling and drilling density at Devlin and Joe Mann.
Mining & Infrastructure	
▪ Information on rock mechanics, geotechnical properties and hydrogeology was not available at the time of this PEA. ▪ Joe Mann has several brownfield working levels where 2D mine layouts were incorporated into the mine design. ▪ Large block sizes in block models lead to inaccurate/inefficient stope shapes generated from stope optimizer. ▪ Detailed engineering of required site infrastructure is not completed.	▪ Complete feasibility level geotechnical engineering test work and assessment to verify ground conditions and support requirements. ▪ Convert and import legacy drawings into current 3D mining model. ▪ Create block model in smaller block sizes to better represent the mineral bearing geological structures. ▪ Complete detailed infrastructure engineering and costing with quotes from suppliers.
Mineral Processing	
▪ Limited mineral sorting testwork completed, potential of lower performance than planned. ▪ Flotation performance lower than expected due to limited testwork. ▪ Filtration testwork is yet to be performed on tailings, posing risks to the filtration plant sizing.	▪ Additional test work on representative samples should be performed for both Corner Bay and Devlin and their individual zones. ▪ Additional tests should be carried out to validate the flotation performance from the deposits. ▪ Filtration testing should be performed on both concentrate and tailings to confirm the capacity and design of the filtration plant.

Risk Description and Potential Impact	Mitigation Approach
Process Plant & Infrastructure	
▪ Existing legacy site infrastructure condition is dated. ▪ Detailed engineering of plant infrastructure is not completed. ▪ Site power availability and study are to be confirmed from local power supplier.	▪ Conduct in-depth investigation to determine rehabilitation or upgrading required. ▪ Complete detailed plant engineering with verified design criteria from the mineral processing and metallurgy test work. ▪ Coordinate site power scheduling and power requirements with local power supplier.
Waste and Water Management	
▪ Water balance and load balance have not been developed. ▪ Insufficient geochemistry data to identify sources terms. ▪ Mischaracterization of soils strength and geotechnical behaviour. ▪ Copper Rand waste rock and Eaton Bay tailings have not been validated for use as construction material. ▪ Groundwater and seepage flow from the tailings facility have not been modelled.	▪ Complete detailed water and load balance as part of the pre-feasibility study. ▪ Analyze geochemical properties of elements related to the tailings facility. ▪ Conduct detailed geotechnical, hydrogeological and geochemical field and laboratory investigation to validate existing conditions.
Capital and Operation costs	
▪ Detailed engineering and construction sequencing for the TMF has not been completed. ▪ Price escalation is not included. ▪ No contingency on sustaining capital expenses. ▪ Lack of skilled labour in Chibougamau area will lead to an increase in labour cost for both capital and operating labour.	▪ The thickness of the TMF platform was increased and high-performance geotextile added to improve safety factor. ▪ Complete detailed engineering, tailings deposition and construction sequencing. ▪ Analyze price escalation requirements as well as quotations from suppliers and service providers. ▪ Include contingency in sustaining capital for robust finances. ▪ Evaluate availability of skilled labour in Chibougamau area and develop a labour strategy.

Risk Description and Potential Impact	Mitigation Approach
Rehabilitation and Closure	
▪ Joe Mann's existing waste rock is assumed to be NPAG and non-metal leaching, and no engineered cover is included in the closure cost estimate. ▪ Waste rock has been planned to be returned underground before the end of the LOM. The cost for reclaiming stockpiles was not included. ▪ Local granular construction material has been assumed to be available for reclamation works. ▪ The existing Eaton Bay tailings storage facility and the existing Joe Mann tailings storage facility have been planned to be not under the responsibility of Doré Copper. ▪ Delay of mining lease issue due to the delays in getting the closure plan approval. ▪ Modifications to the Project can lead to revisions of the closure plan, which is subject to approval resulting in project delays and additional costs.	▪ Joe Mann waste rock assumed geochemistry is based on historical visual observations. ▪ Extensive geochemistry assessment of the waste rock within the scope of the feasibility study. ▪ Assessing potential local granular material sourcing options during the feasibility study. ▪ Holding official discussions with the regulating authorities with regards to the responsibilities of Doré Copper towards existing mining infrastructure. ▪ Develop a detailed closure plan during the feasibility stage. Review the closure plan in early staged with the MERN and other key stakeholders. ▪ The Project must be sufficiently detailed to prevent major changes.

Table 25-6: Project opportunities

Opportunity Explanation	Benefit
Geology and Mineral Resources	
▪ Corner Bay deposit is open at depth. ▪ Joe Mann deposit is open in various directions. ▪ Silver and molybdenum are present in the Corner Bay deposit and have not been included in the MRE. ▪ Multiple advanced-stage projects and untested targets on Copper Rand property near by the mill (refer to Section 24), and at the Corner Bay-Devlin and Joe Mann properties.	▪ Additional drilling has the potential to extends mine life. Potentially can add more high-grade material. ▪ Joe Mann deposit has limited drilling along strike. Drilling has the potential to increase resources and extend Joe Mann's mine life, resulting in annual production increase as Joe Mann operates at the same time as Corner Bay. ▪ Silver and molybdenum would increase total revenue. ▪ Defining additional future resources has the potential to increase mine life and increase NPV.
Mining	
▪ Potential to reduce the crown pillar thickness from 50 m to 25 m under the overburden at Corner Bay. ▪ A conservative metal cut-off grade of copper US$3.37/lb was used for mine planning purposes which is lower than copper US$3.75/lb used in the financial model. ▪ There is an opportunity to utilize contractors to improve the mining rate from 7m/day/ development fleet to 9m/day/ development fleet as achieved by other Canadian mine sites. ▪ Mines assume 90% recovery in longhole, which is lower from Canadian industry standard for narrow vein deposits. ▪ There is an opportunity to optimize ground support requirements in competent rocks.	▪ There is potential to include another 25 m or 130,000 t of ore with supporting geotechnical analysis at Corner Bay. ▪ Potential to add 600,000 t in minable resources by utilizing copper US$3.75/lb for mine planning purposes. ▪ Higher advance rate will lead to reduced development fleet requirements and improved ore delivery schedule. ▪ Higher recovery 95% can be planned with the trade-off of higher dilution and an additional 500,000t of mineable resources. ▪ Complete detailed geotechnical assessment to verify and optimize ground support requirements to improve cost and schedule.
Mineral Processing	
▪ Limited testwork has been done on improving concentrate grade from Corner Bay and Devlin. Testwork to be done on the samples in order to optimize grade and recoveries.	▪ Optimization in concentrate grade will improve commercial terms and decrease transport and smelter treatment costs.

Opportunity Explanation	Benefit
Process Plant & Infrastructure	
▪ The primary ball mill selected is rated for 1,500 kW which is higher than the maximum mill feed requirement. ▪ Legacy and existing equipment exist across the site and process plant. ▪ A 34 kV powerline is considered to connect Corner Bay and Devlin to the Hydro-Québec power grid.	▪ Potential improvements in grind resulting in higher process recoveries. ▪ Ability to process additional future resources from successful exploration. ▪ Engineering studies can be completed to assess the viability of reusing equipment and infrastructure resulting in a reduction of construction timeline and or costs. ▪ Using a 25 kV powerline may present opportunities to use existing infrastructure currently at the Copper Rand site and reduce costs.
Waste and Water Management	
▪ Overestimation of the TMF contact water pond storage capacity. ▪ Potential to send over 90% of rocks stored on surface at mine closure to underground capital headings in Corner Bay. ▪ Conservative estimates of in situ tailings strength and filtered tailings strength have been used.	▪ Reduction of the geomembrane leading to capital cost reduction. ▪ Reduction in reclamation footprint on surface with the trade-off of additional rehandling costs. ▪ Steepening the slope of the stack; increasing the storage capacity of the TMF or reduction of the amount of contact water to be treated.
Construction (Costs and Schedule)	
▪ Conservative estimates of the bearing capacity of the in-situ tailings have been used. ▪ Chibougamau, Québec is a well-serviced historic mining location with suppliers and contractors.	▪ Foundation requirements of the TMF platform could be reduced to reduce capital costs. ▪ There is a high potential to reduce construction and operation costs through the use of existing local resources.
Environmental, Permitting & Social License	
▪ The project is currently a brownfields site and legacy mining area. ▪ The site area of Chibougamau, Québec is an historic mining district.	▪ Positive support from local government, authorities and local community stakeholders to streamline the mine development and operation process.

26. Recommendations

This Report was prepared and compiled by BBA at the request of Doré Copper, with the support of experienced and competent independent consultants, using accepted engineering methodologies and standards. It provides a summary of the results and findings from each major area of investigation, including:

- Exploration;
- Geological modelling;
- Mineral resource;
- Mine design;
- Metallurgy;
- Process design;
- Infrastructure;
- Environmental management;
- Tailings and water management;
- Capital and operating costs; and
- Economic analysis.

The level of investigation for each of these areas is considered to be consistent with the level expected in a PEA.

The mutual conclusion of the QPs is that the Project, as summarized in this PEA, contains adequate detail and information to support the positive economic outcome shown. The results of this study indicate that the Project is technically feasible and has financial merit with the base case assumptions considered.

In summary, the QPs recommend that the Project proceeds to the Feasibility Study stage. It is also recommended that the environmental and permitting process continue as needed to support the Project's development plans and schedule.

Concurrently, it is recommended that Doré Copper continues its exploration drilling program. Doré Copper is planning a 50,000 m drilling program in 2002 at Corner Bay and Devlin and nearly 30,000 m has been completed to date at Corner Bay. The program includes mainly infill drilling to upgrade the majority of the Corner Bay and Devlin Inferred Resources to Indicated Resources. Doré Copper has not yet determined its drilling plans for Joe Mann. Permitting, environmental, and technical studies will be continuing to advance to support a Feasibility Study. The work program for the Feasibility Study is estimated to cost approximately $9.6 million, including a $1.6 million contingency. (Table 26-1).

Table 26-1: Feasibility Study work program budget

Work Program	Cost Estimate ($)
Owner's cost	500,000
Infill and exploration drilling	3,600,000
Mineral Resource and Reserve Estimate	120,000
Metallurgical Studies	400,000
Permitting/Environmental Studies	1,000,000
Feasibility Study	3,000,000
Sub-total	**8,620,000**
Contingency (20%)	1,724,000
Total	**10,344,000**

Note:

1. Approximately 30,000 m has been completed as of the date of this Report. The cost estimate only includes the remaining portion of the 50,000 m drilling program (i.e., 20,000 m). Plans for Joe Mann are under review and not included in this cost estimate.

In conclusion, analysis of the results and findings from each major area of investigation completed as part of this PEA suggests numerous recommendations for further investigations to mitigate risks and/or improve the base case designs.

26.1. Summary

The Feasibility Study will enter into more details to make a Project construction decision and evaluate financing options. Some of the relevant tasks are described in the Sections 26.2 to 26.8.

26.2. Geology and Mineral Resources

The following recommendations are made in regard to geological studies and Mineral Resource estimation:

- Carry out additional confirmation and closer spaced drilling at Corner Bay, Devlin and Joe Mann to improve confidence levels;
- Continue surface exploration drilling to increase the resource base and confirm observed grade trends and plunges;
- Review the QA/QC protocol to include certified reference material (CRM) that is representative of the cut-off grade and eliminate the very low-grade CRMs that are still in use, but no longer reflect the economic copper grades present at Corner Bay. In addition, investigate and resolve the discrepancies observed in the CRMs currently in use, and integrate a formal check assay program with a second-accredited laboratory. Prepare

quarterly and yearly QA/QC reports that evaluate longer-term trends and contextualize results from the individual properties; and

- Confirm bathymetric contours and top of bedrock measurements at Devlin.

26.3. Mining and Infrastructure

The following recommendations are made in regard to mine and infrastructure design:

- Complete engineering studies and geotechnical testwork to confirm ground conditions and engineering requirements;
- Evaluate and optimize block size, cut-off grade, dilution, metal price and mineable resource sensitivities;
- Evaluate and optimize mine design, equipment selection, scheduling and sequencing;
- Complete detailed mining, ventilation, electrical, dewatering and infrastructure plans;
- Complete an assessment of existing infrastructure to improve accuracy of remediation required to return to service;
- Perform RQD and RMR studies on core samples on delineation drilling, or perform geotechnical drilling program, and create a geotech and hydrogeology database;
- Numerical modelling (2D and 3D) of stress distribution associated with mining sequencing and anticipated severity of ground damage:
  - Location of key underground infrastructure;
  - Seismicity potential at depth;
  - Mining and sequence of the two parallel veins in Corner Bay Main Veins above dyke and Joe Mann West zone;
  - Crown pillar stability assessment for Corner Bay to identify the upper vertical extent of mineable resources;
- Convert drawings or pickups of old workings in Joe Mann into 3D format for an accurate understanding their impact on the mine design and cost estimates for Joe Mann mine;
- Complete ventilation design review with respect to heat accumulation to determine if or when cooling is required at depth;
- Consider Avoca mining methods in medium grade zones in Corner Bay and Joe Mann if metal prices go up to enhance project economics;
- Create block model with smaller block sizes to create an accurate stope optimizer shape. Recovery can be increased with stope shapes that can increase mineable tonnes;
- Review impact in metal prices on cut-off grade and mineable resource;
- Complete an assessment of existing Joe Mann infrastructure to improve accuracy of remediation required to return to service; and

- Complete geotechnical evaluation to ensure that ponds and material stockpiles can be safely constructed on the northeast portion of the Corner Bay site.

26.4. Metallurgical Testwork and Processing Plant

The development of a metallurgical testwork program is recommended to better characterize the metallurgical response of the various zones of all three deposits (Corner Bay, Devlin and Joe Mann). Testwork should include mineral sorting, comminution, gravity concentration, flotation and dewatering, i.e., sedimentation and filtration:

- Complete testwork for individual mineralized zones and their composites to better assess the metallurgical response. Variability testwork should also be performed to produce a recovery model based on feed grades and dilution;
- Carry out detailed material sorting testing on both Corner Bay and Devlin material using representative samples to confirm the estimated performance. This should be followed by flotation testing of the pre-concentrates to determine their response as well as optimization tests for flotation reagents selection and dosage; and
- Perform filtration testing on both concentrate and tailings to confirm the capacity and design of the filtration plant.

26.5. Waste and Water Management

The following recommendations are made in regard to waste and water management:

- Complete site investigations and technical studies to further characterize water, tailings, overburden, mineralized material and waste properties;
- Perform geotechnical engineering studies to characterize the design and stability of the dry stack tailings; and
- Develop a hydrogeological model to characterize flow throughout the site, tailings and waste areas.

26.5.1. Hydrogeology

A hydrogeological conceptual model for the existing Copper Rand TMF areas should be developed. Site investigations should be completed to characterize the tailings, overburden and bedrock properties. Baseline monitoring of groundwater quality within the tailings impoundment should be continued to provide a dataset for environmental studies and to support performance monitoring of the groundwater.

26.5.2. Tailings Management Facility

The construction material to be used for the working platform of the TMF should be characterized for environmental and geotechnical properties. In addition, further field and laboratory geotechnical and hydrogeological investigations should be completed to accurately determine the Copper Rand filtered tailings properties and strength, and their spatial variability. This includes piezocones soundings, boreholes drilling with material sampling and test pit excavations and installation of additional vibrating wire piezometers.

The following geotechnical laboratory tests should be performed: triaxial and direct shear tests, natural moisture and Atterberg Limits determination, 1D consolidation test, determination of the hydraulic conductivity of material and gradation curves.

Further feasibility engineering studies required for the dry stack design include:

- Finite element modelling to better understand the short and long-term behaviour of the dry stack and underlying Copper Rand tailings, i.e., stress-strain, slope stability, seepage. This will help address the short- and long-term stability of the dry stack under static, seismic and post seismic condition; and
- Dry stack construction planning, i.e., tailings deposition planning, and review of deposition method for adverse conditions.

26.5.3. Hydrology

Additional studies include:

- Installing rain and temperature stations at the mill site;
- Installing monitoring and gauging stations within the existing Copper Rand TMF polishing pond to calibrate and validate the water and load balance for the impoundment; and
- Initiating snow course surveys on an annual basis to progress the understanding of freshet and peak flow timing.

26.5.4. Water and Load Balance

It is recommended that the water and load balance for the TMF should be completed as the Project design is advanced to refine the understanding of the effluents to be treated during operations and to refine the water treatment design cost estimates.

Additional studies include:

- Conduct site specific precipitation assessment, including climate change prediction;

- Develop most likely and reasonable worst-case source term values and assess sensitivity analysis; and
- Incorporate the effect of climate change on the project into the model and the design of long-term infrastructure.

26.6. Environment and Permitting

The following recommendations are made in regard to the ESIA and the continued process in obtaining authorizations and permits:

- Further studies and testwork will need to be completed to obtain additional authorizations/permits required for the General Authorization, Construction Phase and Operation / Maintenance Phase. Additional permits include Closure plan, Mining lease, Site preparation, Withdrawal of water to Mining and Processing plant operation. The detailed list of permits is outlined in Table 20.1 of Section 20;
- Geochemical testing of tailings and waste rock is recommended to adequately identify risks of acid mine drainage or metal leaching and to confirm the proposed waste and water management infrastructure designs at the feasibility stage of the Project; and
- Doré Copper to engage in consultation activities with the Oujé-Bougoumou Cree Nation, the Chibougamau community as well as the Eeyou Istchee James Bay Regional Government

26.7. Market Studies and Contracts

The following recommendations are made in regard to market studies and contracts:

- Evaluate the logistics costs, including land transport, port handling and ocean freight costs during the next phase of the Project;
- Test the assumption that the concentrate is clean and will not incur penalties. This assumption was based on historic production information; and
- Investigate the potential for silver and molybdenum revenues to improve Project economics.

27. References

27.1. General Project

These references refer to Section 1 & 19

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Appendix A:
List of claims

Appendix A - Land tenure claims

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Copper Rand							
Copper Rand	19	BM	656	2024-01-20	63.25	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	1	CM	27		190.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	2	CM	28		205.33	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	3	CM	29		222.63	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	4	CM	30		207.9	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	5	CM	31		117.8	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	6	CM	66PTB		51.27	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	7	CM	66PTA		6.92	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	8	CM	430		77.95	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	9	CM	435		80.93	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	10	CM	439		81.79	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	11	CM	440		75.71	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	12	CM	461		46.01	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	13	CM	462		95.38	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	14	CM	466		86.21	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	15	CM	491PTA		23	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	16	CM	491PTB		87	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	17	CM	493		68.85	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	18	CM	497		40.27	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand		CM	491PTB		87	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	1	CDC	2436104	2022-05-12	46.81	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	2	CDC	2436120	2022-05-12	0.68	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	3	CDC	2436122	2022-05-12	39.1	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	4	CDC	2436125	2022-05-12	53.79	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	5	CDC	2436133	2022-05-12	55.42	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	6	CDC	2436146	2022-05-12	35.61	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	7	CDC	2436152	2022-05-12	0.01	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	8	CDC	2436155	2022-05-12	55.42	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	9	CDC	2436158	2022-05-12	19.2	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	10	CDC	2436161	2022-05-12	19.13	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	11	CDC	2436162	2022-05-12	20.01	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	12	CDC	2436167	2022-05-12	0.64	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	13	CDC	2436168	2022-05-12	7.38	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	14	CDC	2436169	2022-05-12	1.47	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	15	CDC	2436173	2022-05-12	11.35	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	16	CDC	2436176	2022-05-12	38.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	17	CDC	2436177	2022-05-12	4.94	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	18	CDC	2436180	2022-05-12	13.86	CBAY	Minéraux CBAY inc. (100 %)

Appendix A - Land tenure claims

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Copper Rand	19	CDC	2436181	2022-05-12	0.08	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	20	CDC	2436184	2022-05-12	29.16	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	21	CDC	2099682	2022-07-04	17.84	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	22	CDC	2594024	2024-01-04	55.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	23	CDC	2594025	2024-01-04	55.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	24	CDC	2594026	2024-01-04	55.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	25	CDC	2594027	2024-01-04	55.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	26	CDC	2594028	2024-01-04	55.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	27	CDC	2594029	2024-01-04	55.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	28	CDC	2594030	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	29	CDC	2594031	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	30	CDC	2594032	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	31	CDC	2594033	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	32	CDC	2594034	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	33	CDC	2594035	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	34	CDC	2594036	2024-01-04	55.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	35	CDC	2594037	2024-01-04	55.5	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	36	CDC	2594038	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	37	CDC	2594039	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	38	CDC	2594040	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	39	CDC	2594041	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	40	CDC	2594042	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	41	CDC	2594043	2024-01-04	55.51	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	42	CDC	2436066	2024-02-12	14.28	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	43	CDC	2436067	2024-02-12	19.72	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	44	CDC	2436068	2024-02-12	2.65	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	45	CDC	2436069	2024-02-12	3.8	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	46	CDC	2436070	2024-02-12	18.43	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	47	CDC	2436071	2024-02-12	0.04	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	48	CDC	2436072	2024-02-12	8.35	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	49	CDC	2436073	2024-02-12	0.07	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	50	CDC	2436074	2024-02-12	0.01	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	51	CDC	2436075	2024-02-12	0.4	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	52	CDC	2436098	2024-05-12	55.46	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	53	CDC	2436099	2024-05-12	55.45	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	54	CDC	2436100	2024-05-12	55.45	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	55	CDC	2436101	2024-05-12	55.45	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	56	CDC	2436102	2024-05-12	21.96	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	57	CDC	2436103	2024-05-12	50.3	CBAY	Minéraux CBAY inc. (100 %)

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Copper Rand	58	CDC	2436105	2024-05-12	51.06	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	59	CDC	2436106	2024-05-12	28.08	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	60	CDC	2436107	2024-05-12	3.22	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	61	CDC	2436108	2024-05-12	12.4	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	62	CDC	2436109	2024-05-12	23.31	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	63	CDC	2436110	2024-05-12	17.4	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	64	CDC	2436111	2024-05-12	55.12	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	65	CDC	2436112	2024-05-12	46.32	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	66	CDC	2436113	2024-05-12	1.29	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	67	CDC	2436114	2024-05-12	21.53	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	68	CDC	2436115	2024-05-12	52.86	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	69	CDC	2436116	2024-05-12	0.72	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	70	CDC	2436117	2024-05-12	17.86	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	71	CDC	2436118	2024-05-12	43.18	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	72	CDC	2436119	2024-05-12	3.03	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	73	CDC	2436121	2024-05-12	5.35	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	74	CDC	2436123	2024-05-12	0.01	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	75	CDC	2436124	2024-05-12	5.49	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	76	CDC	2436126	2024-05-12	42.64	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	77	CDC	2436127	2024-05-12	46.13	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	78	CDC	2436128	2024-05-12	6.86	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	79	CDC	2436129	2024-05-12	19.76	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	80	CDC	2436130	2024-05-12	15.17	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	81	CDC	2436131	2024-05-12	8.82	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	82	CDC	2436132	2024-05-12	1.52	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	83	CDC	2436134	2024-05-12	15.34	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	84	CDC	2436135	2024-05-12	20.87	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	85	CDC	2436136	2024-05-12	30.73	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	86	CDC	2436137	2024-05-12	1.66	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	87	CDC	2436138	2024-05-12	55.45	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	88	CDC	2436139	2024-05-12	7.94	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	89	CDC	2436140	2024-05-12	5.01	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	90	CDC	2436141	2024-05-12	52.69	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	91	CDC	2436142	2024-05-12	36.68	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	92	CDC	2436143	2024-05-12	28.84	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	93	CDC	2436144	2024-05-12	46.03	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	94	CDC	2436145	2024-05-12	12.16	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	95	CDC	2436147	2024-05-12	12.27	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	96	CDC	2436148	2024-05-12	11.46	CBAY	Minéraux CBAY inc. (100 %)

Appendix A - Land tenure claims

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Copper Rand	97	CDC	2436149	2024-05-12	0.06	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	98	CDC	2436150	2024-05-12	42.41	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	99	CDC	2436151	2024-05-12	37.17	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	100	CDC	2436153	2024-05-12	37.04	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	101	CDC	2436154	2024-05-12	23.2	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	102	CDC	2436156	2024-05-12	15.69	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	103	CDC	2436157	2024-05-12	48.78	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	104	CDC	2436159	2024-05-12	55.45	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	105	CDC	2436160	2024-05-12	46.38	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	106	CDC	2436163	2024-05-12	24.55	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	107	CDC	2436164	2024-05-12	32.83	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	108	CDC	2436165	2024-05-12	33.42	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	109	CDC	2436166	2024-05-12	11.85	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	110	CDC	2436170	2024-05-12	31.68	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	111	CDC	2436171	2024-05-12	40.92	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	112	CDC	2436172	2024-05-12	19.61	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	113	CDC	2436174	2024-05-12	18.02	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	114	CDC	2436175	2024-05-12	44.93	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	115	CDC	2436178	2024-05-12	23.97	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	116	CDC	2436179	2024-05-12	51.29	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	117	CDC	2436182	2024-05-12	1.11	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	118	CDC	2436183	2024-05-12	13.9	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	119	CDC	2436185	2024-05-26	55.49	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	120	CDC	2436186	2024-05-26	55.5	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	121	CDC	2436187	2024-05-26	55.5	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	122	CDC	2436188	2024-05-26	55.5	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	123	CDC	2436189	2024-05-26	55.49	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	124	CDC	2436190	2024-05-26	55.49	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	125	CDC	2436191	2024-05-26	55.49	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	126	CDC	2436192	2024-05-26	55.48	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	127	CDC	2436193	2024-05-26	55.48	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	128	CDC	2436194	2024-05-26	55.49	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	129	CDC	2436195	2024-05-26	17.23	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	130	CDC	2436196	2024-05-26	29.44	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	131	CDC	2436197	2024-05-26	1.28	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	132	CDC	2436198	2024-05-26	40.81	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	133	CDC	2436199	2024-05-26	54.91	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	134	CDC	2436200	2024-05-26	12.11	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	135	CDC	2436201	2024-05-26	55.47	CBAY	Minéraux CBAY inc. (100 %)

Appendix A - Land tenure claims

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Copper Rand	136	CDC	2436202	2024-05-26	41.02	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	137	CDC	2436203	2024-05-26	32.15	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	138	CDC	2436204	2024-05-26	9.4	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	139	CDC	2436205	2024-05-26	1.6	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	140	CDC	2436206	2024-05-26	16.54	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	141	CDC	2436207	2024-05-26	33.45	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	142	CDC	2436208	2024-05-26	33.5	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	143	CDC	2436209	2024-05-26	10.23	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	144	CDC	2436210	2024-05-26	3.66	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	145	CDC	2436211	2024-05-26	24.33	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	146	CDC	2436212	2024-05-26	47.4	CBAY	Minéraux CBAY inc. (100 %)
Copper Rand	147	CDC	2436213	2024-05-26	0.01	CBAY	Minéraux CBAY inc. (100 %)

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Corner Bay - Devlin							
Corner Bay	1	BM	878	2029-11-09	60.8	CBAY	Minéraux CBAY inc. (100 %)
Corner Bay	1	CDC	2428202	2023-12-18	18.09	CBAY	Minéraux CBAY inc. (100 %)
Baie Line	1	CDC	2494615	2022-06-01	55.67	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	1	CDC	2541350	2023-07-01	55.63	CBAY	Minéraux CBAY inc. (100 %)
Devlin	1	CDC	2433731	2022-10-05	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	1	CDC	2428251	2023-12-10	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Bay	2	CDC	2428203	2023-12-18	22.7	CBAY	Minéraux CBAY inc. (100 %)
Baie Line	2	CDC	2494616	2022-06-01	55.67	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	2	CDC	2541351	2023-07-01	55.63	CBAY	Minéraux CBAY inc. (100 %)
Devlin	2	CDC	2433732	2022-10-05	55.61	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	2	CDC	2428254	2023-12-10	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Bay	3	CDC	2428204	2023-12-18	24.33	CBAY	Minéraux CBAY inc. (100 %)
Baie Line	3	CDC	2494621	2022-06-01	55.66	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	3	CDC	2541352	2023-07-01	55.63	CBAY	Minéraux CBAY inc. (100 %)
Devlin	3	CDC	2427785	2024-01-16	55.61	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	3	CDC	2428240	2023-12-10	55.65	CBAY	Minéraux CBAY inc. (100 %)
Corner Bay	4	CDC	2428205	2023-12-18	22.18	CBAY	Minéraux CBAY inc. (100 %)
Baie Line	4	CDC	2494622	2022-06-01	55.66	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	4	CDC	2541353	2023-07-01	55.63	CBAY	Minéraux CBAY inc. (100 %)
Devlin	4	CDC	2427786	2024-01-16	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	4	CDC	2428241	2023-12-10	55.64	CBAY	Minéraux CBAY inc. (100 %)
Corner Bay	5	CDC	2428206	2023-12-18	0.01	CBAY	Minéraux CBAY inc. (100 %)
Baie Line	5	CDC	2494623	2022-06-01	55.66	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	5	CDC	2541354	2023-07-01	55.63	CBAY	Minéraux CBAY inc. (100 %)
Devlin	5	CDC	2427787	2024-01-16	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	5	CDC	2428242	2023-12-10	55.64	CBAY	Minéraux CBAY inc. (100 %)
Corner Bay	6	CDC	2428207	2023-12-18	41.89	CBAY	Minéraux CBAY inc. (100 %)
Baie Line	6	CDC	2494624	2022-06-01	55.66	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	6	CDC	2541355	2023-07-01	55.63	CBAY	Minéraux CBAY inc. (100 %)
Devlin	6	CDC	2427788	2024-01-16	55.61	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	6	CDC	2428243	2023-12-10	55.63	CBAY	Minéraux CBAY inc. (100 %)
Corner Bay	7	CDC	2428208	2023-12-18	34.54	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	7	CDC	2541356	2023-07-01	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	7	CDC	2428244	2023-12-10	55.65	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	8	CDC	2541357	2023-07-01	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	8	CDC	2428245	2023-12-10	55.65	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	9	CDC	2541358	2023-07-01	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	9	CDC	2428246	2023-12-10	55.65	CBAY	Minéraux CBAY inc. (100 %)

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Devlin Ext.	10	CDC	2541359	2023-07-01	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	10	CDC	2428247	2023-12-10	55.65	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	11	CDC	2541360	2023-07-01	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	11	CDC	2428248	2023-12-10	55.62	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	12	CDC	2541361	2023-07-01	55.62	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	12	CDC	2428249	2023-12-10	55.6	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	13	CDC	2541362	2023-07-01	55.61	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	13	CDC	2428250	2023-12-10	55.6	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	14	CDC	2541363	2023-07-01	55.61	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	14	CDC	2428252	2023-12-10	55.59	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	15	CDC	2541364	2023-07-01	55.61	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	15	CDC	2428253	2023-12-10	55.59	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	16	CDC	2541365	2023-07-01	55.61	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	16	CDC	2428255	2023-12-10	55.59	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	17	CDC	2541366	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	17	CDC	2428256	2023-12-10	55.61	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	18	CDC	2541367	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	18	CDC	2428257	2023-12-10	55.61	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	19	CDC	2541368	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	19	CDC	2428258	2023-12-10	55.61	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	20	CDC	2541369	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	20	CDC	2428259	2023-12-10	55.65	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	21	CDC	2541370	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	21	CDC	2428260	2023-12-10	55.65	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	22	CDC	2541371	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	22	CDC	2428261	2023-12-10	55.65	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	23	CDC	2541372	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	23	CDC	2428262	2023-12-10	55.63	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	24	CDC	2541373	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	24	CDC	2428263	2023-12-10	55.6	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	25	CDC	2541374	2023-07-01	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	25	CDC	2428264	2023-12-10	14.59	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	26	CDC	2541375	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	26	CDC	2428265	2023-12-10	17.3	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	27	CDC	2541376	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	27	CDC	2428266	2023-12-10	13.87	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	28	CDC	2541377	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	28	CDC	2428267	2023-12-10	13.58	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	29	CDC	2541378	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)

Appendix A - Land tenure claims

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Corner Back	29	CDC	2428268	2023-12-10	13.04	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	30	CDC	2541379	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	30	CDC	2428269	2023-12-10	53.05	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	31	CDC	2541380	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	31	CDC	2428270	2023-12-10	6.56	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	32	CDC	2541381	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	32	CDC	2428271	2023-12-10	55.6	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	33	CDC	2541382	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	33	CDC	2428272	2023-12-10	55.61	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	34	CDC	2541383	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	34	CDC	2428273	2023-12-10	55.61	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	35	CDC	2541384	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	35	CDC	2428274	2023-12-10	55.62	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	36	CDC	2541385	2023-07-01	55.59	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	36	CDC	2428275	2023-12-10	55.6	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	37	CDC	2541386	2023-07-01	55.58	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	37	CDC	2428276	2023-12-10	12.15	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	38	CDC	2541387	2023-07-01	55.58	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	38	CDC	2428277	2023-12-10	49.25	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	39	CDC	2541388	2023-07-01	55.58	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	39	CDC	2428278	2023-12-10	55.61	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	40	CDC	2541389	2023-07-01	55.58	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	40	CDC	2428279	2023-12-10	55.59	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	41	CDC	2541390	2023-07-01	55.58	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	41	CDC	2428280	2023-12-10	13.84	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	42	CDC	2541391	2023-07-01	55.58	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	42	CDC	2428281	2023-12-10	44.78	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	43	CDC	2541392	2023-07-01	55.57	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	43	CDC	2428282	2023-12-10	14.12	CBAY	Minéraux CBAY inc. (100 %)
Devlin Ext.	44	CDC	2541393	2023-07-01	55.57	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	44	CDC	2428283	2023-12-10	55.6	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	45	CDC	2428284	2023-12-10	0.82	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	46	CDC	2428285	2023-12-10	16.07	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	47	CDC	2428286	2023-12-10	42.54	CBAY	Minéraux CBAY inc. (100 %)
Corner Back	48	CDC	2428287	2023-12-10	1.88	CBAY	Minéraux CBAY inc. (100 %)

Appendix A - Land tenure claims

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Joe Mann							
Joe Mann	1	CM	420		53.26	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	2	CM	425		12.39	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	1	CDC	2362090	2023-10-24	1.39	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	2	CDC	2362091	2023-10-24	1.67	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	3	CDC	2362092	2023-10-24	4.76	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	4	CDC	2362093	2023-10-24	6.27	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	5	CDC	2361693	2023-12-20	1.74	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	6	CDC	2361694	2023-12-20	0.62	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	7	CDC	2361695	2023-12-20	39.5	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	8	CDC	2361696	2023-12-20	9.76	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	9	CDC	2361697	2023-12-20	27.5	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	10	CDC	2361698	2023-12-20	3.22	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	11	CDC	2374316	2024-02-13	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	12	CDC	2374317	2024-02-13	34.37	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	13	CDC	2374318	2024-02-13	18	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	14	CDC	2374319	2024-02-13	5.74	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	15	CDC	2374320	2024-02-13	50.96	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	16	CDC	2374321	2024-02-13	55.93	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	17	CDC	2374322	2024-02-13	17.4	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	18	CDC	2374323	2024-02-13	55.93	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	19	CDC	2374324	2024-02-13	12.29	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	20	CDC	2374325	2024-02-13	54.09	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	21	CDC	2374326	2024-02-13	54.99	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	22	CDC	2374327	2024-02-13	50.43	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	23	CDC	2374328	2024-02-13	35.78	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	24	CDC	2374329	2024-02-13	13.49	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	25	CDC	2374330	2024-02-13	2.02	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	26	CDC	2374331	2024-02-13	4.65	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	27	CDC	2374332	2024-02-13	14.96	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	28	CDC	2485644	2024-03-21	55.9	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	29	CDC	2485645	2024-03-21	55.9	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	30	CDC	2485646	2024-03-21	55.9	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	31	CDC	2485647	2024-03-21	55.9	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	32	CDC	2485648	2024-03-21	55.9	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	33	CDC	2485649	2024-03-21	55.9	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	34	CDC	2485652	2024-03-21	55.89	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	35	CDC	2485653	2024-03-21	55.89	CBAY	Minéraux CBAY inc. (100 %)

Sub-Area	ID	Type	Mining Title	Expiry Date	Area (Ha)	Holder	Holder Orig
Joe Mann	36	CDC	2485654	2024-03-21	55.89	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	37	CDC	2485655	2024-03-21	55.89	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	38	CDC	2485656	2024-03-21	55.89	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	39	CDC	2485657	2024-03-21	55.89	CBAY	Minéraux CBAY inc. (100 %)
Joe Mann	40	CDC	2377614	2024-04-04	55.95	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	41	CDC	2377615	2024-04-04	55.95	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	42	CDC	2377616	2024-04-04	55.95	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	43	CDC	2377617	2024-04-04	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	44	CDC	2377618	2024-04-04	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	45	CDC	2377619	2024-04-04	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	46	CDC	2377620	2024-04-04	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	47	CDC	2377621	2024-04-04	55.93	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	48	CDC	2377622	2024-04-04	55.93	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	49	CDC	2377623	2024-04-04	55.93	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	50	CDC	2377624	2024-04-04	55.93	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	51	CDC	2377625	2024-04-04	11.64	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	52	CDC	2377626	2024-04-04	1.96	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	53	CDC	2377627	2024-04-04	4.88	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	54	CDC	2377628	2024-04-04	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	55	CDC	2377629	2024-04-04	16.43	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	56	CDC	2377630	2024-04-04	3.84	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	57	CDC	2377631	2024-04-04	0.41	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	58	CDC	2377632	2024-04-04	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	59	CDC	2377633	2024-04-04	18.24	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	60	CDC	2377634	2024-04-04	5.27	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	61	CDC	2377635	2024-04-04	43.81	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	62	CDC	2377636	2024-04-04	55.95	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	63	CDC	2377637	2024-04-04	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	64	CDC	2377638	2024-04-04	48.75	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	65	CDC	2377639	2024-04-04	35.31	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	66	CDC	2377640	2024-04-04	3.83	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	67	CDC	2377641	2024-04-04	55.95	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	68	CDC	2377642	2024-04-04	10.03	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	69	CDC	2377643	2024-04-04	26.75	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	70	CDC	2377644	2024-04-04	34.03	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	71	CDC	2377645	2024-04-04	55.94	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	72	CDC	2377646	2024-04-04	55.95	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	73	CDC	2377647	2024-04-04	55.93	Ressources Jes	Option Ressources Jessie Inc.
Joe Mann	74	CDC	2377648	2024-04-04	34.08	Ressources Jes	Option Ressources Jessie Inc.