

## **NI 43-101 Technical Report and Mineral Resource Estimate for the Swanson Project, Québec, Canada**

Prepared for



Monarch Mining Corporation  
68 Avenue de la Gare, Office 205  
Saint-Sauveur, QC J0R 1R0

### **Project Location**

Latitude: 48°33'12" North; Longitude: 77°33'51" West  
Province of Québec, Canada

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**Val-d'Or (Québec)**

Effective Date: January 22, 2021  
Signature Date: January 22, 2021

**SIGNATURE PAGE**

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for the Swanson Project, Québec, Canada**

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*(Original signed and sealed)*

**Signed at Val-d'Or on January 22, 2021**

**Christine Beausoleil, P.Geo.  
InnovExplo Inc.  
Val-d'Or (Québec)**

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**Signed at Val-d'Or on January 22, 2021**

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## CERTIFICATE OF AUTHOR – CHRISTINE BEAUSOLEIL

I, Christine Beausoleil, B.Sc., P.Geo., do hereby certify that:

1. I am employed as Geology Director with InnovExplo Inc., at 560, 3<sup>e</sup> Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
2. This certificate applies to the report entitled “**NI 43-101 Technical Report and Mineral Resource Estimate for the Swanson Project, Québec, Canada**” (the “Technical Report”) with an effective and signature date of January 22, 2021. The Technical Report was prepared for Monarch Mining Corporation (the “Issuer”).
3. I graduated with a bachelor's degree in Geology (B.Sc.) from Université du Québec à Montréal (Montréal, Québec) in 1997.
4. I am a member in good standing of the Ordre des Géologues du Québec (OGQ licence No. 656), the Engineers & Geoscientists of British Columbia (licence No. 36156) and the Association of Professional Geoscientists of Ontario (APGO No. 2958).
5. I have practiced my profession continuously as a geologist for a total of twenty-one (23) years during which time I have been involved in mineral exploration, mine geology, ore control and resource modelling projects for gold, copper, zinc and silver properties in Canada.
6. I have read the definition of a qualified person (“QP”) as set out in National Instrument 43-101/Regulation 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 QP for the purposes of NI 43-101.
7. I have not visited the property for the purposes of the Technical Report.
8. I am the author of items 4 to 11, 13 and 15 to 24 and co-author of and share responsibility for items 1 to 3, 12, 14 and 25 to 27 of the Technical Report.
9. I am independent of the Issuer applying all the tests in Section 1.5 of NI 43-101.
10. I have had prior involvement with the project that is the subject of the Technical Report as an independent QP for the Technical Report “NI 43-101 Technical Report and maiden mineral resource estimate for the Swanson Project, Abitibi, Québec” published on SEDAR website (Monarch Gold Corporation) on April 3, 2018.
11. I have read NI 43-101 and the items of the Technical Report for which I am responsible have been prepared in compliance with that instrument.
12. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed this 22<sup>nd</sup> day of January 2021 in Val-d'Or, Québec.

*(Original signed and sealed)*

Christine Beausoleil, B.Sc., P.Geo.

InnovExplo Inc.

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## CERTIFICATE OF AUTHOR – ALAIN CARRIER

I, Alain Carrier, P.Geo., M.Sc. (OGQ No. 281, PGO No. 1719, NAPEG No. L2701), do hereby certify that:

1. I am a professional geoscientist, employed as Co-President Founder of InnovExplo Inc., located at 560, 3e Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
2. This certificate applies to the technical report entitled “**NI 43-101 Technical Report and Mineral Resource Estimate for the Swanson Project, Québec, Canada**” (the “Technical Report”) with an effective and signature dates of January 22, 2021. The Technical Report was prepared for Monarch Mining Corporation (the “Issuer”).
3. I am a member in good standing of the Ordre des Géologues du Québec (OGQ licence No. 281), the Association of Professional Geoscientists of Ontario (PGO licence No. 1719), Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG No. L2701), the Canadian Institute of Mines, Metallurgy and Petroleum (CIM 91323), and of the Society of Economic Geologists (SEG 132243). I graduated with a mining technician degree in geology (1989) from Cégep de l'Abitibi-Témiscamingue and with a Bachelor's degree in Geology (1992; B.Sc.) and a Master's in Earth Sciences (1994; M.Sc.) from Université du Québec à Montréal (Montréal, Québec). I initiated a PhD in geology at INRS-Géoresources (Sainte-Foy, Québec) for which I completed the course program but not the thesis.
4. I have practiced my profession continuously as a geologist for a total of twenty-seven (27) years during which time I have been involved in mineral exploration, mine geology, ore control and resource modelling projects for gold, copper, zinc, silver, nickel, lithium, graphite and uranium properties in Canada and internationally.
5. I have read the definition of “qualified person” set out in National Instrument 43-101/Regulation 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.
6. I have visited the property that is the subject of this report multiple times in the past and recently on January 20, 2021 for the purpose of this Technical Report.
7. I am the co-author and share responsibility for items 1 to 3, 12, 14 and 25 to 27.
8. I have had prior involvement with the project that is the subject of the Technical Report as an independent QP for the Technical Report “NI 43-101 Technical Report and maiden mineral resource estimate for the Swanson Project, Abitibi, Québec” published on SEDAR website (Monarch Gold Corporation) on April 3, 2018.
9. I am independent of the Issuer in accordance with the application of Section 1.5 of NI 43-101.
10. I have read NI 43-101 and Form 43-101F1, and the sections of the Technical Report for which I am responsible have been prepared in accordance with that instrument and form.
11. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

Signed this 22<sup>nd</sup> day of January 2021 in Val-d'Or, Québec.

*(Original signed and sealed)*

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## 1. SUMMARY

### Introduction

Mr. Jean-Marc Lacoste, President and Chief Executive Officer of Monarch Mining Corporation (“Monarch Mining” or the “Issuer”) mandated InnovExplo Inc. (“InnovExplo”) to prepare a Technical Report (the “Technical Report”) to present and support the results of a Mineral Resource Estimate (the “2021 MRE”) for the Swanson property (the “Property” or the “Project”).

The Technical Report has been prepared in accordance with Canadian Securities Administrators’ *National Instrument 43-101 Standards of Disclosure for Mineral Projects* (“NI 43-101” or “43-101”) and its related Form 43-101F1.

The effective date of this Technical Report is January 22, 2021.

InnovExplo is an independent mining and exploration consulting firm based in Val-d’Or (Québec).

On November 2, 2020, Yamana Gold Inc. (“Yamana”) and Monarch Gold Corporation (“Monarch Gold”) announced that they had entered into a definitive agreement (the “Agreement”), pursuant to which Yamana would acquire the Wasamac property and the Camflo property and mill through the acquisition of all issued and outstanding common shares of Monarch Gold. The Beaufor Mine and the fully permitted Beacon Gold mill, along with the Swanson Project and several other nearby exploration properties were to be re-allocated by completing a spin-out to Monarch Gold’s shareholders through a newly-formed company, subsequently named as the Monarch Mining Corporation (“Monarch Mining”) (see December 2, 2020 press release of Monarch Gold).

Monarch Mining is headquartered at 68 Avenue de la Gare, Office 205, Saint-Sauveur, Quebec, J0R 1R0.

### Contributors and Qualified Person

This Technical Report was prepared by Christine Beausoleil (P.Geo.), Geology Director of InnovExplo and Alain Carrier (M.Sc., P.Geo.), co-president and co-founder of InnovExplo. Each is considered an independent qualified person (QP) as defined by NI 43-101.

Ms. Beausoleil is a professional geologist in good standing with the OGQ (licence No. 656), the EGBC (licence No. 36156) and the PGO (licence No. 2958). She is the author of Items 4 to 11, 13 and 15 to 24 in this Technical Report, and co-author of Items 1 to 3, 12, 14, and 25 to 27.

Mr. Carrier is a professional geologist in good standing with the OGQ (licence No. 281), PGO (licence No. 1719), NAPEG (licence No. L2701), CIM (No. 91323) and SEG (No. 132243). He is co-author of Items 1 to 3, 12, 14, and 25 to 27 of the Technical Report.

### Property Description and Location

The Property is located in the Abitibi-Temiscamingue Administrative Region in the province of Québec (Canada), approximately 65 kilometres north-northeast of the city of Val-d’Or.

The Property consists of a contiguous block of 127 map-staked mining claims and one mining lease, for an aggregate area of 5,125.8 ha (51.26 km<sup>2</sup>).

An existing Net Smelter Return royalty (NSR) for International Royalty Corporation remains in force for 2% on gold resource claims and 1% on some exploration claims (Appendix I).

### **Geological Setting and Mineralization**

The Property is located in the Taschereau-Amos-Senneterre volcanic segment of the Abitibi greenstone belt (AGB). The Swanson deposit is hosted in close proximity to a the calc-alkaline, mainly monzonite, Laflamme pluton located at the interface between basalt and peridotite units of the Amos Group (Pilote and Marleau, 2020; Pilote et al., 2020).

Seven lithological units are distinguished in the Swanson deposit and are classified as either volcanic effusive or volcanic intrusive.

The Swanson deposit is interpreted as a monzonite-associated disseminated gold deposit. The gold mineralization is typical of other structurally controlled gold deposits associated with felsic intrusions in the AGB. Gold occurs in tensional structures in or near the Laflamme intrusion, which typically exhibits background gold grades between 0.3 and 1.0 g/t Au.

Two types of gold mineralization are found directly or indirectly associated with the Laflamme plug.

### **Mineral Resource Estimates**

The 2021 MRE was prepared by Christine Beausoleil (P.Geo.) and Alain Carrier (P.Geo.) (the “Authors”), using all available information.

The resource area measures 500 m along strike, 400 m wide and 500 m deep. The estimate is based on a compilation of historical and recent diamond drill holes. Modelled solids of the mineralized zones were constructed by InnovExplo.

The GEMS database used for the 2021 MRE contains 166 drill holes within the resource area and includes a total of 9,312 sampled intervals (4,035 samples in mineralized zones) representing 12,623.7 m of drilled core (5,157 m drilled in mineralized zones).

InnovExplo based the geological and mineralization model on the drill hole information and created four (4) distinct mineralized solids that honour the GEMS database.

The Authors are of the opinion that the 2021 MRE can be classified as Indicated and Inferred resources. The authors consider the 2021 MRE to be reliable and based on quality data, reasonable hypotheses and parameters that follow CIM Definition Standards.

Table 1.1 presents the combined resources (in-pit and underground) by category for the Swanson deposit at the selected cut-off grade.

## 2021 Swanson Project Mineral Resource Estimate for a combined open pit and underground scenario (Table 14.12)

Area (CoG)	Indicated Resource			Inferred Resource		
	Tonnes (t)	Grade Au (g/t)	Ounces Au	Tonnes (t)	Grade Au (g/t)	Ounces Au
In-Pit (0.75 g/t Au)	1,864,000	1.76	105,400	29,000	2.46	2,300
Underground (2.40 g/t Au)	91,000	2.86	8,400	87,000	2.87	8,000
<b>TOTAL</b>	<b>1,945,000</b>	<b>1.82</b>	<b>113,800</b>	<b>116,000</b>	<b>2.76</b>	<b>10,300</b>

## Interpretations and Conclusions

The Authors conclude the following after conducting a detailed review of all pertinent information and completing the 2021 MRE:

- Geological and grade continuity were demonstrated for the four (4) gold-bearing zones of the Swanson Project;
- The recent and historical drill holes provided sufficient information to complete the 2021 MRE;
- The estimated results are reported for combined open pit and underground scenarios;
- The total Indicated Resources stand at 113,800 ounces of gold (105,400 oz in-pit, 8,400 oz underground) corresponding to a total of 1,945,000 t at 1.82 g/t Au;
- The total Inferred Resources stand at 10,300 ounces of gold (2,300 oz in-pit, 8,000 oz underground) corresponding to a total of 116,000 t at 2.76 g/t Au;
- It is likely that additional diamond drilling at depth would increase the Inferred Resource tonnage and upgrade some of the Inferred Resources to the Indicated category;
- There is also the potential for upgrading resource categories through infill drilling with strict QA/QC protocols and by twinning historical drill holes to corroborate and validate historic results.

The Authors believe there are opportunities to add additional resources to the Project:

- Target 1: zones 1, -2 and -4 may continue at depth along their north-dipping projections. Currently, the deeper north side of the deposit is fairly open;
- Target 2: the northeast area can also be considered open with only one hole located 80 m to the east, beyond the mineralized zones;
- Target 3: zones 1, -2 and -4 may continue on the western side of the deposit, at depths from 120 to 250 m.

The Authors conclude that the 2021 MRE presented herein allows the Swanson Project to advance to the PEA stage following a positive test results of the bulk sample regarding the metallurgy, the mining and the resource model.

The Authors consider the 2021 MRE to be reliable, thorough, based on quality data, reasonable hypotheses, and parameters that conform to NI 43-101 and CIM Definition Standards.

## Recommendations

Based on the results of the 2021 Mineral Resource Estimate, the Authors recommend that the Swanson Project be advanced to the PEA stage.

Accordingly, more work is warranted. Monarch should complete the surface surveying of the 2011 drill holes, three (3) of which are located in the resource area and should also review the correspondence between the local and UTM grids.

Before commencing the PEA study, Monarch should complete a bulk sampling program, including the metallurgical test-work at their own mill. The Issuer should also complete the permitting process, conduct the environmental and hydrogeological studies, commence a trade-off study for the potential displacement of the railroad, and include the Swanson Project in their global social licence management system.

Contingent upon positive results from the bulk sampling program, a diamond drilling campaign should test the lateral and depth extensions of the deposit and update the mineral resource estimate which will provide the foundation for the PEA. Monarch should establish a thorough QA/QC protocol for the diamond drilling program, and it is recommended that all new core and pulp witness samples be properly stored.

In summary, the Authors recommend a two-phase work program as follows:

- Phase 1 – Bulk Sampling:
  - Complete the documentation for permitting the surface bulk sample (approximately 20,000 t);
  - Environmental and hydrogeological characterization testing;
  - Social licence management;
  - Initiate railroad displacement trade-off study;
  - Bulk sample and metallurgical testing; and
  - Bulk sample reconciliation and resource block model calibration.
- Phase 2 – Diamond Drilling and Preliminary Economic Assessment (PEA):
  - Delineation drilling program, potential upgrade and addition of resources by testing lateral and depth continuities;
  - Update the mineral resource estimate; and
  - PEA study and updated NI 43-101 technical report.

The Authors have prepared a cost estimate for the recommended two-phase work program to serve as a guideline for the Project. The budget for the proposed program is presented in Table 26.1. Expenditures for Phase 1 are estimated at C\$1,518,000 (incl. 15% for contingencies). Expenditures for Phase 2 are estimated at C\$1,322,500 (incl. 15% for contingencies). The grand total is C\$2,840,500 (incl. 15% for contingencies). Phase 2 is contingent upon the success of Phase 1.

The Authors are of the opinion that the recommended two-phase work program and proposed expenditures are appropriate and well thought out, and that the character of

the Project is of sufficient merit to justify the recommended program. The Authors believe that the proposed budget reasonably reflects the type and amount of the contemplated activities.

## **2. INTRODUCTION**

### **2.1 Overview**

Mr. Jean-Marc Lacoste, President and Chief Executive Officer of Monarch Mining Corporation (“Monarch Mining” or the “Issuer”) mandated InnovExplo Inc. (“InnovExplo”) to prepare a Technical Report (the “Technical Report”) to present and support the results of a Mineral Resource Estimate (the “2021 MRE”) for the Swanson property (the “Property” or the “Project”).

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The effective date of this Technical Report is January 22, 2021.

InnovExplo is an independent mining and exploration consulting firm based in Val-d’Or (Québec).

### **2.2 Issuer**

On November 2, 2020, Yamana Gold Inc. (“Yamana”) and Monarch Gold Corporation (“Monarch Gold”) announced that they had entered into a definitive agreement (the “Agreement”), pursuant to which Yamana would acquire the Wasamac property and the Camflo property and mill through the acquisition of all issued and outstanding common shares of Monarch Gold. The Beaufor Mine and the fully permitted Beacon Gold mill, along with the Swanson and several other nearby exploration properties were re-allocated by completing a spin-out to Monarch Gold’s shareholders through a newly-formed company, subsequently named as the Monarch Mining Corporation (“Monarch Mining”) (see December 2, 2020 press release of Monarch Gold).

Monarch Mining is headquartered at 68 Avenue de la Gare, Office 205, Saint-Sauveur, Quebec, J0R 1R0.

### **2.3 Overview or “Terms of Reference”**

Monarch Gold acquired the Property from Agnico Eagle Mines Ltd (“Agnico”) as announced in December 2017 (Monarch Gold press release of December 21, 2017). At the time of its acquisition, the area covered by the Property was 5,111 ha. The Property has also been called the “Barraute Property” by past operators.

The Property is at an advanced exploration stage. It is situated near the Bolduc Corridor and the Laflamme River Fault, both deformation zones with nearby gold showings. The Abcourt-Barvue property is adjacent to the Property.

The Swanson deposit was discovered in 1940 by Peter Swanson. More than 24,749 m have been drilled on the Property, and a bulk sample of 3,264 t was mined and processed. The ramp portal and underground openings are currently flooded.

### **2.4 Report Responsibility and Qualified Persons**

This Technical Report was prepared by Christine Beausoleil (P.Geo.), Geology Director of InnovExplo and Alain Carrier, M.Sc. (P.Geo.), co-president and co-founder of

InnovExplo (the “Authors”). Each is considered an independent qualified person (“QP”) as defined by NI 43-101.

Ms. Beausoleil is a professional geologist in good standing with the OGQ (licence No. 656), the EGBC (licence No. 36156) and the PGO (licence No. 2958). She is the author of items 4 to 11, 13 and 15 to 24 in this Technical Report, and co-author of items 1 to 3, 12, 14, and 25 to 27.

Mr. Carrier, is a professional geologist in good standing with the OGQ (licence No. 281) PGO (licence No. 1719), NAPEG (licence No. L2701), CIM (No. 91323) and SEG (No. 132243). He is co-author of items 1 to 3, 12, 14, and 25 to 27 of the Technical Report.

## **2.5 Site Visit**

Mr. Carrier visited the Property on January 20, 2021. The visit of the Property comprised a general overview in the field and checked access, visual check on Swanson decline portal and fences, and visit of the Bolduc historical open pit area. For this mandate, Mr. Carrier also reviewed core photographs of the most recent drill hole (1 new hole since the last technical report of Beausoleil and Carrier, 2018).

## **2.6 Principal Sources of Information**

The documentation listed in Item 27 support this Technical Report. Excerpts or summaries from documents authored by other professionals and consultants are indicated in the text.

The Authors based their assessment of the Property on published material in addition to data, professional opinions and unpublished material provided by Monarch Mining. The Authors reviewed all the relevant data provided by Monarch Mining and/or its agents.

InnovExplo also consulted other information sources, mainly the Government of Québec’s online claim management and assessment work databases, namely: GESTIM (<https://gestim.mines.gouv.qc.ca/>) and SIGEOM (<https://sigeom.mines.gouv.qc.ca/>), respectively; as well as technical reports, annual information forms, MD&A reports and press releases published on SEDAR (<http://www.sedar.com/>).

The Authors have reviewed and appraised the information in this Technical Report, including the conclusions and recommendations, and they believe such information is valid and appropriate considering the status of the Project and the purpose for which the Technical Report has been prepared. The Authors have thoroughly researched and documented the conclusions and recommendations made in this Technical Report.

## **2.7 Currency, Units of Measure, and Abbreviations**

The abbreviations, acronyms and units used in this report are provided in Table 2.1. All currency amounts are stated in Canadian Dollars (\$, C\$, CAD) or US dollars (US\$, USD). Quantities are stated in metric units, as per standard Canadian and international practice, including metric tons (tonnes, t) and kilograms (kg) for weight, kilometres (km) or metres (m) for distance, hectares (ha) for area, percentage (%) for copper and nickel grades, and gram per metric ton (g/t) for precious metal grades. Wherever applicable, imperial units have been converted to the International System of Units (SI units) for consistency (Table 2.2).



**Table 2.1 – List of abbreviations**

Abbreviation or Symbol	Unit or Term
\$	Canadian dollar
%	Percent
°	Angular degree
°C	Degree Celsius
AA, AAS	Atomic absorption spectroscopy
Ag	Silver
AIF	Annual Information Form
APGO	Association of Professional Geoscientists of Ontario
Au	Gold
Az	Azimuth
C\$	Canadian dollar
CAD	Canadian dollar
CAD:USD	Canadian-American exchange rate
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CIM Definition Standards	CIM Definition Standards for Mineral Resources and Mineral Reserves
CLLFZ	Cadillac–Larder Lake Fault Zone
cm	Centimetre
CoG	Cut-off grade
CoG <sub>OP</sub>	Open pit cut-off grade
CoG <sub>UG</sub>	Underground cut-off grade
COV	Co-efficient of variation
CRM	Certified reference material
Cu	Copper
CV	Coefficient of variation
DDH	Diamond drill hole
DPMFZ	Destor-Porcupine-Manneville Fault Zone
EGBC	Engineers and Geoscientists British Columbia
EM	Electromagnetics
EOR	Environmental Objectives for Rejects (Québec) (OER in French)
ft, '	Foot (12 inches)
g	Gram
G	Billion
Ga	Billion years
G&A	General and administration
GESTIM	Gestion des titres miniers (MERN's online claim management system)
GOR	Gross overriding receipts
ha	Hectare
ID2	Inverse distance squared
in, "	Inch
ISO	International Organization for Standardization
JV	Joint venture
kg	Kilogram
km	Kilometre
km/h	Kilometres per hour
M	Million
m	Metre
Ma	Million years
MD&A	Management's Discussion and Analysis
MERN	Ministère de l'Énergie et des Ressources Naturelles du Québec (Ministry of Energy and Natural Resources of Québec)

Abbreviation or Symbol	Unit or Term
mm	Millimetre
MRE	Mineral resource estimate
NAD 83	North American Datum of 1983
NAG	Non-acid generating
NAPEG	Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists
NI 43-101	National Instrument 43-101 – Standards of Disclosure for Mineral Projects ( <i>Regulation 43-101</i> in Québec)
NN	Nearest neighbour
NSR	Net smelter return
NTS	National Topographic System
OGQ	Ordre des géologues du Québec (Québec order of geologists)
OIQ	Ordre des ingénieurs du Québec (Québec order of engineer)
OK	Ordinary kriging
oz	Troy ounce
oz/t	Troy ounce per short ton (2,000 pounds)
PEA	Preliminary economic assessment
P.Eng.	Professional engineer
PFS	Prefeasibility study
P.Geo.	Professional geologist
ppm	Parts per million
QA	Quality assurance
QA/QC	Quality assurance/quality control
QC	Quality control
QP	Qualified person (as defined in National Instrument 43-101)
ROM	Run of mine
SEG	Society of Economic Geologists
SG	Specific gravity
SIGÉOM	Système d'information géominère (MERN's online spatial reference geominer information system)
ton	Short ton (2,000 pounds)
CoG	Underground cut-off grade
US\$	American dollar
USD	American dollar
USGPM	US gallons per minute
UTM	Universal Transverse Mercator (coordinate system)
VG	Visible gold
VMS	Volcanogenic massive sulphide
Zn	Zinc

**Table 2.2 – Conversion factors for measurements**

Imperial Unit	Multiplied by	Metric Unit
1 inch	25.4	mm
1 foot	0.3048	m
1 acre	0.405	ha
1 ounce (troy)	31.1035	g
1 pound (avdp)	0.4535	kg
1 ton (short)	0.9072	t

Imperial Unit	Multiplied by	Metric Unit
1 ounce (troy) / ton (short)	34.2857	g/t

## 2.8 Important Notice

The results of the 2021 MRE are presented as in-situ material and assume the displacement of the railroad, which crosses the Swanson deposit.

### **3. RELIANCE ON OTHER EXPERTS**

The Authors did not rely on other experts to prepare the Technical Report. The Technical Report has been prepared by InnovExplo at the request of the Issuer. Christine Beausoleil (P.Geo.) and Alain Carrier (P.Geo.) of InnovExplo are the qualified and independent persons (“QP”) assigned the mandate of summarizing the technical documentation relevant to the Technical Report, preparing the Mineral Resource Estimate update on the Project, and recommending a work program if warranted.

The QP’s relied on the Issuer’s information regarding mining titles, option agreements, royalty agreements, environmental liabilities and permits. Neither the QP’s nor InnovExplo are qualified to express any legal opinion with respect to property titles, current ownership or possible litigation. This disclaimer applies to section 4.2 to 4.6.

## **4. PROPERTY DESCRIPTION AND LOCATION**

### **4.1 Location**

The Property is located in the Abitibi-Temiscamingue Administrative Region in the province of Québec (Canada), approximately 65 kilometres north-northeast of the city of Val-d'Or (Figure 4.1).

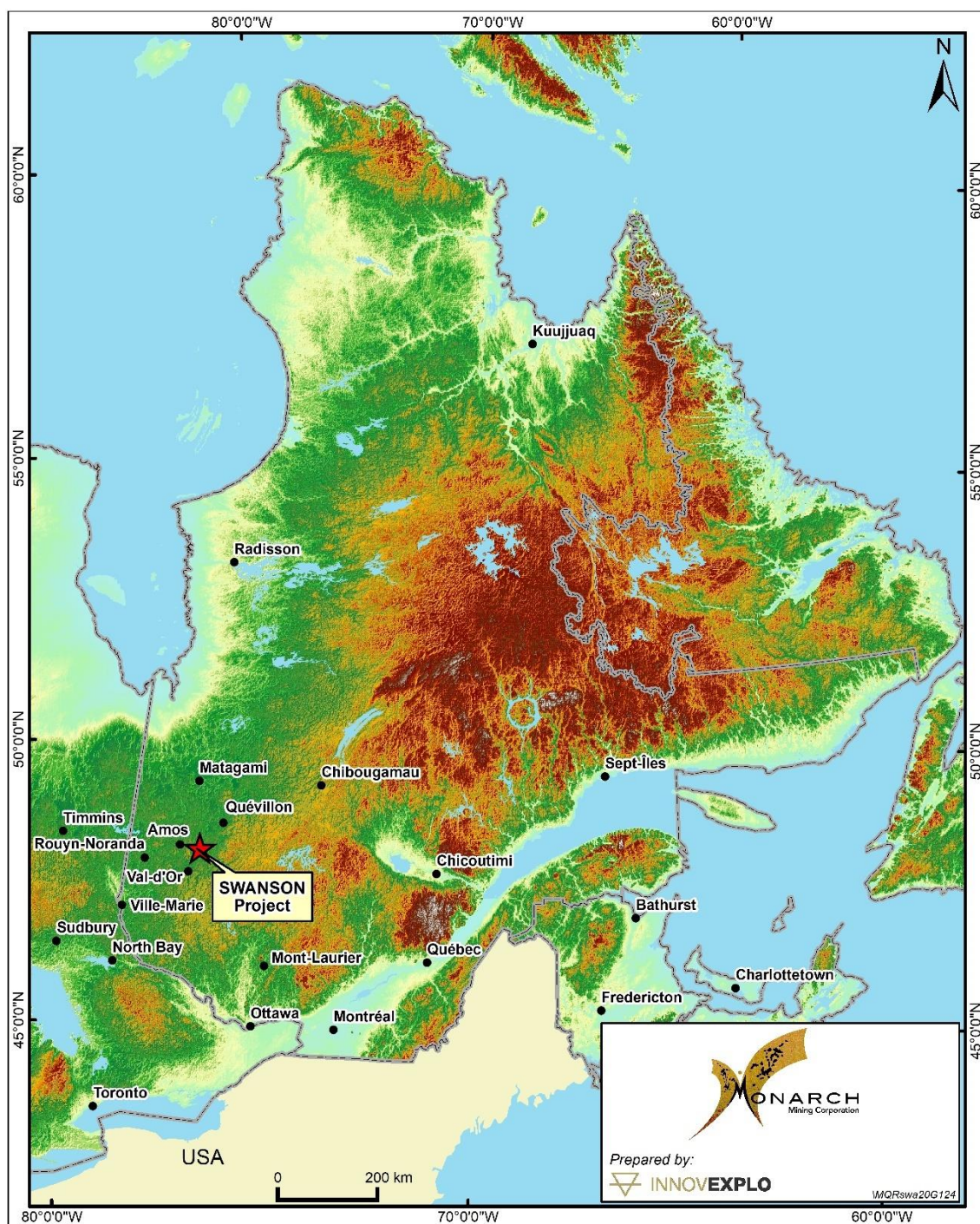
The coordinates for the approximate centre of the Property are 77°33'51"W and 48°33'12"N (310 792E and 5 380 973N NAD 83 / UTM Zone 18). The nearest town is Barraute, located about 13 kilometres south-southwest of the Property. The Property lies in the townships of Barraute and Carpentier on NTS maps sheets 32C/11 and 32C/12.

### **4.2 Mining title status**

Mining title status was supplied by the Issuer. InnovExplo verified the status of all mining titles using GESTIM. All mining titles are registered 100% in the name of Corporation Aurifère Monarques (Monarch Gold) and were in good standing as at December 7, 2020.

A detailed list of mining titles, ownership, royalties and expiration dates is provided in Appendix I.

The Property comprises a contiguous group of 127 map-staked mining claims and one mining lease, over an aggregate area of 5,125.8 ha or 51.26 km<sup>2</sup> (Figure 4.2).



**Figure 4.1 – Location of the Swanson Property in the province of Québec**



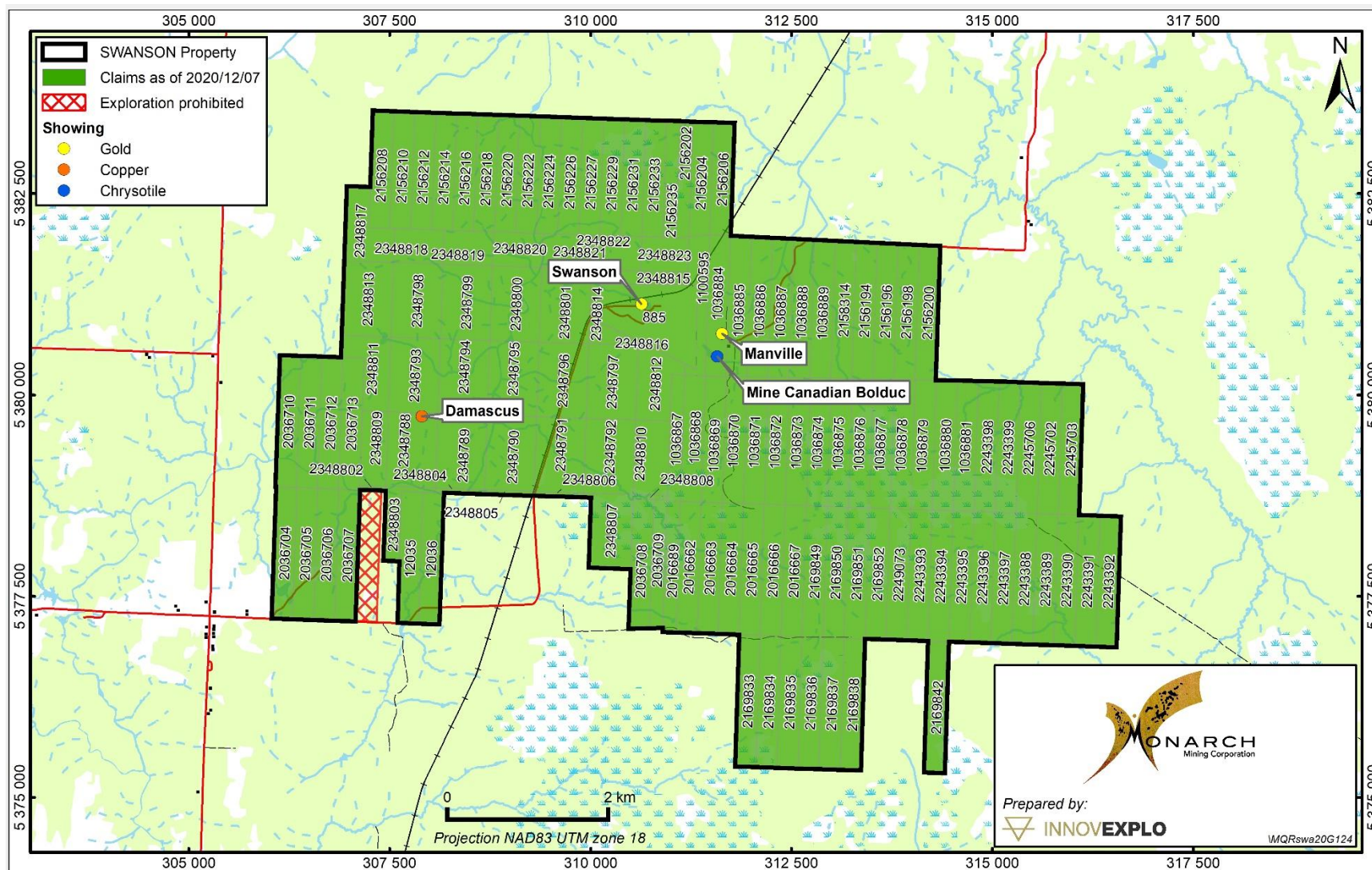


Figure 4.2 – Mining title map of the Swanson Property

### 4.3 Acquisition\* of the Swanson Property

\*These transactions are subject to regulatory approval.

On November 2, 2020, Yamana and Monarch Gold announced that they had entered into a definitive agreement (the “Agreement”), pursuant to which Yamana would acquire the Wasamac property and the Camflo property and mill, through the acquisition of all of the outstanding shares of Monarch Gold (not already owned by Yamana) for total consideration of approximately C\$200 million or C\$0.63 per Monarch Gold share on a fully diluted basis, under a plan of arrangement. The total consideration to be paid by Yamana to the shareholders of Monarch Gold (“Monarch Shareholders”) is approximately C\$60.8 million in cash and C\$91.2 million in Yamana shares. Under the plan of arrangement, Monarch Gold will first complete a spin-out to Monarch Gold Shareholders, through a newly-formed company (Monarch Mining Corporation, or “Monarch Mining”) that will hold its other mineral properties and certain other assets and liabilities of Monarch Gold, by issuing as consideration common shares of Monarch Mining (the “Monarch Mining Shares”) having an implied value of approximately C\$47.5 million (the “Spin-Out”).

Upon implementation of the plan of arrangement (the “Transaction”), the following assets and liabilities will be transferred by Monarch Gold to Monarch Mining in consideration for the issuance of the Monarch Mining Shares to Monarch Gold Shareholders:

- The Beaufor Mine and the Beacon Gold mill and properties, the McKenzie Break property, the Croinor Gold property and the Swanson property (the “Monarch Mining Properties”);
- C\$14 million cash;
- All assets and liabilities related to the Monarch Mining Properties.

Following the completion of the transaction, Monarch Gold Shareholders will own approximately 1.3% of Yamana and 100% of Monarch Mining, and Yamana will own 100% of Monarch Gold.

The royalties presented in item 4.3, will be transferred entirely to Monarch Mining.

On December 21, 2017, Monarch Gold announced it had entered into an agreement with Agnico to acquire the McKenzie Break and Swanson properties.

The term of the transaction stipulated that Monarch Gold would acquire these properties by paying Agnico a total of \$4,600,000, including \$1,600,000 payable in cash and \$3,000,000 payable in common shares of Monarch Gold over a four-year period, as follows:

- At signature of the agreement: \$600,000 in common shares (2,222,222 common shares at the time of issuance);
- On the first anniversary of the agreement: \$400,000 in cash and \$600,000 in common shares;
- On the second anniversary of the agreement: \$400,000 in cash and \$600,000 in common shares;
- On the third anniversary of the agreement: \$400,000 in cash and \$600,000 in common shares; and



- On the fourth anniversary of the agreement: \$400,000 in cash and \$600,000 in common shares.

Concurrent with this transaction, Monarch Gold bought back a 1.5% NSR royalty on the Swanson property in exchange for US\$50,000 in cash and 600,000 Monarch Gold shares.

#### 4.4 Agreements and Encumbrances

In January 2000, McWatters Mining Inc. (“McWatters”) acquired the Swanson property following an agreement with Lac Properties Inc., a wholly-owned subsidiary of Barrick Gold Corporation (“Barrick”). Under the agreement, Lac Properties Inc. (“Lac”) retained a 2% NSR with a 50% buy-back option for US \$1.0 million on the “gold resources claims” and 1% NSR on the exploration claims (Appendix I).

The Swanson Property was optioned in 2002 at 90% by Phoenix Matachewan Gold Mines Inc. (“Phoenix”) in exchange for shares and exploration work worth at least \$500,000 over a five (5) year period. McWatters retained an option to buy-back a 40% interest under certain conditions (McWatters, 2001). The NSR remained owing to Lac, without changes.

In February 2005, Phoenix announced that it had entered into an agreement with Lac, whereby Phoenix would buy down the Swanson Pit sliding scale NSR royalty, calculated to be 4% at the time of the agreement, to a fixed 2% NSR. Phoenix agreed to pay to Barrick 800,000 common shares for the NSR reduction at a deemed price of \$0.10 per share. Phoenix retained the option to reduce the NSR by a further 1% for US \$1,000,000 (Phoenix Matachewan Mines, 2005).

In February 2006, Phoenix entered into an agreement with Agnico whereby Agnico was granted the option to purchase the Swanson project from Phoenix.

Under the terms of the option agreement Agnico would be required to pay \$125,000 to Phoenix upon signing the option agreement; Agnico was to conduct a minimum of \$400,000 in exploration work prior to the first anniversary; and Agnico was to pay \$500,000 to Phoenix should it decide to continue with the Project beyond February 28, 2007. Phoenix retained a 1% NSR on the Project and would receive an additional \$25/oz royalty on all gold produced from the project between 25,000 oz and 100,000 oz. A further 2% (gold resources claims) and 1% (exploration claims) NSR on the Project was retained by Lac (Phoenix Matachewan Mines, 2006).

In April 2008, Phoenix entered into a definitive agreement for the sale of the Project and related exploration claims to Agnico. The total consideration payable under the terms of the agreement was \$325,000, with \$200,000 paid upon execution of the agreement and the balance of \$125,000 payable at the earlier of commencement of commercial production or December 31, 2009. At that time, Agnico assumed responsibility for all prior underlying royalty obligations on the project.

In October 2008, RGLD Gold Canada Inc., acquired all of the right, title and interest of Lac.

In July 2011 RGDL Gold Canada Inc amalgamated to become RG Exchangeco Inc. which further amalgamated on June 15, 2016 to become International Royalty Corporation.

Currently, the NSR remains in force for 2% on gold resources claims and 1% on some exploration claims for International Royalty Corporation (Appendix I).

#### 4.5 Permits

Permits will be required for the recommended bulk-sampling and surface diamond drilling exploration programs that are proposed on the Property. Additional permits may be required for any associated environment-alteration undertakings as well (e.g., watercourse alteration, water-crossing). The appropriate Permit Applications for these activities should be submitted by the Issuer to the appropriate government departments in a timely fashion, allowing for a six to eight weeks processing period. No permits are currently active on the Property.

#### 4.6 Environment

There are no environmental liabilities pertaining to the Project.

From 2007 to 2009, Agnico performed several tests for the waste, mineralized material and tailing characterization. A total of 20 samples were sent to SGS Lakefield Research ("SGS"), a consulting firm, the summary of their conclusions is presented below.

##### Waste rock

Conclusions for the waste rock samples were:

- the felsic intrusive rocks have an acid-generating potential;
- the basalt and ultramafic volcanic rock units have a neutralizing potential;
- the weighted average of the three principal lithological units indicates that the Swanson waste rock is not acid generating;
- the results from leaching test SPLP 1312 on the monzonite and tonalite units exceeded the allowable quantities of aluminum and zinc set for the protection of underground waters;
- the weighted average result from leaching test SPLP 1312, representing the leaching potential of the waste globally, did not exceed the allowable quantities set for the protection of underground waters.

The felsic intrusive rocks, which represents 12.42% of the total waste rock volume, are the only problematic unit. The elevated neutralizing potential of the basalt and ultramafic volcanic rock units, representing 46.19% and 39.20% by volume respectively, successfully neutralize the acid generating potential of the intrusive monzonite and tonalite rocks. The results of the SPLP 1312 tests, which represent the global mass of generated waste rock, indicate that the leachate of the waste stockpile will contain weak metal concentrations that are within the allowable quantities set for the protection of underground waters.

A mining sequence and the pit design should aim for a homogenous lithological unit mixture in the waste stockpile. Thus, the waste stockpile will conform to all applicable environmental regulations without any additional mitigation measures required.

## **Mineralized rock**

Mineralized rock characterization conclusions:

- the felsic intrusive rocks have an acid generating potential;
- the basalt and ultramafic volcanic rock units have an elevated neutralizing potential;
- the weighted average of the three lithological units indicates that the Swanson mineralized material is not acid generating;
- the results from the leaching tests (SPLP 1312) are within the allowable quantities set for the protection of underground waters , with respect to aluminum and zinc;
- the results from the leaching tests (SPLP 1312) does not exceed the allowable quantities for the protection of underground waters for the representative mineralized material samples;
- the weighted average results for the SPLP 1312 leaching tests are within the allowable quantities set for the protection of underground waters.

Based on the results obtained from the samples that underwent metallurgical testing and the weighted average calculation method, the temporary mineralized material stockpile will not be acid generating.

The leaching tests performed on the representative mineralized material samples are within the allowable quantities set for the protection of underground waters. The results calculated by weighted average methods were corroborative.

Agnico concluded that the temporary mineralized material stockpile would not have an environmental impact.

## **Tailings**

Tailings Characterization Conclusions:

- the Swanson tailings do not have an acid generating potential;

The tailings from the 100% Swanson mineralized material feeds were determined to be non-acid generating.

The results from the leaching tests performed on the Goldex/Swanson (85%/15%) mineralized material do not exceed the allowable quantities set for the protection of underground waters.

## **5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

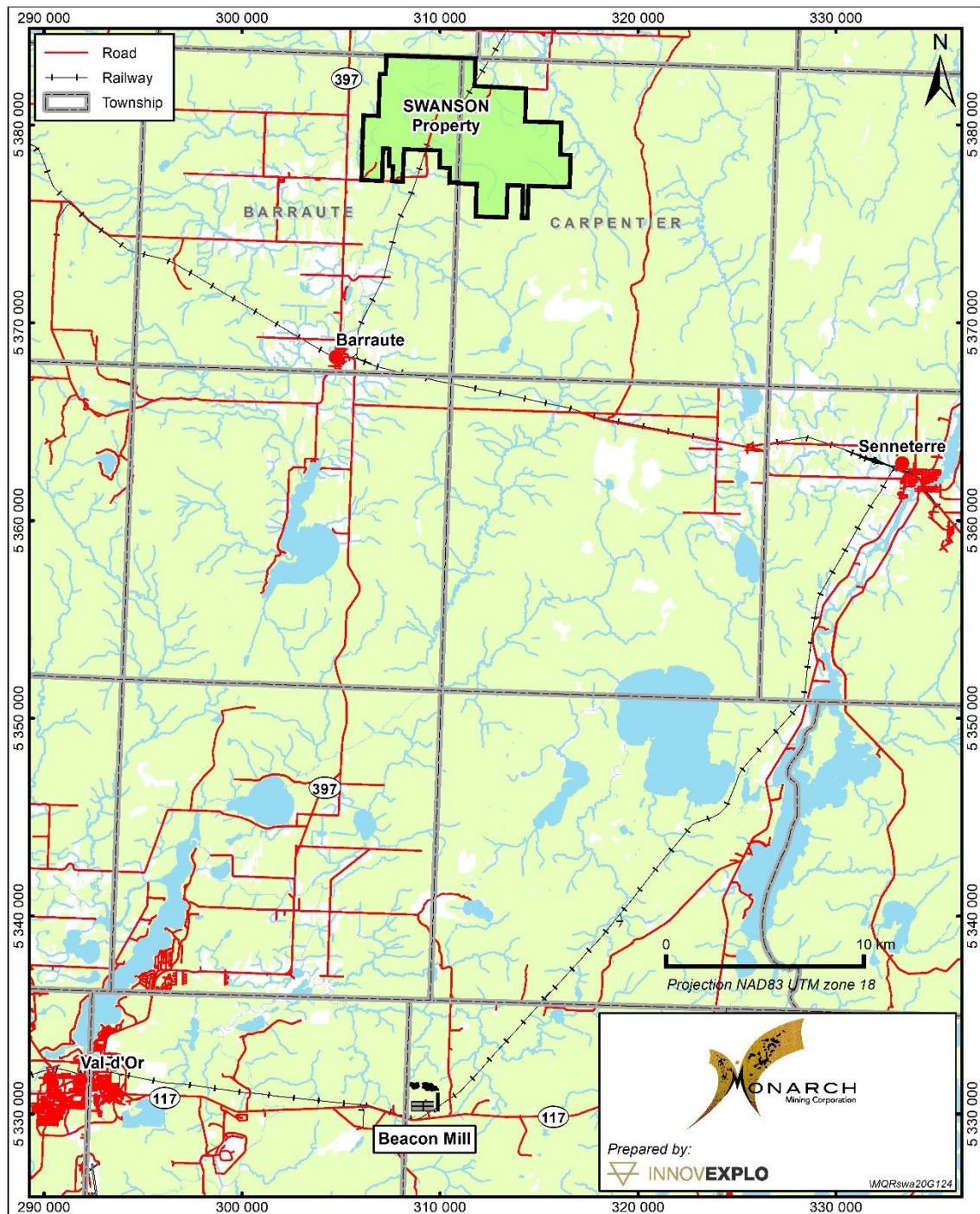
### **5.1 Accessibility**

The Property is located in the Abitibi-Témiscamingue region in the northwest part of southern Québec (Canada), 65 km north-northeast of the city of Val-d'Or. The Project area is accessible via highway 397, which branches off provincial highway 117 at Val-d'Or, (Figure 5.1). A gravel road from Route 397 provides access onto the Property.

The Issuer's project offices and related facilities are located at the Beacon site about 15 km east of Val-d'Or, accessible via provincial highway 117.

### **5.2 Climate**

The Abitibi region is under the influence of a typical continental-style climate marked by cold, dry winters and warm, humid summers. According to Environment Canada's climate data at the nearest weather station (Amos) for the 1981-2010 period ([climate.weather.gc.ca/climate\\_normals](http://climate.weather.gc.ca/climate_normals)), the average temperatures are +17.4°C in July and -17.2°C in January. The mean annual temperature is +1.5°C, slightly above freezing. The lowest recorded temperature was -52.8°C and the highest was +37.2°C. In this area, the temperature drops below freezing 203.2 days per year on average. Snow accumulates from October to May, and freeze-up usually occurs in late December with break-up in March. Average annual precipitation indicates a mean rainfall of 929 mm, with the highest level of precipitation occurring in September (107.3 mm). Surface exploration programs may be adversely affected by the winter climate conditions, but operations can be carried out year-round.



**Figure 5.1 – Access to the Swanson Property**

### 5.3 Infrastructure and Local Resources

The existing infrastructures on the Property are vestiges from the bulk sampling and underground development operations of Lac Minerals Ltd in 1987. The buildings and surface infrastructure were removed upon completion of the work. The remaining



stripping area and portal ramp are currently flooded. The access ramp is surrounded by secure fencing. The waste dump and a sedimentation pond (30.5 m x 16.8 m x 2.7 m) are located 200 m east of the ramp. The access ramp is surrounded by secure fencing (Figure 5.2).

The remaining historic diamond drilling core is securely stored at the Beacon mill site.



(Beausoleil and Carrier, 2018)

**Figure 5.2 – Flooded stripping area on the Swanson Property**

## 5.4 Physiography

The following information was taken from *Vegetation Zones and Bioclimatic Domains in Québec*, a publication by the Ministère de l'Énergie et des Ressources naturelles (MERN).

The Property is situated in the Boreal Zone, specifically the Continuous Boreal Forest Subzone, one of the three subzones. The Property lies in the Balsam Fir–White Birch bioclimatic domain, which covers 139,000 km<sup>2</sup> in southern Québec.

The Boreal Zone is characterized by softwood stands. The Continuous Boreal Forest Subzone is characterized with relatively dense stands of mainly boreal softwood species and intolerant hardwoods.

The forest landscape of the Balsam Fir–White Birch bioclimatic domain is dominated by stands of balsam fir and white spruce, mixed with white birch trees on mesic sites. On less favourable sites, black spruce, jack pine and larch are often accompanied by white birch and trembling aspen. The Property falls within the western subdomain, with a relatively even topography and little change in altitude. The fire cycle in this subdomain is also shorter, which explains the abundance of hardwood stands or mixed stand with intolerant hardwoods such as trembling aspen, white birch and jack pine.

## 6. HISTORY

### 6.1 Peter Swanson (prospector)

**1940:** Peter Swanson discovered the Swanson Showing in Lot 61, Range IX of Barraute Township (Ross, 1941a; Morgan, 1955a).

### 6.2 Prospector's Airways

**1940 – 1941:** The Property was optioned by Prospector's Airways whose main exploration activity was trenching.

### 6.3 Hollinger Gold Mine Ltd

**1941 – 1948:** Hollinger Consolidated Gold Mines Limited retained an option on the property from 1941 to 1947. The work involved trenching and stripping programs, as well as the drilling of five (5) DDH in 1941 (Ross, 1941b) and seven (7) in 1947, for a total of 1,913.5 m. The property reverted to Peter Swanson in the fall of 1947 (Morgan, 1956).

### 6.4 Titanic Mine Holding Ltd

**1948 – 1955:** The property was acquired from Peter Swanson by Titanic Mine Holdings Ltd ("Titanic Mine") in 1948. In 1951, geological mapping and trenching was conducted on a lead showing. Titanic Mine conducted an electrical resistivity survey followed by EM and Mag surveys in the area (Nicholls, 1955).

### 6.5 Swanson Mines Ltd

**1955 – 1958:** In April 1955, the property was acquired from Titanic Mine by Swanson Mines Ltd. In 1955, they drilled five (5) DDH in the area totalling 602.3 m (SW-1 to SW-5) to investigate the results of the geophysical surveys and to extend the gold zone drilled by the previous owners (Morgan, 1955b, Morgan, 1956). During fall 1955, a program of surface trenching and prospecting was completed, and a few diamond drill holes were drilled with a portable drill on the western extension of the gold zone (Morgan, 1960).

### 6.6 Gibson Mines Ltd

**1958 – 1962:** In 1958, Gibson Mines Ltd acquired the property from Swanson Mines. Gibson Mines drilled six (6) holes (SW-6 to SW-11; Table 6.1) totalling 650.8 m in late 1958 (Gibson Mines, 1958) and completed a Mag survey of lots 50 to 62, Range IX, in early 1959 (Pudifin, 1959).

**Table 6.1 – Best gold intercepts below the gold showing (1958)**

Hole ID	From (ft)	To (ft)	Interval (ft)	Oz/ton Au
SW-4	395	400	5	0.242
	475	507	32	0.118
	513.5	518.5	5	0.492

Hole ID	From (ft)	To (ft)	Interval (ft)	Oz/ton Au
SW-5	16	20	4	0.334
	434.8	438	3.2	0.628 (VG)
	434.8	494	59.2	0.165
	470	185	15	0.299
No.1 (Hollinger)	648	659	11	0.195
SW-10	255	258.9	3.9	0.23

## 6.7 Canadian Johns-Manville

**1962 – 1964:** In early spring 1962, the property was optioned from Gibson Mines to Canadian Johns-Manville, who were interested in chrysotile deposits hosted in the ultrabasic intrusions of the Amos-Barraute area. In 1962, Canadian Johns-Manville completed a Mag survey (Evelegh, 1962; Evelegh, 1963); 24 geotechnical holes ended after only several metres in bedrock (Kaltwasser, 1962). In 1963, two (2) diamond drill holes (G.E.1 and G.E.2) were completed (Canadian Johns-Manville, 1963) and in 1964, eight (8) more holes (G-1 to G-8) were drilled (Canadian Johns-Manville, 1964a; Canadian Johns-Manville, 1964b).

**1974-1977:** Canadian Johns-Manville Co. Ltd. operates the Canadian Bolduc chrysotile Mine from a small open pit operation. A total of 737,549 tonnes at an average grade of 2.0% chrysotile was produced.

## 6.8 Gibson Mines Ltd

**1964 – 1968:** During this period, Gibson Mines completed several diamond drilling programs including three (3) holes in 1965 — SW12 (Morgan, 1965) G20 and G21 (Bidgood, 1965), and five (5) in 1966 — G22, G23 and SW13 to SW15 (Bidgood, 1966).

## 6.9 Western Quebec Mines Co. Ltd and Gibson Mines Ltd

**1971:** Western Quebec Mines Co. Ltd, in conjunction with Gibson Mines, drilled one (1) hole (WS-1) of 303.6 m (Alexander, 1971).

## 6.10 Wrightbar and SOQUEM

**1972 – 1973:** A Mag-EM survey was completed by Wrightbar Mines (“Wrightbar”; Dumont, 1972) and followed up by a gravity survey in late 1972 to early 1973 by Wrightbar Mines and SOQUEM Inc. (Lavoie and Thériault, 1973).

## 6.11 Bamex-SOQUEM-Wrightbar

**1973 – 1974:** As a follow-up to the previous geophysical surveys, SOQUEM drilled nine (9) diamond drill holes in 1973 by (Bamex-SOQUEM-Wrightbar JV) for a total of 1,837.4 m (Dumont, 1973). SOQUEM then completed another diamond drilling program under the same partnership, drilling two (2) holes totalling 127.3 m (Barton, 1974).



## 6.12 Lac Minerals Ltd

This section is summarized from MRB & Associates, 2003 (Bourgoin, 2003a).

Lac Minerals Ltd acquired the Property in 1977 and completed extensive exploration work until 1988. The work included detailed geological mapping on one grid, BAR-3 (1: 5,000) and a ground magnetic survey on four grids (100 m line spacing with readings every 12.5 m; grids BAR-1, BAR-2, CAR-1, CAR-2).

**1982–1984:** Eight (8) DDH for a total of 1,285 m were drilled in 1982. In 1983, 34 percussion drill holes (539 m) and 20 DDH (3,743 m) were added. In 1984, eight (8) DDH for a total of 1,153 m were drilled.

**1985:** The first mineral resource estimate\* on the Project yielded 814,600 short tons grading 3.71 g/t Au (91,175 oz Au). The recommendation at the time was to pursue underground exploration via a ramp, due to the complexity of the deposit.

*\*These “Resources” are historical in nature and should not be relied upon. The qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Although they were most likely prepared using the CIM Definition Standards and Best Practice Guidelines that were in effect at that time and most likely disclosed according to the NI43-101 Standard that was in effect at that time, their relevance and reliability have not been verified. They are included in this section for illustrative purposes only and the Issuer is not treating the historical estimate as current mineral resources.*

**1985 – 1986:** A surface exploration campaign including overburden stripping was conducted over an area measuring 95 m x 65 m (6,175 m<sup>2</sup>), and diamond drilling was also carried out. In 1985, 30 DDH (5,652 m) were completed and another six (6) DDH (2,188 m) in 1986.

**1987:** Underground exploration began in 1987. The main goal was to confirm the grade and continuity of the mineralized lenses, and to eventually test for deeper mineralization via underground drilling. A 500 m-long ramp accessed the 70m level at a 15% decline (80 m vertical depth). Two crosscuts, totalling 380 m, were developed, leading into two mineralized lenses. A bulk sample was extracted from one of the crosscuts. During the underground exploration program, 63 DDH were drilled for a total of 5,443 m on a 20 m grid to complete existing data.

The bulk sample of 3,264 t (Jean, 1988) consisted of material from three underground locations:

- Southern crosscut #2 from 1.0 to 34.5 m south of station 87-31;
- Western drift #1 from 3.6 to 14.6 m west of station 87-30;
- Western drift #2 from 5.5 to 33.8 m west of station 87-32.

All drifts have a 4 m top idealized dimension by 4 m wide with a density factor of 2.9 t/m<sup>3</sup>. The work to extract the bulk sample was performed underground by slotting the walls and faces. The sample yielded an estimated average content of 2.3 g/t Au.

The 3,264 t were transported to the mill of Lac Minerals in Malartic (site of the current Camflo Mill) for crushing. The crushed mineralized material was then sampled regularly at the approximate rate of 5 kg per 15-20 t, with the help of a small gardening shovel. Eighty-four (84) 40-ton truck loads were sampled to generate 184 samples. The assaying was carried out by fire assay at the internal laboratory of Lac Minerals. The average grade of the sample was 2.0 g/t Au.

Lac Minerals abandoned the project after receiving the results from the bulk sample (2.30 g/t Au), the average grade of underground channel samples (2.3 g/t Au) and the average grade of the drill holes (3.7 g/t Au).

**1987:** Lac Mineral updated the reserves. Evaluation parameters included: “proven reserves” < 10 m from underground openings, “probable reserves” < 10 m from the nearest drill hole, and “possible reserves” 10 to 20 m from the nearest drill hole. No mineralized material blocks were defined beyond 20 m. Reserve blocks were 4.5 m wide, and samples with visible gold were not used in the estimates. Total reserves\* were 905,300 t at 3.0 g/t Au, of which 78,500 t at 2.1 g/t Au were “proven”, 663,500 t at 3.1 g/t Au were “probable”, and 163,300 t at 2.9 g/t Au were “possible”.

*\*These “Resources” are historical in nature and should not be relied upon. The qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Although they were most likely prepared using the CIM Definition Standards and Best Practice Guidelines that were in effect at that time and most likely disclosed according to the NI43-101 Standard that was in effect at that time, their relevance and reliability have not been verified. They are included in this section for illustrative purposes only and the Issuer is not treating the historical estimate as current mineral resources.*

**1988 – 1994:** No exploration work was reported by Lac Minerals for this period.

**1994 – 1999:** American Barrick Resources Corp. (now Barrick Gold Corp.) bought Lac Minerals for \$1.9 billion in 1994 after a bidding war with Royal Oaks Mines Inc. No exploration work was carried out on the project in consequence. From 1996 to 1997, approximately 4.5 ha were reclaimed on the Swanson site. In 1999, the property was retroceded to MERN.

### 6.13 McWatters Mining Inc.

**2000:** McWatters Mining Inc. (“McWatters”) acquired the Swanson property following an agreement with Barrick Gold Corp. (“Barrick”).

McWatters did not carry out exploration or field work on the property other than a site visit. McWatters reviewed the historical data made available by Barrick, compiled the geological information and digitization of drill logs from the ramp area, and prepared a resource estimation. Preliminary scoping work to test for open pit potential was also completed.

The mineral resource estimate\* completed by McWatters represented 814,400 t at a grade of 3.2 g/t Au (81,000 oz), a similar result to the maiden historic estimate by Lac Minerals.

*\*These “Resources” are historical in nature and should not be relied upon. The qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Although they were most likely prepared using the CIM Definition Standards and Best Practice Guidelines that were in effect at that time and most likely disclosed according to the NI43-101 Standard that was in effect at that time, their relevance and reliability have not been verified. They are included in this section for illustrative purposes only and the Issuer is not treating the historical estimate as current mineral resources.*

### 6.14 Phoenix Matachewan Mines Inc.

2002 – 2003: Exploration Program

Phoenix Matachewan Mines Inc. (“Phoenix”) capitalized on an option to earn a 90% interest on the property from McWatters. In 2002, they completed a compilation of

historical work, local mapping and sampling, and integrated all available data into digital format (MapInfo software) to create a workable database. In 2002, MRB & Associates was retained by Phoenix to complete a geoscientific compilation work of the Property and adjacent land (Bourgoin, 2003b).

Following extensive compilation work, Phoenix initiated an exploration diamond drilling program on the property. The drilling commenced on June 9, 2003 and was completed by July 13, 2003. A total of 1,514 m of NQ sized core was drilled. Of this, seven (7) holes (1,018 m) were drilled in the immediate vicinity of the Swanson deposit, two (2) holes (193 m) were drilled approximately 3.5 km east of the Swanson deposit to test previously recorded RC till anomalies, and two (2) holes (303 m) were drilled on the Bargold Property as part of an option agreement with Aur Resources (Bourgoin, 2003a).

Table 6.2 illustrates the best results from the 2003 diamond drilling campaign.

**Table 6.2 – Best results from the 2003 diamond drilling campaign (Bourgoin, 2003a)**

Hole	From (m)	To (m)	Interval (m)	Au g/t
SW-03-02	105.75	110.55	4.80	8.56
SW-03-02	211.20	213.4	2.15	14.09
SW-03-02	224.15	226.20	2.05	3.74
SW-03-03	12.10	12.90	0.80	44.16
SW-03-03	20.75	27.70	6.95	3.70
SW-03-03	41.40	42.20	0.80	10.65
SW-03-03	80.20	81.40	1.20	5.37
SW-03-04	9.20	10.35	1.15	20.24
SW-03-04	78.35	81.00	2.65	6.03
SW-03-04	106.75	108.00	1.25	7.00
SW-03-04	156.95	161.70	4.75	24.60
SW-03-07	22.2	74.5	52.29	3.44
SW-03-07	Including		22.20	4.69
SW-03-07	Including		6.40	5.80

## 6.15 Agnico Eagle Mines Ltd

### 2006 – 2007: Exploration Program

Agnico Eagles Mines Ltd (“Agnico”) signed an option agreement on the property in January 2006, with owner Phoenix, and in May 2008, Agnico became the sole owner.

Agnico completed their first diamond drilling campaign between November 2006 and February 2007. A total of 20 drill holes and one extension (24 m; SW-03-07) were drilled for a total of 1,928 m. Significant results are presented in Table 6.3. Spacing between holes was limited to 20 m or less to determine the continuity of the known gold mineralization and to determine open-pit potential. All holes were relatively shallow and limited to the depth of the exploration ramp (i.e., 80 m vertical) (Villeneuve, 2007).

**Table 6.3 – Significant results from the 2006-2007 drilling campaign**

Hole	From (m)	To (m)	Interval (m)	Au g/t
SW-06-10	30	36	6	3.783
SW-06-11	4	95.7	91.7	2.192
including	4	33	29	2.8057
SW-06-13	43	97	54	2.0019
SW-06-16	37	40.55	3.55	4.728
SW-06-17	89	93.85	4.85	4.864
SW-06-18	79.3	82.7	3.4	2.19
SW-06-19	0	92.65	92.65	1.3841
including	0	31.8	31.8	2.1439
SW-07-21	54.2	100	45.8	2.5825
SW-07-22	0	2.5	2.5	3.3982
SW-07-23	38.6	42.55	3.95	2.13
SW-07-24	37	44.35	7.35	2.426
SW-07-25	4.2	9.2	5	19.54 (VG)
SW-07-25	4.2	9.2	5	6.7478
SW-07-27	12.5	51.1	38.6	1.75
including	12.5	38	25.5	2.225
SW-07-29	58.8	107	48.2	1.65
including	72	87.2	15.2	3.74
SW-06-07*	0	89.5	89.5	2.585

\* Includes the extension to hole SW-03-07;  
(Villeneuve, 2007)

### 2007 – 2008: Mineral Resource Estimate

During its ownership tenure, Agnico published several resource estimates (Table 6.4) for the Swanson deposit using different parameters (Table 6.5). In March 2007, resources were estimated with a single modelled lens (North Zone) using a 1.0 g/t Au cut-off and based on 29 holes drilled from 2003 to 2007 holes. Another estimate was done using the same envelope but integrating all available holes from 1982 to 2007 (199 holes). In April 2007, the North Zone solid was updated using all holes, and a new estimate was calculated. In May 2007, the South Zone was modelled to estimate its resources.

In October 2008, a new resource model was produced using all available holes (199 holes) based on a 1.0 g/t Au cut-off and a minimum true width of 4 m. Seventeen (17) lenses were created and a new mineral resource estimate was prepared using these new wireframe solids. The following key parameters were used for the estimate:

- 1 m composites;
- Capping at 30 g/t (66 samples were capped out of a total of 12,038 samples);
- 7 different ellipsoids according to the dip of the lenses with the same dimension (20 m X 20 m X 10 m);
- 4 m x 4 m x 4 m model block with sub-cells on boundaries;

- Gold interpolation by inverse distance squared;
- Minimum and maximum samples of 3 and 12 respectively;
- Specific gravity values for mineralized material and waste of 2.7 and 2.9 g/cm<sup>3</sup> respectively;
- Interpolation method ID2.

The underground openings were deleted from resource mineral estimation and a density of 0.01 g/cm<sup>3</sup> was applied to these void areas.

The specific gravity value for each primary lithological was used to estimate the tonnages, varying from 2.78 (for the monzonite/tonalite rocks) to 2.93 (for the basalt).

The parameters were established for a potential underground scenario via an existing ramp.

**Table 6.4 – Agnico resource estimates at 1.0 g/t cut-off grade(Agnico, 2009)**

Date	No. of mineralized solids	Capping (g/t)	Average SG (g/cm <sup>3</sup> )	Holes used	Tonnes	Grade (g/t)	Ounces
March 2007	1 (North Zone created with SW holes only)	12	2.9	2003, 2006-07	526,237	1.5	25,727
				All Holes	526,237	1.6	27,357
April 2007	1 (North Zone reworked with all holes)	25	2.9	All Holes	500,310	1.7	27,323
May 2007	1 (South Zone only)	25	2.9	All Holes	527,385	1.4	23,380
Oct. 2008	17 (Indicated Resources in Pit 19 to update with Pit 33)	30	2.7	All Holes	616,067	1.79	35,541

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#### 2009: Scoping Study

Agnico completed a scoping study (Agnico, 2009) following the 2007 diamond drilling program to better evaluate the economics for a potential of an open pit scenario.

The total reserves, average grades and economic analysis were dependent on the final placement of the CN railroad line, which crosses the Property. In the scoping study, two mining scenarios were presented and the reserves for each scenario are tabulated below. Scenario 1 includes the displacement of the railroad and Scenario 2 assumes no change to the existing railroad.

Scenario 1 contained reserves of 479,191 t grading 1.93 g/t Au for a total of 25,345 ounces using a mill recovery of 85.24%. Scenario 2 contained reserves of 139,492 t grading 2.03 for a total of 7,870 ounces using a mill recovery of 86.24%.

***These “Resources” are historical in nature and should not be relied upon. The qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Although they were most likely prepared using the CIM Definition Standards and Best Practice Guidelines that were in effect at that time and most likely disclosed according to the NI43-***

**101 Standard that was in effect at that time, their relevance and reliability have not been verified. They are included in this section for illustrative purposes only and the Issuer is not treating the historical estimate as current mineral resources.**

**2009:** Agnico conducted a 1.95 km IP survey with the objective of verifying an IP response to finely disseminated sulphides within the known gold-bearing Laflamme (monzonite) intrusion underlying the property. The survey outlined 10 zones (anomalies) that could be explained by massive, semi-massive and disseminated mineralization. However, there was no well-defined correlation with the gold-bearing Laflamme intrusion (Boileau, 2010).

**2010:** In May 2010, Agnico completed an IP and resistivity survey over two grids totalling 51.5 km. The results of the survey identified 179 chargeability anomalies of variable intensities and 16 weak signatures interpreted as possible anomalies (Boivin, 2010).

**2011:** A diamond drilling campaign on the property was completed in 2011. Three areas were tested during this drilling campaign:

- condemnation drilling in the area of the Swanson deposit – 6 holes
- southern extension of the Swanson deposit – 3 holes
- proximal to the Michaud intrusion – 3 holes

The best gold intersections were from the southern extension of the Swanson deposit. These included:

- 0.63 g/t Au over 24.0 m and 0.66 g/t Au over 24.5 m (hole 138-11-36);
- 2.25 g/t Au over 15.0 m and 2.26 g/t Au over 1.5 m (hole 138-11-39);
- 2.10 g/t Au over 7.5 m and 1.89 g/t Au over 19.5 m (hole 138-11-40).

Drilling from the condemnation program identified narrow zones with anomalous gold mineralization, including:

- 1.56 g/t Au over 1.5 m and 7.70 g/t Au over 1.5 m (hole 138-11-30);
- 0.48 g/t Au over 9.0 m (hole 138-11-32);
- 0.92 g/t Au over 1.5 m (hole 138-11-34).

**2012-2017:** No work was reported by Agnico on the Project between 2012 and its acquisition by the Monarch Gold Corporation in December 2017.



## 7. GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 The Abitibi Subprovince

The Property overlies part of the AGB in the central eastern part of the Archean Abitibi Subprovince in the southern Superior Province of the Canadian Shield. The AGB has historically been subdivided into northern and southern volcanic zones using stratigraphic and structural criteria and mainly based on an allochthonous greenstone belt model; i.e., interpreting the belt as a collage of unrelated fragments (Dimroth et al., 1982; Ludden et al., 1986; Chown et al., 1992). More recently, Thurston et al. (2008) described the AGB to be mainly composed of volcanic units which were unconformably overlain by large sedimentary Timiskaming-style assemblages. Similarly, both new mapping surveys and new geochronological data indicate an autochthonous origin for the AGB.

The AGB comprises east-trending synclines containing volcanic rock and intervening domes cored by synvolcanic and/or syntectonic plutonic rocks (gabbro-diorite, tonalite and granite) alternating with east-trending turbiditic wacke basins (Figure 7.1, Ayer et al., 2002a; Daigneault et al., 2004; Goutier and Melançon, 2007). Most of the volcanic and sedimentary strata dip vertically and are usually separated by abrupt, variably dipping east-trending transcrustal deformation zones, such as the Destor-Porcupine-Manneville and Cadillac-Larder Lake fault zones (“DPMFZ” and “CLLFZ”) and other similar regional faults in the northern AGB. Some of these fault zones display evidence of overprinting deformation events including early thrusting, later strike-slip and extension events (Goutier, 1997; Daigneault et al., 2002; Benn and Peschler, 2005; Bateman et al., 2008).

Two ages of unconformable successor basins are observed: a) widely distributed fine-grained clastic rocks in early Porcupine-style basins, followed by; b) Timiskaming-style basins composed of coarser clastic sediments and minor volcanic rocks, largely proximal to major strike-slip faults (Ayer et al., 2002a; Goutier and Melançon, 2007).

The AGB is intruded by numerous late-tectonic plutons ranging in composition from dioritic-tonalitic to monzonitic and monzogranitic, cut the volcanic sequence (e.g. the Laflamme Pluton). Tonalite, syenite, gabbro, granite, and minor lamprophyre and carbonatite dykes are typical. Commonly, the metamorphic grade in the AGB varies from the subgreenschist to greenschist facies (Jolly, 1978; Powell et al., 1993; Dimroth et al., 1983; Benn et al., 1994) except in the vicinity of late-tectonic plutons where the metamorphic grade corresponds mainly to the amphibolite facies (Jolly, 1978).

#### 7.1.1 The Abitibi Greenstone Belt Subdivisions

The most recent interpretation from the newest mapping surveys and new geochronological information by the Ontario Geological Survey and Géologie Québec, were used by Thurston et al. (2008) to define new AGB subdivisions. The following section presents a more detailed description of these subdivisions.

Seven discrete volcanic stratigraphic episodes define the Abitibi subdivisions based on numerous U-Pb zircon age groupings. The U-Pb zircon ages clearly show timing similarities for volcanic episodes and plutonic activity between the northern and southern parts of the AGB, as indicated in Figure 7.1. These seven volcanic episodes are listed below, chronologically from the oldest to the youngest:

- Volcanic episode 1 (pre-2750 Ma);

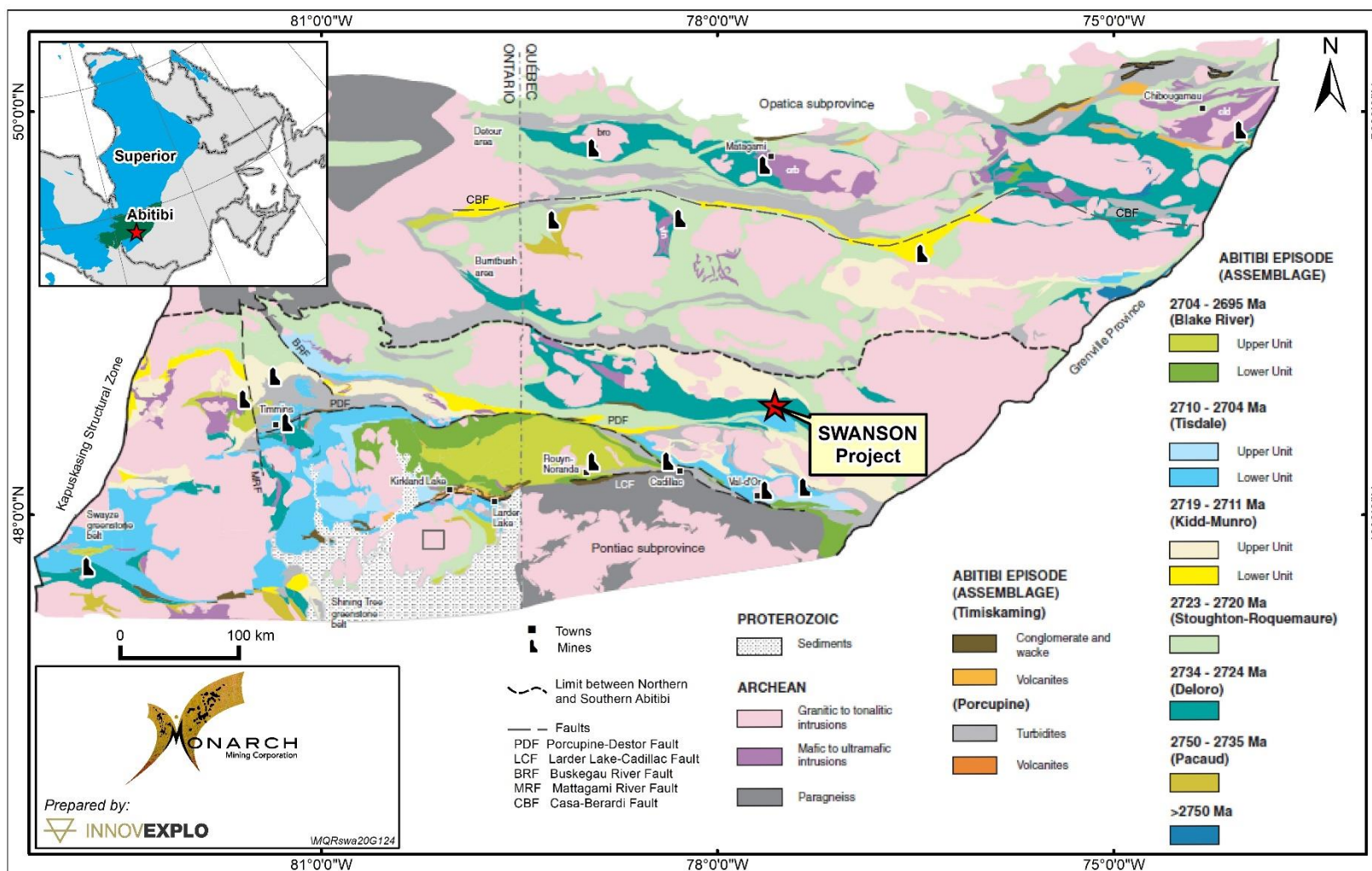
- Pacaud Assemblage (2750–2735 Ma);
- Deloro Assemblage (2734–2724 Ma);
- Stoughton-Roquemaure Assemblage (2723–2720 Ma);
- Kidd-Munro Assemblage (2719–2711 Ma);
- Tisdale Assemblage (2710–2704 Ma);
- Blake River Assemblage (2704–2695 Ma).

The AGB successor sedimentary basins are of two types: laterally extensive basins corresponding to the Porcupine Assemblage with early turbidite-dominated units (Ayer et al., 2002a), followed by the aerally more restricted alluvial-fluvial or Timiskaming-style basins (Thurston and Chivers, 1990).

The boundary between the northern and southern parts of the AGB has no tectonic significance but is geographically similar to the boundary between the so-called internal and external zones of Dimroth et al. (1982) and between the Central Granite-Gneiss and Southern Volcanic zones of Ludden et al. (1986). The boundary between the northern and southern parts corresponds to the DPMFZ and passes south of the wackes of the Chicobi and Scapa groups, which have a maximum depositional age of  $2698.8 \pm 2.4$  Ma (Ayer et al., 1998; 2002b).

The Abitibi Subprovince is bounded to the south by the CLLFZ, a major crustal structure that separates the Abitibi and Pontiac subprovinces (Chown et al., 1992; Mueller et al., 1996; Daigneault et al., 2002, Thurston et al., 2008).



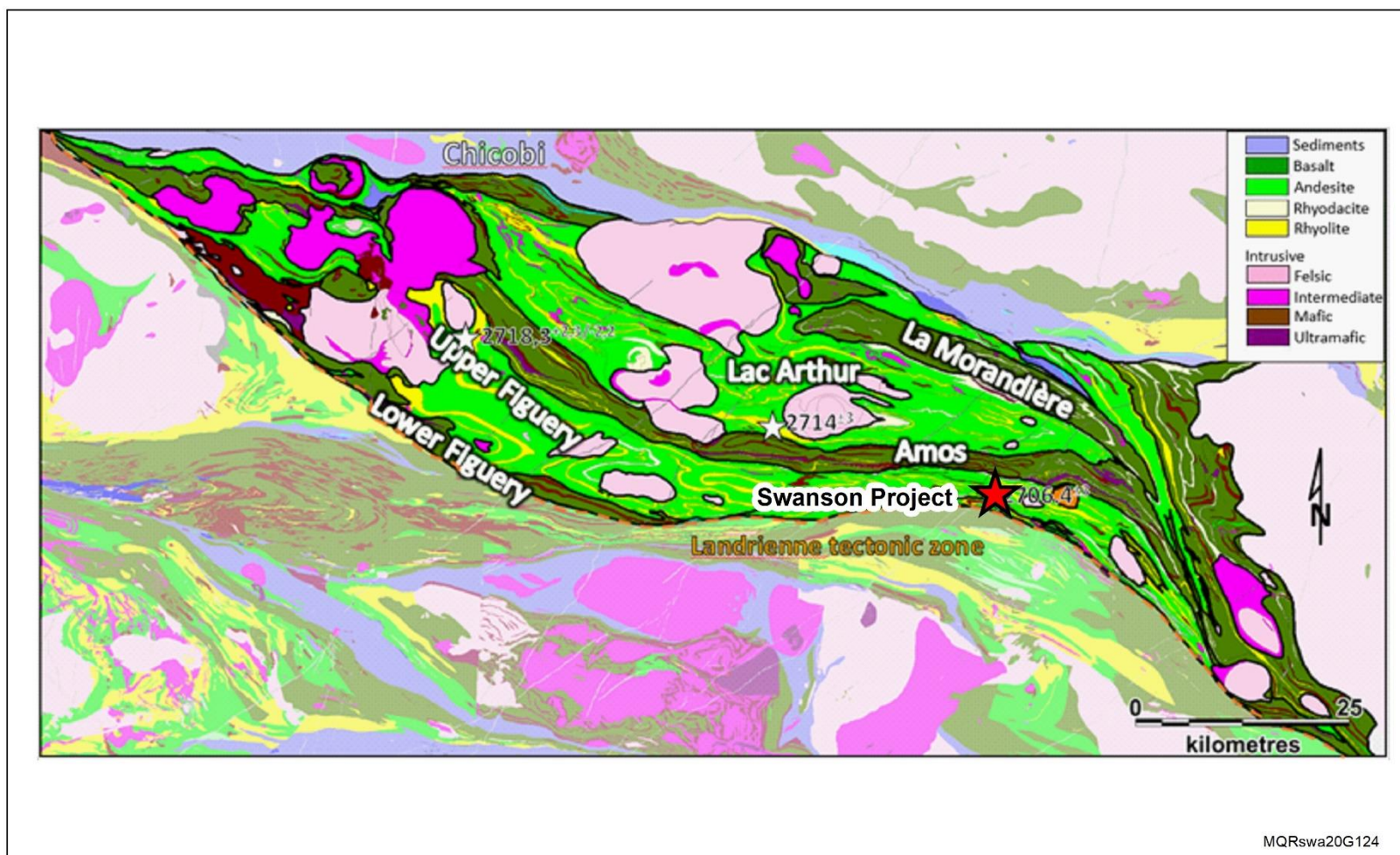


**Figure 7.1 – Abitibi Greenstone Belt, based on Ayer et al. (2005) and Goutier and Melançon (2007) and modified from Thurston et al. (2008)**

## 7.2 Regional Geology

The Property is located in the Taschereau-Amos-Senneterre volcanic segment, which is delimited to the north by the Chicobi sedimentary basin and Chicobi Tectonic Zone and to the south by the Landrienne Tectonic Zone (Figure 7.2). Labbé (1995) and Doucet (2001) described and distinguished five (5) informal stratigraphic volcanic groups: Lower Figuery, Upper Figuery, La Morandière, Amos and Lac Arthur. The Lower Figuery, Amos and La Morandière volcanic groups consist of tholeiitic pillowed basalts and mafic volcanoclastics with minor andesite flows. Several sills of ultramafic rocks intrude the Amos Group, one of which hosts the massive Dumont Nickel deposit. The Lac Arthur and Upper Figuery volcanic groups consist of andesitic and basaltic flows of transitional affinity, calcalkaline dacite and andesite porphyritic lavas, and minor volcanoclastic horizons (Faure, 2016).

Geochronological data reveal that volcanism occurred between 2718 and 2706 Ma. The synvolcanic Taschereau Pluton was dated at  $2718.3 \pm 2.3/-2.2$  Ma (Frarey et Krogh, 1986) and the Lac Arthur Group at  $2714 \pm 3$  Ma (Labbé, 1999). These dates correlate with the Kidd-Munro Assemblage of Thurston et al. (2008). Recent geochronology indicates an age  $2706 \pm 3$  Ma for the Upper Figuery Group (David et al., 2007), which corresponds to the Tisdale Assemblage (2710-2704 Ma; Ayer et al., 2002b).



**Figure 7.2 – Geological interpretation map from Faure (2015) with the groups defined by Labbé (1995) and Doucet (2001)**

### 7.2.1 Structures

Many layer-parallel faults and shear zones transect the Taschereau-Amos-Senneterre volcanic segment with NW-SE and E-W dominant orientations. The E-W fault segments are thrusts, whereas the majority of the NW-SE are dextral transpressional faults. Most of the gold showings occur in the centre of the segment and at its southern boundary, along NW-SE fault sets. The Swanson deposit occurs at a point of inflection between an E-W and NW-SE segment of the Bolduc Corridor, a major fault zone (tectonic zone) separating the Amos Group to the north from the Upper Figuery Group to the south. The Bolduc Corridor is defined by a strong penetrative foliation. The rocks are intensely mylonitized with widespread sericite alteration and a pervasive red hematite alteration in the core of the zone. Mylonitization of the volcanic rocks has obliterated all primary volcanic textures (Agnico, 2009). The Laflamme River Fault is a N-S sinistral fault more than 10 km long, located 1 km west of the Swanson deposit.

The North Zone of the Swanson deposit is well exposed in stripped outcrops and reveals an irregularly shaped body of equigranular to porphyritic tonalite cutting mafic metavolcanic rocks and mafic to ultramafic plutonic rocks. Most of the country rocks are moderately well foliated with the schistosity strikes on average WNW to NW, dipping 70° north (Poulsen, 2002).

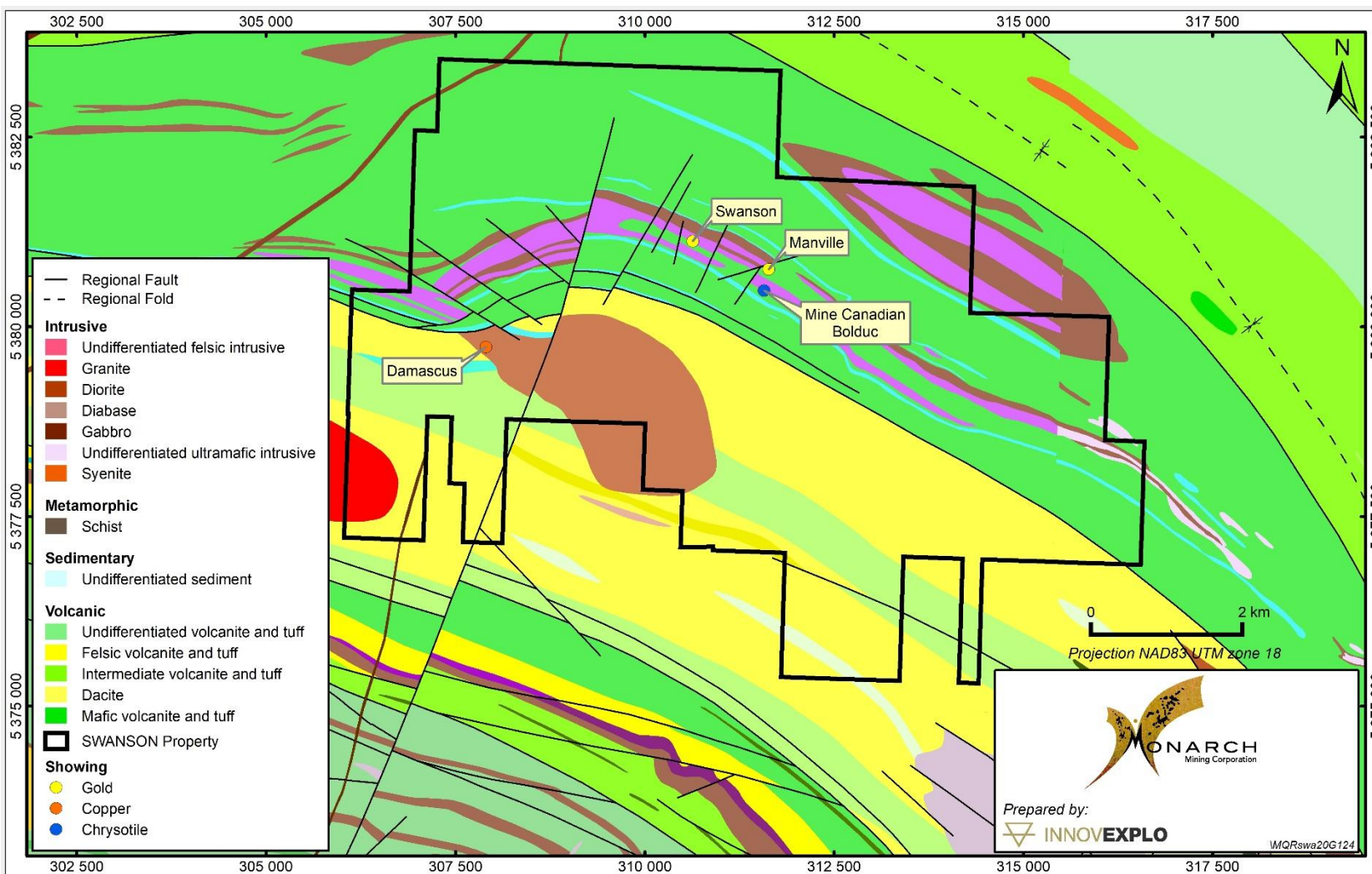
According to Poulsen (2002), abundant quartz veins and veinlets, particularly in and near the Laflamme intrusion, clearly attest to excellent fracture permeability developed within the intrusion during or after its emplacement. Most veins are thin, a few millimetres to a few centimetres across, of short strike length, commonly less than 1 m long, and interpreted as mainly extensional-fill fractures. Although a wide range of vein orientations was observed, there appear to be some recurring orientations, including steep WNW veins, “flat” west-dipping veins, and “ladders” and “stockworks” transverse to, but mainly confined by, albitized tonalite dykes radiating from the intrusion.

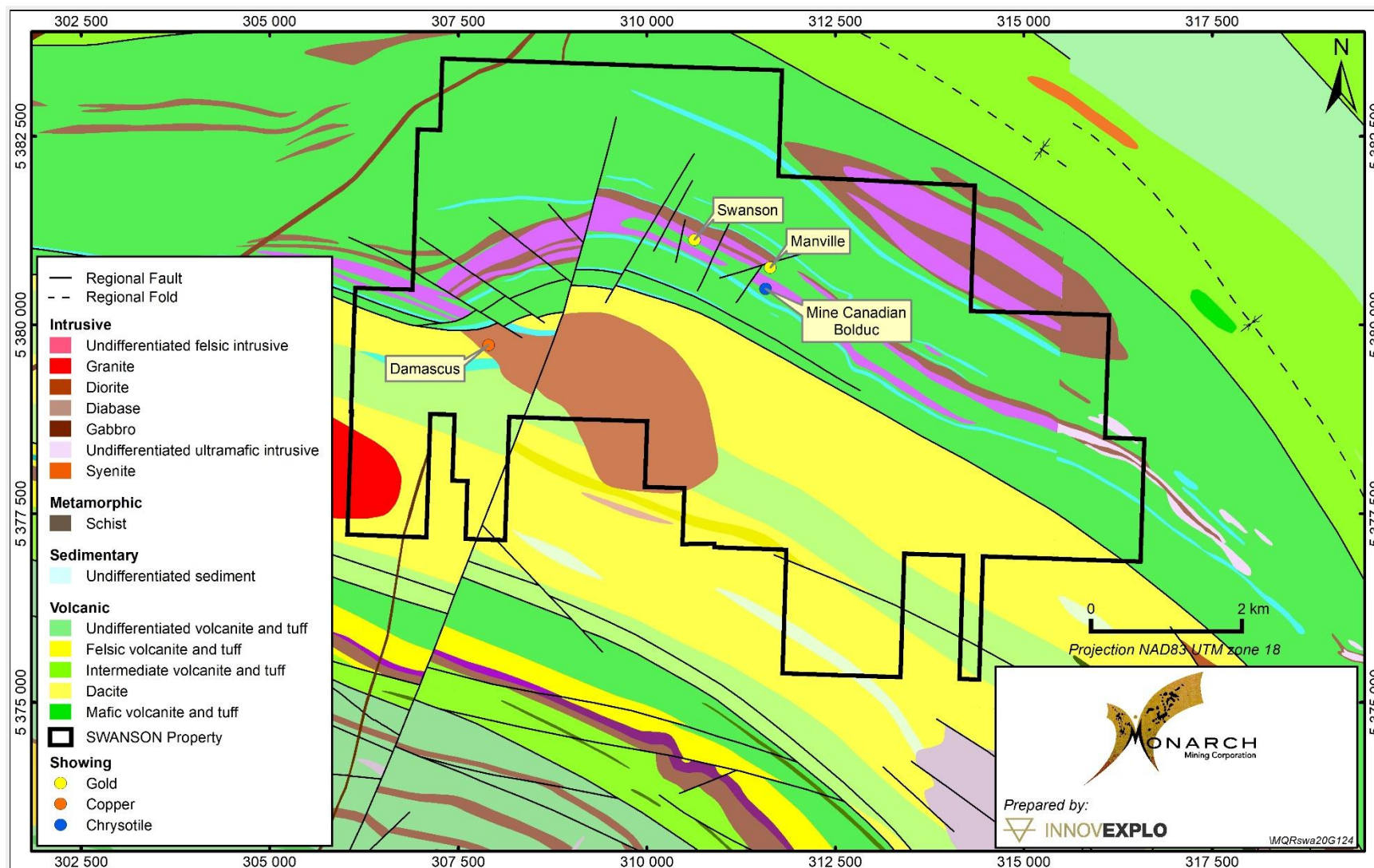
Narrow faults, oriented WNW, are parallel to numerous dykes on the Property, and may represent a fundamental structural orientation. They are also parallel to the principal foliation in the surrounding rocks, suggesting a possible relationship to regional deformation, although they are obviously brittle and late with respect to foliation development.

### 7.3 Property Geology

The Swanson deposit is associated with the calc-alkaline, mainly monzonite, Laflamme pluton (Pilote and Marleau, 2020; Pilote et al., 2020) located at the interface between basalt and peridotite units of the Amos Group (Figure 7.3).







**Figure 7.3 – Geological setting of the Swanson Project**



### 7.3.1 Lithology

Seven lithological units are distinguished in the Swanson deposit (Crépeau, 1983; Agnico, 2009) and classified as either volcanic effusive or volcanic intrusive units.

#### 7.3.1.1 Volcanic effusive units

The main host rock of the Swanson deposit is an iron-rich tholeiitic basalt (V3B). The basalt is dark green to greenish beige on fresh surfaces and is typically massive, with minor pillowed units and local flow breccias. It is fine to medium-grained, with the coarser zones displaying gradual contacts and occurring in the centre of the thick lava flow. Typical alteration assemblages comprise carbonate, hematite and chlorite. The northern and southern contacts are strongly carbonatized, concealing the primary character of the rock. The unit may contain pyrite in trace amounts (up to 2%). The highest percentages of pyrite are recorded in the carbonatized zones.

The andesitic basalt/carbonate zone (V3A) is a very altered, light green unit that occurs at the contact between the Laflamme intrusion and basalt and/or peridotitic komatiite. Pyrite is present in trace amounts (up to 1%). Typical minerals include chromite, fuchsite and carbonate.

The peridotitic komatiite unit (V4C) is generally green to dark gray and may contain up to 2% magnetite. The common alteration minerals are talc and carbonate, with local talc-rich zones. The komatiite is separated into two parts: the southern part consists of medium-grained, homogenous, massive rock composed of ferromagnesian minerals, such as olivine, pyroxene, chlorite, talc and carbonate, with many quartz-carbonate-talc veinlets; the Northern part varies from aphanitic to medium-grained and contains 1% to 2% chromite, highly altered in talc, carbonate and fuchsite, and contains horizons of magnesium carbonate (80%) and quartz (15%).

#### 7.3.1.2 Intrusive Units

Mafic and ultramafic volcanic rocks are intruded by several dykes and sills comprising, lamprophyres, diorite and quartz-feldspar porphyries. The main intrusive unit is the Laflamme pluton (I2D) that forms a star shape at surface, roughly 100 m across. . The Laflamme plug The Swanson plug is coarse- to medium-grained and generally beige to reddish beige depending the alteration by carbonate, sericite, hematite or chlorite, and may be locally barren or auriferous. Pyrite varies from 1% to 5% with traces of galena and chalcopyrite.

Lamprophyres (I4O) are distinguished by their biotite content, are typically black to reddish black, and may contain traces of pyrite. Typical alteration minerals are biotite and hematite.

The diorite (I2J) dykes are generally gray-green to medium green, displays chlorite alteration, and typically contains trace amounts (up to 2%) pyrite.

The felsic dyke/porphyries (I1) are mainly pinkish, feldspar/quartz type units that may contain 1% to 2% pyrite. Alteration is characterized by sericite, hematite and carbonate.

### 7.3.2 Mineralization

The gold mineralization at Swanson is typical of structurally controlled gold deposits associated with felsic intrusions (Crépeau, 1985; Lanthier 2002). Based on the results of the latest drilling program, the relationship between mineralized zones and the Laflamme intrusion is unambiguous (Eustache, 2012). Gold occurs in dilatent tensional structures within or near the intrusion, which typically carries background concentrations of gold between 0.3 and 1.0 g/t Au (Crépeau, 1985).

Two types of gold mineralization are directly or indirectly associated with the Laflamme intrusion. Gold is often found within altered and mineralized mafic volcanic rocks surrounding the main intrusion. This mineralized halo is characterized by the presence of more altered rock and a higher number of altered and strongly mineralized dyke swarms that extend outward from the main intrusion. Gold grades are closely related to the abundance of fine pyrite mineralization found in strongly carbonatized, almost bleached, mafic volcanic rocks. This altered unit contains dispersed quartz veins, a few of which display visible gold. Gold mineralization is also associated with the porphyritic albitized tonalite dyke swarms (Pilote et al., 2000), historically interpreted as syenite dykes. In fact, the tonalite dykes constitute the most enriched units, with gold grades of up to 25 g/t Au locally. Disseminated pyritic mineralization is also abundant in these dyke units. Geological observations made from underground workings at Swanson were that the mineralized felsic dykes are narrow and have various orientations (Jean, 1988). The dykes also host a number of irregular quartz veinlets, some of which are barren (Agnico, 2017).

### 7.3.3 Hydrothermal Alteration

At the Swanson deposit, hydrothermal alteration is spatially related to the mineralized quartz veins and veinlets and affects the Laflamme plug (Bourgault, 1988; Carrier, 2002). Alteration increases towards the intrusion and forms a halo around the plug.

Two principal alteration phases were documented by Bourgault (1988):

- early hematitization and potassic alteration (biotite and microcline);
- syn-mineralized carbonatization and sericitization.

Carbonatization (ankerite-albite-quartz-pyrite-(sericite-fuchsite)) is the dominant alteration facies and has partially obliterated the first alteration phase (Bourgault, 1988). Even the least-altered tholeiitic basalts show some carbonatization (6.5% CO<sub>2</sub>). The peridotites are essentially composed of a chlorite-talc-carbonate assemblage and are commonly strongly carbonatized (11.0% CO<sub>2</sub>). The biotite-bearing and non-biotite-bearing felsic intrusive rocks are also carbonatized (respectively 8.0% CO<sub>2</sub> and 4.0% CO<sub>2</sub>). The carbonatization envelope seems to follow the general attitude of the tonalite dykes (N-S and E-W; Jean, 1988).

Carbonate alteration, quartz veins and veinlets, and disseminated sulphides are ubiquitous in the northern part of the deposit and provide evidence of a significant hydrothermal overprint on the Laflamme plug and its wall rocks (Poulsen, 2002). The most obvious manifestation of carbonatization is the presence of “green-mica carbonate”, particularly near the intrusion. Such rocks normally have an ultramafic protolith and are composed of magnesium carbonate (magnesite), fuchsite and quartz. The green-mica carbonate rock is locally strongly foliated and it is significant that the

Laflamme intrusion contains altered and foliated xenoliths in which foliation attitudes vary from clast to clast. This indicates that the intruded rocks were already carbonatized and foliated, and that the intrusion is late to post-tectonic. Bourgault (1988) has reported that some carbonate alteration also overprints the Laflamme pluton .

Within the pluton , disseminated pyrite and lesser chalcopyrite are abundant in phyllosilicate-rich alteration selvages surrounding quartz veinlets and veins. This style of alteration likely accounts for the high average background abundance of gold in the intrusive rocks at Swanson (Bourgault, 1988).

## 8. DEPOSIT TYPES

### 8.1 Swanson Deposit

According to Robert (1997, 2001), Agnico (2009) and Faure (2016), the Swanson deposit is interpreted as a monzonite-associated disseminated gold deposit. Geological observations indicate that the gold mineralization follows litho-structural controls (Crépeau, 1985). Gold is preferentially associated with the Laflamme intrusion, and follows the contact between the ultramafic and mafic units of the Amos Group in the Bolduc Corridor.

The occurrence of the Laflamme plug in the deformation corridor creates a strong heterogeneity in the mechanical stress during deformation. Its presence bolsters the creation of proximal fracture zones that allow mineralized fluids to precipitate (Lanthier, 2002). It is proposed that shearing created a dilation zone crosscutting shearing at a high angle (Agnico, 2017). The reactivation of this favourable structure, perhaps several times, permitted the intrusion of the pluton and related dyke swarms. Late quartz veins shallowly dipping to the south were injected into the system and possibly remobilized the gold mineralization.

### 8.2 Descriptive Model

Several gold deposits in the AGB are spatially and temporally associated with small quartz monzonite to syenite stocks and dykes. They formed a distinct group or style of lode gold deposits called “syenite-associated disseminated gold deposits” (Robert, 1997; 2001). The mineralization consists of disseminated sulphide zones with variably developed quartz stockworks. These deposits share several common attributes, including their geological setting, the style of their mineralized material, and their related hydrothermal alteration. Examples in the AGB include the Beattie, Holt-McDermott, Young-Davidson, and Douay deposits (Bigot and Jébrak, 2015).

These deposits, represented largely by past producers, tend to be of relatively low grade, on the order of 3-5 g/t Au, but of significant tonnages. Their mineralized zones have significant thicknesses and are amenable to bulk mining.

Several syenite-associated disseminated gold deposits occur along major fault zones in the AGB. Their general distribution reflects their spatial association with monzonite-syenite stocks and dykes, themselves intruded mainly along major fault zones. Deposits of this type are not restricted to southern AGB but also occur in the northern AGB, as illustrated by the Douay deposit. As a result of their distribution along major faults, these deposits commonly occur at or near the boundary between contrasting lithological domains.

The intrusions with which these deposits are associated range in composition from quartz monzonite to syenite. They form small stocks elongated subparallel to the overall structural trend, commonly surrounded by a multitude of small satellite dykes. In some such deposits, such as Holt-McDermott, only dykes are exposed and no related stock has been identified. The syenitic stocks associated with gold mineralization are composite, multiphase intrusions. The presence of several textural types of dykes in some deposits also likely represent multiple intrusive phases. Although some of the intrusive phases are equigranular, most are porphyritic, with K-feldspar phenocrysts in a fine-grained to aphanitic matrix.

In nearly all cases, mineralized zones consist of zones of disseminated sulphides with variably developed stockworks in intensely altered wallrocks. The mineralized zones have sharp to diffuse limits defined by a decrease in sulphide content, gold grades, and intensity of stockwork fracturing. Their morphology ranges from overall tabular to pipe-like. Although most mineralized zones are steeply dipping or steeply plunging, examples of moderately to shallowly dipping mineralized zones, discordant to lithological units, are also known, such as at Douay and Holt-McDermott.

The total sulphide content of mineralized zones is typically less than 10% by volume and commonly only a few percent. Disseminated sulphides are fine- to very fine-grained and consist dominantly of pyrite with significant arsenopyrite in a few deposits. Associated stockworks consist of millimetre to centimetre-wide veinlets of grey to milky quartz with variable but subordinate amounts of carbonate (Fe-dolomite, calcite), albite and pyrite. In addition to pyrite and arsenopyrite, metallic minerals include minor to trace amounts of chalcopyrite and hematite (specularite). Telluride minerals, molybdenite, and magnetite are commonly associated with this type of mineralization. Tourmaline, scheelite, anhydrite, and fluorite are also present in some deposits.

Within the stockwork zones, two or three orientations of veinlets typically dominate and evidence of multiple generations of veinlets is common. Larger veins, up to several tens of centimetres wide and several tens of metres long, are also present at some deposits, such as at Ross and Central Duparquet. In both these cases, these veins have the same mineral assemblages as the smaller stockwork veinlets and are parallel to one of the dominant veinlet orientations. They appear to be related to stockwork development. In addition, in most of the studied deposits, milky quartz-calcite veins of extensional nature overprint the mineralized stockworks. These veins are barren and systematically have shallow dips; they are interpreted as late syn-tectonic veins.

The South Zone at the Holt-McDermott deposit provides a good illustration of the general characteristics of this type of mineralization, where it consists of a zone of 5% disseminated fine-grained pyrite coincident with a weak stockwork of quartz microveinlets. The mineralized zone is centred on syenite dykes and is discordant to the steeply dipping volcanic units. The mineralization is broadly coincident with intensely altered basalt enveloping the dykes. In places, it is fringed by a sub-economic stockwork of quartz-carbonate±albite veinlets, which is itself surrounded by an outer halo of calcite and calcite-quartz veinlets.

Zones of hydrothermal alteration are generally spatially coincident with zones of disseminated sulphides and vein stockworks, and most intense alteration corresponds in a general way to mineralized zones. Carbonatization and albitization are significant alteration types at nearly all deposits, whereas K-feldspar alteration and sericitization are also present in several deposits and silicification is sometimes present. Carbonatization is the most spatially extensive type of alteration; carbonate minerals display a zonal distribution from peripheral calcite, to dolomite, to ankerite within the mineralized zones.

Controls of the localization of mineralized zones are varied. They include fracture zones within composite stocks, primary stratigraphic contacts, intrusion margins, faults and satellite dykes. It seems that the Swanson gold mineralization is centred on alkaline intrusions or follows satellite dykes that are at variable distances from the related parent stock, as in other deposits such as Ross, Douay No. 531 Zone and Holt-McDermott South Zone.

### 8.3 Other Occurrences on the Project and Other Types of Deposits in the

## **Barraute Area**

In addition to the Swanson gold deposit, the Property hosts three (3) other mineral occurrences that correspond to other deposit types: the Manville gold showing located East of Swanson; the Canadian Bolduc Mine chrysotile deposit; and the Damascus Cu-Pb-Ag showing.

The Manville gold showing was discovered by drilling in 1984 (MAN-4-84 drill hole). Gold mineralization shows some similarities with the Swanson deposit, it being hosted in altered basalts and porphyritic intrusions (carbonates and fuchsite) and associated with quartz-carbonates veins. Highlights from Manville historical drilling results includes 4.1 g/t Au over 1.5 m and 7.2 g/t Au over 1.5 m at 78 m down-hole.

The Canadian Bolduc Mine showing was discovered on surface in 1930 and corresponds to a past producing open pit chrysotile mine. The mine was operated by Canadian Johns-Manville Co. Ltd. from 1974 to 1977 and produced 737,549 tonnes at an average grade of 2.0 % chrysotile. The chrysotile mineralization is hosted in a peridotite, dunite and pyroxenite sill, and associated with folding, fracturation and serpentinization.

The Damascus Cu-Pb-Ag showing was discovered in 1955. This mineral occurrence corresponds to a VMS type deposit. Massive sulphides are associated with intercalated graphitic tuff and breccia with mafic volcanic flows. Highlights from historical drilling results includes: 0.79% Cu and 11.7 g/t Ag over 1.5 m; 0.91% Cu and 37.71 g/t Ag over 1 m; and 1.75% Pb and 5.48 g/t Ag over 0.4 m.

In the Barraute area, a wide range of mineralized deposits are found; Ni-Cu-PGE occurrences (e.g., Consolidated Mogador), VMS deposits (e.g., Vendôme), Cu-Mo-Au porphyry occurrences (e.g., Michaud No. 1 and No. 2), Mo-Bi and Li-Be deposits associated with S-type granitoids (e.g., Québec Lithium and Molybdenite Corporation mines) and orogenic lode gold deposits (e.g., Bartec) (Bérubé, 2014).

The Abcourt-Barvue silver-zinc deposit (Abcourt Mines Inc.) is located on an adjacent property approximately 9.5 km WSW of the Swanson deposit and is classified as a disseminated volcanogenic sulphide deposit. It shares numerous similarities with the Mattabi-type volcanogenic sulphide deposit. The zinc and silver sulphide mineralization is composed of disseminated and bedded sphalerite and pyrite found in close association with felsic volcanoclastic rocks (Bérubé, 2014).



## **9. EXPLORATION**

The Issuer did not carry out any exploration work on the Project.

## 10. DRILLING

Monarch Mining has not carried out any drilling on the Project.

Monarch Gold did complete one (1) DDH (SW-20-01) on May 30, 2020, since the agreement with Agnico. This section summarizes the exploration DDH, which falls outside the resource area, describe in section 14.

### 10.1 Drilling Methodology

The drilling was performed by Forage Nordik Drilling of Val-d'Or, Québec. Collar locations were determined using a handheld GPS.

The drill was lined up using a Brunton compass. The downhole dip and azimuth were surveyed using a Reflex Ez-shot tool. Surveys started 10 m below the casing, and readings were taken at least every 30 m downhole. A multi-shot survey (3 m) was performed upon completion of the hole. Drilling contractors handled the instruments, and survey information was transcribed and provided in paper format to Monarch Gold.

The casing was left in place with an identification tag, but the collar location was not surveyed after the hole was completed.

At the drill rig, the drill helpers placed core into core boxes and marked off each 3 m drill run using a labelled wooden block.

### 10.2 Core Logging Procedures

The drill core was transported to Monarch's facility (Beacon site) where it was cleaned of drilling additives and mud, and the down-hole metreage marked before collecting the data.

Geotechnical data collection included RQD at 1 m intervals and hardness measurements on all core. Magnetic susceptibility data were not collected as it was concluded that such data were not relevant to the deposit.

All data were recorded using GeoticLog software. Sample intervals and pertinent information regarding lithology, mineralization, structure and alteration were marked on the core.

After recording the sampling information, drill core samples were sawn in half, labelled, and bagged. The remaining drill core were returned to the core-box and stored on-site in a secured location for future reference. Numbered security tags were applied to lab shipments for chain of custody requirements. Samples were then shipped to the laboratory of ALS Limited Val-d'Or ("ALS"), for analysis.

### 10.3 2020 SW-20-01

Hole SW-20-01 (328.80 m total) was collared on claim CDC-2245703 at UTM 315830E, 5378573N (NAD83 Zone 18) with a collar orientation of -50° towards 215° True.

The main lithologies correspond to an alternance of mafic to intermediate volcanic and peridotite units.

No notable assay results were obtained.

## **11. SAMPLE PREPARATION, ANALYSES AND SECURITY**

Monarch Mining has not carried out any sampling on the Property.

Monarch Gold did complete one (1) DDH (SW-20-01) on May 30, 2020, after acquiring the Project from Agnico. This section summarizes the assaying protocol followed by Monarch Gold for hole SW-20-01.

### **11.1 Core handling, Sampling and Security**

The drill core was placed into wooden core boxes at the drill site with the end of each drill run marked with a small wooden block displaying the down-hole depth of the retrieved core. Boxes were labeled sequentially to denote the hole and box number. The boxes were racked and covered at the drill, secured with ratchet straps, and then transported daily from the drill site to secured Beacon site's core storage and logging facility by truck by the drilling contractor.

Upon receiving a load of core from the drill crew, the core was brought into the logging room. Metreage blocks were checked for errors, the core was oriented in the box and cleaned, and the metre-marks were drawn on the core before logging began. The geological and geotechnical core logging data was collected using GeoticLog software.

The sample intervals were mainly at 1.5 m, but not smaller than 0.65 m and did not cross geological contacts. A line was drawn with a pencil along the length of the core to indicate where the core would be sawn. Each sampling ticket was divided into three tags. One tag was stapled to the core box at the beginning of the interval to record the drill hole number and sample interval recorded. The second tag was placed in the sample bag, which is sent to the laboratory; this tag does not reference the drill hole or metreage. The last tag remained in the sample ticket book with the hole number and recorded interval. All samples were assigned a unique sample number.

After the core boxes with tags were photographed, the core boxes were moved to the cutting station. The core was cut lengthwise by diamond saw, with half the core submitted as the primary sample and the remaining half core retained in the core box for future reference.

The samples were individually bagged with the corresponding tag. The tag number was written on the bag before it was sealed. The bags were then placed in rice bags and the rice bags sealed with numbered security tags for chain of custody requirements. If any tampering with security tags was suspected, the laboratory informed Monarch Gold. Samples were shipped to ALS for analysis. The reference drill core was securely stored at the Beacon mill site facility.

### **11.2 Laboratories Accreditation and Certification**

All the core-interval samples from hole SW-20-01 were submitted to ALS for analysis. ALS is an ISO 9001 certified and accredited (ISO/IEC 17025) commercial laboratory, independent of Monarch Gold and Monarch Mining, and has no interest in the Project.

### **11.3 Sample Preparation and Gold assaying**

- Samples are sorted and logged into the ALS LIMS program.
- Samples are dried and weighed.
- Samples are crushed to +70% passing 2 mm (CRU-31).
- The crushed sample split of up to 250 g is pulverized to +85% passing 75 µm screen (PUL-31).  
A 50-g pulp aliquot is analyzed by Au-AA24: fire assay followed by fire assay finish ("AAS").

### **11.4 Quality Assurance and Quality Control**

Monarch Gold's QA/QC for assaying included insertion of blank and certified reference material (CRM) into the sample stream. A total of 232 samples were sent to ALS, including 23 QA/QC samples. A total of 12 blanks were added at a ratio of 1:20 samples. A total of 11 CRMs were added at a ratio of 1:20 samples.

The contamination during the preparation of the samples was monitored by the insertion of coarse barren material into the batches. All blank samples returned results below 0.01 g/t Au, and are thus considered acceptable.

The accuracy was monitored by adding 2 different CRM into the batches. No failure was noted, and no actions were required.

### **11.5 Conclusions**

The Authors are of the opinion that the sample preparation, analysis, QA/QC and security protocols used for the Project followed generally accepted industry standards and consider that the resultant analytical data are valid.

## 12. DATA VERIFICATION

This item covers the data verification completed by the Authors for the 2021 MRE. The data verification included a site visit and a review of the new drill hole geological descriptions.

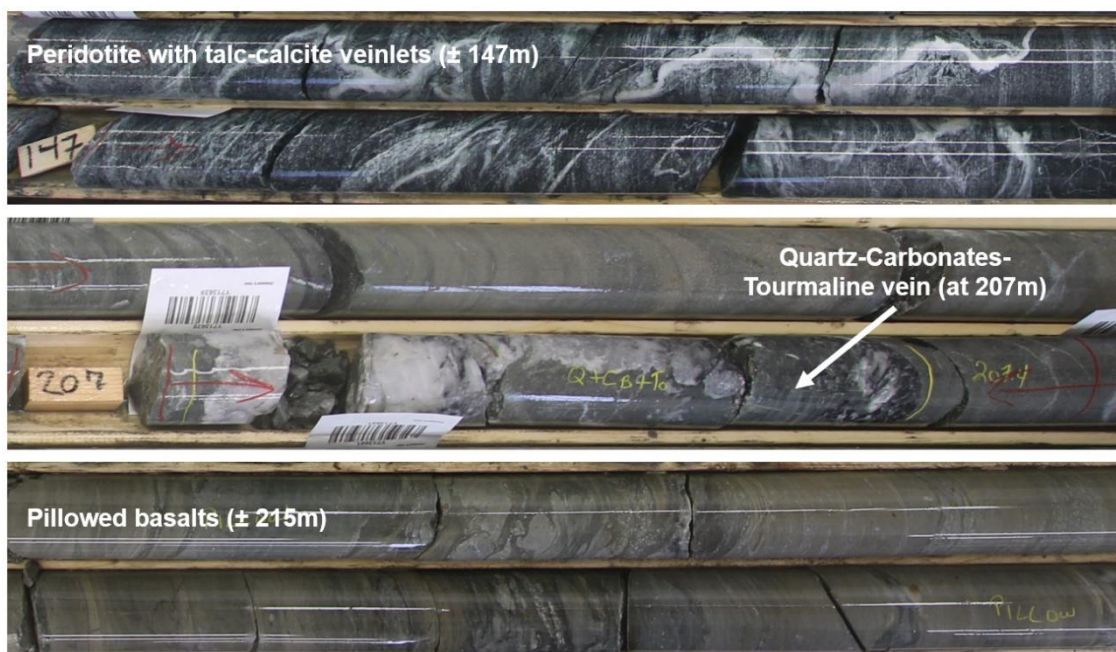
### 12.1 Drill Hole Database

Only one hole was added to the database since the 2018 MRE and its spatial location falls outside the 2021 MRE area. All drilling information used for the 2018 MRE were reviewed and validated by the Authors. Basic cross-check routines were performed between the 2018 and 2021 databases. No discrepancies were found.

The validation included all aspects of the drill hole database (including collar location, down-hole surveys, sample intervals, and check against assay certificates). For the completed details of the 2018 MRE validation the reader is referred to Carrier and Beausoleil and Carrier (2018).

#### 12.1.1 Review of SW-20-01

The review of core photographs from drill hole SW-20-01 confirms alternating sequences of intercalated peridotite and basalt, as described in the drill logs and Issuer records (Figure 12.1). The peridotite intervals are characterized by more ductile fabrics and the occurrence of talc-calcite veinlets. The basalt intervals have massive to pillow facies with locally some flow-breccia textures. Quartz-carbonates-tourmaline veins (without sulphides) were documented in the hole but did not return any anomalous or significant gold concentrations.



Note: Examples of peridotite (with talc-calcite veinlets), quartz-carbonates-tourmaline hosted in mafic volcanic and pillowed basalts

**Figure 12.1 – Selected core intervals from SW-20-01**



### 12.1.2 Site visit

A winter site visit was completed on January 20, 2021 by Mr. Carrier accessing the Project with a snowmobile. The site visit included a review of the general access, a visual check on Swanson decline portal and condition of the fences, and a visit of the historical Canadian Bolduc Mine open pit area and visual check on condition of its surrounding fences. Mr. Carrier found everything in good condition.



**Figure 12.2 – Photographs from January 20, 2021 site visit illustrating fences around Swanson decline portal and access; and the historical Canadian Bolduc Mine open pit area**

### 12.2 Conclusion

Overall, the Authors' data verification demonstrated that the data for the Project are acceptable. The Authors consider the 2021 database to be valid and of sufficient quality to be used for the mineral resource estimate.



### 13. MINERAL PROCESSING AND METALLURGICAL TESTING

The following paragraphs describe the mineral processing and metallurgical testing carried out on the Swanson Project. The information is summarized from an internal scoping study by Agnico (Agnico, 2009) for tests carried out between 2008 and 2009, unless specified otherwise.

#### 13.1 Overview

Agnico performed a series of basic metallurgical test work between May 2008 and June 2009, in order to evaluate mineral recovery levels that could be anticipated for the Project. The test material was submitted to a standard set of grinding, flotation, leaching and settling tests that reproduced the Goldex process without optimization. The objective was to assess the impact of processing Swanson mineralized material directly in the Goldex process, and mixed with ore from Agnico's Goldex Mine in Val-d'Or.

The mass balancing of those tests proved to be challenging due to assay discrepancies, which necessitated numerous re-assays. To put the results in perspective, two recovery curves (best-case and worst-case scenarios) were evaluated.

##### 13.1.1 Composite Samples

A total of eight (8) composite samples ("composites") were tested and analyzed. Four (4) were primary composites (#1, #2, #5 and #7) from the Swanson deposit and comprised varying amounts of different lithological units from scattered locations within the planned Swanson pit volume. The other four (4) composites (#3, #4, #6 and #8) were a mixture of primary Swanson composites mixed with samples of Goldex ore.

Particular attention was placed on keeping the same test conditions for all composites. The Goldex samples were collected on February 19, 2009 from the SAG mill feed conveyor. The gold grade of the sample is approximately 3.0 g/t  $\pm$  1.5 g/t Au, due to the high concentrations of free gold.

**Composite #1** comprised 13 samples of coarse rejects of volcanic rock with an approximate grade of 1.4 g/t Au ( $\pm$  0.15 g/t Au) (Table 13.1).

**Composite #2** comprised 26 samples of coarse rejects of intrusive rock with an approximate grade of 1.4 g/t Au ( $\pm$  0.15 g/t Au) (Table 13.2).

**Composite #3** comprised a 50/50 mix of composites #1 and #2.

**Composite #4** comprised a mixture of 85% Goldex sample and 15% composite #3.

**Composite #5** consisted of 10 samples of half BQ size core of volcanic (60%) and intrusive (40%) rocks with an approximate grade of 2.0 g/t Au ( $\pm$  0.2 g/t Au). These 10 samples were crushed at SGS Lakefield to 3-4 mm for grindability testing (Table 13.3).

**Composite #6** comprised a mixture of 85% Goldex sample and 15% composite #5.

**Composite #7** consisted of 27 samples of coarse rejects with a proportion of 50% volcanic and 50% intrusive rocks with an approximate grade of 3.0 g/t Au (Table 13.4).

**Composite #8** was a mixture of 85% Goldex sample and 15% composite #7.

**Table 13.1 – Description of samples used for composite #1 (Agnico, 2009)**

HOLE #	SAMPLE #	DISTANCE FROM HOLE (m)		LENGTH (m)	GOLD (Au) GRADE (g/t)	SILVER (Ag) GRADE (g/t)	ROCK CODE
SW-07-27	A-103449	37	38	1	1.334	N.A.	I2D
SW-06-18	A-102450	25	26	1	1.335	1.3	I2D
SW-07-27	A-103440	27.5	28.5	1	1.336	N.A.	I2B
SW-06-19	A-102550	18.3	19.5	1.2	1.341	N.A.	I2B
SW-06-19	A-102537	5	6	1	1.357	N.A.	I2B
SW-07-27	A-103443	30.4	31.4	1	1.361	N.A.	I2D
SW-06-19	A-102621	85	86	1	1.372	N.A.	I2B
SW-06-14A	A-102072	28	29	1	1.376	2.8	I2D
SW-07-23	A-102809	2	3	1	1.379	N.A.	I2C
SW-06-19	A-102604	70.2	71.1	0.9	1.391	N.A.	I2C
SW-06-19	A-102553	21	22	1	1.403	N.A.	I2B
SW-06-15	A-102299	85	86	1	1.428	1.6	I2D
SW-06-12	A-101910	53	54	1	1.4325	3.3	I2C
SW-06-12	A-101916	57	58	1	1.4465	1.9	I2C
SW-06-13	A-101990	54	55	1	1.448	1.5	I2B
SW-06-17	A-102318	3	4	1	1.45	9.9	I2D
SW-06-19	A-102531	0	1.25	1.25	1.45	N.A.	I2B
SW-06-13	A-101983	48	49	1	1.325	2.6	I2B
SW-06-11	A-102640	58	58.8	0.8	1.286	N.A.	I2B
SW-06-18	A-102493	64	65	1	1.309	N.A.	I2D
SW-06-12	A-101902	45	46	1	1.3145	1.1	I2C
SW-06-20	A-102698	16	17	1	1.452	N.A.	I2B
SW-06-13	A-101987	51	52	1	1.488	1.6	I2B
SW-06-12	A-102847	78	79.1	1.1	1.49	N.A.	I2B
SW-06-12	A-102846	77	78	1	1.4635	N.A.	I2B

**Table 13.2 – Description of samples used for composite #2 (Agnico, 2009)**

HOLE #	SAMPLE #	DISTANCE FROM HOLE (m)		LENGTH (m)	GOLD (Au) GRADE (g/t)	SILVER (Ag) GRADE (g/t)	ROCK CODE
SW-06-11	A-102669	86.8	87.7	0.9	1.301	N.A.	V3B
SW-06-11	A-101754	4	5	1	1.307	0.9	V3A
SW-06-16	A-102176	37	37.8	0.8	1.316	0.2	V3A
SW-07-27	A-103423	12.5	13.5	1	1.326	N.A.	V4A
SW-06-19	A-102598	64	65	1	1.338	N.A.	V3A
SW-07-26	A-103392	79	80	1	1.292	N.A.	V3A
SW-06-13	A-102001	65	66	1	1.555	1.4	V3B
SW-07-27	A-103461	47.5	48.5	1	1.342	N.A.	V3B
SW-06-13	A-101977	43	44	1	1.36	1.9	V3A
SW-07-26	A-103407	94	95	1	1.376	N.A.	V3A
SW-06-15	A-102240	33	34	1	1.38	<0.2	V4C
SW-06-19	A-102545	11.9	13	1.1	1.382	N.A.	V4C
SW-07-25	A-102925	4.2	4.8	0.6	1.424	N.A.	V4C
SW-06-11	A-102667	85	85.9	0.9	1.173	N.A.	V3B
SW-06-20	A-102693	11.5	12.5	1	1.562	N.A.	V3A
SW-06-18	A-102429	6	6.7	0.7	1.426	<0.2	V4C

**Table 13.3 – Description of samples used for composite #5, (Agnico, 2009)**

HOLE #	SAMPLE #	DISTANCE FROM HOLE (m)		GOLD (Au) GRADE (g/t)	ROCK CODE
SW-06-11	A-101765	13	14	2.65	V3A
SW-06-11	A-101766	14	15	3.56	V3A
SW-06-11	A-101767	15	16	0.75	V3A
SW-06-11	A-101770	18	19	5	I2C
SW-06-11	A-101771	19	20	2.76	I2C
SW-06-11	A-101772	20	21	1.97	I2C
SW-06-11	A-101773	21	22	0.83	I2C
SW-06-11	A-102644	64	65	0.24	V3B
SW-06-11	A-102645	65	66	5.1	V3B
SW-06-11	A-102646	66	67	0.51	V3B

**Table 13.4 – Description of samples used for composite #7 (Agnico. 2009)**

HOLE #	SAMPLE #	DISTANCE FROM HOLE (m)		LENGTH (m)	GOLD (Au) GRADE (g/t)	SILVER (Ag) GRADE (g/t)	ROCK CODE
SW-06-07 ext	A-103572	77	78	1	2.861	N.A.	I2B
SW-06-13	A-102035	95	96	1	2.944	2.1	I2D
SW-06-18	A-102501	72	73	1	2.949	N.A.	I2D
SW-06-18	A-102451	26	27	1	2.953	2.6	I2D
SW-07-21	A-102757	58	59	1	2.961	N.A.	I2B
SW-06-20	A-102695	13.3	14	0.7	3.009	N.A.	I2B
SW-07-21	A-102799	93.5	94.5	1	3.046	N.A.	I2D
SW-06-13	A-102033	93	94	1	3.048	2	I2D
SW-06-18	A-102498	69	70	1	3.069	N.A.	I2D
SW-07-21	A-102800	94.5	95.5	1	3.072	N.A.	I2D
SW-06-11	A-102673	91	92	1	3.091	N.A.	I2B
SW-06-13	A-102029	90	91	1	3.098	3.4	I2D
SW-06-13	A-102021	83	84	1	3.1	9.9	I2D
SW-07-26	A-103406	93	94	1	2.637	N.A.	V3A
SW-07-27	A-103424	13.5	14.5	1	2.645	N.A.	V4A
SW-06-11	A-101765	13	14	1	2.651	2	V3A
SW-06-20	A-102705	23	24	1	2.657	N.A.	V3A
SW-06-19	A-102615	80	81	1	2.847	N.A.	V3A
SW-06-19	A-102594	60	61	1	2.873	N.A.	V3A
SW-06-19	A-102581	48.25	49.5	1.25	2.988	N.A.	V3A
SW-06-15	A-102277	65.5	66.5	1	3.028	0.5	V3A
SW-06-12	A-101924	65	66	1	3.102	1.8	V3A
SW-06-11	A-101803	49	50	1	3.326	1.6	V4A
SW-07-24	A-102914	42.35	43.35	1	3.345	N.A.	V3A
SW-06-18	A-102511	81	81.8	0.8	3.427	N.A.	V3A
SW-06-19	A-102546	13	14.25	1.25	3.541	N.A.	V4C
SW-06-11	A-101766	14	15	1	3.557	2	V3A

### 13.1.2 Metallurgical Characterization

The test-work program was conducted according to the current Goldex mill configuration without optimization.

#### 13.1.2.1 Grinding

Basic grinding tests were completed, and additional simulations were performed, keeping the same approach used for Goldex ore.

A sample was sent to SGS Lakefield to evaluate standard grinding indices. The drop-weight tests could not be completed due to the format of part of the sample as BQ size half cores. Instead, those parameters were derived from an SMC test, originally developed for drill-core samples, or situations where a limited amount of material is available (Table 13.5). DWi parameters were then extrapolated from the JKTech database.

**Table 13.5 – Mineralized material characterization (Agnico, 2009)**

SAMPLE	SG	Drop-Weight Test				Work Index BMWi
		A	b	A x b	t <sub>a</sub>	
Goldex Jan. 23, 2009	2.71	74.6	0.47	35.1	0.32	16.3
Swanson 50%/50% - 2.0 g/t	2.87	57.2	0.78	44.6	0.4	13.5

The lower the (A x b) parameter, the more competent a given ore is in terms of impact breakage. These results qualify Swanson mineralized material as ‘medium’ in terms of resistance to impact breakage, as well as in terms of resistance to abrasion breakage (t<sub>a</sub>). By comparison, Goldex ore was qualified as ‘moderately hard’ to ‘hard’ in terms of resistance to impact breakage, and as ‘hard’ in terms of resistance to abrasion breakage (t<sub>a</sub>). When the Swanson mineralized material was qualified using the Bond ball mill work index (BWI), it was classified in the ‘medium’ range of hardness using the SGS database. The Goldex ore was categorized as ‘moderately hard’ using the same database.

Additional JKSimMet simulations were performed considering the selected pre-crushing (at minus 3-inches) circuit configuration for Goldex expansion. Two scenarios were studied (Table 13.6).

**Table 13.6 – Studied scenarios for JKSimMet simulations (Agnico, 2009)**

Scenarios	Goldex	Swanson	Total
1	7 500 tpd 93.5%	500 tpd 6.5%	8 000 tpd 100%
2	7 000 tpd 87.5%	1 000 tpd 12.5%	8 000 tpd 100%

At the proposed proportion of Swanson material in the blends, the results show virtually no effect on throughput, with the SAG mill and ball mill behaving nearly identically to the 100% Goldex feed. Even though Swanson mineralized material is slightly softer than Goldex, to obtain a benefit, a higher percentage of the softer mineralized material (Swanson) would need to be added.

### 13.1.2.2 Gold recovery

The gold recovery was investigated by means of standard gravity, flotation and leaching tests at the laboratory scale. Assays results proved difficult to repeat, necessitating several re-assays.

The test series involved whole-ore leaching, as well as flotation concentrate leaching, replicating the Goldex plant process.

### Whole-Ore Leach

Whole-ore leach tests were carried out on various feed composite samples (Table 13.7). For the purpose of evaluation, Agnico assumed that this series represents the ultimate recovery that could be achieved on a given ore with the actual Goldex circuit configuration (flotation and concentrate leaching). The plant recovery will most likely be lower than these values.

The Swanson mineralized material consistently generates much higher grade tails than Goldex (Table 13.8) when submitted to direct leaching on the ROM mineralized material. This test requires few manipulations and hence minimizes the risk of errors or contamination.

**Table 13.7 – Whole-Ore Leach (Swanson only) (Agnico, 2009)**

Test	Ore		Head		Leach Tails		Recovery <sup>2</sup> (%)
	Swanson	Goldex	Assayed (g/t)	Calculated (g/t)	Assayed (g/t)	Calculated <sup>1</sup> (g/t)	
17-01-CYA-01-01	Volcanique, 1.4 g/t	-	1.3	1.68 / 1.83	0.003 <sup>(3)</sup> / 0.15	0.18	88.5 / 91.8
17-02-CYA-01-01	Intrusive, 1.4 g/t	-	1.59	1.25 / 1.55	0.003 <sup>(3)</sup> / 0.30	0.3	81.1 / 80.6
17-03-CYA-01-01	50% Volcanique + 50% Intrusive, 1.4 g/t	-	1.53	1.88	0.21	n/a	86.3 / 88.8
17-03-CYA-01-02	50% Volcanique + 50% Intrusive, 1.4 g/t	-	1.53	1.72	0.24	n/a	84.3 / 86.0
17-05-CYA-01-01	50% Volcanique + 50% Intrusive, 2.0 g/t	-	2.04	2.07	0.17	0.23	91.7 / 91.8
17-05-CYA-01-02	50% Volcanique + 50% Intrusive, 2.0 g/t	-	2.04	2.3	0.23	n/a	88.7 / 90.0
17-06-CYA-01-01	50% Volcanique + 50% Intrusive, 1.4 g/t + 50% Volcanique + 50% Intrusive, 2.0 g/t	-	1.65	2.46	0.19	n/a	88.5 / 92.3
17-07-CYA-01-01	50% Volcanique + 50% Intrusive, 3.0 g/t	-	2.88	3.2	0.35	n/a	87.8 / 89.1

<sup>1</sup> Calculated from size-bysize assays and distribution

<sup>2</sup> Calculated as assayed tails/assayed head and assayed tails/calculated head

<sup>3</sup> Original assay results from fire0assay with gravimetric finish

**Table 13.8 – Whole-Ore Leach (Swanson-Goldex) (Agnico, 2009)**

Test	Ore		Head		Leach Tails		Recovery <sup>1</sup> (%)
	Swanson	Goldex	Assayed (g/t)	Calculated (g/t)	Assayed (g/t)	Calculated (g/t)	
17-04-CYA-01-01	15% (50% Volcanique + 50% Intrusive, 1.4 g/t)	85%	3.17	4.47	0.07	n/a	97.8 / 98.4
17-04-CYA-02-01	15% (50% Volcanique + 50% Intrusive, 1.4 g/t)	85%	3.17	2.18	0.06	n/a	98.1 / 97.2
12-01-CYA-02-01	-	100%	3.46	2.94	0.033	n/a	99.0 / 98.9

<sup>1</sup>Calculated as assayed tails/assayed head and assayed tails/calculated head

This is also reflected in tests 17-04-CYA-01-01 and 17-04-CYA-02-01 (15% Swanson + 85% Goldex), which show twice the tails grade vs Goldex alone. Assuming the Goldex tails account for 0.033 g/t Au (as in 12-01-CYA-02-01), the calculated grade for the Swanson portion in this sample would be equivalent to 0.25 g/t Au, comparable to 17-03-CYA-01-01 and -02 tests with the same Swanson composite sample.

Although all of the tests were performed targeting Goldex standard grind size of 80% <106 µm, one test was done at 80% <47 µm and suggests that Swanson mineralized material would benefit from a finer grind, which was also seen with the size-by-size gold distribution on some of the leach tails.

### Gravity recovery

Gravity recovery was applied to numerous test series, prior to leaching and flotation. Correlation of those results to the plant performance estimated that recoveries of 15 to 20% could be expected from Swanson mineralized material.

### Flotation / Concentrate Leaching

The flotation concentrate from composite #3 was subjected to the leaching process, motivated by the number of samples available, and so as to correlate the analysis with previous results (Table 13.9).



**Table 13.9 – Flotation concentrate leaching**

Test	Ore		Head		Flotation Tails (g/t)	Leach Tails (g/t)
	Swanson	Goldex	Assayed (g/t)	Calculated (g/t)		
17-03-FLO-01-01	50% Volcanique + 50% Intrusive, 1.4 g/t	-	1.39	1.2	0.07	5.06
17-03-FLO-01-02	50% Volcanique + 50% Intrusive, 1.4 g/t	-	1.39	1.43	0.09	
17-03-FLO-01-03	50% Volcanique + 50% Intrusive, 1.4 g/t	-	1.39	1.18	0.04	
17-03-FLO-01-04	50% Volcanique + 50% Intrusive, 1.4 g/t	-	1.39	1.7	0.06	
GLOBAL	50% Volcanique + 50% Intrusive, 1.4 g/t	-	1.39	1.38	0.284	

For comparison, a similar leaching test was done on a Goldex concentrate produced in a mini-pilot plant; leach tails assayed 2.15 g/t Au, which were lower than plant performances at 2.8 g/t Au for the months of June, July and August 2009 (Agnico, 2009).

In addition to those results, the actual weighted average of the flotation and leach tails from the current plant operation is equivalent to 0.134 g/t Au - lower than the 0.284 g/t Au estimated for Swanson, confirming that recovery from Swanson mineralized material is not comparable with Goldex ore.

### Recovery Model

No clear head grade to tails grade (or recovery) relationship could be drawn from the test data - a fixed tails grade was applied to a large range of head grades, up to approximately 2.1 g/t Au. The sensitivity of the Project (Figure 13.1) was analysed with the following tails grade.

- Minimum: fixed tails grade corresponding to the flotation concentrate leaching test result of 0.284 g/t;
- Maximum: fixed tails grade corresponding to the average of direct leaching tests of 0.235 g/t.

The recovery model shows that the Swanson recovery is expected to stand between 87 and 89% for grades >2 g/t Au.

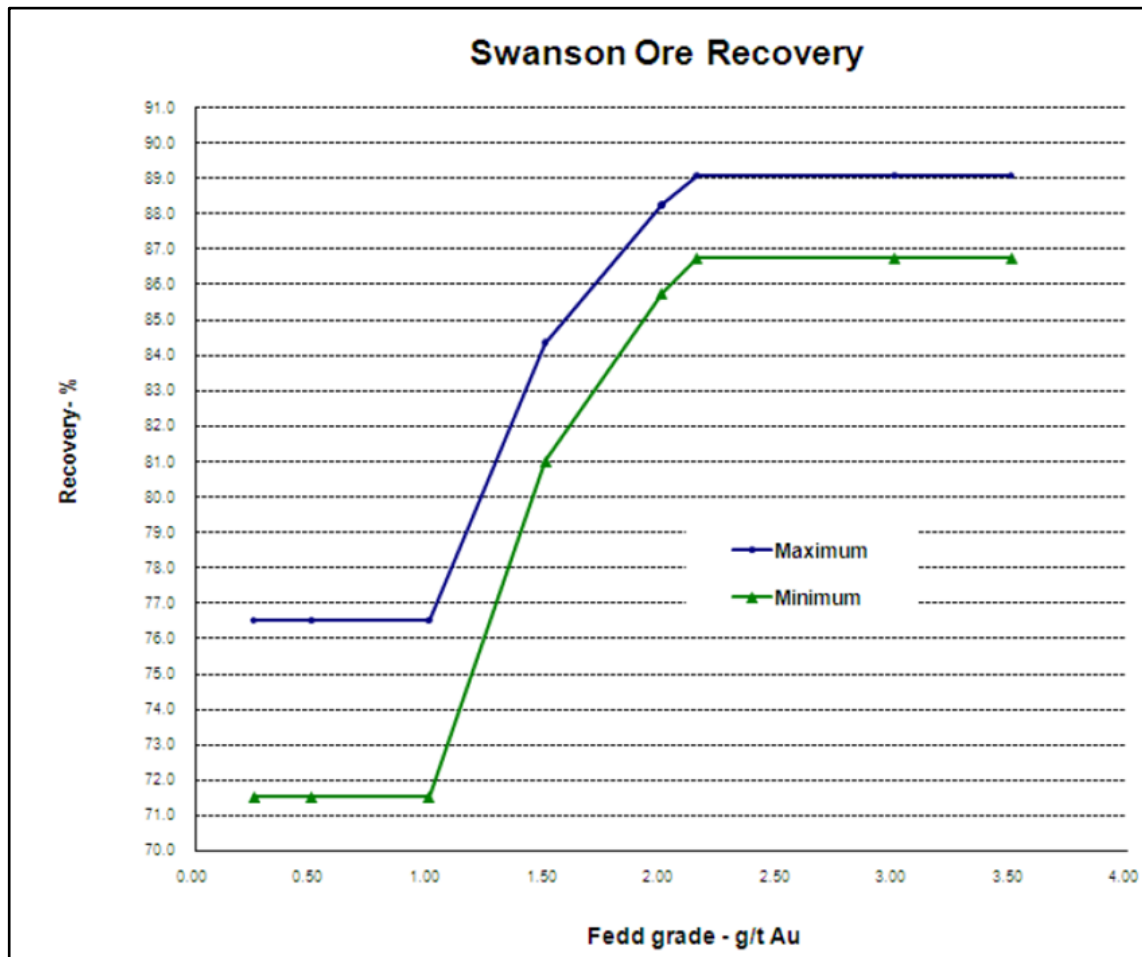
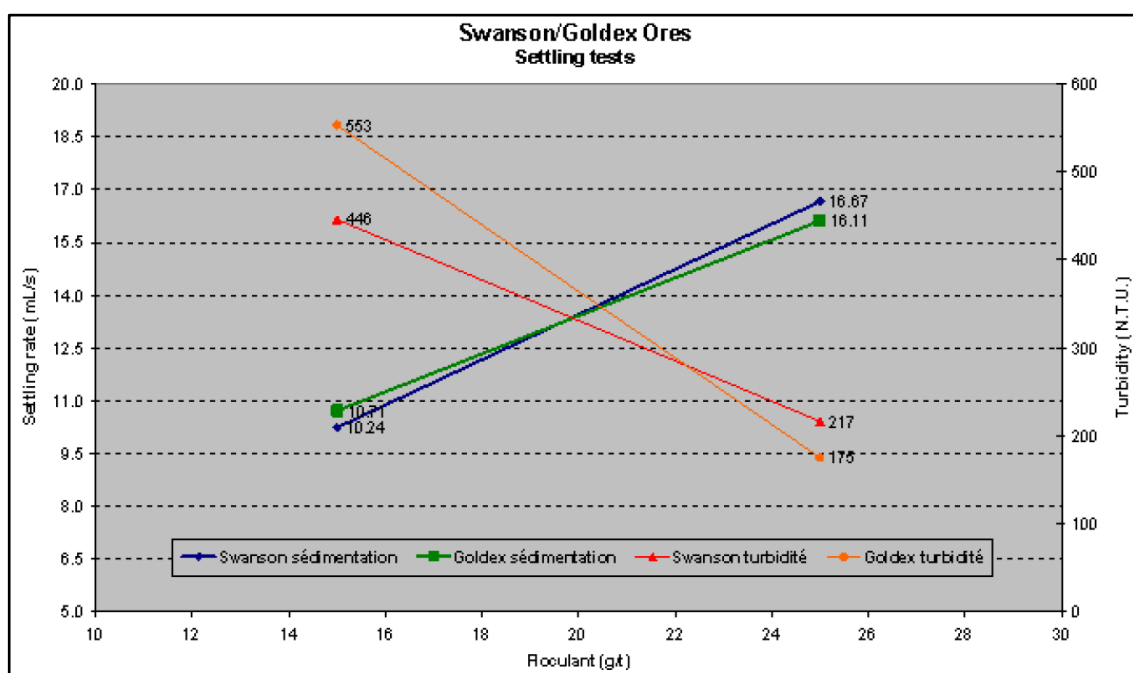


Figure 13.1 – Recovery models (Agnico, 2009)

### 13.1.2.3 Settling tests

In order to assess the effect of the Swanson mineralized material on the tailings thickening process, settling tests were performed on products from flotation tests. Those tests were performed in parallel under the same conditions as the Goldex tailings. Figure 13.2 shows that Swanson and Goldex materials show a similar behaviour.



**Figure 13.2 – Tailing settling tests between Swanson mineralized material and Goldex ore (Agnico, 2009)**

## 13.2 Conclusions

The test results for the Swanson mineralized material show that metallurgical performances contrast markedly from those achieved with Goldex ore.

- Grinding test suggests that Swanson mineralized material would benefit from a finer grind, which was also seen with the size-by-size gold (Au) distribution on some of the leach tails;
- Expected gravity recovery, prior to leaching and flotation, is estimated between 15 to 20% for Swanson mineralized material;
- The Swanson recovery is not comparable to the Goldex recovery;
- The estimated final recovery stands between 87% and 89% for a material with a gold grade of >2 g/t Au;

The tailing settling test shows that Swanson and Goldex materials display similar behaviour.

## **14. MINERAL RESOURCE ESTIMATE**

The Mineral Resource Estimate update for the Swanson Project (the “2021 MRE”) was prepared by Christine Beausoleil, P.Geo. and Alain Carrier, M.Sc., P.Geo., both of InnovExplo, using all available information.

The 2021 MRE comprises a review and update of the 2018 MRE (Beausoleil and Carrier, 2018). Since the publication on the 2018 MRE no additional drilling was completed in the modelled resource volume; therefore, the database for the 2021 MRE is the same as the 2018 MRE (Beausoleil and Carrier, 2018).

The effective date of the 2021 MRE is January 22, 2021.

### **14.1 Methodology**

The resource area within the deposit measures 500 m along strike, 400 m wide and 500 m deep. The 2021 MRE is based on a compilation of historical and recent diamond drill holes completed by previous owners of the Property.

The 2021 MRE was prepared using Leapfrog GEO v.4.2.3 (“Leapfrog”) and GEOVIA GEMS v.6.8.1 (“GEMS”) software. Leapfrog was used for the 3D geological modelling. GEMS was used for the estimation, which consist of 3D block modelling and the ordinary kriging (OK) interpolation method. Statistical studies, capping and variography were completed using Snowden Supervisor v.8.8.1 and Microsoft Excel software.

The main steps in the methodology were as follows:

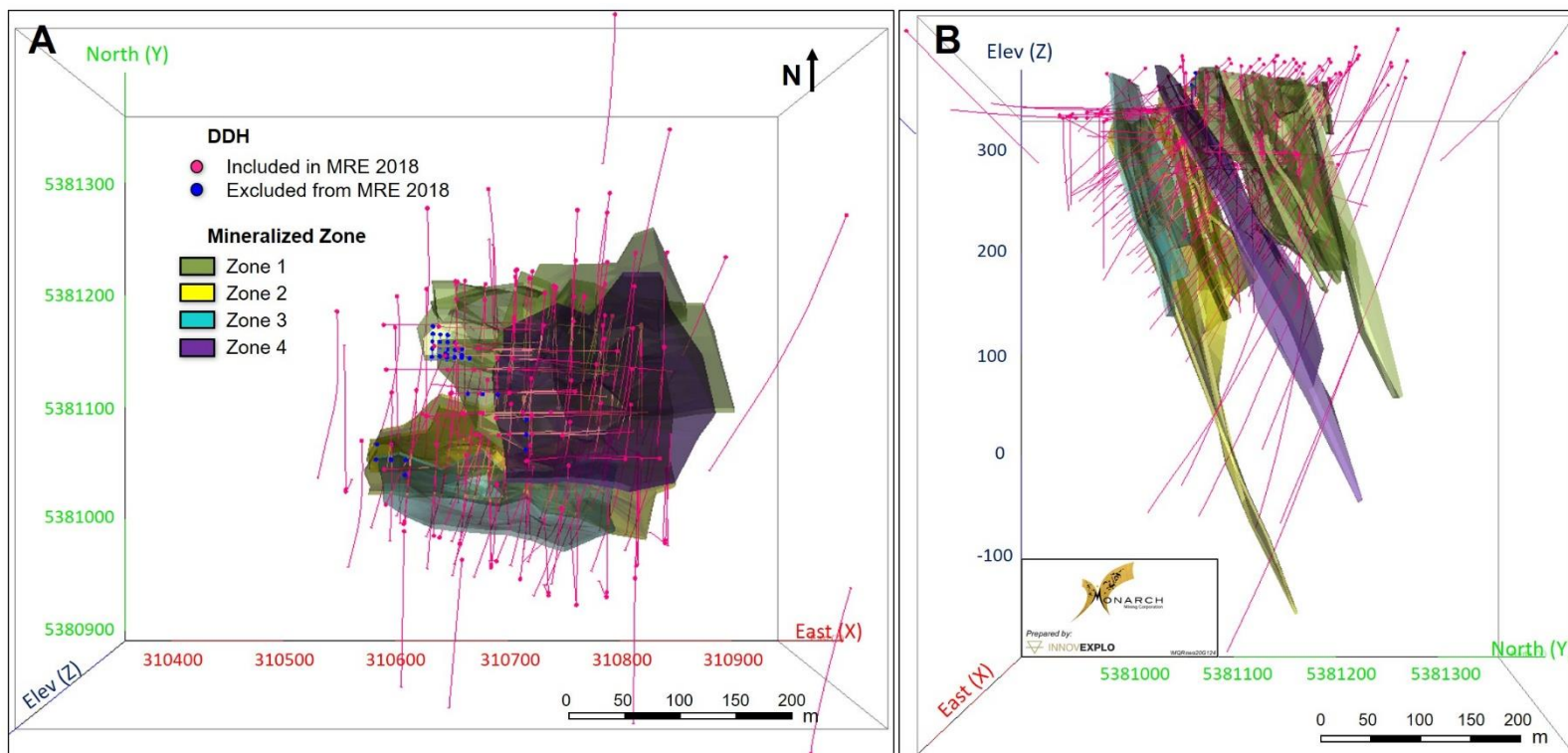
- review and validation of the database;
- validation of the geological model and interpretation of the mineralized zones;
- validation of the drill hole intercepts database, compositing database and capping values, for the purposes of geostatistical analysis and variography;
- validation of the block models and grade interpolation;
- revision of the classification criteria and validation of the clipping areas for mineral resource classification;
- assessment of the resources with “reasonable prospects for economic extraction” and selection of appropriate cut-off grades and pit shell; and
- generation of a mineral resource statement

### **14.2 Drill Hole Database**

The diamond drill hole database (DDHD) contains 209 DDH (146 surface holes, 63 underground holes), including 10,000 assays, which corresponds to all the DDH completed on the Project. Thirty-four (34) surface percussion drill holes were excluded from the DDHD because they lacked descriptions.

The GEMS database contains 166 DDH corresponding to a subset of the DDHD covering the resource area (Figure 14.1).

The data for the 166 DDH cover the strike length of the Project at a drill spacing ranging from 20 to 100 m and contain a total of 9,312 sampled intervals (4,035 samples in mineralized zones) representing 12,623.7 m of drilled core (5,157 m drilled in mineralized zones). It also includes lithological, alteration and structural descriptions collected from the historic drill core logs.



**Figure 14.1 – Surface plan view (A) and vertical cross-section looking west (B) of the validated DDH used in the 2021 MRE**

In addition to the basic tables of raw data, the GEMS database includes several tables containing the calculated drill hole composites and wireframe solid intersections required for the statistical analysis and resource block modelling.

### 14.3 Geological Model

The geological model developed by InnovExplo in 2018 (Beausoleil and Carrier, 2018) was review and validated. The 2018 geological model used drill hole logs and geological mapping of the surface stripping area. The main lithologies of the deposit include a series of intermediate dykes (tonalite, diorite) crosscutting mafic volcanic rocks. A lamprophyre intrusion cuts all units. The 2018 geological model constitutes the basis for the interpretation of mineralization and was included in the GEMS block model to assign densities to the blocks.

The mineralization zone solids were constructed from 2D polylines interpretation on cross sections with 15 m spacing; these were snapped to drill hole intercepts using a minimum true thickness of 2.5 m. The resulting four (4) mineralized solids (coded 101, 104, 202 and 203) honour the drill hole database. The mineralized zones are subvertical with an E-W strike and the mineralization is often concentrated within intermediate dykes and / or along their contacts. The mineralized zones are contained within a dilution envelope (coded 500), which corresponds to the block model limits.

Overlaps were handled by the “precedence” system used by GEMS for coding the block model.

Two surfaces were created for each deposit to define the topography and the overburden/bedrock contact. The surfaces were generated from surveyed drill hole collars.

### 14.4 Voids Model

The exploration ramp 3D wireframe was provided by the Issuer and intersects the four (4) mineralized zones (Figure 14.2). The wireframe was validated for any discrepancies or construction errors. The mined-out volume from the ramp was coded and included in the GEMS block model as a void.

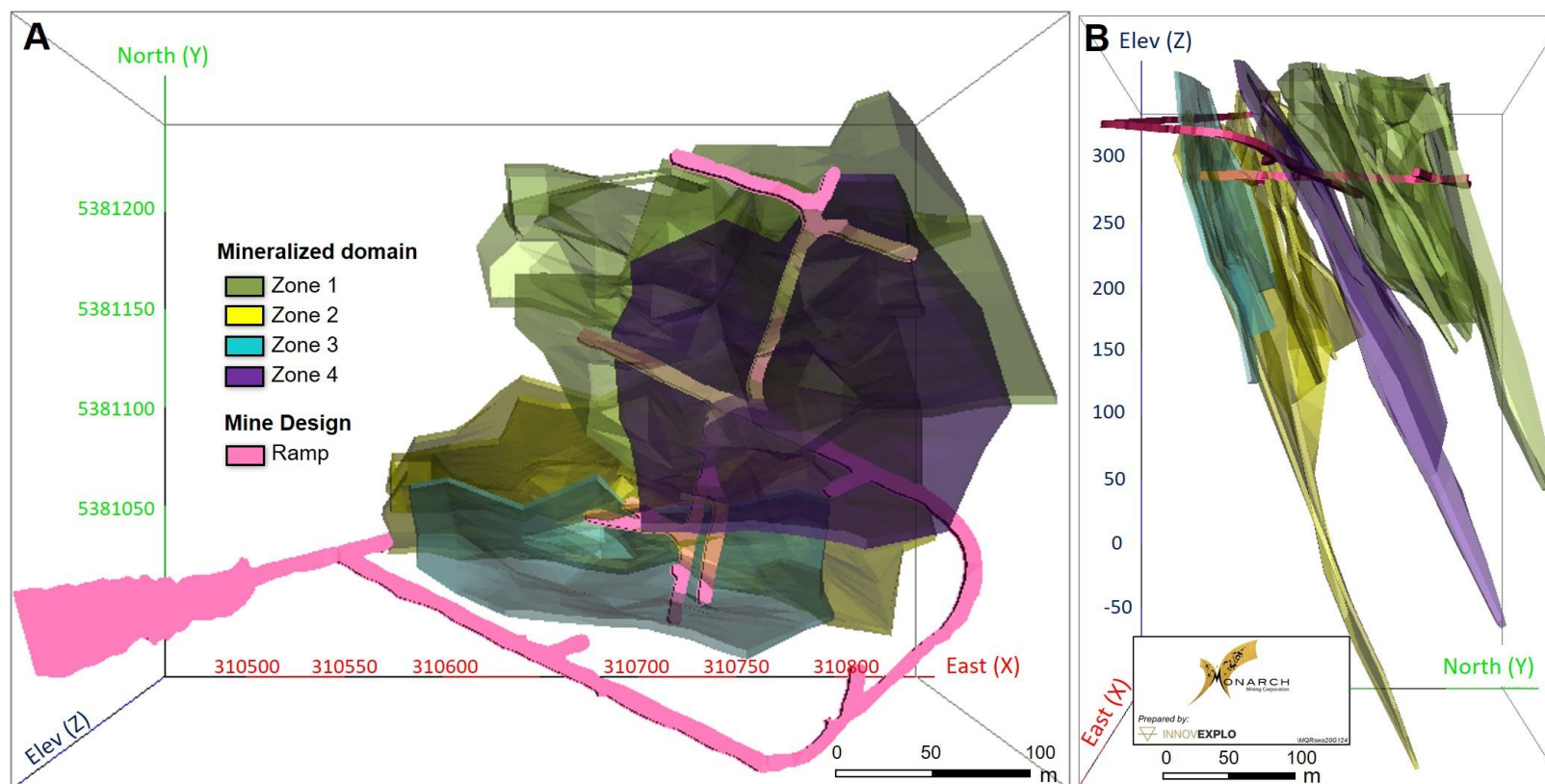
### 14.5 High-grade Capping

Codes were automatically attributed to DDH raw assay intervals intersecting the mineralized zones. Codes reflect the name of the corresponding 3D solids. The coded intercepts were used to analyze sample lengths and generate statistics for raw assays and composites.

Basic univariate statistics were performed on datasets of individual mineralized zones and for the dilution envelope. The high-grade capping was determined by a combination of decile analysis, probability plots and log normal distribution. The high-grade capping was set at 15 g/t Au for the mineralized zones and 4 g/t Au for the dilution envelope. Capping was applied to raw assays before compositing.

Table 14.1 summarizes the statistical analysis per zone. Figure 14.3 shows a selection of graphs supporting the capping threshold decisions.





A) Surface plan view; B) Vertical section looking West

Figure 14.2 – Mineralized solids of the Swanson Project

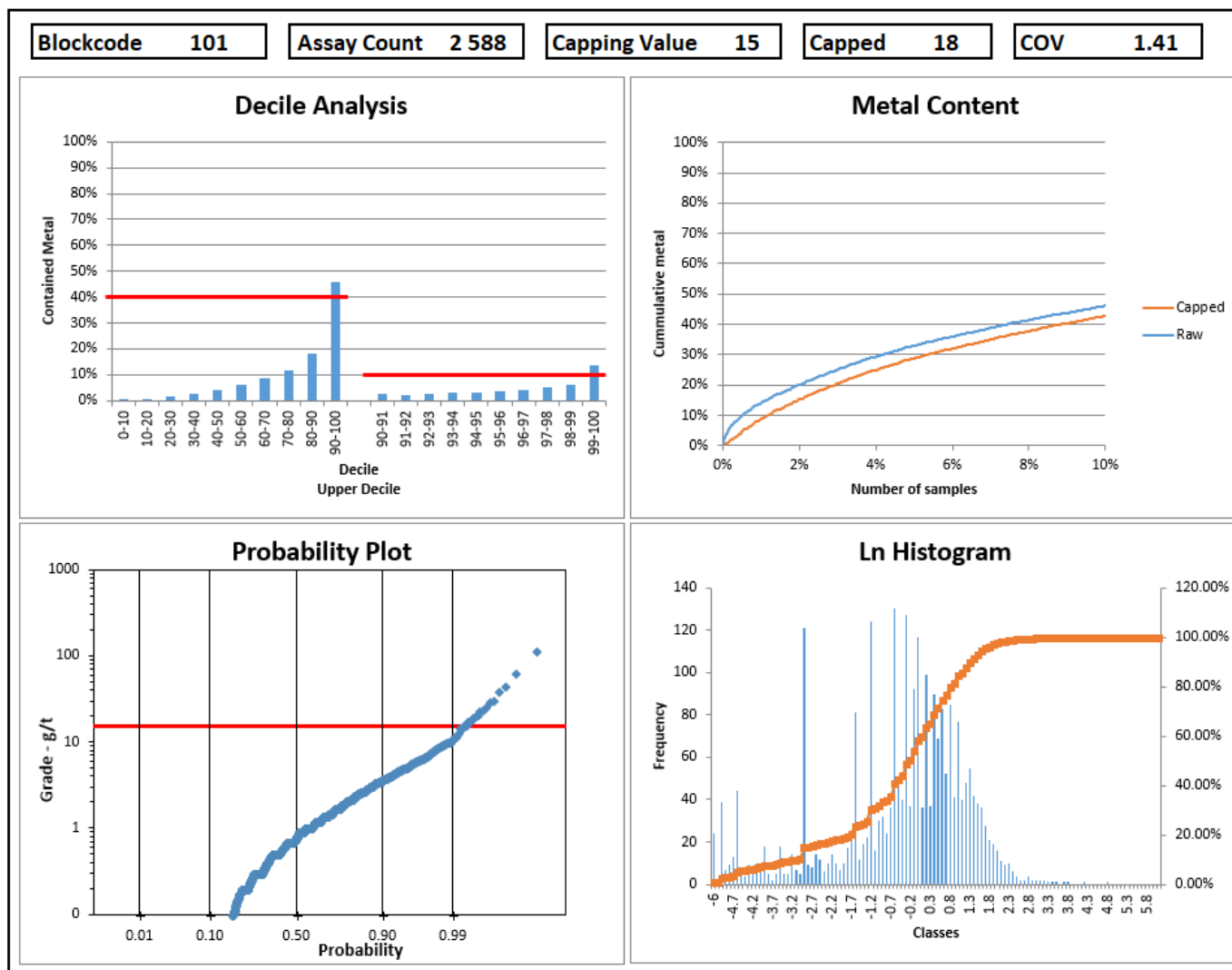


Figure 14.3 – Selection of graphs supporting the capping value of 15 g/t Au for mineralized Zone 1

**Table 14.1 – Summary of univariate statistics on raw assays**

Zone / Envelope	Number of samples	Max (Au g/t)	Uncut Mean (Au g/t)	High Grade Capping (Au g/t)	Number of Cut Samples	Cut Mean (Au g/t)	COV	% Samples Cut	% Loss Metal Factor
Zone 1	2,588	113.93	1.61	15	18	1.5	1.41	0.7	5.82
Zone 2	988	142.53	2.20	15	16	1.89	1.35	1.62	8.44
Zone 3	150	45.60	1.41	15	1	1.20	1.70	0.67	10.42
Zone 4	271	85.40	1.78	15	2	1.44	1.56	0.74	19.43
Dilution Envelope	5233	32.40	0.34	4	22	0.33	1.61	0.42	4.51

## 14.6 Compositing

In order to minimize any bias introduced by variations in sample lengths, the capped gold assays of the DDH data were composited within the dilution envelope and each mineralized zone. The thickness of the mineralized solids, the proposed block size, and the original sample length were taken into consideration when selecting the composite length.

Composites of 1.5 m with distributed tails of 0.75 to 2.25 m were generated for all four (4) mineralized zones and the dilution envelope. This length provides a reasonable reconciliation with the raw data mean grade, while sufficiently reducing the coefficient of variation. All unassayed intervals within solids were assigned a value of zero, whereas the 47 visible gold (VG) occurrences originally marked at 34.29 g/t Au were ignored during the compositing (Table 14.2).

**Table 14.2 – Summary statistics for the 1.5 m composites**

Zone / Envelope	Number of Composites	Max Au (g/t)	Mean Au (g/t)	Standard Deviation	COV
Zone 1	2,347	15.00	1.39	1.88	1.35
Zone 2	974	15.00	1.79	2.41	1.34
Zone 3	155	10.29	1.00	1.67	1.68
Zone 4	329	14.97	1.00	1.78	1.77
Dilution Envelope	10,957	4.00	0.15	0.35	2.42

## 14.7 Density

The density or specific gravity (SG) is used to calculate tonnages for the estimated volumes derived from the resource-grade block model.

The drill hole database contains no specific information on density measurements. To determine the density value for each lithological unit, InnovExplo reviewed the results obtained from 11 samples (density measurements completed by Agnico in 2009 and reported in internal communications by L. Martin, 2018).

A fixed density value was applied to each lithological unit, corresponding to the average of the SG data for the matching lithology. The author validated these density values by comparison with known rock density having similar rock description and mineralogical content, and by comparison with densities used for tonnage estimation in deposits having similar geological setting.

A density of 1.5 g/cm<sup>3</sup> was assigned to overburden and 0.00 g/cm<sup>3</sup> to the voids.

Table 14.3 presents the SG value by lithological unit.

**Table 14.3 – Summary for the SG values used in the 2018 MRE and 2021 MRE**

Lithological Unit	Rock Code	Specific Gravity
Intrusive (Monzonite, Diorite)	I2	2.78
Mafic volcanics	V3	2.90
Lamprophyre	I4O	2.90
Overburden	OVB	1.50

## 14.8 Block Model

A block model was established to enclose a sufficiently large volume to host an open pit. The model corresponds to a multi-folder percent block model in GEMS and without rotation.

All blocks with more than 0.001% of their volume falling within a selected solid were assigned the corresponding solid block code in their respective folder. A percent block model was generated, reflecting the proportion of each block inside every solid (each individual mineralized zone, dilution envelope, overburden, country rock and underground voids). Overlaps between solids were handled by the “precedence” system used by GEMS for coding the block model. The ramp has precedence over the mineralization zones, lithology wireframes and dilution envelope.

The block model origins correspond to the lower left corner. Block dimensions reflect the sizes of mineralized zones and plausible mining methods.

Table 14.4 presents the properties of the block model.

**Table 14.4 – Block model properties**

Properties	X (columns)	Y (rows)	Z (levels)
Origin Coordinates (NAD83, UTM Zone 18)	310,400	5,380,925	5,365
Block extent (m)	501	399	501
Block Size	3	3	3
Number of Blocks	167	133	167
Rotation	Not applied		

## 14.9 Variography and Search Ellipsoids

The 3D variography, carried out in Supervisor, yielded the best-fit model along an orientation that roughly corresponds to the strike and dip of Zone 1. The variography analysis was inconclusive for zones 2, -3 and -4, due to the lack of information. Variography results obtained from Zone 1 were then applied for the zone and dilution envelope.

The downhole variograms suggest a nugget effect of 47% for Zone 1 with a maximum range of 60 m in the principal axis (Table 14.5).

**Table 14.5 – Variogram model parameters for the Zone 1**

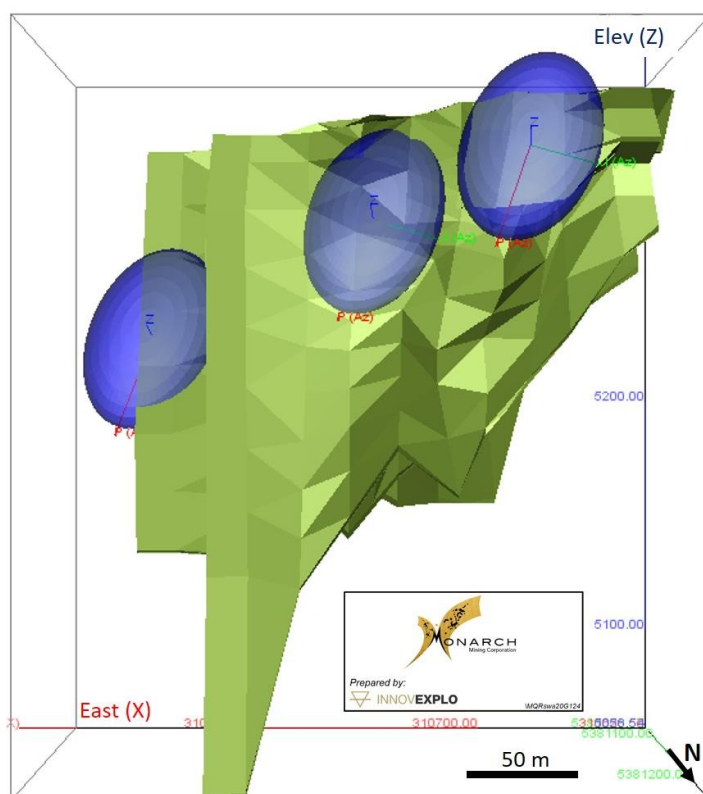
Zone	Nugget	Model Type	First Structure				Second Structure			
			Sill	Range X (m)	Range Y (m)	Range Z (m)	Sill	Range X (m)	Range Y (m)	Range Z (m)
Zone 1	0.47	Spherical	0.25	10	10	7	0.28	60	40	22

The search ellipsoid was based on the variography study. The interpolation strategy counts three (3) cumulative passes. First pass corresponds to two third (2/3) of the variography ranges, second pass 1x and third pass 2x the variography ranges.

For the dilution envelope blocks, a single ellipsoid was used for the interpolation corresponding to 1x the variography results.

Figure 14.4 illustrates example of shapes and ranges of the search ellipsoids for the first pass.

Table 14.6 summarizes the parameters of the ellipsoids used for interpolation.



(Zone 1, pass 1; Looking South)

**Figure 14.4 – Example of a 3D search ellipsoid**

**Table 14.6 – Search ellipsoid parameters per zone**

Zone	Ellipsoid	GEMS Orientation			Range		
		Azimuth	Dip	Azimuth	X (m)	Y (m)	Z (m)
Zone 1	Pass 1	50.0	-65.0	280.0	40.0	26.7	14.7
	Pass 2				60.0	40.0	22.0
	Pass 3				120.0	80.0	44.0
Zone 2	Pass 1	65.0	-65.0	290.0	40.0	26.7	14.7
	Pass 2				60.0	40.0	22.0
	Pass 3				120.0	80.0	44.0
Zone 3	Pass 1	105.4	19.3	244.6	40.0	26.7	14.7
	Pass 2				60.0	40.0	22.0
	Pass 3				120.0	80.0	44.0
Zone 4	Pass 1	248.8	51.7	298.7	40.0	26.7	14.7
	Pass 2				60.0	40.0	22.0
	Pass 3				120.0	80.0	44.0
Dilution Envelope	Pass 1	50.0	-65.0	280.0	60.0	40.0	22.0



## 14.10 Grade Interpolation

The interpolation profiles were customized for the four (4) mineralized zones and dilution envelopes using hard boundaries.

The variography study provided the parameters used to interpolate the grade model using capped composites. The interpolation was run on a point area workspace extracted from the 1.5 m composite dataset (flagged by zones / dilution envelope) in GEMS. A cumulative 3-pass search was used for the resource estimate.

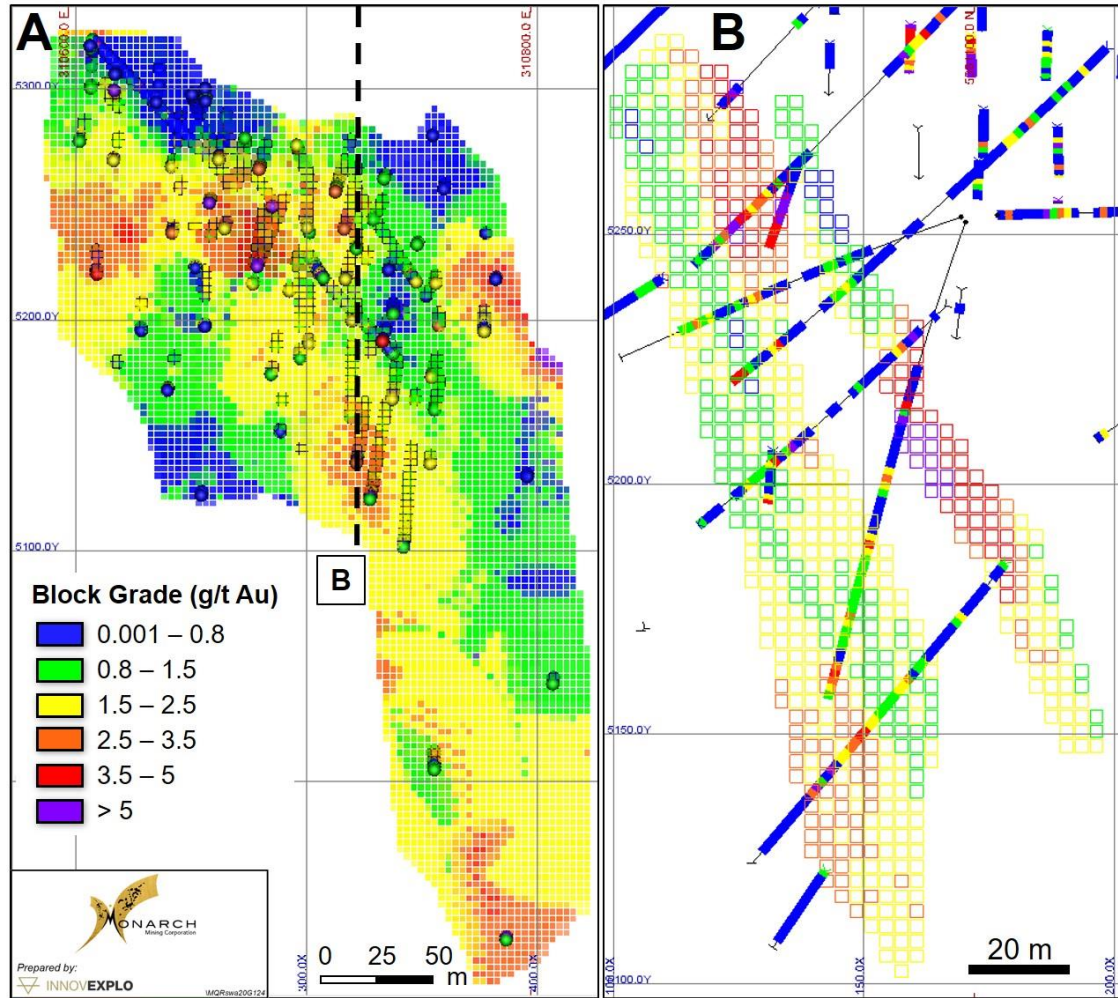
The OK method was selected for the final resource estimate as it better honours the raw assays and composites grade distribution for the deposit.

The strategy and parameters used for the grade estimation are summarized in Table 14.7.

Figure 14.5 illustrate an examples of grade distribution.

**Table 14.7 – Composite search specifications**

Folder	Pass	No. of Composites		
		Min	Max	Max / Hole
Mineralized zones	Pass 1	8	15	3
	Pass 2	4	15	3
	Pass 3	3	12	3
Dilution Envelope	Pass 1	8	15	3



A) Longitudinal view looking north; B) Vertical cross-section looking West ( $\pm 10$  m)

**Figure 14.5 – Gold grade distribution for Zone 2**

#### 14.11 Block Model Validation

The block model was validated visually and statically. The visual validation conducted on sections, plans and longitudinal views for both densely and sparsely drilled areas confirmed that the block model honours the drill hole composite data.

ID2 and NN models were produced to check for local bias in the models. The ID2 models matched well with the OK models, and the differences in the high-grade composite areas are within acceptable limits. The trend and local variation of the estimated ID2 and OK models were compared with the NN models and composite data using swath plots in three directions (North, East and Elevation) for the first pass. The ID2, NN and OK models show similar trends in grades with the expected smoothing for each method when compared to the composite data.

Figure 14.6 shows the swath plot in the three (3) principal directions of the deposit

Statistical validation was completed by the comparison of the global mean block for the OK, ID2 and NN interpolation scenarios and the composite grades for each mineralized

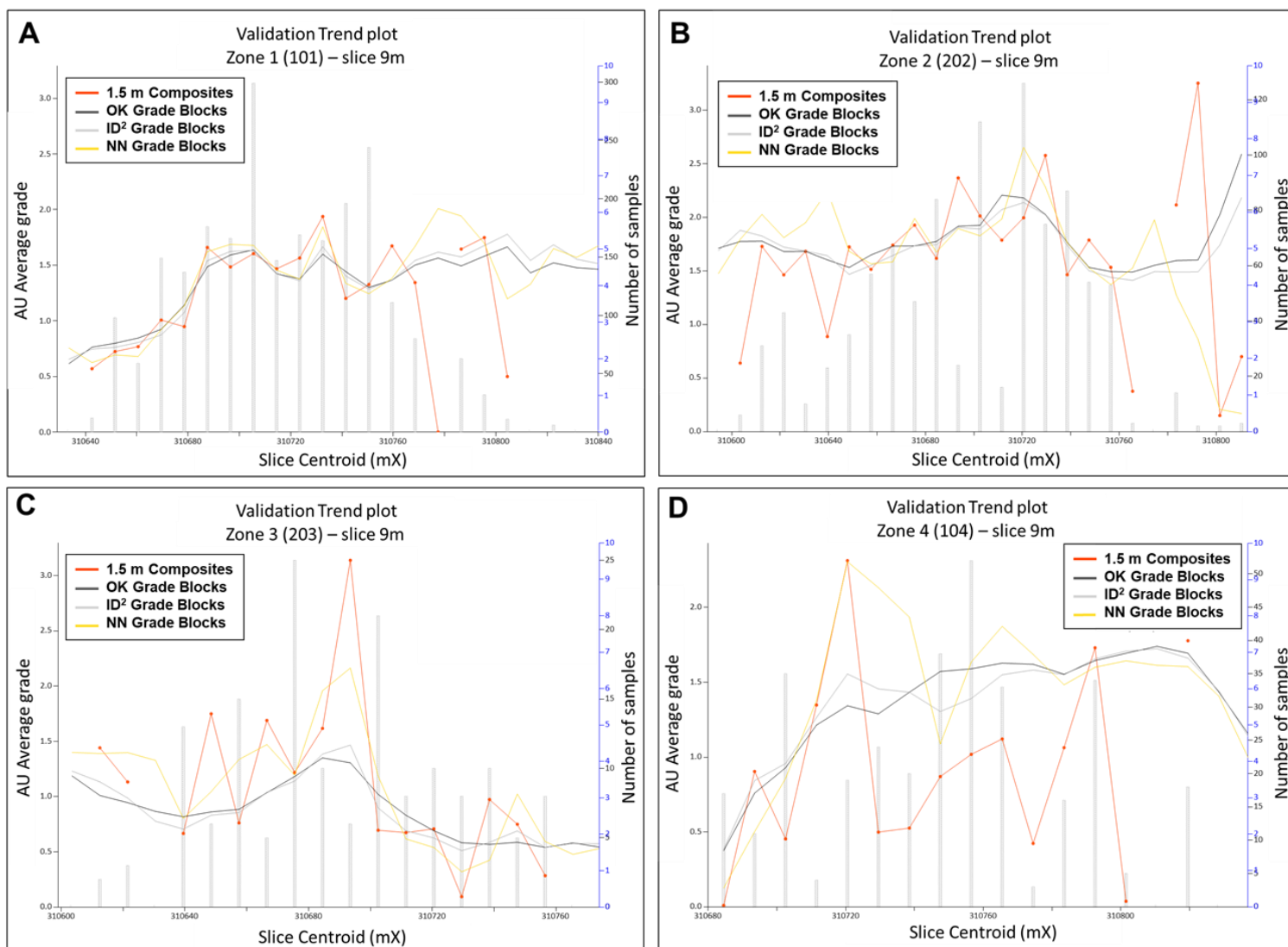
corridor at a zero cut-off for inferred and indicated blocks with  $\geq 50\%$  of their volume inside a mineralized zone.

Cases in which the composite mean is higher than the block mean are often a consequence of clustered drilling patterns in high-grade areas. The comparison between composite and block grade distributions did not identify significant issues. As expected, the block grades are generally lower than the composite grades.

**Table 14.8 – Comparison of the block and composite mean grades**

Zone	Number of composites	Composites grade (g/t)	Number of blocks	OK Model (g/t)	ID2 Model (g/t)	NN Model (g/t)
Zone 1	2,347	1.40	23,050	1.39	1.41	1.45
Zone 2	974	1.79	16,603	1.79	1.76	1.85
Zone 3	155	1.00	3,582	0.92	0.90	1.13
Zone 4	329	1.00	9,891	1.54	1.52	1.56
Dilution Envelope <sup>(1)</sup>	10,957	0.15	345,382	0.11	0.11	0.11

Note: All *classification blocks* with  $\geq 50\%$  of their volume inside the dilution envelope; No cut-off grade applied



A) Zone 1; B) Zone 2; C) Zone 3; D) Zone 4

**Figure 14.6 – X-Direction swath plots comparing the different interpolation methods to the DDH composites**

## 14.12 Mineral Resource Classification

No Measured resources were defined.

The Indicated resources were defined for blocks estimated in the first pass (minimum 3 DDH within a search radius of 40m x 26.7m x 14.7m) and within 20 m of a drill hole.

The Inferred resources were defined for blocks informed by at least 2 DDH and within 40 m of a drill hole.

The resource category was assigned using clipping boundaries. In some cases, isolated blocks were upgraded or downgraded to homogenize the model with respect to the geological and grades continuity.

Blocks inside the dilution envelope were not classified as resources.

## 14.13 Economical Parameters and Cut-Off Grade

The 2021 MRE was compiled using a minimum cut-off grade for two (2) combined potential extraction scenarios: open pit and underground.

The Whittle input parameters and the cut-off grade parameters used for the in-pit cut-off grade (CoG<sub>op</sub>) and underground cut-off grade (CoG<sub>ug</sub>) are presented in Table 14.9.

At this stage, the railway is assumed displaced without affecting the MRE 2021.

**Table 14.9 – Input parameters used for the cut-off grade estimation**

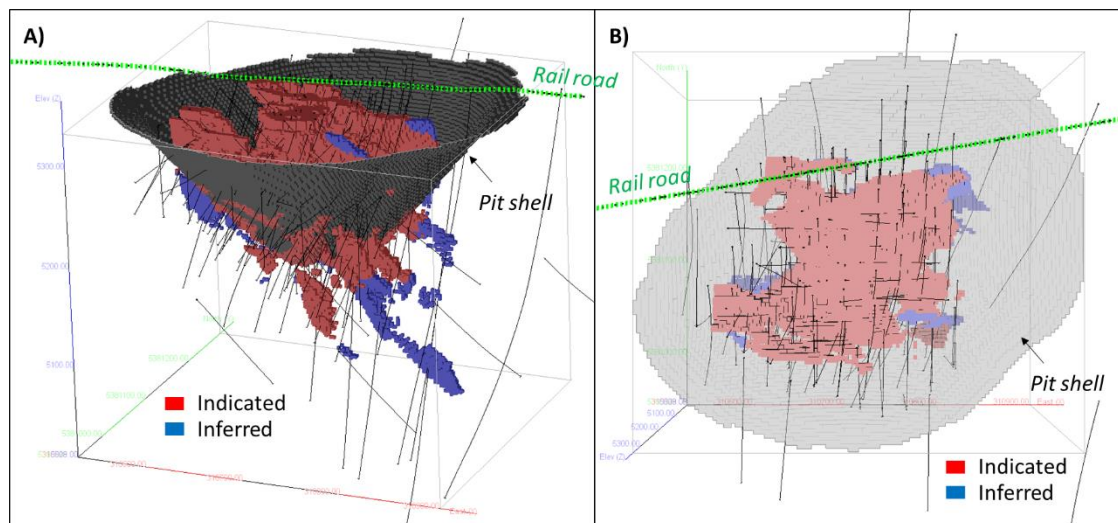
Parameters	Unit	Value for Open pit	Value for Underground
Gold price	CA\$/oz	2,160	2,160
Sell cost	CA\$/oz	5	5
Exchange rate	USD:CAD	1.34	1.34
Mining cost	CA\$/t mined	4.94	90
Overburden removal cost	CA\$/t excavated	3.95	Not applicable
G&A cost	CA\$/t milled	4	10
Mill recovery	%	95	95
Mine recovery	%	100	100
Processing Cost	CA\$/t milled	40	50
Ore transportation	CA\$/t milled	6	6
Slope angle in Overburden	degree	30°	Not applicable
Slope angle in bedrock	degree	50°	Not applicable
Calculated cut-off grade	Au g/t	<b>0.76</b>	<b>2.37</b>

Using the parameters shown above, 0.75 g/t Au was selected for the CoG<sub>OP</sub> and 2.40 g/t Au for the CoG<sub>ug</sub>.

An updated Whittle pit shell was used to constrain the 2021 MRE for its near surface potential. Resource-level optimized pit shell and corresponding open-pit cut-off grade are then used for open pit resources statement. The remaining mineralized material (out pit) was then flagged for its underground potential. For the underground potential resources, a manual selection of contiguous blocks (isolated blocks removed and discarded) was completed in order to address the reasonable prospect for an eventual economical extraction.

#### 14.14 Mineral Resource Estimate

The Authors are of the opinion that the 2021 MRE can be classified as Indicated and Inferred mineral resources based on geological and grade continuity, data density, search ellipse criteria, drill hole spacing and interpolation parameters. The Authors are of the opinion that the reasonable prospect for an eventual economical extraction requirement is met by having a minimum width for the modelling of the mineralized structures and with a cut-off grade that using reasonable input, both for a potential underground extraction scenario.



**Figure 14.7 Isometric (A) and plan view (B) showing the classified mineral resources of the Swanson Project**

The 2021 MRE is considered to be reliable and based on quality data and geological knowledge. The mineral resource estimate follows CIM Definition Standards.

Table 14.10 display the results of the combined resources (in-pit and underground) for the Swanson Project at the selected cut-off grades (0.75 g/t Au for the in-pit resources and 2.40 g/t Au for the underground resource).



**Table 14.10 – 2021 Swanson Project Mineral Resource Estimate for a combined open pit and underground scenario**

Area (CoG)	Indicated Resource			Inferred Resource		
	Tonnes (t)	Grade Au (g/t)	Ounces Au	Tonnes (t)	Grade Au (g/t)	Ounces Au
In-Pit (0.75 g/t Au)	1,864,000	1.76	105,400	29,000	2.46	2,300
Underground (2.40 g/t Au)	91,000	2.86	8,400	87,000	2.87	8,000
<b>TOTAL</b>	<b>1,945,000</b>	<b>1.82</b>	<b>113,800</b>	<b>116,000</b>	<b>2.76</b>	<b>10,300</b>

Notes to Accompany Mineral Resource Table:

- (1) The independent and qualified persons for the mineral resource estimate, as defined by NI 43-101, are Christine Beausoleil, P.Geo. and Alain Carrier, P.Geo. (InnovExplo), and the effective date of the estimate is January 22, 2021.
- (2) These mineral resources are not mineral reserves as they do not have demonstrated economic viability.
- (3) The mineral resource estimate follows 2014 CIM definitions and guidelines for mineral resources.
- (4) Results are presented in situ and undiluted and considered to have reasonable prospects for economic extraction.
- (5) The estimation encompasses four zones with a minimum true thickness of 2.5 m using the grade of the adjacent material when assayed or a value of zero when not assayed.
- (6) High-grade capping of 15 g/t Au (4 g/t Au for the dilution envelope) was applied to assay grades prior to compositing grade for interpolation using an OK interpolation method based on 1.5 m composite and block size of 3 m x 3 m x 3 m, with bulk density values applied by lithology (g/cm<sup>3</sup>): I2 = 2.78; I4O, V3, V4 = 2.90, and OVB = 1.5.
- (7) The estimate is reported for potential scenario combining open pit and underground at CoG of 0.75 g/t Au (open pit) and 2.40 g/t Au (underground), using a gold price of USD2,160/oz, a CAD:USD exchange rate of 1.34, and the following parameters (CAD): (a) Open pit scenario: mining cost \$4.94/t; processing cost \$40.00/t; G&A \$4.00/t, pit slope of 50°; (b) Underground scenario (CAD): mining cost \$90.00/t; processing cost \$50.00/t; G&A \$10.00/t. The cut-off grades should be re-evaluated in light of future prevailing market conditions (metal prices, exchange rate, mining cost, etc.)
- (8) The number of metric tons was rounded to the nearest hundred and the metal contents are presented in troy ounces (tonne x grade / 31.10348).
- (9) InnovExplo is not aware of any known environmental, permitting, legal, title-related, taxation, socio-political or marketing issues, or any other relevant issue not reported in this Technical Report that could materially affect the mineral resource estimate.

Table 14.11 and Table 14.12 display the sensitivity of the 2021 MRE at different cut-off grades for the open pit and underground portions for the same pit shell scenario. The reader should be cautioned that the figures provided in Table 14.11 and Table 14.12 should not be interpreted as a mineral resource statement. The reported quantities and grade estimates at different cut-off grades are presented with the sole purpose of demonstrating the sensitivity of the resource model to the selection of a reporting cut-off grade.

**Table 14.11 – Sensitivity analysis for the open pit portion**

CoG (g/t Au)	Indicated Resources			Inferred Resources		
	Tonnes (t)	Grade Au (g/t)	Ounces Au	Tonnes (t)	Grade Au (g/t)	Ounces Au
> 0.60	2,051,000	1.66	109,505	31,000	2.32	2,314
> 0.70	1,927,000	1.73	106,895	30,000	2.37	2,290
<b>&gt; 0.75</b>	<b>1,864,000</b>	<b>1.76</b>	<b>105,442</b>	<b>29,000</b>	<b>2.46</b>	<b>2,291</b>
> 0.80	1,800,000	1.79	103,855	28,000	2.52	2,268
> 0.90	1,672,000	1.87	100,331	27,000	2.59	2,248
> 1.00	1,545,000	1.94	96,476	26,000	2.67	2,229

**Table 14.12 – Sensitivity analysis for the underground portion**

CoG (g/t Au)	Indicated Resources			Inferred Resources		
	Tonnes (t)	Grade Au (g/t)	Ounces Au	Tonnes (t)	Grade Au (g/t)	Ounces Au
> 2.0	91,000	2.86	8,358	87,000	2.87	8,036
<b>&gt; 2.4</b>	<b>91,000</b>	<b>2.86</b>	<b>8,358</b>	<b>87,000</b>	<b>2.87</b>	<b>8,036</b>
> 2.5	74,000	2.95	7,016	71,000	2.97	6,782
> 2.7	47,000	3.15	4,757	52,000	3.11	5,200
> 3.0	25,000	3.43	2,761	26,000	3.42	2,859
> 4.0	2,000	4.67	300	3,000	4.56	440

**15. MINERAL RESERVE ESTIMATE**

Not applicable at the current stage of the Project.

**16. MINING METHODS**

Not applicable at the current stage of the Project.

**17. RECOVERY METHOD**

Not applicable at the current stage of the Project.

**18. PROJECT INFRASTRUCTURE**

Not applicable at the current stage of the Project.

**19. MARKET STUDIES AND CONTRACTS**

Not applicable at the current stage of the Project.

**20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

Not applicable at the current stage of the Project.

**21. CAPITAL AND OPERATING COSTS**

Not applicable at the current stage of the Project.

**22. ECONOMIC ANALYSIS**

Not applicable at the current stage of the Project.

## 23. ADJACENT PROPERTIES

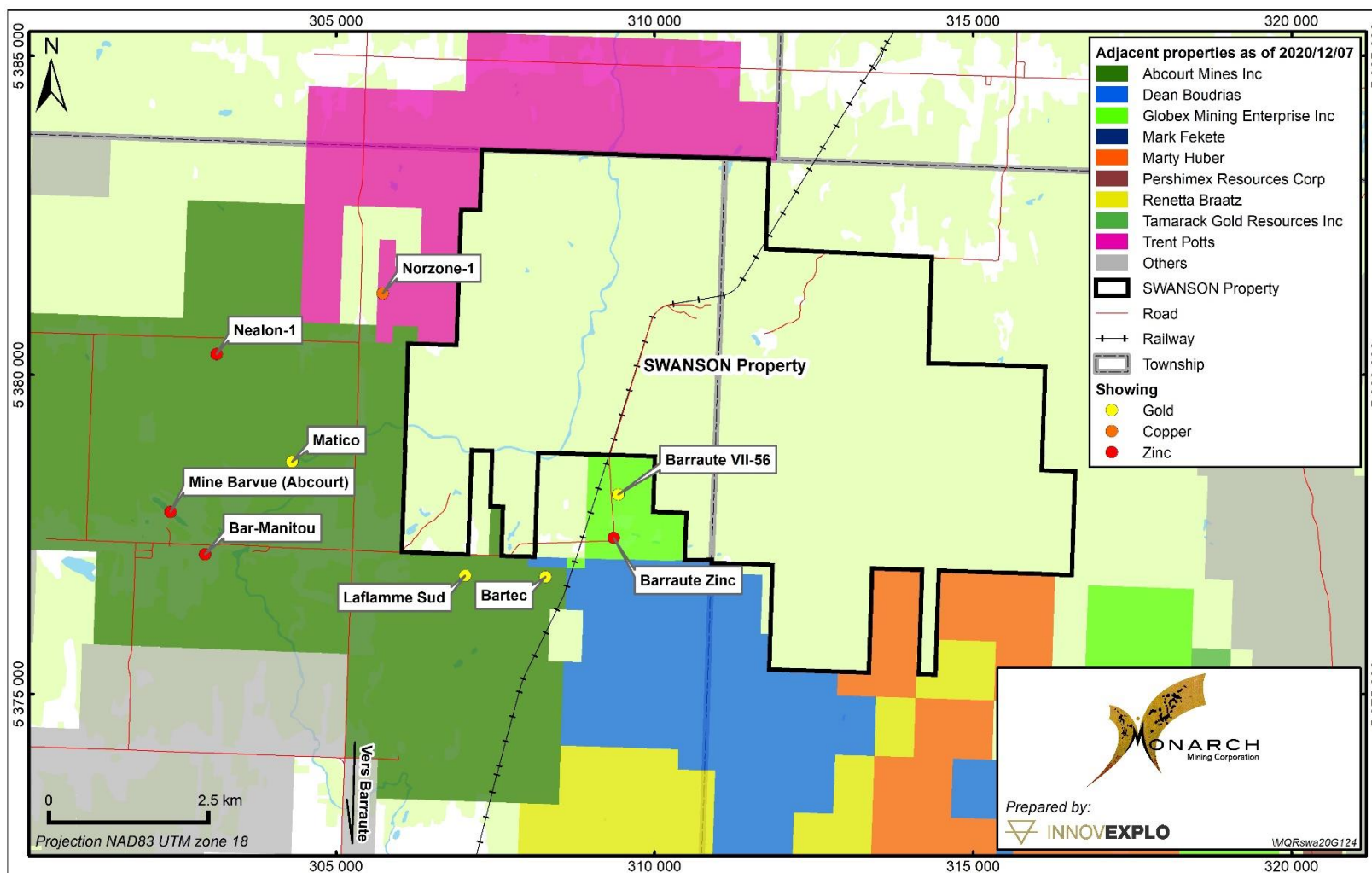
As at the effective date of the Technical Report, the on-line GESTIM claims database shows that the Property is bordered by several properties under different ownership (Figure 23.1). The information on adjacent properties has been obtained from the public domain but has not been verified by InnovExplo. Nearby mineralized occurrences are not necessarily indicative that the Property hosts similar types of mineralization.

The most significant nearby mineral occurrence is the Abcourt-Barvue Ag-Zn deposit (Abcourt Mines Inc.), which is located approximately 9.5 km WSW from the Project. Mineralization was discovered at surface on the Barvue claims in 1950. The mine was operated as an open pit from 1952 to 1957 by Barvue Mines Limited and from 1985 to 1990 as an underground operation by Abcourt Mines. Total past production is 5.6 Mt grading 49.2 g/t Ag and 3.2% Zn.

Bérubé (2014) calculated a total measured and indicated resource of 8,086,000 t grading 55.38 g/t Ag and 3.06 % Zn.

Table 23.1 presents a summary of the mineralized occurrences for the adjacent properties.

As at the effective date of the Technical Report, the Authors are not aware of any active exploration activities in the immediate area of the Property relevant to the 2021 MRE.



**Figure 23.1 – Adjacent properties and mineralized occurrences**

**Table 23.1 – Mineralized occurrences adjacent to the Project**

Mineralized occurrence	Mineralization	Notes (SIGEOM)
Norzone-1	Cu-Au-Ag-Zn	Massive sulphide mineralization hosted by a tuff horizon locally cherty and graphitic within an andesite flow. Best drill results include DDH CB-8: 1.14 % Cu, 14.57 g/t Ag over 0.2 m at 166.3 m; and 0.31 % Zn over 0.2 m at 183.1 m. As well as drill hole CB-10: 34.97 g/t Ag over 0.6 m at 59.9 m; 2.06 g/t Au and 1.37 g/t Ag over 0.4 m at 64 m.
Nealon-1	Zn-Cu-Ag	Similar geological context to Norzone-1, best drill results include DDH C-7 : 5.3 % Zn, 8.57 g/t Ag over 1.5 m ; DDH C-9 : 4.1 % Zn over 7.1 m ; and C-21 : 2.59 % Zn, 1.25 % Cu, 65.15 g/t Ag over 6.1 m.
Matico	Au-Mo-Ag ( $\pm$ Cu)	Mineralization discovered by drilling consisting of quartz veins injected into a diorite. Best drill results were: DDH M.4 : 1.37 g/t Au and 39.1 g/t Ag over 1.8 m at 415.7 m ; 0.15 % Cu over 0.5 m at 79.4 m ; DDH M.3 : 10.3 g/t Ag over 1.5 m at 283.5 m ; 8.3 g/t Ag over 1.5 m at 137.2 m ; DDH 83-A : 0.2 % Mo et 0.5 g/t Ag sur 0.6 m à 140.7 m.
Bar-Manitou	Zn-Ag-Pb	Massive volcanogenic sulphide mineralization. Examples of best drill results are as follows: DDH AB 07-02 : 2.7 % Zn and 29 g/t Ag over 6 m; DDH B-3 : 3.6 % Zn and 48.7 g/t Ag over 2.7 m; DDH B-4 : 1.5 % Zn and 69.6 g/t Ag over 7.6 m; DDH B-5 : 3.5 % Zn and 64.1 g/t Ag over 0.9 m; DDH B-8 : 1.3 % Zn and 43.2 g/t Ag over 7.6 m; DDH B-10 : 1.7 % Zn and 17.5 g/t Ag over 6.4 m; DDH B-11 : 4.9 % Zn , 465 g/t Ag and 2.2 % Pb over 1.2 m; DDH B-12 : 1.6 % Zn and 35 g/t Ag over 7.6 m; B-20 : 2.6 % Zn and 120 g/t Ag over 3 m; DDH B-21 : 6 % Zn and 34.3 g/t Ag over 0.9 m; B-24 : 2.8 % Zn and 74 g/t Ag over 6.1 m.
Laflamme Sud	Au-Cu	Mesothermal gold vein. Examples of best drill results are as follows: DDH 86-2 : 2936 ppb Au over 0.3 m at 66.9 m ; DDH 86-3: 1064 ppb Au over 0.7 m at 305.1 m ; DDH 86-4 : 2881 ppb Au over 0.3 m at 80.9 m ; DDH 86-10: 3325 ppb Au over 0.3 m at 59.7 m ; DDH 86-12: 5.97 g/t Au over 0.3 m and DDH 86-16 : 1039 ppb au sur 1.7 m à 45.6 m.
Bartec	Au-Ag ( $\pm$ Cu)	Mesothermal gold vein. Examples of best drill results include DDH 3: 2.4 g/t Au over 0.7m; DDH 7: 3.4 g/t Au over 1.5 m; DDH 86-1: 11.66 g/t Au and 6.86 g/t Ag over 0.2 m at 110.2 m.
Barraute Zinc	Zn-Pb	Volcanogenic massive sulphide mineralization, best results include DDH BB-06-05, which intercepted 0.78 % Zn and 0.08% Pb over 1.5m.
Barraute VII-56	Au-Mo-Cu	Mesothermal gold vein hosted by syenite intrusion. Best drill results include DDH BB-06-01: 1.34 g/ Au over 1m; DDH BB-06-02: 1.22 g/t Au over 1m and BB-06-03 over 1m.



## **24. OTHER RELEVANT DATA AND INFORMATION**

All relevant data and information regarding the Issuer's Swanson Property have been disclosed under the relevant sections of this report.

## 25. INTERPRETATION AND CONCLUSIONS

The objective of InnovExplo's mandate was to provide an updated mineral resource estimate for the Swanson Project using all available and valid information, and updated economic assumptions (i.e., gold price, exchange rate, optimized pit shell, underground constraining volume and cut-off grades for open pit and underground). This Technical Report and the mineral resource estimate presented herein meet these objectives.

InnovExplo created a litho-geological model of the Project using all available geological and analytical information. In order to conduct accurate resource modelling of the deposit, InnovExplo based its mineralized-zone wireframe model on the drill hole database and the Authors' knowledge of local geology. A total of four (4) mineralized zones were modelled into four (4) solids combined with one dilution envelope using the vein modelling module in Leapfrog from an automatic interval selection based on the intercepts field. The interval selection was locally manually adjusted to ensure spatial coherence and continuity in 3D. The interpolation of the mineralized zones was constrained by the wireframes.

The Authors conclude the following after conducting a detailed review of all pertinent information and completing the 2021 MRE:

- Geological and grade continuity were demonstrated for the four (4) gold-bearing zones of the Swanson Project;
- The recent and historical drill holes provided sufficient information to complete the 2021 MRE;
- The estimated results are reported for combined open pit and underground scenarios;
- The total Indicated Resources stand at 113,800 ounces of gold (105,400 oz in-pit, 8,400 oz underground) corresponding to a total of 1,945,000 t at 1.82 g/t Au;
- The total Inferred Resources stand at 10,300 ounces of gold (2,300 oz in-pit, 8,000 oz underground) corresponding to a total of 116,000 t at 2.76 g/t Au;
- It is likely that additional diamond drilling at depth would increase the Inferred Resource tonnage and upgrade some of the Inferred Resources to the Indicated category;
- There is also the potential for upgrading resource categories through infill drilling with strict QA/QC protocols and by twinning historical drill holes to corroborate and validate historic results.

The Authors believe there are opportunities to add additional resources to the Project:

- Target 1: zones 1, -2 and -4 may continue at depth along their north-dipping projections. Currently, the deeper north side of the deposit is fairly open;
- Target 2: the northeast area can also be considered open with only one hole located 80 m to the east, beyond the mineralized zones;
- Target 3: zones 1, -2 and -4 may continue on the western side of the deposit, at depths from 120 to 250 m.

Table 25.1 identifies the significant internal risks, potential impacts and possible risk mitigation measures that could affect the economic outcome of the Project. The list does not include the external risks that apply to all mining projects (e.g., changes in metal prices, exchange rates, availability of investment capital, change in government regulations, etc.). Significant opportunities that could improve the economics, timing and permitting of the Project are identified in Table 25.2. Further information and studies are required before these opportunities can be included in the Project economics.

**Table 25.1 – Risks for the Swanson Project**

RISK	Potential Impact	Possible Risk Mitigation
Railroad displacement not possible	The full economical potential of the deposit cannot be achieved	Include the railroad owners in the social acceptability program.
Poor social acceptability	Possibility that the Swanson Project could not be explored or exploited.	Develop a pro-active and transparent strategy to identify all stakeholders and develop a communication plan. Organize information sessions, publish information on the mining project, and meet with host communities.
Metallurgical recoveries below expectations	Recovery might differ from what is currently being assumed.	Further variability testing of the deposit to confirm metallurgical conditions and efficiencies.

**Table 25.2 – Opportunities for the Swanson Project**

OPPORTUNITIES	Explanation	Potential benefit
Conduct density tests from core samples	Potential to increase or confirm the bulk density value currently used for the resource estimate.	An increase in bulk density increases the tonnage and therefore the ounces of gold.
Surface definition diamond drilling	Potential to upgrade resource categories.	Adding measured resources increases the economic value of the mining project.
Surface exploration diamond drilling on Target 1, extension at depth	Potential to identify additional inferred/indicated resources.	Adding inferred and/or indicated resources increases the economic value of the mining project.
Surface exploration diamond drilling on Target 2, northeast extension of Zone 2	Potential to identify additional inferred/indicated resources.	Adding inferred and/or indicated resources increases the economic value of the mining project.
Surface exploration diamond drilling on Target 3, western extension of Zone 1, 2 and 4.	Potential to identify additional inferred resources.	Adding inferred resources increases the economic value of the mining project.
Bulk sample	Validate and test the mining and metallurgical assumptions and the resource model	Could potentially advance the project to the next stage - PEA study
Non-acid-generating (NAG) project	Tests made in 2009 indicates that waste, mineralized material and tailing are NAG, Validation is required to ensure that the study is complete, prior to investing more capital.	Potential saving and easier permitting process. Potentially better social acceptability of the project.

The Authors conclude that the 2021 MRE presented herein allows the Swanson Project to advance to the PEA stage following a positive test results of the bulk sample regarding the metallurgy, the mining and the resource model.

The Authors consider the 2021 MRE to be reliable, thorough, based on quality data, reasonable hypotheses, and parameters that conform to NI 43-101 and CIM Definition Standards.

## 26. RECOMMENDATIONS

Based on the results of the 2021 Mineral Resource Estimate, the Authors recommend that the Swanson Project be advanced to the PEA stage.

Accordingly, more work is warranted. Monarch should complete the surface surveying of the 2011 drill holes, three (3) of which are located in the resource area and should also review the correspondence between the local and UTM grids.

Before commencing the PEA study, Monarch should complete a bulk sampling program, including the metallurgical testwork at their own mill. The Issuer should also complete the permitting process, conduct the environmental and hydrogeological studies, commence a trade-off study for the potential displacement of the railroad, and include the Swanson Project in their global social licence management system.

Contingent upon positive results from the bulk sampling program, a diamond drilling campaign should test the lateral and depth extensions of the deposit and update the mineral resource estimate which will provide the foundation for the PEA. Monarch should establish a thorough QA/QC protocol for the diamond drilling program, and it is recommended that all new core and pulp witness samples be properly stored.

In summary, the Authors recommend a two-phase work program as follows:

- Phase 1 – Bulk Sampling:
  - Complete the documentation for permitting the surface bulk sample (approximately 20,000 t);
  - Environmental and hydrogeological characterization testing;
  - Social licence management;
  - Initiate railroad displacement trade-off study;
  - Bulk sample and metallurgical testing; and
  - Bulk sample reconciliation and resource block model calibration.
- Phase 2 – Diamond Drilling and Preliminary Economic Assessment (PEA):
  - Delineation drilling program, potential upgrade and addition of resources by testing lateral and depth continuities;
  - Update the mineral resource estimate; and
  - PEA study and updated NI 43-101 technical report.

The Authors have prepared a cost estimate for the recommended two-phase work program to serve as a guideline for the Project. The budget for the proposed program is presented in Table 26.1. Expenditures for Phase 1 are estimated at C\$1,518,000 (incl. 15% for contingencies). Expenditures for Phase 2 are estimated at C\$1,322,500 (incl. 15% for contingencies). The grand total is C\$2,840,500 (incl. 15% for contingencies). Phase 2 is contingent upon the success of Phase 1.

**Table 26.1 – Estimated costs for the recommended work program**

<b>Phase I - Work Program</b>		<b>Budget (\$)</b>
1	Complete the documentation process for permitting the surface bulk sample	70,000
2	Environmental and hydrogeological characterization testing	50,000
3	Social licence management	50,000
4	Initiate railroad displacement trade-off study	50,000
5	Bulk sample and metallurgical testing	1,000,000
5	Bulk sample reconciliation and BM calibration	100,000
	<b>Sub-total</b>	<b>1,320,000</b>
	<b>Contingency (15%)</b>	<b>198,000</b>
	<b>Total</b>	<b>1,518,000</b>
<b>Phase II - Work Program</b>		<b>Budget (\$)</b>
6	Delineation drilling program (potentially upgrade and add resources)	770,000
7	Mineral resource update	80,000
8	PEA	300,000
	<b>Sub-total</b>	<b>1,150,000</b>
	<b>Contingency (15%)</b>	<b>172,500</b>
	<b>Total</b>	<b>1,322,500</b>
	<b>Total Phase I + II</b>	<b>2,840,500</b>

The Authors are of the opinion that the recommended two-phase work program and proposed expenditures are appropriate and well thought out, and that the character of the Project is of sufficient merit to justify the recommended program. The Authors believe that the proposed budget reasonably reflects the type and amount of the contemplated activities.



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## **APPENDIX I : MINING TITLES SUMMARY — SWANSON PROPERTY**



Title ID	Title type	Status	Area (ha)	Emission date	Expiration date	Credit (\$)	Required work (\$)	Owner	Royalty
885	BM	Active	93.01	2011-07-20	2031-07-19	0	0	Corporation Aurifère Monarques 100 %	2% International Royalty Corporation
12035	CDC	Active	43.11	2004-01-29	2023-01-28	0	2500	Corporation Aurifère Monarques 100 %	
12036	CDC	Active	42.85	2004-01-29	2023-01-28	0	2500	Corporation Aurifère Monarques 100 %	
1036867	CDC	Active	25.91	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036868	CDC	Active	41.03	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036869	CDC	Active	40.9	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036870	CDC	Active	41.06	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036871	CDC	Active	41.17	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036872	CDC	Active	41.37	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036873	CDC	Active	41.43	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036874	CDC	Active	41.57	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036875	CDC	Active	41.68	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036876	CDC	Active	41.82	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036877	CDC	Active	41.93	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036878	CDC	Active	42.04	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036879	CDC	Active	42.13	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036880	CDC	Active	42.21	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036881	CDC	Active	42.26	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036884	CDC	Active	45.83	2001-11-13	2022-01-16	0	2500	Corporation Aurifère Monarques 100 %	
1036885	CDC	Active	45.54	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036886	CDC	Active	45.28	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036887	CDC	Active	45.04	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036888	CDC	Active	44.81	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1036889	CDC	Active	44.6	2001-11-13	2022-11-12	0	2500	Corporation Aurifère Monarques 100 %	
1100595	CDC	Active	31.95	2002-08-27	2022-10-30	0	2500	Corporation Aurifère Monarques 100 %	

2016662	CDC	Active	42.56	2006-06-16	2023-06-15	0	2500	Corporation Aurifère Monarques 100 %	
2016663	CDC	Active	42.56	2006-06-16	2023-06-15	0	2500	Corporation Aurifère Monarques 100 %	
2016664	CDC	Active	42.56	2006-06-16	2023-06-15	0	2500	Corporation Aurifère Monarques 100 %	
2016665	CDC	Active	42.55	2006-06-16	2023-06-15	0	2500	Corporation Aurifère Monarques 100 %	
2016666	CDC	Active	42.55	2006-06-16	2023-06-15	0	2500	Corporation Aurifère Monarques 100 %	
2016667	CDC	Active	42.55	2006-06-16	2023-06-15	0	2500	Corporation Aurifère Monarques 100 %	
2016689	CDC	Active	26.93	2006-06-16	2023-06-15	0	2500	Corporation Aurifère Monarques 100 %	
2036704	CDC	Active	42.74	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036705	CDC	Active	42.75	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036706	CDC	Active	42.76	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036707	CDC	Active	42.76	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036708	CDC	Active	41.55	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036709	CDC	Active	26.55	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036710	CDC	Active	42.78	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036711	CDC	Active	42.81	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036712	CDC	Active	42.8	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2036713	CDC	Active	43.37	2006-12-01	2023-11-30	0	2500	Corporation Aurifère Monarques 100 %	
2156194	CDC	Active	44.18	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156196	CDC	Active	43.97	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156198	CDC	Active	43.76	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156200	CDC	Active	43.53	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156202	CDC	Active	23.38	2008-05-29	2023-05-28	0	1000	Corporation Aurifère Monarques 100 %	
2156204	CDC	Active	36.62	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156206	CDC	Active	36.56	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156208	CDC	Active	37.95	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156210	CDC	Active	37.94	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156212	CDC	Active	37.93	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	

2156214	CDC	Active	37.98	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156216	CDC	Active	37.86	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156218	CDC	Active	37.89	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156220	CDC	Active	38.01	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156222	CDC	Active	38.02	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156224	CDC	Active	38.01	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156226	CDC	Active	37.97	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156227	CDC	Active	37.91	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156229	CDC	Active	37.91	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156231	CDC	Active	37.92	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156233	CDC	Active	37.82	2008-05-29	2023-05-28	0	2500	Corporation Aurifère Monarques 100 %	
2156235	CDC	Active	23.88	2008-05-29	2023-05-28	0	1000	Corporation Aurifère Monarques 100 %	
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2169836	CDC	Active	42.79	2008-08-11	2021-08-10	0	1800	Corporation Aurifère Monarques 100 %	
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2169838	CDC	Active	42.76	2008-08-11	2021-08-10	7251.64	1800	Corporation Aurifère Monarques 100 %	
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2169850	CDC	Active	42.54	2008-08-11	2021-08-10	0	1800	Corporation Aurifère Monarques 100 %	
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2243389	CDC	Active	42.5	2010-07-28	2021-07-27	0	1800	Corporation Aurifère Monarques 100 %	
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2243393	CDC	Active	42.52	2010-07-28	2021-07-27	0	1800	Corporation Aurifère Monarques 100 %	
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2245702	CDC	Active	42.41	2010-08-13	2021-08-12	0	1800	Corporation Aurifère Monarques 100 %	
2245703	CDC	Active	42.42	2010-08-13	2021-08-12	0	1800	Corporation Aurifère Monarques 100 %	
2245706	CDC	Active	42.41	2010-08-13	2021-08-12	0	1800	Corporation Aurifère Monarques 100 %	
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2348793	CDC	Active	57.02	2012-06-12	2023-05-10	182130.73	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
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2348795	CDC	Active	57.02	2012-06-12	2023-05-10	161980.73	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348796	CDC	Active	57.02	2012-06-12	2023-05-10	145990.73	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation

									Corporation
2348797	CDC	Active	57.02	2012-06-12	2023-05-10	134713.23	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348798	CDC	Active	57.01	2012-06-12	2023-05-10	152737.78	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348799	CDC	Active	57.01	2012-06-12	2023-05-10	182097.78	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
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2348804	CDC	Active	3.58	2012-06-12	2023-05-10	9496.09	1000	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348805	CDC	Active	3.6	2012-06-12	2023-05-10	9562	1000	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348806	CDC	Active	3.48	2012-06-12	2023-05-10	9166.6	1000	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348807	CDC	Active	48.9	2012-06-12	2023-05-10	6631.84	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
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2348810	CDC	Active	39.72	2012-06-12	2023-05-10	95007.49	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348811	CDC	Active	38.07	2012-06-12	2023-05-10	92770.41	2500	Corporation Aurifère Monarques 100 %	
2348812	CDC	Active	40.27	2012-06-12	2023-05-10	121939.54	2500	Corporation Aurifère Monarques 100 %	2% International Royalty Corporation
2348813	CDC	Active	57.01	2012-06-12	2023-05-10	90002.62	2500	Corporation Aurifère Monarques 100 %	1% International Royalty

									Corporation
2348814	CDC	Active	27.64	2012-06-12	2023-05-10	85323.72	2500	Corporation Aurifère Monarques 100 %	2% International Royalty Corporation
2348815	CDC	Active	9.41	2012-06-12	2023-05-10	28705.92	1000	Corporation Aurifère Monarques 100 %	2% International Royalty Corporation
2348816	CDC	Active	0.32	2012-06-12	2023-05-10	0	1000	Corporation Aurifère Monarques 100 %	
2348817	CDC	Active	40.8	2012-06-12	2023-05-10	39726.91	2500	Corporation Aurifère Monarques 100 %	
2348818	CDC	Active	26.03	2012-06-12	2023-05-10	80018.77	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348819	CDC	Active	26.06	2012-06-12	2023-05-10	80117.62	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348820	CDC	Active	25.91	2012-06-12	2023-05-10	79623.37	2500	Corporation Aurifère Monarques 100 %	1% International Royalty Corporation
2348821	CDC	Active	25.98	2012-06-12	2023-05-10	79854.02	2500	Corporation Aurifère Monarques 100 %	2% International Royalty Corporation
2348822	CDC	Active	26.1	2012-06-12	2023-05-10	80249.42	2500	Corporation Aurifère Monarques 100 %	2% International Royalty Corporation
2348823	CDC	Active	25.14	2012-06-12	2023-05-10	77086.23	2500	Corporation Aurifère Monarques 100 %	2% International Royalty Corporation