Balmoral Resources Ltd.

# 2018 TECHNICAL (N.I. 43-101) REPORT ON THE MARTINIÈRE PROPERTY

Located in Lanouillier, La Martinière, La Peltrie and Martigny Townships, Québec NTS 32L/02 and 32L/03 50° 02' N Latitude; 79° 02' W Longitude

-prepared for-

## BALMORAL RESOURCES LTD.

Suite 1750-700 West Pender St Vancouver, British Columbia, Canada V6C 1G8

-prepared by-

Ronald Voordouw, P.Geo., Ph.D.

### EQUITY EXPLORATION CONSULTANTS LTD.

1510-250 Howe Street Vancouver, British Columbia, Canada V6C 3R8

and

Marc Jutras, P.Eng., M.A.Sc.

GINTO CONSULTING INC.

333 West 17<sup>th</sup> Street North Vancouver, British Columbia, Canada V7M 1V9

Effective Date: March 27, 2018

EQUITY

# TABLE OF CONTENTS

TABLE OF CONTENTS	1
LIST OF APPENDICES	2
LIST OF TABLES	3
LIST OF FIGURES	4
LIST OF PLATES	4
1.0 SUMMARY	6
2.0 INTRODUCTION	8
3.0 RELIANCE ON OTHER EXPERTS	8
4.0 PROPERTY DESCRIPTION AND LOCATION	8
5.0 ACCESSIBILITY, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY, CLIMATE	1
5.1 Accessibility	1
5.2 Local Resources and Infrastructure1	1
5.3 Physiography and Climate1	2
6.0 HISTORY	
7.0 GEOLOGICAL SETTING AND MINERALIZATION	5
7.1 Regional Geology1	5
7.2 Local Geology and Mineralization1	6
7.3 Property Geology1	7
7.1 Property Mineralization	1
7.1.1 Gold mineralization	1
7.1.2 Volcanogenic Massive Sulphide (VMS)	5
8.0 DEPOSIT TYPES	6
9.0 EXPLORATION	7
9.1 Soil Geochemistry Surveys	7
9.2 Airborne Geophysics	9
9.3 Induced Polarization (IP) Surveys	0
9.4 Horizontal Loop Electromagnetic (HLEM) Surveys	2
10.0 DRILLING	
10.1 Standard Operating Procedures	3
10.22011 Drilling Program	7
10.3 2012 Drilling Program	8
10.42013 Drilling Program	0
10.52014 Drilling Program	1
10.6 2015 Drilling Program	2
10.7 2016 Drilling Program	3
10.82017 Drilling Program	
11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY	
11.1 Core Handling and Security4	
11.2 Analytical Techniques	
11.3 Analytical Quality Assurance / Quality Control4	
12.0 DATA VERIFICATION	
13.0 MINERAL PROCESSING AND METALLURGICAL TESTING	
13.12012 and 2013 ALS Metallurgy Kamloops5	
13.22014 SGS Minerals Services5	
13.32015 Blue Coast	4

1

EQUITY -

	2
14.0 MINERAL RESOURCE ESTIMATES	56
14.1 Drill Hole Data	56
14.1.1 Drill hole data statistics	56
14.1.2 Location, orientation and spacing of drill holes	57
14.2 Geologic Modeling	59
14.2.1 Geologic rock codes	61
14.3 Compositing	63
14.4 Exploratory Data Analysis (EDA)	64
14.4.1 Univariate statistics	64
14.4.2 Capping of high-grade outliers	66
14.4.3 Declustering	70
14.5 Variography	70
14.6 Gold Grade Estimation	72
14.7 Validation of Grade Estimates	75
14.7.1 Visual inspection	75
14.7.2 Global bias test	75
14.7.3 Local bias test	77
14.7.4 Grade profile reproducibility	77
14.8 Resource Classification	
14.9 Mineral Resource Calculation	78
14.9.1 Topographic surface	
14.9.2 Overburden	79
14.9.3 Specific gravity	79
14.9.4 Mineral Resource Constraint	
15.0 ADJACENT PROPERTIES	
16.0 OTHER RELEVANT DATA AND INFORMATION	
17.0 INTERPRETATION AND CONCLUSIONS	
17.1 Property, Accessibility, Local Resources and Climate	
17.2 Geological Setting and Deposit Types	
17.3 Property Mineralization, Exploration and Diamond Drilling	
17.4 Core Assay Methods and QA/QC	
17.5 Metallurgical Testwork	
17.6 Resource Estimate	
17.7 Concluding statement	
18.0 RECOMMENDATIONS	
18.1 Program	
18.2 Budget	87

## LIST OF APPENDICES

Appendix A: References Appendix B: Claim data Appendix C: Drill hole collar location, orientation and length Appendix D: Qualified Persons' certificates



# LIST OF TABLES

Table 1-1 Mineral resource statement for the Martinière Gold System <sup>1, 2, 3</sup> , effective March 27, 2018	7
Table 6-1: Summary of historical work on Martinière Property	13
Table 7-1: Stratigraphic assemblages of the Abitibi Subprovince	16
Table 7-2: Mean abundance for selected elements in VMS units on the Martinière Property	
Table 9-1: Balmoral's exploration production on the Martinière Property	27
Table 10-1: Overview of drill hole distribution among targets on the Martinière Property	33
Table 10-2: Intersections >50 g/t Au * m from 2011 drilling on the Martinière Property	37
Table 10-3: Intersections >50 (MDE, MDW) and >10 (MDX, ME-23) g/t Au * m from 2012 drilling at Mart	inière 39
Table 10-4: Intersections >50 g/t Au * m (MDE, MDW) and >10 g/t Au * m (MDX) from 2013 drilling at Mart	
Table 10-5: Intersections >50 g/t Au * m (MDE) and >5 g/t Au * m (MDX) from 2014 drilling at Martinière	42
Table 10-6: Intersections >50 g/t Au * m (MDE) and >5 g/t Au * m (MDX) from 2015 drilling at Martinière	43
Table 10-7: Intersections >50 g/t Au * m (MDE) and >5 g/t Au * m (MDX) from 2016 drilling at Martinière	44
Table 10-8: Intersections >50 g/t Au * m (MDE) and >5 g/t Au * m (MDX) from 2017 drilling at Martinière	46
Table 11-1: Overview of core and QA/QC sampling by Balmoral on the Martinière Property	47
Table 12-1: Summary of core review done as part of 2018 site visit	51
Table 13-1: Results of SGS 2014 metallurgical testwork (from DiLauro and Dymov, 2014)	
Table 13-2: Flotation metallurgical balance summary	
Table 13-3: Metallurgical balance from separate concentrate and tails leach option (from Martin, 2015)	
Table 14-1: Statistics on the Balmoral's drill hole database	
Table 14-2: Statistics on gold grades of original samples from the Martinière West and Bug Lake trends.	
Table 14-3: Drill hole spacing statistics	
Table 14-4: Rock codes for the Bug Deposit	
Table 14-5: Rock codes for the Martinière West Deposit	
Table 14-6. Drill hole composite summary for the Bug and Martinière West deposits	
Table 14-7: List of capping thresholds for higher gold grade outliers at Martinière	
Table 14-8: Modeled variogram parameters for gold composites from the North Zone	
Table 14-9: Modeled variogram parameters for gold composites from the Lower Steep Zone	
Table 14-10: Modeled variogram parameters for gold composites from the South Zone	
Table 14-11: Modeled variogram parameters for gold composites from the Martinière West Deposit	
Table 14-12: Block grid definition for the Bug Deposit	
Table 14-13: Block grid definition for the Martinière West Deposit	
Table 14-14: Estimation parameters for gold used for the Martinière Project	
Table 14-15: Average gold grade comparison between polygonal-declustered composites and block estir for the Bug Lake and Martinière West trends	
Table 14-16: Gold grade comparison for blocks pierced by a drill hole between paired composite grade block grade estimates for the Bug and Martinière West deposits	
Table 14-17: Classification distances for the Martinière Project	78
Table 14-18: Specific gravity values used for the Martinière Project	
Table 14-19: Mineral resource constraining parameters	
Table 14-20: Estimate mineral resources for the Martinière Project, effective March 27, 2018	
Table 14.21: Mineral resources for the Bug Deposit, effective March 27, 2018	
Table 14.22: Mineral resources for the Martinière West Deposit, effective March 27, 2018	
Table 18-1: Outline of recommended work program for 2018	87

3

EQUITY -

# LIST OF FIGURES

Finance 4.4. La settion means of the Mantinibus Draw antesia Osythese	~
Figure 4-1: Location map of the Martinière Property in Québec	
Figure 4-2: Tenure map for the Martinière Property	
Figure 5-1: Area infrastructure surrounding the Martinière Property	
Figure 7-1: Regional geology of the Abitibi Subprovince (from Thurston et al., 2008)	
Figure 7-2: Local geology of the Martinière Property (modified from MRN, 2007a, b)	
Figure 7-3: Geology of the Martinière Property (modified from MRN, 2007a, b)	. 18
Figure 7-4: Level plan geology for the Bug Lake and Martinière West trends at 225 m above sea level	. 19
Figure 7-5: Section A-A' through the North and Lower Steep zones of the Bug Deposit	. 22
Figure 7-6: Section B-B' through the South Zone of the Bug Deposit	. 23
Figure 9-1: Locations of soil samples and ground geophysical grids on the Martinière Property	. 28
Figure 9-2: Magnetic total horizontal gradient map for the Martinière Property	. 29
Figure 9-3: VTEM B-Field Z component channel 36 map for the Martinière Property	. 30
Figure 9-4: Modeled chargeability at 200 m depth slice from the 2011 and 2013 IP surveys	. 31
Figure 10-1: Drill collars and traces on the Martinière West Trend	. 34
Figure 10-2: Drill collars and traces on the Bug Lake Trend	
Figure 11-1: Shewhart control chart showing Z-scores for all CRM analyzed as part of the Martinière Proje	
49	
Figure 11-2: Scatter plots of (a, b) core duplicates for gold ranges of (a) 0-80 g/t Au and (b) 0-5 g/t Au, and	d (c,
d) coarse crush duplicates for the same ranges.	. 50
Figure 13-1: Proposed flotation and cyanidation flowsheet for the Bug Composite	. 55
Figure 14-1: Drill hole location map for the Bug Lake and Martinière West trends	. 58
Figure 14-2: Stereonets showing drill hole orientations on the (left) Bug Lake and (right) Martinière West	
trends	. 59
Figure 14-3: Plan view of modelled mineralized zones of the Bug and Martinière West deposits	. 60
Figure 14-4: Perspective view of the mineralized zones comprising the Bug Deposit	. 60
Figure 14-5: Perspective view of mineralized zones comprising the Martinière West Deposit	. 61
Figure 14-6: Plan view of topographic surface and overburden at Martinière	. 63
Figure 14-7: Basic gold statistics of 1.0 m composites from the North Zone	. 64
Figure 14-8. Basic gold statistics of 1.0 m composites from the Lower Steep Zone	. 65
Figure 14-9: Basic gold statistics of 1.0 m composites from the South Zone.	. 65
Figure 14-10: Basic gold statistics of 1.0 m composites from the Martinière West Deposit	. 66
Figure 14-11: Basic gold statistics of 1.0 m capped composites from the North Zone	. 68
Figure 14-12: Basic gold statistics of 1.0 m capped composites from the Lower Steep Zone	. 68
Figure 14-13: Basic gold statistics of 1.0 m capped composites from the South Zone	
Figure 14-14: Basic gold statistics of 1.0 m capped composites from the Martinière West Deposit	
Figure 14-15: Plan view of block model limits for the Bug (blue) and Martinière West (red) deposits	
Figure 14-16: Gold block grade estimates and drill hole grades for (a) section 26 through the North Zone,	
looking northwest, (b) section 25 through the Lower Steep Zone, looking northwest, (c) section 44 through	the
South Zone, looking northwest, and (d) section 29 through the Martinière West Deposit, looking northeast.	
Figure 14-17: Gold grade profiles of declustered composites and block estimates for the (a) Bug and (b)	
Martinière West deposits.	. 78
Figure 14-18: Plan view of optimized open pits on the Bug and Martinière West deposits	. 80

# LIST OF PLATES

Plate 1: Core photos of selected lithologies from the Martinière Property.	. 20
Plate 2: Core photos of the Bug (A-E) and Martinière West (F-H) deposits	. 24

4

EQUITY -

# LIST OF UNITS AND ABBREVIATIONS

C\$	Canadian dollar	AAS	atomic absorption spectroscopy
°C	degree Celsius	Ag	silver
cm	centimetre (1 cm = $10^{-2}$ m)	Au	gold
g	gram (1 g = 10 <sup>-3</sup> kg)	BLFZ	Bug Lake Fault Zone
g/t	gram per tonne (1 g/t = 1 ppm = 1000 ppb)	dl	detection limit (in geochemical assay)
Ga	billion years ago	EM	electromagnetic
kg	kilogram (1 kg = 1000 g)	FWsz	Footwall Subzone
kg/t	kilograms per tonne	GPS	global positioning system
km	kilometre (1 km = 1000 m)	HWsz	Hanging Wall Subzone
kW	kilowatt (1 kW = 1000 W)	HLEM	horizontal loop electromagnetic
m	metre (1 m = 100 cm)	IP	induced polarization
Ма	million years ago	ICP	inductively coupled plasma (analytical technique)
mm	millimetre (1 mm = 10 <sup>-1</sup> cm)	ISO	International Standards Organization
Moz	million troy ounces	IEC	International Electrotechnical Commission
mV/V	millivolt per volt	LBsz	Lower Bug Subzone
oz	troy ounce (1 oz = 31.10348 grams = 0.0310348 kg)	LDDZ	Lac du Doigt Deformation Zone
ppb	part per billion (1 ppb = $10^{-3}$ ppm = $10^{-3}$ g/t)	MDE	Prefix for drill hole in the Martinière East structural domain
ppm	part per million (1 ppm = 1 g/t = 1000 ppb)	MDW	Prefix for drill hole in the Martinière West structural domain
t	tonne (1 t = 1000 kg)	MDX	Prefix for drill hole on the Martinière Property outside of the East and West structural domains
μm	micron (1 µm = 10 <sup>-3</sup> mm = 10 <sup>-6</sup> m)	MERN	Ministère des énergie et ressources naturelles
US\$	United States dollar	MWSZ	Martinière West shear zone
		NaCN	sodium cyanide
		NAD-83	North American Datum (1983)
		NI 43- 101	National Instrument 43-101
		N.o.	Number of
		NSR	net smelter return
		NTS	National Topographic System
		QA	quality assurance
		QC	quality control
		SLDZ	Sunday Lake Deformation Zone
		UBsz	Upper Bug Subzone
		UTM	Universal Transverse Mercator
		VMS	volcanogenic massive sulphide
		VTEM	Versatile Time Domain Electromagnetics





#### 1.0 SUMMARY

This National Instrument 43-101 report describes bedrock-hosted gold mineralization on Balmoral Resources Ltd ("Balmoral") Martinière Property ("Martinière", or "the Property"). Material changes that require an update of the 05 January 2017 technical report include (1) a maiden resource estimate for the Bug and Martinière West gold deposits published on 27 March 2018, and (2) an additional 27,224.4 metres of drilling completed since January 2017.

The Martinière Property covers 112 contiguous claims (61.7 km<sup>2</sup>) in northwestern Québec and is centered approximately 110 km west of the town of Matagami and 150 km north of Amos. The Property is 100% owned by Balmoral, with 90 of the claims subject to a 2% NSR royalty that is payable to Cyprus Canada Inc. Year-round access is by helicopter, with the nearest year-round road access reaching to within 20 km of the Property and a winter road and trail system providing access from January to April. Several gold and base metal mines are in production in this part of Québec and Ontario, supporting a vibrant infrastructure of mining and exploration services and supplies. Active railway lines and commercial airports are located within 200 km of the Property. The region experiences a continental-style climate, with cold winters and warm summers, and exploration work (including diamond drilling) can be carried out year-round.

The Martinière Property is underlain by the northern-most greenstone belt of the Abitibi Subprovince ("Abitibi"), which hosts numerous economic gold and base metal deposits. This part of the Abitibi is flat, swampy and poorly exposed, so that exploration is mostly done through geophysical surveys and diamond drilling. The Martinière Property contains little outcrop with the first significant gold mineralization intersected by exploration drilling of EM and IP anomalies in 1996. Balmoral acquired the Property in November 2010 and, from 2011-2017, has drilled 133,852 m in 519 diamond drill holes, carried out a property-wide airborne magnetic and VTEM survey, and conducted several ground-based IP, HLEM and soil geochemistry surveys. Drilling, IP and magnetic surveys are the most effective exploration methods for gold mineralization whereas airborne and ground-based EM have been successful in delineating VMS occurrences. Soil sampling surveys appear to be ineffective. From 2011 to 2017, Balmorals work has expanded the historical intercepts on the Property into the Bug and Martinière West gold deposits and identified several additional zones and showings. Collectively, these gold occurrences are referred to as the "Martinière Gold System".

The Martinière Gold System is most likely part of the orogenic class of gold deposits, although possibly exposed at a higher structural level than is typical of orogenic gold systems in the Abitibi. All gold occurrences are structurally controlled and associated with pyrite as well as carbonate-quartz alteration and veins. Balmoral's initial drilling campaigns focussed on the Martinière West and East lithological domains, which are separated by the Bug Lake Fault Zone (BLFZ). The western domain hosts the Martinière West deposit, which was known from pre-Balmoral work and was the target of significant drilling campaigns from 2011 to 2013. In 2012, Balmoral discovered gold within the BLFZ and subsequently drilled off the Bug Deposit as the North (drilled 2012-2015), South (2013-2017) and Lower Steep (2013-2017) zones. The North Zone is notable for returning exceptional high grades within its Footwall Subzone, including 8,330 g/t Au over 0.57 m in MDE-14-143 and 1,255 g/t Au over 0.55 m in MDE-12-29.

Additional gold mineralization occurs along strike of both the Bug and Martinière West Deposits, on the so-called Bug Lake and Martinière West trends. These include the NW Extension and Southeast zones on the Bug Lake Trend as well as the West Extension and Central Zone on the Martinière West Trend. Others include the ME-16, ME-23 and Horsefly zones, which occur 150-400 m east of the Bug Lake Trend, several widely-spaced gold intercepts on the east-west striking Lac du Doigt Deformation Zone (LDDZ), and other showings with limited information. Three pyrite-dominant VMS systems have also been discovered on the Property although with negligible base and precious metal contents.

The core processing, sampling and shipment procedures used by Balmoral are at or above industry standards, with no reported sample security transgressions. In addition, 11 of the 15 drilling campaigns conducted by Balmoral were managed by consulting groups that are independent under the definition of NI 43-101. All gold analyses have been done at ISO certified facilities by fire assay with atomic absorption (<5 g/t Au), gravimetric (5-10 g/t Au) and screen assay (>10 g/t Au) finishes. The sample preparation, security, and analytical procedures were adequate for the 2012-2017 drilling programs on the Martinière Property.



Quality control of assays was also monitored by an independent consultant and confirms that all of Balmoral's assay data for the Martinière Property is accurate, precise and free of contamination to industry standards, and is of sufficient quality to be used in resource estimation.

Preliminary metallurgical testing of mineralized composite material from the Bug Deposit suggests recoveries of up to 91% for Au and 80% Ag for a processing flow sheet that includes gravitation separation, flotation and separate cyanide leaching of flotation concentrate and tails.

Preliminary testing of a select Martinière West composite returned higher recovery in the gravitational separation and flotation concentration (97%) relative to the Bug composite, but a poorer response to cyanide leaching. Recovery of 72% of the gold was achieved with a flowsheet that included gravity separation and rougher flotation, followed by regrinding and cyanidation of the rougher concentrate.

The mineral resources of the Martinière Project were estimated by Ginto Consulting Inc. The Martinière drill hole database included some of the historical drilling so that it comprised 552 holes with 124,731m of drilling and 103,090 assays. Out of these holes, 325 holes are located on the Bug Lake Trend and 151 holes on the Martinière West Trend. The drill hole database cut-off date is January 30, 2018. A geologic model of mineralized gold zones was developed for both the Bug and Martinière West areas, and separate block models were generated for each area to reflect their distinct orientations. The mineral resources were estimated with an ordinary kriging technique for the major units, and inverse distance squared for the minor units, both with capped composited gold assays. The mineral resources are reported within an optimized open pit for the close-to-surface portion, and at an elevated cut-off grade for the underground portion. Table 1-1 summarizes the mineral resources.

Au Cut-Off (g/t)	Tonnage Au Grade (tonnes) (g/t)		Content (oz)	Tonnage Au Grade (tonnes) (g/t)		Content (oz)	Strip Ratio				
	OPEN PIT MINERAL RESOURCES										
0.5	6,827,183	1.96	431,225	132,147	2.50	10,622	11.6				
	•	UNDE	RGROUND MI	NERAL RESOU	RCES						
2.5	1,092,415	4.54	159,417	231,273	5.75	42,722					
	TOTAL RESOURCES AT PREFERRED CUT-OFFS										
0.5/2.5	7,919,598	2.32	590,642	363,420	4.57	53,344					

Table 1-1 Mineral resource statement for the Martinière Gold System<sup>1, 2, 3</sup>, effective March 27, 2018

<sup>1</sup> Mineral resources are reported within an optimized open pit at a cut-off grade of 0.5 g/t gold for the near surface portion, and at an elevated cut-off grade of 2.5 g/t gold for the underground portion.

<sup>2</sup> Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources estimated will be converted into mineral reserves. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

<sup>3</sup> The CIM definitions were followed for the classification of indicated and inferred mineral resources. The quantity and grade of reported inferred mineral resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred mineral resources as an indicated mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated mineral resource category.

Continued exploration is warranted on the Martinière Property, given the zones of significant gold mineralization discovered to date, under-explored nature of these trends along much of their strike length and at depth, numerous isolated gold intercepts on the Property with limited follow-up drilling, and regional association with economic deposits at Detour Lake and Selbaie.

Recommended work for the Property includes (1) additional resource expansion drilling on the Lower Steep and South zones of the Bug Deposit, (2) aggressive exploration drilling on the northern projection of the Bug Lake Trend, Martinière Central and Martinière East areas, (3) additional exploration drilling on the LDDZ and at the historical LAM showing, and (4) additional modelling and core re-logging work on the Bug and Martinière West deposits. Total cost of the proposed work is C\$6.521 million, and includes 66 holes for 25,650 m of diamond drilling.



#### 8

#### 2.0 INTRODUCTION

This national instrument 43-101 report ("NI 43-101") on the Martinière Property ("Martinière" or "the Property") has been prepared for Balmoral Resources Ltd. ("Balmoral") to satisfy its continuous disclosure requirements for the Toronto Stock Exchange (TSX). An updated NI 43-101 is warranted for material changes since the last technical report (Mumford and Voordouw, 2017), including (1) a maiden resource for the Bug and Martinière West gold deposits, and (2) 27,224.4 m of additional drilling completed since the 05 January 2017 closing date of the last NI 43-101. Equity Exploration Consultants Ltd ("Equity") has been engaged by Balmoral to prepare this NI 43-101 and previously managed exploration work on the Martinière Property from 2012-2015. Parts of this report are based on this consulting experience, in addition to a property visit in February 2018, publicly filed reports, internal Balmoral reports, and correspondence with Balmoral personnel.

Author R. Voordouw is an independent Qualified Person under the meaning of NI 43-101 and is a registered Professional Geoscientist in Newfoundland (PEGNL #06962) with special authorization to practice with the Québec Order of Geologists (OGQ #365). He managed diamond drilling and surface exploration on the Martinière Property from 2012-2015 as a Project Geologist employed by Equity. He re-visited the Property in February 2018. The first author is not a director, officer or shareholder of Balmoral and has no interest in the Martinière Property or any nearby properties.

Author M. Jutras is also an independent Qualified Person under the meaning of NI 43-101 and is a Registered Professional Engineer with the Engineers and Geoscientists British Columbia (license # 24598) and a Registered Engineer with the Québec Order of Engineers (OIQ license # 38380). He is responsible for section 14.0 of this report and partly responsible for sections 1.0, 2.0 and 18.0. Mr. Jutras is the president of Ginto Consulting Incorporated and is not a director, officer or significant shareholder of Balmoral, and has no interest in the Martinière Property or any nearby properties.

#### 3.0 RELIANCE ON OTHER EXPERTS

In Section 4.0, the authors have relied entirely upon information provided by Balmoral concerning mineral tenure and terms of their property purchase agreement with American Bonanza Gold Corp. ("American Bonanza"), their obligations under the underlying purchase agreement between American Bonanza and Cyprus Canada Inc. ("Cyprus Canada") and the extent of any underlying interests and royalties.

The authors have not relied upon a report, opinion or statement of another expert concerning legal, political, environmental or tax matters relevant to the technical report.

#### 4.0 PROPERTY DESCRIPTION AND LOCATION

The Martinière Property consists of 112 contiguous claims that cover 6,173 hectares (61.7 km<sup>2</sup>) within the Nord-du-Québec Region of western Québec (Figure 4-1). It is centred at 50° 02' N latitude and 79° 02' W longitude (NAD-83 UTM Zone 17N: 640800E 5545000N) on NTS map-sheets 32L/02 and 32L/03.

Claim data is attached as Appendix B. In Québec, claims are acquired through internet map staking following boundaries defined on maps kept at the Ministère des énergie et ressources naturelles (MERN) Bureau du Registraire, forming a seamless grid without overlap (Figure 4-2). Claims give the holder an exclusive right to search for mineral substances except sand, gravel, clay and other unconsolidated deposits.

Balmoral acquired a 100% interest in the Martinière Property, along with the Company's Fenelon and N2 and Northshore Properties, in November 2010, through a purchase agreement with American Bonanza Gold Corp ("American Bonanza") that was affected by payment of C\$3.7 million cash and issuance of 4.5 million Balmoral shares to American Bonanza, and assumption of American Bonanza's underlying obligations to the properties. These obligations included a 2% NSR royalty on 90 claims of the Martinière Property that is payable to Cyprus Canada (see Appendix B), a wholly- owned subsidiary of Freeport-McMoRan Copper & Gold Inc. ("Freeport-McMoRan"), as well as a US\$450,000 cash payment to Cyprus Canada that was made in January 2013.



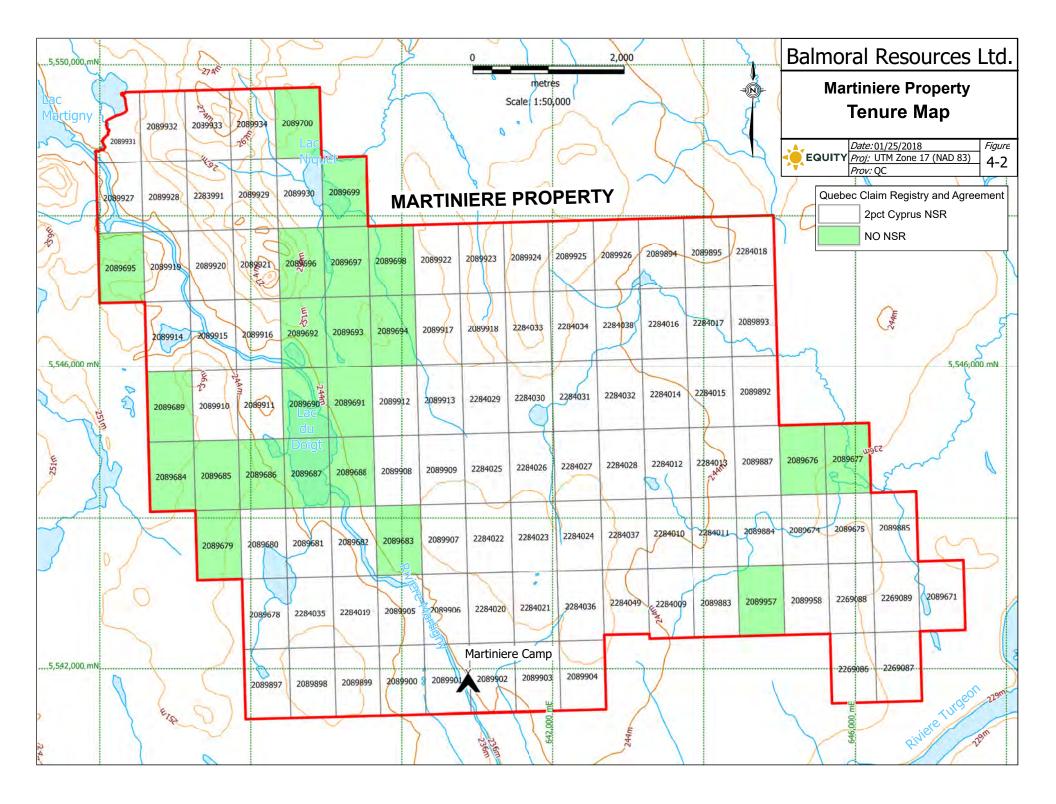


Figure 4-1: Location map of the Martinière Property in Québec

Besides the 90 claims with the NSR royalty, the authors know of no other royalties, back-in rights or other agreements and encumbrances. No significant environmental liabilities on the Property were noted by the authors.

The claims confer rights to hard-rock mineral exploration only. Mine development requires conversion of claims to a mining lease. Surface rights over the Martinière Property are held by the Crown, as administered by the Government of Québec. The ownership of other rights (timber, water, trapping, etc.) over the Martinière Property has not been investigated by the authors. The Property is located within the traditional territory of the Cree First Nations of Waskaganish and Washaw Sibi., and within the confines of the James Bay Accord between the Cree First Nations and the Government of Québec.





Claims have initial terms of two years. Assessment expenditures are required to maintain tenure ownership and must be incurred 60 days before the claim expiry date. The work required for two-year renewals is dependent on location, size and the initial staking date. For all claims within the Martinière Property, the required biannual assessment amounts to C\$3,250 per claim (MERN, 2017). Assessment filing fees of C\$64 per claim are payable if filed more than 60 days prior to the claim expiry date, doubling to C\$128 per claim if filed less than 60 days from expiry.

Permits are required for any exploration program which involves camp construction or tree-cutting, including drilling, helicopter use or road construction. Balmoral has or can readily obtain the required permits to execute the exploration program proposed in section 18.0.

# 5.0 ACCESSIBILITY, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY, CLIMATE

## 5.1 Accessibility

Year-round access to the Martinière is by helicopter with a winter road and trail network providing access from January to April. Road accessible staging points for helicopter access include Balmorals Camp Fenelon, located 33 km east of the exploration camp on the Martinière Property, and from a clearing along the Sampson River forest road, which lies halfway between the Martinière and Fenelon camps. The winter road and trail network is 25 km long and links to paved forest road R1036 running south of the Property and near the turn-off for the past-producing Selbaie Mine (Figure 5-1). The winter road and trail system was first opened in January 2013 and has been operational for every winter program since then.

Paved forest road R1036 connects to provincial highway 111, which provides access to the towns of Matagami, Amos and Val d'Or. Total driving distance from Camp Fenelon to Amos is 260 km, with 240 km along paved roads and the 20 km on gravel.

## 5.2 Local Resources and Infrastructure

An exploration camp located on the Property (Martinière Camp) is capable of housing 28 people in tentbased accommodations with running water and diesel heating, and is powered by 20 kW and 36 kW diesel generators. Water is obtained from a 250 m deep exploration hole located about 200 m north of the camp.

Camp Fenelon is capable of housing up to 25 people in trailer-based lodgings with indoor plumbing, a potable water well, forced-air heating, and electricity from a generator. Supplies and personnel arrive are trucked directly to Camp Fenelon over an asphalt and gravel road network.

Several gold and base metal mines are in production or undergoing construction throughout this part of Québec and nearby Ontario, supporting a vibrant infrastructure of mining and exploration services. The towns of Amos (pop. 9,400) and Val d'Or (pop. 31,900) offer a full range of services and supplies for mineral exploration, including skilled and unskilled labour, bulk fuel, freight, heavy equipment, groceries and hardware. The nearest helicopter base is in Cochrane, Ontario, located 180 km southwest of Martinière (Figure 5-1). Val d'Or is the nearest regional airport to Martinière and has daily commercial flights to Montreal. A small airport in Mattagami, Québec, supports small to mid-sized aircraft, including those used for geophysical surveys in the area.

CN Rail operates railway lines to Matagami, 100 km east of Martinière, and La Sarre, 140 km south of Martinière. Ontario Northland Railway operates a rail line through Cochrane, Ontario, 180 km southwest of Martinière.

Surface rights over the Martinière Property are owned by the Crown and administered by the Government of Québec; they would be available for any eventual mining operation subject to approval. The Property has abundant water and water rights could likely be obtained for milling. It is still too early to determine potential tailings storage areas, potential waste disposal areas, and potential processing plant sites.



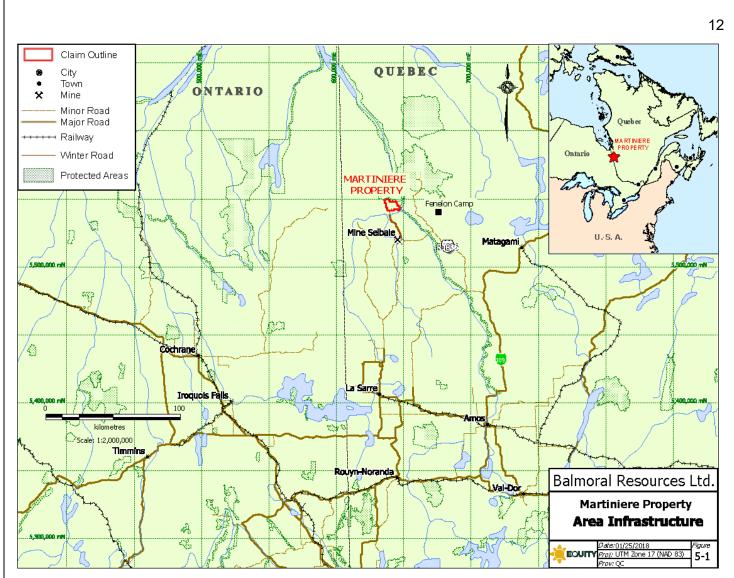


Figure 5-1: Area infrastructure surrounding the Martinière Property

# 5.3 Physiography and Climate

Topography on the Martinière Property is subdued, with elevations ranging from 235 m near the Turgeon River to 290 m in the northwestern part of the Property. Martinière is covered by swamp and boreal forest comprised of spruce, fir, and pine. It is almost completely devoid of outcrop, with exposures occurring only in the Martigny River flowing through the western part of the Property.

The region experiences a typical continental-style climate with cold winters and warm summers. Snow accumulation begins in November and generally remains until early May. Environment Canada climate normals for 1971-2000, from the nearest weather station in the town of Matagami, indicate that the daily average temperature ranges from -20° C in January to 16° C in July. The coldest months are December to March, during which the coldest temperatures can fall below -40° C. Matagami has 91 cm of annual precipitation with average snow depth peaking at 65 cm in February.

Drilling can be conducted year-round on the Property with wetter areas more accessible in winter time.



#### 6.0 HISTORY

The current amalgamated Martinière Property was first established by Cyprus Canada in 1994, with pre-1994 exploration work in the area done on properties that completely to partially overlapped with the current property boundaries. In 1998, the property established as of 1994 was optioned off by Cyprus Canada to International Taurus Resources Inc. ("International Taurus") and subsequently purchased by them. A merger in 2004 changed ownership to American Bonanza. In November 2010, Balmoral purchased the rights to acquire a 100% interest in the Martinière Property from American Bonanza and in 2013 completed the purchase of said 100% interest and also took on a 2% NSR royalty on 90 claims payable to Cyprus Canada (a wholly owned subsidiary of Freeport-McMoRan).

The bulk of historical exploration work on the Property has comprised geophysical surveying (EM, magnetic, IP) and diamond drilling (Table 6-1). Effective geological mapping and soil sampling is encumbered by the lack of outcrop and 10-100 m thick till cover. Prospective diamond drill intercepts of gold were first drilled in 1996 (Masson, 1997). This section describes the work leading up to discovery in 1996, and subsequent work until Balmoral's purchase of the Property in 2010 and is a condensed version taken from the previous NI 43-101 (Mumford and Voordouw, 2017).

The oldest publicly available exploration records relevant to the Property include airborne electromagnetic (EM) as well as ground-based magnetic, EM and gravimetric surveys conducted by **Kateri Mining Co** (Christopher and Seigel, 1959), **Monpre Mining Co** (Christopher, 1959; Thoday, 1959) and **Paudash Mines Ltd** (Seigel, 1959a, b). Follow-up drilling by Kateri intersected trace gold associated with disseminated pyrite, quartz stringers and a diorite sill (Remick, 1961). Monpre Mining drilled three holes between 5-10 km northeast of the current Property boundary, with no significant results.

Company	Year	Type of Work	Report #			
Kateri Mining Co	1959	Airborne EM	GM 08217-A			
Manna Mining Ca	1959	Ground EM	GM 08704, GM 09755			
Monpre Mining Co	1959	Diamond drilling	GM 10898			
Deudeeh Mines I tel	4050	Airborne EM	GM 09563			
Paudash Mines Ltd	1959	Ground EM, magnetics, gravity	GM 13018			
	1975, 1976	Ground EM, magnetics	GM 31645, GM 32173			
Noranda Exploration Co Ltd	1977	Geological mapping	GM 33366			
	1977	Diamond drilling	GM 33119			
Taals Escalanation 1 to	1981, 1982	Ground EM, magnetics	GM 37880, GM 37882, GM 39439, GM 39438			
Teck Exploration Ltd	1982, 1984	Diamond drilling	GM 40023, GM 41127, GM 41438			
	1982, 1984	Mapping, ground EM, magnetics	GM 39928, GM 42172			
Queenston Mines Ltd	1986	Diamond drilling	GM 44767			
	1987	Airborne gravity, magnetics, VLF	GM 46476			
	1984	Mapping, soils	GM 41575			
	1984, 1985	Ground EM, magnetics	GM 41440, GM 42382			
Noranda Exploration Co Ltd	1985. 1988	Ground IP, magnetics	GM 42421, GM 46279			
	1985. 1988	Diamond drilling	GM 42615, GM 46833			
	1987	Ground gravity, magnetics	GM 46076			
	1996, 1997, 1998	Ground IP, magnetics	GM 54042, GM 54647, GM 55489, GM 55538, GM 55622			
Cyprus Canada Inc	1997	Diamond drilling	GM 55490, GM 54648, GM 54818, GM 54701			
	1997	Diamond drilling, soils, mapping	GM 55537			
International Taurus Resources Inc	1999, 2000	Diamond drilling	GM 56816, GM 58073			
American Bonanza Gold Corp	2006, 2007	Diamond drilling	GM 62862, GM 64281			

Table 6-2: Summary of historical work on Martinière Property



Starting in the mid-1970's, **Noranda Exploration Ltd** conducted several ground-based EM and magnetic surveys on and around the Property (Britton, 1975, 1976; Misiura, 1977), culminating in a single hole drilled near the northwestern corner of current Property that returned a few specks of chalcopyrite (CuFeS<sub>2</sub>) near the end of the hole (Giroux, 1977).

In 1981, **Teck Exploration Ltd** ran several ground-based EM and magnetic surveys over and near the current Martinière Property (Thorsen, 1981a, b, 1982a, b), with one of several follow-up drill holes falling within Martinière. This hole showed that strong electromagnetic conductors include units of pyritic graphitic argillite (Thorsen, 1982c). Additional drilling in 1984 included a hole cutting volcano-sedimentary greenstone drilled just south of Balmorals Bug Lake Trend (Hughes and Fox, 1984).

Around the same time, **Queenston Gold Mines** used a geological and geophysical compilation (Durocher and Burton, 1982) to identify a series of northwest/southeast-trending EM anomalies on their Lac du Doigt Property that were followed up with ground-based EM and magnetic surveys (Morissette and Andersen, 1984) as well as airborne EM and magnetic work (Boustead, 1987). One of the follow-up holes was drilled near what is now the center of the Property and returned anomalous intervals up to 0.3 g/t Au over 1.0 m (Donner, 1986).

**Noranda Exploration Ltd** returned in the mid-80's to conduct geological mapping and soil sampling (Des Rivieres, 1984), more ground-based EM and magnetic surveys (Giroux, 1984, 1985), IP surveys (Lavoie, 1985; Lavoie and Plante, 1988), diamond drilling (Des Rivieres, 1985) and a ground-based gravimetric and magnetic survey (Lavoie, 1987). Much of this work focused on the "Bug Lake" prospect that is currently referred to as "LAM" (and formerly "Norbug") by Balmoral and is located in the northwest part of the Martinière Property. These programs identified several irregular, northwest-trending, veins and shear zones hosted in fine-grained gabbroic rocks with maximum grades of 2.1 g/t Au over 1.1 m (Des Rivieres, 1985). In 1988, Noranda drilled an additional five holes that returned up to 3.6 g/t Au over 1.5 m (Pressacco, 1988).

The current Martinière Property was established in 1994 and, in 1996, **Cyprus Canada Inc** completed several IP surveys (Berube, 1998; Boileau and Lapointe, 1996; Dubé and Glass, 1997; Glass and Dubé, 1997; Potvin, 1997) that were followed by diamond drilling (Ben, 1997b; Ben and Needham, 1997; Masson, 1997; Needham et al., 1997). IP surveys were used to identify a series of northeast to east-west-trending structures. Drilling intersected up to 12.4 g/t Au over 2.5 m and 1.1 g/t Au over 12.0 m in what is now known as the Central Zone, comprising the most significant discovery of gold on the Property up to that time. Gold was hosted in shear zones with quartz-carbonate-pyrite veins and strong chlorite-silica-carbonate ± sericite ± fuchsite alteration. A pyrite-dominant massive sulphide body was also intersected, though with negligible gold and base metal contents (Ben, 1997b).

In 1999, **International Taurus Resources Ltd** drilled nine holes that followed-up on the 1996 discovery by Cyprus, with two holes intersecting quartz-carbonate veined intervals returning up to 5.9 g/t Au over 6.5 m and 14.6 g/t Au over 4.2 m (Jeffery, 1999). This led to a twelve hole follow up program in 2000 that intersected 11.1 g/t Au over 1.5 m, se12.8 g/t Au over 1.5 m and 3.5 g/t Au over 1.0 m (Guy, 2000). The intercepts were in what is currently referred to as the Martinière West Deposit and the Central Zone.

In 2006, work by **American Bonanza** included an initial nine hole drilling campaign that tested near the high-grade gold intercepts returned by Cyprus and International Taurus (Giguère, 2006). This program returned more gold intercepts from the Martinière West Trend, including confirmation of significant grade in the Central Zone. An independent assessment suggested a low-sulphidation, epithermal setting for gold mineralization (Théberge and Carrier, 2006). An additional 13 holes were drilled in 2007 (Le Grand, 2009), to test for extensions of mineralized zones as well as IP and magnetic anomalies.

There have been no historical mineral resource or mineral reserve estimates for the Martinière Property, and there has been no production.



# 7.0 GEOLOGICAL SETTING AND MINERALIZATION

#### 7.1 **Regional Geology**

The Martinière Property lies in the northern portion of the Abitibi Subprovince, which itself is situated in the south-central part of the Archean Superior Province of the Canadian Shield. Mapping of sporadic outcrops, integrated with regional airborne geophysical surveys, indicate that the project area is underlain by the North Volcanic or Harricana-Turgeon Greenstone Belt (Lacroix, 1990), which is among the northern-most greenstone belts in the Abitibi Subprovince (Figure 7-1). The Abitibi Subprovince is one of the world's great gold districts. having produced approximately 170 million ounces of gold since the turn of the 20<sup>th</sup> century.

The Abitibi Subprovince comprises east-trending synclines of volcanic rock with intervening domes cored by deformed plutonic rocks that include gabbro-diorite, tonalite, and granite, as well as east-trending bands of turbiditic wacke. Thurston et al (2008) divided the volcanic and sedimentary rocks into seven discrete volcanic-dominant and two sedimentary-dominant assemblages (Table 7-1). Most of the volcanic and sedimentary strata dip vertically and are generally separated by abrupt, east-trending faults with variable dip. Some of these faults, such as the Porcupine-Destor fault, display evidence for overprinting deformation events that include early thrusting followed by later strike-slip and extension events. Two ages of unconformable successor basins comprise (1) early, widely distributed "Porcupine-style" basins of fine-grained clastic rocks, and (2) younger "Timiskaming-style" basins of coarser clastic and minor volcanic rocks that are largely proximal to major strike-slip faults (e.g. Porcupine-Destor, Larder-Cadillac, Sunday Lake). In addition, the Abitibi Subprovince is cut by numerous undeformed plutons ranging in composition from syenite and gabbro to granite with lesser dikes of lamprophyre and carbonatite (Thurston et al., 2008).

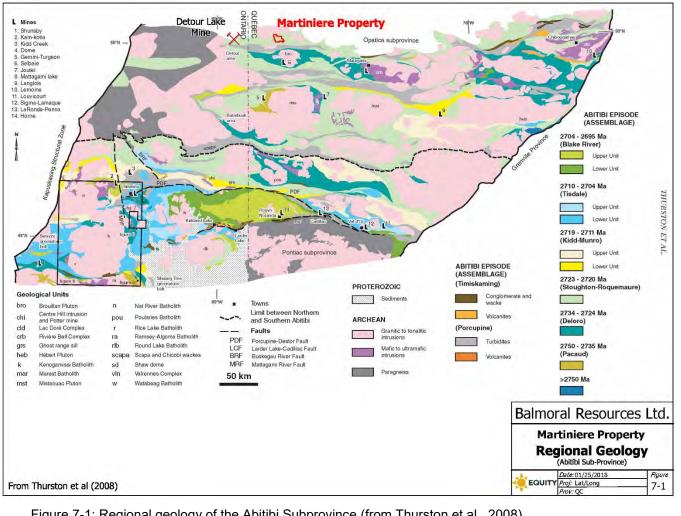


Figure 7-1: Regional geology of the Abitibi Subprovince (from Thurston et al., 2008)



Assemblage	Age (Ma)	Thickness (km)	Dominant Rock Types
Timiskaming	2677-2670	<3	Polymictic conglomerate and sandstone in subaerial alluvial fan, fluvial and deltaic settings; local alkaline volcanic rocks
Porcupine	2690-2685	<3	Local calc-alkaline felsic pyroclastic rocks overlain by turbiditic argillite to wacke
Blake River	2704-2695	~11-17	Minor clastic metasediment and high Mg and Fe tholeiites overlain by mafic to felsic tholeiitic to calc-alkaline volcanic units with volcaniclastic components
Tisdale	2710-2704	~10-15	Mafic volcanic rocks with localized ultramafic and intermediate to felsic volcanic rocks and iron formation; overlain by intermediate to felsic, calc-alkaline, amygdaloidal flows, heterolithic debris flows and volcaniclastic units
Kidd-Munro	2719-2711	~10	Intermediate to felsic calc-alkaline volcanic rocks, overlain by mafic volcanic rocks with local ultramafic and felsic volcanic rocks and graphitic metasedimentary rocks
Stoughton-Roquemare	2723-2720	<12	Tholeiitic basalts with komatiites and local felsic volcanic rocks
Deloro	2734-2724	~5	Mafic to felsic calc-alkaline volcanic rocks with local tholeiitic mafic volcanic rocks, capped by iron formation
Pacaud	2750-2735	~5	Ultramafic, mafic and felsic volcanic rocks, with minor iron formation
Pre-2750 Ma	>2750	~5	Intermediate to felsic, calc-alkaline pyroclastic rocks capped by iron formation

#### Table 7-1: Stratigraphic assemblages of the Abitibi Subprovince

## 7.2 Local Geology and Mineralization

The Martinière Property is underlain by the Harricana-Turgeon Greenstone Belt, which is subdivided into three geological domains that are separated from each other by major deformation structures (Figure 7-2). The northern-most of these domains is referred to as Manthet, which underlies all of the Martinière Property and is the stratigraphic equivalent of the Stoughton-Roquemare volcanic assemblage of Thurston et al. (2008). The Manthet Domain is characterized by predominantly east-west striking, intercalated, mafic to intermediate volcanic/pyroclastic and pelitic sedimentary units, with lesser volumes of felsic volcanic, mafic to ultramafic intrusions and small felsic intrusive bodies. All of these units are cut by late north- to northwest-trending mafic dykes (Wagner, 2012). The degree of metamorphism and deformation within the Manthet Domain increases gradually northward towards the boundary with the Opatica Subprovince.

The Matagami Domain lies directly south of, and is in tectonic contact with, the Manthet Domain. Rocks of the Matagami Domain are the stratigraphic equivalent of the Porcupine assemblage (Table 7-1), and consist mostly of volcano-sedimentary rocks, wacke, argillite and minor iron formation (Lacroix, 1988). Other rock types include numerous mafic to ultramafic sill-like intrusions. The tectonic contact with the Manthet Domain is overprinted by the Sunday Lake Deformation Zone (SLDZ), a major east-west structure marked by strong deformation fabric that dips 70°-80° to the south-southwest (Wagner, 2012) and skirts the southern-most part of the Martinière Property. In the south, the contact between the Matagami and Broullian-Fenelon domains is overprinted by another major east-west striking structure, the Lower Detour Deformation Zone. The volcanic-dominated Broullian-Fenelon Domain is the stratigraphic equivalent of the Deloro assemblage and hosts a higher proportion of felsic volcanic and intrusive rocks relative to the Manthet Domain as well as economic massive sulphide deposits, like the nearby past-producing Selbaie Mine.

Both orogenic gold and VMS deposits have been mined in the Harricana-Turgeon belt. Of most relevance to the Martinière Property are the Detour Lake and Fenelon deposits. The Detour Lake deposit is located 50 km west of the Property along the SLDZ. Between 1983 to 1999, mining from a small open pit and underground operations produced 1.77 million ounces of gold, at 4.55 g/t Au. A currently producing open pit mine on the same site has Proven and Probable Reserves of 16.46 million oz Au at 0.97 g/t Au (Detour Gold Corp., 2017). The Fenelon gold deposit lies 24 km east of the Martinière Property and comprises an intensely silicified zone with sulphide and native gold that is localized along a contact between sedimentary and mafic intrusive rocks (Richard et al., 2017). Based on historical drilling, the deposit contains a measured resource of 12,700 oz at 13.12 g/t Au and indicated resources of 25,300 oz at 12.89 g/t Au (Richard et al., 2017).



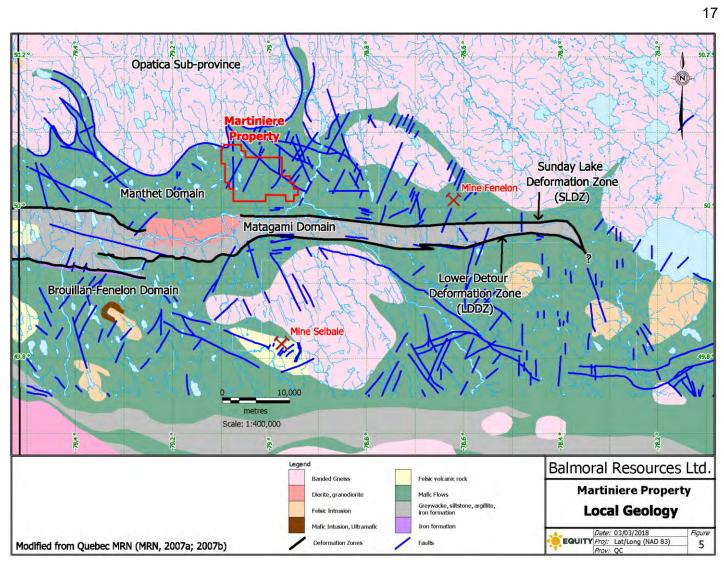


Figure 7-2: Local geology of the Martinière Property (modified from MRN, 2007a, b)

# 7.3 Property Geology

The Martinière Property is topographically flat and covered with till, which averages 22.5 m from all of Balmoral's drill holes on the Property and ranges from 0 m to 75.2 m. Average overburden is slightly thicker over the Bug Lake Trend (24.1 m) than at Martinière West (17.2 m). Outcrop is limited to just a few outcrops within the Martigny River and on the high ground in the northwest part of the Property, consisting mostly of mafic volcanic and/or intrusive rocks. Geophysical interpretation of lithological unit boundaries by MERN (2007a, b) suggests that most of the Property is underlain by chlorite-grade mafic volcanic and gabbro (or "greenstone") of the Manthet Domain (Figure 7-3; Plates 1A-1C), with minor sedimentary rocks, felsic tuff and younger diabase dykes. Granitoid gneiss of the Opatica Subprovince underlies the northwest corner of the Property.

A more detailed geological plan map has been constructed from bedrock collar lithologies logged in drill core at an elevation of 225 m above sea level (Figure 7-4). Rock types consist mostly of moderately southeast dipping mafic volcanic (Plate 1A) and gabbroic sills (Plates 1B, 1C), with minor felsic intrusions, graphitic argillite (Plate 1D, 1E) and massive sulphide (Plate 1F). Sulphide minerals within this VMS unit comprise >99% pyrite and assays typically return low gold (mean =  $\sim$ 0.2 g/t Au) and base metal contents. A younger generation of quartz porphyry intrusions locally form subvertical dikes that play an important role in localising gold mineralization.



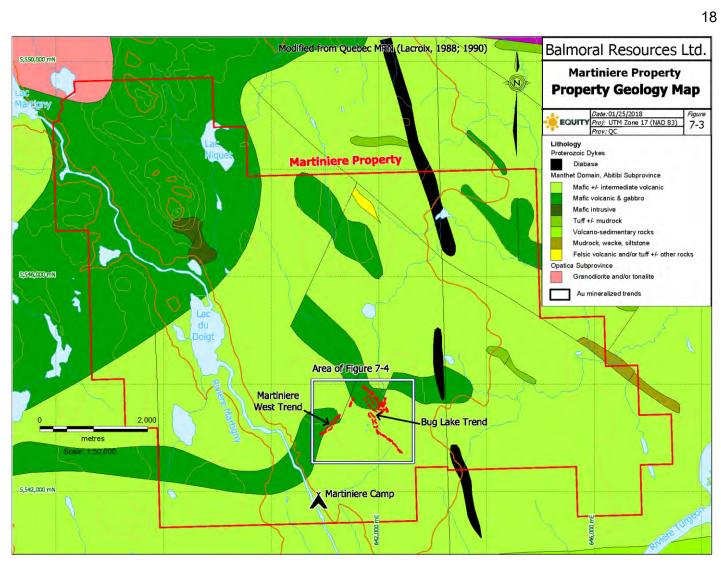
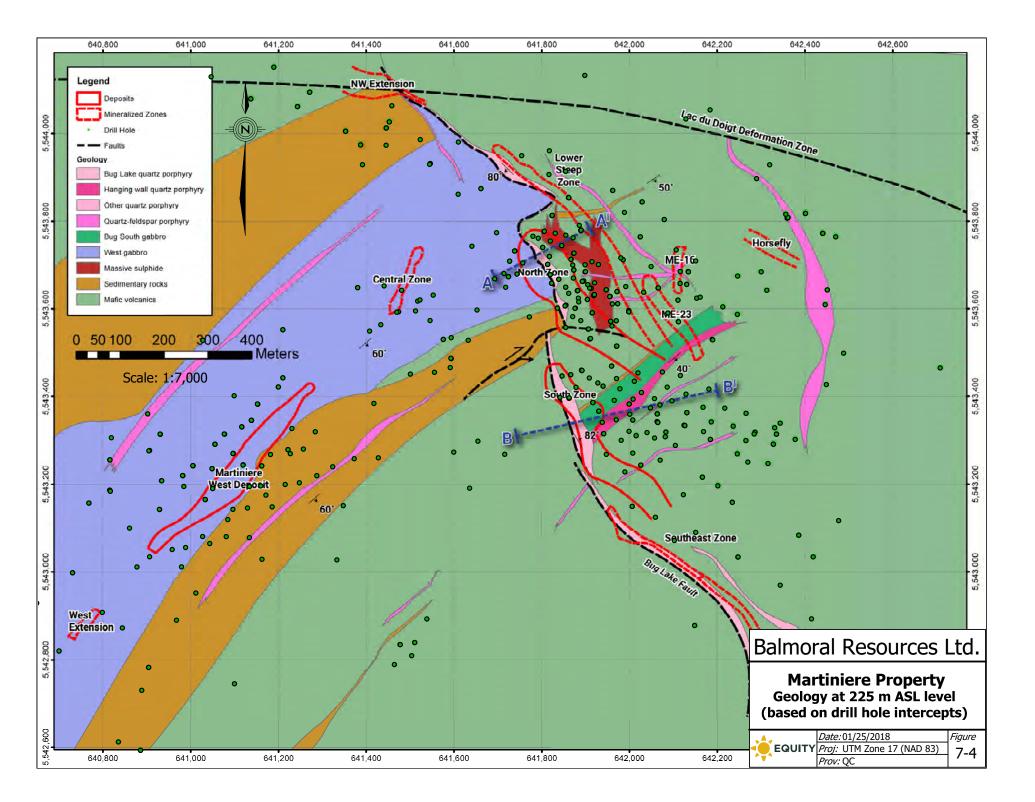


Figure 7-3: Geology of the Martinière Property (modified from MRN, 2007a, b)

The most prominent structures in the area are east-west striking, possibly crustal-scale, deformation corridors like the SLDZ, the northern margin of which passes through the southern part of the Martinière Property, and the smaller and recently discovered Lac du Doigt Deformation Zone (LDDZ) cutting through the center of the Property. The most important structure on the Property, however, is the north-of-northwest trending Bug Lake Fault Zone (BLFZ) that hosts the Bug Deposit. The BLFZ dips approximately 50-70° to the east and has a planar to sigmoidal form in cross-section, the latter consisting of steeply dipping ramps (or "steeps") and shallower flats (see Section 7.4.1). This Fault Zone hosts the "Bug Lake" quartz porphyry (Plates 1G, 1H), and is marked by strong deformation fabric, silica-carbonate alteration, increased disseminated pyrite content and healed fault breccia. Alteration is associated with a set of diffuse quartz-carbonate ± pyrite veins that locally exhibit suspect coliform texture (Théberge and Carrier, 2006). Movement along the BLFZ appears to have included (1) ductile shearing as marked by increased penetrative deformation fabric in volcanosedimentary rocks (2) brittle shearing represented by re-healed breccia (typically with calcite in-fill) and (3) brittle faulting as marked by broken ground, with clay coatings on fracture surfaces and rare fault gouge.

The Martinière West Deposit is hosted within the Martinière West Shear Zone, a more diffuse, stratiform, structure marked by weak penetrative deformation fabric, 1-5% disseminated pyrite and localized silicification. The MWSZ is developed within a gabbroic sill, near its contact with gabbroic rocks, and is oriented at an angle of ~60° to the BLFZ.

EQUITY



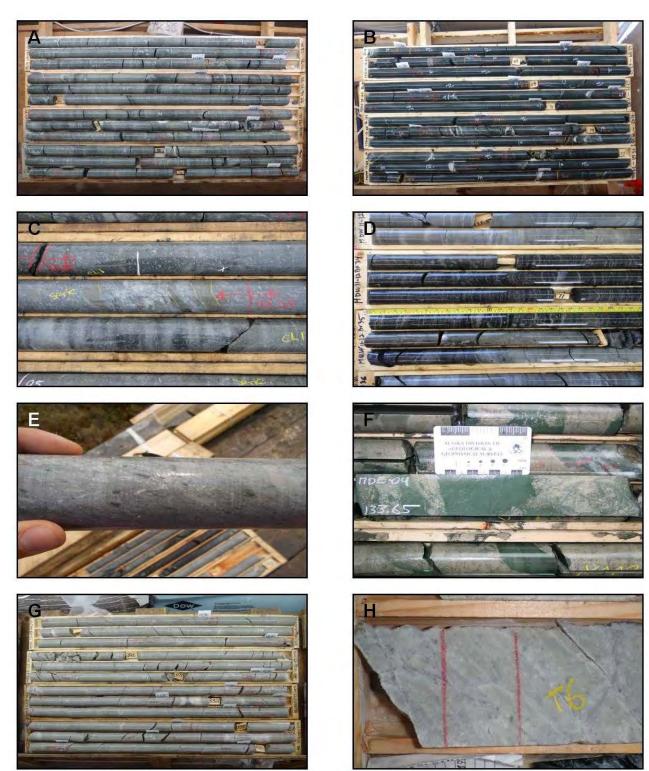


Plate 1: Core photos of selected lithologies from the Martinière Property. (A) Massive basalt with spotty calcite alteration (MDX-14-41),(B) massive quartz gabbro (MDW-13-65), (C) close-up of leucoxenebearing gabbro with a silicified shear zone (MDW-11-16), (D) pyrite-rich graphitic argillite hosted in basalt (MDW-11-12), (E) fine- to medium-grained wacke with fragments of graphitic argillite (MDE-14-159), (F) massive sulphide hosted in strongly chlorite-altered basalt (MDE-11-04), (G) Bug Lake quartz porphyry (MDE-13-113), and (H) close-up of Bug Lake porphyry showing small quartz eyes in strongly sericitealtered groundmass (MDE-13-97).



## 7.1 Property Mineralization

Diamond drilling on the Martinière Property has defined two gold deposits as well as several zones and showings that occur along structural trends. Gold mineralization in these deposits is most likely related to the orogenic class of gold deposits. At least three pyrite-dominant VMS systems also occur on the Property although generally with negligible base and precious metal contents.

#### 7.1.1 Gold mineralization

Gold mineralization on the Martinière Property typically shows a close spatial association with increased (1) disseminated to (rarely) semi-massive pyrite, (2) carbonate and/or quartz alteration and veining, and (3) brittle to ductile structures. Lithology and alteration are somewhat different on the Bug Lake and Martinière West trends, defining "Bug Lake-style" and "Martinière West-style" mineralization respectively.

The Bug Deposit occurs along approximately 1 km of the Bug Lake Trend, which follows the brittle to ductile Bug Lake Fault Zone (BLFZ). Besides its gold endowment, two defining characteristics of the BLFZ are that it cuts at a high angle across stratigraphy and that it hosts the Bug Lake quartz porphyry ("Bug Lake porphyry"), a strongly silicified quartz-sericite schist with 1-5% modal abundance of small, round, quartz phenocrysts. This porphyry is one of the few known non-stratiform Archean units on the Property, with another possibly occurring near the Horsefly Zone.

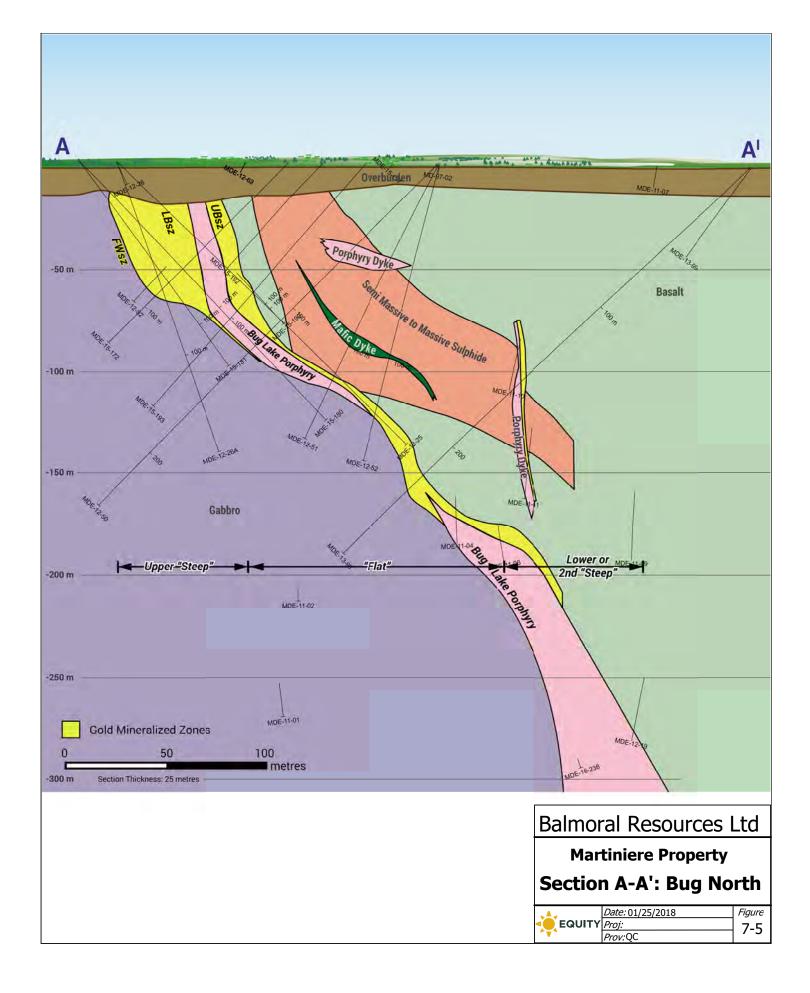
The Bug Deposit is divided into the North, South and Lower Steep zones, all of which are centered on the Bug Lake porphyry and the BLFZ. Both the fault and porphyry dip an average of 50° to 70° to the east, exhibiting a ramp-flat structure in the North Zone (Figure 7-5) and a more planar structure in the South Zone (Figure 7-6). Gold mineralization occurs adjacent to both the upper and lower contacts of the Bug Lake porphyry, within the so-called Upper Bug (UBsz) and Lower Bug (LBsz) subzones (formerly the Upper Bug Lake and Lower Bug Lake zones in Mumford and Voordouw, 2017). Both subzones are up to 75 m wide and consist of ankerite- and/or dolomite-altered greenstone with 1-5% disseminated pyrite and one or more 0.1 to 10 m wide intervals of carbonate-quartz flooding, veins and/or vein breccias (Plates 2A, 2B), and/or 0.1-1 m intercepts with 30-70% pyrite. Accessory minerals include tourmaline, telluride, arsenopyrite, chalcopyrite, galena and sphalerite (Plate 2C). Vein breccias comprise angular fragments of coliform-textured carbonate-quartz vein hosted in more massive carbonate-quartz, with coliform texture possibly suggesting an upper crustal setting (Théberge and Carrier, 2006). Gold grades are highest in pyrite-rich intervals and strongly sulphidized wallrock, and are not necessarily elevated within the carbonate-quartz veins and vein breccias themselves. Veining is likely contemporaneous with alteration.

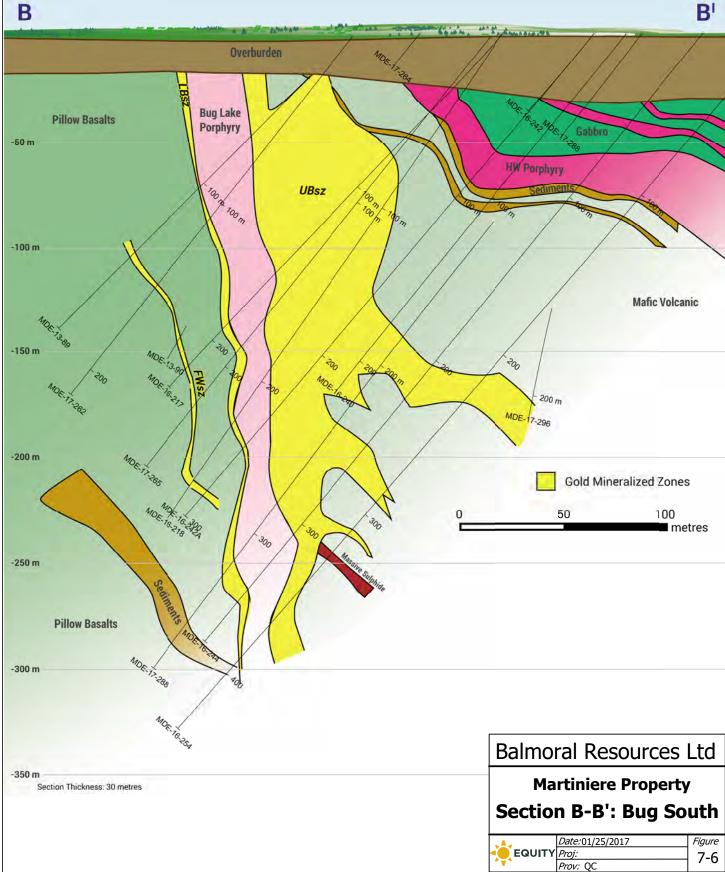
Within the ramp-flat structure of the North and Lower Steep zones, gold mineralization is bestdeveloped along the steeper (i.e. ramp) parts of the structure (Figure 7-5). In the South Zone, the Bug Lake porphyry exhibits a more planar morphology with high-grade mineralization preferentially developed beneath the intersection with the moderately dipping Hanging Wall porphyry (Figure 7-6). The South Zone also shows a "bleeding" of gold mineralization along lithological contacts away from the deposit, suggesting that competency contrasts between host rocks play a role in controlling gold mineralization. Pyrite-enriched graphitic argillite and semi massive to massive sulphide typically contain anomalous gold but the pyrite is most likely of a different generation than that associated with the Bug and Martinière West deposits.

Narrow mineralized shear zones that occur further outboard of the UBsz and LBsz are referred to as Hanging Wall and Footwall subzones (HWsz, FWsz) respectively. These narrow outlying subzones have returned among the highest grades on the Property (Plates 2D, 2E), with a FWsz from the North Zone returning grades of 8,330 g/t Au over 0.57 m and 1,255 g/t Au over 0.55 m. Examples of high-grade HWsz include 195.5 g/t Au over 1.0 m and 36.0 g/t Au over 2.1 m.

Gold to silver ratios in the North, South and Lower Steep zones average 0.2 to 0.6 for samples with >0.1 g/t Au and 1.6 to 2.1 for samples with >3 g/t Au, thereby straddling the range of 1-10 that is characteristic of orogenic gold deposits (Groves et al., 1998). Multi-element data shows that gold has moderate positive rank correlation (0.6>p>0.3) with Ag and As, and that Pb, Ag, As, Cu and Zn are moderately correlated with each other. The South Zone appears to have higher As, Pb and Zn whereas the North Zone contains more Ag.







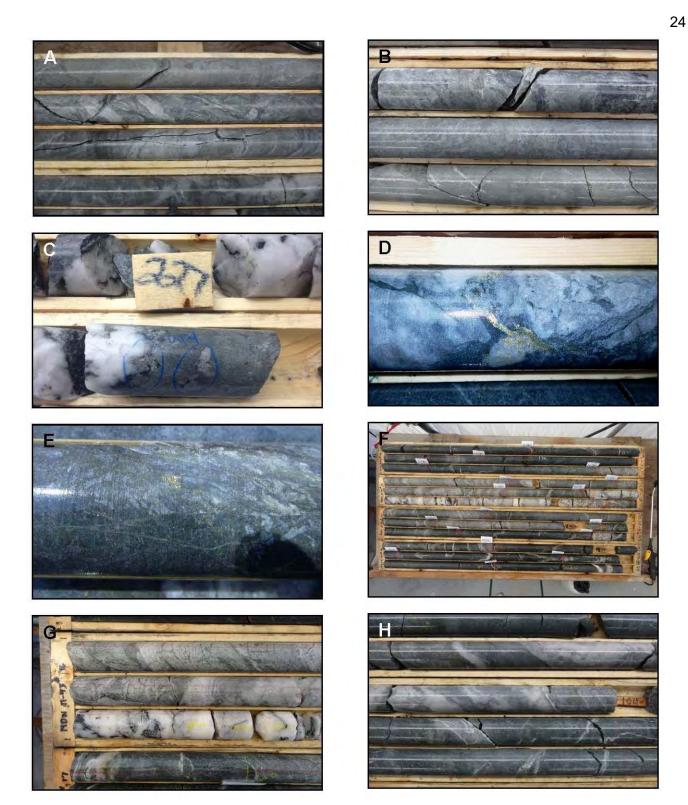


Plate 2: Core photos of the Bug (A-E) and Martinière West (F-H) deposits. (A) Dolomite-altered, silicified and pyrite-enriched mafic volcanic comprising the Lower Bug Subzone in MDE-14-160 and (B) MDE-13-93; (C) coarse arsenopyrite in the Lower Bug Subzone (MDE-13-116); (D) visible gold in the Footwall Subzone of MDE-14-143 and (E) MDE-12-29. (F) Overview of the Martinière West Main Subzone (MDW-11-43); (G) close-up of a silicified shear zone within the Main Subzone (MDW-11-43), (H) silicified shear zone with visible gold from the Main Subzone (MDW-13-88).



The Martinière West Deposit comprises a series of steep, subparallel, mineralized subzones hosted within the Martinière West Shear Zone (MWSZ). This shear zone is stratigraphically concordant, 200-300 m wide and defined by weak deformation fabric, localized silicification and veining, as well as 1-5% disseminated pyrite. Elevated gold occurs throughout the MWSZ, but the highest grades occur within shoots hosted by silicified shear zones (SISZ) and/or sets of quartz-dolomite  $\pm$  sulphide (QDL) veins (Plates 2F-2H). Shear zones and individual veins range from 0.1-10 m and 1-40 cm wide respectively. Gabbro within the MWSZ is markedly non-magnetic, providing a useful proxy for rocks that could host anomalous gold. Individual SISZs consist of quartz gabbro that is weakly to moderately sheared and silicified  $\pm$  sericite-altered, hosting up to 20% disseminated pyrite with trace arsenopyrite  $\pm$  chalcopyrite  $\pm$  sphalerite. Mineralogy of the QDL veins suggests that they were derived from the same fluid flow event that produced the SISZs. Grade within SISZ and QDL intervals range from >10 g/t over a few metres to 1 g/t Au over several tens of metres.

Multi-element geochemistry shows that gold to silver ratios at Martinière West average 1.3 for samples with >0.1 g/t Au and 3.8 for samples with >5 g/t Au, falling within the typical range for orogenic gold deposits (Groves et al., 1998). Gold shows moderate to strong positive rank correlation with Ag, As and Pb, with average arsenic contents (1534 ppm) significantly higher than the Bug Deposit (~300-900 ppm).

The NW Extension and Southeast zones occur at the northwestern- and southeastern-most known extents of the Bug Lake Trend respectively. Mineralized intervals at the NW Extension comprise narrow calciterich shear zones that are hosted in gabbroic rocks cut by Bug Lake-style porphyry. The association with porphyry is reminiscent of the Bug Lake Trend whereas the shear zones look like the SISZ units at Martinière West, although they are calcite- rather than silica-rich. Mineralization in the Southeast Zone is Bug Lake-style, comprising carbonate-altered mafic volcanic that passes into quartz-carbonate flooding and polyphase veins, and hosts sub-intervals with up to 20% pyrite over 1 m.

The West Extension and Central zones occur along the southwestern and northeastern extents of the MWSZ respectively. Both show Martinière West-style mineralization comprising pyrite-enriched silicified shear zones hosted in non-magnetic gabbro.

The ME-16 and ME-23 zones were previously referred to as the "Martinière East Gold Trend" (Mumford and Voordouw, 2017) and are located about 300 m east of the BLFZ. Both zones returned grade-thickness accumulations of up to 100 g/t Au \* metres but follow-up drilling was unable to establish significant continuity. Mineralization is perhaps most reminiscent of Bug Lake-style, comprising spatial association with disseminated pyrite, carbonate-quartz-sericite alteration and, possibly, north-northwest trending structural control that is broadly parallel to the BLFZ (Figure 7-4).

## 7.1.2 Volcanogenic Massive Sulphide (VMS)

There are at least three pyrite-rich VMS systems that occur on the Martinière Property (Table 7-2), one lying just east of the BLFZ ("Martinière East" in Table 7-2) and two others lying on HLEM grids #2 and #3. All three of these systems are similar, with up to 50 m core length intercepts of massive (>60% sulphide) to semi-massive (25-60% sulphide) sulphide and with the sulphide mineralogy typically comprising >99% pyrite. Associated mafic volcanic is strongly chlorite- and calcite-altered (e.g. Plate 1F). Massive sulphide typically grades outwards, in both directions, into semi-massive sulphide and then pyrite-rich basalt (<25% sulphide). The exception to this are the so-called outlying layers of massive sulphide, which have sharp contacts, core widths of 1-5 m and usually occur an appreciable distance from the larger sulphide units.

Mean gold abundances are <0.3 g/t Au for the larger systems but can average up to 1 g/t Au for the outlying layers. Base metal enrichment is generally negligible, with the highest average grade returned from the Grid #2 VMS prospect at 0.14% Zn. An exception is hole MDE-15-172, which intersected 2.1 m of massive sulphide that averaged 1.52% copper and 4.2% zinc in addition to 2.8 g/t Au and 29 g/t Ag. However, nearby holes returned only barren massive and semi-massive sulphide.

Other sub-economic base metal intercepts are more likely related to gold mineralization. One such example are the intercepts of 9.3% lead and 4.1-5.5% zinc over 0.5 to 1.1 m core widths in MDE-16-245. These intervals are hosted in banded and coliform-textured carbonate-quartz veins that are more likely associated with the Bug Lake Trend than a VMS system.



VMS unit	Ν	Au (ppm)	Ag (ppm)	As (ppm)	Cd (ppm)	Cu (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
Martinière East	853	0.221	1.8	138	0.1	144	15	1.7	180
Grid #3	68	0.152	0.3	194	0.3	73	14	2.6	260
Grid #2	29	0.029	0.5	156	2.6	179	41	4.9	1402

#### Table 7-2: Mean abundance for selected elements in VMS units on the Martinière Property

Abbreviations: N. = number of samples

## 8.0 DEPOSIT TYPES

The Martinière Property hosts both orogenic gold and volcanogenic massive sulphide (VMS) deposits. Salient characteristics of the orogenic gold deposits are summarized below. VMS deposits are not discussed since no significant intercepts of economic VMS mineralization have been found on the Property so far.

Orogenic gold forms some of the largest deposits and districts in the world (e.g. Kalgoorlie in Australia, Timmins in Ontario, and Ashanti in Ghana). Their name reflects a temporal and spatial association with late stages of orogenesis (Dubé and Gosselin, 2007; Goldfarb et al., 2005; Goldfarb et al., 2001; Groves et al., 1998). Formation of most orogenic gold mineralization was concentrated during the time intervals of 2.8 to 2.55 Ga (Archean), 2.1 to 1.8 Ga (Early Proterozoic) and 600 to 50 Ma (Phanerozoic); these periods coincide with major orogenic events. An important subtype of orogenic gold deposits is dominantly hosted by mafic metamorphic rocks in granite-greenstone terranes, referred to here as greenstone-hosted orogenic gold.

Greenstone-hosted orogenic gold deposits are structurally controlled epigenetic deposits that are hosted in deformed and regionally metamorphosed terranes. Gold occurs in networks of laminated quartz-carbonate fault-fill veins hosted in moderately to steeply dipping, compressional brittle-ductile shear zones and faults, with locally associated extensional veins and hydrothermal breccias. Most of these deposits are hosted by meta-mafic rocks of greenschist to locally lower amphibolite facies and formed at depths of 5-10 km. The relative timing of mineralization is typically syn- to late-deformation and syn- to post-peak metamorphism. They are formed from low salinity,  $H_2O$ - and  $CO_2$ -rich hydrothermal fluids with typically anomalous concentrations of  $CH_4$ ,  $N_2$ , K, and S. Gold may also occur outside of veins within iron-rich sulphidized wall rock.

Orogenic gold systems are typically associated with deep-crustal fault zones that usually mark the convergent margins between major lithological blocks. Furthermore, some of the largest greenstone-hosted orogenic gold deposits are spatially associated with fluvio-alluvial conglomerate (e.g. Timiskaming conglomerate) distributed along these crustal fault zones (e.g. Destor Porcupine Fault), suggesting an empirical space-time relationship between large-scale deposits and regional unconformities (Dubé and Gosselin, 2007).

Large gold camps are commonly associated with curvatures, flexures and jogs along these deep fault zones, which created dilational zones and a related increased ingress of hydrothermal fluid. Ore shoots can be localized by dilational jogs or various intersections between a structural element (e.g. fault, shear, vein) and a favourable lithological unit, such as a competent gabbroic sill, an iron formation or a particularly reactive rock. Individual vein thickness varies from just a few centimetres to over 10 m, even though entire deposits may be wider than 1 km and extend along strike for as much as 2 to 5 km. Some deposits have been economically mined to depths of 3 km.

The main ore mineral is native gold that is typically associated with pyrite, pyrrhotite, and/or chalcopyrite, along with trace amounts of molybdenite and telluride in some deposits. Arsenopyrite commonly represents the main sulphide phase in amphibolite-facies rocks, and in deposits hosted by clastic sediments. Sulphide minerals generally constitute less than 10%, and typically less than 5% of the volume of the ore bodies and exhibit little vertical zoning. The main gangue minerals are quartz and carbonate, with variable amounts of white mica, chlorite, tourmaline and, locally, scheelite.

Gold-bearing veins are typically enveloped by alteration halos that, in greenschist-facies rocks, grade outwards from iron-carbonate + sericite + sulphide (pyrite ± arsenopyrite) assemblages to various amounts of chlorite, calcite and, locally, magnetite. The dimensions of these alteration haloes vary with the composition of the host rocks and may envelop entire deposits hosted by mafic and ultramafic rocks. Pervasive chromium- or

vanadium-rich green micas (fuchsite and roscoelite) and ankerite with zones of quartz-carbonate stockwork are common in sheared ultramafic rocks. Hydrothermal assemblages associated with gold mineralization in amphibolite-facies rocks include biotite, amphibole, pyrite, pyrrhotite, and arsenopyrite, and, at higher grades, biotite/phlogopite, diopside, garnet, pyrrhotite and/or arsenopyrite, with variable proportions of feldspar, calcite, and clinozoisite. The variations in alteration styles have been interpreted as a direct reflection of the depth of formation of the deposits (Dubé and Gosselin, 2007).

# 9.0 EXPLORATION

Since acquiring the Martinière Property in 2010, Balmoral has completed 133,852 m of diamond drilling (Section 10.0) in addition to soil geochemistry surveys, airborne geophysics and ground-based geophysical surveys (IP, HLEM, magnetics) (Table 9-1). The location of geochemical and geophysical surveys is illustrated on Figure 9-1 and the results are summarized in more detail below.

Year	Soil Geochemistry	Airborne Geophysics	IP/Res	HLEM	Diamond Drilling			
rear	Samples	km flown	line-km	line-km	Holes	Meters		
2011		~600*	19.1		65	13,757.3		
2012	884				105	20,404.6		
2013	210		68.5	27.1	101	25,248.1		
2014			17.8		48	12,860.6		
2015					47	9,497.2		
2016			40.7		75	24,859.5		
2017					78	27,224.4		
TOTAL	1,094	~600*	146.1	27.1	519	133,851.7		

Table 9-1: Balmoral's exploration production on the Martinière Property

<sup>a</sup>Total of 1,216 line-km of which about half was flown on Martinière Property

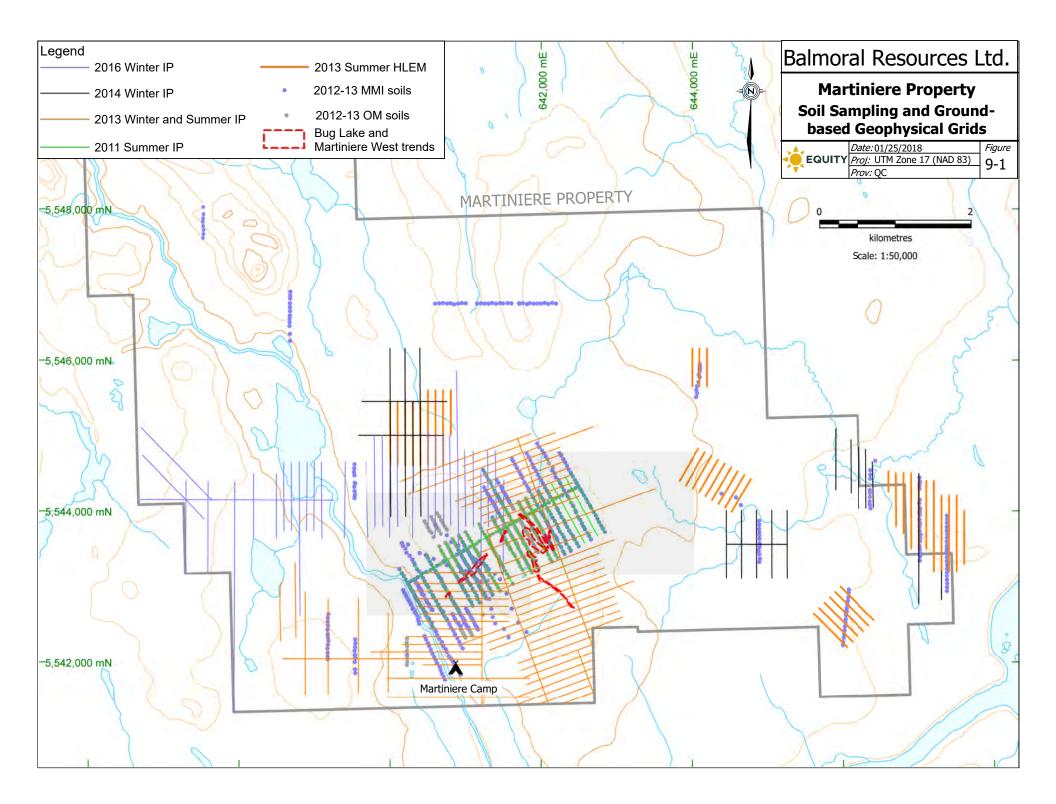
# 9.1 Soil Geochemistry Surveys

Balmoral has conducted three soil sampling campaigns on the Martinière Property (Table 9-1, Figure 9-1), with two in 2012 and the 2013 summer-fall program comprising part of a much larger project that also sampled Balmoral's nearby Detour East, Harri and Doigt properties (Perk et al., 2013b). Since overburden on the Property is both thick and transported, all three programs used procedures designed to detect mobile metal ion anomalies using SGS's proprietary MMI method. Ah horizon soil with organic material was collected where mineral soil was not available. Figure 9-1 shows the distribution of survey lines with samples taken at spacing of 25 m or 50 m.

The soil sampling data from the 2012 survey is not publicly filed whereas the 2013 data is available in assessment report GM 67745 (Perk et al., 2013b). All samples of mineral soil were sent to SGS Minerals in Toronto, Ontario, for 53-element analysis by the Mobile Metal Ion (SGS code MMI-M5) analysis technique. The organic material collected as part of the 2012 programs was sent to Acme Labs in Vancouver, British Columbia, for 53-element (including gold, silver and base metals) ultra-trace analysis by ICP mass spectrometry (Acme code 1F05). Blank samples inserted into the sample stream to monitor cross contamination returned no failures. Analysis of the 67 field duplicate pairs suggests that the absolute relative difference (ARD) for selected elements (e.g. Au, Ag, As, Mo, Pb, Sb, Zn, Ni) ranges up to 200%, whereas correlation coefficients (r<sup>2</sup>) for originals and duplicates range from 0.39 for gold to 0.81 for Cu.

No significant discoveries of bedrock mineralization have been made with the soil sample data collected by Balmoral. In addition, Balmoral has not conducted a soil sampling survey on the Property since 2013. It is possible that the overburden at Martinière is too water-saturated to provide a useful MMI response. Soil sampling therefore appears to be a generally ineffective exploration method for the Property.





# 9.2 Airborne Geophysics

In the fall of 2011, Balmoral contracted Geotech Ltd. of Aurora, Ontario, ("Geotech") to fly a helicopterborne Versatile Time Domain Electromagnetic (VTEM<sup>plus</sup>) and horizontal magnetic gradiometer survey over the entire Martinière Property as well as Balmoral's other properties in the region (Fiset et al., 2011). A total of 1216.2 line-km was flown on north-south lies, spaced 100 m apart, and east-west tie lines with 1000 m spacing, of which about half (or ~600 km) was flown on the Martinière Property. The logistical report and maps produced by Geotech are publicly filed with MERN as part of the 2011 assessment work (Fiset et al., 2011).

Magnetic data from the 2011 airborne survey is useful for mapping contacts between magnetic and non-magnetic units and interpreting structural breaks. For example, the gabbroic intrusion that hosts the Martinière West Deposit is well marked by the northeast grain of the magnetic gradient, as is its contact with the magnetically flat clastic rocks to its southeast (Figure 9-2). The Bug Lake Fault Zone (BLFZ) appears to truncate the magnetic expression of the gabbro body to the west.

The VTEM data showed the Martinière Property is covered by moderately conductive overburden (Fiset et al., 2011) and, more importantly, underlain by two significant conductive zones (Zone 3, 4 on Figure 9-3) along with several smaller anomalies. Follow-up drilling on the Zone 3 anomaly, which straddles the boundary between Balmoral's Martinière and Harri properties, shows it is likely related to a unit of pyrite-dominant semi-massive sulphide (Perk et al., 2013a) and/or graphitic argillite with up to 20% pyrite (Ben, 1997a). The "Zone 4" EM anomaly correlates with graphitic and pyrite-enriched siltstone, argillite and mudstone. Some of the smaller airborne anomalies were followed up with ground-based HLEM surveys, as described in section 9.4.

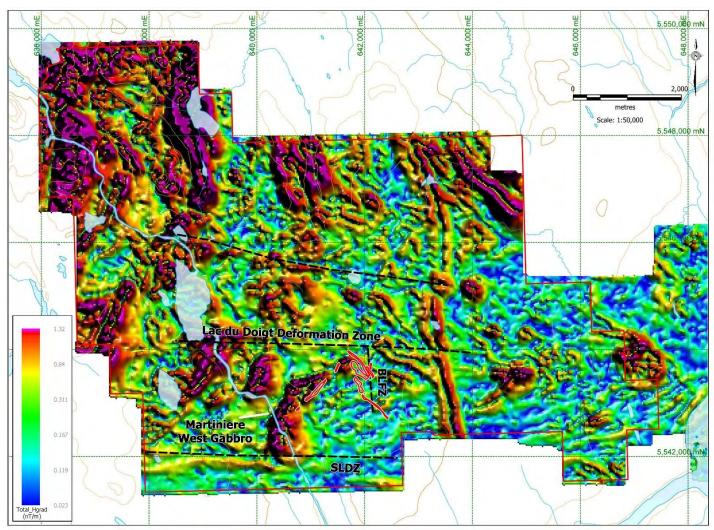


Figure 9-2: Magnetic total horizontal gradient map for the Martinière Property



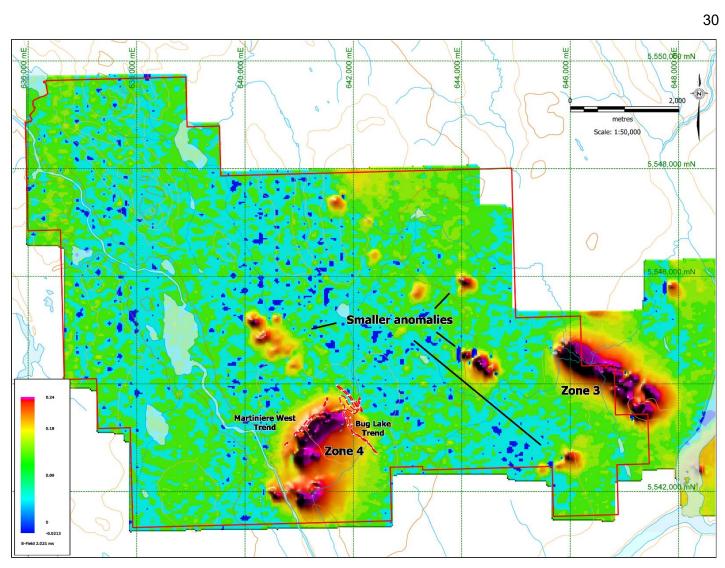


Figure 9-3: VTEM B-Field Z component channel 36 map for the Martinière Property

For exploration on the Martinière Property, airborne magnetic and EM surveys are a useful and costeffective method for delineating geological boundaries and structures, as well as detecting sulphide- and/or graphite-rich conductors. Higher resolution airborne magnetic and EM surveys could be useful to further help delineate structure and lithological units.

## 9.3 Induced Polarization (IP) Surveys

Ground-based induced polarization and resistivity surveys (IP) were done on the Martinière Property in 2011, 2013, 2014, and 2016 (see Table 9-1, Figure 9-1) and are effective at detecting disseminated sulphide mineralization like that associated with gold on the Martinière Property. Ground magnetic surveys were done in conjunction with the IP surveys.

The 2011 IP survey was done by Peter E. Walcott & Associates Ltd. ("Walcott") of Vancouver, British Columbia (BC) on a grid that followed up on historical drill results from the Martinière West and Martinière East structural domains. Walcott surveyed 21 northwest-trending lines spaced 100-200 m apart and one tie line, all with dipole spacing ("a") of 50 m expanded through twelve separations (n=1-12). In addition, Walcott completed both two- and three-dimensional chargeability and resistivity inversions (Walcott and Walcott, 2011). This work was not filed for assessment and is therefore not publicly available.



All subsequent IP surveys were done by Scott Geophysics Ltd of Vancouver, British Columbia ("SGL") under field management of Equity (2013, 2014 surveys) and Balmoral (2016). The February 2013 survey comprised just two short north-south trending lines in the southwestern corner of the Property and is publicly filed with MERN as part of assessment report GM 69210 (Voordouw et al., 2014a)

The July-August 2013 survey comprised 66.7 line-km split between the "Bug Lake" (41.55 line-km), "Martinière West" (20.25 line-km) and "Deformation Zone (DZ)" (4.9 line-km) grids. The Bug Lake and Martinière West grids were designed to explore extensions of their namesake gold trends and were done on 26 ENE-trending and 15 east-west survey lines, respectively, spaced 100-250 m apart. Survey parameters included an a-spacing of both 25 m and 50 m that were each expanded through n = 1-10 separations, thereby producing both high resolution near-surface and deep penetrating IP data. The DZ grid covered the northern margin of the SLDZ and comprised four north-south trending lines spaced 300 m apart surveyed with a-spacing of 50 m and n = 1-10 separations. This work was not filed for assessment and is therefore not publicly available.

The 2014 winter survey was done over three grids aimed at both orogenic gold and VMS targets. The VMS grids followed up on EM conductors defined by previous airborne (Fiset et al., 2011) and ground-based HLEM (Voordouw et al., 2014a) surveys (see Section 9.4). A total of 15 lines were surveyed on these three grids, at a-spacing of 25 m and at n = 1-10 separations. The logistical and results report for this survey was filed for assessment with report GM 69087 (Voordouw et al., 2014b).

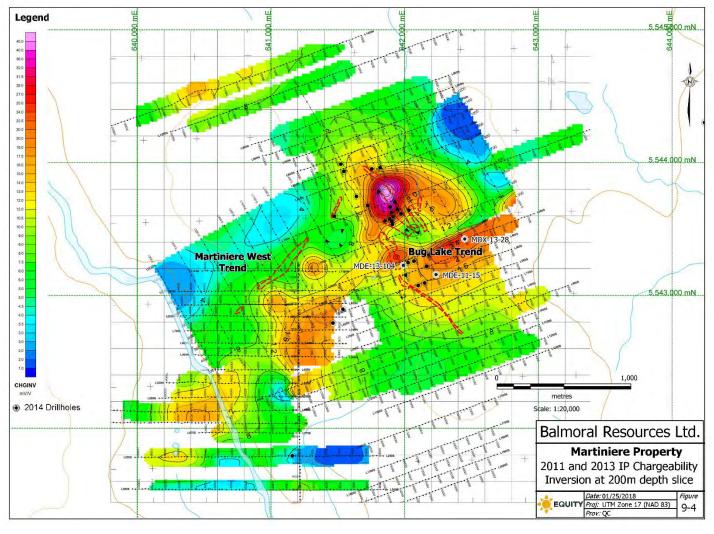


Figure 9-4: Modeled chargeability at 200 m depth slice from the 2011 and 2013 IP surveys





The 2016 winter survey consisted of 40.725 line-km centred on the western part of the Lac du Doigt Deformation Zone and also extended north of the LDDZ to test for the projected offset of the Bug Lake Trend. Readings were taken at a-spacing of 25 m and at n = 1-10 separations, with the logistics and results publicly filed with assessment report GM 69696 (Dufresne, 2016).

Figure 9-4 shows the modeled (inverted) chargeability at 200 m above sea level from the 2011 and summer-fall 2013 surveys. Prominent chargeability highs (>11 mV/V) are located southeast of the Martinière West Deposit, at the northern end of the Bug Lake Trend, and along line 300S of the Bug Lake grid. The chargeability high southeast of Martinière West also forms a prominent VTEM conductor and is related to layers of unmineralized graphitic argillite with 5-15% pyrite. High chargeability at the north end of the Bug Lake Trend is related to the Martinière East VMS body. The source of high chargeability on line 300S is more equivocal, with possible sources including pyrite-bearing graphitic argillite and/or isolated, up to 5 m thick, layers of pyrite-enriched (5-20% pyrite) basalt or argillite like those intersected in MDE-11-15, MDE-13-104 and MDX-13-28.

Resistivity lows (<3000 ohm\*m) are associated with VMS and graphitic argillite, which also form VTEM anomalies and chargeability highs. Regions of high resistivity (>15000 ohm\*m) are spatially associated with the Martinière West Deposit and also occur in the southeastern part of the Bug Lake grid. High resistivity associated with the Martinière West Deposit could be related to the silicification within the Martinière West Shear Zone. The origin of high resistivity in the southeastern part of the Bug Lake grid is unknown but possibly related to more abundant felsic and intermediate intrusive like that intersected in MDX-15-52.

The IP surveys done by Balmoral on the Martinière Property have therefore proved reliable at delineating pyrite and/or graphite accumulations in the subsurface, which could be related to orogenic gold mineralization as well as massive to semi-massive VMS occurrences, pyrite-bearing graphitic argillite and pyrite-barren graphitic argillite. Since gold shows a strong positive correlation with pyrite on the Property, IP surveys will likely continue to form an important part of the exploration strategy moving forwards.

### 9.4 Horizontal Loop Electromagnetic (HLEM) Surveys

In August 2013, Abitibi Geophysics Ltd ("Abitibi") of Val d'Or, Québec, conducted a 27.05 line-km horizontal loop electromagnetic survey (HLEM) on the Martinière Property (see Table 9-1, Figure 9-1). The field-based part of this survey was managed by Equity. The survey aimed to follow up on the more prominent VTEM anomalies identified by the 2011 airborne survey (see Section 9.2) and was completed over EM grids #1-5 (Voordouw et al., 2014a). A logistics report describing the parameters and operating procedures for the survey is attached are publicly filed with MERN as assessment report GM 69210 (Voordouw et al., 2014a).

The HLEM survey was done on cut lines that were chained at 25 m intervals. Data was acquired with a MaxMin I system and MMC computer manufactured by Apex Parametrics. Readings of the in-phase and quadrature (out-of-phase) secondary EM field, as a percentage of the primary field, were taken every 25 m. Rx-Tx coil spacing (CS) ranged from 100-150 m and frequencies were typically set at 220, 1760, 3520 (for CS = 150 m only) and 7040 Hz (CS = 100 m only). A ground magnetic survey was done by Abitibi on the same grid lines, using a GEM Systems GSM-19 field magnetometer and base station. Measurements of the Total Magnetic Field (TMF) were taken every 12.5 m.

Survey results identified 19 conductors, the larger of which include (a) an untested EM conductor with ~800 m of strike length on grid #2, (b) a 700 m long NW-SE trending anomaly on grid #3 that was drilled to yield 150 m of semi-massive sulphide followed by 41 m of massive to semi-massive sulphide, and (c) three NE-SW trending anomalies with 300 m of strike length that was drilled to yield 15 m of graphitic argillite with up to 6% pyrite.

The HLEM surveys provided higher resolution surveys of VTEM anomalies, providing more accurate determination of possible orientations and therefore improving drill targeting. Several of the HLEM conductors returned appreciable intercepts of massive to semi-massive sulphide, although with negligible base metal contents. HLEM surveys are therefore a useful method for improving the exploration drilling of VMS prospects on the Property.



EQUIT

#### **10.0 DRILLING**

Since 2011, Balmoral has drilled 519 diamond drill holes for 133,852 metres over 15 campaigns (Table 10-1). The standing operating procedures followed for each of these drilling campaigns are broadly similar and are summarized in the first sub-section (10.1). Sub-sections 10.2 to 10.8 provide more campaign-specific details like the contractors involved, distribution of drilling among the targets, key geological findings and assay highlights. The UTM coordinates, orientation and length of all 519 drill holes drilled by Balmoral on the Martinière Property are included in Appendix C.

The composites presented in tables 10-2 to 10-8 were calculated from Balmoral's drill assay database using the Drillhole Grade Compositing function in Micromine software. This function was used to calculate composites at trigger values of 0.1, 1, 3 and 5 g/t Au, with 0.3 m minimum length and a 5 m maximum consecutive length of waste. Figures 10-1 and 10-2 show collars and drill traces for the Martinière West and Bug Lake trends, respectively.

	Bug Lake Trend								Martinière West Trend					Other
Year	No	rth Zone	So	uth Zone	Low	er Steep	Oth	ner MDE	Mart	tinière West	Other MDW, Central			MDX
	DH	т	DH	т	DH	т	DH	т	DH	т	DH	т	DH	т
2011							16	4,244.0	44	8,355.3	5	1,158.0	0	0.0
2012	52	8,828.2					18	3,466.0	25	5,828.3	6	1,366.1	4	916.1
2013	13	3,036.0	13	1,850.0	1	596.6	24	5,526.6	17	6,357.9	23	5,338.0	10	2,543.0
2014	23	5,483.4	11	3,703.2			8	2,002.0					6	1,672.0
2015	32	5,195.0	2	337.0			5	1,416.9					8	2,548.4
2016	1	404.0	45	13,091.3	8	4,523.3	12	4,305.2			3	988.8	6	1,546.9
2017			28	10,813.1	7	4,370.4	36	9,944.9					7	2,096.0
Totals	121	22,946.6	99	29,794.6	16	9,490.3	119	30,905.6	86	20,541.5	37	8,850.8	41	11,322.3

Table 10-1: Overview of drill hole distribution among targets on the Martinière Property

## **10.1 Standard Operating Procedures**

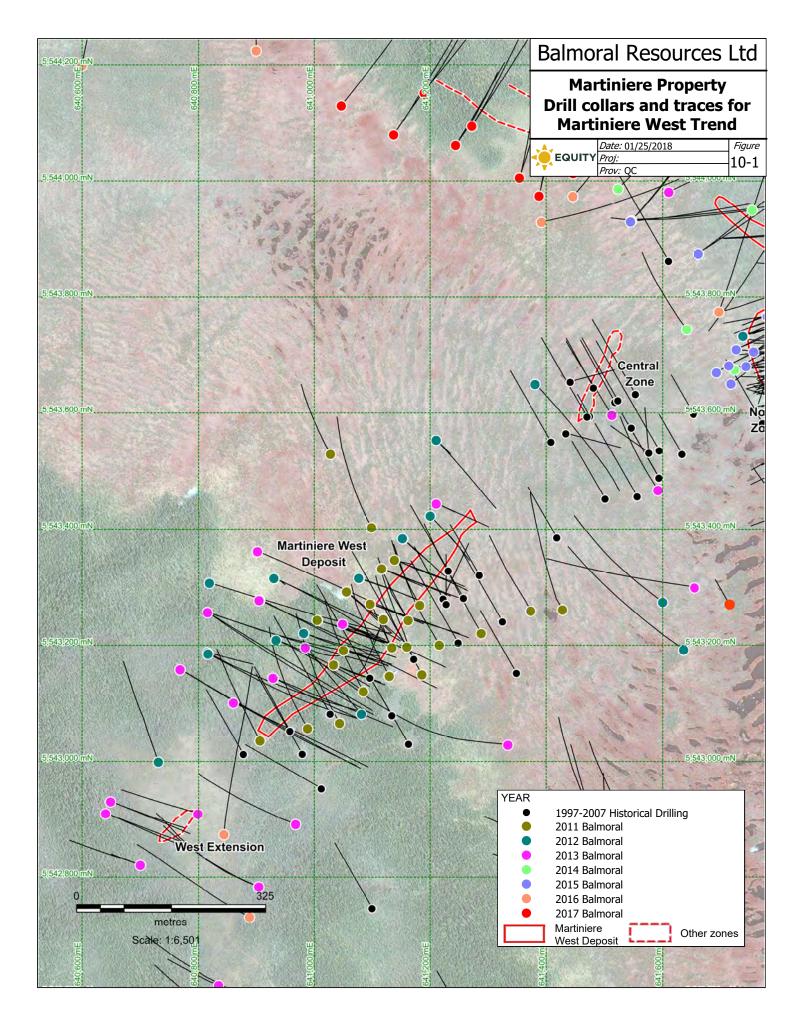
All drilling on the Martinière Property has been done with diamond drills using NQ-sized tools. Summer drilling is entirely helicopter-supported whereas winter drilling can be done with skid rigs that are moved with a D4 bulldozer, which has been stationed at Martinière Camp since the winter of 2013.

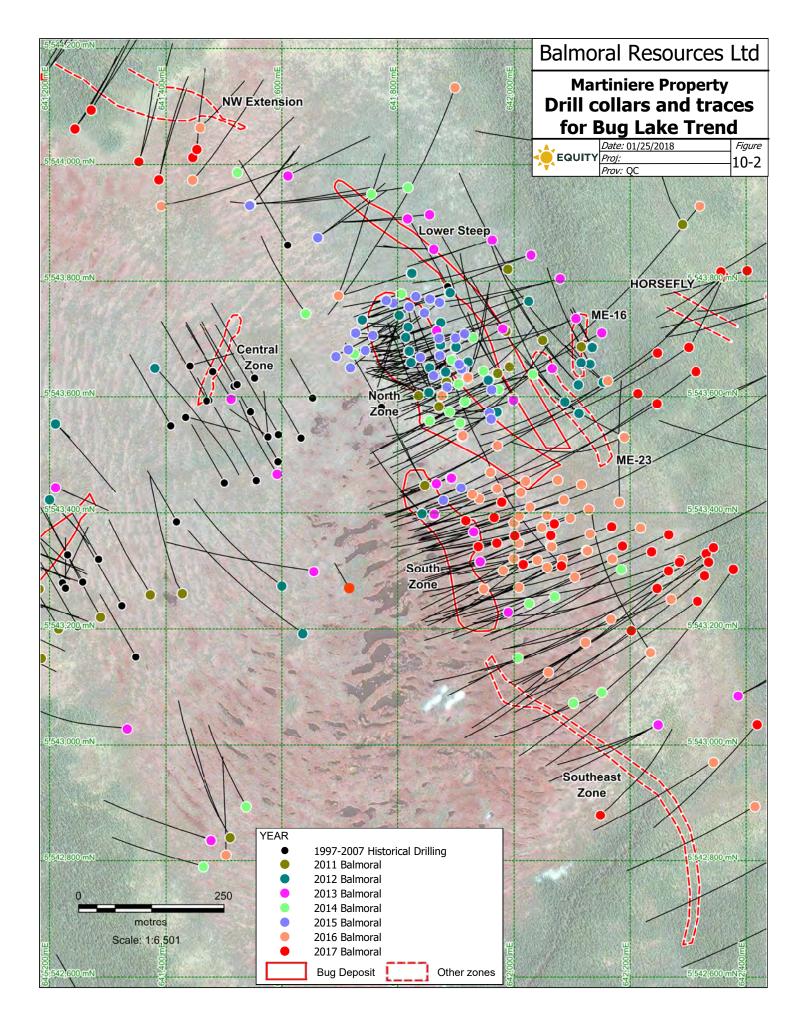
Proposed collar locations are staked in the field with a handheld GPS and drill pads are typically constructed by the drill contractor. Summer drill pad construction is more labour intensive, requiring manual assembly and disassembly so that the lumber can be flown with a helicopter. Winter construction typically involves clearing and flattening a pad with the dozer and putting some lumber down to stabilize the skid rig.

At the end of each drilling campaign, newly drilled collars were surveyed by an independent contractor. Collar surveys for the 2012 work were done by Corriveau J. L. & Associés Inc. of Val d'Or, Québec, 2013-2015 and winter 2017 surveys were done by Mazac Geoservices Inc. of St-Vital, Québec, and the 2016 and summer 2017 collar surveys were done by Patrick Descarreaux of La Sarre, Québec. All of these contractors used survey grade GPS receivers, reference stations and real time kinematic (RTK) corrections to measure the intercept of drill hole and ground surface at vertical and horizontal accuracy of ±0.05 m (1 standard deviation). When possible, the trend and plunge of casings was measured with a GPS-based compass.

Since the summer 2012 program, a GPS-based compass has also been used to align the drill rig at the planned azimuth prior to drilling. The 2011 and winter 2012 campaigns used a magnetic compass for rig alignment. GPS compasses used at Martinière include the Reflex North Finder Azimuth Pointing System (APS) and the MultiWave Smart Aligner, both of which are reported to provide accuracy of  $\leq 0.5^{\circ}$  azimuth when they are optimally connected to the satellite system.







Drill holes are named according to the part of the Property where they are drilled, the year drilled and the count for that drill hole in that particular part of the Property. The prefixes "MDE" and "MDW" refer to holes drilled in the Martinière East and Martinière West structural domains, which respectively include the Bug Lake and Martinière West trends. So, for example, hole MDE-13-110 was drilled in 2013 and is the 110<sup>th</sup> hole drilled on the Martinière East domain. The North, South and Lower Steep zones of the Bug Deposit are all defined by "MDE" holes, as are the Southeast, NW Extension, ME-16 and ME-23 zones. The Martinière West Deposit, West Extension and the Central Zone are MDW series. The MDX series refer mostly to holes drilled outside of the Martinière East and West domains.

Down hole surveys were mostly done concurrent to drilling, using single shot instruments at 15 m intervals. Tools used include the FlexIt in 2011 and the Reflex EZ-Shot from 2012 to 2017. Upon completion of the hole, approximately 60 of the 518 drill holes were also surveyed with a Reflex Gyro, which unlike the single shot tools are unaffected by magnetic rocks. Gyro surveys comprise highly accurate readings of relative drill hole azimuth and dip deviation, and are typically taken at 5 m intervals to produce a more accurate image of the drill string in comparison to the single shot tools. Casings have been left in the ground for 413 of the 519 holes (80%).

For all 15 drill campaigns, core was placed in routered wooden core trays at the drill site, labelled with the hole and box number (e.g. MDW-11-01 Bx 1), sealed with a lid and strapped with wire or fibre tape. Twice per day, at shift change, the newly drilled core was transported from the drill site to a core storage and logging facility, mostly via helicopter but also by snowmobile during the winter 2013-2017 campaigns. Camp Fenelon functioned as the core storage and logging facility for the 2011 work as well as the first hole (MDW-12-44) of the winter 2012 program, whereas all subsequently drilled core was logged and is currently stored at Martinière Camp.

At the core logging facility, drill core was first geotechnically logged and then geologically logged, photographed and sampled. Geotechnical logging involved measurement of recovery, rock quality designation (RQD) and magnetic susceptibility for all programs, as well as specific gravity since 2012. Core recovery is very high, averaging 99.3% for all of Balmoral's drilling and with yearly averages ranging from 98.2% to 99.7%. RQD has averaged 92.8% for all drilling with yearly averages 82.6% to 97.9%, corresponding to high quality rock (RQD>75%) that classifies as mostly hard (90%>RQD>76%) to fresh (100%>RQD>91%). Geological logging included codified and written descriptions of lithology, mineralization, alteration and structure. Core samples were laid out by the geologist and marked out in the box with markers and tags, after which the core was moistened and photographed in groups of 4-5 boxes.

Where sampled, core was sawn in half with a diamond-bladed core saw with one half submitted for analysis and the other half retained for reference. Field duplicates were collected as a quarter-core sample from the half core reference sample, thereby leaving just a quarter core in the box for reference. Core boxes were labelled with aluminum tags indicating the hole number and the core interval, and are currently stored at Fenelon Mine (some 2011 core), Camp Fenelon (some 2011 core, MDW-12-44) and Martinière Camp (all 2012 holes except MDW-12-44 and all 2013 to 2017 core).

Samples were collected from all mineralized core intersected in drilling and from their immediate hanging walls and footwalls. Due to the broadly developed and sometimes cryptic nature of gold mineralization, 81% of the total bedrock metres drilled was sampled and assayed over roughly 1.0 m geologically-guided intervals. Interval lengths for the assay composites shown in Tables 10-2 to 10-8 are core lengths rather than true widths. For Martinière West drill holes MDW-11-01 to -27, the true widths of mineralization are likely equivalent to 50-60% of the core widths whereas MDW-11-28 and most of the holes drilled since then have true widths equal to 70-85% of core widths. Holes drilled on the Bug Lake Trend show similar improvement, with core length intercepts in MDE-11-01 to MDE-12-24 equivalent to approximately 25% of true width and most holes drilled since MDE-12-25 returning true widths equal to 65-90% of core widths.

In the authors' opinion, there were no drilling, sampling, or recovery factors reported from any of the 15 drill campaigns conducted by Balmoral in 2011-2017 that could materially impact the accuracy and reliability of the results.

36



### 10.2 2011 Drilling Program

The 2011 drilling was carried out by Landdrill International Ltd. of Moncton, New Brunswick, ("Landdrill") under the management of Caracle Creek International Consulting Inc. of Sudbury, Ontario ("Caracle Creek"). Highlights of the program include the structural delineation of the Martinière West Deposit and discovery of the ME-16 Zone. Results are publicly filed with MERN as assessment report GM 69192 (Perk et al., 2012).

Drilling was done in a winter campaign from 23 January 2011 to 23 April 2011 and then a summer campaign from 02 July 2011 to 28 September 2011. Over the winter campaign, Landdrill completed 5639.7 m in 90 days for a daily average of 63 m per day. In the summer, 8118 m was drilled over 88 days for a daily production average of 92 m per rig.

The 2011 drill program focussed on the Martinière West and Martinière East structural blocks, which are separated from each other by the Bug Lake Fault Zone (BLFZ). At that time the BLFZ was not recognized as a gold-bearing structure. The majority of the 2011 holes were drilled into the West block, with the bulk focussed on defining the Martinière West Deposit. Historical drilling from this area had returned intercepts of 11.1 g/t Au over 1.5 m and 12.8 g/t Au over 1.5 m (Guy, 2000) Two of the first four holes drilled by Balmoral at Martinière West (MDW-11-01, -04) intersected significant intervals of high-grade gold mineralization (Table 10-2) that confirmed the historical data. All 13 holes from the 2011 winter program were drilled at azimuths parallel to the historical holes (330°). The first three holes of the summer program (MDW-11-14 to -16), however, were drilled at an azimuth of 200° to test, and subsequently reject, a shallowly-plunging model for the main gold-bearing structure. The next 13 holes were drilled at azimuths of 330° or 130° until it was determined that the Deposit strikes 020-030° and dips steeply to the northwest (70-80°). All subsequent holes, starting with MDW-11-28, were therefore drilled at 110°-113° with dips between -45° and -70°. Several high-grade intercepts were returned from the 2011 drilling at Martinière West (Table 10-2), with MDW-11-01 to -27 having true widths equal to 50-60% of their core widths whereas MDW-11-28 to -43 have true widths equal to 70-85% core width.

			•				
Hole ID	Trigger Value Au (g/t)	From (m)	To (m)	Core length (m)	Au (g/t)	g/t*m Au	Zone or Subzone
MDE-11-01	1.0	57.0	75.6	18.6	5.6	104.1	North LBsz (low recovery and ATCA)
MDE-11-11	1.0	94.2	108.0	13.9	5.4	74.9	Unnamed (Martinière East)
MDE-11-14	0.1	129.0	141.9	12.9	4.0	51.0	North HWsz
MDE-11-16	1.0	51.0	53.9	2.9	27.1	78.6	ME-16
MDW-11-01	1.0	106.0	118.0	12.0	12.9	154.6	Martinière West
MDW-11-04	1.0	80.3	100.7	20.4	8.8	180.4	Martinière West
MDW-11-10	1.0	229.9	230.7	0.8	103.0	80.3	Martinière West
MDW-11-14	1.0	68.8	79.2	10.4	7.4	77.4	Martinière West
including	5.0	75.0	75.9	0.9	68.2	57.9	Martinière West
MDW-11-17	1.0	52.5	74.0	21.5	7.8	167.1	Martinière West
including	5.0	64.9	73.0	8.2	14.5	118.1	Martinière West
	1.0	99.2	102.0	2.9	24.0	69.5	Martinière West
including	5.0	101.0	101.5	0.5	131.5	65.8	Martinière West
	1.0	174.0	174.4	0.4	164.5	59.2	Martinière West
MDW-11-19	1.0	135.5	164.1	28.6	4.2	120.9	Martinière West
including	5.0	147.0	147.8	0.8	96.4	77.1	Martinière West
MDW-11-22	1.0	67.5	68.9	1.4	74.5	101.3	Martinière West
MDW-11-24a	1.0	120.7	124.4	3.7	27.5	102.7	Martinière West
	1.0	150.7	151.1	0.4	157.5	61.4	Martinière West
MDW-11-25	1.0	132.3	146.5	14.2	5.9	83.5	Martinière West
including	5.0	133.3	135.4	2.1	33.8	72.3	Martinière West
MDW-11-30	1.0	142.0	144.3	2.3	43.4	101.0	Martinière West
MDW-11-31a	1.0	162.2	176.2	14.0	3.8	53.8	Martinière West
MDW-11-41a	1.0	59.8	82.4	22.6	4.3	96.2	Martinière West

Table 10-2: Intersections >50 g/t Au \* m from 2011 drilling on the Martinière Property



Drilling in the Martinière East block was mostly done at an azimuth of 320° to 330° and at dips of -45° to -60°, broadly orthogonal to stratigraphy and subparallel to the Bug Lake Trend. Nonetheless, several of these holes returned mineralized intercepts from what would later turn out to be North Zone (MDE-11-01, -14) and the very northern end of South Zone (MDE-11-12, -13). The true thickness of the North Zone intersected in MDE-11-01 is probably about 25% of the core width. MDE-11-14 was drilled orthogonal to all other 2011 MDE holes and the North Zone, intersecting what would later be defined as the Upper and Lower Bug subzones as well as a HWsz grading 17.6 g/t Au over 2.1 m. The Martinière East VMS system was also intersected in several of the 2011 holes, with core assays returning negligible base and precious metal results.

# 10.3 2012 Drilling Program

The 2012 diamond drilling program marked an important turning point for exploration on the Martinière Property, with the discovery of the North Zone and realization that the BLFZ is an important host for gold mineralization. The ME-23 Zone was also discovered. Drilling was done in three campaigns, comprising a winter and summer program that was followed-up with a fall program focussed entirely on expanding the North Zone. All field operations were managed by Equity Exploration Consultants Ltd ("Equity") of Vancouver, BC. Results of this work are publicly filed with MERN as assessment report GM 67653 (Perk et al., 2013a).

The winter campaign was drilled by George Downing Estate Drilling Ltd of Grenville-sur-la-Rouge, Québec, ("Downing"), who averaged 96 metres of drill production per day over 64 days of drilling. The summer and fall 2012 programs were done by Norex Drilling Ltd. of Porcupine, Ontario ("Norex"). The summer program was drilled over 48 days between 04 July to 21 August 2012, for an average daily production of 114 m. The fall program was drilled over 22 days for average core production of 146 m/day.

The Martinière West Deposit received 55% of the metres drilled in the 2012 winter program, followed by 22% of the summer metres and then none in the 2012 fall program. Drill depths progressively deepened through 2012, with winter holes drilled mostly to 125-250 m depth, late winter holes drilled to 325-375 m and then all of the summer holes drilled between 405-516 m core depth. Assay results were generally disappointing with only one composite exceeding 50 g/t Au \* metres (Table 10-3). The steady decrease in allocated metres, increase in drilling depths and decreased grade reflect the closure of this Deposit along strike and at depths above 400 m below the surface.

Drilling at Martinière East included 11 holes that followed up on the previous year's discovery of ME-16, with the best results returned from MDE-12-56 (Table 10-3). The ME-23 Zone was discovered in the winter program with hole MDE-12-23, which returned 6.8 g/t Au over 5.8 m. Additional drilling, however, was unable to establish predictable continuity on either of the ME-16 or -23 zones.

The North Zone was discovered with holes MDE-12-25, -26 and -26A, which were the first drilled to specifically target gold mineralization in the BLFZ. Hole MDE-12-25 could be considered the discovery hole for the Bug Deposit, as it returned gold mineralization in the Hanging Wall (7.2 g/t Au over 3.3 m), Upper Bug (2.7 g/t Au over 6.0 m) and Lower Bug (4.7 g/t Au over 6.1 m) subzones. Hole -25 was drilled towards the end of the winter program and so the ensuing summer work dedicated 27 drill holes to define and expand this new discovery. Highlights for this part of the program include the discovery of the very high-grade North Footwall Subzone in MDE-12-29 and several significant intercepts of the UBsz and LBsz (Table 10-3).

The fall 2012 program was planned in lieu of the material assay results returned from the first phase of North Zone drilling in the summer of 2012. A total of 22 holes were drilled, 21 of which targeted the North Zone (MDE-12-64 to -83) and one that was drilled as a water well next to camp (MWW-12-01). Highlights are summarized in Table 10-3.

Two holes were also drilled into the historical Central Zone (Figure 10-1), although one of these was abandoned at 12 m depth. Assay results from MDW-12-44 including three 1 m samples grading 1-2 g/t Au as well as long intervals with anomalous gold (Perk et al., 2013a).



Hole ID	Trigger Value Au (g/t)	From (m)	To (m)	Core length (m)	Au (g/t)	g/t*m Au	Zone or Subzone
MDE-12-20	1.0	41.0	50.3	9.3	11.3	104.9	ME-16
including	5.0	46.4	48.2	1.8	55.3	99.5	ME-16
MDE-12-23	1.0	121.0	126.8	5.8	6.7	39.1	ME-23
MDE-12-24	0.1	279.0	317.1	38.1	1.4	51.9	UBsz (low ATCA)
MDE-12-27	0.1	25.0	103.8	78.8	0.7	51.7	LBsz (low ATCA)
MDE-12-29	1.0	166.0	173.8	7.8	117.3	912.8	North FWsz
including	15.0	170.4	171.0	0.5	1255.0	690.2	North FWsz
MDE-12-39	1.0	35.6	36.5	1.0	195.5	189.6	North HWsz
	0.1	105.0	153.4	48.4	1.1	55.3	North LBsz
MDE-12-46	1.0	133.1	138.3	5.2	12.5	64.5	North LBsz + FWsz
including	5.0	134.0	135.6	1.6	35.7	56.3	North LBsz
MDE-12-56	1.0	106.0	107.0	1.0	138.0	138.0	ME-16
MDE-12-58	1.0	47.9	49.3	1.4	68.7	94.1	North HWsz
MDE-12-59	0.1	74.0	160.3	86.3	1.0	84.4	North LBsz + FWsz
MDE-12-60	1.0	105.1	120.7	15.7	3.7	58.6	North LBsz
	1.0	172.4	174.8	2.4	67.6	165.0	North FWsz
MDE-12-61	1.0	110.4	128.6	18.2	2.8	51.9	North LBsz
MDE-12-62	0.1	49.0	126.8	77.7	1.0	78.7	North LBsz + FWsz
MDE-12-63	1.0	105.7	111.4	5.7	16.5	93.8	North FWsz
MDE-12-65	1.0	60.6	80.3	19.7	7.7	150.9	North FWsz
including	5.0	60.6	65.8	5.3	24.2	127.2	North FWsz
MDE-12-68	1.0	70.5	93.2	22.7	3.5	80.2	North UBsz + LBsz
including	5.0	71.1	79.3	8.2	7.0	57.1	North UBsz
MDE-12-70	1.0	79.7	90.4	10.7	7.3	78.3	North HWsz
including	5.0	79.7	81.8	2.1	36.0	74.5	North HWsz
MDE-12-72	1.0	25.7	32.5	6.7	22.6	151.9	North LBsz
	1.0	59.2	64.5	5.3	16.0	84.4	North FWsz
MDE-12-74	1.0	61.6	62.8	1.2	42.1	50.1	North HWsz
	0.1	108.1	139.4	31.3	2.0	61.6	North LBsz
MDE-12-77	1.0	59.9	83.0	23.1	3.1	72.1	North FWsz
MDE-12-78	0.1	31.4	106.0	74.6	0.7	55.8	North LBsz + FWsz
MDE-12-83	1.0	18.1	27.0	8.9	11.7	104.5	North UBsz
MDW-12-62	1.0	417.2	419.4	2.2	28.3	61.6	Martinière West
MDX-12-01	0.1	280.0	362.0	82.0	0.6	45.9	Unnamed (Martinière Centra
including	1.0	282.5	286.6	4.1	2.7	11.0	Unnamed (Martinière Centra
and	1.0	309.0	319.4	10.4	1.3	13.9	Unnamed (Martinière Centra

# Table 10-3: Intersections >50 (MDE, MDW) and >10 (MDX, ME-23) g/t Au \* m from 2012 drilling at Martinière

The first seven of the "MDX" series holes were also drilled in 2012 and mostly followed up on EM and magnetic targets generated from the 2011 airborne survey. Five of these holes reported at least one intercept in excess of 2.5 g/t Au \* metre, with the most successful comprising MDX-12-01 (Table 10-3). Gold mineralization in this hole is hosted in Martinière West-style silicified shear zones with up to 15% pyrite and trace abundances of arsenopyrite, galena and sphalerite.



#### 10.4 2013 Drilling Program

The 2013 drilling program was done in winter and summer campaigns, and at that time comprised the largest drilling program (in terms of metres drilled) carried out by Balmoral at Martinière. Notable results include the discovery of the South and Southeast zones on the Bug Lake Trend, the West Extension on the Martinière West Trend and the northwest tracing of the BLFZ towards its intersection with the east-west trending Lac du Doigt Deformation Zone (LDDZ). Results of this work are publicly filed with MERN as assessment report GM 69210 (Voordouw et al., 2014a).

All of the 2013 drilling was done by Norex Drilling Ltd. of Porcupine, Ontario ("Norex"). The winter program was drilled with two rigs from 08 January to 24 March 2013 (75 days), for average daily production of 96 m per drill rig (over 142 rig days). The relatively low production for this campaign was in part related to a 10-day spell of exceptionally cold weather that slowed daily production to 24 m per rig. The summer program was drilled over 90 days from 23 July to 21 October 2013, using a single helicopter-supported drill that averaged 129 metres per day.

Drilling on the North Zone was focussed on along-strike expansion to the south and north. This work was successful in tracing Bug Lake-style mineralization 250 m south of the North Zone, in what is now defined as the South Zone. Northward-directed drilling was successful at tracking the BLFZ but returned only weakly mineralized intervals, with the best assay composite returning 1.7 g/t Au over 13.7 m in MDE-13-106. Hole MDE-13-113 discovered the Lower Steep Zone with a deep test below the North Zone, intersecting long intervals of Bug Lake-style mineralization from 250 m to 500 m true vertical depth below the surface. Assays include 1.0 g/t Au over 33.6 m. The Southeast Zone was discovered with holes MDE-13-116 through -118, which returned a best composite of 1.5 g/t Au over 16.7 m in hole -117.

Drilling on the Martinière West Deposit consisted mostly of 300-520 m deep holes for the winter program, along with a 672 m deep hole, and then shallow (75-150 m) to deep (470-580 m) drilling in the summer program. One of the shallow holes (MDE-13-88) returned the highest-ever intercept from the Martinière West Deposit at 8.0 g/t Au over 28.5 m between 94.9 to 123.3 m core depth (Table 10-4). However, besides this intercept the results were otherwise disappointing with limited returns from both the deep and shallow drilling. Following this program, no further drilling was done on the Martinière West Deposit until 2016.

One follow-up hole was drilled on the ME-23 zone and returned disappointing results, with a best assay of 1.5 g/t Au over 1.2 m. Follow-up drilling on the Central Zone returned short multi-gram intercepts that included 4.9 g/t Au over 1.1 m, 7.6 g/t Au over 0.5 m and 2.5 g/t over 1.1 m.

The 2013 program was somewhat unique in the significant meterage applied to the MDX series of drill holes, with 34 holes (for 7,752.6 m) drilled on targets away from the Bug Lake and Martinière West trends. The most significant result of this work was the discovery of the West Extension in MDX-13-13, which returned 2.3 g/t Au over 24.1 m. The down-dip hole (MDX-13-15) returned an assay composite of 0.2 g/t Au over 22.0 m, and seven additional follow-up holes returned intercepts that included 3.2 g/t over 6.4 m and 12.2 g/t over 1.1 m in MDW-13-82, 5.0 g/t over 3.6 m in MDW-13-80, as well as 4.4 g/t over 1.1 m and 4.3 g/t over 1.0 in MDX-13-11. Mineralization style is similar to the Martinière West Deposit, comprising mostly gold-enriched silicified shear zones hosted in non-magnetic quartz gabbro.

Other MDX targets included testing of (a) alternate SW to southward extensions of the Martinière West Deposit, (b) inferred north-south trending structures lying east to northeast of the Bug Lake Trend, (c) the Martinière Central area, (d) the northern margin of the Sunday Lake Deformation Zone, (e) transitions from high to low magnetic intensity that coincide with poly-metallic soil anomalies, and (f) VTEM and HLEM anomalies comprising possible VMS targets. The most notable results were returned from unnamed zones lying 400-500 m south of the Martinière West Deposit (see MDX-13-17A in Table 10-4), an unnamed zone collared 500-550 m east of the North Zone (MDX-13-26) and two unnamed zones in the Martinière Central area from drill holes MDX-13-36 (Table 10-4) and MDX-13-24 (1.7 g/t over 5.4 m), which were collared 500 m apart. Follow-up drilling on EM targets discovered two new pyrite-rich VMS systems, though both lack base or precious metal enrichment (Voordouw et al., 2014a). Drilling of the SLDZ and poly-metallic soil anomalies returned negligible results.



Hole ID	Trigger Value Au (g/t)	From (m)	To (m)	Core length (m)	Au (g/t)	g/t*m Au	Zone or Subzone
MDE-13-86	1.0	49.7	74.2	24.5	2.5	61.4	South LBsz
MDE-13-92	1.0	48.0	52.0	4.0	13.7	54.8	South HWsz + UBsz
including	5.0	51.6	52.0	0.4	124.0	53.3	South HWsz
MDE-13-103	0.1	306.2	353.0	46.8	1.1	51.5	Lower Steep UBsz
MDE-13-119	0.1	81.4	146.2	64.8	0.8	51.3	North LBsz + FWsz
MDE-13-120	1.0	51.0	64.7	13.7	6.7	91.3	North UBsz
including	5.0	55.0	63.7	8.7	9.9	86.1	North UBsz
MDE-13-121	1.0	124.3	131.9	7.6	8.9	67.3	North UBsz + LBsz
including	5.0	129.6	131.1	1.5	39.6	59.0	North LBsz
MDE-13-122A	1.0	186.6	192.8	6.2	26.4	164.0	North FWsz
including	5.0	186.6	187.1	0.5	233.0	123.5	North FWsz
MDW-13-88	0.1	97.3	123.3	26.0	9.1	237.0	Martinière West Deposit
including	5.0	101.9	103.9	1.9	112.9	220.1	Martinière West Deposit
MDX-13-13	0.1	237.6	261.7	24.1	2.2	54.3	West Extension
including	5.0	250.5	257.1	6.6	6.8	44.6	West Extension
MDX-13-17A	1.0	127.0	129.3	2.2	7.5	16.6	Unnamed (Martinière West)
	1.0	174.4	176.8	2.4	12.9	31.6	Unnamed (Martinière West)
MDX-13-26	1.0	64.4	66.7	2.3	5.6	12.8	Unnamed (Martinière East)
MDX-13-36	1.0	112.4	117.6	5.2	2.1	10.7	Unnamed (Martinière Central)

#### Table 10-4: Intersections >50 g/t Au \* m (MDE, MDW) and >10 g/t Au \* m (MDX) from 2013 drilling at Martinière

# 10.5 2014 Drilling Program

The 2014 program saw a significant reduction in drilling meterage relative to 2013 (see Table 10-1). Drilling was mostly focussed on the North and South zones of the Bug Deposit, as well as the northern and southern extensions of the Bug Lake Trend. Six exploration holes testing geophysical and/or soil anomalies were also completed. Results of this work are publicly filed with MERN as assessment report GM 69087 (Voordouw et al., 2014b).

The 2014 drilling was again done by Norex, who completed the winter program with one skid drill rig in 47 days from 04 February to 23 March 2014, for average daily production of 136 metres. The summer program was also drilled with a single helicopter-supported rig over 47 days, from 01 July to 17 August 2014, for an average daily production of 137 metres.

The bulk of 2014 drilling focussed on the North and South zones, which received 43% and 29%, respectively, of all the metres drilled in 2014. The highlight of this program was MDE-14-143, which was drilled to both intersect the North and Lower Steep zones. Assay results from the North Footwall Subzone included 8,330 g/t Au over 0.6 m whereas the Lower Steep UBsz returned 7.7 g/t Au over 15.6 m, including 77.5 g/t Au over 1.4 m (Table 10-5). Both intercepts comprise the highest ever composites recorded for these zones, with the North FWsz intercept comprising the highest ever assay from the Property. The best assay composite from the South Zone drilling returned 42.0 g/t Au over 2.3 m in MDE-14-147 (Table 10-5).

Additional exploration on the northward extension of the BLFZ discovered long intervals of banded quartz-sericite and chlorite schist interpreted as a steeply south dipping, west-northwest to east-west striking ductile shear zone, later interpreted as the Lac du Doigt Deformation Zone (LDDZ). Assays indicate broad intervals of 0.5 g/t Au mineralization in addition to a few high-grade intercepts of 20.6 g/t Au over 1.1 m and 12.2 g/t Au over 1.9 m in MDE-14-155, as well as 15.4 g/t Au over 0.6 m in MDE-14-165.



Hole ID	Trigger Value Au (g/t)	From (m)	To (m)	Core length (m)	Au (g/t)	g/t*m Au	Zone or Subzone
MDE-14-128	0.1	228.6	273.6	45.0	1.4	65.1	North FWsz
MDE-14-131	0.1	119.9	197.0	77.1	0.9	72.2	North LBsz
MDE-14-134	0.1	127.1	165.1	37.9	1.5	56.6	North UBsz + LBsz
	0.1	173.9	210.4	36.5	1.4	51.6	North FWsz
MDE-14-143	1.0	88.3	116.4	28.0	170.7	4784.5	North LBsz + FW
including	10.0	106.9	107.5	0.6	8330.0	4748.1	North FWsz
	1.0	395.3	402.8	7.5	15.5	116.4	Lower Steep UBsz
including	5.0	396.3	397.7	1.4	77.5	108.5	Lower Steep UBsz
MDE-14-145	0.1	59.0	138.2	79.2	2.2	175.6	North LBsz + FWsz
including	5.0	73.7	74.6	0.8	152.6	129.7	North FWsz
MDE-14-147	0.1	288.3	296.3	8.0	12.5	99.9	South UBsz
including	5.0	293.1	293.8	0.7	132.5	95.4	South UBsz
MDX-14-46	0.1	18.4	22.0	3.6	2.1	7.7	Unnamed (LDDZ)
including	5.0	20.7	21.1	0.4	15.8	6.8	Unnamed (LDDZ)

#### Table 10-5: Intersections >50 g/t Au \* m (MDE) and >5 g/t Au \* m (MDX) from 2014 drilling at Martinière

Six exploration holes were drilled in 2014, with one of these aimed at a far-western extension of the newly discovered LDDZ, three aimed at other orogenic gold targets and the remaining two targeting VMS. The most successful of these was MDX-14-46, which was collared 2.5 km west of the LDDZ intersected in holes MDE-14-155 and -165 and returned a long interval of sheared rock in addition to several intervals with anomalous gold, the best of which assayed 25.5 g/t Au over 0.4 m. Other exploration holes tested the edges of the Grid #3 VMS unit, attempted to trace significant gold intercepts in the Martinière South area and explored the northern margin of the SLDZ, with none of these holes returning appreciable gold values.

### 10.6 2015 Drilling Program

The 2015 program again saw a reduction in drilling compared to the previous year and marks, to date, the lowest yearly meterage drilled by Balmoral on the Martinière Property (see Table 10-1). The winter drill program was exclusively focussed on infill drilling of the North Zone whereas the summer program drilled a wide range of targets, with 55% of those metres allocated to the MDX series of drill holes. Results of this work are publicly filed with MERN as assessment report GM 69310 (Voordouw and Perk, 2016).

All 2015 drilling was done by Norex, who completed the winter program with one skid drill rig in 41 days from 14 February to 27 March 2015, for average daily production of 120 metres. The summer program was drilled with a single helicopter-supported rig also over 41 days, from 07 July to 17 August 2015, for an average daily production of 112 metres. The decrease in summer daily drill production relative to previous programs probably reflects the widely distributed nature of the drill holes, which required longer drill moves and was done from pads that were less accessible from Martinière Camp.

The winter 2015 infill drill program aimed to achieve a minimal 25 m pierce point spacing across the North Zone. Assay composites exceeding 50 g/t Au \* metres were intersected in 12 of these holes, with the bulk of these returned from the steeply south-plunging Footwall Subzone (Table 10-6). Intercepts exceeding 50 gram-metres were also returned from the Upper and Lower Bug subzones. The summer 2015 program included two additional infill holes on the North Zone but was otherwise more exploration-based, testing the Bug Lake Trend along strike to the north and south, targets east of the Bug Lake Trend, the SLDZ, the LDDZ, and other targets on the Property. Drilling southward along the Bug Lake Trend returned intercepts of 1.2 g/t Au over 34.1 m and 1.7 g/t Au over 17.1 m from the top part of the South Zone, as well as 0.2 g/t Au over 18.5 m from more exploratory holes drilled 1100 m south-southeast of the Bug Lake Trend, including 27.3 g/t Au over 0.8 m, 9.0 g/t Au over 1.0 m and 12.4 g/t over 0.6 m in MDE-15-200. These intercepts occur in an unnamed zone lying 175 m north-northwest of the North Zone and 240 m southeast of the NW Extension.



Hole ID	Trigger Value Au (g/t)	From (m)	To (m)	Core length (m)	Au (g/t)	g/t*m Au	Zone or Subzone
MDE-15-166	1.0	118.8	163.2	44.5	18.1	805.9	North FWsz
including	5.0	134.8	141.9	7.1	75.4	536.2	North FWsz
and	5.0	147.9	158.9	11.1	21.3	235.5	North FWsz
MDE-15-167	1.0	164.6	197.2	32.5	1.9	60.2	North LBsz + FWsz
MDE-15-168	1.0	199.4	210.4	11.0	10.9	120.3	North FWsz
including	5.0	199.4	206.2	6.8	16.5	111.9	North FWsz
MDE-15-170	1.0	31.2	40.2	8.9	6.3	56.5	North UBsz
	1.0	105.5	116.4	10.9	21.9	239.6	North FWsz
including	5.0	105.5	105.9	0.4	132.5	51.7	North FWsz
and	5.0	111.6	115.7	4.0	42.3	170.0	North FWsz
MDE-15-171	1.0	69.4	70.1	0.7	89.2	61.5	North HWsz
including	5.0	69.4	70.1	0.7	89.2	61.5	North HWsz
MDE-15-173	1.0	119.1	141.6	22.5	6.9	154.2	North LBsz + FWsz
including	5.0	138.5	141.6	3.1	38.1	118.1	North FWsz
MDE-15-175A	1.0	88.0	91.0	3.0	20.4	61.3	North UBsz
	1.0	172.0	187.7	15.8	9.0	142.3	North FWsz
including	5.0	176.8	179.5	2.7	45.7	122.8	North FWsz
MDE-15-176	0.1	55.1	158.7	103.6	0.6	62.9	North LBsz + FWsz
MDE-15-178	0.1	51.5	119.5	68.0	1.0	65.1	North LBsz + FWsz
MDE-15-184	1.0	74.9	83.4	8.5	14.7	125.2	North LBsz
including	5.0	78.3	80.7	2.4	47.9	117.3	North LBsz
MDE-15-185	1.0	76.0	84.2	8.2	6.5	53.4	North UBsz
MDE-15-188	1.0	120.9	126.8	5.9	26.2	153.0	North FWsz
MDX-15-48	0.1	238.0	246.0	8.1	1.1	8.5	Unnamed (LDDZ)
	0.1	265.5	300.7	35.3	0.3	11.3	Unnamed (LDDZ)

### Table 10-6: Intersections >50 g/t Au \* m (MDE) and >5 g/t Au \* m (MDX) from 2015 drilling at Martinière

Eight MDX series holes were drilled in 2015, with five of these targeting north-south trending magnetic lineaments derived from the 2010 airborne survey, two testing the northern margin of the SLDZ and one hole following up MDX-14-46 on the LDDZ. The most successful of these was MDX-15-48 (Table 10-6), which was drilled on the Lac du Doigt Deformation Zone.

# 10.7 2016 Drilling Program

The 2016 drilling program was the largest done on the Property since 2013 and Balmoral's 2<sup>nd</sup> largest overall by year (see Table 10-1), with 87% of these metres drilled in the summer program. The bulk of the metres were dedicated towards defining the South and Lower Steep zones, as well as exploring the Southeast Zone. Other highlights include the discovery of the NW Extension and Horsefly zones, and a return to drilling the Martinière West Deposit as well as the ME-16 and -23 zones. As of 21 March 2018, results for some of this work are being compiled into an assessment report that will be filed with MERN.

All 2016 drilling was done by Norex, who completed the winter program with one skid drill rig in 24 days from 17 March to 10 April 2016, for average daily production of 130 metres. The summer program was drilled in 198 rig days with one to two helicopter-supported rigs between 03 June to 08 October 2016 (127 days), for an average production rate of 110 m per day per rig.



Approximately 53% of all metres drilled in 2016 focussed on the South Zone, with most of these holes drilled along 225 m of strike length. Numerous grade-thickness intercepts of >50 g/t Au \* metres were intercepted within the Upper Bug Subzone (Table 10-7), which is particularly wide where it is occurs beneath the intersection of the Bug Lake and hanging wall porphyry units. This work showed that the bulk of gold in the South Zone is hosted within the UBsz whereas in the North Zone it is contained within the LBsz and FWsz.

Eight holes were drilled to define the Lower Steep Zone, with five of these drilled between 340-460 m core depth and three drilled to 735-900 m. Intercepts exceeding 50 g/t Au \* metres were returned from two of these holes (Table 10-7), with other significant intercepts including 9.2 g/t Au over 4.6 m in MDE-16-256 (Lower Steep LBsz) and 12.7 g/t Au over 2.0 m in MDE-16-239 (Lower Steep LBsz). These results were important in further demonstrating continuity of the Lower Steep Deposit at depth.

Three holes were drilled to follow-up on the northwestern-most hole drilled on the Bug Lake Trend (MDE-14-165), which returned elevated gold (including 16.6 g/t Au over 0.6 m) as well as BLFZ stratigraphy. Two of these holes were drilled 60-100 m further northwest along the Bug Lake Trend and intersected what is now referred to as the NW Extension, returning 3.0 g/t Au over 0.9 m (MED-16-213) and 3.0 g/t Au over 0.4 m (MDE-16-231).

Hole ID	Trigger Value Au (g/t)	From (m)	To (m)	Core length (m)	Au (g/t)	g/t*m Au	Zone or Subzone
BLD-16-03	1.0	135.1	154.0	18.9	3.6	67.4	Horsefly
including	5.0	140.2	146.0	5.8	10.2	58.9	Horsefly
MDE-16-204	0.1	58.3	77.5	19.2	2.7	51.7	South UBsz
MDE-16-205	1.0	202.2	204.5	2.3	67.9	156.8	South UBsz
MDE-16-207	0.1	112.3	160.8	48.5	1.2	55.8	South UBsz
MDE-16-209	1.0	75.7	98.7	23.0	2.3	52.9	South UBsz
MDE-16-210	0.1	88.3	133.1	44.8	1.2	54.2	South UBsz
MDE-16-214	1.0	163.1	165.6	2.5	33.7	84.2	South LBsz
MDE-16-215	1.0	93.3	114.7	21.4	2.7	57.3	South UBsz
MDE-16-216	1.0	206.4	231.5	25.1	4.1	102.5	South LBsz
including	3.0	210.2	224.7	14.5	6.4	93.3	South LBsz
MDE-16-217	0.1	67.4	155.6	88.1	0.9	77.7	South UBsz
MDE-16-218	1.0	148.7	189.0	40.3	2.8	112.3	South UBsz
MDE-16-219	1.0	168.5	192.5	24.0	2.9	69.9	South UBsz
MDE-16-221	0.1	110.9	137.8	26.9	4.4	118.3	South HWsz
including	3.0	125.9	129.0	3.1	22.0	68.1	South HWsz
MDE-16-233A	1.0	225.0	256.6	31.6	2.6	83.3	South UBsz
MDE-16-234A	1.0	300.4	307.4	7.0	8.7	61.6	South UBsz
	1.0	368.8	372.3	3.5	21.7	76.0	South FWsz
MDE-16-236	1.0	329.3	334.0	4.7	14.2	67.2	North UBsz
MDE-16-237	1.0	97.2	103.7	6.6	10.5	68.6	Southeast
MDE-16-238	0.1	217.7	269.0	51.3	1.2	60.9	Lower Steep LBsz (low ATCA)
MDE-16-242A	0.1	162.2	240.4	78.2	1.6	127.3	South UBsz
MDE-16-245	1.0	127.8	175.4	47.6	1.6	75.7	South UBsz
MDE-16-246B	0.1	292.4	334.4	42.0	3.0	124.3	South UBsz
including	3.0	315.0	324.7	9.6	6.2	60.0	South UBsz
MDE-16-247	1.0	192.7	198.9	6.2	13.2	82.1	South HWsz
MDE-16-250	1.0	174.1	188.1	13.9	4.0	56.3	South UBsz
MDE-16-256	0.1	297.0	348.3	51.4	1.6	83.2	Lower Steep LBsz
MDX-16-55	0.1	43.3	50.5	7.2	1.3	9.2	Unnamed (LDDZ)

# Table 10-7: Intersections >50 g/t Au \* m (MDE) and >5 g/t Au \* m (MDX) from 2016 drilling at Martinière



One of the holes targeting the Lower Steep Zone (BLD-16-03) provided the first intercept of the Horsefly Zone (see Figure 10-2), returning 3.6 g/t over 18.9 m from 135.1 m to 154.0 m core depth. Another one of the Lower Steep holes intersected the ME-23 Zone, returning 3.2 g/t Au over 8.3 m from 39.0 to 47.3 m core depth. A single hole drilled just south of the ME-16 and -23 zones returned negligible results.

Two holes were also drilled on the Martinière West Trend, with MDW-16-89 testing the West Extension at depth and MDW-16-90 drilling obliquely across the Trend between the West Extension and the Martinière West Deposit. Although neither of these holes returned significant gold intercepts, MDW-16-89 was successful in expanding the West Extension 50 m to the south with an intercept of 0.8 g/t Au over 10.1 m. MDW 16-90 returned intercepts of 0.5 g/t Au over 18.7 m and 0.2 g/t Au over 37.5 m, neither of which is clearly related to either the Martinière West Deposit or the West Extension.

Seven MDX series holes were drilled in 2016, with five of these collared along 2300 m of strike length of the LDDZ, one hole that followed up historical results in the Martinière Central area, and one hole attempting to locate the contact between the Matagami and Manthet domains. The best result was returned from MDX-16-55 (Table 10-7), which tested a 200 m wide IP chargeability anomaly located 600-800 m west along trend of the LDDZ from previous intercepts in MDX-14-46 and MDX-15-48.

# 10.8 2017 Drilling Program

The 2017 drilling program was the largest done on the Martinière Property (see Table 10-1), comprising a 12,262 m winter campaign followed by 14,962 in the summer for a total of 27,224 m. The bulk of the metres were again dedicated towards defining the South and Lower Steep zones of the Bug Deposit, with significant metres also dedicated to the NW Extension and Horsefly zones. The most significant new discovery was made on the LDDZ, where follow up drilling of MDX-16-55 has provisionally defined a gold zone with up to 150 m of vertical continuity. As of 21 March 2018, results of the 2017 drill program are being compiled into an assessment report that will be filed with MERN.

All 2017 drilling was done by Norex, who completed the winter program with one to two drill rigs between 02 February and 06 May 2017 (93 days), using a combination of skid- and helicopter-supported drilling. An estimated 127 rig days were incurred, for an average daily production of 97 m per drill rig. The summer program was also done with one to two helicopter-supported rigs drilling from 15 June to 11 October 2017 (104 Days), with a two week break from 14 August to 29 August 2017. An estimated 139 rig days were incurred for average daily production of 109 m per rig.

Drilling on the South Zone returned several significant intercepts (Table 10-8), mostly from the Upper Bug Subzone (UBsz) but also from a Hanging Wall Subzone in MDE-17-271 and from the Lower Bug Subzone (LBsz) in MDE-17-285. The intercept in MDE-17-285 is one of several where the focus of mineralization appears to switch from the UBsz to the LBsz at depth, with others including MDE-16-222 (1.4 g/t Au over 17.9 m from 397.1-414.9 m) and MDE-17-267 (1.9 g/t Au over 18.6 m from 440.8-459.4 m).

The best results from infill drilling of the Lower Steep were limited to grade-thickness composites between 10 to 20 g/t Au \* metres, including 2.3 g/t Au over 8.1 m in MDE-17-275, 4.4 g/t Au over 3.2 m in MDE-17-263 and 1.6 g/t Au over 6.8 m in MDE-17-279. Higher grade composites were, in fact, returned from unnamed zones intersected on the way down to the Lower Steep, including 55.8 g/t Au over 0.4 m and 6.6 g/t Au over 5.5 m between 219-240 m depth in MDE-17-275. Both of these intercepts are spatially associated with a Bug Lake-style porphyry emplaced into mafic volcanic host rocks, suggesting a Bug Lake-style mineralization.

Follow-up drilling on the Horsefly Zone suggests limited structural continuity, with the best intercept (Table 10-8) essentially comprising a twin of the discovery intercept in BLD-16-03. The next best intersections include 1.7 g/t Au over 8.3 m in MDE-17-299 and 1.3 g/t over 8.9 m in MDE-17-302, together defining a shoot plunging -50° towards the southeast (azimuth 130°). Other holes drilled along trend to the northwest and southeast returned negligible grade.



Hole ID	Trigger Value Au (g/t)	From (m)	To (m)	Core length (m)	Au (g/t)	g/t*m Au	Zone or Subzone
MDE-17-261	0.1	123.7	174.0	50.2	1.1	54.1	South UBsz
MDE-17-262	1.0	28.6	64.8	36.2	1.5	55.2	South UBsz
MDE-17-264	0.1	64.2	118.0	53.8	1.1	60.2	South UBsz
MDE-17-265	0.1	117.8	178.6	60.8	1.3	81.4	South UBsz
MDE-17-271	1.0	119.7	131.0	11.2	8.2	91.6	South HWsz
including	5.0	119.7	125.3	5.6	15.6	86.8	South HWsz
MDE-17-278	0.1	132.1	225.3	93.1	0.6	56.6	Horsefly (twin of BLD-16-03)
MDE-17-285	0.1	493.9	512.5	18.6	2.8	51.3	South LBsz
MDE-17-287B	1.0	211.0	237.6	26.7	2.3	62.4	South UBsz
MDE-17-288	0.1	232.2	280.9	48.7	1.2	60.1	South UBsz
MDE-17-293	1.0	469.0	474.0	5.0	14.2	71.0	South UBsz
including	5.0	471.8	474.0	2.2	30.0	67.3	South UBsz
MDE-17-297A	0.1	201.2	268.6	67.4	1.1	71.9	NW Extension
MDX-17-64	0.1	358.7	371.1	12.4	0.5	6.1	Unnamed (Martinière East)
MDX-17-68	5.0	237.7	238.1	0.4	30.4	13.4	Unnamed (SLDZ)
MDX-17-69	0.1	172.8	179.3	6.5	1.0	6.3	Unnamed (LDDZ)
	0.1	255.6	278.5	22.9	0.8	18.9	Unnamed (LDDZ)
including	5.0	273.1	274.5	1.4	8.7	12.2	Unnamed (LDDZ)

# Table 10-8: Intersections >50 g/t Au \* m (MDE) and >5 g/t Au \* m (MDX) from 2017 drilling at Martinière

Exploration on the NW Extension included an intercept of 1.1 g/t over 67.4 m in MDE-17-297 and three additional intercepts with grade-thickness of 20 to 40 g/t Au \* metres that, together, define at least 50 m of along-strike continuity. Additional drilling on the NW Extension, however, returned mostly negligible or narrow isolated gold intercepts. Three widely-spaced holes drilled on the Southeast Zone also returned mostly negligible to narrow isolated gold intercepts, with a best assay of 43.6 g/t Au over 0.7 m in MDE-17-274.

Results from the MDX series of holes included four new intercepts exceeding grade-thickness of 5 g/t Au \* metres, two of which were returned from a hole drilled on the LDDZ beneath MDX-16-55 (see Table 10-7). The deeper of these two intercepts is most likely correlated with the intersection from 2016, defining a 3-4 m wide zone grading 1-10 g/t Au that is hosted within a 40 m halo of 0.1-1 g/t Au material and has at least 150 m of vertical continuity. Other notable intercepts were returned from magnetic breaks tested in the Martinière East area and along the northern margin of the SLDZ (Table 10-8).



# **11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY**

# 11.1 Core Handling and Security

As described in Section 10.1, newly drilled core was placed into routered wooden trays, covered with a lid and then transported to the core logging facility by helicopter or snowmobile. Core was then logged by Caracle Creek (2011), Equity (2012-2015) or Balmoral (2016-2017) geotechnicians and geologists, after which the sampling intervals were marked on by the geologist and the core photographed. Core marked for sampling was then split with a diamond blade saw, with one half submitted for geochemical assay and the other retained in the core box for reference.

Samples taken for geochemical assay were placed into a clear polyethylene bag together with a waterproof ID tag, which was then sealed with a cable tie and then placed, together with 5-10 other sample bags, into a rice bag. The rice bag was then sealed with a non-resealable plastic security tag. A "sample shipment" comprised a group of rice bags containing all of the samples from a single drill hole, which would be shipped out together to facilitate sample tracking. Shipments were transported to ALS Limited ("ALS") in Val d'Or, Québec, by Balmoral personnel (2011) or a contracted expeditor provided by Outland Camps of Amos, Québec (2012-2017). Upon arrival in Val d'Or an ALS employee would sign the "Request for Analysis" form to verify that the full shipment had been delivered with no unbroken security tags.

# 11.2 Analytical Techniques

Since the first drill campaign in winter 2011, Balmoral has submitted 98,066 core samples for gold assay (Table 11-1). Ninety percent of these core samples have been processed and analysed by ALS's analytical facilities in Val d'Or, Québec, with the remaining 10% completed by ALS in Sudbury, Ontario, and Timmins, Ontario. ALS is independent of Balmoral and all three facilities are individually certified to ISO 9001:2008 standards. All three labs have also received accreditation to ISO/IEC 17025:2005 from the Standards Council of Canada for the determination of gold by lead (Pb) collection fire assay with (1) atomic absorption spectroscopy (AAS) and (2) gravimetric finish.

Core samples received by ALS were first weighed, then dried and crushed to a minimum of 70% passing <2 mm material. A riffle splitter was used to produce a 1000 g subsample of this coarse crush material, which was then pulverized to 85% passing <75 µm. Thirty (30) grams of this pulverized material was then sent for gold analysis using lead collection fire assay with an AAS finish (ALS code Au-AA23). Samples returning between 5-10 g/t Au by this method were re-analyzed using lead collection fire assay and gravimetric finish (ALS code Au-GRA21), whereas samples exceeding 10 g/t Au were re-analyzed by the screen metallic method (ALS code Au-SCR21). The gravimetric and screen assays are done on 30 g and 1000 g of pulverized material, respectively. Multi-element analysis by inductively coupled plasma atomic emission spectroscopy (ICP-AES; ALS code ME-ICP41) has been done on 23,129 of the 98,066 core samples (24%), returning 35 additional elements that include silver (Ag), copper (Cu), lead (Pb) and zinc (Zn).

		Co	ore		QA/QC						
Year	N	Ave L (m)	1σ (m)	Total L (m)	CRM	Blanks	Field Dups	Prep Dups	Total QA/QC	% All Samples	
2011	10,521	1.01	0.33	10,615.7	585	611	32	5	1233	10.5%	
2012	15,903	0.95	0.22	15,164.7	936	979	466	463	2844	15.2%	
2013	19,834	0.97	0.26	19,333.9	1165	1249	585	582	3581	15.3%	
2014	9,449	1.00	0.25	9,412.3	556	578	277	275	1686	15.1%	
2015	7,211	1.00	0.30	7,226.4	424	474	216	213	1327	15.5%	
2016	16,490	0.99	0.34	16,315.3	964	1023	499	491	2977	15.3%	
2017	18,658	1.00	0.27	18,593.2	1100	1116	546	544	3306	15.1%	
TOTAL	98,066	0.99	0.28	96,661.5	5,730	6,030	2,621	2,573	16,954	14.7%	

Table 11-1: Overview of core and QA/QC sampling by Balmoral on the Martinière Property

σ=standard deviation



## 11.3 Analytical Quality Assurance / Quality Control

Since 2011, Balmoral has added 16,954 samples (Table 11-1) to the core sample stream to provide external monitoring of quality assurance and quality control (QA/QC). Specifically, these QA/QC samples monitor analytical accuracy and precision, as well as potential cross-contamination during sample preparation. Accuracy and contamination are monitored with certified reference material (CRM) and blank material respectively, both of which are inserted at regular intervals of 1 for every 20 samples (i.e. 5% insertion rate). Precision is monitored with quarter core (or field) and coarse crush (or preparation) duplicates that, since 2012, have each been inserted at intervals of 1 for every 40 samples (2.5% insertion rate). The 2011 procedures inserted just one core and one coarse crush duplicate in each sample shipment for a significantly lower insertion rate. The 15% insertion rate used since 2012 follows best practise suggestions (e.g. Abzalov, 2008) and is done in addition to Balmoral's check assay programs and ALS's own internal QA/QC tracking.

For the 2011 program, the authors do not have sufficient information to know whether the samples were securely transported from the core facility to ALS in Val d'Or. Likewise, the authors do not know the reason for the relatively high number of CRM failures incurred for that program, whether the failed batches were reanalyzed and whether the failures were due to faulty analyses or sample switches in the lab or core facility. Nonetheless, the authors are confident that the 2011 core was securely handled and that laboratory contamination was not a problem in 2011, but believe that the program suffered from careless standard insertion in the core facility.

Since 2012, the external QA/QC data has been monitored and reviewed by Gary Lustig, P.Geo, M.Sc.., an independent qualified person (QP) under NI 43-101. Mr. Lustig tracks the ALS data in as close to real-time as possible, identifying QA/QC failures and providing guidance on how these failures should be rectified. He also outlines biannual check assay programs and provides yearly reviews of all Martinière QA/QC data (Lustig, 2013, 2014a, b, 2015, 2017, 2018), several of which are included in the assessment reports filed with MERN (Perk et al., 2013a; Voordouw et al., 2014a; Voordouw et al., 2014b; Voordouw and Perk, 2016). The unpublished 2016 and 2017 reviews were provided to the first author by Balmoral during the preparation of this NI 43-101 report.

Since 2011, Balmoral has used 33 different CRM to monitor the accuracy of their gold assays, typically using a suite of low-grade (~1 g/t Au), medium-grade (~3 or ~6 g/t Au) and high-grade (>10 g/t Au) materials that the core logging geologist attempts to match to the grade of the associated core samples. The accuracy of a CRM analysis is quantified by the number of standard deviations that it returned from the certified mean, also knows as the "Z-score". Typical industry practise is to classify Z-scores between -2 and +2 as a "pass", scores between -2 and -3 or +2 and +3 as a "contingent pass or failure", and Z-scores exceeding -3 or +3 as "failures". Failed CRM were re-analyzed only if they were associated with mineralized core samples. The mean Z-score for all CRMs in Balmoral's Martinière database, excluding 1-2% that are obvious sample mix-ups and database errors, is 0.1 with a standard deviation of 1.1, suggesting that gold assays are both accurate and unbiased (Figure 11-1).

Cross-contamination is quantified by comparing the measured gold concentration in a blank sample against the detection limit (*dl*), with the expectation that blanks should assay below detection. To allow for some level of inevitable cross-contamination, failure thresholds are usually set as a multiple of 5-10 times the *dl*. On the Martinière Project, the quartz pebble material used as blank was flagged as contaminated when returning >5 \* *dl* or 25 ppb Au. Of all the blanks in the Balmoral database, 89% returned assays at or below the 5 ppb detection limit and an additional 9% assayed ≤25 ppb Au. The remaining 2% of blanks returned between >25 ppb Au and up to 95.6 g/t Au, typically because they followed samples with >5 g/t Au. For this reason, core sampling procedures were modified in winter 2013 to request that ALS insert quartz washes after samples with visible gold and inserting one or more external blanks after such a sample.

Duplicate sample analysis was used to estimate precision of gold assays and assess the appropriateness of sampling and subsampling procedures. In general, precision improves from core duplicates through coarse crush to pulp duplicates as the samples become more homogeneous through crushing and then pulverizing (Figure 11-2). In reviewing all duplicate assays from the 2012-2017 programs, Lustig (Lustig, 2012, 2013, 2014a, b, 2015, 2017, 2018) concluded that the overall precision of gold analyses showed high



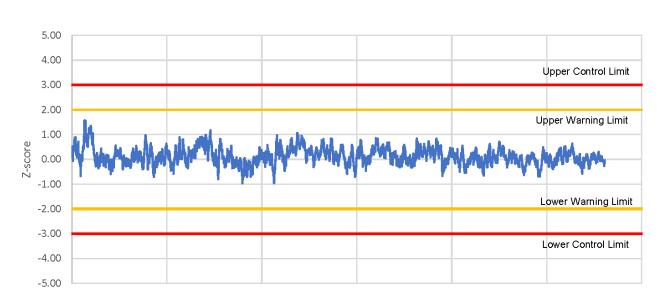


Figure 11-1: Shewhart control chart showing Z-scores for all CRM analyzed as part of the Martinière Project (2011-2017), placed in approximate chronological order and with each point a moving average of 25 CRM. There is no clear evidence of bias.

variance but was still typical of orogenic gold deposits. The 2621 and 2573 pairs of core and coarse crush duplicates in the Balmoral database show an average coefficient of variation ( $CV_{avr}$ ) of 38% and 30% respectively, which lies within the "acceptable" values for orogenic gold deposits calculated by Abzalov (2008). Eliminating 5% outliers reduces the  $CV_{avr}$  to 30% for the core duplicates and 22% for coarse crush, falling between "acceptable" and "best practise" values. Lustig (2012) suggested that precision could be improved by increasing the crush passing 2 mm from 70% to 85% and/or increasing the pulverization from 85% passing 75 µm to 95% passing 105 µm, but these measures were never implemented.

Check assay programs were used to assess the relative accuracy of the gold assays and were done at the conclusion of each drilling campaign, starting with winter 2012 (Lustig, 2012, 2013, 2014a, b, 2015, 2017). Each check assay program begins with the random selection of 100 to 250 samples from a subset of samples with ≥2% pyrite (2012-2015) or >0.5 g/t Au (2016), which ensures a higher proportion of gold-bearing samples. Check assays for the 2012 and winter 2013 programs were assayed at Techni-Lab SGB Abitibi Inc. in Ste-Germaine-Boulé, Québec, which is a wholly-owned subsidiary of Activation Laboratories Limited and is accredited by the Standards Council of Canada to ISO/IEC 17025:2005 (CAN-P4E) for gold by fire assay followed by AAS and gravimetric finishes. All subsequent check assay programs have been done through SGS Mineral Services Geochemistry Laboratory in Burnaby, British Columbia, ("SGS Burnaby") which is also accredited by the Standards Council of Canada to CAN-P-1579 and CAN-P-4E (ISO/IEC 17025:2005) for the same gold assay methods. Both labs used methods comparable to those employed by ALS. In all cases, the check assays demonstrated that there is a good correlation between the original ALS analyses and those determined by Techni-Labs and SGS Burnaby (Lustig, 2012, 2013, 2014a, b, 2015, 2017). Check assay results for the 2017 program were unavailable at the time of writing of this report.

The authors believes that sample preparation, security, and analytical procedures were adequate for the 2012-2017 drilling on the Martinière Property and agree with the conclusion of Lustig (Lustig, 2012, 2013, 2014a, b, 2015, 2017) that, for these programs, *"the quality control and check assays completed confirm that the Martinière gold assay data is accurate, precise and free of contamination to industry standards and is of sufficient quality to be used in resource estimation"*. Due to the preliminary nature of the 2017 report, no concluding statement regarding the data was put forth by G.N. Lustig but, in the authors' assessment, the data reviewed in the preliminary report for these programs (Lustig, 2018) are comparable in quality to those from the preceding reports on the Martinière Property.



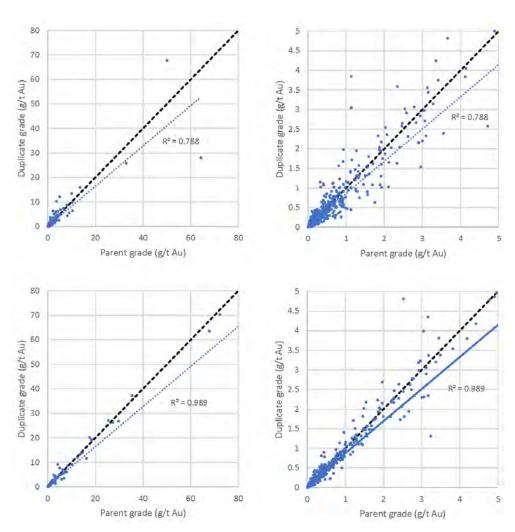


Figure 11-2: Scatter plots of (a, b) core duplicates for gold ranges of (a) 0-80 g/t Au and (b) 0-5 g/t Au, and (c, d) coarse crush duplicates for the same ranges.

## **12.0 DATA VERIFICATION**

The first author (R. Voordouw) managed seven exploration campaigns on the Martinière Property as a Project Geologist employed by Equity working on behalf of Balmoral. Equity is independent of Balmoral as defined by NI 43-101. In total, the first author spent 215 days on the Property managing the 2012 fall campaign as well as both the winter and summer campaigns in 2013, 2014 and 2015. Field work duties relevant to this section on "data verification" included spotting of 130 drill holes, logging of 15 holes, supervising the logging of 130 drill holes, calculating composites and integrating independently surveyed collar locations into the drill hole database. Duties also required a thorough familiarity with field procedures, property geology and the corresponding analytical data, results of the QA/QC program and the drilling/geochemistry database. The first author was involved in compiling and publishing the 2012-2015 Martinière assessment reports (Perk et al., 2013a; Voordouw et al., 2014a; Voordouw et al., 2014b; Voordouw and Perk, 2016), as well as the 2014, 2015 and 2017 technical reports (Mumford and Voordouw, 2017; Voordouw, 2014; Voordouw and Perk, 2015).

Since the first author had not been on site since August 2015, a visit to the Martinière Property was completed on 26 and 27 February 2018. As part of this site visit the first author performed a number of checks to verify the data provided by Balmoral for work completed in 2016 and 2017, with an emphasis on holes that intersected the South Zone (which was mostly delineated in 2016, 2017) and other new discoveries made in that time frame. These checks included locating drill collars in the field, reviewing selected drill core intervals, comparing assays from eight randomly-selected certificates of analysis (COA) against values in the Balmoral drill database, and calculating the weighted average grades presented in tables 10-2 to 10-8.



Hole ID	Zone	From (m)	To (m)	Interval (m)	Mineralization	Review comments
MDE-16-216	South	196.0	243.0	47.0	3.3 g/t Au over 32.3 m	Bug Lake-style
MDE-16-218	South	140.0	192.0	52.0	2.65 g/t Au over 44.3 m	Bug Lake-style
MDE-17-264	South	50.0	120.0	70.0	1.1 g/t Au over 53.8 m	Bug Lake-style
MDE-17-297A	NW Extension	225.9	260.4	34.5	3.5 g/t Au over 16.7 m	Looks like Martinière West but calcite-rich
MDE-17-293	Southeast	465.0	485.0	20.0	14.2 g/t Au over 5.0 m	Bug Lake-style; high Au with semi-massive pyrite
MDE-16-237	Unnamed (Far SE Bug Lake Trend)	93.0	110.0	17.0	9.2 g/t Au over 7.4 m	True thickness ~5-10% of core length; Bug Lake- style shear zone
BLD-16-03	Horsefly	135.0	160.0	25.0	3.0 g/t Au over 23.0 m	Bug Lake-style + silicification
MDX-17-69	Unnamed (LDDZ Trend)	250.0	280.0	30.0	0.8 g/t Au over 22.9 m	1-5 cm wide silicified shear zones; Martinière West-style?
Total				295.5		

Table 12-1: Summary of core review done as part of 2018 site visit

Ten drill collars were located in the field and their position was measured with a handheld Garmin GPSMAP 62, which has an accuracy of ±10 m in 95% of typical use (Garmin, 2010). Eight of these holes were drilled to define the South Zone (MDE-17-266 to -270, -282, -285, -292), one tested the Lower Steep and ME-23 zones (MDE-16-236) and one hole targeted the Southeast Zone (MDE-16-235). Differences between the locations measured by the first author and those in the Balmoral database range mostly from 0.9 m to 4.6 m, with one differing by 10.6 m. The differences with Balmoral database locations are therefore within the manufacturer's stated accuracy of the GPSMAP 62 unit.

The drill core intervals reviewed as part of the site visit are summarized in Table 12-1. Eight intervals were examined for a total of 295.5 m, including three intercepts of the South Zone (169 m) and one each through the NW Extension, Southeast and Horsefly zones, as well as unnamed discoveries on the LDDZ and far southeastern part of the Bug Lake Trend. Intercepts of the North and Lower Steep zones, as well as the Martinière West Deposit, were not examined as these were extensively drilled while the first author was managing exploration work on the Martinière Property. All of the examined intervals exhibited features characteristic of gold mineralization on the Property, including increased pyrite content up to 30-50% over 0.5-3.0 m, pervasive dolomite/ankerite alteration, localized silicification, brecciated quartz-dolomite/ankerite veins and, in some cases, visible gold.

Eight original COAs from ALS were compared against values in the database. The COAs related to the same intervals examined in drill core (Table 12-1) and include SD17148515, VO16109670, VO16109677, VO16136747, VO16209260, VO17039846, VO17162452 and VO17176768. No data transcription errors were found, with all assays in the original COAs matching those in the database.

Both the first and second authors believe that the data is adequate for the purposes of this technical report.



# **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

Three rounds of metallurgical testwork have been done on composites from the Martinière Project, with one on material from the Martinière West Deposit (Welte-Kerne and Johnston, 2012) and two on the Bug Deposit (DiLauro and Dymov, 2014; Martin, 2015). None of the metallurgical reports are publicly filed although results have been previously summarized in a news release (Balmoral Resources Ltd, 2015) and in the 2017 technical report (Mumford and Voordouw, 2017).

# 13.1 2012 and 2013 ALS Metallurgy Kamloops

A shipment of 27 samples, weighing a combined 47 kilograms, was sent to ALS Metallurgy Kamloops in Kamloops, British Columbia. These samples were collected from the Main Subzone of the Martinière West Deposit and were homogenized into a single "Master Composite" grading 6.4 g/t Au, 8.0 g/t Ag and 0.7% As, then grinded to 80% passing ( $P_{80}$ ) 100 µm (Welte-Kerne and Johnston, 2012). Mineralogy of this Master Composite, as determined by quantitative evaluation of minerals by scanning electron microscope (QEMSCAN), comprised 53% quartz, 15% muscovite, 9% each chlorite and pyrite, 1-2% each arsenopyrite and garnet, <1% feldspar and chalcopyrite and 10% "others". The arsenic content lies near the high end of what is returned for gold-bearing ICP analyses from Martinière West and may be unrepresentatively high.

Metallurgical testing aimed to evaluate gold recoveries using gravity separation, flotation and cyanidation bottle roll leach tests. All testing was done on a primary grind size of  $P_{80}$  100 µm. Gravity separation was done in a lab-scale Knelson concentrator and was followed by panning. Gold and silver recoveries in the gravity concentrate averaged 35% and 16% respectively, with the final pan concentrate grading 444 g/t Au and 168 g/t Ag. These results suggest that there is potential for incorporating a gravity circuit into the flow sheet (Welte-Kerne and Johnston, 2012).

A single kinetic rougher flotation test was done using natural pH and a potassium amyl xanthate (PAX) collector. Results show that 97% of the feed gold and 87% Ag was recovered at 18% feed mass recovery, generating a rougher concentrate grading 36 g/t Au. This results suggests potential for a flowsheet that includes rougher concentration, re-grinding and then cyanide leaching (Welte-Kerne and Johnston, 2012).

Results from a cyanidation bottle roll test show 48-hour gold extraction of 62% and that very little additional extraction occurred after the first 24 hours. Sodium cyanide consumption was relatively low, at 0.8 kg per tonne, and lime consumption was about 0.4 kg/t.

Follow-up testing by ALS Metallurgy Kamloops on the same Master Composite included whole ore cyanidation on a finer grind size ( $P_{80}$  of 71 µm) and testing of a flow sheet comprised of gravity separation followed by re-grinding and cyanidation of rougher concentrate (Welte-Kerne and Johnston, 2013). Whole ore cyanidation was conducted for 48 hours with a target sodium cyanide concentration of 1 kg per tonne and pH maintained at 11.0. Testing achieved similar results to earlier work (Welte-Kerne and Johnston, 2012), with 63% of gold extracted with consumption of 0.8 kg/t NaCN and 0.6 kg/t lime. Most of the gold was extracted after 6 hours.

Gravity separation by Knelson concentration followed by panning averaged 37% gold recovery, which was similar to earlier testwork (Welte-Kerne and Johnston, 2012). Subsequent rougher flotation recovered another 60% in the flotation concentrate. Regrinding of this concentrate, to  $P_{80}$  16  $\mu$ m followed by cyanidation resulted in 58% gold extraction whereas cyanidation without regrinding recovered 48% gold (Welte-Kerne and Johnston, 2013). Combined recoveries for this flowsheet are therefore 72% gold with regrinding of rougher concentrate and 66% without. Sodium cyanide consumptions were1.3 and 3.3 kg/t for non-reground and reground concentrate respectively, with lime consumption of 1.0 kg/t and 2.8 kg/t. This testwork therefore demonstrated that better gold recoveries can be achieved with a flowsheet that combines gravity concentration, rougher flotation and then regrinding and cyanidation of rougher concentrate (Welte-Kerne and Johnston, 2013).



52



## 13.2 2014 SGS Minerals Services

The first metallurgical testing on Bug Deposit material was done in 2014 by SGS Minerals Services of Lakefield, Ontario, ("SGS Lakefield") on a composite comprised of 49 half core samples taken from three drill holes that cut the North Zone (MDE-13-119, -120, -121). This "Bug Composite" consists mostly of samples taken from the Lower Bug Subzone as well as representative material from the Upper Bug, Hanging Wall and Footwall subzones. Average head grades were 6.78 g/t Au, 7.09 g/t Ag, 3.34% sulphide sulphur and 13.1% carbonate (DiLauro and Dymov, 2014). Mineralogy determined by QEM automated rapid mineral scan (QEM-ARMS) is distinctly more carbonate- and chlorite-rich than the Martinière West composite, comprising 31.8% quartz, 23.7% carbonate (calcite > dolomite > ankerite), 20.9% chlorite, 10% mica, 8.8% pyrite and trace abundances of Cu-sulphide, arsenopyrite and sphalerite.

Metallurgical testing done by SGS Lakefield included (1) whole ore cyanidation, (2) gravity separation followed by gravity tailing cyanidation, and (3) gravity separation followed by gravity tailing flotation and then cyanidation of the flotation products. Overall process results are summarized in Table 13-1.

Whole ore cyanidation of the Bug Composite returned recoveries of 72% to 81% for Au, with higher recoveries related to finer grind sizes and increased NaCN consumption (Table 13-1). Conditions applied were 40% solids for 48 hours with cyanide concentration maintained at 0.5 g/L and the pH maintained between 10.5 and 11.0 by adding lime as calcium hydroxide. The presence of carbon caused no significant change in Au and Ag recoveries (DiLauro and Dymov, 2014).

Gravity separation testing was done with a Knelson MD-3 concentrator followed by a Mozley mineral separation. Recoveries in the Mozley gravity concentrate were dependent on grind size, ranging from 7.3% Au and 3.1% Ag for grind size of 198  $\mu$ m, to 24.3% Au and 9.7% Ag for the finest grind of 58  $\mu$ m. Concentrate assays ranged from 650 to 2591 g/t Au and 265 to 1079 g/t Ag, and in all cases comprised <0.1% of the total mass. The Mozley and Knelson tailings were recombined and blended for downstream flotation and cyanidation test work.

The flotation test for gravity tailings was done with total additions of 100 g/t PAX and 50 g/t Cytec A 208 collectors, with a series of five rougher concentrates recovered and assayed for gold and sulphide sulphur. Recoveries in concentrates 1 to 3 were reported at 91% Au and 95% Ag respectively, with mass pull of 9.2%. Flotation cycles 4 and 5 increased recoveries to 94% Au and 97% sulphide sulphur for the combined rougher concentrates, and the mass pull to 12.3%. Tailings contained 0.38 g/t Au and 0.10% sulphide sulphur. When combining the 19% gold recovery from the gravity concentrate with the 94% Au recovered from gravity tailing flotation, the overall gold recovery for the Bug Composite is calculated at 95% (Table 13-2).

Bottle roll cyanidation testing of gravity tailings were done on three grind sizes (Table 13-1) with applied conditions similar to the whole ore cyanidation. Gold and silver recoveries ranged from 67% Au and 59% Ag for the coarsest grind to 75% Au and 70% Ag for the finest grind. Again, the addition of carbon made no difference to the recoveries. An increase in NaCN consumption was observed with decreased grind size, going from 0.12 kg/t NaCN at  $P_{80}$  grind size of 198 µm to 0.53 kg/t at  $P_{80}$  of 58 µm. There was no significant difference in lime consumption. The combined gravity plus gravity tailing cyanidation recoveries ranged from 71% Au and 61% Ag to 81% Au and 72% Ag (Table 13-1).

Process	Size P <sub>80</sub> microns	Reagent Cons. NaCN kg/t	Recovery Au %	Residue g/t Au	Recovery Ag %	Residue g/t Ag
	174	0.13	72%	2.00	65%	2.20
Whole ore CN	73	0.51	79%	1.58	72%	1.80
	52	0.69	81%	1.37	73%	1.80
	198	0.12	71%	2.09	61%	2.90
$\text{Gravity} \to \text{CN}$	84	0.22	78%	1.59	71%	2.00
	58	0.43	81%	1.41	72%	2.00
One vitra Electronic ON	84	0.65	74%	1.84	82%	2.16
$Gravity \rightarrow Flotation \rightarrow CN$	84/12	2.42	91%	0.95	97%	1.30

Table 13-1: Results of SGS 2014 metallurgical testwork (from DiLauro and Dymov, 2014)



	Mass		Assa	ys	%Distribution		
Product	g	%	Au g/t	S %	Au Flotation	Au Gravity + Flotation	S
Gravity recovery						19.4%	
Rougher concentrate 1	226.0	5.69%	69.8	43.2	70.2%	56.6%	73.0%
Rougher concentrate 2	75.3	1.90%	49.0	30.2	16.4%	13.2%	17.0%
Rougher concentrate 3	65.7	1.65%	15.8	9.65	4.6%	3.7%	4.7%
Rougher concentrate 4	61.1	1.54%	6.64	3.74	1.8%	1.5%	1.7%
Rougher concentrate 5	60.3	1.52%	3.93	1.99	1.1%	0.9%	0.9%
Rougher tail	3484.0	87.71%	0.38	0.10	5.9%	4.7%	2.6%
Head (calculated)	3972.4	100.00%	5.66	3.36	100.0%	100.0%	99.9%

Table 13-2: Flotation metallurgical balance summary

For the cyanide leach testing of flotation concentrate and tailings it was decided to combine rougher concentrates 1 to 3 as the "final flotation concentrate" and recombine rougher concentrates 4 and 5 with the rougher tailing as the "final flotation rougher tailing" (DiLauro and Dymov, 2014). The final flotation concentrate assayed 56 g/t Au and 34.5% sulphide sulphur with a mass pull of 9.2% whereas the final flotation rougher tailing has 0.55 g/t Au and 0.19% sulphide sulphur. Conditions applied for cyanidation were 20% solids for 48 hours with pH maintained between 10.5-11.0 and cyanide concentration maintained at 5.0 g/L. Cyanidation of rougher concentrate with P<sub>80</sub> grind size of 84  $\mu$ m were 72% Au and 78% Ag, with reagent consumptions of 6.4 kg/t NaCN and 0.38 kg/t of lime. Re-grinding of this concentrate to P<sub>80</sub> grind size of 12  $\mu$ m yielded extractions of 89% Au and 96% Ag with reagent consumptions of 25.5 kg/t NaCN and 0.03 kg/t of lime. Cyanidation of the rougher flotation tailing at P<sub>80</sub> of 84  $\mu$ m returned final extractions of 72% Au and 59% Ag, with reagent consumptions of consumptions of 0.07 kg/t NaCN and 0.34 kg/t of lime.

A diagnostic leach program on the gravity tailing cyanide residue at  $P_{80}$  grind size of 58 µm was used to assess possible mineralogical associations for refractory gold and silver. Results indicate that most of the refractory gold (86.1%) is likely associated with, or occluded by, sulphide minerals, pyrite and/or arsenopyrite, whereas 70.6% of refractory silver could occur in sulphide minerals, pyrite, arsenopyrite, complex Ag minerals with iron and manganese, As-Sb sulphide, pyrrhotite, calcite and/or ferrites (DiLauro and Dymov, 2014).

# 13.3 2015 Blue Coast

In 2015, Blue Coast Research Limited of Parksville, British Columbia ("Blue Coast") was contracted to follow up on the 2014 metallurgical testing done by SGS Lakefield, with the aim of evaluating the recovery upside for a flowsheet that combines flotation, concentrate re-grinding and cyanidation (Martin, 2015). Testing was done on the same Bug Composite prepared by SGS Lakefield, which was re-assayed by Blue Coast to yield head grades of 6.29 g/t Au and 6.7 g/t Ag. Blue Coast note that the 18 month age of the Bug Composite could have potentially impacted flotation performance (Martin, 2015).

Three flotation tests were done to determine optimal grind size and two were done to create concentrates for leach testing. All three grind sizes (54, 86, 127  $\mu$ m) produced comparable gold (97%) and silver (92-93%) recoveries once the mass pull to concentrate had reached 20%. It was therefore decided to use the coarsest grind for leach testing, so that tests 4 and 5 were done with material ground to 127  $\mu$ m.

Cyanidation was done on both flotation concentrate and tails. Four leach tests were done on the flotation concentrate, to examine the effects of grind size, cyanide concentration and lead nitrate. Leaching was described as "extremely rapid", with gold extraction peaking after 3-5 hours using cyanide concentration of 5 g/L and no lead nitrate. The use of finer grind somewhat enhanced the leach kinetics although the peak extraction stayed the same at about 92.5% Au. Addition of lead nitrate had no positive affect and may actually have slowed leach kinetics.



Some of the gold appeared to drop out of solution after 3-5 hours in a weak process referred to as "preg-borrowing" (Martin, 2015). The addition of carbon failed to combat this effect, with recoveries dropping to 86.8% Au and 86.4% Ag. Martin (2015) states that the preg-borrowing mechanism is weak and at least somewhat reversible, and that further investigation may lead to overall enhanced metallurgical recoveries.

Concentrate tails were leached for 24 hours at 0.5 kg/tonne cyanide and pH 11, with testing showing low cyanide (0.13 kg/ton) and lime (0.2 kg/ton) consumption. Results showed that 83% of the silver in the tails was leached together with 65% of the gold. Overall, 0.24 g/t Au and 0.4 g/t Ag were extracted through the leach, comprising 2.5% and 6.3% of the Au and Ag mill feed respectively.

The final test done by Blue Coast comprised re-grinding of pyrite concentrate and flotation tails to  $P_{80}$  of 12  $\mu$ m followed by cyanide leaching. The leach performance on this co-processed stream was 10% below those achieved through separate leaching of concentrate and tails.

As a result of this work, Blue Coast proposed a flowsheet that includes separate leaches for concentrate and tails (Figure 13-1) and projected overall extractions of 91.4% Au and 80.2% Ag (Table 13-3).

Table 13-3: Metallurgical balance from separate concentrate and tails leach option (from Martin, 2015)

	Mass (%)	Gold (%)	Silver (%)
Feed	100	100	100
Flotation concentrate	20.4	96.1	92.5
Concentrate leach extraction	n/a	88.9	74
Concentrate leach residue	20.4	7.2	18.5
Flotation Tails	79.7	3.9	7.5
Tails leach extraction	n/a	2.5	6.2
Tails leach residue	79.7	1.4	1.3
Combined circuit extraction	n/a	91.4	80.2

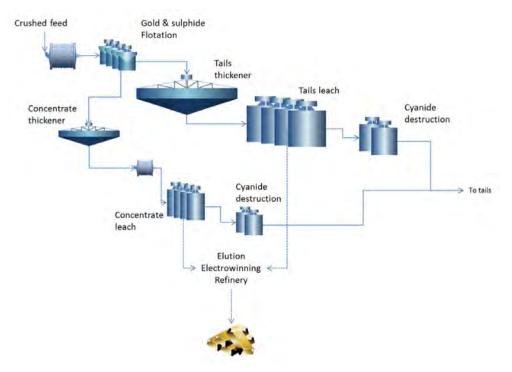


Figure 13-1: Proposed flotation and cyanidation flowsheet for the Bug Composite (from Martin, 2015). Work by SGS Lakefield (DiLauro and Dymov, 2014) proposed a gravitational separation step prior to gold and sulphide flotation.



## **14.0 MINERAL RESOURCE ESTIMATES**

This mineral resource estimate for the Martinière gold system is the first mineral resource prepared for the Property, which Balmoral acquired in 2010. Estimates are provided for the Martinière West and Bug deposits, the latter comprising the North, South and Lower Steep zones. All drill hole information up to January 30, 2018, was considered for this estimate.

Separate block models for the Martinière West and Bug deposit areas were built to reflect their distinct orientations. All measurements in this study are in the metric system.

The geologic interpretations were carried out by Mr. Marc Jutras, Principal, Mineral Resources at Ginto Consulting Inc. ("Ginto"), and in part by Balmoral's geologic team, while estimation of gold grades into a mineral resource was carried out by Ginto. Mr. Jutras is a qualified person as defined under NI 43-101.

This mineral resource estimation exercise was primarily undertaken with the Vulcan® software ("Vulcan") and utilities internally developed in Geostatistical Software Library (GSLIB) type format. The geologic interpretations were generated in Vulcan and in part in the Leapfrog® software ("Leapfrog"). The following sections outline the procedures undertaken to calculate the mineral resource.

## 14.1 Drill Hole Data

The drill hole database was provided by Balmoral with a cut-off date of January 30, 2018. It is comprised of 552 drill holes with 103,090 assays for gold in grams per tonne, representing a total of 143,230.8 m of drilling. These totals include pre-Balmoral drilling on the Martinière Property. Multi-element analyses are also available as well as other geologic information including alteration, lithology, veining, mineralization, structure, magnetic susceptibility, specific gravity, geochemistry, and geotechnical data.

All holes are diamond drill holes and drilled from surface. Within the Bug Deposit area, the drill hole database is comprised of 332 holes with 65,811 assays for gold in grams per tonne, representing a total of 64,960.7 m of drilling. The drill hole database for the Martinière West Deposit area contains 158 holes with 27,483 assays for gold in grams per tonne, representing a total of 25,916.3 m of drilling. The totals for the Martinière West and Bug deposits are therefore 490 holes with 93,294 assays for gold in grams per tonne, representing a total of 91,988.0 m of drilling. The remaining 62 holes in the database are located further away from these trends.

# 14.1.1 Drill hole data statistics

Statistics on Balmoral's drill hole database are summarized in Table 14-1, which shows that the average drill hole depth is 259.5 m with depths varying from 21.6 m to 897.1 m. Sample lengths are observed to be 0.99 m on average, with samples lengths varying from 0.15 m to 18.0 m, and with the most common sampling length being 1.0 m.

Gold grade statistics on the original samples for the Martinière West and Bug Lake trends are presented in Table 14-2 at various cut-off grades. It can be seen from this Table that the metres display a sharp decrease with elevated cut-off grades, while the accumulation (grade \* thickness) of gold has a more consistently decreasing pattern with elevated cut-off grades. This observation seems to indicate higher grades from fewer samples. This can also be noticed in the fact that the average grades are much higher than the cut-off grades.



	N.o. data	Mean	Std dev	cv	Min	LQ	Median	UQ	Max	N.o. 0.0 values	N.o. <0.0 values
Collar data											
Easting (X)	552	641623	753	0.001	637459	641200	641862	642044	644427	-	-
Northing (Y)	552	5543466	536	0.001	5541450	5543246	5543462	5543686	5547774	-	-
Elevation (Z)	552	256	3	0.013	242	255	257	258	262	-	-
Hole depth	552	254.8	136.6	0.512	10.5	164.8	230.0	320.8	897.1	-	-
Azimuth	552	226.0	93.3	0.411	0.0	196.5	248.0	288.0	360.0	-	-
Dip	552	-52.3	8.0	-0.156	-90.0	-56.0	-50.0	-45.0	-38.0	-	-
Overburden	552	0	0	0.0	0	0	0	0	0	-	-
Survey data											
Azimuth	7280	199.8	98.3	0.489	0.0	113.6	242.0	265.4	360.0	-	-
Dip	7280	-52.1	8.4	-0.161	0.0	0.0	0.0	0.0	0.0	-	-
Assay data			•				•		•		
Interval length (from, to)	103090	0.99	0.29	0.289	0.15	0.82	1.00	1.15	18.00	0	0
Au g/t	103090	0.43	26.50	62.162	0.00	0.01	0.01	0.07	8330.00	0	6188

Table 14-1: Statistics on the Balmoral's drill hole database

Abbreviations: CV = coefficient of variation, LQ = lower quantile, Max = maximum, Min = minimum, N.o. = number of, Std dev = standard deviation, UQ = upper quantile,

Table 14-2: Statistics on gold grades of original samples from the Martinière West and Bug Lake trends

Cut-off g/t Au	Total metres	Incremental percent	Average Au g/t	Grade- thickness g/t-m	Incremental percent	Standard deviation	Coefficient of variation	N.o. samples
0.0	91,988.0	100.0	0.34	31,275.9	100.0	27.86	60.32	93,294
0.5	6,917.4	7.5	3.95	27,323.7	87.4	93.65	19.93	8,236
1.0	3,800.8	4.1	6.62	25,161.3	80.4	125.07	15.95	4,611
2.5	1,528.7	1.7	14.14	21,615.8	69.1	193.67	11.61	1,916
5.0	674.0	0.7	27.66	18,642.8	59.6	283.72	8.88	868
7.5	458.1	0.5	37.80	17,316.2	55.4	340.84	7.83	613
10.0	328.1	0.4	49.36	16,195.0	51.8	399.69	7.04	444

# 14.1.2 Location, orientation and spacing of drill holes

The location of the drill holes for the Martinière project area is shown in Figure 14-1. Statistics on drill hole spacing are presented in Table 14-3 for both the Martinière West and Bug Lake trends, as well as outside of these trends and for the entire Property. It is observed that the average drill spacing at Bug Lake and Martinière West is 30.6 m and 31.2 m, respectively. The median drill spacing is 21.7 m at Bug Lake and 21.3 m at Martinière West. From Figure 14-1, it can be seen that the drill spacing at Bug Lake is tighter in the central and northwestern part of the deposit and wider in the southeastern end.

Stereonets of drill hole orientations were calculated for the two areas of interest (Figure 14-2), representing the drill hole orientations within the bottom half of a sphere. Three main orientations are noted on the Bug Lake Trend, with the most prominent orientation to the west-southwest (azimuths 195° to 290°). The other orientations are to the west-northwest (azimuths 310° to 360°) and to the east-northeast (azimuths 30° to 85°). The holes from these orientations have dips ranging from -40° to -90° with the majority of holes having dips between -40° and -65°. At Martinière West, two main orientations of drill holes are observed. One orientation is to the northwest with azimuths between 275° to 355° and dips from -40° to -65°. The other main orientation is to the east-southeast with azimuths ranging from 100° to 145° and dips from -40° to -80°.



Table 14-3: Drill hole spacing statistics

	Average Spacing (m)	Median Spacing (m)
Bug Lake Trend	30.6	21.7
Martinière West Trend	31.2	21.3
Other areas	188.5	114.5
Martinière Property	46.4	23.4

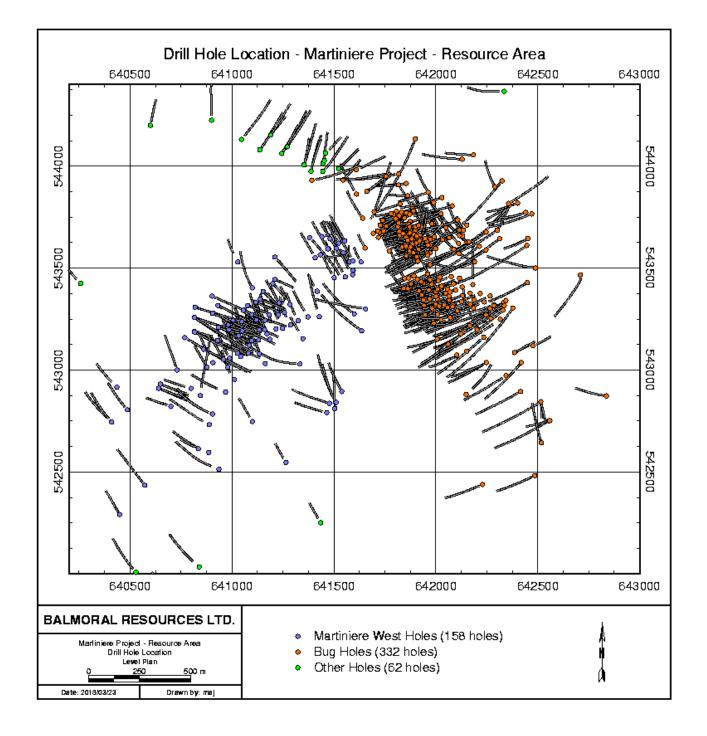


Figure 14-1: Drill hole location map for the Bug Lake and Martinière West trends.

58

EQUITY -

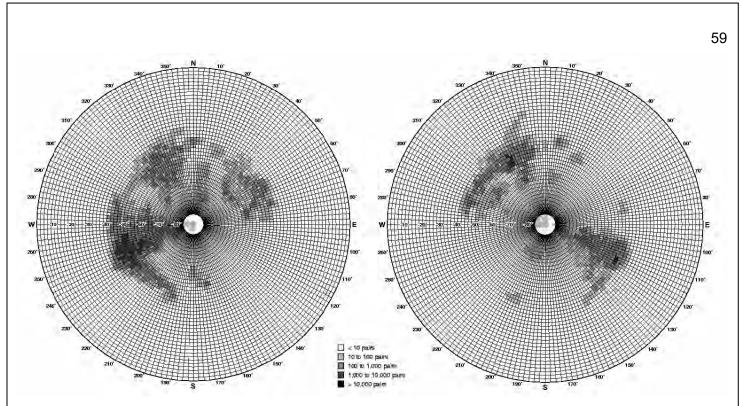


Figure 14-2: Stereonets showing drill hole orientations on the (left) Bug Lake and (right) Martinière West trends

#### 14.2 Geologic Modeling

A geologic model of the gold mineralization was developed for each of the Bug and Martinière West deposits (Figures 14-3, 14-4). Initially a lithologic model was developed by the Balmoral team as a guide in the modelling of the controls on gold mineralization.

Mineralization in the Martinière West Deposit is found within a gabbro in proximity to its contact with a sedimentary unit. This Deposit is fragmented with multiple subzones, with the Main Subzone oriented at an azimuth of 030° and dipping steeply to the northwest. The Central Zone is found to the northeast at approximately 120 m away from the Main Subzone. Gold mineralization in that area is oriented at an azimuth of 065° and also dips to the northwest.

A similar approach was utilized in modeling gold mineralization in the Bug Deposit. Models of porphyry intrusive and sills prepared by Balmoral's team served as controls in the interpretation of the mineralized zones. The Deposit is formed by the North, South and Lower Steep zones. The North Zone strikes 150°, dips 60° to the northeast and plunges at 20° to the southeast. The Lower Steep Zone is oriented at an azimuth of 130°, dips 80° to the southwest, and plunges 40° to the southeast. The South Zone strikes 155°, dips 80° to the northeast and plunges 35° to the southeast. All three zones are located close to the Bug Lake porphyry, with gold mineralization concentrated external to the porphyry along its upper (or hanging wall) and lower (or footwall) contacts (i.e. UBsz, LBsz). The South Zone also shows a "bleeding" of mineralization into the adjacent and flat-lying sedimentary units, forming a half "Christmas tree" shape on the hanging wall side mineralized zone.

The interpretation of Bug Deposit was performed in Vulcan on 25 m spaced, southwest to northeast trending (070° azimuth) and vertical sections. Interpretation for the Martinière West Deposit was done on 25 m spaced vertical sections trending northwest to southeast (120° azimuth). The interpretation of the UBsz and HWsz mineralization of the South Zone was carried out by Balmoral's geologic team in Leapfrog, on 10 m spaced sections oriented perpendicular to its plunging axis of 335° azimuth and -38° plunge. Vulcan software was used to then link the mineralized polygons into 3-D wireframes. Examples of the modeled mineralized zones are presented in Figures 14-3 to 14-5.



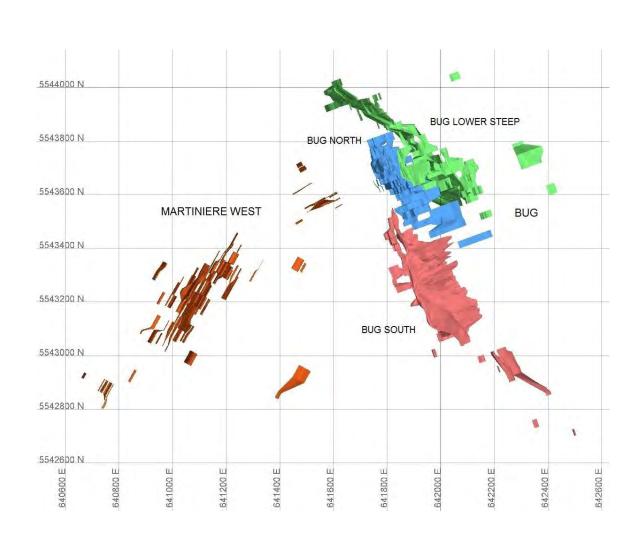
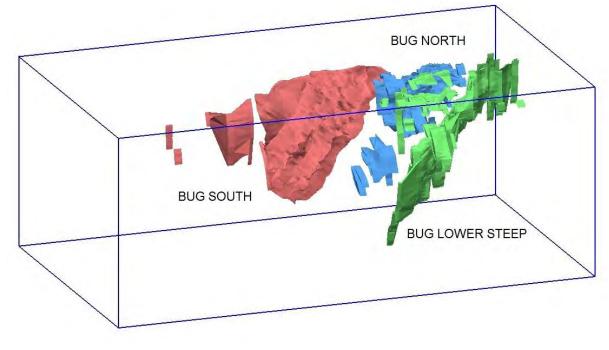
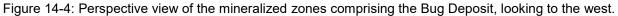


Figure 14-3: Plan view of modelled mineralized zones of the Bug and Martinière West deposits.





60



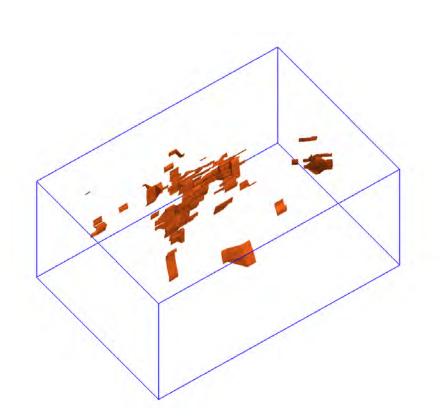


Figure 14-5: Perspective view of mineralized zones comprising the Martinière West Deposit, looking to the northwest.

# 14.2.1 Geologic rock codes

From the modeling of the geologic controls on mineralization a set of rock codes were defined for each of the zones. Tables 14-4 and 14-5 list the codes for each of the mineralized zones on the Bug Lake and Martinière West trends, respectively.

A topographic surface and overburden model for the Martinière region (Figure 14-6) were provided and utilized for the estimation of the mineral resources. The area has very little relief overall. The overburden thickness on the Bug Lake Trend varies from 10.5 m to 62.3 m with an average of 27.7 m, while the overburden thickness in the area of interest at Martinière West varies from 6.5 m to 57.2 m with an average of 25.7 m.



Deposit	Zone	Modelled Subzone	Rock Codes	Description	Volume m <sup>3</sup>
		FW1	1	footwall 1	766,931.5
		FW2	2	footwall 2	117,371.7
		FWO	3	footwall - other	91,294.1
	Newth	FWO2	4	footwall - other 2	55,225.5
	North	HW1	5	hanging wall 1	244,178.8
		HW2	6	hanging wall 2	115,464.2
		HWO	7	hanging wall - other	218,925.6
		DEEP	8	deep zone	15,501.5
		FW	1	footwall	760,054.6
		FWO	2	footwall - other	81,368.4
Bug		HW	3	hanging wall	987,713.2
5	Lower Steep	HWO	4	hanging wall - other	84,947.3
	Oloop	TOP	5	top zone	266,569.0
		EAST	6	east zone	240,248.5
		EAST2	7	east zone 2	33,321.2
		FW1	1	footwall 1	633,133.7
		FW2	2	footwall 2	82,214.5
		FWO	3	footwall - other	107,886.9
	South	HW1	4	hanging wall 1	2,972,855.8
		HW2	5	hanging wall 2	176,822.2
		HWO	6	hanging wall - other	7,546.3
		HW1-2	7	hanging wall 1 - 2	14,362.2

# Table 14-4: Rock codes for the Bug Deposit

# Table 14-5: Rock codes for the Martinière West Deposit

Deposit	Subzone	Rock Codes	Description	Volume m <sup>3</sup>
	MAIN1	1	main zone 1	465,514.4
	FW1	2	footwall 1	75,295.4
	HW1	3	hanging wall 1	182,399.7
Martinière West	MAIN2	4	main zone 2	8,618.2
	FW2	5	footwall 2	303,579.1
	HW2	6	hanging wall 2	7,925.0
	OTH-NE	7	other – northeast zone	27,197.0
	OTH-SW	8	other – southwest zone	86,849.5



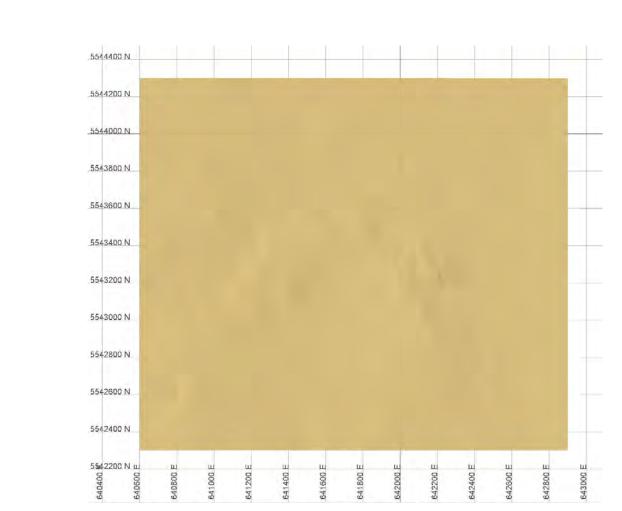


Figure 14-6: Plan view of topographic surface and overburden at Martinière.

# 14.3 Compositing

Statistics were computed on the original sample lengths and it was noted that the most common sample length is 1.0 m, representing 24% of the data on the Bug Deposit and 29% of the data at Martinière West. There are approximately 48% of the samples with lengths less than 1.0 m at Bug and 42% at Martinière West.

The compositing length was set at 1.0 m to reflect the most common sampling length, as well as providing a satisfactory ratio of sample length to block height (1:2.5).

The compositing process consisted in starting the compositing at the collar of each hole with continuous composite intervals. At the contact with a different unit from the geology model, a last interval was composited, while a new set of regular composite lengths is generated within the other unit. The Martinière West Deposit contains 1,835 composites from 111 holes. The mineralized zones of the Bug Deposit contain a total of 12,652 composites generated from 342 holes. A summary of statistics on the composites within mineralized zones at Martinière is presented in Table 14-6.

Deposit	Zone	N.o. holes	% of holes	N.o. composites	% of composites	N.o. metres	% of metres	Average Au grade (g/t)
	North	127	28.0	5,619	38.8	5,438.7	39.2	2.58
Dua	Lower Steep	106	23.4	2,687	18.5	2,569.4	18.5	1.04
Bug	South	109	24.1	4,346	30.0	4,166.1	30.1	1.26
	All	342	75.5	12,652	87.3	12,174.2	87.8	1.80
Martinière West		111	24.5	1,835	12.7	1,682.8	12.2	2.33
All		453	100.0	14,487	100.0	13,857.0	100.0	1.87

 Table 14-6. Drill hole composite summary for the Bug and Martinière West deposits

63

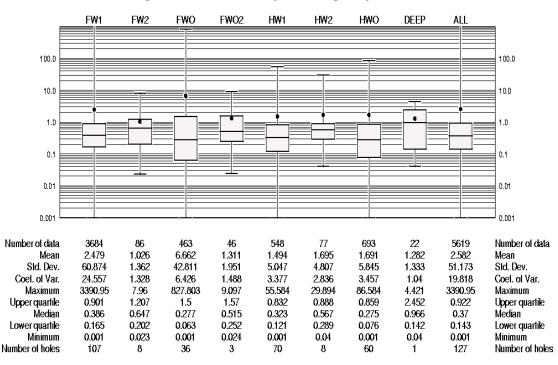


# 14.4 Exploratory Data Analysis (EDA)

A set of various statistical applications was utilized to provide a better understanding of the gold grade populations within the various mineralized zones.

## 14.4.1 Univariate statistics

Basic statistics were performed on the gold grades of the Bug and Martinière West composites. Histograms and probability plots indicate that the gold grade distributions resemble positively skewed lognormal populations. Basic statistics results are presented as boxplots per unit for each zone in Figures 14-7 to 14-10. As seen in these figures, the gold grade populations are in general homogeneous, with nearly 25% of the mineralized units showing more heterogeneous populations with coefficients of variation (CV) greater than 3.0. This is most likely attributable to high gold grade values found in these units.



Bug North - 1.0m Au Composites in g/t - by Domains

Figure 14-7: Basic gold statistics of 1.0 m composites from the North Zone



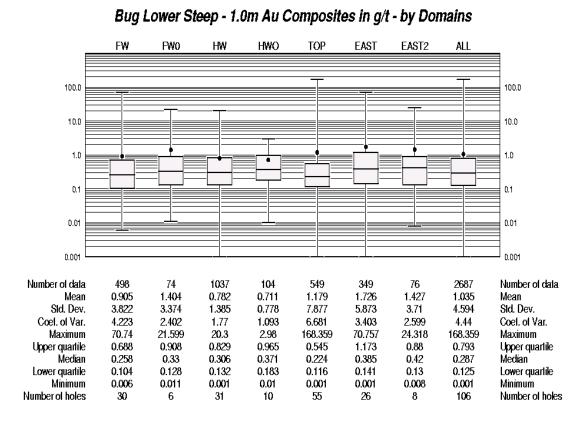
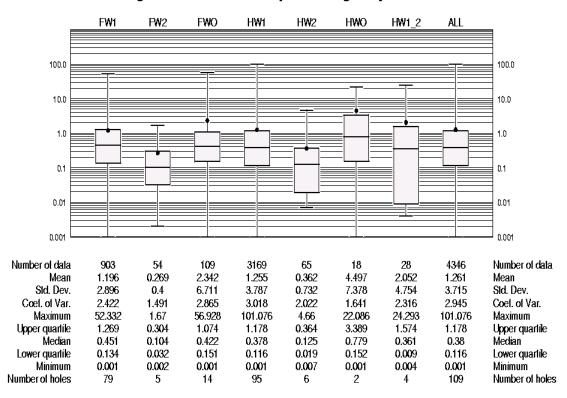


Figure 14-8. Basic gold statistics of 1.0 m composites from the Lower Steep Zone.



## Bug South - 1.0m Au Composites in g/t - by Domains

Figure 14-9: Basic gold statistics of 1.0 m composites from the South Zone.

65

EQUITY

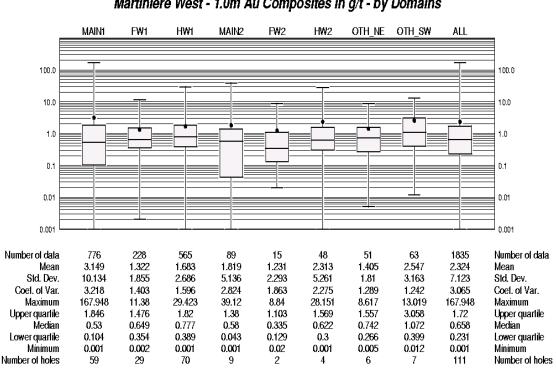


Figure 14-10: Basic gold statistics of 1.0 m composites from the Martinière West Deposit

#### 14.4.2 Capping of high-grade outliers

It is common practice to statistically examine the higher grades within a population and to trim them to a lower grade value based on the results from specific statistical utilities. This procedure is performed on highgrade values that are considered outliers and that cannot be related to any geologic feature. In the case at Martinière, the higher gold grades were examined with three different tools: the probability plot, decile analysis, and cutting statistics. The usage of various investigating methods allows for a selection of the capping threshold in a more objective and justified manner. For the probability plot method, the capping value is chosen at the location where higher grades depart from the main distribution. For the decile analysis, the capping value is chosen as the maximum grade of the decile containing less than an average of 10% of metal. For the cutting statistics, the selection of the capping value is identified at the cut-off grade where there is no correlation between the grades above this cut-off.

The resulting compilation of the capping thresholds is listed in Table 14-7. One of the objectives of the capping strategy is to have less than 10% of the metal affected by the capping process. This was achieved in some of the units, however for other units, it was noted that the capping had a greater effect on the metal content, indicating that few high-grade outliers were quite different than the population in general by carrying a good proportion of the metal content.



Martiniere West - 1.0m Au Composites in g/t - by Domains

Deposit	Zone	Subzone	Capping threshold (Au g/t)	% Metal Affected	Number of Comps Capped
		FW1	50.0	52	4
		FW2	6.0	4	3
		FWO	80.0	33	5
		FWO2	5.0	14	3
	North	HW1	25.0	13	5
		HW2	4.0	52	4
		HWO	30.0	11	4
		DEEP	3.0	8	2
		FW	7.0	22	4
		FWO	6.0	30	4
		HW	12.0	1	1
Bug	Lower Steep	HWO	-	0	0
		TOP	25.0	25	2
		EAST	22.0	18	3
		EAST2	7.0	28	2
		FW1	12.0	9	7
		FW2	1.2	8	3
		FWO	15.0	20	3
	South	HW1	60.0	2	2
		HW2	2.5	8	1
		HWO	-	0	0
		HW1-2	-	0	0
		MAIN1	55.0	7	4
		FW1	10.0	1	1
		HW1	15.0	1	3
		MAIN2	15.0	18	2
Martinière West		FW2	-	0	0
		HW2	-	0	0
		OTH-NE	-	0	0
		OTH-SW	_	0	0

Table 14-7: List of capping	thresholds for higher	gold grade outliers at Martinière

Basic statistics were re-computed with the gold grades capped to the thresholds listed in Table 14-7. Boxplots shown in Figures 14-11 to 14-14 display the basic statistics resulting from the capping of the higher gold grade outliers. It can be observed from those Figures that the coefficients of variation are in general below 3.0 or only slightly above for the different gold grade populations. The effect of the capping of higher gold grade outliers has reduced the overall mean gold grade by 42.8% at the North Zone, by 15.9% at Lower Steep, by 4.1% at South Zone, and by 5.8% at the Martinière West Deposit. The greater reduction observed at the North Zone is due to a few high-grade outliers carrying a large portion of the metal and thus having a greater influence on the population's average gold grade (Table 14.7).

Because of the generally low coefficients of variation observed for the gold grade populations in the Bug and Martinière West deposits, it was concluded that there is no need to treat the higher grade composites differently than the lower grade composites during the estimation process. Ordinary kriging is thus a well-suited estimation technique in this case.



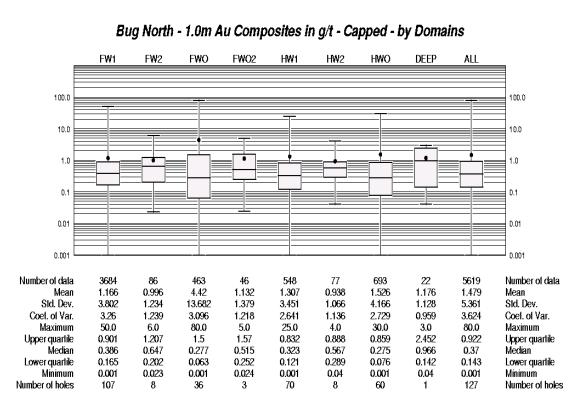
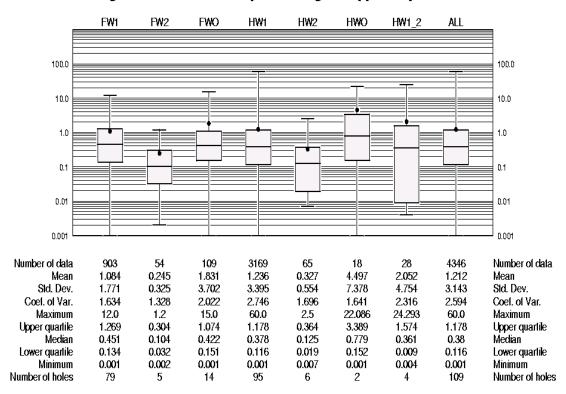


Figure 14-11: Basic gold statistics of 1.0 m capped composites from the North Zone



Bug South - 1.0m Au Composites in g/t - Capped - by Domains

Figure 14-12: Basic gold statistics of 1.0 m capped composites from the Lower Steep Zone

68

EQUITY

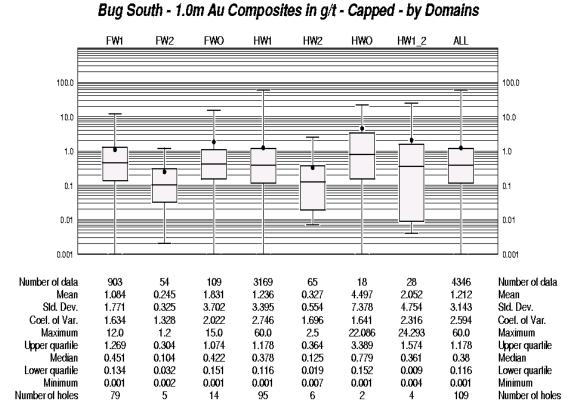
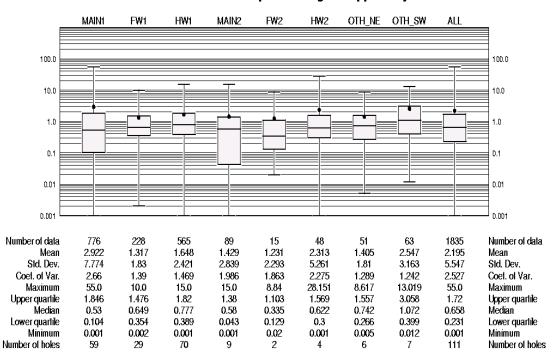


Figure 14-13: Basic gold statistics of 1.0 m capped composites from the South Zone



Martiniere West - 1.0m Au Composites in g/t - Capped - by Domains

Figure 14-14: Basic gold statistics of 1.0 m capped composites from the Martinière West Deposit



#### 14.4.3 Declustering

In general, there is a tendency to drill more holes in higher grade areas than in lower grade areas when delimiting an ore body. As a result, the higher grade portion of a deposit will be overly represented and would translate into a bias towards the higher grades when calculating statistical parameters of the population. Thus, a declustering method is utilized to generate a more representative set of statistical results within the zone of interest. In this case, a polygonal declustering technique was applied to composites of the Bug and Martinière West deposits. This approach consisted of assigning the volume of a polygon, defined by the halfway distance between a sample and its surrounding neighbours, as a weight for each sample within the mineralized zone. Therefore, a sample that is isolated will have a larger weight than a sample located in a densely sampled area.

Comparisons of average gold capped and declustered grades with the capped and un-declustered gold averages show some clustering at the Bug Deposit, with a reduction of 15.8% of the mean gold grade. An increase of 10.9% of the average gold grade was noted at Martinière West.

The average grade from the declustered statistics provides an excellent comparison with the average grade of the interpolated blocks, as a way to assess any overall bias of the estimates.

#### 14.5 Variography

A variographic analysis was carried out on the gold grade composites within the three zones of the Bug Deposit and for the Martinière West Deposit. The objective of this analysis was to spatially establish the preferred directions of gold grade continuity. In turn, the variograms modeled along those directions would be later utilized to select and weigh the composites during the block grade interpolation process. For this exercise, all experimental variograms were of the type relative lag pairwise, which is considered robust for the assessment of gold grade continuity.

Variogram maps were first calculated to examine general gold grade continuities in the XY, XZ, and YZ planes. The next step undertaken was to compute omni-directional variograms and down-hole variograms. The omni-directional variograms are calculated without any directional restrictions and provide a good assessment of the sill of the variogram. As for the down-hole variogram, it is calculated with the composites of each hole along the trace of the hole. The objective of these calculations is to provide information about the short-scale structure of the variogram, as the composites are more closely spaced down the hole. Thus, the modeling of the nugget effect is usually better derived from the down-hole variograms.

Directional variograms were then computed to identify more specifically the three main directions of continuity. A first set of variograms were produced in the horizontal plane at increments of 10 degrees. In the same way a second set of variograms were computed at 10° increments in the vertical plane of the horizontal direction of continuity (plunge direction). A final set of variograms at 10° increments were calculated in the vertical plane perpendicular to the horizontal direction of continuity (dip direction). The final variograms were then modeled with a two-structure spherical variogram, and resulting parameters presented in Tables 14-8 to 14-11 for gold populations in the different deposits.

The directions of gold grade continuity are in general agreement with the orientation of the mineralized zones, with best directions of continuity trending along strike and dip. The ranges of gold grade continuity along the principal direction (strike) vary from 36 m to 65 m on the Bug Deposit and from 25 m to 60 m for the Martinière West Deposit. Along the minor direction (dip), the ranges of continuity vary from 35 m to 56 m for Bug and from 18 m to 67 m at Martinière West. Finally, along the vertical direction (across strike and dip), the ranges of continuity vary from 14 m to 31 m at the Bug Deposit and from 13 m to 23 m at Martinière West. The modeled variograms have relatively low nugget effects with values varying from 11% to 30% of the sill at Bug Deposit and from 14% to 28% of the sill at Martinière West Deposit.

The experimental variograms are considered of satisfactory quality for the major units of the Bug and Martinière West deposits. The more minor units did not allow for conclusive variograms due to the fewer assays available.



Deremetere	1 – footwall 1			3 – footwall others			5 – hanging wall 1			7 – hanging wall others		
Parameters	Principal	Minor	Vertical	Principal	Minor	Vertical	Principal	Minor	Vertical	Principal	Minor	Vertical
Azimuth*	155°	245°	245°	125°	215°	215°	155°	245°	245°	135°	225°	225°
Dip**	-20°	65°	-25°	-20°	70°	-20°	-15°	55°	-35°	0°	55°	-35°
Nugget Effect C <sub>0</sub>		0.236			0.409			0.295			0.598	
1 <sup>st</sup> Structure C <sub>1</sub>		0.908			0.992			0.934			1.039	
2 <sup>nd</sup> Structure C <sub>2</sub>		0.337			0.835			0.63			0.608	
1 <sup>st</sup> Range A <sub>1</sub> (m)	11.3	17.8	6.0	16.1	15.6	21.0	24.5	13.6	10.4	21.2	23.2	13.4
2 <sup>nd</sup> Range A <sub>2</sub> (m)	58.5	48.9	27.4	46.1	46.1	26.9	61.3	35.3	16.9	49.7	39.9	23.2

#### Table 14-8: Modeled variogram parameters for gold composites from the North Zone

\*positive clockwise from north; \*\*negative below horizontal

### Table 14-9: Modeled variogram parameters for gold composites from the Lower Steep Zone

Deremetere	1 – footwall			3 – hanging wall			5 – top			6 – east		
Parameters	Principal	Minor	Vertical	Principal	Minor	Vertical	Principal	Minor	Vertical	Principal	Minor	Vertical
Azimuth*	115°	205°	205°	130°	220°	220°	0°	90°	0°	0°	90°	90°
Dip**	0°	-80°	10°	0°	-80°	10°	0°	0°	-90°	0°	-10°	80°
Nugget Effect C <sub>0</sub>	0.283			0.217			0.265				0.611	
1 <sup>st</sup> Structure C <sub>1</sub>		0.705		0.726				0.947			0.943	
2 <sup>nd</sup> Structure C <sub>2</sub>		0.568			0.645		0.588				0.462	
1 <sup>st</sup> Range A <sub>1</sub> (m)	33.9	21.0	6.0	37.0	43.5	11.3	8.6	15.9	8.6	31.9	25.5	7.1
2 <sup>nd</sup> Range A <sub>2</sub> (m)	45.7	43.5	13.5	64.9	56.3	29.5	36.3	37.9	18.4	51.4	42.7	20.1

\*positive clockwise from north; \*\*negative below horizontal

#### Table 14-10: Modeled variogram parameters for gold composites from the South Zone

Parameters	1 –	footwal	1	4 – hang	ing wall	vertical	4 – hanging wall horizontal			
Parameters	Principal	Minor	Vertical	Principal	Minor	Vertical	Principal	Minor	Vertical	
Azimuth*	165°	255°	255°	150°	240°	240°	40°	130°	130°	
Dip**	-25°	85°	-5°	-40°	75°	-15°	5°	-40°	50°	
Nugget Effect C <sub>0</sub>		0.364			0.194		0.259			
1 <sup>st</sup> Structure C <sub>1</sub>		0.949			0.868			1.037		
2 <sup>nd</sup> Structure C <sub>2</sub>		0.526			0.630			0.535		
1 <sup>st</sup> Range A <sub>1</sub> (m)	10.3	9.2	7.1	14.6	23.2	14.6	38.2	16.7	16.7	
2 <sup>nd</sup> Range A <sub>2</sub> (m)	60.9	37.2	15.7	55.4	51.1	30.7	55.4	52.2	26.4	

\*positive clockwise from north; \*\*negative below horizontal

## Table 14-11: Modeled variogram parameters for gold composites from the Martinière West Deposit

Parameters		1 – main 1 2,3 – footwall 1, hanging wall 1 4,5,6 – main 2, footwall 2, hanging wall						all 2			
	Principa	Minor	Vertica	l Principal	Minor	Vertica	al Principal	Minor	Vertical		
Azimuth*	25°	115°	115°	25°	115°	115°	60°	150°	150°		
Dip**	0°	85°	-5°	10°	80°	-10°	0°	85°	-5°		
Nugget Effect C <sub>0</sub>		0.341	•		0.359			0.633			
1 <sup>st</sup> Structure C <sub>1</sub>		1.566			0.278			1.016			
2 <sup>nd</sup> Structure C <sub>2</sub>		0.524			0.792			0.592			
1 <sup>st</sup> Range A <sub>1</sub> (m)	14.5	30.5	11.3	34.9	8.1	9.2	6.0	4.7	4.7		
2 <sup>nd</sup> Range A <sub>2</sub> (m)	38.0	66.9	23.1	59.5	43.5	23.1	25.3	17.8	12.8		

\*positive clockwise from north; \*\*negative below horizontal



## 14.6 Gold Grade Estimation

The estimation of gold grades at Martinière was carried out in two separate block models; one for the Bug Deposit and another for the Martinière West Deposit, mainly due to the different orientations of their respective mineralized zones. Both block models are thus rotated, with the Bug Deposit model at an azimuth of 70° (X axis), and the Martinière West model at an azimuth of 30° (X axis). The block grid definition for both areas is presented in Table 14-12 for Bug and Table 14-13 for Martinière West. A plan view of the block model limits is also shown in Figure 14-15.

As seen in Figure 14-15, there is an overlap in the area covered by both block models. However, because only the mineralized units from each area are estimated there is no overlap in the gold grade estimates, so avoiding any possibility of double accounting of the mineral resources.

A block size of 2.5 m (easting) x 2.5 m (northing) x 2.5 m (elevation) was selected to better reflect the geometrical configuration of the mineralized zones and to provide flexibility for both open pit and underground scenarios.

The block gold grades were estimated with the ordinary kriging technique for the major mineralized units, where sufficient quantities of gold assays were available to allow for a geostatistical interpolation approach. For the other mineralized units, where fewer gold assays were available, an inverse distance squared technique was utilized.

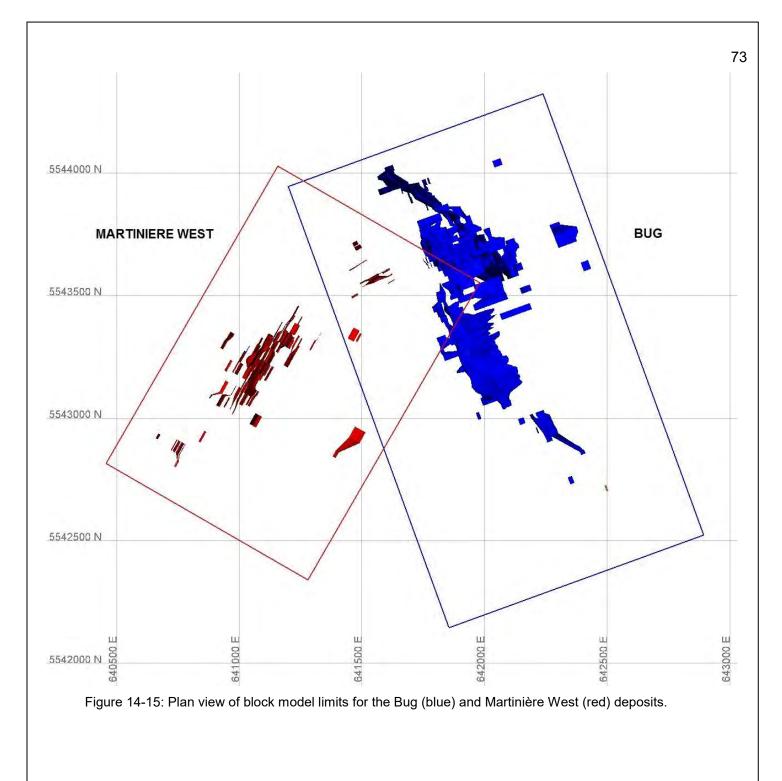
The estimation strategy and parameters were tailored to account for the various geometrical, geological, and geostatistical characteristics previously identified. The database for 1.0 m capped gold grade composites were utilized as input for the grade interpolation process at both the Bug and Martinière West deposits. The size and orientation of the search ellipsoid for the estimation process of each mineralized unit was based on the variogram parameters modeled for gold. A minimum of two samples and maximum of 12 samples were selected for the block grade calculations. Hard boundaries were assigned in the estimation of each unit. No other restrictions, such as a minimum number of informed octants, a minimum number of holes, a maximum number of samples per hole, etc., were applied to the estimation process. A summary of the estimation parameters is presented in Table 14-14. This table shows that there are two separate estimations for the hanging wall unit 1 at Bug South (rock code 4), with one estimation for the vertical portion of the mineralized zone and another for the more horizontal portion of the mineralized zone. This separation allowed for different orientations of the search ellipsoid during the estimation process to better model the different directions of continuity within the same unit. A soft boundary was utilized between them.

Coordinates	Origin (m)	Rotation (X axis azimuth)	Distance (m)	Block Size (m)	Number of blocks
Easting (X)	641,855.0		1,105.0	2.5	442
Northing (Y)	5,542,145.0	70°	1,915.0	2.5	766
Elevation(Z)	-450.0		750.0	2.5	300
Number of Blocks		101,571,600			

Table 14-13:	Block grid definition	for the Martinière West Deposit
--------------	-----------------------	---------------------------------

Coordinates	Origin (m)	Rotation (X axis azimuth)	Distance (m)	Block Size (m)	Number of blocks
Easting (X)	641,280.0		1,400.0	2.5	560
Northing (Y)	5,542,340.0	30°	950.0	2.5	380
Elevation(Z)	-350.0		670.0	2.5	268
Number of Blocks	•	57,030,400			







				Search ellipsoid					
Rock Code	Estimation method	Min N.o. samples	Max N.o. samples	Long axis - azimuth/dip	Long axis - size	Short axis - azimuth/dip	Short axis - size	Vertical axis - azimuth/dip	Vertical axis - size
North Zone									
1	OK	2	12	155°/-20°	59.0 m	245°/65°	49.0 m	245°/-25°	27.0 m
2	ID <sup>2</sup>	2	12	160°/-25°	59.0 m	250°/35°	49.0 m	250°/-55°	27.0 m
3	OK	2	12	125°/-20°	46.0 m	215°/70°	46.0 m	215°/-20°	27.0 m
4	ID <sup>2</sup>	2	12	140°/-25°	46.0 m	230°/80°	46.0 m	230°/-10°	27.0 m
5	OK	2	12	155°/-15°	61.0 m	245°/55°	35.0 m	245°/-35°	17.0 m
6	ID <sup>2</sup>	2	12	160°/-20°	61.0 m	250°/45°	35.0 m	250°/-45°	17.0 m
7	OK	2	12	135°/0°	50.0 m	225°/55°	40.0 m	225°/-35°	23.0 m
8	ID <sup>2</sup>	2	12	160°/0°	61.0 m	250°/-80°	35.0 m	250°/10°	17.0 m
Lower Steep	Lower Steep Zone								
1	OK	2	12	115°/0°	46.0 m	205°/-80°	44.0 m	205°/10°	14.0 m
2	ID <sup>2</sup>	2	12	160°/0°	46.0 m	250°/-90°	44.0 m	250°/0°	14.0 m
3	OK	2	12	130°/0°	65.0 m	220°/-80°	56.0 m	220°/10°	30.0 m
4	ID <sup>2</sup>	2	12	130°/-25°	65.0 m	220°/-90°	56.0 m	220°/0°	30.0 m
5	OK	2	12	0°/0°	36.0 m	90°/0°	38.0 m	90°/-90°	18.0 m
6	OK	2	12	0°/0°	51.0 m	90°/-10°	43.0 m	90°/80°	20.0 m
7	ID <sup>2</sup>	2	12	160°/0°	51.0 m	250°/80°	43.0 m	250°/-10°	20.0 m
South Zone									
1	OK	2	12	165°/-25°	61.0 m	255°/85°	37.0 m	255°/-5°	16.0 m
2	ID <sup>2</sup>	2	12	150°/-25°	61.0 m	240°/85°	37.0 m	240°/-5°	16.0 m
3	ID <sup>2</sup>	2	12	160°/-25°	61.0 m	250°/80°	37.0 m	250°/-10°	16.0 m
4-vertical	OK	2	12	150°/-40°	55.0 m	240°/75°	51.0 m	240°/-15°	31.0 m
4- horizontal	OK	2	12	40°/5°	55.0 m	130°/-40°	52.0 m	130°/50°	26.0 m
5	ID <sup>2</sup>	2	12	150°/0°	57.0 m	240°/85°	48.0 m	240°/-5°	25.0 m
6	ID <sup>2</sup>	2	12	160°/0°	57.0 m	250°/-90°	48.0 m	250°/0°	25.0 m
7	ID <sup>2</sup>	2	12	40°/5°	55.0 m	130°/-40°	52.0 m	130°/50°	26.0 m
Martinière V	/est Deposit	1	1				1	L	1
1	OK	2	12	25°/0°	38.0 m	115°/85°	67.0 m	115°/-5°	23.0 m
2	OK	2	12	25°/10°	60.0 m	115°/80°	44.0 m	115°/-10°	23.0 m
3	OK	2	12	25°/10°	60.0 m	115°/80°	44.0 m	115°/-10°	23.0 m
4	OK	2	12	60°/0°	25.0 m	150°/85°	18.0 m	150°/-5°	13.0 m
5	OK	2	12	60°/0°	25.0 m	150°/85°	18.0 m	150°/-5°	13.0 m
6	OK	2	12	60°/0°	25.0 m	150°/85°	18.0 m	150°/-5°	13.0 m
7	ID <sup>2</sup>	2	12	30°/0°	60.0 m	120°/-70°	44.0 m	120°/20°	23.0 m
8	ID <sup>2</sup>	2	12	25°/0°	60.0 m	115°/80°	44.0 m	115°/-10°	23.0 m

X

EQUITY

The grade estimation process consisted of a three-pass approach with the parameters of the first pass as presented in Table 14-14. The estimation parameters of the second and third passes are the same with the exception of an enlarged search ellipsoid by 1.5 times and 3 times the dimensions from the first pass, respectively. In this case, priority was given to estimates from the first pass, followed by estimates from the second pass for un-estimated blocks from the first pass, and finally the estimates of the third pass for un-estimated blocks from the first pass. Only blocks within the modeled mineralized zones were estimated.

## 14.7 Validation of Grade Estimates

Validation tests were carried out on the estimates to examine the possible presence of a bias and to quantify the level of smoothing/variability.

## 14.7.1 Visual inspection

A visual inspection of the block estimates with the drill hole grades on plans and cross-sections was performed as a first check of the estimates. Observations from stepping through the estimates along the different planes indicated that there was overall a good agreement between the drill hole grades and the estimates. The orientations of the estimated grades were also according to the projection angles defined by the search ellipsoid. Examples of cross-sections for gold grade estimates of the different mineralized zones are presented in Figures 14-16a to 14-16d.

## 14.7.2 Global bias test

The comparison of the average gold grades from the declustered composites and the estimated block grades examines the possibility of a global bias of the estimates. As a guideline, a difference between the average gold grades of more than  $\pm 10\%$  would indicate a significant over- or under-estimation of the block grades and the possible presence of a bias. It would be a sign of difficulties encountered in the estimation process and would require further investigation. A polygonal declustered method with a bounding solid corresponding to the estimated volume was utilized for this exercise

Results of the average gold grade comparison are presented in Table 14-15 for mineralized zones from the Bug and Martinière West deposits. As seen in Table 14-15, the average gold grades between the declustered composites and the block estimates are within the limits of the tolerance levels of acceptability. It can thus be concluded that no significant global bias is present in the gold grade estimates.

Statistics	Declustered Composites	Block Estimates	
Bug Deposit			
Average gold grade g/t	1.07	1.08	
Difference	0.9%		
Martinière West Deposit			
Average gold grade g/t	2.33	2.25	
Difference	-3.4%		

# Table 14-15: Average gold grade comparison between polygonal-declustered composites and block estimates for the Bug Lake and Martinière West trends



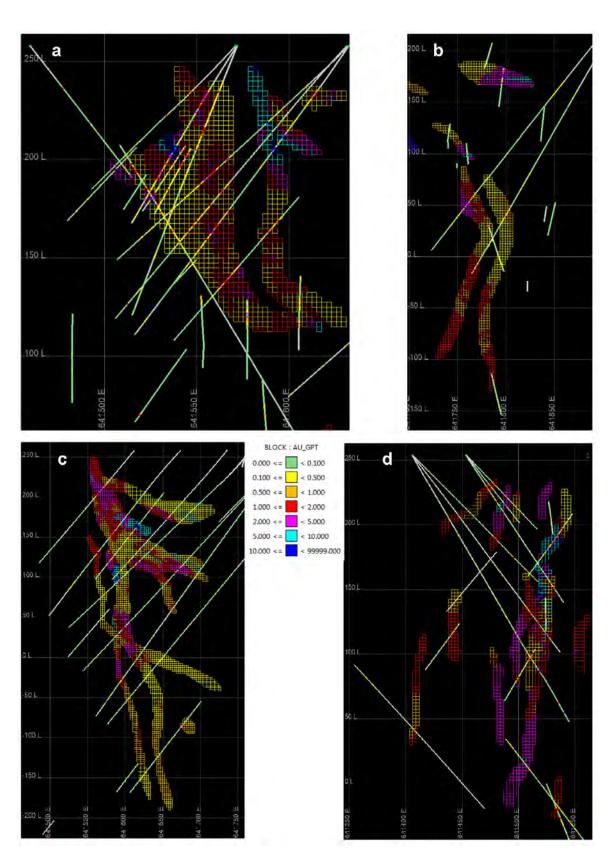


Figure 14-16: Gold block grade estimates and drill hole grades for (a) section 26 through the North Zone, looking northwest, (b) section 25 through the Lower Steep Zone, looking northwest, (c) section 44 through the South Zone, looking northwest, and (d) section 29 through the Martinière West Deposit, looking northeast.



### 14.7.3 Local bias test

A comparison of the grade from composites within a block with the estimated grade of that block provides an assessment of the estimation process close to measured data. Pairing of these grades on a scatterplot gives a statistical valuation of the estimates. It is anticipated that the estimated block grades should be similar to the composited grades within the block, however without being of exactly the same value. Thus, a high correlation coefficient will indicate satisfactory results in the interpolation process, while a medium to low correlation coefficient will be indicative of larger differences in the estimates and would suggest a further review of the interpolation process. Results from the pairing of composited and estimated grades within blocks pierced by a drill hole are presented in Table 14-16 for the mineralized zones of the Bug and Martinière West deposits.

As seen in Table 14-16, the block grade estimates for gold are very similar to the composite grades within blocks pierced by a drill hole and have high correlation coefficients, indicating satisfactory results from the estimation process.

-	-	-			
Data	Average gold grade g/t	Correlation Coefficient			
Bug Deposit					
Composites	1.27				
Block estimates	1.22	0.788			
Difference	-3.9%				
Martinière West Deposit					
Composites	2.32				
Block estimates	2.23	0.792			
Difference	-3.9%				

# Table 14-16: Gold grade comparison for blocks pierced by a drill hole between paired composite grades and block grade estimates for the Bug and Martinière West deposits

## 14.7.4 Grade profile reproducibility

The comparison of the grade profiles of the declustered composites with that of the estimates allows for a visual verification of an over- or under-estimation of the block estimates at the global and local scales. A qualitative assessment of the smoothing/variability of the estimates can also be observed from the plots. The output consists of three graphs displaying the average grade according to each of the coordinate axes (east, north, elevation). The ideal result is a grade profile from the estimates that follows that of the declustered composites along the three coordinate axes, in a way that the estimates have lower high-grade peaks than the composites, and higher low-grade peaks than the composites. A smoother grade profile for the estimates, from low- to high-grade areas, is also anticipated in order to reflect that these grades represent larger volumes than the composites.

Gold grade profiles are presented in Figures 14-17a and 14-17b for the mineralized zones of the Bug and Martinière West deposits. From these plots, it can be seen that the grade profiles of the declustered composites are well reproduced by those of the estimates at Bug and Martinière West.



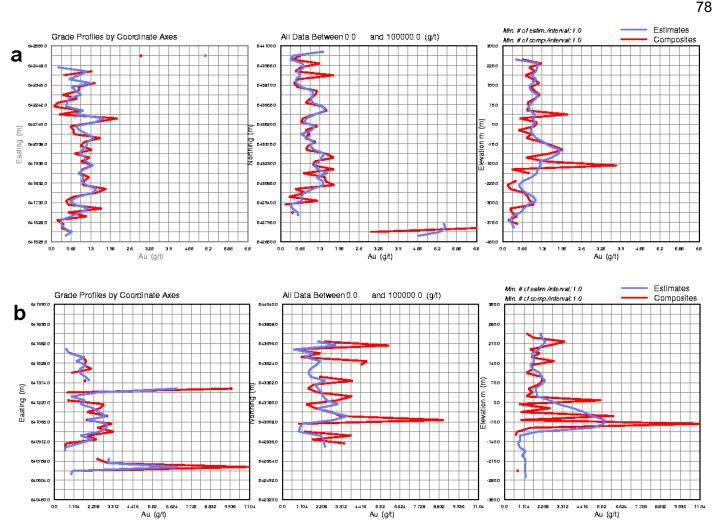


Figure 14-17: Gold grade profiles of declustered composites and block estimates for the (a) Bug and (b) Martinière West deposits.

## 14.8 Resource Classification

The mineral resource was classified as indicated and inferred based on the variogram ranges of the second structures. The average distance of samples from the block center was utilized as the classification criterion. The classification distances for Bug and Martinière West deposits are provided in Table 14-17.

It should be noted that there are no mineral resources in the measured category.

Deposit	Indicated	Inferred	
Bug	≤ 40.0 m	>40.0 m	
Martinière West	≤ 35.0 m	>35.0 m	

#### 14.9 Mineral Resource Calculation

#### 14.9.1 Topographic surface

The topographic surface was utilized to edit the block model in a way that all blocks above this surface were discounted from the resource calculations.



## 14.9.2 Overburden

The overburden model was utilized in the calculation of the mineral resources by assigning a lower specific gravity value to the blocks within this unit.

## 14.9.3 Specific gravity

A different specific gravity (SG) value was utilized for each deposit and the enclosing unmineralized country rock ("out of mineralized zones" in Table 14-18). Based on statistics on SG measurements, the average SG value was assigned to the block model as presented in Table 14-18. The proportion of the blocks inside the mineralized zones was utilized in the tonnage calculation.

-				
Deposit	Zone or domain	Specific Gravity (g/cm <sup>3</sup> )		
	North Zone	2.835		
	Lower Steep Zone	2.854		
Bug	South Zone	2.834		
	Out of mineralized zones	2.809		
	Overburden	1.700		
	Central (codes 1,2,3)	2.894		
	Northeast (codes 4,5,6)	2.826		
Martinière West	Other (codes 7,8)	2.930		
	Out of mineralized zones	2.843		
	Overburden	1.700		

#### Table 14-18: Specific gravity values used for the Martinière Project

## 14.9.4 Mineral Resource Constraint

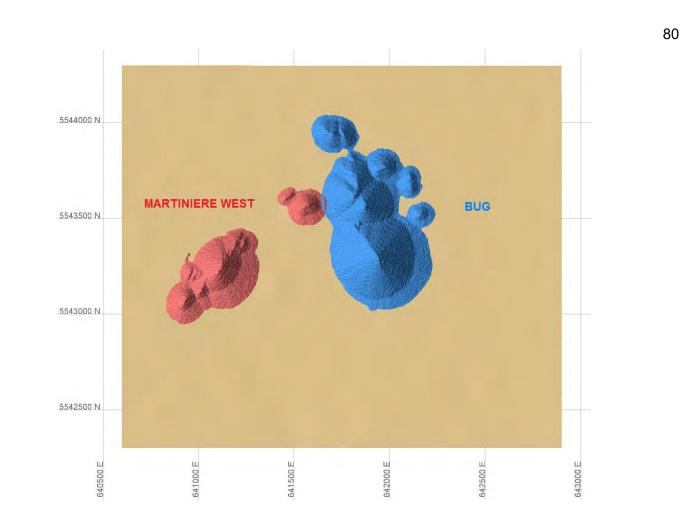
With the objective to satisfy the NI 43-101 requirement of reporting a mineral resource that provides "reasonable prospects for economic extraction", an open pit shell was optimized to constrain the close to surface portion of the resources, as well as the application of an elevated cut-off to represent to underground portion of the resource. A summary of the open pit and underground constraining parameters is shown in Table 14-19. The optimized open pits are shown in Figure 14-18 for both the Bug and Martinière West deposits.

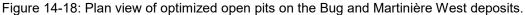
Parameters*	Open Pit	Underground	
Gold Price	US\$1,300/oz	US\$1,300/oz	
Mining cost	US\$2.00/t (rock) US\$1.80/t (overburden)	US\$50.00/t	
Processing cost	US\$17.00/t	US\$17.00/t	
G&A cost	US\$2.50/t	US\$2.50/t	
Mill recovery	91%	91%	
Pit slopes	50° (rock) 25° (overburden)		
Breakeven cut-off grade	0.565 g/t	1.83 g/t	

#### Table 14-19: Mineral resource constraining parameters

\*All dollar amounts in USD







The indicated and inferred mineral resources for the Martinière project are presented in Table 14-20 and for the Bug and Martinière West deposits in Tables 14-21 and 14-22 respectively. The open pit portion of the Martinière indicated mineral resource, at a 0.5 g/t gold cut-off, is 6.827 million(M) tonnes at an average gold grade of 1.96 g/t, for a total of 0.431 M oz of gold. The underground portion of the Martinière indicated mineral resources at a 2.5 g/t gold cut-off is 1.092 M tonnes at an average gold grade of 4.54 g/t, for a total of 0.159 M oz of gold. Thus, the combined open pit and underground portions of the Martinière indicated mineral resources are 7.290 M tonnes at an average gold grade of 2.32 g/t, for a total of 0.591 M oz of gold.

The open pit portion of the Martinière inferred mineral resources at a 0.5 g/t gold cut-off is 0.132 M tonnes at an average gold grade of 2.50 g/t, for a total of 0.011 M oz of gold. The underground portion of the Martinière indicated mineral resources at a 2.5 g/t gold cut-off is 0.231 M tonnes at an average gold grade of 5.75 g/t, for a total of 0.043 M oz of gold. Thus, the combined open pit and underground portions of the Martinière indicated mineral resources are 0.363 M tonnes at an average gold grade of 4.57 g/t, for a total of 0.053 M oz of gold.

It should be noted that mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources estimated will be converted into mineral reserves. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

The CIM definitions were followed for the classification of indicated and inferred mineral resources. The quantity and grade of reported inferred mineral resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred mineral resources as an indicated mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated mineral resource category.



		Indicated			Inferred		
Au cut-off (g/t)	Tonnage (tonnes)	Au grade (g/t)	Content (oz)	Tonnage (tonnes)	Au grade (g/t)	Content (oz)	Strip ratio
		O	PEN PIT MINER	RAL RESOURC	ES		
0.5	6,827,183	1.96	431,225	132,147	2.50	10,622	11.6
0.7	5,703,286	2.23	409,012	121,550	2.67	10,419	14.1
1.0	4,355,019	2.66	372,467	108,305	2.89	10,071	18.7
		UNDE	RGROUND MI	NERAL RESOU	RCES		
2.0	1,657,370	3.75	199,632	331,564	4.68	49,853	
2.5	1,092,415	4.54	159,417	231,273	5.75	42,722	
3.0	751,012	5.36	129,353	184,839	6.50	38,657	
		TOTAL RE	SOURCES AT	PREFERRED	CUT-OFFS		•
0.5/2.5	7,919,598	2.32	590,642	363,420	4.57	53,344	

### Table 14-20: Estimate mineral resources for the Martinière Project, effective March 27, 2018

#### Table 14.21: Mineral resources for the Bug Deposit, effective March 27, 2018

		Indicated			Inferred		
Au cut-off (g/t)	Tonnage (tonnes)	Au grade (g/t)	Content (oz)	Tonnage (tonnes)	Au grade (g/t)	Content (oz)	Strip ratio
		OF	PEN PIT MINER	AL RESOURC	ES		
0.5	5,968,442	1.83	351,158	80,627	1.81	4,692	10.8
0.7	4,817,171	2.09	330,410	71,655	1.96	4,515	13.3
1.0	3,703,163	2.50	297,649	62,014	2.14	4,267	17.9
		UNDE	RGROUND MI	NERAL RESOU	RCES		
2.0	1,075,197	3.62	125,138	178,044	3.82	21,867	
2.5	711,102	4.34	99,223	119,950	4.60	17,740	
3.0	500,284	5.01	80,583	97,213	5.04	15,752	
		TOTAL RE	ESOURCES AT	PREFERRED	CUT-OFFS		
0.5/2.5	6,679,544	2.10	450,381	200,577	3.48	22,432	

#### Table 14.22: Mineral resources for the Martinière West Deposit, effective March 27, 2018

		Indicated			Inferred		
Au cut-off (g/t)	Tonnage (tonnes)	Au grade (g/t)	Content (oz)	Tonnage (tonnes)	Au grade (g/t)	Content (oz)	Strip ratio
		OF	PEN PIT MINER	RAL RESOURCI	ES		
0.5	858,741	2.90	80,067	51,520	3.58	5,930	17.3
0.7	786,115	3.11	78,603	49,895	3.68	5,903	18.9
1.0	651,856	3.57	74,819	46,291	3.90	5,804	22.9
		UNDE	RGROUND MII	NERAL RESOU	RCES		
2.0	582,173	3.98	74,495	153,520	5.67	27,986	
2.5	381,313	4.91	60,194	111,323	6.98	24,982	
3.0	250728	6.05	48,770	87,626	8.13	22,904	
		TOTAL RE	SOURCES AT	PREFERRED	CUT-OFFS		
0.5/2.5	1,240,054	3.52	140,261	162,843	5.90	30,912	





## **15.0 ADJACENT PROPERTIES**

There is no information on adjacent properties which is necessary to make the technical report understandable and not misleading.

## **16.00THER RELEVANT DATA AND INFORMATION**

No other information or explanation is necessary to make this technical report understandable and not misleading.

## **17.0 INTERPRETATION AND CONCLUSIONS**

This National Instrument 43-101 report describes bedrock-hosted gold mineralization on Balmoral's Martinière Property. Material changes that require an update of the 05 January 2017 technical report include (1) maiden resource estimates for the Bug and Martinière West deposits, and (2) an additional 27,224.4 metres of drilling completed since January 2017.

## 17.1 Property, Accessibility, Local Resources and Climate

The Martinière Property covers 112 contiguous claims (61.7 km<sup>2</sup>) in northwestern Québec and is centered approximately 110 km west of the town of Matagami and 150 km north of Amos. The Property is 100% owned by Balmoral, with 90 of the claims subject to a 2% NSR royalty that is payable to Cyprus Canada Inc. Year-round access is by helicopter, with the nearest year-round road access reaching to within 20 km of the Property and a winter road and trail system providing access from January to April. Several gold and base metal mines are in production in this part of Québec and Ontario, supporting a vibrant infrastructure of mining and exploration services and supplies. Active railway lines and commercial airports are located within 200 km of the Property. The region experiences a continental-style climate, with cold winters and warm summers, and exploration work (including diamond drilling) can be carried out year-round.

## 17.2 Geological Setting and Deposit Types

The Martinière Property is underlain by the northern-most greenstone belt of the Abitibi Subprovince ("Abitibi"), which hosts numerous economic gold and base metal deposits. This part of the Abitibi is flat, swampy and poorly exposed, so that exploration is mostly done through geophysical surveys and diamond drilling. Exploration on the Martinière Property has targeted structurally-controlled orogenic gold mineralization and, to a much lesser extent, volcanogenic massive sulphide (VMS) deposits. Economic deposits of these types occur throughout the Abitibi Subprovince with the closest economic examples including the Detour Lake orogenic gold mine (current reserves of 16.46 million oz Au at 0.97 g/t Au), which is located 50 km to the west of the Property, and the Selbaie VMS deposit (past production of 47.3 Mt @ 0.98% Cu, 1.98% Zn, 20 g/t Ag, 0.9 g/t Au) within a recently closed mine located 20 km south of the Property.

## 17.3 Property Mineralization, Exploration and Diamond Drilling

The Martinière Property contains little outcrop, with the first significant gold mineralization intersected by exploration drilling of IP and EM anomalies in 1996. Balmoral acquired the Property in November 2010 and, from 2011-2017, has drilled 133,852 m in 519 diamond drill holes, carried out a property-wide airborne magnetic and VTEM survey, and conducted several ground-based IP, HLEM and soil geochemistry surveys. Eleven of these 15 campaigns were operated by consulting groups (Equity, Caracle Creek) that are independent of Balmoral as defined by NI 43-101. Most of the work up to 2015 has been filed for assessment with MERN, with a significant proportion of the 2016 and 2017 pending assessment in the future (Richard Mann, personal communication, 23 March 2018).



Drilling, IP and magnetic surveys are the most effective methods for gold exploration whereas airborne and ground-based EM have successfully delineated new, albeit barren, VMS occurrences. Soil sampling appears to be ineffective, likely because of the thick till cover and organic accumulations in swampy areas, and/or the shallow water table. From 2011 to 2017, Balmorals work has expanded the isolated historical discoveries on the Property into the Bug and Martinière West deposits, in addition to discovering several new zones and showings. Collectively, these gold occurrences are referred to as the "Martinière Gold System".

The Martinière Gold System is most likely part of the orogenic class of gold deposits, though possibly exposed at a higher structural level than is typical of such systems in the Abitibi. All gold occurrences are structurally controlled and associated with pyrite and carbonate-quartz alteration/veining.

Balmoral's 15 diamond drilling campaigns are mostly combinations of resource definition and exploration work. Initial campaigns focussed on the historical "Martinière West" intersections that, between 2011 to 2013, Balmoral advanced into the Martinière West Deposit and Central Zone. The Martinière West Deposit was essentially closed off along strike and to a depth of 400 m, and has seen limited drilling since 2013. Early drilling in the "Martinière East" structural domain returned several significant grade-thickness accumulations with limited structural continuity, until the discovery of the North Zone in summer 2012. This discovery marked a major turning point for the Property and was followed by discovery of the South and Lower Steep zones in 2013, resource definition programs in 2012-2015 (Bug North) and 2016-2017 (South, Lower Steep) and calculation of maiden resource estimates in 2018. In addition, exploration work along strike of the Bug and Martinière West deposits (i.e. on the Bug Lake and Martinière West "trends"), as well as off-strike, has intersected a number of new zones in the Martinière Gold System. Some of these zones appear to show limited structural continuity (e.g. ME-16, ME-23, Horsefly) whereas others require more drilling.

The Martinière West Deposit comprises a series of planar, subparallel, and steeply dipping subzones with southwest plunging gold shoots. The most significant gold accumulation occurs in the 40-50 m wide Main Subzone and is associated with increased pyrite, silica alteration and penetrative deformation fabric. Intersections of the Main Subzone typically feature one or more intercepts grading 10 g/t Au occur over 0.1-10 m occurring within a halo of 0.1-1 g/t Au material. Higher grade material is associated with silicified shear zones and/or quartz-carbonate veins. Subparallel Hanging Wall and Footwall subzones occur northwest and southeast of the Main Subzone, respectively, and exhibit similar geological and grade characteristics to the Main Subzone.

The structural control for the Martinière West Deposit is referred to as the Martinière West Shear Zone (MWSZ), the surface projection of which defines the Martinière West Gold Trend. This Trend bends from 020° in the south, where it hosts the West Extension, through 030° where it hosts the Martinière West Deposit and then 045° where it hosts the Central Zone at its northeast end. The Martinière West Trend is sparsely explored in the 200-300 m gaps that separate the Deposit from the West Extension and Central zones, as well as further southwest and northeast of these zones respectively. Possible splays off this Trend are indicated by a number of significant grade-thickness accumulations intersected to the south-southeast and southeast.

The North, Lower Steep and South zones of the Bug Deposit are all formed by a series of subparallel subzones that are centred on the non-stratiform Bug Lake porphyry and Bug Lake Fault Zone (BLFZ). The BLFZ strikes approximately north-northwest (335°) and dips steeply to moderately east (50-70°), exhibiting a ramp-flat (e.g. North Zone) to planar (e.g. South Zone) morphology. The most consistently developed subzones occur along steeply-dipping upper and lower contacts of the Bug Lake porphyry, referred to as Upper (UBsz) and Lower Bug (LBsz) respectively. Both of these subzones range from 1-75 m in width and are marked by pervasive dolomite/ankerite alteration, 1-5% modal pyrite abundance and grades averaging 0.5-2 g/t Au. Each subzone typically includes at least one 0.1-10 m wide interval where the grade increases to 5-20 g/t Au (and rarely in excess of 100 g/t Au) in association with carbonate-quartz flooding, polyphase quartz-carbonate veins and 0.1-1 m intervals with 30-70% modal pyrite. Additional mineralization occurs within more locally-developed Footwall (FWsz) and Hanging Wall (HWsz) subzones. The FWsz of the North Zone is particularly notable for returning exceptionally high gold assays, including 1,255 g/t Au over 0.55 m and 8,330 g/t over 0.57 m. FWsz and HWsz intercepts typically occur in narrow discontinuous shear structures, ranging from approximately 0.5 to 2 m in width, with gold occurring in steeply southeast plunging shoots.



The bulk of gold in the North Zone is hosted within the LBsz and FWsz whereas gold in the South Zone occurs mostly in UBsz and HWsz. The core of the Bug Lake porphyry is generally barren although, in some places, the UBsz and LBsz extend 1-2 m into its margins. This suggests that gold deposition post-dated porphyry emplacement and it is likely that the competency contrast between porphyry and enclosing greenstone provided a structural weakness used during mineralization. At the South Zone, gold mineralization in the non-stratiform UBsz "bleeds" outward along stratiform lithological contacts, especially favouring high competency contacts like these between mafic volcanic and a pre-Bug Lake generation of stratiform quartz-feldspar porphyry.

The NW Extension and Southeast Zone discoveries were made along strike of the Bug Deposit to the northwest and southeast, on the so-called Bug Lake Gold Trend. Exploration drilling on these zones has so far demonstrated only limited structural continuity. The NW Extension bends into the Lac du Doigt Deformation Zone, which may itself be a gold-hosting structure (see below). Zones that are spatially associated with the Bug Lake Trend but possibly have an alternate structural control include ME-16 and ME-23 (the so-called "Martinière East" Trend in Mumford and Voordouw, 2017) discovered by Balmoral in 2011-2012, and the Horsefly Zone discovered in 2016. The ME-16 and ME-23 zones have returned some impressive grade-thickness intercepts but lack continuity. Possible structural controls on this mineralization includes a NNW-striking structure that runs subparallel to the Bug Lake Trend but located 300 m to the west or a high-angle structure to the Bug Lake Trend. The Horsefly Zone strikes more northwesterly than the Bug Lake Trend and is hosted in breccia.

The east-west striking Lac du Doigt Deformation Zone (LDDZ) may also be a gold-hosting structure, both where it offsets the older BLFZ and in sporadic exploration drilling up to 2.5 km to the west. A fence of two holes drilled in 2016 and 2017 appears to define a 3-4 m wide interval grading 1-10 g/t Au with at least 150 m of subvertical continuity, which is enveloped in a 20-40 m wide halo of 0.1-1 g/t Au material. Other significant grade-thickness intercepts occur (a) in the "Martinière Central" area, which refers to ground lying between the Martinière West and Bug Lake trends, (b) just southeast of the Martinière West Trend and (c) in the northeastern part of the Property at the LAM showing, which was discovered in 1985 by Noranda Exploration Ltd but has never been followed up by Balmoral. Exploration holes aimed at the northern margin of the Sunday Lake Deformation Zone and soil geochemical anomalies have, for the most part, returned only negligible gold intercepts.

Three VMS systems have been discovered on the Martinière Property, all of which are predominantly pyrite-rich with negligible base metals. Nonetheless, additional VTEM and HLEM anomalies representing potential VMS targets are worthy of further exploration, given the number of economic VMS deposits that occur within the Abitibi Subprovince and in proximity to the Property (i.e. Selbaie).

#### 17.4 Core Assay Methods and QA/QC

Core processing, sampling and shipment was managed by independent consultants from 2011 to 2015, and by Balmoral personnel in 2016 and 2017. No security transgressions were reported. All gold analyses have been done at ALS's ISO certified facilities in Val d'Or (Québec), Sudbury (Ontario) and Timmins (Ontario) with analytical methods that are industry standard for gold projects. It is the opinion of the authors that the core processing, sampling, shipment and analytical procedures followed by Balmoral are at or above industry standards and are therefore adequate for the purposes of this NI 43-101 report.

Quality control of assays was monitored by an independent consultant and involved real-time rectification of QA/QC failures. Yearly reviews written by this consultant (Lustig, 2012, 2013, 2014a, b, 2015, 2017, 2018) are publicly filed with MERN up to 2015 (Perk et al., 2013a; Perk et al., 2012; Voordouw et al., 2014a; Voordouw et al., 2014b; Voordouw and Perk, 2016), with the 2016 and 2017 reports provided to the first author as part of preparing this technical report. All of these reviews confirm that Balmoral's assay data for the Martinière Property is accurate, precise and free of contamination to industry standards, and is of sufficient quality to be used in resource estimation.



## 17.5 Metallurgical Testwork

Preliminary metallurgical testing of mineralized composite material from the Bug Deposit suggests a processing flow sheet that includes gravitation separation, flotation and separate cyanide leaching of flotation concentrate and tails. Measured recoveries were up to 91% for Au and 80% for Ag. Preliminary testing of a Martinière West composite was done on just one grind size, returning higher recovery in the gravitational separation and flotation concentration relative to the Bug composite, but a poorer response to cyanide leaching.

## 17.6 Resource Estimate

The geologic model of the gold deposits and zones on the Martinière Property is a key element in the estimation of its mineral resources. It was found that the major mineralized zones are in general well-defined by drilling and show good continuity, allowing for consistent models. In return, the generation of good quality variogram models defining the gold grade continuity was possible and permitted for indicated mineral resources. Conversely, minor mineralized zones showed greater uncertainty, most likely due to their fragmented nature. Such areas did not allow for conclusive variograms and were estimated with an inverse distance squared method. For such, estimates from these areas were classified as inferred.

The high coefficients of variation observed in some of the mineralized units, denoting heterogeneous gold grade populations, were found to be caused by few high-grade outliers, which once reduced to capping thresholds showed more homogeneous distributions. The good results obtained from the validation tests on gold grade estimates, confirmed the appropriateness of the estimation methods with capped high-grade outliers from the composited dataset.

The overlapping limits of the Bug and Martinière West block models did not affect the gold grade estimates, since only the mineralized zones were estimated. No overlaps of the mineralized zones from both areas were present and, as such, no double accounting of the mineral resources was encountered.

The northeastern open pit at Martinière West shows a very slight overlap with the Bug pit in the overburden unit. This results in a marginal over-estimation of the waste tonnage and is therefore considered insignificant.

In conclusion, it is believed that the current estimation is a satisfactory representation of the current mineral resources on the Martinière Property, based on the current geologic understanding and available information.

## 17.7 Concluding statement

The authors do not believe that there are any significant risks or uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information presented on the Martinière Property. The authors also believe that continued exploration and resource definition work is warranted on the Martinière Property given:

- the discovery of two gold deposits, several outlying gold zones and several showings through diamond drilling on just a small part of the Property;
- that the Bug Lake Trend is sparsely drilled along strike, both to the northwest and southeast, and to depth;
- that the Martinière West Trend is open to the south and at depth;
- the unknown potential of the Martinière Central and East areas, both of which have returned intercepts with significant grade-thickness accumulations;
- a newly defined gold showing on the Lac du Doigt Deformation Zone that appears to have at least 150 m of vertical continuity;



#### **18.0 RECOMMENDATIONS**

#### 18.1 Program

A recommended 25,650 m drill program is outlined in Table 18-1, with proposed drill metres allocated to the Lower Steep and South zones of the Bug Deposit, the northern extension of the Bug Lake Trend, Martinière Central area, Lac du Doigt Deformation Zone and the historical LAM target. In addition, we recommend core re-logging and modelling work to improve the interpretations for both the Martinière West and the Bug deposits. A few more details of this proposed work are provided below.

The Lower Steep Zone is open for expansion in the down-plunge direction. Recommended work includes drilling of six holes between 600-800 m in length and with nominal pierce point spacing of 40 m so that any additional mineralization could be added to the indicated category. Infill holes can also be drilled to upgrade some of the deeper inferred resources to indicated but is not recommended at this time.

Recommended work for the South Zone includes additional drilling at the down-plunge southeastern end of the deposit, as well as underneath its up-plunge end to test for continuity and higher grades within a potentially subzone (or zone?). Drilling at the southeast end should include, for example, extension of what appears to be an open southeast-plunging shoot defined by MDE-17-267, -293 and -307A. Four holes are proposed, drilled to an average length of 500 m. Another four holes, for 2800 m, are recommended to test underneath the up-plunge end of the South Zone, targeting a potentially southeast-plunging subzone defined by broad intercepts in MDE-17-283 and -307.

The northern end of the known Bug Lake Trend appears to be offset by the Lac du Doigt Deformation Zone, with no definitive indication of where this Trend continues north of the LDDZ. One possibility is the NW Extension Zone, discovered by Balmoral in 2016, but other northward projections should be considered, like a due north trend to test a model that the Bug Deposit actually strikes obliquely across its host structure. An aggressive program to test for this northward continuation is proposed, comprising 15 holes between 300 m to 400 m in length drilled as fences across the north to northwest projection of the Bug Lake Trend.

An aggressive drill program is also recommended for the Martinière Central area, which is the largely untested ground lying between the Bug Lake and Martinière West trends. Besides it's favourable location, limited drilling in this area has also returned several significant grade-thickness intercepts with little follow-up work (e.g. MDX-12-01, MDW-11-12, MDX-13-36). A drilling program is proposed that comprises 10 holes with an average length of 300-400 m.

An extensive drill program is also recommended for the "Martinière East" area, targeting the zones and showings lying east of the Bug Lake Trend. Limited drilling by Balmoral has returned several significant grade-thickness intercepts with limited follow-up drilling or continuity (e.g. ME-16, ME-23 and Horsefly zones; MDX-13-26, MDX-13-30, top of MDE-17-294). Another 15 holes, between 300-400 m in length, are recommended to better test this area and gain understanding of the structural controls on mineralization.

Follow-up drilling on gold mineralization discovered by Balmoral on the LDDZ, in MDX-16-55 and MDX-17-69, is also recommended, with at least two holes bisecting the 150 m of vertical continuity between these two holes along with step out drilling in either direction. A total of four holes, with an average length of 400 m, are proposed.

Exploration drilling on the LAM target is also recommended, to follow up on historical results and for the potential of defining a new mineralized trend on the Property. Three holes with an average length of 350 m are recommended.

Additional proposed work includes modelling of both the Martinière West and Bug deposits. For Martinière West, previous modelling had some difficult connecting the silicified shear zone (SISZ) units that are the primary host for gold mineralization. This is likely in part due to inconsistent logging, with some loggers breaking out silicified shear zones as lithological units and others characterizing them through alteration and mineralization. A re-logging campaign is proposed that focusses on consistent logging of these SISZ units so that they can be better modelled, thereby improving understanding of the Trend.



	Townst	Description		Drilling		Cost	
Work Type	Target	Description	N.o. DH	Ave L (m)	Total (m)	Cost	
	Lower Steep	Southeast resource expansion drilling	6	700	4,200	C\$1,155,000	
South Zone		Southeast resource expansion drilling	4	500	2,000	C\$550,000	
South Zone Bug Lake Trend Martinière Central	Deep resource expansion drilling	4	700	2,800	C\$770,000		
	Exploration drilling	15	350	5,250	C\$1,181,250		
	Martinière Central	Exploration drilling	10	350	3,500	C\$787,50	
	Martinière East	Exploration drilling	15	350	5,250	C\$1,181,250	
	LDDZ	Exploration drilling	4	400	1,600	C\$360,000	
	LAM	Exploration drilling	3	350	1,050	C\$236,250	
Madalling	Martinière West Trend	Re-log MDW holes				C\$150,000	
Modelling Bug Deposit		Draft level plans and 10 m-spaced sections				C\$150,000	
Total			61		25,650	C\$6,521,250	

#### Table 18-1: Outline of recommended work program for 2018

Additional modelling of the Bug Deposit is also recommended, with a focus on generating more tightlyspaced sections (10 m) and integrating level plans. Generating geological models of the mineralized zones, based on logged alteration, veining and pyrite content, is also proposed. Re-logging of select intervals of UBsz and LBsz is also recommended, with a focus on linking "high fluid flow" zones marked by quartz-carbonate flooding and vein breccia.

## 18.2 Budget

Table 18-1 includes cost estimates for the recommended work. All-inclusive drill costs were estimated at C\$275 per metre for those holes that averaged >450 m in length and C\$225 per metre for holes <450 m in length. Re-logging costs are based on re-logging of 25,000 metres on both the Martinière West Trend and the Bug Deposit, at an average all-inclusive cost of C\$5 per metre. Modelling costs are based 25 days of work for each deposit (50 days total) at a cost of C\$1000 per day for the modeller and software. The total cost for the proposed work is an estimated C\$6.521 million (Table 18-1).

Respectfully submitted,

"signed and sealed"

Ronald Voordouw, P.Geo., Ph.D.

EQUITY EXPLORATION CONSULTANTS LTD.

Vancouver, British Columbia

"signed and sealed"

Marc Jutras, P.Eng., M.A.Sc.

GINTO CONSULTING INC. North Vancouver, British Columbia

Effective Date: March 27, 2018



Appendix A: References



- Abzalov, M., 2008, Quality control of assay data: A review of procedures for measuring and monitoring precision and accuracy: Exploration and Mining Geology, v. 17, p. 131-144.
- Balmoral Resources Ltd, 2015, Balmoral reports gold recoveries of 91.4% from preliminary metallurgical testing of Bug Lake gold zones, Martiniere, Quebec, News Release, December 10th, 2015, <u>http://www.balmoralresources.com</u>.
- Ben, M., 1997a, Assessment report, Martinière C Property, Ministère des Ressources naturelles GM 54701, p. 11, 2 maps.
- Ben, M., 1997b, Assessment report, Martinière D Property, Ministère des Ressources naturelles GM 54818, p. 23, 3 maps.
- Ben, M., and Needham, B., 1997, 1997 summary exploration report, Martigny A Property, Ministère des Ressources naturelles GM 54648, p. 126, 5 maps.
- Berube, D., 1998, A report on geophysical work, Martinière D Property, Ministère des Ressources naturelles GM 55622, p. 13, 14 maps.
- Boileau, P., and Lapointe, D., 1996, Geophysical surveys, Martinière C, Martinière D and La Peltrie C projects, Ministère des Ressources naturelles GM 54042, p. 15, 30 maps.
- Boustead, G. A., 1987, Report on combined helicopter-borne magnetic and electromagnetic survey, Massicotte / Manthet / Martigny / La Peltrie / Lanoullier townships, Ministère des Ressources naturelles GM 46476, p. 52, 24 maps.
- Britton, J. W., 1975, Geophysical surveys on La Martinière 2-74 Group, Ministère des Ressources naturelles GM 31645, p. 2, 2 maps.
- Britton, J. W., 1976, Geophysical surveys on Martigny 1-75 Group, Ministère des Ressources naturelles GM 32173, p. 3, 2 maps.
- Christopher, I. C., 1959, Airborne electromagnetic survey on properties in Turgeon River area, Ministère des Ressources naturelles GM 09755, p. 6, 1 map.
- Christopher, I. C., and Seigel, H. O., 1959, Report on airborne electromagnetic survey, Ministère des Ressources naturelles GM 08217-A, p. 18, 2 maps.
- Des Rivieres, J., 1984, Rapport des levés géologique de la Propriété La Martinière 1-83, Ministère des Ressources naturelles GM 41575, p. 65, 5 maps.
- Des Rivieres, J., 1985, Rapport géologique et de sondage de la Propriété La Martinière 1, Ministère des Ressources naturelles GM 42615, p. 43, 6 maps.
- Detour Gold Corp., 2017, Detour Lake operation, Ontario, Canada, NI 43-101 technical report, NI 43-101 report prepared for Detour Gold Corp, p. 304.
- DiLauro, P. A., and Dymov, I., 2014, An investigation into Bug Lake Composite, Internal report prepared for Balmoral by SGS Mineral Services, p. 75.
- Donner, K., 1986, Drill hole, Turgeon East Group, Ministère des Ressources naturelles GM 44767, p. 247, 23 maps.
- Dubé, B., and Gosselin, P., 2007, Greenstone-hosted quartz-carbonate vein deposits *in* Goodfellow, W. D., ed., Mineral deposits of Canada: A synthesis of major deposit-types, district metallogeny, the evolution of geological provinces, and exploration methods, Special Publication 5, Mineral Deposits Division, Geological Association of Canada, p. 49-73.
- Dubé, J., and Glass, F., 1997, A report on geophysical work, Martiniere D Property, Ministère des Ressources naturelles GM 55489, p. 14, 17 maps.
- Dufresne, R., 2016, Induced polarization survey report, Martiniere Property, Under review with Ministère des Ressources naturelles de la Faune, p. 27.
- Durocher, A. C., and Burton, G. B., 1982, Geological and geophysical compilation, Abitibi North Project, Lac Du Doigt Property, Ministère des Ressources naturelles GM 39928, p. 22, 3 maps.



Fiset, N., Kwan, K., Prikhodko, A., and Legault, J., 2011, Report on a helicopter-borne versatile time-domain electromagnetic and horizontal magnetic gradiometer geophysical survey, Martiniere Property, Ministère des Ressources naturelles GM 67280, p. 65, 12 maps.

Garmin, 2010, GPSMAP 62 series owner's manual, Garmin Ltd, p. 56.

- Giguère, E., 2006, Rapport de la campagne de forage 2006, Propriété la Martiniere, Ministère des Ressources naturelles GM 62862, p. 319, 13 maps.
- Giroux, H., 1977, Diamond drill core log, Martigny 1-75 Property, Ministère des Ressources GM 33119, p. 1, 1 map.
- Giroux, M., 1984, Rapport des levés électromagnétique et magnétique, projet Bug Lake showing, Ministère des Ressources naturelles GM 41440, p. 5, 3 maps.
- Giroux, M., 1985, Rapport leve magnétometrique, projet Bug Lake showing, Ministère des Ressources naturelles GM 42382, p. 5, 1 map.
- Glass, F., and Dubé, J., 1997, A report on geophysical work, Martigny A Property, Ministère des Ressources naturelles GM 55538, p. 13, 7 maps.
- Goldfarb, R. J., Baker, T., Dube, B., Groves, D. I., Hart, C. J. R., and Gosselin, P., 2005, Distribution, Character, and Genesis of Gold Deposits in Metamorphic Terranes: Economic Geology 100th Anniversary Volume, p. 407-450.
- Goldfarb, R. J., Groves, D. I., and Gardoll, S. J., 2001, Orogenic gold and geologic time: a global synthesis: Ore Geology Reviews, v. 18, p. 1-75.
- Groves, D. I., Goldfarb, R. J., Gebre-Mariam, M., Hagemann, S. G., and Robert, F., 1998, Orogenic gold deposits: A proposed classification in the context of their crustal distribution and relationship to other gold deposit types: Ore Geology Reviews, v. 13, p. 7-27.
- Guy, K., 2000, 2000 report on diamond drilling, Martiniere D Property, Ministère des Ressources naturelles GM 58073, p. 97, 14 maps.
- Hughes, T. N., and Fox, J., 1984, Diamond drill log, Gaudet-Beschefer Property, Ministère des Ressources naturelles GM 41438, p. 172.
- Jeffery, B. D., 1999, 1999 report on diamond drilling, Martiniere D Property, Ministère des Ressources naturelles GM 56816, p. 130, 10 maps.
- Lacroix, S., 1988, Géologie de la région des rivières Turgeons et Théo, Ministère de l'Énergie et des Ressources du Québec, 36 p.
- Lacroix, S., 1990, Géologie de la région des rivières Turgeons et Théo, Ministère des Ressources naturelles MB 90-28, p. 25, 12 maps.
- Lavoie, C., 1985, Levés magnétique et de polarisation provoquée, projet Bug Lake showing, La Martiniere, Ministère des Ressources naturelles GM 42421, p. 12, 4 maps.
- Lavoie, C., 1987, Levés géophysiques, projet Martiniere, Ministère des Ressources naturelles GM 46076, p. 7, 3 maps.
- Lavoie, C., and Plante, L., 1988, Levé de polarisation provoquée, projet La Martiniere, Ministère des Ressources naturelles GM 46279, p. 15, 16 maps.
- Le Grand, M., 2009, Rapport sur la campagne de forage au diamant, Propriéte Martiniere, Ministère des Ressources naturelles GM 64281, p. 268, 14 maps.
- Lustig, G., 2012, Review of 2012 quality control results, Martiniere project, Report for Balmoral by G.N. Lustig Consulting, p. 45.
- Lustig, G., 2013, Review of quality control results 2013 Winter drill program Martiniere project, Report for Balmoral by G.N. Lustig Consulting, p. 36.
- Lustig, G., 2014a, Review of quality control results 2013 Summer/Fall drill program Martiniere project, Report for Balmoral by G.N. Lustig Consulting, p. 41.
- Lustig, G., 2014b, Review of quality control results 2014 drill program Martiniere project, Report for Balmoral by G.N. Lustig Consulting, p. 45.



- Lustig, G., 2015, Review of quality control results, 2015 drill program, Martiniere project, Report for Balmoral by G.N. Lustig Consulting, p. 50.
- Lustig, G., 2017, Review of quality control results, 2016 drill program, Martiniere Project, Report for Balmoral by G.N. Lustig Consulting, p. 50.
- Lustig, G., 2018, Preliminary review of quality control results, 2017 drill program, Martiniere Project, Report for Balmoral by G.N. Lustig Consulting, p. 49.
- Martin, C., 2015, Bug Lake gold trend metallurgical testwork report, Report for Balmoral Resources Ltd by Blue Coast Research Ltd, p. 29.
- Masson, M. W., 1997, 1997 report on diamond drilling, Martiniere D Property, Ministère des Ressources naturelles GM 55490, p. 206, 8 maps.
- MERN, 2017, Exploration rights fees and indexation of right as of January 1st, 2017, <u>http://mern.gouv.qc.ca/english/mines/rights/rights-exploration-tariff.jsp</u>, MERN.
- Misiura, J. D., 1977, Geological report on La Martiniere 2-74, Ministère des Ressources naturelles GM 33366, p. 3, 1 map.
- Morissette, O., and Andersen, E. O., 1984, Rapport de levé géophysique, Propriété du Doigt, Ministère des Ressources naturelles GM 42172, p. 4, 4 maps.
- MRN, 2007a, Compilation géologique Lac Spradbrow (32L/3), Géologie Québec, p. 1:50,000 scale geological map.
- MRN, 2007b, Compilation géologique Rivière Rouget (32L/2), Géologie Québec, p. 1:50,000 geological map.
- Mumford, T. R., and Voordouw, R., 2017, 2017 technical (N.I. 43-101) report on the Martiniere Property, N.I. 43-101 report prepared for Balmoral Resources Ltd., p. 84.
- Needham, B., Ben, M., and Masson, M., 1997, 1997 Martigny A prospecting and diamond drilling programme, Ministère des Ressources naturelles GM 55537, p. 115, 5 maps.
- Perk, N., Swanton, D., Treat, R., Brennan, S., Peat, C., Booth, K., Mann, R. K., and Voordouw, R., 2013a, 2012 drill program report, La Martiniere Property, Ministère des Ressources naturelles GM 67653, p. 2344, 35 maps.
- Perk, N., Treat, R., and Swanton, D., 2012, 2011 drill program report, La Martiniere Property, Ministère des Ressources naturelles GM 69192, p. 1543, 30 maps.
- Perk, N., Voordouw, R., and McKeown, M., 2013b, 2013 soil sampling program report, Detour East, Doigt, Martiniere and Harri properties, Ministère des Ressources naturelles GM 67745, p. 568, 34 maps.
- Potvin, H., 1997, A report on geophysical work (induced polarization and magnetic surveys) over the Martigny A Property, Ministère des Ressources naturelles GM 54647, p. 15, 24 maps.
- Pressacco, R., 1988, Report on the 1988 drill program, La Martiniere Property project 1207, Ministère des Ressources naturelles GM 46833, p. 83, 8 maps.
- Remick, J. H., 1961, Preliminary report on Manthet Jermie La Forest area, Abitibi-West and Abitibi-East counties and Abitibi Territory, Ministère des Ressources naturelles RP 458(A), p. 31, 3 maps.
- Richard, P.-L., Turcotte, B., Jalbert, C., Gourde, D., and Pelletier, P., 2017, NI 43-101 technical report on the pre-feasibility study for the Fenelon Mine Property, NI 43-101 report prepared for Wallbridge Mining Company Ltd, p. 402.
- Seigel, H. O., 1959a, Report on airborne geophysical surveys of properties of Paudash Mines, Ministère des Ressources naturelles GM 09563, p. 9, 1 map.
- Seigel, H. O., 1959b, Report on magnetic, electromagnetic and gravimetric surveys, Turgeon River area, Ministère des Ressources naturelles GM 13018, p. 11, 82 maps.
- Théberge, L., and Carrier, A., 2006, Summary report on the April 3rd 2006 field visit: drill core examination of the La Martinière Gold Property, Report prepared for American Bonanza Corp. by InnovExplo Inc., p. 16.



- Thoday, G. P., 1959, Properties in the Harricana River area, Ministère des Ressources naturelles GM 08704, p. 11, 1 map.
- Thorsen, K., 1981a, Geophysical surveys on group GB 58, Gaudet-Beschefer area, Ministère des Ressources naturelles GM 37880, p. 8.
- Thorsen, K., 1981b, Geophysical surveys on group GB 61, Gaudet-Beschefer area, Ministère des Ressources naturelles GM 37882, p. 9.
- Thorsen, K., 1982a, Assessment report on the geophysical surveys on group GB 53, La Martiniere township in the Gaudet-Beschefer area, Ministère des Ressources naturelles GM 39438, p. 4, 3 maps.
- Thorsen, K., 1982b, Assessment report on the geophysical surveys on group GB 61, Lanoullier & La Martiniere township in the Gaudet-Beschefer area, Ministère des Ressources naturelles GM 39439, p. 4, 3 maps.
- Thorsen, K., 1982c, Diamond drill log, Ministère des Ressources naturelles GM 40023, p. 4.
- Thurston, P. C., Ayer, J. A., Goutier, J., and Hamilton, M. A., 2008, Depositional Gaps in Abitibi Greenstone Belt Stratigraphy: A Key to Exploration for Syngenetic Mineralization: Economic Geology, v. 103, p. 1097-1134.
- Voordouw, R., 2014, 2014 Technical (N.I. 43-101) report on the Martiniere Property, Technical report prepared for Balmoral Resources Ltd and dated January 5th 2014, p. 87.
- Voordouw, R., Brennan, S., and Perk, N., 2014a, 2013 drilling and geophysics (IP, HLEM) report, La Martiniere Property, Ministère des Ressources naturelles GM 69210, p. 2947, 63 maps.
- Voordouw, R., McKeown, M., and Perk, N., 2014b, 2014 drilling and geophysics (IP) report on the La Martiniere and Harri properties, Ministère des Ressources naturelles GM 69087, p. 82.
- Voordouw, R., and Perk, N., 2015, 2015 technical (N.I. 43-101) report on the Martiniere Property, Technical report prepared for Balmoral Resources Ltd, p. 83.
- Voordouw, R., and Perk, N., 2016, 2015 drilling report on the La Martiniere Property, Ministère des Ressources naturelles GM 69310, p. 1145, 29 maps.
- Wagner, D., 2012, Report on the 2011 drill program, Grasset Property, Ministère des Ressources naturelles GM 66784, p. 147, 5 maps.
- Walcott, P. E., and Walcott, A., 2011, A Report on Induced Polarization Surveying, Martiniere Property, Internal report for Balmoral by Peter E. Walcott & Associates Ltd, p. 134.
- Welte-Kerne, B., and Johnston, H., 2012, Preliminary assessment of Detour Trend ore, Report prepared by ALS Metallurgy Kamloops for Equity Exploration Consultants Ltd, p. 41.
- Welte-Kerne, B., and Johnston, H., 2013, Supplemental assessment of Detour Trend ore, Report prepared by ALS Metallurgy Kamloops for Balmoral Resources Ltd, p. 31.



Appendix B: Claim data



Title Number	NTS	Title Type	Registration Date	Expiry Date	Area (ha)	NSR%
2283991	32L03	CDC	27/04/2011	1/5/2017	55.28	2%
2089671	32L02	CDC	5/6/2007	4/6/2017	55.34	2%
2089674	32L02	CDC	5/6/2007	4/6/2017	55.33	2%
2089675	32L02	CDC	5/6/2007	4/6/2017	55.33	2%
2089676	32L02	CDC	5/6/2007	4/6/2017	55.32	0%
2089677	32L02	CDC	5/6/2007	4/6/2017	55.32	0%
2089678	32L03	CDC	5/6/2007	4/6/2017	55.34	2%
2089679	32L03	CDC	5/6/2007	4/6/2017	55.33	0%
2089680	32L03	CDC	5/6/2007	4/6/2017	55.33	2%
2089681	32L03	CDC	5/6/2007	4/6/2017	55.33	2%
2089682	32L03	CDC	5/6/2007	4/6/2017	55.33	2%
2089683	32L03	CDC	5/6/2007	4/6/2017	55.33	0%
2089684	32L03	CDC	5/6/2007	4/6/2017	55.32	0%
2089685	32L03	CDC	5/6/2007	4/6/2017	55.32	0%
2089686	32L03	CDC	5/6/2007	4/6/2017	55.32	0%
2089687	32L03	CDC	5/6/2007	4/6/2017	55.32	0%
2089688	32L03	CDC	5/6/2007	4/6/2017	55.32	0%
2089689	32L03	CDC	5/6/2007	4/6/2017	55.31	0%
2089690	32L03	CDC	5/6/2007	4/6/2017	55.31	0%
2089691	32L03	CDC	5/6/2007	4/6/2017	55.31	0%
2089692	32L03	CDC	5/6/2007	4/6/2017	55.3	0%
2089693	32L03	CDC	5/6/2007	4/6/2017 55.3		0%
2089694	32L03	CDC	5/6/2007	4/6/2017	55.3	0%
2089695	32L03	CDC	5/6/2007	4/6/2017	55.29	0%
2089696	32L03	CDC	5/6/2007	4/6/2017	55.29	0%
2089697	32L03	CDC	5/6/2007	4/6/2017	55.29	0%
2089698	32L03	CDC	5/6/2007	4/6/2017	55.29	0%
2089699	32L03	CDC	5/6/2007	4/6/2017	55.28	0%
2089700	32L03	CDC	5/6/2007	4/6/2017	55.27	0%
2089883	32L02	CDC	6/6/2007	5/6/2017	55.34	2%
2089884	32L02	CDC	6/6/2007	5/6/2017	55.33	2%
2089885	32L02	CDC	6/6/2007	5/6/2017	55.33	2%
2089887	32L02	CDC	6/6/2007	5/6/2017	55.32	2%
2089892	32L02	CDC	6/6/2007	5/6/2017	55.31	2%
2089893	32L02	CDC	6/6/2007	5/6/2017	55.3	2%
2089894	32L02	CDC	6/6/2007	5/6/2017	55.29	2%
2089895	32L02	CDC	6/6/2007	5/6/2017	55.29	2%
2089897	32L03	CDC	6/6/2007	5/6/2017	55.35	2%
2089898	32L03	CDC	6/6/2007	5/6/2017	55.35	2%
2089899	32L03	CDC	6/6/2007	5/6/2017	55.35	2%
2089900	32L03	CDC	6/6/2007	5/6/2017	55.35	2%



itle Number	NTS	Title Type	Registration Date	Expiry Date	Area (ha)	NSR%
2089901	32L03	CDC	6/6/2007	5/6/2017	55.35	2%
2089902	32L03	CDC	6/6/2007	5/6/2017	55.35	2%
2089903	32L03	CDC	6/6/2007	5/6/2017	55.35	2%
2089904	32L03	CDC	6/6/2007	5/6/2017	55.35	2%
2089905	32L03	CDC	6/6/2007	5/6/2017	55.34	2%
2089906	32L03	CDC	6/6/2007	5/6/2017	55.34	2%
2089907	32L03	CDC	6/6/2007	5/6/2017	55.33	2%
2089908	32L03	CDC	6/6/2007	5/6/2017	55.32	2%
2089909	32L03	CDC	6/6/2007	5/6/2017	55.32	2%
2089910	32L03	CDC	6/6/2007	5/6/2017	55.31	2%
2089911	32L03	CDC	6/6/2007	5/6/2017	55.31	2%
2089912	32L03	CDC	6/6/2007	5/6/2017	55.31	2%
2089913	32L03	CDC	6/6/2007	5/6/2017	55.31	2%
2089914	32L03	CDC	6/6/2007	5/6/2017	55.3	2%
2089915	32L03	CDC	6/6/2007	5/6/2017	55.3	2%
2089916	32L03	CDC	6/6/2007	5/6/2017	55.3	2%
2089917	32L03	CDC	6/6/2007	5/6/2017	55.3	2%
2089918	32L03	CDC	6/6/2007	5/6/2017	55.3	2%
2089919	32L03	CDC	6/6/2007	5/6/2017	55.29	2%
2089920	32L03	CDC	6/6/2007	5/6/2017	55.29	2%
2089921	32L03	CDC	6/6/2007	5/6/2017	55.29	2%
2089922	32L03	CDC	6/6/2007	5/6/2017	55.29	2%
2089923	32L03	CDC	6/6/2007	5/6/2017	55.29	2%
2089924	32L03	CDC	6/6/2007	5/6/2017	55.29	2%
2089925	32L03	CDC	6/6/2007	5/6/2017	55.29	2%
2089926	32L03	CDC	6/6/2007	5/6/2017	55.29	2%
2089927	32L03	CDC	6/6/2007	5/6/2017	55.28	2%
2089928	32L03	CDC	6/6/2007	5/6/2017	55.28	2%
2089929	32L03	CDC	6/6/2007	5/6/2017	55.28	2%
2089930	32L03	CDC	6/6/2007	5/6/2017	55.28	2%
2089931	32L03	CDC	6/6/2007	5/6/2017	36.55	2%
2089932	32L03	CDC	6/6/2007	5/6/2017	55.27	2%
2089933	32L03	CDC	6/6/2007	5/6/2017	55.27	2%
2089934	32L03	CDC	6/6/2007	5/6/2017	55.27	2%
2089957	32L02	CDC	6/6/2007	5/6/2017	55.34	0%
2089958	32L02	CDC	6/6/2007	5/6/2017	55.34	2%
2284009	32L02	CDC	27/04/2011	9/4/2018	55.34	2%
2284010	32L02	CDC	27/04/2011	9/4/2018	55.33	2%
2284011	32L02	CDC	27/04/2011	9/4/2018	55.33	2%
2284012	32L02	CDC	27/04/2011	9/4/2018	55.32	2%
2284013	32L02	CDC	27/04/2011	9/4/2018	55.32	2%
2284014	32L02	CDC	27/04/2011	9/4/2018	55.31	2%
2284015	32L02	CDC	27/04/2011	9/4/2018	55.31	2%



Title Number	NTS	Title Type	Registration Date	Expiry Date	Area (ha)	NSR%
2284016	32L02	CDC	27/04/2011	9/4/2018	55.3	2%
2284017	32L02	CDC	27/04/2011	9/4/2018	55.3	2%
2284018	32L02	CDC	27/04/2011	9/4/2018	55.29	2%
2284019	32L03	CDC	27/04/2011	9/4/2018	55.34	2%
2284020	32L03	CDC	27/04/2011	9/4/2018	55.34	2%
2284021	32L03	CDC	27/04/2011	9/4/2018	55.34	2%
2284022	32L03	CDC	27/04/2011	9/4/2018	55.33	2%
2284023	32L03	CDC	27/04/2011	9/4/2018	55.33	2%
2284024	32L03	CDC	27/04/2011	9/4/2018	55.33	2%
2284025	32L03	CDC	27/04/2011	9/4/2018	55.32	2%
2284026	32L03	CDC	27/04/2011	9/4/2018	55.32	2%
2284027	32L03	CDC	27/04/2011	9/4/2018	55.32	2%
2284028	32L03	CDC	27/04/2011	9/4/2018	55.32	2%
2284029	32L03	CDC	27/04/2011	9/4/2018	55.31	2%
2284030	32L03	CDC	27/04/2011	9/4/2018	55.31	2%
2284031	32L03	CDC	27/04/2011	9/4/2018	55.31	2%
2284032	32L03	CDC	27/04/2011	9/4/2018	55.31	2%
2284033	32L03	CDC	27/04/2011	9/4/2018	55.3	2%
2284034	32L03	CDC	27/04/2011	9/4/2018	55.3	2%
2284035	32L03	CDC	27/04/2011	9/4/2018	55.34	2%
2284036	32L03	CDC	27/04/2011	9/4/2018	55.34	2%
2284037	32L03	CDC	27/04/2011	9/4/2018	55.33	2%
2284038	32L03	CDC	27/04/2011	9/4/2018	55.3	2%
2284049	32L03	CDC	27/04/2011	9/4/2018	51.45	2%
2269086	32L02	CDC	10/2/2011	21/09/2018	55.35	2%
2269087	32L02	CDC	10/2/2011	21/09/2018	55.35	2%
2269088	32L02	CDC	10/2/2011	21/09/2018	55.34	2%
2269089	32L02	CDC	10/2/2011	21/09/2018	55.34	2%



Appendix C: Drill hole collar location,

orientation and length



Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (º)
BLD-16-01	642320.0	5543930.0	255.0	S Aligner	775.21	220	-50
BLD-16-02	641898.6	5544133.7	253.7	TSGPS	737.92	200	-50
BLD-16-03	642359.7	5543808.4	256.5	TSGPS	897.08	218	-53
MDE-11-01	641871.0	5543584.0	257.8	Unknown	326.83	330	-60
MDE-11-02	641884.0	5543626.0	257.7	Unknown	255	330	-60
MDE-11-03	641836.0	5543603.0	257.9	Unknown	252	330	-60
MDE-11-04	641972.0	5543641.0	257.4	Unknown	300	330	-50
MDE-11-05	641972.0	5543641.0	257.4	Unknown	207	330	-57
MDE-11-06	641999.0	5543598.0	257.6	Unknown	351	330	-45
MDE-11-07	641989.1	5543821.5	256.0	DGPS	247.89	330	-45
MDE-11-08	642290.1	5543898.6	256.2	DGPS	201.16	330	-50
MDE-11-09	642049.9	5543698.1	255.8	DGPS	309	320	-50
MDE-11-10	641985.9	5543713.8	257.2	DGPS	276	320	-45
MDE-11-11	641986.1	5543713.6	257.2	DGPS	198.11	360	-55
MDE-11-12	641846.7	5543448.8	257.7	DGPS	252	326	-50
MDE-11-13	641846.8	5543448.5	257.7	DGPS	201	326	-67
MDE-11-14	641992.0	5543652.5	257.6	DGPS	240	235	-50
MDE-11-15	642234.9	5543161.0	257.0	DGPS	402	327	-50
MDE-11-16	642116.1	5543687.0	256.3	DGPS	225	330	-50
MDE-12-17	642130.7	5543657.8	256.3	DGPS	123	330	-46
MDE-12-18	642131.0	5543657.2	256.9	DGPS	117	330	-59
MDE-12-19	642115.8	5543659.7	256.7	DGPS	360	315	-55
MDE-12-20	642116.0	5543659.5	256.6	DGPS	105	315	-69
MDE-12-21	642110.8	5543621.6	257.2	DGPS	300	315	-50
MDE-12-22	642111.1	5543621.4	256.6	DGPS	252	315	-65
MDE-12-23	642087.9	5543592.2	257.3	DGPS	147	315	-50
MDE-12-24	642087.9	5543592.1	257.2	DGPS	360	315	-58
MDE-12-25	641739.6	5543733.7	257.8	DGPS	198	75	-45
MDE-12-26	641738.4	5543733.5	258.4	DGPS	12	75	-65
MDE-12-26A	641738.8	5543733.5	257.9	DGPS	150	75	-70
MDE-12-27	641841.7	5543399.9	258.1	DGPS	186	315	-45
MDE-12-28	641842.0	5543399.7	258.7	DGPS	102	315	-60
MDE-12-29	641899.2	5543686.0	257.6	DGPS	218	248	-45
MDE-12-30	641900.2	5543686.4	258.3	DGPS	200	248	-60
MDE-12-31	641823.7	5543814.3	257.3	DGPS	167	248	-45
MDE-12-32	641824.1	5543814.5	257.0	DGPS	92	248	-65
MDE-12-33	641824.4	5543814.7	257.1	DGPS	101	248	-80
MDE-12-34	642134.3	5543686.8	256.2	DGPS	101	331	-45
MDE-12-35	642134.7	5543686.1	256.2	DGPS	155	331	-65
MDE-12-36	642134.8	5543685.9	256.1	DGPS	101	337	-80
MDE-12-37	642111.8	5543572.4	256.7	DGPS	356	310	-55
MDE-12-38	642112.1	5543572.1	256.8	DGPS	152	310	-70
MDE-12-39	641873.0	5543728.2	257.6	DGPS	161	250	-45

#### Table C-1: Diamond drill hole collar data for Balmoral's drilling on the Martinière Property



Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (°)
MDE-12-40	641970.0	5543574.3	257.8	DGPS	239	240	-45
MDE-12-41	641873.7	5543728.5	257.5	DGPS	170	250	-70
MDE-12-42	641874.0	5543728.7	257.5	DGPS	173.09	250	-88
MDE-12-43	641970.5	5543574.6	257.8	DGPS	230	240	-68
MDE-12-44	641853.8	5543608.4	258.5	DGPS	182.02	288	-55
MDE-12-45	641853.9	5543608.4	258.1	DGPS	185	286	-64
MDE-12-46	641956.7	5543630.1	258.4	DGPS	197	240	-45
MDE-12-47	641853.6	5543608.3	258.1	DGPS	137	278	-46
MDE-12-48	641955.6	5543629.4	257.6	DGPS	251	240	-77
MDE-12-49	642024.9	5543765.6	256.3	DGPS	290	244	-62
MDE-12-50	641889.2	5543780.3	257.1	DGPS	236	250	-45
MDE-12-51	641890.0	5543780.6	257.3	DGPS	149.92	250	-62
MDE-12-52	641890.2	5543780.7	257.2	DGPS	150	250	-76
MDE-12-53	642025.4	5543765.8	256.3	DGPS	380	244	-45
MDE-12-54	641971.1	5543516.4	258.2	DGPS	12	240	-45
MDE-12-54A	641971.1	5543516.5	257.8	DGPS	245.05	240	-45
MDE-12-55	641971.5	5543516.8	257.9	DGPS	227.03	240	-58.5
MDE-12-56	642153.7	5543626.0	256.7	DGPS	125	308	-50
MDE-12-57	642153.8	5543626.0	256.7	DGPS	134	319	-50
MDE-12-58	641873.3	5543690.0	257.6	DGPS	185	245	-54
MDE-12-59	641873.4	5543690.0	257.8	DGPS	182	245	-49
MDE-12-60	641873.9	5543690.2	257.8	DGPS	191.04	242	-55
MDE-12-61	641873.9	5543690.3	257.7	DGPS	224	242	-57
MDE-12-62	641802.8	5543741.8	257.9	DGPS	191	193	-46
MDE-12-63	641802.7	5543741.7	257.8	DGPS	134	193	-45
MDE-12-64	641819.1	5543679.5	258.0	DGPS	128	270	-45
MDE-12-65	641819.9	5543679.6	258.1	DGPS	107	270	-56
MDE-12-66	641820.0	5543679.6	258.0	DGPS	149	270	-67
MDE-12-67	641881.5	5543643.0	257.9	DGPS	179	250	-45
MDE-12-68	641882.1	5543643.3	258.0	DGPS	248	250	-60
MDE-12-69	641882.3	5543643.4	257.9	DGPS	191	250	-72
MDE-12-70	641882.5	5543643.5	257.8	DGPS	236	250	-82
MDE-12-71	641823.0	5543660.0	256.2	Hand GPS	44	270	-45
MDE-12-71A	641823.0	5543660.0	256.2	Hand GPS	125	270	-45
MDE-12-72	641823.0	5543660.0	256.2	Hand GPS	101	270	-55
MDE-12-73	641919.0	5543632.0	256.3	Hand GPS	182	250	-45
MDE-12-74	641919.0	5543632.0	256.3	Hand GPS	215	250	-60
MDE-12-75	641919.0	5543632.0	256.3	Hand GPS	215	250	-71
MDE-12-76	641814.0	5543703.0	256.0	Hand GPS	113	270	-45
MDE-12-77	641814.0	5543703.0	256.0	Hand GPS	155	270	-58
MDE-12-78	641814.0	5543703.0	256.0	Hand GPS	122	270	-65
MDE-12-79	641855.0	5543651.0	256.4	Hand GPS	152	268	-49
MDE-12-80	641855.0	5543651.0	256.4	Hand GPS	149	268	-53
MDE-12-81	641921.0	5543661.0	256.4	Hand GPS	245	270	-50

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (º)
MDE-12-82	641818.0	5543721.0	255.9	Hand GPS	95	270	-45
MDE-12-83	641818.0	5543721.0	255.9	Hand GPS	107	270	-57
MDE-13-100	641962.1	5543871.5	256.0	DGPS	251	250	-59
MDE-13-101	641962.4	5543871.7	256.1	DGPS	221	250	-45
MDE-13-102	642079.6	5543805.2	255.1	DGPS	317	250	-54
MDE-13-103	642079.9	5543805.2	255.1	DGPS	419	250	-60
MDE-13-104	641990.0	5543230.0	256.6	Hand GPS	209	250	-45
MDE-13-105	641855.0	5543915.0	255.2	Hand GPS	221	260	-45
MDE-13-106	641817.0	5543908.0	255.7	Hand GPS	149	260	-45
MDE-13-107	641998.8	5543595.0	257.8	TSGPS	24	250	-45
MDE-13-107A	641998.8	5543595.0	257.8	TSGPS	332	250	-45
MDE-13-108	641999.0	5543595.1	257.5	TSGPS	272	250	-63
MDE-13-109	642065.5	5543649.3	256.3	TSGPS	380.6	250	-45
MDE-13-110	642066.3	5543649.6	256.3	TSGPS	176.6	250	-65
MDE-13-111	641980.6	5543717.8	256.6	TSGPS	320.6	240	-45
MDE-13-112	642106.9	5543735.9	255.8	TSGPS	356.6	245	-45
MDE-13-113	642106.9	5543735.9	255.8	TSGPS	596.6	245	-70
MDE-13-114	642151.3	5543710.8	256.1	TSGPS	401.6	238	-45
MDE-13-115	641610.5	5543981.8	256.2	TSGPS	224	66	-45
MDE-13-116	642247.6	5543035.9	256.6	TSGPS	296	240	-45
MDE-13-117	642247.8	5543036.1	256.7	TSGPS	308	240	-52
MDE-13-118	642248.1	5543036.2	256.3	TSGPS	254.6	240	-62
MDE-13-119	641867.5	5543714.7	257.9	TSGPS	161.6	242	-45
MDE-13-120	641867.1	5543714.4	257.1	TSGPS	182.6	242	-56
MDE-13-121	641895.3	5543664.9	257.5	TSGPS	164.6	244	-46
MDE-13-122	641895.3	5543664.9	257.5	TSGPS	44.6	244	-58
MDE-13-122A	641896.2	5543665.4	257.7	TSGPS	218.6	244	-57
MDE-13-123	642189.0	5543532.0	257.0	APS	203	295	-50
MDE-13-84	641891.0	5543462.0	258.5	Hand GPS	19	250	-45
MDE-13-85	641863.2	5543397.9	257.9	DGPS	21	250	-45
MDE-13-85A	641862.4	5543397.7	258.0	DGPS	104	250	-45
MDE-13-86	641863.0	5543399.0	255.0	Hand GPS	134	250	-74
MDE-13-87	641891.9	5543460.9	258.1	DGPS	212	250	-45
MDE-13-88	641892.4	5543461.1	258.0	DGPS	185	250	-60
MDE-13-89	641930.3	5543368.3	257.9	DGPS	197	250	-45
MDE-13-90	641930.6	5543368.5	257.9	DGPS	182	250	-60
MDE-13-91	641941.2	5543317.0	257.7	DGPS	188	250	-45
MDE-13-92	641941.8	5543317.2	257.7	DGPS	188	250	-60
MDE-13-93	641866.3	5543451.5	258.0	DGPS	95	250	-45
MDE-13-94	641866.7	5543451.7	257.9	DGPS	116	250	-57
MDE-13-95	641861.2	5543855.2	256.8	DGPS	140	270	-45
MDE-13-96	641861.9	5543855.2	256.8	DGPS	122	270	-64
MDE-13-97	641862.1	5543855.2	256.8	DGPS	254	270	-71
MDE-13-98	642029.1	5543845.4	255.5	DGPS	275	250	-45

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (º)
MDE-13-99	642029.5	5543845.5	255.3	DGPS	365	250	-54
MDE-14-124	641973.2	5543613.3	257.7	TSGPS	251	240	-45
MDE-14-125	641973.5	5543613.4	257.8	TSGPS	218	238	-52
MDE-14-126	641915.2	5543592.3	257.9	TSGPS	200	240	-45
MDE-14-127	641915.6	5543592.7	257.9	TSGPS	161	238	-58
MDE-14-128	642032.6	5543639.5	257.0	TSGPS	273.6	240	-45
MDE-14-129	641929.7	5543702.6	257.4	TSGPS	257	240	-47
MDE-14-130	641892.8	5543664.1	257.8	TSGPS	200	240	-53
MDE-14-131	641893.2	5543664.3	257.7	TSGPS	242	235	-64
MDE-14-132	641904.4	5543622.9	257.8	TSGPS	167	237	-47
MDE-14-133	641904.7	5543623.1	257.7	TSGPS	224	240	-60
MDE-14-134	641947.3	5543645.1	257.8	TSGPS	266	240	-55
MDE-14-135	641947.4	5543645.1	257.6	TSGPS	275	240	-61
MDE-14-136	642006.7	5543151.4	257.5	TSGPS	209	240	-50
MDE-14-137	642006.7	5543151.4	257.5	TSGPS	251	240	-68
MDE-14-138	642102.7	5543073.5	257.3	TSGPS	224	240	-50
MDE-14-139	642151.3	5543092.1	257.3	TSGPS	194	240	-50
MDE-14-140	642026.3	5543245.4	258.0	TSGPS	230	240	-50
MDE-14-141	642026.3	5543245.4	258.0	TSGPS	200	240	-60
MDE-14-142	642070.5	5543256.8	257.7	TSGPS	371	238	-66
MDE-14-143	641724.8	5543675.2	258.0	TSGPS	505.6	73	-50
MDE-14-144	641724.5	5543675.1	258.0	TSGPS	524.6	76	-58
MDE-14-145	641724.7	5543675.0	257.9	TSGPS	176	58	-51
MDE-14-146	641641.3	5543744.4	257.8	TSGPS	239	323	-50
MDE-14-147	642184.9	5543303.9	257.9	TSGPS	395.6	237	-50
MDE-14-148	642184.9	5543303.9	257.9	TSGPS	434.6	237	-55
MDE-14-149	642124.8	5543336.3	257.8	TSGPS	375	240	-52
MDE-14-150	642124.9	5543336.3	257.8	TSGPS	408	240	-55
MDE-14-151	642166.7	5543217.9	257.6	TSGPS	380	240	-52
MDE-14-152	642166.7	5543217.9	257.6	TSGPS	449	240	-60
MDE-14-153	641805.7	5543778.2	257.2	TSGPS	101	250	-45
MDE-14-154	641806.5	5543778.6	257.6	TSGPS	121	250	-64
MDE-14-155	641817.8	5543962.0	255.9	TSGPS	404	260	-45
MDE-14-156	641754.8	5543950.8	256.3	TSGPS	356	260	-45
MDE-14-157	641889.5	5543574.7	258.0	TSGPS	191	240	-45
MDE-14-158	641855.0	5543559.2	257.9	TSGPS	176	240	-46
MDE-14-159	641906.5	5543555.4	257.9	TSGPS	236	240	-45
MDE-14-160	641907.2	5543555.8	257.9	TSGPS	251	240	-59
MDE-14-161	641910.2	5543532.9	257.9	TSGPS	194	240	-45
MDE-14-162	641910.7	5543533.2	257.9	TSGPS	272.6	240	-60
MDE-14-163	641546.5	5543933.0	256.3	TSGPS	182	45	-45
MDE-14-164	641546.1	5543932.6	256.3	TSGPS	218	45	-60
MDE-14-165	641523.5	5543987.4	256.1	TSGPS	185	45	-45
MDE-15-166	641861.9	5543636.9	257.0	TSGPS	209	269	-60

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (º)
MDE-15-167	641957.5	5543573.2	258.0	TSGPS	260	274	-58
MDE-15-168	641960.5	5543562.4	257.9	TSGPS	260	269	-63
MDE-15-169	641839.3	5543669.0	257.9	TSGPS	155	252	-51
MDE-15-170	641839.3	5543669.0	257.9	TSGPS	197	255	-59
MDE-15-171	641899.4	5543702.1	257.0	TSGPS	170	249	-47
MDE-15-172	641819.9	5543756.3	258.0	TSGPS	125	254	-46
MDE-15-173	641913.2	5543648.4	257.0	TSGPS	170	237	-54
MDE-15-174	641913.2	5543648.4	257.0	TSGPS	44	238	-64
MDE-15-174A	641909.8	5543648.8	257.0	TSGPS	242	238	-64
MDE-15-175	641905.6	5543656.8	258.0	TSGPS	41	259	-52
MDE-15-175A	641905.6	5543656.8	258.0	TSGPS	233	259	-52
MDE-15-176	641714.4	5543682.2	258.0	TSGPS	170	63	-45
MDE-15-177	641744.1	5543680.9	257.9	TSGPS	152	72	-45
MDE-15-178	641744.1	5543680.9	257.9	TSGPS	131	72	-56
MDE-15-179	641915.0	5543709.1	258.0	TSGPS	200	254	-47
MDE-15-180	641727.2	5543710.3	259.0	TSGPS	176	68	-45
MDE-15-181	641727.2	5543710.3	259.0	TSGPS	125	68	-53
MDE-15-182	641792.4	5543762.7	258.0	TSGPS	101	248	-45
MDE-15-183	641780.5	5543767.1	257.0	TSGPS	110	261	-45
MDE-15-184	641872.5	5543671.9	257.9	TSGPS	161	247	-49
MDE-15-185	641961.5	5543612.9	258.0	TSGPS	233	251	-48
MDE-15-186	641877.2	5543603.3	259.0	TSGPS	140	276	-60
MDE-15-187	641693.2	5543670.2	258.0	TSGPS	188	61	-45
MDE-15-188	641884.8	5543617.5	258.0	TSGPS	146	279	-54
MDE-15-189	641871.1	5543701.5	257.7	TSGPS	182	250	-48
MDE-15-190	641757.3	5543706.4	258.0	TSGPS	110	61	-45
MDE-15-191	641718.2	5543650.8	258.0	TSGPS	189	55	-51
MDE-15-192	641831.4	5543774.0	257.5	TSGPS	125	250	-45
MDE-15-193	641855.4	5543769.6	257.3	TSGPS	158	250	-49
MDE-15-194	642485.0	5542481.5	256.7	TSGPS	335.07	246	-50
MDE-15-195	642228.9	5542438.9	254.9	TSGPS	310.93	246	-50
MDE-15-196	641846.2	5543745.8	257.3	TSGPS	122.1	233	-45
MDE-15-197	641872.1	5543763.7	257.2	TSGPS	169.91	231	-45
MDE-15-198	641544.8	5543931.0	256.4	TSGPS	313.93	85	-50
MDE-15-199	641662.1	5543875.9	257.0	TSGPS	211.99	57	-45
MDE-15-200	641661.8	5543875.7	257.0	TSGPS	244.96	57	-56
MDE-15-201	641878.5	5543422.7	257.9	TSGPS	142.97	247	-45
MDE-15-202	641908.9	5543444.1	258.0	TSGPS	194.01	247	-45
MDE-16-151	642166.7	5543217.9	257.6	TSGPS	507.05	240	-52
MDE-16-203	642063.2	5543344.8	258.0	TSGPS	337.98	240.5	-50
MDE-16-204	641947.7	5543269.9	257.9	TSGPS	184.97	240.5	-50
MDE-16-205	642057.6	5543307.3	258.3	TSGPS	340.94	241	-50
MDE-16-206	642169.2	5543321.9	258.6	TSGPS	386.01	242	-50
MDE-16-207	641999.4	5543322.5	258.6	TSGPS	286.97	239.6	-50

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (°)
MDE-16-208	642059.7	5543126.5	257.4	TSGPS	275.07	229.2	-54
MDE-16-209	641940.0	5543425.4	258.6	TSGPS	176	240	-45
MDE-16-210	641940.3	5543425.6	258.3	TSGPS	215.02	240.4	-56
MDE-16-211	641391.9	5543930.3	256.2	TSGPS	395.26	80.1	-50
MDE-16-212	641697.5	5543775.2	257.8	TSGPS	371.02	20	-50
MDE-16-213	641458.7	5544064.6	256.2	TSGPS	152.01	49.9	-45
MDE-16-214	642008.1	5543272.8	257.8	TSGPS	262.98	246	-48
MDE-16-215	641981.5	5543301.9	257.7	TSGPS	187.96	246	-47
MDE-16-216	642105.0	5543290.4	257.8	TSGPS	298.9	246	-49
MDE-16-217	642000.2	5543384.8	257.8	TSGPS	229.99	253	-48
MDE-16-218	641999.6	5543384.5	257.8	TSGPS	302.02	247	-47
MDE-16-219	642008.0	5543348.0	257.0	S Aligner	281.02	247	-57
MDE-16-220	642008.0	5543348.5	256.0	S Aligner	259.94	247	-47
MDE-16-221	642011.6	5543436.6	257.8	TSGPS	290	247	-48
MDE-16-222	642270.4	5543252.4	257.8	TSGPS	461	246	-49
MDE-16-223	642011.5	5543436.6	257.8	TSGPS	321	247	-56
MDE-16-224	642344.1	5542971.8	256.4	TSGPS	365	240	-48
MDE-16-225	642123.3	5543178.0	257.4	TSGPS	446	226	-52
MDE-16-226	641959.9	5543471.4	257.8	TSGPS	302	242	-48
MDE-16-227	641959.4	5543471.1	257.8	TSGPS	371	242	-58
MDE-16-228	642415.4	5542895.0	257.4	TSGPS	352.89	239	-47
MDE-16-229	642181.4	5543418.8	258.0	TSGPS	282.04	0	-45
MDE-16-230	642514.7	5542844.5	257.7	TSGPS	468	237	-47
MDE-16-231	641445.7	5543974.6	256.0	TSGPS	319.94	45	-50
MDE-16-232	642161.7	5543628.2	256.5	TSGPS	404	235	-48
MDE-16-233	642065.2	5543342.7	257.8	TSGPS	59.63	250.8	-53
MDE-16-233A	642065.2	5543342.7	257.8	TSGPS	351.11	251	-54
MDE-16-234	642126.8	5543335.6	257.7	TSGPS	56.98	250.7	-48.5
MDE-16-234A	642126.8	5543335.6	257.7	TSGPS	420.02	250.3	-48.5
MDE-16-235	642234.9	5543160.5	257.3	TSGPS	430.97	229.1	-48
MDE-16-236	642190.3	5543531.1	257.2	TSGPS	441.12	246.3	-61
MDE-16-237	642554.8	5542751.4	257.8	TSGPS	447.03	236.2	-47
MDE-16-238	641920.5	5543634.1	257.8	TSGPS	340.95	19.3	-65
MDE-16-239	641920.6	5543634.0	257.5	TSGPS	437.03	28.1	-77
MDE-16-240	642057.5	5543396.9	257.7	TSGPS	360	250.7	-51
MDE-16-241	641876.1	5543602.7	257.9	TSGPS	431.94	64	-63
MDE-16-242	642048.3	5543376.1	257.9	TSGPS	48	250	-51
MDE-16-242A	642048.3	5543376.1	257.9	TSGPS	300.07	250	-51
MDE-16-243	642027.8	5543410.8	257.7	TSGPS	301.92	249	-51
MDE-16-244	642097.1	5543392.0	258.0	TSGPS	371.88	248.9	-51
MDE-16-245	642008.8	5543395.8	257.8	TSGPS	325.88	252	-48
MDE-16-246	642131.3	5543365.0	258.0	TSGPS	62.03	250.1	-51
MDE-16-246A	642131.3	5543365.0	258.0	TSGPS	58.94	250.1	-54
MDE-16-246B	642131.3	5543365.0	258.0	TSGPS	401	250.1	-51

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (º)
MDE-16-247	642086.5	5543423.2	258.2	TSGPS	408.12	248.4	-51
MDE-16-248	641970.8	5543442.9	257.9	TSGPS	257.02	250	-51
MDE-16-249	642019.8	5543455.7	257.9	TSGPS	310.97	250.1	-51
MDE-16-250	642040.6	5543319.7	257.7	TSGPS	281	249.3	-51
MDE-16-251	642075.6	5543457.7	257.9	TSGPS	384.01	249.9	-51
MDE-16-252	641928.4	5543432.8	258.0	TSGPS	211.96	250	-51
MDE-16-253	642083.6	5543320.8	257.7	TSGPS	56.01	240.5	-49
MDE-16-253A	642083.6	5543320.8	257.7	TSGPS	317.02	239.1	-50
MDE-16-254	642129.2	5543407.3	258.1	TSGPS	434.98	248.9	-51
MDE-16-255	642116.4	5543449.6	257.9	TSGPS	440	249	-51
MDE-16-256	641911.8	5543534.1	257.9	TSGPS	462.07	56	-65
MDE-16-257	642217.7	5543375.3	257.9	TSGPS	519.97	248.9	-51
MDE-16-55	641971.5	5543516.8	257.9	TSGPS	350	240	-58.5
MDE-17-258	641917.1	5543388.0	257.9	TSGPS	170	250	-51
MDE-17-259	641917.1	5543388.0	257.9	TSGPS	182.01	247	-63
MDE-17-260	641965.7	5543393.1	258.0	TSGPS	208.15	250	-51
MDE-17-261	641978.7	5543419.4	258.1	TSGPS	266.1	250	-51
MDE-17-262	641938.4	5543342.9	256.0	TSGPS	214.95	249	-51
MDE-17-263	642213.2	5543606.2	257.4	TSGPS	640.25	234.9	-48
MDE-17-264	641970.3	5543348.9	257.8	TSGPS	230	249	-51
MDE-17-265	642001.1	5543361.5	256.0	TSGPS	260	249	-51
MDE-17-266	642236.8	5543334.1	257.8	TSGPS	630.04	249.2	-51
MDE-17-267	642265.9	5543301.2	257.9	TSGPS	488	230	-51
MDE-17-268	642246.2	5543271.0	257.8	TSGPS	473.07	230	-51
MDE-17-269	642186.8	5543343.9	257.8	TSGPS	443.98	249	-51
MDE-17-270	642201.9	5543198.2	257.6	TSGPS	389.45	230.1	-51
MDE-17-271	642015.6	5543312.5	257.9	TSGPS	272.09	229.9	-51
MDE-17-272	642168.2	5543377.1	258.1	TSGPS	477.16	249.2	-51
MDE-17-273	642558.7	5542751.5	257.3	TSGPS	185.11	251.1	-48
MDE-17-274	642148.9	5542879.8	255.9	TSGPS	301.98	50.1	-50
MDE-17-275	642246.9	5543676.5	257.1	TSGPS	540.05	235	-50
MDE-17-276	642515.0	5542844.4	257.2	TSGPS	161.02	175	-60
MDE-17-277	642515.1	5542844.5	257.2	TSGPS	182	168.1	-55
MDE-17-278	642361.6	5543809.3	256.4	TSGPS	259.93	219.8	-57
MDE-17-279	642313.4	5543644.0	257.1	TSGPS	592.98	234.9	-50
MDE-17-280	642361.3	5543809.3	256.4	TSGPS	225.9	233.9	-50
MDE-17-281	642361.8	5543809.7	256.3	TSGPS	200	202.9	-50
MDE-17-282	642300.8	5543686.0	256.7	TSGPS	527.01	235.2	-50
MDE-17-283	642266.3	5543363.4	257.9	TSGPS	544.95	244.9	-51
MDE-17-284	642246.3	5543589.0	257.7	TSGPS	464.55	235	-50
MDE-17-285	642286.6	5543320.5	258.2	TSGPS	560.63	245.1	-51
MDE-17-286	642331.4	5543330.7	258.1	TSGPS	614.1	239.9	-51
MDE-17-287	642063.7	5543362.2	257.9	TSGPS	74	249.1	-51
MDE-17-287A	642063.7	5543362.2	257.9	TSGPS	59	248	-52.5

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (º)
MDE-17-287B	642063.7	5543362.2	257.9	TSGPS	307.97	248	-53
MDE-17-288	642069.9	5543382.4	257.9	TSGPS	379.92	248.8	-51
MDE-17-289	642517.2	5542642.8	257.3	TSGPS	301.95	344.9	-52
MDE-17-290	641387.7	5543975.5	255.9	TSGPS	350.06	15.1	-57
MDE-17-291	641387.7	5543975.3	256.0	TSGPS	349.83	15	-64
MDE-17-292	642284.6	5543316.4	257.9	TSGPS	578.59	240.1	-51
MDE-17-293	642335.5	5543316.2	258.2	TSGPS	583.97	232	-48
MDE-17-294	642335.6	5543316.1	258.2	TSGPS	614.56	240.1	-51
MDE-17-295	642343.9	5543341.0	258.3	TSGPS	631.98	229.9	-51
MDE-17-296	642082.1	5543310.1	257.8	TSGPS	801	316.1	-60
MDE-17-297	641353.4	5544006.7	255.8	TSGPS	40.85	21	-63
MDE-17-297A	641353.4	5544006.7	255.8	TSGPS	370.95	21	-63
MDE-17-298	641353.3	5544006.3	255.9	TSGPS	382.98	19	-75
MDE-17-299	642440.7	5543773.5	256.9	TSGPS	298.99	250	-50
MDE-17-300	642378.1	5543304.0	257.9	TSGPS	743.43	218	-50.9
MDE-17-301	642441.1	5543773.6	257.0	TSGPS	316.94	249.9	-65
MDE-17-302	642470.5	5543765.8	257.4	TSGPS	331.96	250	-50
MDE-17-303	642401.3	5543819.0	256.6	TSGPS	250.93	250	-50
MDE-17-304	642401.7	5543819.2	256.7	TSGPS	67.94	250	-65
MDE-17-305	642419.2	5543036.2	256.9	TSGPS	410.04	220	-51
MDE-17-306	642356.7	5543817.2	256.2	TSGPS	364.98	60	-50
MDE-17-307	642446.5	5543611.1	258.0	TSGPS	804.57	235	-45
MDE-17-308	642316.1	5543249.2	258.1	TSGPS	537.58	233.9	-50
MDE-17-309	642328.5	5543293.1	258.0	TSGPS	41.91	228.1	-51
MDE-17-309A	642328.5	5543293.1	258.0	TSGPS	578.98	227.2	-51
MDE-17-310	641271.4	5544095.2	256.1	TSGPS	354.03	34.8	-63
MDE-17-311	641271.5	5544095.5	255.9	TSGPS	284.98	34.8	-45
MDE-17-312	641446.0	5544014.0	255.0	S Aligner	12	7.2	-71
MDE-17-312A	641446.0	5544014.0	255.0	S Aligner	38.95	7.1	-71
MDE-17-312B	641446.0	5544014.0	255.0	S Aligner	45.01	7.2	-71
MDE-17-313	641137.1	5544080.4	255.0	TSGPS	360.03	35.2	-55
MDE-17-314	641137.2	5544080.5	255.0	TSGPS	47.98	35.2	-67
MDE-17-314A	641137.2	5544080.5	255.0	TSGPS	461.96	35.2	-63
MDE-17-315	641046.7	5544130.6	254.6	TSGPS	404	39.8	-54
MDE-17-316	641189.8	5544152.3	255.2	TSGPS	274.99	35.1	-49
MDE-17-317	641243.8	5544062.8	255.2	TSGPS	339	35.3	-64
MDE-17-318	641453.0	5544027.8	256.0	TSGPS	41.17	7.3	-74
MDE-17-318A	641453.0	5544027.8	256.0	TSGPS	401.04	8.1	-74
MDE-17-319	641243.7	5544062.6	255.4	TSGPS	401.96	35.3	-73
MDW-11-01	641160.0	5543198.0	255.1	DGPS	200	330	-50
MDW-11-02	641185.9	5543150.3	254.8	DGPS	300	330	-54
MDW-11-03	641215.6	5543201.4	255.7	DGPS	269	330	-50
MDW-11-04	641129.9	5543147.7	254.0	DGPS	252	330	-50
MDW-11-05	641084.9	5543121.3	253.4	DGPS	251	330	-50

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (º)
MDW-11-06	641043.7	5543066.7	253.1	DGPS	287	330	-50
MDW-11-07	640988.6	5543057.6	252.0	DGPS	265.58	330	-50
MDW-11-08	641373.0	5543260.0	255.6	Unknown	221.38	330	-50
MDW-11-09	641428.0	5543262.0	255.7	Unknown	299.83	345	-50
MDW-11-10	640906.6	5543036.4	251.2	DGPS	250	330	-50
MDW-11-11	641287.7	5543221.4	256.5	DGPS	300	330	-50
MDW-11-12	641511.0	5542841.0	255.3	Unknown	312	330	-45
MDW-11-13	641511.0	5542841.0	255.3	Unknown	291	330	-50
MDW-11-14	641119.7	5543246.0	254.9	DGPS	144	200	-70
MDW-11-15	641119.8	5543246.1	254.8	DGPS	102	200	-88
MDW-11-16	641119.6	5543245.5	254.8	DGPS	150	200	-46
MDW-11-17	641134.1	5543196.9	254.5	DGPS	190.11	330	-63
MDW-11-18	641134.0	5543197.0	252.1	Unknown	27	330	-50
MDW-11-18A	641134.0	5543197.0	252.1	Unknown	9	330	-47
MDW-11-19	641134.4	5543196.8	254.7	DGPS	165	330	-74
MDW-11-20	641162.2	5543243.7	255.2	DGPS	165	330	-66
MDW-11-21	641162.3	5543243.6	255.4	DGPS	188.97	330	-50
MDW-11-22	641182.1	5543269.8	255.7	DGPS	180	330	-50
MDW-11-23	641099.4	5543403.6	255.3	DGPS	300	330	-50
MDW-11-24	641055.6	5543293.0	253.9	DGPS	21	130	-45
MDW-11-24A	641055.7	5543292.9	254.1	DGPS	189.06	130	-45
MDW-11-25	641055.6	5543293.0	253.9	DGPS	185.92	130	-54
MDW-11-26	641028.0	5543530.0	252.7	Unknown	21	330	-50
MDW-11-26A	641028.0	5543530.0	252.7	Unknown	234	330	-54
MDW-11-27	641055.6	5543293.0	253.9	DGPS	240	130	-68
MDW-11-28	641097.3	5543271.9	254.3	DGPS	10.5	110	-45
MDW-11-28A	641097.3	5543271.9	254.3	DGPS	261	110	-45
MDW-11-29	641096.6	5543271.8	254.6	DGPS	30	110	-61
MDW-11-29A	641096.7	5543272.0	254.5	DGPS	360.2	110	-61
MDW-11-30	641005.8	5543244.0	253.2	DGPS	330	110	-45
MDW-11-31A	641005.4	5543244.1	253.4	DGPS	220	110	-52
MDW-11-32	641005.0	5543244.1	253.6	DGPS	240	110	-61
MDW-11-33	641050.7	5543192.1	253.9	DGPS	126	110	-45
MDW-11-34	641050.3	5543192.1	253.8	DGPS	210	110	-67
MDW-11-35	641033.7	5543166.9	253.4	DGPS	126	113	-45
MDW-11-36	641033.3	5543167.0	253.6	DGPS	181.75	113	-57
MDW-11-37	641033.3	5543167.1	253.5	DGPS	141	113	-67
MDW-11-38	641116.7	5543332.5	255.1	DGPS	276	113	-57
MDW-11-39	641116.9	5543332.4	255.1	DGPS	180	113	-45
MDW-11-40	641116.6	5543332.6	255.1	DGPS	189	113	-66
MDW-11-41	641138.9	5543347.5	255.5	DGPS	45.11	113	-45
MDW-11-41A	641138.7	5543347.5	255.4	DGPS	177	113	-45
MDW-11-42	641138.8	5543347.5	255.4	DGPS	273	113	-59
MDW-11-43	641138.6	5543347.6	255.6	DGPS	125.88	113	-69

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (º)	Dip (°)
MDW-12-44	641380.8	5543650.1	257.5	DGPS	324	135	-45
MDW-12-45	641380.8	5543650.0	257.3	DGPS	12	135	-56
MDW-12-46	641153.2	5543384.2	255.0	DGPS	21.55	135	-45
MDW-12-46A	641152.8	5543384.4	255.4	DGPS	137.95	135	-45
MDW-12-47	641152.4	5543384.7	255.2	DGPS	167.9	135	-60
MDW-12-48	641081.4	5543082.5	253.9	DGPS	222	317	-45
MDW-12-49	640982.4	5543221.4	252.7	DGPS	210	113	-45
MDW-12-50	640982.0	5543221.6	253.2	DGPS	38.96	113	-62
MDW-12-50A	640981.7	5543221.5	252.8	DGPS	326.87	113	-64
MDW-12-51	641200.1	5543423.7	256.3	DGPS	143.91	140	-45
MDW-12-52	641200.1	5543423.6	256.1	DGPS	159.08	140	-60
MDW-12-53	641077.6	5543316.1	254.3	DGPS	146.95	113	-45
MDW-12-54	641076.7	5543316.4	254.4	DGPS	180.05	109	-55.37
MDW-12-55	640931.0	5543315.7	252.9	DGPS	342	112.63	-45.19
MDW-12-56	641210.3	5543554.1	256.8	DGPS	45.2	135	-45
MDW-12-56A	641210.3	5543554.1	256.2	DGPS	252	137.67	-48.87
MDW-12-57	640931.0	5543316.0	251.0	Hand GPS	36	113	-54
MDW-12-57A	640930.5	5543316.2	252.9	DGPS	372	113.5	-54.72
MDW-12-58	640933.8	5543209.9	253.0	DGPS	339	112.52	-59.43
MDW-12-59	640934.3	5543209.8	252.4	DGPS	252	111.85	-47.98
MDW-12-60	640816.0	5543257.5	251.6	DGPS	431	112.14	-45.31
MDW-12-61	640819.5	5543307.9	252.0	DGPS	476	108.4	-46.14
MDW-12-62	640816.3	5543257.4	251.6	DGPS	516	109.8	-52.27
MDW-12-63	640816.2	5543188.1	251.1	DGPS	113.17	105.85	-43.64
MDW-12-63A	640815.6	5543188.4	251.3	DGPS	407.96	118.58	-42.44
MDW-12-64	640817.0	5543186.0	251.0	Hand GPS	29	117	-51
MDW-12-64A	640817.0	5543186.0	251.0	Hand GPS	461.71	119	-51.68
MDW-13-65	640816.0	5543257.4	251.5	DGPS	488	123.68	-45.83
MDW-13-66	640816.2	5543257.3	251.6	DGPS	518	122	-50.38
MDW-13-67	640768.4	5543158.9	250.6	DGPS	500	119.35	-44.38
MDW-13-68	640768.2	5543159.0	250.6	DGPS	516	121	-47.58
MDW-13-69	641333.5	5543029.3	256.2	DGPS	672.3	276.49	-50.54
MDW-13-70	640929.4	5543144.3	251.9	DGPS	305	113.83	-55.22
MDW-13-71	640929.0	5543144.4	251.9	DGPS	320	113.76	-44.06
MDW-13-72	640906.5	5543278.9	252.8	DGPS	473	116.04	-42.88
MDW-13-73	640905.0	5543278.0	252.0	Hand GPS	410	114.77	-51.09
MDW-13-74	640902.3	5543362.2	252.9	TSGPS	472.6	115	-45
MDW-13-75	641210.5	5543444.4	255.8	TSGPS	140	113	-45
MDW-13-76	641210.5	5543444.4	255.8	TSGPS	74	113	-63
MDW-13-77	641591.9	5543467.7	258.4	TSGPS	203	328	-45
MDW-13-78	641512.7	5543596.9	258.3	TSGPS	212	328	-45
MDW-13-79	640648.8	5542930.8	248.8	TSGPS	245.6	111	-54
MDW-13-80	640649.0	5542930.9	248.4	TSGPS	269.6	111	-58
MDW-13-81	640640.4	5542910.3	248.7	TSGPS	250.6	112	-54

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (°)
MDW-13-82	640640.4	5542910.3	248.7	TSGPS	260.6	112	-58
MDW-13-83	640984.7	5543196.8	252.3	TSGPS	503.6	119	-78
MDW-13-84	640860.8	5543101.7	251.0	TSGPS	578.4	118	-63
MDW-13-85	640798.8	5542909.7	249.3	TSGPS	194	288	-45
MDW-13-86	641049.2	5543237.3	253.6	TSGPS	125	113	-45
MDW-13-87	641048.9	5543237.4	253.6	TSGPS	125	113	-51
MDW-13-88	641048.7	5543237.5	253.6	TSGPS	137.04	113	-56
MDW-16-89	640888.8	5542732.2	248.3	TSGPS	330.04	295	-47
MDW-16-90	640844.6	5542874.4	249.2	TSGPS	401.07	5	-48
MDX-12-01	641636.0	5543193.0	260.0	Hand GPS	385.51	305	-45
MDX-12-02	640731.0	5543000.0	248.3	Hand GPS	50	340	-45
MDX-12-02A	640731.0	5543000.0	248.3	Hand GPS	269	340	-47
MDX-12-04	640572.0	5542435.0	245.6	Hand GPS	296.1	322.58	-45
MDX-12-05	640529.0	5542008.0	244.3	Hand GPS	272	320	-45
MDX-12-06	640491.0	5541697.0	244.1	Hand GPS	248	320	-50
MDX-12-07	641600.0	5543275.0	257.0	Hand GPS	325.57	305	-50
MDX-13-08	640486.5	5542805.3	246.7	DGPS	230	317.78	-43.92
MDX-13-09	640435.4	5542915.7	246.3	DGPS	200	315	-45
MDX-13-10	640409.2	5542745.0	245.1	DGPS	275	316.5	-45.66
MDX-13-11	640967.9	5542891.9	250.7	DGPS	266	290	-45
MDX-13-12	640409.8	5542744.4	245.9	DGPS	272	318	-50.13
MDX-13-13	640904.2	5542784.2	249.1	DGPS	314	290	-45
MDX-13-14	640839.3	5542033.8	247.0	DGPS	314	310	-50
MDX-13-15	640904.6	5542784.2	249.2	DGPS	377	290	-58
MDX-13-16	639534.4	5541990.1	249.8	DGPS	209	360	-45
MDX-13-17	640885.9	5542595.3	248.1	DGPS	12	290	-45
MDX-13-17A	640886.0	5542595.2	248.2	DGPS	272	290	-45
MDX-13-18	639634.4	5541936.4	249.0	DGPS	200	360	-50
MDX-13-19	640835.4	5542614.5	248.0	DGPS	152	290	-50
MDX-13-20	642129.1	5544034.5	254.4	DGPS	281	270	-45
MDX-13-21	642335.2	5544366.9	253.7	DGPS	302	270	-50
MDX-13-22	642400.5	5544612.1	253.9	DGPS	314	270	-50
MDX-13-23	642184.2	5544055.2	254.5	DGPS	200	270	-45
MDX-13-24	641655.0	5543300.0	257.0	Hand GPS	362	280.84	-47.96
MDX-13-25	640258.0	5543425.0	248.0	Hand GPS	266	315.88	-44.97
MDX-13-26	642451.3	5543644.7	257.4	TSGPS	179	240	-45
MDX-13-27	642451.4	5543644.8	257.1	TSGPS	125	240	-55
MDX-13-28	642449.1	5543429.1	258.1	TSGPS	287	240	-45
MDX-13-29	642386.3	5543085.7	257.1	TSGPS	158	66	-45
MDX-13-30	642386.3	5543085.7	257.1	TSGPS	140	66	-58
MDX-13-31	642477.3	5543118.9	258.5	TSGPS	137	66	-45
MDX-13-32	640700.1	5542821.6	248.3	TSGPS	182	288	-45
MDX-13-33	640700.1	5542821.6	248.3	TSGPS	101	288	-61
MDX-10-00	640936.3	5542513.4	248.0	TSGPS	368.6	291	-50

Hole	UTM Easting*	UTM *Northing	Elevation	Survey Type	Length (m)	Azimuth (°)	Dip (°)
MDX-13-35	641237.0	5541686.7	246.0	TSGPS	254	334	-50
MDX-13-36	641477.4	5542836.4	255.9	TSGPS	272	287	-45
MDX-13-37	641478.2	5542836.2	255.9	TSGPS	47	287	-70
MDX-13-38	644102.1	5545923.2	245.0	TSGPS	335	359	-50
MDX-13-39	644426.7	5544414.3	246.1	TSGPS	209	209	-50
MDX-13-40	640191.0	5545160.1	248.0	TSGPS	140	5	-45
MDX-14-41	644243.2	5544300.1	246.3	TSGPS	251	30	-53
MDX-14-42	644425.6	5544072.4	242.3	TSGPS	293	30	-54
MDX-14-43	641538.6	5542894.9	256.3	TSGPS	227	330	-50
MDX-14-44	641464.6	5542790.8	255.6	TSGPS	251	285	-50
MDX-14-45	641161.4	5541790.8	246.4	TSGPS	312	350	-50
MDX-14-46	639143.3	5544163.1	244.0	TSGPS	338	45	-45
MDX-15-47	639600.8	5543899.6	248.0	S Aligner	401.03	260	-50
MDX-15-48	639324.0	5544136.4	244.0	S Aligner	373.9	30	-50
MDX-15-49	642162.6	5544978.8	252.1	S Aligner	302.01	270	-50
MDX-15-50	641991.7	5544976.4	254.0	S Aligner	323.02	270	-50
MDX-15-51	642488.6	5543500.6	258.1	TSGPS	344.44	278	-45
MDX-15-52	642836.6	5542872.3	254.9	TSGPS	229.96	280	-50
MDX-15-53	641893.6	5541473.8	251.3	S Aligner	229.97	27	-50
MDX-15-54	638227.7	5542320.0	249.0	S Aligner	344.04	347	-50
MDX-16-55	638593.0	5544202.0	245.0	Hand GPS	226.83	359.5	-45
MDX-16-56	639996.0	5544269.0	254.0	Hand GPS	233.03	359.8	-45
MDX-16-57	639996.0	5544269.0	254.0	Hand GPS	220.96	359.6	-53
MDX-16-58	640600.0	5544200.0	253.0	S Aligner	175.14	10	-45
MDX-16-59	640900.0	5544225.0	253.0	Hand GPS	320	0	-50
MDX-16-60	641213.0	5541450.0	247.0	S Aligner	370.93	352	-50
MDX-16-61	641504.0	5542811.0	256.0	Hand GPS	257.65	358.5	-53
MDX-17-62	642655.0	5541835.0	253.0	Hand GPS	452.05	205.1	-45
MDX-17-63	642425.0	5541870.0	251.0	S Aligner	284.06	245	-45
MDX-17-64	642708.7	5543467.1	256.5	TSGPS	380.01	210	-50
MDX-17-65	638796.0	5544084.0	242.5	S Aligner	313.92	0	-45
MDX-17-66	639182.0	5542232.0	255.0	S Aligner	337.96	0	-45
MDX-17-67	638634.0	5543243.0	248.0	S Aligner	115.94	250.1	-45
MDX-17-68	638080.0	5542893.0	247.8	S Aligner	272	355.1	-45
MDX-17-69	638592.0	5544037.0	244.6	S Aligner	320.02	359.8	-45
MWW-12-01	640888.0	5541917.0	247.4	Hand GPS	100	239	-87

\*UTM is NAD83, Zone 17



Appendix D: Qualified Persons' certificates



# QUALIFIED PERSON'S CERTIFICATE

I, Ronald Voordouw, P.Geo., Ph.D., do hereby certify:

- THAT I am a Professional Geologist employed by Equity Exploration Consultants Ltd with offices at 1510-250 Howe Street, and residing at 1155 Judd Road, Brackendale, British Columbia, Canada.
- THAT I am the author of the Technical Report entitled "2018 Technical (N.I. 43-101) Report on the Martinière Property" and with an effective date of March 27, 2018, relating to the Martinière Property (the "Technical Report"). I am responsible for sections 1.0 to 13.0, as well as 15.0 to 18.0.
- THAT I am a member in good standing (#06962) of the Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL) with special authorization to practice with the Québec Order of Geologists (OGQ #365).
- THAT I graduated from the University of Calgary with a Bachelor of Science (Honours) degree in geology in 2000 and from the Memorial University of Newfoundland with a Doctor of Philosophy in 2006. I have practiced my profession continuously since 2006.
- THAT since 2006, I have been involved in mineral exploration and research for gold, silver, copper, lead, zinc, platinum group elements and uranium in Canada, South Africa and Brazil.
- THAT I am a Director of Geoscience with Equity Exploration Consultants Ltd. ("Equity"), a geological consulting and contracting firm, and have been employed with Equity since April 2011.
- THAT I have read the definition of "independence" set out in Part 1.5 of National Instrument 43-101 ("NI 43-101") and certify that I am independent of Balmoral Resources Ltd.
- THAT I have examined the property which is the subject of the Technical Report in the field (26, 27 February 2018) and that I have previously managed exploration on the Martinière Property for Equity, on behalf of Balmoral Resources Ltd, in 2012, 2013, 2014 and 2015.
- THAT I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- THAT as of the effective date of the Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- THAT I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form. I am entirely responsible for sections 1.0 to 12.0, as well as 15.0 to 18.0 of this Technical Report.
- THAT I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated at Vancouver, British Columbia, with effective date of March 27, 2018:

"signed and sealed"

Ronald Voordouw, P.Geo., Ph.D.

27 March 2018



# QUALIFIED PERSON'S CERTIFICATE

I, Marc Jutras, P. Eng., M.A.Sc., do hereby certify that:

- THAT I am a professional engineer and Principal, Mineral Resources at Ginto Consulting Inc., a consulting company specializing in the estimation of mineral resources, with office at 333 West 17<sup>th</sup> Street, North Vancouver, British Columbia, V7M 1V9.
- THAT this certificate applies to the Technical Report entitled "2018 Technical (N.I. 43-101) Report on the Martinière Property" (the "Technical Report") with an effective date of March 27, 2018.
- THAT I am a graduate of the University of Québec in Chicoutimi in 1983, and hold a Bachelor's degree in Geological Engineering. I am also a graduate of the Ecole Polytechnique of Montréal in 1989, and hold a Master's degree of Applied Sciences in Geostatistics.
- THAT Since 1984, I have worked continuously in the field of mineral resource estimation of numerous international exploration projects and mining operations. I have been involved in the evaluation of mineral resources at various levels: preliminary studies, preliminary economic assessments, pre-feasibility studies, feasibility studies, and technical due diligence reviews.
- THAT I am a Registered Professional Engineer with the Engineers and Geoscientists British Columbia (license #24598), and a Registered Engineer with the Quebec Order of Engineers (license #38380).
- THAT I have read the definition of "Qualified Person" in National Instrument *43-101-Standards of Disclosure for Mineral Projects* ("NI-43-101") and according to NI 43-101 am a qualified person owing to my education, experience, and registration with professional associations.
- THAT I have not completed a site inspection of the Martiniere Gold Property due to winter weather conditions.
- THAT I have completed the estimation of the mineral resources of the Martiniere Gold Project.
- THAT I am independent of Balmoral Resources Ltd. as defined by section 1.5 of NI 43-101, and do not expect to become an insider, associate or employee of the issuer.
- THAT I am responsible for section 14.0 of this report.
- THAT as of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- THAT I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Dated at North Vancouver, British Columbia, with effective date of March 27, 2018:

"signed and sealed"

Marc Jutras, P. Eng., M.A.Sc.

27 March 2018

