Technical Report on the Gladiator and Moroy Deposits and the Bachelor Mine and Preliminary Economic Assessment on the Barry Deposit, Northwestern Québec, Canada Report for NI 43-101

Bonterra Resources Inc.

SLR Project No: 233.03336.R0000

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July 25, 2022

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1.0 SUMMARY

1.1 Executive Summary

SLR Consulting (Canada) Ltd. (SLR) was retained by Bonterra Resources Inc. (Bonterra) to prepare an independent Technical Report to support open pit mining operations at the Barry deposit. The purpose of this Technical Report is to document the results of a Preliminary Economic Assessment (PEA) for the Barry open pit deposit. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101). SLR and personnel from ASDR Canada Inc. (ASDR), Soutex Inc. (Soutex), and BBA Inc. (BBA) visited the Properties on multiple occasions, with the most recent site visits in October 2021 and May 2022.

Bonterra is a Québec based gold exploration company formed in May 2007 and is a reporting issuer in British Columbia, Alberta, Ontario, and Québec. The common shares of Bonterra trade on the TSX Venture Exchange (TSX-V) and the company is under the jurisdiction of the British Columbia Securities Commission. In addition to the Properties, Bonterra has an extensive portfolio of exploration properties, primarily in the Urban-Barry area of Québec.

Bonterra acquired the Properties by virtue of a court approved plan of arrangement completed on September 4, 2018, whereby Bonterra acquired all the issued and outstanding common shares of Metanor Resources Inc. (Metanor).

The Bonterra properties consists of the Gladiator, Barry, and Moroy gold deposits and the Bachelor Mine (collectively the Properties or the Projects). The Gladiator and Barry deposits both lie within the Urban-Barry Gold Camp, while the Bachelor Mine and connected Moroy deposit lie within the Bachelor Gold Camp, approximately 100 km north. The Bachelor Mine is an inactive underground mine which experienced intermittent production from the 1940s to 2018 and is currently under care and maintenance. The Moroy deposit is connected to the Bachelor Mine via an underground drift and hosts mineralization from surface. The Bachelor property is host to the fully permitted Bachelor processing plant (the Bachelor Plant). The Barry and Gladiator deposits host gold mineralization from surface in a series of steep to shallowly dipping veins. Material from the Barry deposit was mined from 2008 to 2010 in small open pits and processed at the Bachelor Plant. The Gladiator deposit is currently unmined.

Bonterra's current focus is the extraction of the Barry open pit Mineral Resources. SLR previously completed a Technical Report dated August 5, 2021, in support of the disclosure of Mineral Resource estimates for the Properties. The estimate of Mineral Resources within the Barry open pit deposit has been used as the basis of the PEA.

The PEA assesses an open pit mining scenario over five years, at a maximum rate of 8,000 tonnes per day (tpd, including waste mining). Proposed production totals 2.0 million tonnes (Mt) at an average grade of 2.36 g/t Au, containing 152,000 oz. A maximum milling rate of 1,200 tpd through the existing carbon-in-pulp (CIP) plant is expected to result in average annual production of 30,000 oz/year.

At a gold price of US$1,600/oz, the Project after-tax net present value (NPV) at a 10% discount rate is estimated to be C$35 million, and the internal rate of return (IRR) is 43%.

This PEA report is preliminary in nature and includes Inferred Mineral Resources which are considered too speculative in nature to be categorized as Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Additional work is required, including diamond

drilling, to convert Inferred Mineral Resources to Indicated or Measured Mineral Resources. There is no certainty that economic forecasts on which this PEA is based will be realized.

1.1.1 Conclusions

Positive PEA results were obtained for the Barry open pit project. An open pit operation at Barry would allow Bonterra to continue to advance plans for the other properties.

SLR, ASDR, BBA, and Soutex offer the following conclusions by area, for both the Barry open pit project and the other Properties:

1.1.1.1 Geology and Mineral Resources

- Mineral Resources are unchanged since the previous Technical Report.
- There is good potential to increase the Mineral Resource base for the Barry, Gladiator, and Moroy underground deposits, and additional exploration and technical studies are warranted.
- There is good understanding of the geology and nature of gold mineralization at the Properties. The deposits are all greenstone-hosted quartz carbonate vein deposits, with individual morphologies, structural controls, and mineralization styles.
- The sample collection, preparation, analytical, and security procedures, as well as the quality assurance/quality control (QA/QC) program as designed and implemented by Bonterra is adequate, and the assay results within the database are suitable for use in Mineral Resource estimation.
- Open pit Mineral Resources are a subset of Mineral Resources across the Properties:
  - Measured and Indicated Barry Mineral Resources amenable to open pit mining are estimated at 1.92 Mt grading 2.68 g/t Au and containing 165,000 oz Au.
  - Inferred Barry open pit Mineral Resources are estimated to total 15,000 tonnes (t) grading 2.36 g/t Au and containing 1,140 oz Au.

1.1.1.2 Mining

- Mining is proposed to be carried out by a mining contractor with oversight by owner's personnel.
- Mining will be carried out using conventional mining equipment for drilling, blasting, loading ore and waste material, and haulage of this material to the appropriate stockpile areas located on site.
- The overall slope angle of 45° for the Barry open pit is appropriate for the current level of geotechnical understanding.
- Previous work completed from 2008 to 2010 on a bulk sample of 50,000 t followed by open pit mining activities produced 617,489 t at a grade of 2.20 g/t Au, for a total of 43,682 oz Au and 5,727 oz Ag.
- The PEA results indicate that the Barry open pit Mineral Resources are economically viable with mining completed over a 4.8 year period.
- Mining will consist of extracting approximately 2.02 Mt grading 2.36 g/t Au over the LOM.
- Commencement of Barry open pit mining should be achieved with minimal delay, however, significant waste stripping would be required prior to mining of mineralized material.

- Pumping to dewater the pits and scaling to secure the pit walls will be required as well as removal of some waste material previously placed in the pit.
- Bonterra currently holds mining leases for both open and underground mining.
- Bonterra aims to ramp up mining in 2023, followed by steady state open pit production of mineralized material starting in 2024 once all relevant permits have been received.

1.1.1.3 Mineral Processing

- The Bachelor Plant is currently on care and maintenance. Gold recoveries between 2013 and 2018 were reported to be consistently between 96.1% and 97.1%.
- A bulk sample from the Moroy Project was successfully processed in the Bachelor Plant in 2020, under the planning and supervision of Soutex Inc. (Soutex). SLR notes that no further supporting information regarding the representativeness of the bulk sample or the type of mineralization was provided. The test results demonstrated that the Moroy material could be processed at an average feed grade of 3.87 g/t Au to achieve 94.87% gold recovery. The presence of any elements that could have a deleterious effect on gold extraction were not identified.
- Historical metallurgical testing was conducted by various parties between 2011 and 2016. SLR was unable to confirm the representativeness of the metallurgical samples used in the series of test programs conducted for the Barry deposit, and the presence of any elements that could have a deleterious effect on gold extraction were not identified. The best gold recoveries in historical test work were achieved from grinding to a particle size of 80% passing (P_{80}) 75 µm, followed by gravity concentration and cyanidation of gravity tails, which resulted in overall gold recoveries averaging between 93.8% and 94.9%. Two tests performed with a particle size of P_{80} 92 µm and 53 µm resulted in overall gold recoveries of 96.5% and 97.1% respectively. A 95% gold recovery is therefore considered to be more realistic. The QP considers the historical metallurgical testing conducted on the Barry deposit to be preliminary in nature.
- A single composite sample was prepared by ALS Limited (ALS) for the 2018 Gladiator Project metallurgical test program. Details regarding core sample and composite sample preparation, location, or representativeness were not reported by ALS. The presence of any elements that could have a deleterious effect on gold extraction were also not identified. Based on preliminary metallurgical testing, Gladiator mineralization could be processed by a combined gravity and rougher flotation recovery to a bulk concentrate or cyanide leaching of the combined gravity and pan tailing.

1.1.1.4 Infrastructure

- As both the Bachelor and Barry sites have had mining and processing activities in a recent past, there are minimal requirements for new infrastructure which will consist primarily in the upgrade of some portions of the 110 km haul road between Barry and Bachelor.
- The Barry site infrastructure upgrades and additions include:
    - Camp and office upgrades
    - Addition of fueling capacity, a wash bay, and some garage and warehousing capacities
    - A small temporary water treatment plant
- The Bachelor site needs a new garage for the loader.

1.1.1.5 Costs and Economics

- The economic analysis on the Barry open pit deposit demonstrates that the Mineral Resources are economically viable at a flat gold price of US$1,600/oz Au. The after-tax IRR is 43.1% and the after-tax NPV at a 10% discount rate is US$35.3 million.
- The exchange rate used in this Technical Report is: US$1 = C$1.33.
- The deposit is most sensitive to changes in metal prices, head grade, and metallurgical recoveries, followed by operating costs and capital costs.
- The sensitivity analysis shows that for total operating costs of C$105/t milled the Barry open pit deposit reaches break-even point. Bonterra needs to carefully manage operating costs to avoid costs beyond this limit.

1.1.2 Recommendations

The PEA results indicate that advancement to the level of Pre-Feasibility Study (PFS) is merited for the Barry open pit project.

SLR, ASDR, BBA, and Soutex offer the following specific recommendations by area:

1.1.2.1 Geology and Mineral Resources

1. SLR has reviewed Bonterra's plans for exploration. No further resource drilling is necessary for the Barry open pit project, however, exploration and infill drilling is merited to further assess the potential beyond the open pit mine life. The Barry open pit project provides some time and cash flow to support this drilling.
2. Undertake the following activities to improve the QA/QC data program on the Properties:
    - Prepare quarterly and annual QA/QC reports across the Projects which evaluate longer term trends and contextualize results from the individual properties.
    - Implement a program of 50 to 100 field and coarse duplicate samples, particularly at Gladiator, to help understand the duplicate sample results.
    - Investigate and resolve the low biases observed for all grade ranges at the Bachelor Laboratory and work with Bachelor Laboratory to determine if pulp duplicate and check assay results from Gladiator can be improved with procedural modifications.
3. For the purposes of Mineral Resource estimation, continue efforts to enter all chip sample information into the drill hole database as pseudo-drill holes that span the full width of the face of the development heading and consider modelling mineralization domains using a minimum thickness criterion.
4. Ensure that certificate and sample ID columns are included in the Leapfrog project drill and sample databases in future project work.

1.1.2.2 Mining

1.1.2.2.1 Geotechnical

1. Collect additional geotechnical data for rock structure, rock mass classification and geomechanical testing to gain a broader understanding of properties of the rock mass over the Barry deposit area.
2. Conduct a thorough geotechnical assessment to confirm the slope geometry and realize any upside potential.

1.1.2.2.2 Mining

1. Conduct additional studies to further optimize the Barry open pit drilling patterns.
2. Conduct additional studies to further assess and develop the final location and restoration plan for the waste stockpiles.
3. Consider the use of larger haulage units (>50 t) in future studies and access their impact on haulage costs.

1.1.2.3 Mineral Processing

1. Conduct a cyanide leach test to confirm the process design criteria as the next feasibility step.
2. Continue to conduct large scale mill test campaigns when possible and ongoing metallurgical test work programs to better understand metallurgical performance.
3. Conduct further metallurgical testing at the Barry deposit on samples representative of the material to be mined over the life of mine (LOM) plan. Complete mineralogical examinations and comminution testing in conjunction with additional metallurgical testing of the Barry mineralization to confirm the metallurgical response and gold recoveries observed in historical testing.
4. Add a new electric induction smelting furnace to the CIP circuit.

1.1.2.4 Infrastructure

1. Conduct geotechnical, hydrogeological, and hydraulic studies to obtain sufficient data to complete the design of the infrastructure.
2. Assess water quality and quantity to be treated from Barry open pit operations to finalize water treatment needs and infrastructures.
3. Better develop mining and hauling contractor's role to define more accurately the mine infrastructure needs.

1.1.2.5 Environment

1. In June 2020, the Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC) issued the new guidelines for the geochemical characterization of ore and mining waste. The number of waste rock samples for each type of lithology required for analysis is quite large. Since the tonnage of waste has increased, it is likely that MELCC will require complementary analysis. In this context, it is recommended that Bonterra begin a complementary geochemical characterization program rapidly. Static testing must be carried out and kinetic testing (humidity cells) would be a very good option.

2. The increased operations at the Barry site for up to 2 Mt of ore extraction to be processed at the Bachelor facilities will generate air emissions and greenhouse gas (GHG). Atmospheric modelling and emission estimates should be completed as soon as possible in order to develop mitigation measures.
3. Additional waste rock storage capacity will be needed to accommodate for the development of the open pits at the Barry site. An opportunity being considered involves merging the existing waste rock piles No. 1 and No. 2 and elevating the combined pile to a maximum height of 30 m. The merged and elevated waste rock pile will also need to be extended south by approximately 190 m. This concept would allow for the storage of additional waste rock mostly within the footprint of currently disturbed areas and would ensure that wetlands and waterbodies in proximity to the Barry site are not overprinted or affected. Moreover, the concept would limit the transport of waste rock further away from the open pits and thus limit GHG emissions. The increase of the height of the waste pile from 15 m to 30 m should have a limited impact on the visual milieu given the considerable distance from local communities.

1.1.3 Proposed Work Program and Budget

A budget for the above recommendations is summarized in Table 1-1.

Table 1-1: Barry Open Pit Project Proposed Budget
Bonterra Resources Inc. – Barry Open Pit Project

Item	Cost (C$000)
PFS on the Barry Open Pit Project	
Geotechnical Drilling	300
Engineering Studies	600
Environmental and Geochemical Studies	100
Metallurgical Testing (cyanide leach test)	25
Social Consultation	75
Subtotal	1,100
Contingency (10%)	100
Total	**1,200**

1.2 Economic Analysis

The economic analysis contained in this Technical Report is based on Bonterra's Barry open pit deposit Mineral Resources estimate, economic assumptions, and capital and operating costs provided by Bonterra's technical team, and SLR estimates. All costs in this section are expressed in Canadian dollars (C$) and all measurements are in metric values. Unless otherwise stated, all costs in this section of the Technical Report are expressed without allowance for escalation or currency fluctuation. The exchange rate used in this Technical Report is: US$1 = C$1.33.

This PEA report is preliminary in nature and includes Inferred Mineral Resources which are considered too speculative in nature to be categorized as Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Additional work is required, including diamond

drilling to convert Inferred Mineral Resources to Indicated or Measured Mineral Resources. There is no certainty that economic forecasts on which this PEA is based will be realized.

A summary of the key project criteria is provided in the subsequent subsections.

1.2.1 Economic Criteria

1.2.1.1 Physicals

- Mine life: 4.8 year LOM (between Q3 2023 and Q2 2028)
- Open Pit operations
    - Total ore tonnes mined: 2.0 Mt at 2.36 g/t Au
    - Overburden tonnes 0.8 Mt
    - Waste rock tonnes: 10.0 Mt
    - Waste stripping ratio 5.4:1
    - Maximum mining rate: 8,000 tpd (ore + waste)
- Processing of Mineral Reserves:
    - Total Ore Feed to Plant: 2.0 Mt
    - Gold grade: 2.36 g/t Au
    - Maximum milling rate: 1,200 tpd
    - Contained Gold: 152,684 oz Au
    - Average LOM Plant Recovery 95%
    - Recovered Gold: 145,050 oz Au

1.2.1.2 Revenue

- For the purposes of the economic analysis described in this section, revenue is estimated over the LOM with a flat long term price of US$1,600/oz Au (C$2,133/oz Au). SLR considers this price to be aligned with latest industry consensus long term forecast prices.
- Transportation, insurance, and refining charges are estimated at US$5.00/oz Au over the LOM. Payable metals are estimated at 99.0% for gold.
- NSR royalties: Different deposit royalties range between 0.5% and 1.8% NSR. Bonterra has buy back options on two of those royalties amounting to C$1 million and C$2 million, respectively, which have been considered in the PEA.
- LOM net revenue is CS$290.5 million (after Refining Charges and Royalties).

1.2.1.3 Capital Costs

- Total initial capital costs total C$22.1 million
- Total sustaining capital costs total C$21.3 million
- Closure costs of C$6.5 million are included in the analysis at the end of the LOM (between years 2028 and 2029).

1.2.1.4 Operating Costs

- Open Pit mining: C$5.31/t ore mined (C$33.87/t ore milled)
- Processing: C$19.07/t ore milled
- Trucking to plant: C$16.00/t ore milled
- G&A C$12.33/t ore milled
- Total unit operating costs C$81.27/t ore milled
- LOM total operating costs C$163.9 million

1.2.1.5 Taxation and Royalties

- Taxes were estimated by Raymond Chabot Grant Thornton LLP, tax advisor for Bonterra. SLR has relied on Raymond Chabot Grant Thornton LLP's taxation schedules for the calculation of income and mining taxes applicable to the cash flow.
- Income tax is payable to the Federal Government of Canada, pursuant to the Income Tax Act (Canada). The applicable Federal income tax rate is 15% of taxable income.
- Income tax is payable to the Province of Québec at a tax rate of 11.5% of taxable income.
- Québec Mining Tax: An operator's minimum mining tax, for a fiscal year, is calculated on the mine-mouth output value for all the mines it operates. A tax rate of 1% applies to the first $80 million of the mine-mouth output value and a rate of 4% applies to the excess.
- Royalties: Different deposit royalties range between 0.5% and 1.8% NSR. Refer to subsection 4.6 Royalties of this report for a complete list of the royalties. The cash flow considers, as advised by Bonterra's senior management, the following buy back royalties reduction options:
    - Sandstorm royalty reduction from 3.9% NSR to 1.8% NSR by exercising the option with a US$2.0 million payment assumed in Year 1 of the LOM (2023).
    - Société de développement de la Baie James (SDBJ) royalty and Duval royalty reduction from 2% NSR to 1% NSR each by exercising for each royalty the C$0.5 million payment option assumed in Year 1 of the LOM (2023). Total of C$1 million for both royalties.

1.2.2 Cash Flow

SLR prepared an LOM unlevered after-tax cash flow model to confirm the economics of the Barry open pit deposit over the LOM (between 2023 and 2028). Economics have been evaluated using the discounted cash flow method by considering annual processed tonnages and gold grade of ore. The associated process recovery, gold prices, operating costs, refining and transportation charges, royalties, and capital expenditures were also considered. The inputs for the cash flow model were provided to SLR by Bonterra's technical teams. The financial model does not consider the following components:

- Financing costs
- Insurance
- Overhead costs for corporate office

SLR has relied on Bonterra and its tax advisor, Raymond Chabot Grant Thornton LLP (RCMP) for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from the Projects. An after-tax cash flow summary is presented in Table 1-2. All costs are in Q1 2022 C$ with no allowance for inflation.

Table 1-2: Barry Open Pit Project After-Tax Cash Flow Summary
Bonterra Resources Inc. – Barry Open Pit Project

	Units	LOM Avg / Total
Market Price		
Gold	US$/oz	1,600
Physicals		
Open Pit Ore Mined	kt	2,016
Au Grade Mined	g/t	2.36
Waste + Overburden	kt	10,838
Waste:Ore Ratio	W:O	5.37
Total Material Mined	**kt**	**12,854**
Total Ore Processed	**kt**	**2,016**
Gold Grade, Processed	g/t	2.36
Contained Gold, Processed	oz	152,684
Average Recovery, Gold	%	95.0%
Recovered Gold	oz	145,050
Payable Gold	oz	143,599
Cash Flow		
Gold Gross Revenue (100%)	C$000	306,345
Gross Revenue Before By-Product Credits (100%)	**C$000**	**306,345**
Gold Gross Revenue	C$000	306,345
Gross Revenue After By-Product Credits	**C$000**	**306,345**
Mining Cost	C$000	(68,308)
Process Cost	C$000	(38,455)
Trucking to plant	C$000	(32,264)
G&A Cost	C$000	(24,864)
Offsite Transport/Treatment/Refining Cost ($0.01/oz)	C$000	(967)
Royalties	C$000	(14,889)
Subtotal Cash Costs Before By-Product Credits	C$000	(179,746)
By-Product Credits	C$000	-
Total Cash Costs After By-Product Credits	**C$000**	**(179,746)**

	Units	LOM Avg / Total
Operating Margin (41%)	**C$000**	**126,599**
Other Admin Expenses (Corporate)	C$000	-
EBITDA	**C$000**	**126,599**
Depreciation/Amortization Allowance	C$000	(43,384)
Earnings Before Taxes	**C$000**	**83,215**
Corporate taxes	C$000	-
Mining taxes	C$000	(11,058)
Net Income	**C$000**	**72,157**
Non-Cash Add Back – Depreciation/Amortization	C$000	43,384
Working Capital	C$000	(0)
Operating Cash Flow	**C$000**	**115,540**
Initial Capital	C$000	(22,096)
Sustaining Capital	C$000	(21,288)
Closure/Reclamation Capital	C$000	(6,498)
Total Capital	**C$000**	**(49,882)**
LOM Metrics		
a) Pre-Tax		
Free Cash Flow	C$000	76,717
NPV @ 10%	C$000	42,697
IRR before tax	%	49.1%
Payback period	Years	3.17
b) After-Tax		
Free Cash Flow	C$000	65,659
NPV @ 10%	C$000	35,291
IRR after tax	%	43.1%
Payback period	Years	3.40

1.2.3 Cash Flow Analysis

The economic analysis demonstrates that the Barry open pit Mineral Resources are economically viable at a flat gold price of US$1,600/oz Au. The pre-tax internal rate of return (IRR) is 49.1% and the after-tax IRR is 43.1%. The pre-tax net present value (NPV) at a 10% discount rate is C$42.7 million and the after-tax NPV at a 10% discount is C$35.3 million.

The summary of the results of the cash flow analysis is presented in Table 1-3.

Table 1-3: Barry Open Pit Project Cash Flow Analysis
Bonterra Resources Inc. – Barry Open Pit Project

Item	Discount Rate	Units	Value
Pre-tax IRR		**%**	**49.1%**
Pre-tax NPV at 5% discount	5%	C$ million	57.3
Pre-tax NPV at 10% discount	**10%**	**C$ million**	**42.7**
Pre-tax NPV at 15% discount	15%	C$ million	31.7
Pre-Tax Payback		**years**	**3.17**
After-Tax IRR		**%**	**43.1%**
After-Tax NPV at 5% discount	5%	C$ million	48.3
After-Tax NPV at 10% discount	**10%**	**C$ million**	**35.3**
After-tax NPV at 15% discount	15%	C$ million	25.5
After-Tax Payback		**years**	**3.40**

The undiscounted pre-tax cash flow is C$76.7 million, and the undiscounted after-tax cash flow is C$65.7million.

The current World Gold Council adjusted operating cost is US$939/oz Au (C$1,252/oz Au). The mine life sustaining capital cost is C$169/oz Au, for an all in sustaining cost of US$1,065/oz Au (C$1,420/oz Au). Mine average annual gold production during the four years of full production is approximately 30,000 oz Au/year between 2023 and 2027.

1.2.4 Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities on after-tax NPV at a 10% discount rate. The following parameters were examined:

- Gold metal price
- Gold head grade
- Gold metallurgical recovery
- Operating costs
- Capital costs (Initial, sustaining, and closure)

After-tax sensitivity over the base case has been calculated for -20% to +20% for gold grade, -4% to +2% for gold recovery, -20% and +25 for gold price, and -15% to +35% for operating costs and capital costs variations to determine the most sensitive parameter of the project. The sensitivities are presented in Table 1-4 and Figure 1-1.

Table 1-4: After-Tax Sensitivity Analysis
Bonterra Resources Inc. – Barry Open Pit Project

	Head Grade (g/t Au)	NPV at 10% (C$000)
80%	1.88	($5,431)
90%	2.12	$14,930
100%	**2.36**	**$35,291**
110%	2.59	$55,651
120%	2.83	$76,012
	Recovery (% Au)	**NPV at 10% (C$000)**
96%	91%	$26,739
98%	93%	$31,015
100%	**95%**	**$35,291**
101%	96%	$37,327
102%	97%	$39,566
	Metal Price (C$/oz Au)	**NPV at 10% (C$000)**
81%	$1,300	($3,007)
91%	$1,450	$16,152
100%	**$1,600**	**$35,291**
113%	$1,800	$60,822
125%	$2,000	$86,354
	Operating Costs (C$/t)	**NPV at 10% (C$000)**
85%	$69.08	$53,023
92.5%	$75.18	$44,157
100%	**$81.27**	**$35,291**
117.5%	$95.50	$14,603
135%	$109.72	($6,085)

	Capital Costs (C$000)	NPV at 10% (C$000)
85%	$42,400	$41,510
92.5%	$46,141	$38,400
100%	**$49,882**	**$35,291**
117.5%	$58,611	$28,034
135%	$67,341	$20,778

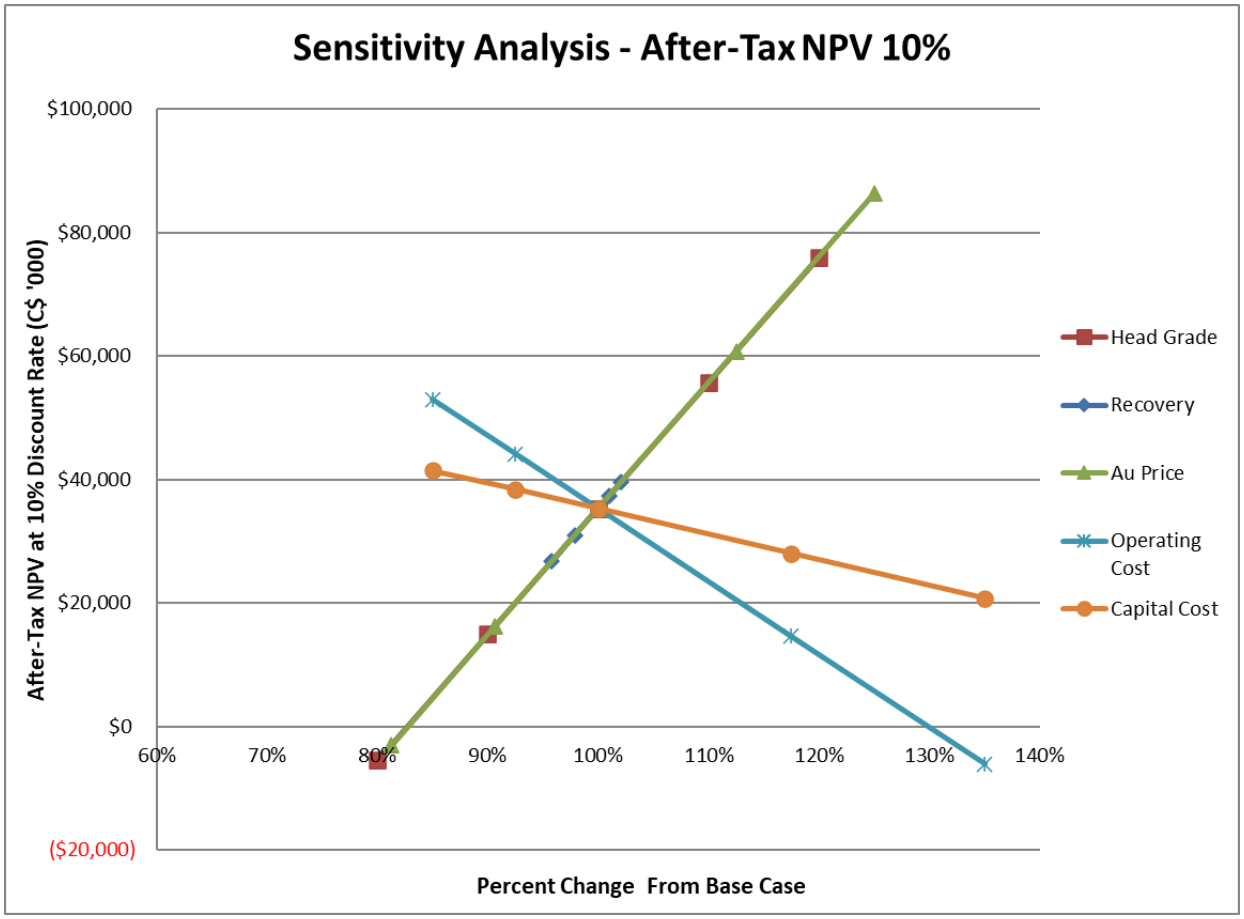


Figure 1-1: After-tax NPV at 10% Sensitivity Analysis

The project is most sensitive to changes in metal prices, head grade, and metallurgical recoveries, followed by operating costs and capital costs.

SLR notes that at current gold spot price of US$1,850/oz of Au, the project's pre-tax IRR is 78.8% and after-tax IRR is 73.2%, pre-tax NPV at a 10% discount rate is C$74.6 million, and after-tax NPV at a 10% discount is C$67.2 million

1.3 Technical Summary

1.3.1 Property Description and Location

The Bachelor-Desmaraisville property, host to the Bachelor Mine and adjacent Moroy deposit, and the neighbouring Urban-Barry property, host to the Barry and Gladiator deposits, are located approximately 100 km apart and approximately 250 km from Val-d'Or, Québec, Canada.

1.3.2 Land Tenure

The Bachelor-Desmaraisville property includes one mining lease, one mining concession, and 494 exploration claims, 58 of which cover the Nelligan Joint Venture area, for a total of 496 claims over 25,759 ha. The Nelligan Joint Venture is between Bonterra (70%) and Alexandria Minerals Corporation, a wholly owned subsidiary of O3 Mining Inc. (30%).

The Urban-Barry property includes 379 exploration claims totalling 17,374 ha, and one mining lease in addition to adjoining Duke and Lac Barry Joint Ventures. The Duke agreement was initiated in 2018 with Beaufield Resources Inc. (now Osisko Mining Inc.). Bonterra's earn-in agreement to acquire a 70% interest was completed in July 2021. Bonterra holds an 85% interest in the Lac Barry Joint Venture claims, with the remaining 15% held by Golden Valley Mines Ltd (now Gold Royalties). The total land package for the Urban-Barry property totals 496 claims over 22,508 ha.

1.3.3 Existing Infrastructure

Surface infrastructure at the Bachelor-Desmaraisville property consists of underground infrastructure support for Bachelor Mine including hoistroom, compressor room, headframe, and shaft. Underground infrastructure connects the Bachelor Mine and the Moroy deposit. Additional surface infrastructure includes a tailings pond, polishing pond, dykes and drainage ditches, and buildings (camp facility, administrative offices, warehouse, garage, and storage facilities). Power supply is accessed via two 25 kV Hydro Québec power lines. The Bachelor-Desmaraisville property is host to a permitted mill facility including an assay laboratory, refinery, and crushing room. The mill facility will be used to process the feed from the Barry open pit. Some minor investment will be made to permit a processing rate increase to 1,200 tpd from the current 800 tpd capacity.

Within the Urban-Barry property, the Barry deposit area hosts upgraded camp facilities, a core logging and splitting facility, two diesel generators to power the site facilities, and fuel tanks. There are three small open pits and 1,172 m of underground development, including an 823 m ramp on the Urban-Barry property.

A major hydro electric line owned by Hydro Québec crosses through the center of the property between the Barry and Gladiator properties. The Gladiator property is located approximately ten kilometres from the Barry property and has camp and core logging and storage facilities, in addition to a similar generator set up for power with accompanying fuel storage. For the current PEA study, the Barry mine will be operated using diesel power only.

1.3.4 History

The Barry deposit was discovered in 1982 following several years of government and company led exploration activities in the area. Several companies conducted exploration and drilling activities between 1962 and 2014, most notably Murgor Resources Inc. and their partners. Metanor acquired the Barry

deposit in 2016 and performed extensive drilling and exploration activities including stripping and geophysical surveys. Metanor completed a 50,000 t bulk sample in 2008 and undertook open pit mining activities from 2008 until 2010, producing approximately 44,000 oz Au which were processed at the Bachelor Plant. Bonterra acquired all of Metanor's properties by virtue of a court approved plan of arrangement completed in 2018.

1.3.5 Geology and Mineralization

The Properties are located in the northern portion of the Abitibi Subprovince of the Superior Province in northwestern Québec, and all four gold deposits are characterized as Greenstone-hosted quartz carbonate veins typical of the region.

The Moroy deposit is currently defined within six, mostly steeply dipping vein clusters, some of which continue to surface. The Bachelor deposit is a steeply dipping series of quartz-carbonate veins. Both the Bachelor and Moroy deposits exhibit similar mineralization styles.

The Barry deposit model is characterized by veins grouped within six shallow to steeply dipping vein sets from surface to 650 m in depth. Gold mineralization at Barry is constrained to zones containing 5% to 15% albite-carbonate-quartz veins and their associated hydrothermally altered wall rocks. Veins locally pinch and swell or are boudinaged with biotite generally filling the cusps. Gold grades in mineralized veins and altered mafic volcanic rocks range from less than 2 g/t Au to more than 100 g/t Au.

Gold mineralization at Gladiator is hosted within sheared veins of quartz-carbonate composition, which range in thickness from less than one metre to four metres and can extend over a kilometre along strike. Veins are divided into four main intersecting groups which dip either moderately or steeply to the south. Economic gold grades tend to occur over shorter ranges within larger structures and is currently understood to be mostly present as free gold.

Both the Bachelor-Desmaraisville property and the Urban-Barry property host several prospects with varying levels of exploration work completed.

1.3.6 Exploration Status

Bonterra holds a large land package, and in addition to their portfolio of deposits, there are several prospective prospects which have seen various levels of exploration from prospecting to drill programs by Bonterra and historical operators. Exploration work outside of drilling at the Properties completed by Bonterra includes a high-resolution heliborne magnetic survey over Gladiator in 2018, over 1,100 m of underground development, including an 823 m ramp at Barry, also in 2018, and an underground drift connecting Bachelor Mine and Moroy deposit in 2017. Bonterra continues to undertake drill programs aimed at expanding Mineral Resources at the Properties as well as to test exploration prospects over the claim areas.

1.3.7 Mineral Resources

Mineral Resource estimates for Projects were prepared by SLR using available drill hole and channel sample data as of June 1, 2021. Mineral Resource estimates are based on the following drill hole and channel information for each deposit:

- Bachelor: 1,282 assays from 162 channels (1,909 ft; 582 m) and 210 drill holes (90,684 ft; 27,641 m) completed from 2018 to 2021.

- Moroy: 2,065 assays from 450 channels (4,374 ft; 1,333 m) and 249 drill holes (193,929; 59,110 m) completed from 2013 to 2021.
- Barry: 10,570 assays from 183,182 m in 744 diamond drill holes completed from 1983 to 2021.
- Gladiator: 5,962 assays from 201,946 m of diamond drilling in 377 diamond drill holes completed from 1997 to 2021.

Mineralization domains representing vein structures and clusters within structural groups were defined in Leapfrog Geo software, while sub-block model estimates were completed within Leapfrog Edge or Datamine software, using either one metre or full-length capped composites and a multi-pass inverse distance cubed (ID^3) interpolation approach. Blocks were classified considering local drill hole spacing and proximity to existing development. Class groupings were based on criteria developed using continuity models (variograms) and modified to reflect geological understanding and to ensure cohesive classification shapes.

Wireframe and block model validation procedures including wireframe to block volume confirmation, statistical comparisons with composite and nearest neighbour (NN) estimates, swath plots, visual reviews in 3D, longitudinal, cross section, and plan views, as well as cross software reporting confirmation were completed for all deposits.

Underground constraining shapes at Gladiator, Barry, and Bachelor were optimized using Deswik stope optimizer software. The limit of the open pit Mineral Resource shell at Barry was optimized using Geovia Whittle software and was determined with consideration to underground mining costs. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate. A 50 m crown pillar below the base of overburden has been excluded from the Mineral Resource at both Gladiator and Moroy. In addition to SLR's internal peer and senior review processes, Bonterra's technical team and external consultants, SGS, have reviewed the Mineral Resource estimate as presented in Table 1-5.

Table 1-5: Summary of Mineral Resources – June 1, 2021
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Open Pit (Barry Deposit)			
Measured	1,732	2.66	148
Indicated	184	2.87	17
Measured + Indicated	1,916	2.68	165
Inferred	15	2.36	1
Underground (Barry, Gladiator, and Moroy Deposits and Bachelor Mine)			
Measured	470	5.06	77
Indicated	5,019	6.20	1,000
Measured + Indicated	5,489	6.10	1,077
Inferred	9,152	6.05	1,780
Combined Open Pit and Underground (All deposits)			
Measured	2,202	3.17	225
Indicated	5,203	6.08	1,017
Measured + Indicated	7,405	5.21	1,242
Inferred	9,167	6.05	1,781

Notes:

1. Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were followed for Mineral Resources.
2. Bachelor and Moroy underground Mineral Resources are estimated at cut-off grades of 2.40 g/t Au or 3.0 g/t Au, domain dependent. Gladiator and Barry underground Mineral Resources are estimated at a cut-off grade of 2.60 g/t Au. Open pit Mineral Resources at Barry are estimated at a cut-off grade of 1.0 g/t Au.
3. Mineral Resources are estimated using a long term gold price of US$1,600/oz Au, and a US$/C$ exchange rate of 1.33.
4. A minimum mining width of 1.2 m was used.
5. Bulk density varies by deposit and lithology and ranges from 2.70 t/m^3 to 2.83 t/m^3.
6. Open pit and underground Mineral Resources at Barry, Gladiator, and Bachelor Mine, are reported within a conceptual open pit (Barry only) and underground constraining shapes, respectively.
7. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate.
8. Underground Mineral Resources at Moroy are reported above cut-off grade as well as above grade-thickness values of 2.88 g/t Au per metre and 3.60 g/t Au per metre, domain dependent.
9. Crown pillars of 50 m were applied at Moroy and Gladiator.
10. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
11. Numbers may not add due to rounding.

The Qualified Person (QP) is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

1.3.8 Mining

The PEA results indicate that the Barry open pit Mineral Resources are economically viable, with mining completed over a 4.8 year period using conventional open pit mining equipment for drilling, loading, and haulage. Mineralized material will be transported, using contractor haul trucks, to the Bachelor Plant approximately 110 km from the mine site. Mining will consist of extracting approximately 2.02 Mt grading 2.36 g/t Au over the LOM period. Mining is carried out at a daily rate of 1,200 tonnes of mineralized material which will be transported to the Bachelor Plant. A waste stripping ratio of 5.37:1 results in a daily mining rate of approximately 8,000 tpd of mineralized and waste material over the mine life.

1.3.9 Recovery

The Bachelor Plant is currently on care and maintenance, however, the gold recoveries achieved between 2013 and 2018 were reported to be consistently between 96.1% and 97.1%. As of the effective date of this Technical Report, an expansion is planned to increase the throughput to 1,200 tpd feed to accommodate the Barry mineralized material.

The increase of the current 800 tpd capacity to 1,200 tpd will require additional equipment and piping installations. An additional 535 hp ball mill will be installed in parallel with the existing ball mill, a high capacity feedwell will be installed, a carbon screen and carbon pump added, and slurry pumps will be modified to match the new capacity. A new induction furnace will also be installed to facilitate the process of gold pours.

Bonterra has not completed any metallurgical testing related to the Barry mineralization since acquiring the Barry deposit in 2018. Historical metallurgical testing was conducted by various parties between 2011 and 2016.

The best gold recoveries in historical test work were achieved from grinding to a particle of size of P_{80} 75 µm, followed by gravity concentration and cyanidation of gravity tails, which resulted in overall gold recoveries averaging between 93.8% and 94.9%. Two tests performed with a particle size of P_{80} 92 µm and 53 µm resulted in overall gold recoveries of 96.5% and 97.1% respectively. A 95% gold recovery is therefore considered to be more realistic. The calculated head assays for the composite samples used in these diagnostic leach tests ranged from 0.69 g/t Au to 5.18 g/t Au.

1.3.10 Infrastructure

The Barry mine site will require the addition of several dormitories (trailers) to provide the required capacity for the site personnel. A garage will be installed to provide the required maintenance facility for the open pit mining and other surface equipment. Supply and installation of the garage will be negotiated with the open pit mining contractor and sufficient cost has been included to cover this facility. A wash bay will also be provided to enable washing the units as required. A small temporary water treatment facility will be installed to address water management requirements. The site is currently self sufficient as drilling activities have been ongoing for some time. Diesel gensets are also located on site and can provide the power requirements for the open pit mining operation.

1.3.11 Environmental and Social Considerations

1.3.11.1 Environmental Studies

As part of the Bachelor Mine and Barry deposit development, numerous environmental studies have been completed to inform the baseline conditions at the sites. Information related to the atmospheric environment, hydrology and hydrogeology, sediment, geochemistry, vegetation, wildlife, and human environment, among others, have been collected and analyzed over the years. There are known environmental issues and potential risks associated with the biophysical environment, hydrogeology, final effluent, and Environmental Effects Monitoring (EEM) Phase 1.

The Project is subject to the environmental and social impact assessment and review procedure under Chapter 22 of the James Bay and Northern Quebec Agreement (JBNQA) and paragraph A of Chapter II of the Environment Quality Act (EQA). The processing of gold ore from the Barry and Moroy projects at the Bachelor Site is currently under review with the Comité d'examen des répercussions sur l'environnement et le milieu social (COMEX). Following the environmental assessment process and obtaining the decree of the Government of Québec, Bonterra will submit the applications for authorization required for the implementation of the project.

1.3.11.2 Waste and Tailings Disposal, Site Monitoring, and Water Management

The Barry open pit project will generate approximately 10.8 Mt (5.4 Mm^3) of waste rock and overburden. Additional waste rock storage capacity will be required to accommodate the development of the open pits on the Barry property. A third waste rock pile is proposed on the east side of the open pit area, along the access road. There is one temporary ore storage area at the Barry property and three new temporary ore piles will be developed at the Bachelor property. Contact water at the Barry property will be collected in ditches and conveyed to the treatment ponds (settling and polishing).

Bonterra is currently subject to certain monitoring requirements at the Bachelor Mine and submits an annual follow-up report to the MELCC regarding the current conditions of authorization. All these elements will continue to be monitored.

1.3.11.3 Project Permitting

The Bachelor site holds numerous permits and authorizations that have been issued since the beginning of the project in 2004. The Barry site has also received a number of permits and authorization over the years. The proposed changes at the Barry and Bachelor sites will require new authorizations. An amendment to the Environmental Impact Assessment (EIA) to increase the operations at the Barry site to 2.00 Mt of ore will be required. The assessment and review procedure is conducted by the Environmental and Social Impact Review Committee (COMEX). Once this procedure is completed, various permits and authorizations applications will be filed with different provincial and federal departments. Approvals from the MELCC to increase the processing capacity at the Bachelor Plant and to increase operations at the Barry site to 2.0 Mt of ore will mainly be required. An update of the Barry Site Restoration Plan for the increased tonnage, as well as an approval for the intended site for waste rock storage area will be needed from the Ministry of Energy and Natural Resources (Ministère de l'Énergie et des Ressources Naturelles, or MERN). Forestry permits issued by the Ministère de la Faune, de la Forêt et des Parcs (MFFP) will be needed for clearing of the new waste rock pile.

1.3.11.4 Social and Community Requirements

In the early phases of the Barry open pit project development, a thorough communications and consultation process was established in 2018-2019 with key communities likely to be affected by the project. These communities include the Cree First Nation of Waswanipi (CFNW), Desmaraisville, and the Town of Lebel-sur-Quévillon (LSQ). An Exchange Committee, Collaborative Agreement, and Harmonization Committee have been established to support social and community requirements.

1.3.11.5 Mine Closure Requirements

Reclamation work will be conducted in accordance with the applicable rules of the " Guide de préparation du plan de réaménagement et de restauration des sites miniers au Québec" (MERN, 2017), Directive 019 (Ministère du développement durable, de l'environnement et des parcs, 2012), and any other applicable provisions such as the "Guide d'intervention - Protection des sols et réhabilitation des terrains contaminés" (MELCC, 2019) and the "Règlement sur la protection et la réhabilitation des terrains (c. Q-2, r. 37)". A revised version of the Barry Mine Site Remediation Plan was approved in September 2021. This plan will need to be updated to consider the proposed increase in tonnage.

1.3.12 Capital and Operating Costs

The capital and operating costs for the Barry open pit project were prepared at a PEA level of detail and accuracy considered to be from ±35% to ±45%.

The capital costs for the Barry open pit mining are summarized in Table 1-6.

Table 1-6: Capital Costs Barry Open Pit Mine
Bonterra Resources Inc. – Barry Open Pit Project

Direct Cost	Cost (C$000)
Mining	720
Processing	3,513
Infrastructure	11,145
Tailings – Initial	2,420
Total Direct Cost	17,798
Other Costs	
EPCM (Preproduction)	1,043
Owners, Insurance, Freight	1,527
Contingency (Tailings & Process)	1,727
Initial Capital Cost	22,096
Sustaining – Mine / Infrastructure / EPCM	3,190
Tailings – Sustaining	18,098
Reclamation and Closure	6,498
Total Capital Cost	49,882

Notes:

1. Engineering, Procurement and Construction Management (EPCM) on process, road construction and tailings.
2. Contingency on Year 1 and Year 2 processing and tailings.

The Barry open pit mine operating costs are summarized in Table 1-7.

Table 1-7: Operating Costs Barry Open Pit Mine
Bonterra Resources Inc. – Barry Open Pit Project

Description	Total Cost (C$000)	Unit Cost (C$/t milled)
Mining (Open Pit)	68,308	33.87
Processing	38,455	19.07
G&A	24,864	12.33
Trucking To Plant	32,264	16.00
Total Operating Cost	**163,890**	**81.27**

2.0 INTRODUCTION

SLR Consulting (Canada) Ltd. (SLR) was retained by Bonterra Resources Inc. (Bonterra) to prepare an independent Technical Report on open pit mining of the Barry gold deposit, located in northwestern Québec, Canada. The purpose of this Technical Report is to document the results of a Preliminary Economic Assessment (PEA) for the Barry open pit deposit. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

Bonterra is a Québec based gold exploration company formed in May 2007 and is a reporting issuer in British Columbia, Alberta, Ontario, and Québec. The common shares of Bonterra trade on the TSX Venture Exchange (TSX-V) and the company is under the jurisdiction of the British Columbia Securities Commission. In addition to the Properties, Bonterra has an extensive portfolio of exploration properties, primarily in the Urban-Barry area of Québec.

Bonterra acquired the Properties by virtue of a court approved plan of arrangement completed on September 4, 2018, whereby Bonterra acquired all the issued and outstanding common shares of Metanor Resources Inc. (Metanor).

The Bonterra properties consists of the Gladiator, Barry, and Moroy gold deposits and the Bachelor Mine (collectively the Properties or the Projects). The Gladiator and Barry deposits both lie within the Urban-Barry Gold Camp, while the Bachelor Mine and connected Moroy deposit lie within the Bachelor Gold Camp, approximately 100 km north. The Bachelor Mine is an inactive underground mine which experienced intermittent production from the 1940s to 2018 and is currently under care and maintenance. The Moroy deposit is connected to the Bachelor Mine via an underground drift and hosts mineralization from surface. The Bachelor property is host to the fully permitted Bachelor processing plant (the Bachelor Plant). The Barry and Gladiator deposits host gold mineralization from surface in a series of steep to shallowly dipping veins. Material from the Barry deposit was mined from 2008 to 2010 in small open pits and processed at the Bachelor Plant. The Gladiator deposit is currently unmined.

Bonterra's current focus is the extraction of the Barry open pit Mineral Resources. SLR previously completed a Technical Report dated August 5, 2021, in support of the disclosure of Mineral Resource estimates for the Properties. The estimate of Mineral Resources within the Barry open pit deposit has been used as the basis of the PEA.

This Technical Report is considered by SLR to meet the requirements of a Preliminary Economic Assessment as defined in Canadian NI 43-101 regulations. The economic analysis contained in this Technical Report is based, in part, on Inferred Mineral Resources, and is preliminary in nature. Inferred Mineral Resources are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that economic forecasts on which this PEA is based will be realized.

2.1 Sources of Information

SLR site visits were carried out by Ms. Valerie Wilson, M.Sc., P.Geo., SLR Principal Geologist, and Ms. Marie-Christine Gosselin, P.Geo., SLR Geologist from June 14 to June 15, 2021 and by Mr. Normand L. Lecuyer, ing., P. Eng., SLR Associate Principal Mining Engineer, on October 6, 2021. While at the Bachelor Mine, SLR visited the underground workings at Moroy, and surface infrastructure including the Bachelor assay laboratory (the Bachelor Laboratory). SLR visited the open pits at Barry, outcrop at Gladiator, and the core logging and processing facilities at all camps.

Mr. Guy Saucier, ing. P.Eng., Manager Mining and Metals Project Management & Engineering, ASDR Canada Inc. (ASDR), visited the Barry site on June 15, 2021 and the Bachelor site on June 16, 2021. Mr. Pierre Roy, M.Sc., ing., P.Eng., Metallurgist, Soutex Inc. (Soutex), visited the Bachelor site from September 8 to September 11, 2020. Mr. Luciano Piciacchia, Ph.D., ing., Managing Director Earth and Infrastructure, BBA Inc (BBA), visited the Bachelor site on May 3, 2022.

This Technical Report was prepared by Varun Bhundhoo, ing, SLR Senior Mining Engineer, Normand L. Lecuyer, ing., P.Eng., Valerie Wilson, M.Sc., P.Geo., Guy Saucier, ing. P.Eng., Pierre Roy, M.Sc., ing., P.Eng., and Luciano Piciacchia, Ph.D., ing., all of whom are independent Qualified Persons (QP). In preparation of her sections, Ms. Wilson was assisted by Marie-Christine Gosselin, P.Geo.

The QPs' responsibilities are listed in Table 2-1.

Table 2-1: QPs' Responsibilities
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

QP Name and Professional Designation	Company	Responsibilities
Varun Bhundhoo, ing.	SLR	Overall preparation of the Technical Report, in particular Sections 1.1.1.2, 1.1.1.5, 1.1.2.2, 1.1.3, 1.2, 1.3.8, 2, 3, 15, 16, 19, 22, 25.2, 25.5, 26.2, 26.6, and relevant references in Section 27
Normand Lecuyer, ing, P.Eng	SLR	Parts of Sections 1.1.1.4, 1.1.2.4, 1.3.10, Sections 1.3.12, 18.3 to 18.4, 18.6, 21, parts of Sections 25.4 and 26.4, and relevant references in Section 27
Valerie Wilson, M.Sc., P.Geo.	SLR	Sections 1.1.1.1, 1.1.2.1, 1.3.1 to 1.3.7, 4 to 12, 14, 25.1, 26.1, and relevant references in Section 27
Guy Saucier, ing. P.Eng.	ASDR	Parts of Sections 1.1.1.4, 1.1.2.4, 1.3.10, 18.1 to 18.2, parts of Sections 25.4 and 26.4, and relevant references in Section 27
Pierre Roy, M.Sc., ing., P.Eng.	Soutex	Sections 1.1.1.3, 1.1.2.3, 1.3.9, 13, 17, 25.3, 26.3, and relevant references in Section 27
Luciano Piciacchia, Ph.D., ing.	BBA	Sections 1.1.2.5, 1.3.11, 18.5, 20, 26.5, and relevant references in Section 27

Discussions were held with the following Bonterra personnel:

- Mr. Marc-André Pelletier, President & CEO
- Mr. Gilles Landry, Directeur Général
- Mr. Boris Artinian, P. Geo., Chief Geologist, Gladiator Deposit

The documentation reviewed, and other sources of information, are listed at the end of this Technical Report in Section 27 References.

2.2 List of Abbreviation

Units of measurement used in this Technical Report conform to the metric system. All currency in this Technical Report is Canadian dollars (US$) unless otherwise noted.

µ	micron
µg	microgram
a	annum
A	ampere
bbl	barrels
Btu	British thermal units
°C	degree Celsius
C$	Canadian dollars
cal	calorie
cfm	cubic feet per minute
cm	centimetre
cm^2	square centimetre
d	day
dia	diameter
dmt	dry metric tonne
dwt	dead-weight ton
°F	degree Fahrenheit
ft	foot
ft^2	square foot
ft^3	cubic foot
ft/s	foot per second
g	gram
G	giga (billion)
Gal	Imperial gallon
g/L	gram per litre
Gpm	Imperial gallons per minute
g/t	gram per tonne
gr/ft^3	grain per cubic foot
gr/m^3	grain per cubic metre
ha	hectare
hp	horsepower
hr	hour
Hz	hertz
in.	inch
in^2	square inch
J	joule
k	kilo (thousand)
kcal	kilocalorie
kg	kilogram
km	kilometre
km^2	square kilometre
km/h	kilometre per hour
kPa	kilopascal
kVA	kilovolt-amperes
kW	kilowatt
kWh	kilowatt-hour
L	litre
lb	pound
L/s	litres per second
m	metre
M	mega (million); molar
m^2	square metre
m^3	cubic metre
MASL	metres above sea level
m^3/h	cubic metres per hour
mi	mile
min	minute
µm	micrometre
mm	millimetre
mph	miles per hour
MVA	megavolt-amperes
MW	megawatt
MWh	megawatt-hour
oz	Troy ounce (31.1035g)
oz/st, opt	ounce per short ton
ppb	part per billion
ppm	part per million
psia	pound per square inch absolute
psig	pound per square inch gauge
RL	relative elevation
s	second
st	short ton
stpa	short ton per year
stpd	short ton per day
t	metric tonne
tpa	metric tonne per year
tpd	metric tonne per day
US$	United States dollar
Usg	United States gallon
Usgpm	US gallon per minute
V	volt
W	watt
wmt	wet metric tonne
wt%	weight percent
yd^3	cubic yard
yr	year

3.0 RELIANCE ON OTHER EXPERTS

This Technical Report has been prepared by SLR, ASDR, BBA, and Soutex for Bonterra. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR, ASDR, BBA, and Soutex at the time of preparation of this Technical Report.
- Assumptions, conditions, and qualifications as set forth in this Technical Report.

For this Technical Report, SLR has relied on ownership information provided by Bonterra. SLR has not researched property title or mineral rights for the Gladiator, Barry, and Moroy deposits and Bachelor Mine (the Projects) and expresses no opinion as to the ownership status of the Projects.

SLR has relied on Bonterra for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from the Projects.

Except for the purposes legislated under provincial securities laws, any use of this Technical Report by any third party is at that party's sole risk.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The general locations of the Bachelor-Desmaraisville Property (host to the Bachelor Mine and Moroy deposit) and processing facility, and the Urban-Barry Property (host to Gladiator and Barry deposits) are presented in Figure 4-1.

4.2 Land Tenure

Indexed land tenure maps for the Bachelor-Desmaraisville and Urban-Barry properties are presented in Figure 4-2 and Figure 4-3, respectively, and summarized in Table 4-1. For complete land tenure information reference Section 30.1.

The Bachelor-Desmaraisville Property includes one mining lease, one mining concession, and 494 exploration claims, 58 of which cover the Nelligan Joint Venture area, for a total of 496 claims over 25,759 ha. The Nelligan Joint Venture is between Bonterra (70%) and Alexandria Minerals Corporation, a wholly owned subsidiary of O3 Mining Inc. (30%).

The Urban-Barry Property includes 379 exploration claims totalling 17,374 ha, and one mining lease in addition to the adjoining Duke and Lac Barry Joint Ventures. The Duke agreement was initiated in 2018 with Beaufield Resources Inc. (now Osisko Mining Inc.). Bonterra's earn-in agreement to acquire a 70% interest was completed in July 2021. Bonterra holds an 85% interest in the Lac Barry Joint Venture claims, with the remaining 15% held by Golden Valley Mines and Royalties Ltd (now Gold Royalties). The total land package for the Urban-Barry Property totals 496 claims over 22,508 ha.

As of the effective date of this Technical Report, the Properties are in good standing based on the Ministry of Energy and Natural Resources (Ministère de l'Énergie et des Ressources Naturelles, or MERN) GESTIM claim management system of Government of Québec.

Bonterra also holds five BNE (Bail Non Exclusif) claims to mine surface minerals (sand and gravel): two over the Bachelor-Desmaraisville Property and three over the Urban-Barry Project area, all which expire March 31, 2023.

Table 4-1: Summary of Land Tenure
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Claim Type	No. Claims[1]	Area (ha)	Expiry Date Range (MM/DD/YYYY)
Bachelor-Desmaraisville Property			
Exploration Claims[2]	436	22,779	10/04/2022 – 09/16/2024
Mining Concession Claims (CM)	1	16	
Mining Lease Claims (BM)	1	83	11/5/2033
Nelligan Joint Venture Exploration Claims[3]	58	2,881	11/7/2022 – 04/28/2024
Subtotal	**496**	**25,759**	**06/12/2022 – 11/5/2033**

Claim Type	No. Claims[1]	Area (ha)	Expiry Date Range (MM/DD/YYYY)
Urban-Barry Property			
Exploration Claims[2]	379	17,374	12/05/2022 – 08/10/2024
Mining Lease Claims (BM)	1	112	8/26/2028
Duke Property Joint Venture Exploration Claims[4]	81	3,590	07/12/2022 – 07/28/2024
Lac Barry Property Joint Venture Exploration Claims[5]	35	1,432	05/22/2024 – 09/13/2024
Subtotal	**496**	**22,508**	**12/05/2022 – 8/26/2028**
Total	**992**	**48,267**	**10/04/2022 – 11/5/2033**

Notes:

1. A full list of land tenure claims is included in Section 30.1.
2. Includes both map designated claims and staked claims (CDC), mining concession (CM) and mining leases (BM).
3. All titles held jointly by Bonterra Resources Inc. (99063) 70% and O3 Mining Inc. (101542) 30%.
4. All titles held jointly by Bonterra Resources Inc. (99063) 70% and Minière Osisko inc. (98424) 30%.
5. All titles held jointly by Bonterra Resources inc. (99063) 85% and Golden Valley Mines and Royalties Ltd (101169) 15%.

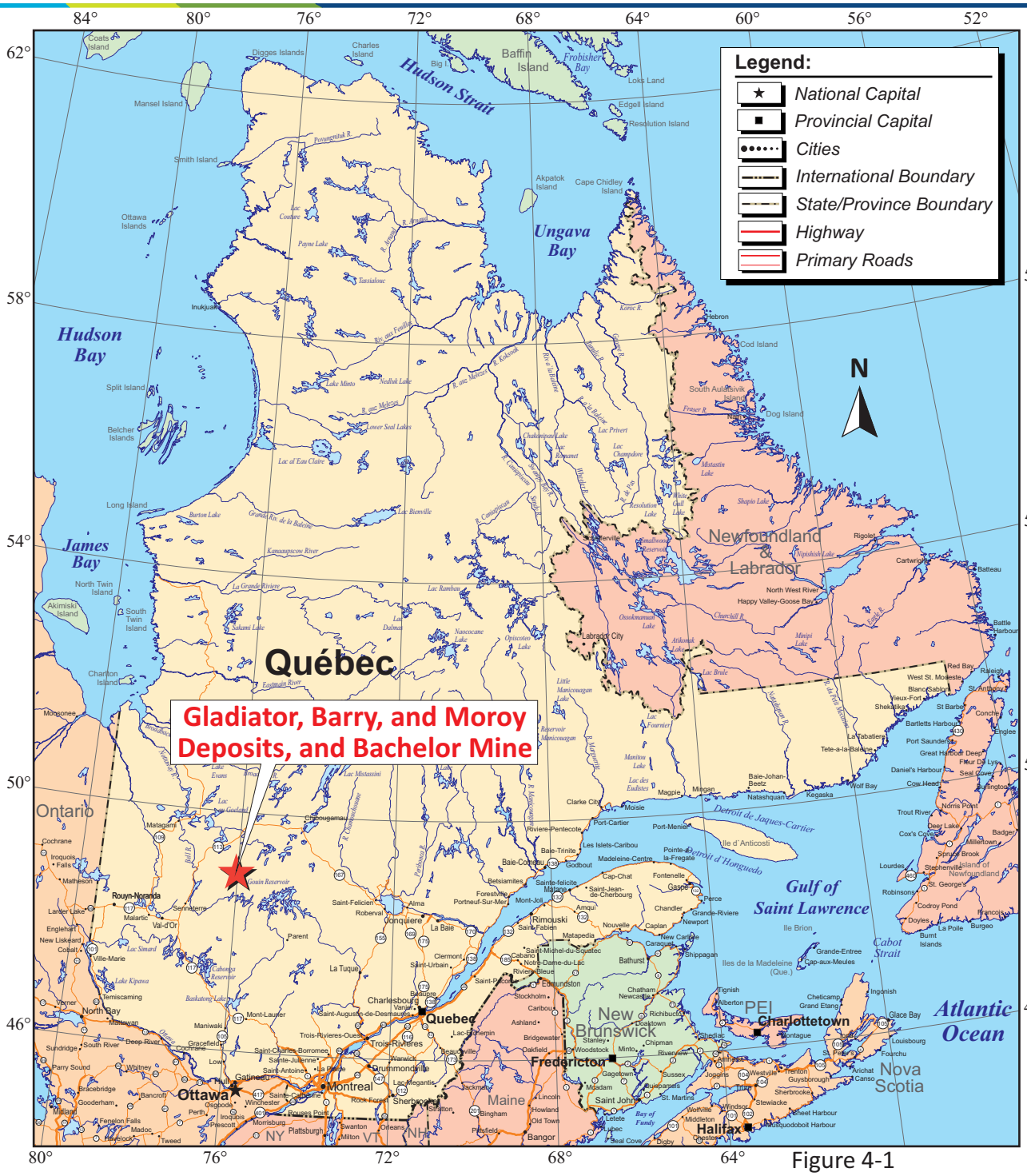


Figure 4-1

0 65 130 Miles

0 65 130 Kilometres

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Location Map

July 2022

Source: Map Resources, 2020.

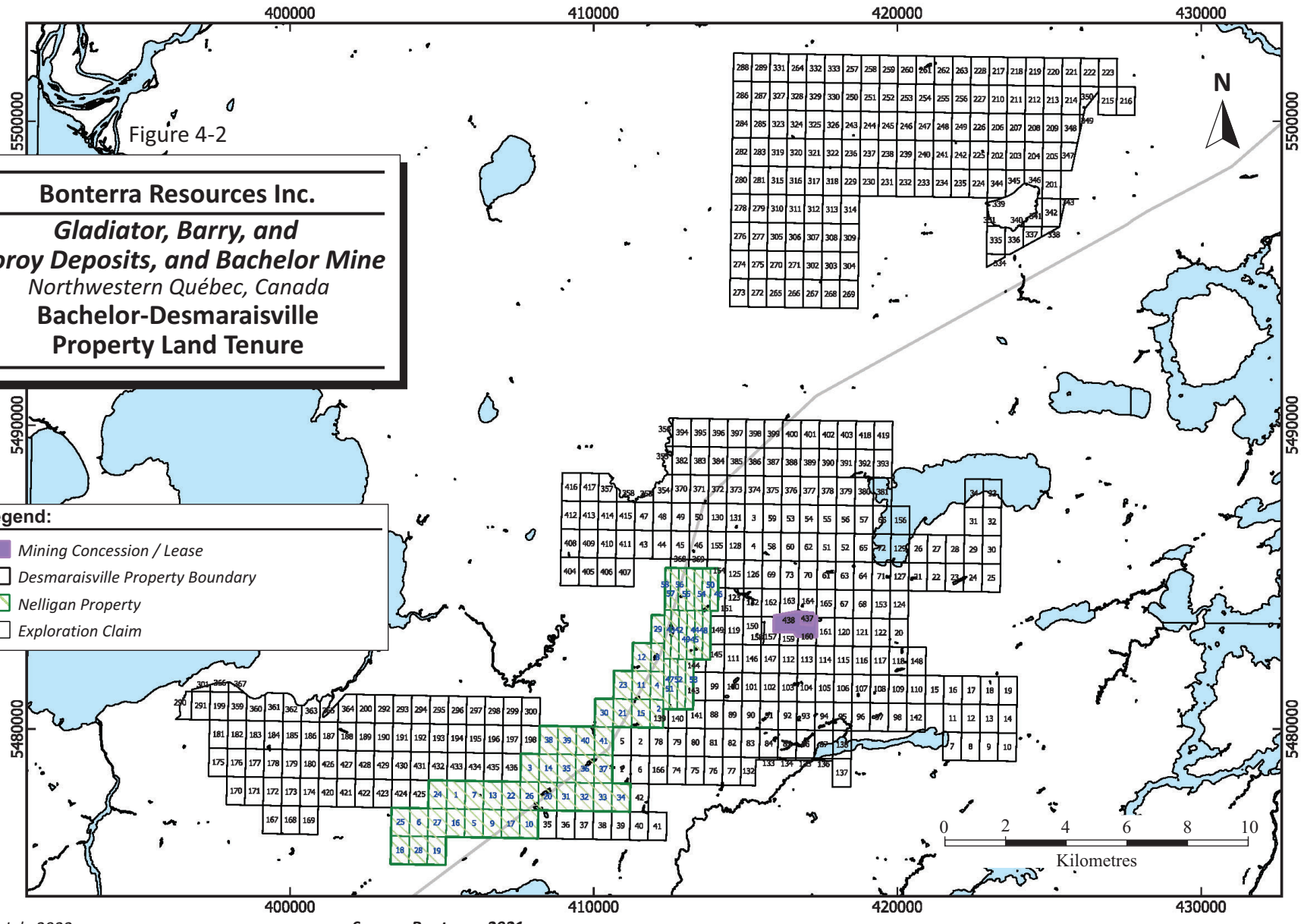
Figure 4-2

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Bachelor-Desmaraisville Property Land Tenure



July 2022

Source: Bonterra, 2021.

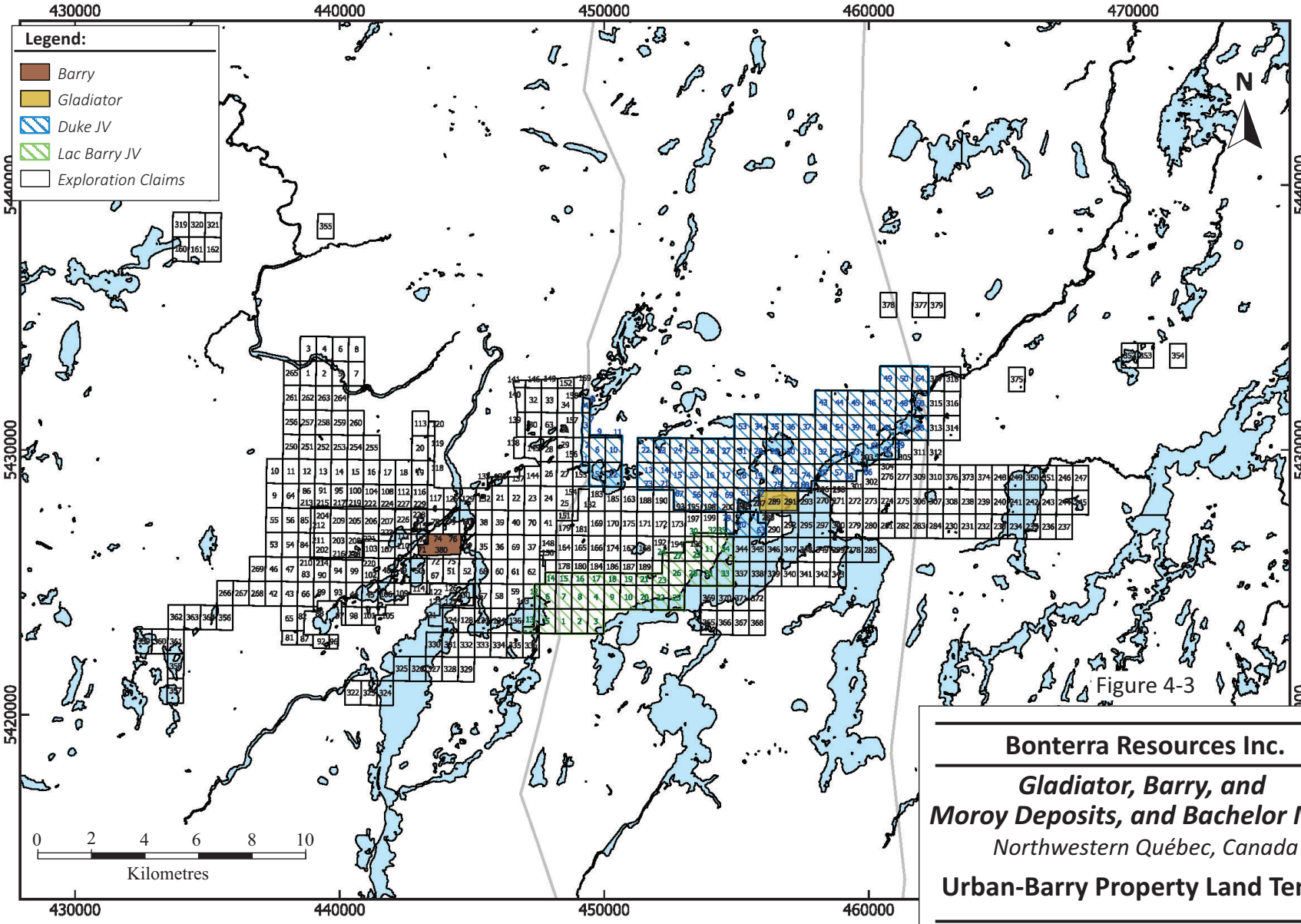


Figure 4-3

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Urban-Barry Property Land Tenure

July 2022

Source: Bonterra, 2021.

4.3 Mineral Rights

In Canada, natural resources fall under provincial jurisdiction. In the Province of Québec, the management of mineral resources and the granting of exploration and mining rights for mineral substances and their use are regulated by the Québec Mining Act, which is administered by the MERN. Mineral rights are owned by the Crown and are distinct from surface rights.

In Québec, a mining lease (BM) is initially granted for a 20 year period but can be renewed for additional 10 year periods. Exploration claims (CDC) may be obtained by map designation via GEOSTIM Plus or by land staking in designated areas and grant the holder exclusive rights search for mineral substances in the public domain, except sand, gravel, clay, and other loose deposits, on the land subjected to the claim. The term of an exploration claim is two years, which can be renewed indefinitely provided the claim holder meets the conditions stipulated in the Mining Act. These conditions extend to the carrying out of exploration work, the nature and amount of which is established by regulation. Claim fees are indexed automatically to reflect the annual change in the Consumer Price Index for Québec, currently at 1.26%.

4.4 Surface Rights

The mining claims included for the Properties are located on Crown land. Bonterra has the first right to acquire the surface rights to the Properties by taking them to the mining lease status. Under Québec Mining Legislation, the owner of the mining rights can make use of the timber on the leased property by paying a nominal fee if such timber is deemed to be of commercial value. Bonterra currently has surface rights to two areas via annually renewable leases, both of which are in good standing.

4.5 Encumbrances

The QP is not aware on any encumbrances on the Properties. Bonterra has all required permits to conduct the proposed work on the Properties. SLR is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Properties. SLR is not aware of any environmental liabilities on the Properties.

4.6 Royalties

Many royalty agreements are in place for the Properties. Those applicable to the Bachelor-Desmaraisville property are shown in Figure 4-4. Those applicable to the Barry and Gladiator properties are shown in Figure 4-5 and Figure 4-6, respectively.

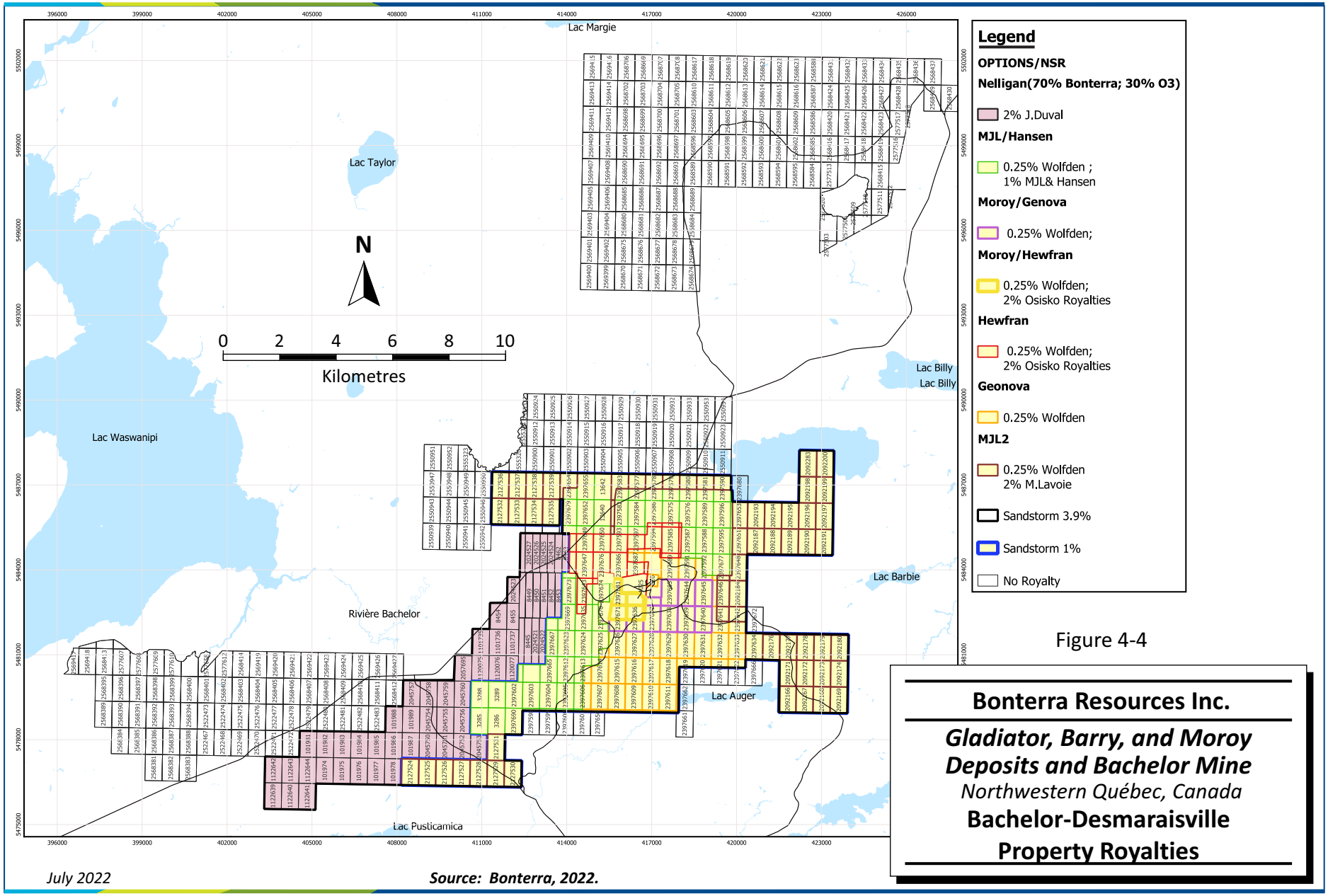


Figure 4-4

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits and Bachelor Mine

Northwestern Québec, Canada

Bachelor-Desmaraisville Property Royalties

July 2022

Source: Bonterra, 2022.

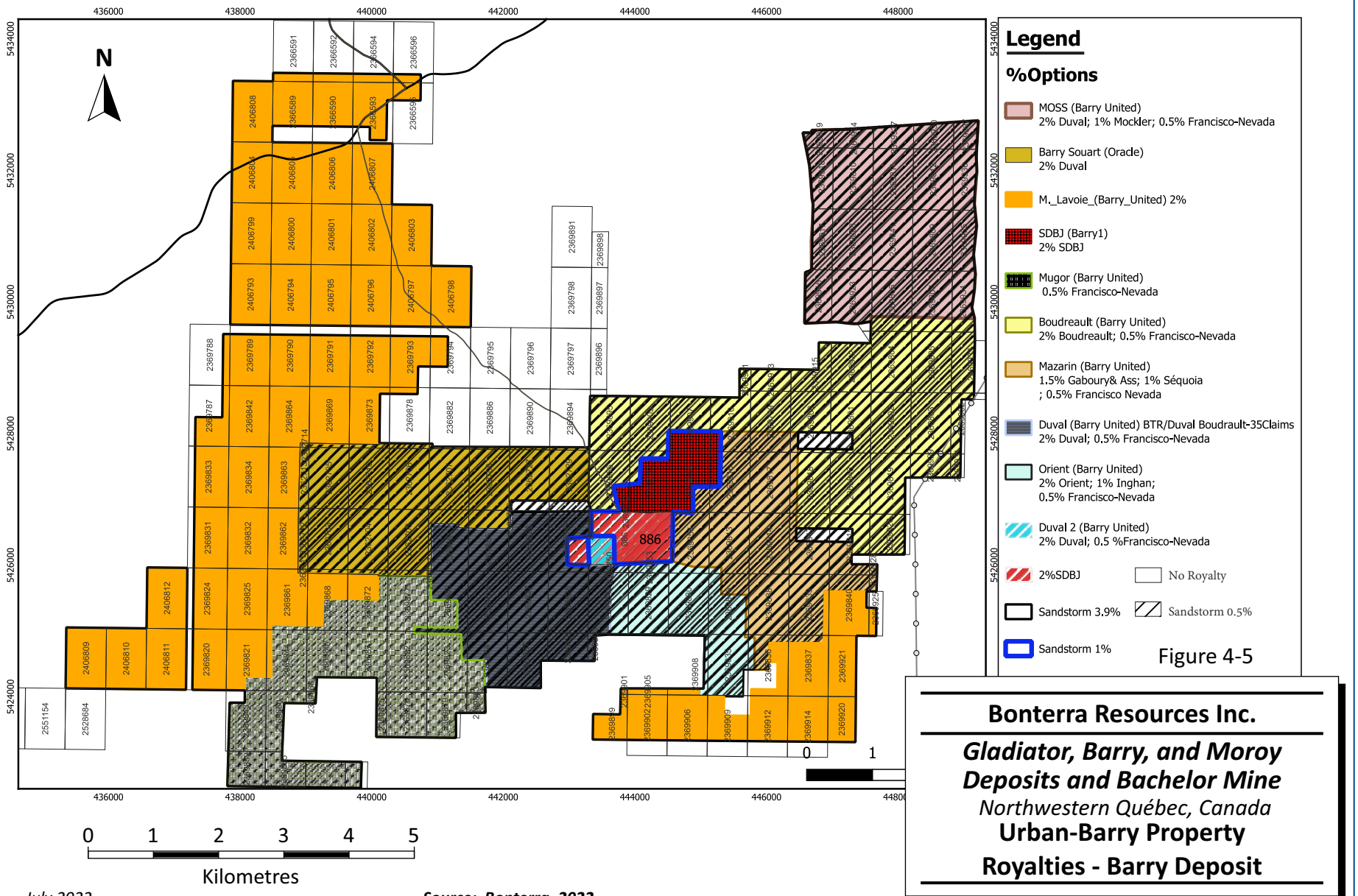


Figure 4-5

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits and Bachelor Mine

Northwestern Québec, Canada

Urban-Barry Property

Royalties - Barry Deposit

July 2022

Source: Bonterra, 2022.

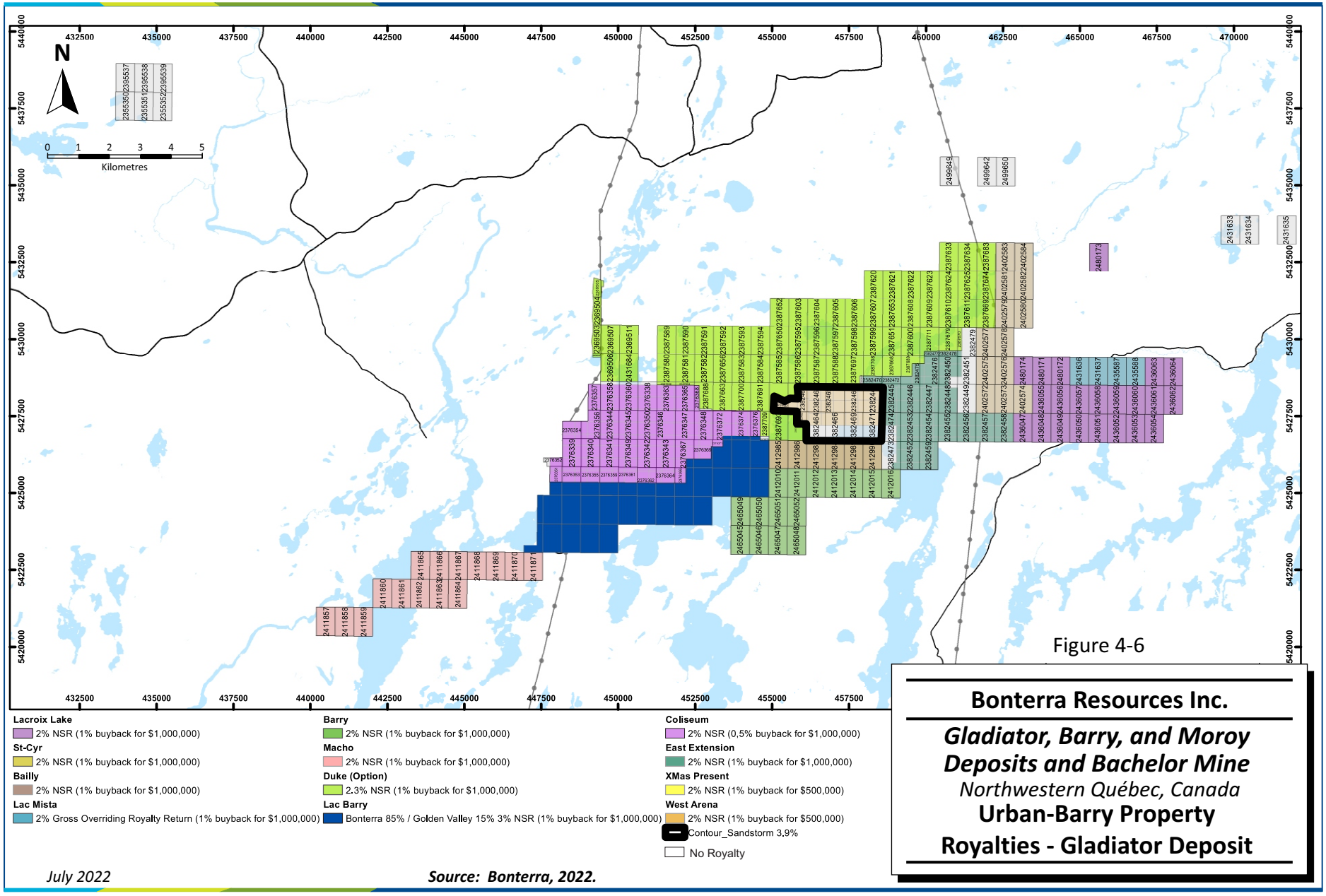


Figure 4-6

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits and Bachelor Mine

Northwestern Québec, Canada

Urban-Barry Property

Royalties - Gladiator Deposit

July 2022

Source: Bonterra, 2022.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Properties are located within the municipality of James Bay. Access to the general area is via a gravel road off paved Highway 113 which links Val-d'Or to Chibougamau. Val-d'Or is serviced by daily flights from Montreal and the area benefits from daily bus service from Val-d'Or to Chibougamau. Bonterra intends to process the mineralization from all the Properties at its Bachelor Plant.

5.1.1 Bachelor-Desmaraisville Property

The Bachelor-Desmaraisville Property is located approximately 225 km from Val-d'Or and is easily accessed via a gravel road, 3.5 km southeast of the community of Desmaraisville. The Bachelor-Desmaraisville Property is centred at approximately Longitude 76°09' W and Latitude 49°29' N.

5.1.2 Urban-Barry Property

The Urban-Barry Property is accessible from the town of Lebel-sur-Quévillon via logging road 1000 at the Chantier Chibougamau mill, followed by well-maintained and well labelled un-paved logging roads. When weather conditions allow, forest roads connect the Urban-Barry Property to the Bachelor-Desmaraisville Property, located approximately 110 km to the north. The Urban-Barry Property is centred at approximately Longitude 75°41' W and Latitude 49°00' N (Figure 4-1).

5.2 Climate

The Projects lie within the Abitibi Plains ecoregion of the Boreal Shield ecozone. The climate is continental and is characterized by short mild summers and long cold winters, with mean monthly temperatures ranging from –19°C in January to 16°C in July. Peak temperatures can reach -40°C in the winter and 35°C in the summer. Mean annual precipitation ranges from 20 mm in February to 123 mm in September. Climatic data for the closest Environment Canada weather station are presented in Table 5-1.

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

Table 5-1: Climate Data
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Month	J	F	M	A	M	J	J	A	S	O	N	D
					Temperature							
Daily Average (°C)	-17.7	-16.1	-8.6	-0.8	8.9	14.2	17.1	15.7	10.6	3.9	-4.0	-13.2
Daily Maximum (°C)	-12.0	-9.7	-2.3	6.6	15.3	20.6	23.1	21.4	15.5	7.7	-0.6	-8.4
Daily Minimum (°C)	-23.4	-22.4	-15.0	-5.0	2.4	7.9	11.2	10.1	5.7	0.0	-7.4	-17.9
Extreme Maximum (°C)	10.5	10.0	16.5	28.0	32.2	33.5	34.4	33.9	31.1	26.1	15.0	13.0
Extreme Minimum (°C)	-43.0	-42.2	-40.0	-26.7	-13.9	-3.9	-1.7	-2.0	-7.8	-13.5	-28.9	-40.0

Month	J	F	M	A	M	J	J	A	S	O	N	D
					Precipitation							
Average Rainfall (mm)	1.9	2.0	11.7	40.6	73.0	97.8	122.9	108.2	119.0	82.5	37.7	6.4
Average Snowfall (cm)	50.4	27.6	32.8	17.3	2.3	0.2	0	0	0.3	8.5	34.0	52.1
Average Precipitation (mm)	52.4	29.6	44.5	58.0	75.3	98.0	122.9	108.2	119.3	91.1	71.1	58.5

Source: Environment Canada

5.3 Local Resources

Various services are available at Lebel-sur Quévillon, a forestry town with a population of approximately 2,200 located along Highway 113. Services include hotels, motels, restaurants, gas stations, building supplies, a post office, police services, a nursing station, and sports facilities. A greater range of services are available at Val -d'Or, Québec, located approximately 150 km to the southwest of Lebel-sur Quévillon. Val-d'Or is a gold mining town with a population of approximately 32,000 and is serviced by daily flights from Montreal. Any mining development on the Projects would have access to hydroelectric power from the provincial transmission grid.

5.4 Infrastructure

5.4.1 Bachelor-Desmaraisville Property

Surface infrastructure at the Bachelor-Desmaraisville Property will serve both the Bachelor and Moroy deposits and consist of the following:

- Underground infrastructure from the former Bachelor operation including hoistroom, compressor room, headframe, and shaft.
- Power supply via two 25kV Hydro Québec power lines. One power line coming from Lebel-Sur-Quévillon (60 km away and 1.5 MVA) for the camp and crusher building and the second coming from Waswanipi (20km away and 4 MVA) for the mill, hoist plant and underground infrastructure.
- A tailings pond, polishing pond, dykes, and drainage ditches.
- A mill facility to be upgraded from 800 tpd to 1,200 tpd capacity, including an assay laboratory, refinery, and crushing room.
- An administrative office, warehouse, and camp facility.
- Garage and fuel tanks.
- Storage capacity for hazardous materials.
- Upgraded security system.

5.4.2 Urban-Barry Property

5.4.2.1 Barry

The Barry property has limited infrastructure including upgraded camp facilities, core logging and splitting facilities, a small garage facility, two settling ponds, two diesel generators to power the site facilities and fuel tanks. A major hydro electric line owned by Hydro Québec crosses through the center of the Barry property between the Barry and Gladiator properties. A 50,000 t bulk sample was mined by open pit in

2007 to 2008 and 2018 and an underground ramp was initiated with approximately 1,172 m of underground development completed including 823 m of ramp. From 2008 and 2010, approximately 617, 489 t of ore was mined and treated at the Bachelor Plant.

5.5 Physiography

The Properties that are the subject of this Technical Report are located in the boreal forest where forest fires are common. Vegetation is typical of the taiga biome, including areas dominated by sparse black spruce, birch, and poplar forests, in addition to large areas of peat bog devoid of trees.

Overburden is typically three metres to four metres thick, except for isolated areas where overburden thickness can reach 30 m. Only a few natural outcrops are present on the Properties.

Elevations of the Properties average approximately 400 MASL. Topographic relief is low and generally does not exceed 15 m, typical of the glaciated Canadian Shield. Low ridges of rock, gravel, or sand are locally interrupted by with areas of muskeg along drainages.

The ecoregion is classified as having a humid, mid-boreal eco-climate.

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

6.0 HISTORY

6.1 Prior Ownership, Exploration and Development History

6.1.1 Bachelor-Desmaraisville Property

The Bachelor deposit was first discovered in 1946 by O'Brian Gold Mines Ltd. (O'Brien Gold). In the 1960s, Sturgeon River Mines Ltd. (Sturgeon River) sunk a shaft and exploration activities including geophysical surveys, mapping and sampling programs, and surface and underground drilling programs were undertaken with the purpose of resource expansion in support of underground mining activities. Underground mining at Bachelor continued intermittently under various operators until 2018, producing a total of approximately 350,000 oz Au. Metanor acquired the Bachelor Mine in 2004 and discovered the adjacent Moroy deposit in 2010 through a surface drilling program. The Moroy deposit was further defined following the completion of an underground drift in 2017 connecting the Bachelor and Moroy deposits and improving drilling access. In 2018, Bonterra acquired all the outstanding common shares of Metanor.

Further details are provided in SLR (2021).

6.1.2 Urban-Barry Property

6.1.2.1 Barry Deposit

The Barry deposit was discovered in 1982 following several years of government and company led exploration activities in the area. Several companies conducted exploration and drilling activities between 1962 and 2014, most notably Murgor Resources Inc. (Murgor) and their partners. Metanor acquired the Barry property in 2006 and performed extensive drilling and exploration activities including stripping and geophysical surveys. Metanor completed a 50,000 t bulk sample in 2008 and undertook open pit mining activities from 2008 until 2010, producing approximately 44,000 oz Au which were processed at the Bachelor Plant.

The area surrounding the Barry property was first mapped in the 1940s, however, it was not until 1962 that exploration work on the Barry property was first recorded. Exploration in the area has progressed significantly in the last 10 years due to the increased access provided by the expanding network of logging roads. A summary of the exploration in the area of the Barry property taken from Duplessis and Rousseau (2016) and SGS (2019a) is presented in Table 6-1.

Table 6-1: Summary of Prior Ownership and Relevant Activities at the Barry Property 1946 to 2018
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Years	Activities
1962-1964	Exploration drilling program by Fab Metal Mines Ltd. (Fab), five drill holes (some with visible gold).
1981-1984	MERN commissioned Questor Surveys Ltd. For combined airborne (INPUT) electromagnetic (EM) and magnetometer survey. Identification of several EM anomalies on the Murgor property.

Years	Activities
1982-1983	1982 : Grab samples (35 g/t Au) taken by Société de Développement de la Baie James (SDBJ). 1982-1983: Prospecting, geological mapping, magnetometer and horizontal loop EM surveys, and diamond drilling of the Main Zone (4.1 g/t Au over 1.4 m) by SDBJ.
1983	One drill hole with no significant results completed on the western edge of the Barry property by Campbell Chibougamau Mines Ltd. (Camchib).
1988-1989	Magnetic, EM, IP, soil geochemical surveys, overburden trenching, and a nine hole drilling program (6.45 g/t Au over 1.8 m) completed by Cominco Ltd. (Cominco) and Agnico Mines Ltd. (Agnico).
1994-1995	Murgor optioned the SDBJ claim block. Magnetic, induced polarization (IP), basal till surveys, overburden stripping, channel-sampling, and diamond drilling program conducted on the Barry I Main Zone Area (9.7 g/t Au over 7.7 m).
1997	Teck Corporation Ltd. (Teck) optioned the Property from Murgor. Exploration drilling program to test for extensions of the Barry I Main Zone and parallel or faulted off structures to the north completed (3.49 g/t Au over 1.8 m and 1.73 g/t Au over 1.6 m). Systematic lithogeochemistry core sampling on all drill holes. The samples were analyzed for 10 major oxides, loss on ignition, and a 32 elements package by inductively coupled plasma (ICP). Program of surface mapping and outcrop sampling with a surface grab sample outside of the Barry I Main Zone Area was 2.01 g/t Au. Completion of a 53 line-km dipole-dipole array IP survey. Moderate to strong chargeability anomalies were outlined.
2004-2005	Optioned by Osisko Resources Inc. (Osisko Resources), Drilling program of Barry I Main Zone area with partial survey of drill hole collars. Osisko Resources did not renew its option on the Barry property after interpretation of the results.
2005-2006	Drilling program by Murgor on Barry I Main Zone and SW extension of the Main Zone Area and the Zone 43. Database created and geological model developed by Geostat Systems International (Geostat). Updated resource estimate with open pit scenario including the Main Zone, Zones 43 and 45, and the southwest extension of the Main Zone produced by Geostat.
2006-2013	Metanor acquired a 100% interest in the Barry deposit from Murgor. 2006-2007: Drilling program focused on defining the Main Zone and the east, north and south deeper extensions of the Main Zone Area and the Zone 43. Resource estimate updated, considering an open pit mining scenario and new mine design included the Main Zone, Zones 43 and 45, and the southwest extension of the Main Zone. 2007-2008: 50,000 ton bulk sampling and pre-production work began on the East Zone of the Barry deposit to evaluate required mining parameters. 2008: Drilling program to increase the geological resources of the Main Zone and to evaluate the potential of shallow depth zones of extension towards west of the open pit (Main Zone).

Years	Activities
	270 m extension of the stripped area towards the west over a width of over 80 m width with systematic channel sampling.
	2009: Drilling program to investigate extensions at depth of the Main, Centre, South and between the Main Zone (current Pit) and the West Zone.
	IP survey on parts of the Barry United claims, Barry Centre claims, and Barry West Extension claims of the Barry property by Abitibi Géophysique.
	Magnetic surveying and dipole-dipole array IP surveying by TMC Géophysique on portions of the Barry property to cover extensions of the preceding IP surveys on parts of the Barry United and Barry Extension East properties.
	2010: Production of NI 43-101 Technical Report by SGS-Geostat Engineering.
	2013-2014: Drilling program completed to investigate some of the 153 IP anomalies detected between 2009 and 2013. Drilling confirmed extensions of Goldhawk and Moss and enabled the discovery of five new areas with gold mineralization.
	NW Extension Block: Drilling program, 0.5 g/t Au over 3.0 m and 3.16 g/t Au over 0.4 m
2013-2014	Goldhawk-Oracle Block: Drilling program, 25.80 g/t Au over 5.6 m and 1.96 g/t in over 2.0 m.
	Moss Block: Drilling program, 2.14 g/t Au over 19.4m and 18.20 g/t Au over 0.5 m. Barry SE Extension: Diamond drilling program, 2.38 g/t Au over 3.0 m
	Barry United SW Block: Drilling program, 14.8 g/t in over 0.5 m and 11.75 g/t Au over 0.9m.

6.1.2.2 Gladiator Deposit

There was very little significant exploration on the Gladiator property prior to acquisition by Bonterra. Bonterra acquired all Metanor's properties by virtue of a court approved plan of arrangement completed in 2018.

6.2 Historical Resource Estimates

Table 6-2 summarizes historical Mineral Resource estimates as documented in Tessier (1996) and Darling and Lafontaine (2011). These estimates are relevant as they indicate the mineralization on the Properties, however, this table is not considered to be complete, and while some of the estimates presented were prepared in accordance with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) they have not been reviewed by the QP. The QP makes no opinion as to their validity and these estimates should not be relied upon.

The Barry Mineral Resource estimates presented are superseded by estimation work completed under Bonterra's ownership, by SGS (2019) which in turn, and alongside Bachelor, is superseded by the Mineral Resources included in this Technical Report.

Table 6-2: Summary of Historical Mineral Resource Estimates by Previous Operators 1999 to 2006 Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Year	Area	Operator	Consultant	Measured		Indicated		Inferred		Uncategorized	
				Tonnes (000 t)	Grade (g/t Au)	Tonnes (000 t)	Grade (g/t Au)	Tonnes (000 t)	Grade (g/t Au)	Tonnes (000 t)	Grade (g/t Au)
				Bachelor							
1999	Bachelor Lake		SNC-Lavalin	185	8.81	196.576	10.80	232.502	10.42	-	-
2001	Bachelor Lake		Met-Chem	185	8.81	196.576	10.80	232.502	10.42	-	-
2005	Bachelor Lake		Innov Explo	185	8.81	196.576	10.80	232.502	10.42	-	-
2005	East Zone		Buro	-	-	-	-	61.69	8.88	-	-
				Barry[1]							
2006	Main Zone	Murgor	Geostat	-	-	176	4.92	-	-	-	-
2006	Main Zone, 43, 45	Murgor	Geostat	-	-	269	4.10	468	4.68	-	-
2007	Main Zone, 43, 45	Murgor	Geostat	-	-	385	4.23	966	4.07	-	-
2010	Main, West, 43, 45	Metanor	SGS	-	-	701	1.25	10,411	1.41	-	-
2016	Main, West, 43, 45	Metanor	GoldMinds Geoservices Inc.	5,383	1.21	3,037	0.98	31,920	1.21	-	-

Notes:

1. Areas represent historical Barry deposit domain names.

6.3 Past Development and Production

Table 6-3 summarizes the development and production history of the Projects.

Table 6-3: Summary of Historical Development and Production Activities Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Time Period	Property/Deposit	Operator	Development/Production
1960 – 1989	Bachelor Mine	Various	Shaft sinking and intermittent underground development and mining activities produced 869,432 t at a grade of 5.04 g/t Au for a total of 131,029 ounces of refined gold.
2012 – 2018	Bachelor Mine	Metanor	Mining activities produced 1,312,385 t at a grade of 5.19 g/t Au for a total of 219,084 oz Au.
2018	Moroy	Metanor	Developed four sublevel drifts, no significant production.
2008 – 2010	Barry	Metanor	50,000 t bulk sample following by open pit mining activities which produced 617,489 t at a grade of 2.20 g/t Au, for a total of 43,682 oz Au and 5,727 oz Ag. (Duplessis and Rousseau, 2016)
2018	Barry	Metanor	Development of 823 m underground ramp.

There has been no production or development activities on the Gladiator property.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Properties are located in the Superior Province of Northern Québec. The Superior Province is divided into numerous subprovinces (Figure 7-1), each bounded by linear faults and characterized by differing lithologies, structural/tectonic conditions, ages, and metamorphic conditions. These subprovinces are classified into four types by Card and Ciesielski (1986):

- Volcano-plutonic, consisting of low grade metamorphic greenstone belts, typically intruded by granitic magmas, and products of multiple deformation events.
- Metasedimentary, dominated by clastic sediments and displaying low grade metamorphism at the subprovince boundary and amphibolite to granulite facies towards the centres.
- Gneissic-plutonic, comprised of tonalitic gneiss containing early plutonic and volcanic mafic enclaves, and larger volumes of granitoid plutons, which range from sodic (early) to potassic (late).
- High grade gneissic subprovinces, characterized by amphibolite to granulite facies igneous and metasedimentary gneisses intruded by tonalite, granodioritic, and syenitic magmas.

The Properties lie within the northern portion of the Abitibi Subprovince of the Superior Province in northwestern Québec (Figure 7-2). In very general terms, the Abitibi Subprovince is comprised of Late Archean metavolcanic rocks, related synvolcanic intrusions, and clastic metasedimentary rocks, intruded by Archean-aged alkaline intrusions and Paleoproterozoic-aged diabase dikes. The traditional Abitibi Greenstone Belt (AGB) stratigraphic model envisages lithostratigraphic units deposited in autochthonous successions, with their current complex map pattern distribution developed through the interplay of multi-phase folding and faulting (Heather, 1998). The AGB currently exhibits an alternation of east-west trending granitic-gneissic terrains and volcano-sedimentary belts with superimposed east-west trending folds and regional scale shear zones or faults.

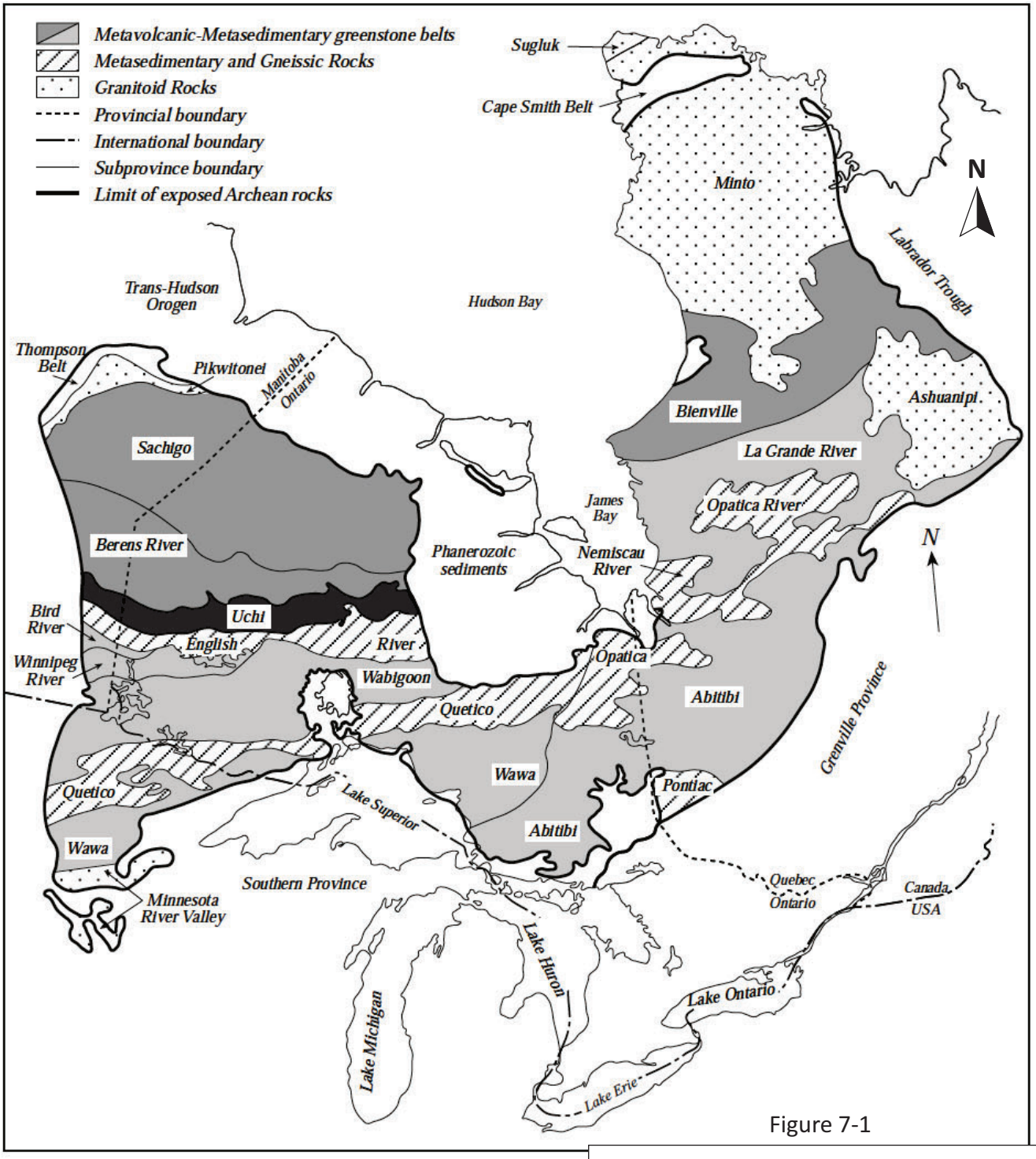


Figure 7-1

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Regional Geology - Superior Province

July 2022

Source: Johnson, 2005.

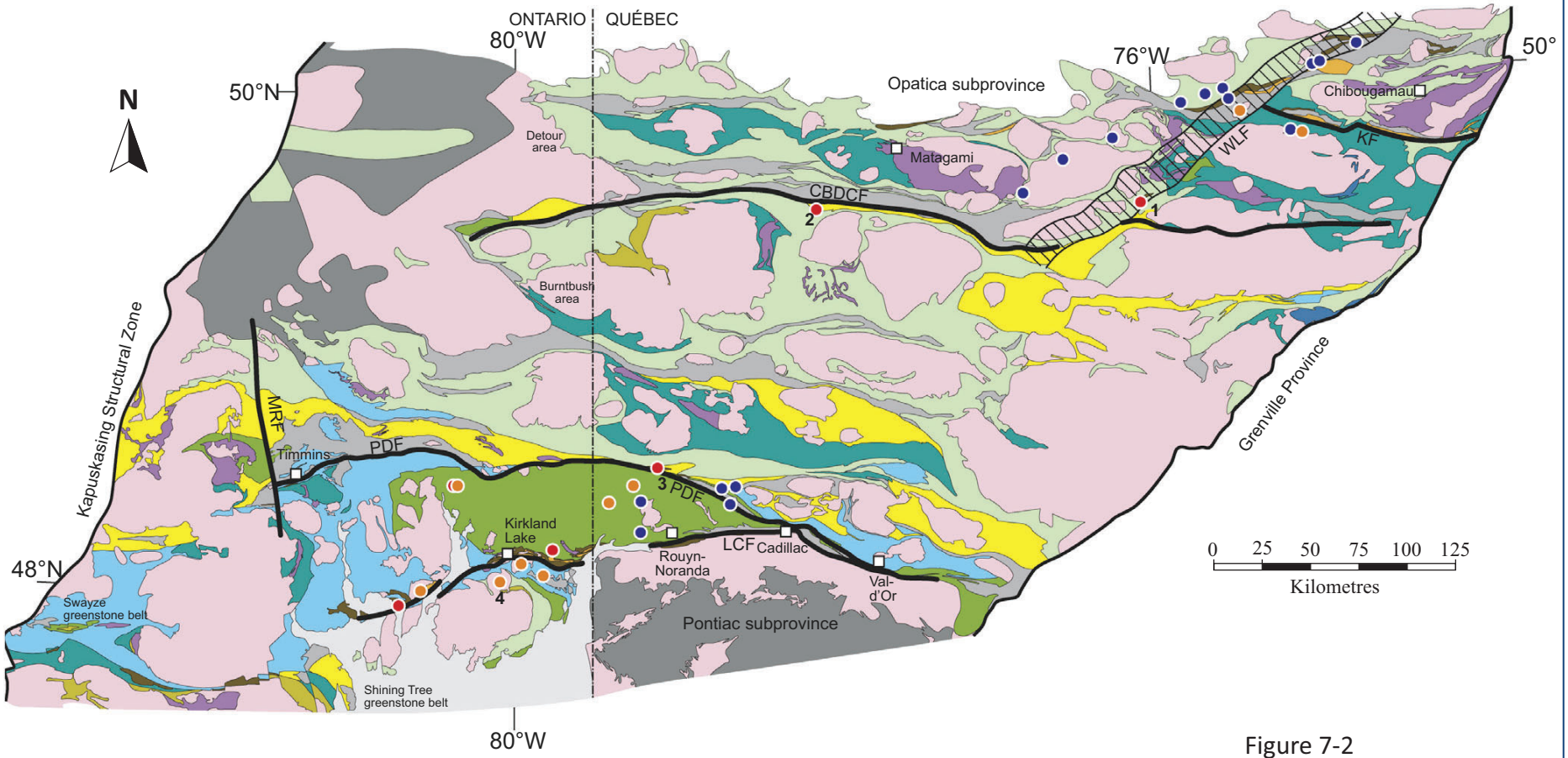


Figure 7-2

Legend:

Intrusions
- Au Deposit
- Au Prospect
- Unknown fertility
1. Lac Bachelor
2. Douay
3. Beattie
4. Otto

Faults
- CBDCF Casa Berardi Douay Cameron Fault
- KF Kapunapotagen Fault
- PDF Porcupine-Destor Fault
- LCF Larder Lake-Cadillac Fault
- MRF Mattagami River Fault
- WLF Wedding-Lamarck deformation zone

PROTEROZOIC
- Sedimentary rock

ARCHEAN
- Granitic to tonalitic intrusions
- Mafic to ultramafic intrusions
- Paragneiss

ABITIBI EPISODE (ASSEMBLAGE)
(Timiskaming)
- Conglomerate and wacke
- Volcanic rock

(Porcupine)
- Turbidites and volcanic rock

- 2704 - 2695 Ma (Blake River)
- 2710 - 2704 Ma (Tisdale)
- 2719 - 2711 Ma (Kidd-Munro)
- 2723 - 2720 Ma (Stoughton-Roquemaure)
- 2734 - 2724 Ma (Deloro)
- (Pacaud)
- >2750 Ma

July 2022

Source: Modified from Fayol et al., 2016.

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Regional Geology - Abitibi Subprovince

7.2 Local Geology

The Properties are underlain by supracrustal units belonging to the Northern Volcanic Zone (NVZ) of the AGB (Chown et al., 1992), Bandyayera et al., 2002, Rhéaume & Bandyayera, 2006, Kitney, 2009). The local geology for all Bonterra sites are described in the Technical Report dated August 5, 2021.

7.2.1 Bachelor-Desmaraisville Property

The Bachelor-Desmaraisville Property is situated near the western limit of the Chibougamau-Chapais Greenstone Belt (CCGB). The following description is taken from Darling and Lafontaine (2011).

The mafic to felsic volcanic and volcanoclastic rocks of the Bachelor Lake area are part of the basal mafic-dominated sequence referred to as the Volcanic Cycle I (Mueller et al., 1989). The Volcanic Cycle I formed between 2,730 Ma and 2,720 Ma (Mortensen, 1993), and is composed of massive, pillowed, and brecciated, tholeiitic basalt flows with local felsic and sedimentary units. The NVZ of the Abitibi Subprovince is interpreted as a diffuse arc passing laterally into a back-arc environment with numerous felsic and mafic-felsic edifices (Chown et al., 1992) and intra-arc sedimentary basins (Mueller et al., 1996).

The Bachelor-Desmaraisville Property lies along a local northeast trend which is deviated from the general east-west pattern of the Abitibi Subprovince due to significant synvolcanic pluton emplacement and the influence of the major northeast-trending Wedding-Lamarck fault in the Bachelor Lake area (Doucet et al., 1998).

7.2.2 Urban-Barry Property

The Urban-Barry Property lies within the 200 km long, east-west trending, Urban-Barry Greenstone Belt (UBGB). The UBGB is a narrow east-west trending belt comprising predominantly mafic volcanic rock units in the NVZ. The following description is taken from SGS (2019a).

The UBGB comprises predominantly mafic volcanic rocks and isolated felsic volcanic rocks with ages ranging from 2,791 Ma to 2,707 Ma (Rhéaume and Bandyayera, 2006) interbedded with, or overlain by, volcanoclastic sedimentary rocks (Figure 7-3) (Kitney, 2009). The Lac aux Loutres region, which hosts the Barry and Gladiator deposits, is comprised of mafic volcanic flows, co-magmatic gabbro sills, local felsic flows, lapilli and welded tuffs, and sedimentary rocks intruded by tonalite to granodiorite plutons, diorite dikes, and feldspar and/or quartz porphyry dikes (Figure 7-4). The mafic volcanic rocks are basaltic to andesitic, and form part of the Urban, Macho (which hosts the Barry and Gladiator deposits), and Roméo formations. Mafic volcanic rocks consist of massive and pillowed flows that are commonly vesicular, porphyritic, brecciated, and locally contain phenocrysts of plagioclase. Co-magmatic gabbro sills can form bodies measuring 100 m to 600 m wide and 400 m to 3,000 m long. Felsic flows are dacitic to rhyolitic in composition, equigranular, and locally porphyritic. They form thin horizons that vary from 50 m to 200 m in width and from 300 m to 1,000 m in length. Felsic volcanic rocks from the Windfall member of the Macho Formation yield a U-Pb zircon age of 2,716.9 Ma ± 2 Ma. Sedimentary rocks in the region include conglomerates composed of volcanic and intrusive rock fragments, and locally siltstone, argillite, and wacke. Intrusive rocks consist of the Archean Father, Hébert, and Souart plutons, and the Barry complex, which are locally cut by Proterozoic diabase dikes.

Rocks in the Lac aux Loutres region were deformed during the 2.71 Ga to 2.66 Ga Kenoran orogeny, giving them a dominant east-west trend (Kitney, 2009). The regional foliation generally strikes northeast to east-northeast with a variable dip from 30° to 85° southeast. Associated regional folds are generally isoclinal with steeply plunging axes. The three primary fault sets present in the Lac aux Loutres region are oriented

northeast-southwest, east-west, and north-northeast-south-southwest. The northeast trending faults are characterized by an intense, and locally mylonitic, foliation with associated minor brecciated and silicified wall-rocks and contain subvertical stretching lineations. This set of structures is crosscut by east trending shear zones. The north-northeast trending faults are generally brittle structures crosscutting the other two fault sets and are interpreted as late features. These faults have a sinistral sense of offset (from several centimetres to metres), with lineations plunging 45° to the northeast. While the rocks are generally metamorphosed to the greenschist facies, locally conditions reached the amphibolite facies in zones of intense deformation or adjacent to intrusions. Local scale geology of the Urban-Barry Property is presented in Figure 7-3.

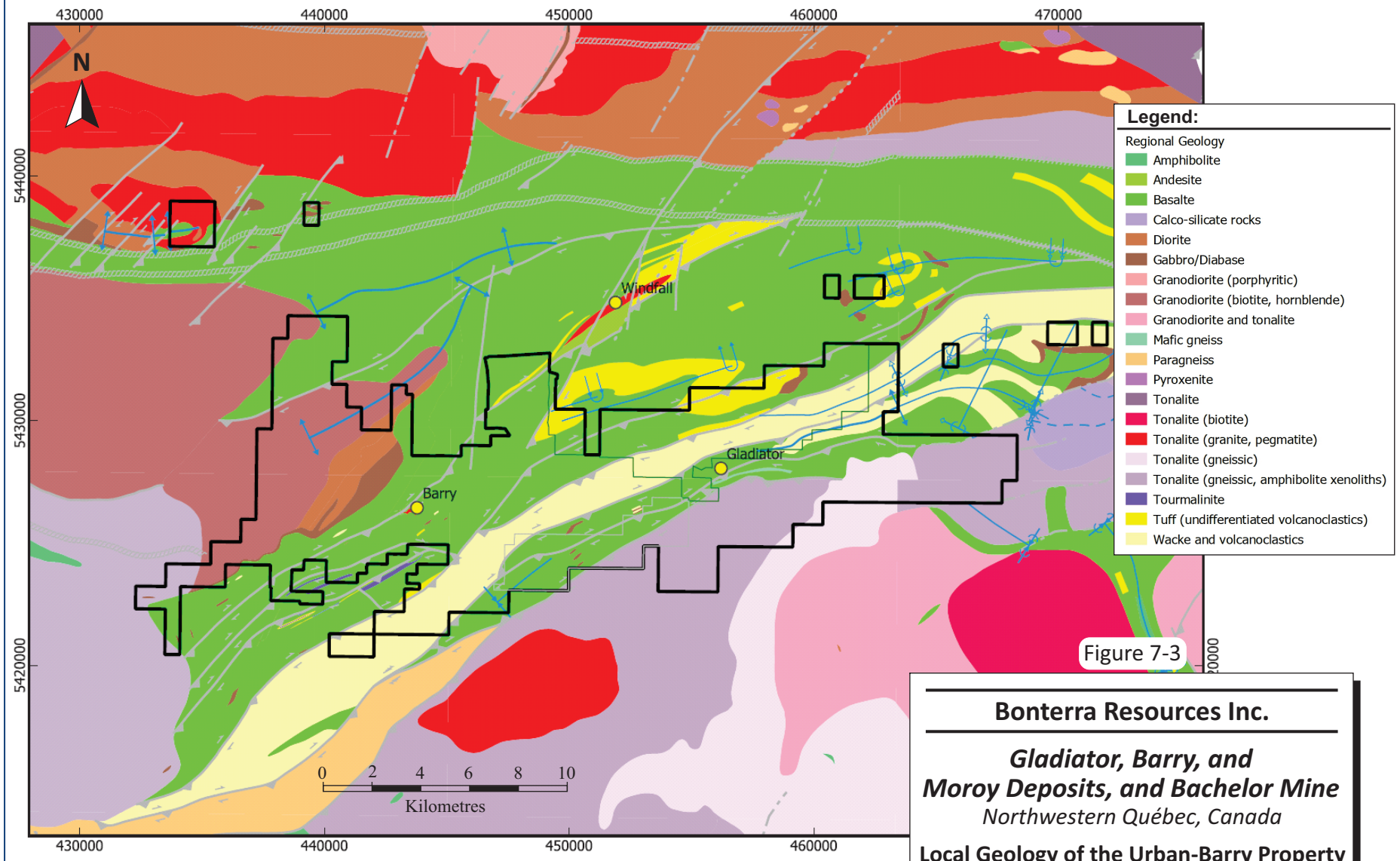


Figure 7-3

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Local Geology of the Urban-Barry Property

July 2022

Source: Bonterra, 2021.

7.3 Property Geology

7.3.1 Bachelor-Desmaraisville Property

The following description is taken from Darling and Lafontaine (2011).

The Bachelor-Desmaraisville Property is underlain by Archean volcanic rocks of the Obatogamau Formation in a poorly known and relatively poorly explored area of the AGB. Based on the absence of marker horizons and the paucity of outcrops, it is difficult to establish a well-defined rock sequence in the Coniagas-Bachelor Lake area (Doucet et al., 1998). The Obatogamau Formation includes mafic, intermediate, and felsic flows, and synvolcanic intrusive equivalents which are the host for the volcanogenic massive sulphide occurrences (e.g., Coniagas). The stratigraphic sequence includes the 280 m thick Coniagas Mine sequence composed of a mafic dominated volcanoclastic sequence. Porphyritic lava flows, prominent in the immediate area of the Coniagas Zn-Pb-Ag deposit (1.5 km west of the Bachelor deposit), cover the volcanoclastic unit. A significant 500 m to 700 m thick, lenticular and dome shaped felsic unit composed of massive to brecciated, rhyolitic to rhyodacitic lava flows occurs up-section. This felsic-dominated unit corresponds to the Bachelor deposit host rocks. Mafic volcanic and volcanoclastic rocks make up the upper part of the sequence. While the Auger Lake and Bachelor Lake sedimentary rocks remain enigmatic, it is probable that they mark the top of the sequence. The late emplacement of several plutons (e.g., O'Brien granodioritic pluton located east of the Bachelor deposit), adds to the complexity of the region. Gold mineralization at Bachelor has been interpreted to pertain to the rocks of the O'Brien pluton including granitic porphyry and biotite-hornblende granodiorite. Post-tectonic lamprophyre dikes are also common at Bachelor and kimberlitic dikes were documented in the Desmaraisville area. This later intrusive phase (N030° and N110° lamprophyre and kimberlitic dikes) has recently been investigated for diamond potential in the Desmaraisville area.

The local northeast trending sequence deviates from the general east-west pattern of the Abitibi Subprovince due to the presence of significant pluton emplacement and the influence of the major northeast-trending Wedding-Lamarck fault. The folded volcanic rock sequence indicates local changes in trend from N025° to N065°, with vertical to steep northwest dips (60° to 77°). Folding and faulting are responsible for stratigraphic repetition and disruption of the volcano-sedimentary sequence. Foliation relationships indicate a possible third phase of deformation (Sharma and Lauzière, 1983).

7.3.2 Urban-Barry Property

7.3.2.1 Barry

The following description of the Barry property geology is taken from Deschênes (2006a,b). For a more detailed description of the Barry property geology, the reader is referred to Armitage and Lafontaine (2019).

The Barry property is underlain by greenschist facies volcanic and intrusive rocks of tholeiitic affinity belonging to the UBGB. As there is limited outcrop exposure, the geology had to be deduced from drill holes data and geophysics. Geological mapping and diamond drilling identified a series of basaltic flows that are interpreted to cover over 90% of the Barry property. The only intrusive bodies identified on the Barry property were the quartz-feldspar porphyry in the area of the Barry I Main Zone Area and a series of gabbro sills to the north. A siltstone outcrop was identified approximately 300 m northeast of the Barry I Main Zone. Stratigraphic tops are to the southeast, as indicated by pillow facing directions. The

rocks on the Barry property are overprinted by a weak to moderate northeast to southwest trending foliation (S2) that parallels regional shearing and contacts of the large granitic intrusions.

Mafic volcanic rocks are the most common rocks on the Barry property and consist of dark green, fine grained, iron-rich tholeiitic basalts. In order of decreasing abundance, these flows vary from massive, amygdaloidal, brecciated, feldspar-phyric, to locally pillow. Alteration varies from a regional chlorite alteration to carbonate, sericite, epidote plus minor silicification, hematization, biotite and actinolite alteration locally (Tessier 1996, Lariviere 1997). All these rocks vary from generally nonmagnetic to locally strongly magnetic with up to 5% disseminated magnetite crystals and less commonly stringers of magnetite.

Mafic volcanic rocks in the area of the Barry deposit are intruded by a series of porphyritic to granitic felsic dikes or sills. The quartz-feldspar porphyry varies in colour from a medium grey (fresh surface), to a reddish tint (due to hematization), to a bleached light grey (due to strong silicification). The quartz-feldspar porphyry is noted to be sill like, maintaining a general stratigraphic position within the volcanic pile, while simultaneously crosscutting the volcanic stratigraphy on surface. The thickness of this unit varies from several metres to over 125 m.

One can observe two sets of porphyritic to granitic felsic dikes or sills. The first set is foliated and exhibits 35% of feldspars and less than 5% of blue quartz-eyes. The second set of quartz-feldspar porphyry is not foliated and contains 8% to 12% of blue quartz-eyes and 50% of feldspars.

The gabbro is massive, medium to coarse grained with a dark green colour. At times, the gabbro develops a finer grained gradational contact with the basalts and varies from moderately to nonmagnetic. Drilling indicates that the gabbro is sill like and up to 20 m thick. Figure 7-4 presents the Barry deposit geology.

The major aspects of the structure observed on the Barry property can be summarized as follows:

- The impact of the major fault present at the northwest of the Barry property, the Murgor Shear Zone, appears unimportant laterally.
- The displacement of a fault, mapped in 1995, occurring in the northwest portion of the stripped zone, appears to be less than 100 m laterally. The vertical movement is unknown.
- Occurrences of mapped folded zones suggest the presence of two major anticlines and one syncline. The orientation of the fold axes is southwest northeast. The plunges are variable, but generally sub-horizontal.
- Many deformational features are brittle (faults, fractures, veinlets, intrusives) to brittle/ductile (shear zones) and others are from the deformation of the ductile mafic formations (pillows deformation and boudinage).
- According to the interpretation from the 2006 drill holes, the limb of the southeast anticline extends deeper to the southeast to form Zone 43. Some drill holes intersected Zone 43.
- Zone 43 can be interpreted as one side of a syncline, repeating the southwest-northeast undulating fold pattern.
- Minor north-south faults, with displacement smaller than 10 m, are developed on the mapped area.
- The primary schistosity is 060°, dipping steeply to the southeast.

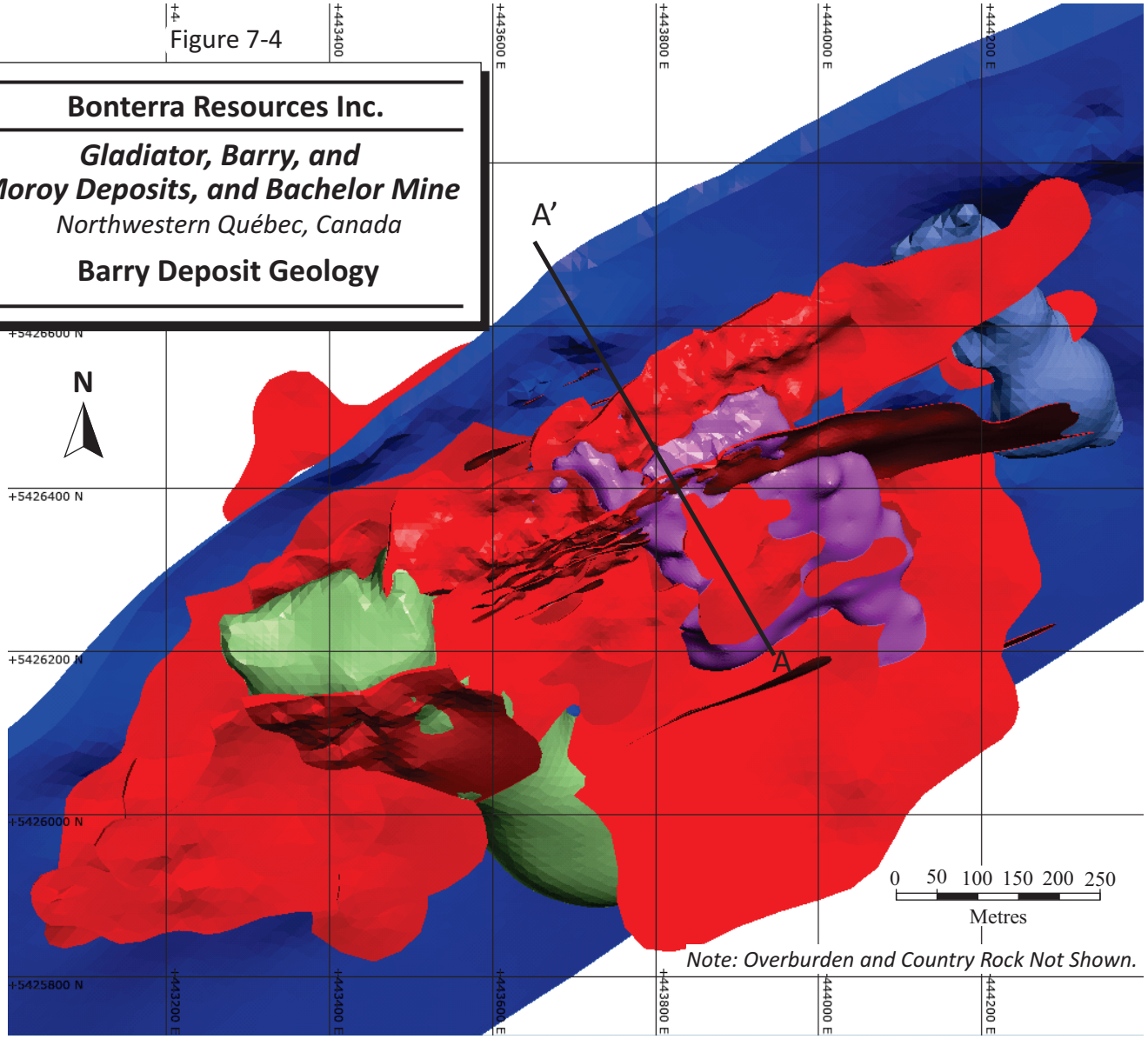
Figure 7-4

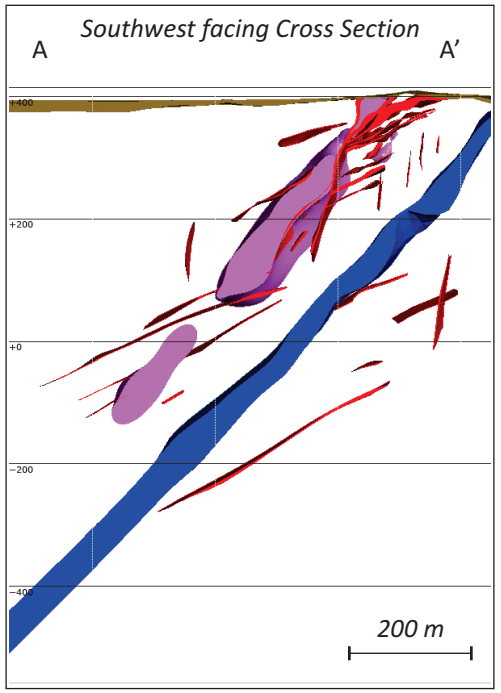
Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Barry Deposit Geology





Legend:

- *D1 Intrusive*
- *D2 Intrusive*
- *D3 Intrusive*
- *Mineralized Vein*
- *Overburden*
- *Tuff*

Note: Overburden and Country Rock Not Shown.

July 2022

Source: SLR, 2021.

7.3.2.2 Gladiator

Most of the rock encountered on the Gladiator Property consists of mafic volcanics from the Lacroix and Chanceux Formations. The Lacroix Formation, host to most of the mineralization at Gladiator, is oriented N60° and dips steeply to the south. It consists of tholeiitic mafic flows which may be pillowed, massive, or porphyroblastic with a minor ultramafic unit to the south of the Gladiator property. These basaltic units are chronologically injected by coarse grained gabbroic or dioritic sills, fine grained syenite intrusions, syenitic feldspar porphyritic intrusions, and late, red, medium grained, and weakly deformed monzonitic intrusions.

The Chanceux Formation is comprised of intermediate to locally felsic clastic volcanics with intercalation of mafic flows and sills of magnetic, quartz-eyed, coarse grained gabbro. The contact with the Lacroix Formation is sheared, oriented N60° and steeply dipping south, and is host to the North mineralized vein set.

The Gladiator deposit is hosted between two main N60° shear corridors: the Ranan Fault to the south, and the Barry Fault to the north. The Barry Fault is an east-west trending shear corridor which crosscuts the Chanceux Formation at its south contact, is strongly injected by felsic dikes, and is host to some gold mineralization very similar to that present on the Gladiator property. The gold mineralization and dikes can be followed over eight kilometres to the east.

Further details are provided in SLR (2021).

7.4 Mineralization

7.4.1 Bachelor

Two types of gold bearing zones have been identified at Bachelor: silica-flooding, and hematite-altered ± stockwork zones, both of which are illustrated by the Main Zone (prolific, representing 90% ore mined to date at the Bachelor Mine) and the B Zone. In both instances, gold is spatially associated with pyrite and gold content correlates well with pyrite content.

7.4.2 Moroy

The Bachelor and Moroy deposits exhibit similar mineralization styles and characteristics.

7.4.3 Barry

Gold mineralization is constrained to zones containing 5% to 15% albite-carbonate-quartz veins and their associated hydrothermally altered wall rocks (SGS, 2019a). Albite-carbonate-quartz veins are typically one centimetre to five centimetres wide, and comprise euhedral albite, carbonate, and quartz with local trace biotite ± sericite, chlorite, pyrite (fine grained anhedral, or coarse grained euhedral), pyrrhotite, rare euhedral magnetite, and fine grained visible gold as inclusions or fracture infill in pyrite, or in sharp contact with carbonate crystals in the vein. Veins locally pinch and swell or are boudinaged with biotite generally filling the cusps. Gold grades in mineralized veins and altered mafic volcanic rocks range from less than 2 g/t Au to more than 100 g/t Au.

The following alteration types have been observed on the Barry property:

- Syn-ore carbonate-quartz-pyrite alteration associated with the mineralized albite-carbonate-quartz veins.

- Syn-ore biotite-calcite alteration associated with mineralized albite-carbonate-quartz veins in areas of intense foliation.
- Post-ore biotite-chlorite, carbonate, muscovite, and epidote alteration. Post-ore epidote alteration is generally found at depths greater than 25 m, where it is commonly associated with epidote-garnet veinlets, or in non-mineralized zones at shallower depths.

7.4.4 Gladiator

Gold mineralization within the Lacroix Formation is hosted within sheared veins of quartz-carbonate composition, with sericite, chlorite, tourmaline with pyrite, chalcopyrite, sphalerite, galena, and visible gold. The veins are divided into four groupings:

- Type 1: Main, Footwall and North Zones (Steeply south dipping and N60° trending veins associated with sheared, fine grained syenitic dikes).
- Type 2: North Dippers (The north dipping east-west trending veins range in dip from 45° to 75° within tiny, en echelon brittle-ductile structures between the steeply south dipping structures).
- Type 3: Rivage (Thin subvertical shear hosted quartz veins striking N40° to N50°).
- Type 4: South (Sheared, vertical, and striking N40° to N50°).

8.0 DEPOSIT TYPES

The Properties are thought to be prospective for greenstone-hosted quartz carbonate vein gold deposits, intrusion related gold (IRGS) deposits, and volcanogenic massive sulphide (VMS) deposits (Darling and Lafontaine (2011), SGS (2019b)). The deposits at the Properties for which Mineral Resources have been estimated are characterized as Greenstone-hosted quartz carbonate veins typical of the northern portion of the Abitibi Subprovince of the Superior Province in northwestern Québec.

9.0 EXPLORATION

9.1 Bachelor-Desmaraisville Property

Exploration activities, excluding drilling, completed by Bonterra and predecessor Metanor are listed in Table 9-1, and summarized from SGS (2019b).

Table 9-1: Summary of Exploration Activities at Moroy
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Year	Exploration Activity and Result
2014-2015	Downhole IP geophysical survey by Abitibi Geophysics identified four conducting anomalies which were later drill tested at Moroy.
2016-2017	Successful surface and underground drilling activities supported the development of an exploration drift to the south from Bachelor Mine on level 11 to test the extension of the Moroy vein at depth. Underground mapping and sampling activities, as well as underground drilling access allowed further deposit definition and understanding.
2020	A high resolution heliborne magnetic surveys on 50 m spaced flight lines was completed by Prospectair Geosurveys Inc. (Prospectair) which identified large scale regional structures, the majority of which trended from east-northeast –west-southwest to northeast-southwest, except where curved due to the influence of larger intrusions, or by folding or deformation at intrusion contacts.
2022	A remote sensing multispectral study by Japosat Satellite Mapping on the Bachelor-Desmaraisville properties. The main goal was to provide a better understanding of the regional lineaments of the properties. The following imagery/data were used: (1) 0.5-2m World View and Pleiades, (2) 10-20m Sentinel-2, (3) 30m Landsat-8 (4) 30m SRTM radar channel, (5) 1m LiDAR DTM (6) auxiliary SIGEOM data. All data, except the SIGEOM, were processed to enhance the geologic, geomorphologic, land cover, and geobotanical features. Various images were produced such as a 50cm Natural Colour, 50 cm False InfraRed Color, 2m Geobotany, 2m Land Cover, 10m False SWIR Color, 30m Thermal InfraRed Radiance, 1m Shaded Relief LiDAR, and 30m Shaded Relief SRTM.

9.2 Urban-Barry Property

9.2.1 Barry

In May 2018, an underground exploration ramp was developed to allow access to the Barry mineralized zones for future bulk sample programs and underground drill stations. A total of 1,172 m of underground development was completed, including an 823 m ramp.

Also in 2018, an IP (Orevision) survey was completed over the Coliseum and Temica West Properties, six kilometres southeast of the Barry deposit and proximal to a, circa 1936, Lac Barry gold showing. The survey was operated by Abitibi Geophysics and measured resistivity and chargeability with data inversions and pseudo-sections.

A large high resistivity zone was identified in the north and northwest portions of the grid with a few smaller regions nestled between the resistivity lows. This large resistive zone was identified to be mostly

devoid of chargeable response. Discrete and shallow resistivity lows crossing the grid diagonally in a northeast/southwest direction were associated with several chargeable sources in the south sector.

A total of 34 chargeable sources were interpreted, all trending approximately northeast/southwest. The strongest chargeable responses observed on the grid were restricted primarily to the broad region south of the northeast/southwest resistivity low trend, with chargeable sources reaching values above 80 mV/V. Many of the chargeable sources described have been recommended for follow up drill testing.

A glacial till sampling program was undertaken over the Barry and Barry East areas in 2019. Work was completed by Overburden Drilling Management (ODM) and involved the collection of 209 samples spaced approximately 200 m to 300 m down ice. A high number of gold grains, ranging from 179 to 454 grains were identified and re-shaping analysis suggested a travel distance of at least 200 m to over 500 m. Several other samples contained background gold grain counts of 19 to 53 grains, however, the program was not sufficient to determine whether there is an organized gold grain dispersal train emanating down ice.

High resolution heliborne magnetic surveys on 50 m spaced flight lines were conducted by Prospectair, extending coverage south from the 2018 survey work over the Gladiator Main and Southwest blocks and described in Section 9.2.2, to include areas within the Duke Property Option and the Barry property area. Most of the surveyed areas were found to be affected by linear magnetic features characteristic of alternating sequences of mafic volcanic rocks with sedimentary or intermediate to felsic volcanic rocks, with possibly some small size intrusive stocks or dikes locally. The strongest magnetic anomalies are thought to be related to mafic and ultramafic intrusions, as well as volcanic sequences.

In some areas, it is possible to detect structural features offsetting observed magnetic lineaments and causing abrupt interruption or changes of the magnetic response. These features are typically caused by faults, fractures, and shear zones. SLR recommends that Bonterra follow up with a comprehensive structural interpretation and additional prospecting activities where these features occur in favourable lithologies.

9.2.2 Gladiator

In 2017, a glacial till program was completed by contractor ExploLab, which collected 467 samples in a 200 m spaced grid. Three sectors were identified for follow-up work after gold mineralization was noted in the presence of sphalerite.

A high resolution heliborne magnetic survey was conducted by Prospectair (Dubé, 2018) in 2018. The methodology and results of this work are summarized below and originally described in SGS (2019a).

Two survey blocks, referred to as Main and SW, were flown for a total of 2097 line-km. A total of 11 production flights were performed using Prospectair's Eurocopter EC120B, registration C-GEDI. The helicopter and survey crew operated out of Bonterra's exploration camp located at the north end of Barry Lake, proximal to the Main block. The Lebel-sur-Quévillon Airport is located approximately 100 km to the west of the block. The surveys identified magnetic lineaments mostly trending east-northeast–west-southwest to north-northeast–south-southwest. Several lineaments are also locally curved, and even heavily folded in a few areas, indicating strong deformation events and identifying potential faults, fractures, and shear zones. SLR notes that these structures may be targets for further regional exploration. Full details of the survey results are described in SLR (2021).

A multispectral and light detection and ranging (LiDAR) survey that covered the Gladiator portion of the Urban Barry property was also completed in April 2022 by Japosat Satellite. The objective remained the

same as the one on the Bachelor-Desmaraisville properties, which was to provide Bonterra with satellite data and added products such as regional lineaments to guide regional scale exploration on the property. Japosat Satellite used the following imagery/data for the exercise: (1) 0.5-2m World View and Pleiades, (2) 10-20m Sentinel-2, (3) 30m Landsat-8 (4) 30m SRTM radar channel, (5) 1m LiDAR DTM (6) auxiliary SIGEOM data. All data, except the SIGEOM, were processed to enhance the geologic, geomorphologic, land cover, and geobotanical features. Images and products such as a 50cm Natural Colour, 50cm False InfraRed Color, 2m Geobotany, 2m Land Cover, 10m False SWIR Color, 30m Thermal InfraRed Radiance, 1m Shaded Relief LiDAR, and 30m Shaded Relief SRTM were generated. All these products, including the SIGEOM data, were then used for analyzing and interpreting the lineaments.

Figure 9-1 shows the results of the lineament stress at Gladiator obtained from the remote sensing study. East-northeast and east are the most common and representative orientations of the interpreted major lineaments over the Gladiator area. Several northwest and northeast major lineaments are also identified to transversely cut and/or displace east-northeast and east structures, indicating that they have been caused by a posterior younger tectonic event. The parallel nature of east-northeast lineaments might be interpreted as a set of thrust faults and faulted contacts. The minor lineaments that do not appear to have a preferred orientation may be related to the jointing systems, secondary faults, regional foliation, and bedding/layering/mineral zonation. Some of these minor lineaments oriented southwest-south are caused by the most recent glacial period (esker-like and dune-like lineaments and forms).

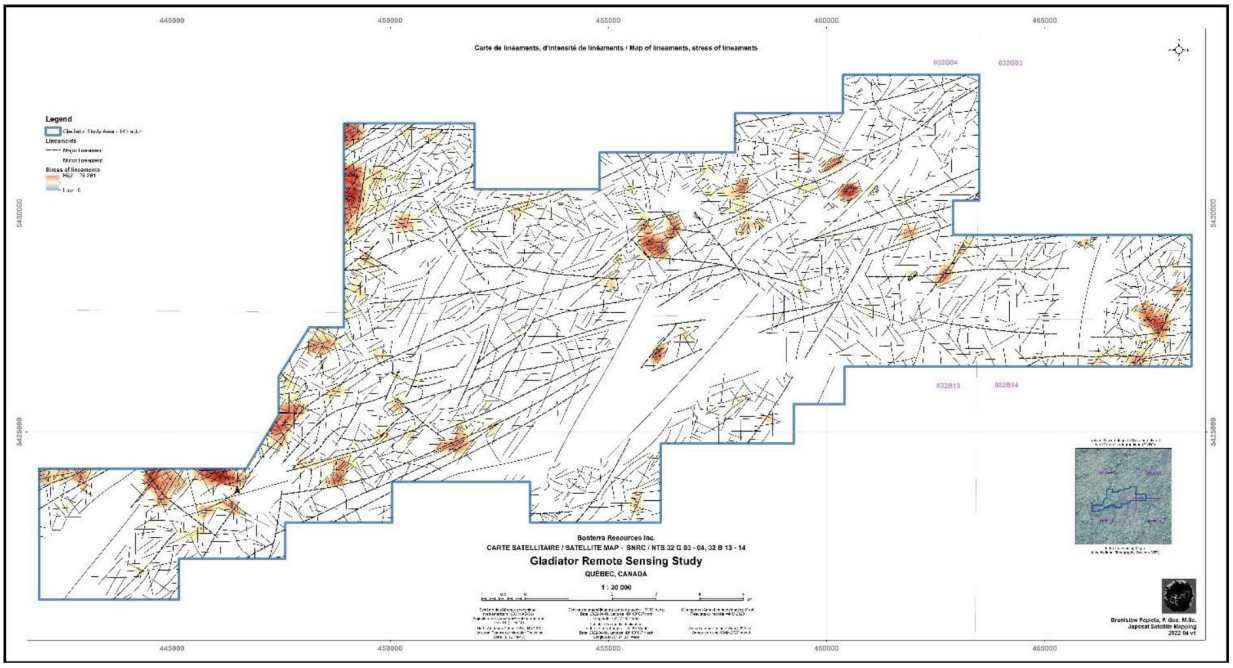


Figure 9-1: Gladiator Lineament Stress

The lineament density image calculated over the prospect shows several small zones having a high density/stress value. Many of these high value areas are located along, or close to, the major lineament (glacial related lineaments were excluded when calculating stress)

The geobotany and radiance data were also used to extract anomalous values and high values. The computed geobotany showed various spectral responses related to changes/variations at the surface and subsurface level corresponding to the density and variety of grass, plants, shrubs and trees, their water

content and geochemistry. Signatures for the different landcover features such as recent cut, regrowing, sparce vegetation, exposed land (mostly northwest, southwest, and east part), shrub, grass, and trees were distinguished. Among these geobotany signatures, about twenty locations display the anomalous values over relatively homogenous areas. Given that these anomalous spectral geobotany signatures might have a multifactorial origin or source, they should be verified in the field.

The radiance data shows three main categories or groups of radiance: moderate over wooded topography elevated areas, high over wood and sparce vegetation areas, and very high radiance over exposed land. Among these categories, the very high radiance only shows the anomalous values. These anomalous radiance signatures might have a multifactorial origin or source. In some areas, mostly in the north and northwest, the transition between radiance signatures is thought to represent the faults or faulted contacts (major lineaments).

10.0 DRILLING

10.1 Drilling Procedures

10.1.1 Diamond Drilling

10.1.1.1 Bachelor-Desmaraisville Property

The coordinate system used for daily production operations at the Bachelor Mine and Moroy deposit is the Mine Grid, which is in imperial units. The Mine Grid is rotated 0.7834° west of true north. The 10,000 level is based on a surveyed point at the shaft on surface, and all coordinates are measured relative to this point. All surface drill hole data is entered in the metric UTM grid and converted to imperial Mine Grid. Underground drilling and channel sample information is collected and entered into the database using the imperial Mine Grid coordinate system. Currently, all diamond drill hole collars are surveyed using Total Station surveying equipment for both underground and surface drill holes. Bonterra is in the process of converting the Project to a metric UTM grid.

10.1.1.1.1 Underground

All underground exploration drilling since 2011 on the Bachelor-Desmaraisville Property has been conducted using wireline diamond drill core methods, using the contractor Orbit Garant and dedicated underground electric YU-1200, B15 and pneumatic drill rigs. Larger electric rigs for exploration used BQ (36.5 mm) diameter diamond drill bits and rods. Definition drilling was completed using pneumatic rigs and AQ (27 mm) diameter core. All drill holes were surveyed during drilling with gyroscopic tools at 15 m depth and every 50 m thereafter. Once the hole was completed, a multi-shot survey was conducted using the same tool, taking a reading every three metres. Holes are then cemented. Most holes drilled before 2008 have been surveyed using single-shot survey equipment. Holes are then cemented.

10.1.1.1.2 Surface

Surface exploration since 2014 on the Bachelor-Desmaraisville Property has been carried out with wireline diamond core drilling methods by the drilling contractors Orbit-Garant and Machine Roger. All surface drilling was conducted using NQ (47.6 mm) core equipment. All drill holes were surveyed during drilling with gyroscopic tools at 15 m depth and every 50 m thereafter. Once the hole was completed, a multi-shot survey was conducted using the same tool, taking a reading every three metres. Most holes drilled before 2008 have been surveyed using single-shot survey equipment. Since 2019, core orientation tools have been used on all holes in order for site geologists to measure the orientation of all geological structures identified. Drill holes that are collared in unconsolidated materials (i.e., soil and till) are cased with traditional methods using casing rods and bits. Holes are then cemented when in proximity to the TMF or any present or potential future infrastructure. Due to the degree of late fracturing within the silicified and altered host-rocks, rock quality is mixed and poor in some areas.

10.1.1.2 Urban-Barry Property

The coordinate system used for ramp development operations at Barry is a Mine Grid in metric units. The Mine Grid is rotated 30° west of true north, and sets the ramp entrance elevation to 5,000 m. All drill hole information is entered in an UTM grid and converted in Geotic software to the Mine Grid. Channel sample information is collected and entered into the database using the Mine Grid coordinate system. All

information for the Gladiator deposit is in a UTM coordinate system. Currently, all diamond drill hole collars are surveyed using Total Station surveying equipment for both underground and surface drill holes.

10.1.1.2.1 Underground (Barry)

All underground exploration drilling (2018 to 2019) has been conducted using wireline diamond drill-core methods, by the contractor Orbit Garant with dedicated underground drill rigs. The electric rig for exploration used NQ diameter diamond drill bits and rods. All drill holes were surveyed during drilling with gyroscopic tools at 15 m depth and every 50 m thereafter. Once the hole was completed, a multi-shot survey was conducted using the same tool, taking a reading every three metres. Holes were then cemented.

10.1.1.2.2 Surface (Barry and Gladiator)

Surface exploration since 2016 has been carried out with wireline diamond-core drilling methods by the drilling contractor Machine Roger International (2010 to 2020, Gladiator) and Orbit-Garant (Barry; 2020 to 2021, Gladiator) using NQ sized core equipment, although AQTK (35.5 mm), BQ, and HQ holes have been drilled at both properties. All drill holes were surveyed during drilling with gyroscopic tools from 15 m depth and every 50 m following. Once the hole was completed, a multi-shot survey was conducted using the same tool, taking a reading every three metres at Barry and five metres at Gladiator. SLR notes that most holes drilled before 2006 have only been surveyed using single-shot survey equipment. Some areas which have highly magnetic rocks are instead surveyed using a TN-14 Gyro Smart downhole surveying tool.

Since 2019, core orientation tools are used on all holes in order for geologists to measure the orientation of all geological structures identified. Drill holes that are collared in unconsolidated materials (i.e., soil and till) are cased with traditional methods using casing rods and bits. Holes are then cemented when in proximity to the tailings pond or near any present or potential future infrastructure.

Due to the degree of silicification and alteration of the deposit and little deformation in the area, rock quality is generally excellent, reflected in core recovery values generally in excess of 90%.

10.1.1.2.3 Barge and Ice Drilling (Gladiator)

Barge drilling over the Gladiator deposit has been performed since 2018. When positioning the barge, the hole position is marked by an oriented buoy set five metres in front of the actual drill hole position. The barge is brought on site by an engine boat which pushes the barge until its centred front touches the buoy. The barge is then aligned using the TN14 gyroscopic rig aligner.

Upon positioning, casing is set, in shallow water the casing is simply sent down the bottom of the lake. In deep water a rigid HQ diameter casing is sent first to the bottom of the lake and creates a guide to lead NQ casing, which is set in rock to a depth of nine metres to 12 m. After setting the casing, a single shot deviation survey is taken with a gyroscopic instrument. The hole is subsequently surveyed at 50 m intervals from 50 m to 200 m, then at the geologist's discretion following to the end of the hole. Once the hole is completed, a continuous shot survey is conducted using a gyroscopic survey.

Holes drilled on the lake are cemented. From 2012 to 2020 holes were plugged to a casing depth of +100 m and plugged again 15 m after the casing. Since 2020, holes are cemented from the bottom to top and plugged 15 m after the casing. All casings on Barry Lake are removed before moving the barge.

Ice drilling, performed at Gladiator from 2012 to 2020 is similar to land-based drilling, except that holes are cemented similarly to the barge drilling procedure, and casings are removed.

Drill hole collars from both barge and ice located drills are systematically surveyed by using a GNSS precision GPS.

10.1.2 Core Handling and Processing

10.1.2.1 Bachelor-Desmaraisville Property

Drill core is transported to Bonterra's core logging facilities located on the Bachelor Mine site for processing. Technicians validate the meterage and orientation of the core as it is recovered from the drills, prepare the core for oriented measurements (when applicable), and measure magnetic susceptibility. Core is examined by trained geologists who prepare a description of the lithology, alteration, structure, mineralization, and oriented measurements that may have been encountered by the drill hole. Information is entered directly into the drill-core database using the Géoticlog software at the core shack. Logging of drill core is carried out according to Bonterra's protocols and custom log format.

Logging geologists examine the drill core and delineate samples ranging in length from 0.6 m to 1.6 m, when judged to hold potential for hosting significant quantities of gold mineralization, as well as shoulder samples. The locations of the sample intervals, in addition to the sample identification number, are entered into the Géoticlog software. Drill core is then photographed by geological technicians. For definition holes using AQ core, selected samples of the core are assayed using the entire drill core. For surface drilling and underground exploration holes using BQ or NQ core, the core is transferred to the saw-room and cut in two. Half the core is sampled, bagged, and sent to the Bachelor Laboratory located on the Bachelor Mine site, while the remaining half is retained for future reference.

Sampled core is sent directly from the core shack to the Bachelor Laboratory, 100 m away. The Bachelor Laboratory is not independent of Bonterra.

10.1.2.2 Urban-Barry Property

Drill core is transported to Bonterra's core logging facilities located on the Gladiator or Barry site (deposit dependent) for processing. Upon receipt of core, technicians validate the meterage and orientation of the core as it is recovered from the drills, prepare the core for oriented measurements, and measure magnetic susceptibility. Core is examined by trained geologists who prepare a description of the lithology, alteration, structure, mineralization, and oriented measurements that may have been encountered by the drill hole. Information is entered directly into the drill-core database using the Géoticlog software at the core shack. Logging of drill core is carried out according to Bonterra's protocols and custom log format.

Logging geologists examine the drill core and delineate samples ranging in length from 0.5 m to 1.5, when judged to hold potential for hosting significant quantities of gold mineralization, as well as shoulder samples. The locations of the sample intervals, in addition to the sample identification number, are entered into the Géoticlog software. Drill core is then photographed by geological technicians. The core is subsequently transferred to the saw-room and cut in two. Half the core is sampled, bagged, and sent to the Bachelor Laboratory, while the remaining half is retained for future reference.

Sampled core is double-bagged and stacked in pallets or mega bags, prior to being shipped to the Bachelor Laboratory, approximately 110 km away.

10.1.2.3 Underground Chip Sampling (Bachelor, Moroy and Barry)

Each on-vein development (OVD) face has been mapped and sampled since 2010. The geologists first mark up the area to be sampled with spray paint. The sampler then uses a hammer and open sample bag to collect representative samples from shoulder to knee height and across the entire face. Each sample represents an area from 0.3 m to one metre wide, controlled by geological observations.

After the sample is taken, the sample number is recorded on the face map, together with the date and name of the OVD. The sample is then placed into a plastic sample bag and sealed with a sample tag inside. A standard and blank is inserted at the Bachelor Laboratory.

Samples are delivered by the sampler directly to the Bachelor Laboratory located next to the core processing facility.

The position of the evaluated OVD face is surveyed by the mine surveyors. Samples are then positioned and entered into the Promine database of the mine workings, with assays imported once received from the Bachelor Laboratory. Samples are entered into a Microsoft (MS) Excel spreadsheet to calculate a final grade for the cut taken.

SLR recommends that, for the purposes of Mineral Resource estimation, efforts be continued to enter all chip sample information into the drill hole database as pseudo-drill holes that span the full width of the face of the development heading.

10.2 Drilling Summary

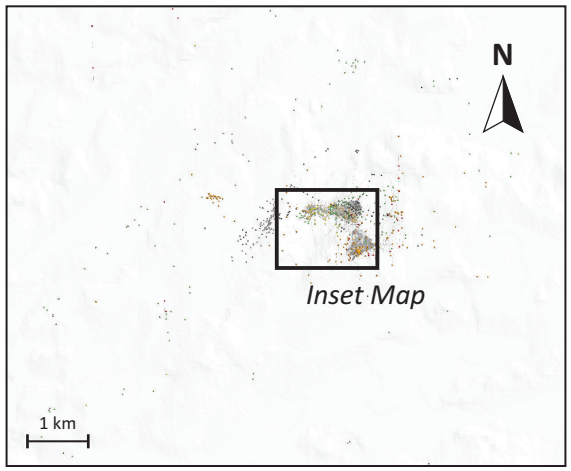
10.2.1 Bachelor-Desmaraisville Property

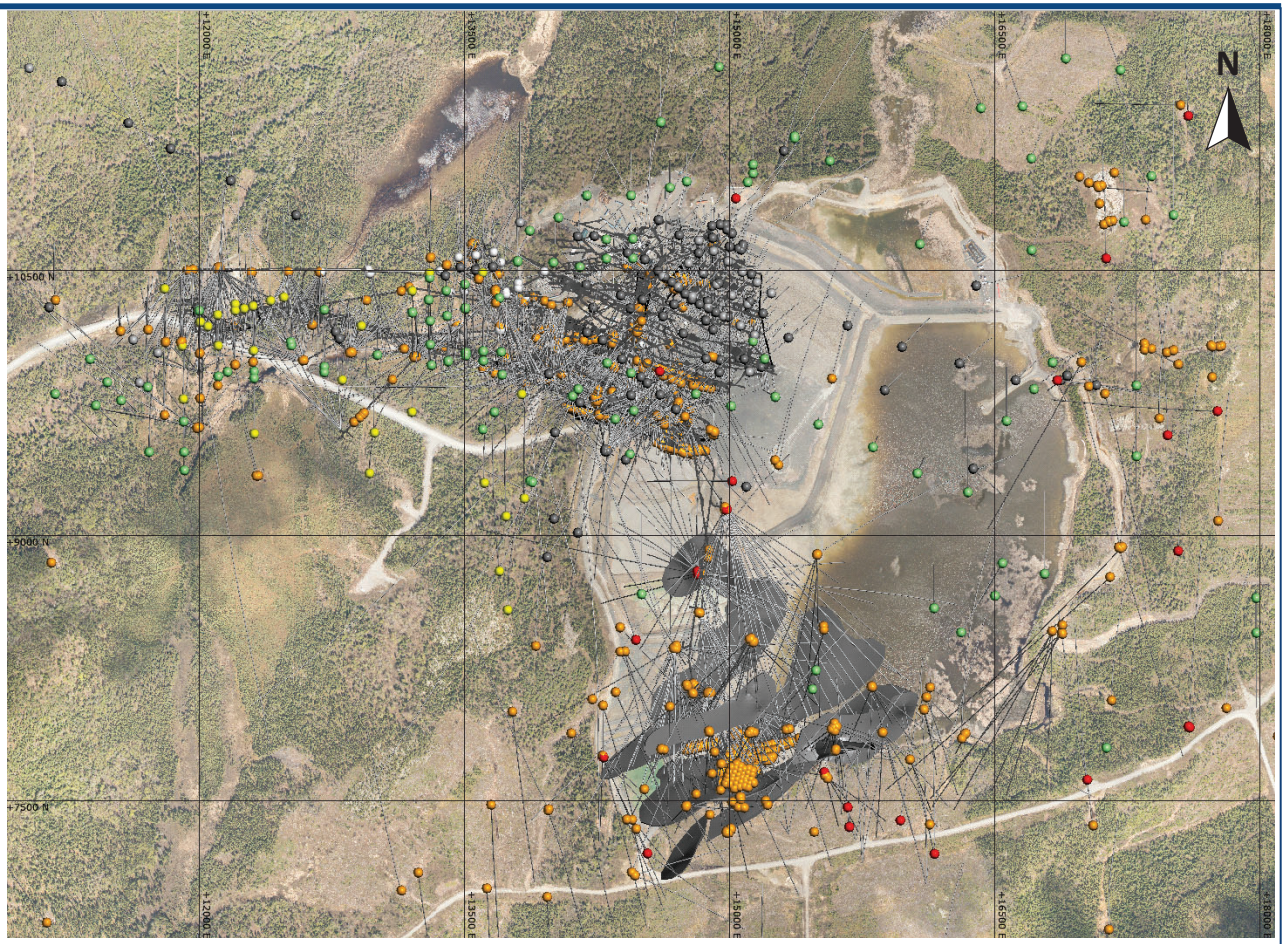
The Bachelor-Desmaraisville Property has been drilled sporadically, however, reports supporting this work, particularly the earlier drilling, are incomplete. Table 10-1 and Figure 10-1 summarize the exploration diamond drilling completed over the Bachelor-Desmaraisville Property and claim area since 1946 and includes both surface and underground drilling as well as underground channels. The documentation for work done prior to 1946 precludes its inclusion in Table 10-1.

Table 10-1: Summary of Drilling and Channel Sampling at Bachelor-Moroy
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Year	Drill Hole / Channel Count	Metres Drilled (m)	Average Length (m)
Moroy Deposit Area			
1980-1999	12	2,003	167
2010-2019	889	95,463	107
2020-2021	38	10,788	284
2021-2022	4	1,188	238
Subtotal Moroy	**943**	**109,442**	**199**

Year	Drill Hole / Channel Count	Metres Drilled (m)	Average Length (m)
		Bachelor Mine Area	
1946-1979	145	18,312	126
1980-1999	135	34,206	253
2000-2009	32	13,037	407
2010-2019	2,050	240,186	117
2020-2021	73	20,513	281
2021-2022	15	4,925	336
Historic Mine Related	469	70,590	151
Subtotal Bachelor Mine	**2,919**	**401,769**	**239**
Total Bachelor Mine and Moroy Deposit	**3,862**	**511,211**	**219**
		Regional	
1946-1979	55	6,434	117
1980-1999	132	19,990	151
2000-2009	11	1,822	166
2010-2019	57	9,166	161
2020-2021	8	2,389	299
2021-2022	7	2,499	390
Historic (unk. Date)	13	1,488	114
Subtotal Regional	**283**	**43,788**	**199**
Grand Total	**4,145**	**554,999**	**209**





Legend:

- 1946 - 1979
- 1980 - 1999
- 2000 - 2009
- 2010 - 2019
- 2020 - 2021
- NS
- Underground

Figure 10-1

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Bachelor-Moroy Drill Hole Collar Locations

0 100 200 300 400 500

Metres

July 2022

Source: SLR, 2021.

10.2.2 Urban-Barry Property

10.2.2.1 Barry

Drilling practices prior to 2016 are summarized in Section 6.0 History. Drilling at Barry has been completed using diamond drill rigs from surface and underground. Recent drilling programs have successfully confirmed the mineralization model, highlighted the importance of the moderately dipping H series veins, and extended mineralization at depth and to the south and west. A drill hole summary is presented in Table 10-2 and in Figure 10-2.

Table 10-2: Summary of Exploration Diamond Drilling at Barry
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Year	Operator	Drill Hole Count	Metres Drilled (m)	Average Length (m)
		Surface		
1960 – 1969	Fab Metals	5	124	25
1980 – 1989	Campbell Chibougamau	22	3,413	155
1990 – 1999	Murgor, Teck, Xemac	171	23,460	137
2000 – 2009	Xemac, Osisko, Murgor	421	41,742	99
2010 – 2019	Murgor, Metanor (Bonterra)	398	152,466	383
2020 – 2021	Bonterra	110	47,049	428
2021-2022	Bonterra	92	39,113	425
Unknown Date	-	25	8,309	332
Subtotal		**1,244**	**315,676**	**254**
		Underground		
2018	Bonterra	25	7,183	287
Subtotal		**25**	**7,183**	**287**
Total		**1,177**	**283,746**	**241**

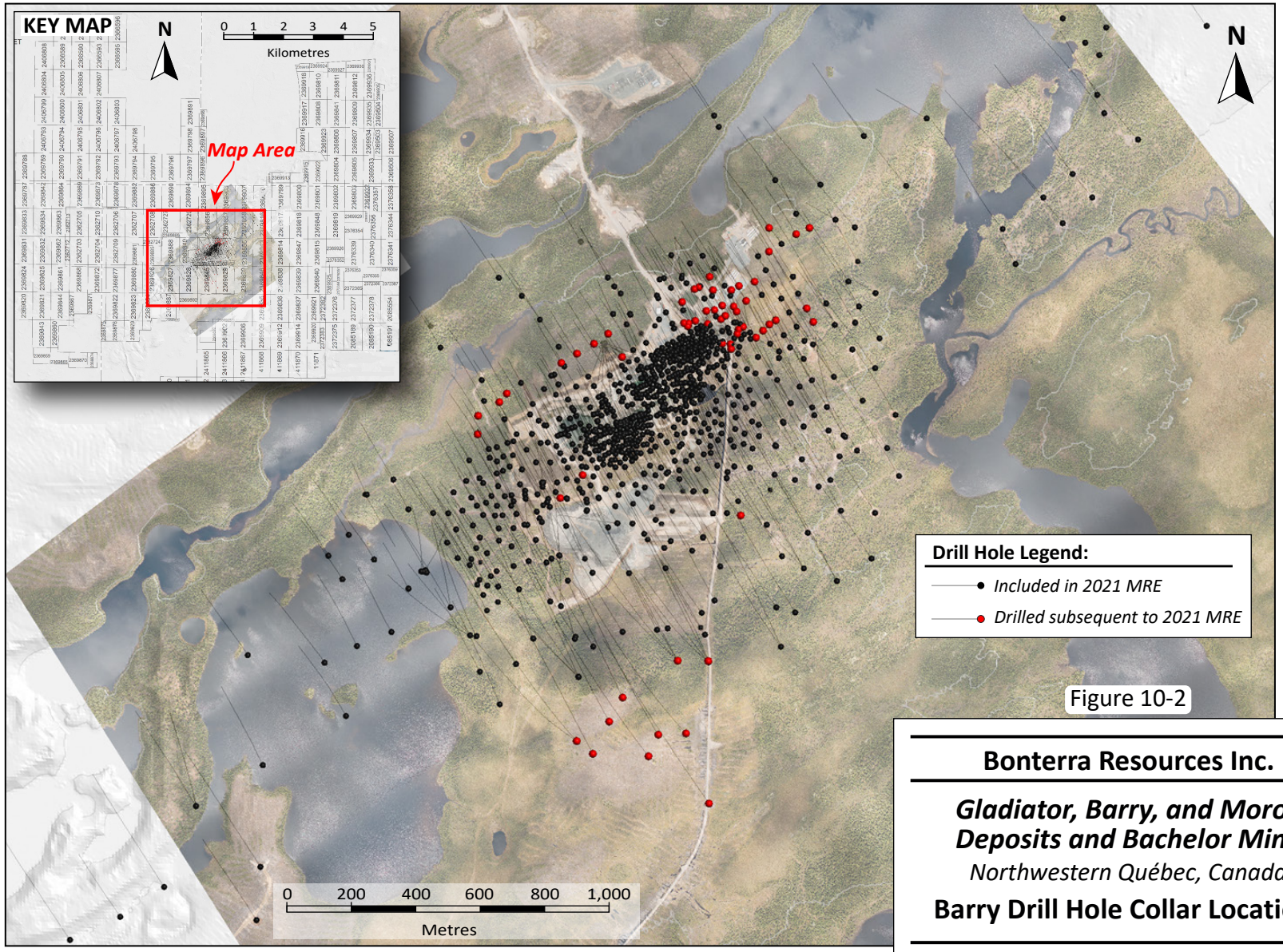


Figure 10-2

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits and Bachelor Mine

Northwestern Québec, Canada

Barry Drill Hole Collar Locations

July 2022

Source: SLR, 2022.

10.2.2.2 Gladiator

Drilling at Gladiator is completed using track mounted diamond drill rigs from surface or ice, or barge mounted diamond drill rigs on Barry Lake, which overlies the Gladiator deposit. A summary of exploration diamond drilling is provided in Table 10-3 and displayed in Figure 10-3.

Table 10-3: Summary of Exploration Diamond Drilling at Gladiator
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Year	Drill Hole Count	Metres Drilled (m)	Average Length (m)
Gladiator Deposit Area Drilling			
1980-1989	2	358	179
1990-1999	40	6,022	151
2000-2009	19	2,958	156
2010-2019	379	198,755	524
2020-2021	46	20,153	437
2021-2022	50	22,488	450
Subtotal Gladiator Deposit Area	**536**	**250,734**	**468**
Regional Drilling			
1980-1989	69	15,579	226
1990-1999	37	7,524	203
2010-2019	168	57,329	341
2020-2021	125	48,637	389
2022	19	9,683	510
NS	114	19,028	167
Subtotal Regional Drilling	**532**	**157,780**	**297**
Total	**1,068**	**408,514**	**382**

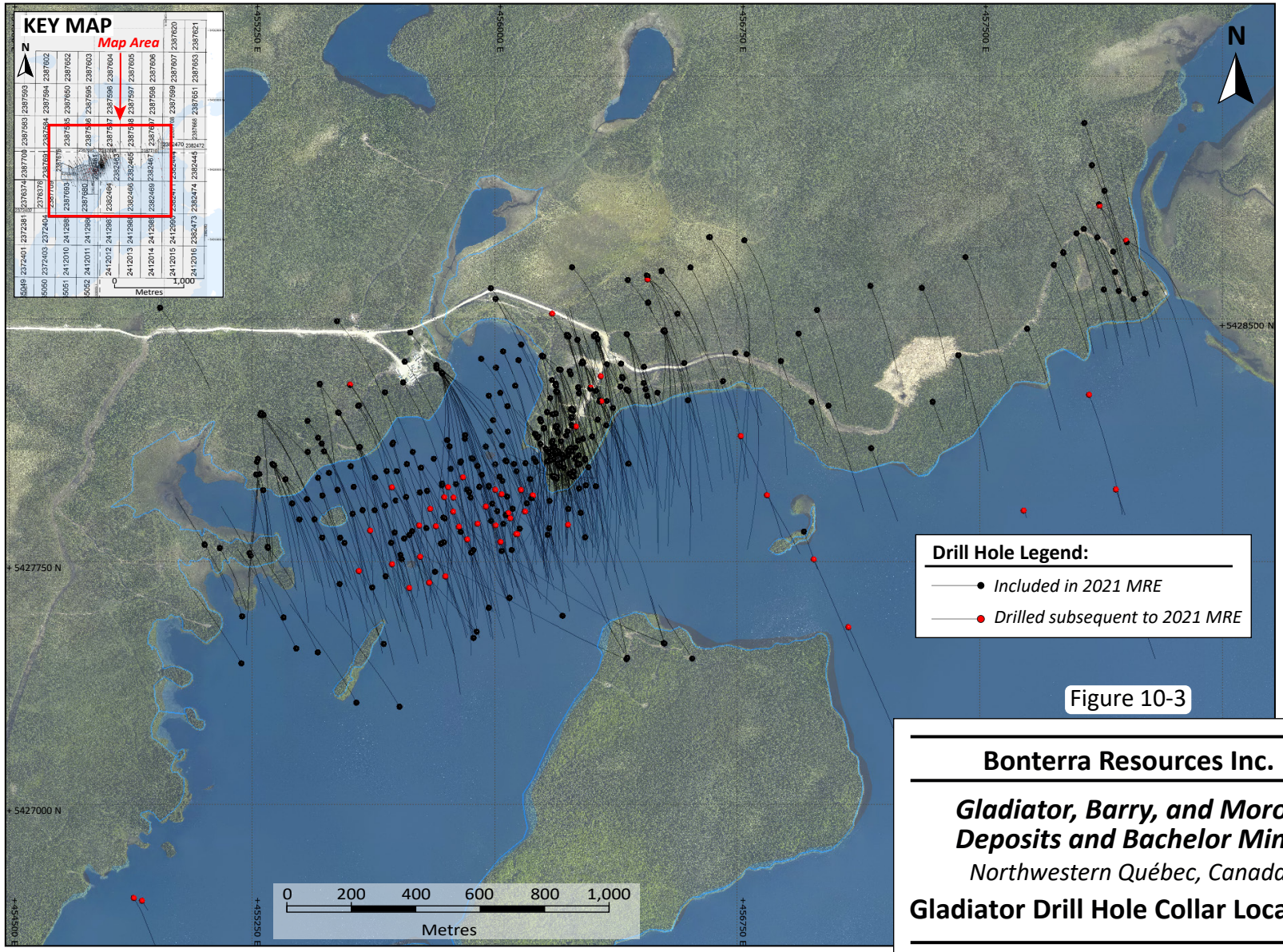


Figure 10-3

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits and Bachelor Mine

Northwestern Québec, Canada

Gladiator Drill Hole Collar Locations

July 2022

Source: SLR, 2022.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Sampling Method and Approach

11.1.1 Gold Analysis

Mineralized drill core and shoulder samples are identified and marked on the drill core by the geologists. Sample lengths range from 0.5 m to 1.6 m, commonly being one metre, and respect geological contacts. Sample tags are placed at the beginning of each sample interval and the tag numbers are recorded within the Géoticlog database software.

Diamond drill core is split in two using a diamond saw following a reference line as defined by the geologist. One half is collected, bagged, and submitted for sample preparation and analysis. While the remaining half of split core is returned to the core box and stored on each site in well-mapped core storage facilities. Sampled core is double-bagged and stacked in pallets or rice-bags prior to being transported to the Bachelor Laboratory, or previously, to ALS Limited (ALS) (Table 11-1).

Table 11-1: History of Preparation and Analysis Laboratory Use
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Deposit	Bachelor Laboratory, Bachelor Mine	ALS Chemex, Val-d'Or
Bachelor	Historical to 2021	-
Moroy	Historical to 2021	-
Gladiator	2019 to 2022	Historical to 2018
Barry	2009 to 2022	Historical to 2008

11.1.2 Density Analysis

In 2019, SGS submitted , as part of its verification work, 78 core duplicate samples from across the Moroy and Barry deposits to SGS's laboratory in Lakefield, Ontario, for analysis by pycnometer, and recommended further density testing be completed at all deposits (SGS, 2019a, 2019b).

In addressing these recommendations, Bonterra collected 2,050 pulp duplicate samples representing a cross section of all four deposits and most lithologies and mineralization styles for analysis at ALS using technique OA-GRA08b: Specific gravity on pulp samples using pycnometer.

11.2 Sample Preparation and Analysis

11.2.1 Bachelor Laboratory

Samples are processed at the Bachelor Laboratory, where they are logged in the tracking system, weighed, dried, and crushed to greater than 60% passing a 2.36 mm screen. A split of 250 g to 400 g is taken and pulverized to greater than 80% passing (P_{80}) a 75 µm screen. Crushers and pulverizers are cleaned with compressed air after processing each sample and cleaned with crushed quartz. Following preparation, a 30 g split of the samples is delivered to the adjacent analytical laboratory where a 30 g fire assay with an atomic absorption spectroscopy (AAS) finish is performed. The Bachelor Laboratory is not independent of Bonterra and does not hold accreditation for the relevant procedures.

11.2.2 ALS

Primary assays from the Barry and Gladiator deposits were prepared and analyzed at ALS until 2008 and 2018, respectively. Although all primary samples are currently processed at Bachelor Laboratory, ALS has continued in the role of secondary laboratory for all exploration samples to monitor bias.

ALS is independent of Bonterra, and its Val-d'Or facilities are accredited to the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 9001:2008 standards for all quality management and to ISO/IEC 17025:2005 for all relevant procedures. The following analysis is undertaken at the ALS Val-d'Or facilities:

- **Sample Preparation:** PREP-31B. Samples are crushed to 70% less than 2 mm, riffle split to 1 kg, pulverized split to greater than 85% passing 75 µm.
- **Gold Analysis:** Au-AA24. A 30 g or 50 g fire assay standard fusion method with AAS finish. The lower detection limit is 0.005 g/t Au, and the upper detection limit is 10 g/t Au.
- **Gold Analysis:** Au-GRA22. Gold analyses returned from Au-AA24 with a gold value above 10 g/t Au are re-assayed using a 50 g fire assay standard fusion method with a gravimetric finish. The upper limit of detection is 100 g/t Au.

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

11.3 Sample Security and Database Management

Samples are handled and transported by Bonterra personnel or contractors. Drill core is stored at the onsite core storage facility at each project site, the grounds of which are locked. The storage facilities are open on the sides and covered with a corrugated iron roof. A core storage map in maintained by Bonterra. Sample rejects are stored at the various sites in either shipping containers or in rice bags.

Drill hole logging and sample data are maintained in Géotic's Géoticlog software, with regular back ups. In the QP's opinion, the sample security procedures are acceptable for the purposes of Mineral Resource estimation.

11.4 Quality Assurance and Quality Control

Quality assurance (QA) consists of evidence that the assay data has been prepared to a degree of precision and accuracy within generally accepted limits for the sampling and analytical method(s) to support its use in a resource estimate. Quality control (QC) consists of procedures used to ensure that an adequate level of quality is maintained in the process of collecting, preparing, and assaying the exploration drilling samples. In general, QA/QC programs are designed to prevent or detect contamination and allow assaying (analytical), precision (repeatability), and accuracy to be quantified. In addition, a QA/QC program can disclose the overall sampling-assaying variability of the sampling method itself.

In the QP's opinion, the QA/QC program as designed and implemented by Bonterra is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

11.4.1 QA/QC Protocols

The following QA/QC protocols were implemented by Metanor and continued by Bonterra. The QA/QC program is managed by the Bonterra geology department, and QA/QC samples are blind to the internal Bachelor Laboratory and secondary ALS facility. Each batch of approximately 200 samples is submitted to

the Bachelor Laboratory and includes one certified reference material (CRM) for every 25 samples from the Bachelor Mine or Moroy deposit or one CRM for every 20 samples from the Gladiator and Barry deposits. CRM samples are inserted at random. Blank samples and pulp duplicates are inserted at a rate of one per 25 samples and are placed either preceding or following a mineralized interval. CRM samples are inserted at random. All QA/QC sample insertions maintain consecutive numerical order. Coarse blank material, approximately 250 g by weight, are sourced at SITEC, a quartzite mine in Charlevoix, Québec. After receiving the assays results, Bonterra geologists select 10% of the pulp rejects from each certificate (10 to 22 samples per certificate) to send to the ALS laboratory in Val-d'Or for check assays. Reject duplicates selection is random or chosen with preference to results above 2.0 g/t Au, target dependent.

QA/QC reports for each deposit are prepared monthly by the onsite project geologist and chief geologist. Batches of samples identified by QA/QC as anomalous are repeated by Bachelor Laboratory or ALS at the request of Bonterra.

A summary of annual QA/QC submittals from 2016 to 2021 is presented in Table 11-2.

Table 11-2: Summary of QA/QC Submittals from 2016 to 2021
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Sample Type	2016		2017		2018		2019		2020		2021		No Dates/Missing Information	
	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate
Bachelor- Moroy														
Regular Samples	13,760	-	5,398	-	7,836	-	4,221	-	3,359	-	2,679	-	45,288	-
Blanks	558	4%	158	3%	295	4%	193	5%	139	4%	94	4%	635	1%
CRMs	577	4%	153	3%	318	4%	202	5%	149	4%	98	4%	635	1%
Pulp Duplicates	805	6%	339	6%	470	6%	316	7%	209	6%	142	5%	476	1%
Duplicates (Check Assay Lab)	11,77	8.5%	435	8%	365	4.7%	638	15%	347	10.3%	204	7.5%	NA	NA
CRM (Check Assay Lab)	62	5%	23	4.8%	40	9%	4	0.6%	19	5%	7	3%	NA	NA
Blanks (Check Assay Lab)	64	5%	23	4.8%	29	7%	6	0.9%	15	4%	9	4%	NA	NA
Check Assay Total	1,303	-	481	-	434	-	648	-	381	-	220	-	NA	-
Barry														
Regular Samples	2,295	-	22,464	-	19,012	-	9,283	-	12,260	-	10,456	-	25,966	-
Blanks	87	4%	521	2%	459	2%	409	4%	555	5%	469	4%	380	1%
CRMs	86	4%	969	4%	838	4%	411	4%	667	5%	578	6%	504	2%
Pulp Duplicates	49	2%	1,126	5%	949	5%	539	6%	716	6%	861	8%	2	0%
Duplicate (Check Assay Lab)	97	4%	1,441	6.5%	2,419	12.7%	888	9.5%	606	5%	1,079	10%	NA	NA
CRM (Check Assay Lab)	2	2%	69	4.5%	117	5%	22	2.4%	21	3%	47	4%	NA	NA
Blanks (Check Assay Lab)	2	2%	26	2%	63	2.4%	19	2.0%	17	3%	46	4%	NA	NA
Check Assay Total	101	-	1,536	-	2,599	-	929	-	644	-	1,172	-	NA	-

Sample Type	2016		2017		2018		2019		2020		2021		No Dates/Missing Information	
	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate
						Gladiator								
Regular Samples	11,592	-	25,992	-	65,498	-	18,179	-	12,320	-	7,315	-	13,973	-
Blanks	318	3%	418	2%	1,261	2%	662	4%	277	2%	218	3%	814	6%
CRMs	266	2%	313	1%	1,084	2%	632	3%	264	2%	205	3%	740	5%
Pulp Duplicates	272	2%	422	2%	1,116	2%	652	4%	446	4%	285	4%	96	1%
Duplicate (Check Assay Lab)	-	-	-	-	-	-	813	4.5%	352	3%	542	7.5%	1	0.01%
CRM (Check Assay Lab)	-	-	-	-	-	-	22	2.6%	8	2.2%	-	--	1	33%
Blanks (Check Assay Lab)	-	-	-	-	-	-	16	2.0%	9	2.4%	-	-	1	33%
Check Assay Total	-	-	-	-	-	-	851	-	369	-	542	-	3	-

Notes:

1. Annual Summaries are from January 1st to December 31st of the given year with the exceptions of Year 2021 which ends May 11th.
2. Insertion rates of CRM and blank samples sent to the check assay laboratory are calculated based on pulp reject submissions to the secondary laboratory (ALS).
3. Insertion rates of CRM and blank samples sent to the check assay laboratory (ALS) are calculated based on duplicate sample submission to ALS.

11.5 Certified Reference Material

Results of the regular submission of CRMs (standards) are used to identify issues with specific sample batches, and biases associated with the primary assay laboratory (Bachelor Laboratory). Bonterra has sourced CRMs from several different international laboratories. Results of the CRMs were plotted in control charts, and failure rates, defined as a gold value reporting more than three standard deviations (SD) from the expected value, and warning rates, defined as gold values reporting more than two SD but less than three SD from the expected values, were tabulated monthly for review by onsite personnel.

A total of 32 different CRMs were inserted at Barry, 36 at Bachelor-Moroy, and 29 at Gladiator, which were incorporated in the sample stream from Bonterra (and previous owners) from 2008 to 2021, totaling 5,485 individual samples at Barry, 3,932 at Bachelor-Moroy and 3,941 at Gladiator, with an overall insertion rate of approximately 4%. The QP reviewed the Certificates of Analysis of 16 of these CRMs, which were in use at the site from 2016 to 2021 and vary in grade from 0.309 g/t Au to 12.11 g/t Au.

The QP selected 22 CRMs, representing grades close to the cut-off grade, average grade, and high grade mineralization at site, and, where possible, spanned several years of use, for additional review. The technique used to assay the CRM material, expected values, and standard deviation of each CRM are listed in Table 11-3. The QP prepared control charts and analyzed temporal and grade trends, reviewed the data for low and high biases, and tabulated the failure rate of each CRM.

Table 11-3: Expected Values and Ranges of Selected Gold CRM
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Standard	Grade (g/t Au)	1 SD	Assay Technique	Source	Date in Use Range	Number	Grade Represented
				Barry			
OREAS 229	12.11	0.206	Pb, FA	OREAS	2018-2021	20	High Grade
OREAS 239	3.55	0.086	Pb, FA	OREAS	2019-2020	29	Average Grade Op
OREAS 226	5.45	0.126	Pb, FA	OREAS	2020-2021	303	Average Grade Ug
OREAS 250	0.309	0.013	Pb, FA	OREAS	2016-2021	1264	Low Grade Op
OREAS 210	5.49	0.152	Pb, FA	OREAS	2016-2021	341	Average Grade Ug
OREAS 220	0.866	0.02	Pb, FA	OREAS	2018-2020	152	Low Grade Op
OREAS 16a	1.81	0.06	Pb, FA	OREAS	2016-2018	192	Cut-Off Grade
OREAS 223	1.78	0.045	Pb, FA	OREAS	2017-2021	927	Cut-Off Grade
OREAS 229b	11.95	0.288	Pb, FA	OREAS	2020-2021	350	High Grade
				Bachelor Mine / Moroy			
OREAS 10c	6.6	0.16	Pb, FA	OREAS	2014-2016	221	Average Grade Moroy
OREAS 16a	1.81	0.06	Pb, FA	OREAS	2014-2020	325	Cut-Off Grade
OREAS 202	0.752	0.026	Pb, FA	OREAS	2014-2020	420	Low Grade
OREAS 215	3.54	0.097	Pb, FA	OREAS	2016-2020	211	Average Grade Bachelor
OREAS 220	0.866	0.02	Pb, FA	OREAS	2018-2021	141	Low Grade

Standard	Grade (g/t Au)	1 SD	Assay Technique	Source	Date in Use Range	Number	Grade Represented
OREAS 223	1.78	0.045	Pb, FA	OREAS	2017-2021	305	Cut-Off Grade
OREAS 229b	11.95	0.288	Pb, FA	OREAS	2019-2021	163	High Grade
OREAS 255	4.08	0.087	Pb, FA	OREAS	2019-2021	103	Average Grade Bachelor
OREAS 12a	11.79	0.24	Pb, FA	OREAS	2014-2018	366	High Grade
OREAS 216	6.66	0.155	Pb, FA	OREAS	2016-2020	227	Average Grade Moroy
				Gladiator			
OREAS 229b	11.95	0.288	Pb. FA	OREAS	2019-2021	72	High Grade
OxN117	7.679	0.207	Pb, FA	Rocklabs	2016-2018	201	Average Grade
OREAS 223	1.78	0.045	Pb. FA	OREAS	2019-2021	533	Cut-Off Grade
OREAS 250	0.309	0.013	Pb. FA	OREAS	2019-2021	539	Low Grade

Notes:

1. FA=fire assay.
2. Pb=Lead
3. SD=standard deviation.

Results from the Bachelor CRM OREAS 215 samples, presented in Figure 11-1, indicate very good and consistent laboratory precision, and a low bias at the grade range (3.5 g/t Au). Only six out of the 211 CRMs were outside two SD and there were no failures.

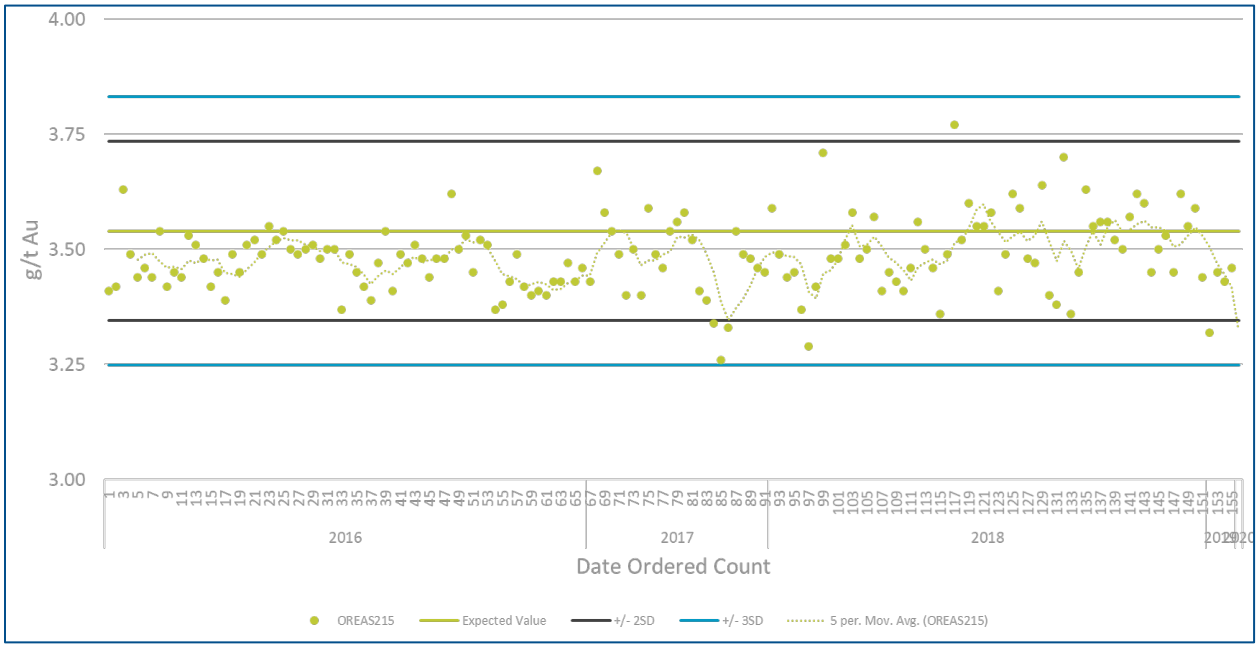


Figure 11-1: Control Chart of Bachelor CRM OREAS 215: 2016 to 2020

Results from the Moroy OREAS 216 samples, which represent the closest value to the average grade of the Moroy deposit, are presented in Figure 11-2 and indicate mostly good laboratory accuracy and

precision at the Bachelor Laboratory. An overall failure rate of 0.9% and a consistent low bias over the period the CRM has been in use were observed.

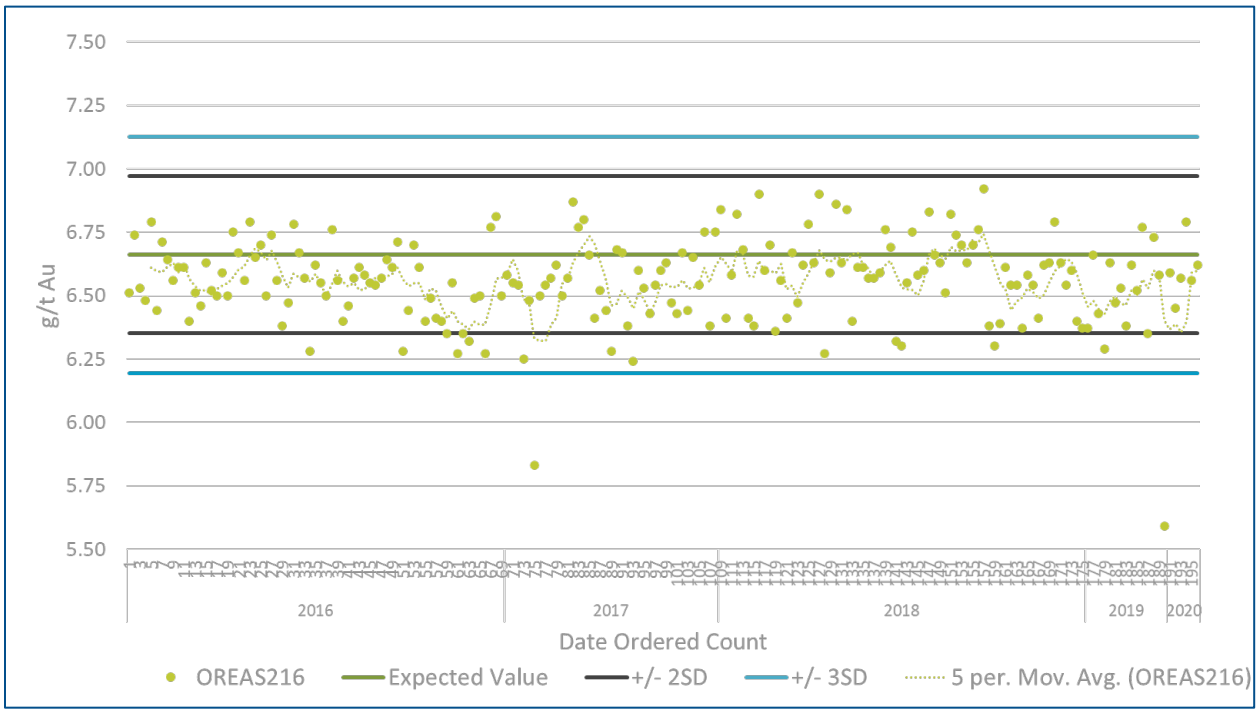


Figure 11-2: Control Chart of Moroy CRM OREAS 216: 2016 to 2020

The CRM selected to best represent the cut-off grade of the Projects is Barry's OREAS 223, presented in Figure 11-3. OREAS 223 indicates generally good accuracy and precision at the Bachelor Laboratory. An overall failure rate of 0.3% was observed, and, as in OREAS 215 and OREAS 216, there is a low grade bias in most of the years in use. OREAS 223 continues to be used on site, and since it approximates the cut-off grade of the Projects, the QP recommends investigating the bias observed to ensure that economic areas are not incorrectly excluded from the Mineral Resource domains.

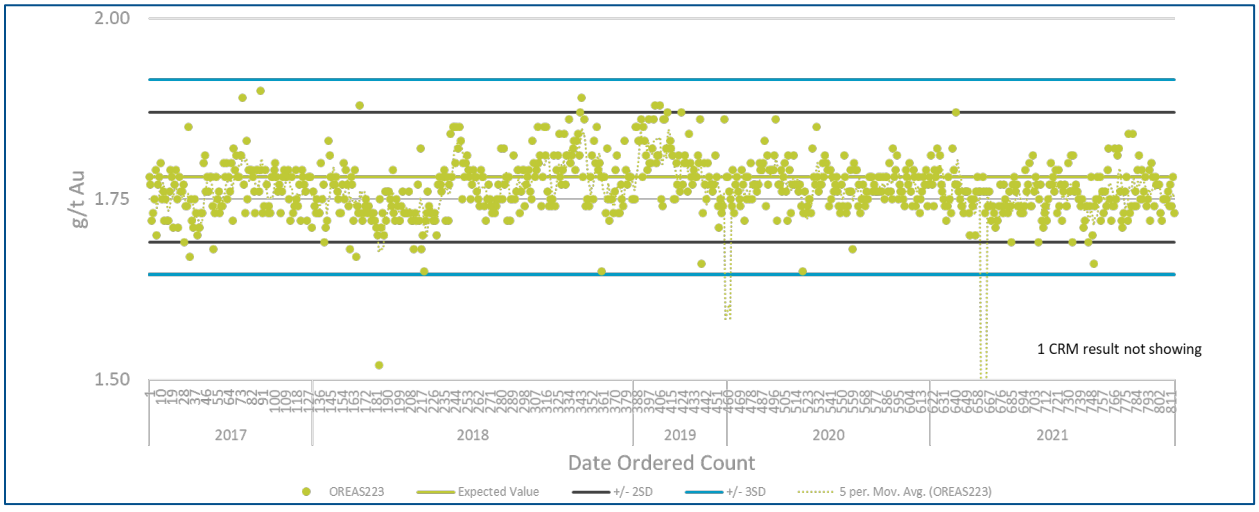


Figure 11-3: Control Chart of Barry CRM OREAS 223: 2017 to 2021

Results from OREAS 229b, presented in Figure 11-4, indicate a low bias over 2020 and early 2021, consistent with all other CRMs analyzed at the Bachelor Laboratory. While the low bias is not present in 2019 results, the low number of submissions prevents firm conclusions to be drawn from this observation.

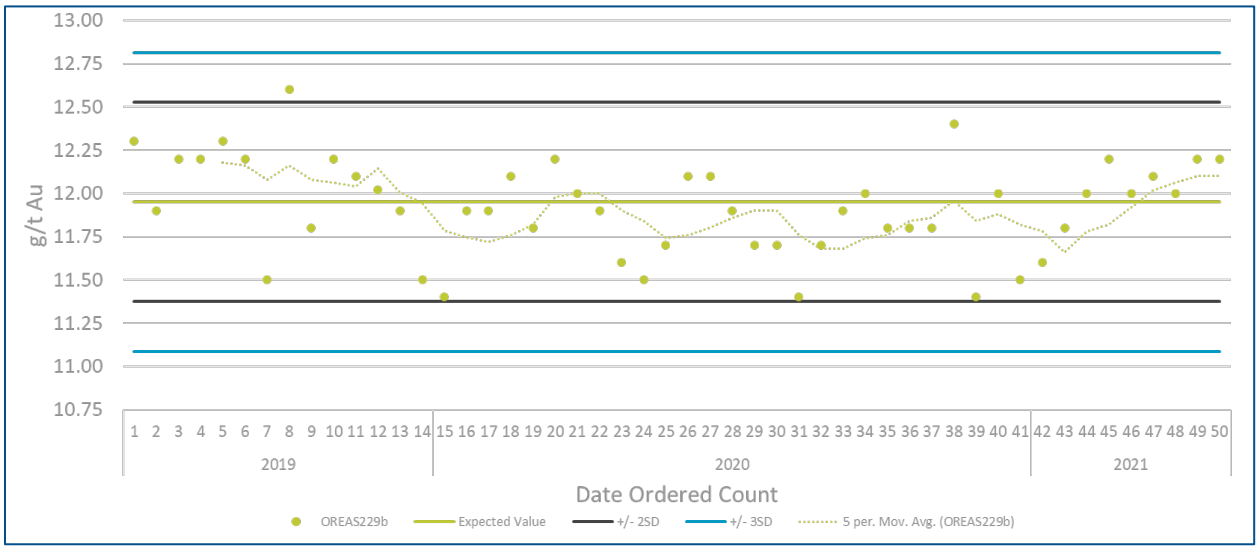


Figure 11-4: Control Chart of Gladiator CRM OREAS 229b: 2017 to 2021

11.6 Blank Material

The regular submission of blank material is used to assess contamination during sample preparation and to identify sample numbering errors. Blank material samples were coarse, weighed approximately 250 g, and were sourced at SITEC. Blank material was inserted at a rate of 4% at Bachelor, Moroy, and Barry, and at 3% of the samples at Gladiator. The QP prepared plotted charts of sterile (quartzite) assays results against an error limit of five times the lower detection limit of the assay technique, or 0.01 g/t Au. Results indicate a negligible amount of sample contamination associated with samples from the Properties, with failure rate of 0.35%, 0.45%, and 0.25% for Bachelor-Moroy, Barry, and Gladiator respectively.

11.7 Field, Coarse Reject and Pulp Duplicates

Duplicate samples help to monitor preparation, assay precision, and grade variability as a function of sample homogeneity and laboratory error. QA/QC protocols at all the Properties stipulate the inclusion of pulp duplicates; field and coarse duplicate sample monitoring are not included. Pulp duplicates provide a measure of the sample homogeneity at different stages of the preparation process (crushing and pulverizing).

The QP analyzed a complete database of pulp duplicate data compiled by Bonterra using basic statistics, and scatter and quantile-quantile plots. A total of 4,263 sample pairs were included in the analysis at Barry, 4,820 at Bachelor-Moroy, and 3,607 at Gladiator. The correlation coefficient of the Barry pulp duplicate dataset was 0.92 and 0.99 for Bachelor-Moroy. The correlation coefficient at Gladiator before removal of outlier pairs was 0.62. Those outliers were most likely the result of poor homogenization of the pulp sample. Gold at Gladiator occurs predominantly as free gold and is affected by a strong nugget effect, which may explain why homogenization is more challenging. Following the removal of nine outlier pairs, the correlation coefficient at Gladiator was increased to 0.93. A scatter plot of the internal pulp duplicate sample pairs is presented in Figure 11-5.

The QP is of the opinion that the Barry and Bachelor-Moroy datasets exhibit a high level of precision at the primary laboratory (Bachelor Laboratory), and that pulp duplicate precision at Gladiator is moderate to poor. The QP recommends investigating the homogenization procedures at the Bachelor Laboratory and working with the Bachelor Laboratory manager to improve pulp duplicate precision, which may include the submission of field and coarse duplicates.

Field and coarse duplicates, which test the natural variability of the original core sample, as well as all levels of error including core splitting, sample size reduction in the preparation laboratory, sub-sampling of the pulverized sample, and analytical error, are not currently included in the QA/QC programs at the Projects. The QP recommends implementing a program of 50 to 100 field and coarse duplicate samples, particularly at Gladiator, which may be helpful to understand the pulp duplicate sample results.

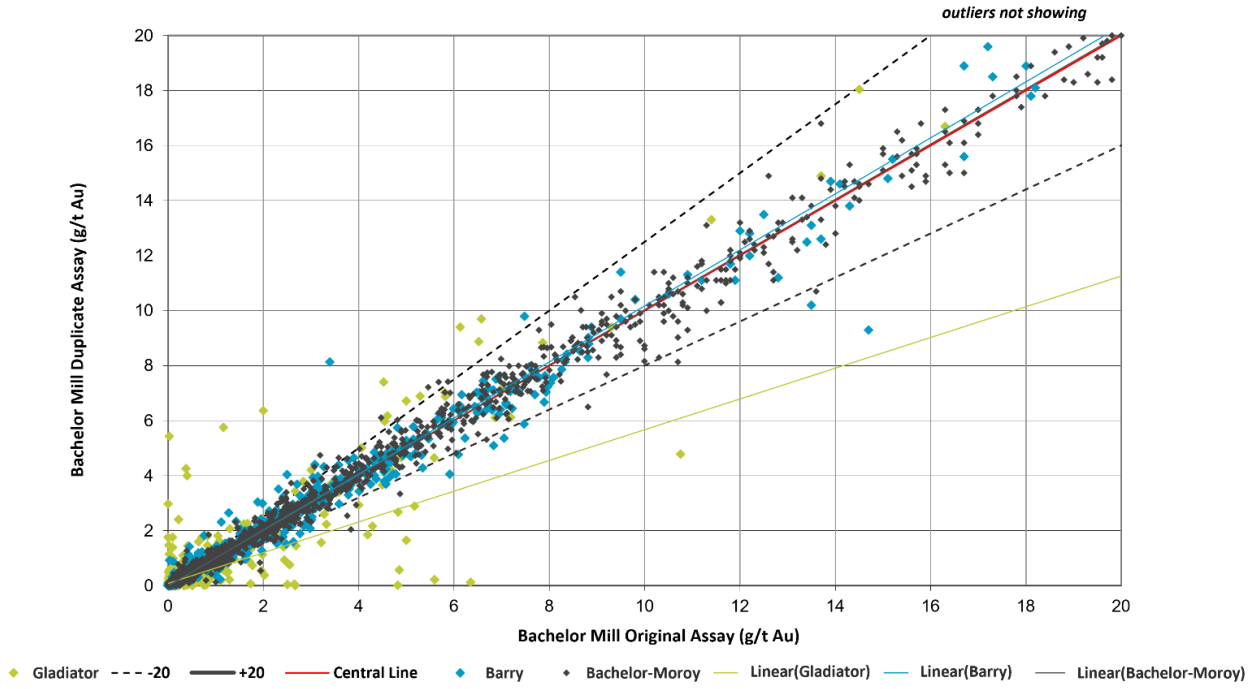


Figure 11-5: Scatter Plot of Bachelor-Moroy, Barry, and Gladiator Internal Pulp Duplicate Samples

11.8 Check Assays

Submitting assays to a secondary laboratory helps to monitor bias at the primary laboratory. The primary laboratory is the Bachelor Laboratory, owned and operated by Bonterra, while the secondary laboratory is ALS, independent of Bonterra and located in Val-d'Or. The QP prepared an analysis which included a comparison of the original (Bachelor Laboratory) and re-submitted pulp assay results (ALS), as well as an analysis of CRM and blank performance at the secondary laboratory. From 2016 to 2021, 3% to 15% of all Bachelor Laboratory primary assays were resubmitted to ALS, alongside QA/QC samples. The QP notes that while the Bonterra QA/QC protocols call for a check assay sample submission rate of 10%, there are several years where this insertion rate is not achieved.

The Barry OREAS 223 CRM results assayed at ALS as part of a regulatory check assay program are plotted in Figure 11-6, and confirm the results of the ALS check assay accuracy and precision and evaluate the

presence of an observed low bias at the Bachelor Laboratory. The QP notes that the CRM values submitted to ALS do not exhibit a bias, in contrast to the low bias consistently observed in the same CRM analysed at the Bachelor Laboratory (Figure 11-3). While these results are confirming of the observed low bias, the QP notes that the failure rate for OREAS 223 at ALS is 4.3%, higher than results at the Bachelor Laboratory, indicating more precision at the internal lab. The QP recommends working with ALS to improve the accuracy of results, and with the Bachelor Laboratory to address the low bias of gold values at all grade ranges.

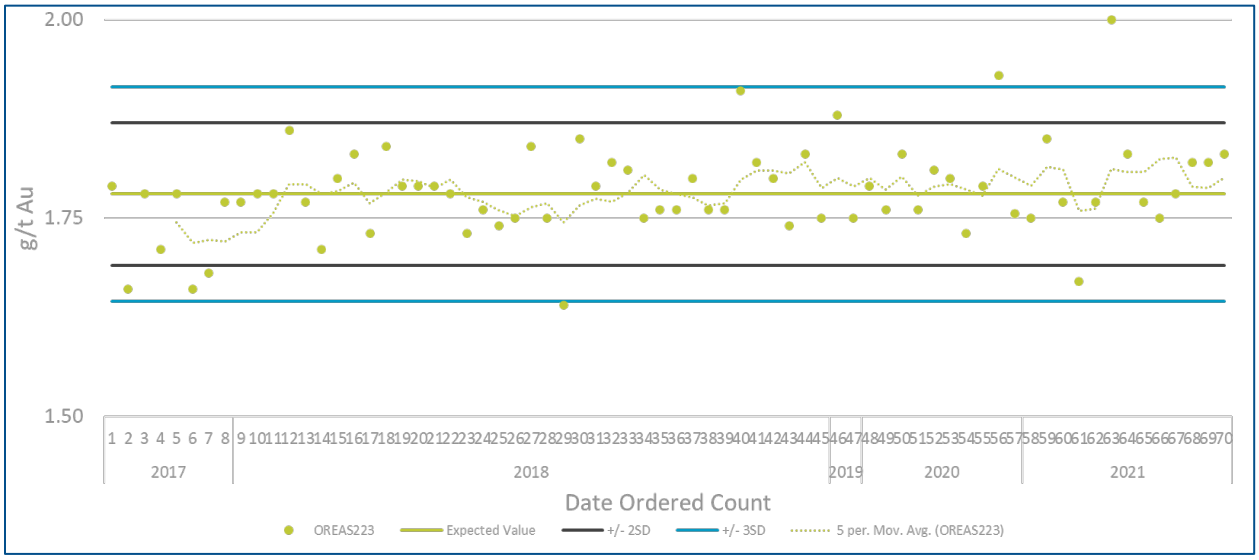


Figure 11-6: Control Chart of Barry CRM Check Assay OREAS 223 to ALS: 2017 to 2021

The original Bachelor Laboratory assay value and its duplicate value (ALS) are plotted in Figure 11-7 as a scatter plot and in Figure 11-8 as a quantile-quantile plot.

While the presence of a low bias is observable for Barry, the small sample set at Bachelor-Moroy, and the high number of outliers and small sample set at Gladiator prevent firm conclusions to be made.

Consistent with internal duplicate sample results, Gladiator sample pairs exhibit the lowest precision, with a high number of poorly correlating sample pairs. The nature of the mineralization at Gladiator is nuggetty, and an investigation in pulp sample homogenization and duplicate sampling practices is required to determine if improvement of results is possible. The QP verified that the problematic re-submitted pulps from Gladiator were not the result of a human error and that their grades concorded with the core log description. The Bachelor-Moroy sample pairs follow an x-y linear trend in Figure 11-7, with few outliers. The correlation coefficient for Bachelor-Moroy sample pairs is very good at 0.989; while Gladiator sample pairs have a moderate correlation coefficient at 0.9. Barry, with a much larger sample set, and a large pool of below cut-off grade samples has a low correlation coefficient of 0.824.

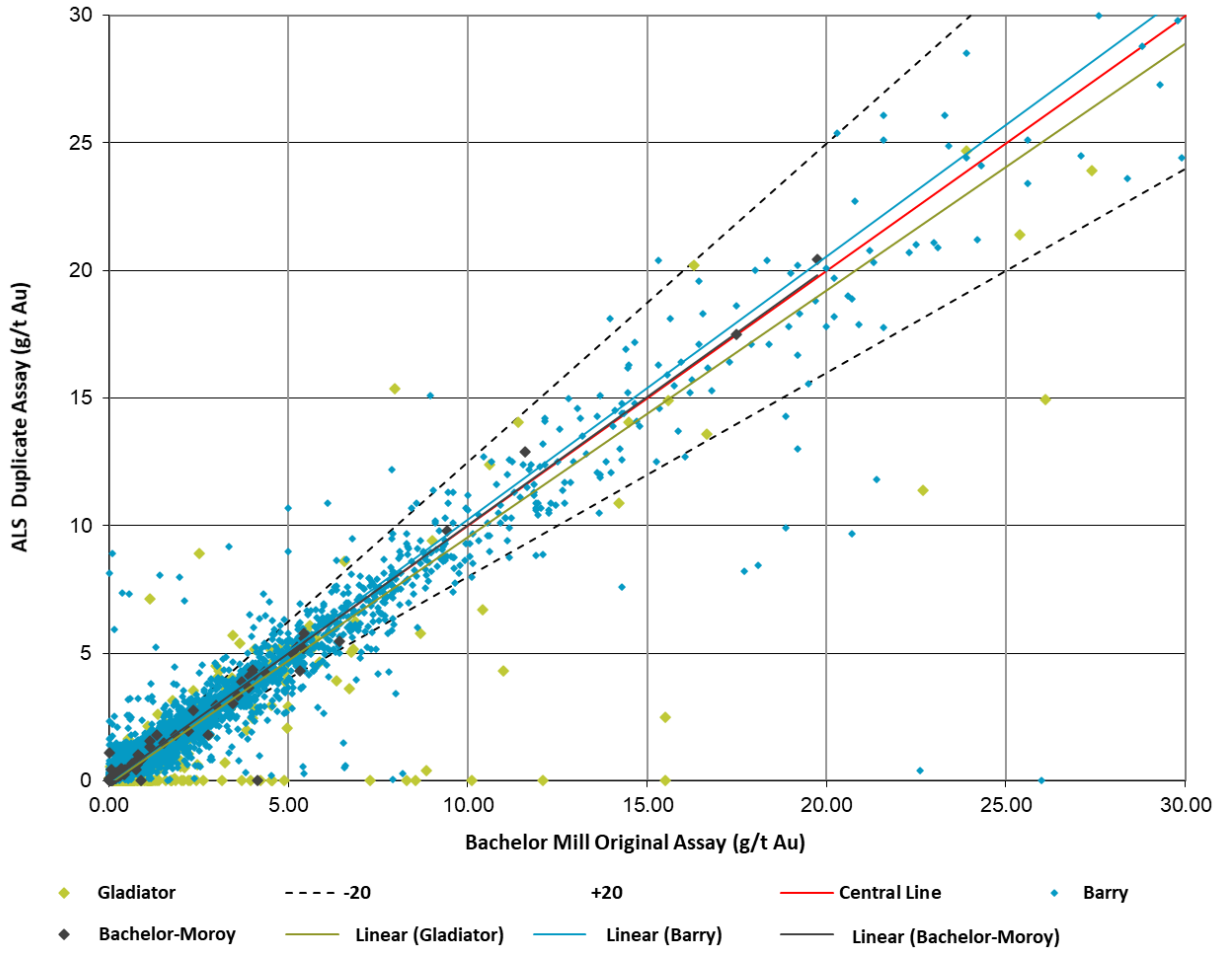


Figure 11-7: Scatter Plot of Original and ALS Duplicate Assay Value for Bachelor-Moroy, Barry and Gladiator

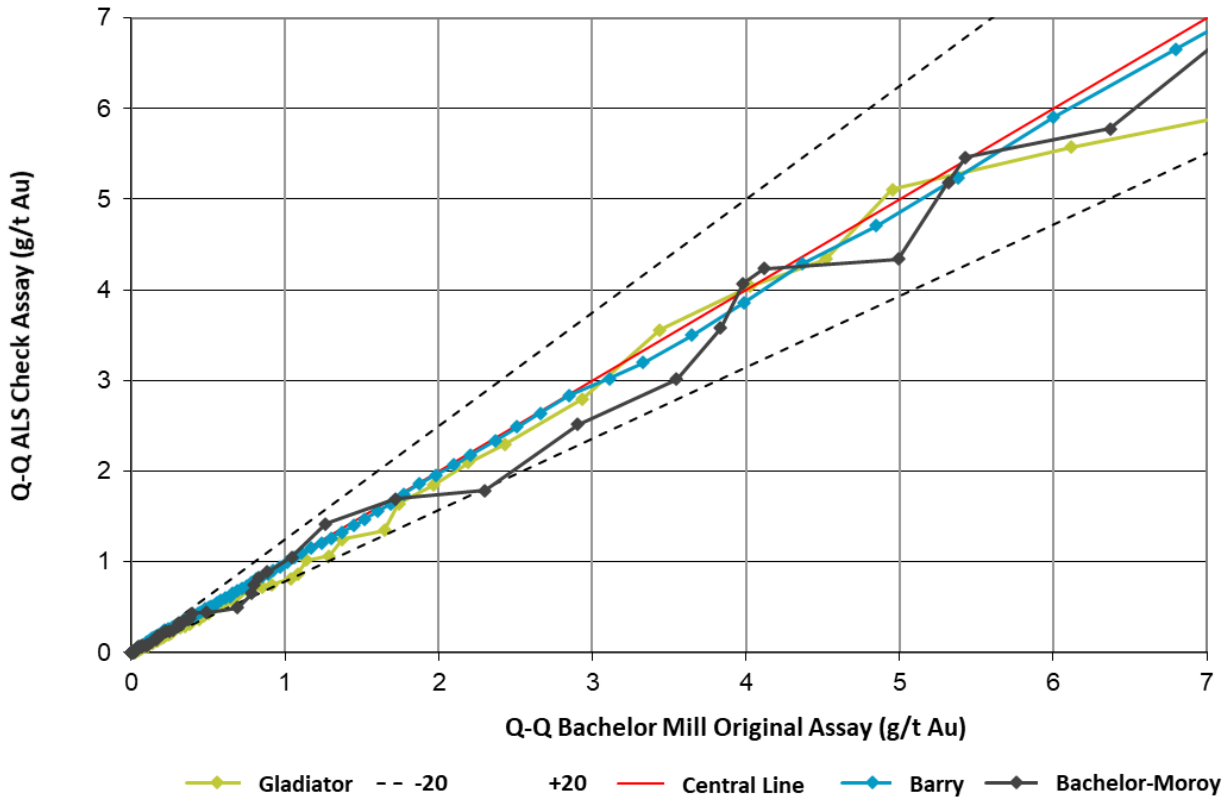


Figure 11-8: Quantile-Quantile Plot of Original and ALS Duplicate Assay Value for Bachelor-Moroy, Barry, and Gladiator

11.9 Conclusions

The QP offers the following conclusions regarding QA/QC data and reports collected for the Properties from 2016 to 2021:

- The QA/QC program as designed and implemented by Bonterra is adequate and the assay results within the database are acceptable for the purposes of Mineral Resource estimation.
- The results of the CRM program indicate very good precision and low bias at the primary laboratory (Bachelor Laboratory).
- The results of the blank sampling program indicate negligible sample contamination and few sample numbering errors.
- The results of the internal duplicate program at Barry and Bachelor-Moroy indicate a high level of precision at the primary laboratory (Bachelor Laboratory), and that pulp duplicate precision at Gladiator is moderate to poor. The observed disparity in result quality is likely due to the homogenization of the pulp and related sampling procedures and the Gladiator samples' sensitivity to these procedures due to the nuggetty nature of its mineralization.
- The results of the check assay program confirm the low bias observed in the primary laboratory (Bachelor Laboratory), and mimic the lower precision observed in Gladiator internal pulp duplicate samples.

11.10 Recommendations

The QP offers the following recommendations regarding QA/QC data collection on the Properties:

1. Prepare quarterly and annual QA/QC reports across the Projects which evaluate longer term trends and contextualize results from the individual properties.
2. Implement a program of 50 to 100 field and coarse duplicate samples, particularly at Gladiator, to help understand the duplicate sample results.
3. Investigate and resolve the low bias observed for all grade ranges at the Bachelor Laboratory to ensure that economic areas are not incorrectly excluded and are reflected appropriately in the Mineral Resource estimate.
4. Work with the primary laboratory (Bachelor Laboratory) to determine if pulp duplicate and check assay results from Gladiator can be improved with procedural modifications.

12.0 DATA VERIFICATION

12.1 SLR Site Verification Procedures

SLR QP visited the Properties from June 14 to 15, 2021. While on site, SLR held discussions with site personnel, visited the Moroy underground workings, Barry open pit exposures, and Gladiator surface exposures. SLR also reviewed previously selected core intercepts within several drill holes at each deposit and compared them against recorded lithology logging and assay results. In addition, SLR reviewed data collection and QA/QC procedures. SLR also visited the Bachelor Laboratory, including both the preparation and analysis locations, and reviewed samples processing and analytical procedures.

The QP regards the geological and mineralization interpretations used to support Mineral Resource estimation consistent with the observed rock exposure and drill core, and the Bonterra geologists to have a good understanding of the geology and mineralization.

12.2 SLR Audit of the Drill Hole Database

The QP reviewed the drill hole databases for each of the Projects in Leapfrog software and conducted a standard review of import errors and visual checks. While the QP noted some errors in the mined out and areas distal to the block models, no significant errors were identified for information being used in the Mineral Resource estimates.

The QP requested a spatially and temporally representative set of assay certificates for each deposit, sourced directly from either the Bachelor Laboratory or ALS. The QP performed assay certificate verification exercises comparing the certificates to the assays in the drill hole databases for the Projects. For each of the projects, the QP exported the assay certificates from MS Excel to comma-delimited (CSV) format, reformatted the CSVs, and then compiled and imported the certificate information to a SQL database for further processing and final matching by sampleID.

A summary of the certificate matching results by Project is presented in Table 12-1.

Overall, the QP is of the opinion that the results of Bonterra's database workflows and controls comply with industry standards and are adequate for the purposes of Mineral Resource estimation. The QP notes that some of the errors observed in the database are due to not accounting for re-assays. The percentages presented in Table 12-1 are likely higher than the actual errors within the database. The QP recommends that Bonterra ensure that certificate and sampleID columns are included in the Leapfrog project drill and sample databases in future project work.

12.3 Site Verification – Other QPs

Site visits by other QPs include the following:

- Mr. Normand L. Lecuyer, ing., P. Eng., SLR Associate Principal Mining Engineer, on October 6, 2021. While at the Bachelor Mine, SLR visited the underground workings at Moroy, and surface infrastructure including the Bachelor assay laboratory (the Bachelor Laboratory). SLR visited the open pits at Barry, outcrop at Gladiator, and the core logging and processing facilities at all camps.
- Mr. Guy Saucier, ing. P.Eng., Manager Mining and Metals Project Management & Engineering, ASDR Canada Inc. (ASDR), visited the Barry site on June 15, 2021 and the Bachelor site on June 16, 2021. ASDR reviewed existing infrastructure and potential sites for future infrastructure.

- Mr. Pierre Roy, M.Sc., ing., P.Eng., Metallurgist, Soutex Inc. (Soutex), visited the Bachelor site from September 8 to September 11, 2020. Soutex toured the processing facilities.
- Mr. Luciano Piciacchia, Ph.D., ing., Managing Director Earth and Infrastructure, BBA Inc (BBA), visited the Bachelor site on May 3, 2022. BBA toured the site and reviewed existing facilities.

Table 12-1: Summary of Assay Certificate Verification
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Project	Database Samples (Count)	Compiled Certificate Samples (Count)	SampleIDs Checked (Count)	SampleIDs Checked (%)	Discrepancies > 0.05 ppm (Count)	Discrepancies > 0.05 ppm (% of Matches)	Discrepancies > 1.0 ppm (Count)	Discrepancies > 1.0 ppm (% of Matches)
Gladiator	174,875	21,764	20,209	12%	87	0.43%	10	0.05%
Barry	138,605	69,951	44,902	32%	371	0.83%	36	0.08%
Bachelor-Moroy	120,694	75,338	69,385	57%	128	0.18%	16	0.02%

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

This section summarizes the results of the test work performed on the material from Barry, Moroy, and Gladiator. The test work was designed to determine the grindability, leaching, and gravity characteristics of the mineralized material from these deposits.

The grindability characteristics of the Barry mineralized material, including Bond Crusher work index (CWI), Bond Rod Mill work index (RWI), Bond Ball Mill crusher index (BWI), and Abrasion index (Ai), were assessed based on test work completed on two samples with a total weight of 110 kg and a single sample with a weight of 30 kg (SGS, 2009, 2010). A series of leach tests were performed at Queen's University, Kingston, Ontario (2006). The Queen's University report also provides flotation and gravimetric test results, however, they are not included in this Technical Report because they are irrelevant.

The characteristics of the Moroy mineralized material were assessed based on test work completed on one 100 kg sample (SGS, 2009, 2010, and 2020a). This test work included a semi-autogenous grinding mill comminution (SMC) test as well as BWI and RWI measurements. Leach tests and gravity separation tests were also completed.

The characteristics of the Gladiator mineralized material were assessed from test work completed on one 60 kg sample made of drill cores. This test work included an SMC test, BWI, and RWI measurements (SGS, 2020b), and leach and gravity separation tests (ALS, 2018, SGS, 2020b). Flotation test work was also completed, but is not discussed in this Technical Report since flotation is not included in the expansion flowsheet.

This Technical Report will only address the processing of the material coming from the Barry source. However, the metallurgical testing results of all three sources are presented.

13.1 Grindability

The grindability tests include an SMC test on a 20 kg sample of material.

The results for the grindability testing, including RWI, CWI, BWI, and Ai, are presented in Table 13-1.

Table 13-1: Grindability Results
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Parameter	Unit	Barry	Moroy	Gladiator
Bond crusher work index (CWI)	kWh/t	13.4	13.3	NA
Bond Ball Mill work index (BWI)	kWh/t	16.1	21.2	13.4
Bond Rod Mill work index (RWI)	kWh/t	13.8	19.3	13.7
SMC (Axb)	-	NA	32.8	37.3
SCSE	kWh/t	NA	11.0	10.0
Ai	g	0.9	1.1	NA

The hardness of the Moroy mineralized material currently processed at the mill is around the 95th percentile of most known gold-bearing materials.

13.2 Gravity Separation

Gravity tests were performed on the mineralized material from Gladiator and Moroy. The 10 kg samples, ground to a P_{80} of 105 µm, were processed in a Knelson concentrator to recover the gravity concentrate.

The concentrate was further treated on a Mozley separator and analyzed to determine the proportion of gold recovered by gravity; the results are presented in Table 13-2.

Table 13-2: Gravity Concentration Results – Mozley Separator
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Source	Material	Calculated Head Grade (g/t Au)	K_{80} (µm)	Mass Pull (%)	Gravity Concentrate Au Distribution (%)
Moroy	Mozley concentrate	9.7	105	0.032	9.3%
Gladiator	Mozley concentrate	4.1	105	0.052	38.3

Additional gravity tests were performed on the material from Gladiator at target grind sizes of 75 µm, 125 µm, and 175 µm K_{80}. Gravity testing was conducted using a lab-scale Knelson concentrator, followed by hand panning of the Knelson concentrate. The results obtained are summarized in Table 13-3.

Table 13-3: Gravity Concentration Results – Hand Panning
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Source	Test	Material	Calculated Head Grade (g/t Au)	K_{80} (µm)	Mass Pull (%)	Gravity Concentrate Au Distribution (%)
Gladiator	Test 1	Pan Concentrate	9.2	169	0.17	68.3
Gladiator	Test 2	Pan Concentrate	9.9	136	0.17	74.5
Gladiator	Test 3	Pan Concentrate	8.7	83	0.10	76.1
Gladiator	Test 4	Pan Concentrate	10.0	169	0.24	73.0
Gladiator	Test 5	Pan Concentrate	8.0	136	0.20	70.9
Gladiator	Test 6	Pan Concentrate	8.3	83	0.12	73.8

The gravity concentrate obtained through panning led to a mass pull higher than the mass pull typically obtained in large-scale operations. Hand panning could recover gold associated with sulphur that would normally not be recovered in either plant gravity equipment or leaching. Thus, the gold recovery obtained could be overestimated.

The gravity concentrate obtained from the tests realized with the Mozley separator led to a mass pull similar to that typically obtained in a full-scale plant. Hence, these results are used to represent any expected gravity circuit recovery.

13.3 Leaching

Cyanidation tests were conducted to examine cyanide leach amenability. The tests were performed on whole rock from Gladiator, Moroy, and Barry, and gravity tails from Gladiator and Moroy. The leach tests were realized on one kilogram test charges in bottle rolls. Air was sparged into the bottles to maintain a dissolved oxygen level between five ppm and eight ppm. The pulp density was 40% solids and the pH adjusted between 10.5 and 11.5. The sodium cyanide concentrations varied between 0.45 g/L to 1.0 g/L NaCN.

The whole rock was ground to 75 µm (P_{90}), 75 µm (P_{80}), and 150 µm (P_{80}). The grind size of 75 µm (P_{90}) is estimated at 50 µm (P_{80}). There was also a leach test performed at Queen's University by Murgor, a previous owner of the Barry resources. The tests were performed using grind sizes P_{80} of 137 µm, 90 µm, and 53 µm with cyanide concentration maintained at 1,000 mg/L and 2,000 mg/L. Since the cyanide consumption was higher at 2,000 mg/L, it is expected that the consumption in the usual mill condition of 500 mg/L will be lower than what was obtained at a 1,000 mg/L concentration.

The results obtained for the leach tests performed on whole rock and gravity tails at varying grind sizes and sodium cyanide concentrations are presented in Figure 13-1. The sodium concentrations are 1000 mg/L except where indicated next to the gold recovery results in the figure (values in mg/L NaCN).

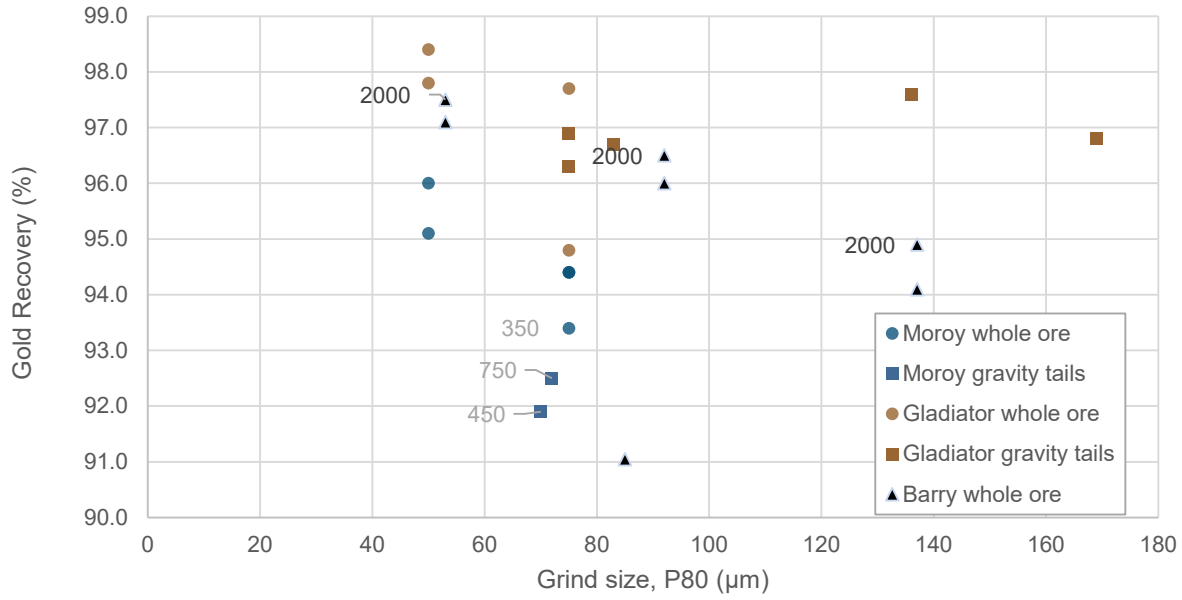


Figure 13-1: Leach Gold Recovery at Varying Grind Sizes

The leaching tests performed on the material at P_{80} of 136 µm and 169 µm were made on gravity tails obtained by hand panning. The final recovery presented in Figure 13-1 is the sum of the gravity recovery and leach recovery. As previously discussed, the gravity recovery could be overestimated since part of the gold recovered by hand panning might not be recoverable under plant conditions.

The leaching tests realized on the Moroy material were conducted at varying sodium cyanide concentrations. The results show that a lower cyanide concentration led to a lower recovery, as presented in Figure 13-2. Thus, the lower recovery results shown in Figure 13-1 at 70 µm to 75 µm were likely due to a low-sodium cyanide concentration.

When comparing only the results conducted at 1000 mg/L NaCN, the gold recoveries obtained at 50 µm and 75 µm are similar, with some higher values for the material ground to 50 µm. The QP recommends a grind size of 75 µm is recommended, considering the reduction of the grinding power required at the coarser grind size.

Based on the results obtained, a sodium cyanide concentration of 500 mg/L is considered for the plant's design.

The final gold recovery obtained for the mineralized material from Gladiator is greater than that of Moroy. The gold recovery for Barry is between that of Gladiator and Moroy.

The recovery obtained with the samples from Barry in the testwork performed at Queen's University indicates that a recovery of 97% could be expected at a P_{80} of 75µm with a feed grade of 5.2 g/t. On the other hand, the recovery obtained when the material was processed at the Bachelor mill is around 91%, with a feed grade of 2 g/t. A 95% recovery could be expected from the processing of material from Barry.

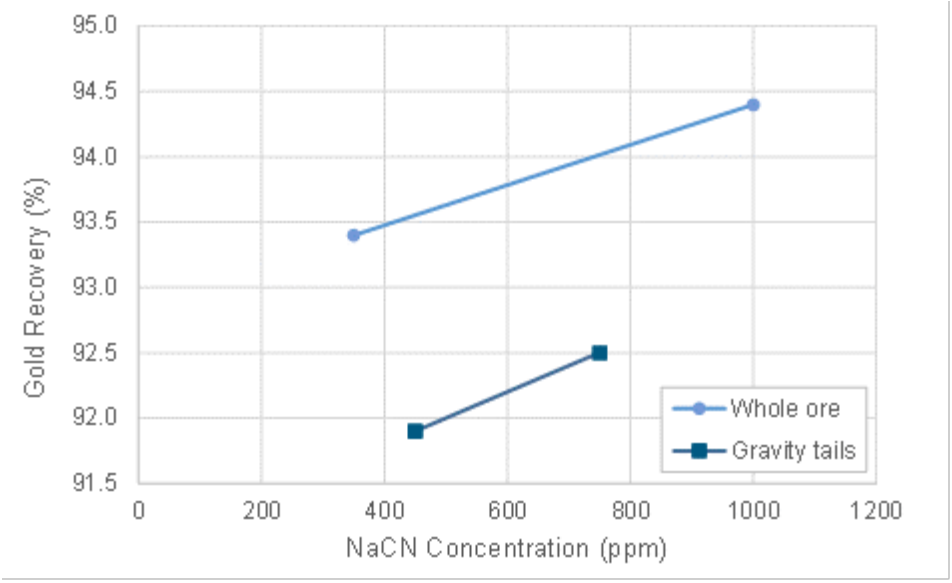


Figure 13-2: Leach Gold Recovery at Varying Cyanide Concentrations

Figure 13-3 presents leach kinetic curves for the following:

- Whole rock samples from Gladiator and Moroy, both ground to 75 µm, tested at the laboratory. The figure shows the interquartile range between the 25th and 75th quartile of the results obtained.
- Two whole rock samples from Barry, ground to 92 µm and 53 µm, from a July 2006 testing program.
- A bulk sample from Moroy processed at the Bachelor Lake Concentrator.
- A sample of Barry mineralized material processed in 2009.

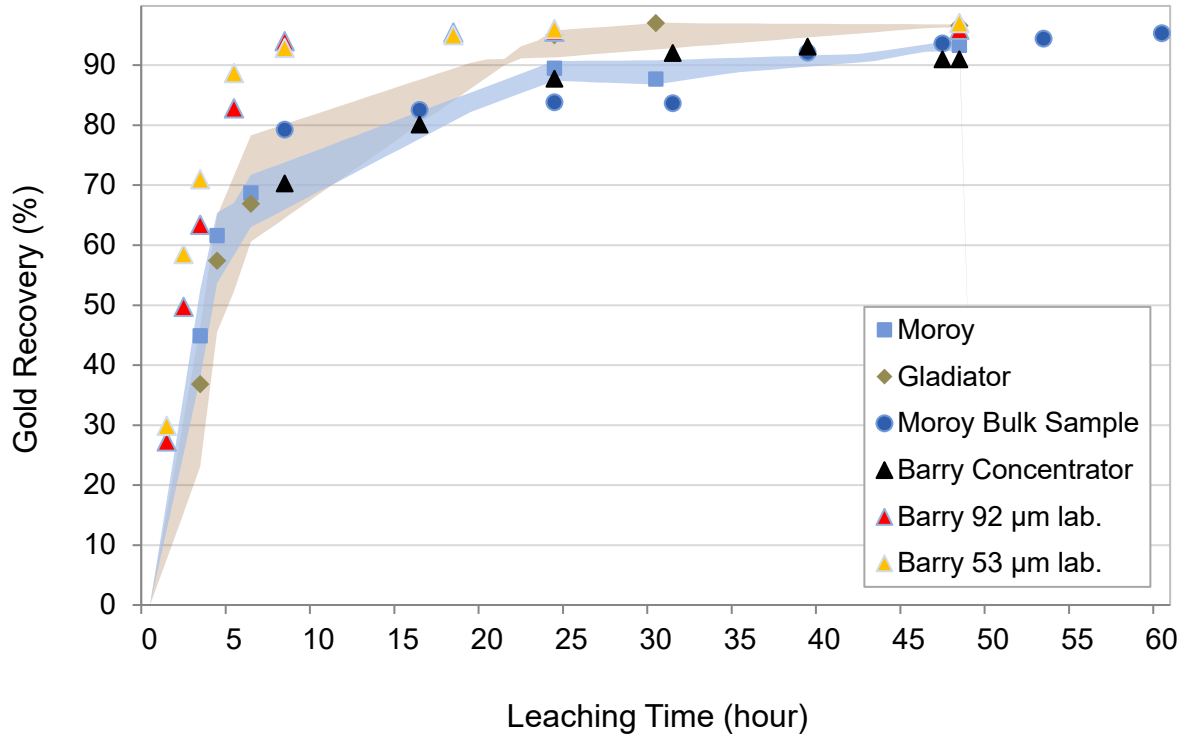


Figure 13-3: Leach Gold Kinetics at 75 µm

The laboratory results for the Gladiator material show that leaching is complete after 30 hours.

The leach time of the Barry material tested in the laboratory is shorter at 20 hours while the gold leach was completed after 25 hours when it was processed at the mill. The final gold recoveries for the "Barry 92 µm lab." and "Barry 53 µm lab." were respectively 96.5% and 97.1%. Considering that the mill was not yet fully optimized when it was operated with feed from Barry, the recovery obtained in the laboratory was higher and therefore a more realistic gold recovery is expected to be 95%.

The leaching of the Moroy material in the laboratory with processing at the mill is long and requires approximately 40 hours.

The average reagent consumptions for the material ground to 75 µm are presented in Table 13-4.

Table 13-4: Gold Leaching Reagent Consumption
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Material Source	Grind Size (P_{80} µm)	Reagent Consumption	
		(kg/t NaCN)	(kg/t CaO)
Moroy	75	0.24	1.54
Gladiator	75	0.35	0.72
Barry	75	0.28	0.30

The reagent consumption is based on values from the laboratory with an adjustment for the Barry material to account for a lower cyanide concentration. The lime consumption for the Barry mineralized material was low at 0.30 kg/t. The QP is of the opinion that a more appropriate expectation of the lime consumption is the average of the lime consumption for Gladiator and Moroy, 1.15 kg/t. The cyanide consumption that will be expected in the mill will be the sum of this reported value, 0.28 kg/t, and the residual cyanide that is lost to the tailings.

13.4 Conclusion and Recommendations

While the test work for process design was completed on a material that does not exactly correspond to the material that will be mined, it is considered representative of the Barry mineralized material and appropriate for the purposes of the PEA. The material from Barry will perform well in a cyanide leach circuit. The highlights of the metallurgical test work for the Barry mineralized material are:

- The BWI is 16.1 kWh/t.
- The expected gold dissolution at a P_{80} of 75 µm is 95%.
- The leaching time is 20 hours.

13.4.1 Recommendations

The QP recommends that a cyanide leach test to confirm the process design criteria be performed as the next feasibility step.

14.0 MINERAL RESOURCE ESTIMATE

14.1 Summary

Mineral Resource estimates for the Gladiator, Barry, and Moroy Deposits, as well as the Bachelor Mine were prepared by SLR using available drill hole and channel sample data as of June 1, 2021. These Mineral Resource estimates were first disclosed in SLR (2021) and are unchanged from that report. Except were explicitly stated, the information in this section is copied in full from the original Technical Report.

Mineral Resource estimates are based on the following drill hole and channel information for each deposit:

- Bachelor: 1,282 assays from 162 channels (1,909 ft; 582 m) and 210 drill holes (90,684 ft; 27,641 m) completed from 2018 to 2021.
- Moroy: 2,065 assays from 450 channels (4,374 ft; 1,333 m) and 249 drill holes (193,929 ft; 59,110 m) completed from 2013 to 2021.
- Barry: 10,570 assays from 183,182 m in 744 diamond drill holes completed from 1983 to 2021.
- Gladiator: 5,962 assays from 201,946 m of diamond drilling in 377 diamond drill holes completed from 1997 to 2021.

Mineralization domains representing vein structures and clusters within structural groups were defined in Leapfrog Geo software, while sub-block model estimates were completed within Leapfrog Edge or Datamine software, using either one metre or full-length capped composites and a multi-pass inverse distance cubed (ID^3) interpolation approach. Blocks were classified considering local drill hole spacing and proximity to existing development. Class groupings were based on criteria developed using continuity models (variograms) and modified to reflect geological understanding and to ensure cohesive classification shapes.

Wireframe and block model validation procedures including wireframe to block volume confirmation, statistical comparisons with composite and nearest neighbour (NN) estimates, swath plots, visual reviews in 3D, longitudinal, cross section, and plan views, as well as cross software reporting confirmation were completed for all deposits.

Underground constraining shapes at Gladiator, Barry, and Bachelor were optimized using Deswik stope optimizer software. The limit of the open pit Mineral Resource shell at Barry was optimized using Geovia Whittle software and was determined with consideration to underground mining costs. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate. A 50 m crown pillar below the base of overburden has been excluded from the Mineral Resource at both Gladiator and Moroy. In addition to SLR's internal peer and senior review processes, Bonterra's technical team and external consultants, SGS, have reviewed the Mineral Resource estimate.

The 2021 Mineral Resource estimate as of June 1, 2021, for the Projects is presented in Table 14-1 and is prepared in accordance with CIM (2014) definitions.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

Table 14-1: Summary of Mineral Resources – June 1, 2021
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
	Open Pit		
Measured	1,732	2.66	148
Indicated	184	2.87	17
Measured + Indicated	1,916	2.68	165
Inferred	15	2.36	1
	Underground		
Measured	470	5.06	77
Indicated	5,019	6.20	1,000
Measured + Indicated	5,489	6.10	1,077
Inferred	9,152	6.05	1,780
	Combined Open Pit and Underground		
Measured	2,202	3.17	225
Indicated	5,203	6.08	1,017
Measured + Indicated	7,405	5.21	1,242
Inferred	9,167	6.05	1,781

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Bachelor and Moroy underground Mineral Resources are estimated at cut-off grades of 2.40 g/t Au or 3.0 g/t Au, domain dependent. Gladiator and Barry underground Mineral Resources are estimated at a cut-off grade of 2.60 g/t Au. Open pit Mineral Resources at Barry are estimated at a cut-off grade of 1.0 g/t Au.
3. Mineral Resources are estimated using a long term gold price of US$1,600/oz Au, and a US$/C$ exchange rate of 1.33.
4. A minimum mining width of 1.2 m was used.
5. Bulk density varies by deposit and lithology and ranges from 2.70 t/m3 to 2.83 t/m3.
6. Open pit and underground Mineral Resources at Barry, Gladiator, and Bachelor Mine, are reporting within a conceptual open pit (Barry only) and underground constraining shapes, respectively.
7. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate.
8. Underground Mineral Resources at Moroy are reported above cut-off grade as well as above grade-thickness values of 2.88 g/t m and 3.60 g/t m, domain dependent.
9. Crown pillars of 50 m were applied at Moroy and Gladiator.
10. Numbers may not add due to rounding.

14.2 Bachelor-Moroy

14.2.1 Project Summary

For both the Bachelor Mine and Moroy deposit, gold grades have been estimated using full width drill hole and channel sample intercepts within a multi-pass ID^3 interpolation approach in Leapfrog Edge software.

Measured Mineral Resources have been defined where proximal to development. Indicated and Inferred Mineral Resources were defined where drill hole spacings of up to approximately 35 m and 70 m were achieved, respectively, and modified to consider geological understanding and grade continuity. Mineral Resources at Bachelor are reported within underground reporting shapes defined using a minimum thickness of 1.2 m and a cut-off grade of 2.4 g/t Au. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate. Mineral Resources at Moroy are domain dependently reported using cut-off grades of 2.4 g/t Au and 3.0 g/t Au, as well as above grade-thickness values of 2.88 g/t Au per metre and 3.6 g/t Au per metre. A 50 m crown pillar below the base of overburden has been excluded from the Moroy Mineral Resources and existing mine workings have been excluded from both the Moroy deposit and Bachelor Mine.

The Mineral Resource estimate represents an update of the July 2019 Mineral Resource estimates for the Project.

14.2.2 Mineral Resource Cut-Off Grades

Metal prices used for Mineral Reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For Mineral Resources, metal prices used are slightly higher than those used for Mineral Reserves.

Cut-off grades of 2.4 g/t Au and 3.0 g/t Au were developed for the Bachelor Mine and Moroy deposit and reflect assumed mining costs of both sub-level stoping (steeply dipping domains) and room and pillar (shallow domains), in addition to processing costs and gold price. The full operating cost, including mining, processing, and general and administration (G&A) have been included in the calculations. Capital costs, including sustaining capital have been excluded. Table 14-2 lists the parameters used to calculate the cut-off grades.

Table 14-2: Bachelor-Moroy Mineral Resource Cut-Off Grade Calculation Inputs
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Item	Unit	Sub-Level Stoping	Room and Pillar
Gold Price	-	US$1,600/oz Au / C$2,133/oz Au	US$1,600/oz Au / C$2,133/oz Au
Exchange Rate	US$:C$	1.33	1.33
Recovery	%	93	93
Mining Cost	C$/t	100	140
Processing Cost	C$/t	25	25
Transport Cost	C$/t	15	15
G&A	C$/t	25	25
Cut-Off Grade	g/t Au	2.40	3.0

14.2.3 Resource Database

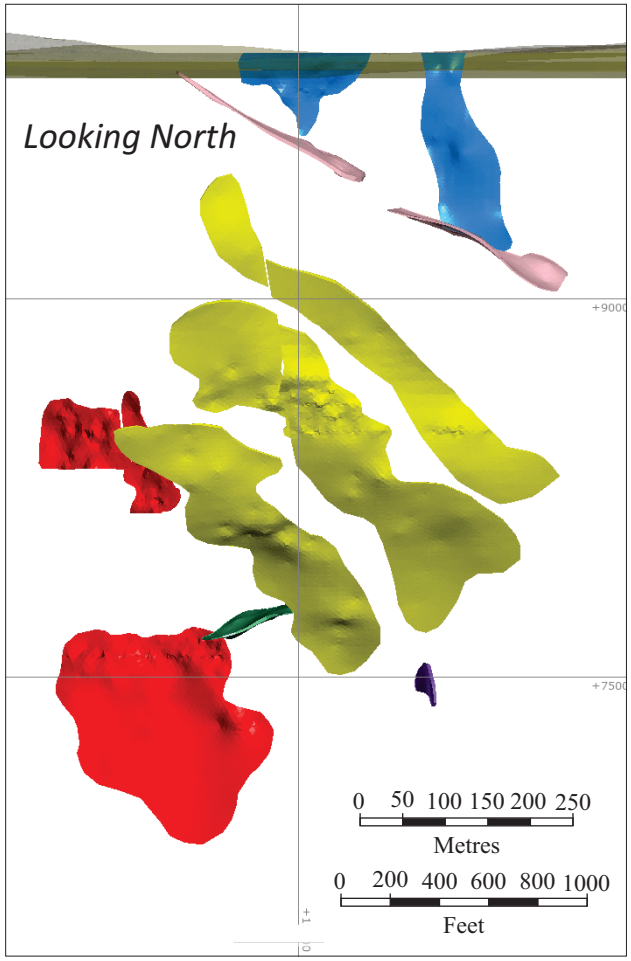
The drilling database is maintained in SQL, Géoticlog, with drill hole location information in NAD83 projection, UTM Zone 18. While the drill hole database is maintained in both imperial and metric units, historical underground development shapes are reflected in imperial units only and as such, all Mineral

Resource estimation work at Bachelor and Moroy have been completed in imperial units. Conversions to metric units are supplied for reference in this Technical Report.

The database for the Bachelor-Moroy Mineral Resources consists of diamond drilling of 30 ft (10 m) to 165 ft (50 m) spacing including at Bachelor: 1,282 assays from 162 channels (1,909 ft; 582 m) and 210 drill holes (90,684 ft; 27,641 m) completed from 2018 to 2021, and at Moroy: 2,065 assays from 450 channels (4,374 ft; 1,333 m) and 249 drill holes (193,929; 59,110 m) completed from 2013 to 2021. Test hole sludge samples were excluded from the database. Drilling was conducted from surface and from underground infrastructure. The data was imported into Seequent's Leapfrog Geo version 6.0.4 for statistical analysis, wireframe building, block modelling, and resource estimation.

14.2.4 Geological Interpretation

The Bachelor-Moroy Mineral Resource estimates are based on interpretations of vein structures and vein clusters in six domains: M1 (M1-A, M1-B, M1-2), M2 (M2, M2-2), M4, M6, M7 and Bachelor (A, B, P). Wireframe domains were constructed by Bonterra geologists using an approximate cut-off grade of 2.0 g/t Au, and domain extensions were defined at a limit of closer to 50% of the local drill hole spacing, or 50% of the distance to an excluded drill hole. Wireframe domains constructed in Leapfrog Geo software by Bonterra geologists were reviewed and adopted by SLR. Vein orientations at Moroy have been confirmed through underground mapping and sampling, as well as vein orientations observed in drill core. At the Bachelor Mine, veins mimic overlying or adjacent mined out areas in both orientation and form. The Bachelor Mine mineralization domains area, defined by four wireframes, represents a mineralization extension just below and adjacent to existing mine workings. A total of 11 wireframes in five groups define the Moroy deposit domain extents. Final domains are presented in Figure 14-1. No minimum mining width was used to model domain shapes at either Bachelor or Moroy.



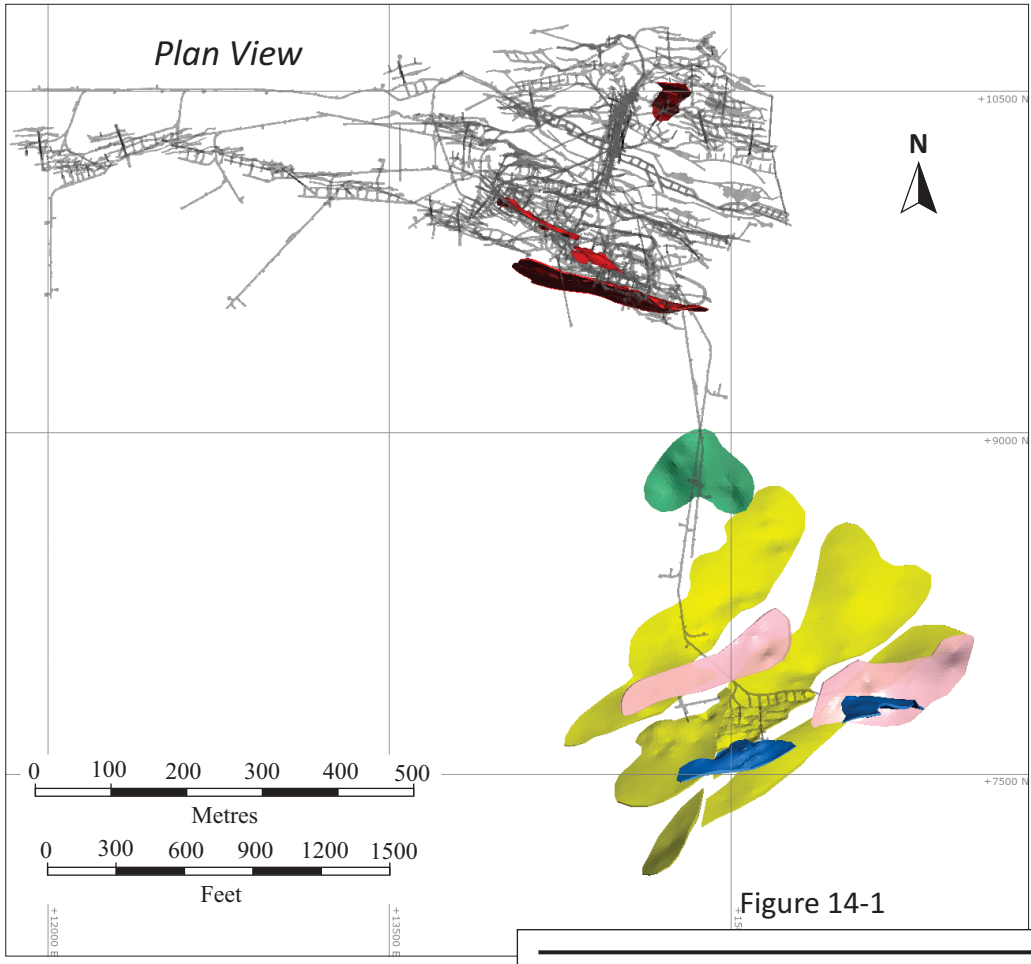


Figure 14-1

Legend:

M1 group	M4
M6	M7
M2 group	A, B, P

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Bachelor-Moroy Grouped Mineralization Wireframes

July 2022

Source: SLR, 2021.

14.2.5 Resource Assays

14.2.5.1 Treatment of High Grade Assays

14.2.5.1.1 Capping Levels

Table 14-3 summarizes the uncapped and capped gold assay statistics at Bachelor and Moroy. Raw assays were reviewed using basic statistics, histograms, log probability plots, and decile analysis to determine a gold cap for each domain independently. SLR notes that many domains exhibited low metal risk and were not capped.

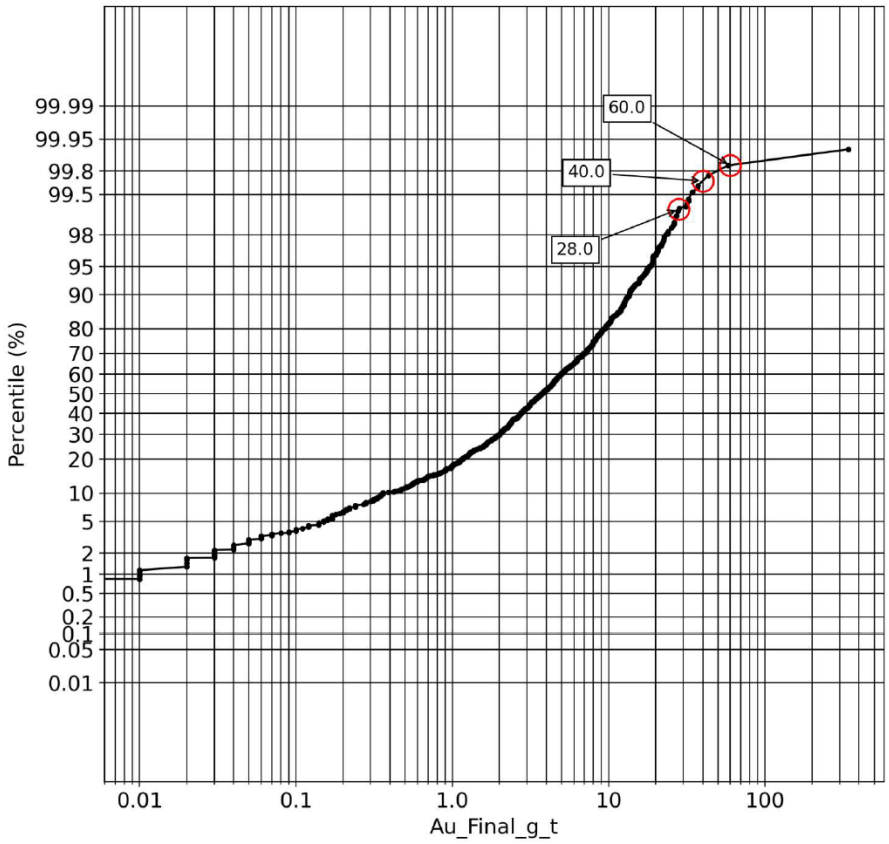
Table 14-3: Bachelor-Moroy Gold Assay Statistics and Capping Levels
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

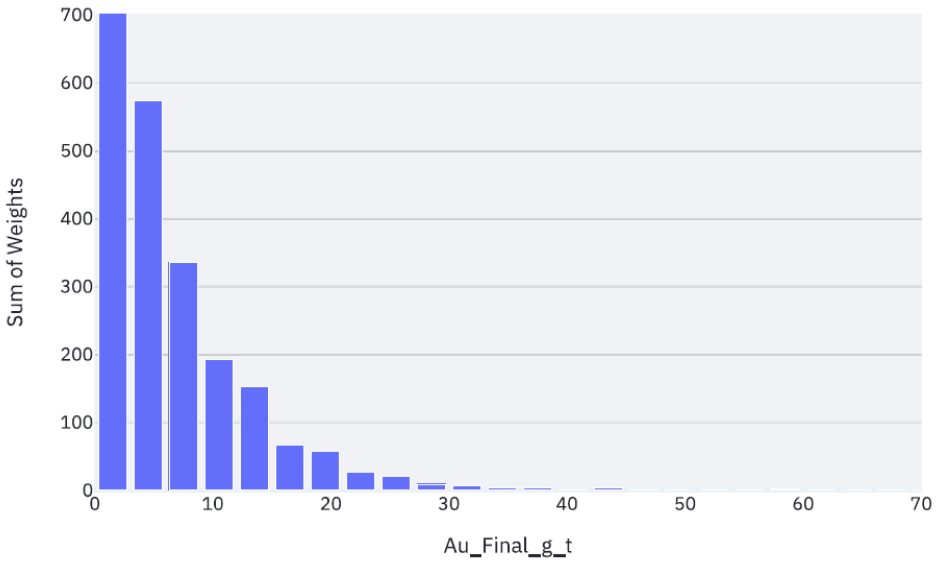
Domain	Count	Length (ft)	Cap (g/t Au)	Mean (g/t Au)	Capped Mean (g/t Au)	Min. (g/t Au)	Max. (g/t Au)	Capped Max. (g/t Au)	CV[1]	Capped CV
					Moroy					
M7	18	52.97	-	7.05	7.05	0.00	26.50	26.50	1.15	1.15
M6	123	414.63	-	2.06	2.06	0.00	10.00	10.00	1.11	1.11
M4	138	368.65	27.00	5.78	5.21	0.00	91.30	27.00	1.76	1.32
M2-2	89	240.46	-	4.06	4.06	0.00	18.95	18.95	1.19	1.19
M2	538	2,002.80	-	5.16	5.16	0.00	33.50	33.50	1.39	1.39
M1-B	146	355.49	-	5.26	5.26	0.00	22.00	22.00	0.88	0.88
M1-A	804	2,262.46	40.00	6.23	5.95	0.00	342.00	40.00	1.89	1.05
M1-2	209	594.89	-	5.14	5.14	0.00	31.65	31.65	1.11	1.11
					Bachelor					
P	808	2,491.97	40.00	4.74	4.73	0.00	44.20	40.00	1.12	1.11
B	320	915.41	40.00	4.52	4.35	0.00	121.00	40.00	1.70	1.33
A	154	490.27	-	7.63	7.63	0.00	30.10	30.10	0.79	0.79

Note:

1. Coefficient of Variation (CV)

An example of capping analysis for domain M1-A is presented in Figure 14-2.





Count: 804

No. Caps: 3

Metal Loss: 4.34%

Figure 14-2: Probability Plot and Histogram of Length Weighted Gold Assays within Moroy Domain M1-A

14.2.6 Compositing

Capped assay samples at Bachelor and Moroy were composited to represent the full-length intercept of each domain. A histogram of assays lengths within mineralization domains is presented in Figure 14-3 and gold composite statistics are summarized in Table 14-4. SLR notes that some very long full-length composites are represented by a cluster of drill holes oriented down dip and intersecting Moroy domain M2 near surface. Most drill holes intersect mineralization domains in a near-perpendicular orientation.

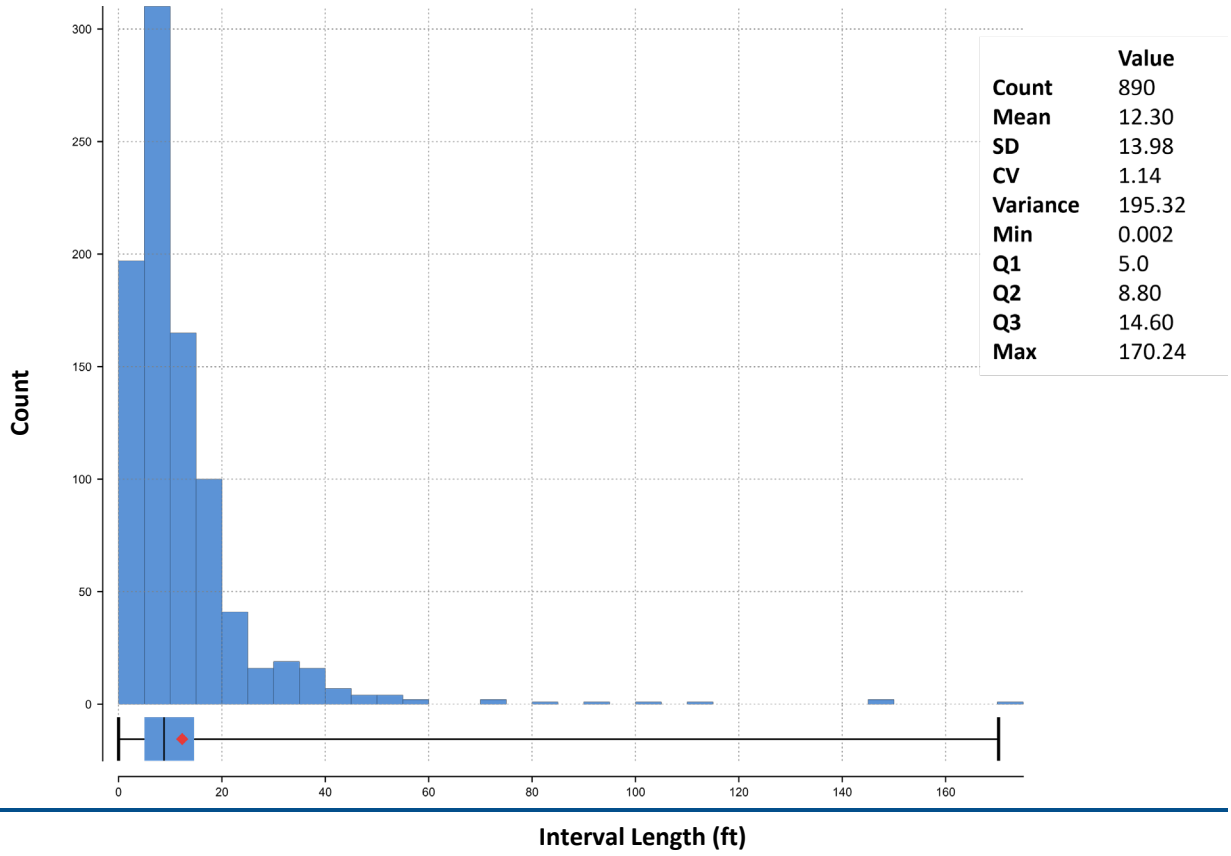


Figure 14-3: Histogram of Composite Interval Lengths within Mineralization Domains at Bachelor-Moroy

Table 14-4: Bachelor-Moroy Capped Full-Length Gold Composite Statistics
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain	Count	Length (ft)	Mean (g/t Au)	CV	Minimum (g/t Au)	Maximum (g/t Au)
M1-A	238	2,262.5	5.95	0.69	0	31.27
M1-B	42	355.5	5.26	0.52	0	11.60
M1-2	49	594.9	5.14	0.68	0.53	18.12
M2	66	2,002.8	5.16	0.70	0	18.05
M2-2	18	240.5	4.06	0.74	0	8.63

Domain	Count	Length (ft)	Mean (g/t Au)	CV	Minimum (g/t Au)	Maximum (g/t Au)
M4	24	368.6	5.21	0.79	0	19.96
M6	25	414.6	2.06	0.74	0.22	7.14
M7	3	53.0	7.05	0.78	3.85	12.81
A	74	490.3	7.63	0.64	0.00	30.10
B	75	915.4	4.35	0.70	0.00	15.40
P	195	2,492.0	4.73	0.74	0.00	21.60

14.2.7 Trend Analysis

14.2.7.1 Variography

Experimental correlograms were calculated and modelled in Snowden Supervisor software using capped full length gold composites within the most populous domain at Moroy, domain M1-A (Figure 14-4). Correlogram directions were validated against vein form and confined gold grade contours. While the mineralization domain lacked sufficient samples to obtain robust variograms, the results were useful in supporting the range of expected grade continuity.

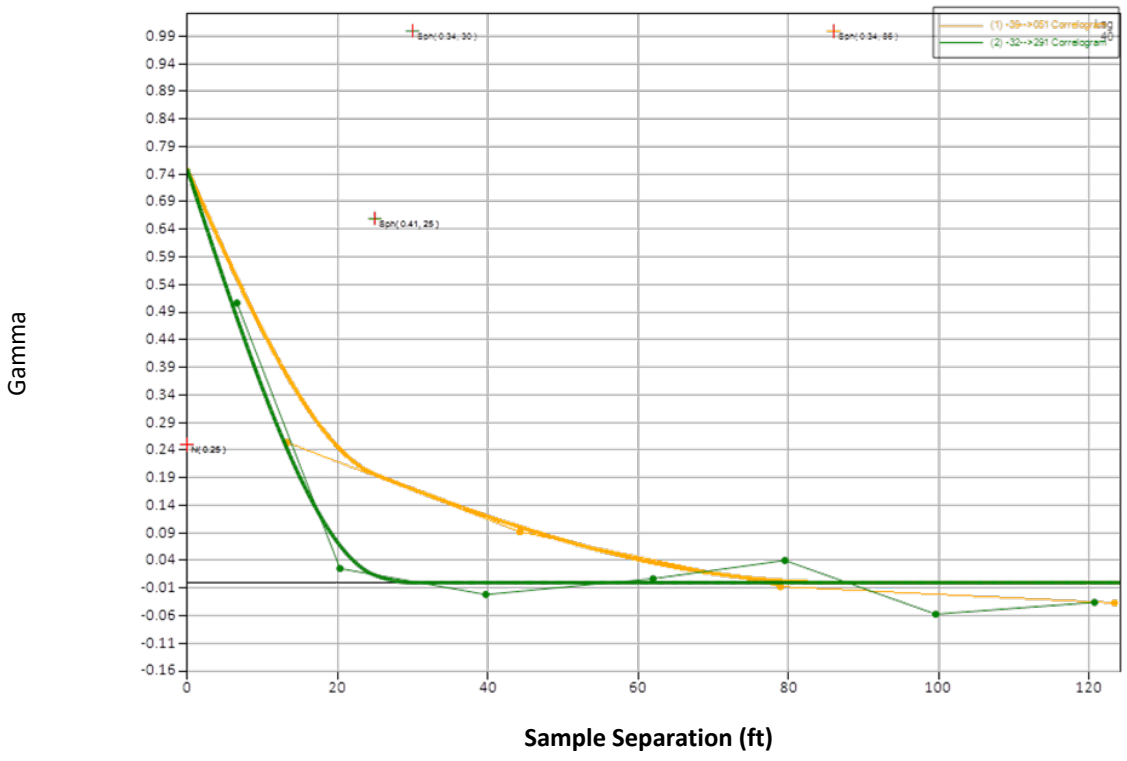
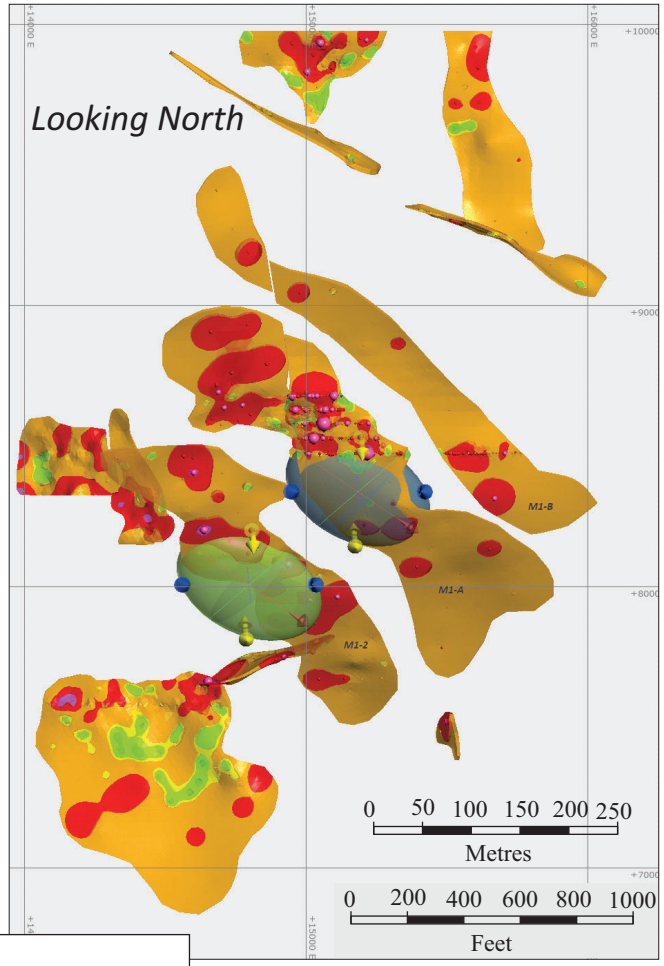


Figure 14-4: Correlogram of Domain M1-A Capped Composite Gold Values

14.2.7.2 Grade Contouring

To assist in conducting variography studies and to understand the continuity of the gold grades in the various mineralized wireframes, SLR prepared a traditional longitudinal projection for the mineralized wireframes present at Bachelor and Moroy. For this exercise, the average uncapped gold grade across the entire width of all the mineralized wireframes were contoured to identify the gold trends.

While examination of the grade distribution for the wireframes highlight several zones of elevated gold grades, results concentrate proximal to closely spaced underground sample information. In general, the high grades for zone M1-A and M1-2 at Moroy appear to have a predominant trend (Figure 14-5), however, the low sample density for all other domains make predominant grade trends difficult to confirm. SLR was able to identify a principal gold assay trend in all Bachelor zones (Figure 14-6), where the historic stopes and grades indicate a continuation of the previously mined ore shoots at depth. The dip, dip azimuth, and pitch of those principal trends are listed in Table 14-5. SLR notes that the Bachelor gold trends have not all been completely drilled tested at depth.



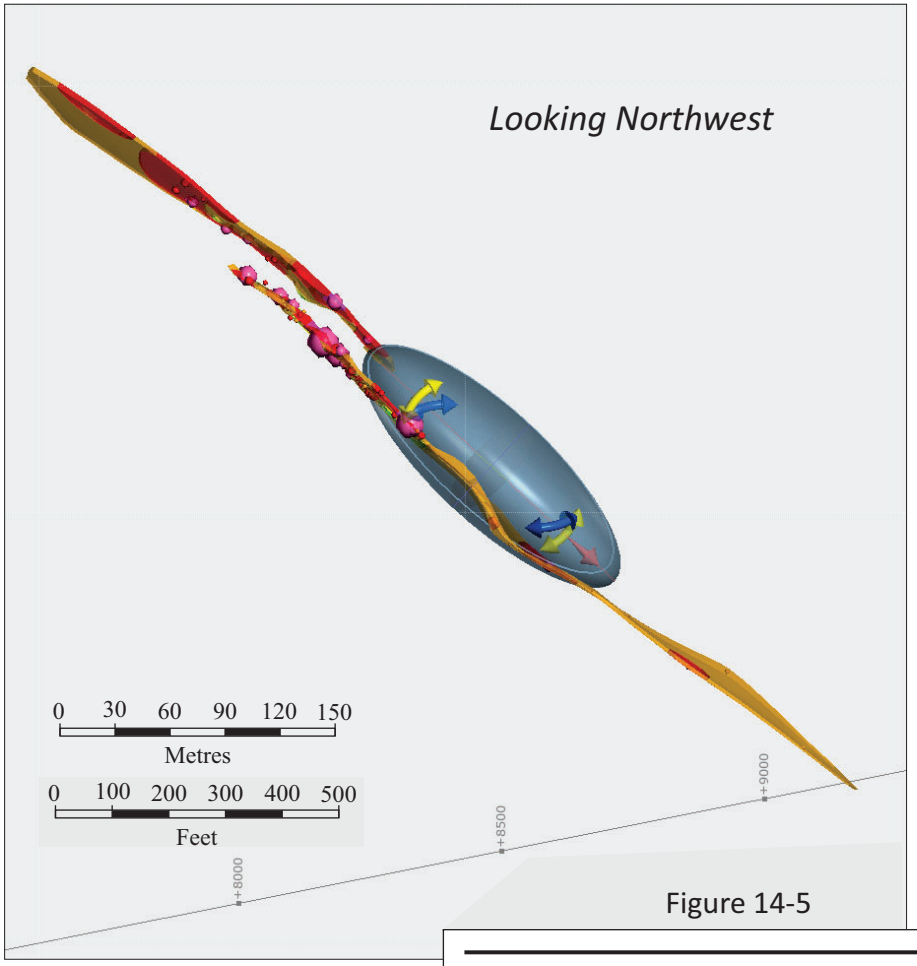


Figure 14-5

Legend:

g/t Au

≥ 10
≥ 5
≥ 2.4
≥ 2
≥ 0

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Moroy Contour Plot of Uncapped Gold Full Length Composites

July 2022

Source: SLR, 2021.

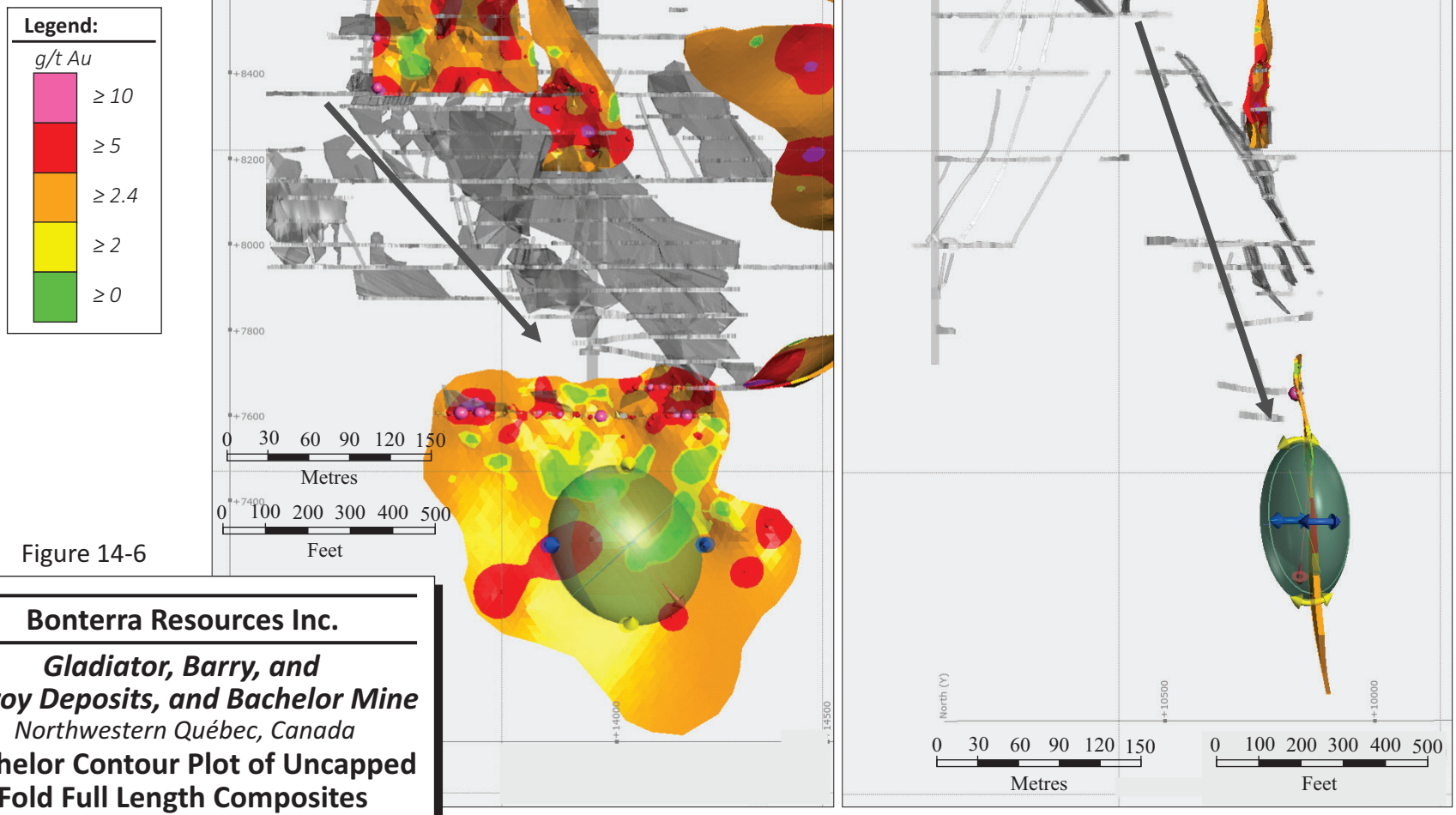


Figure 14-6

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Bachelor Contour Plot of Uncapped Fold Full Length Composites

July 2022

Source: SLR, 2021.

Table 14-5: Bachelor-Moroy Principal Gold Assay Trends
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Trend	Unit	Bachelor	Moroy
Dip	°	85	50
Dip Azimuth	°	180	355
Pitch	°	48	140

14.2.8 Search Strategy and Grade Interpolation Parameters

Grade interpolation was performed on a parent block basis using ID^3 and two progressively larger interpolation passes (Table 14-6) and full length composites. Search ellipses for grade interpolation were isotropic for most zones, except for Moroy's M1 group (M1-A, M1-B and M1-2) and Bachelor's P zone, where the observed grade trends were incorporated into the search ellipse dimensions. Search ellipse dimensions and orientations are detailed in Table 14-6 and the composite selection plan is outlined in Table 14-7.

Table 14-6: Bachelor-Moroy Search Strategy and Grade Interpolation Parameters
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain	Method	1st Pass				2nd Pass			
		X-axis (ft)	Y-axis (ft)	Z-axis (ft)	Orientation	X-axis (ft)	Y-axis (ft)	Z-axis (ft)	Orientation
Moroy									
M1-A, M1-B, M1-2	ID^3	100	100	67	50/355/140	300	200	100	50/355/140
M2, M2-2, M4, M6, M7	ID^3	100	100	100	0/0/90	200	200	200	0/0/90
Bachelor									
A, B	ID^3	100	100	100	0/0/90	200	200	200	0/0/90
P	ID^3	140	100	60	85/180/48	200	180	100	85/180/48

Table 14-7: Bachelor-Moroy Composite Selection Plan
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain	1st Pass		2nd pass	
	Min No.	Max No.	Min No.	Max No.
Moroy				
M1-A, M1-B, M1-2	2	20	1	6
M2, M2-2, M4, M6, M7	3	20	1	6

Domain	1st Pass		2nd pass	
	Min No.	Max No.	Min No.	Max No.
		Bachelor		
A, B	3	20	1	6
P	3	20	1	6

14.2.9 Bulk Density

A total of 112 density measurements were collected at Bachelor and Moroy in 2021 and analyzed using the pycnometer method in follow up to recommendations by SGS (2019). Densities ranged from 2.80 g/cm^3 to 2.86 g/cm^3 within mineralization domains and from 2.63 g/cm^3 to 3.09 g/cm^3 in adjacent material. Basic density statistics for Bachelor and Moroy are presented in Table 14-8. In SLR's opinion, these are reasonable densities for this type of mineralization.

A density of 2.83 g/cm^3 was applied to the mineralization domains. SLR recommends taking density measurements in the other mineralization zones to gain a better understanding of the density across the mineralization domains but notes that density appears to be quite consistent over the Project and that large density changes as a result of additional measurements in unlikely.

Table 14-8: Bachelor-Moroy Density Statistics by Domain
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain	Count	Mean (t/m^3)	CV	Min (t/m^3)	Max (t/m^3)	Domain	Count	Mean (t/m^3)	CV	Min (t/m^3)	Max (t/m^3)
M1-A	0	-	-	-	-	M6	6	2.83	0.01	2.80	2.86
M1-B	0	-	-	-	-	M7	0	-	-	-	-
M1-2	0	-	-	-	-	A	0	-	-	-	-
M2	0	-	-	-	-	B	0	-	-	-	-
M2-2	4	2.83	0.01	2.80	2.85	P	0	-	-	-	-
M4	0	-	-	-	-	Waste	91	2.81	0.03	2.63	3.09

14.2.10 Block Models

Block model construction and estimation was completed in Leapfrog Edge software. Block model dimensions for the Bachelor Mine and the Moroy deposit are presented in Table 14-9. SLR considers the block model sizes appropriate for the deposit geometry and proposed mining methods.

Table 14-9: Imperial Dimensions and Position of Bachelor and Moroy Block Models (Local Grid) Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Type	X	Y	Z
		Bachelor	
Base Point (ft)	13,772.04	9,521.48	8,975.77
Boundary Size (ft)	1,197	1,278	2,241
Parent Block Size (ft)	9	9	9
Min. Sub-block Size (ft)	2.25	2.25	2.25
Rotation (°)	0	10	0
		Moroy	
Base Point (ft)	13,575	7,930	10,098
Boundary Size (ft)	1,908	2,025	3,303
Parent Block Size (ft)	9	9	9
Min. Sub-block Size (ft)	2.25	2.25	2.25
Rotation (°)	0	45	0

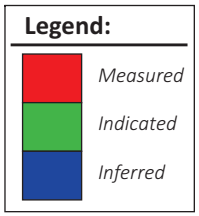
14.2.11 Classification

Definitions for resource categories used in this Technical Report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the "economically mineable part of a Measured and/or Indicated Mineral Resource" demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

At both Bachelor and Moroy, Measured Mineral Resources have been defined where proximal to development. Indicated and Inferred Mineral Resources have been defined where drill hole spacings of up to approximately 35 m (100% of variogram range) and 70 m (200% variogram range) were achieved, respectively, and modified to consider geological understanding, grade continuity, and the creation of cohesive class boundaries. Classification criteria are presented in Table 14-10 and the classified blocks are shown in Figure 14-7.

Table 14-10: Bachelor-Moroy Classification Criteria
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Class	Criteria
Measured	Within 10 m of existing mine development
Indicated	35 m spacing
Inferred	70 m spacing



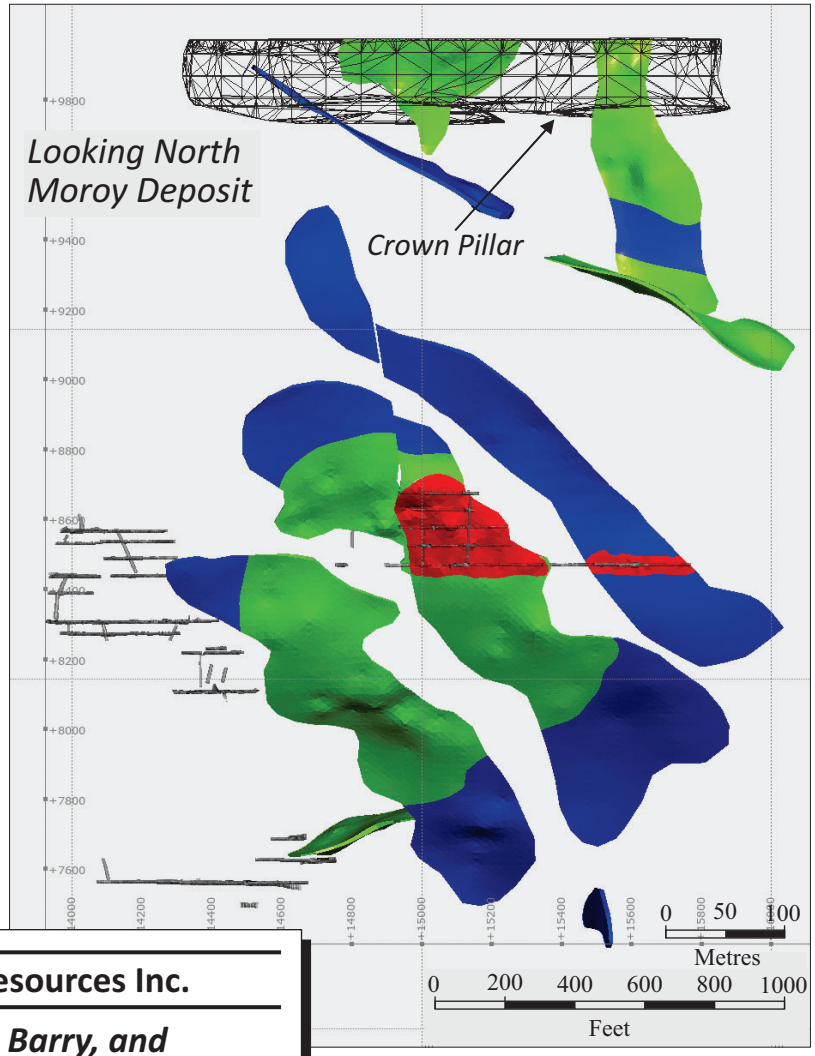


Figure 14-7

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Bachelor-Moroy Classification

July 2022

Source: SLR, 2021.

14.2.12 Block Model Validation

Blocks were validated using industry standard techniques including:

- Visual inspection of composite versus block grades (Figure 14-8 and Figure 14-9)
- Comparison between ID^3, nearest neighbour (NN), and composite means
- Swath plots (Figure 14-10)

SLR reviewed gold grades and proportions relative to the blocks, drilled grades, composites, and modelled solids. SLR observed that the block grades exhibited general accord with drilling and sampling and did not appear to smear significantly across sampled grades.

Swath plots generally demonstrated good correlation, with block grades being somewhat smoothed relative to composite grades, as expected.

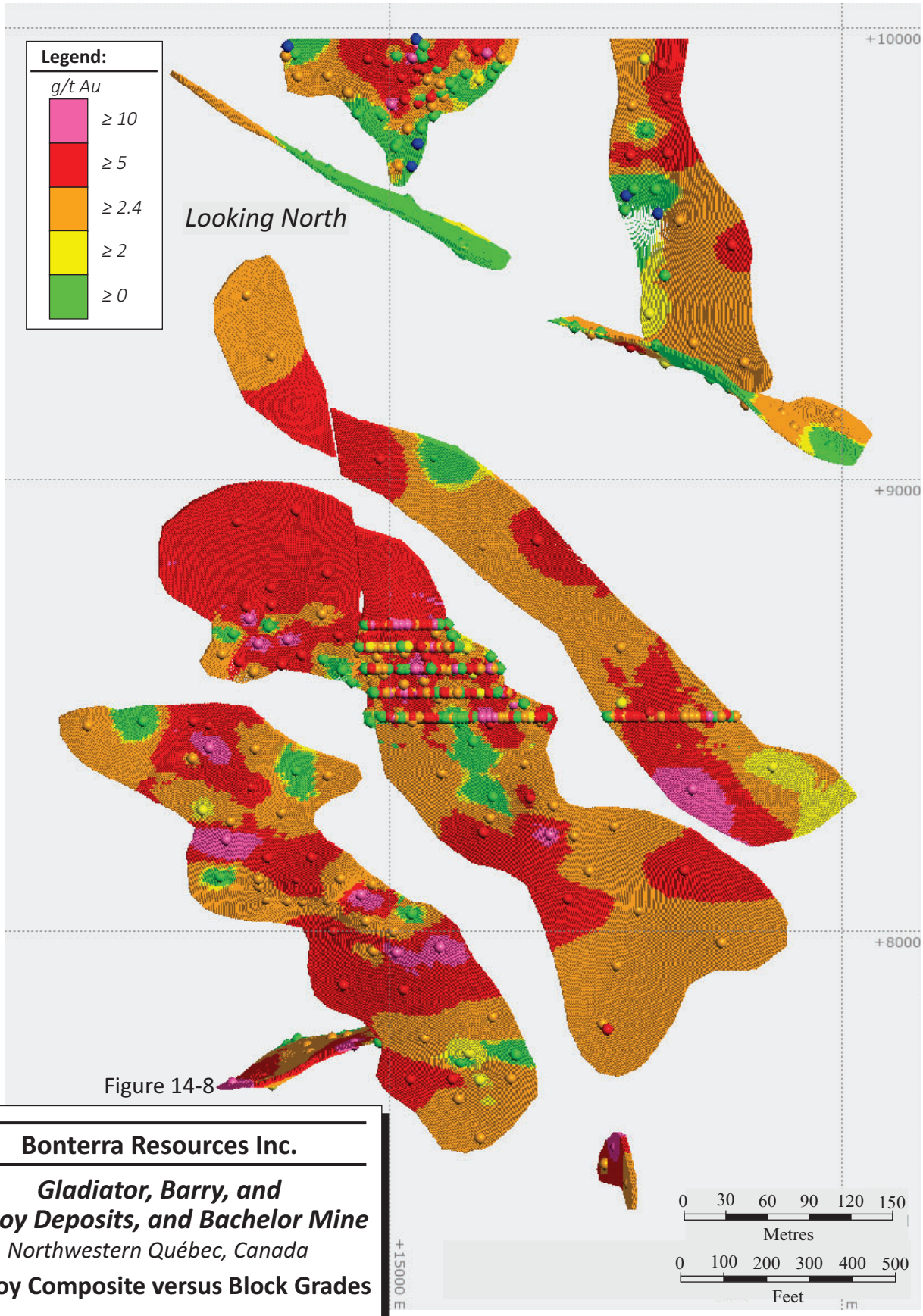


Figure 14-8

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Moroy Composite versus Block Grades

July 2022

Source: SLR, 2021.

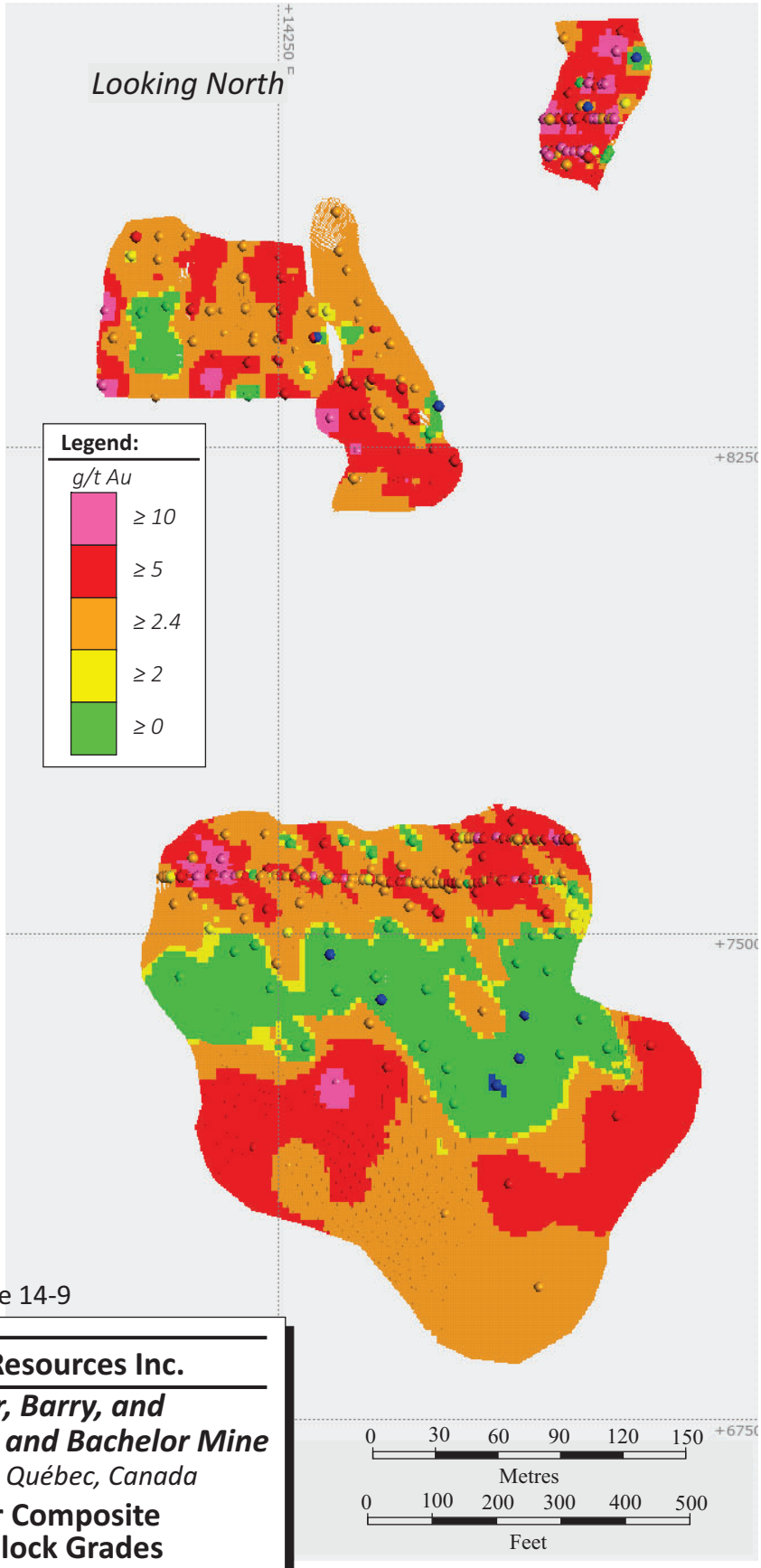


Figure 14-9

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

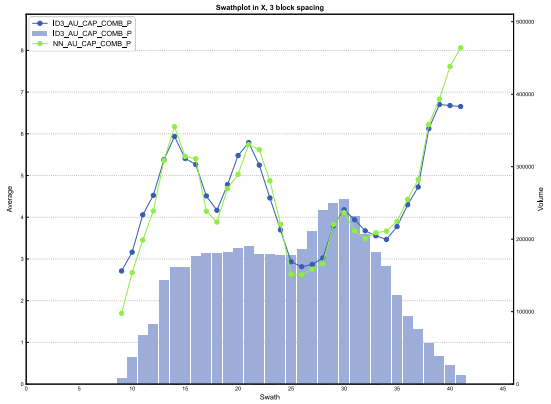
Bachelor Composite versus Block Grades

July 2022

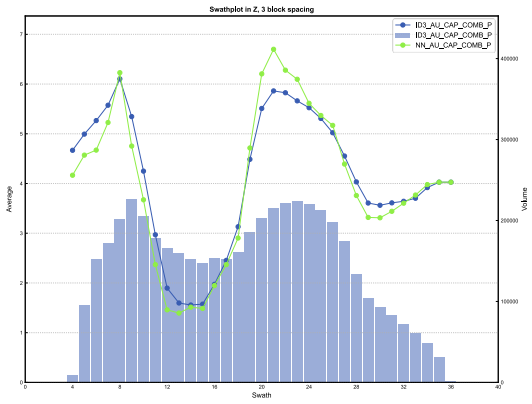
Source: SLR, 2021.

Moroy – M1A Domain

X-axis

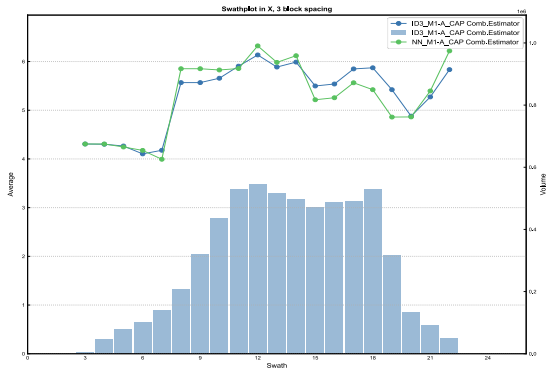


Z-axis

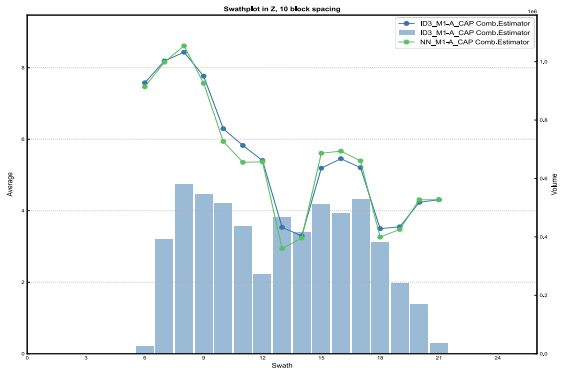


Bachelor – P Domain

X-axis



Z-axis



Legend

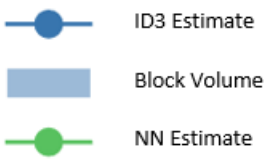


Figure 14-10: X and Z Axis Swath-Plots Comparing ID³ and NN Estimate Results

14.2.13 Mineral Resource Reporting

Mineral Resources at Bachelor Mine and Moroy deposit are reported as per the Mineral Resource estimation methodologies and classification criteria detailed in this Technical Report. Mineral Resources at Bachelor Mine are reported within underground constraining shaped and Mineral Resources at Moroy are reported using cut-off grades of 2.4 g/t Au and 3.0 g/t Au, as well as above grade-thickness values of 2.88 g/t Au per metre and 3.6 g/t Au per metre, domain dependent. A 50 m crown pillar below the base of overburden has been excluded from the Moroy Mineral Resources where underlying an existing TMF, and existing mine workings have been excluded from both the Moroy deposit and Bachelor Mine. Mineral Resources for the Moroy deposit and Bachelor Mine are summarized in Table 14-11 and Table 14-12, respectively. Vein thickness and grade thickness at Moroy are presented in Figure 14-11.

Table 14-11: Moroy Mineral Resource Estimate – June 1, 2021
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Measured	36	6.01	7
Indicated	615	5.64	112
Total Measured + Indicated	651	5.66	118
Inferred	570	5.37	98

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 2.40 g/t Au or 3.0 g/t Au, domain dependent.
3. Mineral Resources are estimated using a long term gold price of US$1,600/oz Au, and a US$/C$ exchange rate of 1.33.
4. A minimum mining width of 1.2 m was used.
5. Bulk density is 2.83 t/m^3.
6. Mineral Resources are reported above cut-off grade as well as above grade-thickness values of 2.88 g/t Au per metre and 3.6 g/t Au per metre, domain dependent, as well as below a 50 m crown pillar.
7. Numbers may not add due to rounding.

Table 14-12: Bachelor Mineral Resource Estimate – June 1, 2021
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Measured	90	5.13	15
Indicated	152	5.52	27
Total Measured + Indicated	243	5.37	42
Inferred	44	4.36	6

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 2.40 g/t Au.
3. Mineral Resources are estimated using a long term gold price of US$1,600/oz Au, and a US$/C$ exchange rate of 1.33.
4. A minimum mining width of 1.2 m was used.
5. Bulk density is 2.83 t/m3.
6. Mineral Resources are reporting within underground constraining shapes.
7. Numbers may not add due to rounding.

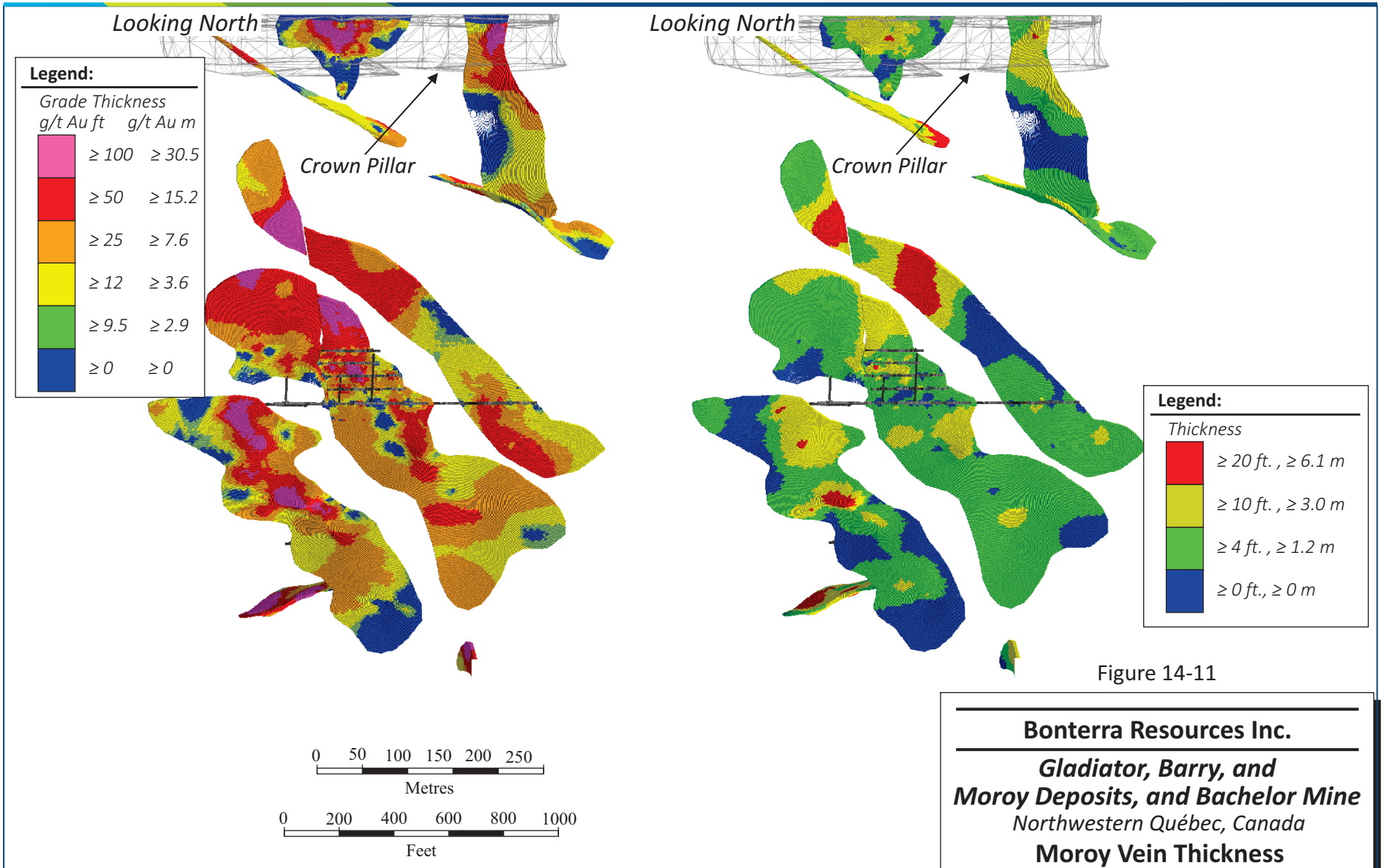


Figure 14-11

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Moroy Vein Thickness and Grade Thickness

July 2022

Source: SLR, 2021.

14.2.14 Comparison with Previous Mineral Resource Estimate

A Moroy deposit Mineral Resource estimate was prepared by SGS in 2019 (SGS, 2019) and results are compared in Table 14-13.

Table 14-13: Comparison of SGS (2019) and SLR (2021) Mineral Resource Estimate at Moroy Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	SGS 2019			SLR 2021		
	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Measured	302	6.00	55	36	6.01	7
Indicated	365	4.77	56	615	5.64	112
Measured + Indicated	667	5.17	111	651	5.66	118
Inferred	396	4.32	55	570	5.37	98

SLR notes the following principal reasons for the changes to the Moroy Mineral Resource estimate (in order of importance):

- Reporting cut-off grade was decreased from 3.0 g/t Au (SGS) to 2.4 g/t Au (SLR), reflecting a change in the long term gold price from $US1,300/oz Au to $US1,600/oz Au.
- Drilling success in 2020 and 2021 extended mineralization at depth (Inferred Mineral Resources) and supported some interpretation revisions (all classes).
- In 2019, a crown pillar was not used to exclude material within 50 m of an overburden contact where underlying an existing TMF as was done in 2021 by SLR.
- Revision of the classification approach caused some Measured Mineral Resources to be reclassified as Indicated.

14.3 Barry

14.3.1 Project Summary

The Barry deposit Mineral Resource estimate is based on over 70 veins grouped within six shallow to steeply dipping vein sets from surface to 650 m in depth, within which one metre composites have been estimated in a multi-pass ID^3 interpolation approach. Measured Mineral Resources were defined where proximal to historic pits and defined using drill holes spaced up to approximately 20 m apart. Indicated Mineral Resources are limited to areas defined using drill holes spaced up to approximately 50 m apart. Inferred Mineral Resources represent areas with drill hole spacing up to approximately 100 m. Open pit Mineral Resources are reported within an optimized pit at a cut-off grade of 1.0 g/t Au, while underground Mineral Resources are reported within underground reporting shapes defined using a minimum thickness of 1.2 m and a cut-off grade of 2.6 g/t Au, limited to areas of continuous mineralization. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate.

The Mineral Resource estimate represents an update of the July 2019 Mineral Resource estimates prepared by SGS (2019) for the Project.

14.3.2 Mineral Resource Cut-Off Grades

Metal prices used for Mineral Reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For Mineral Resources, metal prices used are slightly higher than those used for Mineral Reserves.

A cut-off grade of 2.60 g/t Au was developed for the Barry deposit that reflects the mining and processing costs, and gold price. Underground Mineral Resource cut-off grades have been calculated based on the long hole stoping mining method. The full operating costs including mining, processing, and G&A have been included in the calculations. Capital costs, including sustaining capital have been excluded. Table 14-14 lists the parameters used to calculate the cut-off grade.

Table 14-14: Barry Mineral Resource Cut-Off Grade Calculation Inputs
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Item	Unit	Barry Underground	Barry Open Pit
Gold Price	-	US$1,600/oz Au / C$2,133/oz Au	US$1,600/oz Au / C$2,133/oz Au
Exchange Rate	US$:C$	1.33	1.33
Recovery	%	93	93
Mining Cost	C$/t	100	5
Processing Cost	C$/t	25	25
Transport Cost	C$/t	15	15
G&A	C$/t	25	25
Cut-Off Grade	g/t Au	2.60	1.00

14.3.3 Resource Database

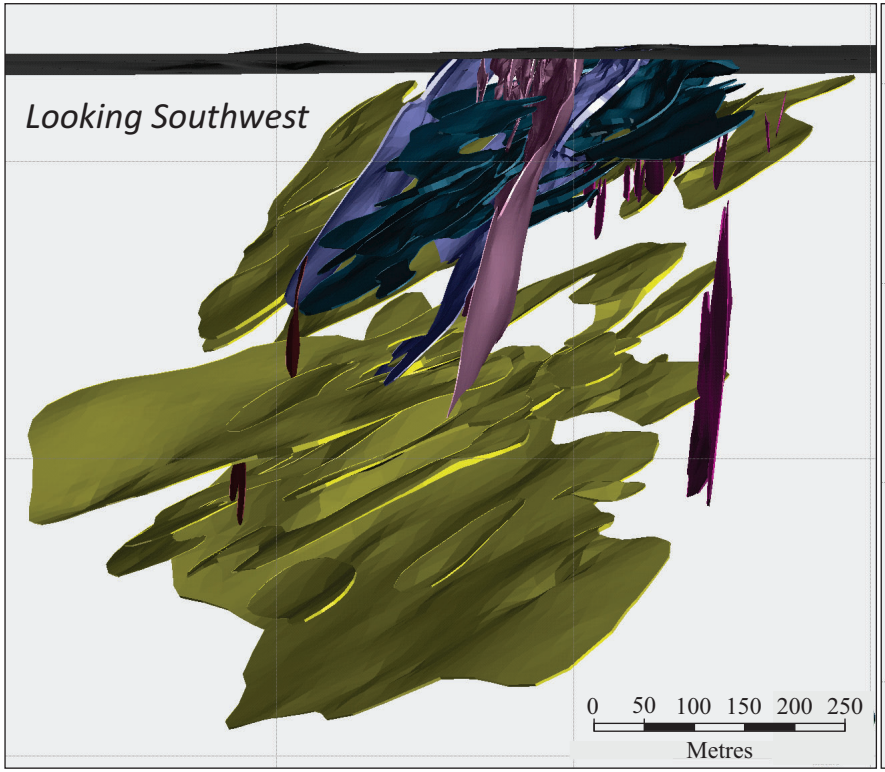
The drilling database is maintained in SQL, Géoticlog, with drill hole location information in NAD83 projection, UTM Zone 18.

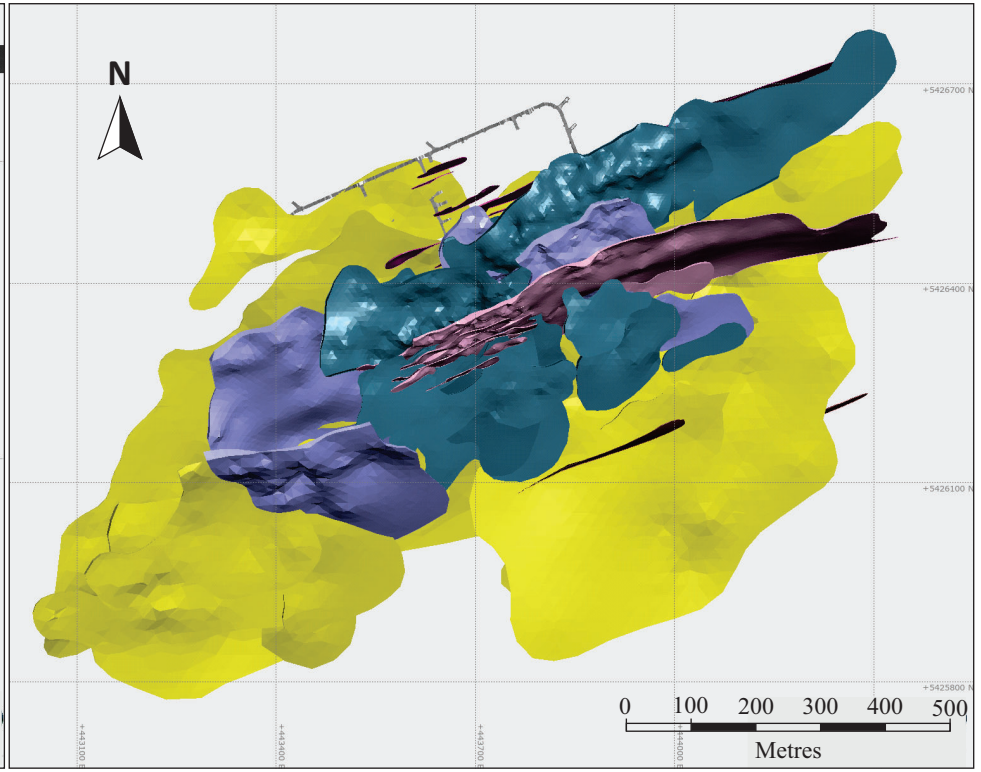
The database for Mineral Resources consists of diamond drilling with approximately 10 m spacing within the historic pits and up to 100 m spacing elsewhere. Barry Mineral Resources are based on 10,570 assays, from 183,182 m in 744 diamond drill holes completed from 1983 to 2021. The drilling was conducted from surface and underground, from historic infrastructures. The data was imported into Seequent's Leapfrog Geo version 2021.1 for statistical analysis, block modelling, and resource estimation.

14.3.4 Geological Interpretation

The Barry Mineral Resource estimate is based on over 70 veins grouped within six shallow to steeply dipping vein sets (AB, H, D, 800, 550 and 1000) from surface to 650 m in depth. Vein orientations were confirmed through mapping of surface exposure in the Barry historic pits and observed vein angles in drill core. Vein boundaries were defined using an approximate gold grade of 0.5 g/t Au near surface, and approximately 2.0 g/t Au at depth. No minimum mining width was used to model the veins sets at Barry, which range from approximately one metre to up to 20 m.

Modelling was completed by Bonterra geologists within Leapfrog Geo software (Figure 14-12) and reviewed and adopted by SLR.





Legend:

MINGR

- H
- 800
- AB
- D
- 1000
- 550

July 2022

Source: SLR, 2021.

Figure 14-12

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Barry Grouped Mineralized Wireframes

14.3.5 Resource Assays

14.3.5.1 Treatment of High Grade Assays

14.3.5.1.1 Capping Levels

Length weighted gold assays were divided into 11 capping groups which considered vein set, average grade, maximum grade, CV, potential mining scenario, and sample population size. Groups were reviewed using histograms, log probability plots, basic statistics, decile analysis, and visually to determine appropriate capping values. Barry capping groups are listed in Table 14-15 and graphs comparing mean and maximum gold grades by vein set are presented in Figure 14-13. SLR notes that in in Figure 14-13, point size is represented by underlying sample population of each vein. Selected caps and assay statistics are presented in Table 14-16.

Table 14-15: Barry Capping Groups
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Capping Group Vein	Assay Count	Capping Group Vein	Assay Count	Capping Group Vein	Assay Count
550	6	AB-B	1101	AB-A	3849
551	6	AB01	122	AB07	1808
1000A	140	AB02	87	AB08	624
1002	8	AB03	26	AB14	1417
1003	18	AB04	48	800_I	1001
1005	34	AB05	51	800	1001
1007	9	AB06	27	800A	460
1008	36	AB09	232	801	87
1009	30	AB10	17	802	47
1010	5	AB11	82	803	19
1000B	150	AB12	5	804	101
1000	85	AB13	30	805	77
1001	10	AB15	29	806	17
1004	52	AB16	81	807	15
1006	3	AB17	24	810	97
		AB18	59	800B	58
		AB19	79	808	16
		AB20	33	809	42
		AB21	6		
		AB22	10		
		AB23	53		

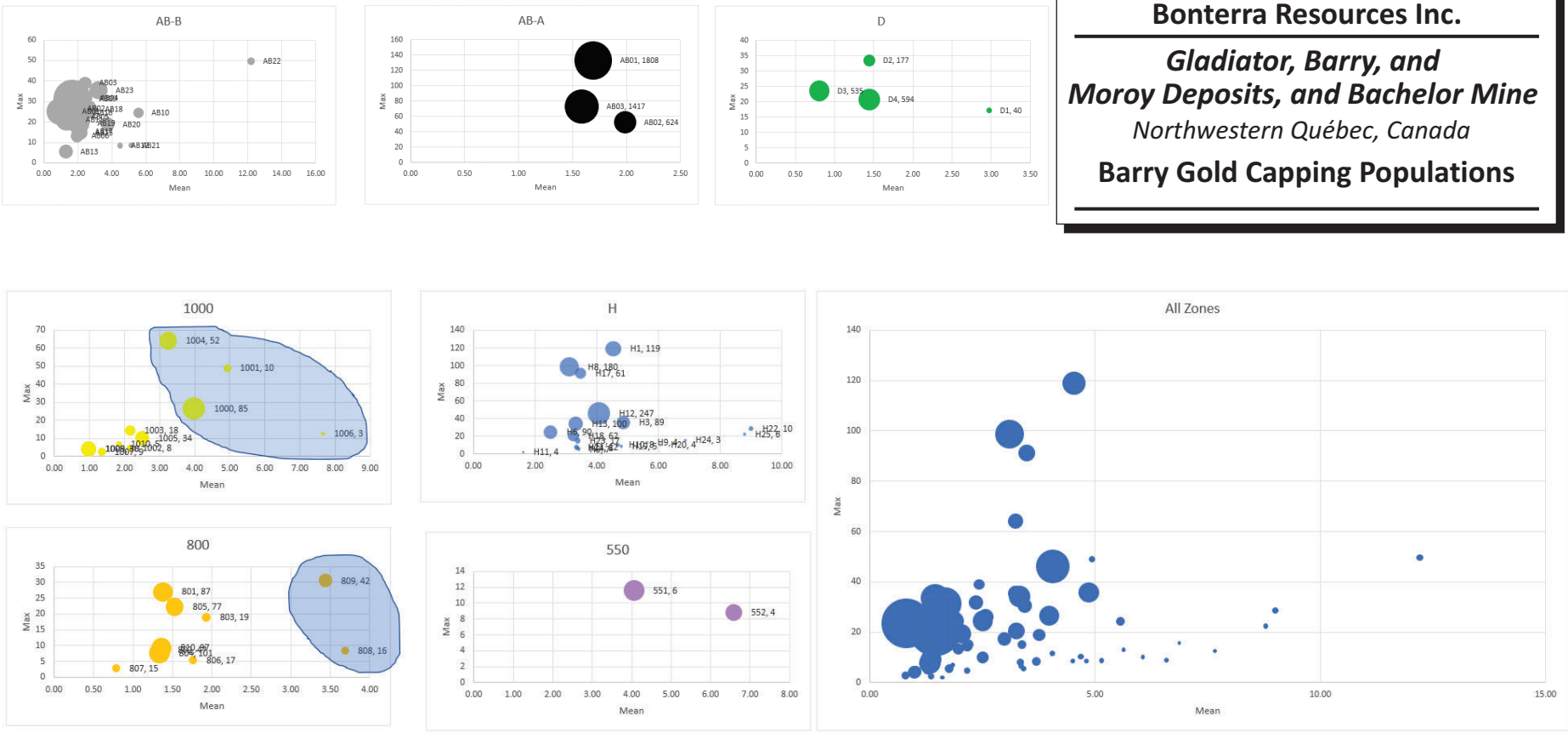
Figure 14-13

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Barry Gold Capping Populations



July 2022

Source: SLR, 2021.

Table 14-16: Barry Uncapped and Capped Gold Assay Statistics by Capping Group
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Capping Group	Count	Mean (g/t Au)	CV	Min (g/t Au)	Max (g/t Au)	Cap (g/t Au)	Mean Cap (g/t Au)	CV	Count Cap
550	12	4.23	0.82	0.05	11.6	Uncapped	4.23	0.82	0
1000A	140	1.78	1.29	0	14.3	Uncapped	1.78	1.29	0
1000B	150	3.86	1.61	0	64.2	25	3.6	1.22	3
800_I	1,001	3.1	1.62	0	48	40	3.09	1.6	2
800A	460	1.41	1.51	0	27.01	20	1.4	1.47	2
800B	58	3.54	1.29	0.005	30.5	15	3.38	1.16	3
AB-A	3,849	1.69	2.7	0	133	55	1.65	2.27	3
AB-B	1,101	1.93	2.11	0	49.6	35	1.93	2.07	3
D	1,346	1.21	2.11	0	33.5	25	1.2	2.04	2
D5_I	1lo400	1.63	4.23	0	255.8	30	1.46	2.18	5
H	1053	3.83	1.65	0	119	40	3.75	1.43	5

14.3.5.1.2 High Grade Restriction

Within the near surface intrusive bodies, some lower grade mineralization with some discontinuous higher grades relevant for an open pit mining scenario was present. These intrusive bodies were estimated with a high grade restriction which capped all composite values greater than 3.0 g/t Au to 3.0 g/t Au beyond 25 m. No other grade restriction was applied at Barry.

14.3.6 Compositing

Capped gold assays within vein sets and intrusives were composited to one metre and broken at domain boundaries. Unsampled gold values were assigned a zero value, and relict samples less than 0.5 m were added to the previous interval. Capped composite statistics for gold are summarized in Table 14-17.

Table 14-17: Barry Basic Statistics of Capped Gold Composite Values by Domain Group
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain Group	Count	Length (m)	Mean (g/t Au)	CV	Minimum (g/t Au)	Maximum (g/t Au)
550	6	7.6	5.04	0.68	1.79	11.6
1000	249	217.9	2.84	1.27	-	25
H	906	870.6	3.69	1.27	-	40
800	1,804	1,723.7	2.49	1.55	-	40
D	2,960	2,919.5	1.36	1.88	-	30
AB	6,076	5,931.6	1.93	1.86	-	55

14.3.7 Trend Analysis

14.3.7.1 Variography

Experimental semi variograms oriented in the plane of mineralization were constructed for domains 800 and AB07, using a normal scores transformation, to assess grade continuity and confirm observed mineralization trends. The mineralization domains lacked sufficient samples to obtain robust variograms, however, the results were useful in supporting the range of expected grade continuity. Variogram maps and back-transformed model results are presented in Figure 14-14 (800) and Figure 14-15 (AB07) and point to mineralization continuity of approximately 40 m to 50 m.

Structure	Variogram Model	Dip (°)	Dip Azimuth (°)	Pitch (°)	Major (m)	Semi-Major (m)	Minor (m)	Nugget	Total Sill	Variance
1	Spherical	73	155	162.7	7	25	5	0.2	0.99	1
2	Spherical	73	155	162.7	40	40	25	0.2	0.99	1

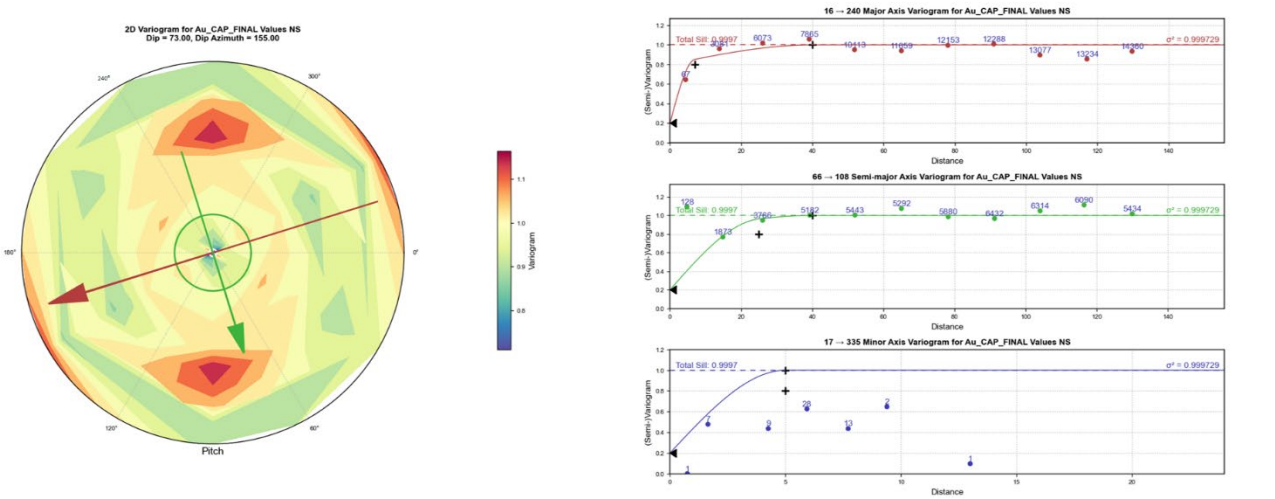


Figure 14-14: Barry Domain 800 Variogram Map and Back-Transformed Model Results

Structure	Variogram Model	Dip (°)	Dip Azimuth (°)	Pitch (°)	Major (m)	Semi-Major (m)	Minor (m)	Nugget	Total Sill	Variance
1	Spherical	46	143	17	10	10	6	0.15	1	1
2	Spherical	46	143	17	50	40	15	0.15	1	1

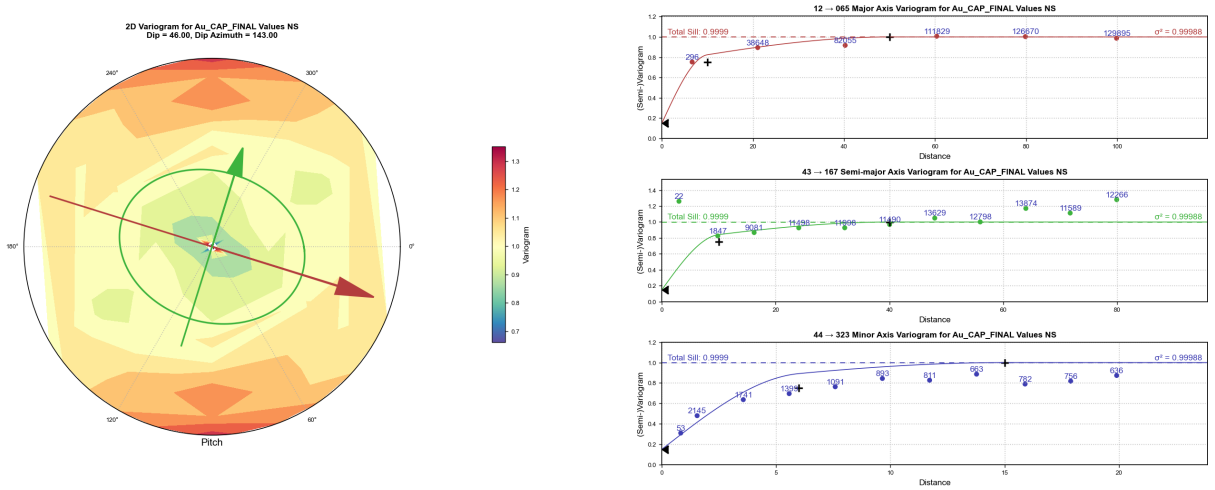


Figure 14-15: Barry Domain AB07 Variogram Map and Back-Transformed Model Results

14.3.7.2 Grade Contouring

SLR prepared a series of traditional longitudinal projections for a selection of the mineralized wireframes present at Barry. Additionally, full length composites of uncapped gold grades for all mineralized wireframes were contoured (Figure 14-16).

Examination of the grade distributions indicate several plunges of elevated gold grades. Results are sensitive to the drilling density, which is much higher where proximal to the historic pits compared to the rest of the Barry deposit. In general, various trends and plunges intersect, making it difficult to observe a single and predominant grade plunge consistent within or among the six vein sets modelled at Barry, however, three common plunges were observed to be present. These trends are listed in Table 14-18 and presented visually in Figure 14-17. SLR notes that the trends have not all been completely drilled tested at depth. SLR recommends reviewing the observed grade trend and plunges at Barry following additional drilling.

Table 14-18: Observed Grade Trends at Barry
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Trend (°)	1	2	3
Dip	72	30	54
DipAz	158	135	144
Pitch	86	86	123

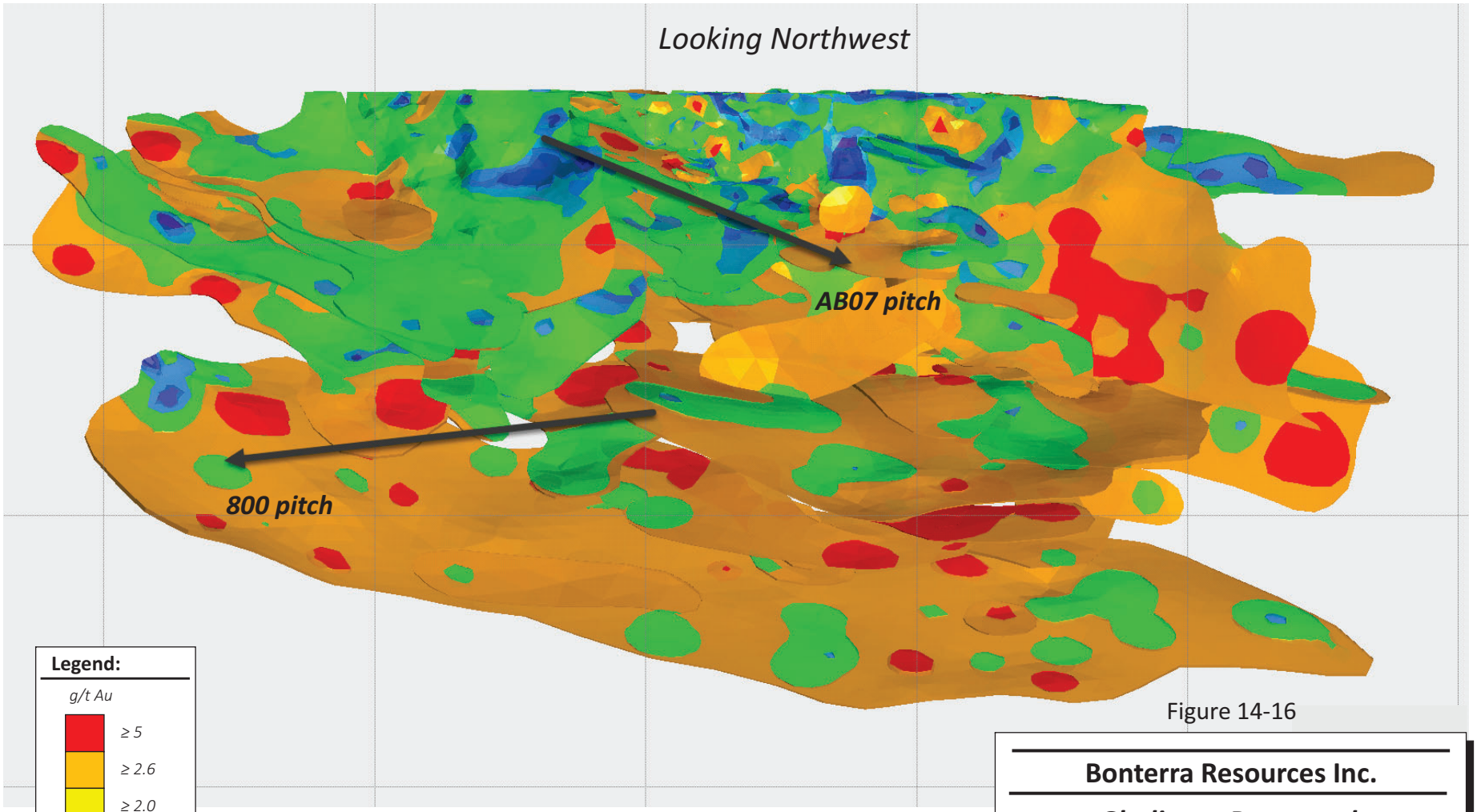


Figure 14-16

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Barry Gold Assay Grade Contouring

July 2022

Source: SLR, 2021.

Looking West

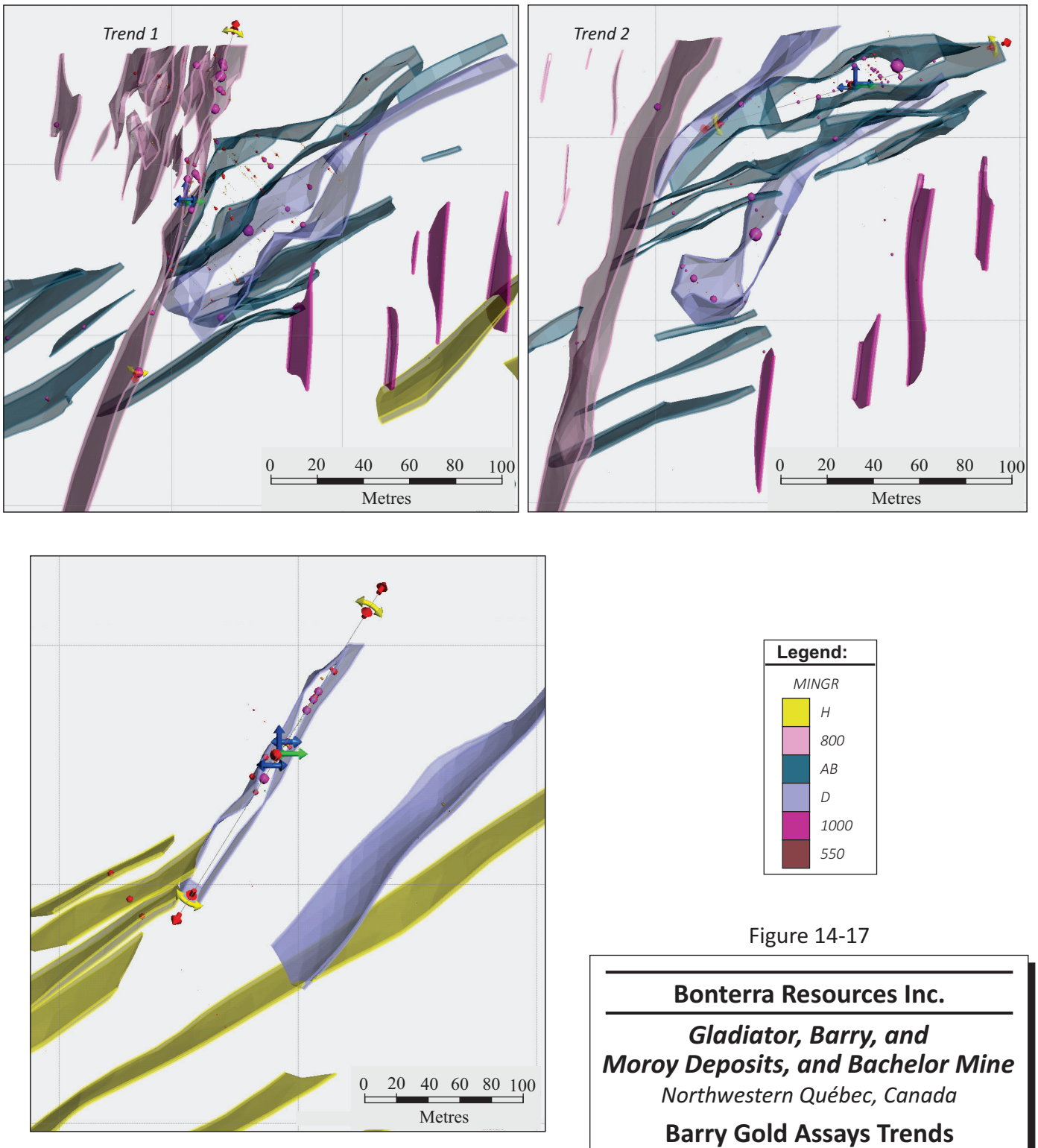


Figure 14-17

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Barry Gold Assays Trends

July 2022

Source: SLR, 2021.

14.3.8 Search Strategy and Grade Interpolation Parameters

Grades were estimated into parent blocks using a multi-pass ID^3 approach as outlined in Table 14-19. Search ellipses for grade interpolation were oriented using dynamic anisotropy, with the longest axis parallel to strike and the second longest axis down-dip. Search distances ranged from 30 m x 30 m x 3 m to 200 m x 200 m x 20 m, with the number of composites varying from one to fifteen (Table 14-20), pass number dependent.

Table 14-19: Barry Search Strategy and Grade Interpolation Parameters
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain	Method	1st Pass			2nd Pass			3rd Pass		
		X-axis (m)	Y-axis (m)	Z-axis (m)	X-axis (m)	Y-axis (m)	Z-axis (m)	X-axis (m)	Y-axis (m)	Z-axis (m)
All	ID^3	30	30	3	70	70	5	200	200	20

Table 14-20: Barry Composite Selection
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain	1st Pass		2nd pass		3rd pass		Max per DDH
	Min No.	Max No.	Min No.	Max No.	Min No.	Max No.	
ALL	5	15	5	15	1	15	3

14.3.9 Bulk Density

A total of 189 density measurements were collected at Barry using water displacement and pycnometer methods. Bulk density was assigned to the block model based on the average density by lithology, with outliers removed (Table 14-21).

Table 14-21: Barry Density Assignment
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Lithology	Count	Mean (t/m^3)
Intrusive	6	2.86
Mineralized Domains	42	2.80
Tuff	12	2.81
Volcanic	129	2.83
Total	189	2.82

14.3.10 Block Models

Block model construction and estimation was completed in Leapfrog Edge software. Block model dimensions for the Barry deposit are presented in Table 14-22. While SLR considers the block model sizes appropriate for the deposit geometry and proposed mining methods, SLR notes that the application of a

minimum thickness constraint during wireframe construction would have supported a larger minimum sub-block size and smaller overall block model file size. SLR recommends considering a minimum thickness in future updates.

Table 14-22: Dimensions and Position of Barry Block Model
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Type	X	Y	Z
Base Point (m)	442,810	5,426,050	420
Boundary Size (m)	995	1,590	715
User Block Size (m)	2.5	5	2.5
Min. Block Size (m)	0.625	1.25	0.625
Rotation (°)	0	0	45

14.3.11 Classification

Measured Mineral Resources at Barry have been defined where proximal to historic pits and drill holes are spaced up to approximately 20 m (90% variogram range) apart, on average. Indicated and Inferred Mineral Resources have been defined where drill hole spacings of up to approximately 50 m (100% of variogram range) and 100 m (200% variogram range) were achieved, respectively, and modified to consider geological understanding, grade continuity and the creation of cohesive class boundaries. Classification shapes were developed over the mineralization domains as well as a 10 m buffer to allow inclusion of null grade material within the Mineral Resource estimate where adjacent to the mineralization domains but within reporting shapes defined using a minimum thickness criterion of 1.2 m. Classification criteria are presented in Table 14-23 and the classified blocks are shown in Figure 14-18.

Table 14-23: Barry Classification Criteria
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Class	Criteria
Measured	Proximal to historic pits, 20 m drill hole spacing
Indicated	50 m drill hole spacing
Inferred	100 m drill hole spacing

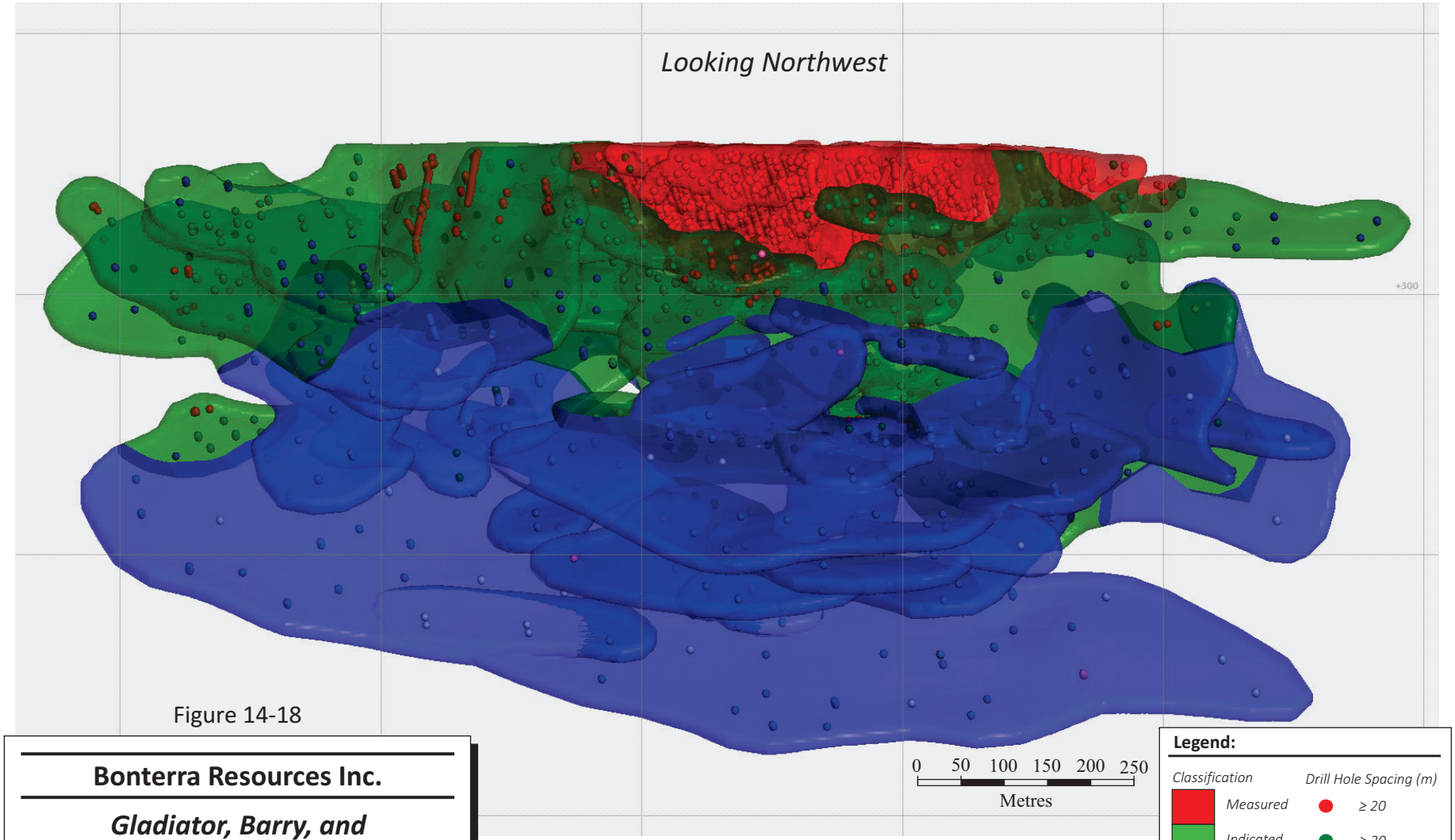


Figure 14-18

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Barry Classification Shapes

July 2022

Source: SLR, 2021.

14.3.12 Block Model Validation

Blocks were validated using industry standard techniques including:

- Visual inspection of composite versus block grades (Figure 14-19 and Figure 14-20)
- Comparison between ID^3, NN, and composite means
- Swath plots (Figure 14-21)
- Wireframe to block model volume confirmation
- Cross software reporting confirmation (Deswik and Leapfrog Edge)

SLR viewed gold grades and proportions relative to the blocks, drilled grades, composites, and modelled solids. SLR observed that the block grades exhibited general accord with drilling and sampling and did not appear to smear significantly across sampled grades. Swath plots generally demonstrated good correlation, with block grades being somewhat smoothed relative to composite grades, as expected.

SLR reviewed drill hole intersections completed from June 1, 2021 to May, 2022 against the geological interpretation, mineralization wireframes, and block model grades. SLR is of the opinion that the drill holes completed following the effective date of the Mineral Resource estimate generally confirm the existing interpretation and estimated grades.

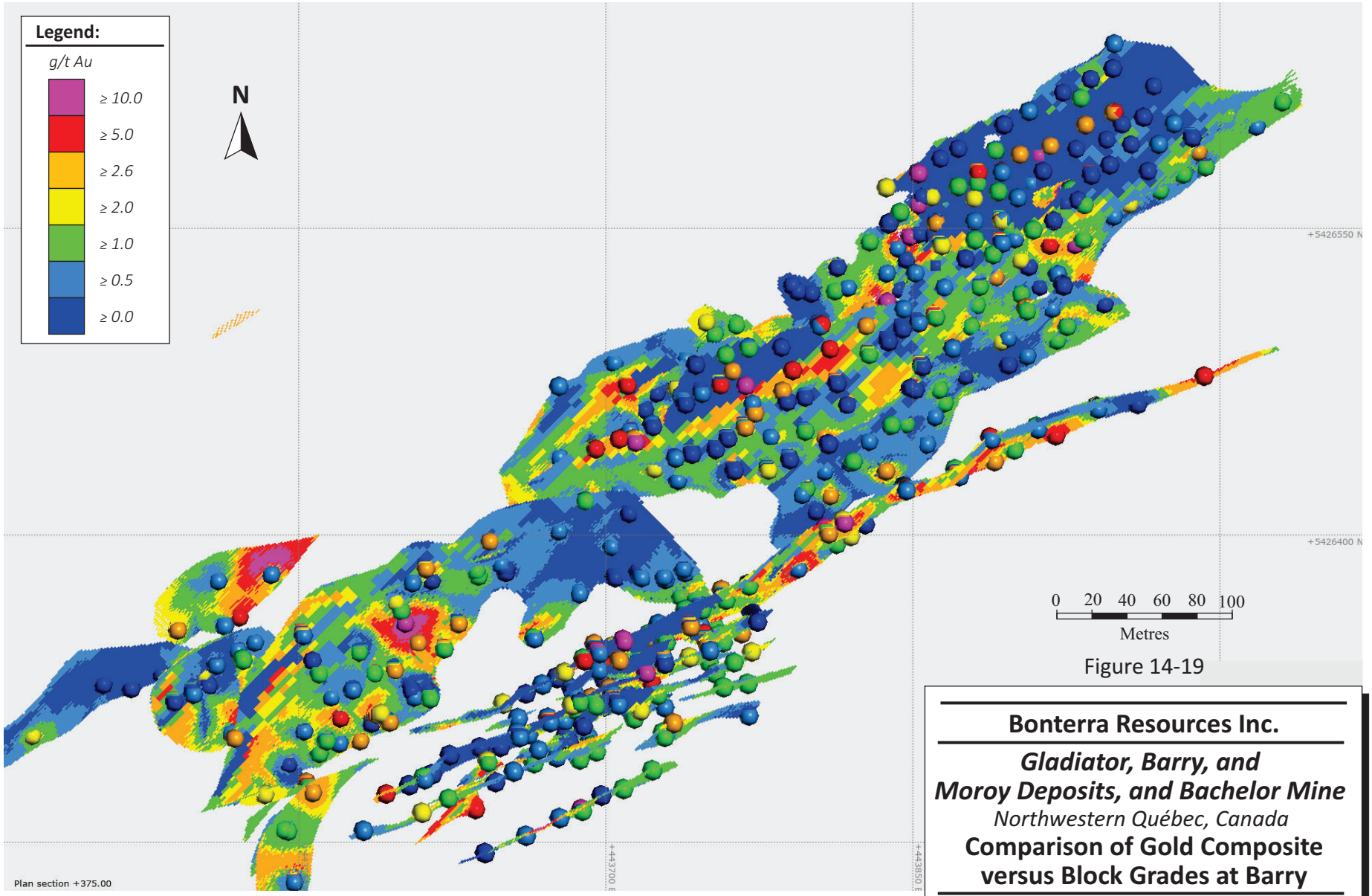


Figure 14-19

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

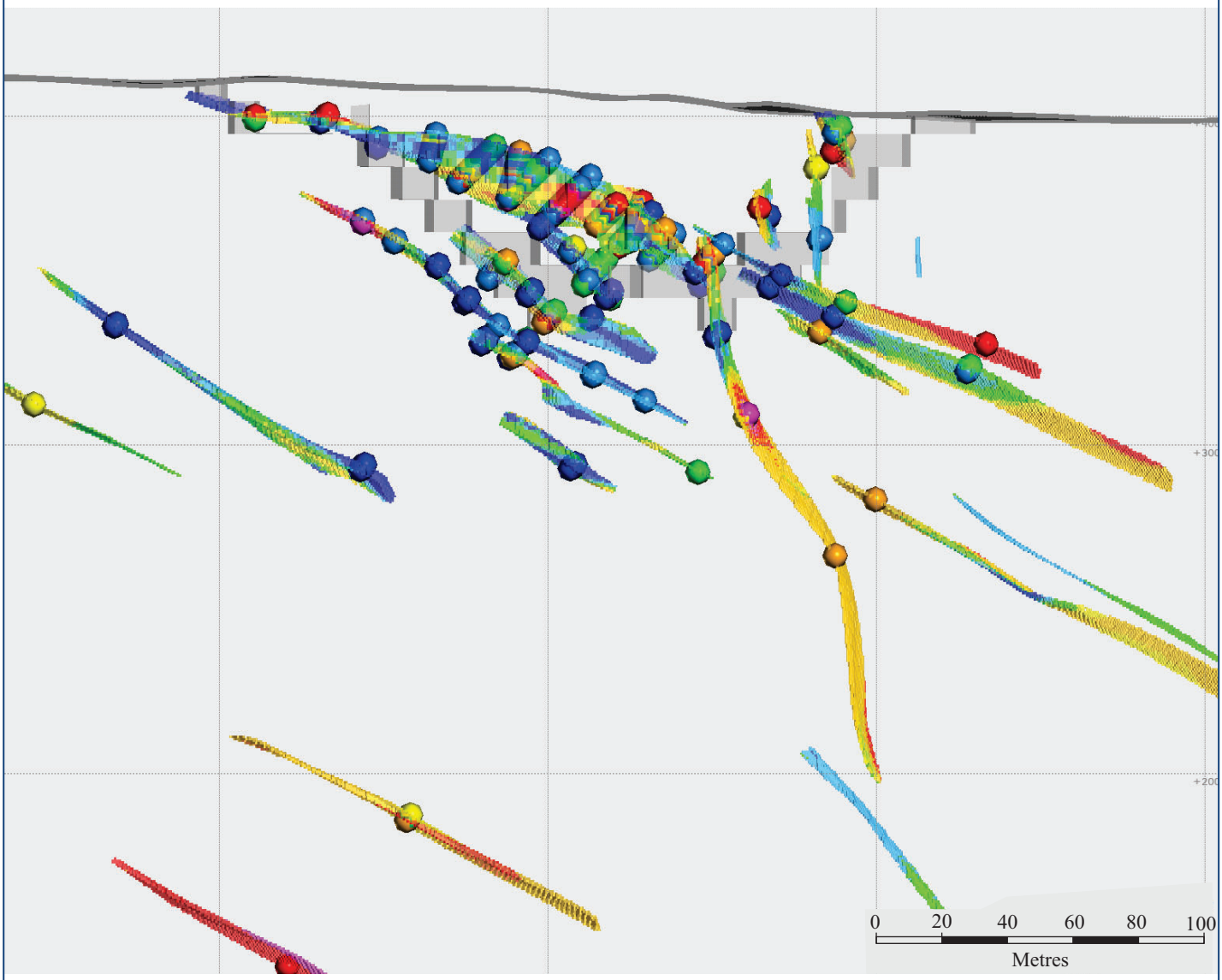
Northwestern Québec, Canada

Comparison of Gold Composite versus Block Grades at Barry

July 2022

Source: SLR, 2021.

Looking Northeast



Legend:

g/t Au

- ≥ 10.0
- ≥ 5.0
- ≥ 2.6
- ≥ 2.0
- ≥ 1.0
- ≥ 0.5
- ≥ 0.0

July 2022

Source: SLR, 2021.

Figure 14-20

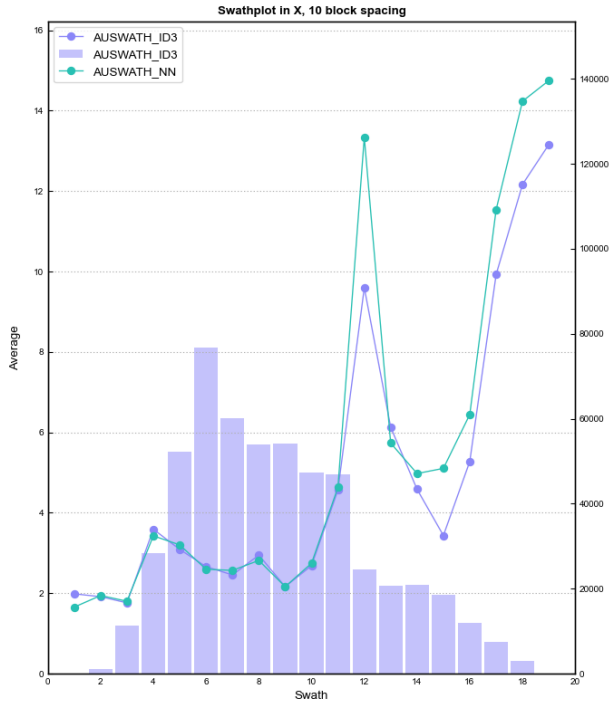
Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

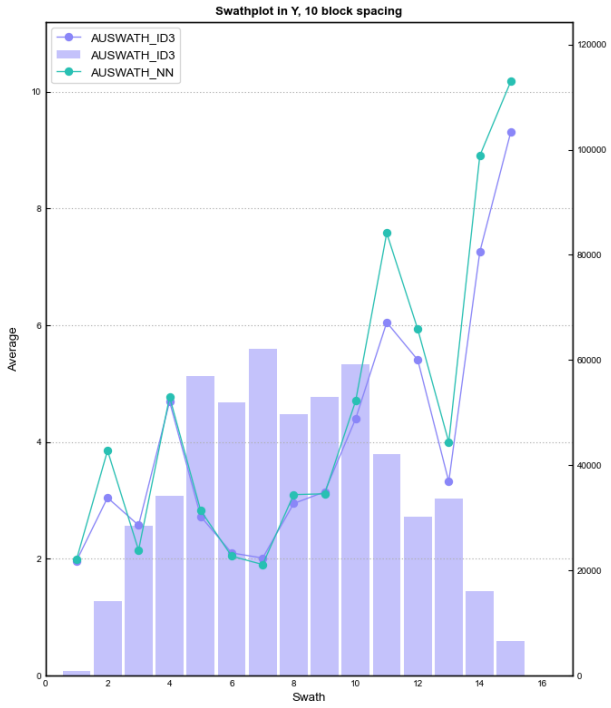
Northwestern Québec, Canada

Cross Sectional Comparison of Composite and Block Gold Grades at Barry

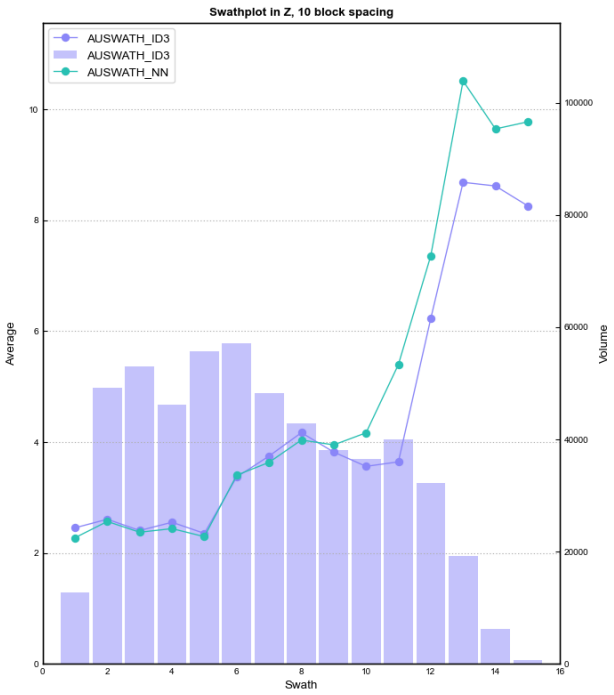
X-axis



Y-axis



Z-axis



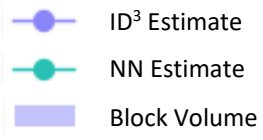


Figure 14-21: Swath Plot Comparing ID^3 and NN Estimate Results within Barry Domain 800

14.3.13 Mineral Resource Reporting

Mineral Resources for Barry are reported as per the Mineral Resource estimation methodologies and classification criteria detailed in this Technical Report. Open pit Mineral Resources are reported within an optimized pit at a cut-off grade of 1.0 g/t Au, while underground Mineral Resources are reported within underground reporting shapes defined using a minimum thickness of 1.2 m and a cut-off grade of 2.6 g/t Au, limited to areas of continuous mineralization. The inputs presented in Table 14-14 were used as economic input parameters to create the optimised pit shell. The pit shell was ran using an inter ramp angles (IRA) of 45° for all walls. Mining costs are incorporated in the pit optimization process but are not included in the pit discard cut-off grade calculation. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate. Both open pit and underground reporting shapes are presented in Figure 14-22. Underground reporting shapes were not used within domains H3, H8, H13, H23, D1, and AB18 as shapes presented artifacts due to their dip, orientation, or morphology and have instead been reported above a cut-off grade of 2.6 g/t Au and reviewed visually to limit the inclusion of material below a minimum thickness of 1.2 m, and to ensure continuity. Table 14-24 summarizes the Barry Mineral Resources.

Table 14-24: Barry Mineral Resources – June 1, 2021
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
	Open Pit		
Measured	1,732	2.66	148
Indicated	184	2.87	17
Measured + Indicated	1,916	2.68	165
Inferred	15	2.36	1
	Underground		
Measured	344	4.94	55
Indicated	2,839	5.15	470
Measured + Indicated	3,183	5.12	524
Inferred	4,364	4.9	687
	Combined Open Pit and Underground		
Measured	2,076	3.04	203
Indicated	3,023	5.01	487
Measured + Indicated	5,099	4.21	689
Inferred	4,379	4.89	689

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Open pit and underground Mineral Resources are estimated at cut-off grades of 1.0 g/t Au and 2.60 g/t Au, respectively.
3. Mineral Resources are estimated using a long term gold price of US$1,600/oz Au, and a US$/C$ exchange rate of 1.33.

4. A minimum mining width of 1.2 m was used.
5. Bulk density varies by rock type from 2.7 t/m3 to 2.8 t/m3.
6. Open pit and underground Mineral Resources are reported within optimized pit shell and underground constraining shapes, respectively.
7. Numbers may not add due to rounding.

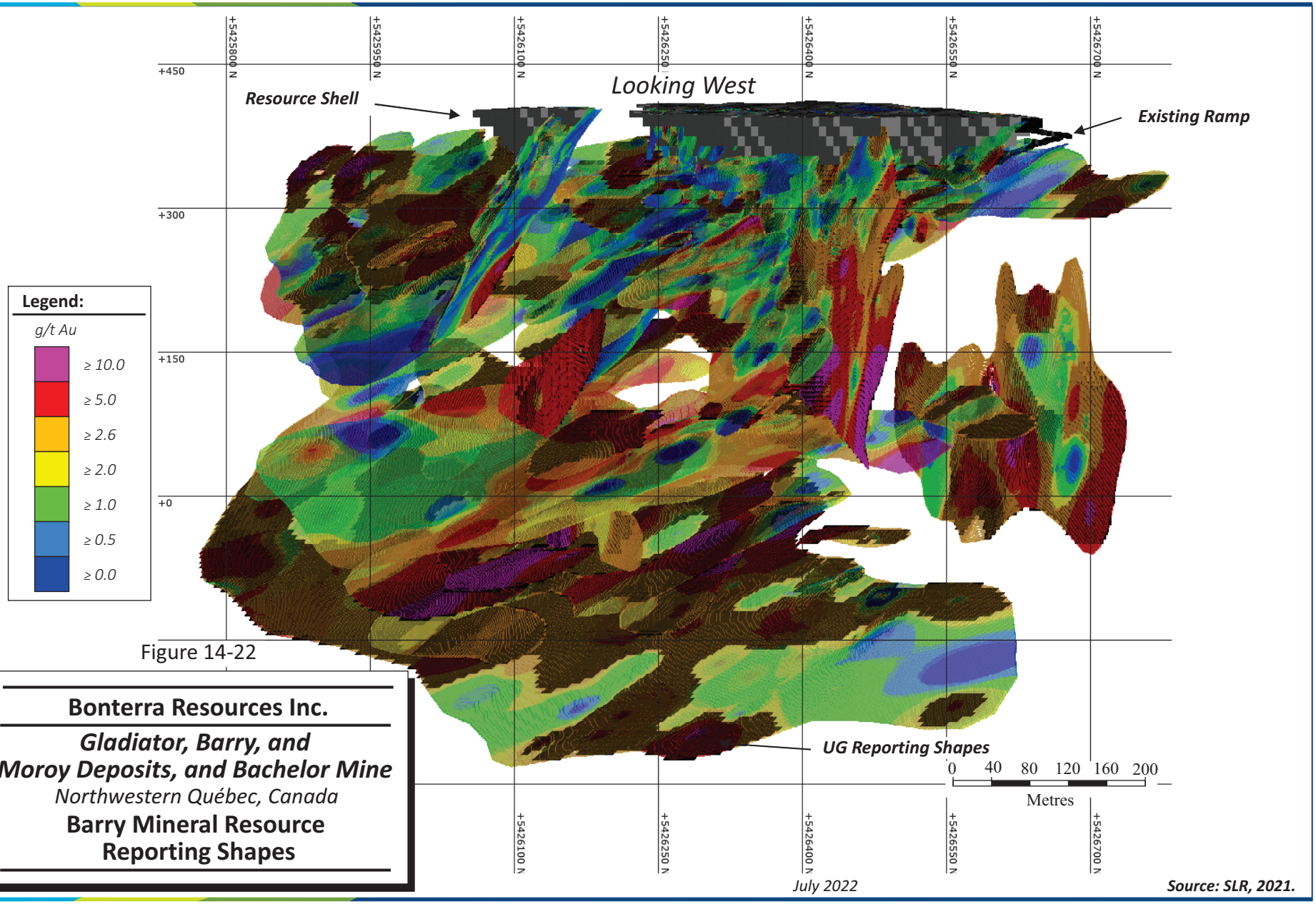


Figure 14-22

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Barry Mineral Resource Reporting Shapes

July 2022

Source: SLR, 2021.

14.3.14 Comparison with Previous Mineral Resource Estimate

A Barry Mineral Resource estimate was prepared by SGS in 2019 (SGS, 2019) and results are compared in Table 14-25. The SLR (2021) Mineral Resource estimate shows a 79% increase in Measured and Indicated gold ounces, and a 52% increase in Inferred gold ounces.

Table 14-25: Comparison of SGS (2019) and SLR (2021) Mineral Resource Estimate at Barry Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	SGS 2019			SLR 2021		
	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Measured				2,076	3.04	203
Indicated	2,052	5.84	385	3,023	5.01	487
Measured + Indicated	2,052	5.84	385	5,099	4.21	689
Inferred	2,740	5.14	453	4,379	4.89	689

SLR notes the following principal reasons for the changes to the Barry Mineral Resource estimate (in order of importance):

- The underground reporting cut-off grade was decreased from 3.0 g/t Au (SGS) to 2.6 g/t Au (SLR), reflecting a change in the long-term gold price from $US1,300/oz Au to $US1,600/oz Au.
- Drilling success in 2020 and 2021 extended mineralization, particularly at depth and to the south.
- An open pit scenario was not considered by SGS (2019), and therefore near surface material between 1.0 g/t Au and 3.0 g/t Au was excluded from the 2019 estimate.

14.4 Gladiator

14.4.1 Project Summary

The Gladiator Mineral Resource estimate is based on over 150 vein structures and clusters within seven structural groups. Block model grade estimates are controlled by the geological/vein interpretations and were completed using a three-pass ID^3 interpolation and capped one metre composites. Indicated Mineral Resources were defined using drill hole spacing of up to approximately 40 m, a distance equal to the modeled variogram range. Inferred Mineral Resources are constrained by the vein wireframes and are supported by wider spaced drilling. Mineral Resources are reported within underground reporting shapes defined using a minimum thickness of 1.2 m and cut-off grade of 2.6 g/t Au, limited to areas of continuous mineralization. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate. A 50 m crown pillar below the base of overburden has been excluded from the Mineral Resources.

The Mineral Resource estimate represents an update of the July 2019 Mineral Resource estimates prepared by SGS (2019) for the Project.

14.4.2 Mineral Resource Cut-Off Grades

Metal prices used for Mineral Reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For Mineral Resources, metal prices used are slightly higher than those used for Mineral Reserves.

A cut-off grade of 2.60 g/t Au was developed for the Gladiator deposit that reflects the mining and processing costs and gold price. Underground Mineral Resource cut-off grades have been calculated based on long-hole stoping mining method. The full operating costs including mining, processing, and G&A have been included in the calculations. Capital costs, including sustaining capital have been excluded. Table 14-26 lists the parameters used to calculate the cut-off grade.

Table 14-26: Gladiator Mineral Resource Cut Off Grade Calculation Inputs
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Item	Unit	Gladiator Underground
Gold Price	-	US$1,600/oz Au / C$2,133/oz Au
Exchange Rate	US$:C$	1.33
Recovery	%	93
Mining Cost	C$/t	100
Processing Cost	C$/t	25
Transport Cost	C$/t	15
G&A	C$/t	25
Cut-Off Grade	g/t Au	2.60

14.4.3 Resource Database

The exploration drilling database is maintained in SQL, Géoticlog, with drill hole location information in NAD83 projection, UTM Zone 18.

The database for Mineral Resources consists of diamond drilling on 30 m to 120 m spacing. Gladiator Mineral Resources are based on approximately 5,962 assays from 201,946 m of diamond drilling in 377 diamond drill holes completed from 1997 to 2021. The drilling was conducted exclusively from surface.

14.4.4 Geological Interpretation

The Gladiator Mineral Resource estimate is based on over 150 interpretations of vein structures and vein clusters in seven domains: Footwall, Mains, Moderate North Dippers (MDN), Norths, Rivage, South, and Steep North Dippers (SND) from surface to 1,000 m in depth. Vein orientations were confirmed through observed vein angles in drill core. Vein boundaries were defined using an approximate gold grade of 2.0 g/t Au and were extended beyond drilling to the closer of 50% of the local drill hole spacing, or 50% of the distance to an excluded drill hole. Each vein incorporated a minimum of three drill hole intersections with gold grade values above 2.0 g/t Au, or logged vein presence. Wireframes extend from 100 m up to 1,300 m along strike, and from 100 m to 700 m down dip. Wireframes are generally straight, and consistently intersect logged vein intersections, however, economic gold grades tend to occur over shorter ranges within larger structures. No minimum mining width was used to model the veins sets, and individual veins are often less than one metre in width. Modelling was completed by Bonterra geologists within Leapfrog Geo software (Figure 14-23) and reviewed and adopted by SLR.

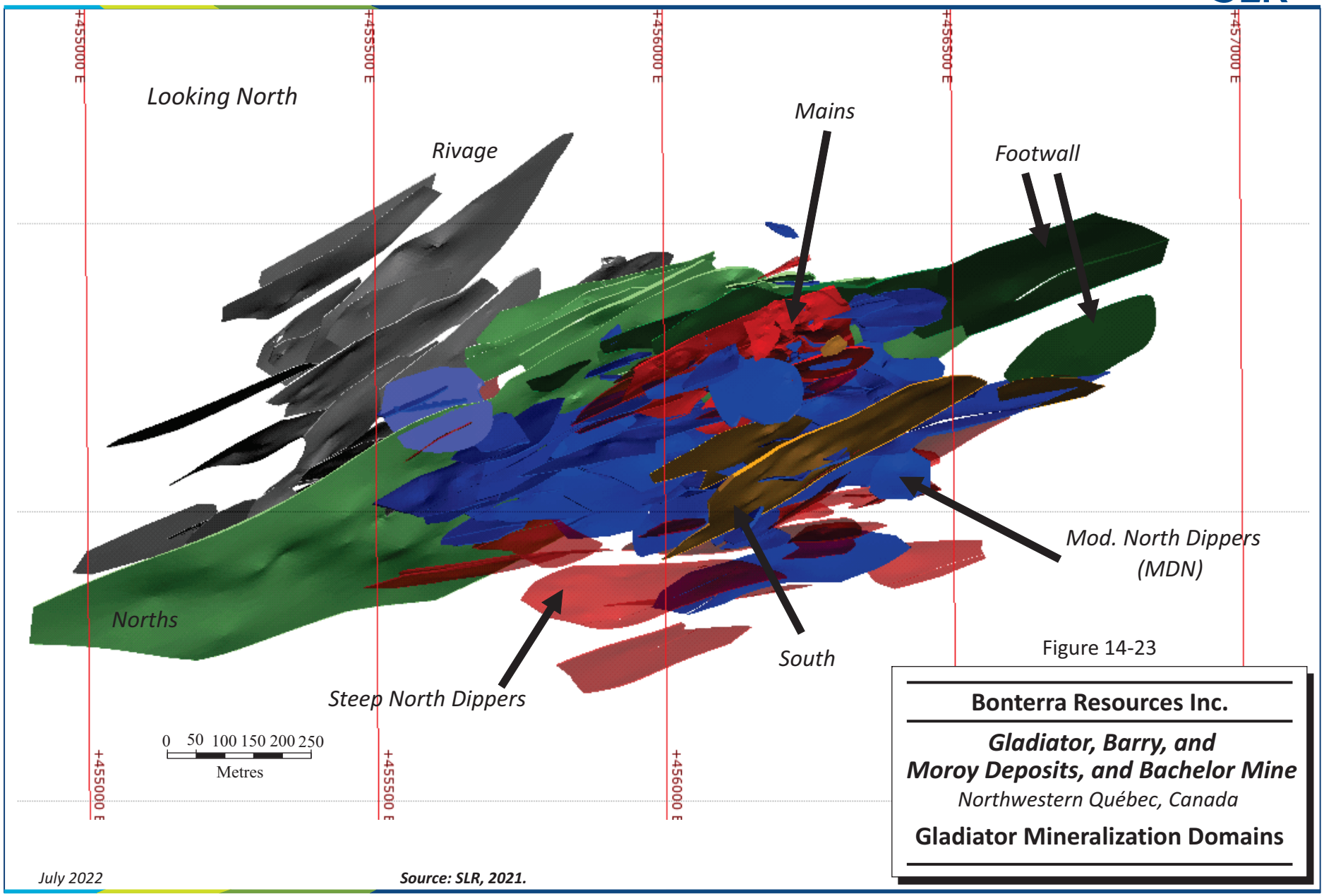


Figure 14-23

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Gladiator Mineralization Domains

July 2022

Source: SLR, 2021.

14.4.5 Resource Assays

14.4.5.1 Treatment of High Grade Assays

14.4.5.1.1 Capping of High Grade Assays

Gold assay values are compiled in Table 14-27. Assays were reviewed using histograms, log probability plots, and decile analysis to determine a cap for each vein set.

Table 14-27: Gladiator Capped and Uncapped Gold Assay Statistics
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Unit	Count	Length (m)	Mean (g/t Au)	CV	Min (g/t Au)	Med (g/t Au)	Max (g/t Au)	Cap (g/t Au)	Mean Cap (g/t Au)	CV Cap
Footwall	268	259	2.23	4.16	0.00	0.02	121.00	40	1.85	2.96
Mains	850	875	3.55	3.55	0.00	0.12	217.00	60	3.14	2.85
MDN	2,092	1,927	2.66	6.81	0.00	0.18	677.00	100	2.18	3.95
Norths	976	925	1.89	5.24	0.00	0.28	288.00	35	1.53	2.98
Rivage	500	438	2.65	5.37	0.00	0.20	220.00	50	1.90	3.30
South	352	332	0.97	5.57	0.00	0.11	85.30	40	0.82	3.93
SND	924	881	2.18	4.32	0.00	0.14	191.50	80	2.05	3.66
All	5,962	5,637	2.48	5.54	0.00	0.17	677.00		2.09	3.56

14.4.6 Compositing

Capped gold assays within vein sets were composited to one metre and broken at domain boundaries. Unsampled gold values were assigned a zero value, and relict samples less than 0.25 m were added to the previous interval. Capped composite statistics for gold are summarized in Table 14-28.

Table 14-28: Gladiator Capped Gold Composite Statistics
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Unit	Count	Length (m)	Mean (g/t Au)	CV	Minimum (g/t Au)	Median (g/t Au)	Maximum (g/t Au)
Footwall	276	259	1.85	2.77	0.00	0.02	40.00
Mains	919	875	3.14	2.43	0.00	0.21	60.00
MDN	2,080	1,922	2.19	3.29	0.00	0.24	100.00
Norths	964	924	1.53	2.64	0.00	0.33	35.00
Rivage	479	437	1.91	2.99	0.00	0.22	50.00
South	348	332	0.82	3.86	0.00	0.15	40.00
SND	944	880	2.05	3.21	0.00	0.15	64.35
All	6,010	5,630	2.09	3.06	0.00	0.21	100.00

14.4.7 Trend Analysis

14.4.7.1 Grade Contouring

To assist in conducting variography studies to understand the continuity of the gold grades in the various mineralized wireframes, SLR prepared a series of traditional longitudinal projections for a selection of the mineralized wireframes present at the Gladiator deposit. For this exercise, the average uncapped gold grade across the entire width of the largest mineralized wireframe models for the Mains, MND, and Norths domains were contoured (Figure 14-24), in addition to grade-thickness contours of the North and SND domains (Figure 14-25).

Examination of the grade distribution for the wireframes indicates that the density of drill holes and sample information is higher at shallow levels and that the drilling has identified several zones of elevated gold grades. In general, the grades within these higher grade zones can be seen to be follow various trends and it is difficult to observe a predominant grade trend. In some instances, the down-plunge limits of these higher grade shoots have not been defined by drilling.

SLR recommends that further analysis of the grade trend plunges be carried out so these can be determined.

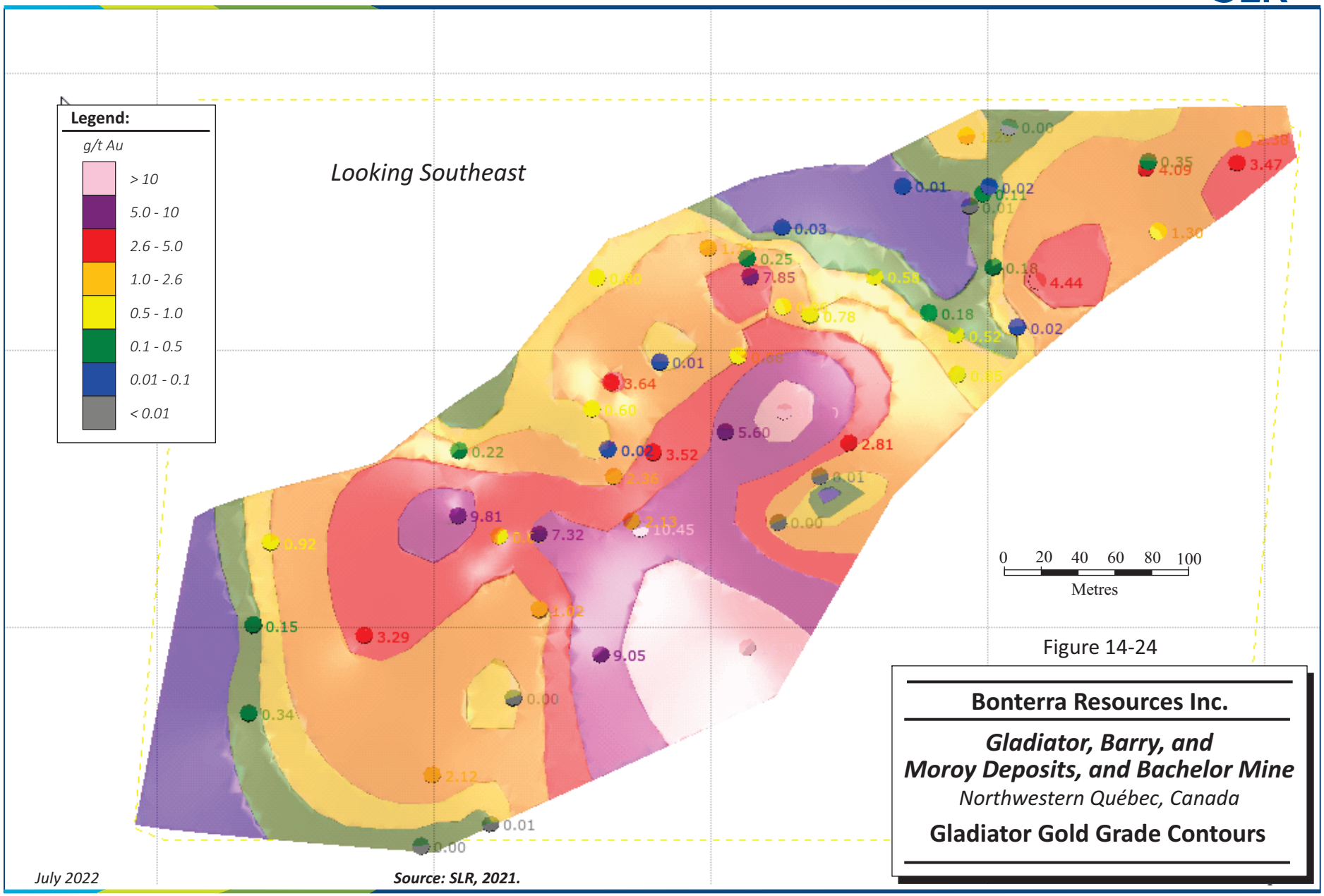


Figure 14-24

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Gladiator Gold Grade Contours

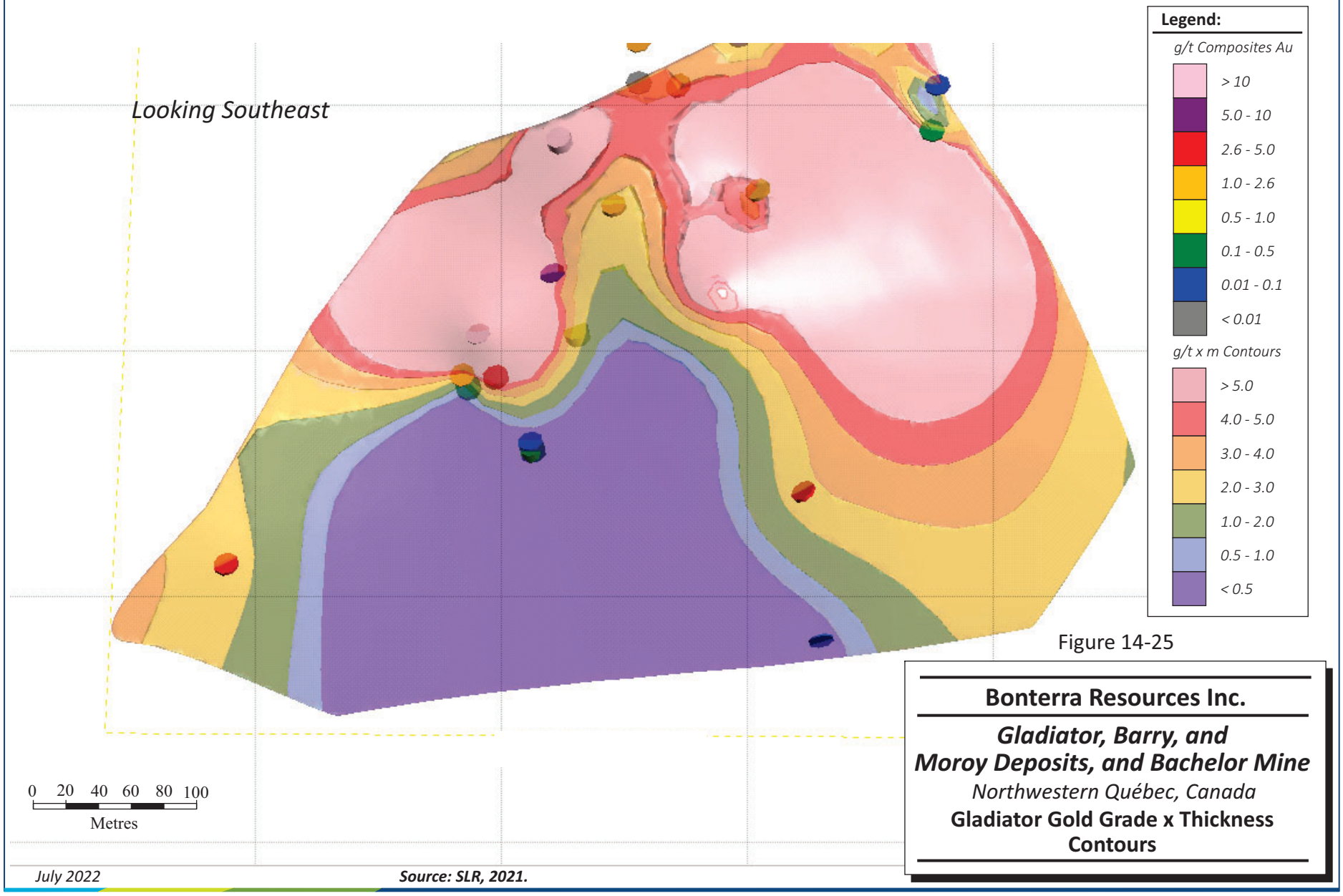


Figure 14-25

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Gladiator Gold Grade x Thickness Contours

July 2022

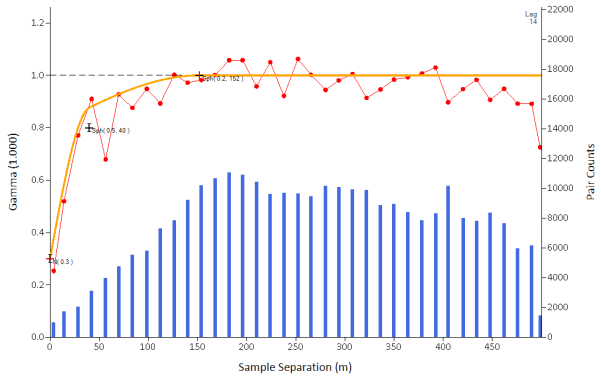
Source: SLR, 2021.

14.4.7.2 Variography

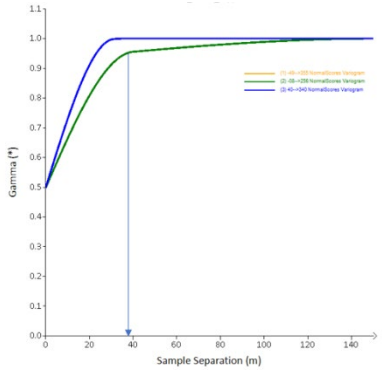
Experimental semi variograms oriented in the plane of mineralization were constructed for the MND, SND, and Rivage domains using one metre composite samples (Figure 14-26). Downhole variograms were used to model the nugget effect and fit the across-strike variogram models. Although the mineralization domains lacked sufficient samples to obtain robust variograms, the results were useful in supporting the range of expected grade continuity, which for all tested domains, ranged from 30 m to 40 m.

Mod North Dippers: 49°→355°

Normal Scores Variogram

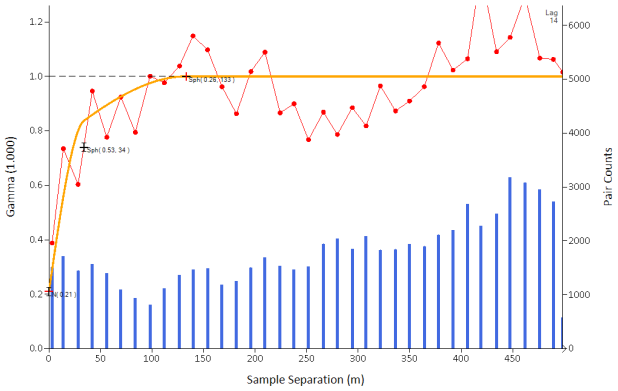


Back Transform Model

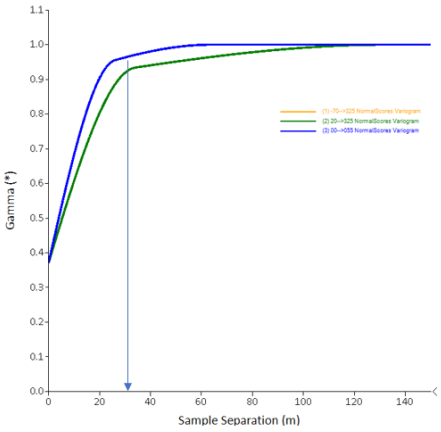


Steep North Dippers: 70°→325°

Normal Scores Variogram

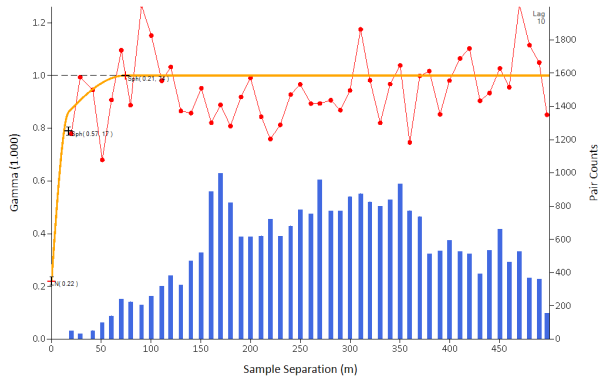


Back Transform Model



Rivage: 37°→039°

Normal Scores Variogram



Back Transform Model

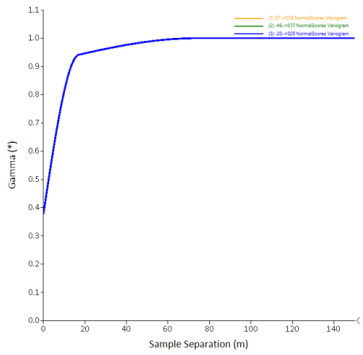


Figure 14-26: Normal Scores Variogram and Back Transform Models at Gladiator

14.4.8 Bulk Density

A total of 127 specific gravity measurements were collected at Gladiator using the pycnometer technique. Density values were confirmed to represent the deposit spatially, flagged by modelled lithology, and averaged. Variability of density within all units was observed to be very low. A density of 2.8 t/m^3 was assigned to all lithologies at Gladiator (Table 14-29).

Table 14-29: Gladiator Average Specific Gravity Results by Lithology
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Lithology	Count	Mean (t/m^3)	CV	Minimum (t/m^3)	Median (t/m^3)	Maximum (t/m^3)
Aphanitic Dike	1	2.82	-	2.82	2.82	2.82
Mineralization Domain	95	2.81	0.02	2.66	2.82	2.95
Intermediate Intrusive	3	2.80	0.02	2.71	2.82	2.83
Volcanic	28	2.81	0.02	2.61	2.83	2.95
Total	127	2.81	0.02	2.61	2.82	2.95

14.4.9 Search Strategy and Grade Interpolation Parameters

Grades were estimated into parent blocks using a multi-pass ID^3 approach as outlined in Table 14-30. Search ellipses for grade interpolation were oriented using dynamic anisotropy, with the longest axis parallel to strike and the second longest axis down-dip. Search distances ranged from 25 m x 25 m x 5 m to 100 m x 100 m x 10 m, with the number of composites varying from one to six (Table 14-31), pass number dependent.

Table 14-30: Gladiator Search Strategy and Grade Interpolation Parameters
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain	Method	1st Pass			2nd Pass			3rd Pass		
		X-axis (m)	Y-axis (m)	Z-axis (m)	X-axis (m)	Y-axis (m)	Z-axis (m)	X-axis (m)	Y-axis (m)	Z-axis (m)
All	ID[3]	25	25	5	50	50	5	100	100	10

Table 14-31: Gladiator Composite Selection
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Domain	1st Pass		2nd pass		3rd pass		Max per DDH
	Min No.	Max No.	Min No.	Max No.	Min No.	Max No.	
ALL	2	6	2	6	1	6	2

14.4.10 Block Model

Block model construction and estimation was completed in Leapfrog Edge software and transferred to Datamine Studio 3 for subsequent work. The Gladiator subblock model location, rotation, and dimensions are outlined in Table 14-32. A very small block and sub-block dimension was employed at Gladiator to allow accurate volumetric representation by the block model, as the mineralization domains can be very thin and have a variety of intersecting orientations and dips. In the context that underground reporting shapes of a minimum of 5 m x 5 m x 1.2 m were used to limit Mineral Resources at Gladiator, the block size is considered appropriate. To avoid the challenges associated with narrow veins and very large block models, SLR recommends applying minimum thickness criteria directly to the mineralization domains in future, and to limit mineralization domains to areas with consistent mineralization above the cut-off grade, which will allow for a larger minimum block size, and a smaller overall block model size.

Table 14-32: Gladiator Block Dimensions and Location
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Type	Unit	X	Y	Z
Base Point	m	455,000	5,247,180	0
Boundary Size	m	2,175	860	1,060
User Block Size	m	2.5	2.5	2.5
Min. Block Size	m	0.3125	0.3125	0.3125
Rotation	°	0	0	340

14.4.11 Classification

At Gladiator Indicated and Inferred Mineral Resources have been defined where drill hole spacings of up to approximately 40 m (100% of variogram range) and up to 100 m (250% variogram range) were achieved, respectively, and modified to consider geological understanding, grade continuity, and the creation of cohesive class boundaries. Classification shapes were developed over the mineralization domains as well

as a 10 m buffer to allow inclusion of null grade material within the Mineral Resource estimate where adjacent to the mineralization domains but within reporting shapes defined using a minimum thickness criterion of 1.2 m. A 50 m crown pillar below the base of overburden has been excluded from the Gladiator Mineral Resources as they are underlying an existing lake. Classification criteria are presented in Table 14-33 and classified blocks are shown in Figure 14-27.

Table 14-33: Gladiator Classification Criteria
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Class	Criteria
Indicated	40 m spacing
Inferred	Up to 100 m spacing

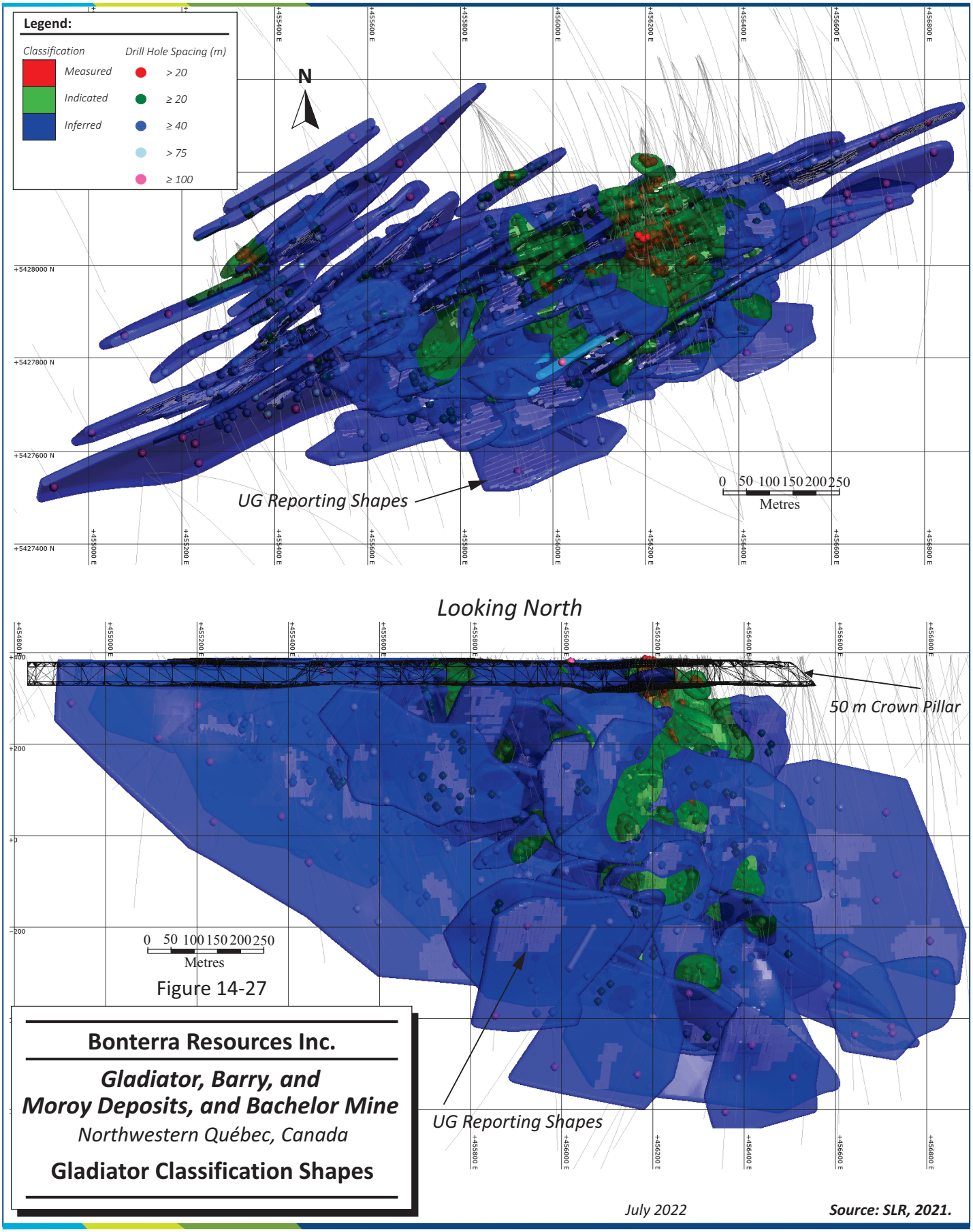


Figure 14-27

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Gladiator Classification Shapes

July 2022

Source: SLR, 2021.

14.4.12 Block Model Validation

Blocks were validated using industry standard techniques including:

- Visual inspection of composite versus block grades (Figure 14-28 to Figure 14-30)
- Comparison between ID^3, NN, and composite means
- Wireframe to block model volume confirmation
- Cross software reporting confirmation (Deswik and Datamine)

SLR reviewed gold grades and proportions relative to the blocks, drilled grades, composites, and modelled solids. SLR observed that the block grades exhibited general accord with drilling and sampling and did not appear to smear significantly across sampled grades.

Swath plots were created and generally demonstrated good correlation, with block grades being somewhat smoothed relative to composite grades, as expected.

SLR reviewed drill hole intersections completed from June 1, 2021 to May, 2022 against the geological interpretation, mineralization wireframes, and block model grades. SLR is of the opinion that the drill holes completed following the effective date of the Mineral Resource estimate generally confirm the existing interpretation and estimated grades.

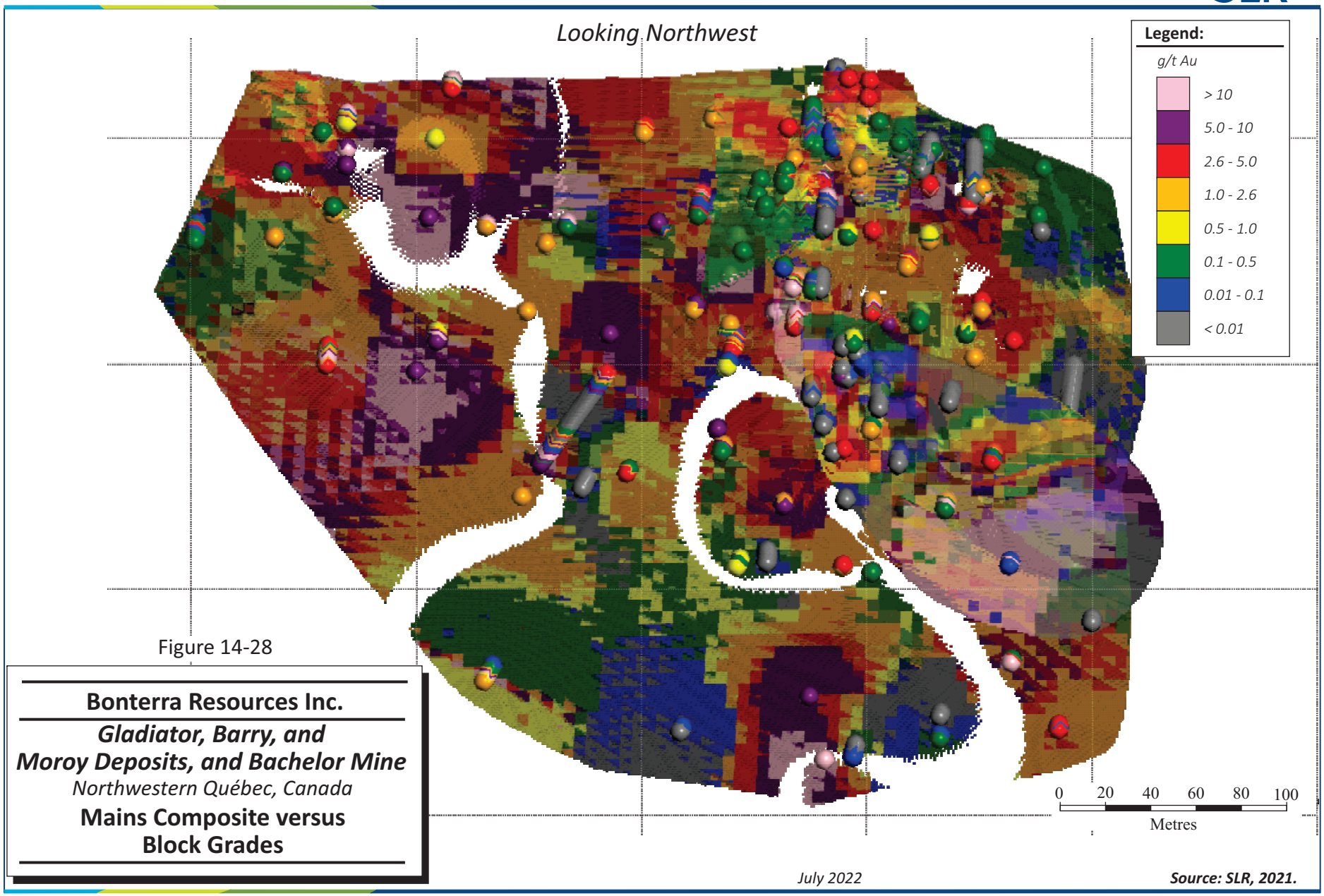


Figure 14-28

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

Mains Composite versus Block Grades

July 2022

Source: SLR, 2021.

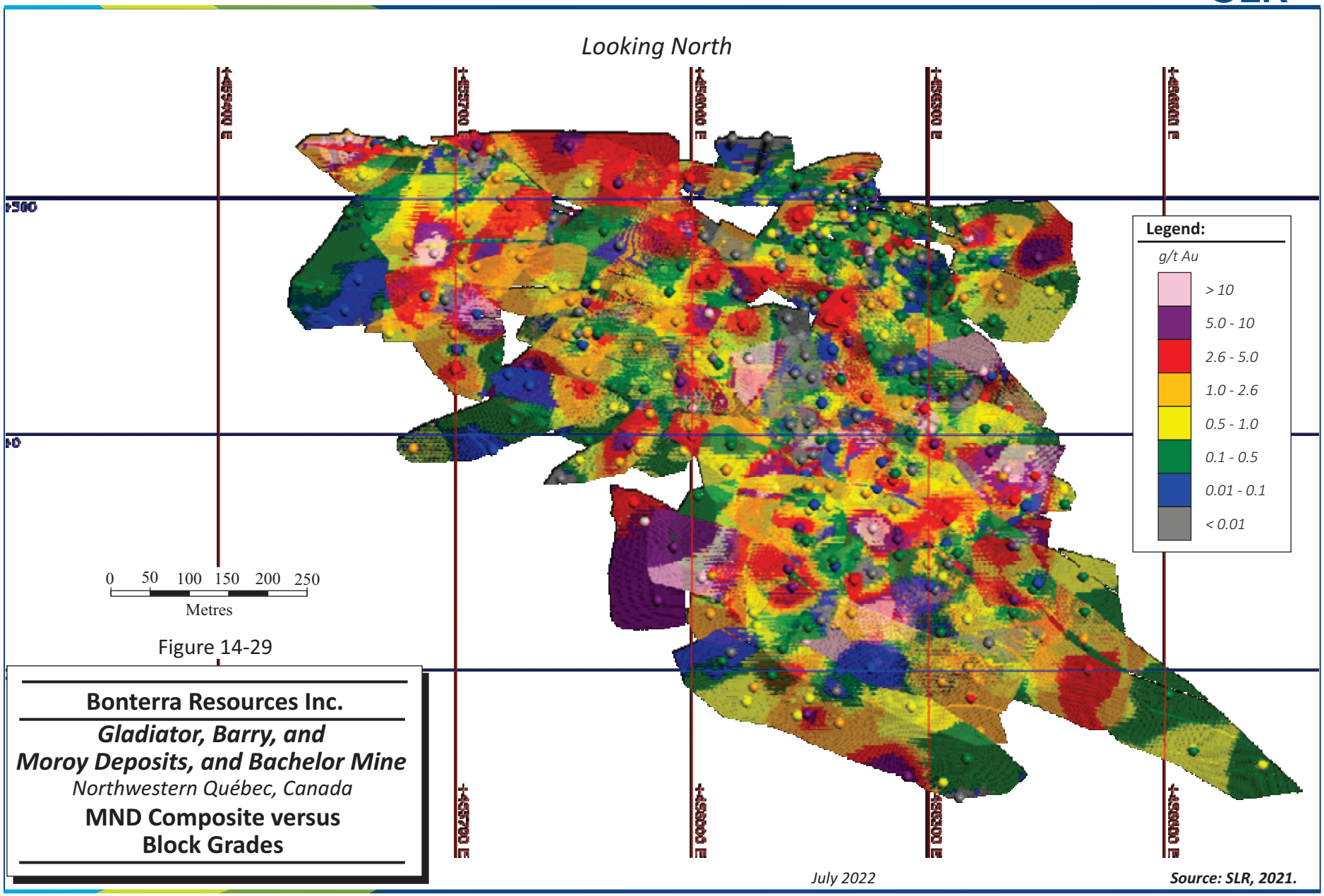


Figure 14-29

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

MND Composite versus Block Grades

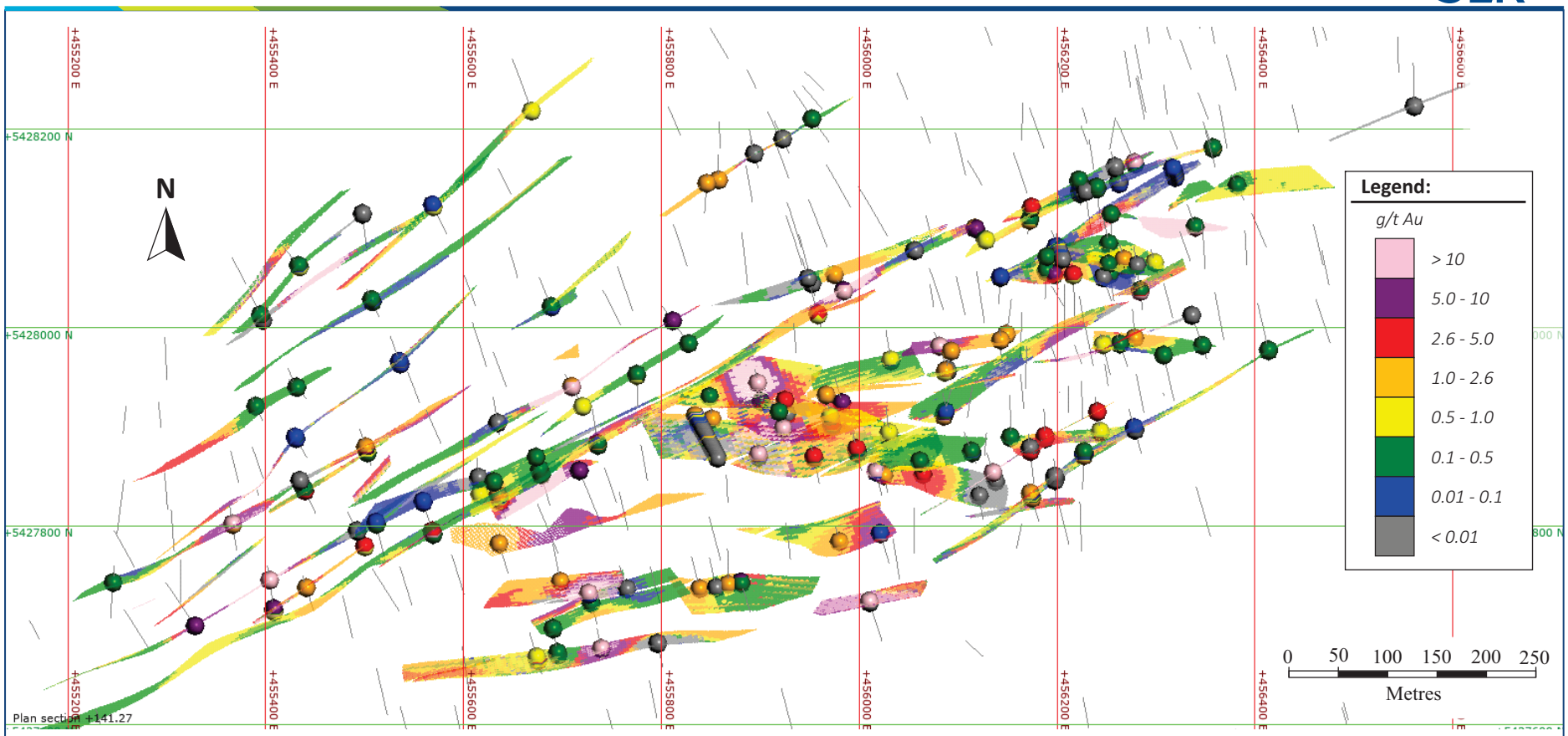


Figure 14-30

Bonterra Resources Inc.

Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Northwestern Québec, Canada

All Domains Composite versus Block Grades

July 2022

Source: SLR, 2021.

14.4.13 Mineral Resource Reporting

Mineral Resources for Gladiator are reported as per the Mineral Resource estimation methodologies and classification criteria detailed in this Technical Report. Underground Mineral Resources are reported within underground reporting shapes defined using a minimum thickness of 1.2 m and cut-off grade of 2.6 g/t Au, limited to areas of continuous mineralization. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate, and underground reporting shapes are presented in Figure 14-27. A 50 m surface crown pillar below the base of overburden has been applied as the deposit underlies Barry Lake. Table 14-34 summarizes the Gladiator Mineral Resources.

Table 14-34: Gladiator Mineral Resource Estimate – June 1, 2021
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Measured	-	-	-
Indicated	1,413	8.61	391
Total Measured + Indicated	1,413	8.61	391
Inferred	4,174	7.37	989

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 2.60 g/t Au.
3. Mineral Resources are estimated using a long term gold price of US$1,600/oz Au, and a US$/C$ exchange rate of 1.33.
4. A minimum mining width of 1.2 m was used.
5. Bulk density is 2.80 t/m^3.
6. Mineral Resources are reporting within underground constraining shapes and below a 50 m crown pillar.
7. All blocks within the underground constraining shapes have been included within the Mineral Resource estimate.
8. Numbers may not add due to rounding.

14.4.14 Comparison with Previous Mineral Resource Estimate

A Gladiator Mineral Resource estimate was prepared by SGS in 2019 (SGS, 2019) and results are compared in Table 14-35. The SLR (2021) Mineral Resource estimate shows a 94% increase in Indicated gold ounces, and a 10% increase in Inferred gold ounces.

Table 14-35: Comparison of SGS (2019) and SLR (2021) Mineral Resource Estimate at Gladiator Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Category	SGS 2019			SLR 2021		
	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
Measured	-	-	-	-	-	-
Indicated	743	8.46	202	1,413	8.61	391
Measured + Indicated	743	8.46	202	1,413	8.61	391
Inferred	3,065	9.10	897	4,174	7.37	989

SLR notes the following principal reasons for the changes to the Gladiator Mineral Resource estimate (in order of importance):

- The underground reporting cut-off grade was decreased from 3.5 g/t Au (SGS) to 2.6 g/t Au (SLR), reflecting a change in the long term gold price from $US1,300/oz Au to $US1,600/oz Au.
- Drilling success in 2020 and 2021 extended mineralization at depth (Inferred Mineral Resources).
- In 2019, a surface crown pillar was not used to exclude material within 50 m of overburden contact where underlying Barry Lake as was done in 2021 by SLR.

15.0 MINERAL RESERVE ESTIMATE

For the Barry open pit mine deposit there are currently no NI 43-101 compliant Mineral Reserves.

16.0 MINING METHODS

Mining of the Barry open pit deposit will be carried out using conventional mining equipment for drilling, blasting, loading ore and waste material, and haulage of this material to the appropriate stockpile areas located on site. Mining will be carried out by a local mining contractor who will provide the equipment and personnel necessary to efficiently excavate the mineralized and waste material. As processing will be done at the Bachelor Plant, a haulage contractor will be engaged to load and transport the daily production to the Bachelor site, approximately 110 km by road from the Barry mine site.

16.1 Geotechnical Considerations

16.1.1 Rock Structure

An assessment has been carried out on structures measured from 113 orientated diamond drill holes (MB-19, MB-20, and MB-21 series holes) located in and around the Barry deposit to achieve a better understanding of the number and orientation of structure sets and assess the potential for instability due to adverse structural orientation.

The structure data has been plotted on stereonets using Rocscience Dips software and filtered by foliation, shears, and the fractures, faults, and veins group. To account for drilling bias, a weighting has been applied so that structures measured perpendicular to the dominant drilling direction, i.e., towards the northwest, are weighted less than the structures measured at acute angles to the drilling direction. Both weighted and unweighted plots are presented in Figure 16-1. The main structure set orientations have been identified based on the weighted data set. The dominant structure set dips moderately towards the southeast and is likely to have the greatest influence slope stability, negatively impacting the southeast facing slopes as the structures dip out of the slope into the pit. Two more possible sets are identified in the fractures, faults, and veins group, one dipping steeply to the northwest and one moderately dipping towards the southwest.

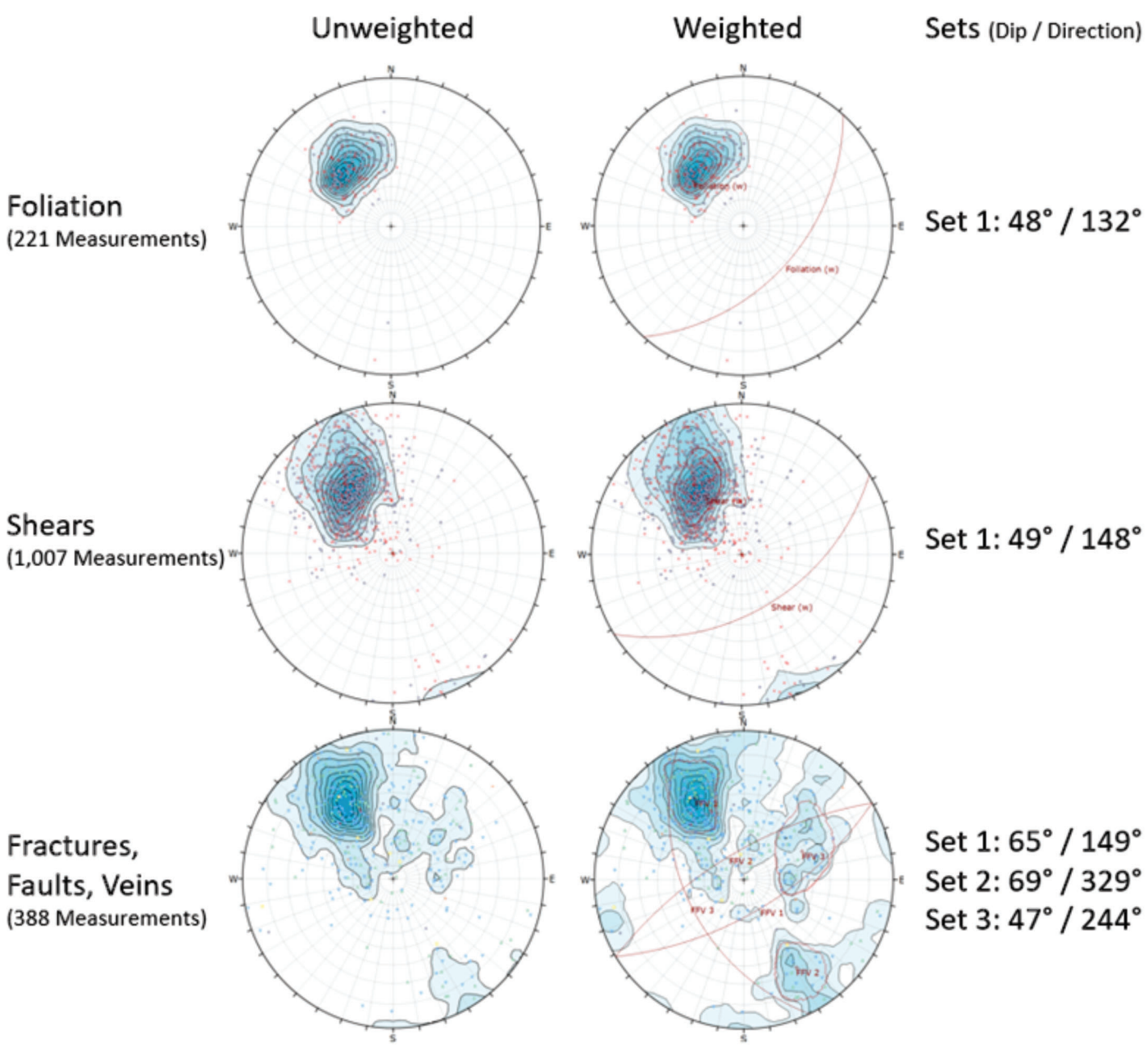


Figure 16-1

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Weighted and Unweighted Discontinuity Plots for Barry Open Pit

July 2022

Source: SLR, 2022.

16.1.2 Empirical Slope Design

A selection of 10 resource drill holes (MB-16-17, MB-16-19, MB-16-25, MB-16-27, MB19-232, MB-20-258, MB-20-276, MB-20-278, MB-20-286, and MB-20-318) located around the resource shell perimeter have been assessed to estimate a rock mass rating according to the Laubscher (1990) Rock Mass Rating system (LRMR'90), as these represent the most likely materials that will make up a potential pit slope, as illustrated in Figure 16-2.

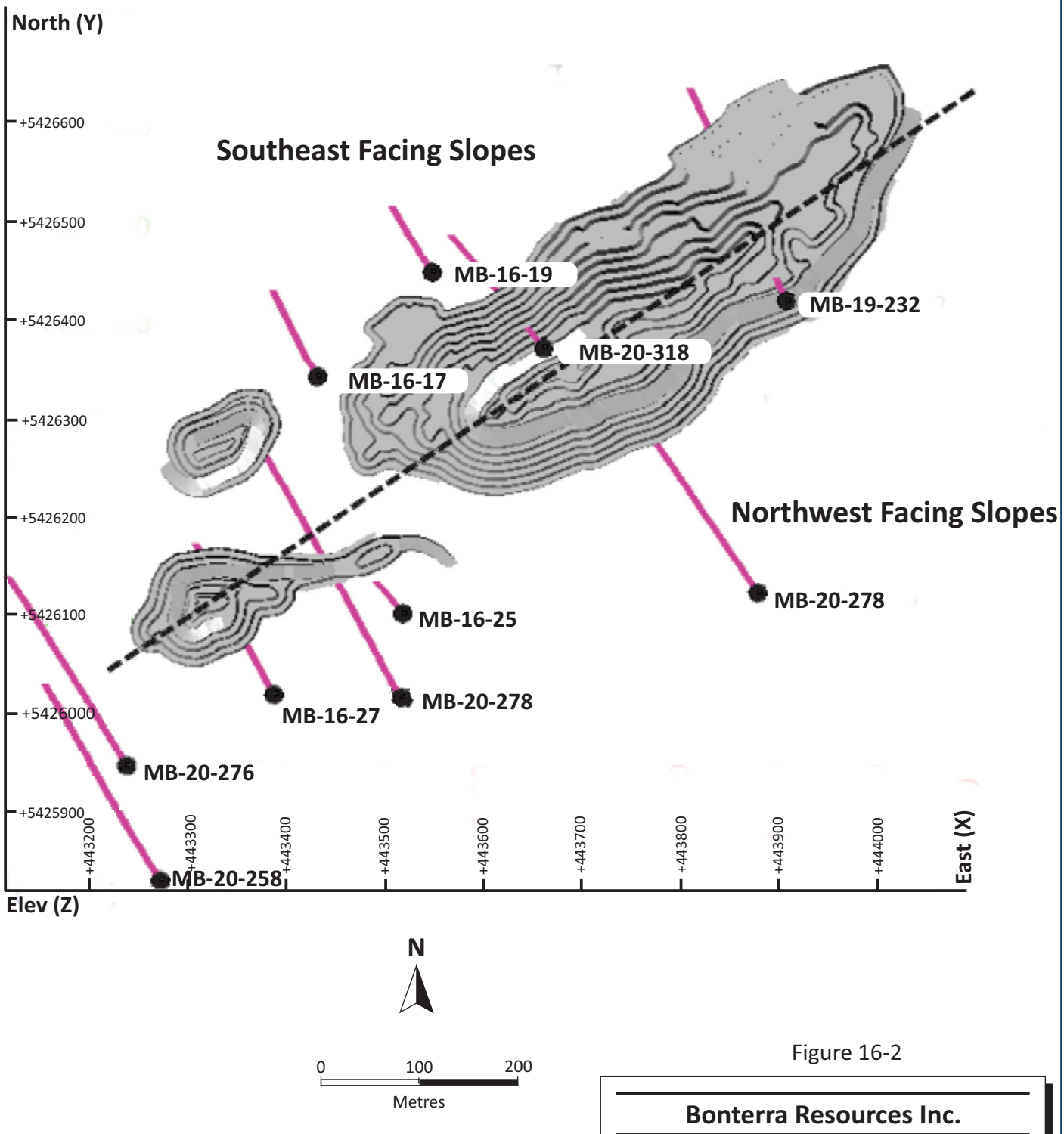


Figure 16-2

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Selected Resource Drill Holes Used for Geotechnical Evaluation

July 2022

Source: SLR, 2022.

The LRMR'90 system uses the following inputs to provide a rating for use in geotechnical stability assessment: Intact Rock Strength (IRS), Fracture Frequency (FF), and joint condition. Adjustments are then made to the rating to account for weathering, joint orientation, blasting, and stress.

In the absence of material testing data, the IRS was estimated according to lithology type. Conservative values for IRS have been adopted for the main lithology types; Basalt (145 Mpa), Porphyry (100 Mpa), and tuff (10 Mpa). A weighted average IRS has been calculated for each the selected drill holes based on percentage of each lithology type intercepted, resulting in a lower bound figure of 108 Mpa (drill hole MB-16-25) and upper bound figure of 128 Mpa (drill hole MB-20-276), with LMRMR'90 ratings of 12 and 14 respectively.

FF has been estimated by counting the approximate number of natural joints from core photographs from the MB-16 series selected holes and dividing by the number of meters of core. Joints that appear to be mechanical breaks as a result of drilling or handling have not been counted. In addition, there were many breaks along foliation that have not been counted as these are likely to be caused as a result of mechanical breakage along the planes of weakness. FF ranges from 0.72 fractures per metre (drill hole MB-16-27) to 0.88 fractures per metre (drill hole MB-16-19) resulting in LRMR'90 ratings of 28 and 26, respectively. It is highlighted that discerning between natural and mechanical joints is problematic from core photos and, whilst suitable for a PEA, the resulting fracture FF values should be treated with caution. Additionally, zones of higher/lower fracture frequency are not accounted for when taking the average across an entire borehole.

Without physical access to the core, joint condition was estimated from core photographs. The selected MB-16 prefix drill hole photographs were inspected to estimate the typical joint conditions. The joint walls look to be generally unweathered and infill does not appear to be present. The shape of the joints are observed to range from slightly undulating to straight at the large scale, and between rough undulating and smooth planar at the small scale. The joints are assumed to be moist. Equivalent joint condition ratings range from 15 (lower bound) to 23 (upper bound).

Unadjusted values for LRMR'90 range from 53 to 65. No adjustment was made for weathering as it is assumed there is no deterioration of the rock mass upon exposure post excavation. An adjustment of 80% has been applied for the influence of structure on slope stability, based on at least two joint sets dipping away from vertical. A further 90% adjustment has been applied to the northwest sector due to the dominant structure dipping out of the slope face, into the pit. No adjustment is made for mining induced stress, as the pit is planned to be relatively shallow and stress is likely to be low. A 94% adjustment is made for blasting, assuming good conventional blasting practices are employed. The estimation of LRMR'90 ratings for the Barry deposit is summarized in Table 16-1.

Table 16-1: Calculation of LRMR'90 Values for the Barry Deposit
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	NW Sector Ratings		SE Sector Ratings		Notes
	Lower	Upper	Lower	Upper	
IRS	12	14	12	14	Based on rock type and lithology percentage by drill hole
FF	26	28	26	28	Estimated from core photos
Joint Condition	15	23	15	23	Estimated from core photos
LRMR'90 (unadjusted)	**53**	**65**	**53**	**65**	

Parameter	NW Sector Ratings		SE Sector Ratings		Notes
	Lower	Upper	Lower	Upper	
Weathering adjustment (%)	100 %	100 %	100%	100%	Assumed non weathering
Joint orientation adjustment (%)	72%	72%	80%	80%	Three joint sets, two non vertical. Main joint set dips out of slope in NW Sector
Mining Stress adjustment (%)	100 %	100 %	100%	100%	Shallow mining, low stress
Blasting Adjustment (%)	94 %	94 %	94%	94%	Good conventional blasting
Total Adjustment	68%	68%	75%	75%	
LRMR'90 (adjusted)	36	44	40	49	

The Haines and Terbrugge (1991) empirical slope design chart, presented in Figure 16-3, has been used to determine a range of overall slope angles for a maximum 180 m high slope, at a factor of safety (FOS) of 1.2. For the southeast facing slopes along the northwest side of the pit, where the dominant structure dips out of the slope, the recommended overall slope angle for a 180 m high slope is between 42° and 45°. For the northwest facing slopes on the southeast side of the pit, where the main structure dips into the slope, the recommended overall slope angle ranges between 43° and 47°. If the slope height is decreased to 90 m, the slope angle of the southeast facing slopes increases to between 48° and 53°, and for the northwest facing slopes to between 51° and 55°.

The inputs into the assessment have been conservative where there is uncertainty in the data and SLR is of the opinion that there is a potential upside in terms of achievable overall slope angle for the northwest facing slopes. The 45° overall slope angle used for the estimation of Mineral Resources is appropriate based on the results of the empirical analysis. SLR recommends a more thorough geotechnical assessment for a future prefeasibility study (PFS) to confirm the slope geometry and realize any upside potential. This should include a selection of targeted geotechnical drill holes logged for rock mass characterization, structure orientation, and condition (weathering, infill, roughness). Geomechanical laboratory testing should be completed on a selection of samples to include uniaxial, triaxial, and Brazilian tensile strength testing, and direct shear testing of geological structures.

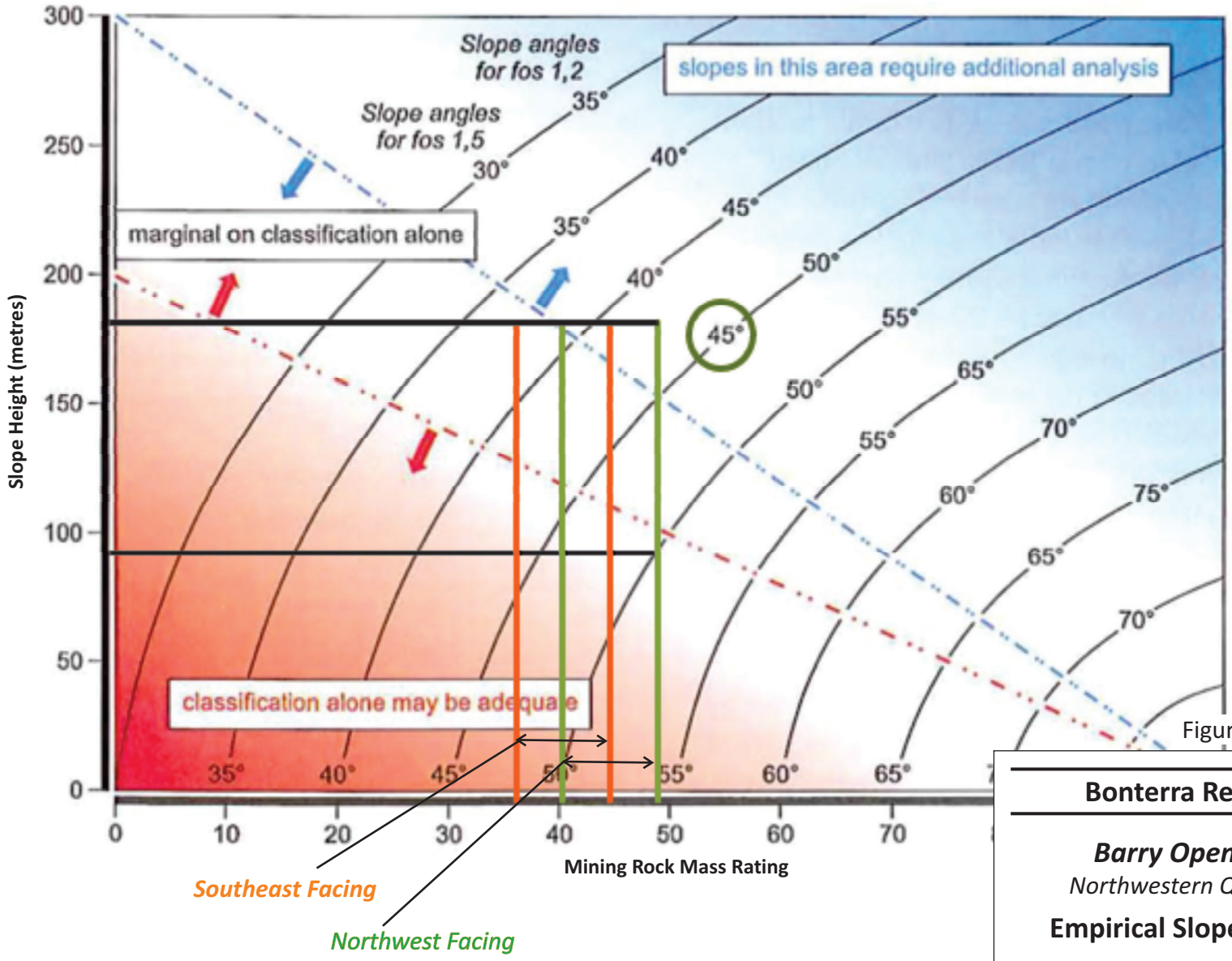


Figure 16-3

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Empirical Slope Design Chart

July 2022

Source: Haines and Terbrugge, 1991.

16.2 Open Pit Mining

The mineralized material extending from the surface to a depth of approximately 106 m for Pit 1 will be mined by conventional open pit methods. Pit 1 contains 91% of the open pit constrained Mineral Resource, with Pits 2 and 3 containing the balance which will be mined early in the life of mine (LOM). The stripping ratio has been estimated at approximately 5.37:1 over the LOM period. Mining has been carried out in the past, hence, bench faces are available to permit a rapid start up. Waste rock material will be stockpiled at designated areas while mineralized material will require little stockpile area as this material will be transported to the process plant at the Bachelor mine site daily. Transport to the processing facility will be by contractor haulage using 50 t trucks via secondary gravel roads maintained for the purpose. Production is scheduled at 1,200 tpd for an average annual production of 420,000 t, while annual mined waste rock material will average 2.1 million tonnes (Mt). Bonterra plans to use contractor services for all aspects of the open pit mining.

The existing pits and underground access are shown in Figure 16-4 and the designed open pits are presented in Figure 16-5.

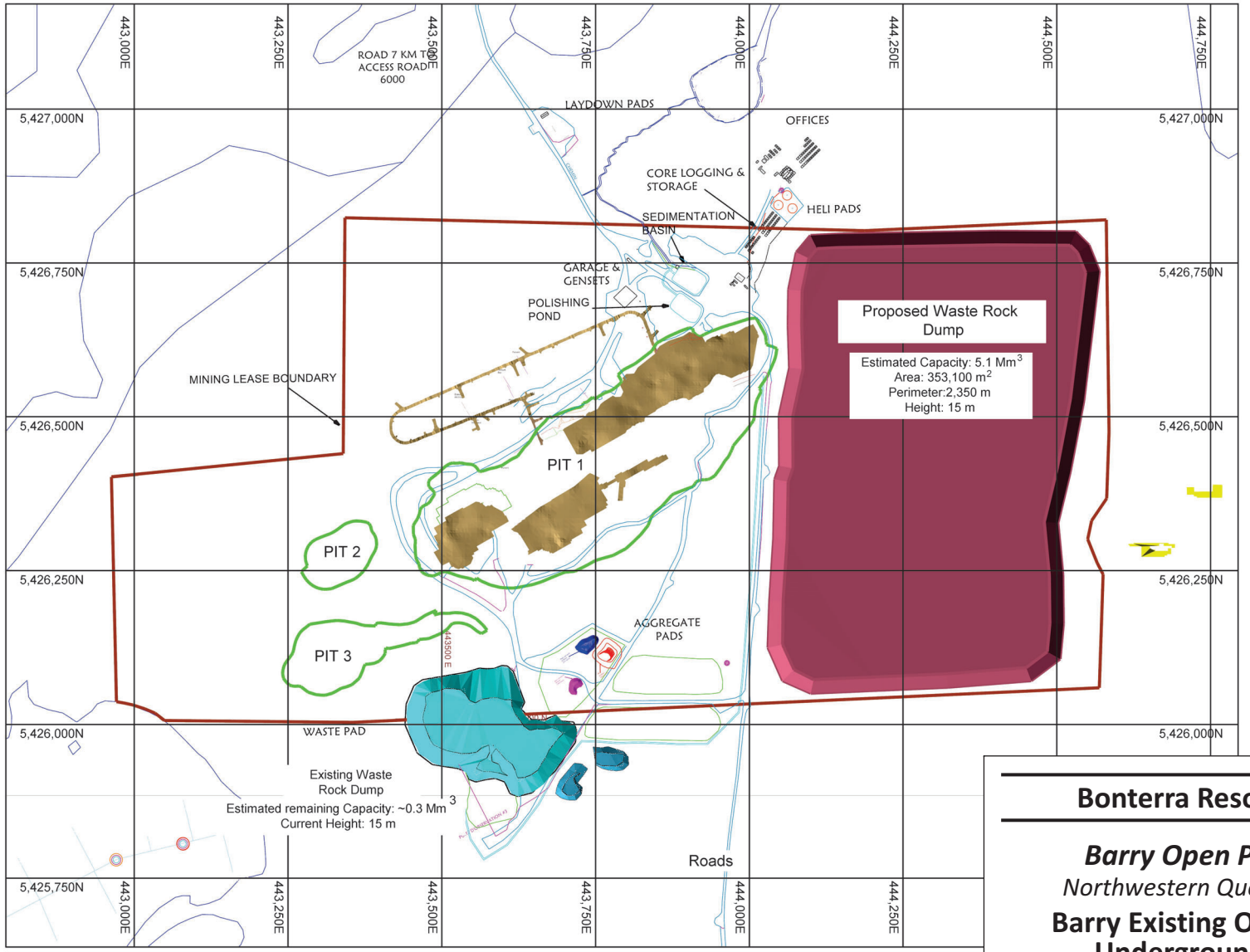


Figure 16-4

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Barry Existing Open Pit and Underground Access

July 2022

Source: SLR, 2022.

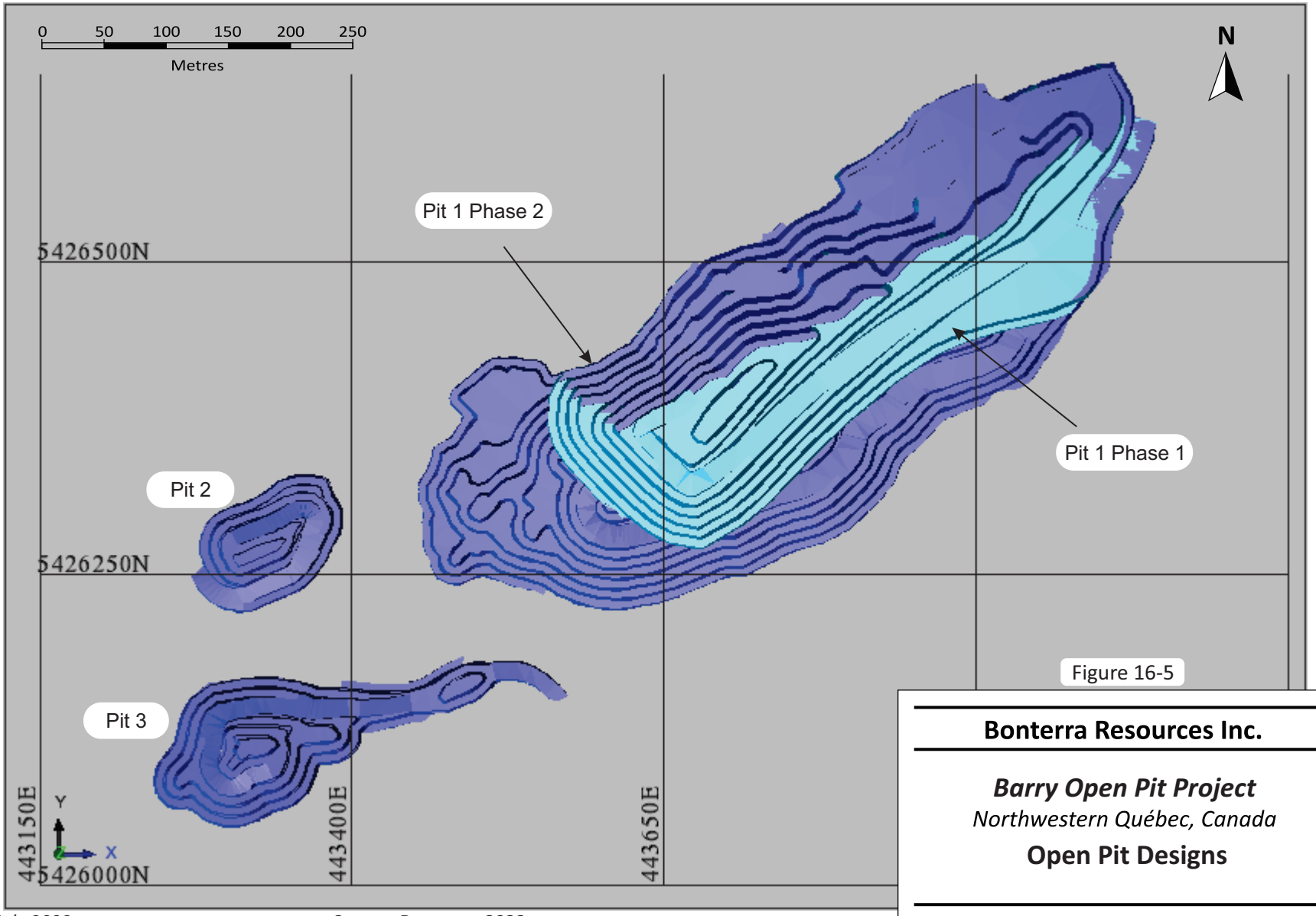


Figure 16-5

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Open Pit Designs

July 2022

Source: Bonterra, 2022

16.2.1 Open Pit Design

The open pit was designed using benches, safety berms, and ramps. These design parameters combine to determine what the overall pit wall angles will be and determine the amount of waste rock material that must be removed to enable safe and efficient extraction of the mineralized material. The pit design parameters are provided in Table 16-2.

Table 16-2: Barry Open Pit – Slope and Bench Configuration
Bonterra Resources Inc. – Barry Open Pit Project

Description	Unit	Value
	Pit 1	
Bench Height (Double Benching 5 m)	m	10
Berm Width	m	5.4
	Pit Wall with Ramp	
Bench Face Angle	°	75
Inter-Ramp Angle (IRA)	°	51
Overall Slope Angle (OSA)	°	45
	Pit Wall Without Ramp	
Bench Face Angle	°	65
Inter-Ramp Angle (IRA)	°	45
Overall Slope Angle (OSA)	°	45
	Pits 2 and 3	
Bench Height (Double Benching 5 m)	m	10
Berm Width	m	5.4
	Pit Wall with Ramp	
Bench Face Angle	°	75
Inter-Ramp Angle (IRA)	°	51
Overall Slope Angle (OSA)	°	40 to 45

16.2.2 Dilution and Extraction

To estimate Mineral Resources in the conceptual PEA open pit mine plan, the Mineral Resource sub-blocked model was first converted to a regularized block model with block dimensions corresponding to parent block sizes of 2.5 m x 5 m x 2.5 m. Modifying factors were then applied to the in-situ Mineral Resources.

Dilution was estimated to average approximately 15% at grade applied to material located within the pit shell. Resources were reported within mineralized wireframes and on a bench-by-bench interval of five metres at a cut-off grade of 1.0 g/t Au. The dilution factor and dilution grades were applied to the in-situ Mineral Resources to calculate the diluted tonnes and grades for each bench.

The dilution grades were estimated by averaging the waste material Au grade from the lower half benches of each pit. The lower benches were selected as pit boundaries are closer to the ore material therefore better representing the dilution around mineralized material. The dilution factors and dilution grades applied to each pit are presented in Table 16-3.

Table 16-4: Dilution Factors and Grades
Bonterra Resources Inc. – Barry Open Pit Project

Pit Number	Dilution Factor (%)	Dilution Grade (g/t Au)
Pit 1 Phase 1	15	0.27
Pit 1 Phase 2	15	0.35
Pit 2	15	0.16
Pit 3	15	0.40

Mineralization with narrow widths may have higher dilution while there will be less dilution in areas with wider mineralization, however, the average was considered reasonable given the varying widths of the mineralized zones within the pit as well as the quality of the ground determined from RQD values and visual observations. The mineralized zone widths are illustrated in Figure 16-8 through Figure 16-12. The use of smaller equipment for the open pit mining will allow for better control of dilution.

An extraction factor of 95% was applied to the calculated diluted tonnes to make an allowance for various losses during mining operations.

The dilution factor was further investigated and checked by reporting blocks above cut-off grade from the pit designs using larger block sizes to account for equipment sizes. Further investigation included designing mineralization polygons on selected representative benches. The polygons were designed to represent appropriate operational blast patterns, therefore including blocks below cut-off grades. Both checks resulted in a dilution factor of 10% - given imperfect overlap between the two methods, it is the QP's opinion that a factor of 15% was reasonable for the current PEA study. A plan view of Pit 1 illustrating the mineralization polygons against the regularized block model is presented in Figure 16-6.

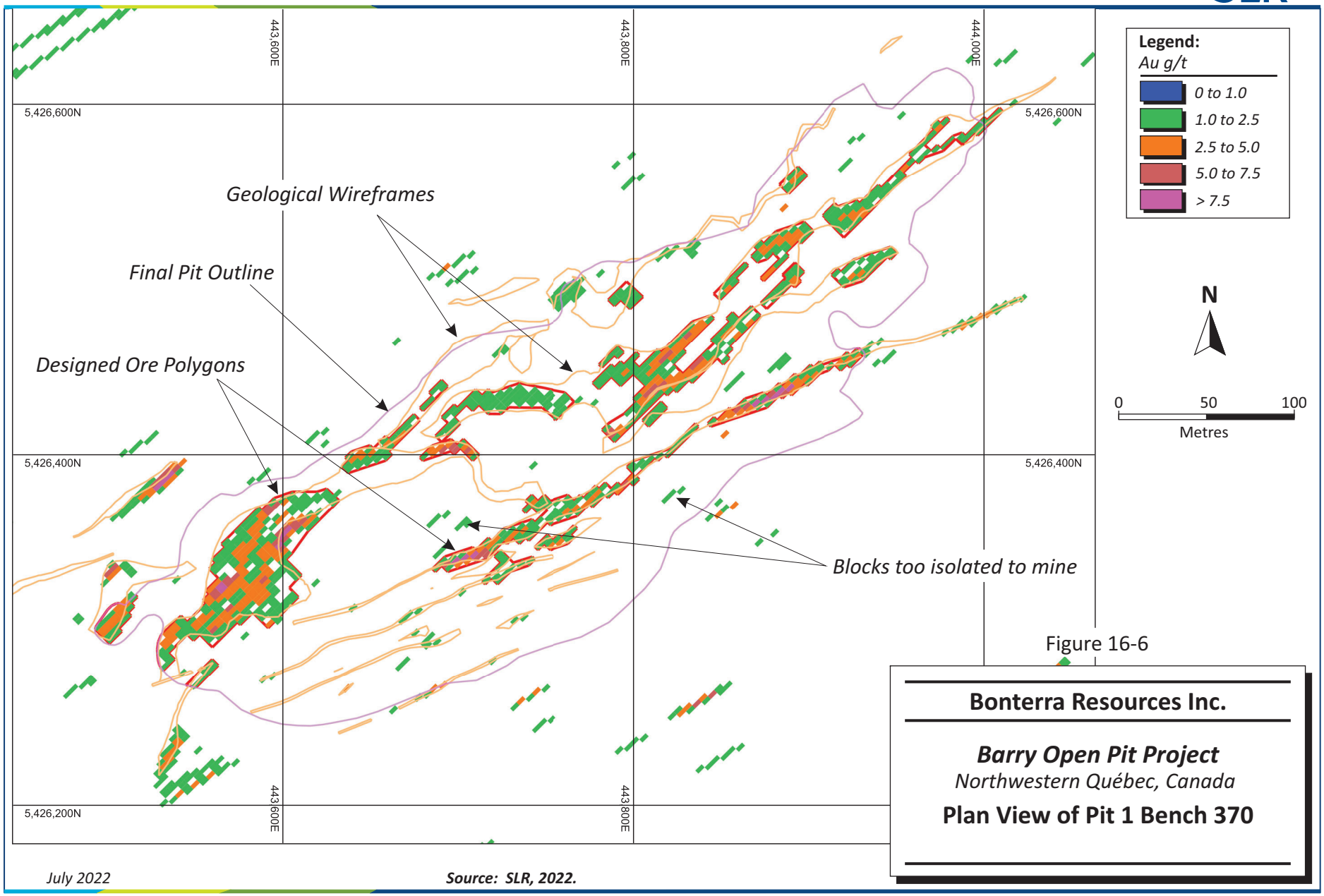


Figure 16-6

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Plan View of Pit 1 Bench 370

July 2022

Source: SLR, 2022.

16.2.3 Drilling and Blasting

Drilling and blasting operations will be carried out by a mining contractor experienced in this type of work.

16.2.3.1 Drilling

Drilling will be carried out on a two shift per day basis, requiring on average two drill rigs over the LOM, with an additional unit provided as required. Since the mineralized material will require long-distance haulage by a local contractor, initial good fragmentation of the mineralized material is very important to reduce potential damage to the contractor's truck boxes. A crusher will be installed on site to crush the mineralized material to approximately 150 mm to 200 mm for efficient loading. Additionally, it is planned to use a tighter drilling pattern of 2.7 m x 3.0 m to maintain adequate initial fragmentation, however, this pattern may be adjusted as operating experience is acquired. Drill holes of 89 mm diameter will be used, with one meter of subgrade to ensure efficient mucking. Drilling of the mineralized material will require approximately 22,500 m annually to produce 420,000 t of material. A factor of 15% was used for redrilling requirements.

Drilling for the waste rock material will be carried out using 115 mm to 120 mm diameter holes drilled on a 3.5 m x 3.5 m pattern, which will require approximately 65,000 m annually to achieve a maximum production rate of 2.38 Mt of waste.

Drilling will be carried out using a FlexiRoc T-45 or equivalent drill rig with a manufacturer recommended hole depth of 29 m to 35 m. Pre-splitting will be used on the final pit walls to control the slope of the walls.

SLR recommends that open pit drilling patterns be further optimized in future studies when rock quality is better understood.

16.2.3.2 Blasting

Blasting operations for the Barry pit are planned to be carried out by a contractor who will also provide all blasting supplies. The blasting contractor will provide a transfer plant to be installed on the mine site that will be capable of producing sufficient bulk explosives plus accessories to carry out all blasting operations. The contractor will also provide the personnel for the bulk plant, lead and helper blasters and mechanics, plus the necessary equipment required to carry out the loading and blasting of the mineralized material and waste rock material. The transfer plant will be installed at a safe distance from any infrastructure, as per provincial regulations. SLR recommends further analysis in future studies to optimize the blasting operations.

16.2.3.3 Loading and Hauling

Loading and pit haulage operations will be carried out using a Cat 980 or equivalent front-end loader combined with Cat 745 articulated trucks with a 40 t rated payload. A Cat 349 or equivalent excavator will also form part of the open pit fleet.

The average daily haulage will be approximately 8,000 tpd over the LOM. There will be additional movement of overburden and waste rock material in the first year to prepare for future mining. The mining contractor will be responsible for operating and servicing their equipment.

The waste stockpile locations are placed as near the open pit as possible to reduce the haulage distances. Further analysis of the final locations of the waste rock stockpile should be carried out in future studies.

A service building will be provided by Bonterra that will have sufficient bays to permit efficient maintenance to be carried out on all the site equipment. Bonterra plans to use the facility for the future potential underground mining fleet maintenance.

16.2.4 Ramp Design

The ramp design parameters are listed in Table 16-5. The average ramp grade was designed at 10%, however, it will steepen up to 12% when the bottom most benches are mined. According to provincial regulations with regards to occupational health and safety in mines, the design of the rolling surface of the haulage ramp shall be three times the width of the largest vehicle for two-way traffic and twice the size for single lane traffic. The service road shall be edged by a pile of fill or ridge (the berm) having a height equal to at least the radius of the largest wheel of any vehicle travelling the road.

Table 16-5: Barry Open Pit – Ramp Design Parameters
Bonterra Resources Inc. – Barry Open Pit Project

Design Criteria	Dimensions (m)
2-Way Traffic	
Protection Berm Width (Tire Height)[1]	3.4
Operating Width (3 x Truck Width)	11.5
Back Break- Allowance	1
Ditch- Allowance	1
Total Width	17
1-Way Traffic	
Protection Berm Width (Tire Height)[1]	3.4
Operating Width (2 x Truck Width)	7.6
Back Breaking	1
Ditch	1
Total Width	13

Note:

1. ¾ tire height of the truck / 37.5° angle of repose

The open pit plans and sections are shown in Figure 16-7 to Figure 16-12.

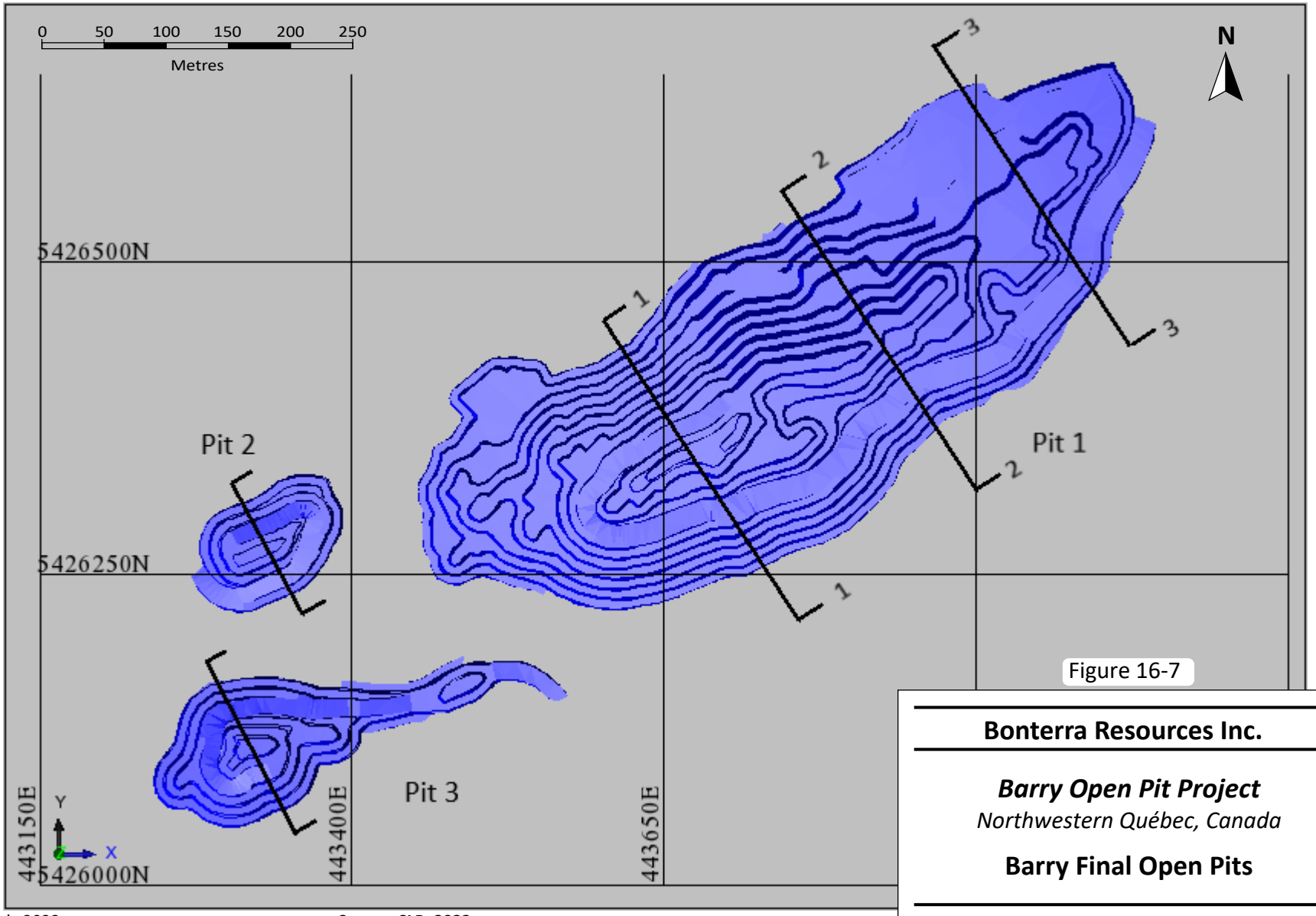


Figure 16-7

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Barry Final Open Pits

July 2022

Source: SLR, 2022.

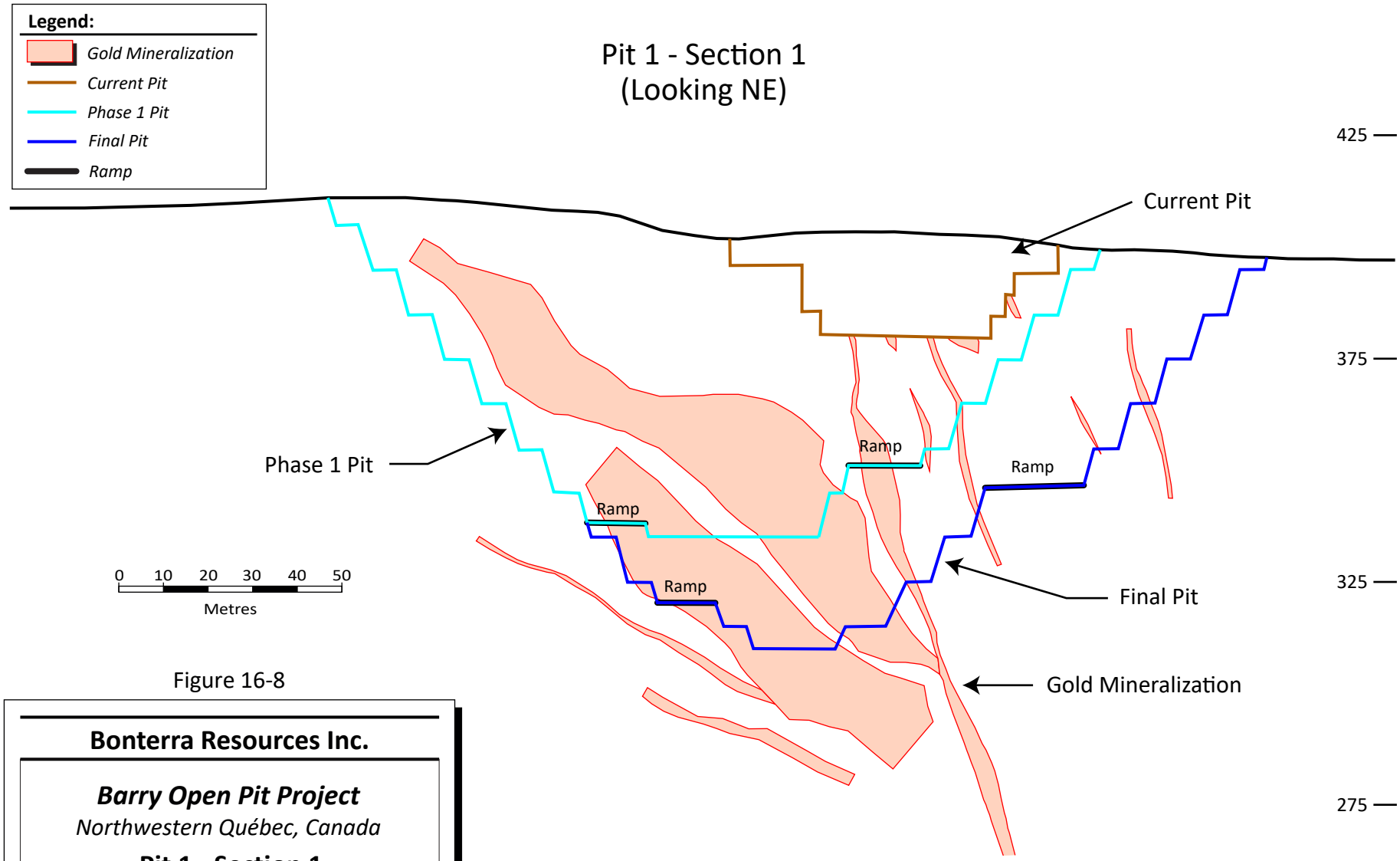


Figure 16-8

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Pit 1 - Section 1

Source: SLR, 2022.

July 2022

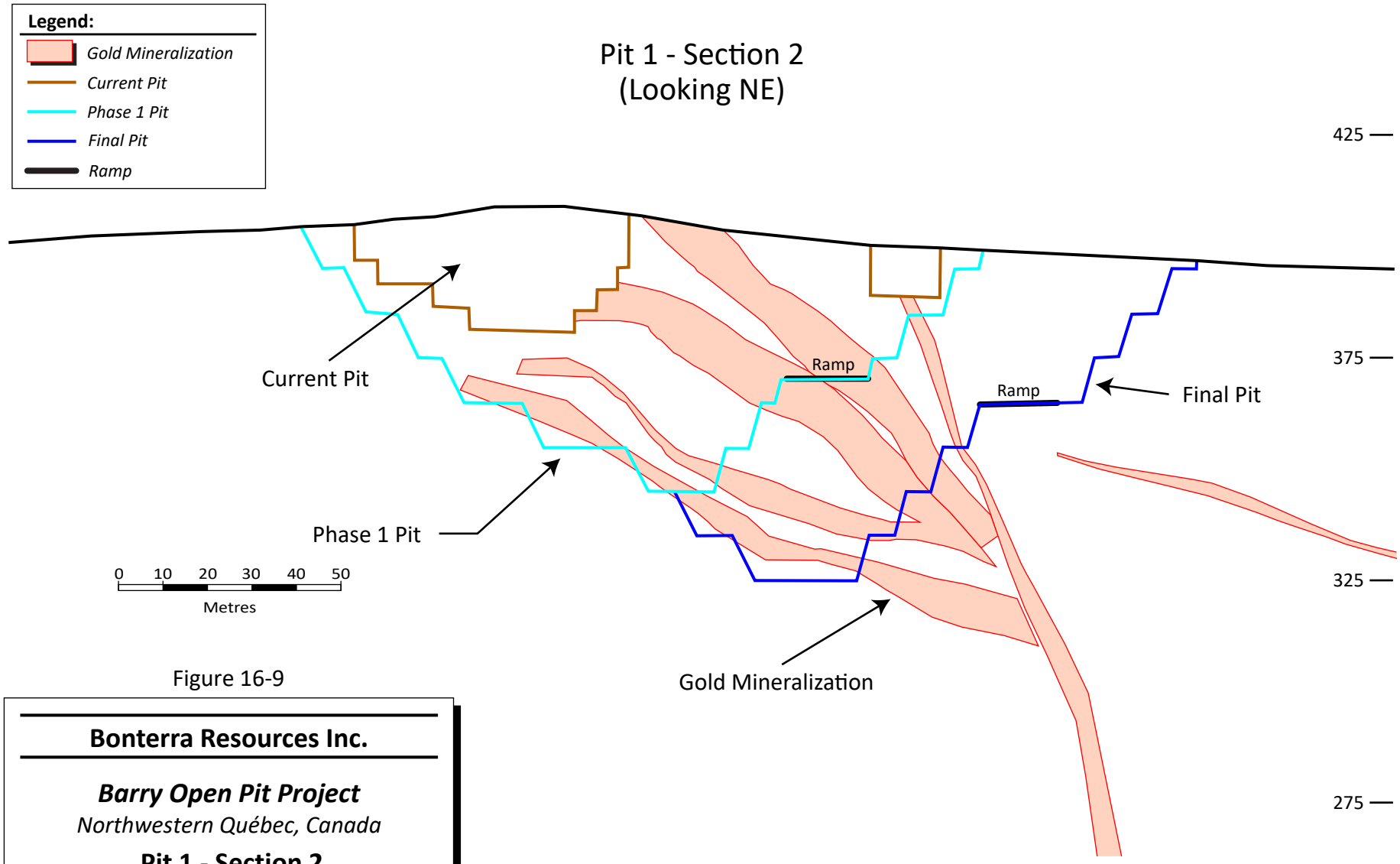


Figure 16-9

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Pit 1 - Section 2

Source: SLR, 2022.

July 2022

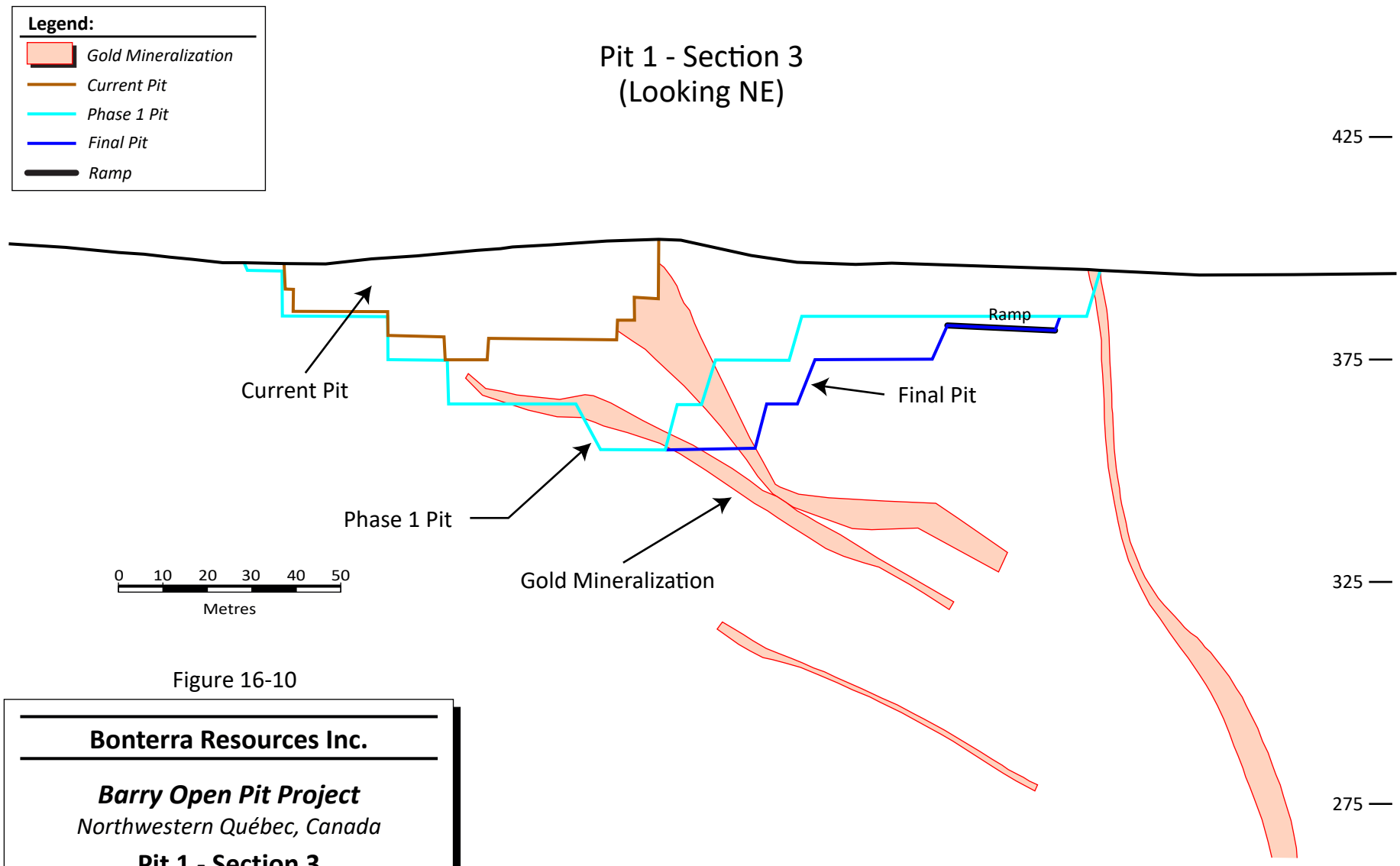


Figure 16-10

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Pit 1 - Section 3

Source: SLR, 2022.

July 2022

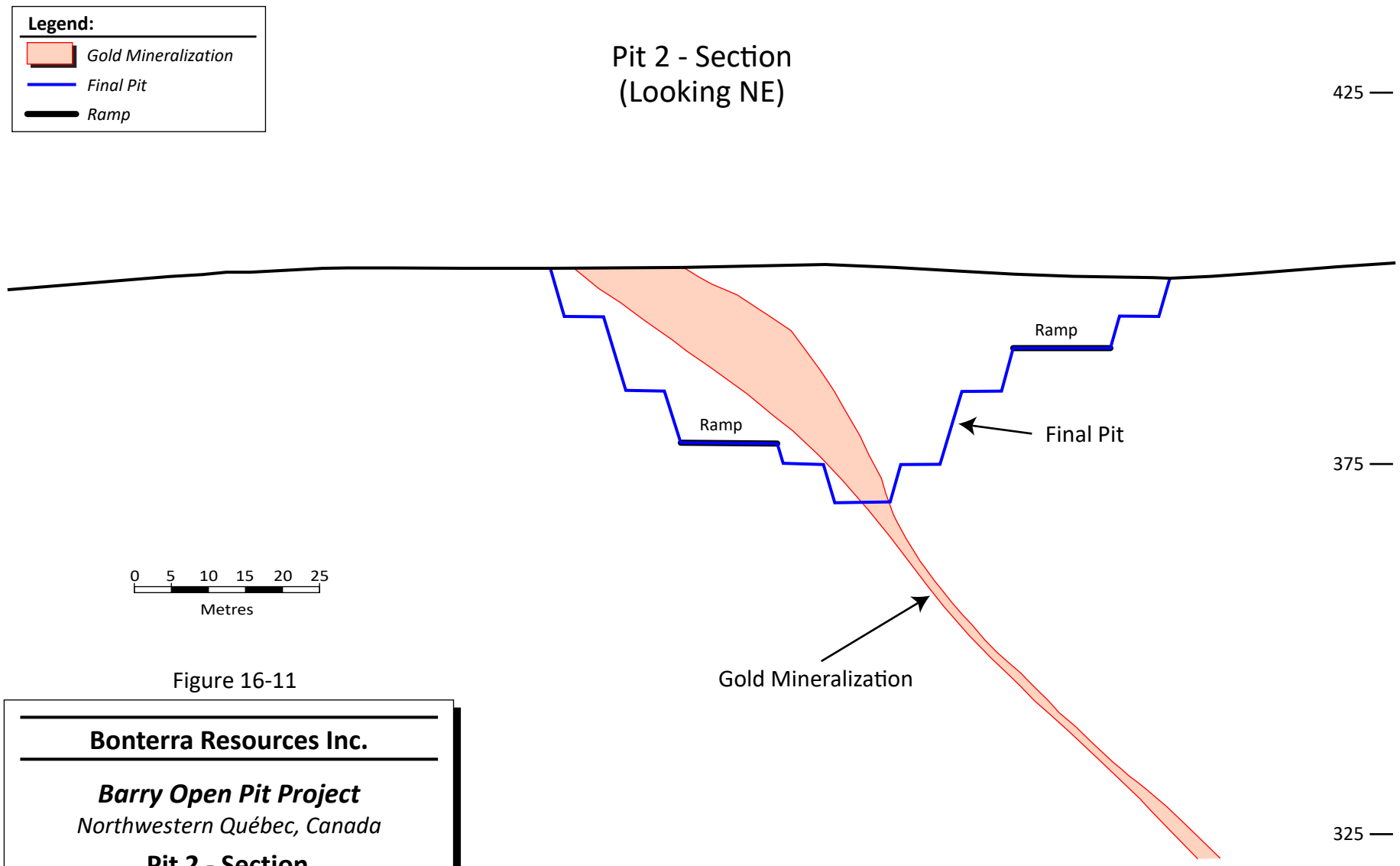


Figure 16-11

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Pit 2 - Section

Source: SLR, 2022.

July 2022

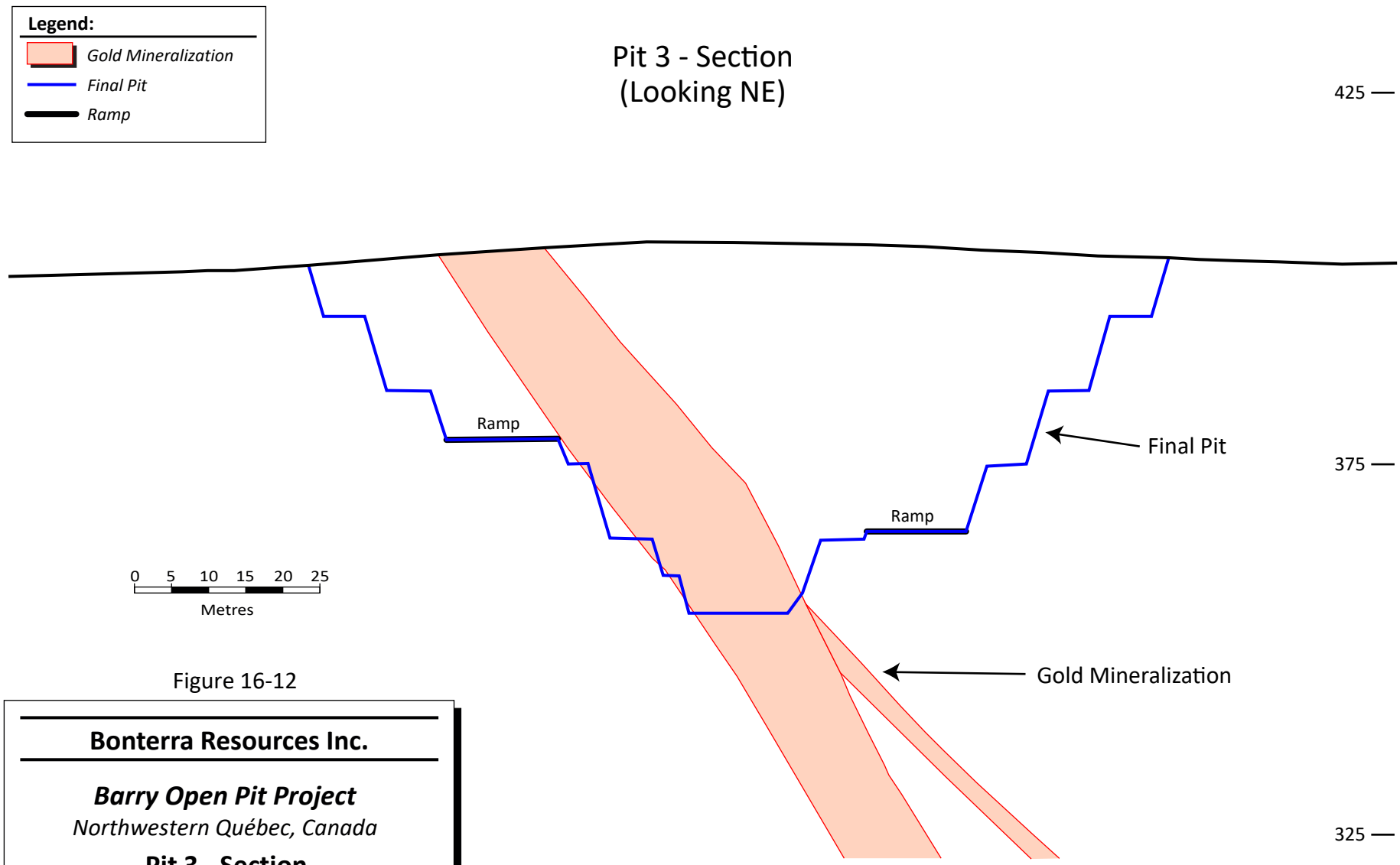


Figure 16-12

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Pit 3 - Section

Source: SLR, 2022.

July 2022

16.2.5 Open Pit Equipment

The open pit equipment, listed in Table 16-6, will be provided by the mining contractor. Truck haulage in the open pit will be done using articulated trucks to provide flexibility and manoeuverability within the pit. Over the expected mine life, four haulage trucks will be required, however, there will be a requirement for an additional unit during times of higher rates of waste rock mining. Production drilling will also require two drills on average and will have periods where a third unit will be required for short periods; this unit can be leased for the short term. Additional small service vehicles will be required.

Table 16-6: Barry Open Pit – Equipment List
Bonterra Resources Inc. – Barry Open Pit Project

Description	Model	HP	No. Units	Description
Production Drilling Rigs	89-120 mm	325	2	FlexiRoc T45 or equiv.
Excavator	4 m^3	472	1	Cat 349 or equivalent
Haul Trucks	40 t	496	5	Cat 745 or equivalent
Front End Loader	6 m^3	393	1	Cat 980 or equivalent
Dozer	D6	325	1	Cat D6 or equivalent
Grader	12’ Blade	238	1	Cat 14 Motor Grader or equivalent
Truck Bulk Explosives				Bulk explosives carrier

16.2.6 Material Management

Excavated material including overburden and waste rock will be placed on the storage facilities that are shown in Figure 16-4. Approximately 800,000 t of overburden will be excavated as well as 10.0 Mt of waste rock over the LOM period. On completion of mining, the waste rock storage facility will be covered with a layer of overburden, then a layer of topsoil, followed by hydro-seeding to complete the restoration.

Ore material will be loaded on to 40 t trucks in pit and hauled to a small crusher and crushed to approximately 150 mm to 200 mm. The crushed ore material will then be loaded on to 42 t highway trucks and transported to the Bachelor Plant 100 km away.

16.2.7 Waste Rock Characterization

Past waste rock characterization studies have indicated that both the mineralized rock and waste rock at the Barry site are non-acid generating materials. This effectively reduces the requirement for complex and expensive water treatment facilities and is discussed in more detail in Section 20.

16.2.8 Waste Rock Storage Facility and Location

The proposed waste rock storage facility location is shown in Figure 16-4, which indicates the required footprint for the stockpile relative to the other surface infrastructure. The proposed waste rock storage facility will not surpass the 15 m height noted in the certificate of authorization (COA) received from the “Ministère du Développement durable, de l’Environnement et des Parcs” Québec, in April 2011.

The existing waste rock storage facility has an available capacity of 0.3 million m^3 is, and the new stockpile will provide approximately 5.1 million m^3 of storage volume. All of the waste rock stockpile areas on the

mine site will be rehabilitated as noted in the mine restoration plan. Figure 16-4 shows the existing and proposed location of the waste rock storage facilities. SLR recommends review of the waste rock stockpiles restoration plan in future studies.

16.3 Life of Mine Plan

The Barry deposit will be mined via three pits, with Pit 1 providing approximately 91% of the mineralized material (1,830 kt), Pit 2 providing approximately 2% (44 kt) and Pit 3 providing approximately 7% (143 kt). The smaller pits, Pits 2 and 3, are mined in the first two years of the planned LOM, while Pit 1 is mined in two phases, consisting of the first phase along the northwest wall and the second phase the remaining southeast portion and the pit at depth.

Bonterra aims to ramp up mining in 2023, followed by steady state open pit production of mineralized material starting in 2024. The Barry LOM plan is presented in Table 16-7.

Table 16-7: Barry Open Pit – Life of Mine Plan
Bonterra Resources Inc. – Barry Open Pit Project

Production	Units	Total	Year 1 (2023)	Year 2 (2024)	Year 3 (2025)	Year 4 (2026)	Year 5 (2027)	Year 6 (2028)
Ore	t	2,016	72	420	420	420	420	264
Grade	g/t Au	2.36	1.97	2.15	2.34	2.24	2.52	2.72
Contained Gold	oz	153	5	29	32	30	34	23
Overburden	t	814	432	251	124	8	-	-
Waste	t	10,023	1,140	2,129	2,256	2,272	1,980	1,980
Total Waste (Overburden + Waste)	t	10,838	1,573	2,380	2,380	2,280	1,980	1,980
Strip Ratio	t:t	5.37	21.84	5.67	5.67	5.43	4.71	0.93

The first year of operations is scheduled to start at the beginning of Q3 2023 and will consist primarily of mining overburden and waste material to provide access to mineralized material in the upper benches of the pits. Some waste rock from past underground development was dumped into Pit 1 and this will be removed prior to commencement of mining. The stripping ratio will average approximately 5.4:1 over the LOM, however, year one will be much higher, as indicated. A steady state mining rate of approximately 1,200 tpd of mineralized material will be achieved by year two, continuing to the end of the mine life in year six.

Processing will commence approximately one quarter after mining operations start. The planned processing ramp up includes 20 days at 800 tpd, followed by 20 days at 1,000 tpd, before achieving steady-state at 1,200 tpd for the last 30 days of Year 1. Total processed material for year one is expected to be 72,000 tonnes.

The mineralized material will be loaded into 50 tonne capacity trucks and hauled the 110 km to the Bachelor processing plant. Haulage will be carried out by a local contractor, hence, additional units can be added as required to account for periods such as the spring thaw when load restrictions are in force.

17.0 RECOVERY METHODS

The Bonterra concentrator is designed for a throughput of 800 tpd. An expansion is planned to increase the throughput to 1,200 tpd feed to accommodate the Barry mineralized material.

The development of the new flowsheet included the existing equipment and the existing building space as much as possible.

17.1 Existing Equipment

The existing equipment can process up to 800 tpd of mineralized material and sometimes higher throughput with a softer feed. The crusher circuit is made up of a mobile jaw crusher (50 hp), followed by a standard cone crusher operating in a closed circuit with a double-deck screen. A second cone crusher is used for crushing the screen's oversize (+3/8 inch) while the undersize is conveyed to a bin.

The fine material is sent to the primary grinding mill, which is a rod mill (400 hp) operating in an open circuit. The secondary grinding stage includes a tricone (535 hp) and two ball mills (150 hp and 100 hp) operating in a closed circuit with a cyclone cluster made of four 15-inch cyclones. When the process feed is coming from Barry, the tricone is used alone as a secondary mill because this material has a lower Bond work index (BWI). Cyanide is added to the grinding circuit to initiate the gold leaching. Hydrated lime is added to the grinding circuit to adjust the pH. The cyclone overflow, which is the final grinding product, is sent to a vibrating trash screen.

The slurry containing the ground material is sent to a thickener to increase the slurry density prior to leaching. Gold leaching is realized in four leach tanks (220 m^3 each) in series that allow 18 hours of residence time at 800 tpd to be obtained. The leached slurry is then transferred to four carbon-in-pulp (CIP) tanks, where the gold is adsorbed onto carbon. The CIP circuit has a total capacity of 730 m^3 and allows for 17 hours of residence time. The slurry flows by gravity from one tank to another while, the carbon is transferred in countercurrent from tank to tank. At the end of the CIP circuit, the gold depleted slurry that becomes the tails is sent to a carbon safety screen and then pumped to the tailings management facility (TMF).

The gold-loaded carbon is transferred to the loaded carbon screen. Gold is recovered from the loaded carbon in a 3-tonne pressure Zadra elution circuit followed by an electrowinning cell. The elution frequency is approximately one every three days. The gold recovered is further refined and gold doré bars are poured.

17.2 Flowsheet at Increased Throughput

The existing flowsheet will be modified to allow production at 1,200 tpd. The plant expansion mainly affects the secondary mill by adding a tricone to the existing tricone so that the cyclone underflow will be equally split between the two mills. The two smaller ball mills will be removed to install the bigger tricone mill.

The flowsheet corresponding to a production of 1,200 tpd is presented in Figure 17-1.

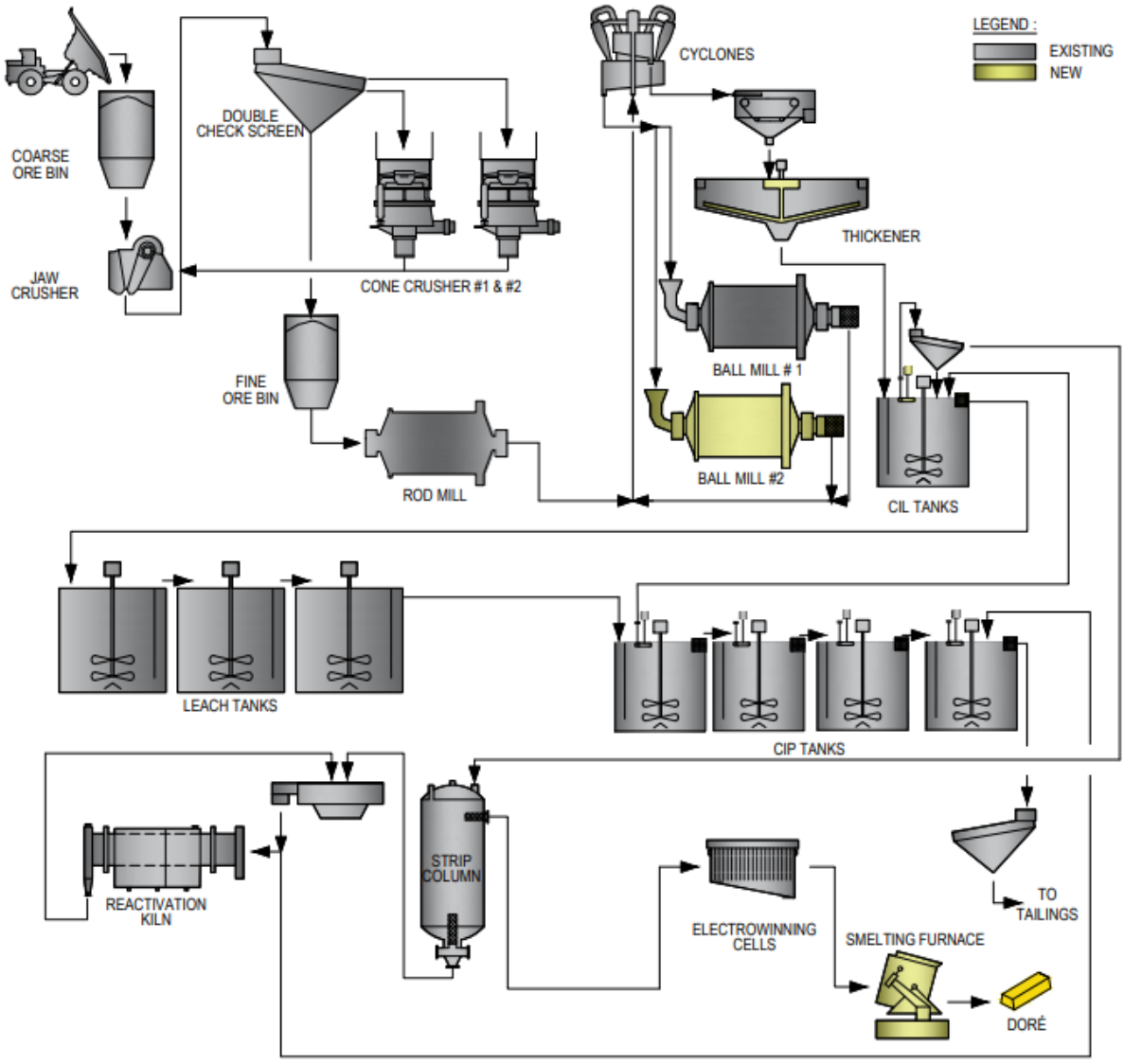


Figure 17-1: Flowsheet for the Expansion to 1,200 tpd

The mill general design criteria are presented in Table 17-2 and the source code designations are presented in Table 17-1.

Table 17-1: Source Code Designations
Bonterra Resources Inc. – Barry Open Pit Project

Source Code	Description
A	Criteria Provided by Owner
B	Standard Industry Practice
C	Soutex Recommendation
D	Vendor-Originated Criteria
E	Criteria from Process Calculations
F	Engineering Handbook Data
G	Assumed Data
H	Criteria Provided by “Technology Supplier”
I	Metallurgical Test Result
J	International, National, Local and Industry Design Codes and Regulations
K	Budget Quote from Supplier
L	Existing Equipment Specifications / Process Data

Table 17-2: Mill General Design Criteria
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	Unit	Initial	Expansion Phase 1	Source
		Production Rate		
Plant Feed Rate (Nominal)	tpa	276,000	420,000	E
		Plant Feed Rate (Nominal)		
Barry	tpd	800	1,200	A
		Operating Schedule		
Operating Schedule	d/yr	345	350	A
Operating Hours - Concentrator	hr/d	24	24	A
Operating Hours - Crushing Plant	hr/d	8	12	A
Availability - Concentrator	%	92	96	B
Availability - Crushing Plant	%	33	50	A
		General Characteristics		
Ambient Temperature	°C	10 to 30	10 to 30	A
Outdoor Temperature	°C	-35 to 30	-35 to 30	A

Parameter	Unit	Initial	Expansion Phase 1	Source
Relative Humidity	%	20 to 100	20 to 100	A
		General		
Moisture	% w/w	2.5	2.5	G
Specific Gravity	t/m³	2.8	2.8	I
Average Gold Grade	g/t	5	5	A
Gold Recovery	%	95	95	C

17.2.1 Crushing Circuit

The existing crushing equipment is a jaw crusher (50 hp) operated in an open circuit, followed by a standard head cone crusher (200 hp) and a short head cone crusher (200 hp) composing the secondary and the tertiary crushing equipment, respectively. Those two crushers are installed in a close circuit with a common double deck screen.

The feed rate is 100 tph and the actual operating time allows an 800 tpd throughput. The operating time will be adjusted to reach 1,200 tpd, by increasing from a daily 8-hour operating time to 12 hours.

Table 17-3 presents the crushing plant design criteria.

Table 17-3: Crushing Plant Design Criteria
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	Unit	Initial	Expansion Phase 1	Source
Solids Feed Rate	tph	100	100	E
Run Of Mine Top Size	mm	750	750	A
Coarse Material Bin Capacity (Live)	t	30	30	A
Grizzly Opening	mm	N/A	N/A	C
Coarse Rock Bulk Density	t/m³	1.8	1.8	B
		Primary Crushing		
Crusher Type	-	Jaw	Jaw	A
Crusher Installed Power	kW	37	37	C
		Crushing Plant Feed Size		
F_{80}	mm	250	250	C
		Crushing Plant Product Size		
P_{80}	mm	75	75	C
		Fine Rock Storage		
Fine Material Bin Capacity (Live)	t	1,200	1,200	E
Storage Residence Time	h	36	24	C

Parameter	Unit	Initial	Expansion Phase 1	Source
Secondary Crushing				
Crusher Type	-	Cone Standards	Cone Standards	
Crusher Installed Power	HP	200	200	
Tertiary Crushing				
Crusher Type	-	Cone Short Head	Cone Short Head	
Crusher Installed Power	HP	200	200	
Screening				
Screen Type				
Upper Deck Aperture	mm	19	19	
Lower Deck Aperture	mm	9.4	9.4	

17.2.2 Grinding Circuit

The existing grinding equipment is composed of a rod mill that is capable of handling the targeted throughput of 1,200 tpd.

The secondary grinding stage is composed of a single tricone with a capacity 800 tpd. The expansion plan is to add one more tricone to reach 1,200tpd. The two tricones (535 hp) will operate in a closed circuit with a four cyclone cluster.

Table 17-4 presents the grinding circuit design criteria.

Table 17-4: Grinding Circuit Design Criteria
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	Unit	Initial	Expansion Phase 1	Source
Solids Feed Rate	tph	36.2	54.3	E
Primary Mill				
Mill Type	-	Rod Mill	Rod Mill	C
Mill Diameter	m	2.4	2.4	C
Mill Effective Grinding Length	m	3.7	3.7	C
Mill Installed Power				
Mill Feed Solids %	%	75.0	75.0	C
Mill Feed Size F_{80}	mm	8.0	8.0	E
Mill Product Size P_{80}	µm	750.0	1,500.0	E
Circulating Load (Nominal)	%	N/A	N/A	G
Secondary Mill				

Parameter	Unit	Initial	Expansion Phase 1	Source
Mill Type	-	Tricone	Tricone	C
Number Of Mills	unit	1	2	C
Mill Diameter	m	3.2	3.2	C
Mill Effective Grinding Length	m	2.7	2.7	C
Mill Installed Power	HP	535	535	E
Mill Feed Solids %	%	65	65	C
Mill Product Size				
P_{80}	µm	75	75	A
Circulating Load (Nominal)	%	250	250	C
Secondary Mill Size Classification				
Equipment Type	-	Existing cyclone	Existing cyclone	A
Number of Cyclones (Available)	unit	4	4	C
Number of Cyclones (In Operation)	unit	2	3	C
Cyclone Diameter	mm	381	381	C

17.2.3 Pre-Leach Thickener

The slurry from the cyclone overflow is transferred to a trash screen to remove any trash carried over with the gold-bearing material before the carbon-in-leach (CIL) circuit. The slurry would then be sent to the existing thickener to increase the slurry density prior to leaching. The existing thickener is a 40-foot conventional thickener. A high rate feed-well will be retrofitted to this thickener to improve the efficiency and guarantee to meet the expected performances when the mill runs at 1,200 tpd.

Table 17-5 presents the pre-leach thickener design criteria.

Table 17-5: Pre-Leach Thickener Design Criteria
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	Unit	Initial	Expansion Phase 1	Source
Trash Screen				
Equipment Type	-	Vibrating	Vibrating	A
Screening Surface	m^2	2.4	2.4	C
Thickener A (Existing - Retrofitted)				
Thickener Type	-	High rate	High rate	C
Thickener Solid Feed Rate	t/h	36.2	54.3	E
Thickener Diameter	m	12.2	12.2	A
Thickener Underflow Solids %	% w/w	50	50	B

Parameter	Unit	Initial	Expansion Phase 1	Source
Flocculant Dosage	g/t	20	20	C

17.2.4 CIL, Leach, and CIP

The thickened slurry is sent to the one existing tank (200 m^3), where carbon transfer pumps and static screens will be added. This tank will then be modified from a leach tank to CIL. The CIL tank allows the adsorption of the gold leached onto activated carbon.

The leaching circuit is composed by the three mechanically agitated tanks (6.7 m each), providing a residence time of eight hours.

The static screen design will be based on custom-made models that are already in use in other gold mills in a CIP circuit. The advantage of these screens is that they do not require space above the tank to be lifted out of the tank for maintenance, as is the case for other interstage screens such as Kemix-type screens. Installation of Kemix screens would not be possible without major modifications to the building as the building does not currently have sufficient clearance above the tanks.

The existing loaded carbon screen will be used to recover the carbon and send it to the elution circuit.

The leached slurry is then transferred to four CIP tanks in series. A carbon pump and a static screen are installed in the tanks and the slurry will flow by gravity from one tank to the next. A safety screen will collect carbon carried over at the CIP tailings to prevent it from being discarded at the TMF.

A total leaching time of 20 hours is recommended, including the CIP. This leach time is considered long enough to process the Barry mineralized material.

Table 17-6 presents the CIL, leach, and CIP design criteria.

Table 17-6: CIL, Leach, and CIP Design Criteria
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	Unit	Initial	Expansion Phase 1	Source
	CIL			
Number of Tanks	-	1	1	A
Tanks	-	Existing	Existing	
Tank Diameter	m	6.7	6.7	L
Tank Height	m	6.7	6.7	L
Total CIL Live Volume	m^3	201.5	201.5	E
Total CIL Residence Time	h	4.1	2.7	E
	Leaching			
Number of Tanks	#	3.0	3.0	C
Tanks	-	Existing	Existing	
Tank Diameter	m	6.7	6.7	E

Parameter	Unit	Initial	Expansion Phase 1	Source
Tank Height	m	6.7	6.7	E
Total Tank Live Volume	m³	604.5	604.5	E
Total Leach Residence Time	h	12.3	8.2	E
Oxygen Concentration	ppm	8	8	C
Cyanide Concentration (NaCN)	ppm	500.0	500.0	C
	CIP			
Type 1 CIP Tanks	-	Existing	Existing	
Number Type 1 Tanks	#	0	0	C
Tank Type 1 Diameter	m	6.7	6.7	L
Tank Type 1 Height	m	6.7	6.7	L
Type 2 CIP Tanks	-	Existing	Existing	
Number Type 2 Tanks	#	4.0	4.0	C
Tank Type 2 Diameter	m	6.1	6.1	L
Tank Type 2 Height	m	6.4	6.4	L
Total CIP Live Volume	m³	630.5	630.5	E
Total CIP Residence Time	h	12.8	8.5	E
Total Leach, CIL, and CIP Residence Time	h	29.2	19.5	E
	Carbon			
Carbon Specification	-	Coconut shell	Coconut shell	H
Loaded Carbon Transfer Quantity	t	2.0	2.0	A
	Carbon Screen			
Number of Screens per Tank	unit	1.0	1.0	C
Screen Type	-	Static	Static	C
Screen Opening	µm	800.0	800.0	C
	Loaded Carbon Screen			
Loaded Carbon Screen Type	-	Vibrating	Vibrating	C
Safety Screen				
Equipment Type	-	Vibrating	Vibrating	A

17.2.5 Tailings

The tailings from the Safety Screen undersize are sampled in a new sampler and pumped to the TMF. Natural cyanide degradation will take place in the TMF.

Table 17-7 presents the tailings design criteria.

Table 17-7: Tailings Design Criteria
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	Unit	Initial	Expansion Phase 1	Source
Tailings Flowrate	tph	36.2	54.3	E
Tailings Density	% w/w	44.3	44.3	E

17.2.6 Acid Wash, Elution and Carbon Regeneration

The existing 3-ton capacity elution circuit is adequate to process the carbon from the CIP circuit even at 1,200 tpd. The elution will be performed at the rate of one elution cycle every two days. The expected loaded carbon grade is over 4 000 g/t.

The sizing of the actual carbon reactivation circuit is appropriate for the increased throughput. The electrowinning capacity is presently considered appropriate. The QP recommends that a new electric induction smelting furnace should be added.

Table 17-8 presents the elution and gold refining design criteria.

Table 17-8: Elution and Gold Refining Design Criteria
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	Unit	Initial	Expansion Phase 1	Source
		Stripping		
Stripping Process	-	Pressure Zadra	Pressure Zadra	A
Stripping Mass	t	3	3	A
Stripping Frequency	nb/d	0.5	0.5	A
		Melting		
Furnace Type	-	Induction	Induction	C
Furnace Power Type	-	Electric	Electric	A
Furnace Batch Capacity	kg	750	750	C

17.2.7 Reagents

Hydrated lime is currently added directly at the rod mill feed with a screw conveyor. A system for hydrated lime dissolution and distribution is presently considered as a potential improvement.

Sodium cyanide is currently delivered in solution (32%) and the cyanide solution is transferred from a tanker into a cyanide solution distribution tank.

The flocculant used in the thickener is currently prepared manually. An automatic preparation system is necessary with a high-rate thickener. The equipment required includes a bulk bag hopper or a hopper-fed manually with 25 kg bags, a flocculent feeder, and an eductor to obtain a perfectly mixed solution.

The caustic soda is currently received as 50% solution in totes which is appropriate at higher throughput. However, it is planned to install a tank that will be fed directly by a tanker to reduce the operators' manipulation of this product.

Table 17-9 presents the reagents design criteria.

Table 17-9: Reagents Design Criteria
Bonterra Resources Inc. – Barry Open Pit Project

Parameter	Unit	Initial	Expansion Phase 1	Source
		Cyanide		
Dosage (NaCN)	kg/t	0.6	0.6	E
Cyanide Consumption	kg/d	480	720	E
Cyanide Concentration	% w/w	32	32	C
		Hydrated Lime		
Dosage (CaO)	kg/t	1.15	1.15	E
Efficiency	%	96	96	C
Lime Consumption	kg/d	958	1,438	E
		Flocculant		
Flocculant Consumption	kg/d	16	24	E
Flocculant Batch Frequency	nb/d	4	4	G
		Caustic Soda (NaOH)		
Caustic Soda Consumption	kg/d	79.6	79.6	C
Caustic Soda Concentration	tpa	29.0	29.0	E

17.2.8 Water and Compressed Air

The water distribution circuit will include a mill solution tank fed by the thickener overflow and a portion of the water reclaimed from the TMF. The mill solution water contains cyanide and is used in the grinding circuit to form a slurry with the mill feed and further adjust the slurry percent solids. The remainder of the water reclaimed from the TMF is sent to a reclaim water tank. This water will be used as wash water on the linear and vibrating screens and transferred to the carbon water tank. The carbon water is used to transfer carbon during the carbon acid wash and elution. Mine water is collected in the mine water tank and used for the reagent preparation systems and to seal the slurry pump gland. The water system's capacity is reviewed to meet the high throughput requirements.

The existing air compressor will be used to supply the air to the new leach tanks.

17.3 Operating Costs

The operating cost was divided into five sections and each section was calculated based on the data of the process design criteria and the flowsheet.

Table 17-10 presents all the operating costs.

Table 17-10: Operating Costs
Bonterra Resources Inc. – Barry Open Pit Project

Cost Category	Annual Cost (C$ M/year)		Unit Cost (C$/t feed)	
	800 tpd	1,200 tpd	800 tpd	1,200 tpd
Personnel	2.96	3.20	11.03	7.61
Electrical	0.51	0.73	1.74	1.74
Reagent	1.02	1.54	3.78	3.67
Grinding Media and Liners	1.01	1.62	3.75	3.86
Maintenance Parts	0.80	0.92	2.98	2.18
Total	6.30	8.01	23.29	19.07

17.4 Conclusion

The current Bachelor Plant can process 800 tpd of material from Barry without any modifications. Some supplemental equipment is required and pipework must be performed to process the same material at a rate of 1,200 tpd. Necessary modifications to the Bachelor Plant include:

- Add a second ball mill of 535 hp in parallel with the current one
- Install a high-capacity feedwell to the current thickener
- Add a carbon screen and a carbon transfer pump in the first leach tank
- Modify or change the slurry pumps to match the new mass balance
- Add a new induction furnace for gold refining

It will be necessary to operate the crushing circuit for a longer time per day to achieve the higher throughput. The carbon stripping circuit is appropriate to meet the higher throughput.

18.0 PROJECT INFRASTRUCTURE

18.1 Introduction

The infrastructure related to the Barry open pit project is divided into three main areas: the Barry Mine itself, the haul road (110 km), and the Bachelor site where the mill and TMF are located. As similar mining operations were carried out at Barry with processing at Bachelor Plant from 2008 to 2010 and most of the infrastructure is still in place, proposed work will generally include an upgrade/rehabilitation of the existing infrastructure, as well as some additions or modifications.

The areas covered within this section are:

- Access roads
- Barry site facilities
- Process facilities
- TMFs

18.2 Roads

The mineralized material will be transported from the Barry site to the Bachelor Plant using existing forestry roads over approximately 110 km. Some portions of the roads will only need minor or no modifications, while others will have to be enlarged and refurbished. The major modification will include an upgrade of Road 4000 from the Bachelor site to Km 47.1 at the junction of Road 3000. The work on this portion of the haul road will consist of:

- Deforestation of the right-of-way (35 m) wide
- Reconfiguration of ditches and modification of the road shape at some strategic locations
- Road surface preparation, levelling, and compaction
- Non-compliant culvert changes
- Production and application of crushed stones
- Signalization

From Km 47.1 to Km 105, the transportation will be via forestry roads 3000 and 6700 which are used on a permanent basis by various users. This section needs only regular maintenance, which is already being carried out.

From Km 105 to Km 110, the road is only used by Bonterra to access the Barry site and this portion will also need modifications, which are already in progress using available material from the previous mining operation.

Provisions have been made to allow road maintenance year round.

18.3 Barry Site Facilities

There are several existing facilities at Barry that remain from the open pit mining operations carried out from 2008 to 2010, which have since been maintained to serve as a base for exploration purposes. The Barry surface plan is shown in Figure 16-4.

The facilities in place consist of a camp and a kitchen, which will be enlarged to accommodate approximately seventy persons, a core shack and a core storage facility, a field office, a garage for small maintenance, a warehouse, two diesel reservoirs (50,000 L), one propane reservoir (2,000 L), and six gensets (for a total capacity of 3,730 kVA). There is also a security gate already in place.

Bonterra is considering moving currently unused accommodation trailers from Bachelor to increase the capacity of the Barry camp, located on the surface plan just north of the laydown areas. The current camp consists of nine trailer units, a sixty man mine dry facility, a kitchen, adequate septic installations for all site personnel, a diesel generator for power and microwave communications tower.

A number of offices and a warehouse will be newly constructed.

Considering the short life of the project, the garages for truck (mine and haul trucks) maintenance will be temporary facilities to be provided by the mining and hauling truck contractors.

A truck wash bay for the mining fleet will be added. An additional fuel tank will be purchased to provide more flexibility for the project.

An existing small crusher will be refurbished to be enable crushing daily pit production before being loaded into the 50 t haul trucks.

18.3.1 Waste Rock and Stockpiles Management

The new waste rock pile is designed to handle approximately 5.1 million m³ (10.0 Mt) of waste rock. It will have approximate dimensions of 750 m x 500 m and a height of 15 m at the end of the open pit operations. It will be surrounded by a ditch to direct runoff water to the decantation basin. on the existing waste pile area which has a capacity of 0.3 million m³. All stockpiles on site will be rehabilitated after the mine operation as per environmental requirements and best practices.

18.3.2 Water Supply and Sewage

It has been assumed that the existing water supply and sewage systems already in place are able to accommodate the additional workforce and therefore no further modification is required.

18.3.3 Water Management

Water from the pits will report to two existing basins, Basin 1 and Basin 2. After sedimentation in Basin 1, water will go through a small temporary water treatment facility which will measure pH and turbidity. If the water pH and turbidity meet the established levels, the water will be sent directly to Basin 2 (polishing pond) and released to the environment. If the water pH and turbidity do not meet the established limits, the water will be treated using flocculation and coagulation and then pumped through a Geotube network before being released to the environment.

Water from the ditches around the waste rock pile will be similarly directed to Basin 1 and treated in the same way.

18.3.4 Power and Electrical

The six gensets with a total capacity of 3 730 kVA available at the Barry site are considered sufficient for the Barry site operation and the open pit operation, which in this case will be all diesel. It is assumed that sufficient power will be generated using only these gensets, however, if electrical power from the anticipated 120 kV Hydro-Québec powerline becomes available, this assumption may be reconsidered.

The construction of this new powerline to supply power to the nearby Windfall operation has been announced, although considering the anticipated short operation period at Barry, the use of this new 120 kV line to power the site might not be a viable option.

18.3.5 Fuel

There are already two fuel reservoirs 50,000 L each at site and it is anticipated to add an additional one of a similar capacity to increase flexibility.

18.4 Process Facilities

The mineralized material from Barry will be processed at the Bachelor Plant, which is also owned by Bonterra. Since milling operations have been conducted in the past for years at that site, most of the infrastructure is already in place.

To increase the Bachelor Plant output from 800 tpd to 1,200 tpd to accommodate processing of material from Barry, the mill and the crushing area will require modifications as described in Section 17.0.

The camp and other facilities are anticipated to require only minor modifications.

The water supply and sewage systems are adequate. The fuel and propane reservoirs meet the processing needs.

The only addition will be a new garage for repairing the new loader that will be used to handle the Barry material from the dump truck area to the crusher.

18.5 Tailings Mangement Facilities

The Bonterra's Bachelor project involves upgrading the Bachelor tailings storage facilities (TSF) by installing new dikes and raising the existing dikes. The following standards and regulations were used for the design of the Bachelor TSF and related infrastructure:

- Directive 019 specific to the mining industry in Québec;
- Metal Mining Effluent Regulations (MMER) in Canada;
- The Dam Safety Law applied in Québec (LSB) and the associated regulation (RSB);
- The Dam Safety Guidelines produced by the Canadian Dam Association (2007);
- *Règlement sur la santé et la sécurité du travail dans les mines, Loi sur la santé et la sécurité du travail - Québec* (2014);
- The Québec and/or the Canadian Legal framework applied to the environment and water sectors.

18.5.1 Tailings Storage Facility Location

The Bachelor TSF is located at the south of the site, which occupies an area of approximately 76 ha. During the preparation of the PEA study, several options for the configuration and development of the TSF have been discussed.

The selection of the five year TSF configuration presented in Figure 18-1 has been defined as a result of the following work:

- Analysis of site characteristics: based on the latest aerial photos, LiDAR information, and regional land use information. This includes the identification of existing infrastructure such as dikes, dry stack TSF, forestry domains, and environmental protected areas;
- Volumetric compliance for tailings placement: the targeted volume was approximately 2 Mm^3 of tailings;
- A work session took place between BBA and Bonterra and the following principal considerations were analyzed:
    - Project economics
    - Operational considerations
    - Environmental impacts
    - Technical considerations

18.5.2 Tailings Deposition Strategy

Mineral processing activities will be undertaken at the Bachelor Plant. The Bachelor Plant will process ore from both Bachelor and Barry. Produced tailings will be transported via slurry pipeline for deposition to the Bachelor TSF. Based on available information and existing data, a five year deposition strategy has been developed for the Bachelor TSF. The following assumption have been used:

- Peripheral deposition will be adopted.
- The projected annual tonnage of tailings is 2.7 Mt for a period of five years.
- Tailing deposition rate is approximately 1,200 tpd.
- Using the density of 1.44 t/m^3, provided by Bonterra, a total volume of approximately 2.0 Mm^3 of tailings will be deposited in the Bachelor TSF.
- Tailing deposition yearly volume is approximately 400 000 m^3.
- The expected content of solids in pulp by weight provided by Bonterra is approximately 50%.
- The five years elevation of the TSF is approximately 334 m to 337 m.

The resulting TSF designed by BBA for the five year tailings deposition project consists of the following phases:

- Phase 1 deposition will occur in a cell at the west side of the Bachelor TSF (the west cell) in years 0 to 1.5.
    - The cell has a capacity of 659 000 m^3.
    - Phase 1 requires building of two dikes:
        - West cell dike with a variable elevation from 334 m to 337 m.
        - The west section of the south dam in LOM configuration.
- Phase 2 deposition will be in the middle of the TSF between the west cell and the southeast borrow pit area, and will occur in years 1.5 to 2.5.
    - Phase 2 has a capacity of 410 000 m^3 tailings.
    - Phase 2 requires building of three dikes:
        - A small dike between the borrow pit and TSF to the elevation of 331.5 m to 334.5 m.

    - South section of the south dam to the elevation of 334.5 m.
    - Internal dike to the elevation of 328.9 m to 331.4 m.
- Phase 3 deposition will be in the southeast rock fill borrow area, and will occur in years 2.5 to 3.5.
    - Phase 3 has a capacity of 460 000 m^3.
    - Phase 3 requires completing the dike between the TSF and borrow area.
- Phase 4 deposition will be in the west tailings borrow area, and will occur in years 3.5 to 4.5.
    - Phase 4 has a capacity of approximately 400 000 m^3.
- Phase 5 deposition will occur in the general five year TSF area.

18.5.3 Facility Design Considerations

The design of the five year TSF at the Bachelor site assumes that the disposal of tailings will be conducted in individual cells until year 4.5 and then will be peripheral in the LOM footprint, from the south and west towards the centre. The tailings are retained by a permeable dam (internal dike) that allows decantation water to drain from tailings towards the north into the recirculation basin. The internal dike separates the tailings cell from the recirculation basin. The polishing pond is located on the North-west of the recirculation basin, which is separated by an impervious dike.

The retaining dikes (except the internal) at the Bachelor project are impervious. The imperviousness is ensured via high density polyethylene (HDPE) geomembrane. The basic design is to use the tailings from the dry stack TSF or overburden from the southeast borrow for the core of the dams, with a layer of general fill or topsoil protection and a layer of HDPE geomembrane for the imperviousness. The protection layer is a temporary layer that would be hydroseeded for better erosion control purposes. . The internal dike with its stabilization berm will be built entirely with rockfill material.

The construction sequence for the five year tailings deposition is based on the stage and deposition volume of tailings presented in Section 18.6.2 and is summarized as follows:

- Year Zero
    - Excavation of the existing material from the west cell area and the west access road area
    - Construction of the dikes for years 0-1.5
        - West cell dike
        - South dike
- Years 0 to 1.5
    - Tailings deposition over years 0-1.5
    - Southeast borrow pit exploitation for dike construction
    - Construction of the dikes for years 1.5 to 2.5
        - East borrow pit dike
        - South dike
        - Internal dike
- Years 1.5 to 2.5

  - Tailings deposition over years 1.5-2.5
  - Complete exploitation of the southeast borrow pit
  - Start construction of the infrastructure for the LOM
- Years 2.5 to 3.5
  - Tailings deposition over years 2.5-3.5
  - Exploitation of the dry stack tailings borrow pit
  - Continue construction of the infrastructure for the LOM
- Years 3.5 to 4.5
  - Tailings deposition in the dry stack borrow area
  - Continue construction of the infrastructure for the LOM
- Years 4.5+
  - Tailings deposition within the full footprint of the TSF

Groundwater contamination protection criteria are based on a groundwater flow of 3.3 L/m^2/day as requested by Directive 019 and the COA. A hydrogeological modelling completed by Richelieu Hydrogologie Inc. (Richelieu) indicates that, over most of the site, the groundwater flow is less than the criteria. However, in some areas close to the perimeter dikes, the flow exceeds the criteria. For the imperviousness of those areas with a flow of greater than 3.3 Lm^2/day, Richelieu has recommended using a geomembrane. Based on this recommendation, BBA included a geomembrane in the proposed area to satisfy the groundwater protection criteria.

18.6 Recommendations

To clarify some of the assumptions made with regards to the infrastructure in this PEA, SLR has the following recommendation:

1. Conduct geotechnical, hydrogeological, and hydraulic studies to obtain sufficient data to complete the design of the infrastructure.
2. Assess water quality and quantity to be treated from Barry OP operations to finalise water treatment needs and infrastructures
3. Better develop mining and hauling contractor's role to define more accurately the mine infrastructure needs.

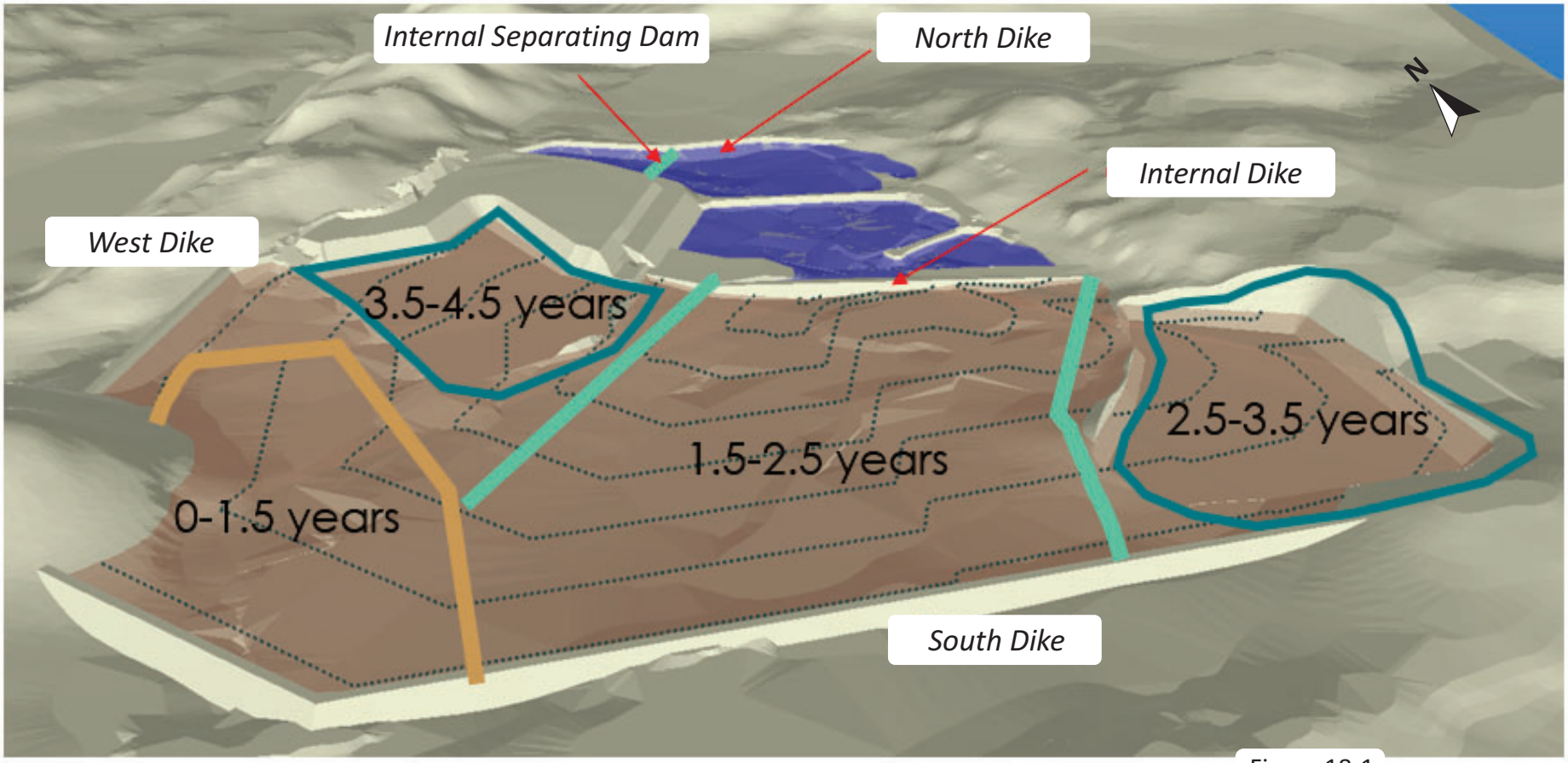


Figure 18-1

Not To Scale

Bonterra Resources Inc.

Barry Open Pit Project

Northwestern Québec, Canada

Overview of Bachelor TSF Site

July 2022

Source: BBA, 2022 .

19.0 MARKET STUDIES AND CONTRACTS

19.1 Markets Studies

19.1.1 Overview

The principal commodity at Bonterra is gold, that is traded at prices that are widely known. Gold doré bullion and gold refined bars are typically sold through commercial banks and metals traders, with sales prices obtained from the World Spot or London fixes. These contracts are easily transacted, and standard terms apply. Based on this, the prospects for sale of any production are virtually assured

Bonterra expects that the terms of any sales contracts would be typical of, and consistent with, standard industry practices, and would be similar to contracts for the supply of gold doré elsewhere in Canada.

Limited additional effort is considered to be required to develop a doré marketing strategy.

19.1.2 Commodity Price Projections

SLR used for the estimation of Mineral Resources and for the economic analysis of this Report a gold price of US$1,600/ oz (C$2,133/oz Au), and an exchange rate of C$1.33:US$1.00, for the Base Case.

SLR considers this price to be reasonable and an industry consensus long term forecast price, based on:

- Bank analysts' long term forecasts
- Historical metal price averages
- Prices used by industry peers

Gold prices were kept constant throughout the life of the Project.

19.2 Contracts

The refining and other contracts applicable to this study are described below.

19.2.1 Refining

The economic analysis for the Barry mine was completed using an assumed refining cost of $5.00 per ounce of gold. No other treatment costs were applied.

19.2.2 Other Contracts

Contracts considered for the study include those for open pit mining, supply of blasting products and accessories as well as labour by a local supplier, contractor haulage of mineralized material from the mine site to the Bachelor Plant and other potential minor contracts for materials and/or services.

These contracts have not been negotiated at this time.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

20.1 Environmental Studies

This section provides an overview of the existing baseline conditions collected over the Properties as part of the project development, in addition to a summary of primary known environmental issues and potential risks documented.

20.1.1 Physical Environment

20.1.1.1 Atmospheric Environment

The Bachelor Mine and the Barry deposits are located in proximity to two active meteorological stations (Chapais 2 and Lebel-sur-Quévillion) where climate normals are compiled by Environment and Climate Change Canada. Climate normals available for the period from 1981 to 2010 were obtained and reviewed as part of the Projects' development.

Available data indicates an annual daily average temperature of 0.2°C at the Chapais 2 station and 1.0°C at the Lebel-sur-Quévillon station. At both stations, seasonal temperature variations are characterized by pronounced extremes, ranging from -43.3°C to 34.4°C. Average annual precipitation at the Chapais 2 station totals 996 mm. Situated further west, the Lebel-sur-Quévillon station receives average annual precipitation of 928 mm.

Some air emissions and greenhouse gases will be generated by the Projects. Over the life of the Projects, various activities will generate emissions, from direct and indirect sources, such as mineral extraction at the Barry property, transport of ore from the Barry property to the Bachelor Plant, ore processing, waste rock management, tailings management, as well as power generation at these remote sites.

Air emissions modeling and estimates will be completed as part of future studies. Mitigation measures will be developed accordingly.

20.1.1.2 Hydrology and Hydrogeology

Several studies have been carried out to date to assess hydrological and hydrogeological conditions over the Properties.

20.1.1.2.1 Hydrogeology – Bachelor Site

As part of the Bachelor property's development, a digital flow model was developed by Richelieu Hydrogéologie inc. (Richelieu) to evaluate whether the percolation rate at the base of the tailing management facilities is compliant with the design criteria of 3.3 L/m^2/day. Richelieu concluded that for the loads used and the flows calculated based on the 3.3 L/m^2/day criteria, between 72% and 93% of the surface of the proposed Bachelor TMF is compliant. The zones where this criteria is not met are associated with the absence of clay. Since hydrogeological modelling has led to the conclusion that areas at the foot of the dikes are likely to experience percolation rates greater than 3.3 L/m²/day. In this context, the geomembrane planned to be installed on the inner face of the dikes will be extended to the interior of the TMF to cover all sectors identified with theoretical flows greater than 3.3 L/m²/day.

As part of the environmental analysis, the Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC) requested a complementary hydrogeological modelling of the dissolved contaminants that would be emitted from the proposed Bachelor TMF. Thus, Richelieu conducted a simulation of contaminant transport, the results of which indicated that in the worst-case scenario, dissolved cyanide could migrate into groundwater downstream of the proposed Bachelor TMF from three outlets to the south, west, and north. The contaminant plume, however, would progress relatively slowly and stabilize after approximately one hundred years. Alternatively, the addition of an impermeable containment measure at areas of the TMF where the flux criteria exceeds 3.3 L/m²/day would minimize the migration of contaminants such as cyanide. Richelieu recommended the addition of observation wells downstream of the impoundments and the monitoring of groundwater quality and piezometry, as described in Directive 019.

20.1.1.2.2 Hydrogeology – Barry Site

A hydrogeological study was carried out in 2020 over the Barry property with the primary objective of simulating the effects of groundwater drawdown during underground operations, in addition to the subsequent rise of the aquifer following mine closure. Two scenarios were simulated, the current conditions for the calibration of the model and the rise of the water table directly to the site of the galleries when dewatering ceases. Natural flow simulation (current flow) indicates that underground galleries have little effect on underground flow, and the interpolated clipping is not affected by the galleries. Groundwater flow is generally in a manner consistent with the topography, i.e. a divergent flow from the high topographic (pit sector) to the surrounding streams. Simulation of water table elevation indicated an almost complete rise seven years after the cessation of dewatering. The water table level is expected to rise almost entirely after three years, continuing to rise slightly thereafter.

Current and simulated hydraulic loads clearly indicate that the dewatering of roadways in the current state has little impact on the surrounding surface flow. Even if a local drawdown is present, it does not extend into space and does not affect surrounding water bodies. Thus, the duration of the ascent following cessation of mining is not impactful. It is noted in the study that there is potential for the two known faults to generate an additional supply of water in the galleries. If the future galleries cross one of the present faults (the one further north), it would be appropriate to better characterize it. Also, as this fault ends with the lake located in the northwest, it could contribute to a more significant additional water infiltration.

20.1.1.2.3 Surface Water – Bachelor Site

Surface water quality data for the Bachelor property was collected during Environmental Effects Monitoring (EEM) studies completed in 2011, 2015, and 2018. EEM studies are a science based performance measurement tool used to evaluate the adequacy of effluent regulation in protecting fish, fish habitats, and the usability of fisheries resources. Surface water samples were collected during several ice-free periods in exposed (EZ) and reference (RZ) zones. Results were compared with applicable Canadian Council of Ministers of the Environment (CCME) and MELCC criteria.

The quality of Bachelor surface water is generally good in the receiving environment while notable exceedances are as follows:

- Aluminium:
  - In the RZ, 100% of the values exceed the CCME criteria.
  - In the EZ, 76% of values exceed the CCME criteria.

- Cyanides:
  - In the RZ, 38% of the values are higher than the criteria for free cyanides (there is no criteria for total cyanides).
  - In the EZ, 83% of values exceed the proposed criteria.
- Copper:
  - In the RZ, 13% of the values exceed at least one of the variable criteria of the CCME and MELCC.
  - In the EZ, 80% exceed the CCME variable criteria.
- Iron:
  - All samples collected in the RZs have values above the CCME criteria, as well as five samples that also display values above the MELCC criteria.
  - Half of the samples in the EZ exceeded the CCME criteria.
- Exposed Zone:
  - At least one exceedance or non-compliance of the criteria is observed for the following parameters: cadmium, mercury, TSS, nitrates, dissolved oxygen, and zinc.
- Reference Zone:
  - At least one exceedance or non-compliance of the criteria is observed for the following parameters: alkalinity, mercury, TSS, dissolved oxygen, lead, pH, and zinc.

A comparison of the values obtained with the criteria could not be undertaken for cadmium because the majority of the values have a laboratory detection limit higher than the applicable criteria. In addition, for cyanide "exceedances", it should be noted that the criteria only concerns free cyanides, while the analyses focus on total cyanides.

Comparing surface water quality over the years, highlights from the first, second, and third EEM cycles include:

- Cycle 1:
  - Data from the exposed streams indicated slightly higher hardness and cyanide and copper content than was observed in the reference streams. RZ-2 was characterized by high aluminium and iron content.
- Cycle 2:
  - The hardness and alkalinity values measured in the EZ are higher than in the RZs due to the treatment at the Bachelor Plant, in particular the use of lime. The pH values are also higher in the EZ for the same reason.
  - There is a difference in nitrogen compound concentrations for 2014, particularly for nitrates, which are relatively high in exposed areas. Increased effluent concentrations have been observed since March 2012.
  - There are no marked differences between the EZs and RZs regarding arsenic, lead, nickel, zinc, cadmium, and selenium. A significant difference can be observed for copper concentrations, the recommendations of which were exceeded for several samples in exposed areas. The

presence of copper in the effluent can be noted. There are also RZ copper concentrations in a sample for which a recommendation was exceeded in 2014. There would therefore be elevated baseline concentrations relative to copper in the receiving environment. Regarding iron and aluminum concentrations, several recommendations were made in both sampling areas. The presence of these metals in the environment may be associated with baseline levels, particularly since their presence is relatively significantly observed in both zones, and because the concentrations measured in the EZ are higher than those measured in the effluent.

- Cycle 3:
  - In general, aluminum and iron concentrations are higher in the RZ. Regarding hardness, alkalinity, cyanides, and pH, the values are higher in exposed areas due to the use of sodium cyanide, lime, and caustic soda in ore processing. Concentrations of nitrogen compounds such as ammonia and nitrates are also higher in exposed areas due to the use of ammonium nitrate as an explosive in the Bachelor Mine. Finally, copper concentrations are higher in exposed areas as it is present in the gold ore. The difference in conductivity between the two zones demonstrates the significant contribution of mine effluent to the flow of Creek EZ, which can reach up to 90% of the stream flow during low water periods.

20.1.1.3 Sediment

Sediment quality was validated on the Bachelor property as part of the environmental impact assessment (EIA) development in 2011 as well as during the environmental follow-up program in 2013.

The 2011 results demonstrated some exceedances in Bachelor Lake of the threshold effect limit criteria prescribed by the CCME Sediment Quality Guideline for five metals, namely:

- Cadmium:
  - Exceedances observed at two stations (MET-1 and MET-4).
- Chromium:
  - Exceedances observed at one station (MET-4).
  - Values observed are similar to the background level reported for the Upper Province (85 mg/kg).
- Copper:
  - Exceedances observed at two stations (MET-1 and MET-2).
- Lead:
  - Exceedances (41 mg/kg) observed at one station (MET-4).
  - This concentration is comparable to the background level (40 mg/kg).
- Zinc:
  - Exceedances observed at three stations.
  - Despite the presence of a high background zinc content (120 mg/kg) and former zinc mining operations in the region, the presence of a high concentration of zinc could be partly

attributable to the old gold mining process where zinc powder was added to the cyanide solution to precipitate the gold.

2013 results indicated exceedances mainly at stations located in the EZ:

- Arsenic:
  - Exceedances to the MELCC Sediment Québec criteria based on the CCME criteria for arsenic was observed in the 9 cm to 10 cm core at the Baie EZ.
- Cadmium and chromium:
  - Several measurements exceeded MELCC Sediment Québec criteria, with the exception of samples from the Baie RZ and RZ-1 stations.
- Copper and zinc:
  - Some exceedances of criteria for copper and zinc were observed only in exposed areas.

Furthermore the 2013 results demonstrated that the pH of the surface sediments is generally acidic at each of the stations and increases with the depth in Bachelor Lake (Baie EZ). Higher concentrations of arsenic, barium, cadmium, cobalt, copper, mercury, molybdenum, lead, zinc, and petroleum hydrocarbons can be observed in the exposed stream (EZ-1 and EZ-2) compared to the reference streams (RZ-1 and RZ-2).

By comparing the results of the 2011 and 2013 studies, four metals demonstrate recurrent exceedances to applicable criteria in EZs, namely cadmium, chromium, copper, and zinc.

20.1.1.4 Geochemistry – Bachelor Site

As part of the Bachelor property's development and EIA, available geochemical data on waste rock, ore and tailings for the Bachelor Mine as well as the Moroy and Barry deposits were compiled by Wood plc (Wood) in 2019. As part as the questions and comments period with the Comité d'examen des répercussions sur l'environnement et le milieu social (COMEX), GCM Consultants (GCM) was mandated to clarify the results of the geochemical characterization presented in the impact study.

20.1.1.4.1 Tailing Characterization – Bachelor Site

When compared to the Mine Environment Neutral Drainage (MEND) criteria and the MELCC Guide de caractérisation des résidus miniers et du minerai, mine tailings in the Bachelor TMF are considered non-potentially acid generating (PAG). The total sulphur percentage of the 55 samples compiled ranged from 0.02% S to 1.43% S. The net neutralizing potential ranges from 6 kg $CaCO_3$/t to 112 kg $CaCO_3$/t, and averages 72.6 kg $CaCO_3$/t. The neutralizing potential ratio (NPR) varies between 2.03 and 20.1 and averages 4.25. The 12 tailings samples classified as PAG according to Directive 019, have a NPR between 2 and 3.

Chemical composition analyses performed on 15 tailings samples in 2016 and seven samples in 2018 indicated that 77% of samples have a higher molybdenum concentration than generic criteria A. In addition, the 2016 results indicated, in one or two samples, the presence of a concentration of cobalt, copper, manganese, mercury, and lead above criteria A of the Intervention Guide.

According to Figure 4.2 of the Guide de caractérisation des résidus miniers et du minerai (MELCC, 2020), the Bachelor tailings are classified as non-leachable. Only the molybdenum concentration was identified

as above the generic criteria A when analyzing the chemical composition of the solid fraction of the tailings samples.

As the sulphur content of the tailings samples was less than 5%, the acid generation potential was assessed according to the classification criteria in Figure 4.1 of the Guide de caractérisation des résidus miniers et du minerai and was therefore determined to be non-PAG.

Contaminant concentrations in Synthetic Precipitation Leaching Procedure (SPLP) and Centre technique des eaux usées – Méthode 9 (CTEU-9) leachate are below the groundwater quality criteria in the Guide d'intervention; Protection des sols et rehabilitation des terrains contaminés for the same substances that exceed generic criteria A for soils in the solid fraction, i.e. molybdenum. Thus, the tailings are classified as non-PAG and not very leachable.

It was noted, however, that since a few tailings samples (less than 10%) indicated the presence in the chemical composition of the tailings of a concentration above the criteria A for cobalt, copper, manganese, mercury, and lead and the concentration of manganese in the leaching waters of the CTEU-9 test exceeded the criteria in more than half of the samples (57%), Bachelor tailings present a risk of leaching in manganese.

Since some ore data suggests PAG, but tailings samples generally indicate a lower potential for acid generation based on NPR values, Wood conducted an additional evaluation of the data to explain the discrepancy.

According to Bonterra geologists, the narrow veins of ore in the Bachelor Mine and Moroy deposit explain the discrepancy between the analytical results in the tailings and those in the ore. In accordance with its commitment to Condition 1, Amendment 4 of the COA, Bonterra will continue to collect samples weekly and analyze the sulphur and carbon levels of mine tailings exiting the Bachelor Plant.

20.1.1.5 Geochemistry – Barry Site

In 2010, 80 samples (40 ore samples and 40 waste rock samples) selected from exploratory drilling on the Barry property were analyzed. These samples, from different lithologies and areas, are considered representative of the anticipated deposit (the samples were taken to a depth of approximately 100 m below the current pit).

20.1.1.5.1 Metal Concentration

Exceedances of criteria A are observed for all samples analyzed, thus, ore and waste rock samples that have been analyzed cannot be considered low risk within the meaning of Directive 019, unless local background level data is available for the various parameters analyzed.

For metals, 29 ore samples and 31 waste rock samples, or nearly 75%, were identified as having concentrations above criteria B. Metals of concern are barium, copper, manganese, molybdenum, and nickel.

20.1.1.5.2 Ore Characterization

Concentrations obtained via SPLP 1312 tests for the individual Barry samples were all below the maximum concentration limit values set out in Directive 019, with the exception of pH which was in some cases slightly above the 9.5 limit.

These results were compared to applicable criteria. Only aluminum exceeded one of the applicable criteria or maximum concentrations (three out of 40 samples). With a water hardness in the surrounding receptors of approximately 50 mg/L $CaCO_3$ and in the absence of acid rock drainage (ARD) from Barry ore, aluminum could be weakly leached. Conversely, outside the pH range 5.7 and 6.2, aluminum tends to be in solution.

All Barry ore samples exhibited an NPR greater than 2 and are therefore not classified as ARD according to the new Guidelines for geochemical characterization of ore and mining wastes (MELCC, June 2020).

Based on the analysis of the Barry samples and considering that the ore will only be temporarily stored on the Barry property before being transported to the Bachelor Plant, the ore is not expected to cause acid drainage at Barry (temporary storage), or in the Bachelor TMF where the tailings from Barry ore will be stored. It is noted that tailings generated from Barry ore demonstrates very good quality and using these tailings for covering existing Bachelor Lake tailings presents an environmental advantage.

20.1.1.5.3 Waste Rock Characterization

Concentrations obtained via SPLP 1312 tests for the various Barry samples are all below the maximum concentration limit values set out in Directive 019, with the exception of pH, which is in most cases slightly above the 9.5 limit.

These results were compared to applicable criteria. Only aluminum exceeded one of these criteria or maximum concentrations (six samples out of 40). With a water hardness in the surrounding receptors of approximately 50 mg/L $CaCO_3$ and in the absence of ARD from Barry ore, aluminum could be weakly leached. Conversely, outside the pH range 5.7 and 6.2, aluminum tends to be in solution.

Only one sample exhibited an NPR less than 2. Barry waste rock is thus classified as non-ARD according to the new Guidelines for geochemical characterization of ore and mining wastes (MELCC, June 2020).

20.1.1.5.4 Representativeness of Samples

As part of the second revision of the Barry property restoration plan, MERN requested that the representativeness of the samples analyzed in the 2011 study for the mining of the open pit deposit at a depth less than 100 m be demonstrated, compared to the material that will be extracted at a depth greater than 100 m during underground operation. Bonterra notes that the samples analyzed in 2011 are representative of the material that will be extracted at a depth greater than 100 m as it is part of the same mineralogical system, namely the quartz, carbonate, and albite veins, of the basalt shear zones.

20.1.1.5.5 Valorization of Waste Rock – Characterization Report

In 2019, characterization of Barry waste rock was carried out according to the Guide de valorisation des matières résiduelles inorganiques non dangereuses de source industrielle comme matériau de construction. All samples taken from mine waste rock and the natural terrain were considered to be building materials that can be classified as Class I or II depending on the particle size of the samples.

Thus, waste rock reclaimed as an embankment for the construction of the access road and "pad" for the new camp outside the mine site is classified as Category II material, allowing for its current use as backfill and cushion materials as well as sub-foundation for unpaved roads.

In order for waste rock stored on the Barry property to meet the criteria of the Reclamation Guide and to be used as building materials (notably for the Gladiator project), it is recommended that the waste rock be screened so that it can be classified as Category I material, expanding its use as a building material. In

this way, Barry waste rock can be used for road construction and on commercial and industrial land outside the Barry property by third parties.

20.1.1.6 Phase 1 Environmental Site Assessment (ESA) – Bachelor Site

In 2020, GCM completed an ESA for the Bachelor property to assess potential contamination risk within the project development area.

The Bachelor ESA concluded the followings:

- There is a risk of airborne contamination over Bachelor property due to the presence of mining activities since the 1980s, including the operation of an ore processing plant and TMF.
- There is a risk of metal contamination due to the presence of old tailings and backfilling.

Other activities that may pose a risk have been identified outside the areas covered by the ESA. The garage and super dome that served as a former garage could represent a risk due to the type of activities carried out, including the maintenance and mechanical repair of heavy mining equipment. In addition, areas where used oils, oil tanks, hazardous residual materials, and reagents are used, as well as areas where mining water treatment units are stored and/or have been stored in the past could also pose a risk. It is noted, however, that these have not been comprehensively assessed as they are located outside the proposed work area.

As part of its environmental analysis, the COMEX requested that a Phase 2 ESA be completed in the areas targeted by redevelopment work, to ensure the soil be adequately characterized and managed in accordance with the MELCC Intervention Guide – Soil Protection and Rehabilitation of Contaminated Land.

20.1.2 Biological Environment

20.1.2.1 Vegetation

The Bachelor and Barry properties are located in the spruce-moss bioclimatic domain. Forest landscapes are fairly uniform, since the forest canopy is dominated extensively by the black spruce, often growing in pure stands but also accompanied on occasion by other species, such as balsam fir. Balsam fir stands are only observed on some of the slopes of the domain's hills. Some hardwoods, such as the white birch, trembling aspen and, to a lesser extent, the balsam poplar, also grow here. The undergrowth is composed of hypnaceous mosses and ericaceous shrubs. Herbaceous species are rare.

Several logging operations have taken place in the project area, generating a matrix with very young regenerating stands and mature stands.

20.1.2.1.1 General Description – Bachelor Site

Field surveys completed on the Bachelor property as part as the EIA have demonstrated that black spruce and balsam fir constitutes the most abundant forest stands in the Bachelor area. Balsam fir /white birch and trembling aspen/black spruce mixed stands are also notably present. Field surveys have confirmed the presence of approximately 66 species of plants. No species at risk were observed in the study area. The study area does not contain any exceptional forest stands or old growth forest.

Field surveys completed as part as the EIA also confirmed that aquatic/wetland habitats cover approximately 25% of the Bachelor property. While treed swamps are commonly observed, the treed

stratum is sometimes absent due to recent logging. Black spruce dominates the tree stratum, when present. The shrub stratum predominately consists of Labrador tea and sheep laurel (Kalmia angustifolia). In bogs, the leather leaf (Chamaedaphne calyculata) is dominant. Mosses (Sphagnum sp.), creeping dogwood (Cornus canadensis), and sedge (Carex sp.) were observed as the main components of the non-woody stratum.

20.1.2.1.2 Vegetation Cover Observed in the Final Effluent Discharge Area – Bachelor Site

A characterization of vegetation in the Bachelor final effluent discharge area was completed by GCM in 2020 upon a request by the MELCC as part of its environmental analysis. The vegetation present in the final effluent discharge area is predominately broad-leaved cattails. A total of six plant species were identified in the final effluent area. The surface was flooded at the time of the survey and the hydromorphic organic soil was determined to be composed of a 70 cm layer of organic matter on gray clay. No occurrences of threatened, vulnerable, or likely to be so designated flora species have been identified.

20.1.2.1.3 Wetland Characterization – Bachelor Site

Detailed wetland characterization was further completed by GCM in 2020 upon request by the MELCC as part of its environmental analysis.

Five types of wetlands have been identified, covering 80 ha, or 22.6% of the study area:

- Tree swamp (38.7 ha)
- Shrub swamp (2.1 ha)
- Coastal environment (13.8 ha)
- Wooded bog (15.3 ha)
- Open bog (2.8 ha) and regenerating open peatland (7.5 ha)

Wetland compensation will be required to offset Project effects.

20.1.2.1.4 Vegetation – Barry Site

As part of the application for the new camp, a characterization of the natural environment took place in 2017 over the Barry property. In total, 68 plant species were inventoried. No exceptional forest stands, or old growth forest were observed. No special status plant species have been observed, and there are no occurrences of threatened, vulnerable, or susceptible wildlife or plant species. Nine wetland units belonging to five different types of groupings were characterized.

20.1.2.2 Wildlife

20.1.2.2.1 Herpetofauna - Bachelor Site

Herpetofauna surveys were completed in 2020 by GCM as part of the Bachelor property's development upon request from the MELCC (namely in the final effluent discharge area).

Snake surveys were completed using artificial shelters (shingles) posted as 15 stations. While no snakes were inventoried or captured at artificial shelters, two striped snakes (Thamnophis sirtalis) and a red-bellied snake (Storeria occipitomaculata) were sporadically observed. These two species are common and widespread in Québec.

Salamander surveys were completed using standard Ministère de la Faune, de la Forêt et des Parcs (MFFP) protocols along five transects. While no salamanders were identified in the five transects inventoried using active search surveys, two blue-spotted salamanders (Ambystoma laterale) were accidentally spotted. This species is common and widespread in Québec.

Active search surveys were completed to validate the presence of any anura in the Bachelor property's development area. Three species of anura have been identified: a cruciferous tree frog (Pseudacris crucifer), five wood frogs (Lithobates sylvatica), and two northern frogs (Lithobates septentrionalis). These three species are common and widespread in Québec.

20.1.2.2.2 Chiroptera - Bachelor Site

A total of 77 vocalizations were recorded during the 16 days survey period. Only two species were formally identified during the surveys: the great brown bat (Eptesicus fuscus) and the grey bat (Lasiurus cinereus). The grey bat is a species likely to be designated threatened or vulnerable in Québec. The great brown bat has no special status. It is not excluded that the silver bat (Lasionycteris noctivagans) is present, since the Bachelor property is located within its range and its call can be difficult to differentiate from the great brown bat.

Overall, the surveys have confirmed a relatively low activity index of bats. These results may be largely due to the absence of mouse-eared bats (Myotis), species that were once very present at this latitude. Although the habitats in the study area were adequate for the presence of Myotis, no species of this genus were detected. It should be noted that bats of the Myotis genus are now considered endangered following an emergency order of the Committee on the Status of Endangered Wildlife in Canada in 2013. This is likely related to the decline of these species caused by white nose syndrome, a fungal infection caused by Geomyces destructans that forms on the muzzle, ears, or wing membrane of affected bats.

20.1.2.2.3 Micromammals - Bachelor Site

Chiroptera surveys were completed in 2020 by GCM as part of the Bachelor property's development upon request from the MELCC (namely in the final effluent discharge area). A total of 323 micromammals belonging to 13 species were captured. The most captured species was the grey shrew (Sorex cinereus) with 190 catches, followed by the red-backed vole (Myodes Gapperi) with 43 catches. A Cooper's vole-lemming (Synaptomys cooperi), a species likely to be designated threatened or vulnerable, was caught. The MM02 transect, in a mature mixed forest and rocky cape, has detected the greatest diversity of species, with 10 species recorded on the same transect, including several sooty shrews (Sorex fumeus) and wood zapodes (Napaeozapus insignis). The three rock voles (Microtus chrotorrhinus), a species likely to be designated threatened or vulnerable, were also caught on this transect, including two rock voles at the same station, as well as an additional Cooper's vole-lemmings. The MM03 transect, located in the final effluent area, captured the largest number of micromammals, with 100 individuals, including 12 field zapodes (Zapus hudsonius) and all catches of pygmy shrews. The MM04 transect, in a spruce stand crossing an alder and a watercourse, led to 87 catches, including the only malaria shrew (Sorex palustris). Two species likely to be designated threatened or vulnerable were confirmed: Cooper's vole-lemming and rock vole.

20.1.2.2.4 Fish – Bachelor Site

Some fish habitats will be impacted by the Bachelor property's development and fish habitat compensation plan will be required to offset project effects.

Fish data for the Bachelor property was collected during EEM studies. The diversity of fish populations observed does not differ between the receiving streams or the bay of Bachelor Lake compared to the RZs. The majority of catches reported a greater number of fish in the EZ compared to the RZ. Some effects on fish health via monitoring of sentinel species have been detected on the fish liver. The only effect detected on habitat is associated with a possible trend towards relative degradation of the benthic community of the exposed area close to the reference medium (RZ-1).

20.1.3 Human Environment

20.1.3.1 Population

The Cree village of Waswanipi is situated on lands reserved for the Crees, on Route 113, along the Waswanipi River, 30 km northeast of the Bachelor property. In 2016, Waswanipi had a population of 1,759. The population is young, with the average age being 28 (compared to 32 for Nord-du-Québec) and is increasing, with a growth of 28.8% expected by 2031. The Council of the CFNW is composed of a chief, a vice-chief and six councillors.

The Town of Lebel-sur-Quévillon is situated along Route 113, on the shores of Quévillon Lake, and is 95 km southwest of the Bachelor property. In 2016, the population of Lebel-sur-Quévillon was 2,187 individuals. The average age is 42 (compared to 32 for the Nord-du-Québec), and the population is decreasing, with a decline of 29.5% expected by 2031. The Lebel-sur-Quévillon municipal council is composed of a mayor and six councillors.

20.1.3.2 Land Use by the Waswanipi Crees

The main lakes fished by the Waswanipi Crees of the W24A land are Pusticamica Lake, Waswanipi Lake, and Malouin Lake. Other users also fish in Nicobi Lake and Auger Lake, as well as Lichen Lake and its tributaries. Users of W24D land fish for trout in the Périgny River and Lake. On Lot 19, users fish in the Lac aux Loutres. Moose and geese hunting grounds are located in the following sectors, amongst others: Panache River (spring), along the O'Sullivan and Périgny Rivers (spring and autumn), and the Waswanipi, Pusticamica, and Malouin Lakes (spring and autumn). Moose are also hunted along the Barry-Bachelor transportation road (autumn), Route 5000, and on trapping grounds. The users' hunting areas in Lot 19 are kept confidential.

The northeast sector of the W25A land is a favourable site for berry picking. On Lot 19, medicinal plants are picked in the northern sector of Lac aux Loutres and along one of its tributaries near the Barry property. The areas valued by users of the land include the Panache River camp on W25A land, the sector of the main O'Sullivan River camp on W24D land, the Malouin Lake camp and three spring water collection points on W24A land, a walleye spawning area in the Loutres Lake, as well as the mouth of the Macho River in Lac aux Loutres on Lot 19.

20.1.3.3 Land Use by other Communities

Several non-Indigenous people have camps in the Thubière Lake sector on the W25A trapping land. Five non-Indigenous camps are situated on W24D land. Regarding W24A land, most of the non-Indigenous people fish Malouin Lake and do not have permanent camps. On Lot 19, fishers use the lake situated near the Barry property. On W21 land, Bachelor Lake is a venue for non-Indigenous visitors during the summer. Bachelor Lake also has a float-plane base, mainly serving the six outfitters in the study area. The main known community use site in the study area is the rustic campsite at Lake Waswanipi.

20.1.4 Summary of Known Environmental Issues and Potential Risks

The primary known environmental issues and potential risks documented based on existing information include:

- Biophysical environment
  - Compensation for the loss of wetlands.
  - Presence of some species with special status (grey bat, Cooper's vole-lemming and rock vole).
  - Surface water and sediments: Exceedance of certain criteria.
- Hydrogeology:
  - Some areas of the Bachelor TMF do not meet the 3.3 L/m^2/day (percolation rate) criteria. These areas are associated with the absence of clay.
  - Hydrogeological modelling of dissolved contaminant transport: Conservative simulations indicate that in the worst-case scenario, dissolved cyanide could migrate into groundwater downstream of the TMF from three outlets to the south, west, and north. The contaminant plume, however, would progress relatively slowly and stabilize after approximately one hundred years. Alternatively , the addition of an impermeable containment measure at areas of the TMF where the flow criteria exceeds 3.3 L/m^2/day would minimize the migration of contaminants such as cyanide.
  - It is recommended that observation wells be added downstream of the impeding dikes and that groundwater quality and piezometry be monitored as described in Directive 019.
- Final effluent
  - Ensure the efficiency of the cyanide treatment system and compliance with effluent requirements.
  - Exceedances of the Environmental Release Objectives (EROs) for copper, lead, ammoniacal nitrogen, cyanides, fluorine, nitrates, and nitrites.
- EEM – Phase 1
  - Risk of airborne contamination over the Bachelor property due to the presence of mining activities since the 1980s.
  - Presence of activities likely to present a risk outside the areas covered by the work (garage and dome, storage areas).

20.2 Project Permitting

20.2.1 Bachelor Site

The Bachelor property is located in the Eeyou Istchee James Bay Regional Government (EIJBRG) territory. The Bachelor project is subject to the environmental and social impact assessment and review procedure under Chapter 22 of the James Bay and Northern Québec Agreement (JBNQA) and paragraph A of Chapter II of the Environment Quality Act (EQA). The Evaluation Committee issued the Guidelines for the Environmental Impact Statement (EIS) to the proponent in July 2017. The completed EIS relates to the increased Bachelor Plant processing rate, expansion of the Bachelor TMF, the extraction of ore from the Moroy deposit and its processing at the Bachelor Plant, and the transport of ore from the Barry site to the Bachelor site.

This EIS was submitted to the COMEX in September 2019, which will review the EIS and make recommendations to the administrator responsible for Chapter 22 of the JBNQA as to whether the Bachelor project should be authorized and, if so, what conditions must be satisfied.

In October 2020, Bonterra submitted a document to the COMEX in response to questions and comments made as part of the EIS analysis. Some additional studies carried out in the summer and autumn of 2020 were being drafted when the response document was issued to the COMEX. Thus, an addendum to the response document was submitted in March 2021 in order to present the additional studies carried out.

Since 2017, Bonterra has held the necessary authorizations to extract and process an additional 600,000 tonnes of ore from the Bachelor Mine at a rate of 800 tpd.

Table 20-1 presents the authorizations obtained from the MELCC and the COMEX in connection with the activities on the Bachelor property. It should be noted that Bonterra holds required authorizations granted by other organizations (MERN for the borrow pit and the closure plan, Régie du Bâtiment du Québec for high-risk petroleum equipment, Sûreté du Québec for explosives, etc.).

Table 20-1: Authorizations Received Since 2004 for the Bachelor Site
Bonterra Resources Inc. – Barry Open Pit Project

Activity	Document	Authority	Date of Issue
Development and dewatering of the underground mine.	• Certificate of non-liability	COMEX	May 13, 2004
	• Application for COA art. 22 EQA	MDDEP	June 28, 2004
Increased milling to 800 tpd to process 500,000 t of ore from the Barry site using the infrastructure of the Bachelor site and the addition of a portable crusher.	• Application for amendment (art. 122.2) of COA art. 22 EQA	COMEX	July 30, 2008
		MDDEP	August 12, 2008
Installation of a cyanide destruction system using hydrogen peroxide instead of an SO_2/air system.	• Application for amendment (art. 122.2) of COA art. 22 EQA	COMEX	March 27, 2009
		MDDEP	April 3, 2009

Activity	Document	Authority	Date of Issue
Expansion of the camp including the installation of a domestic wastewater treatment system.	• Application for authorization under Art. 32 EQA	MDDEP	June 18, 2009
Expansion of the camp including the installation of a drinking water treatment system.	• Application for authorization under Art. 32 EQA	MDDEP	July 22, 2009
Increase in machining rate from 800 tpd to 1,200 tpd.	• Application for amendment (art. 122.2) of the COA art. 22 EQA	COMEX	July 27, 2009
	• Application for authorization under Art. 22 EQA	MDDEP	
Development of a new dryer and related offices including the installation of a domestic wastewater treatment system.	• Application for authorization under Art. 32 EQA	MDDEP	January 8, 2010
Development of a drinking water treatment system.	• Application for authorization under Art. 32 EQA	MDDEP	August 9, 2010
Installation of a groundwater collection system.	• Application for authorization under Art. 31 EQA		August 11, 2010
Bulk sampling of 5,000 t.	• Certificate of non-liability	COMEX	December 21, 2010
	• Application for authorization under Art. 22 EQA	MDDEP	February 28, 2011
Installation of a cyanide destruction system by Ozonation.	• Application for authorization under Art. 32 EQA	COMEX	June 20, 2011
		MDDEP	July 15, 2011
Installation of equipment at the Bachelor Plant.	• Application for authorization under the EQA	MDDEP	August 23, 2011
Development of a new groundwater well at the camp.	• Application for authorization under Art. 31 EQA	MDDEP	May 31, 2012
Mining and processing of 900,000 t of ore, up to 800 tpd.	• Application for authorization under the EQA	COMEX	July 4, 2012
		MDDEP	August 16, 2012
Raising of retention structures of the Bachelor TMF.	• Application for authorization under the EQA	MDDEP	March 25, 2013

Activity	Document	Authority	Date of Issue
Amendment to COA – Follow-up program to identify actual impacts and verify the effectiveness of mitigation measures and adjustments to the content of the annual follow-up report.	• Application for authorization under the EQA	COMEX	July 19, 2013
Amendment to COA – Cyanide Destruction System.	• Application for authorization under the EQA	COMEX	November 22, 2013
Wastewater treatment from three new dormitories at the camp.	• Application for authorization under Art. 32 EQA	MDDELCC	July 4, 2014
Increased capacity of the drinking water treatment system at the camp.	• Application for authorization under Art. 32 EQA	MDDELCC	October 7, 2014
Water withdrawal for drinking water supply at the camp.	• Application for authorization under Art. 31 EQA	MDDELCC	June 3, 2015
Follow-up activities for the depollution attestation.	• Application for authorization under the EQA	MDDELCC	June 2016
Amendment to COA – Mining and processing of an additional 600,000 t of ore.	• Application for authorization under the EQA	COMEX MDDELCC	February 10, 2017 May 26, 2017
Stacking of tailings.	• Application for authorization under the EQA	COMEX MDDELCC	May 19, 2017 May 26, 2017

Note. MDDEP - Ministère du développement durable, de l'environnement et des parcs; COMEX - Comité d'examen des répercussions sur l'environnement et le milieu social.

In addition, it should be noted that the documentation for the Bachelor property filed in September 2019 is currently under review with the COMEX under the regulation respecting the EIA and review of certain projects.

Following the environmental assessment process and obtaining the decree of the Government of Québec, Bonterra will submit the applications for authorization required for the implementation of the project. The main authorizations to be obtained are listed in Table 20-2.

Table 20-2: Authorizations to be Obtained for the Bachelor Site
Bonterra Resources Inc. – Barry Open Pit Project

Authorization	Regulatory Authority	Comment
	Government of Québec	
Authorizations, s. 22 EQA	MELCC	• Amendment of the authorization issued on July 4, 2012. • Authorization for the development of the infrastructure/equipment of the Project Modification of the depollution attestation. • Authorization for work in wetlands and bodies of water. • Changes to Hazardous Materials Management. • Authorization for the recovery of waste rock.
Public land lease and authorization for the site of the TMF, art. 47, 239 and 242 of the Mining Act	MERN	• Expansion of the Bachelor TMF.
Rehabilitation and restoration plan, art. 232.1 of the Mining Act	MERN	• Updating the restoration plan.
Forestry Permit, art. 73 of the Sustainable Forest Development Act	MFFP	• Deforestation, expansion of the Bachelor complex, development of the new southern access. • Improvement of the condition of the Barry-Bachelor transport road (route 4000).
EROs	MELCC	• Update of the EROs for industrial release in the aquatic environment.
	Government of Canada	
Request for review, art. 35 of the Fisheries Act	Environment and Climate Change Canada (ECCC)	• If applicable, work in fish habitat during the rehabilitation of certain culverts.
EEM Study, art. 7 of the Metal and Diamond Mining Effluent Regulations (MDMR)	ECCC	• If necessary, change the EEM settings.
	Eeyou Istchee James Bay Regional Government (EIJBRG)	
Permits and certificates under Regulation No. 76 on permits and certificates, prerequisites for the issuance of building	EIJBRG	• Construction and expansion of mining infrastructures.

Authorization	Regulatory Authority	Comment
permits, and the administration of zoning, subdivision, and building by-laws		
Statement of compliance with municipal by-laws	EIJBRG	• Construction and expansion of mining infrastructure (activities planned art. 22 of the EQA).

20.2.2 Barry Site

The amendment of authorization issued by the MELCC in January 2018 authorizes the development of a ramp in the pit and mining of 1.20 Mt of ore via underground and open pit methods on Barry property. In addition, Bonterra is in the process of obtaining environmental approvals to transport and process ore from the Barry deposit at the Bachelor Plant.

In 2018, following receipt of permits for water withdrawal and treatment, a new camp was established on the Barry property (accommodating up to 160 people).

Below is a list of the various authorizations obtained to date for the Barry property:

- MERN: July 25, 2007, Forestry permit – Stripping for development of surface trench.
- MELCC: August 23, 2007, COA – 50,000 tonnes bulk sampling.
- MERN: April 3, 2008, Bulk sampling authorization in Barry Township.
- MELCC: April 9, 2008, COA amendment – Portable crusher for bulk sampling of 50,000 tonnes.
- MELCC: July 9, 2008, COA – Mining of 500,000 t of ore per pit.
- MERN: August 28, 2008, Barry mining lease #886.
- MELCC: October 2010, Authorization – Domestic wastewater treatment system at the camp.
- MELCC: April 26, 2011, COA – Mining of 1.20 Mt of ore per pit.
- MELCC: April 12, 2016, COA – Operation of a sand pit.
- MELCC: December 15, 2017, Authorization – Barry mine camp wastewater treatment.
- MELCC: January 25, 2018, COA – Mining of 1.20 Mt of ore via underground and open pit methods.
- MELCC: April 13, 2018, Authorization – Withdrawal and treatment of drinking water at the Barry mine camp.
- MELCC: June 20, 2019, Authorization – Use of waste rock as Barry aggregate.

The main authorizations to be obtained (non-exhaustive list) are as follows:

- COMEX: Amendment to the Environment Impact Assessment – Increase operations at the Barry site to 2.0 Mt ore.
- MELCC: Approval – Increased processing capacity of the Bachelor Plant and TMF expansion (to process 5.00 Mt from the Barry mine at the Bachelor Plant).
- MELCC: Authorization – Increased operations at the Barry site to 2.0 Mt ore.
- MERN: Update of the Barry Site Restoration Plan for the increase in tonnage.
- MERN: Approval of the intended site for the waste rock pile, including a geological condemnation report, and geotechnical testing.
- MFFP: Forestry permits for clearing of the new waste rock pile.

20.3 Waste and Tailings Disposal, Site Monitoring, and Water Management

This section provides an overview of the main requirements and plans for waste, tailing, and water management on the Barry and Bachelor properties. As technical studies progress, the preliminary requirements will be further detailed and optimized as required.

20.3.1 Waste Rock Management

20.3.1.1 Barry Site

The Barry open pit project will generate approximately 10.8 Mt (5.4 Mm^3) of waste rock. Two waste rock piles are present on the Barry property:

- Waste rock pile No. 1, which has a remaining capacity of approximately 0.3 Mm^3 (at a maximum height of 15 m).
- Waste rock pile No. 2, which has received approximately 10,000 m^3 of waste rock, and is authorized for a total storage of 4.0 Mt (2.0 Mm^3) (at a maximum height of 15 m).

Additional waste rock storage capacity will be required to accommodate the development of the open pits on the Barry property. A third waste rock pile is proposed on the east side of the open pit area, along the access road. This pile would cover an area of 313,100 m^2 and reach a maximum height of 15 m. A total of 4.17 Mm^3 of waste rock will be stored within this pile. Waste rock generated from the Barry mine will be partially used as a building material for the new southern access to the Bachelor property, as well as for the construction of the Bachelor TMF dikes.

This new waste rock pile would require additional authorizations including an approval of the intended site for the waste rock pile (MERN, Mining Act, art. 241), which requires a geological condemnation report. Geotechnical tests will be required to demonstrate the stability of the waste rock pile in this proposed area. Environmental surveys may be required to understand the current conditions of the area and develop an adequate water management plan for the new waste rock pile.

20.3.2 Ore and Overburden Storage

20.3.2.1 Barry Site

An ore storage area is located near the open pit on the Barry property. This storage area will be used temporarily during future operations for loading trucks transporting ore to the Bachelor Plant.

Overburden removed during the exploration and operation phases was deposited in two piles. This overburden will be used for the restoration of the Barry property.

20.3.2.2 Bachelor Site

Three new temporary Barry ore piles will be developed on the Bachelor property. The development will require the northward expansion of the complex. The grade will be directed towards the Bachelor TMF to channel drainage in this area.

20.3.3 Water Management

20.3.3.1 Bachelor Site

20.3.3.1.1 Processing Plant

As the Bachelor Plant underwent a major conversion in 2011 to the CIP process, the proposed amendments do not involve a change in the recovery process, but only an expansion of the processing plant to process ore from the Barry property.

Ore from the Barry and Bachelor properties will be processed alternately, so ore will need to be stored at its respective sites and processed over periods of several days.

20.3.3.1.2 Tailings Management Facility

Tailings management on the Bachelor property will transition from dry tailings stacking to an optimized hybrid approach that combines conventional and dry tailings stacking methods, which will allow for the valorization of tailings as dike construction material. The proposed concept ensures that the expansion of the Bachelor TMF remains within the same watershed.

Reconfiguration of the Bachelor TMF will be undertaken. The TMF area will be enlarged into a single cell, so that only two cells will ultimately be present on the Bachelor property.

Regarding water basins, a south basin is to be built and will serve as a water recirculation basin for the Bachelor Plant, while a north basin will act as a sedimentation basin to ensure polishing before final discharge.

20.3.3.1.3 Mine Water

Existing facilities for mine water management will not change. Water will continue to be treated in the sedimentation basin. An increase in the volume of mine water under the project is not anticipated as the Moroy deposit underground operation will remain in the existing Bachelor mine dewatering drawdown cone. Exploration work in the targeted area consistently indicates dry conditions.

20.3.3.1.4 Cyanide and Final Effluent

Cyanide used to process ore remains a problematic contaminant for the Bachelor property. Cyanide concentrations increase significantly in the Bachelor TMF in winter due to the absence of UV radiation to destroy cyanides. The installation and optimization of the cyanide destruction plant has made it possible to slightly mitigate this issue by increasing the cyanide treatment period from May to November whereas previously, water could only be discharged to the final effluent before the beginning of July.

In 2010, the process of cyanide destruction using peroxide was investigated as it did not allow the final effluent discharge standards to be met. Copper sulphate must be added to precipitate ferro/ferricyanides and meet the total cyanide discharge standard, however, this results in exceedances of the copper discharge standard. Following pilot tests, Bonterra opted for an ozonation system that achieves discharge standards and reduces the management of chemicals on site. In addition, an ozone system can be started quickly, and unlike the peroxide process the efficiency of the process is not affected by the temperature of the water.

With the present Bachelor project, despite the increase in ore processing capacity and sodium cyanide dosage, Bonterra expects the cyanide concentration in the final effluent to remain unchanged. To offset

this increase and to naturally reduce cyanide concentration, a recirculation basin, upstream of the water treatment plant, will be created to increase the water retention time. A second basin (sedimentation basin) downstream of the water treatment plant will be expanded to increase retention time. The water treatment plant will operate between May and November, and at other times of the year as required. In the event of an increase in processing needs, Bonterra will adjust the Bachelor plant parameters accordingly.

Thought the annual volume of water discharged to the final effluent will not increase, an increase in the concentration of cyanides in the recirculation basin is expected, considering the increase in production from 800 tpd to 1,200 tpd. The rate of natural UV degradation in the new recirculation basin is difficult to estimate based on current data, in part because the UV exposure area will be different. The water management plan provides that 100% of the water containing cyanide will pass through the cyanide destruction plant before being sent to the sedimentation basin and discharged to the final effluent, ensuring effluent compliance.

Regarding the efficiency of the treatment system during the winter period, Ozocan Corporation (2010) reported that the speed of cyanide oxidation by ozone is not significantly affected by water temperature. In addition, tests carried out by ASDR in winter (March 2018) demonstrated that the system in place can achieve the winter discharge standard. A reduction in the concentration of free cyanides ranging from 89% to 96% and a reduction in total cyanides between 81% to 97% were observed.

20.3.3.1.5 ERO and Final Effluent

The environmental acceptability of a release to the aquatic environment is assessed using a preventive approach based on the use of EROs. The EROs applicable to the final effluent of the Bachelor operations were calculated from the EIA data.

Since obtaining the July 2012 COA for mining and processing of gold ore on the Bachelor property, Bonterra has been closely monitoring the final effluent concentrations to ensure compliance with the EROs. A EROs monitoring report is produced annually. Over the years, Bonterra has taken steps to improve the quality of the effluent, as documented in Cyanco (2008), Ozocan Corporation (2010), and ASDR (2018). Several projects to optimize the water treatment plant have been carried out with the objective of minimizing the concentrations of contaminants in the effluent and thus tending towards the EROs. These efforts will continue with the new project.

Comparing pre 2018 operating data with 2018 to 2019 data, a period when Bachelor operations were reduced, it is noted that the parameters exceeding the concentrations allocated to the effluent according to the revised EROs (COMEX, 2020) are the same as those exceeding the pre-2018 EROs: copper, lead, ammoniacal nitrogen, cyanides, fluorine, nitrates, and nitrites.

The origin of these contaminants was identified in the 2017 EROs annual monitoring report. Copper, lead, and cyanides were identified as coming from the process water, while nitrates and nitrites are from explosives used underground. Fluoride was identified as coming from the ore and ammoniacal nitrogen from the two intermediate effluents.

For the Bachelor project, considering that the volumes of mine water will be similar, but that the quantities of explosives used will increase in proportion to tonnage, it is expected that the concentrations of nitrates, nitrites, and ammonia will increase in the mine water. Measures to optimize explosives management and minimize water contamination are currently in place and will be maintained. Regular monitoring of these elements will make it possible to put in place corrective measures, as necessary.

According to the water management plan, 100% of the tailings pond water will pass through the cyanide destruction plant. Thus, the increase in the total cyanide load from process water can be mitigated. The annual EROs monitoring report demonstrates the correlation between total cyanide concentration and copper concentration, indicating that copper levels can also be controlled by the existing water treatment process. Laboratory tests carried out by ASDR on the ferrocyanate precipitation process indicate a reduction below the detection limit of lead. Thus, this parameter will be controlled by the existing treatment process.

20.3.3.2 Barry Site

20.3.3.2.1 Collector Ditches and Contact Water

Runoff diversion ditches have been built around the Barry property to achieve water segregation. Ditches for the recovery of water that has been in contact with waste rock, ore, and overburden are set up to convey the water to the treatment ponds (settling and polishing).

Water entering the pit and coming from the Barry mine area will be pumped into the central zone (mine water basin). Water in this basin will be pumped to the settling ponds to be discharged to the final effluent or reused for mining activities (drilling). All contact water associated with the operation (dewatering water, and mine site runoff water) will be sent to the ponds for treatment (i.e. settling) before being discharged to the receiving environment.

20.3.3.2.2 Final Effluent

All of the water associated with the operation is sent to the settling and polishing ponds before being discharged by gravity into a ditch through the final effluent spillway. Water from the final effluent then reaches a stream which ultimately enters Lac aux Loutres. The effluent is intermittent, depending on the pumping requirements of the mine.

Bonterra has implemented an environmental procedure for managing non-conformities with the objective of ensuring activities are compliant with legislation and ensuring that corrective and preventive measures are taken in the event of an actual or potential deviation and evaluating the effectiveness of these measures. As part of the operations, if the effluent criteria of Directive 019 are exceeded, Bonterra could temporarily stop pumping or redirect the water to one of the open pits.

20.3.3.2.3 Water Treatment

Ore and waste rock for the expansion do not have any parameters that are different from those of the ore and waste rock already processed. The treatment system will not be modified, water will remain in the two existing ponds (settling and polishing) before being discharged into the environment. Water treatment may be added if the water quality of the final effluent does not meet the permitted concentrations (Directive 019 and Metal Mining Effluent Regulations).

20.3.4 Environmental Monitoring

Bonterra is currently subject to certain monitoring requirements at the Bachelor Mine and submits an annual follow-up report to the MELCC regarding the current conditions of authorization. All these elements will continue to be monitored with this project. Current follow-up points include:

- Final effluent

- Water and sediment quality in the receiving environment
- Groundwater quality
- Intermediate discharge points
- Sanitary water
- Aquatic environment
- Dust emissions and dispersion
- Noise environment
- Residual materials and tailings management
- Drinking water quality
- Human environment

Beyond the current follow-up actions, the following measures are proposed as part of the project:

- Groundwater quality:
  - An adequate groundwater monitoring network, including an optimal number of facilities, will be established.
- Exfiltration water quality:
  - Monitoring of the exfiltration water collection system at the low points of the collection ditches.
  - Bonterra will regularly ensure that the pumping facility conveying exfiltration water to the Bachelor TMF is functional and in good condition.
- Intermediate discharge points:
  - Considering the addition of a water basin to the Bachelor TMF, a new intermediate discharge point will be monitored, specifically the industrial water at the exit of the new recirculation basin before being sent to the treatment plant.
- Geochemistry of ores, waste rock, and tailings:
  - Collection of two Bachelor tailings samples per production cycle, typically 10 days, for PAG analysis and elemental analysis for verification purposes. Adaptation of the sampling program thereafter (after several months) under the supervision of a qualified geochemist.
  - Periodic analysis of Barry tailings (initially one sample per grinding cycle) including PAG to confirm metal leaching (ML) and ARD characteristics and provide a baseline of the overall characteristics of deposited tailings. Adaptation of the sampling program thereafter under the supervision of a qualified geochemist.
  - If the Bachelor tailings have a NPR < 2, the following measures are recommended:
    - ML/ARD characterization of the ore that feeds the Bachelor Plant, in addition to regular tailings analysis.
    - Sampling of representative Bachelor tailings with a NPR < 2 for testing of standard MEND moisture cells (Price, 2009), to determine whether a site-specific NPR threshold for PAG and non-PAG tailings exists between 1 and 2 for these materials. Ore feed management to prevent the production of tailings with NPR < 2 would continue unless a site-specific NPR threshold of less than 2 is confirmed by kinetic testing.

- If Bachelor tailings have a NPR between 2 and 3, submit a representative sample of them for standard moisture cell testing to confirm the non-acidifying character and identify a site-specific NPR threshold.
- Add a monitoring point for the quality of the supernatant in the future recirculation basin, in order to detect any exceedances in metal levels and to make the required adjustments to the treatment of industrial water.

- Aquatic environment and wildlife resource:
  - Some specific mitigation measures formulated for the project involve monitoring the aquatic environment and wildlife resource, as follows:
    - Extend the EEM for mercury to fish livers.
    - In the event that the analysis of the flesh or liver of the fish reveals that the criteria have been exceeded, the information will be communicated to the fishermen of Bachelor Lake.
    - Implement a 24 month follow-up program to assess the presence of animals hunted and trapped near the transport route (i.e., carcasses and documentation of observations by truck drivers). Provide corrective action as needed (e.g., signage).
- Socio-economic benefits:
  - Measures are proposed for the following parameters:
    - Hiring a local workforce (Aboriginal and non-Aboriginal).
    - Integration and retention of the local workforce (Aboriginal and non-Aboriginal).
    - Awarding of contracts to Aboriginal and non-Aboriginal businesses.
- Continuity of land use:
  - The challenge of continuity of land use consists of three main vectors: nuisances (noise and dust), the availability and quality of fauna and flora resources (hunting, trapping, fishing, gathering), and the safety of users (real and perceived). Particular attention will be paid to this issue during meetings with stakeholders, including tallyman and their families, as well as with consultation committees that will be in place (Harmonization Committee and Exchange Committee, or equivalent following the renegotiation of the Agreement). Bonterra will also set up a system for receiving complaints or comments regarding land use. Additionally, the regular maintenance of the transport road will contribute to the continuity of the use of the territory.
- Closure and post-closure:
  - Monitoring and maintenance program during closure and post-closure will be implemented and included to the Reclamation Plan.

20.4 Social and Community Requirements

20.4.1 Information and Consultations Program

In the early phases of the project development, a thorough communications and consultation process was established in 2018 to 2019 with key communities likely to be affected by the project. These communities include the CFNW, Desmaraisville, and the Town of Lebel-sur-Quévillon.

The program aimed at:

- Informing the communities about the project.
- Answering any questions.
- Documenting any concerns, expectations, and recommendations.

Public information meetings were held in Lebel-sur-Quévillon and Desmaraisville. Meetings with selected representatives of Lebel-sur-Quévillon and Desmaraisville also took place. No public information meeting was held initially in the Cree Reserve of Waswanipi, although several attempts were made to organize a public event. A presentation was given to the Council of the Waswanipi Cree First Nation on May 29, 2018 and to some members of the CFNW and other Waswanipi Cree on November 5, 2018. Meetings with targeted CFNW groups were also held with trap masters, youth, women, and an Elder. The trappers who were interviewed were those whose land crosses the Barry-Bachelor transport route. The trap master whose land intersects Bachelor Lake was also consulted. A public presentation of the project in the Waswanipi Cree community was recently held on September 16, 2020 at the CFNW Annual General Meeting.

In addition, Bonterra Resources has been working since 2019 in partnership with Miyuu Kaa, an organization that creates business relationships between the Waswanipi community and several companies in the region. Working in partnership with this organization, Bonterra is able to maintain positive relations with the Cree community and hire Waswanipi staff, in addition to increasing its visibility in the region.

20.4.1.1 Outcomes

The meetings in Desmaraisville did not raise any issues. Lebel-sur-Quévillon stakeholders have expressed expectations of economic benefits. Waswanipi participants have expressed several concerns, questions, expectations, and recommendations. Main concerns raised during the information and consultation program are summarized hereafter:

- Environment:
  - Potential impacts on water bodies and fishing: Concerns were raised about the possible contamination of the Bachelor and Barry lakes that are connected to water bodies important to the Cree as fishing or spawning grounds.
  - Risk of rupture of the waste disposal facility dam at the Bachelor site: Concerns were raised considering the accident at Chapais in 2008.
  - Risk of toxicity from ore processing: Use of cyanides and flotation, which could be dangerous and toxic.
- Nuisances and traffic:
  - Potential disturbances (dust and noise): Concern about trucking noise, traffic, and dust, as well as the cumulative impact with dust emitted by Osisko's operations.
  - Potential safety impacts of high traffic: Concerns about the impact of high traffic on the Barry-Bachelor transport road for users of the territory.
  - Potential impacts of high traffic on land use: Concerns that high traffic along the Barry-Bachelor transport route is having a negative impact on hunting activities. Concern that hunting camps could not be accessed due to obstructions caused by the project.

- Cumulative impacts:
  - Concerns about the cumulative impacts that the project may have with other mining and forestry activities taking place in the region with respect to noise, dust, traffic, and loss of forest cover.
- Project benefits and economical spin-offs:
  - Access Road Improvements: Expectations for improvements to access roads to some Cree encampments and repairs to the Barry-Bachelor transport route following damage by trucks.
  - Jobs and Training Opportunities: Expectations for training, jobs, and contracts for the Cree of Waswanipi. Suggestion that families affected by the project be given priority for jobs. Interest and willingness to work in the transport of ore and road maintenance.
  - Financial compensation: Suggestion of financial compensation to counter the negative impacts of the project on hunting.
- Recommendations or mitigation measures:
  - Environmental Protection: Recommendations for the installation of a fence to protect Barry Lake from overfishing and the use of dust suppressants if non-toxic.
  - Road Safety: Recommendations on:
    - The cessation of truck traffic during certain hunting periods.
    - The imposition of a speed limit on the Barry-Bachelor transport road.
    - Implementation of five metre clearance on each side of the road to improve visibility.
    - Installation of road signs.
    - Warnings to communities before trucks pass.
- Tailings Management:
  - Issue regarding the use of tailings after the closure of the Projects. Suggested dry stacking of tailings so that the Bachelor TMF could serve as a landing site for geese arriving from the south after the closure of the Projects.
  - Use of alternative routes: Suggestions for alternative routes, either for Bonterra or for users of the territory.

20.4.2 Exchange Committee

An exchange committee between Metanor (at the time) and Cree representatives was established in 2011. Its purpose is to inform the communities concerned of activities and to openly discuss concerns and questions. The exchange committee aims to support the Bonterra in the development of its activities in the territory of Eeyou Itschee Baie-James, to ensure better social acceptability and proactive, transparent, and responsible management of the company's activities in collaboration with the community. Its members include representatives from Bonterra, Desmaraisville, and the EIJBRG. The CFNW, having expressed its preference to participate only in the harmonization committee, does not participate in the exchange committee.

20.4.3 Collaborative Agreement

The collaboration agreement (the Agreement) between Bonterra, the CFNW, and the Grand Council of the Crees (Eeyou Istchee) / Cree Nation Government (GCCEI/CNG), signed in September 2012, establishes the basis for the relationship between the parties. The Agreement seeks to ensure the continuity of traditional Cree culture on the traplines, training, employment, and contracting opportunities for the Crees, economic benefits for the GCCEI/CNG and the CFNW, transparency between Bonterra and the PNCW in terms of environmental management and the involvement of the PNCW in the planning of the closure of the sites. Bonterra, the CFNW and the GCCEI/CNG are in the process of renegotiating the Agreement signed in 2012.

20.4.4 Harmonization Committee

The harmonization committee, established by the Agreement, aims to resolve issues or disputes in a mutually acceptable manner and to ensure the implementation, management, and follow-up of the agreed upon solutions. It also plays a role in the tendering process, by designating Cree companies, where possible, up to one third of the invitations for bids, by helping Bonterra consider Cree content, and by examining how Bonterra evaluates certain bids. The harmonization committee is composed of three members of the company, two members of the CFNW and one member of the GCCEI/GNC. Each member counts for one vote.

20.5 Mine Closure Requirements

Reclamation work will be conducted in accordance with the applicable rules of the " Guide de préparation du plan de réaménagement et de restauration des sites miniers au Québec" (MERN, 2017), Directive 019 (MDDEP, 2012) and any other applicable provisions, such as the "Guide d'intervention - Protection des sols et réhabilitation des terrains contaminés" (MELCC, 2019) and the "Règlement sur la protection et la réhabilitation des terrains (c. Q-2, r. 37)".

The remediation and reclamation measures presented are intended to restore the Properties to a satisfactory condition by:

- Eliminating unacceptable health hazards and ensuring public safety.
- Limiting the production and spread of substances that could harm the receiving environment and, in the long term, aiming to eliminate all forms of maintenance and monitoring.
- Restoring the Properties to a visually acceptable condition for the community.
- Restoring the infrastructures sites to a condition compatible with future use.

A remediation plan was approved for the Bachelor property in 2013. In 2021, the Bachelor Mine Site Remediation Plan was updated to include the restoration of new infrastructure planned for the Barry and Moroy ore processing project at the Bachelor Plant. The Bachelor Mine Site Remediation Plan is currently being analyzed by the MERN. Reclamation costs are estimated at $3.6 million for the Bachelor property.

A second revision of the Barry Mine Site Remediation Plan was approved in September 2021. This plan will need to be updated to consider the increase in tonnage proposed.

In September 2021, MERN estimated the cost of restoration at $1,911,240. Bonterra has provided the financial guarantee fund an amount of $1,153,070. The remaining amount ($758,170) must be funded by Bonterra in September 2022 and September 2023.

The new waste rock pile will be larger and the additional cost of restoration is estimated at approximately $500,000. Therefore, the amount placed in the financial guarantee fund will reach approximately $1.2 million.

21.0 CAPITAL AND OPERATING COSTS

The capital and operating costs for the project are presented in the following sections. Input in developing the costs were provided by all participants as outlined in the Technical Report sections and summarized in the following sections. The costs were prepared at a PEA level of detail and accuracy considered to be from ±35% to ±45%.

21.1 Capital Costs

The capital costs for the Barry open pit mining and milling operations are presented in Table 21-1.

Table 21-1: Capital Costs Barry Open Pit Mine
Bonterra Resources Inc. – Barry Open Pit Project

Direct Cost	Cost (C$ 000)
Mining	720
Processing	3,513
Infrastructure	11,145
Tailings - Initial	2,420
Total Direct Cost	**17,798**
Other Costs	
EPCM[1] (Preproduction)	1,043
Owners, Insurance, Freight	1,527
Contingency[2] (Tailings & Process)	1,727
Initial Capital Cost	22,096
Sustaining - Mine / Infrastructure / EPCM	3,190
Tailings - Sustaining	18,098
Reclamation And Closure	6,498
Total Capital Cost	**49,882**

Notes:

1. Engineering, Procurement and Construction Management (EPCM) on process, road construction and tailings.
2. Contingency on Year 1 and Year 2 processing and tailings.

The capital costs for the Barry open pit mining and milling operations are relatively low since surface infrastructure exists on both the Barry and Bachelor properties. Camp facilities and accommodations are available and power is sourced either from Hydro Québec or on-site power generators. EPCM costs are applied to the major capital items including the Bachelor Plant expansion from 800 tpd to 1,200 tpd, upgrading of the haulage road from Barry to Bachelor, and tailings construction work required for the current LOM. Capital costs for mining were kept low as contractor services will be used which includes providing the mining fleet.

Contingency has been applied for the initial capital expenditures in the first year and the processing and tailings costs occurring in year two in preparation for production.

Reclamation and closure costs are based on current estimates for both sites and include a credit for amounts already provided by Bonterra.

21.2 Operating Costs

Operating costs include those for the Barry open pit mining operation and the Bachelor Plant. Additional operating costs include the long distance hauling of the mineralized material to the Bachelor Plant.

Contractors will be used for the Barry open pit mining operations, supply of blasting materials, haulage of mineralized material to the Bachelor Plant, and other minor supplies and services.

The operating costs for the Barry open pit mining operation are summarized in Table 21-2.

Table 21-2: Operating Costs Barry Open Pit Mine
Bonterra Resources Inc. – Barry Open Pit Project

Description	Total Cost (C$000)	Unit Cost (C$/t milled)
Mining (Open Pit)	68,308	33.87
Processing	38,455	19.07
G&A	24,864	12.33
Trucking To Plant	32,264	16.00
Total Operating Cost	163,890	81.27

The breakdown of the mining costs is presented in Table 21-3. Mining operations will be completed by a local mining contractor which is a common practice for small open pit mines. Consumables and operating costs are based on current in-house cost information and provided by various suppliers. Where required, costs were benchmarked with other operations.

Table 21-3: Operating Costs - Mining
Bonterra Resources Inc. – Barry Open Pit Project

Description	Unit	Unit Cost
Labour Costs Mine	C$/t mined	2.60
Equipment Operating	C$/t mined	1.66
Consumables[2]	C$/t mined	0.74
Equipment Ownership	C$/t mined	0.31
Total Mining Cost	C$/t mined	5.31

Processing of the Barry mineralized material will be done at the Bachelor Plant. The breakdown of the processing costs is presented in Table 21-4.

Table 21-4: Operating Costs - Processing
Bonterra Resources Inc. – Barry Open Pit Project

Description	Annual Cost (C$ million/year)	Unit Cost (C$/t milled)
Labour	3.20	7.62
Electrical	0.73	1.74
Reagent	1.54	3.67
Grinding Media and Liners	1.62	3.86
Maintenance Parts	0.92	2.18
Total	8.01	19.07

The costs for the G&A are presented in Table 21-5.

Table 21-5: Operating Costs – General and Administration
Bonterra Resources Inc. – Barry Open Pit Project

Description	Annual Cost (C$000/year)	Unit Cost C$/t milled
Admin and Human Resources	971	2.31
Site Services	3,531	8.41
General	676	1.61
Total	5,178	12.33

Site services include items such as daily room and board, site power, water treatment and others, while general and administrative expenditures include site communications, property taxes, insurance, licences, permits, office supplies, and computer supplies.

Trucking services for the mineralized material from the Barry property to the Bachelor Plant will be completed using a local haulage contractor. The truck haulage costs were estimated based on hauling seven days per week using 42 t capacity trucks. A breakdown of the estimate is provided in Table 21-6. The haulage route is approximately 110 km, one way, and an average speed of 70 km/hr was considered reasonable over the secondary road which arrives directly at the Bachelor property without the necessity of accessing any provincial highway system.

Table 21-6: Operating Costs – Truck Hauling Costs
Bonterra Resources Inc. – Barry Open Pit Project

Description	Annual Cost (C$000/year)	Unit Cost (C$/t milled)
Truck Ownership Costs	932	2.22
Fuel Cost[1]	2,029	4.83
Labour Cost	2,503	5.96
Tire Cost	349	0.83
Maintenance	899	2.14
Total Cost	6,720	16.00

1: Diesel fuel costs assumption of C$1.75/L was used.

SLR recommends that the use of larger capacity haulage units be further considered in future studies to evaluate opportunities to reduce the haulage costs.

22.0 ECONOMIC ANALYSIS

The economic analysis contained in this Technical Report is based on Bonterra's Barry open pit deposit Mineral Resources estimate, economic assumptions, and capital and operating costs provided by Bonterra's technical team, and SLR estimates. All costs in this section are expressed in Canadian dollars (C$) and all measurements are in metric values. Unless otherwise stated, all costs in this section of the Technical Report are expressed without allowance for escalation or currency fluctuation. The exchange rate used in this Technical Report is: US$1 = C$1.33.

This PEA report is preliminary in nature and includes Inferred Mineral Resources which are considered too speculative in nature to be categorized as Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Additional work is required, including diamond drilling to convert Inferred Mineral Resources to Indicated or Measured Mineral Resources. There is no certainty that economic forecasts on which this PEA is based will be realized.

A summary of the key project criteria is provided in the subsequent subsections.

22.1 Economic Criteria

22.1.1 Physicals

- Mine life: 4.8 year LOM (between Q3 2023 and Q2 2028)
- Open Pit operations
    - Total ore tonnes mined: 2.0 Mt at 2.36 g/t Au
    - Overburden tonnes 0.8 Mt
    - Waste rock tonnes: 10.0 Mt
    - Waste stripping ratio 5.4:1
    - Maximum mining rate: 8,000 tpd (ore + waste)
- Processing of Mineral Reserves:
    - Total Ore Feed to Plant: 2.0 Mt
    - Gold grade : 2.36 g/t Au
    - Maximum milling rate: 1,200 tpd
    - Contained Gold: 152,684 oz Au
    - Average LOM Plant Recovery 95%
    - Recovered Gold: 145,050 oz Au

22.1.2 Revenue

- For the purposes of the economic analysis described in this section, revenue is estimated over the LOM with a flat long term price of US$1,600/oz Au (C$2,133/oz Au). SLR considers this price to be aligned with latest industry consensus long term forecast prices.

- Transportation, insurance, and refining charges are estimated at US$5.00/oz Au over the LOM. Payable metals are estimated at 99.0% for gold.
- NSR royalties: Different deposit royalties range between 0.5% and 1.8% NSR. Bonterra has buy back options on two of those royalties amounting to C$1 million and C$2 million, respectively, which have been accounted for in the PEA.
- LOM net revenue is C$290.5 million (after Refining Charges and Royalties).

22.1.3 Capital Costs

- Total initial capital costs total C$22.1 million
- Total sustaining capital costs total C$21.3 million
- Closure costs of C$6.5 million are included in the analysis at the end of the LOM (between years 2028 and 2029).

22.1.4 Operating Costs

- Open Pit mining: C$5.31/t ore mined (C$33.87/t ore milled)
- Processing: C$19.07/t ore milled
- Trucking to plant: C$16.00/t ore milled
- G&A C$12.33/t ore milled
- Total unit operating costs C$81.27/t ore milled
- LOM total operating costs C$163.9 million

22.1.5 Taxation and Royalties

- Taxes were estimated by Raymond Chabot Grant Thornton LLP (RCMP), tax advisor for Bonterra. SLR has relied on RCMP's taxation schedules for the calculation of income and mining taxes applicable to the cash flow.
- Income tax is payable to the Federal Government of Canada, pursuant to the Income Tax Act (Canada). The applicable Federal income tax rate is 15% of taxable income.
- Income tax is payable to the Province of Québec at a tax rate of 11.5% of taxable income.
- Québec Mining Tax: An operator's minimum mining tax, for a fiscal year, is calculated on the mine-mouth output value for all the mines it operates. A tax rate of 1% applies to the first $80 million of the mine-mouth output value and a rate of 4% applies to the excess.
- Royalties: Different deposit royalties range between 0.5% and 1.8% NSR. Refer to subsection 4.6 Royalties of this report for a complete list of the royalties. The cash flow considers, as advised by Bonterra's senior management, the following buy back royalties reduction options:
    - Sandstorm royalty reduction from 3.9% NSR to 1.8% NSR by exercising the option with a US$2.0 million payment assumed in Year 1 of the LOM (2023).
    - Société de développement de la Baie James (SDBJ) royalty and Duval royalty reduction from 2% NSR to 1% NSR each by exercising for each royalty the C$0.5 million payment option assumed in Year 1 of the LOM (2023). Total of C$1 million for both royalties.

22.2 Cash Flow

SLR prepared an LOM unlevered after-tax cash flow model to confirm the economics of the Barry open pit deposit over the LOM (between 2023 and 2028). Economics have been evaluated using the discounted cash flow method by considering annual processed tonnages and gold grade of ore. The associated process recovery, gold prices, operating costs, refining and transportation charges, royalties, and capital expenditures were also considered. The inputs for the cash flow model were provided to SLR by Bonterra's technical teams. The financial model does not consider the following components:

- Financing costs
- Insurance
- Overhead costs for corporate office

SLR has relied on Bonterra and its accounting advisor (Raymond Chabot Grant Thornton LLP) for guidance on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from the Projects. An after-tax cash flow summary is presented in Table 22-1. All costs are in Q1 2022 C$ with no allowance for inflation.

Table 22-1: Barry Open Pit Project After-Tax Cash Flow Summary
Bonterra Resources Inc. – Barry Open Pit Project

		Units	LOM Avg/Total	Yr-1	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7
Gold Price		US$/oz	$1,600	-	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Physicals											
Open Pit Ore Mined		kt	2,016	-	72	420	420	420	420	264	-
Au Grade Mined		g/t	2.36	-	1.97	2.15	2.34	2.24	2.52	2.72	-
Waste		kt	10,838	-	1,573	2,380	2,380	2,280	1,980	245	-
Waste:Ore Ratio		W:O	5.37	-	21.84	5.67	5.67	5.43	4.71	0.93	-
Total Material Mined		kt	12,854	-	1,645	2,800	2,800	2,700	2,400	510	-
Total Ore Processed		**kt**	**2,016**	**-**	**72**	**420**	**420**	**420**	**420**	**264**	**-**
Gold Grade, Processed		**g/t**	**2.36**	**-**	**1.97**	**2.15**	**2.34**	**2.24**	**2.52**	**2.72**	**-**
Contained Gold, Processed		oz	152,684	-	4,562	29,040	31,569	30,260	34,090	23,163	-
Average Recovery, Gold		%	95.0%	-	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	0.0%
Recovered Gold		oz	145,050	-	4,334	27,588	29,991	28,747	32,385	22,004	-
Payable Gold		**oz**	**143,599**	**-**	**4,291**	**27,312**	**29,691**	**28,460**	**32,062**	**21,784**	**-**
Cash Flow											
Gold Gross Revenue	100.0%	C$000s	306,345	-	9,154	58,266	63,340	60,714	68,398	46,473	-
Gross Revenue Before By-Product Credits	**100.0%**	**C$000s**	**306,345**	**-**	**9,154**	**58,266**	**63,340**	**60,714**	**68,398**	**46,473**	**-**
Gold Gross Revenue		C$000s	306,345	-	9,154	58,266	63,340	60,714	68,398	46,473	-
Gross Revenue After By-Product Credits		**C$000s**	**306,345**	**-**	**9,154**	**58,266**	**63,340**	**60,714**	**68,398**	**46,473**	**-**
Mining Cost		C$000s	(68,308)	-	(8,739)	(14,879)	(14,879)	(14,348)	(12,754)	(2,709)	-
Process Cost		C$000s	(38,455)	-	(1,373)	(8,009)	(8,009)	(8,009)	(8,009)	(5,044)	-
Trucking to plant		C$000s	(32,264)	-	(1,152)	(6,720)	(6,720)	(6,720)	(6,720)	(4,232)	-
G&A Cost		C$000s	(24,864)	-	(888)	(5,179)	(5,179)	(5,179)	(5,179)	(3,261)	-
Offsite Transport/Treatment/Refining Cost	$0.01/oz	C$000s	(967)	-	(29)	(184)	(200)	(192)	(216)	(147)	-
Royalties		C$000s	(14,889)	-	(4,002)	(2,135)	(2,320)	(2,224)	(2,506)	(1,703)	-
Subtotal Cash Costs Before By-Product Credits		C$000s	(179,746)	-	(16,183)	(37,106)	(37,308)	(36,672)	(35,383)	(17,095)	-
By-Product Credits		C$000s	-	-	-	-	-	-	-	-	-
Total Cash Costs After By-Product Credits		**C$000s**	**(179,746)**	**-**	**(16,183)**	**(37,106)**	**(37,308)**	**(36,672)**	**(35,383)**	**(17,095)**	**-**
Operating Margin	**41%**	**C$000s**	**126,599**	**-**	**(7,029)**	**21,160**	**26,033**	**24,042**	**33,015**	**29,378**	**-**
Other Admin Expenses (Corporate)		C$000s	-	-	-	-	-	-	-	-	-
EBITDA		**C$000s**	**126,599**	**-**	**(7,029)**	**21,160**	**26,033**	**24,042**	**33,015**	**29,378**	**-**
Depreciation/Amortization Allowance		C$000s	(43,384)	-	(660)	(5,639)	(7,961)	(10,071)	(11,345)	(7,708)	-
Earnings Before Taxes		**C$000s**	**83,215**	**-**	**(7,690)**	**15,522**	**18,072**	**13,972**	**21,670**	**21,670**	**-**
Corporate taxes		C$000s	-	-	-	-	-	-	-	-	
Mining taxes		C$000s	(11,058)	-	(10)	(989)	(2,103)	(2,215)	(4,364)	(1,377)	-
Net Income		**C$000s**	**72,157**	**-**	**(7,699)**	**14,533**	**15,969**	**11,756**	**17,305**	**20,292**	**-**
Non-Cash Add Back - Depreciation/Amortization		C$000s	43,384	-	660	5,639	7,961	10,071	11,345	7,708	-
Working Capital		C$000s	(0)	(37)	(1,137)	(4,671)	(831)	91	(1,006)	7,591	-
Operating Cash Flow		**C$000s**	**115,540**	**(37)**	**(8,176)**	**15,501**	**23,099**	**21,918**	**27,644**	**35,592**	**-**
Initial Capital		C$000s	(22,096)	(1,219)	(20,877)	-	-	-	-	-	-
Sustaining Capital		C$000s	(21,288)	-	-	(7,325)	(6,907)	(7,057)	-	-	-
Closure/Reclamation Capital		C$000s	(6,498)	-	-	-	-	-	-	(2,924)	(3,574)
Total Capital		**C$000s**	**(49,882)**	**(1,219)**	**(20,877)**	**(7,325)**	**(6,907)**	**(7,057)**	**-**	**(2,924)**	**(3,574)**
LOM Metrics											
Economic Metrics											
a) Pre-Tax											
Free Cash Flow		C$000s	**76,717**	(1,255)	(29,043)	9,165	18,295	17,077	32,008	34,045	(3,574)
Adj. Free Cash Flow (Y1)		C$000s	**76,717**	-	(30,298)	9,165	18,295	17,077	32,008	34,045	(3,574)
Cumulative Free Cash Flow		C$000s		-	(30,298)	(21,134)	(2,839)	14,238	46,246	80,291	76,717
NPV @ 5%	5%	C$000s	57,254								
NPV @ 10%	**10%**	**C$000s**	**42,697**								
NPV @ 15%	15%	C$000s	31,665								
IRR before tax		**%**	**49.1%**								
Payback period		**Years**	**3.17**								
b) After-Tax											
Free Cash Flow		C$000s	**65,659**	(1,255)	(29,053)	8,176	16,192	14,861	27,644	32,668	(3,574)
Adj. Free Cash Flow (Y1)		C$000s	**65,659**	-	(30,308)	8,176	16,192	14,861	27,644	32,668	(3,574)
Cumulative Free Cash Flow		C$000s		-	(30,308)	(22,132)	(5,940)	8,921	36,565	69,233	65,659
NPV @ 5%	5%	C$000s	48,261								
NPV @ 10%	**10%**	**C$000s**	**35,291**								
NPV @ 15%	15%	C$000s	25,494								
IRR after tax		**%**	**43.1%**								
Payback period		**Years**	**3.40**								

	Units	LOM Avg/Total	Yr-1	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7
Operating Metrics										
Mine Life	Years	**4.6**								
Maximum Daily OP Mining Rate	t/d mined	**7,964**	-	9,239	8,000	8,000	7,714	6,857	3,540	-
Maximum Daily Processing Rate	t/d milled	**1,249**	-	1,029	1,200	1,200	1,200	1,200	1,837	-
OP Mining Cost	C$ / t ore	**$33.87**	-	121.38	35.43	35.43	34.16	30.37	10.24	-
Processing Cost	C$ / t ore	**$19.07**	-	19.07	19.07	19.07	19.07	19.07	19.07	-
Trucking to Plant	C$ / t ore	**$16.00**	-	16.00	16.00	16.00	16.00	16.00	16.00	-
G&A Cost	C$ / t ore	**$12.33**	-	12.33	12.33	12.33	12.33	12.33	12.33	-
Offsite Transport/Treatment/Refining Cost	C$ / t ore	**$0.48**	-	0.40	0.44	0.48	0.46	0.51	0.55	-
Royalties	C$ / t ore	**$7.38**	-	55.58	5.08	5.52	5.30	5.97	6.44	-
Total Cost	C$ / t ore	**$89.14**	-	224.76	88.35	88.83	87.31	84.25	64.63	-
Sales Metrics										
Au Sales	oz	**143,599**	-	4,291	27,312	29,691	28,460	32,062	21,784	-
Total AISC	C$000s	**207,533**	-	16,183	44,431	44,214	43,728	35,383	20,019	3,574
AISC / oz Au (net of By-Product credit)	C$ / oz Au	**$1,420**	-	3,772	1,627	1,489	1,536	1,104	919	-
Avg. LOM Annual Au Sales	oz / year	**31,140**								

22.3 Cash Flow Analysis

The economic analysis demonstrates that the Barry open pit Mineral Resources are economically viable at a flat gold price of US$1,600/oz Au. The pre-tax internal rate of return (IRR) is 49.1% and the after-tax IRR is 43.1%. The pre-tax net present value (NPV) at a 10% discount rate is C$42.7 million and the after-tax NPV at a 10% discount is C$35.3 million.

The summary of the results of the cash flow analysis is presented in Table 22-2.

Table 22-2: Barry Open Pit Project Cash Flow Analysis
Bonterra Resources Inc. – Barry Open Pit Project

Item	Discount Rate	Units	Value
Pre-tax IRR		**%**	**49.1%**
Pre-tax NPV at 5% discount	5%	C$ million	57.3
Pre-tax NPV at 10% discount	**10%**	**C$ million**	**42.7**
Pre-tax NPV at 15% discount	15%	C$ million	31.7
Pre-Tax Payback		**years**	**3.17**
After-Tax IRR		**%**	**43.1%**
After-Tax NPV at 5% discount	5%	C$ million	48.3
After-Tax NPV at 10% discount	**10%**	**C$ million**	**35.3**
After-tax NPV at 15% discount	15%	C$ million	25.5
After-Tax Payback		**years**	**3.40**

The undiscounted pre-tax cash flow is C$76.7 million, and the undiscounted after-tax cash flow is C$65.7million.

The World Gold Council adjusted operating cost is US$939/oz Au (C$1,252/oz Au). The mine life sustaining capital cost is C$169/oz Au, for an all in sustaining cost of US$1,065/oz Au (C$1,420/oz Au). Mine average annual gold production during the four years of full production is approximately 31,000 oz Au/ year between 2023 and 2027.

22.4 Sensitivity Analysis

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities on after-tax NPV at a 10% discount rate. The following parameters were examined:

- Gold metal price
- Gold head grade
- Gold metallurgical recovery
- Operating costs
- Capital costs (Initial, sustaining, and closure)

After-tax sensitivity over the base case has been calculated for -20% to +20% for gold grade, -4% to +2% for gold recovery, -20% and +25 for gold price, and -15% to +35% for operating costs and capital costs variations to determine the most sensitive parameter of the project. The sensitivities are presented in Table 22-3 and Figure 22-1.

Table 22-3: After-Tax Sensitivity Analysis
Bonterra Resources Inc. – Barry Open Pit Project

	Head Grade (g/t Au)	NPV at 10% (C$000)
80%	1.88	($5,431)
90%	2.12	$14,930
100%	**2.36**	**$35,291**
110%	2.59	$55,651
120%	2.83	$76,012
	Recovery (% Au)	**NPV at 10% (C$000)**
96%	91%	$26,739
98%	93%	$31,015
100%	**95%**	**$35,291**
101%	96%	$37,327
102%	97%	$39,566
	Metal Price (C$/oz Au)	**NPV at 10% (C$000)**
81%	$1,300	($3,007)
91%	$1,450	$16,152
100%	**$1,600**	**$35,291**
113%	$1,800	$60,822
125%	$2,000	$86,354
	Operating Costs (C$/t)	**NPV at 10% (C$000)**
85%	$69.08	$53,023
92.5%	$75.18	$44,157
100%	**$81.27**	**$35,291**
117.5%	$95.50	$14,603
135%	$109.72	($6,085)

	Capital Costs (C$000)	NPV at 10% (C$000)
85%	$42,400	$41,510
92.5%	$46,141	$38,400
100%	**$49,882**	**$35,291**
117.5%	$58,611	$28,034
135%	$67,341	$20,778

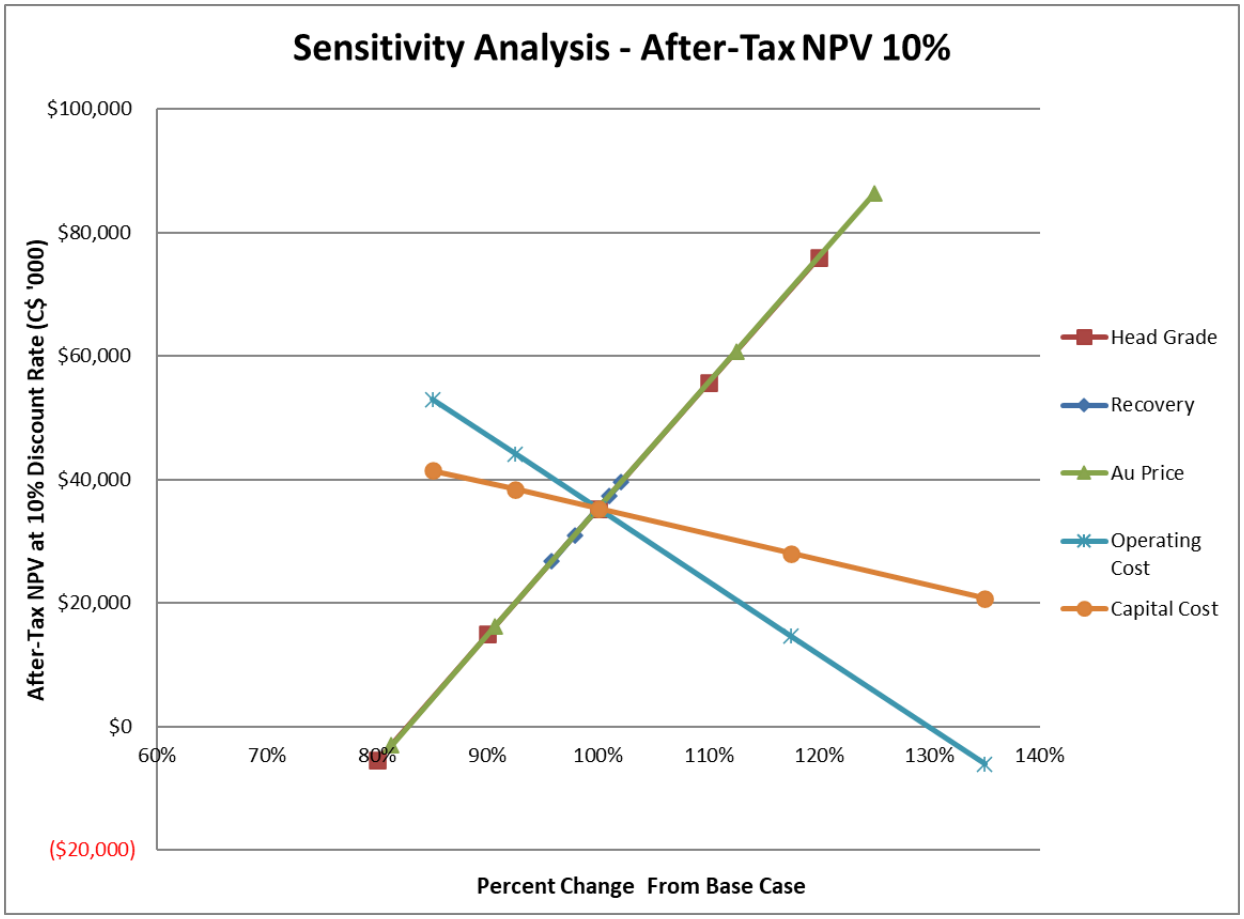


Figure 22-1: After-tax NPV at 10% Sensitivity Analysis

The project is most sensitive to changes in metal prices, head grade, and metallurgical recoveries, followed by operating costs and capital costs.

SLR notes that at current gold spot price of US$1,850/oz of Au, the project's pre-tax IRR is 78.8% and after-tax IRR is 73.2%, pre-tax NPV at a 10% discount rate is C$74.6 million, and after-tax NPV at a 10% discount is C$67.2 million.

23.0 ADJACENT PROPERTIES

The Urban-Barry Property lies within an area of active exploration and development. Of note, the Osisko Windfall deposit lies approximately 12 km northeast of the Barry deposit and eight kilometres northwest of the Gladiator deposit. The following information is summarized from the April 2021 PEA completed over the Windfall deposit and led by BBA (2021).

The Windfall and Urban-Barry properties occur within the UBGB located in the NVZ of the Abitibi geological Subprovince. The UBGB contains mafic to felsic volcanic rock units and is crosscut by several east-trending and east-northeast trending shear zones that delineate major structural domains. The Windfall property is located in the central part of the Urban-Barry Belt and is located between the Urban and Barry Deformation Zones. The Windfall deposit is hosted within the Windfall Member of the Macho Formation, which primarily consists of felsic and intermediate volcanic rocks including tuff and lava units of tholeiitic affinity. In the Windfall deposit area, the stratigraphy trends north-east and dips moderately towards the southeast. Volcanic rocks are intruded by a series of younger quartz-feldspar porphyry dikes, commonly referred to as quartz-feldspar porphyry (QFP) dikes.

At Windfall, the bulk of the gold mineralization is contained in a high grade, gold-rich extensive anastomosed network of quartz-rich and pyrite-rich veins. These are hosted within strongly silicified volcanic rocks. Gold mineralization has a pyrite-rich and silica > sericite-carbonate-tourmaline mineral association zoned outward into erratic to low gold grade. This is associated with sericite > silica-carbonate-tourmaline halos, which in turn passes into an outer, barren chlorite > sericite-rutile zone.

The mineral resource estimate update is separated into four sectors: The Lynx zone, the Main zone, the Underdog zone, and the Triple 8 zone. All zones trend east-northeast and plunge roughly 40°.

As of November 30, 2020, and above a cut-off grade of 3.5 g/t Au, Measured and Indicated Mineral Resource were estimated to total 6.023 Mt at a gold grade of 9.6 g/t Au, and containing 1.857 million ounces (Moz) Au. Inferred Mineral Resources are estimated to total 16.401 Mt at a grade of 8.0 g/t Au and containing 4.244 Moz Au.

The QP has not independently verified this information and this information is not necessarily indicative of the mineralization at the Properties.

24.0 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

Positive PEA results were obtained for the Barry open pit project. An open pit operation at Barry would allow Bonterra to continue to advance plans for the other Properties.

SLR, ASDR, BBA, and Soutex offer the following conclusions by area, for both the Barry open pit project and the other Properties:

25.1 Geology and Mineral Resources

- Mineral Resources are unchanged since the previous Technical Report.
- There is good potential to increase the Mineral Resource base for the Barry, Gladiator, and Moroy underground deposits, and additional exploration and technical studies are warranted.
- There is good understanding of the geology and nature of gold mineralization at the Properties. The deposits are all greenstone-hosted quartz carbonate vein deposits, with individual morphologies, structural controls, and mineralization styles.
- The sample collection, preparation, analytical, and security procedures, as well as the quality assurance/quality control (QA/QC) program as designed and implemented by Bonterra is adequate, and the assay results within the database are suitable for use in Mineral Resource estimation.
- Open pit Mineral Resources are a subset of Mineral Resources across the Properties:
  - Measured and Indicated Barry Mineral Resources amenable to open pit mining are estimated at 1.916 Mt grading 2.68 g/t Au and containing 165,000 oz Au.
  - Inferred Barry open pit Mineral Resources are estimated to total 15,000 tonnes (t) grading 2.36 g/t Au and containing 1,140 oz Au.

25.2 Mining

- Mining is proposed to be carried out by a mining contractor with oversight by owner's personnel.
- Mining will be carried out using conventional mining equipment for drilling, blasting, loading ore and waste material, and haulage of this material to the appropriate stockpile areas located on site.
- The overall slope angle of 45° for the Barry open pit is appropriate for the current level of geotechnical understanding.
- Previous work completed from 2008 to 2010 on a bulk sample of 50,000 t followed by open pit mining activities produced 617,489 t at a grade of 2.2 g/t Au, for a total of 43,682 oz Au and 5,727 oz Ag.
- The PEA results indicate that the Barry open pit Mineral Resources are economically viable with mining completed over a 4.8 year period.
- Mining will consist of extracting approximately 2.02 Mt grading 2.36 g/t Au over the LOM.
- Commencement of Barry open pit mining should be achieved with minimal delay, however, significant waste stripping would be required prior to mining of mineralized material.
- Pumping to dewater the pits and scaling to secure the pit walls will be required as well as removal of some waste material previously placed in the pit.

- Bonterra currently holds mining leases for both open and underground mining.
- Bonterra aims to ramp up mining in 2023, followed by steady state open pit production of mineralized material starting in 2024 once all relevant permits have been received.

25.3 Mineral Processing

- The Bachelor Plant is currently on care and maintenance. Gold recoveries between 2013 and 2018 were reported to be consistently between 96.1% and 97.1%.
- A bulk sample from the Moroy Project was successfully processed in the Bachelor Plant in 2020, under the planning and supervision of Soutex Inc. (Soutex). SLR notes that no further supporting information regarding the representativeness of the bulk sample or the type of mineralization was provided. The test results demonstrated that the Moroy material could be processed at an average feed grade of 3.87 g/t Au to achieve 94.87% gold recovery. The presence of any elements that could have a deleterious effect on gold extraction were not identified.
- Historical metallurgical testing was conducted by various parties between 2011 and 2016. SLR was unable to confirm the representativeness of the metallurgical samples used in the series of test programs conducted for the Barry deposit, and the presence of any elements that could have a deleterious effect on gold extraction were not identified. The best gold recoveries in historical test work were achieved from grinding to a particle size of 80% passing (P_{80}) 75 µm, followed by gravity concentration and cyanidation of gravity tails, which resulted in overall gold recoveries averaging between 93.8% and 94.9%. Two tests performed with a particle size of P_{80} 92 µm and 53 µm resulted in overall gold recoveries of 96.5% and 97.1% respectively. A 95% gold recovery is therefore considered to be more realistic. The QP considers the historical metallurgical testing conducted on the Barry deposit to be preliminary in nature.
- A single composite sample was prepared by ALS Limited (ALS) for the 2018 Gladiator Project metallurgical test program. Details regarding core sample and composite sample preparation, location, or representativeness were not reported by ALS. The presence of any elements that could have a deleterious effect on gold extraction were also not identified. Based on preliminary metallurgical testing, Gladiator mineralization could be processed by a combined gravity and rougher flotation recovery to a bulk concentrate or cyanide leaching of the combined gravity and pan tailing.

25.4 Infrastructure

- As both the Bachelor and Barry sites have had mining and processing activities in a recent past, there are minimal requirements for new infrastructure which will consist primarily in the upgrade of some portions of the 110 km haul road between Barry and Bachelor.
- The Barry site infrastructure upgrades and additions include:
    - Camp and office upgrades
    - Addition of fueling capacity, a wash bay, and some garage and warehousing capacities
    - A small temporary water treatment plant
- The Bachelor site needs a new garage for the loader.

25.5 Costs and Economics

- The economic analysis on the Barry open pit deposit demonstrates that the Mineral Resources are economically viable at a flat gold price of US$1,600/oz Au. The after-tax IRR is 43.1% and the after-tax NPV at a 10% discount rate is US$35.3 million.
- The exchange rate used in this Technical Report is: US$1 = C$1.33.
- The deposit is most sensitive to changes in metal prices, head grade, and metallurgical recoveries, followed by operating costs and capital costs.
- The sensitivity analysis shows that for total operating costs of C$105/t milled the Barry open pit deposit reaches break-even point. Bonterra needs to carefully manage operating costs to avoid costs beyond this limit.

26.0 RECOMMENDATIONS

The PEA results indicate that advancement to the level of Pre-Feasibility Study (PFS) is merited for the Barry open pit project.

SLR, ASDR, BBA, and Soutex offer the following specific recommendations by area:

26.1 Geology and Mineral Resources

1. SLR has reviewed Bonterra's plans for exploration. No further resource drilling is necessary for the Barry open pit project, however, exploration and infill drilling is merited to further assess the potential beyond the open pit mine life. The Barry open pit project provides some time and cash flow to support this drilling.
2. Undertake the following activities to improve the QA/QC data program on the Properties:
    - Prepare quarterly and annual QA/QC reports across the Projects which evaluate longer term trends and contextualize results from the individual properties.
    - Implement a program of 50 to 100 field and coarse duplicate samples, particularly at Gladiator, to help understand the duplicate sample results.
    - Investigate and resolve the low biases observed for all grade ranges at the Bachelor Laboratory and work with Bachelor Laboratory to determine if pulp duplicate and check assay results from Gladiator can be improved with procedural modifications.
3. For the purposes of Mineral Resource estimation, continue efforts to enter all chip sample information into the drill hole database as pseudo-drill holes that span the full width of the face of the development heading and consider modelling mineralization domains using a minimum thickness criterion.
4. Ensure that certificate and sample ID columns are included in the Leapfrog project drill and sample databases in future project work.

26.2 Mining

26.2.1 Geotechnical

1. Collect additional geotechnical data for rock structure, rock mass classification and geomechanical testing to gain a broader understanding of properties of the rock mass over the Barry deposit area.
2. Conduct a thorough geotechnical assessment to confirm the slope geometry and realize any upside potential.

26.2.2 Mining

1. Conduct additional studies to further optimize the Barry open pit drilling patterns.
2. Conduct additional studies to further assess and develop the final location and restoration plan for the waste stockpiles.
3. Consider the use of larger haulage units (>50 t) in future studies and access their impact on haulage costs.

26.3 Mineral Processing

1. Conduct a cyanide leach test to confirm the process design criteria as the next feasibility step.
2. Continue to conduct large scale mill test campaigns when possible and ongoing metallurgical test work programs to better understand metallurgical performance.
3. Conduct further metallurgical testing at the Barry deposit on samples representative of the material to be mined over the life of mine (LOM) plan. Complete mineralogical examinations and comminution testing in conjunction with additional metallurgical testing of the Barry mineralization to confirm the metallurgical response and gold recoveries observed in historical testing.
4. Add a new electric induction smelting furnace to the CIP circuit.

26.4 Infrastructure

1. Conduct geotechnical, hydrogeological, and hydraulic studies to obtain sufficient data to complete the design of the infrastructure.
2. Assess water quality and quantity to be treated from Barry OP operations to finalize water treatment needs and infrastructures.
3. Better develop mining and hauling contractor's role to define more accurately the mine infrastructure needs.

26.5 Environment

1. In June 2020, Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC) issued the new guidelines for the geochemical characterization of ore and mining waste. The number of waste rock samples for each type of lithology required for analysis is quite large. Since the tonnage of waste has increased, it is likely that MELCC will require complementary analysis. In this context, it is recommended that Bonterra begin a complementary geochemical characterization program rapidly. Static testing must be carried out and kinetic testing (humidity cells) would be a very good option.
2. The increased operations at the Barry site for up to 2 Mt of ore extraction to be processed at the Bachelor facilities will generate air emissions and greenhouse gas (GHG). Atmospheric modelling and emission estimates should be completed as soon as possible in order to develop mitigation measures.
3. Additional waste rock storage capacity will be needed to accommodate for the development of the open pits at the Barry site. An opportunity being considered involves merging the existing waste rock piles No. 1 and No. 2 and elevating the combined pile to a maximum height of 30 m. The merged and elevated waste rock pile will also need to be extended south by approximately 190 m. This concept would allow for the storage of additional waste rock mostly within the footprint of currently disturbed areas and would ensure that wetlands and waterbodies in proximity to the Barry site are not overprinted or affected. Moreover, the concept would limit the transport of waste rock further away from the open pits and thus limit GHG emissions. The increase of the height of the waste pile from 15 m to 30 m should have a limited impact on the visual milieu given the considerable distance from local communities.

26.6 Proposed Work Program and Budget

A budget for the above recommendations is summarized in Table 26-1.

Table 26-1: Proposed Budget
Bonterra Resources Inc. – Barry Open Pit Project

Item	Cost (C$000)
PFS on the Barry Open Pit Property	
Geotechnical Drilling	300
Engineering Studies	600
Environmental Studies	100
Metallurgical Testing (cyanide leach test)	25
Social Consultation	75
Subtotal	1,100
Contingency (10%)	100
Total	**1,200**

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28.0 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the Gladiator and Moroy Deposits and the Bachelor Mine and Preliminary Economic Assessment on the Barry Deposit, Northwestern Québec, Canada" with effective date of June 1, 2022 was prepared and signed by the following authors:

(Signed & Sealed) *Varun Bhundhoo*

Dated at Toronto, ON
July 25, 2022

Varun Bhundhoo, ing.
Senior Mining Engineer

(Signed & Sealed) *Normand L. Lecuyer*

Dated at Toronto, ON
July 25, 2022

Normand L. Lecuyer, ing., P.Eng.
Associate Principal Mining Engineer

(Signed & Sealed) *Valerie Wilson*

Dated at Toronto, ON
July 25, 2022

Valerie Wilson, M.Sc., P.Geo.
Supervisor – Geology and Consultant Geologist

(Signed & Sealed) *Guy Saucier*

Dated at Laval, QC
July 25, 2022

Guy Saucier, ing., P.Eng.
Manager Mining and Metals Project Management & Engineering, ASDR Canada Inc.

(Signed & Sealed) *Pierre Roy*

Dated at Québec, QC
July 25, 2022

Pierre Roy, M.Sc., ing., P.Eng.
Senior Metallurgist, Soutex Inc.

(Signed & Sealed) *Luciano Piciacchia*

Dated at Montreal, QC
July 25, 2022

Luciano Piciacchia, Ph.D., ing.
Managing Director Earth and Infrastructure, BBA Inc.

29.0 CERTIFICATE OF QUALIFIED PERSON

29.1 Varun Bhundhoo

I, Varun Bhundhoo, ing., as an author of this report entitled "Technical Report on the Gladiator and Moroy Deposits and the Bachelor Mine and Preliminary Economic Assessment on the Barry Deposit, Northwestern Québec, Canada" with an effective date of June 1, 2022 prepared for Bonterra Resources Inc., do hereby certify that:

1. I am a Senior Mining Engineer with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of the University of Toronto, Lassonde Mineral Engineering Program in 2010 with a B.A.Sc. degree in Mineral Engineering.
3. I am registered as an engineer with Ordre des Ingénieurs du Québec (Reg.# 5048788). I have worked as a mining engineer for a total of 12 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Pit and underground stope optimizations
    - Open pit and underground mine designs.
    - Production and development schedules
    - Financial modelling.
    - Experienced user of Deswik, Whittle, Mine 2-4D and Studio 5D Planner mine design and scheduling software, AutoCAD, and Amine mining software.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I did not visit the Projects.
6. I am responsible for overall preparation of the Technical Report, in particular Sections 1.1.1.2, 1.1.1.5, 1.1.2.2, 1.1.3, 1.2, 1.3.8, 2, 3, 15, 16, 19, 22, 25.2, 25.5, 26.2, 26.6, and relevant references in Section 27 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the Properties that are the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the section of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 25th day of July, 2022.

(Signed and Sealed) ***Varun Bhundhoo***

Varun Bhundhoo, ing.

29.2 Normand L. Lecuyer

I, Normand L. Lecuyer, P.Eng., ing., as an author of this report entitled "Technical Report on the Gladiator and Moroy Deposits and the Bachelor Mine and Preliminary Economic Assessment on the Barry Deposit, Northwestern Québec, Canada" with an effective date of June 1, 2022 prepared for Bonterra Resources Inc., do hereby certify that:

1. I am Associate Principal Mining Engineer with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of Queen's University, Kingston, Canada, in 1976 with a B.Sc. (Hons.) degree in Mining Engineering.
3. I am registered as a Professional Engineer in the provinces of Ontario (Reg. #26055251) and Québec (Reg. #34914). I have worked as a mining engineer for a total of 46 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements.
    - Vice-President Operations for a number of mining companies.
    - Mine Manager at an underground gold mine in Northern Ontario, Canada.
    - Manager of Mining/Technical Services at a number of base-metal mines in Canada and North Africa.
    - Vice-President Engineering at two gold operations in the Abitibi area of Quebec, Canada.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Projects on October 6, 2021.
6. I am responsible for parts of Sections 1.1.1.4, 1.1.2.4, 1.3.10, Sections 1.3.12, 18.3 to 18.4, 18.6, 21, parts of Sections 25.4 and 26.4, and relevant references in Section 27of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this this 25th day of July, 2022.

(Signed and Sealed) ***Normand L. Lecuyer***

Normand L. Lecuyer, P.Eng., ing.

29.3 Valerie Wilson

I, Valerie Wilson, M.Sc., P.Geo., as an author of this report entitled "Technical Report on the Gladiator and Moroy Deposits and the Bachelor Mine and Preliminary Economic Assessment on the Barry Deposit, Northwestern Québec, Canada" with an effective date of June 1, 2022 prepared for Bonterra Resources Inc., do hereby certify that:

1. I am Supervisor – Geology and Consultant Geologist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of the Camborne School of Mines, University of Exeter, UK in 2010 with a master's degree in Mining Geology and a graduate of the University of Victoria, BC in 2006 with a bachelor's degree in Geoscience.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #2113). My work on the Project was completed under the authorization of the Ordres des Geologues du Quebec (OGQ). I have worked as a geologist for a total of 15 years since graduation from my bachelor's degree. My relevant experience for the purpose of the Technical Report is:
    - Exploration geologist on a variety of gold and base metal projects in Canada, Norway, and Sweden.
    - Mineral Resource estimation work and reporting on numerous mining and exploration projects around the world.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Properties from June 14 to 15, 2021.
6. I am responsible for Sections 1.1.1.1, 1.1.2.1, 1.3.1 to 1.3.7, 4 to 12, 14, 25.1, 26.1, and relevant references in Section 27 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have prepared a previous Technical Report dated August 5, 2021 on the Properties that are the subject of this Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the section of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 25th day of July, 2022.

(Signed and Sealed) ***Valerie Wilson***

Valerie Wilson, M.Sc., P.Geo.

Certificate of Qualified Person

I, Guy Saucier, P. Eng., as an author of this report entitled:" Technical Report on the Gladiator and Moroy Deposits and the Bachelor Mine and Preliminary Economic Assessment on the Barry Deposit- Report for 43-101" with an effective date of June 1, 2022, prepared for Bonterra Resources Inc, do hereby certify that:

1 I am currently acting as a consultant as Director Mine and Metals at ASDR, 545, Promenade du Centropolis, suite 201, Laval, QC, Canada, H7T 0A3;

2 I graduated from École Polytechnique, University of Montréal (Montreal, Qc, Canada) with a B. Ing in Geological Engineering in 1983;

3 I am a Senior Geological Engineer, Member of the Ordre des Ingénieurs du Québec (#37711), and a member of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) and PDAC. I have worked as a geological engineer in the mineral industry for 39 years. My technica1 expertise included resources evaluation, projects evaluation and project management. I have been involved in several scoping studies and feasibility studies. I have participated in worldwide projects in gold, rare earths, apatite, base metals, iron, coal, bauxite and industrial minerals;

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

5 I have visited the project Barry and Bachelor properties on June 15th and 16th 2021.

6 I have supervised the development of the technical content and I am responsible of the following sections (parts of Sections 1.1.1.4, 1.1.2.4, 1.3.10, Sections 18.1 to 18.2, parts of Sections 25.4 and 26.4, and relevant references in Section 27);

7 I am independent of the issuer as described in section 1.5 of Regulation NI 43-101;

8 I have no prior involvement with the property that is subject of the Technical Report.

9 I have read Regulation NI 43-101 and the Technical Report has been prepared in compliance with this Regulation.

10 At the effective date of the Technical Report, to the best of my knowledge, information and belief, the part of the Technical Report for which I am responsible (parts of Sections 1.1.1.4, 1.1.2.4, 1.3.10, Sections 18.1 to 18.2, parts of Sections 25.4 and 26.4, and relevant references in Section 27) contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Laval, July 25th 2022

Original signed and sealed

Signed " Guy Saucier "

Guy Saucier, ing.
OIQ # 37711

ASDR Canada Inc.
691, rue Royale
Malartic, QC, J0Y 1Z0
T : 819 757-3039
www.asdr.ca

CERTIFICATE OF QUALIFIED PERSON

PIERRE ROY

I, Pierre Roy, P.Eng. as an author of this report entitled "Technical Report on the Gladiator and Moroy Deposits and the Bachelor Mine and Preliminary Economic Assessment on the Barry Deposit, Nortwestern Québec, Canada with an effective date of June 1, 2022 prepared Bonterra Resources Inc., do hereby certify that:

1. I am currently employed as Senior Metallurgist / Specialist – Mineral Processing for Soutex inc. located at 1990 rue Cyrille-Duquet, Local 204, Québec, Québec, Canada G1N 4K8.
2. I have graduated from Université Laval (Québec, Québec, Canada) with a B.Sc. in Mining Engineering in 1986, and a M.Sc. in Mining in 1989.
3. I am a Professional Engineer registered with the Ordre des ingénieurs du Québec, (OIQ Licence: 45201), Professional Engineer registered with the Professionnal Engineers of Ontario, (PEO Licence: 100110987)
4. I have practiced my profession continuously in the mining industry since my graduation from university. I have been involved in mining operations, engineering and financial evaluations for 32 years. During this time, I have been involved in mineral processing and environmental coordination at Kiena mine for six (6) years and Troilus mine for nine (9) years. I have also worked as consultant for the mineral processing industry for two (2) years at CRM in Québec and with Soutex inc. in Québec for fifteen (15) year. As consultant I have been involved in many projects with Iron, base metals and gold mining sectors.
5. 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.
6. I visited the Lac Bachelor facility from September 8, 2020, to September 11, 2020. The process plant is located at this site and was operating for processing a bulk sample at this moment.
7. I am responsible for Sections 1.1.1.3, 1.1.2.3, 1.3.9, 13, 17, 25.3, 26.3, and relevant references in section 27 of the Technical Report.
8. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
11. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report sections for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 25th day of June,2022

(Signed & Sealed) ***Pierre Roy***

Pierre Roy, P.Eng.

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BBA.CA

CERTIFICATE OF QUALIFIED PERSON

Luciano Piciacchia, P. Eng.

This certificate applies to the NI 43-101 Technical Report on the Gladiator and Moroy Deposits and the Bachelor Mine and Preliminary Economic Assessment on the Barry Deposit, in Northwestern Québec, Canada prepared for Bonterra Resources Inc. issued on July 25th, 2022 (the "Technical Report") with the effective date of June 1st, 2022.

I, Luciano Piciacchia, P. Eng., do hereby certify that:

1. I am an engineer and the director of Waste Management with BBA Inc. located at 2020 Robert-Bourassa Blvd., Suite 300, Montréal, Québec H3A 2A5, Canada.
2. I am a graduate of mining engineering from McGill University in 1981 and a Masters' and Ph.D. focusing in soil and rock geotechnics, also from McGill in 1983 and 1988.
3. I am a member of the order of engineers in, Quebec, Ontario, Newfoundland & Labrador, and British Columbia
4. I have over 35 years of experience in geotechnical engineering with a focus on mining. I have applied my geotechnical / civil background to mine waste management, including waste rock, tailings and water.
5. I have read the definition of "qualified person" set out in the NI 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
7. I am responsible for the preparation of the relevant portions of chapters 1.1.2.5, 1.3.11, 18.5, 20, 26.5, and relevant references in Section 27 of the Technical Report.
8. I personally visited the property that is the subject to the Technical Report on May 3rd, 2022.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.
11. As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.

Signed and sealed this __25__ day of __July__, 2022.

Luciano Piciacchia

Luciano Piciacchia, P. Eng.

30.0 APPENDIX 1

30.1 Land Tenure Claims

Table 30-1: Bachelor-Desmaraisville Land Tenure Claims
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
		100% Bonterra Resources Inc. (99063)		
1	CDC	3285	55.96	14-09-2024
2	CDC	3286	55.96	14-09-2024
3	CDC	3288	55.96	14-09-2024
4	CDC	3289	55.96	14-09-2024
5	CDC	13640	55.89	13-02-2023
6	CDC	13642	55.88	13-02-2023
7	CDC	2092166	55.95	06-12-2024
8	CDC	2092167	55.95	06-12-2024
9	CDC	2092168	55.95	06-12-2024
10	CDC	2092169	55.95	06-12-2024
11	CDC	2092171	55.94	06-12-2024
12	CDC	2092172	55.94	06-12-2024
13	CDC	2092173	55.94	06-12-2024
14	CDC	2092174	55.94	06-12-2024
15	CDC	2092176	55.93	06-12-2024
16	CDC	2092177	55.93	06-12-2024
17	CDC	2092178	55.93	06-12-2024
18	CDC	2092179	55.93	06-12-2024
19	CDC	2092180	55.93	06-12-2024
20	CDC	2092184	55.92	06-12-2024
21	CDC	2092187	55.9	06-12-2024
22	CDC	2092188	55.9	06-12-2024
23	CDC	2092189	55.9	06-12-2024
24	CDC	2092190	55.9	06-12-2024
25	CDC	2092191	55.9	06-12-2024
26	CDC	2092193	55.89	06-12-2024
27	CDC	2092194	55.89	06-12-2024
28	CDC	2092195	55.89	06-12-2024
29	CDC	2092196	55.89	06-12-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
30	CDC	2092197	55.89	06-12-2024
31	CDC	2092198	55.88	06-12-2024
32	CDC	2092199	55.88	06-12-2024
33	CDC	2092200	55.87	06-12-2024
34	CDC	2092283	55.87	06-12-2024
35	CDC	2127524	55.98	10-04-2022
36	CDC	2127525	55.98	10-04-2022
37	CDC	2127526	55.98	10-04-2022
38	CDC	2127527	55.98	10-04-2022
39	CDC	2127528	55.98	10-04-2022
40	CDC	2127529	55.98	10-04-2022
41	CDC	2127530	55.98	10-04-2022
42	CDC	2127531	55.97	10-04-2022
43	CDC	2127532	55.89	10-04-2022
44	CDC	2127533	55.89	10-04-2022
45	CDC	2127534	55.89	10-04-2022
46	CDC	2127535	55.89	10-04-2022
47	CDC	2127536	55.88	10-04-2022
48	CDC	2127537	55.88	10-04-2022
49	CDC	2127538	55.88	10-04-2022
50	CDC	2127539	55.88	10-04-2022
51	CDC	2397575	55.89	16-09-2024
52	CDC	2397576	55.89	16-09-2024
53	CDC	2397577	55.88	16-09-2024
54	CDC	2397578	55.88	16-09-2024
55	CDC	2397579	55.88	16-09-2024
56	CDC	2397580	55.88	16-09-2024
57	CDC	2397581	55.88	16-09-2024
58	CDC	2397582	55.89	16-09-2024
59	CDC	2397583	55.88	16-09-2024
60	CDC	2397584	55.89	16-09-2024
61	CDC	2397585	55.9	16-09-2024
62	CDC	2397586	55.89	16-09-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
63	CDC	2397587	55.9	16-09-2024
64	CDC	2397588	55.9	16-09-2024
65	CDC	2397589	55.89	16-09-2024
66	CDC	2397590	55.88	16-09-2024
67	CDC	2397591	55.91	16-09-2024
68	CDC	2397592	55.91	16-09-2024
69	CDC	2397593	55.9	16-09-2024
70	CDC	2397594	55.9	16-09-2024
71	CDC	2397595	55.9	16-09-2024
72	CDC	2397596	55.89	16-09-2024
73	CDC	2397597	55.9	16-09-2024
74	CDC	2397598	55.96	16-09-2024
75	CDC	2397599	55.96	16-09-2024
76	CDC	2397600	55.96	16-09-2024
77	CDC	2397601	55.96	16-09-2024
78	CDC	2397602	55.96	16-09-2024
79	CDC	2397603	55.95	16-09-2024
80	CDC	2397604	55.95	16-09-2024
81	CDC	2397605	55.95	16-09-2024
82	CDC	2397606	55.95	16-09-2024
83	CDC	2397607	55.95	16-09-2024
84	CDC	2397608	55.95	16-09-2024
85	CDC	2397609	55.95	16-09-2024
86	CDC	2397610	55.95	16-09-2024
87	CDC	2397611	55.95	16-09-2024
88	CDC	2397612	55.95	16-09-2024
89	CDC	2397613	55.95	16-09-2024
90	CDC	2397614	55.94	16-09-2024
91	CDC	2397615	55.94	16-09-2024
92	CDC	2397616	55.94	16-09-2024
93	CDC	2397617	55.94	16-09-2024
94	CDC	2397618	55.94	16-09-2024
95	CDC	2397619	55.94	16-09-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
96	CDC	2397620	55.94	16-09-2024
97	CDC	2397621	55.94	16-09-2024
98	CDC	2397622	55.94	16-09-2024
99	CDC	2397623	55.94	16-09-2024
100	CDC	2397624	55.94	16-09-2024
101	CDC	2397625	55.94	16-09-2024
102	CDC	2397626	55.94	16-09-2024
103	CDC	2397627	55.94	16-09-2024
104	CDC	2397628	55.94	16-09-2024
105	CDC	2397629	55.93	16-09-2024
106	CDC	2397630	55.93	16-09-2024
107	CDC	2397631	55.93	16-09-2024
108	CDC	2397632	55.93	16-09-2024
109	CDC	2397633	55.93	16-09-2024
110	CDC	2397634	55.93	16-09-2024
111	CDC	2397635	55.93	16-09-2024
112	CDC	2397636	55.93	16-09-2024
113	CDC	2397637	55.93	16-09-2024
114	CDC	2397638	55.93	16-09-2024
115	CDC	2397639	55.93	16-09-2024
116	CDC	2397640	55.93	16-09-2024
117	CDC	2397641	55.93	16-09-2024
118	CDC	2397642	55.93	16-09-2024
119	CDC	2397643	55.92	16-09-2024
120	CDC	2397644	55.92	16-09-2024
121	CDC	2397645	55.92	16-09-2024
122	CDC	2397646	55.92	16-09-2024
123	CDC	2397647	55.91	16-09-2024
124	CDC	2397648	55.91	16-09-2024
125	CDC	2397649	55.9	16-09-2024
126	CDC	2397650	55.9	16-09-2024
127	CDC	2397651	55.9	16-09-2024
128	CDC	2397652	55.89	16-09-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
129	CDC	2397653	55.89	16-09-2024
130	CDC	2397654	55.88	16-09-2024
131	CDC	2397655	55.88	16-09-2024
132	CDC	2397656	46.04	16-09-2024
133	CDC	2397657	4.28	16-09-2024
134	CDC	2397658	4.24	16-09-2024
135	CDC	2397659	4.21	16-09-2024
136	CDC	2397660	4.18	16-09-2024
137	CDC	2397661	55.96	16-09-2024
138	CDC	2397662	55.95	16-09-2024
139	CDC	2397663	10.39	16-09-2024
140	CDC	2397664	37.36	16-09-2024
141	CDC	2397665	49.57	16-09-2024
142	CDC	2397666	55.94	16-09-2024
143	CDC	2397667	36.84	16-09-2024
144	CDC	2397668	16.6	16-09-2024
145	CDC	2397669	48.69	16-09-2024
146	CDC	2397670	55.93	16-09-2024
147	CDC	2397671	55.93	16-09-2024
148	CDC	2397672	55.92	16-09-2024
149	CDC	2397673	42.97	16-09-2024
150	CDC	2397674	55.92	16-09-2024
151	CDC	2397675	25.54	16-09-2024
152	CDC	2397676	55.91	16-09-2024
153	CDC	2397677	55.91	16-09-2024
154	CDC	2397678	32.39	16-09-2024
155	CDC	2397679	55.89	16-09-2024
156	CDC	2397680	55.88	16-09-2024
157	CDC	2397681	39.61	16-09-2024
158	CDC	2397682	6.63	16-09-2024
159	CDC	2397683	24.6	16-09-2024
160	CDC	2397684	17.39	16-09-2024
161	CDC	2397685	54.81	16-09-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
162	CDC	2397686	54.69	16-09-2024
163	CDC	2397687	47.39	16-09-2024
164	CDC	2397688	46.83	16-09-2024
165	CDC	2397689	55.81	16-09-2024
166	CDC	2397690	55.96	16-09-2024
167	CDC	2522467	55.98	09-06-2023
168	CDC	2522468	55.98	09-06-2023
169	CDC	2522469	55.98	09-06-2023
170	CDC	2522470	55.98	09-06-2023
171	CDC	2522471	55.98	09-06-2023
172	CDC	2522472	55.98	09-06-2023
173	CDC	2522473	55.97	09-06-2023
174	CDC	2522474	55.97	09-06-2023
175	CDC	2522475	55.97	09-06-2023
176	CDC	2522476	55.97	09-06-2023
177	CDC	2522477	55.97	09-06-2023
178	CDC	2522478	55.97	09-06-2023
179	CDC	2522479	55.97	09-06-2023
180	CDC	2522480	55.97	09-06-2023
181	CDC	2522481	55.97	09-06-2023
182	CDC	2522482	55.97	09-06-2023
183	CDC	2522483	55.97	09-06-2023
184	CDC	2547817	17.65	12-08-2023
185	CDC	2547818	17.54	12-08-2023
186	CDC	2550900	55.87	14-01-2024
187	CDC	2550901	55.87	14-01-2024
188	CDC	2550902	55.87	14-01-2024
189	CDC	2550903	55.87	14-01-2024
190	CDC	2550904	55.87	14-01-2024
191	CDC	2550905	55.87	14-01-2024
192	CDC	2550906	55.87	14-01-2024
193	CDC	2550907	55.87	14-01-2024
194	CDC	2550908	55.87	14-01-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
195	CDC	2550909	55.87	14-01-2024
196	CDC	2550910	55.87	14-01-2024
197	CDC	2550911	55.87	14-01-2024
198	CDC	2550912	55.86	14-01-2024
199	CDC	2550913	55.86	14-01-2024
200	CDC	2550914	55.86	14-01-2024
201	CDC	2550915	55.86	14-01-2024
202	CDC	2550916	55.86	14-01-2024
203	CDC	2550917	55.86	14-01-2024
204	CDC	2550918	55.86	14-01-2024
205	CDC	2550919	55.86	14-01-2024
206	CDC	2550920	55.86	14-01-2024
207	CDC	2550921	55.86	14-01-2024
208	CDC	2550922	55.86	14-01-2024
209	CDC	2550923	55.86	14-01-2024
210	CDC	2550924	55.85	14-01-2024
211	CDC	2550925	55.85	14-01-2024
212	CDC	2550926	55.85	14-01-2024
213	CDC	2550927	55.85	14-01-2024
214	CDC	2550928	55.85	14-01-2024
215	CDC	2550929	55.85	14-01-2024
216	CDC	2550930	55.85	14-01-2024
217	CDC	2550931	55.85	14-01-2024
218	CDC	2550932	55.85	14-01-2024
219	CDC	2550933	55.85	14-01-2024
220	CDC	2550939	55.9	14-01-2024
221	CDC	2550940	55.9	14-01-2024
222	CDC	2550941	55.9	14-01-2024
223	CDC	2550942	55.9	14-01-2024
224	CDC	2550943	55.89	14-01-2024
225	CDC	2550944	55.89	14-01-2024
226	CDC	2550945	55.89	14-01-2024
227	CDC	2550946	55.89	14-01-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
228	CDC	2550947	55.88	14-01-2024
229	CDC	2550948	55.88	14-01-2024
230	CDC	2550949	55.88	14-01-2024
231	CDC	2550950	55.88	14-01-2024
232	CDC	2550951	55.87	14-01-2024
233	CDC	2550952	55.87	14-01-2024
234	CDC	2550953	55.85	14-01-2024
235	CDC	2550954	55.85	14-01-2024
236	CDC	2555319	13.36	13-02-2024
237	CDC	2555320	46.2	13-02-2024
238	CDC	2555321	20.4	13-02-2024
239	CDC	2555322	10.94	13-02-2024
240	CDC	2555323	48.21	13-02-2024
241	CDC	2555324	9.72	13-02-2024
242	CDC	2568381	55.99	06-11-2023
243	CDC	2568382	55.99	06-11-2023
244	CDC	2568383	55.99	06-11-2023
245	CDC	2568384	55.98	06-11-2023
246	CDC	2568385	55.98	06-11-2023
247	CDC	2568386	55.98	06-11-2023
248	CDC	2568387	55.98	06-11-2023
249	CDC	2568388	55.98	06-11-2023
250	CDC	2568389	55.97	06-11-2023
251	CDC	2568390	55.97	06-11-2023
252	CDC	2568391	55.97	06-11-2023
253	CDC	2568392	55.97	06-11-2023
254	CDC	2568393	55.97	06-11-2023
255	CDC	2568394	55.97	06-11-2023
256	CDC	2568395	55.96	06-11-2023
257	CDC	2568396	55.96	06-11-2023
258	CDC	2568397	55.96	06-11-2023
259	CDC	2568398	55.96	06-11-2023
260	CDC	2568399	55.96	06-11-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
261	CDC	2568400	55.96	06-11-2023
262	CDC	2568401	55.96	06-11-2023
263	CDC	2568402	55.96	06-11-2023
264	CDC	2568403	55.96	06-11-2023
265	CDC	2568404	55.96	06-11-2023
266	CDC	2568405	55.96	06-11-2023
267	CDC	2568406	55.96	06-11-2023
268	CDC	2568407	55.96	06-11-2023
269	CDC	2568408	55.96	06-11-2023
270	CDC	2568409	55.96	06-11-2023
271	CDC	2568410	55.96	06-11-2023
272	CDC	2568411	55.96	06-11-2023
273	CDC	2568412	55.96	06-11-2023
274	CDC	2568413	55.95	06-11-2023
275	CDC	2568414	55.95	06-11-2023
276	CDC	2568415	55.76	06-11-2023
277	CDC	2568416	55.75	06-11-2023
278	CDC	2568417	55.75	06-11-2023
279	CDC	2568418	55.75	06-11-2023
280	CDC	2568419	55.75	06-11-2023
281	CDC	2568420	55.75	06-11-2023
282	CDC	2568421	55.75	06-11-2023
283	CDC	2568422	55.75	06-11-2023
284	CDC	2568423	55.74	06-11-2023
285	CDC	2568424	55.74	06-11-2023
286	CDC	2568425	55.74	06-11-2023
287	CDC	2568426	55.74	06-11-2023
288	CDC	2568427	55.74	06-11-2023
289	CDC	2568428	55.74	06-11-2023
290	CDC	2568429	55.74	06-11-2023
291	CDC	2568430	55.73	06-11-2023
292	CDC	2568431	55.73	06-11-2023
293	CDC	2568432	55.73	06-11-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
294	CDC	2568433	55.73	06-11-2023
295	CDC	2568434	55.73	06-11-2023
296	CDC	2568435	55.73	06-11-2023
297	CDC	2568436	55.73	06-11-2023
298	CDC	2568437	55.73	06-11-2023
299	CDC	2568584	55.76	06-11-2023
300	CDC	2568585	55.75	06-11-2023
301	CDC	2568586	55.75	06-11-2023
302	CDC	2568587	55.74	06-11-2023
303	CDC	2568588	55.73	06-11-2023
304	CDC	2568589	55.77	06-11-2023
305	CDC	2568590	55.77	06-11-2023
306	CDC	2568591	55.76	06-11-2023
307	CDC	2568592	55.76	06-11-2023
308	CDC	2568593	55.76	06-11-2023
309	CDC	2568594	55.76	06-11-2023
310	CDC	2568595	55.76	06-11-2023
311	CDC	2568596	55.76	06-11-2023
312	CDC	2568597	55.76	06-11-2023
313	CDC	2568598	55.76	06-11-2023
314	CDC	2568599	55.76	06-11-2023
315	CDC	2568600	55.76	06-11-2023
316	CDC	2568601	55.76	06-11-2023
317	CDC	2568602	55.76	06-11-2023
318	CDC	2568603	55.75	06-11-2023
319	CDC	2568604	55.75	06-11-2023
320	CDC	2568605	55.75	06-11-2023
321	CDC	2568606	55.75	06-11-2023
322	CDC	2568607	55.75	06-11-2023
323	CDC	2568608	55.75	06-11-2023
324	CDC	2568609	55.75	06-11-2023
325	CDC	2568610	55.74	06-11-2023
326	CDC	2568611	55.74	06-11-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
327	CDC	2568612	55.74	06-11-2023
328	CDC	2568613	55.74	06-11-2023
329	CDC	2568614	55.74	06-11-2023
330	CDC	2568615	55.74	06-11-2023
331	CDC	2568616	55.74	06-11-2023
332	CDC	2568617	55.73	06-11-2023
333	CDC	2568618	55.73	06-11-2023
334	CDC	2568619	55.73	06-11-2023
335	CDC	2568620	55.73	06-11-2023
336	CDC	2568621	55.73	06-11-2023
337	CDC	2568622	55.73	06-11-2023
338	CDC	2568623	55.73	06-11-2023
339	CDC	2568669	55.73	06-11-2023
340	CDC	2568670	55.8	06-11-2023
341	CDC	2568671	55.8	06-11-2023
342	CDC	2568672	55.8	06-11-2023
343	CDC	2568673	55.8	06-11-2023
344	CDC	2568674	55.8	06-11-2023
345	CDC	2568675	55.79	06-11-2023
346	CDC	2568676	55.79	06-11-2023
347	CDC	2568677	55.79	06-11-2023
348	CDC	2568678	55.79	06-11-2023
349	CDC	2568679	55.79	06-11-2023
350	CDC	2568680	55.78	06-11-2023
351	CDC	2568681	55.78	06-11-2023
352	CDC	2568682	55.78	06-11-2023
353	CDC	2568683	55.78	06-11-2023
354	CDC	2568684	55.78	06-11-2023
355	CDC	2568685	55.78	06-11-2023
356	CDC	2568686	55.78	06-11-2023
357	CDC	2568687	55.77	06-11-2023
358	CDC	2568688	55.77	06-11-2023
359	CDC	2568689	55.77	06-11-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
360	CDC	2568690	55.77	06-11-2023
361	CDC	2568691	55.77	06-11-2023
362	CDC	2568692	55.77	06-11-2023
363	CDC	2568693	55.77	06-11-2023
364	CDC	2568694	55.76	06-11-2023
365	CDC	2568695	55.76	06-11-2023
366	CDC	2568696	55.76	06-11-2023
367	CDC	2568697	55.76	06-11-2023
368	CDC	2568698	55.75	06-11-2023
369	CDC	2568699	55.75	06-11-2023
370	CDC	2568700	55.75	06-11-2023
371	CDC	2568701	55.75	06-11-2023
372	CDC	2568702	55.74	06-11-2023
373	CDC	2568703	55.74	06-11-2023
374	CDC	2568704	55.74	06-11-2023
375	CDC	2568705	55.74	06-11-2023
376	CDC	2568706	55.73	06-11-2023
377	CDC	2568707	55.73	06-11-2023
378	CDC	2568708	55.73	06-11-2023
379	CDC	2569399	55.8	18-06-2023
380	CDC	2569400	55.8	18-06-2023
381	CDC	2569401	55.79	18-06-2023
382	CDC	2569402	55.79	18-06-2023
383	CDC	2569403	55.78	18-06-2023
384	CDC	2569404	55.78	18-06-2023
385	CDC	2569405	55.78	18-06-2023
386	CDC	2569406	55.78	18-06-2023
387	CDC	2569407	55.77	18-06-2023
388	CDC	2569408	55.77	18-06-2023
389	CDC	2569409	55.76	18-06-2023
390	CDC	2569410	55.76	18-06-2023
391	CDC	2569411	55.75	18-06-2023
392	CDC	2569412	55.75	18-06-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
393	CDC	2569413	55.74	18-06-2023
394	CDC	2569414	55.74	18-06-2023
395	CDC	2569415	55.73	18-06-2023
396	CDC	2569416	55.73	18-06-2023
397	CDC	2569417	31.18	18-06-2023
398	CDC	2569418	55.95	18-06-2023
399	CDC	2569419	55.95	18-06-2023
400	CDC	2569420	55.95	18-06-2023
401	CDC	2569421	55.95	18-06-2023
402	CDC	2569422	55.95	18-06-2023
403	CDC	2569423	55.95	18-06-2023
404	CDC	2569424	55.95	18-06-2023
405	CDC	2569425	55.95	18-06-2023
406	CDC	2569426	55.95	18-06-2023
407	CDC	2569427	55.95	18-06-2023
408	CDC	2569428	8.7	18-06-2023
409	CDC	2577503	15.94	25-08-2023
410	CDC	2577504	54.93	25-08-2023
411	CDC	2577505	46.85	25-08-2023
412	CDC	2577506	30.42	25-08-2023
413	CDC	2577507	9.79	25-08-2023
414	CDC	2577508	4.33	25-08-2023
415	CDC	2577509	0.71	25-08-2023
416	CDC	2577510	30.9	25-08-2023
417	CDC	2577511	55.64	25-08-2023
418	CDC	2577512	6.66	25-08-2023
419	CDC	2577513	55.55	25-08-2023
420	CDC	2577514	41.7	25-08-2023
421	CDC	2577515	35.72	25-08-2023
422	CDC	2577516	41.14	25-08-2023
423	CDC	2577517	54.72	25-08-2023
424	CDC	2577518	3.73	25-08-2023
425	CDC	2577519	34.1	25-08-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
426	CDC	2577520	6.26	25-08-2023
427	CDC	2577521	0.24	25-08-2023
428	CDC	2577607	55.58	26-08-2023
429	CDC	2577608	47.06	26-08-2023
430	CDC	2577609	55.72	26-08-2023
431	CDC	2577610	45.83	26-08-2023
432	CDC	2577611	42.31	26-08-2023
433	CDC	2577612	52.82	26-08-2023
434	CDC	2577658	38.11	26-08-2023
435	CDC	2577659	17.45	26-08-2023
436	CDC	2577660	9.55	26-08-2023
Subtotal Exploration Claims (100% Bonterra)			**22,779.32**	
437	CM	510	16.08	
Subtotal Mining Concession Claims (CM) (100% Bonterra)			**16.08**	
438	BM	1025	83.5	05-11-2033
Subtotal Mining Lease Claims (BM) (100% Bonterra)			**83.5**	

Nelligan Joint Venture Exploration Claims

30% O3 Mining Inc (101542) 70% Bonterra Resources Inc. (99063)

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
1	CDC	8444	32.36	08-12-2022
2	CDC	8445	43.09	08-12-2022
3	CDC	8448	35.16	08-12-2022
4	CDC	8449	41.8	08-12-2022
5	CDC	8450	41.81	08-12-2022
6	CDC	8451	41.82	08-12-2022
7	CDC	8452	41.83	08-12-2022
8	CDC	8453	41.84	08-12-2022
9	CDC	8454	55.93	08-12-2022
10	CDC	8455	40.18	08-12-2022
11	CDC	8462	36.36	09-12-2022
12	CDC	8463	36.38	09-12-2022
13	CDC	101974	55.98	07-11-2022

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
14	CDC	101975	55.98	07-11-2022
15	CDC	101976	55.98	07-11-2022
16	CDC	101977	55.98	07-11-2022
17	CDC	101978	55.98	07-11-2022
18	CDC	101981	55.98	07-11-2022
19	CDC	101982	55.98	07-11-2022
20	CDC	101983	55.98	07-11-2022
21	CDC	101984	55.98	07-11-2022
22	CDC	101985	55.98	07-11-2022
23	CDC	101986	55.97	07-11-2022
24	CDC	101987	55.97	07-11-2022
25	CDC	101988	55.97	07-11-2022
26	CDC	101989	55.97	07-11-2022
27	CDC	1101735	55.94	22-09-2023
28	CDC	1101736	55.94	22-09-2023
29	CDC	1101737	40.28	22-09-2023
30	CDC	1120075	55.95	17-03-2024
31	CDC	1120076	55.95	17-03-2024
32	CDC	1120077	40.36	17-03-2024
33	CDC	1122639	55.99	28-04-2024
34	CDC	1122640	55.99	28-04-2024
35	CDC	1122641	55.99	28-04-2024
36	CDC	1122642	55.99	28-04-2024
37	CDC	1122643	55.99	28-04-2024
38	CDC	1122644	55.99	28-04-2024
39	CDC	2024521	43.07	11-09-2023
40	CDC	2024522	43.05	11-09-2023
41	CDC	2024523	40.1	11-09-2023
42	CDC	2024524	36.35	11-09-2023
43	CDC	2024525	36.33	11-09-2023
44	CDC	2024526	36.31	11-09-2023
45	CDC	2024527	36.3	11-09-2023
46	CDC	2024528	25.15	11-09-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
47	CDC	2045750	55.97	03-01-2024
48	CDC	2045751	55.97	03-01-2024
49	CDC	2045752	55.97	03-01-2024
50	CDC	2045753	55.97	03-01-2024
51	CDC	2045754	55.97	03-01-2024
52	CDC	2045755	55.97	03-01-2024
53	CDC	2045756	55.96	03-01-2024
54	CDC	2045757	55.96	03-01-2024
55	CDC	2045758	55.96	03-01-2024
56	CDC	2045759	55.96	03-01-2024
57	CDC	2045760	55.96	03-01-2024
58	CDC	2057695	55.95	22-02-2024
Subtotal Nelligan Joint Venture Exploration Claims			**2,880.83**	
Total Bachelor-Desmaraisville Claims			**25,759.67**	

Table 30-2: Urban-Barry Land Tenure Claims
Bonterra Resources Inc. – Gladiator, Barry, and Moroy Deposits, and Bachelor Mine

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
100% Bonterra Resources Inc. (99063)				
1	CDC	2355350	56.37	16-07-2023
2	CDC	2355351	56.37	16-07-2023
3	CDC	2355352	56.37	16-07-2023
4	CDC	2362703	56.48	26-05-2024
5	CDC	2362704	56.48	26-05-2024
6	CDC	2362705	56.47	26-05-2024
7	CDC	2362706	56.47	26-05-2024
8	CDC	2362707	56.47	26-05-2024
9	CDC	2362708	56.47	26-05-2024
10	CDC	2362709	56.48	26-05-2024
11	CDC	2362710	56.47	26-05-2024
12	CDC	2362711	0.88	26-05-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
13	CDC	2362712	13.82	26-05-2024
14	CDC	2362713	13.31	26-05-2024
15	CDC	2362714	0.88	26-05-2024
16	CDC	2362715	3.81	26-05-2024
17	CDC	2362716	3.7	26-05-2024
18	CDC	2362717	4.46	26-05-2024
19	CDC	2362718	3.78	26-05-2024
20	CDC	2362719	5.37	26-05-2024
21	CDC	2362720	4.82	26-05-2024
22	CDC	2362721	0.42	26-05-2024
23	CDC	2362722	17.32	26-05-2024
24	CDC	2362723	2.07	26-05-2024
25	CDC	2362724	16.91	26-05-2024
26	CDC	2362725	2.15	26-05-2024
27	CDC	2362726	0.76	26-05-2024
28	CDC	2362727	47.58	26-05-2024
29	CDC	2362728	2.08	26-05-2024
30	CDC	2362729	45.39	26-05-2024
31	CDC	2362730	2.32	26-05-2024
32	CDC	2366589	56.42	16-04-2023
33	CDC	2366590	56.42	16-04-2023
34	CDC	2366591	56.41	16-04-2023
35	CDC	2366592	56.41	16-04-2023
36	CDC	2366593	56.42	16-04-2023
37	CDC	2366594	56.41	16-04-2023
38	CDC	2366595	56.42	16-04-2023
39	CDC	2366596	56.41	16-04-2023
40	CDC	2369787	56.47	21-08-2023
41	CDC	2369788	56.46	21-08-2023
42	CDC	2369789	56.46	21-08-2023
43	CDC	2369790	56.46	21-08-2023
44	CDC	2369791	56.46	21-08-2023
45	CDC	2369792	56.46	21-08-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
46	CDC	2369793	56.46	21-08-2023
47	CDC	2369794	56.46	21-08-2023
48	CDC	2369795	56.46	21-08-2023
49	CDC	2369796	56.46	21-08-2023
50	CDC	2369797	56.46	21-08-2023
51	CDC	2369798	56.45	21-08-2023
52	CDC	2369799	56.46	21-08-2023
53	CDC	2369800	56.46	21-08-2023
54	CDC	2369801	56.46	21-08-2023
55	CDC	2369802	56.46	21-08-2023
56	CDC	2369803	56.46	21-08-2023
57	CDC	2369804	56.45	21-08-2023
58	CDC	2369805	56.45	21-08-2023
59	CDC	2369806	56.45	21-08-2023
60	CDC	2369807	56.44	21-08-2023
61	CDC	2369808	56.44	21-08-2023
62	CDC	2369809	56.44	21-08-2023
63	CDC	2369810	56.43	21-08-2023
64	CDC	2369811	56.43	21-08-2023
65	CDC	2369812	56.43	21-08-2023
66	CDC	2369813	56.48	21-08-2023
67	CDC	2369814	56.48	21-08-2023
68	CDC	2369815	56.48	21-08-2023
69	CDC	2369816	56.47	21-08-2023
70	CDC	2369817	56.47	21-08-2023
71	CDC	2369818	56.47	21-08-2023
72	CDC	2369819	56.47	21-08-2023
73	CDC	2369820	56.5	21-08-2023
74	CDC	2369821	56.5	21-08-2023
75	CDC	2369822	56.5	21-08-2023
76	CDC	2369823	56.5	21-08-2023
77	CDC	2369824	56.49	21-08-2023
78	CDC	2369825	56.49	21-08-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
79	CDC	2369826	56.49	21-08-2023
80	CDC	2369827	56.49	21-08-2023
81	CDC	2369828	56.49	21-08-2023
82	CDC	2369829	56.49	21-08-2023
83	CDC	2369830	56.49	21-08-2023
84	CDC	2369831	56.48	21-08-2023
85	CDC	2369832	56.48	21-08-2023
86	CDC	2369833	56.47	21-08-2023
87	CDC	2369834	56.47	21-08-2023
88	CDC	2369835	56.5	21-08-2023
89	CDC	2369836	56.5	21-08-2023
90	CDC	2369837	56.5	21-08-2023
91	CDC	2369838	56.49	21-08-2023
92	CDC	2369839	56.49	21-08-2023
93	CDC	2369840	56.49	21-08-2023
94	CDC	2369841	56.44	21-08-2023
95	CDC	2369842	56.47	21-08-2023
96	CDC	2369843	56.51	21-08-2023
97	CDC	2369844	56.5	21-08-2023
98	CDC	2369845	56.49	21-08-2023
99	CDC	2369846	56.49	21-08-2023
100	CDC	2369847	56.48	21-08-2023
101	CDC	2369848	56.47	21-08-2023
102	CDC	2369849	42.94	21-08-2023
103	CDC	2369850	7.6	21-08-2023
104	CDC	2369851	1.41	21-08-2023
105	CDC	2369852	0.03	21-08-2023
106	CDC	2369853	9.66	21-08-2023
107	CDC	2369854	0.23	21-08-2023
108	CDC	2369855	52.32	21-08-2023
109	CDC	2369856	56.41	21-08-2023
110	CDC	2369857	56.39	21-08-2023
111	CDC	2369858	56.41	21-08-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
112	CDC	2369859	30.39	21-08-2023
113	CDC	2369860	30.99	21-08-2023
114	CDC	2369861	55.62	21-08-2023
115	CDC	2369862	42.66	21-08-2023
116	CDC	2369863	43.16	21-08-2023
117	CDC	2369864	55.58	21-08-2023
118	CDC	2369865	27.6	21-08-2023
119	CDC	2369866	2.74	21-08-2023
120	CDC	2369867	46.71	21-08-2023
121	CDC	2369868	52.68	21-08-2023
122	CDC	2369869	52.77	21-08-2023
123	CDC	2369870	31.23	21-08-2023
124	CDC	2369871	46.61	21-08-2023
125	CDC	2369872	52.04	21-08-2023
126	CDC	2369873	52.69	21-08-2023
127	CDC	2369874	17.04	21-08-2023
128	CDC	2369875	10.38	21-08-2023
129	CDC	2369876	41.74	21-08-2023
130	CDC	2369877	51.12	21-08-2023
131	CDC	2369878	51.65	21-08-2023
132	CDC	2369879	38.16	21-08-2023
133	CDC	2369880	56.07	21-08-2023
134	CDC	2369881	39.17	21-08-2023
135	CDC	2369882	54.39	21-08-2023
136	CDC	2369883	8.49	21-08-2023
137	CDC	2369884	53.59	21-08-2023
138	CDC	2369885	39.58	21-08-2023
139	CDC	2369886	54.31	21-08-2023
140	CDC	2369887	46.78	21-08-2023
141	CDC	2369888	55.72	21-08-2023
142	CDC	2369889	8.9	21-08-2023
143	CDC	2369890	54.38	21-08-2023
144	CDC	2369891	56.44	21-08-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
145	CDC	2369892	25.81	21-08-2023
146	CDC	2369893	11.09	21-08-2023
147	CDC	2369894	54.15	21-08-2023
148	CDC	2369895	52.75	21-08-2023
149	CDC	2369896	22.71	21-08-2023
150	CDC	2369897	22.68	21-08-2023
151	CDC	2369898	13.61	21-08-2023
152	CDC	2369899	23.32	21-08-2023
153	CDC	2369900	5.79	21-08-2023
154	CDC	2369901	0.94	21-08-2023
155	CDC	2369902	56.51	21-08-2023
156	CDC	2369903	50.22	21-08-2023
157	CDC	2369904	1.24	21-08-2023
158	CDC	2369905	5.79	21-08-2023
159	CDC	2369906	56.51	21-08-2023
160	CDC	2369907	50.59	21-08-2023
161	CDC	2369908	12.08	21-08-2023
162	CDC	2369909	56.51	21-08-2023
163	CDC	2369910	52.01	21-08-2023
164	CDC	2369911	5.85	21-08-2023
165	CDC	2369912	56.51	21-08-2023
166	CDC	2369913	20.75	21-08-2023
167	CDC	2369914	56.51	21-08-2023
168	CDC	2369915	28.3	21-08-2023
169	CDC	2369916	32.7	21-08-2023
170	CDC	2369917	29.04	21-08-2023
171	CDC	2369918	32.06	21-08-2023
172	CDC	2369919	11.61	21-08-2023
173	CDC	2369920	29.16	21-08-2023
174	CDC	2369921	39.11	21-08-2023
175	CDC	2369922	47.01	21-08-2023
176	CDC	2369923	51.2	21-08-2023
177	CDC	2369924	17.89	21-08-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
178	CDC	2369925	17.14	21-08-2023
179	CDC	2369926	37.55	21-08-2023
180	CDC	2369927	20.69	21-08-2023
181	CDC	2369928	1.91	21-08-2023
182	CDC	2369929	22.16	21-08-2023
183	CDC	2369930	23.53	21-08-2023
184	CDC	2369931	7.54	21-08-2023
185	CDC	2369932	23.43	21-08-2023
186	CDC	2369933	53.09	21-08-2023
187	CDC	2369934	30.91	21-08-2023
188	CDC	2369935	31.61	21-08-2023
189	CDC	2369936	31.87	21-08-2023
190	CDC	2369937	15.34	21-08-2023
191	CDC	2376338	56.46	03-02-2023
192	CDC	2376339	56.48	03-02-2023
193	CDC	2376340	56.48	03-02-2023
194	CDC	2376341	56.48	03-02-2023
195	CDC	2376342	56.48	03-02-2023
196	CDC	2376343	56.48	03-02-2023
197	CDC	2376344	56.47	03-02-2023
198	CDC	2376345	56.47	03-02-2023
199	CDC	2376346	56.47	03-02-2023
200	CDC	2376347	56.47	03-02-2023
201	CDC	2376348	56.47	03-02-2023
202	CDC	2376349	56.48	03-02-2023
203	CDC	2376350	56.47	03-02-2023
204	CDC	2376351	19.22	03-02-2023
205	CDC	2376352	17.01	03-02-2023
206	CDC	2376353	29.39	03-02-2023
207	CDC	2376354	34.31	03-02-2023
208	CDC	2376355	29.38	03-02-2023
209	CDC	2376356	48.93	03-02-2023
210	CDC	2376357	33.03	03-02-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
211	CDC	2376358	56.46	03-02-2023
212	CDC	2376359	29.37	03-02-2023
213	CDC	2376360	56.46	03-02-2023
214	CDC	2376361	29.36	03-02-2023
215	CDC	2376362	29.35	03-02-2023
216	CDC	2376363	50.46	03-02-2023
217	CDC	2376364	29.35	03-02-2023
218	CDC	2376365	50.42	03-02-2023
219	CDC	2376366	17.43	03-02-2024
220	CDC	2376367	48.63	03-02-2023
221	CDC	2376368	14.59	03-02-2023
222	CDC	2376369	35.48	03-02-2023
223	CDC	2376370	1.57	03-02-2023
224	CDC	2376371	7.1	03-02-2023
225	CDC	2376372	52.81	03-02-2023
226	CDC	2376373	1.53	03-02-2023
227	CDC	2376374	48.53	03-02-2023
228	CDC	2376375	0.8	03-02-2023
229	CDC	2376376	28.9	03-02-2023
230	CDC	2382444	56.46	16-11-2023
231	CDC	2382445	56.46	16-11-2023
232	CDC	2382446	56.46	16-11-2023
233	CDC	2382447	56.46	16-11-2023
234	CDC	2382448	56.46	16-11-2023
235	CDC	2382449	56.46	16-11-2023
236	CDC	2382450	56.45	16-11-2023
237	CDC	2382451	56.45	16-11-2023
238	CDC	2382452	56.48	16-11-2023
239	CDC	2382453	56.47	16-11-2023
240	CDC	2382454	56.47	16-11-2023
241	CDC	2382455	56.47	16-11-2023
242	CDC	2382456	56.47	16-11-2023
243	CDC	2382457	56.47	16-11-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
244	CDC	2382458	56.47	16-11-2023
245	CDC	2382459	56.48	16-11-2023
246	CDC	2382460	17.22	16-11-2023
247	CDC	2382461	37.05	16-11-2023
248	CDC	2382462	11.89	16-11-2023
249	CDC	2382463	50.15	16-11-2023
250	CDC	2382464	56.47	16-11-2023
251	CDC	2382465	50.1	16-11-2023
252	CDC	2382466	56.47	16-11-2023
253	CDC	2382467	51.41	16-11-2023
254	CDC	2382468	3.31	16-11-2023
255	CDC	2382469	56.47	16-11-2023
256	CDC	2382470	17.04	16-11-2023
257	CDC	2382471	56.47	16-11-2023
258	CDC	2382472	16.87	16-11-2023
259	CDC	2382473	56.48	16-11-2023
260	CDC	2382474	56.47	16-11-2023
261	CDC	2382475	27.12	16-11-2023
262	CDC	2382476	52.97	16-11-2023
263	CDC	2382477	7.95	16-11-2023
264	CDC	2382478	11.11	16-11-2023
265	CDC	2382479	46.9	16-11-2023
266	CDC	2395537	56.36	05-12-2023
267	CDC	2395538	56.36	05-12-2022
268	CDC	2395539	56.36	05-12-2023
269	CDC	2402572	56.46	14-04-2023
270	CDC	2402573	56.46	14-04-2023
271	CDC	2402574	56.46	14-04-2023
272	CDC	2402575	56.45	14-04-2023
273	CDC	2402576	56.45	14-04-2023
274	CDC	2402577	56.44	14-04-2023
275	CDC	2402578	56.44	14-04-2023
276	CDC	2402579	56.43	14-04-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
277	CDC	2402580	56.43	14-04-2023
278	CDC	2402581	56.42	14-04-2023
279	CDC	2402582	56.42	14-04-2023
280	CDC	2402583	56.42	14-04-2023
281	CDC	2402584	56.42	14-04-2023
282	CDC	2406793	56.45	17-06-2023
283	CDC	2406794	56.45	17-06-2023
284	CDC	2406795	56.45	17-06-2023
285	CDC	2406796	56.45	17-06-2023
286	CDC	2406797	56.45	17-06-2023
287	CDC	2406798	56.45	17-06-2023
288	CDC	2406799	56.44	17-06-2023
289	CDC	2406800	56.44	17-06-2023
290	CDC	2406801	56.44	17-06-2023
291	CDC	2406802	56.44	17-06-2023
292	CDC	2406803	56.44	17-06-2023
293	CDC	2406804	56.43	17-06-2023
294	CDC	2406805	56.43	17-06-2023
295	CDC	2406806	56.43	17-06-2023
296	CDC	2406807	56.43	17-06-2023
297	CDC	2406808	56.42	17-06-2023
298	CDC	2406809	56.5	17-06-2023
299	CDC	2406810	56.5	17-06-2023
300	CDC	2406811	56.5	17-06-2023
301	CDC	2406812	56.49	17-06-2023
302	CDC	2411857	56.54	14-09-2023
303	CDC	2411858	56.54	14-09-2023
304	CDC	2411859	56.54	14-09-2023
305	CDC	2411860	56.53	14-09-2023
306	CDC	2411861	56.53	14-09-2023
307	CDC	2411862	56.53	14-09-2023
308	CDC	2411863	56.53	14-09-2023
309	CDC	2411864	56.53	14-09-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
310	CDC	2411865	56.52	14-09-2023
311	CDC	2411866	56.52	14-09-2023
312	CDC	2411867	56.52	14-09-2023
313	CDC	2411868	56.52	14-09-2023
314	CDC	2411869	56.52	14-09-2023
315	CDC	2411870	56.52	14-09-2023
316	CDC	2411871	56.52	14-09-2023
317	CDC	2412010	56.49	16-09-2023
318	CDC	2412011	56.49	16-09-2023
319	CDC	2412012	56.49	16-09-2023
320	CDC	2412013	56.49	16-09-2023
321	CDC	2412014	56.49	16-09-2023
322	CDC	2412015	56.49	16-09-2023
323	CDC	2412016	56.49	16-09-2023
324	CDC	2412985	56.48	01-10-2023
325	CDC	2412986	56.48	01-10-2023
326	CDC	2412987	56.48	01-10-2023
327	CDC	2412988	56.48	01-10-2023
328	CDC	2412989	56.48	01-10-2023
329	CDC	2412990	56.48	01-10-2023
330	CDC	2431633	56.41	28-07-2024
331	CDC	2431634	56.41	28-07-2024
332	CDC	2431635	56.41	28-07-2024
333	CDC	2431636	56.45	28-07-2024
334	CDC	2431637	56.45	28-07-2024
335	CDC	2435587	56.45	06-01-2024
336	CDC	2435588	56.45	06-01-2024
337	CDC	2436047	56.47	19-01-2023
338	CDC	2436048	56.47	19-01-2023
339	CDC	2436049	56.47	19-01-2023
340	CDC	2436050	56.47	19-01-2023
341	CDC	2436051	56.47	19-01-2023
342	CDC	2436052	56.47	19-01-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
343	CDC	2436053	56.47	19-01-2024
344	CDC	2436054	56.47	19-01-2024
345	CDC	2436055	56.46	19-01-2023
346	CDC	2436056	56.46	19-01-2023
347	CDC	2436057	56.46	19-01-2023
348	CDC	2436058	56.46	19-01-2023
349	CDC	2436059	56.46	19-01-2023
350	CDC	2436060	56.46	19-01-2024
351	CDC	2436061	56.46	19-01-2024
352	CDC	2436062	56.46	19-01-2024
353	CDC	2436063	56.45	19-01-2024
354	CDC	2436064	56.45	19-01-2024
355	CDC	2465045	56.51	02-10-2023
356	CDC	2465046	56.51	02-10-2023
357	CDC	2465047	56.51	02-10-2023
358	CDC	2465048	56.51	02-10-2023
359	CDC	2465049	56.5	02-10-2023
360	CDC	2465050	56.5	02-10-2023
361	CDC	2465051	56.5	02-10-2023
362	CDC	2465052	56.5	02-10-2023
363	CDC	2480171	56.45	20-02-2024
364	CDC	2480172	56.45	20-02-2024
365	CDC	2480173	56.41	20-02-2024
366	CDC	2480174	56.45	20-02-2024
367	CDC	2499642	56.39	10-08-2024
368	CDC	2499649	56.39	10-08-2024
369	CDC	2499650	56.39	10-08-2024
370	CDC	2528684	56.51	05-12-2023
371	CDC	2543550	56.36	22-09-2023
372	CDC	2551147	56.54	16-01-2024
373	CDC	2551148	56.53	16-01-2024
374	CDC	2551149	56.52	16-01-2024
375	CDC	2551150	56.52	16-01-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
376	CDC	2551151	56.52	16-01-2024
377	CDC	2551152	56.51	16-01-2024
378	CDC	2551153	56.51	16-01-2024
379	CDC	2551154	56.51	16-01-2024
Subtotal Exploration Claims (100% Bonterra)			**17,373.65**	
380	BM	886	112.04	26-08-2028
Subtotal Mining Lease Claims (BM) (100% Bonterra)			**112.04**	

Duke Property Joint Venture Exploration Claims
30% Minière Osisko Inc. (98424) and 70% Bonterra Resources inc. (99063)

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (MM-DD-YYYY)
1	CDC	2369502	3.37	12-07-2023
2	CDC	2369503	25.53	12-07-2023
3	CDC	2369504	24.83	12-07-2023
4	CDC	2369505	15	12-07-2023
5	CDC	2369506	56.45	12-07-2023
6	CDC	2369507	56.44	12-07-2023
7	CDC	2369508	0.37	12-07-2023
8	CDC	2369509	1.77	12-07-2023
9	CDC	2369510	4.97	12-07-2023
10	CDC	2369511	56.44	12-07-2023
11	CDC	2369512	4.98	12-07-2023
12	CDC	2387580	56.45	10-11-2023
13	CDC	2387581	56.45	10-11-2023
14	CDC	2387582	56.45	10-11-2023
15	CDC	2387583	56.45	10-11-2023
16	CDC	2387584	56.45	10-11-2023
17	CDC	2387585	56.45	10-11-2023
18	CDC	2387586	56.45	10-11-2023
19	CDC	2387587	56.45	10-11-2023
20	CDC	2387588	56.45	10-11-2023
21	CDC	2387589	56.44	10-11-2023
22	CDC	2387590	56.44	10-11-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
23	CDC	2387591	56.44	10-11-2023
24	CDC	2387592	56.44	10-11-2023
25	CDC	2387593	56.44	10-11-2023
26	CDC	2387594	56.44	10-11-2023
27	CDC	2387595	56.44	10-11-2023
28	CDC	2387596	56.44	10-11-2023
29	CDC	2387597	56.44	10-11-2023
30	CDC	2387598	56.44	10-11-2023
31	CDC	2387599	56.44	10-11-2023
32	CDC	2387600	56.44	10-11-2023
33	CDC	2387603	56.43	10-11-2023
34	CDC	2387604	56.43	10-11-2023
35	CDC	2387605	56.43	10-11-2023
36	CDC	2387606	56.43	10-11-2023
37	CDC	2387607	56.43	10-11-2023
38	CDC	2387608	56.43	10-11-2023
39	CDC	2387609	56.43	10-11-2023
40	CDC	2387610	56.43	10-11-2023
41	CDC	2387611	56.43	10-11-2023
42	CDC	2387620	56.42	10-11-2023
43	CDC	2387621	56.42	10-11-2023
44	CDC	2387622	56.42	10-11-2023
45	CDC	2387623	56.42	10-11-2023
46	CDC	2387624	56.42	10-11-2023
47	CDC	2387625	56.42	10-11-2023
48	CDC	2387633	56.42	10-11-2023
49	CDC	2387634	56.42	10-11-2023
50	CDC	2387650	56.44	10-11-2023
51	CDC	2387651	56.44	10-11-2023
52	CDC	2387652	56.43	10-11-2023
53	CDC	2387653	56.43	10-11-2023
54	CDC	2387656	56.45	10-11-2023
55	CDC	2387663	54.9	10-11-2023

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
56	CDC	2387668	39.58	10-11-2023
57	CDC	2387669	56.43	10-11-2023
58	CDC	2387670	9.54	10-11-2023
59	CDC	2387674	56.42	10-11-2023
60	CDC	2387676	39.24	10-11-2023
61	CDC	2387679	45.34	10-11-2023
62	CDC	2387680	44.58	10-11-2023
63	CDC	2387683	56.42	10-11-2023
64	CDC	2387684	0.65	10-11-2023
65	CDC	2387686	3.49	10-11-2023
66	CDC	2387688	40.4	10-11-2023
67	CDC	2387689	29.34	10-11-2023
68	CDC	2387691	55.67	10-11-2023
69	CDC	2387693	56.47	10-11-2023
70	CDC	2387694	6.04	10-11-2023
71	CDC	2387695	18.77	10-11-2023
72	CDC	2387696	6.01	10-11-2023
73	CDC	2387697	53.14	10-11-2023
74	CDC	2387698	6.32	10-11-2023
75	CDC	2387700	54.93	10-11-2023
76	CDC	2387705	6.36	10-11-2023
77	CDC	2387708	39.41	10-11-2023
78	CDC	2387709	23.47	10-11-2023
79	CDC	2387710	5.05	10-11-2023
80	CDC	2387711	48.5	10-11-2023
81	CDC	2431684	56.45	28-07-2024
Subtotal Duke Property Joint Venture Exploration Claims			**3,589.82**	
Lac Barry Property Joint Venture Exploration Claims **85% Bonterra Resources Inc (99063) 15% Golden Valley Mines and Royalties Ltd (101169)**				
1	CDC	2085189	56.51	22-05-2024
2	CDC	2085190	56.51	22-05-2024
3	CDC	2085191	56.51	22-05-2024
4	CDC	2085554	56.5	23-05-2024

Claim ID	Type of Title	Title No	Area (ha)	Expiry Date (DD-MM-YYYY)
5	CDC	2372375	56.51	13-09-2024
6	CDC	2372376	56.5	13-09-2024
7	CDC	2372377	56.5	13-09-2024
8	CDC	2372378	56.5	13-09-2024
9	CDC	2372379	56.5	13-09-2024
10	CDC	2372380	56.5	13-09-2024
11	CDC	2372381	56.48	13-09-2024
12	CDC	2372382	17.39	13-09-2024
13	CDC	2372383	27.35	13-09-2024
14	CDC	2372384	17.71	13-09-2024
15	CDC	2372385	27.1	13-09-2024
16	CDC	2372386	27.11	13-09-2024
17	CDC	2372387	27.13	13-09-2024
18	CDC	2372388	27.13	13-09-2024
19	CDC	2372389	27.14	13-09-2024
20	CDC	2372390	56.5	13-09-2024
21	CDC	2372391	27.14	13-09-2024
22	CDC	2372392	56.5	13-09-2024
23	CDC	2372393	39.06	13-09-2024
24	CDC	2372394	7.85	13-09-2024
25	CDC	2372395	56.5	13-09-2024
26	CDC	2372396	56.49	13-09-2024
27	CDC	2372397	21	13-09-2024
28	CDC	2372398	56.49	13-09-2024
29	CDC	2372399	49.38	13-09-2024
30	CDC	2372400	3.66	13-09-2024
31	CDC	2372401	56.49	13-09-2024
32	CDC	2372402	7.94	13-09-2024
33	CDC	2372403	56.49	13-09-2024
34	CDC	2372404	56.48	13-09-2024
35	CDC	2372405	4.1	13-09-2024
Subtotal Exploration Claims (100% Golden Valley Mines Ltd.)			**1,431.65**	
Total Urban-Barry Claims			**22,507.07**