2022

MURCHISON MINERALS

Discovering Energy Metals

To Power the Future

CAUTIONARY STATEMENT

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Qualified Persons

The technical information contained in this presentation has been reviewed and approved by John Shmyr, P. Geo., Murchison's VP Exploration, a Qualified Person in accordance with National Instrument NI-43-101.

Forward looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include risks inherent in the exploration and development of mineral deposits, including risks relating to changes in project parameters as plans continue to be redefined including the possibility that mining operations may not commence at the Company's project risks relating to variations in mineral resources, mineral reserves, grade or recovery rates resulting from current exploration and development activities, risks relating to changes in metal prices and the worldwide demand for and supply of base and precious metals, risks related to increased competition in the mining industry generally, risks related to current global financial conditions, uncertainties inherent in the estimation of mineral resources and mineral reserves, access and supply risks, reliance on key personnel, operational risks inherent in the conduct of mining activities, including the risk of accidents, labour disputes, increases in capital and operating costs and the risk of delays or increased costs that might be encountered during the development process, regulatory risks, including risks relating to the acquisition of the necessary licenses and permits, financing, capitalization and liquidity risks, including the risk that the financing necessary to fund the exploration and development activities at the Company's project may not be available on satisfactory terms, or at all, risks related to disputes concerning property titles and interest, and environmental risks. The Company does not undertake to update any forward-looking information that may be made from time to time by the Company or on its behalf, except in accordance with applicable securities laws.

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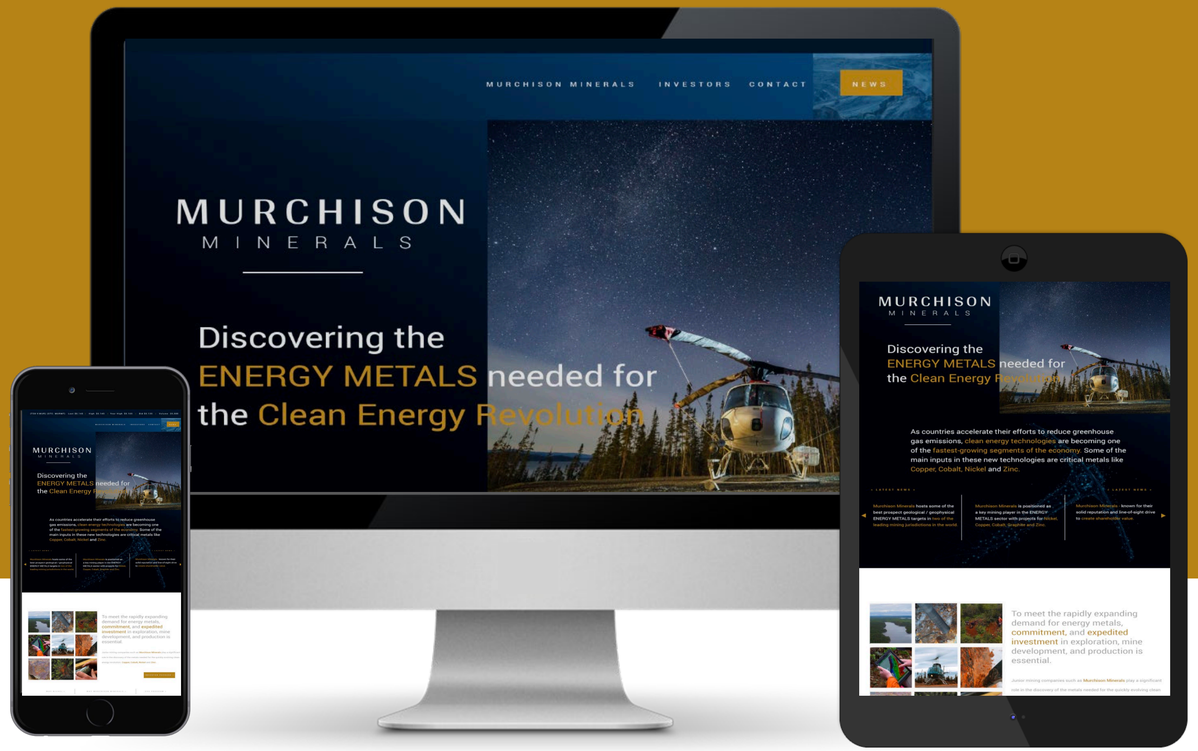

As countries accelerate their efforts to reduce greenhouse gas emissions, clean energy technologies are becoming one of the fastest-growing segments of the economy. Some of the main inputs in these new technologies are critical metals like Copper, Cobalt, Nickel and Zinc.

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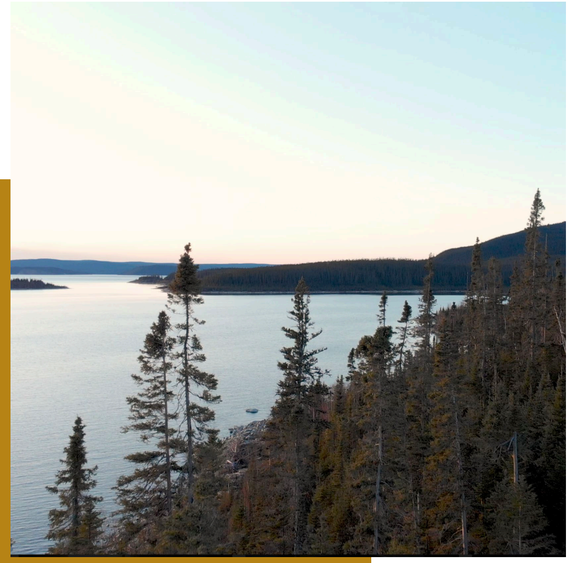

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To meet the rapidly expanding demand for energy metals, commitment, and expedited investment in exploration, mine development, and production is essential. We must look at stable jurisdictions for our future supply.

Junior mining companies such as Murchison Minerals play a significant role in the discovery of metals needed for the quickly evolving clean energy revolution. Copper, Cobalt, Nickel and Zinc

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MURCHISON MINERALS' APPROACH

OUR APPROACH

2022

OUR PROCESS

- Discovery of energy metals in underexplored areas with camp scale potential – within the best mining jurisdictions in the world.
- Establishing a dominant land position.
- Systematically testing targets with the latest technologies, with an eye to advancing projects in the most efficient and cost-effective manner.

OUR PROJECTS

- HPM (Haut-Plateau de la Manicouagan) Ni-Cu-Co project in Quebec
- BMK (Brabant-McKenzie) VMS Zn-Cu-Ag Project in Saskatchewan

OUR PEOPLE

- Highly experienced board with the likes of JC Potvin and Don Johnson.
- Strong shareholder base, where Michael Gentile took the lead on our last financing this past October, where insiders and strategic investors hold approximately 50% of outstanding shares.
- Solid management team with Troy Boisjoli joining the company as CEO-President last fall, John Shmyr being appointed VP of exploration last spring., and Dr. Peter Lightfoot coming on as lead technical advisor for our HPM project.

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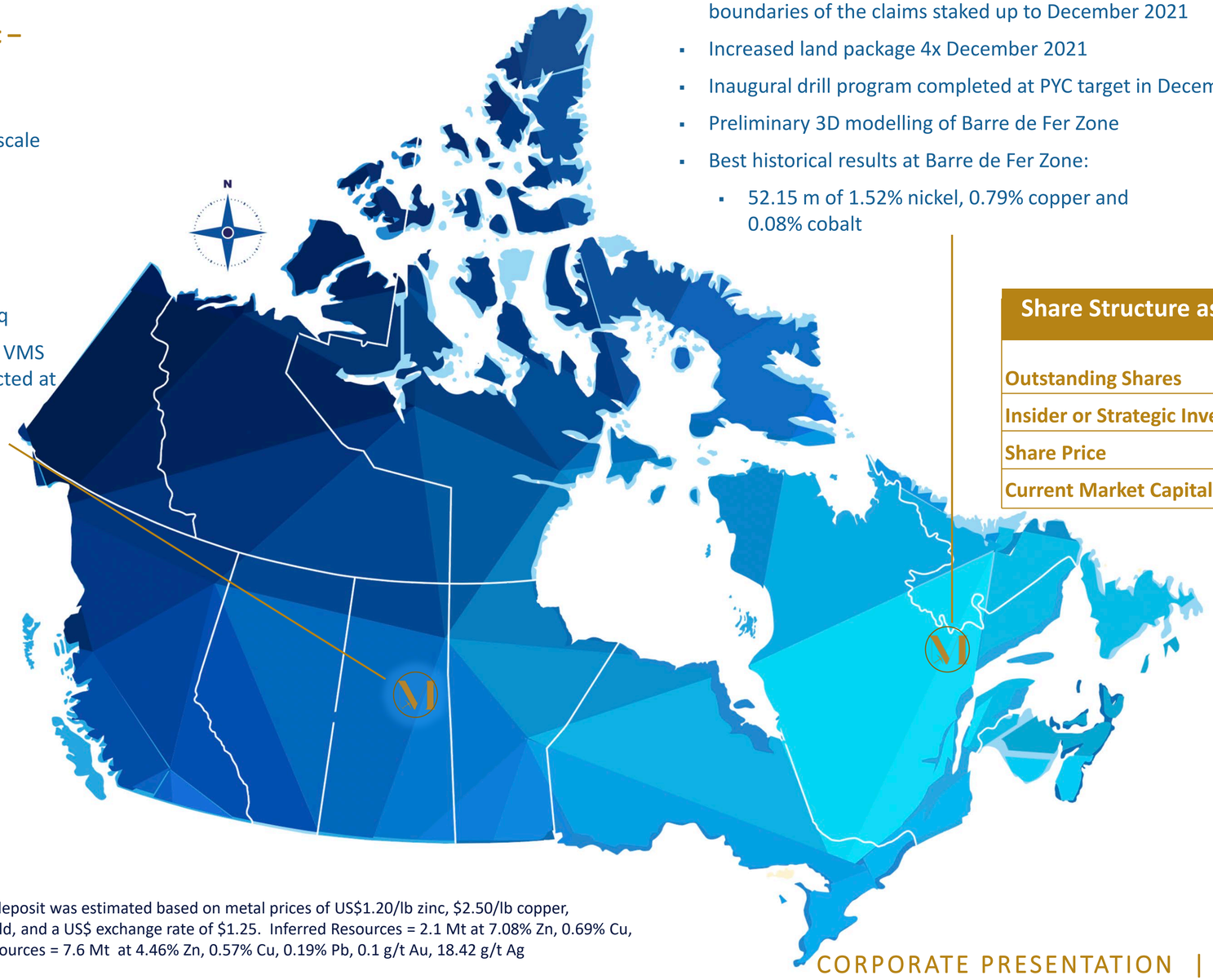
MURCHISON MINERALS' SNAPSHOT

Brabant-McKenzie VMS Deposit – Saskatchewan

- 100% owned
- Dominant land position with camp scale VMS potential
- Year-round road and power access
- Resource (1)
  - Inferred: 7.6 Mt @ 6.29% ZnEq
  - Indicated: 2.1 Mt @ 9.98% ZnEq
- 10 highly prospective VMS targets - VMS style mineralization already intersected at Main Lake and Betty target areas

HPM Ni-Cu-Co Project - Quebec

- 100% owned since 2019
- Dominant land position with camp scale Ni-Cu-Co potential
- Rail access within 8 km of project area, ~225 km to Port of Sept Iles
- Upwards of 50 anomalous EM targets identified within the boundaries of the claims staked up to December 2021
- Increased land package 4x December 2021
- Inaugural drill program completed at PYC target in December 2021
- Preliminary 3D modelling of Barre de Fer Zone
- Best historical results at Barre de Fer Zone:
  - 52.15 m of 1.52% nickel, 0.79% copper and 0.08% cobalt



Share Structure as of April 19th, 2022	
Outstanding Shares	170,178,185
Insider or Strategic Investors	Approximately 50% of O/S
Share Price	CAD $0.115
Current Market Capitalization	$19,750,491

(1) The resource for the Brabant-McKenzie zinc deposit was estimated based on metal prices of US$1.20/lb zinc, $2.50/lb copper, $1.00/lb lead, $16.00/oz silver and $1200/oz/gold, and a US$ exchange rate of $1.25. Inferred Resources = 2.1 Mt at 7.08% Zn, 0.69% Cu, 0.49% Pb, 0.23 g/t Au, 39.6 g/t Ag. Indicated Resources = 7.6 Mt at 4.46% Zn, 0.57% Cu, 0.19% Pb, 0.1 g/t Au, 18.42 g/t Ag

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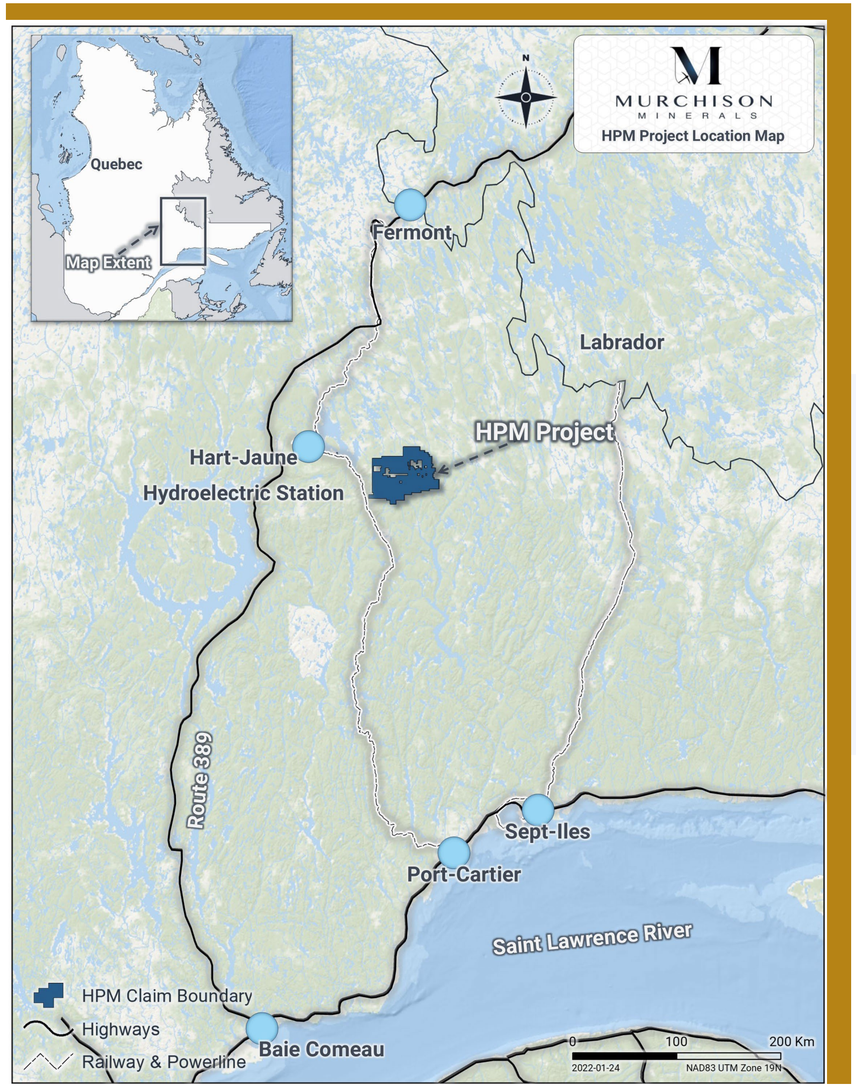
MURCHISON MINERALS' HPM PROJECT

HPM | Quebec

Ni-Cu-Co Project

HPM | 100% Owned | Ni-Cu-Co Project



Project Area

- Located in the Haut-Plateau de la Manicouagan region of Quebec, adjacent to the Manicouagan Impact Structure
- Excellent infrastructure with existing and maintained rail line within 8 km of the project site - direct access to two deep water ports
- Hart-Jaune Hydroelectric Station approximately 30 km from site
- Maintained road west of site - Quebec Route 389
- Project area adjacent to prolific iron mining jurisdiction
- Murchison's claims cover 576 km^2 of highly-prospective geology.
- Project area is currently accessed via helicopter, however, road access is currently being evaluated

HPM | Camp Scale Potential

1. HISTORY:

In 1999 Falconbridge discovers Ni-Cu-Co mineralization. Falconbridge's interest acquired by Pure Nickel who partnered with Murchison's predecessor in 2007, drilling the Barre de Fer deposit in 2008. Murchison acquires 100% interest in 2019

2. GEOLOGICAL SETTING:

Manicouagan Metamorphic Complex is comprised of extensive areas of mafic and ultramafic rock displaying repeated pulses of mafic magma that have intruded sulphide-bearing metasedimentary rocks.

3. PROPERTY SCALE EXPLORATION:

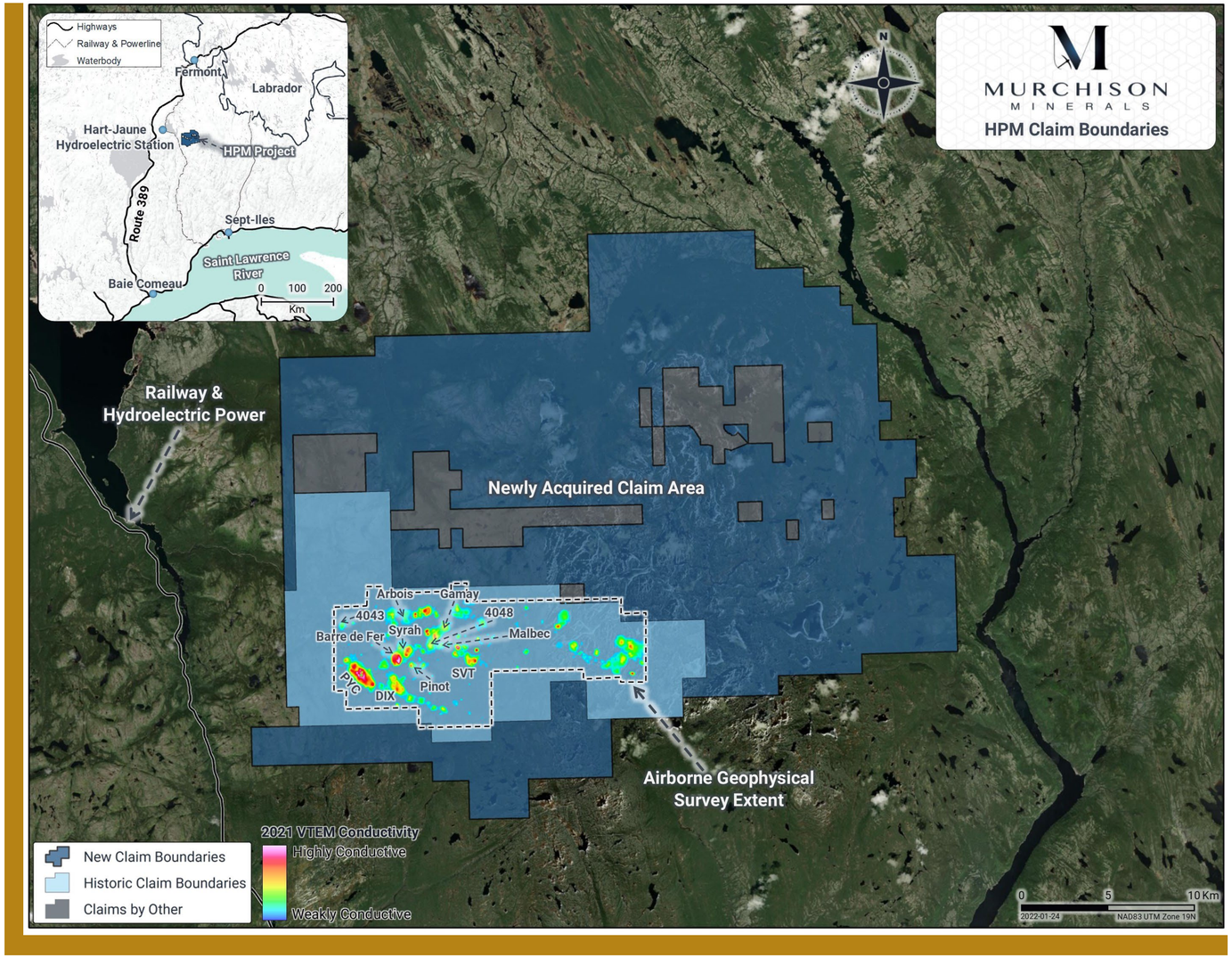
Current VTEM extent only covers historic claims but has already identified over 50 prospective targets. Additional VTEM work will commence in the spring

4. PROSPECTIVITY:

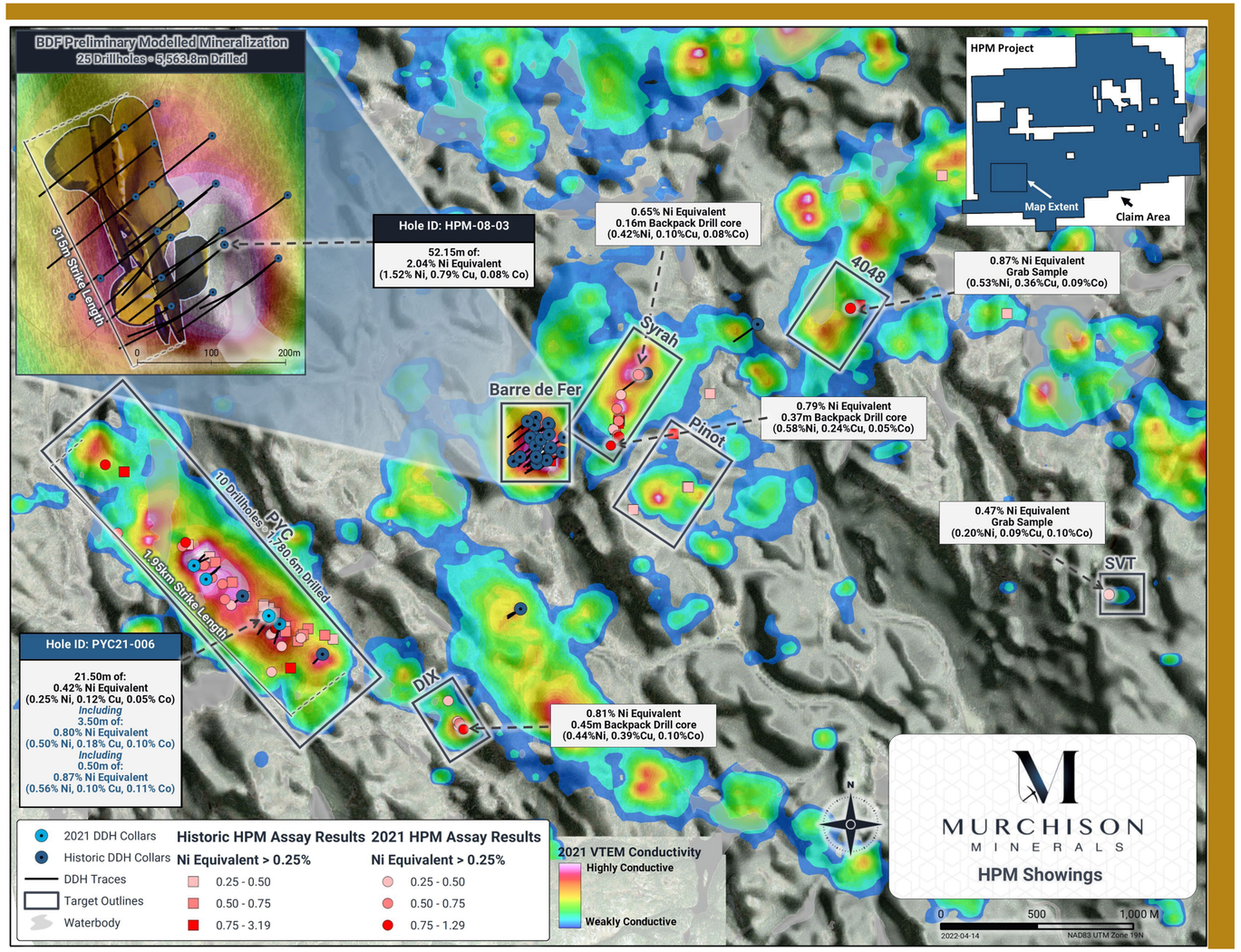
Numerous Ni-Cu-Co occurrences identified by mineralized grab samples during previous prospecting field programs.

5. DRILLING:

Drilling has proved that the conductive anomalies first identified by VTEM, and confirmed to be sulphide mineralization via prospecting, extend at depth.



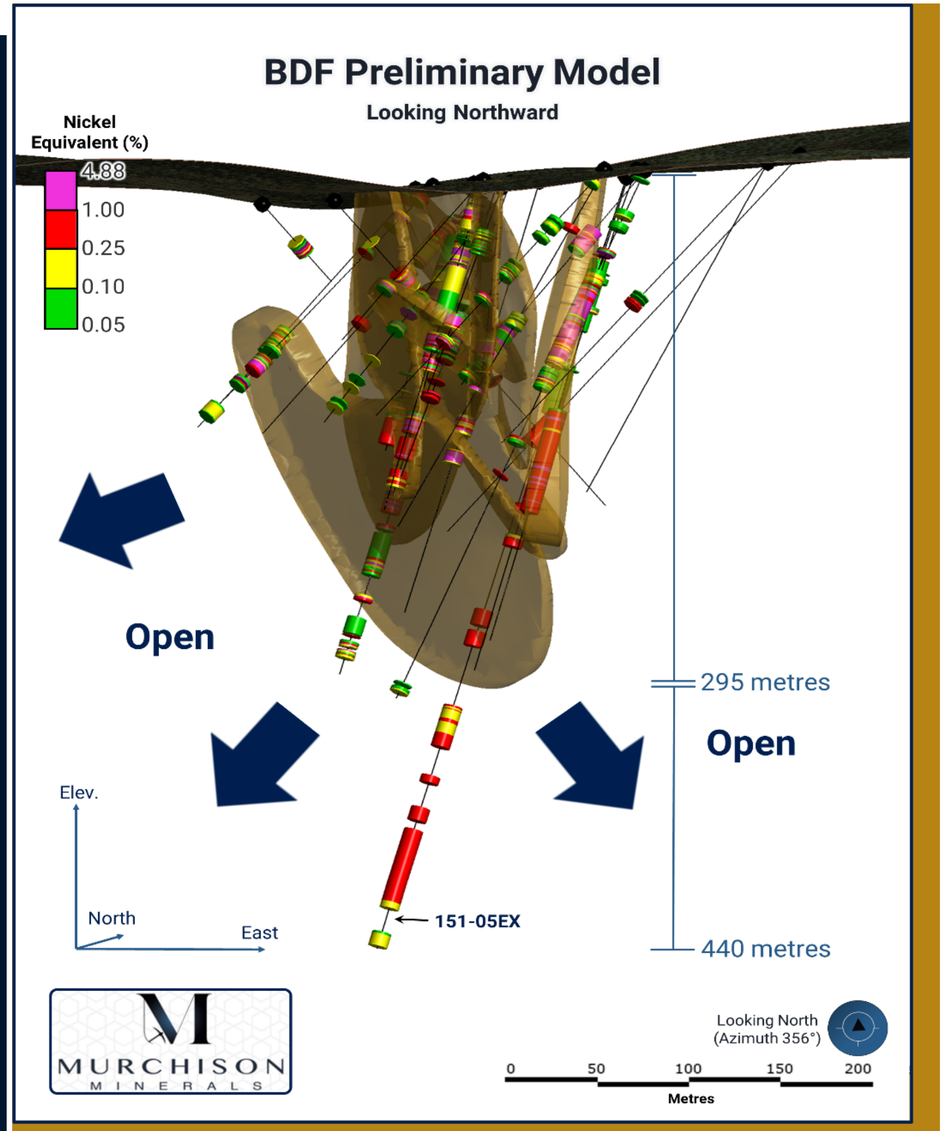
HPM | Camp Scale Potential



High Priority Targets

- **Barre de Fer**
  - High grade nickel, copper, cobalt mineralization discovered on surface
  - 25 drill holes between 2001 – 2008
  - Mineralization currently has a strike length of 315 m and has been intersected to a vertical depth of 440 m
  - Mineralization is open at depth and along strike Open
- **Syrah**
  - Adjacent to Barre de Fer with a similar geophysical signature
  - Ni-Cu-Co outcropping on surface up to 0.82% Ni Eq
  - Possibly connected to Barre de Fer at depth
  - Drill tested in 2008, however, based on latest VTEM modeling the target was missed
- **PYC**
  - 1.95 km long geophysical anomaly
  - Nickel, copper, cobalt mineralization mapped on surface over a strike length of 1.7 km up to 42 m thick
  - Grades up to 1.29% Ni Eq on surface
  - Recently drill tested over 550 m of strike length, with broad zones of low-grade Ni-Cu-Co bearing sulphide mineralization intersected in all 8 holes

HPM | Barre de Fer



Barre de Fer Zone Information

- The BDF Zone (the "Zone") is currently defined by 25 diamond drill holes with 5,564 metres of drilling completed between 2001 and 2008
- The Zone outcrops on surface, based on the modelling, has a strike length of 315 m, and is composed of multiple stacked lenses over a maximum 150 m wide zone. Individual lenses have a maximum thickness of 28 m. The modelled mineralization extends to a vertical depth of 295 m. Extensive mineralization has also been intersected outside the current model, up to a vertical depth of 440 m. The Zone remains undrilled and unconstrained along strike and at depth.
- Modelling indicates the setting, style, and high-grade characteristics of the BDF Zone are favourable for advancing a strategy to expand and delineate the Zone and surrounding prospective areas during the 2022 summer drill program.
- The BDF Zone is one of multiple Ni-Cu-Co prospects on the 100% – owned HPM Project, which is strategically located eight km from a rail line and within 30 km of Hart-Jaune hydroelectric power generating facility – located in Quebec, one of the world's most stable and best mining jurisdictions.

Troy Boisjoli President and CEO

"The potential at Barre de Fer to grow a significant high-grade near-surface mineral resource, likely amenable to open-pit mining, is exceptional. The planned 2022 exploration program, based on the work of the technical team, will leverage previous exploration at BDF with the objective to materially advance the project."

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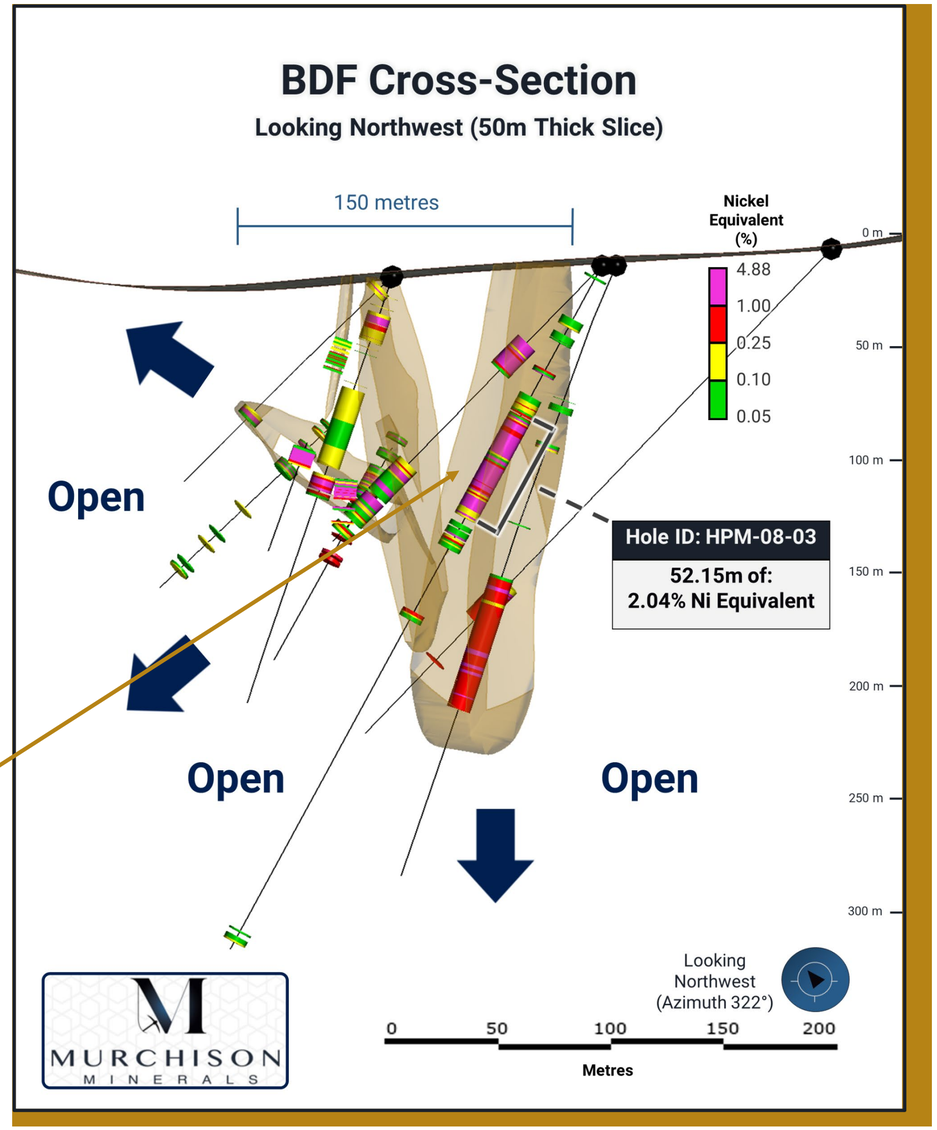
HIGHLIGHTS | From Barre de Fer

Hole		From (m)	To (m)	Length* (m)	Ni %	Cu %	Co %	Ni Eq. %**
HPM-08-03		52.54	54.96	2.42	0.47	0.19	0.03	0.61
		70.86	71.36	0.5	0.37	0.29	0.02	0.54
		74.45	**126.60**	**52.15**	**1.52**	**0.79**	**0.08**	**2.04**
	includes	***79.82***	***82.94***	***3.12***	***2.24***	***1.31***	***0.11***	***3.05***
	includes	***82.43***	***82.94***	***0.51***	***2.3***	***4.81***	***0.12***	***4.44***
		136.07	139.42	3.35	0.33	0.14	0.02	0.44
		174.75	176.40	1.65	0.33	0.2	0.02	0.45
HPM-08-04		**47.73**	**63.68**	**15.95**	**1.64**	**0.63**	**0.08**	**2.12**
		125.40	**130.50**	**5.1**	**1.23**	**0.47**	**0.06**	**1.59**
		136.75	**139.40**	**2.65**	**2.08**	**1.24**	**0.11**	**2.85**
		144.17	**154.92**	**10.75**	**1.05**	**0.63**	**0.06**	**1.44**
	includes	***144.17***	***148.22***	***4.05***	***2.31***	***1.35***	***0.11***	***3.15***
		162.95	164.00	1.05	0.12	0.54	0.01	0.36
2002		24.20	24.60	0.4	0.94	0.52	0.07	1.33
		35.15	**53.25**	**18.1**	**0.93**	**0.28**	**0.07**	**1.23**
		98.90	112.15	13.25	0.57	0.42	0.05	0.86
		139.6	**150.2**	**10.6**	**1.29**	**0.9**	**0.09**	**1.9**
	includes	***146.7***	***149.05***	***2.35***	***2.76***	***2.19***	***0.2***	***4.15***
		153.1	165.7	12.6	0.35	0.16	0.03	0.49
		172.55	181.45	8.9	0.25	0.1	0.02	0.35

** Reported as core length, true thickness is not known. **Nickel Equivalent (NiEq) values were calculated using the following USD metal prices from Mar 23, 2022: $12.76/lb Nickel, $4.76/lb Copper and $37.20/lb Cobalt.*

Magmatic Nickel Sulphide Mineralization from HPM-08-03

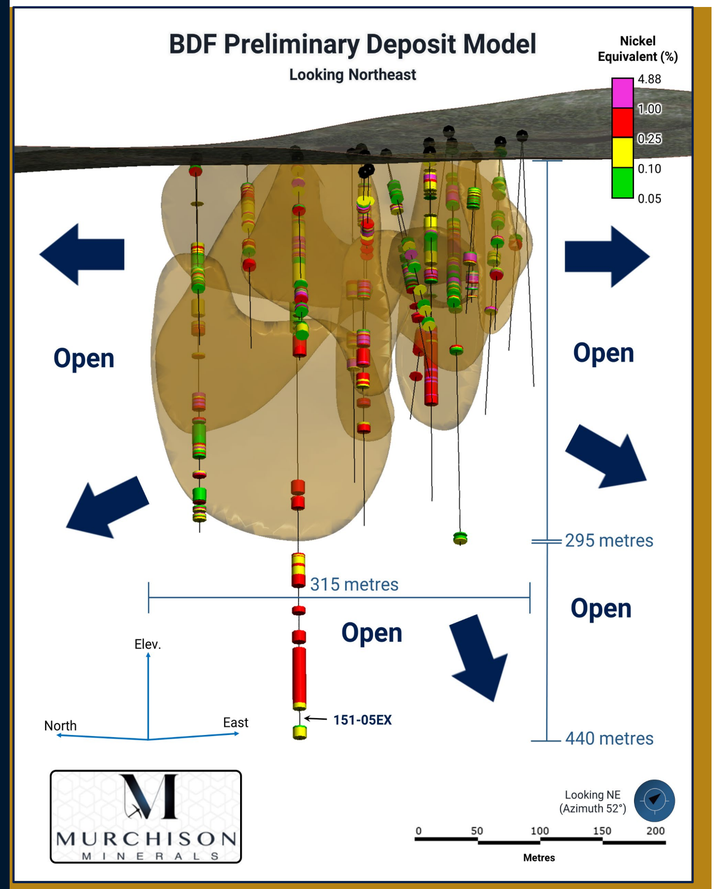


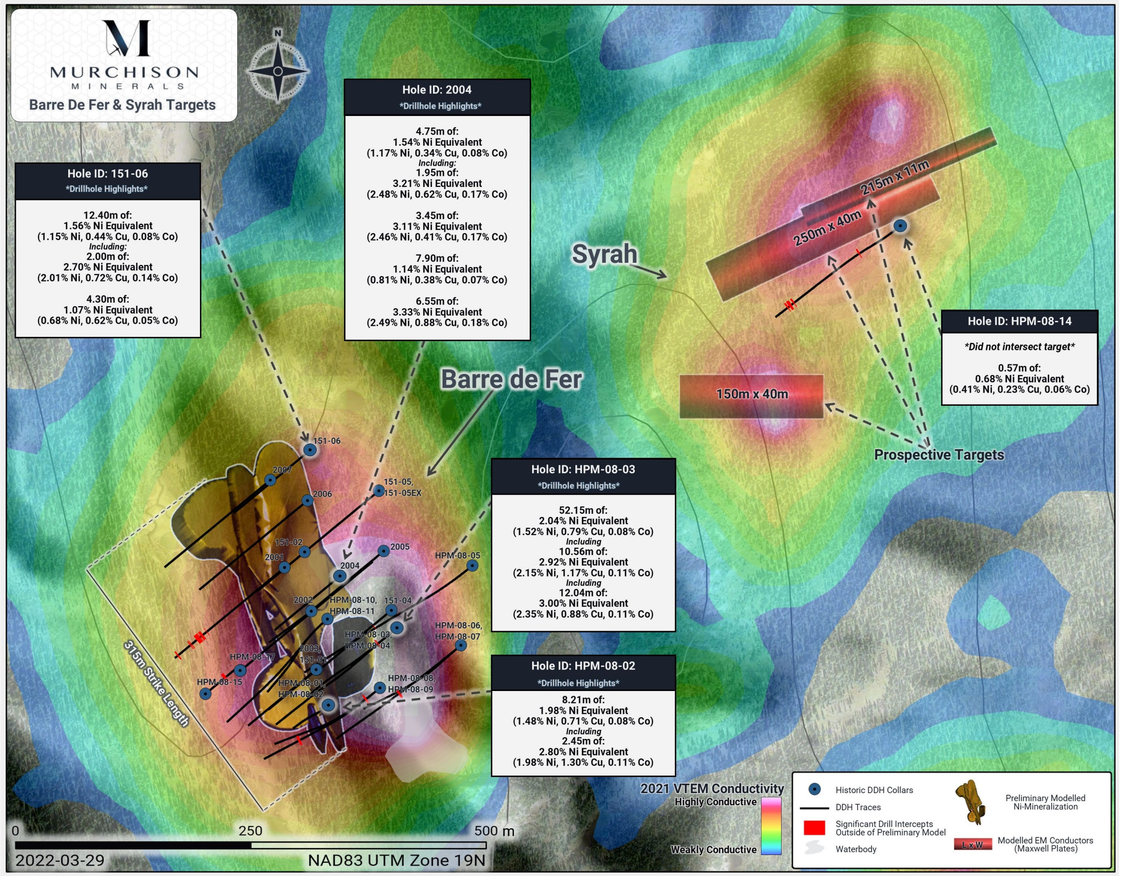
MURCHISON MINERALS' HPM PROJECT

HPM | 2022 Drilling Plan

BDF 2022 Delineation and Expansion

- In early summer 2022 Murchison is advancing a strategy to expand and delineate mineralization at the Barre de Fer Zone with a three-pronged approach:
  - First: Targeting open areas to define and expand the footprint of the Barre de Fer Zone
  - Second: Delineate the Zone with infill drilling
  - Third: Drilling holes within areas of the currently defined preliminary model in-order to better characterize current grade domains

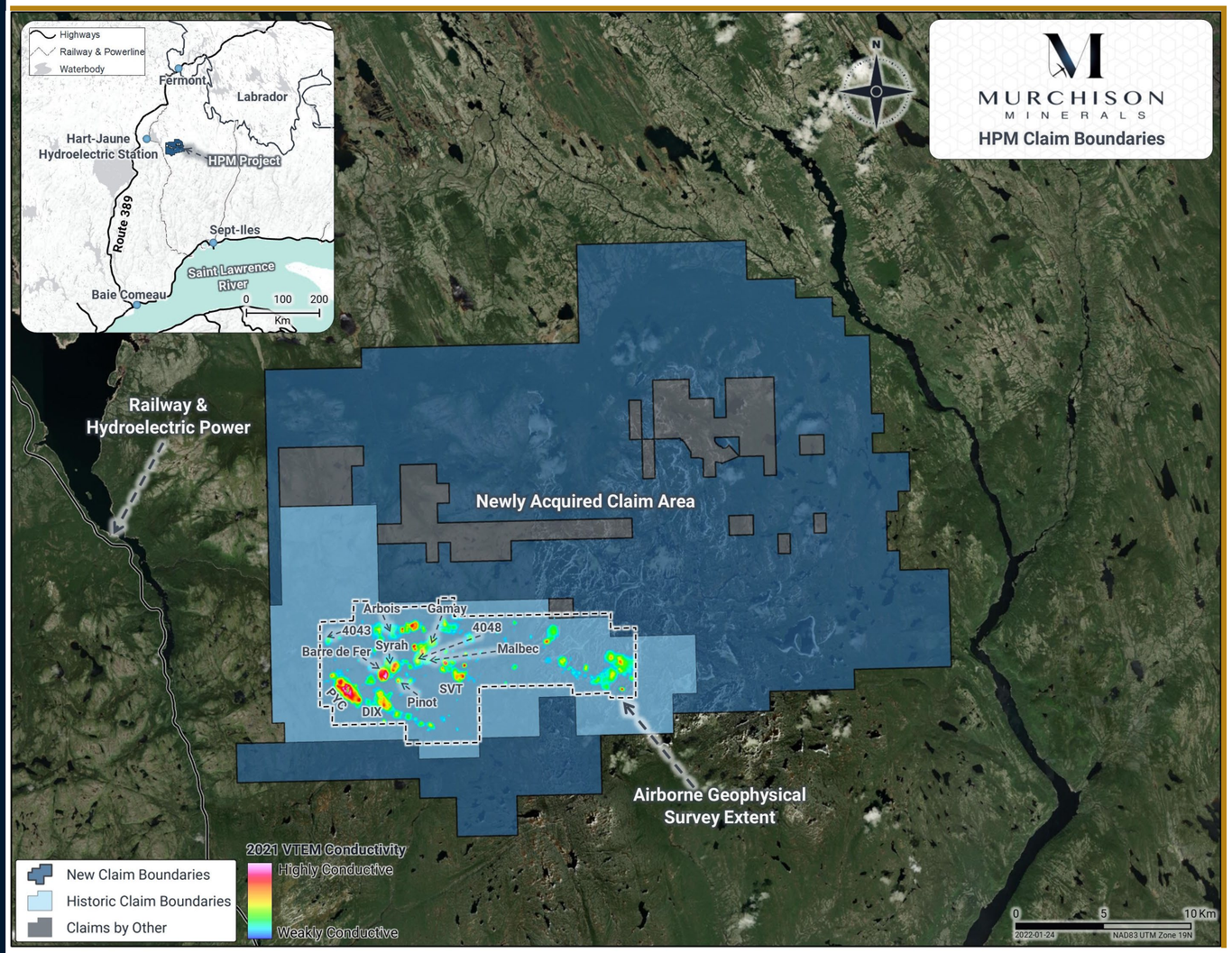




Exploration Syrah Prospect

- The Syrah Prospect lies 300 metres to the NE of the BDF Zone
- Prospecting work completed in 2021 shows Syrah has a similar geochemical signature to the BDF Zone
- Syrah is situated over a 600-metre-long conductive anomaly
- Currently has one drill hole (HPM-08-14) that was completed in 2008, and failed to properly test the target
- Modern geophysics completed in 2021, and interpreted with maxwell plates will allow Syrah to be properly tested in 2022

HPM | 2022 Regional Plan



2022 Regional Exploration

- An expanded VTEM survey – which covers the remaining 85% (area in dark blue) of the 576 km2 HPM property – scheduled to be completed this spring.
- Murchison will launch an extensive prospecting program to follow-up on the previously defined and the newly located airborne geophysical anomalies
- Murchison previous short duration prospecting programs proved highly effective at defining new locations of nickel bearing sulphide mineralization
- The prospecting program will utilize multiple teams using a tried method of a "Beep Mat" to locate sulphides and a backpack drill to sample

HPM | Blue Sky Potential

COMPLETED

- ✓ Mapping, Geochem, Geophysics, Trenching
- ✓ Drilling - 32 holes, 6,469 m (between 2001 & 2008), intersecting numerous high-grade Ni-Cu-Co intervals in several target areas
- ✓ Initial deposit discovered at Barre de Fer, open at depth
- ✓ Prospecting identified numerous Ni-Cu-Co mineralized showings
- ✓ Numerous unexplored airborne EM anomalies require follow-up
- ✓ VTEM-Plus airborne survey completed
- ✓ Field prospecting including mapping, sampling and backpack drilling already completed on several targets
- ✓ Completed inaugural drill program at PYC target, possible bulk tonnage discovery
- ✓ Expanded dominant land position from 139 km^2 to 576 km^2
- ✓ Completed Preliminary 3D modelling of the Barre de Fer Zone

WHAT'S NEXT

- VTEM survey covering all of HPM, commenced on April 21st, 2022
- Spring/Summer 2022 ground prospecting crew investigating EM anomalies
- Summer 2022 drill program at Barre de Fer focusing on expansion and delineation towards developing a resource

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MURCHISON MINERALS' BMK PROJECT

BMK | Saskatchewan

Zn-Cu-Ag Project

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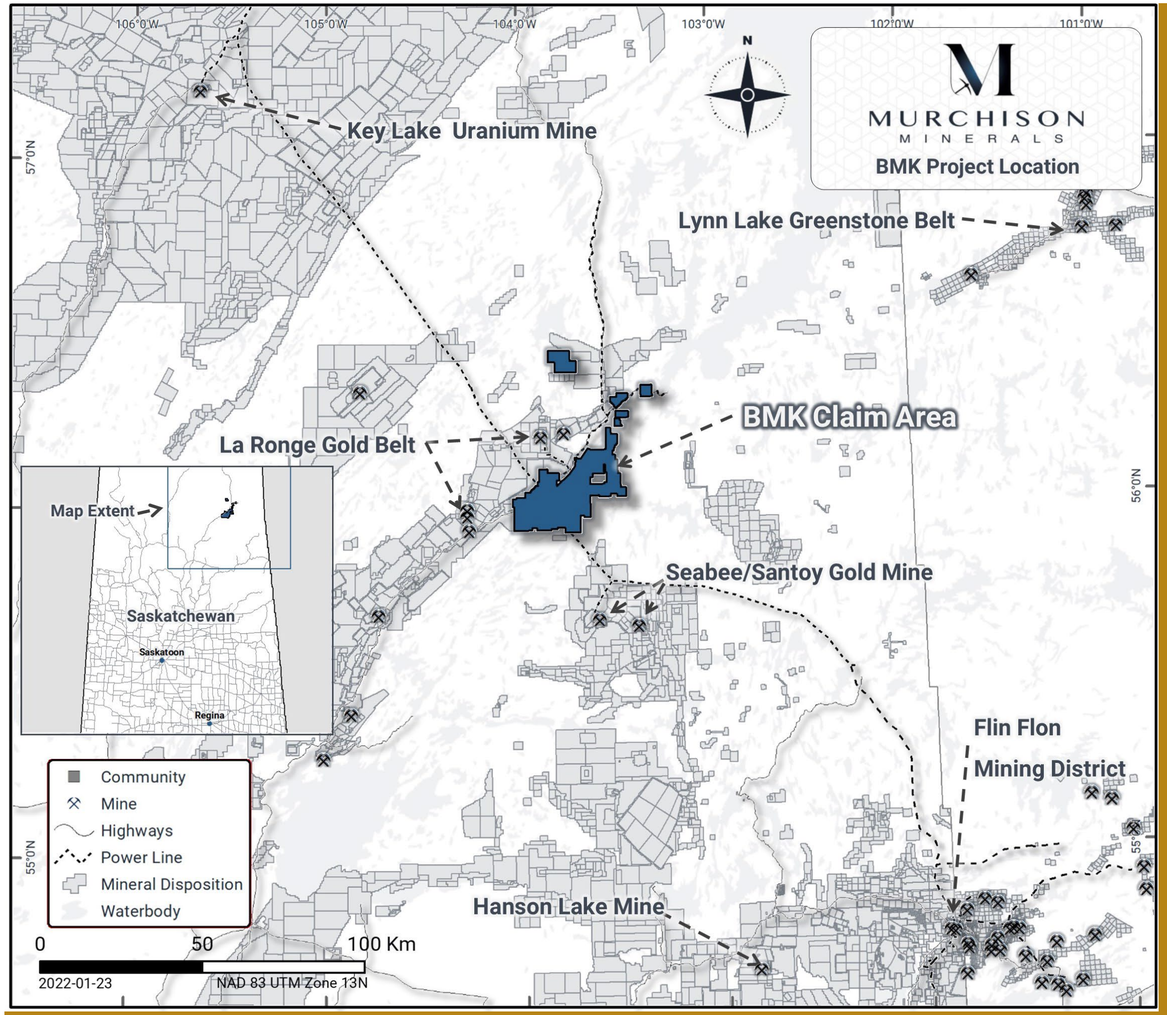
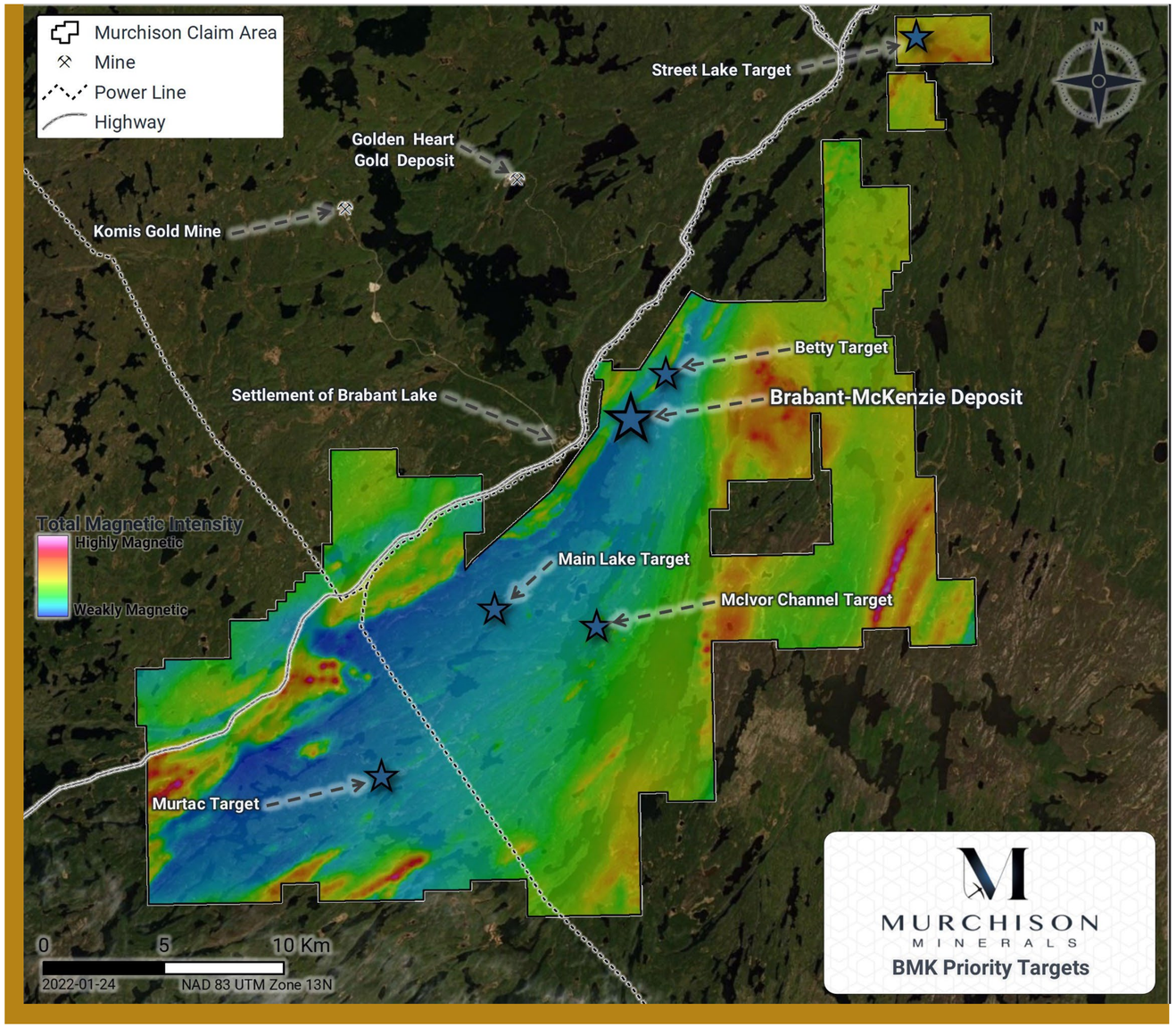
BMK | 100% Owned | VMS Project

- Located in northeast Saskatchewan approximately 170 km north-east of La Ronge
- Excellent Infrastructure
- Maintained road on the property – Saskatchewan HWY 102
- Existing power-lines running through project site
- Project area lies within an active and historic mining jurisdiction
- Community of Brabant Lake adjacent to the project area
- Entire 627 km^2 land package covered with modern VTEM surveys; highly-prospective for VMS deposits, as well as gold.



BMK | Camp Scale Potential



1. **GEOLOGIC SETTING:**

   Similar geological environment as Flin Flon, Lalor Lake, Lynn Lake and Snow Lake Deposits. Hosts BMK deposit which is metamorphosed sedimentary volcanogenic massive sulphide deposit within the underexplored Kisseynew metasedimentary belt associated with the La Ronge metavolcanics.

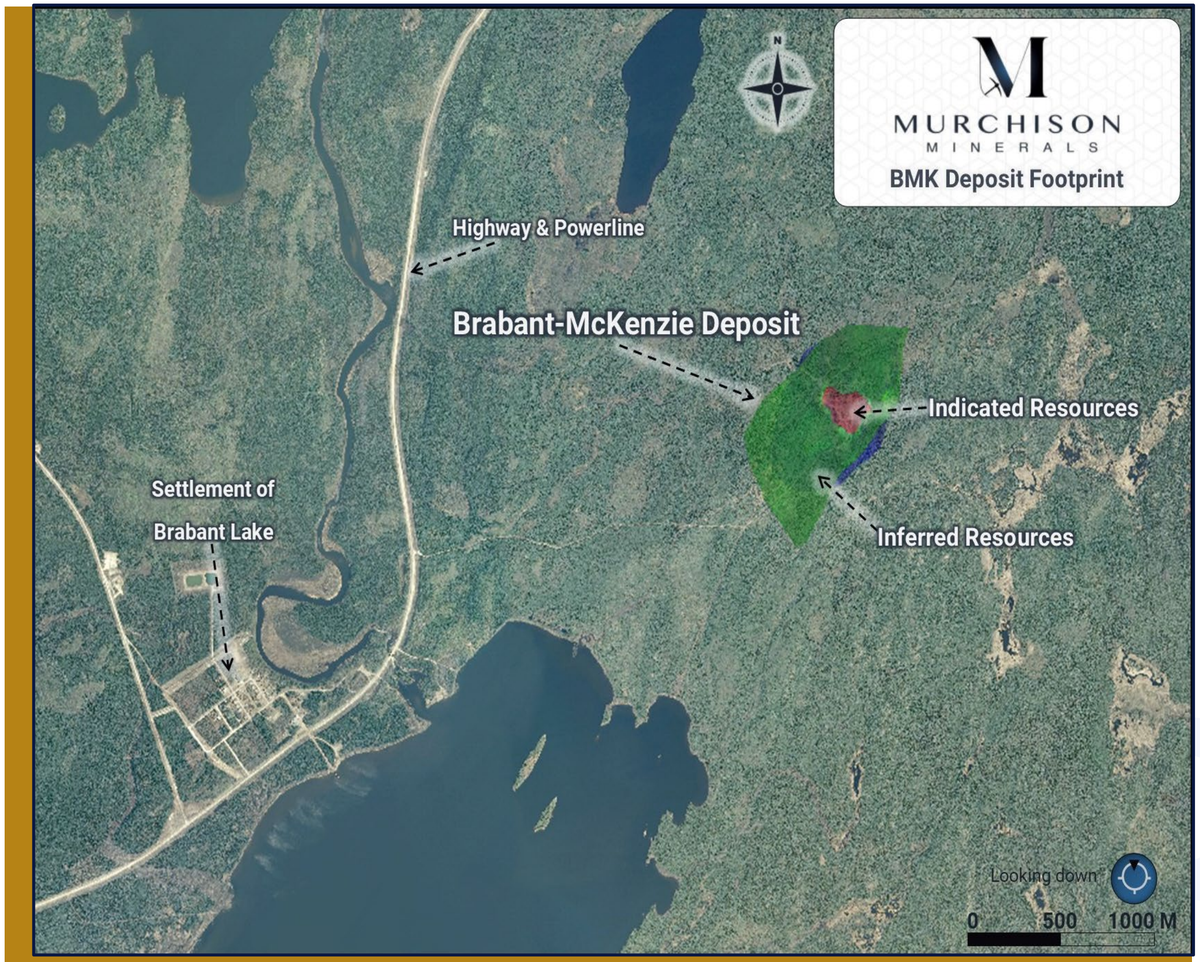
2. **PROPERTY SCALE EXPLORATION:**

   Claims cover extensive area of similar stratigraphy that hosts the BMK deposit. Claim area has now been covered with VTEM surveys highlighting numerous prospective conductors. Project is large enough to host a VMS mining camp.

3. **UPSIDE POTENTIAL FOR MORE VMS:**

   VMS deposits occur in clusters and BMK is the only known deposit in the area. VMS mineralization and alteration has now been intersected at the Betty and Main Lake targets.

BMK | Brabant-McKenzie Deposit



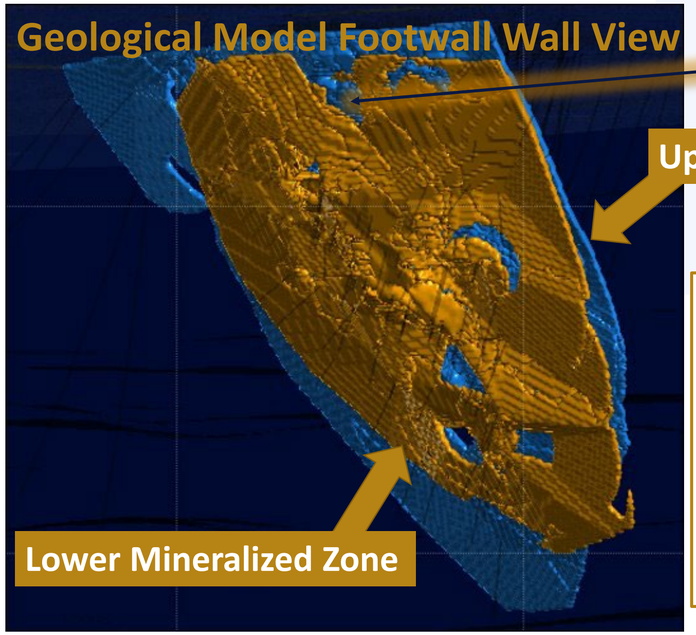
Deposit Information

- Discovered by prospecting in 1956, limited work was done throughout 1960's, and again late in the 1980's
- Purchased by Boart Longyear Canada, in 1992
- Acquired by Murchison's predecessor, Manicouagan Minerals in 2006
- NI-43-101 Resource estimate updated in September of 2018, significantly expanding resource
- Resource estimate:
  - Indicated: 2.1 M t @ 9.98% Zn Eq
  - Inferred: 7.6 M t @ 6.29% Zn Eq
- Estimate based on 138 drill holes with 3.5% Zn Eq cut-off grade
- Deposit remains open at depth and along strike
- Preliminary metallurgical work produced excellent results - 50% zinc concentrate with a 85% recovery, results are expected to improve with further optimization

Category	tonnes	Zn%	Cu%	Pb%	Ag (g/t)	Zn Eq%
Indicated	2,051,086	7.08	0.69	0.49	39.60	9.98
Inferred	7,634,077	4.45	0.57	0.19	18.40	6.29

BMK | Deposit Highlights

- Mineralization occurs as disseminated to massive, semi-massive and breccia-vein sulphides
- Coarse-grained (recrystallized), pyrrhotite, sphalerite, chalcopyrite and galena
- Outcrops at surface, dip averages -51 degrees NW
- Mineralization tentatively correlated over 1,100 m strike length
- 2 mineralized zones defined:
  - **Upper Mineralized Zone**
    - Defined over strike and dip length of 1 km at 50 m depth
    - Maximum width to 16 m, averages 5.3 m
  - **Lower Mineralized Zone**
    - Up to 25-30 m below upper zone
    - Defined over strike and dip length of 800 m from surface
    - Maximum width to 18 m, averaging 6.7 m



- Hole BM21-004 confirms the continuity of the high-grade mineralization within the deposit with 15.35 metres of continuous sulphide mineralization at 13.16% Zn Eq at the peripheral edge of Indicated Mineral Resources.
- The intersection consists of: 9.07% Zn, 0.81% Cu, 0.26% Pb, 0.11 g/t Au and 35.11 g/t Ag from 341.20 to 356.55 metres

Indicated Resource	Tonnes	% Zn	% Cu	% Pb	g/t Au	g/t Ag	% Zn Equiv.
Lower Mineralized Zone	1,200,000	8.13	0.75	0.67	0.28	48.00	11.53
Upper Mineralized Zone	900,000	5.7	0.6	0.24	0.17	28.52	7.93
TOTAL	2,100,000	7.08	0.69	0.49	0.23	39.6	9.98

Inferred Resource	Tonnes	% Zn	% Cu	% Pb	g/t Au	g/t Ag	% Zn Equiv.
Lower Mineralized Zone	2,700,000	4.88	0.55	0.42	0.14	29.02	7.14
Upper Mineralized Zone	4,900,000	4.22	0.57	0.06	0.08	12.46	5.81
TOTAL	7,600,000	4.46	0.57	0.19	0.10	18.42	6.29

Image Source: Brabant-McKenzie Property, Saskatchewan, Canada, Murchison Minerals Ltd. September 4, 2018 Prepared by Finley Bakker Consulting, Campbell River, BC, and Murchison Minerals Ltd.

BMK | Blue Sky Potential

COMPLETED

- ✓ 2017-2018 large in-fill drill program
- ✓ NI-43-101 report in October of 2018, resource expanded significantly
- ✓ Winter 2019 – 2020 completed VTEM coverage across all claims
- ✓ Summer 2019 – 2020 extensive prospecting program
- ✓ Winter 2020 exploration drill program, discovered VMS style mineralization at Main Lake target
- ✓ Winter 2021 exploration drill program, discovered VMS style mineralization at Betty target
- ✓ Summer 2021 completed preliminary metallurgy with exceptional results

WHAT'S NEXT

- Winter 2022 commencing comprehensive desktop study on results to date, in order to systematically optimize future drill programs
- Expanding high-grade domains and testing along strike and down dip from current deposit extents
- Continuing exploration drilling at Main Lake and Betty targets

MURCHISON MINERALS

Executive & Board of Directors

2022

- **JEAN-CHARLES (JC) POTVIN, B.Sc. (Hon), MBA**
  Executive Chairman
  - Co-founder of the Company
  - President and CEO of Pangea Goldfields Inc. acquired by Barrick Gold Corporation for CA$204 million in 2000.
  - Previously Director, Vice-President and top-ranked Equity Research Gold Analyst with Burns Fry (now BMO Nesbitt Burns).
  - Currently a director of Azimut Exploration Inc., Golden Sun Resources and Murchison Minerals.
- **TROY BOISJOLI, B.Sc. Geology**
  President & CEO
  - 15 years of cumulative exploration, project development, operations and regulatory experience.
  - Formerly held positions of Vice President of Exploration and Community, and Vice President of Project Development and Operations with NexGen Energy
- **ERIK H. MARTIN CPA, CMA**
  Chief Financial Officer and Corporate Secretary
  - 25 years of financial disclosure & management experience with publicly-listed resource companies.
- **JOHN SHMYR, B.Sc. Geology (Honours)**
  VP Exploration
  - 10 years of experience in mineral exploration.
  - Previously project geologist for BFR Copper & Gold, directly involved in the discovery of additional Cu-Zn mineralization at BFR's Flin Flon project.
  - Registered member of the Professional Engineers and Geoscientists of Saskatchewan.
  - Holds special authorization with the Ordre des Géologues du Québec.
- **DENIS C. ARSENAULT, B.Comm.**
  Independent Director
  - Chair of the Audit Committee and member of the Compensation Committee.
  - More than 40 years of professional experience with extensive board and governance committee experience.
  - Held senior financial positions in a range of sectors including mining and resources.
- **DONALD K. JOHNSON, B.Eng., MBA, O.C.**
  Director
  - Serves as a member of the Advisory Board of BMO Capital Markets.
  - President of Burns Fry from 1984 to 1989.
  - Served as Vice Chairman of BMO Nesbitt Burns until 2004.
  - Formerly a Director of the Toronto Stock Exchange and Chairman of the Investment Dealers Association of Canada.
  - Currently Emeritus Chairman of Goeasy Limited.
  - Officer of the Order of Canada
- **DAVID PYPER, B.Eng., MBA.**
  Independent Director
  - Chair of the Compensation Committee and member of the Audit Committee.
  - Managing Partner at Blair Franklin Capital Partners Inc. of Toronto.
  - David has more than 24 years of M&A and corporate finance experience in a wide variety of industries.
- **JACQUELINE LEROUX, P.Eng.**
  Independent Director
  - 28 years of experience in the mining industry, specializing in environmental compliance.
  - Director of Environment at Troilus Gold.
  - Owner of JLeroux enr, a Quebec-based environmental consulting firm.
- **Cory Belyk**
  Strategic Advisor
  - 30 years of experience in the mining industry involved with companies at various stages from grassroot exploration to mining operations.
  - Proven track record with successful discovery in the Athabasca Basin area.
  - Served as a member of the board of several renowned mining firms including Cameco and CanAlaska Uranium.
- **Dr. Peter C. Lightfoot**
  Technical Advisor
  - President and Chief Geologist of Lightfoot Geosciences
  - Former Chief Geologist for Vale, Nickel: Base Metals Division
  - Former Principal Geologist for Inco, Nickel Sulphide Global Porject Generation Program
  - Adjunct Inidustry Professor in the Department of Earth Sciences at the University of Western Ontario

MURCHISON MINERALS

2022 CORPORATE PRESENTATION

5063 North Service Road
Burlington, ON L7L 5H6

Troy Boisjoli, President & CEO
T: +1 416 565 4411
E: tboisjoli@murchisonminerals.com

Thomas Do, CHF Capital Markets
T: +1 416 868 1079 x 232
E: thomas@chfir.com