



Championing a Green Energy Revolution through High-Grade Cu-Ni-Co-Zn Projects in the World's Best Mining Jurisdictions

<u>BALIZOT 179</u> <u>BALIZOT 179</u> <u>BALIZOT 179</u> <u>BALIZOT 160</u> <u>BALIZOT 179</u>

TSXV: MUR | Corporate Presentation | September 2021

Cautionary Statements



The statements, maps and models in this presentation are based on information currently available to Murchison Minerals Ltd. (the "Company") and the Company provides no assurance that actual results will meet management's expectations. In certain cases, forward-looking information may be identified by such terms as "anticipates", "believes", "could", "estimates", "expects", "may", "potential", "shall", "will" or "would". Forward-looking information contained in this presentation is based on certain factors and assumptions regarding, among other things, the estimation of mineral resources and mineral reserves, the realization of resource estimates and reserve estimates, metal prices, the timing and amount of future exploration and development expenditures, the estimation of initial and sustaining capital requirements, the estimation of labour and operating costs, the availability of neœssary financing and materials to continue to explore and develop the Company's project in the short and long-term, the progress of exploration and development activities, the receipt of necessary regulatory approvals, the completion of the environmental assessment process and assumptions with respect to currency fluctuations, environmental risks, title disputes or claims and other similar matters. While the Company considers these assumptions to be reasonable based on information currently available to it, they may prove to be incorrect.

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.

Qualified Persons

Martin St-Pierre P.Geo., John Shmyr P.Geo. and François Bissonnette P.Geo., Independent Consultants, are the Qualified Persons as defined in NI 43-101 that reviewed and approved the technical information contained in this presentation.



357 KV Hydro Power Line Crosses Property

Investment Highlights



Experienced management and board with proven success record. President and CEO sold Pangea Goldfields Inc. to Barrick Gold Corporation for CA\$204 million in 2000 and arranged US\$220 million in funding for the Kwale Mineral Sands project in Kenya.



Projects located in two of the best mining jurisdictions in the world, Saskatchewan and Quebec, surrounded by excellent infrastructure.



Murchison positions itself as a key mining player in the green energy revolution with projects that provide exposure to critical minerals including Cobalt, Copper, Nickel, Silver, Graphite and Zinc.



The best assay at the HPM Project shows high-grade drill intercepts including 1.74% Ni, 0.9% Cu and 0.09% Co over 43.2 m at Barre de Fer. Significant tonnage potential also exists on the PYC target. The 139 km² Project has numerous mineralized targets requiring follow-up. 3,500 m drilling program is planned on the 1,700-m-long PYC target.



Brabant-McKenzie, located in a similar geological environment as the Flin Flon, Lalor Lake, Lyn Lake and Snow Lake deposits, is a high-grade VMS deposit hosting an NI 43-101 compliant Resource of 2.1 Mt @ 10% ZnEq (Indicated) and 7.6 Mt @ 6.3% ZnEq (Inferred). The project also has significant exploration upsides and remains open for expansion.



Huge land package in Saskatchewan covering an area of 626.9 km² highly-prospective for VMS-type deposits and the potential to identify high-grade strata-bound metasedimentary gold deposits resembling the Greywacke, North Lake and numerous other known gold deposits in the region.



The newly-acquired properties located in the Barraute-Landrienne mining camp in Quebec, only 2 km away from the 15.7 Mt Zn-Ag Abcourt-Barvue deposit, are believed to **host some of the best untested geological/geophysical basemetal targets in the area. All the targets are drill-ready.**



Murchison has a close and supportive relationship with local communities and governments.

Murchison Minerals Asset Base & Share Structure

HPM Ni-Cu-Co Project in Quebec - 139 km2

- Best Drill Assay at Barre de Fer:
 - 43.18 m of 1.74% nickel, 0.90% copper and 904 ppm cobalt (5.5% CuEq)
- Identified 54 EM conductors in a recent VTEM survey
- Sampling at PYC confirms the presence of Ni-Cu-Co over 1,700m strike, up to 59 m wide on surface
- 10 nickel-copper-cobalt gossan areas identified
- Excellent infrastructure, 8 km to railroad, about 225 km to the Port of Sept Iles
- 100% owned

Brabant-McKenzie VMS Project

- Resource Base
 - Inferred: 7.6 Mt @ 6.29% ZnEq₍₁₎
 - Indicated: 2.1 Mt @ 9.98% ZnEq
- Entire property package covered by VTEM surveys
- Excellent established infrastructure
- 100% owned

Barraute-Landrienne Base Metals Project

- Option to earn 100% in 75 mineral claims
- Believed to host some of the best untested drill targets Brabant-McKenzie VMS Project in the area
- 2 km away from the 15.7 Mt Zn-Ag Abcourt-Barvue deposit



Share Structure as of September 14, 2021

	Share Price	CA\$0.08		
	Shares O/S	108.9 M		
	Current Market Capitalization (1)	CA\$8.7 M US\$6.9 M		
	Working Capital	CA\$0.3 M		
	HPM Ni-Cu-Co te-Landrienne letals Project	Project		

(1) The resource for the Brabant-McKenzie zinc deposit was estimated based on metal prices of US\$1.20/Ib zinc, \$2.50/Ib copper, \$1.00/Ib lead, \$16.00/oz silver and \$1200/oz/gold, and a US\$ exchange rate of \$1.25.

Quebec HPM Ni-Cu-Co Project



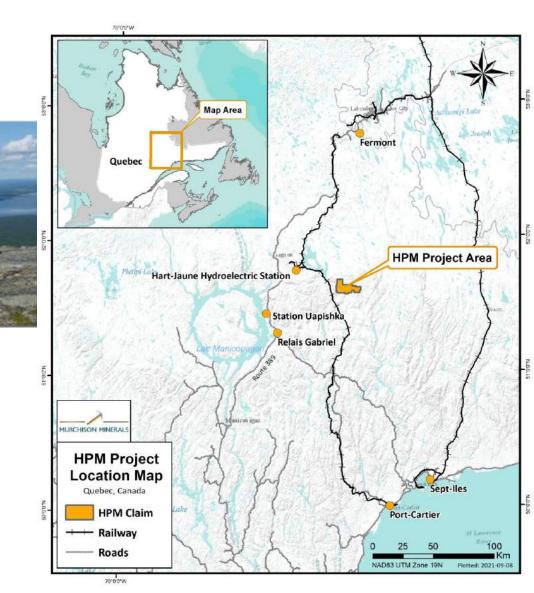
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Key metals for the

new economy

100%-Owned HPM Ni-Cu-Co Project

- Potential to outline both open-cast and underground sulphide deposits.
- 3,550 m drilling program planned for the 1,700-m-long PYC target that is up to 59 m wide on surface.
- 32 drill holes (6,469 m) in 2001-2 and 2008 confirmed the presence of high-grade nickelcopper-cobalt mineralization at HPM.
- Numerous other exploration targets including over 10 gossans.
- Murchison's claims cover 139 km² of highlyprospective geology.
- Excellent infrastructure with close proximity to 35 MW hydro power, rail line.





Core from Hole #HPM-08-03 at Barre de Fer

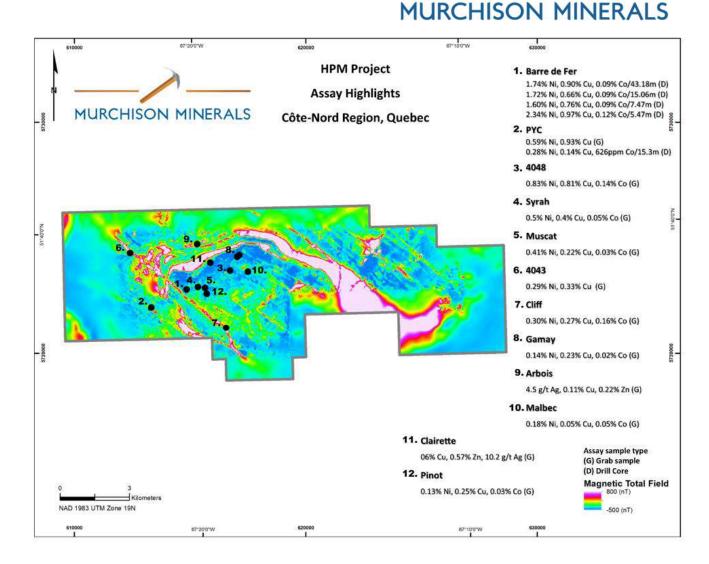
MURCHISON MINERALS The mineralization visually looks identical to Sudbury and Voisey's Bay drill core.

43.2 m assayed 1.74% nickel, 0.90 % copper and 904 ppm cobalt

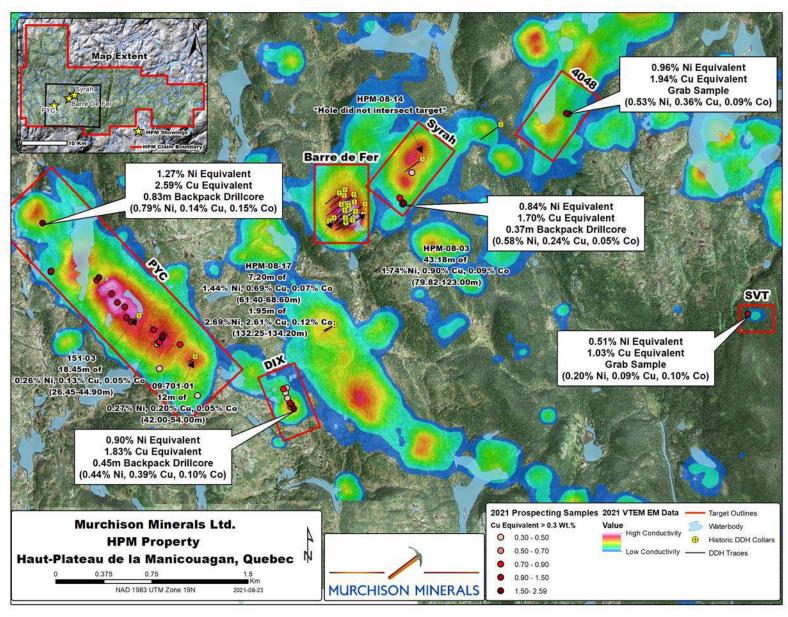


HPM Claim Map, Geology & Mineralized Showings

- Numerous EM features show close correlation with known gossans located via past and ongoing groundexploration programs, as well as historic nickel, copper and cobalt mineralized grab samples identified during previous prospecting field programs.
- Barre de Fer:
 - High-grade historic assays including 43.3 m grading 1.74% Ni, 0.90% Cu and 904 ppm Co.
 - Only 25 holes drilled. Highly underexplored and prospective.
- **PYC**
 - Significant EM conductor traced for over 1,700 m, only two historical holes drilled, respectively intersected 18.5 m and 12.0 m of disseminated to semi-massive sulphides grading 0.26% nickel, 0.13% copper and 500 ppm cobalt and 0.27% nickel, 0.20% copper and 500 ppm cobalt. Historic grab samples collected by Falconbridge in 1999 at PYC assayed as high as 0.76% Ni and 0.93% Cu.
 - Additional drilling planned in Fall 2021.

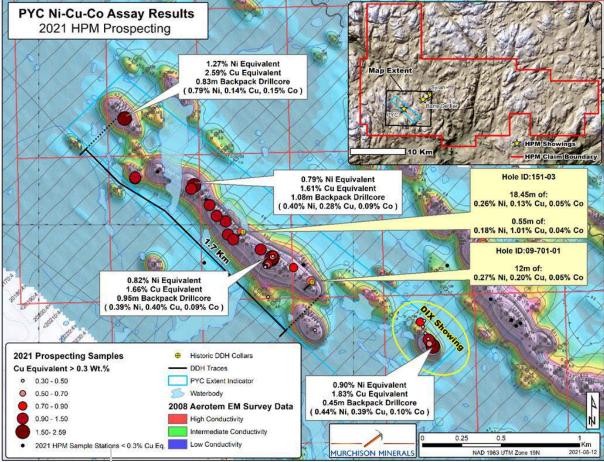


HPM: Numerous untested EM conductors











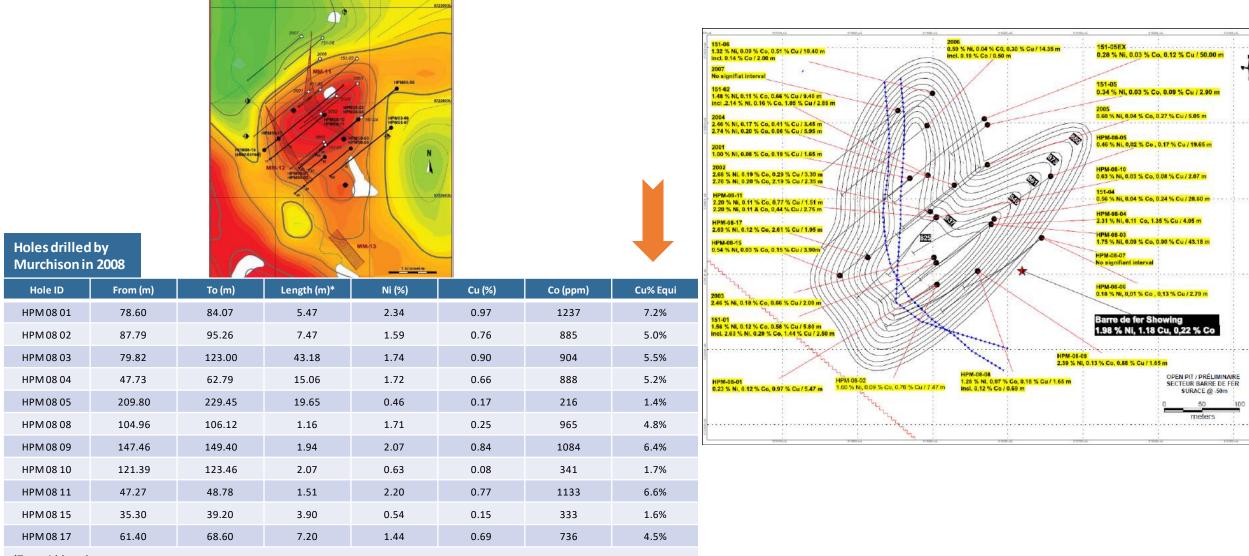
PYC EM Conductor

- 2 historical shallow drill holes
- Conductor extends over +1,700 m in strike
- Surface sampling using a backpack drill indicates mineralized widths of up to 59 m
- Metallurgical study in progress
- 3,500 m drilling program planned in Fall 2021
- located approximately 8 km from existing rail infrastructure



Historical Drilling on Barre de Fer (2001-2 & 2008)





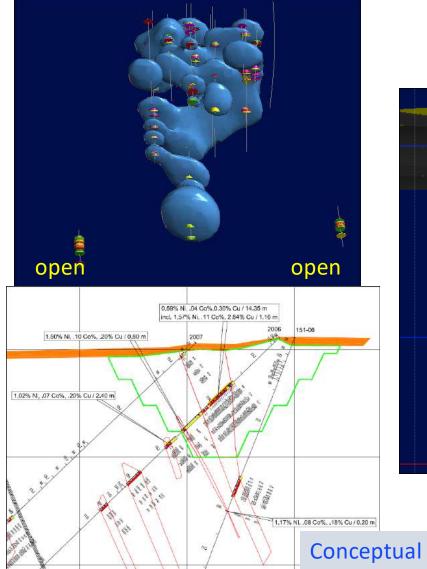
*True widths unknown



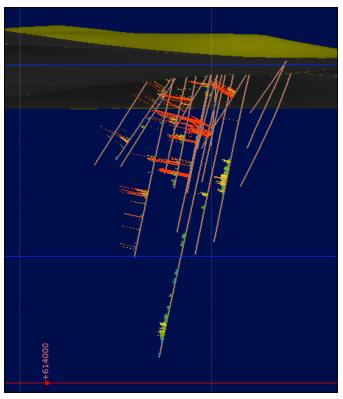
Barre de Fer Modelled Sulphide Mineralization

- Early conceptional modelling indicates the potential for ~4.0 to 6.0 M tonnes (1) using a cut-off of C\$30/t metal content.
- The model currently lacks geologic controls and is not NI 43-101 compliant.
- More drilling is required since the mineralization is open in multiple directions with several holes terminating in potentially economic level mineralization.
- Proximal EM conductors remain untested by drilling.

(1) the potential quantity and grade is conceptual in nature, is based on historical drilling data, that there has been insufficient exploration to define a mineral resource and that it is uncertain if further exploration will result in the target being delineated as a mineral resource

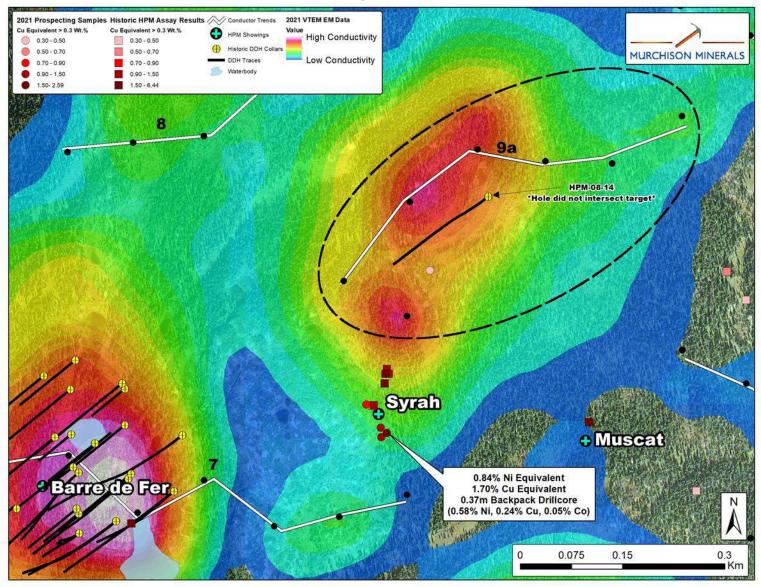






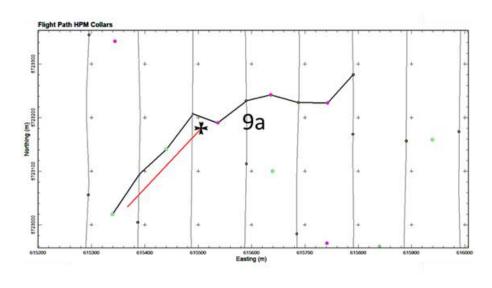
Conceptual pit to -50 m

Syrah Conductor - Untested

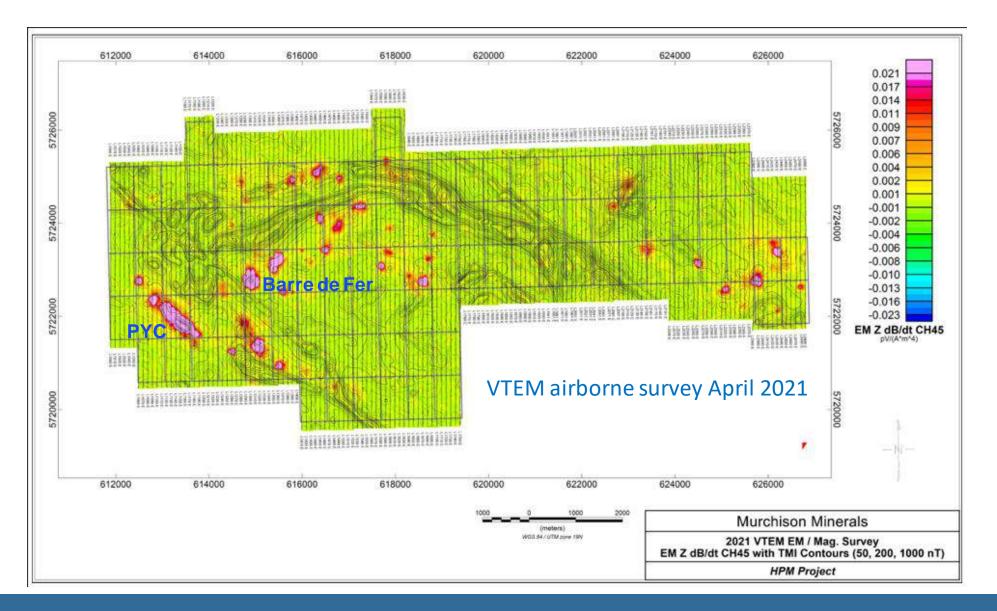


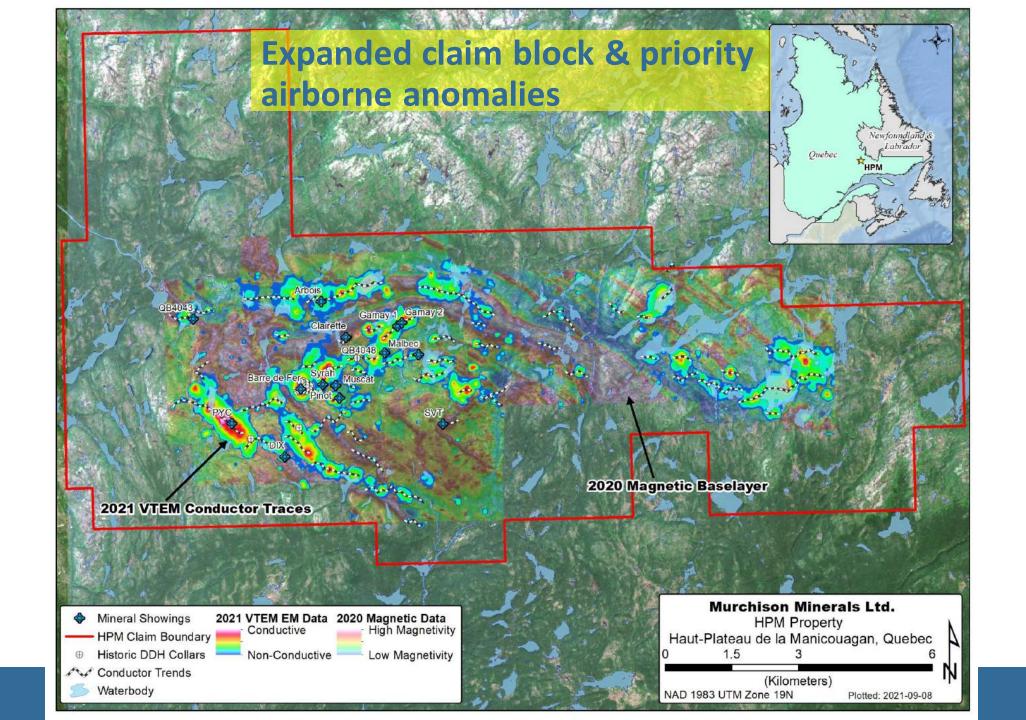


- Ni-bearing sulphide mineralization on surface
- +500-m-long strong EM conductor
- Only one historical drill hole
- Historical hole oriented parallel to the conductor (used same orientation as at Barre de Fer)
- <u>Proximal</u> to the Barre de Fer sulphide body



EM Channel 45 likely denotes the presence of massive sulphides (strong conductors)

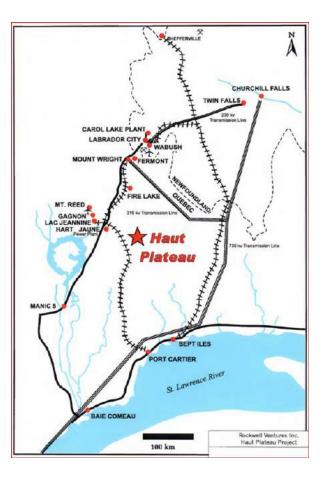




HPM Summary

Property	Consists of 260 contiguous claims covering 139 km ²					
Location	225 km NNE of Port Cartier, 135 km south of Fermont					
Ownership	<u>100% owned</u>					
Infrastructure	Close access via all-weather provincial road/gravel road. HPM property is about 8 km to a railroad, 30 km to 35MW hydro generator					
Geology	Regionally Manicouagan Metamorphic Complex					
Mineralization	Massive and semi-massive sulfide pyrrhotite, pentlandite and chalcopyrite. Best result occurs in hole HPM 08-03 where <u>43.2 m</u> assayed 1.74% Ni, 0.90% Cu, and 0.1% Co (5.5% CuEq)					
Past Work	 Mapping, Geochem, Geophysics, Trenching Drilling - 32 holes, 6,469 m (2001-2 & 2008) Drilling intersected numerous high-grade Nickel-Copper-Cobalt intervals Initial deposit defined at Barre de Fer, open in all directions Wide and long strike of semi-massive to massive sulfides at PYC may have substantial tonnage potential and warrant assessment for high-volume, low-cost, open-mining potential Prospecting identified numerous other Ni-Cu-Co mineralized showings Numerous unexplored airborne EM anomalies require follow up 					
Next Steps	Prospecting and exploration drilling program					

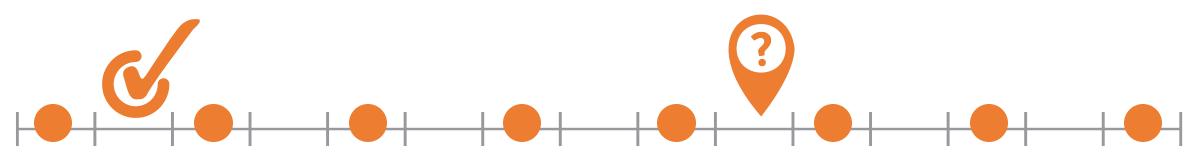






Blue Sky Potential





COMPLETED

- Mapping, Geochem, Geophysics, Trenching
- Drilling 32 holes, 6,469 m (2001-2 & 2008), intersecting numerous highgrade Ni-Cu-Co intervals
- ✓ Initial deposit defined at Barre de Fer, open in all directions
- Wide interval of disseminated sulfide may have substantial tonnage potential and warrant assessment for high-volume, low-cost, open-mining potential
- 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

What's Next?

- QEMSCAN metallurgical evaluation of Ni-Cu-Cobearing sulphide mineralization from PYC initiated
- 3,550 m diamond drilling program planned on the PYC target Fall 2021

Brabant-McKenzie High-Grade Zinc-Copper-Silver Deposit

892029 24.57%Zn 0.83%Cu 83g/t Ag 0.14g/t Au 404.1-404.9m

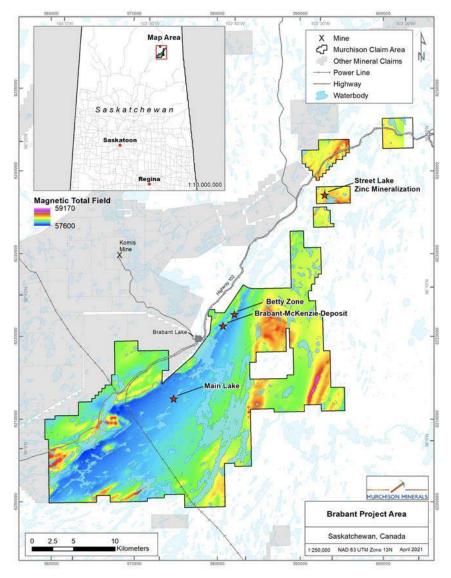


Brabant-McKenzie High-Grade Zinc-Copper-Silver Deposit

Prime Location – One Kilometre from Established Infrastructure

Brabant-McKenzie Deposit

- Entire 627 km² land package covered with modern airborne geophysical survey; highlyprospective for VMS-type Base Metal deposits, graphite as well as for gold.
- Current resource estimate:
 Indicated: 2.1 Mt @ 10.97% ZnEq
 Inferred: 7.6 Mt @ 6.92% ZnEq
- Year-round access via existing roads.
- One km from provincial highway, power, water.
- Two km from Brabant Lake Community.



Brabant-McKenzie Geology – Robust Dimensions

Geological model based on:

- 138 diamond drill holes, including 19 holes 9,004 m from 2018 Diamond Drill Program
- Deposit outcrops at surface, dip averages 51 degrees NW
- Mineralization tentatively correlated over 1,100 m strike
- 2 mineralized zones defined

Upper Mineralized Zone (UMZ)

- Defined over strike and dip length of 1 km at 50 m depth
- Maximum thickness of 16 m, averages 5.3 m

Lower Mineralized Zone (LMZ)

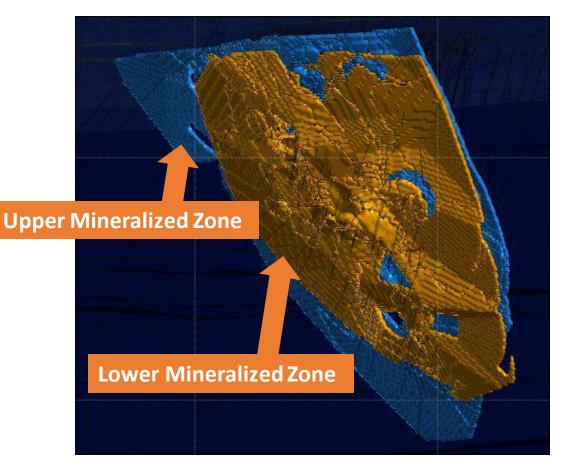
- Up to 25-30 m below UMZ
- Defined over strike and dip length of 800 m from surface
- Maximum width to 18 m, averaging 6.7 m

Deposit remains open at depth and laterally

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.



Geological Model Footwall Wall View





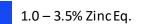
The display of zinc-equivalent grade

- distribution within the geological model is defined by drill density.
- Potential remains for additional high-grade • capture within current geological model via increased infill drilling.
- Upside potential includes:
 - Lateral and down dip deposit extensions outside current geological model
 - Internal targets within current geological model for potential tonnage additions
 - Potential resource upgrade of inferred to indicated category through increased drill density

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

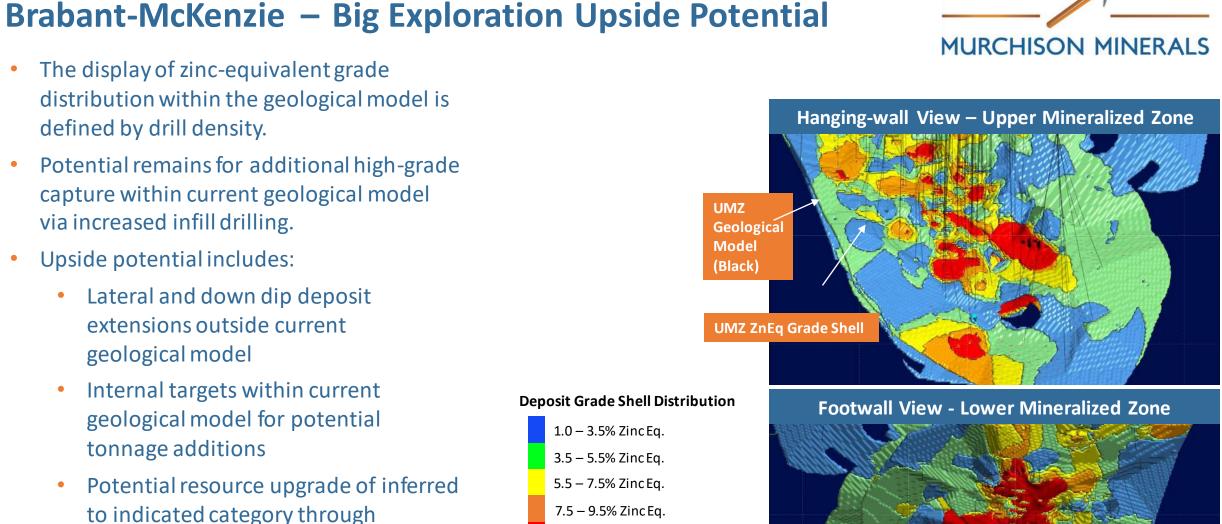






- 3.5 5.5% Zinc Eq.
- 5.5 7.5% Zinc Eq.
- 7.5 9.5% Zinc Eq.
- >9.5% Zinc Eq.

500 m





Brabant-McKenzie Mineralogy & Expansion Potential

- Project lies in the same geological environment as the Flin Flon, Lalor Lake, Lynn Lake and Snow Lake Deposits
- The Deposit is defined as a high-grade metamorphosed sedimentary-hosted VMS deposit
- Similar to the Wilroy, Wilecho, Nama Creek deposits (satellite deposits to the 54 million tonne Geco deposit in Ontario), or the Sherridon deposit (Manitoba)
- Mineralization occurs as disseminated to massive, semi-massive and breccia-vein sulphides
- Coarse-grained (recrystallized), pyrrhotite, pyrite, sphalerite, chalcopyrite and galena

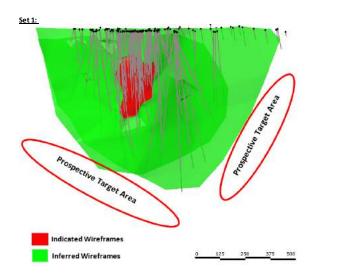


Figure 1: Southeast-looking oblique view of drill hole traces and Mineral Resource wireframes with the prospective target areas.

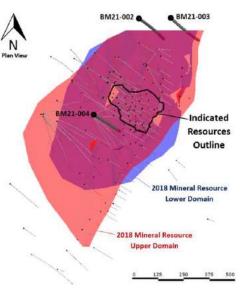


Figure 2: Location of recent drill hole intersecting 15.35 m @ 13.2% ZnEq.

•Hole BM21-004 confirms the continuity of the high-grade mineralization within the deposit with <u>15.35 metres of continuous</u> <u>sulphide mineralization at 13.16% ZnEq</u> at the peripheral edge of Indicated Mineral Resources. The intersection consisted 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	12.67%
Upper Mineralized Zone	900,000	5.7	0.6	0.24	0.17	28.52	8.72%
Total	2,100,000	7.08	0.69	0.49	0.23	39.60	10.97%
Inferred Resource							
Lower Mineralized Zone	2,700,000	4.88	0.55	0.42	0.14	29.02	7.84%
Upper Mineralized Zone	4,900,000	1.22	0.57	0.06	0.08	12.46	3.37%
Total	7,600,000	4.46	0.57	0.19	0.10	18.46	6.92%

The % Zn Equiv. resource for the Brabant-McKenzie zinc deposit was estimated based on current metal prices



2020 Field Prospecting Results – Winter 2021 Drill Program



- Graphite is included in the list of 31 critical minerals in Canada
- Brabant-McKenzie has significant graphite potential
- Multitude of large graphitic horizons located across the project area
- Coarsely crystalline graphite located at Main West Target
- Economic viability of graphite potential requires followup

Coarsely Crystalline Graphite located during 2019 Prospecting

Brabant-McKenzie Deposit - Looking Ahead



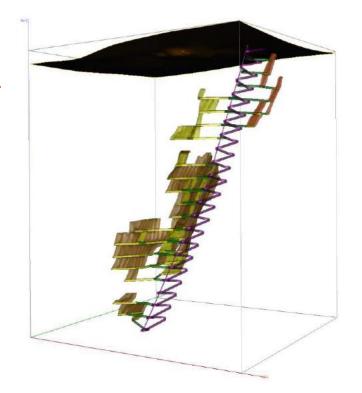


Ongoing Metallurgical Test-Work

- Head Assay and Mineralogy Analysis (mineral phases, abundances, occurrences, general size of grains)
- Pre-concentration by sensor-based ore mineral sorting (Magnetic, Density, Fluorescence, Infrared, X-ray)
- Diagnostic Gravity Separation
- Microwave treatment in reducing downstream processing costs
- Grinding-crushing characteristics
- Preliminary Flotation Tests (rougher, cleaner, and regrind) show excellent metal recoveries

GOAL: AN IMMINENT Zn & Cu MINE

- A desktop study suggests a mining rate in the 1,000-1,500 t/d range is the most likely for this deposit based on currently defined 10 Mt resources (both indicated & inferred)
- Project will likely produce a Zn concentrate with significant Cu/Ag/Au/Pb credits
- Continued resource definition and expansion



Isometric of Underground Stopes and Infrastructure



Quebec Barraute-Landrienne Base Metals Project

+>341.20.

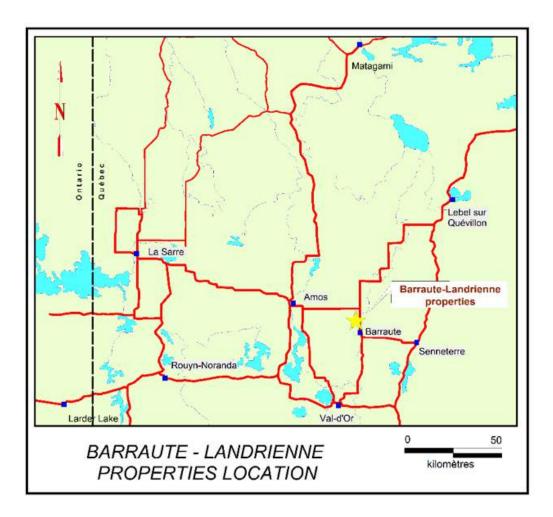




Barraute-Landrienne Base Metals Project – Strategic Location



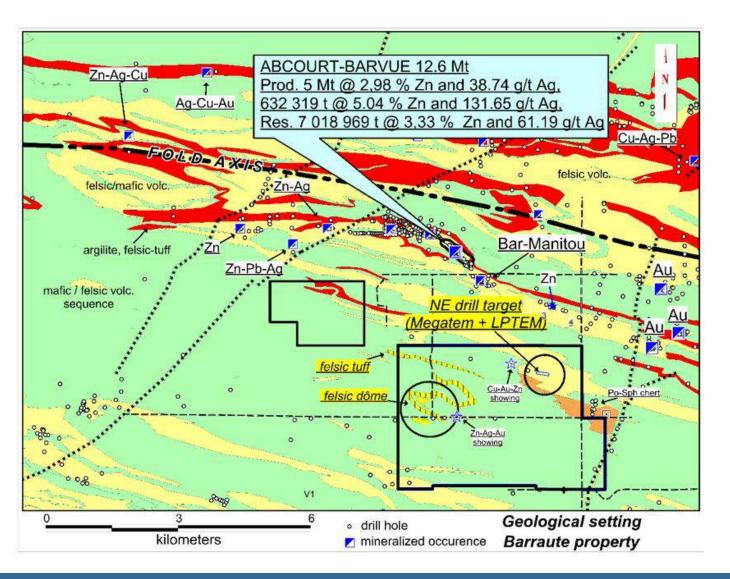
- 75 mineral claims covering 2,377 hectares
- 60 km north of Val-d'Or, and about 4 km northwest of the municipality of Barraute in Quebec
- Potentially hosts some of the best untested geological/geophysical base metals targets in the area and are considered ready for drilling



Barraute-Landrienne Base Metals Project – Exploration Upsides



- Zn-Ag mineralization was discovered in the region in 1950
- Previous work suggested the correlation of the Abcourt-Barvue Mine stratigraphy within the Barraute property
- The Barraute mining camp hosts several mineralized showings and polymetallic metal deposits including the substantial 15.7 Mt zincsilver Abcourt-Barvue deposit located only 2 km from the Barraute property



What's Next?



Brabant-McKenzie high-grade Zn-Cu-Ag Project

- Initiated metallurgy study on the Brabant-McKenzie deposit in order to optimize mineral recoveries. Preliminary tests show high zinc recoveries in a simple flow sheet.
- Complete infill drilling to convert inferred to indicated resources then complete a PEA.

Barraute-Landrienne Base Metals Project

• Drill-test highly-prospective targets.



- VTEM airborne geophysical survey identified numerous EM conductors. Summer field work confirmed the lateral extent of nickel-copper-cobalt-bearing mineralization and provided samples for metallurgical work.
- 3,550 m Drilling Program planned for Q4.

QUEBEC

SASKATCHEWAN





Suite 100 **5063 North Service Road** Burlington, ON L7L 5H6

Jean-Charles (JC) Potvin T: +1 416 565 4411 E: jcpotvin@murchisonminerals.com

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



@MurchisonMiner



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Appendix



Management and Board of Directors



JEAN-CHARLES (JC) POTVIN, B.Sc. (Hon), MBA President & CEO, 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/ BMO Nesbitt Burns.
- Currently a director of Azimut Exploration Inc., Golden Sun Resources and Murchison Minerals.

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.



Management and Board of Directors continued



DONALD K. JOHNSON, B.Eng., MBA, O.C. Director

- Donald currently 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.

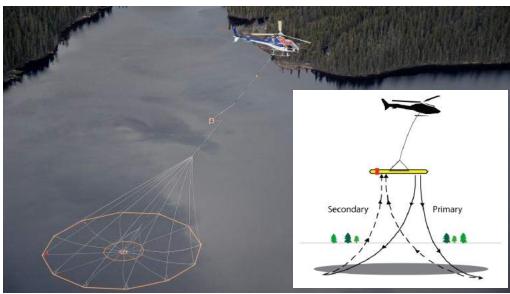
Finding VMS Mineral Deposits



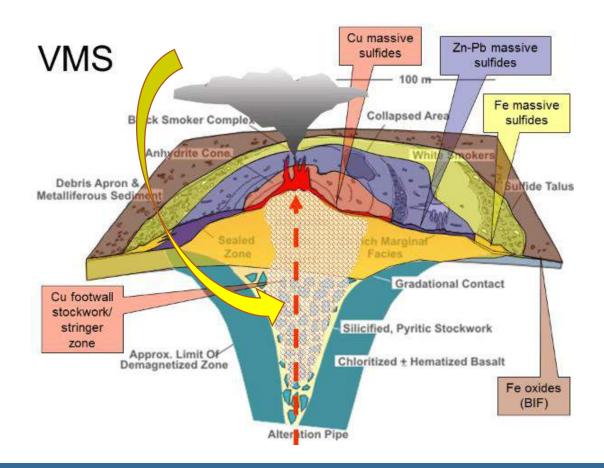
Ground Prospecting & Geophysics



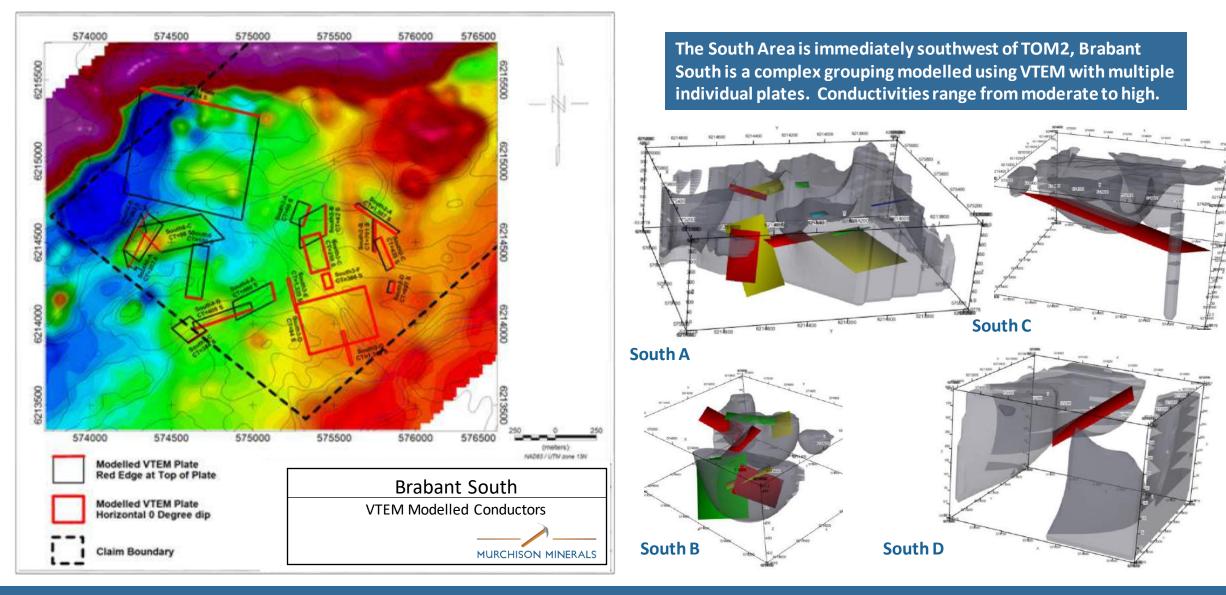
Airborne Data Collection



VMS Orebody Formation



Geophysics Modelling Example: Brabant South Area – Multiple Targets



Main Lake – High-grades on Surface

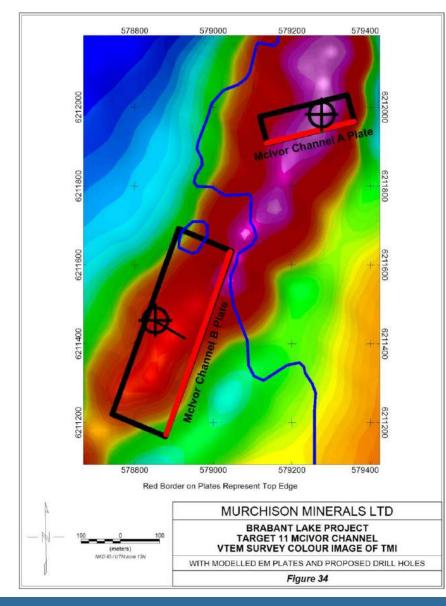






Mclvor Channel – One of 120 Targets







- Trenching over conductor / gossan.
- Concordant Mag High + EM Signature over 1,800 m.
- The McIvor Channel A and McIvor Channel B plates have high conductivities of 967 and 268 Siemens, respectively.



Significant Gold Potential

00

Mallan

Main Lake

Brabant Lake Project

Gold Prospectivity

Saskatchewan, Canada

NAD 83 UTM Zone 13N May, 2020

Claim Area

----- Highways

Gold Mine

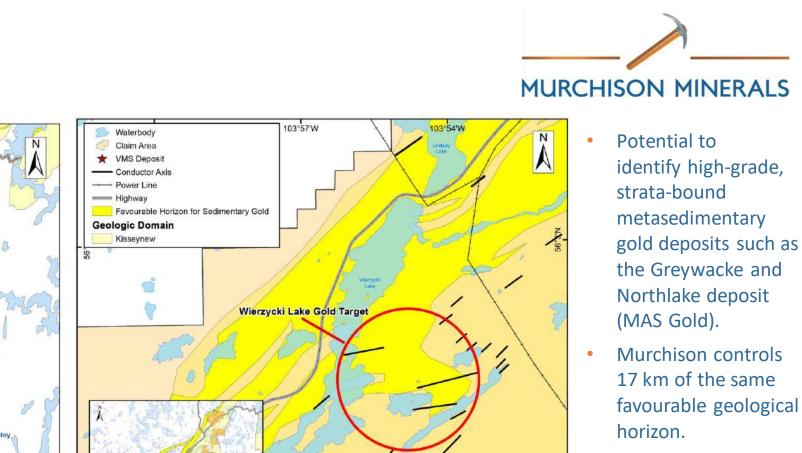
Geologic Domain

Kissevnew

VMS Deposit

Sediment Hosted Gold Deposits

Favourable Horizon for Sedimentary Gold



 Numerous other gold deposits in the region:
 Jolu, Jasper, Seabee,
 Santoy, Fork Lake,
 Mallard Lake, and
 Komia.

MURCHISON MINERALS

Brabant Lake Project

Stratigraphic Gold Target

Saskatchewan, Canada

1:50.000

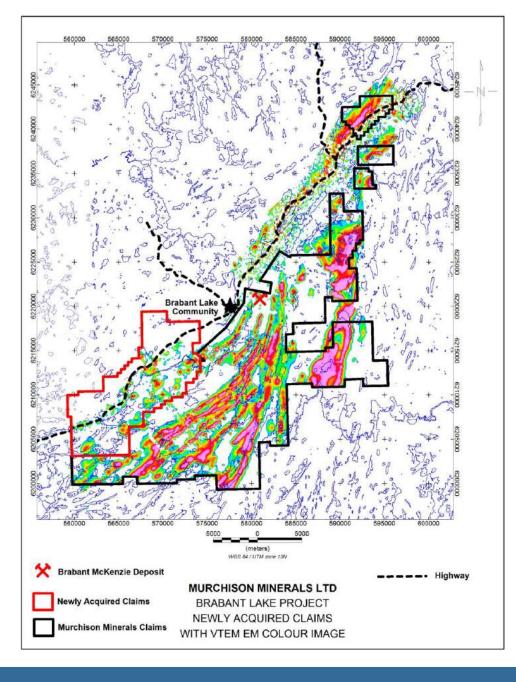
NAD 83 UTM Zone 13N June, 2020



Map Area

Brabant-McKenzle Deposit







The entire 627 km² land package has been covered with modern airborne geophysical surveys.

The package is highly-prospective for VMS-type Base Metals deposits (Brabant-McKenzie deposit) as well as for gold (Jolu, Seabee, Santoy gold mines and the Northlake, Greywacke).

