

Murchison Minerals Receives Remaining Assays from PYC Target and Commences Airborne Electromagnetic Survey Covering Full Extent of the HPM Ni-Cu-Co Project

written by Raj Shah | April 21, 2022

April 21, 2022 ([Source](#)) – Murchison Minerals Ltd. (“Murchison” or the “Company”) (TSXV:MUR OTCQB:MURMF) is pleased to announce results from the exploration program that was completed in the fourth quarter of 2021 on the 100% – owned 576 km² HPM (Haut-Plateau de la Manicouagan) Project, located in Quebec. The assay results reported here come from the remaining six holes into the PYC target ([see news release March 7th, 2022](#), detailing initial results from PYC21-007 & 008 come from a 1.95 km – long electromagnetic (EM) anomaly that was prospected in the summer of 2021). The results confirm the presence of broad zones of near surface low-grade nickel, copper, cobalt mineralization across the drilled portion of the target. The mineralization at the PYC target when paired with high-grade Ni-Cu-Co results from the adjacent Barre de Fer Zone ([see news release April 4th, 2022](#)) and numerous prospective EM targets across the property, demonstrates the potential camp scale of the HPM Project.

The results from the Q4 2021 regional exploration program confirms that Murchison’s exploration approach is effective at locating near-surface Ni-Cu-Co sulfide mineralization. This methodology consists of mapping conductive features based on

airborne EM survey results, ground truthing EM conductors using a beep mat, then sampling using a backpack drill. Mineralization discovered using this process is inventoried and the best targets are ranked for drill-testing.

To build on the inventory of highly prospective EM anomalies identified in 2021, the Company is pleased to announce today the commencement of an Airborne Electromagnetic Survey that will cover the full extent of the HPM project area, which was increased from 139 km² to 576 km² in December 2021. The survey is being completed by Geotech Ltd. of Aurora, Ontario utilizing VTEM technology which has proven to be highly successful at detecting massive to semi-massive sulphide mineralization like that found at HPM.

Today's results follow a recently completed comprehensive data compilation, verification and modelling program utilizing all the historic drill hole data from the Barre de Fer Zone (BDF) to build a preliminary 3D interpretation of the nickel mineralization (Figure 4). The model shows that the BDF Zone outcrops at surface, extends to a vertical depth of 295 m, has a strike length of 315 m, and is composed of multiple stacked lenses over a maximum surface projection of 150 m width. Individual lenses have a maximum thickness of 28 m. **Mineralization has been intersected to a vertical depth of 440 m, and the Zone remains undrilled and open along strike and at depth.** No resource estimates have been completed on the BDF Zone to date.

Highlights

- Commenced large-scale airborne geophysical survey to entirely cover the prospective HPM claim block
- Previously flown VTEM survey covered only 15% of the total property and detected over 50 EM anomalies with follow up

prospecting in 2021 detecting nickel bearing sulphide mineralization at multiple locations

- EM conductors identified from the recently launched VTEM survey will be followed up by an extensive ground prospecting program during the summer of 2022
- **Hole PYC21-005 drilled to a depth of 170 m intersected multiple zones of Ni-Cu-Co-bearing sulphide mineralization totaling 54.97 m of composite thickness (Table 1 & Figure 2 & 3), including:**
 - 9.38 m grading 0.51% Ni Eq (42.58 m to 51.96 m) including 2.68 m at 0.92% Ni Eq (49.28 m to 51.96 m)
 - 19.12 m grading 0.37% Ni Eq (84.25 m to 103.37 m)
- **Hole PYC21-006 drilled to a depth of 285 m intersected multiple zones of Ni-Cu-Co bearing sulphide mineralization totaling 66.93 m of composite thickness (Table 1 & Figure 2 & 3), including:**
 - 21.5 m grading 0.42% Ni Eq (125.30 m to 146.80 m) including 3.50 m at 0.80% Ni Eq (137.0 m to 140.5 m)
 - 12.68 m grading 0.31% Ni Eq (46.50 m to 59.18 m) including 0.86% Ni Eq over 1.27 m (53.63 m to 54.90 m)
- **Hole PYC21-002 drilled to a depth of 257 m intersected multiple zones of Ni-Cu-Co bearing sulphide mineralization totaling 36.86 of composite thickness (Table 1), including:**
 - 15.12 m grading 0.51% Ni Eq (167.50 m to 182.62 m) including 1.0 m at 1.12% Ni Eq (169.0 m to 170.0 m) and 2.0 m at 0.84% Ni Eq (177.0 m to 179.0 m)

Murchison Minerals President and CEO Troy Boisjoli comments:

“The results to date support our assessment that the HPM project is an emerging Ni-Cu-Co district, and our value accretive exploration strategy has Murchison well positioned to significantly advance the project. This comes at a time when the

2022 Federal Budget contains \$3.8 billion in funding for critical minerals over the next eight years, there is broad bipartisan support for critical minerals in the United States and commodity prices are at decades-highs."

Murchison Minerals Vice-President of Exploration John Shmyr comments:

"We are pleased with today's results as the HPM project now includes i) PYC with Ni-Cu-Co mineralization confirmed over the 550 m drilled portion of the 1.95 km strike length, ii) BDF Zone with high-grade Ni-Cu-Co mineralization completely unconstrained, iii) multiple exploration targets with Ni-Cu-Co mineralization confirmed by surface sampling, and iv) numerous EM conductors interpreted to represent near surface Ni-Cu-Co mineralization. All these results are within only 15% of the total HPM project area and we are eager to receive the results of the VTEM survey being completed over the other 85% of the claim area which falls in the footprint of similar prospective mafic rocks"

2022 VTEM Survey

The VTEM survey will consist of 200 metre spaced flight lines for a minimum of approximately 3,200 line kilometres; however, it is expected that additional lines will be flown at a tighter spacing of 100 metres where conductive targets are identified during the program.

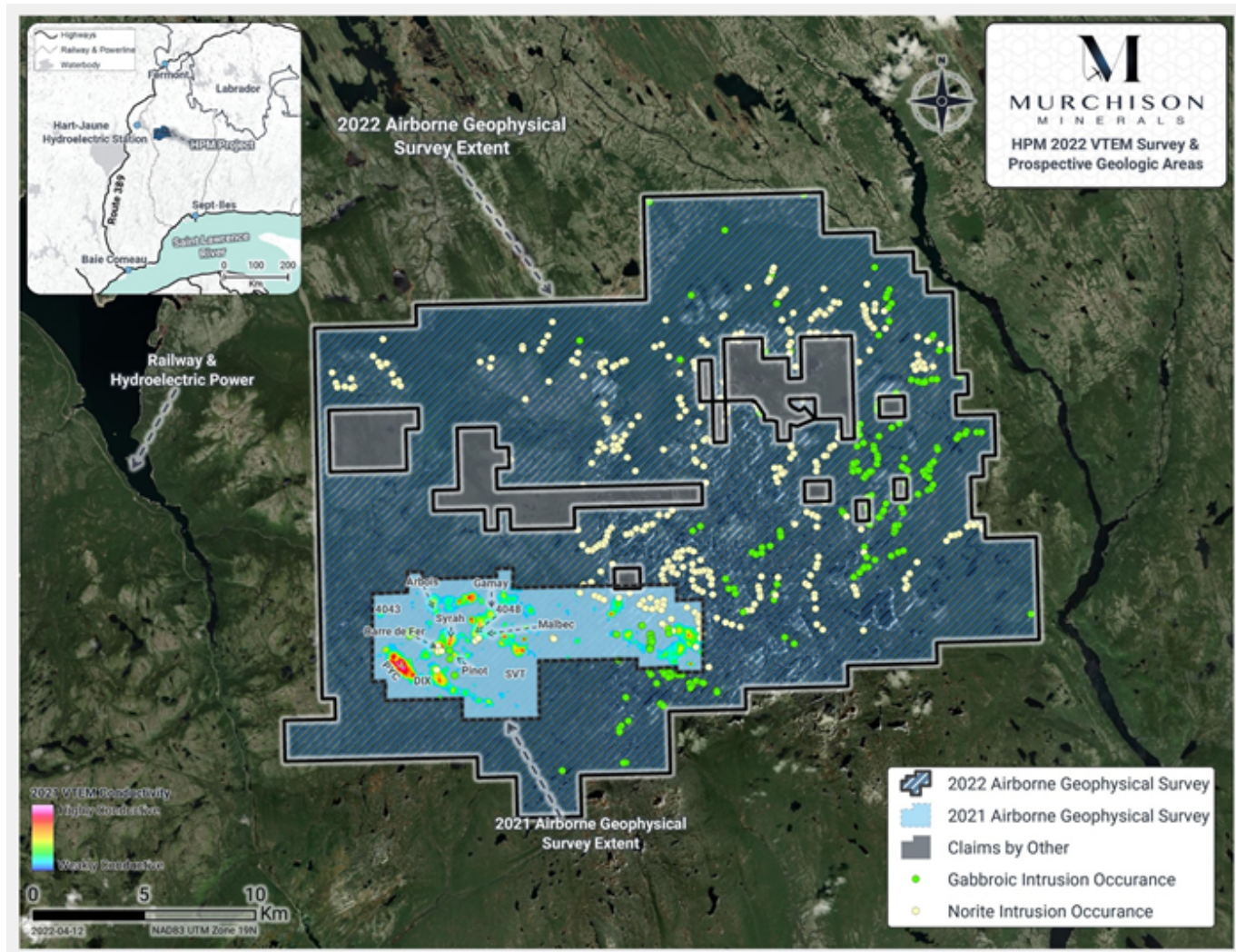


Figure 1: Map of 2022 Geophysical Survey Area showing the results of the 2021 program in the small block comprising 15% of the claim block

The Company has completed the compilation of data available from the Geological Survey of Quebec, where extensive areas of noritic and gabbroic rocks similar the BDF and PYC Zones were highlighted across the property (Figure 1). These intrusive rocks form a large domain of mixed mafic to ultramafic intrusive complex known as the Hart-Jaune terrane which define a broad gravity anomaly across the property. These rocks are considered favourable for the development of magmatic sulphide mineralization and exhibit similarities to the host intrusion of the Voisey's Bay deposits in Labrador. The entirety of the claim area is considered prospective and has the potential to yield

prospective geophysical anomalies corresponding to magmatic nickel sulphide mineralization. Murchison is very eager to receive the results from the 2022 survey.

2021 Fall HPM Drill Campaign and PYC Assay Results

Murchison has now received all remaining assay results from the 2021 exploration drill campaign focused on testing the PYC target. In total eight drill holes were completed in October and November of 2021 with the initial assays from the first holes PYC21-007 and PYC21-008 released on March 7, 2022. Murchison has now received and reviewed the assays from hole PYC21-001 to PYC21-006 and is able to confirm that all holes intersected nickel-bearing sulphide mineralization (Table 1).

Today's assay results demonstrate the depth-continuity of mineralization observed on surface during the summer prospecting program, and the mineralization correlates with a 1.95 km-long electromagnetic anomaly (EM) ([see August 16th, 2021 release](#)). The assays establish the mineralization as a prospective target for potential bulk tonnage nickel-copper- cobalt. The PYC results alongside the recently re-released assays from the BDF Zone indicate the project area is prospective for both low-grade high tonnage and high-grade mineralization.

The mineralization observed at PYC consists of half metre- to metre-scale semi-massive to massive sulphides – as well as intermittent sulphide breccias and disseminated sulphides over tens of metres within a dark fine-grained gabbro. The sulphide mineralization forms two steeply dipping broad parallel zones, separated by approximately 30 metres of unmineralized gabbro.

Table 1 Fall 2021 HPM Drill Hole Assays

| Hole | | From (m) | To (m) | Length** (m) | Ni % | Cu % | Co % | Ni Eq. %* |
|-----------|-----------------|---------------|---------------|-----------------|-------------|-------------|-------------|-----------------|
| PYC21-001 | | 75.80 | 81.15 | 5.35 | 0.19 | 0.08 | 0.04 | 0.31 |
| | | 86.00 | 92.00 | 6.00 | 0.24 | 0.11 | 0.05 | 0.40 |
| PYC21-002 | | 14.75 | 15.35 | 0.60 | 0.18 | 0.07 | 0.03 | 0.28 |
| | | 19.20 | 22.00 | 2.80 | 0.12 | 0.12 | 0.02 | 0.22 |
| | | 136.42 | 149.00 | 12.58 | 0.16 | 0.08 | 0.03 | 0.28 |
| | | 167.50 | 182.62 | 15.12 | 0.31 | 0.15 | 0.06 | 0.51 |
| | <i>includes</i> | 169.00 | 170.00 | 1.00 | 0.64 | 0.54 | 0.12 | 1.12 |
| | <i>includes</i> | 177.00 | 179.00 | 2.00 | 0.54 | 0.10 | 0.11 | 0.84 |
| | | 202.00 | 207.76 | 5.76 | 0.13 | 0.08 | 0.03 | 0.23 |
| PYC21-003 | | 74.00 | 82.05 | 8.05 | 0.36 | 0.20 | 0.07 | 0.60 |
| | <i>includes</i> | 78.85 | 81.28 | 2.43 | 0.69 | 0.33 | 0.14 | 1.14 |
| | | 93.93 | 100.73 | 6.80 | 0.16 | 0.07 | 0.03 | 0.27 |
| | | 103.00 | 108.22 | 5.22 | 0.11 | 0.06 | 0.02 | 0.19 |
| PYC21-004 | | 316.50 | 320.22 | 3.72 | 0.17 | 0.13 | 0.03 | 0.30 |
| | | 322.45 | 323.30 | 0.85 | 0.27 | 2.17 | 0.06 | 1.12 |
| | | 328.51 | 329.87 | 1.36 | 0.13 | 0.11 | 0.03 | 0.24 |
| | | 365.08 | 386.00 | 20.92 | 0.17 | 0.09 | 0.03 | 0.29 |
| | | 394.00 | 397.45 | 3.45 | 0.16 | 0.07 | 0.03 | 0.26 |
| PYC21-005 | | 9.17 | 20.50 | 11.33 | 0.14 | 0.07 | 0.03 | 0.24 |
| | | 34.50 | 40.23 | 5.73 | 0.20 | 0.12 | 0.04 | 0.34 |
| | | 42.58 | 51.96 | 9.38 | 0.31 | 0.15 | 0.06 | 0.51 |
| | <i>includes</i> | 49.28 | 51.96 | 2.68 | 0.57 | 0.21 | 0.11 | 0.92 |
| | | 84.25 | 103.37 | 19.12 | 0.23 | 0.11 | 0.04 | 0.37 |
| | | 117.85 | 127.26 | 9.41 | 0.13 | 0.06 | 0.03 | 0.21 |

| | | | | | | | | |
|-----------|------------------------|---------------|---------------|-------------|-------------|-------------|-------------|-------------|
| PYC21-006 | | 17.90 | 31.00 | 13.10 | 0.16 | 0.09 | 0.03 | 0.27 |
| | | 34.45 | 39.00 | 4.55 | 0.16 | 0.05 | 0.03 | 0.26 |
| | | 41.50 | 44.00 | 2.50 | 0.20 | 0.07 | 0.04 | 0.32 |
| | | 46.50 | 59.18 | 12.68 | 0.18 | 0.07 | 0.04 | 0.31 |
| | <i>includes</i> | 53.63 | 54.90 | 1.27 | 0.54 | 0.15 | 0.11 | 0.86 |
| | | 63.08 | 72.73 | 9.65 | 0.19 | 0.09 | 0.04 | 0.33 |
| | | 119.93 | 122.88 | 2.95 | 0.09 | 0.04 | 0.02 | 0.15 |
| | | 125.30 | 146.80 | 21.50 | 0.25 | 0.12 | 0.05 | 0.42 |
| | <i>includes</i> | 137.00 | 140.50 | 3.50 | 0.50 | 0.18 | 0.10 | 0.80 |
| | <i>includes</i> | 145.35 | 145.85 | 0.50 | 0.56 | 0.10 | 0.11 | 0.87 |

*Nickel Equivalent (Ni Eq.) values were calculated using the following USD metal prices from Apr 13, 2022: \$14.72/lb Nickel, \$4.703/lb Copper and \$37.195/lb Cobalt. *No cutoffs or metal recoverability were factored into Ni Eq calculations. Ni Eq was calculated using the formula $Ni\ Eq = Ni\% + ((Cu\% * Cu\ Price * 22.0462) + (Co\% * Co\ Price * 22.0462)) / (Ni\ price * 22.0462)$.*

**Reported as core length, true thickness is not known.

Table 2 Fall 2021 HPM Drill Hole Collar Information

| DDH | Easting UTM* | Northing UTM* | Elevation (m) | Azimuth (°) | Dip (°) | EOH (m) |
|-----------|--------------|---------------|---------------|-------------|---------|---------|
| PYC21-001 | 613090 | 5722052 | 908 | 46 | -49 | 152 |
| PYC21-002 | 613090 | 5722052 | 908 | 46 | -75 | 257 |
| PYC21-003 | 613024 | 5722126 | 898 | 43 | -51 | 128 |
| PYC21-004 | 613024 | 5722126 | 898 | 57 | -79 | 449 |
| PYC21-005 | 613445 | 5721845 | 902 | 216 | -46 | 170 |
| PYC21-006 | 613445 | 5721845 | 902 | 216 | -70 | 285 |

*UTM Projected Coordinate System: NAD83 UTM Zone 19N.

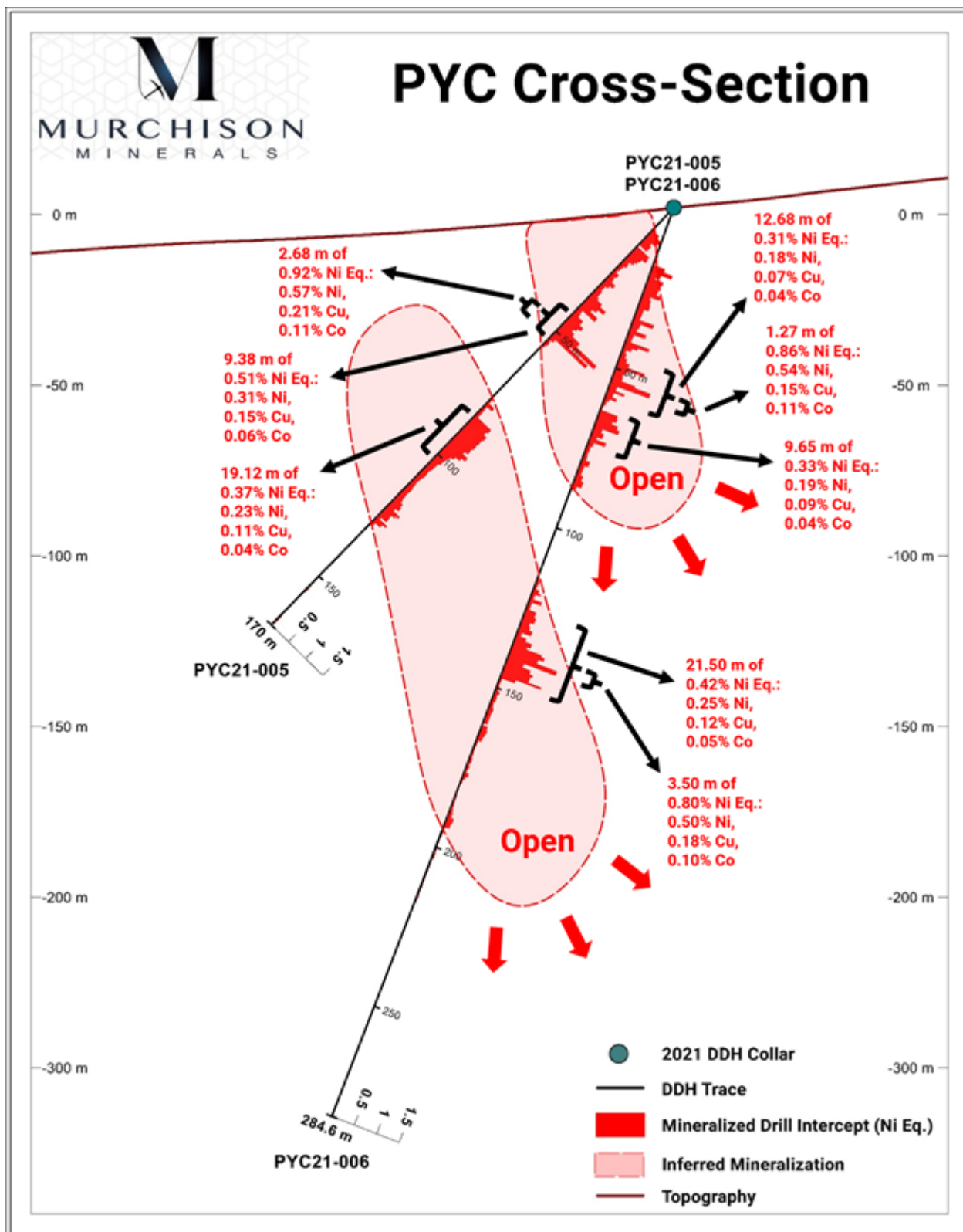


Figure 2: Cross-section of PYC21-005 & 006 with Ni Eq. displayed.

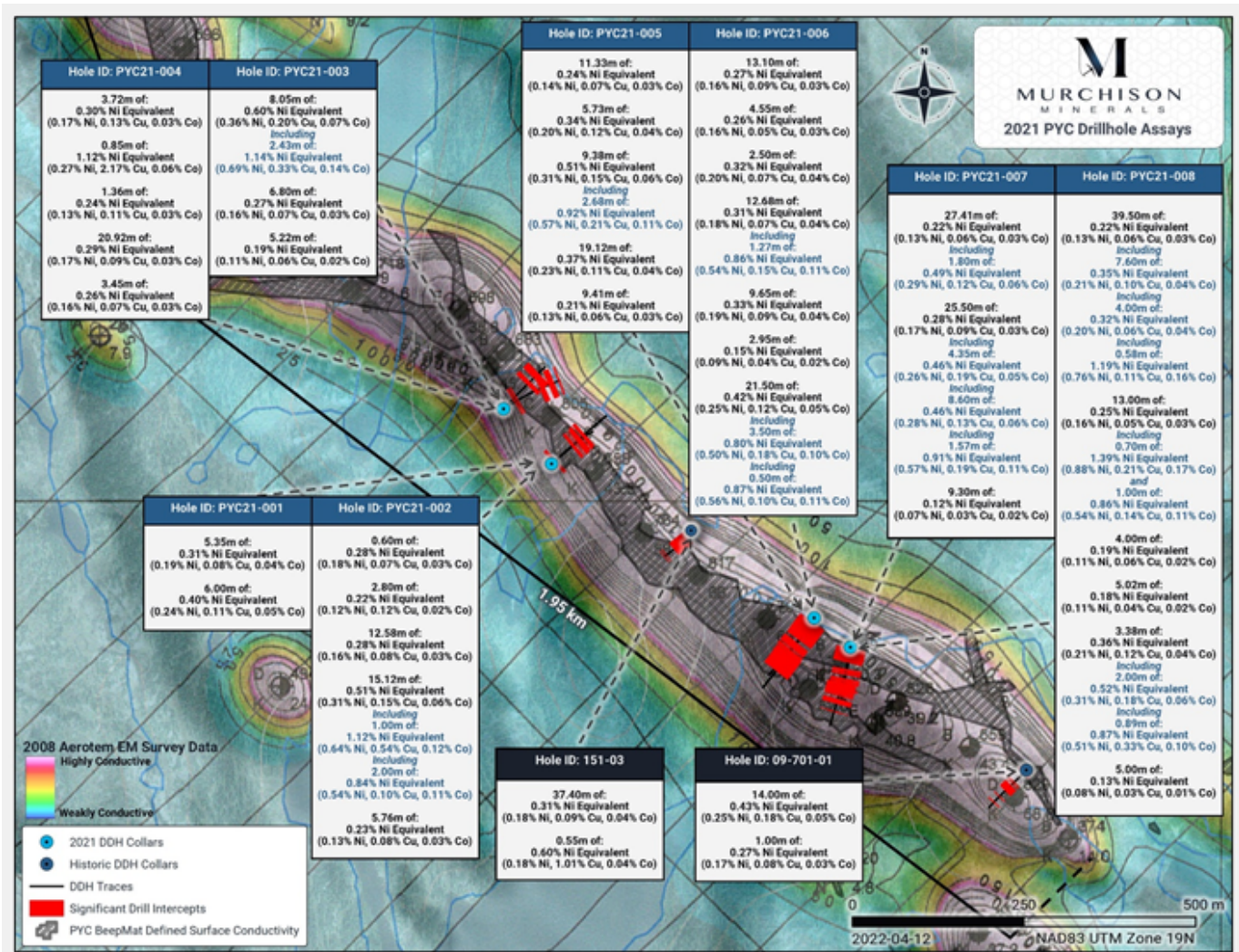


Figure 3: Map of PYC EM geophysical anomaly with location of drill holes.

2022 Exploration Campaign

In addition to the prospecting program, Murchison is moving forward with preparations for a summer drill program on the HPM property. Drilling at BDF will focus on expansion and delineation of mineralization, where assays have returned grades up to 52.15 metres of 2.04% Ni Equivalent (1.52% Ni, 0.79% Cu, 0.08% Co) in previous drill programs ([see April 4th, 2022 news release](#)). Exploration drilling will centre on the highly prospective Syrah target which is located approximately 300 metres from BDF and is situated above a 600-metre-long conductive area with a similar EM signature to BDF. Assays from

outcrops at Syrah have returned grades as high as 0.83% Ni Equivalent (0.58% Ni, 0.24% Cu, 0.05% Co) during previous prospecting programs ([Sept 1st, 2021 release](#)).

This information, along with the expanded VTEM survey, will assist in planning for the upcoming summer prospecting program to be conducted across the property.

QA/QC

Murchison has implemented and is adhering to a strict Quality Assurance/Quality Control program. NQ-size core was drilled, and mineralized intervals were marked by geologists during core description. The marked intervals were sampled using a core saw, one-half is kept as a witness sample at a core facility in Saguenay, Quebec and the other assigned a unique number and placed within a plastic bag. The specific gravity of each sample was measured using the mass-in-air / mass-in-water method. Samples were shipped directly to SRC Geoanalytical Labs in Saskatoon, Saskatchewan. The samples were ground and prepared for analysis by the lab using total digestion. Analyzes were performed using ICP-OES for nickel, copper, and cobalt. Every 25th sample sent to the lab was a field duplicate (quarter core), blanks and certified reference material were also submitted approximately every 25th sample.

About the HPM Project

The HPM Project is located east of the Manicouagan structure, the site of a major 215 Ma impact event. The extensive reservoir at Manicouagan supports five hydro-power plants. The existing Quebec Cartier rail line, located eight kilometres west of the PYC project area, links Labrador City to Port Cartier and Sept Iles, two major iron ore port facilities.



Figure 4: HPM Location Map

The HPM Project is located within the Haut-Plateau de la Manicouagan area. The claims host prospective gabbroic, ultramafic and anorthositic bodies within the Manicouagan metamorphic complex and are associated with significant nickel-copper-cobalt sulphide mineralization first identified by Falconbridge in 1999, where they discovered extensive nickel-bearing sulphide mineralization at BDF during drilling in 2001 – 2002. Murchison Minerals Ltd.'s predecessor – Manicouagan Minerals – drilled in the area in 2008 and 2009. The majority of the past drilling at the HPM Project targeted the BDF geophysical conductor and confirmed the presence of nickel-copper-cobalt sulphide mineralization over approximately 300-

metres strike length to a depth of 280 metres. The mineralization remains open at depth and partially along strike.

The Company recently completed a comprehensive data compilation, verification and modelling program, comprising all drill hole data from the BDF Zone. The modelling program consisted of developing a preliminary 3D interpretation of nickel mineralization at BDF (Figure 5). Based on the modelling, the Zone outcrops on surface, extends to a vertical depth of 295 m, has a strike length of 315 m, and is composed of multiple stacked lenses over a maximum Zone footprint width of 150 m. Individual lenses have a maximum thickness of 28 m. **However, extensive mineralization has been intersected to a vertical depth of 440 m, and the Zone remains undrilled and unconstrained along strike and at depth.** No resource estimates have been completed on the Zone to date.

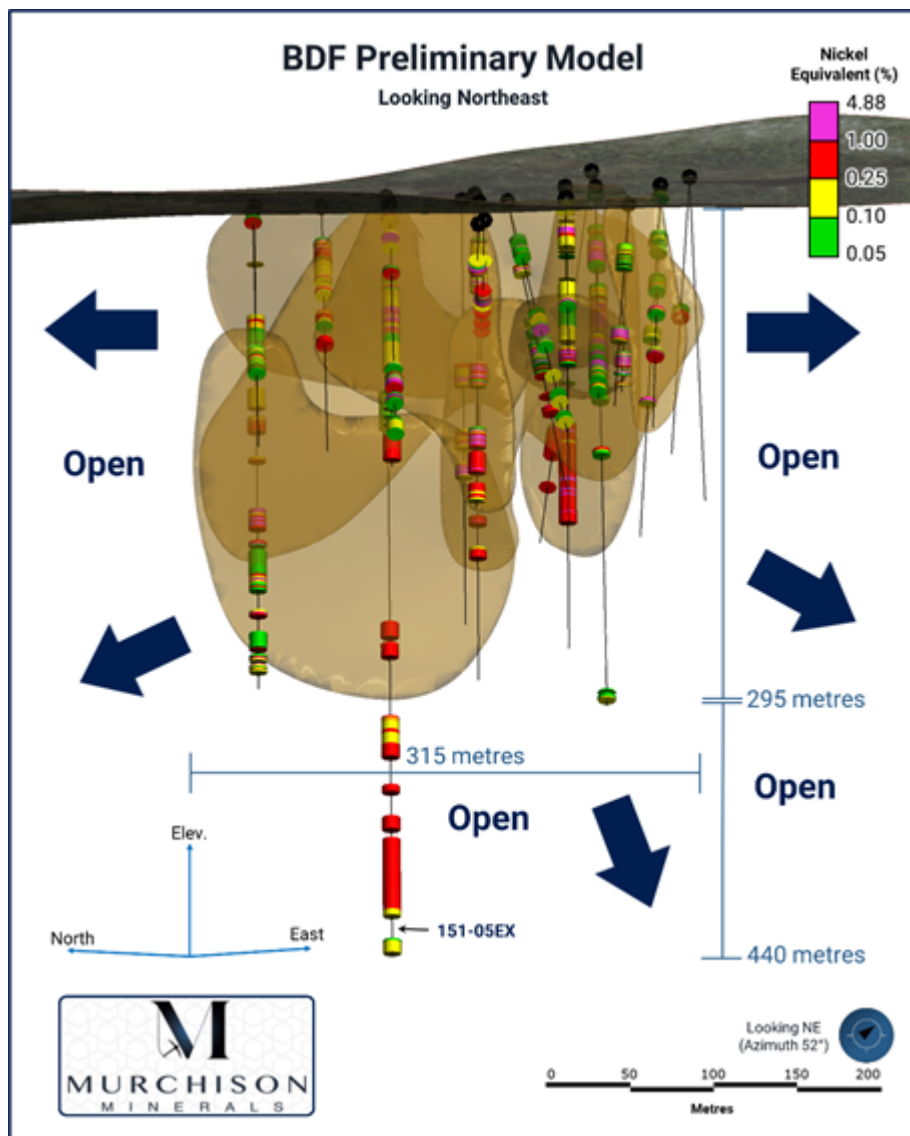


Figure 5: Barre de Fer Zone Preliminary Nickel Mineralization Model, isometric view looking Northeast

After Murchison Minerals Ltd. acquired 100% ownership of the property in 2019, the Company focused exploration work on the camp-scale potential of the region. Aerial EM surveys completed in the spring of 2021 identified more than 50 anomalous conductors. Prospecting crews were able to traverse three (3) of the more than 50 anomalies, and discovered new outcrops of nickel-bearing sulphide mineralization in the process. The prospecting program was followed by an inaugural drill program at the PYC Target area – an EM anomaly with a 1.95-km strike length. Subsequent to the completion of the drill program at

PYC, the Company increased its dominant land position in the Haut-Plateau region from 139 km² to 576 km².

Qualifying Statement

The foregoing scientific and technical disclosures on the HPM Project have been reviewed by John Shmyr, P.Geo., VP Exploration, a registered member of the Professional Engineers and Geoscientists of Saskatchewan. Mr. Shmyr is a Qualified Person as defined by National Instrument 43-101.

About Murchison Minerals Ltd. (TSXV:MUR) (OTCQB:MURMF)

Murchison is a Canadian-based exploration Company focused on nickel-copper-cobalt exploration at the 100% – owned HPM Project in Quebec and the exploration and development of the 100% – owned Brabant Lake zinc-copper-silver project in north-central Saskatchewan. The Company also holds an option to earn 100% interest in the Barraute VMS exploration project also located in Quebec, north of Val d'Or. Murchison currently has 170.5 million shares issued and outstanding.

Additional information about Murchison and its exploration projects can be found on the Company's website at www.murchisonminerals.ca. For further information, please contact:

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