



**HIGH-TECH METALS**  
LIMITED

26 May 2023

## HTM COMPLETES SUCCESSFUL AND COMPREHENSIVE GROUND GEOPHYSICAL SURVEYS AT THE WERNER LAKE COBALT PROJECT

### HIGHLIGHTS

**HTM completes successful ground magnetic and electromagnetic surveys at its Werner Lake Cobalt Project to identify high priority electrical conductors and/or magnetic anomalies for follow-up drilling.**

**Results are being refined for Phase II exploration including mapping and sampling over geophysical targets.**

**The Company has received and continues to appraise several new project opportunities in the vicinity of Werner Lake and continues to conduct high-level internal assessments on projects that fit the Company's objective of becoming a battery metal focused company.**

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High-Tech Metals Limited (ASX: **HTM**) (**High-Tech**, or **the Company**) is pleased to announce positive results from the geophysical program conducted at its Werner Lake Cobalt Project located in north-western Ontario. The program, (**Refer to ASX Release dated 20th April 2023**) is aimed at identifying potential mineral deposits and improving our understanding of the geological structure of the area.

The geophysical program totalled 60.5-line km of magnetic and VLF data collected across two grids completed over 8 days (49.5-line km Werner East and 10.9 line km Werner West). Below are preliminary residual magnetic intensity (**RMI**) and in-phase Fraser Filtered VLF gridded results (**Refer Figure 1 and 2**), A Loupe TDEM orientation survey was completed to the North of the Western Portal of the Werner Lake deposit consisting of approximately 3-line km across zones of known mineralisation.

Finalisation of targeting for Phase II is expected within two weeks. Results from the planned mapping and sampling program, a combination of lithochemical and substrate sampling, will provide additional data for a second round of electromagnetic surveying leading to an HTM planned maiden drilling program.

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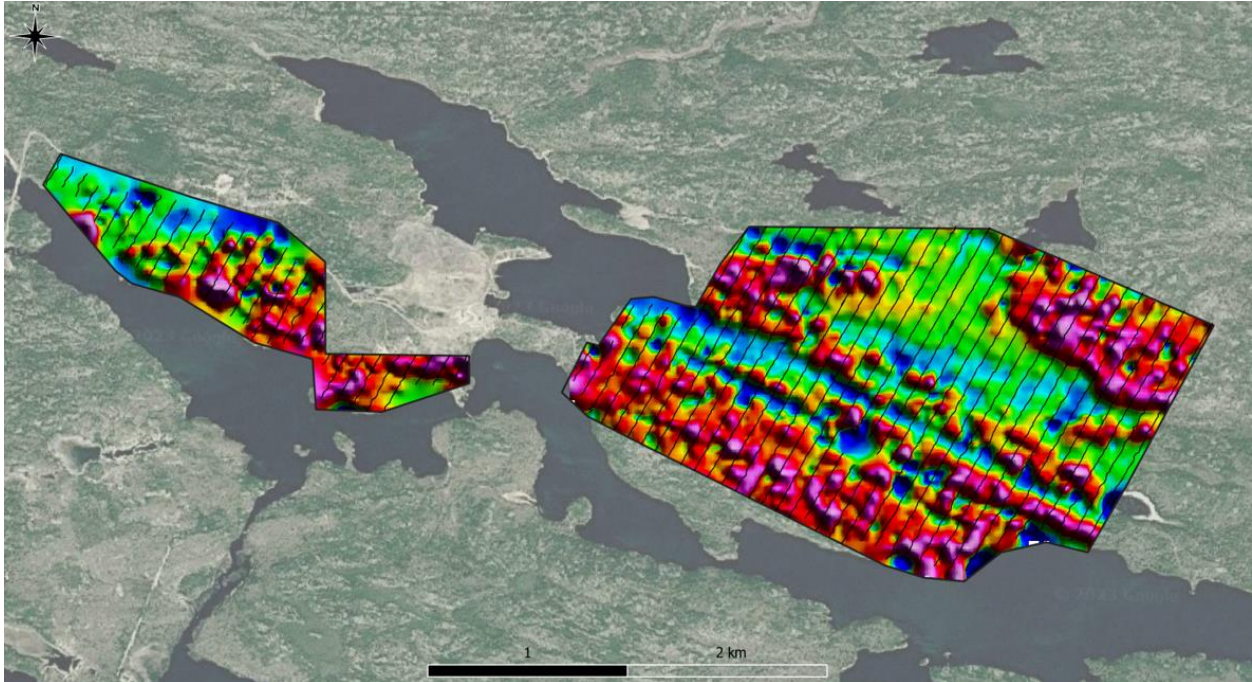


Figure 1 - Werner Lake Ground Geophysical Survey: Residual Magnetic Intensity Gridded Images.

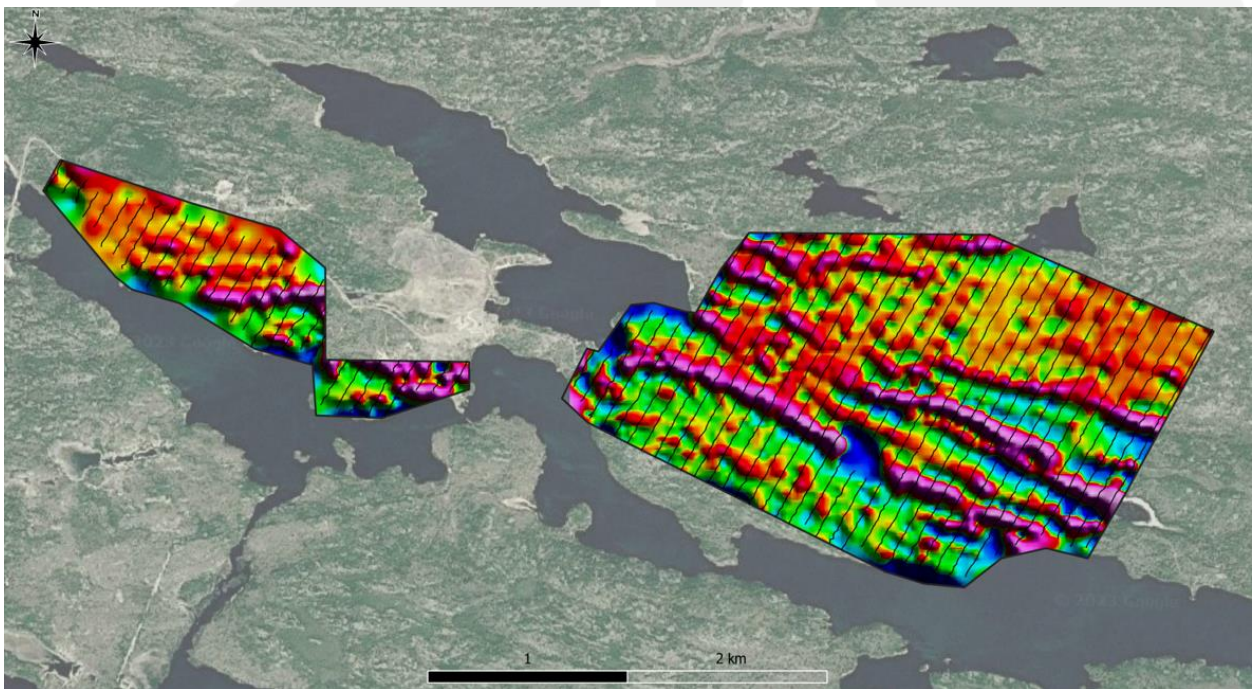
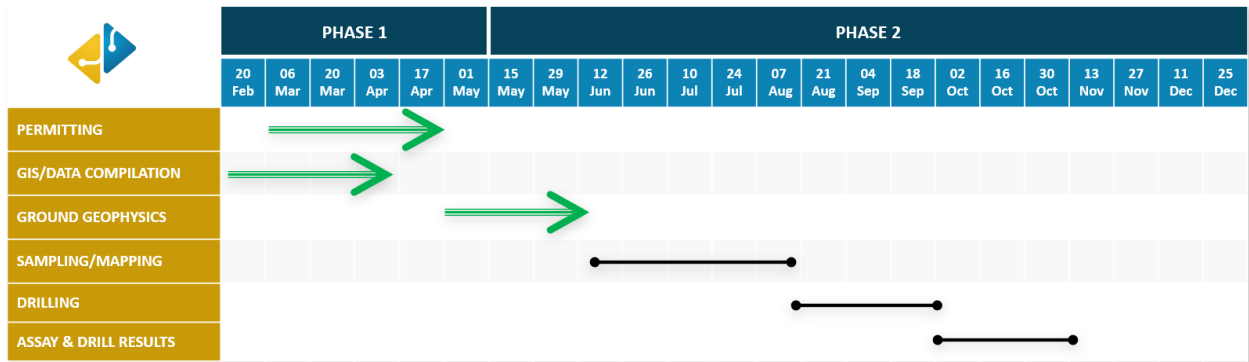


Figure 2 - Werner Lake Ground Geophysical Survey: VLF In-Phase Fraser Filtered Gridded Images

**Sonu Cheema, Executive Director commented:**

"We are very pleased with the progress and completion of High-Tech's geophysical program, of which initial interpretation of the results have provided valuable insights into the geological structures and mineralisation potential of the Werner Lake Cobalt Project. The targets identified by the program are highly prospective, and we are eager to commence planning HTM's drilling program to test their mineralisation potential."

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**Figure 3 – Progress update on Werner Lake exploration roadmap for 2023**

HTM is committed to responsible exploration practices and takes measures to minimize the impact of its exploration activities on the environment and local communities.

The Company has received and continues to appraise several new project opportunities in the vicinity of Werner Lake and continues to conduct high-level internal assessments on projects that fit the Company’s objective of becoming a battery metal focused Company.

**AUTHORISED FOR RELEASE ON THE ASX BY THE COMPANY'S BOARD OF DIRECTORS**

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**About High-Tech Metals Limited**

High-Tech Metals Limited (ASX:HTM) is an ASX-listed company focused on the exploration and development of its flagship, 100 per cent owned Werner Lake Cobalt Project (the Project) located in north-western Ontario, within the Kenora Mining District, approximately 85 km north-northwest of Kenora, Ontario and approximately 170 km east-northeast of Winnipeg, Manitoba. The Project was acquired from Global Energy Metals Corporation (70%) and Marquee Resources Limited (30%).

The two largest cobalt deposits defined in Canada to date are the Werner Lake Minesite Deposit and the West Cobalt Deposit. The area has seen extensive exploration and development work since the original discovery of cobalt in 1921. The Werner Lake Cobalt Mine produced cobalt ore in the 1930s and 1940s from the “Old Mine Site” deposit area and with the discovery of the main ore area at the West Cobalt Deposit, was taken to production decision in the late 1990s. At the time, infrastructure was put in place, including four season road, mill buildings, and tailings settling area. Decline ramp, drifts and raises of over 258 metres were driven into the heart of the deposit. Mineralisation remains open at depth and along strike with the potential for undiscovered high grade zones. Metallurgical studies have shown that excellent cobalt recoveries can be yielded from a standard flotation mill process followed by a low-pressure oxidative hydrometallurgical leach (net recovery 88%), to produce a cobalt carbonate end product.

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## Competent Persons Statement

The information in this report which relates to Exploration Results is based on information compiled by Mr. Toby Hughes, P.Geo. who is a member in good standing of the Association of Professional Geoscientists of Ontario (Membership #1318). Mr Hughes is a consultant to HTM and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code of Reporting of Exploration Results, Mineral Resources and ore Reserves". Mr. Hughes consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

## Forward-Looking Statements

This document includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning High-Tech Metals Limited's planned exploration programs, corporate activities, and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should" and similar expressions are forward-looking statements. High-Tech Metals Limited believes that it has a reasonable basis for its forward-looking statements; however, forward-looking statements involve risks and uncertainties, and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

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## JORC 2012 Table 1

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"><li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li><li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li><li>Aspects of the determination of mineralisation that are Material to the Public Report.</li><li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li></ul>	<ul style="list-style-type: none"><li>Ground magnetics surveying was performed using a GEM GSM-19V Overhauser walking magnetometer and VLF system with an integrated GNSS receiver. The sample rate for the magnetic data was 1 second, which provides approximately 1 magnetic measurement every 0.6 m. VLF measurements were taken every 15m along the traverse lines. Additionally, the "Loupe" system, a mobile time domain electromagnetic (TDEM) system, was used to collect data over the historic Werner West portal area. The "Loupe" incorporates a 3-component coil sensor with 100 kHz bandwidth and a fast-switching transmitter loop to measure electrical conductivity in the near-surface at high spatial and vertical resolution.</li></ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"><li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li><li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li><li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li></ul>	<ul style="list-style-type: none"><li>No assay data or laboratory tests were conducted in this stage of exploration. Data collection and processing were focused on magnetic and VLF data, with additional electromagnetic data collected using the "Loupe" system.</li></ul>
Verification of sampling and assaying	<ul style="list-style-type: none"><li>The verification of significant intersections by either independent or alternative company personnel.</li><li>The use of twinned holes.</li><li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li><li>Discuss any adjustment to assay data.</li></ul>	<ul style="list-style-type: none"><li>Sampling for the survey were performed using a GEM GSM-19V Overhauser walking magnetometer and VLF system with integrated GNSS receiver and the "Loupe" TDEM system. For the magnetics survey, overlap levelling lines, minimum 50m in length, were surveyed at the beginning of each day. Differences in the measurement intensities were calculated in areas where there were no anomalies or strong gradients along the overlap lines. For the VLF survey, the NAA (24.0 kHz) and NLK (24.8 kHz) transmitters were utilized based on their proximity and coupling characteristics. The "Loupe" system was used to</li></ul>



Criteria	JORC Code explanation	Commentary
		test responses and signatures over the historic Werner West portal area. Known mineralized areas and underground workings were identified in the "Loupe" dataset.
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Both the GEM GSM-19V system and the "Loupe" system use a GNSS receiver to determine and record positions during the surveying. Poor-quality position measurements requiring additional corrections are filtered based on calculated distance and direction travelled between subsequent readings, and thresholding outlying values.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The data spacing and distribution were sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. The "Loupe" system data is currently being processed and analyzed for further insights.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The Werner Lake mineralized bodies are attenuated in an east-west direction and are moderately- to steeply-dipping. The line spacing and orientation of the surveys is considered adequate for this style of target and geological interpretation. The magnetics and VLF data is considered representative as known areas of interest and target areas where there has been previous drilling work were surveyed. Orientation test lines were surveyed over historic Werner West portal areas using the "Loupe" TDEM system; further processing, and interpretation of the "Loupe" data is ongoing.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The geophysical data was obtained and processed by APEX Geoscience Ltd as an independent contractor. The findings form the basis of the current announcement. An internal review and formal interpretation of the geophysical data, including those from the "Loupe" system, is ongoing. Further data processing and interpretation are expected to provide more detailed</li> </ul>

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Criteria	JORC Code explanation	Commentary
		insights into the area's geological structure and mineral potential.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>HTM controls 100% interest in the Werner Lake project which consists of 116 patented mining claims with mining rights only, 6 patented claims with surface and mining rights, 2 leaseholds with mining rights that cover approximately 1,986 hectares. There are also 11 Licenses of Occupation that cover approximately 440 hectares over water.</li> <li>There are no annual work requirements and the ground is subject to approximately \$8,500 in taxes due each year.</li> <li>Pursuant to an agreement, HTM and Commerce Capital became parties to the Royalty Agreement. Commerce Capital was granted a 2% NSR on the subject property.</li> <li>The Ministry on Mines completed several inspections and recommended actions to meet the requirements of the Mine Rehabilitation Code of Ontario. These actions are currently in process. There are no other impediments to ongoing work at the project.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The project area has seen considerable exploration since its initial discovery in the 1920's. The site was originally mined in the 1940's and a total of 143,386 lbs of cobalt were reportedly shipped for the Minesite Deposit.</li> <li>Canmine Resources carried out the most extensive exploration/development efforts on the project completing 1,923 line- kilometres of helicopter-borne geophysical surveying and extensive ground geophysics. Between 1995 and 1997 Canmine completed over 75,000 ft of diamond drilling delineating the Minesite Deposit and the West Cobalt Deposit. Several companies completed resource estimations for Canmine and work resulted in underground development of approximately 847 ft of raming, drifting and raising into the West Cobalt Deposit. A 25-tonne bulk sample was extracted in 1997 and sent to Lakefield Research for bench test milling and chemical</li> </ul>

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		<p>analysis. Test work proved positive and it was recommended that Canmine move to pre-feasibility work. Pre-feasibility work was contracted to Stoner Consulting. SNC Lavelin completed an unpublished resource estimate in 2001 prior to Canmine declaring bankruptcy.</p> <ul style="list-style-type: none"> <li>• Puget Ventures completed an additional 7.565 metres of diamond drilling in 2009-2010 in addition to surface mapping and other work.</li> <li>• Global Energy Metals completed a NI 43-101 resource report in 2018 that meets CIM reporting standard for resource estimates. All previous work has been included in this work and documents or gives reference to all previous work completed at the project</li> <li>• Marquee Resources Ltd. completed a drill program in late 2018. The data from the 2018 program was not used to update the Werner Lake Mineral Resource estimate.</li> </ul>
<p>Geology</p>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Werner lake Geologic Belt is part of the Archean English River Sub province of the Superior Geological Province in Ontario. The area is underlain by metasedimentary migmatites intruded by syn- to late-tectonic felsic intrusive rocks.</li> <li>• On the Werner Lake property, high-grade cobalt mineralization occurs in stacked lenses that occupy tensional areas intruded by gabbroic pegmatites to produce skarnoid assemblages. These tensional areas occur as sigmoidal folds in larger drag folds and in tensional fractures on the east side of major block faults. They occur in rare swarms over a distance of approximately 10 kilometres, extending from the Eastern Shallows Cobalt Deposit on the east side of Gordon Lake to the West Cobalt Deposit 500 meters west of the Werner Lake Minesite. Individual pegmatite dykelets are tens of centimetres wide and unusually up to five metres wide. They are discontinuous, rootless, pinch-and-swell features, with individual boudins approximately 25 metres in length. Chalcopyrite, pyrite, pyrrhotite and cobaltite are hosted by biotite-amphibole-garnet gneiss</li> </ul>

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Criteria	JORC Code explanation	Commentary
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Maps of the ground geophysical survey are included in the body of this announcement</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All available exploration results have been reported.</li> <li>The competent person regards the reporting as balanced</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Significant work has been completed on the Werner Lake project over the past 90 years. The reader is directed to the Global Energy Metals press release dated April 30, 2018 for a summary and link to the Amended NI 43-101 Resource Report. This report compiles much of the previous work and uses CIM reporting standards to file the NI 43-101 report for the project. There is significant data available in the public domain for interested readers.</li> <li>Amended NI 43-101 Resource Estimate for Werner lake Cobalt Project, Werner Lake, Ontario Canada. AGP Mining Consultants Inc. April 30, 2018. Results from the Lakefield Research tests were used as a basis of potential recovery of metals for the Resource Report published by AGP (2018)</li> <li>Metallurgical test work on a flotation concentrate sample from the Werner Lake deposit was carried out in 1997 at Lakefield Research (now SGS Canada Inc.) in Lakefield Ontario. The sample as received, graded 7.21 %Co, 3.19%Cu, 2.01 %As, 27.5 %FE, and 38.6 %S; and was subjected to a program of leach testing to determine if upgrading of the concentrate should be achieved.</li> <li>High pressure leach tests, in acid and alkaline media, using a 2L batch autoclave were carried out. The optimal results of greater than 99% cobalt and copper extraction were achieved under acidic conditions at 223°C with 100 psi oxygen overpressure, and two hours residence time. At the same time, 90% of the iron and 85% of the arsenic remained in the residue.</li> <li>Neutralization and precipitation tests were carried on the pregnant solution from the autoclave tests. A straightforward flowsheet was developed consisting of lime precipitation to remove iron and arsenic, followed by solvent extraction to recover copper as a separate</li> </ul>

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		<p>stream, and then sodium carbonate precipitation to produce a cobalt carbonate product. Stage recovery of cobalt was calculated at 99.8% to precipitate grading 34.8 %Co, 0.01 %Cu, and 0.006 %As. Both the pressure leaching and lime precipitation waste residues were tested using the USEPA TCLP procedure and were determined to be non-hazardous.</p>
<p>Further work</p>	<ul style="list-style-type: none"><li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li><li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li></ul>	<ul style="list-style-type: none"><li>• Additional diamond drilling work has been recommended and a definitive plan of action will be accessed after the completion of a comprehensive compilation process has been completed.</li><li>• AGP has also recommended additional metallurgical work and underground sampling if the historic workings can be opened.</li><li>• Marquee Resources Ltd (ASX:MQR) completed a program of 23 diamond drillholes at Werner Lake during 2018. These holes have not been incorporated into the Werner Lake Mineral Resource Estimate (MRE). Auranmore is of the opinion that these holes would not make a material difference to the current MRE but future work should include these holes in an updated MRE.</li></ul>

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