TITAN PROJECT UPDATE

- Hyperion continues to rapidly define one of the most important critical mineral provinces in the USA for advanced industries including aerospace, space, defense and electrification.
- 1.5 tonnes of bulk samples have been successfully processed at the Mineral Technologies Inc. facility in Starke, Florida utilizing industry standard wet and dry separation techniques, and has produced final product samples for:
 - o Potential customer and strategic partner discussions;
 - o Analytical testing of rutile, leucoxene/ilmenite, zircon and monazite (rare earths); and
 - o Further downstream test work into titanium metal powders.
- Analytical data for the final products will be completed by SGS Laboratories in Lakefield, Ontario, with results expected in Q2 2021.
- The Company has also completed an additional 78 holes of the Phase 3 drilling program, with the results expected to be released to market in Q2 2021.
- The results from the bulk sample and Phase 3 drilling program are expected to lead to an initial Mineral Resource Estimate for the Titan Project in the coming months.

Hyperion Metals Limited (ASX: HYM) ("Hyperion" or "the Company") is pleased to provide an update on the progress of the Company's bulk test work and Phase 3 drilling program from its Titan critical mineral project ("**Titan Project**"), in Tennessee, USA.

The objective of the program was to confirm that the Titan Project is amenable to standard processing techniques and to produce products for potential customers and strategic partners discussions, additional analytical test work programs such as metallurgical testing of highly valuable rare earth bearing minerals and downstream test work related to the production of titanium powders.

Three ~500kg bulk samples were collected and sent for metallurgical test work at Mineral Technologies Inc. lab in Starke, Florida; one of the leading mining and mineral sand processing equipment suppliers globally. Two of the bulk samples were selected from the lower mineralized unit and one sample from the upper unit at the Titan Project. All three samples were progressed through standard, spiral wet processing techniques to produce heavy mineral concentrates.

Dry processing and separation test work was then undertaken, with activities including separation through high tension roll separators, rare earth drum magnets, rare earth roll magnets and electrostatic plate separators. Initial samples have been produced, including ilmenite, leucoxene/rutile, zircon, and the rare earth element containing mineral monazite.

Analytical data for the final products will be completed by SGS Laboratories in Lakefield, Ontario, with results expected during Q2 2021, and will further inform heavy mineral concentrate assemblage data for an initial resource estimate and flowsheet development for the Titan Project.

The Company has also completed 78 holes of the Phase 3 drilling program with the results expected to be released to market during Q2 2021 and together with the bulk sample are expected to lead to an initial Mineral Resource Estimate to be released to market in the coming months.

Commenting on the update, Anastasios (Taso) Arima, Managing Director of Hyperion Metals said:

"This bulk sample test work program completed by the outstanding team at Mineral Technologies Inc. in Florida and the continued rapid progress on resource delineation by my team continue to highlight the massive potential for Hyperion to become one of the most important suppliers of critical minerals in the USA. I look forward to the release of further results and the delineation of our initial Mineral Resource Estimate which will continue to move us towards our mission of developing a world leading, low-to-zero carbon critical minerals supply chain, all within the heart of the U.S."

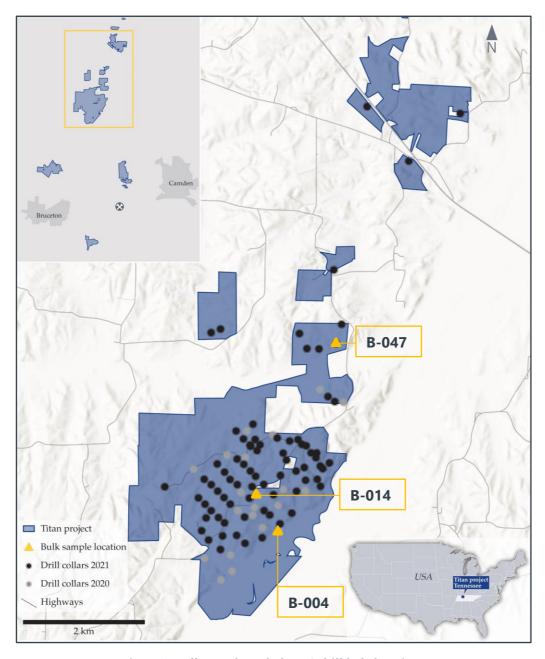


Figure 1: Bulk sample and Phase 3 drill hole locations

This announcement has been authorised for release by the Managing Director.

For further information, please contact:

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About Hyperion Metals

Hyperion's mission is to be the leading developer of zero carbon, sustainable, critical material supply chains for advanced American industries including space, aerospace, electric vehicles, and 3D printing.

The Company holds a 100% interest in the Titan Project, covering nearly 4,000 acres of titanium, rare earth minerals, high grade silica sand and zircon rich mineral sands properties in Tennessee, USA. The Titan Project is strategically located in the southeast of the USA, with low-cost road, rail and water logistics connecting it to world class manufacturing industries.

Hyperion has secured an option for the exclusive license to produce low carbon titanium metal using the breakthrough HAMR technology. HAMR was invented by Dr. Z. Zak Fang and his team at the University of Utah with government funding from ARPA-E. The HAMR technology has demonstrated the potential to produce titanium powders with low-to-zero carbon intensity, significantly lower energy consumption, significantly lower cost and at product qualities which exceed current industry standards.

Hyperion has signed an MOU to establish a partnership with Energy Fuels that aims to build an integrated, all-American rare earths supply chain. The MOU will evaluate the potential supply of rare earth minerals from Hyperion's Titan Project to Energy Fuels for value added processing at Energy Fuels' White Mesa Mill. Rare earths are highly valued as critical materials for magnet production essential for wind turbines, EVs, consumer electronics and military applications.



Figure 2: Titanium ingot producers and major U.S aeronautic and space manufacturing facilities

Forward looking statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Competent Person's Statement

The information in this announcement that relates to Exploration Results is based on information compiled and/or reviewed by Mr. Adam Karst, P.G. Mr. Karst is an independent consultant to Hyperion Metals Pty Ltd. Mr. Karst is a Registered Member of the Society of Mining, Metallurgy and Exploration (SME) which is a Recognized Overseas Professional Organization (ROPO) as well as a Professional Geologist in the state of Tennessee. Mr. Karst has sufficient experience which is relevant to the style and type of mineralization present at the Titan Project area and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the 2012 JORC Code). Mr. Karst consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Appendix B: JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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. 	A roto-sonic drill rig, the Geoprobe 5140LS, utilized a 10 foot core barrel to obtain direct 5-foot samples of the unconsolidated geological formations hosting the mineralization in the project area. All holes were drilled vertically which is essentially perpendicular to the mineralization. The sonic cores were used to produce approximately 2kg samples for heavy liquid separation as well as further mineralogical analysis. A roto-sonic drill rig, the Geoprobe 5140LS, utilized a 10 foot core barrel to obtain direct 5-foot samples of the mineralization in the project area. All holes were drilled vertically which is essentially perpendicular to the mineralization. The sonic cores were used to produce approximately 2kg samples for heavy liquid separation as well as further mineralogical analysis.
Drilling techniques	 Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc). 	 All drilling thus-far for the project has been roto-sonic. This method alternates advancement of a core barrel and a removeable casing (casing is used when needed to maintain sample integrity). The core barrel utilized for this project is 4" in diameter with a 6" diameter outer casing. The core barrel is retrieved from the ground and the samples are recovered directly from the barrel into a plastic sleeve. All holes are drilled vertically.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 Each core is measured, and the recovery is calculated as length of recovered core divided by length drilled (typically 10'). Some interpretation is involved as the material can expand or compact as it is recovered from the core barrel into the plastic sleeve. The driller and geologist keep a careful eye on formation run-up into the casing as the core barrel is run down the hole for sample collection. Any run-up is removed from the casing prior to sampling. The sonic drilling method has been shown to provide representative unconsolidated mineral sands samples across a variety of deposits as it is a direct sampling method of the formation(s). At times water is used to create a head on the formation to help prevent run-up.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Samples are logged for lithological, geological, and mineralogical parameters in the field to help aid in determining depositional environment, major geologic units, and mineralized zones. All samples are panned and estimates made for the %HM and %SL. Logging is both qualitative (sorting, color, lithology) and quantitative (estimation of %HM, %SL) to help support the integrity of the Exploration Results and Mineral Resource estimate. Photographs are taken of the sonic cores. Total depth of the drillhole is recorded. Samples are collected at regular (5 foot) intervals unless the geology/mineralogy warrant altering this as to co-mingle samples across major geological/mineralized boundaries. The total hole is logged by the field geologist and recorded in custom logging software on a Panasonic Toughbook (or similar) laptop. The data is transferred weekly to the project's GeoSpark database.

Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 The unconsolidated sonic cores are sampled by splitting the core in half lengthwise using a machete then recovering an even fillet with a trowel along the entire length of the sample interval. Samples are collected directly to the pre-labeled/pre-tagged sample bags; the remaining sample is further split into a replicate/archival sample and what remains is used to backfill the drillhole. A chip tray is maintained for each hole to keep a representative sample for each interval for later use during geological interpretation or between holes in the field. Field duplicates are collected at a 3% rate by splitting the sample from the sonic core as described above into two samples bags. The sample size (approx. 2kg) is appropriate for the type of material and concentration of the HM mineralization.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable 	 Standard mineral sands industry assay procedures (sizing 44-micron [325 mesh] for slimes and 595-micron [30 mesh] for oversize) heavy-liquid separation of an 85g split of the -30/+325 sand using methylene iodide. For mineralogy, QEMSCAN analysis was utilized. Accuracy monitoring will be achieved through submission of in-house heavy mineral sand standard reference materials (SRM) developed specifically for the project. At least 5 repeat HLS of these materials were analyzed to establish an average value and standard deviation. A low-grade and a high-grade SRM were produced with materials (HMs and silica sand) from the project area. A quality control sample failure is any single sample 3 standard deviations from the true value for the comparison for each sample, or two out of three consecutive samples between 2 and 3 standard deviations, on the same side of the mean value (i.e. both above or both below the mean value). Should the errors for a particular batch exceed these limits, the section of a batch bracketed by the SRM samples (i.e. number samples on either side) should be re - analyzed. Overall, the objective of

Criteria	JORC Code explanation	Commentary
	levels of accuracy (ie lack of bias) and precision have been established.	the quality assurance program for resource purposes should be a pass rate of >95%. A lower pass rate, on the order of 90% is acceptable for exploration purposes. Eleven SRMs (6 high and 5 low grade) were submitted during the drilling campaign for analysis and results were all within 3 standard deviation of the mean of the SRM. Sampling precision will be monitored by selecting a sample interval likely to be mineralized and taking a second fillet sample over the same sample interval. These samples should be consecutively numbered after the primary sample and recorded in the sample database as "field duplicates" and the primary sample number recorded. Field duplicates should be collected at the rate of approximately 3 in 100 samples and ideally should be collected when sampling mineralized sonic core intervals containing visible HM (panning). Random sampling precision will be monitored by duplicating core samples. Analytical precision will also be monitored using HLS duplicates that will need to be requested from the laboratory at a similar rate (i.e. 3 in 100 samples), with the duplicate HLS analysis to be completed on the duplicate core sample. Data from these two types of duplicate analyses can be used to constrain sampling variance at different stages of the sampling and preparation process. It is critical to record the primary sample of the field duplicate. By convention, this should be the preceding sample. Field duplicates should have an average CoV <5%. For the drilling results reported, 32 field duplicates were submitted to the laboratory with results showing a CoV of less than 10%. The use of an 85 g sub-sample for heavy liquid separation (HLS) results in a relative precision of 4% based on repeat analyses of standard reference materials (SRM) at SGS. This sub-sample mass is therefore appropriate for the grain size being sampled. Preliminary analysis of limited field duplicate splits indicates a relative precision of 31, indicating sampling of drill material presents the greatest uncertainty in the sa
		Mineral ID Ti% Rutile 59.9 Leucoxene 42.0 Pseudorutile 37.7 Ilmenite 34.5

• The Valuable Heavy Mineral(VHM) is calculated from the QEMSCAN data using the percent of rutile+leucoxene+pseudorutile+ilmenite+zirconium+REE in the sink fraction of the sample.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 The assay data are independently visually validated and cross-checked against the geology. This is done as the results are received and prior to geological modeling and resource estimation. Twinned holes have not been used. Analysis of twin data for other similar deposits indicate that they are of limited value due to the inherent variably over small distances for this style of mineralization and it is the assessment of the Competent Person that the absence of twin data is not material to the accuracy of the Exploration Results and Resource Estimate. Twinned holes will be used if there is a change in drilling methods during the project to assess whether any bias exists with the different methods and how this bias may impact the integrity of the Exploration Results or Mineral Resource Estimate. Data are collected in the field using both a field computer and a field notebook. Data are transferred weekly to the company network and verified against the field log book if questions arise. The data are checked and verified by the geologist completing the resource estimation to ensure there are no errors. Lab data are added as they become available and verified against the field geologist's visual HM grade and SL estimates. Any data in question that is not able to be rectified are removed from the database and not used in the reporting of Exploration Results or the estimation of the Mineral Resource. The data appear to be in good order with no significant quality issues identified that will be material to the Exploration Results and Mineral Resource Estimate.
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 All drillholes are surveyed after drilling with a hand-held GPS unit and the X and Y coordinates recorded in the project's database by the field geologist. Elevation data for each collar has been determined using publicly available topographic data. The coordinate system used for the project is UTM (Zone16N).
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 Drillhole spacing varies at this early point in the project. Drill samples are collected at regular intervals (5 foot). Compositing of samples downhole and across/along strike based on geological/mineralized units may be utilized for assemblage and quality parameters.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	The drilling and sampling have been orientated such to test the thickness and grade of the deposit(s). Holes are drilled vertically to give true thickness of the gently dipping mineralized units.
Sample security	The measures taken to ensure sample security.	 Samples remain in the custody of the field geologist from time of collection until time of delivery to the project's temporary storage location which is a secure third-party storage unit. Samples are placed in rice bags and a red security tag secure the top. These tags are verified by the lab to guarantee all sample bags are intact.
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 No third-party review of the sampling techniques employed have been conducted. Only internal reviews by the Competent Person who is considered to have expertise in the drilling/sampling methods has been utilized.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 All areas reported are held under mining lease option agreements with mineral rights to owner. Negotiations are ongoing to secure additional parcels within the deposits. No known impediments to obtaining a license to operate. License to operate is based on obtaining land access through mining leases with individual landowners as well acquiring local, state, and federal permits.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Several Heavy Mineral Sand (HMS) exploration campaigns have focused on this region over the past 60 years, with DuPont reportedly being the first company to investigate this region, followed by Kerr- McGee Chemical Corporation that had exploration success but never commenced mining. BHP Titanium Minerals had an interest in the region in the 1990's and Mineral Recovery Systems, a company associated with Altair International Inc., had significant activities in the region in the late

Criteria	JORC Code explanation	Commentary
		1990's, including land acquisition, drilling and metallurgical studies.
Geology	Deposit type, geological setting and style of mineralisation.	The Camden and Little Benton deposits are Cretaceous mineral sands deposits located in the Mississippi Embayment region of the U.S. These deposits consist of reworked deltaic sediments hosting HM mineralization. The deposits overly other deeper marine sediments and are overlain by more recent fluvial sediments.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	A total of 24 drill holes for 459 HM assay samples (heavy liquid) and 70 HM mineralogy (QEMSCAN) have been completed to-date. A summary of representative HM intersections from the drilling is presented in tables in the main text and on the accompanying cross section(s). Refer to table in main text. A total of 24 drill holes for 459 HM assay samples (heavy liquid) and 70 HM mineralogy (QEMSCAN) have been completed to-date. A summary of representative HM intersections from the drilling is presented in tables in the main text and on the accompanying cross section(s). Refer to table in main text. A total of 24 drill holes for 459 HM assay samples (heavy liquid) and 70 HM mineralogy (QEMSCAN) have been completed to-date. A summary of representative HM intersections from the drilling is presented in tables in the main text and on the accompanying cross section(s). Refer to table in main text.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly 	 No lower cut-offs have been applied. Sample interval lengths are typically 5 feet. No metal equivalent values are used in this report.

Criteria	JORC Code explanation	Commentary
	stated.	
Relationship between mineralisatio n widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	Drillholes are vertical and drilled from ground surface through the entire mineralized thickness typically terminating in the Coon Creek Formation. The geological units in this area are near flat lying (slight westward dip) so mineralized thicknesses are close to true.
Diagrams	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.	Figures in text.
Balanced reporting	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.	Representative reporting of low and high grades has been employed within this report.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	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.	Three 500 kg bulk samples were collected via roto-sonic drilling. The sampling interval was collected by drilling 4 to 8 closely spaced holes within a 4-meter radius of the original exploration drill hole until the 500 kg threshold was achieved. Samples were placed directly into 55-gallon drums and sent to Mineral Technologies (MT) testing facility in Starke, FL for metallurgical testing. MT subjected the bulk samples to wet processing in order to produce heavy mineral concentrates, then progressed through dry processing in order to separate out the Rutile, Leucoxene, Ilmenite, Zircon and Monazite.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Additional drilling within the deposits as agreements are negotiated on new properties is required to better define lateral extents of mineralization and to increase the geological confidence.