ASX RELEASE | ASX:HYM

9 August 2021

TESTWORK CONFIRMS HIGH VALUE HEAVY RARE EARTHS

- Testwork results confirm the potential for a high-value mixed heavy and light rare earth product to be produced from monazite and xenotime minerals at Hyperion's Titan Project in Tennessee
- Monazite typically has a valuable distribution of the light rare earths Nd+Pr (neodymium and praseodymium), and xenotime has a superior distribution of the highly valuable heavy rare earths Tb+Dy (terbium and dysprosium)
- Analysis undertaken on a composite sample has highlighted excellent results, indicating that:
  - **Rare earths make up to 58.7% of the monazite and xenotime sample**
  - **Nd+Pr are 21.2% of the rare earth oxides and the heavy rare earths Tb+Dy are 2.4%**
  - **At current spot pricing, the potential basket price of the rare earth oxide products is ~US$38,000 per tonne**
- As a comparison, MP Materials' (NYSE: MP) bastnaesite ore contains only 16.3% of Nd+Pr and negligible amounts of the heavy rare earths Tb+Dy
- Compared with light rare earths, heavy rare earths such as Dy+Tb are less common and more valuable, and they are critical inputs into the defense, EV and clean energy sectors
- There is only minor production of heavy rare earths outside of China, and minor production in the USA
- The excellent results are an important step in progressing the technical evaluation of Hyperion's rare earth products under its MOU with Energy Fuels, aiming to establish a fully integrated, low-cost U.S rare earth element supply chain using Energy Fuels' existing White Mesa processing plant in Utah
- The results confirm the importance of the Titan Project to potentially be a critical part of an All-American rare earth supply chain – and the only significant domestic production source for heavy rare earths
- The Titan Project can also replace carbon intensive imports and re-shore the domestic production of low carbon titanium and zircon minerals for critical American industries

Anastasios (Taso) Arima, CEO and Managing Director of Hyperion Metals said:

"Current rare earth market prices mean that most of the value is driven by just four rare earths – neodymium, praseodymium, terbium and dysprosium. These test results show that Hyperion's rare earth concentrate has an excellent ratio of these highly valuable rare earth elements.

Importantly, the USA does not have significant production of the highly valuable heavy rare earths terbium and dysprosium and these results highlight the potential for Hyperion to play an important role in the U.S. rare earth supply chain for critical industries including the defense sector.

We look forward to incorporating these results into a scoping study for the Titan Project and working with Energy Fuels to establish an all-American rare earth supply chain for critical U.S. industries"

This announcement has been authorized for release by the CEO and Managing Director.

For further information, please contact:

Anastasios (Taso) Arima, *CEO and Managing Director*
+1 347 899 1522
info@hyperionmetals.us

Dominic Allen, *Corporate Development*
+61 468 544 888
info@hyperionmetals.us

Hyperion Metals Limited ("Hyperion") (ASX: HYM) is pleased to announce that metallurgical testwork has highlighted the potential for a high-value rare earth product to be produced at Hyperion's Titan Project, Tennessee. The rare earths are contained within the minerals monazite and xenotime, and are planned to be produced at the Titan Project as a component of its heavy mineral sand concentrate product portfolio.

When pricing for the various rare earth oxides found within the rare earth fraction of the mineral is applied, a "basket price" for a combined rare earth oxide can be estimated. The high proportion of Nd+Pr and Tb+Dy identified in Hyperion's monazite and xenotime sample is highly favorable when compared to major western-based rare earth producers, including MP Materials and Lynas Rare Earths, and highlights the potential for the Titan Project to be a strategic domestic source of highly valuable heavy rare earth feedstocks in a low risk, tier 1 jurisdiction.

	Company		**Hyperion Metals**		**MP Materials**		**Lynas Rare Earths**		**Pensana**		**Ionic Rare Earths**	
	Mineral type		**Monazite + Xenotime**		**Bastnaesite**		**Monazite**		**Monazite**		**Laterite (clay)**	
	Development stage		**Exploration**		**Production**		**Production**		**Exploration**		**Exploration**	
	Location		**USA**		**USA**		**Australia**		**Angola**		**Uganda**	
	Rare Earth Oxide	**REO price (US$/kg)**	**% of total**	**Basket value**	**% of total**	**Basket value**	**% of total**	**Basket value**	**% of total**	**Basket value**	**% of total**	**Basket value**
Light REO	Lanthanum	2	17.9%	0.3	34.0%	0.5	23.6%	0.4	23.1%	0.3	19.6%	0.3
	Cerium	2	37.3%	0.6	48.8%	0.7	46.3%	0.7	45.3%	0.7	31.7%	0.5
	Praseodymium	**99**	**4.4%**	**4.4**	**4.2%**	**4.2**	**22.4%**	**21.6**	**5.0%**	**4.9**	**4.5%**	**4.5**
	Neodymium	**94**	**16.8%**	**15.8**	**11.7%**	**11.0**			**17.9%**	**16.8**	**16.6%**	**15.6**
	Samarium	2	3.1%	0.1	0.8%	0.0	N/A	0.0	2.7%	0.1	3.0%	0.1
Heavy REO	Europium	30	0.3%	0.1	0.1%	0.0	N/A	0.0	0.6%	0.2	0.6%	0.2
	Gadolinium	41	2.5%	1.0	0.2%	0.1	N/A	0.0	1.3%	0.5	3.0%	1.2
	Terbium	**1285**	**0.3%**	**4.4**	**0.0%**	**0.0**	**N/A**	**0.0**	**0.1%**	**1.8**	**0.5%**	**5.8**
	Dysprosium	**408**	**2.0%**	**8.3**	**0.0%**	**0.0**	**0.4%**	**1.6**	**0.6%**	**2.6**	**1.5%**	**6.2**
	Holmium	136	0.4%	0.5	0.0%	0.0	N/A	0.0	0.1%	0.1	0.5%	0.6
	Erbium	30	1.1%	0.3	0.0%	0.0	N/A	0.0	0.2%	0.1	1.5%	0.5
	Thulium	N/A	0.2%	0.0	0.0%	0.0	N/A	0.0	0.0%	0.0	0.2%	0.0
	Ytterbium	21	0.9%	0.2	0.0%	0.0	N/A	0.0	0.1%	0.0	1.5%	0.3
	Lutetium	859	0.1%	1.2	0.0%	0.0	N/A	0.0	0.0%	0.2	0.2%	1.3
Oth.	Yttrium	5	12.7%	0.7	0.1%	0.0	N/A	0.0	2.8%	0.1	15.1%	0.8
	Basket price US$/kg			**37.7**		**16.5**		**24.3**		**28.5**		**37.8**
	Basket price US$/t			**37,700**		**16,500**		**24,300**		**28,500**		**37,800**

Table 1: Rare earth basket and basket price for various rare earth producers and explorers[1,2]

Monazite typically has a valuable distribution of the light rare earths Nd+Pr (neodymium and praseodymium), and xenotime has a superior distribution of the highly valuable heavy rare earths Tb+Dy (terbium and dysprosium).

Rare earths are found in various geological settings around the world, including in the mineral bastnaesite (MP Materials' Mountain Pass operation, California), Monazite (Lynas Rare Earths' Mount Weld operation, Western Australia) and laterite / clay (various Chinese producers, Jiangxi province).

Strategic importance to U.S.

Rare earths are critical metals to the U.S. and are essential to manufacturing strategic products including electric motors, airplanes and defense equipment. China currently controls approximately 55% of the global rare earths mining capacity and approximately 85% percent of the global rare earths refining capacity. Importantly, this strategic imbalance is more acute for heavy rare earths with China producing over 95% of heavy rare earths.

[1] MP Materials – Molycorp Form 10K for year ended December 31, 2014, Lynas Rare Earths – Ore reserve statement, August 6, 2018, Pensana – Longonjo PFS, November 15, 2019, Ionic Rare Earths – Makuutu Mineral Resource Estimate, March 3, 2021.
[2] Spot pricing – metal.com, July 30, 2021.

Rare earths are essential for U.S. defense applications, primarily in targeting and weapons systems, including smart bombs and missiles, as well as for their use in compact and powerful electric motors in air, sea and subsea weapons platforms.

The U.S. Government is making a concerted effort to secure reliable and sustainable supplies of rare earths to ensure resilience across U.S. manufacturing and defense needs in a manner consistent with America's labor, environmental, equity and other values. This is evidenced through actions including the recently published Supply Chain Disruptions Task Force to Address Short-Term Supply Chain Discontinuities by the Biden administration.

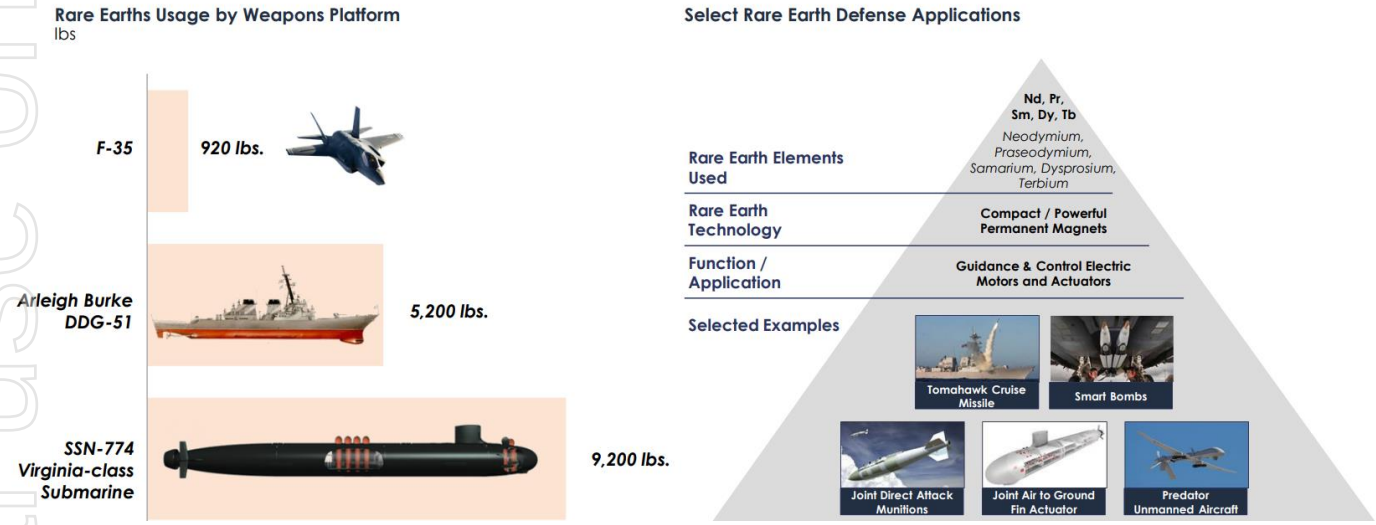

Figure 1: Rare earths usage in U.S. defense applications[3]

Hyperion's rare earth testwork results identify the potential to produce a high-value rare earth co-product from a simple concentration and separation process with no requirement for acids or digestion, and confirm the importance of the Titan Project as having the potential to rapidly become an important supplier of rare earths in the U.S. - and the only significant U.S. supplier of heavy rare earths - critical to the nation's defense capabilities.

Rare earth elements

Rare earth elements are used in many applications including battery alloys, catalysts, ceramics and metal alloys. However, it is the increasing demand for rare earths used in high strength permanent magnets found in power dense electric motors used in electric vehicles and wind turbines that makes up the majority of global consumption, accounting for ~90% of the global market by value in 2019 and expected to grow rapidly along with growth in EV and wind turbine production.

In particular, the heavy rare earths dysprosium and terbium are essential for the production of DyNdFeB (dysprosium neodymium iron- boron) magnets used in clean energy, military and high technology solutions. There is only minor production of dysprosium and terbium outside of China, and only minor production within the USA, and the potential production of these heavy rare earths within the USA is strategic and highly valuable to the country's leading defense, EV and clean energy sectors.

The rare earths market, and particularly demand for Nd+Pr+Dy+Tb, has seen significant growth in demand in recent years primarily due to the rapid growth of electric vehicles and construction of wind turbines. It is anticipated that a step change in growth in demand driven by the need for rare earth permanent magnets will far outpace supply, potentially leading to large supply deficits in heavy rare earths Dy+Tb and the light rare earths Nd+Pr.

[3] MP Materials presentation, July 15, 2020.

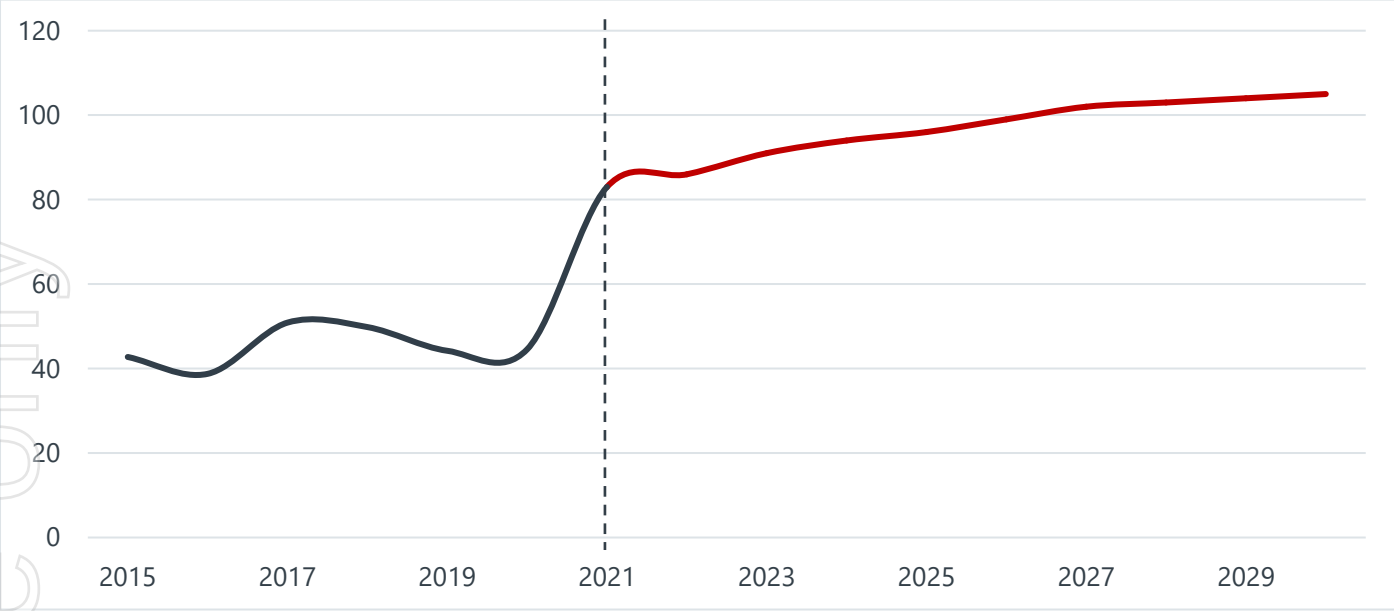

Figure 2: Nd+Pr oxide pricing – historic and forecast[4]

The significant proportions of Nd+Pr and Tb+Dy identified within Hyperion's monazite and xenotime sample highlights the potential for a highly valuable rare earth product. Based on current pricing for rare earth oxides, the theoretical basket price of Hyperion's product at the separated oxide stage is approximately US$38/kg, or US$38,000/tonne.

Potential low cost, rapid entry to the U.S. rare earths market

In April 2021, Hyperion and Energy Fuels Inc. ("Energy Fuels") (NYSE: UUUU) executed a memorandum of understanding ("MOU") to evaluate the supply of rare earth minerals from the Titan Project to Energy Fuels' White Mesa Mill in Utah, as well as evaluating a potential collaboration to establish a fully integrated, "mine to market" U.S. rare earth supply chain for the electric vehicle and renewable energy sectors.

Importantly, the MOU allows the potential for rapid and low capex entry to the U.S. rare earth supply chain by utilizing Energy Fuels' existing White Mesa mill in Utah.

The MOU highlights the importance of Hyperion's Titan Project as a potentially important source of high value U.S. rare earth minerals, and in particular heavy rare earths, that are expected to be crucial in rebuilding sustainable American transportation, energy and defense sectors.

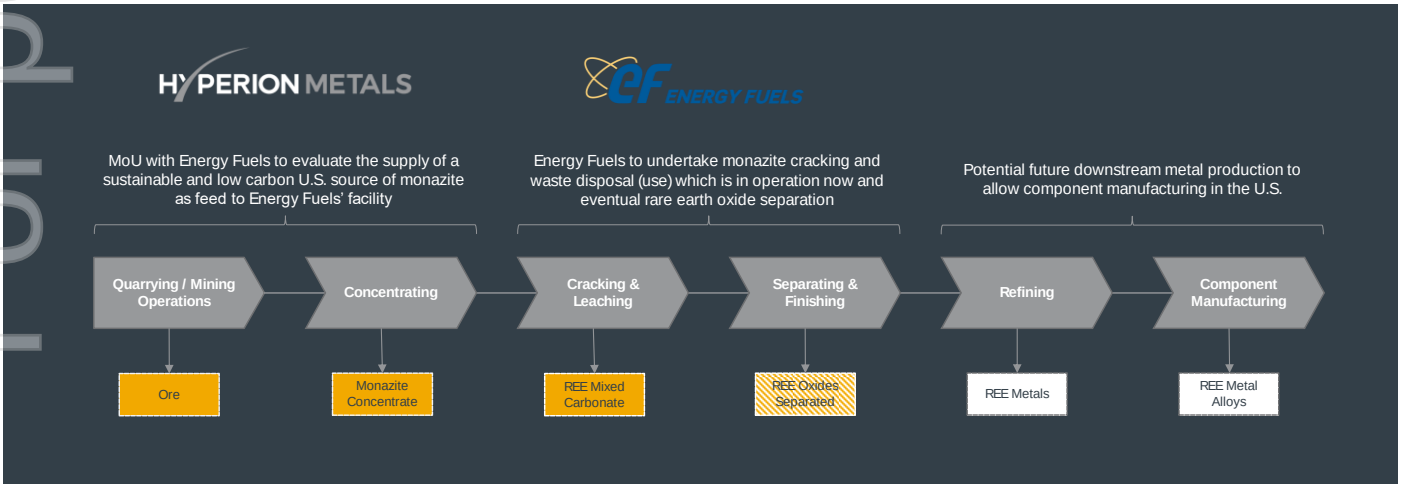

Figure 3: Hyperion & Energy Fuels' proposed partnership within the U.S. rare earths supply chain

[4] Adamas Intelligence, Q2 2021

Testwork program

Inductively coupled plasma mass spectrometry (ICP-MS) analysis was undertaken on a composite taken from the lower McNairy Zone at Hyperion's Titan Project within a 1 tonne bulk sample to determine the proportion of individual rare earths elements within monazite and xenotime minerals. The sample was subject to conventional physical processing by way of wet gravity separation, high tension separation, floatation and single pass wet high intensity magnetic separation.

The results highlighted excellent results, indicating that rare earths make up a total of 58.7% of the monazite and xenotime minerals. Within the rare earth fraction, Nd+Pr makes up 21.2% of rare earths[5], and the highly valuable Tb+Dy make up 2.4% of rare earths[6].

Further rare earths testwork will be undertaken by Hyperion in the coming months as part of its technical studies to understand the distribution of monazite and xenotime across the broader Titan Project area.

	Rare Earth Oxide	% REO	% of total REO	REO price (US$/kg)	Basket value (US$/kg)	% basket value
Light REO	Lanthanum	10.5%	17.9%	2	0.3	1%
	Cerium	21.9%	37.3%	2	0.6	1%
	Praseodymium	**2.6%**	**4.4%**	**99**	**4.4**	**12%**
	Neodymium	**9.9%**	**16.8%**	**94**	**15.8**	**42%**
	Samarium	1.8%	3.1%	2	0.1	0%
Heavy REO	Europium	0.2%	0.3%	30	0.1	0%
	Gadolinium	1.5%	2.5%	41	1.0	3%
	Terbium	**0.2%**	**0.3%**	**1285**	**4.4**	**12%**
	Dysprosium	**1.2%**	**2.0%**	**408**	**8.3**	**22%**
	Holmium	0.2%	0.4%	136	0.5	1%
	Erbium	0.7%	1.1%	30	0.3	1%
	Thulium	0.1%	0.2%	N/A	-	-
	Ytterbium	0.5%	0.9%	21	0.2	1%
	Lutetium	0.1%	0.1%	859	1.2	3%
Other	Yttrium	7.4%	12.7%	5	0.7	2%
	Total REE	**58.7%**	**100.0%**		**37.7**	

Table 2: Element analysis of Titan Project rare earth concentrate, highlighting the rare earth oxide component

[5] (2.6% Pr_2O_3 + 9.86% Nd_2O_3) / 58.71%
[6] (0.20% Tb_2O_3 + 1.19% Dy_2O_3) / 58.71%

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 Persons Statement – JORC Code 2012

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 1: JORC Table 1 Checklist of Assessment and Reporting Criteria

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.*	• Metallurgical Samples: Bench scale rare earth element analysis was conducted on a bulk sample from the lower McNairy zone at Hyperion's Titan Project. A roto-sonic drill rig, the Geoprobe 5140LS, utilized a 10 foot core barrel to obtain direct 10-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 500kg samples, received and prepared by Minerals Technologies laboratory in Starke, FL. The sample underwent heavy mineral concentrate wet separation to produce a mixed heavy mineral concentrate, including desliming via hydrocyclone, rougher & cleaner spirals separation followed by wet gravity separation using a shaker table. Tabled concentrates were then separated electrostatically and magnetically to produce several concentrates approximating zircon, titanium mineral(s) and rare earth products. • The rare earth concentrate was analyzed by SGS in Lakefield, Ontario by QEMSCAN for modal mineralogy of the concentrates as well as ICPMS for the breakout of the individual REEs present in the concentrate.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Two 500kg bulk samples were collected via roto-sonic drilling. Four to Eight holes were drilled within in a 10m radius of previously drilled holes. The core barrel utilized for this project is 6" in diameter. The core barrel is retrieved from the ground and the samples are recovered directly from the barrel into 55-gallon drums. All holes are drilled vertically.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery*	

Criteria	JORC Code explanation	Commentary
	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.*	
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 confirm consistency with original drill sample. • Total depth of the drillhole and sample interval is recorded. Samples are collected at regular (10 foot) intervals.
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 sub-sampling 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 rare earth concentrate was analyzed by SGS in Lakefield, Ontario by QEMSCAN for modal mineralogy of the concentrates as well as ICPMS for the breakout of the individual REEs present in the concentrate.
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*	• The assay method for the REE was inductively coupled plasma mass spectrometry (ICP-MS) and is considered total.

Criteria	JORC Code explanation	Commentary
	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 levels of accuracy (ie lack of bias) and precision have been established.*	
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.*	• Metallurgical Sample: Multiple representatives of Hyperion Metals Limited have inspected the testwork. • No adjustments or calibrations were made to the primary analytical data reported for metallurgical testwork results for the purpose of reporting assay grades or mineralized intervals
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.*	• Not applicable.
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*	• Work undertaken is of an initial scoping nature and further work is required and planned to provide further representative metallurgical characteristics.

Criteria	JORC Code explanation	Commentary
	introduced a sampling bias, this should be assessed and reported if material.	
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 1990's, including land acquisition, drilling and metallurgical studies.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The 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:*	• Not applicable

Criteria	JORC Code explanation	Commentary
	○ *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.*	
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 stated.*	• The two samples consisted of a 20' and 40' interval. Eight holes of the 20' interval and four holes of the 40' interval were composited into two separate samples.
Relationship between mineralisation 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').*	• Not applicable

Criteria	JORC Code explanation	Commentary
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.*	• Not applicable
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.*	• The results of all metallurgical tests performed have been reported on. No results have been excluded.
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.*	• Not applicable
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.*	• A larger more representative sample from additional bulk sampling and drilling will go through a more detailed metallurgical program.