TITAN PROJECT DEVELOPMENT UPDATE

RE-SHORING U.S. TITANIUM & RARE EARTHS PRODUCTION TO TENNESSEE

Titan Project Fully Permitted

- The Tennessee Department of Environment & Conservation has confirmed that all regulatory permit requirements for the Titan Critical Minerals Project have been met by IperionX
- The Titan Project is now fully permitted for development and operations
- Titan is a vital, fully permitted, U.S. critical mineral project - positioned to make a significant impact to reduce the acute reliance on critical mineral imports from foreign nations

Feasibility Metallurgical Test Work Confirms High Titanium & Rare Earth Recoveries

- Positive results of feasibility level metallurgical test work confirm a material increase in the recoveries of higher value natural rutile, zircon and rare earth mineral products
- Successful completion of metallurgical test work advances a major long lead-time for project development

Strategic & Offtake Partners - Multiple Partners, Advanced Due Diligence

- Multiple strategic financing and offtake partners have demonstrated major interest in Titan's valuable titanium, rare earth and zircon critical minerals
- A major Japanese conglomerate is sole funding bulk sample and due diligence test work at Titan to advance potential sales offtake and development financing

Government Funding Opportunities

- There are a wide range of U.S government funding opportunities and incentives to support feasibility and the full development of the Titan Project

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IperionX Limited (NASDAQ: IPX, ASX: IPX) is pleased to announce that the Titan Critical Minerals Project (Titan Project) is fully permitted for development and operations, has received positive feasibility study metallurgical test work results, and is advancing customer offtake and strategic financing partnerships.

Titan Project Fully Permitted

The Tennessee Department of Environment & Conservation has now confirmed that all regulatory requirements have been met for the Titan Project and it is fully permitted for development and operations.

The Titan Project, located in Tennessee, offers a leading combination of low energy costs, world class infrastructure, skilled workforce, low taxation rates, high levels of domestic demand and a wide range of U.S. government incentive and funding opportunities.

The global market demand for titanium, zircon and rare earth critical minerals continues to increase, yet supply is increasingly reliant on high-risk jurisdictions with long distance, carbon intensive supply chains. The U.S. currently imports over 80% of titanium minerals and almost 100% of its separated rare earth oxides from foreign nations.

Once fully developed, the Titan Project is expected to be a key domestic source of critical titanium, zirconium and rare earth minerals. This world-class project can reduce the acute reliance of critical mineral imports from foreign nations and re-build a sustainable domestic supply chain that is essential for advanced U.S. industries.

Feasibility Metallurgical Test Work Confirms High Titanium & Rare Earth Minerals Recoveries

IperionX has received excellent results from the feasibility study metallurgical test work program conducted by Mineral Technologies Ltd, a global leader in the mineral sands industry. This bulk metallurgical test work program was designed to confirm feasibility study level process design and critical mineral product recoveries at the Titan Project. The feasibility study level bulk metallurgical test work confirmed a material increase in recoveries of the higher value natural rutile, zircon and rare earth mineral products.

Product	Scoping Study Recovery	Feasibility Study Recovery
Rare Earths	77%	83%
Rutile – Titanium	62%	67%
Ilmenite – Titanium	84%	80%
Premium Zircon	69%	78%

A full summary of the test work results can be found in Appendix I.

Strategic & Offtake Partners - Multiple Partners, Advanced Due Diligence

Multiple strategic partners have commenced due diligence on the Titan Project in preparation for sales offtake agreements and project investment opportunities. IperionX has conducted due diligence site visits for select partners and distributed product samples to a range of critical mineral customers.

One of these parties – a large Japanese conglomerate – is sole funding bulk sample and due diligence test work at the Titan Project during September 2023.

Government Funding Opportunities

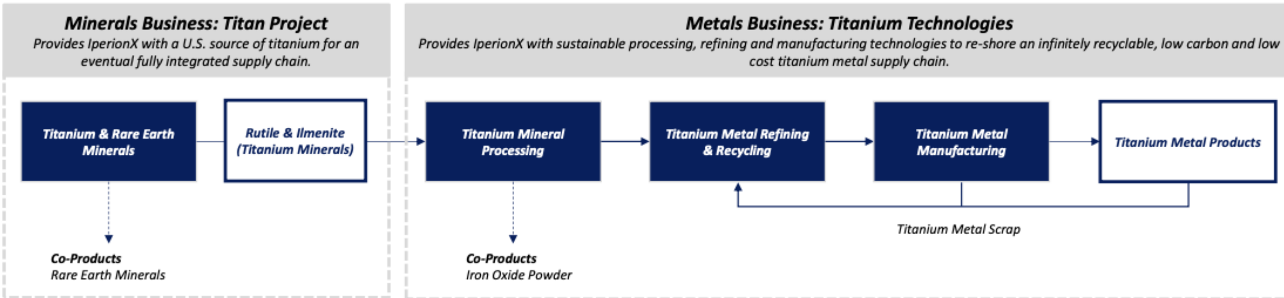
In addition to commercial partnerships, there are a wide range of federal funding opportunities and incentives to support feasibility studies and full development of the Titan Project. These include the Defense Production Act Title III program and several Department of Energy programs that support environmentally responsible production, reuse, and recycling of critical minerals and materials in the United States.

The U.S. Department of Defense (DoD) is now actively pursuing alternatives to the current import-dependent supply chain for titanium metal and alloys. The DoD has noted limited availability of natural rutile (high-grade titanium mineral) and aims to establish domestic operations from mining, processing, and refining of ore, as well as the recycling of scrap titanium. The optimal fully integrated domestic titanium supply chain will provide a wide range of products - including titanium powder, ingots, bars, and plate – at higher energy efficiency, lower costs, and lower environmental impacts [1]

IperionX has the potential to re-shore titanium mineral production to the U.S. with the fully permitted Titan Project and can upgrade these valuable critical minerals into higher value titanium feedstocks with its patent pending Green Rutile™ (+90% TiO_2) and patented ARH (+99% TiO_2) titanium enrichment technologies. These low-carbon process technologies can significantly increase the value of the Titan Project resource by upgrading titanium minerals into higher value products.

IperionX plans to utilize these titanium feedstocks, and scrap titanium, to produce high-strength titanium in the U.S. with its proven, low-cost and sustainable titanium metal technologies.

[1] https://sam.gov/opp/8f7fc94a12fd459186366c09d9bea565/view



Anastasios (Taso) Arima, IperionX CEO said:

"We are very pleased that the Titan Project – North America's largest deposit of titanium and rare earth critical minerals – is now fully permitted. This is an important milestone in our plan to re-shore critical mineral and metal supply chains to the U.S. and our key focus is to now build a strong, sustainable, and low-cost domestic titanium supply chain."

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

For further information and enquiries please contact:

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Appendix 1 – Feasibility Study Level Metallurgical Results

Feasibility Study metallurgical results have successfully confirmed that the Titan Project can produce high quality titanium, rare earths and zircon minerals with conventional processing and high recoveries.

Recoveries of the highly valuable rutile, rare earths and zircon minerals were materially above the June 2022 Scoping Study assumptions.

The rare earth concentrate recorded high proportions of the high-value permanent magnet metal oxides of Neodymium (Nd), Praesidium (Pr), Dysprosium, (Dy) and Terbium (Tb). The Titan Project is now positioned to be a strategic U.S. producer of light and heavy rare earth critical minerals.

Product Grades and Recoveries

Saleable products of ilmenite, rutile, zircon and rare earth mineral concentrate were successfully produced from the bulk metallurgical test work. The product grades included an excellent ilmenite grade of 65% TiO_2, a natural rutile grade of 91% TiO_2 and a premium zircon grade of 67% ZrO_2.

A rare earth mineral concentrate was produced with a Total Rare Earth Oxide (TREO) grade of 59%, enriched with high-value rare earth elements. Importantly, the key light rare earth elements, Nd+Pr, contributed ~24% of the rare earth concentrate and ~2% of the highly valuable heavy rare earth elements Dy+Tb. The rare earth test work results highlight the potential to produce a high-value rare earth product using a simple concentration and separation process.

Table 1: Final product grades and recoveries for Ilmenite, Rutile, and Zircon

Product	TiO_2	Fe_2O_3	SiO_2	Al_2O_3	Cr_2O_3	MgO	MnO	ZrO_2	P_2O_5	V_2O_5	Nb_2O_5	SO_3	CaO	K_2O	U	Th
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm
Ilmenite	**65**	28	1.5	1.3	0.07	0.15	0.8	0.1	0.2	0.1	0.1	0.01	0.11	0.04	24	126
Rutile	**91**	3.7	1.8	0.8	0.096	0.02	0.09	0.9	0.1	0.2	0.46	0.06	0.05	0.05	35	86
Zircon	0.2	0.1	33	0.2	0.004	0.01	0.01	**67**	0.1	0.01	0.01	0.02	0.02	0.02	443	122

Table 2: Final TREO assemblage for rare earth mineral concentrate

Product	Ce	Dy	Er	Eu	Gd	Ho	La	Lu	Nd	Pr	Sc	Sm	Tb	Tm	Y	Yb	Total
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
REMC (%)	40.9	**1.5**	0.7	0.3	2.4	0.3	19.1	0.0	**18.4**	**5.1**	0.0	3.4	**0.3**	0.2	7.1	0.5	**100.0**

Table 3: Global Nd+Pr (light REEs) and Dy+Tb (heavy REEs) assemblage comparison

Company[2]	Location	Project Status	Nd + Pr[2] (%)	Dy + Tb[3] (%)
MP Materials	U.S.A.	Production	~16.3	<0.1
Lynas	Australia	Production	~24.4	~0.5
Meteoric	Brazil	Inferred Resource	~22.9	~1.1
Arafura	Australia	DFS	~26.4	~0.4
Lindian	Malawi	Inferred Resource	~20.3	<0.1
IperionX	**U.S.A.**	**Scoping Study**	**~23.5**	**~1.8**

Circuit simulation models were generated for the wet concentration plant, rare earth mineral concentrate and mineral separation plant flowsheets to evaluate recycle streams and resultant mass flows.

Simulated process recoveries for in-size material (+45μm) from run-of-mine to final products are shown in Table 4 below and have been compared to the Scoping Study test work recoveries. The Feasibility Study test work

[2] See Appendix 2 for comparable company data sources

[3] As a percentage of TREO

recoveries for the high-value rutile, zircon, and monazite products being higher than the recoveries assumed in the June 2022 Scoping Study. The zircon recovery is for a premium zircon product only, while the Scoping Study assumed production of both premium zircon and zircon concentrate.

Table 4: Comparison of Feasibility Study test work recoveries vs. Scoping Study assumptions

Product	Scoping Study Recovery	Feasibility Study Recovery
Rare Earths	77%	83%
Rutile	62%	67%
Ilmenite	84%	80%
Premium Zircon	69%	78%

Sample Preparation

Metallurgical test work sampling consisted of one main bulk sample and three variability samples. The main bulk sample of 12.7 tonnes was composed of ~30% Upper McNairy and ~70% Lower McNairy ore material, representing the approximate average blend over the first five years of production.

Three bulk composite samples ranging from 2-3 tonnes were prepared for the variability test work, each comprised of different ratios of Upper McNairy and Lower McNairy material. The objective of this variability test work was to quantitatively assess product quality and test variability of the deposit spatially across the geological domains of the Titan Project.

Process Flowsheet

A critical mineral concentrate was produced at IperionX's Mineral Demonstration Facility in Tennessee with the assistance of Mineral Technologies Ltd professionals. The subsequent beneficiation and separation of the valuable critical minerals was completed by Mineral Technologies.

The metallurgical test work confirmed that high-quality titanium and zircon mineral products can be efficiently produced using conventional separation process technology. A rare earth mineral concentrate can be produced with high monazite/xenotime mineral recovery using a wet rare earth mineral processing circuit.

The proposed process flowsheet is summarized in Figure 1.

1. **Operating**

   Production sand/minerals delivered to the first stage separation plant for deagglomeration and removal of large oversize material before pumping to the main mineral concentrator.

2. **Feed Preparation**

   The sand fraction, containing the valuable critical minerals (nominal <2mm, >0.045mm), is separated from slimes (<45µm) and oversize waste (>2mm).

3. **Wet Concentration**

   The valuable critical minerals are recovered in a wet concentration plant using a conventional multi-stage gravity separation circuit.

   The recovered valuable minerals are Critical Mineral Concentrate, which is screened at nominal 130µm to prepare coarse and fine Critical Mineral streams.

   Waste minerals are collected along with oversize and slimes from the feed preparation plant for inert backfill.

4. **Rare Earth Mineral Concentration**

   The fine mineral concentrate is subjected to mechanical attrition for processing by conventional froth flotation and gravity concentration.

   Products are a rare earth mineral concentrate (REMC) and a fine flotation mineral concentrate.

5. **Concentrate Upgrading**

   The fine flotation mineral concentrate is processed by wet gravity separation to produce a zircon and titanium rich process stream to feed the mineral separation plant.

6. **Mineral Separation Plant**

   The coarse and fine mineral concentrate are separated by multiple dry electrostatic and magnetic separation stages to produce titanium ilmenite and rutile products. The non-conductive concentrate is processed by wet gravity then dry electrostatic and magnetic separation to produce a final zircon mineral product.

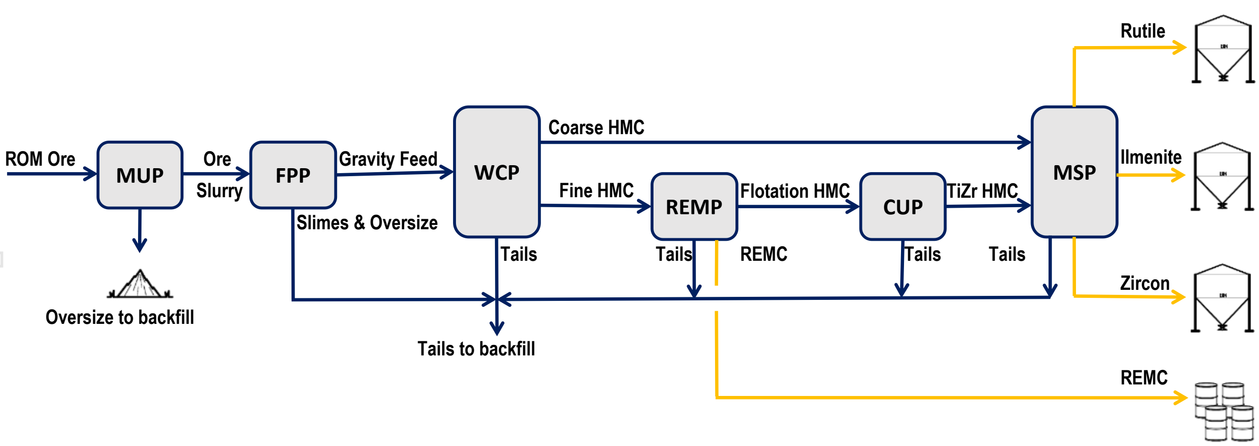

Figure 1: Simplified process flowsheet for the Titan Project

Appendix 2: Source of comparable REO data

Company	Source
MP Materials	2022 Annual Report (SEC Form 10K)
Lynas	ASX Announcement dated August 6th 2018 – 60% increase to Mt Weld Ore Reserves
Meteoric	ASX Announcement dated May 1st 2023 – Caldeira REE project Maiden Mineral Resource
Arafura	ASX Announcement dated February 7th 2019 – Nolans DFS Delivers Robust Project Economics
Lindian	ASX Announcement dated August 3rd 2023 – Lindian Reports Maiden Mineral Resource

About IperionX

IperionX aims to become a leading American titanium metal and critical materials company – using patented metal technologies to produce high performance titanium alloys, from titanium minerals or scrap titanium, at lower energy, cost and carbon emissions.

Our Titan critical minerals project is the largest JORC-compliant mineral resource of titanium, rare earth and zircon minerals sands in the U.S.A.

IperionX's titanium metal and critical minerals are essential for advanced U.S. industries including space, aerospace, defense, consumer electronics, hydrogen, electric vehicles and additive manufacturing.

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, the Company's ability to comply with the relevant contractual terms to access the technologies, commercially scale its closed-loop titanium production processes, or protect its intellectual property rights, 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

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information compiled and/or reviewed by Mr. Adam Karst, P.G., who is a Competent Person. Mr. Karst is an independent consultant to IperionX Limited. 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.

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.*	• 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 a total of ~20,000kg of bulk material for metallurgical test work. Metallurgical test work samples consisted of one main bulk sample and three variability samples. The main bulk sample of 12.7 wet metric tonnes was composed of ~30% Upper McNairy and ~70% Lower McNairy ore, representing the approximate average blend of the first five years of production. Three bulk composite samples of 2-3 wet metric tonnes were prepared for the variability test work, each comprised of different ratios of Upper McNairy and Lower McNairy material to represent the variation in geo-metallurgical characteristics expected within the Mineral Resource. • Feed preparation was conducted at IperionX's operational Mineral Demonstration Facility ("MDF") at the Titan Project near Camden, TN, with the assistance of Mineral Technologies personnel. The remaining beneficiation and separation of the valuable critical minerals was completed by Mineral Technologies, first at MT's Florida metallurgical test facility in U.S., and then at MT's Queensland metallurgical test facility in Australia. The sand fraction, containing the valuable minerals (nominal <2.0mm, >0.045mm), is separated from slimes (<45µm) and oversize waste (>2.0mm).The valuable minerals contained in the sand fraction are recovered in a WCP using a conventional multi-stage gravity separation circuit. The recovered valuable minerals constitute the total Critcal Mineral Concentrate (CMC), which is screened at nominal 130µm to prepare coarse and fine CMC streams. The fine CMC is subjected to mechanical attrition and conditioned with specific reagents in preparation for processing by conventional froth flotation and further gravity concentration. Products are a salable, final Rare Earth Mineral Concentrate (REMC) product, and a fine flotation CMC. The fine flotation CMC is processed by wet gravity separation to produce a zircon and titanium rich stream to feed the Mineral Separation Plant. The coarse and fine CMC are fractionated by multiple dry electrostatic and magnetic separation stages to produce final ilmenite and rutile products. The non-conductive concentrate is processed by wet gravity then further dry electrostatic and magnetic separations to produce final zircon product. • All assays are conducted by Bureau Veritas in Perth. Standard XRF mineral sand assays are used except where individual rare earth elements (REE) are required. These samples undergo the XRF suite as well as Laser Ablation / ICP-MS for determination of individual REE. For mineralogy, QEMSCAN (Qualitative Evaluation of Minerals by Scanning Electron Microscopy) analysis was conducted by SGS Lakefield in Canada.
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).*	• ~20,000kg of bulk material was collected via roto-sonic drilling. To produce the required bulk sample volume, multiple holes were drilled within in a 10m radius of previously drilled holes that were targeted for their specific geo-metallurgical characteristics. 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.

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.*	
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.*	• All assays are conducted by Bureau Veritas (formerly Ultra Trace) in Perth. Standard XRF mineral sand suite assays are used except where individual rare earth elements (REE) are required. These samples undergo the XRF suite as well as Laser Ablation / ICP-MS for determination of individual REE. For mineralogy, QEMSCAN (Qualitative Evaluation of Minerals by Scanning Electron Microscopy) analysis was conducted by SGS Lakefield in Canada.
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*	• The assay method for the REE was Laser Ablation Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and is considered total.

Criteria	JORC Code explanation	Commentary
	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.*	• No adjustments or calibrations were made to the primary analytical data reported for metallurgical test work 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 introduced a sampling bias, this should be assessed and reported if material.*	• Work undertaken is of feasibility study level nature and representative of the critical mineral deposit.
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 and site visits 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, and State permits.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Several 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:* ○ *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.*	• Not applicable
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*	• Not applicable

Criteria	JORC Code explanation	Commentary
	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.*	
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
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.*	• Not applicable