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BREAKTHROUGH IN REE METALLURGY AT CARALUE BLUFF CLAY HOSTED REE PROSPECT

SUMMARY

- Recoveries of up to 86% TREO achieved in leaching trials undertaken by METS Engineering.
- Recoveries of up to 88% were achieved for the MREOs (Nd, Pr, Dy, Tb).
- Test work indicates a high chloride environment is required to liberate REEs from the clay host material.
- These results suggest that the bulk of the REEs should be extractable and **not** bound within the lattice structure of the clay particles or in resistive minerals such as zircon or monazite.
- Hydrochloric acid was used to create a high chloride environment. Further test work will involve the substitution of common table salt, or NaCl, to reduce acid costs.
- Additional test work will also include the viability of ion exchange desorption using various ion exchange salts.
- Focus on the existing graphite exploration program at the Lacroma Graphite Prospect continues.

“The successful drilling program in 2022 proved up a large Exploration Target of 110 – 220 Mt @ 635 – 832 ppm TREO and 19-22% Al₂O₃ at Caralue Bluff. However, our challenge was to improve the recovery process. Over the past few months, through our partnership with METS Engineering we have systematically explored all the processing options and uncovered the right conditions for exceptional Rare Earth Element recoveries. This has opened the path to creating a low cost and effective leaching process. While it is still early days, this has the potential to be an important breakthrough for the economics of the Caralue Bluff Prospect.”

Managing Director Mike Schwarz

Investors should be aware that the potential quantity and grade of the Exploration Targets reported are conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.



Kaolin and REE rich samples from the Caralue Bluff Prospect, Eyre Peninsula, South Australia

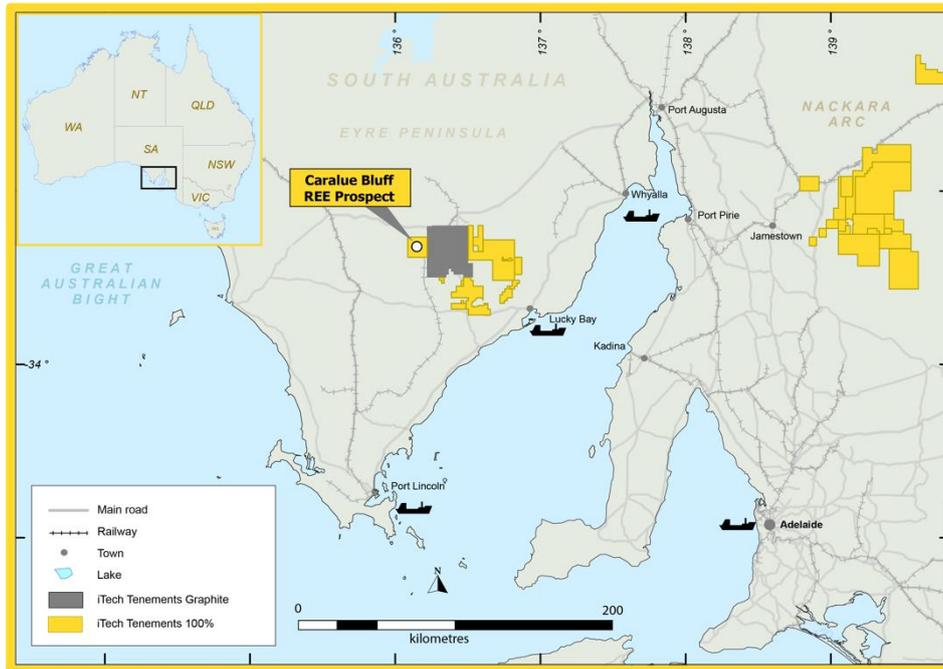


Figure 1. Location of iTech's Caralue Bluff REE Prospect – Eyre Peninsula, South Australia

Caralue Bluff Clay Hosted REE Prospect

The Caralue Prospect was initially established as a high purity kaolin prospect with the identification of thick intervals of bright white kaolin, close to surface, in several historical drill holes. A 2022 drilling program undertaken by iTech identified significant REEs, in the kaolin rich intervals, over a large area. The Caralue Bluff Prospect contains an Exploration Target of **110-220 Mt @ 635-832 ppm TREO and 19-22% Al₂O₃**. The Exploration target (reported on 18 August 2022 as “Exploration Target Defined at Caralue Bluff”) is based on 80 drill holes, from a total program of 260 holes, across an area of approximately 12km x 12km. Importantly it **remains open in multiple directions** allowing for possible expansion. REE mineralisation is rich in key magnet REE’s (Nd-Pr-Dy-Tb) averaging 25% of the REE basket.

Metallurgy Results

A single composite sample from the 28 samples of ionic clay intervals was prepared from drill hole CBAC22-162 (10m @ 1157 ppm TREO reported on 22 August 2022 as “Final Drill Results from Caralue Bluff Prospect”). Three HCl leaching tests were performed under comparable conditions (80°C for 4 hours, 20% pulp density) with different HCl concentrations used, namely 10%, 20% and 32%. Sub-samples of the leaching solution were taken at pre-determined intervals: 15, 30, 60, and 120 mins and these solutions were assayed. At the end of the 4-hour leaching test, the slurry was filtered, washed and dried. Both the filtrate and residue were also assayed.

La	Ce	Pr	Nd	Sm	Eu	Gd	Tb
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
234	500	57	203	29.5	5	15	1.7
Dy	Ho	Er	Tm	Yb	Lu	Y	
ppm	ppm	ppm	ppm	ppm	ppm	ppm	
6.5	1.10	2.7	0.3	2	0.4	29	

Table 1. Summary of Ionic Clay Composite Sample Head Assay

The results of the leaching test after 4 hours are summarised in Table 2.

REE Extractions (%)			
	Test 1 (10% HCl)	Test 2 (20% HCl)	Test 3 (32% HCl)
La	70.66%	84.22%	82.50%
Ce	73.36%	85.32%	81.68%
Pr	78.21%	87.60%	84.44%
Nd	81.84%	90.22%	85.78%
Sm	83.23%	91.60%	85.78%
Eu	74.40%	88.37%	79.56%
Gd	83.36%	88.32%	88.28%
Tb	80.96%	92.41%	86.64%
Dy	76.14%	82.06%	77.58%
Ho	68.06%	82.01%	72.17%
Er	70.01%	75.20%	75.98%
Tm	0.00%	0.00%	0.00%
Yb	56.05%	54.91%	50.97%
Lu	0.00%	0.00%	0.00%
Y	73.21%	81.10%	77.82%
Total	75.34%	86.31%	82.95%

Table 2. Summary of Ionic Clay Composite Sample Head Assay

The results show that 13 out of 15 rare earth elements can be leached using hydrochloric acid. Tm and Lu were not leached but, as they were present in the sample at the sub-ppm level, there is a level of uncertainty for this part of the results. In test 1, REE extraction rates varied between 56% (Yb) to 83% (Sm and Gd), indicating a significant increase in extraction compared to the previous test wherein only 1M of HCl was used. Further increasing the HCl concentration to 20% (Test 2), resulting in further increases in REE extractions achieving a recovery of above 80% for most REEs. Nd, Sm and Tb extractions were exceptional, achieving 90.22%, 91.60% and 92.41% respectively. However, a further increase in acid concentrations to 32% resulted in lower extractions.

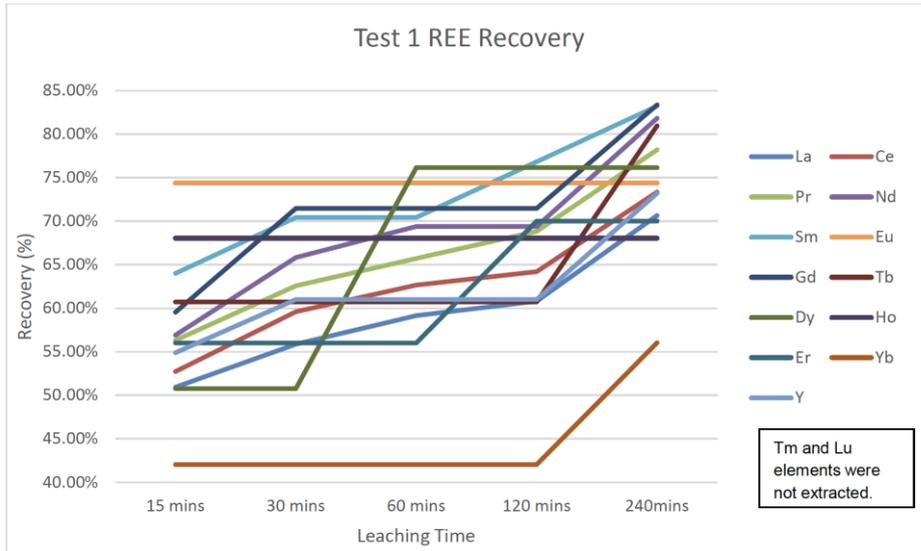


Figure 2. Acid Leach Test 1 REE Extraction Results

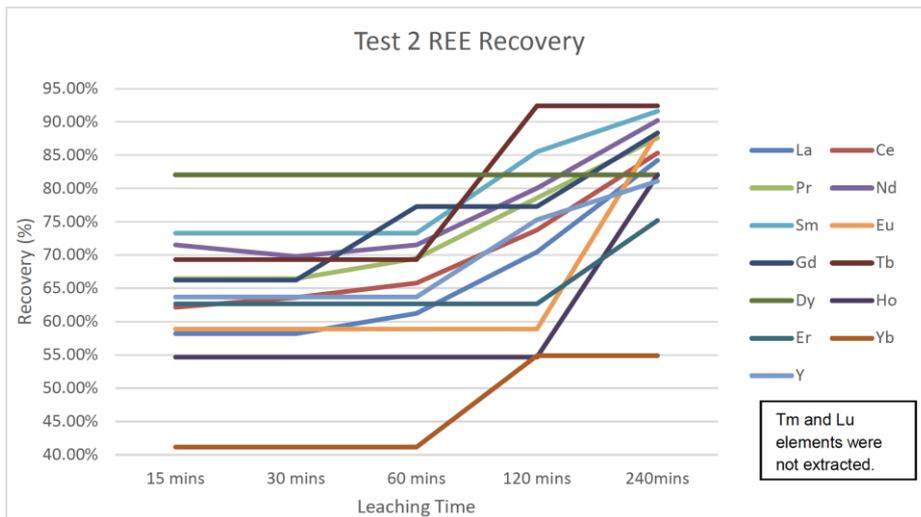


Figure 3. Acid Leach Test 2 REE Extraction Results

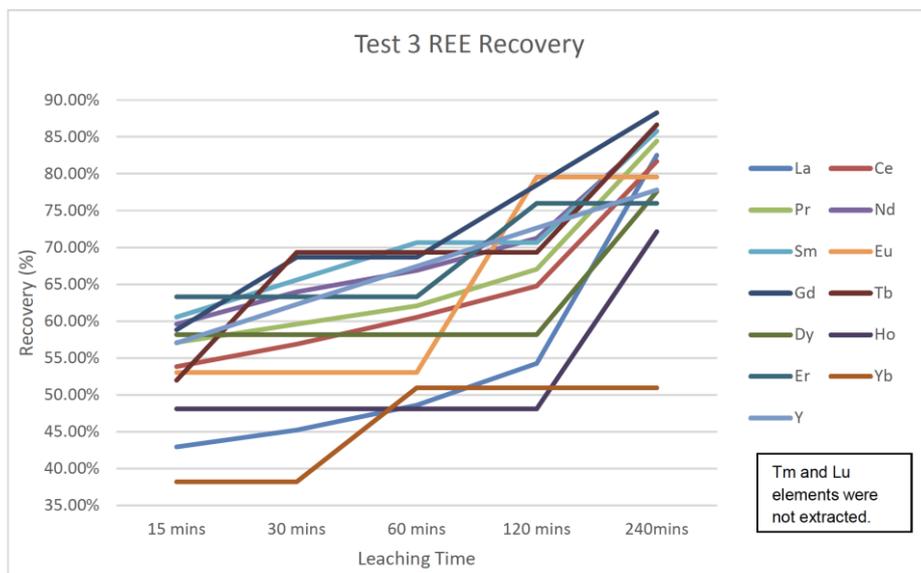


Figure 4. Acid Leach Test 3 REE Extraction Results

Next Steps

Given the highly successful nature of these leaching results, future tests will include an investigation into optimal acid concentration, i.e. to achieve the highest recovery at minimum acid consumption. This will include exploring the effect of reducing acid concentration while adding sodium chloride to increase the ionic strength of the leachant.

Additionally, the viability of REE extraction by ion exchange desorption (IXD) will also be investigated as it has the potential to lead to a much lower reagent cost if successful.

The upcoming test work programs will perform:

- additional investigation of using NaCl and HCl as an alternative
- the ion exchange desorption (IXD) test using Ammonium Sulphate, Ammonia Acetate and Ammonia Citrate.

iTech Minerals will continue to undertake low level test work on the samples through our metallurgical consultants, METS Engineering, with the aim of developing a cost-efficient extraction method. This work will take up to four months. If this can be done, we would need to test this method on a diverse set of samples from across Caralue Bluff, both geographically and within the regolith profile. We have already collected these samples in our previous drilling program in 2022. Only if the new “potentially economic” method is effective would we restart on-ground exploration. While this work is being undertaken, we will continue to focus on our graphite projects and drilling program at the Lacroma Graphite Prospect.

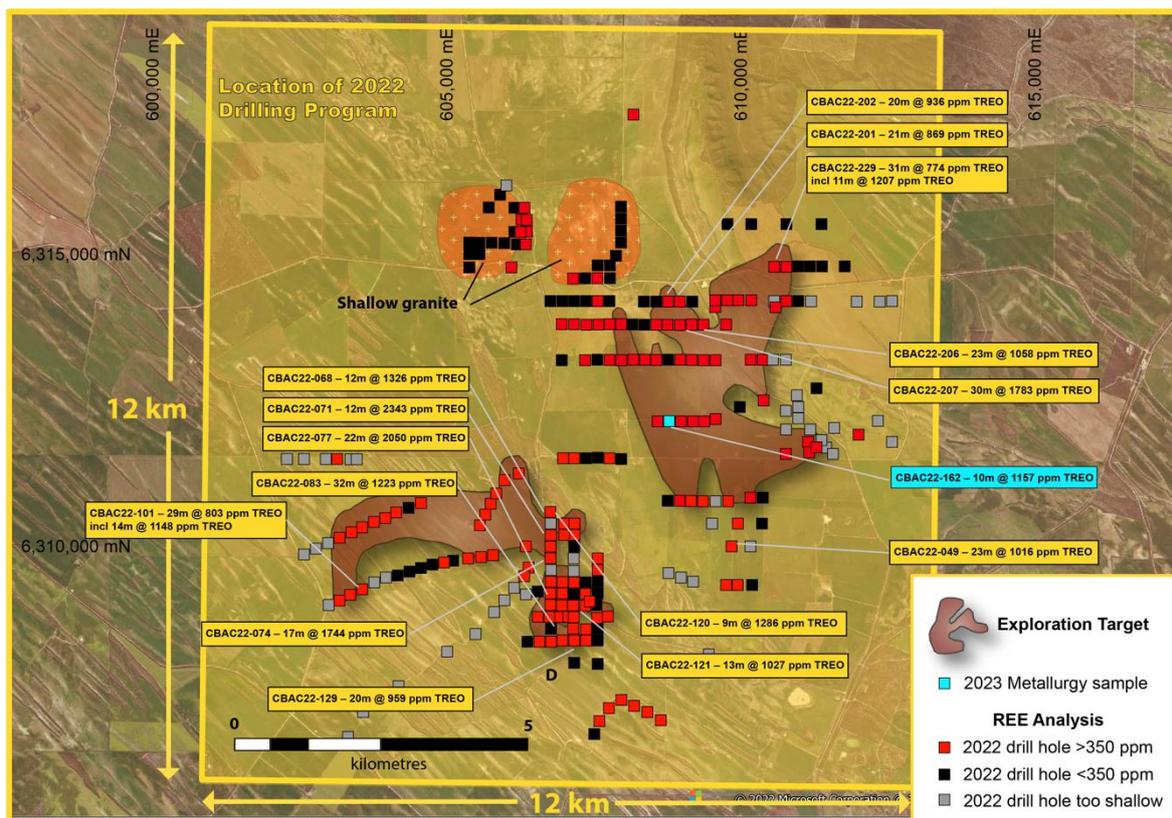


Figure 5. Significant drill results within the Caralue Bluff clay-hosted REE Exploration Target showing location of the metallurgical test work sample.

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ABOUT ITECH MINERALS LTD

iTech Minerals Ltd (ASX:ITM or Company) is an ASX listed mineral exploration company exploring for and developing battery materials and critical minerals within its 100% owned Australian projects. The Company is exploring for graphite, kaolinite-halloysite, regolith hosted clay rare earth element mineralisation and developing the Campoona Graphite Deposit in South Australia. The Company also has extensive exploration tenure prospective for Cu-Au porphyry mineralisation, IOCG mineralisation and gold mineralisation in South Australia and tin, Tungsten, and polymetallic Cobar style mineralisation in New South Wales.

COMPETENT PERSON STATEMENT

The information contained in this report, relating to metallurgical results, is based on, and fairly and accurately represent the information and supporting documentation prepared by Damian Connelly. Mr Connelly is a full-time employee of METS Engineering who are a Contractor to iTech, and a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Connelly has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Connelly consents to the inclusion in the report of the matters based on the results in the form and context in which they appear.

This announcement contains results that have previously released as “Exploration Program Underway at EP Kaolin-REE Project” on 19 January 2022, “Eyre Peninsula Kaolin-REE Maiden Drilling Completed” on 7 April 2022, “Significant REEs discovered at Caralue Bluff” on 14 April 2022, “Substantial REEs in first drill holes at Ethiopia, Eyre Peninsula” on 18 May 2022, “Caralue Bluff and Ethiopia Prospects Continue to Grow” on 20 June 2022, “New REE drill results expand Caralue Bluff Prospect” on 18 July 2022, “More thick, high grade REEs at Caralue Bluff” on 22 July 2022, “Final Results from Caralue Bluff Prospect” on 11 August 2022, “ Exploration Target defined at Caralue Bluff” on 18 August 2022 and “Clay Hosted REE Projects Progress to Second Round of Testing” on 7 October 2022 and “Kaolin Results upgrade REEs by 176%” on 19 October 2022.

iTech confirms that the Company is not aware of any new information or data that materially affects the information included in the announcement.

APPENDIX 1

Test	1	2	3
Temp (°C)	80	80	80
Time (hrs)	4	4	4
Gangue Element Concentration in Leach Liquor (mg/L)			
Al	1167	2585	2320
Ca	30	34	36
Co	0	0	0
Fe	686	835	866
K	53	60	50
Mg	103	111	113
Mn	0	0	1
Na	528	550	563
P	101	146	149
Sc	1.4	1.8	2

Table 3. Gangue element leaching results

GLOSSARY

CREO = Critical Rare Earth Element Oxide

ET – Exploration Target

HCl = Hydrochloric acid

HREO = Heavy Rare Earth Element Oxide

LREO = Light Rare Earth Element Oxide

MREO = Magnet Rare Earth Element Oxide

REE = Rare Earth Element

REO = Rare Earth Element Oxide

TREO = Total Rare Earth Element Oxide

%NdPr = Percentage amount of neodymium and praseodymium as a proportion of the total amount of rare earth elements

wt% = Weight percent

µm = micron or millionth of a metre or a thousandth of a millimetre

-45µm fraction = The portion of a drill sample that passes through a sieve that has hole sizes of 45 microns (45/1000th of a millimetre). This is generally the clay rich fraction.

JORC 2012 EDITION - TABLE 1
Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> All samples were collected through a cyclone into plastic bags at 1 m intervals, then subsampled into ~2kg samples within numbered calico bags, composite samples were created from selected 1 metre intervals, which have been sent for chemical analyses. Composite intervals were created based upon the geology and colour. As such the composite intervals created vary in length from 2m to 5m. Composite samples weigh roughly 1-2 kg for initial test work. The Competent Person has reviewed referenced publicly sourced information through the report and considers that sampling was commensurate with industry standards current at the time of drilling and is appropriate for the indication of the presence of mineralisation.
Drilling Techniques	<ul style="list-style-type: none"> Drill type (e.g., core, reverse circulation, open hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.). 	<ul style="list-style-type: none"> McLeod Drilling used a Reverse Circulation Aircore drill rig mounted on a 6-wheel drive Toyota Landcruiser. Aircore drilling uses an 76mm aircore bit with 3 tungsten carbide blades and is a form of drilling where the sample is collected at the face and returned inside the inner tube. The drill cuttings are removed by the injection of compressed air into the hole via the annular area between the inner tube and the drill rod. Aircore drill rods are 3 m NQ rods. All aircore drill holes were between 2m and 60m in length. The Competent Person has inspected the drilling program and considers that drilling techniques was commensurate with industry standards current at the time of drilling and is appropriate for the indication of the presence of mineralisation.

Criteria	JORC Code Explanation	Commentary
Drill Sample Recovery	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • No assessment of recoveries was documented. • All efforts were made to ensure the sample was representative. • No relationship is believed to exist, but no work has been done to confirm this.
Logging	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • All samples were geologically logged to include details such as colour, grain size and clay content. • Collars were located using a handheld GPS • As this is early-stage exploration, collar locations will have to be surveyed to be used in mineral resource estimation. • The holes were logged in both a qualitative and quantitative fashion relative to clay content.
Sub-Sampling Techniques and Sample Preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all cores 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. 	<ul style="list-style-type: none"> • All samples were collected through a cyclone into plastic bags at 1 m intervals, then subsampled into ~2kg samples within numbered calico bags, composite samples were created from selected 1 metre intervals, which have been sent for chemical analyses. • A full profile of the bag contents was subsampled to ensure representivity. • All samples were dry. • Composite intervals were created based upon the geology and colour. As such the composite intervals created vary in length from 2m to 5m. Composite samples weigh roughly 1-2 kg for initial test work. • Kaolin rich intervals were subsampled and submitted for kaolin analysis at Bureau Veritas using the following method <ul style="list-style-type: none"> ○ Screen with 45-micron screen using cold water ○ Retain both fractions ○ Dry each fraction at low temp overnight ○ Record masses ○ Riffle split a 10gm (+45 and -45 fraction) for whole rock assay (14 element oxides), LOI and REEs.

Criteria	JORC Code Explanation	Commentary
<p>Quality of Assay Data and Laboratory Tests</p>	<ul style="list-style-type: none"> 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Whole Rock and REE analysis was undertaken by Bureau Veritas using both the XRF (XRF4B) and ICP-MS (IC4M) techniques. Both the +45 and -45 fraction were analysed for REEs and the bulk sample result was calculated from the relative proportions and REE values of each fraction. <p>XRF (Detection limits in ppm) Al (100) As (10) Ba (10) Ca (100) Cr (10) Cu (10) Fe (100) K (100) Mg (100) Mn (10) Na (100) Ni (10) P (10) Pb (10) S (10) Si (100) Ti (100) U (10) W (10) Y (10) Zn (10) Zr (10)</p> <p>LA-ICP-MS (Detection limits in ppm) Ag (0.1) As (0.2) Ba (0.5) Be (0.2) Bi (0.02) Cd (0.1) Co (0.1) Cr (1) Cs (0.01) Cu (2) Dy (0.01) Er (0.01) Ga (0.1) Gd (0.01) Hf (0.01) Ho (0.01) In (0.05) La (0.01) Mn (1) Mo (0.2) Nb (0.01) Nd (0.01) Ni (2) Pb (1) Rb (0.05) Re (0.01) Sb (0.1) Sc (0.1) Se (5) Sm(0.01) Sr (0.1) Ta (0.01) Tb (0.01) Te (0.2) Th (0.01) Ti (1) Tm (0.01) U (0.01) V (0.1) W (0.05) Y (0.02) Yb (0.01) Zn (5) Zr (0.5)</p> <ul style="list-style-type: none"> Selected samples that didn't require screening of the -45µm fraction were submitted to ALS Perth using their ME-MS61 technique for multi-elements. As such the digestion of REE's is not complete. A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and analyzed by inductively coupled plasma-atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, silver and tungsten and diluted accordingly. Samples meeting this criterion are then analyzed by inductively coupled plasma-mass spectrometry. Results are corrected for spectral interelement interferences. NOTE: Four acid digestions are able to dissolve most minerals; however, although the term "near-total" is used, depending on the sample matrix, not all elements are quantitatively extracted.

Criteria	JORC Code Explanation	Commentary																																																																																																																																																
		<ul style="list-style-type: none"> Results for the additional rare earth elements will represent the acid leachable portion of the rare earth elements. Detection Limits are as follows <table border="1" data-bbox="938 416 1423 2007"> <thead> <tr> <th>Element</th> <th>Unit</th> <th>DL</th> </tr> </thead> <tbody> <tr><td>Ag</td><td>ppm</td><td>0.01</td></tr> <tr><td>Al</td><td>%</td><td>0.01</td></tr> <tr><td>As</td><td>ppm</td><td>0.2</td></tr> <tr><td>Ba</td><td>ppm</td><td>10</td></tr> <tr><td>Be</td><td>ppm</td><td>0.05</td></tr> <tr><td>Bi</td><td>ppm</td><td>0.01</td></tr> <tr><td>Ca</td><td>%</td><td>0.01</td></tr> <tr><td>Cd</td><td>ppm</td><td>0.02</td></tr> <tr><td>Ce</td><td>ppm</td><td>0.01</td></tr> <tr><td>Co</td><td>ppm</td><td>0.1</td></tr> <tr><td>Cr</td><td>ppm</td><td>1</td></tr> <tr><td>Cs</td><td>ppm</td><td>0.05</td></tr> <tr><td>Cu</td><td>ppm</td><td>0.2</td></tr> <tr><td>Fe</td><td>%</td><td>0.01</td></tr> <tr><td>Ga</td><td>ppm</td><td>0.05</td></tr> <tr><td>Ge</td><td>ppm</td><td>0.05</td></tr> <tr><td>Hf</td><td>ppm</td><td>0.1</td></tr> <tr><td>In</td><td>ppm</td><td>0.005</td></tr> <tr><td>K</td><td>%</td><td>0.01</td></tr> <tr><td>La</td><td>ppm</td><td>0.5</td></tr> <tr><td>Li</td><td>ppm</td><td>0.2</td></tr> <tr><td>Mg</td><td>%</td><td>0.01</td></tr> <tr><td>Mn</td><td>ppm</td><td>5</td></tr> <tr><td>Mo</td><td>ppm</td><td>0.05</td></tr> <tr><td>Na</td><td>%</td><td>0.01</td></tr> <tr><td>Nb</td><td>ppm</td><td>0.1</td></tr> <tr><td>Ni</td><td>ppm</td><td>0.2</td></tr> <tr><td>P</td><td>ppm</td><td>10</td></tr> <tr><td>Pb</td><td>ppm</td><td>0.5</td></tr> <tr><td>Rb</td><td>ppm</td><td>0.1</td></tr> <tr><td>Re</td><td>ppm</td><td>0.002</td></tr> <tr><td>S</td><td>%</td><td>0.01</td></tr> <tr><td>Sb</td><td>ppm</td><td>0.05</td></tr> <tr><td>Sc</td><td>ppm</td><td>0.1</td></tr> <tr><td>Se</td><td>ppm</td><td>1</td></tr> <tr><td>Sn</td><td>ppm</td><td>0.2</td></tr> <tr><td>Sr</td><td>ppm</td><td>0.2</td></tr> <tr><td>Ta</td><td>ppm</td><td>0.05</td></tr> <tr><td>Te</td><td>ppm</td><td>0.05</td></tr> <tr><td>Th</td><td>ppm</td><td>0.2</td></tr> <tr><td>Ti</td><td>%</td><td>0.005</td></tr> <tr><td>Tl</td><td>ppm</td><td>0.02</td></tr> <tr><td>U</td><td>ppm</td><td>0.1</td></tr> <tr><td>V</td><td>ppm</td><td>1</td></tr> <tr><td>W</td><td>ppm</td><td>0.1</td></tr> <tr><td>Y</td><td>ppm</td><td>0.1</td></tr> <tr><td>Zn</td><td>ppm</td><td>2</td></tr> </tbody> </table>	Element	Unit	DL	Ag	ppm	0.01	Al	%	0.01	As	ppm	0.2	Ba	ppm	10	Be	ppm	0.05	Bi	ppm	0.01	Ca	%	0.01	Cd	ppm	0.02	Ce	ppm	0.01	Co	ppm	0.1	Cr	ppm	1	Cs	ppm	0.05	Cu	ppm	0.2	Fe	%	0.01	Ga	ppm	0.05	Ge	ppm	0.05	Hf	ppm	0.1	In	ppm	0.005	K	%	0.01	La	ppm	0.5	Li	ppm	0.2	Mg	%	0.01	Mn	ppm	5	Mo	ppm	0.05	Na	%	0.01	Nb	ppm	0.1	Ni	ppm	0.2	P	ppm	10	Pb	ppm	0.5	Rb	ppm	0.1	Re	ppm	0.002	S	%	0.01	Sb	ppm	0.05	Sc	ppm	0.1	Se	ppm	1	Sn	ppm	0.2	Sr	ppm	0.2	Ta	ppm	0.05	Te	ppm	0.05	Th	ppm	0.2	Ti	%	0.005	Tl	ppm	0.02	U	ppm	0.1	V	ppm	1	W	ppm	0.1	Y	ppm	0.1	Zn	ppm	2
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Verification of Sampling and Assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No verification of sampling, no use of twinned holes. Data is exploratory in nature and is compiled into excel spreadsheets. Rare earth element analyses were originally reported in elemental form but have been converted to relevant oxide concentrations as in the industry standard. <ul style="list-style-type: none"> TREO = La₂O₃ + CeO₂ + Pr₆O₁₁ + Nd₂O₃ + Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Lu₂O₃ + Y₂O₃ CREO = Nd₂O₃ + Eu₂O₃ + Tb₄O₇ + Dy₂O₃ + Y₂O₃ LREO = La₂O₃ + CeO₂ + Pr₆O₁₁ + Nd₂O₃ HREO = Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Lu₂O₃ + Y₂O₃ MREO = Nd₂O₃ + Pr₆O₁₁ + Tb₄O₇ + Dy₂O₃ NdPr = Nd₂O₃ + Pr₆O₁₁ TREO-Ce = TREO - CeO₂ % NdPr = NdPr/ TREO %HREO = HREO/TREO %LREO = LREO/TREO 																																							
Location of Data Points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> The location of drill hole collar was undertaken using a hand-held GPS which has an accuracy of +/- 5m using UTM MGA94 Zone 53. The quality and adequacy are appropriate for this level of exploration. 																																							
Data Spacing and Distribution	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> There is no pattern to the sampling and the spacing is defined by access for the drill rig, geological parameters, and land surface. Data spacing and distribution are sufficient to establish the degree of geological and grade continuity for future drill planning, but not for resource reporting. 																																							

Criteria	JORC Code Explanation	Commentary
	applied.	
Orientation of Data in Relation to Geological Structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> It is believed that the drilling has intersected the geology at right angles, however, it is unknown whether the drill holes have intersected the mineralisation in a perpendicular manner. The mineralised horizon is obscured by a thin veneer of transported material. It is believed there is no bias has been introduced.
Sample Security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All samples have been in the custody of iTech employees or their contractors. Best practices were undertaken at the time. All residual sample material (pulp) is stored securely.
Audits or Reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> None undertaken.

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Tenement status confirmed on SARIG. The tenements are in good standing with no known impediments.
Exploration Done by Other Parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Relevant previous exploration has been undertaken by Shell Company of Australia Pty Ltd, Adelaide Exploration Pty Ltd and Archer Materials Ltd
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The tenements are within the Gawler Craton, South Australia. iTech is exploring for porphyry Cu-Au, epithermal Au, kaolin and halloysite and REE deposits. This release refers to kaolin mineralisation and clay hosted rare earth element mineralisation related to lateritic weathering processes on basement rock of the Gawler Craton, in particular the Palaeoproterozoic Miltalie Gneiss and Warrow Quartzite.
Drillhole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 Downhole length and interception depth Hole length If the exclusion of this information is 	<ul style="list-style-type: none"> Exploration results have been released in previous announcements by the company.

Criteria	JORC Code Explanation	Commentary
	<p>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.</p>	
<p>Data Aggregation Methods</p>	<ul style="list-style-type: none"> • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., 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. 	<ul style="list-style-type: none"> • REE analysis intervals were aggregated using downhole sample length weighted averages with a lower cut-off of 350 ppm TREO with no upper limit applied. A maximum internal dilution of 4m @ 200 ppm TREO was used. • No high cut has been applied.
<p>Relationship Between Mineralisation Widths and Intercept Lengths</p>	<ul style="list-style-type: none"> • 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 downhole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known'). 	<ul style="list-style-type: none"> • All holes are believed to intersect the mineralisation at 90 degrees and therefore represent true widths • All intercepts reported are down hole lengths.
<p>Diagrams</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • See main body of report.
<p>Balanced Reporting</p>	<ul style="list-style-type: none"> • Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> • All other relevant data has been reported. • The reporting is considered to be balanced. • Where data has been excluded, it is not considered material.
<p>Other Substantive Exploration Data</p>	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • The Project area has been subject of significant exploration for base metals, graphite and gold. • All relevant exploration data has been included in this report.

Criteria	JORC Code Explanation	Commentary
Further Work	<p>substances.</p> <ul style="list-style-type: none"> The nature and scale of planned further work (e.g., 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. 	<ul style="list-style-type: none"> Further exploration, sampling, geochemistry and drilling required at all prospects Additional metallurgical test work is required to determine the economically extrable percentage of REEs. Additional investigation of using NaCl and HCl as an alternative Perform the ion exchange desorption (IXD) test using Ammonium Sulphate, Ammonia Acetate and Ammonia Citrate