

Initial Raptor REE Project samples show significant grades of >4,500 TREO in outcropping saprolite

HIGHLIGHTS

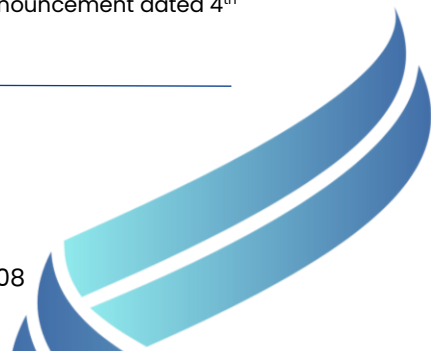
- Initial Raptor REE Project samples confirm significant grades in outcropping saprolite of **up to 4,553ppm TREO**, within a **channel sample of 5m @ 3,695 TREO**, positioning Raptor among the best Caldeira-style ionic clay hosted REE exploration projects.
 - Nd+Pr oxide results extremely positive with an average of 708ppm Nd+Pr oxide (19% of the TREO) over the 5m channel sample.
- Initial grades compare favourably to proximal and similar style ionic clay REE projects, noting Meteoric Resources (ASX:MEI) JORC Mineral Resource Estimate of 545 million tonnes @ **2,561ppm¹** and Viridus Mining and Minerals (ASX:VMM) JORC Mineral Resource Estimate of 201 million tonnes @ **2,590ppm²**
- Initial results represent the first batch received by Perpetual and relate to surface (saprolite) sampling only, with deeper drilling results expected shortly.
- Raptor exploration program has been extended to cover all tenement areas due to strong results and is anticipated to be completed in the next 2 weeks.
- Reporting of results from additional surface samples and the deeper auger drilling will continue through August.

Perpetual Resources Ltd (“Perpetual” or “the Company”) (ASX: PEC) is pleased to announce that it has received the first batch of assay results, which include consistently high-grade Total Rare Earth Oxides (TREO) (>4,000 ppm TREO) from surface samples at the Raptor Project. These results confirm the project’s prospectivity and the presence of ionic clay-hosted rare earth element (REE) mineralisation on Perpetual’s tenements.

The initial surface sampling program, completed in June and guided by in-field portable XRF (pXRF) equipment, has been instrumental in selecting sampling locations and planning the ongoing auger drilling program.

¹ For additional information, please refer to Meteoric Resources (ASX:MEI) ASX Announcement dated 14th May 2024, titled “150% Increase in Soberbo Mining Licence Mineral Resource”.

² For additional information, please refer to Viridus Mining and Minerals (ASX:VMM) ASX Announcement dated 4th June 2024, titled “Globally Significant Maiden MRE for Colossus IAC Project”.



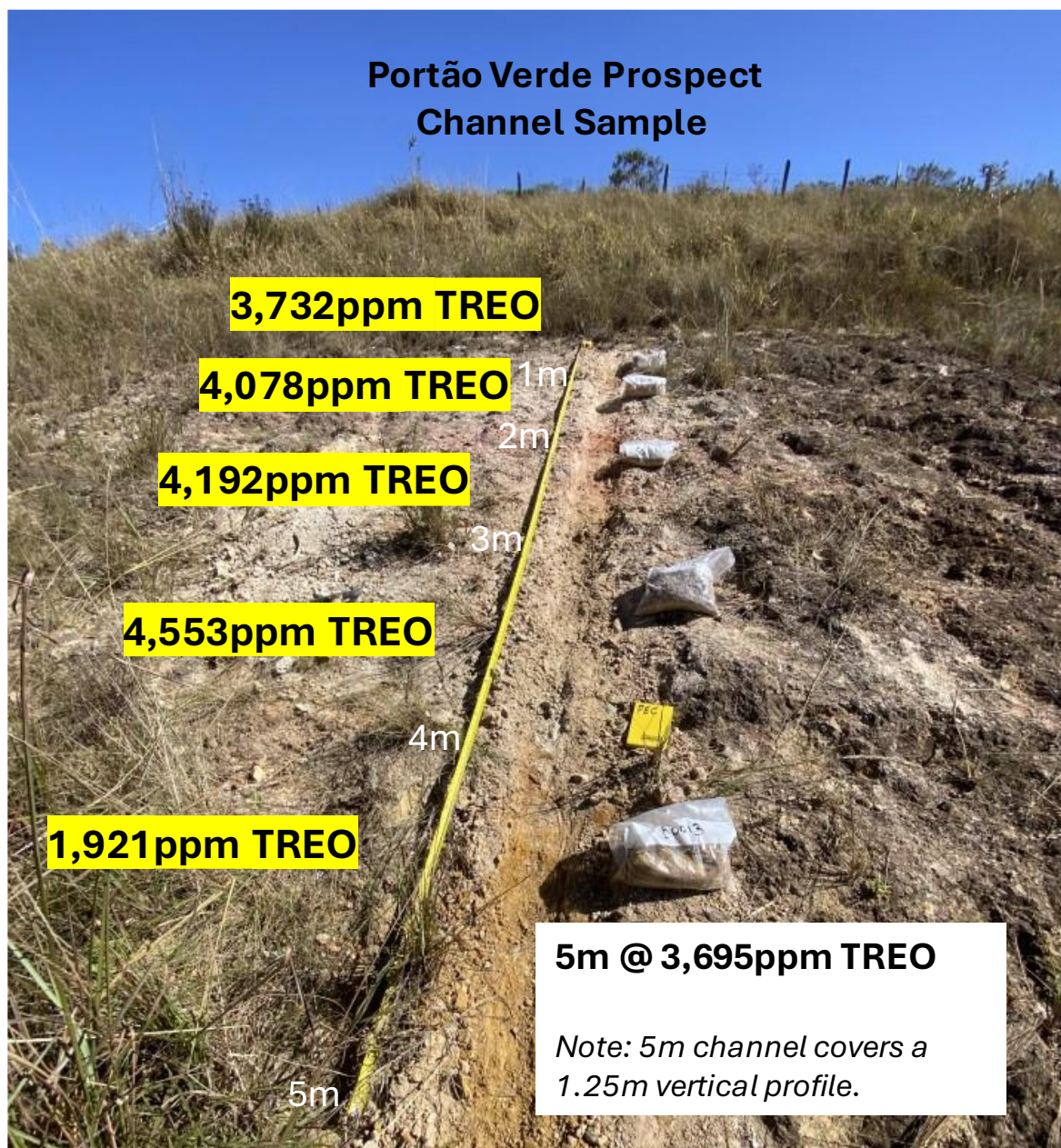


Figure 1: Outstanding surface channel sample of 5m @ 3,695 TREO (Nd+Pr oxide 708ppm). Image shows surface sampling (sample ID S0009 to S0013) of saprolite, with sample locations and TREO results. The 5m channel was sampled on 1m intervals, each 1m interval is equivalent to 0.25m vertically. The channel orientation is approximately northwest to southeast.

Perpetual's recently appointed REE specialist, Mr. Karl Weber, commented;

"The early identification of high-grade surface enrichment has been confirmed by multiple assays over 4,000ppm TREO which is an excellent start to the exploration program. The in-country team continues to progress the auger drilling campaign and we are on track to receive initial deeper drilling results in late July and throughout August, which we believe have strong potential".



Figure 2 – Portao Verde surface sample, weathered porphyritic volcanic – 2,489ppm TREO (sample ID S0015).



Figure 3 – Augur drilling at Perpetual’s Raptor REE Project.

Results have been received for the first batch of samples submitted from the Raptor REE project and confirm the presence of high grade REE mineralisation at surface within tenement 830.310/1979 (Portão Verde Prospect). Outcropping saprolite sampled during the due diligence exploration assessment has returned a maximum result of 4,553ppm TREO, within the **channel sample result of 5m @ 3,695ppm TREO**. The Nd+Pr oxide results are also extremely positive with an average of **708ppm Nd+Pr oxide (19% of the TREO)** over the 5m channel sample interval.

Other samples from Portão Verde also confirm the prospect scale presence of REE mineralisation, including **2,489ppm TREO** from a highly weathered porphyritic volcanic located about 400m south of the channel sample.

Hosted by weathered intrusive rocks, the saprolitic mineralisation encountered is typical of Caldeira style Ionic Clay REE mineralisation. The early confirmation of Raptor Project prospectivity for Ionic Clay REE mineralisation ensures the project can be assessed efficiently within the ongoing exploration program.

Shallow surface samples collected in the north of tenement 815.816/1971 (Pinheirinho Prospect) include a maximum shallow surface sample result of **3,863ppm TREO** from immediately below the soil - saprolite interface (see Figure 4), another exciting result. Other samples at Pinheirinho are consistently anomalous, with 4 of 5 samples reporting over 1,000ppm TREO.

The Pinheirinho Prospect samples test a leached part of the saprolite profile, closer to the soil horizon and may produce erratic results with depletion or enrichment of REE elements. Auger drilling, which is underway, will aim to immediately follow up these results with multiple drill holes to test the deeper saprolite profile.



Figure 4 – Pinheirinho surface sample of saprolite exposed in a small agricultural embankment, below the soil horizon – 3,863ppm TREO (Sample ID S0004).

The continued auger (Trado) drilling program aims to test areas that demonstrate high surface anomalism such as the Portão Verde (tenement 830.310/1979) channel sample and Pinheirinho Prospect surface samples. Figure 1 shows the channel sample and highlights the saprolitic host to the mineralisation identified.

The auger drill program is utilising a motorised handheld Trado rig which has the capacity to test the deeper saprolite horizons to a depth of up to 20 meters (see Figure 3). Drilling, initially focussed on tenement number 815.816/1971, has moved to 830,310/1979 (see Figures 5 & 6 for tenement location) and will also advance to adjacent tenement areas.

Initial exploration will be to define the extent of mineralisation within easily accessible areas of the tenements and the thickness of the saprolite. The level of TREO and consistency of positive results in the Trado drilling will guide the remaining exploration programme.

Perpetual expects to receive further assay results from the surface sampling and the auger drilling program in late July and throughout August.

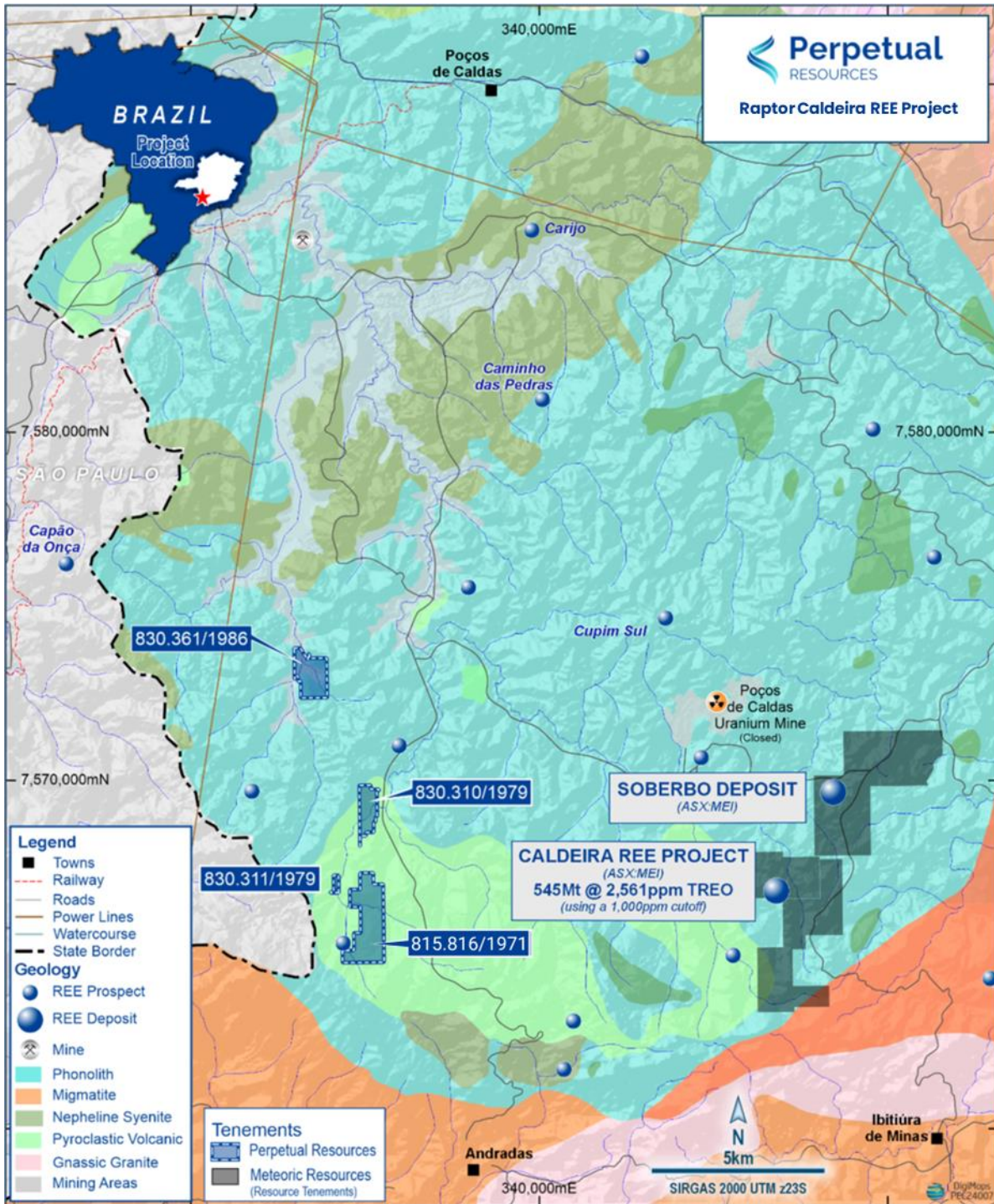


Figure 5 – Regional map showing location of Perpetual’s Raptor Caldeira tenements, located within the Alkaline Complex of Poços de Caldas, Minas Gerais as at 15 May 2024.

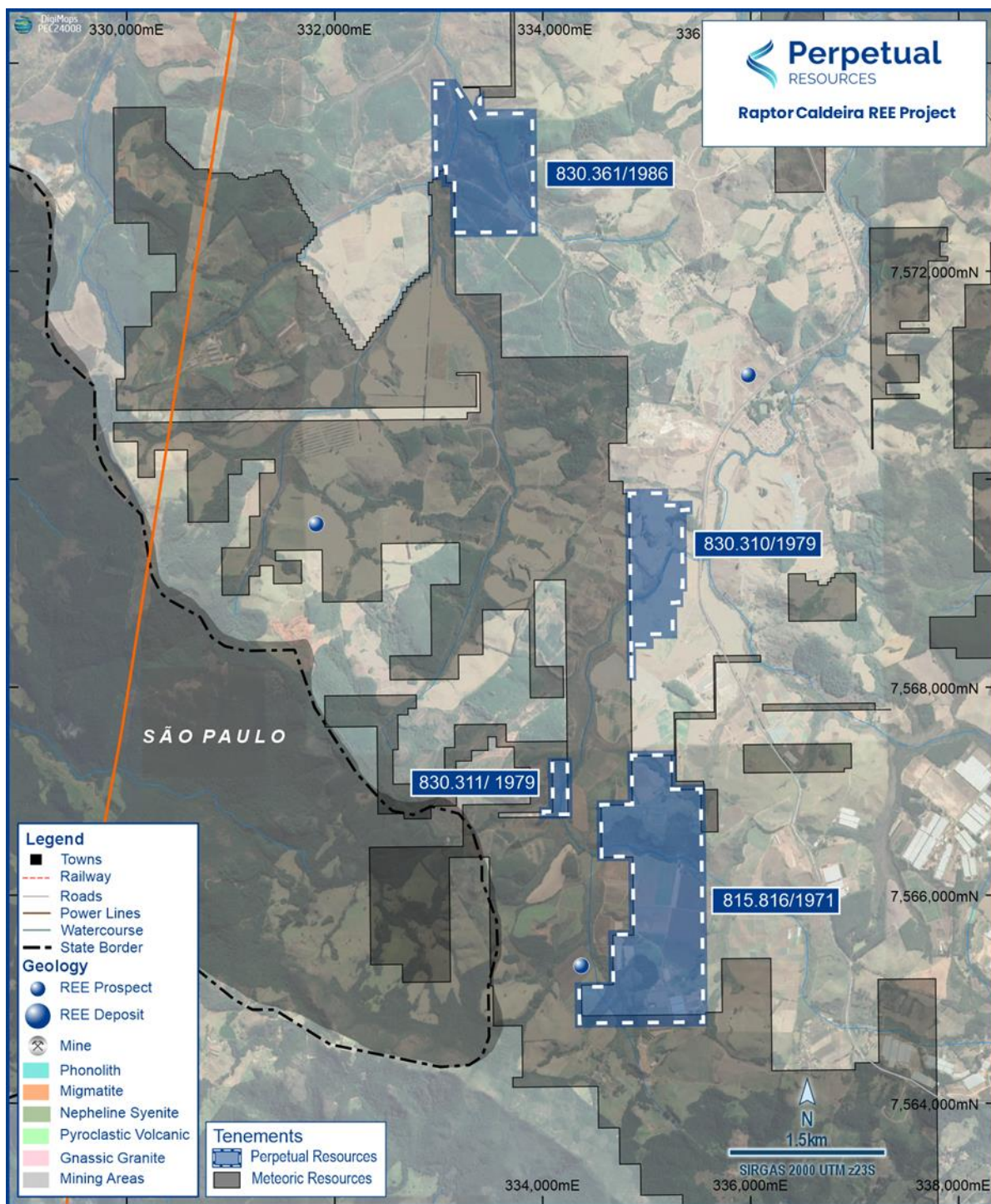


Figure 6 – Close up map showing location of Perpetual’s Raptor Caldeira tenements, located within the Alkaline Complex of Poços de Caldas, Minas Gerais.

Background to Raptor REE Project

The Raptor Tenements are located proximal to and on the same geological formation as Meteoric Resources (ASX:MEI) Tier 1 Caldeira ionic clay REE project, which boasts a JORC Mineral Resource Estimate of 545 million tonnes @ 2,561ppm TREO comprising 24.1% MREO¹ which is considered one of the world's highest grade ionic adsorption clay REE deposits.

Geologically, the area situated within the Cretaceous (80 Ma) Alkaline Complex of Poços de Caldas, covers approximately 800km² being the largest Alkaline Complex in Brazil. The region of the project hosts various minerals, including Rare Earth Elements (REE). The complex comprises nepheline syenite and other alkaline intrusive system rocks, with primary REE mineralization confined to intrusives formed during crustal scale magmatic events.

Intense weathering has resulted in the development of extensive clay regolith above the alkaline intrusives, with historical mining activities primarily focused on clay for various purposes. Notably, mineralization in nearby proximal projects has been found in shallow sampling, with drill depths reaching >8m, indicating shallow subsurface systems.

- ENDS -

This announcement has been approved for release by the Board of Perpetual.

KEY CONTACT

Robert Benussi
Managing Director

E info@perpetualresources.co

¹ For additional information, please refer to Meteoric Resources (ASX:MEI) ASX Announcement dated 14th May 2024, titled "150% Increase in Soberbo Mining Licence Mineral Resource".

About Perpetual Resources

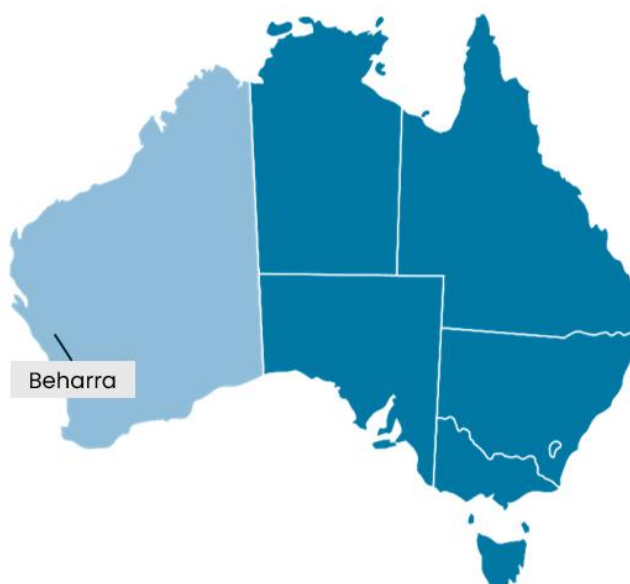
Perpetual Resources Limited (Perpetual) is an ASX listed company pursuing exploration and development of critical minerals essential to the fulfillment of global new energy requirements.

Perpetual is active in exploring for lithium, rare earth elements (REE) and other critical minerals in the Minas Gerais region of Brazil, where it has secured approximately 12,500 hectares of highly prospective lithium and REE exploration permits. The lithium (spodumene) bearing region has become known as Brazil's "Lithium Valley". In addition Perpetual also operates the Beharra Silica Sand development project, which is located 300km north of Perth and is 96km south of the port town of Geraldton in Western Australia. Perpetual continues to review complementary acquisition opportunities to augment its growing portfolio of exploration and development projects consistent with its critical minerals focus.

Brazil Projects



Australian Projects



COMPLIANCE STATEMENTS

Competent Person Statement

The information summarised in this document relating to Exploration projects and results is based on information provided by Mr Karl Weber, a professional geologist with over 25 years' experience in minerals geology including senior management, consulting, exploration, resource estimation, and development. Mr Weber completed a Bachelor of Science with Honours at Curtin University in 1994; is a member of the Australasian Institute of Mining and Metallurgy (Member No. 306422) and thus holds the relevant qualifications as Competent Person as defined in the JORC Code. Mr Weber is contracting to Perpetual Resources. Mr Weber has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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 JORC Code). Mr Weber consents to the inclusion of this information in the form and context in which it appears.

Forward-looking statements

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

Disclaimer

No representation or warranty, express or implied, is made by Perpetual that the material contained in this document will be achieved or proved correct. Except for statutory liability and the ASX Listing Rules which cannot be excluded, Perpetual and each of its directors, officers, employees, advisors and agents expressly disclaims any responsibility for the accuracy, correctness, reliability or completeness of the material contained in this document and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person through use or reliance on any information contained in or omitted from this document.

Table 1 : Surface Sample Results Summary – All results are reported. Samples S0009 – S0013 represent the Channel Sample reported with 5m @ 3,689ppm TREO.

Sample ID	Easting (m)	Northing (m)	TREO (ppm)	Nd+Pr oxide (ppm)	Dy ₂ O ₃ (ppm)	Tb ₄ O ₇ (ppm)
S0001	335219.3	7565795.4	1589.69	71.70	10.04	1.32
S0002	335311.9	7566861.3	905.78	53.35	10.69	1.54
S0003	335183.4	7566749.7	1023.17	52.28	10.13	1.42
S0004	335348.9	7566976	3863.46	148.94	11.01	1.71
S0005	334931.3	7566925.2	1942.62	303.55	11.70	1.96
S0006	334979.8	7569726.9	1729.68	240.31	40.19	5.13
S0007	334978.9	7569729.5	4382.92	931.64	30.55	5.61
S0008	334982.6	7569731.2	3265.25	813.80	32.81	6.00
S0009	334978.5	7569733.8	3731.68	720.31	28.23	4.92
S0010	334979.2	7569732.8	4077.80	988.88	32.55	6.05
S0011	334979.9	7569731.8	4192.23	893.50	32.98	6.13
S0012	334980.7	7569730.6	4553.15	629.65	25.95	4.76
S0013	334981.4	7569729.5	1921.49	307.52	19.80	3.15
S0014	335003.4	7569142.3	1418.76	96.85	12.06	1.63
S0015	335026.7	7569356.1	2488.62	475.86	24.91	4.06

Table 2 : Surface Sample Results – All results are reported and oxide conversions.

Sample ID	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A	IMS95A
	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Y
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S0001	144.7	1053.8	16.67	44.2	6.2	2.06	5.61	1.12	8.75	1.87	6.64	1	6.9	0.92	52.6
S0002	108	523.7	11.72	33.6	7.5	2.84	7.37	1.31	9.31	1.82	5.73	0.77	5.1	0.68	50.05
S0003	102.7	630.5	12.09	32.3	5.8	2.26	5.8	1.21	8.83	1.93	6.09	0.9	5.6	0.76	52.69
S0004	284.2	2786.2	34.94	91.5	10.8	2.98	8.88	1.45	9.59	1.87	5.4	0.76	5	0.64	49.77
S0005	839.8	442.4	76.89	180.6	17.2	4.29	11.68	1.67	10.19	2	5.67	0.8	5.3	0.74	53.05
S0006	311.3	481.8	53.22	150.9	22.5	6.88	21.08	4.36	35.02	8.52	31.04	4.96	32.9	4.24	285.9
S0007	1333.5	1263	207.69	583.6	62.5	15.55	40.06	4.77	26.62	4.77	13.32	1.73	9.8	1.31	157.38
S0008	1164.6	562.5	182.17	509	57.1	14.77	39.84	5.1	28.59	5.15	14.57	1.79	11.1	1.45	173.1
S0009	1074.5	1181.6	162.04	449.7	47.5	12.14	32.7	4.18	24.6	4.72	13.55	1.83	11.1	1.51	149.51
S0010	1457.6	802.5	223.3	616.5	65.1	16.04	42.06	5.14	28.36	5.16	14.52	1.75	10.8	1.41	173.19
S0011	1302.3	1142.3	200.74	558.1	59.6	15.47	41.03	5.21	28.74	5.26	14.49	1.85	11.1	1.43	174.04
S0012	899.8	2160.6	140.2	394.6	45.8	11.82	31.46	4.05	22.61	4.27	12.21	1.6	9.4	1.3	134.55
S0013	462.7	715	69.27	191.9	23.3	6.78	17.95	2.68	17.25	3.34	10.12	1.4	8.9	1.2	99.87
S0014	123.2	882.4	21.27	61	9.1	2.62	7.27	1.39	10.51	2.37	7.84	1.15	8	1.11	66.81
S0015	751.5	691.4	107.91	296.2	33.6	8.73	24.62	3.45	21.7	4.41	13.3	1.86	11.6	1.53	140.02

Sample ID	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Y	TREO
	La2O3	Ce2O4	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	La-Lu+Y
	1.1728	1.1713	1.2082	1.1664	1.1596	1.1579	1.1526	1.1762	1.1477	1.1455	1.1435	1.1421	1.1387	1.1371	1.2699	ppm
S0001	169.70	1234.32	19.51	51.55	7.19	2.39	6.47	1.29	10.04	2.14	7.59	1.14	7.86	1.05	66.80	1589.69
S0002	126.66	613.41	13.72	39.19	8.70	3.29	8.49	1.51	10.69	2.08	6.55	0.88	5.81	0.77	63.56	905.78
S0003	120.45	738.50	14.15	37.67	6.73	2.62	6.69	1.39	10.13	2.21	6.96	1.03	6.38	0.87	66.91	1023.17
S0004	333.31	3263.48	40.89	106.73	12.52	3.45	10.24	1.67	11.01	2.14	6.17	0.87	5.69	0.73	63.20	3863.46
S0005	984.92	518.18	89.98	210.65	19.95	4.97	13.46	1.92	11.70	2.29	6.48	0.91	6.04	0.84	67.37	1942.62
S0006	365.09	564.33	62.28	176.01	26.09	7.97	24.30	5.02	40.19	9.76	35.49	5.66	37.46	4.83	363.06	1729.68
S0007	1563.93	1479.35	243.06	680.71	72.48	18.01	46.17	5.49	30.55	5.46	15.23	1.98	11.16	1.49	199.86	4382.92
S0008	1365.84	658.86	213.19	593.70	66.21	17.10	45.92	5.87	32.81	5.90	16.66	2.04	12.64	1.65	219.82	3265.25
S0009	1260.17	1384.01	189.64	524.53	55.08	14.06	37.69	4.81	28.23	5.41	15.49	2.09	12.64	1.72	189.86	3731.68
S0010	1709.47	939.97	261.33	719.09	75.49	18.57	48.48	5.92	32.55	5.91	16.60	2.00	12.30	1.61	219.93	4077.80
S0011	1527.34	1337.98	234.93	650.97	69.11	17.91	47.29	6.00	32.98	6.03	16.57	2.11	12.64	1.63	221.01	4192.23
S0012	1055.29	2530.71	164.08	460.26	53.11	13.69	36.26	4.66	25.95	4.89	13.96	1.83	10.70	1.48	170.87	4553.15
S0013	542.65	837.48	81.07	223.83	27.02	7.85	20.69	3.08	19.80	3.83	11.57	1.60	10.13	1.37	126.82	1921.49
S0014	144.49	1033.56	24.89	71.15	10.55	3.03	8.38	1.60	12.06	2.71	8.97	1.31	9.11	1.26	84.84	1418.76
S0015	881.36	809.84	126.29	345.49	38.96	10.11	28.38	3.97	24.91	5.05	15.21	2.12	13.21	1.74	177.81	2488.62



JORC CODE, 2012 Edition Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Samples reported here are surface samples, representative of the material seen in shallow excavations (less than 2m deep) or at surface. Continuous channels sampling was also where outcrops were accessible. Sample locations were selected with the assistance of a portable XRF, where REE were identified. Samples were collected into a tray directly from the surface being sampled, to minimize the bias and contamination. Channels were sampled on 1m intervals. Intervals are measured by the operators, the whole sample from the interval is collected. The representative samples collected for assay averaged 1-2kg in weight. The assay samples are prepared for assay, crushed to 75% passing 3mm, then a 250g split is pulverised to >95% passing 150# (~0.105mm) with 50g split for final assay.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> No drilling reported here.
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"> Samples were geologically logged in the field during collection. Sample recovery was not relevant.
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. 	<ul style="list-style-type: none"> Samples were geologically logged by a geologist in the field during collection. They do not support a Mineral Resource Estimation, mining studies or metallurgical studies.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Sample size is appropriate for the material being sampled. No duplicates were taken. Samples were collected into a tray directly from the surface being sampled, to minimize the bias and contamination making the samples as representative as possible.
Quality of assay data and laboratory tests	<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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> The assay technique used by SGS Geosol Laboratory was IMS95A for 48 elements, is a complete digest using the Lithium Borate Fusion technique. This is a standard industry practice for REE assay. The laboratory uses Certified Reference Material (CRM), repeats and blanks to ensure QAQC requirements are met. No issues were recorded.
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"> Significant results are reported here and confirmed from data supplied to contract and company geologists.. Primary data is imported via a modern database administration process. Adjustments to the data were made to transform the elemental values into the oxide values.

Criteria	JORC Code explanation	Commentary																																																
		<ul style="list-style-type: none"> The conversion factors used are included in the table below. <table border="1"> <thead> <tr> <th>Element</th> <th>Oxide</th> <th>Factor</th> </tr> </thead> <tbody> <tr><td>Ce</td><td>CeO₂</td><td>1.1713</td></tr> <tr><td>La</td><td>La₂O₃</td><td>1.1728</td></tr> <tr><td>Sm</td><td>Sm₂O₃</td><td>1.1596</td></tr> <tr><td>Nd</td><td>Nd₂O₃</td><td>1.1664</td></tr> <tr><td>Pr</td><td>Pr₆O₁₁</td><td>1.2082</td></tr> <tr><td>Dy</td><td>Dy₂O₃</td><td>1.1477</td></tr> <tr><td>Eu</td><td>Eu₂O₃</td><td>1.1579</td></tr> <tr><td>Tb</td><td>Tb₄O₇</td><td>1.1762</td></tr> <tr><td>Gd</td><td>Gd₂O₃</td><td>1.1526</td></tr> <tr><td>Ho</td><td>Ho₂O₃</td><td>1.1455</td></tr> <tr><td>Er</td><td>Er₂O₃</td><td>1.1435</td></tr> <tr><td>Tm</td><td>Tm₂O₃</td><td>1.1421</td></tr> <tr><td>Yb</td><td>Yb₂O₃</td><td>1.1387</td></tr> <tr><td>Lu</td><td>Lu₂O₃</td><td>1.1371</td></tr> <tr><td>Y</td><td>Y₂O₃</td><td>1.2699</td></tr> </tbody> </table> <ul style="list-style-type: none"> Weighted averages of samples >500ppm TREO were used to calculate significant intercepts. 	Element	Oxide	Factor	Ce	CeO ₂	1.1713	La	La ₂ O ₃	1.1728	Sm	Sm ₂ O ₃	1.1596	Nd	Nd ₂ O ₃	1.1664	Pr	Pr ₆ O ₁₁	1.2082	Dy	Dy ₂ O ₃	1.1477	Eu	Eu ₂ O ₃	1.1579	Tb	Tb ₄ O ₇	1.1762	Gd	Gd ₂ O ₃	1.1526	Ho	Ho ₂ O ₃	1.1455	Er	Er ₂ O ₃	1.1435	Tm	Tm ₂ O ₃	1.1421	Yb	Yb ₂ O ₃	1.1387	Lu	Lu ₂ O ₃	1.1371	Y	Y ₂ O ₃	1.2699
Element	Oxide	Factor																																																
Ce	CeO ₂	1.1713																																																
La	La ₂ O ₃	1.1728																																																
Sm	Sm ₂ O ₃	1.1596																																																
Nd	Nd ₂ O ₃	1.1664																																																
Pr	Pr ₆ O ₁₁	1.2082																																																
Dy	Dy ₂ O ₃	1.1477																																																
Eu	Eu ₂ O ₃	1.1579																																																
Tb	Tb ₄ O ₇	1.1762																																																
Gd	Gd ₂ O ₃	1.1526																																																
Ho	Ho ₂ O ₃	1.1455																																																
Er	Er ₂ O ₃	1.1435																																																
Tm	Tm ₂ O ₃	1.1421																																																
Yb	Yb ₂ O ₃	1.1387																																																
Lu	Lu ₂ O ₃	1.1371																																																
Y	Y ₂ O ₃	1.2699																																																
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A handheld GPS was used to collect location data. This is accurate to within 3m and is considered sufficient for exploration sampling. SIRGAS2000 UTM 23S has been used in Project maps, with Lat/Long used in the country scale maps. Quality and adequacy of the topographic control suits the nature of the exploration activities. 																																																
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 applied. 	<ul style="list-style-type: none"> Surface samples and channel samples are widely spaced where access and material is suitable to sample. Sample locations were selected with the assistance of a portable XRF. Data spacing is not sufficient to establish grade or geological continuity. No compositing has been 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. 	<ul style="list-style-type: none"> Sampling is not related to geological structure, it is targeting saprolite clay mineralisation which is horizontal and exposed in excavations or on outcrops. Where channel samples are taken the 																																																

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	<p>approximate vertical thickness is noted, for example reported Channel sample comprised of S0009 – S0013 is 5m in length and represents approximately 1.25m vertical thickness.</p>
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Samples were collected, stored and transported by company representatives hence all activities are considered secure.
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"> The company has reviewed the sampling techniques and data collected, there have been no issues recognised to date. All activities are overseen by experienced geologists. Peer review is undertaken prior to release of results.

Section 2 Reporting of Exploration Results

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 license to operate in the area. 	<ul style="list-style-type: none"> The following four Tenements comprise the Raptor Project, the location of the tenements is detailed on maps within the report: 815.816/1971 830.310/1979 830.361/1986 830.311/1979 Perpetual has an exclusive option to acquire 100% of the above mineral rights relating to rare earth elements, niobium and scandium. The tenements are held by Brazilian company, Mineracao Serra Do Sao Domingos Ltda No material impediments are known in relation to the tenements.
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"> Previous exploration data is not known for the project. Bauxite mining has occurred on a portion of 815.816/1971. Clay mining (for ceramics) within alluvial areas has occurred on 830.361/1986.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The REE mineralisation reported is of ionic absorption clay (IAC) nature. The style of the REE mineralisation can be assumed due to known mineralisation in the region, metallurgical testwork will be required to confirm the IAC nature of the REE mineralisation.
Drill hole 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 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. 	<ul style="list-style-type: none"> All results are reported in the body of the report.
Data aggregation methods	<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 	<ul style="list-style-type: none"> Significant intercepts were calculated using values > 500ppm TREO only in consecutive intervals of saprolite samples originally sampled meter by meter. No upper cuts were used. Weighted averages were calculated for all intercepts.

Criteria	JORC Code explanation	Commentary
	<p>examples of such aggregations should be shown in detail.</p> <ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisation widths and intercept lengths	<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 down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> The mineralisation reported is related to saprolite.. The weathering profile is assumed to be close to horizontal or following the natural surface, however structures may cause as yet unknown irregularities and controls. Channel lengths are reported and true width is not known, however the approximate vertical thickness is reported where appropriate.
Diagrams	<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"> Appropriate maps are included in the report. Sections are not relevant at this stage.
Balanced Reporting	<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 to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> All REE results have been reported and summarised as TREO results, including Nd+Pr oxide results.
Other substantive exploration data	<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 substances. 	<ul style="list-style-type: none"> No other data is considered relevant at this stage.
Further work	<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"> Exploration field work is required to follow up the results reported here and to further validate the targets and extent of mineralisation. Strike extensions and depth extensions to existing REE anomalies will be the focus while systematically testing priority targets. The limit to extensions of surface mineralisation will not be known until drilling is undertaken..

Section 3 Estimation and Reporting of Mineral Resources

Not applicable

Section 4 Estimation and Reporting of Ore Reserves

Not applicable