

# Highly Successful Maiden Drill Program Confirms REE Potential at Raptor

#### **HIGHLIGHTS**

- Maiden shallow drill program concludes at Raptor confirming discovery of new REE mineralisation in the world renowned Caldeira Alkaline Complex located in Minas Gerais, Brazil.
- Assay results indicate a compelling presence of REEs both at surface and within the shallow saprolite, with all holes ending in mineralisation suggesting substantial potential upside at depth, as is evident at other nearby Caldeira-style clay-hosted REE deposits.
- Grades compare favourably to Meteoric Resources (ASX:MEI) proximal and similar style ionic clay REE project, which contains a JORC Mineral Resource Estimate of 545 million tonnes @ 2,561ppm¹.
- Highlighted drill intercepts from Perpetual's maiden drill program include:
  - RPT0018: **5m @ 5,591ppm TREO (35% Nd+Pr)** ending in 5,533ppm TREO (33% Nd+Pr).
  - RPT0019: 3m @ 3,569ppm TREO (27% Nd+Pr) from 6m, ending in 3,846ppm TREO (31% Nd+Pr).
  - RPT0012: 12m @ 4,601ppm TREO (23% Nd+Pr) ending in 2,914ppm TREO (24% Nd+Pr).
  - RPT0011: 7m @ 4,240ppm TREO (23% Nd+Pr) ending in 2,722ppm TREO (21% Nd+Pr).
  - RPT0010: 10m @ 2,546ppm TREO (21% Nd+Pr) ending in 1,834ppm TREO (22% Nd+Pr). Including recently received
  - RPT0002**: 2m @ 3,165ppm (27.7% Nd+Pr)** ending in 4,398ppm TREO (29.4% Nd+Pr)
  - RPT0020: 10m @ 1,607 ppm TREO (16.5% NdPr) ending in 1,641ppm TREO (14.9% Nd+Pr)
- Results confirm that REE mineralisation is now evident across all three (3) Raptor Project areas (Pina Colada, Portao Verde and Pinheirinho prospects), located within the Tier-1 Caldeira high-grade ionic REE region.
- Significantly higher-value Neodymium-Praseodymium (Nd+Pr) rare earths also confirmed, with individual drill holes showing **up to 35% Nd+Pr ratios**.
- Results add to Perpetual's view that the Raptor REE Project has potential to host an Ionic Absorption Clay (IAC) discovery.
- Planning underway for a follow up drill program, which may also include initial metallurgical testing which would underpin a path to a Maiden Mineral Resource Estimate.

**Perpetual Resources Ltd ("Perpetual" or "the Company") (ASX: PEC)** is pleased to announce the completion of its maiden shallow due diligence drilling program at the Raptor REE Project in Brazil. Assay results reveal the presence of high-grade REEs both at surface and subsurface (saprolite), highlighting strong potential for lonic Absorption Clay (IAC) hosted deposits. Results demonstrate

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



compelling high-grade Total Rare Earth Oxides (TREO) intersections, with multiple 3m intervals exceeding 4,500 ppm TREO and peak 1m intervals reaching up to 6,300 ppm. Notably, all intersections show a significant weighting towards the higher-value Nd+Pr (Neodymium-Praseodymium) oxides, comprising up to 35% of the total TREO assemblage across multiple project areas.

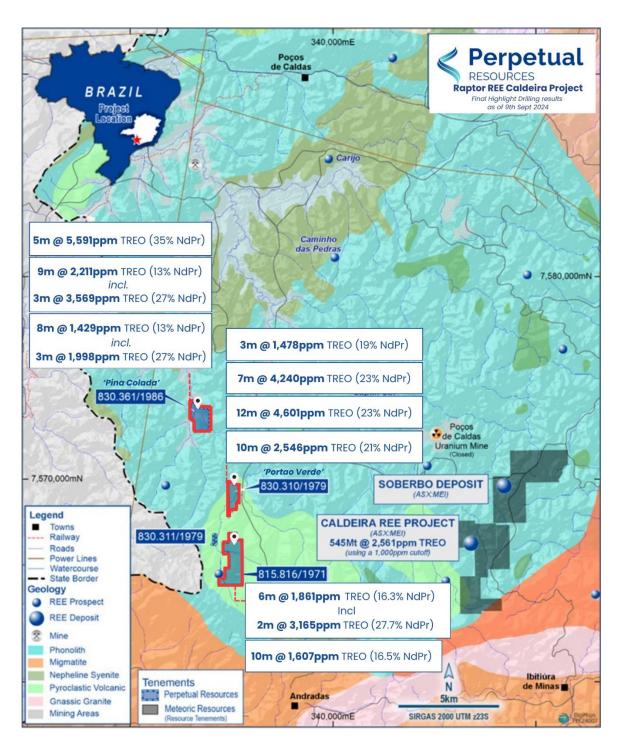


Figure 1: Highlights from PEC's maiden drill program at the Raptor REE Project, Caldeira, Minas Gerais



#### Perpetual's Exploration Manager, Mr. Allan Stephens, commented:

Within just a few months, Perpetual has moved quickly and efficiently to achieve compelling results in a prolific region known for hosting some of the world's best REE deposits. With 21 holes drilled across three areas, testing both surface and shallow subsurface, we've delivered high-impact evaluations, including significant intervals of up to 12m @ 4,601ppm TREO and Nd:Pr ratios of up to 35%. The majority of hole's end in mineralisation, suggesting strong potential at greater depths. We now focus on infill drilling and deeper subsurface testing to scale up and position our projects for resource-ready milestones.

## **Raptor REE Project**

The Raptor Tenements are located near Meteoric Resources' (ASX:MEI) Tier 1 Caldeira ionic clay REE project, one of the world's highest-grade REE deposits, with a JORC resource of 545 Mt at 2,561 ppm TREO. Positioned within the Poços de Caldas Alkaline Complex, Brazil's largest at 800 km², the tenements host REE mineralization in nepheline syenite and related alkaline intrusives formed during major magmatic events. Intense weathering has led to an extensive clay regolith, with nearby projects identifying mineralization through shallow drilling and sampling.

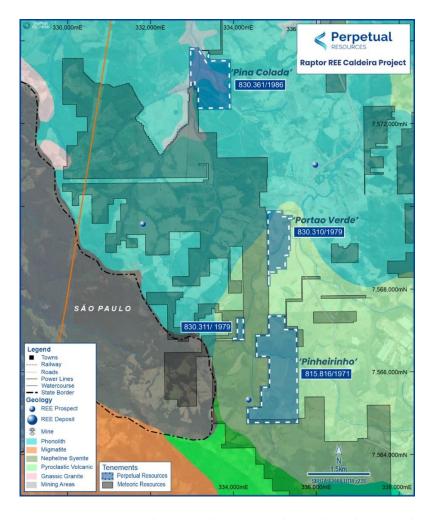


Figure 2: Perpetual Resources Licenses with the Caldeira region, Minas Gerais, Brazil.



The four Raptor licenses are separated into 3 project areas (Portão Verde, Pina Colada & Pinheirinho) and all locared with a <3km radius and have a combined strategic footprint of 380 ha.

#### **Raptor Results**

PEC has now received all results from licenses 830.310/1979 (Portão Verde), 830.361/1986 (Pina Colada), and 815.816/1971 (Pinheirinho), noting that license 830.311/1979 was not tested due to its minimal footprint. Results confirmed significant high-grade REE potential at Portão Verde and Pina Colada and recent assays received identifying mineralisation at its Pinheirinho Prospect. The Portão Verde and Pina Colada prospects are located approximately 0.8 km and 5 km north of the Pinheirinho license, respectively, highlighting the scale and growth potential of the Raptor Project. For relative locations, refer to Figures 1 & 2.

#### **Portão Verde Prospect**

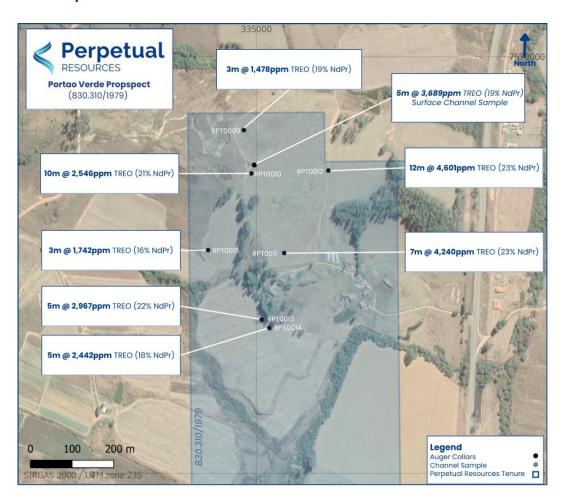


Figure 3: Highlight drill and surface results located on the Portao Verde Prospect (license 830.361/1979)

All reported drill results demonstrate that mineralization or significant anomalies begin within 1 meter of the surface and persist to the end of the hole, suggesting potential for deeper mineralization. As with earlier results, deeper drilling was constrained by the handheld auger's capacity to penetrate beyond certain depths due to variable ground conditions. Perpetual is currently evaluating the use of a more robust drill rig for future exploration programs.



#### **Pina colada Prospect**

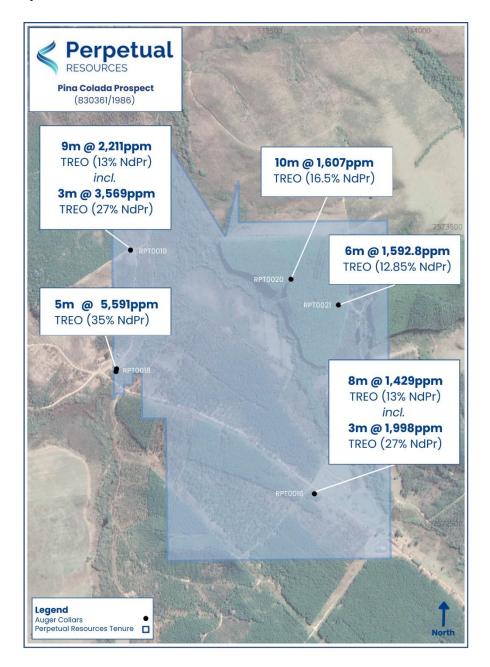


Figure 4: All drill results located on the Pina Colada Prospect (license 830.310/1986).

Continued strong results underscore the significant prospectivity of the Raptor Project, confirming the presence of high-grade, clay-hosted rare earth elements (REE) and the potential for Ionic-Adsorption Clay (IAC) style mineralisation across an expanding area within Perpetual's project areas. As part of subsequent campaigns, PEC may look to undertake metallurgical testing to confirm the Ionic Adsorption Clay (IAC) REE-style mineralisation.

The saprolitic mineralisation encountered, hosted by weathered alkaline rocks, is characteristic of Caldeira-style Ionic Clay REE mineralization. This was a key factor in Perpetual's decision to acquire this highly prospective project area. The weathered host rocks identified so far include breccias and intrusive rocks from the Poços de Caldas Intrusive Complex.



#### **Pinheirinho Prospect**

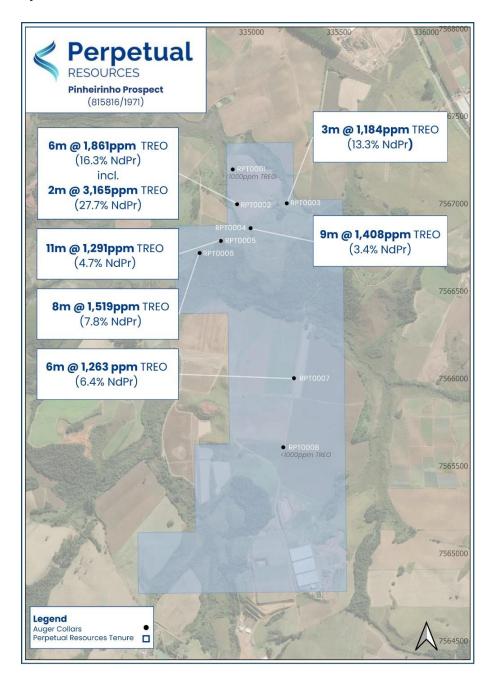


Figure 5: All drill results located on the Pinheirinho Prospect (license 815.816/1971).



#### **Next Steps**

#### 1. Data Review:

A comprehensive data review will be undertaken across the overall Raptor Project areas, which will guide the strategy for the upcoming Phase 2 exploration program. Due to the stronger than expected results achieved in the Phase 1 campaign, it is expected that the Phase 2 program will be more comprehensive and may enable a quicker advancement of the project, than was initially expected.

#### 2. Infill and Extension Drilling Program:

Perpetual's exploration team is currently designing and will then implement a targeted drilling program to confirm mineralisation continuity across the Raptor Project areas, likely targeting the known high-grade zones, with expansion into underexplored areas where relevant.

#### 3. Initial metallurgical program

An initial metallurgical program is also being considered, which would provide insights into the characteristics of the Raptor mineralisation, which is aimed to confirm that Raptor is an Ionic Absorption Clay (IAC).

#### 4. Pathway to Resource Definition:

Perpetual's Phase 2 drill program (currently being planned), aims to advance the project towards a JORC-compliant resource.

#### - ENDS -

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

#### **KEY CONTACT**

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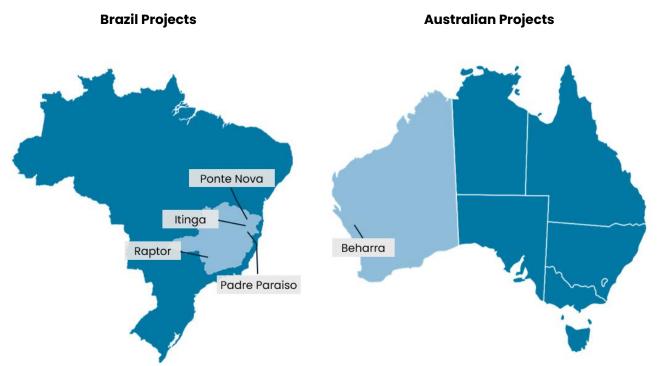


#### **About Perpetual Resources**

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 owns the Beharra Silica Sand development project, which is located 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.





## Results Summary<sup>2</sup>

	Sample ID	From m	To m	TREO	Nd+Pr oxide	Dy <sup>2</sup> O <sup>3</sup>	Tb⁴O <sup>7</sup>	Nd+Pr	MREO	Hole Intercept
				ppm	ppm	ppm	ppm	%	ppm	TREO ppm
RPT0001	T0001	0	1	1,060.2	74.7	11.6	1.7	7.1	88.0	
RPT0001	T0002	1	2	968.0	63.6	10.0	1.4	6.6	75.0	<1000ppm TREO Average
RPT0001	T0003	2	3	675.2	48.4	7.3	1.1	7.2	56.8	
RPT0002	T0004	0	1	835.9	61.6	8.3	1.2	7.4	71.1	
RPT0002	T0005	1	2	1,342.8	79.5	10.8	1.5	5.9	91.9	
RPT0002	т0006	2	3	1,293.2	133.2	12.8	1.8	10.3	147.7	6m @ 1,861ppm TREO (16.3% NdPr
RPT0002	T0007	3	4	1,364.8	262.0	9.0	1.6	19.2	272.5	incl. 2m @ 3,165ppm TREO (27.7% NdPI
RPT0002	T0008	4	5	1,932.8	501.8	12.0	2.4	26.0	516.2	
RPT0002	т0009	5	6	4,398.3	1,291.9	39.4	8.1	29.4	1,339.4	
RPT0003	T0010	0	1	1,092.3	121.7	12.0	1.8	11.2	135.5	
RPT0003	T0011	1	2	1,030.8	136.9	12.0	2.0	13.3	150.8	3m @ 1,184ppm TREO (13.3% NdPl
RPT0003	T0012	2	3	1,429.4	221.3	13.2	2.3	15.5	236.8	
RPT0004	T0013	0	1	917.7	27.5	6.2	0.9	3.0	34.5	
RPT0004	T0014	1	2	898.0	27.0	6.0	0.8	3.0	33.8	
RPT0004	T0015	2	3	1,341.2	35.1	7.1	0.9	2.6	43.1	
RPT0004	T0016	3	4	1,690.7	36.8	7.3	0.9	2.2	45.0	
RPT0004	T0017	4	5	2,023.6	61.1	8.5	1.1	3.0	70.6	9m @ 1,408ppm TREO (3.4% NdPl
RPT0004	T0018	5	6	1,681.2	55.7	8.9	1.1	3.3	65.7	
RPT0004	T0019	6	7	1,581.8	53.4	9.1	1.2	3.4	63.7	
RPT0004	T0020	7	8	1,321.3	64.4	8.1	1.1	4.9	73.5	
RPT0004	T0021	8	9	1,220.7	63.5	6.8	1.0	5.2	71.2	
RPT0005	T0022	0	1	1,219.8	37.6	9.6	1.3	3.1	48.5	
RPT0005	T0023	1	2	1,158.3	41.9	10.5	1.4	3.6	53.8	
RPT0005	T0024	2	3	1,603.9	40.5	10.4	1.3	2.5	52.2	
RPT0005	T0025	3	4	1,238.3	64.5	11.6	1.6	5.2	77.7	
RPT0005	T0026	4	5	1,255.3	63.5	11.1	1.6	5.1	76.2	
RPT0005	T0027	5	6	1,262.2	64.9	11.5	1.6	5.2	77.9	11m @ 1,291ppm TREO (4.7% NdPr
RPT0005	T0028	6	7	1,412.1	59.5	11.3	1.4	4.2	72.2	
RPT0005	T0029	7	8	1,278.0	68.9	11.6	1.6	5.4	82.1	
RPT0005	т0030	8	9	1,187.7	62.9	10.8	1.4	5.3	75.1	
RPT0005	T0031	9	10	1,277.4	72.2	10.9	1.6	5.7	84.7	
RPT0005	T0032	10	11	1,311.4	87.9	10.2	1.5	6.7	99.7	
RPT0006	T0033	0	1	1,275.3	79.5	8.7	1.2	6.2	89.4	8m @ 1,519ppm TREO (7.8% NdPr
RPT0006	T0034	1	2	1,386.3	46.6	7.3	1.1	3.4	55.0	
RPT0006	T0035	2	3	2,427.8	64.8	9.6	1.4	2.7	75.8	

 $<sup>^{2}</sup>$  Conversion factors used stated in JORC table.





	Sample ID	From m	To m	TREO	Nd+Pr oxide	Dy <sup>2</sup> O <sup>3</sup>	Tb⁴O <sup>7</sup>	Nd+Pr	MREO	Hole Intercept	
				ppm	ppm	ppm	ppm	%	ppm	TREO ppm	
RPT0006	T0036	3	4	2,111.0	106.0	11.0	1.6	5.0	118.6		
RPT0006	T0037	4	5	1,573.5	178.2	11.6	1.9	11.3	191.6	8m @ 1,519ppm TREO (7.8% NdPr)	
RPT0006	T0038	5	6	1,545.2	204.6	16.6	2.8	13.3	223.9	(cont.)	
RPT0006	T0039	6	7	1,049.7	122.9	14.2	2.1	11.7	139.1		
RPT0006	T0040	7	8	785.0	69.9	9.1	1.2	8.9	80.2		
RPT0007	T0041	0	1	880.7	71.0	8.9	1.4	8.1	81.3		
RPT0007	T0042	1	2	1,126.2	54.3	9.6	1.3	4.8	65.2		
RPT0007	T0043	2	3	1,257.8	43.6	8.7	1.2	3.5	53.4		
RPT0007	T0044	3	4	1,330.8	73.2	9.5	1.2	5.5	84.0	6m @ 1,263ppm TREO (6.4% NdPr)	
RPT0007	T0045	4	5	1,763.9	137.9	9.4	1.6	7.8	148.8		
RPT0007	T0046	5	6	1,220.2	108.9	8.1	1.4	8.9	118.3		
RPT0008	T0047	0	1	998.9	66.2	13.9	2.4	6.6	82.4		
RPT0008	T0048	1	2	1,012.1	71.3	14.7	2.3	7.1	88.3		
RPT0008	T0049	2	3	888.6	67.1	14.4	2.3	7.6	83.8		
RPT0008	T0050	3	4	760.0	74.3	15.2	2.4	9.8	91.9	<1000ppm TREO Average	
RPT0008	T0051	4	5	1,103.9	82.7	12.0	2.0	7.5	96.7		
RPT0008	T0052	5	6	1,082.7	102.2	12.9	2.2	9.4	117.2		
RPT0008	T0053	6	6.7	889.2	103.5	13.1	2.2	11.6	118.7		
RPT0009	T0055	1	2	1,874.9	394.1	17.7	3.4	21.0	415.3		
RPT0009	T0056	2	3	1,111.4	219.3	13.3	2.4	19.7	235.0	3m @ 1,478ppm TREO (18.7% NdPr)	
RPT0009	T0057	3	4	1,448.6	221.0	18.8	3.0	15.3	242.8		
RPT0010	T0058	0	1	1,929.9	330.4	18.8	3.0	17.1	352.1		
RPT0010	T0059	1	2	2,745.9	670.2	26.2	4.9	24.4	701.2		
RPT0010	T0060	2	3	3,275.6	881.6	32.2	6.4	26.9	920.2		
RPT0010	T0061	3	4	5,174.4	445.4	19.9	3.5	8.6	468.9		
RPT0010	T0062	4	5	2,684.4	631.3	27.2	5.3	23.5	663.8	(	
RPT0010	T0063	5	6	2,023.4	438.2	19.8	3.6	21.7	461.6	10m @ 2,546ppm (21% NdPr)	
RPT0010	T0064	6	7	2,145.8	469.0	20.0	3.8	21.9	492.8		
RPT0010	T0065	7	8	1,745.5	380.7	17.4	3.2	21.8	401.3		
RPT0010	т0066	8	9	1,908.8	422.3	19.4	3.5	22.1	445.2		
RPT0010	T0067	9	10	1,834.7	404.6	18.1	3.5	22.1	426.2		
RPT0011	т0069	0.5	1	3,925.9	1,018.3	51.7	8.7	25.9	1,078.7		
RPT0011	T0070	1	2	5,435.9	1,346.7	88.5	15.0	24.8	1,450.1		
RPT0011	T0071	2	3	5,480.2	1,311.8	98.0	16.4	23.9	1,426.2	7m @ 4,240ppm TREO (23.4% NdPr)	
RPT0011	T0072	3	4	4,841.2	1,140.3	83.6	13.9	23.6	1,237.8		
RPT0011	T0073	4	5	4,977.5	1,173.5	83.9	14.2	23.6	1,271.6	7m @ 4,240ppm TREO (23.4% NOP)	
RPT0011	T0074	5	6	2,299.9	479.3	37.8	6.0	20.8	523.1		
RPT0011	T0075	6	7	2,722.3	572.3	44.4	7.1	21.0	623.8		



	Sample ID	From m	To m	TREO	Nd+Pr oxide	Dy <sup>2</sup> O <sup>3</sup>	Tb⁴O <sup>7</sup>	Nd+Pr	MREO	Hole Intercept
				ppm	ppm	ppm	ppm	%	ppm	TREO ppm
RPT0012	T0076	0	1	4,644.1	393.3	18.9	3.3	8.5	415.4	
RPT0012	т0077	1	2	4,744.6	480.1	20.9	3.7	10.1	504.7	
RPT0012	T0078	2	3	2,944.0	639.1	24.5	4.5	21.7	668.1	
RPT0012	т0079	3	4	4,623.7	1,346.2	49.8	9.5	29.1	1,405.4	
RPT0012	T0080	4	5	4,274.9	1,116.5	43.7	8.6	26.1	1,168.8	
RPT0012	T0081	5	6	4,279.7	1,171.5	50.5	9.8	27.4	1,231.7	12 0 4 COL TDFO (22 19 NdDr)
RPT0012	T0082	6	7	3,719.4	972.3	45.5	8.5	26.1	1,026.2	12m @ 4,601ppm TREO (23.1% NdPr)
RPT0012	T0083	7	8	3,763.3	980.2	45.7	8.8	26.1	1,034.7	
RPT0012	T0084	8	9	3,469.1	792.4	40.0	7.4	22.9	839.7	
RPT0012	T0085	9	10	8,029.3	2,232.8	93.7	18.9	27.8	2,345.4	
RPT0012	T0086	10	11	7,810.1	2,123.3	86.6	17.5	27.2	2,227.3	
RPT0012	T0087	11	12	2,914.1	720.8	33.5	6.5	24.7	760.7	
RPT0013	т0088	0	1	3,926.0	677.0	20.1	3.7	17.2	700.9	
RPT0013	т0089	1	2	3,019.9	729.1	21.0	4.0	24.1	754.2	
RPT0013	T0090	2	3	3,437.6	841.5	39.2	7.4	24.5	888.1	5m @ 2,967 ppm TREO (22% NdPr)
RPT0013	T0091	3	4	3,360.5	755.1	40.7	7.5	22.5	803.2	
RPT0013	T0092	4	4.6	1,102.3	242.9	16.4	2.8	22.0	262.1	
RPT0014	T0093B	0	1	1,645.7	291.2	17.3	3.0	17.7	311.5	
RPT0014	T0094	1	2	1,666.0	325.7	17.1	2.8	19.5	345.6	
RPT0014	T0095	2	3	3,174.0	768.3	37.7	6.9	24.2	812.9	5m @ 2,442 ppm TREO (18% NdPr)
RPT0014	T0096	3	4	4,257.3	350.3	14.9	2.4	8.2	367.6	
RPT0014	T0097	4	5	1,471.6	320.7	16.4	2.9	21.8	340.1	
RPT0015	т0099	1	2	1,494.1	196.7	13.0	2.0	13.2	211.7	
RPT0015	T0100	2	3	1,609.1	255.1	15.7	2.4	15.9	273.3	3m @ 1,742 ppm TREO (16% NdPr)
RPT0015	T0101	3	4	2,123.6	413.9	23.2	3.8	19.5	440.9	
RPT0016	T0104	0	1	800.0	67.5	9.2	1.4	8.4	78.0	
RPT0016	T0105	1	2	1,067.2	77.9	6.0	1.0	7.3	84.8	
RPT0016	T0106	2	3	1,269.9	112.2	4.0	0.8	8.8	117.0	
RPT0016	T0107	3	4	1,379.6	134.9	4.6	0.9	9.8	140.3	8m @ 1,429 ppm TREO (15% NdPr
RPT0016	T0108	4	5	923.7	177.4	4.5	0.9	19.2	182.8	Inc 3m @ 1,998 ppm TREO (22% NdPr)
RPT0016	т0109	5	6	1,153.9	249.0	11.0	1.9	21.6	262.0	,
RPT0016	T0110	6	7	2,127.0	394.7	15.4	2.7	18.6	412.9	
RPT0016	T0111	7	8	2,713.5	700.7	22.8	4.6	25.8	728.0	
RPT0017	T0112	0	1	2,497.3	668.7	20.2	3.9	26.8	692.8	
RPT0017	T0113	1	1.9	1,973.9	470.8	15.0	2.8	23.8	488.6	2m @ 2,235ppm TREO (25.3% NdPr)
RPT0018	T0114	0	1	5,763.8	2,172.1	42.0	9.2	37.7	2,223.2	
RPT0018	T0115	1	2	6,371.2	2,186.0	48.7	10.8	34.3	2,245.5	5m @ 5,591 ppm TREO (35% NdPr)
RPT0018	T0116	2	3	4,790.2	1,631.8	41.3	8.8	34.1	1,681.9	



	Sample ID	From m	To m	TREO	Nd+Pr oxide	Dy <sup>2</sup> O <sup>3</sup>	Tb⁴O <sup>7</sup>	Nd+Pr	MREO	Hole Intercept	
				ppm	ppm	ppm	ppm	%	ppm	TREO ppm	
RPT0018	T0117	3	4	5,498.1	1,867.9	51.6	11.1	34.0	1,930.5		
RPT0018	T0118	4	5	5,533.7	1,834.9	58.0	12.3	33.2	1,905.3		
RPT0019	T0120	0	1	1,318.3	55.2	12.0	1.7	4.2	68.8		
RPT0019	T0121	1	2	1,833.6	200.7	15.6	2.6	10.9	218.9		
RPT0019	T0122	2	3	1,456.3	58.9	11.6	1.8	4.0	72.3		
RPT0019	T0123	3	4	1,425.5	53.6	10.1	1.4	3.8	65.1	9m @ 2,211ppm TREO (13% NdPr)	
RPT0019	T0124	4	5	1,643.7	62.9	10.3	1.5	3.8	74.7	incl.	
RPT0019	T0125	5	6	1,521.8	128.5	13.3	2.1	8.4	143.9	Inc 3m @ 3,569 ppm TREO (27% NdPr)	
RPT0019	T0126	6	7	2,566.6	537.6	21.3	4.0	20.9	562.8		
RPT0019	T0127	7	8	4,295.2	1,276.9	38.2	7.6	29.7	1,322.7		
RPT0019	T0128	8	9	3,846.8	1,203.6	37.4	7.4	31.3	1,248.4		
RPT0020	T0129	0	1	1,467.5	73.1	10.2	1.5	5.0	84.8		
RPT0020	Т0130	1	2	1,736.5	353.1	15.8	3.0	20.3	371.9		
RPT0020	T0131	2	3	1,714.5	226.4	13.0	2.2	13.2	241.6		
RPT0020	T0132	3	4	1,373.2	208.7	14.1	2.3	15.2	225.1		
RPT0020	T0133	4	5	1,623.2	280.0	14.7	2.4	17.2	297.0	1000 0 1 007 000 TD50 (10 F0/ NJD)	
RPT0020	T0134	5	6	1,757.8	319.7	15.4	2.5	18.2	337.6	- 10m @ 1,607 ppm TREO (16.5% NdPr)	
RPT0020	T0135	6	7	1,967.6	439.4	14.6	3.3	22.3	457.3		
RPT0020	т0136	7	8	1,243.3	280.4	9.3	2.2	22.6	291.9		
RPT0020	T0137	8	9	1,545.8	249.9	12.8	2.5	16.2	265.2		
RPT0020	т0138	9	10	1,641.2	244.5	14.1	2.6	14.9	261.1		
RPT0021	т0139	0	1	1,341.7	85.1	12.4	1.8	6.3	99.3		
RPT0021	T0140	1	2	1,375.9	85.4	12.7	1.9	6.2	99.9		
RPT0021	T0141	2	3	1,403.0	122.7	12.4	1.8	8.7	136.9	6m @ 1,592.8 ppm TREO (12.85% NdPr)	
RPT0021	T0142	3	4	2,312.0	529.0	18.6	3.5	22.9	551.1		
RPT0021	T0143	4	5	1,689.4	278.2	13.4	2.2	16.5	293.8		
RPT0021	T0144	5	6	1,434.9	237.1	12.4	2.0	16.5	251.5		

Figure 6 – Table of drill results



#### **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.

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## **Appendix 1**

## **Table 1. Full Suite REE Assay Results**

Tabl	<b>e 1</b> .	. Fu	II Suite	REE AS	ssay F	Results	S											
Hole_ID		pth n)	Sample	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Y ppm
RPT0001	0	1	T0001	126.4	602.9	16.8	46.6	8.8	2.81	8.32	1.45	10.11	2.08	6.71	0.98	6.7	0.85	59.02
RPT0001	1	2	T0002	111.9	568.4	14.13	39.9	7.3	2.42	6.33	1.21	8.71	1.79	5.56	0.83	5.3	0.73	48.18
RPT0001	2	3	T0003	85.8	386.3	10.82	30.3	5.3	1.68	4.7	0.91	6.37	1.23	3.62	0.51	3.5	0.45	32.38
RPT0002	0	1	T0004	104.2	482.6	13.72	38.6	6.2	1.87	5.27	1.03	7.23	1.47	4.57	0.63	4.1	0.59	38.49
RPT0002	1	2	T0005	122.8	860.3	17.36	50.2	7.5	2.22	6.26	1.29	9.41	1.92	5.93	0.83	5.5	0.77	50.15
RPT0002	2	3	T0006	158.2	718.5	27.98	85.2	11.3	3.25	8.47	1.49	11.14	2.21	6.7	0.96	6.2	0.86	56.99
RPT0002	3	4	T0007	291.7	548.4	57.27	165.3	18.6	4.51	10.1	1.34	7.81	1.69	5.25	0.77	5.2	0.68	42.45
RPT0002	4	5	T0008	576.6	503.9	107.34	319	35.5	8.1	18.85	2.03	10.48	1.8	5.11	0.73	4.2	0.64	50.13
RPT0002	5	6	T0009	1483.1	745	274.54	823.2	94.9	23.85	60.61	6.9	34.33	5.69	14.28	1.78	10.5	1.29	158.33
RPT0003	0	1	T0010	203.4	515.2	27.48	75.9	11.6	3.41	8.71	1.56	10.41	2.04	6.16	0.89	5.9	0.77	54.58
RPT0003	1	2	T0011	184.5	469.5	29.96	86.3	13.5	3.93	10.02	1.67	10.45	1.98	6.11	0.86	5.7	0.75	50.66
RPT0003	2	3	T0012	393.9	504	49.72	138.2	17.2	4.54	12.36	1.96	11.5	2.24	6.53	0.94	5.8	0.8	64.73
RPT0004	0	1	T0013	67.1	634.8	6.42	16.9	3.5	1.13	3.19	0.73	5.35	1.13	3.66	0.59	3.7	0.52	32.31
RPT0004	1	2	T0014	67	619.6	6.53	16.4	3.1	1.18	3.39	0.66	5.24	1.13	3.74	0.55	3.7	0.5	31.51
RPT0004	2	3	T0015	115.5	929.9	9.04	20.7	3.9	1.24	4	0.76	6.2	1.33	4.77	0.7	4.6	0.6	38.77
RPT0004	3	4	T0016	111.4	1236.1	9.51	21.7	4	1.33	3.71	0.77	6.32	1.28	4.32	0.61	4.3	0.55	34.79
RPT0004	4	5	T0017	224.9	1373.3	17.05	34.7	5.4	1.8	4.38	0.89	7.41	1.58	5.38	0.76	5.7	0.72	40.23
RPT0004	5	6	T0017	193	1113.9	15.27	31.9	5.4	1.86	5.07	0.96	7.74	1.63	5.34	0.76	5.8	0.72	42.41
RPT0004	6	7	T0019	203.2	1021.1	14.3	31.3	5.1	1.67	4.73	1	7.74	1.62	5.56	0.81	5.7	0.72	42.53
RPT0004	7	8	T0019	261.4	735.4	17.34	37.2	5.3	1.6	4.76	0.95	7.01	1.43	4.99	0.74	5.7	0.73	40.7
RPT0004	8	9	T0020	229.1	693	17.02	36.8	4.9	1.58	4.70	0.93	5.88	1.43	4.45	0.74	4.2	0.7	34.8
	0																	
RPT0005		2	T0022	73.5	843.9	8.36	23.6	5.2 6	1.82	5.72	1.09	8.32	1.8	6.1	0.93	6.5	0.86	49.96
RPT0005	1		T0023	72.5	782.3	9.02	26.6		2.1	6.06	1.17	9.14		6.31		6.8	0.91	53.14
RPT0005	2	3	T0024	66.6	1169.2	9.06	25.3	5.9	1.92	6.04	1.12	9.08	2.07	6.79	1.03	7.1	1.02	53.16
RPT0005	3	4	T0025	153.3	735.3	15.33	39.4	7.3	2.48	6.94	1.38	10.06	2.12	7.31	1.06	7.2	0.96	62.16
RPT0005	4	5	T0026	121.8	790.3	14.62	39.3	7.4	2.45	6.78	1.31	9.7	2.01	6.83	1.04	7.3	0.97	55.63
RPT0005	5	6	T0027	125.9	788.5	15.3	39.8	7.7	2.37	7.01	1.34	9.97	2.14	7.24	1.14	7.3	1.08	56.46
RPT0005	6	7	T0028	178.4	867.5	14.51	36	6.6	2.21	6.32	1.22	9.82	2.14	7.24	1.13	7.2	1.03	59.53
RPT0005	7	8	T0029	161.5	753.7	16.07	42.4	7.8	2.69	7.36	1.37	10.14	2.15	7.29	1.03	7.5	0.99	64.1
RPT0005	8	9	T0030	154.3	704.2	15.15	38.2	6.7	2.4	6.66	1.21	9.38	1.98	6.8	1	6.9	0.89	54.01
RPT0005	9	10	T0031	177.4	750.3	17.38	43.9	7.6	2.6	6.82	1.36	9.5	1.93	6.37	0.93	6.4	0.84	52.99
RPT0005	10	11	T0032	201.9	745.3	21.03	53.6	8.2	2.58	7.14	1.29	8.9	1.77	6.02	0.89	5.9	0.77	50.16
RPT0006	0	1	T0033	256.4	683.7	20.25	47.2	6.7	2.15	5.77	1.04	7.55	1.57	5.16	0.78	5.4	0.67	40.94
RPT0006	1	2	T0034	119.7	953.9	10.99	28.6	5	1.54	4.56	0.89	6.33	1.31	4.34	0.68	4.5	0.58	37.62
RPT0006	2	3	T0035	141.4	1787.9	15.23	39.8	6.5	2.25	6.12	1.16	8.33	1.67	5.3	0.76	5.6	0.73	46.3
RPT0006	3	4	T0036	223.1	1387.6	25.09	64.9	9.2	2.81	8.17	1.34	9.6	1.82	5.81	0.82	5.3	0.75	51.61
RPT0006	4	5	T0037	335	747.6	42.03	109.2	12.9	3.72	10.1	1.59	10.11	1.87	5.66	0.73	4.9	0.7	52.45
RPT0006	5	6	T0038	364.2	626.7	46.63	127.1	18.4	5.76	15.87	2.38	14.42	2.71	7.38	1.01	6.5	0.86	72.99
RPT0006	6	7	T0039	296.3	363.3	29.02	75.3	11.8	3.73	10.26	1.78	12.33	2.42	7.41	1.08	7	0.96	67.86
RPT0006	7	8	T0040	191.9	334.3	16.8	42.5	7.1	2.2	6.32	1.04	7.94	1.56	4.8	0.65	4.4	0.69	44.35
RPT0007	0	1	T0041	171.1	434.1	16.54	43.7	7.1	2.39	6.56	1.18	7.78	1.56	4.86	0.68	5.1	0.66	44.92
RPT0007	1	2	T0042	112.7	709.6	12.4	33.7	5.5	1.96	5.62	1.07	8.39	1.79	5.77	0.9	5.8	0.81	51.49
RPT0007	2	3	T0043	106.9	849.3	10.48	26.5	4.8	1.72	4.9	0.98	7.53	1.63	5.19	0.74	5.4	0.67	43.73
RPT0007	3	4	T0044	189.3	797.2	17.92	44.2	6.6	2	5.94	1.05	8.31	1.66	5.49	0.77	4.9	0.73	46.3
RPT0007	4	5	T0045	258.9	1038.9	32.52	84.5	12.3	3.16	8.17	1.32	8.21	1.56	4.53	0.63	4.1	0.63	42.66
RPT0007	5	6	T0046	302.5	571.3	27.24	65.1	9.3	2.63	6.59	1.15	7.07	1.34	4.13	0.58	4.2	0.6	34.76
RPT0008	0	1	T0047	61.4	608.8	10.74	45.6	14.3	4.34	12.73	1.99	12.14	2.19	6.33	0.93	5.9	0.72	60.42
RPT0008	1	2	T0048	62.6	608.7	11.54	49.2	15.1	4.46	13.46	1.95	12.81	2.31	6.62	0.89	6.2	0.71	63.08
RPT0008	2	3	T0049	59.3	507.9	10.81	46.3	14.6	4.19	13.16	1.96	12.57	2.4	7.2	0.97	6.1	0.82	65.68
RPT0008	3	4	T0050	63.4	383.3	12.1	51.2	15	4.5	14.27	2.04	13.22	2.4	7.04	0.98	6.5	0.88	67.24
RPT0008	4	5	T0051	82.8	675.1	14.58	55.8	13.9	3.99	11.93	1.72	10.45	1.92	5.82	0.83	5.3	0.71	53.66
RPT0008	5	6	T0052	114.5	599.6	19.1	67.8	16	4.37	12.76	1.83	11.26	2.05	6.29	0.86	6	0.76	56.94
RPT0008	6	6.7	T0052	109.5	435.7	18.72	69.3	16.2	4.51	13.02	1.85	11.4	2.16	6.48	0.9	5.8	0.8	58.53
RPT0008	0	1	T0129	91.6	995.3	15.43	46.7	8.1	2.51	6.82	1.26	8.9	8.9	5.91	0.89	5.9	0.82	50.16
RPT0020	1	2	T0129	436.6	562.9	72.93	227.2	28.6	7.48	19.09	2.54	13.74	13.74	7.17	1.01	6.1	0.84	75.92
	2																	
RPT0020	2	3	T0131	259	867.3	46.93	145.5	18.8	5	12.82	1.88	11.28	11.28	6.82	0.93	6.1	0.88	63.92



Hole_ID	De	pth	Sample	La	Се	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	Y
Hole_ID	(r	n)	Jumple	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
RPT0020	3	4	T0132	231.7	601.1	43.1	134.3	18.2	4.7	12.22	1.94	12.27	12.27	8.31	1.29	8.5	1.07	75.4
RPT0020	4	5	T0133	306.4	670	56.12	181.9	22	5.49	13.54	2	12.79	12.79	8.52	1.38	8.9	1.18	76.49
RPT0020	5	6	T0134	364.6	680.9	66.93	204.8	25.1	6.09	14.87	2.12	13.41	13.41	8.96	1.39	9	1.22	81.04
RPT0020	6	7	T0135	427.3	722.8	83.03	290.7	41.9	10.74	24.71	2.79	12.7	12.7	4.53	0.6	3.8	0.48	37.61
RPT0020	7	8	T0136	268.8	453.4	52.5	186	27	6.95	15.73	1.83	8.14	8.14	2.98	0.37	2.4	0.31	24.68
RPT0020	8	9	T0137	259.2	714.9	47.77	164.8	24	6.51	15.51	2.1	11.18	11.18	5.56	0.77	5.2	0.67	46.64
RPT0020	9	10	T0138	254.8	793.7	46.35	161.6	24.6	6.73	16.35	2.18	12.24	12.24	6.14	0.87	5.7	0.77	52.79
RPT0021	0	1	T0139	144.7	802.3	18.67	53.6	9.2	2.98	8.33	1.54	10.77	10.77	7.03	1.05	6.9	0.95	62
RPT0021	1	2	T0140	146	828.3	18.63	53.9	8.9	2.93	8.36	1.59	11.03	11.03	7.23	1.09	6.9	1	63.09
RPT0021	2	3	T0141	336	631	30.53	73.6	10.1	3.05	8.71	1.53	10.76	10.76	7.05	1.08	6.9	0.94	60.74
RPT0021	3	4	T0142	545.6	762.9	108.82	340.8	39.6	9.73	22.61	2.99	16.21	16.21	8.51	1.24	7.7	1.04	82.32
RPT0021	4	5	T0143	347.7	712.3	58.11	178.3	21.5	5.53	12.78	1.88	11.64	11.64	6.71	1	6.4	0.87	60.66
RPT0021	5	6	T0144	300.6	592.5	48.68	152.8	19	4.93	11.47	1.73	10.78	10.78	6.32	0.92	6.1	0.83	53.07
RPT0001	0	1	T0001	126.4	602.9	16.8	46.6	8.8	2.81	8.32	1.45	10.11	2.08	6.71	0.98	6.7	0.85	59.02

#### **Table 2. Hole Collars**

Coordinates Presented in SIRGUS 2000 23S

Hole_ID	MGA_East	MGA_North	RL	Max_depth	Lease_ID	Prospect
RPT0001	334893	7567195	1340	2	815.816/1971	Pinheirinho
RPT0002	334918	7566996	1352	7	815.816/1971	Pinheirinho
RPT0003	335202	7567001	1354	3	815.816/1971	Pinheirinho
RPT0004	334995	7566859	1382	9	815.816/1971	Pinheirinho
RPT0005	334704	7566717	1368	11	815.816/1971	Pinheirinho
RPT0006	334825	7566786	1377	8	815.816/1971	Pinheirinho
RPT0007	335243	7566001	1339	6	815.816/1971	Pinheirinho
RPT0008	335182	7565606	1386	6.7	815.816/1971	Pinheirinho
RPT0009	334970	7569824	1334	4	830.310/1979	Portao Verde
RPT0010	334988	7569720	1317	10	830.310/1979	Portao Verde
RPT0011	335067	7569529	1311	7	830.310/1979	Portao Verde
RPT0012	335173	7569727	1319	12	830.310/1979	Portao Verde
RPT0013	335013	7569369	1310	4.6	830.310/1979	Portao Verde
RPT0014	335031	7569349	1319	5	830.310/1979	Portao Verde
RPT0015	334884	7569536	1319	6	830.310/1979	Portao Verde
RPT0016	333652	7572600	1304	8	830.361/1986	Pina Colada
RPT0017	332983	7573012	1287	1.9	830.361/1986	Pina Colada
RPT0018	332985	7573021	1287	5	830.361/1986	Pina Colada
RPT0019	333032	7573421	1290	9	830.361/1986	Pina Colada
RPT0020	333573	7573323	1310	10	830.361/1986	Pina Colada
RPT0021	333733	7573236	1300	6	830.361/1986	Pina Colada



# **JORC CODE, 2012 Edition Table 1**

**Section 1 Sampling Techniques and Data** 

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> </ul>	<ul> <li>Samples reported here are collected from mechanised auger drilling, locally known as Trado, a geochemical sampling method and a standard method for mineral exploration in weathered terrains. The samples collected are representative of the material being drilled by the auger.</li> <li>Drill samples samples are collected as Im intervals, or less where an obvious geological change occurs. Intervals are measured by the operators, the whole sample from the interval is homogenised and then quartered and one portion is collected as the representative sample for assay from the sample interval.</li> <li>Samples are not collected for the top 50cm where vegetation dominates the sample. Samples are not collected in water saturated ground.</li> <li>Surface Samples collected as rock chip samples are representative of the material seen in shallow excavations (less than 2m deep) or at surface. Continuous channels sampling used where outcrops were accessible. Channel samples are collected as Im intervals, or less where an obvious geological change occurs. Intervals are measured by the operators.</li> <li>The representative samples collected for assay averaged 1.5kg in weight. The assay samples are then prepared for assay, crushed to 75% passing 3mm, then a 250g split is pulverised to &gt;95% passing 150# (~0.105mm) with 50g split for final assay.</li> </ul>
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, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Auger drilling was completed using a mechanised handheld auger, resulting in a 5-inch (12.5cm) diameter hole.</li> <li>The drilling is an open hole method, meaning there is a significant chance of some contamination from the surface and other parts of the auger hole. Holes are vertical and not oriented. At 12m depth orientation is not required.</li> </ul>



Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Samples were geologically logged in the field during drilling.</li> <li>Sample recovery was recorded and was good.         The auger drilling provides a close to 100% sample recovery, there is no known relationship to sample recovery and the assay result.     </li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Samples were geologically logged in the field during drilling. They do not support a Mineral Resource Estimation, mining studies or metallurgical studies.
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Sub sampling by quartering of the original drill sample is best practice for this type of sample and provides a suitable sample weight.</li> <li>The damp nature of the clay material means "splitting" via riffle or rotary method is not possible. The manual quartering is appropriate for the nature of the samples.</li> <li>Duplicate were used at a 10% rate, REE standard were not available at the time of drilling. Laboratory provided blanks and standards have not shown any issues with QAQC. Where results are considered questionable due to REE content and ratios, without triggering QAQC protocols the samples are checked by another laboratory and not reported until check samples are returned.</li> <li>Sample size is appropriate for the material being sampled.</li> </ul>
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.	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.  Where results are considered questionable due to REE content and ratios the samples are checked by another laboratory and not



Criteria	JORC Code explanation	Commentary
	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.	reported until check samples are returned.  • Check samples are undertaken by AL Laboratories in Brazil, using the equivaler method ME-MS81D for trace and whole roc element analysis.
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	Significant results reported here are confirmed from data supplied to PEC staff and consultangeologists.
assaying	The use of twinned holes.	No Twin holes.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is imported via a modern database administration process with security and QA QC protocols applied.
	Discuss any adjustment to assay data.	No adjustments are made.
		<ul> <li>Adjustments to the data were made to transform the elemental values into the oxide values.</li> <li>The conversion factors used are included in the</li> </ul>
		table below.
		Element Oxide Factor
		Ce Ce02 1.1713
		1.1720
		3111
		Nd Nd203 1.1664 Pr Pr6011 1.2082
		Dy Dy203 1,1477
		Eu Eu203 1.1579
		Tb Tb407 1.1762
		Gd Gd203 1.1526
		Но Но203 1.1455
		Er Er203 1.1435
		Tm Tm203 1.1421
		Yb Yb203 1.1387
		Lu Lu203 1.1371
		ү Ү203 1.2699
		Weighted averages of samples >500ppm TREG were used to calculate significant intercepts.
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.	A handheld GPS was used to collect location data for the surface samples and auger drilling. This is accurate to within 5m 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 topographic control.	Quality and adequacy of the topographi



Criteria	JORC Code explanation	Commentary
		control suits the reconnaissance nature of the exploration activities.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill holes and channel samples are reconnaissance and therefore widely spaced, making use of existing tracks and clearing where possible.</li> <li>Data spacing is sufficient to establish grade and geological continuity, given the saprolite clay horizon that hosts the IAC REE mineralisation is generally sub horizontal, however more data is required before a Mineral Resource is applied.</li> <li>No compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Drilling is vertical and the targeted clay horizons, hosting the REE mineralisation, are close to horizontal hence unbiased sampling is inferred.</li> <li>Unknown at this stage if orientation introduces any bias or not in relation to possible structure</li> </ul>
Sample security	The measures taken to ensure sample security.	Samples were collected, stored and transported by company representatives hence all activities are considered secure.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>PEC have reviewed the sampling techniques and data collected by the Brazilian company undertaking the work, there have been no issues recognised to date. Exploration and data management has been to a very high standard.</li> <li>Brazilian geologists at Future Mining (Brazilian incorporated company) have managed the exploration activities to date, adhering to industry standards for the drilling, sampling, data collection and data administration.</li> </ul>



#### **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	The following Tenement comprise the Raptor Project,  - 815.816/1971 - 830.310/1979 - 830.361/1986 - 830.311/1979  Perpetual Resources Ltd 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	Acknowledgment and appraisal of exploration by other parties.	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	Deposit type, geological setting and style of mineralisation.	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	A summary of all information material to the under-standing 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.	All results and material information is Included in the report as a Collar table, all holes are vertical.
Data aggregation methods	<ul> <li>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.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such</li> </ul>	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
	<ul> <li>aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>The mineralisation reported is related to weathered alkaline intrusive and volcanic rocks. The saprolitic clay resulting from the weathering profile is assumed to be close to horizontal (perpendicular to drilling) or following the natural surface (a low angle to drilling), however geological structures may cause as yet unknown irregularities and controls.</li> <li>Down hole lengths are reported, and true width is not known, it is expected to be close to the down hole length.</li> </ul>
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.	Appropriate maps are included in the report. The wide spaced reconnaissance and shallow nature of the drilling precluded the usefulness of sections at this stage.
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.	All REE results have been reported and summarised as TREO results, including Nd+Pr oxide results.
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.	No other data is considered relevant at this stage.
Further work	<ul> <li>The nature and scale of planned further work         (e.g. tests for lateral extensions or depth         extensions or large- scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of         possible extensions, including the main         geological interpretations and future drilling         areas, provided this information is not         commercially sensitive.</li> </ul>	<ul> <li>PEC will undertake exploration field work to follow up the results reported here and to investigate lateral extensions and depth extension to existing REE anomalies.</li> <li>Auger and Aircore drilling is considered appropriate next stage exploration in areas considered highly prospective.</li> <li>A selection of samples returning positive results will also be tested metallurgically for their IAC potential. Petrological / mineralogical analysis will also be undertaken to confirm the hosting clay and REE mineralogy.</li> <li>Detailed ground geophysics, mapping and surface sampling will continue as required applied in the next phase of exploration.</li> </ul>



### Section 3 Estimation and Reporting of Mineral Resources

Not applicable

Section 4 Estimation and Reporting of Ore Reserves

Not applicable