

## **ASX RELEASE**

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5 September 2023

#### ASX CODE

PNN

#### **REGISTERED OFFICE**

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Eyre Peninsula Kaolin-Halloysite Project

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# High-grade heavy rare earth results returned from drilling at Eyre Peninsula Project

- 37-hole aircore (AC) drilling program for 1,568m completed at Eyre Peninsula Project, South Australia
- All samples returned greater than 1,000ppm TREO\*
- Drilling targeted Dickson Well (EL6681) and Yeelanna (EL6677) with highlight results including;
  - 9m at 3,015ppm TREO of which 13.2% is HREO\* from 41m, including:

2m at 7,305ppm TREO of which 24.2% is HREO from 42m in hole PKD23-135 at Dickson Well.

- 10m at 2,097ppm TREO of which 8.3% is HREO from 10m in hole PKD23-161 at Yeelanna
- 7,495ppm TREO returned in sample PR-105 (over 1m) is the highest known clay-hosted REE concentration achieved in South Australia; and which included 32.8% of HREO (2,460 ppm)
- Results confirm a substantial increase in REE concentrations at Dickson Well from previous drilling, and the first reported REE concentrations from the Yeelanna area
- Drilling also confirmed kaolin mineralisation at Yeelanna and samples from Yeelanna have also been submitted for halloysite analysis

\*TREO = Total Rare Earth Oxide \*HREO = Heavy Rare Earth Oxide

Power Minerals Limited (ASX: PNN) (**Power or the Company**) is pleased to announce high-grade rare earth element (REE) results from its latest phase of drilling at the Eyre Peninsula Project in South Australia (Figure 4).

Exceptional individual grades were returned, highlighted with one 1metre sample (PR-105) containing 7,495ppm TREO; 2,460pppm (or 32.8%) of the TREO is HREO.

Power completed a 37-hole, 1,567.6 metre aircore drill program in July 2023. This drilling successfully followed up the Company's high-grade REE discovery at the Dickson Well anomaly on EL6681, reported in late 2022 (ASX announcement, 20 December 2022).



Highlight results include;

- 9m at 3,015 ppm TREO with 535 ppm HREO from 41m including 2m at 7,305 ppm TREO of which 1,781 ppm is HREO from 42m in drillhole PKD23-135
- 10m at 2,097 ppm TREO of which 173 ppm is HREO from 10m in PKD23-161

The 24.2% HREO in the TREO fraction from 42 metres returned in drillhole PKD23-135 at Dickson Well is the highest known clay-hosted REE concentration to be reported in South Australia (Figure 1 and 2)

These results were from samples assayed from two holes - PKD23-135 and PKD23-161 - with nine 1 metre consecutive samples submitted from drillhole PKD23-135 at Dickson Well (EL6681) (Figure 3) and 10 consecutive samples of 1 metre from Yeelanna (EL6677). All samples returned greater than 1,000ppm TREO (see Table 1).

Drillhole PKD23-135 is 1.3km east from Dickson Well, where the highest grade intersection from the first phase of drilling was returned; **1m at 4,201 ppm (0.42%) TREO of which 21.3% is HREO** (see PNN ASX Announcement 20 December 2022).

In-house pXRF readings were used to determine which samples to be submitted for laboratory analyses. Nineteen 1m samples from two drillholes were initially selected to enable faster results turnaround. Selected samples from remaining drillholes have been separated and dispatched to the laboratory for further analysis.

Results of two commercial standard samples (OREAS 102a) inserted into the batch show laboratory results are within two standard deviations of the certified values which confirms the laboratory methodology is consistent with current industry standards.

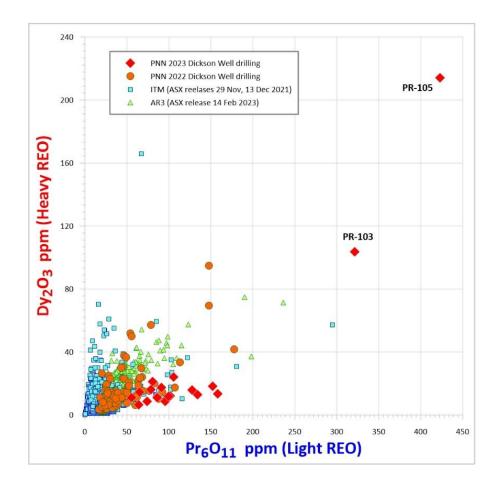
"Our latest REE-focused drilling at the Eyre Peninsula Project has delivered exceptional, high-grade results and further validates the Project's REE potential, with the 32.8% HREO of TREO reported from sample PR-105 at the Dickson Well target representing the highest known clay-hosted REE concentration achieved in South Australia.

Drilling within EL6677 was designed to confirm the possible kaolin indicated in previous 2011 drilling logs by BHP Minerals. The occurrence of kaolin has now been confirmed and samples have been dispatched for halloysite composition determination. BHP Minerals did not complete any REE analyses on their drill samples. The drilling at Dickson Well followed-up Power's REE discovery of 2022, and several of the 2023 drillholes intersected intervals of kaolin. Selected samples have been dispatched to confirm the mineralogy, including if halloysite is present. This kaolin represents a new kaolin occurrence on the Eyre Peninsula."

Power Minerals Managing Director Mena Habib

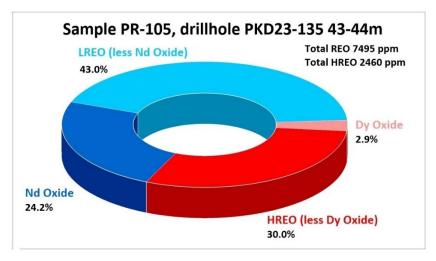


Figure 1: Data plot showing Power's 2022 REE results and it latest 2023 REE results for Pr and Dy oxides (representing LREE and HREE respectively). Also shown are values from iTech's (ASX: ITM) eastern Eyre Peninsula REE project and Australian Rare Earths (ASX: AR3) project in southeastern South Australia (results are from ASX Announcements.



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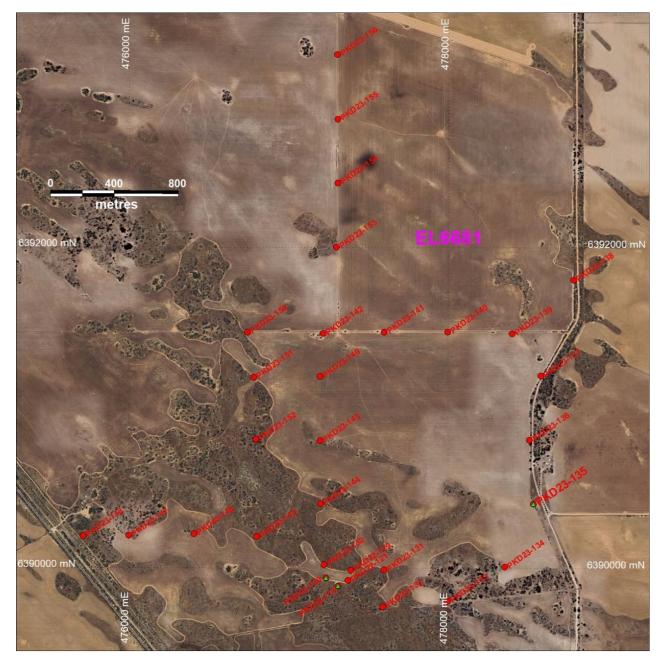
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**Figure 2:** Sample PR-105 returned a high proportion of heavy rare earth oxides (HREO) compared to light rare earth oxides (LREO).



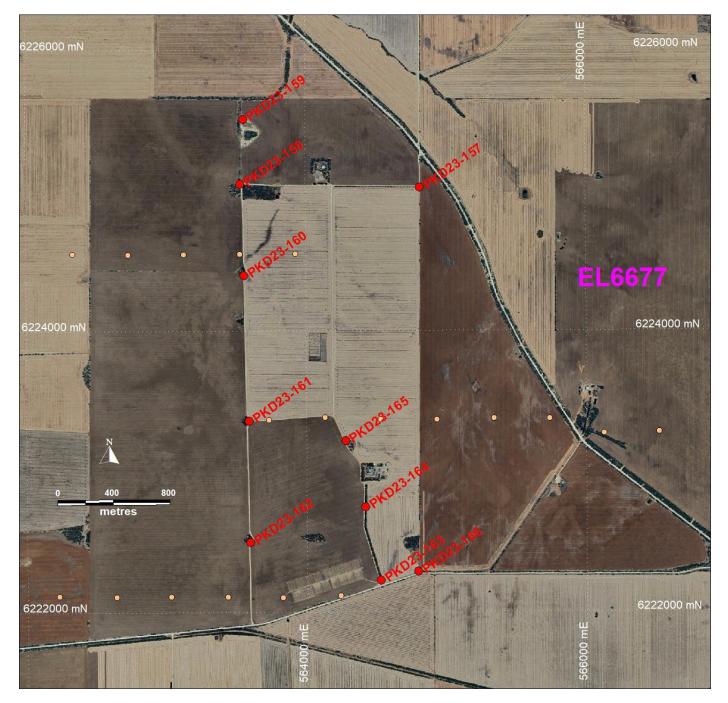




**Figure 3:** Power's drilling in the Dickson Well within EL6681 area of the Eyre Peninsula Project with green triangles showing holes for which there are sample results.





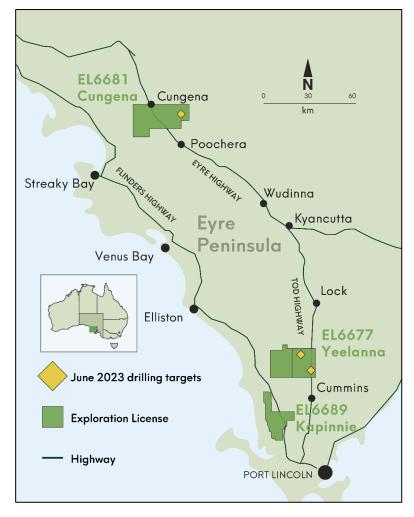


*Figure 4:* Power's drilling in the area west of Yeelanna within EL6677. BHP Minerals 2001 drillholes shown in peach circles.



### Proposed Next Steps for Power's Rare Earth exploration

- Develop a geological model for controls on rare earth mineralisation.
- Complete laboratory TREO assays to confirm portable XRF results and inform additional sampling.
- Conduct characterisation test work to identify rare earth mineral species and distribution for beneficiation tests to produce REO concentrates.
- Conduct preliminary REO hydrometallurgy trials on REO concentrates to determine extractable REO recovery and indicative processing methods.
- Continue local community engagement to obtain landholder access agreements for additional REO exploration.



**Figure 4:** Regional map showing Power's Eyre Peninsula Project area, South Australia.



Authorised for release by the Board of Power Minerals Limited.

### -ENDS-

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#### **About Power Minerals Limited**

Power Minerals Limited is an ASX-listed lithium-focused exploration and development company, committed to the systematic exploration and development of its core asset, the Salta Lithium Brine Project in the prolific lithium triangle in the Salta Province in Argentina. It is currently undertaking a major JORC Mineral Resource expansion drilling campaign at Salta, and is focused on expediting development of the Project in to a potential, future lithium producing operation. Power also has a portfolio of other assets in key, demand-driven commodities including; kaolin-halloysite and REE, nickel-copper-cobalt and PGEs plus copper-gold.

#### **Competent Persons Statement**

This announcement regarding the Eyre Peninsula project has been prepared with information compiled by Steven Cooper, FAusIMM. Steven Cooper is Power Minerals Exploration Manager and an employee of the Company. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration 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". Steven Cooper consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

#### **Forward Looking Statements**

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Drillhole	From_m	Tom		1 2203	CeO2		Nd2O3	Sm2O3	Eu203	64203	Tb407	Dv2O3	Ho2O3	Er203	Tm203	Vh2O3	111203	V203	TREO	CREO	LREO	HDEO	%HREO
DIMINOLE			SAIVIFLE	Lazus			Nu2O5	511205	EU205	Gu205	10407	Dy205	H0203	61205	1111205	10205	Luzos	1205				FIREO	70FIKEU
PKD23-135	41	42	PR-102	273	1634	106	409	69	9.9	35	4.4	24	3.9	10.6	1.4	8.4	1.3	90	2680	537	2422	258	9.6%
PKD23-135	42	43	PR-103	1190	3243	321	1260	214	35.8	146	18.6	104	17.8	48.8	6.6	37.9	5.4	467	7116	1885	6015	1101	15.5%
PKD23-135	43	44	PR-105	1484	1314	423	1814	326	55.6	270	36.2	214	41.7	121.8	17.3	103.6	16.8	1257	7495	3377	5035	2460	32.8%
PKD23-135	44	45	PR-106	387	880	86	269	37	4.4	18	2.2	12	1.8	5.2	0.7	3.9	0.7	42	1750	329	1622	128	7.3%
PKD23-135	45	46	PR-108	335	1108	91	310	50	6.1	29	3.4	17	2.7	7.5	1.0	6.3	1.0	61	2030	398	1845	185	9.1%
PKD23-135	46	47	PR-109	287	806	81	290	48	7.1	34	4.0	21	3.6	10.2	1.3	8.1	1.1	88	1691	411	1464	227	13.4%
PKD23-135	47	48	PR-110	299	880	79	274	45	5.5	27	3.2	16	2.6	6.8	0.9	5.9	0.8	62	1707	361	1532	175	10.3%
PKD23-135	48	49	PR-111	240	623	56	183	28	4.0	19	2.1	11	1.8	5.0	0.7	4.8	0.7	46	1224	246	1101	122	10.0%
PKD23-135	49	50	PR-112	276	727	65	214	34	4.4	23	2.6	14	2.4	6.9	0.9	6.3	0.9	64	1440	299	1281	159	11.1%
PKD23-161	10	11	PR-115	447	985	102	351	49	9.7	27	2.7	12	1.8	4.3	0.6	3.2	0.3	56	2051	432	1885	166	8.1%
PKD23-161	11	12	PR-116	294	676	74	261	39	7.3	20	2.1	9	1.3	3.1	0.3	2.2	0.3	39	1429	319	1305	123	8.6%
PKD23-161	12	13	PR-117	331	639	64	215	31	6.0	16	1.5	7	1.0	2.1	0.3	1.4	0.2	28	1343	257	1248	95	7.0%
PKD23-161	13	14	PR-118	755	1456	158	533	74	14.0	35	3.2	13	1.8	4.2	0.5	2.5	0.3	53	3104	617	2902	202	6.5%
PKD23-161	14	15	PR-119	421	913	95	330	46	9.0	23	2.1	9	1.2	2.7	0.3	1.8	0.2	38	1892	388	1759	133	7.0%
PKD23-161	15	16	PR-120	487	1136	134	453	65	12.3	30	3.1	13	1.9	4.8	0.6	3.7	0.5	59	2404		2210	194	8.1%
PKD23-161	16	17	PR-121	597	1206	152	547	82	17.8	45	4.4	18	2.7	6.2	0.7	4.3	0.5	81			2503	263	9.5%
PKD23-161	17	18	PR-122	500	1044	128	461	69	14.5	39	3.9	16	2.3	5.3	0.6	3.0	0.4	69			2132		9.5%
PKD23-161 PKD23-161	18 19	19 20	PR-123 PR-124	374 426	757 919	86 100	296 339	43 50	9.4 9.8	24 26	2.3 2.7	11 12	1.6 1.8	4.4 5.0	0.5 0.6	3.5 3.8	0.5 0.6	55 62			1513 1784	155 174	9.3% 8.9%

**Table 1:** All drill sample results for Eyre Peninsula Project, July 2023. Depths in metres, all values in ppm except HREO% which is the proportion of HERO within TREO as a percentage

# JORC Code, 2012 Edition – Table 1 Report

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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 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.</li> <li>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.</li> </ul>	<ul> <li>This was completed by laying the bag on its side and recovering an entire cross cutting representative sample through the entire thickness of each one meter interval.</li> <li>An appropriate diameter PVC tube was used to collect approximately 200g into numbered small Kraft paper Geochem bags, which were sent for chemical analyses. The sample sizes are considered appropriate for the material being sampled</li> <li>The sample sizes are considered appropriate for the very fine grained and homogeneous material being sampled.</li> </ul>
Drilling techniques	• Drill type (eg 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> <li>McLeod Drilling used a Reverse Circulation Aircore drill rig mounted on a 6-wheel drive Toyota Landcruiser.</li> <li>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 tune. 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.</li> <li>Aircore drill rods are 3 m NQ rods.</li> <li>All aircore drill holes were between 4m and 75m in length.</li> </ul>

Criteria	JORC Code explanation	Commentary
		• The Competent Person was present during 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.
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>All initial one metre interval samples were weighted to check consistency.</li> <li>All efforts were made to ensure the sample was representative.</li> <li>No relationship is believed to exist, but no work has been completed to confirm this.</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>	<ul> <li>All samples were geologically logged to include details such as colour, grain size, rock type etc which is naturally qualitative in nature.</li> <li>All samples have quantitative magnetic susceptibility and pXRF measurements taken to support the geological logging.</li> <li>Representative chip tray samples of all intervals were collected and photographed.</li> <li>All samples were one meter vertical intervals.</li> </ul>
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 sub-sampling 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>All drill chip samples were collected through a cyclone into large plastic bags at 1 metre intervals, then subsampled into ~200g samples within numbered Kraft paper bags, which were sent for chemical analyses.</li> <li>A full profile of each one metre bag contents was subsampled by spearing to ensure representivity.</li> <li>All samples were moist soft clay.</li> <li>Samples were initially selected based on pXRF data which provides an approximate field value supporting the laboratory concentrations.</li> <li>Sample sizes are appropriate to the clay grain size of the material being sampled.</li> <li>Samples were not screened before sample laboratory submission and analyses represent raw material.</li> </ul>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Drill samples were submitted to ALS Mineral laboratory in Adelaide, SA. Entire sample were crushed and pulverised to 85% passing &lt;75um, then analysed following lithium borate fusion on 0.1g sample using ICP-MS and ICP-AES (ALS Method ME-MS81D). This method provides concentrations for 45 elements, including REE.</li> <li>Lithium borate fusion provides quantitative results of all elements, including those encapsulated in resistive minerals.</li> <li>ALS Laboratories used in-house blanks, standards and duplicates and the results were provided in QC Certificates.</li> <li>Sample batch included two REE hosting CRM's from Ore Research &amp; Exploration Pty Ltd (Melbourne), both were OREAS 102a. This standards were chosen as REE concentrations were comparable with those expected and were oxidised. The REE values reported by ALS for the CRM's were all within two standard deviations which is an acceptable range.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>There was no external verification of sampling and no use of twinned drillholes.</li> <li>Data is exploratory in nature and is compiled into in-house relational database after verification. Original laboratory supplied pdf reports and spreadsheets retained.</li> <li>Rare earth element analyses were originally reported in elemental form but have been converted to relevant oxide concentrations using industry standard factors. Abbreviation definitions used: TREO = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr6O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub> + Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub></li> <li>CREO = Nd<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub></li> <li>LREO = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub></li> <li>HREO = Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Fr<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub> + Fr<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Fr<sub>2</sub>O<sub>3</sub> + Mero = Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Yd<sub>2</sub>O<sub>3</sub></li> <li>NdPr = Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub></li> <li>TREO-Ce = TREO - CeO<sub>2</sub></li> <li>% NdPr = NdPr/TREO</li> <li>%HREO = HREO/TREO</li> </ul>

Criteria	JORC Code explanation	Commentary
		%LREO = LREO/TREO
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The location of drillhole collars was undertaken using a Garmin multi-band GPS in extended averaging mode which has an accuracy of +/- 1m using UTM MGA94 Zone 53.</li> <li>The quality and adequacy are appropriate for this level of exploration.</li> </ul>
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>The drilling pattern was approximately a grid and the collar spacing was mostly around 400 metres. Final locations were defined by access for the drill rig, geological parameters, and land surface.</li> <li>Sample representation, data spacing and distribution are <b>not</b> sufficient to establish the degree of geological and grade continuity or for resource reporting. The data spacing and quality only provides guide for future drill planning.</li> <li>No sample compositing has been applied before analyses.</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>It is believed that the drilling has intersected the geology at right angles; however, it is unknown whether the drill holes have interested the mineralisation in a perpendicular manner. The mineralised horizon is obscured by a veneer of transported material.</li> <li>It is believed no bias has been introduced due to drilling orientation.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>All samples have been in the custody of PNN employees since drilling. Sealed samples and chip trays were transported to Adelaide within PNN vehicles and stored in the secure PNN private property in Smithfield with no access from the public.</li> <li>Representative chip tray samples of all intervals were collected and photographed. These chip trays and photographs are stored securely.</li> <li>Best practices were undertaken at the time.</li> <li>All residual sample material (pulps) is stored securely</li> </ul>

Criteria	JORC Code explanation	Commentary
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	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> <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 licence to operate in the area.</li> </ul>	<ul> <li>Drilling was completed within Exploration Licences 6677 and 6681. EL6677 is held 100% by Pepinnini Resources Curnamona Pty Ltd, a wholly owned subsidiary of PNN. EL6681 is held by Pepinnini Kaolin Pty Ltd, a wholly owned subsidiary of PNN, and is in a JV with Seattle Capital Pty Ltd, Aerobotics Pty Ltd, and Kaolin SA Pty Ltd which together holds 20% interest.</li> <li>Both the tenements are in good standing with no known impediments.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>In the Dickson Well region the only relevant previous exploration has been undertaken separately by BHP Minerals Pty Ltd and Iluka Resources Ltd, both for mineral sands only in the area further west from Cungena (EL6681).</li> <li>In the area west from Yeelanna (EL6677), BHP Minerals conducted aircore drilling in January 2001 for Archaean polymetallic VMHS deposits on the flanks of linear magnetic features believed to be folded mafic/felsic volcanic and sedimentary sequences. No analyses for REE are recorded (McLatchie, 2002; SARIG Env8957).</li> <li>Historical drilling within the EL6681 area was restricted to along roads and provides additional limited stratigraphic information.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>The tenements are within the Gawler Craton, South Australia.</li> <li>PNN is exploring for kaolin and halloysite deposits and associated possible REE mineralisation.</li> <li>This release refers to both kaolin mineralisation and possible ion adsorption rare earth elements mineralisation (IS-REE) related to lateritic weathering processes on basement rock of the Gawler Craton, in particular the Palaeoproterozoic Moody Suite granitic and the Sleaford and St Peter Suite</li> </ul>

Criteria	JORC Code explanation	Commentary							
		granitic gneiss.							
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> </ul>	<ul> <li>PNN completed a 37 drillhole program in July 2023 on the western Eyre Peninsula, South Australia. Based on initial pXRF measurements samples were selected from two drillholes (PKD23-135 and PKD23-161) located in separate areas. Summary details on all July 2023 drillholes are:</li> </ul>							
	<ul> <li>elevation or RL (Reduced Level – elevation above sea</li> </ul>	PKD23-130	Easting 477226	Northing 6390022	78	Depth 83			
	<ul> <li>level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> </ul>	PKD23-131	477601	6389989	77	69			
	<ul> <li>o down hole length and interception depth</li> </ul>	PKD23-132	477593	6389758	77	84			
	<ul> <li>hole length.</li> </ul>	PKD23-133	478001	6389795	85	73			
	• If the exclusion of this information is justified on the	PKD23-134	478357	6390008	84	41			
	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.	PKD23-135	478536	6390402	90	58.5			
		PKD23-136	478511	6390801	109	52			
		PKD23-137	478581	6391200	123	45			
		PKD23-138	478785	6391798	123	30			
		PKD23-139	478401	6391463	126	60			
		PKD23-140	477998	6391474	86	48			
		PKD23-141	477600	6391473	89	49			
		PKD23-142	477217	6391463	111	47			
		PKD23-143	477199	6390794	99	59			
		PKD23-144	477201	6390401	79	63			
		PKD23-145	476802	6390196	77	40			
		PKD23-146	476410	6390214	101	38			
		PKD23-147	476000	6390202	87	37			
		PKD23-148	475716	6390199	82	40			
		PKD23-149	477197	6391195	102	30			
		PKD23-150	476742	6391471	82	42			
		PKD23-151	476782	6391189	78	33.1			
		PKD23-152	476797	6390803	103	40			
		PKD23-153	477299	6392001	111	26			

Criteria	JORC Code explanation	Commentary				
		PKD23-154	477307	6392401	118	43
		PKD23-155	477306	6392800	116	16
		PKD23-156	477304	6393202	118	21
		PKD23-157	564816	6225017	84	36
		PKD23-158	563533	6225045	79	22
		PKD23-159	563556	6225507	72	27
		PKD23-160	563559	6224396	82	26
		PKD23-161	563590	6223361	95	28
		PKD23-162	563594	6222495	92	20
		PKD23-163	564525	622225	102	21
		PKD23-164	564419	6222747	114	45
		PKD23-165	564279	6223219	111	46
		PKD23-166	564794	6222287	106	38
				es one metre interva Zone 53. RL is AHD.	ils.	
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 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>	• If REE analysis one metre) the with no lower o	en this is using	downhole sample	•	
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</li> </ul>	<ul> <li>All holes are be therefore represented.</li> <li>All intercepts r</li> </ul>	esent true widt	:hs	ation at 90 de	grees and

Criteria	JORC Code explanation	Commentary
Diagrams	<ul> <li>effect (eg 'down hole length, true width not known').</li> <li>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.</li> </ul>	See main body of report.
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.	<ul> <li>All other relevant data has been reported.</li> <li>The reporting is considered to be balanced.</li> <li>Where data has been excluded, it is not considered material.</li> <li>Only samples from two drillholes were analysed to enable rapid results. Remaining drillholes have been sampled and have been dispatched.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>The target areas have been the subject of no previous exploration except west from Cungena with minor exploration for mineral sands along road reserves (EL6681) and in the area west from Yeelanna over linear magnetic features.</li> <li>The reported results are from samples collected at a very early stage in the drilling program after sample examination by pXRF measurements indicated the presence of elevated REE. This selection was not fully representative but two drillholes were sampled before others to obtain early confirmation on possible clay hosted REE.</li> <li>All relevant exploration data has been included in this report</li> </ul>
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>	• Further exploration geochemical sampling and drilling is required.