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**ASX ANNOUNCEMENT**

**28 October 2022**

## Quarterly Activities Statement – September 2022

### Highlights

- High-grade rare earths have been intersected in clays at Meteor Prospect over a wide area and with substantial thickness, starting at shallow depths.
- 1 metre split sampling at Meteor has returned up to 4,001 ppm Total Rare Earth Oxide.
- Rare earth intersections include high-value Scandium Oxide credits which may offer additional revenue potential.
- Muckanippie Project acquired over a major layered intrusive complex of the Northern Gawler Craton of South Australia shows evidence of anomalous rare earths.
- Muckanippie Project is additionally highly prospective for titanium with significant historical occurrences recorded.
- Arcoona Project, located within the world class copper-gold “Olympic Province” of South Australia, secured through a South Australian Government competitive bid process.
- Arcoona Project has good upside potential as the tenement area is one of the last areas in the region where no detailed gravity surveying has been undertaken to explore for Iron Oxide Copper-Gold mineralisation.
- Gravity targets prospective for Iron-Oxide Copper-Gold (IOCG) style mineralisation at the Woomera Project scheduled to be drill tested during the first half of the 2023 calendar period.
- The Rocky Well IOCG gravity anomaly is comparable in size to the Carrapateena IOCG gravity anomaly.
- Company to maintain a busy ground program during the 2022/23 period with significant drilling and geophysical programs.

## Summary of Operations

Petratherm (ASX-PTR) uncovered significant Rare Earths (REE) occurring in clays at its Comet Project Area in the Northern Gawler Craton of South Australia during the period. Air-core drilling defined several prospects with impressive concentrations over significant areas and thickness starting at shallow depths. Follow-up drilling at Meteor Prospect and exploration drilling of new target areas scheduled to resume from November 2022.

PTR's newly granted Woomera and Arcoona Projects are situated in the heartland of the world-class Olympic Copper-Gold Province in South Australia and preparations are underway to undertake gravity surveying and heritage surveying of target areas. Drilling of initial geophysical targets for Iron-Oxide Copper-Gold is scheduled for the first half of the 2023 calendar period.

The Company had exploration and evaluation costs of \$474,000 relating principally to the Comet Project drilling operations during the period. Administration and corporate costs totalled \$141,000. The Company held \$4,206,000 cash at the end of the Period. A summary of ground activities during the period for both the Comet and Woomera Projects is presented below. No exploration activities occurred on the Mabel Creek Project Area during the period.

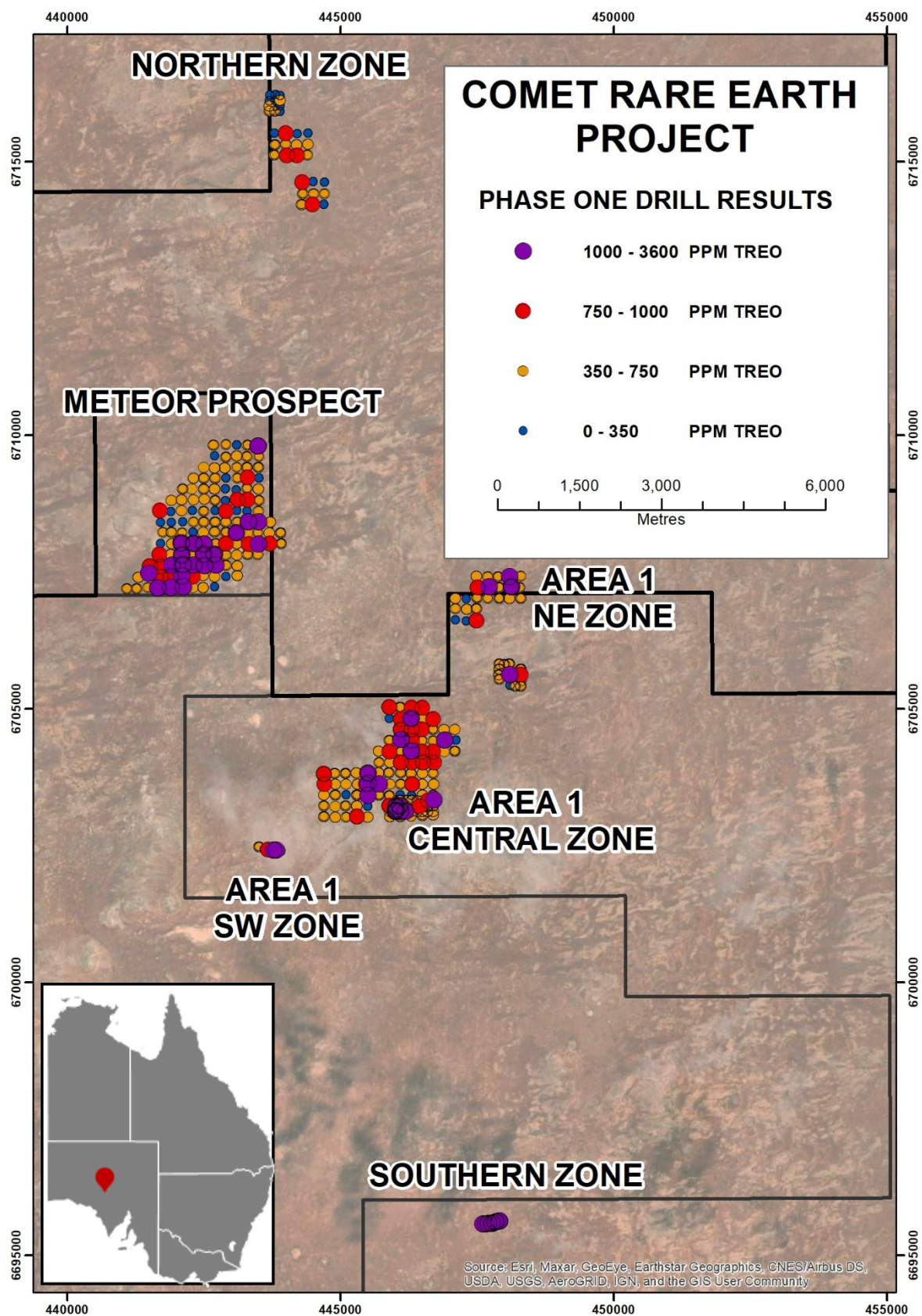
In accordance with ASX Listing Rules Guidance Note 23, the aggregate number of payments to related parties of the Company and its associates disclosed under section 6.1 of the Appendix 5B totalled \$10,000 and comprised of Director's fees.

## Comet Rare Earth Project

The Comet Project (EL6443, EL6633, EL6722, EL6816 & EL6818) is a large land holding totalling 1,915km<sup>2</sup> in the Northern Gawler Craton of South Australia. It is historically noted for numerous gold occurrences however in April the Company reported the uncovering of significant rare earths (REE) hosted in clays following a program of greenfield regional RAB drilling (PTR ASX release 20/04/2022).

Follow up air core drilling of the identified anomalous rare earth areas began in late May and was completed in mid-July. The program comprised 330 drill holes, totalling 9,893 metres with an average hole depth of 30 metres. Drill spacing has for the most part been on a 200 metre by 200 metre grid, but also included some limited closer spaced drilling over potential zones of interest.

Figure 1 provides a summary of REE mineralised areas identified from the program. Air-core drilling defined several areas with impressive concentrations of REEs over significant areas and thickness starting at shallow depths. The mineralisation encountered includes scandium oxide (Sc<sub>2</sub>O<sub>3</sub>) credits, an exceptionally high-value metal used in new technology alloys. Results from the principal prospects, "Area 1", "Meteor" and "Southern Zone" are presented below.



**Figure 1** Comet Rare Earth Project – Plan of drilling showing summary of results.

## REE Area 1

Drilling defined two notable REE mineralised zones within the saprolite clay profile which remain open in several directions (Figure 2). A southerly zone trending north westerly and extending approximately 1 kilometre by 200 metres and a second zone in the north of the grid with consistent higher concentrations of REEs extending over an approximate 1.5 kilometre by 1 kilometre area (PTR ASX release 08/08/2022).

Numerous Total Rare Earth Oxide (TREO) intervals have been intersected with a highest TREO value of 3,600 ppm recorded. REE mineralisation starts at relatively shallow depths in some areas ranging from 6 to 9 metres and importantly extends over significant thickness. Multiple intercepts are recorded over a 6 to 15 metre interval and range up to 27 metres of vertical thickness.

Notable thick intercepts include:

- 22ACCR007 - **8m @ 984 ppm TREO & 105 ppm Sc<sub>2</sub>O<sub>3</sub> from 7m**  
inc. 1m @ 1838 ppm TREO & 101 ppm Sc<sub>2</sub>O<sub>3</sub> from 8m
- 22ACCR008 - **11m @ 1008 ppm TREO & 71 ppm Sc<sub>2</sub>O<sub>3</sub> from 10m**  
inc. 2m @ 2045 ppm TREO & 96 ppm Sc<sub>2</sub>O<sub>3</sub> from 18m
- 22ACCR021 - **9 m @ 962 ppm TREO & 42 ppm Sc<sub>2</sub>O<sub>3</sub> from 12m**  
inc. 1m @ 3600 ppm TREO & 85 ppm Sc<sub>2</sub>O<sub>3</sub> from 12m
- 22ACCR022 - **8m @ 793 ppm TREO & 22 ppm Sc<sub>2</sub>O<sub>3</sub> from 8m**
- 22ACCR031 - **6m @ 1173 ppm TREO & 45 ppm Sc<sub>2</sub>O<sub>3</sub> from 12m**  
inc. 3m @ 1720 ppm TREO & 53 ppm Sc<sub>2</sub>O<sub>3</sub> from 12m
- 22ACCR038 - **6m @ 1112 ppm TREO & 78 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m**  
inc. 3m @ 1808 ppm TREO & 90 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m
- 22ACCR074 - **15m @ 792 ppm TREO & 33 ppm Sc<sub>2</sub>O<sub>3</sub> from 9m**
- 22ACCR085 - **15m @ 1148 ppm TREO & 37 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m**  
inc. 3m @ 1942 ppm TREO & 42 ppm Sc<sub>2</sub>O<sub>3</sub> from 24m
- 22ACCR094 - **6m @ 1041 ppm TREO & 58 ppm Sc<sub>2</sub>O<sub>3</sub> from 12m**
- 22ACCR101 - **9m @ 867 ppm TREO & 34 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m**
- 22ACCR104 - **9m @ 1012 ppm TREO & 27 ppm Sc<sub>2</sub>O<sub>3</sub> from 12m**

(Refer to PTR ASX release 08/08/2022 for JORC Table 1)



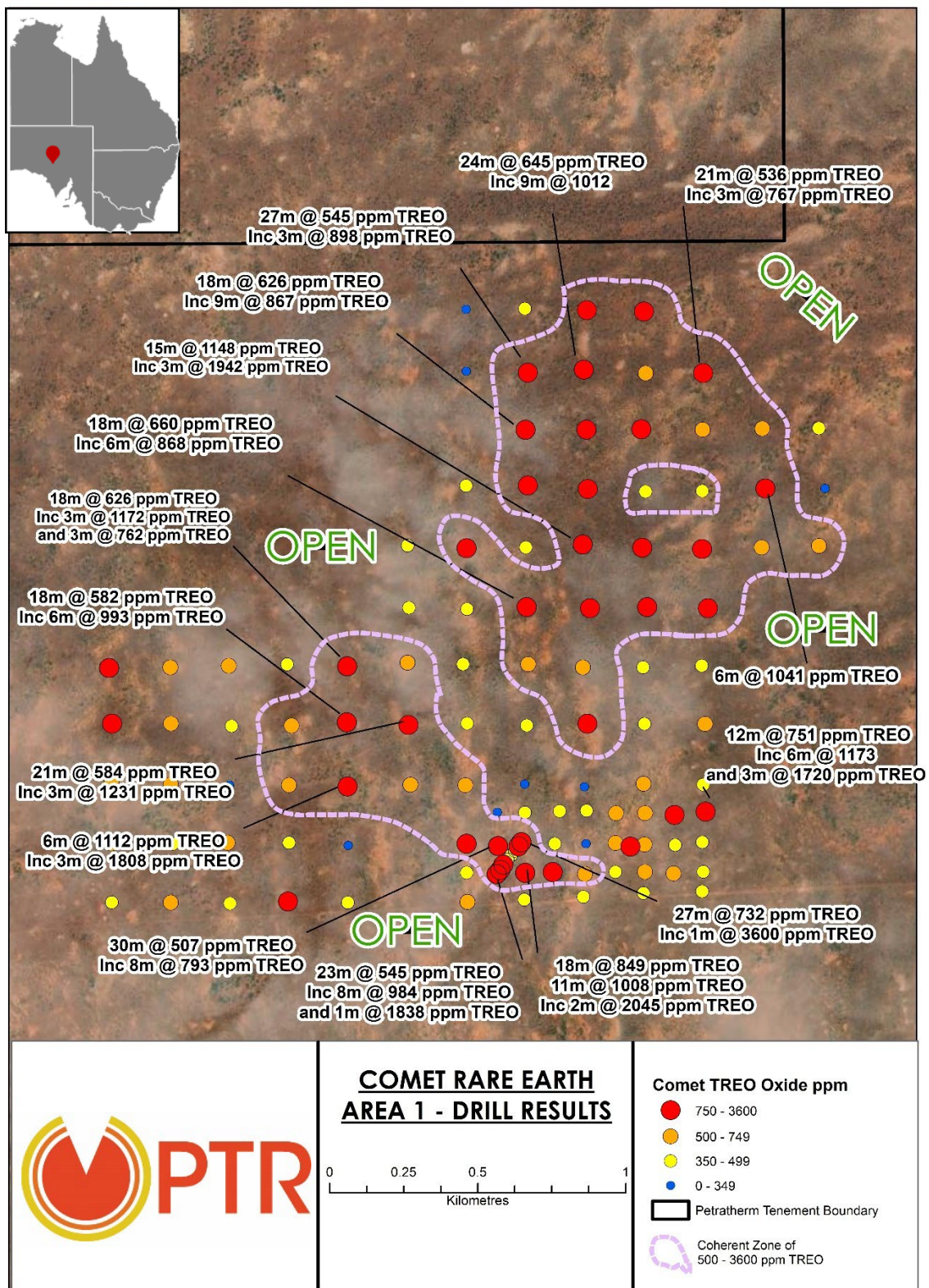


Figure 2 REE 1 Anomaly - Summary of drill results and outline of the mineralised areas.

## Meteor Prospect

Drilling uncovered a major high-grade REE Prospect (Meteor Prospect) at shallow depth containing substantial thicknesses of mineralisation. The Meteor Prospect is characterised by a high-grade blanket of mineralisation over 1,000 ppm TREO and includes 3m composite samples up to 2,325 ppm TREO. The high-grade zone (>1,000 ppm TREO) starts at shallow depths between 3 to 9 metres over the prospect area and ranges in thickness from 3 metres to 18 metres, with an average intercept thickness of 9 metres.

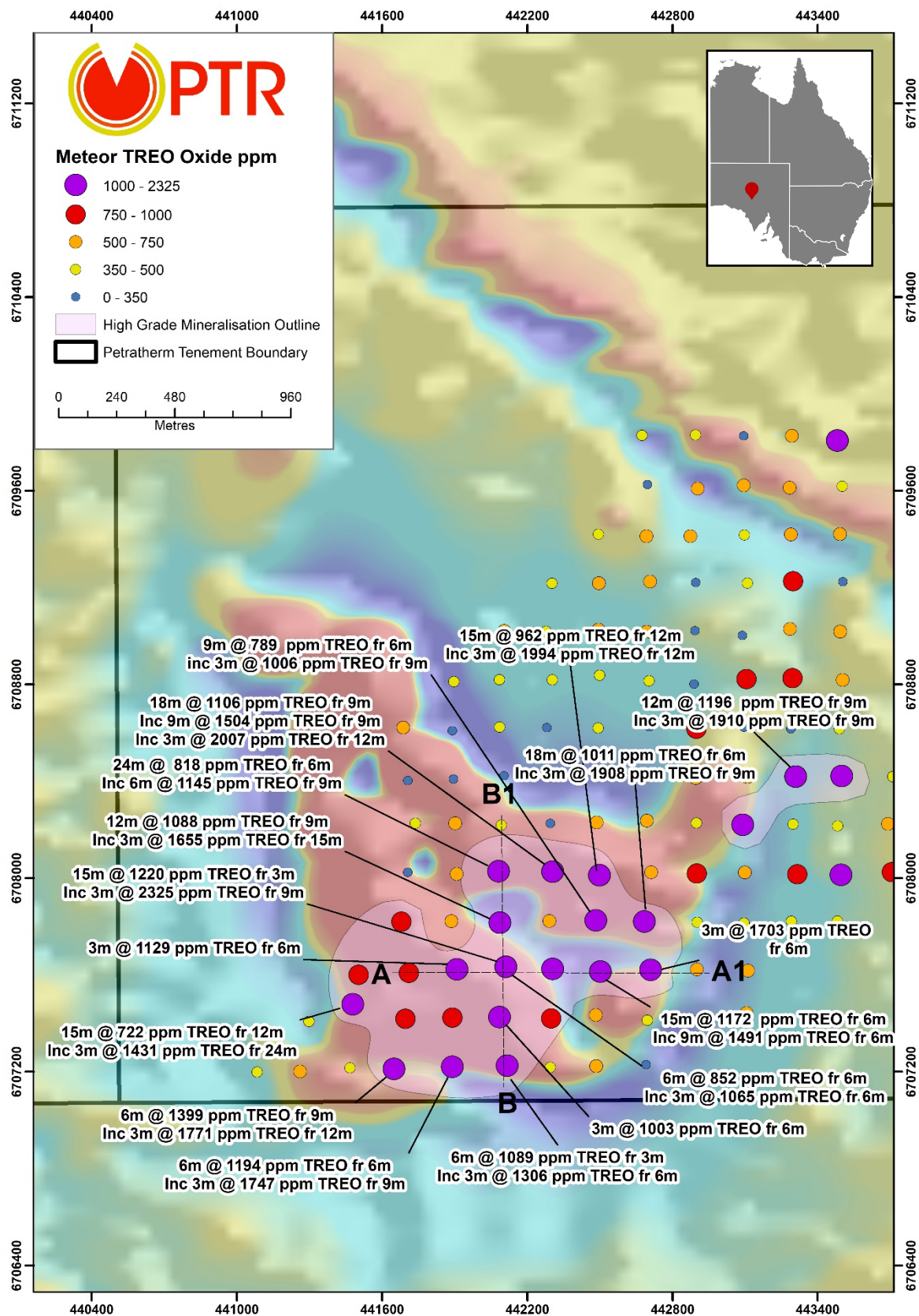
The high-grade mineralisation extends over an approximate 1,200 metre by 700 metre area, with other satellite mineralised zones also present requiring additional drilling to characterise (Figure 3). High-value magnet rare earth (MREO) intercepts up to 546 ppm are recorded and average 25% of the total REE's. Meteor Prospect REE intersections include high-value Scandium Oxide ( $\text{Sc}_2\text{O}_3$ ) credits averaging 45 ppm with a peak intersection of 111 ppm recorded, offering additional revenue potential (PTR ASX release 29/08/2022).

Notable intercepts include :

- 22ACCR169 - **12m @ 1,196 ppm TREO & 45 ppm  $\text{Sc}_2\text{O}_3$  from 9m**  
*inc. 3m @ 1,910 ppm TREO & 54 ppm  $\text{Sc}_2\text{O}_3$  from 9m*
- 22ACCR187 - **18m @ 1,106 ppm TREO & 51 ppm  $\text{Sc}_2\text{O}_3$  from 9m**  
*inc. 3m @ 2,007 ppm TREO & 80 ppm  $\text{Sc}_2\text{O}_3$  from 12m*
- 22ACCR200 - **18m @ 1,011 ppm TREO & 48 ppm  $\text{Sc}_2\text{O}_3$  from 6m**  
*inc. 3m @ 1,908 ppm TREO & 58 ppm  $\text{Sc}_2\text{O}_3$  from 9m*
- 22ACCR203 - **12 m @ 1,088 ppm TREO & 39 ppm  $\text{Sc}_2\text{O}_3$  from 9m**  
*inc. 3m @ 1,655 ppm TREO & 44 ppm  $\text{Sc}_2\text{O}_3$  from 15m*
- 22ACCR209 - **15m @ 1,220 ppm TREO & 41  $\text{Sc}_2\text{O}_3$  from 3m**  
*inc. 3m @ 2,325 ppm TREO & 60 ppm  $\text{Sc}_2\text{O}_3$  from 9m*
- 22ACCR211 - **15m @ 1,172 ppm TREO & 53 ppm  $\text{Sc}_2\text{O}_3$  from 6m**  
*inc. 9m @ 1,491 ppm TREO & 61 ppm  $\text{Sc}_2\text{O}_3$  from 9m*
- 22ACCR228 - **6m @ 1,399 ppm TREO & 98 ppm  $\text{Sc}_2\text{O}_3$  from 12m**  
*inc. 3m @ 1,771 ppm TREO & 111 ppm  $\text{Sc}_2\text{O}_3$  from 12m*
- 22ACCR229 - **6m @ 1,194 ppm TREO & 53 ppm  $\text{Sc}_2\text{O}_3$  from 6m**  
*inc. 3m @ 1,747 ppm TREO & 63 ppm  $\text{Sc}_2\text{O}_3$  from 9m*
- 22ACCR230 - **6m @ 1,089 ppm TREO & 35 ppm  $\text{Sc}_2\text{O}_3$  from 3m**  
*inc. 3m @ 1,306 ppm TREO & 35 ppm  $\text{Sc}_2\text{O}_3$  from 6m*

(Refer to PTR ASX release 29/08/2022 for JORC Table 1)

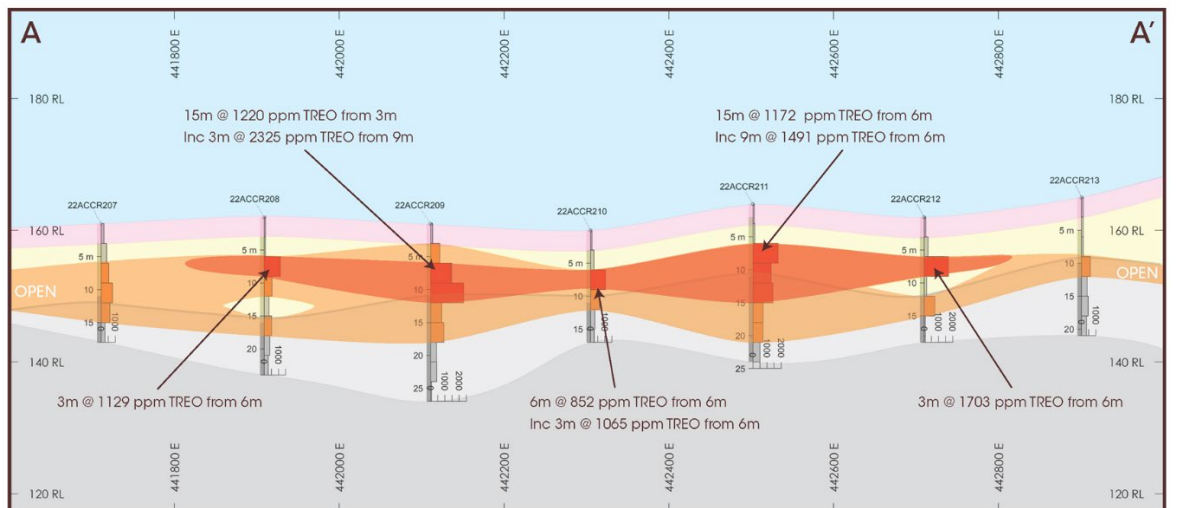




**Figure 3** Meteor Prospect summary results overlain on a Magnetic Image. Mineralisation is overlying the magnetic body which may be the source of the rare earths.

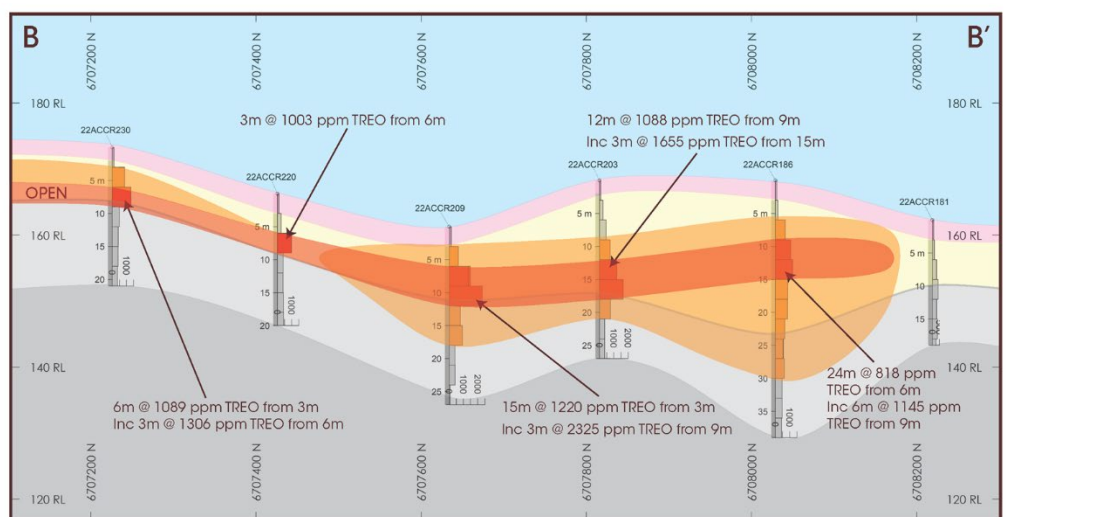
## Meteor Prospect Cross-Sections

The drill results presented are 3 metre composite samples from a 200-metre spaced air core drilling program. West-East and North-South cross-sections over the Meteor Prospect show an upper high-grade (1,000 to 2,325 ppm TREO) zone of enrichment within the saprolite clay (Figures 4 & 5). This is surrounded by a broader mineralised envelope ranging between 500 to 1000 ppm TREO and extends below the high-grade pod into the saprock zone below.



**Meteor - Cross Section A - A'**

**Figure 4 West-East Cross Section through the Meteor REE Prospect**



**Meteor - Cross Section B - B'**

**Figure 5 North-South Cross Section through the Meteor REE Prospect**



## Meteor Prospect – 1 Metre Sub-Sampling Program

Sub-sampling of 3 metre composite samples which returned > 1000 ppm TREO was completed in October just after the reporting period to determine grade distributions on a smaller scale and determine if higher grade intervals may be present. The updated interval results closely match initial REE intercepts reported (PTR ASX release 29/08/2022) however over shorter intervals higher grade REE intervals are present. An updated table of significant REE results incorporating the 1 metre split data is presented in Table 1.

Notable higher grade 1 metre split intercepts include :

- 22ACCR188 - **1m @ 3,126 ppm TREO & 115 ppm Sc<sub>2</sub>O<sub>3</sub> from 13m**
- 22ACCR200 - **1m @ 2,429 ppm TREO & 58 ppm Sc<sub>2</sub>O<sub>3</sub> from 9m**
- 22ACCR209 - **3m @ 2,327 ppm TREO & 43 ppm Sc<sub>2</sub>O<sub>3</sub> from 8m**
- 22ACCR211 - **2m @ 2,376 ppm TREO & 38 ppm Sc<sub>2</sub>O<sub>3</sub> from 6m**  
*and - 2m @ 2,066 ppm TREO & 73 ppm Sc<sub>2</sub>O<sub>3</sub> from 11m*
- 22ACCR223 - **1m @ 2,332 ppm TREO & 46 ppm Sc<sub>2</sub>O<sub>3</sub> from 25m**
- 22ACCR229 - **1m @ 4,001 ppm TREO & 54 ppm Sc<sub>2</sub>O<sub>3</sub> from 9m**

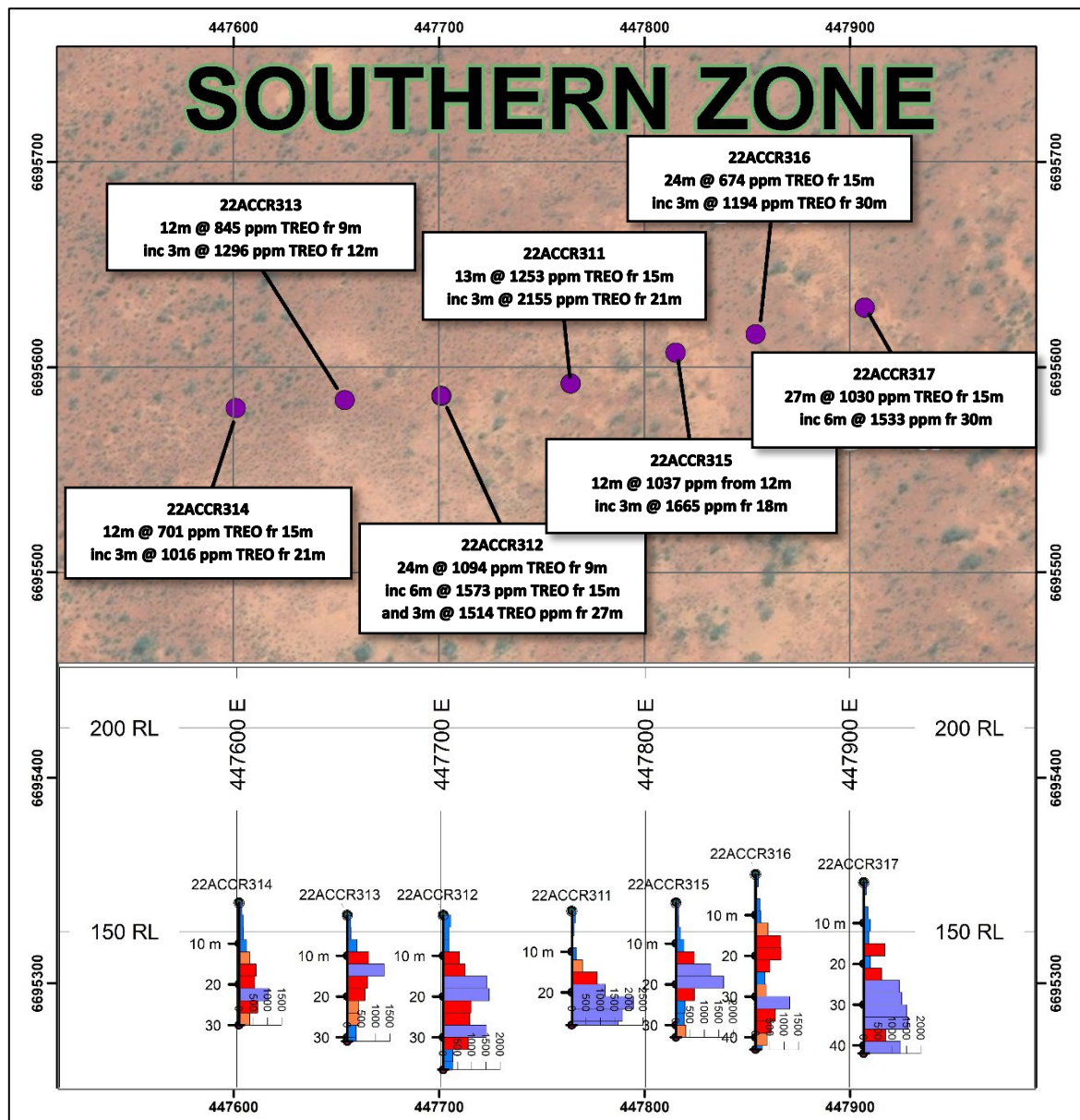
## Southern Zone

A single drill traverse at the Southern Zone Area (Figures 1 & 6) has defined a continuous Total Rare Earth Oxide (TREO) zone more than 1,000 ppm, containing substantial thickness of mineralisation extending over at least 300 metres in length. The thickness of intercepts ranges from 12 metres up to 27 metres and start from 9 to 15 metres depth. The mineralisation remains open both to the east and west as well as to the north and south. Follow-up drilling to test its extent is scheduled from late November.

Southern Zone drill Intercepts:

- 22ACCR311 - **13m @ 1,523 ppm TREO & 26 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m**  
*inc. 3m @ 2,155 ppm TREO & 25 ppm Sc<sub>2</sub>O<sub>3</sub> from 21m*
- 22ACCR312 - **24m @ 1,094 ppm TREO & 25 ppm Sc<sub>2</sub>O<sub>3</sub> from 9m**  
*inc. 6m @ 1,573 ppm TREO & 30 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m*
- 22ACCR313 - **12 m @ 845 ppm TREO & 27 ppm Sc<sub>2</sub>O<sub>3</sub> from 9m**  
*Inc. 3m @ 1,296 ppm TREO & 29 ppm Sc<sub>2</sub>O<sub>3</sub> from 12m*
- 22ACCR314 - **12m @ 701 ppm TREO & 36 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m**  
*inc. 3m @ 1,016 ppm TREO & 40 ppm Sc<sub>2</sub>O<sub>3</sub> from 21m*
- 22ACCR315 - **12m @ 1,037 ppm TREO & 26 ppm Sc<sub>2</sub>O<sub>3</sub> from 12m**  
*inc. 3m @ 1,665 ppm TREO & 24 ppm Sc<sub>2</sub>O<sub>3</sub> from 18m*
- 22ACCR316 - **24m @ 674 ppm TREO & 27 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m**  
*inc. 3m @ 1,1943 ppm TREO & 9 ppm Sc<sub>2</sub>O<sub>3</sub> from 30m*
- 22ACCR317 - **27m @ 1,030 ppm TREO & 30 ppm Sc<sub>2</sub>O<sub>3</sub> from 15m**  
*inc. 6m @ 1,533 ppm TREO & 33 ppm Sc<sub>2</sub>O<sub>3</sub> from 30m*

(Refer to PTR ASX release 11/10/2022 for JORC Table 1



**Figure 6** Southern REE Zone – Plan and drill hole intercept views. Mineralisation remains open in all directions

### Next Steps

Infill and step out drilling at Meteor REE Prospect will get underway from November. Test work of the REE clay samples is underway as part of a program of metallurgical optimisation on REE recoveries. In addition to this work, the drill rig will undertake drilling of other REE mineralised areas identified such as the Southern Zone and testing of new target areas.

Meteor Prospect - 1 Metre Split Significant REE Intercepts Table (>500 ppm TREO)															
Drill Hole	From	To	Interval	TREO	High Value - Magnet Rare Earths (MREO)										
					Scandium Sc <sub>2</sub> O <sub>3</sub>	Praseodymium Pr <sub>6</sub> O <sub>11</sub>		Neodymium Nd <sub>2</sub> O <sub>3</sub>		Terbium Tb <sub>4</sub> O <sub>7</sub>		Dysprosium Dy <sub>2</sub> O <sub>3</sub>		Total MREO	
						ppm	% TREO	ppm	% TREO	ppm	% TREO	ppm	% TREO	ppm	% TREO
22ACCR111	9	24	15	808	22	57	7	186	23	3.33	0.4	14.9	1.8	261	32
inc	13	14	1	1231	23	101	8	328	27	3.53	0.3	13.8	1.1	447	36
inc	17	19	2	1584	19	134	8	433	27	7.35	0.5	30.4	1.9	605	38
22ACCR169	9	21	12	981	42	51	5	169	17	4.57	0.5	23.3	2.4	249	25
inc	14	16	2	1471	38	114	8	359	24	7.35	0.5	34.1	2.3	514	35
22ACCR170	6	12	6	850	24	52	6	170	20	3.63	0.4	18.5	2.2	244	29
inc	8	9	1	1528	23	110	7	357	23	5.88	0.4	25.2	1.7	498	33
inc	10	12	2	1499	31	95	6	280	19	7.06	0.5	35.6	2.4	418	28
22ACCR176	12	18	6	1105	26	57	5	198	18	4.12	0.4	20.0	1.8	280	25
inc	12	13	1	1812	23	105	6	356	20	4.70	0.3	17.8	1.0	483	27
inc	15	16	1	1505	15	79	5	285	19	7.06	0.5	36.7	2.4	407	27
22ACCR186	6	30	24	808	54	42	5	158	20	2.91	0.4	13.7	1.7	217	27
inc	13	14	1	1794	84	98	5	363	20	6.47	0.4	25.8	1.4	493	27
inc	17	18	1	1439	77	76	5	303	21	6.47	0.4	28.1	2.0	413	29
22ACCR187	9	27	18	990	49	51	5	188	19	2.96	0.3	13.5	1.4	255	26
inc	10	17	7	1474	62	79	5	275	19	4.03	0.3	16.6	1.1	375	25
22ACCR188	12	27	15	910	56	46	5	175	19	3.97	0.4	20.2	2.2	245	27
inc	13	14	1	3126	115	181	6	695	22	14.41	0.5	62.5	2.0	953	30
22ACCR193	9	12	3	991	31	56	6	179	18	4.90	0.5	26.0	2.6	265	27
inc	9	10	1	1388	31	75	5	236	17	6.47	0.5	36.7	2.6	354	25
22ACCR200	6	24	18	991	46	50	5	185	19	2.78	0.3	13.1	1.3	251	25
inc	9	10	1	2429	58	129	5	484	20	7.35	0.3	32.1	1.3	653	27
inc	10	12	2	1720	58	88	5	306	18	4.70	0.3	19.8	1.2	418	24
22ACCR201	6	15	9	809	45	46	6	175	22	3.27	0.4	15.0	1.9	239	30
inc	11	12	1	1059	69	64	6	248	23	4.12	0.4	18.9	1.8	336	32
inc	13	14	1	1688	54	82	5	330	20	7.65	0.5	36.2	2.1	456	27
22ACCR203	9	21	12	1038	33	49	5	169	16	2.99	0.3	13.2	1.3	235	23
inc	14	16	2	1802	35	89	5	302	17	5.00	0.3	21.5	1.2	417	23
22ACCR208	6	12	6	622	23	31	5	98	16	1.37	0.2	5.9	1.0	136	22
inc	8	10	2	879	19	43	5	145	16	2.06	0.2	8.9	1.0	199	23
22ACCR209	3	18	15	1117	36	55	5	188	17	2.89	0.3	13.9	1.2	260	23
inc	8	11	3	2327	43	120	5	416	18	6.47	0.3	27.2	1.2	569	24
22ACCR210	6	12	6	778	42	40	5	145	19	3.43	0.4	16.1	2.1	204	26
inc	8	9	1	1197	46	64	5	232	19	5.88	0.5	24.7	2.1	327	27
22ACCR211	6	21	15	1264	49	65	5	241	19	5.02	0.4	23.9	1.9	335	26
inc	6	8	2	2376	38	138	6	467	20	7.35	0.3	29.8	1.3	641	27
inc	11	13	2	2066	73	111	5	416	20	8.53	0.4	40.2	1.9	576	28
22ACCR212	6	9	3	1673	27	86	5	299	18	5.39	0.3	23.8	1.4	415	25
inc	7	8	1	3232	31	168	5	586	18	10.59	0.3	46.5	1.4	811	25
and	12	15	3	743	67	23	3	109	15	3.82	0.5	24.1	3.2	161	22
22ACCR220	6	9	3	1126	15	60	5	203	18	3.14	0.3	14.2	1.3	280	25
inc	6	7	1	1505	15	85	6	287	19	4.12	0.3	17.2	1.1	393	26
22ACCR223	12	27	15	637	26	31	5	106	17	1.47	0.2	7.5	1.2	146	23
inc	21	22	1	1221	23	62	5	208	17	2.94	0.2	11.5	0.9	284	23
inc	25	26	1	2332	46	120	5	412	18	5.29	0.2	24.1	1.0	561	24
22ACCR228	9	15	6	1246	82	64	5	203	16	2.35	0.2	10.3	0.8	280	22
inc	12	15	3	1584	92	80	5	240	15	2.35	0.1	10.1	0.6	333	21
22ACCR229	6	12	6	1188	47	59	5	221	19	5.39	0.5	24.7	2.1	310	26
inc	9	10	1	4001	54	186	5	709	18	18.82	0.5	84.9	2.1	999	25
and	14	15	1	579	54	17	3	73	13	3.53	0.6	18.9	3.3	113	19
22ACCR230	3	9	6	907	29	43	5	154	17	3.14	0.3	16.0	1.8	216	24
inc	5	6	1	1423	23	76	5	269	19	4.70	0.3	21.8	1.5	372	26
inc	7	8	1	1444	31	68	5	248	17	5.29	0.4	27.0	1.9	348	24

Table 1 Meteor Prospect - Significant REE drill intersections from 1 metre split sampling

## Muckanippie Rare Earth Project

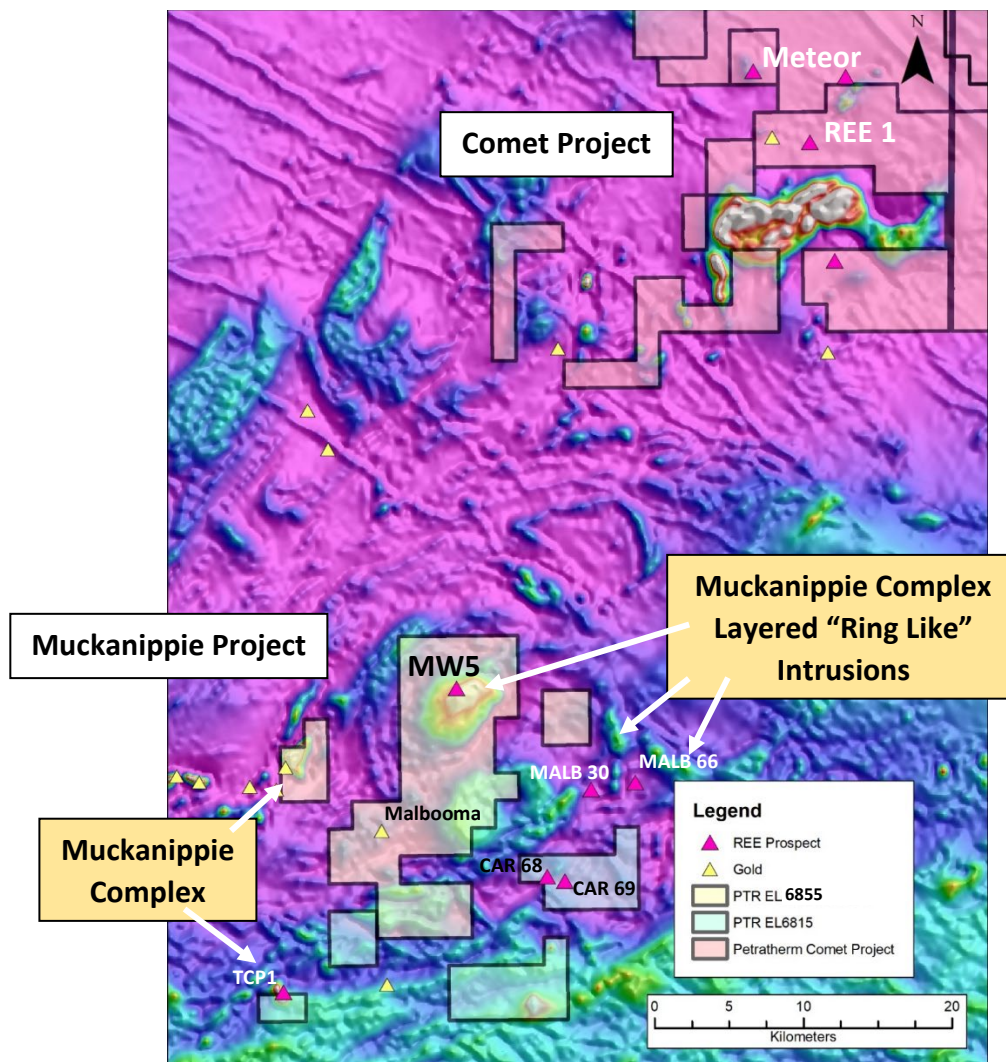
In August 2022, PTR was successful through a competitive bid process to be the preferred applicant for ELA 2022/00076 and in October the Tenement was formally awarded (EL 6855). The tenement covers a 178 km<sup>2</sup> area over the central portion of a regionally extensive layered intrusive sequence known as the Muckanippie



Anorthosite Complex in the Northern Gawler Craton of South Australia, which shows evidence of rare earth (REE) enrichment (Figure 7). The Muckanippie Complex is prospective for both primary REEs in the basement and secondary concentrations of REEs in the overlying weathering profile.

PTR in addition has received grant of an adjacent tenement area (EL 6815) covering an area of 80 km<sup>2</sup> over other portions of the Intrusive Complex. The licences collectively termed the “Muckanippie Project” make up an additional new REE exploration region, following encouraging REE results at PTR’s Comet Project Area 40 kilometres to the northeast.

A large circular magnetic anomaly (diameter > 4 kilometres) with an associated gravity anomaly forms the core of the Muckanippie Complex (Figure 7). This central zone was drill tested by Dampier Mining (drill hole MW5) in 1978 with a single drillhole intersecting mafic intrusive rock from 32 metres to end of hole at 53 metres. Open file geochemical reports of the bottom 3 metre composite sample returned highly anomalous rare earth, cerium (Ce) of 1500 ppm, and related rare earth minerals niobium (Nb) 1350 ppm, and phosphate (P<sub>2</sub>O<sub>5</sub>) 4.25% (PTR ASX release 19/08/2022).



**Figure 7** Total Magnetic Intensity Image over the Muckanippie and Comet Project Areas. The prospective Muckanippie Complex is a series of layered intrusions and plugs forming ring like features in the magnetics. The central main circular intrusion shows a prominent magnetic core at MW5 with outer lesser magnetic concentric rings evident. Other satellite intrusions and layered complexes occur throughout the area such as at TCP1.

Previous exploration in the region has not directly targeted REEs however limited geochemical assays of the light rare earths cerium (Ce) and lanthanum (La) has been undertaken in some instances along with petrological analysis of portions of the Muckanippie Complex. Further evidence for the areas fertility for REEs includes:

- SA Mines and Energy Department Drilling (1991) – RAB drill hole CAR 68 reported a bottom 4 metre composite sample of 400 ppm Ce, 163 ppm La and 85ppm Nb from 12 metres. The adjacent hole CAR 69 drilled 1 kilometre to the east (Figure 1) was described as a dolomite-phlogopite-microcline-tremolite rock of possible carbonatite affinity.
- Aztec Mining – Drill hole TCP1 (1994) testing a prominent magnetic feature of similar magnetic intensity to the central Muckanippie body intersected from 55-90 metres a magnetite-ilmenite rich rock containing on average 5% titanium. Later independent petrological analysis described the host rock as an ilmenite-apatite rock similar to Nelsonite found in Canada, which is noted for its high Ti and REEs. Other shallow vertical RAB drilling for gold in the region by Aztec (1996) included anomalous Ce and La in some drill holes including:
  - MALB 030 – 4m @ 640ppm Ce, 300ppm La, from 20 metres
  - MALB 066 – 4m @ 500ppm Ce, 180 ppm La from 8 metres

The Muckanippie Project includes the historic Malbooma Gold Mine (Figure 1) which was first reported in 1908 by Government geologists. Limited surface and shallow shaft mining of a quartz iron-oxide lode rock has occurred. No production records were recorded however mine spoil samples of the ore rock taken by Normandy Exploration in 1997 reported samples between 2 to 11 g/t Au. At Malbooma, the host Muckanippie Anorthosite is exceptionally high in aluminium with chemical analyses returning aluminium values ranging between 25-30%  $Al_2O_3$ . High aluminium and titanium is a regional characteristic of the intrusive complex and warrants further follow up work.

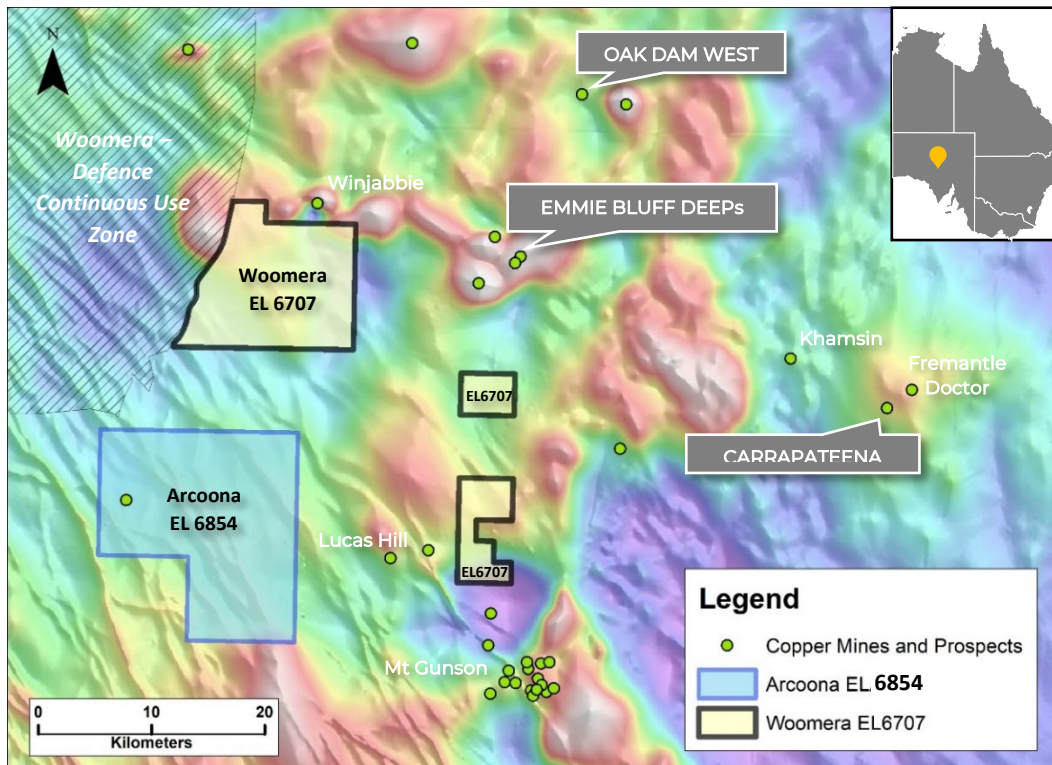
PTR intends to undertake regional shallow air core drill traverses across the Muckanippie Complex exploring for horizons where REE enrichment may be occurring. Globally, anorthosite complexes host significant titanium mineralisation within the mafic fractions of the intrusive complexes (i.e. Tellness, Norway and Lac Tio, Canada) and PTR intend to additionally explore the mafic bodies present at Muckanippie for titanium.

## Woomera and Arcoona Iron-Oxide Copper-Gold Projects

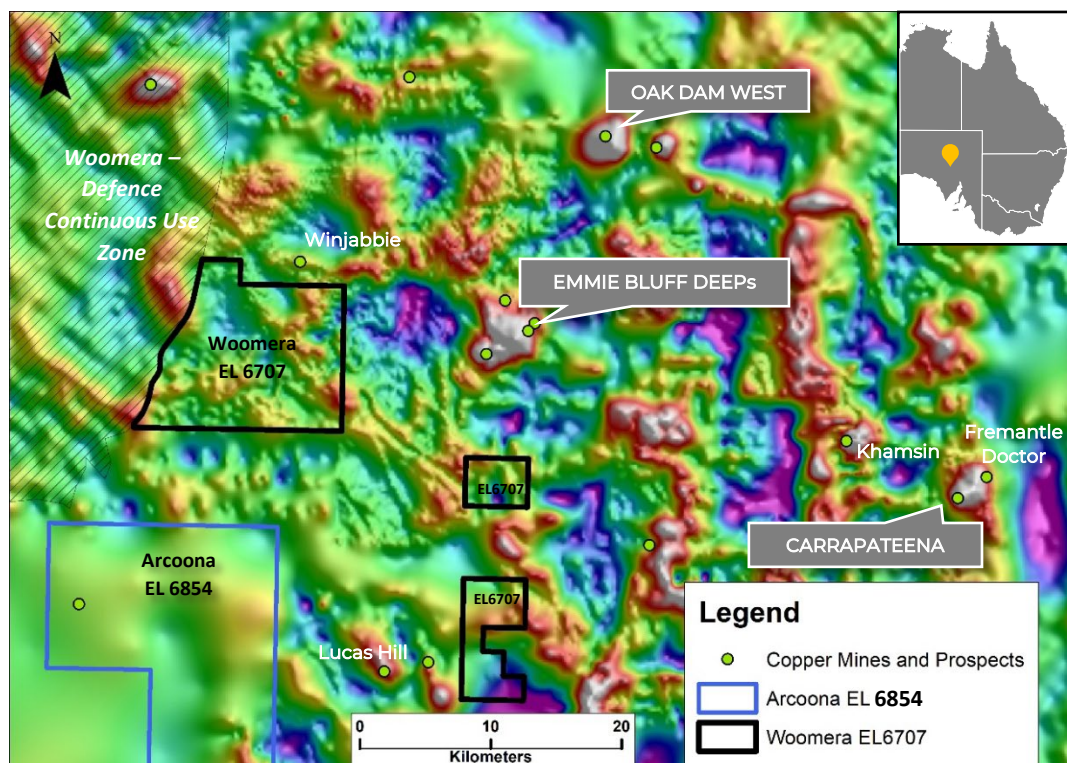
The Woomera Project (EL 6707) is a 209 km<sup>2</sup> area in the world-class Olympic Iron-Oxide Copper-Gold Province of South Australia. It is close to BHP's Oak Dam West copper-gold discovery, OZ Minerals' newly operating Carrapateena Copper-gold mine and Coda Minerals recent Emmie Bluff Deeps IOCG discovery (Figure's 8 & 9 ). Significant historical copper drill intersections at the Winjabbie IOCG Prospect along the northern edge of the new tenement area (Figure 10) additionally highlight the Woomera Projects copper-gold fertility.

In July 2022 PTR was successful through a competitive bid process to be the preferred applicant for the Arcoona Project (ELA 2022/00066) and in October the Tenement (EL 6854) was granted. The Project covers a 264 km<sup>2</sup> area and is close to the Woomera IOCG Project significantly strengthening PTR's ground position in the region (Figure's 8 & 9). IOCG style mineralisation typically displays distinctive high gravity anomalism and gravity surveying is the most effective targeting tool for explorers. The Arcoona Project is one of the last areas to be systematically gravity surveyed as demonstrated in Figure 9 which shows a lack of gravity definition compared to the highly explored surrounding areas. PTR intends to undertake systematic regional gravity surveying to screen for potential IOCG style mineralisation upon grant of tenement.



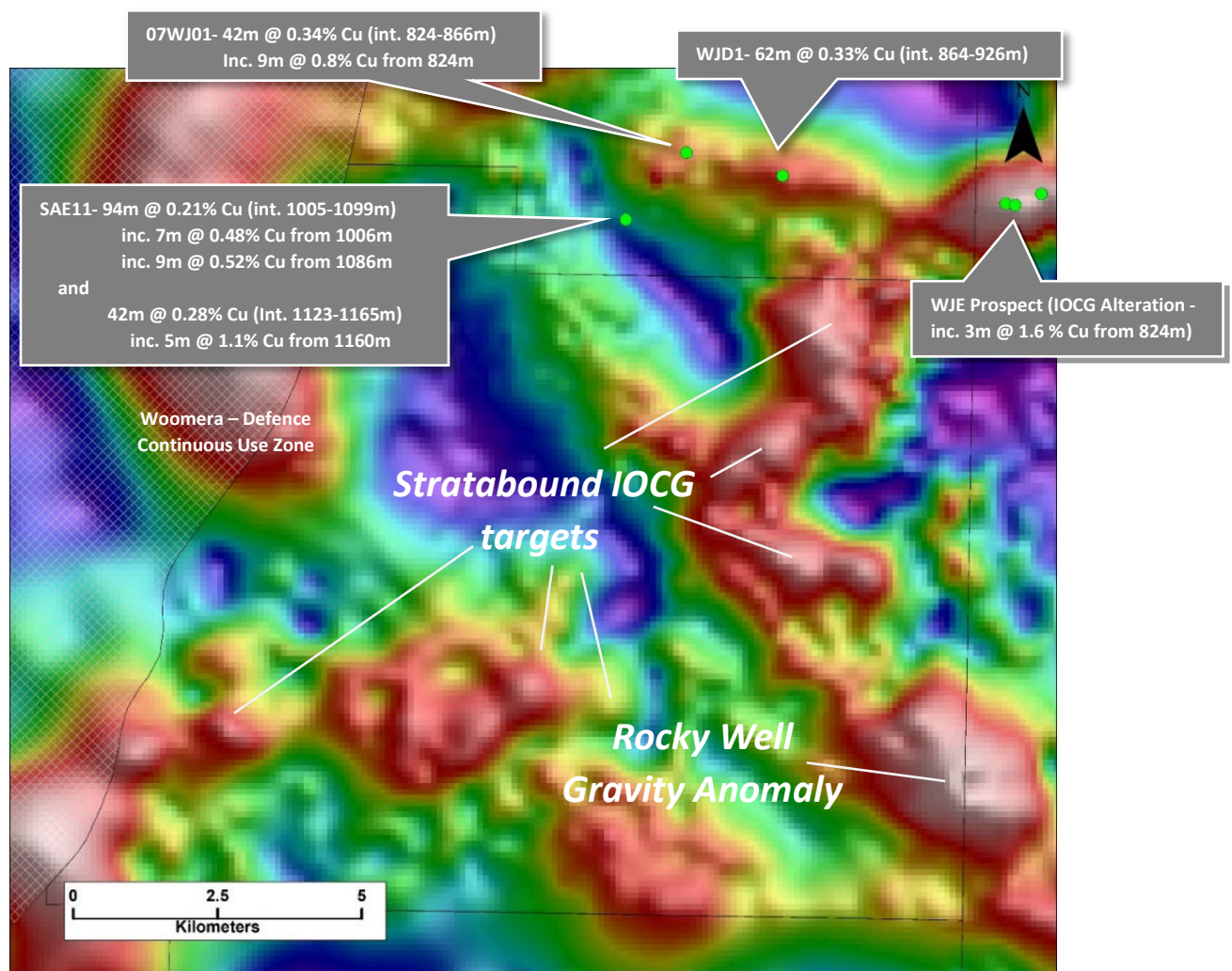


**Figure 8** Location Map of Petratherm Exploration Licence Areas (Woomera and Arcoona), Major IOCG Mines and IOCG Prospects (labelled), overlain on a Reduced to Pole Aeromagnetic Image.



**Figure 9** Residual Gravity Image over the Central Olympic Province, PTR's EL tenements, IOCG Deposits/Prospects. Note lack of definition in the gravity image over the Arcoona area due to a paucity of data.



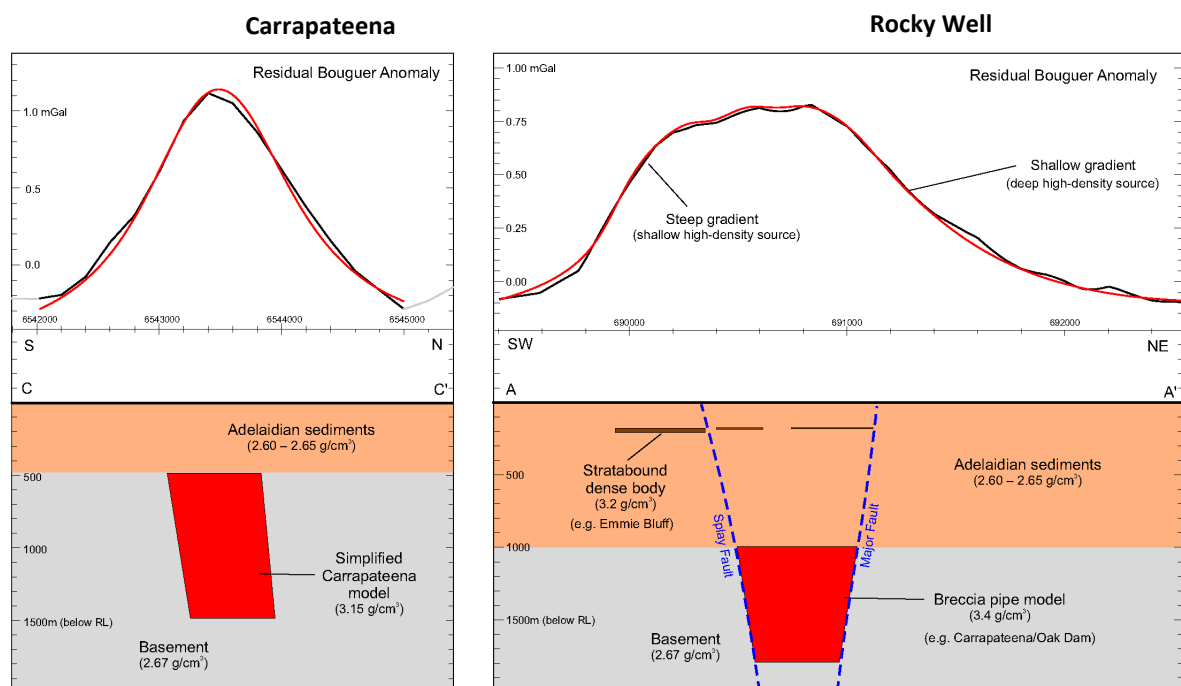


**Figure 10** Significant historical IOCG copper intersections adjacent to Petratherm’s Woomera Licence Area (EL 6707) overlain on a Residual Gravity Image. High gravity areas (red-white zones) may indicate zones of stratabound style and breccia style IOCG mineralisation.

## IOCG Gravity Targeting

Gravity modelling work over the Woomera Project Area highlights the Rocky Well Gravity Anomaly in the south-eastern corner of the tenement area (Figures 10 & 11). The gravity model suggests that a dense body comparable in size and density to Oz Minerals’, world-class Carrapateena Orebody, fits the observed data (Figure 11). The target is a high priority for the Company moving forward.

In addition to this “classical” IOCG gravity target, the Company’s evaluation work highlights the presence of what has been interpreted as “Stratabound Replacement Style IOCG Mineralisation” (Stratabound IOCGs) which produce flat lying sheet-like IOCG mineralised occurrences (Figure 10). The Emmie Bluff Deep IOCG discovery by Coda Minerals, 17 kilometres east of the project area, has reported high-grade copper and gold intercepts which to date appear to occur as stratabound bodies and similarly the Winjabbie IOCG mineralisation along the northern edge of the Woomera Project Area appears to be of the same general form. Importantly, high cobalt grades are also a feature of this style of IOCG mineralisation.



**Figure 11** Rocky Well Gravity Anomaly comparison with Oz Minerals', Carrapateena Ore Body

Petratherm postulates that “Stratabound IOCG’s” offer a new style of exploration target with large tonnage and high-grade potential. Gravity modelling undertaken during the period highlights large areas where potential stratabound IOCG mineralisation may be occurring on the Woomera Project Tenement as shown in Figure 10. It is anticipated that the drilling of these targets and the Rocky Well IOCG target will get underway in the first half of the 2023 calendar year.

***For further information, please contact:***

Peter Reid, Exploration Manager, Tel: (08) 8133 5000

This ASX announcement has been approved by Petratherm’s Board of Directors and authorised for release by Petratherm’s Chairman Derek Carter

Competent Persons Statement: The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Peter Reid, who is a Competent Person, and a Member of the Australian Institute of Geoscientists. Mr Reid is not aware of any new information or data that materially affects the historical exploration results included in this report. Mr Reid is an employee of Petratherm Ltd. Mr Reid has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Hole ID	Easting MGA94 Z53	Northing MGA94 Z53	RL metres	Dip Deg.	Azimuth Deg.	EOH Depth metres
22ACCR111	443,481	6,709,808	167	-90	0	36
22ACCR169	443,309	6,708,420	168	-90	0	30
22ACCR170	443,499	6,708,422	170	-90	0	22
22ACCR176	443,090	6,708,221	170	-90	0	24
22ACCR186	442,081	6,708,029	168	-90	0	39
22ACCR187	442,305	6,708,027	169	-90	0	27
22ACCR188	442,498	6,708,012	169	-90	0	32
22ACCR193	443,496	6,708,014	162	-90	0	33
22ACCR200	442,684	6,707,821	173	-90	0	36
22ACCR201	442,483	6,707,826	172	-90	0	16
22ACCR203	442,087	6,707,816	168	-90	0	27
22ACCR208	441,909	6,707,624	162	-90	0	24
22ACCR209	442,111	6,707,634	161	-90	0	27
22ACCR210	442,305	6,707,625	160	-90	0	17
22ACCR211	442,502	6,707,614	164	-90	0	25
22ACCR212	442,710	6,707,621	162	-90	0	19
22ACCR220	442,085	6,707,426	166	-90	0	20
22ACCR223	441,479	6,707,479	164	-90	0	33
22ACCR228	441,649	6,707,212	167	-90	0	17
22ACCR229	441,890	6,707,221	170	-90	0	24
22ACCR230	442,117	6,707,226	173	-90	0	21

**Table 2** - Meteor Prospect 1 Metre Split Drill Hole Collars



## EL 6443 & EL 6633 (Comet Project) JORC Table 1

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <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.</li> <li>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 Au that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>A total of 330 drill holes have been drilled to blade refusal over a number of REE anomalous areas. Drill spacing of the holes varied across areas, consisting of 50, 100 and 200 metres spacing.</li> <li>During the program, samples were collected as composite intervals from one metre drill samples stored individually in buckets. Separate 1m samples were collected by a splitter attached to the cyclone on the drill rig.</li> <li>Composite samples were collected using a "spear" tool to collect representative samples from buckets and RC bags. Composite samples were an average weight of 2 kg.</li> <li>A handheld Garmin 64s was used to record the location of each drill hole. The accuracy of this GPS is +/- 3m.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>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.).</li> </ul>	<ul style="list-style-type: none"> <li>Drill method consisted of Aircore. Hole diameters are 78 mm.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Aircore drilling methods were utilised throughout the duration of the program.</li> <li>Hole diameters are 78mm.</li> <li>A Geologist was on site for every drill hole to ensure that sample recoveries were appropriate.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to</li> </ul>	<ul style="list-style-type: none"> <li>All samples were geologically logged by the on-site geologist.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p> <ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Geological logging is qualitative.</li> <li>Representative chip trays containing 1 m geological sub-samples were collected.</li> <li>All drillholes were geologically logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Samples averaging 2 kg were collected for laboratory assay.</li> <li>It is considered representative samples were collected.</li> <li>Laboratory sample preparation includes drying, sorting, weighing and pulverizing of submitted sample to target of p80 at 95 um.</li> <li>Duplicate samples have been introduced into the sample stream by the Company.</li> <li>Standard samples were introduced into the sample stream by the Company, and the laboratory also completed standard assays.</li> <li>Laboratory analytical charge sizes are standard sizes and considered adequate for the material being assayed.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Bureau Veritas in Adelaide was used for analytical work. Samples were analysed in the following manner:</li> <li>Lithium Borate Fusion is analysed by Inductively Coupled Plasma Mass Spectrometry for 17 elements.</li> <li>For laboratory samples, the Company has introduced QA/QC samples at a ratio of one QA/QC sample for every 22 drill samples. The laboratory has introduced additional QA/QC samples (blanks, standards, checks).</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>The Company has queried the results with the Laboratory to verify the accuracy of the results.</li> <li>No twinned holes were drilled in the program.</li> </ul>

Criteria	JORC Code explanation	Commentary																																																									
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Rare earth element analyses were originally reported in elemental form but have been converted to relevant oxide concentrations as in the industry standard.</li> <li>TREO = <math>\text{La}_2\text{O}_3 + \text{CeO}_2 + \text{Pr}_6\text{O}_{11} + \text{Nd}_2\text{O}_3 + \text{Sm}_2\text{O}_3 + \text{Eu}_2\text{O}_3 + \text{Gd}_2\text{O}_3 + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3 + \text{Ho}_2\text{O}_3 + \text{Er}_2\text{O}_3 + \text{Tm}_2\text{O}_3 + \text{Yb}_2\text{O}_3 + \text{Lu}_2\text{O}_3 + \text{Y}_2\text{O}_3</math></li> <li>MREO = <math>\text{Pr}_6\text{O}_{11} + \text{Nd}_2\text{O}_3 + \text{Dy}_2\text{O}_3 + \text{Tb}_4\text{O}_7</math></li> </ul> <table border="1"> <thead> <tr> <th>Element Name</th><th>Element Oxide</th><th>Oxide Factor</th></tr> </thead> <tbody> <tr><td>Ce</td><td>CeO2</td><td>1.2284</td></tr> <tr><td>Dy</td><td>Dy2O3</td><td>1.1477</td></tr> <tr><td>Er</td><td>Er2O3</td><td>1.1435</td></tr> <tr><td>Eu</td><td>Eu2O3</td><td>1.1579</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>La</td><td>La2O3</td><td>1.1728</td></tr> <tr><td>Lu</td><td>Lu2O3</td><td>1.1371</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>Sc</td><td>Sc2O3</td><td>1.5338</td></tr> <tr><td>Sm</td><td>Sm2O3</td><td>1.1596</td></tr> <tr><td>Tb</td><td>Tb4O7</td><td>1.1762</td></tr> <tr><td>Th</td><td>ThO2</td><td>1.1379</td></tr> <tr><td>Tm</td><td>Tm2O3</td><td>1.1421</td></tr> <tr><td>U</td><td>U3O8</td><td>1.1793</td></tr> <tr><td>Y</td><td>Y2O3</td><td>1.2699</td></tr> <tr><td>Yb</td><td>Yb2O3</td><td>1.1387</td></tr> </tbody> </table>	Element Name	Element Oxide	Oxide Factor	Ce	CeO2	1.2284	Dy	Dy2O3	1.1477	Er	Er2O3	1.1435	Eu	Eu2O3	1.1579	Gd	Gd2O3	1.1526	Ho	Ho2O3	1.1455	La	La2O3	1.1728	Lu	Lu2O3	1.1371	Nd	Nd2O3	1.1664	Pr	Pr6O11	1.2082	Sc	Sc2O3	1.5338	Sm	Sm2O3	1.1596	Tb	Tb4O7	1.1762	Th	ThO2	1.1379	Tm	Tm2O3	1.1421	U	U3O8	1.1793	Y	Y2O3	1.2699	Yb	Yb2O3	1.1387
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Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All maps and locations are in UTM grid (GDA94 Z53) and have been measured by hand-held GPS with a lateral accuracy of <math>\pm 3</math> metres and a vertical accuracy <math>\pm 5</math>m.</li> </ul>																																																									
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drill holes were completed on 100 and 200-metre spaced grids. Lines at approximately 50 metre spacing were also completed.</li> <li>The data spacing and distribution is insufficient to establish the degree of geological and grade continuity appropriate for a JORC mineral resource.</li> </ul>																																																									



Criteria	JORC Code explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The mineralisation is horizontal in basic form. As such, no sampling bias is introduced by the drill hole orientation.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Company staff and contractors collected laboratory samples.</li> <li>Samples submitted to the laboratory were transported and delivered by Company staff or contractors to Bureau Veritas Laboratories Adelaide.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No independent audit of data has been completed to date.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>EL 6443 Comet and EL 6633 Gina are located approximately 80km south south-west of Coober Pedy overlapping Ingomar and Commonwealth Hill Pastoral Stations.</li> <li>The tenements are located within the Woomera Prohibited Area (Amber Zone) and the Far North Prescribed Wells Area.</li> <li><u>Native Title Holder:</u> SCD2011/001 Antakirinja Matu-Yankunytjatjara.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration work includes;</li> <li><b>Surface Geochemical Sampling:</b> Calcrete</li> <li><b>Airborne Geophysics:</b> Magnetics &amp; Radiometrics.</li> <li><b>Ground Geophysics:</b></li> </ul>

Criteria	JORC Code explanation	Commentary
		Magnetics and Gravity. <b>Exploration Drilling:</b> 202 Mechanised Auger, 103 Aircore, 9 Rotary Air, 27 Reverse Circulation & 3 Diamond.
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The tenements are within the Northern Gawler Craton, South Australia</li> <li>• Petratherm are exploring for gold and REE's.</li> <li>• This release refers to REE mineralisation hosted in clays within the weathered saprolite profile.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The type of drilling performed comprised vertical shallow holes to an approximate average depth of 30 metres on 100 and 200 metre grids, along with lines of approximately 50 metre spacing. The drilling is a first pass exploration program designed to test the extent of previously anomalous rare earths found in the top of saprolite.</li> <li>• All drillhole information pertaining to results within this release are tabulated in Table's 1 &amp; 2 contained in the release.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All reported drill results are true results as reported by Bureau Veritas.</li> <li>• No assumptions of metal equivalent values were made or used.</li> </ul>
<i>Relationship between</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill holes were drilled vertically (i.e. 090 deg.). Any</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <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 (eg 'down hole length, true width not known').</li> </ul>	<p>relationship between mineralisation widths and intercepts lengths is not known.</p> <ul style="list-style-type: none"> <li>TREO values reported are down hole length.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>See Figures in main body of release attached.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All significant results from drilling have been previously reported. Refer to PTR ASX releases 08/08/22, 29/08/22 &amp; 11/10/22. The results in Table 1 of this report show the addition of 1 metre split samples collected from 21 drill holes, where previous 3 metre composite intervals returned &gt; 1000 ppm TREO. In total, 252 samples were analysed and updated significant results compiled.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>See attached ASX Release. Geological observations are included in that report.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg 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 style="list-style-type: none"> <li>See attached release.</li> </ul>

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

PETRATHERM LIMITED

ABN

17 106 806 884

Quarter ended ("current quarter")

30 September 2022

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	(12)	(12)
	(b) development		
	(c) production		
	(d) staff costs		
	(e) administration and corporate costs	(129)	(129)
1.3	Dividends received (see note 3)		
1.4	Interest received	5	5
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives	148	148
1.8	Other (provide details if material)		
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>12</b>	<b>12</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment	(7)	(7)
	(d) exploration & evaluation	(474)	(474)
	(e) investments		
	(f) other non-current assets		



<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(481)</b>	<b>(481)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(17)	(17)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>(17)</b>	<b>(17)</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	4,692	4,692
4.2	Net cash from / (used in) operating activities (item 1.9 above)	12	12
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(481)	(481)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(17)	(17)

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held		
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>4,206</b>	<b>4,206</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	1,406	2,892
5.2	Call deposits	2,800	1,800
5.3	Bank overdrafts		
5.4	Other (provide details)		
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>4,206</b>	<b>4,692</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	10
6.2	Aggregate amount of payments to related parties and their associates included in item 2	

*Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.*

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>7.</b>	<b>Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	<b>Total financing facilities</b>		
7.5	<b>Unused financing facilities available at quarter end</b>		
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8.</b>	<b>Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (item 1.9)	(136)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(481)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(617)
8.4	Cash and cash equivalents at quarter end (item 4.6)	4,206
8.5	Unused finance facilities available at quarter end (item 7.5)	
8.6	Total available funding (item 8.4 + item 8.5)	4,206
8.7	<b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	7
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer:		
8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer:		

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer:

*Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.*

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 28 October 2022



Authorised by:  
Katelyn Adams, Company Secretary

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.



**Changes in Interests in Mining Tenements  
For Quarter Ended 30 September 2022**

		<b>Tenement Reference</b>	<b>Nature of Interest</b>	<b>Interest at beginning of Quarter</b>	<b>Interest at end of Quarter</b>
10.1	Interests in mining tenements relinquished, reduced or lapsed		No changes	N/A	N/A
10.2	Interests in mining tenements acquired or increased	EL 6815 EL 6818 EL 6816	Exploration licence granted	0%	100%

## ASX Additional Information

List of mining tenements as at 30 September 2022

### Granted Tenement Licences:

Tenement No.	Project Area	Area (km2)	Registered holder	Company Interest
EL6332	Mt Willoughby	838	Petratherm Limited	100%
EL6333	Mt Barry	641	Petratherm Limited	100%
EL6404	Kanku	456	Petratherm Limited	100%
EL6405	Mt Euee	917	Petratherm Limited	100%
EL6443	Comet	256	Petratherm Limited	100%
EL6633	Gina	934	Petratherm Limited	100%
EL6722	West Comet	110	Petratherm Limited	100%
EL6707	Woomera	209	Petratherm Limited	100%
EL6815	Muckanippie	80	Petratherm Limited	100%
EL6818	Perfection Well	585	Petratherm Limited	100%
EL6816	Commonwealth Hill	30	Petratherm Limited	100%

### Tenement Licence Applications:

Licence No.	Project Area	Area (km2)	Applicant	Company Interest
ELA 2022/00076	Mulgathing*	178	Petratherm Limited	100%
ELA 2022/00066	Arcoona*	264	Petratherm Limited	100%

\*The exploration licenses for ELA2022/00076 Mulgathing and ELA2022/00066 Arcoona were granted on the 18th of October 2022.