ASX Announcement

1 December 2022

Excellent Upstream Rare Earth Beneficiation Result – Improves Grade, Removes Non-target Elements

- **Rare earth metallurgical test work advances significantly** with upstream beneficiation tests showing up to **90.4% of the valuable rare earth elements can be recovered in the -20µm size fraction.**
- Cheap and simple screening and hydro-cyclone classification can be applied to discard the coarse fraction (+20µm) and remove up to 65.5% of the mass, removing waste material and deleterious elements, while retaining up to 90.4% of the rare earth elements.
- **Rare earth grade increased by up to 91%** by rejecting the coarse fraction (+20µm) with the grade increase evenly distributed between light, heavy and magnet rare earth elements.
- **Next phase of metallurgical testing now underway with recovery optimisation test work** – includes leach tests on -20µm clay fraction to develop a recovery curve for both ammonium sulphate (ionic portion of the rare earth elements) and acid (non-ionic portion of the rare earth elements).

Commenting on the beneficiation results, Meeka's Managing Director Tim Davidson said: *"This positive test work shows most of the rare earth elements are hosted in the fine fraction of the clays. This presents an opportunity to remove waste and significantly upgrade the rare earth grades using simple, cheap and well understood upstream mineral processing techniques. Our metallurgical team are now focussed on the next phase of test work, which will optimise the leach conditions for extraction of the rare earth elements from the fine fraction of the clays.*

In addition to the ongoing metallurgical test work, drilling continues to show a shallowing cover profile to the northwest at Circle Valley, corresponding with a +1,000ppm high-grade component of the rare earth mineralisation, rich in NdPr magnet rare earth elements. This shallow high-grade northwest trending mineralisation at Circle Valley will be a focus for Mineral Resource infill drilling commencing in early 2023. Delivery of an initial Mineral Resource remains on track for the June 2023 quarter."

Meeka Metals Limited ("**Meeka**" or "**the Company**") is pleased to announce results from upstream beneficiation tests, part of the ongoing metallurgical test program to develop a pathway to commercial production. Key results from the beneficiation test work were:

- **Between 90.4% and 62.5% of the rare earth elements were contained in the fine fraction (-20µm size fraction).**
- **The fine fraction (-20µm) only contained between 34.5% and 60.4% of the total sample mass.**
- **By rejecting the coarse fraction (+20µm), between 65.5% and 39.6% of the sample mass can be removed while between 90.4% and 62.5% of the rare earth elements can be retained.**
- **Rejecting the coarse fraction (+20µm) delivered 1.81 times, 1.15 times and 1.91 times TREO grade uplift compared to the raw sample grade for each of the three test samples respectively.**

These positive results confirm that cheap, simple and broadly adopted large scale mineral processing techniques can be applied to remove waste from the process stream prior to leaching. On a commercial scale this would involve particle size separation through scrubbing to produce a slurry prior to screening and hydro-cyclone classification to discard the non-target elements in the coarse fraction, while retaining the valuable -20μm size fraction, which hosts most of the rare earth elements.

Table 1 – Sample MET 1 REO Grade by Size Distribution

Size Fraction (µm)	Mass (g)	Mass %	La_2O_3 ppm	CeO_2 ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	Ho_2O_3 ppm	Er_2O_3 ppm	Tm_2O_3 ppm	Yb_2O_3 ppm	Lu_2O_3 ppm	Y_2O_3 ppm	Sc_2O_3 ppm	NdPr ppm	TREO ppm
+106	411	47.8	95	51	29	106	18	4	14	2	10	2	5	1	5	1	64	5	**135**	**407**
-106/+75	42	4.9	325	168	103	374	66	15	50	6	37	7	22	3	23	3	253	15	**477**	**1,455**
-75/+53	40	4.6	401	205	124	460	81	19	60	8	45	9	27	4	27	4	288	18	**584**	**1,761**
-53/+38	34	3.9	469	223	144	548	95	22	68	9	52	10	30	4	29	5	331	20	**693**	**2,040**
-38/+20	37	4.3	660	281	201	759	128	32	102	13	73	13	42	6	36	5	452	20	**960**	**2,804**
-20	297	34.5	618	369	164	625	101	25	88	11	65	12	38	5	31	4	484	20	**790**	**2,642**
Total	**861**	**100**	**340**	**190**	**96**	**360**	**60**	**15**	**49**	**6**	**36**	**7**	**21**	**3**	**18**	**3**	**256**	**12**	**456**	**1,459**

Table 2 – Sample MET 1 Percentage REO Grade by Size Distribution

Size Fraction (µm)	Mass (g)	Mass %	La_2O_3 %	CeO_2 %	Pr_6O_{11} %	Nd_2O_3 %	Sm_2O_3 %	Eu_2O_3 %	Gd_2O_3 %	Tb_4O_7 %	Dy_2O_3 %	Ho_2O_3 %	Er_2O_3 %	Tm_2O_3 %	Yb_2O_3 %	Lu_2O_3 %	Y_2O_3 %	Sc_2O_3 %	NdPr %	TREO %
+106	411	47.8	13.4	12.8	14.4	14.1	14.4	13.9	13.5	12.9	13.1	13.1	12.2	14.9	12.7	12.9	12.0	17.8	**14.1**	**13.3**
-106/+75	42	4.9	4.7	4.3	5.3	5.1	5.4	5.0	4.9	5.0	5.0	5.0	5.1	5.5	6.1	6.1	4.8	6.1	**5.1**	**4.9**
-75/+53	40	4.6	5.4	5.0	6.0	5.9	6.3	6.0	5.6	5.9	5.7	5.7	5.9	6.2	6.8	7.2	5.2	6.9	**5.9**	**5.6**
-53/+38	34	3.9	5.4	4.6	5.9	5.9	6.2	5.9	5.4	5.6	5.6	5.5	5.6	5.6	6.3	6.9	5.1	6.3	**5.9**	**5.5**
-38/+20	37	4.3	8.4	6.4	9.1	9.1	9.2	9.4	8.9	9.1	8.7	8.3	8.6	8.3	8.5	8.4	7.6	7.0	**9.1**	**8.3**
-20	297	34.5	62.7	66.9	59.4	59.9	58.5	59.9	61.7	61.4	61.9	62.3	62.7	59.4	59.6	58.6	65.3	55.9	**59.8**	**62.5**
Total	**861**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Summary of MET 1 test results:

- 62.5% of the rare earth elements were contained in the fine fraction (-20µm size fraction).
- The fine fraction (-20µm) only contained 34.5% of the total sample mass.
- By rejecting the coarse fraction (+20µm) 65.5% of the sample mass can be discarded while 62.5% the rare earth elements can be retained.
- Rejecting the coarse fraction (+20µm) delivered 1.81 times (or 81%) TREO grade uplift relative to the raw sample grade (raw sample grade = 1,459 TREO vs. -20µm. size fraction = 2,642 TREO).

Table 3 – Sample MET 2 REO Grade by Size Distribution

Size Fraction (µm)	Mass (g)	Mass %	La_2O_3 ppm	CeO_2 ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	Ho_2O_3 ppm	Er_2O_3 ppm	Tm_2O_3 ppm	Yb_2O_3 ppm	Lu_2O_3 ppm	Y_2O_3 ppm	Sc_2O_3 ppm	NdPr ppm	TREO ppm
+106	191	26.9	69	26	19	87	21	6	33	5	34	7	21	3	15	2	284	17	**106**	**633**
-106/+75	29	4.0	196	69	51	230	47	16	65	9	56	11	33	4	24	3	419	44	**281**	**1,233**
-75/+53	21	2.9	297	88	78	343	70	22	85	11	68	14	38	5	29	4	488	57	**421**	**1,641**
-53/+38	18	2.6	422	134	111	490	98	31	121	16	95	18	51	7	38	5	655	64	**601**	**2,292**
-38/+20	22	3.2	823	232	225	973	200	60	227	30	175	33	91	11	66	10	1107	137	**1,198**	**4,263**
-20	428	60.4	314	156	91	390	81	25	91	12	69	13	35	5	26	4	430	69	**480**	**1,743**
Total	**710**	**100**	**262**	**117**	**74**	**321**	**67**	**21**	**79**	**11**	**63**	**12**	**34**	**4**	**25**	**4**	**420**	**56**	**396**	**1,514**

Table 4 – Sample MET 2 Percentage REO Grade by Size Distribution

Size Fraction (µm)	Mass (g)	Mass %	La_2O_3 %	CeO_2 %	Pr_6O_{11} %	Nd_2O_3 %	Sm_2O_3 %	Eu_2O_3 %	Gd_2O_3 %	Tb_4O_7 %	Dy_2O_3 %	Ho_2O_3 %	Er_2O_3 %	Tm_2O_3 %	Yb_2O_3 %	Lu_2O_3 %	Y_2O_3 %	Sc_2O_3 %	NdPr %	TREO %
+106	191	26.9	7.1	5.9	6.9	7.3	8.4	8.3	11.1	12.6	14.3	15.7	16.8	16.2	16.6	17.0	18.3	8.2	**7.2**	**11.3**
-106/+75	29	4.0	3.0	2.4	2.8	2.9	2.8	3.0	3.3	3.4	3.6	3.8	3.9	3.8	3.8	3.9	4.0	3.2	**2.9**	**3.3**
-75/+53	21	2.9	3.3	2.2	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.3	3.3	3.3	3.4	3.3	3.4	3.0	**3.1**	**3.1**
-53/+38	18	2.6	4.2	3.0	3.9	4.0	3.8	3.8	4.0	3.9	3.9	3.9	4.0	4.0	4.0	3.8	4.1	3.0	**3.9**	**3.9**
-38/+20	22	3.2	9.9	6.2	9.6	9.6	9.4	8.9	9.1	8.9	8.7	8.5	8.5	8.3	8.4	8.5	8.3	7.7	**9.6**	**8.9**
-20	428	60.4	72.4	80.3	73.8	73.2	72.6	72.9	69.5	68.1	66.3	64.8	63.4	64.4	63.8	63.4	61.9	74.9	**73.3**	**69.5**
Total	**710**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Summary of MET 2 test results:

- 69.5% of the rare earth elements were contained in the fine fraction (-20µm size fraction).
- The fine fraction (-20µm) only contained 60.4% of the total sample mass.
- By rejecting the coarse fraction (+20µm) 39.6% of the sample mass can be discarded while 69.5% the rare earth elements can be retained.
- Rejecting the coarse fraction (+20µm) delivered 1.15 times (or 15%) TREO grade uplift relative to the raw sample grade (raw sample grade = 1,514 TREO vs. -20µm. size fraction = 1,743 TREO).

Table 5 – Sample MET 3 REO Grade by Size Distribution

Size Fraction (µm)	Mass (g)	Mass %	La_2O_3 ppm	CeO_2 ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	Ho_2O_3 ppm	Er_2O_3 ppm	Tm_2O_3 ppm	Yb_2O_3 ppm	Lu_2O_3 ppm	Y_2O_3 ppm	Sc_2O_3 ppm	NdPr ppm	TREO ppm
+106	316	39.7	25	27	6	21	4	1	3	0	2	0	1	0	1	0	12	2	**28**	**105**
-106/+75	26	3.3	62	78	18	59	10	2	6	1	5	1	2	0	2	0	26	9	**77**	**273**
-75/+53	22	2.8	85	97	24	83	12	3	8	1	7	1	3	1	3	0	36	18	**107**	**364**
-53/+38	23	2.9	86	103	25	82	13	3	10	1	8	1	4	1	4	1	42	21	**106**	**383**
-38/+20	33	4.1	95	110	26	90	15	3	11	2	10	2	7	1	7	1	70	25	**116**	**451**
-20	376	47.2	436	537	117	397	65	13	45	6	29	5	12	2	9	1	135	29	**514**	**1,808**
Total	**795**	**100**	**227**	**277**	**61**	**206**	**34**	**7**	**23**	**3**	**15**	**3**	**7**	**1**	**5**	**1**	**75**	**17**	**267**	**944**

Table 6 – Sample MET 3 Percentage REO Grade by Size Distribution

Size Fraction (µm)	Mass (g)	Mass %	La_2O_3 %	CeO_2 %	Pr_6O_{11} %	Nd_2O_3 %	Sm_2O_3 %	Eu_2O_3 %	Gd_2O_3 %	Tb_4O_7 %	Dy_2O_3 %	Ho_2O_3 %	Er_2O_3 %	Tm_2O_3 %	Yb_2O_3 %	Lu_2O_3 %	Y_2O_3 %	Sc_2O_3 %	NdPr %	TREO %
+106	316	39.7	4.3	3.8	4.2	4.1	4.2	4.3	4.7	5.3	5.8	7.6	7.7	14.6	8.7	9.1	6.6	3.6	**4.1**	**4.4**
-106/+75	26	3.3	0.9	0.9	1.0	0.9	1.0	1.0	0.9	0.9	1.1	1.0	1.2	1.3	1.1	1.5	1.2	1.8	**1.0**	**1.0**
-75/+53	22	2.8	1.0	1.0	1.1	1.1	1.0	1.2	1.0	1.1	1.2	1.2	1.3	1.3	1.5	1.7	1.3	3.0	**1.1**	**1.1**
-53/+38	23	2.9	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.4	1.5	1.5	1.7	1.7	2.1	2.2	1.6	3.6	**1.1**	**1.2**
-38/+20	33	4.1	1.7	1.6	1.8	1.8	1.9	1.8	2.0	2.1	2.8	3.4	4.1	4.4	5.4	6.5	3.8	6.0	**1.8**	**2.0**
-20	376	47.2	90.9	91.6	90.9	90.9	90.9	90.6	90.3	89.2	87.7	85.3	84.1	76.7	81.1	79.0	85.4	81.9	**90.9**	**90.4**
Total	**795**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Summary of MET 3 test results:

- 90.4% of the rare earth elements were contained in the fine fraction (-20µm size fraction).
- The fine fraction (-20µm) only contained 47.2% of the total sample mass.
- By rejecting the coarse fraction (+20µm) 52.8% of the sample mass can be discarded while 90.4% the rare earth elements can be retained.
- Rejecting the coarse fraction (+20µm) delivered 1.91 times (or 91%) TREO grade uplift relative to the raw sample grade (raw sample grade = 944 TREO vs. -20µm. size fraction = 1,808 TREO).

ABOUT CIRCLE VALLEY RARE EARTH PROJECT

The rare earths accumulate within the saprolite clay horizon creating thick, near surface mineralised zones below shallow transported cover. Drilling shows the cover profile shallows to the northwest of Circle Valley, coincident with the highest-grade mineralisation recorded to date, 6,894ppm TREO. The mineralisation also persistently demonstrates a high proportion of the grade, up to 31% in these results, as valuable NdPr magnet rare earths.

Notable intersections (above 500ppm TREO) include:

- **12m @ 2,690ppm** TREO **(26% NdPr)** and **26g/t Scandium** from 20m (22CVAC250)
- **8m @ 2,245ppm** TREO **(28% NdPr)** and **61g/t Scandium** from 12m (22CVAC188)
- **4m @ 1,940ppm** TREO **(20% NdPr)** and **3g/t Scandium** from 12m (22CVAC234)
- **8m @ 1,433ppm** TREO **(26% NdPr)** and **21g/t Scandium** from 16m (22CVAC244)
- **8m @ 1,432ppm** TREO **(29% NdPr)** and **15g/t Scandium** from 28m (22CVAC237)
- **8m @ 1,236ppm** TREO **(23% NdPr)** and **43g/t Scandium** from 20m (22CVAC251)
- **4m @ 1,269ppm** TREO **(29% NdPr)** and **61g/t Scandium** from 12m (22CVAC030)
- **8m @ 1,102ppm** TREO **(22% NdPr)** and **15g/t Scandium** from 12m (22CVAC252)
- **16m @ 1,098ppm** TREO **(18% NdPr)** and **15g/t Scandium** from 12m (22CVAC029)
- **6m @ 1,069ppm** TREO **(15% NdPr)** and **13g/t Scandium** from 16m (22CVAC306)
- **8m @ 1,003ppm** TREO **(29% NdPr)** and **19g/t Scandium** from 16m (22CVAC240)

Infill and extensional drilling will recommence at Circle Valley in January 2023 following a significantly expanded drilling campaign at St Anne's in the Murchison. The 2023 Circle Valley program will focus on the north-western zone where high TREO grades and a high proportion of NdPr elements are coincident with shallow cover.

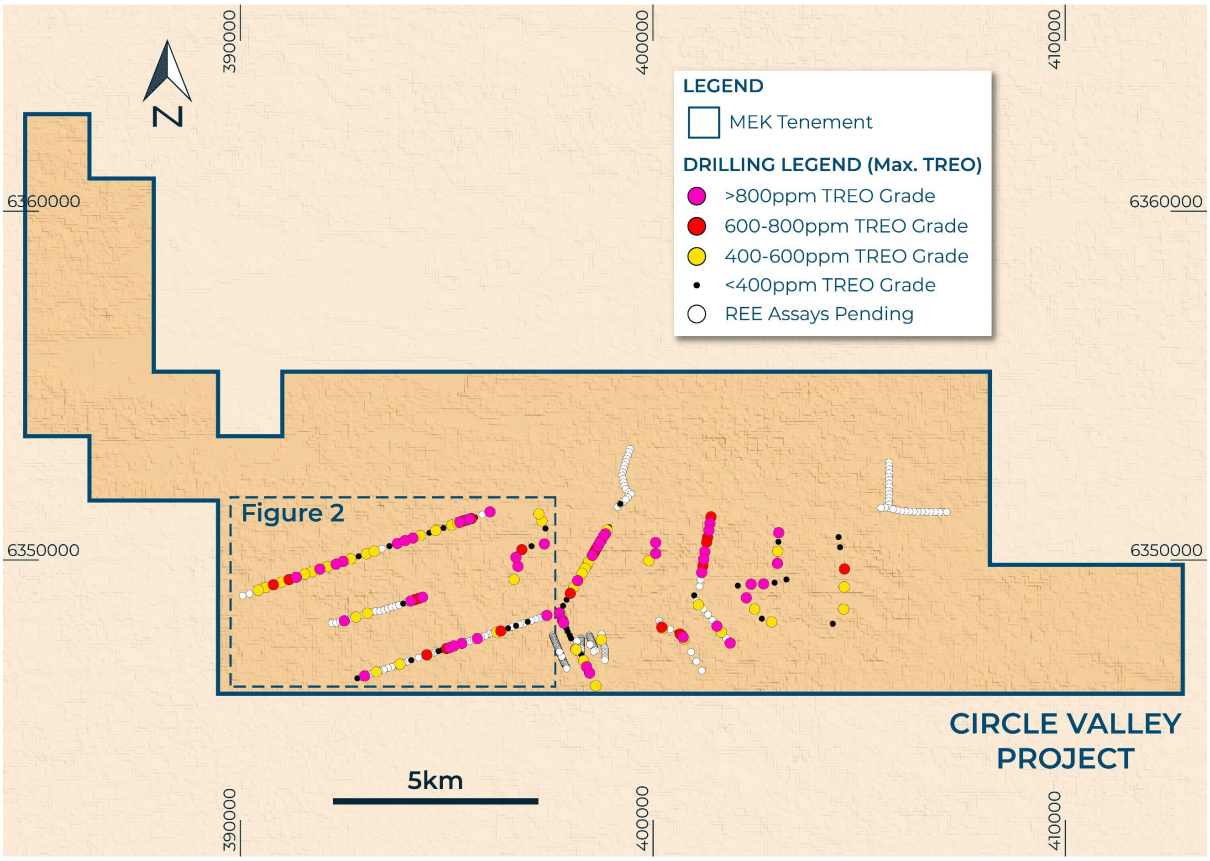


Figure 1: Meeka's 100% owned Circle Valley Project (222km2) showing collar locations, holes for which assays have been received and holes with assays pending.

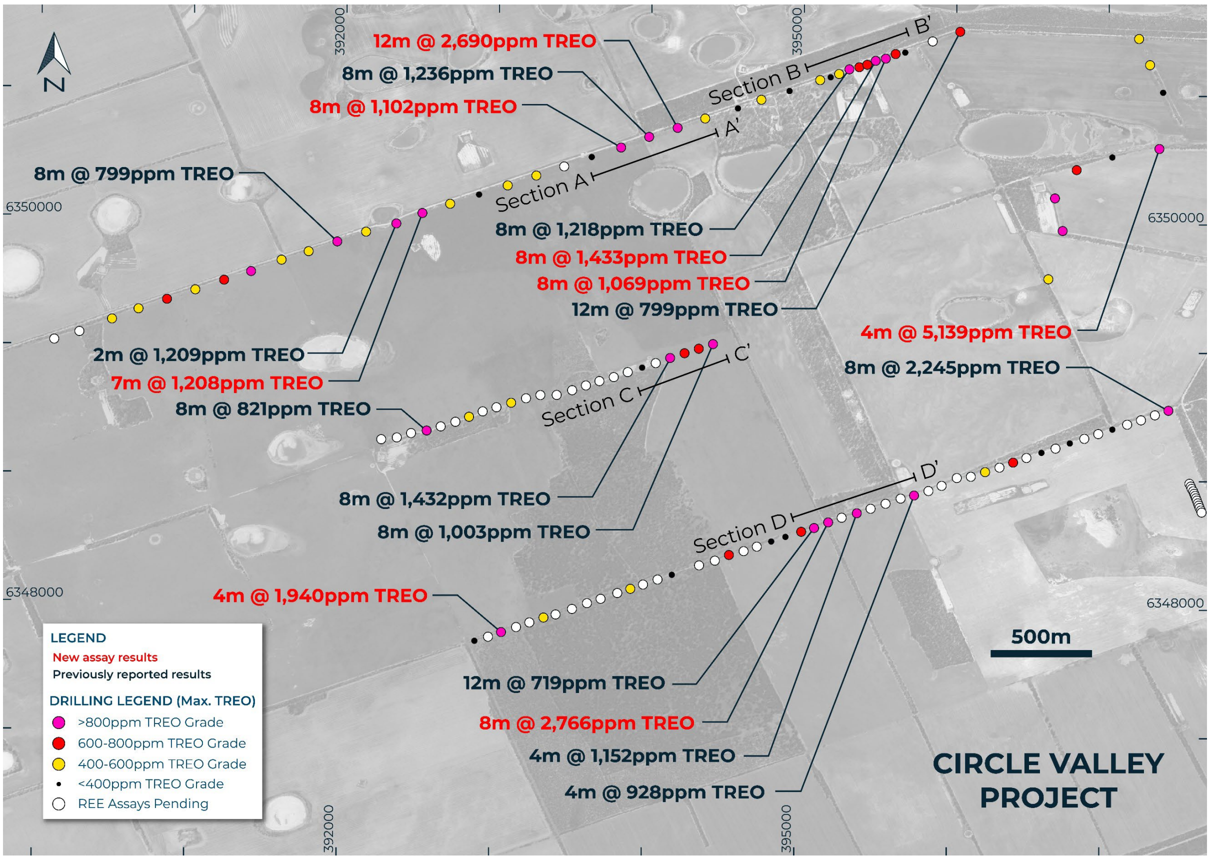


Figure 2: North-western area showing consistent thick, high-grade rare earths with a high proportion of NdPr elements.

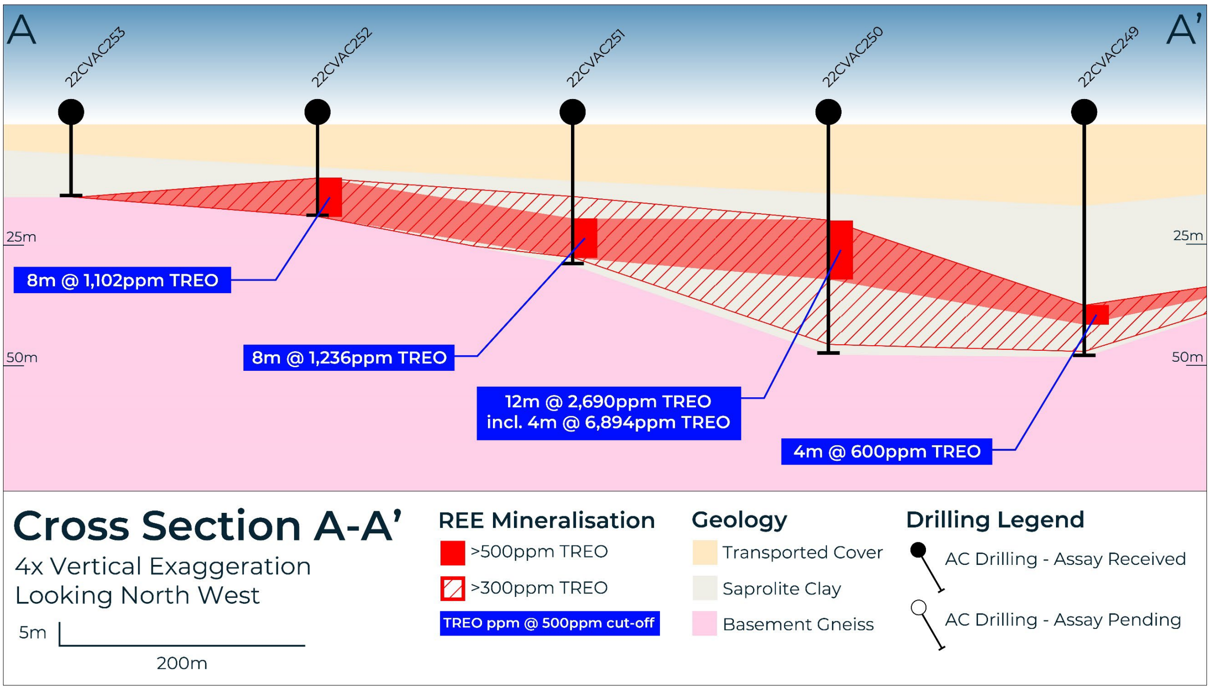


Figure 3: Section A-A' on Figure 2 – cross section through mineralisation.

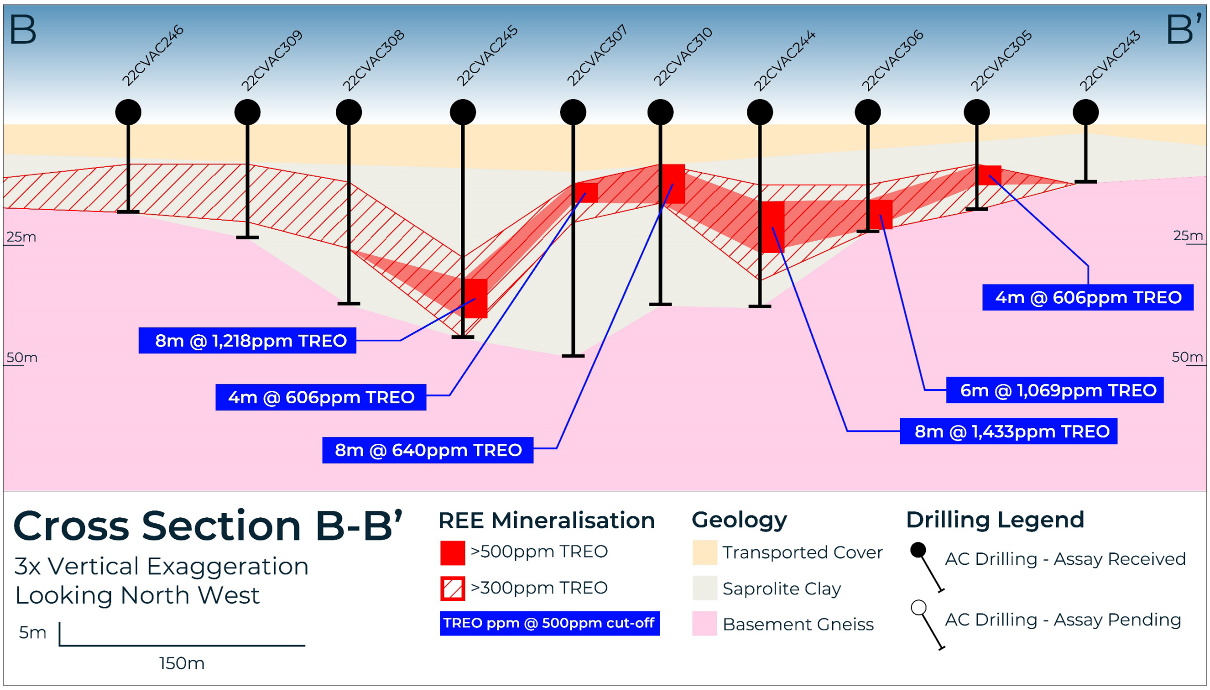


Figure 4: Section B-B' on Figure 2 – cross section through mineralisation.

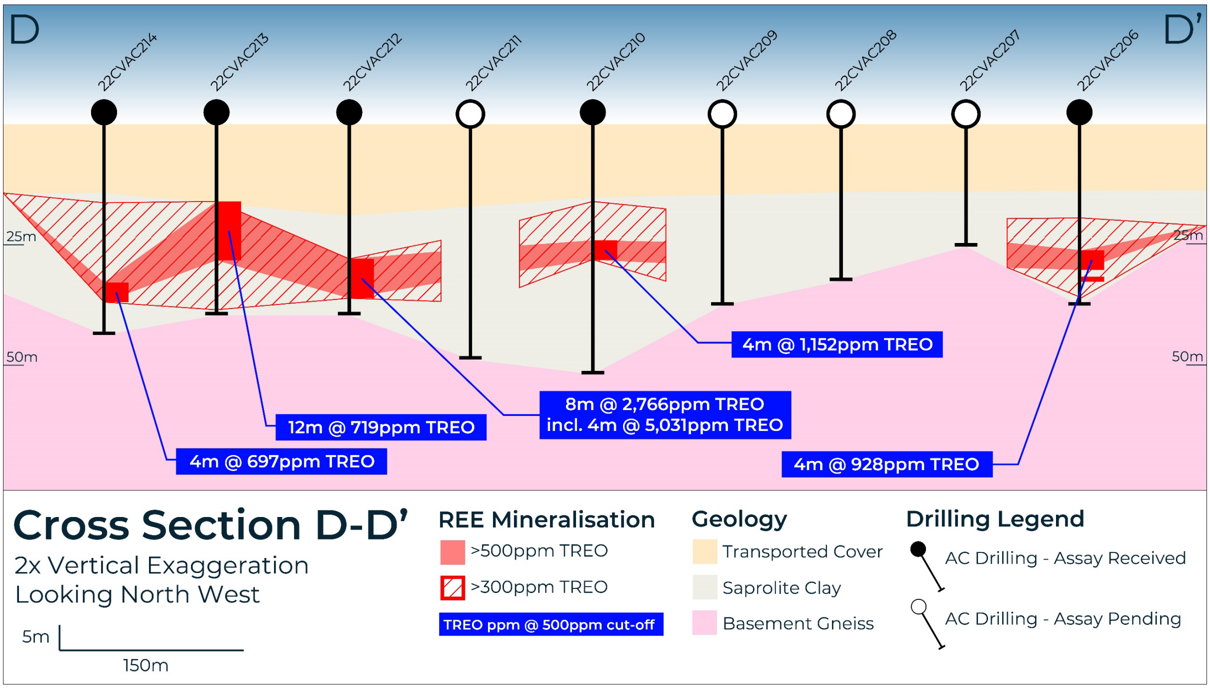


Figure 5: Section D-D' on Figure 2 – cross section through mineralisation.

ABOUT RARE EARTH ELEMENTS

Rare earths are used in glass and ceramics, phosphors, medical imaging, communication technology, the automotive industry, electric vehicles and in renewable energy generation. The unique chemical and physical properties of rare earths have positioned them as a critical material across a number of rapidly evolving markets and industrial applications. Of particular importance are magnet rare earth elements, neodymium and praseodymium, used in the manufacture of powerful permanent magnets for electric motors and turbines.

Key global megatrends driving strong and diversified demand for Neodymium-Praseodymium oxides include:

Low carbon energy transition – electric drive motors and turbines.

Military application – guidance and control systems.

Communications technology.

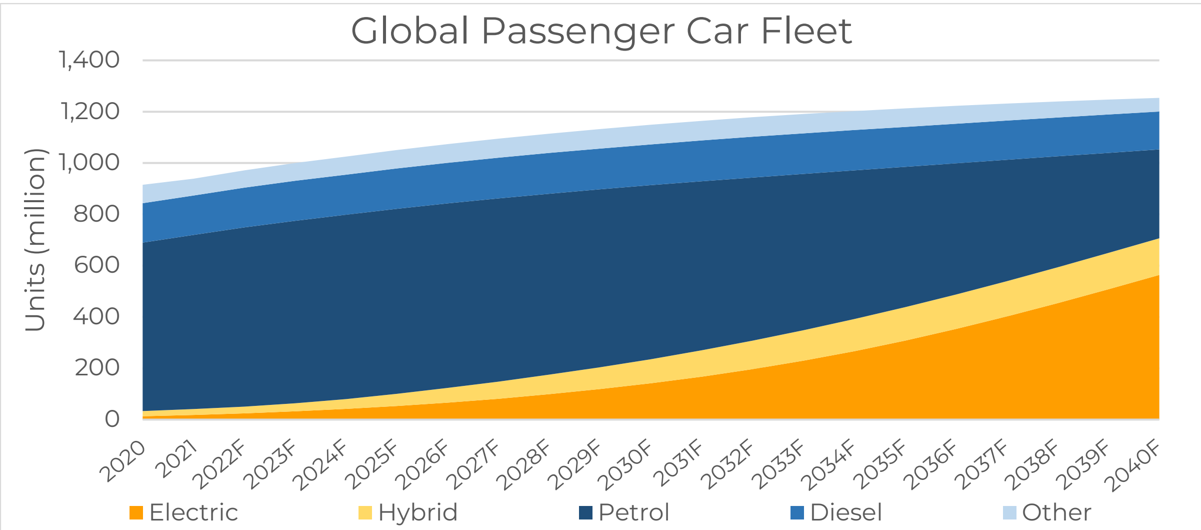
Sustainable resource security – increasing scarcity of and global competition for resources.

Supply chain security – against a backdrop of heightened geopolitical tension and push to diversify supply away from China.

KEY DEMAND DRIVERS FOR RARE EARTH ELEMENTS

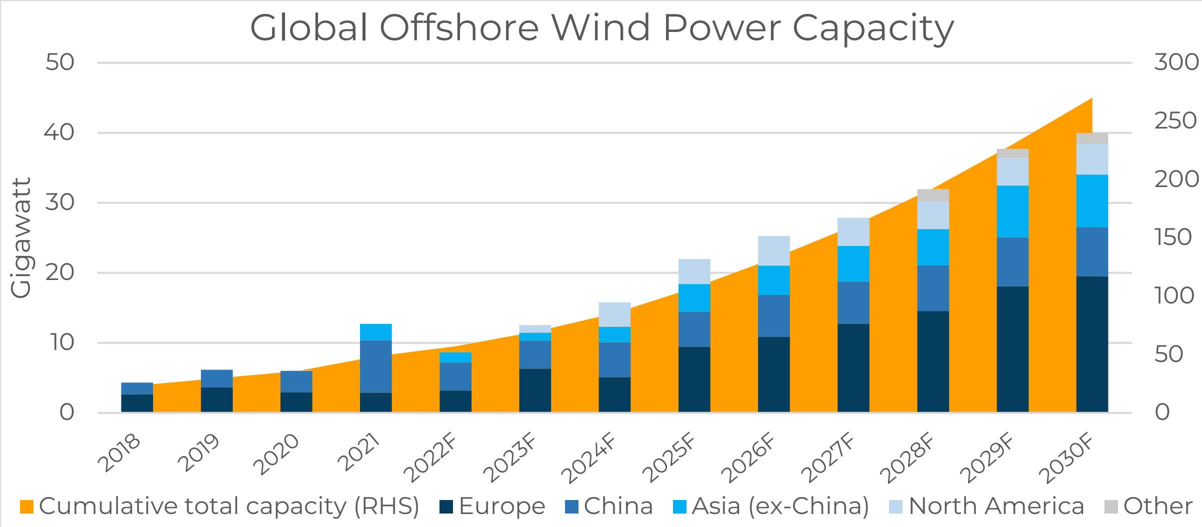
The public and private sector push toward a low carbon economy is driving increased penetration of electric vehicles (EV) and use of renewable technologies for energy generation. These megatrends drive growing demand for permanent magnets and are forecast to be the primary driver of growth in rare earth demand over next 10 years.

Global EV sales are forecast to grow at 20% CAGR to 2026 (20 million units/year). By 2040 there are forecast to be more EV's on the road than hydrocarbon powered passenger vehicles. Each EV uses 2-5kg of rare earth magnets.[1]



[1] Argus, "Rare Earth Analytics", Report, April 2022.

Installed wind turbine generating capacity is forecast to grow at 25% CAGR to 2030. Each direct-drive turbine uses 650kg of rare earth magnets per megawatt of generation capacity.[2]



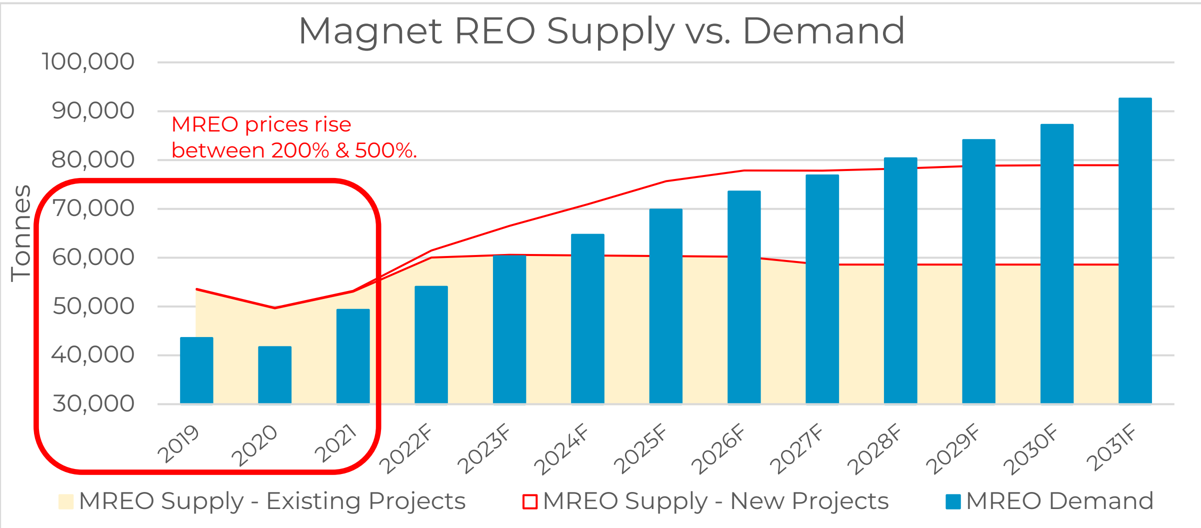
THE OPPORTUNITY – GROWING DEMAND OUTPACES SUPPLY

Global demand for magnet rare earth elements neodymium, praseodymium, dysprosium and terbium is expected to grow faster than demand for all other rare earth elements, challenging the ability of the supply-side to keep up.

Market analysts forecast a supply deficit in magnet rare earth oxide (MREO) of between 15% and 37%, within the next 5 years due to tight supply from current producers and a lack of new production coming online.[3]

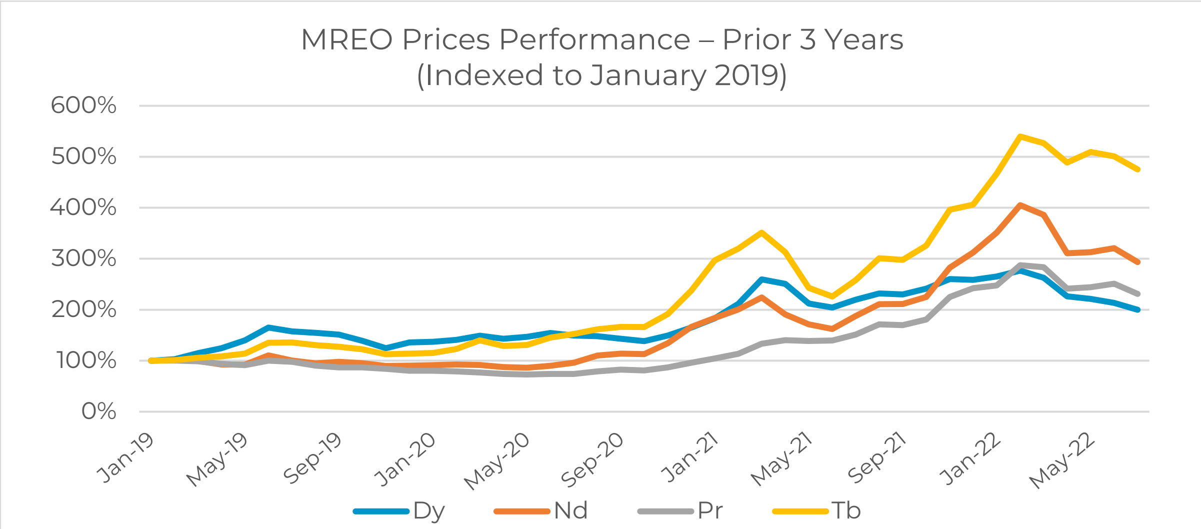
Key points:

- **MREO supply deficit of 37% forecast by 2031 if no new supply comes online.**
- **MREO supply deficit of 15% forecast by 2031 if <u>all</u> new sources of supply are developed and produce as forecast.**



[2] Argus, "Rare Earth Analytics", Report, April 2022.
[3] Argus, "Rare Earth Analytics", Report, April 2022.

To understand potential impact of supply shortfalls on MREO pricing, the preceding 3 years (2019 through 2021) provides a good guide. While markets were in a state of balance, MREO prices appreciated between 200% and 500%.[4]



ABOUT CLAY HOSTED RARE EARTH DEPOSITS

Clay hosted rare earth deposits often enjoy significant project and cost advantages compared to hard rock deposits, with lower cost bulk mining and a simple process flow sheet. Clay deposits do not require the higher cost comminution and beneficiation processes that hard rock deposits require, resulting in lower capital intensity and lower operating cost to produce a refined product. The generally higher proportion of magnet rare earth elements (neodymium-praseodymium) in clay deposits also results in a high value product. Additionally, clay deposits may not produce the deleterious tailings waste.

Criteria	Clay Hosted REE	Hard Rock Hosted REE
Mineralisation	▪ Elevated MREO.	▪ Can be either LREO or HREO dominant mineralisation.
Resource Definition	▪ Rapid, shallow, drilling into clay. ▪ Lower cost.	▪ Slow, deeper, drilling into hard rock. ▪ Higher cost.
Mining	▪ Shallow mining. ▪ Lower strip ratio. ▪ Higher productivity. ▪ No blasting required. ▪ Lower cost.	▪ Higher strip ratio. ▪ Lower productivity. ▪ Blasting required. ▪ Higher cost.
Processing	▪ Simple process flow sheet. ▪ No comminution (crushing or milling). ▪ Lower capital and operating costs.	▪ Complex process flow sheet. ▪ Requires comminution and beneficiation. ▪ Higher capital and operating costs.
Environmental	▪ Low levels of radionuclides. ▪ Non-radioactive waste. ▪ Progressive rehabilitation of mining footprint.	▪ Possible deleterious elements in waste.

[4] Argus, "Rare Earth Analytics", Report, April 2022.

FORTHCOMING ANNOUNCEMENTS

December 2022: St Anne's initial metallurgical test work results.

December 2022: Updated Mineral Resource – Turnberry, Murchison Gold Project.

December – March 2023: Gold assays from AC/RC drilling at St Anne's, Murchison Gold Project.

December – March 2023: Gold assays from diamond drilling at St Anne's, Murchison Gold Project.

December – March 2023: Gold assays from Circle Valley (Anomaly A) extensional drilling.

January 2023: December 2022 Quarterly Activities Report.

January – March 2023: Rare earth assays from Circle Valley infill drilling.

March 2023: Interim Financial Report – half year to 31 December 2022.

March 2023: Initial Mineral Resource – St Anne's, Murchison Gold Project.

April 2023: March 2023 Quarterly Activities Report.

May 2023: Company Presentation – RIU Sydney Resources Round-up Conference.

June 2023: Pre-feasibility Study for the Murchison Gold Project.

June 2023: Initial Mineral Resource – Circle Valley (rare earths).

July 2023: June 2023 Quarterly Activities Report.

August 2023: Company Presentation – Australian Gold Conference, Sydney.

This announcement has been authorised for release by the Company's Board of Directors.

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ABOUT MEEKA

Meeka Metals Limited is gold and rare earths company with a portfolio of high quality 100% owned projects across Western Australia.

Gold

Meeka's flagship Murchison Gold Project has a combined 343km² landholding in the prolific Murchison Gold Fields and hosts a large high-grade 1.1Moz JORC Resource. The Company is actively growing these Resources while also progressing toward production. The release of the Murchison Gold Project Scoping Study in December 2021 outlined a robust Project that produces over 420koz of gold.

In addition, Meeka owns the Circle Valley Project (222km²) in the Albany-Fraser Mobile Belt (also host to the Tropicana gold mine – 3Moz past production). Gold mineralisation has been identified in four separate locations at Circle Valley and presents an exciting growth opportunity, which is being aggressively pursued.

Rare Earths

Meeka controls the Cascade Rare Earths Project (2,269km²) in a region that is rapidly emerging as a highly prospective clay rare earths province. Importantly, the results to date contain high levels of permanent magnet metals being Neodymium-Praseodymium oxides. These metals are geopolitically critical, and Meeka intend to accelerate our understanding of Cascade through metallurgical work and ongoing drilling.

Circle Valley also hosts clay rare earths within thick, near surface mineralised zones below shallow transported cover. The mineralisation persistently demonstrates a high proportion of the grade as neodymium-praseodymium oxides. Metallurgical work, in addition to infill and extensional drilling remain ongoing. An initial Mineral Resource is targeted for 2023.

Global Mineral Resource Summary

Project	Measured			Indicated			Inferred			Total		
	Tonnes ('000t)	Grade (g/t)	Ounces ('000oz)	Tonnes ('000t)	Grade (g/t)	Ounces ('000oz)	Tonnes ('000t)	Grade (g/t)	Ounces ('000oz)	Tonnes ('000t)	Grade (g/t)	Ounces ('000oz)
Andy Well	150	11.4	55	1,050	9.3	315	650	6.5	135	1,800	8.6	505
Turnberry				6,800	1.6	355	4,500	1.8	255	11,300	1.7	610
TOTAL	**150**	**11.4**	**55**	**7,850**	**2.7**	**670**	**5,150**	**2.4**	**390**	**13,100**	**2.6**	**1,115**

Notes:
1. Mineral Resources previously reported to the ASX on 18 May 2021 in announcement titled "Murchison Gold Mineral Resource Grows 44% to +1.1 Million Ounces". The Company is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.
2. Mineral Resources are produced in accordance with the 2012 Edition of the Australian Code for Reporting of Mineral Resources and Ore Reserves (JORC 2012).
3. Andy Well Mineral Resource is reported using 0.1g/t cut-off grade.
4. Turnberry Open Pit Mineral Resource is reported within a A$2,400/oz pit shell and above 0.5g/t cut-off grade.
5. Turnberry Underground Mineral Resource is reported outside a A$2,400/oz pit shell and above 1.5g/t cut-off grade.

COMPETENT PERSON'S STATEMENT

The information that relates to Exploration Results as those terms are defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserve", is based on information reviewed by Mr Duncan Franey, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Franey is a full-time employee of the Company. Mr Franey 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 Franey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information that relates to Mineral Resources was first reported by the Company in its announcement to the ASX on 18 May 2021. The Company is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

The information that relates to Scoping Study results is based on information compiled by Mr Tim Davidson, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy. Mr Davidson is a full-time employee of the company. Mr Davidson is eligible to participate in short and long-term incentive plans of and holds shares and performance rights in the Company as previously disclosed. Mr Davidson has sufficient experience in the study, development and operation of gold projects and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

FORWARD LOOKING STATEMENTS

Certain statements in this report relate to the future, including forward looking statements relating to the Company's financial position, strategy and expected operating results. These forward-looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause the actual results, performance or achievements of the Company to be materially different from future results, performance or achievements expressed or implied by such statements. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement and deviations are both normal and to be expected. Other than required by law, neither the Company, their officers nor any other person gives any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements will actually occur. You are cautioned not to place undue reliance on those statements.

JORC 2012 – TABLE 1: CIRCLE VALLEY

Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	• 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.	• Aircore drill chips collected through a cyclone and generally sampled at 1 or 4 metre intervals, cone split or spear sampled. • Reverse circulation (RC) percussion drill chips collected through a cyclone and sampled at 1 or 4 metre intervals, cone split or spear sampled.
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Drill sampling was conducted on at between 1 or 4 metre composite samples.
	• Aspects of the determination of mineralisation that are Material to the Public Report.	• Mineralisation determined qualitatively through logging: presence of sulphide and visible gold in quartz; internal structure (massive, brecciated, laminated) of quartz and pXRF analysing primarily for whole rock geochemistry but used indicatively for mineralisation. • Mineralisation determined quantitatively via 50g Fire Assay and AAS (Au), and ICP-MS (multielement).
	• 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.	• AC and RC spear 4 m composite samples and 1 m samples were taken from which <3.5kg sample was split to be crushed and pulverised. From this lot a 50 g charge was scooped and prepared by Fire Assay and analysed with an AAS for Au. Multi-element samples were prepared by 4-acid digest and analysed using ICP-MS Analysis for ME.
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• Slimline RC – 150mm diameter. • Air core drilling - 100mm diameter to bit refusal (usually saprock to fresh rock).
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	• Visual estimate of drill chip recovery recorded in database.
	• Measures taken to maximise sample recovery and ensure representative nature of the samples.	• Drill chip recoveries monitored in the field and documented.
	• 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.	• Unknown at this stage.
Logging	• 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.	• Holes logged qualitative: lithology, alteration, foliation. • All holes chipped for the entire hole to preserve a chip tray record of all holes drilled. • Select holes analysed using an Olympus Vanta 50kv VMR analyser on a meter basis for the entire length of the hole.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• Qualitative: visual logging and pXRF analysis (semi-quantitative for some elements). • Quantitative: multielement geochemistry elements; no density measurements taken • Chip samples taken from every metre of every hole to maintain chip tray record.
	• The total length and percentage of the relevant intersections logged.	• All holes logged for entire length of hole.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	• No core drilling completed.
	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• Chips cone split, sampled dry where possible for 1 m samples. Composite samples were spear-sampled. • AC sample were spear sampled in up to 4 m composite intervals. 1 m bottom of hole samples cone split.
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• The entire ~3.5kg composite or 1 m drill sample is pulverized to 75µm (85% passing) • Gold analysis is determined by 50g Fire Assay and AAS finish. • ME analysis by 4-acid digest and ICP-MS Analysis.
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• Duplicates and blanks were routinely included in the 1 m sampling sequence and submitted when 1 m samples were submitted to the laboratory. CRMs have not yet been used due to the early stage of exploration. No QC samples are included in the 4 m composite sample stream.
	• 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.	• All composites were speared ensuring the total depth of the bag was sampled to provide a representative sample. Close attention was paid when spearing to the size of each sample making up a composite. The size of the sample is kept consistent within each composite. • Single metre samples are cone split and duplicates are taken every 20 m to monitor variability. • Due to the early stage of exploration further measures have not been employed.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• The sample size is considered appropriate for grain size of sampled material.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• Gold analysis is determined by 50g Fire Assay and AAS and is considered a total analysis. • ME analysis by ICP-MS Analysis and is appropriate for trace element analysis to asses alteration and whole rock geochemistry. • pXRF while a qualitative dataset is considered appropriate for whole-rock geochemical analysis and monitoring of trace elements for alteration when used indicatively and relative to the results of similarly collected samples.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	• 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.	• An Olympus Vanta 50KV VMR handheld pXRF instrument was used in conjunction with the EasySampler system to analyse the drill powder produced. • All three beams were used with a 10 second time lapse for each beam. • No factors have been used on the data. • The data is considered qualitative and is used only indicatively to assess alteration and potential mineralisation based on anomalism relative to other drill samples analysed.
	• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• No QC measures are currently in place for the pXRF analysis as it is being used qualitatively. • As the process is developed and more confidence is required in these analyse an appropriate QC protocol will be implemented and appropriate laboratory checks will be used to verify the data reported.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• Significant intersections are verified by multiple Company personnel prior to release.
	• The use of twinned holes.	• No twin holes at present.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Data stored in Datashed database, logging performed in Logchief with auto-validation and synchronised to Datashed database, data validated by database administrator, import validate protocols in place. Visual validation by company geologists.
	• Discuss any adjustment to assay data.	• Multielement results (REE) are converted to stoichiometric oxide (REO) using element-to-stoichiometric conversion factors.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• Collars: surveyed with Garmin GPS accurate to +/- 3m.
	• Specification of the grid system used.	• MGA94 - Zone 51
	• Quality and adequacy of topographic control.	• Loose topographic control from geophysical data. Appropriate for this early stage exploration.
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	• From 20m up to 1km. • Spacing appropriate for first pass reconnaissance drilling and early-stage exploration drilling
	• 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.	• The current drill spacing is not appropriate for use in resource estimation.
	• Whether sample compositing has been applied.	• Up to 4 m composite assays reported.
Orientation of data in relation	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• Sampling believed to be unbiased.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
to geological structure	• 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.	• To the Company's knowledge the drilling is oriented perpendicular to mineralisation although limited orientation data has been collected.
Sample security	• The measures taken to ensure sample security.	• Samples were delivered from the Company tenure directly to the laboratory using a freight company in sealed bulka bags.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No external QC reviews have been conducted on the project so far.

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	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• Two Exploration Licence (EL) covering a land area of 222km2. • Meeka Metals Limited is the current holder, having a 100% interest in the EL's. • Tenure predominantly overlies freehold agricultural land used for crop and livestock farming. • Prior to conducting ground disturbing exploration on private land, a land access agreement must be signed between the Company and the relevant landowner. • The tenements are in good standing.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The Project has had limited exploration work completed over it. Exploration by previous operators included Pan Australian Exploration Pty Ltd, Toro Energy Limited and Spitfire Oil Limited, who focussed on uranium and lignite mineralisation within paleochannels. • Reconnaissance aircore (AC) drilling programs targeting the underlying greenstone belts for gold mineralisation has been completed by AngloGold Ashanti Australia Limited and Terrain Minerals Ltd. • The historical data has been assessed and is of good quality.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Circle Valley Project lies within the Central Biranup Zone of the Proterozoic Albany Fraser Province. • Lithologies of the Biranup Zone comprise paragneiss, or orthogneiss and meta-basic rocks. • It is interpreted that there is a subordinate portion of reworked Archaean rocks within the package. • Magnetics of the Project area displays strong deformation with complex folding, faulting and thrusting. • The target type is Tropicana style gold mineralisation hosted in high grade metamorphic rocks of the Albany Fraser Mobile Belt. • It is thought that the regolith hosted REE enrichment originates through weathering of underlying felsic rocks (granite, gneiss).

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Drill hole Information	• 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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• All drill results are reported to the ASX in line with ASIC requirements.
Data aggregation methods	• 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. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No top-cuts have been applied when reporting results. • Individual Au and ME assay results have been reported. • Multielement results (REE) are converted to stoichiometric oxide (REO) using element-to-stoichiometric conversion factors.
Relationship between mineralisa-tion widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• Drill holes are oriented to drill perpendicular to the southerly dipping regional foliation mapped in outcrop exposed on the edges of various salt lakes in the area. • To the Company's knowledge the drilling is oriented perpendicular to mineralisation although limited orientation data has been collected.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Drilling is presented in long-section and cross section as appropriate and reported quarterly to the ASX in line with ASIC requirements.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• All drillhole results have been reported including those drill holes where no significant intersection was recorded.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• All meaningful and material data is reported.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main	• Follow up work will involve further drilling for gold, re-assaying sample pulps for the total REE suite of elements and reviewing the chip trays

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	geological interpretations and future drilling areas, provided this information is not commercially sensitive.	to determine the potential for IAC-REE deposit formation. • Future AC drilling to increase the sample density across the project tenure is planned.