

# RARE EARTH ELEMENTS VERIFIED WITH MAIDEN DIAMOND DRILL HOLE WITHIN CHILWA CARBONATITE SYSTEM

## KEY POINTS

- Assay results received for the first hole at the Mposa geophysics REE anomaly indicate elevated (to 1,039ppm) TREO values in clay and sediments and saprolite to depths of up to 80m.
- ICP-MS results for Lanthanum and Cerium indicate that monazite, which has also been identified in the Company's adjacent Mposa Heavy Mineral Sands deposit, is present as a rare earth element (REE) bearing mineral.
- Initial drilling at the Mposa (Target #1) anomaly are completed and sampling of a further 5 drill holes is ongoing, with breccia<sup>1</sup> identified in hole MPODD004 from 188m to 190m
- Results from the initial drillhole at Mposa is being compiled to improve overall understanding of relationship between mineral sands and REE targets on the license.
- Drilling has now moved to the 2nd of 47 anomalous targets, Mpyupyu, (Target #2) an outcrop target, with fenitisation and brecciation identified at intervals near surface as well as pervasive sulphide (pyrite, chalcopyrite) alteration.

## OVERVIEW

Chilwa Minerals Limited (ASX: CHW) ("Chilwa" or "the "Company") announces the receipt of ICP-MS assay results from diamond drilling conducted on the first of 47 geophysical anomalies identified during the airborne radiometric and magnetic survey completed in the latter half of 2024. The anomalies, considered potential REE mineralisation targets, were characterised by Thorium, Potassium, magnetic signatures, and zoned intrusive bodies. These targets have undergone ground verification through mapping, soil geochemistry, and rock-chip sampling, with subsequent diamond drilling undertaken for further evaluation.

<sup>1</sup> Breccias are formed by the explosive ascent of carbonatitic magma, which fractures the surrounding rocks and incorporates them into the magma flow, often in diatremes or pipes. The matrix material is also often carbonatitic, with the breccia itself representing a later stage of magmatic activity in a carbonatite complex.



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A total of 1,008m was drilled at 6 drill holes on the Mposa geophysics anomaly, with drilling moving to the Mpyupyu area in the first week of August. This announcement details the Mposa results and the first of the holes at Mpyupyu, with selective sampling and assaying to proceed for the remaining holes.

Analysis was carried out on the entire drill column, including up to 80m of sediment, clay and saprolite above the consolidated bedrock. TREO values are elevated through the entire 80m thick horizon indicating the scale of the REE potential within the Lake Chilwa Basin catchment.

Detrital sediments from metamorphosed country rocks and the later Chilwa Alkaline Province rocks (host rocks to numerous REE deposits including Kangankunde, Songwe Hill, and Tundulu) have infilled the Lake Chilwa Basin over millennia, creating a substantial deposit of lacustrine clays surrounding the lake, as well as the heavy mineral sands deposits being developed by Chilwa on Lake Chilwa's western shoreline. With no previous diamond drilling in the immediate vicinity, the Company has assayed the entire stratigraphy, acquiring information on the provenance of sediment deposited in the basin as well as overall understanding of the relationship between the Company's mineral sands deposits and potential rare earth targets around the lake. A saprolite interval, interpreted from 35m to 82m also carries elevated TREO grades, relative to underlying bedrock.

Although the TREO grades in the sediments and cover may warrant further investigation as an ionic-adsorption clay hosted REE deposit, the Company does not plan to conduct leach testing at this time. Instead, the focus remains on identifying Carbonatite-hosted or associated REE deposits, similar to neighbouring projects like Kangankunde (Lindian Resources ASX:LIN).

The initial drilling program for the Mposa anomaly overall has now been completed with a developed brecciation observed at multiple intervals including as below on hole MPODD004 at 188m (**Figure 5**).

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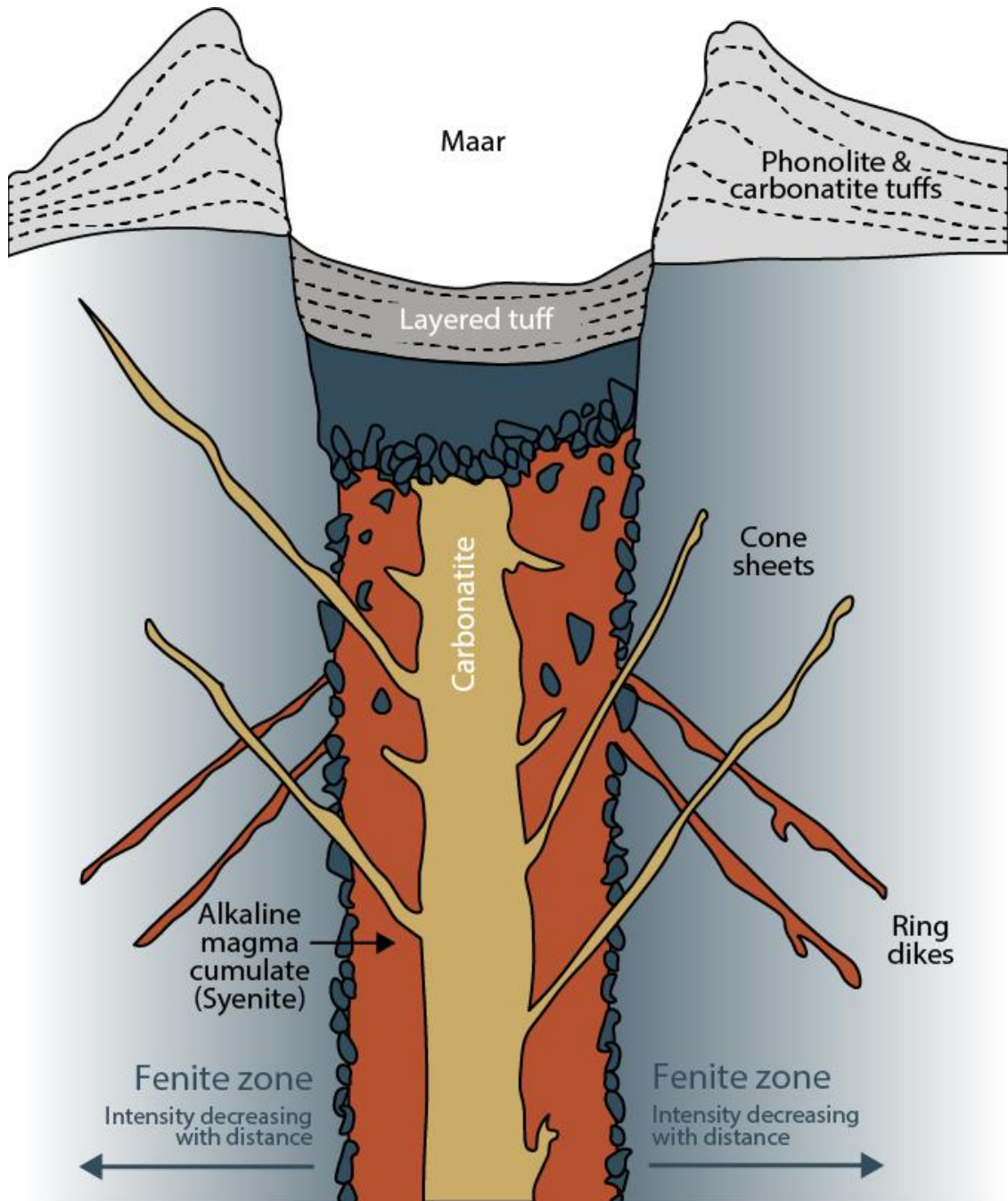


Figure 1 Geological cross section showing carbonatite intrusion, cone sheets, ring dykes and breccia layers. (Credit: graphic adapted from a model for Carbonatite deposits: <https://geologyscience.com/geology-branches/magmatic-deposits/>)



**Figure 2: Breccia occurring at 188m(downhole) at Drill hole MPOD004.**

Drilling on the Mpyupyu anomaly is ongoing with evidence of brecciation and fenitisation at shallower depths and indications of a carbonatite system including increased calcite, brecciation, fenitisation (pottasic alteration) and deposition of sulphides pyrite and chalcopryite.



**Figure 3: MPYD001 Sulphide alteration/ mineralisation in NQ core at a depth of 85m.**

**Chilwa Minerals' Managing Director, Cadell Buss, commented:**

*"This update represents yet another significant step for the company - and perhaps the most exciting to date.*

*Since receiving the results of the airborne radiometric survey in 2024, we have been confident that we have identified a substantial critical minerals asset.*

*The importance of our recent HMS announcement<sup>2</sup>, which relates to a 'rare earth mineral concentrate as a potential by-product' of the HMS assemblage, has provided the company increased confidence regarding the presence of additional Rare Earth Elements. These results further substantiate our geological analysis.*

*We have now established a systematic exploration drilling process with core logging and sample prep at our dedicated facility in Zalewa and have a clear path ahead with a further 46 geophysics anomalies still to test.*

*The final soil sample results of all 47 targets (30 have been reported and 17 are pending) and once received, will enable us to rank targets by relative prospectivity and guide subsequent future exploration drilling.*

*We are also impressed by results to date at the second target (Mpyupyu) tested with notable fenitisation of rocks, a clear carbonatite signal in rocks near surface, as well as a barite dyke and chalcopyrite mineralisation both indicative of late stage sulphide enriched fluids in a carbonatite related hydrothermal system, and we eagerly await the assay results of this first hole. These results are expected within the coming weeks. "*

## **RARE EARTH PROGRAM BACKGROUND**

Chilwa Minerals commenced diamond drilling in early 2025 on its Critical Minerals project, located at the western and northern shores of Lake Chilwa in Southern Malawi, after initial geophysical survey interpretations identified magnetic and radiometric anomalies potentially linked with REE carbonatite mineralisation. The Company has established a dual exploration strategy, with dedicated teams working within the REE and Heavy Mineral Sands programs.

Geochemical analysis of the results reported here confirms that mineralisation is LREE-dominant (weighted towards  $\text{La}_2\text{O}_3$ ,  $\text{CeO}_2$ , and  $\text{Nd}_2\text{O}_3$ ), consistent with many carbonatite-associated REE systems globally, where LREE (Light Rare Earth Elements) enrichment is typical. Importantly, the results also demonstrate consistent levels of HREE (Heavy Rare Earth Elements) such as Dy, Er, and Y, which remain strategically significant for application in clean energy and advanced technologies. Results from ionic leaching of soil samples<sup>3</sup> indicate HREE enrichment at surface, akin to neighbouring projects in the area, including Lake Chilwa, Kangankunde and Songwe carbonatites, all atypical with respect to their elevated Heavy REE content.

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<sup>2</sup> ASX announcement 28th July 2025.

<sup>3</sup> ASX announcement 9 May 2025

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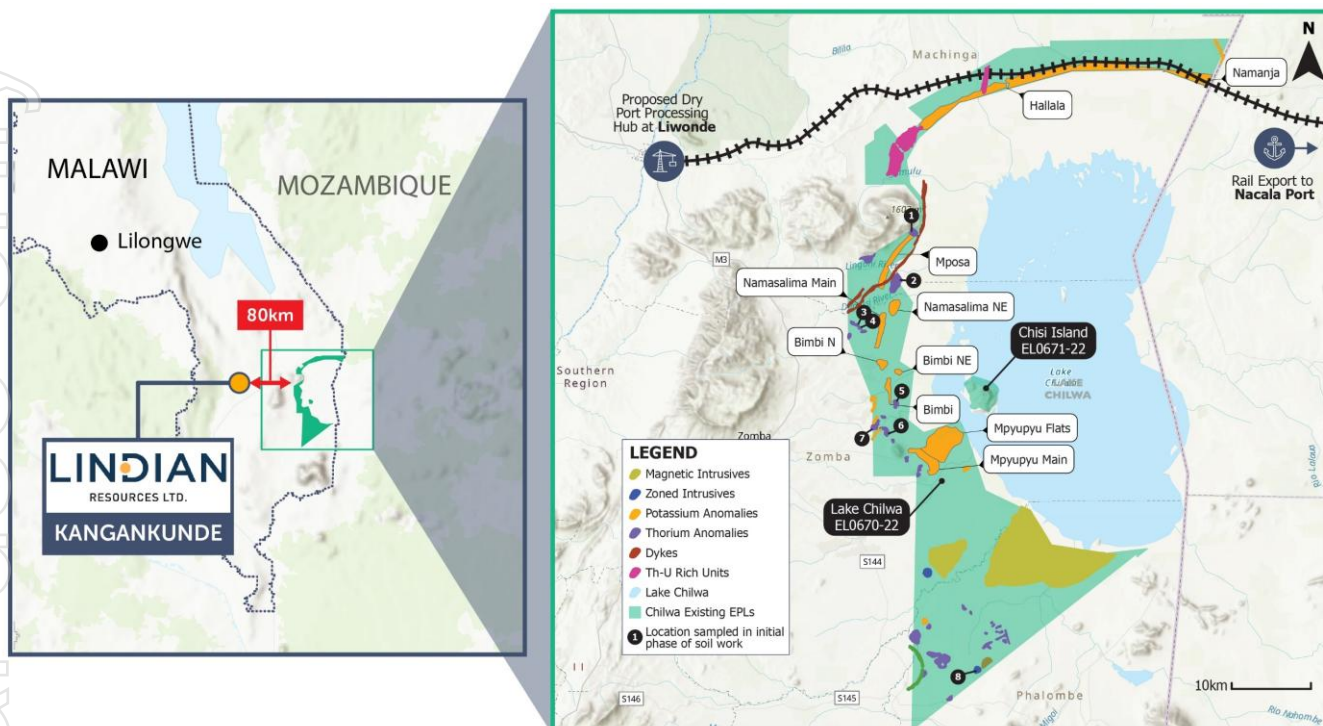


Figure 4: Map showing 47 carbonatite deposits within the Chilwa licence area and proximity to Lindian Resources Kangankunde Project.

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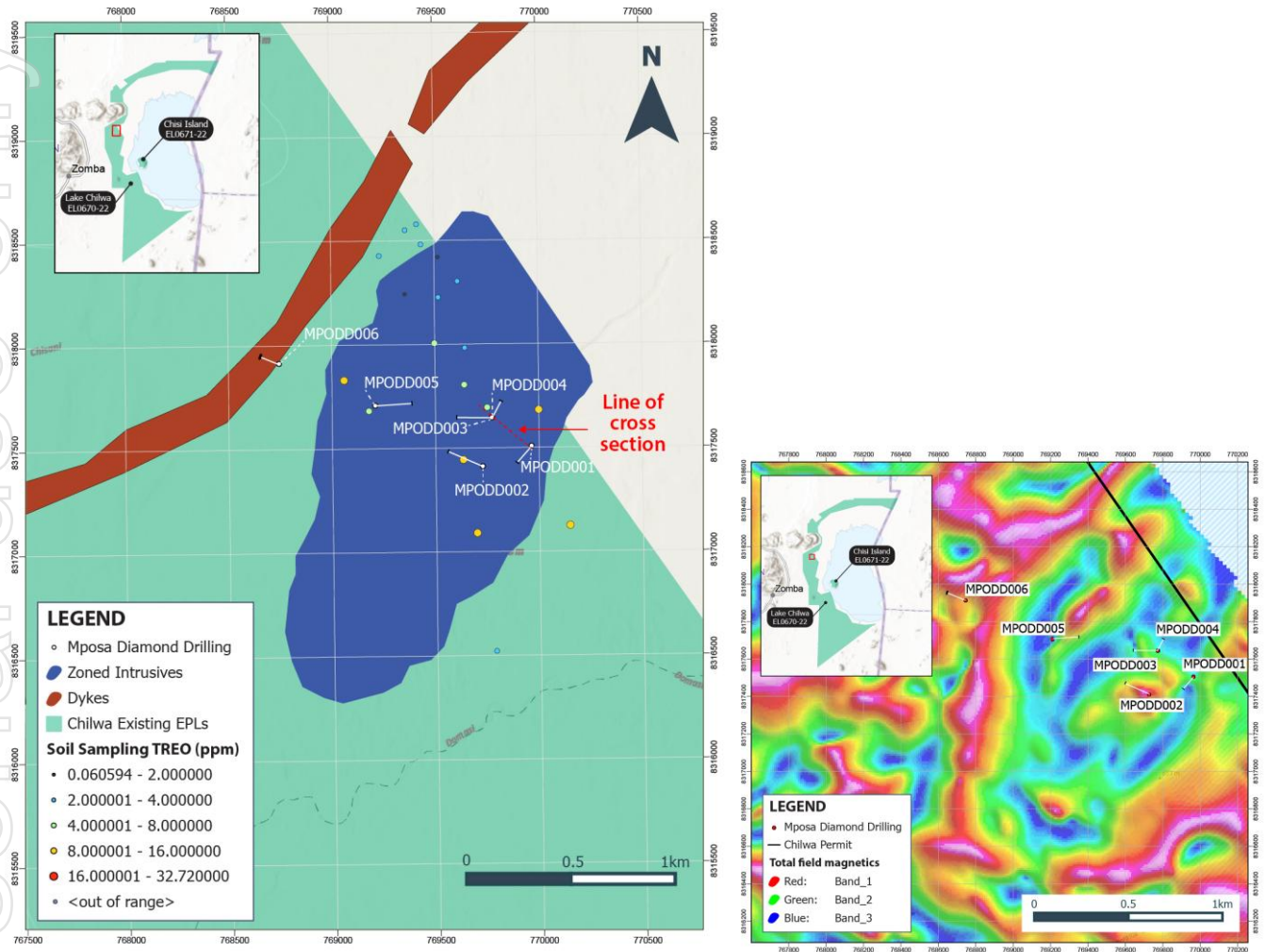


Figure 5: Diamond drilling locations at the Mposa anomaly with ionic leach soil sampling results (see announcement dated 09 May 2025). Right image shows drill holes against Total Field Magnetics background.

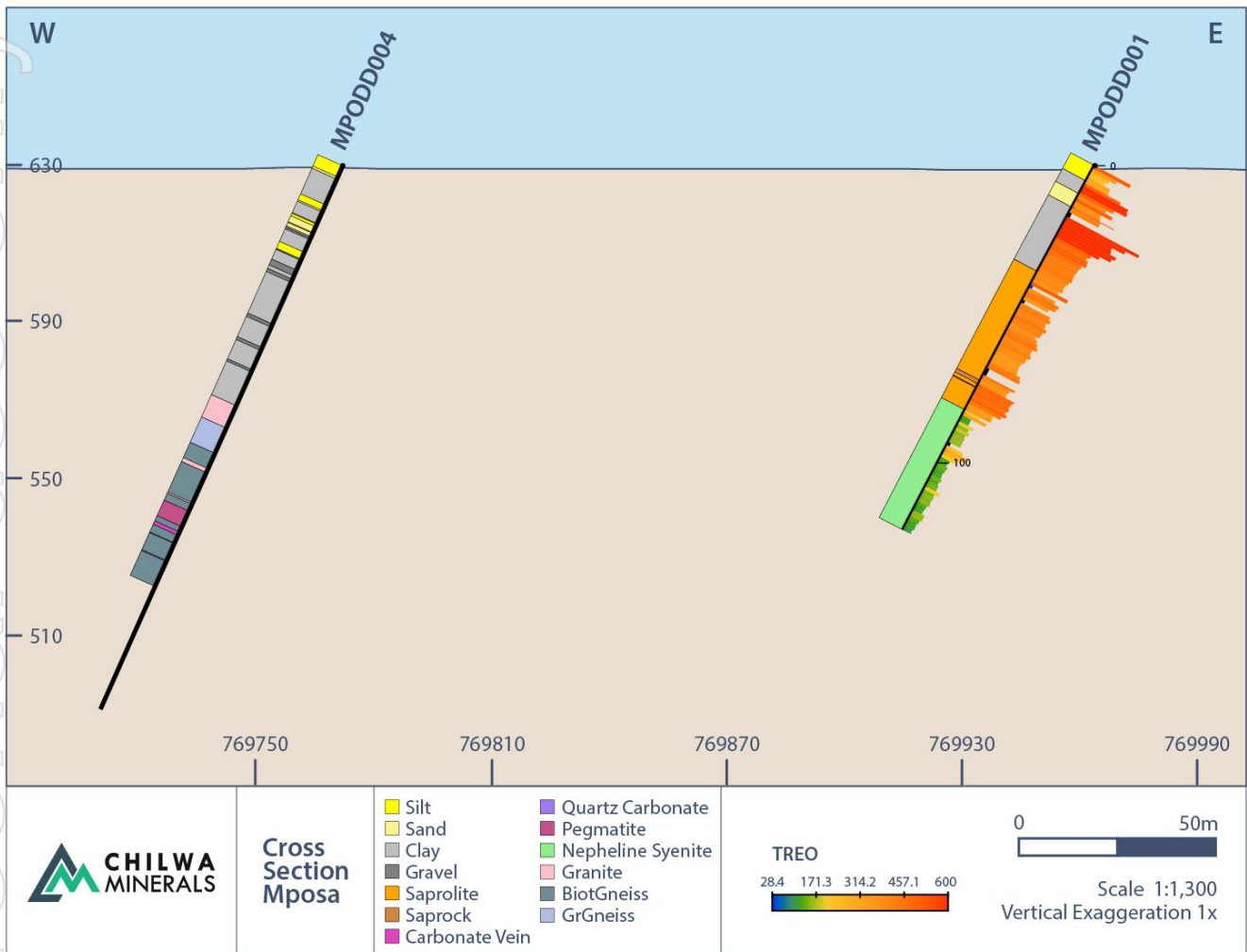


Figure 6: Down hole stratigraphic log and TREO content

### MPYUPYU ANOMALY (Target #2)

Diamond drilling has now progressed to the Mpyupyu area, approximately 2km from the Company’s Mineral sands deposits in that area (see MRE update announcement dated 30 June 2025). A Riebeckite-Aegerine-Syenite dyke outcrops at that location and was first studied by Garson 1960 and found to bear radioactive pyrochlore (a primary source of niobium and tantalum).

Chilwa’s geophysics program identified the area as Thorium anomalous, with follow up ionic leach soil results complimenting the geophysics interpretation (Figure 5)

Drilling is currently underway at the first of up to 9 holes planned for the Mpyupyu anomaly with drilling proceeding from an outcrop with no substantial cover. Fenitisation and brecciation of rocks is interpreted from surface.

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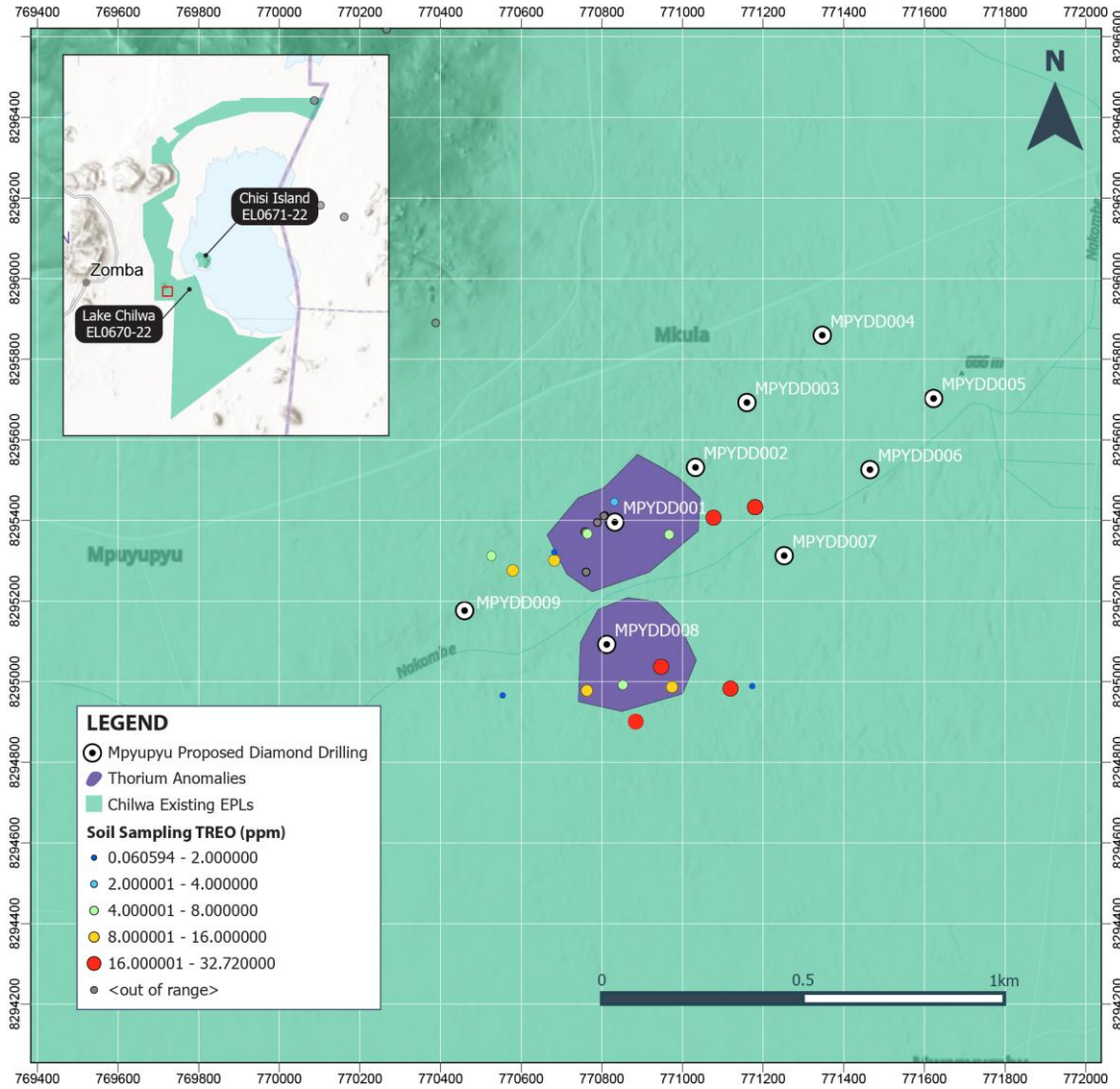


Figure 7 Diamond drilling locations at the Mpyupyu target with ionic leach soil sampling results ( see announcement 9 May 2025)



Figure 8: Drilling ongoing at the Mpyupyu anomaly, MPYDD001



Figure 9 ; Mpyupyu anolmaly drillhole MPYDD001- (Left) Potassic alteration (finitisation) and brecciation of wall rock adjacent intrusive system, Right- Barite rich dyke or stringer at 57 to 58 m down hole indicating increased sulphide activity

## **FURTHER WORK PROGRAMME**

- Final geochemistry results for the last 17 geophysical anomalies are expected in the coming weeks, completing the full geochemistry analysis for all 47 anomalies. Once received, the company can prioritise further drilling targets.
- Drilling of an initial 9 diamond holes to continue at the Mpyupyu anomaly and revised as new information, structural, chemical and lithological is received.
- Commence process of a second diamond drill rig program to increase capacity
- Sample prep and assay to continue with either complete or selective sampling as appropriate.

**-ENDS-**

This Announcement has been authorised by the Managing Director.

For further information contact:

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Founder and Managing Director

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## **Compliance Statement**

The information in this announcement that relates to Mineral Resource estimates were prepared and first disclosed under JORC Code 2012. The information was extracted from the Company's previous ASX announcement "MINERAL RESOURCE INCREASES 85% TO 110MT GRADING 4.03% THM, AND 71% INDICATED CATEGORY. FURTHER RESOURCE UPGRADES PENDING" 30 June 2025.

The announcement is available to view on the Company's website <https://www.chilwaminerals.com.au/>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcements, and, in the case of reporting of Ore Reserves and Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which any Competent Person's findings are presented have not been materially modified from the original market announcement.

## Competent Person Statement

The information in this report that relates to the REE soil and rock-chip sampling exploration results is based on, and fairly represents, information and supporting documentation prepared by Mr Russell Birrell who is a Member of the Australian Institute of Geoscientists and a Fellow of the Association of applied Geochemists. Mr Birrell is an employee of Globex Solutions Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Birrell confirms there is no potential for a conflict of interest in acting as a Competent Person and has provided his prior written consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## ABOUT CHILWA MINERALS

Chilwa Minerals Limited (ASX:CHW) is exploring the Lake Chilwa mineral system in southern Malawi.

The Lake Chilwa Critical Minerals Project hosts significant mineral sands mineralisation, with sonic drilling underway to expand and increase the quality of the existing mineral resources.

Since listing, drilling at Mposa has intersected thicker sequences with higher grades, with a high-quality assemblage of value minerals.

Rare earth mineralisation has also been identified within the clay profile, with a dedicated team recruited to assess the REE potential of the Project, which is located in an area of well-known carbonatite-hosted REE mineralisation.

## References

1: M.S. Garson 1960 -The Geology of the Lake Chilwa Area, Bulletin number 12, Nyasaland protectorate, Geological Survey Department





APPENDIX 1

Table 1: ICP-MS results, Mposa anomaly hole MPODD001 (0 to 122.7m)

Hole number	Sample ID	From	To	Sample Type	Dy	Dy <sub>2</sub> O <sub>3</sub>	Er	Er <sub>2</sub> O <sub>3</sub>	Eu	Eu <sub>2</sub> O <sub>3</sub>	Gd	Gd <sub>2</sub> O <sub>3</sub>	Ho	Ho <sub>2</sub> O <sub>3</sub>	Lu	Lu <sub>2</sub> O <sub>3</sub>	Pr	Pr <sub>2</sub> O <sub>3</sub>	Sc	Sc <sub>2</sub> O <sub>3</sub>	Sm	Sm <sub>2</sub> O <sub>3</sub>	Tb	Tb <sub>2</sub> O <sub>3</sub>	Th	Tm	Tm <sub>2</sub> O <sub>3</sub>	U	Y	Y <sub>2</sub> O <sub>3</sub>	Yb	Yb <sub>2</sub> O <sub>3</sub>	Ce	CeO <sub>2</sub>	La	La <sub>2</sub> O <sub>3</sub>	Nd	Nd <sub>2</sub> O <sub>3</sub>	TRE O
					ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MPODD001	MPO90001	0.0	1.0	Drill core	9.4	10.8	4.8	5.5	2.4	2.8	8.6	9.9	2.1	2.4	0.9	1.0	20.1	24.3	11.7	17.9	12.2	14.2	1.5	1.7	14.5	0.9	1.0	3.4	55.8	70.9	5.7	6.5	134.7	165.5	77.6	91.0	80.4	93.7	519.1
MPODD001	MPO90002	1.0	2.0	Drill core	6.1	6.9	3.4	3.9	1.7	1.9	5.4	6.2	1.4	1.6	0.6	0.7	13.5	16.3	8.9	13.7	7.7	9.0	0.9	1.1	15.7	0.6	0.7	3.2	38.2	48.5	4.2	4.8	82.8	101.7	53.6	62.9	52.1	60.8	340.9
MPODD001	MPO90003	2.0	3.0	Drill core	4.4	5.1	2.7	3.0	1.3	1.5	3.7	4.2	1.0	1.2	0.6	0.7	9.4	11.4	7.0	10.8	5.4	6.3	0.6	0.7	13.7	0.5	0.6	3.1	28.6	36.3	3.6	4.1	66.5	81.7	37.7	44.2	36.8	42.9	254.6
MPODD001	MPO90004	3.0	4.0	Drill core	3.8	4.4	2.3	2.7	1.2	1.4	3.3	3.8	0.9	1.1	0.5	0.6	8.5	10.3	7.4	11.4	4.8	5.6	0.6	0.7	11.4	0.5	0.5	2.2	25.4	32.3	3.2	3.7	54.1	66.4	33.8	39.6	33.2	38.7	223.1
MPODD001	MPO90005	4.0	5.2	Drill core	5.5	6.3	3.0	3.5	2.0	2.3	4.9	5.7	1.3	1.4	0.6	0.7	12.1	14.6	8.9	13.7	7.1	8.3	0.8	1.0	11.5	0.6	0.7	2.4	34.3	43.6	3.9	4.4	78.5	96.5	47.1	55.2	47.6	55.5	313.2
MPODD001	MPO90006	5.2	6.0	Drill core	5.8	6.7	3.3	3.7	2.1	2.4	5.0	5.8	1.4	1.6	0.6	0.7	12.3	14.9	5.9	9.0	7.3	8.5	0.9	1.0	12.7	0.6	0.7	2.7	36.4	46.2	4.2	4.8	82.2	100.9	48.6	57.0	48.2	56.2	320.1
MPODD001	MPO90007	6.0	6.8	Drill core	8.7	9.9	4.4	5.0	3.1	3.6	8.3	9.5	1.9	2.2	0.7	0.9	20.1	24.3	13.2	20.2	11.8	13.7	1.3	1.6	14.8	0.8	0.9	3.1	51.8	65.7	5.0	5.7	131.6	161.7	80.1	94.0	80.4	93.8	512.7
MPODD001	MPO90008	6.8	8.0	Drill core	10.1	11.6	4.7	5.4	4.0	4.6	10.3	11.8	2.1	2.5	0.8	0.9	25.8	31.2	18.8	28.9	14.9	17.3	1.6	1.9	18.6	0.8	1.0	3.9	56.0	71.2	5.3	6.1	166.8	204.9	103.9	121.8	101.7	118.6	639.6
MPODD001	MPO90009	8.0	9.0	Drill core	10.4	12.0	4.9	5.6	4.0	4.6	10.5	12.1	2.2	2.5	0.8	0.9	26.7	32.2	19.2	29.4	15.5	17.9	1.7	1.9	18.6	0.9	1.0	4.5	57.7	73.2	5.5	6.2	171.8	211.0	104.2	122.1	105.5	123.1	656.0
MPODD001	MPO90010	9.0	10.0	Drill core	7.6	8.8	3.9	4.5	2.8	3.3	7.5	8.7	1.7	1.9	0.8	0.9	19.5	23.6	11.3	17.3	11.2	13.0	1.2	1.4	19.6	0.7	0.8	4.3	45.8	58.2	4.8	5.5	131.0	160.9	77.1	90.5	76.5	89.2	488.5
MPODD001	MPO90011	10.0	11.0	Drill core	6.2	7.2	3.5	4.0	2.1	2.4	6.1	7.0	1.4	1.6	0.7	0.8	16.1	19.4	7.9	12.2	9.0	10.4	1.0	1.1	23.4	0.7	0.8	4.0	38.3	48.6	4.6	5.3	108.1	132.7	63.1	74.0	63.4	74.0	401.7
MPODD001	MPO90012	11.0	12.0	Drill core	7.7	8.8	4.1	4.7	2.5	2.9	7.7	8.9	1.7	1.9	0.8	0.9	20.6	24.8	12.2	18.7	8.8	13.6	1.2	1.4	21.5	0.8	0.9	4.5	45.4	57.6	5.2	6.0	140.1	172.1	79.0	92.7	81.6	95.2	511.2
MPODD001	MPO90013	12.0	13.0	Drill core	5.7	6.5	3.2	3.7	1.9	2.2	5.6	6.5	1.3	1.5	0.7	0.8	14.6	17.7	7.6	11.7	8.4	9.7	0.9	1.0	21.3	0.6	0.7	3.8	35.1	44.6	4.3	4.9	100.4	123.4	56.5	66.3	57.5	67.1	368.3
MPODD001	MPO90014	13.0	13.9	Drill core	6.5	7.4	3.9	4.4	1.9	2.2	5.7	6.6	1.5	1.8	0.8	1.0	14.7	17.7	8.5	13.1	8.3	9.7	0.9	1.1	23.5	0.8	0.9	4.5	42.0	53.3	5.4	6.2	103.5	127.2	56.9	66.7	57.4	66.9	386.1
MPODD001	MPO90015	13.9	14.1	Drill core	9.6	11.1	4.9	5.6	3.5	4.0	9.2	10.6	2.1	2.4	0.9	1.0	23.8	28.8	13.9	21.3	13.8	16.0	1.5	1.8	23.2	0.9	1.0	5.0	54.4	69.1	5.8	6.6	163.7	201.1	92.8	108.8	93.1	108.5	597.8
MPODD001	MPO90016	14.1	15.6	Drill core	7.7	8.8	5.0	5.8	1.6	1.8	6.1	7.0	1.9	2.2	1.1	1.2	14.8	17.9	6.6	10.1	8.5	9.8	1.1	1.3	23.9	1.0	1.2	4.4	54.0	68.6	6.9	7.9	105.0	128.9	60.0	70.4	57.5	67.1	409.9
MPODD001	MPO90017	17.1	18.0	Drill core	18.3	21.0	9.9	11.1	4.3	5.0	16.6	19.2	4.2	4.8	1.7	1.9	32.0	38.6	12.6	19.3	19.5	22.6	2.7	3.2	18.2	1.8	2.0	4.2	123.5	156.9	11.0	12.5	330.2	405.6	136.4	159.9	132.9	155.1	1038.7
MPODD001	MPO90018	18.0	19.0	Drill core	13.4	15.4	6.5	7.5	4.0	4.6	13.2	15.2	2.8	3.2	1.2	1.4	38.5	46.5	12.8	19.7	21.4	24.8	2.1	2.5	24.6	1.2	1.4	5.4	69.0	87.6	8.0	9.1	234.5	288.0	136.5	160.1	148.4	173.1	860.1
MPODD001	MPO90019	19.0	20.0	Drill core	10.2	11.8	5.1	5.9	3.2	3.7	10.7	12.3	2.1	2.4	1.0	1.1	31.7	38.2	11.7	17.9	17.3	20.1	1.6	1.9	20.0	1.0	1.1	4.0	54.4	69.0	6.4	7.3	168.8	207.3	131.7	154.4	116.4	135.7	690.4
MPODD001	MPO90021	20.0	21.0	Drill core	10.9	12.5	6.0	6.9	3.0	3.5	11.0	12.7	2.4	2.7	1.3	1.4	28.5	34.4	10.6	16.3	16.2	18.8	1.7	2.0	25.7	1.2	1.4	5.0	64.4	81.7	7.9	9.0	198.2	243.4	110.3	129.3	108.7	126.8	702.9
MPODD001	MPO90022	21.0	22.0	Drill core	12.2	14.0	6.4	7.3	3.7	4.3	12.2	14.1	2.7	3.1	1.2	1.3	29.0	35.0	13.4	20.6	16.6	19.3	1.9	2.2	20.1	1.2	1.4	3.8	70.8	89.9	7.5	8.6	252.9	310.7	114.7	134.5	111.5	130.1	796.3
MPODD001	MPO90023	22.0	23.0	Drill core	10.8	12.4	5.6	6.4	3.5	4.1	11.4	13.1	2.4	2.7	1.1	1.2	27.0	32.6	12.4	19.1	15.9	18.4	1.7	2.0	19.4	1.0	1.2	3.9	63.0	80.1	6.7	7.7	244.5	300.3	108.7	127.5	107.2	125.1	754.0
MPODD001	MPO90024	23.0	24.0	Drill core	9.9	11.3	5.2	5.9	3.2	3.8	10.0	11.5	2.1	2.5	1.0	1.1	23.6	28.5	14.0	21.5	13.7	15.9	1.5	1.8	18.3	1.0	1.1	3.6	60.6	76.9	6.0	6.8	159.5	196.0	96.1	112.7	92.0	107.3	604.6
MPODD001	MPO90026	24.0	25.0	Drill core	8.0	9.1	4.1	4.7	2.6	3.0	7.9	9.1	1.8	2.0	0.7	0.8	18.2	22.0	13.2	20.3	10.7	12.4	1.2	1.4	12.8	0.8	0.9	2.7	50.9	64.6	4.7	5.3	147.7	181.4	77.1	90.5	65.1	75.9	503.5
MPODD001	MPO90027	25.0	26.0	Drill core	8.2	9.4	4.3	4.9	2.5	2.9	7.9	9.1	1.8	2.1	0.8	0.9	17.9	21.6	12.5	19.2	10.6	12.3	1.3	1.5	13.5	0.8	0.9	2.8	52.5	66.6	5.0	5.7	122.1	150.0	75.2	88.2	64.0	74.6	469.9
MPODD001	MPO90028	26.0	27.0	Drill core	8.0	9.2	4.2	4.9	2.4	2.8	7.9	9.1	1.8	2.1	0.7	0.9	18.1	21.8	11.8	18.0	10.8	12.5	1.2	1.4	13.9	0.8	0.9	2.9	51.2	65.0	4.9	5.6	149.6	183.8	74.6	87.5	64.7	75.5	501.0

RARE EARTH ELEMENTS VERIFIED WITH MAIDEN DIAMOND DRILL HOLE WITHIN CHILWA CARBONATITE SYSTEM



Hole number	Sample ID	From	To	Sample Type	Dy ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Er ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Lu ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Pr ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Sc ppm	Sc <sub>2</sub> O <sub>3</sub> ppm	Sm ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tb ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Th ppm	Tm ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	U ppm	Y ppm	Y <sub>2</sub> O <sub>3</sub> ppm	Yb ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Ce ppm	Ce <sub>2</sub> O <sub>3</sub> ppm	La ppm	La <sub>2</sub> O <sub>3</sub> ppm	Nd ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	TRE O ppm
MPODD001	MPO90029	27.0	28.0	Drill core	8.1	9.3	4.3	4.9	2.5	2.9	8.0	9.2	1.8	2.1	0.8	0.9	18.4	22.3	11.8	18.1	10.9	12.7	1.2	1.5	14.3	0.8	0.9	2.8	52.5	66.7	4.9	5.6	150.8	185.3	78.5	92.1	65.7	76.7	510.9
MPODD001	MPO90030	28.0	29.0	Drill core	7.4	8.5	3.9	4.5	2.4	2.8	7.2	8.3	1.7	1.9	0.7	0.8	16.8	20.3	12.8	19.6	9.9	11.4	1.1	1.3	13.9	0.7	0.9	2.6	49.1	62.4	4.5	5.1	131.2	161.1	69.6	81.7	60.0	69.9	460.7
MPODD001	MPO90031	29.0	30.0	Drill core	7.1	8.2	3.7	4.3	2.3	2.7	6.9	7.9	1.6	1.8	0.7	0.8	16.0	19.4	12.0	18.4	9.4	10.9	1.1	1.3	12.8	0.7	0.8	2.5	47.1	59.8	4.4	5.0	130.6	160.4	66.5	78.0	56.9	66.4	446.1
MPODD001	MPO90032	30.0	31.0	Drill core	6.8	7.8	3.7	4.2	2.1	2.5	6.6	7.6	1.5	1.8	0.7	0.8	15.6	18.9	11.5	17.6	9.1	10.5	1.0	1.2	13.0	0.7	0.8	2.5	44.6	56.6	4.3	4.9	135.2	166.1	63.6	74.6	54.9	64.1	440.0
MPODD001	MPO90033	31.0	32.0	Drill core	6.9	8.0	3.8	4.3	2.0	2.4	6.8	7.9	1.6	1.8	0.7	0.8	16.2	19.5	10.1	15.5	9.5	11.0	1.1	1.3	13.9	0.7	0.8	2.6	45.3	57.5	4.4	5.1	119.8	147.1	67.1	78.7	57.4	67.0	428.4
MPODD001	MPO90034	32.0	33.0	Drill core	6.7	7.7	3.8	4.3	2.0	2.3	6.5	7.4	1.5	1.8	0.7	0.8	14.6	17.7	10.9	16.8	8.8	10.3	1.0	1.2	12.5	0.7	0.8	2.6	44.2	56.1	4.5	5.1	139.1	170.9	59.4	69.7	52.7	61.5	434.4
MPODD001	MPO90035	33.0	34.0	Drill core	7.4	8.5	3.9	4.5	2.0	2.3	6.8	7.9	1.7	1.9	0.7	0.8	16.4	19.8	12.6	19.3	9.6	11.1	1.1	1.3	14.1	0.8	0.9	2.6	47.2	60.0	4.7	5.4	122.4	150.4	68.2	80.0	57.5	67.1	441.2
MPODD001	MPO90036	34.0	35.0	Drill core	6.6	7.6	3.6	4.1	1.9	2.3	6.4	7.4	1.5	1.7	0.7	0.8	15.6	18.9	11.2	17.2	9.1	10.6	1.0	1.2	15.2	0.7	0.8	2.6	41.1	52.2	4.3	4.9	120.2	147.7	65.2	76.4	55.1	64.3	418.0
MPODD001	MPO90037	35.0	36.0	Drill core	6.8	7.8	3.8	4.4	1.9	2.2	6.0	6.9	1.6	1.8	0.7	0.8	14.2	17.2	12.1	18.6	8.4	9.8	1.0	1.2	14.1	0.7	0.8	2.6	44.2	56.1	4.6	5.2	111.2	136.6	58.4	68.5	49.8	58.0	395.9
MPODD001	MPO90038	36.0	37.0	Drill core	6.6	7.6	4.0	4.6	1.6	1.9	5.7	6.5	1.6	1.8	0.8	0.9	14.0	16.9	7.6	11.7	8.1	9.4	0.9	1.1	20.6	0.8	1.0	3.3	44.3	56.2	5.3	6.0	113.0	138.8	56.9	66.8	49.0	57.2	388.4
MPODD001	MPO90039	37.0	38.0	Drill core	7.7	8.8	5.1	5.8	1.5	1.7	5.7	6.6	1.9	2.2	1.0	1.1	13.7	16.6	7.4	11.3	7.7	8.9	1.0	1.2	19.7	1.0	1.2	3.3	52.4	66.5	6.6	7.5	110.2	135.3	56.5	66.2	47.7	55.6	396.6
MPODD001	MPO90041	38.0	39.0	Drill core	6.9	7.9	4.5	5.1	1.5	1.8	5.4	6.2	1.7	2.0	0.9	1.0	12.6	15.2	7.0	10.7	7.3	8.4	1.0	1.1	17.7	0.9	1.0	3.1	47.0	59.7	5.8	6.6	93.9	115.4	52.8	61.9	44.1	51.4	355.6
MPODD001	MPO90042	39.0	40.0	Drill core	8.3	9.5	4.3	4.9	2.3	2.7	8.1	9.3	1.8	2.1	0.8	0.9	20.2	24.4	9.4	14.4	11.8	13.7	1.3	1.5	16.2	0.8	0.9	2.9	48.6	61.7	5.0	5.7	145.5	178.7	81.6	95.7	70.8	82.6	508.7
MPODD001	MPO90043	40.0	41.0	Drill core	0.4	0.4	0.2	0.2	0.1	0.1	0.4	0.4	0.1	0.1	0.0	0.0	1.1	1.3	1.2	1.8	0.6	0.7	0.1	0.1	2.3	0.0	0.0	0.7	2.4	3.0	0.3	0.3	8.0	9.9	4.6	5.4	3.8	4.5	28.4
MPODD001	MPO90044	41.0	42.0	Drill core	6.4	7.4	3.8	4.4	1.6	1.9	5.5	6.3	1.5	1.7	0.8	0.9	13.9	16.8	7.3	11.1	7.7	9.0	0.9	1.1	15.9	0.8	0.9	3.1	40.8	51.8	4.9	5.6	104.9	128.9	59.5	69.7	47.9	55.9	373.2
MPODD001	MPO90046	42.0	43.0	Drill core	6.7	7.7	3.7	4.2	2.2	2.5	6.6	7.6	1.5	1.7	0.7	0.8	15.1	18.3	6.5	10.0	9.4	10.9	1.0	1.2	13.0	0.7	0.8	2.7	40.9	52.0	4.5	5.2	154.6	189.9	59.5	69.8	54.0	63.0	445.6
MPODD001	MPO90047	43.0	44.0	Drill core	7.3	8.4	4.0	4.6	2.2	2.5	6.8	7.8	1.7	1.9	0.7	0.8	15.1	18.3	7.1	10.9	9.2	10.7	1.1	1.3	12.1	0.8	0.9	2.5	46.6	59.2	4.7	5.4	131.5	161.6	61.4	72.0	54.0	63.0	429.2
MPODD001	MPO90048	44.0	45.0	Drill core	5.9	6.7	3.1	3.6	1.8	2.1	5.7	6.5	1.3	1.5	0.6	0.7	13.8	16.7	9.4	14.5	8.1	9.4	0.9	1.0	11.7	0.6	0.7	2.1	37.3	47.4	3.8	4.4	90.6	111.3	56.9	66.8	49.0	57.2	350.5
MPODD001	MPO90049	45.0	46.0	Drill core	5.9	6.8	3.1	3.5	1.9	2.2	5.9	6.8	1.3	1.5	0.6	0.7	14.6	17.6	8.1	12.4	8.4	9.8	0.9	1.1	13.8	0.6	0.7	2.3	36.9	46.8	3.8	4.3	106.6	130.9	60.8	71.2	52.1	60.7	377.3
MPODD001	MPO90050	45.0	46.0	Drill core	6.1	7.0	3.4	3.9	2.0	2.3	6.0	6.9	1.4	1.6	0.6	0.7	14.8	17.8	8.3	12.8	8.5	9.9	1.0	1.1	13.4	0.6	0.7	2.5	38.2	48.5	4.1	4.7	104.4	128.3	60.1	70.5	51.9	60.5	377.2
MPODD001	MPO90051	46.0	47.0	Drill core	6.5	7.4	3.4	3.9	2.2	2.5	6.3	7.3	1.4	1.6	0.6	0.7	14.9	18.0	8.0	12.3	8.8	10.2	1.0	1.2	13.6	0.6	0.7	2.3	39.2	49.8	4.0	4.6	127.5	156.6	60.7	71.1	53.2	62.1	410.1
MPODD001	MPO90052	47.0	48.0	Drill core	6.6	7.6	3.4	3.9	2.3	2.6	6.7	7.7	1.5	1.7	0.6	0.7	16.4	19.8	11.9	18.3	9.6	11.1	1.0	1.2	19.5	0.7	0.8	2.5	39.3	49.9	4.0	4.6	131.9	162.1	66.2	77.6	58.2	67.9	437.6
MPODD001	MPO90053	48.0	49.0	Drill core	6.6	7.6	3.6	4.1	2.3	2.7	6.3	7.3	1.5	1.7	0.7	0.8	14.8	17.9	9.3	14.3	8.8	10.2	1.0	1.2	13.6	0.7	0.8	2.8	40.3	51.2	4.5	5.1	118.4	145.5	58.6	68.8	52.6	61.3	400.5
MPODD001	MPO90054	49.0	50.0	Drill core	6.7	7.7	3.6	4.1	2.3	2.7	6.5	7.5	1.5	1.7	0.7	0.8	15.4	18.6	7.5	11.4	9.1	10.6	1.1	1.2	14.7	0.7	0.8	2.7	39.9	50.7	4.2	4.7	123.4	151.6	61.7	72.4	54.9	64.0	410.5
MPODD001	MPO90055	50.0	51.0	Drill core	7.1	8.1	3.7	4.2	2.5	2.9	6.9	7.9	1.5	1.8	0.7	0.8	16.0	19.3	10.8	16.6	9.6	11.2	1.1	1.3	14.2	0.7	0.8	2.5	42.7	54.2	4.4	5.0	138.6	170.3	64.0	75.0	57.1	66.6	446.1
MPODD001	MPO90056	51.0	52.0	Drill core	6.5	7.5	3.5	4.0	2.4	2.7	6.6	7.6	1.4	1.6	0.6	0.7	15.3	18.5	9.2	14.1	8.7	10.1	1.0	1.2	12.6	0.7	0.7	2.1	40.5	51.5	4.1	4.7	125.5	154.2	63.9	74.9	54.1	63.0	417.1
MPODD001	MPO90057	52.0	53.0	Drill core	6.1	7.0	3.4	3.9	2.0	2.4	6.0	6.9	1.3	1.5	0.6	0.7	14.0	16.9	7.1	10.9	7.9	9.2	0.9	1.1	14.0	0.7	0.8	2.3	37.6	47.8	4.2	4.8	137.8	169.3	59.1	69.4	49.7	58.0	410.3
MPODD001	MPO90058	53.0	54.0	Drill core	5.9	6.8	3.6	4.1	1.8	2.1	5.4	6.2	1.4	1.6	0.7	0.8	13.1	15.8	9.0	13.7	7.4	8.5	0.9	1.0	14.8	0.7	0.8	2.4	38.2	48.6	4.6	5.2	108.8	133.7	54.9	64.4	45.8	53.4	366.6



Hole number	Sample ID	From	To	Sample Type	Dy ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Er ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Lu ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Pr ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Sc ppm	Sc <sub>2</sub> O <sub>3</sub> ppm	Sm ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tb ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Th ppm	Tm ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	U ppm	Y ppm	Y <sub>2</sub> O <sub>3</sub> ppm	Yb ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Ce ppm	Ce <sub>2</sub> O <sub>3</sub> ppm	La ppm	La <sub>2</sub> O <sub>3</sub> ppm	Nd ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	TRE O ppm
MPODD001	MPO90059	54.0	55.0	Drill core	6.3	7.3	3.3	3.7	2.2	2.6	6.2	7.1	1.4	1.6	0.6	0.7	15.0	18.1	8.8	13.6	8.5	9.9	1.0	1.2	12.0	0.6	0.7	2.2	37.2	47.3	4.0	4.5	122.6	150.6	62.5	73.3	52.7	61.5	403.5
MPODD001	MPO90061	55.0	56.0	Drill core	6.5	7.4	3.4	3.9	2.3	2.7	6.5	7.5	1.4	1.6	0.6	0.7	15.8	19.1	9.0	13.8	8.7	10.1	1.0	1.2	13.0	0.6	0.7	2.1	38.9	49.5	3.9	4.5	130.2	159.9	71.2	83.5	55.1	64.3	430.3
MPODD001	MPO90062	56.0	57.0	Drill core	6.6	7.5	3.4	3.9	2.3	2.7	6.6	7.6	1.4	1.6	0.6	0.7	15.6	18.9	8	18.1	8.9	10.3	1.0	1.2	14.1	0.6	0.7	2.2	38.9	49.4	4.0	4.6	149.3	183.4	66.2	77.7	55.1	64.2	452.6
MPODD001	MPO90063	57.0	58.0	Drill core	6.0	6.9	3.0	3.4	2.3	2.6	6.2	7.1	1.3	1.4	0.5	0.6	15.5	18.8	9.9	15.2	8.7	10.1	1.0	1.1	13.3	0.6	0.6	2.1	34.4	43.7	3.4	3.9	118.1	145.1	65.8	77.1	54.4	63.4	401.1
MPODD001	MPO90064	58.0	59.0	Drill core	5.8	6.7	2.9	3.4	2.2	2.6	6.0	6.9	1.2	1.4	0.5	0.6	14.5	17.5	9.2	14.1	8.2	9.5	0.9	1.1	13.9	0.5	0.6	2.2	33.0	41.9	3.4	3.9	130.1	159.8	61.7	72.4	50.8	59.3	401.6
MPODD001	MPO90066	59.0	60.0	Drill core	6.1	7.0	3.1	3.5	2.4	2.8	6.4	7.3	1.3	1.5	0.6	0.6	15.4	18.6	8.5	13.0	8.6	10.0	1.0	1.1	14.7	0.6	0.7	2.2	36.4	46.3	3.6	4.1	137.1	168.4	66.5	78.0	54.6	63.6	426.7
MPODD001	MPO90067	60.0	61.0	Drill core	5.8	6.6	3.0	3.4	2.2	2.6	6.1	7.0	1.2	1.4	0.5	0.6	15.2	18.4	9.0	13.8	8.6	9.9	0.9	1.1	15.2	0.5	0.6	2.1	33.7	42.8	3.4	3.9	116.0	142.5	63.4	74.3	53.6	62.6	391.5
MPODD001	MPO90068	61.0	62.0	Drill core	5.7	6.5	2.9	3.3	2.3	2.6	5.9	6.8	1.2	1.4	0.5	0.6	14.6	17.6	9.0	13.7	8.1	9.4	0.9	1.0	14.6	0.5	0.6	2.1	33.3	42.2	3.3	3.8	119.4	146.7	61.3	71.9	51.6	60.1	388.3
MPODD001	MPO90069	62.0	63.0	Drill core	5.1	5.9	2.6	2.9	2.2	2.5	5.6	6.4	1.1	1.2	0.5	0.5	14.4	17.4	7.5	11.5	8.0	9.2	0.8	1.0	16.7	0.5	0.5	2.0	29.0	36.9	3.0	3.4	105.8	130.0	60.9	71.4	50.6	59.0	360.0
MPODD001	MPO90070	63.0	64.0	Drill core	4.8	5.5	2.3	2.6	2.1	2.4	5.4	6.2	1.0	1.1	0.4	0.5	13.8	16.7	8.4	12.9	7.6	8.8	0.8	0.9	12.9	0.4	0.5	1.8	26.2	33.2	2.7	3.1	106.0	130.3	57.6	67.5	48.8	56.9	349.2
MPODD001	MPO90071	64.0	65.0	Drill core	5.3	6.1	2.6	3.0	2.2	2.5	5.5	6.3	1.1	1.3	0.5	0.5	13.4	16.2	9.4	14.4	7.6	8.8	0.8	1.0	13.1	0.5	0.6	1.9	30.6	38.9	3.2	3.6	107.0	131.5	56.2	65.9	47.7	55.6	356.3
MPODD001	MPO90072	65.0	66.0	Drill core	5.0	5.7	2.4	2.7	2.2	2.5	5.5	6.4	1.0	1.2	0.4	0.5	14.1	17.0	8.7	13.4	7.9	9.2	0.8	1.0	13.4	0.4	0.5	1.7	27.5	35.0	2.8	3.2	113.5	139.4	60.3	70.7	50.0	58.3	366.6
MPODD001	MPO90073	66.0	67.0	Drill core	6.3	7.3	3.0	3.4	2.8	3.3	6.8	7.9	1.3	1.5	0.5	0.6	16.4	19.8	6	16.3	9.6	11.1	1.0	1.2	13.5	0.6	0.6	1.9	34.4	43.7	3.4	3.9	127.4	156.5	68.4	80.3	58.8	68.6	426.0
MPODD001	MPO90074	67.0	68.0	Drill core	6.8	7.8	3.1	3.6	2.8	3.2	7.3	8.4	1.4	1.6	0.5	0.6	16.9	20.4	9.6	14.7	10	11.6	1.1	1.3	15.4	0.6	0.7	2.0	36.4	46.2	3.5	4.0	138.7	170.4	70.3	82.4	60.6	70.7	447.5
MPODD001	MPO90075	70.3	71.0	Drill core	6.6	7.5	3.1	3.6	2.7	3.1	7.2	8.3	1.4	1.6	0.6	0.6	16.6	20.1	9.8	15.1	9.7	11.3	1.1	1.3	15.7	0.6	0.7	2.1	36.9	46.9	3.6	4.1	139.9	171.8	69.2	81.2	59.3	69.2	446.3
MPODD001	MPO90076	71.0	72.0	Drill core	6.4	7.3	2.7	3.1	3.0	3.5	7.5	8.6	1.3	1.5	0.4	0.5	17.5	21.2	11	17.8	8.6	10.0	0.9	1.0	12.7	0.5	0.5	1.5	29.9	38.0	3.1	3.6	102.7	126.2	70.3	82.4	55.0	64.1	389.3
MPODD001	MPO90077	72.0	73.5	Drill core	5.8	6.7	2.5	2.8	3.2	3.6	7.2	8.3	1.2	1.4	0.4	0.5	17.3	21.0	0	20.0	8.8	10.2	0.8	1.0	13.4	0.4	0.5	1.6	26.1	33.1	2.9	3.3	113.4	113.4	70.1	82.2	54.6	63.7	371.4
MPODD001	MPO90078	73.5	74.0	Drill core	9.9	11.4	4.4	5.0	4.5	5.2	11	12.6	2.1	2.4	0.7	0.7	22.3	27.0	1	15.5	9	13.8	1.3	1.6	11.9	0.7	0.8	1.5	61.3	77.9	4.5	5.2	107.3	131.8	95.1	111.6	73.0	85.1	507.5
MPODD001	MPO90079	74.0	75.0	Drill core	8.9	10.2	3.8	4.3	4.4	5.0	10	12.2	1.8	2.1	0.6	0.7	23.1	28.0	9	18.3	1	14.1	1.3	1.5	14.0	0.6	0.7	1.5	45.2	57.4	4.0	4.6	105.1	129.0	96.0	112.5	75.4	87.9	488.5
MPODD001	MPO90081	75.0	76.0	Drill core	8.4	9.7	3.5	4.0	4.1	4.8	9.9	11.5	1.7	2.0	0.6	0.6	22.5	27.2	0	19.9	8	13.7	1.2	1.4	15.8	0.6	0.6	1.7	38.7	49.1	3.9	4.5	110.7	135.9	90.4	106.0	73.8	86.1	477.0
MPODD001	MPO90082	76.0	77.0	Drill core	8.5	9.7	3.5	3.9	4.1	4.8	10	11.9	1.7	2.0	0.5	0.6	23.3	28.2	8	18.2	4	14.3	1.2	1.4	16.0	0.5	0.6	1.7	38.2	48.5	3.7	4.2	116.7	143.4	94.4	110.7	75.5	88.1	490.5
MPODD001	MPO90083	77.0	78.0	Drill core	7.7	8.8	3.2	3.7	4.0	4.6	9.7	11.1	1.6	1.8	0.5	0.6	22.5	27.2	9.4	14.4	7	13.6	1.1	1.3	14.3	0.5	0.6	1.5	36.2	46.0	3.4	3.9	115.0	141.2	90.8	106.5	72.5	84.5	469.9
MPODD001	MPO90084	78.0	79.0	Drill core	8.1	9.3	3.3	3.8	4.2	4.8	10	11.8	1.6	1.9	0.5	0.6	23.6	28.5	3	17.3	4	14.4	1.2	1.4	15.7	0.5	0.6	1.4	37.2	47.3	3.5	4.0	121.4	149.1	95.4	111.9	78.1	91.1	497.7
MPODD001	MPO90086	79.0	80.0	Drill core	7.5	8.6	3.1	3.5	3.5	4.1	9.0	10.4	1.5	1.8	0.5	0.6	21.1	25.5	6	20.8	9	12.6	1.0	1.2	17.1	0.5	0.6	1.5	34.1	43.3	3.5	3.9	108.0	132.7	84.4	98.9	67.1	78.3	446.9
MPODD001	MPO90087	80.0	81.0	Drill core	5.3	6.1	2.3	2.6	2.6	3.0	6.7	7.7	1.1	1.2	0.4	0.4	16.3	19.7	4	15.9	8.2	9.5	0.7	0.9	14.3	0.4	0.4	1.3	23.1	29.4	2.7	3.0	110.5	110.5	63.9	75.0	51.9	60.6	345.9
MPODD001	MPO90088	81.0	82.2	Drill core	5.8	6.6	2.4	2.8	2.8	3.2	7.1	8.2	1.2	1.4	0.4	0.5	16.7	20.2	2	17.1	8.6	10.0	0.8	1.0	14.3	0.4	0.5	1.5	25.1	31.9	2.9	3.3	108.4	108.4	64.8	76.0	54.3	63.4	354.4
MPODD001	MPO90089	82.2	83.0	Drill core	4.9	5.6	2.1	2.4	2.1	2.4	4.8	5.5	1.0	1.2	0.4	0.4	7.9	9.6	0	35.3	5.4	6.2	0.6	0.7	3.7	0.4	0.4	0.5	22.7	28.8	2.5	2.8	38.5	47.3	26.0	30.5	27.7	32.3	211.5
MPODD001	MPO90090	83.0	84.0	Drill core	10	11.6	4.2	4.8	3.8	4.4	9.9	11.4	2.2	2.5	0.6	0.7	12.7	15.4	8	24.2	1	11.7	1.3	1.6	2.2	0.7	0.8	0.5	48.1	61.0	4.4	5.0	51.8	63.6	38.7	45.4	48.1	56.1	320.3

RARE EARTH ELEMENTS VERIFIED WITH MAIDEN DIAMOND DRILL HOLE WITHIN CHILWA CARBONATITE SYSTEM



Hole number	Sample ID	From	To	Sample Type	Dy	Dy <sub>2</sub> O <sub>3</sub>	Er	Er <sub>2</sub> O <sub>3</sub>	Eu	Eu <sub>2</sub> O <sub>3</sub>	Gd	Gd <sub>2</sub> O <sub>3</sub>	Ho	Ho <sub>2</sub> O <sub>3</sub>	Lu	Lu <sub>2</sub> O <sub>3</sub>	Pr	Pr <sub>2</sub> O <sub>3</sub>	Sc	Sc <sub>2</sub> O <sub>3</sub>	Sm	Sm <sub>2</sub> O <sub>3</sub>	Tb	Tb <sub>2</sub> O <sub>3</sub>	Th	Tm	Tm <sub>2</sub> O <sub>3</sub>	U	Y	Y <sub>2</sub> O <sub>3</sub>	Yb	Yb <sub>2</sub> O <sub>3</sub>	Ce	Ce <sub>2</sub> O <sub>3</sub>	La	La <sub>2</sub> O <sub>3</sub>	Nd	Nd <sub>2</sub> O <sub>3</sub>	TRE O
MPODD001	MPO90091	84.0	86.0	Drill core	3.0	3.4	1.3	1.5	1.3	1.5	2.5	2.9	0.6	0.7	0.2	0.2	3.0	3.7	25.7	39.5	2.6	3.1	0.4	0.4	0.7	0.2	0.2	0.4	13.1	16.7	1.5	1.8	15.4	18.9	8.0	9.4	11.8	13.7	117.6
MPODD001	MPO90092	86.0	87.0	Drill core	6.0	6.9	2.6	2.9	2.3	2.7	5.5	6.3	1.3	1.5	0.4	0.5	7.1	8.5	23.0	35.3	5.8	6.7	0.8	0.9	1.9	0.4	0.5	0.5	29.0	36.9	2.8	3.2	26.1	32.0	21.0	24.6	26.6	31.0	200.3
MPODD001	MPO90093	87.0	88.0	Drill core	4.6	5.3	2.0	2.2	1.8	2.1	4.0	4.6	1.0	1.1	0.3	0.4	4.6	5.5	26.9	41.2	4.2	4.8	0.6	0.7	0.6	0.3	0.4	0.3	21.5	27.3	2.2	2.5	16.1	19.7	11.1	13.0	18.3	21.3	152.3
MPODD001	MPO90094	88.0	89.0	Drill core	5.4	6.1	2.2	2.5	2.2	2.5	4.9	5.7	1.1	1.3	0.4	0.4	6.1	7.4	27.2	41.7	5.2	6.1	0.7	0.8	1.3	0.4	0.4	0.4	24.4	31.0	2.6	2.9	21.5	26.4	16.5	19.4	23.7	27.6	182.3
MPODD001	MPO90095	89.0	90.0	Drill core	3.3	3.8	1.4	1.6	1.4	1.6	2.9	3.4	0.7	0.8	0.3	0.3	4.4	5.3	24.7	37.9	3.3	3.9	0.4	0.5	1.5	0.2	0.3	0.4	14.3	18.1	1.8	2.0	28.5	35.1	12.8	15.0	15.7	18.3	147.7
MPODD001	MPO90096	90.0	91.0	Drill core	4.3	4.9	1.8	2.1	1.7	2.0	3.6	4.2	0.9	1.0	0.3	0.3	4.7	5.7	27.3	41.9	4.0	4.6	0.5	0.6	1.1	0.3	0.3	0.4	20.1	25.6	2.2	2.5	20.5	25.2	12.7	14.9	18.0	21.0	156.9
MPODD001	MPO90097	91.0	92.0	Drill core	5.1	5.9	2.3	2.6	1.9	2.2	4.3	4.9	1.1	1.3	0.4	0.4	4.7	5.6	25.3	38.8	4.3	5.0	0.6	0.7	0.8	0.4	0.4	0.4	25.6	32.5	2.6	3.0	15.9	19.6	11.2	13.1	18.9	22.0	158.1
MPODD001	MPO90098	92.0	93.0	Drill core	4.9	5.6	2.1	2.5	1.8	2.1	4.1	4.7	1.0	1.2	0.3	0.4	4.8	5.8	23.6	36.2	4.3	4.9	0.6	0.7	0.6	0.3	0.4	0.3	24.0	30.5	2.5	2.8	18.2	22.4	12.0	14.1	18.7	21.9	156.1
MPODD001	MPO90099	93.0	94.0	Drill core	5.1	5.8	2.2	2.6	1.9	2.2	4.4	5.1	1.1	1.3	0.4	0.4	5.7	6.9	23.5	36.0	4.7	5.5	0.6	0.7	0.5	0.4	0.4	0.3	25.7	32.7	2.6	2.9	18.7	23.0	14.8	17.4	22.0	25.6	168.5
MPODD001	MPO90100	93.0	94.0	Drill core	5.5	6.3	2.4	2.8	2.1	2.4	4.8	5.5	1.2	1.4	0.4	0.4	5.8	7.1	22.3	34.2	5.1	5.9	0.7	0.8	0.4	0.4	0.5	0.3	28.1	35.6	2.8	3.2	19.0	23.3	14.4	16.8	22.7	26.5	172.8
MPODD001	MPO90101	94.0	95.0	Drill core	4.0	4.6	1.6	1.8	1.8	2.1	4.4	5.1	0.8	0.9	0.2	0.3	8.7	10.5	22.6	34.7	6.6	7.7	0.7	0.8	1.9	0.3	0.4	0.4	23.9	30.4	2.2	2.5	40.6	49.9	23.5	27.6	39.2	45.7	224.9
MPODD001	MPO90102	95.0	96.0	Drill core	5.2	5.9	1.9	2.2	2.8	3.3	6.5	7.5	1.0	1.2	0.3	0.3	12.9	15.6	23.5	36.0	10.4	12.0	0.9	1.1	0.9	0.4	0.4	0.4	29.8	37.9	2.5	2.9	55.8	68.6	29.7	34.9	61.1	71.3	301.0
MPODD001	MPO90103	96.0	97.0	Drill core	3.6	4.1	1.3	1.4	2.3	2.7	5.1	5.8	0.7	0.8	0.2	0.2	11.5	13.9	24.9	38.2	8.5	9.9	0.7	0.8	1.9	0.2	0.3	0.7	18.8	23.8	1.6	1.8	53.4	65.6	27.2	31.9	53.0	61.8	262.9
MPODD001	MPO90104	97.0	98.0	Drill core	3.5	4.1	1.4	1.6	1.8	2.1	4.2	4.8	0.7	0.8	0.2	0.2	8.1	9.8	24.6	37.8	6.7	7.7	0.6	0.7	1.2	0.3	0.3	0.5	20.3	25.8	1.9	2.1	37.9	46.6	18.9	22.2	38.2	44.5	211.2
MPODD001	MPO90105	98.0	99.0	Drill core	3.1	3.6	1.3	1.5	1.4	1.6	2.7	3.1	0.7	0.8	0.2	0.2	3.3	3.9	21.4	32.8	3.6	4.2	0.5	0.6	1.2	0.3	0.3	0.5	19.6	24.9	1.8	2.1	15.1	18.5	8.4	9.8	16.2	18.9	126.9
MPODD001	MPO90106	99.0	100.0	Drill core	2.6	3.0	1.1	1.3	1.1	1.3	2.3	2.7	0.6	0.7	0.2	0.2	2.9	3.5	16.4	25.1	3.2	3.7	0.4	0.5	0.4	0.2	0.3	0.3	17.1	21.7	1.6	1.9	13.7	16.8	8.2	9.6	14.4	16.8	109.0
MPODD001	MPO90107	100.0	101.0	Drill core	3.4	3.9	1.4	1.6	1.4	1.7	3.0	3.4	0.7	0.8	0.2	0.2	3.7	4.5	21.3	32.6	4.0	4.6	0.5	0.6	0.4	0.3	0.3	0.2	20.4	25.9	2.0	2.3	15.9	19.5	9.4	11.0	18.4	21.4	134.4
MPODD001	MPO90108	101.0	102.0	Drill core	3.1	3.6	1.3	1.5	1.4	1.6	2.7	3.2	0.7	0.8	0.2	0.2	3.2	3.9	20.8	32.0	3.6	4.2	0.5	0.6	0.5	0.3	0.3	0.3	19.1	24.3	1.8	2.1	14.9	18.3	7.9	9.3	16.3	19.0	124.6
MPODD001	MPO90109	102.0	103.0	Drill core	2.7	3.1	1.2	1.3	1.1	1.3	2.4	2.7	0.6	0.7	0.2	0.2	3.0	3.6	20.3	31.1	3.2	3.8	0.4	0.5	0.5	0.2	0.3	0.3	16.2	20.5	1.6	1.8	13.5	16.5	7.7	9.0	15.0	17.5	114.0
MPODD001	MPO90110	103.0	104.0	Drill core	2.8	3.2	1.2	1.4	1.2	1.4	2.4	2.8	0.6	0.7	0.2	0.2	2.8	3.4	23.9	36.7	3.2	3.8	0.4	0.5	0.5	0.2	0.3	0.3	16.9	21.4	1.6	1.9	12.6	15.5	6.9	8.1	14.4	16.8	117.9
MPODD001	MPO90111	104.0	105.0	Drill core	3.1	3.5	1.3	1.4	1.5	1.7	3.0	3.5	0.6	0.7	0.2	0.2	4.1	5.0	20.2	31.0	4.2	4.8	0.5	0.6	0.4	0.3	0.3	0.2	18.2	23.1	1.8	2.0	19.4	23.8	10.9	12.8	20.3	23.6	138.1
MPODD001	MPO90112	105.0	106.0	Drill core	3.0	3.5	1.3	1.5	1.3	1.6	2.6	3.0	0.6	0.7	0.2	0.2	3.2	3.9	21.2	32.5	3.6	4.1	0.5	0.5	0.2	0.3	0.3	0.2	17.8	22.7	1.8	2.0	14.1	17.3	7.5	8.7	16.1	18.8	121.4
MPODD001	MPO90113	106.0	107.0	Drill core	3.5	4.0	1.4	1.6	1.5	1.8	3.1	3.5	0.7	0.8	0.2	0.3	3.5	4.3	24.3	37.2	4.1	4.7	0.5	0.6	0.3	0.3	0.3	0.2	20.3	25.8	2.0	2.3	15.6	19.2	8.1	9.5	18.3	21.4	137.4
MPODD001	MPO90114	107.0	108.0	Drill core	3.0	3.5	1.3	1.4	1.4	1.6	2.7	3.1	0.6	0.7	0.2	0.2	3.4	4.1	30.3	46.5	3.8	4.4	0.5	0.6	0.4	0.3	0.3	0.3	16.8	21.4	1.8	2.0	16.9	20.8	8.3	9.7	17.0	19.8	140.1
MPODD001	MPO90115	108.0	109.0	Drill core	5.1	5.9	2.2	2.5	1.9	2.2	4.5	5.2	1.1	1.2	0.3	0.4	5.7	6.9	33.7	51.7	6.1	7.0	0.8	0.9	1.0	0.4	0.5	0.3	29.1	36.9	3.0	3.5	25.2	31.0	12.9	15.1	28.9	33.7	204.6
MPODD001	MPO90116	109.0	110.0	Drill core	3.7	4.3	1.6	1.8	1.6	1.9	3.3	3.8	0.8	0.9	0.2	0.3	3.9	4.8	22.2	34.1	4.3	5.0	0.6	0.7	0.4	0.3	0.4	0.2	22.1	28.1	2.3	2.6	17.4	21.4	9.4	11.0	19.5	22.7	143.7
MPODD001	MPO90117	110.0	111.0	Drill core	3.8	4.4	1.6	1.8	1.6	1.9	3.4	3.9	0.8	0.9	0.3	0.3	3.9	4.7	28.4	43.5	4.5	5.2	0.6	0.7	0.3	0.3	0.4	0.2	21.6	27.4	2.2	2.5	17.4	21.4	8.6	10.1	19.8	23.1	152.3
MPODD001	MPO90118	111.0	112.0	Drill core	3.7	4.2	1.5	1.8	1.5	1.8	3.2	3.7	0.8	0.9	0.2	0.3	3.7	4.5	25.2	38.6	4.2	4.9	0.6	0.7	0.5	0.3	0.3	0.2	20.7	26.2	2.1	2.4	17.0	20.9	8.9	10.5	19.1	22.3	143.8



Hole number	Sample ID	From	To	Sample Type	Dy ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Er ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Lu ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Pr ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Sc ppm	Sc <sub>2</sub> O <sub>3</sub> ppm	Sm ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tb ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Th ppm	Tm ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	U ppm	Y ppm	Y <sub>2</sub> O <sub>3</sub> ppm	Yb ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Ce ppm	Ce <sub>2</sub> O <sub>3</sub> ppm	La ppm	La <sub>2</sub> O <sub>3</sub> ppm	Nd ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	TRE O ppm
MPODD001	MPO90119	112.0	113.0	Drill core	3.5	4.1	1.5	1.7	1.7	1.9	3.2	3.7	0.7	0.9	0.2	0.3	4.4	5.4	25.7	39.4	4.5	5.2	0.6	0.7	0.5	0.3	0.3	0.2	20.3	25.8	2.1	2.4	18.4	22.6	11.9	13.9	21.6	25.2	<b>153.3</b>
MPODD001	MPO90121	113.0	114.0	Drill core	3.0	3.5	1.3	1.4	1.4	1.6	2.6	3.0	0.6	0.7	0.2	0.2	3.4	4.1	21.0	32.2	3.6	4.2	0.5	0.6	0.5	0.2	0.3	0.3	17.3	22.0	1.7	1.9	16.2	19.9	9.6	11.2	16.9	19.7	<b>126.7</b>
MPODD001	MPO90122	114.0	115.0	Drill core	3.0	3.4	1.3	1.5	1.3	1.5	2.6	3.0	0.6	0.7	0.2	0.2	3.1	3.7	18.4	28.2	3.4	3.9	0.5	0.5	0.5	0.3	0.3	0.3	18.5	23.6	1.8	2.1	14.3	17.6	8.0	9.4	15.7	18.3	<b>117.9</b>
MPODD001	MPO90123	115.0	116.0	Drill core	2.8	3.2	1.1	1.3	1.2	1.4	2.4	2.7	0.6	0.7	0.2	0.2	2.8	3.3	22.5	34.5	3.1	3.6	0.4	0.5	0.5	0.2	0.3	0.3	15.9	20.2	1.6	1.8	12.4	15.2	6.6	7.8	14.2	16.5	<b>113.1</b>
MPODD001	MPO90124	116.0	118.0	Drill core	3.1	3.6	1.3	1.5	1.4	1.6	2.9	3.3	0.7	0.8	0.2	0.2	4.7	5.7	19.5	29.9	3.8	4.4	0.5	0.6	1.2	0.3	0.3	0.5	18.1	23.0	1.9	2.2	26.8	32.9	18.6	21.9	20.6	24.1	<b>155.9</b>
MPODD001	MPO90126	118.0	119.2	Drill core	3.1	3.5	1.3	1.5	1.3	1.5	2.6	3.0	0.7	0.7	0.2	0.2	3.2	3.9	25.5	39.1	3.4	4.0	0.5	0.6	0.9	0.3	0.3	0.4	18.5	23.5	1.8	2.1	14.9	18.3	8.4	9.9	15.8	18.5	<b>130.5</b>
MPODD001	MPO90127	119.2	120.0	Drill core	2.8	3.3	1.3	1.5	0.8	0.9	1.9	2.2	0.7	0.7	0.2	0.3	1.3	1.5	38.7	59.4	2.0	2.3	0.4	0.5	0.4	0.3	0.3	0.2	18.0	22.9	2.0	2.3	5.4	6.6	2.8	3.2	7.1	8.2	<b>116.2</b>
MPODD001	MPO90128	120.0	121.4	Drill core	3.0	3.5	1.4	1.6	0.9	1.0	2.0	2.3	0.7	0.8	0.2	0.3	1.3	1.6	37.8	58.0	2.1	2.5	0.4	0.5	0.5	0.3	0.3	0.3	19.0	24.2	2.1	2.4	5.6	6.9	3.0	3.5	7.4	8.7	<b>118.1</b>
MPODD001	MPO90129	121.4	122.2	Drill core	2.3	2.7	1.0	1.2	0.9	1.1	1.9	2.2	0.5	0.6	0.2	0.2	2.6	3.1	17.7	27.2	2.6	3.0	0.3	0.4	0.3	0.2	0.2	0.2	13.8	17.5	1.5	1.7	11.9	14.6	6.7	7.9	12.5	14.6	<b>98.3</b>
MPODD001	MPO90130	122.2	122.7	Drill core	2.7	3.1	1.2	1.3	1.0	1.2	2.2	2.5	0.6	0.7	0.2	0.2	2.9	3.5	16.0	24.5	3.0	3.5	0.4	0.5	0.3	0.2	0.3	0.2	16.5	21.0	1.8	2.0	12.8	15.7	7.2	8.5	14.2	16.6	<b>105.0</b>

For persons only

**Table 2: Locations of drill hole MPODD001 and all drill holes mentioned in this announcement.**

Project	Hole number	Depth	Area	Grid	Northing	Easting	Azimuth	Elevation
CHILWA REE	MPODD001	122.7	MPOSA	WGS 84 / UTM zone 36S	8317506	769964	220	630
CHILWA REE	MPODD002	221	MPOSA	WGS 84 / UTM zone 36S	8317409	769726	290	629.2
CHILWA REE	MPODD003	104.3	MPOSA	WGS 84 / UTM zone 36S	8317641	769772	41	630
CHILWA REE	MPODD004	209.3	MPOSA	WGS 84 / UTM zone 36S	8317641	769772	278	630
CHILWA REE	MPODD005	221	MPOSA	WGS 84 / UTM zone 36S	8317706	769209	84	629.5
CHILWA REE	MPODD006	130	MPOSA	WGS 84 / UTM zone 36S	8317912	768746	302	630.8
CHILWA REE	MPYDD001	ongoing	MPYUPYU	WGS 84 / UTM zone 36S	8295396	770820	270	630.8

**APPENDIX 1 – JORC TABLE 1****Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<p><i>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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling</i></p>	<p>Sampling was undertaken on diamond drill core (PQ, HQ and NQ diameters) recovered from reconnaissance drilling. Half-core sampling was carried out using a diamond saw. Intervals were selected based on geological logging (lithology, alteration, mineralisation, veining). No XRF tools were used for external reporting, only for qualitative field guidance.</p> <p>Samples were collected in 1 m or lithology-constrained intervals. 2.5–5 kg of half-core material was collected per sample, prepared internally (crushed to &lt;1mm) in house prep lab and sent to an accredited lab for REE assay by ICP-MS/OES.</p>

Criteria	JORC Code explanation	Commentary
	<i>was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	Mineralisation was logged visually and confirmed using historic data and petrography.
<b>Drilling techniques</b>	<i>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).</i>	Reconnaissance drilling was completed using diamond drilling (PQ, HQ and NQ core diameter) with standard wireline/winch technique. Core orientation was conducted with results indicating low quality data set.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>  <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>  <i>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.</i>	Core recoveries were recorded for each run by measuring recovered length vs drilled length. Recoveries generally exceed 99% in fresh rock and 93% in weathered zone. Poorly recovered zones were logged as poor recovery or core loss as applicable.  Drilling was monitored continuously. Drillers used manual extraction off the core barrel techniques throughout the

Criteria	JORC Code explanation	Commentary
		<p>exercise. Sampling avoided zones of core loss.</p> <p>No bias has been observed. medium-grained REE/Nb minerals are not expected to be preferentially lost. However, this will be reassessed as project advance.</p>
<b>Logging</b>	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>All drill core was geologically logged (lithology, alteration, structure, mineralisation, veining) to industry standards. Logging is suitable to support Geological Modelling requirements.</p> <p>Logging was both qualitative and semi-quantitative. All cores were photographed (wet and dry). Modal mineralogy was estimated visually.</p> <p>100% of core was logged from surface to end of hole.</p>
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all cores taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p>	<p>Sample Core was half-core sampled using a diamond saw. In some instances, quarter-core for duplicate.</p> <p>Not applicable – diamond core only.</p> <p>Sample prep followed industry best practices: drying, crushing 80% to &lt; 1 mm to, splitting, bagging 100g per sample for shipment.</p> <p>QAQC includes field duplicates, blanks, certified reference materials (CRMs) inserted at regular intervals (~1:20).</p> <p>Field duplicates and laboratory strongly replicated indicating sampling precision.</p> <p>REE-bearing minerals (e.g. Synchysite, Bastnasite, monazite, pyrochlore,) are fine- to medium-grained; current sample sizes (2.5 –5 kg) are appropriate.</p>

Criteria	JORC Code explanation	Commentary
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	
<b>Quality of assay data and laboratory tests</b>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis include instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>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.</i></p>	<p>Assays conducted at two ISO-accredited labs -Light Deep Earth (LDE) and UIS Analytical Services Pty.Ltd in Johannesburg. ICP-MS and ICP-OES were used for REE suite-, Ce, La, Tb, Dy, Pm, Pr, Nd, Sm, Gd, Eu, Ho, Er, Tm, Lu, Yb,Y and Sc ensuring near-total digestion of resistant minerals.</p> <p>Handheld Olympus Vanta XRF used only for qualitative logging guidance. Not used in public reporting.</p> <p>QAQC program includes insertion of CRMs, blanks, duplicates. Initial internal lab QC and CRM results indicate acceptable accuracy and precision. Independent check assays to follow.</p>
<b>Verification of sampling and assaying</b>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Logging and sampling verified by project geologist and reviewed by the Chief Project Geologist. Assay results will be independently verified.</p> <p>No twinning conducted during reconnaissance stage.</p> <p>All logging and sampling data recorded digitally in the field/core sample shed, validated, and backed up on secure servers. Hardcopy backups also maintained.</p> <p>No adjustments to raw assay data. REO calculated from elemental REE data using standard conversion factors.</p>
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine</i>	Drill collar locations surveyed using differential GPS (DGPS) with sub-metre accuracy. Downhole surveys conducted with AXIS gyro tools.

**RARE EARTH ELEMENTS VERIFIED WITH MAIDEN DIAMOND  
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Criteria	JORC Code explanation	Commentary
	<p><i>workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>WGS84 / UTM Zone 36S.</p> <p>LiDAR-based topographic control used for collar elevations and drill planning. Accuracy within ±0.5 m.</p>
<b>Data spacing and distribution</b>	<p><i>Data spacing for reporting Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Reconnaissance holes spaced at ~300 x 300 m grid, sufficient for early-stage targeting but not for resource estimation.</p> <p>No Mineral Resource defined at this stage. Drill hole spacing is not yet sufficient for Inferred classification.</p> <p>No compositing done for reporting. All intervals reported as sampled.</p>
<b>Orientation of data in relation to geological structure</b>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>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.</i></p>	<p>Transects of each anomaly reported have been taken in the initial phase of testing.</p> <p>Holes were oriented to intercept interpreted geophysical anomaly structures.</p> <p>Orientation is believed to be suitable for initial reconnaissance drilling. Any bias will be evaluated as more structural data is obtained.</p>
<b>Sample security</b>	<p><i>The measures taken to ensure sample security.</i></p>	<p>Samples were stored securely on site, transported by Chilwa Minerals Field personnel and shipped directly to the laboratory via tracked courier. Chain-of-custody protocols were followed until delivery to UIS Analytic Laboratory.</p>
<b>Audits or reviews</b>	<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<p>Internal review of sampling protocols conducted. External audit planned upon receipt of entire Mposa assay batches.</p>

**Section 2 Reporting Exploration Results**

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

Criteria	JORC Code explanation	Commentary
<p><b>Mineral tenement and land tenure status</b></p>	<p><i>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.</i></p> <p><i>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.</i></p>	<p>On 18 July 2025, Chilwa Minerals Africa Limited (Chilwa) was granted renewal of Exploration Licence EL0670/22R1 allowing continued exploration for HMS and REE minerals over an area of 418.2851km<sup>2</sup>. The licence is valid for three years. Extension of the term is provided for in accordance with Section 119 of the (Malawian) Mines and Minerals Act (Act number 8 of 2019).</p>
<p><b>Exploration done by other parties</b></p>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>Systematic exploration for REE mineralisation and Carbonatites has not been undertaken within the tenement, however, has been conducted in the immediate regional area (eg Tundulu and Songwe hills).</p> <p>Academic research into the deposition of the HMS deposits around Lake Chilwa have been undertaken since the 1980's.</p> <p>Exploration of the HMS mineralisation in the lake Chilwa area has been undertaken by various government concerns and companies, commencing with Claus Brinkmann between 1991 and 1993 as part of an initiative by the German Government to aid mineral development in Malawi.</p> <p>Millennium Mining Limited (MML) concluded exploration work in the area, focusing on the northern deposits of Halala and Namanja during the early 2000s.</p> <p>In 2014, Tate Minerals (Tate) undertook a desktop review of the work undertaken</p>

Criteria	JORC Code explanation	Commentary
		<p>by Claus Brinkmann and entered into a Joint Venture agreement with Mota-Engil Investments (Malawi) Limited (MEIML) to explore EL 0572/20, an EL that contains the current target area.</p> <p>In August 2015, MEIML commenced a drilling programme on the Mpyupyu, Halala, Mposa, and Bimbi targets. This work was completed in November 2015.</p>
<b>Geology</b>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>Potential REE mineralisation within and beneath previously identified Heavy Mineral Sands deposits. As well as potential separate REE deposits within or resulting from Alkaline magmatic activity (Carbonatites) in the area, a component of the Cretaceous age Chilwa Alkaline province.</p>
<b>Drill hole Information</b>	<p><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></p> <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>downhole length and interception depth</i></li> <li>• <i>hole length.</i></li> </ul> <p><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</i></p>	<p>A full table of results is provided in Appendix 1.</p>

Criteria	JORC Code explanation	Commentary
	<i>Competent Person should clearly explain why this is the case.</i>	
<b>Data aggregation methods</b>	<p><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></p> <p><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></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>No length-weighted average grades were used to report grades. All intervals reported as sampled.</p> <p>No composite aggregate intervals and their internal grade zoning was done. All intervals reported as sampled</p> <p>No metal equivalent values were reported. All grades are reported as individual elemental values (ppm) and Total Rare Earth Oxide (TREO) values, calculated using standard oxide conversion factors.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	
<b>Diagrams</b>	<i>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.</i>	Maps, sections and plan view are provided in the accompanying press release.

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Criteria	JORC Code explanation	Commentary
<b>Balanced reporting</b>	<i>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.</i>	All relevant information has been included in this press release and is considered to represent a balanced report.
<b>Other substantive exploration data</b>	<i>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.</i>	See previous Company announcements for further reference.
<b>Further work</b>	<i>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 geological  interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Reconnaissance Diamond Drilling testing all 47 geophysics anomalies as well as geochemistry soil anomalies.