

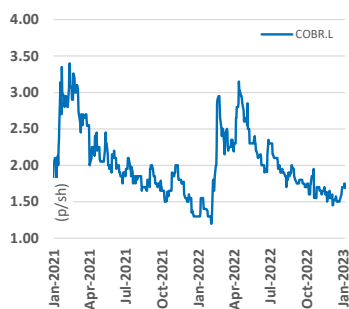
9<sup>th</sup> January 2023

## Sector: Mining

Gold, Rare Earth Elements and Copper

## Market data

Markets	LSE Main Market
Ticker	COBR
Price (p/sh)	1.75
12m High (p/sh)	3.2
12m Low (p/sh)	1.2
Ordinary shares (m)	515.2
FD share capital (m)	595.5
Mkt Cap (£m)	9.0



Source: Alpha

## Description

Cobra is defining a multi-mineral resource at the Wudinna Project in South Australia's prolific Gawler Craton. The focus is shallow gold and rare earth element mineralisation. Cobra is also advancing a pipeline of IOCG targets.

[www.cobraplc.com](http://www.cobraplc.com)

## Board & key management

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NED	Dan Maling
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# Cobra Resources plc

## Maiden REE resource kicks off seminal year for Cobra

Cobra has reported a maiden rare earth element (REE) Mineral Resource Estimate (MRE) at its Wudinna multi-mineral project located in South Australia's Gawler Craton. The JORC-compliant MRE pertains to clay-hosted REE mineralisation recently discovered at Wudinna and complements the existing 211koz gold MRE. The unique occurrence of REE mineralisation overlying and proximal to gold mineralisation could offer compelling economic and technical advantages for potential development. A JORC Exploration Target (ET) at the Thompson prospect along with further drilling indicates significant potential for additional resource expansion.

► **Maiden REE resource details.** Cobra has reported a maiden MRE at its Wudinna project in South Australia, compiled by independent consultants *Snowden Optiro*. The MRE for clay-hosted rare earth mineralisation amounts to 20.9Mt at 658ppm TREO (total rare earth oxides + yttrium) of which MREO (magnet rare earth oxides) comprise 24%. This implies contained TREO of c.13,752t. The MRE was calculated for two prospects; Clarke and Baggy Green and the entirety of the resource currently sits in the Inferred category with drill hole spacing within the MRE area typically at 200m x 200m. The MRE is based on the results from 14,509m of drilling (204 drillholes), including aircore, rotary hammer, RC and a single diamond hole. A cut-off grade of 320ppm TREO-Ce has been selected and assumes extraction by open pit methods. The TREO grade is in line with other listed peers eg. IXR.AX (Mkt cap A\$137m) 532Mt at 640ppm TREO and AR3.AX (Mkt cap A\$48m) at 81.4Mt at 785ppm TREO. Although Cobra's resource is smaller in magnitude at this stage, it is still early days and there is considerable upside potential as we outline below.

Prospect & Category	Tonnes Mt	TREO	MREO	LREO	HREO
		ppm	ppm	ppm	ppm
Clarke	14.1	685	166	544	141
Baggy Green	6.8	597	132	453	144
<b>Total Inferred</b>	<b>20.9</b>	<b>658</b>	<b>155</b>	<b>516</b>	<b>143</b>
Thompson Exploration Target <sup>1</sup>	81 - 233	640 - 856	168 - 234	550 - 717	97 - 140

Full table in note

► **JORC Exploration Target.** In addition to the MRE, a *JORC Exploration Target* (conceptual range of tonnage and grade due to insufficient exploration to define an MRE) has been defined for the Thompson prospect (Fig 3), based only on wide-spaced drilling completed to date. The ET amounts to a range of tonnage between 81Mt and 233Mt at a grade range of between 640ppm and 856ppm TREO. Cobra plans to further drill test the Thompson prospect in the coming weeks with the aim of potentially converting portions of the Exploration Target to a mineral resource.

► **Compelling upside potential.** It is clear to us that there is considerable upside potential for REE resources at Wudinna. Firstly, Cobra has used conservative estimation metrics and believes there is scope to increase tonnage and grade. Secondly, the conversion of portions of the Thompson ET to a resource would significantly boost the overall MRE inventory given the large magnitude 81Mt-233Mt estimate. This would put Wudinna firmly in the size range of other clay REE deposits being developed commercially. Thirdly and most obviously, these initial MRE and ET estimates have been based only on a limited amount of drilling and REE mineralisation remains largely unconstrained in most directions. REE mineralisation was only identified just over 12 months ago at the project, and we view this as a first-pass resource estimate. We believe that further drilling is likely to increase the overall REE resource base significantly. Tighter drill spacing also provides the potential to rapidly upgrade the confidence category of the resource.

► **A unique juxtaposition.** The genesis of gold mineralisation at Wudinna is thought to act as a catalyst for REE mobilisation and enrichment. Thus, Cobra has a unique situation where gold mineralisation is spatially associated with REEs. The maiden REE resource occurs above and proximal to a defined 94,000oz gold resource at Baggy Green and overlies 500m of intersected gold mineralisation at Clarke. This could give Cobra a significant advantage over peers, providing potential development synergies and economic advantages not least in terms of commercially extracting REEs from the saprolite and simultaneously lowering the strip ratio for subsequent gold extraction. The dual commodity opportunity may also provide an easier funding pathway.

► **Next steps.** Cobra will now turn quickly to work supporting the advance of Wudinna towards feasibility studies. This includes further drilling for resource upgrades for both gold and rare earths this year. Further metallurgical testwork is also planned to identify ionic adsorption conditions which have a positive implication for grades and recoveries. *See inside for further details.*

**An impressive result for Cobra, defining a maiden REE resource only a year after discovery. 2023 looks likely to bring further upgrades to both the gold and REE resource base at Wudinna.**

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## Maiden REE resource

Figure 1 - Wudinna Project maiden JORC-compliant Rare Earth Mineral Resource Estimate

Prospect & Category	Tonnes Mt	Magnet rare earth oxides							
		TREO ppm	MREO ppm	LREO ppm	HREO ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm
Clarke	14.1	685	166	544	141	32.5	116.2	14.7	2.6
Baggy Green	6.8	597	132	453	144	25.7	89.8	14	2.3
<b>Total Inferred</b>	<b>20.9</b>	<b>658</b>	<b>155</b>	<b>516</b>	<b>143</b>	<b>30.4</b>	<b>108</b>	<b>14.5</b>	<b>2.5</b>
Thompson Exploration Target <sup>1</sup>	81 - 233	640 - 856	168 - 234	550 - 717	97 - 140	32 - 42	124 - 174	10 - 15	2 - 3

<sup>1</sup>The conceptual quantity and grade of the Thompson Exploration Target is conceptual in nature, as there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. Consistent with this, all tonnages and grades are approximations. The Exploration Target is based on wide-spaced drilling completed to date.

REE - Rare Earth Elements

REO - Rare Earth Oxides

LREO - Light Rare Earth Oxides

HREO - Heavy Rare Earth Oxides

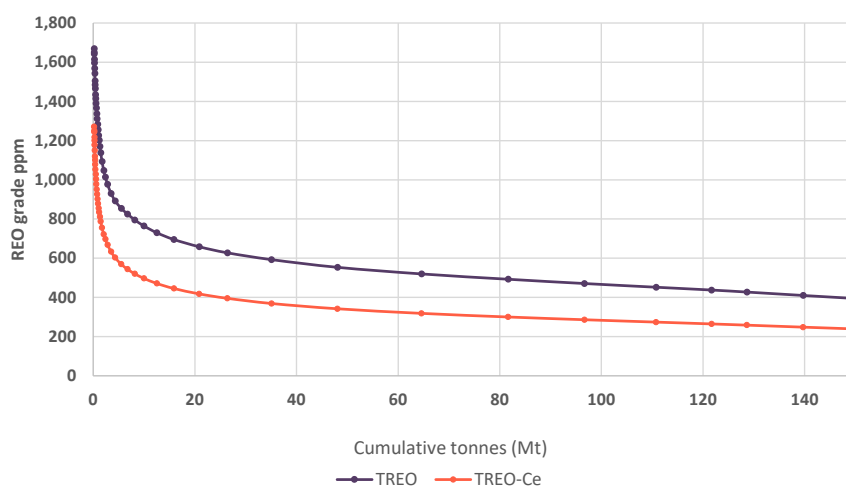
MREO - Magnet Rare Earth Oxides (dysprosium + terbium + praseodymium, neodymium)

TREO - Total Rare Earth Oxides plus yttrium

TREO-Ce - Total Rare Earth Oxides plus yttrium and minus cerium

Source: Cobra Resources plc

Figure 2 - Grade tonnage curve for the maiden Baggy Green and Clarke rare earth MRE demonstrates the relative relationship between grade and tonnage distribution. The cut-off grade of 320 ppm TREO-Ce reflects the deflection point between background and grade enrichment.



Source: Cobra Resources

Figure 3 - Locality map of various prospects at the Wudinna project in South Australia – note location of Thompson Exploration Target

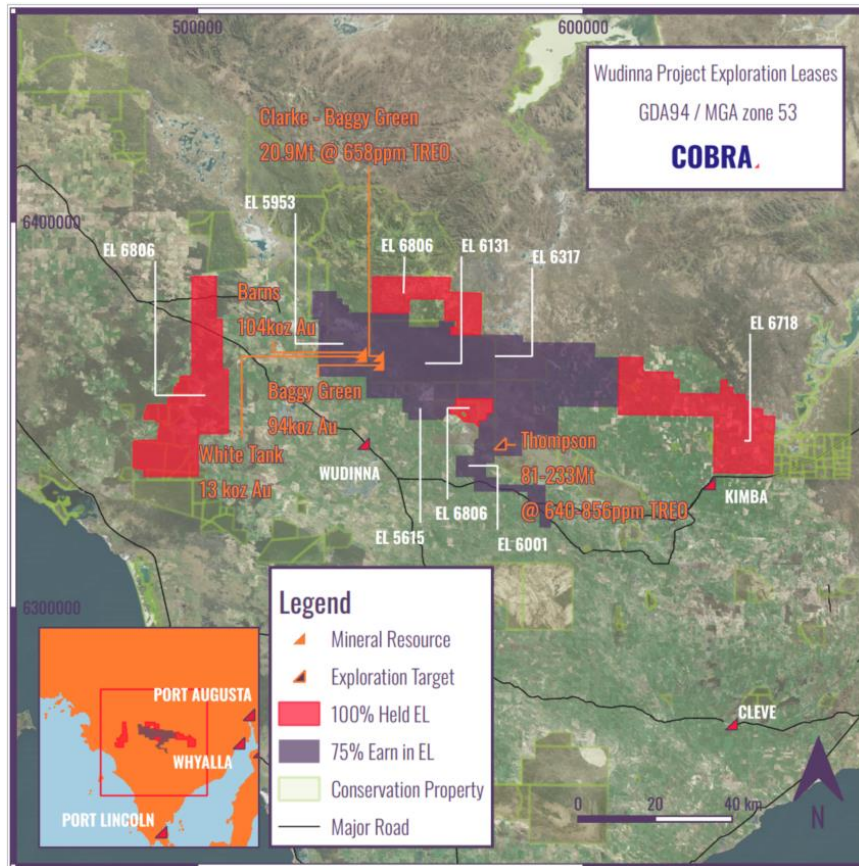
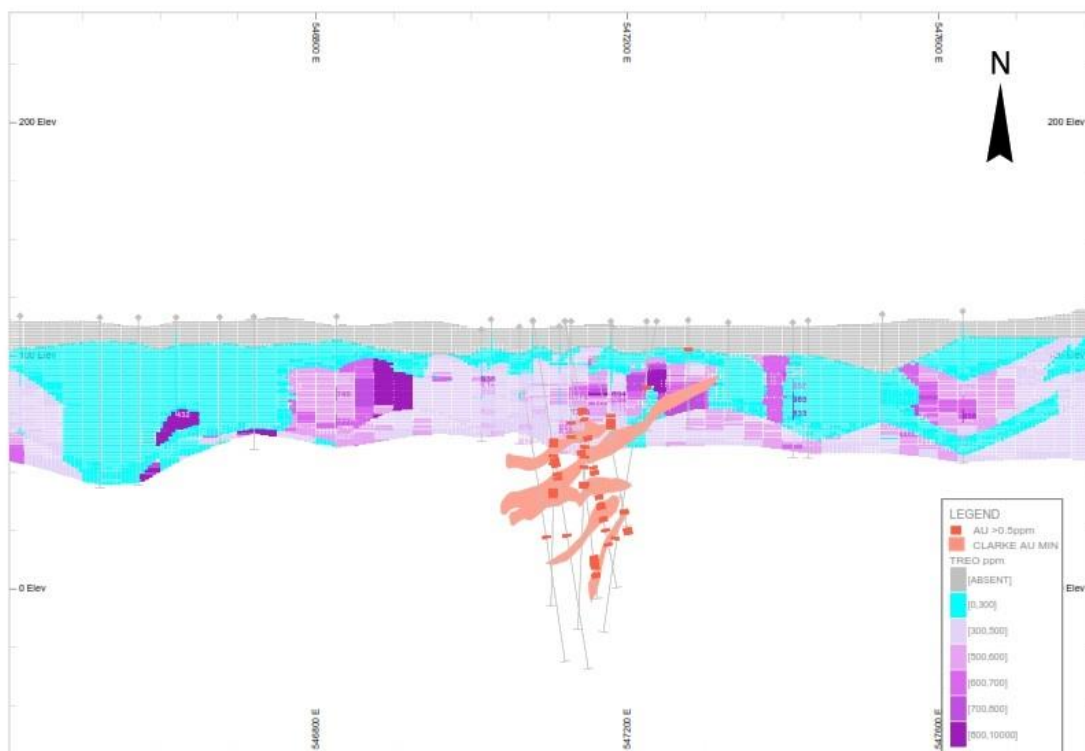
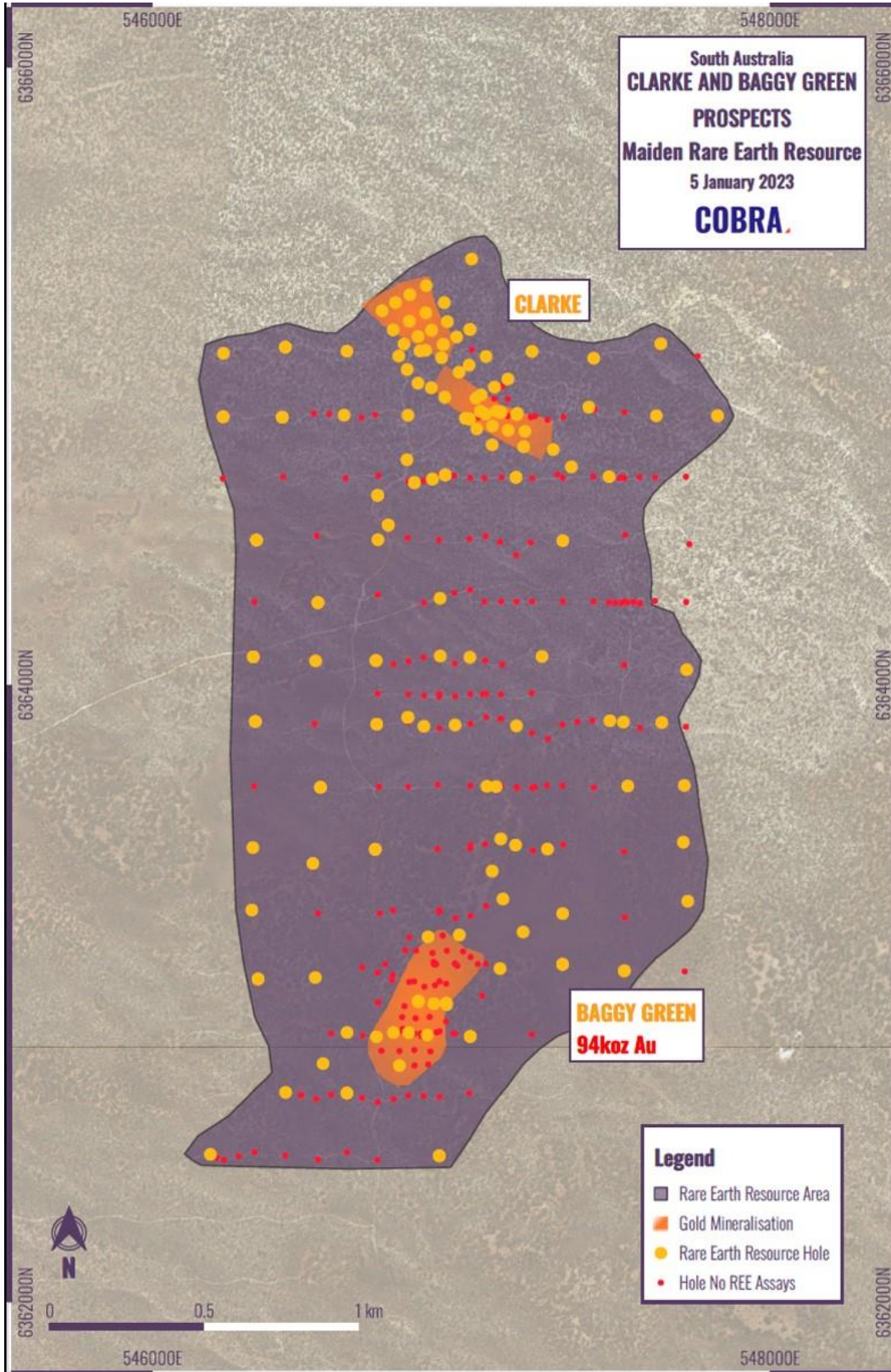


Figure 4 - Cross section 6364870mN demonstrating the REE MRE, overlying intersected gold mineralisation



Source: Cobra Resources plc

Figure 5 - Extent of the REE MRE, proximal to and overlying gold mineralisation at the Baggy Green and Clarke prospects



Source: Cobra Resources plc

## Next steps for 2023 work programme

Cobra is funded to complete the following scope of work to advance the Wudinna Project towards Feasibility evaluation:

- ▶ Metallurgical evaluation of a range of samples selected at varying pH conditions - an important catalyst for ionic REE adsorption
- ▶ Evaluate beneficiation and metallurgical optimisation processes to enable the development of a commercial flowsheet evaluation
- ▶ Further Scanning Electron Microscope (“SEM”) analyses to evaluate quantities of REE mineral phases at various pH conditions
- ▶ **A drilling programme of 5,000–10,000m scheduled to commence in March 2023**, aimed at growing both gold and REE Mineral Resources at Clarke, Barns, and Thompson prospects
- ▶ **Update to existing 211,000 Oz gold MRE** to incorporate the Clarke prospect and over 5,000m of additional drilling undertaken across existing gold Mineral Resource prospects

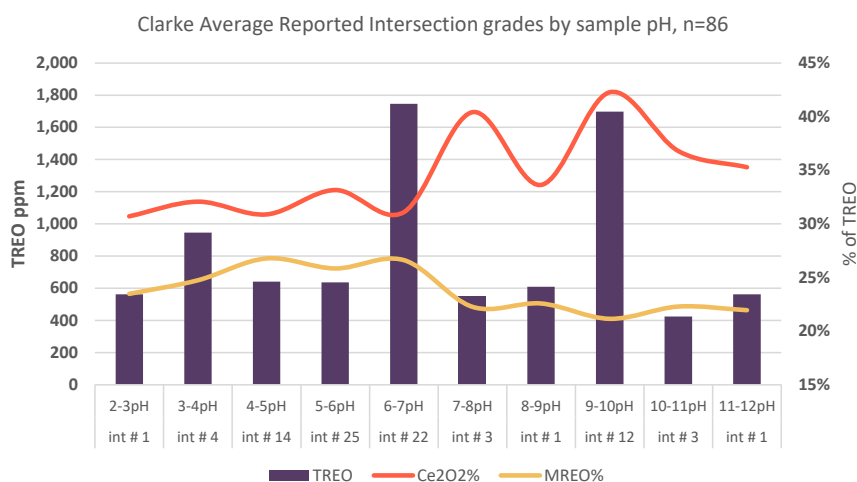
**Over 500m of intersected gold mineralisation at Clarke is not as yet included in the existing 211koz gold resource**

Cobra is developing an unrivalled knowledge of the chemical conditions and prerequisites for the formation of REE mineralisation. This is critical in understanding the occurrence and distribution of various secondary REE phases, the nature of which has a significant impact on metallurgy and therefore potential processing economics. Cobra is working to identify zones of REE mineralisation with a higher component of ionic adsorption which can lead to significantly higher recoveries and lower processing costs.

**Understanding the chemistry could have important implications for further exploration and metallurgical upside**

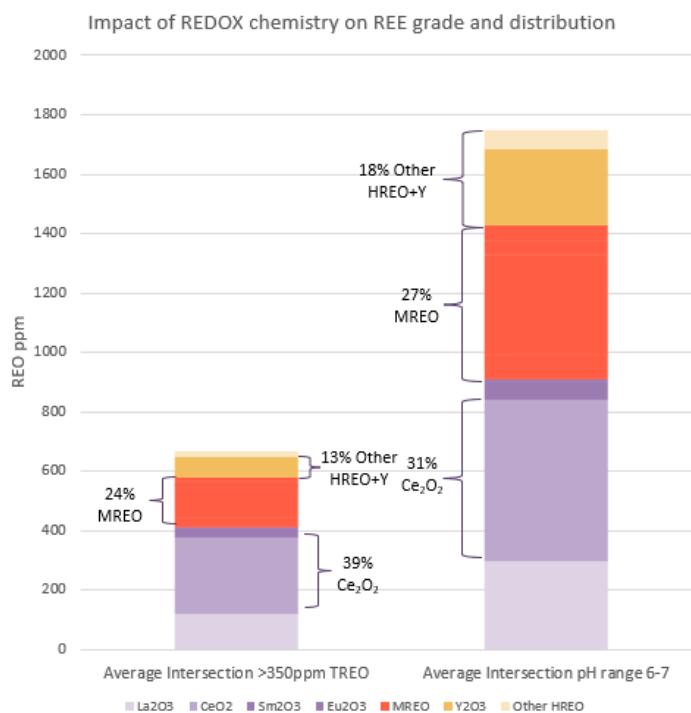
Additionally, further pH testwork will be undertaken to investigate Cobra’s finding that REE grades are considerably higher at pH conditions of 6-7 and 9-10. Refer to figures 6 and 7 below which visually demonstrate this phenomenon. TREO grades in these pH ranges are considerably higher, e.g. >1,700ppm TREO (and 27% MREO) versus the maiden REE mineral resource estimate at 658ppm TREO (and 24% MREO).

*Figure 6 - pH analysis of 86 downhole composites at Clarke demonstrating grade peaks at acidity and alkaline conditions that support ionic adsorption of REE to clay particles*



Source: Cobra Resources

Figure 7 - TREO breakdown of the Clarke dataset evaluating drillhole grades at a cut-off of 350 ppm TREO compared to a pH range of 6-7



Source: Cobra Resources

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