EXTRACTIONS UP TO 70% OF MAGNET RARE EARTHS AT MITRE HILL

5 JULY 2023

- Samples from the Mitre Hill rare earth project, host to an inferred JORC 2012 21 million tonnes resource @767 ppm TREO, have undergone lab testing to assess its amenability to leaching
- The excellent results in leach adsorption testwork has demonstrated the Mitre Hill resource is of an Ionic nature
- Extraction rates were outstanding with a weighted recovery of up to 70.2% for the magnet rare earth elements of Praseodymium (Pr), Neodymium (Nd), Dysprosium (Dy) and Terbium (Tb)
- Results are in-line with, or superior to, other known Ionic REE deposits

Resource Base Ltd (ASX: RBX) (**Resource Base** or **the Company**) is pleased to announce that it has received the metallurgic results from within its Mitre Hill Resource (see ASX announcement "Maiden JORC Resource at Mitre Hill REE Project", dated 3 February 2023).

Two (2) assayed holes were randomly selected within the Initial Resource to test the REE mineralisation. The test-work was supervised and conducted by Strategic Metallurgy laboratories in Perth, Western Australia. The aim of this initial phase of testwork was to broadly understand the metallurgical and processing requirements to recover rare earths from the Mitre Hill project. Simple bottle-roll leaching tests were undertaken under standard desorption conditions of 1.25 M (166gpl lixiviant concentration) using ammonium sulfate as the lixiviant, at pH 3.0, adjusted by addition of sulfuric acid, and left overnight for circa 16 hours.

Clay-hosted REE deposits have advantages over hard rock deposits as they typically contain a higher proportion of magnet earth elements, within generally, shallow hosted deposits. Processing of ionic deposits is a more simplistic process, as the acid separates the minerals with the rare earths remaining within the adsorbed segment, creating superior mining economics.

Maximum recoveries of magnet REEs were as follows:

- Nd – 71.7%
- Pr – 71.1%
- Dy – 59.8%
- Tb – 59.0%

Executive Director, Brent Palmer, commented: "The extraction results prove the Mitre Hill project is an Ionic hosted clay with high REE adsorption qualities, demonstrating the potential for a low-cost operation. The high level of the heavy rare earths present in the leaching results is also a positive, given they are critical components to the magnets required in renewable energy technologies."

Leach Response

Simple bottle-roll leaching tests were undertaken under standard desorption conditions of 1.25 M (166 gpl lixiviant concentration) using ammonium sulfate as the lixiviant, at pH 3.0, adjusted by addition of sulfuric acid, and left overnight for circa 16 hours. Results of this initial test work are set out in Table 1.

Table 1. *Initial metallurgical leach results from Mitre Hill (166g/L ammonium sulfate).*

Mitre Hill		
Hole ID	*MHAC 220048*	*MHAC 220061*
Easting (m)	*509500.352*	*509398.766*
Northing (m)	*5881597.844*	*5882002.543*
Depth (m)	*3-4*	*7-8*
TRE+Y (ppm)	*530*	*862*
TRE-Ce (ppm)	*331*	*508*
Element	**Extraction %**	**Extraction %**
LREO (%)	*54*	*20*
HREO (%)	*63*	*24*
MREO (%)	*70*	*30*
TOTAL REE (%)	*55*	*21*

About Mitre Hill

Mitre Hill is an Ionic clay-hosted REE project in Victoria and South Australia, with a maiden JORC Inferred Mineral Resource estimate of 21 Mt @ 767 ppm TREO. Mineralisation starts from surface and is highlighted by thick zones of high-grade TREO and the existing Mineral Resource estimate only incorporates 38-62% of the identified Exploration Target drilled to date.

The Company is currently working towards infill drilling on Mitre Hill with a view to expanding the current Inferred Resource. We have defined three priority targets with a view to increase the Current Inferred Resource within the Exploration Target.

The Mineral Resource estimate and Exploration Target is set out in the Table 2 below.

Table 2. *Mitre Hill project (EL007647) Mineral Resources estimate and Exploration Target.*

Resource Classification JORC	Tonnes (Mt)	TREO (ppm)	TREO – CeO_2 (ppm)	CREO (ppm)	HREO (ppm)	LREO (ppm)	U_3O_8 (ppm)	ThO_2 (ppm)
Inferred	21	767	502	278	226	541	2	18
Total[(1)]	**21**	**767**	**502**	**278**	**226**	**541**	**2**	**18**
Exploration Target [(2)]	13 - 34	630-830	420-550	230-300	190-250	440-580	2	17- 19

Notes:

(1) Mineral Resources reported at a cut-off grade of 325 ppm TREO minus CeO_2 (TREO-CeO_2)

(2) The Exploration Target is reported at a cut-off grade range of 225 ppm TREO-CeO_2 to 425 ppm TREO minus CeO_2 (TREO-CeO_2). The potential quantity and grade of the Exploration Target is conceptual in nature and is therefore an approximation. 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. The Exploration Target, being conceptual in nature, takes no account of geological complexity, possible mining method or metallurgical recovery factors. The Exploration Target was estimated in order to provide an assessment of the potential scale of exploration for the Mitre Hill project.

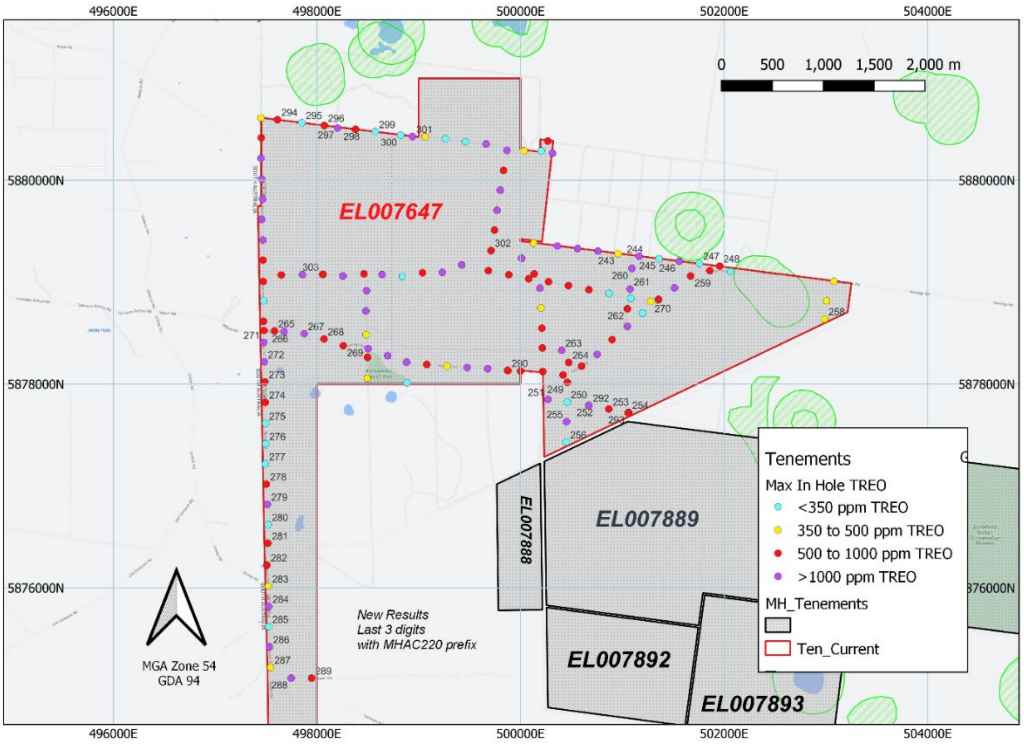
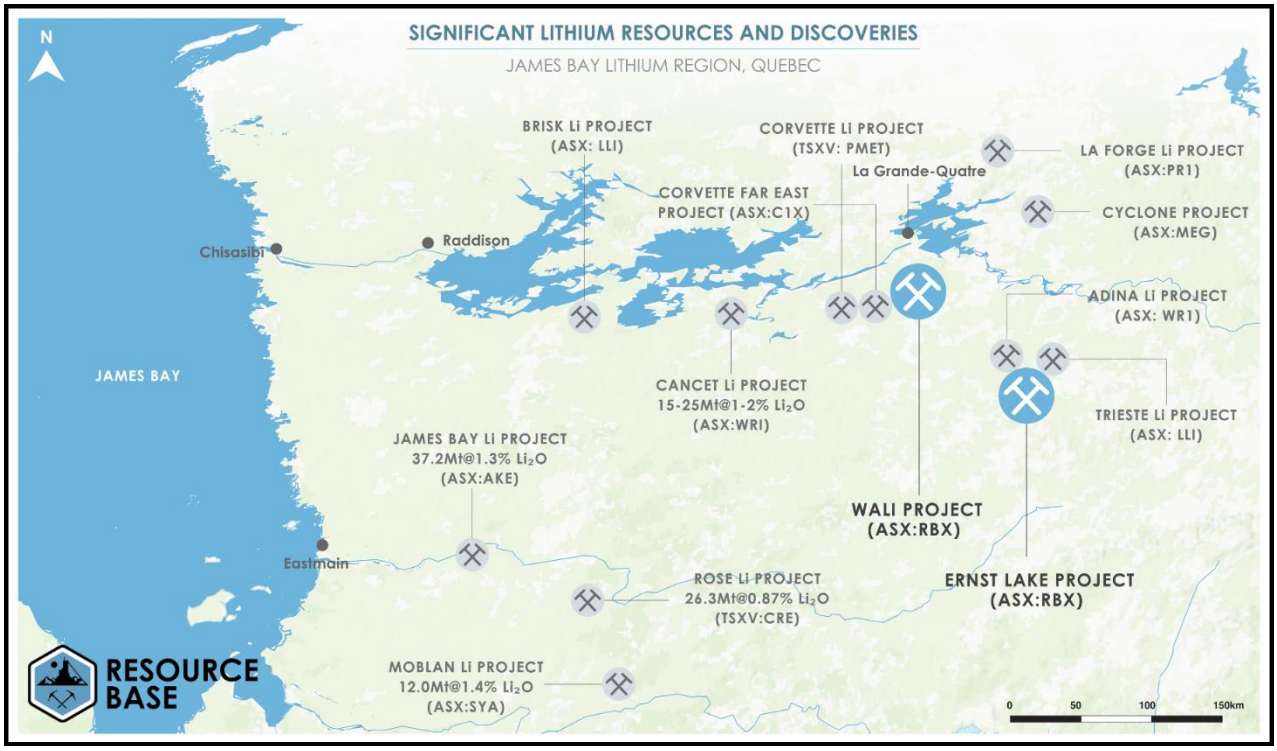


Figure 1: Plan view showing location of mineralised drill holes on EL007647, coloured by maximum TREO grade intercepted. Resource Base, 13 December 2022.

About Resource Base Ltd

As well as the Mitre Hill REE project, and the Black Range Project, Resource Base Limited (ASX: RBX) also has 100% ownership of two lithium exploration projects, Wali and Ernst Lake, both in the highly prospective James Bay lithium province, host to several major players and significant recent discoveries.



- ENDS –

This announcement has been authorised by the Board of Resource Base Limited.

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Competent Persons Statement

The Information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Edward Mead, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Mead is a consultant to the Company and employed by Doraleda Pty Ltd. Mr Mead has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the `Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Mead consents to the inclusion of this information in the form and context in which it appears in this report. Mr Mead does not hold securities in the Company.

Annexure 1: JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	Air-core drilling Sampling at 1m intervals off rig *c.* 2kg was taken from each meter sample to produce a 2g charge for analysis using a Lithium Borate Fusion & ICP Multiple elements including REE
Drilling techniques	Reverse circulation air-core drilling NQ size
Drill sample recovery	Recoveries logged based on visual estimate of percentage of expected sample volume in 25% gradations from 0% to 100%. Wetness of sample is recorded as dry, damp or wet Contamination is recorded on visual basis as hi, low or no contamination based on likelihood of contamination with adjoining sampling intervals due to high level of water or inaccurate sampling boundary. No attempt has been made to assess potential bias due to sample size fraction loss/gain
Logging	Geological log entire drill hole on meter by meter or interval basis as appropriate Geological boundaries based on 1m sample boundaries Data recorded to digital platform onsite Core-yard logging as required
Sub-sampling techniques and sample preparation	Scoop spear sampling from 1m rig samples for assay and storage Field duplicate taken for every meter sample pXRF sample taken as scoop sample from the 1m sample in warehouse Lab assay samples determined on basis of XRF results Sampling techniques are appropriate for the reconnaissance nature of the drilling programs
Quality of assay data and laboratory tests	An aliquot of sample is accurately weighed and fused with lithium metaborate at high temperature in a Pt crucible. The fused glass is then digested in nitric acid. This process provides complete dissolution of most minerals including silicates. Volatile elements are lost at the high fusion temperatures. In some cases, elements are reported as oxides. (Nature of the sample may compromise detection limits) Certified OREAS REE QA/QC standards of various concentrations were inserted at ratio of 1:20. Blank samples were inserted at ratio of 1:40. Field duplicates submitted for lab analysis at 1:20 ratio Geochemical database is managed by dedicated external third party - Geobase Australia Pty Ltd
Verification of sampling and assaying	Geological and sampling data is logged into Excel based templates using a auto-validated library structure Excel data is verified and uploaded to the appropriate project database by the Company's dedicated database management external consultants – Geobase Australia Pty Ltd Assay results are reported directly to the Exploration Manager and database manager Assay data is imported in digital format into the project database Sampling and assay data is checked to ensure that all intervals are matched to

	correct drilling interval with no unexpected gaps, overlaps or duplication. QA/QC results are checked to ensure that values are within accepted industry standard tolerances and reported by the database manager. Oxide values for REE are calculated within the exploration database from the laboratory reported elemental concentrations using standard stoichiometric conversion factors. TREO (Total Rare Earth Oxides) value is calculated within the exploration database using the elemental oxide values as follows; La2O3 + CeO2 + Pr6O11 + Sm2O3 + Nd2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3 MREO (Magnet Rare Earth Oxides) value is calculated within the exploration database using the elemental oxide values as follows; = Pr6O11 + Nd2O3 + Tb4O7 + Dy2O3 LREE (light rare earth elements) = La+Ce+Pr+Nd HREE (heavy rare earth elements) = Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Yb+Lu Significantly mineralised intervals are manually checked to ensure validated correlation to geological data
Location of data points	Location Method: Garmin handheld 12 channel GPS Location Accuracy Horizontal: ±3m Location Accuracy Vertical: ±6m Grid System: GDA94 UTM Zone 54 Drill hole locations are extrapolated onto SRTM digital elevation model to obtain final elevation value Topographic control is adequate at this stage of exploration
Data spacing and distribution	Systematic grid style drilling at nominal 100m spacing along E-W lines spaced 200m apart in the N-S direction. Exclusion of cultural overlay zones in first pass program Broad roadside reconnaissance drilling with drill hole spacings ranging from approximately 0.25km to 1km
Orientation of data in relation to geological structure	Vertical drill holes Air-core drilling is of reconnaissance nature and not intended to produce small scale structural information Geological domains within drilled intersections are approximately horizontal and therefore approximately perpendicular to drill direction
Sample security	Samples collected during drilling and removed to secure warehouse each day Compilation of samples for dispatch to laboratory takes place in the secure warehouse by company employees Samples are palletised and protected with multiple layers of packaging film for transport by logistics contractor to the analytical laboratory, Bureau Veritas in Adelaide.
Audits or reviews	QA/QC reporting by external consultant Geobase Australia Pty Ltd has not identified any significant data issues

Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	The Mitre Hill project comprises a number of Exploration Licences in Victoria, Australia which are wholly owned by the Company and are in good standing at the time of this report. Information relevant to EL007646 includes; Currently in good standing and valid until 7th November 2026 There are no non-government royalties applicable. Land use is mixed grazing/cropping and privately owned plantation forest. There are no registered Native Title claims. There is no known impediments to obtaining a license to operate in the area and exploration is active and on-going. Information relevant to EL007647 includes; Currently in good standing and valid until 17th June 2027 There are no non-government royalties applicable. Land use is mixed grazing/cropping, privately owned plantation forest, State Forest crown land. There are no registered Native Title claims. There is no known impediments to obtaining a license to operate in the area and exploration is active and on-going.
Exploration done by other parties	EL007646 Previous exploration work has been very limited. There has been no previous exploration targeting REE 1979-1982 Western Mining explored the region for brown coal. No holes were drilled on the current EL007646 area. 1986-1989 CRA Exploration explored the region for Heavy Mineral Sands, drilling one hole only on the current EL007646 area. Results did not warrant follow up. 2007 Mineral Sands Ltd explored the region for Heavy Mineral Sands with no drilling on the current EL007646 area. 2008 Corvette Resources Ltd explored the region for Heavy Mineral Sands with no drilling on the current EL007646 area. EL007647 Previous exploration in the area includes campaigns for; Oil and gas in the mid-1960's Heavy mineral sands in the mid-1970's Coal in the late-1970's to early-1980's Heavy mineral sands again in the mid- to late-1980's Heavy mineral sands again in the mid- to late-2000's During these periods of exploration only 1 drill hole has been excavated on the current EL007647 tenement area, a coal exploration bore in the 1980.
Geology	The Mitre Hill project is considered to contain ionic adsorption clay and clay hosted rare earth deposits in an area considered to be in the early stages of exploration regarding rare earths and is proving to be highly prospective. The REE mineralisation hosted by the clayey sediments (Zone 3) were thought to be deposited onto the limestone basement associated with basalt alkali volcanism In south-east Australia. The accumulated fine-grain clays in this area is indicative of a marine or coastal environment during their deposition. At this stage of exploration there is insufficient geological work undertaken to determine detailed structural geology and closer spaced drilling to better interpret

	the undulating geological domain boundaries of the deposit.
Drill hole Information	The material information for drill holes relating to this report are contained within the Appendix.
Data aggregation methods	No metal equivalents have been used. Rare earth elements are reported in parts per million (ppm) and the conversion from element to oxide was completed using stoichiometric oxide conversion factors.
Relationship between mineralisation widths and intercept lengths	All intercepts reported are down hole (vertical) lengths. The mineralisation is interpreted to be horizontal, flat lying therefore vertical drilling is perpendicular to mineralisation. The true mineralisation width is not yet well defined when considering any internal variation of REE distribution within the target domain and weathered limestone unit.
Diagrams	Please see maps and diagrams included in the announcement text
Balanced reporting	This report contains all drilling results that are consistent with JORC guidelines. Where data was not included, it was considered not material.
Other substantive exploration data	All relevant and meaningful data is included in this report or has been previously released. Metallurgical samples were provided to the laboratory for preliminary leach extraction assessment using samples and conditions as detailed within the body of the report. It must be noted that the extraction numbers reported are indicative only and do not account for further losses or inefficiencies that may or may not occur due to further downstream processing to marketable product(s).
Further work	Grid-based drilling on private farmland. Land access and stakeholder engagement. Roadside reconnaissance air-core drilling.