

## VHM Limited

World class rare earths and zircon mineral discovery - Goschen Project, Victoria

Several emerging major resource projects including downstream processing of rare earth mineral products and definition of zircon and rutile deposits.

### Board of Directors

Don Runge	Non-Executive Chairman
Graham Howard	Managing Director
Michael Allen	Executive Director
Gamini Colless	Non-Executive Director
Ian Hobson	Company Secretary

### Registered Office

Suite 8, 110 Hay Street  
Subiaco WA 6008

### Share Registry

Automic Pty Ltd  
Level 2/267 St Georges Terrace  
Perth WA 6000

### Capital Structure

Ordinary Shares: 202,801,902  
Options: 8,804,343

### Market Capitalisation

A\$168.32M

### Investor Relations

Carly O'Regan  
M: 61 431 068 814  
[carly.oregan@vhmltd.com.au](mailto:carly.oregan@vhmltd.com.au)

Ian Hobson

M: 61 407 421 185  
[ian.hobson@vhmltd.com.au](mailto:ian.hobson@vhmltd.com.au)

# Quarterly Activities Report

For the period ended 31 March 2023

## Highlights:

- Successful Initial Public Offer listing on the ASX.
- Release of Definitive Feasibility Study Refresh for the Goschen Project to reflect work completed since the Prospectus<sup>1</sup> and focused on Phases 1 and 1A of the proposed mine operation.
- Key Financial Metrics<sup>2</sup>:
  - FCF \$A270m (annual 10 year nominal dollar average)
  - NPV (pre-tax) A\$1.5b
  - IRR of 44%
  - 2.8 year payback from first production
- Key Production Metrics of zircon-titania HMC, REMC and MREC product with nameplate process feed rate of 5Mtpa for a foundation 20-year mine life.
- Metallurgical testwork program at ANSTO demonstrated high extractions of light and heavy rare earth minerals.
- Pilot plant testwork program commenced for the Goschen Hydromet Circuit – Phase 1A.
- Progress MOU matters with Shenghe for first three years from first production for REMC and HMC product.
- Grant funding application activities continue with results of grant funding for Phase 1A Hydromet Circuit to be released.
- MOU signed with local council confirming commitment to the Loddon Mallee Region.
- Discovery of major rare earth mineral and zircon – rutile deposit at Cannie (south of Goschen).

#### Notes:

(1) Prospectus dated 22 November 2022 and supplementary prospectus dated 6 December 2022 lodged at ASX on 5 January 2023.

(2) For Goschen Project - Phase 1 and 1A.

## Goschen Project Definitive Feasibility Study Refresh

Results from the Definitive Feasibility Study (DFS) Refresh<sup>1</sup> confirmed the potential of the Goschen Project as a world-class operation delivering robust economics.

Development of the Project will produce critical minerals of zircon-titania heavy mineral concentrate (HMC), a rare earth mineral concentrate (Phase 1), and a mixed rare earth carbonate (Phase 1A).

Critical works undertaken during Q1 2023 which contribute to the outlook for the Project and prompted the DFS Refresh, included:

- Updates to capital and operating cost estimates based on 2023 market conditions and influences.
- Market study pricing updates (Q1 2023) for rare earths, zircon, and titania products.
- Completion of front-end engineering and design (FEED) optimisation studies for Process engineering, and design and optimisation for a mineral separation plant (MSP) and related process assets.
- Completion of metallurgical testwork and process design and engineering for the Construction and commissioning of a hydromet circuit to upgrade the rare earth mineral concentrate (REMC) to a mixed rare earth carbonate (MREC).
- Completion of hydrogeology and hydrology studies for surface and sub-surface water management.
- Progressing geotechnical studies in the areas of pit design, surface waste dump design, foundation engineering and tailings disposal and engineering.
- Progressing toward Environmental Statement decision, and subsequent Mining Licence grant.
- Tailings disposal and management.

Table 1: Goschen Project DFS Financial Metrics (Phase 1 and 1A) (nominal dollars)

5Mtpa Goschen Project DFS Financial Metrics (Phase 1 and 1A) <sup>2</sup>			
Pre-tax NPV <sup>10</sup> (A\$ m)		1,525	
Pre-tax IRR		44%	
Ore Reserve LoM (years)		20.5	
Average ore grade (THM)		4.0%	
Average strip ration (waste : ore)		2.6 : 1	
First 10 Years of Mine	Average Production (tpa)	REMC	9,428
		MREC	8,568
		Zircon-titania HMC	134,500
	Average revenue per annum (A\$ m)		564
	Average opex per annum (A\$ m)		273
	Average EBITDA per annum (A\$ m)		291
	Average unlevered, pre-tax FCF per annum (A\$ m)		270
	Average revenue A\$/t ore		118
	Average operating costs A\$/t ore		57
	Payback from commencement of production (years)		2.8

<sup>1</sup> See ASX Announcement dated 28 March 2023

Final Investment Decision (FID) for Phases 1 and 1A are scheduled for H2 2023 upon receipt of regulatory approvals and permits.

The low operating cost of the Project and low capital intensity to realise the results of the DFS Refresh also confirmed it has the potential to add significant economic value to Australia's supply and trade position in the global rare earths markets.

## **Goschen Development Activities**

### **Hydromet Circuit Phase 1A Pilot Testwork**

The pilot testwork program commenced at Australian Nuclear Science and Technology Organisation (ANSTO), with the preparation of 100kg of REMC extracted by Mineral Technologies, using ore feed from the Goschen deposit<sup>2</sup>.

The rare earth pilot testwork program has a number of primary objectives:

- Confirm the viability of the selected Hydromet flowsheet at larger scale.
- Provide valuable process data for feeding into the Hydromet Definitive Engineering Study.
- Provide market samples for the MREC product.

The pilot plant program will be completed over a 19 week period at ANSTO, running continuously 24 hours a day.

The pilot plant program consists of the following stages:

1. Pilot feed preparation and characterisation: assays, mineralogy, drying etc.
2. Pre-pilot flowsheet optimisation at bench scale: confirm final pilot operating conditions such as bake temperatures, reagent additions etc.
3. Vendor engagement: vendors witness the testing of the applicable unit operations to inform their submission to supply kiln, dewatering equipment etc.
4. Acid Bake operation: mixing sulphuric acid with the REMC and bake at ~260°C allowing extraction of the rare earths from monazite and xenotime minerals to be extracted by water leaching.
5. Hydromet operation: purification and precipitation of the mixed rare earth carbonate product.
6. Related works (environmental analysis, water recycle testwork).

The results of the pilot plant will feed into the engineering study scheduled thereafter. Piloting will give VHM detailed engineering solutions, the ability to order long-lead items for the hydromet circuit and provide a MREC product for market evaluation.

---

<sup>2</sup> See ASX Announcement dated 17 January 2023

*Pictured: Goschen rare earth product undergoing bench scale sulphation kiln testwork at ANSTO*



### **Memorandum of Understanding Offtake Agreement with Shenghe**

VHM entered a Memorandum of Understanding (MOU) with Shenghe in respect of the take-or-pay offtake arrangements for the Goschen Project Phase 1 products (REMC and HMC) as summarised in the Prospectus. VHM advises that the parties are continuing the detailed contract negotiations. Accordingly, as disclosed on 28 February 2023 and as contemplated in the MOU, the parties have agreed to extend the target date by which the formal agreement is to be finalised by 30 April 2023.

### **Metallurgical Update**

#### **ANSTO Testwork Demonstrates High Extractions of Rare Earth Mineral**

VHM has been progressing metallurgical testwork with ANSTO. Pre-pilot testwork results from static trials from the Goschen Project Deposit (Area 1 and Area 3), were conducted in January 2023 and confirmed exceptional leach extractions of >99% for the critical light rare earth metals (neodymium and praseodymium) and >98% for the critical heavy rare earth metals (dysprosium and terbium) are possible from the REMC for the Goschen Project<sup>3</sup>.

The samples used at ANSTO for metallurgical testwork were based on a sonic bulk sample drill program that the Company undertook during 2022, within Area 1 and Area 3.

The bulk sampling program confirmed that the REMC is highly amenable to conventional sulphate bake processing into a MREC product, and subsequently informed the processing plant development for the Hydromet Circuit facility, detailed in the Goschen DFS Refresh - Phase 1A.

The combination of the exceptionally high grade (>60% TREO) REMC in conjunction with demonstrated high extraction rates is expected to result in low capex and opex to produce the MREC product. As a result of the purity, there are expected to be lower reagent costs, smaller kiln, and lower energy costs, adding to VHM's competitive proposition.

---

<sup>3</sup> See ASX Announcement dated 17 January 2023



## Area 4 Metallurgical Results

As part of VHM's extensive metallurgical testwork program, 1.6 tonnes of material sourced from four geological domains of interest were characterised by Mineral Technologies and treated through the Goschen Project mineral sands process flowsheet in January 2023<sup>4</sup>.

Results indicated:

- Total Heavy Mineral (THM) grade of 11.1% in upper mineralised zone of Area 4 (2.8 times higher in THM grade compared to Goschen Project Ore Reserve average THM grade of 4%).
- Mineralisation is amenable for processing through the flowsheet proposed for the Goschen Project (Areas 1 and 3).
- High value zircon and titania products are consistent with previous Area 1 testwork outcomes.

The results from Area 4 metallurgical testwork, confirmed high THM grades and amenability to the Goschen Project (Areas 1 and 3) processing through the conventional flowsheet. Area 4 is located outside of the Goschen Project footprint and is part of a high-grade strandline deposit defined by resource definition drilling in 2018 and 2019.

## Exploration Update

### Cannie and Nowie Prospects Exploration Drilling Program Completed

The Company completed a comprehensive exploration drilling program for its Cannie (137 holes totalling 5,482m) and Nowie prospects (50 drill holes totalling 2,106m) with drilling contractor Wallis Drilling. Aircore drilling techniques were used to conduct the program for rare earth and HMS mineralisation. Drill spacing will support the generation of a Mineral Resource estimates (MRE) following the return of all analytical data.

### Cannie Interim Results

Subsequent to the end of the reporting period, initial drilling results from the Cannie area were released<sup>5</sup>. Results indicated a new high-grade rare earths, titania, and rutile ore body, with consistent mineralisation results from the drilling activity across 16 km<sup>2</sup> surveyed.

Initial assays from the first 17 drill holes indicate the Cannie area contains even higher grade THM results than measured at the nearby Goschen Project. The Cannie Project is located 13.5km south of the Company's Goschen Project.

High-grade intercepts across the 17 holes average 4.9% THM with an average interval width of 2.7m. Results indicated a near surface total mineralised package averaging 17m in width at a depth of 10m – 20m below surface.

Down hole gamma elevation across all 137 drill holes indicated the discovery of a significant ore body demonstrating continuous mineralisation with an east-west extent of 3.8km and north-south extent of 5.5km (Figure 2). Geological and downhole geophysical logging and preliminary assays indicates the Cannie Deposit remains open in all directions.

Mineral assemblage analysis was completed on two disparate high-grade samples comprising 6.6% and 4.2% THM respectively (Figure 3). This data indicated a high proportion of heavy minerals (HM) with concentrations of zircon between 24% - 35%, rutile between 16.8% - 17.5%, and leucoxene between 16.6% - 19.1%. Early results indicate the zircon grade is

---

<sup>4</sup> See ASX Announcement dated 25 January 2023

<sup>5</sup> See ASX Announcement on 4 April 2023

comparable to the Goschen Project, however rutile and leucoxene grades are significantly higher than those recorded in the Goschen Project.

The total rare earth oxide (TREO) grades within the sand fraction (TREO within heavy mineral (HM) feed grade) range between 2.82% - 4.25% TREO + Yttrium Oxide (Y<sub>2</sub>O<sub>3</sub>). TREO + Y<sub>2</sub>O<sub>3</sub>, further supported indications of a significant high-grade rare earth mineral ore body at Cannie.

Further assaying will be completed from the Cannie Project's drilling activities.

Figure 1: Cannie Project drill location map

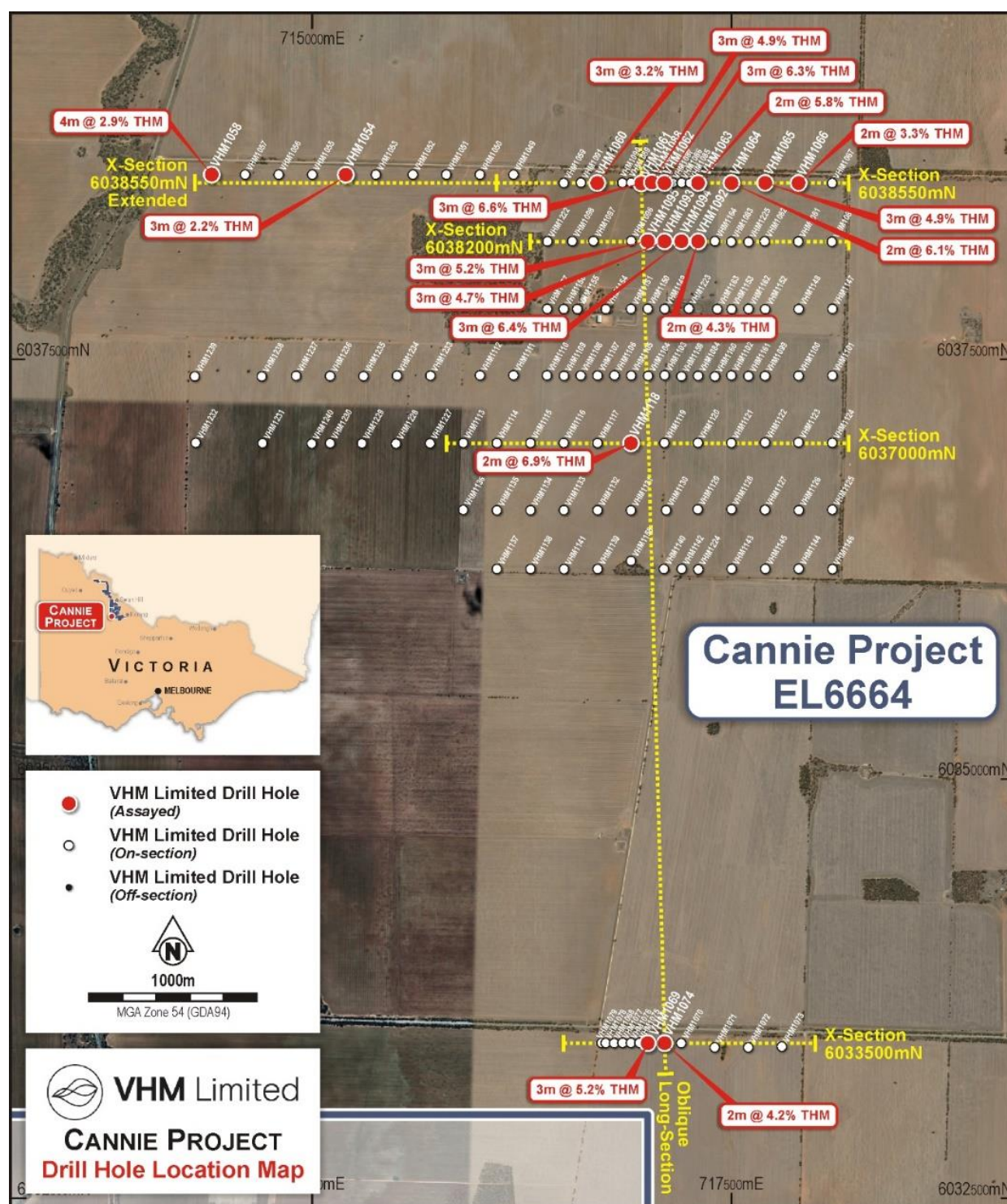




Figure 2: Cannie drilling cross-section West/East indicate high-grade, near-surface THM

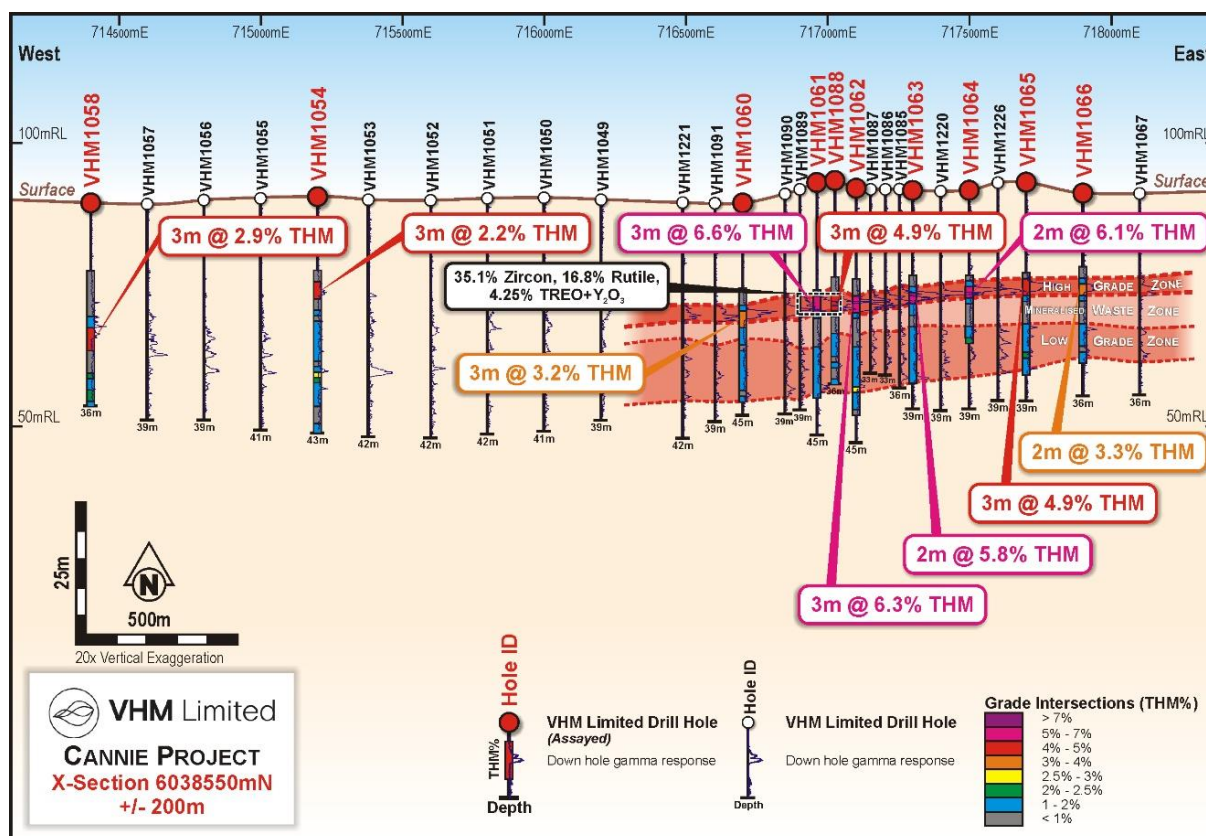
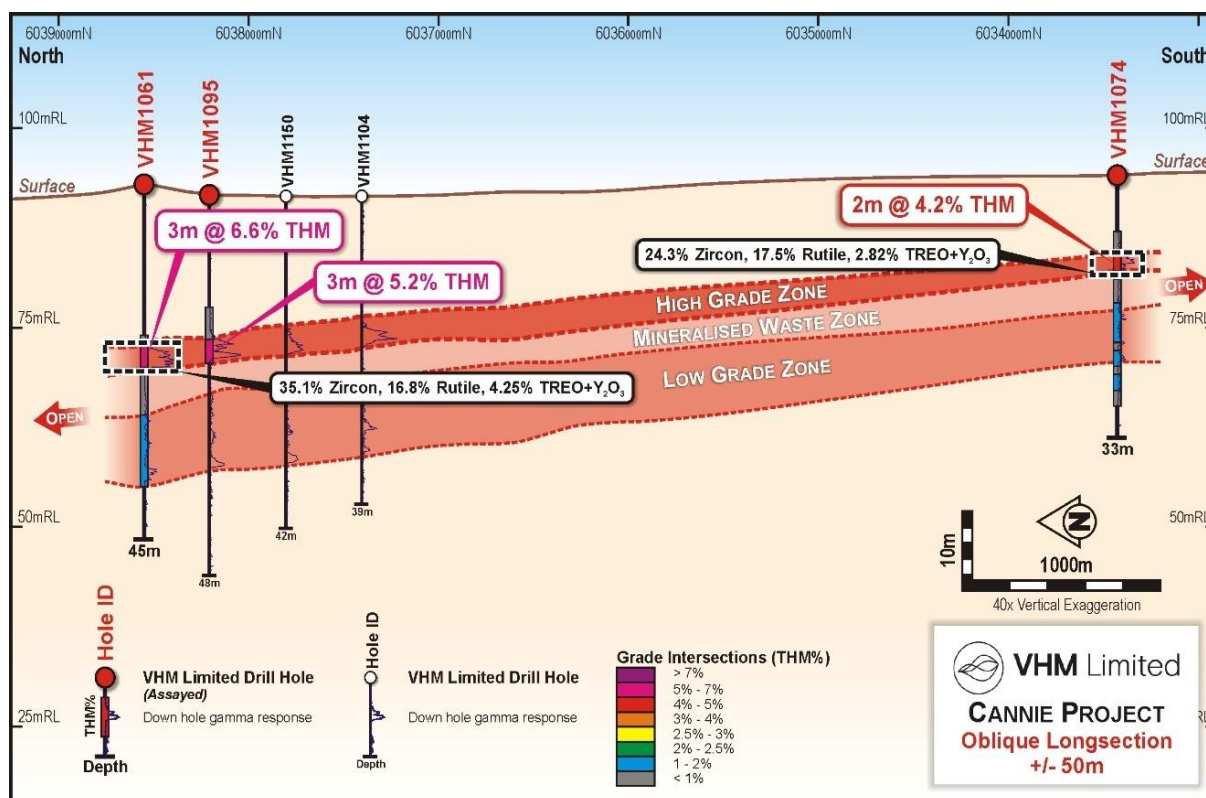


Figure 3: Cannie drilling results indicate continuous mineralisation across the ore body with high-grade THM samples



*Pictured: Exploration drilling activity in Cannie area*



## **Approvals and Licence Updates**

### **Mining Licence Application**

The Company submitted a mining licence (MIN) application to Earth Resources Regulation on 30 March 2023 for the proposed Goschen Mine Site area.

Once the Minister for Planning has assessed the EES application and given it a positive recommendation, it will allow the Minister for Resources to assess the MIN application and subsequently accept an application of the Project Work Plan, which is one of the final steps in obtaining the approvals for the Goschen Project.

### **Permitting Update**

Final environmental and social technical reports, and the associated Environment Effects Statements (EES) chapters are currently undergoing adequacy review by the Department of Transport and Planning against the scoping requirements, which is the final step before seeking authorisation to allow Public Exhibition of the EES in the first half of 2023.

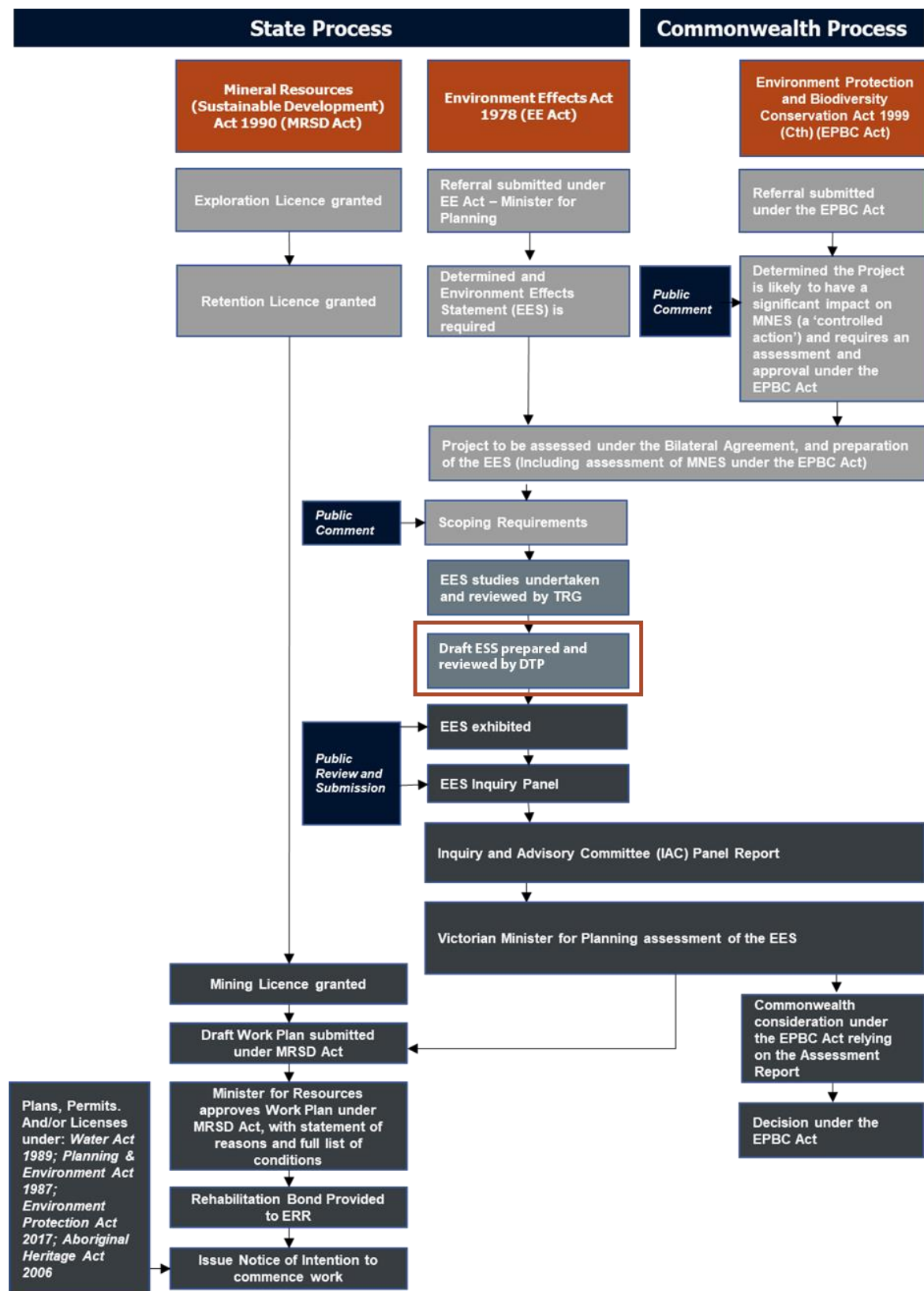
The Victorian EES process is accredited to assess potential impacts on matters of national environmental significance for the purpose of the *EPBC Act* under the bilateral assessment agreement between the Commonwealth and the State of Victoria.



The EES and EPBC linked processes are summarised in Figure 4.

The completion of the EES documentation represents a key approval milestone to advance the Goschen Project.

Figure 4: EES approvals process in Victoria



## Community Engagement

### Memorandum of Understanding with Gannawarra Shire

The Company formalised its relationship with the Gannawarra Shire Council, signing a MOU. The MOU aims to outline a sustainable social and economic future for the communities in the Loddon Mallee Region, where VHM's flagship Goschen Rare Earths and Mineral Sands project is located.

The MOU affirms the establishment of a long-term, mutually beneficial relationship between the Company and the Council.

The details of the MOU have been negotiated and provide a framework for how the long-term, collaborative partnership between the Company and the Council will aim to maximise social and economic investment outcomes for residents and the greater Loddon Mallee Region.

The MOU defines shared or co-dependent responsibilities around job creation, training and development, local infrastructure planning and use, indirect project economic opportunities and Government funding advocacy. The Agreement also covers environmental and social development outcomes for the mutual benefit of the community and VHM shareholders.

*Pictured: Gannawarra Shire Council CEO Geoff Rollinson and VHM Limited Managing Director Graham Howard signing the Memorandum of Understanding*



## Corporate Update

### ASX Listing

The Company successfully listed on the Australian Stock Exchange (ASX) on 9 January 2023<sup>6</sup>. The Initial Public Offer (IPO) consisted of 22.22 million fully paid ordinary shares at an issue price of A\$1.35 each to raise gross proceeds of A\$30 million (before costs). Canaccord Genuity (Australia) Limited acted as Lead Manager of the IPO, supported by Co-Manager Reach Markets, and Standard Chartered Bank as corporate financial adviser. HWL Ebsworth Lawyers acted as legal adviser.

### Critical Minerals Development Program Grant Funding for Phase 1A

VHM engaged Deloitte to assist in an application for the Critical Minerals Development program. The Grant is a Commonwealth initiative through the Department of Industry, Science and Resources to support the Australian critical minerals sector. If successful, the grant will enable VHM to expediate the Phase 1A Engineering Study and FEED for the Hydromet Circuit, which is to be co-located at Goschen and will produce a separated mixed rare earth carbonate product.

The outcome of the application is expected in June 2023.

### Offtake

The Company continues to engage with prospective domestic, European, Asian, and North American counterparties for offtake agreements for its REMC, MREC, and HMC products.

---

<sup>6</sup> See ASX Announcement dated 9 January 2023



## Mining Tenements held by VHM Limited

Table 2: Tenement table

Licence Number	Location	Registered Holder	Project	Status	Area (km <sup>2</sup> )	Grant date	Expiry Date
RL6806	North West Victoria	VHM Ltd	Goschen	Current	311	10/01/2020	9/01/2027
EL 6419	North West Victoria	VHM Ltd	Cannie	Current	443	18/05/2018	17/05/2023
EL 6664	North West Victoria	VHM Ltd	Cannie	Current	618	18/06/2018	17/06/2023
EL 6666	North West Victoria	VHM Ltd	Nowie	Current	447	18/06/2018	17/06/2023
EL 6769	North West Victoria	VHM Ltd	Exploration	Current	1041	27/08/2018	26/08/2023
Total Km <sup>2</sup>					2,860		
Tenements pending transfer to VPM <sup>1</sup>							
EL 7827	North West Victoria	VHM Ltd	Exploration	Current	335	15/08/2022	14/08/2027
EL 7807	North West Victoria	VHM Ltd	Exploration	Current	421	15/08/2022	14/08/2027
EL 7810	North West Victoria	VHM Ltd	Exploration	Current	424	15/09/2022	14/9/2027
EL 7803	North West Victoria	VHM Ltd	Exploration	Current	609	11/10/2022	10/10/2027
Total Km <sup>2</sup>					1,789		

Note 1: These tenements are to be transferred to VP Minerals 12 months after grant date pursuant to the Demerger Asset Sale Agreement.

## Finance Update

At quarter end the Company held approximately A\$27.7 million. The Company's detailed quarterly cash flow report is attached in Appendix 5B.

### Use of Funds

VHM Limited provides the following disclosures required by ASX Listing Rule 5.3.4 regarding a comparison of its actual expenditure as of 31 March 2023 since listing on 9 January 2023 against the 'use of funds' statement in the Prospectus.

The expenditure to date is generally consistent with that anticipated at the time of preparation of the Company's Prospectus.

Table 3: Use of funds

Source and uses of funds	Funds allocated under Prospectus	Actual to 31 March 2023	Balance Remaining
<b>Goschen Project</b>			
- Metallurgical and hydromet circuit testwork	4,700,000	2,000,000	2,700,000
- Front end engineering and design	5,700,000	1,400,000	4,300,000
- Approvals	7,700,000	1,900,000	5,800,000
<b>Land acquisition and community</b>	11,300,000	3,600,000	7,700,000
<b>Exploration &amp; appraisal</b>			
- Cannie Project	2,300,000	1,300,000	1,000,000
- Nowie Project	1,100,000	200,000	900,000
- Licence fees / other exploration	800,000	100,000	700,000
<b>Corporate (net General &amp; Administrative)</b>	2,200,000	1,400,000	800,000
<b>Interest costs and costs of offer</b>	4,300,000	4,400,000	(100,000)
<b>Working capital and liquidity buffer</b>	1,000,000	-	1,000,000
<b>Total</b>	<b>41,100,000</b>	<b>16,300,000</b>	<b>24,800,000</b>

**ENDS**

This announcement has been approved by the Board of VHM.

## Compliance Statement

The Company provides the following information pursuant to ASX Listing Rule requirements:

1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure spend during the quarter was \$2.5 million materially comprising drilling, assay and metallurgical expenses as set out in this report.
2. ASX Listing Rule 5.3.2: There were no substantive mining production and development activities during the quarter.
3. ASX Listing Rule 5.3.3: The exploration licences are set out in Table 2. There was no change to the Company's 100% interest in the licences since the last quarter.
4. ASX Listing Rule 5.3.4: the progress towards spending the funds relative to the proposed use of funds and any material variance between anticipated expenditure and actual expenditure is set out in Table 3.
5. ASX Listing Rule 5.3.5: Payment to related parties of the Company and their associates during the quarter as set out in Section 6.1 of the attached Appendix 5B relate to director salaries and fees in the quarter.

## Mineral Resources, Ore Reserves, Exploration Results and Exploration Target

The information in this announcement regarding the Mineral Resource estimate and Exploration Target was set out in the Prospectus. The Company confirms that it is not aware of any new information or data that materially affects the information in that Prospectus and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the Prospectus continue to apply and have not materially changed.

The information in this announcement regarding the Ore Reserve estimates was set out in the Company ASX Announcement dated 28 March 2023. The Company confirms that it is not aware of any new information or data that materially affects the information in that announcement and that all material assumptions and technical parameters underpinning the Ore Reserve estimates continue to apply and have not materially changed.

The Company confirms that the exploration results referred to herein were first reported on the dates referenced and that the Company is not aware of any new information or data that materially affects those exploration results.

## Production Target

The information in this announcement regarding the Production Target, and forecast financial information derived from that Production Target, was set out in the ASX release dated 28 March 2023. The Company confirms that all material assumptions underpinning the Production Target and the forecast financial information derived from that Production Target continue to apply and have not materially changed.

## Forward Looking Statements

This document may contain certain forward-looking statements concerning VHM Limited. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties, and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political, and social uncertainties, and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks,



competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward-looking statements in this document are based on the company's beliefs, opinions, and estimates of VHM Limited as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

### Further Information

Carly O'Regan  
Executive General Manager  
**M:** +61 431 068 814  
**E:** [carly.oregan@vhmltd.com.au](mailto:carly.oregan@vhmltd.com.au)

Ian Hobson  
Company Secretary  
**M:** +61 407 421 185  
**E:** [ian.hobson@vhmltd.com.au](mailto:ian.hobson@vhmltd.com.au)

### Media

James Strong  
Citadel-MAGNUS  
**M:** +61 448 881 174  
**E:** [jstrong@citadelmagnus.com](mailto:jstrong@citadelmagnus.com)

## Appendix A: Mineral Resource estimate and Ore Reserves (JORC 2012)

Table 4: Company Mineral Resource statement

Area	Mineral Resource Category	Material	In Situ THM	Bulk Density	Total Heavy Mineral (THM)	Slimes	Oversize material >2mm	THM Assemblage <sup>(2)</sup>						Rare Earth Oxides																
								Zircon	Rutile	Leucoxene	Ilmenite	Monazite	Xenotime	CeO <sub>2</sub>	Dy <sub>2</sub> O <sub>3</sub>	Er <sub>2</sub> O <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	Nd <sub>2</sub> O <sub>3</sub>	Pr <sub>6</sub> O <sub>11</sub>	Sm <sub>2</sub> O <sub>3</sub>	Tb <sub>2</sub> O <sub>3</sub>	Tm <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	Yb <sub>2</sub> O <sub>3</sub>	TREO			
		(Mt)	(Mt)	(gcm <sup>-3</sup> )	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
Area 1	Measured	30.7	1.8	1.76	5.72	15	5	29.9	10.8	9.0	24.7	4.3	0.8	0.96	0.07	0.05	0.004	0.06	0.48	0.38	0.11	0.07	0.01	0.008	0.47	0.05	2.72			
	Indicated	62.2	1.4	1.72	2.31	18	2	26.6	11.5	9.2	25.0	4.6	0.9	1.11	0.07	0.05	0.004	0.07	0.53	0.46	0.12	0.08	0.02	0.007	0.48	0.05	3.04			
	Total <sup>(1)</sup>	92.9	3.2	1.73	3.44	17	3	27.7	11.2	9.1	24.9	4.5	0.8	1.06	0.07	0.05	0.004	0.07	0.51	0.43	0.12	0.08	0.02	0.008	0.48	0.05	2.94			
Area 2 West	Indicated	26	0.7	1.72	2.80	20	8	22.0	16.0	12.0	25.0	3.0	1.0	0.66	0.06	0.04	0.003	0.05	0.31	0.28	0.07	0.05	0.01	0.010	0.39	0.04	1.97			
	Total <sup>(1)</sup>	26	0.7	1.72	2.80	20	8	22.0	16.0	12.0	25.0	3.0	1.0	0.66	0.06	0.04	0.003	0.05	0.31	0.28	0.07	0.05	0.01	0.010	0.39	0.04	1.97			
Area 3	Indicated	204.1	6.9	1.73	3.38	19	3	19.2	9.0	8.0	25.0	3.2	0.6	0.78	0.05	0.04	0.003	0.05	0.36	0.33	0.09	0.06	0.01	0.010	0.37	0.04	2.19			
	Inferred	287.7	6.7	1.72	2.32	18	3	17.2	8.7	7.5	22.7	2.9	0.5	0.76	0.05	0.03	0.003	0.05	0.35	0.31	0.08	0.06	0.01	0.010	0.36	0.03	2.1			
	Total <sup>(1)</sup>	491.8	13.6	1.73	2.76	18	3	18.2	8.9	7.7	23.9	3.0	0.6	0.77	0.05	0.03	0.003	0.05	0.36	0.32	0.09	0.06	0.01	0.010	0.36	0.04	2.14			
Area 4	Indicated	18	0.8	1.74	4.60	20	5	19.0	11.0	10.0	24.0	3.0	1.0	0.67	0.05	0.03	0.002	0.05	0.32	0.28	0.07	0.05	0.01	0.006	0.33	0.04	1.9			
	Total <sup>(1)</sup>	18	0.8	1.74	4.60	20	5	19.0	11.0	10.0	24.0	3.0	1.0	0.67	0.05	0.03	0.002	0.05	0.32	0.28	0.07	0.05	0.01	0.006	0.33	0.04	1.9			
Grand Total	Measured	30.7	1.8	1.76	5.72	15	5	29.9	10.8	9.0	24.7	4.3	0.8	0.96	0.07	0.05	0.004	0.06	0.48	0.38	0.11	0.07	0.01	0.008	0.47	0.05	2.72			
	Indicated	310.3	9.8	1.73	3.19	19	3	20.5	10.1	8.6	24.9	3.4	0.7	0.81	0.05	0.04	0.003	0.05	0.38	0.34	0.09	0.06	0.01	0.009	0.38	0.04	2.27			
	Inferred	287.7	6.7	1.72	2.32	18	3	17.2	8.7	7.5	22.7	2.9	0.5	0.76	0.05	0.03	0.003	0.05	0.35	0.31	0.08	0.06	0.01	0.010	0.36	0.03	2.1			
	TOTAL	628.7	18.3	1.73	2.92	18	3	20.2	9.6	8.2	24.1	3.3	0.6	0.81	0.05	0.04	0.003	0.05	0.38	0.33	0.09	0.06	0.01	0.009	0.38	0.04	2.25			

	Material	In-Situ TREO Grade <sup>(3)</sup>	In-Situ TREO
	(t)	(%)	(t)
Area 1, Area 2 West, Area 3, Area 4	628,703,134	0.07	413,107

Notes:

Any discrepancies in totals are a function of rounding

(1) Mineral resources reported at a cut-off grade of 1.0% THM

(2) Mineral assemblage, via QEMScan Particle Analysis, is reported as a percentage of in situ THM content.

(3) In-Situ TREO Grade is calculated by THM Grade (2.92%) multiplied by TREO Grade (2.24%)

Table 5: Company Ore Reserves

Area	Date	Classification	Ore	THM	Zircon	Rutile	Leucoxene	Ilmenite	Monazite	Xenotime
			(Mt)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Area 1	Mar-21	Proved	24.5	5.4	29.9	10.8	9.0	24.7	4.3	0.8
Area 1	Mar-21	Probable	14.6	3.2	29.2	11.7	9.2	25.5	4.5	0.9
Area 3	Feb-21	Probable	159.6	3.5	20.3	9.4	8.1	25.8	3.4	0.6
Total			Proved	24.5	5.4	29.9	10.8	9.0	24.7	4.3
			Probable	174.2	3.5	21.0	9.6	8.2	25.8	3.5
Grand Total			198.7	3.7	21.7	9.7	8.2	25.7	3.5	0.6

Area	Date	Classification	CeO <sub>2</sub>	Dy <sub>2</sub> O <sub>3</sub>	Er <sub>2</sub> O <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	Nd <sub>2</sub> O <sub>3</sub>	Pr <sub>6</sub> O <sub>11</sub>	Sm <sub>2</sub> O <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	Tm <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	Yb <sub>2</sub> O <sub>3</sub>	TREO
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Area 1	Mar-21	Proved	0.960	0.070	0.050	0.004	0.060	0.480	0.380	0.110	0.070	0.012	0.008	0.470	0.050	2.720
Area 1	Mar-21	Probable	0.971	0.067	0.047	0.004	0.060	0.468	0.400	0.108	0.072	0.011	0.007	0.458	0.050	2.721
Area 3	Feb-21	Probable	0.805	0.057	0.039	0.003	0.056	0.378	0.339	0.093	0.064	0.009	0.006	0.386	0.040	2.297
Total			Proved	0.960	0.070	0.050	0.004	0.060	0.380	0.110	0.070	0.012	0.008	0.470	0.050	2.720
			Probable	0.817	0.058	0.039	0.003	0.056	0.344	0.094	0.065	0.009	0.006	0.391	0.041	2.328
Grand Total			0.844	0.060	0.041	0.003	0.057	0.402	0.351	0.097	0.066	0.010	0.006	0.406	0.043	2.401

Table 6: Goschen DFS Ore Reserves subset of global Company Ore Reserves

Area	Date	Classification	Ore	THM	Zircon	Rutile	Leucoxene	Ilmenite	Monazite	Xenotime
			(Mt)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Area 1	Mar-21	Proved	25.5	5.6	29.6	10.8	9.1	24.7	4.3	0.8
Area 1	Mar-21	Probable	7.6	2.2	27.6	12.7	10.5	25.9	4.3	0.9
Area 3	Feb-21	Probable	65.7	3.6	19.7	9.1	7.9	25.3	3.3	0.6
Total			Proved	25.5	5.6	29.6	10.8	9.1	24.7	4.3
			Probable	73.3	3.4	20.2	9.3	8.1	25.4	3.4
Grand Total			98.8	4.0	23.6	9.9	8.5	25.1	3.7	0.7

Area	Date	Classification	CeO <sub>2</sub>	Dy <sub>2</sub> O <sub>3</sub>	Er <sub>2</sub> O <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	Nd <sub>2</sub> O <sub>3</sub>	Pr <sub>6</sub> O <sub>11</sub>	Sm <sub>2</sub> O <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	Tm <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	Yb <sub>2</sub> O <sub>3</sub>	TREO	
			(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Area 1	Mar-21	Proved	0.960	0.070	0.050	0.004	0.060	0.480	0.380	0.110	0.070	0.012	0.008	0.470	0.050	2.720	
Area 1	Mar-21	Probable	0.957	0.065	0.045	0.003	0.059	0.454	0.398	0.104	0.071	0.012	0.007	0.456	0.050	2.682	
Area 3	Feb-21	Probable	0.795	0.056	0.038	0.003	0.055	0.373	0.335	0.091	0.063	0.009	0.006	0.383	0.039	2.271	
Total			Proved	0.960	0.070	0.050	0.004	0.060	0.480	0.380	0.110	0.070	0.012	0.008	0.470	0.050	2.720
			Probable	0.806	0.056	0.039	0.003	0.055	0.379	0.339	0.092	0.064	0.009	0.006	0.388	0.040	2.298
Grand Total			0.862	0.061	0.043	0.003	0.057	0.415	0.354	0.099	0.066	0.010	0.007	0.417	0.044	2.451	



## Appendix 5B: Quarterly Cashflow Report

### Name of entity

VHM Limited

### ABN

ABN 58 601 004 102

### Quarter ended ("current quarter")

31 March 2023

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(1,864)	(4,548)
	(e) administration and corporate costs	(2,298)	(8,911)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	36	74
1.5	Interest and other costs of finance paid	(1,027)	(3,086)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	4,441
1.8	Other (provide details if material)	-	-
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(5,153)</b>	<b>(12,030)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	(167)
	(c) property, plant and equipment	(285)	(2,132)
	(d) exploration & evaluation	(2,515)	(10,189)
	(e) investments	-	-
	(f) other non-current assets	(7)	(62)
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	(81)	(423)
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(2,888)</b>	<b>(12,973)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	30,000	30,000
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	189
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(1,873)	(1,873)
3.5	Proceeds from borrowings	-	3,480
3.6	Repayment of borrowings	-	(3,480)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>28,127</b>	<b>28,316</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	7,593	24,366
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(5,153)	(12,030)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,888)	(12,973)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	28,127	28,316
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>27,679</b>	<b>27,679</b>

5.	<b>Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts</b>	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	2,939	7,316
5.2	Call deposits	24,738	276
5.3	Bank overdrafts	-	-
5.4	Other (Petty cash)	2	1
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>27,679</b>	<b>7,593</b>

6.	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	468
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

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

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



8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(5,153)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(2,515)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(7,668)
8.4	Cash and cash equivalents at quarter end (item 4.6)	27,679
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	27,679
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	4
<p><i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i></p>		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
	Answer: N/A	
8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
	Answer: N/A	
8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
	Answer: N/A	
<p><i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i></p>		

### Compliance statement

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

Date: 20 April 2023

Authorised by: VHM Board of Directors  
(Name of body or officer authorising release – see note 4)

## Notes

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