



VULCAN ENERGY
ZERO CARBON LITHIUM™

FY 23

HALF-YEAR
REPORT

ABN 38 624 223 132

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ABOUT VULCAN

FOUNDED IN 2018, VULCAN'S UNIQUE ZERO CARBON LITHIUM™ PROJECT AIMS TO DECARBONISE LITHIUM PRODUCTION BY DEVELOPING THE WORLD'S FIRST DUAL LITHIUM CHEMICALS AND RENEWABLE ENERGY BUSINESS WITH NET ZERO GREENHOUSE GAS EMISSIONS.

Vulcan's combined geothermal energy and lithium project represents the largest lithium resource in Europe¹, estimated at 26.6 million tonnes Lithium Carbonate Equivalent (Mt LCE), with licence areas focused on the Upper Rhine Valley of Germany and France. Strategically placed in the heart of the European electric vehicle (EV) market, Vulcan is rapidly advancing the Zero Carbon Lithium™ Project, which aims to meet timely market entry and decarbonise the lithium supply chain, with the ability to expand to meet the unprecedented demand that is building in the European markets. Guided by our values of Climate Champion, Determined and Inspiring, and united by a passion for innovation, Vulcan has a unique, world-leading development, execution and operations team in the fields of lithium chemicals and geothermal renewable energy. Vulcan is committed to partnering with organisations



WE ARE DEVELOPING A SUSTAINABLE LITHIUM SUPPLY CHAIN FOR EUROPE'S AUTO BATTERY INDUSTRY, WHILST BUILDING CO-PRODUCTION OF RENEWABLE ENERGY AT A LARGE SCALE.

DR. FRANCIS WEDIN

that share its decarbonisation ambitions in building a better tomorrow. Vulcan has binding lithium offtake agreements with some of the largest cathode, battery, and automakers in the world. As a motivated industry disruptor, Vulcan will leverage its expert multidisciplinary team, leading technology, and strategic position in the European EV supply chain in its aim to be the global leader in producing carbon neutral lithium. Vulcan aims to be the largest, preferred, strategic producer and supplier of lithium chemicals and renewable energy from Europe for Europe, to empower a net zero carbon future.



¹ According to public, JORC-compliant data. Refer Vulcan Zero Carbon Lithium™ Project Phase One DFS results and Resources-Reserves update <<https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf> 2022/02/13> (DFS Presentation)

DEFINING 'ZERO CARBON'

Given Vulcan's trademarked logo includes the wording 'Zero Carbon Lithium' it is important the Company clarifies the usage of the term. Vulcan defines 'Zero Carbon' as "net zero carbon equivalent emissions", the legal definition of which states that net zero emissions refers to achieving a balance between the amount of greenhouse gas equivalent emissions produced and the amount removed or reduced³. This is specifically related to the activities undertaken to extract and process the final lithium hydroxide monohydrate product from its combined lithium and geothermal energy brine resource located in the Upper Rhine Valley. Unlike existing lithium operations, Vulcan aims to not burn fossil fuels in the lithium production and processing exercise. Instead, it will use its renewable energy source to drive the lithium production process, whilst also selling its own geothermal heat and power to the grid, displacing fossil fuel generated energy. The greenhouse gas (GHG) emissions avoided as a result of the displaced fossil fuel-generated energy allows Vulcan to define the project as net zero, or "Zero Carbon" per the Project's trademarked nomenclature, the 'Zero Carbon Lithium™ Project'. Vulcan commissioned Minviro Ltd, an independent consultancy, to undertake an ISO-aligned Life Cycle Assessment (LCA) of the integrated geothermal renewable energy, lithium production and processing impacts to prove the validity of the carbon neutral nature of the Zero Carbon Lithium™ Project. Minviro's LCA assessments are a cradle-to-gate study and include the extraction of the raw lithium product, the geothermal plant, the brine handling, the purification, electrolysis and crystallisation and the transport of the product from well sites through to the final processing plant. Minviro's first ISO aligned LCA was conducted in 2021, one of the first such studies conducted on the lithium hydroxide supply chain globally, with the latest LCA update undertaken in 2023³.

In addition, Vulcan engages Climate Active to verify the GHG emissions of Vulcan's Australian organisation annually, which began in calendar year 2020. The latest carbon neutral certification covers the corporate team's day-to-day emissions from 2022 across Scopes 1, 2 and 3, as defined by the GHG Protocol. Because Climate Active is an Australian based carbon neutral certification in partnership with the Australian Government and does not cover other

jurisdictions, Vulcan certifies its German subsidiaries against European carbon neutral certifications. For baseline calendar year 2021, Vulcan certified against South Pole's carbon neutral organisation label. For 2022, Vulcan used Climate Impact Partner's carbon neutral label, which covered business as usual emissions, in line with the Australian Climate Active certification, for Vulcan Energie Ressourcen GmbH, its engineering subsidiaries Vulcan Energy Engineering GmbH, Vulcan Energy Subsurface Solutions GmbH, the geothermal renewable energy operator Natürlich Insheim, and Vercana, Vulcan's electric geothermal drilling subsidiary. Emissions associated with scale up and construction of the Zero Carbon Lithium™ Project are not included in the carbon neutral certifications because they are not part of the day-to-day operations. Instead, these emissions will be disclosed to the market on an annual basis and will be included in future LCA calculations.

As part of the carbon neutral certifications, and to bring the minimal GHG emissions balance associated with the Australian and German operations to net zero, Vulcan purchased good quality carbon credits through reputable suppliers, covered under the VERRA Verified Carbon Standard. Mitigation measures as part of the carbon neutral certificates include implementing energy efficiency measures within the offices and purchasing renewable energy certificates (RECs) to increase the mix of renewable energy in the electricity grid. Details of the Company's estimated future carbon emissions associated with the life cycle of the planned Zero Carbon Lithium™ Project were disclosed to the market in 2021 (Minviro LCA announcement 4 August 2021)⁴, a breakdown of the GHG emissions categories associated with Vulcan's operations and how they were calculated as well as information about the carbon credits purchased for 2021 were reported in the FY22 Sustainability Report available via the website (<https://v-er.eu/>). The GHG emissions associated with Vulcan's operations for 2022 will be reported in full in the 2023 Sustainability Report. Updated Minviro LCA data was announced as part of Vulcan's Phase One Definitive Feasibility Study (DFS) on 13 February 2023 and will continue to be reviewed at key Project milestones such as completion of the Bridging Study, and the start of commercial production. Vulcan expects to maintain its carbon neutral status for this period.

² Definition taken from The Institute for Government UK website

³ Please refer to page 45 of Vulcan's 31 Dec Annual Report available via the Company website <https://v-er.eu>

⁴ <https://v-er.eu/wp-content/uploads/2022/10/LCA.pdf>

MESSAGE FROM DR. FRANCIS WEDIN AND CRIS MORENO



Dear Vulcan Shareholders,

Vulcan's focus is to deliver shareholder value, by delivering and ramping up the first phase of production from its Zero Carbon Lithium™ Project, whilst increasing production and our current renewable energy generation in tandem. Delivering shareholder value goes in lockstep with our core mission: decarbonising the lithium supply chain for battery Electric Vehicles (EVs), and decarbonising heat and power supply to our region, to avoid impact on our climate, by providing a domestic, secure, sustainable supply of lithium and renewable energy from our operations in the Upper Rhine Valley.

In parallel with providing solutions for the climate, recent geopolitical events continue to highlight that battery raw materials supply chain security is becoming of increasing concern in Europe. Simply put, the automotive industry is Europe's industrial powerhouse, and in order to survive, it

needs to switch production to making EVs that customers want to buy. The battery is the engine of the vehicles of today, and to stay competitive and keep control of its destiny, Europe needs to make its own EV batteries. However, EVs, EV batteries, and the critical raw materials (CRM) and chemicals used to make them, are all dominated by China.

Recently, the supply of graphite, a CRM in lithium-ion batteries, to Sweden⁵, a country where Europe's only battery gigafactory has been built was put at risk due to geo-politics.⁶ If Europe is also starved of lithium hydroxide, it may not be able to achieve the EU target of 100% EV sales by 2035⁷, unless it can buy batteries and EVs from its competitors overseas. This would not bode well for the survival of European automakers, some of which have been household names for well over a century, and the millions of livelihoods that depend on them.

⁵ <https://www.economist.com/business/2023/06/22/why-is-china-blocking-graphite-exports-to-sweden>

⁶ <https://www.bloomberg.com/news/articles/2020-12-03/eu-aims-to-have-30-million-electric-cars-on-the-road-by-2030?leadSource=uverify%20wall#xj4y7vzkg>

⁷ https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6462

We have also seen a further blow to European industry from the cost of energy, with cheap fossil gas largely consigned to history since Russia's invasion of Ukraine, and under-investment in baseload renewable energy such as geothermal.

The good news is, Vulcan is gearing up to play its part in the solution: not only in helping European industry to survive, but to help it thrive.

During the six months to the 30th of June, your Company has made significant progress in delivering Phase One of the dual renewable energy and Zero Carbon Lithium™ Project.

In February, Vulcan completed the Definitive Feasibility Study (DFS) for Phase One, after two years of successful lithium extraction piloting, at its commercial geothermal energy wells and plant operation. Excitingly, the DFS showed that by using the combination of existing processes to engineer fossil fuels out of our flowsheet, we can deliver not just a carbon neutral project, but also very low operating costs, which leads to compelling target financial returns from our dual renewable energy and Zero Carbon Lithium™ Project⁸.

The DFS incorporated VULSORB® into the plant engineering and design: Vulcan's own in-house aluminate-based sorbent for lithium extraction, developed by the outstanding team in Vulcan's in-house laboratory⁹. We have iterated and improved on fifty years of lithium extraction adsorbent development, a proven technology which was invented in the 1970s and commercialised in the 1990s. This comes at a time when there is a "wave" of new lithium projects being built using adsorbents like ours, recognising the cost and also the sustainability benefits¹⁰. VULSORB® has the potential to be a technology asset for Vulcan beyond our phased growth ambitions in the Upper Rhine Valley and is a testament to our team's commitment to build shareholder value in-house.

At the same time as the DFS, Vulcan announced an increase in its Resources and Reserves, to a total global Resource of 26.6Mt LCE¹¹ in Measured, Indicated and Inferred categories, centred around current production wells in the core of the



Upper Rhine Valley Brine Field (URVBF). This makes our project the largest lithium resource in Europe¹², and globally significant. This means that we expect to be able to grow our production in a modular, phased manner, after successfully delivering our Phase One of 24,000 tonnes per annum lithium hydroxide capacity and meet the increasing demand from European automotive companies as the EV market grows. Wherever we build more carbon neutral lithium production, we will be building more renewable energy production for local communities – a win-win.

In response to the US Inflation Reduction Act (IRA), Europe unveiled two acts during the half-year ended 30 June 2023 ("the Period"): the Critical Raw Materials Act¹³ (CRMA) which will work hand-in-hand with the Net Zero Industry Act¹⁴ (NZIA), both sitting underneath the Green Industrial Plan that the EU is rolling out to meet its commitments to the green transition. Both acts provide regulatory tailwinds for our CRM and renewable energy project. We are also seeing increasing momentum behind public funding from the German and French governments for CRM projects, which could be of benefit to Vulcan.¹⁵

⁸ <https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf>

⁹ <https://www.investi.com.au/api/announcements/vul/a0b97e15-001.pdf>

¹⁰ <https://www.reuters.com/markets/commodities/albemarle-jumps-into-global-race-reinvent-lithium-production-2023-08-03/>

¹¹ DFS Results: <https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf>

¹² According to public, JORC-compliant data. Refer Vulcan Zero Carbon Lithium™ Project Phase One DFS results and Resources-Reserves update <<https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf> 2022/02/13> (DFS Presentation).

¹³ Critical Raw materials: Ensuring secure and sustainable supply chains for EU's green and digital future https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1661

¹⁴ Internal Market, Industry, Entrepreneurship and SMEs https://single-market-economy.ec.europa.eu/publications/net-zero-industry-act_en

¹⁵ <https://www.euractiv.com/section/energy-environment/news/france-germany-italy-pledge-close-cooperation-on-critical-raw-materials/>

In April, Vulcan completed market sounding for the financing of the Phase One commercial development. Government-backed Export Credit Agencies (ECAs) from France, Italy, and Canada confirmed in-principle support, including indication that Vulcan would be designated as a strategic project of national importance in France, and as a green project in Italy. Subject to the full due diligence process, such support by ECAs can lower Vulcan's cost of capital in the debt financing process. Initial market sounding for debt financing through commercial and development banks, led by our advisors at BNP Paribas, also provided positive feedback. Vulcan is aiming to formally initiate its Phase One debt and equity financing process in Q4 2023.

Your Company is well funded at this time, whilst we work on preparatory works towards project delivery, as well as working towards the full project financing. Vulcan completed a EUR 66m (A\$109m) institutional placement in May¹⁶, for preparatory works towards Phase One project execution, prior to full project financing, and we thank our existing institutional and corporate shareholders for their support in this placement.

The first six months of this year have been transformational for Vulcan, in that your Company has transformed from being purely development-focused, into an integrated development, execution and operations company. The execution team has already delivered tangible outcomes

during the past few months, as Vulcan's Lithium Extraction Optimisation Plant (LEOP) entered the final stages of construction¹⁷. At the time of writing, LEOP had commenced the commissioning stage. Once fully operational, this plant will produce the first tonnes of domestically produced lithium chemicals in Europe: a major milestone for the green re-industrialisation of Europe, and an exciting milestone for Vulcan shareholders that we are looking forward to in the second half of this year.

Vulcan has also secured key land packages for Phase One production sites, towards commencement of Phase One project execution, and to increase Vulcan's current brine production. We have acquired a drilling contract labour hire company, and we are nearing completion of refurbishment of our two in-house drill rigs, to this end. We're ready to build and grow our lithium production to meet Europe's needs.

As we look forward to the next period, we note a shift in positions. Effective 1st of July, Cris Moreno was appointed as Managing Director and CEO as Francis Wedin transitioned to Executive Chair¹⁸. We believe that working together, our respective fields of expertise provide the best combination required to successfully deliver Phase One of our world leading Zero Carbon Lithium™ Project.


We look forward to sharing the next stage of the journey with Vulcan's shareholders, and celebrating the milestones together, as we enter this exciting phase.



¹⁶ <https://www.investi.com.au/api/announcements/vul/e2227a34-fe3.pdf>

¹⁷ <https://www.investi.com.au/api/announcements/vul/4cbdabc4-a55.pdf>

¹⁸ <https://www.investi.com.au/api/announcements/vul/80314cd7-4db.pdf>



NATÜRLICH INSHEIM OPERATED
BY NATÜRLICH INSHEIM GMBH
GENERATED APPROXIMATELY
8,000 MWH OF RENEWABLE
ELECTRICAL ENERGY, AVOIDING
APPROXIMATELY 3,000
TONNES OF CO₂ EQUIVALENT
EMISSIONS ON THE GRID.



HY1 MILESTONES



Definitive Feasibility Study (DFS) released for Phase One of Vulcan's Zero Carbon Lithium™ Project²¹

The DFS, based on two years of successful pilot plant test work, confirmed positive economics for the Phase One commercial lithium and renewable energy development. It also defined a larger project for Phase One with a 24,000 tonnes per annum lithium hydroxide production capacity, and a long-term pipeline and increase in resource size in the Upper Rhine Valley Brine Field (URVBF) lithium resource to 26.6Mt LCE, the largest lithium Resource in Europe, and growing.



Successful placement²⁰

EUR 66m (A\$109m) institutional placement successfully completed, supported by existing major shareholders, for preparatory works towards Phase One project execution, prior to full project financing.



Successful market sounding for full Phase One financing²¹

Market sounding was completed for the financing of the Phase One commercial development. Government-backed Export Credit Agencies (ECAs) from France, Italy, and Canada confirmed in-principle support, including an indication that Vulcan would be designated as a strategic project of national importance in France. Initial market sounding for debt financing provided positive feedback. Vulcan is aiming to formally initiate its Phase One debt and equity financing process in Q4 2023.

¹⁹ <https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf>

²⁰ <https://www.investi.com.au/api/announcements/vul/e2227a34-fe3.pdf>

²¹ <https://www.investi.com.au/api/announcements/vul/99464828-b65.pdf>



Agreement with strategic partner to work towards decarbonising operations^{22, 23}

Vulcan and Stellantis have entered into two phased project agreements, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise Stellantis' energy supply, for their auto manufacturing operations in Rüsselsheim in Germany and Mulhouse in France.



Key land secured for Phase One²⁴

Key land packages were acquired for key Phase One production sites, toward commencement of Phase One project execution, and to increase Vulcan's current brine production.



Lithium Extraction Optimisation Plant approaches commissioning²⁵

Vulcan's Lithium Extraction Optimisation Plant (LEOP) entered the final stages of construction. At the time of writing, LEOP had commenced the commissioning stage. Once fully operational, this plant will produce the first tonnes of domestically produced lithium chemicals in Europe.



Leadership for the future²⁶

Cris Moreno appointed as Managing Director and CEO, as Dr. Francis Wedin transitions to Executive Chair, to ensure the right skills are in place to lead the delivery of Vulcan's Phase One of the Zero Carbon Lithium™ Project into the future.

²² <https://www.investi.com.au/api/announcements/vul/a40dc507-014.pdf>

²³ <https://www.investi.com.au/api/announcements/vul/d459a2b4-87b.pdf>

²⁴ <https://www.investi.com.au/api/announcements/vul/2a2a0ef6-dc7.pdf>

²⁵ <https://www.investi.com.au/api/announcements/vul/4cbdabc4-a55.pdf>

²⁶ <https://www.investi.com.au/api/announcements/vul/80314cd7-4db.pdf>

BOARD OF DIRECTORS



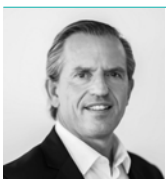
**CRIS
MORENO**
MANAGING
DIRECTOR & CEO

Over 20 years' global experience in successfully delivering major, unique, and challenging projects, including in the lithium chemicals, cathode and LNG sectors. In the LNG sector, held leadership roles with Santos, Woodside, and Shell, including working on the Browse, Gorgon and Prelude LNG projects. Prior to joining Vulcan, Cris worked in the lithium chemicals and battery cathode sector in Europe, as Senior Director Programs for Northvolt-Cathode Active Material (CAM) Business Unit, and Vice President - Engineering and Development for Aurora Lithium, Northvolt's lithium hydroxide refinery in Europe.



**DR. FRANCIS
WEDIN**
EXECUTIVE CHAIR

Founder of Vulcan's Zero Carbon Lithium™ Project, and has extensive experience in battery materials and renewable energy. Previously Executive Director of ASX-listed Exore Resources Ltd where he developed two new lithium resources, on two continents. PhD in Geology, MBA in Renewable Energy.



**GAVIN
REZOS**
NON-EXECUTIVE
DEPUTY CHAIR

Executive Chair/CEO positions of three companies that grew from start-ups to the ASX 300. Extensive international investment banking and project finance experience. Former Investment banking Director of HSBC with senior multi-regional roles in investment banking, group legal and compliance functions. Currently Non-Executive Chair of Kuniko Resources Ltd, Non-Executive Chair of Resource and Energy Group Ltd and Principal of Viaticus Capital.



**DR. HEIDI
GRÖN**
NON-EXECUTIVE
DIRECTOR

A chemical engineer by background and an accomplished business leader with over 22 years' experience in the chemicals industry. Since 2007, Heidi has been a senior executive with Evonik, one of the largest specialty chemicals companies in the world, with a market capitalization of €14B and 32,000 employees.



**RANYA
ALKADAMANI**
NON-EXECUTIVE
DIRECTOR

Founder of Impact Group International. A communications strategist, focused on amplifying the work of companies that have a positive social or environmental impact. Experience in working across media markets and for high profile people, including one of Australia's leading philanthropists, Andrew Forrest and Australia's former Foreign Minister and former Prime Minister, Kevin Rudd.



**JOSEPHINE
BUSH**
NON-EXECUTIVE
DIRECTOR

Josephine was a senior partner at EY for 14 years and was a leader in their renewables practice. She is currently a NED on two other listed company Boards in the renewables sector, chairing the ESG committees. Josephine also provides strategic advisory services to companies on the development of their sustainability strategies, reporting initiatives and sustainable financing options. Josephine is a Chartered Tax Advisor, and holds an MA Law degree from St Catharine's College, Cambridge University.



**ANNIE
LIU**
NON-EXECUTIVE
DIRECTOR

Annie was the Executive Director of Purchasing for the Ford Model e Line, for all electric products and technology. Annie started her 20+ year career as an engineer at Microsoft before moving to Tesla where she progressed to Head of Supply Chain, Battery and Energy. Annie is experienced in building and leading teams from product incubation stage to scale up and mature market bringing a unique blend of entrepreneurial initiative and ability to meet organisation and market growth needs.



**DR. GÜNTER
HILKEN**
NON-EXECUTIVE
DIRECTOR

Over 35 years' experience in and a deep understanding of the German chemicals, renewables and infrastructure investment sectors and, through leading industry advocacy associations, the German Government at the State and Federal level. Günter is a Senior Advisor to Macquarie Asset Management, Director of Currenta and President and Chairman of the Board of the German Federation of Industrial Energy Consumers (VIK).



**MARK
SKELTON**
NON-EXECUTIVE
DIRECTOR

More than 35 years' experience including a 29-year tenure at BP and then at Fortescue Metals Group (Fortescue) in Project Development and general management. A senior leader and advisor with a proven record in delivering major projects, business transformation and developing organisational capability within the mining, energy and oil and gas industries, Mark has extensive project experience in Australia and internationally.

ABOUT THIS REPORT

The Directors of Vulcan Energy Resources Limited ("Vulcan Energy", "VUL" or "the Company") present the Company's report, together with the financial statements on the consolidated entity consisting of Vulcan Energy Resources Limited and its controlled entities for the half-year ended 30 June 2023 ("the Period" or "the Half"). It is recommended that the Directors' Report be read in conjunction with the annual financial statements for the year ended 31 December 2022 and considered together with any public announcements made by the Company during the Period and up to the date of this Report.

LEADERSHIP TEAM



CRIS MORENO
MANAGING
DIRECTOR & CEO



DR. FRANCIS WEDIN
EXECUTIVE
CHAIR



THORSTEN WEIMANN
CHIEF
DEVELOPMENT
OFFICER



**VINCENT LEDOUX-
PEDAILLES**
CHIEF COMMERCIAL
OFFICER



DR HORST KREUTER
CEO - GERMANY



ANNABEL ROEDHAMMER
DIRECTOR OF
COMMS & IR



CHRISTIAN TRAGUT
VICE PRESIDENT
PRODUCTION



DR. STEFAN BRAND
CHIEF
TECHNOLOGY
OFFICER



DANIEL TYDDE
COMPANY
SECRETARY
AND IN-HOUSE
LEGAL COUNSEL
(AUSTRALIA)



ROBERT IERACE
CHIEF
FINANCIAL
OFFICER
(AUSTRALIA)



MARKUS RITZAUER
CHIEF
FINANCIAL
OFFICER
(GERMANY)



STORM TAYLOR
ESG LEAD



CARSTEN BACHG
VICE PRESIDENT
- PROGRAMS

TEAM VULCAN

OneVulcan

Vulcan has implemented a new “OneVulcan” company-wide organisational structure designed to meet the demands of delivering the Phase One project and ongoing future operations. The new OneVulcan leadership structure became effective across the business during the Period, and aims to draw Vulcan’s team closer together, streamlining internal communications and facilitating open collaboration across international borders and departments. Given the accelerated growth of the Company, this new OneVulcan leadership structure will provide the basis for the successful execution of Phase One.

By the end of the reporting Period, Vulcan’s total FTE figure was 316, made up of personnel from 28 different countries, and which includes 30% women. Vulcan also brought in key expertise from the Oil and Gas (O&G) industry to lead the Phase One project execution. Vulcan’s Zero Carbon Lithium™ Project is therefore leveraging complementary skills from the O&G industry to deliver Phase One, aligned with the Just Transition principles of pivoting the economy in a way that is as fair and inclusive as possible to everyone concerned, and creating decent work opportunities for people moving from fossil fuel intensive industries.

As part of the new OneVulcan structure, the team also went through the process of updating the Vulcan Values, taking input from the whole organisation to ensure alignment and acceptance. Updating of these values at this time, given that the team have grown exponentially since the first set of values were defined, was a good exercise in collaboration and a chance for everyone to take the time to ensure the new values resonate with the OneVulcan culture. These values were distilled into the following:



CLIMATE CHAMPION

We will pioneer a carbon free future

We stand up for what truly matters



DETERMINED

We are hungry for success and determined to shape tomorrow

We tackle any challenge in front of us



INSPIRING

We are united in our passion for a better world

We rise and inspire ourselves and others

DIRECTORS' REPORT

REVIEW OF OPERATIONS



HEALTH AND SAFETY

THE HEALTH AND SAFETY OF VULCAN'S EMPLOYEES, CONTRACTORS, STAKEHOLDERS, AND COMMUNITIES IS VULCAN'S NUMBER ONE FOCUS. THIS IS ENCAPSULATED BY VULCAN'S VALUES OF "DETERMINED" AND "INSPIRING", AND THE COMPANY'S COMMITMENT TO WORK TO THE HIGHEST STANDARDS OF SAFETY, QUALITY, AND EFFICIENCY.

Compliance with health and safety regulations is a minimum standard set. The team have continued to advance health and safety procedures and culture during the period, 1 January to 30 June.

With the transition to an integrated development, extraction and operations company, more employees and contractors will be on site as the Zero Carbon Lithium™ Project takes shape. Vulcan has focused within the last six months to ensure a safe and healthy working environment for all, particularly in and around works sites. The focus on improving safety for all on our construction sites has been sharpened after four recordable safety incidents were recorded during the Period. These have been thoroughly investigated, and stronger procedures and controls have been implemented, some of which include 'Stop for Safety' leadership talks on site, a Company-wide safety alert app on mobile phones, regularly communicated 'Care Moments' and Last-Minute Risk Analysis (LMRA) cards. Vulcan will continue to have zero Lost Time Injuries (LTIs) as an executive Key Performance Indicator (KPI).



VULCAN BELIEVES THERE IS NO MORE IMPORTANT POLICY THAN ENSURING THE HEALTH AND SAFETY OF ITS PEOPLE, CONTRACTORS, STAKEHOLDERS AND COMMUNITIES.



Along with the transition, the HSEQ department has been strengthened. Management involvement has also been strengthened, with documented leadership safety rounds at least once per week. In August, the two external certified management systems, which have already been obtained by Vulcan's VER entity (ISO 9001, ISO 14001), will be re-audited. In addition, the occupational health and safety management system according to ISO 45001 will be newly added to Vulcan's integrated management system. The extension of the management systems will also affect all production sites once they become operable. This will further support the HSEQ performance on the Company's sites.

RESERVES AND RESOURCES

EXPLORATION AND DEVELOPMENT

The Company is estimated to have within its licence fields the largest lithium resource, compliant with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code'), in Europe²⁷. Vulcan continues to expand its licence footprint in the Upper Rhine Valley Brine Field (URVBF) in response to supporting Europe's transition to critical raw materials independence and consumer demand for EVs.



JORC RESOURCE STATEMENT

Vulcan's URVBF hosts a JORC 2012-compliant global resource estimation of 26.6 Mt LCE at an average grade of 175mg/l Li in the Measured, Indicated, and Inferred categories as shown in (Table 1). Vulcan's current Phase One project area focuses on the core, brine and energy-producing assets in the field, centred around Vulcan's 100%-owned Insheim plant and licence, and the neighbouring Landau-South project, where Vulcan has a brine offtake agreement for existing brine production, and a Joint Venture agreement to develop new production capacity. An overview of licence locations and details is provided in Figure 1. Vulcan also holds 15 granted licences in the URV, for a total secured licence area of 1,538km². The Company has also applied for an additional 859.31km² of licences in the same region (Table 2). Vulcan has acquired the geothermal brine and lithium rights (licences) through direct application to the respective mining authorities of the German states of Rheinland-Pfalz, Baden-Württemberg, and Hessen. All exploration licences were granted in accordance with the German Federal Mining Act (Bundesberggesetz 'BBergG') for the purpose of commercial exploration of mining-free mineral resources: geothermal brine and lithium.

²⁷ Based on public, JORC compliant data. Refer Vulcan Zero Carbon Lithium™ Project Phase One DFS results and Resources-Reserves update <https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf> 13/02/2023



Legend









- | | | |
|---|---|--|
|  Production licence |  Primary producing reservoir (Buntsandstein) |  Lithium and geothermal licence |
|  Access to the licence through a brine offtake |  Secondary target ('Greenfields' reservoir) |  Lithium and geothermal licence application |
|  Renewable heat offtake agreement |  Deep geothermal wells/plants | |

Figure 1: Overview map of Vulcan licensed areas in the Upper Rhine Valley

VULCAN'S COMBINED UPPER RHINE VALLEY PROJECT LI- BRINE MEASURED, INDICATED, AND INFERRED MINERAL RESOURCE ESTIMATES.

Licence/ Area	Reservoir	Classification	GRV km ³	Avg. NTG %	Avg. Phie %	Avg. Li mg/L	Elemental Li t	LCE kt
Mannheim	BST	Indicated	4	90	10	153	54,111	288
	BST	Inferred	32	65	9	153	290,312	1,545
Ludwig	BST	Indicated	7	90	10	153	93,220	496
	BST	Inferred	22	65	9	153	199,226	1,060
Therese	BST	Indicated	2	90	10	153	29,907	159
	BST	Inferred	22	65	9	153	200,708	1,068
Flaggenturm	BST	Indicated	7	90	10	181	115,215	613
	BST	Inferred	37	65	9	181	391,201	2,082
Kerner	BST	Indicated	5	90	10	181	76,242	406
	BST	Inferred	13	65	9	181	132,558	705
Kerner Ost	*MUS, BST, ROT	Indicated	4.3	73	8	181	66,708	355
Taro	*MUS, BST, ROT	Indicated	14.5	73	8	181	237,362	1,263
Landau South	*MUS, BST, ROT	Measured	7.4	73	8	181	102,383	545
	BST	Indicated	1.2	90	11	181	22,220	118
Insheim	*MUS, BST, ROT	Measured	9	73	8	181	127,779	680
Rift-North	*MUS, BST, ROT	Measured	10.1	73	8	181	134,132	714
	*MUS, BST, ROT	Indicated	11.9	73	8	181	178,000	946
Ortenau	*MUS, BST, ROT	Indicated	57	73	8	181	659,013	3,507
	BST	Inferred	105	73	8	181	1,883,212	10,024
Total LCE		Measured				181		1,939
		Indicated				178		8,151
		Inferred				172		16,484

Table 1: Vulcan's combined upper Rhine Valley project Li-Brine Measures, indicated, and inferred mineral resources estimates

Note 1: Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. Note 2: The weights are reported in metric tonnes (1,000 kg or 2,204.6 lbs). Numbers may not add up due to rounding of the resource value percentages. Note 3: Reservoir abbreviations: MUS – Muschelkalk Formation, BST – Buntsandstein Group; ROT – Rotliegend Group. Note 4: To describe the resource in terms of industry standard, a conversion factor of 5.323 is used to convert elemental Li to Li₂CO₃, or lithium carbonate equivalent (LCE). Note 5: NTG and Phie averages have been weighted to the thickness of the reservoir. These averages are consolidations of multiple local zones and therefore multiplied together will not equate to the global elemental lithium values presented. The elemental lithium values presented are determined separately using detailed data for each zone and then summed together to show a total value for the purposes of this summary table. Note 6: GRV refers to Gross Rock Volume, also known as the aquifer volume. GRV values presented in this table are rounded to the first significant figure for presentation purposes. The elemental lithium values presented are calculated using GRV values that have not been rounded. Note 7: Mineral resources are considered to have reasonable prospects for eventual economic extraction under current and forecast lithium market pricing used in the DFS with application of Vulcan's DLS processing Note 8: The values shown are an approximation and with globalised rounding of values in the presented summary table as per JORC guidelines, cannot be multiplied through to achieve the Mineral Resource estimated volumes shown above.

VULCAN'S ZERO CARBON LITHIUM™ PROJECT GRANTED LICENCES

Name	State	Resources applied for	Area (km²)	Expiry	Ownership at 30 June 2023	Change in ownership	Type
Ried	Hessen	Geothermal, brine & lithium	289.92	07.2025	100% VER GmbH	N/A	Exploration
Rift-Nord	RLP	Geothermal & lithium	61.83	06.2027	50% VER GmbH, 50% GET	N/A	Exploration
Waldnerturm	BW	Geothermal, brine & lithium	20.43	12.2024	100% VER GmbH	N/A	Exploration
Lampertheim II	Hessen	Geothermal, brine & lithium	1.99	07.2024	100% VER GmbH	N/A	Exploration
Ortenau II	BW	Geothermal, brine & lithium	374.10	12.2025	100% VER GmbH	N/A	Exploration
Mannheim	BW	Geothermal, brine & lithium	144.49	06.2024	100% VER GmbH	N/A	Exploration
Taro	RLP	Geothermal	32.68	08.2025	100% GGH (part of VER Group)	N/A	Exploration
Lisbeth	RLP	Lithium		09.2024	100% VER GmbH	N/A	Exploration
Ludwig	RLP	Geothermal & lithium	96.34	12.2024	100% VER GmbH	N/A	Exploration
Therese	RLP	Geothermal & lithium	81.12	12.2024	100% VER GmbH	N/A	Exploration
Lampertheim	Hessen	Geothermal, brine & lithium	108.03	07.2024	100% VER GmbH	N/A	Exploration
Kerner	RLP	Geothermal & lithium	72.26	12.2024	100% VER GmbH	N/A	Exploration
Löwenherz	RLP	Geothermal & lithium	75.43	12.2024	100% VER GmbH	N/A	Exploration
Flaggenturm	RLP	Geothermal	141.14	12.2024	100% VER GmbH	N/A	Exploration
Fuchsmantel	RLP	Lithium		07.2025	100% VER GmbH	N/A	Exploration
Landau-Süd	RLP	Geothermal	19.41	05.2034	Brine offtake and JV agreement Geox	N/A	Production
Ilka	RLP	Lithium		11.2025		N/A	Exploration
Insheim	RLP	Geothermal	19.00	11.2037	100% Natürlich Insheim GmbH	N/A	Production
LiThermEx	RLP	Lithium		03.2025	100% Natürlich Insheim GmbH	N/A	Exploration
Cesano	Italy	Geothermal brine & lithium	11.46	01.2025	50% VER Ltd., 50% Enel Green Power	N/A	Exploration

Table 2: Vulcan's Zero Carbon Lithium™ Project Granted Licences.

Lionheart: INS, LAN, RND		
Reserves Classification	Lithium Grade	Economic Reserves Volume at Wellhead Reference Point
	mg/ l Li	tonnes LCE
Proved	181	196,353
Probable	181	153,546
TAR-KER		
		tonnes LCE
Probable	181	189,070

Table 3: Phase One Ore Reserves. Note: see Competent Person Statement on page 26



Figure 2: Aerial shot over Vulcan's Insheim geothermal renewable energy facility.

RENEWABLE ENERGY BUSINESS

Geothermal, renewable energy is at the heart of the Zero Carbon Lithium™ Project. During the period 1 January to 30 June 2023, the geothermal powerplant Natürlich Insheim operated by the Natürlich Insheim GmbH generated approximately 8,000 MWh of renewable electrical energy, avoiding approximately 3,000 tonnes of CO₂²⁸ equivalent emissions on the grid. These avoided emissions are not included in Vulcan's current carbon neutral status.

A workover of the production well pump at Vulcan's current production/re-injection well site was safely carried out during the first half of the Period, including some maintenance activities brought forward, and returned to operations in mid-May.

Key political figures visited the Insheim plant during the Period including Malu Dreyer, Prime Minister of Rheinland-Pfalz²⁹ and Parliamentary State Secretary Michael Theurer³⁰, signifying the profile of Vulcan and importance of the Project to local, state, and federal stakeholders.

During the Period, Vulcan and Stellantis entered into two phased project agreements, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise Stellantis' energy supply in Rüsselsheim and Mulhouse, by providing renewable heat³¹. Stellantis aims to

be an auto industry champion in climate change mitigation, becoming carbon net zero by 2038, with a 50% reduction by 2030³². This requires Stellantis, as a leading mobility tech company, to decarbonise and localise its energy supply across its manufacturing facilities. In the northern area of the Upper Rhine Valley in Rüsselsheim am Main, Stellantis maintains a large manufacturing facility in which the DS 4 and Opel Astra models are produced, including the electrified variants. This facility in the German state of Hesse is also the traditional home of the Opel brand and the German headquarters of Stellantis. The planned renewable heating project is at the northernmost extent of Vulcan's focus area in the Upper Rhine Valley³³.

Vulcan and Stellantis' agreement in Mulhouse represents the first joint project in France for the potential use of geothermal renewable energy to decarbonise and localise the energy supply for Stellantis' European operations. Stellantis is a major industrial player in the automotive sector in the Grand Est of France. Vulcan remains focused on execution of its Phase One commercial lithium and renewable energy project, in the centre of the Upper Rhine Valley Brine Field, however this project with Stellantis is a complementary opportunity to expand future development pipeline into the French region of the Upper Rhine Valley, supported by industrial partners like Stellantis.

²⁸ Calculated using the formula: [MWh]*[gCO₂/MWh] / 103.

CO₂ Emission Factor used available here <https://de.statista.com/statistik/daten/studie/38897/umfrage/co2-emissionsfaktor-fuer-den-strommix-in-deutschland-seit-1990/>, taken as a three-year rolling average

²⁹ <https://v-er.eu/de/ministerpraesidentin-malu-dreyer-besucht-vulcan-energie-ressourcen/>

³⁰ <https://v-er.eu/de/michael-theurer-besucht-vulcan-geothermiekraftwerk-in-insheim/>

³¹ <https://www.investi.com.au/api/announcements/vul/a40dc507-014.pdf>

³² <https://www.stellantis.com/en/responsibility/carbon-net-zero-strategy>

³³ <https://www.investi.com.au/api/announcements/vul/d459a2b4-87b.pdf>

LITHIUM DIVISION FOCUS ON PHASE ONE

During the Period, Vulcan's Lithium Extraction and Optimisation Plant (LEOP) made good progress towards mechanical completion³⁴ and start of commissioning, the latter which had been achieved after the Period at the time of writing. LEOP, an optimisation and product qualification facility, represents a significant investment by the Company, and a scale-up factor of only 1:50 compared to the planned Phase One commercial plant in terms of column size. LEOP's commissioning is expected to be completed in October, after which it will start producing the first tonnes of domestically produced lithium chemicals in Europe.

In Vulcan's Central Lithium Electrolysis Optimisation Plant (CLEOP), also under construction during the Period, the electrolysis cell is commercial sized and will have a multiplication factor, not scale-up factor, as electrolysis

cells are not scaled up further but multiplied. The commissioning of Vulcan's CLEOP is due in late 2023.

Vulcan has designed, built, and operated two lithium extraction pilot plants, with the first one in operation since February 2021, and between them accrued a total of 23,000 operating hours (as of June 2023) accruing more than 6,000 cycles of Adsorption-type Direct Lithium Extraction (A-DLE). The pilot team tested Vulcan's internally developed VULSORB® adsorbent, as well as aluminate sorbents from other commercial suppliers. The main objective of these tests was to determine optimal operating parameters and prove the long-term performance of Vulcan's VULSORB®, which has been completed. The second pilot plant successfully tested and operated VULSORB® under the same pressurised conditions as the geothermal plant, marking a significant step forward in terms of performance and optimisation of the Project.



³⁴ <https://www.investi.com.au/api/announcements/vul/4cbdabc4-a55.pdf>

FOCUS ON FUTURE PHASES

Vulcan plans to develop its licence areas in a phased approach. After Phase One, a Phase Two and further phases are planned in step out areas. Subsequent phases are planned to follow to fully leverage the large licence area that Vulcan has secured. The Project plans for multiple upstream surface facilities for geothermal and lithium extraction operations to be fed from multi-well pads. Vulcan has also secured space for additional capacity expansion at its planned Central Lithium Plant (CLP), where it has secured a site at the Hoechst Chemical Park near Frankfurt.

As part of the development of Vulcan's pipeline of project expansion phases, 3D seismic survey works were successfully completed in one of Vulcan's planned lithium and geothermal energy development areas, in the Mannheim district of the URVBF³⁵. Vulcan signed a renewable heat offtake agreement with MVV Energie AG (MVV), the utility for the city of Mannheim, in April 2022³⁶. This seismic survey is the first step in the development of new renewable heat and power plants, through which, the aim is to supply up to 350,000 MWh of heat per annum into the grid of Mannheim. Detailed results of the 3D seismic survey are expected in the upcoming months.

In May, Vulcan and Stellantis signed a binding term sheet for the first phase of a multiphase project, to develop new geothermal projects aimed at decarbonising the energy mix of Stellantis' Mulhouse industrial site in France, which is home to the DS 7, Peugeot 308 and 308 SW, 508 and 508 SW and the new 408 models. Based upon current assumptions, the planned renewable energy project could provide a significant portion of the industrial site's annual energy needs. The first phase of the project, located at the southernmost extent of Vulcan's focus area in the Upper Rhine Valley, will include a pre-feasibility study (PFS) for the construction of geothermal renewable energy assets for Stellantis' facility, carried out by Vulcan, which will also assess potential for lithium production. If successful, the next phase will focus on 3D seismic exploration and more advanced studies and development.³⁷

A core focus during the reporting period was on the delivery of the Phase One DFS. In parallel, Vulcan continued to develop the project pipeline for future phases of the Company's growth. For the longer term, Vulcan will continue to foster innovation and growth while always maintaining focus on delivering on the Company's commitments.



³⁵ <https://www.investi.com.au/api/announcements/vul/0c706d5e-e9d.pdf>

³⁶ <https://www.investi.com.au/api/announcements/vul/fccbdb90-d23.pdf>

³⁷ <https://www.investi.com.au/api/announcements/vul/a40dc507-014.pdf>

OFFTAKES

As of the date of this Report, Vulcan has entered into binding lithium offtake agreements with five customers.

In October 2021, Vulcan entered into a lithium offtake agreement with Umicore to sell between 28,000 metric tonnes and 42,000 metric tonnes of battery-grade LHM to Umicore over an initial five-year term.³⁸

In November 2021, Vulcan entered into a lithium offtake agreement with Renault to sell 29,000 to 49,000 metric tonnes of battery grade LHM over an initial six-year term.³⁹

In the same month Vulcan entered into a lithium offtake agreement with Stellantis to sell between 222,000 metric tonnes and 272,000 metric tonnes of battery-grade LHM over a ten-year term.⁴⁰

In December 2021, Vulcan entered into a lithium offtake agreement with Volkswagen, to sell to Volkswagen between 34,000 to 42,000 metric tonnes of battery grade LHM over an initial five-year term.⁴¹



In January 2022, Vulcan entered into a lithium offtake agreement with LG Energy Solution to sell to LG Energy Solution between 41,000 metric tonnes and 50,000 metric tonnes of battery-grade lithium with an initial term of five years.⁴²

Overall, it is the Company's goal to have most volumes of battery-grade LHM produced in Vulcan's Zero Carbon Lithium™ Project committed under lithium offtake agreements with reputable counterparties. The following table provides an overview of the binding lithium offtake agreements entered by Vulcan as of the date of this report.

BINDING LITHIUM HYDROXIDE OFFTAKE AGREEMENTS

Partner	Category	Duration	Volume over the duration of the contract (t)
Umicore	Tier one cathode maker	5 years	28,000 to 42,000
Renault Group	OEM	6 years	29,000 to 49,000
Stellantis	OEM	10 years	222,000 to 272,000
Volkswagen Group	OEM	5 years	34,000 to 42,000
LG Energy Solutions	Tier one battery maker	5 years	41,000 to 50,000

Table 3: Binding Lithium Hydroxide Offtake Agreements.

³⁸ <https://www.investi.com.au/api/announcements/vul/07faa4f6-336.pdf>

³⁹ <https://www.investi.com.au/api/announcements/vul/970dcad4-ec1.pdf>

⁴⁰ <https://www.investi.com.au/api/announcements/vul/6af825a6-35d.pdf>

⁴¹ <https://www.investi.com.au/api/announcements/vul/26da5058-1f4.pdf>

⁴² <https://www.investi.com.au/api/announcements/vul/81420fef-8a4.pdf>

CORPORATE

Vulcan's corporate focus is on transforming the Company from a development company to an integrated project execution company, as it delivers Phase One of its Zero Carbon Lithium™ Project. During the Period, Vulcan released its DFS for Phase One of the Project showing compelling financials.⁴³

Vulcan also successfully raised EUR 66 million (A\$109m) during the Period⁴⁴, to progress its integrated renewable energy and lithium project execution strategy. Net proceeds from the Placement were intended to be used towards items such as land acquisition as part of its project execution strategy, as well as for general working capital and corporate purposes, to support Vulcan's goal of becoming the world's first lithium producer with net zero carbon footprint and zero fossil fuels used in production, with Phase One production targeted for end-2025. This positions Vulcan to be able to continue to deliver the Zero Carbon Lithium™ Project as targeted and is intended to provide sufficient capital to allow the Company to arrange debt financing and strategic equity commitments.

SEGMENT INFORMATION

The consolidated entity is organised into three operating segments based on geographical location: in Germany, Other European and Australia. These operating segments are based on the internal reports that are reviewed and used by the Board of Directors (who are identified as the Chief Operating Decision Makers (CODM)) in assessing performance and in determining the allocation of resources. There is no aggregation of operating segments. The CODM reviews EBITDA (earnings before interest, tax, depreciation, and amortisation). The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements. The information reported to the CODM is on a monthly basis.

COMPETENT PERSON STATEMENT

The information in this Report that relates to Mineral Resources and Ore Reserves, and any Exploration Results and Production Targets, of Vulcan's Zero Carbon Lithium™ Project is extracted from the ASX announcement made by Vulcan on 13 February 2023 ("Vulcan Zero Carbon Lithium™ Project Phase One DFS Results and Resources-Reserves Update"), which is available to view on Vulcan's website at <https://v-er.eu/>. Vulcan confirms that in respect of estimates of Mineral Resources and Ore Reserves, and any Exploration Results and Production Targets, included in this Report: It is not aware of any new information or data that materially affects the information included in the original market announcement, and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed; the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement; and all material assumptions underpinning any production targets (and any forecast financial information derived from such production targets) included in this announcement continue to apply and have not materially changed.

TYPES OF PRODUCTS AND SERVICES

Germany	The supply of geothermal energy, exploration and development relating to the Zero Carbon Lithium™ Project and engineering services.
Other European (France and Italy)	Exploration and development relating to renewable energy and lithium.
Australia	ASX, corporate administration and DFS engineering costs.

⁴³ <https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf>

⁴⁴ <https://www.investi.com.au/api/announcements/vul/e2227a34-fe3.pdf>

SUSTAINABILITY

SUSTAINABILITY IS AT THE HEART OF VULCAN. THE COMPANY CONTINUES TO EXECUTE ON ITS DUAL PURPOSE AND MISSION, TO EMPOWER A NET ZERO CARBON FUTURE BY BECOMING EUROPE'S LEADING ZERO CARBON LITHIUM™ BUSINESS AND ENABLING ENERGY SECURITY THROUGH GEOTHERMAL ENERGY. "

STORM TAYLOR

SUSTAINABILITY HIGHLIGHTS



**Certified Carbon Neutral
International Organisation
from 2021**



**Implementation of ESG
screening of Tier-1
supply chain**



VCM Forum Member



**First stand-alone TCFD
report published**



**Fulfillment of majority of first
ESG linked KPIs**



**Low ESG Risk Rating from
Sustainalytics, and ranked first
among peers in ESG performance**



**First rehabilitation project
supported with Karlsruhe Species
Protection Foundation (AZK)**



**Over 300 FTE Vulcan
personnel, up from 184
at 31 December 2022**



**Strengthened positive
acceptance from local
councils**

VULCAN IS COMMITTED TO EMBEDDING SUSTAINABILITY INTO EVERY ASPECT OF ITS BUSINESS AND DECISION MAKING. AS PART OF THIS, EACH OF VULCAN'S KEY EXECUTIVES ARE GIVEN RESPONSIBILITY FOR ESG MATTERS AS RELEVANT TO THEIR ROLE.

ESG LINKED KPIS FOR FY23

The new Annual Deferred Incentive (ADI) plan, introduced for FY23, included specific ESG-related KPIs, that were individualised and linked to each business unit to help strengthen accountability. Vulcan also included shared objectives to ensure sustainable business practices are collaboratively achieved. Some of the ESG KPIs that were fulfilled for the year included achieving a positive, best-in-class score from Sustainalytics, successfully completing Vulcan's first United Nations Global Compact Communication on Progress report, releasing the Company's first standalone Taskforce for Climate-related Financial Disclosures (TCFD) report, and implementing a sustainable procurement procedure including a supplier ESG vetting process.



PARTNERSHIPS

UNGC

As part of Vulcan's membership of the United Nations Global Compact (UNGC), the Company completed its first Communication on Progress (CoP), accessible via the UNGC website. The UNGC is a voluntary initiative that provides a framework to guide all businesses regardless of size, complexity, or location to adopt sustainable and socially responsible policies. The annual CoP enables measurement and public demonstration of the Company's progress on the UNGCs Ten Principles and Sustainable Development Goals.

VCMi FORUM

Vulcan is a proud member of the Voluntary Carbon Markets Integrity Initiative (VCMi) Stakeholder Forum. The VCMi is an international non-profit organisation with a mission to enable high-integrity voluntary carbon markets that deliver real and additional benefits to the atmosphere, help protect nature, and accelerate the transition to ambitious, economy-wide climate policies and regulations. The Stakeholder Forum acts as a market sounding board for VCMi, capturing views and perspectives from a broad range of voluntary carbon markets participants, and helping to shape the VCMi Claims Code of Practice. The primary purpose of the Claims Code of Practice is to provide clear requirements, recommendations and supporting guidance to companies on how they can credibly make voluntary use of carbon credits.

KARLSRUHE SPECIES PROTECTION FOUNDATION (AZK)⁴⁵

Vulcan is currently developing projects in the Upper Rhine Valley for the regional generation of renewable energy and extraction of carbon neutral lithium. As a sustainable company, it is a matter close to the Company's heart to support the region in which it operates to protect nature. Vulcan understands that both climate change and biodiversity are inextricably interlinked; climate change is a main driver of biodiversity loss and at the same time the destruction of ecosystems undermines nature's ability to regulate greenhouse gas emissions. Conversely, proactively supporting biodiversity helps nature to sequester more carbon throughout its trophic webs. Vulcan sees it as its responsibility to advance environmental protection in the region and to support local, sustainable projects. As such, Vulcan has partnered with AZK on a local nature conservation project: the re-introduction of lapwings and curlews into the area. Both the lapwing and the curlew are threatened with extinction in the region. The Karlsruhe Zoo therefore raises birds of these species and then releases them into the wild in Rheinau in central Baden. The bird conservation project, successfully started in 2021, has already released around 90 birds into the wild.



⁴⁵ <https://v-er.eu/de/vulcan-foerdert-vogelschutz-projekt-der-artenschutzstiftung-zoo-karlsruhe/>

ENVIRONMENTAL IMPACT ASSESSMENTS

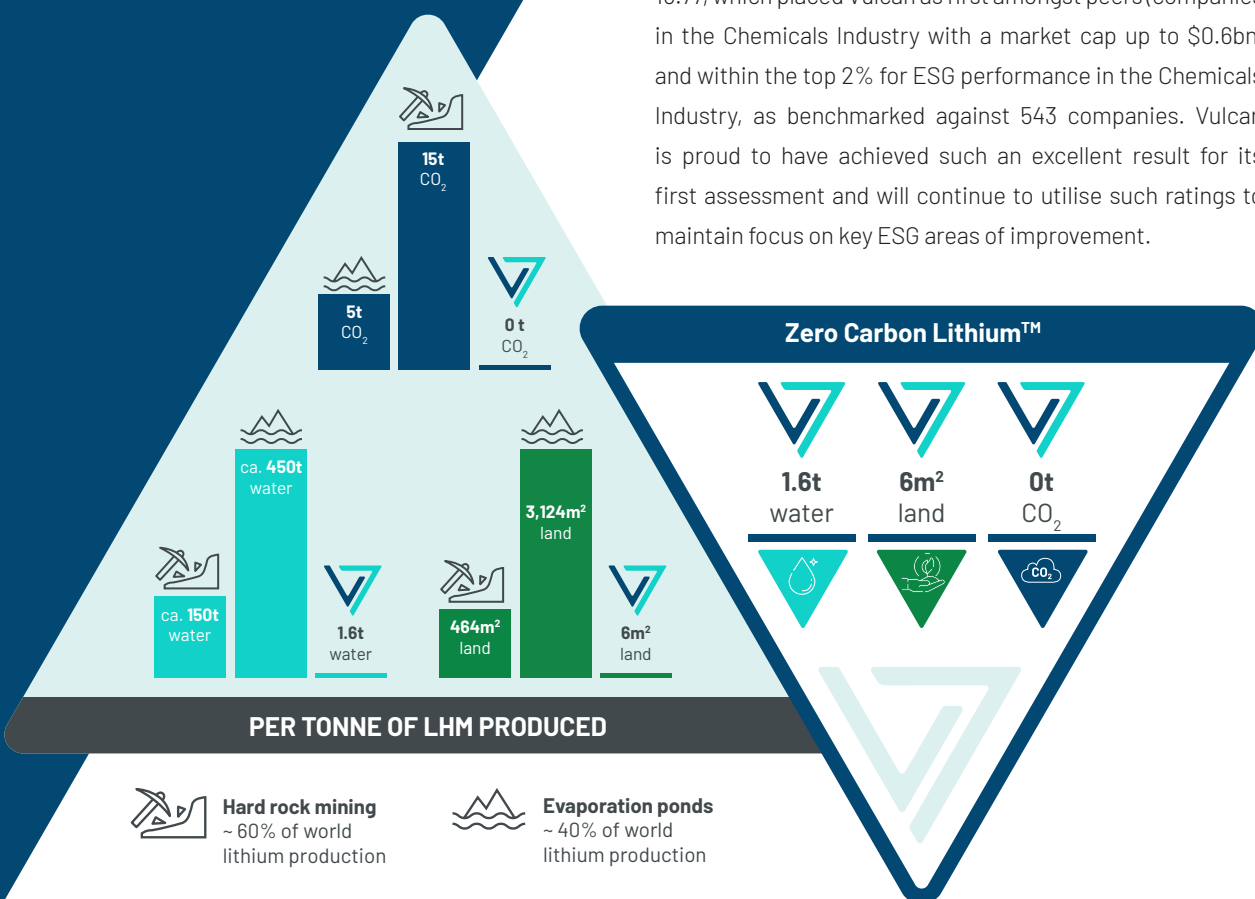
Vulcan continues to work through its iterative permitting process and has successfully completed preliminary environmental impact assessments and initial species protection assessments for its licence areas. These reports continue to prove that Vulcan's sites do not affect any sites of biodiversity importance or protected habitats, and Vulcan has received feedback from the mining authorities that Vulcan's environmental impacts are minimal and therefore do not require further full environmental impact assessments to be performed. Vulcan is also in the process of completing an Environmental and Social Impact Assessment (ESIA) with ERM Ltd. for lenders' due diligence purposes and will continue to evolve reporting on environmental impacts in line with Taskforce for Nature-related Financial Disclosures (TNFD).

SUPPLY CHAIN MANAGEMENT

In line with Vulcan's current transition to the execution phase and the addition of key management roles, the team have focused attention on Procurement and Supply Chain management. Notable advances include the creation and distribution of Vulcan's supplier pre-qualification ESG survey. The first round of responses has been received and are being used to advance Vulcan's assessment criteria and benchmarking analysis. As part of the procurement framework, Vulcan has established a Supply Chain Council (SCC) who meet on a weekly basis to endorse Contract & Procurement activities. Members of the SCC include the Project Executive SteerCo, ESG team and CFOs. Vulcan has also created a stand-alone ESG Requirements document that is included with EPC and EPCM contract general terms and conditions to ensure Vulcan's ESG commitments and values are upheld by Tier One partnerships and managed accordingly. The team will continue to build on this strong foundation in the coming months and work with the supply chain team to manage, mitigate, reduce and report ESG impacts.

SUSTAINALYTICS ESG RATING

Vulcan received a low ESG risk rating from Sustainalytics of 16.77, which placed Vulcan as first amongst peers (companies in the Chemicals Industry with a market cap up to \$0.6bn) and within the top 2% for ESG performance in the Chemicals Industry, as benchmarked against 543 companies. Vulcan is proud to have achieved such an excellent result for its first assessment and will continue to utilise such ratings to maintain focus on key ESG areas of improvement.



STAKEHOLDER ENGAGEMENT

CEO MEETING WITH EUROPEAN COMMISSION VICE-PRESIDENT MAROŠ ŠEFČOVIČ

Vulcan's CEO, Cris Moreno met with European Commission Vice President Maroš Šefčovič at a high-level European Battery Alliance (EBA) Roundtable during the Period. VP Šefčovič asked the Roundtable to help him understand where the renewable e-mobility industry stands and how to work to strengthen it considering China's advance in the UK and European automotive markets.

VP Šefčovič has pledged to reiterate to the EU Commission that strategic projects for critical raw materials must receive full political attention. Vulcan will continue to use its unique positioning and thought leadership to help drive sustainable funding prioritisation and facilitation of timely access to state aid for companies and projects focused on decarbonisation solutions.

CEO MEETING WITH DEPUTY SECRETARY OF THE US TREASURY WALLY ADEYEMO, AND US CONSUL GENERAL NORMAN THATCHER SCHARPFF⁴⁶



At the beginning of July, Vulcan's Managing Director and CEO Cris Moreno met with Deputy Secretary of the US Treasury, Wally Adeyemo, and U.S. Consul General of Germany, Norman Thatcher Scharpf. Together they discussed critical raw materials in Germany and Europe, and how the U.S. and EU can best work together to secure and protect raw material supply chains to service EV electrification demands and climate goals. Vulcan's Zero Carbon Lithium™ Project mission is to play a strategic role in securing clean energy supply chains and supporting the EU and partners in its green transition.

POLITICAL SITE VISITS

The Zero Carbon Lithium™ Project has a comprehensive impact on all political stakeholders in the region at the macro-, meso- and micro-political levels. Within the EU and especially in the Federal Republic of Germany, there is consensus on the need to diversify critical raw material supply chains, and on the need to decarbonise heat supply. Vulcan is at the forefront of these political considerations in the region and is highly active with political discussions.

During the Period, Vulcan's Public Affairs team held numerous political talks and visits to the lithium pilot plant in Insheim. These visits included various representatives from the project regions including state parliament members, mayors, local councils, regional environmental NGOs, political district associations and students of renewable energies. In addition, the political site visits included high-ranking decision-makers from the EU Parliament, the Federal Government, and the Federal Ministries. Some notable site visits were the Federal Minister of Transport visiting the pilot plant in February, several EU parliamentarians who visited Vulcan's operations in March, and the Prime Minister of Rheinland-Pfalz who visited in May⁴⁷.



⁴⁶ <https://home.treasury.gov/news/press-releases/jy1609>

⁴⁷ <https://v-er.eu/de/ministerpraesidentin-malu-dreyer-besucht-vulcan-energie-ressourcen/>

COMMUNITY OUTREACH

COMMUNITY ENGAGEMENT

Vulcan has put extensive focus on the participatory involvement of all stakeholders and a feedback communication loop that has allowed for open and honest dialogue. Following a multi-pronged approach, key actions include the establishment of several participation workshops⁴⁸, “Info Centres” in key towns, multiple political meetings, public workshops, public tours of the Insheim plant, presentations of the Project, and use of the Vulcan’s “Info Truck” at public events, conferences, and roadshows⁴⁹.

Key achievements during the Period include:

- ▶ Work towards a positive decision by the Landau City Council (taken in early July), in the core of Vulcan’s Phase One area, to commence a formal negotiation with Vulcan for the site of Vulcan’s Phase One geothermal and lithium extraction plants.⁵⁰
- ▶ Rapid creation of acceptance in the communities of the Mannheim permit area with 3D Seismic proceeding swiftly and successfully.⁵¹
- ▶ Successful resumption of talks with the communities in the Ortenau II permit field with the mayors discussing the need for 3D Seismic as soon as possible to implement regional heating plans in their municipalities.⁵²
- ▶ Start of communicative and political activities in the “Ludwigsland” project area. The talks held to date with the 38 municipalities and public agencies have been positive. The aim is to have spoken to all municipalities and presented our plans by the end of the year. An overview of “Ludwigsland” project area is provided in Figure 2.
- ▶ In addition, discussions are underway with municipalities in Hesse regarding Vulcan’s project with Stellantis.

Vulcan has achieved extensive community and stakeholder engagement during the Period, and the positive feedback continues to grow in momentum as the Company gets closer to commercial delivery of the Zero Carbon Lithium™ Project.



⁴⁸ <https://v-er.eu/de/vulcan-fuehrt-dritten-beteiligungsworkshop-zu-3d-seismik-in-der-vorderpfalz-durch/>

⁴⁹ <https://v-er.eu/de/vulcan-informiert-in-landau-ueber-tiefengeothermie-projekte/>

⁵⁰ <https://www.investi.com.au/api/announcements/vul/2a2a0ef6-dc7.pdf>

⁵¹ <https://v-er.eu/de/vulcan-schliesst-erfolgreich-3d-seismik-in-mannheim-und-der-region-ab/>

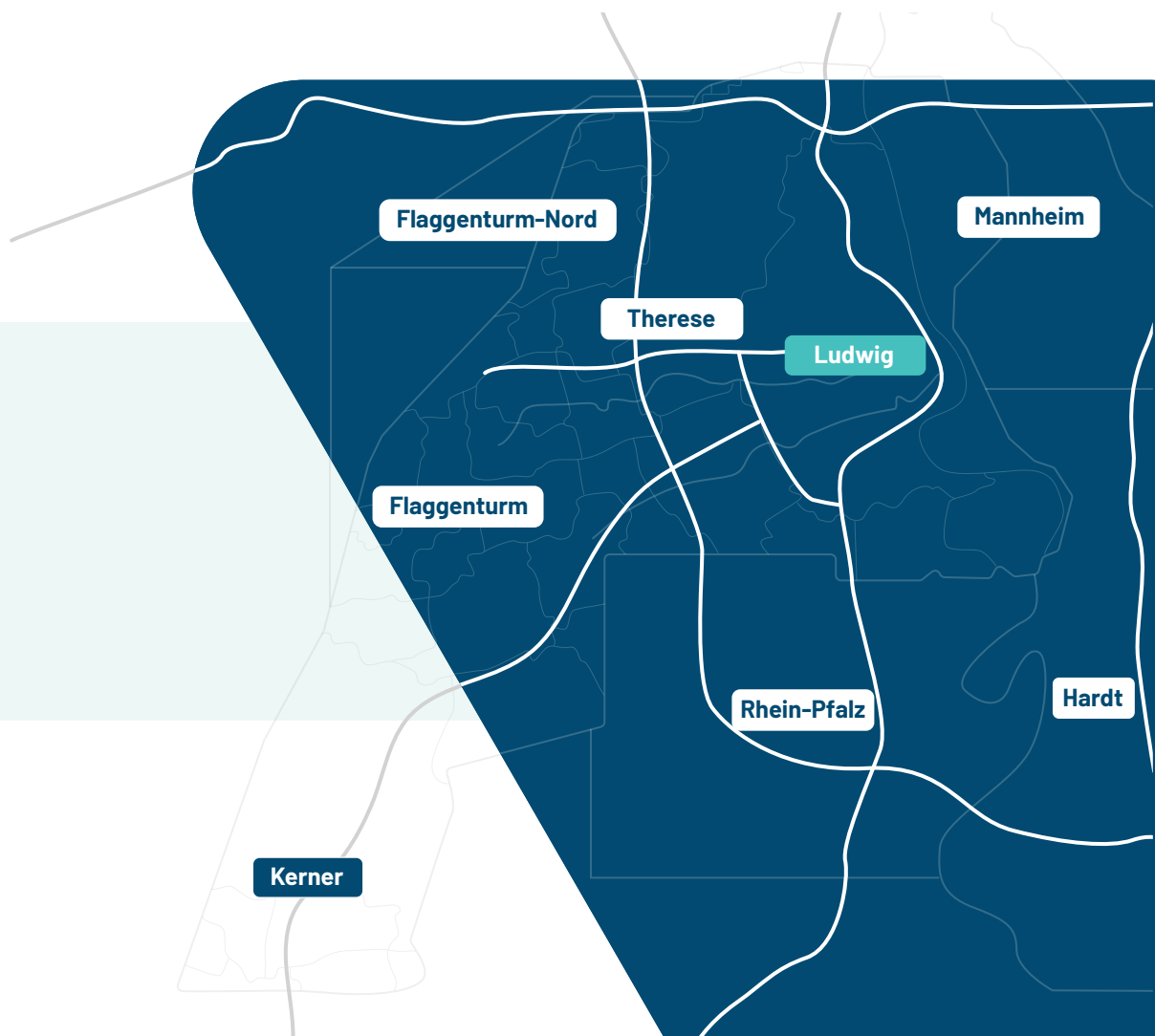
⁵² <https://bnn.de/mittelbaden/buehl/gemeinderat-geothermie-buehl-messungen-erlaubt-rat>

REGIONAL READINESS INDEX

Vulcan implemented the Regional Readiness Index (RRI) framework in January. The RRI framework is intended to help improve communications within the local communities that Vulcan has operations in. Seen as a pre-emptive step, the RRI measures the effectiveness of Vulcan's early communication with local stakeholders and gives an indicator of success to be able to move through the next steps of the communication process. Discovering the most effective communication tools and understanding how they best work together speeds up communication processes and builds trust in politics and citizenship alike.

Part of the Territorial Responsible Research and Innovation and Smart Specialisation (tetRRIS) network, an EU funded project aiming to bring Responsible Research and Innovation in alignment with the Smart Specialisation

paradigm and governance, the RRI monitors all tools of communication, political engagement, and participation and how they support the overall communication strategy. Therefore, the framework consists of quantitative and qualitative measurements. These are collected monthly for each region Vulcan has operations in. The quantitative part of the RRI measures include key figures such as the number of stakeholder contacts, the visitors on the website or the number of citizen information events. The qualitative aspect of the RRI consists of a survey gathering the Regional Manager's opinion of the concerning region. The objective is to get an accurate picture of the situation and the sentiment perceived in the region. This framework is to be improved continuously to fill the needs of the current project development.



TCFD

In March 2023, Vulcan released its first standalone Taskforce for Climate-related Financial Disclosures (TCFD) as part of the Annual Reporting suite. The full report is available via the Vulcan website (<https://v-er.eu/>). Below is a summary of the report.



Governance

Disclose the organisation's governance around climate related risks and opportunities

Recommended disclosures and disclosure level	Summary of progress in 2022	Standalone TCFD Report page reference
a) Describe the Board's oversight of climate related risks and opportunities	<ul style="list-style-type: none"> ▶ Vulcan has a robust governance framework as set out in the TCFD report. It was enhanced with the formation of a Projects Oversight Committee, one key responsibility of which is the oversight of the risk management of projects, including climate related risks and opportunities. 	Page 4 – 5
b) Describe management's role in assessing and managing climate related risks and opportunities	<ul style="list-style-type: none"> ▶ A Projects Execution Committee and a Supply Chain Council were created in 2023 comprising members of management. The remit of the Committee and Council include oversight of climate related risks and responsibilities as it relates to project execution and the Company's supply chain. ▶ A Sustainability Steering Committee was formed to facilitate the implementation of Vulcan's Sustainability framework. This Committee comprises personnel from across the organisation. 	Page 6 – 7

Strategy

Disclose the actual and potential impacts of climate related risks and opportunities on the organisation's businesses, strategy and financial planning where such information is material.

Recommended disclosures and disclosure level	Summary of progress in 2022	
a) Describe the climate related risks and opportunities the organisation has identified over the short, medium and long-term	<ul style="list-style-type: none"> ▶ A Sustainability and ESG framework was adopted to ensure sustainability is woven into Vulcan's core strategy. ▶ The Company updated its risk matrix In Sept 2022 to include additional Climate related risks. No material risks were identified. ▶ Climate related opportunity is inherent in the Company's overall strategy. 	<p>Page 8 - 9</p> <p>Page 15 - 18</p>
b) Describe the impact of climate related risks and opportunities on the organisation's businesses, strategy, and financial planning	<ul style="list-style-type: none"> ▶ The Board and senior management deliberated on the potential impacts of climate related risks during the enterprise risk management workshops conducted in Sept 2022. The outcome of this is captured in more detail in the TCFD report but no material risks were identified. ▶ Climate related opportunity is inherent in the Company's strategy and purpose. 	<p>Page 12 - 18</p>
c) Describe the resilience of the organisation's strategy, taking into consideration different climate related scenarios, including a 2°C or lower scenario	<ul style="list-style-type: none"> ▶ To stress test the organisation's strategy, the first climate scenario modelling was completed with the support of Baringa using the IEA's Stated Policies Scenario (STEPS) and Net Zero Emissions by 2050 Scenario (NZE). No material exposures were identified following this analysis. 	<p>Page 10 - 11</p>

Risk management

Disclose how the organisation identifies, assesses, and manages climate related risks.

Recommended disclosures and disclosure level	Summary of progress in 2022	Standalone TCFD Report page reference
a) Describe the organisation's processes for identifying and assessing climate related risks	<ul style="list-style-type: none"> ▶ The Company adopted the 2004 COSO Enterprise Risk Management – Integrated Framework as the principal mechanism to identify, assess and measure enterprise wide risks. ▶ 18 climate related risks identified over the short, medium and long term. No Material risks were identified. ▶ PwC were instructed to undertake a 360 Target Operating Model review resulting in recommendations on the enhancement of the legal corporate structure and governance framework. 	Page 12 – 18
b) Describe the organisation's processes for managing climate related risks	<ul style="list-style-type: none"> ▶ Through Executive and Board workshops using the COSO Enterprise Risk Management – Integrated Framework, Vulcan advanced its understanding of the climate related physical and transition risks. ▶ The development of new Committees within the governance framework. ▶ Allocation of roles and responsibilities for specific risks, and reporting lines on the management of risk. 	Page 4 – 7 Page 8 – 9 Page 12 – 18
c) Describe how processes for identifying, assessing, and managing climate related risks are integrated into the organisation's overall risk management	<ul style="list-style-type: none"> ▶ Enhanced risk matrix developed following the Executive and Board risk management workshops. ▶ Executive incentivisation linked to ESG-related KPIs introduced to embed sustainability into the business strategy and drive accountability and performance. ▶ Enhanced governance was introduced through the establishment of the Projects Oversight Committee, Projects Execution Committee, Sustainability Steering Committee and Supply Chain Council. 	Page 4 – 7 Page 19

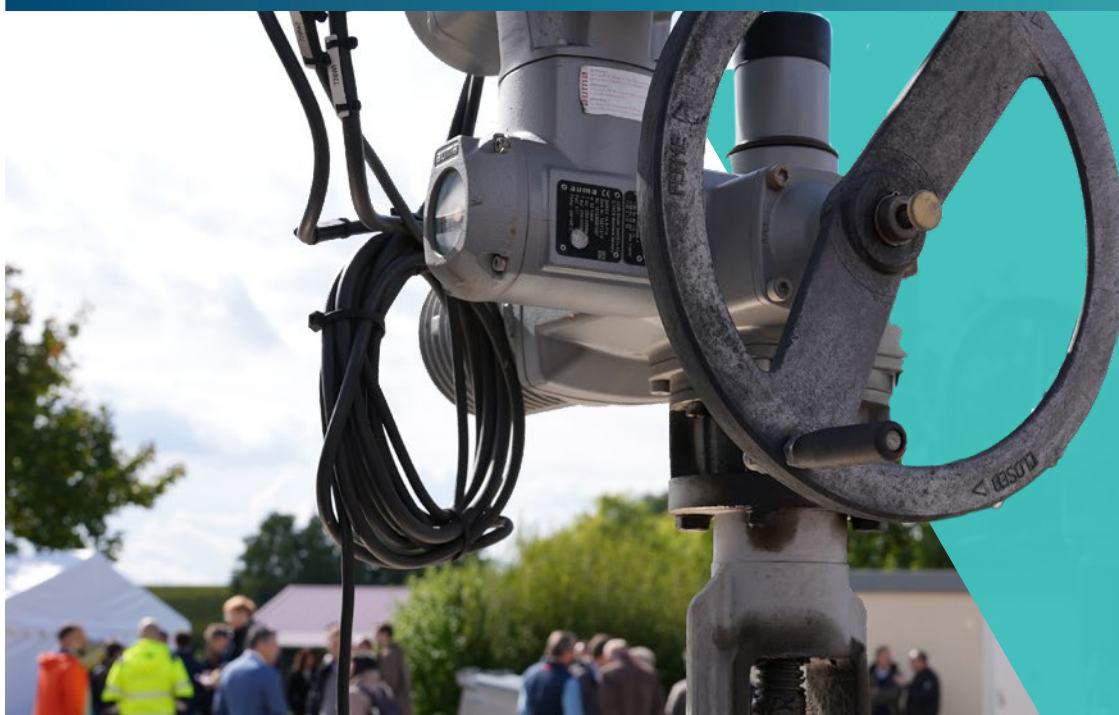
Targets and metrics

Disclose the metrics and targets used to assess and manage relevant climate related risks and opportunities where such information is material.

Recommended disclosures and disclosure level	Summary of progress in 2022	Standalone TCFD Report page reference
a) Disclose the metrics used by the organisation to assess climate related risks and opportunities in line with its strategy and risk management process	<ul style="list-style-type: none"> ▶ Vulcan reports its GHG emissions and use of carbon offsets. ▶ Opportunity management is inherent in Vulcan's overall business strategy and purpose. 	Page 19 - 21
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks	<ul style="list-style-type: none"> ▶ The GHG emission data is being updated and verified for 2022 and will be reported in the next issued report. 	Page 19 - 21
c) Describe the targets used by the organisation to manage climate related risks and opportunities and performance against targets	<ul style="list-style-type: none"> ▶ Executive incentivisation linked to ESG-related KPIs introduced to embed sustainability into the business strategy. ▶ Key highlights are included in the TCFD report and the annual report. 	Page 19 - 21



The full report is available on
Vulcan's website <https://v-er.eu>.



FINANCIAL RESULTS



CORPORATE DIRECTORY

Board of Directors

MR CRIS MORENO

Deputy CEO
(Managing Director & CEO from 1 July 2023)

DR FRANCIS WEDIN

Managing Director & CEO
(Executive Chair from 1 July 2023)

MR GAVIN REZOS

Non-Executive Chair
(Non-Executive Deputy Chair from 1 July 2023)

MS ANNIE LIU

Non-Executive Director

DR HEIDI GRÖN

Non-Executive Director

MS RANYA ALKADAMANI

Non-Executive Director

MS JOSEPHINE BUSH

Non-Executive Director

DR GÜNTER HILKEN

Non-Executive Director

MR MARK SKELTON

Non-Executive Director

Company Secretary

MR DANIEL TYDDE

Registered Office

Level 2, 267 St Georges Terrace
Perth WA 6000
Australia

Telephone: 08 6331 6156
Website: <https://v-er.eu>

Stock Exchange Listing

Listed on the Australian Securities Exchange
(ASX Code: VUL)

Listed on Prime Standard of Frankfurt Stock Exchange
(FSE Code: VUL)

Auditors

RSM AUSTRALIA PARTNERS

Level 32, 2 the Esplanade
Perth WA 6000

Solicitors

ASHURST

Brookfield Place Tower II
Level 10 and 11 St Georges Terrace
Perth WA 6000

Bankers

WESTPAC BANKING CORPORATION

Level 4, Brookfield Place, Tower Two
123 St Georges Terrace
Perth WA 6000

Share Registry

AUTOMIC SHARE REGISTRY

Level 2, 267 St Georges Terrace
Perth WA 6000
Telephone: 1300 288 664

GROUP FINANCIAL PERFORMANCE

Summary of results for the Consolidated Entity for the half year ended 30 June 2023

	30 June 2023	30 June 2022
Revenue from continuing operations (€'000)	3,104	3,109
Net loss after tax (€'000)	15,584	12,574
Loss per share (€ cents)	10.4	9.5

Other Financial metrics

	30 June 2023	30 June 2022
Cash and cash equivalents (€'000)	147,642	134,107
Net assets (€'000)	279,796	233,161

Financial Performance

The Vulcan Group (the "Group") produced a net loss after tax of €15.6 million (June 2022: €12.6 million) which included depreciation and amortisation of €2.9 million and net interest income of €1.4million. Revenues of €3.1 million were primarily generated on sales of electricity from the Company's Insheim geothermal plant €2.0 million (June 2022: €3.0 million) as well as revenue generated from the recently acquired drilling labour hire company Comeback Personaldienstleistungen GmbH. Revenue from Insheim was lower than the corresponding period due to a shutdown to replace a pump in April.

Net assets of the Group increased to €279.8 million (June 2023: €233.2 million) including cash balances of €147.6million (31 Dec 2022: €134.1 million). The increase in cash is due to a capital raise undertaken in May 2023 offset by capital expenditure primarily on construction of the Company's Lithium Extraction Optimisation Plant (LEOP) and refurbishment of its electric drill rigs as well as operating costs.

AUDITOR'S INDEPENDENCE DECLARATION

The Auditor's Independence Declaration under section 307C of the Corporations Act 2001 is included within this financial report.

Signed in accordance with a resolution of the Board of Directors, pursuant to section 306(3)(a) of the Corporations Act 2001.

On behalf of the directors.



Dr Francis Wedin

Executive Chair

12 September 2023

RSM Australia Partners

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2 The Esplanade Perth WA 6000
GPO Box R1253 Perth WA 6844

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F +61(0) 8 9261 9111

www.rsm.com.au

AUDITOR'S INDEPENDENCE DECLARATION

As lead auditor for the review of the financial report of Vulcan Energy Resources Limited for the half-year ended 30 June 2023, I declare that, to the best of my knowledge and belief, there have been no contraventions of:

- (i) the auditor independence requirements of the *Corporations Act 2001* in relation to the review; and
- (ii) any applicable code of professional conduct in relation to the review.



RSM AUSTRALIA PARTNERS



AIK KONG TING
Partner

Perth, WA
Dated: 12 September 2023

THE POWER OF BEING UNDERSTOOD
AUDIT | TAX | CONSULTING

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RSM Australia Partners ABN 36 965 185 036

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FINANCIAL STATEMENTS



Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the half-year ended 30 June 2023

	Note	6 months 30 June 2023 €'000	6-months 30 Jun 2022 €'000
Revenue from continuing operations	3	3,104	3,109
Other income		461	180
Finance income		1,560	265
Loss from equity accounted investments		(465)	(215)
Other own work capitalized		7,487	1,875
			-
Raw materials and purchased services		(2,385)	(1,918)
Finance expense		(118)	(155)
Administrative expenses		(2,328)	(1,770)
Compliance and regulatory expenses		(543)	(360)
Consulting and legal fees		(2,265)	(2,272)
Depreciation and amortisation		(2,942)	(2,408)
Employee benefit expenses		(12,933)	(5,248)
Investor relations		(11)	(269)
Impairment expenses		(1,040)	(14)
Loss on disposal of financial assets		-	(745)
Occupancy costs		(1,157)	(397)
Share-based payments expense		(905)	(1,229)
Other expenses		(2,287)	(634)
Foreign currency gain/(losses)		772	97
Loss before income tax expense		(15,995)	(12,108)
Income tax benefit/(expense)		411	(466)
Loss after income tax for the period		(15,584)	(12,574)
Other comprehensive income			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations		(3,394)	2,273
Total comprehensive loss for the period (net of tax)		(18,978)	(10,301)
Total comprehensive loss for the period attributable to the owners of Vulcan Energy Resources Limited		(18,978)	(10,301)
Loss per share for the period attributable to the members			
Vulcan Energy Resources Limited		€	€
Basic loss per share (Eurocent)	12	(10.4)	(9.5)
Diluted loss per share (Eurocent)	12	(10.4)	(9.5)

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

Consolidated Statement of Financial Position

As at 30 June 2023

	Note	30 June 2023 €'000	31 Dec 2022 €'000
Assets			
Current assets			
Cash and cash equivalents	4	147,642	134,107
Trade and other receivables	5	5,826	6,316
Contract assets		169	42
Inventories		203	155
Total current assets		153,840	140,620
Non-current assets			
Investments accounted for using equity method		530	974
Exploration and evaluation expenditure	6	36,903	30,135
Property, plant and equipment	7	103,220	70,280
Right-of-use		4,483	3,377
Intangible assets	8	1,747	3,068
Deferred tax assets		2,584	1,681
Total non-current assets		149,467	109,515
Total Assets		303,307	250,135
Liabilities			
Current liabilities			
Trade and other payables	9	13,046	9,418
Lease liabilities		914	646
Income tax liabilities		111	91
Deferred income		132	132
Provisions		1,442	752
Total current liabilities		15,645	11,039
Non-current liabilities			
Lease liabilities		3,476	2,670
Deferred income		2,222	1,453
Deferred tax liabilities		2,010	1,702
Provisions		158	110
Total non-current liabilities		7,866	5,935
Total Liabilities		23,511	16,974
Net Assets		279,796	233,161
Equity			
Share capital	10	323,738	259,158
Reserves		13,514	15,875
Accumulated losses		(57,456)	(41,872)
Total Equity		279,796	233,161

The Consolidated Statement of Financial Position should be read in conjunction with the notes to the financial statements.

Consolidated Statement of Changes in Equity

For the half-year ended 30 June 2023

Consolidated	Issued Capital	Reserves	Foreign Currency Reserve	Accumulated Losses	Total
	€'000	€'000	€'000	€'000	€'000
At 1 January 2023	259,158	9,706	6,169	(41,872)	233,161
Loss for the period	-	-	-	(15,584)	(15,584)
Other comprehensive loss	-	-	(3,394)	-	(3,394)
Total comprehensive loss for the period after tax	-	-	(3,394)	(15,584)	(18,978)
Transactions with owners in their capacity as owners:					
Issue of share capital	67,350	-	-	-	67,350
Share issue costs	(2,770)	-	-	-	(2,770)
Share-based payments	-	1,033	-	-	1,033
Balance at 30 June 2023	323,738	10,739	2,775	(57,456)	279,796

Consolidated	Issued Capital	Reserves	Foreign Currency Reserve	Accumulated Losses	Total
	€'000	€'000	€'000	€'000	€'000
At 1 January 2022	209,049	7,647	5,544	(15,848)	206,392
Loss for the period	-	-	-	(12,574)	(12,574)
Other comprehensive loss	-	-	2,273	-	2,273
Total comprehensive loss for the period after tax	-	-	2,273	(12,574)	(10,301)
Transactions with owners in their capacity as owners:					
Issue of share capital	49,884	-	-	-	49,884
Share issue costs	-	-	-	-	-
Share-based payments	-	1,348	-	-	1,348
Balance at 30 June 2022	258,933	8,995	7,817	(28,422)	247,323

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

Consolidated Statement of Cash Flows

For the half-year ended 30 June 2023

	6-months 30 June 2023 €'000	6-months 30 June 2022 €'000
Cash flows from operating activities		
Receipts from customers	4,269	3,209
Payments to suppliers and employees	(19,581)	(9,496)
Interest received	1,209	143
Other income	1,230	180
Interest paid	(118)	(210)
Net cash used in operating activities	(12,991)	(6,174)
Cash flows from investing activities		
Payments for exploration and evaluation expenditure	(8,949)	(3,973)
Payment for plant and equipment	(27,977)	(10,235)
Payment to acquire subsidiary	(150)	-
Cash acquired upon acquisition of subsidiary	88	236
Payments to acquire financial assets	-	(19,752)
Proceeds from disposal of financial assets	707	29,282
Net cash used in investing activities	(36,281)	(4,442)
Cash flows from financing activities		
Proceeds from issue of shares	67,350	49,980
Share issue costs	(2,770)	-
Lease repayments	(605)	(111)
Repayment of loan from Associate	-	479
Proceeds from borrowings	195	-
Repayment of borrowings	(195)	-
Net cash from financing activities	63,975	50,348
Net increase in cash and cash equivalents	14,703	39,732
Cash and cash equivalents at beginning of the period	134,107	134,548
Effect of exchange rate fluctuations	(1,168)	1,136
Cash and cash equivalents at end of the period	147,642	175,416

The Consolidated Statement of Cash Flows should be read in conjunction with the notes to the financial statements.

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of preparation

These general purpose interim financial statements for the half-year ended 30 June 2023 have been prepared in accordance with the requirements of the Corporations Act 2001 and Australian Accounting Standard AASB 134 "Interim Financial Reporting". Compliance with AASB 134 ensures compliance with International Accounting Standard 34 "Interim Financial Reporting".

These general-purpose financial statements do not include all the notes of the type normally included in annual financial statements. Accordingly, these financial statements are to be read in conjunction with the annual report for the period ended 31 December 2022 and any public announcements made by the company during the interim reporting period in accordance with the continuous disclosure requirements of the Corporations Act 2001.

The financial statements are presented in Euros, which is Vulcan Energy Resources Limited's presentation currency.

The principal accounting policies adopted are consistent with those of the previous financial period and the corresponding interim reporting period.

(b) New or amended Accounting Standards and Interpretations adopted

The consolidated entity has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board that are mandatory for the current reporting period.

Any new or amended Accounting Standards or interpretations that are not yet mandatory have not been early adopted.

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 2 SEGMENT INFORMATION

Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has three reportable segments.

Identification of reportable operating segments

The consolidated entity is organised into three operating segments based on geographical location: Germany, Other European (comprised of France and Italy) and Australia. These operating segments are based on the internal reports that are reviewed and used by the Board of Directors (who are identified as the Chief Operating Decision Makers (CODM)) in assessing performance and in determining the allocation of resources. There is no aggregation of operating segments.

The CODM reviews EBITDA (earnings before interest, tax, depreciation and amortisation). The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements.

The information reported to the CODM is on a monthly basis.

Types of products and services

Germany – the supply of geothermal energy, exploration and development relating to the Zero Carbon Lithium™ Project and engineering and drilling services.

Other European (France and Italy) – exploration and development relating to battery minerals and geothermal lithium.

Australia – ASX, corporate administration and Definitive Feasibility Study (“DFS”) engineering costs.

Intersegment transactions

Intersegment transactions were made at market rates. Engineering services have been provided within the German segment. All intersegment receivables and payables, including the profit margin, are eliminated on consolidation.

Major customers

During the period ended 30 June 2023, €2.0m (30 June 2022: €3.0m) of the consolidated entity's external revenue was derived from sales to Pfalzwerke.

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 2 SEGMENT INFORMATION (CONT.)

For the period ended 30 June 2023

Segment performance	Germany	Other European	Australia	Total
	€'000	€'000	€'000	€'000
6 months ending 30 June 2023				
Revenue				
Sales to external customers	3,104	-	-	3,104
Intrasegment sales – Other own work capitalised	7,239	-	248	7,487
Other income	461	-	-	461
Loss from equity accounted investment	-	-	(465)	(465)
Total segment revenue	10,804	-	(217)	10,587
EBITDA	(8,460)	(151)	(4,844)	(13,455)
Depreciation and amortisation	(2,915)	-	(27)	(2,942)
Finance expense	(111)	-	(7)	(118)
Finance income	528	-	1,032	1,560
Impairment	(1,040)	-	-	(1,040)
Loss before income tax expense	(11,998)	(151)	(3,846)	(15,995)
Income tax benefit	411	-	-	411
Loss after income tax expense	(11,587)	(151)	(3,846)	(15,584)
Material items include:				
Employee benefit expense	(11,904)	(33)	(996)	(12,933)
Share based payments expense	-	-	(905)	(905)

As at 30 June 2023	Germany	Other European	Administration Australia	Total
Assets				
Segment assets	220,416	162	529,531	750,109
Intersegment eliminations	-	-	-	(446,802)
Total assets	-	-	-	303,307
Total assets include:				
Investments accounted for using equity method	-	-	530	530
Exploration and evaluation expenditure additions	5,672	14	1,854	7,540
Capital additions	34,586	-	-	34,586

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 2 SEGMENT INFORMATION (CONT.)

For the period ended 30 June 2022

Segment performance	Germany	Other European	Australia	Total
6 months ending 30 June 2022	€'000	€'000	€'000	€'000
Revenue				
Sales to external customers	3,109	-	-	3,109
Intrasegment sales – Other own work capitalised	1,875	-	-	1,875
Other income	180	-	-	180
Gain on deconsolidation	-	-	-	-
Loss from equity accounted investment	-	-	(215)	(215)
Total segment revenue	5,164	-	(215)	4,949
EBITDA	(4,806)		(5,004)	(9,810)
Depreciation and amortisation	(2,408)	-	-	(2,408)
Finance expense	(33)		(122)	(155)
Finance income	199	-	66	265
Loss before income tax expense	(7,048)	-	(5,060)	(12,108)
Income tax expense	(466)	-	-	(466)
Loss after income tax expense	(7,514)	-	(5,060)	(12,574)
Material items include:				
Employee benefit expense	(4,570)	-	(678)	(5,248)
Share based payments expense	-	-	(1,229)	(1,229)
As at 31 December 2022	Germany	Other European	Administration Australia	Total
Assets				
Segment assets	164,779	195	425,784	590,758
Intersegment eliminations	-	-	-	(340,623)
Total assets	-	-	-	250,135
Total assets include:				
Investments accounted for using equity method	-	-	974	974
Exploration and evaluation expenditure additions	4,463	32	5,675	10,170
Capital additions	20,304	-	-	20,304

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 3 REVENUE

	6-months 30-Jun-23 €'000	6-months 30-Jun-22 €'000
Revenue from contract with customers		
Sale of goods	1,961	2,977
Rendering of services	1,143	132
	<u>3,104</u>	<u>3,109</u>
Revenue from continuing operations	<u>3,104</u>	<u>3,109</u>

Rendering of services includes revenue of €1,086,702 generated from the acquisition of Comeback Personaldienstleistungen GmbH during the period. It relates to drilling staff contracted out. See Note 14 for more details.

NOTE 4 CASH AND CASH EQUIVALENTS

	30-Jun-23 €'000	31-Dec-22 €'000
Cash at bank and in hand	72,381	12,515
Short-term deposits	75,261	121,592
	<u>147,642</u>	<u>134,107</u>

NOTE 5 TRADE AND OTHER RECEIVABLES

	30-Jun-23 €'000	31-Dec-22 €'000
Trade receivables	371	1,296
Allowance for expected credit losses	(66)	(34)
Prepayments	1,563	1,033
Other receivables	3,362	2,776
Other - bank guarantees	596	1,245
	<u>5,826</u>	<u>6,316</u>

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 6 EXPLORATION AND EVALUATION EXPENDITURE

	30-Jun-23 €'000	31-Dec-22 €'000
Carrying amount of exploration and evaluation expenditure	36,903	30,135
At the beginning of the period	30,135	20,440
Exploration expenditure incurred	7,589	10,400
Foreign exchange (Loss)/Gain	(821)	(705)
At the end of the period	36,903	30,135

NOTE 7 PROPERTY, PLANT AND EQUIPMENT

	30-Jun-23 €'000	31-Dec-22 €'000
Software	474	383
Plant & Equipment	29,587	27,411
Land & Buildings	3,466	1,536
Assets under Construction	69,693	40,950
	103,220	70,280

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 7 PLANT, PROPERTY AND EQUIPMENT

	Software €'000	Plant and equipment €'000	Assets under construction €'000	Land and Buildings €'000	Total €'000
Cost					
At 1 January 2023	417	30,623	40,950	1,623	73,613
Additions	119	3,682	28,743	1,974	34,518
Acquired in business combinations	-	67	-	-	67
At 30 June 2023	536	34,372	69,693	3,597	108,198
Accumulated Depreciation					
At 1 January 2023	(34)	(3,212)	-	(87)	(3,333)
Depreciation for the period	(28)	(1,573)	-	(44)	(1,645)
	(62)	(4,785)	-	(131)	(4,978)
Carrying amount					
At 1 January 2023	383	27,411	40,950	1,536	70,280
At 30 June 2023	474	29,587	69,693	3,466	103,220

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 7 PLANT, PROPERTY AND EQUIPMENT

Movement in carrying amounts of property, plant and equipment for the financial period ended 31 December 2022.

	Software €'000	Plant and equipment €'000	Assets under construction €'000	Land and Buildings €'000	Total €'000
Cost					
At 1 July 2022	280	28,817	22,784	1,623	53,504
Additions	137	2,001	18,166	-	20,304
Disposals	-	(195)	-	-	(195)
At 31 December 2022	417	30,623	40,950	1,623	73,613
Accumulated Depreciation					
At 1 July 2022	(13)	(1,958)	-	(43)	(2,014)
Depreciation for the period	(21)	(1,284)	-	(44)	(1,349)
Depreciation eliminated on disposal	-	30	-	-	30
	(34)	(3,212)	-	(87)	(3,333)
Carrying amount					
At 1 July 2022	267	26,859	22,784	1,580	51,490
At 31 December 2022	383	27,411	40,950	1,536	70,280

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 8 INTANGIBLE ASSETS

	30-Jun-23 €'000	31-Dec-22 €'000
Goodwill	1,076	1,076
Less: Impairment	(1,076)	(36)
	0	1,040
Customer contracts – at cost	1,853	1,526
Less: Accumulated amortisation	(1,465)	(904)
	388	622
Order backlog – at cost	46	46
Less: Accumulated amortisation	(46)	(46)
	0	-
Operating permit – at cost	1,500	1,500
Less: Accumulated amortisation	(141)	(94)
	1,359	1,406
Total Intangible Assets	1,747	3,068

Goodwill impairment test is conducted annually.

The consolidated entity impaired the goodwill related to Vulcan Energy Engineering GmbH as at 30 June 2023 in the amount of €1,040,000.

The goodwill has been impaired due to the subsidiary focusing solely on the work associated with the Project and not providing services to external customers and therefore the recoverable amount of the goodwill was assessed as nil.

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 9 TRADE AND OTHER PAYABLES

	30-Jun-23	31-Dec-22
	€'000	€'000
Trade payables	9,642	6,479
Accrued expenses	1,868	1,190
Other payables	1,427	1,466
VAT Payable	109	283
	<u>13,046</u>	<u>9,418</u>

NOTE 10 CONTRIBUTED EQUITY

	30-Jun-23		31-Dec-22	
	No.	€'000	No.	€'000
Fully paid ordinary shares	167,335,301	323,738	143,435,301	259,158

Ordinary shares entitle the holder to participate in dividends and the proposed winding up of the Company in proportion to the number and amount paid on the share held.

Movement reconciliation

	Date	Number	Issue Price €	€'000
At 1 January 2023		143,435,301		259,158
Placement	11/05/2023	21,400,000	3.15	67,350
Exercise of Class J performance rights	6/06/2023	1,500,000	-	-
Exercise of Class M performance rights	6/06/2023	1,000,000	-	-
Less capital raising costs				(2,770)
At 30 June 2023		<u>167,335,301</u>	<u>-</u>	<u>323,738</u>

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 11 SHARE-BASED PAYMENTS

	6-months 30-Jun-23 €'000	6-months 30-Jun-22 €'000
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants (i)	146	392
Performance rights issued to Directors & staff in prior periods	759	751
Performance shares issued to Vendors of Acquisition	-	83
Performance rights issued as consideration for acquisition of subsidiary Comeback (Note 14)	128	-
Shares issued for consideration of services	-	225
Warrants	-	3
	<u>1,033</u>	<u>1,454</u>
Represented by		
Shared-based payment expense	905	1,229
Investor relations expense	-	225
Acquisition of subsidiary (Note 14)	128	-
	<u>1,033</u>	<u>1,454</u>

(i) Details of new issues during the period:

On 28 February 2023, the company granted 244,853 performance rights to the staff to align their interests to that of the Company's shareholders and assist as an effective means of retention.

The rights were issued with the following vesting conditions:

- Successful execution of drilling operations in line with development plans
- Remaining an employee on the earlier of the date of 12 months from satisfaction of the Vesting Condition or 31 December 2024.

The value of performance rights was determined as follows:

Type	Fair value of each rights(EUR)	Number of Rights	Expiry date	Total value of Rights(EUR)	Share based payment expense (EUR)
Employee Incentive Plan	4.07	244,853	1/07/2025	995,709	142,448

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 11 SHARE-BASED PAYMENTS (CONT.)

On the 28th of May, following AGM approval, the Company granted service-based performance rights to Non-Executive Director (NED Service Rights). Ranya Alkadamani received 25,234 service-based performance rights valued at EUR 65,720. Issued in three tranches as class AC.

Performance rights vest as follows:

- 1/3 vesting 12 months from the date of 28 May 2023.
- 1/3 vesting 24 months from the date of 28 May 2023.
- 1/3 vesting 36 months from the date of 28 May 2023.

Type	Grant date	Number of Rights	Vesting date	Total value of Rights (EUR)	Share based payment expense (EUR)
Tranche 1	28/05/2023	8,411	28/05/2024	21,906	1,846
Tranche 2	28/05/2023	8,411	28/05/2025	21,906	924
Tranche 3	28/05/2023	8,412	28/05/2026	21,908	617

(ii) During the period ended 30 June 2023, there were no cancellations, lapsed/forfeited or expired rights.

(iii) During the period ended 30 June 2023, the following performance rights were exercised:

Class	Number
Class J	1,500,000
Class M	1,000,000

(iv) During the period ended 30 June 2023, the following performance rights vested:

Class	Number
Class J	2,500,000
Class S	12,896
Class Y	60,000

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 12 LOSS PER SHARE

	6-months 30-Jun-23	6-months 30-Jun-22
Net loss for the period (€'000)	(15,584)	(12,574)
Weighted average number of ordinary shares for basic and diluted loss per share ('000)	149,560	131,827
Basic and diluted loss per share (eurocents)	(10.4)	(9.5)

NOTE 13 INTERESTS IN SUBSIDIARIES

The following companies were founded by Vulcan Energy Resources GmbH ('Vulcan GmbH') since 31 December 2022:

Entity	Location	Primary activity	Date of Incorporation*	Shares(%)
Vulcan Projektgesellschaft 3 GmbH	Karlsruhe	Operating entity	April 26, 2023	100 (indirect)
Natürlich Südpfalz GmbH & Co. KG	Landau	Operating entity	December 28, 2022	100 (indirect)
Natürlich Südpfalz Geschäftsführungs GmbH	Landau	Operating entity	December 28, 2022	100 (indirect)
Vulcan Lily Lithium GF GmbH	Karlsruhe	Operating entity	December 28, 2022	100 (indirect)
Vulcan Lily Lithium (Hoechst) GmbH	Karlsruhe	Operating entity	April 20, 2023	100 (indirect)
Vulcan Projektgesellschaft 2 GmbH	Karlsruhe	Operating entity	April 26, 2023	100 (indirect)

All companies are fully consolidated in the present consolidated interim financial statements from the time of their foundation.

*This represents the date on which the entities were incorporated by the Group. They were subsequently registered in the Commercial Register during the period 1 January 2023 to 30 June 2023

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 14 BUSINESS COMBINATIONS

Comeback Personaldienstleistungen GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of drilling labour hire company, Comeback Personaldienstleistungen GmbH, in accordance with the Share Purchase Agreement, with an effective date on 1 February 2023 (closing-date).

The acquired business contributed revenues of €1,086,702 for sale of services and loss after tax of €43,032 to the consolidated entity for the period from 1 February 2023 to 30 June 2023. If the acquisition occurred on 1 January 2023 the revenue and the loss would have been €1,264,488 and €19,777 respectively.

Additionally, the issue of two tranches of performance rights at EUR100,000 each has been recognised as deferred consideration, based on management's assessment of the probability of achieving the milestones. Milestones are as follows:

The successful complete staffing (as defined in a separate document) of the drilling rigs V20 and V10 at the time of the start of drilling and during the sinking of the wells in accordance with the drilling plan for the year 2023 on or before December 31, 2023. The rights will expire on December 31, 2024.

The successful complete staffing (as defined in a separate document) of the drilling rigs at the time of setting up the same and during the drilling of the wells according to the drilling plan for the year 2024 on or before December 31, 2024. The rights will expire on December 31, 2025.

The values identified in relation to the acquisition of Comeback are provisional as at 30 June 2023.

Details for the acquisition are as follows:

	€'000
Cash	88
Trade and other receivables	454
Property, plant & equipment	67
Loans and borrowings	(81)
Lease liabilities	(33)
Trade and other payables	(452)
Income tax liabilities	(20)
Fair value of net assets acquired	23
Provisionally acquired intangible assets	370
Deferred tax liabilities arising on acquisition	(115)
Acquisition-date fair value of total consideration	278

Representing:

	€'000
Cash paid	150
Contingent consideration (note 11)	128
Total consideration	278

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 15 DIVIDENDS

No dividend has been declared or paid during the interim period ended 30 June 2023 (31 December 2022: Nil), and the Directors do not recommend the payment of a dividend in respect of the half-year ended 30 June 2023.

NOTE 16 CONTINGENCIES

There are no contingent assets or contingent liabilities as at 30 June 2023 (31 December 2022: nil).

NOTE 17 COMMITMENTS

Below are the commitments in relation to exploration and evaluation assets:

	30-Jun-23 €'000	31-Dec-22 €'000
Within one year	7,985	5,482
One to five years	1,675	4,708
	<u>9,660</u>	<u>10,190</u>

Below are the commitments in relation to capital expenditure:

	30-Jun-23 €'000	31-Dec-22 €'000
Within one year	37,532	30,383
One to five years	-	1,917
	<u>37,532</u>	<u>32,300</u>

Notes to the Condensed Consolidated Interim Financial Statements

NOTE 18 EVENTS SUBSEQUENT TO THE REPORTING PERIOD

On 17 August Vulcan announced the commencement of commissioning at its Lithium Extraction Optimisation Plant. Vulcan has commenced commissioning of its Lithium Extraction Optimisation Plant (LEOP) for the purpose of extraction, purification and concentration of lithium chloride from brine in the Upper Rhine Valley in Germany. This milestone not only represents a major step forward by Vulcan and its Zero Carbon Lithium™ Project. It also represents significant progress towards enabling domestic European supply chain independence for lithium as a critical raw material and enabling a more sustainable EV battery production industry in Europe. The commissioning phase for LEOP is expected to run until October, when first brine will be introduced into the plant for the lithium extraction process to begin.

On 13 July Vulcan announced that the Landau City Council formally approved a decision to enter contractual negotiations with Vulcan, to acquire an area of land for the construction of its integrated Geothermal renewable energy and Lithium Extraction Plant (G-LEP). The G-LEP construction is planned as part of Phase One of Vulcan's Zero Carbon Lithium™ Project in the Upper Rhine Valley Brine Field. Vulcan has already secured a site at Frankfurt Hoechst for its Central Lithium Plant (CLP), as well as land for the main brine production sites. The G-LEP site is within the planned Landau industrial park "Am Messegelände Südost". Vulcan plans to extract carbon neutral lithium and supply carbon neutral, renewable heat to the city, as part of its Phase One development.

In addition, in the same Phase One project area, the State Mining Directorate approved the first Main Operating Plan for Vulcan's newly planned wells in its Insheim license, where Vulcan is already operating commercial geothermal wells and a power plant. Vulcan plans to increase brine production by adding several production and injection wells. Pipelines will flow the lithium-rich hot brine, as well as water heated by the brine, to the planned facilities in the Landau industrial park. The hot industrial water is used to provide carbon neutral heat and to produce green energy. In the Lithium Extraction Plant (LEP), the lithium chloride will be extracted from the brine before it is returned to the subsurface. The decisions from the Landau City Council and from the State Mining Authority are an important step forward for the execution of Phase One.

Apart from the above, no other matter or circumstance has arisen since 30 June 2023 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

DIRECTORS' DECLARATION

In the Directors' opinion:

- ▶ the attached financial statements and notes comply with the Corporations Act 2001, Australian Accounting Standard AASB 134 'Interim Financial Reporting', the Corporations Regulations 2001 and other mandatory professional reporting requirements;
- ▶ the attached financial statements and notes give a true and fair view of the consolidated entity's financial position as at 30 June 2023 and of its performance for the half-year ended on that date; and
- ▶ there are reasonable grounds to believe that the company will be able to pay its debts as and when they become due and payable.

The declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 303(5)(a) of the Corporations Act 2001.

On behalf of the directors



Dr Francis Wedin

Executive Chair

12 September 2023

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INDEPENDENT AUDITOR'S REVIEW REPORT

To the Members of VULCAN ENERGY RESOURCES LIMITED

Report on the Half-Year Financial Report

Conclusion

We have reviewed the accompanying half-year financial report of Vulcan Energy Resources Limited which comprises the consolidated statement of financial position as at 30 June 2023, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the half-year ended on that date, notes comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration of the consolidated entity comprising the company and the entities it controlled at the half-year end or from time to time during the half-year.

Based on our review, which is not an audit, we have not become aware of any matter that makes us believe that the half-year financial report of Vulcan Energy Resources Limited is not in accordance with the *Corporations Act 2001* including:

- (a) giving a true and fair view of the consolidated entity's financial position as at 30 June 2023 and of its performance for the half-year ended on that date; and
- (b) complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*.

Basis for Conclusion

We conducted our review in accordance with ASRE 2410 Review of a Financial Report Performed by the Independent Auditor of the Entity. Our responsibilities are further described in the Auditor's Responsibilities for the Review of the Financial Report section of our report. We are independent of the Company in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards) (the Code) that are relevant to our audit of the annual financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Corporations Act 2001*, which has been given to the directors of Vulcan Energy Resources Limited, would be in the same terms if given to the directors as at the time of this auditor's review report.

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Directors' Responsibility for the Half-Year Financial Report

The directors of Vulcan Energy Resources Limited are responsible for the preparation of the half-year financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the half-year financial report that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility for the Review of the Financial Report

Our responsibility is to express a conclusion on the half-year financial report based on our review. We conducted our review in accordance with Auditing Standard on Review Engagements ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity*, in order to state whether, on the basis of the procedures described, we have become aware of any matter that makes us believe that the half-year financial report is not in accordance with the *Corporations Act 2001* including: giving a true and fair view of the consolidated entity's financial position as at 30 June 2023 and its performance for the half-year ended on that date; and complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*.

A review of a half-year financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

A stylized, handwritten-style signature of the letters "RSM" in black ink.

RSM AUSTRALIA PARTNERS

A stylized, handwritten signature in black ink, consisting of a vertical line and a horizontal stroke.

AIK KONG TING
Partner

Perth, WA
Dated: 12 September 2023



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