



sustainable mineral recovery

**CONFIDENTIAL
TO GEO40
SHAREHOLDERS**

QUARTERLY UPDATE TO SHAREHOLDERS

Calendar Q1 2024

2024 has started very positively, with our best silica-sales quarter to date and the completion of the design and construction of our new North American direct lithium extraction (DLE) pilot-testing assets, comprising a pre-processing unit and a DLE Plant, both of which are mobile. As we go to print, both plants are on a site in Texas testing the oil-formation waters of a major oil company. The latter marks the start of an ambitious North American lithium pilot testing program that is intended to showcase our lithium recovery technology, which we anticipate will run until around October. During the quarter, we also undertook discussions with several geothermal power operators from Asia and Europe who have expressed interest in the benefits of Geo40's silica extraction technology. We look forward to potentially undertaking site test-work with one or more of these parties as the year progresses, with the possibility of moving to the next stage under a licence-based model.

Our sustained efforts in penetrating colloidal silica markets in recent years is beginning to produce results. We shipped our first significant volumes of specialty colloidal silica products to the automotive catalyst sector in the USA and the rubber sector in Asia during the quarter, alongside increasing demand from those customers in other sectors we have supplied for some time. The low carbon credentials of our key silica products appear to be helping us achieve increased sales levels and prices.

As we anticipated, being in the field with site-based, lithium-piloting assets has been very good for our brand recognition. We are seeing strengthened interest in our technology from North American oil and gas companies interested in targeting the lithium present in their separation waters, the flow volumes of which can be very significant. We are attracted to this sector as we believe it offers opportunities to scale production considerably faster than with junior explorers, who in many cases are in the relatively early stages of drilling campaigns.

This quarterly update has been prepared by Geo40 Limited (Geo40) for the information of our shareholders.

It contains summary information about Geo40's recent activities, but is not a comprehensive review.

Geo40 has taken all reasonable care in preparing this quarterly update. In particular, any third party information has been taken from sources Geo40 reasonably believes to be reliable, and any forward-looking statements have been based on reasonable assumptions about future matters. However, Geo40 does not warrant the currency, accuracy, reliability or completeness of the summary information provided, nor guarantee the achievement of any forward-looking statements and forecasts.

You are welcome to share this update with your professional advisers and with interested third parties – and welcome, at any time, to contact Geo40 if you have questions about it. Please note, though, that the quarterly update is not an offer, invitation or recommendation to any person to subscribe for, buy or sell Geo40 shares, and does not set out all the information that a person should consider when deciding whether to invest in, buy or sell Geo40 shares. Accordingly, it should not be relied on by any person in making an investment decision.



OPERATING PERFORMANCE

As we signalled in late 2023, customer demand for our colloidal silica products finally started to strengthen in December. With this improved demand continuing into 2024, the Northern Plant at Ohaaki has operated near capacity during the quarter.

The Geo40 operations team has been kept busy during the quarter making a high value, low pH speciality product for a USA-based customer. Through 2023, the team made the specialty product at small scale to enable technical testing by the customer. In late 2023, on the back of forecast demand and successful final technical acceptance, we built a modest ion-exchange rig to make this specialty product, which is used in an automotive catalyst application.

Demand from other customers also improved through the quarter. Given the strong volume of orders for the speciality product referred to above, we were able to re-process old inventory to satisfy much of the increased demand from these other customers. As a result, current stock inventory has been reduced from a 2023-high of around over 1,000 tonnes, to approximately 200 tonnes now.

The strengthening of the sales book has put the team under pressure to maximise production capacity. We are tracking a number of parameters to improve our production run-rate. With the plant now around three years old, we are starting to see some degradation in the efficiency of our solid/liquid separation media. This is broadly in line with our performance expectations and we are monitoring this closely as we undertake progressive scheduled media replacement.

Contact Energy has prevented us from running the small Ngawha Plant, which represents c14% of our total current production capacity, for a significant part of the quarter, whilst they report undertaking some trials around water quality in a down-stream ngawha (hot spring). They have not yet been able to provide further detail and, concerningly, have signalled that we may not be able to run the Ngawha Plant for much of the next six months. We are continuing to work with Contact to see if this period can be shortened, as our sales forecasting suggests that we will need the additional production from this plant to meet future customer demand.



CONTINUING TO MAKE ADDED VALUE SILICA PRODUCTS AND ADVANCING OUR DIRECT LITHIUM RECOVERY TECHNOLOGY

Our deliberate strategy of making innovative colloidal silica products where there is less price competition than for more widely produced colloidal silica products continues to advance. We now have developed several specialised colloidal silica products that are an outcome of this strategic approach, for application in cementitious admixtures, automotive catalysts and rubber. We are continuing to develop specialty products for a number of new applications.

The task here is complex and begins with dialogue with key customers in a target sector. We then make small volumes of the specialised products in our laboratory and send those to potential customers for technical testing. Where we are successful at laboratory scale, customers will then typically request small commercial batches of a few tonnes to do plant trials. We usually make such samples at our small Ngawha Plant, which is particularly suited to making small volumes of specialty colloidal silica products.

Once the customer has validated the product and commercial terms are agreed, we then need to develop a methodology to make the product at scale. This typically involves two key components; a) changing the operating configuration of our larger scale Northern Plant to make specialised precursor material, and b) our engineering team designing a piece of back-end refining hardware to make the final product. The final step is for our expert chemists to teach our operations team how to run both the main plant in this new configuration and the new back-end refining module. As we move into the current quarter, this process is largely complete in scaling up the manufacture of our specialist automotive catalyst product.

The R+D team has been busy supporting our work on lithium, both at home and in the USA. We commissioned a key piece of full-scale hardware that sits within our direct lithium extraction (DLE) flow sheet during the quarter, to derisk the scale-up of this component. Testing here is ongoing.

Our work on lodging a suite of patents for our DLE technology has continued, with three patents now lodged in the provisional regime and a further two nearing readiness for lodgement.



DEPLOYING OUR DLE TECHNOLOGY IN THE USA AND TARGETING A LICENSE MODEL IN SILICA

We are delighted to advise that we completed construction of our two new direct lithium extraction (DLE) pilot assets during the quarter and deployed them to our first test site in Texas. The assets comprise two very large mobile trailers; one containing a full pilot of our DLE technology and the other comprising a pre-treatment pilot to remove brine contaminants prior to DLE. In April, they went on the road together for the first time and headed to Texas.

Prior to the deployment of the lithium and pre-processing rigs, we had been working with a major oil company for some months. They had engaged a prominent North American engineering consultant to screen all DLE technologies and pick the one best suited to their client's brine characteristics. Geo40 came out on top during that process and was subsequently offered the opportunity to demonstrate its lithium recovery technology on one of the oil company's production sites. Interestingly, the brine has a low lithium concentration (below 50ppm), so the site provides an excellent test-bed for our hypothesis that we can economically recover lithium from low grade brine resources. This is important as it opens up geographically widely dispersed opportunities (across North America and Europe for example). As previously indicated, we believe we have significantly less tech competition in this sector which has lithium levels in the range of 50-200ppm, but the added advantage of an oil company with very significant fluid flow volumes.

We are currently testing three different brines on this first test-site in Texas. We also have an agreement signed with another party to undertake piloting on another site in the USA. As we anticipated, being out in the field has stimulated an increasing interest in our technology. Many of our key competitors will process brines only in centralised facilities rather than on site, and this is a distinguishing feature of the Geo40 offer. We are being offered piloting opportunities widely, and our key task currently is to try to select the parties and brines that offer the strongest potential for subsequent scale-up.

Our work to see our silica recovery technology deployed at geothermal power stations globally under a license-based model continues. We are currently in early discussions with four major geothermal power stations and we are likely to do micro-scale piloting to validate our technology with one or more of them as the year progresses.



SALES AND MARKET DEVELOPMENT

As we reported throughout 2023, whilst we worked tirelessly to improve colloidal silica sales, volumes remained lower than desired. We saw signs of a reversal in this just prior to Christmas, and with continued increasing demand, we have just completed our strongest sales quarter to date. Gross sales revenue for the Q1 2024 was a record high of cNZ\$1.1m.

A key component in our improved sales performance has been the increasing volumes ordered by an important USA-based customer, for whom we make a speciality colloidal silica product for the catalyst sector. The specification of this low-pH, unusual chemistry product is demanding and we are continuing to work towards producing a consistent product, such that some risk remains here. Through the quarter, we shipped just under 200 tonnes of this product. With our maximum production capped by the volume of brine we can process (and the silica concentration in the brine), producing this product is consistent with our strategy of making speciality products that achieve premium pricing.

During the quarter, we shipped our first full sea-container of a colloidal silica product used in the manufacture of rubber. Investors will recall that we lodged a patent for the innovative use of geothermally sourced colloidal silica in a black rubber product. Our colloidal silica can replace the carbon-intensive compound carbon-black in the manufacture of tyres and other rubber products. We have also contracted a USA-based rubber-industry sales specialist to help us drive sales volumes here. As our sales book matures, and with +95% of our sales offshore, we are moving to a model of a relatively lean New Zealand-based sales force supported by a number of contracted in-market representatives.

Achieving technical acceptance in new markets has been central to increased sales, alongside our belief in our Environmental Product Declaration that validates the low-carbon footprint of one of our principal colloidal silica products. We intend to expand this certification across our main product range as the year progresses.

The quarter suggests that the hard graft of building the sales book over recent years, particularly during the Covid years, is starting to pay off and we remain cautiously optimistic for the year ahead.



FINANCIAL, SECRETARIAL AND THE FUTURE

Building silica sales

While the sales environment was very tough in 2023, we have seen significant positive shifts in both sales volume and weighted average price received during Q1 2024. Sustained work in this space appears to be yielding results and with our Q1 gross sales revenue being our highest ever, we are cautiously optimistic about future colloidal silica sales performance.

Moving into the field in lithium

Being out in the field in North America, showcasing our direct lithium extraction technology, is a huge step forward for the Company. As we hoped, being on site has massively increased both our visibility to the sector and our relevance. This in turn is attracting high-quality potential partners, and we are seeing new interest from significant oil and gas operators who can see the potential for lithium recovery from their separation waters. We currently plan to pilot our technology across North America until around October 2024.

Capital and Equity Value Management and Governance

The investments of Tembo Capital in 2023 and Vision Blue in 2024 have facilitated both our ongoing work in silica and our field piloting in lithium. Both of these workstreams are critical to our future, and those investments have also provided important working capital.

As our site piloting work continues, our investment focus shifts to moving to demonstration scale in lithium in North America. Both Tembo Capital and Vision Blue hold equity options designed to fund this future programme of work, and we are working closely with them ahead of this potential exercise. Importantly, our early piloting work in the USA is already yielding a potential opportunity to move to demonstration scale, and we are confident further opportunities will emerge as our piloting work advances.

Alongside this, the macro environment for lithium continues to strengthen. Direct lithium extraction is now viewed by industry commentary more as a matter of “when” rather than “if.” We know that our key task here is to emerge as one of the leading technologies relevant to our target North American geography.

During the quarter, the Company continued with its Board refreshment process with the appointment of Chris Tilley from San Francisco. Also during the quarter, investor Pacific Channel exercised their nomination right, appointing Marny Reakes to the Geo40 Board. We welcome Chris and Marny and look forward to their contributions in developing the full potential of Geo40. The board is now at full strength ahead of long-serving Chair Bill Turner’s signalled 2024 retirement.

Getting our lithium technology out in the field at pilot scale is pivotal to our growth and future success. Equally, working towards the potential licensing of our silica technology remains very important. Both programmes advanced significantly during the quarter, building important future potential optionality for the Company.

The months ahead will be very exciting as both workstreams gather pace. I will keep you well informed as we progress.

As always, I thank you sincerely for your support and belief in us.

Ngā mihi mahana.

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