

AIM Announcement

17 August 2021

Sunrise Resources plc (“Sunrise” or “the Company”)

Update: CS Pozzolan-Perlite Project

Sunrise Resources plc is pleased to announce positive test results from recent commercial concrete pours using natural pozzolan from the Company’s CS Pozzolan-Perlite Deposit in Nevada, USA, and to provide a general update on perlite customer trials.

HIGHLIGHTS:

Natural Pozzolan

- Two commercial concrete pours carried out by large Cement & Ready-Mix Company (“CRMC”) as due diligence towards commercial agreement.
- Positive results reported:
 - Preliminary results show early strength gain in excess of target strengths.
 - Seven-day concrete strengths exceed the 24-day target strengths after just 7 days curing.

Perlite

- All customer trials for expansion of Horticultural Grade Perlite now completed for 100-ton bulk sample.
- All trial results now received.
- Most recent customer trial considered very successful.

Commenting today, Executive Chairman Patrick Cheetham said: *“We are delighted to be announcing these exciting results which come after a number of frustrating delays. The preliminary results from the concrete pours using CS natural pozzolan are first-rate and, we anticipate, will provide the basis for a more structured arrangement with the CRMC carrying out this work.”*

“Interest in using the CS natural pozzolan in concrete continues to grow and a number of additional companies have requested samples in recent weeks, no doubt driven by the bleak long-term outlook for coal fly ash supplies in the USA.”

“Looking to the future, we believe that the US\$1.2 trillion infrastructure spending stimulus recently passed by the US Senate and embraced by President Joe Biden, together with Biden’s climate plan will give further impetus to pozzolan demand and so we are looking at possibilities to grow our business by acquiring additional pozzolan deposits favourably located for other regional centres of concrete demand in the western United States.”

“Whilst development of the perlite for uses other than for natural pozzolan is the smaller of the two business opportunities at the CS Project, we are pleased to have received great feedback from the most recent customer trials of our horticultural grade raw perlite and look forward to advancing this and other production options in tandem with the production of natural pozzolan.”

Further information

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Market Abuse Regulation (MAR) Disclosure

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 which forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 (“MAR”). Upon the publication of this announcement via Regulatory Information Service (“RIS”), this inside information is now considered to be in the public domain.

Shares in the Company trade on AIM. EPIC: “SRES”. Website:
www.sunriseresourcesplc.com

Detailed Information

The Company’s CS Project is located near Tonopah in Esmeralda County, Nevada and contains large deposits of mine-ready natural pozzolan, along with deposits of perlite.

In December 2020, a 500-ton bulk sample of pozzolan was delivered to a large CRMC¹ for commercial scale test grinding and trials in some commercial concrete pours.

This work programme has experienced a number of delays, but in May 2021 the Company announced that a test grind had been successfully completed. The Company has now received preliminary results from two commercial concrete pours made using the ground pozzolan in partial substitution for Portland cement.

Concrete mixes are tailored to achieve target strengths appropriate to the demands placed on the structures being manufactured and a target strength is set at a specified number of days after pouring.

In the case of the two concrete pours now being reported the specified (target) strength was 3,000 psi at 28 days. **In both cases the concrete exceeded this target strength after just 7 days curing.**

After 7 days curing, the concrete made using CS natural pozzolan achieved 105% and 113% of the target strengths respectively in the two tests. This is an excellent result as the often specified seven-day target commonly corresponds to approximately 70 percent of the target compressive strengths.

Perlite Customer Trials

In the Company's announcement of 23 February 2021, the Company advised that results were still awaited from certain customer trials of the horticultural grade raw perlite ore samples produced from its 100-ton bulk sample and that due to the high market demand and fully utilised furnace capacity another potential customer had not yet started its trial. The Company also advised that it had a 200-ton sample of perlite on hand ready for further processing to provide additional graded ore samples when necessary.

All planned trials on the raw perlite produced from the 100-ton sample have now been completed and results received. The Company had previously advised that results then available were inconclusive. However, in the last expansion trial to be completed, the potential customer advised that they were able to produce expanded horticultural perlite at very low target densities with good production rates and a good-looking product. They also advise that, assuming the previously reported sizing issues were resolved as expected, the CS raw perlite would be a premium product, very good for the US market and that they would be happy to start receiving a regular supply.

The Company has been waiting on the results of all trials before committing to process the 200-ton bulk sample and so this work can now be scheduled.

Notes:

- 1. The CRMC is an internationally recognised Company and has a substantial ready-mix concrete business that is a captive customer for its cement products, and which could also use CS natural pozzolan as a replacement for the large volumes of fly ash it has traditionally used in its concrete business.*
- 2. "Curing" is a chemical process that takes place within concrete whereby water and cement react chemically to produce calcium-silica-hydrate (C-S-H), the important compound that binds the concrete sand and aggregate fillers together. Curing plays an important role on strength development and durability of concrete and takes place immediately after concrete placing and finishing and continues for many months and even years. In Portland-cement-based concretes, C-S-H forms quickly but an unwanted by-product, Calcium Hydroxide (CH), also forms at the expense of C-S-H. Formation of CH can weaken the concrete and compromise density and allows ingress of water contaminated with sulphates and chlorides that can attack the concrete and any reinforcing steel. When pozzolan is used in concrete the pozzolan reacts with and converts deleterious CH into additional C-S-H increasing density and strengthening the concrete further.*
- 3. The news release may contain certain statements and expressions of belief, expectation or opinion which are forward looking statements, and which relate, inter alia, to the Company's proposed strategy, plans and objectives or to the expectations or intentions of the Company's directors. Such forward-looking statements involve known and unknown risks, uncertainties, and other important factors beyond the control of the Company that could cause the actual performance or achievements of the Company to be materially different from such forward-looking statements. Accordingly, you should not rely on any forward-looking statements and save as required by the AIM Rules for Companies or by law, the Company does not accept any obligation to disseminate any updates or revisions to such forward-looking statements.*