

## **ASX ANNOUNCEMENT**

1 November 2023

# REPORT DEMONSTRATES POTENTIAL FOR ARDMORE TO SUSTAINABLY TREAT WATER

Centrex Limited (ASX: CXM) ('Centrex' or 'the Company') provides the following update for the Ardmore Rock Phosphate project, 100% owned by its wholly owned subsidiary, Agriflex Pty Ltd.

Centrex has received a commissioned report prepared by SA Water titled "Ardmore Apatite Phosphate Removal". The report explores how the Company's granular rock phosphate apatite product (Figure 1) could be used to remove phosphate in a wastewater/recycled water application. The testing used in the report involved a cylindrical column arrangement (Figure 2), to examine the amount of Phosphorus removed from a solution over a period of time.



Figure 1: Agriflex Ardmore apatite

# **CONTEXT**

According to existing research findings, it is widely believed that utilizing natural rock phosphate may present an environmentally sound approach for eliminating Phosphorus from water sources. As per these documented studies, achieving a reduction in Phosphorus concentration from 15 mg/L to 2 mg/L would entail a time frame ranging from 7 to 30 hours, contingent on the apatite content of the accessible product.

## **RESULTS**

The report demonstrated that after an engineered 7-hour contact, Ardmore apatite removed greater than **98%** of both reactive and total Phosphorus at typical inlet concentrations (15mg/L as PO<sub>4</sub>) consistently over 8-weeks with no measurable loss of performance. It was reported that Ardmore's apatite could potentially be a very effective low-technology solution for Phosphorus removal, with minimal undesirable water quality impacts.



Figure 2: Pilot column arrangement.

# **NEXT STEPS**

Following the highly encouraging results, over the longer-term (and subject to funding), the Company intends to conduct further studies to determine the potential to remove other heavy metals out of solution. Further, it would be necessary to demonstrate efficacy for larger scaled applications, which would translate to large contactor volumes to maintain product flows and hence large plant footprint. These related activities are considered longer-term objectives due to the Company's focus on scaling the mining operations currently underway at Ardmore.

#### **MANAGEMENT COMMENTARY**

Robert Mencel, CEO and Managing Director of Centrex Limited, commented:

"Although this study is early-stage, the Company considers the ability to sustainably treat water as another high-value market that the Ardmore Rock Phosphate project is uniquely positioned to address. In addition to supplying our existing fertiliser customer base, we will continue to explore additional small high-value markets to maximise total sales margins. In the near-term, our focus remains on scaling our mining operations at Ardmore, with the goal of producing 440,000t of rock phosphate for calendar year 2024, subject to financing."

### **BACKGROUND INFORMATION**

## WHY THERE IS A NEED TO REMOVE PHOSPHORUS FROM WATER

Phosphorus is a significant contaminant in water ways and ground water. Phosphorus is a primary nutrient responsible for eutrophication, a process in which excess nutrients cause algae blooms. These algal blooms can release toxins into water sources that are harmful to humans and animals when ingested. Further, algal blooms can block sunlight from penetrating the water, which reduces the growth of submerged aquatic plants that many aquatic species rely on for food and habitat.

#### WHY APATITE-BASED PHOSPHORUS REMOVAL CAN BE BETTER THAN CONVENTIONAL METHODS

Using apatite for removing Phosphorus from water can be more environmentally friendly and cost-effective compared to some conventional methods. Apatite-based Phosphorus removal typically requires lower energy inputs compared to conventional methods which can lead to lower operational costs. Further, many conventional Phosphorus removal methods involve the use of chemicals. Apatite can reduce or eliminate the need for these chemicals, contributing to reduced chemical waste and potential associated environmental impacts.

This ASX announcement has been approved and authorised for release by the Board of the Company.

For further information please contact: For media enquiries, please contact:

Robert Mencel Managing Director Centrex Limited Ph (08) 8213 3100

John Santich Company Secretary Centrex Limited Ph (08) 8213 3100 Grant Law
Grant Law Public Relations
Ph (61) 488 518 414
Email – grant@grantlaw.com.au

For investor relations enquiries, please contact:

Erik Bergseng, CFA® Investor Relations (61) 422 858 253

Email – ebergseng@nrinvestor.com.au