



BPH GLOBAL LTD
ACN 009 104 330

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Company Announcements Platform
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Exceptional silver and cobalt assays from seaweed cultivation

Highlights

- **Silver Assays up to 12.67 mg/kg**
- **Cobalt Assays up to 13.68mg/kg**
- **Seaweed was grown using clean, filtered seawater from the island of Sentosa**
- **Testwork to be conducted on seaweed cultivated in polluted, brackish water in Johor, Malaysia**
- **Scope of testing for next batches to be expanded to include Copper and Gold**

The Board of BPH Global Ltd (ASX: BP8) (**Company**), is pleased to announce the initial laboratory assay results of the R&D program conducted by Temasek Innovation Holdings Pte Ltd (**TIH**), an operating company of Temasek Polytechnic in Singapore, in conjunction with the Company's Singapore-based R&D consultant Gaia Mariculture Pte Ltd (**Gaia Mariculture**).

Managing Director Matthew Leonard said: "The presence of cobalt and silver in the seaweed has been an exciting development. It appears that the seaweed has the potential to act like a sponge for base and precious metals in seawater and we intend to investigate this further."



Figure 1: *Sesuvium Portucalastrum* seaweed cultivars growing in Gaia Mariculture's laboratory in Singapore

Background

The Company previously [announced](#) its execution of an outsourcing R&D agreement, pursuant to which TPIH is undertaking a R&D program to develop the technology and expertise to locate, separate and extract minerals from seaweed by deploying phycomining techniques. In doing so, the Company is seeking to confirm that seaweeds grown in polluted waters will contain higher concentrations of minerals than those grown in pristine waters.

This R&D collaboration with TPIH compliments the Company's other seaweed-based activities and follows the completion of the [Company's joint venture transaction](#) to establish its Indonesia-based seaweed business. The Company's main undertaking is the sale of raw seaweed into ASEAN seaweed and food markets. Other existing and proposed activities include: (i) the proposed production of bio stimulant seaweed products for sale in the Indian market; (ii) extraction of seaweed-based nutraceuticals for infusion in food, health and cosmetic products; and (iii) the proposed capture of bio-hydrogen and other bio-gases as a byproduct of the processing of seaweed.

Phase 1 Work Plan

The seaweed species *Sesuvium Portucalastrum* was cultivated in early December 2024 at the Gaia Mariculture's laboratory in Singapore. The process utilised clean, filtered seawater from the Singapore Island of Sentosa, without industrial/urban pollution and without sediment.

Two harvests of the seaweed were taken in January 2025 with Batch 1 on the 6th of January and Batch 2 on the 21st January. Both batches were sent to TPIH for processing and assaying for metal content. The samples from each batch were digested using concentrated nitric acid and hydrogen peroxide.

The samples were then filtered and diluted to facilitate metal determination using Inductively Coupled Plasma– Mass Spectrometry (ICP-MS) with results shown in Table 1.

Table 1: Assay results of samples from Batch 1 and 2 utilising ICP-MS

Metal	Metal Content (mg/kg)	
	Batch 1	Batch 2
Co	13.68	0.25
Ni	0.80	0.89
As	0.53	0.52
Ag	2.76	12.67
Cd	0.31	0.00
Pb	0.93	0.61

Phase 1 R&D Objectives and Findings

The primary objective of the Phase 1 R&D program was to test for the presence of minerals in *Sesuvium Portucalastrum* seaweed grown in the laboratory in pristine waters (clean, filtered seawater from the Singapore Island of Sentosa, without industrial/urban pollution and without sediment). Initial focus was on a small suite of base and precious metals of high intrinsic value including Nickel (Ni), Arsenic (As) and Silver (Ag) and Cobalt (Co).

The analysis of the assay results indicates that:

- The *Sesuvium Portucalastrum* seaweed species appears to be a good absorber of minerals.
- Early accumulation of minerals occurs in the leaves of the seaweed and subsequently in the stems and roots.
- Silver is accumulated incrementally over time with Batch 2 concentration approximately 6 times higher than Batch 1.
- Seaweed should be harvested at the end of its lifecycle to maximise the Silver content.
- Cobalt is absorbed quickly but is subject to leaching over a longer duration with Batch 2 concentration significantly lower than Batch 1.
- Cobalt is accumulated primarily in the leaves, and leaching can occur due to leave drop at more mature phases of the growth cycle.
- To maximise Cobalt content, the seaweed should be harvested early on in its growth cycle.
- The concentrations of Nickel (Ni) and Arsenic (As) remained constant in Batch 1 and Batch 2.

Next Steps

The primary objective of Phase 2 will be to cultivate the *Sesuvium Portucalastrum* seaweed species brackish waters of Johor, Malaysia that are proximate to shipping lanes and industrial activity. This will enable the Company to test its hypothesis that seaweed grown in dirty, polluted waters will absorb higher concentrations of minerals than seaweed grown in pristine waters due to the “sponge” effect.

In addition, the mineral search will be expanded to include Gold (Au) and base metals including Copper (Cu).



Figure 2: *Sesuvium Portucalastrum* seaweed samples provided by Gaia Mariculture to TPIH and TPIH's Inductively Coupled Plasma– Mass Spectrometry (ICP-MS) machine

About Temasek Polytechnic

Temasek Polytechnic is a leading institution of higher learning located in Tampines, Singapore. Established in 1990, the campus of Temasek Polytechnic sits on a 30 hectare plot near the Bedok Reservoir in the eastern part of Singapore. The institute has approximately 15,000 full-time students and more than 1,200 academic and administrative staff. Temasek Polytechnic offers 37 full-time diploma courses in the areas of applied sciences, business, design, engineering, humanities & social sciences, and informatics & IT.

Further updates

The Company will provide further updates regarding the Phase 2 cultivation and assays cycle.

This announcement has been approved for release by the Board.

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For further information, please visit our website at www.bp8global.com or contact:

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