ASX Release

21 April 2021

MARDIE OPTIMISATION RESULTS:
INCREASED PRODUCTION AND IMPROVED ECONOMICS

- **Project optimisation delivers a larger project and improved layout compared to the July 2020 DFS, with an increase in projected financial returns.**
- **De-risking activities (including additional geotechnical work, flowsheet and equipment design, process piloting and funding) have increased confidence in Mardie estimates and value potential.**
- **Expansion of the evaporation area results in a ~20% increase in both salt production (from 4.4Mtpa to 5.35Mtpa) and SOP production (from 120ktpa to 140ktpa).**
- **Expanded development and updated construction market rates (May-20 vs March-21) result in total capital cost increase of 13% to $913M, of which $63M is planned for early enabling infrastructure and $850M for main construction.**
- **Updated market rates for labour and operating contracts, partially offset by increased economies of scale, result in unit operating cost increase of approximately 6% overall.**
- **Based on assumptions in this announcement, pre-tax Project NPV$_7$ has increased by 40% (from $1,197M to $1,670M) and annual EBITDA by 30% (from $197M to $260M).**
- **Annual revenue at steady-state operations has increased from $386M to $505M.**
- **A final investment decision by mid-2021 and securing approvals and tenure required to commence main construction by Q4 2021, will support an unchanged development schedule including first salt sales by Q3 2024, and first SOP sales by Q4 2025.**
- **Results of the optimisation reconfirm that Mardie can become the largest salt project in Australia and deliver attractive financial returns for generations to come.**

BCI Minerals Limited (ASX: BCI) is pleased to report the key results of the optimisation work on its 100% owned Mardie Salt & Potash Project (Mardie or the Project), implemented following the Definitive Feasibility Study (DFS). The 1 July 2020 DFS announcement stated: *"As optimisation potential to the DFS base case, BCI will consider relocation of crystallisers to the recently acquired tenement north of Mardie, which will allow for increased production…".* This Optimised Feasibility Study (OFS) announcement should be read together with the 1 July 2020 ASX release as well as the cautionary statements on pages 3 and 4.

BCI's Managing Director, Alwyn Vorster, said: *"The positive optimisation outcomes further demonstrate potential for Mardie to become the first new large-scale expansion of salt production in Australia in over 20 years, the largest salt project in Australia and 3rd largest solar evaporation project in the world. Mardie has a compelling value proposition with an attractive market opportunity, green credentials and no insurmountable obstacles to development."*

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BCI's Chairman, Brian O'Donnell, said: *"Completion of the positive optimisation work enhances Mardie's business case as BCI progresses confidently towards a final investment decision. We believe Mardie will be a multi-generational asset for northern Australia, delivering new multi-user export infrastructure, tax and royalty revenues, local jobs and contracts, and indigenous engagement."*

A summary of the key OFS parameters is shown below, with a comparison to the July 2020 DFS.

Table 1: Key Project Parameters

Key Project Parameters		DFS (1 July 2020)	OFS (21 April 2021)
Production Rate	**Salt (>99.5% NaCl)**	4.4Mtpa	5.35Mtpa
	SOP (>52% K2O)	120ktpa	140ktpa
Operating Life	**Years**	Minimum 60 years[1]	Minimum 60 years[1]
Production Processes	**Evaporation ponds**	9 (74km^2)	9 (88km^2)
	Salt crystallisers	34 (11.4km^2)	42 (16.1km^2)
	SOP crystallisers	18 (4.4km^2)	20 (5.6km^2)
	Salt plant and SOP plant	700tph salt; 110tph KTMS	800tph salt; 150tph KTMS
Port Facility	**Trestle jetty**	2.3km	2.4km
	Dredged channel	4.5km	4.4km
	Shiploader	3,000tph	3,000tph
Shipping	**Transhipping**	12,000dwt self-propelled, self-unloading transhipper	12,000dwt self-propelled, self-unloading transhipper
	Oceangoing vessels	Up to 160dwt vessels loaded 28km offshore	Up to 160dwt vessels loaded 28km offshore
Personnel (onsite and offsite rosters)	**Construction: peak workforce**	470	490
	Operations: steady-state	190 (120 BCI; 70 contractors)	220 (129 BCI; 91 contractors)
Economics (real, 2021$)[2]	**Total capital costs**	$807M[3]	$913M[3]
	Early construction capital	$28M	$63M
	Main construction capital	**$779M**	**$850M**
	Salt all-in sustaining costs (AISC)	$20.3/t FOB	$21.5/t FOB
	SOP AISC	$310/t FOB	$337/t FOB
	Pre-tax NPV$_7$ (ungeared)[4]	$1,197M	$1,670M
	Annual EBITDA	$197M	$260M
	NPV$_7$ to Capex	1.5x	1.8x
		Significant value upside via optimisation and expansion options	Significant value upside via expansion options

1. *Input resource is an infinite supply of natural seawater which could continue for 100+ years.*
2. *All dollar values presented in Australian dollars unless specified.*
3. *Excludes working capital, funding costs and Build Own Operate / Transfer (BOO/T) items partially funded by contractors.*
4. *Discount rate supported by low interest rate environment and very long project life. 7% real discount rate equates to ~9% nominal.*

Based on the positive OFS results, the Board has endorsed BCI advancing the Project towards a final investment decision by mid-2021, subject to required approval and funding milestones being achieved by then.

IMPORTANT NOTICES

The Project aims to produce salt and SOP from a seawater resource, which is abundant, inexhaustible, readily accessible and has a known and consistent chemical composition. The JORC Code does not apply to a project of this nature and accordingly JORC Ore Reserves and Mineral Resources are not reported.

The OFS is based on material assumptions as outlined throughout this announcement, including capital and operating cost estimates, production targets, forecast financial information, the availability of funding and the finalisation of tenure and approvals. BCI has concluded that all material assumptions are based on reasonable grounds and there is a reasonable basis for making the forward-looking statements included in this announcement. However, there is no certainty that they will prove correct or the outcomes will be achieved.

The overall capital cost estimate was compiled by GR Engineering Services Limited (GRES) and is based on the level of engineering and design completed during the OFS. The OFS estimate was developed in conjunction with direction from BCI regarding the Project scope and estimation methodology, and is consistent with the AACE International Class 3 to an accuracy of ±10-15%. GRES is an experienced engineering consultancy and contracting company with extensive experience in study management and cost estimation. GRES consents to the inclusion of these estimates in this announcement in the form and context in which they appear.

The operating costs were prepared by BCI and reviewed by GRES for the adequacy and accuracy of inputs and calculated values and conform with a Class 3 estimate with an accuracy of ±10-15%. The production rates reported in this announcement, and associated process design and mass balance were prepared by BCI. The production rates have been reviewed by GRES for consistency with the production ramp up logic provided by BCI.

Roskill Consulting Group Ltd (Roskill) has provided a report on the salt market to BCI (December 2020), from which information has been incorporated into this announcement including with respect to price forecasts. Roskill consents to the inclusion of this information in this announcement in the form and context in which it appears.

Argus Media Ltd (Argus) has provided a report on the SOP market to BCI (November 2020), from which information has been incorporated into this announcement including with respect to price forecasts. Argus consents to the inclusion of this information in this announcement in the form and context in which it appears.

Braemar ACM Shipbroking (Braemar) has provided a report on seaborne freight data to BCI (June 2020), from which information has been incorporated into this announcement. Braemar does not assume any liability for the use that BCI has made of its report, including in this announcement, and neither Braemar nor any of its subsidiaries or its affiliates shall have any responsibility or liability to any person whatsoever in connection with its report and/or the information contained therein and/or any information derived from it and/or any use that any person makes of this announcement.

FORWARD-LOOKING STATEMENTS

This announcement and its attachments contain forward-looking statements. These forward-looking statements are based on BCI's current expectations and beliefs concerning future events at the date of this announcement and are expressed in good faith. BCI believes it has reasonable grounds for making the forward-looking statements. However, forward-looking statements are subject to risks, uncertainties and other factors, a number of which are set out in Section 8 of this announcement, which could cause actual results to differ materially from future results expressed or implied by such forward-looking statements. Consequently, forward-looking statements should not be relied on as a guarantee of future performance. Other than as required by law, including the ASX Listing Rules, BCI does not undertake or assume any obligation to update or revise any forward-looking statement contained in this announcement or its attachments.

SUMMARY OF MARDIE PROJECT OPTIMISATION

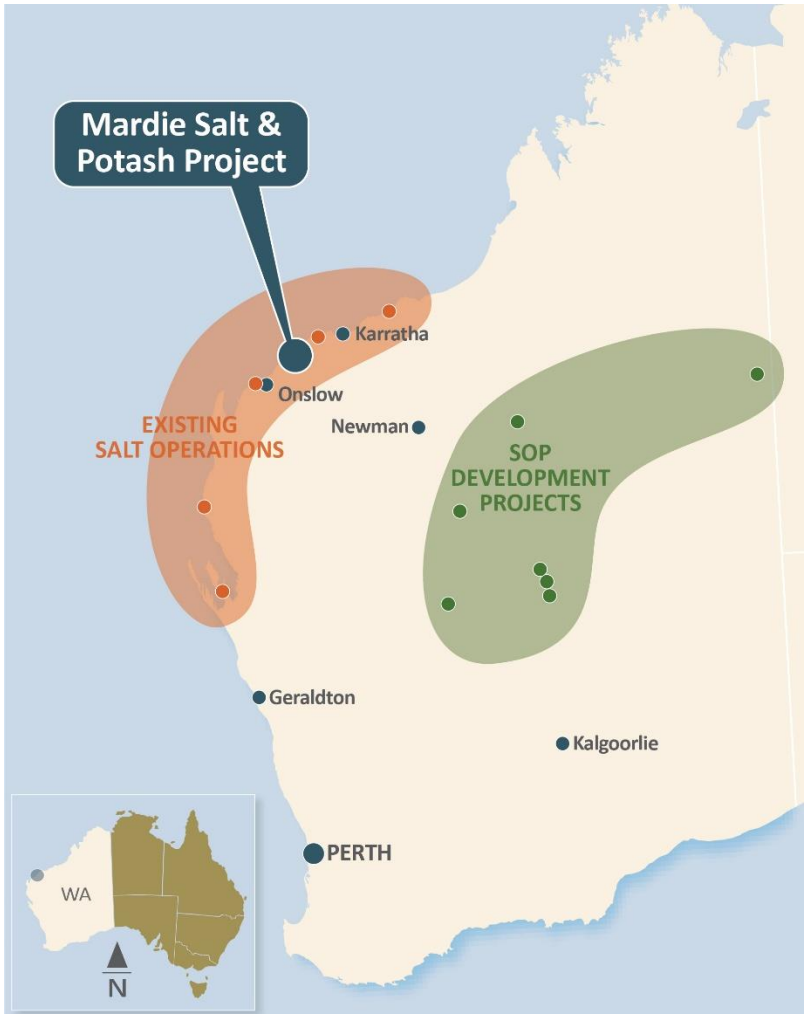
1. Introduction

The Mardie Salt & Potash Project (Mardie or the Project) is 100% owned by Mardie Minerals Pty Ltd, a wholly-owned subsidiary of BCI Minerals Limited (BCI). Mardie is located on the Pilbara coast, midway between the towns of Karratha and Onslow.

The Pilbara coast is one of the world's premier regions for solar salt production. Five existing solar evaporation salt projects owned by Rio Tinto and major Japanese companies have been operating successfully in this region for up to fifty years, producing a high quality and reliable salt product which is consistently in high demand in the chemical and other industries.

Mardie's site has all the critical characteristics for establishing a large-scale solar evaporation operation, including: optimum climate conditions (high temperatures, low rainfall, low humidity, and high windspeeds); a large area (~115km^2) of impermeable mudflats as an ideal floor for evaporation ponds; minimal environmental and heritage sensitivities; and a coastal location for low cost shipping to Asian markets.

Figure 1: Mardie Project Location - Western Australia



The Mardie production process will involve an inexhaustible seawater resource being concentrated through solar and wind evaporation to sustainably produce high purity sodium chloride (NaCl) salt and sulphate of potash (SOP or K_2SO_4) fertiliser for supply to the growing chemical and agricultural industries in Asia over an operating life of at least 60 years.

Mardie will be the first new major salt project developed in Australia in two decades and the first to produce commercial quantities of SOP. It will be the largest single salt operation in Australia and one of the largest evaporative operations globally. The Project has strong "green" credentials with 99% of the energy requirement derived from natural sun and wind to evaporate seawater, and further processing of waste brine to produce SOP as a by-product.

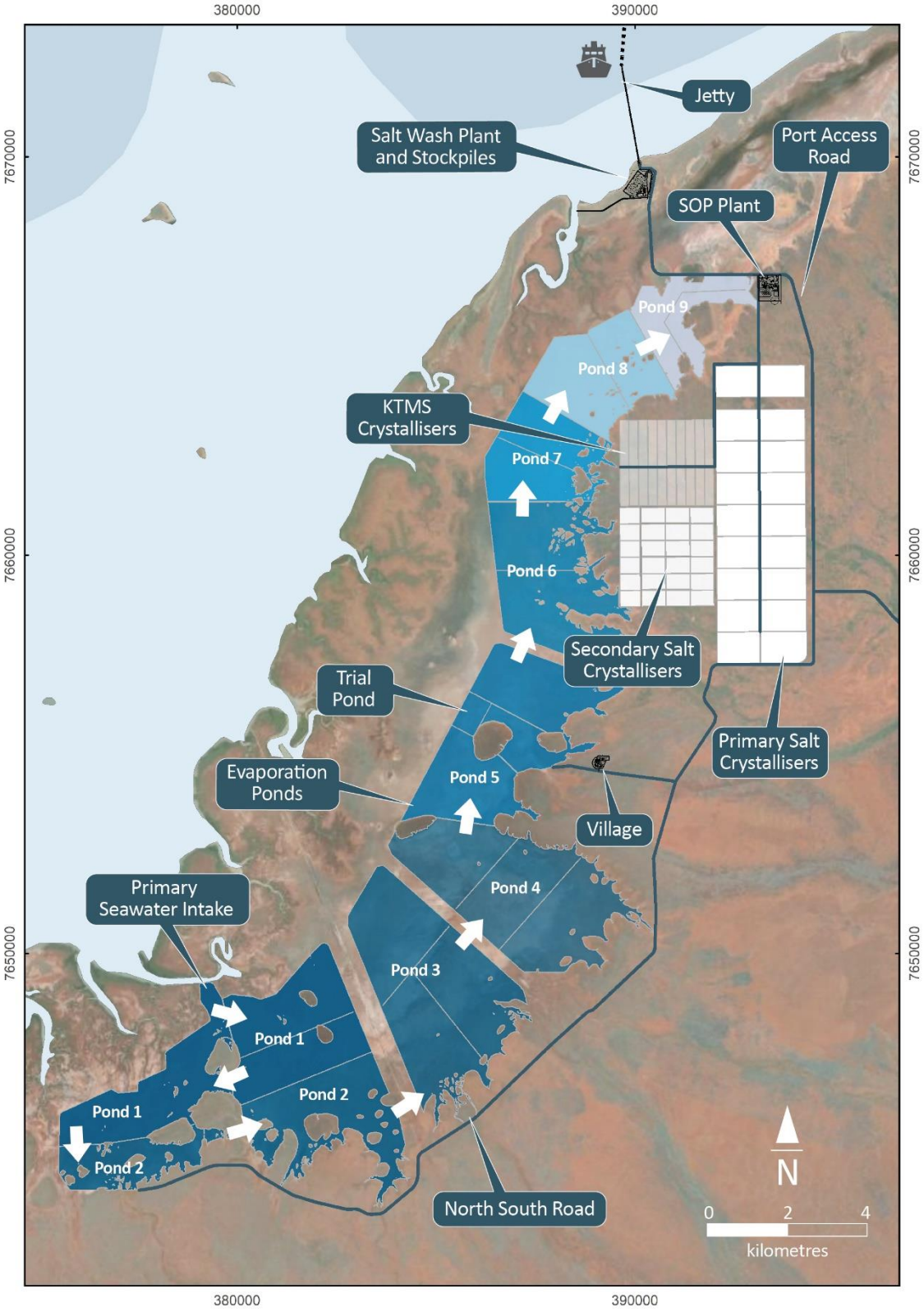
A Definitive Feasibility Study (DFS) was released to the ASX on 1 July 2020. The DFS was based on the production of 4.4Mtpa of salt and 120ktpa of SOP. An Optimised Feasibility Study (OFS) commenced in August 2020 to assess the potential benefits to be derived from a newly acquired tenement (E08/3182) located immediately to the north-east of the DFS project layout. All components of the Project were reviewed and updated in the OFS, resulting in an increase in production from 4.4Mtpa to 5.35Mtpa of salt and from 120ktpa to 140ktpa of SOP by increasing the area and revising the layout of the evaporation ponds and crystallisers, and incrementally expanding other elements of the Project where required.

2. Project Description

The primary project components are listed below and the layout is shown in Figure 2:

- Primary and secondary seawater intake pumping stations;
- Nine evaporation ponds covering an area of 87.8km^2;
- Primary salt crystallisers (C1-C2) and secondary salt crystallisers (C3-C6) covering an area of 21.7km^2;
- Salt wash plant;
- Kainite type mix salts (KTMS) crystallisers (C7-C8) covering an area of 4.8km^2;
- SOP processing plant;
- Port facilities;
- Supporting infrastructure.

Figure 2: Mardie Project Optimised Layout

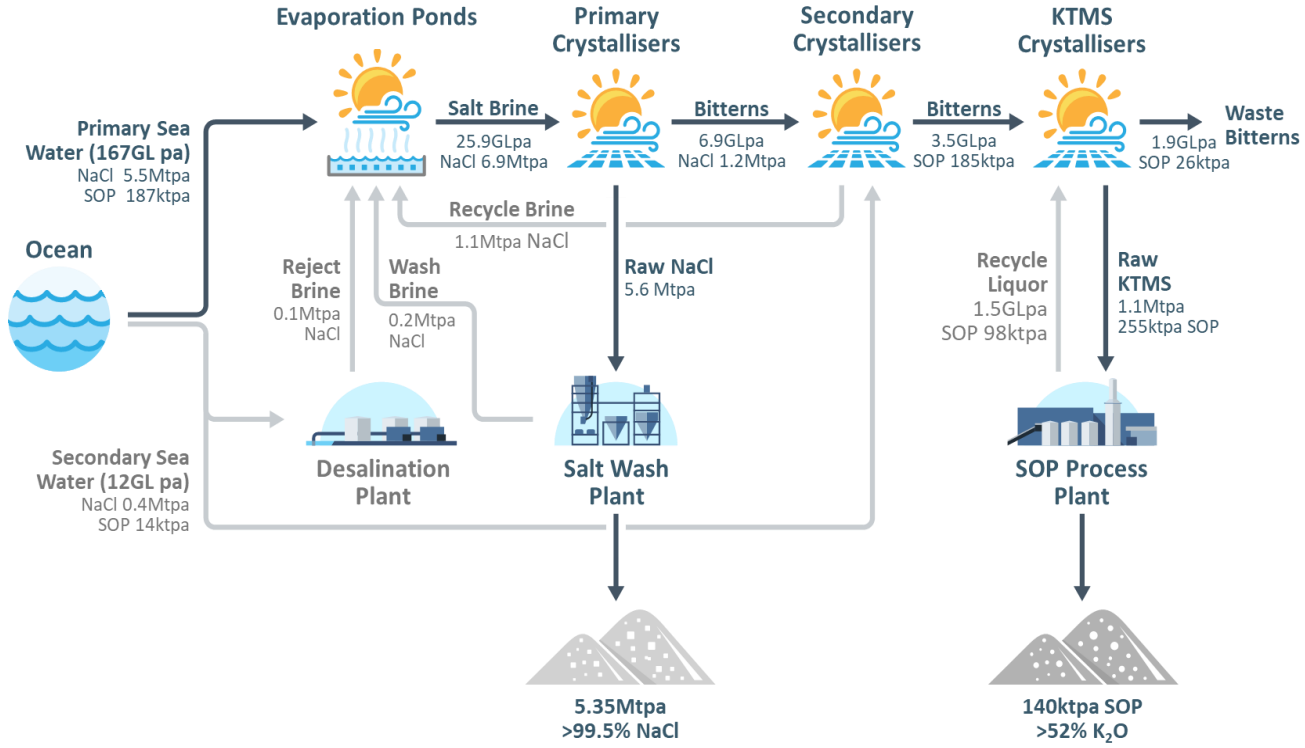


Salt Production

The production concept involves a time-proven and low risk process. In the OFS phase, the pond area has been increased by approximately 20% and the layout has been optimised to facilitate increased production and operational efficiencies.

Figure 3 below shows the overall Project flowsheet for the production of salt and SOP from seawater.

Figure 3: Salt and SOP Production Flowsheet



Approximately 179GLpa of seawater containing 5.9Mtpa of NaCl is pumped into the pond system from two sources: the primary seawater intake station, which comprises six diesel direct drive pumps with inlets located in a tidal creek; and the secondary seawater intake station which supplies desalination plant and process water. Seawater is progressively concentrated via natural sun and wind evaporation energy through the nine evaporation ponds over a 20-month period.

Upon reaching NaCl saturation point in pond 9, concentrated brine, which has reduced to 14% of its original volume, is transferred to the primary salt crystallisers where 5.7Mtpa raw salt precipitates in solid form from further evaporation. The remaining brine, now termed bitterns, is drained from the primary salt crystallisers and transferred to the secondary salt crystallisers for further salt recovery. To achieve the increased production rates and improve operational flexibility, the area of the salt crystallisers has increased by approximately 40% compared to the DFS. The primary salt crystallisers have also been relocated to more competent ground from a geotechnical perspective and ponds 6 to 9 have expanded into the previous crystalliser area.

The primary salt crystallisers are mechanically dry harvested. Once a year brine is drained from each crystalliser cell, and a tractor-driven mechanical harvester is used to harvest raw salt from the floor of the cells into a fleet of 180t bottom dump haul trucks, which transfer the harvested raw salt to the salt wash plant, located at the port, for processing.

The offset of pond walls adjacent to the gas pipeline easement between ponds 2 and 3 has been increased from 25m to 250m from the easement boundary and brine transfer between ponds 2 and 3 has been optimised to reduce risk of pond interaction with the pipeline easement.

The pond wall design has been optimised and improved from the DFS, with changes to construction materials and increased allowances for long term material settlement. An initial earthworks contract for Pond 1 and Pond 2 has been awarded to global civil construction expert, WBHO Infrastructure. The contract also includes construction of a trial seawall embankment to test construction methodology and materials. This program of work is considered essential ahead of main construction to further reduce risk and provide cost certainty.

The salt wash plant nameplate capacity has increased from 700 tonnes per hour (tph) in the DFS to 800tph. As described in the DFS, the plant is a two-stage counter-current wash plant which delivers 5.35Mtpa of high quality product (>99.5% NaCl) with high processing yields.

The purified salt product is conveyed to the salt stockyard, consisting of a 100m radial stacker and stockpile capacity of 0.6Mt (unchanged from the DFS) for further dewatering and export.

A salt pilot plant program is underway at Nagrom facilities in Perth, with results to date in line with expected plant performance. See Figure 4.

Figure 4: Salt Pilot Plant

Pilot Plant

Elutriator Column

Final Product

SOP Production

A unique attribute of Mardie compared to WA's five existing salt producers is that it will also produce SOP as a by-product. The KTMS crystalliser area has increased by nearly 30% compared to the DFS to facilitate increased SOP production and revised KTMS grade based on further test work. The KTMS crystallisers receive 4.5GLpa of potassium and magnesium rich bitterns and approximately 1.1Mtpa of KTMS containing equivalent of 260ktpa of SOP is crystallised (including from recycle streams).

The KTMS crystallisers are dry harvested using a front-end-loader (given the lower tonnage of KTMS salts). The harvested KTMS is loaded into side tipper haul trucks and transferred to the SOP processing plant.

The SOP Processing Plant design is based on an industry standard flowsheet applied in other SOP operations globally and proposed in some new WA SOP projects. The refining process occurs according to the following unit operations: KTMS is reclaimed from the KTMS ROM stockpile using a front-end loader and fed into the SOP Processing Plant at approximately 150tph, which has increased from 110tph capacity in the DFS. KTMS is then converted to schoenite ($K_2SO_4.MgSO_4.6H_2O$) salt in stirred tanks using potassium-rich mother liquor recycled from downstream in the SOP Processing Plant. The next step involves the separation of sodium chloride salt from schoenite via flotation and the decomposition of schoenite salt to SOP by adding warm water. Potassium dissolved by the warm water is recovered by chilling the waste stream from the SOP reactor, re-crystallising schoenite from solution and recycling it to the SOP reactor. SOP product is then dried via fluidised air dryer, compacted into a granular form and stored in fully enclosed stockpiles. SOP product is ultimately reclaimed via front-end loader, screened to remove any fines and an anti-caking agent applied. 140ktpa of high-quality granular SOP is produced for loading into haul trucks for transport to the Mardie Port Facility for export.

Batch test work for the SOP flowsheet was completed by Bluestar Lehigh Engineering Institute (Bluestar), the lead engineer for a major SOP operation in China. The test work confirmed that Mardie's flowsheet can produce SOP with the target specification. Bluestar also identified opportunities to enhance the operability and performance of the SOP plant design, which will be pursued during the detailed design phase. Piloting of the SOP flowsheet is scheduled to commence in Q2 2021 at Saskatchewan Research Council in Canada.

Port and Shipping

Final salt and SOP products will be exported from a purpose-built port facility at the Mardie site. As described in the DFS, a range of port options have been studied and a transhipment facility best satisfies the marine environment and product volumes to be exported by BCI.

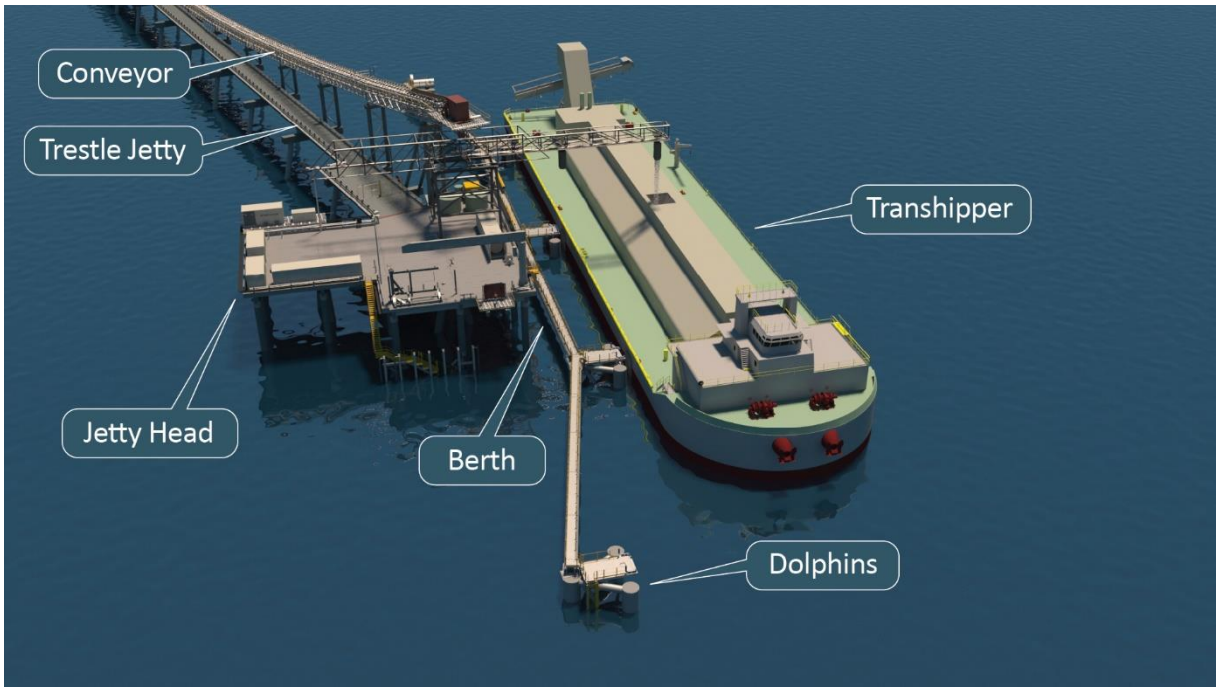
As part of the OFS, a trade-off study on the length of the jetty compared to navigational channel dredging was completed, resulting in the optimum port solution of a 2.4km jetty and a 4.4km channel. Additional marine geotechnical site investigations and transhipping bridge simulation studies were completed for a 12,000 deadweight tonnes (dwt) self-propelled and self-unloading transhipment vessel (TSV). These workstreams were undertaken to reduce risk, optimise the location and orientation of the jetty head and transhipping loading berth, and optimise the TSV design.

The jetty design and construction methodology is largely unchanged from the DFS, and has been designed to withstand a 1-in-500 year extreme weather event, including supporting jetty piles of >35m length of which >20m is anchored into solid ocean floor formations. An early contractor involvement (ECI) process is currently underway with two marine construction contractors to confirm the optimal construction methodology.

Salt product will be conveyed from salt stockpiles to the jetty head and loaded onto the TSV in 10,000t parcels at a rate of 3,000tph. SOP will be transported by truck from a SOP storage shed to a receival hopper, conveyed to the jetty head and loaded onto the TSV at a 500tph rate. The TSV will transport product 15 nautical miles (28km) offshore to ocean-going vessels (OGVs) at anchor.

BCI is planning to ship salt to customers in OGVs ranging from Supramax (50,000dwt) to Capesize (160,000 dwt). The use of larger average OGVs will reduce overall freight costs materially compared to most other WA salt operations with berth constraints. SOP can be shipped by either small vessels, or preferably together with salt shipments, where the two products have customers with a common or nearby port.

Figure 5: TSV Berthed at Port (Artist's Impression)



Support Infrastructure

The support infrastructure required for the Mardie Project is largely unchanged from the DFS, with some items scaled-up to support increased production levels (e.g. power) or moved based on the optimised layout (e.g. accommodation village).

3. Geology and Geotechnical

The Project area straddles the coastal plain and salt marshes, extending offshore across tidal flats and into the shallow marine environment along the Pilbara coast. The coastal plain in the Project area is a broad expanse of low-lying alluvium sloping gently seawards, fringed by tidal flats, mangroves, sand dunes and sandy shoals.

Additional landside geotechnical site investigation work was completed during the OFS to cover the new Project areas, further increase the understanding of existing Project areas and reduce risk factors. A total of 66 diamond drill holes, 357 cone penetrometer tests (CPTu) and 338 test pits have now been completed to inform civil design across the project and borrow management plan. The landside investigative work has confirmed the geological continuity of the clay material across the pond area and foundation conditions for the pond embankment walls. The new area where the crystallisers are now located has been confirmed as being competent ground and a more suitable location for crystallisers, particularly compared to the previous primary salt crystalliser area. Further analysis has been completed to inform short term and long-term settlement of the pond embankment walls.

In the offshore area, additional geotechnical site investigations were completed during the OFS phase on the final jetty alignment. An additional 13 diamond drill holes were completed, increasing the total number to 42 holes. A seismic survey has been completed along the jetty alignment and six push tube samples were collected along the navigation channel alignment to depths of between 0.3m and 0.85m. Site investigations were supplemented with a range of field and laboratory test work to provide the necessary design input parameters.

These results have confirmed there are satisfactory sub-surface foundation conditions to support the jetty structure and a steel piled foundation will be the most appropriate structural system. Excavation conditions for dredging of a channel and swing basin for the TSV are expected to be well within the range of most common types of dredging equipment.

4. Tenure and Approvals

Mardie requires tenure covering an area of approximately 230km^2 pursuant to the *Mining Act 1978 (WA)*, the *Land Administration Act 1997 (WA)* and the *Port Authorities Act 1999 (WA)*. All tenure required for initial construction activities is anticipated to be granted by Q3 2021, subject to relevant agreements being reached with third parties, and all other Project tenure is targeted by Q2 2022, well in time for construction of the various project elements.

The Mining Act tenure will have an initial 21-year term and can be renewed for another 21-year term by BCI. A third term of 21 years can be approved at the discretion of the WA Minister for Mines, who has formally confirmed to BCI the reasonable and achievable criteria for renewal of a third term. A 63-year project term is therefore assumed by BCI as the minimum period of tenure. Based on an inexhaustible seawater resource and subject to further renewals, Mardie could potentially be a 100+ year project.

An access agreement is in place with the underlying pastoral leaseholder and access agreements with the owners of gas pipelines in the southern section of the Mardie footprint are being negotiated to govern interaction between infrastructure elements and to provide for permanent access across the ~100m wide gas pipeline easement.

Mardie is situated on the traditional lands of the Yaburara and Mardudhunera (YM) People and adjacent to land significant to the Kuruma Marthudunera (KM) People, both as recognised by the Federal Court. BCI has Land Access Deeds in place with both Traditional Owner Groups that provide for full and informed consents, consultation, environmental protections, compensation and other non-monetary benefits. Heritage surveys have been completed across the Project footprint over the past three years and registered sites and other heritage places have been identified with the assistance of the Traditional Owner groups. Further heritage work is being conducted during 2021 over the proposed Cape Preston West port land and new optimised project areas.

BCI is working with the prescribed body corporate for the YM people regarding the creation of a Port Reserve intended to be vested in the Pilbara Ports Authority (PPA) for a proposed new multi-user port known as Cape Preston West (CPW). The Mardie port facilities will be located within the CPW area and Mardie will be the initial foundation user of the port facilities. Negotiation of the port lease documentation is underway with the PPA.

The Mardie DFS environmental approval was set at a Public Environmental Review (PER) level of assessment administered under a joint agreement by the WA Environmental Protection Authority (EPA) and the Federal Department of Agriculture, Water and Environment (DAWE). The public review was completed in Q3 2020 and the PER assessment is in its final stages. BCI is targeting Ministerial Part IV Approval and EPBC Act Approval by Q3 2021.

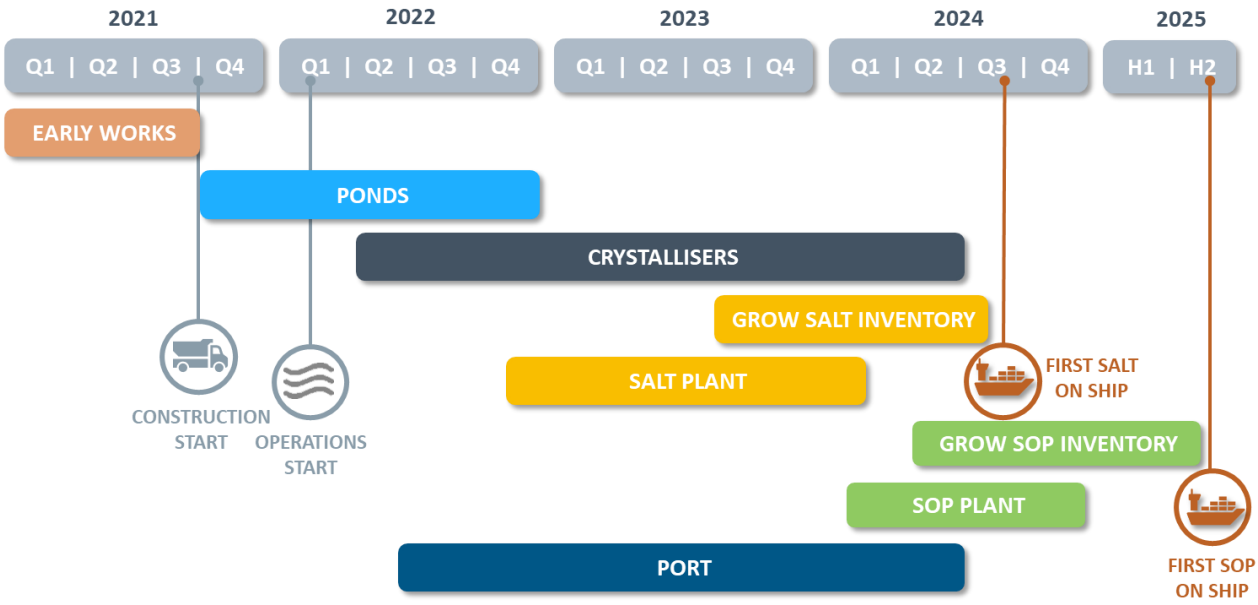
Due to optimisation of the Mardie Project, elements located on the new northern tenement (E08/3182) will require further environmental assessment and approvals. However, given these areas are considerably smaller than the original DFS footprint and largely cover an area infested by Mesquite weed, the assessment process is expected to be relatively shorter and less complex, with approval targeted by 1H 2022 in time for crystalliser construction activities.

A series of industry standard secondary approvals and authorisations are also required, with each of these tending to focus on specific areas of the project. These approvals are managed over much smaller timeframes and are targeted to be secured ahead of commencement of construction of each project element. Most of these reports and submissions have been prepared by BCI and approval is anticipated following Ministerial Part IV approval.

5. Project Implementation and Operations

Mardie has a three-year construction timeline from commencement of Main Construction in Q4 2021 as shown in Figure 6. The critical path for commencement of Main Construction is securing the required primary and secondary approvals, and raising the required equity and debt funding.

Figure 6: Mardie Project Schedule



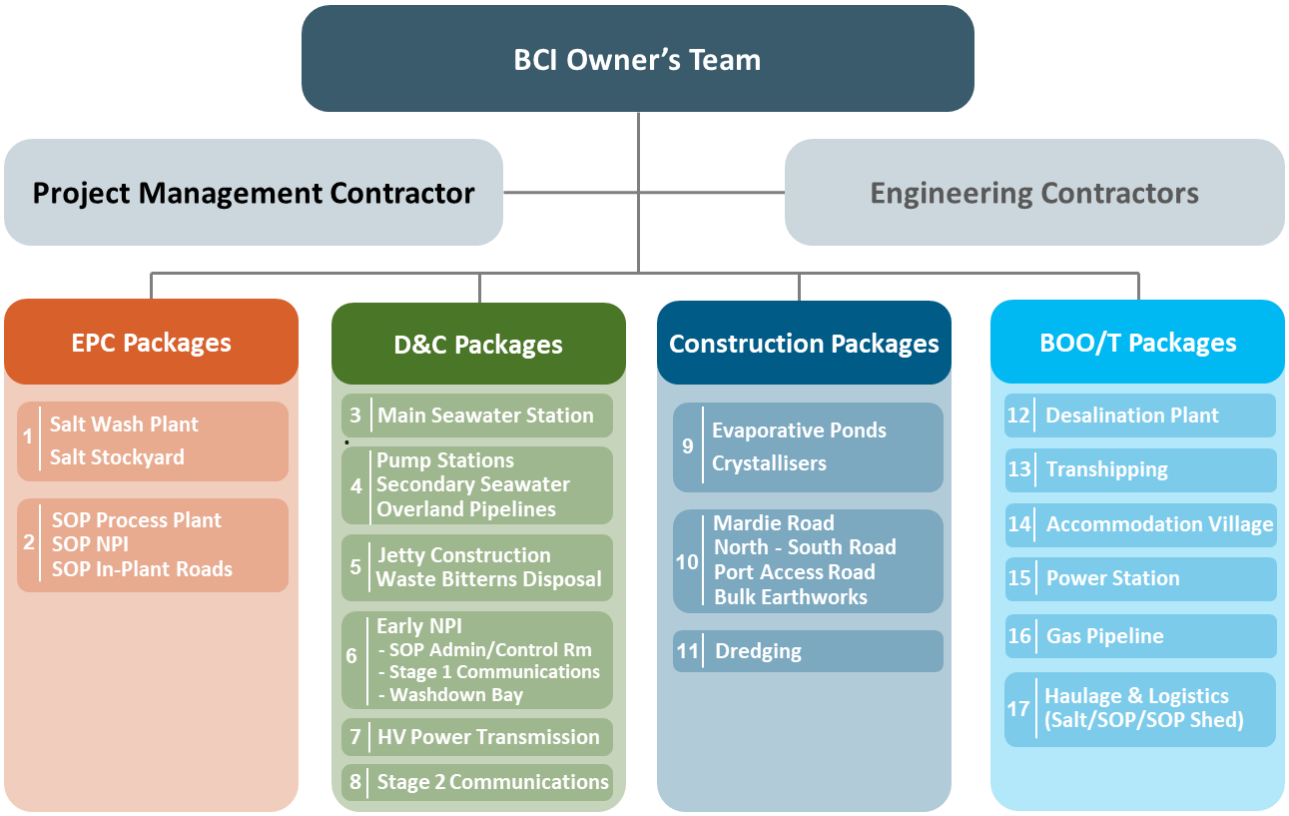
Construction is planned to occur on a "just in time" basis, commencing with an early works program of more than $60M on key initial enabling infrastructure and access roads by September 2021.

The Main Construction phase will commence with the building of pond 1 in Q4 2021 and will end with completion of the SOP plant in Q4 2024. The construction workforce (onsite and offsite) will average approximately 340 personnel over the construction period, peaking at approximately 490 personnel.

Key objectives of the contracting strategy include providing cost certainty by maximising the number of "lump sum" contracts; reducing construction interfaces and execution complexity by minimising the number of contract packages; maximising single point of accountability through contract models where the contractor is responsible for the design; and achieving cost and schedule targets.

The contracting strategy as shown in Figure 7 is largely unchanged compared to the DFS.

Figure 7: Mardie Project Contracting Structure



Engenium has been appointed as the Project Management Contractor (PMC) to manage and deliver the Mardie Project as an extension of the BCI Owner's team. A range of Engineering, Procurement and Construction (EPC) and Design & Construct (D&C) lump sum contracts, Build Own Operate / Transfer (BOO/T) type contracts and schedule of rates contracts will be entered into as appropriate for the specific areas of the project.

Commencement of operations will occur following completion of pond 1 construction, when the construction team will transfer responsibility of pond 1 and the seawater pump station to the operations team for the introduction of seawater. First salt shipment is expected within 34 months of construction commencement and first SOP shipment is expected within 50 months.

The operating model is largely unchanged from the DFS, as reflected in Table 2 below. 220 permanent operating jobs will be created by the Project comprising 129 BCI employees based at site, in Karratha and in Perth, and 91 contractors roles including 65 logistics contractors and 26 contractors in various support roles. BCI has recently established a regional office in Karratha to support local employment and contracting.

Table 2: Indicative Operations Contracting Strategy per Area

Area Description	Owner	Capex	Operator
Production			
Salt production	BCI	BCI	BCI
SOP production	BCI	BCI	BCI
Logistics			
Salt harvesting, haulage and stockpile management	-	Contractor	Contractor[1]
SOP harvesting, haulage and stockpile management	-	Contractor	Contractor[1]
Port Facilities			
Common User Infrastructure	BCI/PPA	BCI/Other	BCI/PPA
Mardie Facilities	BCI	BCI	BCI
Transhipper & Transhipping	Contractor[1]	Contractor	Contractor
Supporting Infrastructure			
Accommodation village	Contractor[1]	Contractor	Contractor
Power station and gas lateral pipeline	Contractor	Contractor	Contractor
Waste management and recycling	BCI	BCI	Contractor
Corporate			
Sales and marketing	-	-	BCI[2]
Corporate services	-	-	BCI

1. *Option to transfer ownership to BCI.*
2. *Option to involve sales agents where required.*

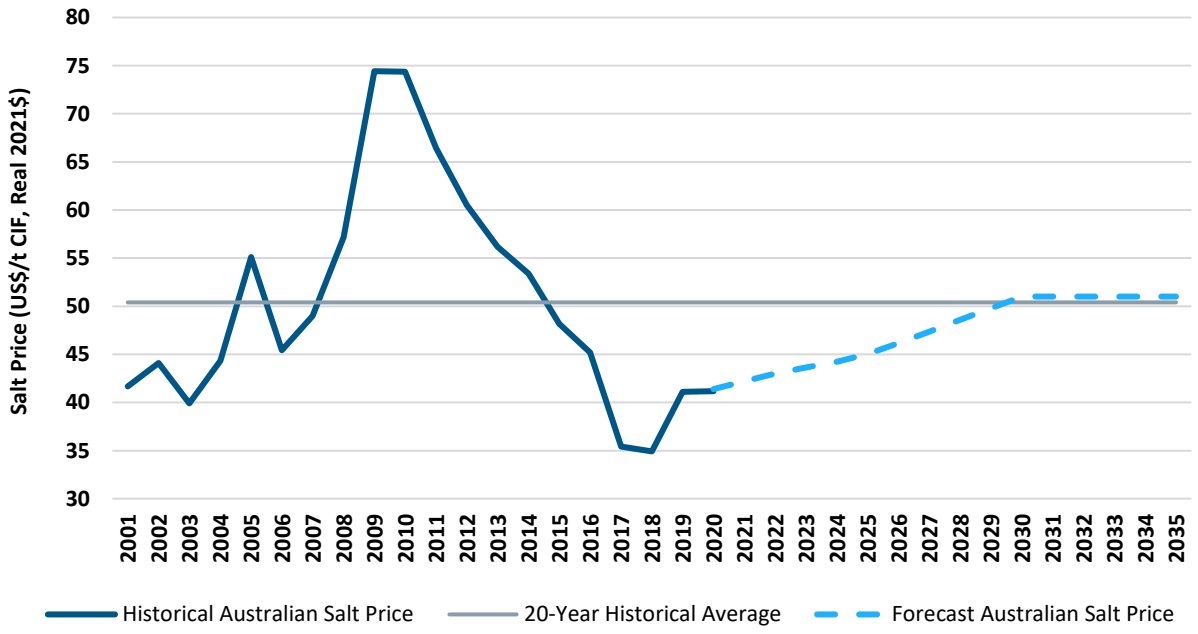
6. Market Analysis

Extensive salt and potash industry analysis has been completed by BCI with the support of independent market experts. BCI has concluded there is an attractive market opportunity for both salt and SOP over the medium to long term.

There is a large, diversified and contestable market for high purity salt in the Asian chemical industry, which is forecast to grow strongly over the next decade. Historical prices for Australian salt delivered into Asia on a cost, insurance and freight (CIF) basis have ranged from approximately US$35/t to US$75/t CIF over the last 20 years, with an average of approximately US$50/t CIF (real 2021$).

Roskill, a leading independent speciality minerals expert, forecasts Australian salt prices will increase from current levels of just over US$40/t CIF to US$51/t CIF by 2030 (real 2021$). This compares to the DFS assumption of Australian salt prices increasing to US$45/t by 2028 (real 2019$).

Figure 8: Historical and Forecast Salt Prices (Real 2021$)



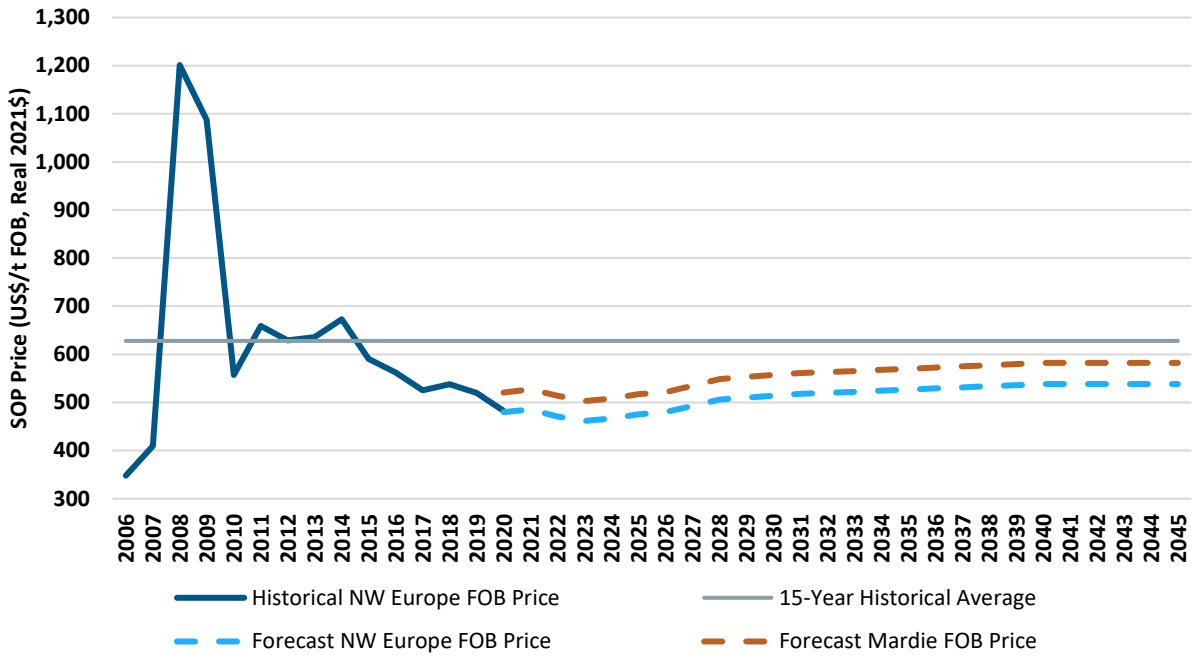
Source: Roskill (Dec-20) converted from real 2020$ to real 2021$ by BCI, ITC Trademap.

Similarly, the global SOP market has a positive outlook driven by growing food demand and an increasing requirement for high quality fertilisers to deliver higher crop yields from reducing arable land. The most commonly reported pricing benchmark for SOP is the free on board (FOB) NW Europe price for bulk SOP fines (50% K_2O), which has ranged from approximately US$350/t to US$1,200/t over the last 15 years, with an average of US$628/t (real 2021$).

Argus, a leading independent fertiliser expert, forecasts the FOB NW Europe SOP price to average approximately US$507/t between 2021 and 2040 (real 2021$). This compares to the DFS assumption of FOB NW Europe prices averaging US$501/t between 2021 and 2040 (real 2018$). Mardie SOP product will achieve

a premium of approximately US$40/t above the NW Europe price due to it being of higher quality (52% K_2O granular product) combined with freight (FOB netback) advantages relative to NW Europe suppliers and specific pricing differentials in certain target Asian markets.

Figure 9: Historical and Forecast SOP Prices (Real 2021$)



Source: Argus (Nov-20 forecast) converted from real 2019$ to real 2021$ by BCI.

Mardie has achieved positive initial offtake support with 15 non-binding memoranda of understanding (MOUs) executed by credible Asian end-users, for 100% of 3-year salt production and 80% of 3-year SOP production. BCI will aim to convert these non-binding MOUs to binding offtake contracts in support of financing milestones within the next 18 months.

7. Project Economics

Financial analysis of the Mardie Project has been undertaken using a discounted cash flow model based on updated estimates for production rates, capital costs, free-on-board (FOB) operating costs, salt and SOP prices, ocean freight rates and currency exchange rates. This financial evaluation is based on pre-tax, ungeared (100% equity) project cash flows, modelled on a quarterly basis in real 2021$. All assumptions and results in this announcement are reported on this basis unless otherwise stated.

Capital Costs

Capital costs have been re-estimated for the entire Project scope and compiled by BCI's study engineer, GRES. The capital cost estimate was developed in conjunction with direction from BCI regarding the Project scope and estimation methodology and is consistent with the AACE International Class 3 level. The estimate is based on revised quotes received from third parties and updated market rates as at 1 March 2021. Overall, BCI has

seen increases of approximately 5% in labour rates and equipment costs compared to the July 2020 DFS capital estimate due to current construction market conditions.

The direct capital cost for all production and export infrastructure is estimated at $737M. The indirect capital cost, including owner's costs, project management costs, growth allowances and contingencies, is $176M, resulting in a total capital cost of $913M. The capital costs are based on the level of engineering and design developed during the OFS.

Capital breakdown by project area is presented in Table 3. The capital estimate excludes the capital costs for components of infrastructure or equipment which are to be provided by contractors or service providers under BOO/T type arrangements. These items are covered in the operating cost estimate.

Table 3: Capital Estimate Summary

Area Description	Total $M
Salt	276.4
SOP	115.3
Port	222.5
Supporting Infrastructure	103.3
Services	14.8
Other	4.8
Direct Capital Cost	**737.1**
Indirects (PMC and Construction Facilities)	55.9
Owner's Costs	35.8
Contingency and Growth Allowance	83.7
Total Capital Cost	**912.7**
Planned Early Construction Capital Cost	**62.7**
MAIN CONSTRUCTION CAPITAL COST	**850.0**

Operating Costs

All-in sustaining operating cost (AISC) estimates conform to an AACE International Class 3 level and are $21.5/t FOB for salt and $337/t FOB for SOP on a life of mine (LOM) average basis. This equates to US$15.0/t FOB for salt and US$236/t FOB for SOP, converted at a long term AUD:USD exchange rate of 0.70. Mardie's delivered salt cost of $37.1/t (US$26.0/t) is expected to be competitive with existing large WA salt operations. If SOP is included in the salt cost structure as a by-product credit, Mardie will be one of the lowest cost suppliers of salt into the Asian market.

LOM average operating cost summaries are presented in Table 4 and Table 5 for salt and SOP production.

Table 4: LOM Average Operating Cost Estimate for Salt

Area Description	$M per annum	$/t
Evaporation ponds	6.7	1.3
Salt crystallisers	32.3	6.0
Salt wash plant	17.0	3.2
General and administration	14.1	2.6
Salt sustaining capital	4.6	0.9
Salt cash cost (Ex-works)	**74.7**	**14.0**
Salt port handling and transhipping	30.5	5.7
Salt cash cost (FOB)	**105.2**	**19.7**
Marketing and royalties	6.4	1.2
Corporate and overheads	3.5	0.7
Salt AISC (FOB)	**115.1**	**21.5**

Table 5: LOM Average Operating Cost Estimate for SOP

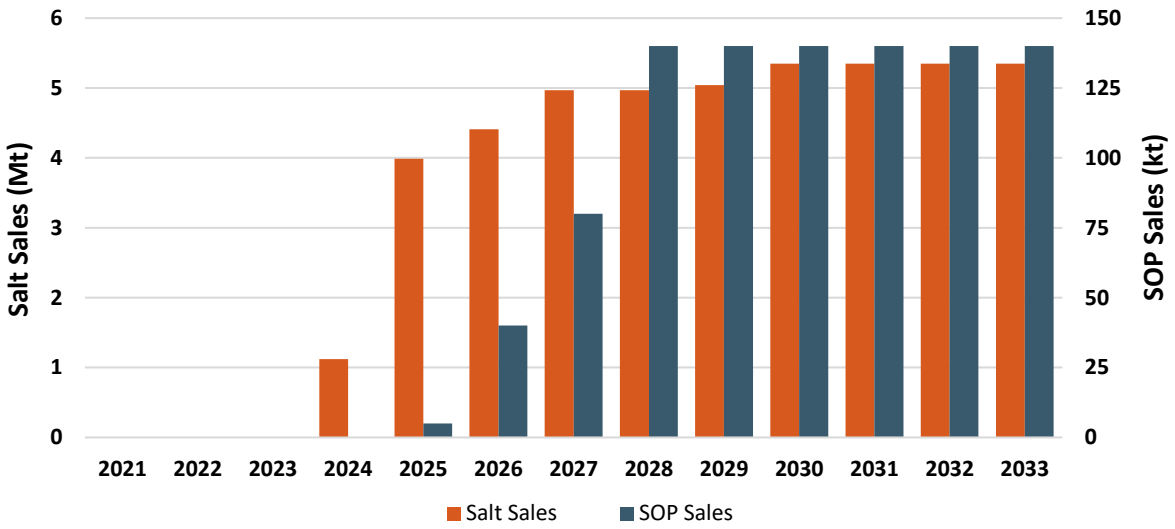
Area Description	$M per annum	$/t
KTMS crystallisers	8.4	60.2
SOP processing plant	22.0	157.0
Bitterns disposal	0.5	3.3
General and administration	6.6	47.4
SOP sustaining capital	1.7	11.8
SOP cash cost (Ex-works)	**39.2**	**279.8**
SOP port handling and transhipping	0.9	6.4
SOP cash cost (FOB)	**40.1**	**286.2**
Marketing and royalties	5.9	42.4
Corporate and overheads	1.2	8.4
SOP AISC (FOB)	**47.2**	**337.0**

Operations commence upon completion of pond 1 construction and operating costs are therefore incurred prior to first sales, and additional engineering, approvals, legal and funding costs are incurred during the construction period.

Production Assumptions

Production and sales will occur over approximately 60 years and total 316Mt for salt and 8.0Mt for SOP. Sales will commence in Q3 2024 for salt, with steady-state sales reaching 5.35Mtpa in 2030. SOP sales will commence in Q4 2025, with steady-state sales reaching 140ktpa in 2028.

Figure 10: Salt and SOP Production



Pricing Assumptions

Salt and SOP pricing assumptions for Mardie product are set out in Figure 8 and Figure 9, based on Roskill (December 2020) and Argus (November 2020) respectively.

The LOM average ocean freight rate for Mardie's salt exports is estimated at US$11/t based on forecasts from independent shipping services provider, Braemar (June 2020), for the range of vessel sizes and ports in BCI's marketing strategy. The resulting FOB salt price forecast increases from US$29/t in 2021 to US$40/t by 2030.

A$:US$ exchange rates are assumed to trend down from current levels of 0.76 to a long term rate of 0.70 by 2027.

Other Assumptions

The financial model also includes the following assumptions:

- Closure costs: $85M based on full rehabilitation of the entire Project footprint, implemented over the last five years of operation;
- Trade debtors: revenue received on average one month after incurred, aligned with expected payment terms of offtake contracts and letters of credit;
- Trade creditors: costs paid on average one month after incurred, aligned to standard market practice.

Financial Evaluation Outcomes

The OFS delivered robust financial metrics as presented below, with a comparison to DFS financial metrics:

Table 6: Project Financial Summary[1]

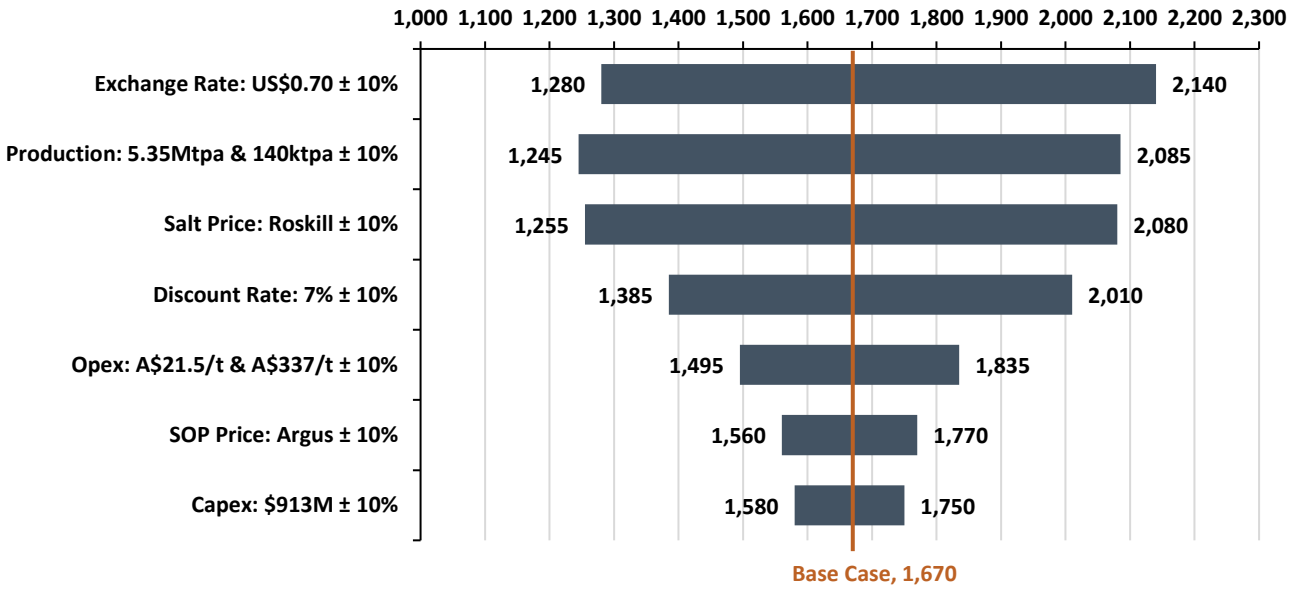
Item	DFS	OFS
Pre-tax NPV_7 (ungeared)[2]	$1,197M	**$1,670M**
Pre-tax IRR (ungeared)	15.3%	**16.1%**
Steady-state EBITDA per annum	$197M	**$260M**
NPV_7 to capex ratio	1.5x	**1.8x**
Payback period (from first salt sales)	6.7 years	**6.5 years**
Life of Production	60 years (minimum)	**60 years (minimum)**

1 – All dollar values presented in Australian dollars unless specified.

2 – Discount rate supported by low interest rate environment and very long project life. 7% real discount rate equates to ~9% nominal.

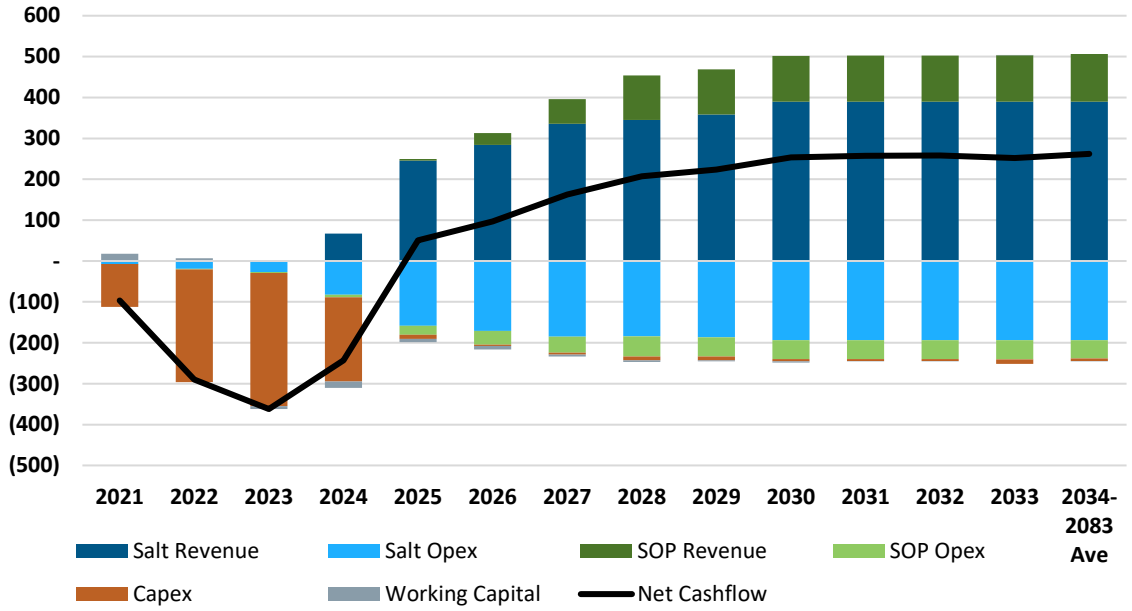
Sensitivity of the pre-tax NPV_7 to changes in key assumptions is set out in Figure 11 below. The Mardie Project NPV is most sensitive to changes in exchange rate, production rates, salt price and discount rate assumptions. The Project NPV is least sensitive to capex, SOP price and opex.

Figure 11: Pre-tax NPV_7 Sensitivity ($M)



Estimated pre-tax project cash flows for the construction period and the first ten years of production are shown in Figure 12. After a three-year construction period starting in Q4 2021, first salt sales will commence in Q3 2024 and SOP sales will commence in Q4 2025. Net cash flows will become positive in 2025, ramping up to approximately $250M per annum by 2030, which will be maintained throughout the remainder of the 60-year project life. Cumulative LOM pre-tax net cash flow is approximately $14Bn.

Figure 12: Pre-tax Project Cash Flows ($M)



Funding

BCI is targeting a funding mix comprising approximately 65% debt and 35% equity to fund the $913M capex plus approximately $250M in early operating costs, net working capital, debt interest and other funding costs.

BCI is well advanced in securing the debt required for the Project. Board approval has been received from the Northern Australia Infrastructure Facility (NAIF) for a $450M 15-year loan facility and a number of commercial banks and other lenders are progressing through credit approval processes. An initial credit approval has been received from an Australian bank, which has also been engaged to assist BCI with a syndication process.

The equity required for the Project will be funded from a combination of existing cash used for the early construction of enabling infrastructure (>$60M), ongoing Iron Valley royalty earnings, and a new equity raise. BCI's existing shareholder base has the capacity to support a large proportion of the equity required to develop the Project and additional equity will be sought from other new large investors and the general investor market.

8. Opportunities and Risks

BCI's recent acquisition of additional tenement rights north of the Mardie Project presents further potential value upside. Based only on the size of potential additional evaporation area offered by this new area and assuming no major environmental and heritage constraints, expansion of the Project to more than 7Mtpa salt and 170ktpa SOP may be considered in the future. This expansion opportunity has not been included in the OFS and will only be studied in the longer term.

Mardie also has the potential to produce additional by-products, including magnesium products, bromine products and other products which could be grown in or extracted from Mardie's pond system. These opportunities are at an early stage of investigation and will be reported as results become available.

Key pre-construction risks remain largely as reported in the July 2020 DFS (Section 15.2 of announcement) and include risks associated with: economic conditions; approvals, tenure and access; funding; capital and operating cost estimates; price forecasts; and offtake.

Once the Project moves into construction and later operations, it will also be subject to a range of construction and operations risks that are typical for a project of this nature.

9. Conclusions

The Mardie OFS results indicate that the production of 5.35Mtpa of high purity salt and 140ktpa of premium SOP fertiliser is technically and financially viable. OFS results confirm a compelling value proposition with a pre-tax NPV_7 of approximately $1.7Bn, supported by an attractive market opportunity and no insurmountable obstacles to development.

Mardie can become a potential Tier 1 asset categorised by its long life (minimum 60 years), top quartile scale, lowest quartile salt operating costs (after SOP by-product credits) and high-quality salt and SOP products.

With attractive financial returns over many decades and expansion potential from the new tenements, development of the Mardie Project should result in considerable long-term value and dividends being created for shareholders.

10. Next Steps

A Final Investment Decision (FID) by the BCI Board is targeted around mid-2021, which will be followed by completion of the funding task. Main Construction can commence by Q4 2021, which will allow for first salt sales by Q3 2024 and first SOP sales by Q4 2025.

-END-

This ASX announcement has been authorised for release by the Board of BCI Minerals Limited.

For further information:

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ABOUT BCI MINERALS

BCI Minerals Limited (ASX:BCI) is an Australian-based company that is developing a salt and potash business supported by iron ore royalty earnings.

BCI is rapidly advancing its 100% owned Mardie Salt & Potash Project, a potential Tier 1 project located on the West Pilbara coast in the centre of Australia's key salt production region.

Mardie aims to produce 5.35Mtpa of high-purity salt (>99.5% NaCl) and 140ktpa of sulphate of potash (SOP) (>52% K_2O) via solar evaporation of seawater.[1] Using an inexhaustible seawater resource and a production process driven mainly by natural solar and wind energy, Mardie is a sustainable opportunity to supply the salt and potash growth markets in Asia over many decades. There is potential to optimise and expand the project beyond currently planned production levels.

With a Final Investment Decision targeted in Q2 2021 and Main Construction start in Q4 2021, first salt sales can be achieved by Q3 2024 and first SOP sales by Q4 2025.

BCI receives quarterly royalty earnings from Iron Valley, an iron ore mine located in the Central Pilbara region of Western Australia which is operated by Mineral Resources Limited (ASX:MIN). BCI's EBITDA from Iron Valley was $23.0M in FY20 and $17.1M for the H1 FY21.

KEY STATISTICS

Shares on issue	598.4 million	
Cash in bank	$78.5 million	pro-forma as at 31 December 2020
Board	Brian O'Donnell	Non-Executive Chairman
	Alwyn Vorster	Managing Director
	Michael Blakiston	Non-Executive Director
	Jenny Bloom	Non-Executive Director
	Garret Dixon	Non-Executive Director
	Richard Court	Non-Executive Director
Major shareholders	Wroxby Pty Ltd	39.6%
	Sandon Capital Pty Ltd	6.1%
Website:	www.bciminerals.com.au	

[1] Refer to ASX announcement dated 21 April 2021. BCI confirms that all material assumptions underpinning the production forecast and financial information derived from the production forecast have not materially changed and continue to apply.