

FINAL RELINQUISHMENT REPORT
BELL BAY QUARRY PROJECT
EXPLORATION LICENCE 7/2015 & 21/2012

Bell Bay, Tasmania, Australia

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ABSTRACT

Pacific Basin Bluestone Pty Ltd (PBB) was created in 2015 with a sole purpose of acquiring, exploring and undertaking economic studies on the Bell Bay Coastal Quarry Project located in Northern Tasmania. The Company's objective if the outcome of those studies were positive was to develop the Project into a commercial venture exporting a diversified range of quarry products to both mainland Australia as well as regional international markets.

Whilst the outcome of the studies showed an indicative viable business exporting to the eastern seaboard of mainland Australia and some select international destinations, the Company has failed to gauge sufficient support from key financiers and prospective partners in the logistics and quarrying industry as well as key off take partners. As such the Company decided to relinquish any rights it had to the tenements.

The Project area covered by EL7/2015 and to a much lesser extent EL21/2012, has a number of standout criteria considered unique to a potential quarry's development being:

- A large high quality dolerite resource located at surface with negligible overburden
- Dolerite having demonstrated historically its outstanding physical characteristics through a small historical quarry operation (now no longer in use) developed for sourcing coastal rock/blocks for the development of the Bell Bay port
- The dolerite exceeding Australian Standards for aggregate and other products and deemed suitable for all Australian construction materials markets
- The proposed quarry being located in a zoned industrial area on land owned by Rio Tinto Australia
- An adjacent very high quality deep water port facility located at George Town which is currently under utilised
- Excellent supporting infrastructure including, available land at the port, very high quality roads, rail, nearby water and power
- An experienced industrial workforce to draw upon in the immediate vicinity of George Town

In 2016-17 PBB chose a strategic approach, to initially look at the more niche quarry product markets rather than just standard aggregate supply. The Company and its consultants looked at the potential to supply the Eastern seaboard of Australia, South Australia, the Pacific nation islands and New Zealand with *armour rock* for coastal defence purposes.

With the notable absence of "go-to" niche producers of armour rock in the region that existed at the time (and still at the time of this writing) in such an advantageous coastal location, located immediately adjacent to high quality road and port infrastructure, PBB concentrated its focus on this low capital intensive

product area, whilst looking into further value add pre-cast concrete markets as a second phase 2 development potential in the future.

Whilst the strategy of looking at the niche product markets was still very much in place, activities in 2018-2020 focused on PBB approaching, amongst others, international bulk cargo shipping and stevedoring group Linx Cargo Care Group which owns and operates a wide range of port facilities throughout the Australasian region including New Zealand, to consider partnering with PBB to produce and ship aggregate in addition to armour rock and gabion stone. The aggregate supply & demand market was at the time considered much more consistently reliable than armour rock market, which a new project would need to rely on for early cash flow.

Based on consideration and assessment of two independent GHD Launceston reports undertaken in 2016: The *Initial Study* and the *Phase 1 Actions Study*, a number of key conclusions were drawn on the potential for a quarry development located at Bell Bay in Northern Tasmania which PBB took into consideration when assessing the economics of the project.

In order to exploit natural competitive advantage (the unique position of being a coastal quarry with nearby access to existing port facilities), and provide the ability to meet market demand in a highly integrated industry, the quarry development, and subsequent studies were considered to need:

- A flexible plant operation and diversified product range, with a start-up focus on alternate rock products (armour rock and gabion stone) in addition to aggregate
- The use of leased plant in the initial operations to minimise upfront capital and time to commence operations
- Undertake a phased development approach to the project, with an initial small volume Phase 1 operation, growing through expanded Phase 2 and Phase 3, with commercially defined trigger points based on market size and realisation of product demand for quarry products
- Exploit the advantages of a small start-up volume with a low up-front capital cost requirement (through leased plant and use of existing berthing facilities) to establish a market presence, generate initial project cash flow, as well as minimise commercial risk exposure
- New identified aggregate markets in New Zealand, in addition to Melbourne and Sydney
- Target key strategic positioning opportunities for the supply of quarry products (and potentially value-add concrete products) for coastal protection and rehabilitation projects (for armour rock, coastal protection blocks, and gabion stones) on the Australian east coast.

Activities 2018 to October 2020, prior to relinquishment, focused on establishing a more in-depth understanding of both armour rock and gabion stone markets, something that was not easy to attain due to the sporadic “mine to order” supply and demand nature for these products.

It was corporately decided that planned discussion with Tasports on the use of the Bell Bay port for export shipments as well as discussions around the existing quarry was to be put on hold until Linx Cargo Care Group, which have over those years, established other business interests and activities at the port of Bell Bay with Tasports, had a chance to sit down and work through its assessment of the project, to be able to tender for transport to port, stevedoring, and shipping.

However after considerable time passing and despite several positive meetings, Linx Cargo Care did not commit to any formal partnership or arrangement, with PBB citing the key reason for this being Linx's uncertainty of other business interests at Bell Bay at the time.

It was very much PBB's intent to enter into MOU agreements with Tasports for the use of birthing facilities at Bell Bay and for the investigation into the reopening of the old Tasports quarry as an initial centre of future production. However with little support from the capital markets and prospective partners and the absence of long term prospective off take customers, finally compounded by the onset of the COVID-19 pandemic, PBB decided in late 2020 to relinquish the tenements covering the project.

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1.0 INTRODUCTION

1.1 Licence Retention Rational

Pacific Basin Bluestone Pty Ltd (PBB), owned 100% by privately owned Bayrock Materials Pty Ltd (September 2016), was created in 2015 with a sole purpose of acquiring, exploring, undertaking economic studies, and if the outcome of those studies was positive, develop, what is referred to as the Bell Bay Coastal Quarry Project, in Northern Tasmania.

The project area (covered by EL7/2015 and EL21/2012) had previously been identified by two previous owners the last being Delta Materials Pty Ltd (Delta) (between 2009-2014) as having a number of standout criteria considered unique to a potential quarry's development being:

- An outstanding large high quality dolerite resource located at surface with negligible overburden.
- Dolerite having demonstrated historically its outstanding physical characteristics through a small historical quarry operation (now no longer in use) developed for sourcing coastal rock/blocks for the development of the Bell Bay port
- The dolerite exceeding Australian Standards for aggregate and other products and deemed suitable for all Australian construction materials markets
- The proposed quarry being located in a zoned industrial area on land owned by Rio Tinto Australia.
- An adjacent very high quality deep water port facility located at George Town, which is currently under utilised.
- Excellent supporting infrastructure including, available land at the port, very high quality roads, rail, nearby water and power.
- An experienced industrial workforce to draw upon in the immediate vicinity of George Town.

Whilst PBB shared similar views to Delta in terms of all of the above, the Company was very different to Delta in terms of its business strategy and goals and how it envisaged the prospectivity and potential of the Bell Bay Quarry Project's commercial development.

Delta (2009-2014) focused on a business plan targeting supply to the Sydney market with up to 5Mtpa of aggregate, and in turn developed its financial models and plans and proposed operation design to these requirements. PBB however, whilst recognising the validity of Delta's business approach in supplying Sydney with aggregate at times of high prices, also recognised that, like Delta, it did not have an integrated concrete business as part of its corporate structure to consume some or all of this production. This like Delta also ultimately turned out to be an *Achilles Heel* for PBB. Thus PBB took the initial view that to attempt to supply Sydney with large volumes of aggregate in the short to medium term would not only be a large initial undertaking in terms of capital requirements,

but also inhibitive in terms of perceived market risk, emanating from both competitors actions and market conditions.

PBB therefore chose a more strategic approach, to initially look at the more niche product markets and initially look at the potential to supply South Australia, the eastern seaboard of Australia, the Pacific nation islands and New Zealand with *armour rock* for coastal defence purposes.

Noticing the notable absence of “go-to” niche producers of armour rock in the region that exist in such an advantageous coastal location, located immediately adjacent to high quality road and port infrastructure, PBB concentrated its focus on this low capital intensive product area, whilst looking into further value add pre-cast concrete markets as a second phase 2 development potential in the future.

An approach to PBB late in the 2017 reporting period by Linx Cargo Care Group, a shipping, stevedoring and transport group specialising in bulk cargo handling, allowed PBB to return to considering the potential of producing aggregate as an additional product to armour rock and gabion stone to the mainland. Of particular interest was Linx’s capability to be able to ship and stockpile aggregate for markets through the Port of Geelong, which the group owns and operates. Studies and figures were said to have been undertaken by Linx around the potential to ship circa 200,000 tonnes per month of aggregate to Geelong and other mainland ports in the group’s logistics chain. However PBB never saw any commercial figures produced or submitted by Linx to support this claim.

1.2 Regional & Local Geological Setting

The Tasmanian dolerites outcropping at Bell Bay and for the most part throughout Central and south eastern Tasmania are considered to be of Middle Jurassic age 175+/- 8Ma (Calver & Seymour, 1998). They are believed to be the result of and represent a minor fraction of the total amount of magma emplaced into the crust during the breakup of Gondwana land, which saw the separation of Tasmania from Antarctica completed during the Eocene.

In the Tasmanian basin the dolerites usually occur as large stratiform or discordant sills and cone sheets sometimes with stacked interstratified sill connected by feeder dykes (Leaman 2002).

The dolerite at the Bell Bay project is a coarse to fine grained ophiolitic textured sill with an apparent dip of 10-15 degrees to the southwest. The dolerite is cut by a series of steeply dipping NW-SE, E-W and NE-SW trending faults, which compartmentalise to a significant degree the generally massive nature of the dolerite intrusion. The true thickness of the pre-eroded sill is not known though it is noted (Delta 2014) that the sill exceeds 170 metres as defined by drilling activities in 2009 & 2010.

Delta (Coffey Mining NI43-101 in 2010) reported surface mapping and orientated core measurements indicating that five joint trends occur within the

project area. Three of the joint trends parallel NW-SE, EW and NE-SW striking faults. The N-S joint trend was reported as being the dominant trend.

1.3 Licence Tenure & location

Exploration Licence 7/2015 is a single licence with a total area of 24km², located within the Tippogoree Hills in the northeastern Tamar Valley, Tasmania, Australia. The licence was granted to Pacific Basin Bluestone Pty Ltd by Mineral Resources Tasmania in August 2015, for a 5 year tenure ending August 2020. This annual reports and this relinquishment report cover the period between 18th August 2017 and October 2020.

The Bell Bay Coastal Quarry Project is located almost entirely within EL 7/2015 (25km²), with a smaller 2km² discontinuous tenement EL21/2012 making up the rest of the Project. Land title is partly privately owned freehold and partly State Forest. The freehold land is owned by Rio Tinto Alcan, who operate the Bell Bay aluminum smelter, located approximately 3km to the west. The State Forest portion falls within the Tippogoree Hills Forest Reserve and is managed by Forestry Tasmania.

Tasmanian Ports Corporation Pty Ltd (Tasports) currently hold a small 100m by 100m licence (ML 1117P/M) covering a dolerite outcrop named West Knob. West Knob is located approximately 500m east of Lauriston Reservoir and is now entirely surrounded by PBBs EL7/2015. Tasports have held the licence for approximately 12 years and originally established the small quarry to provide a nearby source of coastal armour rock for the Bell Bay port development and expansion at that time. The tenement has not been worked for a number of years and is currently the subject of an ongoing rehabilitation program. PBB viewed that then active quarry licence as a prospective opportunity to re-establish production from the still current ML prior to eventually expanding the quarry boundaries into the surrounding EL7/2015 following the formal approvals process.

2.0 REVIEW OF PREVIOUS WORK

The ground relating to the area covered by EL7/2015 has seen historical exploration by Delta Materials between 2009-2014 (EL6/2009 and EL4/2012).

Prior to Delta, the ground was held under Exploration Licence by Tasmanian Hardrock Pty Ltd (H. J. Larry Harrington) between 1990 and 1997 as part of that company's Exploration Licence 10/1990. Delta reported in 2014 that a search for historical exploration results for this EL had been unfruitful within the Mineral Resources Archives.

In 1997 two portions of the expired EL 10/1990 were converted to Retention Licences 2/1997 and 3/1997 and subsequently title to RL 3/1997, located between the north and south parts of Deltas split tenement 6/2009 and transferred to B3 - (Bell Bay Bluestone) Pty Ltd. In March 2012, Retention

Licence 3/1997 converted to an Exploration Release Area 887. Subsequently, Delta applied for the ERA and was granted EL4/2012.

Delta explored on EL 4/2012 up to late 2013 and in November 2013 relinquished the tenement citing in its relinquishment report the withdrawal of prospective project investors as its main reason for this. Delta continued on with EL 6/2009 however in February 2014 it relinquished the tenement and withdrew from the project entirely.

3.0 ACTIVITIES COMPLETED DURING THE PBB PERIOD OF OWNERSHIP

With a change of ownership completed in September 2016, the new owners concentrated the first years (2016-17) activities in assessing all available existing information from a desktop study perspective and applied this to current economic market conditions. As summary of these studies have been included in this report for completeness in the next section. The reader is referred to the 2017 PBB annual report for more detail and that report's appendix, which has the two desktop study reports undertaken by GHD Launceston attached.

Activities during 2017 to October 2020 included a 4 day site visit undertaken by the entire board of PBB. During this site visit the partially rehabilitated Tasports quarry was visited and surface (hand specimen) samples (several kg) taken from the quarry and surrounding EL7/2017 for sales & marketing to prospective customers and investors.

During its time in Tasmania the board of PBB also undertook to meet local quarry operators, civil/mining engineering groups and key representatives of Tasports Bell Bay operations. The latter meeting with Tasports was undertaken at the port of Bell Bay which included a tour and full briefing on what port berthing facilities would be available and what services Tasports could offer to PBB and its contractors for assistance in the export of armor rock and aggregate.

With the exception of the surface sampling undertaken by the technical members of the board, no further on or in ground exploration was undertaken within the reporting period.

Despite only a small amount of on-site activities being conducted for the period, PBB has been considerably active corporately in soft market sounding with prospective customers (discussed later in this report) and seeking a logistics chain operator to assist it in assessing with accuracy costs associated with the transport of material to Bell Bay port, stevedoring at Bell Bay as well as shipping to the mainland. That search for a logistics group resulted in what PBB believed was a cooperative agreement between PBB and International Linx Cargo Care Group being established. However despite several positive meetings and commitments from both sides the relationship never proceeded past several positive meetings discussing supply chain logistics.

Because of the low unit value and wide availability of construction materials, there has been no historical significant interstate or international trade of aggregates from Tasmania, although rising demand, decreased local (interstate) availability at key metropolitan centers and increasing quality and specification issues in Southeast Asia has raised interest in the opportunity to export hardrock from Tasmania.

Linx Cargo Care Group was to undertake its own set of calculations and estimations from which it said it planned to be able to provide PBB within 5-10% accuracy cost estimates to ship circa 200,000 tonnes per month to mainland ports it has favourable infrastructure in. However the results (which were deemed critical at the time to PBB) of these studies estimates, (if they were ever undertaken at all in-house at Linx), were never submitted to PBB.

3.1 Marketing & Approaches

During the period PBB had the project the Company had two key approaches from coastal engineers enquiring whether the Company would be in a position to be able to offer rock supply to projects located in Queensland from 2019 onwards.

The first of these projects was from a Gold Coast council marine engineer sounding PBB if the supply of 80,000m³ of armour rock blocks could be supplied in 2019-2020 to make a proposed artificial coastal reef.

The second enquiry came from a Brisbane based coastal marine engineer from a large reputable engineering firm sounding out PBB if the supply of armour rock would be possible to a large coastal port expansion in northern Queensland. That project was to be undertaken over a period of several years and supply circa 150,000 tonnes of high quality outer stone for new breakwaters.

Whilst the approach to PBB by these companies provided PBB with encouragement that should a coastal quarry have been successfully established a lucrative market for armour rock does certainly exist, orders would be too sporadic, and production would need to be in addition to conventional aggregate production for continuity of cash flow. This recognition of un-regular sporadic orders prevented prospective financiers embracing the commercial opportunity.

As PBB never received accurate cost estimates from Linx, PBB was not in a strong position to go out and seek future offtake supply agreements with prospective new customers.

3.2 The 2016-17 Studies Summary

In 2016 GHD Engineering undertook an Initial Study, which provided PBB with an increased understanding of the potential delivered cost to market and product prices at these locations. The scope of work included:

- Development of indicative extraction costs and processing operations

- Establishment of capability and potential capital expenditure to facilitate aggregate exports at Bell Bay
- Development of logistics costs (shipping and distribution costs) to identified potential markets of Sydney, Melbourne and Brisbane
- Analysis of the Dolerite resource at Bell Bay in terms of its market suitability
- Assessment of market competitiveness.

Based on the outcome of this Initial Study, potential market opportunities were identified for further investigation in subsequent more detailed studies and market sounding. A copy of the report is provided in the 2016-17 PBB Annual Report

In June 2016 following the delivery of the first report, the results of which are discussed in the 2017 Annual Report, a second report was commissioned. The purpose of the second report was to address the “Phase 1 Next Steps” identified in the first report “Preliminary Analysis Options for the potential processing and export of aggregates from Northern Tasmania” prepared by GHD in May 2016 which is considered the *Initial Study*.

This second report, was an extension of to the Initial Study work, and provided extended consideration of additional target markets, alternative product options and key changes to plant assumptions. Key further analysis included the following tasks:

- Brief investigation into the market, pricing and competitive position for both Auckland, New Zealand and Adelaide, South Australia
- Brief investigation into the market pricing and competitive position for Armour Rock and Gabion Stone
- Brief investigation into the market, pricing and competitive position for pre-casting coastal defence blocks and or concrete slabs
- A high level cost assessment of the change from owned plant to leased mobile crushing and screening equipment (limited to 5Mtpa)
- A high level description and assessment of the potential for, and resulting cost savings from the reconfiguration of the berth to a single loader operation
- Brief discussion on the potential gains and challenges associated with sourcing and installing a second hand transfer conveyor from the quarry to the ship loading terminal.

Linx Cargo Care Group was been given full access to these reports.

4.0 CONCLUSIONS

In October 2020 PBB relinquished its interests in its Bell Bay Quarry Project located on EL7/2015 and EL21/2012. The Company cites several reasons why the relinquishment decision was made including and not limited to recognising the sporadic unreliable market of niche quarry products, lack of interest from prospective financing groups, failure to secure off take arrangements and

strategic partners in the logistics and stevedoring arena.

Whilst relinquishment has occurred the Company does believe it has advanced the project considerably for the benefit of future operators. Key achievements include:

- The confirmation that an active armour rock market on the eastern seaboard, be it sporadic in nature in terms of supply and demand does exist
- Identifying potential future customers and recognising the need for these groups at the start.
- Identifying the critical need for prospective alliance/partnership groups with a large international bulk cargo specialists in stevedoring and shipping such as Linx Cargo Care Group
- Identifying through Linx initial market targets and ports
- For the first time an opportunity to look at and market aggregates through the brief establishment of the Linx relationship and that company's extensive Australian mainland and New Zealand port infrastructure.

The final terminal event, which led PBB to relinquish its assets, was the failure to attain accurate transport and logistics costs from Linx to allow market sounding of potential customers for future off takes. With the delivery of the new cost estimates PBB hoped to further strengthen the Linx-PBB relationship and sign an MOU with Linx and Tasports to work towards the acquisition of the Tasports quarry and its reopening.

5.0 ENVIRONMENT

Negligible physical exploration work was conducted by PBB on EL7/2015 and EL 21/2012 for the entire period PBB held the leases and therefore there has been nil surface disturbance, which would require rehabilitation. No fauna, flora, archaeological or scientific surveys were conducted during the entire reporting period.

6.0 EXPENDITURES

It is estimated a total of \$150,000 was expended on PBB for the entire holding period, including G&A. The bulk of that being expended on engaging GHD consultants for market and preliminary engineering assessments.

Other expenditures included a trip to site undertaken by the PBB board, a visit to the Bell Bay port Facilities as well as attend several meetings in the City of Launceston over the period of several days during the period.

Numerous meetings with Linx Cargo Care Group at a number of their Sydney addresses was made and other prospective partners as well as numerous meetings over several days marketing and attending prospective clients,

including meetings, conference calls and emails in Queensland and New South Wales was also undertaken by the Company.

7.0 REFERENCES

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