ASX ANNOUNCEMENT 5 OCTOBER 2023



# **BRIDGETOWN-GREENBUSHES LITHIUM ACQUISITION**

Horizon Minerals Limited (ASX: HRZ) ("Horizon" or "the Company") is pleased to advise that it has entered into a binding Share Sale Agreement ("SSA") with private company Charter Minerals Pty Ltd ("Charter" or "CMPL") for the acquisition of a 100% interest in two greenfield Lithium prospects near Bridgetown less than 20km from the world class Greenbushes Lithium Mine, Western Australia.

Horizon has also applied for five new Exploration Licences in proximity to the Charter tenements.

## HIGHLIGHTS

- Opportunistic, low cost assemblance of a significant ground position in one of Western Australia's most attractive and active lithium mining regions.
- Acquisition cost of \$75k in cash and 4 million ordinary HRZ shares, to Charter shareholders.
- The two acquired projects are granted Exploration Licences (E70/5980, E70/5981) located 5km north and 10km southwest of Bridgetown respectively and cover a total area of 33km<sup>2</sup>.
- E70/5980 and E70/5981 are situated along strike from the world-class Greenbushes mine, Albemarle Corporation tenements recently purchased from Lithium Power International (ASX: LPI) for \$30m cash<sup>1</sup> and Galan Lithium Ltd's (ASX:GLN) Greenbushes South project.
- Located within favourable geology and structure, particularly the regional ~20km-wide Bridgetown-Donnybrook shear zone which hosts the giant Greenbushes Sn-Ta-Li deposit and continues south for another 20km where it passes adjacent to E70/5981.
- Closer to Bridgetown, this shear zone also hosts the Smithfield pegmatite (Sn-Ta) field only 4km west of E70/5981. These pegmatites are up to 35m wide, with potential repetitions of these pegmatites on the newly acquired tenure being a priority exploration target.
- In addition, four small Exploration Licences (ELA's 70/6551-6554) have been applied for close to Bridgetown, covering a total of 15km<sup>2</sup>.
- Another tenement (ELA70/6555), covering approximately 214km<sup>2</sup>, has been applied for 40km northeast of Bridgetown. The tenement contains a number of historic and anomalous soil results that could be related to pegmatite intrusives.
- The Bridgetown-Greenbushes package has received little modern exploration and a process of data acquisition, compilation and review is being undertaken ahead of initial field work.

Commenting on the lithium acquisition, Chief Executive Officer Mr Grant Haywood said: 1

"We are very pleased to have acquired and pegged this prospective ground in a world class lithium province with strong potential for pegmatite-hosted lithium mineralisation. We continually assess opportunities to add value accretive projects to the business and moved quickly to secure this low cost opportunity when it presented. These projects build upside and diversification to our portfolio of gold and silver-zinc projects with minimal distraction from our current focus. We will progress these projects in parallel with our commitment to transitioning to a gold producer in early 2024, commencing from our Cannon underground gold project."

<sup>1</sup> See ASX announcement from ASX:LPI dated 19 June 2023. <sup>2</sup> See Forward Looking and Cautionary Statements on Page 11.

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# Overview

Horizon Minerals Limited (ASX: HRZ) ("Horizon" or "the Company") is pleased to advise that it has entered into a binding Share Sale Agreement (SSA) with private company Charter Minerals Pty Ltd ("Charter" or "CMPL") for the acquisition of a 100% interest in two Bridgetown-Greenbushes Lithium Tenements, located north and southwest of Bridgetown and less than 20km from the world class Greenbushes Lithium Mine, in the south of Western Australia. The Company has also applied for five Exploration Licences in proximity to the Greenbushes Lithium Mine and near Bridgetown in addition to the Charter tenements (Figures 1 and 2).

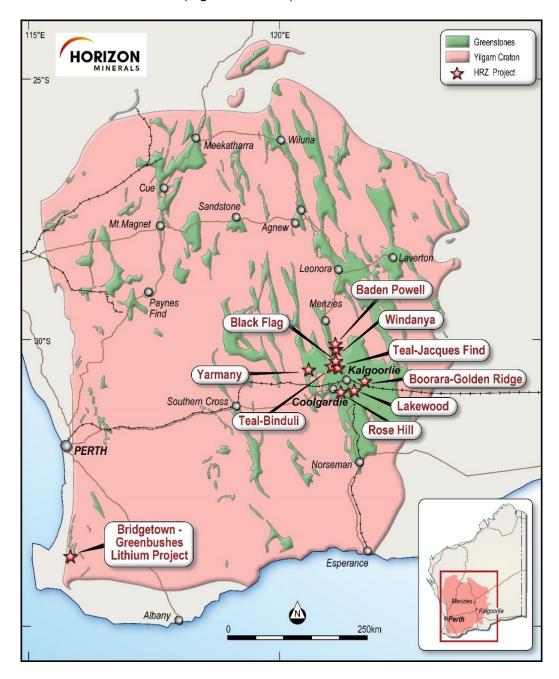


Figure 1: Horizon's Projects Location Map



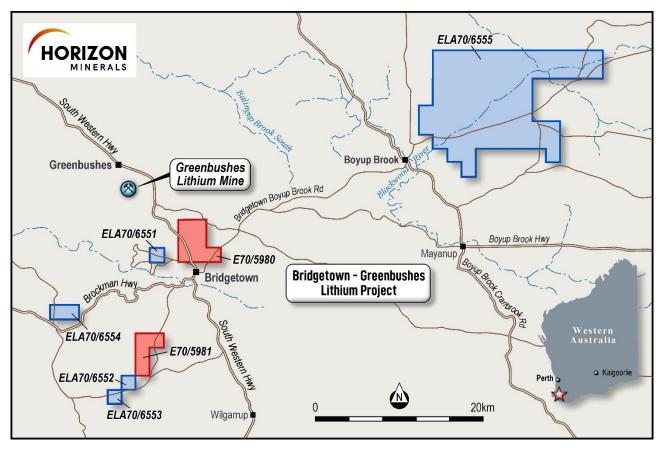


Figure 2: Horizon's Bridgetown-Greenbushes Project Location Plan

The Bridgetown-Greenbushes prospects are found within the Balingup Metamorphic Belt which has been intruded by numerous pegmatite dykes including the Greenbushes pegmatite. Greenbushes is also closely related to the regional Bridgetown-Donnybrook shear zone which extends through E70/5981 and offers enhanced prospectivity (Figure 3). The Greenbushes region in general has been subject to increased levels of exploration due to the lithium boom over the last few years.

The prospect areas acquired and pegged are considered early stage as very little historic exploration work for lithium or pegmatites has been undertaken, despite the interpreted prospectivity. Typical of the southwest area, the tenure contains a high level of land use (e.g. farming, state forest and various infrastructure) and requires careful land management and community engagement. Other companies operate under similar environments and conditions in the Bridgetown-Greenbushes district.

Horizon remains firmly focussed on the Kalgoorlie assets and advancing the Cannon underground mining development and committing to our Kalgoorlie exploration. The Bridgetown-Greenbushes opportunity presented as an exciting, low cost addition to our multi-commodity portfolio requiring minimal change from our current strategic focus. It is also consistent with the Company's business model of regularly reviewing its portfolio and acquiring value accretive and/or highly prospective projects when they become available.



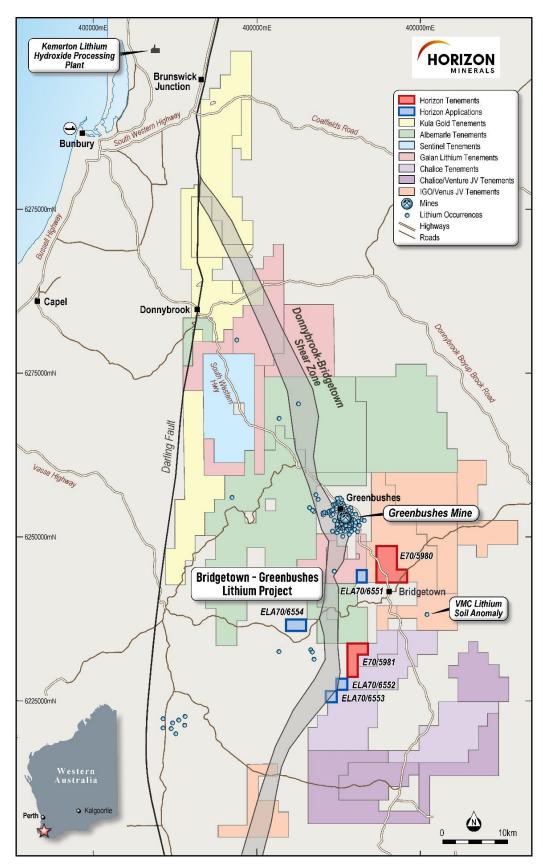


Figure 3: Regional Tenement Map <sup>1</sup>

<sup>1</sup> Modified from Kula Gold Limited (ASX:KGD) ASX announcement "Corporate Presentation" dated 11 September 2023.



# **Background Information - Regional Geology**

The Greenbushes district lies within the NNW-SSE trending, 15 to 20km wide Donnybrook-Bridgetown shear zone which has a strike length of ~150km within the Balingup Metamorphic Belt, located near the southwestern margin of the 3100 Ma Western Gneiss Terrane. This terrane forms the southwestern corner of the Yilgarn Craton and is one of four main divisions that make up the craton. Greenbushes is one of the largest, rare metal pegmatite deposits in the world.

The Balingup Metamorphic Belt has limited exposure, being largely obscured by tertiary sediments and laterite. The Donnybrook-Bridgetown shear zone and the Balingup Metamorphic Belt are both truncated to the west by the Darling Fault and Phanerozoic rocks of the Perth Basin. To the south, the metamorphic belt is bounded by the Proterozoic Albany- Fraser Mobile Belt, and to the east by the Hester Lineament. It extends as far north as the Loguebrook Granite, where it is truncated by intrusions of the Darling Range Batholith.

The Donnybrook-Bridgetown shear zone is an ancient structure, characterised by steeply dipping mylonitic textures, horizontal stretching lineations, assymetric folds and evidence of sinistral strikeslip movement. It corresponds to a sequence of sheared gneiss, orthogneiss, amphibolite and migmatite outcrops along the trace of the lineament. A series of syn-tectonic granitoid intrusives also occur within the Balingup Metamorphic Belt, elongated along the Donnybrook-Bridgetown Shear Zone. The Greenbushes pegmatites have been dated at ~2525 and 2610 to 2589 Ma, and appear to be intruded during shearing, thereby accounting for the fine grain size and internal deformation. They contain the same fabric as the shear zone and exhibit evidence of syntectonic crystallisation of minerals such as tourmaline, tantalite, garnet and cassiterite.

The pegmatites have also been affected by subsequent deformation and/or hydrothermal recrystallisation, the last episode of which has been dated at ~1100 Ma. The principal country rock enclosing the pegmatites include dioritic gneiss, which appears to be basement to Archaean greenstone-like sequences of fine-grained amphibolite and associated banded iron-formation, ultramafic schist, coarse-grained amphibolite and felsic massive to banded paragneisses, which are termed 'granofels' by the Geological Survey of Western Australia.

The main pegmatite body at Greenbushes strikes NNW and dips variably from 30 to 70° towards the WSW. It has a strike length of ~3km and 300m width. Its syn-tectonic development has produced variable poorly to well-developed mylonitic fabrics, particularly along host rock contacts, with low strain zones preserving primary igneous textures, whilst highly strained domains exhibit recrystallised and mylonitic fabrics. Other pegmatites are also 2 to 3km in length and 10 to 300m in thickness, and persist to at least 500m depth, with a 40 to 50°W dip, all within a 7 x 1km, north-south elongated, enveloping zone.

In general, the hanging wall of the main pegmatite is an amphibolite, whereas the footwall is granofels. The amphibolites and dolerites ('greenstones') contain occasional stringers and pods of sulphides such as pyrite, pyrrhotite and chalcopyrite. Arsenopyrite and arsenolamprite (native arsenic) are ubiquitous in some areas, particularly within granofelsic and amphibolitic inliers in the main pegmatite. Some of the granofels is distinctly garnetiferous.



# Local Geology

The Bridgetown-Greenbushes Project lies within the Balingup Metamorphic Belt (a sub-division of the Western Gneiss terrane), which consists mainly of metasedimentary rocks comprising interlayered quartzite, quartz-mica schist, banded quartz-feldspar-biotite-garnet gneiss and banded iron formations, together with minor quartzofeldspathic gneiss, amphibolite, calcsilicate gneiss and ultramafic rock.

The tenure is underlain almost exclusively by granite-gneiss of the Southwest Terrane, according to the GSWA interpretation. Magnetics and radiometrics support this interpretation, with limited evidence of major mafic-ultramafic intrusions within the tenure areas. The regolith is very mature, with deep lateritic weathering, and younger Tertiary sediments and aeolian deposits are reported to occur on top of this as well.

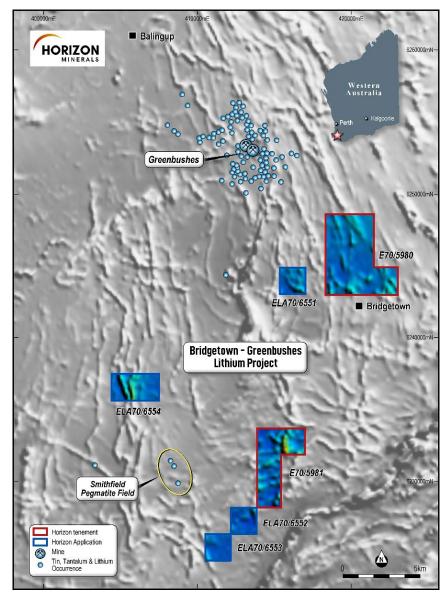


Figure 4: Magnetic image of the Bridgetown-Greenbushes Area



# **Previous Exploration**

## 1.0 Pegmatites

During the past 10 years, exploration for pegmatites and associated mineralisation was sporadic and achieved little success, being hampered by unexposed pegmatites obscured by thick lateritic crusts and recent alluvial deposits. More recently, some companies have reported encouraging targets generated via high-resolution aeromagnetic data and geochemical sampling of laterites, the latter using indicator minerals to detect potential lithium-bearing pegmatites.

## 2.0 Base metals

Mafic and ultramafic complexes in the Bridgetown and Yornup areas were explored in the 1960s and '70s for base metals, with a focus on nickel. From the 1990s to the present day, exploration activity picked up, with Pancontinental Mining Limited, Teck Cominco, BHP Billiton and Hampton Hill Mining using various airborne, ground and downhole electromagnetic surveys to explore for sulphide-hosted base-metal deposits.

## 3.0 Gold

Gold exploration was mostly concentrated on an area running south from Donnybrook to Nannup and immediately east of the Darling Fault – targeting the repetition of auriferous quartz reefs within the Donnybrook sandstone. Gold-bearing reefs near Donnybrook were mined for a short time from 1897.

#### 4.0 Bauxite

Vam Limited and others held large areas of the southwest under tenure in the early part of the 1960s and '70s and were actively evaluating the area for economic bauxite deposits. However, the bauxite was judged to be too thin and inconsistent for exploitation. More recently, the Bauxite Alumina Joint Venture between Bauxite Resource Limited and Yankuang Resources Limited has undertaken extensive drilling on bauxite occurrences in the Nannup and Boyup Brook areas.

#### **Exploration Potential**

Based on a combination of geological environment and structural setting, the Project area is regarded by Horizon as highly prospective for pegmatite-hosted lithium mineralisation. Small pegmatites have been noted in close proximity (just 4km) west of E70/5981 at Donovans Find which is part of the Smithfield pegmatite area (Figure 4). These pegmatites were discovered in 1907 with several alluvial Sn-Ta occurrences noted<sup>1</sup>.

The continuation of the Bridgetown-Donnybrook shear zone from Greenbushes southwards adjacent to E70/5981 is encouraging. International lithium companies Albermarle Corporation and Galan Lithium Ltd own the majority of the tenure along the shear zone between E70/5981 and Greenbushes (Figure 3). The recent Albemarle transaction to secure tenements from Lithium Power International (ASX: LPI) was \$30m cash<sup>2</sup>.

<sup>&</sup>lt;sup>1</sup> Guidebook to the Pegmatites of Western Australia, 2007, P218-219. <sup>2</sup> See ASX announcement from ASX:LPI dated 19 June 2023.



Horizon also notes the Venus Metals and Independence Group's Bridgetown East joint venture project where a strong 300m x 400m lithium in soils<sup>1</sup> has been delineated within similar geology 5km to the southeast of E70/5980 (see Figure 3).

## Next Steps <sup>2</sup>

The new prospects are very early stage however conceptually demonstrate good prospectivity. Horizon is currently reviewing and compiling all historic GSWA literature around Bridgetown and intends to fast track the lithium exploration potential and complete a reconnaissance sampling and mapping program this quarter. A land management specialist will be appointed to help facilitate community and government stakeholder engagement.

# Authorised for release by the Board of Directors

## For further information, please contact:

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<sup>1</sup> VMC ASX announcement 9 March 2022 "Bridgetown East Project New Strong Lithium Anomaly in UF Soil Identified Southeast of Greenbushes Lithium Mine". <sup>2</sup> See Forward Looking and Cautionary Statements on Page 11.

| Project               | Cutoff | Measured |        |        | Indicated |        |         | Inferred |        |         | Total |        |           |
|-----------------------|--------|----------|--------|--------|-----------|--------|---------|----------|--------|---------|-------|--------|-----------|
|                       | Au g/t | Mt       | Au g/t | Oz     | Mt        | Au g/t | Oz      | Mt       | Au g/t | Oz      | Mt    | Au g/t | Oz        |
| Boorara OP            | 0.5    | 1.28     | 1.23   | 50,630 | 7.19      | 1.27   | 294,140 | 2.6      | 1.3    | 103,470 | 11.03 | 1.26   | 448,240   |
| Golden Ridge          | 1.0    |          |        |        | 0.47      | 1.83   | 27,920  | 0.1      | 1.7    | 2,800   | 0.52  | 1.82   | 30,720    |
| Golden Ridge<br>North | 0.8    |          |        |        | 0.65      | 1.15   | 24,260  | 0.77     | 1.30   | 32,340  | 1.42  | 1.23   | 56,600    |
| Cannon UG             | 1.0    |          |        |        | 0.19      | 4.80   | 28,620  | 0.1      | 2.3    | 3,450   | 0.23  | 4.29   | 32,070    |
| Monument              | 0.8    |          |        |        |           |        |         | 0.39     | 1.97   | 25,000  | 0.39  | 1.97   | 25,000    |
| Pennys Find           | 1.5    |          |        |        | 0.20      | 5.45   | 35,000  | 0.1      | 3.6    | 8,000   | 0.27  | 4.99   | 43,000    |
| Kalpini               | 0.8    |          |        |        | 1.40      | 2.43   | 108,000 | 0.5      | 2.0    | 31,000  | 1.87  | 2.33   | 139,000   |
| Rose Hill UG          | 2.0    |          |        |        | 0.33      | 4.50   | 47,100  | 0.2      | 4.8    | 27,800  | 0.51  | 4.60   | 74,900    |
| Rose Hill OP          | 0.5    | 0.19     | 2.00   | 12,300 | 0.09      | 2.00   | 6,100   |          |        |         | 0.29  | 2.00   | 18,400    |
| Jacques-Peyes         | 0.8    |          |        |        | 0.97      | 2.59   | 81,000  | 0.8      | 2.0    | 49,000  | 1.74  | 2.32   | 130,000   |
| Teal                  | 1.0    |          |        |        | 1.01      | 1.96   | 63,680  | 0.8      | 2.5    | 64,460  | 1.81  | 2.20   | 128,140   |
| Crake                 | 0.8    |          |        |        | 1.33      | 1.47   | 63,150  | 0.1      | 1.3    | 3,300   | 1.42  | 1.46   | 66,450    |
| Coote                 | 1.0    |          |        |        |           |        |         | 0.4      | 1.5    | 21,000  | 0.42  | 1.54   | 21,000    |
| Capricorn             | 0.5    |          |        |        |           |        |         | 0.7      | 1.2    | 25,500  | 0.70  | 1.20   | 25,500    |
| Baden Powell          | 0.5    |          |        |        |           |        |         | 0.6      | 1.2    | 23,000  | 0.60  | 1.20   | 23,000    |
| Total                 |        | 1.47     | 1.33   | 62,930 | 13.83     | 1.75   | 779,000 | 8.16     | 1.60   | 420,120 | 23.22 | 1.69   | 1,262,000 |

# Horizon Minerals Limited – Summary of Gold Mineral Resources

# Confirmation

The information in this report that relates to Horizon's Mineral Resources estimates is extracted from and was originally reported in Horizon's ASX announcements "Intermin's Resources Grow to over 667,000 Ounces" dated 20 March 2018, "Rose Hill firms as quality high grade open pit and underground gold project" dated 8 December 2020, "Updated Boorara Mineral Resource Delivers a 34% Increase In Gold Grade" dated 27 April 2021, "Penny's Find JV Resource Update" dated 14 July 2021, "Updated Crake Resource improves in quality" dated 7 September 2021, "Jacques Find-Peyes Farm Mineral Resource update" dated 15 September 2021 and "Kalpini Gold Project Mineral Resource Update" dated 28 September 2021, each of which is available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings in relation to those Mineral Resources estimates or Ore Reserves estimates have not been materially modified from the original market announcements.

# Horizon Minerals Limited – Summary of Silver / Zinc Mineral Resources

Nimbus All Lodes (bottom cuts 12g/t Ag, 0.5% Zn, 0.3g/t Au)

| Category           | Tonnes | Grade    | Grade    | Grade  | Ounces   | Ounces         | Tonnes     |
|--------------------|--------|----------|----------|--------|----------|----------------|------------|
|                    | Mt     | Ag (g/t) | Au (g/t) | Zn (%) | Ag (Moz) | Au<br>('000oz) | Zn ('000t) |
| Measured Resource  | 3.62   | 102      | 0.09     | 1.2    | 11.9     | 10             | 45         |
| Indicated Resource | 3.18   | 48       | 0.21     | 1.0    | 4.9      | 21             | 30         |
| Inferred Resource  | 5.28   | 20       | 0.27     | 0.5    | 3.4      | 46             | 29         |
| Total Resource     | 12.08  | 52       | 0.20     | 0.9    | 20.2     | 77             | 104        |

Nimbus high grade silver zinc resource (500g/t Ag bottom cut and 2800g/t Ag top cut)

| Category           | Tonnes | Grade    | Grade  | Ounces   | Tonnes     |
|--------------------|--------|----------|--------|----------|------------|
|                    | Mt     | Ag (g/t) | Zn (%) | Ag (Moz) | Zn ('000t) |
| Measured Resource  | 0      | 0        | 0      | 0        | 0          |
| Indicated Resource | 0.17   | 762      | 12.8   | 4.2      | 22         |
| Inferred Resource  | 0.09   | 797      | 13.0   | 2.2      | 11         |
| Total Resource     | 0.26   | 774      | 12.8   | 6.4      | 33         |

# Confirmation

The information is this report that relates to Horizon's Mineral Resources estimates on the Nimbus Silver Zinc Project is extracted from and was originally reported in Intermin's and MacPhersons' ASX Announcement "Intermin and MacPhersons Agree to Merge – Creation of a New Gold Company Horizon Minerals Ltd" dated 11 December 2018 and in MacPhersons' ASX announcements "Quarterly Activities Report" dated 25 October 2018, "New High Grade Nimbus Silver Core Averaging 968 g/t Ag" dated 10th May 2016 and "Nimbus Increases Resources" dated 30th April 2015, each of which is available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings in relation to those Mineral Resources estimates have not been materially modified from the original market announcements.

# Forward Looking and Cautionary Statements

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results to differ from estimated results and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain any additional mine licenses, permits and other regulatory approvals required in connection with mining and third party processing operations, competition for among other things, capital, acquisition of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rate, currency and interest fluctuations, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward looking statements will prove to be correct.

Statements regarding plans with respect to the Company's mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code (2012) where applicable and the current ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward-looking statements in the announcement, including with respect to any production targets and financial estimates, based on the information contained in this and previous ASX announcements.