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Metalstocks Australia Pty Ltd and Rockwise Pty Ltd
Decorative Gravel Project

First Annual and Final Report for:

**Exploration Licence
21/2014, Emu River**

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SUMMARY

Reconnaissance mapping of roads and existing pits and cuttings south of Hampshire in Mount Read Volcanics (MRV) was aimed at identifying coloured rocks suitable for input as a high value aggregate into the decorative gravel market. The Emu River area was targeted as a potential source of green aggregate and was originally identified as a result of discussions with Mineral Resources Tasmania geologists. In addition to mapping, samples were collected from existing road base and tested for size and density. No coloured rock of suitable quality was located in the licence area and a decision has been made to relinquish the area in favor of more prospective ground available further south.

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INTRODUCTION

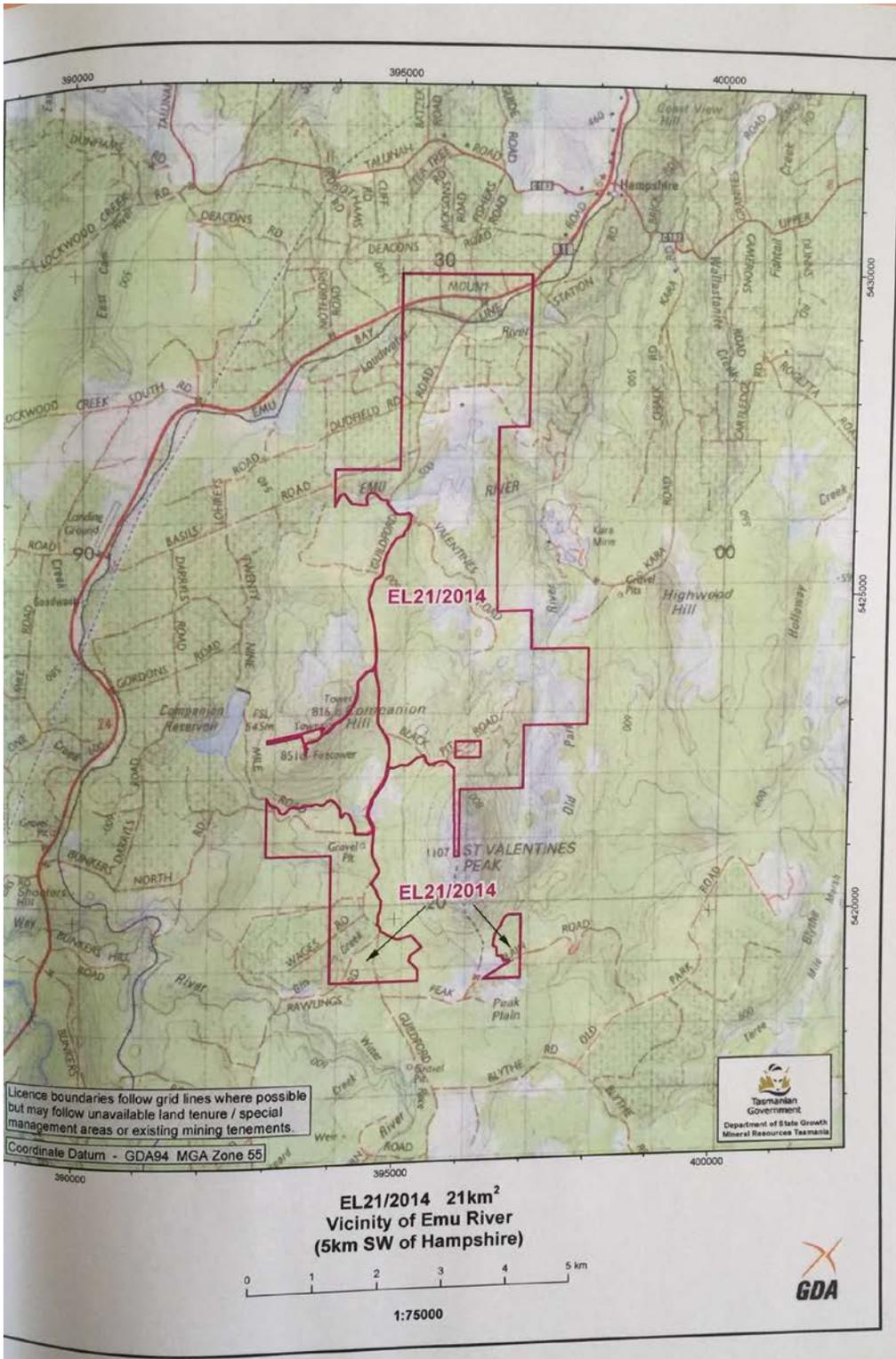
Tasmania is ideally placed to supply the local, national and, possibly, the international market with decorative gravel. This is because Tasmania has;

1. A unique geology and, hence, rock diversity not easily duplicated on the mainland, and
2. access to ports whereby material can be cheaply and efficiently shipped to Pacific Ports.

Discussions with Mineral resources Tasmania geologists indicated MRV rocks in the Emu River area to have been altered (possibly through interaction with nearby Devonian age granites) to produce a distinct green colour. The Emu River area is located only 35km south of the port of Burnie and so is readily accessible to mainland markets.

An exploration licence covering 21 sq km was applied for and granted to Metalstocks Australia Pty Ltd and Rockwise Pty. Ltd. on the 30th January 2015.

The objective of the exploration licence was to identify and assess whether rock available in the licence area was suitable for its intended market, and could be processed and transported to market at profit. If the material proved suitable then the aim was to progress to approval for a bulk sample prior to application for conversion to a mining lease.



The tenement is located about 35km south of Burnie. Access to the tenement area is by a network of existing forestry roads and tracks.

REVIEW OF PREVIOUS WORK

The area has been extensively disturbed as a result of forest operations. The area is also currently the subject of regional exploration for iron, tungsten and other minerals related to intrusion of nearby Devonian granite.

There is no known history of exploration for gravels derived from hard rock sources.

EXPLORATION COMPLETED

Significant time has been spent gaining access to the land. The land largely comprises the Surrey Hills forest estate, now administered by Forico. Forico took over the property from Gunns.

Forico originally requested through MRT that applicants wishing to access its lands pay a fee to cover processing and administration costs. MRT engaged in discussions with Forico on this issue and requested on several occasions that Independent geologist delay submission to Forico of Notice to Enter Private Land. A number of meetings with MRT ensued, with the matter ending up before the Director.

IG ultimately contacted Forico directly and found them to be extremely accommodating. No requests for fees were made by Forico and land access permits to the Surrey Hills estate were issued without delay.

Several site visits were made to the Emu River licence. Work completed has only been of a reconnaissance nature, comprising road traverses and existing quarry and pit visits.

Results

On entering the front gate at Surry Hills, it was immediately noted that Forico were using a green rock of Cambrian origin to sheet their roads. This rock is a striking pale green and its use as a road base indicated its suitability (hardness) as a decorative aggregate.

Unfortunately, the origin of the gravel being used by Forico was unknown. Forico personnel were asked but were unable to tell us the origin of the rock, possibly (we think) because of the transition from Gunns to Forico and loss of corporate knowledge in the transition.

The green colour of the rock used on the roads was inferred to indicate proximity to the nearby Devonian Housetop granite. It was thought that the Housetop had interacted with a calcareous Cambrian unit. This model indicated that the source of the green rock had to be in the licence area as the licence area covered all Cambrian rocks in contact with, or near to, the Housetop granite.

Rocks within the licence area were subsequently examined along roads and in existing quarries and pits. None of these quarries or pits contained the green rock. Frustratingly, nearly all contained remnant stockpiles of the green rock being used to repair and sheet the surrounding forest roads.

Some laminated greenish-coloured rock was located in road cuttings south of the Emu River. Unfortunately, this rock is different to that being used on the roads and is also too dark in colour to be suitable as a decorative aggregate.

Although its origin remained uncertain, hand samples of green rock road base were collected, crushed and screened to assess bulk density (for transport purposes and to estimate tonnage per cubic meter for bulk sales). Subjective assessments were also made as to the shape and hardness of the aggregate, and the effect this might have on machinery wear and marketability.

Crush samples have been shown to various retail outlets in Melbourne and Hobart for comment. The response was generally very positive.

As to the origin of the green rock? It turned out that the green rock was located in a quarry several kilometers south of EL21/2014. The rock is probably not the result of contact metamorphism with the Housetop granite, but is instead a hydrothermally altered tuffaceous unit in possible proximity to a Cambrian porphyry. The crushed material appears to have been there for some time but is currently being utilised by Forico (under a small ML) for road repairs.

A decision has been made to relinquish the current Emu River licence in favour of a smaller and more focused licence covering the Two Hummocks area.

Processing Information

Approximately 20kg of green rock was collected for crush testing. The way a rock crushes affects the volume of a sized or screened product available for sale.

Importantly, the crushed rock described here does not originally come from within the current licence area. It was (however) collected from roads within the licence area.

The following figures should be regarded as estimates only and will vary depending on equipment used. The rocks tested here were crushed using a laboratory jaw-breaker, and then hand screened.

Testing was conducted to indicate;

- the viability of transporting uncrushed product vs using a transportable crushing plant.
- the size distribution of crushed rock product for a machine set to produce a ~20mm coarse aggregate.

Sample sizes processed (kg)

Crush weights	Description	<6mm	6 to 12.5mm	>12.5mm	Total
	Green volcanoclastic sandstone	2.6kg (15.34%)	2.8kg (16.52%)	11.6kg (68.4%)	16.95kg

Bulk densities

Density was estimated by weighing the sample in air (WIA) and in water (WIW) and then using the results to calculate density (ie $WIA/[WIA-WIW]$).

NOTE:

Bulk density variations between rocks and between crush size is strongly influenced by particle proportions.

Bulk density is estimated at 2.8 (as an average of 2.8, 2.76, 2.91)

Rehabilitation

Hand samples only were collected during the course of site inspections. There has been no land disturbance.

No rehabilitation is required.

Expenditure

Accumulated expenditure to date is \$12,150.

Expenditure has been incurred within the first year of the licence consistent with a commitment of \$20,000 for the first 2 years of the licence.

DISCUSSION

The aggregate taken from the roads was well received by landscape suppliers and could probably attract a premium price relative to other materials on offer.

CONCLUSIONS

While the green rock is well suited to the intended market, it is not originally sourced from within the licence area. It is recommended that no further work is done and that the licence be relinquished.