

Cresswells Transport Pty Ltd

EL 1/2011 – Eddy Creek

Year 3 Annual/Final Report

**Ken Morrison
December 2014**

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Summary

No further exploration work is needed to support development of a quarry on the Eddy Creek dolomite resource. A Mining Lease and Development Applications have been issued and it is expected that all further grade control, feasibility and environmental studies will be conducted within the area of ML 2M/2013.

No exploration was conducted on EL 1/2011 during licence Year 3 and this report is intended to satisfy requirements for both the Annual Report and the Final Report.

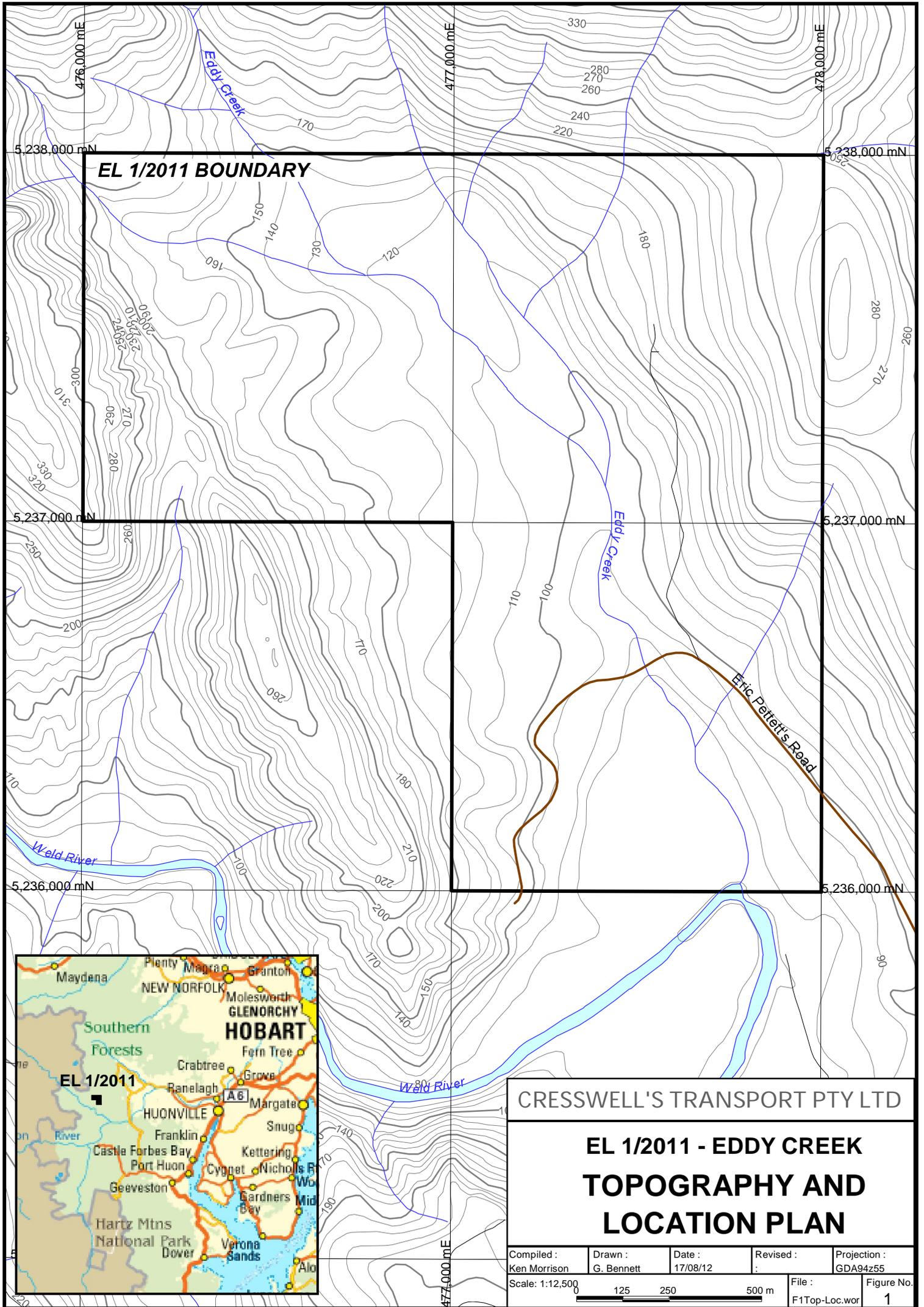
Introduction and Tenement Information

EL 1/2011 is a 3 km² Category 3 and 5 exploration licence in the Weld Valley, southern Tasmania (Figure 1). The primary purpose of the EL is to explore for a resource of dolomite suitable for agricultural and metallurgical applications.

Land tenure is entirely State Forest and vehicle access to the area is via the all weather gravel logging road, Eric Pettetts Road, which heads north from Eddy Road and enters the southeastern part of EL 1/2011 from the east (Figures 1 & 2). Parts of some recently active logging coupes occur within the EL but the area of active exploration is covered by a relatively low density forest type with a canopy of regrowth stringy bark eucalypts and tall dogwoods.

EL 1/2011 coincides with a portion of the State Forest which was classed as Informal Reserve during the period of active exploration and which was subject to the Intergovernmental Agreement relating to Tasmanian forests and forestry industries. Final decisions by State Government on the boundaries of possible new World Heritage areas are currently being finalised.

Figure 3 shows the 50 hectare mining lease area (2M/2013) which is part of the permitting required by the Company to progress from exploration to mining, following the results of exploration work. It is likely that future exploration and feasibility studies will be restricted to the ML.

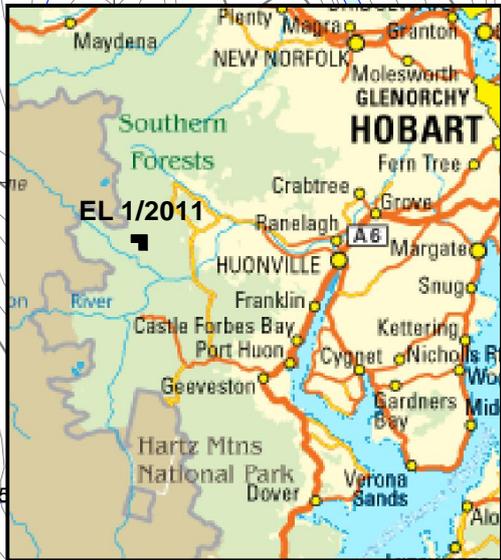
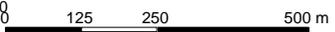


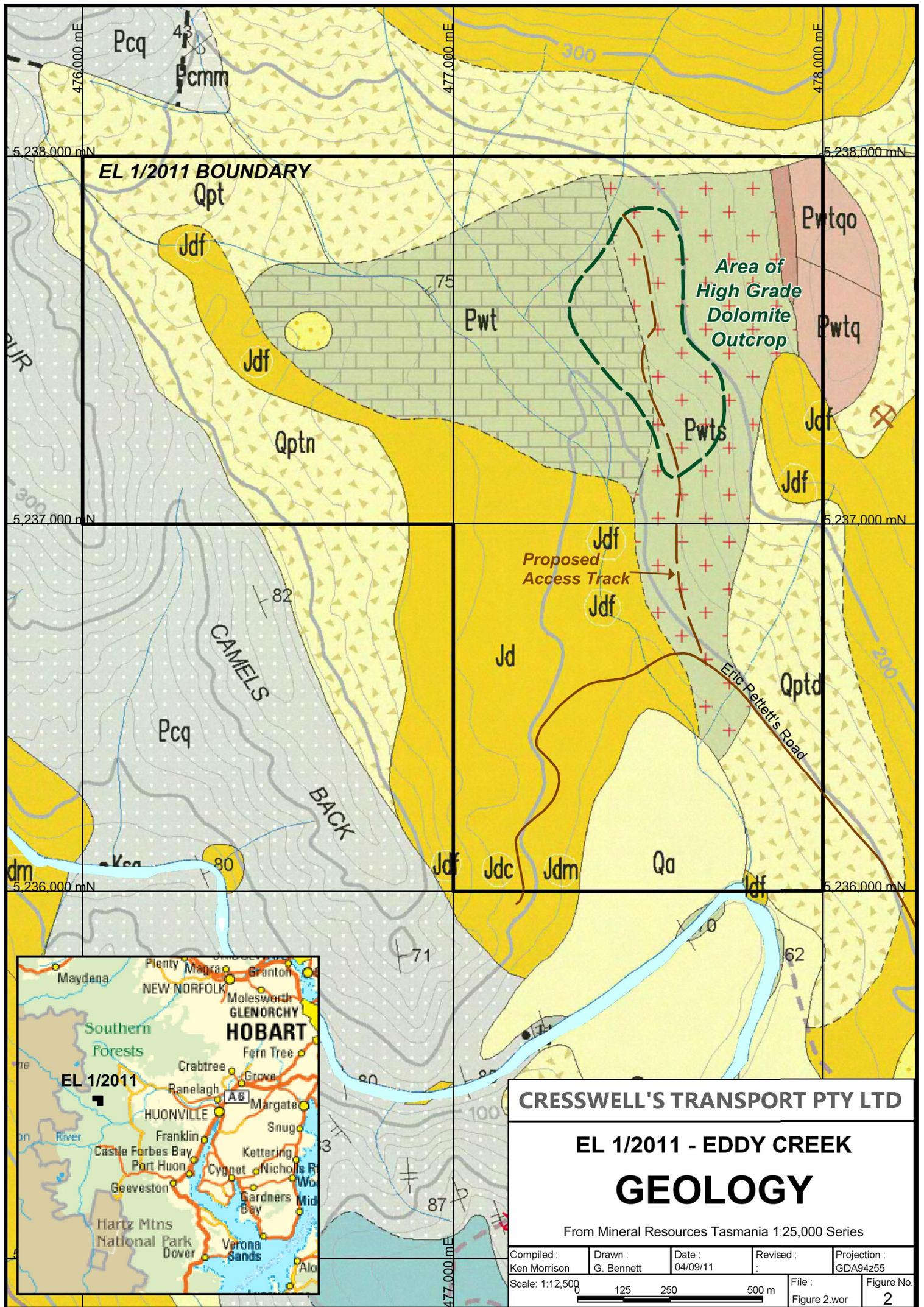
EL 1/2011 BOUNDARY

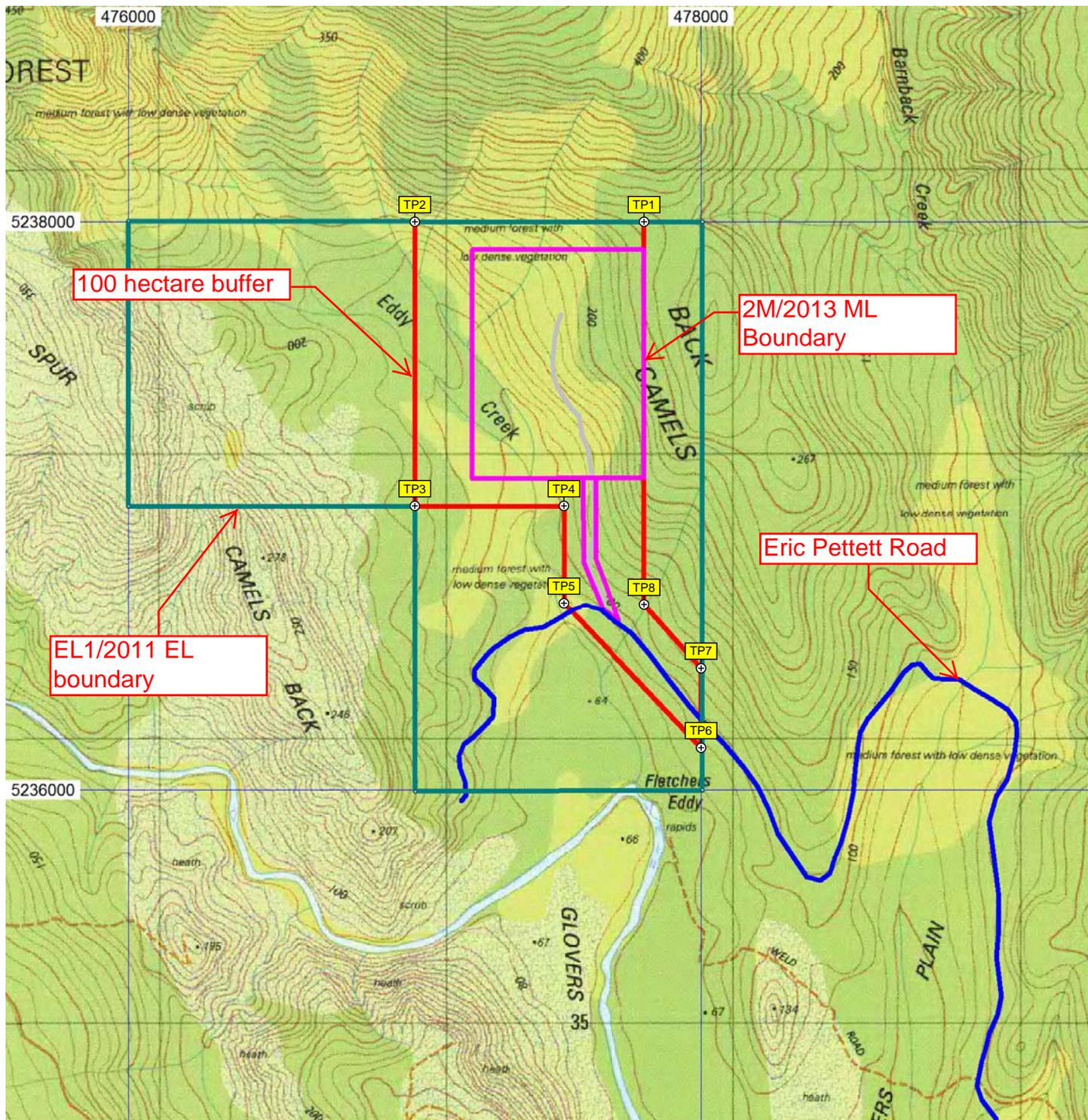
CRESSWELL'S TRANSPORT PTY LTD

**EL 1/2011 - EDDY CREEK
TOPOGRAPHY AND
LOCATION PLAN**

Compiled : Ken Morrison	Drawn : G. Bennett	Date : 17/08/12	Revised : :	Projection : GDA94z55
Scale: 1:12,500			File : F1Top-Loc.wor	Figure No. 1







Australian Geocentric 1994 (GDA94)

Datum	Point	Zone	East	North		
WP	UTM	TP1	55G	477800	5238000	TP - 13/03/2013 8:03:08 AM
WP	UTM	TP2	55G	477000	5238000	TP - 13/03/2013 8:03:13 AM
WP	UTM	TP3	55G	477000	5237000	TP - 13/03/2013 8:03:18 AM
WP	UTM	TP4	55G	477520	5237000	TP - 13/03/2013 8:03:21 AM
WP	UTM	TP5	55G	477520	5236655	TP - 13/03/2013 8:03:28 AM
WP	UTM	TP6	55G	478000	5236150	TP - 13/03/2013 8:03:34 AM
WP	UTM	TP7	55G	478000	5236430	TP - 13/03/2013 8:03:38 AM
WP	UTM	TP8	55G	477800	5236655	TP - 13/03/2013 8:03:41 AM

2M/2013 - Eddy Creek Dolomite Quarry - Cresswell's Transport Pty Ltd
 Proposed 100 hectares to be excised from World Heritage Area nomination.
 Date: 13/03/2013 Drawn: BW

Figure 3 Eddy Creek Project Tenure Map

Regional Geology Setting

Figure 2 shows the regional scale geology within the EL, extracted from the Mineral Resources Tasmania 1:25,000 series Weld Sheet. The target rocks are Neoproterozoic Weld River Group, steeply ENE dipping dolostone and skarn altered dolostone (Bottrill et al, 1999, Calver, et al, 2006, Calver and Everard, 2014), which are exposed in the valley of Eddy Creek due to a window through the surrounding Jurassic dolerite and derived Quaternary dolerite talus. The main prospect is on the eastern side of the Eddy Creek valley, in the area where unaltered dolostone grades to calc silicate skarn. The results of drilling (see Year 2 Annual Report, Morrison, 2013) indicate that the carbonates also grade vertically at depth to calc silicate skarn, suggesting that dolerite underlies the prospect.

Exploration Philosophy and Aims

Cresswells Transport Pty Ltd is a Deloraine based family company operating several gravel and rock quarries and trucking bulk commodities around Tasmania, including crushed limestone and lime for use as an agricultural soil conditioner and slow release pH moderator. At present all crushed carbonate rock and manufactured lime is sourced from the north and northwest of the State and transport cost to the south of the State is a serious impediment to fully utilizing the benefits of these products in the rapidly increasing high value cropping and horticulture industries.

In 2010 a search commenced for a potential quarry site in southern Tasmania, on combined geological, logistical and environmental criteria. The occurrence of Proterozoic dolostone centered on Eddy Creek in the Weld Valley in an area of logging coupes administered by Forestry Tasmania from Geeveston was prioritised. Exploration Licence 1/2011 was applied for in January 2011 and granted in August 2011. Exploration results to date support the concept and have demonstrated the existence of a resource of dolomitic carbonate rock, with the appropriate specifications required by the market.

Summary of Previous Exploration

No record of exploration specifically for dolomite, dolostone or limestone in the area covered by EL 1/2011 has been found. Skarn facies of the dolostone, altered to calc silicate and chalcedonic/jaspoidal silica rocks in the far northeast corner of the EL (Figure 2), attracted some geochemical sampling as part of a gold exploration program centred on the Forster prospect, south of the Weld River (Bottrill et al, 1999). The Forster prospect was explored between 1984 and 2010, by Metals Exploration Ltd, Pegasus Gold Australia Ltd and Sedimentary Holdings NL and their results are documented in EL annual reports held in the Mineral Resources Tasmania Open File library.

EL 1/2011 Year 1 Results

A target area of prospective geology was outlined by mapping and rock chip sampling and a drilling access track was established through the middle of the prospect. The

prospective area (Figure 2) was defined by mapping outcrop of acid reactive (15% by volume HCl) carbonate rock, in a location and topographic setting favourable for quarrying. Assays confirmed that the carbonate concentration and composition of surface exposures at Eddy Creek is equivalent to agricultural dolomite currently commercially available in Tasmania (Morrison, 2012). A Year 2 drilling program was designed to test the resource depth potential.

EL 1/2011 Year 2 Results

(repeated with minor modification from Year 2 Annual Report, Morrison, 2013.)

Mapping

Figure 4 shows the current status of mapping. The aim has been to define an area of outcropping high carbonate-low silica rock as far as possible away from known karst features, and at a location where the topography is favourable for quarrying, road access development and effective control of ground water and sediment which may result from run of mine activity.

Two simple criteria were applied during mapping to partition outcrop classed as carbonate from outcrop classed as skarn; recognizable primary layering/bedding and acid fizz when 15% HCl is applied to a freshly prepared surface. Assays on rock chip samples taken from outcrop during licence Year 1 (Morrison, 2012) had shown that this method is a reliable field indicator for “ore grade” dolomite.

There is very high potential for additional high grade dolomite, to the north and north west of the current resources area, but there are environmental issues related to karst features and the Eddy Creek drainage system which add risk to incorporating additional resource definition into the project at this stage. No caves, dolines or any karst features of significance were encountered within the area mapped out as the footprint of the deposit suitable for quarrying. The deposit is closed to the east (upslope) due to increasing skarn contact metamorphism from the Jurassic dolerite, to the south due to talus overlying a narrowing window for potentially unmetamorphosed dolostone, and to the west (downslope) due to the need to avoid Eddy Creek.

The resource footprint on Figure 4 is based on a combination of surface mapping and the drilling results discussed below. The term “resource” is used here in the general sense, based on the mapping and drilling results. The estimation of tonnage and average grade discussed in this report is not JORC compliant but was considered by the Company to be adequate for planning the proposed quarry. The resource footprint is intended to be the minimum coverage of good quality rock needed to sustain a viable quarry operation for at least 25 years and with the minimum potential environmental impact within the context of a viable project.

Drilling

Stopford Drilling was engaged by Cresswells in November 2012 to drill a fence of vertical open hole rotary percussion holes through the prospect, along the access track which had been constructed during the previous year (Figure 4). The drilling was done

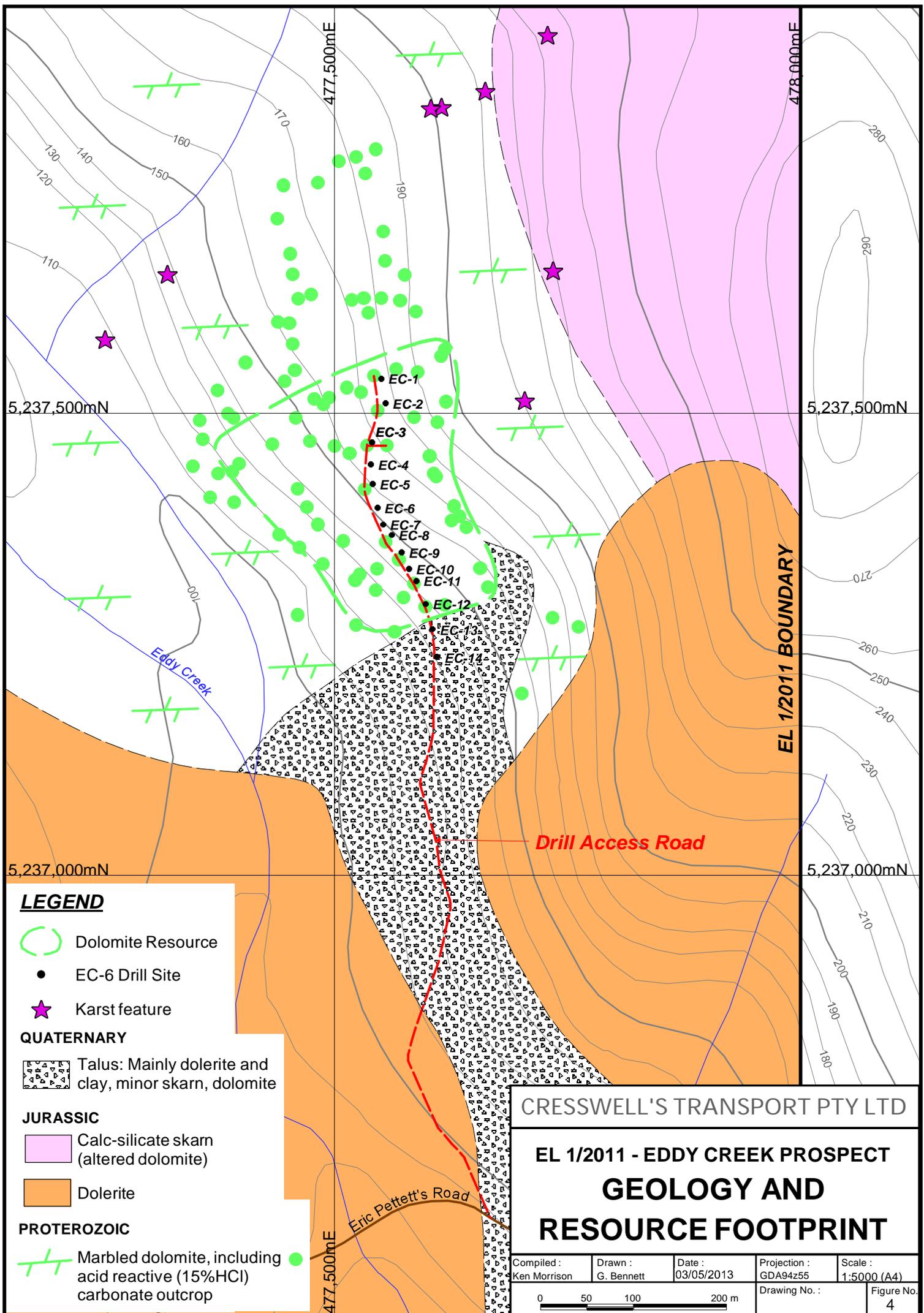
by a track mounted 18 tonne Atlas Copco ROC F7 blast hole rig, which drilled 89mm diameter holes using 3.7m rods racked in a carousel, requiring no manual handling during rod changes. Samples of combined chips and dust were collected in plastic bins under a cyclone outlet, then transferred into pre labeled plastic bags. One composite sample was taken per rod, or part rod if penetration refusal occurred. Estimated sample size was approximately 30 kg per rod. Splits of 2-2.5 kg were taken from each parent sample, using a PVC spear, and sent to ALS/Burnie Research Laboratories for Whole Rock assay by XRF (in the Brisbane ALS lab).

Assay data are appended in Appendix A and results are summarized on Table 1 of the Year 2 Annual Report (Morrison, 2013). Fourteen holes (EC-1 to EC-14) were drilled for 301 metres along the north-south track through the centre of the prospect, and 84 composite samples were taken (Figure 5). A limitation of the set up was that the rig could only drill to 24 metres, however this was an acceptable trade off for the light weight mobility of the rig, which precluded the construction of more substantial access and drill pads.

By comparison with Proterozoic dolomites commercially available in northern and northwestern Tasmania, the assay data which best demonstrate rock quality are; loss on ignition (a proxy measure of the carbonate content) and the percents silica and aluminium oxide (an estimate of impurities, including sedimentary sand and clay and metamorphic silicate minerals). Natural breaks in the data, which coincide with partitioning of dolomite and skarn materials, occur at maximum values of approximately 10% SiO₂ and minimum values of approximately 35% LOI. Figure 5 shows that the rock quality deteriorates at depth and when combined with the mapped outcrop data the inference is that a basin-shaped body of relatively unaltered dolostone is underlain by calc silicate skarn rocks, which in turn are underlain and surrounded by dolerite. The deposit exists as a surficial layer in a window through the dolerite. The deposit has a thicker keel in the central portion of the drill traverse. The high quality material thins to the south but appears to be open to the north, in an area closer to some of the identified karst features.

The two southern most holes (EC-13 and -14) were collared on talus and although the talus is only about 3 metres thick in that area, the underlying dolomite quality is poor and therefore a position midway between EC-12 and -13 is considered as the southern edge of the resource.

No cavities were encountered in the 14 drill holes. Ground water is common but does not appear to be controlled by a single water table horizon. Fracture permeability is expected to transmit the ground water and it is likely to be variable and erratic in both flow and outlets at the surface. In holes EC-1, -8, -9 and -10 water pressure caused drilling refusal at depths above 24 metres. In holes EC-8 and -10, artesian groundwater temporarily flowed at the surface collars but subsided and remained dry after several hours.



LEGEND

- Dolomite Resource
- EC-6 Drill Site
- ★ Karst feature

QUATERNARY

- Talus: Mainly dolerite and clay, minor skarn, dolomite

JURASSIC

- Calc-silicate skarn (altered dolomite)
- Dolerite

PROTEROZOIC

- / / / Marbled dolomite, including acid reactive (15%HCl) carbonate outcrop

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**EL 1/2011 - EDDY CREEK PROSPECT
GEOLOGY AND
RESOURCE FOOTPRINT**

Compiled : Ken Morrison	Drawn : G. Bennett	Date : 03/05/2013	Projection : GDA94z55	Scale : 1:5000 (A4)
0 50 100 200 m			Drawing No. :	Figure No. 4

N

S

200mRL

200mRL

100mRL

100mRL

0mRL

5,237,500mN

5,237,400mN

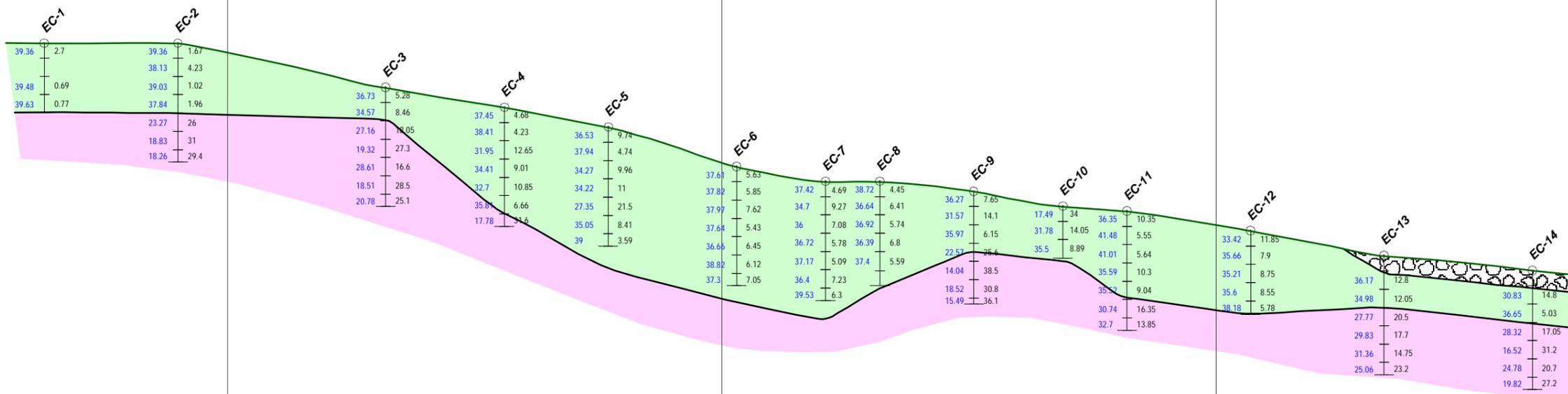
5,237,300mN

5,237,200mN

5,237,500mN

5,237,400mN

5,237,300mN



ASSAY RESULTS

LOI%	SiO2%
39.36	2.7

LEGEND

- Quaternary Talus
- Jurassic Calc Silicate Skarn
- Proterozoic Dolomite

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EL 1/2011 - EDDY CREEK PROSPECT

DRILL SECTION

LOOKING EAST

Compiled : Ken Morrison	Drawn : G. Bennett	Date : 21/12/2012	Projection : GDA94z55	Scale : 1:1000
Drawing No. :			Figure No. : 5	

0 10 20 40 m

Resource Potential

No attempt is made here to claim anything approaching JORC compliance, however it is clear from the mapping and drilling to date that a substantial resource of agricultural quality dolomite exists inside EL 1/2011 and that the surface footprint shown on Figures 3 and 4 represents an area suitable for a viable long term quarry, in terms of rock quality, topographic setting and low environmental impact. The mean thickness of relatively high grade dolomite encountered in holes EC-1 to EC-12 is approximately 16 metres and several holes terminated in high grade material at 24 metres depth. If this central traverse of drill holes is representative of the deposit, and if we assume an average bulk density of 2.3 t/m^3 (allowing for fractures and other voids), then a resource of >2 million tonnes is available, and that is sufficient for at least 25 years production on the basis of expected demand.

Environmental Issues

Natural Values

In April 2013 Philip Milner, Philip Milner Landscape Consultant Pty Ltd, conducted a flora and fauna habitat survey over the area of the resource and the proposed quarry site, including the access road. The survey consisted of a desk top review of threatened and endangered species under State and Commonwealth legislation, and a detailed field survey (see Appendix B in the Year 2 Annual Report). No threatened or endangered plant or animal species or active habitat sites were observed. Potential habitat sites for devils, quolls and stag beetles exist in logs and tree butts on the forest floor and recommendations were made to minimise disturbance to these sites and to ensure thorough pre stripping of soil and vegetation litter to enable effective rehabilitation of the forest floor environment).

Information provided to Cresswells by the Southern Tasmanian Caverneers indicated that several mapped karst features considered as significant are hosted in the dolomitic carbonates within EL 1/2011. These features comprise caves, dolines and springs. In response to this information, Cresswells walked detailed traverses across the area of outcropping reactive carbonates and modified the shape and size of the proposed resource and quarry footprint, to ensure that no significant karst features are included within the project area (Figures 3 & 4).

Rehabilitation

Rehabilitation activities associated with the drilling campaign involved removal of all samples, sample bags and all consumables used in drilling and sampling, at the time of drilling. Two holes (ED-8 and -10) produced artesian water at the collars during drilling, but the flow subsided and ceased after several hours. All collars were plugged with plastic octoplugs, inserted to approximately 25 cm below the surface, then covered with rock rubble and soil materials.

The final step in demobilizing the drill rig, excavator and light vehicles was to install a boulder barrier at the entrance to the access track, sufficient to prevent access by all motorised vehicles except trail bikes.

Expenditure

Cumulative exploration expenditure on the EL up to June 30, 2013 was \$70,906. Expenditure in the 12 month period ending 30 June, 2013 was \$44,406.

Year 3 and Future Exploration

No exploration was undertaken and no expenses incurred on EL 1/2011 in Year 3.

Sufficient mapping and drilling have been completed to be confident that a suitable dolomite resource exists in a location which is economically and environmentally favourable for a viable long term quarry.

References

Bottrill, R. S., Taheri, J., Calver, C. R. and Everard, J. L., 1999. The nature and origin of gold mineralisation at the Forster Prospect, Glovers Bluff/Weld River area, Mineral Resources Tasmania, Tasmanian Geological Survey Record 1999/06.

Calver, C. R., Forsyth, S. M. and Everard, J. L., 2006. Geology of the Maydena, Skeleton, Nevada, Weld and Picton 1:25,000 scale map sheets, Mineral Resources Tasmania, Tasmanian Geological Survey Record 2006/04.

Calver, C. R. and Everard, J. L., 2014. Weld River Group, *In* Corbett, K. D., Quilty, P. G. and Calver, C. R. editors, *Geological Evolution of Tasmania*. GSA Special Publication 24, pp 67.

Morrison, K. C., 2012. Cresswells Transport Pty Ltd, EL 1/2011 – Eddy Creek, Year 1 Annual Report.

Morrison, K. C., 2013. Cresswells Transport Pty Ltd, EL 1/2011 – Eddy Creek, Year 2 Annual Report.