Gaspersic Contracting Pty Ltd

EL 12/2021 Linda Creek

Final Report

EL122021_2025_03_05_FinalReport_01

(Coordinate System MGA Zone 55, Datum GDA94)

Ken Morrison

05 March 2025

List of Contents

1.0 Summary

EL 12/2021 Linda Creek is a 1km^2 Category 3 and 5 Exploration Licence abutting the Eastern edge of the Mt Lyell Mine Lease, near Gormanston in western Tasmania. It was acquired by Gaspersic Contracting Pty Ltd in April 2022 for the purpose of exploring for a new deposit of silicified quartz pebble conglomerate and sandstone with equivalent abrasion and friction properties to the existing North Lyell quarry, which is currently not operating.

The North Lyell quarry is developed on a southeast-plunging anticlinal spur (Whaleback Spur) composed of silicified hematitic conglomerate and sandstone, predominantly within the Late Cambrian-?Early Ordivician Upper Owen Conglomerate and unconformably overlain by Middle Ordovician Pioneer Beds. The Linda, Pioneer and Gormanston Spurs within EL 12/2021 are also southeast-plunging tight anticlines, parallel to Whaleback Spur and stratigraphically and structurally all four spurs are part of the same tectonic domain.

Logistically, Gormanston Spur is the superior area for a new quarry development and apart from scout prospecting, all exploration to date has been on Gormanston Spur. Mapping and rock chip sampling demonstrated that the hardest, most silicified conglomerate unit is stratigraphically in the basal Pioneer Beds, however variable depths of near surface weathering resulted in a range of sub standard Los Angeles Abrasion values and difficulty in predicting the conglomerate thickness.

A 19.5m DDH intersected 5 metres of basal Pioneer sandstone and conglomerate overlying 14.5 metres of Upper Owen soft bioturbated sandstone and minor fine conglomerate. The basal Pioneer conglomerate was the only lithology with apparent potential to meet the target aggregate abrasion specifications. A composite 20kg sample of relatively fresh conglomerate core was tested for Los Angeles Abrasion rating at the Rare Earth lab in Ulverstone and produced a satisfactory rating of 22%, however the thin veneer of conglomerate on Gormanston Spur is not suitable as a quarry site.

Any further exploration on the EL should be based on Pioneer Spur or Linda Spur, however Gaspersic Contracting assess the project to be no longer viable and are surrendering the EL. This report is the Final Report in accordance with the required surrender documentation.

Total exploration expenditure over two years was $41,002.

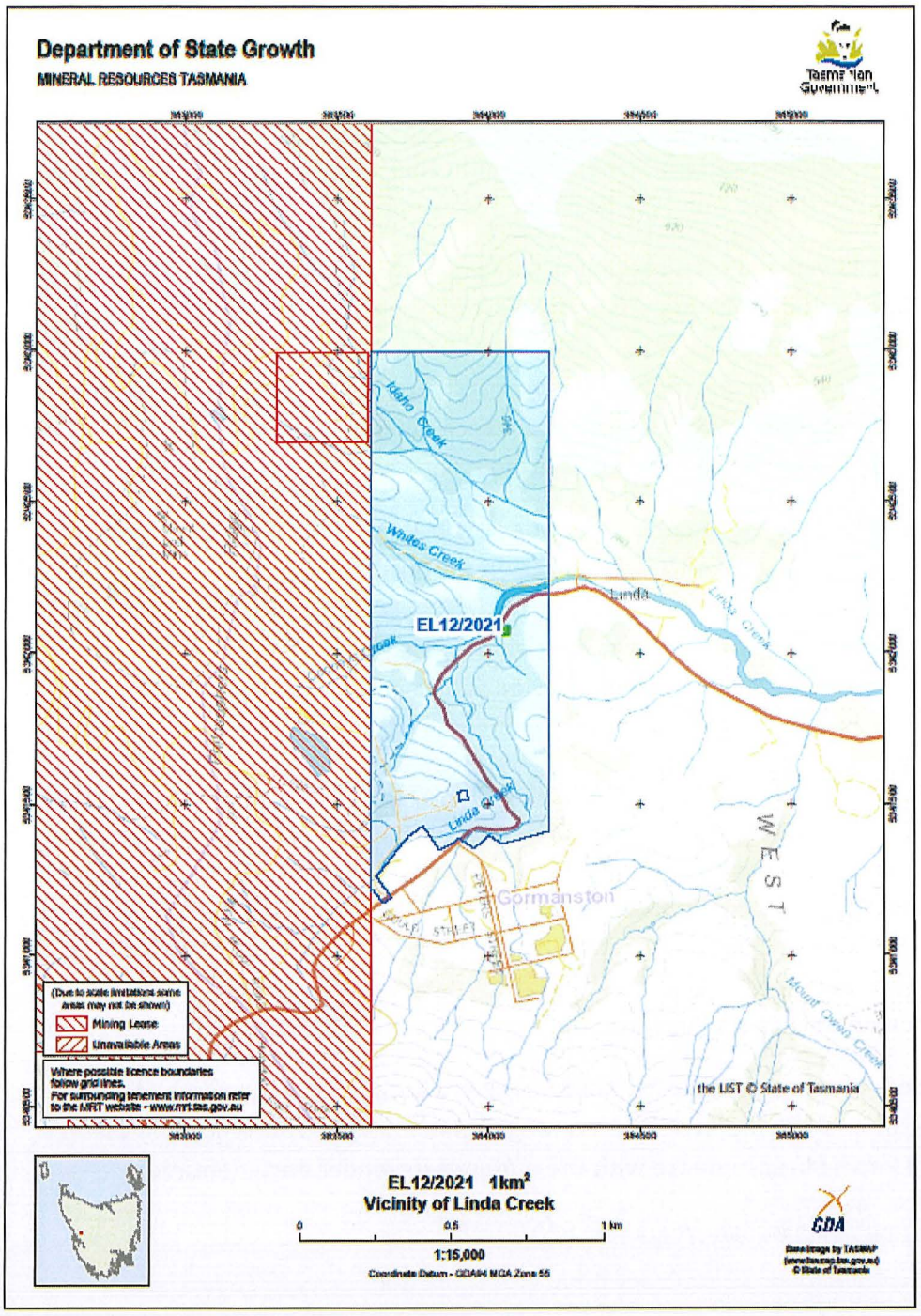

Figure 1. EL12/2021 Location Map

2.0 Introduction

2.1 Exploration Rationale

Gaspersic Contracting operates a construction stone quarry on a Copper Mines of Tasmania ML, inside the main Mt Lyell mine lease and abutting the NW corner of EL 12/2021 (Figure 1). The quarry has for many years produced premium quality, in terms of Los Angeles Abrasion and Polished Aggregate Friction values, crushed aggregate for top dressing bitumen roads. At present the quarry is not working, due to concerns that the access road through the CMT mine lease is at risk of collapse from rock instability related to on-going wall rock slippage in the abandoned West Lyell open cut mine.

To secure long term tenure and resource on equivalent rock material in the Queenstown area, Gaspersic Contracting have acquired and commenced exploring EL 12/2021. The exploration rationale is based on structural, stratigraphic and rock type similarities between the proven North Lyell quarry geology, situated on Whaleback Spur, and the three parallel spurs (Linda, Pioneer and Gormanston Spurs) further south and inside the new EL. The prospective geology is described below in Section 2.3.

2.2 Tenure and Ownership

EL 12/2021 is a 1km^2 EL with an initial 5 year term ending 25th April 2027. The EL is owned 100% by Gaspersic Contracting Pty Ltd, a company now owned and operated by Gradco Pty Ltd, however at the time of reporting, the EL is controlled by the Ian Harington Group.

Land tenure is shown on Figure 2. Most the EL is Crown Land, as it was designed to avoid as much as possible; Public Reserves and Private Land and road reserves within the township boundaries of Gormanston and Linda. The eastern EL boundary cuts through an unoccupied northwestern portion of Linda, including part of a Public Reserve. A small plot of unoccupied Private Land exists in the central southern part of the EL.

2.3 Geology Review

The geology, geography, magnetics and radiometrics coverage of the EL is shown on Figures 3-7.

The EL was designed as a minimum area needed to cover the Owen Conglomerate and Pioneer Sandstone spurs with potential to host deposits of aggregate material equivalent to the product at the North Lyell quarry. Apart from minor occurrences of Gordon Limestone, the formation stratigraphically overlying Pioneer Sandstone at Mt Lyell, the hard rock geology in the EL consists entirely of tightly folded and fault disrupted plunging spurs of Upper Owen Conglomerate interbedded conglomerate and sandstone, and Pioneer Sandstone interbedded sandstone and conglomerate (Figure 3). The deformation-controlled spur landforms are well expressed on Lidar image Figure 4.

The contact between Owen Conglomerate and Pioneer Sandstone is the Haulage Unconformity, an angular unconformity demonstrating a hiatus of some 20 million years. The type exposure of the Haulage Unconformity outcrops on the abandoned haulage route of the Iron Blow Mine, northeast of the abandoned open cut and southwest of the abandoned King Lyell copper clays workings on the western border of the EL. The Haulage Unconformity is also a spectacular feature of geological heritage quality exposed in the North Lyell quarry, which can be seen on Figures 4 and 5, just west of the northern most limit of EL 12/2021.

It is not clear whether the North Lyell quarry rock quality is enhanced due to its' closeness to the Great Lyell Fault and associated heat input from a post ore body phase of a long life Mt Lyell hydrothermal system. Another possibility is the tight folding formed during Devonian orogenic compression, which may have metamorphosed/silicified the high quartz rocks. Observations at the North Lyell quarry indicate the best quality rocks are silicified, hematitic quartz pebble conglomerates and fine sandstones +/- quartz pebbles, relatively deep in Upper Owen stratigraphy. The most detailed mapping and interpretation of the geological evolution of the entire Mt Lyell mineral field geology, including the area covered by EL 12/2021, is in Corbett, 2001 and 2014.

The eastern half of the EL is covered with a surficial blanket of Quaternary glacial sediment and very minor probable Tertiary sediments exposed in abandoned alluvial gold diggings in Whites Creek gully between Pioneer and Linda Spurs (Figure 1). The main Iron Blow waste rock dump extends over the western EL boundary in the Gormanston Spur area. A probable Tertiary age lateritic/ferricrete style ironstone alteration of decomposed Gordon Limestone hosts the two Copper Clays deposits (King Lyell and Lyell Consols) which subcrop within the EL. Copper Clays are an unusual style of metastable native copper and copper oxide mineralisation which appears to have precipitated from acidic, copper bearing drainage leached from the primary copper sulphide mineralisation upslope. The Copper Clays mineralisation also appears to be synchronous

with the host ironstone and localised in the faulted synformal drainage gullies separating the plunging anticlinal spurs, which have acted as a structural trap for the process (Wills, 1995, Morrison and Knight, 2008, McGee, 2013).

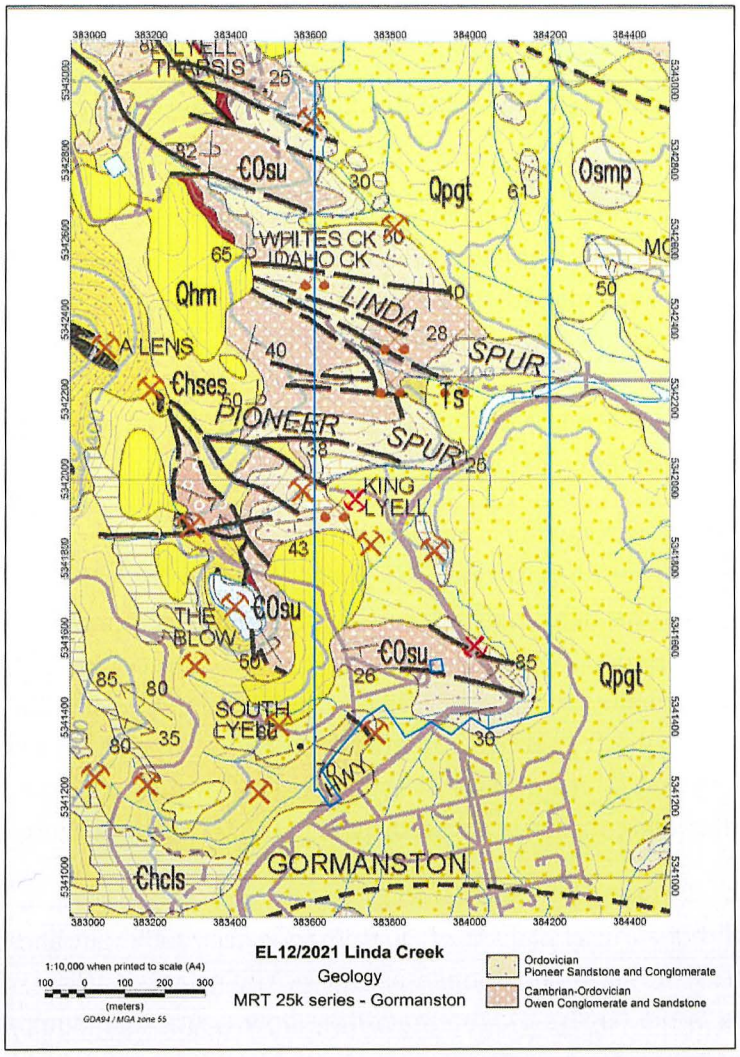

Figure 3. EL 12/2021 Regional Geology Map

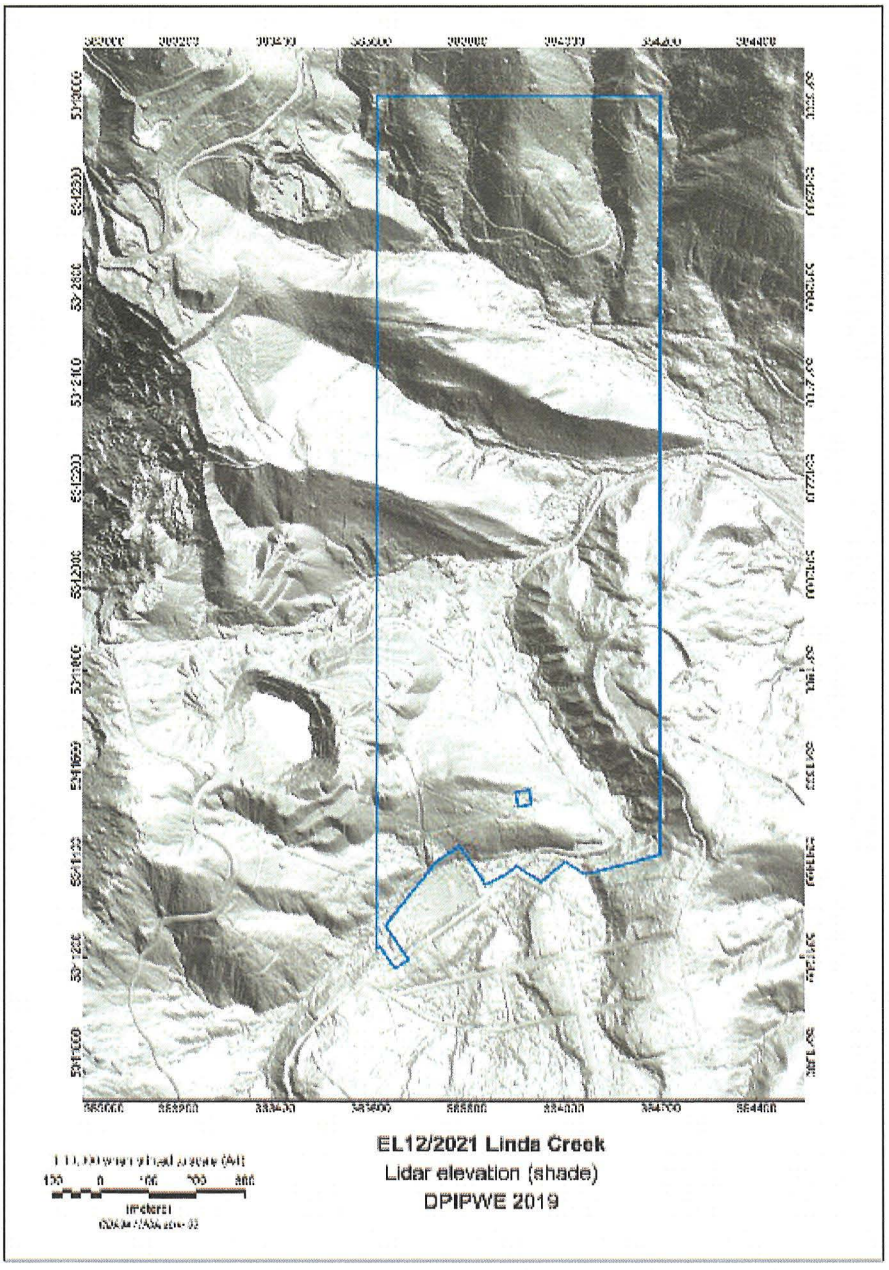

Figure 4 **EL 12/2021 Lidar Image**

Figure 5. EL 12/2021 Satellite Image

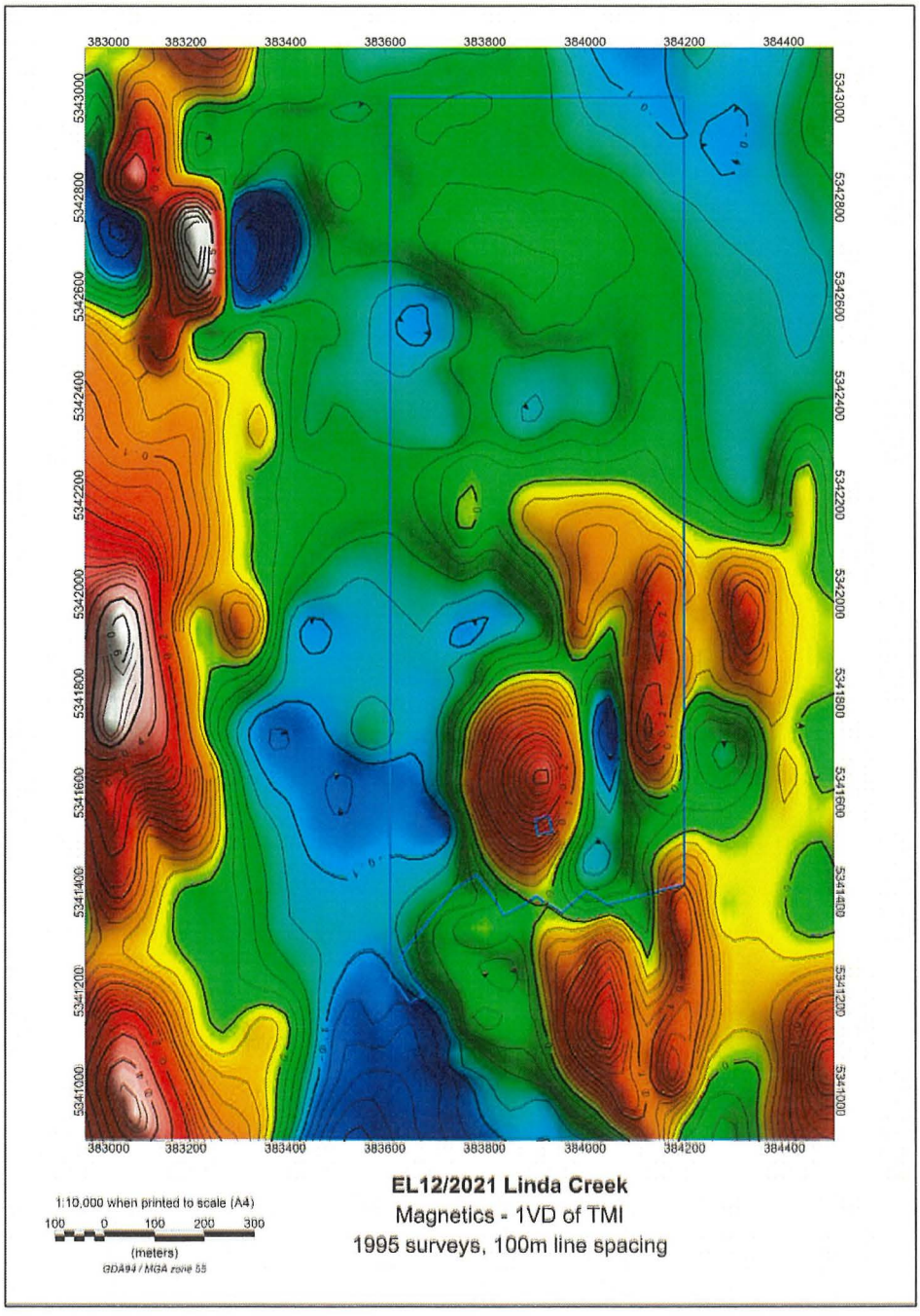

Figure 6. **EL 12/2021 Magnetics Image**

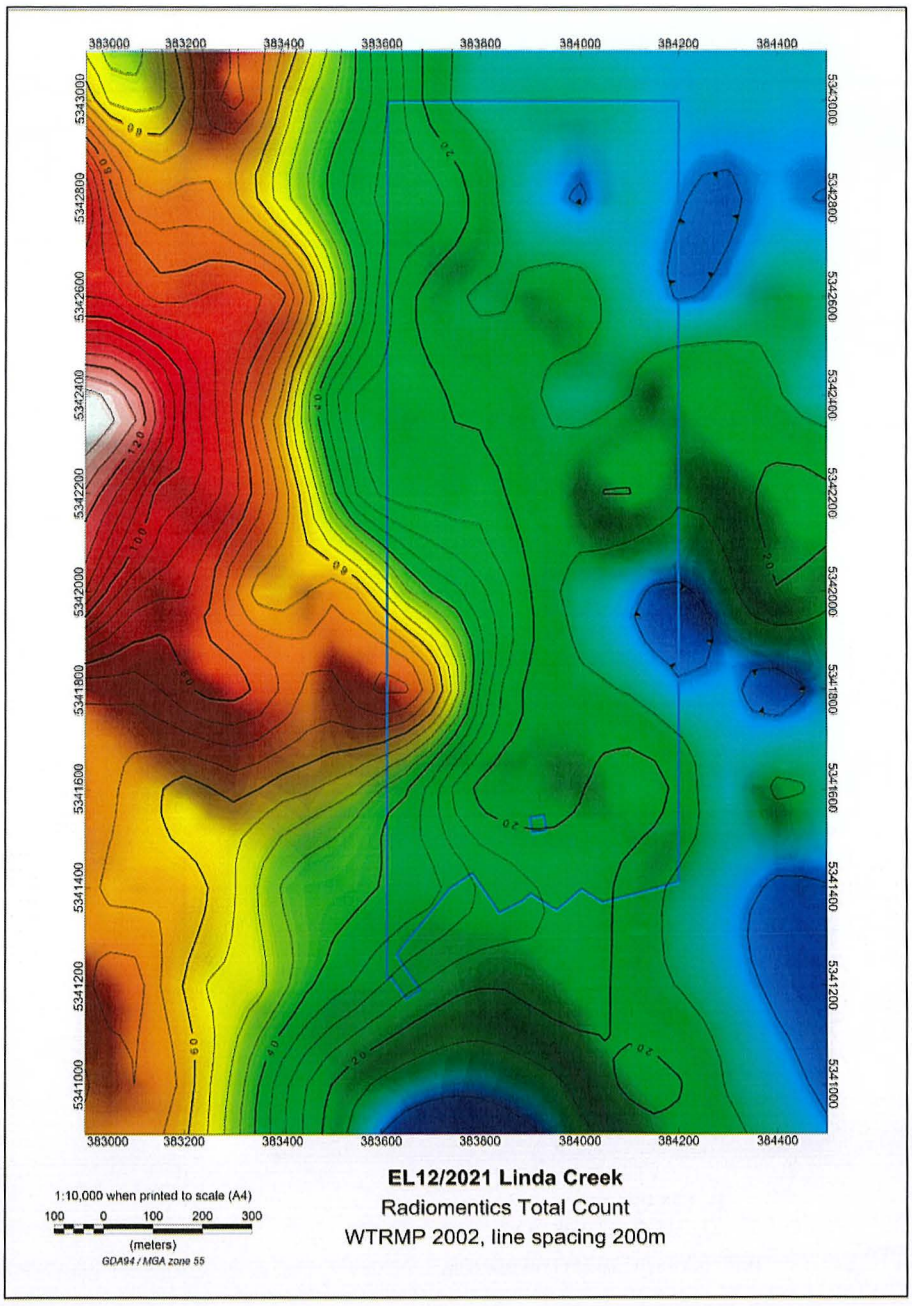

Figure 7. EL 12/2021 Radiometrics Image

2.4 List of Digital Files

Exploration Work Type	Filename	File format
Final Report	EL122021_2025_03_05_Final Report_01	pdf-

3.0 Review of Previous Work

Results of previous exploration are recorded in the Year 1 and 2 Annual Report (Morrison, 2023, and Morrison, 2024).

The only evidence found of previous construction stone exploration or mining is an apparent small scale quarry excavation on the southern side of Gormanston Spur, where the outcropping plunging fold is well exposed at a sharp bend in the Lyell Highway between Linda and Gormanston (Figures 4 and 8). This classic exposure of an anticline is a common stop site for geology students on excursion and the apparent good construction stone quality of the rock is one reason for exploring Gormanston Spur further to the west. The exposure beside the Lyell Highway is of high natural heritage value and should be preserved.

Gaspersic Contracting Year 1 work consisted of reconnaissance geology on Gormanston, Pioneer and Linda Spurs, which identified a western portion of Gormanston Spur as a first target for sampling, due to a combination on the rock type and site access and geography suited to quarry development. Four sites were sampled along the western section of Gormanston Spur, in part using an excavator mounted rock breaker. Approximately 70 kg of fragments was collected from each site and crushed to a nominal 40mm product at Gaspersic's Lynchford plant.

Crushed and sized samples were tested for Los Angeles Abrasion rating at the Rare Earth lab in Ulverstone and all produced more fines than the required standard. Evaluation of the results and the sampling and crushing procedure suggests that a larger and deeper sample, discarding possible surface weathering, in combination with better control on the moisture content and fines removal at the primary crushing stage, is required to ensure reliable lab results.

Year 2 exploration consisted of scout mapping and a short diamond drill hole on the Snake Ridge prospect located on the western part of Gormanston Spur. Figure 9 shows the easterly trend of Gormanston Spur swinging to the southeast at the approximate position of an outcropping quartz veined fault with a NW-SE strike, conformable with the axis of the eastern half of the Gormanston Spur anticline. The outcropping conglomerate has an average dip of about 20^0 to the SSW in the area of drill hole SRD-1.

SRD-1 is a 19.5m deep NQ2 DDH. The hole was azimuthed to the north at a dip of -70^0 and intersected 5 metres of silicified slightly hematitic polymict quartz conglomerate and quartz sandstone, overlying a brecciated contact with 14.5m of more hematitic partly bioturbated fine

sandstone and granule wacke. The upper unit is interpreted as basal Pioneer Sandstone and the lower unit as Upper Owen Conglomerate, with a tectonically deformed unconformable contact at the Haulage Unconformity position between the two units.

The conglomerates in the upper unit are very hard and abrasive to drill, in contrast to the soft fast cutting lower unit rocks. The upper unit conglomerates are the only rocks with apparent potential as top dressing road building aggregate. A 21.2 kg composite sample of relatively fresh conglomerate core was taken for Los Angeles Abrasion testing at the Rare Earth laboratory in Ulverstone. Sample preparation at the Burnie Research Laboratory produced a 20 kg sample with a fragment size range of 6.7mm-38mm. The LA test result of 22% fines is within the required standard of <25%.

A core log and photos are included in the Year 2 Annual Report.

Figure 8. Photo of the abandoned small quarry exposing silicified, hematitic, interbedded conglomerate and sandstone near the axis of the Gormanston Spur plunging anticline.

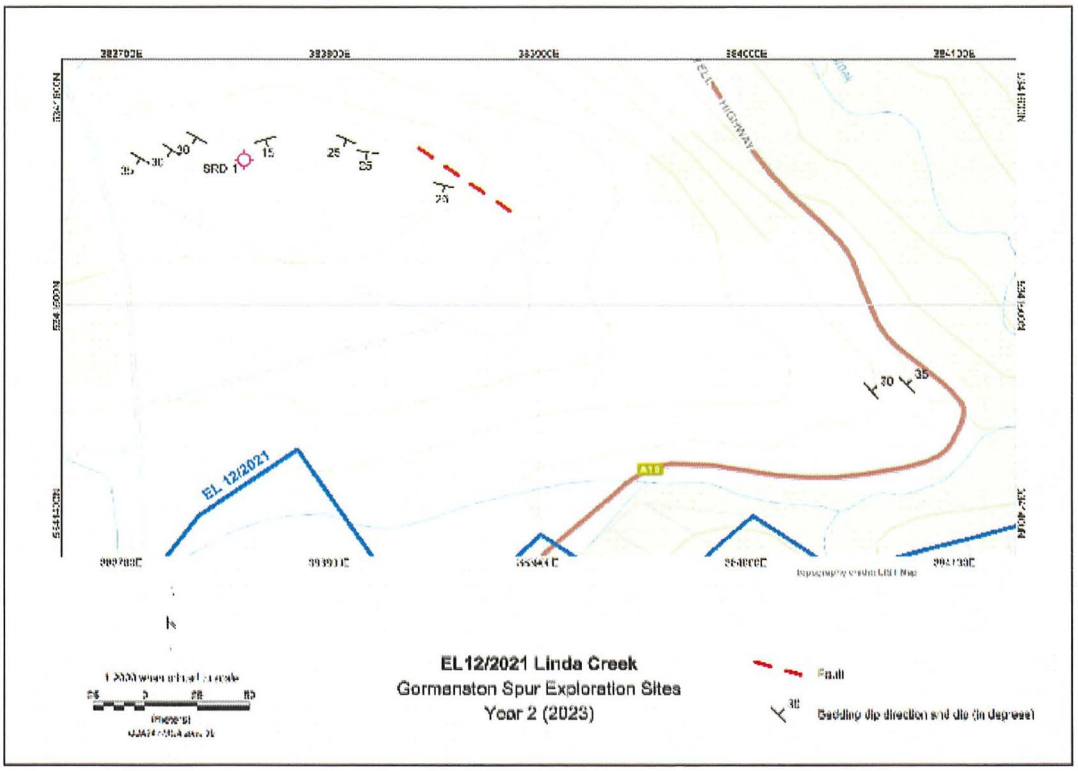

Figure 9. Year 2 Gormanston Spur Exploration Sites

4.0 Exploration Completed During the Reporting Period

No exploration has been undertaken since April 2024 (see Year 2 Annual Report).

5.0 Conclusions and Future Exploration

Gormanston Spur exploration has downgraded the possibility of a quarry site on Snake Ridge along the Western half of the Spur, due to the prospective basal Pioneer conglomerate strata being far too thin and interbedded with unprospective sandstone.

Any further exploration on the EL should be based on Pioneer Spur or Linda Spur, however the company assessment is that the project is not viable at present and so the EL will be surrendered.

6.0 Environmental Management

The drill collar was entirely on bare outcrop devoid of vegetation and the rig and support vehicles were clean on arrival at the site. No significant dust or noise resulted and the site is screened from view by road users and Gormanston residents. No rehabilitation was necessary and no litter, fluid leakage or consumables were left on site.

7.0 Expenditure (2 Years)

Drilling	$10,373
Rock Breaker and Crusher work	$8,117
Geology	$16,272
LA Abrasion Test (Rare Earth Lab)	$2,200
Reporting and Administration Costs	$4,040
(rounded to nearest $1)	
TOTAL	**$41,002**

8.0 References

Corbett, K. D., 2001, New Mapping and Interpretation of the Mount Lyell Mining District, Tasmania: A Large Hybrid Cu-Au System with an Exhalative Pb-Zn Top: *Economic Geology,* v. 96, p. 1089-1122.

Corbett, K. D., 2014, Late Cambrian to Early Ordovician Siliceous Sequences: in Geological Evolution of Tasmania, *Geological Society of Australia Special Publication* 24, p. 211-240.

McGee, B., 2013. King Lyell Copper Clays Resource Evaluation, RL 3/2006. Unpublished Copper Mines of Tasmania Pty Ltd Report.

Morrison, K. and Knight, J., 2008. King Lyell Copper Clays Resource Assessment. Report to Copper Mines of Tasmania Pty Ltd.

Morrison, K., 2023. Gaspersic Contracting Pty Ltd. EL 12/2021 Linda Creek Year 1 Annual Report.

Morrison, K., 2024. Gaspersic Contracting Pty Ltd. EL 12/2021 Linda Creek Year 2 Annual Report.

Wills, K. J. A., 1995. Open-Cut Potential of the Copper Clays Area, Mt Lyell. Report to Copper Mines of Tasmania Pty Ltd.