

**Torque Mining Ltd
Annual Report on Exploration
EL 27/2011 – “Mt Paris”
November 2011 to November 2012**

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Appendix

- A1** Exploration Potential of Exploration Licence 27/2011, Mount Paris, NE Tasmania – Walter Herrmann Geoscience
- A2** Mt Paris reference summaries and notes – Herrmann as part of appendix A1
- B1** ALS F assays reconnaissance soils
- B2** All assays reconnaissance soils, XRF (in-house) and ALS (F)

1.0 Summary

An independent review of the potential for the licence for tin in particular, but with reference to other minerals, has determined that "moderate potential remains for tin bearing greisens, particularly in the south-western quarter of the granite pluton, which is still partly covered by metasedimentary rocks" (Herrmann in appendix A1). This report also stressed the potential for economic kaolinite deposits in the Ruby Flat area.

Existing geophysics does not appear to correlate with known tin greisens but it certainly reflects a northwest to west-northwest grain. A potassium low characterises the Ruby Flat area in radiometrics and other areas show similar responses.

Reconnaissance soil sampling has commenced with samples collected for bedrock characterisation and XRF calibration.

2.0 Introduction

2.1 Tenure

The licence was granted to Frontier Resources Ltd on 23rd November, 2011. In early 2012 the licence was transferred wholly to Torque Ming Ltd, an (as yet) unlisted subsidiary of Frontier Resources Ltd. This report details the first year of exploration on the licence.

2.2 Location and Access

EL 27/2011 "Mt Paris" lies in Tasmania's northeast in a quadrangle bounded by the townships of Ringarooma (west), Derby and Branxholm (north) and Weldborough (east) (see figure 2.1).

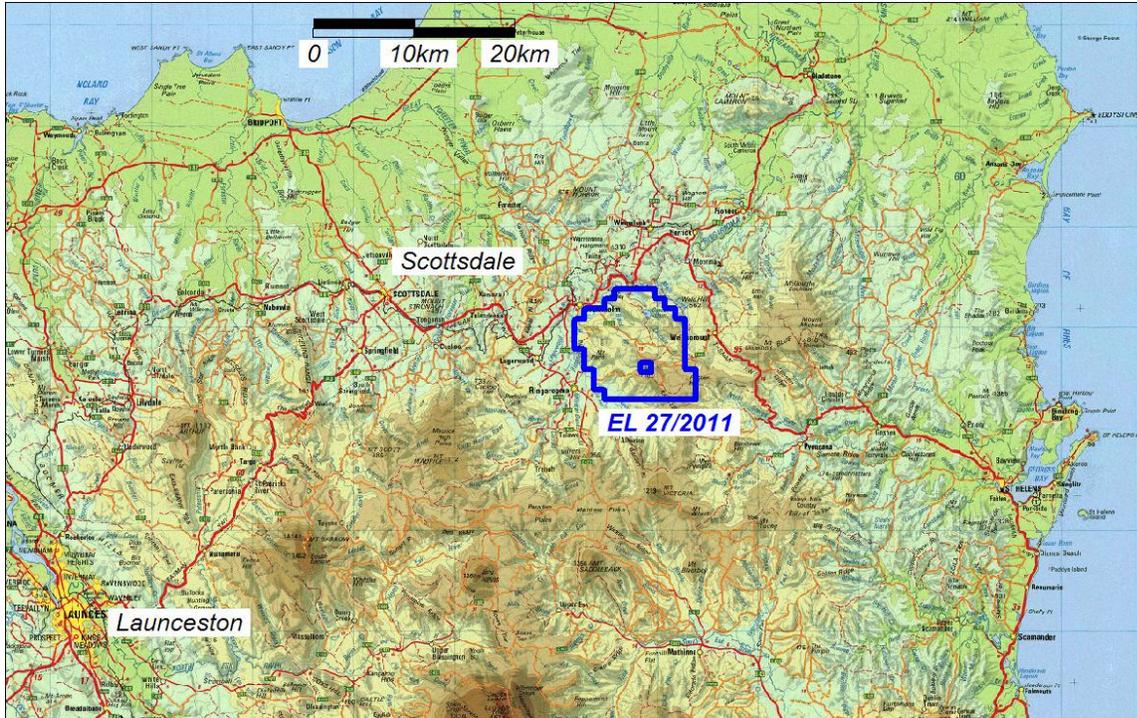


Figure 2.1: EL 27/2011 "Mt Paris" location in northeastern Tasmania.

Access to the licence is by bitumen road to the towns listed above and then by gravel road into the licence area with the gravel Mt Paris Dam Road, Dead Horse Hill Road and Cascade Dam Road essentially transecting the licence area in an x pattern.

2.3 Topography, Vegetation and Land Use

The tenement area is hilly country rising to as high 899 metres above the ringing valleys in a series of west-northwest trending ridges. Almost all of the tenement is covered in plantation or regrowth and is used almost completely for forestry activities.

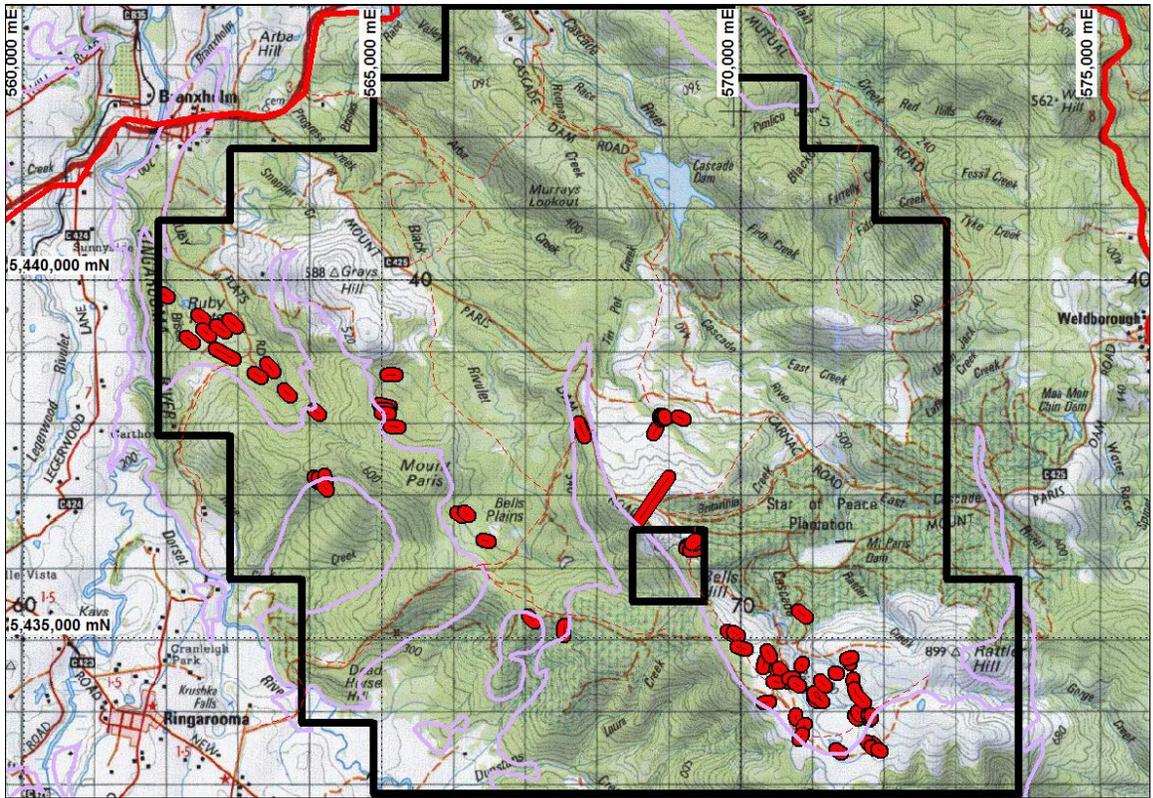


Figure 2.2: EL 27/2011 "Mt Paris" topography (from Tasmap 1:100,000 series). Red lines are greisen lodes (exaggerated width) after Solomon (1970). Light pink linework is outline of Mathinna Beds/granite contact after more up to date Mineral Resources mapping. Map datum AGD66.

3.0 Geology

The Mt Paris area is underlain by three rock types, Siluro-Devonian Mathinna Bed sediments, Devonian biotite+muscovite alkali feldspar granite (Mt Paris Granite) and Tertiary basalt with only minor alluvial cover.

Granite outcrops over most of the northeastern 2/3 of the licence with the southwestern 1/3 of the licence outcropping hornfelsed Mathinna Beds overlying the granite.

Minor Tertiary basalt covers granite or Mathinna Beds in a number of smaller areas.

Michael Solomon (1970) produced the geological map shown as figure 3.1. This geology concurs with more recent, more detailed, Mineral Resources Tasmania's mapping on the *Derby* and *Ringarooma* 1:25,000 sheets except for the lack of two tongues of granite in the southwestern part of the licence.

Known mineralisation styles have been summarized by Purvis (1988) as

- "1 Quartz-greisen veins containing coarse cassiterite with minor chalcopyrite, sphalerite, pyrite, arsenopyrite, and traces of silver, tungsten and uranium.
- 2 Steeply-dipping stanniferous greisen lodes surrounded by zones of kaolinite-altered granite. The argillic-altered facies containing up to 0.1% Sn were extensively sluiced by early miners. The generally less than 2m wide semi-vertical greisen lodes contain erratic higher grades but did not produce much tin because they required crushing.
- 3 Flat lying greisen sheets apparently restricted to the vicinities of the Rattler Hill and Mount Paris prospects."

"These deposit types are all associated with the undulating granite roof zone, located at or close to the contact with overlying Mathinna Beds, with occasional thin veins extending into the contact metamorphosed sedimentary rocks. The mineralized and greisenized zones exist in the granite within a few tens of metres of the upper contact and diminish with depth." (Herrmann in appendix A)

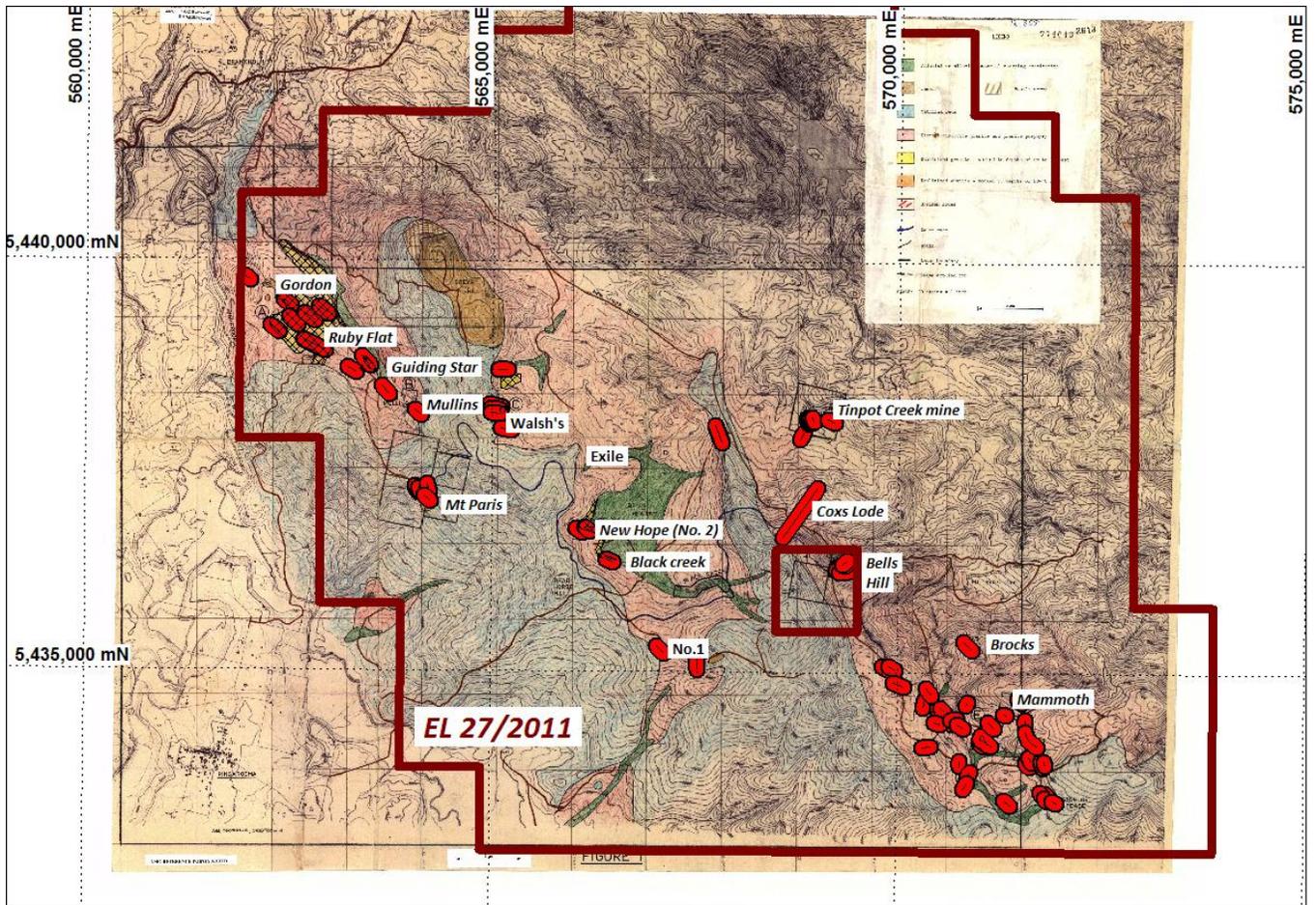


Figure 3.1: Geology after Solomon (1970). Map datum AGD66.

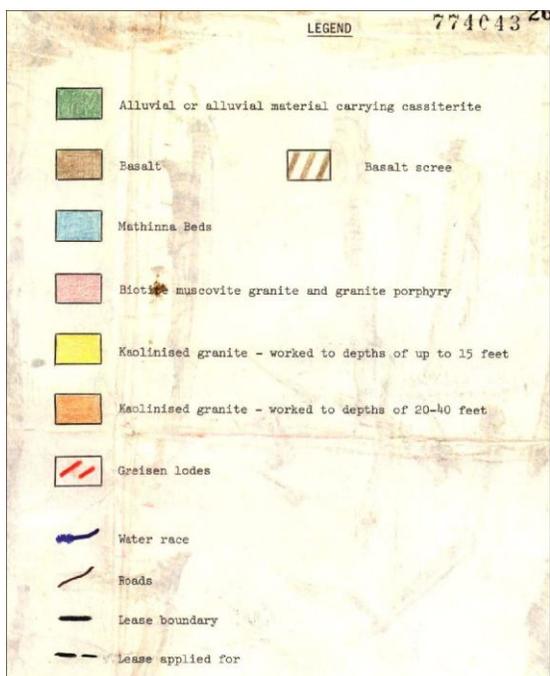


Figure 3.2: Legend for 3.1 after Solomon (1970)

4.0 Exploration Philosophy

Torque Mining Ltd (nee Frontier Resources Ltd) is actively exploring the Mt Paris area for tin, tungsten, tantalum, gold, clay (kaolinite) and rare earths.

Torque is using its own in-house desktop XRF analyzer to assay samples for a wide range of elements (though very light elements like F require external analysis).

Torque owns and operates three diamond drill rigs, two of which are skid mounted; the third is a truly man-portable rig capable of up to 100m's (vertically).

5.0 Previous Exploration

One of the main bodies of work completed, in this the first year of the licence, was a thorough compilation of previous exploration by experienced Tasmanian geologist Wally Herrmann. His report is included as appendix A and the reader is referred to this report for all details on previous exploration.

6.0 Exploration Completed November 2011 to November 2012

6.1 Introduction

Torque has carried out the following work in the last 12 months:

- Thorough compilation and review of previous exploration by Wally Herrmann of Walter Herrmann Geoscience
- Acquisition and enhancement of existing airborne geophysics by Phil Muir of Southern Mineral Exploration Geophysics
- Reconnaissance soil geochemical traverses across the granite-Mathinna Beds contact

6.2 Compilation Previous Exploration – Wally Herrmann

Wally Herrmann was contracted to provide a report compiling and appraising all previous exploration over the tenement. He supplied a text report and an .xls spreadsheet, which are included as appendices A1 and A2 respectively.

Wally read and summarized 95 reports dating from 1884 to the present day.

Wally's summary is reproduced here.

"Cassiterite-bearing greisens in the roof zone of the Mount Paris granite pluton were the primary source of alluvial tin deposits in the Ringarooma River valley, which accounted for nearly two thirds of north eastern Tasmania's total recorded tin production (~70,000 t). There was minor historical production from eluvial deposits on weathered greisen zones, but only negligible production from mining of the numerous 'hardrock' greisen lodes that exist in an apparently structurally controlled west-north-west corridor extending across the exposed pluton.

Results of prospecting ventures in the first half of the 20th century, and relatively superficial exploration and drilling programs in the fifteen years preceding the collapse of the tin price in 1985, indicate that the mineralized greisen zones are small, restricted to a few tens of metres vertical thickness, and generally low grade, averaging less than 0.2% tin.

Modern exploration of the Mount Paris tinfield has not been exhaustive, and there has been no effective exploration of it during the past quarter century. Moderate potential remains for tin bearing greisens, particularly in the south-western quarter of the granite pluton, which is still partly covered by metasedimentary rocks. Such deposits have a low to moderate discoverability factor because of their lack of response to electrical and magnetic geophysical survey techniques. Gravity surveying may assist in delineating favourable cupolas in the covered granite roof zone, and a combination of systematic multi element geochemical and short wavelength infrared spectral analysis could map extremely fractionated and/or altered intrusive phases of the granite."

Wally also reinforces the clay potential in altered granite, particularly around Ruby Flat.

A list of plans and sections warranting digital capture was also included and this work has commenced.

6.3 Acquisition and Enhancement of Existing Airborne Geophysics – Phil Muir (SMEG)

Phil Muir of Southern Mineral Exploration Geophysics was contracted to acquire, process and enhance the best available airborne geophysics covering the tenement. Phil determined that the best data was the Mineral Resources Tasmania NE Tasmania 2007 magnetics and radiometrics at 200m line spacing.

Phil processed the data and generated the following magnetics images; Total Magnetic Intensity, Reduced to Pole, Total Magnetic Intensity-1VD and Total Magnetic Intensity-2VD: and the following radiometrics images; Potassium, Thorium, Uranium, Total Count and Ternary. These images are reproduced below as figures 6.1 to 6.10. All maps are in AGD66. In all figures the red lines represent greisen zones as shown on Solomon's (1971) geology plan, the pale pink line represents the contact between the Mathinna Beds and granite and the black outline is the tenement boundary (with central excluded area).

Whilst the aeromagnetics shows a distinct northwest to west-northwest grain there is no consistent spatial relationship with any magnetic features.

The radiometrics represents the Ruby Flats clay as a potassium low. It also suggest some potential in the area between the New Hope and Tinpot Creek mines.

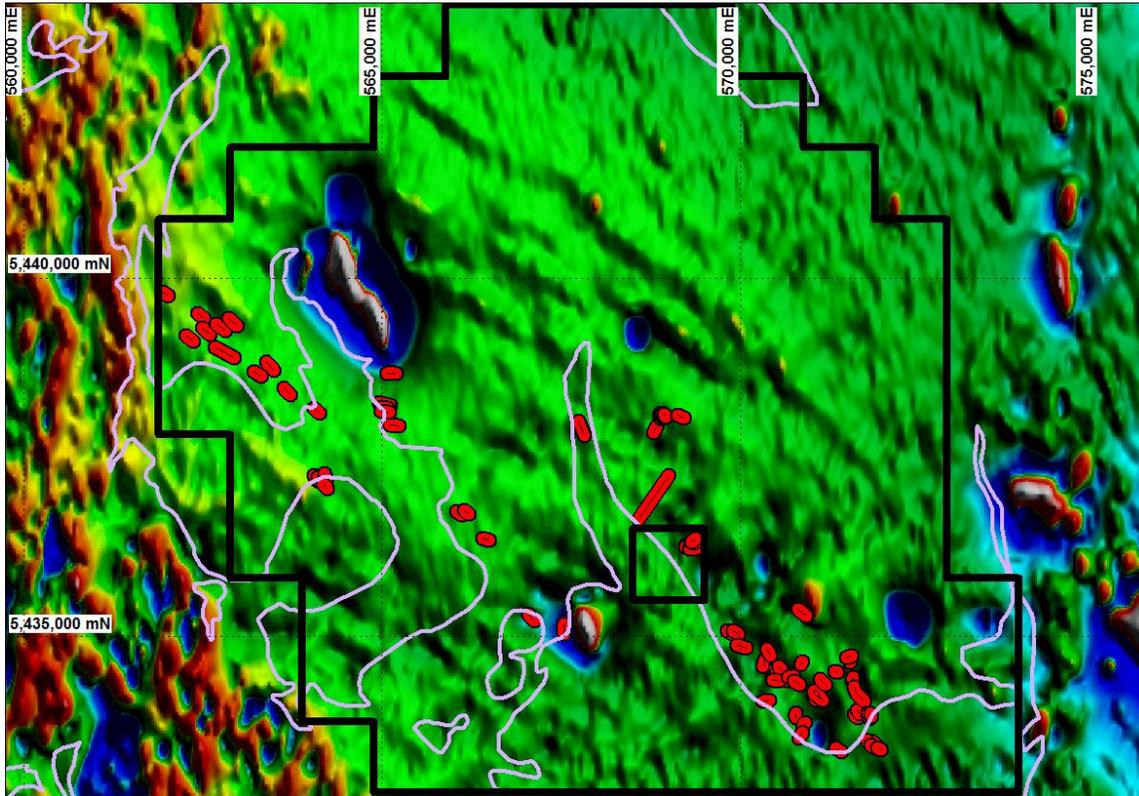


Figure 6.1: Aeromagnetics – Total Magnetic Intensity. (Red lines = greisen zones, pink line = contact Mathinna Beds/granite). All maps are datum AGD66.

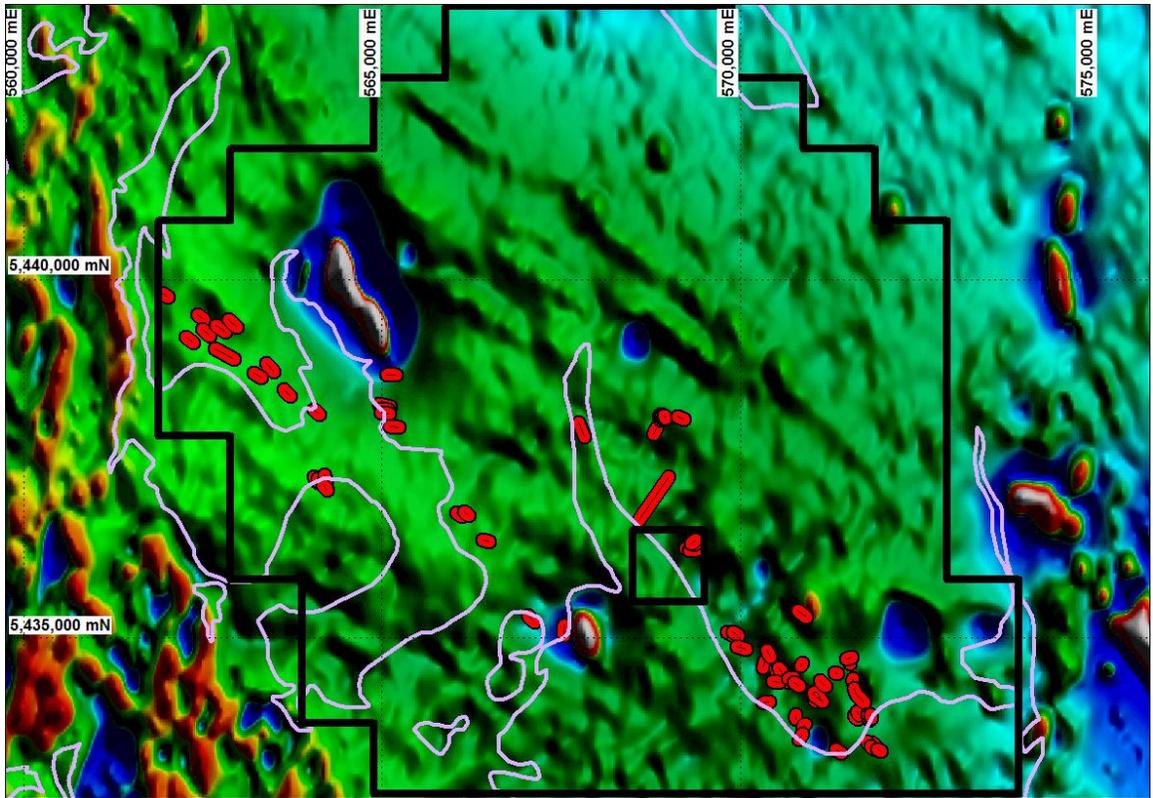


Figure 6.2: Aeromagnetics – Reduced To Pole

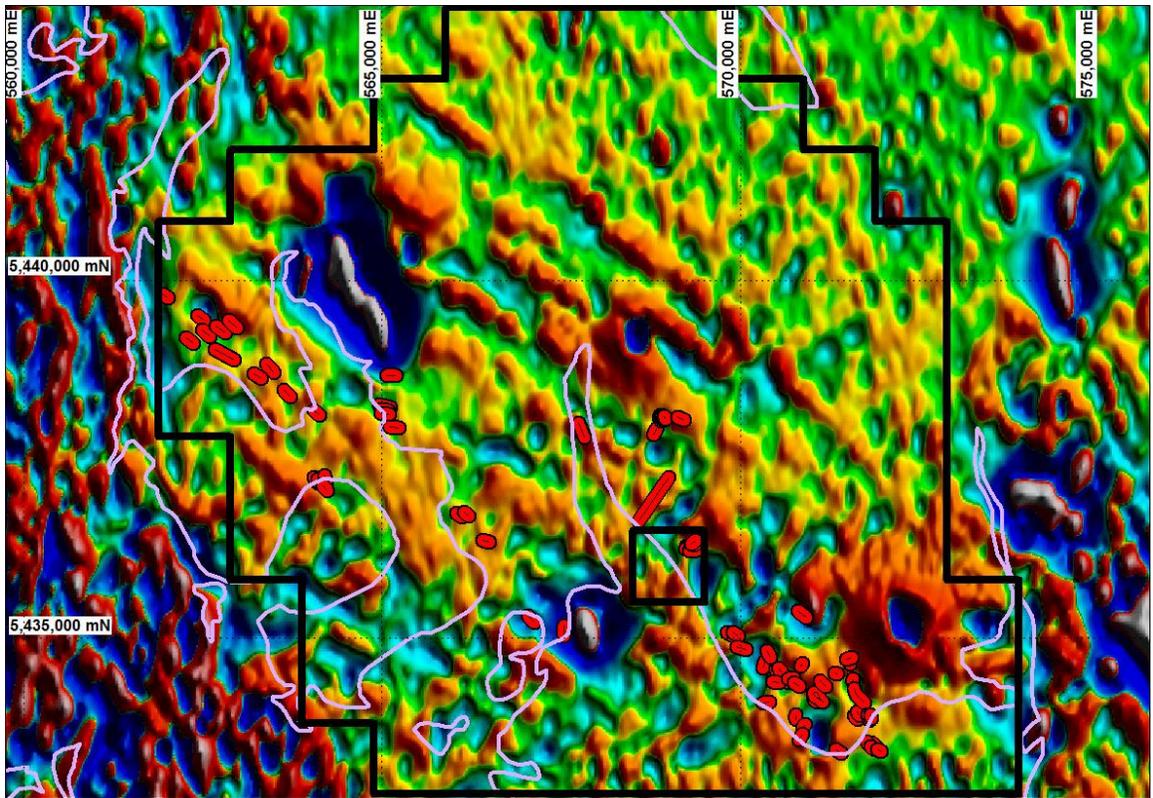


Figure 6.3: Aeromagnetics – 1st Vertical Derivative

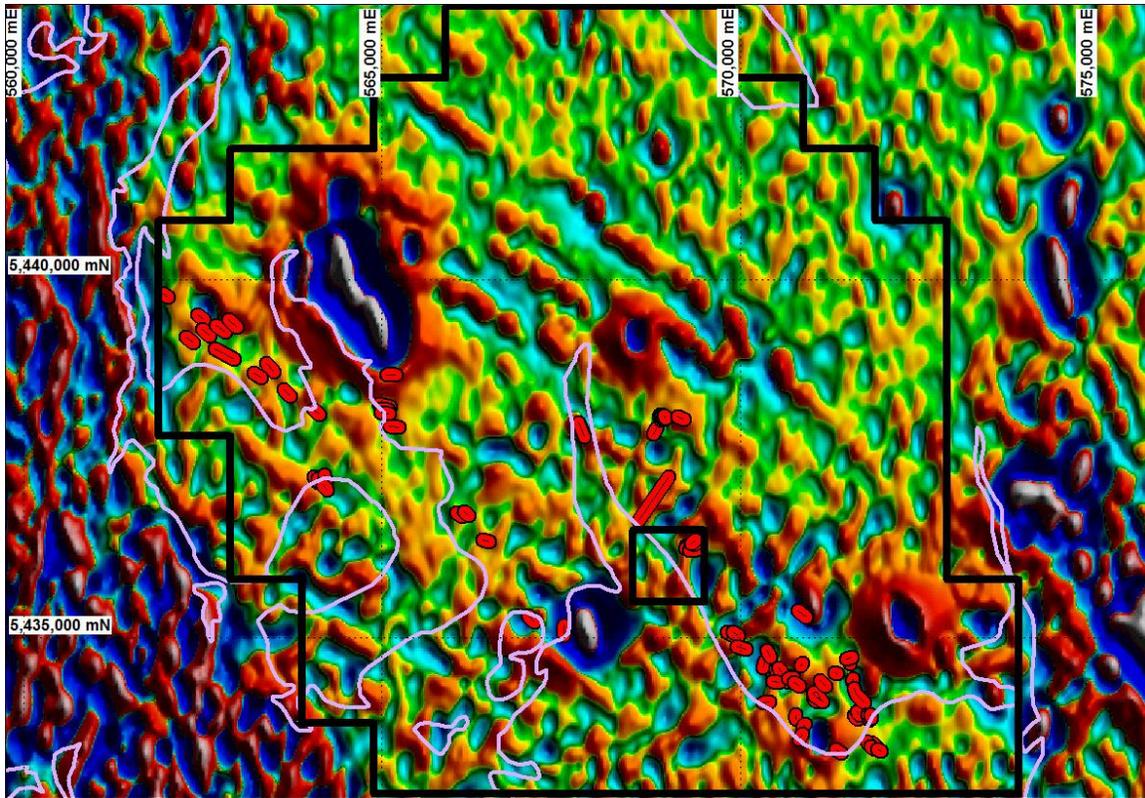


Figure 6.4: Aeromagnetics - 2nd Vertical Derivative

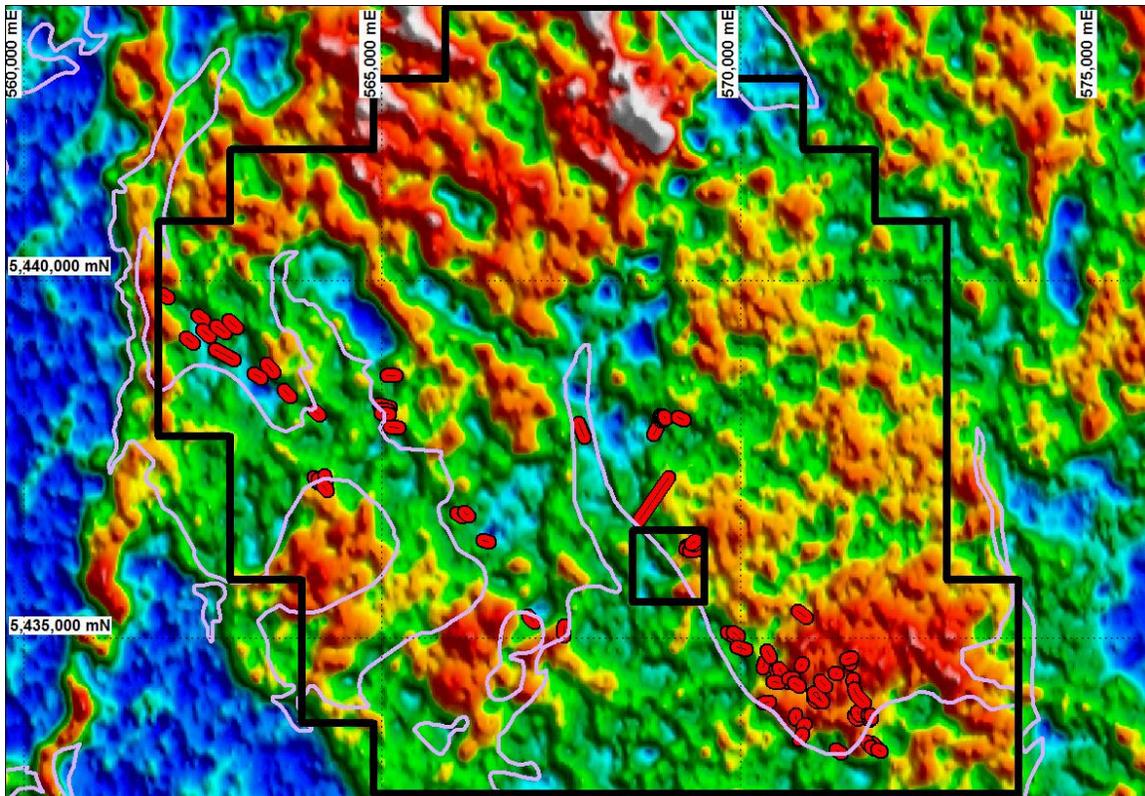


Figure 6.5: Radiometrics - Potassium

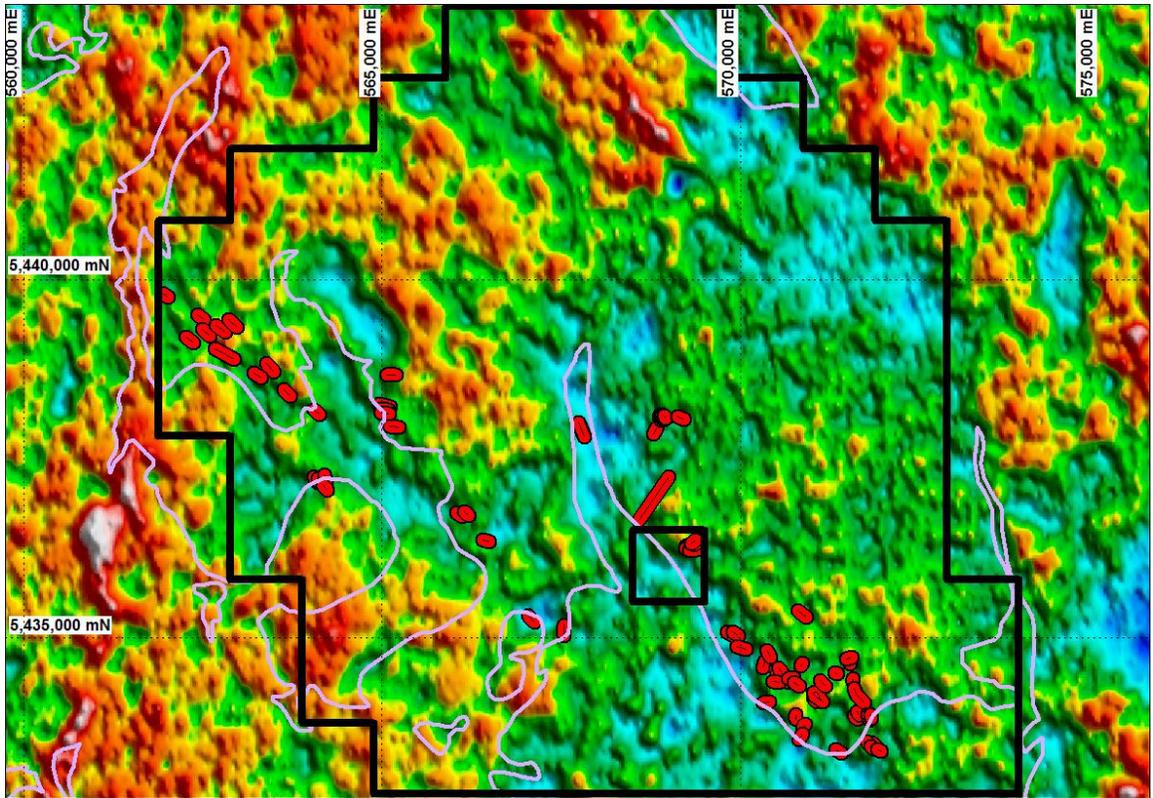


Figure 6.6: Radiometrics - Thorium

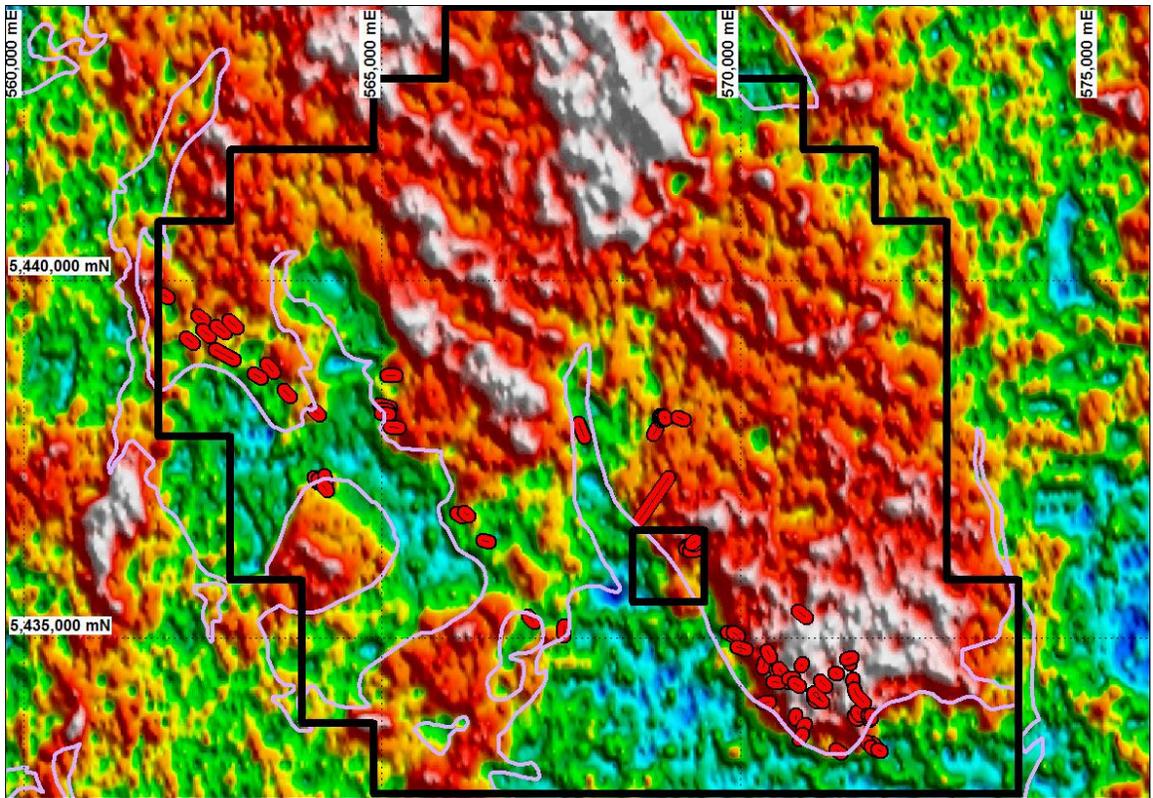


Figure 6.7: Radiometrics - Uranium

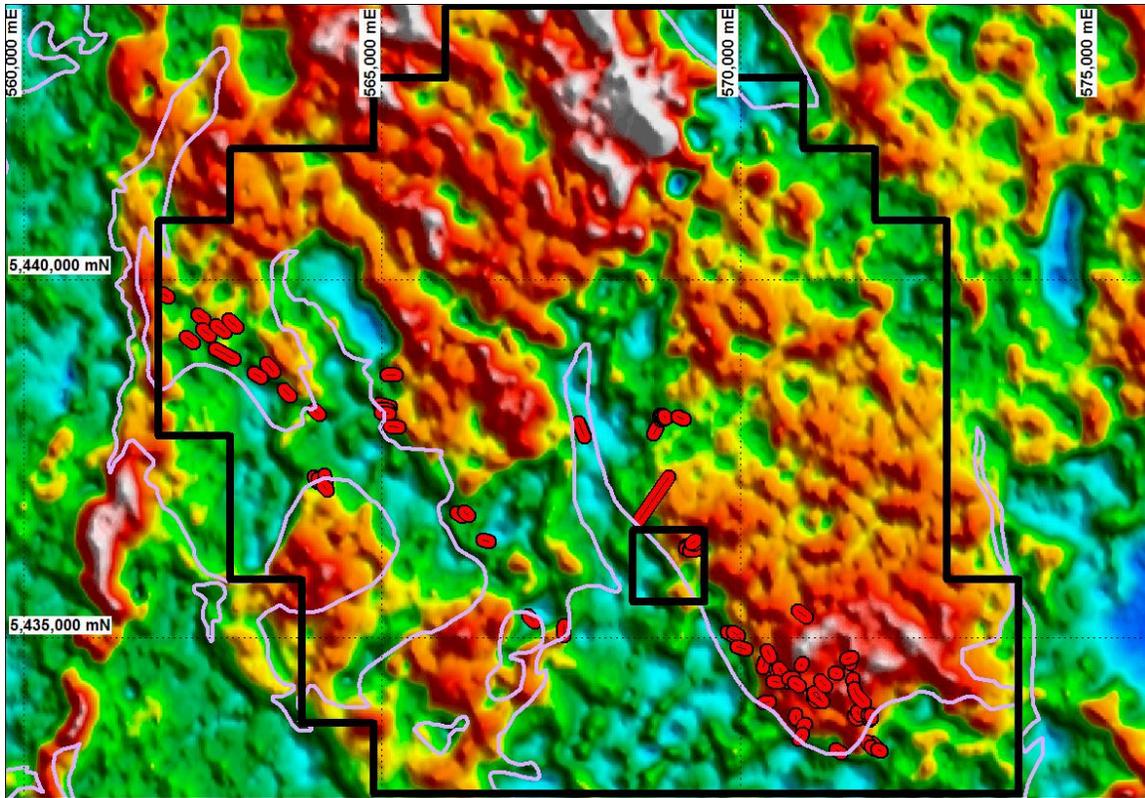


Figure 6.8: Radiometrics - Total

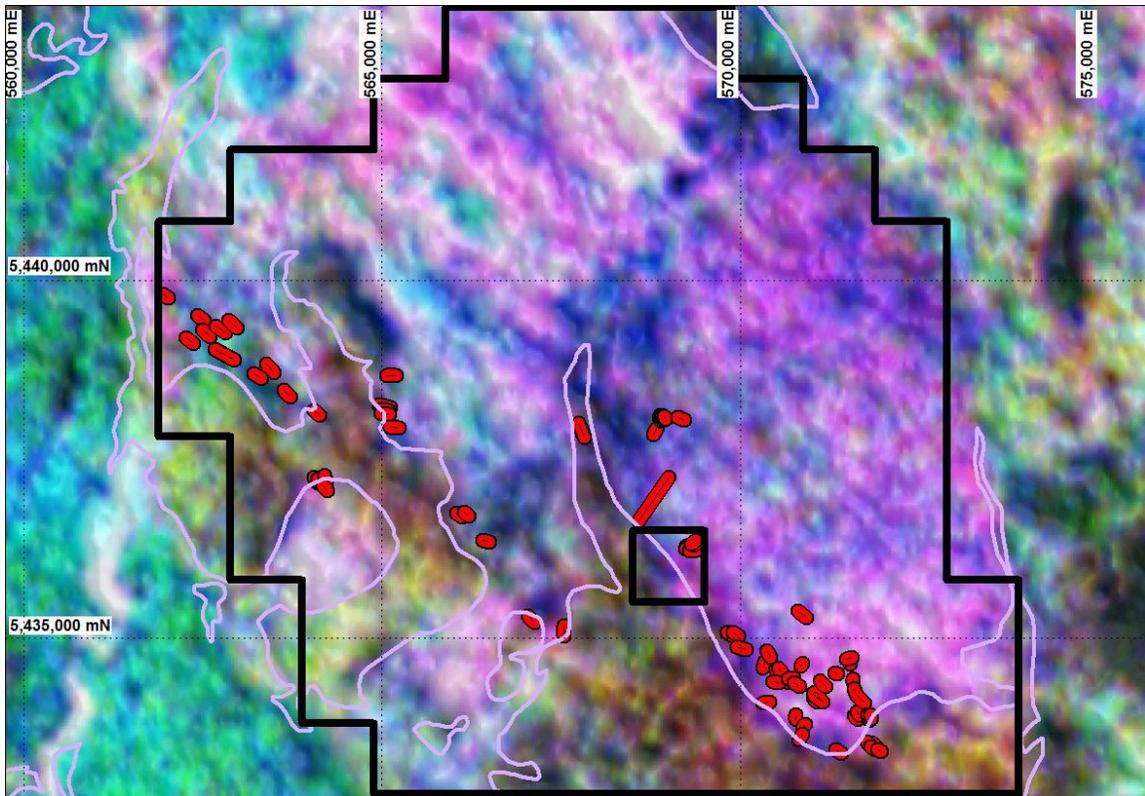


Figure 6.9: Radiometrics - Ternary

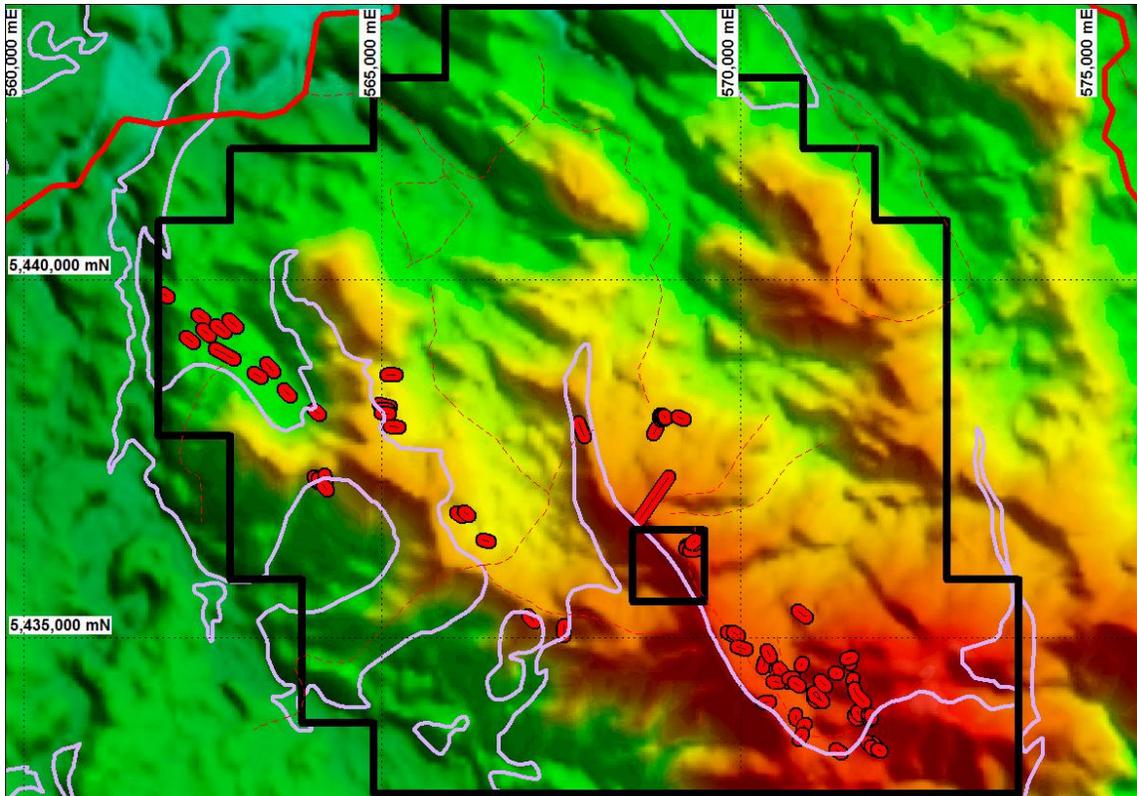


Figure 6.10: Digital terrain model. Red lines and dashes are roads and tracks.

6.4 Reconnaissance Soil Geochemical Traverses

Four reconnaissance soil traverses were carried out by geologist Bob McNeil with field assistance in order to determine background levels and allow better calibration of the desktop XRF analyzer in preparation for a larger scale survey in early 2013. Samples locations are shown on figures 6.11 and 6.12.

Samples were sent to ALS Brisbane for F analysis by ICP (in appendix B1). Pulps were then analyzed in-house by our Olympus desktop XRF analyzer. Results are presented in spreadsheet form in appendix B2.

Some caution must be taken in considering these XRF generated numbers as absolute assays. Firstly all XRF raw assays need adjustment, up to +/-30% at times, against laboratory standard analysis by another method (e.g. ICP). This has not been done and these numbers are raw uncalibrated results.

Secondly the machine has not been serviced for some time and analyses for standard in-house checks have been falling suggesting that any results are lower than would be generated from a newly serviced machine.

A number of elements were all below detection limit; W, Bi, Ag, Ni, Se, P, Hg, U, Te, Pr, Nd and Sm.

A number of elements were almost all below detection limit; Cd and Sc.

La and Ce were mostly below detection limit though with a few discrete highs and may be representing altered granite.

Sn was generally elevated over granite though elevated values also occur over Mathinna Beds. Above detection limit results were returned for Sn, Mo, Ta, Pb, Zn, As, Rb, Sr, Y, Nb, Ba, Tl, Th, Fe, S, K, Ca, Mn, Zr, Ti, V, Cr and Co.

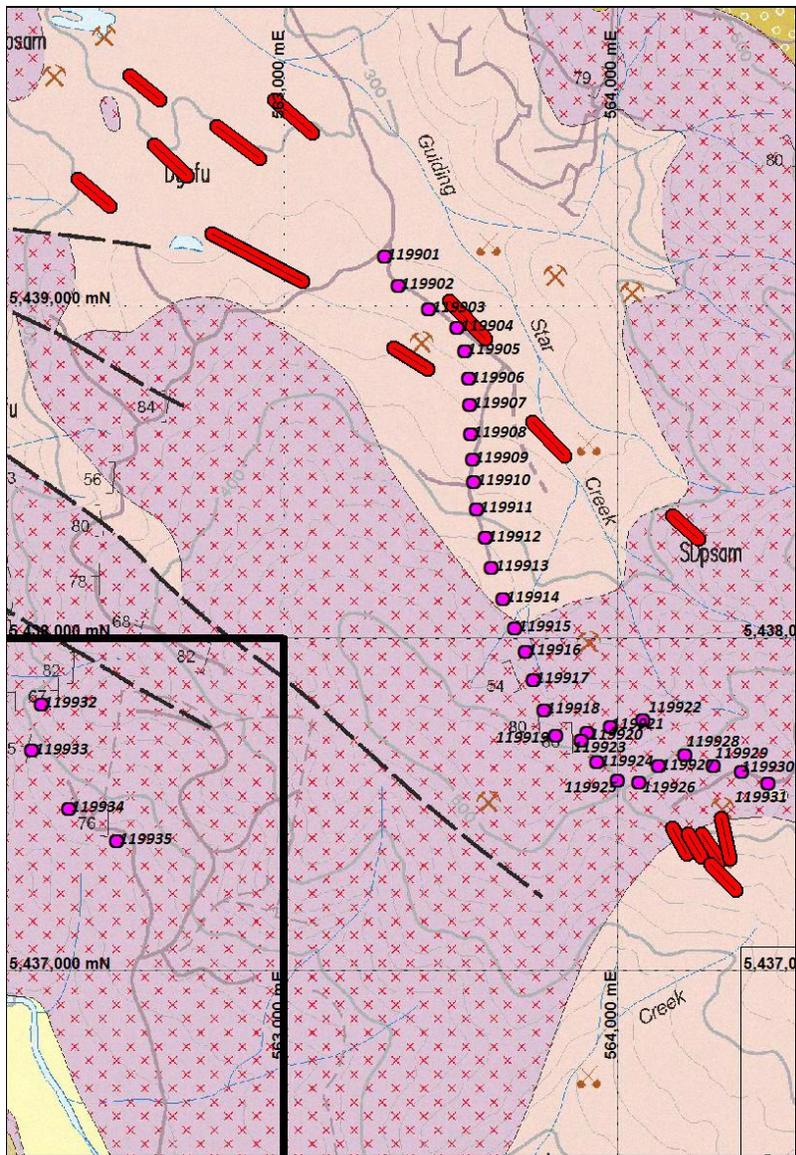


Figure 6.11: Ruby Flat-Mt Paris traverse soil sample locations and sample numbers. This map datum is MGA94.

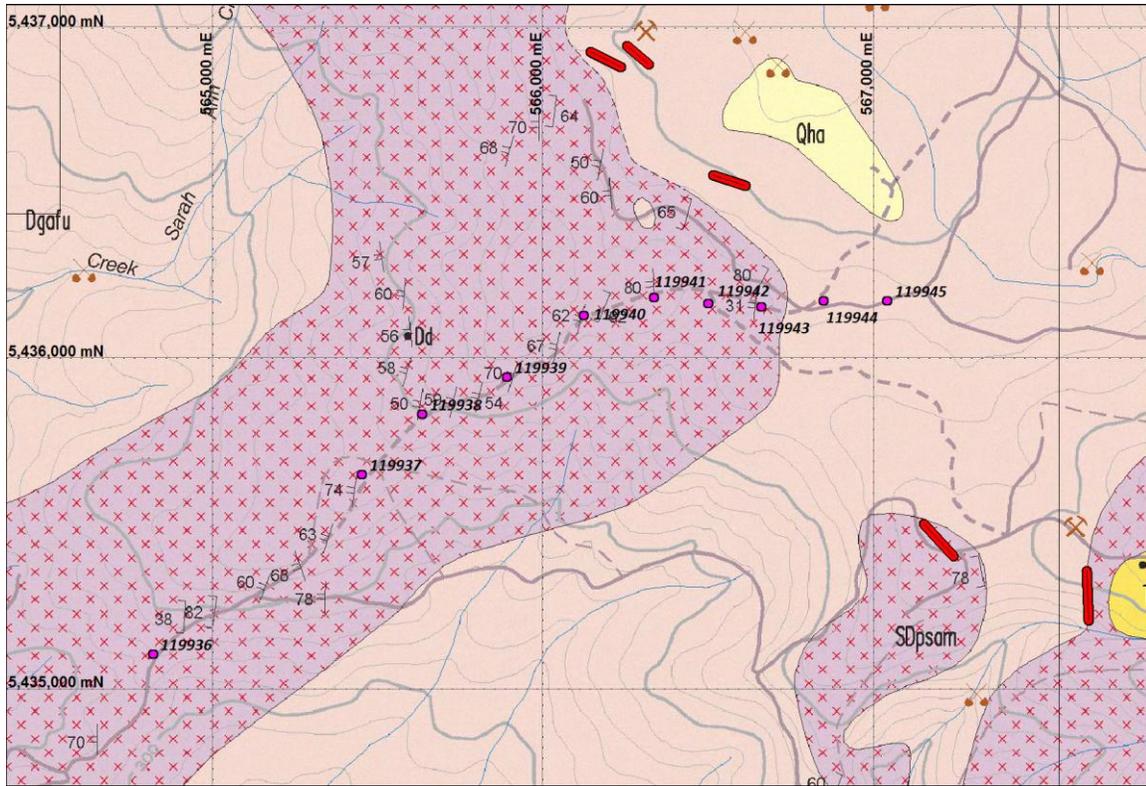


Figure 6.12: Dead Horse Hill traverse soil sample locations and sample numbers. This map datum is MGA94.

7.0 Proposed work

The large scale soil sampling programme planned for year 1 will be completed over outcropping granite and Mathinna Beds. This programme will utilize existing roads, contours, ridgelines and discrete traverses.

Work will also address the quality and volume of the kaolinite in the Ruby Flats area.

Drilling is proposed for the Mt Paris and the southeastern corner of the tenement as well as assisting in assessing the clay quality.

8.0 Environmental

The only work of any possible environmental impact is the soil sampling which was done along road sides and on a traverse through open bush. Samples were collected with a small spade and holes filled in.

9.0 Expenditure

Geology	\$31,248
Geochemistry	\$3,200
Geophysics	\$8,800
Administration	\$984
Total	\$44,232

10.0 References

- Purvis, J.G. (1988) Tasmanian Tin Prospects, Part 2, NE Tasmanian Tin Province: Consultant's Report, J.G. Purvis & Associates for: Aberfoyle Resources Ltd., 60 p., TCR 06_5259
- Solomon, M., (1971) Reconnaissance Geological Survey of Exploration Licence 15/68 near Branxholm, North East Tasmania, Ringarooma Prospecting Company, 16 p., TCR 71_0733

