HASTINGS
Technology Metals Limited

APPENDIX 5-10

Geology: Radionuclides Technical Note

HASTINGS
Technology Metals Limited

Yangibana Rare Earths Project

TECHNICAL NOTE

Geology: Radionuclides

Document	Technical Note: Geology		**Division**	GEO	**Status**	Approved	**Issued**	9/12/16
Number			**Author**	AB	**Review Date**	27/10/16	**Version**	0

1. Exploration Targets

Hastings Technology Metals Limited has conducted rare earths exploration drilling at current known and named deposits and prospects within the Yangibana Project (Figure 1). The well explored targets with JORC Indicated Resources are at Bald Hill South, Fraser's and Yangibana West within tenements in which Hastings holds 100% interest, and Yangibana North in which it holds a 70% interest. JORC Inferred Resources have been defined at Gossan, Lion's Ear, Hook, Kane's Gossan and Bald Hill North, in each of which Hastings has a 70% interest. Drilling in 2016 has tested the Auer, Auer North, Demarcay, Mosander and Hatchett targets and it is expected that JORC resources will be defined at Auer and Auer North in Q4 2016. Hastings undertook limited drilling at Yangibana, Yangibana South and Terry's Find during 2015 but insufficient to justify resource estimation. Limited historical drilling has tested Fraser's prospect, while no drilling has yet occurred at Turbine, Spider Hill or Simon's Find.

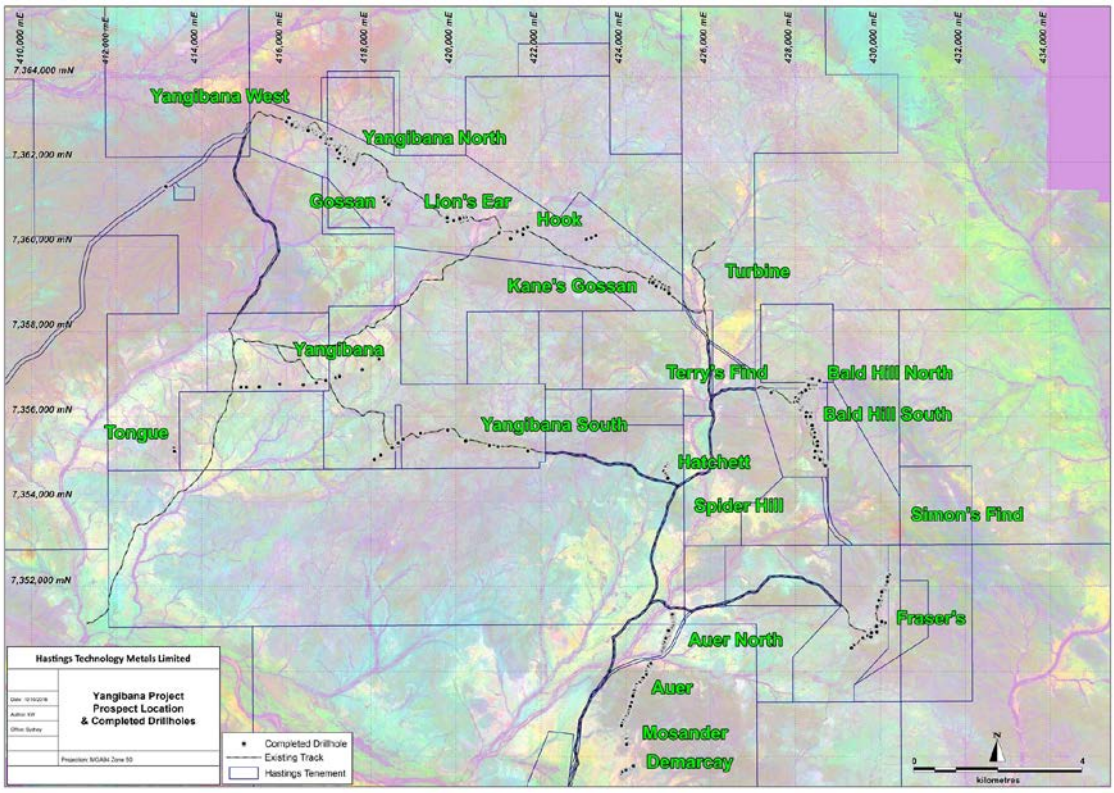

Figure 1 Yangibana Project, location of defined rare earths targets

2. Radiometric survey

Thorium radiometric data was collected from the 2016 aeromagnetic and radiometric survey commissioned by Hastings and interpreted by Southern Geoscience Consultants Pty Limited (SGC; Figure 2). This survey identified a number of new targets that will be assessed over the coming years.

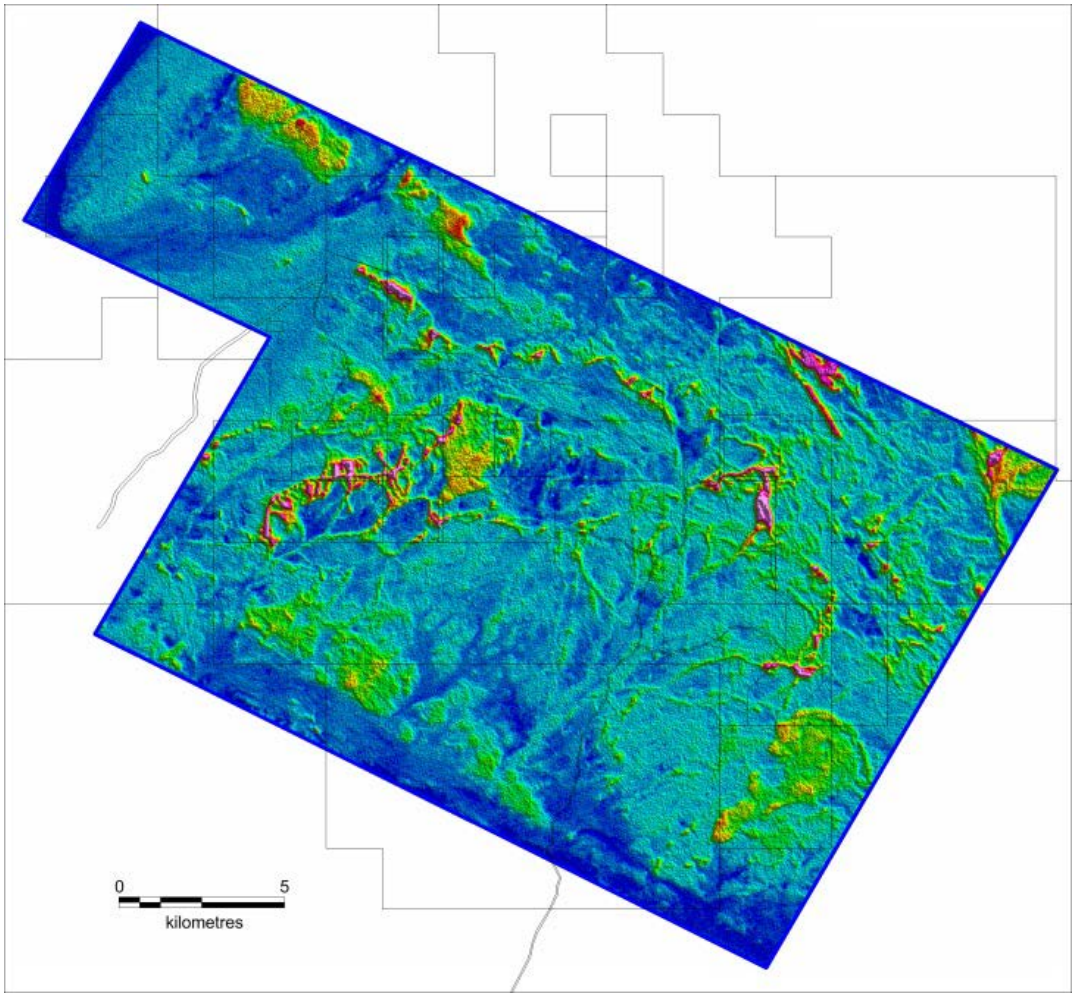

Figure 2 Yangibana Project, thorium radiometric image

The rare-earths bearing ironstone units are well defined by the thorium data due to the host mineral being monazite. In particular, the semi-continuous belt of ironstone between Yangibana North and Kane's Gossan; the ironstone at Bald Hill South and its continuing trend south to Fraser's ironstone; and the ironstone belt that extends from east of Yangibana prospect to Tongue prospect, show extremely well in this data. The broad zones around particularly Bald Hill South and Yangibana-Tongue relate to the large quantities of ironstone scree at these sites and the concentration of finer ironstone scree in the small creeks flowing from them.

3. Ore

The Yangibana rare earths mineralisation is associated with rocks of the Gifford Creek Ferrocarbonatite Complex (GCFC). The GCFC is a high-level, carbonatite-associated igneous intrusive suite that includes localities such as the Yangibana ironstones (shown as Targets 1-10 in Figure 3) and ferrocarbonatites, the Spider Hill ring intrusion (Target 11 in Figure 3), and the Bald Hill intrusions. It is characterised by ferrocarbonatite dykes, veins and sills and surrounded by fenitised (due to wallrock metasomatism) country rocks, which are generally southeast to east-southeast trending. They consist of dolomite, ankerite and siderite with accessory minerals that include magnetite, and the REE-bearing mineral phosphate monazite [usually (Ce,La,Nd)PO_4].

Sinuous ironstone veins and pods (mainly magnetite, hematite and goethite) are spatially associated with (but likely post-date) the ferrocarbonatite intrusions. They are north-northeast to east-southeast trending, surrounded by narrow haloes of fenitic alteration and are locally anomalously radioactive.

Based on resource estimations the overall average values for the mineralisation within the Yangibana Project is 25ppm U_3O_8 and 450ppm ThO_2[1].

[1] The samples were analysed for U and Th and converted to oxides.

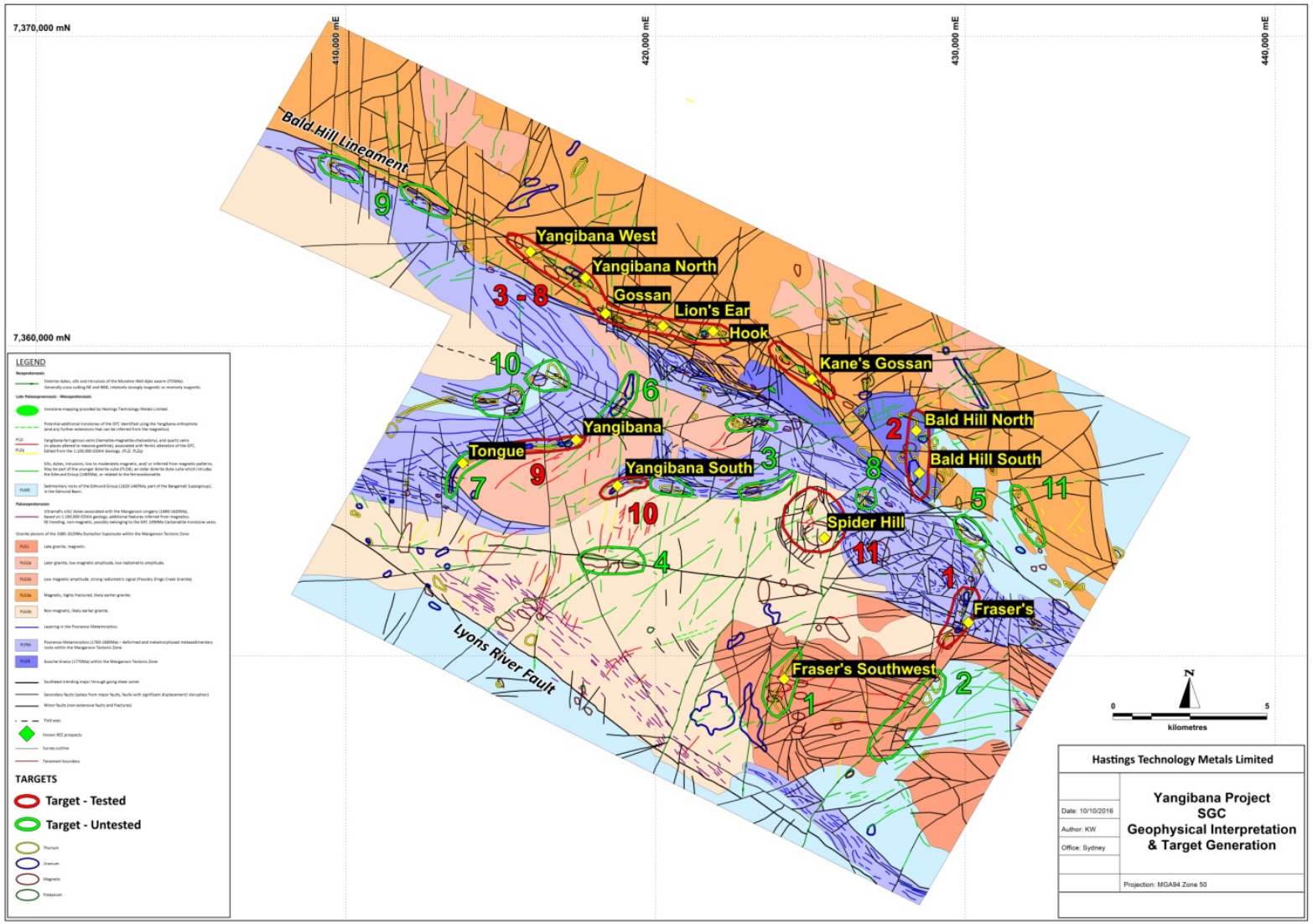

Figure 3 Geophysical interpretation and resource targets within the Yangibana Rare Earths Project area

4. WASTE ROCK ANALYSES

As a matter of course Hastings has sampled the hanging wall and footwall units within a few metres of the mineralisation in all holes at all targets tested. All these intersections have been assayed for thorium and uranium as well as the target rare earths and other selected elements.

In early 2015 Hastings undertook a limited programme of random sampling of material from the 2014 drilling programmes at Yangibana North and Bald Hill South. These samples provide analyses of material in the hangingwall well away from the mineralised zones.

Table 1 shows the number of samples taken from each area and the mean ThO_2 and U_3O_8 values derived from those analyses. Samples from drilling have been spilt into those that are immediately adjacent to the mineralisation (usually only 1-2m wide) and are marginal carrying between 0.1 and 0.2% total rare earths oxides, and those slightly further from the mineralisation and carrying less than total rare earths oxides.

Table 1 Yangibana Project, mean ppm ThO2 and U3O8 values for waste rock samples

	Waste <0.1%			Waste <0.2%			HW samples		
	No.	ThO_2	U_3O_8	No.	ThO_2	U_3O_8	No.	ThO_2	U_3O_8
Bald Hill South	375	36	7	1645	81	10	10	33	11
Fraser's	234	30	8	480	57	10			
Yangibana North	185	25	6	497	78	9	54	24	6
Yangibana West	293	30	5	317	91	8			
Auer	20	41	4						

These results clearly indicate an increase in thorium levels within 1-2m of the mineralisation to means of 57-91ppm ThO_2. This figure drops off rapidly away from the mineralisation to means of 24-41 ppm ThO_2.

Uranium levels are consistently low with means of 8-10ppm U_3O_8 within 1-2m of the mineralisation and 4-8 ppm U_3O_8 slightly further away. A higher mean of 11ppm U_3O_8 in the hangingwall samples from Bald Hill South relates to the background values of the granite.