FIRST ANNUAL REPORT

On

EL 25354 'BOOTU CREEK'

Mt Hall Project

From 27 December 2006 to 26 December 2007

Holder: Brumby Resources Limited

Operator: Brumby Resources Limited

Author
Claudia Rohde

January 2008

Distribution:
- Department of Primary Industry, Fisheries and Mines
- Brumby Resources NL

Annual Report 2007_Bootu Creek

CONTENTS

MAP SHEET:	HELEN SPRINGS: BRUNCHILLY:	SE 53-10 5760	1:250,000 1:100,000
KEYWORDS:	MANGANESE, COPPER, LEAD, ZINC, HEM SURVEY		
LOCATION:			
DATUM:	GDA94 ZONE 53		
AMG CO-ORDINATES:	8 243700N / 559600E		

TABLES

FIGURES

DIGITAL APPENDICES (supplied on CD)

FILE	DESC
AR2007_Bootu Creek.pdf	Report text incl figures
1_Landsat ETM Info.pdf	LandsatETM+7 General Information by Earthscan
2_SkyTEM_specs_Helen_Springs.pdf	HEM Survey Specifications
3_HEM Survey Data	Folder with HEM survey Data
Brumby_BootuCreek_WASG3_SURF_2007A.txt	Surface Sampling assay results

1.0 SUMMARY

EL 25354 'Bootu Creek' forms part of the Mt Hall Project. The tenement is situated 120 kilometers north of Tennant Creek in the Northern Territory (Figure 1). It was granted on 27 December 2006 and is registered in the name of Brumby Resources Limited (Brumby).

Exploration for manganese and base metals in the first year of tenure consisted of open file research, remote sensing, an HEM survey and helicopter supported reconnaissance sampling.

Landsat interpretation outlined several anomalies and preliminary HEM survey interpretation indicated several conductors. Assay results of reconnaissance rock chip sampling have not indicated the presence of massive manganese, with the best rock chip result yielding 253ppm manganese. However the rock chip sampling has returned anomalous zinc, up to 1610ppm in sample BCR6 and anomalous lead and copper, up to 257ppm and 682ppm respectively, in sample BCR3 from outcropping lithologies.

2.0 INTRODUCTION

EL 25354 'Bootu Creek' is located approximately 10 kilometers north of the operating Bootu Creek manganese mine and some 120 kilometers north of Tennant Creek in the Northern Territory (Figure 1). The OM (Manganese) Limited (a wholly owned subsidiary of OM Holdings Limited), Bootu Creek open cut mining operation is located approximately 20 kilometres east of the Stuart Highway and 50 kilometres east of the Alice Springs to Darwin railway line.

The tenement was acquired by Brumby in 2006 to explore for manganese and for base metals. This report describes exploration carried out by Brumby in the first year of tenure for EL 25354.

3.0 TENURE

EL 25232 was granted to Brumby Resources Limited and is shown on Figure 2. Tenement details are shown below in Table 1.

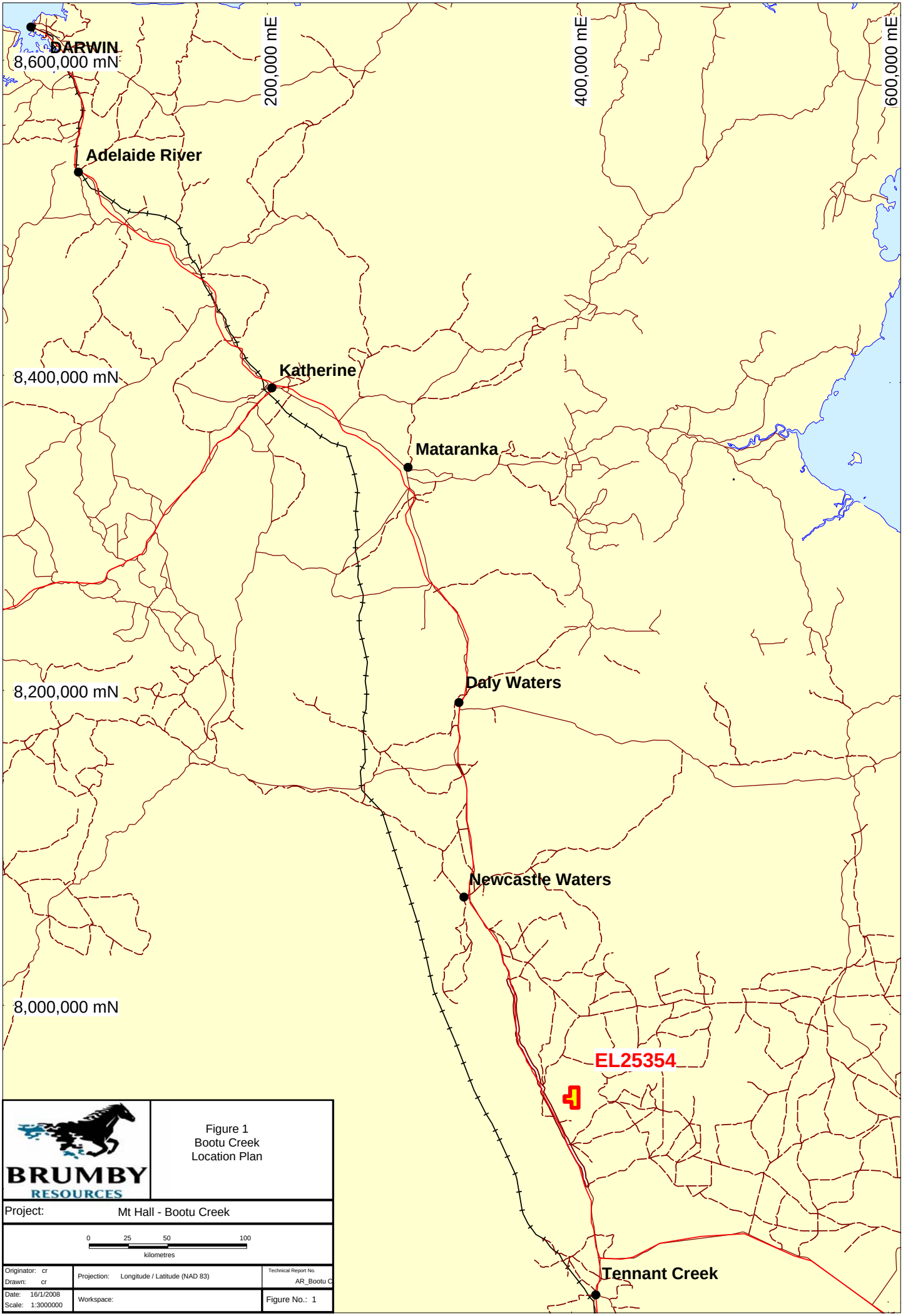
Table 1: Tenement Details

Tenement	Tenement Name	Area (km2)	Grant Date	Expiry Date	Commitment
EL 25354	Bootu Creek	77.7	27 Dec 2006	26 Dec 2012	$ 20,000

4.0 GEOLOGY AND MINERALISATION

EL 25354 Bootu Creek is situated at the northern end of the Tennant Creek Inlier in the central Northern Territory. The regional geology is shown on Figure 3. The regional geology is described in Ferenczi, 2001.

Manganese mineralisation within the Tennant Creek Inlier occurs at Bootu Creek and at Renner Springs, see Ferenzci, 2001. EL 25354 lies approximately 10km along strike north of the



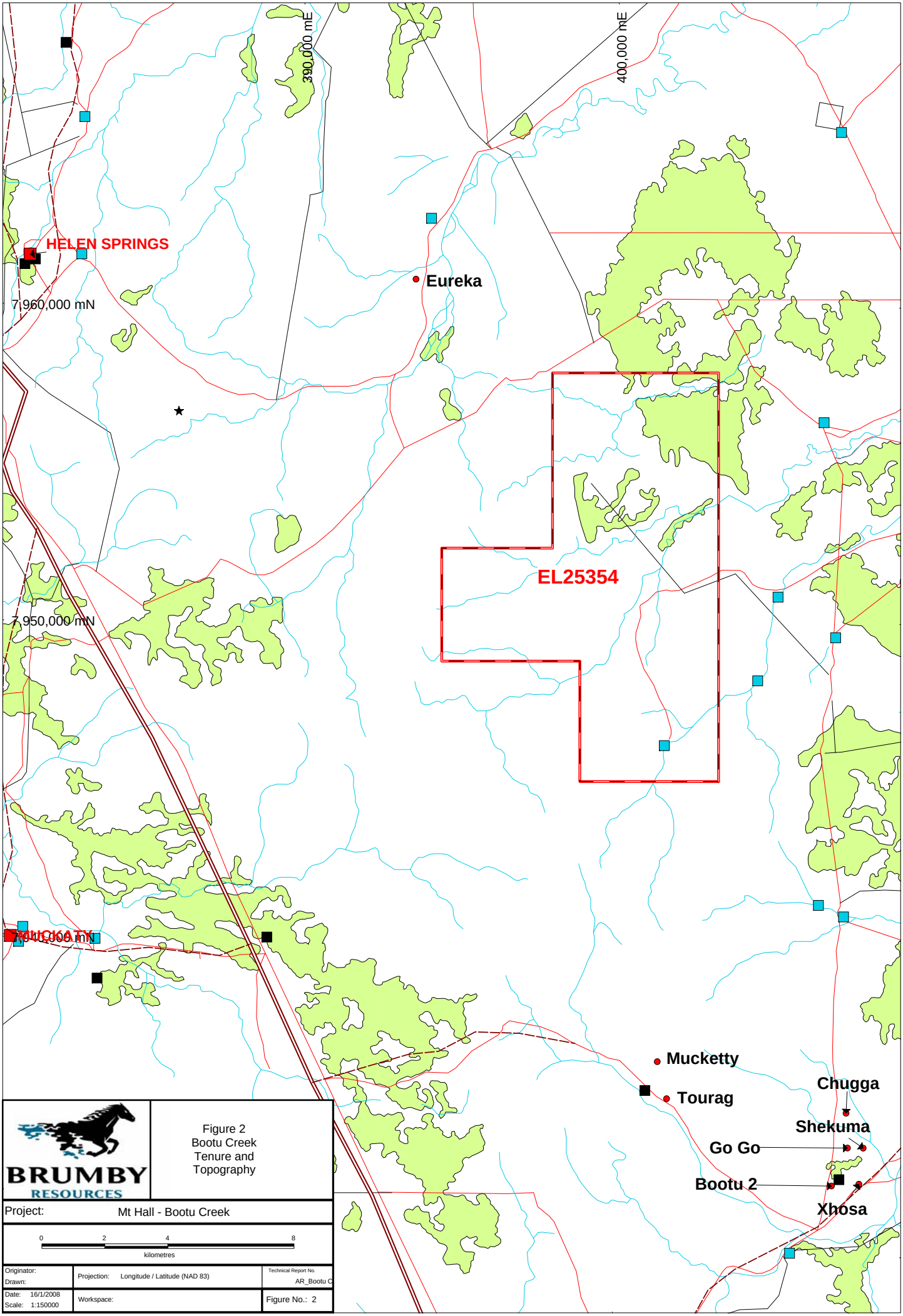
BRUMBY RESOURCES

Figure 1
Bootu Creek
Location Plan

Project: Mt Hall - Bootu Creek

0 25 50 100
kilometres

Originator: cr Drawn: cr	Projection: Longitude / Latitude (NAD 83)	Technical Report No. AR_Bootu C
Date: 16/1/2008 Scale: 1:3000000	Workspace:	Figure No.: 1



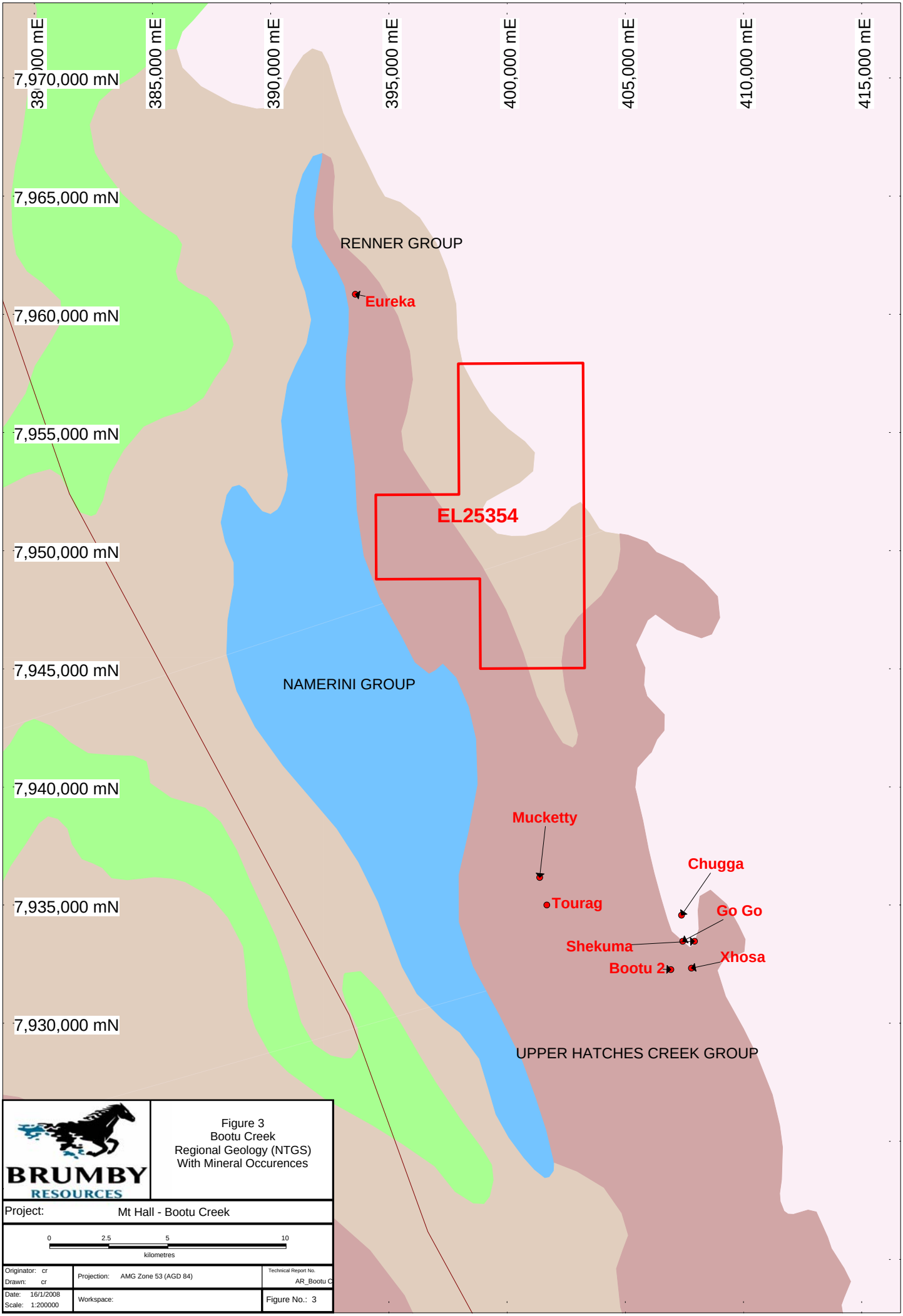
BRUMBY RESOURCES

Figure 2
Bootu Creek
Tenure and
Topography

Project: Mt Hall - Bootu Creek

0 2 4 8
kilometres

Originator: Drawn:	Projection: Longitude / Latitude (NAD 83)	Technical Report No. AR_Bootu C
Date: 16/1/2008 Scale: 1:150000	Workspace:	Figure No.: 2



BRUMBY RESOURCES

Figure 3
Bootu Creek
Regional Geology (NTGS)
With Mineral Occurences

Project: Mt Hall - Bootu Creek

0 2.5 5 10
kilometres

Originator: cr Drawn: cr	Projection: AMG Zone 53 (AGD 84)	Technical Report No. AR_Bootu C
Date: 16/1/2008 Scale: 1:200000	Workspace:	Figure No.: 3

550,000tpa Bootu Creek manganese operation in the same geological-structural corridor (Figure 4).

Bootu Creek contains numerous manganese occurrences including the abandoned Mucketty mine. They lie within the lower Bootu Formation. This unit is folded aound the Bootu Syncline, which plunges gently to the north-northwest. The manganiferous horizon can be discontinuously traced for 24 km around the syncline as a series of black ridges and knolls. Manganese oxides, predominantly as amorphous and massive cryptomelane, occur as epigenetic lens and vein replacements in a dolomitic siltstone bed. An overlying scarp-forming sandstone bed is also mineralised, as is a stromatolitic dololutite bed above the hangingwall sandstone, which has been pervasively replaced by manganese oxide (Ferenczi, 2001).

5.0 EXPLORATION COMPLETED

5.1 Review of Previous Exploration

The area of EL 25232 has been explored in the past by several companies. All available exploration carried out previously was reviewed in detail and is listed in Table 2.

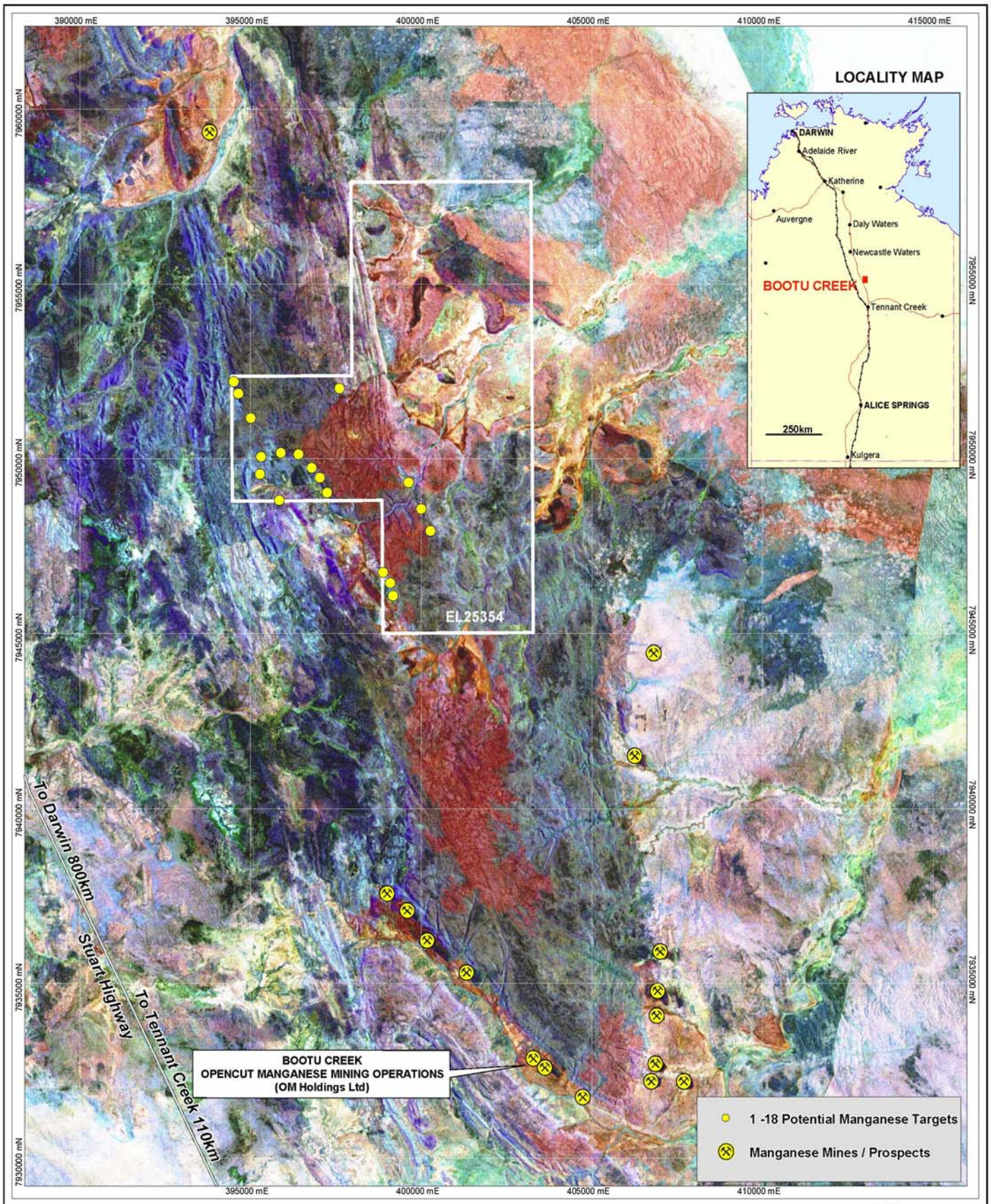
Table 2: List of Reviewed Previous Exploration Data in the Bootu Creek Area

Year / Period	Project Name	Company / Owner	Tenements	Commodity
1986-1987	-	Ashton Mining	EL 4802	diamonds
1989-1993	Banka Banka	Ben Hall, MIM	EL 6401 (EL 6400)	Mn, Cu, Pb, Zn
1992-1997	Carmilly Creek	D Ward BHP	EL 7948	Cu, Pb, Zn
1995-1997	Helen Springs	BHP	EL 9024 (EL's 9022, 9023, 9025, 9325, 9326, 9327, 9570)	Cu, Pb, Zn
1996-1998	Helen Springs	BHP	EL 9326 EL 9570	Mn, Cu, Pb, Zn

The main focus of exploration has been on manganese or base metals. The Muckatty manganese deposits were discovered in the early 90's and are being mined now by OM (Manganese) Limited. Only minor base metal exploration was completed on EL 25354 and no previous drilling data could be found.

5.2 Remote Sensing

A regional geological evaluation of the Bootu Creek and Renner Springs manganese province was completed. Regional Landsat data were acquired from Earthscan Pty Ltd including the Bootu Creek area. A general description of the LANDSAT Enhanced Thematic Mapper System and Processing Techniques used by Earthscan are included in the digital appendix as '1_Landsat ETM



LANDSAT IMAGE OF BOOTU CREEK MANGANESE PROVINCE

Info.pdf'. The project area showing manganese targets is displayed on Figure 4 using Landsat 753pan.

The Bootu Creek manganese occurrences lie around the southern margin of a north trending syncline and are hosted with the Bootu Creek Formation. The northern half of this syncline has multiple sinuous block faults trending NNW and is transacted by secondary northerly faults.

The evaluation defined 18 targets prospective for manganese mineralisation within EL 25354. The targets lie essentially at the fault block margins and at fault intersects within the Bootu Creek Formation.

5.3 HEM Survey

Geoforce Pty Ltd, have carried out a Helicopter Electromagnetic (HEM) survey over the Bootu Creek North project in November 2007 (Figure 5). The survey specifications are listed in the attached digital appendix in 2_SkyTEM_specs_Helen_Springs.pdf. All survey data are included in digital format as well.

The survey included a total of 330 line.km in the survey area and 44 line km of infill. The flight line spacing was 200m and infill line spacing was 100m.

The survey was designed to further investigate the 18 previously identified Landsat anomalies, which were considered to be prospective manganese targets at Bootu Creek from a regional and geological evaluation of the Bootu Creek and Renner Springs manganese province.

Preliminary interpretation of the HEM data by Southern Geoscience Consultants Pty Ltd has delineated six conductors which in some cases are located adjacent to a number of the previously defined Landsat targets. Interpretation of the data indicates that the conductors are up to 1km in length and range in width up to approximately 50-75 metres (Figure 5).

5.4 Reconnaissance Sampling

A ground inspection of Bootu Creek Landsat and HEM anomalies was carried out by helicopter in early December 2007. A helicopter had to be used due to access problems, eg rough terrain, no access tracks.

All individual Landsat targets were inspected. Obvious black brown ridges were noted and sampled. On closer inspection, most of the black brown ridges were comprised of massive manganous ironstones / gossans. A thin veneer of manganese was common in most sites inspected and sampled. No massive manganese or any manganese like the outcropping Bootu Creek (Muckatty) manganese to the south was located during this preliminary first pass sampling programme.

A total of 7 samples were taken and are displayed on Figure 6. Two samples (4 and 5) displayed some gossanous boxwork textured features contained within finely laminated sediments. Samples were submitted to Genalysis for assaying. All sample and assay data are included in the digital appendix.

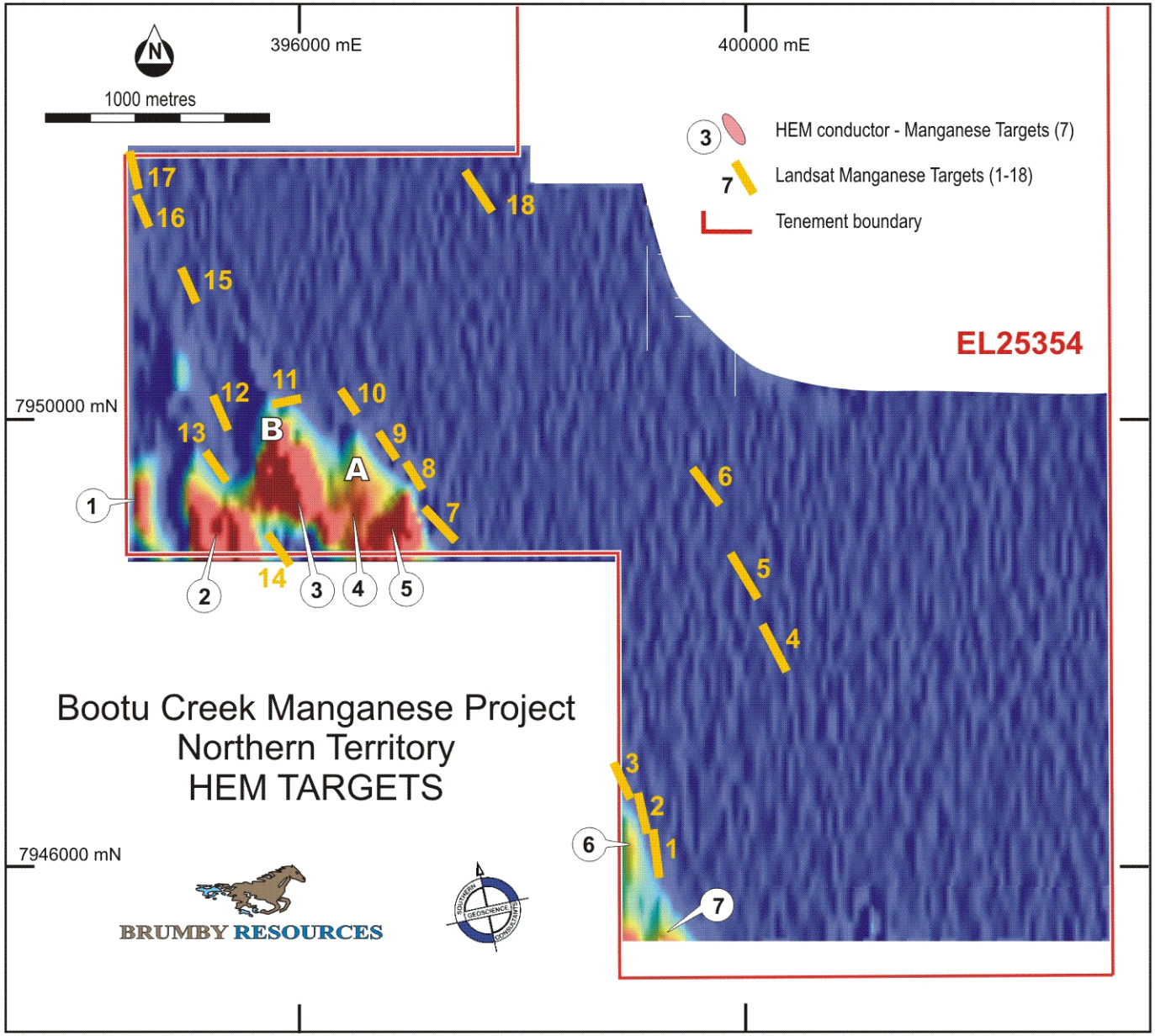
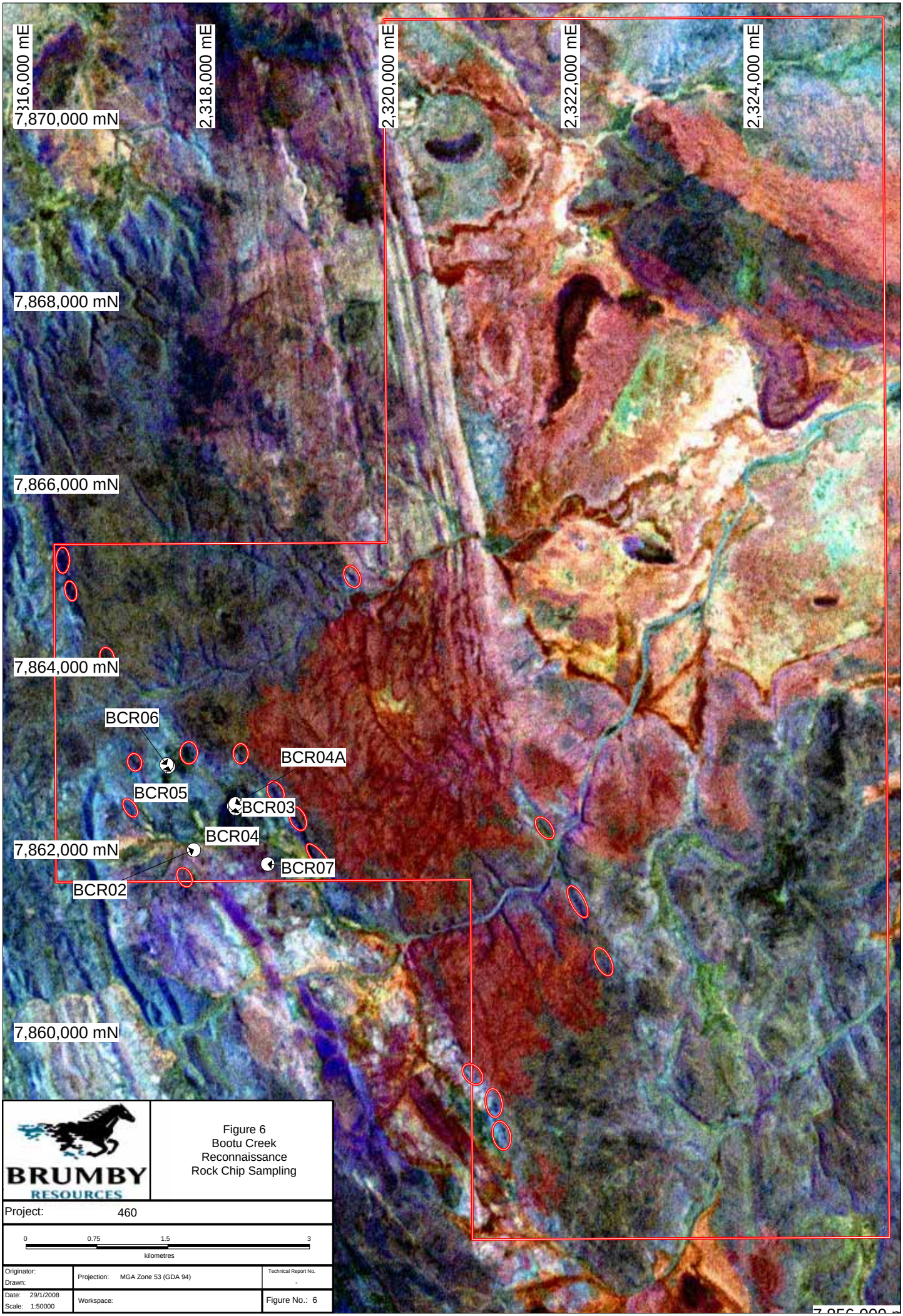


Figure 5: HEM Targets



BRUMBY RESOURCES

Figure 6
Bootu Creek
Reconnaissance
Rock Chip Sampling

Project: 460

0 0.75 1.5 3
kilometres

Originator: Drawn:	Projection: MGA Zone 53 (GDA 94)	Technical Report No. -
Date: 29/1/2008 Scale: 1:50000	Workspace:	Figure No.: 6

Whilst outcropping rock was evident, sample assays have not indicated the presence of massive manganese, with the best rock chip result yielding 253ppm manganese. However the rock chip sampling has returned anomalous zinc, up to 1610ppm in sample BCR6 and anomalous lead and copper, up to 257ppm and 682ppm respectively, in sample BCR3.

6.0 BIBLIOGRAPHY

Ferenczi, P., 2001. Iron Ore, Manganese and Bauxite Deposits of the Northern Territory, Report 13, Northern Territory Geological Survey.

Plumb, K.A., Ahmad, M., and Wygralak, A.S., 1990. Mid-Proterozoic Basins of the North Australian Craton – Regional Geology and Mineralisation. Geology of the Mineral Deposits of Australia and Papua New Guinea, pp 881-902.

Brumby Resources Limited, 2007. Company Quarterly Reports and ASX Announcements.