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**TENEMENT: EPM 16578
BOULIA PROJECT**

**TITLE: EPM 16578 ANNUAL REPORT
YEAR 1
FOR THE PERIOD ENDING
28 JANUARY 2010**

Vol 1 of 1

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1. INTRODUCTION & SUMMARY

This Annual Report describes all work carried out by AMC Consultants Pty Ltd (AMC) for and on behalf of Hanwha Australia Pty Limited (Hanwha) on EPM 16578 and covers Year 1 of the tenure for the period 28 January 2009 to 27 January 2010.

Restricted Area (RA) 339, 340, 344 and 345 were advertised by the Queensland Department of Mines and Energy (DME) in 2007 and three of these, RA's 340, 344 and 345 were awarded to a Korean Consortium headed by Hanwha on 28 January 2009. The three areas contain six tenements, two to each RA, all granted on the 28 January 2009 (Figures 1 & 2).

The RA's were selected and advertised following extensive work by the Queensland Government and industry to further enhance and increase the mineral exploration potential of the world renowned base metal endowed Mt Isa Inlier, particularly the concealed prospective Proterozoic basement geology. The principal basis for the RA selection was strong and significant magnetic highs.

Potential also exists for other commodities and deposits styles including phosphate, carbonate hosted base metals and uranium within the younger Cambrian - Ordovician and Mesozoic cover sequences.

EPM 16578 was granted as the northern most tenement to RA 344. The six tenements, which are relatively closely grouped, have been treated as one project area referred to as the **Boulia Project**. The initial exploration will be treated at a project scale as it is frontier in nature.

The Korean consortium members and full holders for each of the tenements including EPM 16578 are as follows:

Hanwha Australia Pty Limited	33.34%
Kores Australia Pty Limited	33.33%
Sun Metals Corporation Pty Ltd	33.33%

The Boulia Project, including EPM 16578, includes the following tenements:

RA 340	-	EPM 16588
	-	EPM 16581
RA 344	-	EPM 16578
	-	EPM 16590
RA 345	-	EPM 16584
	-	EPM 16582

AMC was appointed as Operator for all the Boulia Project tenements, including EPM 16578, in late November 2009.

Work completed for Year 1 ending 27 January 2010 included:

- Data review and compilation
- Site Reconnaissance

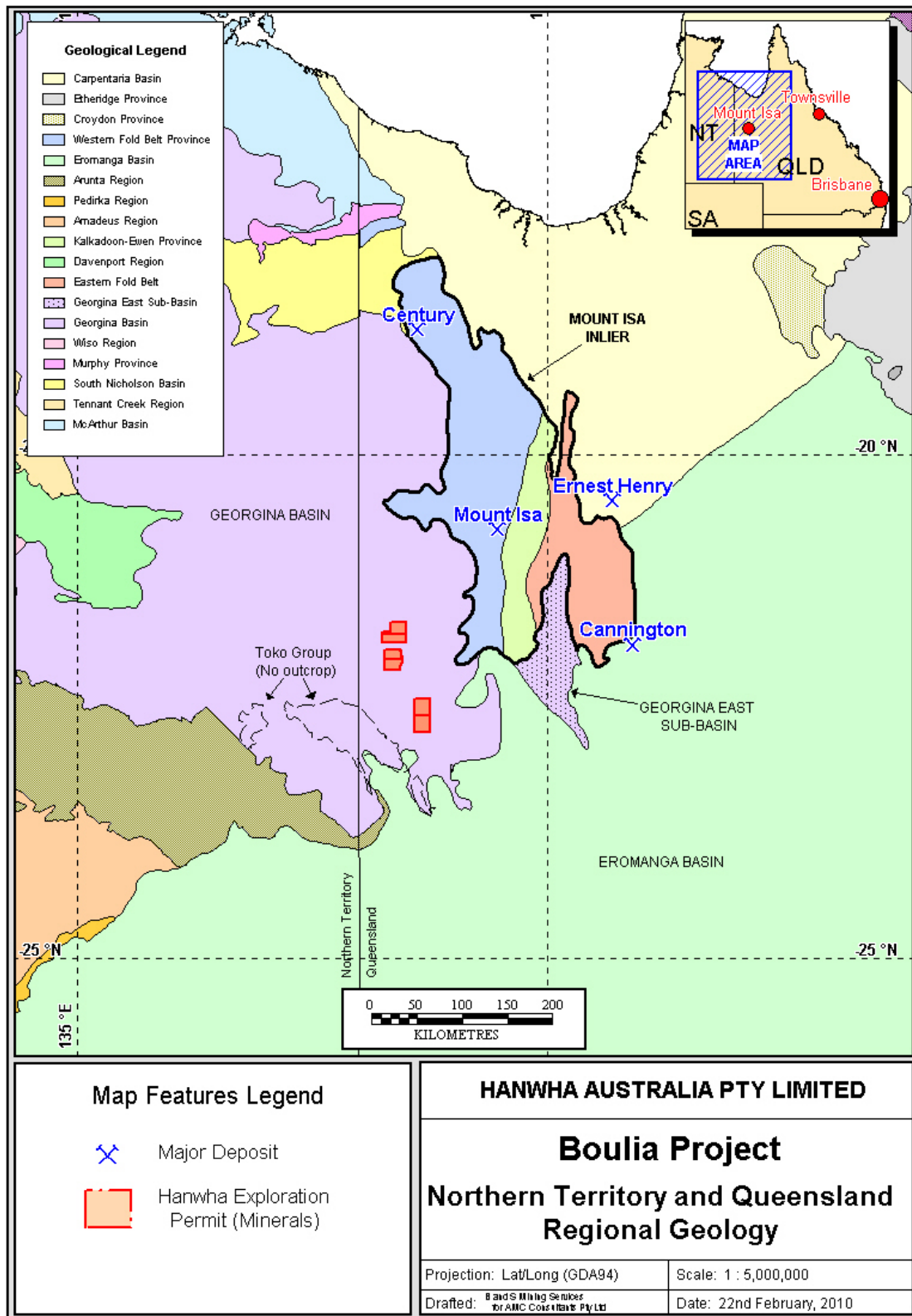


Figure 1 Location Plan – Boulia Project

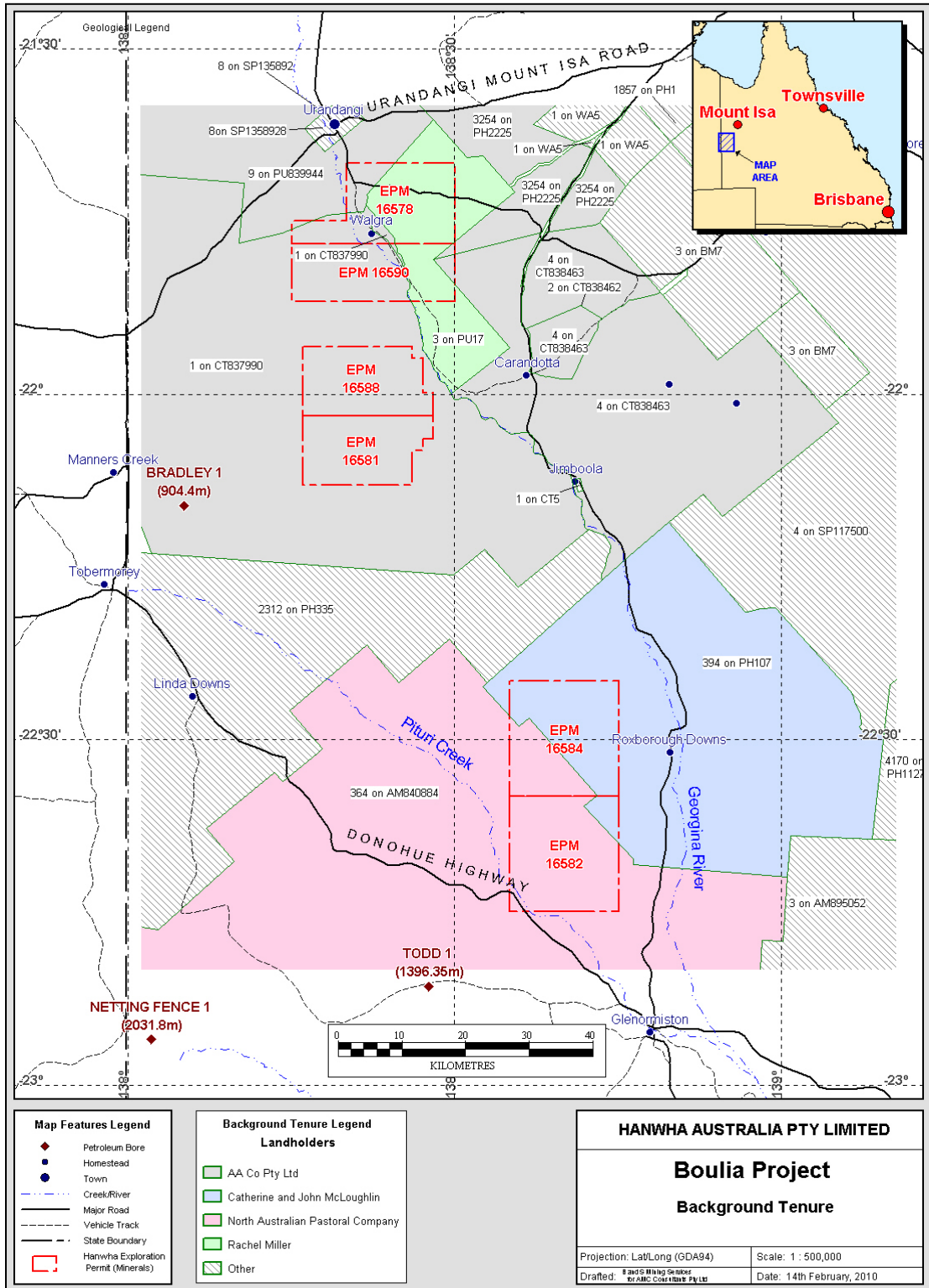


Figure 2 Boulia Project Tenements and EPM 16578

- Regional Geology review and interpretation
- Geophysical reprocessing and interpretation (preliminary)

The prospective Proterozoic basement geology is deep and doesn't outcrop and there are no known drill holes intersecting basement rocks within the tenements.

Interpretation has been possible as a result of the recent acquisition of high quality aeromagnetic data and also improved gravity coverage and data.

The most significant finding / interpretation to date is that the Boulia Project tenements lie proximal to a major terrane boundary that separates the well-defined Mt Isa Block in the east from an unknown terrane in the southwest. There is also some suggestion that a separate terrane lies to the northwest but this may be a result of thicker cover sequences masking the magnetic and gravity patterns. The southwestern terrane has been tentatively ascribed to the Arunta Block but could also be an extension of the Tennant Creek Block in the Northern Territory.

Further, the Boulia Project tenements lie along a broad north-south structural trend which extends north away from a structural domain informally referred to as the Diamantina Hinge Zone, a significant inflection or hinge along a major cratonic structural separation. The Tanami / Arunta Structure and the Diamantina Orogen Fault intersection define this cratonic separation and hinge zone. Importantly, the broad Diamantina Hinge Zone and associated regional structures should generally be favourable for deep tapping high heat / fluid flow.

Preliminary geophysical reprocessing work has identified a number of very prominent magnetic bodies and to a lesser extent, separate and coincident gravity anomalies. The gravity data is relatively sparse and it has already been identified that infill gravity data will be required. Work was in progress at the end of the reporting period to better define the geophysical target areas and their estimated depth below surface for planned drilling in 2010.

2.0 EXPLORATION RATIONALE

The overriding rationale for applying for the EPMs was based on unexplored extensions of the Mt Isa Inlier and NW Queensland Mineral Province under deep cover, sometimes referred to as Generation # 3 exploration. The earlier generations of exploration are referred to as # 1 “Outcrop” and # 2 “Shallow Cover”.

The Province is a world famous Proterozoic base metal province. It is characteristically a multicommodity province containing a variety of mineralisation styles including sediment hosted silver-lead-zinc, brecciated sediment hosted copper, iron oxide-copper-gold (IOCG) deposits, and Broken Hill style silver-lead-zinc. The area contains the Century mine, the world’s largest zinc mine, and Cannington, the world’s largest silver mine, as well as the world class Mount Isa zinc-lead-silver and copper mines and the Ernest Henry copper-gold mine. The region also has major phosphate resources, one of which is in production at Phosphate Hill (Blake, 1987).

In 2000 the DME issued a major review of the Province titled, *North-west Queensland Mineral Province Report* (Queensland Department of Mines And Energy, Taylor Wall & Associates, SRK Consulting Pty Ltd & ESRI Australia, 2000).

The review was initiated to:

- Provide industry with new geoscientific data in areas of high mineral potential;
- Increase the accessibility of information by developing modern digital systems;
- Promote Queensland's mineral prospectivity to both domestic and international markets.

The Study aimed to enhance the impetus, effectiveness and success rate of exploration activities in the North-West Queensland region by:

- Providing fresh insights into the geology and mineralisation;
- Developing new exploration concepts and specific base and precious metal targets;
- Making the new data available to industry in a readily accessible digital form.

In 2006 the DME carried out a detailed aeromagnetic survey to extend the study area to the southwest. The evaluation of the survey resulted in the advertising in 2007 of Restricted Area (RA) 339, 340, 344 and 345. These RAs contained “interesting magnetic anomalies” under deep cover and initial geophysical processing was undertaken and reported in the RA advertising.

RA areas 344, 340 and 345 were subsequently awarded and granted as six separate tenements to a Korean Consortium headed by Hanwha Australia Pty Ltd on 28 January 2009 for a five year period.

The exploration rationale remains one of geophysical targets under deep cover (>600m). Whilst extensions of the Mt Isa Inlier are still invoked, more recent interpretation suggests the tenements lie juxtaposed to the older Arunta Block / Tennant Creek which extends well into the Northern Territory.

Further, the Boulia Project tenements lie along a broad north-south structural trend which extends north away from a structural domain informally referred to as the Diamantina Hinge Zone, a significant inflection or hinge along a major cratonic structural separation. The Tanami / Arunta Structure and the Diamantina Orogen Fault intersection define this cratonic separation and hinge zone. Importantly, the

broad Diamantina Hinge Zone and associated regional structures should generally be favourable for deep tapping and high heat and fluid flow.

The Boulia Project tenements are virtually unexplored and their geology poorly known, a frontier region.

The potential for the discovery of commodities in the cover rocks overlying basement is also recognised. These include phosphate and carbonate hosted base metals within the Cambrian - Ordovician cover sequences and possibly sandstone-hosted uranium mineralisation within Mesozoic sediments, if they can be demonstrated to be present.

3.0 TENURE & OWNERSHIP

Tenement details for EPM 16578 are as follows:

EPM	HOLDER	SUB-BLOCKS	GRANT DATE	EXPIRY
16578	Hanwha Australia Pty Ltd	80 (245km ²)	28/01/2009	27/01/2014

EPM 16578 currently consists of the following sub-blocks:

<u>BIM</u>	<u>BLOCK</u>	<u>SUB-BLOCKS</u>
CLON	1445	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z
	1446	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z
	1516	a,b,c,d,e,f,g,h,j,k
	1517	a,b,c,d,e,f,g,h,j,k
	1518	a,b,c,d,e,f,g,h,j,k

Total: 80 Sub-Blocks.

The full tenure holders are as follows:

Hanwha Australia Pty Limited	33.34%
Kores Australia Pty Limited	33.33%
Sun Metals Corporation Pty Ltd	33.33%

4.0 LOCATION, ACCESS & PHYSIOGRAPHY

The Boulia Project Area and EPM 16578 are located approximately 190km south southwest of Mt Isa in North Western Queensland. The project and tenement lies within the Urandangi (SF54-5) 1:250,000 and Urandangi (6554) 1:100,000 sheets. EPM 16578 lies approximately 10km southeast of Urandangi, a small outback town near the Northern Territory border (refer Figure 1).

Urandangi is accessed by going south from Mt Isa along the Diamantina Development Road towards Dajarra and Boulia, a single lane bitumen road for approx 95km before turning off and travelling 95km south west along the formed but unsealed Urandangi - Mt Isa road.

Urandangi is located on the Georgina River, a major inland wet season river which commences approximately 200km north of Urandangi in Queensland and flows in a generally southerly direction past Urandangi and when in flood discharges into Lake Eyre in South Australia. For most of the year the river doesn't flow and is dry except for occasional waterholes (Figure 3).

Urandangi township was founded in 1885 as an important centre for travellers and drovers along the Georgina and other stock routes. Today the township consists of a hotel and a small number of houses. The mean maximum monthly temperature occurs in the months November to March ranging from 35.8 to 38.8 degrees centigrade with coinciding mean rainfall ("wet season") over the same months ranging from 20.9mm to 64.4mm per month. Average total annual rainfall is 290mm, however in heavy wet seasons 375mm up to 439mm of rain has been recorded per month during December to March.

The Boulia Project area and EPM 16578 physiography is dominated by the long graded flood plains of the Georgina River and its tributaries. For the most part, the area consists of featureless "downs" (treeless plains). Braided streams and channels are widespread across the tenement. Landuse is cattle grazing on native pastures.

Access within EPM 16578 is via the private Urandangi - Carandotta road which transects the tenement from north to south, then by local property and stock tracks.

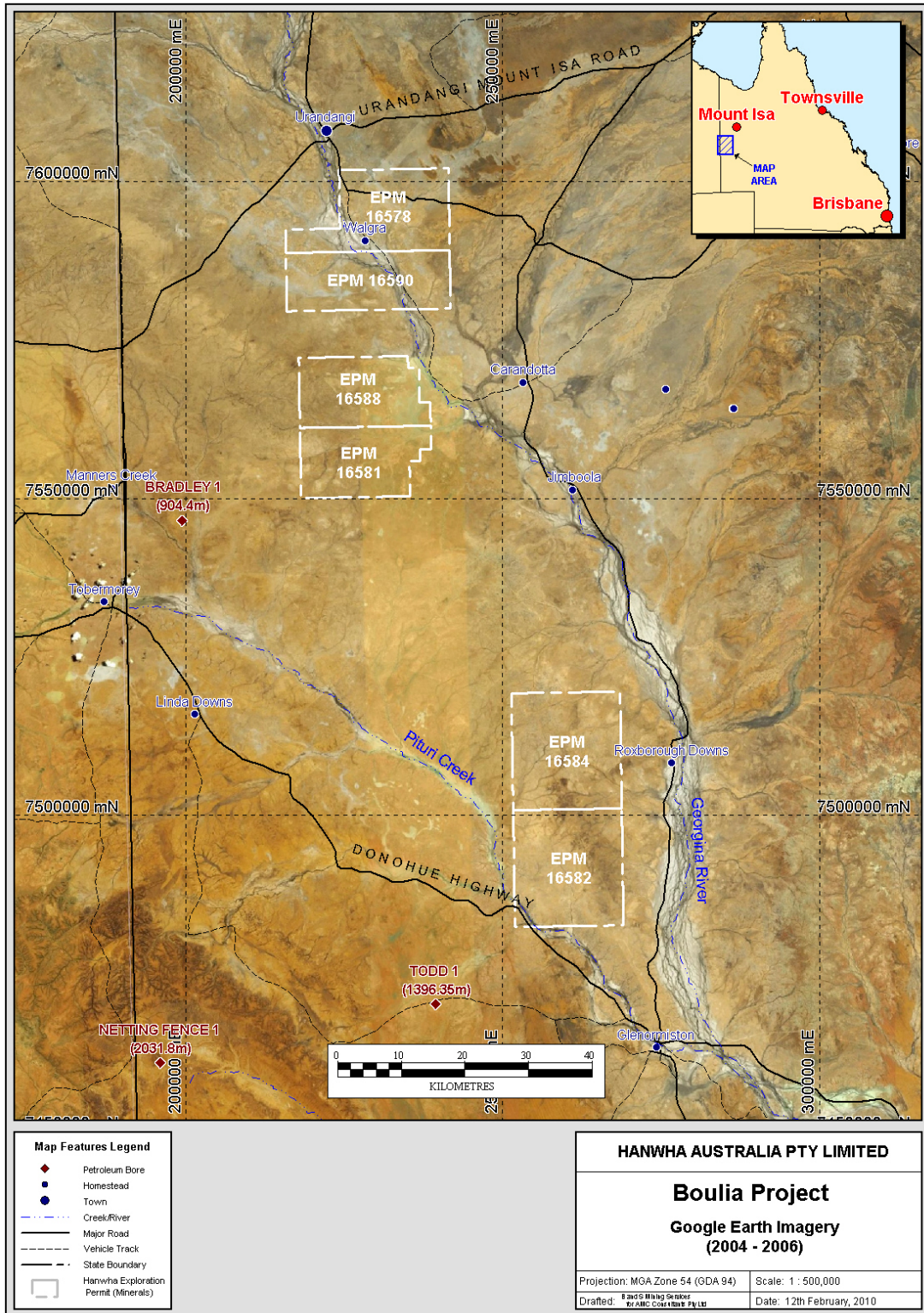


Figure 3 Google Earth Imagery (2004-2006) of the Boulia Project Tenements and EPM 16578

5.0 REGIONAL & PROJECT GEOLOGY

The geology of the region incorporates the Neoproterozoic to early Palaeozoic Georgina Basin, a large intracratonic basin flanking the western and southwestern margins of the Proterozoic Mount Isa Inlier (Ambrose et al, 2001). In the Boulia Project area the Georgina Basin thickens and overlies the Mt Isa Inlier and other terranes for moderate to >1,000m depth. Latest published geology available is the *Urandangi – 4 Mile Geological Series*, (Department of Natural Development, Bureau of Mineral Resources, Geology and Geophysics, 1959).

The basin geology comprises mainly Cambrian to Middle Ordovician marine sedimentary rocks, consisting primarily of marine carbonate rocks with minor sandstone and siltstone. Minor to moderate folding and faulting has deformed the basin. The thickness of basin sediments overlying the older basement rocks is inferred to be variable, as a result of irregular basement topography at the time of formation and sedimentation of the Georgina Basin. The Georgina Basin is more widespread and better known on the Northern Territory side of the Queensland border.

The stratigraphy of the southern Georgina Basin is relatively defined well southwest of the Project Area in the vicinity of the western Toko Syncline, Figure 4 (Ambrose et al, 2001).

Recent high quality aeromagnetics, flown mainly by the DME since 2000, and gravity data sets acquired by DME have allowed semi-quantitative analysis and interpretation of the underlying basement geology below the younger Georgina Basin. As there are no Proterozoic outcrops in the area and no drill holes that penetrate Proterozoic rocks the interpretation is conjectural and based very much on assumptions as to what has caused various magnetic and gravity patterns. The interpretation is further hindered by the substantial thickness of post-Proterozoic cover sediments which degrades both the magnetic and gravity responses. Correspondingly, the stratigraphic details for this part of the region have not been formalised.

The most significant outcome of the interpretation is the recognition of a major terrane boundary that separates the well-defined Mount Isa Block in the east from an unknown terrane in the southwest (refer Figures 5 and 6). There is also some suggestion that a separate terrane lies to the northwest but this may be a function of thicker cover sequences masking the magnetic and gravity patterns. The southwestern terrane has been tentatively ascribed to the Arunta Block but could also be an extension of the Tennant Creek Block. The most recent work elucidating this region has been reported by Altson (2000), Alston & Humphries (2008) and Ausquest Limited (2008).

The terrane boundary also lies just north of the Diamantina Hinge Zone. The Diamantina Hinge Zone is a concept that describes the intersection of two major intracratonic fault zones at the southern end of the Proterozoic Mt Isa Block. The so named hinge zone is configured by the west-northwest trending Trans Tanami-Arunta Fault and the north-east trending Diamantina Orogen Fault.

TERTIARY	Undifferentiated	Undifferentiated	Alice Springs Orogeny
LATE JURASSIC– CRETACEOUS		Undifferentiated	
DEVONIAN	Dulcie Sandstone	Cravens Peak Beds	
LATE ORDOVICIAN– SILURIAN		Ethabuka Sandstone	
EARLY–MIDDLE ORDOVICIAN	Nora Formation	Mithaka Formation Carlos Sandstone	Delamerian Orogeny
	Kelly Creek Formation	Nora Formation Coolibah Formation Kelly Creek Formation	
	Tomahawk Formation		
		Ninmaroo Formation	
	Arrintheta Formation	Arrintheta Formation	
LATE CAMBRIAN	Eurowie Sandstone Member	Eurowie Sandstone Member	
	Chabalowe Formation	Chabalowe Formation	
	Hagen Member	Hagen Member Steamboat Sandstone	
	Arthur Creek Formation	Arthur Creek Formation	
MIDDLE CAMBRIAN	'Hot Shale'	'Hot Shale'	
	Thorntonia Limestone	Thorntonia Limestone	Petermann Orogeny
		Red Heart Dolostone	
	Red Heart Dolostone		
EARLY CAMBRIAN	Mount Baldwin Formation	Adam Shale	
	Elkera Formation		05-170-2
NEOPROTEROZOIC	Mopunga Group	Mopunga Group	

Figure 4 Stratigraphy of the Southern Georgina Basin with Major Tectonic Events (after Ambrose et al 2001).

Magnetic bodies that are curvilinear and narrow have been interpreted as mafic volcanics; those that are more diffuse and larger have been defined as mafic plutonic rocks but could also be ultramafic. These bodies are generally associated with gravity highs.

To the south and east of the terrane bounding fault zone the lithologies are interpreted to be gneisses based on a diffuse magnetic pattern and generally low to moderate density. A number of northeast trending lineaments are apparent in the gneisses but do not seem to result in much offset.

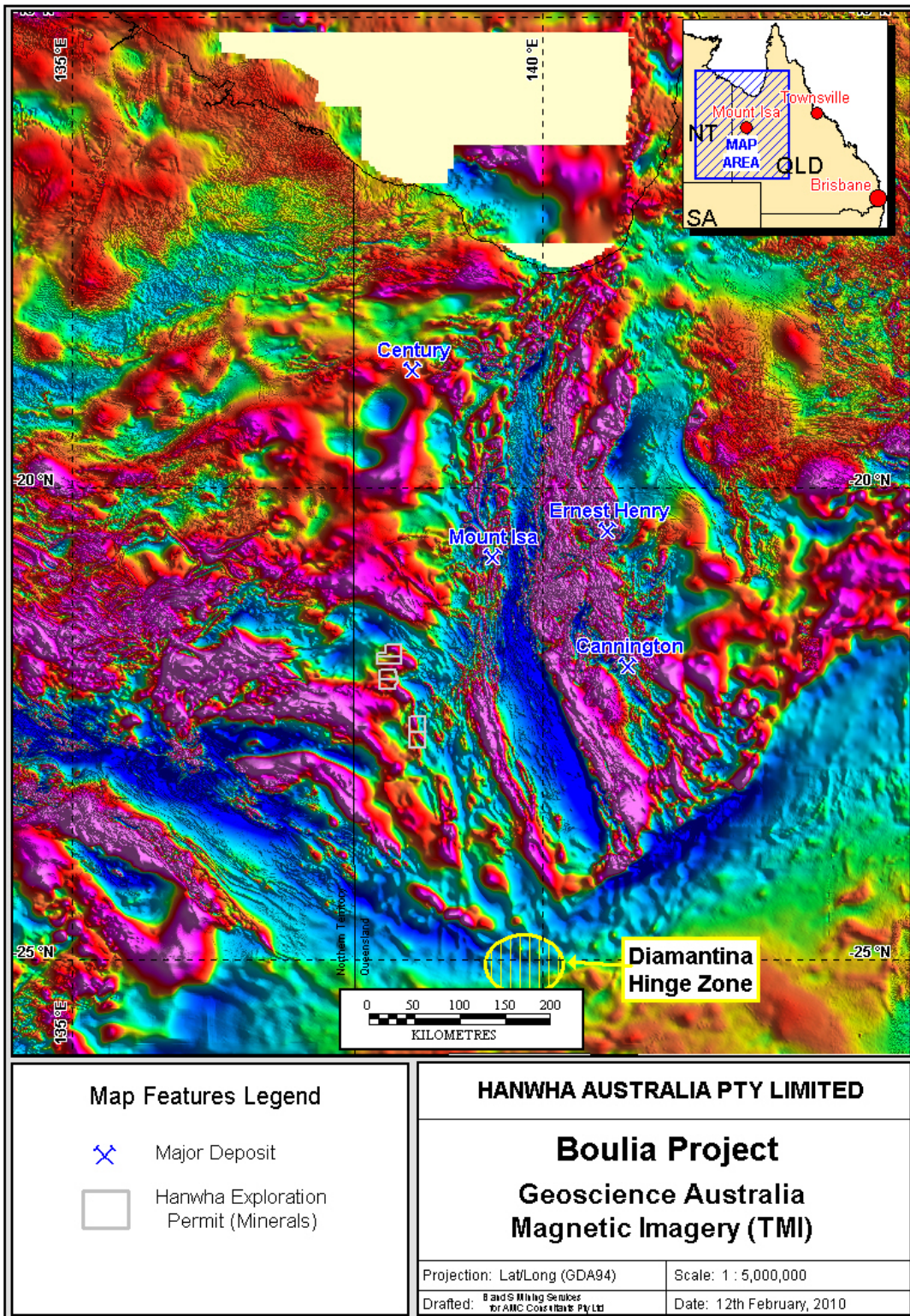


Figure 5 TMI Magnetic Imagery of the Boulia Project Area

To the north and east of the terrane boundary the lithologies are interpreted to be mafic volcanic, sedimentary or mixed sequences of the Mount Isa Block.

Sedimentary domains are well defined by gravity lows and quiet magnetic patterns while the volcanic domains are dominated by numerous linear and curvilinear magnetic trends giving a very 'noisy' pattern.

Apart from the significant terrane bounding fault discussed above other important structures are a series of southwest trending faults that traverse the Mount Isa Block and intersect the terrane bounding fault within EPMs 16584 and 16582 and also to the north of this tenement pair.

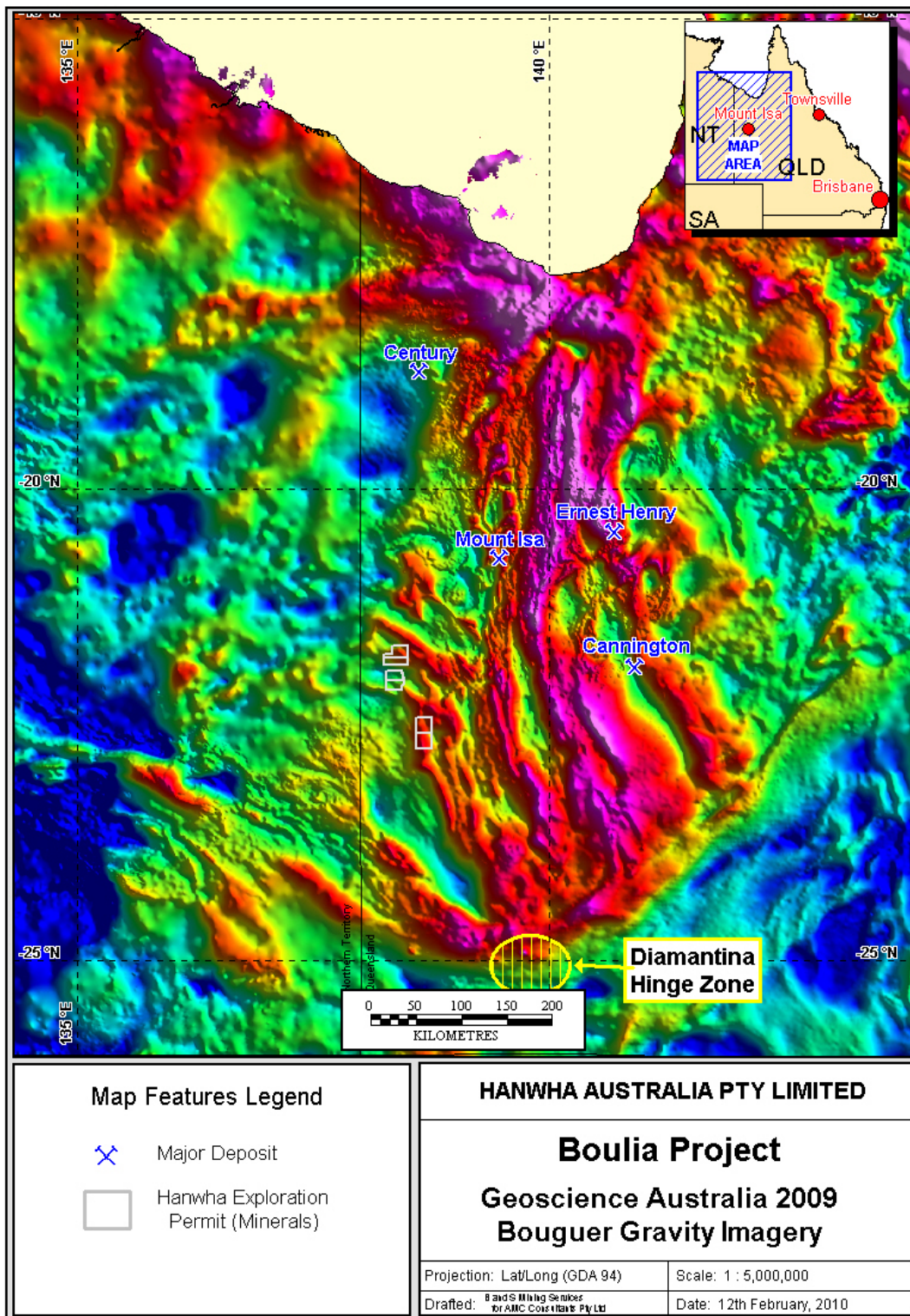


Figure 6 Bouguer Gravity Imagery (2000) of the Boulia Project Area

6.0 PREVIOUS EXPLORATION ACTIVITIES

Little or no recorded minerals exploration for the Boulia Project area and broader region occurred before 1970. Reports and work reviewed to date includes the following.

1970 to 1979

EPM 1515, 1516, 1518 & 1606

Relation to the Boulia Project: The above tenements cover the southern EPMs 16584 & 16582.

The tenements were granted targeting lead and zinc sulphide mineralisation in the Cambro-Ordovician Ninmaroo Formation. Exploration during the period of tenure consisted of geochemical rock chip sampling and air photo interpretation. No significant mineralisation was encountered and the EPMs were not renewed.

1980 to 1989

EPM 5618

Relation to Boulia Project: The tenement covers the southern EPM 16584.

The tenements were granted targeting lead and zinc sulphide mineralisation in the Cambro-Ordovician Ninmaroo Formation. Exploration during the period of tenure consisted of geochemical rock chip sampling and air photo interpretation. No significant mineralisation was encountered and the EPM was not renewed.

EPM 3165

Relation to Boulia Project: The tenement covers the north eastern part of the northern EPM 16578.

The tenure was taken out for oil shale exploration without success and subsequently dropped.

1990 to 1999

EPM 9490 Aberfoyle Resources Ltd in JV with Western Metals Resources Ltd and BHP Minerals Pty Ltd

Relation to Boulia Project: The southern boundary of the tenement lies approximately 10km north of the northern most tenement EPM 16578.

An airborne QUESTEM survey was carried out over the entire tenement seeking buried Mt Isa equivalents. Processing and imaging of data revealed areas of thick Mesozoic cover and the tenement was eventually dropped.

2000 to Current

Krucible Metals Ltd

Relation to the Boulia Project: Located approximately 100 - 200km south southwest of the southern most EPM 16584.

Krucible's Kamaran Downs Project, located about 400km south – southwest of Mt Isa is investigating potential IOCG systems on the south eastern extent of the Toomba Fault and the Toko Syncline within the Diamantina Hinge Zone.

Ausquest Limited

Relation to the Boulia Project: Located approximately 240km south of EPM 16784.

Ausquest's Diamantina Project, located approx 450km south of Mt Isa along the southern margin of the Mt Isa Block and close to the Diamantina Orogen Fault is investigating very large coincident gravity and magnetic anomalies for potentially large IOCG systems.

7.0 EXPLORATION ACTIVITIES COMPLETED DURING THE CURRENT TERM

7.1 Data Review and Compilation

Sourcing available data and information has formed the initial phase of exploration for EPM 16578 and all other Boulia Project tenements. A regional approach has been taken given the lack of any previous detailed exploration and the frontier nature in the Boulia Project region, especially exploration for deep targets under cover.

Key Data

Key data sets and data matters arising from initial review include the following:

1. The NW Queensland Mineral Province Report, 2000.
 - Forms the most recent and comprehensive database.
 - Areas or extensions to the Mineral Province under cover were subsequently flown by detailed aeromagnetics (2006) including the Boulia Project area which lies immediately southwest of the initial study area.
2. Recent exploration work by Krucible Metals Ltd and Ausquest Limited.
 - Their areas lie approximately 200-250km south and southwest of the Boulia Project area, in very close proximity to major cratonic faults and the Diamantina Hinge Zone concept. Targets are Mt Isa Inlier and IOCG style deposits. Both Arunta / Tennant Creek and Mt Isa Inlier terranes are inferred.
 - Both relatively shallow and deep targets are indicated from available company information but detailed drilling results have not been publicly released.
3. Water bores and petroleum wells.
 - Over 100 water bores in the wider Boulia Project area were acquired from the Queensland Department of Natural Resources and Water (QDNRW). Approximately 10 of these contain a stratigraphic log and two are deeper than 500m, being two petroleum wells Bradley No. 1 and Todd No. 1 which were subsequently converted to a water bore (Figure 7).
 - Bradley No. 1 and Todd No. 1 data has been acquired. The wells which lie well west and south west of the project area provide the only confirmed basement depths where both intersected granite basement at approx 900m and 1,300m respectively.
4. A meeting with the GSQ NW Queensland Mineral Province / Mt Isa Inlier Study team led by Dr Laurie Hutton was held in January 2010. Key advice includes:
 - GSQ confirmed infill gravity at 4km X 4km spacing (from the previous approx. 11km spacing) had been completed but 2km x 2km completed elsewhere in the province would not be undertaken in the Boulia Project area. Also geological mapping would not be undertaken and that there were no plans for seismic traversing which has occurred elsewhere across the province. GSQ advised that an updated NW Queensland Mineral Province study was in progress and a new report due for release in late 2010.

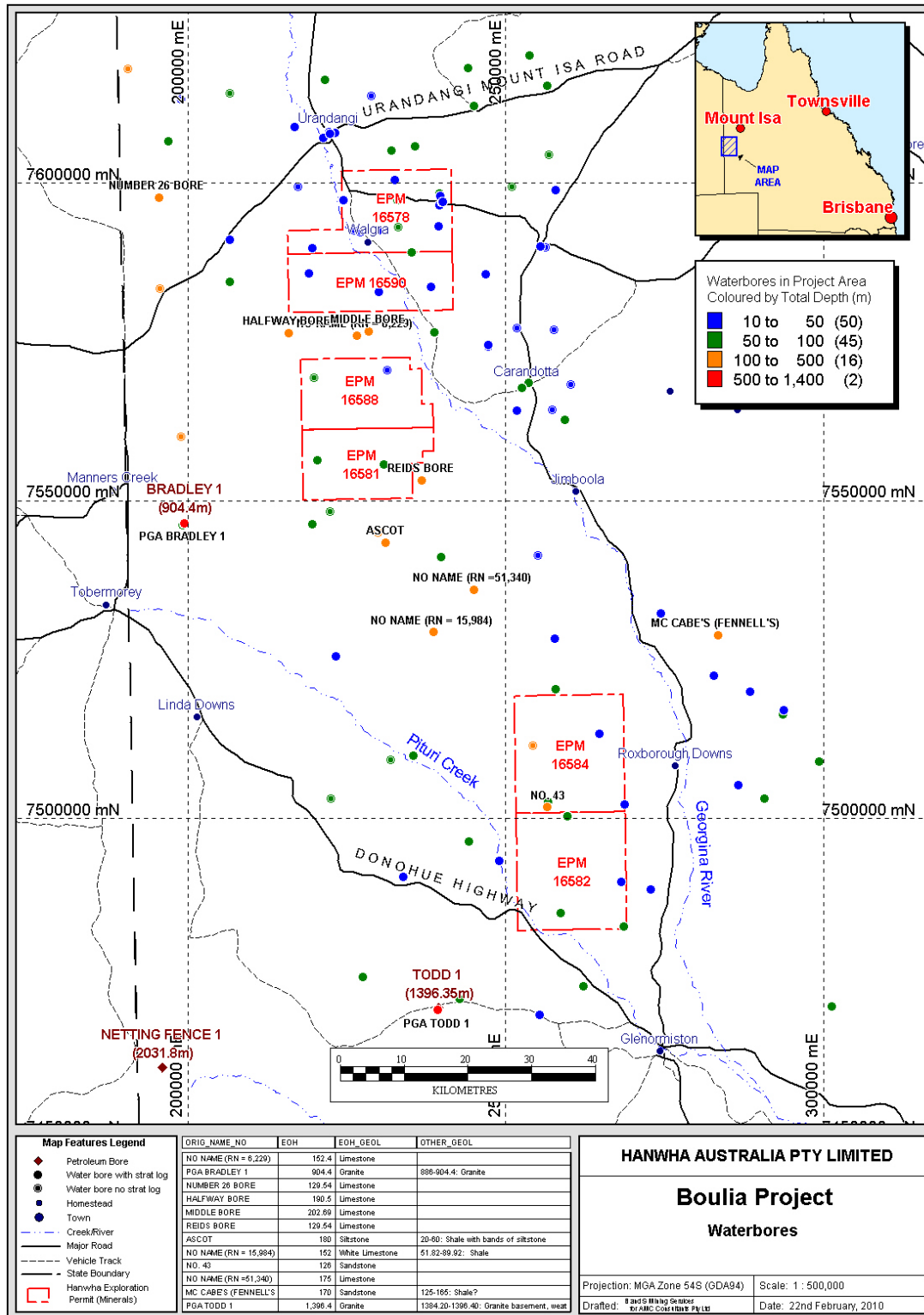


Figure 7 Water Bores in the Boulia Project Area

- GSQ indicated their preliminary interpretation suggested the Boulia Project straddled the Arunta / Tennant Creek and Mt Isa Inlier. Magnetic striping is suggestive of banded-iron formations, more related to older Northern Territory (NT) terranes than Mt Isa Inlier. GSQ encouraged research of these mainly NT terranes and suggested there may be results of exploration activity in the NT also worthy of follow-up.
- GSQ advised their lack of knowledge of the Boulia Project area and expressed an interest to follow and support the work planned, including a number of suggestions e.g. age dating.
- GSQ also expressed an interest in gaining access to any substantive information on the Georgina Basin (i.e. core) in this area and also geothermal energy and measurements.

Compilation

Exploration of EPM 16578 and Boulia Project is essentially driven by geophysical targets located under deep cover units. Accordingly acquisition of all data sets has been undertaken and these listed in Section 7.2.

AMC and the Boulia Project has adopted MapInfo as its Geographical Information System (GIS) for the portrayal, analysis and interpretation of multiple data sets. In addition to the key geophysical data sets, cadastral, geological, Landsat, google and other data have been acquired and registered into the system.

Reconnaissance Visit

The Boulia Project and EPM 16578 was visited in December 2009 by representatives of the Korean consortium and AMC for familiarisation and to gather logistical information for planned drilling in 2010.

Reconnaissance confirmed the featureless flat terrain and dominance of the broad Georgina River drainage system to the Boulia Project tenements. Although dry for most of the year access across broad unconsolidated ground will need to be carefully planned. Urandangi township appears to be the best location to serve as a base to launch exploration efforts. Water, a critical item for drilling operations, appears to be available in abundant supply via perennial water bores into the Georgina River basin sediments. Landowner cooperation will be crucial for this supply as well as all other activities.

7.2 Preliminary Geophysical Reprocessing and Interpretation

AMC engaged Geo Discovery Group of Brisbane to undertake geophysical reprocessing and preliminary interpretation, which was nearing completion at the end of the reporting period.

Data

Initial work has comprised sourcing all the available regional geophysical data sets and reprocessing. These comprised the following:

- Airborne magnetic and radiometric data from three surveys completed in the past 20 years. These comprise the Queensland Govt Isa West survey (400m E-W lines, 2006), the Mount Isa Mines survey (400m E-W lines, 1990-92) and a small part of the Yaringa survey (500m E-W lines, 1991). These surveys are of

good quality and are sufficiently detailed to map the basement magnetic sources under several hundred metres of the younger cover.

- Regional and detailed gravity station coverage (Geoscience Australia and DME). In the area of the exploration tenements, gravity coverage is restricted to recent 4km spaced stations completed by the DME, plus occasional more detailed traverses along roads / fences. While these data give a useful indication of the regional gravity signature, and the indication of some specific anomalies, the coverage is not sufficient to allow quantitative modelling within the top 2km of the area.
- Other regional datasets were searched without finding any that impinged on the tenement or nearby areas (eg no useful government seismic traverses exist, although some old petroleum exploration reports indicate seismic lines to the immediate SW, but no data are available).
- A previous study by the DME which processed the aeromagnetic data to determine depths-to-magnetic-basement in the area using Euler-style processing was also accessed.

Subsequently, the available magnetic, radiometric and gravity data were compiled, processed and filtered to produce a range of products able to be used in the GIS with other information for the purpose of interpretation and modelling. These include the following (all of which are available as MapInfo raster images) covering the Urandangi and Glenormiston 1:250k sheets:

- Total Magnetic Intensity (TMI) magnetics (actual magnetic responses) Figure 8.
- Reduction to Pole (RTP) magnetics (TMI reduced-to-the-pole to shift positive magnetic anomalies to correct source locations).
- RTP1VD (RTP 1st Vertical Derivative) magnetics (a 'sharpening' of the RTP to help emphasise structures, linears and shallow sources).
- RTP2VD (RTP 2nd Vertical Derivative) magnetics (a further 'sharpening' as per the above).
- KThU (Potassium, Thorium and Uranium) / RGB (Red, Green and Blue) radiometrics (maps responses from surface and drainage only).
- Bouguer Gravity image (actual gravity responses).
- Bouguer Gravity station locations (important to indicate confidence in the Bouguer Gravity image).
- 1VD of Bouguer Gravity (a 'sharpening' of the Bouguer Gravity which also helps remove long-wavelength regional features).
- Total Horizontal Derivative (THD) of Bouguer Gravity (useful for picking edges of sources).
- 1VD of THD of Bouguer Gravity (a 'sharpening' of the above).
- Gaussian Residual of Bouguer Gravity - 20km wavelength (removal of regional (deep) gradients and subsequent enhancement of shallow sources).
- Gaussian Residual of Bouguer Gravity - 12km wavelength ((removal of regional (deep) gradients and subsequent enhancement of shallow sources).
- Depth-to-Magnetic-Basement images from DME study (automated analysis of magnetic grid data – useful indication but not as reliable as modelling).

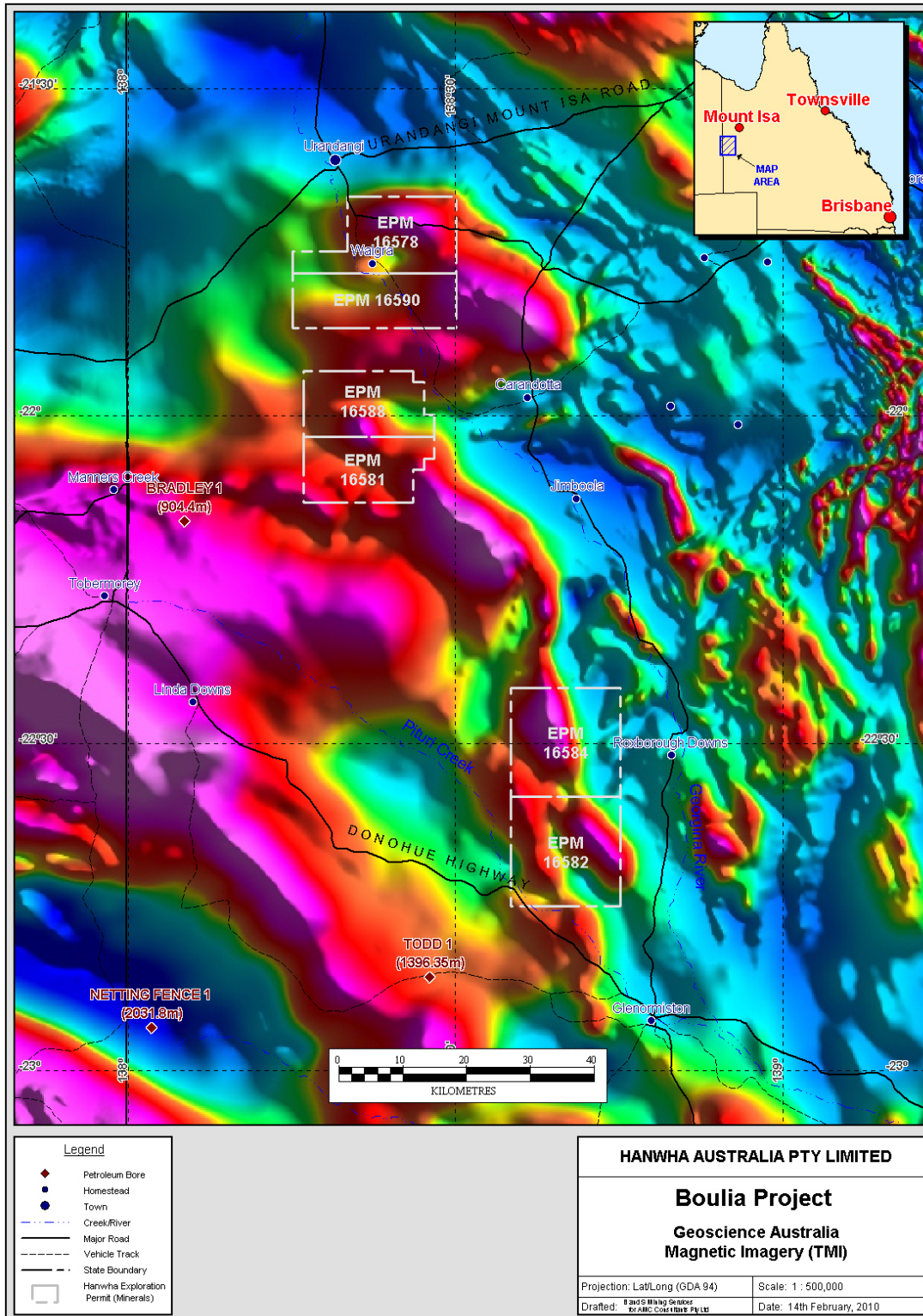


Figure 8 TMI Imagery of the Boulia Project Area and EPM 16578

All plans, figures and GIS coverages use the GDA94 / MGA54 coordinate system. The TMI magnetics image for the area is shown in Figure 8, the Bouguer Gravity image in Figure 9.

Modelling

The six EPMs were originally reserved by the DME to cover three areas of perceived mineralisation potential – two large magnetic / gravity complexes in the north and a series of structurally-related magnetic / gravity anomalies along the southern two EPMs. As a first step to investigating these anomalies, a series of 3D magnetic inversions using the UBC MAG3D code have been completed but results need checking and are preliminary. Two of these were completed as part of the DME depth-to-basement determinations, while three more were designed to cover a large magnetic / gravity anomaly in the northern area, and some representative magnetic anomalies along the major structure in the southern area respectively.

The outputs from the 3D inversion models are summarised as a series of located sections and depth-slices. These 3D models, being smooth-model inversions, do not have abrupt changes of magnetic susceptibility which would be expected from geological contacts in the real world, but they are extremely useful in giving an indication of likely depths, strikes and dips of sometimes complex magnetic data. Relevant 3D model sections are generally used as a guide for completing subsequent forward modelling where more discrete bodies have been used.

As mentioned above, the gravity data in the region of the six EPMs are too coarse to allow the degree of modelling required to accurately detail these targets, but are sufficiently detailed to indicate the existence of positive gravity responses in the vicinity of the anomalous magnetic sources.

Following on from the inversion modelling, four representative traverses were selected for forward modelling of the relevant magnetic profiles. Relevant inversion model section images have been imported as backgrounds to the forward models for guidance and comparison. Reference is made to the final images from the 2006 DME Depth-to-Basement (DTB) study. These show general agreement with the inversion and forward magnetic modelling for the selected traverses – the DTB images' maximum depths correlate with the modelled basement source depths, with the inference that some of the shallower depths apparent in the DTB study result from minor magnetic sources within the cover sequences.

Initial Targeting

As a first pass geophysical exercise, several representative areas have been selected for detailed modelling in order to gain a better appreciation of the likely depths to basement sources in the three separate areas covered by the six EPMs. An examination of the magnetic and gravity data indicates the presence of large, deep magnetic and coincident or near-coincident residual gravity anomalies in each of the two northern areas (EPMs 16578 / 16590 and 16588 / 16581 respectively), plus a series of complex magnetic anomalies lying on or near the N-S terrane boundary intersecting the southern two EPMs (16584 / 16582). A significant gravity anomaly is evident inside the southern boundary of this latter area.

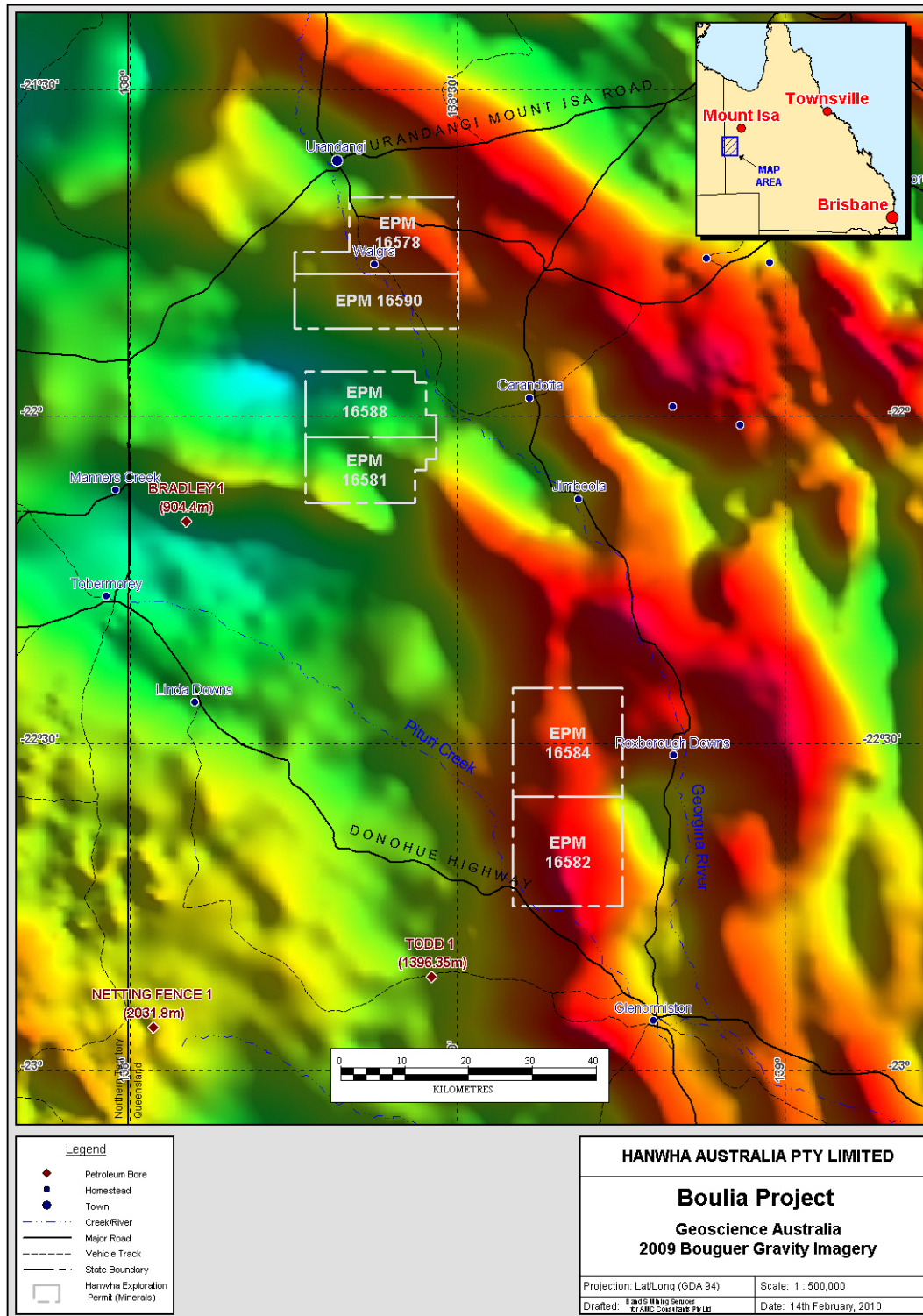


Figure 9 Bouguer Gravity Imagery (2009) Boulia Project Area and EPM 16578

Preliminary Processing / Modelling Results

- The existing magnetic data are sufficiently detailed to allow detailed modelling of basement sources.
- The existing gravity data, while sufficient for regional evaluation and possibly anomaly detection, are insufficient for quantitative modelling. Some detailed gravity traversing across selected features is recommended, possibly as 200m

spaced stations in the four northern EPMs and 100m spaced stations in the two southern EPMs.

- The shallowest areas within the tenements appear to be in the vicinity of the EPM 16588 & EPM 16581 areas, where depths model to within 800m of surface, and the southern EPM 16582 where depths to magnetic basement may be as little as 600m in parts.

7.3 Preliminary Target Generation

The location of the EPMs, near the boundary of the under-cover portion of the Mt Isa Block and unknown Proterozoic basement to the west (possibly an extension of the Arunta or Tennant Blocks), raises a number of potential mineralisation types.

The styles of mineralisation that can be expected within the tenements are combinations of those styles present in the Mount Isa Block, in particular the Western Fold Belt, and the Arunta and Tennant Creek Blocks. In addition a major terrane boundary can be expected to be an important focus for mineralising fluids and consequently the opportunity for significant mineral deposits.

The main types of deposits that should be considered as targets are IOCG (Tennant Block and Mount Isa Eastern Fold Belt), Mount Isa-style copper and stratabound silver-lead-zinc. In most instances these deposits are associated with major faults and zones of structural interference, fault jogs and fault intersections. IOCG deposits have a large alteration assemblage that can be manifested as discrete magnetic and gravity highs and even magnetic lows where magnetite has been destroyed.

Within the tenement package preliminary interpretation shows the most prospective area is within EPMs 16584 and 16582 where there is a combination of discrete magnetic highs, the intersection of terrane-scale faults and zones of possible magnetite destruction. A number of magnetic highs have been selected as targets for follow-up work that should include the collection of more detailed gravity before committing to drilling. Although IOCG mineralisation seems the most obvious target in this area the potential for Mount Isa-style copper and stratabound silver-lead-zinc in the adjacent sedimentary sequence cannot be discounted.

A second area of prospectivity occurs within EPM 16581 where a number of discrete magnetic bodies lie within the terrane-bounding fault zone and adjacent to an east northeast trending splay fault. These are selected as Tennant Creek-style IOCG targets.

The prospectivity elsewhere within the tenement package is regarded as low. This may be partly a function of increased thickness of cover sediments making it difficult to resolve discrete targets.

7.4 Forward Work Plan

The forward work plan comprises:

- Complete the preliminary geophysical processing, depth modelling and interpolation,
- Undertake a limited in-fill gravity acquisition survey over key target areas,
- Reprocess the gravity and finalise geophysical interpretations,
- Carry out Cultural Heritage Clearances and other site requirements, and
- Undertake drilling across the project area on a number of prioritised targets.

8.0 CONCLUSION

Preliminary interpretation of recent high resolution magnetic data sets suggests the Boulia Project area straddles two structurally different but abutting terranes, the Mt Isa Inlier in the east and the Arunta / Tennant Creek Block to the west and south west. The terranes do not outcrop and are interpreted from geophysical modelling to lie greater than 600m below surface and often greater than 1,000m below surface. However these terranes are renowned elsewhere for a number of world class deposits and deposit styles.

The project area lies just north of the Diamantina Hinge Zone and major transcontinental cratonic faults, and, is a likely area for high heat and fluid flow, further enhancing the project area prospectivity.

Preliminary geophysical interpretation has identified a number of discrete magnetic anomalies throughout the project area as well as several broad and in places coincident gravity anomalies. The gravity data is sparse and requires further infill.

Further data acquisition (gravity), processing and interpretative work is required before targets can be finally selected and prioritised ahead of planned drilling.

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