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## MMG AUSTRALIA LIMITED

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### FINAL REPORT FOR VICTORIA RIVER DOWNS PROJECT EL25423

(Reporting Period 7/03/2007 – 6/03/2013)

Project Title Holder: Anglo Australian Resources NL  
Project Operator: MMG Exploration Pty Ltd

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**TITLE PAGE**

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## ABSTRACT

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EL 25423, the Victoria River Downs tenement was originally granted to Anglo Australian Resources NL (Anglo) for a period of six years. On the 29 January 2013, MMG Australia Pty Ltd (MMG) officially entered a Joint Venture Agreement with Anglo, where after the tenement has been operated by MMG. The tenement is part of the Victoria River Project area in the Northern Territory of Australia and situated about 450km south of Darwin. The project area covers six granted tenements which includes EL 25423.

The Victoria River Downs exploration target is a large sedex Zn-Pb-Ag system within a Mesoproterozoic Basin. The area of interest is a linear gravity-feature interpreted as a potential shale basin which is obscured by geochemically opaque Proterozoic Sandstone and Cambrian Volcanics. Age dating within the stratigraphic sequences suggest dates from 1,645my (Limbunya Group) to 1,610 – 1,570my (Bullita Group), which is within the age range of all major Australian Sedex zinc deposits.

During the first year of tenure, data from the open file reports pertaining to the Victoria River Basin (VRB) Project area was used to construct a robust, validated database. Anglo reprocessed the geochemical data and Geotem, gravity, aeromagnetics and landsat images.

The NTGS completed a regional gravity survey. Interpretation of this gravity data in conjunction with other imaged data sets generated robust interpretations showing major lineaments, which correlate with faults mapped by the NTGS. Major structural features which had not been previously documented, were evident on imaged early time channel data.

Southern Geoscience reprocessed AGSO gravity data, which showed the presence of basement highs and linear gravity lows, the resolution of which would be refined by infill gravity readings in areas of specific interest.

Anglo undertook a regional reconnaissance geochemical sampling program (i.e. stream sediment, rock chip and soil samples). This work successfully confirmed the robustness of previous anomalies identified and highlighted prospective areas of interest in the vicinity of the Victoria River Downs Homestead. The statistically processed geochemical data showed a zoning of the base metal occurrences, from principally lead domains to zinc-copper domains. This work highlighted a distinct zinc-copper domain along the western and southern margins of the VRB. By contrast lead-copper anomalism dominates the central-eastern portion of the VRB. Areas of strong base metal anomalism are generally associated with the calcareous sediments of the Bullita Group and major structural corridors.

During the second year of tenure the data from an airborne GEOTEM EM survey completed ~1996 was reprocessed by Southern Geoscience Consultants. The survey detected one good quality, discrete, late time anomaly (A68) plus numerous, lower quality response. A total of 68 anomalies were identified. The majority of these anomalies appeared to be related to conductive surficial (regolith) or possibly shallow, flat dipping bedrock stratigraphic units rather than being discrete bedrock conductors.

The only late time anomaly interpreted as a possible bedrock conductor (A68) coincides with litho-structural target 5E, defined by Anglo. This target is characterized by the triple point intersection of major faults trending N-S, NE-SW and NW-SE. Some of the stratigraphic conductors might have potential for stratiform-stratabound sulphide mineralisation as they may be related to thick sulphidic shale (basinal) sequences.

In the third year of tenure Anglo conducted a helicopter-supported gravity survey in two areas. The northern part of the survey (based on readings spaced 1 km x 1 km) was designed to target a major north south fault and associated splay faults and domes over a strike length of 50 km near Victoria River Downs Station. The southern half of the survey in the Mt Sanford area (100 km south west of Victoria River Downs Homestead) was also conducted initially on a 1 km x 1 km basis and then infilled to 500m x 500m.

The gravity data assisted in the interpretation of the geology and the development of targets. The most promising targets were developed in the Mt Sanford area where a broad gravity low is highlighted, sub-parallel to and east of a major NW trending fault (Pear Tree Fault). This area was interpreted to be a potential shale basin.

In the fourth year of tenure the interpreted gravity targets were followed up with stream sediment and rock chip samples. No evidence of outcropping mineralisation was discovered. Stream sediment samples collected in the vicinity of the gravity targets were 1 to 2 times above background in Zinc (i.e. moderately

anomalous). The highest values were collected in streams overlying the B1 and B2 target areas which contained sediments dominated by weathered Cambrian volcanics.

Southern Geoscience reviewed the gravity data which showed an open ended 2-5km wide gravity low sitting on the eastern flank of a fault zone (named Pear Tree Fault). This low is interpreted as basin dominated by low density lithologies such as shales. Further interpretations concurred with Southern Geoscience's gravity interpretation and highlighted the visibility of a strike extensive NW-SE structure on a continental scale.

No exploration work was completed during the fifth and sixth years of tenure (i.e. 2011-2013), as Anglo was seeking a joint venture partner to advance the project and then MMG Australia Ltd was focussing exploration efforts on other tenements.

The Victoria River Downs tenement was not found to meet MMG's prospectivity criteria, and given its expenditure status, it was decided to relinquish the tenement.

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Any information included in the report that originates from historical reports or other sources is listed in the "References" section at the end of the document. This report may be released to open file as per Regulation 125(3)(b).

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1:250 000	Victoria River Downs SE5024
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1:250 000	Wave Hill SE5208

## 1. BACKGROUND

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### 1.1 INTRODUCTION

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This final report is for EL 25423, the Victoria River Downs project. The tenement was originally granted to Anglo Australian Resources NL (Anglo) for a period of six years. On the 29 January 2013, MMG Australia Pty Ltd (MMG) officially entered a Joint Venture Agreement with Anglo, where after the tenement has been operated by MMG.

### 1.2 LOCATION AND ACCESS

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The Victoria River Downs tenement, EL25423 is located approximately 450km south of Darwin (NT), 200km east of Kununurra (WA) and 250km southwest of Katherine (NT) (**Figure 1**). The tenement is located on Victoria River Downs, Limbunya and Wave Hill 1:250 000 scale map sheets. The tenement is part of the Victoria River Project area which covers six granted tenements.

Access to the tenement is via the Victoria, Buchanan and Buntine Highways, thence station tracks. Throughout the Victoria River Basin the stratigraphy is generally flat lying or shallow dipping. However, there are a number of localised domal features adjacent to prominent faults or lineaments. Half the Victoria River Project area is within the Gregory National Park, which is in the process of being converted to Aboriginal Freehold Land.

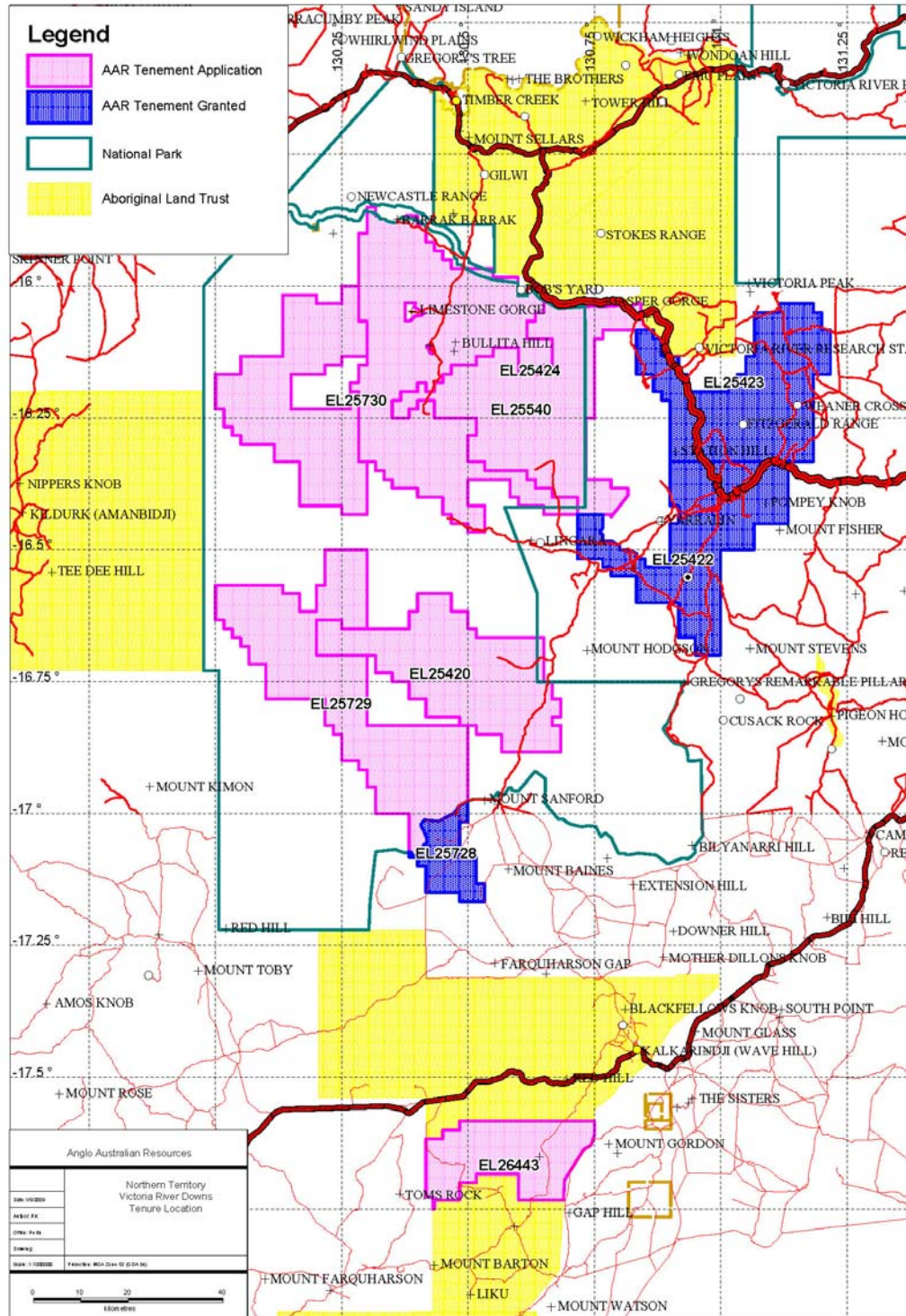


Figure 1: Location of the Victoria River Downs tenement

### 1.3 WEATHER

The wet season normally lasts from November to March. The annual rainfall ranges from 38-51cm. The evaporation rate is 260cm per annum. During the summer months the daily maximum temperature usually exceeds 38 degrees celsius. In July the daily temperature range is 10-27 degrees celsius.

## 1.4 TENURE

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EL 25423, the Victoria River Downs tenement was originally granted to Anglo Australian Resources NL (Anglo) on 7th March 2007 for a period of six years. The licence area comprised a total of 60 blocks covering an area of 197.8km<sup>2</sup>. MMG Australia Pty Ltd and Anglo concluded a joint-venture agreement on the 29 January 2013 whereby MMG would manage future exploration on the tenement.

## 1.5 REGIONAL GEOLOGY

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### 1.5.1 Introduction

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The project area is located in the Proterozoic Victoria River Basin (VRB) which consists of a 3.5km thick stratigraphic sequence of sandstone, shale and dolomitic sediments, covering an area of 160,000sq kms, overlying the Birrindudu Basin and has the potential for sedimentary hosted zinc dominated base metal deposits similar in style to the giant McArthur River, Cannington and Century deposits.

The Bullita stratigraphic succession is considered to have potential to host stratiform sedimentary, Mississippi and Irish lead-zinc styles of mineralisation. These deposits are associated with the fine grained clastic rocks (black shales) of a sedimentary package, which contains substantial dolomites and limestones, and are located near major regional structures with a halo of lead anomalism. The target size is in the order of 50-100 million tonnes at 10% combined Pb/Zn. Age dating within these sequences suggest dates from 1,645my (Limbunya Group) to 1,610 – 1,570my (Bullita Group), which is within the age range of all major Australian SEDEX zinc deposits.

The stratigraphic sequence from the basement Invery Metamorphics and Pine Creek volcanics upwards, consists of the Proterozoic Birrindudu and Limbunya Group sediments which form the lower Birrindudu Basin, which is overlain by the sediments of the Victoria River Basin consisting of the Wattie, Bullita, Tjunna and Avergne Groups.

The VRB is bounded to the northwest by the Fitzmaurice mobile zone, to the southwest by the Ord Basin, to the south by the Carpentarian Birrindudu Basin, and to the southeast by Paleozoic Wiso Basin, to the Northeast by the Pine Ck geosyncline.

Birrindudu Basin was accompanied by regionally extensive north-trending growth faults. Deposition in both Birrindudu and Victoria Basins includes several phases of intra-cratonic SAG. Strata dip away from the centres of depositional basins and is attributed to basement uplift.

The major structural elements are shown on the various 1:250,000 geological plans. This data has been supplemented by lineament studies completed from aeromagnetic, Geotem, gravity and Landsat data. The imaged Geotem has enhanced the presence of a north trending 50km long by 5km wide structural corridor, which isn't evident from mapping or other geophysical surveys. This structural corridor is truncated north and south by WNW trending regional lineaments, such as the Limbunya Fault in the south and, with sub-parallel Gill and GB faults. Other major structural directions include the NW, NE and E-W lineaments.

### 1.5.2 Stratigraphy

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The project area is located in the Victoria River region, principally within the Victoria River Basin (VRB), which overlies the basement Sturt block and consists of a 3.5km thick sequence of little deformed sedimentary rocks that cover ~160,000sq kms.

The stratigraphic sequence from the basement Invery Metamorphics and Pine Creek volcanics upwards, consists of the Proterozoic Birrindudu and Limbunya Group sediments which form the lower Birrindudu Basin, which is overlain by the sediments of the Victoria River Basin consisting of the Wattie, Bullita, Tjunna and Avergne Groups.

The VRB is bounded to the northwest by the Fitzmaurice mobile zone, to the southwest by the Ord Basin, to the south by the Carpentarian Birrindudu Basin, and to the southeast by Paleozoic Wiso Basin, to the Northeast by the Pine Ck geosyncline. Birrindudu Basin was accompanied by regionally extensive north-trending growth faults. Deposition in both Birrindudu and Victoria Basins includes several phases of intra-cratonic SAG. Strata dip away from the centres of depositional basins and is attributed to basement uplift.



	Age	Stratigraphic Unit
Top	Cambrian	<ul style="list-style-type: none"> <li>Atrium Volcanics, 250m thick, tholeiitic basalt and agglomerate, with minor sandstone, chert and limestone interbeds cover the whole region. Unconformably overlies the Proterozoic sequence.</li> </ul>
	Proterozoic	<ul style="list-style-type: none"> <li>Wolfe Creek Basin.</li> <li>Victoria River Basin consists of the upper Auvergne, Tjunna, Bullita and lower Wattie Groups.</li> <li>Birrindudu Basin is composed of the Limbunya Group sediments and carbonate rocks are developed on the edges of gravity highs, which represent uplifted basement blocks.</li> </ul>
Bottom	Lower Proterozoic	<ul style="list-style-type: none"> <li>Metamorphic basement of the Pine Creek and Halls Ck orogens.</li> </ul>

**Table 1.** Regional Stratigraphic Column.

Stratigraphic Group	Stratigraphic Formation
Auvergne Group	<ul style="list-style-type: none"> <li>Jasper Gorge Sandstone Fm 80m thick. Unconformably overlies the Wondoan Hill Fm. Consists of massive to blocky quartz sandstone, minor siltstone and local basal conglomerate. Generally resistant and caps plateau and mesas.</li> </ul>
Tjunna Group	<ul style="list-style-type: none"> <li>Wondoan Hill Fm 145m thick. Unconformably overlies the Bullita Group. Consists of quartz sandstone and glauconitic sandstone, with minor claystone and siltstone.</li> </ul>
Bullita Group	<ul style="list-style-type: none"> <li>Battle Ck Fm 80m thick. Conformably overlies the Weaner Sandstone. Consists of greenish to purple siltstone with dark brown coarse-grained glauconitic dolomite. At the middle of the formation is a series of red brown stromatolitic dolomite and at the top is brown yellow sandstone.</li> <li>Weaner Sandstone 3-15m thick. Conformably overlies the Bynoe Fm. It is a thin series of white to brown sandstone and grits that are pebbly towards the base.</li> <li>Bynoe Fm 190-243m thick. The basal part contains green and purplish micaceous siltstones and shales with few sandstone and dolomite interbeds. The rest of the Fm consists of thinly bedded sandstone and slightly micaceous siltstone.</li> <li>Skull Ck Fm 162-229m thick, Predominantly dolomitic with silty upper and lower parts. The lower contact is defined by a 3m thick stromatolitic horizon. It contains pyrobitumen and disseminated pyrite. The formation has undergone varying degrees of dolomitisation.</li> <li>Supplejack Dolomite Mb 17-28m thick. Massive thickly bedded dolomite and dolarenite within 60m of the top of the Skull Ck Fm. Stromatolitic near the top. Rare disseminated pyrite and galena occur. Upper and lower contacts are regionally anomalous in base metals. Epigenetic galena is commonly visible.</li> <li>Timber Ck Fm 135-306m thick. Forms the basal unit of the Bullita Group and consists of thinly interbedded siltstone, fine sandstone and dolostone, pyrobitumen and disseminated pyrite and epigenetic galena. Locally stream sediments anomalous in zinc. <b>Prospective horizon for SEDEX style mineralisation.</b> The high carbonate content of the Bullita Group distinguishes it from the conformably underlying Wattie Group, dominated by sandstone stratigraphy.</li> </ul>
Wattie Group	<ul style="list-style-type: none"> <li>Seale Sandstone 100m thick. Massive fine and medium grained sandstone.</li> <li>Gibbie Formation 25-75m thick. Micaceous siltstone, sandstone and minor shale.</li> </ul>

	<p>Argillitic phases locally ferruginous. Local abundant pyrite.</p> <ul style="list-style-type: none"> <li>• Neave Sandstone &lt; 20m thick. Lithic medium grained sandstone, minor conglomeratic sandstone.</li> <li>• Mount Sanford Formation up to 200m thick. Chocolate and green siltstone, dolomite, interbedded fine sandstone, claystone and shale. Potential host for sediment hosted base metal deposit.</li> <li>• Hughie Sandstone &lt; 100m thick. Sandstones and orthoquartzite with minor carbonate.</li> <li>• Burtawurta Formation 30m thick. Siltstone interbedded with fine sandstone.</li> <li>• Wickham Formation 175m - 315m thick. Sandstone, conglomerate and chert disconformably overlying the Limbunya group.</li> </ul>
Limbunya Group	<ul style="list-style-type: none"> <li>• Killaloc Formation 0-60m thick. Siltstone, dolomite and minor sandstone.</li> <li>• Fraynes Formation 110m-130m thick. Silty dolostone, dolomite, purple green micaceous siltstone, containing pseudomorphs of evaporates. The top of the formation is defined by a chert breccia. Potential host for sediment hosted base metal deposit.</li> <li>• Campbell Springs Dolomite 160m-320m thick. Grey stromatalitic dolostone, doloarenite, dolorudite, dolosiltite, dolomitic mudstone and minor tuffite. SHRIMP date of 1638Ma.</li> <li>• Lower Limbunya Group 480m-640m thick. Includes Blue Hole Formation, Farquarson Sandstone, Kunja Siltstone (Potential host for sediment hosted base metal deposit), Mallabah Formation, Amos Knob Formation, Pear Tree Dolomite, Magery Formation and Stirling Sandstone.</li> </ul>
Invermay Metamorphics	<ul style="list-style-type: none"> <li>• Muscovite quartz schist, acid volcanics. Basement in the Birrindudu Basin.</li> </ul>

**Table 2.** Victoria River Basin Proterozoic Stratigraphic Column.

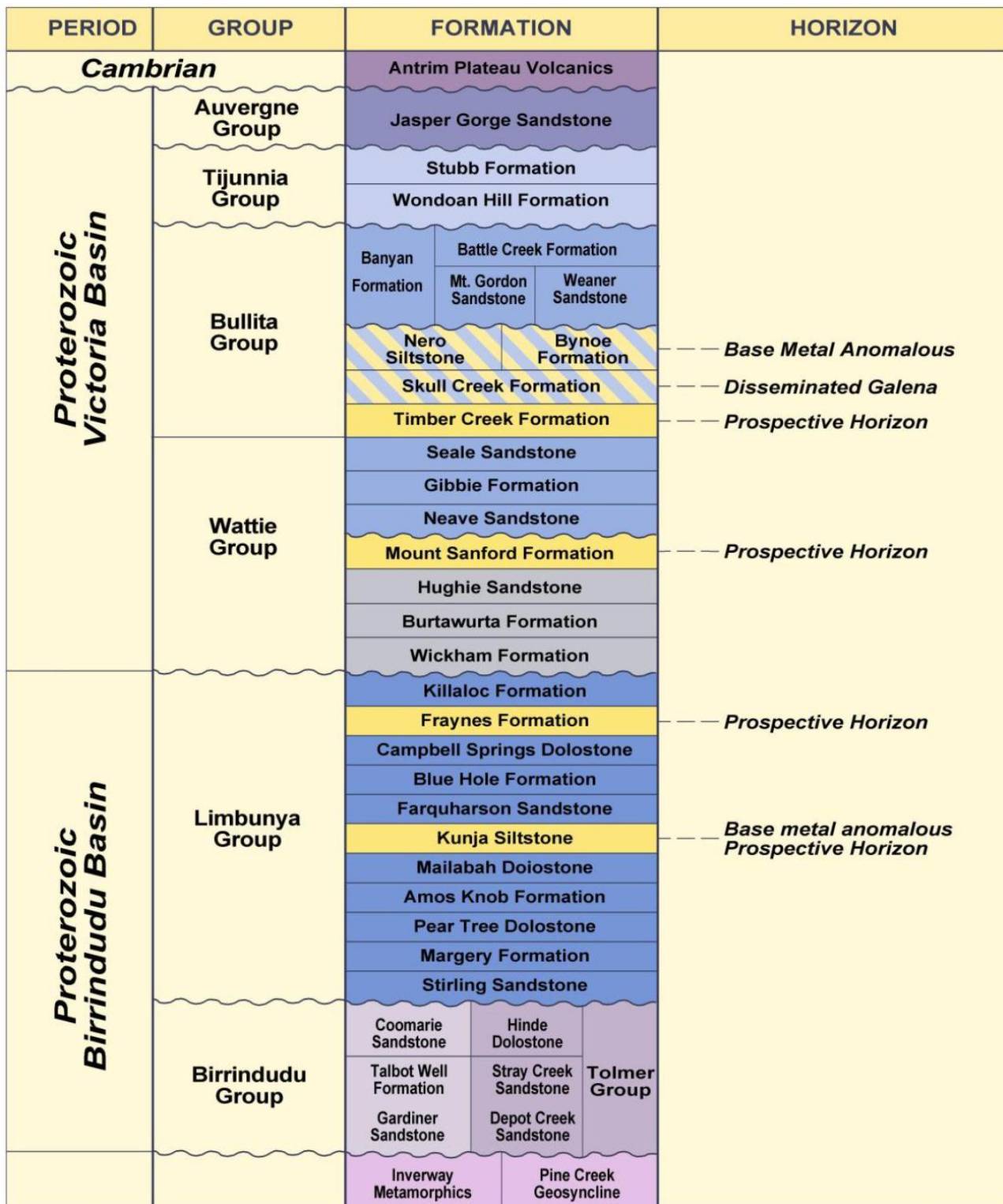


Figure 2. Stratigraphic column for the Victoria and Birringudu Basins. Potential SEDEX host stratigraphy.

### 1.5.3 Structure

The McArthur River and Mississippi styles of base metal mineralization are strongly influenced by structure. Thus it's essential that the major structural controls are well documented and robust geological models are generated for the evolution of the Victoria River Basin sedimentation as it has been influenced by faulting within the basement rocks. An overview of the regional geology plans highlight major structural trends, which are dominated by:

- Major boundary faults trending 030-045 magnetic.
- Faults trending 110-130 magnetic.
- Major faults trending 130-140 magnetic.
- Domal structures trending 150-170 magnetic.
- Regional folding trending 360-020 magnetic.

This configuration of faults and folds supports a regional E-W compressional stress regime, characterised by brittle to brittle-ductile deformation. The 110-130 degree trending structures are possible extensional with a theoretical sinistral component of displacement. This structural orientation dominates the Victoria River Basin and is likely to be the dominant growth fault orientation in addition to E-W normal faults, which are likely to occur.

Major anticlinal and synclinal structures with N-S orientated axial planes, have been mapped at Bullita Station and the Fitzgerald Range near Victoria River downs. These may reflect extended periods of E-W compression that may have existed during deposition and post consolidation of the stratigraphic column. This E-W stress regime may have generated E-W orientated extensional normal faults that may have existed during sedimentation so as to generate growth fault environments.

## 1.6 EXPLORATION RATIONALE

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MMG and Anglo are targeting SEDEX-style zinc-lead-silver deposits (e.g. HYC 227Mt at 9.3% Zn, 4.1% Pb, 92g/t Ag) in the Mesoproterozoic Victoria River Basin. The Basin has strong similarities to the MacArthur and Nicholson Basins which host the giant MacArthur River and Century SEDEX-style zinc deposits. The project covers a sequence of Proterozoic sediments dominated by dolomitic carbonates and other fine-grained sediments. The sediments are generally flat lying with an overall very shallow north-easterly dip.

The Fraynes Formation and Kunja Siltstone (Limbunya Group), the Mount Sanford Formation (Wattie Group) and the Timber Creek Formation (Bullita Group) are considered the most prospective for SEDEX style of mineralisation targeted by Anglo Australian Resources NL, particularly adjacent to interpreted growth faults. The Victoria River Downs area contains:

1. A large regional base metal geochemical halo.
2. A sedimentary package that can be correlated with the McArthur River Basin.
3. Fine grained shales and chemical sediments that could host a SEDEX deposit.
4. Age dating of the same age as other Australian Proterozoic base metal deposits.
5. Major regional structures that may have acted as growth faults during the evolution of the basin.
6. Unusual domal and monoclinical structures adjacent to major growth faults.
7. Evidence of local SAG basins.

## 2. HISTORICAL EXPLORATION WORK

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Little advanced exploration has been carried out in the Victoria River Basin. Most of the work has consisted of early stage exploration consisting of stream sediment sampling and rock chip sampling. Large areas of stream sediment anomalism have had limited follow up.

Previous base metal explorers include BHP, CRA, Rio Tinto, Anaconda, plus junior companies and diamond exploration has been undertaken by Stockdale, BHP and Ashton. These exploration programs for base metals include stream sediment sampling, Geotem and aeromagnetic surveys. Limited stratigraphic diamond drilling was undertaken by BMR, NTGS and various exploration companies. A total of about 10 stratigraphic holes have been drilled. BHP completed a Geotem survey but no on ground follow-up.

The most extensive base metal exploration was completed by Hooker Mining / Australasian Minerals during the period 1969 -1972. Exploration included very detailed stream sediment sampling, VLFEM and IP follow-up at the Colt Prospect and Area 2. Exploration reports detail the mapping and geochemical sampling of 18 prospects in the Victoria River Basin area, which were either domal, monoclonal or fault structures, though several were flat basinal sag structures.

The areal extent of outcropping mineralization is never greater than several square kms and is often related to faults and joints. The most common occurrence of base metals is in the coarse grained dolomites, particularly just above or below the Supplejack dolomite Member of the Skull Ck Fm and in the thick dolomite of the Lower Marker within the Timber Ck Fm. Near the Depot Ck-Wickham River intersection, within the Lower Marker sequence are 10cm thick bands of 30-40% galena. At Charlies Prospect (Area 4-T146), widespread disseminated galena, sphalerite and pyrite occur just above the Supplejack Dolomite Member of the Skull Ck Fm. This mineralization is 1-2m thick, and can be traced laterally for 300m. Fairly extensive disseminated pyrite, chalcopyrite and galena mineralization has been found at Area 14 within the Battle Ck Fm. A massive barite vein outcrops at Location C199, measuring 1.5m thick and 800m long. Manganese nodules and stains have been reported around Battle Ck within the Battle Ck Fm.

Four percussion holes were drilled targeting IP anomalies corresponding to geochem anomalism at the Colt and Area 2 prospects totalling 500m. Localised disseminated galena was intersected. These holes were drilled more than 35 years ago. While no detailed collar locations are available the two prospects are interpreted to occur in the following locations. The Colt prospect is reasonably well defined by a sketch map and is located 2.7km NE of the VRD homestead near a fence in the vicinity of weakly altered dolomite and lead stream sediment anomalies (approx. 716,500E 8,187,700N).

Reports on the Area 2 prospect give no specific location. However we can interpret that this prospect occurs in the vicinity of a very strong and extensive, north east trending lead in stream sediment anomaly located 11 – 17 km north east of the VRD homestead. Stream sediment and soil sampling in this area by Anglo Australian Resources confirmed the lead anomalism but did not find the drill collars.

In 1990 CRA drilled two stratigraphic diamond holes west of the Pear Tree Fault (Mt Sanford Area) to test a complete section of the Limbunya group. These holes are located to the west and outside of current AAR tenure. Anomalous Pb, Zn and Ag were located at the base of the Campbell Springs Dolomite in DD90VRB01 and anomalous Au, Pb and zinc in the basal part of the Kunja Siltstone in DD90VRB02. Follow up work consisted of reconnaissance of outcropping Campbell Springs Dolomite and Kunja Siltstone with stream sediment sampling and rock chip geochemistry.

The Northern Territory Geological Survey in 1999 completed two stratigraphic diamond drill holes located within the Victoria River Basin (99VRNTGSDD1 and 99VRNTGSDD2). Hole 99VRNTGSDD1 is located within the tenement 17km south-southwest of the Victoria River Downs homestead and lies within AAR tenement. Hole 99VRNTGSDD2 is located 45km to the north-northwest of the Kidman Springs homestead to the north of AAR tenements. The drilling intersected live oil and bitumen as well as epigenetic galena and pyrite within the Skull Creek Formation and the Timber Creek Formation. Assay values up to 1630ppm Pb were obtained.

Previous exploration in the area located large areas of anomalous Lead and Zinc stream sediment geochemistry. Values of up to 9000ppm Pb, 740ppm Zn and 500ppm Cu have been recorded. Anglo Australian Resources completed its first reconnaissance program in 2007, on the granted tenements consisting of geological prospecting, stream sediment, rock chip and reconnaissance soil sampling. Stream sediment sampling confirmed previous lead anomalism with assays up to 5700ppm Pb and 130ppm Zn associated with the Skull Creek Formation and the Bynoe Formation within the Bullita Group. Highly anomalous levels of lead (up to 3300ppm Pb) and zinc (up to 1100ppm Zn) were returned from rock chips of dolomitic sediments.

Anomalous levels (up to 500ppm) of lead were also returned from wide-spaced reconnaissance soil traverses. The values and the extent of anomalism (up to 12 x 3km in dimension) are encouraging, as the deposit models guiding the exploration suggest lead anomalism may be the surface expression of an alteration halo of a base metal mineralised system at depth.

### **3. EXPLORATION WORK COMPLETED**

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During the first year of tenure (i.e. 2007-2008), data from the open file reports pertaining to the Victoria River Basin (VRB) Project area was used to construct a robust, validated database. This database is composed of 23,734 stream sediment samples, 375 rock chip samples, 191 soil samples and data for 78 drill holes. Anglo reprocessed the geochemical data and Geotem, gravity, aeromagnetics and landsat images.

The NTGS completed a regional gravity survey based on 10km square survey stations. Interpretation of this gravity data in conjunction with other imaged data sets generated robust interpretations showing major lineaments, which correlate with faults mapped by the NTGS.

Major structural features, which had not been previously documented, were also evident on imaged early time channel data. This structural data significantly enhanced the prospectivity of the VRB for litho-structurally controlled base metal mineralisation.

Southern Geoscience reprocessed AGSO gravity data, which showed the presence of basement highs and linear gravity lows, the resolution of which would be refined by infill gravity readings in areas of specific interest.

Anglo undertook a regional reconnaissance geochemical sampling program. A total of 265 stream sediment, 115 rock chip and 92 soil samples were taken and submitted for multi-element analyses. This work successfully confirmed the robustness of previous anomalies identified and highlighted prospective areas of interest in the vicinity of the Victoria River Downs Homestead. The geochemical data was then statistically processed, normalised and anomalous thresholds were generated for copper, lead and zinc. A strong zoning of the base metal occurrences was identified, from principally lead domains to zinc-copper domains. This work highlighted a distinct zinc-copper domain along the western and southern margins of the VRB. By contrast lead-copper anomalism dominates the central-eastern portion of the VRB. Areas of strong base metal anomalism are generally associated with the calcareous sediments of the Bullita Group and major structural corridors.

During the second year of tenure (i.e. 2008-2009), the data from an airborne GEOTEM EM survey completed over ~20% of Anglo's Victoria Downs project area in ~1996 was re-processed by Southern Geoscience Consultants. The interpretation formed a part of Anglo's exploration programme assessing the base metal (McArthur River style mineralisation) potential within the Victoria Downs project.

The survey detected one good quality, discrete, late time anomaly (A68) plus numerous, lower quality responses, some of which could be geologically significant. A total of 68 anomalies were identified. The majority of these anomalies appeared to be related to conductive surficial (regolith) or possibly shallow, flat dipping bedrock stratigraphic units rather than being discrete bedrock conductors.

The only late time anomaly interpreted as a possible bedrock conductor (A68) coincides with litho-structural target 5E, defined by Anglo. This target is characterized by the triple point intersection of major faults trending N-S, NE-SW and NW-SE. Some of the stratigraphic conductors might have potential for stratiform-stratabound sulphide mineralisation as they may be related to thick sulphidic shale (basinal) sequences.

The remaining anomalies are equally divided between those located adjacent to major lineaments and those distal to major lineaments probably associated with particular stratigraphic units. In addition, interpretation of the Geotem images has identified major structures not previously recognized and this includes a 5km wide by 50km long corridor of structural complexity, along which major domal structures have been developed. This structural corridor is intersected and offset by major cross faults.

In the third year of tenure (i.e. 2009-2010), Anglo conducted a helicopter-supported gravity survey, consisting of 1,589 gravity readings in two areas on granted Victoria River Downs tenure. The northern part of the survey (based on readings spaced 1 km x 1 km) was designed to target a major north south fault and associated splay faults and domes over a strike length of 50 km near Victoria River Downs Station. This area contains extensive stream sediment geochemistry zinc-lead anomalies. The southern half of the survey in the Mt Sanford area (100 km south west of Victoria River Downs Homestead) was also conducted initially on a 1 km x 1 km basis and then in-filled to 500m x 500m.

The gravity data assisted in the interpretation of the geology and the development of targets. The most promising targets were developed in the Mt Sanford area where a broad gravity low is highlighted, sub-parallel to and east of a major NW trending fault (Pear Tree Fault). This area was interpreted to be a potential shale basin. Two areas within this gravity low were selected as potentially to be dilational sub basins. In addition 5 discrete gravity anomalies in the Mt Sanford area have been highlighted as potential direct targets.

The large domal structure just north of the Victoria River Downs Station centred on the Fitzgerald Range had high Pb geochemistry in streams, rock chips and soils on the south eastern edge of the dome. However as no major faults are mapped in this area or reflected in the gravity, the potential for growth structures in the

area is considered to be limited. A salt dome model proposed by earlier explorer BHP may still have some viability. A regional gravity low could support this theory.

The geological interpretation highlighted at least three areas within the Gregory National Park where sub-basins may have been developed adjacent to growth structures. One of these areas has highly anomalous Zn stream sediment geochemistry while the other two areas are deficient in geochemical data.

In the fourth year of tenure (i.e. 2010-2011), the interpreted gravity targets were followed up with 20 stream sediment samples and six rock chip samples which were not in the area of interest.

Consultant Southern Geoscience were contracted to review the gravity data. The data showed an open ended 2-5km wide gravity low sitting on the eastern flank of a fault zone (named Pear Tree Fault). This low is interpreted as basin dominated by low density lithologies such as shales. Further interpretations concurred with Southern Geoscience's gravity interpretation and highlighted the visibility of a strike extensive NW-SE structure on a continental scale.

No exploration work was completed during the fifth and sixth years of tenure (i.e. 2011-2013), as Anglo was seeking a joint venture partner to advance the project and then MMG Australia Ltd was focussing exploration efforts on other tenements.

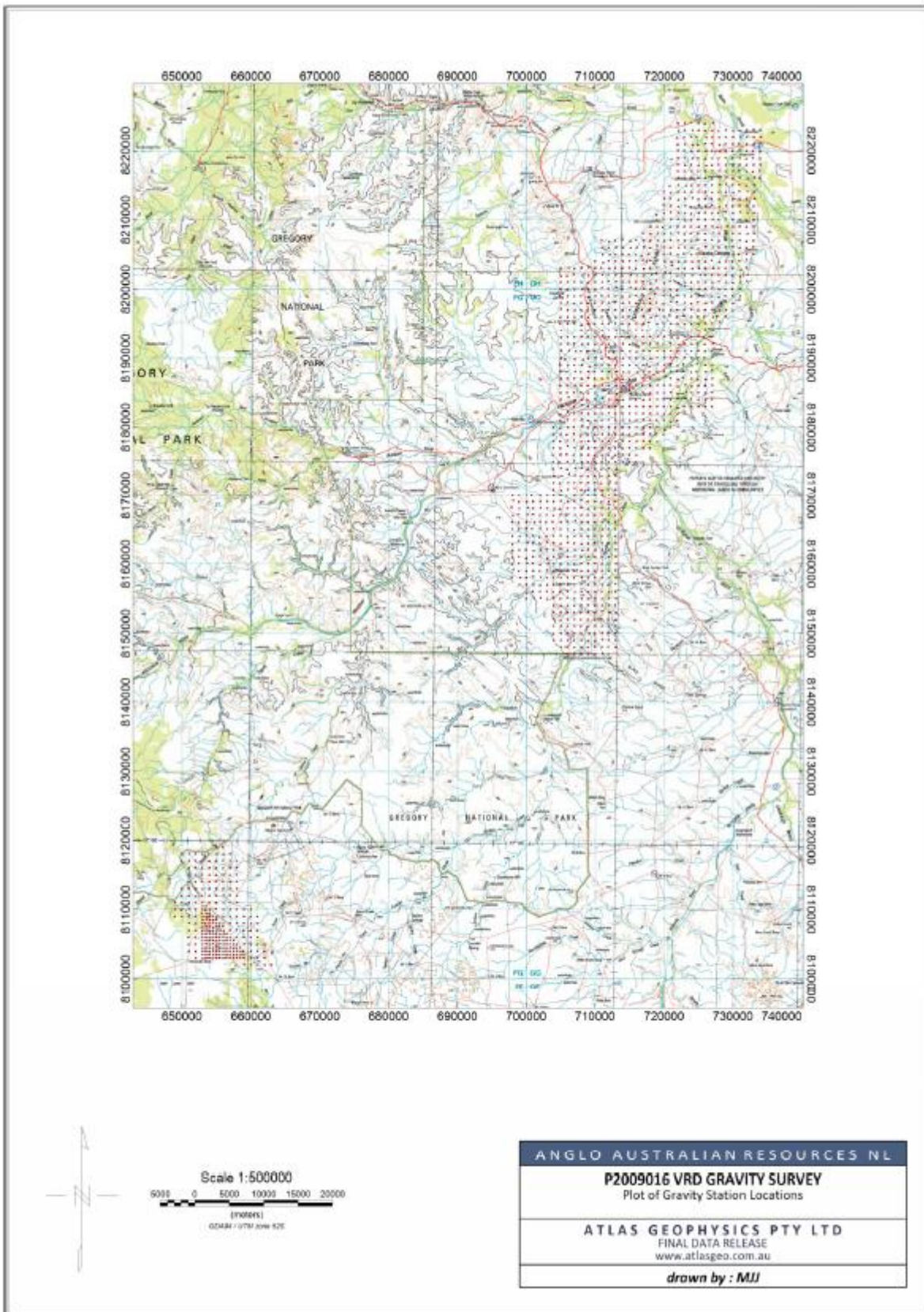


Figure 3 - VRD Gravity Survey plot of Gravity Station Locations



## 4. CONCLUSIONS

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The Victoria River Downs tenement, EL25423 was not found to meet MMG's prospectivity criteria, and given its expenditure status, it was decided to relinquish the tenement.

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