ANGLO AUSTRALIA RESOURCES NL

NORTHERN TERRITORY

VICTORIA RIVER BASIN

VICTORIA RIVER DOWNS 1:250,000 Sheet

2009 ANNUAL REPORT

For

EL 25422
&
EL 25423
&
EL 25728

For the period 7 March 2008 to 6 March 2009

May 2009

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SUMMARY

The Victoria River Project area is located in the Northern Territory of Australia and situated about 450 kilometres south of Darwin. The project covers 10,009 square kilometres and is made up of 15 exploration licences, three of which have been granted and the remainder are under application. Two of the granted ELs 25422 and 25423 form the basis of this report however compilation work was completed over the whole project area including EL 25728.
Half the project area is within the Gregory National Park, which is in the process of being converted to Aboriginal Freehold Land. Vehicle access to the project area is via the Victoria, Buchanan and Buntine Highways, thence station tracks.

The Proterozoic Victoria River Basin (VRB) 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.

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.

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 has been undertaken by BMR, NTGS and various exploration companies. A total of about 10 stratigraphic holes have been drilled.

AAR has reprocessed geochemical data and Geotem, gravity, aeromagnetics and landsat images for the whole project area. BHP previously flew Geotem over about 20 percent of the VRB project area but conducted no significant ground follow up. This data has been reviewed by Southern Geoscience geophysical consultants identifying 17 prospective Geotem conductors within the two AAR tenements forming the basis of this report.

A significant late-time channel EM conductor is located at the triple point intersection of major lineaments in an area dominated by transported cover. 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.

Digital capture of open file geochemical data by AAR of six 1:250,000 sheets has resulted in a VRB database consisting of 23,734 stream sediment samples, 375 rock chips, 191 soil samples and 78 drill holes for 8,014m of drilling. The majority of this drilling was by Geopeko, outside current AAR tenure, in the vicinity of the Limbunya Fault. There are only five drill holes within the existing AAR tenements that were designed to test the base metal potential. These included a stratigraphic hole by the NTGS and drilling by Australasian Minerals in 1971.

Statistical processing of the base metal stream sediment assays generated lead-zinc anomalies within the VRB area. 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 2007, fieldwork by AAR included stream sediment, soil and rock chip sampling programs. This work has been successful in that the stream sediment samples have confirmed the robustness of previous anomalies identified and highlighted prospective areas of interest in the vicinity of the Victoria River Downs Homestead. The most anomalous stream sediments from the recent program reported 5,700ppm Pb and 130ppm Zn and rock chips reported 3,300ppm Pb from the Skull Ck Formation and 1180ppm Zn from the Bynoe Formation.

The high level of surficial geochemical anomalism within the Victoria River Basin may represent a halo to a large base metal mineralizing system. Manganese alteration located on the western side of the AAR tenements may also represent an outer alteration halo to this system. The geochemical anomalism combined with the age of the underlying stratigraphy, unique structural settings adjacent to potential growth faults highlights the potential for a significant buried SedEx deposit within the Victoria River Basin. Based on this model, thirty six litho-structural exploration targets including eight high priority targets were derived from a combination of geological, Geotem, landsat, gravity and magnetic data.

It is concluded that the lowest part of the Bullita Group i.e. the Timber Creek Formation is probably the most prospective unit for SedEx deposits. This unit contains abundant fine grained terrestrial sediments, including black shales and does not outcrop on the two granted tenements but underlies the whole granted tenement area. To the south, where the Timber Creek Formation outcrops on ungranted tenements, stream sediment sampling has returned anomalous zinc.

In addition the Bynoe Formation located in the upper part of the Bullita Group represents a secondary target. The formation contains abundant siltstones and stream sediments sourced from this unit are anomalous in lead and zinc. The Skull Creek Formation which contains disseminated galena also represents a secondary target. Fine grained terrestrial sediment in the Limbunya Formation may also have potential to host SedEx style mineralisation, but have not been examined in any detail to date.

FACT SHEET

Exploration Target:
50 -100mt at +10% combined Cu-Pb-Zn, as stacked lodes.

Victoria River Basin:
3.5km thick stratigraphic sequence, covering 160,000sq kms.

Age Dating:
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.

Location & Access:
450 kms south of Darwin**,** via Victoria River, Buchanan and Buntine Highway**s**

Tenements & Area:
15 exploration licences, 3 Els Approved, 12 EL Applications ~10,009 sq kms

NTGS 1:250,000 Map Sheets:
Auvergne, Delamere, Waterloo,
Victoria River, Limbunya and Wave Hill.

Geological Models:
SedEx, Mississippi, Irish lead-zinc deposits

Styles of Mineralisation:
McArthur River (HYC), Mt Isa, Century,
Cannington, Lennard Shelf

Previous Explorers: Base Metals:
BHP, CRA, Rio Tinto, Anaconda, plus junior companies**; Diamonds:** Stockdale, BHP, Ashton

Previous Exploration Programs:
Base Metals: stream sediment sampling, aeromagnetics, Geotem, limited stratigraphic diamond drilling by BMR, NTGS and exploration companies.

Data Re-Processed by AAR:
Geology, geochemistry, aeromagnetics, Geotem, gravity, Landsat

Digital Data Base:
23,734 stream sediment samples, 375 rock chips, 191 soil samples, 78 drill holes for +8,014m as at 23rd December 2007.

AAR Reconnaissance Exploration:
265 stream sediment samples, 115 rock chips, and 92 soil samples

Geochemistry:
Stream Sediments; Several robust Cu-Pb-Zn anomalies identified from historic data and recent confirmation sampling.
Rock chips; Elevated in Zinc and Lead sampled.

Geophysics:
Geotem, imaged data has identified major structural lineaments not previously documented.
Gravity, 100 sq km of data reprocessed and imaged.
Magnetic data, no major structural lineaments evident.

Drilling:

Total 78 holes drilled, with 5 holes within the project area, 3 holes adjacent to the project and 70 holes within 50kms of the project area. Four deep stratigraphic diamond holes have been drilled, one within the VRB Project. These include two by CRA and two by the NTGS.

Prospective Lithologies:

The most prospective portion of the VRB basin is considered to be within the Bullita Group, composed of calcareous-dolomitic sediments, which range in thickness from 600-850m, of which the Skull Ck and Timber Ck Fms are each about 200m thick.

Exploration Targets:

Growth fault positions
Major fault intersections
Domal structures adjacent to major faults
Basinal- sag structures
Geochemical anomalies
Geotem conductors
Gravity targets
Magnetic anomalies

CONCLUSIONS

- Age Dating: Previous age dating for the Victoria River Basin ranges 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 Proterozoic Victoria River Basin is highly prospective for large tonnage, stratiform, syngenetic-epigenetic Mt Isa - McArthur River - Lennard Shelf style mineralisation.

- The 6,700 square kilometres of tenements owned 100% by AAR effectively cover the majority of the prospective outcropping Victoria River Basin (VRB).

- The existing geochemical database has identified robust coincident copper-lead-zinc base metal anomalism within the VRB, which has been confirmed by AAR sampling activities.

- Reprocessing of airborne Geotem flown by BHP has identified EM anomalies not tested by BHP and most probably related to prospective stratigraphic units.

- Litho-structural analysis of the relevant NTGS geological maps has identified geological domains that are prospective for base metal mineralisation.

- Coincident litho-structural, geochemical and Geotem anomalies have been identified.

- A total of one deep stratigraphic diamond hole and 4 other shallow drill holes have been drilled within the 10,000 sq km project area.

  Previous exploration of the VRB has been piece-meal and fragmented in nature and undertaken by both major and junior exploration companies, each with their own particular emphasis and bias, which may have been geological, geochemical or geophysical.
  This comprehensive project area covers the majority of the Victoria River Basin and presents an opportunity to assess the basin in its entirety using state-of-the-art exploration techniques and up-to-date geological models to assist the identification, assessment and ranking of prospective areas prior to a meaningful drilling program.

RECOMMENDATIONS

- Continue the review and assessment of the exploration potential of the Victoria River Basin and undertake;

- The complete digital capture of the open file geological, geochemical and geophysical information, particularly the geochemical information which is difficult to locate due to lack of co-ordinates;

- Additional litho-structural modelling of geochemical and geophysical targets so as to identify potential trap sites for mineralisation;

- Field assessment of priority exploration targets;

- Both reconnaissance and infill stream sediment, rock and soil sampling, gossan search and mapping of areas remaining to be sampled and those anomalies already identified;

- Infill gravity over target areas to a 500m spacing so as to refine structural controls and detailed infill surveys over priority litho-structural targets to identify possible massive sulphide potential; Application submitted to NT government to participate in Geophysical and Drilling Collaboration program.

- Regional airborne multi-spectral scanning to identify Fe/Mn alteration halos;

- Regional Geotem to identify additional major structures and EM conductors. Follow-up ground EM surveys of specific target areas;

- Review the ranking of targets using geological, geochemical and geophysical criteria;

- Stratigraphic diamond drilling of priority targets; and,

- Targeted RC drilling of specific litho-structural, geochemical and geophysical anomalies.

1. INTRODUCTION

Anglo Australian Resources has focused on the base metal potential of the Proterozoic Victoria River Basin, which is located in the Northern Territory and situated about 450km south of Darwin. The initial project area consisted of 15 exploration licences and covered a 10,000sq km area. Tenement relinquishments and compulsory reductions have reduced the tenements to 6,700sq km

The exploration models used by AAR include the SedEx-McArthur River, Mississippi Lead-Zinc and Irish Lead-Zinc models for an exploration target of 50 -100mt at +10% combined Cu-Pb-Zn.

Open file reports have been reviewed, additional geochemical and drilling data captured and a digital database compiled. Reprocessing of geophysical data such as Geotem, gravity and aeromagnetics by Southern Geoscience has highlighted structural lineaments not previously identified. This structural data when incorporated into the geological model in conjunction with the historic geochemical data has highlighted a number of high priority exploration targets.

Geological models have been used to review the database so as to identify and rank prospective target areas. This review takes advantage of the recently compiled geochemical database compiled by the Northern Territory Geological Survey and advances in digital data processing and imaging of Geotem and gravity data.

The approach taken for the body of this report is to present the highlights and examples of work undertaken. Because of the regional studies undertaken, this report covers all 9 Els, though the majority of the field work and sampling was undertaken within the two granted Els which are the subject of this report.

2. LOCATION and ACCESS

The project area is accessible from Darwin via the sealed Victoria River Highway and the unsealed Buchanan and Buntine Highways, and is situated on the Auvergne, Delamere, Waterloo, Victoria River, Limbunya and Wave Hill 250,000 sheets. Station tracks provide four-wheel drive access to the remainder of the project area, much of which is essentially inaccessible, except via helicopter.

Plate 1. Victoria River Base Camp

3. CLIMATE and WEATHER

The wet season normally lasts from November to March. The annual rainfall ranges from 38-51centimetres. 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. The six-month exploration field season usually extends from April to September.

4. TENEMENTS

Nine ELs make up the 10,000sq kilometre project of which three ELs have been granted and 6 are under application. Tenement details are tabled below

VICTORIA RIVER DOWNS PROJECT

as at 19 April 2009

Tenement Number	Sub Blocks	km²	Application Date	Grant Date	Expiry Date	Expenditure Commitment	Rental due	Rental Amount	Anniv Date
EL25420	*257*	*845.30*	*12-Jun-06*			*$45,000.00*			
EL25422	233	745.60	12-Jun-06	07-Mar-07	06-Mar-13	$60,000	06-Mar-10	$ 5,126.00	06-Mar-10
EL25423	249	796.80	12-Jun-06	07-Mar-07	06-Mar-13	$60,000	06-Mar-10	$ 5,478.00	06-Mar-10
EL25424	*465*	*1510.56*	*12-Jun-06*			*$75,000.00*			
EL25728	59	168.60	21-Nov-06	11-Oct-07	10-Oct-13	$20,000	10-Oct-09	$ 649.00	10-Oct-09
EL25729	*348*	*1123.00*	*21-Nov-06*			*$57,500*			
EL25730	*250*	*824.50*	*21-Nov-06*			*$45,000*			
EL26443	*143*	*450.10*	*21-Sep-07*						
EL26444	*83*	*268.00*	*21-Sep-07*						
Totals	2087	6732.46				$362,500		$11,253	

$140,000 for granted tenements

Black - granted

Red - pending

25422 and 25423 and 25728 included in Combined Reporting 7 March to 6 March

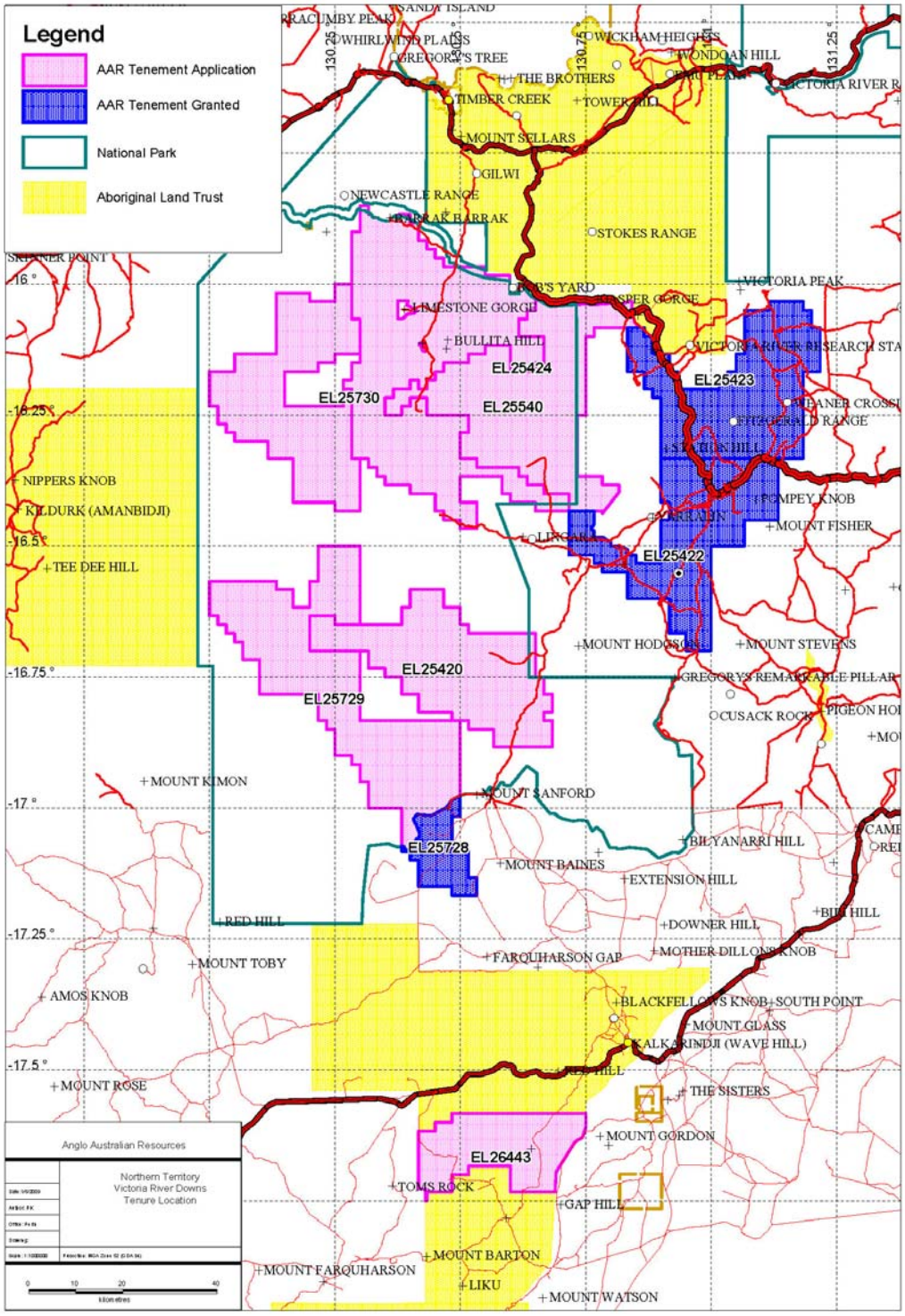
Tenement that have been surrendered/withdrawn in Febuary 2009

EL26442	21	65.89	21-Sep-07	14-Apr-08	13-Apr-14	$10,000	13-Apr-09	$ 231.00	13-Apr-09
EL26445	127	418.70	21-Sep-07	14-Apr-08	13-Apr-14	$28,000	13-Apr-09	$ 1,397.00	13-Apr-09
EL26446	*27*	*78.33*	*21-Sep-07*						
EL26447	58	172.60	21-Sep-07	19-Jun-08	18-Jun-14	$17,000	18-Jun-09	$ 638.00	18-Jun-09
EL26458	117	382.90	28-Sep-07	19-Jun-08	18-Jun-14	$30,000	18-Jun-09	$ 1,287.00	18-Jun-09

Withdrawn April 2009

EL25425	*174*	*567.60*	*12-Jun-06*			*$35,000.00*			

Figure 1. Tenement Location Plan



5. REGIONAL GEOLOGY

5.1 Introduction

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, Tijunna 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 Paleaozoic 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.
For this study this feature has been referred to as the Victoria River Trough (VRT).

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.

5.2 Stratigraphy

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, Tijunna and Avergne Groups.

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This structural corridor is truncated north and south by WNW trending regional lineaments, such as the Limbunya Fault in the south and, with subparallel Gill and GB faults.

Other major structural directions include the NW, NE and E-W lineaments, See Figure 3, which is a compilation of lineaments from all data sources.

TABLE 2 REGIONAL STRATIGRAPHIC COLUMNS

Top

- **Cambrian**

o Atrium Volcanics, 250m thick, tholeiitic basalt and agglomerate, with minor sandstone, chert and limestone interbeds cover the whole region. Unconformably overlies the Proterozoic sequence.

- **Proterozoic**
- Wolfe Creek Basin
- Victoria River Basin consists of the upper Auvergne, Tijunna, Bullita and lower Watti Groups.
- 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.

- **Lower Proterozoic**
- Metamorphic basement of the Pine Creek and Halls Ck orogens

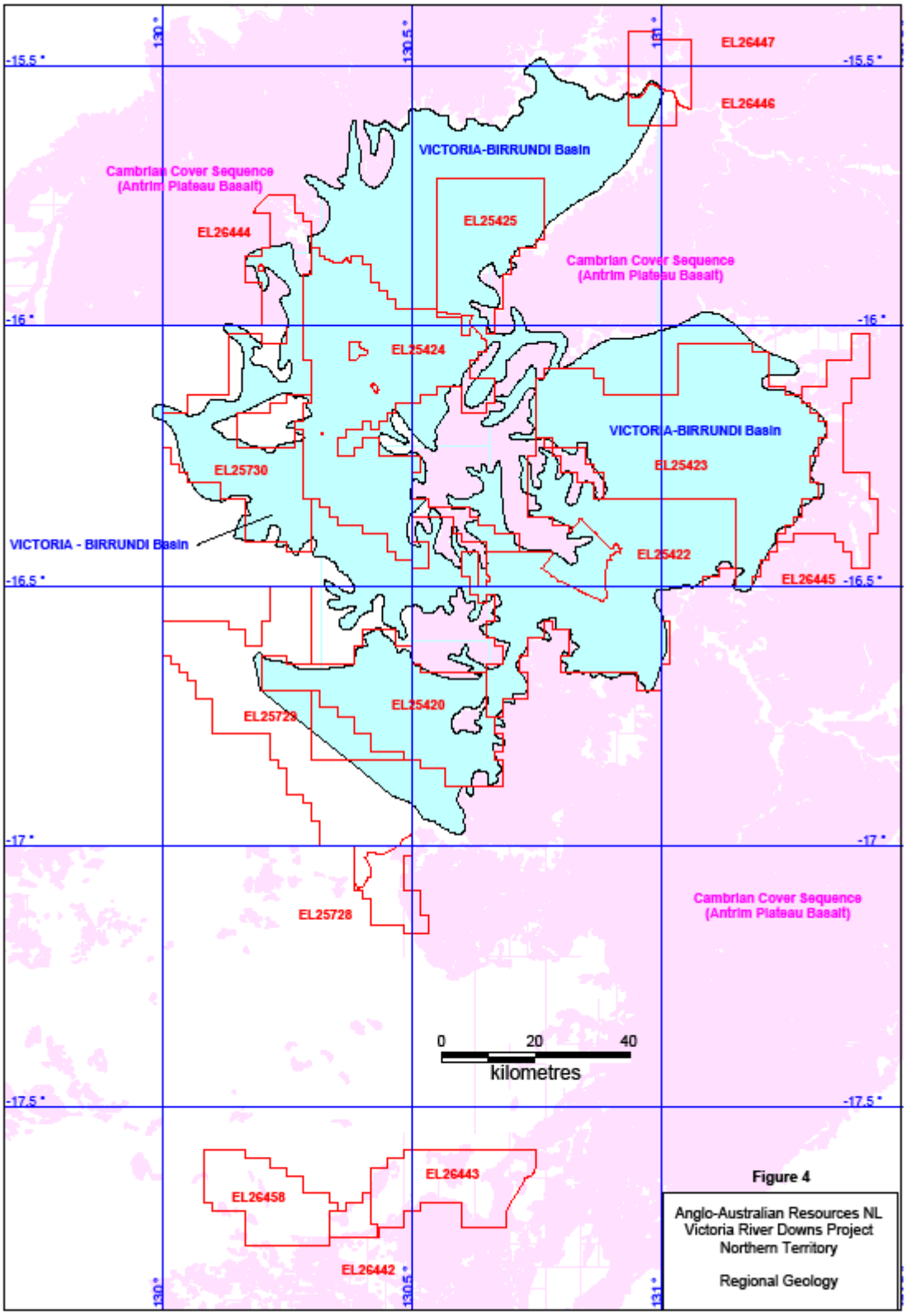


Figure 2 Regional Geology

TABLE 3 THE VICTORIA RIVER BASIN - STRATIGRAPHIC COLUMN

Top

Auvergne Group

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.

Wondoan Hill Fm 145m thick

Unconformably overlies the Bullita Group. Consists of quartz sandstone and glauconitic sandstone, with minor claystone and siltstone.

Bullita Group

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.

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.

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.

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.

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.

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.

The high carbonate content of the Bullita Group distinguishes it from the conformably underlying Wattie Group, dominated by sandstone stratigraphy.

5.3 Regional 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.

Conceptual targets based on this structural model where major dilational structures should occur are located at:

- Target 13, Coolibah Bore, near the intersection of Wickham and Humbert Rivers. This location has been selected, as it's the point of maximum curvature for dilational trends.

- Target 8, a major synclinal, basinal sag structure near Bullita Station.

- Target 4C, near Kaiser Yard, in Bullita Group Battle Creek Fm dolostone. At this point two major structural lineaments intersect.

- Target 7D, Victoria River Downs homestead, this area is located within a structurally complex domain as is the location 25-30km south at White Water waterhole.

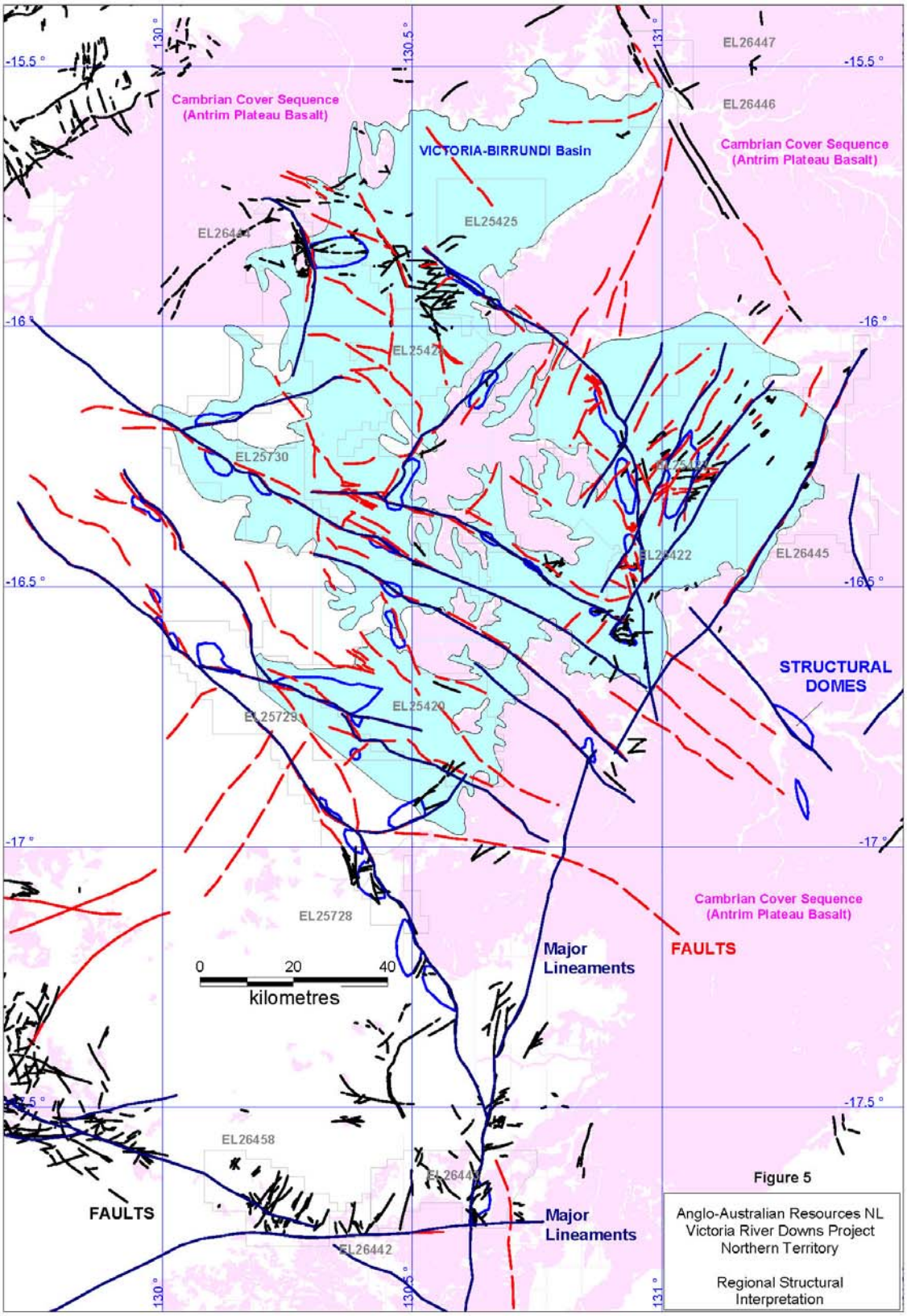


Figure 3 Regional Structural Interpretation

Alternative Structural Models

Given the strong development of the NW (315 degree) trending lineaments, this fault orientation could be indicative of a Southeast – Northwest compression direction, which would generate normal faults and potentially growth faults in this orientation.

This model fits the gross geometry of the stratigraphy with the oldest rock types outcropping in the Southwest and younging towards the northeast i.e. a general northeast block down sense of displacement.

5.4 Age Dating

The depositional age of the VRB is poorly constrained by geochronological data. However, Sweet (1977) has correlated the stratigraphy with other known Proterozoic successions in the Northern Territory and Western Australia. A possible correlation with the Nathan Group of the Mc Arthur Basin suggests that the Wattie and overlying Bullita Groups were deposited at 1.61-1.57 Ga.

Berryman et al 1999 reported a SHRIMP U-Pb zircon age of 1.46Ga for a kimberlite that intrudes the Lower Bullita Gp and inferred this to be a minimum age.

Belousova et al (2001) reported a much younger emplacement age of 179 +-2Ma or the Timber Ck Kimberlites, from laser ablation ICP-MS U-Pb dating of zircons. They indicated that the older age did not constrain the age of sedimentation.

Dunster et al (2002) reported 10 isotope age dates conducted by the CSIRO on material collected from NTGS drill holes. Results are shown below

Sample No	Depth (m)	206Pb /204Pb	207Pb /204Pb	208Pb /204Pb	Quality	Formation
6020026	37.00	18.338	15.762	37.757	1	upper Skull Creek Formation
6020027	68.50	18.437	15.741	38.108	3	upper Skull Creek Formation
6020028	72.15	18.183	15.709	37.806	5	upper Skull Creek Formation
6020029	121.75	18.166	15.709	37.916	3	upper Skull Creek Formation
6020030	142.80	17.978	15.665	37.726	0	Supplejack Dolostone Member
6020031	158.20	18.124	15.719	37.858	2	lower Skull Creek Formation
6020032	159.80	18.367	15.719	37.995	5	lower Skull Creek Formation
6020032a	159.80	18.382	15.732	38.031	3	lower Skull Creek Formation
6020033	111.24	18.179	15.641	38.167	5	upper Skull Creek Formation
6020033a	111.24	18.206	15.666	38.234	3	upper Skull Creek Formation

Quality: High=0; Low=9.

6.0 PREVIOUS EXPLORATION

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. 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.

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. (Dunster and Cutovinos 2002)

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.

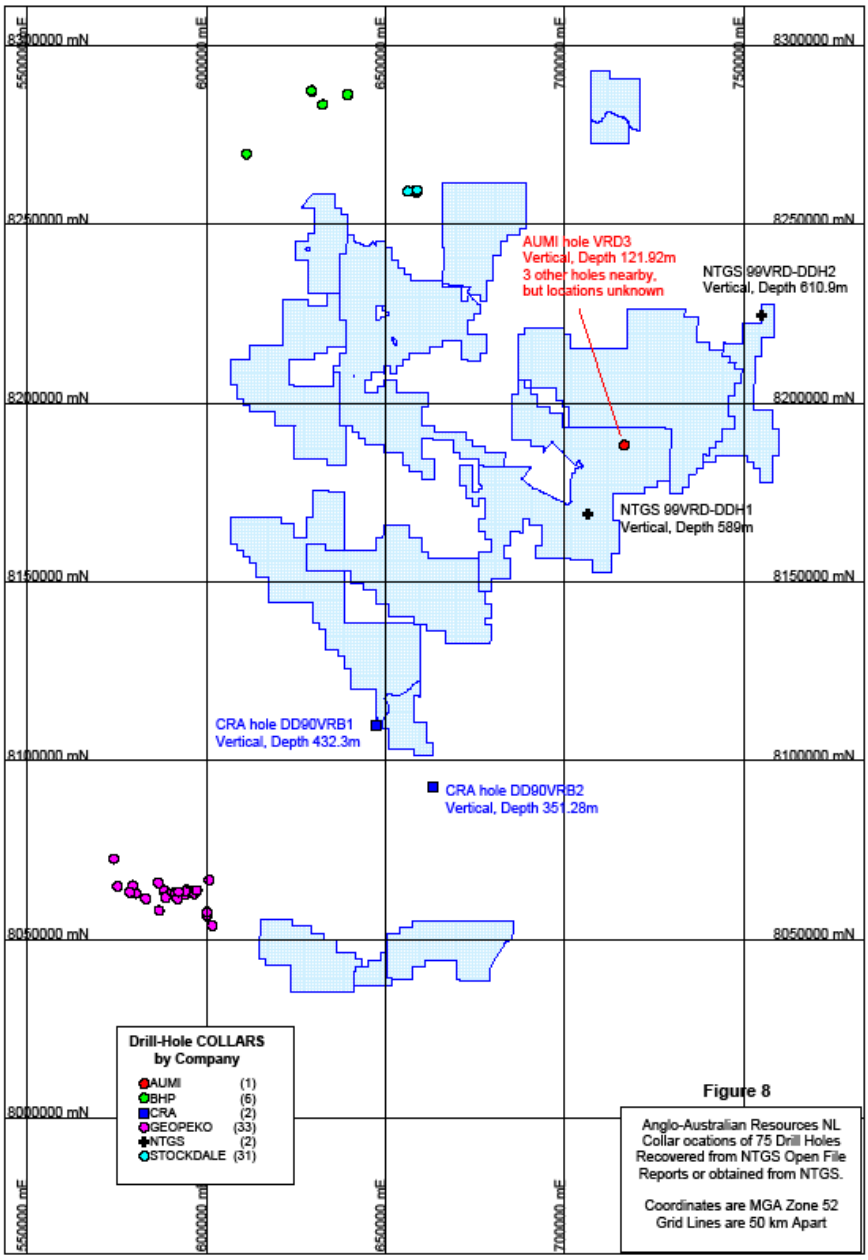


Figure 4 VRD Drilling – All Previous Drill Collars

7. WORK COMPLETED

The project consists of 7500 square kilometres and as a consequence a regional approach was adopted for data compilation purposes.

Southern Geoscience reprocessed the NTGS regional aeromagnetics, gravity, and BHP Geotem data.

7.1 EM Interpretation

BHP's VRB Geotem survey was flown in about 1996 within Els 25422 and 25423. This data was reprocessed and assessed by Southern Geoscience Consultants Numerous early to late time EM conductive features were identified. In addition, major structural features, which had not been previously documented, were also evident on imaged early time channel data. This structural data has significantly enhanced the prospectivity of the VRB for litho-structurally controlled base metal mineralisation.

The only late time anomaly interpreted as a possible bedrock conductor (**A68**) coincides with litho-structural target **5E**, This target is characterized by the triple point intersection of major faults trending N-S, NE-SW and NW-SE.

All other EM anomalies/conductors and conductive zones discussed below are probably related to surficial or shallow dipping stratigraphic features:

- EM anomalies **A10** and **A15** are located adjacent to the major north-south trending lineament, which has a strike length exceeding 100kms.

- EM anomalies **A21** and **A22** are located inside EL 25422, associated with Bynoe and Battle Creek Formation lithologies.

- EM anomalies **A23** and **A24** are located adjacent to the major, 60km long northeast fault.

- Conductive zones **A26**, **27**, **29** and **30** are located within black soil plains. These wide conductive zones probably represent thicker or more conductive zones within these conductive, surficial units.

- Conductive zones **A36**, **39**, **40**, **44**, and **47** are geographically relate to Skull Creek Formation and may represent broad (flat dipping), shallow to moderate depth stratigraphic conductors within this sequence.

- Broad conductive zone **A36** is possibly related to the geochemical target **14A**, which is associated with the Skull Creek Formation. This zone may be a down-dip expression of base metal anomalism identified by stream, rock and soil geochemical surveys undertaken by AAR.

- Broad conductive zone **A47** and **50** are located adjacent to a major, ~100km long, NW trending lineament flanking the north-western side of the Fitzgerald anticline.

- Conductive zone **51** is located in an area flanked by two major north-easterly trending lineaments, both of which exceed a 100km in length.

- The EM Conductive zones **A45**, **A46**, and **A67** are located outside the tenements.

Processing of the early time channel images shows a major, 5km wide, north-south trending structural corridor, which correlates with the 40-50 km long domal structure defined by NTGS mapping. In addition, major NW trending lineaments are evident. These are interpreted to reflect extensions of basement related faults. The Geotem survey suggests that this portion of the VRB overlies a basement platform, flanked by major faults.

A preliminary ranking of the Geotem anomalies suggests that Conductor **68A** is the most prospective EM conductor as it is the only late time probable bedrock conductor identified in the data set. It is also related to the triple point intersection of three major lineaments as interpreted from all available sources of imaged data.

Conductive zones **A10**, **A15**, **A23**, **A24**, **A40**, **A42**, **A47** and **A50** are all spatially related to major N-S or NE-SW trending lineaments.

Conductive zones **A21**, **A22**, **A26**, **A27**, **A29**, **A30**, **A36** and **A44** appear to be stratigraphically controlled and may be related to slightly deeper conductors, associated with the Skull Ck Fm.

The Geotem system has efficiently mapped the main conductive surficial and shallow to moderate depth, shallow dipping stratigraphic units within the survey area. The stratigraphic conductors may be related to thick, sulphidic units within basinal sequences. These have the potential to host base metal mineralisation similar ot the HYC deposit.

One possible, discreet bedrock conductor (**A68**) has been identified. However, in the areas of thick and/or highly conductive cover, it will be difficult to recognize any underlying, shallow dipping bedrock conductors. The anomaly is adjacent to the interpreted main north south growth fault structure. While a metal roofed shelter is present in the vicinity of the anomaly bedrock anomalism should not be ruled out in this area.

State of the art, high powered airborne EM has the potential to locate large, HYC-style syngenetic lead-zinc sulphide deposits in this geological environment. In areas devoid of thick conductive cover (black soil), the AEM technique could be used as an effective screening technique for shallow to moderate depth, deposits of this type.

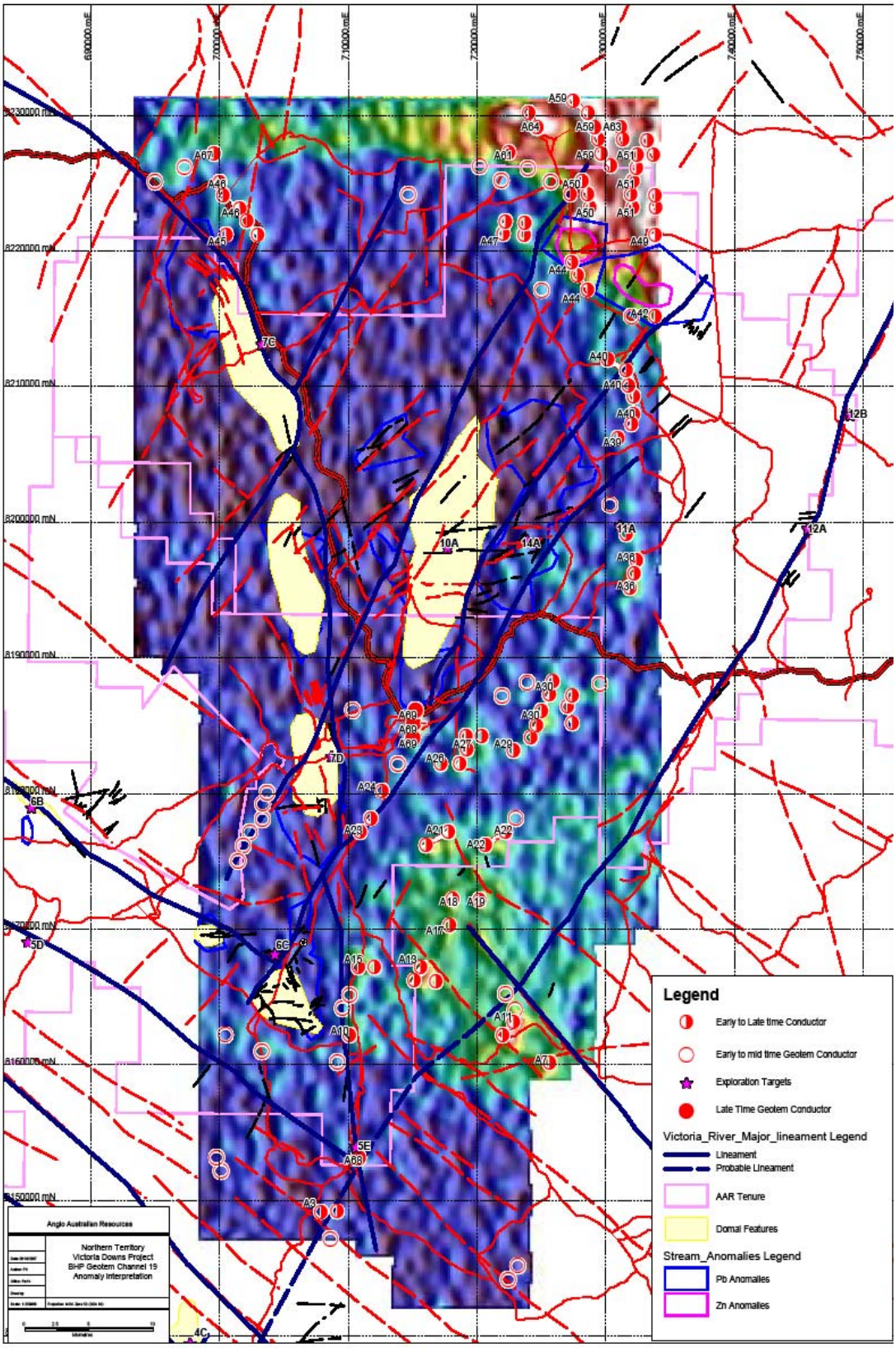


Figure 5. BHP Geotem, Anomaly Interpretation

7.2 Digitisation of NT Geology

Five of the six 1:250,000 geology sheets produced by the NTGS covering the VRD project have been in recent times updated and are available digitally in GIS formats. The Waterloo Sheet has not been updated. Subsequently AAR have digitised this sheet into Map Info GIS format.

8. DISCUSSION

8.1 Geological Models

Three quarters of the worlds Zn-Pb is derived from sedimentary and metasedimentary basins.
Exploration within the Victoria River Basin utilizes parameters derived from three main styles of base metal mineralisation, which include;

- Stratiform Mt Isa-McArthur River shale hosted, SEDEX lead-zinc;
- Mississippi Valley lead-zinc; and
- Irish Type lead-zinc mineralisation.

Stratiform Mt Isa-McArthur River shale hosted, SEDEX
Within the Mt Isa (MIB) and McArthur River (MB) basins, five stratiform sediment-hosted Zn-Pb-Ag deposits contain reserves of excess 50mt of Zn-Pb. These include the Hilton, George Fisher, Century, Dugald River and HYC deposits.
All these deposits had gossanous outcrops, or in the case of Century a strong soil geochemical anomaly. Other sub-economic occurrences are known.
Significant base metal deposits have been found every ten years in the MIB and MB region.
No other major Zn-Pb deposits have been found in other Proterozoic basins in Australia.

Larger Zn-Pb deposits have high sheet-like aspect ratios, which are several hundred metres in diameter and tens of metres thick.
Multiple ore lenses tend to occur as at;

- The Mt Isa mineralisation has 30 Zn-Pb-Ag lenses in the upper 650m of the Urquhart shale Member.
- At McArthur the HYC mineralisation occurs as seven ore lenses in 80m of the Barney ck Fm.
- At Century there are two mineralized zones in a 40m thick sequence of Member 4 of the Lawn Hill Fm.

All deposits have been deformed, but intensity of deformation varies greatly between deposits, as follows:

- Century shows indication of recrystallisation;
- Dugald River shoot-like slate-sulphide breccias upto 30m thick;
- Lady Loretta high grade associated with the hinge zone of a syncline;
- Hilton high grade mineralisation displays a strong structural control;

Metamorphism

- Century and HYC are essentially unmetamorposed;
- Mt Isa and Hilton are lower greenschist facies;
- Dugald River host rocks have undergone upper greenschist to lower amphibolite grade metamorphism.

Mt Isa Basin (MIB)

Characterized by structural and metamorphic asymmetry MIB is hosted in the thermal sag sequence of sediments.

Characterized by symmetrical fault geometry and trough-shelf development i.e. horst –graben structures.

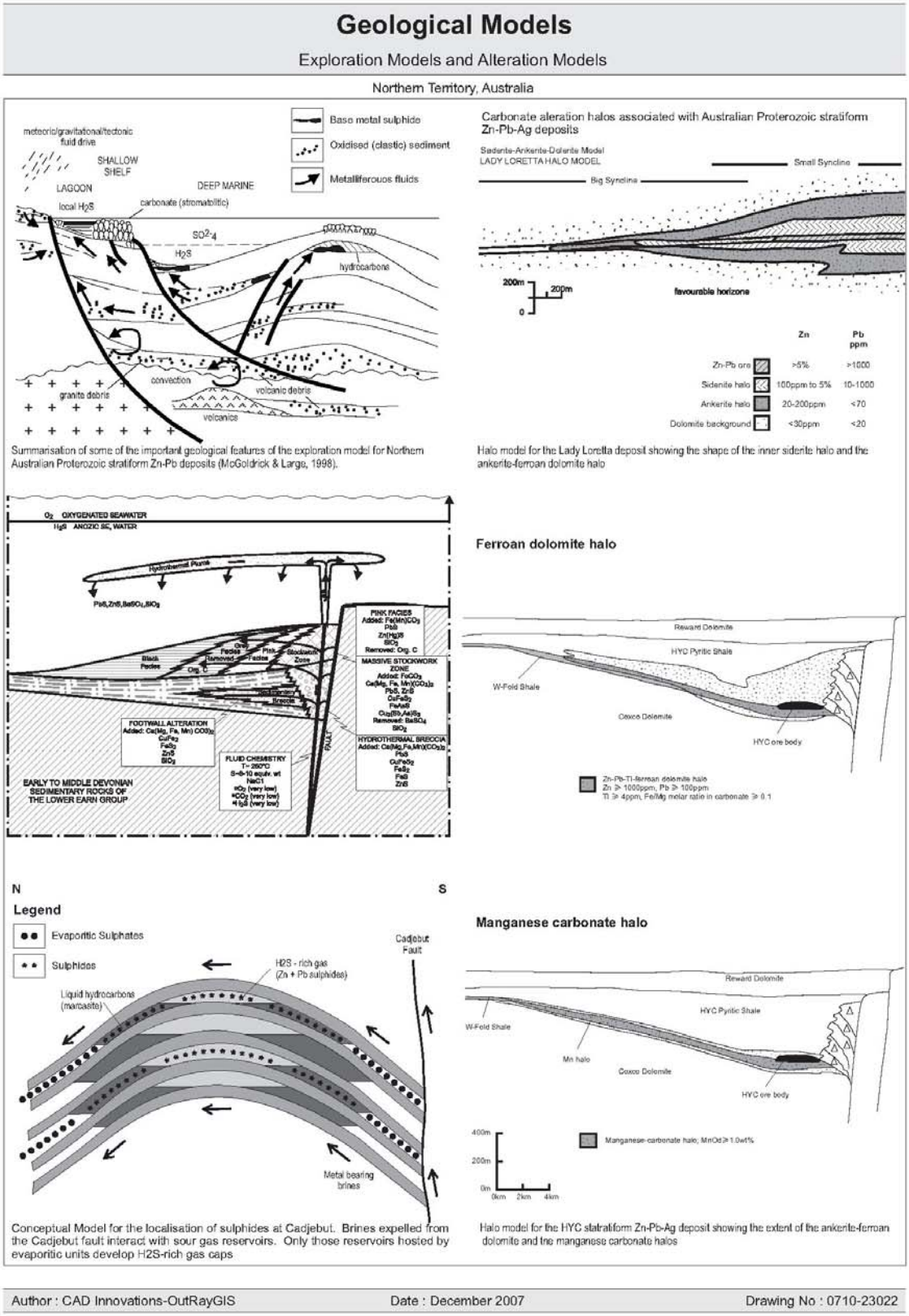
Models for basinal evolution generally propose extensional tectonism, with a system of growth and transfer faults. The thicknesses and structural complexity of basin fill in the central fault zones relative to adjacent shelves is explained in terms of episodes of wrench faulting, with associated block rotation and growth faulting, initiated by successive periods of E-W crustal extension over a 200My depositional history of the basin and periods of compressional tectonism.

Extensive thermal subsidence is interpreted to have been responsible for the mineralized platform carbonate sequences of the MB and MIB.

The McArthur mineralisation has eight stratiform ore lenses and coarse inter-ore sedimentary breccias indicate a genetic link, as follows;

- Rifting along N-S and E-W faults
- Deepening of the basin associated with faulting
- Sediment breccias sourced from faults
- Episodic release of hot metalliferous brines along faults into basin centre
- Metal sulphide deposition into muds adjacent to source faults
- Repeated deep seismic events leads to eight ore-breccia cycles of the HYC ore body.

Figure 6 Geological Models



8.2 ALTERATION HALOS ASSOCIATED WITH PROTEROZOIC STRATIFORM ZN-PB-AG DEPOSITS

Fe-Mn carbonate alteration halos extend vertically and laterally around many major deposits.

Inner Siderite Halo:

- ***Lady Loretta:***
    - Surrounds the Zn-Pb ore body, extends 50m across strike and about 1000m along strike of the favorable unit, from the cut-off for economic mineralisation.
    - Sediments within the Siderite halo are strongly depleted in CaO, MgO, Na2O compared with equivalent sediments in the outer less altered zones.
    - Pyrite is concentrated in layers parallel to bedding, particularly in the immediate footwall of the ore and within the inner siderite halo.

- ***HYC***
    - No siderite alteration evident.

Intermediate Ankerite and Ferroan Dolomite Halo

- ***Lady Loretta:***
    - This halo extends a further 100m into the footwall and hanging-wall and an additional 500m along strike.
    - Minor pyrite-rich beds occur within the ankerite-ferroan dolomite.
- ***HYC***
    - This style alteration can be traced for 15kms along strike of the favorable pyritic shale unit and into the hanging-wall sediments. Fe increases in the Footwall towards ore body.
    - The halo is characterised by enrichment of Zn >1000ppm, Pb>100ppm, Tl >4ppm

Manganese Carbonate Halo

- **HYC**
    - A manganese halo tightly surrounds the deposit and extends for 23km west of the HYC deposit.
    - The manganese halo is restricted to the footwall sediments and ore horizon.
    - The manganese halo is the precursor that heralds the zinc-lead mineralizing events, related to seismic release of deep metalliferous brines along major rift structures.

Dolomite Halo

- The outer dolomite halo shows no anomalous geochemical characteristics, except for marginally elevated manganese as it approaches the outer edge of the ankerite halo.
- Negligible pyrite occurs in the outer dolomite zone.

8.3 VRD Features

The Victoria River Downs area contains:

- A large regional base metal geochemical halo
- A sedimentary package that can be correlated with the McArthur River Basin
- Fine grained shales and chemical sediments that could host a sedex deposit
- Age dating of the same age as other Australian Proterozoic base metal deposits
- Major regional structures that may have acted as growth faults during the evolution of the basin.
- Unusual domal and monoclinal structures adjacent to major faults
- Supporting evidence from imaged GEOTEM
- Wide spaced gravity which appears to show basement structures throughout the VRD basin

9. CONCLUSIONS

The Victoria River Basin is highly prospective for Proterozoic sediment hosted lead – zinc mineralisation showing strong geochemical anomalism supporting a coherent geological model. However available data is still insufficient on which to target specific drill holes.

Better target definition could be achieved by infilling the gravity data. Current gravity data in the Victoria River Downs area is currently at 10 x 10km spacing. The proposal is to infill data to a minimum of 1 x 1km focused on a major north south fault and associated domal structures north and south of the Victoria River Homestead (as shown on attached plans). The program will consist of approximately 800 readings.

In addition bedrock EM anomaly A68 needs better definition and resolution by a ground EM survey.

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