TERRITORY RESOURCES LIMITED

A.C.N. 100 552 118

EL23237 Mt Porter

ANNUAL REPORT

For The Period

8th December 2007 – 7th December 2008

Pine Creek SD52-08 1:250,000 Sheet
Pine Creek 5270 1:100, 000 Sheet

NORTHERN TERRITORY

D Freeman
December 2008

CONTENTS

1. SUMMARY

This report details exploration activities conducted by Territory Iron Limited for Frances Creek style hematite mineralisation within EL23237 during the year ending 7th December 2008.

Exploration activities during the reporting year comprised:

- a literature review of in-house technical reports and literature/datasets from the NTGS library;
- a review of aerial photography including photogrammetry;
- form-surface structural/lithologic prospect mapping of the Mt Porter tenement area including collection of rock-chip samples for multi-element analysis, and;
- compilation and reporting of mapping results

Form-surface mapping of the tenement area focused on defining lithological contacts and attaining structural data to validate current government mapping, while on-ground spot-checks for potentially ore-grade ironstone outcrop were undertaken as mapping progressed from the Early Proterozoic Granitoids in the south, to the pelitic/psammitic interbeds and folded fine-grained phyllite beds in the north.

The Mt Porter region is devoid of ironstone outcrop, with the majority of the lease dominated by a combination of siltstone, sandstone (pelite/psammite), phyllite, greywacke and tuffaceous chert.

Expenditure during the reporting year was $27,540.60.

2. INTRODUCTION

This report is submitted by Territory Iron to meet statutory reporting commitments on tenement EL23237 for the year ending 7th December 2008. Exploration within the tenement is focussed on iron ore mineralisation.

EL 23237 is located about 2km west of the Frances Creek iron ore mining district from which about six million tonnes was produced between the period 1967 to 1974. The mining district lies 23km north of the township of Pine Creek which is located on the Stuart Highway about 220km south of Darwin. Access to EL23237 is via a secondary 4WD track which intersects the graded Frances Creek mine road from the west, approximately 2km south of the current mining offices.

Access through the tenement is poor, with the majority of tracks having experienced significant regrowth and wash-outs since their development by Homestake Gold Pty Ltd and Arafura Resources Ltd. The tracks are deemed impassable during the monsoon season with dry season access constrained to high-clearance 4WD vehicles.

3. TENURE

3.1 Mineral Rights

EL23237 was granted to McCleary Exploration and Mining Pty Ltd (MEMPL) on 10th December 2003.

In 2001 MEMPL became a wholly owned subsidiary of Arafura Resources NL. The current term of the tenement expires on 7th December 2009. This tenement covers an area of 21.96 km2 and is leased by Territory Resources Limited. Arafura Resources Limited currently holds gold rights to EL23237. Territory Iron Limited (now Territory Resources Limited) acquired the iron ore rights for the tenement from Arafura in January 2008.

3.2 Aboriginal Sacred Site Clearance & Native Title

A search of the Aboriginal Areas Protection Authority's sacred site digital register carried out prior to the commencement of drilling in 2004 indicated no Registered or Recorded sites within the tenement area.
Registered native title claim DC01/21(Paddy Huddleston & Ors) – PPL 815 covers the tenement area.

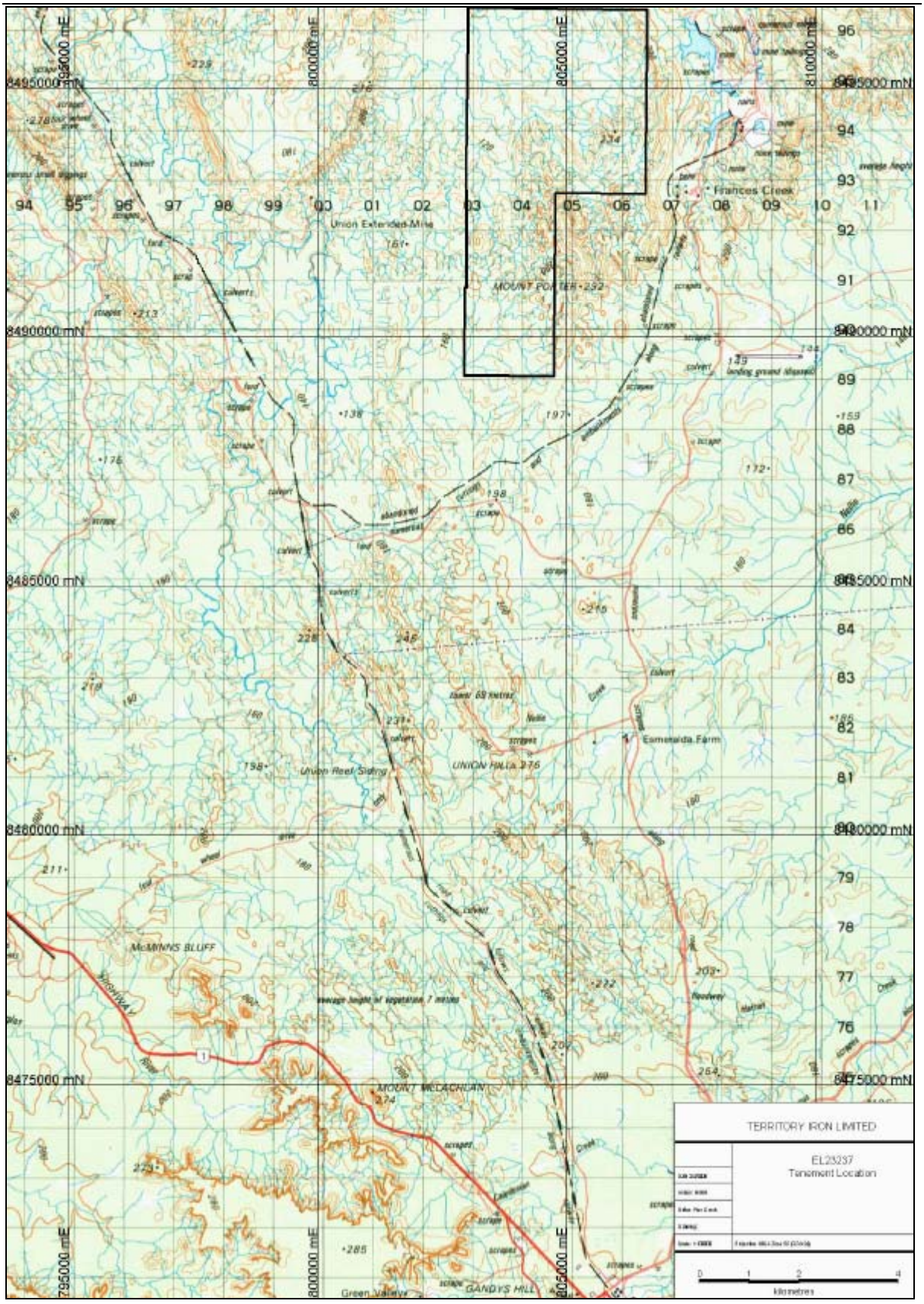

Figure 1EL23237 Tenement Location

4. LOCAL GEOLOGY

EL23237 is predominantly underlain by Proterozoic metasediments of the South Alligator Group and Finniss River Group. These include minor Koolpin Formation ferruginous and cherty metasediments, tuffaceous metasediments of the Gerowie Tuff, shales and siltstones of the Mt Bonnie Formation and turbidites of the Burrell Creek Formation.

NW tending, north plunging folds have folded the metasediments into an anticline-syncline pair within the eastern half of the tenement. Sediments in the central southern part of the tenements are intruded by the Allamber Springs Granite.

No iron mineralisation is known to occur on the tenement. The prospective Wildman Siltstone of the Mt Partridge group lies well to the east of the tenement.

Minor ferruginous occurrences are known from BIFs in the Koolpin Formation, but most Koolpin formation rocks lie east of the tenement. Alluvial and hard rock gold mineralisation is known to occur at Union Reef Extended within the western half of the tenement which is underlain by Burrell Creek Formation rocks.

5. WORK COMPLETED

Form-surface mapping of the tenement area focused on defining lithological contacts and attaining structural data to validate current government mapping, while on-ground spot-checks for potentially ore-grade ironstone outcrop were undertaken as mapping progressed from the Early Proterozoic Granitoids in the south, to the pelitic/psammitic interbeds and folded fine-grained phyllite beds in the north.

6. EXPENDITURE

Total expenditure for the reporting year was $27,540.60 and is detailed in the NT Exploration Expenditure Statement attached as Appendix 1 to this report.

Proposed expenditure for the next reporting year is estimated at $30,000, which will be mainly directed to regional and prospect mapping in addition to rock-chip sampling and assaying.

TERRITORY IRON

Memo ***Frances Creek Exploration***

To: **Frances Creek Exploration**
From: **David Freeman**
Date: **4th December 2008**
Subject: **Mt Porter Reconnaissance Mapping (EL23237)**

Summary
The Mt Porter region is comprised of folded sediments of the Burrell Creek, Mt Bonny and Koolpin Formations, in addition to refolded sequences of the siliceous/argillic Gerowie Tuff. Mineral occurrences, including Pb/Cu showings, have been reported in government mapping and are known to occur to the west of the EL23237 western boundary (towards the now inactive Union Extended mine-workings), while surficial banded-iron formations (gossanous, hematite-limonite bodies) within the siltstone/shale interbeds of the Koolpin Formation have been noted to contain a number of small Au orebodies and anomalously high concentrations of base metals.
As the exploration title to EL23237 is fast approaching renewal, reconnaissance structural/lithological mapping of the entire tenement area was completed to assess for prospective potential. First pass reconnaissance checks noted that mapping work undertaken by the NTGS is of good quality and has already effectively delineated lithological contacts throughout the tenement. While additional structural data was added to the knowledge-base during the recent mapping exercise, ironstone sub-crop throughout the tenement is insignificant, with marginal occurrences of silica-rich sub-crop exposed within the Koolpin Formation to the east of the south-eastern tenement boundary (currently leased by Arafura Resources Limited). Extensive drill site workings occur in and around this area.

Introduction
Between the dates of the 26th November and the 3rd December 2008, structural/lithological mapping at a scale of 1:20,000 was undertaken over the entire span of EL23237, located to the west, and running parallel with, tenement AN389 and the strike of the current Frances Creek mine footprint. This tenement covers an area of 21.96 km^2 and is wholly leased by Territory Resources Limited. Arafura Resources Limited hold the Au rights to EL23237.
Access to the area is via a secondary 4WD track which runs west of the Frances Creek mine road. This track trends perpendicular to, and crosses, the railway-siding haulage road (running roughly parallel with the Frances Creek mine road) entering EL23237 at its south-eastern corner.

Form-surface mapping of the tenement area focused on defining lithological contacts and attaining structural data to validate current government mapping, while on-ground spot-checks for potentially ore-grade ironstone outcrop were undertaken as mapping progressed from the Early Proterozoic Granitoids in the south, to the pelitic/psammitic interbeds and folded fine-grained phyllite beds in the north. The topographic nature of the tenement area varies from mid to highly topographic in the southern regions through to low hillocks with interspersed floodplains and creeks in the north. Outcrop in the south is very good, with vast exposures of Gerowie Tuff and Mt Bonnie Formation developing prominent “spines” along N-S trending ridges. Where topography decreases in the northern portion of the lease, outcrop gives rise to small sporadic and discontinuous sub-crops of fine-medium grained

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pelitic/psammitic Burrell Creek Formation within overlying Quaternary-aged alluvial lateritised sediments and conglomerates.
Regional remote-sensing data for this lease is currently minimal, with government gravity and aeromagnetic survey data proving of too large a scale to effectively contribute to any geological interpretation within the area of interest. Radiometric data effectively defines the dominant lithologies (such as the Gerowie Tuff with contrasting sediments), but fails to define any areas of potential ironstone outcrop. The majority of high-resolution geophysical data does not currently extend west to cover the exploration lease of interest, and is mainly constrained to the Frances Creek mine area.

Geology
The area mapped consists primarily of units of the South Alligator Group, including the Koolpin Formation, Gerowie Tuff and the Mount Bonnie Formation. The younger Burrell Creek Formation is observed to overly these younger sequences and outcrops in the western and northern extremes of the tenement area. Structural mapping confirms the presence of a series of large-scale anticlines and synclines that consistently fold this entire sequence. Observations attained during recent mapping are as follows;

Koolpin Formation
The Koolpin Formation is comprised of a series of weak to moderately ferruginised siltstones and shales (Figure 1A) with quartz-rich dolomitic interbeds. The base of the formation is defined by a ferruginous hematite quartz-breccia unit (Figure 1B). Outside, and to the southeast, of the tenement boundary, outcrop of these sequences can be observed proximal to historical workings (Homestake Gold of Australia Ltd?) including drill pads, trenches and sumps (805,000mE/8,490600mN). Of the area mapped during this exercise, these limited outcrops were the only areas noted as potentially mineralised ironstone (note; these outcrops lie outside of EL23237 on ground not leased by Territory Resources. They are noted within this report for reference purposes only).

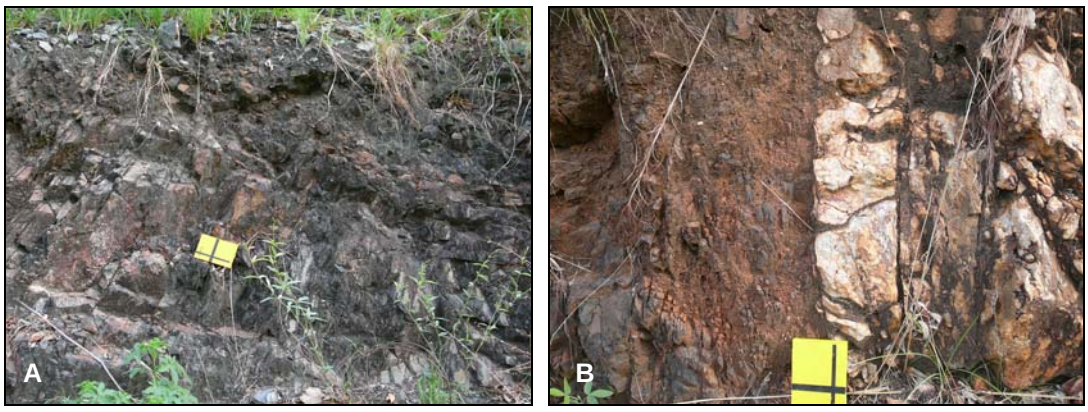

Figure 1 *(A) Koolpin Formation - ferruginised siltstone/shale interbeds (B) Contact between weakly gossanous Koolpin siltstone/shale interbeds and massive quartz vein (proximal to Zamu Dolerite sill).*

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In the south of the tenement block the Koolpin Formation is intruded by a largely continuous Zamu Dolerite sill. This quartz-rich unit is observed to fold with the surrounding Koolpin sediments, suggesting emplacement prior to regional deformation. It should be noted that the ironstone occurrences have a close spatial relationship with the lithological contact of this sill and it is inferred herein that a relationship exists between these intrusions and the occurrence of potential iron mineralisation.

The Koolpin Formation in this area is observed to form around a series of shallowly plunging, tight through to close asymmetric regional-scale folds. Bedding (S_0) is observed to wrap around the hinges of these folds, with a slaty-cleavage (S_1) observed to form at an acute angle to bedding. A less prevalent second generation foliation is observed to form at an open angle to $S_{0/1}$.This cleavage (S_2) is defined by a styllitic pressure-solution cleavage and trends parallel to axial plane with intensely deformed quartz-silica veins in the hinges of F_2 folds. It has been interpreted that this cleavage is an important structural control for the vein-type hydrothermal gold in the Pine Creek region. The axial planes of these folds are observed to trend →330-345. All sedimentary packages in the Mt Porter region are deformed around these F_2 structures. A third local foliation is observed to form perpendicular to the axial planes of F_2 folds and is again defined by a sub-vertical to vertical slaty cleavage. It has been interpreted that this cleavage is an important structural control for the vein-type hydrothermal gold in the Pine Creek region.

Gerowie Tuff

The Gerowie Tuff can be defined as a grey to white, argillic and highly siliceous cherty unit with interbeds of “dirty” quartz-rich siltstones/shales and tuffaceous clasts including quartz, feldspar and carbonates (Figure 2). Many of the outcrops observed display banding, though it is uncertain whether this feature represents a primary lamination/bedding surface or late-stage alteration feature. A series of ENE-WSW trending localised late-stage small-scale faults, or brittle shear zones, are observed to offset F_2 fold hinges. These structures are defined by quartz and carbonate veining and display a dextral offset. These faults are not defined in government mapping while their relationship (if any) to potential mineralisation in the area is at this stage unknown. Samples have been taken for assay within close proximity to these fault zones.

The Gerowie Tuff is a prominent geological feature of the Mt Porter region as aforementioned, forming large ‘spines’ along N-S trending ridges, mainly due to its rheologically competent nature. Typically massive in texture, the Gerowie Tuff overall preserves very little structure, however it is observed to fold with the up-sequence Mt Bonnie Formation and the underlying Koolpin Formation. The contact between these units and the tuff is highly contrasting and easy to delineate. Spatial location of lithological contacts between these units is accurate with those defined by NTGS mapping.

Figure 2 *Typical outcrop depicting tuff component of Gerowie Tuff - light grey, angular quartz/feldspar (recrystallised) with minor carbonate veining. This unit forms large, prominent ridge 'spines' in outcrop.*

Mt Bonnie Formation

The Mt Bonnie Formation comprises interbeds of fine-grained shale (slate), mudstone/phyllite and minor dolomitic cherts. Bedding and secondary foliation data is preserved quite readily throughout the sequence. $S_{0/1}$ is typically sub-vertical to vertical, while S_2 is defined by a micaceous/slaty cleavage at an acute angle (→330-345) $S_{0/1}$. The contact between the Mt Bonnie Formation and the overlying Burrell Creek Formation is at times difficult to define, the floodplain nature of the west and north-western parts of the tenement area means outcrop is often few and far between. The Mt Bonnie Formation is observed to fold around the underlying Gerowie Tuff and shares the same F_2 fold style (with similarly orientated axial planes) preserved within the older Koolpin Formation.

Burrell Creek Formation

The Burrell Creek Formation (a member of the Finniss River Group) overlies the Mt Bonnie Formation and is observed to outcrop in the extreme west and north-west regions of EL23237. This sequence comprises interbedded pelitic and psammitic units with bedding easily defined (Figure 3A). S_0 consistently dips steeply to the west, however shallowing to ~70º in the hinges of F_2 folds.

Figure 3 *(A) Typical sub-vertical to vertical peilitic/psammitic interbeds of the Burrell Creek Formation. (B) Samples of Burrell Creek pelite containing massive galena and ~20% malachite proximal to workings at Union Extended mine.*

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The Burrell Creek Formation is known to hosts numerous vein-type Au, base metal and Sn deposits while banded iron formations outcropping further to the west of the exploration lease are known to host stratabound Au-Pb-Zn-Cu-Ag polymetallic deposits. Reconnaissance work to the west of tenement EL23237's western boundary revealed historic workings proximal to the now inactive Union Extended mine. Inspection of waste dump material in and around these workings revealed samples containing massive (~90%) galena and ~20% malachite. It is estimated that these particular samples would return grades of ~50% Pb and 3-4% Cu. Mapping focused on attempting to define a host horizon within this unit and it was originally inferred that the host beds may cross the western boundary of EL23237 and outcrop in the NW corner of the tenement. However, two traverses failed to define a prospective horizon as outcrop was limited due to overlying Quaternary sediments. Samples of pelitic units have been taken where possible (assays pending).

Conclusions and Targeting Potential

1) The Mt Porter region is devoid of ironstone outcrop, with the majority of the lease dominated by a combination of siltstone, sandstone (pelite/psammite), phyllite, greywacke and tuffaceous chert. The high quartz/silica and carbonate content of the western lithologies within the Burrell Creek Formation may provide further scope for Au and base metal mineralisation within these sequences. Samples have been taken for assay (results pending).
2) The close spatial proximity of the Koolpin Formation to a potential heat source (derived from the intrusion of a series of quartz-rich Zamu Dolerite dykes and sills) combined with at least three generations of relatively intense regional deformation (providing a potential pathway for hydrothermal fluid mobilisation), suggests that scope for iron mineralisation does exist within the Koolpin Formation. Future work planned over the next six days aims to complete mapping within the western portion of AN389, where Koolpin sequences initially trend away from EL23237 to then strike NNW, parallel with the Frances Creek-hosted Wildman Siltstone. Initial reconnaissance work has noted ironstone outcrop is present within this area (mapping results and report to follow).
3) Remote sensing data proved somewhat ineffective for targeting ironstone outcrops within EL23237. Government data is of too large a scale, while radiometrics distinguished only prominent outcrops of Gerowie Tuff.
4) NTGS mapping is of high accuracy and is reliable enough to be used to constrain major lithological contacts. Small scale faults were however not defined in government mapping. Their relationship to modes of mineralisation is at this stage unknown.

Further Work and Recommendations

1) Should assay results for samples attained during first-pass reconnaissance mapping be encouraging, it is proposed that follow-up work should include either close-spaced ground magnetic or gravity surveys (traverse), focusing on areas with greatest potential for base-metal mineralisation. It is proposed that polymetallic mineralisation within the Burrell Creek Formation is stratabound, in which case, high-detail, close-spaced ground geophysics

would aid in discerning any potentially mineralised, steeply dipping marker horizons.

2) Until rock chip assays are returned, EL23237 should not be relinquished. Despite potential for ore-grade iron-ore being minimal, potential still exists for base-metal mineralisation within this tenement. Exploration activities should be reassessed when results are returned.

Table 1 – Samples for rock chip analysis (multi-element)

Locality	MGA94_52_E	MGA94_52_N	Lithology	Rock Chip Sample ID
1	805390	8490762	Fe-Bx-Siltstone (Koolpin Fm)	MPRC001
2	804747	8492123	Quartzite (Gerowie Tuff)	MPRC002
3	804734	8492285	Quartzite-Siltstone Interbed (Gerowie Tuff)	MPRC003
4	804498	8493201	Quartzite-Siltstone Interbed (Gerowie Tuff)	MPRC004
5	805488	8491780	Fe-Bx-Siltstone (Koolpin Fm/Gerowie Tuff contact)	MPRC005
6	804499	8494280	Quartzite-vein (Gerowie Tuff)	MPRC006
7	806008	8493520	Quartzite-vein (Gerowie Tuff)	MPRC007
8	804592	8494300	Slickenside (?) Sandstone (near fault - Gerowie Tuff)	MPRC008
9	805114	8490719	Fe-Siltstone/quartz-vein (Koolpin Fm/Zamu Dolerite contact)	MPRC009
10	805603	8491020	Fe-Siltstone/weak carbonate alteration (Koolpin Fm)	MPRC010
11	805748	8491008	Fe-Bx-Siltstone (Koolpin Fm)	MPRC011
12	803600	8496260	Pelite - weakly ferruginised (Burrell Ck Fm)	MPRC012
13	804870	8495890	Psammite - weakly ferruginised (Burrell Ck Fm)	MPRC013

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Mt Porter (EL23237) Reconnaissance Map

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December 2008

- Burrell Creek Fm - shale, phyllite, silt/sandstone
- Mt Bonnie Fm - silt/sandstone, tuff. siltstone +/- qtz
- Gerowie Tuff - grey argillite, siltstone, angular qtz/feldspar
- Koolpin Fm - silt/sandstone, ferr. breccia + minor dolomite
- Zamu Dolerite - fine-medium grained qtz-rich
- Proterozoic Granitoids - I-type
- 'Ironstone' - weak-mod. ferr. siltstone, qtz-chert interbeds
- Sample Site Location