Title Holder	Territory Iron Pty Ltd	
Operator	Territory Iron Pty Ltd	
Tenement Manager / Agent	Australian Mining & Exploration Titles Services	
Titles / Tenements	EL26880	
Mine / Project Details	Frances Creek	
	Relinquishment Report for the Period 4 th March 2009	
	-8 th June 2010 Tenement EL26880	
Personal Authors	David Broomfield	
Corporate Authors	Territory Resources Limited	
Company Reference		
Number		
Target Commodity	Iron Ore	
Report Date	29 th June 2010	
Datum / Zone	GDA94 / Zone 52	
250k Mapsheet	Pine Creek SD52-08	
100k Mapsheet	Pine Creek SD5270	
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FRANCES CREEK PROJECT

RELINQUISHMENT REPORT

FOR THE PERIOD

4TH March 2009 – 8TH June 2010

Tenement EL26880

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

> David Broomfield 29th June 2010

SUMMARY

This relinquishment report details exploration activity conducted by Territory Iron Pty Ltd on the Frances Creek Tenement EL26880 during the period from 4th March 2009 to 8th June 2010. This tenement was acquired in March 2009 to allow an assessment to be made of the footwall Mundogie Sandstone sequence below the mineralised Wild Formation. The most recent report on this area was completed by Hassall (2010).

During the period of grant, Territory Iron undertook the following work:

- A desktop review of the geology, using existing aeromagnetic survey data and satellite photography to identify local structure with potential to host mineralisation;
- Ground truthing over the area to confirm 1:100,000 Pine Creek sheet NTGS geological mapping.

No iron mineralisation was observed as part of the desktop study or during field evaluation and the company has now relinquished the ground.

Total expenditure for the tenement during the reporting period was **\$3,520**.

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APPENDIX

APPENDIX 1 EXPENDITURE REPORT

1. INTRODUCTION

This relinquishment report details exploration activities for iron ore mineralisation conducted by Territory Iron Pty Ltd during the period 04/03/2009 - 08/06/2010 within the Frances Creek tenement EL26880.

The tenement is located in a footwall position to the old Frances Creek Iron Ore Mining District from which approximately six million tonnes of iron ore was produced during 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 from Pine Creek is along the sealed Kakadu Highway for 2km and then along the graded Frances Creek Mine access road for 23km to the Frances Creek Iron Ore Mine site area, Figure 1.



Figure 1: EL26880, shown top left, is located approximately 5km east of the active Helene mining area, shown in the centre. The tenement is located in the footwall Mundogie Formation, whereas iron mineralisation occurs in the overlying Wildman Formation.

2. TENURE

2.1 MINING / MINERAL RIGHTS

EL26880 was applied for by Territory Iron Pty Ltd on the 21st July 2008. Following advertising and Native Title, it was granted for a 3 year term commencing on 4th March 2009 and expiring on the 3rd March 2012. The tenement was relinquished on the 8th June 2010.

The tenement covered 2 sub-blocks or 6.68km².

2.2 LAND TENURE

The tenement is located on the Mary River West Pastoral Lease, PPL 815- NT portion 1630, owned by Equest Pty Ltd (Gary Hamilton, fax 07 55341355, C/- 9 Pall Mall Avenue, Currumbin.

2.3 NATIVE TITLE

A preliminary search of the Aboriginal Areas Protection Authority's sacred site digital register carried out prior during the application process, and there are no Registered or Recorded sites within tenement area.

Registered native title claims DC01/21 Ban Ban Springs, Mary River West DC01/6 and Mary River DC00/18, cover the tenement area.

3. LOCAL GEOLOGY

The Frances Creek tenement group provides a cross section of the Early Proterozoic sedimentary stratigraphy of the Pine Creek Geosyncline. The eastern most tenements cover sedimentary rocks of the Namoona and Mt Partridge Groups; the central tenements cover sedimentary rocks of the South Alligator and Mt Partridge Groups, including the iron-prospective Lower Wildman Siltstone, whilst the western tenements cover sediments of the Finnis River and South Alligator Groups. The sediments are complexly folded in a NNW trend. Conformable sills of Early Proterozoic Zamu Dolerite are folded with the sediments. Cretaceous quartz-pebble conglomeritic sandstone forms remnant plateaus over the central tenement area.

The Frances Creek Iron deposits are hosted by the lower Wildman Siltstone, which is predominantly composed of Lower Proterozoic carbonaceous shales and siltstone. The iron mineralisation on a broad scale is stratiform as it follows the trace of a regional NNW trending shallowly plunging non-cylindrical anti-form and its subordinate parasitic folds. The iron deposits generally have moderate to steep dips on the fold limbs and appear to attain best grades and thicknesses within smaller parasitic drag folds, flexures and associated fold/fault breccias. The major folds reportedly formed as a result of ENE-WSW shortening during regional deformation event D3 (NTGS, 1993). However, the iron mineralisation itself appears to post-date the D3 folding event.

Undeformed breccia textures and textures indicative of high level open-space deposition (euhedral haematite and quartz, crystal lined voids, colloform banding) are ubiquitous within the deposits. The ore bodies were probably formed by low temperature hydrothermal (probably supergene) haematite (±euhedral quartz±kaolin) deposition within pre-existing breccias, which were formed by both high level folding in the siltstone host and within breccias possibly formed by the dissolution collapse and replacement of specific carbonate and/or sulphide beds within the Wildman Siltstone. Dolomitic carbonate and major cavities intersected in drilling directly below the Helene 6/7 and Helene 11 deposits support the role of carbonates in breccia formation. The fold breccias are frequently associated with F3 axial planar faults (Morowa, 2005) and folds or Post-D3 faults. Evidence of deformation subsequent to the formation of the iron mineralisation is scarce and is restricted to brittle faulting and jointing.

Dykes of Early Proterozoic Zamu Dolerite are intimately associated with the iron deposits. They appear to predate iron deposition, and are mostly conformable sills that have undergone the same folding and brecciation events as the host sediments. The dolerites may also in part be replaced by haematite. The apparent close relationship of dolerites and iron mineralisation is probably due to increased brecciation around the margins of the dolerites due to pre-existing weaknesses caused by their intrusion, associated hornfelsing of sediments and the resulting rheological contrasts between dolerite and the host meta-sediments. There is no evidence to suggest that the dolerites were a source of the hydrothermal iron bearing fluids. None of the weathered dolerites seen at Frances Creek appear depleted in iron.

Bleaching of siltstones in the hanging wall sequence has been postulated as an indicator of hydrothermal fluid flow. However, drill core frequently shows no or little bleaching of the carbonaceous shale footwall even where extensive areas of haematite breccia are present. Bleaching of the hanging wall is therefore more likely to be due to weathering. Typically, the footwall contact is a sharply defined redox boundary between the fully oxidised hanging wall and the relatively unaltered, weakly sulphidic carbonaceous shale footwall, with the iron ore bodies possibly formed in a redox front.

Distribution of goethite and phosphorus within the deposits is not well understood. Goethite probably formed due to late hydrological processes specific to each deposit. At Helene 5, goethite-phosphorus is restricted to a discrete zone at depth and is not a continuous feature over the deposit, and may be due to late faulting. At Thelma Rosemary a zone of stratiform >0.5% P iron ore within the orebody may be either fault related or may reflect a natural sedimentary variation in the protolith.



Figure 2: EL26880, showing typical topography of the Mundogie Formation – that of deeply incised valleys and steep hills. The colour contrast between the two areas is a result of seasonal vegetation change, with the respective photographs being taken at different times of the year.



Figure 3: EL26880, showing underlying geology. The iron mineralisation is located in the medium-brown coloured Wildman Formation, whereas the footwall comprises of the yellow coloured Mundogie Formation. The green coloured material is Cretaceous-Tertiary silty-sandstone capping.

The tenement was evaluated at a desktop level, and one day was spent inspecting the geology in the synclinal structure south-east of the Jasmine mineralisation. This area has been accurately mapped by the NTGS as Mundogie Sandstone.



Figure 4: EL26880, showing aeromagnetic response. The blue shade 'valley' in the middle of the tenement is the response of a gently north-westerly plunging syncline. The strong response in red is a result of a Cretaceous - Tertiary capping that contains small quantities maghemite within a silty-sandstone host.

4. WORK COMPLETED

During the reporting period, Territory Iron carried out the following exploration activities on tenement EL26880:

- All available data was reviewed, including aeromagnetic, QuickBird satellite photography, and the Pine Creek 1:100,000 Northern Territory Geological Survey surface mapping;
- The tenement was evaluated at a desktop level, and one day was spent inspecting the geology in the synclinal structure south-east of the Jasmine mineralisation. This area has been accurately mapped by the NTGS as Mundogie Sandstone.

No iron mineralisation was observed on the tenement, and its potential to host any is very limited. Hence the company has decided to relinquish the tenement.

5. EXPENDITURE

Territory Iron's expenditure for the reporting period amounted to **\$3,520**, and is detailed on the NT Exploration Expenditure sheet in Appendix 1 of this report.

6. FORWARD WORK PROGRAMME AND BUDGET

No further work to be completed on the tenement since the last report (Hassall, 2010), which indicated the poor prospectivity for identifying economic accumulations of iron ore mineralisation.

7. REFERENCES

Hassall, I. 2010. Annual Report for the Period 4th March 2009-3rd March 2010 Tenement EL26880. *Territory Iron Pty Ltd Company Report.*

Morowa, M. 2005. Report on Prospecting Activities, Structural Mapping and Regional Targeting, Frances Creek Region, Eastern Pine Creek Geosyncline. *Territory Iron Pty Ltd Company Report.*

APPENDIX 1: EXPENDITURE REPORT