| | |
|---|---|
| **Title Holder** | **Territory Resources Limited** |
| **Operator** | **Territory Resources Limited** |
| **Tenement Manager / Agent** | **Australian Mining & Exploration Titles Services** |
| **Titles / Tenements** | **ML25152** |
| **Mine / Project Details** | **Frances Creek** |
| **Reporting Title** | **ML25152 Annual Report for the Period 24th April 2008 to 23rd April 2009** |
| **Personal Authors** | **Ian Hassall, Exploration Manager** |
| **Corporate Authors** | **Territory Resources Limited** |
| **Company Reference Number** | |
| **Target Commodity** | **Iron Ore** |
| **Report Date** | **24th July 2009** |
| **Datum / Zone** | **GDA94 / Zone 52** |
| **250k Mapsheet** | **Pine Creek SD52-08** |
| **100k Mapsheet** | **Pine Creek SD5270** |
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# TERRITORY RESOURCES LIMITED

**A.C.N. 100 552 118**

## *FRANCES CREEK*

## ML25152

## ANNUAL REPORT

## FOR THE PERIOD

## 24TH April 2008 – 23RD April 2009

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

**I.P. Hassall**
**July 2009**

## *SUMMARY*

ML 25152 overlies the main Frances Creek dam, and represents an essential infrastructure lease, supporting production the Frances Creek Iron Ore Mine. It is located along the south-western margin of the mine mining lease, ML24727.

The tenement is located 220km south of Darwin, and 23km north of Pine Creek.

The lithology is comprised of Palaeoproterozoic sedimentary rocks that have been folded and metamorphosed to green schist facies. Mineralisation is restricted to a narrow brecciated zone that runs above and sub-parallel to the Lower Wildman Formation footwall.

Work included:

- Scout mapping over the Wildman Formation to identify outcropping iron stone mineralisation;

- Drilling 3 reverse circulation holes for a total of 222 metres on the Helene 11 deposit, with assaying for iron ore suite elements, and also for base metals on one hole that showed potential for VMS-style base metal mineralisation. Anomalous Zinc values were identified in karsted calcareous sediments.

- Assaying karsted carbonate-rich sediments intercepted in drill holes for VMS-style mineralisation. Anomalous zinc values were recorded.

**Total expenditure during the reporting year was $ 21,025.**

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*APPENDIX*

## *1. INTRODUCTION*

This report details exploration activities for iron mineralisation conducted by Territory Resources Ltd. within ML25152 (Frances Creek) during the year ended 23rd April 2009.

ML 25152 is located in part within the old Frances Creek iron ore mining district from which about six million tonnes 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, Figure 1. Access from Pine Creek is along the sealed Kakadu Highway for 2km and then along the graded Frances Creek road for 23km to the Frances Creek iron ore mine site area.

ML 25152 lies west of the main mining tenement ML24727, and it provides additional working space around the mining tenement, and also covers the water infrastructure and dams used for sediment settling control.

## *2. TENURE*

### *2.1 MINERAL RIGHTS*

ML 25152 was granted to Territory Resources Limited on 24th April 2007 for a term of 25 years, expiring on 23rd April 2032. The tenement covers 137.9 hectares.

### *2.2 LAND TENURE*

The tenement includes parts of the following land tenure is held 100% by Territory Resources Ltd. It overlies the Ban Ban Springs pastoral lease.

### *2.3 ABORIGINAL HERITAGE SURVEY AND NATIVE TITLE*

Extensive fieldwork was conducted by Earth Sea Heritage Surveys during the reporting period to identify Significant Sites on ML25152. Sites were identified, mapped, and described.

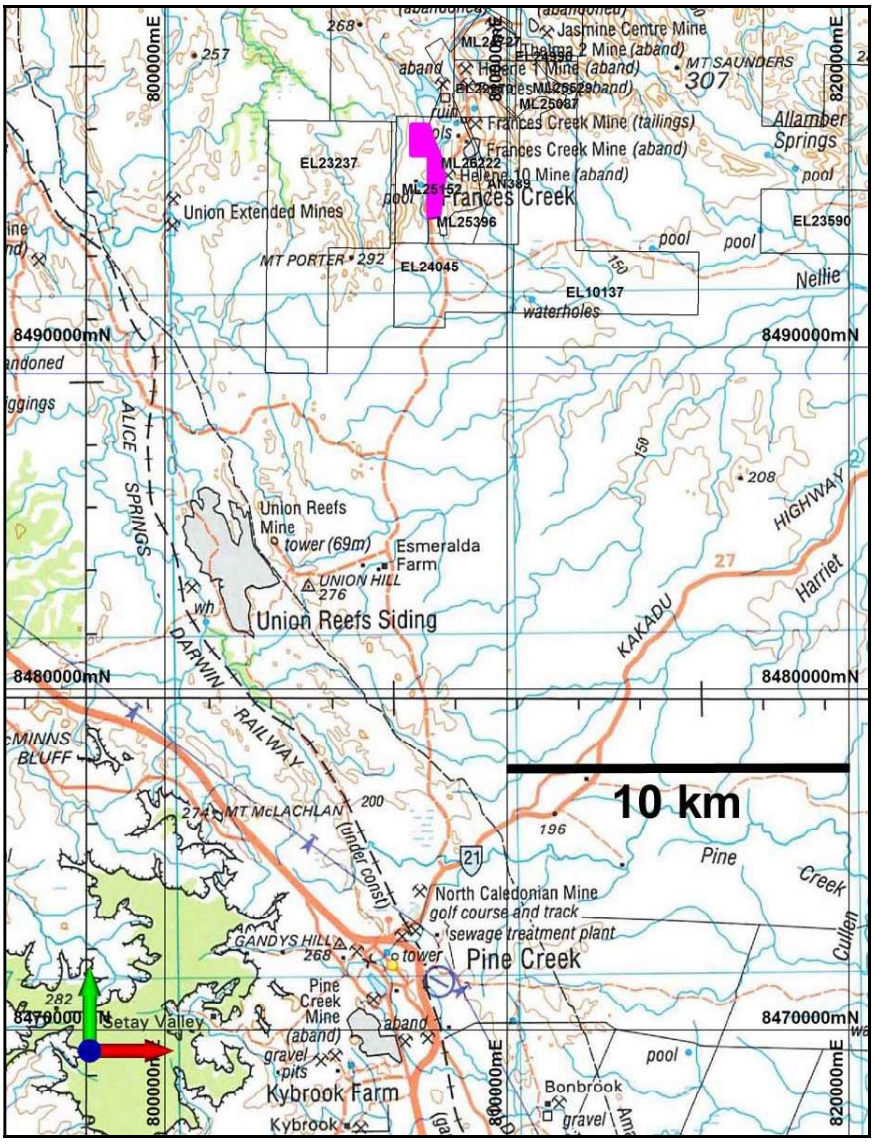


***Figure 1A: Tenement Location – ML25152 with Respect to Pine Creek.***

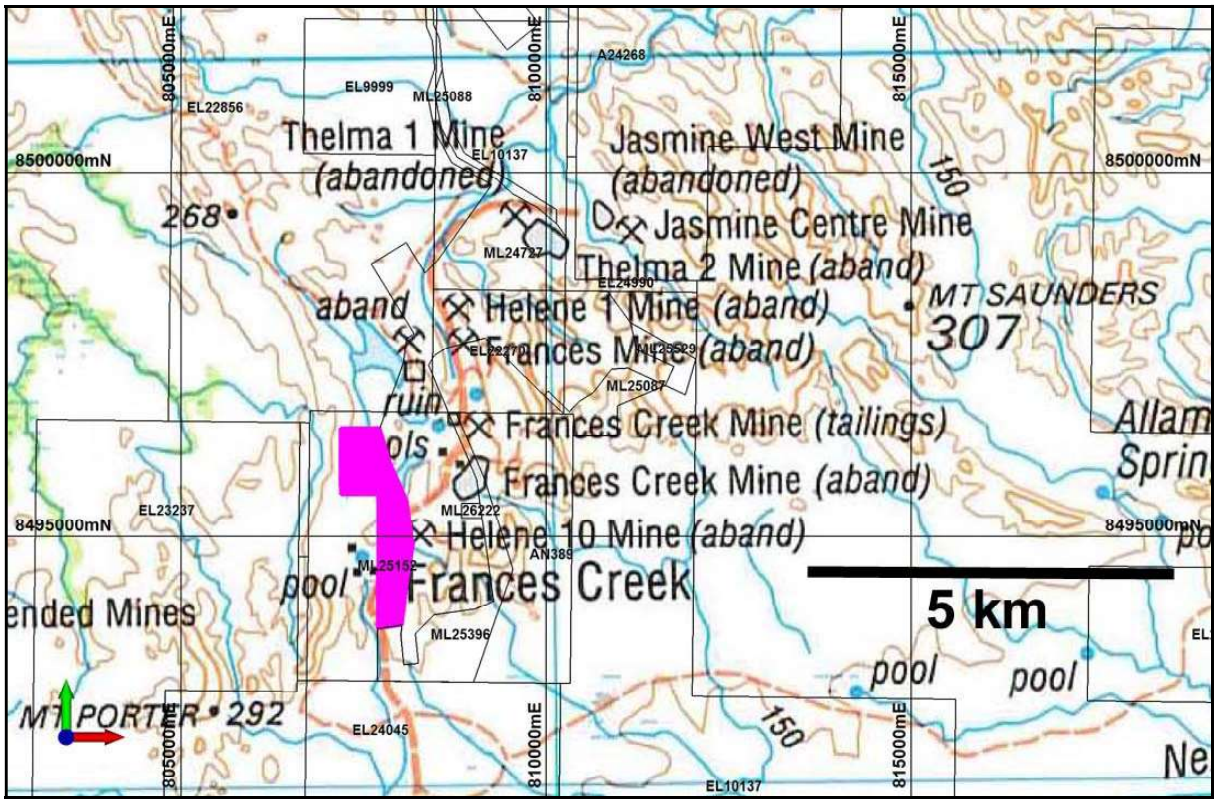


*Figure 1B: Tenement Location – ML25152 with Respect to Frances Creek Town.*

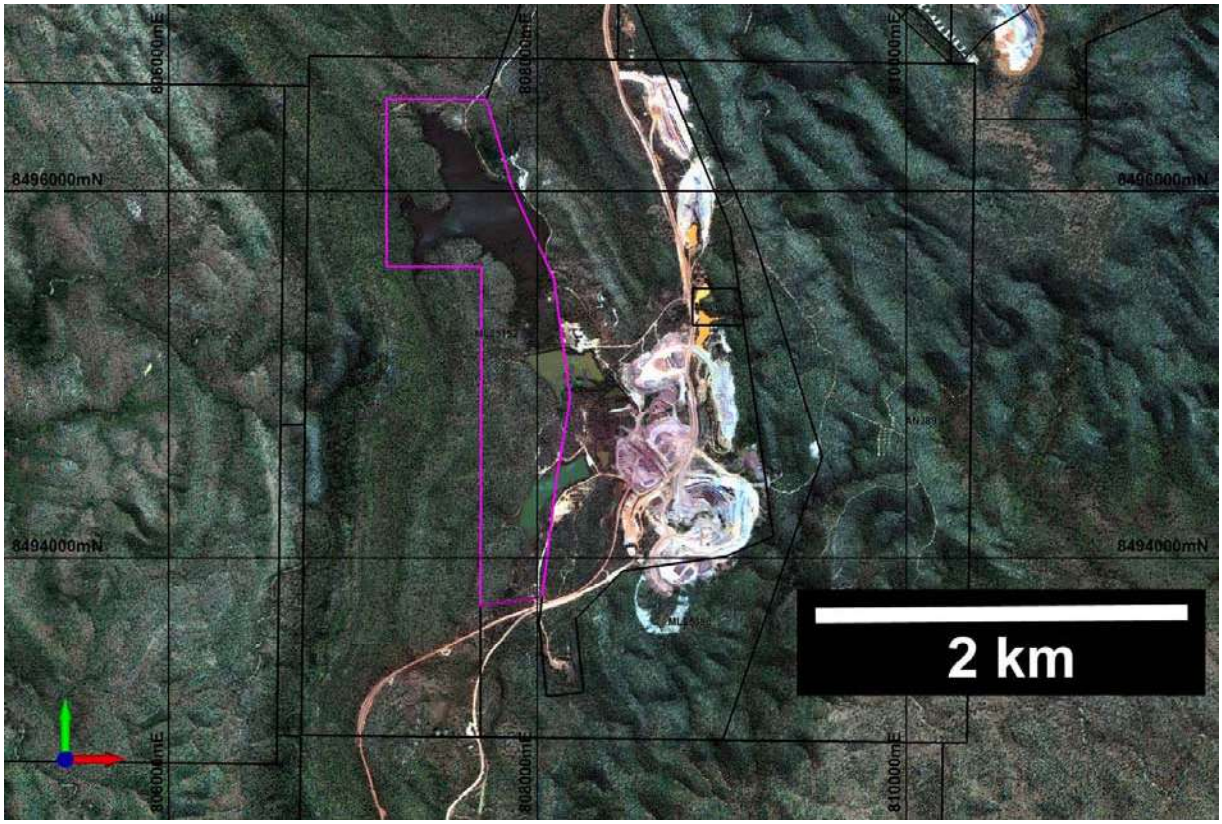


*Figure 1C: Tenement Location – ML25152 with Respect to Frances Creek Minesite.*

## *3. DISTRICT GEOLOGY & MINERALISATION*

Palaeoproterozoic Wildman Siltstone sediments of the Mt Partridge Group run strike parallel to the tenement boundaries.

The Wildman Siltstone is the most widespread rock unit and comprises two informal sequences. The lower sequence consists of carbonaceous phyllite, ironstone, siltstone and phyllite, which at depth is reported to be pyritic and carbonaceous. The upper sequence consists of similar rock units, but also contains minor sandstone and rare dolarenite.

Ironstone, and hence the development of iron occurrences, is absent from this sequence. The Mundogie Sandstone, which underlies the Wildman Siltstone, is a sequence of coarse clastic sediments mainly comprising pebbly feldspathic conglomerate and arkose. Thin usually pyritic and hematitic interbeds of phyllite, carbonaceous phyllite and sandy siltstone are also present. Regional lower greenschist grade metamorphism accompanied the folding event during a major deformation period between 1870-1810 Ma.

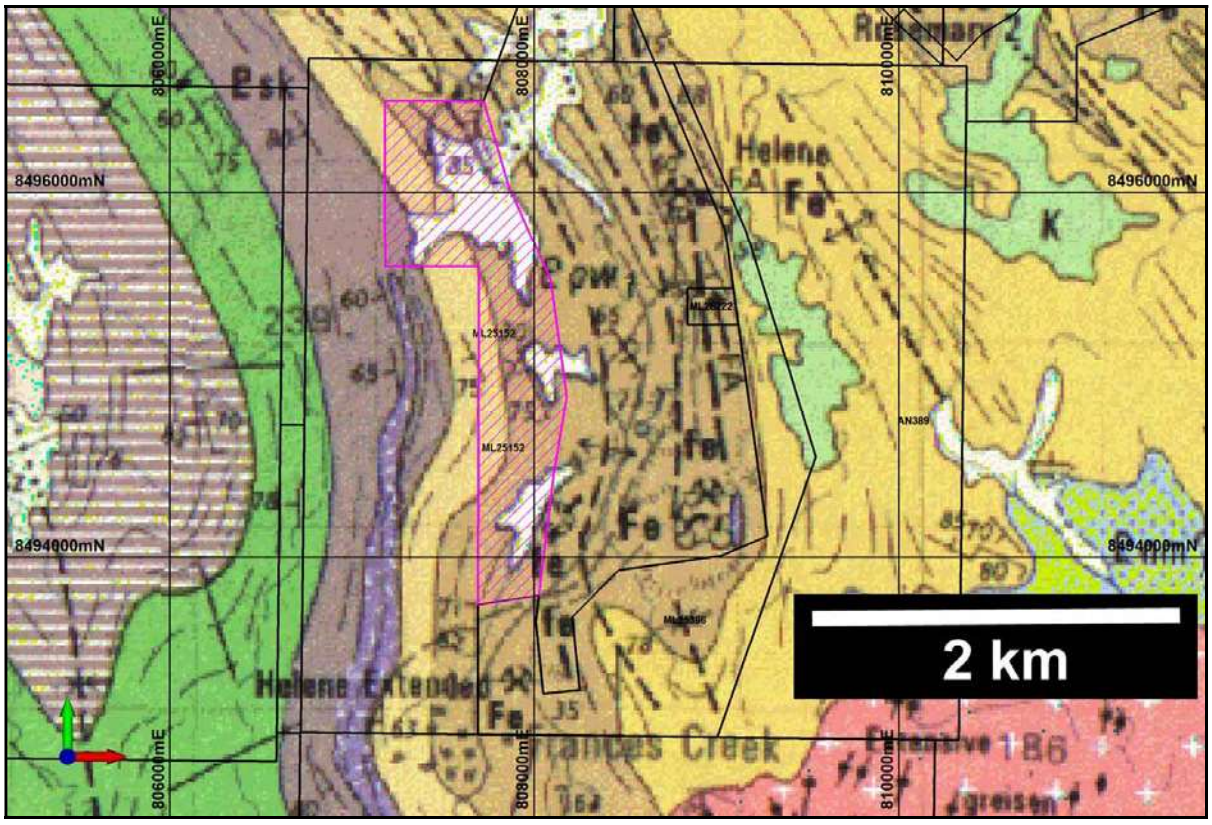


*Figure 2A: Tenement Geology – ML25152.*

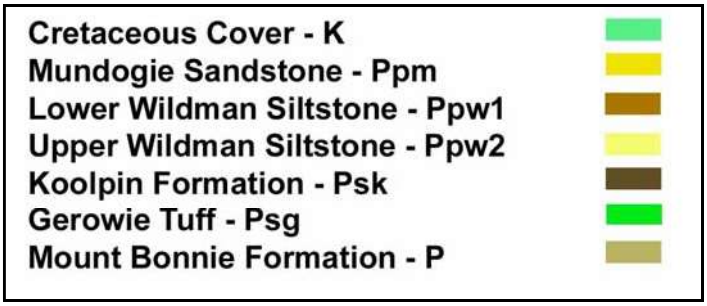


*Figure 2B: Litho-Stratigraphic Legend.*

# *4. EXPLORATION ACTIVITIES –YEAR 2*

## *4.1 REVERSE CIRCULATION DRILLING PROGRAM*

### *4.1.1 DRILLING*

Reverse circulation drilling during the reporting year totaled 3 Reverse Circulation holes for a total of 222 metres. Swick Drilling supplied an Ingersoll Rand TH60 Reverse Circulation rig to complete this work. A drill hole location map is presented in Appendix 2.

Drilling was conducted on the Helene 11 deposit western margin.

| Deposit | Number of Holes | Metres |
|---|---|---|
| Helene 11 | 3 | 222 |
| **TOTAL** | **3** | **222** |

***Figure 3: Reverse Circulation drilling metres at Helene 11.***

Full data is presented in Mineral Exploration Reporting Template formatted files that are attached to this report.

### *4.1.2 SAMPLING AND ASSAYING*

Samples were collected off the drill rig at 1 metre intervals, and put into a large green polythene bag. A representative scoop was sieved, washed, and logged by the geologist for hardness, colour, lithology, oxidation state, and moisture.

A total of 22 riffled reverse circulation samples were collected at 1 metre intervals and logged, of which a total of 58 were assayed. Selection criteria for assay were:

- Any sample logged as having or having potential for iron bearing minerals (including breccia);
- Five metres above and 5 metres below any sample logged as having or having potential for iron bearing minerals;
- Every fifth sample in waste intervals.

This assaying protocol was decided to confine any mineralisation in waste, and also to provide geochemical data for waste rocks, to be used in waste rock classification and waste storage designation. The waste rocks include some pyrite-bearing black shales that have potential acid forming properties. Assaying this material provides inputs to mine planning and waste storage strategies.

Only samples that contained iron ore mineralisation were assayed, with the samples being sent to NTEL laboratories in Darwin for assay by XRF.

A suite of elements were assayed for, including: Fe, $Fe_2O_3$, $Al_2O_3$, CaO, $K_2O$, MgO, Mn, MnO, P, $P_2O_5$, S, $SO_3$, $SiO_2$, $V_2O_5$, and LOI.

### *4.1.3 DATA MANAGEMENT*

Drill hole collars were surveyed by the AusSurv Frances Creek mine surveyors. Collar surveys, lithology, and assay data were uploaded to the Frances Creek drill hole database. Drill hole data was validated and checked against original logging sheets to ensure database integrity.

### *4.2 BASE METAL SAMPLING*

Reverse circulation chip logging showed there to be a significant of alteration along a dolomite / black shale contact that was intercepted in holes that extended through the rich manganese horizon intercepted in the Helene 11 deposit.

Samples were assayed for iron suite minerals, and the pulps were also assayed for base metals, including Gold, Arsenic, Silver, Copper, Lead, and Zinc. Levels were anomalous, although not economic.

| Hole | East | North | RL | From (m) | To (m) | Lithology | Au ppm | As ppm | Ag ppm | Cu ppm | Pb ppm | Zn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HERC207 | 808080 | 8495397 | 182 | 66 | 68 | Siltstone | 8 | 342 | 0.35 | 102 | 57.8 | 795 |
| HERC207 | | | | 68 | 70 | Dolomite | 16 | 651 | 0.35 | 76 | 51.4 | 1690 |
| HERC207 | | | | 70 | 72 | Black Shale | 10 | 420 | 0.2 | 18.6 | 24.6 | 1510 |

***Figure 4: Base metal assays from Reverse Circulation Hole HERC207.***

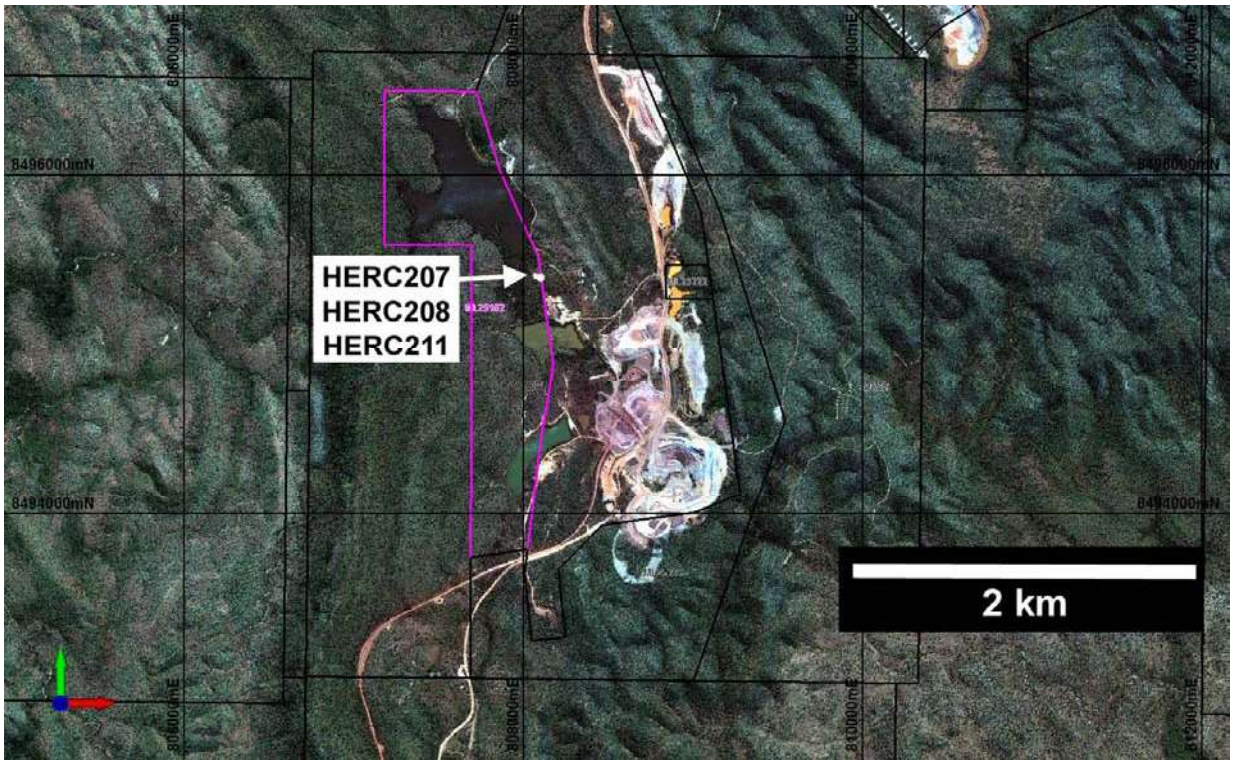


***Figure 5: Drill Hole Locations on ML25152***

## *5. PROPOSED EXPLORATION ACTIVITIES –YEAR 3*

Exploration on ML25152 is largely complete. A number of geophysical anomalies will be drill-tested during Year 3 with a view to closing out the potential for iron mineralisation on this tenement.

## *6. EXPENDITURE*

Territory Iron's expenditure for the reporting year was $ 21,025 and is detailed in the NT Exploration Expenditure sheet attached as Appendix 1 to this report.