Appendix 1

Activity Report

For

EL24389, EL4171 and EL4170

Exploration rationale

South32' exploration program is aimed at testing for manganese mineralization based on the geological model developed from exploration on adjacent tenure.

EXPLORATION ACTIVITIES

Work completed during the reporting period consisted of:

- Desktop and technical reviews
- Planning for Environmental post rehabilitation environmental survey

Desktop studies

Results of the 2017 drilling campaign on EL24389 have been reviewed against the targeted geological model (Figure 1). The continuity of mineralisation intersected in drilling demonstrated the patchy and discontinuous nature of the manganese sandstone target horizon does not improve in the Cato Plateau region, as was originally proposed.

Based on these results, a previously proposed geophysical survey will not be pursued.

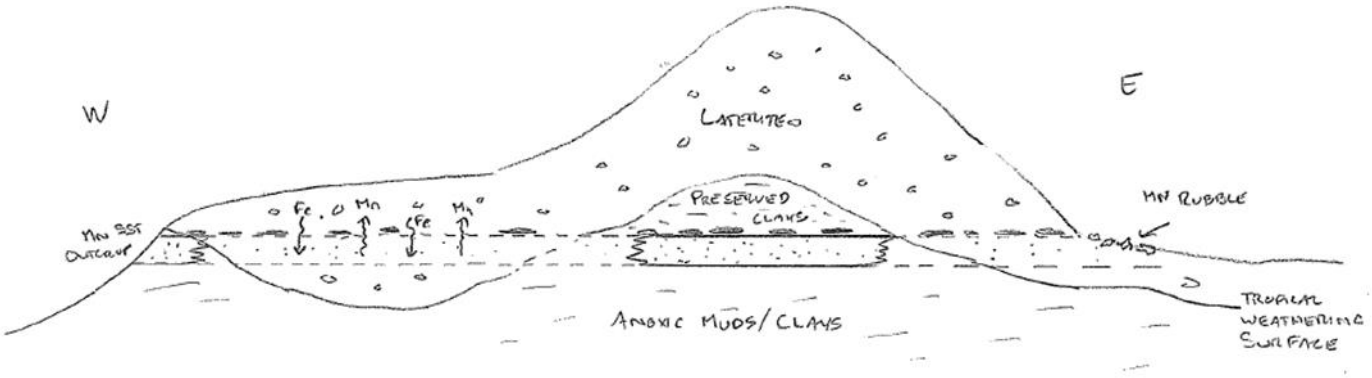

Figure 1. *Mineralised sandstone model*

Drilling results

Geology intersected similar lithologies continuing south from the PJR prospect. The generalized sequence intersected in drilling consists of 5-10m thick laterite profile from surface, followed by variable thickness of clay/sand intervals, then intersected a yellowish sandstone rock before reaching the target sandstone layer. Drilling terminated in black anoxic clays, quartzite and/or basement rocks (sequence does vary) (Figure 2).

Figure 2 Two examples from 2017 Exploration drilling of typical geological profile of the region.

Drilling intersected the targeted Mn-rich sandstone horizon in most of the completed holes. However, the geochemical results reflected a relatively thin, low grade and discontinuous Mn horizon. A maximum grade of 6.77% Mn (in situ) was intersected in EARC406 over 0.5m from 31m located in the central part of the plateau. In comparison to historical results intersected in the PJR area and the Caledon Bay area the Cato Plateau results are of lower tenor. The results illustrate that mineralisation in the Cato area is low grade, thin and discontinuous, and is not better preserved due to the thicker overburden sequences.

A summary of Mn intersections greater than 1% is given below in Table 1.

Table 1 Manganese (in situ) intersections greater than 1%

Hole ID	Intersection > 1% Mn (in situ Mn%)	Lithology/comments
EARC403	0.5m @ 1.05 % Mn from 30.5m	Sandstone
EARC406	0.5m @ 6.77 % Mn from 31m	Host sandstone horizon with massive Mn
EARC407	0.5m @ 1.24 % Mn from 20m	Sandstone horizon with subordinate Mn
EARC410	0.5m @ 2.35 % Mn from 48m	Claystone
EARC411	2m @ 1.2 % Mn from 48.5m	Mineralised claystone/ siltstone (yellow colour). Minor Mn
EARC412	0.5m @ 1.81 % Mn from 55m	Siltstone with trace Mn
EARC413	0.5m @ 1.38 % Mn from 56.5m	Sandstone with Mn
EARC415	1m @ 1.83 % Mn from 64.5m	Sandstone target horizon with minor - trace Mn
EARC422	0.5m @ 1.73 % Mn from 50m	Sandstone
EARC431	2m @ 2.69 % Mn from 31m	Poorly sorted sandstone reworked with some minor Fe and Mn mineralisation
EARC431	2m @ 2.70 % Mn from 65m	Sandy (gritty) clay with minor Mn

Site reconnaissance and field preparation

A post rehabilitation environmental monitoring survey is planned and scheduled for November 2018 to follow up the environmental impact of historical exploration activities. This is likely to include a work team of consultant ecologists, GEMCO personnel and traditional owners.

FUTURE WORK PROGRAM

Work planning for the 2018-2019 reporting period consisted of:

- Completion of post rehabilitation environmental monitoring survey
- Continued review of geological interpretation and modelling
- Project review and desktop reviews for internal strategic decisions,
- Follow up exploration results discussions with stakeholders.

Post rehabilitation environmental monitoring survey

The scope of work proposed for the post rehabilitation environmental monitoring and regeneration survey includes surveys of existing tracks and drill pads within EL 24389 and the preparation of a report documenting the findings of this survey. The monitoring proposed follows the methods undertaken on Groote Eylandt.

Project technical review

A thorough review of the project will be continue to be conducted based on results achieved. This will likely include geological interpretation and modelling, desktop analysis, revision of historical results in the region and consideration for future planning.

Stakeholder engagement

Upon review of the exploration results, key stakeholder meetings will be planned to ensure results and subsequent future plans are well communicated.

CONCLUSIONS AND RECOMMENDATIONS

The results of a 28 hole exploration program have been reviewed and interpreted. The results illustrate that mineralisation in the Cato area is low grade, thin and discontinuous, and is not better preserved under a thicker overburden sequences.