

## **NORTHERN MANGANESE LTD**

### **QUARTERLY ACTIVITIES REPORT – MARCH 2016**

#### **HIGHLIGHTS FOR PERIOD**

##### **OPERATIONAL**

- Finalisation of planning for exploration programmes at the Redcliffe Gold Project including:
  - Resource confirmation drilling and deeper drilling at Golden Terrace South Deposit
  - Deep drilling at Nambi Deposit (EIS co-funded)
- A drilling program is scheduled to start in May 2016.
- Further tenure acquired along strike of Mertondale Shear Zone adjoining Redcliffe Gold Project leases to increase ground holding to 120 km<sup>2</sup>.
- Review of all projects within the new company leading to decision to divest NT manganese assets

##### **CORPORATE**

- Federal Court Approval of Merger between Northern Manganese (NTM) and Redcliffe Resources Ltd (RCF).
- Issue and dispatch of shares in NTM to RCF shareholders as outlined in the Merger Scheme Booklet
- Changes to Board composition.

## OPERATIONAL

### REDCLIFFE GOLD PROJECT

The Company's 100% owned Redcliffe Gold Project is located 45-60km northeast of Leonora in the Eastern Goldfields Region of Western Australia. The Leonora district hosts several multi-million ounce gold deposits including Sons of Gwalia (5.1 Moz), Tarmoola (3.1 Moz) and Tower Hill (1.5 Moz). A number of projects are currently being mined or considered for development within the area by several companies.

Exploration completed at the Redcliffe Gold Project prior to the merger has resulted in the discovery of a number of new resources and advanced prospects including Golden Terrace South (GTS), Kelly, Golden Terrace North and Golden Spear. These, combined with potential resource targets located beneath previously mined open pits (Nambi, Redcliffe/West lode, Mesa) comprise the current gold Resource Inventory.

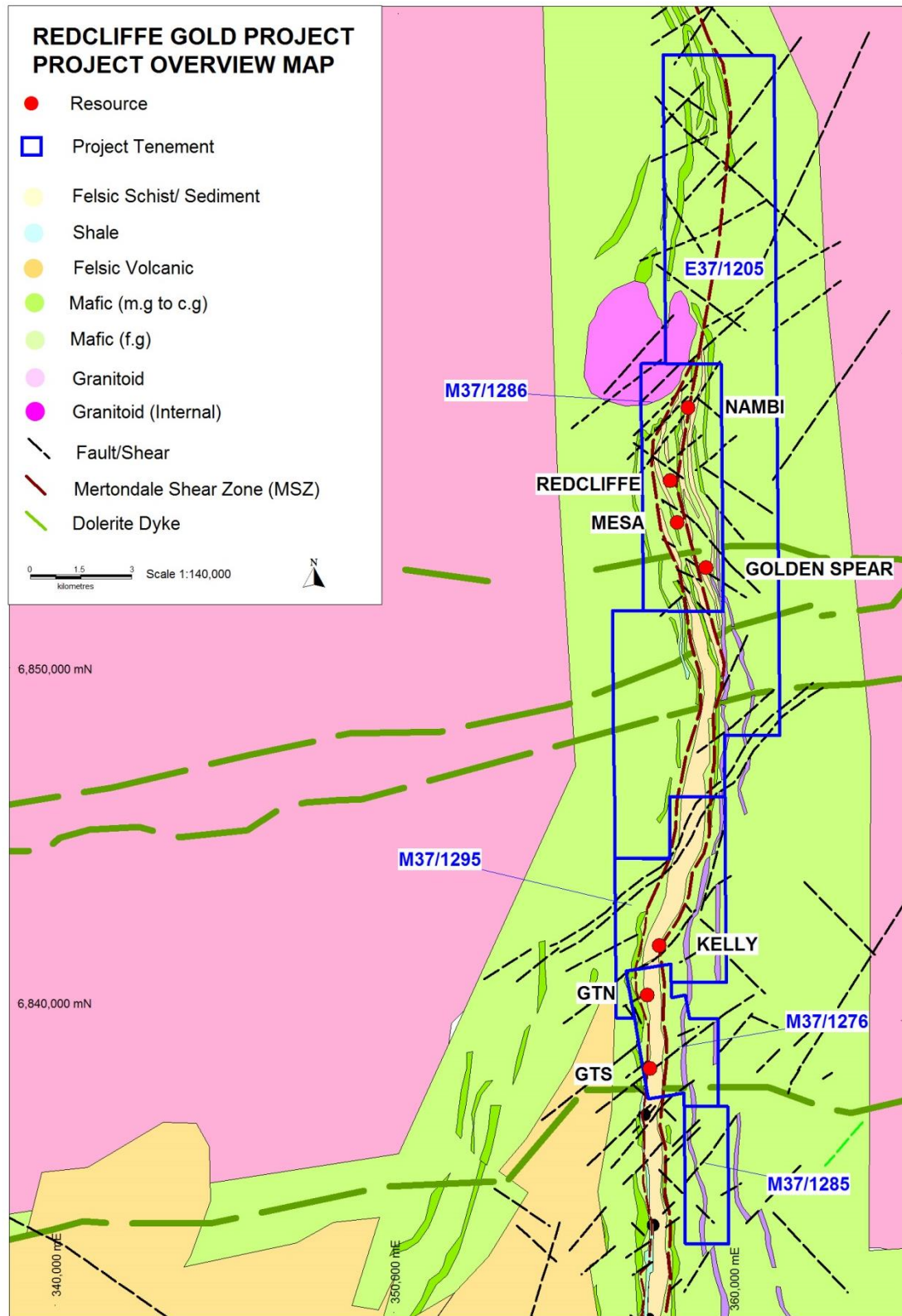
The Redcliffe Gold Project currently has a resource inventory of **278,100 ounces** (5.48Mt @ 1.57 g/t gold) in both the Indicated (0.969Mt @ 2.7 g/t) and Inferred (4.512Mt @ 1.33 g/t) categories. Currently, the gold inventory for the Redcliffe Project comprises eight deposits contained within the Indicated and Inferred Categories. Resources estimations were carried out by independent consultants as detailed below:

Golden Terrace South (GTS) – BGMS (Kalgoorlie, 2011)	Mesa - Coffey Mining (Perth, 2008)
Nambi – Coffey Mining (Perth, 2008)	Golden Terrace North (GTN)– BGMS (Kalgoorlie, 2011)
Redcliffe - Coffey Mining (Perth, 2008)	Golden Spear - Coffey Mining (Perth, 2008)
West Lode - Coffey Mining (Perth, 2008)	Kelly - BGMS (Kalgoorlie, 2012)

### Current Resource Inventory

Deposit	Indicated			Inferred			Total		
	T	Au(g/t)	Oz	T	Au(g/t)	Oz	T	Au(g/t)	Oz
GTS	707,000	2.46	56,100	684,000	1.56	34,400	1,391,000	2.02	90,500
Nambi	262,000	3.30	28,000	298,000	2.50	24,000	560,000	2.88	52,000
Redcliffe							560,000	1.70	31,000
West Lode							373,000	1.20	15,000
Mesa							95,500	1.50	5,000
GTN							64,000	1.53	3,200
Golden Spear							26,000	1.60	1,000
Kelly							2,412,000	1.04	80,400
<b>TOTAL</b>	<b>969,000</b>	<b>2.70</b>	<b>84,100</b>	<b>4,512,000</b>	<b>1.33</b>	<b>194,000</b>	<b>5,480,000</b>	<b>1.57</b>	<b>278,100</b>

Note – Resources calculated at 0.5 g/t Au bottom cut. Figures have been rounded.



**Figure 1 – Location Map- Redcliffe Gold Project. Note Pig Well Project (P37/7948 & 7646) not shown.**

During the quarter, a number of targets within the Redcliffe Gold project were reviewed and drilling programmes planned. The aims of the programmes are to focus on high grade areas capable of increasing both oxide and primary resources. It is of note that exploration targeting primary high grade gold mineralisation at depth has been minimal in the past, and as such no modern day underground operations exist along the Mertondale Shear Zone, despite the presence of numerous shallow oxide gold deposits and prospects. The Company is of the firm belief that this is the result of minimal deep exploration rather than the prospectivity of the project, and is confident that further exploration will result in new discoveries.

Three target areas have been identified for RC and DDH drilling; GTS, Nambi/Nambi South as shown in Figure 1. A total of 3190m of RC and 560m of DC are planned for upcoming programmes. These are discussed below.

### **GOLDEN TERRACE SOUTH (GTS)**

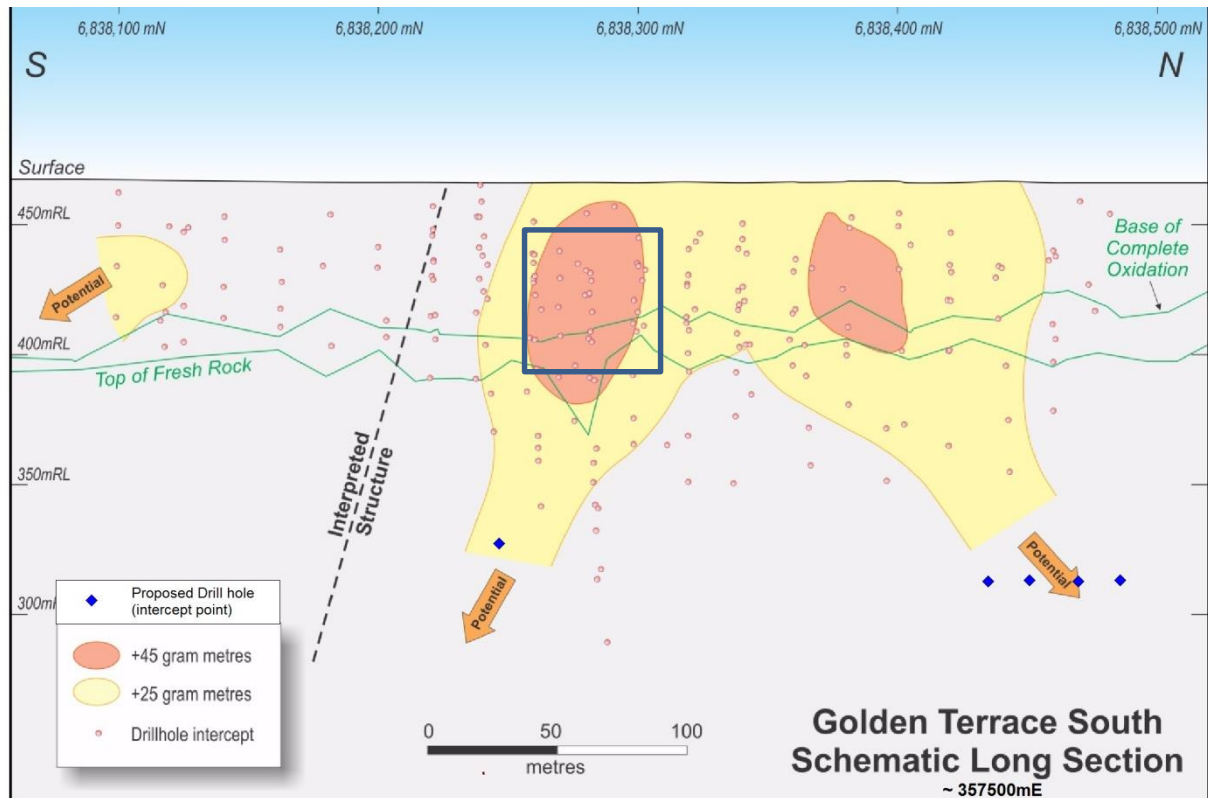
The GTS deposit is the most advanced gold deposit within the project area. Drilling planned at GTS has the following aims:

- To increase geological confidence in the high grade component of the resource
- To provide material for further metallurgical test work
- Test interpreted north plunging, high grade shoots partially defined by previous limited drilling.

The mineralisation at Golden Terrace South is hosted within highly sheared, weathered and altered felsic schist and meta-sediments associated with graphitic/sulphidic shale. Gold generally occurs in ferruginous quartz veinlets.

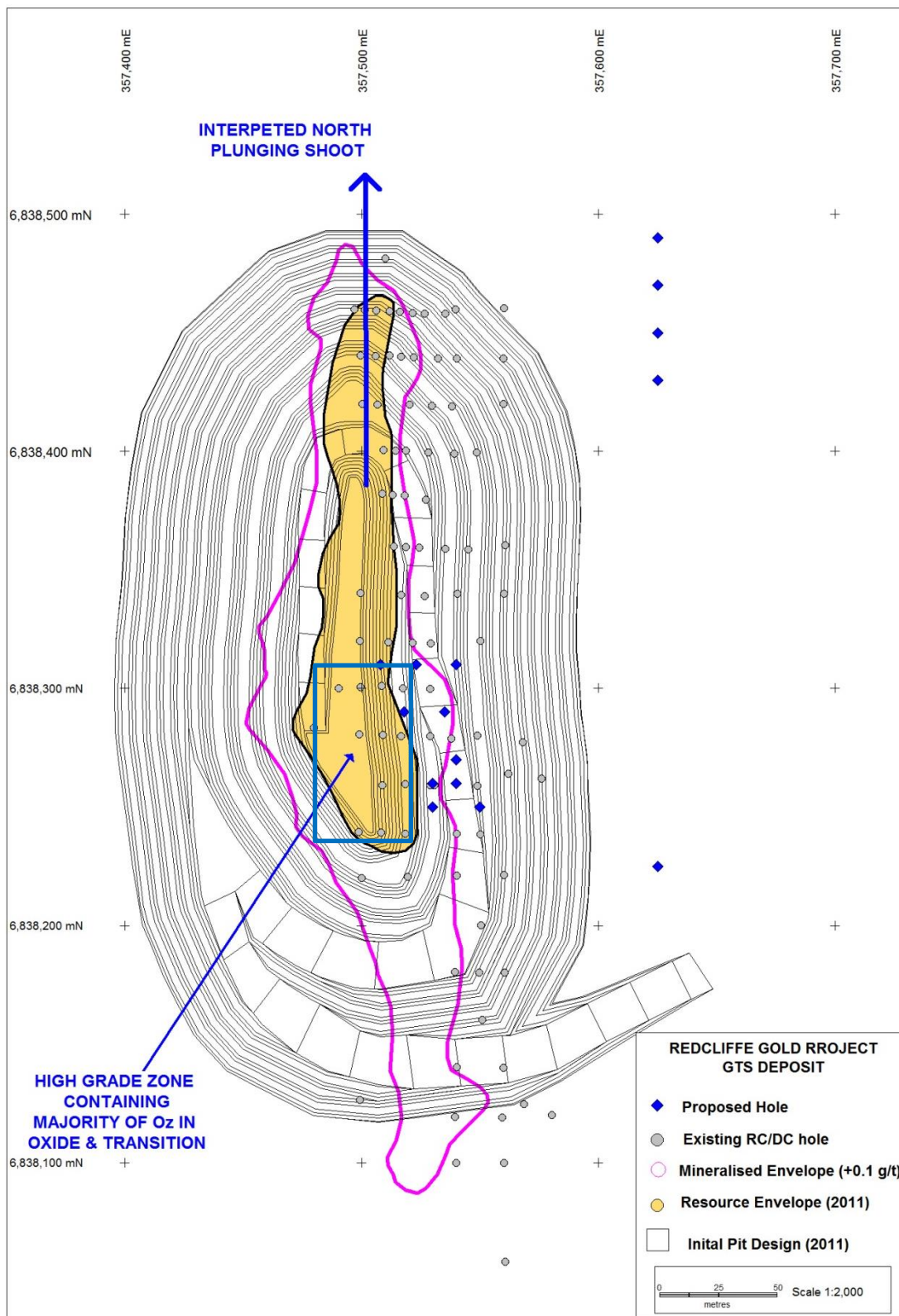
Deeper drilling completed in 2010 targeting depth extensions to the oxide mineralisation at GTS intersected significant results of 2m @ 6.3g/t and 1m @ 18 g/t gold which partially defined a northerly plunging shoot. This higher grade mineralisation occurs within a broader halo of lower grade, 0.1-1 g/t of up to 10m wide, and, as such, the drilling may have intersected distal margins of a higher grade zone. This target, together with a southern higher grade zone, could add significant ounces to the current Resource (Figures 2 & 3).

The current Resource estimate (BGMS, 2011) for the GTS oxide and transitional material totals 1.391Mt @ 2.02 g/t for **90,000oz**. This is further divided into categories: Indicated (0.707Mt @ 2.02g/t) and Inferred (0.684Mt @ 2.56 g/t). Delineation of higher grade zones below the proposed pit could further enhance the project economics.



**Figure 2 – GTS Deeps– Long Section (~357500mE). Area of planned infill Resource RC drilling is shown in blue box (GTS Resource Drilling).**





**Figure 3 – GTS Deeps – Collar Plan displaying planned RC drilling including GTS Resources and Deeps Drilling**

## **NAMBI DEEPS**

The Nambi Deposit is located approximately 20km north of GTS. Open pit mining at Nambi was completed during the 1990's with a reported production of 32,000oz at +3 g/t gold. The current Resource estimate (Coffey Mining 2008) for Nambi totals 0.56Mt @ 2.88 g/t for **52,000oz**. This is further divided into categories: Indicated (0.262Mt @ 3.30g/t) and Inferred (0.298Mt @ 2.50 g/t).

Mineralisation at Nambi is hosted within a north-south steep dipping sequence of strongly foliated to mylonitised basalts, felsics, shales and interflow graphitic sediments with later dyke intrusions. The mylonite is characterized by intense silica-pyrite-pyrrhotite-sericite alteration with sporadic grey and blue quartz veining.

Interpretation on long section indicates a southerly plunge to the mineralised zone, with the plunge potential yet to be fully delineated. Several previous drilling campaigns testing depth extensions beneath the Nambi Open Pit successfully delineated a moderately south plunging Main Lode shoot. The deepest drilling campaign was hampered by excessive hole of the 2 holes completed, NBRC084D returned 4.9m @ 4.6 g/t (inc 1m @ 14 g/t) from 212m down hole in the interpreted lode position. The Main Lode shoot, together with depth extensions to the E1 and E2 lodes remain to be fully defined at depth. Success in this work could (similar to GTS Deeps) add significant higher grade ounces to the current Resource.

Two RC pre-collars with DC tails are proposed to test the southerly plunging Main Lode shoot (Figures 4&5). As the E1 lode is located to the east of the Main Lode, it would also be tested with this drilling.

An application was lodged by the Company to the DMP (WA) as part of their 2016 Exploration Incentive Scheme (EIS) which co-funds portions of innovative exploration drilling programmes (50% of direct drilling costs). The Company was successful in the obtaining an EIS grant.

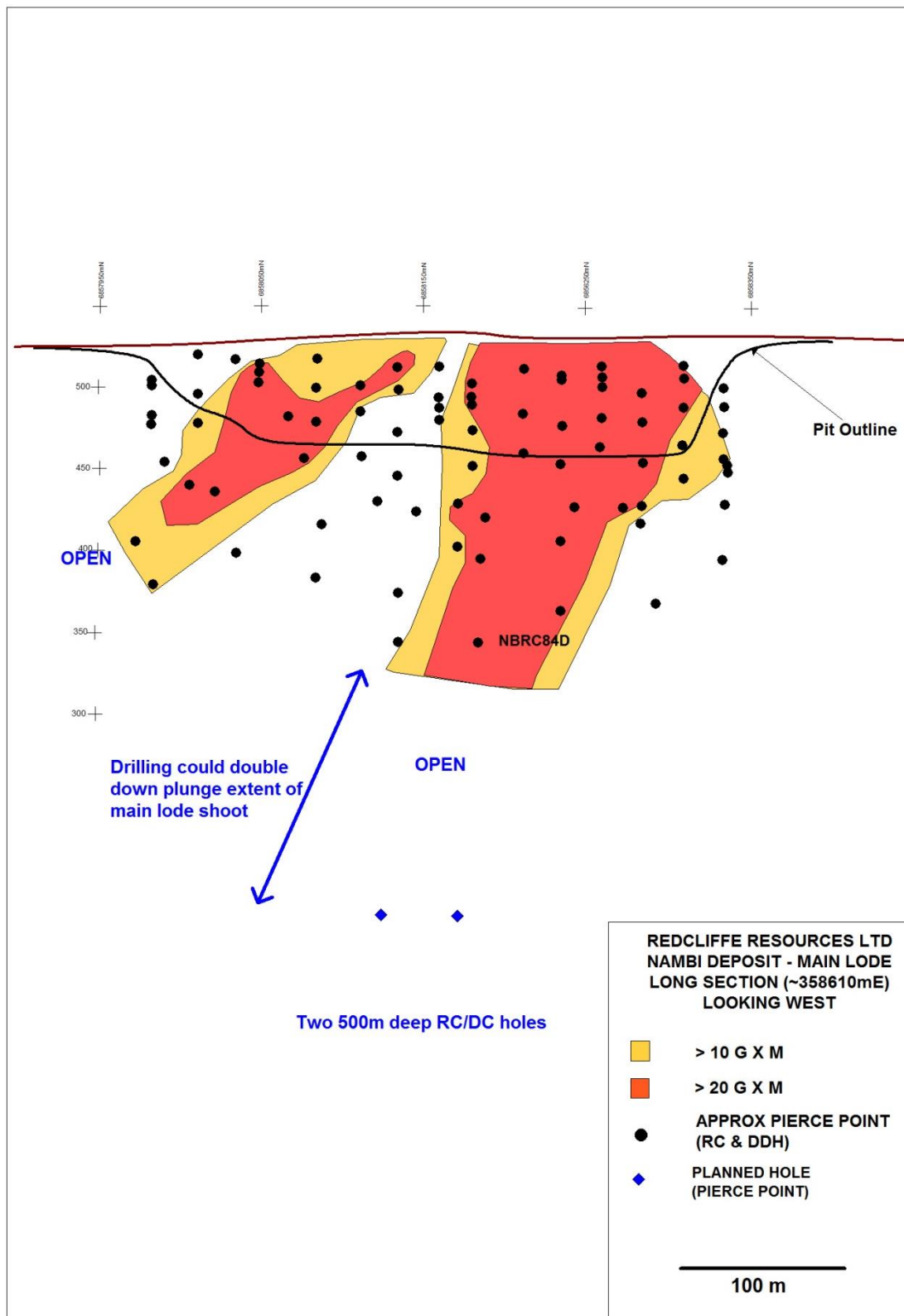


Figure 4 – Nambi Deeps – Long Section (~358610mE) – Main Lode





**Figure 4 – Nambi Deeps – Collar Plan**

The Company further increased its ground holding in the Redcliffe area through acquisition of tenement E37/1205 for approximately \$10,000 from Pelm Resources Ltd in late April. The granted exploration licence comprises 23 sub-blocks (approx. 74 km<sup>2</sup>) and covers portions of the Mertondale Shear Zone, a regionally important gold bearing structure. The tenement inclusion into the Redcliffe Gold Project serves to amalgamate the main tenement holding into a contiguous block which now comprises 120 square kilometres and provides substantial additional prospectively.

## **MANGANESE ASSETS**

The Company holds a number of Exploration Licence Applications in the Northern Territory considered prospective for manganese. They consist of the Groote Eylandt Project, two Exploration Licences over Winchelsea and Connexion Islands currently in Veto under the Aboriginal Land Rights Act (ALRA), the Blue Mud Bay Project comprising 4 ALRA and 3 Native Title exploration licenses covering approximately 3,856km<sup>2</sup> of shallow marine terrain and small Islands in close proximity to the Northern Territory mainland, whilst the Commonwealth Waters projects consists of 13 tenement applications totalling 4,294 graticular blocks.

As the Company plans to focus on the highly prospective Redcliffe Gold Project these assets are to be divested.

## **CORPORATE**

The Merger between NTM and RCF via the Merger Scheme Implementation as approved by the Federal Court was completed subsequent to the end of the quarter. In addition on 5 April 2016, Computershare completed the issue and dispatch of 86,443,001 shares in NTM to RCF shareholders as outlined in the Merger Scheme Booklet.

As announced on 8 April 2016, the Company re-structured the Board to reflect its transition from Manganese to Gold Explorer. Mr Rodney Foster and Mr Bruce McFarlane were appointed to the Board.

Mr Foster is a geologist with over 30 years' experience in the gold exploration and mining industry in Western Australia and Overseas.

Mr McFarlane has an extensive background in the minerals industry with corporate involvement with ASX listed exploration companies.

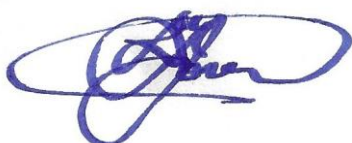
As part of the Merger Scheme Implementation Agreement the Board has accepted Mr Foster's and Mr McFarlane's appointment to the Company and is looking forward to progressing the Company's strategic goals, developing the Company's Redcliffe gold project, and working to build shareholder value.

With the new board appointments Mr Garry Connell has advised the Company that he has stepped down as chairman and resigned as a director. In his place the board has appointed Mr McFarlane as the chairman.

The board takes this opportunity to thank Mr Connell for his significant contribution to the Company.

### Shares

Company	Number of Shares Held	Share Price 31 March 2016	Value 31 March 2016
Zenith (ZNC)	500,000	\$0.055	\$27,500
Spitfire (SPI)	6,545,531	\$0.005	\$32,728



**Lloyd Jones**  
**Managing Director**

### Competent Person Statement

*The information in this report, as it relates to Exploration Results, is based on information compiled and/or reviewed by Rodney Foster who is a Member of The Australasian Institute of Mining and Metallurgy. Rodney Foster is a Director of the Company. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Rodney Foster consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*This information with respect to Resources was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.*