



# Activity Report for the Quarter Ended 30 September 2013

QUARTERLY

31 October 2013

## OVERVIEW

### PHILLIPS FIND PROJECT - WA (Barra 100%\*)

- ❖ Phillips Find Mining Centre on temporary care and maintenance pending improvement in the gold price.
- ❖ Review and update of resource model for the Phillips Find Mining Centre commenced.
- ❖ Planning for drill testing of lode extensions at depth at Newhaven and Newminster in progress.

### MT THIRSTY PROJECT – WA (Barra 50% / Conico Ltd (ASX:CNJ) 50%)

#### Nickel Sulphide Exploration

- ❖ Moving loop electromagnetic (MLEM) survey was completed on E63/1267.
- ❖ A number of conductors delineated, straddling the eastern boundary of E63/1267.
- ❖ Results currently being interpreted by geophysical consultant with report pending.

#### Cobalt-Nickel Oxide Deposit

- ❖ Retention licence sought over E63/373.
- ❖ Metallurgical sample sent to Metaleach for testing using proprietary ammonia based Ammleach<sup>®</sup> process for selective leaching of cobalt and nickel.

### BURBANKS PROJECT - WA (Barra 100%\*\*)

- ❖ Sale of the Birthday Gift underground mine to Blue Tiger Mines Pty Ltd (BTM) for cash and royalty.
- ❖ Instalment of \$150,000 received from Birthday Gift sale subsequent to end of quarter.
- ❖ BTM set to recommence mining at Birthday Gift early November 2013.
- ❖ Preliminary resource modelling commenced on key prospect areas within Burbanks mining lease.
- ❖ Negotiations ceased regarding option to acquire tenements adjacent to Burbanks.

\* Except for tenements P16/2422-2425 which are 85% Barra, 15% Phoenix Gold Ltd

\*\* M15/161 is owned by Blue Tiger Mines Pty Ltd. Barra has 100% exploration and mining rights only to all areas outside of the Birthday Gift mine area.

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FOR FURTHER INFORMATION

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## 1. PHILLIPS FIND PROJECT (WA) (100% Barra\*)

The Phillips Find Project is located some 50km north of Coolgardie in Western Australia. The project contains the Phillips Find Mining Centre where 28,360ozs of gold has been mined to date from recent and historical mining activity.

As at January 2013, the Newminster deposit contained a JORC (2004) Indicated Mineral Resource of 33,462t @ 3.4g/t Au and a JORC (2004) Inferred Mineral Resource of 115,766t @ 3.5g/t Au, a combined Indicated and Inferred Mineral Resource of 149,228t @ 3.5g/t Au for 16,686ozs (using a 1.5g/t Au lower cut-off). In March 2013, the Company mined the Newminster deposit producing 4,331ozs of gold from 53,986 tonnes of ore.

### Mining

#### *Phillips Find Mining Centre*

There was no mining activity for the period. The Phillips Find Mining Centre (PFMC) is currently on care and maintenance pending an improvement in the gold price.

In the interim, the Company is reviewing the current resource model for the PFMC. Part of this exercise is to conduct further drilling directly beneath the pit to improve the current resource likely to be included in a cut-back operation. This program will also include drilling to improve the continuity and extend known lodes at depth with a view to underground development in the future.

### Exploration

During the period:

- Pit mapping was completed at Newminster and Newhaven.
- A new high-resolution aerial photography survey was completed over the PFMC. The purpose of the survey was to capture the current layout of the PFMC post mining at Newminster, assist in disturbance mapping for environmental reporting obligations, assist in future mining and exploration planning, and ongoing geological mapping.
- Updated geology and resource modelling commenced for the PFMC using recent data collected from pit mapping. The aim of this process is to develop a new comprehensive 3D model of the PFMC to assist with future exploration of targets at depth.
- Updated and initial resource modelling for the Diablo and Truth prospects respectively has commenced.

## 2. BURBANKS PROJECT (WA) (100% Barra)

The Burbanks Project is centred 9km southeast of Coolgardie in WA. The project includes the Burbanks Mining Centre where in excess of 400,000ozs of gold has been produced from open pit and underground mining operations. The project area totals 12.6km<sup>2</sup> and includes over 5km of strike extent of the Burbanks Shear.

As at 2010, the Birthday Gift underground mine had a JORC (2004) Indicated Mineral Resource of 143,000t @ 4.63g/t Au and a JORC (2004) Inferred Mineral Resource of 77,000t @ 3.81g/t Au (using a 2.5g/t Au lower cut-off) for a total Inferred and Indicated Mineral Resource of 219,000t @ 4.34g/t gold (30,600ozs).

### Mining

After terminating the tribute agreement with FMR Investments Pty Ltd, the Company entered discussions with a number of parties regarding the resumption of mining at Burbanks.

The Company eventually selected Blue Tiger Mines Pty Ltd (BTM) as its preferred developer of the mine. The deal involved the sale of the Birthday Gift underground mine and transfer of mining lease M15/161 to BTM in consideration for \$2,000,000 and a \$20 per ounce gold royalty on all gold produced after the first 6,000oz. Barra retains 100% of the exploration and mining rights outside of the Birthday Gift mining area (Figure 1) including the Main Lode underground mine (historical production; 146,000t @ 18.3g/t Au for 85,900oz).

BTM are due to recommence mining at Birthday Gift early November 2013.

### Exploration

- The Company has commenced preliminary resource modelling of all its prospects north and south of the Birthday Gift mine area (Figure 2) including Burbanks North, Salmon and Fangjaw.
- Detailed mapping and target generation commenced on regional prospecting licences southwest of the Burbanks mining centre.
- Geological modelling and proposal for RC drilling at Kangaroo Hills in progress.

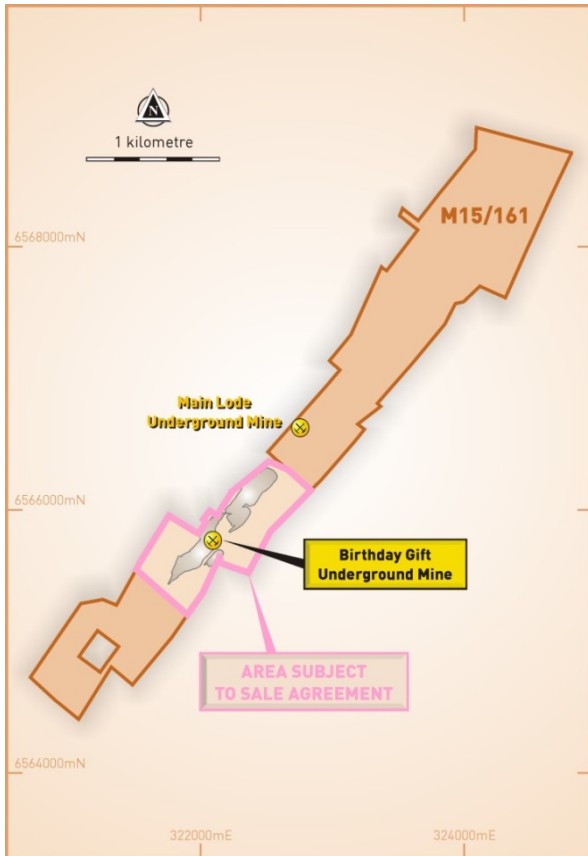


Figure 1 – Burbanks mining lease M15/161 showing area sold to Blue Tiger Mines Pty Ltd.

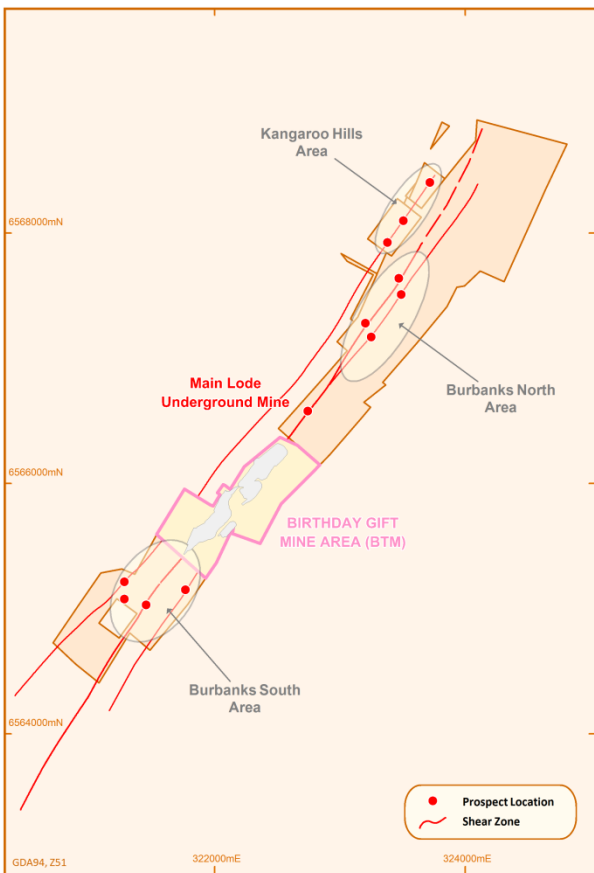


Figure 2 – Burbanks plan showing location of prospect areas subject to preliminary resource modelling.

## Project Generation

The Company ceased negotiations regarding an option to acquire a contiguous package of tenements adjacent to the Burbanks mining lease M15/161.

## 3. MT THIRSTY PROJECT (50% Barra; 50% Fission)

The Mt Thirsty Project covers an area of 40km<sup>2</sup> and is located 20km north-northwest of Norseman in the southern goldfields of Western Australia. Barra owns 50% of the project in joint venture with Conico Ltd (formerly Fission Energy Ltd). The Mt Thirsty (Cobalt-Nickel) Oxide Deposit has the potential to emerge as a significant cobalt supplier. Recent metallurgical test work indicates high recoveries of cobalt (Co), nickel (Ni) and manganese (Mn) can be achieved through low temperature agitated leaching in closed tanks using SO<sub>2</sub>.

The Mt Thirsty Co-Ni Oxide Deposit contains a JORC (2004) Indicated Mineral Resource of 16.6Mt @ 0.14% Co, 0.60% Ni and 0.98% Mn and a JORC (2004) Inferred Mineral Resource of 15.3Mt @ 0.11% Co, 0.51% Ni and 0.73% Mn over a length of 1.6km and a width of up to 850m.

As well as the oxide resource, the Mt Thirsty Project also has known nickel sulphide mineralisation to the west of the oxide deposit. Intersections of nickel sulphide (Ni-S) mineralisation up to 6m @ 3.5% Ni were made by the joint venture in 2010.

## Nickel Sulphide (Ni-S) Exploration

### Ground EM Surveys

A 10.5km moving loop electromagnetic (MLEM) survey was completed over the northern strike extension of the mafic-ultramafic sequence within E63/1267. The survey, carried out by GEM Geophysics, was completed in conjunction with the adjacent tenement holder and targeted conductors due to Ni-S accumulations associated with the basal ultramafic footwall contact or with mafic-ultramafic rocks higher in the sequence (Figure 3). The area tested within E63/1267 covers the northern strike extension, specifically the basal ultramafic footwall contact, of the mafic-ultramafic sequence that hosts the Mt Thirsty Ni-S prospect 3km to the south on E63/373 which has previously returned a number of strong but isolated Ni-S intersections up to 6m down hole @ 3.5% Ni and 2m @ 5.9% Ni in holes MTRC015 and 022 respectively (refer ASX Announcements May-August 2010).

The MLEM survey lines were mostly spaced 400m apart and designed for a 200m by 200m loop. Readings were taken every 100m along each line. In some cases the line spacing was 300m to facilitate access along existing tracks to improve production rates in thick scrub. A number of conductors have been delineated straddling the eastern tenement boundary of E63/1267. Results are presently being

interpreted by Spinifex Geophysics however their report is not yet available.

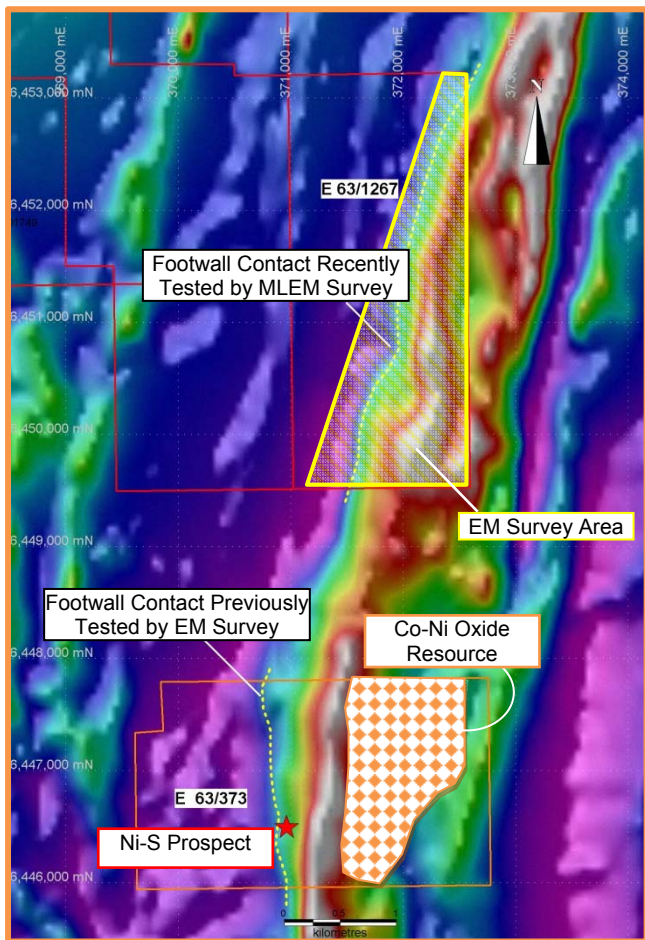


Figure 3 – Mt Thirsty aeromagnetic image showing location of Ni-S Prospect and recent MLEM survey area on E63/1267.

#### Mt Thirsty Cobalt-Nickel (Co-Ni) Oxide Deposit

##### **Metallurgical Testwork**

A split from a bulk sample from the Mt Thirsty Co-Ni oxide deposit was provided to Metaleach Ltd for testing the amenability of the resource to the proprietary ammonia based Ammleach<sup>®</sup> process for selective leaching of cobalt and nickel. It has been postulated that this process has the potential to recover significantly higher nickel than the agitated leach process recently developed.

At this stage however closed tank agitated leaching with SO<sub>2</sub> (refer previous Quarterly Report) still looks to be the most cost effective method to treat the Mt Thirsty oxide resource.

##### **Retention Licence**

A retention licence was recently applied for over E63/373 which covers the Mt Thirsty Co-Ni Oxide Deposit. A new mining lease application will be lodged over this tenement once market conditions have improved.

#### 4. RIVERINA NICKEL PROJECT (30% Barra, 70% Riverina Resources Pty Ltd – Nickel Rights Only)

The Riverina Project is located 125km north of Coolgardie in Western Australia on granted tenements that cover an area of approximately 72km<sup>2</sup>.

Between 2005 and 2008, the Joint Venture actively explored the Martins Zone ultramafic unit for economic concentrations of nickel laterite and nickel sulphide mineralisation and successfully defined a JORC compliant nickel laterite Indicated Mineral Resource of 2,340,700t @ 1.01% Ni and 0.06% Co for 23,639t of contained nickel and 1,440t of cobalt (using a 0.7% lower Ni cut-off).

Exploration also demonstrated that the Martins Zone ultramafic unit is prospective for nickel sulphide mineralisation, with drilling in the southern area of the Martins Zone returning narrow widths of high-grade remobilised massive nickel sulphide adjacent to an undeformed ultramafic footwall contact, including 2m @ 2.80% Ni from 152m and 0.4m @ 10.90% Ni from 215m.

There was no nickel exploration activity undertaken by the Joint Venture during the quarter.

Expenditure requirements for the tenements are required to be met by Swan Gold Mining Limited (formerly Monarch Gold Limited) who acquired the gold rights in mid-2007.



## TENEMENTS

The following tenement changes occurred during the quarter:

- There were no tenement changes for the quarter.

## CORPORATE

### Announcements

Date	Announcement
23/08/2013	Sale of Birthday Gift Underground Mine
03/10/2013	Financial Report for the Year Ended 30 June 2013
16/10/2013	Notice of Annual General Meeting
16/10/2013	2013 Annual Report

*Note: All announcements are available on the Company's website.*

## INVESTOR INFORMATION

### Registered and Principal Office

#### Office

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### Capital Structure

373,247,883 listed ordinary shares

3,000,000 unlisted options

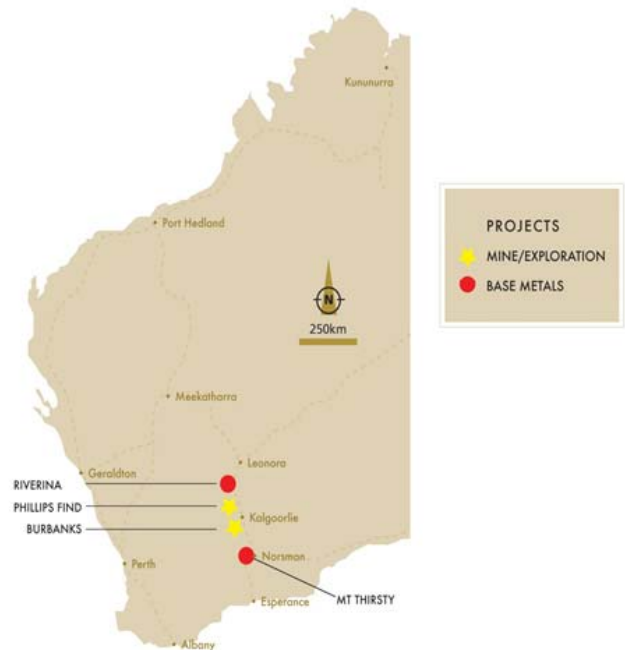
### Company Directors

- Gary Berrell - Executive Chairman  
Grant Mooney - Non-Executive Director and  
Company Secretary  
Lindsay Franker - Non-Executive Director

### ASX Codes

Shares: BAR

**GARY BERRELL**  
Executive Chairman



**Project Location Map**

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**Abbreviations:** AC=Aircore, Au=gold, Co=cobalt, DEC=Department of Environment and Conservation, DD=Diamond, DMP=Department of Mines and Petroleum, g=grams, g/t=grams per tonne, kg=kilograms, km=kilometres, lb/s=pound/s, LME=London Metal Exchange, lt=litre, m=metres, min=minutes, ml=millilitre, mm=millimetre, Mn=manganese, Mt=million tonnes, Ni=nickel, oz/s=ounce/s, pH=measure (1-10) of acidity (1 acid, 7 neutral, 10 basic), ppb=parts per billion, ppm=parts per million, RAB=Rotary Air Blast, RC=Reverse Circulation, RL=Reduced Level, t=tonnes, tpa=tonnes per annum  $\mu$ m=micro metres, @=at or grading, %=percent, °C=degrees celsius.

The interpretations and conclusions reached in this report are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for complete certainty. Any economic decisions that might be taken on the basis of interpretations or conclusions contained in this report will therefore carry an element of risk.

It should not be assumed that the reported Exploration Results will result, with further exploration, in the definition of a Mineral Resource.

### Competent Persons Statement

The information in this report which relates to Exploration Results is based on information compiled by Gary Harvey who is a Member of the Australian Institute of Geoscientists and a full-time employee of Barra Resources Ltd. Gary Harvey 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Gary Harvey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report which relates to the Newminster Indicated and Inferred Mineral Resources is based on information compiled by Andrew Moulds, a full-time employee of Goldfields Mining Services, who is a Member of the Australian Institute of Geoscientists. Andrew Moulds 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Andrew Moulds consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report which relates to the Newminster Ore Reserves is based on information compiled by Gary McRae, a full-time employee of Minecomp Pty Ltd, who is a Member of the Australian Institute of Geoscientists. Gary McRae 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Gary McRae consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report which relates to the Mt Thirsty Cobalt-Nickel-Manganese Mineral Resource is based on information compiled by Alan Miller, a full time employee of Golder Associates Pty Ltd and who is a member of the Australasian Institute of Mining and Metallurgy. Alan Miller 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 January 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Resources Committee, the Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Mineral Council of Australia." Alan Miller consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.