## ASX ANNOUNCEMENT



5 AUGUST 2014

**Rox Resources Limited** 

ASX: RXL

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**Projects:** 

Mt Fisher: nickel-gold (100%)

Reward: zinc-lead (49%)

**Bonya:** copper-silver (earning up to 70%)



# **RC DRILLING SCHEDULED AT BONYA**

- Ground EM surveys confirm previously announced VTEM anomalies
- RC drilling planned to commence in late August
- Anomalies coincident with known outcrops of secondary copper and copper-in-soil anomalies
- Mineralisation style is the same as the adjacent Jervois copper deposits

Rox Resources Limited (**ASX: RXL**) ("**Rox**" or "**the Company**") is pleased to report results from a ground EM survey conducted at the Bonya project located 350km east of Alice Springs in the Northern Territory, adjacent to the Jervois copper deposit (JORC Mineral Resource of 13.5 Mt @ 1.3% Cu, 25 g/tAg, KGL:ASX).

A ground EM survey was recently completed and results received are shown below. Three previously identified VTEM anomalies (03, 04 & 05, Figure 1, ASX:RXL 14 March 2014) were re-surveyed and the ground EM results were very similar to the VTEM (Figure 2), with similar responses and interpreted conductive plates.

One of the anomalies (BVTEM\_04) has associated copper carbonate (malachite) staining on the outcropping rocks and a copper-in-soil anomaly, suggesting the presence of copper mineralisation below.

Synthesising geology from surface mapping, aerial photo interpretation (Figure 3), magnetics (Figure 4) and EM data (Figures 1 & 2), the targets are quite clearly related to a fold structure with the old Bonya mine located in the nose of the fold (possibly along the fold axis) and the EM targets lie along strike along the flanks of the fold.

An RC drilling program is scheduled to commence in late August to test these targets. If successful, other targets generated by the VTEM survey can be prioritised for drill testing.

ENDS



#### For more information:

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Figure 1: Bonya VTEM showing interpreted geology (black lines) and fold axis (red line). Targets BVTEM\_01, 02, 04 and 05 lie on the JV tenement, while target BVTEM\_03 lies on Rox's wholly owned tenement





Figure 2: Bonya VTEM and Ground EM showing interpreted geology (black lines) and fold axis (red line)



Figure 3: Bonya aerial photo showing interpreted geology (black lines) and fold axis (red line)





Figure 4: Bonya magnetics showing interpreted geology (black lines) and fold axis (red line)

## **Competent Person Statements:**

The information in this report that relates to new Exploration Results for the Mt Fisher and Bonya Projects is based on information compiled by Mr Ian Mulholland BSc (Hons), MSc, FAusIMM, FAIG, FSEG, MAICD, who is a Fellow of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Mulholland 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". Mr Mulholland is a full time employee and Managing Director of the Company and 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 that relates to nickel Mineral Resources for the Mt Fisher project was reported to the ASX on 3 October 2013. Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 3 October 2013, and that all material assumptions and technical parameters underpinning the estimates in the announcement of 3 October 2013 continue to apply and have not materially changed.

The information in this report that relates to previous Exploration Results and Mineral Resources for the Reward Zinc-Lead, Bonya Copper and Marqua Phosphate projects and for the gold Mineral Resource defined at Mt Fisher, 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, and is based on information compiled by Mr Ian Mulholland BSc (Hons), MSc, FAusIMM, FAIG, FSEG, MAICD, who is a Fellow of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Mulholland 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". Mr Mulholland is a full time employee of the Company and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## **About Rox Resources**

Rox Resources Limited is an emerging Australian minerals exploration company. The company has four key assets at various levels of development with exposure to gold, nickel, zinc, lead, copper and phosphate, including the Mt Fisher Gold Project (WA), Myrtle/Reward Zinc-Lead Project (NT), the Bonya Copper Project (NT) and the Marqua Phosphate Project (NT).

#### Mt Fisher Gold-Nickel Project (100% + Option to Purchase \$3.6 million)

The Mt Fisher gold project is located in the highly prospective North Eastern Goldfields region of Western Australia and in addition to being well endowed with gold the project hosts strong nickel potential. The total project area is 655km<sup>2</sup>, consisting of a 485km<sup>2</sup> area 100% owned by Rox and an Option to purchase 100% of a further 170km<sup>2</sup>.

Recent drilling at the Camelwood nickel prospect has defined a JORC 2012 Mineral Resource (ASX:RXL 3 October 2013) of **1.6Mt grading 2.2% nickel** reported at 1.0% Ni cut-off (Indicated Mineral Resource: 0.6Mt grading 2.4% Ni, Inferred Mineral Resource: 1.0Mt grading 2.1% Ni) comprising massive and disseminated nickel sulphide mineralisation, and containing 34,600 tonnes of nickel. A higher grade core of **520,000 tonnes grading 3.1% nickel** reported at a 2.5% Ni cut-off (Indicated Mineral Resource: 240,000 tonnes grading 3.2% Ni, Inferred Mineral Resource: 280,000 tonnes grading 3.0% Ni) is present. The mineralisation is still open in all directions. The nickel Mineral Resource occurs partly on tenements under Option to Purchase to Rox, with an exercise price payable as follows: \$1.1 million by 30 June 2014, \$0.2 million by 31 December 2014, and \$2.3 million by 30 June 2015.

Drilling by Rox has also defined numerous high-grade gold targets and a JORC 2004 Measured, Indicated and Inferred Mineral Resource (ASX:RXL 10 February 2012) of **973,000 tonnes grading 2.75 g/t gold** reported at a 0.8 g/tAu cut-off exists for 86,000 ounces of gold (Measured: 171,900 tonnes grading 4.11 g/t Au, Indicated: 204,900 tonnes grading 2.82 g/t Au, Inferred: 596,200 tonnes grading 2.34 g/t Au) aggregated over the Damsel, Moray Reef and Mt Fisher deposits.

#### Reward Zinc-Lead Project (49% + Farm-out Agreement)

Rox has signed an Earn-In and Joint Venture Agreement with Teck Australia Pty Ltd. ("Teck") to explore its highly prospective 670km<sup>2</sup> Myrtle/Reward zinc-lead tenements, located 700km south-east of Darwin, Northern Territory, adjacent to the McArthur River zinc-lead mine.

The Myrtle zinc-lead deposit has a current JORC 2004 Mineral Resource (ASX:RXL 15 March 2010) of **43.6 Mt @ 5.04% Zn+Pb** reported at a 3.0% Zn+Pb cut-off (Indicated: 5.8 Mt @ 3.56% Zn, 0.90% Pb; Inferred: 37.8 Mt @ 4.17% Zn, 0.95% Pb).

Recent drilling at the Teena zinc-lead prospect intersected 26.4m @ 13.3% Zn+Pb including 16.2m @ 17.2% Zn+Pb, and 20.1m @ 15.0% Zn+Pb including 12.5m @19.5% Zn+Pb, and together with historic drilling has defined significant high grade zinc-lead mineralisation over a strike length of at least 1.5km.

Under the terms of the Agreement, Teck has now met the expenditure requirement for a 51% interest, with Rox holding the remaining 49%. Teck has elected to increase its interest in the project to 70% by spending an additional A\$10m (A\$15m in total) by 31 August 2018 (ASX:RXL 21 August 2013).

#### Bonya Copper Project (Farm-in Agreement to earn up to 70%)

In October 2012 Rox signed a Farm-in Agreement with Arafura Resources Limited to explore the Bonya Copper Project located 350km east of Alice Springs, Northern Territory. Outcrops of visible copper grading up to 34% Cu and 27 g/t Ag are present. Under the Agreement Rox can earn a 51% interest in the copper, lead, zinc, silver, gold, bismuth and PGE mineral rights at Bonya by spending \$500,000 within the first two years. Rox can then elect to earn a further 19% (for 70% in total) by spending a further \$1 million over a further two years. Once Rox has earned either a 51% or 70% interest it can form a joint venture with Arafura to further explore and develop the area.



### **Appendix**

The following information is provided to comply with the JORC Code (2012) requirements for the reporting of the geophysical results on tenements EL29701 and EL29599.

| Criteria   | JORC Code explanation   | Commentary  |
|--|---|---|
| Sampling techniques                                  | Nature and quality of sampling (e.g. cut channels,<br>random chips, or specific specialised industry<br>standard measurement tools appropriate to the<br>minerals under investigation, such as down hole<br>gamma sondes, or handheld XRF instruments, etc).<br>These examples should not be taken as limiting the<br>broad meaning of sampling.  | A time-domain ground electromagnetic survey has been<br>completed. The survey was carried out along variably<br>trending survey lines spaced 100m apart with 50m between<br>stations along lines. |
|  | Include reference to measures taken to ensure<br>sample representivity and the appropriate<br>calibration of any measurement tools or systems<br>used   | The ground EM system is fully calibrated and daily tests were carried out to ensure data quality.   |
|  | Aspects of the determination of mineralisation that<br>are Material to the Public Report. In cases where<br>'industry standard' work has been done this would<br>be relatively simple (e.g. 'reverse circulation drilling<br>was used to obtain 1 m samples from which 3 kg<br>was pulverised to produce a 30 g charge for fire<br>assay'). In other cases more explanation may be<br>required, such as where there is coarse gold that<br>has inherent sampling problems. Unusual<br>commodities or mineralisation types (e.g.<br>submarine nodules) may warrant disclosure of<br>detailed information | This release has no reference to mineralisation.  |
| Drilling techniques                                  | Drill type (e.g. core, reverse circulation, open-hole<br>hammer, rotary air blast, auger, Bangka, sonic, etc)<br>and details (e.g. core diameter, triple or standard<br>tube, depth of diamond tails, face-sampling bit or<br>other type, whether core is oriented and if so, by<br>what method, etc).  | This release has no reference to drilling.  |
| Drill sample recovery                                | Method of recording and assessing core and chip<br>sample recoveries and results assessed   | This release has no reference to drilling.  |
|  | Measures taken to maximise sample recovery and ensure representative nature of the samples  | This release has no reference to drilling.  |
|  | Whether a relationship exists between sample<br>recovery and grade and whether sample bias may<br>have occurred due to preferential loss/gain of<br>fine/coarse material.   | This release has no reference to drilling.  |
| Logging  | Whether core and chip samples have been<br>geologically and geotechnically logged to a level of<br>detail to support appropriate Mineral Resource<br>estimation, mining studies and metallurgical<br>studies.   | This release has no reference to drilling.  |
|  | Whether logging is qualitative or quantitative in<br>nature. Core (or costean, channel, etc)<br>photography.  | This release has no reference to drilling.  |
|  | The total length and percentage of the relevant intersections logged  | This release has no reference to drilling.  |
| Sub-sampling<br>techniques and<br>sample preparation | If core, whether cut or sawn and whether quarter,<br>half or all core taken.  | This release has no reference to drilling.  |
|  | If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.   | This release has no reference to sampling.  |

# Section 1 Sampling Techniques and Data



| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
|   | For all sample types, the nature, quality and appropriateness of the sample preparation technique.   | This release has no reference to sampling.   |
|   | Quality control procedures adopted for all sub-<br>sampling stages to maximise representivity of<br>samples.   | This release has no reference to sampling.   |
|   | Measures taken to ensure that the sampling is<br>representative of the in situ material collected,<br>including for instance results for field<br>duplicate/second-half sampling.  | This release has no reference to sampling.   |
|   | Whether sample sizes are appropriate to the grain size of the material being sampled.  | This release has no reference to sampling.   |
| Quality of assay data<br>and laboratory tests                 | The nature, quality and appropriateness of the<br>assaying and laboratory procedures used and<br>whether the technique is considered partial or total.   | This release has no reference to assays.   |
|   | For geophysical tools, spectrometers, handheld XRF<br>instruments, etc, the parameters used in<br>determining the analysis including instrument make<br>and model, reading times, calibrations factors<br>applied and their derivation, etc. | <ul> <li>EM receiver: SMARTem24, sensors TRC 3 component coil.<br/>Reading time out to 102.4ms</li> <li>EM transmitter: Crone, frequency 2.0833Hz, current 22A effective, 256 stacks</li> </ul>                      |
|   | Nature of quality control procedures adopted (e.g.<br>standards, blanks, duplicates, external laboratory<br>checks) and whether acceptable levels of accuracy<br>(i.e. lack of bias) and precision have been<br>established.                 | The ground EM system is fully calibrated and daily tests were carried out to ensure data quality.  |
| Verification of<br>sampling and<br>assaying                   | The verification of significant intersections by either independent or alternative company personnel.  | This release has no reference to intersections.  |
|   | The use of twinned holes.  | This release has no reference to drilling.   |
|   | Documentation of primary data, data entry<br>procedures, data verification, data storage (physical<br>and electronic) protocols.   | All primary analytical data were recorded digitally and sent<br>in electronic format to Southern Geoscience for quality<br>control and evaluation.   |
|   | Discuss any adjustment to assay data.  | This release has no reference to assays.   |
| Location of data<br>points                                    | Accuracy and quality of surveys used to locate<br>drillholes (collar and down-hole surveys), trenches,<br>mine workings and other locations used in Mineral<br>Resource estimation.  | This release has no reference to drill holes (collar and down-<br>hole surveys), trenches or mine workings.  |
|   | Specification of the grid system used.   | The grid system used is MGA_GDA94, Zone 53.  |
|   | Quality and adequacy of topographic control.   | Topographic data was obtained from a previous VTEM survey, which uses a radar altimeter and GPS for calculation of the digital terrain model. The VTEM survey was flown along E-W and NW-trending lines spaced 250m. |
| Data spacing and distribution                                 | Data spacing for reporting of Exploration Results.   | Line spacing is 100m and sample spacing is $\sim$ 10m.   |
|   | Whether the data spacing and distribution is<br>sufficient to establish the degree of geological and<br>grade continuity appropriate for the Mineral<br>Resource and Ore Reserve estimation procedure(s)<br>and classifications applied.     | There is no reference to geology or grade or mineralisation in this release.   |
|   | Whether sample compositing has been applied.   | This release has no reference to sampling.   |
| Orientation of data<br>in relation to<br>geological structure | Whether the orientation of sampling achieves<br>unbiased sampling of possible structures and the<br>extent to which this is known, considering the<br>deposit type.  | This release has no reference to sampling.   |



| Criteria          | JORC Code explanation   | Commentary   |
|-------------------|---|--|
|                   | If the relationship between the drilling orientation<br>and the orientation of key mineralised structures is<br>considered to have introduced a sampling bias, this<br>should be assessed and reported if material. | This release has no reference to drilling.                                       |
| Sample security   | The measures taken to ensure sample security.   | This release has no reference to sampling.                                       |
| Audits or reviews | The results of any audits or reviews of sampling techniques and data.   | All electromagnetic data was quality assured by Southern Geoscience Consultants. |

# Section 2 Reporting of Exploration Results

| Criteria                                      | JORC Code explanation  | Commentary   |
|---|--|--|
| Mineral tenement<br>and land tenure<br>status | Type, reference name/number, location and<br>ownership including agreements or material issues<br>with third parties such as joint ventures,<br>partnerships, overriding royalties, native title<br>interests, historical sites, wilderness or national<br>park and environmental settings.  | EL 29599 is 100% owned by Rox Resources Limited. EL29701 is a farm-in agreement with Arafura Resources to explore for copper, lead, zinc, silver, gold, bismith and PGE's. There is no Native Title claim over the area, which lies within the Jervois pastoral lease. |
|   | The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.   | The tenure is secure and in good standing at the time of writing.  |
| Exploration done by other parties             | Acknowledgment and appraisal of exploration by other parties.  | Previous exploration has been limited, however prospecting<br>by past explorers has identified several Cu showings. No<br>significant drilling has been carried out.   |
| Geology                                       | Deposit type, geological setting and style of mineralisation.  | The targeted deposit style is VMS copper mineralization similar to the adjacent Jervois copper deposit.  |
| Drill hole<br>Information                     | <ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul></li></ul> | This release has no reference to drilling.   |
| Data aggregation<br>methods                   | In reporting Exploration Results, weighting<br>averaging techniques, maximum and/or minimum<br>grade truncations (e.g. cutting of high grades) and<br>cut-off grades are usually Material and should be<br>stated.   | There is no reference to grade or sampling in this release.  |
|   | Where aggregate intercepts incorporate short<br>lengths of high grade results and longer lengths of<br>low grade results, the procedure used for such<br>aggregation should be stated and some typical<br>examples of such aggregations should be shown in<br>detail.  | There is no reference to grade or sampling in this release.  |
|   | The assumptions used for any reporting of metal equivalent values should be clearly stated.  | There is no reference to grade or sampling in this release.  |



| Criteria   | JORC Code explanation  | Commentary   |
|--|--|--|
| Relationship<br>between<br>mineralisation<br>widths and intercept<br>lengths | These relationships are particularly important in<br>the reporting of Exploration Results.<br>If the geometry of the mineralisation with respect<br>to the drill hole angle is known, its nature should be<br>reported.<br>If it is not known and only the down hole lengths<br>are reported, there should be a clear statement to<br>this effect (e.g. 'down hole length, true width not<br>known').      | There is no reference to mineralisation intersections or drilling in this release.   |
| Diagrams   | Appropriate maps and sections (with scales) and<br>tabulations of intercepts should be included for any<br>significant discovery being reported These should<br>include, but not be limited to a plan view of drill<br>hole collar locations and appropriate sectional<br>views.   | This release has no reference to mineralisation intercepts or drill holes.   |
| Balanced reporting   | Where comprehensive reporting of all Exploration<br>Results is not practicable, representative reporting<br>of both low and high grades and/or widths should<br>be practiced to avoid misleading reporting of<br>Exploration Results.  | This release has no reference to mineralisation intercepts, assays or grades.  |
| Other substantive<br>exploration data  | Other exploration data, if meaningful and material,<br>should be reported including (but not limited to):<br>geological observations; geophysical survey results;<br>geochemical survey results; bulk samples – size and<br>method of treatment; metallurgical test results;<br>bulk density, groundwater, geotechnical and rock<br>characteristics; potential deleterious or<br>contaminating substances. | Rox has identified outcropping oxide copper mineralisation<br>grading up to <b>32.9%</b> copper and <b>54.8 g/t</b> silver, as previously<br>reported, ASX:RXL 30-11-12. |
| Further work   | The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive   | Further work will include ground checking and RC drilling in order to test the nature of the conductors.   |