

#### **ASX/MEDIA RELEASE**

#### **19 December 2012**

# NICKEL SULPHIDE DISCOVERY AT FISHER EAST

# **Highlights**

- RC drilling at Fisher East discovers nickel sulphides
- Sulphide mineralisation coincident with EM conductors
- Mineralisation encountered over 300 metres in strike and down to 200 metres in depth
- Mineralisation still open at depth and along strike in both directions
- Other EM conductors along ultramafic contact yet to be tested

Rox Resources Limited (**ASX: RXL**) ("**Rox**") is pleased to announce that reverse circulation (RC) drilling has discovered disseminated and semi-massive nickel sulphide mineralisation at the Fisher East nickel prospect on its Mt Fisher project 450km north of Kalgoorlie in Western Australia (Figure 1).

The drilling program consisted of five RC holes, all of which encountered nickel sulphide mineralisation as set out below.

MFEC001	130-132 metres, 2m ~ semi massive sulphides
MFEC002	213-216 metres, 3m $\sim$ strongly disseminated sulphides
MFEC003	141-144 metres, $3m \sim$ semi massive sulphides 151-153 metres, $2m \sim$ strongly disseminated sulphides 154-155 metres, $1m \sim$ strongly disseminated sulphides
MFEC004	161-165 metres, 4m $\sim$ strongly disseminated sulphides 171-174 metres, 3m $\sim$ strongly disseminated sulphides
MFEC005	146-147 metres, 1m ~ semi massive sulphides

Preliminary scans with a portable XRF analyser\* indicate an approximate nickel (Ni) grade of 1%-2% in all holes except MFEC005 where 4%-5% nickel is indicated. Individual RC chips were analysed up to 15% Ni.

It is important to note that samples from all holes were moist or wet and therefore the portable XRF analyses may not be reliable, and due to the moisture content of the sample could be understated. All samples have now been submitted for laboratory analysis with assay results expected in late January 2013.

(\*Cautionary Statement: Portable XRF analyses may not be representative of the whole sample, nor should they be taken as a substitute for laboratory analyses).

The drill intersections occur over a **300 metre strike length** along an EM conductor (Figure 2) that was initially identified by a Versatile Time Domain Electro-Magnetic (VTEM) survey in 2011. In October 2012 Rox completed RAB drilling over the EM conductor and detected anomalous nickel containing gossanous chips of weathered sulphide material in the host ultramafic, coincident with the interpreted position of the VTEM conductor (ASX 7 November 2012).

A follow-up ground electro-magnetic (EM) survey was recently undertaken and confirmed the strong conductors, providing detailed information and allowing more confident drill targeting at what has now been named the Camelwood prospect.

The drilling has only tested the upper, shallowest part of the conductor (Figure 3), with four of the five holes intersecting the mineralisation at about 130-140 metres below surface. The fifth hole (MFEC002) intersected the mineralisation at about 200 metres below surface and 70m vertically below hole MFEC001. The target zone, interpreted from the EM survey, remains open at depth to at least 500 metres depth, and is open along strike in both directions.

The thicker intersections occurred in the southern part of the strike length tested, with holes MFEC003 and MFEC004 both returning up to 7 metres with portable XRF analyses greater than 1% Ni, with lower grade disseminated material in between.

Due to high water flows and depth limitations of the RC drilling technique, further testing will need be undertaken by diamond drilling which will allow testing to greater depths, and also provide higher quality geological data.

The rock sequence at Camelwood appears to be overturned with a footwall felsic metasediment (right hand side of Figure 3) being the lower most unit overlain by ultramafic (left of felsic metasediment in Figure 3) and then basalt. Stratigraphically above the higher grade mineralisation in each hole is a disseminated sulphide zone which varies in thickness from 2 to 7 metres, and is estimated to contain 0.2-0.8% Ni as determined by the portable XRF analyser\*. This stratigraphic sequence and order of sulphide mineralisation matches the classical models of komatiitic nickel sulphide deposits, where massive to semi-massive sulphide mineralisation is overlain by a disseminated sulphide zone.

Rox Managing Director, Mr Ian Mulholland said "This is an exciting discovery for Rox. There has been no prior systematic exploration for nickel in the tenement area, so this is something totally new. We have applied a disciplined and systematic approach to the definition and testing of these nickel sulphide targets, and to get such outstanding success at our first attempt is very gratifying. It looks like it's a big system and there are other untested conductors we need to look at, so we'll need a lot more detailed drilling to fully evaluate the size and grade distribution of the mineralisation".

The next steps (to be undertaken once laboratory assays are received) will include mineralogy to determine sulphide species, downhole EM surveying to determine the location of the best conductive zones, and deeper diamond drilling.

There are also other VTEM targets along strike to the north and south (Figure 4) that could represent repetitions of the nickel mineralisation. RAB drilling at the Corktree prospect (to the south of Camelwood) recently defined a nickel geochemical anomaly, while the VTEM target to the north (MFA\_01) has not been RAB drilled.

The discovery is located on tenements that Rox has under an Option to Purchase. The exercise price is \$3.5 million, with approximately 18 months of the Option still to run.

## For more information:

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Figure 1: Project Location



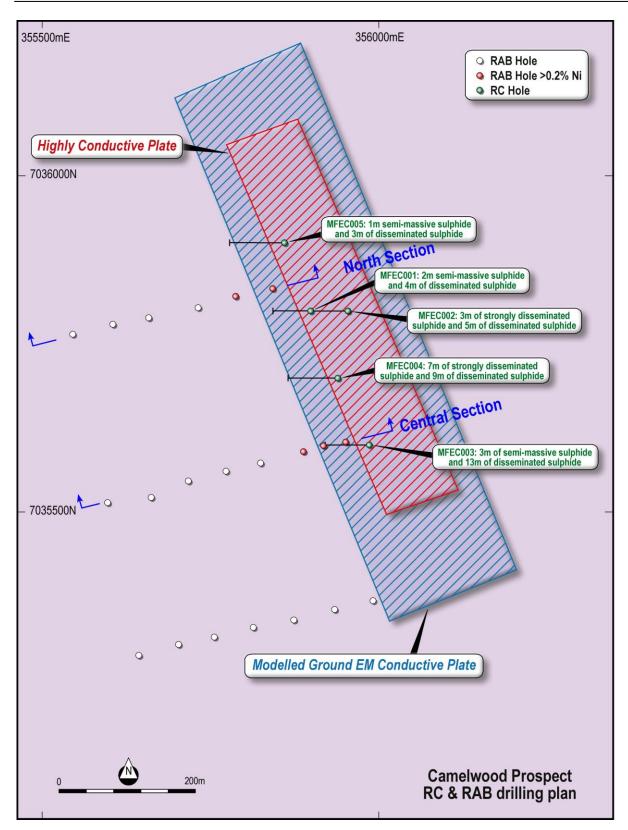
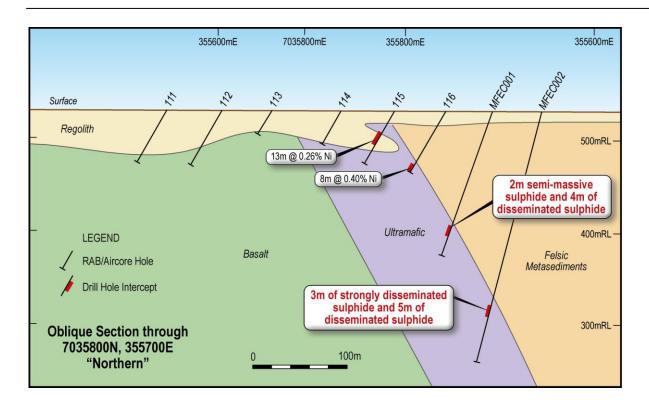


Figure 2: VTEM Conductors along Fisher East Ultramafic Belt and completed drilling



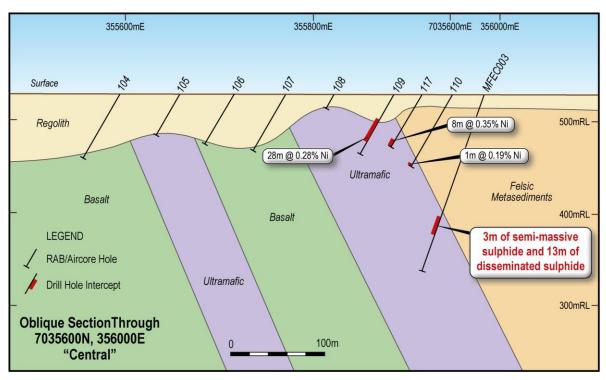


Figure 3: RAB Line Cross Sections "Northern" and "Central" Across VTEM Anomaly MFA\_04

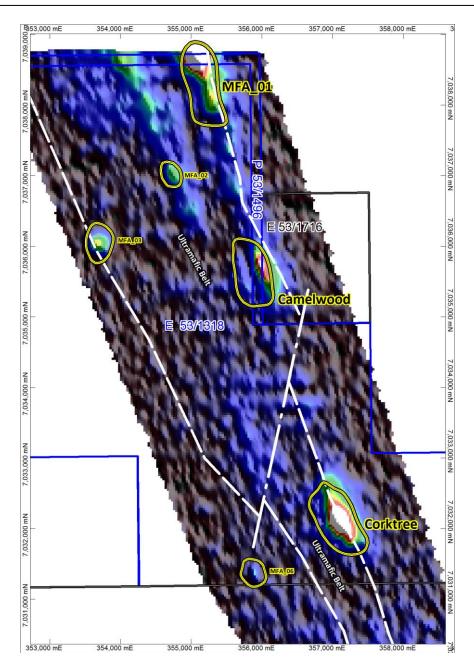


Figure 4: Fisher East VTEM Anomalies

#### **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).

#### Myrtle/Reward Zinc-Lead Project (Farm-out Agreement)

Rox has signed an Earn-In and Joint Venture Agreement with Teck Australia Pty Ltd. ("Teck") to explore its  $670 \text{km}^2$  Myrtle/Reward zinc-lead tenements, located 700km south-east of Darwin, Northern Territory. The Myrtle deposit has a current Inferred Mineral Resource of **43.6 Mt** @ **5.04% Zn+Pb** (Indicated: 5.8 Mt @ 3.56% Zn, 0.90% Pb; Inferred: 37.8 Mt @ 4.17% Zn, 0.95% Pb). Historic drill intercepts of sediment-hosted mineralisation exist at the Teena prospect, including **11.3m** @ **10.9% Zn+Pb** and **8.6m** @ **9.84% Zn+Pb**. Teck is required to spend A\$5m by 31 August 2014 to earn an initial 51% interest, and can increase its interest to 70% by spending an additional A\$10m (A\$15m in total) over an additional 4 years.

### Mt Fisher Gold-Nickel Project (100% + Option)

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 a strong potential for nickel. The total project area is 655km², consisting of a 485km² area 100% owned by Rox and an Option to purchase 100% of a further 170km². Initial drilling by Rox has defined numerous high-grade targets and defined a Measured, Indicated and Inferred Mineral Resource of **973,000 tonnes grading 2.75 g/t gold** to be defined 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).

A VTEM survey by Rox in 2011 identified a number of strong EM conductors along the Fisher East ultramafic belt and RAB drilling by Rox in 2012 defined nickel geochemical anomalies over two of these VTEM anomalies. Ground EM surveys are currently underway prior to drilling by the end of 2012.

### **Bonya Copper Project** (Farm-in Agreement)

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 33% Cu and 55 g/tAg are present. Under the agreement, Rox can earn a 51% interest in the copper, lead, zinc, silver, gold, bismuth and PGE mineral rights by spending \$500,000 within the first two years. Rox can 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.

## **Marqua Phosphate Project** (100%)

Rox owns four tenements covering approximately 1,900 km² in the Northern Territory which comprise the Marqua Phosphate project. The project has the potential for a sizeable phosphate resource to be present, with surface sampling returning values up to 39.4%  $P_2O_5$  and drilling (including 6m @ 19.9%  $P_2O_5$  and 5m @ 23.7%  $P_2O_5$ ) confirming a 30km strike length of phosphate bearing rocks. In addition to phosphate, there is also potential for lead-zinc mineralisation. The project is located 300km southwest of Mt Isa, and is situated 250km from the nearest railhead and gas pipeline at Phosphate Hill.

## **Competent Person Statement:**

The information in this report that relates to Exploration Results and Mineral Resources 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.