

#### **ASX: MRD**

#### 6 October 2015

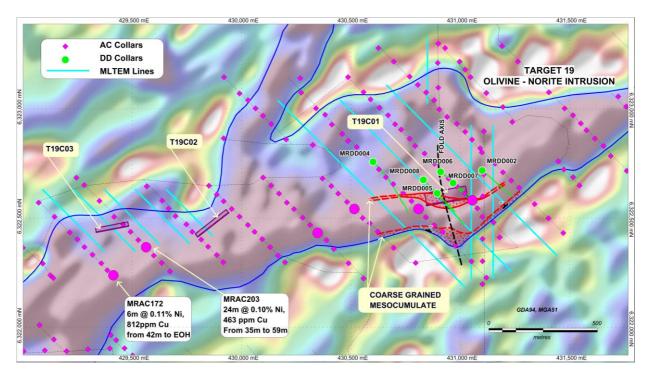
# Company Announcements Office ASX Limited

## **Exploration Drilling Update**

## **Highlights**

- Massive Sulphide fragment intersected within late stage pegmatite vein. Massive sulphide likely to have proximal source.
- Globular sulphides intersected within coarse grained mesocumulate ultramafic units.
- Coarse grained mesocumulate ultramafics at Target 19 believed to have extensive strike lengths.
- Two new Conductive zones identified by ground EM surveying at Target 19.

**Mount Ridley Mines Ltd** (ASX: **MRD**) (or "the **Company**") is pleased to advise that diamond drilling at the 100% owned Albany Fraser Range Mt Ridley Project continues to generate positive exploration results from recently completed diamond drillholes MRDD006, MRDD007 and MRDD008 testing the bedrock conductor T19C01.



**FIGURE 1**: Aeromagnetic image showing location of bedrock conductor T19C01 (purple plate) together with the location of recently drilled diamond holes MRDD006, MRDD007 and MRDD008. Also shows the location of the two coarse grained mesocumulate ultramafic units (red) and the newly identified conductive zones from recent ground EM surveying.

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#### Diamond Drilling continues to provide encouraging results



FIGURE 2: Globular sulphides within coarse grained mesocumulates at around 206 metres downhole in MRDD008.



Diamond holes MRDD006 and MRDD007 drilled were to intersect the bedrock conductor T19C01 based on detailed moving loop ground EM surveying conducted in the vicinity of T19C01.

Both holes intersected 4-6 metre thick zones of disseminated and globular sulphides in coarse grained pyroxene-olivine mesocumulates at 325 metres and 210 metres respectively downhole. These two zones were identical in nature to the 45 metre thick zone of disseminated and globular sulphides intersected previously in diamond hole MRDD005. These

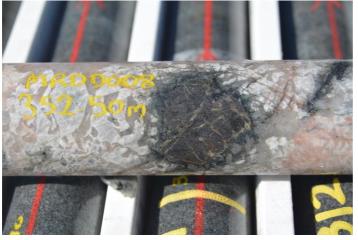
zones however do not represent the conductive zone identified by the EM surveys. Furthermore no sediments were intersected in MRDD006, MRDD007 or MRDD008 thereby eliminating the presence of graphitic sediments as the source of the bedrock conductor.

#### MRDD008 intersects massive sulphide fragment within late stage Pegmatite vein

MRDD008 was then drilled beneath MRDD005 and intersected several zones of disseminated and globular sulphides over 3-5 metres thick from 208 metres downhole hosted in coarse grained pyroxene-olivine mesocumulate (figure 2.0).

Significantly a fragment of massive sulphides was observed in a narrow late stage pegmatite vein at 352.50 metres downhole (figure 3.0) suggesting that this vein had passed through a nearby massive sulphide body. The fragment is made up primarily of pyrrohotite, magnetite, pentlandite and chalcopyrite. The presence of this massive sulphide fragment from an exploration perspective is very

> significant and lends support to the presence of bedrock conductor T19C01.



Interpretation of aeromagnetics and recent diamond drilling suggests the conductor T19C01 is situated on a fold with the fold axis passing close by MRDD005. This may help explain the unusually thick nature of the coarse grained pyroxene-olivine mesocumulate around MRDD005. During the folding process sulphides tend to remobilise into the fold axis position and are artificially thickened.

FIGURE 3: Massive sulphide fragment within late stage pegmatite vein from 352.50 metres downhole in MRDD008.

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The presence of a fold axis together with the presence of thick mesocumulates makes the fold axis a good place to look for an accumulation of massive sulphides. Further drilling is required to resolve the orientation of these structures and the coarse grained mesocumulate unit which is interpreted to strike for in excess of 200 metres.

There also appears to be a second coarse grained pyroxene-olivine mesocumulate right on the main intrusive contact (See figure 1.0). This unit also contains minor disseminated and globular sulphides. Although no bedrock conductors have been identified within this unit at this stage in the vicinity of T19C01 it remains an attractive exploration target along strike.

#### **Ground EM Survey Results**

Ground based EM surveying was carried out on 100m spaced lines with 100m loops down the SW corner of Target 19. The survey successfully identified two new conductive zones within the supergene enrichment zone both around 200m in strike with an unknown dip and depth extent (See figure 1.0). Like conductor T19C01 the conductive overburden has proved challenging making accurate modelling of the subsurface bedrock responses extremely difficult. These two new conductive zones, T19C02 & T19C03, will be the focus for further diamond drilling in the near future.

Ground EM surveying has now covered approximately 50% of Target 19. Further surveying will be carried out over the supergene enrichment zone once the salt lakes have dried out in around a month's time.

### **Follow Up Exploration**

#### **Conductor T19C01**

Several new diamond holes have been planned to further test conductor T19C01 at various depths down dip and along strike from MRDD005 and MRDD008. This program is expected to get underway late in October.

#### **Downhole EM Surveying**

Conductor T19C01 was identified from surface moving-loop EM surveys. The conductor was targeted with drill holes MRDD005 and 006, which intersected the mineralised mesocumulate layer but failed to intersect any conductive mineralisation which may explain the surface anomaly. Downhole EM surveys in these holes failed to detect any near-hole anomalies. Forward modelling completed by the Company's geophysical consultants indicates that any narrow, steeply dipping and deep conductors would be difficult to detect (due to the orientation of the targets and conductivity of the overburden). Further testing of T19C01 is warranted to resolve the cause of the response.

Downhole EM surveying will also be carried out in holes MRDD007 and MRDD008 to locate any nearby off-hole conductors which will aid in the design of future diamond holes.

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#### **Infill Aircore Drilling**

Infill aircore drilling is also planned for early November at Target 19 to further enhance the existing supergene enrichment zone in particular around the two new conductive zones. The drilling is designed to locate geochemical hotspots within the 1,600m long supergene zone. These nickel and copper hotspots will be the focus for future diamond drilling programs.

#### **Ground EM Surveying**

Further ground EM surveying is planned for early November over the remaining areas at Target 19. Further follow-up drilling will be undertaken if additional conductive zones are identified within the supergene enrichment zone.

For and on behalf of the board

Joel-

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The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dean Goodwin who is a Member of the Australian Institute of Geoscientists. Mr Goodwin is the Managing Director of the Company. Mr Goodwin has sufficient experience which is relevant to the style 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 Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Goodwin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## **About Mount Ridley Mines Ltd**

Mount Ridley Mines Ltd is a Perth based Australian Exploration Company focusing primarily on projects in the Fraser Range region with the potential to host major mineral deposits in base and precious metals including nickel, copper, cobalt, silver and gold.

The Company is managed by a team of highly motivated professionals with significant expertise in mineral exploration, mining operations, finance and corporate management with a proven track record of successfully delivering value to shareholders.

Mount Ridley Mines Ltd is actively targeting nickel sulphide deposits in the Albany-Fraser Range Province of Western Australia, the site of Sirius Resources Nova Nickel-Copper Deposit. The Company currently has a portfolio of tenements totaling in excess of 1000sq/kms in what is fast becoming the world's most exciting emerging nickel province.

