26 October 2010
The Companies Announcements Office
ASX Limited

Exploration Activity Statement - September Quarter 2010

Exploration Activities

Ord River Resources Limited (ASX: ORD) is actively exploring for gold and base metal mineralisation within granted title in Australia and Laos. Principal commodities identified and now the subject of extensive exploration activities includes gold, copper, and aluminium.


   Exploration activities are designed to delineate a high-quality JORC-compliant bauxite resource located on the Bolaven Plateau, located in southern Laos. The project is being advanced under a joint venture company called Sino Australian Resources Co. Ltd. (SARCO), which is owned 49% ORD, and 51% by operator, China Non-Ferrous Metal Industry’s Foreign Engineering & Construction Co. Ltd. (NFC). Total accessible tenement holding is 487 sq. km. in two tenements.

2. Copper Flats Project, Western Australia & Northern Territory, Australia.

   Exploration activities are focussed towards determination of the lateral and vertical extent of located copper mineralisation within the East Kimberly region of Western Australia and Northern Territory. The project comprises 17 granted Exploration Licences (100% ORD) totalling in excess of 3,760 sq. km., along with three additional Exploration Licence Applications. (E80/3286, E80/3288, E80/3316, E80/3428, E80/3429, E80/3773, E80/3786, E80/3787, E80/3788, E80/3789, E80/3893, E80/4013, E80/4060, E80/4062, EL25671, EL26499).

3. Suplejack Project, Northern Territory, Australia.

   Exploration activities are focussed on the delineation of a 1Moz+ gold resource within Exploration Licence SEL 26483 (in excess of 330 sq. km.), (100% ORD) located in the Tanami Goldfield of the Northern Territory.

4. West Wyalong Project, New South Wales, Australia.

   Exploration activities are designed to locate felsic-intrusive related gold and copper mineralisation, akin to North Parkes, Lake Cowal, and Cadia deposit geological models, as well as orogenic quartz vein-hosted gold mineralisation. Exploration Licence EL 7400 (100% ORD) covers in excess of 210 sq. km., is located in central New South Wales, and includes the historical Hiawatha Goldfield.

Business Development

Pursuant with ORD’s development strategy, ORD has reviewed several gold, base metals, and coal business opportunities. In addition to current exploration activities, ORD is seeking new development opportunities within the mining sector, predominantly within Australia. ORD is currently working with Chinese SOEs in pursuing attractive acquisitions.
Figure 1. Location of Copper Flats, Suplejack and West Wyalong Projects.

Figure 2. Location of the Bolaven Plateau Bauxite Project, Laos.
BOLAVEN PLATEAU BAXITE PROJECT
Southern Laos.

Figure 3. Location of Bolaven Plateau Bauxite Projecty Tenements, Laos.

Leading China mining engineering firm Sinomines Explorations Co. Ltd., is currently progressing the Laos Project Feasibility Study, and is working closely with SARCO’s representatives in Laos.

Field work for tenement LSI has been completed in this quarter. Sinomines completed drilling a total of 1,195 holes with 9,387.56 meters in depth. 1,012 holes with 8,072.39 meters in depth were drilled in LSI. Yuqida had 183 holes drilled so far with 1,315.17 meters in depth. 8,722 samples of rock core have been collected so far. Extensive geological and mapping work has also been completed. 352.25ha of land has been cleared of UXO to support the field work. This is a large amount of work completed in a short period of time since commencement of feasibility study in early March.

Sinomines spent the rest of the quarter doing all the necessary drilling analysis, core sampling, geological mapping, detailed analysis and preparation work during the wet season which just commenced. In late August Sinomines halted field work and returned majority of its field staff to China. Sinomines will return to Laos to complete field work as soon as the wet season finishes in late 2010.

At the time of this report Sinomines started returning to Laos. We expect the feasibility study to resume its field work soon. Yuqida is the main objective for the second phase of the study. We are confident that the study can be completed in early 2011.

COPPER FLATS PROJECT
East Kimberley region - Western Australia & Northern Territory, Australia

The basaltic lavas of the Antrim Plateau Volcanics are postulated to be analogous to the Keeweenawan basalts in Michigan, U.S.A., that have been recognized as the source of numerous structurally controlled copper resources within the basalts and overlying sedimentary sequences of the Michigan Copper Belt. In many respects, the geology, structure and
metamorphism evident within the Copper Flats Project, closely parallels that of the Michigan Copper Belt, which is reported to have produced in excess of 9Mt of copper metal over approximately 160 years.

Figure 4. Copper Flats Project, Western Australia & Northern Territory, Australia.

Tenements encompass a portion of the Hardman Syncline within the Ord Basin, a Post-Cambrian basalt sag basin. Deposition of post-orogenic sequences in the region began with the continental Lower to Middle Proterozoic Birrindudu Group, commencing approximately 1.7Ga. These are composed of coarse clastic sediments with minor felsic volcanic, shale and limestone. The sequence is un-conformably overlain by the Victoria Basin succession, commencing with siliciclastic sequences with minor tuff and carbonates. Carbonates and evaporates become more dominant towards the middle of the succession, are then succeeded by siliciclastic sequences and a final carbonate shelf sequence.

Regional uplift terminated deposition prior to the Cryogenian (Neoproterozoic) period which commenced at 850Ma. Remnants of several thousand metres of Cryogenian age glacial and periglacial sediments overlie parts of the Victoria Basin in the Wolfe Creek Basin.

Cambrian sequences, now preserved in the Hardman Syncline, commenced with the very widespread Kalkariji Continental Flood Basalt, with the Antrim Plateau Volcanics being a major unit in the Northern territory and Western Australia. Correlatives of the Antrim Plateau Volcanics are known in Queensland, South Australia, and possibly in New South Wales, and indicate the continental scale of the Kalkariji Continental Flood Basalt Province.
Figure 5. Distribution of Identified Copper Mineralisation.
Exploration activities are suitably designed to determine the potential for several styles of mineralisation:

- Stratabound copper-silver mineralisation in breccias, possibly relatively flat-lying at depth, or more steeply-dipping near surface
- Steeply-dipping, structurally controlled copper-silver mineralisation located within dewatering faults
- Relatively flat-dipping stratabound replacement orebodies of copper-silver mineralisation at shallower depth, formed by precipitation from metal-rich dewatering fluids.

ORD has previously delineated the latter two types (chalocite, malachite and azurite), during shallow RC percussion drilling. At depths greater than 30m, weak disseminated pyrite-chalcopyrite-chalcocite was observed in brecciated vesicular basalt. Copper mineralisation tends to concentrate at fault/shear zones resulting in sub-vertical higher copper mineralised zones.

Detailed geological mapping was completed during the quarter across three specific areas (A, B, and C: see below) totaling 12 square kilometers. Geological mapping was undertaken by Mr. Rob Harley (Rangott Mineral Exploration) and Mr. Robert Meade (ORD Exploration Manager). This work has resulted in a significantly greater understanding of the spatial relationship between malachite mineralization and the Headley Limestone and Antrim Plateau Volcanics.

Subsequent to interpretation of the detailed geological mapping planned Moving Loop Electromagnetic Surveying (MLEM) was not undertaken as it was felt the survey of such areas may not be targeting the most prospective areas. A thorough review of all data is continuing.

ORD is planning to prioritize areas resulting from this review in the December Quarter, and a detailed exploration program for the next field season.

**Figure 6.** Copper Flats Project Conceptual Mineralisation Model.
SUPLEJACK PROJECT
Tanami region - Northern Territory, Australia

The Tanami region is dominated by Precambrian rocks largely covered by Cainozoic sediments, and is located in the far west of the Northern Territory, Australia. Economic gold mineralisation located throughout the Tanami region is located within faulted and sheared hinge zones within tightly and complexly folded sediments. The region has produced in excess of 85t of gold and has an in-situ gold resource inventory exceeding 166t.

Gold mineralisation within the Suplejack Project is located within dilatant zones and interpreted fault / shear intersections within stratigraphy dominated by the Dead Bullock Formation, Killi Formation, and Suplejack Downs Sandstone.

ORD Exploration Manager, Mr. Robert Meade, made two separate visits to the Suplejack Project during the quarter to better understand the local geological setting, the nature and lateral extent of previously defined gold mineralised zones, and constrain the logistical requirements to support future exploration activities.

These field investigations concluded the following:

- significant potential remains for a substantial upgrade in gold resource at Tregony prospect
- the area surrounding Tregony prospect, particularly towards the west, has significant potential to host a significant gold resource
- the linear belt (in excess of 8 kilometres) encompassing Five Mile Bore, PhD, and PhD North prospects has significant potential to host a significant gold resource

A further ground review of the Five Mile Bore – PhD – PhD North prospective area revealed significant grossly silicified breccias constrained by significant and subordinate regional and local structural corridors/features, containing trace to rare pyrite cubes and veins, specks of arsenopyrite, and minor specularite. These findings have increased the prospectivity of this area, and has implications for areas further to the northwest and southeast which will be evaluated by geochemical sampling next field season.
Figure 8. Suplejack Project Interpretative Regional Structure and Gold Prospect Location Plan.
Figure 9. Suplejack Project Gold Prospective Target Areas.
The uncharacteristic seasonal weather leading up to the traditional northern Australia wet season restricted further ground investigation.

A low level detailed airborne magnetic survey is planned for commencement and completion during early November 2010, across the entirety of SEL 26483. Magnetic and radiometric data will be collected along 100m separated traverses using a fixed wing aircraft flying 40m above terrain. Correction of data, along with preliminary processing is expected to be completed by early December. ORD will undertake detailed interpretation of all airborne magnetic and radiometric data during the December – January period.

ORD will now outline a 5 tiered exploration strategy for the delineation of significant resources throughout SEL 26483, and will include complete revision of all ORD exploration data, vacuum geochemical drilling, and percussion and diamond drilling.

WEST WYALONG
Lachlan Fold Belt, New South Wales, Australia.

The Lachlan Fold Belt (LFB) within central New South Wales is host to the World-Class Cadia Gold Mine (porphyry), North Parkes Copper-Gold Mine (porphyry), and Lake Cowal Gold Mine (porphyry).

Exploration Licence 7400 is considered prospective for the discovery of felsic-intrusive related gold and gold-copper mineralisation, along with orogenic quartz and quartz-carbonate hosted gold and gold-silver mineralisation.

The tenement encompasses the Hiawatha Goldfield which includes 17 previously exploited small scale gold mines. Gold mineralisation was mined from narrow fracture-fill hydrothermal quartz veins within the Silurian Hiawatha Granite.

Figure 10. Location of EL 7400 relative to operating mines and advanced mineral projects within central New South Wales. (Figure was adopted and modified from NSW DPI Minerals and Petroleum website).
No field work was undertaken in the quarter.

(The information in this report that relates to Exploration Results is based on information compiled by Mr. Robert Meade, Exploration Manager for Ord River Resources Limited and is a member of Australian Institute of Mining and Metallurgy. Mr. Meade has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activities which he is undertaking to qualify as Competent Persons as defined in the 2004 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Meade consents to the inclusion in this report of matters based on the Company’s information in the form and context in which it appears.)