

# September 2012 Quarterly Activity Report

Goldminex Resources Limited ("Goldminex" or "the Company") (ASX: GMX) is pleased to provide shareholders with its Quarterly Activity Report for the period ending 30 September 2012.

# **QUARTERLY HIGHLIGHTS:**

## GMX/Vale JV (Vale earning 51% by spending US\$20m over 4 years)

- Wavera gold-copper Project Exploration Advanced
  - High-grade results including **66 ppm gold (Au), 50 ppm Au and 48 ppm Au** from panned concentrate sampling within the Wavera multi-phase porphyry intrusive
  - Hydrothermal mineralisation mapped and sampled south of the intrusive complex
- Liamu Project
  - Biafa Prospect pitting bedrock samples revealed a 100m x 300m area with encouraging coincident anomalous Au and Cu geochemistry
  - o Review underway to delineate further drill targets
- Exploration programs advanced the Gewoia, Jog and Obree-Goari Projects, results awaited

# Nickel exploration (GMX 100%)

- Exploration activities at Keveri Nickel Project area continue to highlight the potential of the prospect to host structurally-controlled sulphide nickel mineralisation
- Outcrop rock chip sampling at Zina Creek Prospect shear returned 0.4m @ 18.5% Ni grab sample, and 0.25m @ 10.0% Ni, 1m @ 5.74% Ni and 1m @ 4.26% Ni continuous chip results (ASX announcement 20 September 2012)
- Field program at Iweye Project has delineated further nickel mineralisation

# Gold & Copper exploration (GMX 100%)

Exploration completed at the E'Au River Gold-Copper Project, results awaited

# Cash at the end of the quarter was \$4.7 million.

# **OVERVIEW**

Goldminex is focused on the discovery of greater than 2Moz gold or gold equivalent deposits in Papua New Guinea, and has extensive prospective tenement holdings (10,700 km<sup>2</sup>) consisting of Exploration Licences and Exploration Licence Applications. During 2011, Goldminex formed a strategic alliance with a major mining company, Vale S.A ("Vale"), in order to assist with achieving its goals. This alliance, via a Farm-in Agreement, allows Vale to earn a 51% interest through funding eligible exploration expenditure of US\$20 million across a number of the Exploration Licences within the Owen Stanley region.

During this quarter, Goldminex advanced the Vale Joint Venture ("JV") projects and a number of the Goldminex 100% owned projects through a range of exploration programs designed to evaluate new targets and generate drill-ready targets for the 2013 field program.

## **Goldminex/Vale JV**

Investigations of copper-gold geochemical targets within the **Wavera** intrusive continued. Infill drainage mapping and sampling returned numerous high-grade panned concentrate results including **66 ppm Au, 50 ppm Au, and 48 ppm Au** from drainages within the intrusive system. Visible gold was noted in several panned concentrate samples. Outcrop rock chip samples returned up to **4.9 g/t Au**.

At the **Liamu Project** a geochemical pitting program at the Biafa Prospect returned encouraging coincident gold and copper geochemistry anomalous pit bedrock samples covering an area of 100m x 300m. Following completion of the 3,292m diamond drill program, the drill rig was demobilised. A review of the Liamu Project is underway to prioritise future drill targets.

Additional exploration programs were conducted at the Gewoia, Jog and Obree-Goada projects.

# Goldminex 100% Projects

Exploration continued at the Keveri Nickel Project's Veri Veri and Iyewe nickel sulphide occurrences in EL 1576 and commenced at the E'Au River Cu-Au Project in EL 1894.

At Veri Veri, the Zina Creek Prospect returned shear-hosted nickel sulphide rock chip samples including **0.4m @ 18.5% Ni** in a grab sample, and **0.25m @ 10.0% Ni**, **1m @ 5.74% Ni** and 1m @ **4.26% Ni** from continuous chip sampling across outcrop (ASX announcement 20 September 2012). Subsequent trenching revealed the 'pinching' and 'swelling' nature of this shear-hosted nickel sulphide mineralisation.

At Iweye, a field program investigating key nickel occurrences was conducted. Data compilation is underway and assays are awaited.

A total of 1,293 surface geochemical samples were submitted during the quarter from all project areas.

#### LIAMU PROJECT (EL 1606)

#### (Vale JV)

Liamu is Goldminex's flagship project within the Owen Stanley region of PNG (see Figure 1).

The Liamu intrusive complex outlined to date hosts a range of copper-gold mineralised intermediate intrusives and has potential to host porphyry copper-gold mineralisation of economic size and grade.

Geological and geochemical exploration has outlined a 15 km<sup>2</sup> area shedding anomalous gold and copper in drainage samples within the 35 km<sup>2</sup> Liamu Project. Areas exhibiting copper and gold anomalous ridge and spur soil samples now total approximately 11 km<sup>2</sup>.

To date, eleven prospects have been outlined by surface geochemistry at Liamu, these include; Nesei, Movei, Tikay, Dada, Unebu, Berefana (within the 5.5 km x 1.5 km Berefana Region) (Figure 2), and Iyiowai, Kiki, Bubuafu, Biafa and Imorobi to the north and east. A twelfth prospect, known as Maoba, is a ZTEM electrical conductivity geophysical anomaly.

Field work during this quarter focussed on pitting, mapping and geochemical sampling at the Biafa Prospect with the aim of developing drill targets.

At the Biafa Prospect a total of 70 pits were excavated, mapped and sampled within a 900 x 700m area to assist with locating drill targets. The pits typically have dimensions of 1m x 1m and are dug to bedrock at 100m x 100m grid spacing. In addition, rock chip samples were collected from creek exposures in the main Biafa tributary, complimenting previous work.

Results returned from the Biafa pit bedrock sampling program revealed coincident gold and copper anomalism over a 100m x 300m area. Anomalous copper values in bedrock were up to 0.17% Cu with coincident 0.25 g/t Au in the same pit, the best gold value was 0.33 g/t Au. High gold and copper values in ridge and spur soil samples had also been returned in this area. These results are encouraging and open ended to the northeast. Accordingly an extensional pitting northeast will considered. program in the of the prospect now be



Figure 1: Goldminex Owen Stanley tenements and target areas.



Plate 1: Micromonzodiorite with quartz-pyritechalcopyritemagnetite-covellite mineralisation in veins and fractures, Biafa West tributary



Figure 2: The Liamu Project, illustrating prospect locations and the six 2011-2012 drill hole collars on ridge and spur soil sample Cu geochemistry draped on a topographic image.

## Drilling

As previously reported, the Liamu diamond drilling program of six deep holes commenced in November 2011 and was completed in June 2012 for a total of 3,292m drilled.

The holes were an initial test of the potential for gold-rich porphyry copper mineralisation at depth within the Movei, Nesei, Unebu, Iyiowai and Maoba prospect areas. The drill rig has now been demobilised from site while further assessment of results is undertaken with the aim of generating drill-ready targets at the Liamu Project.

## **Hyperspectral Analysis**

Results of the Hyperspectral analysis of 569 core specimens submitted to Auspec International by Vale S.A. were reported during July. The samples were collected from drill holes MAODH001, Iyiowai Prospect and MABDH002, Maoba Prospect.

Results indicate MAODH001 intersected white clays and gypsum. MABDH002, however, intersected dickite, alunite, pyrophyllite and possible zeolite indicating an environment of higher temperature acid leaching, possibly proximal to a porphyry intrusive. The mineralisation and brecciation in MABDH002 occurred between 153m and 304m (151m @ 0.12% Cu, 0.03 ppm Au).

#### **OTHER PROJECTS (Within the Vale Owen Stanley JV)**

#### WAVERA PROJECT (EL 1576)

#### (Vale JV)

The Wavera Project is considered prospective for hosting porphyry related mineralisation. It encompasses the Keveri Goldfield, which has a reported production of 4,770 ounces of alluvial gold between 1904 and 1909. During the September quarter additional investigations of copper-gold geochemical targets were progressed. A further 203 drainage sediment samples (panned concentrate, minus 80 mesh and BLEG), 90 rock chip samples, and 84 ridge and spur soil samples were collected over the 25km<sup>2</sup> Wavera Project, in conjunction with 1:2,500 scale mapping. Figures 3 and 4 show the gold and copper geochemistry results from samples collected at the Wavera Project to date.

Infill sampling and detailed geological mapping of areas previously identified as high priority targets within the identified multi-phase porphyry intrusive rocks at Wavera, have continued to deliver encouraging results (Figure 3). Many of the recent panned concentrate samples returned encouraging assay results above 1.0 ppm Au, including highs of 65, 50 and 48 ppm Au. Panned concentrates from several sample sites contained visible gold, three with >10 fine grains of visible gold, with an example of gold morphology visible in Plate 2. In minus 80 mesh samples, anomalous highs of 0.38 ppm Au and 351 ppm Cu were obtained.

The project area encompasses intermediate volcanic rocks and fine-grained monzodiorite, intruded by dykes and stocks of magnetic diorite and hornblende-feldspar porphyry containing up to 10% pyrite. Young poorly sorted, unconsolidated conglomerate (Domara Conglomerate) appears to be capping the mineralised intrusive in areas. The prospect is situated near the major northwest trending Keveri Fault system and has north-northeast trending crosscutting structures.

Alteration assemblages within the intrusive rocks include silica + pyrite +/- clay, chlorite + silica +/- pyrite and propylitic alteration (chlorite-magnetite +/- pyrite). Copper minerals including chalcopyrite and malachite were noted in rock float samples.

Semi-continuous chip rock sampling of the monzodiorite intrusive returned 3m @ 1.4 g/t Au and a float rock chip sample of intrusive hosting quartz veining and malachite returned 0.59% Cu. Previous rock chip sampling by Goldminex during a brief program in 2008 returned several >1 g/t Au selected outcrop samples, including 4.9 g/t Au, 0.34% Cu in a selected quartz vein sample (Figures 3 and 4).



Figure 3: Wavera Project. Gold anomalous rock chip and drainage panned concentrate assay results to date



Figure 4: Wavera Project, Copper anomalous rock chip and drainage minus 80 mesh assay results



Plate 2: Examples of gold grains visible in Wavera Project panned concentrate samples.

Reconnaissance mapping and sampling revealed a new area of anomalous gold geochemistry in the south-eastern part of the Wavera Project which corresponds with elevated copper values in minus 80 mesh drainage samples. Northeast trending structures, containing multiple sulphide bearing veins and shears within the intrusive basement have been observed in parts of this south-eastern area. These structures appear to be late-stage hydrothermal veins overprinting the Wavera porphyry intrusive and may be related to a buried porphyry system.

These encouraging gold and copper results and associated alteration assemblages give credence to an intrusive source of the mineralisation at Wavera and support a gold-copper porphyry mineralisation model. Additional exploration is warranted at the Wavera Project.

#### **MOUNT OBREE-GOARI (EL 1579)**

## (Vale JV)

Exploration by a previous company in the 1970s reported gold and copper mineralisation sourced within the Mount Obree – Goari region. A reconnaissance drainage sampling and mapping program was conducted in June 2012. Five of the sample sites had panned concentrates showing gold colours, with a peak value of 3.9 ppm Au.

A follow-up program of infill drainage sampling to locate the source of the anomalous gold results from the June regional drainage sampling was commenced towards the end of the quarter. Results have not been received to date and will be reported on in due course.

## **GEWOIA (EL 1576)**

#### (Vale JV)

A program of infill drainage sampling, based on results of the 2011 regional drainage program, commenced within the four main drainages at the end of the September quarter. Regional scale mapping and minor soil sampling are also being undertaken. Assay results are awaited.

#### JOG (EL 1547)

#### (Vale JV)

Two areas in the Jog Project region were investigated during the quarter. The first was follow-up mapping and sampling within a drainage containing mineralised float identified during the regional drainage sampling conducted in November-December 2011. The second area covers the coincident ZTEM/aeromagnetic anomaly on the eastern perimeter of the Jog area where a regional drainage sampling and mapping program was completed. No substantial surface signatures of economic interest were observed that warrant further exploration at this stage.

Observations from the regional scale mapping and assay results from the drainage sampling do not explain the ZTEM target in satisfactory detail, with Goldminex currently assessing options for the project.

#### **GOLDMINEX 100% PROJECTS**

#### **KEVERI REGION NICKEL PROJECT (EL 1576)**

#### (Goldminex 100%)

A 50km<sup>2</sup> area of Papuan Ultramafics within EL 1576 is prospective for shear-hosted and hydrothermal sulphide nickel mineralisation (Figure 4). Previously, Goldminex reported very high nickel grades up to 49% Ni in nickel sulphide rock samples collected from this region. These results and other geological and geophysical data support the prospectivity of this region to host high-grade, structurally controlled, hydrothermal sulphide nickel deposits.

During the past quarter, exploration activity has primarily focussed on advancing the Veri Veri and Iyewe projects (Figure 4).



Figure 4: Location of the Keveri Region Nickel Projects, EL 1576, in relation to the Papuan Ultramafic Belt occurrences (purple)

### VERI VERI (EL 1576)

#### (Goldminex 100%)

Field programs conducted in the rugged upper reaches of the Veri Veri Project drainages revealed two new shear-hosted nickel mineralised zones (March 2012 quarterly report).

Exploration campaigns continued at these two locations, referred to as Zina and Fida Creek Prospects, during the September 2012 quarter to follow up on previously reported results. Outcrop mapping and rock chip sampling at OC1, Zina Creek shear returned 0.4m @ 18.5% Ni in a grab sample, with other results including 0.25m @ 10.0% Ni, 1m @ 5.74% Ni and 1m @ 4.26% Ni from continuous chip sampling across outcrop (ASX announcement 20 September 2012). Mapping observations, in conjunction with these results support shear-hosted style sulphide nickel mineralisation. The shear zones strike NNE to ENE and dip moderately to the NW and are of variable thickness exceeding 2m true thickness in areas. Sulphide nickel mineralisation within these shear zones occurs as thin bands or pinch and swell structures, with mineralisation varying in thickness from a few centimetres to one metre. Sulphide mineralisation is dominated by pentlandite while weathered surfaces typically exhibit green garnierite.

Trenching activities commenced during the September quarter to determine the strike extent and gain a more detailed understanding of the nickel mineralisation previously outlined. Three hand dug trenches orientated perpendicular to the strike of the mineralised shear were completed in the vicinity of the OC01, Zina Creek Prospect and OC02, Fida Creek Prospect, nickel sulphide outcrop occurrences to determine the continuity of the encouraging initial results returned from both of these two prospects. At Zina Creek Prospect the three trenches were spaced approximately 40m apart. Results from the 2m continuous chip sampling of rock in the trenches included 2m @ 0.30% Ni and 4m @ 0.25% Ni. Additional surface continuous chip sampling further along the strike of the shear at the OC01 outcrop at Zina Creek Prospect returned a best result of 0.5m @ 4.8% Ni, Figure 5. The sample was perpendicular to the strike of the shear.



Figure 5: Sample results at outcrop OC01, Zina Creek Prospect, Veri Veri Project

At Fida Creek Prospect the better results from the 2m continuous chip samples collected in the three trenches include 2m @ 1.4% Ni and 2m @ 0.92% Ni in trench VERTR018 and 2m @ 1.2% Ni in trench VERTR019.

These results indicate that there is considerable variation in the mineralisation grade and width both along strike and perpendicular to strike in the nickel sulphide bearing shears at Zina Creek and Fida Creek prospects.

This "pinch and swell" nature of the nickel sulphide mineralisation can be been seen in Figure 5, showing outcrop OC01 at Zina Creek, where trenching indicates the shear and associated nickel mineralisation has pinched out along strike from the OC1 outcrop. Rugged terrain and sparse outcrop makes a thorough investigation difficult, however, further exploration of the extent of these mineralised shears is planned in future programs.

Goldminex is undertaking a full review of all available data to assist vectoring in on additional potential structural dilational zones at the Veri Veri Project in anticipation that dilational zones will host economic nickel mineralisation.

#### IWEYE (EL 1576)

#### (100% Goldminex)

During the previous quarter, a field program investigating key nickel occurrences was conducted at the Iweye Project following a review of previous exploration. The aim of this program was to structurally map, sample and assess outcrops to identify the structural controls of the numerous nickel mineralisation occurrences discovered in this project area. The field program involved 1:2,500 scale geological mapping and sampling in creeks and 1:500 scale mapping of nickel sulphide outcrops observed during the prospect scale mapping as well as trenching of selected veins where possible.

A total of five trenches were excavated during this program, with a further 40 rock chip samples collected during the detailed 1:2,500 scale mapping of the creeks. Details and findings of this program are being compiled.

All samples have been submitted and assay results are awaited.



Plate 3: Goldminex trenching crew collecting continuous chip rock samples at trench IYTR05.

## MORI RIVER (EL 1894)

#### (Goldminex 100%)

EL 1894 is situated within the structurally complex Awala Flexure Zone. Of the targets identified within the Exploration Licence, E'Au River Project is currently the highest priority (Figure 6).



Figure 6: Mori River, EL 1894 showing the target areas with panned concentrate gold results.

#### E'AU RIVER (EL 1894)

#### (Goldminex 100%)

The E'Au River Project area consists of monzonite and diorite porphyry intrusives along a prominent northeast trending lineament which transects an inferred ring structure. Previous exploration at this project by CRA in the mid 1980s revealed substantial gold and base metal shedding from intrusives, with panned concentrate results up to 23ppm Au and rock chip results up to 15 g/t Au. Geology and mineralisation was described as exhibiting Cu-Au porphyry signatures and the majority of ridge and spur soil samples, collected over a 2.8km<sup>2</sup> area, returned >0.1 ppm Au and >200 ppm Cu.

Exploration has continued at the E'Au River Project area to investigate the gold and copper potential. A camp was established in the upper reaches of the E'au River from which an infill drainage and mapping program was conducted during August.

Reconnaissance geological mapping and the collection of 12 panned concentrate, 12 minus 80 mesh, 12 BLEG samples from 12 drainage sites was undertaken during the program. In addition a total of 36 soil samples and 29 rock chip samples were collected to infill and confirm high-grade copper and gold occurrences reported in historic exploration.

This exploration program was completed at the end of the quarter and all samples have now been submitted for analysis. Follow-up programs will be based on the analysis of gathered geological mapping and the awaited analytical results.

Additional EL 1894 targets including Suzy Creek and Goada River will be field tested throughout the course of 2012.

# AWARI PROJECT (EL 1420 and EL 1768), SEPIK PROVINCE (Goldminex 100%)

Goldminex is currently seeking a joint venture partner for its Awari Project in order to advance exploration for gold and copper within this region.

Alexander (Sandy) Moyle Chief Executive Officer

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#### **Competent Person statement**

The information contained in this report that relates to Exploration Results or Mineral Resources or Ore Reserves is based upon information compiled by Mr Warrick Clent who is a member of the Australasian Institute of Mining and Metallurgy. Mr Clent is a full time employee of Goldminex Resources Limited and has sufficient experience which is relevant to the style of mineral deposits 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 Clent consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### **About Goldminex**

Goldminex Resources Limited is an ASX listed (ASX: GMX) exploration company with a significant tenement portfolio within the Owen Stanley Ranges and Sepik Province in Papua New Guinea. Exploration is focused on large-scale gold, copper and nickel deposits in an environment with some of the most prospective and underexplored geology in the world.

The Company's Mission is to add value to stakeholders through the discovery of large-scale economic mineral resources. Our exploration strategy is both a focussed and cost effective approach that has been refined from our past experience in the field. We apply a combination of conventional and technical methods to efficiently prioritise and explore our tenements. This is complemented through the development of a detailed data set, which is utilised to continually assess, refine and rank our exploration activities. Goldminex has an experienced team with proven Papua New Guinea exploration and logistic capabilities.

Further information, please visit www.goldminex.com.au

#### About Vale

Vale is one of the largest metals and mining companies and publicly traded companies in the world. Vale is the world's largest producer of iron ore and iron ore pellets and the world's second largest producer of nickel. Vale also produces manganese, ferroalloys, thermal and coking coal, copper, cobalt, platinum group metals, and fertilizer nutrients.

Vale's main goal is to maximize shareholder value. We are best positioned to benefit from the strong long-term fundamentals of minerals and metals, given our world-class, long-life and low cost assets, a wealthy of growth options in various segments of the metals and mining industry supplied by an exciting project pipeline and a global multi-commodity mineral exploration program, a long and successful track record in project development, discipline in capital allocation and financial strength.

For further information, please visit www.vale.com