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JUNE 2012 QUARTERLY REPORT

Highlights

BRYAH BASIN COPPER PROJECT

- Additional copper-gold targets identified through interpretation of exploration data across project area, including VTEM anomalies within prospective Narracoota volcanics (host to DeGrussa copper-gold deposit)
- EIS grant awarded to drill test priority VTEM anomalies identified within acquired tenements
- Mapping of priority areas across under-explored Grosvenor tenements continued using geophysical and geochemical data with over 1,500 multielement surface samples collected for assay
- Multi-element (copper, lead, zinc, arsenic, antimony, bismuth and/or molybdenum) anomalism returned in rock-chip samples from prospective Narracoota sequence
- Targeted drill testing completed of priority AMT anomalies at East Magnus - base metal anomalism associated with disseminated sulfides intersected in three drill holes. Down-hole EM surveys interpret a conductor at depth below priority anomaly

GASCOYNE GOLD PROJECT

Continuity of gold mineralisation at Central Bore prospect confirmed from RC drilling program – best intersections of 3 metres at 10.27 g/t gold and 9 metres at 4.01 g/t gold

CORPORATE

\$4.0 million cash at hand at 30 June 2012

Bryah Basin Copper Project

Alchemy is focussed on unlocking the copper-gold potential of its Bryah Basin Copper Project, located 130km NE of Meekatharra, Western Australia (Figure 1), which covers over 45km strike length of volcanic and sedimentary rocks in the highly-prospective Bryah Basin and is along strike and to the west of Sandfire Resources' DeGrussa deposit (Measured, Indicated and Inferred Resources of 14.33Mt at 4.6% Cu and 1.6g/t Au). Alchemy is undertaking systematic exploration for base and precious metals mineralisation across the project through employing innovative geophysical and geochemical methods in conjunction with drill testing of priority targets.

Since Alchemy finalised a series of agreements with Grosvenor Gold Pty Ltd ("Grosvenor") in March 2012 that substantially increased its landholding in the Bryah Basin, the Company has been focused on the generation of quality data sets over this increased landholding. Results to date support the view that the expanded Bryah Basin Project has multiple prospective exploration opportunities that will sustain and justify long term exploration efforts at the project. Jackson Minerals Pty Ltd retains a 20% interest free-carried to decision to mine in some of the tenements acquired from Grosvenor.

Exploration activities over this period comprised:

- geological mapping;
- geochemical sampling;
- detailed ground geophysical surveys;

interpretation of versatile time electromagnetic (VTEM) and audio-magnetotelluric (AMT) surveys; and down-hole electromagnetic surveys (DHEM).



Figure 1: Bryah Basin Copper Project – Alchemy tenements on Narracoota Volcanics.

In addition to these exploration activities, a targeted drilling program has been undertaken to test priority targets that were delineated from the innovative AMT geophysical survey undertaken in late 2011. The drilling program was also undertaken to provide critical stratigraphic and structural information that is necessary for exploring for base metal deposits.

Review and interpretation of geophysics

Over the reporting period, a comprehensive review and interpretation of all available data was commenced by Southern Geoscience Consultants to identify further targets and re-evaluate the lower priority targets. This involved reprocessing the VTEM and magnetic data from the survey acquired by Alchemy in late 2009 as well as VTEM and magnetic surveys undertaken on the Grosvenor tenements in late 2010 and late 2011.

Interpretation of the 'Magnus' area is complete with over 30 additional geophysical targets identified across the survey area. The interpretation used the survey profile data with reference to channel and time constant images. Conductors were compared to images of the magnetic data as well as with reference to the geological interpretation across the project area. The targets are currently being ranked for follow up exploration based on the geophysical, geological and geochemical character of the target.

Delineated conductors are being targeted if they (i) have a moderate-high conductance similar to that of the DeGrussa orebody, (ii) appear to be discrete and not stratigraphic (i.e., <1500m), and (iii) are unlikely to be due to edge effects from currents in the regolith or paleochannels.

Follow up exploration in the September quarter will be target specific. The higher priority targets will be followed up with further ground-based geophysical surveys, such as moving loop EM (MLEM) and fixed loop EM (FLEM), to test late-time VTEM targets. Moving loop EM and/or FLEM traverses over these targets could confirm the presence of bedrock conductors, and better define targets for drill testing.

Aircore drilling to test other targets is scheduled to commence in September subject to receiving the necessary statutory approvals. The data collected from the aircore drilling will be critical to the ongoing development of the detailed project geology as well as providing important geochemical data that can then be further targeted with follow-up ground geophysics and/or RC drilling.

Geological and geochemical investigations

Field mapping continued over priority areas on the acquired tenements bordering and to the south of the Horseshoe Lights copper-gold mine (Figure 2) with gold and base-metal prospective horizons identified in the upper 800-1200 metres of the Narracoota volcanic sequence. These horizons, up to 7 kilometres in length and hosted by a complex mixture of felsic and mafic volcanic and related clastic and chemical sedimentary rocks, likely represent VMS-style mineralisation, based on their polymetallic character, stratiform geometry, host rock characteristics and alteration styles.

Rock-chip samples of selected ferruginous gossan material and a variety of lithologies with intensive carbonatesericite-sulfidic alteration have been collected from the prospective sequence across the Bryah Basin project area. Assays from the rock-chip samples returned to date indicate variable base metal and pathfinder anomalism, including samples with anomalous copper (Cu), lead (Pb), zinc (Zn), cobalt (Co), gold (Au), silver (Ag), arsenic (As), antimony (Sb), bismuth (Bi), tellurium (Te) or molybdenum (Mo), as well as anomalous barium (Ba) and manganese (Mn). Peak values to date include 1170 ppm Cu, 1220 ppm Pb, 456 ppm Zn, 1030 ppm Co, 994 ppm As, 15.5 ppm Sb, 17.8 ppm Mo, 5220 ppm Ba and 7.68% Mn. The base metal and pathfinder element assemblage identified in the rock-chip samples closely matches the multielement (Cu, Pb, Au, Ag, As, Sb, Bi, Mo and Te) anomalism associated with the DeGrussa deposit. These results are encouraging and the anomalous areas may represent high-order targets that require further assessment.

In addition, samples of the drill spoils from historic RAB and aircore drilling have been collected from across the Bryah Basin project area. For the majority of historic drill holes previous explorers only assayed for gold and bottom-of-hole samples collected by Alchemy are being assayed for base metal and pathfinder elements to assist in the recognition of geochemical anomalies that may represent the presence of base metal mineralisation. The assay results are expected in August.

During the reporting period the Company collected over 1500 surface samples for multi-element geochemistry, including base metal and pathfinder elements, over the parts of the recently acquired tenements containing prospective Narracoota stratigraphy, to complement the historic gold-focussed geochemical database. The assay results from this work, which are expected in August, will assist in the delineation of areas of base metal, gold and pathfinder anomalism as well as provide an important input into the ranking of the geophysical targets.

Drill testing of AMT anomalies

A combination of RC and diamond drill testing of three targets generated from the audio-magnetotelluric (AMT) survey over the East Magnus project area was completed in April 2012. The AMT survey completed in November 2011 indicated a number of anomalies at depth within the Narracoota volcanic sequence that may represent massive sulfide targets. The drill testing of the AMT anomalies forms part of Alchemy's R&D plan to develop effective exploration methods for both geological mapping purposes and to detect discrete conductors not detected or resolved by previous geophysical surveys.

Base metal anomalism was intersected in three of the five holes drilled. The best result of 1 metre @ 0.58% Cu from 131 metres was returned in the RC pre-collar of MGDD005, within a broader intersection of 5 metres @ 0.17% Cu from 127 metres in a distinct chloritic shear zone within an altered quartz dolerite of the Narracoota Formation. The zone also contained 2 metres @ 0.17% Zn from 130 metres. A broader zone of copper anomalism (15 metres @ 385 ppm Cu from 169 metres) associated with weakly disseminated sulfides was intersected further down-hole. Although drill testing of targets to date has not intersected massive sulfide, the intersected disseminated copper-sulfide mineralisation confirms the presence of prospective base metal horizons.

Weak copper-zinc anomalism was also returned from two drill holes (MGDD003C and MGDD004) that tested a single AMT anomaly in the northwest part of the AMT survey area. The anomalism is associated with zones of disseminated sulfides (pyrite, chalcopyrite, pyrrhotite) within altered mafic clastic sedimentary rocks and the quartz dolerite part of a differentiated mafic intrusion.

The localisation of the base metal anomalism within, and at the contact of, altered differentiated dolerites with either mafic clastic sedimentary or volcanic rocks is similar to position of base metal mineralisation elsewhere in the Bryah Basin. For comparison, base metal mineralisation is localised at contacts between dolerite and mafic volcanic-sedimentary rocks at DeGrussa, dolerite and sedimentary rocks at Red Bore and mafic sediment and felsic schist at Horseshoe Lights.

Down-hole EM (DHEM) surveys of the five drill holes were completed in April to delineate conductors that may be related to massive copper-gold sulfides along strike and down dip from the base metal anomalous zones. A DHEM anomaly at 130 metres in MGDD005 represents a small in-hole conductor and correlates with the best result of 1 metre @ 0.58% Cu intersected in that drill hole.

Two drill holes (MGDD003C and MGDD004) returned weakly anomalous DHEM responses, with a gradual increase in response with depth, which may indicate a conductor at depth off the end of these holes. The weak DHEM anomalies have been modelled and correlate with the anomalies delineated from inversion of the AMT data. The off-hole anomaly modelled in MGDD003C is located approximately 140 metres off the end of the hole at 430 metres depth. Further interpretation of these anomalies is required before drill testing of the off-hole anomaly modelled in MGDD003C is located.

The cause of the AMT anomalies was not fully determined by the drilling. The absence of significant DHEM responses suggests that the AMT anomalies may be due to disseminated sulfides rather than massive sulfides. Alternatively, elevated conductivity in regolith associated with hydrated rocks may have caused the AMT response.

EIS Grant to drill test VTEM anomalies

Alchemy has been awarded a \$120,000 grant through the WA Governments' Exploration Incentive Scheme (reported in ASX announcement dated 8 June 2012) to support a targeted drilling program at its Bryah Basin Copper Project (Figure 2). The grant will be used to investigate untested VTEM anomalies within the prospective Narracoota volcanic sequence and Peak Hill Schist on tenements acquired from Grosvenor.

The drill targets were identified during ongoing review of Grosvenor's exploration and geological database. The priority targets were delineated from interpretation of VTEM and preliminary MLEM surveys. The drilling programme is expected to commence in the September quarter, once necessary permits have been obtained.

Award of the competitive grant validates Alchemy's innovative and systematic approach to conducting its exploration at the Bryah Basin Copper project.



Figure 2. Bryah Basin Copper Project – prospective Narracoota stratigraphy and exploration activities in June quarter.

Gascoyne Gold Project

The Gascoyne Gold Project covers over 600km² within the highly-prospective Marymia Inlier and Bryah Basin, located 130km north-east of Meekatharra, Western Australia (Figure 1). The project comprises the Hermes and Wilgeena Gold Deposits and the Central Bore Prospect, and the acquired Grosvenor tenements represent a significant additional under-explored area prospective for gold mineralisation.

Indicated Mineral Resources at the Gascoyne Gold Project total 246,000oz of gold, contained at the Hermes and Wilgeena deposits. Alchemy has a goal of increasing its gold resources whilst continually evaluating opportunities to commercialise these assets.

Central Bore Gold Prospect

Results were received from the reverse circulation (RC) drilling program at the Central Bore Prospect (Figure 1), located 13 kilometres to the south-east of the Hermes gold deposit, completed in April 2012 (reported in ASX announcement dated 5 July 2012).

The in-fill and step-out RC drilling program consisting of 19 holes for 2,030 metres was designed to test the continuity of mineralisation intersected by initial RC and diamond drilling in 2010 and 2011. The drilling program targeted down plunge positions interpreted following structural studies of drill core that resulted in an improved understanding of controls on mineralisation with the drilling results confirming the orientation and dip of the mineralised structures.

Assay results of 1m samples delineate significant intervals of gold mineralisation (Figure 3; applying 0.4 g/t lower cut-off and maximum 2 metres of internal dilution), and include best intersections of:

CBRC035	14 metres at 1.94 g/t gold from 44 metres
	13 metres at 1.41 g/t gold from 80 metres
CBRC038	3 metres at 10.27 g/t gold from 123 metres
CBRC041	10 metres at 1.09 g/t gold from 100 metres
	3 metres at 7.00 g/t gold from 117 metres
CBRC045	9 metres at 4.01 g/t gold from 140 metres

The drilling confirms and extends previously reported drilling results (Figure 3; see ASX announcements dated 10 December 2010 and 15 July 2011) that included:

CBDD002	4 metres at 25.79 g/t gold from 125 metres
	1 metre at 12.15 g/t gold from 222 metres
CBRC004	9 metres at 5.86 g/t gold from 35 metres
	9 metres at 3.79 g/t gold from 49 metres
CBRC005	20 metres at 1.99 g/t gold from 32 metres
	2 metres at 10.64 g/t gold from 80 metres
	4 metres at 5.35 g/t gold from 86 metres
CBRC011	8 metres at 2.48 g/t gold from 61 metres
	15 metres at 1.90 g/t gold from 96 metres
	3 metres at 3.80 g/t gold from 80 metres, and
CBRC018	16 metres at 2.48 g/t gold from 86 metres

The gold mineralisation is in high grade (>10g/t) zones within a broad (40-60 metre thick) lower grade gold envelope, associated with a series of northeast-trending veins and structures. The hanging-wall of the mineralisation zone appears to be bounded by the contact between silicified granitic rocks and overlying sedimentary rocks of the Karalundi Formation or Peak Hill Schist.

The silicified granitic rocks form a topographic basement or bedrock high at the interpreted contact between a granite pluton and sedimentary rocks. The interpreted silicified zone (up to one kilometre in length) may be the result of significant hydrothermal alteration.

Gold mineralisation at Central Bore remains open along strike to the southwest and northeast as well as at depth. There is also potential for additional stacked zones of gold mineralisation as indicated in diamond hole CBDD002 In which additional high-grade mineralisation (1m @ 12.15 g/t gold) was returned from 222 metres down hole.

The results are very encouraging and a follow-up drill program is being designed to test the along strike and down-dip extent of the gold mineralisation.

Aircore drill testing of gold targets to the west of Central Bore in 2011 delineated several areas that required further evaluation. Three RC drill holes at one of these areas about 1 kilometre to the west of Central Bore returned encouraging results (reported in ASX announcement dated 5 July 2012), including:

CBRC054

1 metre at 12.75 g/t gold from 62 metres, and
2 metres at 2.52 g/t gold from 77 metres



Figure 3: Central Bore Gold Prospect – Results from RC drilling (applying 0.40g/t cut-off and 2m internal dilution) as well as selected results from previous RC and diamond drilling.

Hermes and Wilgeena Gold Deposits

The re-estimation of JORC compliant resources at the Hermes and Wilgeena gold deposits is scheduled to be completed in the September quarter following the completion of extensional and in-fill RC drilling programs at both deposits in 2011 and 2012.

The results from the drilling programs (reported in ASX announcements dated 28 January 2011, 22 August 2011 and 27 April 2012) indicate that mineralisation is open at depth at both the Hermes and Wilgeena deposits and further drilling has good potential to add to the known resource and expand the area of gold mineralisation outside of the current Indicated Resource.

Metallurgical test work undertaken on oxide core material from the Hawkeye and Trapper resource areas at Hermes and three resource areas at Wilgeena indicates that the ore is amenable to treatment in a conventional crush, grind and CIL plant with good recoveries across all size fractions.

At both Hermes and Wilgeena, a high proportion of gold is contained in the coarse fraction. Gravity test work indicates that a large percentage (40-60%) of the free gold could be recovered by gravity concentration. No technical issues were identified that would result in a poor recovery or extenuating cost issues.

Regional assessment

Regional assessment of the Gascoyne Gold project continued in the June quarter. Historic gold exploration of the ground acquired from Grosvenor is limited, with best results returned from the Henry-Border and Jones prospects, to the south of the Hermes deposit, within the Peak Hill Schist. Previous drilling has intersected high grade gold mineralisation at the Jones prospect, including 3 metres @ 250 g/t gold from 27 metres in OPAC126 and 3 metres @ 41 g/t gold from 36 metres in OPAC246.

The Henry-Border prospect covers a 3 kilometre strike length geochemical anomaly along a major structure at the contact between metasedimentary and mafic volcanic rocks of the Peak Hill Schist. Previous drilling in the 1990's intersected gold mineralisation including 6m @ 3.5g/t Au from 20m in HBRC15. Diamond drilling in 1995 at the Henry-Border prospect by North Mining returned anomalous results of 1m @ 1.18 g/t Au, 1m @ 1.04g/t Au and 1m @ 1.45 g/t Au and recommended further drill testing of the prospect.

A review of previous drilling results also indicates base metal anomalism associated with mafic schists in the Henry-Border prospect area. Results include 7m @ 0.2% Cu from 22m and 7m @ 0.15% Cu from 47m in OPR194 and 4m @ 0.25 Cu from 19m in OPR195. Further interpretation and follow-up exploration will be undertaken in the second half of 2012.

A limited aircore drilling program conducted on parts of the acquired tenements by the previous owner, Grosvenor, in December 2011 and February 2012, tested structural targets for gold mineralisation within the Peak Hill Schist to the east and south of the Peak Hill gold deposits. Results of assays for 3 metre-composite samples have been received and do not delineate areas of significant gold anomalism. The results are being incorporated into the ongoing regional assessment of the project area.

Murchison Projects

Assessment of the Company's Murchison tenements continued with evaluation of the Jeffery Well, Wydgee, Ninden Hill, Gidgee South and Pollele projects. Jindalee Resources Limited ("Jindalee") is a 20% JV partner in a number of Alchemy's Murchison Projects. Jindalee's interest is noted where relevant.

Exploration results to date show that the Murchison District is prospective for not only large lode gold systems but also for narrow high grade gold systems, similar to the gold mineralisation identified north of Meekatharra at Andy Well by Doray Minerals Limited. In addition, re-assessment of the Wydgee and Ninden Hill projects (Alchemy 80%; Jindalee 20%) in 2011, in combination with discovery of base metal mineralisation by Silver Lake Resources at Eelya, Silver Swan Group at Austin and Reed Resources at Chunderloo, indicates that the northern Murchison district hosts volcanic sequences with significant base metal potential.

Aircore drilling programs at Jeffery Well (Alchemy 80%, Jindalee 20%) and Gidgee South (Alchemy 100%) in 2010 and 2011 delineated zones of gold anomalism localised in a structural corridor at the regional lithological contact between basalts and felsic-intermediate volcaniclastics. Planning of in-fill aircore and targeted RC drilling that will test the most prospective parts of the gold anomalous zone at Jeffery Well for internal structures hosting highgrade vein mineralisation is in progress. The Jeffery Well and Gidgee South prospect areas were initially targeted based on regional fault flexures identified from Alchemy's 3D Murchison GOCAD model, which may represent the northern continuation of the highly-mineralised Big Bell – Meekatharra shear zone, which hosts the Big Bell gold deposit (3.9 Moz).

Corporate

At 30 June 2012, the Company had \$4.0 million in cash to fund the Company's highly focussed exploration program for DeGrussa-style deposits on its expanded Bryah Basin landholding.

On-going review during 2012 has led to a significant reduction in administration costs, allowing for these funds to be redirected towards the Company's exploration programs.

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The information in this report that relates to Exploration Results is based on information compiled by Dr Kevin Cassidy, who is a Fellow of the Australian Institute of Geoscientists and is a fulltime employee of Alchemy Resources Limited. Dr Cassidy has sufficient experience that is relevant to the style of mineralisation, 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 Resource and Ore Reserves'. Dr Cassidy consents to the inclusion in this 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 Mineral Resources at the Hermes Gold Deposit and Wilgeena Gold Deposit is based on information compiled by Mr Simon Coxhell of Coxsrocks Pty Ltd, who is a Member of the Australian Institute of Geoscientists and a Member of the Australasian Institute of Mining and Metallurgy and is a consultant to Alchemy Resources Limited. Mr Coxhell has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity that 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 Resource and Ore Reserves'. Mr Coxhell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.