

EXPLORATION AND NEW DEVELOPMENTS

Minerals

Aussie Q Resources Ltd has completed three reverse circulation (RC) drill holes about 500 m south of its [Whitewash](#) project near Monto. Disseminated molybdenum within altered granodiorite has been intersected in two holes, potentially extending the strike length of the Whitewash deposit to 1.9 km. Significant intercepts include 30 m grading 754 ppm molybdenum, 0.20% copper and 2.4g/t silver from 114 m depth (hole 09WW090) and 39 m grading 232 ppm molybdenum, 0.23% copper and 2.6g/t silver from 30 m (hole 09WW091).

A 1500 m RC drilling program commenced during the quarter at the [Bucket Mountain](#) porphyry prospect located about 45 km north west of Eidsvold. Geological mapping and geochemical prospecting have identified two areas of molybdenum mineralisation within the upper portion (carapace) of a large porphyry intrusive system.

Belridge Enterprises Ltd acquired the [Goondicum](#) industrial minerals mine project in May 2009 and has completed a Feasibility Study aimed at redeveloping the mine site. Some 3000 m of RC drilling has been undertaken which has defined additional alluvial resources. The mine redevelopment plan will involve doubling the ore feed rate to 3.5 Mtpa through a redesigned feed preparation area and processing plant. The primary issue now facing the project is the negotiation of an economic means of transportation of the product to Gladstone Port. Transport negotiations are currently in progress with Queensland Rail and the Queensland State Government.

Cement Australia has lodged an Initial Advice Statement and Draft Terms of Reference for an EIS relating to an extension of the [East End](#) limestone mine (East End No.5 Mine Project). A Mining Lease (ML 80156) application has been lodged over an estimated Inferred limestone resource of 80 Mt, adjacent to the existing open cut. The same open cut mining methods currently used at the mine will be used on the new lease. It is anticipated that mining would commence in the south east extension area by 2014.

Drummond Gold Ltd has completed four diamond drill holes beneath the [Yandan](#) East Hill Pit to determine continuity of an east-west trending zone of gold mineralisation. Assays results have confirmed the lower grade east-west zone (13 m grading 5.9g/t from 302 m in hole EHRCD003 and 12.3 m grading 2.3g/t from 308 m in hole EHRCD006). The holes also intersected a separate set of higher grade, narrow laminated quartz veins (1.9 m grading 48.1g/t from 290 m; hole EHRCD003 and 2 m grading 15.5g/t from 215 m; hole EHRCD001) at a high angle to the drill core.

An eight hole RC drilling program has been completed at the [Illamahta](#) gold prospect about 12 km south of Yandan. The drilling intersected narrow quartz and quartz-carbonate veining within andesitic volcanics with no significant gold mineralisation. An independent review of resource models for the Mount Coolon and Glen Eva gold deposits was completed during the quarter. The updated resource estimate for [Mount Coolon \(Koala\)](#) is 604,276 t grading 3.46g/t gold for 67,180 ozs (includes Measured, Indicated and Inferred categories). The new

Indicated and Inferred resources estimate for [Glen Eva](#) is 153,598 t grading 7.53g/t gold for 37,190 ozs.

Gladstone Pacific Nickel Ltd (GPN) has executed a Memorandum of Understanding for the development of a heap leach project at the [Marlborough](#) nickel-cobalt deposit with China Tianchen Engineering Corp (TCC). GPN believes that there is sufficient ore resource at Marlborough for it to supply 100% of the feed for a standalone heap leach operation in addition to providing partial feed to the Company's proposed high pressure acid leach plant at Gladstone. The heap leach project has the potential to provide up to 24,600 tpa of contained nickel and 1700 tpa of contained cobalt in intermediate product. TCC will undertake an engineering study and is prepared to provide a commercial offer for the turn key construction of the heap leach project.

Krucible Metals Ltd have commenced a shallow percussion and air core drilling program over selected targets within the [Toomba](#) copper-gold project (EPM 15367) located about 160 km northwest of Bedourie. Visible secondary copper mineralisation has been observed in five of the nine completed holes at the Champ copper-gold prospect. The mineralisation is associated with quartz, sericite and haematite altered metasediments adjacent to granitic dyke intrusions. The best intersection to date assayed 27 m grading 0.40% copper from 9 m depth, including 3 m grading 2.4% copper from hole 09TMRC29.

Underground drilling at the [Cracow](#) gold mine (**Newcrest Mining Ltd**) targeting depth extensions to the northern Kilkenny shoot intersected a wide zone of gold mineralisation totalling 14 m (true width) grading 4.1g/t gold including 2.6 m grading 9.2g/t (hole K KU002). This intersection will be followed up with additional drilling with the aim of increasing the Kilkenny resource.

An initial resource drilling program for the [Anthony](#) molybdenum project by **Zamia Gold Ltd** is expected to commence in November 2009. Twelve partially cored holes down to 300 m and two partially cored holes to 500 m will be targeting the high grade (0.1% Mo) core zone of the deposit. If the drilling successfully defines an initial Inferred resource, Zamia Gold intends to raise additional funds to complete a Pre-Feasibility Study on the deposit, including more extensive drilling and metallurgical test-work.

Coal

Aquila Resources Ltd and **Vale Australia Ltd** have released results of a Feasibility Study on the [Eagle Downs](#) underground coal project that confirm technical and financial viability of the mining project. The JV partners are looking at a multi-seam longwall mine initially producing 4 Mtpa of hard coking coal product from a single longwall, with first development coal to be mined in 2012 and up to 8 Mtpa once the second longwall unit is installed in 2020. The estimated capital cost for single longwall operation is about \$977 million.

A maiden Coal Reserve estimate of 159 Mt (with 99 Mt Proven and 60 Mt Probable) has also been announced for the project within the Harrow Creek Upper and Harrow Creek Lower coal seams. Measured and Indicated Coal Resources have increased by 30% to 450 Mt. Total Coal Resources based on five coal seams are now estimated at 883 Mt.

Aquila Resources Ltd and **Vale Australia Ltd** continued to work on Pre-Feasibility studies at the [Belvedere](#) coal project. Some 73 drill holes, 38 km² of 3D seismic and 100 line

kilometres of 2D seismic were completed during the quarter. Hansen Bailey has been appointed to undertake the Environmental Impact Study.

Aquila Resources Ltd has completed 44 drill holes, including seven cored holes and 17 line of oxidation (LOX) holes at the [Washpool](#) coal project, near Blackwater. Sinclair Knight Merz has been appointed to undertake the Environmental Impact Study and the Surface Infrastructure Study. The project Feasibility Study is due in the first quarter of 2010.

Bandanna Energy Ltd has commenced a Mining Concept Study for developing its [Arcturus](#) open cut thermal coal project. The concept study is expected to be completed in the December quarter and will look at a range of development scenarios and potential product specifications. Six cored holes and eight open holes together totaling 1484 m were completed during the quarter to delineate shallow coal resources. Three open holes and three cored holes were also completed at [Dingo West](#) (EPC 881) during the quarter.

Bowen Energy Ltd has completed three partially cored holes (totalling 1400 m) and two open holes (totalling 827 m) at the [Katrina](#) (formerly Shotover) coal prospect located about 50 km northeast of Rolleston. The final hole (09KTDH06) for the 2009 eleven borehole drilling program is in progress. Drilling has defined two coal seams with shale partings that vary from 0.9 to 2.5 m in gross thickness and lie between 370 and 520 m depth. Coal quality analytical results are expected during the December quarter.

Caledon Resources PLC has lodged a Mineral Development Licence (MDL 424) application for the [Minyango](#) underground coal project. Coal quality results from an infill drilling program were received during the quarter. Coke oven testing of samples from the Pollux and Aries seams gave encouraging (77-77.5%) coking yields and coke strength indications. Baseline ecological studies for the project EIS will commence in the December quarter. The company is targeting up to 4.5 Mt of run-of-mine (ROM) production per annum using one or two mini longwalls (50-70 m wide face) with continuous haulage roadway development systems.

During the June quarter, **Cockatoo Coal Ltd** completed 99 open drill holes at the [Baralaba](#) coal mine and 25 open drill holes and five cored holes at [Baralaba North](#). As a result of this recent drilling, the geological resource area is now linked between the Baralaba mine, MLA 80157, MDL 184 and the Baralaba North project that contains an Indicated Coal Resource of 15.6 Mt. The company has lodged a Mineral Development Licence (MDL 416) application for the Baralaba North open cut coal project. Conceptual development and mine planning has now commenced within MDLA 416, on the basis of the encouraging drilling results.

A data review and resource modeling by **Cockatoo Coal Ltd** has resulted in a 29% increase in the coal resources at the [Wonbindi](#) coal project. A new Inferred Resource of 43.6 Mt has been estimated to a depth of 175 m and is based on 353 previously drilled boreholes. The deposit has a stripping ratio of 11.8:1 and remains open to the northwest and southeast.

Cockatoo Coal Ltd and **Aston Resources Group** have completed 166 open drill holes totaling 32,048 m over six key coal areas within the [Dingo](#) coal project. Four drill rigs are currently operating over three Exploration Permits (EPC's 1063, 862 and 863). The Phase 1 drilling has produced cumulative down-hole coal intercepts of up to 29.6 m with average intercepts of 8.4 m. New geological information from the drilling will provide confidence in

the geological continuity of the producing Rangal Coal Measures over a substantial strike length. Coal quality drilling is scheduled to commence during the December quarter.

East Energy Resources Ltd has completed a wide (4 km) spaced, 16 hole first pass drilling program within EPC 1066 near [Capella](#). The 100 to 150 m deep exploration holes failed to intersect any coal seams. The company has decided that no further exploration will be undertaken and to relinquish the tenement.

Ensham Resources Ltd has submitted a supplementary EIS report to the state government revising its mining methodology for the [Ensham](#) Central Expansion Project. The key change to the plan is to access the coal beneath the central floodplain north of the Nogoia River through underground mining instead of open cut mining. Using a combination of bord and pillar and longwall mining will avoid disturbance in the anabranch of the Nogoia River and the need to construct an additional 12 km of levee banks. The new \$140 million bord and pillar operation will produce 1.7 Mtpa of thermal coal product by 2012.

Hancock Coal Ltd has lodged an Initial Advice Statement for the [Kevin's Corner](#) coal project located about 60 km north northwest of Alpha. The \$9 billion project will involve open cut and underground (using four longwall units) mining producing up to 30 Mtpa of export thermal coal product. A resource delineation drilling program underway at Kevin's Corner aims to increase total coal resources to 2500 Mt from the current estimate of 1450 Mt. The mine will require an operational workforce of 1500-2000 and has an expected mine life in excess of 30 years.

New Hope Corporation Ltd has completed 33 line kilometres of 2D seismic at the [Lenton](#) coal project about 52 km north of Moranbah. The results have confirmed the location and nature of structural features and the continuity of prospective coal resources further to the north and north-west of ML 70337. Initial drilling is confirming the seismic results and further confirmation drilling is planned along the survey lines. A total of 1934 m of drilling was completed during the quarter.

Petroleum and coal seam gas

During the quarter **Arrow Energy Ltd** has focused its Bowen Basin activities in the [Wards Well](#) area about 40 km north of Moranbah. Favourable results were obtained from the drilling, which targeted both the Moranbah and Fort Cooper coal measures. This work, supported by current pilot well drilling and testing, should allow for significant extension of gas reserves north of the Moranbah CSG Field. Arrow Energy plans to complete 46 pilots (comprising 162 holes), 44 cored holes, 52 stratigraphic holes and 200 line kilometres of seismic surveys within their Bowen Basin tenements (mainly northern areas) during the next 18 months.

Bow Energy Ltd has announced a certified 3P gas Reserves of 559 PJ within the Rangal Coal Measures at the [Blackwater CSG Field](#) (ATP 1025) and has completed the initial seven cored wells program over the Field during the quarter. The drilling indicates an average total thickness of 23 m of gassy coal seams across the Blackwater Field and high gas contents from 8 to 21 m³/t (Dry Ash Free) over the Rangal and Fort Cooper coal measures from depths between 117 and 585 m. An initial nine well 2P drilling program will be carried out within the shallow central western area of the field where Drill Stem Tests (DSTs) confirmed multiple permeable coal zones in wells BW-3 and BW-4.

Bow Energy also completed an initial exploration drilling program (three cored holes; CM-1, 2 and 3) over the [Comet CSG Prospect](#) during the quarter with results consistent to the Blackwater CSG Field. Technical results for this prospect are being prepared for consultants to assess early in 2010. A seven core hole program in the [Norwich Park CSG project](#) (ATP 1031), scheduled for November, is designed to delineate 3P reserves in multiple coal measures including the Moranbah, Rangal and Fort Cooper coal measures.

Blue Energy Ltd has commenced a six well drilling program within ATP 814 in the northern Bowen Basin. The three stratigraphic wells for the [Monslatt CSG prospect](#) are designed to establish the presence and thickness of the Permian aged Moranbah Coal Measures in the poorly explored eastern part of ATP 814. A further three wells will be drilled in the western part of ATP 814 ([Sapphire CSG prospect](#)) are designed to establish the presence and thickness of the Permian aged Moranbah, Rangal and Fort Cooper coal measures about 15 km east of the Moranbah CSG Field.

Blue Energy Ltd is planning ten cored CSG exploration wells for ATP 813 within the central [Galilee](#) Basin. The drilling program is designed to investigate coal distribution (Betts Creek and Aramac coal measures) across the 6185 km² exploration permit. The gas content and permeability data obtained from drill core samples will be used to target suitable pilot production well sites.

Stage one of the Glenaras production pilot at [Rodney Creek](#) CSG project (**AGL Energy Ltd** and **Eastern Corporation Ltd**) in the Galilee Basin progressed during the quarter with construction of the water holding facility. Two of the five pilot wells planned are already completed and will be fitted with down-hole pumps ready for testing. The remaining three wells will be completed and installed with pumps in time to commence a six-month test program in November.

Stage two of the AGL Energy / Galilee Energy JV within ATP 529 has been brought forward with AGL spudding the first ([Muttaborra-2](#)) of seven cored wells and commenced a 540 km 2D seismic survey. Galilee Energy has also completed a 150 km 2D seismic survey within its ATP 799, and expects to start drilling two cored wells (Dunrossie-1 and Dotswood-1) targeting the Betts Creek Coal Measures during the December quarter.

Comet Ridge Ltd is planning an eight well CSG drilling program for two recently granted exploration permits (ATP 743 and 744) in the eastern [Galilee](#) Basin. The two permits have a total combined area of about 13,000 km² with a potential gas-in-place estimate of 36 trillion cubic feet. It is expected that Atlas Rig 1 will move onto the first drilling location before mid-November.

Exoma Energy Ltd has become a substantial petroleum permit holder in the [Galilee](#) Basin after completing the acquisition of five exploration permits covering 26,840 km². The five ATPs (991, 996, 999, 1005 and 1008) were acquired from private company Longreach Number 2 Ltd and are adjacent to the Rodney Creek CSG project. The company will target development of coal seam gas in Permian (Betts Creek and Aramac) coal measures and shale gas in the Cretaceous Toolebuc Formation (Eromanga Basin).

During the quarter **Molopo Australia Ltd** achieved an interim production rate of one million cubic feet per day from its third multi-lateral trial development well, Mungi-20V in the [Mungi](#) CSG Field. Trial development drilling continued on Mungi-21 multi-lateral well

which will test production from coals at vertical depths in the range of 650 to 700 metres. Four of the six planned Mungi-21 laterals had been successfully drilled and lined by the end of the quarter.

Molopo plans to drill three cored exploration wells within the [Harcourt](#) North area and three cored exploration wells within the [Timmy](#) CSG field area during the March quarter 2010. The company is also planning a gas-fired power plant in Moura to be constructed in two stages, each with 30 MW capacities. The first stage is expected to be operational by mid 2011.

Dension Trough CSG Joint Venture partners **Santos Ltd** and **Origin Energy Ltd** have completed ten appraisal wells (Castle Hill-2, 3, 4, Sunnyholt-2, 3, 4, 5, Tarcoola Station-1, Lonesome South-1 and Hardenley-3) at the [Arcadia CSG Field](#) (ATP 653 and PL 234), two development wells at [Yebna North](#) (Yebna North-2 and 3) and one cored exploration well (Checkers-1) at [Comet Ridge CSG Field](#) (ATP 337) south southeast of Rolleston. **Origin Energy Ltd** has also completed two cored exploration CSG wells (Glue Pot Creek-1 and Pennycoed Creek-1) in the central [Galilee](#) Basin (ATP 667) targeting coal seams within the Betts Creek and Aramac coal measures.

Production testing of the Paranui-5R and 8 appraisal wells at the [Paranui](#) CSG project (**WestSide Corporation Ltd** and **QGC Ltd**) continued during quarter. Coal samples from the Paranui-10 core well drilled were desorbed and analysed, confirming gas contents and gas quality. Final results for the isotherms and saturation levels are expected in late November. WestSide plans to drill a new core well to the west of the Paranui pilot to assess the gas resource at depths greater than 1000 m, three new appraisal wells in the vicinity of Paranui-10 and another cored well. Two existing pilot wells will be stimulated or cavitated to increase production rates.

WestSide Corporation Ltd and QGC Ltd have also announced expansion plans for the [Tilbrook](#) CSG project (ATP 688), in the northern Bowen Basin. A new dual-lateral well (Tilbrook-9) will be drilled at the Tilbrook pilot, targeting commercial gas flow rates to underpin certification of 2P gas reserves at the pilot. The lateral well will consist of two exploration holes, two horizontal wells and a vertical production well. Production testing of the Tilbrook-8 dual-lateral well commenced in July and within three months gas was flowing at 340,000 cubic feet per day. Seismic data was acquired in October over 5 km and will be analysed to confirm the coal structure for horizontal drilling and pilot expansion.

11th November 2009

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