

27st January 2012

Quarterly Activities Report

For the period ended 31st December 2011

HIGHLIGHTS FOR THE QUARTER

BUSINESS DEVELOPMENT

- Heads of Agreement signed with BHPBilliton Olympic Dam Corporation Pty Ltd covering Archer's five West Roxby tenements.

EXPLORATION

- A total of 9 holes for 492 metres were drilled at the Campoona South and Grid 2 graphite prospects.
- Drilling confirms down dip extensions to the Campoona South outcrop with intercepts to 20% C.
- Drilling at Grid 2 whilst recording low graphite content revealed the presence of flake graphite when sieved over water with the graphite forming prominent surface films.

METALLURGY

- Test work continued on samples of Leigh Creek magnesite. Calcining flowing flotation has produced magnesia grading 95.4% MgO and 2.98% SiO₂. This result is very promising. Testing will continue to determine if further reductions in SiO₂ can be achieved through cyclosizing of the calcined product.
- Testing of graphite by independent expert mills continues. Samples of graphite have been despatched to Germany and China to verify the nature of the graphite present.

FINANCIAL

- Cash in bank on 31st December 2011 of \$1.739 million.
- \$343,000 spent on exploration during the quarter.

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Summary of the December 2011 Quarter Exploration Activities

Graphite Exploration

A total of 6 holes were drilled at Campoona South (see figure 1) to test the down dip extension of the graphitic outcrop previously sampled at the surface.

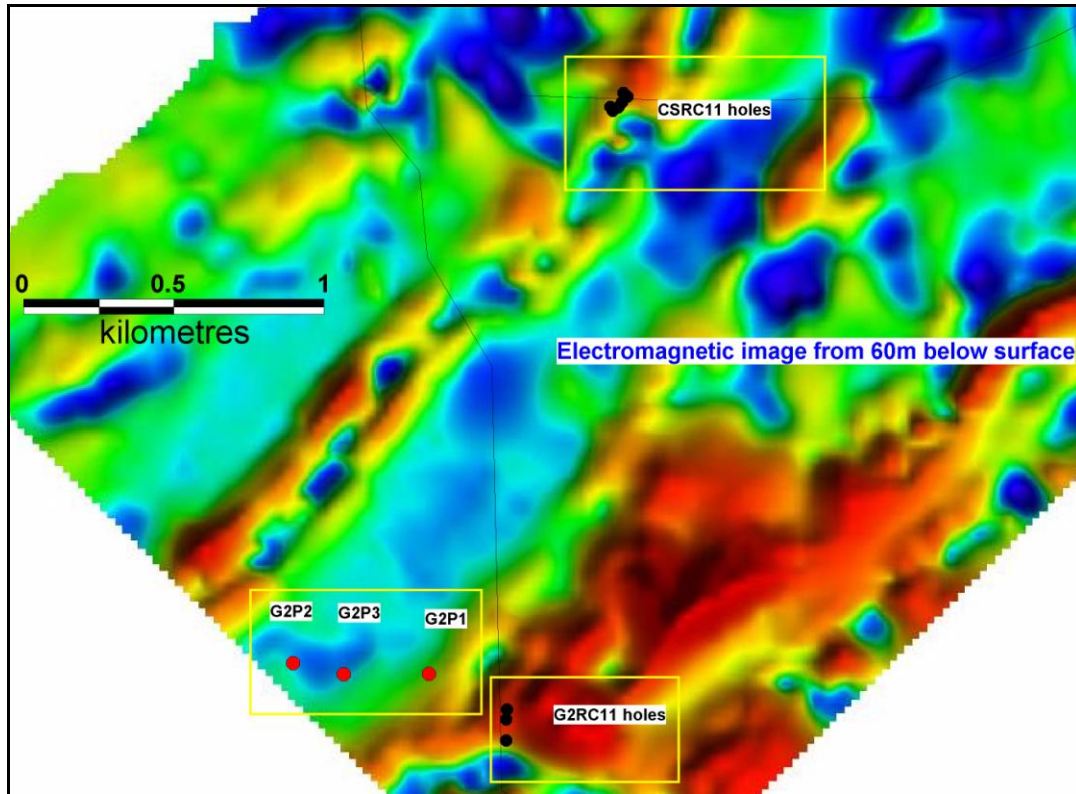


Figure 1. Location of drillholes at Campoona South (CSRC11) and Grid 2 (G2RC11) over electromagnetic image.

Campoona South

Significant results for the drilling at Campoona South are presented in table 1 below.

Hole ID	From	To	Interval (m)	Grade (%C)
CSRC11_001	1	10	9	9.26
incl.	5		2	17.9
CSRC11_002	0	8	8	5.17
incl.	5		2	13.57
CSRC11_004	9	19	10	6.00
CSRC11_005	10	18	8	9.55
incl.	14	17	3	14.15
CSRC11_006	36	40	4	10.00
incl.	39	40	1	20.6

Table 1. Significant results from Campoona South drilling

All holes were collared close to the outcrop and drilled perpendicularly into the outcrop itself, figure 2. Graphite was intersected in all holes drilled. An apparent second unit of graphite was observed in the drilling, with one hole ending in low C (graphite) material.

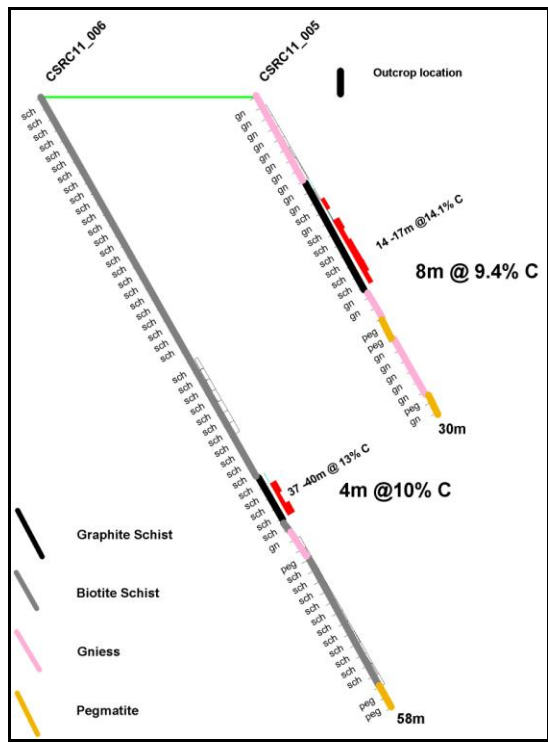


Figure 2. Drill section for holes CSRC11_005 and _006 with geology and carbon grades

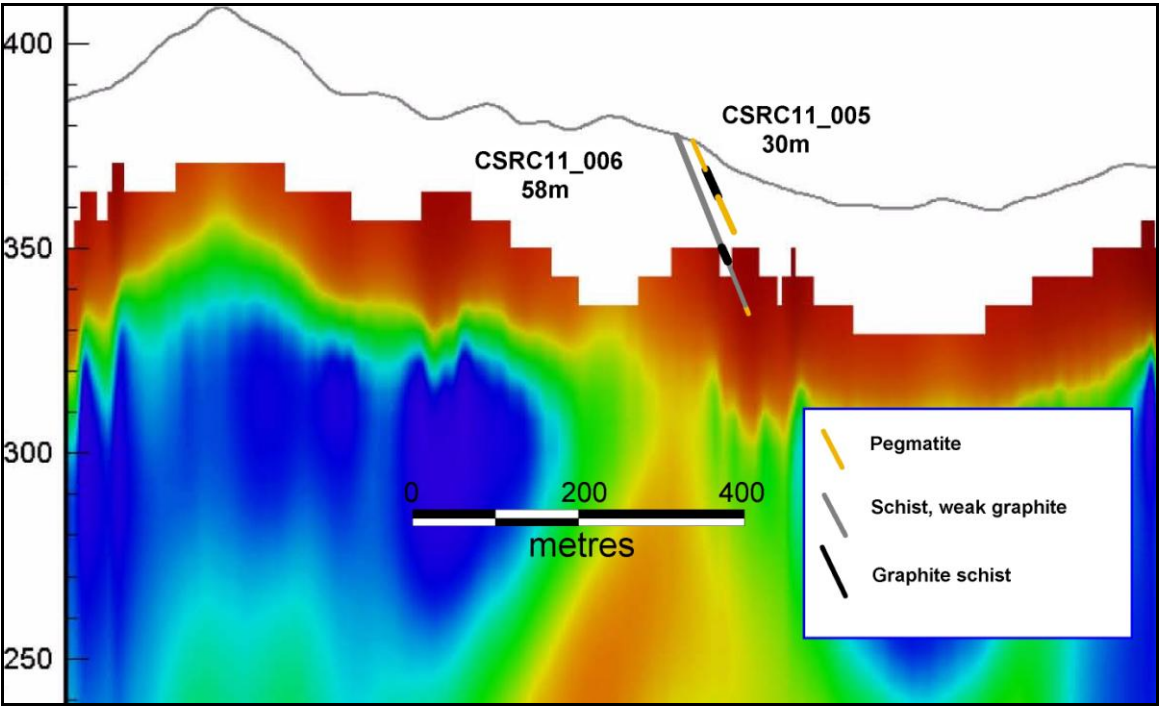


Figure 3. Drill section for holes CSRC11_005 and _006 with the corresponding EM section.

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Figure 3 above highlights the graphite potential for the Campoona prospect, as the current drilling has not penetrated the 'EM noise' generated in the weathered rock profile. This 'noise' is due to weathering of rocks and ground water which renders the electromagnetic data meaningless in the shallower parts of the prospect.

The drilling confirms that graphite extends from the surface. The drilling also confirms that EM clearly defines graphitic horizons and can be used to target other buried graphite targets.

Grid 2

Historic drilling at Grid 2 by Esso Exploration recorded downhole intervals of up to 25m of abundant graphite. The initial 3 holes could not be drilled in the same location as the historic ones due to the presence of an advanced canola crop. Archer received Council permission to drill 3 holes along a fire road peripheral to Grid 2 (figure 4). The aim of the drilling was to see if Grid 2 had the potential to provide flake graphite.

At best C percentages around 0.6% C were reported by the laboratory, with a few intervals reporting to 1.3% C. Although these numbers are low, the presence of graphite was confirmed over wide intervals.

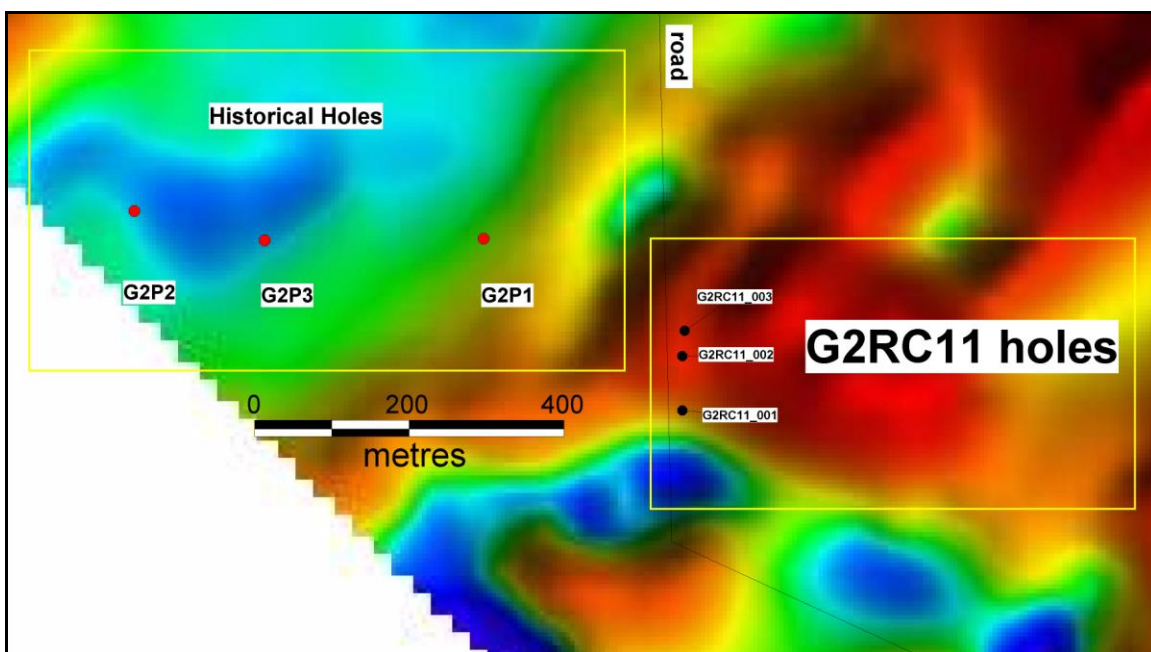


Figure 4. Plan location of holes drilled at Grid 2, showing location of historic holes.

Figure 5, below shows the graphitic intervals and host rocks in section, figure 6 shows hole G2RC11_001 with respect to the nearest oblique EM section.

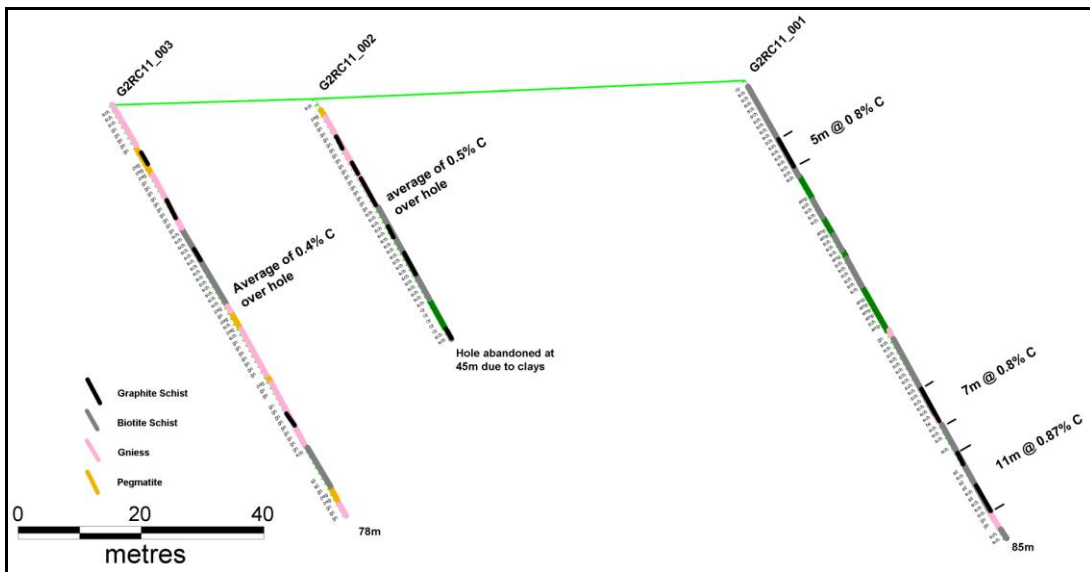


Figure 5. North-South Drill section for holes drilled at Grid, direction of view is North.

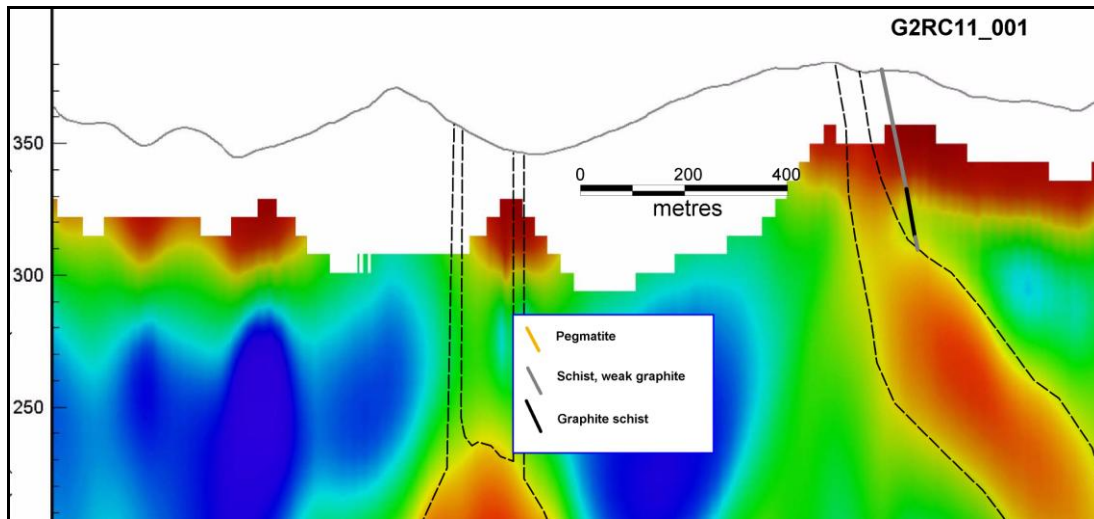


Figure 6. An East-West drill section for G2RC11_001 with the corresponding EM section

West Roxby Farm-In by BHPBilliton Olympic Dam Corporation Pty Ltd

A Heads of Agreement between Archer Exploration Limited (“Archer”) and BHPBilliton Olympic Dam Corporation Pty Ltd (“ODC”) covering the sale of an 80% legal and beneficial interest in Archer’s five West Roxby tenements was signed on 23rd December 2011.

The Tenements host a number of undrilled exploration targets including potential IOCG targets at Island Lagoon and Evelyn Dam, a potential Athabasca unconformity uranium target at Apollo and several skarn targets (Figure 7).

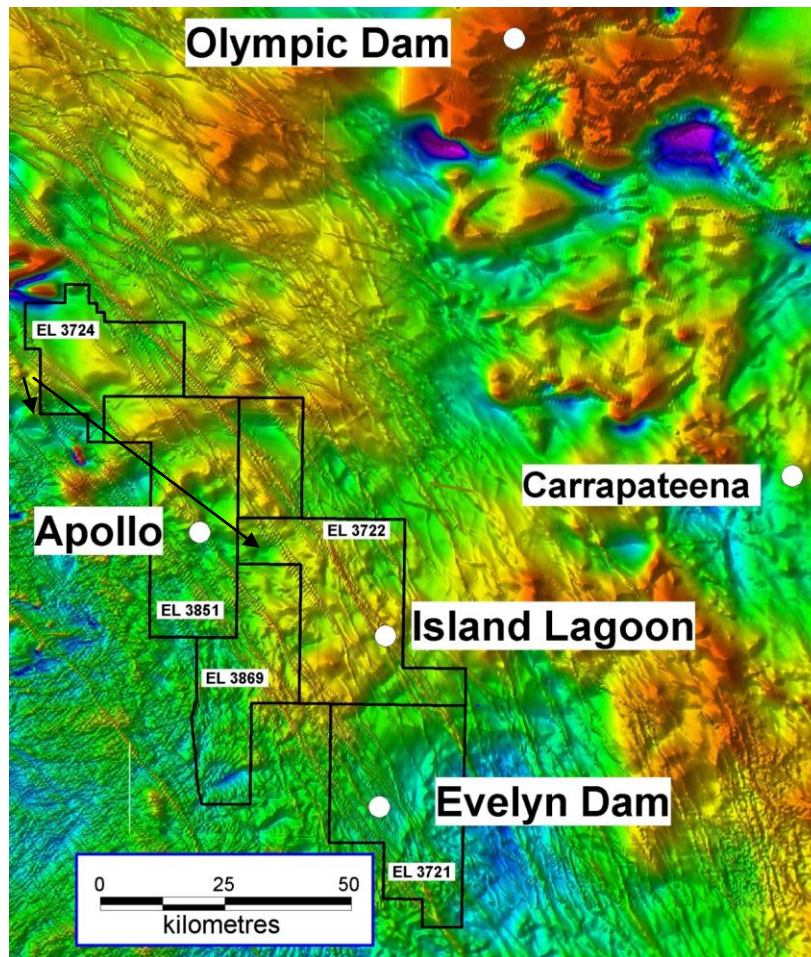


Figure 7. Magnetic image showing Archer's West Roxby Tenements in relation to major IOCG deposits.

The main terms of the Heads of Agreement signed between Archer Exploration Limited and BHP Billiton Olympic Dam Corporation Pty Ltd ("ODC") covering Archer's five West Roxby tenements are:

- ODC to acquire an 80% legal and beneficial interest in the five Tenements for a cash consideration of \$3 million.
- ODC to spend \$3 million on Exploration over a period of 3 years.
- ODC will sole fund the Project up to a maximum of \$50 million to a Decision to Mine is made, whichever is the first to occur.
- Archer and ODC agree to establish a Joint Venture to carry on exploration of the Project with ODC as Manager.
- Archer has the right to sell its participating interest at any stage before and on the Decision to Mine.
- Pre-emptive rights apply.
- Exclusivity has been agreed until 30th April 2012.

These Heads of Agreement contemplates the finalisation of a Sale and Purchase Agreement and a Joint Venture Agreement prior to 30th April 2012. The Sale and Purchase Agreement will be subject to Ministerial consent and final approval by the board of ODC. The Sale and Purchase and Joint Venture Agreements are conditional on ODC conducting further non-geological Due Diligence and the results of that work being to the satisfaction of the ODC board.

Metallurgy

Magnesite

Test work continued on samples of Leigh Creek magnesite. Calcining of flotation concentrate has produced magnesia grading 95.4% MgO and 2.98% SiO₂. This result is very promising. Testing will continue to determine if further reductions in SiO₂ can be achieved through cyclosizing of the calcined products.

In ongoing test work, the primary magnesite feed will undergo staged rolls crushing at decreasing gap size from 10mm to 4mm, 2mm, 1mm and near closed to determine whether removal of talc can be achieved effectively without flotation.

Graphite

Progress on characterisation of graphite samples has been slower than anticipated.

Archer was approached by a prominent US graphite mill to test samples. Samples were collected and despatched with the expectation that results would be available during the December quarter.

Archer presented at the first International Graphite Conference held in London in early December which generated strong interest in the Company's projects.

Archer is close to finalising a commercial arrangement with a German graphite company to conduct metallurgical test work and act as an independent expert.

Testing of RC hammer samples from Sugarloaf in Adelaide has returned positive results using an initial 53 micron grind followed by the 25 micron re-grind. Sample 6 (10.2% C head grade) achieved the best grade recovery combination and also the highest concentrate grade of 82%C. At a 60% recovery the combined concentrate grade was 72% C. Test work is continuing to identify the optimum processing route.

Drilling is set to recommence in late January 2012 to provide aircore and trenching samples for metallurgical testing.

Cash balance:

The Company's cash balance at the end of the quarter was \$1.74 million.

Activities next Quarter

A Program for Environment Protection and Rehabilitation (PEPR) for drill testing graphite at Grid 2, Council Pit and for the eastern limb at Sugarloaf was submitted and approved by PIRSA. Drilling is planned to commence in late January 2012.

An additional PEPR was approved allowing further drill testing of the Emu Plain copper deposit. This drilling will be conducted as part of the larger graphite drilling programme.

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The exploration results reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr. Wade Bollenhagen, Exploration Manager of Archer Exploration Limited. Mr. Bollenhagen is a Member of the Australasian Institute of Mining and Metallurgy who has more than sixteen years experience in the field of activity being reported. Mr. Bollenhagen consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

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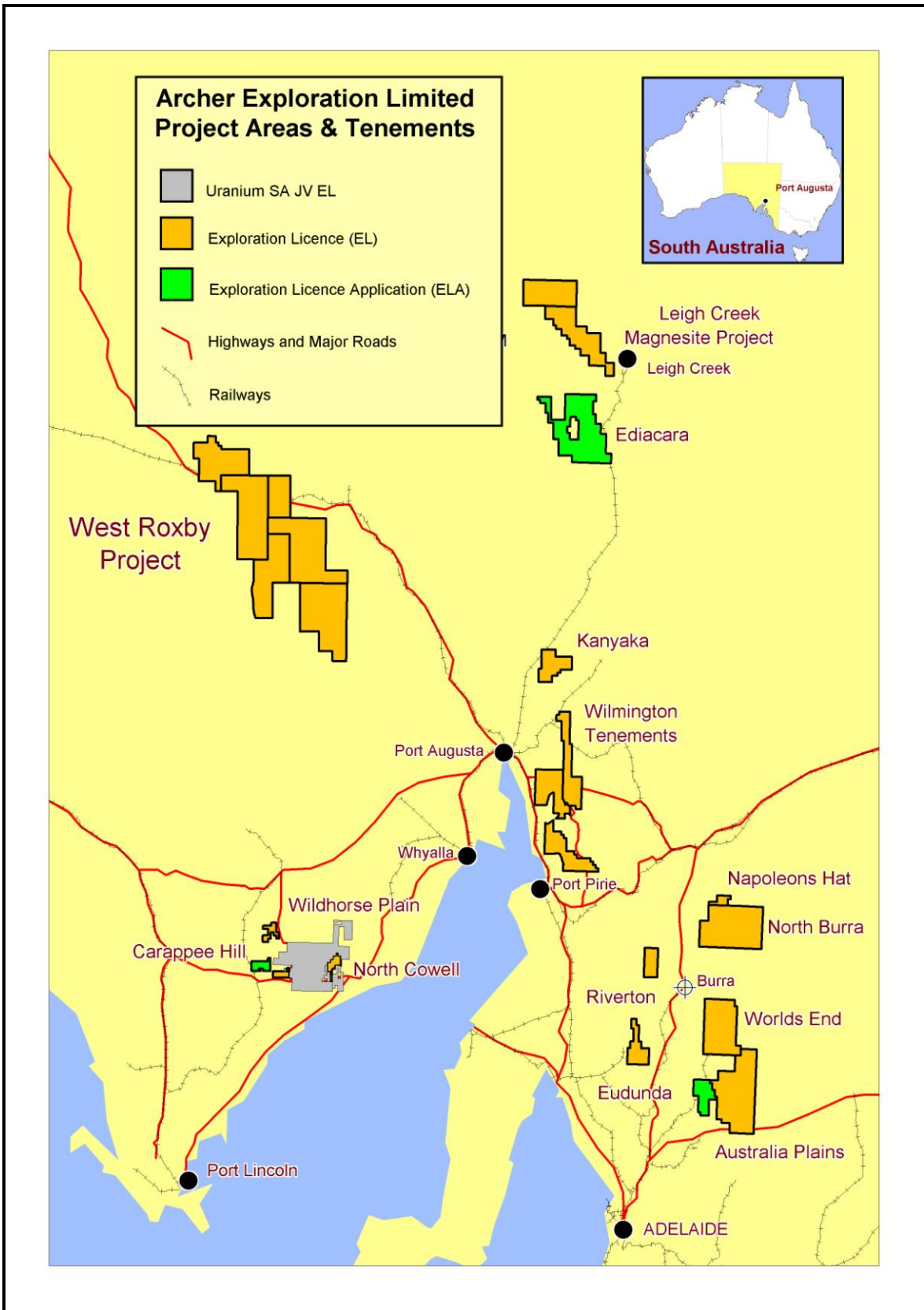


Figure 8. Archer Exploration Tenement Position December 2011.