GUNSON RESOURCES LIMITED
ABN 32 090 603 642

**ASX RELEASE**
**7th January 2010**

# COBURN ZIRCON PROJECT
# DEFINITIVE FEASIBILITY STUDY RESULTS

## HIGHLIGHTS

- Definitive Feasibility Study completed, with positive results, encouraging the Company to step up its efforts to conclude a zircon offtake and investment agreement with a large overseas zircon consumer.
- Financial modelling of the Project has been based on the sale of final heavy mineral products from the port of Geraldton, increasing the flexibility in marketing from previous studies
- Over the 23.5 year life of the Project, total revenue is estimated at $2.2 billion, with an operating cash surplus of $879 million, or $37 million per annum.
- The Project returns, on a pre tax ungeared basis, a NPV of $163 million at an 8% discount rate, with an IRR of 16.8%.
- Approximately 67% of the revenue from the proposed mine is from zircon, for which industry experts TZMI forecast a significant supply shortfall commencing in 2013. By 2015, TZMI forecast that the real US dollar zircon price will increase by up to 46% from 2009 levels.
- The Company expects that the newly published zircon study by TZMI will have a significant positive impact on zircon consumers seeking access to a long term supply of zircon through a strategic investment in the current severely depleted pipeline of new development projects.

## 1. Project Background

Coburn is located 250 kilometres (km) north of the regional centre and port of Geraldton in Western Australia (Figure 1), immediately south of Shark Bay and just outside the eastern boundary of the Shark Bay World Heritage Property.

The zircon-rich Amy Zone heavy mineral sand deposit at Coburn was discovered by Gunson in 2000 and has been the subject of 3 feasibility studies. The first, a Preliminary Feasibility Study (PFS), was completed in January 2003 and the second, a Bankable Feasibility Study (BFS), was released in December, 2004. Because of its location close to the edge of the Shark Bay World Heritage Property, Coburn was the subject of a four year environmental approvals process, which culminated in approval for construction in March 2007, over 2 years after completion of the BFS.

A Definitive Feasibility Study (DFS) designed to update and improve on the accuracy of the BFS, began in mid 2006. This DFS was not completed until December 2009, due to the failure of the Company's proposed Chinese offtake and investment partner, state controlled China Triumph International Engineering Company (CTIEC), to provide a competitive construction proposal after nearly two years of discussions that began in early 2007. CTIEC had made its appointment as the Project construction engineer a condition of its investment but was advised in November 2008 that this arrangement was unacceptable to Gunson.

Construction of the Project was re tendered in early 2009, with a preferred contractor, Sedgman Metals (Sedgman), chosen in June 2009. Sedgman then commenced a Design Definition Study (DDS), to reduce the capital and operating costs, and risk associated with execution of the Project. A major focus of this Study was the dry mineral separation plant (MSP), the location of which was changed from China to the mine site during the tendering process.

Sedgman's DDS, received on $11^{th}$ December 2009, has provided a sound basis for the Project DFS, which is summarised below.

## 2. Geology and Resources

The Amy Zone heavy mineral sand deposit is approximately 35 km long by up to 3 km wide and is hosted predominantly in unconsolidated sand dunes, with a very low slime content. Mineralisation occurs between the surface and a largely impermeable clay rich sediment basement at depths between 10 and 50 metres (m). Heavy minerals are present over a very large area but higher grades are more common near the base of the sand dunes and within a narrower northerly trending zone which bends eastward at its northern end (Figure 2).

From the southern end of Amy Zone, the basement dips gradually northwards towards Shark Bay at a slightly steeper angle than the ground surface, resulting in an increase in overburden thickness northwards, except for the northern end where economic mineralisation occurs from the surface to 40 m depth. The thickness of the ore body averages 15 m with an average 9 m of mineralised overburden.

Resource estimates have been based on 3504 drill holes, all drilled by contractor Wallis Drilling using their widely recognised reverse circulation air core technique. Most heavy mineral assays were done on 1 m spaced samples, with some at the southern end on 1.5 m sample intervals.

Table 1 below summarises the Amy Zone resource figures.

***Table 1. Coburn Heavy Mineral Resources***

| **Resource Category** | **Million Tonnes (Mt)** | **Average Grade % Heavy Mineral (HM)** | **Cut-off Grade % HM** | **Contained HM (Tonnes)** |
|---|---|---|---|---|
| Measured | 119 | 1.3 | 0.8 | 1.5 |
| Indicated | 599 | 1.2 | 0.8 | 7.2 |
| Inferred | 261 | 1.4 | 0.8 | 3.6 |
| **Total** | **979** | **1.26** | **0.8** | **12.3** |

All of the Measured and Indicated resources lie within the southern two thirds of Amy Zone that has been approved for mining by the Western Australian Environment Minister. These resources were calculated by resource consultants McDonald Speijers in 2008. The Inferred Resource occurs within the northern third of Amy Zone, in the area that has not yet been approved for mining (Figure 2) and was estimated in 2008 by Gunson Senior Geologist Paul Leandri.

## 3. Mining Method and Ore Reserves

The resource model for the southern two thirds of Amy Zone compiled by consultants McDonald Speijers was used to select ore reserves from the pit optimised resource shell. An open pit mine path proceeding from south to north was laid out by experienced mine manager Todd Colton and senior geologist Paul Leandri, both of whom have over ten years experience in the mineral sand industry with Iluka Resources Limited and its predecessors: Westralian Sands Limited and RGC Limited, respectively.

Contract mining using the dozer trap technique for ore and bulldozer for overburden, was assumed in the ore reserve calculations. Cost estimates for this work were supplied by Watpac Limited, based on using Caterpillar D11 bulldozers to push the ore downwards into a dozer trap, where it would be mixed with water and pumped as a slurry into the wet concentrator plant (WCP). Overburden would also be pushed into the void created by removal of the ore. Tailings from the WCP would then be pumped back into the pit, covering the previously mined overburden to within a metre of the original ground level. Subsoil and topsoil would be placed on top of the tailings to enable the revegetation phase of the mine rehabilitation process to commence.

The DDS reviewed the design and operation of the dozer traps and design changes were incorporated to combine the previously specified separate dozer trap and screening plants into a single dozer mining unit (DMU), with improved flexibility of operation and an increase in the utilisation and average feed rate.

Table 2 below lists the Amy Zone ore reserves.

***Table 2. Coburn Heavy Mineral Ore Reserves***

| Reserve Category | Pit No. | Ore - Million Tonnes | HM Grade % | Zircon % | Ilmenite % | Rutile % | Leucoxene % |
|---|---|---|---|---|---|---|---|
| Proved | A | 53 | 1.3 | 24 | 46 | 5 | 6 |
| Probable | B-E | 255 | 1.2 | 23 | 48 | 7 | 4 |
| **Total** | | **308** | **1.2** | **23** | **48** | **7** | **5** |

*The valuable mineral assemblage listed above is expressed as a percentage of the total HM content of each ore reserve category. Slimes average 2.7% of the ore and oversize 3.3%.*

At the proposed mining rate of 17.5 Mt of ore per annum, the ore reserve supports a mine life of 17.5 years. Further scope to increase the ore reserve is shown on Figure 2, where the ore in pits D and E is open to the north west and south east respectively.

The overall strip ratio of the Proven and Probable Ore Reserves is 0.64 tonnes of waste to 1 tonne of ore. An increase of 2 million tonnes to the Proved Ore Reserve from the figure announced in April 2008 resulted from a review of the mining method during the DDS.

In addition to the ore reserves listed above, a potentially mineable resource of 106 million tonnes averaging 1.3% HM was estimated using the optimised pit shells from the inferred resource in the northern third of Amy Zone (Figure 2). Assuming that this area receives government approval for mining prior to depletion of the ore reserves listed in Table 2, the Coburn mine life would be extended by 6 years to 23.5 years. Mining of this northern area has been assumed in the financial evaluation discussed below.

## 4. Mineral Processing

Metallurgical test work to define the design and costing of the minesite WCP and mineral separation plant (MSP) has been carried out in several phases between 2003 and 2009. The majority of this work was completed by Roche Mining – Mineral Technologies (Roche) prior to 2007, Outotec in 2007, company metallurgist Alan Luscombe during 2007 – 2008 and by Allied Mineral Laboratories in 2009.

Allied Mineral Laboratories' work formed part of the Sedgman's DDS and has been very beneficial in defining equipment selection and flow sheets for the WCP and MSP.

### 4.1 Wet Concentrator Plant (WCP)

Roche designed a mobile WCP with a name plate capacity of 2200 tonnes per hour during the 2004 BFS. This design, modified by Roche during a value engineering study in

2005, has proved to be robust, with very few modifications made to it during the 2009 DDS. The Roche test work results indicated that a HM recovery of 87.2% could be achieved at a grade of 92% HM and this performance was confirmed during the DDS.

The WCP is to be located at the edge of the open pit and moved along the ore body at approximately 1 to 3 year intervals, as mining proceeds northwards. Ore is pumped as a slurry from the DMU on the pit floor to the WCP, where the heavy minerals are recovered by wet spiral separation. Tailings (over 98% of the ore) are then pumped as a slurry back into the mine void, where they are dewatered so that the water can be reused in the mining and mineral concentration process.

Concentrate from the WCP is to be trucked to the MSP, which is located next to the power station (Figure 2).

### 4.2 Mineral Separation Plant (MSP)

A major focus of the 2009 DDS was placed on the MSP, as previous work had assumed that final mineral separation would be elsewhere in Western Australia or China. However, these alternatives were rejected in early 2009 during the tendering process and the MSP will now be a fixed facility at the mine, with a capacity of 30 tonnes of concentrate per hour.

A key conclusion from the test work competed between 2007 and 2008 was the benefit of an attritioning step in the MSP, to reduce clay and iron oxide coatings on the heavy mineral, particularly zircon. This step has been incorporated into the MSP flow sheet, followed by separation of the ilmenite, zircon, rutile and leucoxene into final saleable products with magnetic and electrostatic equipment. The flow sheet adopted in the MSP, while specific to the Coburn ore, is relatively conventional, being typical of most existing mineral sand mines.

The final products from the MSP are to be trucked to a company owned storage shed to be built adjacent to the Geraldton port, where they will be exported to overseas markets.

## 5. Heavy Mineral Products

At a mining rate of 17.5 million tonnes of ore per year over approximately 23.5 years, the average annual yield of final mineral products with some of their key specifications is shown in Table 3 below. Mineral recovery factors in the WCP and MSP have been applied to the in-ground heavy mineral contents listed in Table 2 to derive the final product quantities. These recovery factors are based on the metallurgical test work discussed above and are heavily influenced by customer quality specifications. With less stringent specifications, product tonnages would increase but prices achieved may be lowered.

***Table 3. Average Annual Coburn Mineral Production***

| Product | Annual Tonnage | Key Specification | U + Th (ppm) | % of Revenue |
|---|---|---|---|---|
| Zircon | 40,000 | 66% $ZrO_2$ | 340 | 67 |
| Ilmenite | 90,000 | 61% $TiO_2$ | 114 | 18 |
| Rutile | 9,000 | 95% $TiO_2$ | 50 | 10 |
| Leucoxene | 7,000 | 90% $TiO_2$ | 150 | 5 |
| **Total** | **146,000** | | | **100.0** |

As stated in the Company's September 2009 quarterly report, agreement in principle has been reached for the marketing of the rutile and leucoxene production in containers from Geraldton. Many opportunities to sell the zircon product have been offered but the Company's strategy has been to link zircon offtake with direct investment in the Project. A resolution of the zircon marketing issue is expected in the first half of 2010 and in view of the growing shortage of high $TiO_2$ ilmenite, demand for the ilmenite product is expected to increase appreciably from 2010.

## 6. Infrastructure

The Coburn Project is located approximately 45 km west of the North West Coastal Highway, linking the port of Geraldton some 250 km to the south with coastal towns in the Gascoyne, Pilbara and Kimberley regions. A 42.5 km sealed access road into the MSP and power station at the mine site is included in the capital cost estimates, along with a 1.7 km paved road to the village (Figure 2). Secondary unsealed roads to the WCP and water bores are also included.

Power for the mine is to be provided by a build-own-operate supplier, using natural gas piped from the Dampier to Bunbury pipeline some 110 km to the east. As the Company has not yet obtained government approvals for constructing a gas pipeline, LNG may be used in place of the piped gas at the start of operations.

Water supply for the mine will come from artesian aquifers directly below the mine, from one established water bore and two others to be drilled during the construction phase. As the water salinity is about a quarter of sea water, potable water will be produced from a site - based reverse osmosis plant.

Proposals for a build-own-operate village and office accommodation were invited from several suppliers but the hire rates had a negative effect on the financial return of the Project in comparison with outright ownership by Gunson. Thus, the capital cost of a 128 person village and offices is included in the financial analysis.

## 7. Permitting

As mentioned in the introductory section, the Project received government approval for construction after a four year environmental approvals process that began in mid 2003.

The remaining permits required prior to the commencement of mining are a Licence to Take Water, approval of a Groundwater Mounding Management Plan, approval of a second Non Substantial Change to the Public Environmental Review and final mining approval from the Department of Mines and Petroleum. All these matters were progressed in 2009, to a point where final permitting is almost complete.

A mining agreement with the Nanda Aboriginal People, who are responsible for the southern half of the Amy Zone deposit, was concluded in September 2004.

## 8. Capital Costs

Capital expenditure estimates listed in Table 4 below include all on-site items, apart from the build-own-operate power station. The only off site item is a mineral storage shed adjacent to the port of Geraldton.

Sedgman, who compiled the capital cost estimates, has included contingencies at the P90 level, indicating a 90% chance of the actual cost coming in at or below estimate. The average contingency is 9.7%. This reflects the relatively mature nature of the designs and pricing, which in many cases for large items are based on competitive tenders.

In compiling its capital cost estimates, Sedgman assumed that a single EPCM engineer would be appointed to design and construct the Project, with a permanent Gunson site manager on site throughout. All equipment is priced new and the construction period is estimated to be 85 weeks.

***Table 4a. Capital Cost Estimates – EPCM Contractor***
***(Includes Contingency and EPCM costs)***

| Item | Description | Cost ($A million) |
|---|---|---|
| 1 | 2 x DMUs | 21.3 |

| | | |
|---|---|---|
| 2 | WCP | 33.3 |
| 3 | MSP | 41.4 |
| 4 | Water Supply | 8.9 |
| 5 | Road/Civils | 19.9 |
| 6 | Site Services | 5.8 |
| 7 | Village/Office | 14.4 |
| 8 | Geraldton Shed | 5.3 |
| 9 | Power Retic., Mobilisation & General | 7.7 |
| **Total** | | **158.0** |

***Table 4b. Capital Cost Estimates – Owner** (Includes Contingency)*

| **Item** | **Description** | **Cost ($A million)** |
|---|---|---|
| 1 | Communications | 1.8 |
| 2 | Insurance etc | 1.6 |
| 3 | Owner Pre Production | 6.8 |
| 4 | Miscellaneous | 0.6 |
| **Total** | | **10.8** |

Following the accepted convention of including the Owner's pre production costs in the capital cost figure, the total cost is $168.8 million. This figure does not include working capital and financing charges.

## 9. Financial Analysis

Using long term real US dollar price forecasts provided by respected industry marketing consultants TZMI and the long-term average US dollar to Australian dollar exchange rate of 72 cents, the Coburn Zircon Project is financially attractive, with a Net Present Value (NPV) of $163 million and an Internal Rate of Return (IRR) of 16.8%. As shown in Table 5 below, the NPV has more than doubled from the 2004 BFS, when the exchange rate used was 70 US cents to one Australian dollar.

A summary of the financial analysis over the 23.5 year mine life is shown in Table 5 below.

***Table 5. Financial Summary of the Coburn Zircon Project (Real $A millions)***

| | **DFS** | **BFS 2004** |
|---|---|---|
| Total Revenue | 2,189 | 1,336 |
| Total Operating Costs | 1,310 | 776 |
| Net Operating Margin | 879 | 560 |
| Capital Cost | 168.8 | 128 |
| IRR before tax/financing | 16.8% | 15.4% |
| NPV (8%) | 163 | 73 |
| Exchange Rate | 72c | 70c |

There are some important assumptions built into the above financial analysis, the principal one being the royalty rate on the final products from the mine. At present, producers of heavy mineral sand products in Western Australia pay a 5% gross royalty to the State Government, in contrast to South Australia, where all new mines pay a 1.5% gross royalty for the first 5 years of production and then 3% thereafter.

Further, the Western Australian royalty levied on heavy mineral sand producers gives them no financial incentive to refine their concentrates to final mineral product, as the royalty for both is the same, at 5%. This compares unfavourably with base metal producers, who are rewarded for producing metal product with a reduced royalty of 2.5%, in contrast to the concentrate royalty rate of 5%.

On this basis, the royalty rate in the Coburn DFS financial model has been set at 2.5% and a submission to the State Royalties Branch requesting a change to the heavy mineral product royalty rate is being prepared for despatch this month. In view of the steep decline in the size of the heavy mineral sand industry in Western Australia over the past few years, indications are that this submission will be carefully considered.

With the current 5% gross royalty, the NPV and IRR are reduced to $139 million and 15.6% respectively.

## 10. Development Timing

The Project is now ready to proceed to the mine development stage. However, the Company has decided that the capital cost of the Coburn Zircon Project is too large to finance by itself and since 2007 has been seeking to attract a minority partner to help fund the mine development, in exchange for access to an assured long-term supply of zircon.

After nearly 2 years of unsuccessful negotiations with state controlled Chinese zircon consumer CTIEC in 2007- 2008, a potential strategic investor in the Middle East was identified in March 2009. Agreement in principle has been reached with this party that its investment decision would be based on the DFS results, including final zircon product quality data. As this information is now available, a fourth visit to the Middle East in the past year is planned for February 2010.

In the meantime, renewed interest in the Project has been shown by a privately owned Chinese company introduced by The Balloch Group in Beijing during September 2008.

Following TZMI's December 2009 forecast of a potentially severe zircon supply shortfall from 2013 onwards, the Company anticipates significantly stronger interest in the Coburn Zircon Project in the coming months.

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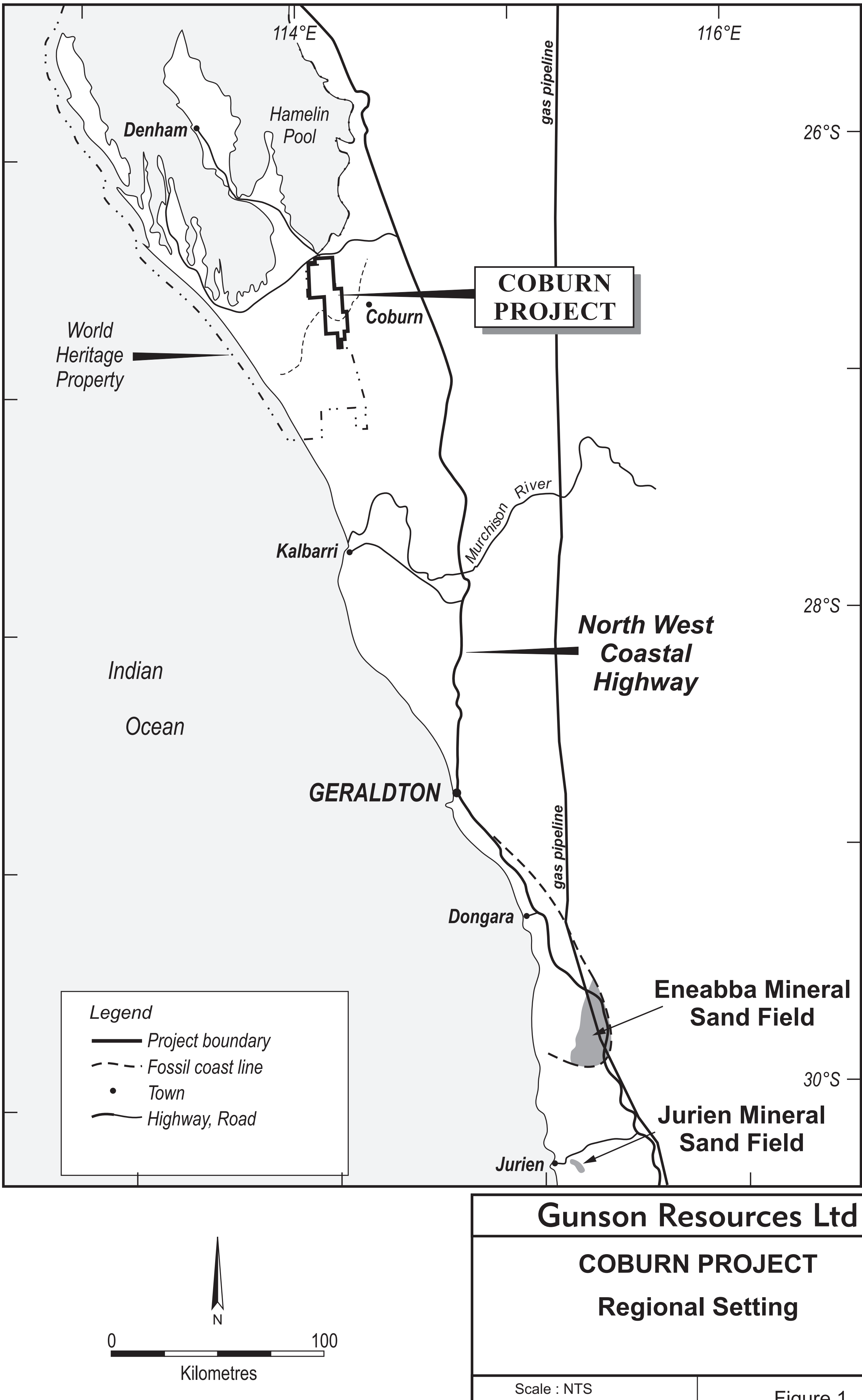
**Attachments:**
**Figure 1**: Coburn Project – Regional Setting
**Figure 2**: Amy Zone, Coburn Project

The information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr D N Harley, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Harley has sufficient experience which is relevant to the style of mineralisation and 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 Resources and Ore Reserves'. Mr Harley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this release that relates to measured and indicated mineral resources at Coburn is based on data compiled by Mr Diederik Speijers of McDonald Speijers, who has over 30 years of relevant experience in the field of activity being reported on. Mr Speijers is a corporate member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2004 release of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Speijers consents to the inclusion of the information in the report in the form and context in which it appears.

Information relating to inferred mineral resources and ore reserves at Coburn in this release is based on data compiled by Mr Paul Leandri of Gunson Resources Limited, who has over 15 years relevant experience in the field of activity being reported on. Mr Leandri is a member of the Australian Institute of Geoscientists and a corporate member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2004 release of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Leandri consents to the inclusion of the information in the report in the form and context in which it appears.

Sedgman Metals reviewed a draft of this release on 5th January 2010, making a number of changes and helpful suggestions. Sedgman has approved the release.

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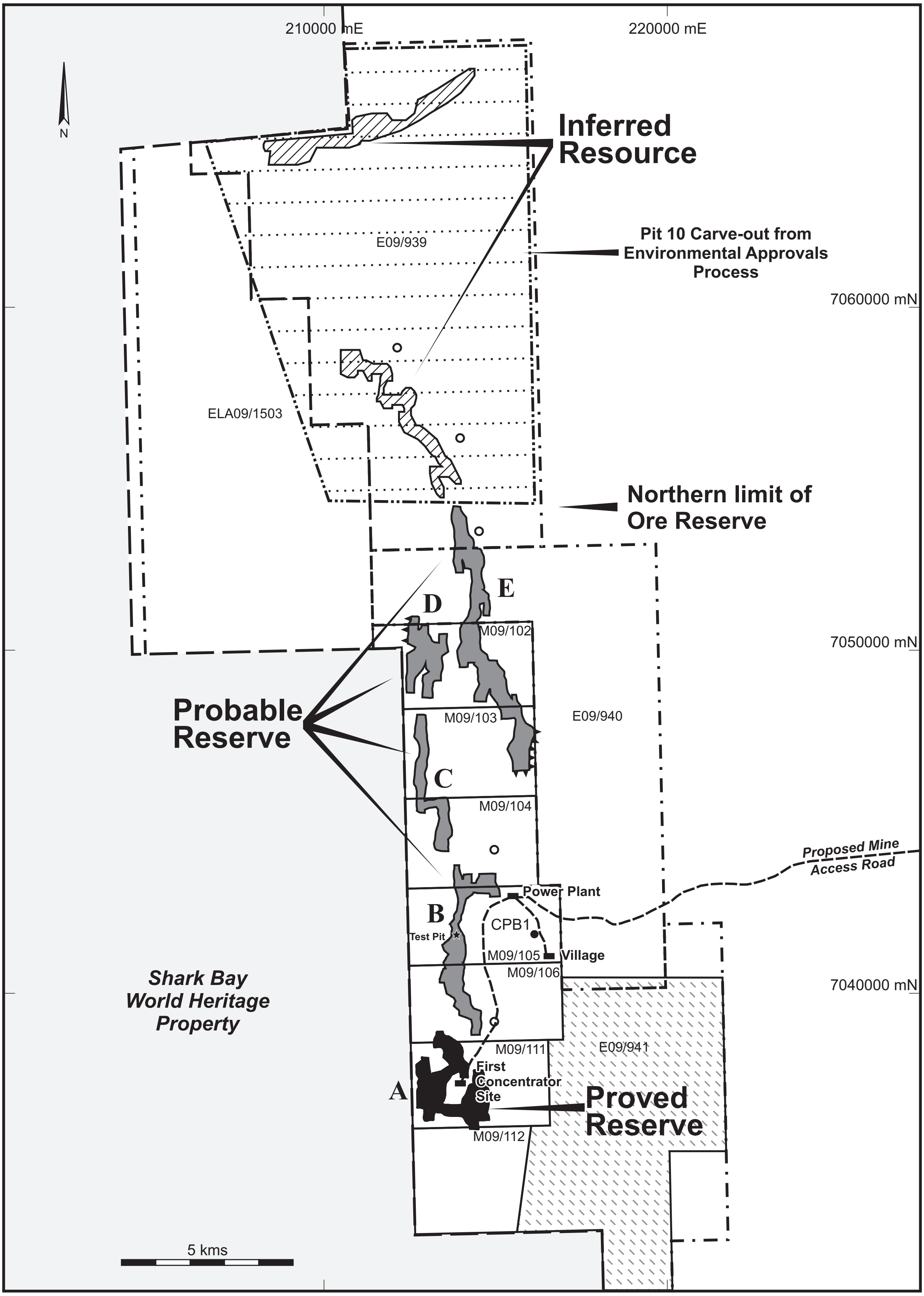
Regional Setting

Scale : NTS

Date : 5 January 2010

Figure 1.




REFERENCE

- A — *Pit Identifier*
- *Ore body still open - more drilling required*
- *Mining Lease*
- *Exploration Licence*
- *Shark Bay World Heritage Property*
- *Conservation Offset Area*
- ● *Water Production Bore - existing*
- ○ *Water Production Bore - planned*

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## COBURN PROJECT

## Amy Zone

## Ore Reserves & Resources

Scale : NTS

Date : 5 January 2010

Figure 2.