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26 November 2015

The Manager  
Company Announcements  
Australian Stock Exchange Limited  
Exchange Centre  
Level 6  
20 Bridge Street  
SYDNEY NSW 2000

Dear Sir/Madam

**RE: AUSTPAC RESOURCES N.L.**  
**ANNUAL GENERAL MEETING TO BE HELD ON 26 NOVEMBER 2015**  
**MANAGING DIRECTORS PRESENTATION**

We are pleased to provide the presentation of the Managing Director to the Annual General Meeting of Austpac Resources N.L. to be held on 26 November 2015.

Yours faithfully

N.J. Gaston  
Company Secretary

enc



**Annual General Meeting**  
**26 November 2015**

**Presentation by**  
**M.J. Turbott**  
**Managing Director**

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# Austpac's Newcastle Site



# Newcastle Iron Recovery Plant (2014)

- **NIRP was conceived in 2011 and advanced through 2014 using a combination of funds from Kronos and Austpac – Total \$18.5M**
- **Project Objective: to use Austpac's unique acid regeneration & iron reduction processes to commercially recycle iron oxide waste (mill scale & blast furnace dusts) and spent pickle liquor**
- **Construction of NIRP: 85% complete**
- **Design capacity when fully operational**
  - **~18,000 tpa saleable iron (iron chips or briquettes)**
  - **~18,000 tpa strong (25%w/w) hydrochloric acid**
- **At end of 2014 Austpac was seeking a further \$3.8M to complete and \$3.0M to commission NIRP**

# Newcastle Iron Recovery Plant

## Project funding options 2014-15

- Internal funding – shareholders
- Project finance – banks, etc.
- Corporate/Institutional support from outside Australia
  - USA, Europe
  - China, India, Asia

## Mid 2015 – Paradigm shift in Project

- ABR Zinc Recovery Process
- Involvement of Ixom

# ABR Process Development

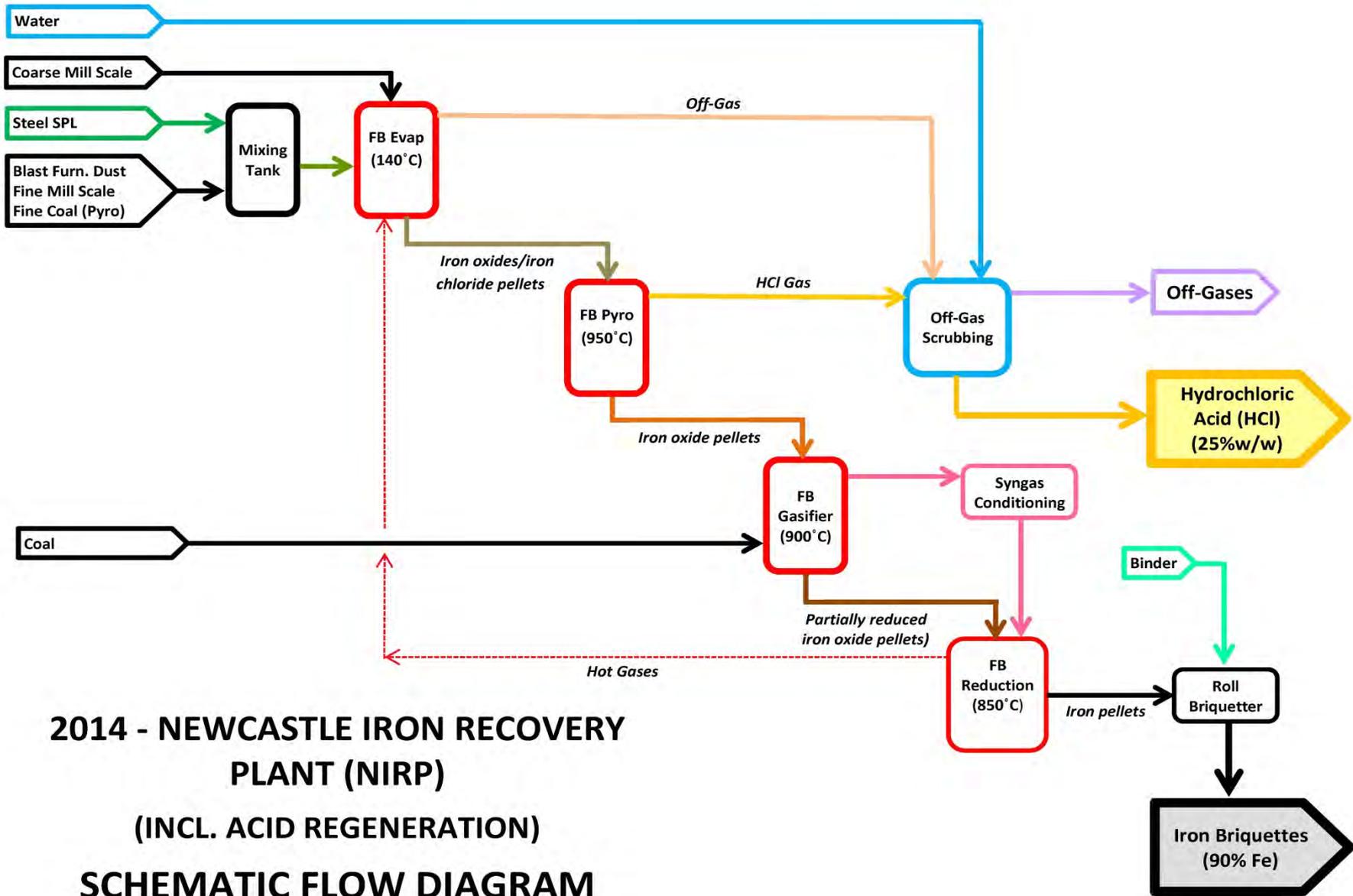
- **Private company based in Lismore, NSW**
- **Has facilities in Brisbane and Melbourne**
- **Has developed a range of industrial chemical processes for purification of water, recycling, regeneration, metals recovery**
- **Has a patented process to recover zinc metal and HCl from spent liquors containing zinc and iron chlorides (galvanising)**
- **Can be readily integrated with Austpac's iron reduction and acid regeneration processes**

# **Ixom Operations Pty Ltd**

- **Formerly Orica Chemicals, a division of Orica Australia**
- **Purchased by the Blackstone Group (USA) in March 2015 (\$750M)**
- **Manufactures and distributes chemicals for water, mining, agriculture, oil & gas, steel and dairy sectors**
- **Produces HCl for steel pickling for**
  - **Coating steel**
  - **Galvanising plants**
- **Ixom has followed Austpac's acid regeneration processes since 2010**

# Activities – 2<sup>nd</sup> & 3<sup>rd</sup> Quarter, 2015

- **Austpac recognised the potential to integrate ABR's zinc recovery process into the NIRP flowsheet**
- **Confirmed process suitability by technical exchange/review**
- **Introduced the integrated project concept to Ixom**
- **Agreed with Ixom and ABR to jointly assess the economics of an integrated plant to recover zinc, iron and HCl from steel and galvanising dusts and spent liquors**
- **Austpac undertook to produce capital and operating cost estimates for the integrated plant – now completed**



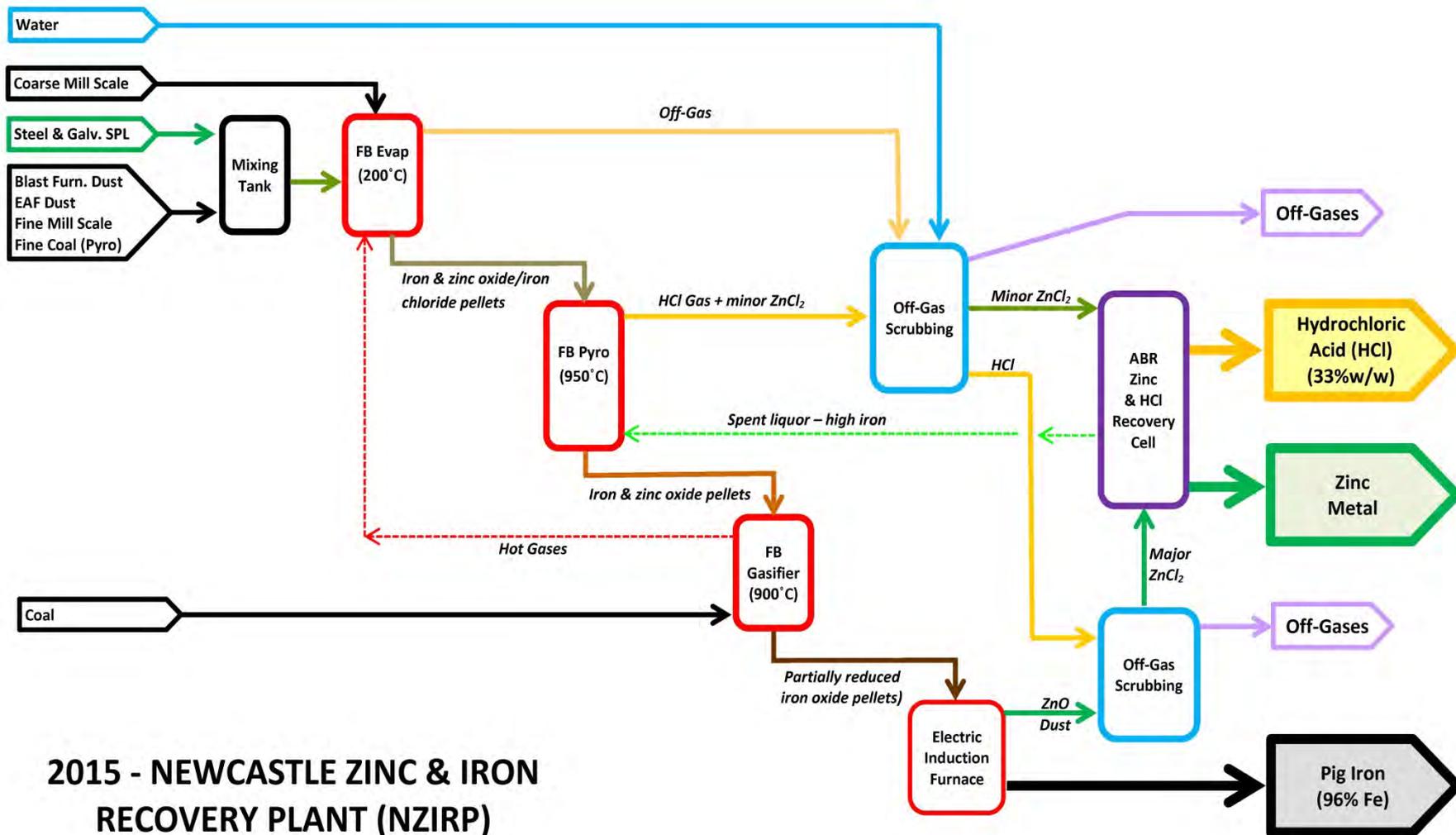
# Newcastle Iron Recovery Plant

- Feedstocks include mill scale, furnace dusts (low Zn), spent chloride liquors from steel pickling
- Products are iron briquettes and strong acid HCl
- Recycling steel industry waste is profitable
- Not designed to process dusts or liquors containing high Zn
  - Steel mini-mill dusts – EAF dust contains up to 40% Zn
  - Galvaniser SPL – contains up to 9% Zn
- Recovery of zinc from contaminated dusts would greatly improve plant profitability



**The solution is an integrated plant to produce pig iron, zinc metal & concentrated HCl.....**

# **NEWCASTLE ZINC & IRON RECOVERY PLANT (NZIRP)**



**2015 - NEWCASTLE ZINC & IRON  
RECOVERY PLANT (NZIRP)  
(INCL. ACID REGENERATION)  
SCHEMATIC FLOW DIAGRAM**

# Electric Induction Furnace



## Inductotherm Equipment

### Furnaces

### Digital Control Power Supply



# ABR Zn & HCl Recovery



**Electrolytic Cell Module**

**Modular Semi-Permeable Membrane  
& Electrolysis Process**

**Power Supply & Control Module**



# Newcastle Zinc & Iron Recovery Plant

## Advantages

- **Simplifies flowsheet – syngas conditioning and briquetting sections no longer required**
- **Reduces process risk**
  - **Induction furnace technology proven (foundries)**
  - **ABR process is modular so easily scaled up**
- **Three valuable products**
  - **Pig iron (96% Fe)**
  - **High purity Zn (cathode or billets)**
  - **Concentrated HCl (33% w/w)**

# NZIRP – Preliminary Cost Estimate

➤ Annual production capacity	
➤ Pig iron	15,000 tonnes
➤ High purity Zn	3,700 "
➤ Concentrated HCl	6,600 "
➤ Additional capital cost	\$ 12.5M
➤ Commissioning	<u>2.0M</u>
➤ Total cost to production	<u>\$ 14.5M</u>

# Newcastle Zinc & Iron Recovery Plant

## Ixom Position

- **Undertaking complete review of project**
- **Reviewing**
  - **Austpac's cost estimates**
  - **Sources of steel & galvaniser SPL**
  - **Markets for HCl**
- **Review progressing well**
- **Austpac assisting to ensure speedy outcome**

# Newcastle Zinc & Iron Recovery Plant

## Corporate and Project Funding

1. Immediate – shareholder share purchase plan underway (\$0.5M to date)
2. Negotiating \$1.2M facility for ongoing working capital
3. Corporate finance - \$15M for NZIRP (Ixm)
4. Private project finance facility up to \$15M linked to the recovery of R&D expenditure

The logo for AUSTIPAC features a stylized 'A' on the left, composed of a black triangle pointing right and a red triangle pointing left, meeting at a point. To the right of the 'A' is the word 'AUSTIPAC' in large, bold, black, 3D block letters. The letter 'I' has a red square on its top bar. The background is a dark, textured grey.

**AUSTIPAC**

The background of the lower half of the image is a photograph of a steel mill. It shows a complex industrial environment with various structures, pipes, and machinery. A bright, glowing orange and yellow molten metal stream is visible in the center, cascading down. The lighting is dramatic, with strong highlights from the molten metal and some ambient industrial lights.

**RECOVERING  
ZINC & IRON**

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