

AUSTPAC RESOURCES NL (APG)

New Technology for: - Recycling Waste from the Steel Industry - Production of Ultra-High Grade Feedstock for Titanium Metal

SPECULATIVE

6 November 2012

Share Trading Info

ASX Code	APG
Sector	Materials
Current Share Price (Aust. cps)	3.7
Trading Low/High (Rolling Year) (cps)	2.8 - 5.4
Current Shares on Issue (m)	1,192
Mkt Capitalisation (undiluted) (\$m)	44.1
Cash (as at 30 Sept 2012) (\$m)	1.8

Board of Directors

Terry Outhbertson	Non Executive Chairman
Michael Turbott	Managing Director
Robert Harrison	Non Executive Director

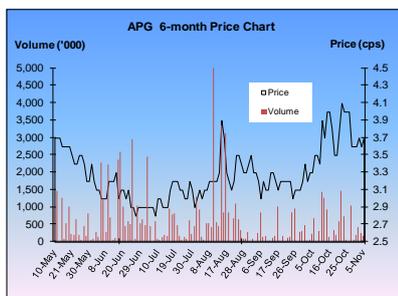
* Further details on Page 18

Major Shareholders

Kronos International Inc.	6.4%
BHP Billiton Innovation P/L	4.6%
Orient Zirconic Resources (Aust) P/L	2.8%

Important Disclosure

Investors should be aware that Austpac Resources NL is a corporate client of Alpha and that Alpha will receive a consultancy fee from Austpac Resources NL for compiling this research report



EXECUTIVE SUMMARY

Austpac Resources NL ('APG' or 'Company') has developed mineral technologies that are applicable to the steel and titanium metal industries. APG also has a 100% interest in EL 5291, located in the Murray Basin and considered highly prospective for base metals.

➤ The Company's facility at Kooragang Island, Newcastle (NSW) has two sections; an iron recovery section and a synthetic rutile (synrutile) section. APG has substantially expanded the scale and capacity of the Newcastle Iron Recovery Plant and is presently focused on finalising construction of the iron recovery section with a view to starting commissioning later in the second quarter of 2013 and commencing production in the second half of 2013.

Once operational, APG is planning a staged increase in production to full capacity after ~6 months of operations.

➤ Further, internal modeling by APG indicates that at full capacity the project has the potential to make a net profit of \$7.3 million per year and has a 2-3 year payback period. This assumes that the plant recycles 34,000 tonnes per annum (tpa) of spent pickle liquor and 17,000 tpa of mill scale, to produce 18,000 tpa of hydrochloric acid (HCl) and 18,000 tpa of iron chips or iron briquettes.

➤ The Company has reported strong interest in the technology from the steel industry as an environmentally acceptable method to recycle waste products, and believes this will lead to many significant commercial opportunities including licensing and joint participation in new plants.

➤ **The Company believes the stock offers speculative buying appeal in the range of 4-8 cents per share, and has excellent medium term upside as additional opportunities in the steel and titanium industries are realised.**

Production of Ultra-High Grade Synrutile for Titanium Market: The Next Commercial Opportunity

➤ APG's ERMS SR technology upgrades low grade ilmenite into ultra-high grade synrutile with a titanium dioxide (TiO₂) content between 97-98%.

➤ Ultra-high grade ERMS SR synrutile is recognised as a highly attractive (and alternative) feedstock by titanium sponge manufacturers which will command a premium price over the conventional synrutile product.

Continued over page

- The Company's major shareholder, Kronos, is a significant TiO₂ pigment producer. Recognising the potential of using APG's technology at its own TiO₂ pigment plants, Kronos took a strategic interest in the Company in April-May 2011, which enabled APG to commence the current iron recovery project and it entered into a licensing arrangement with APG, in order to use APG's EARS and Metallisation (Austpac Reduced Iron, "ARI") processes at Kronos' TiO₂ pigment plants.
- The economic viability of commercialising the ERMS SR Plant (i.e. synrutile section of the Newcastle facility) is supported by tight TiO₂ feedstock supply and demand until 2015 and the forecasts by Ti Insights that TiO₂ pigment prices will double to US\$4,800 per metric tonne in 2015 compared to 2010.

Opportunities for APG once Newcastle Plant Commences Operations in Mid 2013

The Company has reported significant interest from a number of steel and steel-related companies, with commercial opportunities (such as 'build-own-operate' recycling plants, joint participation in new plants or licensing APG's technologies to steel makers) likely to open up once the plant becomes operational.

Once operational, the recycling section of the Newcastle Plant will be used to trial large samples of other wastes, including mixed iron and other oxide fines from steel making and zinc-rich chloride liquors produced during galvanizing operations. Successful pilot scale testwork has also been undertaken on these materials. Larger scale trials at the plant may lead to additional commercial opportunities.

APG is progressing discussions with one steel maker (unnamed) who has requested APG conduct a 1,000 tonne bulk trial on a sample from a waste dump of fine contaminated iron oxide. Pilot scale tests confirmed this material could produce an iron product suitable for steel production. This trial will be conducted in 2013, with APG aiming to negotiate a site-specific license to recycle this waste.

Another steel maker is interested in replacing an old, inefficient acid regeneration plant with a new plant incorporating APG's technologies to recycle all the waste streams from their facility.

A flowsheet of the EARS & Iron Recovery Process is shown in Figure 3 on page 5.

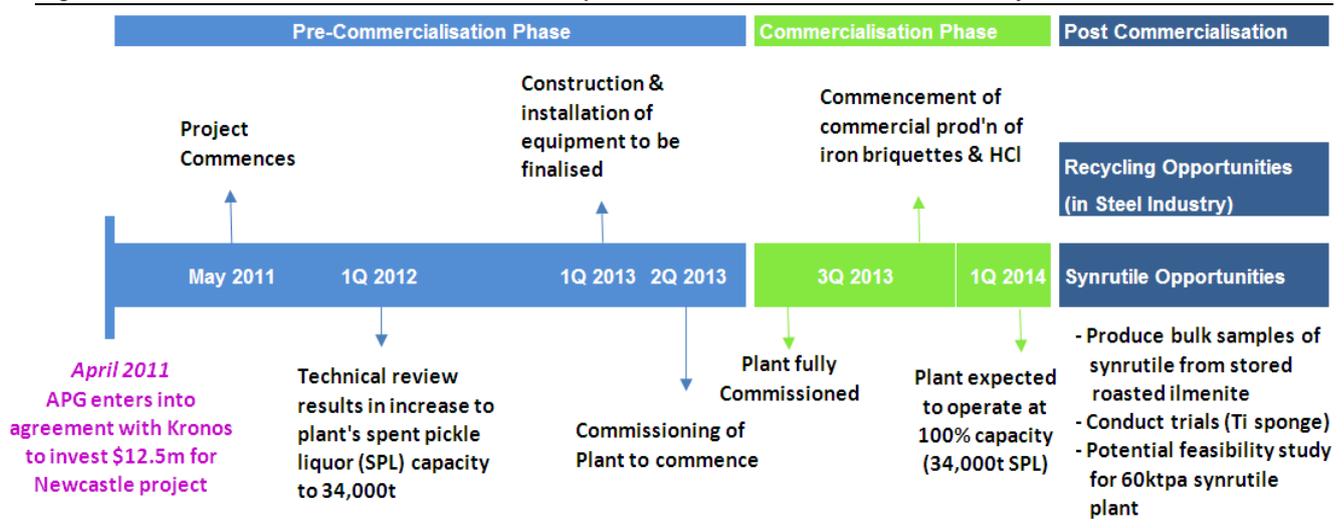
APG's processes can recover hydrochloric acid, iron and zinc from waste pickle liquors, mill scale and electric arc furnace dust. APG also has a process to produce direct reduced iron from iron ore fines.

Timeline to Commercial Production

Construction and installation of equipment will continue through the first quarter of 2013. Over \$6 million of equipment was delivered during 2012, including absorption columns for both the acid regeneration and CO₂ removal sections, air blowers for the fluid beds, fans and liquid ring compressors for gas handling, the 33,000V power supply step down transformer, the waste heat boiler, heat recovery stoves, and specialist high temperature valves for handling hot oxides and iron produced in the plant.

Commissioning of the plant will commence later in the second quarter of 2013, with commercial production of iron briquettes and hydrochloric acid expected to commence during the third quarter of that year.

Figure 1: Timeline for commencement of commercial production for the Newcastle Iron Recovery Plant



Source: APG Reports; Alpha Securities

PLANS TO COMMERCIALISE A 60,000 tpa SYNRTILE PLANT

Once the Newcastle Iron Recovery Plant is fully operational, the next major commercial opportunity for APG is in synrutile production. The synrutile section of the Newcastle Plant with some modifications is still functional following the production of very high grade synrutile from ilmenite in the ERMS SR¹ Demonstration Plant in Newcastle in 2008.

APG's ERMS SR technology is a robust process for upgrading low grade, ilmenite into ultra-high grade synrutile with TiO₂ content between 97-98%, compared to average Australian synrutile grades of 88-94% TiO₂, and premium quality 96% TiO₂ synrutile product from India. APG's ultra-high grade TiO₂ product has been recognised as a highly attractive feedstock by several titanium sponge manufacturers and it has the potential to command a premium price over the conventional synrutile product. In addition, APG's synrutile contains very low levels of iron and other impurities and negligible amounts of uranium and thorium, confirming it as a superior product for the manufacture of titanium sponge, which is used to produce pure titanium metal.

APG reports that one titanium metal group (unnamed) has already expressed interest in a future APG synrutile project and as a result, APG plans to use the synrutile section of the Newcastle facility (once the recycling section of the Plant is operational) to produce bulk samples of synrutile from ilmenite that was roasted in 2008. The bulk samples would generate data for engineering design of the synrutile plant, with the resulting samples to be used in trials to produce titanium sponge. This would lead to a feasibility study for the 60,000 tpa synrutile ERMS SR Plant to service the titanium metal industry. A plant with a 60,000 tpa synrutile production capacity is considered significant; to put into perspective, this would meet around one quarter of the present requirement of the two major Japanese titanium producers, Toho Titanium Co. Ltd and Osaka Titanium Corporation.

Advantages of Using the ERMS SR Process

Figure 2 illustrates the results of a comparative analysis undertaken into different TiO₂ feedstock processes, including electro-smelting (slag) and Becher, which concluded that the ERMS SR process is the best alternative. The Becher process is not considered an ideal feedstock process, as it ranked poorly in most key indicators.

The potential advantages of the ultra-high grade TiO₂ product generated from the ERMS SR process are:

¹ Enhanced Roasting and Magnetic Separation Synthetic Rutile (ERMS SR)

1. Lowers costs

- The ultra-high grade synrutile means less waste disposal costs
- The higher quality feedstock results in increased throughput and would require a smaller plant footprint for any given throughput
- Involves lower processing costs given that it would not be necessary to remove contaminants
- Allows for the use of cheaper fuel as well as provide the flexibility to use solid, liquid or gaseous fuels

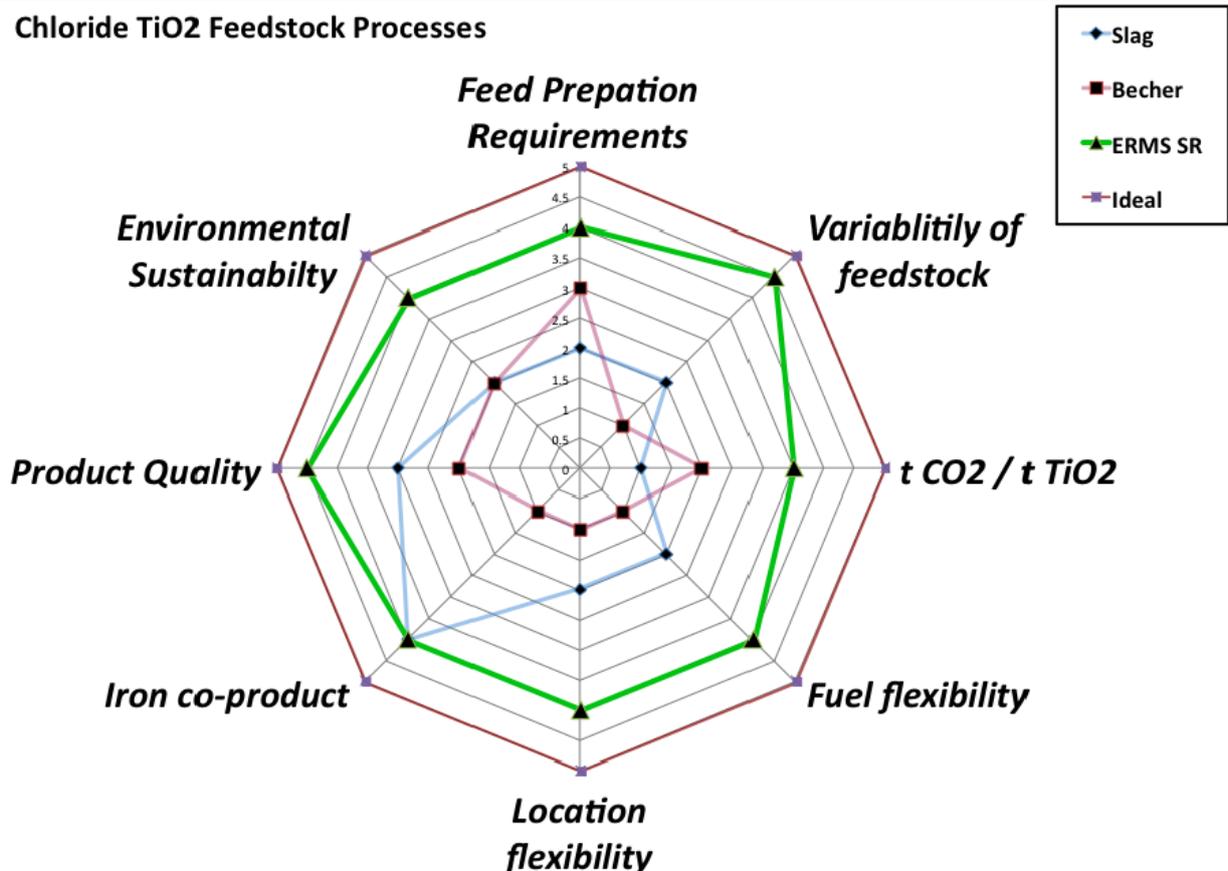
2. Is applicable in a wider range of uses

- The ERMS SR process can process any ilmenite and the ultra-high grade TiO₂ product can be used as a feedstock for titanium sponge manufacture and specialty chemical production.

3. Is the most eco-friendly process available

- No liquid waste and no solid waste is produced
- Capable of carbon capture - any captured CO₂ is saleable to other industries
- Uses waste heat to generate electricity (i.e. self sufficient for power)
- Emits less CO₂ than other upgrading processes and generates more revenue per tonne of CO₂ produced

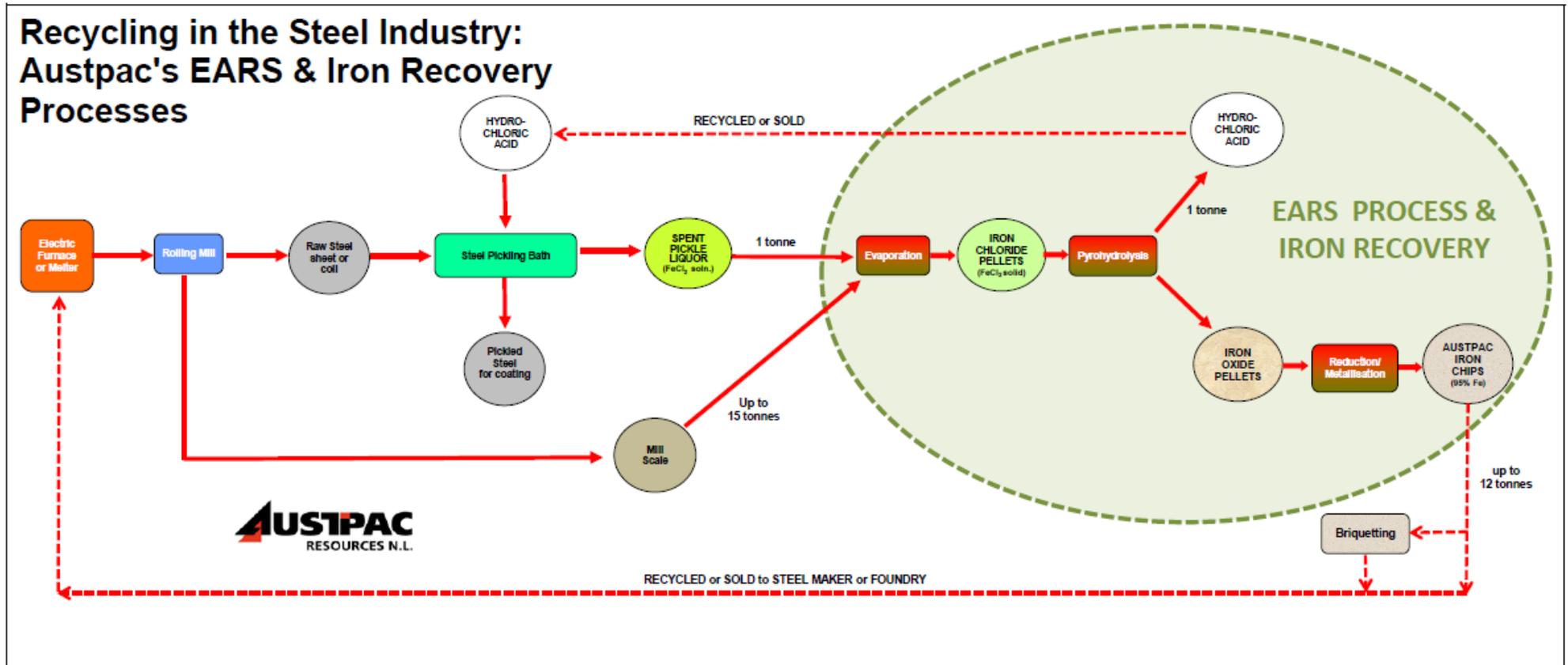
Figure 2: Key performance Indicators for different chloride TiO₂ feedstock processes



Source: J.D.Winter 'ERMS SR: Proving THE process for the production of high grade synrutile and co-product iron'; paper presented at the Intertech-Pira TiO₂ 2009 Conference, Rome, Italy, March 17-19, 2009

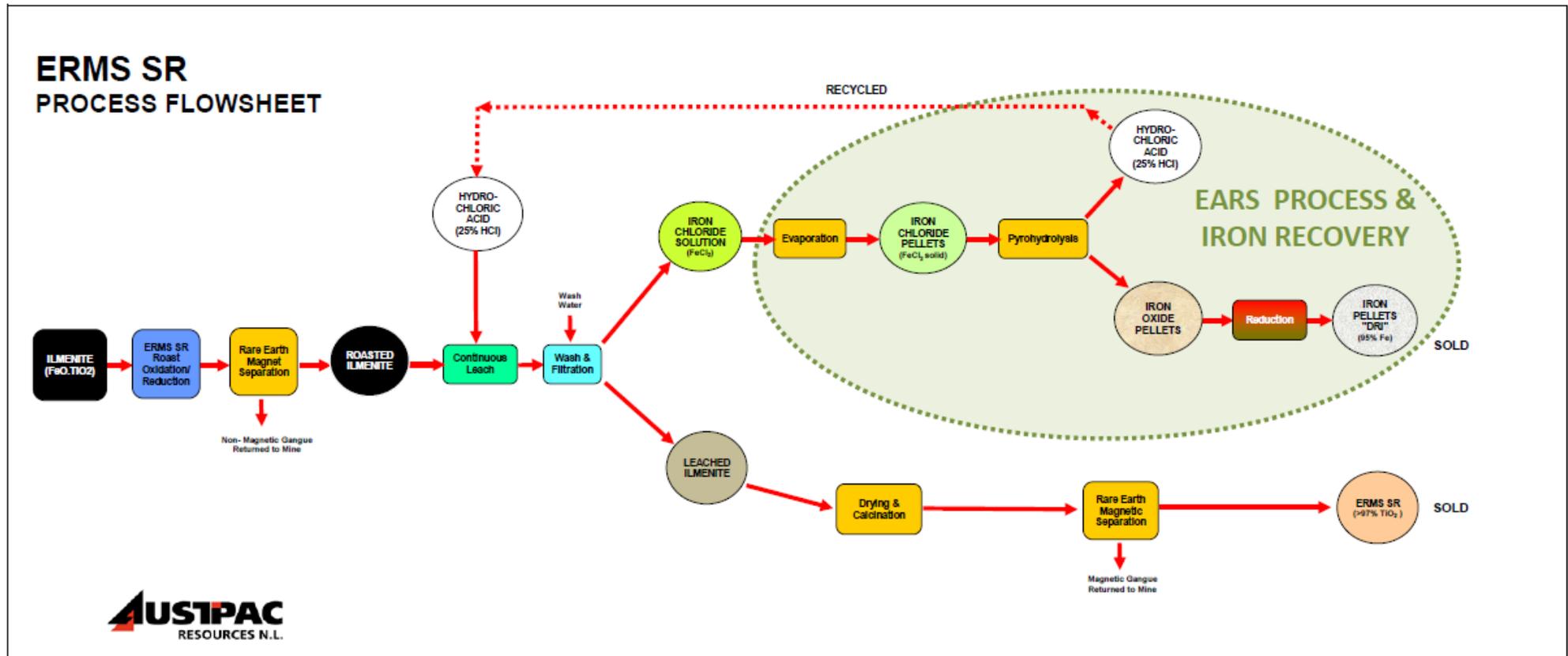
The ERMS SR Process Flowsheet is highlighted in Figure 4 on page 6.

Figure 3: APG's EARS Process & Iron Recovery



Source: APG

Figure 4: APG's ERMS SR Process



Source: APG

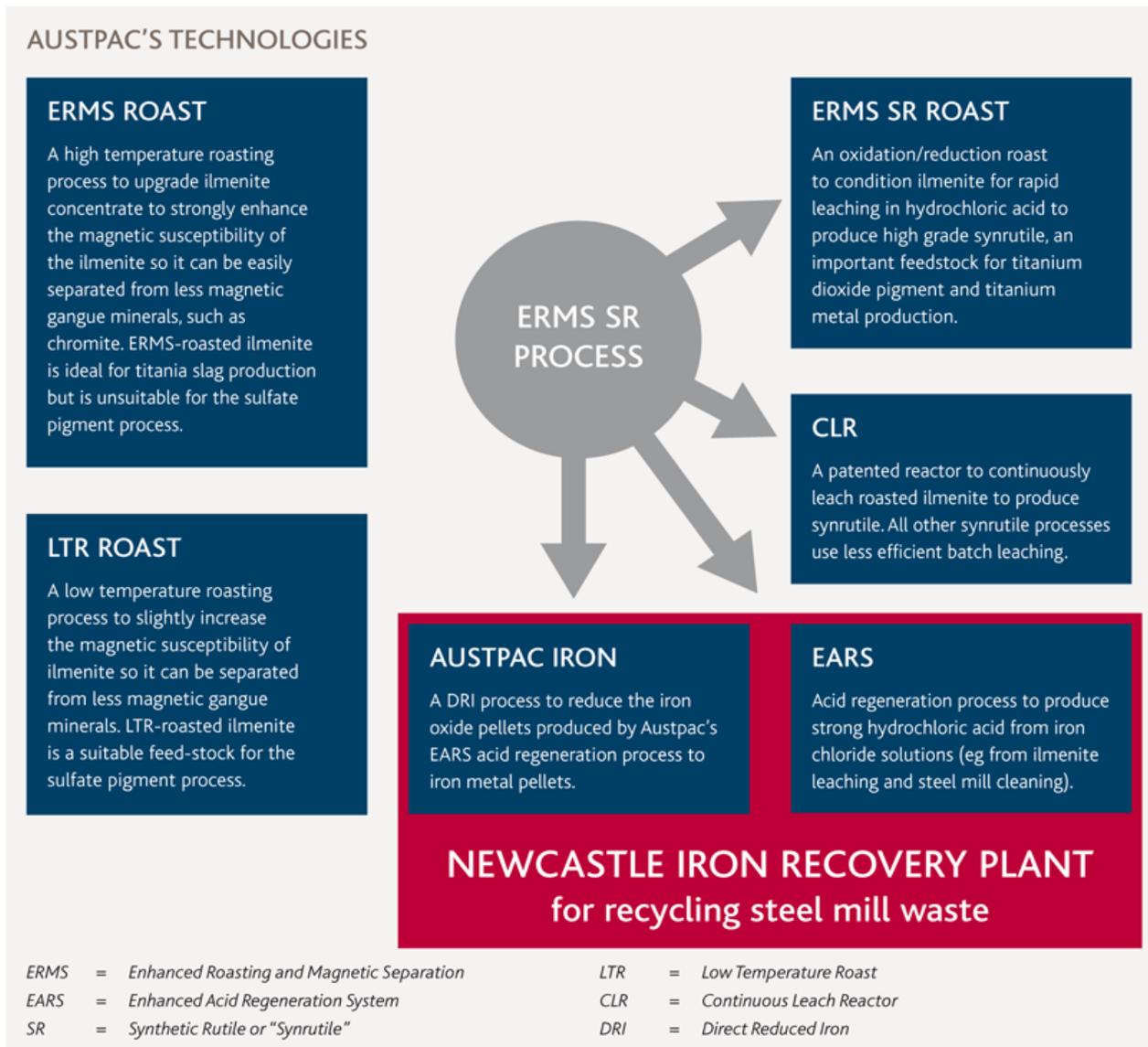
1. TECHNOLOGY AS THE DRIVER OF APG's BUSINESS

1.1 Background to Technology Development

In 2007, APG commenced construction of the ERMS SR Demonstration Plant at its facilities on Kooragang Island, Newcastle, to demonstrate that the Company's technologies could produce both high grade synrutile and an iron co-product by leaching ilmenite in HCl.

The ERMS SR Demonstration Plant incorporated APG's ERMS SR ilmenite roasting process and the patented Continuous Leach process, which together with filtering, drying and calcining, produced ultra-high grade synrutile. The plant also incorporated the patented EARS process and included a novel final metallisation step, which together converted the spent acid (iron chloride) leach liquors into fresh HCl and iron metal. The plant had a nominal capacity to produce 3,000 tpa of ERMS SR synrutile so the integrated EARS acid regeneration section initially had the capacity to recycle 13,000 tpa of iron chloride liquor.

Figure 5: Overview of APG's Technology for Iron Recovery and Synrutile Production (Source: APG 2011 Annual Report)



The Demonstration Plant was commissioned in late 2008 and while it proved the technologies, the EARS section did not operate for sufficient time to obtain data to enable the design of a commercial ERMS SR Plant. The EARS Plant was commissioned on spent pickle liquor (iron chloride, SPL) from a steel mill, and early in 2009, APG realised that by rebuilding this section to withstand long term operations and prove the robustness of the EARS process, it could be used as a stand-alone plant to commercially recycle steel mill wastes.

1.2 Conversion of the ERMS SR Demonstration Plant into the Newcastle Iron Recovery Plant

The Newcastle Iron Recovery Plant project was conceived in 2009 as a recycling project to convert mill waste from the steel industry into saleable products for re-use by industry. SPL and mill scale will be used to make HCl and high grade iron (referred to as Austpac Iron) by modifying and rebuilding parts of the EARS acid regeneration section of the ERMS SR Demonstration Plant at Newcastle.

While the EARS Plant built in 2008 was able to treat 13,000 tpa of iron chloride leach liquor, most of the high temperature equipment required replacing with refractory-lined vessels and ducting, and the metallising section was redesigned and expanded to enable it to process up to 34,000 tpa of SPL.

1.3 Supply and Sales Agreements

Two agreements were finalised in 2010 for the supply of raw materials and the sale of products for initial operations at the Newcastle Iron Recovery Plant.

The first agreement was signed with Orica Australia in August 2010 for the supply of spent pickle liquor and the sale of regenerated hydrochloric acid.

The second agreement was signed in September 2010 with CMC Comerals Australia for the supply of mill scale and coal and the sale of the valuable products, iron chips or briquettes and char (carbon) for foundry castings and steel making. CMC's parent company, the Commercial Metals Company of the US and its subsidiaries, manufacture, recycle and market steel and metal products, related materials and services through a network of mini-mills, fabrication and processing plants in the US and in strategic international markets. For APG, the agreement with CMC also provides the opportunity for the Company to commercialise its technologies around the world.

1.4 Project Funding

In April 2011, APG signed definitive agreements with Kronos International Inc. (Kronos), a subsidiary of Kronos Worldwide, Inc. Kronos Worldwide, together with its affiliates, is a major TiO₂ pigment producer with seven manufacturing sites located in the US, Canada, Germany, Norway and Belgium. Kronos' interest in APG's technology followed successful pilot scale testwork conducted at the Newcastle Plant in 2010, which demonstrated that fresh hydrochloric acid and iron could be produced from a chloride waste stream generated by the chloride TiO₂ pigment process, providing an environmentally sound recycling process for their pigment plants.

The funds provided by Kronos enabled the project to commence in May 2011. Initial work included the extensive redesign of the EARS and Metallisation sections that were used in 2008 to regenerate leach liquors produced by the ERMS SR Demonstration Plant. During the second half of 2011 and into 2012, foundations, process tower structures and ancillary buildings including the mill scale bulk storage shed and suspended plant room, relocation of the bulk gas storage area, the motor control centre, and the power supply upgrade were either well advanced or completed.

1.5 Strong Engineering Capability

APG has a highly competent engineering team, led by John Winter (see biography below) and seven full time specialist employees and consultants. The engineering team was instrumental in identifying a number of modifications or changes to some of the equipment at the facility, which necessitated increasing the size of some equipment.

This led to the capacity of the iron chloride recycling section increasing significantly in order to enable the plant to have sufficient flexibility to process a wide range of materials. The current capacity of the plant is 34,000 tpa of spent liquor compared to the original design of 13,000 tpa.

John Winter, BEng (Hons) Chem. Eng. MIEAust, MIChemE - General Manager, Technology Development

Mr Winter been involved, since 1995, with the with the development of APG's minerals beneficiation technology, including high and low temperature fluid bed roasting, hydrochloric acid leaching, and acid regeneration processes. Initially employed as a Process Engineer working on the development of APG's ERMS process to roast and separate ilmenite, Mr Winter invented APG's continuous leaching, the reduction of iron oxide to iron metal, and fine mineral agglomeration technologies (patents pending). He is the co-inventor of the patented Beneficiated Titania Slag process, and has been responsible for continuing improvements in all aspects of APG's mineral processing know-how.

In addition, he has been involved the beneficiation of mineral sands from projects in Australia, NZ, South Africa, US, Canada, India, Malaysia, including projects with Iscor, Malaysian Titanium, Indian Rare Earths and New Zealand Steel. Mr Winter conceived and technically advised on the process parameters, design and construction of a 2.5 tph fluid bed iron sand roasting plant at New Zealand Steel's Glenbrook steel mill near Auckland and coordinated the commissioning and initial operation of that plant.

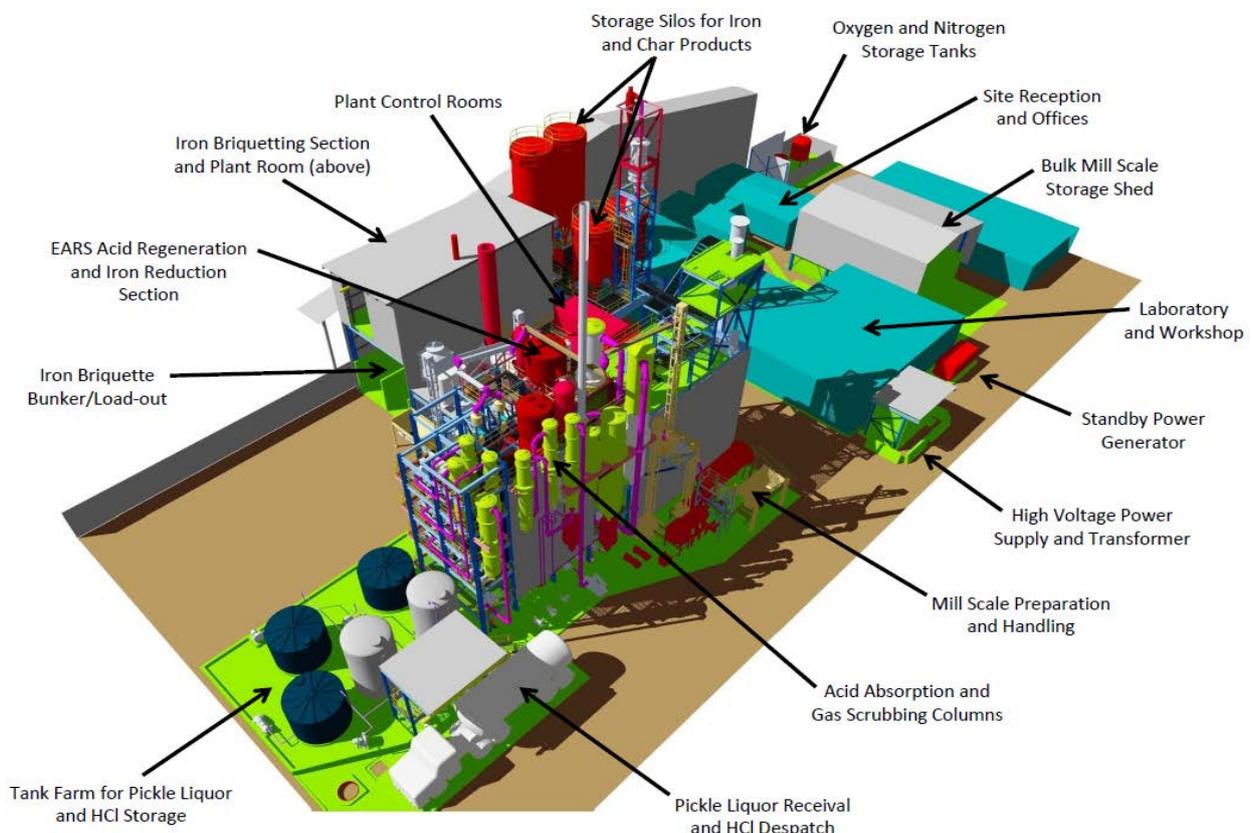
1.6 Preliminary Analysis on Iron Recovery Plant

Internal modeling by APG for the first year of production at full capacity indicates that the project has the potential for a 2-3 year payback period on the total cost of bringing the project into production. This assumes that the plant is operating at full capacity (i.e. Plant to recycle 34,000 tpa of spent pickle liquor and 17,000 tpa of mill scale, to produce 18,000 tpa of hydrochloric acid and 18,000 tpa of iron chips or iron briquettes).

Key observations on operating costs include:

- Once the plant is operational, APG is planning a staged increase in production to full capacity after ~6 months of operations.
- The largest operating cost item is coal, which is required to evaporate water in the spent pickle liquor. APG will use relatively cheaper lower grade thermal coal fines.
- Staff/contractor costs include operators (12 operators working rotating through three shifts per day; seven days per week operation), as well as a Plant Manager and Chemist.
- Power for the plant is reticulated to the site via an underground cable from the main 33,000V power supply. This is reduced with a step-down transformer to 415V, 2,000A for use in the plant.

Figure 6: 3D Image of the Newcastle Iron Recovery Plant (Source: APG)



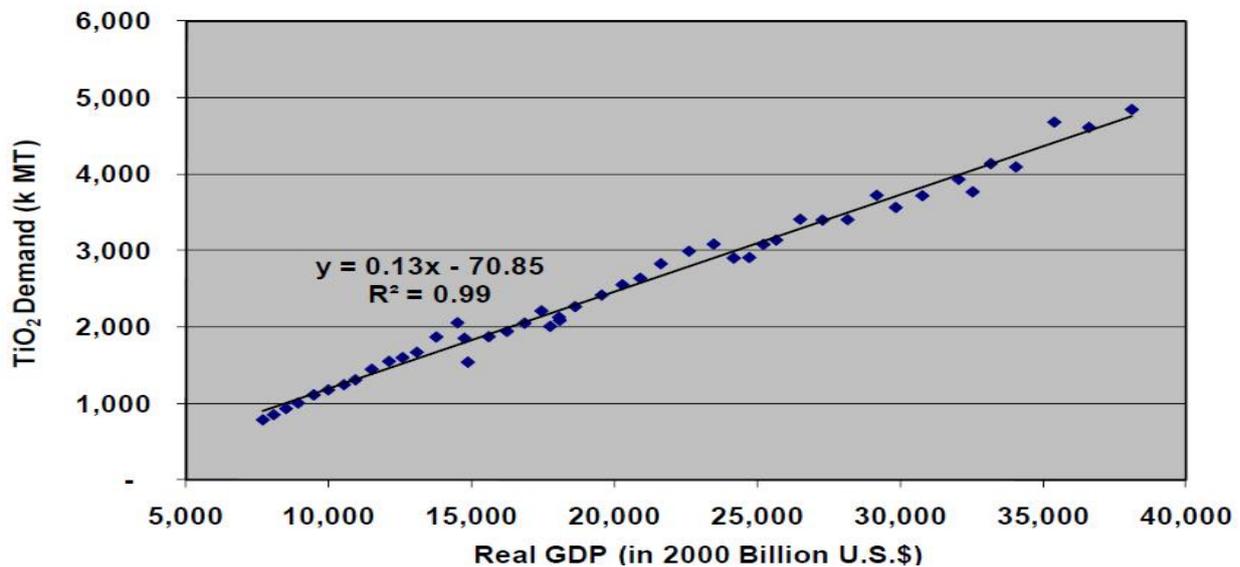
2. TITANIUM PIGMENT AND METAL MARKET

2.1 Overview

Titanium dioxide (TiO₂) is a white pigment that is a key ingredient of paints, coatings, paper and plastics, and it is the material of choice as it is the brightest and whitest commercially available pigment.

TiO₂ is fundamental to many basic building blocks of economies: paint, coatings, housing materials, automobiles, industrial equipment, consumer packaging and construction materials – and as such there is a direct correlation between TiO₂ demand and global GDP, as illustrated in Figure 7.

Figure 7: TiO₂ Demand in comparison to Real GDP (1960-2006)



Source: Global TiO₂ Profile Report, Ti Insight (December 2010)

The titanium industry uses a number of key mineral sands products, commonly referred to as titanium feedstocks. These raw materials are used primarily in the production of TiO₂ pigment and in smaller quantities in the production of titanium metal and welding fluxes. The most common mineral sands products are ilmenite, rutile and to a lesser extent leucosene, plus zircon. Ilmenite mineral sands products can also be upgraded to titanium slag or synrutile. In terms of tonnage, ilmenite is by far the largest mined TiO₂ mineral, with a TiO₂ content on average between 52-54%, and purchased mainly by manufacturers of sulphate TiO₂.

There are two commercially active ways of manufacturing TiO₂ pigments; the sulphate and chloride processes. Sulphate utilises lower grade ilmenite and titania slag, while chloride processing requires higher quality feedstocks such as natural rutile, higher grade titania slag and synrutile. Rutile has almost double the TiO₂ content of ilmenite, at 92-95% TiO₂, but is much less abundant than ilmenite. Chlorinatable titania slag (85-94% TiO₂) is manufactured by electro-smelting ilmenite, while synrutile is manufactured by chemically removing (leaching) the iron component from ilmenite.

2.2 Major Worldwide Producers

In 2010, worldwide TiO₂ pigment production was roughly 6.4 million tonnes of TiO₂ equivalent. Leading producers worldwide include DuPont, Cristal Global, Huntsman Corp., Kronos Worldwide and Tronox. In terms of feedstock mineral production, Australia, Canada, South Africa and Sierra Leone are leading producers. Since 2008/2009, new African sources have come online in Mozambique and Madagascar.

Table 1: Worldwide TiO₂ Production as at 2010

Company	Country	2010 Production ('000 Mt)	% World Production
DuPont	US	1,292	20%
Cristal Global	Saudi Arabia	700	11%
Huntsman	US	565	9%
Kronos	US	533	8%
Tronox	US	465	7%
ISK	Japan	237	4%
Sachtleben	Germany	232	4%
Argex	Canada	195	3%
Dongjia Group	China	145	2%
Lomon	China	134	2%
Crenox	Germany	107	2%
Total World Production		6,397	72%

Source: Global TiO₂ Profile Report, Ti Insight (December 2010)

2.3 Market Outlook for TiO₂ to 2015

The last twenty years have been characterised by relatively flat prices for TiO₂ pigment. Other than the period in the mid to late 1980s, TiO₂ prices have declined on a real basis and generally did not increase enough to offset TiO₂ producer costs, resulting in declining profit margins for producers. However, the current tight TiO₂ supply and demand conditions, means producers are expected to reverse this trend and increase prices on a real basis for the period 2010 through 2015 and beyond.

The titanium metal industry responded to rapidly increasing demand from aircraft makers and industrial plant manufacturers in 2005 and 2006, by creating new sponge capacity, particularly in China, but also in all the main producing countries. Production of sponge increased from 74,000 tonnes in 2003 to 176,000 tonnes in 2008.

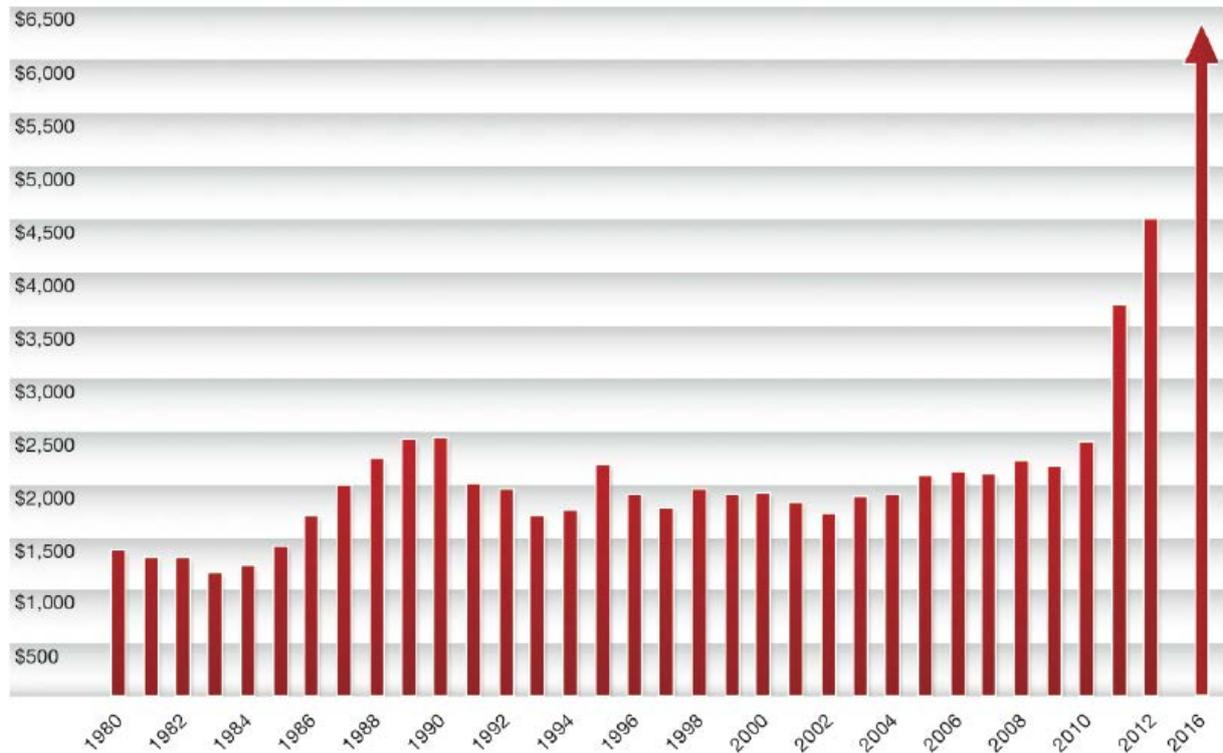
In late 2008, the global economic slowdown and delays in production of the A380 and B787 jet airliners caused a sharp fall in titanium demand just as the new titanium sponge projects were nearing completion. Consequently, in 2009 and 2010, titanium sponge capacity was surplus to demand, and producers idled or (in China) closed sponge plants, and global output fell to 120,000 tonnes. By mid 2010, it was clear that demand for titanium sponge in China was growing strongly and annual global output was forecast to recover to 150,000 tonnes.

In the absence of a significant drop in demand, TiO₂ supply and demand is forecast to remain tight until 2015, with a report by Ti Insight predicting that it is quite likely that TiO₂ producers will have pricing power for most if not all of that period. Since 2010, when the average world price for high quality TiO₂ pigment was approximately

US\$2,400 per metric tonne, the TiO₂ price is forecast to double until 2015, to US\$4,800 per metric tonne².

The longer term driver of the titanium industry is underpinned by the aerospace industry. It is estimated that aerospace applications account for over 50% of demand for mill products in the US and Europe³.

Figure 8: TiO₂ Global Price History



Source: Global TiO₂ Profile Report, Ti Insight (December 2010)

² Source: Global TiO₂ Profile Report, Ti Insight (December 2010)

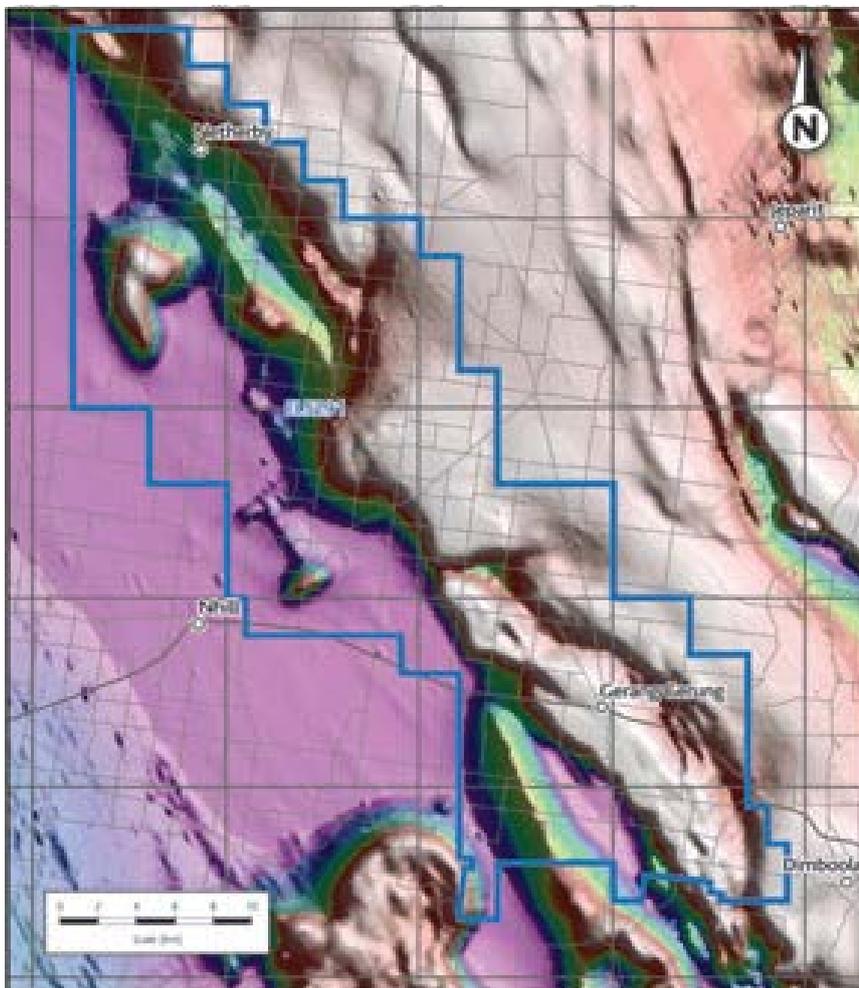
³ Source: Titanium Metal: Market Outlook to 2015 (Roskill: 2010)

3. BASE METALS AND GOLD EXPLORATION

NHILL (EL 5291)

In August 2010, APG acquired EL 5291, covering an area of 746km², near Nhill in western Victoria. The exploration license was acquired to evaluate the potential for base metal and precious metal mineralisation in the basement beneath the relatively shallow, flat-lying cover of Murray Basin sediments. The exploration license covers extensions of the Mt Stavely Volcanic Complex, which is considered highly prospective for base metals.

The tenement area was reduced to 559km² in accordance with a requirement to relinquish 25% of the tenement area on the second anniversary of the exploration license (granted for five years). The area within the tenement that was relinquished represented the less prospective parts of the tenement and was identified from aeromagnetic modeling.



APG completed a compilation of past exploration operation within EL 5291. These include significant surface technical work undertaken recently by several major companies, however no recent drilling has been undertaken into the target basement formations. Previous detailed computer modeling and interpretation of low-level aeromagnetic survey data has been used to assess the variations in the depth of the prospective basement lithologies.

During the September 2012 quarter, APG completed an initial ground magnetic surveying program at 1-metre station spacing in the SE portion of EL 5291. The high resolution measurements are very superior to the pre-existing 50-metre station spacing airborne data and are providing much more reliable models of basement geology. The Company is planning more detailed ground magnetic surveying as soon as access to land is possible following the crop harvest.

Figure 9: Area of EL 5291 superimposed on image of total magnetic intensity data

Source: APG Annual Report 2012

4. COMPANY BACKGROUND AND KEY FINANCIALS

4.1 The Austpac Journey

APG was formed as an epithermal gold explorer in 1985 and listed on the ASX in 1986. The Company later became involved in the Westport ilmenite sand deposits in NZ. This led to the development of the Company's proprietary ERMS roasting process to separate refractory ilmenite and, subsequently, to the patented EARS acid regeneration process.

The ERMS SR process is used for the production of high grade synrutile and iron metal pellets from ilmenite. Since the mid 1990s, APG has focused on its mineral sand technologies and has developed a proprietary continuous leaching process and specialist know-how in low temperature roasting and in the treatment of iron minerals.

In early 1998, APG adapted a decommissioned hydrofluoric acid plant on Kooragang Island in Newcastle NSW to serve as the site of the Company's 3,000 tpa ERMS SR Demonstration Plant. In 2000, three roasters were installed in the plant and the Kooragang Island pilot plant was run in various configurations on a campaign basis for internal test work and research as well as client based applications.

By 2004, APG recognised it would be necessary to build a more sophisticated plant capable of testing all the technologies that comprise the ERMS SR process. BHP Billiton subsequently funded a research program in 2006 and also supported APG's capital raisings to fund the construction and operation of the ERMS SR Demonstration Plant.

In addition to the Company's proprietary technologies, APG has, for several years, been investigating the potential for gold and base metal mineralisation in the Cambrian basement rocks which occur beneath the much younger marine sediments of the Murray Basin. In February 2010, APG was granted funding of \$14,000 under Round 3 of the Department of Primary Industries "Rediscover Victoria" Drilling Program for a fence of vertical air core holes designed to further investigate the basement rocks below the Murray Basin mineral sands in the western portion of EL 4521.

4.2 Funding Requirements

As at 30 September 2012, APG had a cash balance of \$1.77 million, with a debt-free balance sheet. In the preceding 12 months, the Company has spent over \$10 million on the Newcastle Plant, including \$6 million for equipment.

The level of funding has since been boosted by two separate placements that have raised \$3.6 million in order to continue development of the Newcastle Iron Recovery Plant and to support working capital requirements. The placements included:

1. A private placement to professional investors in July 2012 which raised \$1.71 million (57 million shares issued at 3 cents each) and
2. A placement to Orient Zirconic Resources (Australia) P/L in August 2012 which raised \$1.89 million (33 million shares issued at 6 cents each)

In order to reach its target of commencing operations at the Newcastle Plant by mid 2013, and to satisfy working capital requirements prior to the commencement of operations, the Company is currently aiming to source additional funding.

Over \$12 million has been spent on the Plant since the project's inception in April 2011 and APG estimates that it will require a further \$5-6 million in funding in order to commence production by mid 2013.

APG is aiming to raise funds from the sale of EL 4521 (WIM 150) to Orient Zirconic for \$7.5 million, announced in August 2012. This sale is subject to the consent of Australian Zircon NL as the farminee⁴ and the approval of the Victorian Minister for Planning (who has determined that an Environment Effect Statement is required for the project). The Company is confident that the sale will be finalised before the end of 2012.

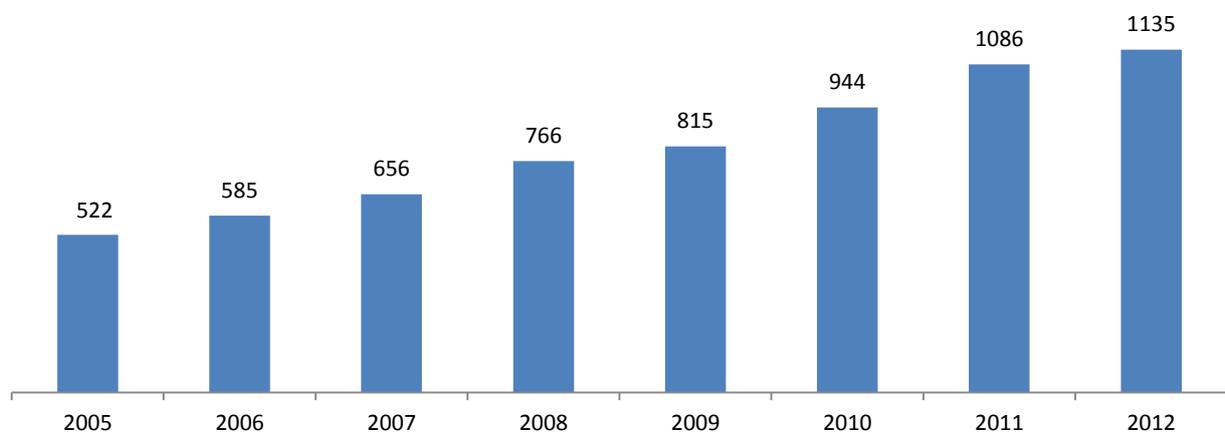
4.3 Capital Structure

APG has a tightly-held share register, with the top 20 shareholders holding ~37% of the total shares on issue. There are currently a total of ~1,192 million ordinary shares on issue and no options on issue. As at 12 September 2012, there were 4,376 ordinary shareholders, of which 1,564 shareholders (~36%) held an unmarketable parcel.

The major (and only substantial) shareholder is Kronos International Inc. Kronos' hold a total of ~76.5 million shares (6.4%), after initially being issued ~11.5 million shares in April 2011 in exchange for initial funding for the project and later participation in a share placement in May 2011. The second major shareholder is BHP Billiton, who acquired its interest by contributing a total of \$8 million in two share placements in 2007 and 2008 to receive a shareholding of 55 million shares (4.6%).

The balance of the top 20 shareholders comprises sophisticated and retail investors. Directors', Officers' and key employees' shareholdings represent ~6.8% of the total shares on issue.

Figure 10: Historical shares on issue (million) as at 30 June



Source: APG Annual Reports

⁴ Under a Farm-In Agreement signed in 2004, Australian Zircon NL has the right to earn an 80% interest in the WIM 150 project by completing a Bankable Feasibility Study

5. BOARD OF DIRECTORS

DIRECTOR	BACKGROUND
<p>Terry Cuthbertson <i>Non Executive Chairman</i></p> <p><u>Interest in APG:</u> ~7.7m ordinary shares</p>	<p>Mr Cuthbertson, appointed a Director of APG in March 2001 and Chairman of APG in May 2004, has extensive international corporate experience, including a practical operating knowledge of business practices and structures in India, China and SE Asia.</p> <p>Mr Cuthbertson currently holds Chairmanships for a number of ASX-listed companies, including Montec International Ltd (ASX:MTI), S2 Net Ltd (delisted), Mint Wireless Ltd (ASX:MNW), MyNetFone Ltd (ASX:MNF), and South American Iron and Steel Limited (ASX:SAY). He is also a non-Executive Director of Healthzone Ltd. He was previously Group Finance Director for Tech Pacific Holdings P/L, which generated over \$2 billion in revenues from operations throughout the Asia-Pacific Region. From 1986 to 1995 he was a Senior Partner of KPMG, specialising in strategic and corporate advice to major corporations.</p>
<p>Michael Turbott <i>Managing Director</i></p> <p><u>Interest in APG:</u> ~22.2m ordinary shares</p>	<p>Mr Turbott has 44 years' experience in the mining industry, encompassing a wide variety of exploration and development projects in Australia, NZ, PNG, Indonesia, Philippines, Canada and the US.</p> <p>Mr Turbott has been Managing Director of APG since the formation of the company in 1985 as an epithermal gold explorer. He was formerly a Director and Vice President of Kennecott Explorations (Australia) Ltd, and was in charge of the exploration programs that led to the discovery of the Lihir gold deposit in PNG and to the acquisition and initial development of the Gordonstone coal mine in the Bowen Basin, Queensland.</p>
<p>Robert Harrison <i>Non Executive Director</i></p> <p><u>Interest in APG:</u> 6.5m ordinary shares</p>	<p>Mr Harrison, appointed as a Non Executive Director in September 2004, has over 24 years experience in the marketing of titanium minerals and zircon. He was Managing Director of Consolidated Rutile Limited's marketing subsidiary Minerals Pty Limited for a number of years before forming the mineral sands marketing consultancy Mineralex Agencies P/L, of which he is Managing Director.</p> <p>Since 1986, Mr Harrison has provided marketing support, market surveys, statistical analyses and product reviews for titanium dioxide feedstocks, titanium dioxide pigments and zircon to a range of significant producers and consumers of those products in Australia, India, Africa, Europe and the US.</p>

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