



## ACTIVITIES REPORT- QUARTER ENDED 31 DECEMBER 2006

### HIGHLIGHTS

- **Windimurra Vanadium Mine Development Underway**
- **Thiess Promet Joint Venture progress engineering design of crushing to beneficiation section of Windimurra Plant**
- **Proteus Engineers awarded front end design and engineering for magnetite to final product section of Windimurra Plant**
- **Drytech International awarded contract for design and supply of specialist vanadium oxide and ferrovanadium furnaces, magnetite flash dryer and liquor evaporators**
- **Contracts awarded for**
  - **Refurbishment of borefield**
  - **Installation of construction village**
  - **Supply of 140 person high quality, permanent village**
- **Orders for long lead items placed including:**
  - **High Pressure Grinding Rolls**
  - **Gas Turbine Power Station**
- **PMA presents Vanadium Paper at International Conference**
- **Drilling confirms vanadium and titanium mineralisation parallel to existing ore zone**
- **Equity issues of \$50 million completed**
- **Banking due diligence work proceeding**

For queries and information in respect of this report, please contact:-

**Roderick Smith**  
Managing Director  
Tel: 08 9423 1900  
[rsmith@pmaal.com.au](mailto:rsmith@pmaal.com.au)

**Mike Drew**  
Chief Financial Officer  
Tel: 08 9423 1900  
[mdrew@pmaal.com.au](mailto:mdrew@pmaal.com.au)

**PMA**  
PRECIOUS METALS  
AUSTRALIA LIMITED

**Postal Address:**  
PO Box 620  
West Perth WA 6872 Australia

**Registered Address:**  
Level 4, 76 Kings Park Road  
West Perth Western Australia 6005

Email: [info@pmaal.com.au](mailto:info@pmaal.com.au)  
Website: [www.pmaal.com.au](http://www.pmaal.com.au)  
Tel: (61 8) 9423 1900  
Fax: (61 8) 9423 1999  
ABN: 65 009 131 533  
ASX Code: PMA

## **WINDIMURRA VANADIUM MINE (PMA 90%)**

The Windimurra mine development is now moving from detailed design to the construction phase, with major sections of work being awarded.

### **Engineering and Construction**

#### Thiess ProMet Joint Venture (TPJV)

TPJV have continued to progress the Front End Engineering Design (FEED) study and have:

- issued preliminary general arrangement plans of the crushing, regrind and beneficiation areas for review;
- issued 33 tender packages for equipment to selected vendors;
- provided a set of standard drawing and specifications;
- issued an approved set of process flow sheets and are presently working on process and instrumentation drawings;
- provided an updated load list.

#### Proteus Engineers

Proteus have been awarded the front end engineering design for the centre section of the process plant which covers the roasting kiln through to the AMV belt filter. Proteus are in the process of laying out the discharge end of the kiln with variations for technical and costing comparisons and have issued preliminary flow-sheets.

Proteus and PMA are presently advancing the detailed design engineering for the front end section, with the majority of the process flow diagrams completed.

#### Drytech International

During the Quarter the Company finalised the agreement with South African-based Drytech International for the design and manufacture of new high-tech vanadium processing equipment worth approximately \$20 million.

The equipment to be supplied by Drytech will be manufactured in South Africa, avoiding construction and fabrication bottlenecks in Australia. The equipment includes an ammonium metavanadate flash dryer, a pair of reactors to produce vanadium trioxide, a magnetite flash dryer (which uses waste heat from the kiln) and a liquor evaporator (which uses waste heat from the gas turbine power station).

Drytech is an experienced supplier of the critical vanadium trioxide ( $V_2O_3$ ) reactor required for cost effective production of ferrovandium.

Drytech have now provided their detailed equipment load list and preliminary drawings of the flash dryer and kilns.

A simulation of the kiln operation conducted under the control of Drytech in South Africa has shown that using the originally installed 110 GJ/hr gas burner, with pre drying of feed, kiln capacity would be sufficient to process the BFS feed tonnes requirement. However, during the original Windimurra mine operation the burner was up-rated to a 160GJ/hr unit which is still installed. Drytech have subsequently been requested to run the simulation on the higher rated burner to establish the magnitude of spare kiln capacity.

### **Titanium Separation Test Work**

Samples of high titanium ( $TiO_2 > 25\%$ ) material from reverse circulation samples, and material from the ROM were sent to a specialist laboratory overseas during December. A programme of research and testwork is currently underway, with a view to determining a process route which may provide a potentially economic titanium mineral concentrate.

### **Windimurra Construction**

Refurbishment and installation of six bore pumps complete with starter panels has been awarded to Western Irrigation.

Budget pricing has been provided for a 72m<sup>2</sup> magnetite and 15m<sup>2</sup> AMV belt filters. Tender documents are to be issued.

Refurbishment of the existing Jaw crusher was awarded to Metso and will be conducted off site.

Project schedulers, JCA, are in the process of collecting initial project schedules from the various consultants in order to produce a master programme.

Budget pricing has been obtained for the refractory lining of the existing 126 meter Windimurra kiln. Tender documents are being prepared by Proteus.

The 186 tonne Hitachi excavator purchased by the Company last quarter is being converted for duty in Australian conditions with upgraded operator comfort and safety.

## Windimurra Site Activities

Test pits were completed on site to provide geotechnical design information for earth and concrete works.

Dewatering of the northern end of the pit is in progress.

Both Thiess-ProMet Joint Venture and Proteus have carried out a detailed survey of the existing concrete and steel structures of their portion of the plant, to facilitate refurbishment, alteration or removal as required.

A six channel radio repeater system has been installed using the existing 105ft communication tower. This allows reliable radio communication throughout the mine site area and environs.

Removal of the old refractory lining from the 126 meter Windimurra kiln has been completed in order to facilitate relining with new refractory.

## Windimurra Village

### Construction Village

The construction village accommodating 120 people to a high standard of comfort is being completed.

### Permanent Village

The permanent Windimurra village will be built to a high standard to attract a high quality workforce, and be installed at a cost of approximately \$6m. Existing facilities not included in this cost include a tennis court, swimming pool, wet mess, office and first aid station.

A contract for the supply of 140 new high quality ensuite accommodation rooms and the 150 person kitchen/dinner together with ancillary buildings is being finalised with Ausco.

A waste water treatment system costing approximately \$500,000 has also been awarded.

The site communication project which involves broad band and VoIP access to Windimurra, is well underway, with all major equipment items on order and expected to be operational by February 2007.

## Solar Turbines

A contract was awarded to Solar Turbines International Company for the supply and installation of the gas turbine power station. The early awarded of this contract ensures the timely delivery of the three Taurus 60 gas turbines.

## Alinta Asset Management

The "Preliminary Estimate and Design Study" for the provision of gas and electrical infrastructure and overhead high voltage powerlines was received from Alinta Asset Management. Negotiations on commercial terms commenced in January.

## High Pressure Grinding Rolls

An order has been placed with a German manufacturer for the principal comminution equipment, being an high pressure grinding rolls. The equipment is supplied on a fixed cost, guaranteed delivery and guaranteed throughput at a cost of approximately \$3m.

## Vanadium Conferences

PMA Managing Director Roderick Smith presented a paper on vanadium supply and demand at the International Ferro Alloys Conference in Prague in November. PMA also maintained a booth at the conference, which was attended by 780 delegates. A copy of the paper is available on the PMA web site under "Presentations".

Metal Bulletin are holding the Asian Ferro Alloys Conference, in Hong Kong on 26 - 29 March. PMA Managing Director Roderick Smith will give the vanadium paper at that conference.

## Environmental and Other Approvals

A response to queries and feedback on the Windimurra Environmental Management Plan (EMP) from all relevant Environmental Regulatory Authorities was provided in December, through the Environmental Protection Authority. The EMP and associated section 45c for non-substantial change to the Windimurra Operation is expected to be finalized during the current quarter.

A separate 45c submission will be made in relation to the non-magnetic tailings dam redesign, commenced by Golder Associates in January.

Work continued on preparing information required for the Works Approval and Mining Proposal submissions. Key elements of the Works Approval include process plant design, waste stream characterization, reagents and air emissions modelling and characterization. Key elements of the Mining Proposal include the mine design and waste facility design. Both submissions require Environmental Impact Assessments (EIA) (flora, fauna and heritage) which have been completed.

An ethnographic heritage EIA was completed for the southern exploration leases during December. A flora survey was also recently completed on these leases. Exploration drilling can now be planned in these leases with the confidence that the flora and heritage value of the land is understood to a level required for exploration drilling.

The Company has made steady progress in setting up the necessary safety and environmental management systems ahead of moving into project construction mode.

### **Health and Safety**

The Safety Management System (SMS) is being developed to clearly define performance standards for managing health and safety across the Windimurra site. The system will be aligned with the requirements of Australian Standards 4801 and 4804.

The SMS is supported by a number of Plans, e.g. Emergency Management Plan, Safety Risk Management Plan, etc that define focused objectives, performance targets, and resource requirements of key safety functions and processes described in the SMS. These are described below.

#### Leadership & Accountability

A Safety Management System has been developed, with Major Hazard Standards, and Safety Procedures.

A Managers Site Safety Inspection Checklist has been prepared will be implemented in January.

#### Incident Reporting

An interim Incident Reporting procedure was established for the pre-construction stage to ensure effective reporting of incidents on site, and identification of incidents reportable to regulatory authorities.

#### Planning, Goals & Targets

A review of the Safety and Wellbeing Management Plan commenced to ensure applicability and relevance to construction activities.

#### Risk & Change Management

In November 2006 the Department of Consumer and Employment Protection approved the Windimurra Project Management Plan (**PMP**). In line with commitments made in the PMP a pre-construction review has commenced of the Safety Risk Management Plan.

#### Facilities, Plant & Equipment

A Workplace Inspection Checklist has been drafted for implementation on site in January.

### Contractors & Suppliers

Finalisation of the contractor management elements of the Safety Management System is expected in early January.

A review process has been established for Contractors Safety Management Plans. This entails a safety and environmental review process, prior to approval and implementation of the Plan.

### Competency & Behaviour

A Visitors Orientation and All-of-Site Induction have been prepared and implemented. These will be reviewed prior to commencement of construction activities.

### Health & Hygiene

Development of medical protocols has commenced. These will be reviewed and authorized by a medical provider.

Applications for a Poisons Permit to stock and administer medications has been made.

In line with commitments made in the Project Management Plan, a pre-construction review has commenced of the Hygiene Management Plan.

### Emergency & Crisis Management

Preparations continued to establish medical and emergency response capabilities on site.

These included:-

- Re-establishing the existing First Aid Facility with equipment and supplies.
- Purchase of a new 4 x 4 ambulance / emergency vehicle, completely fitted out and commissioned at site, along with a second-hand backup vehicle.



*The new 4x4 Ambulance / Emergency Vehicle*

- Setting up an operational medical chest from the Royal Flying Doctor Service.
- Reviewing earthworks required to upgrade the airstrip to Royal Flying Doctor Service standards.
- Reviewing and implementing the Emergency Plan.
- A fire engine has been equipped and commissioned at site.

- Reviewing fire services on site, including: hydrants, extinguishers, operability of the fire tender.
- Fire training of site personnel.

### Exploration

During the quarter the Company completed a significant new reverse circulation drilling program targeting a parallel zone of mineralisation alongside the existing Windimurra ore reserve. The drilling program will provide additional information for pit optimisation work currently underway.

By completion of the programme on 13<sup>th</sup> January 2007, a total of 2,426 metres was completed against a budget of 2,500 metres.

A total of 26 holes were completed to an average hole depth of 90 metres, with three penetrating to 160 metres. The drill holes were sited along the hanging wall of the existing ore reserve zone, with chip logging results confirming the continuation at width of near-surface oxidised magnetite plus fresh magnetite mineralisation at depth. To date, assays for nine holes have been received from the laboratory. These indicate that good mineralisation extends west outside the current resource model.

A truck-mounted geophysical logging unit logged the holes on completion, recording down-hole deviation, density, and magnetic susceptibility at 5cm intervals.

Holes drilled by PMA in early 2006 along the northern part of the resource were also logged. The new relative downhole position of the samples will be incorporated into the new model. Both the hand-held and downhole magnetic susceptibility readings clearly identified the demarcation between oxidation and fresh material, with a significant order of magnitude increase between oxidised and fresh magnetite.

A stratigraphic composite log of the Windimurra deposit is being generated by combining lithological chip logging, down-hole geophysics, and downhole geochemistry.



Orbit Drilling T660 Reverse Circulation Rig operating at Windimurra, December 2006

This will assist in interpreting data from future drilling programs, both near-pit and regional exploration over the strike length of the deposit.

Holes were logged using the standard Windimurra logging codes, and each sample was also tested using a hand-held magnetic susceptibility meter. All samples were dispatched to Ultra Trace for XRF analysis for a range of elements, including vanadium, iron, titanium, chromium, and nickel.

Chip logging generally showed the expected lithologies and geology. Vanadium, titanium, and iron grades will be used in conjunction with magnetic susceptibility and geophysical readings to generate a geological interpretation for the hanging wall area.



Dr Paul Armstrong and Windimurra Environmental Superintendent Carrie Pritchard examine a *Ptilotus* plant



Nick Barr logging drill chips Jan 2007

## Noble Resources Limited

During the quarter Noble Resources Limited (“Noble”) completed its \$13.5m direct investment in the Windimurra Vanadium Mine by taking a 9.999% interest in Windimurra Vanadium Pty Ltd, the special purpose company that owns the Windimurra assets.

The Company is able to call at any time on an \$8.2m three year, unsecured convertible note, with a conversion price of \$2.20 per share.

The Vanadium Sales and Marketing Agreement with Noble has one remaining condition precedent, which is that Project Finance be secured on terms acceptable to PMA by 31 December 2006.

Given the steady progress on the project finance PMA and Noble have agreed to extend the time for satisfaction of this condition precedent which has been extended to 31 March 2007. Upon satisfaction of the remaining condition precedent the Company will allot to Noble approximately 3.7m shares.

## Finance

Total cash resources (of PMA and Windimurra Vanadium Pty Ltd) exceeded **\$68m** at quarter’s end with a further approximately **\$29m** to be received in January 2007 from the share issues described below.

Discussions with banks for conclusion of the debt financing of the Project are proceeding well, with significant due diligence work being completed during the quarter.

The banks appointed an independent technical adviser, Behre Dolbear Australia to complete a technical review of the project in support of project financing. This report is at final draft stage with completion expected shortly. Metal Bulletin have completed an update of their independent marketing report.

## CORPORATE

### \$50M Equity Issue

PMA finalised a key component of the finance package for the \$200 million redevelopment of Windimurra after completing a \$48.5 million share placement plus a Share Purchase Plan (SPP) which has raised a further \$2.7 million.

Following completion of the equity issues above PMA has had in excess of \$100 million equity, effectively underpinning the equity component of the total finance package for redevelopment of the Windimurra Mine.

The share placement comprised 24,871,795 shares at a price of \$1.95 per share and raised

approximately \$48.5 million from Australian and international institutions and clients of leading Australian broking firm, Patersons Securities Limited, whom acted as Lead Manager.

The placement was heavily oversubscribed, with strong support from both new and existing institutional shareholders in Australia and overseas.

The placement was completed in two tranches, with 11,328,064 shares issued on 15 December 2006 and the second tranche of 13,543,731 shares being approved by shareholders on 24 January 2007. These new shares will rank equally with PMA’s existing ordinary shares.

The board has been pleased to welcome a number of substantial new institutional investors to the Company’s register and has expressed gratitude to the group of existing institutions who continue to support the Company, and who have supported this capital raising.

## Share Purchase Plan

In order to allow participation by smaller shareholders, an offer was also made under a Share Purchase Plan (“SPP”) for eligible Australian and New Zealand shareholders to purchase up to \$5,000 worth of shares, at the placement price of \$1.95 per share. Paterson’s Securities underwrote the SPP to \$1.5 million.

The SPP closed on 25 January 2007 with applications for 1,384,515 shares received from 585 eligible shareholders. The SPP with raise approximately \$2.7m. As shareholder demand was well in excess of the minimum amount under the SPP, the Board elected to accept additional applications in order to avoid cutting back allocations to applicants.

The SPP was successful in increasing the number of shareholders from 864 immediately before the SPP to over 1,290 shareholders. This is expected to increase liquidity in the Company’s shares.

## PERSONNEL

### New Staff

The board has decided to split the roles of Company Secretary and Chief Financial Officer in order to increase our capacity to negotiate and execute key contracts and financial transactions, and to enhance corporate governance.

On behalf of the board we welcome the following new key management personnel who will commence with PMA in February 2007:

### **Company Secretary / Legal Counsel – Matthew Lilly LLB**

Matthew gained his legal training post graduation at Parker & Parker and served seven years at Alcoa as corporate solicitor and company secretary. The last three years he served a privately owned Group as Commercial Manager and Company Secretary with a wide range of responsibilities including legal counsel, compliance with banking covenants, insurance management, corporate affairs, strategy, business restructure, business acquisition and divestment.

### **Chief Financial Officer – Garry Korte B Comm Dip Acc ACA CIMA**

Garry was CFO of a South African mining and materials handling contractor before joining a leading resource finance consultant in Sydney for three years. There he acted for clients in capital raising, debt structuring, merger and acquisition and strategic planning. The last three years Garry has been General Manager, Commercial of Brambles Industrial Services. In that role he was responsible for negotiating major contracts for transport and mining, developing business cases and proposals for board approval, analysis, budgeting, management accounts.

### **Logistics Supervisor – Paul Beagley**

Paul has rejoined Windimurra in the position of Logistics Supervisor. Paul previously worked at Windimurra from 1999 to 2003 and his return is greatly welcome. Paul's tasks will include establishing the mine store and initial stocking of inventory.

### **New Directors – Mr Ricardo Leiman and Dr Wolf Martinick**

The Board of Precious Metals Australia Limited were pleased to welcome two new non-executive directors during the quarter, Mr Ricardo Leiman and Dr Wolf Martinick. This lifts the number of non-executive directors to six including the Chairman, which together with two executive directors fulfils or exceeds standards of corporate governance relating to board composition.

*The information in the report to which this statement is attached that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Ian Hassall, who is a Member of the Australian Institute of Mining and Metallurgy, and a full-time employee of Windimurra Vanadium Pty Ltd. Ian Hassall 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'. Ian Hassall consents to the inclusion in the report of matters based on his information in the form and context in which it appears.*

Ricardo is the Chief Operating Officer and Executive Vice President of Noble Group Limited.

He holds MBAs from the University of Rochester NY, USA and the University of Nyenrode, the Netherlands as well as an Economics degree from the University of Sao Paulo, Brazil.

The Board looks forward to having the benefit of Ricardo's experience in commodities, logistics and international business.

Mr Leiman has also been appointed as a Director of Windimurra Vanadium Pty Ltd, which holds the Windimurra vanadium assets and is owned 9.999% by Noble Resources Limited.

Dr Wolf Martinick is an environmental scientist with more than 35 years experience in the resources industry.

He is Chairman of Weatherly International Ltd, an AIM listed mining group with copper mining and smelting interests in Namibia, a Non-Executive Director of Sun Resources NL, an oil and gas exploration company, Executive Chairman of Ezenet Limited, and a Director of Uran Limited.



Dr Wolf Martinick

Dr Martinick has a BSc (Agric) and PhD from the University of Tasmania.

Yours sincerely

**By Order of the Board  
PRECIOUS METALS AUSTRALIA LIMITED**

**RODERICK SMITH  
Managing Director**