M E R I W A

MERIWA Annual Report 2006-2007

MINERALS AND ENERGY RESEARCH INSTITUTE
OF WESTERN AUSTRALIA

"To encourage the development of the Minerals and Energy Industries within the State by fostering and promoting all aspects of minerals and energy research"

Contents

Letter of Transmittal

MINERALS AND ENERGY RESEARCH INSTITUTE OF WESTERN AUSTRALIA

Annual Report 2006-2007

Hon. Francis Logan MLA
Minister for Resources
Parliament House
PERTH WA 6000

On behalf of the Board of Directors, I am pleased to submit the Annual Report of the Minerals and Energy Research Institute of Western Australia (MERIWA) for the year ending 30 June 2007, for your information and presentation to Parliament.

MERIWA's objectives are to promote and co-ordinate research for the development of the minerals and energy industries in this State, and the Board is satisfied with the results of MERIWA's operations for the year and its performance towards the achievement of these objectives.

The Board acknowledges the valuable support given to the Institute by your office and by the Department of Industry and Resources during the year, and by the Minerals Research Advisory Committee, many of the members of which have contributed their time and assistance in an honorary capacity.

S R Baker
Chairman
Board of Directors

25 September 2007

Statement of Compliance with Relevant Written Law

Enabling Legislation

The Minerals and Energy Research Institute of Western Australia is established under the Minerals and Energy Research Act, 1987, as amended by The Energy Legislation Amendment Act, 2003.

Legislation Administered

The Institute does not administer legislation.

Legislation Impacting on the Institute's Activities

In the performance of its functions, the Institute complies with all relevant written laws including the following:

- Financial Management Act, 2006; (FMA)
- Public Sector Management Act 1994
- Equal Opportunity Act 1984
- Occupational Safety and Health Act 1984
- State Records Act 2000
- Government Financial Responsibility Act 2000
- Interpretation Act 1984
- Minimum Conditions of Employment Act 1993
- Industrial Relations Act 1979
- Library Board of Western Australia Act 1951
- Disability Services Act 1993
- Freedom of Information Act 1992
- Public Interest Disclosure Act 2003
- Electoral Act 1907
- Superannuation Guarantee (Administration) Act 1992

In the financial administration of the Minerals and Energy Research Institute of Western Australia we have complied with the requirements of the FMA and every other relevant written law, and exercised controls which provide reasonable assurance that the receipt and expenditure of moneys, the acquisition and disposal of public property and incurring of liabilities, have been in accordance with legislative provisions.

In its general administration, MERIWA has also complied with public sector standards for human resource management and the code of ethics and code of conduct, as required by the Public Sector Management Act 1994, and report that no applications for breaches of these standards have been lodged during the 2006/2007 year.

The Board continues to support regional research centres, particularly the Western Australian School of Mines at Kalgoorlie.

Statement of Compliance with Relevant Written Law

Compliance Statements

Advertising and Sponsorship

Expenditure incurred by the Minerals and Energy Research Institute of Western Australia during 2006/2007 in relation to section 175ZE of the Electoral Act 1907 was as follows:

	$
Advertising agencies	Nil
Market research organisations	Nil
Polling organisations	Nil
Direct mail organisations	Nil
- West Australian Newspapers	946

Freedom of Information

There were no applications under the Freedom of Information Act during the year. A copy of the Information Statement is available by contacting the Executive Officer on 9222 3397 or by writing to the Minerals and Energy Research Institute of Western Australia, 100 Plain Street, East Perth 6004.

Disability Services Plan

The Institute is housed within the Department of Industry and Resources building, Mineral House, 100 Plain Street, East Perth, which has a comprehensive and effective plan to ensure compliance with the Disability Services Act, 1993.

Customer Group Outcomes

Due to the small size of the Institute matters concerning women, family and domestic violence, equal employment opportunities, language, cultural diversity and youth will be addressed on an individual basis as required.

Corruption Prevention

The Board of MERIWA is satisfied that the processes and procedures followed by the Agency, its staff and committees are robust and effective in the requirement to eliminate the possibility of corruption.

Information Systems and Services

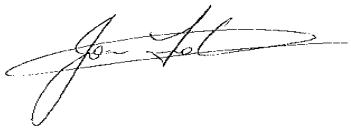
In accordance with the State Records Act of 2000, the effectiveness and efficiency of the record keeping and disposal schedule was completed during the year.

- Staff were familiarised with the Plan.
- Due to the small size of the Agency, training and familiarisation for new employees will be undertaken on a “one on one” basis as required.
- The effectiveness of the Plan will be reviewed as required but no later than 30 June 2010.

Statement of Compliance with Relevant Written Law

All research completed is published as reports that are available to the public at cost of production. Reports are available in both CD-ROM and hardcopy formats. Some earlier copies are only available as hardcopies or microfiche.

At the date of signing, we are not aware of any circumstances, which would render the particulars included in this statement misleading or inaccurate.



J Fortuna
CHIEF FINANCE OFFICER

S R Baker
CHAIRMAN,
BOARD OF DIRECTORS

3 September 2007

Functions

The Minerals and Energy Research Institute of Western Australia (MERIWA) was established under the Minerals and Energy Research Act, 1987 (No. 89 of 1987), and is a statutory authority. The function of the Institute is to encourage the development of the minerals and energy industries for the benefit of the State by fostering and promoting all aspects of minerals research and energy research through:-

(a) undertaking, in its own right or in conjunction with other persons, such research projects as it thinks fit, and evaluating research projects so undertaken;

(b) investigating matters, and undertaking research projects relevant to the development of those industries, referred to it by the Minister;

(c) co-ordinating, when appropriate and practicable, research projects undertaken by persons who -

(i) have received financial assistance or any other form of support from; or
(ii) seek or agree to have their research projects co-ordinated by,

the Institute;

(d) receiving and considering applications from persons undertaking or wishing to undertake research projects and seeking financial assistance from the Institute;

(e) allocating, at its discretion to persons, out of the Account, financial assistance to enable or assist persons referred to in paragraph (d) to undertake or continue research projects;

(f) entering into agreements with persons to whom the Institute has allocated financial assistance with respect to the terms and conditions of the allocation of that financial assistance, which terms and conditions may include a condition that such a person shall comply with any directions or guidelines issued by the Institute in relation to the conduct of a research project;

(g) monitoring and evaluating research projects in respect of which the Institute has allocated financial assistance and other minerals research work or energy research work within the State and elsewhere;

(h) maintaining a collection of all reports or other literature or information issued or compiled by the Institute or by the Mining Institute;

(i) the reports produced by the Institute; and
(ii) the reports produced by the Mining Institute formerly established by the *Mining and Petroleum Research Act 1981*;

(i) conferring and collaborating on matters relating to minerals research and energy research with the Department and other appropriate authorities and institutions within the State and elsewhere; and

(j) promoting public awareness of matters relating to minerals research and energy research, informing the public concerning the latest developments in the fields of minerals research and energy research and receiving and considering submissions from the public concerning -

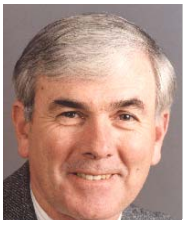
(i) the performance by the Institute of its function; or
(ii) matters relating to minerals research and energy research in general.

[Section 5 amended by No. 89 of 1994s. 109; No. 53 of 2003s. 76 and 90]

Structure

MINISTER FOR RESOURCES
THE HON FRANCIS LOGAN MLA

BOARD OF DIRECTORS



MR S R BAKER
CHAIRMAN

MR P C LOCKYER
CONSULTING MINING ENGINEER

MS A WEBSTER
LEGAL COUNSEL & COMPANY SECRETARY
BARRICK GOLD OF AUSTRALIA

PROFESSOR B F RONALDS
CHIEF – CSIRO PETROLEUM

MINERALS RESEARCH ADVISORY COMMITTEE
CHAIRMAN: PROFESSOR ODWYN JONES

PROJECT COORDINATOR
DR PAMELA SMITH

EXECUTIVE OFFICER
MR ROD JONES

Board of Directors' Report

MERIWA is a Statutory Authority established under the Minerals and Energy Research Act (1987) to promote minerals and energy research which will encourage the development of the Minerals and Energy Industries in this State. The desired outcome is that the amount of research undertaken will achieve the level of technological advancement required to meet the future technical challenges of these industries, ensuring their competitiveness and hence continued development.

MERIWA's financial results and research achievement for 2006/2007 are summarised in this report from the Board. The outputs produced and performance indicators are examined in more detail in a later section of the report, as well as the detailed financial statements for the 2006/2007 year.

Overview

MERIWA's financial results and research achievement for 2006/2007 for minerals research are summarised and compared with the results for 2005/2006 in Table 1. Points of note for the year are -

- Total value of new minerals research projects was $2.911 million, an increase of $0.364 million on the 2005/2006 figure of $2.547 million.
- Industry sponsorship was $2.186 million compared to $1.800 million in 2005/2006. The proportion of industry sponsorship for minerals research was 75% against a target of 65%.
- For every dollar expended by the Government through MERIWA, $1.99 of minerals research was generated.****
- Administration costs were 12.18% of the value of research generated.

Research Activities

MERIWA's minerals and petroleum research results are identified in Table 4 (refer "Operating Report"). Seven new research projects were commenced in 2006/2007 for a total value of $2.911 million. This compares with $2.547 million in 2005/2006. It is evident that there is a slight increase in geoscience, engineering and mineral processing projects but a decrease in environmental projects.

New industry sponsorship coordinated through MERIWA for the year was $2.186 million, while at year's end the sponsorship vested under MERIWA

TABLE 1: Summary of Results

	2006/07 $'000	2005/06 $'000
FINANCIAL		
ACCUMULATED FUNDS **Opening balance at 1 July**	***3 225**	***2 785**
Plus funds received and sponsorship committed	****2 877**	**2 558
Less funds expended and committed	*****2 152**	*****2 518**
ACCUMULATED FUNDS **As at 30 June**	**2 258**	**3 225**
Total value of research commenced	**2 911**	**2 547**
% sponsorship to new research commenced	75%	71%
Ratio of research value to government funds utilised (grants and administration)	******1.99**	3.32

*** Cash plus investments held in trust or yet to be collected from industry sponsors for committed research activities over the next three years.**
**** Government funding, industry sponsorship, interest.**
***** Research grants, scholarships, administration**
****** This ratio would be approximately 3.5 if committed money was claimed in this financial year.**

control was $3 031 029. Industry sponsorship for the year in review was 75% of the research value of projects against a target of 65%.

No projects were abandoned or completed below budget during the year. Government funds utilised by MERIWA for minerals research, including funds brought forward from 2005/2006 and resources received free of charge totalled $716 337 of which $447 489 was applied to research grants and $30 000 to scholarships with the remainder for administration.

The actual administration cost of $202 844 was 12.18% of the value of research generated. Real expenditure on new applications was $724 698.

Table 2 shows the allocation of funds among different research areas as well as the industry support achieved in each, while Table 3 shows the organisations that have contracted to undertake MERIWA research projects and have been recipients of MERIWA post-graduate scholarships this year.

Board of Directors' Report (Continued)

TABLE 2: Allocation of Funds

Research categories	No. projects	MERIWA $'000	Industry $'000	Total $'000
Geoscience	2	137	180	317
Hydrocarbons	0	0	0	0
Engineering	2	181	1 028	1 209
Minerals processing	2	207	528	735
Environmental-rehabilitation	1	200	450	650
Total	**7**	**725**	**2 186**	**2 911**

TABLE 3: Allocation of Mineral Research Funds to Research Organisations

Research Organisation	No. projects	Funding $'000
The University of Western Australia	4	1 228
Australian Centre for Geomechanics	1	1 143
WA School of Mines	1	66
Central Chemical Consulting	1	474
Total research	**7**	**2 911**
SCHOLARSHIPS		
The University of Western Australia	2	20
Murdoch University	1	10
Curtin University of Technology	-	-
Edith Cowan University	-	-
Total scholarships	**3**	**30**
Total funding		**2 941**

The quality of research projects, their innovation and potential benefits to Western Australia continue at a very high standard.

This year seven projects were approved by the Board. Four of the seven projects and three carried forward from last year were contracted to receive funding this financial year 2006/07. This year the research activities involved the University of Western Australia with four and the Australian Centre for Geomechanics, WA School of Mines and Central Chemical Consulting with one each. The minerals sector has continued its research resurgence with all of the projects being related to this area.

Projects

Seven projects were approved by the Board during the year, covering a wide variety of research themes. These included exploration techniques for iron ore and gold, investigation of the potential for oil bearing strata in the Canning Basin, the effects of undersea landslides on oil and gas pipelines, evaluating the potential for applying monorail technology to underground mine operations, and two projects investigating means to improve recovery in bauxite operation.

M382 – *Evaluation of Monorail Haulage in Metalliferous Underground Mining*

Monorails have several advantages over other transport systems, yet at present there are no monorail systems operating in Australian metalliferous underground mines. Their advantages include ease of negotiating steep and changing gradients, ability to negotiate tight horizontal curves, and limited diesel fumes if operated by electricity rather than diesel. The initial task of this 15-month study is to examine the ability of monorail systems to access ore bodies more quickly and cheaply than the one in seven diesel truck declines commonly adopted. Further aims include working with the monorail manufacturer that is contributing to the project to develop suitable methods of developing the decline access, cost-comparing transport by monorail with alternative methods and reporting the findings and how they might best be utilised by the mining industry in Western Australia. Engineering analysis and computer modelling, with reference to real ore bodies nominated by the sponsors, will be directed by Dr Emmanual Chanda and Dr Mahinda Kuruppu at WA School of Mines. The work is being supported by Newmont for $35,000 and MERIWA for $30,648 with significant in-kind support from SMT Scharf of Germany.

M389 – *A Four-Dimensional Interpretation of the Geological Evolution of the Proterozoic West Tanami Region and its Mineral Systems*

Gold deposits already known in the remote West Tanami region (Coyote, Kookaburra, Sandpiper) highlight the considerable exploration potential of the area, where research has focused at the deposit scale. An understanding of camp to terrane-scale controls is needed to find new deposits and thus the objective of this project is to develop the 4-D multiscale framework and tools to target structurally complex concealed mineral occurrences. Targeting is to be done in an economically effective manner with smart, high-end technology, and the mineral fertility and gold endowment assessed with fast, objective GIS-based methods. An ore-forming, process-oriented mineral systems approach will be followed rather than a deposit model approach, and state-of-the-art pattern recognition methods will be used to integrate multi-source data sets. These new approaches will be based on detailed field work and compilation of a 3D-GIS database containing

all available West Tanami information including existing models. The project is led by Dr Frank Bierlein and Dr Warick Brown at the Centre for Exploration Targeting based at UWA. It is funded by Tanami Gold NL for $150,000, the GSWA for $30,000 and MERIWA for $62,363.

M390 – *Measuring Particle Surface Charge and Particle Interactions in Process Liquors*

An earlier MERIWA project, M367, to improve measurement of particle surface charge enabled the purchase from Dispersion Technology of a DT1200 electroacoustic spectrometer, the first in Australia. The new project focuses on improving the measurement and application of zeta potential for particles in industrial liquors by using colloid vibration current and related electroacoustics. Investigations using the DT1200 will include the study of effects of total alkalinity, Al concentration, temperature, liquor anions and cations and organic species on zeta potential and rheological properties. Other aspects of the project include developing improved electroacoustical methods, making rheological measurements and Monte Carlo modelling. These studies will improve sponsors' knowledge of the surface potential of particles in process liquors. The three year project is being undertaken by Dr Vince Patrick of Central Chemical Consulting and has sponsorship from that company of $78,000. Alcoa World Alumina Australia and Worsley Alumina Pty Ltd will provide $78,000 while Alcan International Ltd will contribute $90,000 and MERIWA $150,000.

M392 – *Iron Oxyhydroxide Characterisation and Modification in Bauxite: Tools for Predicting and Improving Bayer Clarification Performance*

This two-year study is focussed on the roles mineral properties play in the clarification of Bayer liquors. Studying these roles should enable optimum choices and quantities of flocculating reagent for bauxites that vary in concentrations and types of iron oxyhydroxides. Another aspect of the study is to identify whether roasting and high temperature digestion can increase extraction of Al. Iron oxyhydroxides in microcrystalline, insoluble form colloids with poor settling characteristics that clog filters and hinder flow in the Bayer process. The mineralogy of the treated bauxite strongly influences the ease with the liquor can be clarified so the properties of the iron oxyhydroxides will be analysed to discover how they interfere with clarification processes including settling of red muds and also how to process them for minimal soda and moisture content. Alcoa World Alumina Australia is funding the research by Professor Bob Gilkes of UWA who will work with Dr Peter Swash of Alcoa, with $204,466 coming from Alcoa and $56,687 from MERIWA.

M393 – *Banded Iron Formations and Iron Ores of the Hamersley Province: New Insights from Field, Petrographic and Geochemical Studies*

More iron ore will need to be discovered in the Pilbara to underpin the current resources boom, and longer term, the State's economy. This project will document baseline attributes of BIFs, of which high-grade iron ores are natural enrichments, with the aim of understanding how BIFs are upgraded to iron ore. Particular attention will be given to the origin of magnetite and variations in its concentration, and the three-dimensional changes in the transition from BIF to iron ore. Comparison of BIFs and near-ore BIF will test if iron ores developed from strata that were anomalously enriched in magnetite at a proto-ore stage. This 3-year study is being carried out by Dr Birger Rasmussen and Dr Bryan Krapez of UWA, through the Centre for Exploration Targeting. It has received funding from BHP Billiton Iron Ore and Rio Tinto Iron Ore of $150,000 each and $135,000 from MERIWA to total $435,000.

M395 – *Modelling of Submarine Landslides and Their Impact on Pipelines*

Hydrocarbon pipelines are now being routed from deepwater deposits up the continental slope where they traverse areas of changing seabed morphology and geohazards such as soft seabed. This project is addressing the technical challenges of assessing the effect of submarine slides on pipeline and subsea infrastructure. New analytical and numerical 'run-out' computations and novel centrifuge modelling will assess these geohazards in three stages: 1. likelihood of a submarine slide, 2. likelihood the slide will impact a given facility and 3. assessment of consequential damage to a given facility. Quantitative models of submarine slides are being pursued that focus on the run-out characteristics, features of debris flows and forces experienced by structures in their paths. The centrifuge at UWA is being used to perform correctly scaled model tests of underwater slides, and the researchers are Dr David White and Professor Mark Randolph of UWA's Centre for Offshore Structures. It is intended that the experimental and numerical results will be distilled into a framework for analysis based on site parameters of established geotechnical origin, for predicting run-out of

Board of Directors' Report (Continued)

submarine slides and resulting loading on infrastructure. Such tools will allow geotechnical engineers to assess these subsea hazards using parameters and concepts with which they are familiar. The 3-year project has support from ChevronTexaco, BP, Shell and BHP Billiton of $174,000 each, with MERIWA contributing $80,000 to total $776,000.

M396 – *Establishing a Chronostratigraphic Framework for the Devonian Canning Basin Reef Complex*

To better understand and model the resource potential of reef environments world-wide, a detailed stratigraphic framework of the well-exposed Devonian reef complexes of the Canning Basin is being undertaken through the University of Western Australia's Tectonics Special Research Centre (TSRC). A set of several thousand samples from these reef exposures is being analysed for both magnetic polarity and magnetic susceptibility using MERIWA and industry funding, and will also undergo chemostratigraphic, geochronologic and biostratigraphic analyses with other funding. A magnetic polarity and susceptibility stratigraphy integrated with established Middle-Late Devonian biostratigraphy will be established for the first time in this study, which will enable correlation among basin, marginal-slope and reef-platform carbonates for the Canning Basin Devonian. An integrated sequence stratigraphic framework can then be derived for understanding evolution of Devonian reefs and platforms. The TSRC researchers on this 3-year study are Professor Peter Cawood and Dr. Alexei Smirnov. The paleomagnetic work will be carried out in part at UWA's Paleomagnetism Laboratory, and is funded by ChevronTexaco at $269,300 and ARC Energy at $55,000, with $115,000 from MERIWA for total funding of $439,300.

Scholarships

In keeping with its policy to encourage PhD students to embark upon careers in the minerals and petroleum industry, MERIWA has again offered Supplementary Scholarships to help finance students and their projects. Each comprises a $5 000 per annum stipend and $5 000 per annum for project maintenance. The selection committee awarded three scholarships. Ms Lucy Commander, Mr Tarrant Elkington both of the University of Western Australia and Mr Andrew Jones of Murdoch University.

Lucy Commander

Lucy is a third year PhD student in the Faculty of Natural and Agricultural Science at the University of Western Australia. Her thesis title is "A Program to Research and Develop Integrated Borrow Pit Restoration for Shark Bay Salt in the World Heritage area at Shark Bay". Environmental regulations in Western Australia hold corporate entities that exploit the State's resources to a high standard for rehabilitating disturbed ground. Successful rehabilitation thus depends on a sound understanding of the ecosystem that has been disturbed and may require, for example, advance collecting of seed to carry out the program. At World Heritage-Listed Shart Bay, Shark Bay Salt has obtained road construction material from 32 borrow pits to date, all of which have evidence of limited or no vegetation. Particularly given its World Heritage status from 1991 and the fact that the Shark Bay region lies in a transitional zone with a high diversity of more than 800 plant species, the borrow pits need to be enriched with a great diversity of flora that reflects the pre-existing vegetation. Lucy's project focuses on improving understanding of the still little-known natural terrestrial ecosystem in this unique transitional zone, to enable the required high standard of restoration. Her broad program includes development of completion criteria for assessment of successful rehabilitation and synthesising her findings to develop restoration implementation guidelines.

Tarrant Elkington

Tarrant is in the second year of his PhD at the University of Western Australia's School of Civil and Resource Engineering. His project is "Strategic Optimisation Tools for Underground Mines". Tarrant, who was the recipient also of the Ken Baker prize and the Telford Prize awarded to highest scoring engineering students at the University of Western Australia, has undertaken a project to produce optimisation algorithms that solve design problems for underground mines then link them so that a mine design and schedule can be produced. To approach this very complex task it has been partitioned into stope design for which stope wire frames are produced, followed by development design in which decline or shaft needs and horizontal development within levels and the scheduling of activities is optimised. To date progress has included the stope design and work has begun on optimising mine development.

Board of Directors' Report (Continued)

Andrew Jones

Andrew is in his second year of PhD studies at Murdoch University's Department of Science Engineering. His research project is entitled "Enhanced Metal Recovery for a Modified Caron Leach of Mixed Nickel-Cobalt Intermediate Concentrate". Andrew's project has the aim of enhancing the fundamental understanding of the two-stage dissolution of this product of next generation nickel laterite processing. An acid-leaching plant under development at Ravensthorpe will be made more efficient and environmentally friendly when this dissolution process is better understood in terms of the solid state chemistry of the sulphide reductant and the mechanism of "non-reductive" leaching of mixed hydride in solution.

Finance

The financial statements for MERIWA for 2006/2007 appear later in the report.

The net assets reflect industry sponsorship yet to be received of $1.399m, contracted for the next 3 years.

The total cost of services was $2 151 850 ($2 518 468 in 2005-06) of which $1 883 002 was paid for research grants. Revenue of $2 114 967 was received from industry and $79 607 from interest and other income related to services. The net cost of services was thus ($42 724) ($623 711 in 2005-06) which was funded by government appropriation and resources free-of-charge of $682 200 ($663 175 in 2005-06). The surplus was added to previous accumulated surplus.

Publications

Seven final reports on minerals projects were published during the year and distributed in CD-ROM form to technical libraries in Western Australia and interstate. A synopsis of each of the reports is included in later pages of this document.

The number of reports published by MERIWA since its inception now totals 257, and it has been pleasing to see an ongoing demand for copies of them. Reports in hard copy, microfiche or CD-ROM are provided to companies or private individuals on request, at nominal prices, sufficient to recover the cost of reproduction. In 2006/2007 18 hard copy and 30 CD-ROM format reports were sold, producing revenue of $2 871.00.

Office Services

Services provided by the Department of Industry and Resources, notably the provision of office space, along with its continued support in associated areas, are much appreciated by the Board.

Code of Conduct for Government Boards and Committees

The Board and the Minerals Research Advisory Committee adopted individual Codes of Conduct in accordance with the recommendations of the Commissioner of Public Sector Standards.

Changes to the Board

On 31 August 2006 Dr Colin Branch retired from the Board of Directors and was replaced by Mr Phillip Lockyer.

Dr Branch was first appointed to the MERIWA Board in September 1990. He was a Director of the Board for sixteen years and Chairman for fourteen years.

Early in his tenure Dr Branch led the Board to use surplus interest income to establish MERIWA top-up scholarships for promising doctoral students to encourage their research of importance to Western Australia. Dr Branch took a lead role in the selection committee and awarding formalities by the minister, which enhanced the interaction of WA industry with local academic institutions and government to foster WA-based careers. He leaves an indelible imprint on MERIWA as we continue in our third decade of fostering scientific research to benefit Western Australia.

Mr Phillip Lockyer who was with MERIWA's Minerals Research Advisory Committee (MRAC) for seven years, joined the MERIWA Board in September 2006.

Mr Lockyer brings decades of field experience in mining and mine engineering as well as considerable background in mining company directorship to his appointment, and a valuable link between the MRAC technical advisory role and the Board's financial oversight role.

Board of Directors' Report (Continued)

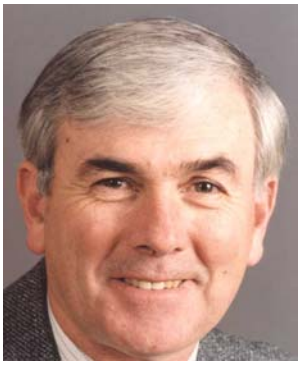
Staff and Committees

The Board again acknowledges the valuable assistance that has been provided to the Institute by the Minerals Research Advisory Committee under the able Chairmanship of Professor Odwyn Jones.

Both the members and deputy members met on a regular basis during the year, in sub-committee or in committee, to assess the research proposals received, and to advise the Board of their suitability and technical merit before grants were approved. This takes considerable time, and as the great majority is provided on an honorary basis, MERIWA is most appreciative of this contribution.

Finally, the Board acknowledges the contribution and competence of the four part-time contractors and consultants in coordinating and administering the affairs of the Institute.

S R Baker
CHAIRMAN,
BOARD OF DIRECTORS



Operating Report

MERIWA's Minerals Research Program

MERIWA's mission is:

"To encourage the development of minerals and energy industries within the State by fostering and promoting all aspects of minerals and energy research".

Mineral deposits and oil and gas accumulations are finite, and new discoveries must continue to be made and developed to replace depleted deposits. If this is not achieved, and the industry does not sustain itself but slowly degenerates, the effects on the State's economy would be quite disastrous.

Much of the industry is international, and companies operating internationally will compare the prospectivity and exploration and mining costs in Western Australia with those applying in other countries, before deciding on where their exploration budget will be most profitably spent. Investment in mining project development is also based on the quality and cost of supporting services, such as infrastructure, but also in the downstream processing-orientated industries and the availability of highly skilled technical "problem solvers".

Western Australia has established itself as a reliable provider of not only physical resources to the world but also as centre for excellence in many areas of mineral and hydrocarbon research. The Board of MERIWA continues to foster and encourage this "intellectual" development process with the knowledge of past experiences that industry, research institutes, government and individuals profit from investments in "ideas".

There is also a continuing need to promote research on regulatory issues of concern to the community at large, such as minesite rehabilitation, tailings disposal and containment, as well as occupational health and safety issues in the industry. The advances made in these fields and the support from the mining industry in undertaking this research have been excellent over recent years.

To achieve its mission, MERIWA aims for an outcome by which the amount and quality of research undertaken by the Minerals and Petroleum Industries achieves the level of technological advancement required to meet the future technical challenges of these industries, and helps ensure their competitiveness and continued development.

Promotion of Research

The key incentive provided by governments to encourage more research is to subsidise its cost. MERIWA's policy has been to retain the magnitude of the subsidy to nominally 35% of the cash cost, encouraging a higher level of participation from industry. This allows a larger volume of research to be supported and ensures that the key objective of promoting research relevant to industry is achieved.

The level of subsidy must be such, however, to allow MERIWA to maintain the authority to rigorously assess research programs and to establish "Conditions of Grant" that facilitate coordination and accountability, and ensure that final reports can be published and widely distributed. The subsidy must be of a level to enable promotion of research on regulatory issues such as occupational health and safety and minesite rehabilitation.

Value of Minerals Research Financed Jointly with the Minerals and Petroleum Industries

The table below compares the value of research commenced for each of the last five years, jointly financed by MERIWA and industry sponsorship. The level of research funding has fluctuated over the period, a direct reflection of industry's economic performance. The variation in commodity prices, exchange rates and levels of activity continues to be erratic across all sectors. Continued consolidation in the corporate sector has also changed research investment patterns. It is expected that the levels of investment will remain within these limits for the foreseeable future capped mainly by the limited funds available from budget appropriation.

	$'000				
	2006-07	2005-06	2004-05	2003-04	2002-03
Value of minerals research commenced	2 911	2 547	1 623	1 201	1 053
Scholarships	30	60	30	45	30
Total	**2 941**	**2 607**	**1 653**	**1 246**	**1 083**

Operating Report (Continued)

	2006-07	2005-06	2004-05	2003-04	2002-03
Industry sponsorship achieved	75%	71%	66%	80%	55%
Target	65%	65%	65%	65%	65%

Industry Participation

Industry participation is encouraged by MERIWA through every phase of a project.

- Industry involvement from the initial draft proposal stage ensures that the project is focussed to its particular needs.
- Industry sponsorship encourages ongoing participation through regular sponsor meetings; this creates closer communications between industry and the research groups and is beneficial to both sides.
- Its investment in the research means that the research results are more likely to be applied.
- Its participation facilitates the provision and availability of data to the research group, and by working closely with researchers, creates a more research and technically oriented industry, and a more practical research group attuned to the technical challenges faced by industry.

The table above shows the average level of industry sponsorship achieved as a percentage of the research value.

Technology Transfer

Research benefits will best eventuate if the results are made widely available and are applied. The importance of this aspect of MERIWA's operations is recognised in the functions of the Institute as listed in the Minerals and Energy Research Act (1987). Because of their financial commitment and participation throughout the study, sponsoring companies require a return on their research investment by application of the results. In a broader, industry-wide sense, however, technology transfer is encouraged by publication of the final reports and their distribution to most universities, CSIRO and state technical libraries, or by the provision of copies directly by MERIWA.

The benefits of publication are two-fold:

- Publication of reports gives all companies relatively cheap access to the technology.
- Publication benefits the researchers and their institutions, by enabling their work to be acknowledged internationally and increasing their profile professionally. This attracts students and external funding, which in turn is beneficial to both industry and the State.

MERIWA has published 257 reports on the research projects it has supported since its inception. CD-ROM copies are distributed widely to all relevant technical libraries in Western Australia and to most Australian universities. Reports in microfiche, CD-ROM or hard copy format are sold to industry at prices which cover production and distribution costs. The table below shows that 2,261 research project reports have been distributed to industry and technical libraries over the past 5 years.

Synopses of all reports published during 2006/07 are included in this annual report, and complete lists of reports available are included with the twice-yearly publication "Research News" and on the MERIWA webpage at:
www.doir.wa.gov.au/meriwa/reports/reports.html.

Measures of Performance

The predominant measure of performance is the value of research undertaken, but as MERIWA is often limited by the funds available, its effectiveness is measured by the ratio of the total value of research commenced to the Government funds utilised.

MERIWA measures its efficiency by the administration cost as a percentage of the value of research generated. This is calculated on a three-year moving average basis to reflect the average duration of projects, covering the project development assessment and funding phase, coordination while in progress, and the final reporting and publication phase of the project.

No. of reports distributed or sold	2006-2007	2005-2006	2004-2005	2003-2004	2002-2003
Microfiche	8	-	1	1	3
Hard copy	99	150	78	95	73
CD-ROM	302	478	364	314	295
Total	**409**	**628**	**443**	**410**	**371**

Operating Report (Continued)

Effectiveness

The table below indicates that for every dollar of government funds expended on research in 2006/2007 (excluding scholarships), $1.99 of research was commenced.

	2006-2007	2005-2006	2004-2005	2003-2004	2002-2003
Ratio of research value to government funds utilised	1.99	3.32	2.26	3.41	2.21

Efficiency

MERIWA's overall efficiency increased in 2006/2007 with slightly higher value of research commenced offset by higher administration costs. (Three year moving average).

	2006-2007	2005-2006	2004-2005	2003-2004	2002-2003
Administration cost as a percentage of value of research generated	12.18	10.41	8.14	8.4	10.97

Table 4 summarises the key components of MERIWA's performance over the past five years.

Operating Report

TABLE 4: MERIWA Results

Factors	2006/07	2005/06	2004/05	2003/04	2002/03
PROJECTS					
Applications received	10	12	14	12	11
Projects approved	7	7	9	7	8
Projects completed	7	11	8	7	7
TECHNOLOGY TRANSFER					
No. reports published	7	11	8	7	7
No. microfiche issued or sold	8	0	1	1	3
No. hard copies issued or sold	99	150	78	95	73
No. CD ROM copies issued or sold	302	478	364	314	295
Other publications (Research News)	2	2	2	2	3
FUNDS UTILISED ($'000)					
Budget appropriation	657	649	645	631	617
Interest on cash flow	77	76	83	95	87
Other income	3	3	3	2	3
Transferred from (to) reserves	725	39	(14)	(246)	(231)
Total Government funds utilised	**1 462**	**767**	**717**	**482**	**476**
Less administration costs	*203	*190	*188	*138	*150
Funds utilised to support research	**1 259**	**577**	**529**	**344**	**326**
MERIWA GRANTS					
For research projects	725	747	551	335	472
For scholarship	30	60	30	45	30
Total grants	**755**	**807**	**581**	**380**	**502**
INDUSTRY SPONSORSHIP					
Total industry sponsorship coordinated through MERIWA	2 186	1 800	1 072	1 309	581
Total value of new research projects	**2 911**	**2 547**	**1 623**	**1 201**	**1 053**
Value of research generated to government funds utilised	**1.99**	**3.32**	**2.26**	**3.41**	**2.21**
Administration cost to value of research generated**	**12.18%**	**10.41%**	**8.14%**	**8.4%**	**10.97%**

* Three-year moving average.

Minerals Research Advisory Committee

Nominated by the Minister	Professor I O Jones (Chairman)	Consulting Mining Engineer
	* Mr J G D Crone	Consulting Mining Engineer
	Dr A Buckingham (Deputy Member)	Senior Geophysicist, Geoinformatics Exploration
	* Dr A N Bagshaw	Australian Mineral Industries Research Association
	* Mr P C Lockyer (Deputy Member)	Consulting Mining Engineer
	Ms D Lord	Senior Consultant - Geologist, SRK Consulting
	Mr P W Baillie (Deputy Member)	Chief Geologist Asia Pacific, TGS NOPEC Geophysical Company
	Professor W Stock	Centre for Ecosystem Management, Edith Cowan University
	Dr E van Etten (Deputy Member)	Faculty of Computing, Health & Science, Edith Cowan University
	Mrs A Meakins	Principal Consultant (AMEC)
	Dr B Smith (Deputy Member)	Consulting Geologist - Geochemist (AMEC)
Nominated by: Department of Industry and Resources	Ms B S Bower	General Manager – Major Projects Development
	Mr R J Hart (Deputy Member)	Project Manager – Industry and Infrastructure Development
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	Dr C R M Butt	Group Leader, Exploration and Mining
	Dr B McInnes (Deputy Member)	Program Leader, Exploration Geoscience
The University of Western Australia	* A/Professor J J Barrett	School of Civil and Resource Engineering
	Professor R J Gilkes (Deputy Member)	Centre for Land Rehabilitation
Murdoch University	* Professor M J Nicol	Mineral Science
	Mr W Staunton (Deputy Member)	Principal Gold Metallurgist
Curtin University of Technology	Professor B Evans	Department of Exploration Geophysics
	** Dr G P Bates (Deputy Member)	School of Public Health
Chamber of Commerce and Industry of WA	* Dr G I D Roach	Technical Manager, Extraction Technology, Alcoa World Alumina
	Position Vacant (Deputy Member)	
Chamber of Minerals and Energy of WA (Inc.)	*Position Vacant*	
	Position Vacant (Deputy Member)	
Australian Petroleum Production and Exploration Association	Mr N Kavanagh	Development Planner and Technology Leader, Woodside Energy Ltd.
	Dr J D Gorter (Deputy Member)	New Ventures Manager Eni Australia Limited

* Member resigned during year.

**Member appointed during year.

Minerals Research Advisory Committee

To be associated with MERIWA is one of the great privileges I've enjoyed in my professional life. It has been the source of many friendships, and I have always admired the selfless devotion of members of its Research Advisory Committee to the demanding task of appraising research proposals and, where necessary, assisting researchers to document their ideas and/or obtain industry sponsorship. During the past year we have approved seven research projects, four of which have so far been contracted to receive funding. It is anticipated the outstanding projects will be cleared for funding shortly. The total cash value of these seven projects is some $2.9 million, of which $2.2 million comes from industry sponsors; a leverage of some $3 from industry to match each $1 from the State Government.

During the year we have lost nine members or deputy members, all of whom are in the process of being replaced. May I thank all those who are retiring, for their invaluable contribution to the work of the Research Advisory Committee and its various sub-committees, over the past three years.

Another important task carried out annually by MERIWA is the allocation of supplementary scholarships, valued at $10,000 per annum to worthy PhD students pursuing minerals related research projects. This year three awards were granted to the following recipients:

Ms Lucy Commander, a plant biologist at the University of Western Australia,

Mr Tarrant Elkington, a resource engineer at the University of Western Australia, and

Mr Andrew Jones, a mineral scientist at Murdoch University.

Finally, let me remind our readers of MERIWA's unique record of community service extending over the past 26 years. As the only such State Government Statutory Authority in Australia it has played a crucial role as a "seed funding agency" in assessing, monitoring and administering over 350 innovative applied research projects. Its impact can be seen in the development and subsequent growth of a wide range of applied research centres of excellence at our Perth based universities, all of which are contributing to the continued success and competitiveness of Western Australia's mining and petroleum industries.

In closing, let me also acknowledge the dedication of our office staff, who not only look after the Institute's daily activities, but organize and administer all our meetings. They include our Secretary, Ms Gwen Davies, our Project Co-ordinator, Dr Pam Smith and our Executive Officer, Mr Rod Jones. We are, unfortunately, about to lose Rod who has decided to accept a senior executive position with an overseas mining company. Naturally we wish him well, whilst thanking him for his contribution to the work of the Research Advisory Committee since early 2005.

Emeritus Professor Odwyn Jones, AO
Chairman.

Reports Published in 2006/07

M288 DEVELOPMENT OF AN ELECTRO-CHEMICAL PROBE FOR USE IN GAS AND OIL FLOWLINES

Report No. 244

Grantee: *Curtin University of Technology / Corrosion Research Group*
Applicants: *Dr S Bailey / Mr B Kinsella*
Grant Amount: *$253 986*
Duration: *3 years*
Commenced: *June, 1997*
Sponsors: *Mobil Exploration and Producing Australia Pty Ltd.*

Because metal corrosion, both uniform and localised, is a serious problem in many industries including oil and gas production, this project had the aim of developing a corrosion probe that allows rapid and continuous monitoring of corrosion in oil and gas production environments and detection of localised corrosion. The probe would for example alleviate the need to recover and measure weight loss coupons. It combines the technologies of the Wire Beam Electrode and a relatively new method Electrochemical Noise Analysis for the first time to achieve the project aim. To combine these two technologies an automated switching system also had to be designed, constructed and commissioned. Development of this autoswitch included development of controlling software for it, and software also was developed for collecting, extracting and analysing data. Laboratory testing of the probe was done in both classical localised corrosion and laboratory CO_2 environments and a corrosion rate distribution map over an electrode surface was successfully produced. The accuracy of this corrosion rate map was evaluated by comparing the cumulative corrosion depth map with a microscopically determined corrosion depth map, which gave a satisfactory correlation. Probes suitable for field trials were designed and manufactured and reference electrodes also constructed and evaluated. Site difficulties and equipment failure prevented the intended oil industry field tests.

M354 THE OCCUPATIONAL HEALTH RISK OF MELIOIDOSIS IN THE MINING INDUSTRY

Report No. 258

Grantee: *PathCentre (now PathWest)*
Applicant: *Dr T Inglis*
Grant Amount: *$31 000*
Duration: *2 years*
Commenced: *June, 2002*
Sponsors: *Argyle Diamond Mines.*

The bacterium *Burkholderia pseudomallei* is known to be present in some soil mud and surface water of sub-tropical northern Australia, as well as southeast Asia where melioidosis is endemic. Melioidosis infection is acquired through direct contact with soil, mud or surface water especially in the Kimberley, Pilbara and Gascoyne and infection undetected for decades. Following up on anecdotal reports from the Kimberley, the first research project objective was to identify the risk of environmental melioidosis at a Western Australian mine site. Then the probability of occupational exposure to the bacterium was investigated at the mine site, and an evidence-based melioidosis risk management plan developed. Three laboratory programs recovered the bacterium from environmental samples collected from mine sites, tested for evidence of mine staff exposure to the bacterium, and carried out genetic fingerprinting of *Burkholderia pseudomallei* from environmental and any clinical samples, to link specific infections to specific mine sites. The bacterium was isolated from a tailings dam and from roadside ditches at one Kimberley minesite. Mine staff blood testing showed evidence of exposure to *B.pseudomallei*, but no symptoms of overt infection except in one case. The bacterium isolates from the mine site were different strains by genetic fingerprinting from any isolates from actively infected patients in Western Australia. Numerous conclusions and recommendations from the research included: 1. *B.pseudomallei* detected at low levels at a Kimberley mine site is not evidently the same strain as those which have so far caused human infection, 2. Consistent absence of *B.pseudomallei* in environmental samples from surface and underground work site locations is remarkable, 3. Non-pathogenic *Burkholderia* species present in the mining environment may act as a natural protection against melioidosis, and 4. Occupational health emphasis on personal protection and on site-wide measures such as dust suppression are likely to have helped reduce the risk of occupational exposure to this pathogen.

Reports Published in 2006/07

M355 MINE SEISMICITY AND ROCKBURST RISK MANAGEMENT – PHASE II

Report No. 260

Grantee: *Australian Centre for Geomechanics*
Applicant: *Prof. Y Potvin*
Grant Amount: *$777 000*
Duration: *3 years*
Commenced: *January, 2003*
Sponsors: *Barrick Gold of Australia Limited, Harmony – Big Bell Gold Operations, Placer Dome Asia Pacific, WMC Resources Ltd, Gold Fields- St Ives Gold Mine, Lightning Nickel, Kalgoorlie Consolidated Gold Mines, Black Swan Nickel Pty Ltd, Agnico-Eagle division Laronde Perilya Broken Hill Mine.*

This study followed Project M328 which aimed to maximise the use of seismic monitoring data for understanding mine seismicity. Goals of the new study included: 1. to provide assistance to sponsors with interpretation of microseismic data through supervised on-site studies, 2. to support ongoing design, tuning and application of seismic monitoring systems on minesites, and 3. to develop a real-time, on-line seismic hazard mapping system. In Phase II Rockburst Risk was defined as a function of Seismic Hazard, Excavation Vulnerability Potential and Workforce Exposure, three probability functions. One objective of the worldwide mine seismicity survey conducted in Phase I was to train an artificial neural network (ANN) to estimate seismic hazard based on the Seismic Hazard Scale. The trained ANN, "Seishaz" was released as a public domain program, but based on local site experience it has a much greater level of uncertainty than the Mine Seismicity Risk Analysis Program (MS-RAP) that was developed in this project. By this project's conclusion MS-RAP was in use in 13 Australian and 2 Canadian mines. The project also had as objectives to develop a quasi-real-time seismic hazard map and to perform seismic risk analyses. A total of 83 rockburst case histories were investigated to estimate the potential for rockburst damage. Seismic hazard assessment is automated by version 3.1 of MS-RAP. Recommendations from this study include better use of all the information collected by seismic systems, as currently only a small fraction of the information is utilised. A Phase III project is currently in progress.

M358 SCALE-INTEGRATED, ARCHITECTURAL AND GEODYNAMIC CONTROLS ON ALTERATION AND GEOCHEMISTRY OF GOLD SYSTEMS IN THE EASTERN GOLDFIELDS PROVINCE, YILGARN BLOCK

Report No. 256

Grantee: *C.S.I.R.O. / UWA*
Applicant: *Dr J Walshe / Dr S Hagemann*
Grant Amount: *$937 720*
Duration: *2 years*
Commenced: *June, 2003*
Sponsors: *Gold Fields – St Ives Gold Mine, Placer Dome Asia Pacific Pty Ltd.*

The geodynamic and architectural controls that determine the locations of gold deposits were investigated at three Western Australian minesites for this project. It focussed on understanding the nature and role of fluids in the gold systems and the interplay of fluids with the architecture, as a means of enhancing exploration success. An improved understanding of these processes was approached through five questions that guide mineral systems research: 1. Why are major mineral systems sited where they are? 2. What is the geological evolution of the host rock environment? 3. What fluids occurred in the system? 4. What were the pathways, mechanisms and timing of the fluid flow? and 5. What physicochemical parameters controlled gold transport and deposition? A mineral systems perspective was taken to targeting deposits from the terrane scale to the deposit scale, and the architecture and geodynamic evolution of the Norseman-Wiluna Belt was evaluated to emphasize the geological elements that seem to have played a part in the development of a productive mineralized terrane. Then a scale-integrated model of how end-member fluids interacted with the architecture at the mine sites to control the location of the high grade gold zones was attempted, and potential physicochemical parameters controlling gold transport and deposition were reviewed. One feature of the fluid flow model that emerged was a "deep-earth" fluid that accounts for the evidence of high temperature reduced fluids in Archaean gold systems. A secondary aspect of the project was the introduction of "embedded" researchers at the three mining camps, for more effective delivery on-site of the research benefits to explorationists. The on-site study by these researchers also greatly enhanced the research efforts and the embedded positions continue through a subsequent project, M377.

Reports Published in 2006/07

M359 (AMIRA) IMPROVED ANODE AND CATHODE PROCESSES IN THE ELECTRO-WINNING OF BASE METALS

Report No. 257

Grantee: *A J Parker Centre/Murdoch University*
Applicant: *Prof. M Nicol*
Grant Amount: *$109 000*
Duration: *3 years*
Commenced: *April, 2003*

For the zinc and the copper industries, the performance of anodes and cathodes in electrowinning can be enhanced through minimizing impurities in current materials, assessing alternative anode materials and developing consistent physical characteristics in cathodes. These aims of the project were addressed in two modules, to improve anodes and cathodes separately.

The project began with a literature review which identified four commercially practised techniques for pre-treating PbAg anodes, used in the zinc industry, and uncovered a lack of information on the mechanisms by which pre-treatment works. Some of the project's conclusions relating to anodes were: 1. Surface finish of the anodes has a significant effect on their behaviour; 2. Differences in surface condition can result in variations in local current density as large as 400%; 3. for polished anode surfaces the formation and spalling of MnO_2 layers on the anode surface dominates initial anode behaviour, with which large fluctuations in operating potential or current density were associated; 4. Anode potentials on polished anodes were typically 40 mV higher than on sand blasted anodes; 5. sulphated surfaces of sand blasted anodes were rapidly converted to conductive oxides without causing significant variations in local current density. Some results from the module on cathodes were: 1. a baseline test showed that in the absence of any pre-treatment, zinc was difficult to strip after the first plating cycle, and impossible to strip after the second plating cycle; 2. pre-treating cathodes in a silica solution at 25^{o} C for 5 minutes increased the number of plating cycles to three, from two; 3. dipping cathodes in 10g/L sodium resinate solution for 5 minutes at 25^{o} C allowed zinc deposits to be stripped easily with no sign of increasing adhesion throughout the six tests. A number of other results and recommendations for implementation and further work are included in the report.

M376 STRATIGRAPHIC AND STRUCTURAL ARCHITECTURE OF LATE BASIN DEPOSITIONAL SYSTEMS IN THE EASTERN GOLDFIELDS PROVINCE, YILGARN CRATON

Report No. 259

Grantee: *Monash University*
Applicants: *Prof. R Cas*
Grant Amount: *$120 000*
Duration: *1 year*
Commenced: *July, 2005*
Sponsors: *Placer Dome Asia Pacific, Gold Fields Australia.*

In the Eastern Goldfields Province of Western Australia the major Archaean Au deposits are all located near the base of the "late basin" successions above the widespread greenstone units, where the basins are thickest. Important questions to be resolved for more successful exploration strategies include knowing the structural and stratigraphic position of the "late-basin" – hosted deposits, and where else in the region rocks in similar relationships can be found. Another topic for investigation was, whether the "late-basin" units that host the deposits are remnants of a single large basin, parts of diachronous, spatially unrelated basins or individual basins both temporally and spatially unrelated. The work undertaken addressed this critical knowledge gap, by combining detailed lithofacies logging of diamond drill core, and XRF and ICP-MS whole-rock analyses of clasts from conglomerates and breccias in the region. Detrital zircon age dating also provided new information on the basin strata relations. A laser ablation ICP-MS technique for U-Pb age dating of zircons was applied as an aspect of the project, which provides a less expensive and much quicker alternative to SHRIMP U-Pb age dating. It was possible to group lithofacies of the "late basin" successions into three main mappable units and this has important implications for the structural architecture of the region. Gold exploration has frequently targeted extensions of the Fitzroy Fault; however, other, NW-trending structures have displacements now interpreted as much greater, which must be taken into account. Parts of the stratigraphy not previously targeted may in fact prove the most prospective and additional logging and diamond drilling were recommended. The final report includes both the results of the stratigraphic and structural study and a discussion of the development and application of the laser ablation ICP-MS technique.

Reports Published in 2006/07 (Continued)

M383 THE USE OF DETERRENTS FOR REDUCING HERBIVORY BY KANGAROOS ON DISTURBED LANDS

Report No 261

Grantee: *Curtin University of Technology*
Applicant: *Dr M Parsons / Prof. B Lamont*
Grant Amount: *$84 339*
Duration: *1 year*
Commenced: *October, 2005*
Sponsors: *Worsley Alumina Pty Ltd, Whiteman Park, Alcoa World Alumina Australia, Chemistry Centre (WA).*

Project M350 demonstrated that kangaroos play a pivotal role in controlling the recovery of vegetation after major disturbance such as mining, at both the landscape and species levels. Kangaroo herbivory is highly selective and thus forms an obstacle to rehabilitation efforts since it makes a major impact on post-disturbance vegetation. This project focussed on deterring kangaroos from feeding on rehabilitated areas and was based on preliminary indication that predator allelochemicals will deter some herbivores, including kangaroos. A commercial product deriving from olfactory cue studies was an intended outcome of this project. Field trials were done at two mine sites of sponsors, with results that indicated effectiveness to varying degrees of the gel product olfactory deterrent. Chemical analysis of the deterrent substance identified numerous sulphur-containing and oxygenated hydrocarbon compounds. The life of the gel products was evaluated in the field trials and varied from several weeks to months, and in response to high temperatures, and more work on developing a suitable product for the conditions was indicated. Animal behavioural studies during the project suggested that in a semi-wild kangaroo mob, some individuals consistently spend more time being vigilant than do others. This sort of knowledge is sought by land managers who would like to provide plants a chance to develop before being browsed. One outcome of the project was strong support for investing in long term efficacy trials for the olfactory deterrent. Another was justification for focussing bioacoustic deterrents away from individual animals thought to be sentinels. The final report details the several different types of deterrent investigations carried out.

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Research Assistance

The function of the Institute is to encourage the development of the minerals and petroleum industries in Western Australia by fostering and promoting research in the exploration, development and production of minerals, hydrocarbons and fossil fuels.

Applications for financial assistance for funding of projects may be submitted to the Executive Officer at any time but will only be considered by committees twice a year. The approval process generally takes 3 to 4 months. These are scrutinised first by the Minerals Research Advisory Committee before its recommendations are considered by the Board.

Organisations with research proposals that have the potential to benefit the minerals or petroleum industries in this State may seek further information by contacting:

The Executive Officer, MERIWA
3rd Floor, Mineral House
100 Plain Street
EAST PERTH WA 6004

Telephone: (08) 9222 3397
Facsimile: (08) 9222 3727
Email address: gwen.davies@doir.wa.gov.au
Website: www.doir.wa.gov.au/meriwa

Projects in Progress: 30 June 2007

No.	Project Title	Applicants	Institute	Term (years)	Cash Cost ($)	Notional Value ($)
M289	Radiographic silicosis and lung cancer in Kalgoorlie miners	Dr N de Klerk Prof A Musk	UWA/ Sir Charles Gairdner Hospital	2	74 363	158 937
M333	Corrosion of rock reinforcement in underground excavations	Prof E Villaescusa	WASM	3	350 000	620 511
M349A	Dynamic testing of ground control systems	Prof E Villaescusa Dr A Thompson	WASM	3	474 000	627 900
M363	Feasibility of seismic methods for exploration of gold deposits in Western Australia	Dr M Urosevic Prof B Evans	Curtin	2	869 000	869 000
M364	Successful rehabilitation of species-rich heathlands after mining for heavy minerals	Prof B Lamont Prof N Enright	Curtin	3	66 000	85 000
M366	High resolution seismic monitoring in open pit mines	Prof Y Potvin	UWA/ACG	3	553 666	553 666
M371	Laterite geochemical map of the Western Yilgarn Craton	Dr M Cornelius Dr P Morris	CRC LEME/ CSIRO	3	100 047	628 047
M372	A physiological and biochemical basis for seed storage for biodiversity conservation and restoration	A/Prof D Turner Dr K Dixon	UWA	3	15 000	628 063
M373	Development and implementation of advanced automated core logging technology for enhanced mine feasibility and development in Western Australia	Dr J Huntington Dr L Whitbourn	CSIRO	2	360 417	677 417
M375	Erosion resistant landform design for steep slopes in rehabilitated bauxite mines	Prof B Gilkes Dr C Grant	UWA	15 mths	144 919	232 919
M377	Scale-integrated, architecturally, geodynamically and geochemically constrained targeting models for gold deposits in the Eastern Goldfields Province, Yilgarn Craton	Dr J Walshe Dr P Neumayr	CSIRO/ UWA	2	1 153 040	1 783 040
M378	Use of metham sodium to eliminate *Phytophthora* from roading gravel	Dr E Davison Dr B Warton	Curtin	1	44 390	44 390
M379	Classification of Western Australian inland waters	A/Prof J John	Curtin	2	50 071	50 071
M381	Ecohydrological characterisation of the natural and rehabilitation ecosystems at Newcrest's Telfer Gold Mine	Prof H Lambers Dr C Hinz	UWA	4	650 000	2 195 000
M382	Evaluation of monorail haulage in metalliferous underground mining	Dr E Chanda Dr M Kuruppu	WASM	15 Mths	65 648	87 488

Projects in Progress: 30 June 2007 (Continued)

No.	Project Title	Applicants	Institute	Term (yrs)	Cash Cost ($)	Notional Value ($)
M384	Gold processing technology	Mr W Staunton	Murdoch	2½	140 800	2 053 200
M385	The development of a hyperspectral environmental measurement tool for monitoring mining related infrastructure and rehabilitation	Ms C Ong Mr M Piggott	CSIRO	18 mths	455 000	1 161 000
M386	Broadening the application of seismic monitoring in Australian underground mines	Prof Y Potvin Dr D Heal	ACG	3	1 068 000	1 293 000
M388	Controls on platinum group element variation in mafic and ultramafic magmatic systems	Prof M Barley Dr S Barnes	UWA	3	75 000	927 410
M389	A four-dimensional interpretation of the geological evolution of the Proterozoic West Tanami Region and its mineral systems	Dr F Bierlein Dr W Brown	UWA	3	242 363	242 363
M390	Measuring particle surface charge and particle interactions in process liquors	Dr V Patrick Dr E Karakyriakos	Central Chemical Consulting	3	474 000	474 000
M392	Iron oxyhydroxide characterisation and modification in bauxite: Tools for predicting and improving Bayer clarification performance	Prof B Gilkes Dr P Swash	UWA	2	261 153	341 153
M393	Banded iron formations and iron ores of the Hamersley Province: New insights from field, petrographic and geochemical studies	Dr B Rasmussen Dr B Krapez	UWA	3	435 000	435 000
M395	Modelling of submarine landslides and their impact on pipelines	Dr D White Prof M Randolph	UWA	3	776 000	1 685 000
M396	Establishing a chronostratigraphic framework for the Devonian Canning Basin Reef Complex	Dr P Cawood Dr A Smirnov	UWA	3	439 300	649 460

Reports not yet Published as at 30 June 2007

Report No.	Project No.	Project Title	Author	Status
212	M256	Influence of oxalate seed poisons on the crystallization and surface properties of sodium oxalate in the Bayer process	A McKinnon	In process of publication

Financial Assistance from Industry

The following list is of companies and organisations which provided financial sponsorship in 2006/07 for projects in progress. The Board of Directors thank these groups for their sponsorship and support.

MINERALS RESEARCH

Agnew Gold Mining Company Pty Limited
Agnico-Eagle Mines Limited – LaRonde Division
Alcan International Ltd
Alcoa World Alumina Australia
Allstate Explorations NL
AngloGold Australasia Limited
Atlas Copco Australia Pty Ltd
Barrick Australia Pacific (Kundana Gold Mine)
Barrick Gold of Australia Limited
Barrick (Kanowna) Limited
BHP Billiton Iron Ore
BHP Billiton Nickel West Pty Ltd
BHP Billiton Petroleum Pty Ltd
B & J Catalano Pty Ltd
Central Chemical Consulting Pty Ltd
Department of Environment
Fatzer AG, Geobrugg Protection Systems
Geological Survey of Western Australia
Gold Fields Australia (Pty) Limited –
St Ives Gold Mine
Iluka Resources Limited
Independence Group NL
Kalgoorlie Consolidated Gold Mines Pty Ltd
Kirkland Lake Gold Inc.
LionOre Australia Pty Ltd
Luzenac Australia Pty Ltd
Main Roads Western Australia
Mount Isa Mines – Black Star Open Cut
Newcrest Mining Limited, Cadia Valley Operations
Newcrest Mining Limited, Telfer Gold Mine
Newmont Australia Limited
Nufarm Australia Ltd
Ravensthorpe Nickel Operations Pty Ltd
Reliance Nickel Pty Ltd
Sir Samuel Mines NL
St Barbara Mines Limited
Strata Control Systems
Tanami Gold NL
WA School of Mines
Wiluna Operations Limited
Worsley Alumina Pty Ltd
Xstrata Copper – Kidd Creek Mine

Audited Statements

Performance Indicators
for the year ended 30 June 2007

Minerals Research Program

Outcome

"Promote all aspects of minerals research"

The key incentive provided by governments to encourage more research is to subsidise its cost. Government research funding schemes generally provide this subsidy on a dollar-for-dollar basis, in which case the amount of research undertaken is theoretically doubled. MERIWA's policy is that the magnitude of the subsidy is nominally 35% of the cash cost, encouraging a higher level of participation from industry.

The subsidy level must be such, however, to give MERIWA the authority to rigorously assess research programs and to establish "Conditions of Grant" that facilitate coordination and accountability, and ensure that final reports can be published and widely distributed. The subsidy must be of a level to enable promotion of research on regulatory issues such as occupational health and safety, and minesite rehabilitation.

In addition, research at PhD level is encouraged by the awarding of three supplementary research scholarships annually.

Effectiveness Indicator

Research was promoted by subsidy to the extent of the funds available. To maximise the effectiveness of this investment, sponsorship was maximised and the involvement of industry in each phase of the research was promoted to focus the scope of the study on the needs of industry and maximise technology transfer. By publishing reports, the research results were disseminated as widely as possible.

The average level of industry sponsorship as a percentage of research value in 2006/2007 was 75% against a target of 65%. The effectiveness of postgraduate doctoral research scholarships in promoting research will be gauged by the success of students in ultimately achieving their PhDs and in presentations of technical papers and posters at Australian and international symposia. Three scholarships were awarded in 2006/2007.

Service

"Finance and coordinate minerals research"

Efficiency Indicator:

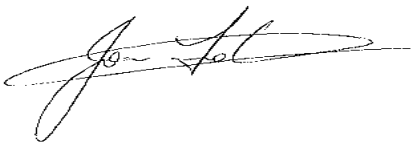
The indicator is a function of the number of projects and administration costs. Costs of administration are rising due to normal indexed increases to wages and supplies. The current trend is for fewer projects that cost more to be funded whilst the matching funds from consolidated revenue available to the Board are declining in real terms.

Effectiveness Indicator – Outcome	2006/2007	2005/2006	2004/2005	2003/2004	2002/2003
% Industry sponsorship achieved.	75%	71%	66%	80%	55%
Target.	65%	65%	65%	65%	65%
Research value	2 911 164	2 546 559	1 623 029	1 200 742	1 052 940

Efficiency Indicator – Service	2006/2007	2005/2006	2004/2005	2003/2004	2002/2003
$ cost per minerals research grant administered	8 114	7 922	6 497	4 745	5 172

Certification of Performance Indicators
for the year ended 30 June 2007

We hereby certify that the performance indicators are based on proper records, are relevant and appropriate for assisting users to assess the Minerals and Energy Research Institute of Western Australia's performance, and fairly represent the performance of the Minerals and Energy Research Institute of Western Australia for the financial year ended 30 June 2007.



J Fortuna
CHIEF FINANCE OFFICER

S R Baker
CHAIRMAN,
BOARD OF DIRECTORS

3 September 2007

Opinion of the Auditor General on Performance Indicators for the year ended 30 June, 2007

AUDITOR GENERAL

INDEPENDENT AUDIT OPINION

To the Parliament of Western Australia

MINERALS AND ENERGY RESEARCH INSTITUTE OF WESTERN AUSTRALIA
FINANCIAL STATEMENTS AND KEY PERFORMANCE INDICATORS
FOR THE YEAR ENDED 30 JUNE 2007

I have audited the accounts, financial statements, controls and key performance indicators of the Minerals and Energy Research Institute of Western Australia.

The financial statements comprise the Balance Sheet as at 30 June 2007, and the Income Statement, Statement of Changes in Equity and Cash Flow Statement for the year then ended, a summary of significant accounting policies and other explanatory Notes.

The key performance indicators consist of key indicators of effectiveness and efficiency.

Board's Responsibility for the Financial Statements and Key Performance Indicators
The Board is responsible for keeping proper accounts, and the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Treasurer's Instructions, and the key performance indicators. This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements and key performance indicators that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; making accounting estimates that are reasonable in the circumstances; and complying with the Financial Management Act 2006 and other relevant written law.

Summary of my Role
As required by the Auditor General Act 2006, my responsibility is to express an opinion on the financial statements, controls and key performance indicators based on my audit. This was done by testing selected samples of the audit evidence. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion. Further information on my audit approach is provided in my audit practice statement. Refer "http://www.audit.wa.gov.au/pubs/Audit-Practice-Statement.pdf".

An audit does not guarantee that every amount and disclosure in the financial statements and key performance indicators is error free. The term "reasonable assurance" recognises that an audit does not examine all evidence and every transaction. However, my audit procedures should identify errors or omissions significant enough to adversely affect the decisions of users of the financial statements and key performance indicators.

Minerals and Energy Research Institute of Western Australia
Financial Statements and Key Performance Indicators for the year ended 30 June 2007

Audit Opinion
In my opinion,

(i) the financial statements are based on proper accounts and present fairly the financial position of the Minerals and Energy Research Institute of Western Australia at 30 June 2007 and its financial performance and cash flows for the year ended on that date. They are in accordance with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Treasurer's Instructions;

(ii) the controls exercised by the Institute provide reasonable assurance that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities have been in accordance with legislative provisions; and

(iii) the key performance indicators of the Institute are relevant and appropriate to help users assess the Institute's performance and fairly represent the indicated performance for the year ended 30 June 2007.

COLIN MURPHY
AUDITOR GENERAL
14 September 2007

Income Statement
for the year ended 30 June 2007

	Note	2007	2006
		$	$
COST OF SERVICES			
Expenses			
Research grants	6	1,883,002	2,227,322
Scholarships	7	29,987	65,000
Employee benefits expense	8	117,655	115,463
Board and committee fees and costs	9	39,123	40,580
Administration expenses	10	20,866	19,911
Accommodation expenses	11	25,200	14,175
Capital user charge	12	34,000	34,000
Depreciation expense	13	2,017	2,017
Total Cost of Services		**2,151,850**	**2,518,468**
Income			
Interest Revenue	14	76,736	76,244
Other Revenue	15	2,871	3,473
Revenues from Industry Sponsorship	16	2,114,967	1,815,040
Total income other than income from State Government		**2,194,574**	**1,894,757**
NET COST OF SERVICES		**(42,724)**	**623,711**
INCOME FROM STATE GOVERNMENT			
Service Appropriation	17	657,000	649,000
Resources received free of charge	18	25,200	14,175
Total income from State Government		682,200	663,175
SURPLUS/(DEFICIT) FOR THE PERIOD		**724,924**	**39,464**

The Income Statement should be read in conjunction with the accompanying notes.

Balance Sheet
as at 30 June 2007

	Note	2007	2006
		$	$
ASSETS			
Current Assets			
Cash and cash equivalents	19	29,413	25,604
Restricted cash and cash equivalents	20	1,534,512	1,483,127
Receivables	21	687,762	1,503,606
Other Current Assets	22	5,880	212,834
Total current assets		**2,257,567**	**3,225,171**
Non-current Assets			
Receivables	21	763,250	46,000
Plant and equipment	23	2,757	4,774
Total non-current assets		**766,007**	**50,774**
TOTAL ASSETS		**3,023,574**	**3,275,945**
LIABILITIES			
Current liabilities			
Payables	25	33,800	810,036
Other Current Liabilities	26	10,036	196,095
Total current liabilities		**43,836**	**1,006,131**
Non-current liabilities			
Payables	25	5,000	20,000
Total non-current liabilities		**5,000**	**20,000**
TOTAL LIABILITIES		**48,836**	**1,026,131**
NET ASSETS		**2,974,738**	**2,249,814**
EQUITY			
Accumulated Surplus	27	2,974,738	2,249,814
TOTAL EQUITY		**2,974,738**	**2,249,814**

The Balance Sheet should be read in conjunction with the accompanying notes.

Statement of Changes in Equity
for the year ended 30 June, 2007

	Note	2007	2006
		$	$
Balance of equity at start of period		**2,249,814**	**2,210,350**
Accumulated Surplus	27		
Balance at start of period		2,249,814	2,210,350
Surplus/(deficit) for the period		724,924	39,464
Balance at end of period		2,974,738	2,249,814
Balance of equity at end of period		**2,974,738**	**2,249,814**
Total income and expense for the period		**724,924**	**39,464**

The Statement of Changes in Equity should be read in conjunction with the accompanying notes.

Cash Flow Statement
for the year ended 30 June, 2007

	Note	2007	2006
		$	$
CASH FLOWS FROM STATE GOVERNMENT			
Service appropriation	2(d)	657,000	649,000
Net cash provided by State Government		**657,000**	**649,000**
Utilised as follows:			
CASH FLOWS FROM OPERATING ACTIVITIES			
Payments			
Research Grant payments		(2,426,205)	(2,262,735)
Employee benefits		(117,714)	(117,823)
Capital User Charge		(42,500)	(34,000)
Other Operating Payments		(60,740)	(60,264)
GST Payments on Purchases		(246,332)	(273,355)
Receipts			
Receipts from Sponsors		1,964,333	1,288,306
Interest received		75,691	75,490
Other receipts		2,871	3,474
GST receipts on sales		196,573	160,786
GST receipts from Taxation Authority		52,217	126,154
Net cash provided by/(used in) operating activities	28 (b)	**(601,806)**	**(1,093,967)**
Net increase/(decrease) in cash and cash equivalents		55,194	(444,967)
Cash and cash equivalents at the beginning of period		1,508,731	1,953,698
Cash and cash equivalents at the end of period	28 (a)	**1,563,925**	**1,508,731**

The Cash Flow Statement should be read in conjunction with the accompanying notes

Notes to the Financial Statements for the year ended 30 June, 2007

1. Australian equivalents to International financial reporting Standards

General

The Authority's financial statements for the year ended 30 June 2007 have been prepared in accordance with Australian equivalents to International Financial Reporting Standards (AIFRS), which comprise a Framework for the Preparation and Presentation of Financial Statements (the Framework) and Australian Accounting Standards (including the Australian Accounting Interpretations).

In preparing these financial statements the Authority has adopted, where relevant to its operations, new and revised Standards and Interpretations from their operative dates as issued by the AASB and formerly the Urgent Issues Group (UIG).

The Australian Accounting Interpretations are adopted through AASB 1048 'Interpretation and Application of Standards' and are classified into those corresponding to IASB Interpretations and those only applicable in Australia.

The AASB has decided to maintain the statements of accounting concepts (SAC 1 and SAC 2) and has continued to revise and maintain accounting standards and the interpretations that are of particular relevance to the Australian environment, especially those that deal with more specifically with not-for-profit entity issues and/or do not have an equivalent IASB Standard or Interpretation.

Early adoption

The Authority cannot early adopt an Australian Accounting Standard or Australian Accounting Interpretation unless specifically permitted by TI 1101 'Application of Australian Accounting Standards and Other Pronouncements'. No Standards and Interpretations that have been issued or amended but are not yet effective have been early adopted by the Authority for the annual reporting period ended 30 June 2007.

2. Summary of significant accounting policies

(a) General Statement

The financial statements constitute a general purpose financial report which has been prepared in accordance with the Australian Accounting Standards, the Framework, Statements of Accounting Concepts and other authoritative pronouncements of the Australian Accounting Standards Board as applied by the Treasurer's Instructions. Several of these are modified by the Treasurer's Instructions to vary application, disclosure, format and wording.

The Financial Management Act and the Treasurer's Instructions are legislative provisions governing the preparation of financial statements and take precedence over the Accounting Standards, the Framework, Statements of Accounting Concepts and other authoritative pronouncements of the Australian Accounting Standards Board.

Where modification is required and has a material or significant financial effect upon the reported results, details of that modification and the resulting financial effect are disclosed in the notes to the financial statements.

Notes to the Financial Statements
for the year ended 30 June, 2007

(b) Basis of Preparation

The financial statements have been prepared on the accrual basis of accounting using the historical cost convention.

The accounting policies adopted in the preparation of the financial statements have been consistently applied throughout all periods presented unless otherwise stated.

The financial statements are presented in Australian dollars and all values are rounded to the nearest dollar.

The judgements that have been made in the process of applying the Authority's accounting policies that have the most significant effect on the amounts recognised in the financial statements are disclosed in note 3 'Judgements made by management in applying accounting policies'.

The key assumptions made concerning the future, and other key sources of estimation uncertainty at the balance sheet date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are disclosed at note 4 'Key sources of estimation uncertainty'.

(c) Reporting Entity

The reporting entity comprises the Authority. There are no related bodies.

(d) Income

Revenue recognition

Revenue is measured at the fair value of consideration received or receivable. Revenue is recognised for the major business activities as follows:

Interest

Revenue is recognised as the interest accrues.

Sponsorship Revenue

Sponsorship from Industry is recognised as revenue when the Authority obtains control over the assets comprising the contributions. Control is normally obtained upon signing of the sponsorship agreement.

Service Appropriations

Service Appropriations are recognised as revenues at nominal value in the period in which the Authority gains control of the appropriated funds. The Authority gains control of appropriated funds at the time those funds are deposited to the bank account.

Sale of goods

Revenue is recognised from the sale of goods when the significant risks and rewards of ownership control transfer to the purchaser and can be measured reliably.

Notes to the Financial Statements
for the year ended 30 June, 2007

(e) Plant and Equipment

Capitalsation/Expensing of assets

Items of plant and equipment costing $1,000 or more are recognised as assets and the cost of utilising assets is expensed (depreciated) over their useful lives. Items of plant and equipment costing less than $1,000 are immediately expensed direct to the Income Statement (other than where they form part of a group of similar items which are significant in total).

Initial recognition and measurement

All items of plant and equipment are initially recognised at cost.

Items of plant and equipment acquired at no cost or for nominal consideration are initially recognised at their fair value at the date of acquisition.

Subsequent measurement

After recognition as an asset, the cost model is used for the measurement for plant and equipment and stated at historical cost less accumulated depreciation and accumulated impairment losses.

Depreciation

All non-current assets having a limited useful life are systematically depreciated over their estimated useful lives in a manner that reflects the consumption of their future economic benefits.

Depreciation is calculated using the straight line method, using rates which are reviewed annually. The expected useful life for plant and equipment is 3 to 7 years.

(f) Impairment of assets

Plant and equipment assets are tested for any indication of impairment at each balance sheet date. Where there is an indication of impairment, the recoverable amount is estimated. Where the recoverable amount is less than the carrying amount, the asset is considered impaired and is written down to the recoverable amount and an impairment loss is recognised. As the Authority is a not-for-profit entity, unless an asset has been identified as a surplus asset, the recoverable amount is the higher of an asset's fair value less costs to sell and depreciated replacement cost.

The risk of impairment is generally limited to circumstances where an asset's depreciation is materially understated, where the replacement cost is falling or where there is a significant change in useful life. Each relevant class of assets is reviewed annually to verify that the accumulated depreciation reflects the level of consumption or expiration of asset's future economic benefits and to evaluate any impairment risk from falling replacement costs.

Notes to the Financial Statements
for the year ended 30 June, 2007

The recoverable amount of assets identified as surplus assets is the higher of fair value less costs to sell and the present value of future cash flows expected to be derived from the asset. Surplus assets carried at fair value have no risk of material impairment where fair value is determined by reference to market-based evidence. Where fair value is determined by reference to depreciated replacement cost, surplus assets are at risk of impairment and the recoverable amount is measured. Surplus assets at cost are tested for indications of impairment at each balance sheet date.

See note 24 'Impairment of assets' for the outcome of impairment reviews and testing.

(g) Financial Instruments

The Authority has two categories of financial instruments:

- Receivables (cash and cash equivalents, receivables); and
- Non-trading financial liabilities (payables)

Initial recognition and measurement of financial instruments is at fair value which normally equates to the transaction cost or the face value. Subsequent measurement is at amortised cost using the effective interest method.

The fair value of short-term receivables and payables is the transaction cost or the face value because there is no interest rate applicable and subsequent measurement is not required as the effect of discounting is not material.

(h) Cash and cash equivalents

For the purpose of the Cash Flow Statement, cash and cash equivalents (and restricted cash and cash equivalents) assets comprise cash on hand and short-term deposits that are readily convertible to a known amount of cash and which are subject to insignificant risk of changes in value, and bank overdrafts.

More specifically, the Authority has Short term investments comprised of term deposits and bank bills invested in such securities as approved by the Treasurer.

(i) Receivables

Receivables are recognised and carried at original invoice amount less an allowance for any uncollectible amounts (ie impairment). The collectability of receivables is reviewed on an ongoing basis and any receivables identified as uncollectible are written-off. The allowance for uncollectible amounts (doubtful debts) is raised when there is objective evidence that the Authority will not be able to collect the debts. The carrying amount is equivalent to fair value as it is due for settlement within 30 days. See note 2(g) 'Financial Instruments' and note 21 'Receivables'.

(j) Payables and Accrued Expenses

Payables including accruals not yet billed are recognised at the amounts payable when the Authority becomes obliged to make future payments as a result of a purchase of assets or services. The carrying amount is equivalent to fair value, as they are generally settled within 30 days. See note 2(g) 'Financial Instruments' and note 25 'Payables'.

Notes to the Financial Statements for the year ended 30 June, 2007

(k) Superannuation

All of the Authority's employees are non-contributory members of the West State Superannuation (WSS) Scheme, an accumulation scheme. The Authority makes concurrent contributions to the Government Employees Superannuation Board on behalf of employees in compliance with the Commonwealth Government's Superannuation Guarantee (Administration) Act 1992. These contributions extinguish all liabilities in respect of the WSS Scheme by payment of employer contributions to the Government Employees Superannuation Board.

(l) Research Grants

All minerals research projects are funded partly by MERIWA grants and partly by Industry sponsorship. Sponsorship is allocated by a company (the sponsor) to a research project, which by agreement, is paid through MERIWA, who on behalf of the sponsor, maintain financial control over the project and progressively advance the funds to the research grantee.

Grants expense is recognised when the Authority becomes obliged to make payment to the grantee. The Institute becomes obliged to make payment when the grantee has met the conditions of the grant agreement, normally on a quarterly basis.

(m) Scholarships

Scholarships represent the Institute's obligation to fund approved scholarships.

Current liabilities include payments expected to be made within the next 12 months from the balance sheet date, and non current liabilities include payments expected to be made in later years.

(n) Resources Received Free of Charge

Resources received free of charge or for nominal cost that can be reliably measured are recognised as income and as assets or expenses as appropriate, at fair value.

(o) Comparative Figures

Comparative figures are, where appropriate, reclassified to be comparable with the figures presented in the current financial year.

3. Judgements made by management in applying accounting policies

The judgements that have been made by management in the process of applying accounting policies will have no significant effect on the amounts recognised in the financial statements other than those disclosed in Note 2.

4. Key sources of estimation uncertainty

There were no key assumptions made concerning the future, and other key sources of estimation uncertainty at the balance sheet date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Notes to the Financial Statements
for the year ended 30 June, 2007

5. Disclosure of changes in Accounting policy and Estimates

Initial application of an Australian Accounting Standard

The Authority has applied the following Australian Accounting Standards and Australian Accounting Interpretations effective for annual reporting periods beginning on or after 1 July 2006:

1. AASB 2005-9 'Amendments to Australian Accounting Standards [AASB 4, AASB 1023, AASB 139 & AASB 132]' (Financial guarantee contracts). The amendment deals with the treatment of financial guarantee contracts, credit insurance contracts, letters of credit or credit derivative default contracts as either an "insurance contract" under AASB 4 'Insurance Contracts' or as a "financial guarantee contract" under AASB 139 'Financial Instruments: Recognition and Measurement'. The Authority does not currently undertake these types of transactions, resulting in no financial impact in applying the Standard.

2. UIG Interpretation 4 'Determining whether an Arrangement Contains a Lease' as issued in June 2005. This Interpretation deals with arrangements that comprise a transaction or a series of linked transactions that may not involve a legal form of a lease but by their nature are deemed to be leases for the purposes of applying AASB 117 'Leases'. At balance sheet date, the Authority has not entered into any arrangements as specified in the Interpretation, resulting in no impact in applying the Interpretation.

3. UIG Interpretation 9 'Reassessment of Embedded Derivatives'. This Interpretation requires an embedded derivative that has been combined with a non-derivative to be separated from the host contract and accounted for as a derivative in certain circumstances. At balance sheet date, the Authority has not entered into any contracts as specified in the Interpretation, resulting in no impact in applying the Interpretation.

The following Australian Accounting Standards and Interpretations are not applicable to the Authority as they have no impact or do not apply to not-for-profit entities:

AASB Standards and Interpretations

2005-1	'Amendments to Australian Accounting Standard' (AASB 139 – Cash flow hedge accounting of forecast intragroup transactions)
2005-5	'Amendments to Australian Accounting Standards [AASB 1 & AASB 139]'
2006-1	'Amendments to Australian Accounting Standards [AASB 121]'
2006-3	'Amendments to Australian Accounting Standards [AASB 1045]'
2006-4	'Amendments to Australian Accounting Standards [AASB 134]'
2007-2	'Amendments to Australian Accounting Standards arising from AASB Interpretation 12 [AASB 1, AASB 117, AASB 118, AASB 120, AASB 121, AASB 127, AASB 131 & AASB 139]' –paragraph 9
UIG 5	'Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds'
UIG 6	'Liabilities arising from Participating in a Specific Market – Waste Electrical and Electronic Equipment'
UIG 7	'Applying the Restatement Approach under AASB 129 Financial Reporting in Hyperinflationary Economies'
UIG 8	'Scope of AASB 2'

Notes to the Financial Statements for the year ended 30 June, 2007

Voluntary changes in Accounting Policy

There were no voluntary changes in accounting policy that will have an effect on the current period or any prior period.

Future impact of Australian Accounting Standards not yet operative

The Authority cannot early adopt an Australian Accounting Standard or Australian Accounting Interpretation unless specifically permitted by TI 1101 'Application of Australian Accounting Standards and Other Pronouncements'. Consequently, the Authority has not applied the following Australian Accounting Standards and Australian Accounting Interpretations that have been issued but are not yet effective. These will be applied from their application date:

1. AASB 7 'Financial Instruments: Disclosures' (including consequential amendments in AASB 2005-10 'Amendments to Australian Accounting Standards [AASB 132, AASB 101, AASB 114, AASB 117, AASB 133, AASB 139, AASB 1, AASB 4, AASB 1023 & AASB 1038]'). This Standard requires new disclosures in relation to financial instruments. The Standard is considered to result in increased disclosures, both quantitative and qualitative of the Authority's exposure to risks, enhanced disclosure regarding components of the Authority's financial position and performance, and possible changes to the way of presenting certain items in the financial statements. The Authority does not expect any financial impact when the Standard is first applied. The Standard is required to be applied to annual reporting periods beginning on or after 1 January 2007.

2. AASB 2005-10 'Amendments to Australian Accounting Standards (AASB 132, AASB 101, AASB 114, AASB 117, AASB 133, AASB 139, AASB 1, AASB 4, AASB 1023, & AASB 1038)'. The amendments are as a result of the issue of AASB 7 'Financial Instruments: Disclosures', which amends the financial instrument disclosure requirements in these standards. The Authority does not expect any financial impact when the Standard is first applied. The Standard is required to be applied to annual reporting periods beginning on or after 1 January 2007.

3. AASB 101 'Presentation of Financial Statements'. This Standard was revised and issued in October 2006 so that AASB 101 has the same requirements as IAS 1 'Presentation of Financial Statements' (as issued by the IASB) in respect of for-profit entities. The Authority is a not-for-profit entity and consequently does not expect any financial impact when the Standard is first applied. The Standard is required to be applied to annual reporting periods beginning on or after 1 January 2007.

4. AASB 2007-4 'Amendments to Australian Accounting Standards arising from ED 151 and Other Amendments (AASB 1, 2, 3, 4, 5, 6, 7, 102, 107, 108, 110, 112, 114, 116, 117, 118, 119, 120, 121, 127, 128, 129, 130, 131, 132, 133, 134, 136, 137, 138, 139, 141, 1023 & 1038)'. This Standard introduces policy options and modifies disclosures. These amendments arise as a result of the AASB decision that, in principle, all options that currently exist under IFRSs should be included in the Australian equivalents to IFRSs and additional Australian disclosures should be eliminated, other than those now considered particularly relevant in the Australian reporting environment. The Department of Treasury and Finance has indicated that it will mandate to remove the policy options added by this amending Standard. This will result in no impact as a consequence of application of the Standard. The Standard is required to be applied to annual reporting periods beginning on or after 1 July 2007.

Notes to the Financial Statements
for the year ended 30 June, 2007

5. AASB 2007-5 'Amendment to Australian Accounting Standard – Inventories Held for Distribution by Not-for-Profit Entities (AASB 102)'. This amendment changes AASB 102 'Inventories' so that inventories held for distribution by not-for-profit entities are measured at cost, adjusted when applicable for any loss of service potential. The Authority does not have any inventories held for distribution so does not expect any financial impact when the Standard is first applied. The Standard is required to be applied to annual reporting periods beginning on or after 1 July 2007

6. AASB Interpretation 4 'Determining whether an Arrangement Contains a Lease [revised]'. This Interpretation was revised and issued in February 2007 to specify that if a public-to-private service concession arrangement meets the scope requirements of AASB Interpretation 12 'Service Concession Arrangements' as issued in February 2007, it would not be within the scope of Interpretation 4. At balance sheet date, the Authority has not entered into any arrangements as specified in the Interpretation or within the scope of Interpretation 12, resulting in no impact when the Interpretation is first applied. The Interpretation is required to be applied to annual reporting periods beginning on or after 1 January 2008.

7. AASB Interpretation 12 'Service Concession Arrangements'. This Interpretation was issued in February 2007 and gives guidance on the accounting by operators (usually a private sector entity) for public-to-private service concession arrangements. It does not address the accounting by grantors (usually a public sector entity). It is currently unclear as to the application of the Interpretation to the Authority if and when public-to-private service concession arrangements are entered into in the future. At balance sheet date, the Authority has not entered into any public-to-private service concession arrangements resulting in no impact when the Interpretation is first applied. The Interpretation is required to be applied to annual reporting periods beginning on or after 1 January 2008.

8. AASB Interpretation 129 'Service Concession Arrangements: Disclosures [revised]'. This Interpretation was revised and issued in February 2007 to be consistent with the requirements in AASB Interpretation 12 'Service Concession Arrangements' as issued in February 2007. Specific disclosures about service concession arrangements entered into are required in the notes accompanying the financial statements, whether as a grantor or an operator. At balance sheet date, the Authority has not entered into any public-to-private service concession arrangements resulting in no impact when the Interpretation is first applied. The Interpretation is required to be applied to annual reporting periods beginning on or after 1 January 2008.

The following Australian Accounting Standards and Interpretations are not applicable to the Authority as they will have no impact or do not apply to not-for-profit entities:

AASB Standards and Interpretations

AASB 8	'Operating Segments'
AASB 1049	'Financial Reporting of General Government Sectors by Governments'
AASB 2007-1	'Amendments to Australian Accounting Standards arising from AASB Interpretation 11 [AASB 2]'
AASB 2007-2	'Amendments to Australian Accounting Standards arising from AASB Interpretation 12 [AASB 1, AASB 117, AASB 118, AASB 120, AASB 121, AASB 127, AASB 131 & AASB 139]' – paragraphs 1 to 8
AASB 2007-3	'Amendments to Australian Accounting Standards arising from AASB 8 [AASB 5, AASB 6, AASB 102, AASB 107, AASB 119, AASB 127, AASB 134, AASB 136, AASB 1023 & AASB 1038]'

Notes to the Financial Statements
for the year ended 30 June, 2007

Future impact of Australian Accounting Standards not yet operative – cont'd

AASB 2007-6	'Amendments to Australian Accounting Standards arising from AASB 123 [AASB1, AASB 101, AASB 107, AASB 111, AASB 116 & AASB 138 and Interpretations 1 & 12]'.

AASB Standardsand Interpretations

AASB 2007-7	'Amendments to Australian Accounting Standards following the issuance, in April 2007, of AASB 2007-4 Amendments to Australian Accounting Standards arising from ED 151 and Other Amendments [AASB1, AASB 2, AASB 4, AASB 5, AASB 107, & AASB 128 and Interpretations 1 & 12]'
Interpretation 10	'Interim Financial Reporting and Impairment'
Interpretation 11	'AASB 2 – Group and Treasury Share Transactions'

Changes in accounting estimates

There were no changes in accounting estimates that will have an effect on the current period or any prior or future periods.

6. Research Grants

	2007 $	2006 $
Research Grants – MERIWA	447,489	638,473
Research Grants – Industry Sponsorship	1,435,513	1,588,849
	1,883,002	**2,227,322**

7. Scholarships

Scholarships	29,987	65,000
	29,987	**65,000**

8. Employee expenses

Institute Contract Staff fees	107,940	105,929
Superannuation	9,715	9,534
	117,655	**115,463**

9. Board and Committee fees and costs

Board of Director's remuneration	33,800	33,800
Advisory Committee attendance fees	4,620	5,940
Board and Advisory Committee's expenses	703	840
	39,123	**40,580**

10. Administration expenses

	2007 $	2006 $
Printing and Stationery	1,603	2,217
Advertising	946	2,159
Audit fees	11,800	11,000
Worker's Compensation premium	2,973	880
Other	3,544	3,655
	20,866	**19,911**

Notes to the Financial Statements
for the year ended 30 June, 2007

11. Accommodation expenses

Rental (notional)	25,200	14,175
	25,200	**14,175**

12. Capital user charge

Capital user charge	34,000	34,000
	34,000	**34,000**

The charge was a levy applied by Government for the use of its capital. In 2006-07, the final year in which the charge was levied, a single payment was made equal to the appropriation less any adjustment relating to 2005-06.

13. Depreciation expense

Plant and Equipment	2,017	2,017
	2,017	**2,017**

14. Interest Revenue

Interest on Investments – Term Deposits	76,736	76,244
	76,736	**76,244**

15. Other Revenue

Sale of Publications	2,871	3,473
	2,871	**3,473**

16. Revenue from Industry Sponsorship

	2007 $	**2006 $**
Sponsorship from Industry	2,114,967	1,815,040
	2,114,967	**1,815,040**

17. Service Appropriation

Appropriation Revenue	657,000	649,000
	657,000	**649,000**

Service appropriation are accrual amounts reflecting the net cost of services delivered. The appropriation revenue is comprised of a cash component.

18. Resources received free of charge

Resources received free of charge have been determined on the basis of the following estimates provided by agencies.

Department of Industry and Resources	25,200	14,175
	25,200	**14,175**

Where services have been received free of charge or for nominal cost, the Authority recognises revenues (except where the contributions of services are in the nature of contributions by owners in which case the Authority shall make a direct adjustment to equity) equivalent to the fair value of the services that can be reliably determined and which would have been purchased if not donated, and those fair values shall be recognised as expenses.

Notes to the Financial Statements
for the year ended 30 June, 2007

19. Cash and cash equivalents

Cash at bank	29,213	25,404
Cash on hand	200	200
	29,413	**25,604**

20. Restricted cash and cash equivalents

Research Grants	1,534,512	1,483,127
	1,534,512	**1,483,127**

Cash held in the account is to be used only for the purpose of providing grants for research and development projects to grantees.

21. Receivables

	2007 $	**2006 $**
Current		
Grants Receivable – Sponsorship	672,094	1,458,495
GST Receivable	15,668	45,111
	687,762	**1,503,606**
Non – Current		
Grants Receivable – Sponsorship	763,250	46,000
	763,250	**46,000**

See also note 2(i) 'Receivables' and note 31 'Financial Instruments'

22. Other Current Assets

Prepayments of Research Grants	-	208,000
Accrued Interest on Short Term Investments	5,880	4,834
	5,880	**212,834**

23. Plant and equipment

Plant and equipment		
At cost	8,970	8,970
Accumulated depreciation	(6,213)	(4,196)
Accumulated impairment losses	-	-
	2,757	4,774

Reconciliation of the carrying amounts of plant and equipment at the beginning and end of the reporting period are set out below:

Plant and equipment 2007		
Carrying amount at start of year	4,774	6,791
Depreciation	2,017	2,017
Carrying amount at end of year	2,757	4,774

24. Impairment of assets

There were no indications of impairment of plant and equipment assets at 30 June 2007.
The Authority held no goodwill or intangible assets or surplus assets at balance sheet date.

Notes to the Financial Statements for the year ended 30 June, 2007

25. Payables

	2007 $	2006 $
Current		
Grants Payable – Research	-	770,220
Grants Payable – Scholarship	33,800	39,816
	33,800	**810,036**
Non – Current		
Grants Payable – Scholarship	5,000	20,000
	38,800	**830,036**

See also note 2(j) 'Payables, 2(l) 'Research Grants', 2(m) 'Scholarships' and note 31 'Financial Instruments'

26. Other Current Liabilities

Accrued Expenses		
Institute contract staff fees	9,207	9,262
Superannuation	829	833
Printing and stationery	-	227
Capital User Charge	-	9,023
	10,036	**19,345**
Grants Received in advance		
Grants Received in advance - Sponsorship	-	176,750
	10,036	**196,095**

27. Equity

Equity represents the residual interest in net assets of the Authority. The Government holds the equity interest in the Authority on behalf of the community.

Accumulated Surplus		
Balance at start of period	2,249,814	2,210,350
Result for the period	724,924	39,464
Balance at end of period	**2,974,738**	**2,249,814**

28. Notes to the Statement of Cash Flows

(a) Reconciliation of Cash

Cash at the end of the financial year as shown in the Cash Flow Statement is reconciled to the related items in the Balance Sheet as follows:

Cash at bank	29,213	25,404
Cash on hand	200	200
Restricted Cash and cash equivalents	1,534,512	1,483,127
	1,563,925	**1,508,731**

Notes to the Financial Statements for the year ended 30 June, 2007

(b) Reconciliation of Net Cost of Services to Net Cash Flows Used In Operating Activities

	2007 $	2006 $
Net cost of services	42,724	(623,711)
Non-cash items:		
Resources received free of charge	25,200	14,175
Depreciation	2,017	2,017
(Increase)/Decrease in assets:		
Accrued Interest	(1,046)	(753)
Grants Receivable – Sponsorship	69,151	(668,484)
Grants Receivable – Scholarship		-
Prepayments	208,000	(208,000)
Increase/(Decrease) in liabilities:		
Grants Payable -Research	(791,236)	224,114
Grants Payable –Scholarship		-
Sponsorship received in advance	(176,750)	176,750
Accrued expenses	(9,309)	(2,133)
Net GST payments	2,458	13,585
Change in GST in receivables/payables	26,985	(21,527)
Net Cash used in operating activities	**(601,806)**	**(1,093,967)**

29. Commitments

At balance sheet date the Authority has $3,031,029 (2006 $2,126,360) of research grant commitments that are not recognised in the Income Statement. The Authority is obliged to make payment when the grantee has met the conditions of grant (see note 2) and are payable as follows:

Within 1 year	1,914,213	1,461,234
Later than 1 year but not later than 5 years	1,116,816	665,126
Total	**3,031,029**	**2,126,360**

These commitments are not inclusive of GST

Notes to the Financial Statements for the year ended 30 June, 2007

30. Explanatory Statement

Significant variations between estimates and actual results for income and expenses are shown below. Significant variations are considered to be those greater than 10% and $2,000.

(i) Significant variances between estimated and actual result for 2007

	2007 Estimate $	2007 Actual $	Variation $
Scholarships	42,000	29,987	12,013
Employee expenses	102,000	117,655	(15,655)
Accommodation costs	14,000	25,200	(11,200)
Revenue from Industry Sponsorship	1,364,000	2,114,967	(750,967)
Resources received free of charge	16,000	25,200	(9,200)

Scholarships were lower than the estimate due to the lower value of scholarships being awarded than was expected.

Employee expenses were higher than the estimate due to higher project co-ordination costs than expected.

Accommodation costs were higher than the estimate due to higher than expected notional rental charges.

Revenue from Industry Sponsorship was higher than the estimate due to a higher than anticipated number of applications and industry support.

Resources received free of charge was higher than the estimate due to higher notional rental charges than was expected.

(ii) Significant variances between actual results for 2006 and 2007

	2007 $	2006 $	Variance $
Research Grants	1,883,002	2,227,322	(344,320)
Scholarships	29,987	65,000	(35,013)
Accommodation costs	25,200	14,175	11,025
Revenue from Industry Sponsorship	2,114,967	1,815,040	299,927
Resources received free of charge	25,200	14,175	11,025

Research Grants - the variance is due to a slower rate of progress in projects being processed during the year. This has resulted in lower claims by researchers than expected for this period.

Scholarships – the variance is due to scholarships being awarded for a shorter duration.

Accommodation costs – the variance is due to an increase in the notional rental charge.

Revenue from Industry Sponsorship – the variance is due to a higher value of projects being processed during the year.

Resources received free of charge – the variance is due to an increase in the notional rental charge.

31. Financial Instruments

(a) Financial Risk Management Objectives and Policies

Financial instruments held by the Authority are cash and cash equivalents, receivables and payables. The Authority has limited exposure to financial risks. The Authority's overall risk management program focuses on managing the risks identified below.

Credit Risk
The Authority trades only with recognised, creditworthy third parties. The Authority has policies in place to ensure that sale of products and services are made to customers with an appropriate credit history. In addition, receivable balances are monitored on an ongoing basis with the result that the Authority's exposure to bad debts is minimal. There are no significant concentrations of credit risk.

Liquidity risk
The Authority has appropriate procedures to manage cash flows including draw downs of appropriations by monitoring forecast cash flows to ensure that sufficient funds are available to meet commitments.

Cash flow interest rate risk
The Authority's exposure to market risk for changes in interest rates relate primarily to short-term investments comprised of term deposits and bank bills. The risk is managed by the Authority through diversification and variation in maturity dates.

(b) Financial Instrument disclosures

Interest Rate Risk Exposure

The following table details the Authority's exposure to interest rate risk as at balance sheet date:

Notes to the Financial Statements
for the year ended 30 June, 2007

2007	Weighted average effective interest rate %	Variable Interest Rate $ '000	Non-interest Bearing $ '000	Total $ '000
Financial Assets				
Cash and cash equivalents	2.12	29	-	29
Restricted cash and cash equivalents	4.33	1,535	-	1,535
Receivables	-	-	1,451	1,451
Other assets	-	-	6	6
Total Financial Assets		**1,564**	**1,457**	**3,021**
Financial Liabilities				
Payables	-	-	39	39
Other liabilities	-	-	10	10
Total Financial Liabilities		**-**	**49**	**49**
2006				
Financial Assets				
Cash and cash equivalents	3.91	26	-	26
Restricted cash and cash equivalents	5.88	1,483	-	1,483
Receivables	-	-	1,549	1,549
Other assets	-	-	213	213
Total Financial Assets		**1,509**	**1,762**	**3,271**
Financial Liabilities				
Payables	-	-	810	810
Other liabilities	-	-	196	196
Total Financial Liabilities		**-**	**1,006**	**1,006**

Fair values

All financial assets and liabilities recognised in the balance sheet, whether they are carried at cost or fair value, are recognised at amounts that represent a reasonable approximation of fair value unless otherwise stated in the applicable notes.

Notes to the Financial Statements for the year ended 30 June, 2007

32. Remuneration of members of the Accountable Authority and Senior Officers

Remuneration of Members of the Accountable Authority

The number of members of the Accountable Authority whose total of fees, salaries, superannuation, non-monetary benefits and other benefits for the financial year, fall within the following bands are:

			2007	2006
$ 0	-	$ 10,000	4	3
$ 10,001	-	$ 20,000	1	1

The total remuneration of the members of the Accountable Authority is:

$	$
33,800	33,800

No amounts were paid or become payable to any superannuation fund for the financial year for any of the members of the Accountable Authority.

No members of the Accountable Authority are members of the Pension Scheme.

Remuneration of Senior Officers

The number of Senior Officers other than senior officers reported as members of the Accountable Authority whose total fees, salaries, superannuation, non-monetary benefits and other benefits for the financial year, fall within the following bands are:

			2007	2006
$ 30,000	-	$ 40,000	1	-
$ 40,001	-	$ 50,000		1

The total remuneration of Senior Officers of the Accountable Authority is:

$	$
37,949	49,463

The total remuneration includes the superannuation expense incurred by the Authority in respect of Senior Officers other than senior officers reported as members of the Accountable Authority.

No Senior Officers are members of the Pension Scheme.

33. Remuneration of Auditor

Remuneration payable to the Auditor General for the financial year is as follows:

	2007 $	2006 $
Auditing the accounts, financial statements and performance indicators	11,800	11,000
	11,800	**11,000**

The expense is included at note 10 ‘Administration expenses’

Notes to the Financial Statements for the year ended 30 June, 2007

34. Supplementary Information

The Institute has no contingent liabilities or any related or affiliated bodies. There were no events occurring after reporting date, or write-offs or losses through theft, defaults and other causes. No gifts of public property were provided by the Authority.

35. Schedule of Income and Expenses by Service

Treasurer's Instruction 1101(9) requires that statutory authorities provide segment information in the form of services.

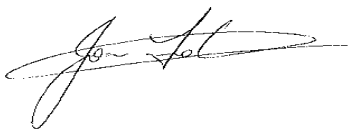
MERIWA has one sole activity (or service) which is to finance and coordinate minerals and energy research.

No schedule is prepared as this information is reported in the Income Statement.

Certification of Financial Statements
for the year ended 30 June 2007

The accompanying financial statements of the Minerals and Energy Research Institute of Western Australia have been prepared in compliance with the provisions of the Financial Management Act, 2006 from proper accounts and records to present fairly the financial transactions for the financial year ending 30 June 2007 and the financial position as at 30 June 2007.

At the date of signing we are not aware of any circumstances which would render any particulars included in the financial statements misleading or inaccurate.



J Fortuna
CHIEF FINANCE OFFICER

3 September 2007

S R Baker
CHAIRMAN,
BOARD OF DIRECTORS

Opinion of the Auditor General on Financial Statements for the year ended 30 June, 2007

AUDITOR GENERAL

INDEPENDENT AUDIT OPINION

To the Parliament of Western Australia

MINERALS AND ENERGY RESEARCH INSTITUTE OF WESTERN AUSTRALIA
FINANCIAL STATEMENTS AND KEY PERFORMANCE INDICATORS
FOR THE YEAR ENDED 30 JUNE 2007

I have audited the accounts, financial statements, controls and key performance indicators of the Minerals and Energy Research Institute of Western Australia.

The financial statements comprise the Balance Sheet as at 30 June 2007, and the Income Statement, Statement of Changes in Equity and Cash Flow Statement for the year then ended, a summary of significant accounting policies and other explanatory Notes.

The key performance indicators consist of key indicators of effectiveness and efficiency.

Board's Responsibility for the Financial Statements and Key Performance Indicators
The Board is responsible for keeping proper accounts, and the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Treasurer's Instructions, and the key performance indicators. This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements and key performance indicators that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; making accounting estimates that are reasonable in the circumstances; and complying with the Financial Management Act 2006 and other relevant written law.

Summary of my Role
As required by the Auditor General Act 2006, my responsibility is to express an opinion on the financial statements, controls and key performance indicators based on my audit. This was done by testing selected samples of the audit evidence. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion. Further information on my audit approach is provided in my audit practice statement. Refer "http://www.audit.wa.gov.au/pubs/Audit-Practice-Statement.pdf".

An audit does not guarantee that every amount and disclosure in the financial statements and key performance indicators is error free. The term "reasonable assurance" recognises that an audit does not examine all evidence and every transaction. However, my audit procedures should identify errors or omissions significant enough to adversely affect the decisions of users of the financial statements and key performance indicators.

Minerals and Energy Research Institute of Western Australia
Financial Statements and Key Performance Indicators for the year ended 30 June 2007

Audit Opinion
In my opinion,

(i) the financial statements are based on proper accounts and present fairly the financial position of the Minerals and Energy Research Institute of Western Australia at 30 June 2007 and its financial performance and cash flows for the year ended on that date. They are in accordance with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Treasurer's Instructions;

(ii) the controls exercised by the Institute provide reasonable assurance that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities have been in accordance with legislative provisions; and

(iii) the key performance indicators of the Institute are relevant and appropriate to help users assess the Institute's performance and fairly represent the indicated performance for the year ended 30 June 2007.

COLIN MURPHY
AUDITOR GENERAL
14 September 2007

MERIWA

MINERALS AND ENERGY RESEARCH INSTITUTE OF WESTERN AUSTRALIA
Mineral House, 100 Plain Street, East Perth WA 6004
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