

A REVIEW OF
THE INDUSTRY'S
COMMITMENT TO A
SUSTAINABLE
WORKFORCE IN THE
WA RESOURCES SECTOR

BUILDING TOMORROW'S WORKFORCE TODAY



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Source: Woodside Petroleum Ltd

GROWTH WITHIN THE INDUSTRY

The resources sector in recent years has experienced significant growth which saw the number of direct employee's increase by over 50% in the period 2001-02 to 2005-06. Although currently not encountering the same extent in growth, the sector recognises the importance of positioning itself to be prepared for the next growth phase and the need to build tomorrow's workforce today.

To respond to the current challenges the sector is actively investing in education and training initiatives and strategies to increase the participation of women and indigenous people in the workforce.

Enhancement and development of comprehensive career pathway plans that demonstrate the breadth and diversity of mining careers from entry-level to professional level provide an opportunity for existing workers and new entrants to easily navigate alternative entry and exit points within the resources sector across mining, exploration, drilling, civil construction, oil and gas industries.

DEVELOPING THE EXISTING WORKFORCE

PROVIDING ON-THE-JOB PATHWAYS

Up-skilling the Current Workforce

Retaining current employees and building their capability is critical to the ongoing success of the resources sector given the continuing low rate of unemployment. Companies, committed to investing in their employee's future, create pathways where individuals can go from being technical assistants to having a trade; from operators to semi-professional roles and on into management to be the leaders of the industry going forward.

Large investments are being made into training by the resources sector through partnerships with private registered training organisations (RTOs) and establishing in-house company training departments. This ensures the resources sector workforce development needs are addressed flexibly and responsively, with confidence in the training outcomes.



Source: Westrac Pty Ltd



Source: Fortescue Metals Group (FMG)

CASE STUDY

Industry-focused training

WesTrac Pty Ltd is one of the largest employers and trainers of apprentices in the country with over 400 apprentices employed at any one time. To respond to in-house training needs and deliver quality training to others in Western Australia, New South Wales and the ACT, WesTrac has invested significantly in its own training institute concentrating on the delivery of occupational safety and health, trainee, apprentice and post-trade heavy vehicle mechanical training, machine operation, leadership and management programs.

With collaborative relationships with a number of schools, WesTrac is continuing to provide opportunity to young people by tailoring entry level learning experiences for students.

WesTrac is renowned for producing apprentices who have previously won both national recognition and awards at World Skills and apprentice of the year at the State Training Excellence Awards.

WesTrac have a unique relationship with Wesley College where it provides a unique experience where students who are completing their TEE or alternative study are able to enrol in a practical 5 week work experience program that is tailored to meet student's needs. This program has seen significant success for WesTrac in the attraction of apprentices.

CASE STUDY

Innovation in inducting new employees

With the rapid growth of FMG's mining operations, a new innovative and proactive induction process was required to meet the demands of the project. FMG currently spends over \$450,000 per year inducting site employees via an 8 day intensive training and induction program that links directly into each individual's development plan.

The 8 day induction is the first swing of employment that takes place in Perth. During this swing each person undertakes site orientation, safety induction and an evaluation of their skills and competencies as required for the position. If additional licensing or further training is required, it is identified and a program is designed around the person to enable skills and competencies to be developed. Over 600 employees have gone through this program in 2007 and 2008.





Source: Earth Science Western Australia
Sponsored by: BHP Billiton Global Technology

CASE STUDY

Enriching science for schools

BHP Billiton Global Technology funds a collaboration between Earth Science Western Australia and Scitech to produce learning activities for year 8 science linked to the new Earth Science curriculum at senior high schools in WA. Specifically BHP Billiton Global Technology funds are used to employ a fulltime Professional Earth Science Learning Consultant, based at Scitech, to consult with schools regarding their learning resource requirements to enrich the earth science teaching and learning in years 8-10.

ENGAGING WITH THE FUTURE WORKFORCE

The importance of training the future workforce is critical to maintain the sustained growth and accommodate the future projects and expansions that are due to come on stream in the next few years.

The sector is committed to ensuring the workforce has the skills and capabilities it needs to undertake their jobs safely.

This is being achieved through increased numbers of trainees and apprentices, exploring avenues to increase the participation of indigenous workers and women in the sector and supporting further education endeavours.

In preparing the future workforce the industry is actively engaged with the education sector undertaking a number of unique projects specifically designed for the school environment.

Industry snapshot

In 2007 the number of workers in the mining sector who completed training rose by 15.0% (3,640) to 27,840 from 2001 figures.

Increasingly workers in the mining industry are enrolling to study for an educational qualification, with numbers going from 11.4% to 13.8% between 2001 and 2006.

The number of work-related courses completed (by mining industry workers) increased from 50,000 to 54,900 over the same period.

Among trades and related occupations, the number of persons commencing apprenticeships (in the mining industry) increased from 4,200 in 2001-02 to 8,700 in 2005-06.

(Source: ABS, 2006)

ENRICHING SCIENCE AND UNLOCKING THE RESOURCES SECTOR FOR LEARNING Curriculum Resources

With the support of the resources sector, The Chamber of Minerals and Energy has partnered with Science Teachers Association of WA to unlock the resources industry for learning and has produced a digital science learning resource that provides a minerals and resources context for teachers in the classroom.

The Digital Science Learning Resources series of CD-ROMs consist of a series of 10 CDs covering aspects of Biology, Chemistry, Physics and Earth Sciences from years 8 to 10. Each CD includes key concepts for the topic and contains explanations, diagrams, teaching movies, audio segments, web-links and a range of questions to work through. As the students progress through the resource, they choose which parts to use and in which order, taking control of some of their learning.

Individual companies recognise the importance of engaging with secondary schools to encourage and generate interest in students in science related disciplines with investments made in delivering presentations to schools in their local communities, hosting mine open days and providing funding to develop materials that can be utilised within schools.

Industry snapshot

Respondents to a Chamber of Minerals and Energy survey in 2006 indicated training expenditure for apprentices and trainees, excluding wages, was \$8,871,022.

Additionally:

- 90% of respondent's employ apprentices
- 65% of respondent's employ trainees
- Apprentice intakes increased, on average, 38% from 2005 to 2006
- Trainee intakes increased, on average, 15% from 2005 to 2006
- Half of respondent's plan to increase apprentice and trainee intakes in the future
- 16% of apprentices and trainees employed are Indigenous

(Source: Chamber of Minerals and Energy Training Analysis, 2006)

DEVELOPING THE FUTURE WORKFORCE

Attracting Young People: Apprenticeships and Traineeships

While the minerals and resources sector is the fifth largest employer overall in WA, it is the second-highest employer of trainees and apprentices.

PROCESS OPERATORS

Far more challenging than ever before!

Managed by Challenger TAFE, the Australian Centre for Energy and Process Training (ACEPT) is the leading provider of process operator training for the Australian oil and gas, mineral and chemical processing industries.

ACEPT, a \$21 million centre jointly funded by the Federal Government (\$13million), the Western Australian Government (\$6 million) and industry (\$2 million), has purpose-built training facilities located in the Australian Marine Complex in Cockburn Sound, south of Perth. Key features of the ACEPT Centre include:

- A full scale process train designed to provide students with hands-on experience in operating a process train.
- A full scale simulation of the process train developed by Honeywell. It is unique to the Centre and offers simulated training before students progress to live equipment.
- A Yokogawa simulation of a distillation tower, instrument air, furnaces and heat exchangers.
- The ACEPT Centre also has six training rooms, a wet lab, resource centre and process control room.



Source: Challenger TAFE

ACEPT works closely with the industry and currently has for 2008 impressive enrolment numbers:

- 26 enrolled in 10 week course (approximately 3 of these per year)
- 76 apprentices/trainees
- 15 year 11 Indigenous Australian students (ASBT)
- 7 year 12 Indigenous Australian students (ASBT)
- 20 year 11 mainstream students
- 18 year 12 mainstream students
- 16 female students enrolled in a operator/maintainer course
- 70 open learning students
- 7 East Timorese
- 160 Qatar project
- 80 Recognised Prior Learning (RPL) students this year

Collaborating with ACEPT and DETWA, APPEA has facilitated the development of a 12 week pre-employment program specifically for women under the auspices of the National Skills Shortage Scheme. The first 'female only' course commenced with 17 participants who will complete a Certificate 1 in Process Plant Skills and a Certificate 1 in Engineering. In addition, a number of female students have been given direct entry into the ACEPT Certificate 2 in Process Plant Operations.



Source: MacMahon Holdings Limited

CASE STUDY

Woodside partnering with construction contractors to create 100 new apprenticeship places:

Woodside Energy has recently entered into a ground breaking partnership with its construction contractors for the Pluto Project whereby Woodside will subsidise the training of apprentices with a Project target established of 100 new apprentices. Woodside are also encouraging and incentivising its construction contractors to hire people who have not previously worked in the construction industry.

The subsidies offered on the Pluto Project to the construction contractors is for the first two years of the on the job component for the new apprentices to the level of 100% in the first year and 50% in the second year.

In addition to this program Woodside estimates that it spends over \$20 million per annum on training and development of its own work force.

This includes graduates, apprentices, operator trainees, leaderships/ supervisory, technical and statutory training programs. In addition to that direct training investment, Woodside also indirectly contributes to training across a much broader range of occupations including maintenance, aviation, catering, maritime, professional and engineering through the substantial contracts entered into with service providers each year.

Both of these initiatives represent a significant direct investment into the development of skills within the Western Australian construction sector.

CASE STUDY

Contracting is about people

Macmahon is a major employer of apprentices and currently employs over 115 apprentices across Australia. In 2008, Macmahon employed an additional 33 apprentices, mainly in Western Australia and Queensland in their mining and civil businesses.

Macmahon has been a consistent high performer as an employer of apprentices which has been recognised over the years by the national and state awards it has received.

Macmahon once again has recently won the 2008 Minister's Award for Excellence for Employers of Australian Apprentices – Northern Western Australia Region. This national award recognises Employers that demonstrate commitment, innovation and outstanding achievement in the training of Apprentices. Orebody 18 and Wheelarra mine sites outside Newman were identified where over half of the apprentices are indigenous which were recognised as the best in the region.

Macmahon also excelled in the Western Australian State Training Awards by receiving the WA Training Initiative Award for 2008 for the Indigenous Mining Trainee Program in Newman.

Maintaining one of Australia's largest and most modern fleets of equipment requires a skilled and capable workforce. Macmahon is committed to providing outstanding employment opportunities for apprentices through their various training schemes.



Source: Woodside Petroleum Ltd



Source: Australian Technical College (Pilbara)

INVESTING IN LOCAL COMMUNITIES: IMPROVING WORKFORCE PARTICIPATION

The resources sector demonstrates a strong commitment to the sustainability of the regions in which they operate.

Local employment is a key economic and community development strategy that ensures local people have an opportunity to participate in the success of the resource sector's operations. Investment in education and training is recognised as an enabler to increase workforce participation and sustain long-term employment opportunities.

CASE STUDY

Rio Tinto's Commitment to Indigenous Employment opportunities in the Pilbara

Rio Tinto's commitment to providing enhanced and new employment opportunities for indigenous communities in the Pilbara is progressing rapidly. A highly successful program that is run by the Ashburton Aboriginal Council is their 16 week intensive Workstart program that is self paced, and picks up fitness for work, leadership, numeracy including drivers licences. It is known that these elements are the basics necessary to gain employment in the region.

Rio Tinto has employed 30 indigenous workers via the Workstart program with the aim of reaching 100 indigenous workers in the Pilbara region graduating from this program.

CASE STUDY

Partnerships to Enhance Apprenticeships and Traineeship Opportunities in the Pilbara

BHP Billiton Iron Ore has partnered with the Australian Technical College Pilbara (ATC-P) to provide up to 40 Pilbara Indigenous students over 4years apprenticeship opportunities with local businesses. In the first years of their apprenticeship, the apprentices will complete their high school certificate at the Australian Technical College and complete periodic work experience placements with their employers.

As an incentive to businesses to participate in the program, BHP Billiton Iron Ore will provide a \$10,000 payment to contractors after completion of the initial 12 months of each apprenticeship, and a further \$10,000 at the completion of the apprenticeship.

This is demonstrative of how industry and community are working together to build ongoing capacity within the regions.



RIO TINTO HAS EMPLOYED 30 INDIGENOUS WORKERS VIA THE WORKSTART PROGRAM WITH THE AIM OF REACHING 100 INDIGENOUS WORKERS IN THE PILBARA REGION GRADUATING FROM THIS PROGRAM.

VALUING DIVERSITY: ATTRACTING AND KEEPING WOMEN IN RESOURCES

Recognising the value of increasing diversity in the workplace, the resources sector is committed to increasing the number of women, especially in non-traditional roles and disciplines at all levels of an organisation. Member companies recognise it is imperative to address the constraints in effectively engaging women in the workforce and the communities in which the resources sector operates.

Strategies the industry utilises to attract and retain more women in the resources sector include:

- Hosting recruitment fairs that target women
- Applying equal opportunity recruiting guidelines and setting recruitment quotas
- Tailored induction and orientation programs
- Ongoing career development opportunities
- Family-friendly policies and programs

Future activities being developed include:

- Demonstrating the range of jobs available in the industry and link these to non-traditional disciplines
- Providing structured mentoring programs for women
- Providing better gender awareness training for male employees
- Addressing key structural issues such as working arrangements and workplace facilities, and cultural issues such as workplace policies and practices

Alcoa of Australia Limited and Chevron Australia Pty Ltd are to be congratulated for being recognised as "Employers of Choice for Women in 2007" by the Office of Equal Opportunity for Women and the Workplace.



Source: Chevron Australia Pty Ltd

CASE STUDY

Making resources a reality for women today

Chevron Australia Pty Ltd's company policies and career development opportunities are recognised as effectively enabling equal employment opportunities, particularly for women. The company believes that it is simply good business to attract and retain a diverse workforce, particularly in what is traditionally known as a male-dominated industry.

In the 2006 reporting period, females accounted for almost 50% of placements within the company, highlighted by an increased take up on female graduates and the professional career development of administration assistant roles. The company's flexible approach - such as part time & working from home options; keep in touch program; paid parental leave; job share; compressed work week; remote computer access; carer's room; and parenting course - has also successfully helped to retain employees after parental leave.

More broadly, Chevron's employee networks & committees encourage diversity in the workplace. The Women's Network, the Generation XYZ Network, the Diversity Council, Wellness and Work/Life Balance Committee, Organisation Capability Committee and Personal Development Committees all work to keep the company connected with and provide support for managing people and careers.

Industry snapshot

The majority of women in the resources sector are aged 34 and under. Women represent 18% of the resources sector workforce. Indigenous women represent 12% of all Indigenous employees.

Source: Unearthing new resources: attracting and retaining women in the Australian minerals industry, 2007



SCHOLARSHIP AND PAID WORK EXPERIENCE PERIODS GIVE STUDENTS THE CHANCE TO EVALUATE THE RESOURCES SECTOR AS A PROSPECTIVE LONG-TERM EMPLOYEE.

Source: Australian Technical College (Pilbara)

EDUCATING AND DEVELOPING THE FUTURE WORKFORCE

SPONSORING GRADUATES

Scholarships and Work Experience Programs

Of all the new employees that the resources sector will require, at least 30% will need to be professionally qualified.

Scholarships are widely offered to students in mining related disciplines at selected universities sponsored by the resources sector. In addition to providing funds to assist with study, mining companies' scholarships offer the chance to gain 'real job' hands-on experience in their selected area of expertise through paid work experience within a business unit and/or across several business units.

Scholarship and paid work experience periods give students the chance to evaluate the resources sector as a prospective long-term employee.

Successful scholarship holders may also be given preferential consideration for places in the resources sector's graduate development programs.

MAINTAINING ONE OF AUSTRALIA'S LARGEST AND MOST MODERN FLEETS OF EQUIPMENT REQUIRES A SKILLED AND CAPABLE WORKFORCE. MACMAHON IS COMMITTED TO PROVIDING OUTSTANDING EMPLOYMENT OPPORTUNITIES FOR APPRENTICES THROUGH THEIR VARIOUS TRAINING SCHEMES.



Source: Western Australian School of Mines



Source: Western Australian School of Mines

WESTERN AUSTRALIAN SCHOOL OF MINES

Focus on Mining

The Western Australian School of Mines (WASM) runs an annual event called Focus on Mining in which a group of Year 12 students from around Western Australia are selected to participate in a four day camp in Kalgoorlie. These students are selected based on performance in upper level TEE maths and science subjects and their expression of interest in pursuing tertiary mining education. While on the camp, they are involved in touring a selection of sites and meeting with industry professionals as well as taking part in workshops at the university and talking with current students.

Many industry representatives are graduates of WASM, some of whom forged a career in mining after being introduced to mining for the first time as a year 12 student participating in Focus on Mining in Kalgoorlie.

This camp is entirely funded by member companies of the Chamber of Minerals and Energy Eastern Regional Council.

ATTRACTING YOUNG ENGINEERS TO THE EASTERN GOLDFIELDS

Years 10, 11 and 12 high school students in Western Australia studying mathematics and science subjects as preparation for an undergraduate engineering degree are eligible for financial incentives at the WASM via Commonwealth Government Mining Careers Bursary Scheme.

The Scheme provides direct financial incentive for students to undertake the first year of an undergraduate degree at WASM in Kalgoorlie.

Providing direct exposure to the mining industry for selected students, the Scheme includes two fully funded four-day excursions to Kalgoorlie (one each in Years 11 and 12): mine-site visits, mathematics and science revision, mentoring, teamwork exercises and personal development skills.

The Scheme provides an opportunity for young people to increase their awareness of the mining industry as well as adopt ambassadorial roles as bursary holders within their school community.



Source: Alcoa Australia

PROMOTING CAREERS IN THE RESOURCES SECTOR

INFLUENCING PRACTITIONERS IN CAREERS, TEACHING AND LEARNING

Career and Teacher Tours

Teachers and career advisors have an important role to play in promoting the resources sector to students as a career choice.

The Chamber of Minerals and Energy in partnership with its member companies host mining information tours for careers advisors and lecturers from Western Australia's tertiary, VET and education sectors. Each tour engages teaching and career practitioners to learn about the rich diversity of employment in the industry that underpins the economy of our rural and remote regions where our members operate.

Tours include visits to mine sites, minerals processing facilities and other allied infrastructure such as ports and rail facilities.

The Chamber of Minerals and Energy has launched a new flagship careers website for the resources sector – www.peopleforthefuture.com.au.

Produced with the assistance of member companies and industry experts, the website has been developed for job-seekers to explore the range of employment possibilities in the resources sector and the skills and qualifications required for specific roles.

CASE STUDY **Alcoa at Work**

Over 300 000 people have gained an insight into Alcoa's West Australian operations through tours and school visits. The free tours give an educational, fun and exciting inside view into "Alcoa at work". Guides are able to link curriculum objectives, environmental and community interests and tailor the tour to suit the needs and time of the visitors.



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