



Taroborah Coal Project

Appendix 6 – Study Team



STUDY TEAM

Table 1: Study Team for the Taroborah Coal Mine Project Environmental Impact Statement

EIS Section and Title Reference	Study Component	Name	Company and Title
<i>EIS Management</i>			
	All	Paul Jackson	AustralAsian Resource Consultants, Principal Environmental Scientist
	All	Alison Pearce	AustralAsian Resource Consultants, Principal Environmental Scientist
	SEIS	David A Thomas	IMC Mining Pty Ltd, Project Manager, Principal Consultant (Mining)
<i>EIS Technical Review</i>			
	All	Andrew Pearce	AustralAsian Resource Consultants, Operations Manager & Principal Environmental Scientist
	All	Alison Pearce	AustralAsian Resource Consultants, Principal Environmental Scientist
	All	David A Thomas	IMC Mining Pty Ltd, Principal Consultant (Mining)
<i>Community Consultation</i>			
	Community Consultation	Ian Dymock	AustralAsian Resource Consultants, Senior Consultant
	Community Consultation	Fiona Murcott	AustralAsian Resource Consultants, Manager of Communications and Crisis Management
<i>Cartography</i>			
	Technical Drawings	Russell Aspland	The Minserve Group Pty Ltd, Cartographer
<i>Mine Planning</i>			
	Mine Planning	David A Thomas	IMC Mining Pty Ltd, Principal Consultant (Mining)
<i>EIS</i>			
Executive Summary	All		



EIS Section and Title Reference	Study Component	Name	Company and Title
Chapter 1 - Introduction	Project Proponent Project Description Project Objectives and Scope EIS Process	Michelle O'Rourke	AustralAsian Resource Consultants, Environmental Scientist
	Public Consultation Process Project Approvals Accredited Process for Controlled Actions under Commonwealth Legislation	Paul Jackson	AustralAsian Resource Consultants, Principal Environmental Scientist
Chapter 2 - Project Need and Alternatives	Project Justification Alternatives to the Project	Michelle O'Rourke	AustralAsian Resource Consultants, Environmental Scientist
		Paul Jackson	AustralAsian Resource Consultants, Principal Environmental Scientist
Chapter 3 - Description of the Project	Project Location Construction Operations Product Handling Infrastructure Requirements Waste Management Rehabilitation and Decommissioning	Michelle O'Rourke	AustralAsian Resource Consultants, Environmental Scientist
		Paul Jackson	AustralAsian Resource Consultants, Principal Environmental Scientist
Chapter 4 - Environmental Values and Management of Impacts	Climate Land Transport Waste Water Resources Air Noise and Vibration Ecology	Michelle O'Rourke	AustralAsian Resource Consultants, Environmental Scientist
		Paul Jackson	Australian Resource Consultants, Principal Environmental Scientist
		Julie Byrd	Australian Resource Consultants, Senior Environmental Scientist

EIS Section and Title Reference	Study Component	Name	Company and Title
	Cultural Heritage Social Health and Safety Economy Hazard and Risk Cross-reference with the terms of reference	Hollie Dick	Australian Resource Consultants, Environmental Scientist / Ecologist
Chapter 5 - Matters of national environmental significance	Project impacts upon controlling provisions Proposed mitigation measures	Julie Byrd	AustralAsian Resource Consultants, Senior Environmental Scientist
Chapter 6 - Site-specific conditions		Julie Byrd	AustralAsian Resource Consultants, Senior Environmental Scientist
References		Michelle O'Rourke	AustralAsian Resource Consultants, Environmental Scientist
<i>Appendices</i>			
Appendix 1 - Final TOR Appendix 2 - Regulatory Approvals Appendix 3 - Standard Criteria Appendix 4 - Specialist Studies Appendix 5 - Research Appendix 6 - Study Team		Alison Pearce	AustralAsian Resource Consultants, Principal Environmental Scientist
		Michelle O'Rourke	AustralAsian Resource Consultants, Environmental Scientist
Air Quality - Appendix 15 and 15a	Air Quality Environmental Values Existing Air Quality Air Quality Modelling Air Quality Assessment	Sarah-Jane Donnelly	Katestone Environmental Pty Ltd Senior Air Quality Consultant
		Simon Welchman	Katestone Environmental Pty Ltd Senior Air Quality Consultant
		Ella Castillo	Katestone Environmental Pty Ltd Air Quality Consultants
		Dr Michael Burchill	Katestone Environmental Pty Ltd Air Quality Consultants
Greenhouse Gases - Appendix 16	Greenhouse Gas Assessment	Sarah-Jane Donnelly	Katestone Environmental Pty Ltd Senior Air Quality Consultant
		Lisa Smith	Katestone Environmental Pty Ltd Air Quality Consultants
		Dr Michael Burchill	Katestone Environmental Pty Ltd

EIS Section and Title Reference	Study Component	Name	Company and Title
			Senior Air Quality Consultant
		Natalie Shaw	Katestone Environmental Pty Ltd Air Quality Consultants
Climate Change Adaptation - Appendix 16	Climate Change Adaptation	Adam Thomas	Katestone Environmental Pty Ltd Air Quality Consultants
		Andrew Wiebe	Katestone Environmental Pty Ltd Air Quality Consultants
		Kyle Wright	Katestone Environmental Pty Ltd Air Quality Consultants
		Lisa Smith	Katestone Environmental Pty Ltd Air Quality Consultants
		Scott Losee	Katestone Environmental Pty Ltd Air Quality Consultants
		Simon Welchman	Katestone Environmental Pty Ltd Senior Air Quality Consultant
Contaminated Land Assessment - Appendix 8	Contaminated Land	Paul Jackson	AustralAsian Resource Consultants, Principal Environmental Scientist
Economic Impact Assessment - Appendix 24	Economic Environment	Jeff Lassen	Synergies Economic Consulting, Director
		Professor John Mangan	Synergies Economic Consulting, Principal
		Trish Worland	Synergies Economic Consulting, Associate Director
Ecology - Appendix 18	Terrestrial Ecology	Hollie Dick	AustralAsian Resource Consultants, Environmental Scientist / Ecologist
Ecology - Appendix 19	Aquatic Ecology	Hollie Dick	AustralAsian Resource Consultants, Environmental Scientist / Ecologist
Ecology - Appendix 20	Stygofauna Assessment	Mitchum Gregory	AustralAsian Resource Consultants, Environmental Scientist
		Garry Bennison	ALS Water Resources Group Manager ALS Water Sciences
		Peter Hancock	ALS Water Resources Group Principal Scientist

EIS Section and Title Reference	Study Component	Name	Company and Title
Groundwater - Appendix 14	Groundwater Hydrology	James Tomlin	AustralAsian Groundwater and Environmental Consultants, Project Manager
		Daniel Barclay	AustralAsian Groundwater and Environmental Consultants, Principal Hydrogeologist
		Neil Manewell	AustralAsian Groundwater and Environmental Consultants, Senior Groundwater Modeller / Hydrogeologist
		Claire Stephenson	AustralAsian Groundwater and Environmental Consultants, Senior Hydrogeologist
Land - Appendix 7	Soil and Land Suitability Assessment	Steven Griffiths	AustralAsian Resource Consultants, Senior Environmental Scientist
		Neil Cupples	AustralAsian Resource Consultants, Senior Environmental Scientist
		Damien Morey	AustralAsian Resource Consultants, Environmental Scientist
Noise and Vibration - Appendix 17	Noise Impact Assessment	Stephen Pugh	ASK Consulting Engineers Pty Ltd, Director
		Ben Brooks	ASK Consulting Engineers Pty Ltd, Mechanical Engineer
Non-Indigenous Historic Cultural Heritage - Appendix 22	Non-Indigenous Historic Cultural Heritage Assessment	Karen Townrow	Converge Heritage + Community Pty Ltd, Senior Consultant
		Benjamin Gall	Converge Heritage + Community Pty Ltd, Director
		Phil Habgood	Converge Heritage + Community Pty Ltd, Consultant
		Geoff Doherty	Converge Heritage + Community Pty Ltd, Consultant
		Erin Finnegan	Converge Heritage + Community Pty Ltd, Consultant
Social Values - Appendix 23	Social Impact Assessment	Ian Dymock	AustralAsian Resource Consultants, Senior Consultant

EIS Section and Title Reference	Study Component	Name	Company and Title
		Fiona Murcott	AustralAsian Resource Consultants, Manager of Communications and Crisis Management
Subsidence - Appendix 10	Surface Subsidence	Ty Grantham	IMC Mining Pty Ltd, Principal Engineering Geologist
Transport Assessment - Appendix 11	Road Transport	Julie Byrd	AustralAsian Resource Consultants, Senior Environmental Scientist
	Rail Crossing Traffic Assessment	Jason Van Paassen	Brown Consulting Qld Pty Ltd, Manager - Transport
		Alex Kelly	Brown Consulting Qld Pty Ltd, Engineer - Transport
Visual Amenity - Appendix 9	Visual Amenity	Mitchum Gregory	AustralAsian Resource Consultants, Environmental Scientist
Water - Appendix 13	Surface Water Management Plan	Vadivu Verakumaran	ATC Williams Pty Ltd, Senior Water Engineer
		Ralph Holding	ATC Williams Pty Ltd, Regional Manager - Queensland
		Allan Watson	ATC Williams Pty Ltd, Senior Principal
Water - Appendix 28	Receiving Environment Monitoring Plan	Alison Pearce	AustralAsian Resource Consultants, Principal Environmental Scientist
Water - Appendix 14a	Final Pit Void Water Quality	Warwick Stewart	Environmental Geochemistry International Pty Ltd, Senior Consultant
Waste - Appendix 12	Static and Kinetic Geochemical Assessment	Warwick Stewart	Environmental Geochemistry International Pty Ltd, Senior Consultant
Waste - Appendix 27	MEDLI Analysis for Effluent Irrigation	Darrin Marxsen	Alpha Concepts Pty Ltd, Principal Resource

Table 2: EIS Study Team Qualifications

Name	Company and Title	Qualifications and Experience
<i>Management</i>		
Paul Jackson	AustralAsian Resource Consultants, Principal Environmental Scientist	B.Sc. (Hons) Biology, M.Sc. (Biotechnology), Ph.D. (Biotechnology) Paul's early career focussed on the field of environmental biotechnology, followed by twelve years in contaminated land assessment / remediation. In recent years his experience has been primarily focussed on the mining sector, specifically environmental assessment and approvals.
Andrew Pearce	AustralAsian Resource Consultants, Operations Manager & Principal Environmental Scientist	B. Ag. Sc. (Land Resource Mgt.) Andrew Pearce has over 19 years of experience in environmental management within the mining and agricultural industries with key skills in statutory approvals, rehabilitation programs, environmental management systems and compliance auditing.
Alison Pearce	AustralAsian Resource Consultants, Principal Environmental Scientist	B. Sc. Alison Pearce has over 14 years of experience in environmental assessment and management. She has been involved in numerous large-scale mining projects, managing regulatory approvals, government liaison and project coordination in both the coal and metalliferous industries. Alison has also undertaken compliance audits and provided technical advice for international mining projects in both Asia and Europe.
David Thomas	IMC Mining Pty Ltd, Taraborah Project Manager	B Sc (Hons) Mining Engineering, RPEQ, MAusIMM(CP) Dave has 28 years' experience in the coal and minerals mining industry, ranging from operations to consultancy. Over the last 16 years, he has undertaken numerous mining feasibility studies in NSW and QLD, and has been the Project Manager of Taraborah since 2007.
<i>Environmental Baseline Reporting</i>		
Steven Griffiths	AustralAsian Resource Consultants, Senior Environmental Scientist	B. Agr Sc (Soil Science & Plant Nutrition) Steven has 15 years' experience in soil survey and land resource assessment. He has worked on various projects such as land resource assessments of the Bundaberg, Boonah and Miriam Vale regions and included field work and report writing for the accompanying government publications. Steve has been involved in many soil surveys for the resource sector gathering baseline soil information and conducting pre-



Name	Company and Title	Qualifications and Experience
		mining land suitability assessments.
Damien Morey	AustralAsian Resource Consultants, Environmental Scientist	B. Env. Mgt. (Hons) Damien Morey has 5 years environmental consulting experience in the mining industry focussing on soil and land management, environmental monitoring and environmental management planning.
Michelle O'Rourke	AustralAsian Resource Consultants, Environmental Scientist	B. Env. Sc. & Env. Mgt. Michelle O'Rourke has 3 years environmental management experience in the mining industry with key skills in visual amenity assessment, regulatory approvals and GIS mapping.
Hollie Dick	AustralAsian Resource Consultants, Environmental Scientist / Ecologist	B. Applied Science (Hons) Wildlife Science Hollie has 5 years experience working as an Ecologist throughout Queensland and Northern New South Wales. During this time Hollie completed both large and small scale flora and fauna surveys, pre-clearing fauna survey and rescue programs, remnant vegetation assessments, habitat assessments as well as targeted searches and monitoring surveys for threatened species.
Julie Byrd	AustralAsian Resource Consultants, Senior Environmental Scientist	M. Sc. Natural Resource Management Julie has six years of experience in the mining industry. Since joining the AARC team she has been involved in the preparation and management of Environmental Impact Statements, Environmental Management Plans and Environmental Monitoring Programmes at a number of exploratory and active mine sites. Julie is an experienced ecologist, with specialties of terrestrial and aquatic flora and fauna assessments.
<i>Social Impact Assessment</i>		
Ian Dymock	AustralAsian Resource Consultants, Senior Consultant	B. Arts (Journalism) Ian Dymock has been involved in corporate communications for more than 30 years, both as a consultant and in senior public affairs roles. Ian has broad experience in developing and delivering strategic communications, and has been involved in implementing a variety of initiatives to build long term relationships with a range of stakeholders.
Fiona Murcott	AustralAsian Resource Consultants, Manager of Communications and Crisis Management	B. Arts (Journalism, Australian Government), Grad Dip (Professional Communication) Fiona Murcott has over 20 years' experience and expertise in



Name	Company and Title	Qualifications and Experience
		stakeholder engagement, social impact assessment and management, public affairs, communication and marketing within the mining and construction industries. This includes in-house roles with blue-chip companies and founding a successful consultancy that services a diverse range of prestigious repeat-business clients.
<i>Mine Planning</i>		
David A Thomas	IMC Mining Group Pty Ltd, Principal Consultant (Mining)	B Sc (Hons) Mining Engineering, RPEQ, MAusIMM(CP) Dave has 28 years' experience in the coal and minerals mining industry, ranging from operations to consultancy. Over the last 16 years, he has undertaken numerous mining feasibility studies in NSW and QLD, and has been the Project Manager of Taraborah since 2007.
<i>Cartography</i>		
Russell Aspland	The Minserve Group Pty Ltd, Cartographer	Assoc. Dip. Cartography Russell has over 20 years experience as a cartographer using the latest software to produce maps of the highest cartographic standard. Russell has cartographic expertise in every aspect of mine planning and operations, including environmental analysis, geographical exploration and open cut mine stage plans.
<i>Air Quality Assessment</i>		
Ella Castillo	Katestone Environmental Senior Air Quality Consultant	B. Sc. (Physics with Computer Engineering) Ella Castillo has been working in the environmental field for over 10 years, using her skills in a diverse range of application which include proficiency in the use of numerical models to conduct air quality assessments in a variety of industries such as mining, power generation, and agri-businesses.
Simon Welchman	Katestone Environmental Senior Air Quality Consultant	B.Eng. (Env) (Hons) Simon Welchman has more than 17 years experience in the private and public sectors. His expertise includes: air quality impact assessment of major industrial, infrastructure and mining projects; licensing, approvals and regulations; peer review and advice on air quality planning matters; odour impact assessment; greenhouse and air pollution control and management.
Adam Thomas	Katestone Environmental Air Quality Consultant	B.Sc. (Physics) Adam Thomas joined Katestone Environmental in 2012 and has since gained experience in the application of meteorological and dispersion models AUSPLUME, CALMET/CALPUFF and

Name	Company and Title	Qualifications and Experience
		TAPM to air quality assessments for industrial and mining projects.
Dr Michael Burchill	Katestone Environmental Senior Air Quality Consultant	Ph.D, B.AppSc. (Hons) (Physics) Dr Burchill has over 6 years of extensive technical experience in mathematical modelling and statistical analysis and since early 2011 has been working on air quality assessments and dispersion modelling for a variety of industries including mining, energy generation and waste management.
<i>Greenhouse Gas Assessment</i>		
Sarah-Jane Donnelly	Katestone Environmental Pty Ltd Senior Air Quality Consultant	B.Sc (Geography) and M.Sc (Air Pollution Control and Management) Sarah-Jane Donnelly has 7 years of air quality experience within the industrial, power generation and mining fields with a sound knowledge of the application of the latest dispersion models to model complex sources of air emissions and odour.
Lisa Smith	Katestone Environmental Pty Ltd Senior Air Quality Consultant	MSc, BEng(Chem)(Hons) Lisa has considerable industrial experience in the oil and gas sector including particular expertise in gas field operations and oil refining. Her understanding of business sustainability has been extended through the completion of a post graduate qualification in environmental management with a focus on European best practice. Complementary to this Lisa was responsible for the administration of the Queensland Government's ecoBiz program where she had the opportunity to share that experience with small to medium enterprises. Most recently she has completed greenhouse assessments and assisted in the development of climate change risk management strategies for a broad range of businesses including gas pipelines, coal mines, quarries and an airport.
Natalie Shaw	Katestone Environmental Pty Ltd Principal Air Quality Consultant	B.AppSc (Chem) and M.AppSc Natalie has worked in the air quality field since graduating from Queensland University of Technology with a Bachelor of Applied Science in Chemistry in 1998 and a Masters in Applied Science in 2005. Natalie has experience in mathematical interpolation and complex air quality modelling including large scale industrial projects to localised impacts of dust and odours, tall stack dispersion modelling, aircraft safety and complex regional photochemical smog modelling. Her professional affiliations include the Clean Air Society of Australia and New Zealand of which she is the national secretary.



Name	Company and Title	Qualifications and Experience
Andrew Wiebe	Katestone Environmental Pty Ltd Principal Consultant	BSc(Hons) Andrew has a Bachelor of Science in Physical Geography and Biology degree, with Honours in Physical Geography, from the University of Canterbury in New Zealand. Andrew has extensive experience in high performance computer (HPC) structures and the modelling of complex ocean-atmosphere-land interactions and their influence on the dispersion of pollutants and the exchange of energy. Andrew's expertise includes Numerical Weather Prediction (NWP), decomposition of turbulence parameters, climatological analysis, and mathematical and statistical modelling. Andrew has developed the HPC and NWP capabilities of Katestone Environmental and is concurrently pursuing a PhD in near-term regional climate forecasting.
Kyle Wright	Katestone Environmental Pty Ltd Consultant	Bachelor of Science (BSc) Hons, Theoretical and Mathematical Physics Kyle holds a double Honours Degree (first class honours) in Mathematics and Physics awarded from the University of Otago (2010). His Honours involved 2 separate projects: a Mathematics Honours project exploring the formulation of quantum mechanics requiring theoretical and functional analysis and a Physics project exploring dark solitons, warm Bose-Einstein Condensates and fluid dynamics. This work included modelling using MATLAB.
Scott Losee	Katestone Environmental Pty Ltd Technical Director	BES, MPhil Scott leads the development and delivery of consulting services in the emerging and dynamic fields of sustainability, climate change and energy. He has 22 years of experience and held senior leadership roles in the private and public sectors. He has developed and led organisation-wide sustainability and energy management strategies, and directed their integration into large and complex infrastructure projects. He is skilled at communicating and guiding decision making in relation to environmental and sustainability matters, particularly climate change adaptation, corporate sustainability and carbon strategy. He was previously a national practice leader for a global engineering consultancy (6 years) and directed their first global sustainability report. Prior to this Scott worked in environmental, transport, planning and policy roles for Brisbane City Council and the Governments of Queensland and Ontario. Scott is a Director of the Australian Green Infrastructure Council.
<i>Waste Rock Characterisation</i>		



Name	Company and Title	Qualifications and Experience
Warwick Stewart	Environmental Geochemistry International Pty Ltd, Senior Consultant	B. Sc. (Hons), Grad Dip Env. Mgt., PhD Warwick is an Environmental Geologist with 23 years of experience. He has specialised experience in the implementation of a detailed overburden management program involving the design and construction of covers for controlling sulphide oxidation and acid drainage. Warwick completed his PhD on ARD prediction for coal mine wastes in 2005.
<i>Noise Assessment</i>		
Stephen Pugh	ASK Consulting Engineers Pty Ltd, Director	B. Eng. Mech. (Hons) Stephen Pugh is a Director at ASK Consulting Engineers and has gained significant experience over the past 16 years as a Mechanical Engineer in the specialist fields of Acoustics, Vibration and Air Quality.
Ben Brooks	ASK Consulting Engineers Pty Ltd, Engineer	B. Eng. Mech. & Space. Ben Brooks is a Project Engineer at ASK Consulting Engineers and has gained experience over the past four years in the specialist fields of Acoustics, Vibration and Air Quality.
<i>Economic Assessment</i>		
Jeff Lassen	Synergies Economic Consulting, Director	Master of Economic Studies, University of Queensland, 2000; Bachelor of Economics Hons (2A), University of New England, 1992; Bachelor of Economics, University of Queensland, 1989 Jeff is an experienced economist who specialises in microeconomics and public sector economics. He joined Synergies at the end of 2004 from Queensland Treasury where he held a number of senior economic positions including Director (Economic Policy), Director (Tax Policy) and Director (Transport and Industry). He has substantial consulting experience, including in undertaking economic impact assessments and cost benefit analysis.
Professor John Mangan	Synergies Economic Consulting, Principal	Bachelor of Economics, University of Queensland, 1971; Diploma in Education, University of Queensland, 1972; Master of Economic Studies, University of Queensland, 1976; Master of Arts, University of Lancaster, 1977; PhD, University of Lancaster, 1981. Professor Mangan is a professor of economics at the University of Queensland, Director of the Centre for Economic Policy Modelling and a principal of Synergies. He is one of Queensland's most highly respected economists, specialising in labour economics, economic impact modelling and economic policy.



Name	Company and Title	Qualifications and Experience
Trish Worland	Synergies Economic Consulting, Associate Director	Master of Economics, University of New England, 1996; Bachelor of Economics, University of Queensland, 1991; Bachelor of Arts, University of Queensland, 1990 Trish's career has developed in the Bureau of Industry Economics, Queensland Treasury and the Queensland Competition Authority, gaining experience in a wide range of economic analysis. Since joining Synergies in 2005, Trish has consulted extensively to a range of clients, in particular in relation to infrastructure and competition issues.
Anne Erlandsen	Synergies Economic Consulting, Consultant	Master of Economics, University of Queensland, 2012; Bachelor of Economics, University of Bergen (Norway), 2010 Anne commenced as a full-time consultant in 2013 following her summer internship with Synergies in 2012. Anne has experience in research and quantitative analysis including economic impact assessment, cost benefit analysis, and cost modelling.
<i>Groundwater Assessment</i>		
James Tomlin	Australasian Groundwater and Environmental Consultants, Project Manager	Cert. Sci., B. Sci., M. Sci. James Tomlin has 15 years of experience in the consulting industry and has managed hydrogeological studies for mining approvals in the Bowen Basin, Surat Basin, Gunnedah Basin and Hunter Valley.
Daniel Barclay	Australasian Groundwater and Environmental Consultants, Principal Hydrogeologist	B.App.Sc. (Hons), B.App.Sc. (Geology) Daniel has over 15 years of experience as a hydrogeologist within the consulting, government and mining sectors, and has hydrogeological exposure within the mining environment in Australia, Asia and North America. He has carried out numerous groundwater assessments within underground and open cut mines in Queensland, New South Wales, South Australia and Papua New Guinea. His experience includes the conceptualisation, design, supervision and monitoring of mine dewatering and injection installations, groundwater supply operations, seepage investigations, hydrogeochemical assessments, conceptual modelling and inflow assessments. Daniel has working knowledge of finite element (FEFLOW) and finite difference (MODFLOW) groundwater modelling packages and various GIS software (MapInfo and ArcGIS) and is highly experienced in field investigations.
Neil Manewell	Australasian Groundwater and Environmental Consultants, Senior Groundwater Modeller / Hydrogeologist	B.Sc (Geology), M.Sci (Hons)(Hydrogeology) Neil has over 6 years' experience as a groundwater modeller/hydrogeologist, working on coal, iron ore, and gold



Name	Company and Title	Qualifications and Experience
		projects in both Australia and overseas. Neil's experience has concentrated on groundwater modelling studies and monitoring bore installation programs to support environmental approvals for the resource sector.
Claire Stephenson	Australasian Groundwater and Environmental Consultants, Senior Hydrogeologist	BSc (Geology), BFor (H1 Hons). Claire Stephenson has 6 years' experience in the consulting industry. Claire has been with AGE for the last 3 years, with key skills in developing conceptual models of groundwater regimes, designing monitoring networks to collect groundwater level and water quality data, and field investigations including drilling supervision, installation of water level monitoring equipment and sampling (level and quality).
<i>Non-Indigenous Cultural Heritage Assessment</i>		
Karen Townrow	Converge Heritage + Community Pty Ltd, Senior Consultant	BA (Hons) Archaeology. Karen's work in the field of cultural heritage over the last 15 years includes a diverse range of projects, including project management, Aboriginal and non-Indigenous cultural heritage surveys and assessments, the preparation of conservation management plans, archaeological monitoring, provision of heritage advice, impact assessments, compliance recording and recording for all historic heritage projects.
Benjamin Gall	Converge Heritage + Community Pty Ltd, Director	B. Arts Benjamin Gall has 10 years experience in the cultural heritage management industry with key skills in project management, built heritage and European (non-Indigenous) cultural heritage management.
Geoff Doherty	Converge Heritage + Community Pty Ltd, Consultant	B. Arts (Hons) History Geoff Doherty has 2 year of experience in historical research
Phil Habgood	Converge Heritage + Community Pty Ltd, Consultant	PhD Prehistoric Archaeology. Phillip has a varied background incorporating study and research, extensive archaeological fieldwork in Australia and overseas, regular publication in journals and books, teaching at university level, extensive experience within the cultural heritage management field and working at a senior manager level within the Queensland Public Service. As the senior archaeologist at Converge, Phillip has also undertaken historical heritage surveys, impact and significance assessments and excavation programs.
Erin Finnegan	Converge Heritage + Community Pty Ltd, Consultant	BA, Cultural Anthropology MA Archaeology, Post Grad Diploma, Museum and Heritage Studies. Erin has been involved in a range of significant archaeological and cultural



Name	Company and Title	Qualifications and Experience
		heritage projects both in Australia and abroad, including working on UNESCO-inscribed sites and cultural landscapes, sites related to slavery, Indigenous and non-Indigenous (historical) archaeological sites. She has developed specialist skills in cultural landscape complexities, archaeological assessment and excavation, spatial history analysis, and interpretation of heritage sites.
<i>Stygofauna Assessment</i>		
Garry Bennison	ALS Environmental (Water Sciences Group), Manager - Water Sciences Queensland	BSc (Hons) (Zoology & Botany), MAIBiol. 35 years of experience in aquatic ecology and water science designing, conducting and managing projects in all Australian States. Focus of work has been on inland surface water ecosystems (rivers, streams, creeks, lakes, reservoirs and wetlands) as well as groundwater dependent ecosystems (stygofauna, hyporheic fauna and troglifauna).
Peter Hancock	ALS Environmental (Water Sciences Group), Principal Scientist	BSc (Hons), PhD Peter Hancock has 10 years of experience in designing, conducting and managing Groundwater Dependent Ecosystem projects (hyporheic fauna, stygofauna, troglifauna) working in NSW, QLD and WA.
<i>Subsidence Assessment</i>		
Ty Grantham	IMC Mining Pty Ltd, Principal Engineering Geologist	BSc (Geology), MSc (Engineering Geology), AGS ISRN AusIMM Ty Grantham has a combined 16 years mining and geotechnical experience for opencut and underground developments throughout Australia and overseas. His technical experience includes geological and geotechnical hazard assessments, slope stability assessments, rock mass assessments, material characterisation and underground assessments (subsidence modelling, CMRR, numerical modelling, geomechanical characterisation and support design)
<i>Surface Water</i>		
Vadivu Verakumaran	ATC Williams Pty Ltd, Senior Water Engineer	Bachelor of Engineering - Civil (Hons), Master of Engineering - Water Engineering. Vadivu Verakumaran has 10 years of experience in surface water management plans, flood assessment and stormwater management plans, water management strategy, and flood mitigation works.
Ralph Holding	ATC Williams Pty Ltd, Regional Manager - Queensland	Bachelor of Engineering - Civil. Mr Holding has over 8 years of experience in projects relating to earthworks design, documentation and construction supervision, tailings disposal management and design,



Name	Company and Title	Qualifications and Experience
		geotechnical investigation and evaluation, slope stability and seepage analysis, hydrologic analysis and hydraulic design, ground and surface water supply design, site optimisation studies, Quality Assurance programming and management, and environmental management of construction works.
Allan Watson	ATC Williams Pty Ltd, Senior Principal	Bachelor of Engineering - Civil, Master of Engineering Studies. Mr Watson is a qualified civil engineer with some 29 years professional consulting experience, the last 25 years focussing on water and waste management projects. His background is in the practise of geotechnical engineering focussing on materials behaviour and earthworks design and construction. Mr Watson specialises in Solid Waste management projects, which covers the areas of landfill siting, concept development, design and construction, landfill operations, decommissioning and remediation, and environmental monitoring related to landfill sites.
<i>Rail Crossing Traffic Assessment</i>		
Jason van Paassen	Brown Consulting, Manager – Transport	BEng(Civil)(Hons), Executive MBA, RPEQ, MAITPM Over the past 21 years Jason has developed a strong track record of delivery, nationally and internationally, for Transport projects across the major public infrastructure, mining / resources and urban development sectors. His award winning (Engineers Australia Project Awards for the Toowoomba Range Crossing Project and the Ipswich to Springfield Transport Corridor Planning and Design Study), multi-disciplinary and collaborative approach achieves cost-effective and appropriate solutions that meet the needs of both public- and private-sector clients.
Alex Kelly	Brown Consulting, Engineer – Transport	BEng(Civil)(Hons I), BCom (Finance), MAITPM Over the last seven years Alex has delivered projects across roads and traffic, mining / resources, major urban development, structural and water and environment projects nationally. Alex always focusses on developing and delivering practical engineering project outcomes.
<i>MEDLI Analysis</i>		
Darrin Marxsen	Alpha Concpts, Principal Resource	B Sc Chemical Engineering MIEAust CPEng MIChemE RPEQ Darrin Marxsen is a qualified Chemical Engineer of the University of Queensland and has also gained post graduate qualifications in the fields of Management and Environmental Management. Darrin has extensive Process Engineering and Management experience, and current experience in the process areas of Cyanide Production, Industrial Waste Processing, Effluent Processing and Nickel Refining.

