### APPENDIX B: CURRICULUM VITAE OF EAP



## Qualifications

BSc	1998	Biological Sciences
BSc (Hons)	1999	Zoology
MSc	2004	Environmental Management

#### Professional affiliations and registrations

Registered with the South African Council for Natural Scientific Professions as a Professional Natural Scientist (PrSciNat) in Environmental Science (Reg. No. 400183/05)

Registered with the Environmental Assessment Professionals of Namibia (EAPAN) as a Lead Practitioner (Membership No. 121)

Member of the International Association for Impact Assessments (IAIA), South African Affiliate

#### Summary of Key Areas of Expertise

Management and facilitation of permitting and licensing processes

Management of stakeholder engagement processes

**Overall Project Management** 

Due Diligence, Reviews

### Summary of Experience and Capability

Alex is a Director (since March 2013) and Technical Discipline Manager: Environmental Impact Assessment (EIA) with SLR Africa and is responsible for co-ordinating SLR's environmental assessment team. Alex has over 11 years' experience in the field of Environmental Management.

Alex has managed a wide range of permitting and licensing projects including environmental assessments, water use license applications and waste management license applications, mainly in the exploration, mining and industrial sectors. These included project management and coordination; specialist and engineering team management; co-ordination, facilitation and undertaking of stakeholder engagement processes including for contentious projects, and environmental assessment. She has experience in addressing both in-country legislation and Equator Principles and International Finance Corporation (IFC) requirements.

Alex has provided environmental specialist input on a number of pre-feasibility studies linked to the exploration/development/expansion of mining operations. She has also been involved in a number of environmental due diligence processes and environmental reviews for financing institutions.

In her early career years, Alex held a position within Aloe Environmental as an Office and Project Assistant and within Anglo Platinum's Waterval Smelter as Assistant to the Chief Environmental Officer. In 2002, she joined Metago Environmental Engineers (Pty) Ltd (Metago). Metago was acquired by SLR Consulting (UK) in March 2011.

# **Recent Project Experience**

Key aspects of Alex's recent project experience are summarised below.

Project	Date	Alex's Role	
Chrome			
EMPs (including an EIA) for prospecting on the farms Beestekraal 290 JQ, Boschpoort 284JQ, Nooitgedacht 289JQ and Noointgedacht 287JQ near Rustenburg in the North West Province: Bakgatla Ba Kgafela Tribal Authority	2007	Project Manager	
EMPs (including EIA) for two prospecting projects on the town and town lands of Rustenburg 272JQ in Rustenburg Magisterial District, North West Province: Xstrata South Africa (Pty) Ltd	2005	Project Manager	
EIA/EMP for a chrome mine and concentrator in the Rustenburg / Boshoek region: SA Ferrochrome and Mining (Pty) Ltd	2003-2004	Project Assistant	
Coal			
EIA/EMP for a greenfields coal mine in northern Kwa-Zulu Natal: Commissiekraal Coal (Pty) Ltd	Current	Project Manager	
Copper			
EIA for a greenfields copper oxide project (Omitiomire project) (Namibia): Craton Mining and Exploration (Pty) Ltd	2013	Project Reviewer	
Ferrochrome			
EIA/EMP amendment for the exclusion of smelter activities at Bokfontein Chrome Mine: Hernic Ferrochrome	2013	Project Manager	
EIA/EMP amendment for a concentrator and smelter complex at Bokfontein Chrome Mine: Hernic Ferrochrome	2012	Project Manager	
EIA for Project Lion, a new smelter complex near Steelpoort: Xstrata South Africa (Pty) Ltd	2003-2004	Project Assistant	
EIA/EMP for Transvaal Ferrochrome Project (a ferrochrome smelter complex in the Rustenburg/Brits region):	2002-2003	Project Assistant	
EIA/EMP amendment for a pelletizing plant at Xstrata Wonderkop: Xstrata South Africa (Pty) Ltd	2002-2003	Project Manager	
Gold			
EIA for a filtration plant at Navachab Gold Mine (Namibia): AngloGold Ashanti Namibia (Pty) Ltd	2012	Project Manager	
Basic Assessment for Diesel storage facilities at its South Deep Mine Operations: God Fields (South Africa) (Pty) Ltd	2011	Project Reviewer	

Project	Date	Alex's Role
Consolidating South Deep Min's various EMPR documents into one document and in turn bringing the mine's EMPR in line with the requirements of the Mineral and Petroleum Resources Development Act and supporting regulations : Placer Dome Westonaria Joint Venture – South Deep Mine	2005-2007	Project Manager
EIA and EMP amendment for a new tailings dam development: Placer Dome Westonaria Joint Venture – South Deep Mine	2005-2007	Project Manager
Participation in an integrated environmental management review – technical workshop for new projects at Gold Fields: Gold Fields (South Africa) (Pty) Ltd	2009	Part of a peer review delegation for an ongoing EIA
Iron		
EIA/EMP for greenfield iron ore mine development near Lephalale (Ellisras) Moonlight iron ore project) in the Limpopo Province: Turquoise Moon Trading (Pty) Ltd	2012	Project Manager
Amendment to existing prospecting EMP to cater for changes in prospecting operations: Nelesco 684 (Pty) Ltd	2010	Project Manager and Reviewer
Amendments to existing prospecting EMPs (Cascade 442IT and Delft 22HU) to cater for changes in prospecting operations: Mkhombi Mining (Pty) Ltd	2010	Project Manager and Reviewer
Management of the consultation process for a prospecting EMP on the farms Sterkfontein 419IT and Wolvernkop 427IT, near Piet Retief in Mpumalanga Province: Mkhombi Mining (Pty) Ltd	2009	Project Manager and Reviewer
EMP (including EIA) for prospecting on the farms Moabsvelden 248IR and Rietkuil 249IR, near Delmas in Mpumalanga Province: Spirapix Mining (Pty) Ltd	2009	Project Manager
Manganese		
EMP performance assessment and financial provision re- assessment for prospecting right: Ntsimbintle Mining (Pty) Ltd	2008	Project Reviewer
Platinum		
Various EMP performance assessments and financial provision re-assessments for prospecting rights held by Impala in the North West, Mpumalanga and Limpopo Province: Impala Platinum Limited (Impala)	Ongoing	Project Manager and Reviewer
Various EMP performance assessments and financial provision re-assessments for prospecting rights held by Afplats in the North West Province: Afplats (Pty) Ltd	Ongoing	Project Manager and Reviewer
Various amendments to existing prospecting EMPs to cater for the changes in prospecting operations: Impala Platinum Limited (Impala)	Ongoing	Project Manager

Project	Date	Alex's Role
Various EMP performance assessments and financial provision re-assessments for prospecting rights held by Inkosi and Imbasa in the North West Province	Ongoing	Project Manager and Reviewer
EIA/EMP amendments changes to surface infrastructure at Marula Platinum Mine: Marula Platinum (Pty) Ltd	2013	Project Manager and Reviewer
EIA/EMP for the extension of underground mining activities at Everest Platinum Mine (Fairway project): Aquarius Platinum (South Africa) (Pty) Ltd	2013	Project Reviewer
EIA/EMP for the extension of mining activities at Everest Platinum Mine (Hoogland project): Aquarius Platinum (South Africa) (Pty) Ltd	2013	Project Manager
Updated and consolidated EMP for Eland Platinum Mine	2012	Project Manager
Supply and co-ordination of interim on-site environmental manager to assist with general management of environmental aspects at Everest Platinum Mine: Aquarius Platinum (SA) (Pty) Ltd	2011	Project Co-ordinator
Compilation of environmental documents (including a public consultation process) in support of a closure application for the Turffontein 263JQ and Kookfontein 265JQ prospecting right and Reinkoyalskraal 278JQ and Elandsheuwel prospecting right: Impala Platinum Limited (Impala	2010	Project Reviewer
2010 Annual Re-Assessments of Everest Platinum Mine's closure cost estimate: Aquarius Platinum (SA) (Pty) Ltd	2010	Project Reviewer & Auditing
EMP (including EIA) for prospecting on the farm Rooikraal 118JS in the Limpopo Province: Braggite Resource (Pty) Ltd	2010	Project Reviewer
2009 Annual Re-Assessments of Everest Platinum Mine's closure cost estimate: Aquarius Platinum (SA) (Pty) Ltd	2009	Project Manager
EIA/EMP amendment for the north and south boxcuts at Everest Platinum Mine: Aquarius Platinum (SA) (Pty) Ltd	2009	Project Manager & closure
EIA/EMP amendment for the production expansion of Eland Platinum Mine: Xstrata South Africa (Pty) Ltd	2009	Project Reviewer
Assistance with the consultation with landowners to input nto closure of a prospecting right: Impala Platinum _imited (Impala)	2008-2009	Project Manager
Compilation of environmental posters linked to the seismic EMP for the use in environmental awareness training: mpala Platinum Limited (Impala)	2008	Project Manager
EMP performance assessment of Marula Platinum Mine's EMP report: Marula Platinum (Pty) Ltd	2008	Project Manager & Reviewer
EIA/EMP for a new platinum mine and concentrator Plant (Mphahlele Project) in the Limpopo Province: Tameng Mining and Exploration (Pty) Ltd	2007-2008	Project Manager

Date 2006-2009 2006-2008	Alex's Role Project Manager
2006-2008	
2006-2008	
	Project Manager
2006-2008 a	Project Manager
: 2005	Project Manager
2005	Project Manager
: 2005	Project Manger
d 2005	Project Manager
2005	Project Manager
2004	Project Assistant
2003-2004	Project Manager
2002-2005	Project Manager
2002-2003	Project Manager
2002-2003	Project Assistant
2002	Platinum
<sup>2t:</sup> 2002	Project Assistant
2001	Project Manager
	) a 2006-2008 2005 2005 2005 2005 2005 2004 2004 2004 2004 2002-2004 2002-2005 2002-2003 2002-2003 2002-2003

Project	Date	Alex's Role	
Residential			
EIA for a village and cemetery for non-landowners to be relocated from the site of Marikana Platinum Mine: Aquarius Platinum (SA) (Pty) Ltd	2001-2002	Project Assistant	
Silica			
EIA/EMP for mining right application at Rietvly Silica Mine: Xstrata South Africa (Pty) Ltd	2005-2006	Project Manager	
Uranium			
ESIA for a greenfields Uranium and Coal Mine in Botswana (Letlhakane Project): A-Cap Resources Limited	Current	Project Manager	
Alternative energy			
EIA/EMP amendment for the use of alternative fuels at its Lichtenburg Cement Plant: Lafarge Industries SA (Pty) Ltd	2012	Project Manager	
EIA for cogeneration power plants at Xstrata's operations in the North West and Mpumalanga Provinces: Power Tech IST/ Xstrata South Africa (Pty) Ltd	2008 – on hold	Project Manager	
Other: Expert Consultant, due diligence, reviews			
Environmental input into various pre-feasibility studies linked to the exploration/development/expansion of mining operations.	Ongoing	Environmental specialist	
Due diligence on compliance, water, waste and air related aspects as part of an investment investigation at Silicon Technology (Pty) Ltd	2012 & 2013	Environmental specialist	
A number of due diligences of gold exploration projects in Tanzania: New African Mining Fund	2013	Environmental specialist	
Input to a legal environmental register for African Barrick Gold's operations in Tanzania	2012	Environmental specialist	
Environmental input into the ESIA for the expansion of the Morupule Colliery in Botswana: Ecoserv Environmental Consultants	2010	Expert Consultant	
Policy drafting			
Assistance with drafting a policy, guideline document and procedure for stakeholder participation during explorations operations for the Implats Group: Impala Platinum Limited (Impala)	2008	Project Manager	

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Project	Date	Alex's Role
Water		
Assistance in compilation of water use license application (WULA) and integrated water and waste management plan (IWWMP) for a new platinum mine and concentrator plant (Mphahlele Project) in the Limpopo Province: Tameng Mining and Exploration (Pty) Ltd	Current	Project Manager
Co-ordination of integrated water and waste at Everest Platinum Mine: Aquarius Platinum (South Africa) (Pty) Ltd	2012	Project Reviewer
Water Supply Study for the Moonlight Iron Ore Project: Turquoise Moon Trading (Pty) Ltd	2011	Project Manager
ESIA for a greenfields wellfield development in Botswana (to supply the LetIhakane Project): A-Cap Resources Limited	2011	Project Manager
Re-registration of waste-related water uses at Everest Platinum Mine: Aquarius Platinum (South Africa) (Pty) Ltd	2010	Project Reviewer
Assistance with addressing water use license related issues: Marula Platinum (Pty) Ltd	2010	Project Reviewer
Compilation of water use license application (WULA) and integrated water and waste management plan (IWWMP) for South Deep Mine:	2006	Project Manager
Basic assessment for a water supply project to the Pilanesberg Platinum Mine Operations: Pilanesberg Platinum Mines (Pty) Ltd	Cancelled	Project Reviewer

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### Publications

Onderstepoort Journal of Veterinary Science, 2005. "Aspects of the ecology of the Asian tapeworm *Bothriocephalus acheilognathi* Yamaguti, 1934 in yellow fish in the Vaal dam, South Africa"

Caitlin Hird Environmental Practitioner



## Qualifications

Honours in Environmental Economics (BA)	2010
Environmental and Geographical Science (BA)	2008

### Key Areas of Expertise

Key areas of Caitlin's expertise are summarised below.

Management of major environmental impact assessments	Southern African operations for wide variety of minerals developments
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### Summary of Experience and Capability

Caitlin is a Project Manager with SLR and is responsible for SLR's EIA Projects throughout Southern Africa. Caitlin has 6 years experience within the Minerals sector, in a management position within the minerals industry and with SLR.

Caitlin has managed and assisted in the management of a range of major Environmental Impact Assessment projects for major minerals developments throughout Southern Africa for many of the major operators within the minerals industry. Since 2011 Caitlin has managed 6 full scope Environmental Impact Assessments processes and has assisted in the management of 14 major Environmental Impact Assessments for minerals extraction operations.

Prior to joining SLR in 2011, Caitlin studied at the University of Stellenbosch after which she completed her Honours in Environmental Management and Economics at the University of Cape Town.

# **Recent Project Experience**

Key aspects of Caitlin's recent project experience are summarised below.

Project	Date	Caitlin's Role	
Chrome			
Hernic Ferrochrome, Smelter Complex at Bokfontein, North West	2011	Assistant Project Manager	
Iron Ore			
Leeuw Mining and Exploration, Proposed New Coal Mine, Kwazulu-Natal	2011	Assistant Project Manager	
Turquoise Moon, Moonlight Iron Ore Project, Limpopo	2011	Assistant Project Manager	
Keaton Energy, Vanggattfoitein Mining Right Amendment, Mpumalanga	2011	Assistant Project Manager	
Coza Mining (Pty) Ltd Jenkins Iron Ore Project	2015	Project Manager	
Platinum			
Impala Shaft 16 WRD Expansion & Pit8C Project, North West	2012	Project Manager	
Inkosi Platinum Prospecting EMP Amendment for the Greater Inkosi Area, North West	2012	Project Manager	
Pilanesberg Platinum Mine, Tuschenkomst Pit Extention, North West	2011	Assistant Project Manager	
Everest Hoogland Platinum Mine	2011	Assistant Project Manager	
Impala Central Salvage Yard	2011	Assistant Project Manager	
Uranium			
Swakop Uranium, Husab Mine	2011	Assistant Project Manager	
Coal			
Keaton Mining (Pty) Ltd, Vanggatfontein WULA	2014	Assistant Project Manager	
Fluorspar			
SA Fluorite Fluorspar Bulk Sampling EMP Amendment, North West	2012	Assistant Project Manager	

Project	Date	Caitlin's Role
Chrome		
Hernic Ferrochrome, EIA/EMP Amendment, North West	2012/13	Project Manager
Siyanda Chrome Smelting Company, Greenfields project, Limpopo	2014/15	Project Manager
Manganese		
Kudumane Manganese Resources EIA/EMP Amendment, WML & WULA, Northern Cape	2013/4	Project Manager