

APPENDIX A: PROOF OF EAP QUALIFICATIONS AND CURRICULUM VITAE OF EAP

CURRICULUM VITAE



ALESSANDRA (ALEX) PHEIFFER

SENIOR ENVIRONMENTAL CONSULTANT

Environmental Management, Planning and Approvals, Africa

QUALIFICATIONS

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

EXPERTISE

- Permitting and Licensing Processes
- Stakeholder Engagement
- Compliance Auditing
- Due Diligence and Reviews
- Screening and Risk Assessments
- Financial Provision and Closure Planning

Alex has 16 years' experience in the field of Environmental Management. She has managed a wide range of permitting and licensing projects including environmental, water, waste and air licensing and assessment processes mainly in the exploration, mining and industrial sectors. These included project management and co-ordination; 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 policy drafting, environmental due diligence processes, environmental reviews for financing institutions (in the mining, industrial and alternative energy sectors), compliance auditing, general environmental management support to operating sites, site screening exercises, risk assessments and financial provisioning and closure planning.

In her early career years, Alex held a position within Anglo Platinum's Waterval Smelter as Assistant to the Chief Environmental Officer. During the period March 2015 to October 2016, Alex held the position of Operations Manager: Environmental Management, Planning and Approvals (EMPA) within SLR Africa and was responsible for co-ordinating SLR's environmental management team.

PROJECTS

CHROME	
2007	Project Manager: EMPs (including an EIA) for prospecting on the farms Beestekraal 290 JQ, Boschpoort 284JQ, Nooitgedacht 289JQ and Nooitgedacht 287JQ near Rustenburg in the North West Province: Bakgatla Ba Kgafela Tribal Authority
2005	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
2003-2004	Project Assistant: EIA/EMP for a chrome mine and concentrator in the Rustenburg / Boshhoek region: SA Ferrochrome and Mining (Pty) Ltd

COAL	
Current	Project Manager: EIA/EMP for a greenfields coal mine in northern Kwa-Zulu Natal: Commissiekraal Coal (Pty) Ltd
COPPER	
Current	Project Reviewer: ESIA for the Kitwe tailings retreatment and mineral processing project in Zambia: Horizon Mining
2014	Project Reviewer: EIA/EMP amendment for the Kinsenda operations in the DRC.
2013	Project Reviewer: EIA for a greenfields copper oxide project (Omitiomire project) (Namibia): Craton Mining and Exploration (Pty) Ltd
FERROCHROME	
2013	Project Manager: EIA/EMP amendment for the exclusion of smelter activities at Bokfontein Chrome Mine: HERNIC Ferrochrome
2012	Project Manager: EIA/EMP amendment for a concentrator and smelter complex at Bokfontein Chrome Mine: HERNIC Ferrochrome
2003-2004	Project Assistant: EIA for Project Lion, a new smelter complex near Steelpoort: Xstrata South Africa (Pty) Ltd
2002-2003	Project Assistant: EIA/EMP for Transvaal Ferrochrome Project (a ferrochrome smelter complex in the Rustenburg/Brits region):
2002-2003	Project Manager: EIA/EMP amendment for a pelletizing plant at Xstrata Wonderkop: Xstrata South Africa (Pty) Ltd
GOLD	
Current	Project Reviewer: EIA for the refurbishment of an existing shaft and related mineral processing and residue disposal facilities: Taung Gold
2016	Project Reviewer: Annual update of the Damang EMP and reclamation plan: Abosso Goldfields Limited
2012	Project Manager: EIA for a filtration plant at Navachab Gold Mine (Namibia): AngloGold Ashanti Namibia (Pty) Ltd
2011	Project Reviewer: Basic Assessment for Diesel storage facilities at its South Deep Mine Operations: Gold Fields (South Africa) (Pty) Ltd
2009	Part of a peer review delegation for an ongoing EIA: Participation in an integrated environmental management review – technical workshop for new projects at Gold Fields: Gold Fields (South Africa) (Pty) Ltd
2005-2007	Project Manager: 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
IRON	
2016	Project Reviewer: EIA and EMP for the Jenkins and Driehoekspan greenfields mining operations in the Northern Cape: Coza Iron Ore
2012	Project Manager: EIA/EMP for greenfield iron ore mine development near Lephalale (Ellisras) (Moonlight iron ore project) in the Limpopo Province: Turquoise Moon Trading (Pty) Ltd
2010	Project Manager and Reviewer: 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
2009	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: EMP (including EIA) for prospecting on the farms Moabsvelden 248IR and Rietkuil 249IR, near Delmas in Mpumalanga Province: Spirapix Mining (Pty)
MANGANESE	
Current	Project Reviewer: a number of EMP amendment and rectification processes for Tshipi é Ntle Manganese Mining operations in the Northern Cape
Current	Project Reviewer: EMP amendment and rectification processes for UMK Manganese Mine in the Northern Cape
2017	Project Reviewer: EIA and EMP for a greenfields mining right application in the Northern Cape: Khwara Mining
2016	Project Reviewer: EIA and EMP for a greenfields mining right application in the Northern Cape: Ntsimbintle Mining (Pty) Ltd
2008 and 2016	Project Reviewer: EMP performance assessment and financial provision re-assessment for prospecting right in the Northern Cape: Ntsimbintle Mining (Pty) Ltd
PLATINUM	
Ongoing	Project Manager and Reviewer: 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: Various amendments to existing prospecting EMPs to cater for

	the changes in prospecting operations: Impala Platinum Limited (Impala)
Ongoing	Project Manager and Reviewer: Various EMP performance assessments and financial provision re-assessments for prospecting rights held by Afplats, Inkosi and Imbasa in the North West Province
Current	Project Reviewer: EIA and EMP for the relocation of a security perimeter and infrastructure footprint expansion at a BMR and Smelter complex in the Limpopo Province: Northam Platinum
2015-2016	Project Reviewer: EIA and EMP amendment including WML for changes to surface infrastructure and operations at Bakubung Platinum Mine, North West Province
2012-2015	Project Reviewer: EIA and EMP amendment for changes to surface infrastructure and operations at Tharisa Mine, North West Province
2014	Project Reviewer: EMP Compliance Audit for Leeuwkop Mine
2013	Project Manager and Reviewer: EIA/EMP amendment for changes to surface infrastructure at Marula Platinum Mine: Marula Platinum (Pty) Ltd
2013	Project Reviewer: EIA/EMP for the extension of underground mining activities at Everest Platinum Mine (Fairway project): Aquarius Platinum (South Africa) (Pty) Ltd
2013	Project Manager: EIA/EMP for the extension of mining activities at Everest Platinum Mine (Hoogland project): Aquarius Platinum (South Africa) (Pty) Ltd
2011	Project Co-ordinator: 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
2010	Project Reviewer: 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 and Auditing: 2010 Annual Re-Assessments of Everest Platinum Mine's closure cost estimate: Aquarius Platinum (SA) (Pty) Ltd
2010	Project Reviewer: EMP (including EIA) for prospecting on the farm Rooikraal 118JS in the Limpopo Province: Braggite Resource (Pty) Ltd
2009	Project Manager: 2009 Annual Re-Assessments of Everest Platinum Mine's closure cost estimate: Aquarius Platinum (SA) (Pty) Ltd
2009	Project Manager and Closure: EIA/EMP amendment for the north and south boxcuts at Everest Platinum Mine: Aquarius Platinum (SA) (Pty) Ltd
2009	Project Reviewer: EIA/EMP amendment for the production expansion of Eland Platinum Mine: Xstrata South Africa (Pty) Ltd
2008-2009	Project Manager: Assistance with the consultation with landowners to input into closure of a prospecting right: Impala Platinum Limited (Impala)

2008	Project Manager: Compilation of environmental posters linked to the seismic EMP for the use in environmental awareness training: Impala Platinum Limited (Impala)
2008	Project Manager and Reviewer: EMP performance assessment of Marula Platinum Mine's EMP report: Marula Platinum (Pty) Ltd
2007-2008	Project Manager: EIA/EMP for a new platinum mine and concentrator Plant (Mphahlele Project) in the Limpopo Province: Tameng Mining and Exploration (Pty) Ltd
2006-2009	Project Manager: EIA/EMP amendment for additional infrastructure at Everest Platinum Mine: Aquarius Platinum (SA) (Pty) Ltd
2006-2008	Project Manager: EIA/EMP for seismic survey activities near Impala's Rustenburg operations: Impala Platinum Limited (Impala)
2006-2008	Project Manager: EIA/EMP amendment for a new shaft and associated facilities and Marula Platinum Mine. This project also included the consolidation and updating of the mine's EMP to cater for the changes in mining legislation: Marula Platinum (Pty) Ltd
2005	Project Manager: EMP (including an EIA) for prospecting on the farms Turffontein 263JQ, near Impala's Rustenburg Operations: Impala Platinum Limited (Impala)
2005	Project Manager: EMP (including an EIA) for prospecting on the farm Reinkoyalskraal 278JQ, near Impala's Rustenburg Operations: Impala Platinum Limited (Impala)
2005	Project Manager: EMP (including and EIA) for prospecting on the farms Klipgatkop 115JQ, near Impala's Rustenburg Operations: Impala Platinum Limited (Impala)
2005	Project Manager: EMP (including and EIA) for prospecting on the farms, Doornspruit 84JQ and Roodekraalspruit 113JQ near Impala's Rustenburg Operations: Impala Platinum Limited (Impala)
2005	Project Manager: EIA/EMP for a mining right application (The Fingers Project) at Marikana Platinum Mine: Aquarius Platinum (SA) (Pty) Ltd
2004	Project Manager: Assisted in the facilitation of the public involvement process for the Shaft 20 EMP amendment: Impala Platinum Limited (Impala)
2003-2004	Project Manager: EMP amendment for the Maandagshoek Winze Project (re-establishment of an underground shaft): Modikwa Platinum Mine
2002-2005	Project Manager: EIA/EMP amendment for the Opencast Mining Project at the Rustenburg operations: Impala Platinum Limited (Impala)
2002-2003	Project Manager: EMP amendment for The Hills Project (establishment of additional infrastructure for mining purposes): Modikwa Platinum Mine
2002-2003	Project Assistant: EIA and EMP for a greenfields mine – Everest South Platinum Mine: Aquarius Platinum (SA) (Pty) Ltd

2002	Project Assistant: Drilling and bulk sampling EMPs for the Everest South Project: Aquarius Platinum (SA) (Pty) Ltd
2002	Project Assistant: Revised bulk sampling EMP for the Everest South Project: Aquarius Platinum (SA) (Pty) Ltd
2001	Project Manager: EMP amendments for re-positioning of infrastructure for Marikana Platinum Mine: Aquarius Platinum (SA)
RESIDENTIAL, FOOD and BEVERAGE	
2017	Technical E&S Lead: Fatal flaw analysis/site selection screening for a food and beverage developments in Gauteng
2016	Project Manager: Provision of environmental management support to Kumba Iron Ore for the relocation of Dingleton town
2015	Project Reviewer: Basic Environmental process for the Pilanesburg Platinum Mine Housing Development, in the North West Province
2001-2002	Project Assistant: EIA for a village and cemetery for non-landowners to be relocated from the site of Marikana Platinum Mine: Aquarius Platinum (SA) (Pty) Ltd
SILICA AND SAND	
Current	Project Reviewer: EIA/EMP for a mining right application for sand quarry along the Vaal River, in the Free State: Goosebay (Pty) Ltd
2005-2006	Project Manager: EIA/EMP for mining right application at Rietvly Silica Mine: Xstrata South Africa (Pty) Ltd
URANIUM	
2009-2016	Project Manager: ESIA for a greenfields Uranium and Coal Mine in Botswana (Letlhakane Project): A-Cap Resources Limited
ALTERNATIVE ENERGY	
2012	Project Manager: EIA/EMP amendment for the use of alternative fuels at its Lichtenburg Cement Plant: Lafarge Industries SA (Pty) Ltd
2008-On-hold	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
INDUSTRY	
2016	Project Reviewer: Basic assessment and Air Emission License for a minerals siding in Bloemfontein: Three clients
BIOREMEDIATION	
2017	Facilitation of DEA bioremediation process for a residential area in the Northern

	Cape
2013-2015	Project Manager: EIA for a waste management license for the bioremediation operation at TransHex Baken Diamond mine in the Northern Cape
CLOSURE PLANNING	
2017	Completion of the environmental and social aspects of the Closure Plan for B2Gold’s mine in Namibia: B2Gold Namibia
OTHER: EXPERT CONSULTANT, DUE DILIGENCE, REVIEWS, RISK ASSESSMENT	
2016-2017	Environmental Specialist: Environmental management services in fulfilment of the environmental legal obligations for the Dingleton Resettlement Project, near Kathu in the Northern Cape
2016	Environmental Specialist: Environmental and Social Due Diligence Review of two wind farm assets located in South Africa
On-going	Environmental Specialist: Environmental input into various pre-feasibility studies linked to the exploration/development/expansion of mining operations.
2015	Environmental Specialist: Legal compliance review of Everest Platinum Mine (Mpumalanga) in support of re-commencing operations
2015 & 2016	Environmental Specialist: Update to Tharisa Mine’s Competent Persons Report
2015	Project Manager: Alfred Knight Lab Due Diligence
2012 and 2013	Environmental Specialist: Due diligence on compliance, water, waste and air related aspects as part of an investment investigation at Silicon Technology (Pty) Ltd
2013	Environmental Specialist: A number of due diligences of gold exploration projects in Tanzania: New African Mining Fund
2012	Environmental Specialist: Input to a legal environmental register for African Barrick Gold’s operations in Tanzania
2012	Environmental Specialist: Peer Review of baseline specialist studies for Gold Fields Damang Gold Mine
2011	Environmental Specialist: Afplats Shaft Risk Assessment Update for Inkosi - Imbasa
2011	Environmental Specialist: Review of Barrick Tulawaka Tailings EIA
2010	Expert Consultant: Environmental input into the ESIA for the expansion of the Morupule Colliery in Botswana: Ecosurv Environmental Consultants
POLICY DRAFTING	
2008	Project Manager: Assistance with drafting a policy, guideline document and procedure for stakeholder participation during explorations operations for the Implats Group: Impala Platinum Limited (Impala)

WATER	
On-going	Project Reviewer: Of a number of water use license applications for mining operations across South Africa
2013	Project Manager: 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
2012	Project Reviewer: Co-ordination of integrated water and waste at Everest Platinum Mine: Aquarius Platinum (South Africa) (Pty) Ltd
2011	Project Manager: 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 Letlhakane Project): A-Cap Resources Limited
2010	Project Reviewer: 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 Manager: Water use license application (WULA) for the South Deep Doornpoort tailings dam
2006	Project Manager: Compilation of water use license application (WULA) and integrated water and waste management plan (IWWMP) for South Deep Mine:
Cancelled	Project Reviewer: Basic assessment for a water supply project to the Pilanesberg Platinum Mine Operations: Pilanesberg Platinum Mines (Pty) Ltd
MEMBERSHIPS	
PrSciNat	Registered with the South African Council for Natural Scientific Professions as a Professional Natural Scientist (PrSciNat) in Environmental Science (Reg. No. 400183/05)
EAPAN	Registered with the Environmental Assessment Professionals of Namibia (EAPAN) as a Lead Practitioner (Membership No. 121)
IAIA	Member of the International Association for Impact Assessments (IAIA), South African Affiliate since 2005
PUBLICATIONS	
As part of Masters Dissertation	Onderstepoort Journal of Veterinary Science, 2005. "Aspects of the ecology of the Asian tapeworm <i>Bothriocephalus acheilognathi</i> Yamaguti, 1934 in yellow fish in the Vaal dam, South Africa"



herewith certifies that

Alessandra Pheiffer

Registration number: 400183/05

is registered as a

Professional Natural Scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)

in the following field(s) of practice (Schedule 1 of the Act)

Environmental Science

Effective 26 July 2005

Expires 31 March 2019



A handwritten signature in black ink, appearing to read 'Botha'.

President

A handwritten signature in black ink, appearing to read 'M. J. ...'.

Executive Director

CURRICULUM VITAE



BRANDON STOBART

REGIONAL MANAGER

Environmental & Social Assessment, Africa

QUALIFICATIONS

MBA	2006	Masters in Business Administration
EARA	2001	Environmental auditor qualification
LLB	1997	Law
BA	1994	Economics and Environmental Science

EXPERTISE

- Environmental & Social Assessment
- Environmental & Social Management and Compliance
- Environmental & Social Due Diligence
- Project and Stakeholder Management

Brandon has 20 years of experience working on both green and brown field capital investment and operational projects in a range of sectors including: industry, infrastructure, power, oil & gas and mining. A key component of Brandon's experience is working with project teams to formulate and implement environmental and social strategies that maximise resource efficiency and achieve both social licence to operate and regulatory compliance. Brandon has project managed large multi-disciplinary teams across multiple geographies, with varying legislative frameworks and currencies. In the African context, Brandon has also worked extensively with the International Finance Corporation and Equator Principle Performance Standards.

PROJECT SAMPLE

	Industry Sector
ABInBev – green field glass bottle manufacturing plant (2017 -2018)	ABInBev is developing a glass bottle manufacturing furnace and associated plant to gain additional supply chain control. SLR supported the client team with up front site selection, analysis of pre investment fatal flaws, environmental & social impact assessment, environmental permitting, preparation for IFC funding review. The project is in Gauteng, RSA. Brandon's role was a combination of project management and technical review.

<p>Coca Cola & ABInBev – green field corn syrup manufacturing plant (2017-2018)</p>	<p>Coca Cola and ABInBev are jointly developing a corn processing and syrup manufacturing plant to gain additional supply chain control. SLR supported the client team with up front site selection, analysis of pre investment fatal flaws, environmental & social impact assessment, environmental permitting, preparation for IFC funding review. The project is in Gauteng, RSA. Brandon’s role was a combination of project management and technical review.</p>
<p>Siyanda Ferrochrome – green field ferrochrome smelter complex (2015-2017)</p>	<p>Siyanda is developing a ferrochrome smelter complex to primarily process chrome resources from neighbouring platinum mine UG2 tailings waste. SLR supported the client team with up front site selection, environmental & social impact assessment, environmental permitting, preparation for IFC funding review. The project is in Limpopo, RSA. Brandon’s role was a combination of project management and technical review.</p>
<p>Scaw Metals – brown field co-generation power project at the Germiston metal processing plant (2013)</p>	<p>Scaw promoted this project to capture and reuse energy emissions in the interests of energy and resource efficiency. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in Gauteng, RSA. Brandon’s role was technical review.</p>
<p>Lafarge – brown field alternative fuels processing project at the Lichtenburg cement manufacturing plant (2011)</p>	<p>Lafarge invested in this process in the interests of evaluating the feasibility of using alternative fuels (including used rubber tyres) in its cement kilns. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in North West, RSA. Brandon’s role was technical review and public meeting/conflict facilitation.</p>
<p>Glencore (Xstrata) – Green fields project Lion Smelter (2005)</p>	<p>SLR provided services for the preparation of an integrated waste and water management plan in support of an integrated waste and water licence. The project is in Limpopo, RSA. Brandon’s role was technical review.</p>
<p>Glencore (Xstrata) – brown fields pelletizing plant at the Wonderkop smelter complex (2003)</p>	<p>Glencore implemented this project to enable the more efficient smelting and processing of chrome fines. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in North West, RSA. Brandon’s role was technical review.</p>
<p>Glencore (Xstrata - Merafe) – green fields SA Chrome Boshhoek ferrochrome smelter complex (2001)</p>	<p>The project was developed on the western limb of the Bushveld complex to enable increased capacity to process chrome ore and produce ferrochrome. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in North West, RSA. Brandon’s role was project manager and stakeholder manager.</p>
<p>Glencore (Xstrata) – brown fields furnace 5 and 6 expansion at the Wonderkop smelter complex (2000)</p>	<p>The project was developed on the western limb of the Bushveld complex to enable increased capacity to process chrome ore and produce ferrochrome. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in North West, RSA. Brandon’s role was project manager and stakeholder manager.</p>

	Infrastructure sector
Sedibeng Water Authority & Chamber of Mines – Independent Peer Review of the Vaal Gamagarra Water Supply Scheme (2017-2018)	In the context of potentially excessive future water charges, a consortium of twelve manganese and iron ore mines approached the Chamber of Mines and Sedibeng water to appoint SLR for an independent Peer Review of the 400km scheme design and related cost model. SLR reviewed all aspects of the scheme including demand, supply, pipelines, pump stations and cost model inputs. The project is in the Northern Cape, RSA. Brandon’s role was a combination of project manager and report review.
Sedibeng Water Authority & Chamber of Mines – detailed water demand survey for the Vaal Gamagarra Water Supply Scheme (2017- 2018)	On the back of the aforementioned independent peer review, SLR was commissioned to conduct a detailed water demand survey that could be used as the basis for a redesign of the 400km water supply scheme. The project is in the Northern Cape, RSA. Brandon’s role was a combination of project manager and report review.
EnviroServ – Chloorkop Waste Recovery Site (2014)	The Chloorkop facility is used for storage, beneficiation, recycling and recovery of various materials and waste streams from the smelting and metallurgical industries. SLR was appointed to conduct an environmental and social assessment in support of environmental permits. The project is in Gauteng, RSA. Brandon’s role was technical review.
ENS & Metal Recyclers Association – Development of Industry Standard for Waste Recycling and associated Exemption from Permitting (2013)	SLR was appointed to review the waste management and recycling operations of a sample of members from the RSA Metal Recyclers Association and to develop both a set of industry standards for environmental management and an associated motivation for exemption from environmental permitting. The project is in Gauteng, RSA. Brandon’s role was technical review.
NamWater – Husab water supply pipelines (2011)	Temporary 0.3m and permanent 0.6m diameter water supply pipelines were proposed by NamWater to provide water for the construction and operational phases of the Husab Uranium Mine respectively. SLR was appointed to provide an environmental and social impact assessment in support of environmental permits. The project is in Erongo, Namibia. Brandon’s role was project manager.
Swakop Uranium – Husab access roads (2011)	Temporary and permanent regional access roads were required for the construction and operational phases of the Husab Uranium Mine. SLR was appointed to provide an environmental and social impact assessment in support of environmental permits. The project is in Erongo, Namibia. Brandon’s role was project manager.
Hernic Ferrochrome – railway line (2007)	Hernic Ferrochrome required connection from its smelter site to the regional railway line in Brits. SLR was appointed to provide an environmental and social impact assessment in support of environmental permits. The project is in North West, RSA. Brandon’s role was project manager.

<p>Botswana Water Utility Corporation – ISO14001 environmental management system (2002)</p>	<p>SLR was appointed to conduct an ISO14001 environmental management system compliance audit for the national utility water supply infrastructure and activities. SLR was also appointed to provide a follow on implementation plan. The project is in Botswana. Brandon’s role was project manager.</p>
<p>Power Sector</p>	
<p>Eskom – Siyanda power transmission line (2017)</p>	<p>Siyanda is developing a ferrochrome smelter complex. SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for the 275kV Eskom power supply line. The project is in Limpopo, RSA. Brandon’s role was a combination of project management and technical review.</p>
<p>Episolar - Siginik solar power project (2015)</p>	<p>SLR was appointed to conduct a pre-funding environmental and social due diligence as part of a funding scheme by Standard Bank for the 50 megawatt green fields solar power project. The project is in Bole, Ghana. Brandon’s role was technical review.</p>
<p>Solar Reserve – Kalkaar thermal solar power plant (2014)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for the 200 megawatt thermal solar power project. The project is in Northern Cape, RSA. Brandon’s role was technical review.</p>
<p>Natura Energy – Arandis combined heavy fuel oil and solar power project (2012)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for the 120 megawatt combined heavy fuel oil and solar power project. The project is in Arandis (Erongo), Namibia. Brandon’s role was technical review.</p>
<p>NamPower – Husab power transmission lines (2011)</p>	<p>Temporary 66kV and permanent 220kV power supply lines were proposed by NamPower to provide power for the construction and operational phases of the Husab Uranium Mine respectively. SLR was appointed to provide an environmental and social impact assessment in support of environmental permits. The project is in Erongo, Namibia. Brandon’s role was project manager.</p>
<p>Eskom – UMK power transmission line (2008)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for the 132kV Eskom power supply line that is the primary power source for the UMK manganese mine. The project is in Northern Cape, RSA. Brandon’s role was a combination of project management and technical review.</p>
<p>Eskom – Hendrina Power Station ISO14001 compliance audit (2003)</p>	<p>SLR was appointed to conduct an ISO14001 environmental system compliance audit. The project is in Mpumalanga, RSA. Brandon’s role was project manager.</p>
<p>Oil and Gas Sector</p>	
<p>Shell – offshore deep water exploration (2017)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting, for the deep water offshore exploration project. The project is in Namibia. Brandon’s role was proposal and project director.</p>

<p>Tosaco Energy – onshore exploration right screening (2017)</p>	<p>SLR was appointed to conduct the environmental & social screening to assist with environmental and social optimisation for onshore oil and gas exploration right applications. The project is in RSA. Brandon’s role was proposal and project director.</p>
<p>Afro Energy & Kinetico - onshore oil and gas exploration rights (2017)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for multiple onshore oil and gas exploration right applications. The project is in RSA. Brandon’s role was stakeholder management advisor.</p>
<p>Rhino Oil & Gas – onshore oil and gas exploration rights (2016)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for multiple onshore oil and gas exploration right applications. The project is in RSA. Brandon’s role was project director and stakeholder management advisor.</p>
<p>Mining Sector - Chrome</p>	
<p>Imalivest – transactional due diligence for chrome mine assets (2017)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of Herculite’s chrome mine and ferrochrome smelter assets on behalf of Imalivest. The project is in RSA. Brandon’s role was project manager.</p>
<p>Herculite Ferrochrome – Bokfontein chrome mine and smelter complex development (2013-2015)</p>	<p>This is a green field open pit, underground mine, ore processing and smelter project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. As a follow on service SLR provided an amendment assessment and plan to remove the smelter aspect. The project is in North West, RSA. Brandon’s role was technical review.</p>
<p>Tharisa Minerals – Chrome and Platinum Group Metals Mine development (2008)</p>	<p>This is a green field open pit and underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in North West, RSA. Brandon’s role was project manager.</p>
<p>International Finance Corporation (IFC) & Mitsubishi – annual review of Herculite Ferrochrome mine and smelter operations (2005, 2006, 2007)</p>	<p>As part of IFC funding conditions, SLR was appointed to undertake an Equator Principles/ IFC performance Standards environmental, social, waste, water and closure compliance review of all Herculite chrome mine and ferrochrome smelter assets. The project is in RSA. Brandon’s role was project manager.</p>
<p>BHP Billiton - sale of all RSA based Samancor Chrome Mine assets (2004)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of Eastern and Western limb chrome mine and ferrochrome smelter assets on behalf of one of the bidders. The project is in RSA. Brandon’s role was project manager.</p>

<p>International Ferro Metals (previously Transvaal Ferrochrome) – mine and smelter development (2003)</p>	<p>This is a green field underground mine and smelter project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in North West, RSA. Brandon’s role was project manager.</p>
<p>Mining Sector - Coal</p>	
<p>Anglo American Coal – Alexander Coal Mine development (2017-2018)</p>	<p>This is a green field underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>Thollie Logistics – Commissiekraal Coal Mine (2015-2018)</p>	<p>This is a green field underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>HGP Consulting – transactional due diligence for New Clydesdale Coal Mine (2013)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of two coal mining assets on behalf of HGP. The project is in Mpumalanga, RSA. Brandon’s role was project manager.</p>
<p>Leeuw Mining and Exploration – underground mine near Utrecht (2011)</p>	<p>This is a combined green and brown field underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>Keaton Energy – Vangatfontein Coal Mine (2008-2011)</p>	<p>This is a green field open pit mine and coal beneficiation project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. As a follow on to this pre permitting phase, SLR also provided two years of management and compliance support during mine development and operation. The project is in Mpumalanga, RSA. Brandon’s role was project manager.</p>
<p>Snowden Mining Industry Consultants – transactional due diligence work for Zululand Anthrocite Colliery and Brockwell Coal Colliery (2004)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of two coal mining assets on behalf of Snowden. The project is in KZN, RSA. Brandon’s role was project manager.</p>

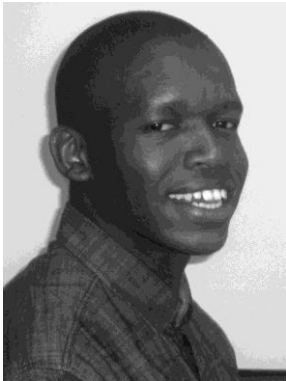
<p>Consolidated Mining Investments - Kitwe tailings retreatment project (2016 to 2018)</p>	<p>Mining Sector – Copper & Cobalt</p> <p>This is a brown field tailings reprocessing project that will enable recovery of copper and cobalt from existing tailings dams and the rehabilitation of multiple sites within the urban Kitwe area. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Kitwe, northern Zambia. Brandon’s role was technical review and project director.</p>
<p>Metorex & Standard Bank– Ruashi Mine compliance audits (annually from 2010 – 2017)</p>	<p>As part of bank funding conditions, SLR was appointed to undertake annual Equator Principles/ IFC performance Standards environmental, social, waste, water and closure compliance reviews of Ruashi Mine. The project is in southern DRC. Brandon’s role was project manager.</p>
<p>First Quantum & Standard Bank – Kansanshi Mine compliance audit (2014)</p>	<p>As part of bank funding conditions, SLR was appointed to undertake an Equator Principles/ IFC performance Standards environmental, social, waste, water and closure compliance review of Kansanshi Mine. The project is in northern Zambia. Brandon’s role was project manager.</p>
<p>Mining Sector - Diamonds</p>	
<p>BHP Billiton & Petra Diamonds – Alto Cuilo Diamond exploration project (2007)</p>	<p>SLR provided services for the environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Angola. Brandon’s role was technical review.</p>
<p>De Beers – Oaks Diamond Mine ISO14001 compliance and risk review (2004)</p>	<p>SLR was appointed to conduct an ISO14001 environmental and legal compliance and risk review. The project is in RSA. Brandon’s role was project manager.</p>
<p>Debswana – ISO14001 compliance audits for Orapa Mine (2002)</p>	<p>SLR was appointed to conduct an ISO14001 environmental system compliance audit. The project is in Botswana. Brandon’s role was project manager.</p>
<p>Mining Sector - Gold</p>	
<p>Taung Gold – Evander 6 Shaft development (2015 - 2018)</p>	<p>This is a green and brown field underground mine and beneficiation project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>Xstract Resources / Auroch – Manica Gold Mine development (2015 -2018)</p>	<p>This is a green and brown field mine and beneficiation project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Manica, Mocambique. Brandon’s role was technical review.</p>

<p>Taung Gold – Jeanette Gold Mine development (2016)</p>	<p>This is a green and brown field underground mine and beneficiation project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>LGL Equigold – Hire mine development (2010)</p>	<p>This is a green field open pit mine and beneficiation project. SLR provided services for the environmental impact assessment, management plan, and environmental permitting. The project is in Hire, Ivory Coast. Brandon’s role was a combination of project management and technical review.</p>
<p>Barrick Gold – South Deep Gold Mine tailings expansion (2007)</p>	<p>This is a brown field tailings expansion project. SLR provided services for the site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Gauteng, RSA. Brandon’s role was technical review.</p>
<p>Anglo Gold Ashanti – ERGO rubber waste management project (2002)</p>	<p>This is a brown field waste (rubber linings of tailings delivery pipelines) management and incineration project. SLR provided services for environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Gauteng, RSA. Brandon’s role was project manager.</p>
<p>Mining Sector - Manganese</p>	
<p>Tshipi e Ntle / Ntsimbintle - Tshipi Borwa mine development, expansion and closure planning (2009 – 2018)</p>	<p>SLR has worked on the initial green fields mine development project and multiple subsequent expansion projects including a strategic project to redefine the long term closure plan. In all of these projects SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The mine is in Northern Cape, RSA. Brandon’s role was a combination of project manager and technical review.</p>
<p>Imalivest – Mokala Mine development (2016 -2018)</p>	<p>This is a green field open pit project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Northern Cape, RSA. Brandon’s role was technical review.</p>
<p>Asia Minerals / Kudumane Manganese – Kudumane mine development (2014)</p>	<p>This is a green field open pit project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Northern Cape, RSA. Brandon’s role was technical review.</p>
<p>BHP Billiton, Samancor Manganese – environmental and social strategy development for Hotazel area (2008)</p>	<p>SLR was appointed to assist BHP Billiton with an environmental and social strategy for its future expansion plans in the greater Hotazel area. The project is in Northern Cape, RSA. Brandon’s role was project manager.</p>

<p>United Manganese of the Kalahari – UMK mine development (2007)</p>	<p>This is a green field open pit project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Northern Cape, RSA. Brandon’s role was project manager.</p>
<p>Mining Sector - Platinum</p>	
<p>Impala Platinum - Rustenburg Platinum mine and Marula Platinum multiple expansion projects (2003 to 2018)</p>	<p>SLR has worked on multiple expansion projects for Impala including: three open pit mine expansion projects, development of four new vertical shafts, expansion of the smelter complex, development of a new tailings dam, and development of new waste rock dump capacity. In all of these expansion projects SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The mines are in North West and Limpopo, RSA. Brandon’s role was project manager for most projects until 2011 and thereafter he has been in a technical review role.</p>
<p>Sedibelo / Platmin / PPM / Boynton -development of four adjacent mines (2007 – 2018)</p>	<p>The four (PPM, Sedibelo, Magazynskraal, and Kruidfontein) adjacent green field mines comprise a combination of open pit and underground mining with processing plants and associated facilities. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The mines are in North West, RSA. Brandon’s role was project manager for the 2007 mine development and technical review for the subsequent mine developments.</p>
<p>Glencore / Eland Platinum – development of Eland Platinum Mine (2006)</p>	<p>This is a green field open pit and underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in North West, RSA. Brandon’s role was technical review.</p>
<p>Anglo Platinum /RSG Global – transactional due diligence for Lebowa Platinum Mine (2006)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of the platinum mine. The project is in Limpopo, RSA. Brandon’s role was project manager.</p>
<p>Barplats Mines Limited – Crocodile River mine multiple expansion projects (2003 -2005)</p>	<p>SLR has worked on multiple expansion and exploration right projects for Barplats covering the following sections: Krokodildrift, Zandfontein and Maroelabult. In all of these projects SLR provided services for the environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The mine is in North West, RSA. Brandon’s role was a combination of project manager and technical review.</p>
<p>Lonmin Platinum – Eastern Platinum Mine ISO14001 system implementation (2003)</p>	<p>SLR was appointed to implement an ISO14001 environmental system for the underground, opencast, mineral processing and associated activities. The project is in North West, RSA. Brandon’s role was project manager.</p>

	<p>Mining Sector – Soda Ash</p>
<p>Anglo American Botswana Ash – ISO14001 system implementation (2002)</p>	<p>SLR was appointed to implement an ISO14001 environmental system for its brine extraction and soda ash production operations in Sua Pan. The project is in Botswana. Brandon’s role was project manager.</p>
	<p>Mining Sector - Uranium</p>
<p>A Cap Resources – Letlhakane Uranium Mine development(2014)</p>	<p>This is a green field open pit uranium mining project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Botswana. Brandon’s role was technical review.</p>
<p>Swakop Uranium – Husab Uranium Mine bank funding (2014)</p>	<p>As a follow on services to the environmental and social assessment and permitting (see below), SLR was appointed to manage the Equator Principles / IFC Performance Standards preparation for pre financing bank due diligence. The project is in Namibia. Brandon’s role was project manager.</p>
<p>Extract Resources/Swakop Uranium - Husab Uranium Mine development (2010 – 2013)</p>	<p>This is a green field open pit uranium mining project located within the Namib Naukluft National Park. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, environmental permitting. The project is in Namibia. Brandon’s role was project manager and public participation facilitator.</p>
<p>Paladin Energy – Langer Heinrich Uranium Mine stage three expansion (2009)</p>	<p>This project involved open pit mining, heap leach pad, processing plant, tailings and support infrastructure expansion. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, environmental permitting. The project is in Namibia. Brandon’s role was project manager and public participation facilitator.</p>
<p>Mantra Resources – Prefeasibility study for Mkuju River Mine (2008)</p>	<p>As part of a pre-feasibility technical study SLR was appointed to provide input into site selection and assess the environmental and social risk associated with developing this green fields open pit mine on the perimeter of the Selous Game Reserve. The project is in Tanzania. Brandon’s role was project manager</p>
<p>MEMBERSHIPS</p>	
<p>EAPAN</p>	<p>Environmental Assessment Professionals of Namibia (2012 to present)</p>
<p>EAPSA</p>	<p>Environmental Assessment Practitioners of South Africa (2005 to present)</p>
<p>Attorney</p>	<p>Admitted as an attorney of the High Court of South Africa (2000 to present)</p>
<p>PUBLICATIONS</p>	
	<p>Evaluation of sustainable development strategies in the mining sector. A research report submitted to the faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration. 2006</p>

CURRICULUM VITAE



CLIVE PHASHE

ENVIRONMENTAL INTERN

Environmental Management, Planning and Approvals,
Africa

QUALIFICATIONS

BSc 2016

Life and Environmental Sciences (with Geology and Environmental Management
Major from University of Johannesburg

EXPERTISE

- Stakeholder Engagement
- Public Participation Processes

Clive is an Environmental Intern with SLR and has over 1 year experience within the environmental consulting field. Clive has assisted in a variety of mining projects since joining the company.

PROJECTS

West Wits Mine (Current)

Project Assistant: (EIA/EMP) for the West Wits mining right application in Gauteng: West Wits MLI (Pty) Ltd.

Project Jordan (Current)

Project Assistant: Basic Assessment Report for Project Jordan, a new Maize Wet Mill Plant in Vereeniging.

Northam Platinum

Project Assistant: EIA and EMP for the relocation of a security perimeter and infrastructure footprint expansion at a BMR and Smelter complex in the Limpopo Province: Northam Platinum