Curriculum vitae: Mrs E RAUTENBACH

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Name	
Date of Birth	
Profession/Specialisation	
Years with Firm	
Nationality	
Years experience	

RAUTENBACH, ELIZABETH

08 March 1983 Environmental assessments 1 South African/Namibian 8

Key qualifications

Ilze is a certified environmental assessment practitioner who has been involved in a wide range of infrastructure development projects throughout South Africa and Namibia.

She has compiled a variety of environmental impact assessments (EIAs); environmental management plans (EMPs) and has undertaken various types of field research, data collection, site control inspections and public liaison. Her main fields of competence include telecommunication (cables, base stations and associated infrastructure), oil and gas (filling stations), property (shopping centres, housing developments, resort developments), agri-industrial (waste water treatment, wine cellars, bottling plants, boreholes, dams), municipal (waste water treatment plants, boreholes, desalination plants) and linear developments (pipelines, roads, power lines).

Ilze regularly acts as project manager and provides assistance and input with regard to EIAs and other environmental related issues. Some of these projects include the compilation of the EIA report, public participation process and acting as the environmental control officer (ECO) onsite during and post construction for the proposed 62 kilometre bulk water pipeline from Keimoes to Kenhard in the Northern Cape Province, the EIA and public participation process for the desalination plant in Lamberts Bay in the Western Cape Province, and the EIA and public participation process for various residential housing and resort development projects. She further completed over 150 telecommunication and various other projects across South Africa and Namibia.

She holds an MPhil degree in Environmental Management (2011) and a BSc (Hons) degree in Conservation Ecology (2005), both obtained from the University of Stellenbosch, South Africa. She also obtained a Project Management Certificate from the Cape Peninsula University of Technology (2007) to broaden her managerial skills in the field of Environmental Assessment.

Ilze is registered as a certified environmental assessment practitioner with the Environmental Assessment Practitioners Association of South Africa (EAPASA) and a professional member with the Southern African Institute of Ecologists and Environmental Scientists (SAIEES).

Employment record

02/2012 - Date	Aurecon, Environmental Consultant/Scientist
01/2011 - Date	EcoCore Environmental Consultants, Environmental Consultant
01/2008 - 12/2010	EnviroAfrica: Environmental Consultants, Environmental Consultant
12/2005 - 12/2007	EnviroMon: Meteorology and Environmental Services, Environmental
	Consultant/Meteorology Technician

Management experience

01/2009 - Date Senior Environmental Practitioner/Scientist

Experience record

Eenhana road construction upgrade (Namibia) 04/2013 - Date. Environmental Practitioner. The project entailed an environmental management plan (EMP) and onsite monitoring for the construction of certain roads for the town of Eenhana in Namibia. Responsible for writing of reports, public participation and onsite monitoring. Involved for 12 person-months. (Eenhana Town Council).

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Kalkfeld water supply extension (Namibia) 02/2013 - Date. Assistant Project Manager. The project entailed an environmental impact assessment (EIA) for the construction of water supply pipelines from farm boreholes for the town of Kalkfeld in Namibia. Responsible for writing of reports, public participation and research and client liaison. Involved for 8 person-months. (Namibia Water Corporation Ltd (NamWater)).

Labour based construction of DR3635 (Namibia) 02/2013 - Date. *Environmental Practitioner.* Design and construction of a 90 km gravel road by means of labour intensive methods. Responsible for writing of reports, public participation and onsite monitoring. Involved for 12 person-months. (Roads Authority (RA)).

Biogas facility in Keetmanshoop and/or Okahandja (Namibia) 11/2012 - 04/2013. *Sub-Consultant.* The project entailed an environmental feasibility study for the construction of a proposed biogas facility in Keetmanshoop and/or Okahandja in Namibia. Responsible for writing of environmental reports, research and client liaison. Involved for 6 person-months. (COWI).

Social and environmental impact assessment (SEIA) for the proposed mining of the Z20 uranium deposit (Namibia) 10/2012 - 05/2013. Assistant. Aurecon was appointed to undertake the SEIA to obtain the required environmental clearance certificates from the Namibian Ministry of Environment and Tourism: Directorate of Environmental Affairs. The SEIA includes the following activities: mining of the Z20 ore body including disposal of waste rock; an infrastructure corridor across the Khan River; production of sulphuric acid at Rössing; processing plant modifications; changes to the present tailings storage facility; and establishment of a new high density tailings storage facility on the Rössing Dome. Responsible for public participation, research and client liaising. Involved for 12 person-months. (Rio Tinto).

Aussenkehr bulk water supply scheme (Namibia) 02/2012 - 08/2012. Assistant Project Manager. The project entailed an environmental impact assessment (EIA) for the construction of a bulk water supply pipeline for the town of Aussenkehr in Namibia. Responsible for writing of reports, public participation, research and client liaison. Involved for 6 person-months. (Namibia Water Corporation Ltd (NamWater)).

Feedmill in Brakwater (Namibia) 04/2011 - 10/2011. *Assistant Project Manager*. The project entailed an environmental impact assessment (EIA) for the construction of poultry and cattle feed mill in Brakwater, Namibia. Responsible for writing of reports, public participation, research and client liaison. Involved for 6 person-months. (Feedmaster (Pty) Ltd).

Water Bottling Plant (Namibia) 03/2011 - 10/2011. *Assistant Project Manager*. The project involved an environmental impact assessment (EIA) for the relocation and construction of a beverages and water bottling plant in Brakwater, Namibia. Responsible for writing of reports, public participation, research and client liaison. Involved for 7 person-months. (Beverages).

Industrial development on Remainder 137 of the Farm Brakwater No 48 (Namibia) 03/2011 - 09/2011. Assistant Project Manager. The project comprised an environmental impact assessment (EIA) for the construction of various types of industrial type developments in a township setup (collaboration of bulk service infrastructure) in Brakwater, Namibia. Responsible for writing of reports, public participation, research and client liaison. Involved for 6 person-months. (Mr Schultz).

H&H Furniture Removals storage warehouse and truck service garage (Namibia) 03/2011 - 09/2011. Assistant Project Manager. The project entailed an environmental impact assessment (EIA) for the construction of a furniture storage warehouse and a truck services garage in Brakwater, Namibia. Responsible for writing of reports, public participation, research and client liaison. Involved for 6 personmonths. (H&H Furniture Movers).

Industrial development on Portion H of the Farm Brakwater No 48 (Namibia) 03/2011 - 09/2011. Assistant Project Manager. The project comprised an environmental impact assessment (EIA) for the construction of various types of industrial type developments in a township setup (collaboration of bulk service infrastructure) in Brakwater, Namibia. Responsible for writing of reports, public participation, research and client liaison. Involved for 6 person-months. (Waldscmidt Eggs).

Ujams wastewater treatment plant (Namibia) 02/2011 - 10/2011. *Project Manager.* The project entailed an environmental impact assessment (EIA) for the construction of a new industrial wastewater treatment works (WWTW) in Brakwater, Namibia. Responsible for project management, writing reports, public participation and client liaison. Involved for 8 person-months. (City of Windhoek Municipality).

Nakop Powerline (Northern Cape Province, South Africa) 10/2010 - 02/2011. *Project Manager.* The project entailed an environmental impact assessment (EIA) for the construction of a 22 kV Power line from Uppington to Nakop Boarder Post in Namibia. Responsible for project management, writing of reports, public participation and client liaison. Involved for 5 person-months. (Eskom Holdings Ltd).

Oak Valley Winery Development (Western Cape Province, South Africa) 09/2010 - 04/2011. Project Manager. The project involved an environmental impact assessment (EIA) for the construction of a winery and cellar for a vineyard estate in Grabouw. Responsible for project management, writing of reports, public participation and client liaison. Involved for 8 person-months. (Oak Valley Property Holdings (Pty) Ltd).

Vredevol Winery Development (Western Cape Province, South Africa) 06/2010 - 02/2011. *Project Manager.* The project comprised the environmental impact assessment (EIA) for the construction of a winery and cellar for a vineyard estate in Vredendal. Responsible for project management, writing reports, public participation and client liaison. Involved for 14 person-months. (Vredevol Winery).

Sparrenburg Farm Dam (Western Cape Province, South Africa) 05/2010 - 01/2011. *Project Manager.* The project comprised the environmental impact assessment (EIA) for the construction of a farm dam for irrigation of agricultural crops. Responsible for project management, writing reports, public participation and client liaison. Involved for 14 person-months. (Vredevol Winery).

Lamberts Bay Borehole (Western Cape, South Africa) 06/2010 - 11/2010. Project Manager. The project involved an environmental impact assessment (EIA) application for borehole water abstraction with pipeline infrastructure for the town of Lamberts Bay. Responsible for project management, writing of reports, public participation and client liaising. Involved for 5 person-months. (Cederberg Municipality).

Bulties Hamlet housing development (Western Cape Province, South Africa) 08/2010 - 12/2010. *Environmental Control Officer (ECO).* The project entailed the construction of a residential development in Somerset West. Responsible for writing reports and client liaison. Involved for 4 person-months. (Fusion Properties 364 CC).

Middelpos low cost housing development (Western Cape Province, South Africa) 08/2010 - 12/2010. *Project Manager.* The project entailed the construction of low cost housing in Middelpos. Responsible for project management, writing reports, public participation and client liaison. Involved for 4 person-months. (Saldanha Bay Municipality).

Lushof Dam enlargement (Western Cape Province, South Africa) 05/2010 - 12/2010. *Project Manager.* The project involved an environmental impact assessment (EIA) for the construction and enlargement of a farm dam for irrigation of agricultural crops. Responsible for project management, writing reports, public participation and client liaison. Involved for 7 person-months. (Graaff Fruit (Pty) Ltd).

Koekedouw Bulk Water Supply Pipeline (Western Cape, South Africa) 04/2010 - 10/2010. *Project Manager.* The project involved an environmental impact assessment (EIA) for the construction and upgrade of a section of the bulk water supply pipeline from Koekedouw Dam to Ceres Town. Responsible for project management, writing of reports, public participation and client liaising. Involved for 6 person-months. (Ceres Koekedouw Management Committee).

Keimoes low cost housing development (Northern Cape Province, South Africa) 03/2010 - 09/2010. *Project Manager.* The project involved an environmental impact assessment (EIA) for the construction of low cost housing in Keimoes. Responsible for project management, writing of reports, public participation and client liaison. Involved for 6 person-months. (Kai Garib Local Municipality).

Kakamas low cost housing development (Northern Cape Province, South Africa) 03/2010 - 09/2010. *Project Manager.* The project entailed an environmental impact assessment (EIA) for the construction of low cost housing in Kakamas. Responsible for project management, writing of reports, public participation and client liaison. Involved for 6 person-months. (Kai Garib Local Municipality).

Kenhardt low cost housing development (Northern Cape Province, South Africa) 03/2010 - 09/2010. *Project Manager.* The project entailed the construction of a low cost housing development in Kenhardt. Responsible for project management, writing reports, public participation and client liaison. Involved for 6 person-months. (Kai Garib Local Municipality).

Desalination Plant (Western Cape Province, South Africa) 01/2010 - 12/2010. *Project Manager.* The project comprised an environmental impact assessment (EIA) for the construction of a desalination plant and associated infrastructure to supply water to the town of Lamberts Bay. Responsible for project management, writing reports, public participation and client liaison. Involved for 12 person-months. (Cederberg Municipality).

Driefontein Resort Development (Northern Cape Province, South Africa) 07/2009 - 03/2010. Project Manager. The project entailed an environmental impact assessment (EIA) for a resort development in Southerland on low economical sheep farmland. Responsible for project management, writing of reports, public participation and client liaison. Involved for 8 person-months. (Mervede Trust).

Paternoster wastewater treatment plant (Western Cape Province, South Africa) 11/2009 - 11/2010. *Project Manager.* The project comprised an environmental impact assessment (EIA) for the construction of a new wastewater treatment works (WWTW) in Paternoster. Responsible for project management, writing of reports, public participation and client liaison. Involved for 12 person-months. (Saldanha Bay Municipality).

Vredendal North wastewater treatment plant (Western Cape Province, South Africa) 10/2009 - 09/2010. Project Manager. The project entailed an environmental impact assessment (EIA) for the upgrade of the existing wastewater treatment works (WWTW) in Vredendal North. Responsible for project management, writing of reports, public participation and client liaison. Involved for 11 person-months. (Matzikama Municipality).

Avontuur Estate bottling facility (Western Cape Province, South Africa) 05/2009 - 02/2010. Assistant *Project Manager.* The project entailed an environmental impact assessment (EIA) for the construction of a water bottling facility on Avontuur Vineyard Estate. Responsible for project management, writing reports, public participation and client liaison. Involved for 9 person-months. (Avontuur Estate (Pty) Ltd).

Kathu Village Walk Development: commercial development (Northern Cape Province, South Africa) 09/2009 - 04/2010. *Project Manager.* The project entailed an environmental impact assessment (EIA) for bulk service infrastructure to be constructed in Kathu. Responsible for project management, writing of reports, public participation, client liaison and running of entire project. Involved for 6 person-months. (Bervedere Investments (Pty) Ltd).

Kathu Village Walk Development: residential housing development (Northern Cape Province, South Africa) 08/2009 - 01/2010. *Project Manager.* The project comprised an environmental impact assessment (EIA) for the construction of low cost housing in Kakamas. Responsible for project management, writing of reports, public participation and client liaison. Involved for 6 person-months. (Bervedere Investments (Pty) Ltd).

Kathu Village Walk Development: road development (Northern Cape Province, South Africa) 06/2009 - 11/2009. *Project Manager.* The project involved an environmental impact assessment (EIA) for the construction of a road for the Kathu Village Walk Mall development. Responsible for project management, writing of reports, public participation and client liaison. Involved for 5 person-months. (Bervedere Investments (Pty) Ltd).

Boreholes for the Trawal Fresh Fruit Company (Western Cape Province, South Africa) 02/2009 -08/2009. *Project Manager.* The project comprised an environmental impact assessment (EIA) application for borehole water abstraction with pipeline infrastructure for agricultural fruit trees. Responsible for project management, writing of reports, public participation and client liaison. Involved for 6 person-months. (Trawal Fresh Fruit Company (Pty) Ltd).

Over 250 telecommunication base station developments in Western-, Eastern- and Northern Cape Provinces (South Africa) 01/2008 - 02/2012. Project Manager. The project entailed telecommunication base station developments. Responsible for project management, writing of reports, public participation and client liaison. Involved for 6 person-months. (Vodacom / Cell-C / MTN / WBS / Telkom).

Keimoes to Kenhardt bulk water supply pipeline (Northern Cape Province, South Africa) 08/2008 - 06/2010. *Project Manager.* The project comprised of an environmental impact assessment (EIA) for the construction of a bulk water supply pipeline from Keimoes to Kenhardt. Responsible for project management, writing of reports, public participation and client liaison. Involved for 12 person-months. (Kai Garib Local Municipality).

Elephant Creek Resort Development (Western Cape Province, South Africa) 04/2007 - 11/2007. *Project Manager.* The project comprised an environmental impact assessment (EIA) for a resort development in Clanwilliam on a low economical farmland. Responsible for report writing, public participation and research. Involved for 8 person-months. (Elephant Creek Resort).

Tokai and Cecilia Table Mountain environmental management framework (Western Cape Province, South Africa) 10/2006 - 10/2007. *Project Manager.* The project entailed an environmental management framework (EMF) for Tokai and Cecilia National Parks. Responsible for report writing, public participation and research. Involved for 12 person-months. (South African National Parks (SANParks)).

Education

2011	:	MPhil (Environmental Management), University of Stellenbosch, South Africa
2005	:	BSc Hons (Conservation Ecology), University of Stellenbosch, South Africa

Career enhancing courses

2012	:	Certificate course on Environmental Science in the Namib, The Uranium Institute (The
		Chamber of Mines)
2007	:	Project Management Certificate, Cape Peninsula University of Technology (CPUT), South Africa

Professional affiliations

Certified Environmental Assessment Practitioner, Environmental Assessment Practitioners Association of South Africa (EAPASA)

Professional Member, Southern African Institute of Ecologists and Environmental Scientists (SAIEES)

Languages

	Reading
English	Excellent
Afrikaans	Excellent

Writing Excellent Excellent Speaking Excellent Excellent

Research projects

Rautenbach E, 2011. <u>"Dynamics on Home Range Development of Trans-located Cheetah and Leopard into unfenced Novel Environments in Namibia"</u>. Mini-thesis.

<u>Referees</u>

Company EnviroAfrica cc Environmental Consultants	Contact Person Mr Bernard de Witt	Telephone nr. +27(0)82 448 9991 / bernard@enviroafrica.co.za	
EnviroMon, Meteorology and Environmental Monitoring	Mr Glen Roberts	+27(0)83 229 7570 / glen@weather-tracker.co.za	
Geostratics, Town planning and Environmental Consultants	Mrs Sarien Lategan	+27(0)82 468 6448 / sarien@geostratics.co.za	

By my signature below I certify the correctness of the information above and my availability to undertake this assignment.

Signature of Staff Member

Date