

# **Curriculum Vitae**

**OF**

**ELZABÈ TRUTER**

## **Personal Details**

Nationality : South African (RSA)  
Gender : Female  
Date of birth : 16 November 1958  
Home language : Afrikaans  
Other language : English

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## **Employment Record / History**

- 1. ISO-LAB Consulting cc.**                      **01-04-2008 to Current**  
Position in Company:                      ***Sole Member / Owner:*** Implementation and Maintenance of Laboratory Quality Management Systems, Training, Internal Auditing
- 2. CSIR, NRE Microbiology Laboratory**                      **15-02-2015 to Current (Independent Contractor)**  
Position in Organisation:                      ***Quality Manager:*** Implementation, Management and Maintenance of Quality Management System
- 3. Sibonisiwe Coal Laboratory Services**                      **01-03-2012 to Current (Independent Contractor)**  
Position in Company:                      ***Quality Facilitator:*** Assist with implementation and maintenance of Quality Management System, Training, Internal Auditing
- 4. CSIR, Consulting and Analytical Services**                      **01-03-2010 to 31-12-2013 (Independent Contractor)**  
Position in Organisation:                      ***Quality Manager:*** Microbiology, Chemistry (Food and Water)
- 5. Magalies Water - Vaalkop Purification Plant**                      **01-07-2012 to 31-05-2014 (Independent Contractor)**  
Position in Organisation:                      ***Quality Facilitator:*** Assist with Implementation and Maintenance of Quality Management System, Training, Internal Auditing
- 6. CSIR, Consulting and Analytical Services:**                      **01-05-2008 to 31-07-2008 (Independent Contractor)**  
Position in Organisation:                      ***Laboratory Manager:*** Microbiology  
***Quality Manager:*** Environmental Laboratories
- 7. CSIR, Environmentek: (Pretoria)**                      **01-10-2001 to 30-04-2008**  
Position in Organisation:                      ***Laboratory Manager:*** Microbiology  
***Quality Manager:*** Water Laboratories
- 8. Department of Water Affairs and Forestry, IWQS:**                      **05-01-1977 to 30-09-2001**  
Position in Organisation:                      ***Head of Laboratory:*** Biology (Microbiology, Hydrobiology, Aquatic Toxicity)  
***Deputy Quality Manager:*** Chemistry and Biology Laboratories

## **Education and Professional Status**

- High School Wonderboom, Pretoria. (Matric) **Dec 1976**
- Pretoria Technikon. (N. Dip Microbiology) **Jan 1980**

**Major subjects:** Microbiology, Haematology, Virology, Histology, Parasitology, Mycology and Biochemistry.

- Number of Water Affairs courses, including Junior and Middle Management.
- Number of CSIR courses, including Financial Management and Project Management.
- Attended a variety of courses, workshops and seminars on microbiology and toxicity (WISA, SASAQS, NLA, UP etc.).
- Co-operative work – CSIR, RAU and Rhodes University - Toxicity testing.
- Representative on a number of Water Research Commission (WRC) projects.
- StanSA Committee Representation on Laboratory Equipment, Chemical and Biological Standards.
- **Short course on the role and use of aquatic biomonitoring, CSIR and IWQS**, 1997 - Presented laboratory demonstration and practical sessions on toxicity testing.
- **Introductory Course in Applied Aquatic Toxicology, CAT-IWR, Rhodes University**, 2001 - Presented demonstration and practical sessions on fish and *Daphnia* toxicity tests. 2004 and 2005 - Lecturer on Quality Assurance and Control in Aquatic Toxicity Laboratories.
- **Introductory Course in Water Microbiology, CSIR** – Coordinate (Project Leader) and presented practicals as well as part of theory.
- **Technical Advisor** - Microbiology Proficiency Testing Scheme (National Laboratory Association - NLA).
- **Microbiology Practical Course:** National Laboratory Association-SA (2011 to current).
- **Microbiology Method Validation Practical Course:** National Laboratory Association-SA (2017 to current).

## **General Experience**

- Extensive experience in environmental analysis, particularly biological and microbiological analysis – 35 years.
- Extensive experience in development, evaluation and validation of biological and microbiological analytical methods as well as aquatic toxicity bioassays.
- Extensive experience in the breeding, culturing and maintenance of various organisms to be used in aquatic toxicity tests.
- Experience in acute and chronic aquatic toxicity testing with various test organisms.
- Experience in chemical analysis, quality control and method validation.

- Implementation and maintenance of Laboratory Quality Management System (ISO 17025): Chemical, microbiology (water and food), biology and toxicity laboratories.
- Project leader for a number of CSIR projects related to microbiological analysis of water.
- General microbiological analysis, procedures and techniques.
- Identification of microscopic freshwater algae.
- Evaluation of efficacy of purification/filter systems and chemicals/biocides.
- Veterinary microbiological methods, procedures, validation and quality control.
- Food and water microbiological methods, procedures, validation and quality control.

#### **Laboratory Accreditation (ISO/IEC 17025) Experience**

- Successfully completed Laboratory Systems Course – 1999.
- Attended Internal Auditing Course – 1999.
- Attended ISO/IEC 17025 conversion course – 2001.
- Successfully completed Assessing Techniques course – 2002.
- Attended ISO Guide 43 Workshop – 2002.
- Attended CMeTSA (NLA) Quality Aspects in Microbiology – 2004.
- Compiled IWQS (Water Affairs) Biology Laboratory Methods and SOP manuals.
- Conducted internal audits (ISO 17025, ISO 9001).
- Training and mentoring of personnel, microbiology, aquatic toxicology and chemistry.
- Implementation and Maintenance of Laboratory Quality Management Systems – ISO 17025.
- Assisted in compiling the IWQS (Department of Water Affairs) Quality Policy and Procedures Manual for compliance with ISO/IEC 17025.
- Compiled Quality and Procedures Manuals for CSIR, NRE (Pretoria) according to ISO/IEC 17025.

#### **ISO 9001 Quality System Experience**

- Successfully completed Internal Auditing Course – 2003.
- CSIR Internal Auditor.

#### **Publications and Posters**

- Author and co-author of 13 internal IWQS (Water Affairs) reports.
- An aid to the identification of the dominant and commonly occurring genera of algae observed in some South African impoundment's (1987). Technical Report, TR135, Department of Water Affairs, RSA. (author)

- Poster at LSSA Conference, 1988. Identifying and Classifying Microscopic Algae. (author)
- Effect of cadmium and copper on survival and reproduction of *Daphnia pulex*. Water SA, vol. 19, no 4, 1993. (co-author)
- An aquatic toxicological evaluation of Fention in the context of finch control in South Africa. Ecotoxicology and Environmental Safety, 31, 1995. (co-author)
- Poster at SASAQS Conference, 1995. An Aquatic Toxicological Evaluation of Fention in the context of finch control in SA. (co-author)
- Paper at Aquatic Systems & International Symposium on Exploring the Great Lakes of the World, 1996. Intrinsic toxicity in experimental design and water quality guidelines. Case study: in vitro determination of zinc toxicity to *Daphnia pulex* as a function of chemical speciation. (co-author)

#### **CSIR (Internal Reports)**

- **ENV-P-I 2003-017:** Implementation of Procedures for Testing of Micro-organisms Required for Validation and Monitoring of Medical Waste Non-burn Technologies (author).
- **ENV-P-I 2004-001:** Method Validation (Prior to Accreditation). Faecal Streptococci Bacteria, *Salmonella* Detection, Somatic Coliphage Detection and Enumeration, Enumeration of *Escherichia coli* Bacteria (author).
- **ENV-P-I 2005-009:** Training of Microbiological Laboratory Staff (author).
- **ENV-P-I 2005-008:** Method Validation (Prior to Accreditation). Faecal *Clostridia* Bacteria, *Pseudomonas spp.*, Yeast and Moulds (author).

#### **REFERENCES FOR CONSULTING WORK (ISO-LAB Consulting) 2008 to Current**

1. **Buckman Laboratories (Pty) Ltd (2008, 2009, 2015, 2016)**  
Assisted with implementation of ISO 17025:2005, training and internal audits  
Microbiology Method Validation Course, ISO 17025:2005 Training, Root Cause Analysis Training  
Contact Person: Ms Ellie Rava (Technical Specialist) 083 397 8524
2. **City of Tshwane – Rietvlei Laboratory (2008)**  
Assist with implementation of ISO 17025:2005  
Contact Person: Ms LZ Coetzee (Deputy Director) 012 358 8103
3. **CSIR, Consulting and Analytical Services, Rope Testing Laboratory (2009 – 2010)**  
Implementation of ISO 17025:2005  
Contact Person: Mr Andrew Peak (Business Manager) 011 482 1300
4. **Department of Water Affairs – Resource Quality Services (2008, 2015)**  
Training - Internal Auditing, Root Cause Analysis Workshop, Method Validation Course  
Contact Person: Ms Esna Portwig (Assistant Director) 012 808 9500

**5. EnviroCare (2009)**

*Internal Audit*

Contact Person: Ms Ilse Simpson (Laboratory Manager) 084 7906 971

**6. Namibian Standards Institution (NSI) (2009, 2013, 2014, 2015, 2016)**

*Assist with Implementation of ISO 17025:2005, training, internal audits*

Contact Person: Ms Cecilia Hinda (General Manager) +264 613 86400

**7. University of Pretoria (2008, 2009)**

*Project Member - Water Research Commission Project on Quality Control and Assurance Guideline for South African Toxicity Testing Laboratories*

Contact Person: Ms Annette Venter (Project Leader) 012 529 8031

**8. Metchem Laboratories cc. (2009, 2014)**

*Evaluate/assess documentation and implementation of Quality Management System (ISO 17025:2005)*

Contact Person: Ms Madeleine Boshoff (Owner/Manager) 014 538 2597/8

**10. Swaziland Water Services Corporation (2009, 2017)**

*Internal Audit, Root Cause Analysis Training*

Contact Person: Mr Musa Shongwe (Laboratory Manager) +268 404 1136

**11. ESKOM HOLDINGS (2009 to 2012, 2014, 2016)**

*Microbiological method development, internal audits validation and staff training*

Contact Person: Ms Dipuo Chaha (Laboratory Manager) 011 6295339

**12. Lepelle Northern Water (2010 – 2011, 2013)**

*Implementation of ISO 17025:2005, training, internal audits*

Contact Person: Ahuiwi Netshidaulu (Operational Risk and Quality Manager) 015 295 1937

**13. CSIR, Consulting and Analytical Services (2010 to 2013)**

*Quality Manager (Independent Contractor). Internal audits (2014, 2015, 2016)*

Management and maintenance of Quality System (ISO 17025:2005) for Environmental, Food and Beverage Laboratories

Contact Person: Mr Gerhard Smith (General Manager)

**14. National Laboratory Association (NLA), South Africa (2010 to current)**

*Microbiology Practical Course (Water & Food): Presenter*

*Microbiology Practical Method Validation Course (Water & Food): Presenter*

Contact Person: Mr Steve Sidney 012 3491500

**15. POHL Consulting & Associates – Germany (2010)**

*Support to SADC Member States in Standardisation, Quality Assurance, Accreditation and Metrology (SQAM Project)*

Provision of Technical Expertise to SADC Secretariat (EuropeAid Short Term Assignment)

Contact Persons: Mr Mike Mc Nerney +267 74780602; Mr Damir Azenic +4930 200892016

**16. uThukela Water (2010)**

*Assist with implementation of ISO 17025:2005, training, internal audits*

Contact Person: Ms H Hickley (034) 3285000

**17. KOBWA (Komati Basin Water Authority – Swaziland (2011)**

*Training – Microbiological Techniques*

Contact Person: Ms Kenzie Mavimbela (00268) 4373353

**18. Magalies Water - Vaalkop (2011)**

*Training, Internal audit – ISO 17025:2005*

Contact Person: Ms Lerato Morake 012 277 1290

**19. Foodcorp (Gullfoods, RCL Foods) (2011, 2016, 2017, 2018)**

*Training, Internal audit – ISO 17025:2005, Microbiology Practical Training, Root Cause Analysis, Internal auditing training*

Contact Person: L Hlangwane (013) 933 6179

**20. Aspen Nutritionals (2011 to 2016)**

*Training, Implementation of ISO 17025:2005, Chemistry and Microbiology Internal Audits (Quality System and Microbiology)*

Contact Person: Ms Shona Williams 011 206 9512

**21. Waterlab (2012, 2013)**

*Internal audit, training (microbiology) – ISO 17025:2005*

Contact Person: Mr Louis de Wet 012 349 1066

**22. Sedibeng Water (2012, 2013, 2014, 2015, 2016, 2018)**

*Internal audits – Quality System and Microbiology Laboratory – ISO 17025:2005 ISO 17025:2017 Training Course*

Contact Person: Malu Magwaza 056 515 0200

**23. Valid Nutrition – Malawi Factory (2012)**

*Training – Microbiology Techniques and Good Laboratory Practices*

Contact Person: Mr David Morgan +44 (0) 7590 050638

**24. Magalies Water - Vaalkop Purification Plant (2012 to 2014)**

*Implementation of ISO 17025:2005, Microbiology and Chemistry*

Contact Person: Ms Lerato Morake 012 277 1290

**25. Sibonisiwe Coal Laboratory Services (2012 to current)**

*Implementation and Maintenance of ISO 17025:2005, Training, Internal Audits*

Contact Person: Mr Haping Masuku 082 419 5803

**26. HBS Aluminium Systems – Test Centre (2012 to 2014)**

*Implementation of ISO 17025:2005, Training, Internal Audits*

Contact Person: Mr Jim Jorgenson 011 626 3330

**27. Ethekwini Municipality (2013)**

*In-house Microbiology Training*

Contact Person: Mr Nhlanhla Dlamini 031 311 3595

**28. ESKOM Textile and Mechanical Laboratories (2013 to 2017)**

*Implementation of ISO 17025:2005, Training, Internal Audits*

Contact Person: Ms S Nassiep 011 629 5353

**29. Vinlab Laboratories (2013)**

*In-house Microbiology Training*

Contact Person: Ms H Smit 021 882 886

**30. CS Veterinary Laboratory (2013, 2014, 2015, 2016)**

*Internal audits of Quality Management System*

Contact Person: Dr A Labuscagne 012 460 9385

- 31. Metron Laboratory (2013, 2015, 2016)**  
*Compiling of Quality Manual and forms, Training – ISO 17025:2005*  
*Assist with implementation of Quality Management System*  
Contact Person: Mr Johan Fourie 0836528287
- 32. ISO Quest Quality Management Consultants (2013)**  
*ISO 17025:2005 Training*  
Contact Person: Mr Wayne Sherriff 083 449 6262
- 33. Thule Towing Systems (2013)**  
*GAP Analysis / audit ISO 17025:2005*  
Contact Person: Mr Mark Gutridge 083 449 6261
- 34. CSIR Parasitology Laboratory (2014 to current)**  
*Implementation of ISO 17025:2005 Quality Management System (Contracted Quality Manager)*  
Contact Person: Mr Wouter le Roux 012 84112189
- 35. IMPLABS (2014, 2015)**  
*Compiling of Quality Manual, Training – ISO 17025:2005, Implementation of ISO 17025:2005 Quality Management System*  
Contract Person: Dora Sharp 011 421 9026
- 36. Vaal University of Technology - AMBIO (2014)**  
*Evaluation of Aquatic Toxicity Test Methods*  
Contact Person: Christa van Wyk 016 950 6644
- 37. Buffalo City Metropolitan Municipality (2014)**  
*Evaluation of Laboratory Operation for ISO 17025:2005*  
Contact Person: Dali Jozana 043 705 9381
- 38. Links Consulting (2014 to Current)**  
*Facilitate / Present Training Course: Best Practice in Validation of Methods for Microbiology Laboratories, Root Cause Analysis Training Courses*  
Contact Person: Susan Sibeko 071 7495 453
- 39. Agriconsulting Europe S.A. Brussels (2014)**  
*Strengthening the capacity of RBS conformity assessment services towards Accreditation in Rwanda. EuropeAid 132552D/SER/Multi. Provision of Technical Expertise: Evaluation and Training at Rwanda Standards Board*  
Contact Person: Claudia Schiattarella +32 2 737 92 88
- 40. Uthukela Municipality (2014 – 2015)**  
*Implementation of ISO 17025:2005 Quality Management System, Training*  
Contact Person: Cindy Coetzee 082 904 6115
- 41. Enviroserv Waste Management (2014, 2016, 2017, 2018)**  
*Internal Audit ISO 17025 – Quality Management System, Chemical Methods*  
Contact Person: M Patel 011 456 5400
- 42. Water Utilities Corporation, Botswana (2015, 2016, 2018)**  
*In-house Training: Water Microbiology Practical Course*  
*Method Validation Course, Root Cause Analysis*  
Contact Person: Ronald Gaelekolwe Samaxa +267 397 5179



**43. AEL Mining Services (2015 - Current)**

*Implementation of ISO 17025:2005 Quality Management System and Training*

Contact Person: Gerda Berga 11 606 0556

**44. Siza Coal Services (2015)**

*In-house Microbiology Practical Training Course (Water)*

Contact Person: Phumla Mahlangu 013 246 2733

**45. Unido Project (2015)**

*Training on Microbiology Method Validation*

Trade Capacity Building for Exports in Namibia

**46. PathCare (2016, 2017)**

*Training on Microbiology Method Validation, ISO 17025:2005*

Contact Person: Eric Spencer 021 595 4121

**47. University of the Free State (2015, 2016)**

*Assistance with Method Validation Procedures and Reports, Implementation of ISO 17025:2005 QMS, Training*

Contact Person: Wanda Geyer, Prof B Viljoen 051 401 2317

**48. Breeriviervallei Bottelingskoöperasie Beperk (2015)**

*ISO 17025:2005 Training*

Contact Person: Cynthia Magerman 023 342 2105

**49. International Diagnostic Laboratory (2016, 2017)**

*ISO 17025:2005 Training, Assist With Implementation, Internal Audits – System and Technical*

Contact Person: Dr C Henderson 083 659 3603

**50. Central Analytical Laboratories (2016)**

*Internal Audit (Serology Laboratory)*

Contact Person: J Otto 011 474 7450

**51. Fountain Chemicals (2016)**

*ISO 17025:2005 Training*

Contact Person: P Human 011 316 7431

**52. Skeiron Environmental Solutions (2016)**

*ISO 17025:2005 Training, Implementation of ISO 17025:2005 QMS*

Contact Person: C Martins [skeiron.es@gmail.com](mailto:skeiron.es@gmail.com)

**53. Amatola Water (2015, 2016)**

*Microbiology Practical Training Course*

*Root Cause Analysis Work Shop*

Contact Person: V Fatyela 043 709 3765

**54. International Atomic Energy Agency (2016)**

*Regional (AFRA) Training Course on Measurements Uncertainty and Microbial Food Hazard Analysis. Conducted at Namibian Standards Institution (NSI), Walvis Bay*  
Contact Person: C Hinda +264 (0) 61 386448

**55. Botswana Meat Commission (2016)**

*Microbiology Method Validation Course*  
Contact Person: Ditolo Phoi +267 5330321

**56. Famous Brands (2016)**

*Microbiology Method Validation Course*  
Contact Person: Mmapula Thambo 011 315 3000

**57. Omnia Fertilizer (2016, 2018)**

*Microbiology Method Validation Training, Internal Auditing*  
Contact Person: V Moodley 016 970 7467

**58. South African Weather Services (2017)**

*Root Cause Analysis Training*  
Contact Person: Ms N Mavimbela 012 367 6150

**60. SAI Global (2016)**

*Microbiology Method Validation Training*  
Contact Person: Jean Paul Swanepoel (011) 397 6249

**61. Mauritius Standards Bureau (2017)**

*Consulting, Microbiology Method Validation and Measurement Uncertainty*  
Contact Person: C Baichoo (230) 433 3648

**62. Indian Ocean Tuna LTS (2017)**

*ISO 17025:2005 Training*  
Contact Person: Marzena Twardowska 248 (0) 2636 620

**63. SGS South Africa (2017)**

*Microbiology Method Validation and UM Training Course*  
Contact Person: M Keri 011 681 2500

**64. International Atomic Energy Agency (2017)**

*Regional (AFRA) Training Course on Food Microbiology Testing Central Veterinary Research Laboratory Center (CVRL), Sudan*  
*Regional (AFRA) Training Course on Measurement Uncertainty and Microbial Food Hazard Analysis, Namibia*  
Contact Person: R Jaquich [r.jaquich@iaea.org](mailto:r.jaquich@iaea.org)

**65. UNIDO (2017)**

*Market access and trade facilitation support for Swaziland, through conformity assessment infrastructure development: Microbiology Method Validation Course and Implementation of ISO 17025:2005*  
Contact Person: Elsie Meintjies [E.MEINTJIES@unido.org](mailto:E.MEINTJIES@unido.org)

**66. Municipal Council of Mbabane (2017, 2018)**

*Implementation of ISO 17025:2005, Training - Root Cause Analysis*  
Contact Person: L Lukhele +268 2409 7093