



**DETAILS OF SPECIALIST AND DECLARATION OF INTEREST IN TERMS OF REGULATIONS 12 AND 13 OF THE AMENDMENTS TO THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 AS AMENDED.**

(For official use only)

File Reference Number:

NEAS Reference Number:

Date Received:

Application for environmental authorization in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Amendments to the Environmental Impact Assessment Regulations, 2014. This form is valid as of 6 January 2021.

**PROJECT TITLE**

PROPOSED WATER SUPPLY SCHEME FOR NGQONDO VILLAGE, EASTERN CAPE.

SPECIALIST <sup>1</sup>

Contact person:

Postal address:

Postal code:

Telephone:

E-mail:

Professional affiliation(s) (if any)

Barry Millstead Geological Services (Pty) Ltd

Dr Barry Millstead

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Palaeontological Society of South Africa  
Australasian Palaeontologists  
Fellow Geological Society of Southern Africa  
Fellow Geological Society of Australia  
Fellow Australasian Institute of Mining and Metallurgy



Project Consultant:	Indwe Environmental Consulting		
Contact person:	Megan Hugo (Registered EAP- EAPASA No. 2019/1530)		
Postal address:	2 Ayr Place, Bonnie Doon, East London		
Postal code:	5247	Cell:	082 259 3981
Telephone:	043 555 0656	Fax:	n/a
E-mail:	megan@indwecon.co.za		

## 4.2 The SPECIALIST

I, Barry Millstead, declare that –

General declaration:

- I act as the independent Specialist in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;

- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence and is punishable in terms of section 24F of the Act.

**Disclosure of Vested Interest (delete whichever is not applicable)**

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Amendments to Environmental Impact Assessment Regulations, 2014 as amended.

*[Handwritten Signature]*

Signature of the specialist:

Barry Millstead Geological Services (Pty) Ltd

Name of company:

~~2/12/2025~~ *27/2/26*

Date:

Signature of the Commissioner of Oaths:

*[Handwritten Signature]* 26673452  
CST

*2026-02-27*

Date:

*constable*

Designation:

<sup>1</sup> Curriculum Vitae (CV) attached

Official stamp (below).





## Annexure 1

### CV

# Resumé: Dr Barry Dean Millstead

**Postal address:**

P.O. Box 29862  
Sunnyside  
0132  
South Africa

**Phone:**

(South Africa): +27 (0)79 626 9976

**E-mail:** bmgeoserv@gmail.com

**Website:** www.millsteedgeological.com

**Qualifications**

BSc Geology (Hons), University of Wollongong, Australia, 1982 -1985

PhD Geology, University of Queensland, Australia, 1986 - 1997

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**Professional Institutes**

South African Council for Natural Scientific Professions (SACNASP; Reg No 400332/07)

Fellow of the Australasian Institute of Mining and Metallurgy

Fellow of the Geological Society of South Africa

Fellow Geological Society of Australia

Paleontological Society of South Africa

Australasian Palaeontologists

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**Professional Experience****Various: 2006 - Present**

**Position:** Principle and consulting geologist

**Role:** Principle of Barry Millstead Geological Services (Pty) Ltd (South Africa)

Principle of BM Geological Services (Africa)

Principle Barry Millstead Geological Services (Australia)

**University of Limpopo:** April 2020 – March 2022

**Position:** HoD Dept of Geology and Mining / Associate Professor

**Role:** Management and academic leadership of the Department of Geology and Mining. Participation in all levels of university management up to, and including Senate. Development and presentation of diverse academic modules up to and including postgraduate level.

**University of Limpopo:** 2014-2016

**Position:** Associate Professor

**Role:** Conducting research in stratigraphy, palaeontology, and general geology. Present diverse courses to students at all study levels, but inclusive of:

- Geological mapping;
- Stratigraphy and the geological evolution of Africa;
- Mineral exploration theory, resource evaluation,
- South African mineral law,
- Social, health and environment law in geology.
- Participation in various field excursion learning programs;
- Postgraduate supervision;
- To assist with the academic administration of the department and to provide academic leadership to students and junior staff members.

### **Palaeontology consulting projects**

- **2025 Full Palaeontological Impact Assessment Report concerning the installation of a Diesel Tank Storage Facility, at Saffron Investments (Pty) Ltd, Sasolburg, Free State Province**

Full Palaeontological Impact Assessment report on the site of a diesel tank storage facility, at Saffron Investments (Pty) Ltd, Sasolburg, Free State Province

- **2025 Full Palaeontological Impact Assessment, Nqando water reticulation project, Eastern Cape Palaeontological Heritage Impact assessment report on the site of a water reticulation project centred around Nquando Village, Eastern Cape Province.**

Full Palaeontological Impact Assessment Report on the proposed site of a water reticulation project centred around Nquando Village, Eastern Cape

- **2025 Full Palaeontological Impact Assessment, Ngqamakhwe water reticulation project, Eastern Cape**

Palaeontological Heritage Impact assessment report on the site of a water reticulation project centred around Ngqamakhwe Village, and numerous other villages and townships, Eastern Cape Province

- **Palaeontological Heritage Impact Assessment Report on two proposed sites for the construction and operation of a CO<sub>2</sub> Liquefied Gas Liquefaction Plant within the Alconcp Factory, Durban, KwaZulu-Natal**

Full Palaeontological Impact Assessment Report on two proposed sites for the construction of a CO<sub>2</sub> gas liquefaction plant, Durban, KwaZulu-Natal.

- **Full Palaeontological Heritage Impact Assessment Report on the site of the proposed Valco Power Liquefied Natural Gas Storage and Regasification plant within the Arcelormittal South Africa facility, near Vanderbijl Park, Gauteng Province**

Full Palaeontological Heritage Impact Assessment Report on the site of the proposed construction of a gas storage and regassification plant, Gauteng Province.

- **2024 Palaeontological Impact Assessment Report, Gauteng**

Phase 2 Palaeontological Heritage Impact Assessment Report on the site of the proposed Air Products South Africa (Pty) Ltd Industrial development on farm Driefontein 002 Ptn 3, near Sasolburg, Free State Province

- **2024 Palaeontological Impact Assessment Report, Gauteng**

Palaeontological Heritage Impact assessment report on the site of National Ceramics Industries Limited's proposed coal gasification project on farm Leeuwkraal 92 Ptn 9, at Babelegi, near Hammanskraal, Gauteng province

- **2024 Palaeontological Impact Assessment Report, Gauteng**

Palaeontological Heritage Impact Assessment Report on the site of the proposed National Ceramics Industries, Vereeniging Supplementary Gas Supply Project on farm Vanderbijl Park 550 Ptn 5, near Vanderbijl Park, Gauteng Province

- **2024.. Palaeontological Impact Assessment Report, Mpumalanga**

Palaeontological Heritage Impact Assessment Report on the site of the proposed site of the construction of a 70ha solar photovoltaic plant on an area within the Vaalbult Colliery Mining Right area, Mpumalanga

- **2024 Palaeontological Impact Assessment Report, Mpumalanga**

Palaeontological Heritage Impact Assessment Report on the site of the proposed Sasol industrial development on farm Driefontein 002 Ptn 3, near Sasolburg, Free State Province

- **2023 Palaeontological Impact Assessment Report, Mpumalanga**

Annual Palaeontological Monitoring Report (December 2023) on Vaalbult Colliery pit located on Portions 1, 9 and 10 of the farm Vaalbult 3 IT, Mpumalanga Province.

- **2022 Palaeontological Impact Assessment Report, Mpumalanga**

Annual Palaeontological Monitoring Report (September 2022) on Vaalbult Colliery pit located on Portions 1, 9 and 10 of the farm Vaalbult 3 IT, Mpumalanga Province.

- **2021 Palaeontological Impact Assessment Report, Mpumalanga**

Annual Palaeontological Monitoring Report (August 2021) on Vaalbult Colliery pit located on Portions 1, 9 and 10 of the farm Vaalbult 3 IT, Mpumalanga Province.

- **2020 Palaeontological Impact Assessment report**

Full Palaeontological Heritage Impact Assessment Report on the site of the proposed development of 5 Wind turbines on portions of Farm 456 Rem and Farm 459 Rem, near Haga-Haga, Eastern Cape Province.

- **2020 Palaeontological Impact Assessment report**

Full Palaeontological Heritage Impact Assessment Report on the site of the proposed expansion of an existing abalone aquaculture facility on portions of Farm 108 Rem and Farm 459 Rem, near Haga-Haga, Eastern Cape Province.

- **2019 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a desktop Palaeontological Heritage impact Assessment report on the site of a proposed solar power farm to be located along the western margin of the farm Ruby Vale 266 RE Ptn 2, near Olifantshoek, Northern Cape Province.

- **2019 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a desktop Palaeontological Heritage Impact Assessment report on the site of a proposed solar power farm to be located along the north-western margin of the farm Ruby Vale 266 RE Ptn 2, near Olifantshoek, Northern Cape Province.

- **2019 Palaeontological Impact Assessment Report, Free State**

Preparation of desktop Palaeontological Heritage Impact Assessment report in respect of a Prospecting Right application for lithium on the farms Oceaen 064 Rem, Oceaen 099 Rem, Kronenbloem 051 Rem, Broodkop 304 Ptn 1 and Hooqe Bult 542 Rem and various extents of the farms Felix 380 Rem, Goedgunst 315 Rem, Vensterbloem 163 Rem, Broodkop 304 Rem, Ongegund 007 Rem, Goudlaagte 238 Rem, Verdeel 278 Rem, Geluk 237 Rem, Enkelbosch 031 Ptn 7, Enkelbosh 031 Rem and Enkelbosh 031 Ptn 1 located approximately 7.5 km west of Dover and 12 km north of Koppies, Free State Province.

- **2019 Palaeontological Impact Assessment Report, Mpumalanga**

Annual Palaeontological Monitoring Report (August 2019) on Vaalbult Colliery pit located on Portions 1, 9 and 10 of the farm Vaalbult 3 IT, Mpumalanga Province.

- **2019 Palaeontological Impact Assessment Report, Gauteng**

Preparation of Palaeontological Impact Assessment report in respect to a proposed retail development on Portions 195, 237, R/187 and R/10 of the farm Zwartkop 356 JR within the City of Tshwane, Gauteng Province.

- **2019 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a full Palaeontological Heritage Impact Assessment Report in respect of a coal mine (Kranspan Colliery) proposed to be located on the farm Kranspan 49 it, approximately 12.5 km south-west of Carolina, Mpumalanga Province.

- **2019 Palaeontological Impact Assessment Report, Gauteng**

Preparation of desktop Palaeontological Impact Assessment Study with respect to a proposed mixed-use development to be known as Dersley Ext 10 on Portions 91, 92 and 93 of the farm Modderfontein 76 IR and Portions 63, 213 and 228 of the farm Geduld 123 IR within the City of Ekurhuleni Metropolitan Municipality in Gauteng Province.

- **2018 Palaeontological Impact Assessment Report, North West**

Preparation of a full Palaeontological Heritage Impact Assessment Report on the site of the proposed expansion of Quantum Foods (Pty) Ltd's HBP hatchery on Portion 6 of the farm Houtkop 43, near Holfontein, North West Province.

- **2018 Annual Palaeontological Audit Report, Mpumalanga**

Preparation of an annual Palaeontological Audit Report (July 2018) for Vaalbult Colliery, Mpumalanga Province.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment study with respect to a proposed township development on Portion 155 of the farm Zevenfontein 407 JR within the City of Johannesburg, Gauteng Province.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report in respect of a proposed residential development on Portion 39 of the farm Witklip 232 IR, near Delmas, Mpumalanga Province.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Study with respect to a proposed sewer line upgrade on part of Portion 1 of the farm Diepsloot-Klevebank 388 IR within the City of Johannesburg, Gauteng Province.

- **2018 Palaeontological Impact Assessment Report, North West**

Preparation of a Palaeontological Heritage Impact Assessment Report on the site of the proposed expansion of Quantum Foods (Pty) Ltd's HBP hatchery on Portion 6 of the farm Houtkop 43, near Holfontein, North West Province.

- **2018 Palaeontological Impact Assessment Report, North West**

Preparation of a Palaeontological Impact Assessment Report in respect of a proposed Vodacom mast on Portion 10 of the farm Leeuwenkloof 480 JQ, North West Province.

- **2018 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report in respect of a proposed truck stop facility on Portion 24 of the farm Harrismith Town and Townlands 131, near Harrismith, Free State Province.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Heritage Impact Assessment report in respect of the proposed Johan Le Roux Elegant Fuel Filling Station on the corner of Johan Le Roux and Bell Streets, Meyerton, Gauteng Province.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Heritage Impact Assessment report in respect of a coal mine proposed to be located on the farms Bloemendal 283 IR, Rietfontein 276 IR, Nooitgedacht 286 IR, Potfontein 285 IR, and Vlakfontein 281 IR, 13 km south-east of Springs, Gauteng Province.



- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Heritage Impact Assessment Report in respect of a proposed access road and bridge to be constructed on Portions 26, 35 and 44 of the farm Tweefontein 541, near Bronkhorstspuit, Gauteng Province.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Heritage Impact Assessment Report in respect of a proposed school and orphanage complex on Portion 1 of the farm Ironsyde 70, Evander, Gauteng Province.

- **2018 Palaeontological Impact Assessment Report, KwaZulu-Natal**

Preparation of Palaeontological Heritage Impact Assessment Report on the site of the proposed Estcourt fuel filling station, KwaZulu-Natal Province.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of a proposed expansion of a chicken layer facility on Portion 348 of Kameeldrift Farm 313, Kameeldrift West, Pretoria, Gauteng.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of a proposed township extension on the farm Zandfontein 317 JR, near Pretoria, Gauteng Province.

- **2018 Palaeontological Impact Assessment Report, KwaZulu-Natal**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Umdloti Waste Water Treatment Works, KwaZulu-Natal Province.

- **2018 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of expansion of a chicken layer facility on Kameeldrift Farm 313, Kameeldrift West, Pretoria, Gauteng Province.

- **2018 Letter of Recommendation for Exemption from Further Palaeontological Studies, Free State**

Preparation of a Letter of Recommendation for Exemption from Further Palaeontological Studies in respect of a proposed layer facility on Portion 1 of the farm Louterbronnen 250, Theunissen, Free State Province.

- **2017 Annual Palaeontological Audit Report, Mpumalanga**

Preparation of an annual Palaeontological Audit Report (July 2018) for Vaalbult Colliery, Mpumalanga Province.

- **2016 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Durrans calcination plant project near Sasolburg, Free State Province.

- **2016 Palaeontological Impact Assessment Report, Limpopo**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Pruissen water supply pipeline project near Mokopane, Limpopo Province.

- **2016 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of a Mining Right application on an area known as the Leslie 2 Project, Gauteng Province.

- **2016 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed expansion of mining activities at Kleinkopje Colliery, near Emalahleni, Mpumalanga Province.

- **2016 Palaeontological Impact Assessment Report, Mpumalanga**

Biannual Palaeontological Audit Report, Vaalbult Colliery, Mpumalanga Province.

- **2016 Palaeontological Impact Assessment Report, Limpopo**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Marapong township extension project, near Lephalale, Limpopo Province

- **2016 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Bronkhorstspuit rail siding redevelopment project, near Bronkhorstspuit, Gauteng Province.

- **2016 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of a Mining Right application on the site of the Nooigedacht Quarry, near Bronkhorstspuit, Mpumalanga Province.

- **2016 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of upgrading of seven sites on the N4 Highway, Mpumalanga Province.

- **2016 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Mercedes-Benz South Africa's vehicle testing track complex near Upington, Northern Cape Province.

- **2016 Palaeontological Impact Assessment Report, Mpumalanga**

Biannual Palaeontological Audit Report, Vaalburg Colliery, Mpumalanga Province.

- **2016 Palaeontological Impact Assessment Report, Mpumalanga**

Biannual Palaeontological Audit Report, Vaalburg Colliery, Mpumalanga Province.

- **2015 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of a proposed outfall sewer pipeline east of Pretoria, Gauteng Province.

- **2015 Palaeontological Impact Assessment Report, North West**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Kabi Solar (Pty) Ltd's Buffels Solar 1 PV Project near Orkney, North West Province

- **2015 Palaeontological Impact Assessment Report, North West**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Kabi Solar (Pty) Ltd's Buffels Solar 2 PV Project near Orkney, North West Province

- **2015 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed aggregate mine on the farm Boschmanspoort 159, near Hendrina, Mpumalanga Province.

- **2015 Palaeontological Impact Assessment Report, North West**

Preparation of a Palaeontological Impact Assessment Report on the site of the PPC Lime Prospecting Right Application, Northern Cape province.

- **2015 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report on the sites of Harmony Gold Mining Company (Pty) Ltd's three proposed solar energy facilities near Welkom, Free State Province.

- **2015 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of Erf 78 in Waltloo, Pretoria, Gauteng Province.

- **2015.. Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of Ekurhuleni Metropolitan Municipality's Morehill extension 11 Township Project.

- **2015 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of the Gunsfontein Wind Farm (Pty) Ltd's proposed wind energy facility, Northern Cape Province.

- **2015 Palaeontological Impact Assessment Report, Limpopo**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed "The Duel" Coal Mine project, Limpopo Province.

- **2015 Low level Due Diligence Assessment Report, Eastern Cape**

Preparation of a low level due diligence assessment report on the Elitheni Coal Mine Project, Eastern Cape.

- **2014 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Sterkfontein mixed-use development near Lydenburg, Mpumalanga Province.

- **2014 Palaeontological Impact Assessment Report, KwaZulu-Natal**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Okhahlamba Local Municipality Landfill Facility near Bergville, KwaZulu-Natal Province

- **2014 Palaeontological Impact Assessment Report, KwaZulu-Natal**

Preparation of a Palaeontological Impact Assessment Report on the site of Eskom's proposed Majuba Solar Energy Facility, Kwa-Zulu-Natal Province.

- **2014 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report on the site of Eskom's proposed Lethabo Solar Energy Facility, Free State Province.

- **2014 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of Eskom's proposed Tutuka Solar Energy Facility near Standerton, Mpumalanga Province.

- **2014 Palaeontological Impact Assessment Report, Limpopo**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Mogalakwena Local Municipality pipeline project near Mokopane, Limpopo Province.

- **2014 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the sites of the proposed Chloorkop North and South industrial park projects, Gauteng.

- **2014 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Springfontein power line project, Free State Province.

- **2014 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Umbani Coal-fired power station near Kriel, Mpumalanga Province.

- **2014 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of Anglo Operations Limited's expansion of the Isibonelo Open Cast Coal Mine – Block Z Project.

- **2014 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed Castle Wind Energy Facility, near De Aar, Northern Cape.

- **2014 Palaeontological Impact Assessment Report, Limpopo**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed solar power generation facility near Pongola, Mpumalanga Province.

- **2014 Palaeontological Impact Assessment Report, Limpopo**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed solar power generation facility near Newcastle, Mpumalanga Province.

- **2014 Palaeontological Impact Assessment Report, KwaZulu-Natal**

Preparation of a Palaeontological Impact Assessment Reports on the sites of two proposed solar power generation facility near Senekal, KwaZulu-Natal Province.

- **2014 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed expansion of a gypsum mine near Loerisfontein, Northern Cape Province.

- **2014 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of Kebrafield (Pty) Ltd's Roodepoort Colliery Project, Mpumalanga Province.

- **2014 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed expansion of coal mining operations at Vele Coal Mine, Limpopo Province.

- **2014 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed expansion of a school site in Clarens, Free State Province.

- **2014 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed ring road construction around Ermelo, Mpumalanga Province.

- **2014 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed sand and clay mine, near Cullinen, Mpumalanga Province.

- **2014 Palaeontological Impact Assessment Report, Limpopo**

Preparation of a Palaeontological Impact Assessment Report on the site of the proposed coal-fired power station near Lephelale in Limpopo Province.

- **2013 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project near Sutherland in Northern Cape Province.

- **2013 Palaeontological Impact Assessment Report, Eastern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project near Sterkstroom in Eastern Cape Province.

- **2013 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project near Virginia in Free State Province.



- **2013 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project near Odendaalsrust in Free State Province.

- **2013 Palaeontological Impact Assessment Report, Free State**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project near Henneman in Free State Province.

- **2013 Palaeontological Impact Assessment Report, North West**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project near Lichtenburg in North West Province.

- **2013 Palaeontological Impact Assessment Report, Limpopo**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project near Lephalale in Limpopo Province.

- **2013 Palaeontological Impact Assessment Report, Eastern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project Near Aberdeen in Eastern Cape Province.

- **2012 Palaeontological Impact Assessment Report, Gauteng**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project in southern Gauteng Province.

- **2012 Palaeontological Impact Assessment Report, Mpumalanga**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed civil construction project near Waterval Boven, Mpumalanga Province.

- **2011 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of proposed manganese mine northwest of Hotazel, Northern Cape.

- **2010 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of a mineral exploration permit north-west of Fraseburg, Northern Cape.

- **2010 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of a mineral exploration permit west of Victoria West, Northern Cape.

- **2010 Palaeontological Impact Assessment Report, Northern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of a mineral exploration permit east of Victoria West, Northern Cape.

- **2010 Palaeontological Impact Assessment Report, Western Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of a mineral exploration permit near Beaufort West, Western Cape.

- **2010 Palaeontological Impact Assessment Report, Western Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of a mineral exploration permit south of Fraseburg, Western Cape.

- **2010 Palaeontological Impact Assessment Report, Eastern Cape**

Preparation of a Palaeontological Impact Assessment Report on the site of a mineral exploration permit near Craddock, Western Cape.

**Universities of KZN and Durban-Westville:** 2003 – 2006

**Position:** Lecturer

**Role:** During the tenure of this position a number of courses were produced and presented including stratigraphic principles, sedimentary basin analysis, Precambrian geology of South Africa, palaeontology, a half-year first year level course on Earth's surface processes which contained a one semester set of practical exercises based on understanding and interpretation of geological maps.

**Council for Geoscience:** 1909 – 2000

**Position:** Research Scientist

**Role:** Conducting research programs, including responsibility for identification of research needs, planning and conduct of research. Production of research reports and papers. Research was predominantly centred on the stratigraphy of southern African Karoo-age sedimentary basins. Research programs were a combination of biostratigraphic, and purely stratigraphic research, combining sedimentological, biostratigraphic, and climatological data. The scale of investigation varied between local and broad scale international correlations. As a result a broad knowledge of world wide, late Palaeozoic and Mesozoic continental sedimentary systems was developed.

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## **Publications**

Millstead, B.D. (1992): The geology of an area north-east of Cudgegong, N.S.W. - Proceedings of the Linnean Society of New South Wales. **113**: 89-107.

Pemberton, J. W., Colquhoun, G. P., Wright, A. J., Booth, A. N., Campbell, J. C., Cook, A. G. & Millstead, B. D. (1994): Stratigraphy and depositional environments of the northern Capertee High.- Proceedings of The Linnean Society of New South Wales. **114**: 195-224.

Buhmann, D., Martini, J. & Millstead, B.D. (1992): Early Permian kaolinitic weathering profiles from the northern Orange Free State Coalfield.- Geocongress abstracts, Bloemfontein: 62-64.

Millstead, B.D. (1994): Palynological evidence for the age of the Permian Karoo coal deposits near Vereeniging, northern Orange Free State, South Africa. - South African Journal of Geology. **97**: 15-20.

Oesterlan, P.M. & Millstead, B.D. (1994): Lithostratigraphy, palaeontology, and sedimentary environments of the western Caborra Bassa Basin, Lower Zambezi Valley, Zimbabwe, - South African Journal of Geology. **97**: 205-224.

Millstead, B.D. (1995): Palynological evidence for an Early Permian expansion of arid environments in South Africa. - Centennial Geocongress, Rand Afrikaans University, Johannesburg, South Africa: Extended abstracts (Vol II): 785-787.

Millstead, B.D. (1995): Permian sea-level changes and tectonics and their influence on the distribution of tetrapod faunas in Gondwana. - XIII International Congress on the Carboniferous-Permian (XIII ICC-P), Krakow, Poland, Abstracts: 101-102.

Roberts, D.L., Bamford, M., & Millstead, B.D. (1997): Permo-Triassic plant fossils in the Fort Grey Silcrete, East London. - South African Journal of Geology. **100**: 157-168.

Millstead, B.D. (1999): Palynology of the Early Permian coal-bearing deposits near Vereeniging, Free State, South Africa. - Bulletin of the Geological Survey of South Africa. **124**: 77pp.

Dunlevey, J.N., Millstead, B.D. And Neveling, J. (2007): Sulphide derived ironstone nodules in the Molteno Formation of the Karoo Supergroup, Sani Pass, Kwa-Zulu-Natal Drakensberg, South Africa - Durban Museum Novitates.

Morton, K.L., Millstead, B.D., van Heerden, W.L.; Carow, A., Msitsini, M. (2023): Structural logging and modelling for use in simulation of inflows in underground hard rock mines. – In: Stanley, P.; Wolkersdorfer, C.; Wolkersdorfer, K., Mugova, E.: IMWA 2023 – Y Dyfodol | The Future. – p. 365 – 370; Newport, Wales, UK (International Mine Water Association).

#### *Unpublished reports:*

Various unpublished internal reports of the Council for Geoscience on aspects of South African Geology, including a comprehensive review and comparison of palynologically based biostratigraphic schemes for the Permian of South Africa. The latter also included a major review of the Permian stratigraphy and geological histories of the Tshipise and Waterberg Basins of the Northern Province, South Africa.

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### **Awards and Honours**

- 1983 Foundation Prize for Geology (second-year award), University of Wollongong.
  - 1984 The A.J. and I. Waters Prize in Geology (third year award), University of Wollongong.
  - 1986 Australian Commonwealth Postgraduate Research Award tenable at the University of Queensland.
  - 2016 Australian Direct Aid Program (DAP) Grant through the Department of Foreign Affairs and Trade (DFAT). The grant was awarded for the creation of a series of virtual reality modules to facilitate 3-D visualisation of subsurface geological units and structures for use in first year level courses at the University of Limpopo, South Africa.
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### **Education**

#### **Ph.D (Geology)**

**1986 to 1997**

University of Queensland, Australia

The research and preparation of the dissertation was commenced as a full-time student in Australia, but completed as a part-time, remote student in South Africa (but employed as a research geologist with the South African Council for Geoscience).

*Thesis topic.* Late Palaeozoic Palynology of the Galilee Basin, Central Queensland.

*Description.* Detailed stratigraphic analysis of formations ranging in age from Late Carboniferous to Early Triassic in the Galilee Basin. These sediments predominantly represent the deposits of the Galilee Basin, which geographically covers the majority of Queensland. In addition to the palynomorphs recovered from these formations, significant reworking of material from underlying Early Carboniferous formations was also recognised and described.

A new biostratigraphic scheme for the Galilee Basin was erected and the ages of each of the biozones compared with the international chronostratigraphic divisions. The result was not only a powerful tool for intrabasinal correlation, but also for examination of the development of the basin and its flora within a global climatic, tectonic, and evolutionary framework. A global stratigraphic synthesis formed a major and innovative component of the study.

**B.Sc (Honours - Geology)**

University of Wollongong, Australia

**1982 to 1985**

*Thesis topic.* The geology of an area to the north west of Cudgegong, N.S.W. - with particular reference to the petrology, and environments of deposition of the Carwell Creek beds (Early Devonian).

*Description.* The research involved a one-year project, including the detailed mapping of a large, structurally deformed, lithologically diverse area to the north-east of Cudgegong, New South Wales. Studies involved elucidating the depositional and structural history of the area. Lithologies involved included siliciclastic and carbonate sediments, acid lavas and pyroclastic deposits. A detailed investigation of the environments of deposition and diagenesis (both of the shallow marine carbonate and siliciclastic lithologies) was performed, with special emphasis on the Carwell Creek beds. The Carwell Creek beds are a unit newly identified and named during the study.